BALI
CATAMARANS

CATANAGroup

OWNER'S MANUAL

IN ACCORDANCE WITH EUROPEAN DIRECTIVE 94/25/CE
AS AMMENDED BY EUROPEAN DIRECTIVE 2003/44/CE

BALI 4.3

DESIGN CATEGORY A

This document comprises 122 pages, numbered from 1 to 122, of which 68 are of 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 issues which 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 4.3** n°_____

declare that I have received the Owner's Manual for the **BALI 4.3** sailboat, comprising:

- the declaration of safety conformity
- the certificate of conformity for a production pleasure craft.

This pleasure craft is covered by the conditions of the guarantee which is to be found on page 38 of this Owner's Manual.

This guarantee is effective from _____ (today's date)

Signature

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INTRODUCTION

Dear Sir / Madam,

Welcome aboard, and welcome to the happy family of BALI 4.3 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 4.3** 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 (To be added to the Owner's Manual if necessary) 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 Institut pour la Certification et la Normalisation dans le Nautisme as the notified body to verify that your boat conforms to European Directive CE 94/25, 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 OWNER'S MANUAL

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2. TECHNICAL CHARACTERISTICS OF THE BOAT

2.1. General Specifications

Model:	**BALI 4.3**
Naval Architect:	Xavier Faÿ
Design Category :	A
N° of the notified body	CE/0607
HIN N°	FR - CAT _____
Hull length Lh:	12.25 m
Waterline length:	12.25 m
Maximum overall length Lmax:	12.77m
Hull beam Bh:	7.10 m
Maximum hull beam Bmax:	7.10 m
Draft (at maximum load):	1.18 m
Air draft (in lightship condition):	19 m
Principal means of propulsion	Sail
Mast length:	15.578 m
Light displacement Mlc :	11,300 kg
Laden displacement Mldc:	16,300 kg

Mainsail area (square-topped)	52 m² (53.6 m²)
Self-tacking solent area	37.5 m²
Gennaker area	61 m²

Fresh water excluding water heater (approx.)	400 L + 400 L (pack)
Diesel capacity (approx.)	400 L + 400 L (pack)
Holding tank (depending on options see plans)	60 L
Starter battery	120Ah x 2
Service batteries	120Ah x 4 +2 (pack)
Principal means of propulsion	Sail
Maximum permitted engine power	2 x 36.77 kW (50hp)
Weight of permanent tanks	890 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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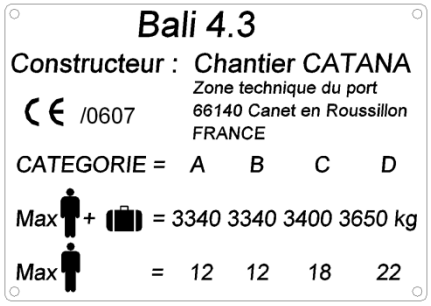
2.2 Builder's plate



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 = **12**

: 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 = **3340 kg**

The maximum load as indicated on the Builder's Plate 3380 kg does not include the weight of the contents of the tanks (fuel 340kg and fresh water 400 kg) which when full (740 kg total) represent a maximum recommended load of 4080 kg

WARNING

On 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). Avoid stowing heavy loads up high.

CE 0607 : 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 ICNN (Institut pour la Certification de la Normalisation dans le Nautisme), 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 system is protected by circuit breakers located in the electric panels fitted below 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, domestic equipment, etc.) is protected by fuses located under the chart table. (See diagram N°24).

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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 89/336/CEE). 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 in the manual to show the modifications.

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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 120 Ah batteries connected to form the service battery bank which is located under the raised area below the saloon table. (Figure 2)
Hatch covers in the deck are removable to provide access to these batteries.

Figure 2

Each engine has its own 120 Ah starter battery.
Their capacity has been determined so as to maintain the energy requirements of the on-board equipment.
To avoid any problems, ensure that the batteries are kept charged and maintained.

CAUTION

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

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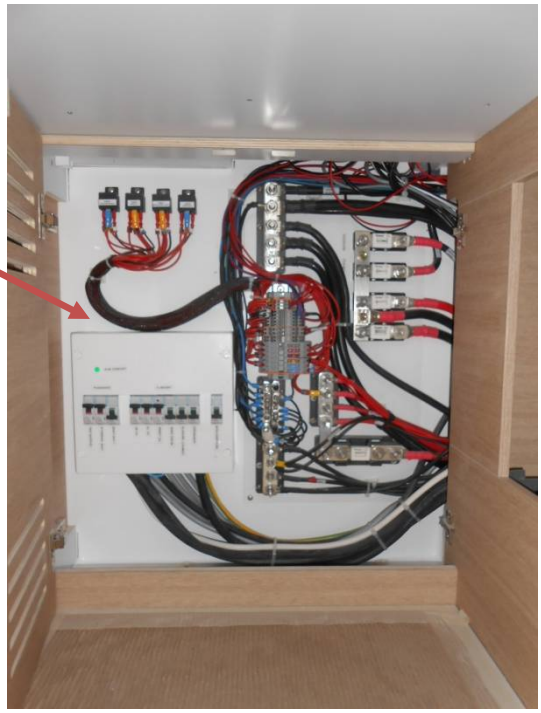
3.4 Windlass and electric winch

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 next to the windlass or from the helm station.
The electric winches have dedicated controls positioned next to them.
Their protective fuses are located below the chart table (Figure 3).

Figure 3



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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.**

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 accessories must be done by a professional with new appropriately sized cable if necessary run back to the main trip.

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.
The RCD for the VAC mains shore power is located in the 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 converter.

The fuses for the various AC circuits are located in the electrical boxes installed by the chart table.

Caution! When the vessel is alongside a quay, put the circuit breaker in the open position.

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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 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: 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

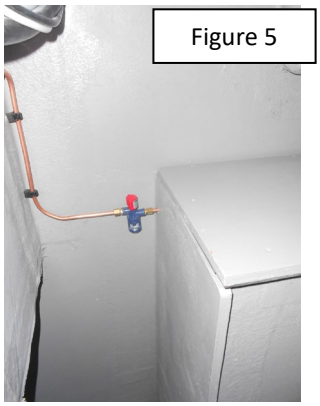
(Plan n°12)

4.1 Instructions for use

- Before initial use or any maintenance, carefully read the instruction manuals for the cooker and the regulator.
- Make sure that the gas bottle and the regulator conform to the requirements of the cooker (flow rate, pressure, type of gas).
- 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.

Figure 4

Figure 5



- Never leave the vessel unattended when gas appliances are running.
- 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 have a valve, it is imperative that the bottle has a 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 cooker 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 in the cooker.
- Open the regulator tap.
- Check all the connections are sealed by using the leak detector (figure 5) or by applying soapy water.

CAUTION

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

DANGER

Never use a naked flame to attempt to detect leaks

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.

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4.3. 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, 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

In the case of an LPG installation:

- **Do not smoke or use a naked flame while LPG bottles are being changed.**
- **Shut off the tap on the empty bottle before disconnected it for replacement.**

5. INTERIOR LAYOUT

(Plan n°2)

This document is based on a specific layout

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 pumps min
Electric bilge pump 12v	4380 L / h
Engine bilge pump 12v	4380 L / h

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 appears on the electrical panel and the pump starts working. The touch screen on the electrical panel goes into automatic mode.
The pumps can be activated manually from the electrical panel.

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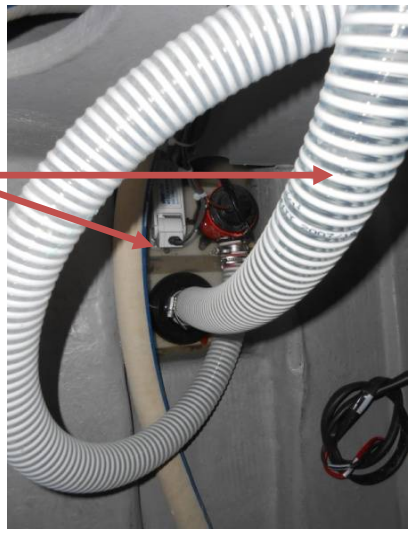
CAUTION

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.

Electric bilge pump with float switch, below passageway floor.



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

- Make sure 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.

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6.2. Fresh water pressure pump with tank selector valve

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.

The water pump and filter are located in the forward port locker.

Figure 7

It is possible to sterilise the tanks using clonazone tablets (on sale in pharmacies).
Remove the inspection hatches annually for cleaning and refilling with water mixed with a bacterial detergent, leaving it for a few hours, and then rinse it out two or three times. 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 fresh water pump is equipped with a safety system which deactivates the pump in the event of the water level in the tank or tanks becoming too low. The pump can be reactivated using the button on the touch screen, but in this case, the safety system is no longer active.

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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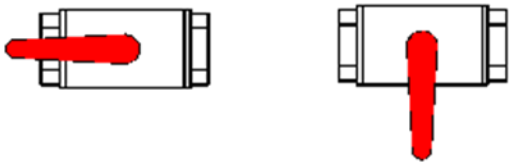
6.3. Seacocks

The valves are of the ¼ turn type:
- OPEN position: Lever in the same direction as the body of the valve,



- CLOSED position: Lever at 90° to the body of the pump.

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.

6.4. Operating the sea toilets

- Open the seawater inlet valve.
- Open the toilet outlet valve (if your 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.**

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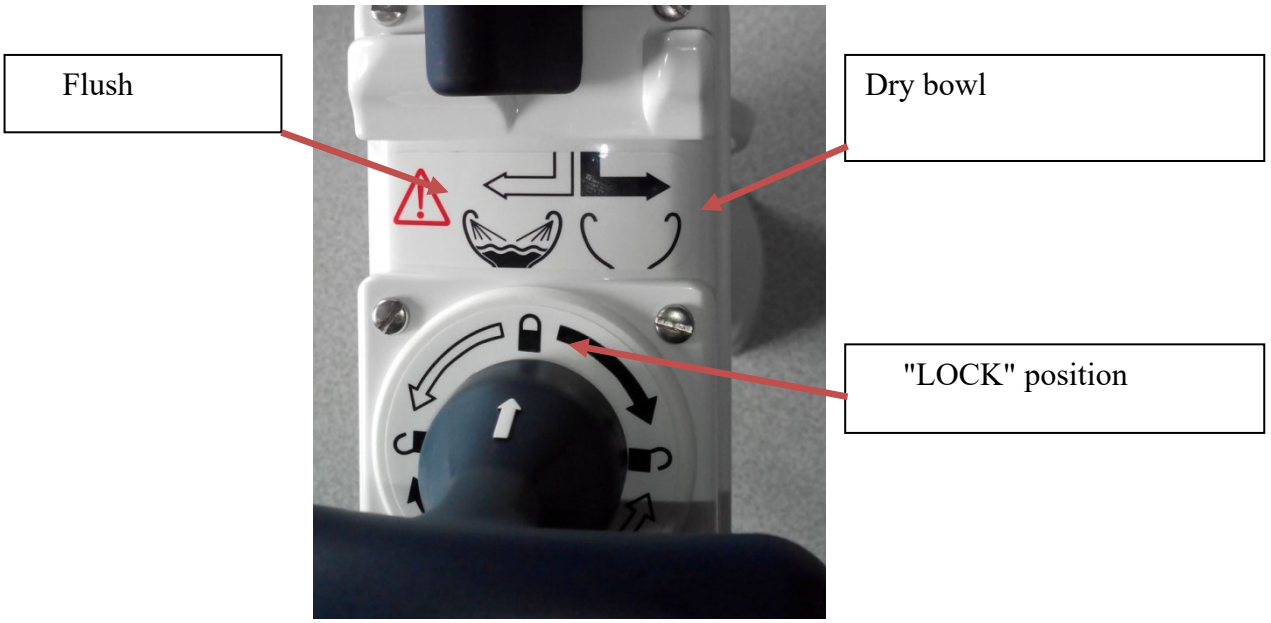
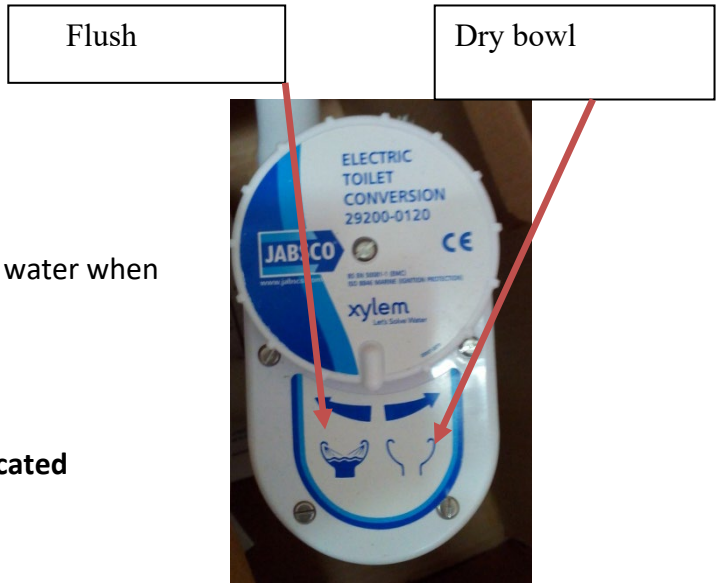


Regularly change the seals and filter of the seatoilet.

6.5. Operation of the electric seatoilets



- Open the water intake valve.
- Open the toilet outlet valve
  (if no holding tank option).
- Turn the flush control to
  "Flush" (clockwise)
- To empty the bowl, and avoid any ingress of water when
  Heeled, turn the control back to the
  "dry bowl" side.
  (Anticlockwise).
- Hold the control until the bowl is dry
- **Close the valves after use, as the toilet is located below the waterline.**

6.6. Holding tank

- 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.

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- 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.

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.**

6.7. Sugar-scoop shower

The shower on the aft steps comprises both a hot and a cold water circuit.

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.
- Do not drill any holes in the air 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 9094-1 standard, to the conditions below:

  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 not 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).

8.2. Safety advice

ATTENTION

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.**

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- **To advise members of the crew:**
  - **The location and operation of fire-fighting equipment**
  - **The position of the access hole for a fire extinguisher in the engine compartment (located in the riser of the aft steps of the sugar scoops).**
  - **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 the bilges clean and check there is no evidence of fuel vapour or gas.

8.3. Warning signs for the boat's crew

- Regularly check that the bilges are clean, that there are no fuel vapours or gas 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.

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

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Location of the automatic extinguisher in the in the centre of each engine compartment

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CHECK LIST

ENGINE STARTING:

- ☐ Open the engine cooling water intake valve.
- ☐ Open the fuel tap on the tank.
- ☐ Check the engine oil level.
- ☐ Check the coolant level.
- ☐ Check that the throttles are in neutral.
- ☐ Check that all ventilation openings are clear.
- ☐ Switch on the ignition and preheat for 10 s.
- ☐ Start the engine.
- ☐ Check the flow of cooling water overboard at the exhaust.
- ☐ Check that alarms and warning lights are off.
- ☐ Allow the motor to warm up at tickover for 5 to 6 minutes.
- ☐ Check for leaks in the cooling system, fuel lines, lubricants and exhaust.

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

STOPPING THE ENGINE:

- ☐ Slow the engine to tickover for 5 minutes.
- ☐ Pull the Stop lever.
- ☐ Switch off the ignition.
- ☐ Close the various valves.

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

REFILLING THE TANK:

- ☐ Have a fire extinguisher to hand.
- ☐ 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:

- 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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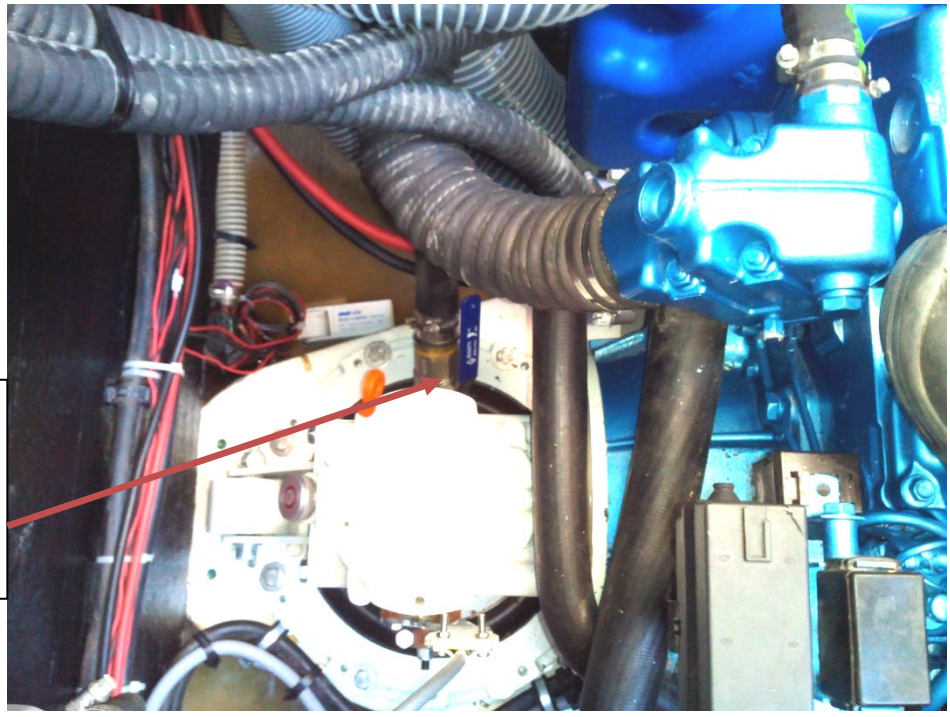
9. ENGINE

(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).
- Disconnect the pipe from the valve.
- Empty the seawater cooling system.
- Immerse the tube into a container of coolant fluid of –25°.
- 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 forward 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 with the motors off, the raw water intake must be closed at speeds above 8 kts and the helmsman must be made aware of this.

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 no, particular care must be taken with any moving parts (drivebelts, etc) to avoid risk of injury.**

10. FUEL SYSTEM

(Plan n°19)

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Flexible fuel hoses must be:

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

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 with a bar which crosses the aft beam.

Steering wheel

Figure 12

- Periodically check the amount of play in the different parts of the system (rudder post / bearings, linkages).
- Periodically grease the system.

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- Regularly inspect the whole length of the cables as well as their terminals to check for any signs 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 one of the two rudders:

- Disconnect the linking bar from the rudder quadrant. Withdraw the nut and the washer (from the rudder side). A 24mm spanner will be required. Remove the bar.

Install the emergency tiller. See chapter 11.2

11.2. Emergency tiller

CAUTION
- The BALI 4.3 is equipped with an emergency tiller which must be kept where it can be easily accessed. **- It is only designed for sailing boat at reduced speed in case of damage to the steering system.** **- Maximum diameter of the steering wheel: 1 m**

Unscrew the cover for the tiller (Figure 13) and then fit the tiller (Figure 14).
Uncouple the parts of the steering system which are the cause of the problem, and make sure the rudder or rudders can be moved without effort.

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12. SAILING

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 manœuvres 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 manœuvre 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.

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, and annual inspection and five-yearly replacement must be carried out.
- If the boat is going to be used single-handed, a means of getting back on board should be deployed while the boat is at anchor, moored, tied up in port or under way.
- 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 M_{MOC} and in return sailing condition M_{LA} .
This boat is susceptible to capsize or flooding 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 REDUCE SAIL

DANGER
Make sure you follow the instructions on the plan for reducing sail.

---------- refer to sail reduction table on the sailplan p.61 ----------

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

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

Every month:

- 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 elements securing it: clevis pin, nut, split pin, struts.

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Every year:

- 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 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.

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

The diamond stays on the mast are not subjected to the same amount of work due to alternating stress as the other rigging wires, and these can be changed every 10 years or every 40,000 miles (whichever comes first).

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 paintwork.
- Inspect the rigging, split pins, and locking systems of bottlescrews and clevis pins.

Every day:

- 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.

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Every month:

- 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.

Every year 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.

Boom

Every day:

- 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.

Every month:

- 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.

Every year 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 circuits must be examined to determine if there has been any damage or if any changes to calibrations or settings have occurred.

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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 any rigging connections.**

15. ENVIRONMENTAL PROTECTION AND SAFETY

(Plan n°18)

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 position for the storage of a liferaft (Figure 15); this is accessible from the cockpit or from below the bridgedeck via a hatch cover.

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To launch the liferaft from the cockpit, open the liferaft deck-hatch (figure 15), secure the raft to the boat as described in the instruction manual supplied with the raft, then pull on the black handles (figure 16) on each side of the hatch in the nacelle to unlock it and release the raft into the water.

In the event of the boat being inverted, to unlock the liferaft hatch underneath the nacelle (figure 17), pull out the pins in each corner (figure 18) which secure the hatch in position. Then pivot it open to gain access to the liferaft.

Thoroughly read the liferaft user manual. 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.

Figure 15

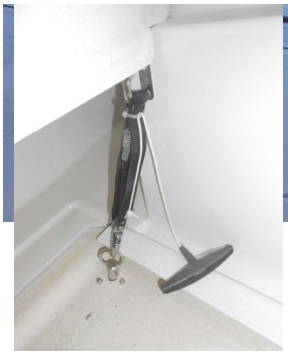

Figure 16

Figure 17

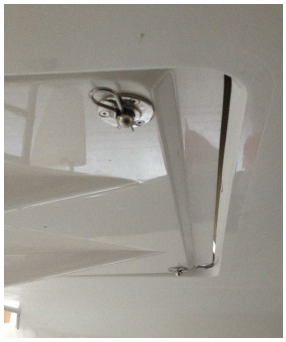

Figure 18

16.2. Getting back on board

A bathing ladder is accessible from the sugar scoop on the port side. Before going swimming, the ladder must be put in the water (figure 20).

An emergency boarding ladder is fitted in the transom of the port hull. To use it, remove the plastic cover by pulling it, deploy the ladder and climb on board (figure 21)

Figure 19

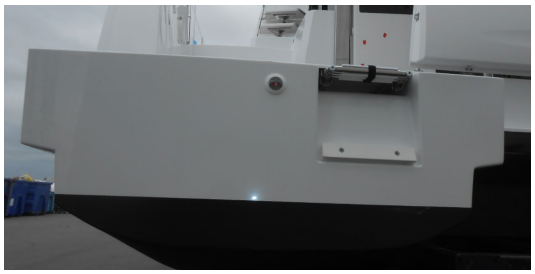

Figure 20

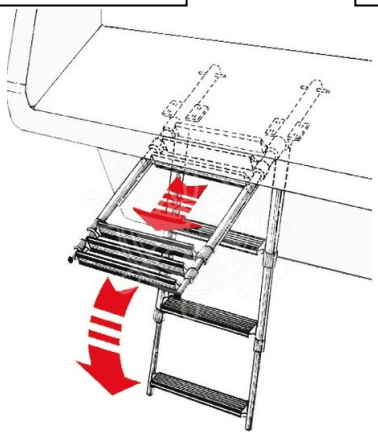

Figure 21

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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.

17. HOISTING, TRANSPORT, STORAGE ASHORE

(Plan n°13)

During hoisting out, 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 red triangles above the antifouling.
Under no circumstances must the slings put any weight on the rigging wires
When placing the boat ashore, the hull must rest uniformly on the points marked by the red triangles above the antifouling.
Travel hoists are sufficiently wide or are 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).
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 to hoist a large person: 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 17,400 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 untied 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.

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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.

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

The hull treatment for the BALI 4.5 offered as an option by the yard comprises the following:

- Degreasing and depolishing
- 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 state:

- 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.

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

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 the 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 polishing 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.

18.5. Scratches on the hatch covers

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

WARNING
Never use a solvent for cleaning deck panels and hatches.

20. DAVITS

When hoisting up the dinghy, pay attention to the following points:

- Unscrew the catches located at the upper part of the pivoting transom (figure 22).
- From stbd aft on the flybridge, load up the black line onto the winch (figure 23).
- Release the clutch, and operate the winch to lower the davit system. Jam off the clutch once the system has been lowered.
- Attach the snapshackles to the eyebolts on the dinghy.
- Release the clutch and operate the winch to hoist the dinghy up.
- The dinghy is in place when both tubes are against the davits.
- Jam off the clutch again and do up the catches on the pivoting transom.

Lowering the dinghy is effected in the reverse order of raising it.

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Davit lifting system

Figure 22

Figure 23

CAUTION

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Never exceed a dinghy weight limit of 100 kg.

The Shipyard recommends raising the dinghy with the transom to starboard.

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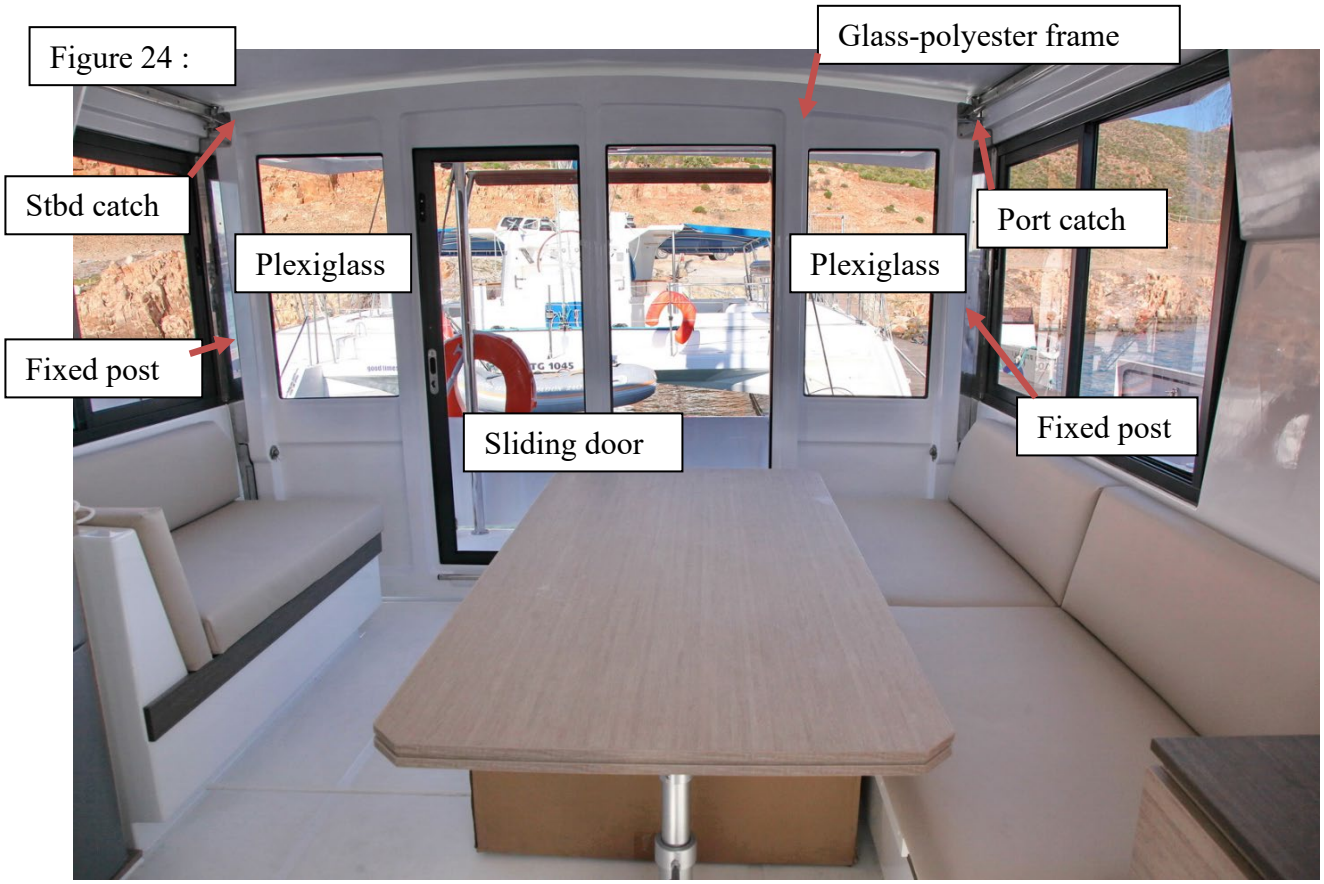
21. PIVOTING DOOR

21.1. Pneumatic pivoting door (standard version)

The system for the pivoting door is comprised of a glass-polyester frame, a sliding door, fixed plexi-glass windows, fixed posts containing the mechanism, a latch and screw-catches (figure 24).

Figure 24 :



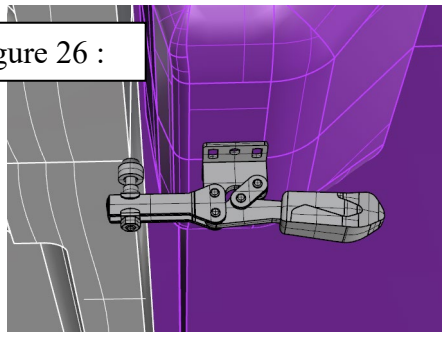
Procedure for opening the door:

To open the pivoting door, you need to observe the following procedure:

- Unscrew the two safety catches located right at the top of the door and leave them in the open position (figure 25).
- Proceed to manually open the door by lifting it from the outside using the handles.
- When the door has reached its final position in the deckhead recess, ensure that you operate the latch to lock the door in the open position (figure 26).

Figure 25 :

Figure 26 :



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Procedure for closing the door:

To close the pivoting door, you need to observe the following procedure:

- Move the safety handle latch so as to unlock the door.
- Carefully lower the door manually into the closed position.
- When the door has slid into its final closed position, do up the two safety catches located right at the top of the door ensuring they are properly clipped in (figure 27).

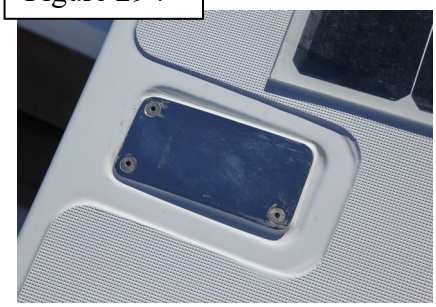
Figure 27 :

Maintenance:

Unscrew the stainless covers on the aft face of the fixed posts (figure 28) and also those on the top of the posts (figure 29).
Make a visual inspection of the general condition of the door and all the components. Check the friction surfaces for wear.
Lubricate all the friction points with an appropriate lubricating oil.

Figure 28 :

Figure 29 :



WARNING
Ensure that the area where the door pivots is always clear and that no members of the crew - especially children - are in the way when the door is being manoeuvred.

SAFETY PRECAUTION
Children should never be allowed to play with the pivoting door.

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Adjustment of the pivoting door

- *Purpose of these instructions:*

To allow the initial users of the boat to adjust the balance of the pivoting door, if necessary.
The pivoting movement of the door is effected manually and assisted by gas struts.
The content of the gas struts can be adjusted to give greater or lesser assistance to the initial pivoting movement when opening the door, and to adjust the last part of the door's travel into the deckhead recess.
The aim of the operation will be to release some of the gas from the struts to give them optimal resistance.

- *Warning note:*

Caution, it is very easy to release gas pressure from the struts. However, it is much more complicated to refill them, requiring work by a specialist company.

- *Requirements:*

- 2 people
- 2mm Allen key
- 4mm Allen key

- *Procedure:*

1) Remove the stainless covers from the back of the two door posts. Unscrew the six screws securing each cover using a 4mm Allen key, and then place the covers aside (see photos 30, 31 and 32).

2) One person then holds the door in the closed position, while the other positions a 2mm Allen key in the socket for the gas valve, on the top of the strut (see photos 33, 34 and 35).

3) Using the Allen key, briefly apply a gentle amount of pressure, so as to hear the gas escaping from the strut. The noise must be very short.

4) If you have heard the gas escape, the strut will now contain a little less gas and so have less resistance. If you failed to hear any gas escape, you did not apply sufficient force to the valve, so repeat the process using slightly more pressure, but still keeping it very brief.

5) The aim of the adjustment process is to loosen the struts using successive brief releases of pressure in order that the door will hold itself at a certain point of balance. This point of balance is achieved when the door remains held in position 50cm from the saloon deckhead into which it recesses (see photos 36, 37 and 38). Using a series of three successive very short releases of gas on the port and starboard struts, continue until you have achieved the required height by measuring the position of the door between each time you release the gas. Obviously the resistance of the struts must be the same on the port side as on the starboard side, so the same number of releases must be effected on each side.

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

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Figure 31 :

Figure 32 :

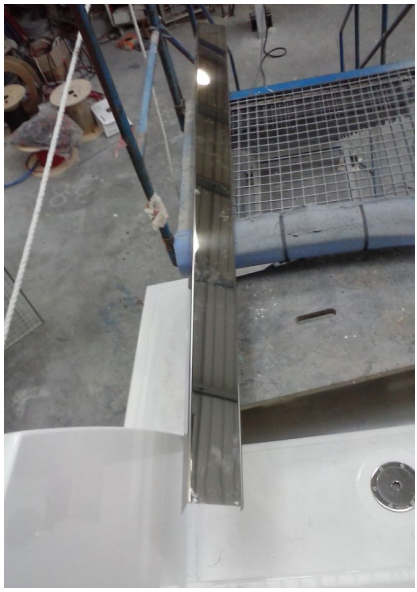

Figure 34 :

Figure 35 :

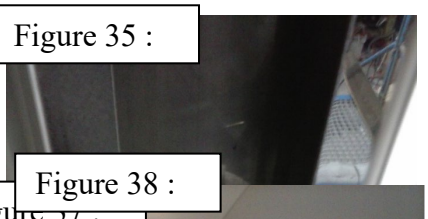

Figure 36 :

Figure 37 :

Figure 38 :

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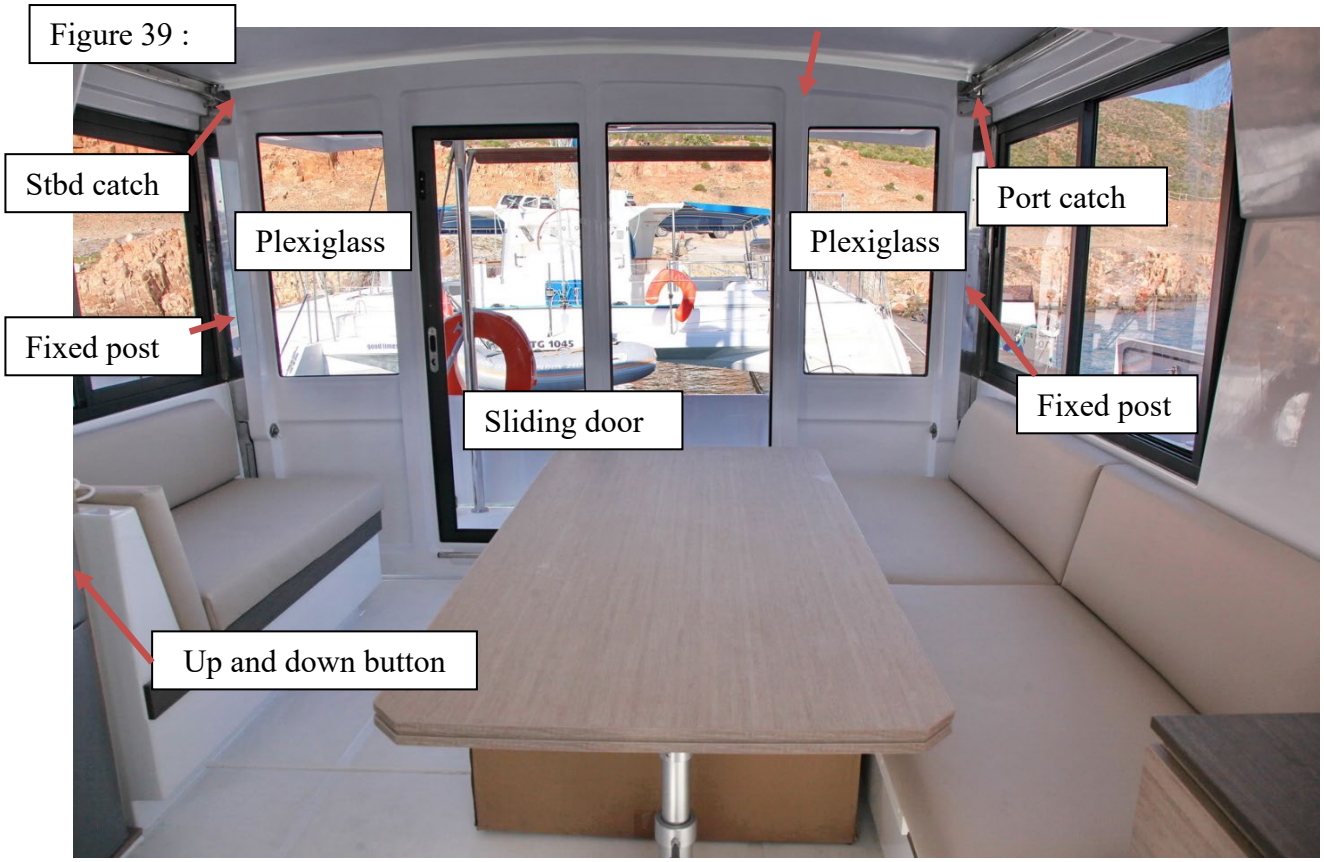
21.2. Hydraulic pivoting door (optional version)

The system for the pivoting door is comprised of a glass-polyester frame, a sliding door, fixed plexi-glass windows, fixed posts containing the hydraulic mechanism, a latch, screw-catches and a push-button switch for raising and lowering the door (figure 39).

Figure 39 :



Procedure for opening the door:

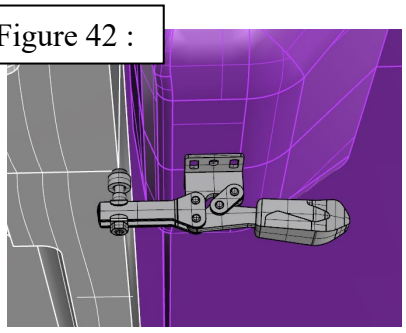
To open the pivoting door, you need to observe the following procedure:

- Switch the door safety-button at the chart table to the ON position.
- Unscrew the two safety catches located right at the top of the door and leave them in the open position (figure 40).
- Hold the up/down button pressed upwards (figure 41).
- When the door has reached its final position in the deckhead recess, ensure that you operate the latch to lock the door in the open position (figure 42).
- Switch the door safety-button at the chart table to the OFF position.

Figure 40 :

Figure 41 :

Figure 42 :



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Procedure for closing the door:

To close the pivoting door, you need to observe the following procedure:

- Switch the door safety-button at the chart table to the ON position.
- Move the safety handle latch so as to unlock the door.
- Hold the up/down button pressed downwards (figure 41).
- When the door has slid into its final closed position, do up the two safety catches located right at the top of the door ensuring they are properly clipped in (figure 43).
- Switch the door safety-button at the chart table to the OFF position.

Figure 43 :

Maintenance:

Unscrew the stainless covers on the aft face of the fixed posts (figure 44) and also those on the top of the posts (figure 45).
Make a visual inspection of the general condition of the door and all the components. Check the friction surfaces for wear.
Lubricate all the friction points with an appropriate lubricating oil.

Figure 44 :

Figure 45 :

WARNING

Ensure that the area where the door pivots is always clear and that no members of the crew - especially children - are in the way when the door is being manoeuvred.

SAFETY PRECAUTION

Children should never be allowed to play with the pivoting door.

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22. TRANSFER OF OWNERSHIP

CERTIFICAT DE TRANSFERT DE PROPRIETE
CERTIFICATE OF TRANSFER OF OWNERSHIP

Le bateau modèle / Boat Model:.....

N° de coque / Hull N°:.....

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

....

C-P / POSTCODE :.....Ville / City :..... Tél :.....

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

A ETE VENDU A / BEING SOLD TO:

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

.....

C-P / POSTCODE:..... Ville / City:..... Tél: .....

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

Fait à / completed at.....le / date .....

Le vendeur / Seller L'acheteur / Purchaser

Lieux / place: ..... le / date: ....

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

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NOTES

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23. LIST OF PLANS

PLANS

1 Profile

2 Interior layout

3 Fittings

4 Sail plans

5 Working areas

6 220 V electrical system

7 Charging and power circuit wiring diagram

8 12 V electrical panel

9 12 V hull electrics

10 12 V deck electrics

11 Steering system

12 Gas system

13 Haulout / Hoisting

14 Escape routes for abandoning ship

15 Fresh water system

16 Bilge pump system

17 Grey water system

18 Holding tank

19 Engine installation

20 Watermaker

21 Sea water system

22 Deck fillers

23 Through-hulls / skin fittings

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PRESENTATION		PRESENTATION	
Rep.	***Désignation***	***Rep.***	***Description***
	Plan de présentation		*Profile plan*
	Lg de coque 12,25 m		Hull length 12.25m
	Lg flottaison 12,25 m		Waterline length 12.25m
	Bau maximum 7,10 m		Maximum beam 7.10m
	Tirant d'eau, 1.18 m		Draft 1.18m
	Tirant d'air 19 m		Air draft 19m
	Déplacement lège 11300 kg		Light displacement 11,300kg

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Deck

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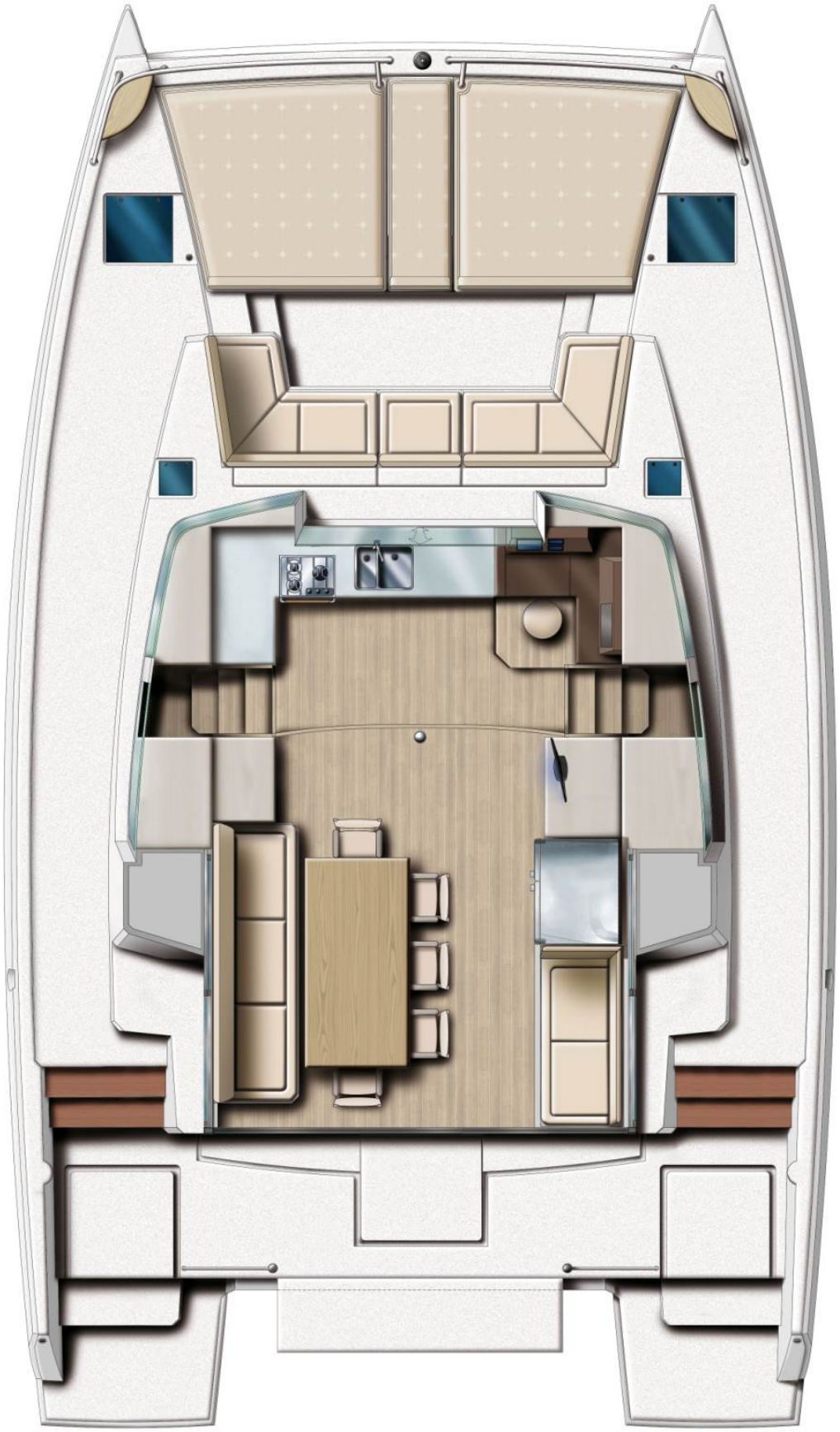

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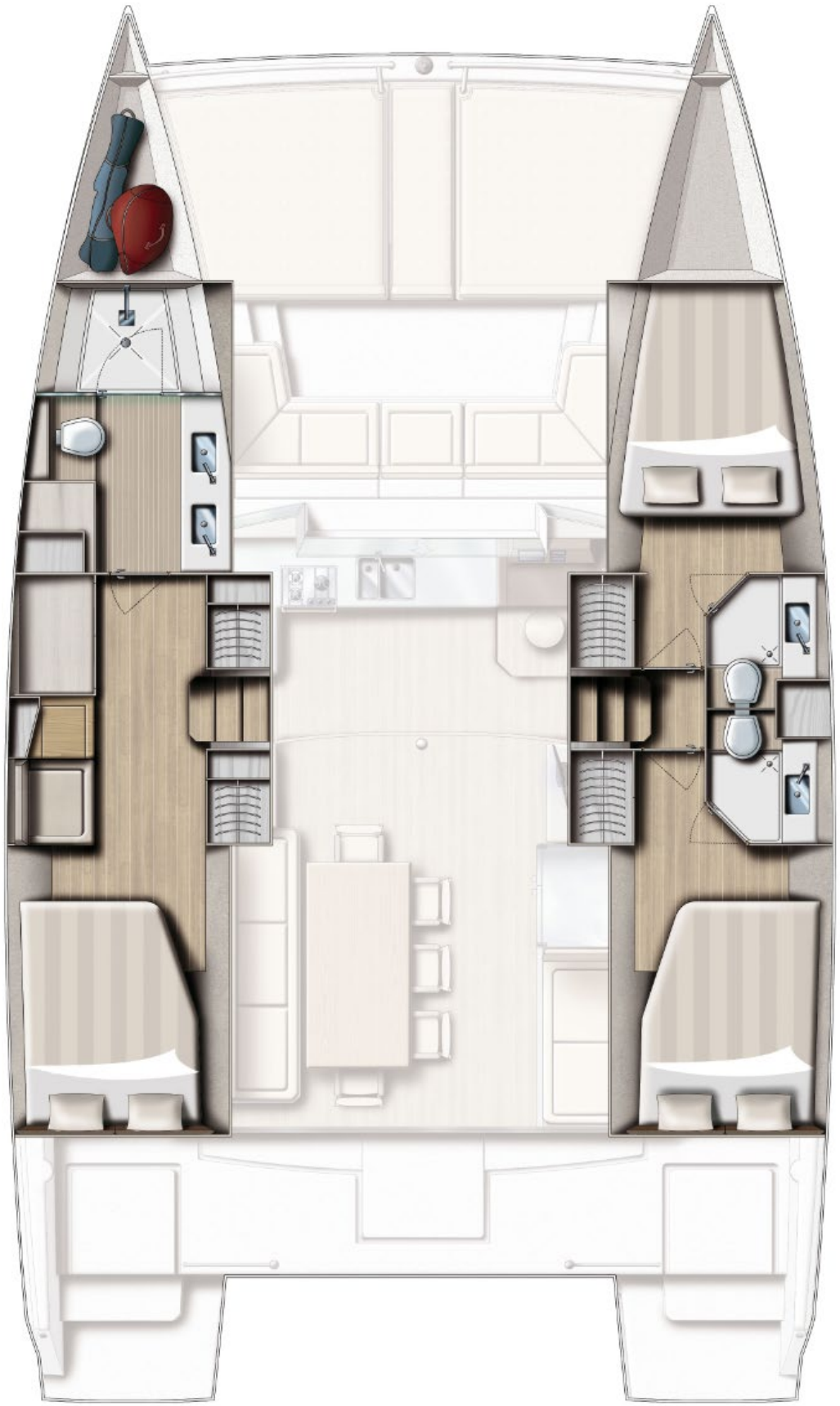

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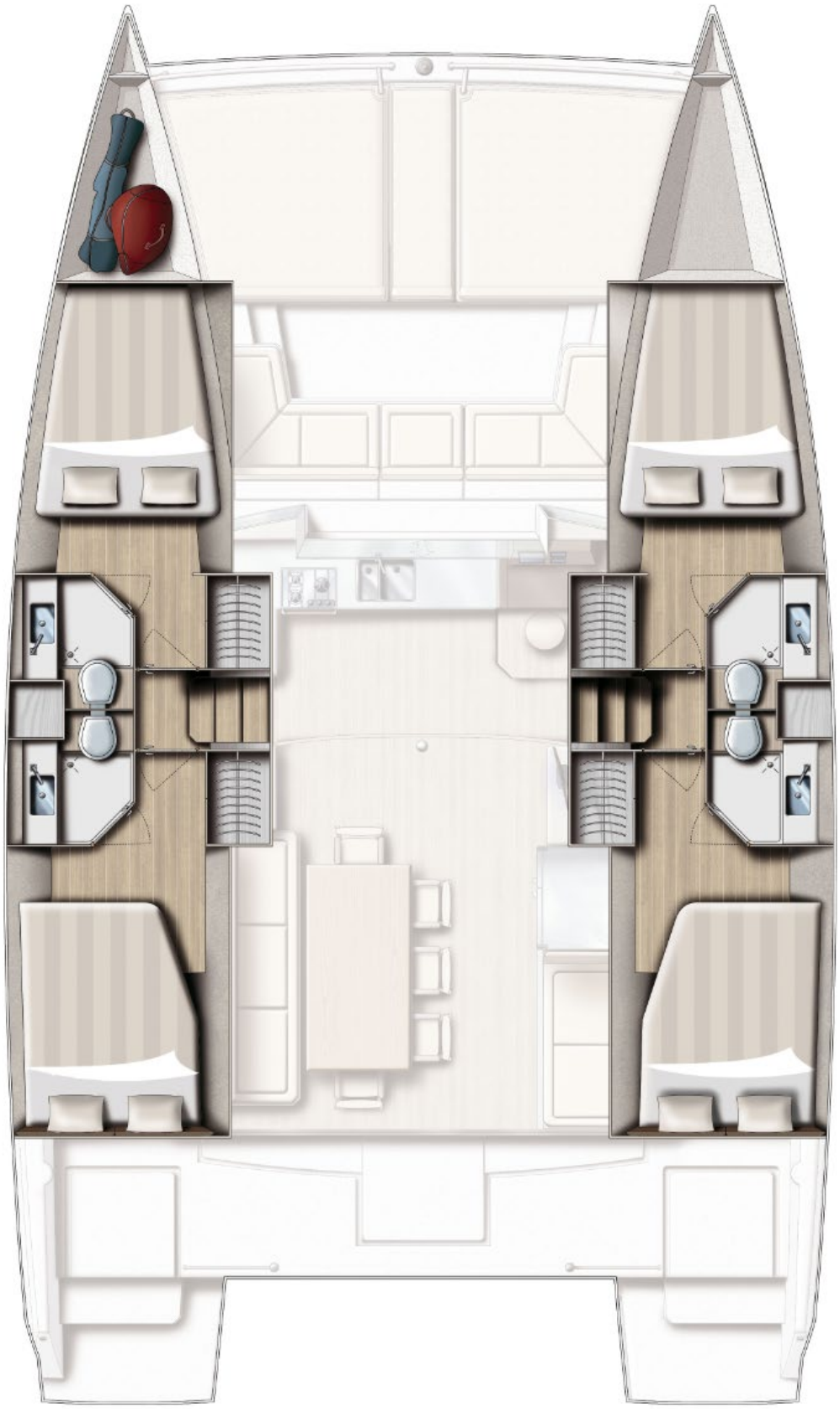

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AMENAGEMENT		ACCOMMODATION	
Rep.	***Désignation***	***Ref.***	***Description***
			3 cabin, 3 bathroom version
	Version 3 cabines, 3 salles de bain: - Coursive bâbord avec aménagement propriétaire - 1 salle d'eau propriétaire - 3 cabines lit double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

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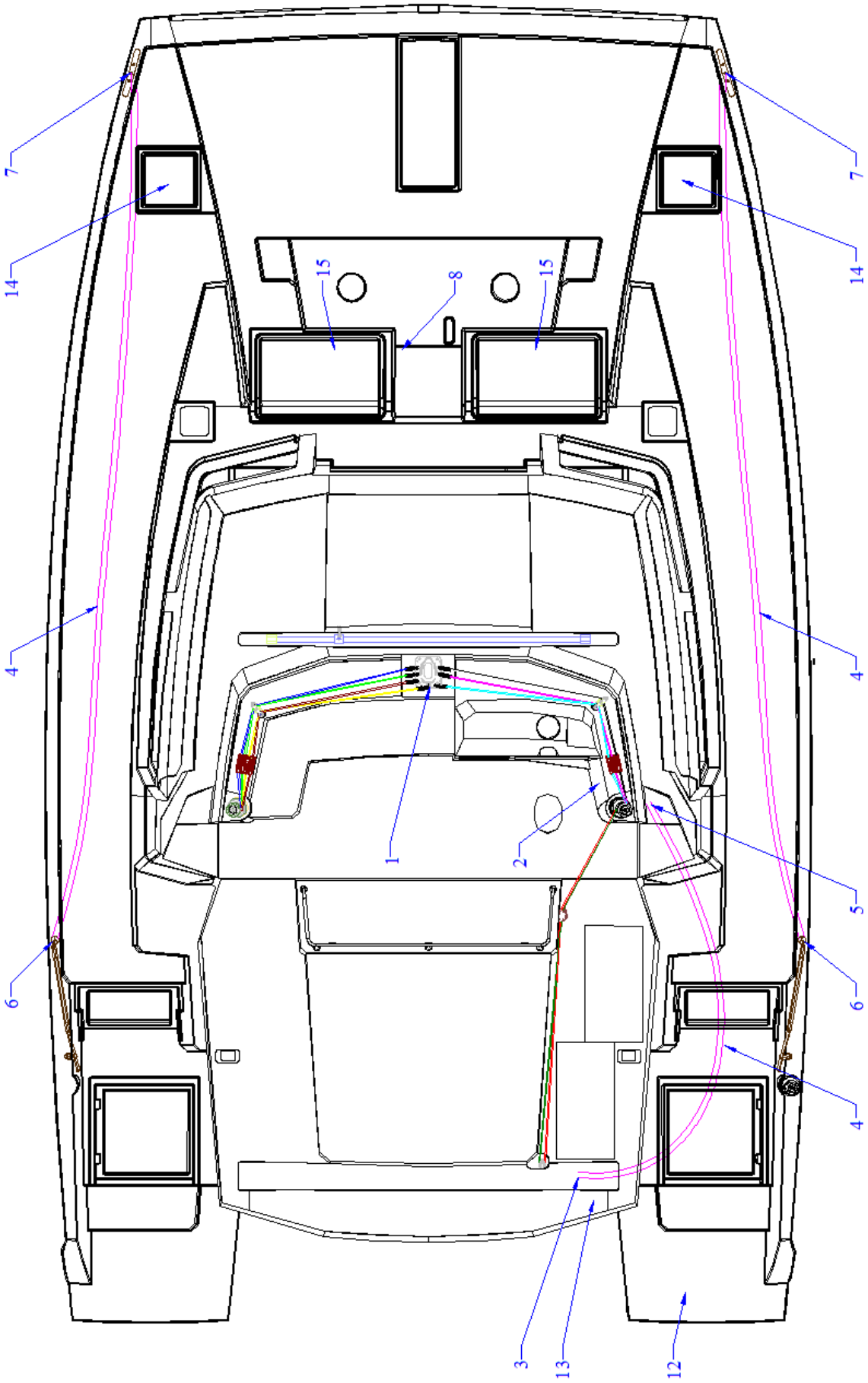

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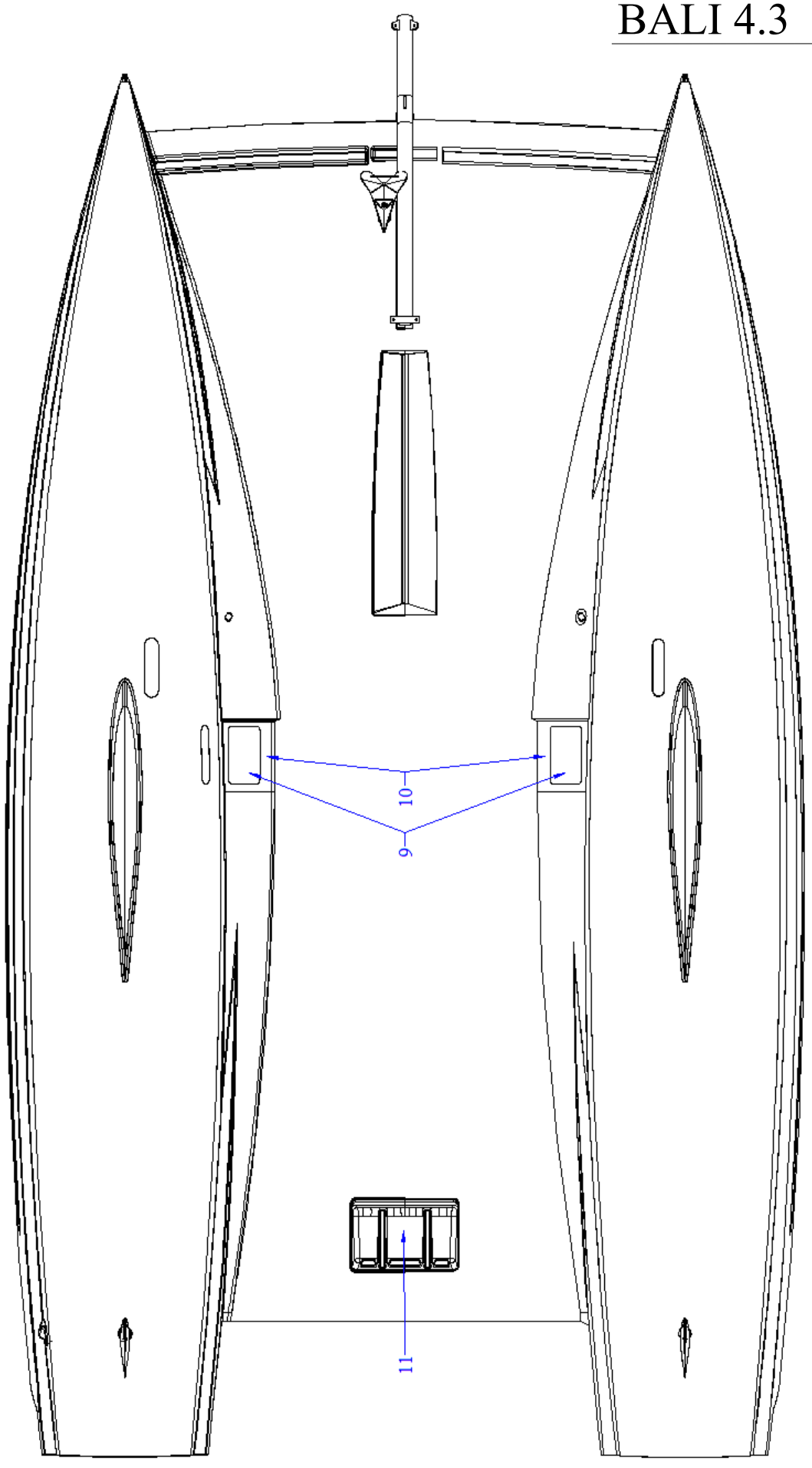

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ACCASTILLAGE		FITTINGS	
Rep.	*Désignation*	*Ref.*	*Description*
1	Ancrage pied de mât Manille lyre	1	Attachment at mast foot bow shackle
2	Ancrage poste de barre Cadène articulé	2	Attachment at helm (articulated padeye)
3	Sangle frappée sur la cadène "sortie de carré" dans le cockpit	3	Webbing strap in cockpit at saloon door
4	Sangle ligne de vie	4	Lifeline webbing strap
5	Sangle frappée sur la cadène accès poste de barre	5	Webbing strap on padeye at helm access
6	Ancrage ligne de vie Ecrou à œil Wichard M10	6	Lifeline eyebolt (Wichard M10)
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	Liferaft access panel
10	Point d'accrochage sur la cadène	10	Padeye attachment point
11	Radeau conteneur	11	Liferaft locker
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	Deck hatches which must be kept shut when underway
15	Coffres impérativement fermés en navigation	15	Lockers which must be kept shut when underway

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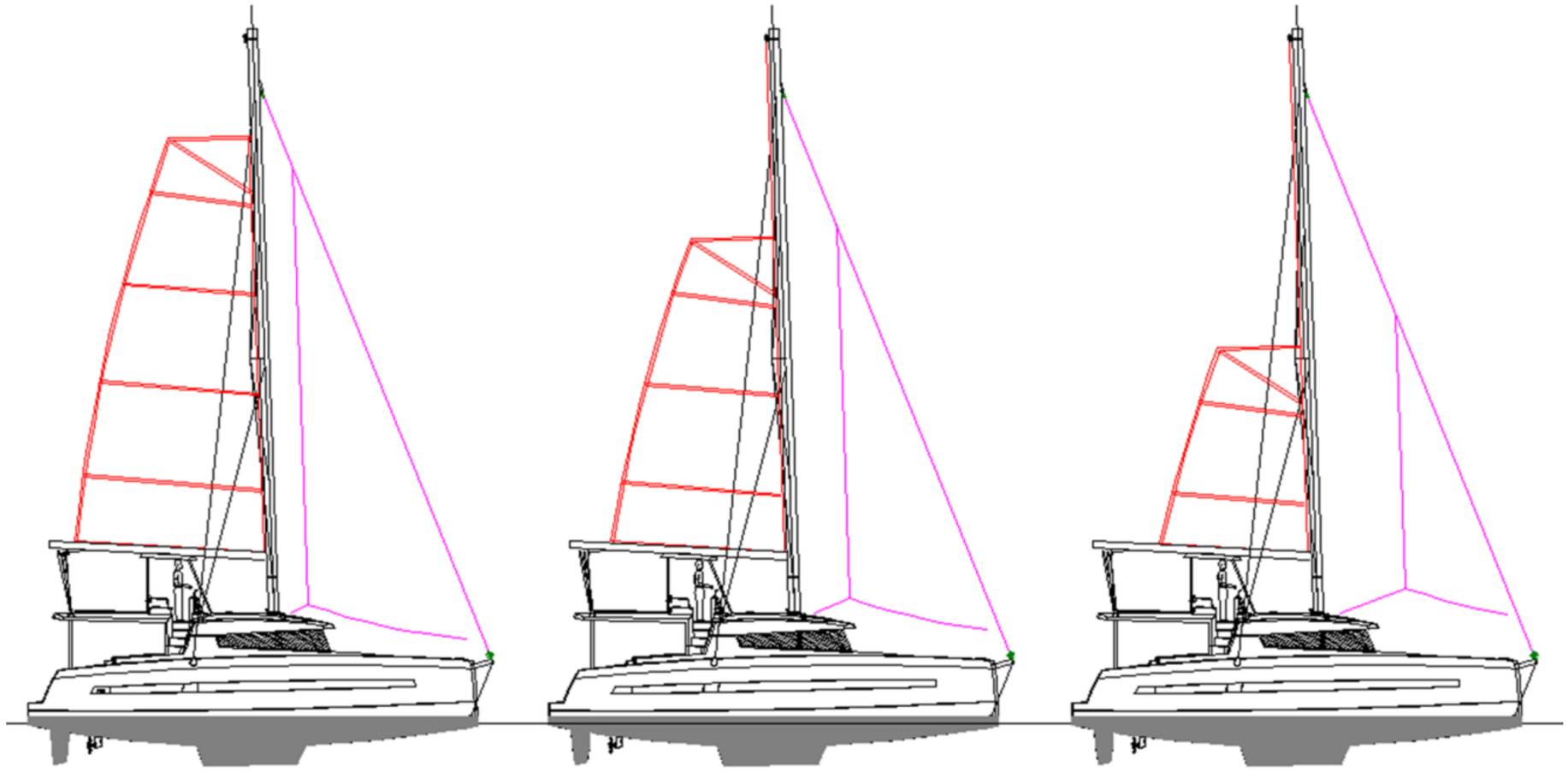
SAILPLAN FOR REDUCING SAIL



1st Reef : 20 kts

2 nd Reef : 25kts

3 rd Reef : 35kts

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Plan for reducing sail (m²) :

	Area in m²
Full main	54
1st Reef	41
2nd Reef	29
3rd Reef	16

The stability has been calculated for a vessel in minimal sailing condition MMOC and in return sailing condition MLA.

This boat is susceptible to capsize or flooding 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 emergency, use the emergency exits provided.
REFER TO PLAN No.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 REDUCE SAIL

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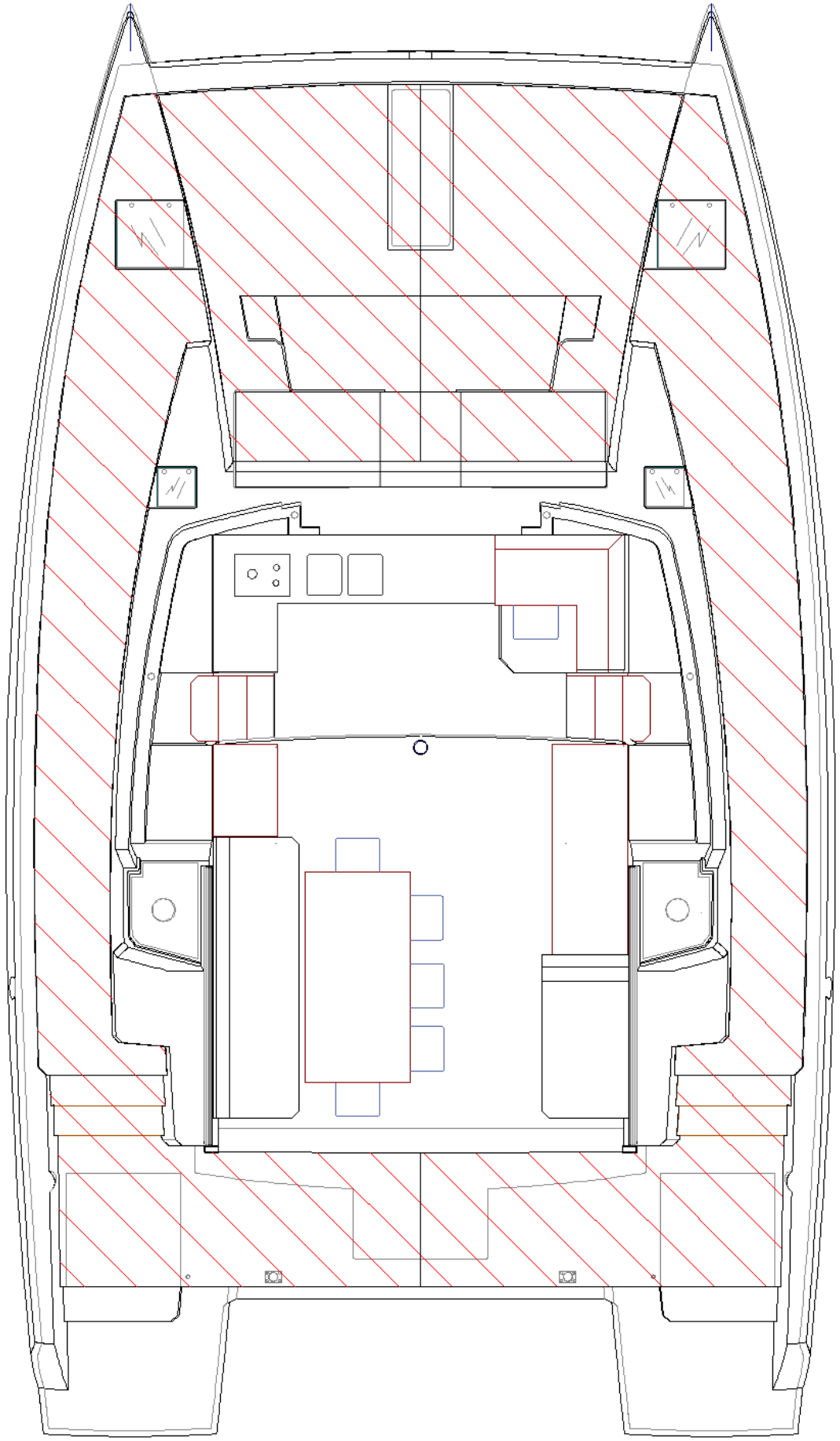

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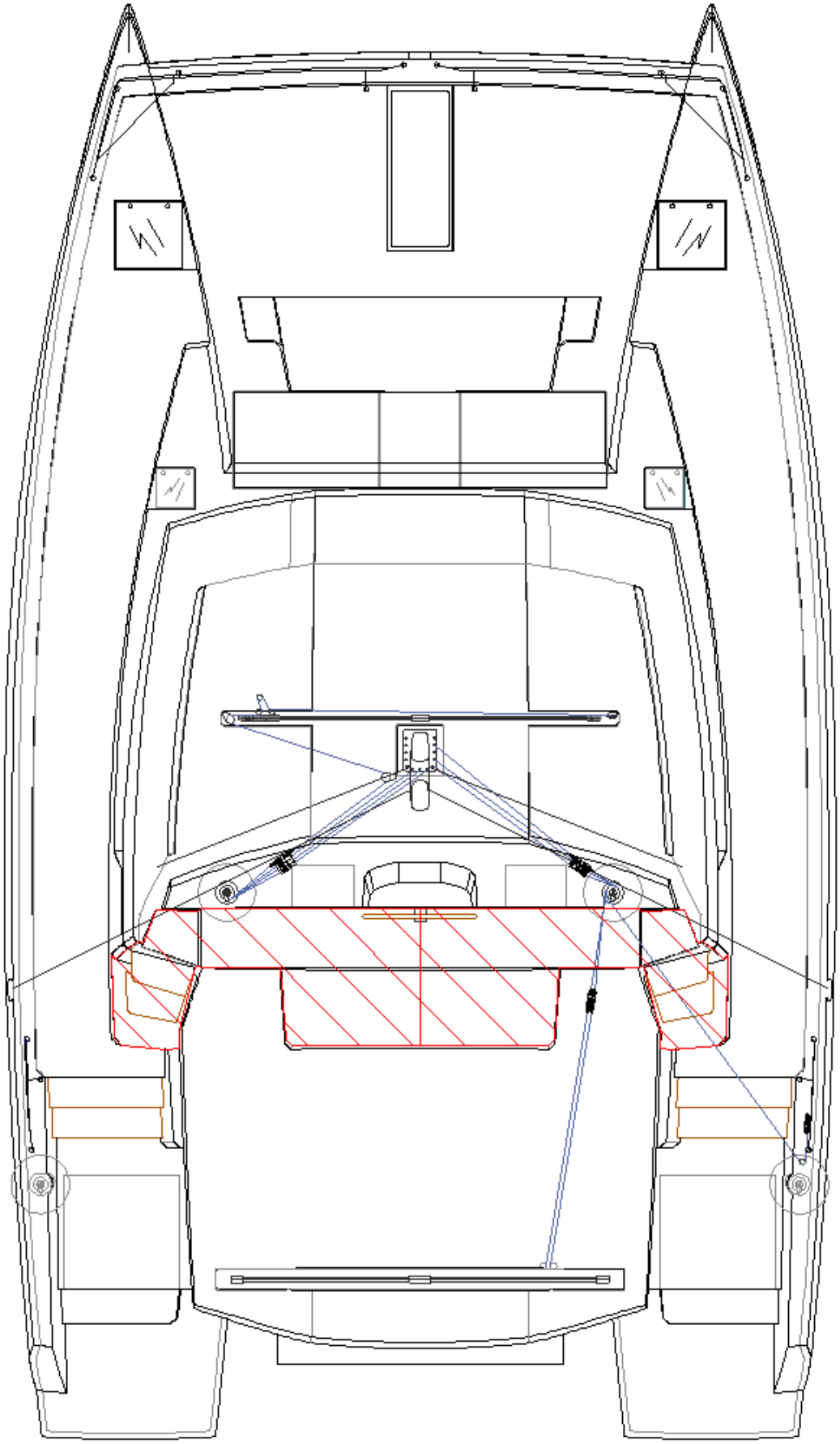

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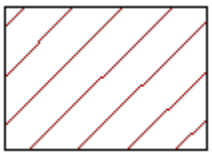
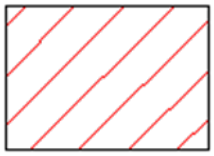
ZONE DE TRAVAIL		WORKING AREA	
Rep.	*Désignation*	*Ref.*	*Description*
	ZONE DE TRAVAIL   DANGER EN NAVIGATION : L'ACCES ET L'UTILISATION EST INTERDIT A TOUTES PERSONNES SUR LE BIMINI, FLY ET LE ROOF		WORKING AREA   CAUTION DANGER WHILE UNDERWAY : ACCESS TO AND USE OF THE BIMINI, FLYBRIDGE AND ROOF IS PROHIBITED TO ALL PERSONS

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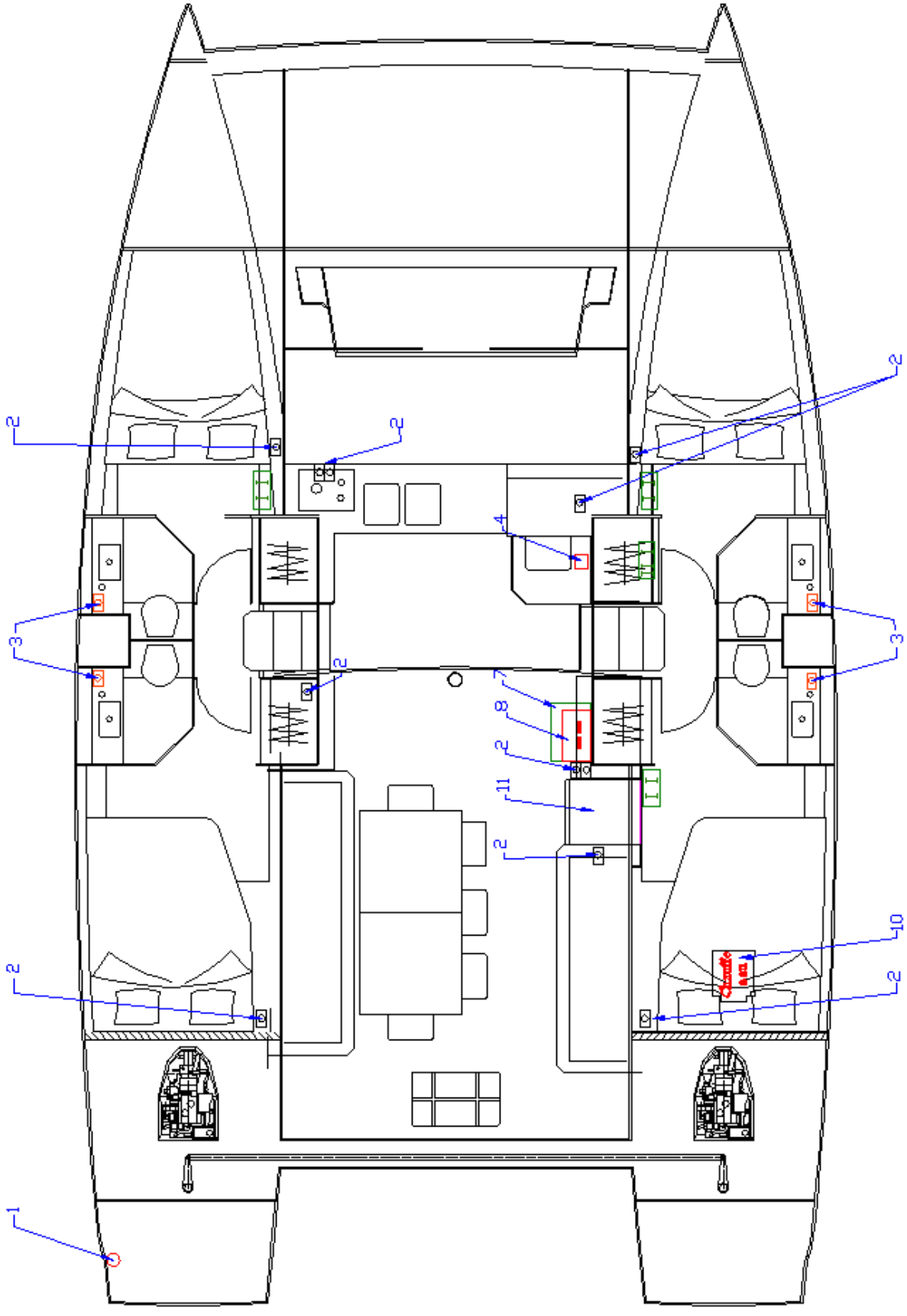
4 Cabin, 4 Bathroom Version



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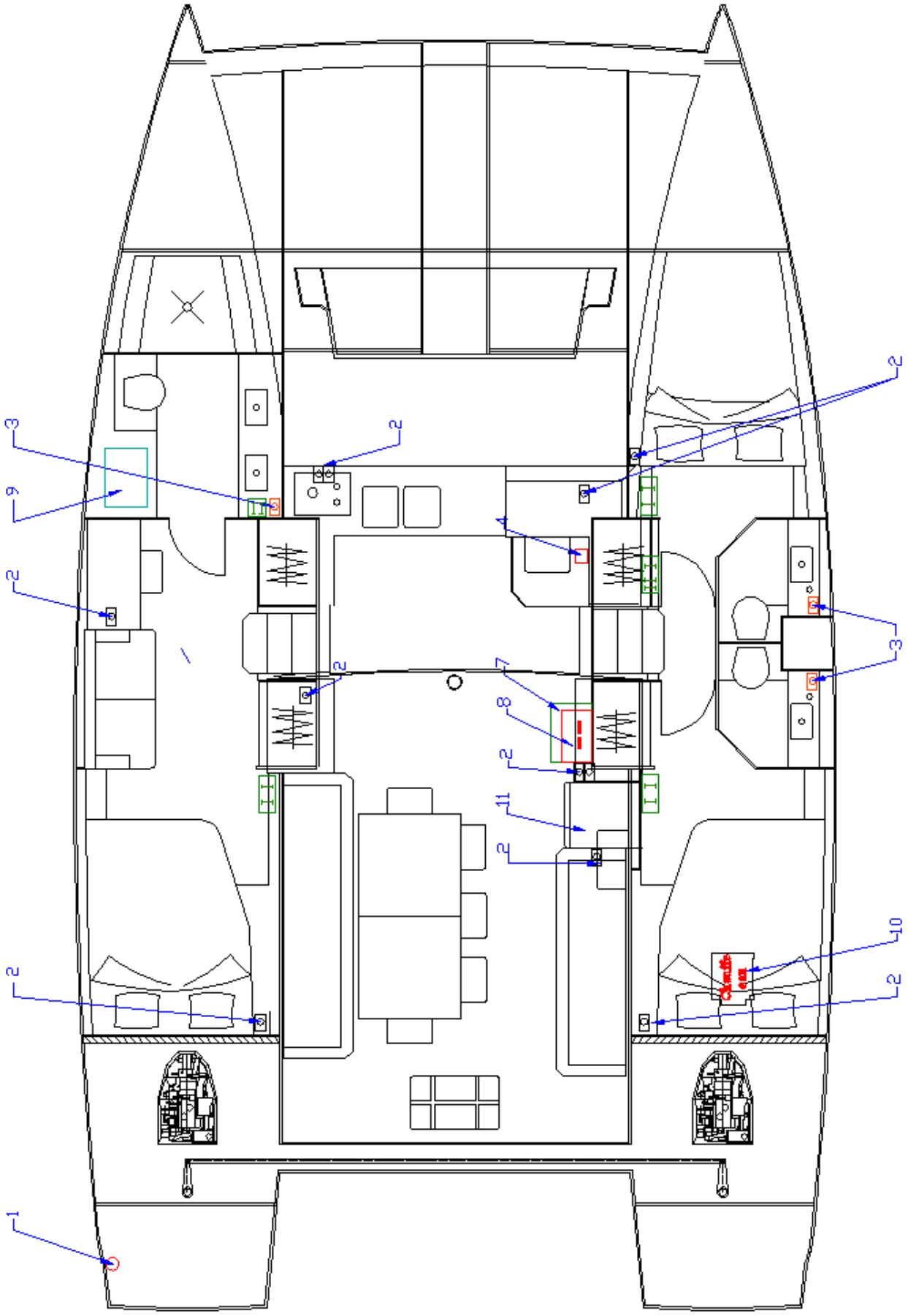

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IMPLANTATION ELECTRIQUE 220 V		220 V ELECTRICAL INSTALLATION	
Rep.	***Désignation***	***Ref.***	***Description***
1	Prise de quai 220v	1	220V shore-power socket
2	Price AC Berker	2	Berker AC socket
3	Prise AC Berker	3	Berker AC socket
4	Tableau AC	4	AC Panel
5		5	
6		6	
7	Lave vaisselle	7	Dishwasher
8	Micro ondes	8	Microwave
9	Machine a laver le linge	9	Washing machine
10	Chauffe-eau	10	Water heater
11	Réfrigérateur	11	Refrigerator
12		12	
13		13	
14		14	

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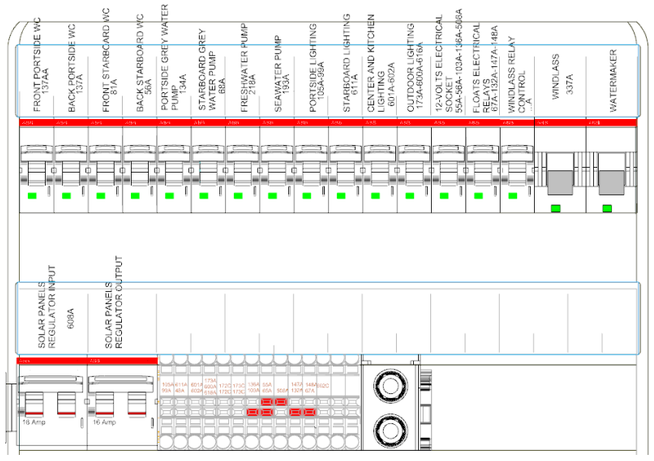

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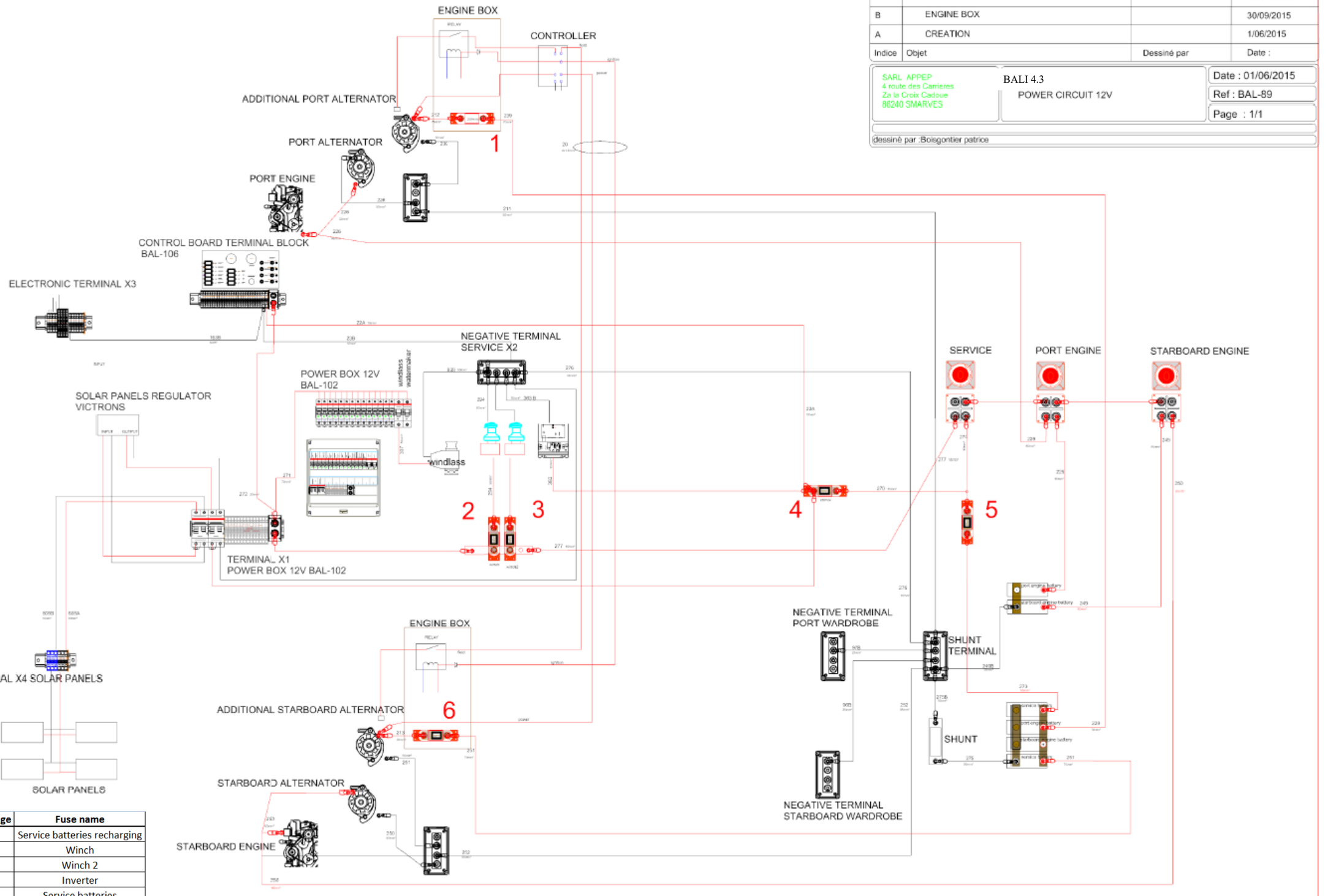
Indice	Objet	Dessiné par	Date :
C	REVISION AND PLAN NUMBER CHANGE		02/02/2016
B	ENGINE BOX		30/09/2015
A	CREATION		1/06/2015

SARL APPEP
4 route des Carrieres
Za la Croix Cadoue
80240 SMARVES

BALI 4.3
POWER CIRCUIT 12V

Date : 01/06/2015
Ref : BAL-89
Page : 1/1

dessiné par :Boisgontier patrice



FUSES

Marker	Amperage	Fuse name
1	250	Service batteries recharging
2	175	Winch
3	175	Winch 2
4	200	Inverter
5	500	Service batteries
6	250	Service batteries recharging

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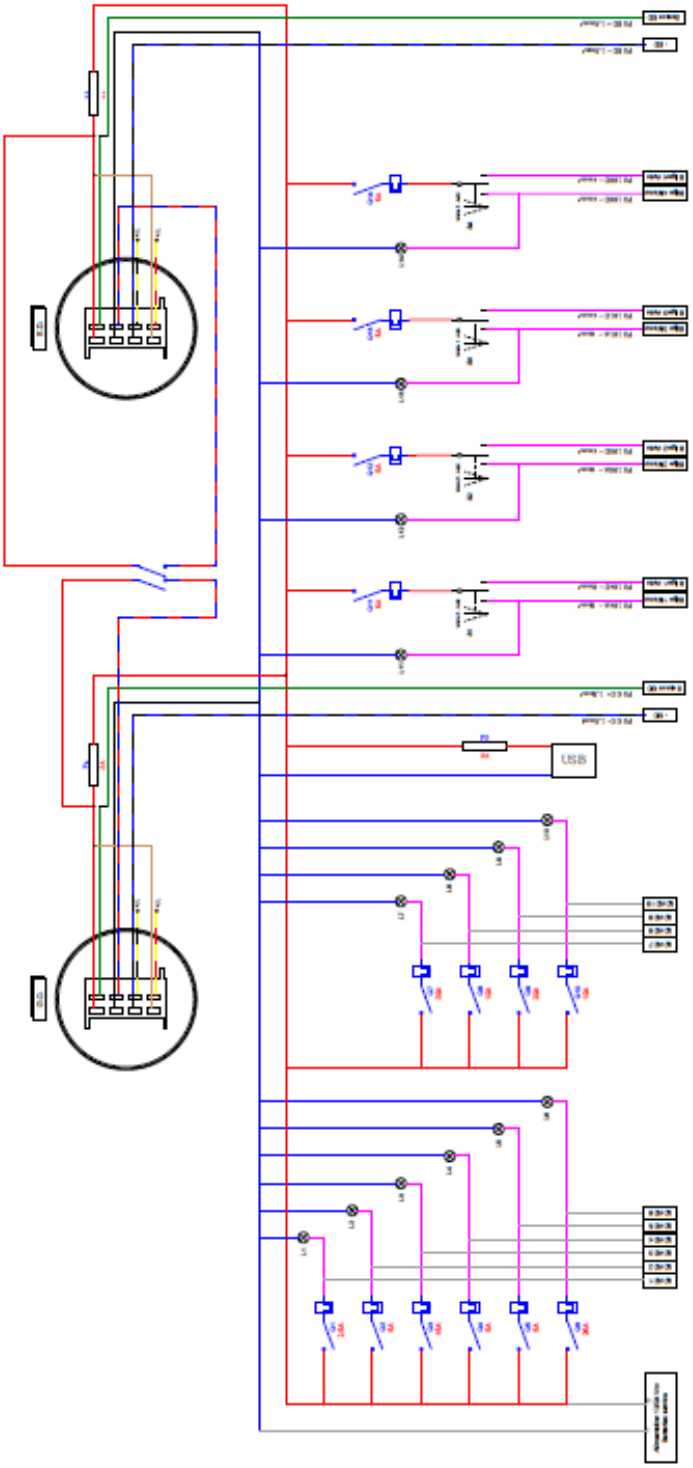

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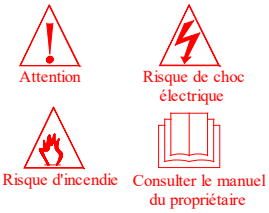
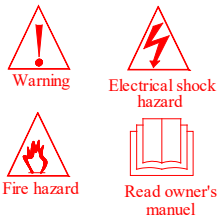
TABLEAU ELECTRIQUE 12V		12V ELECTRICAL PANEL	
Rep.	***Désignation***	***Ref.***	***Description***
1	TABLEAU 12 V DC TAC 	1	12V DC TAC ELECTRIC PANEL 

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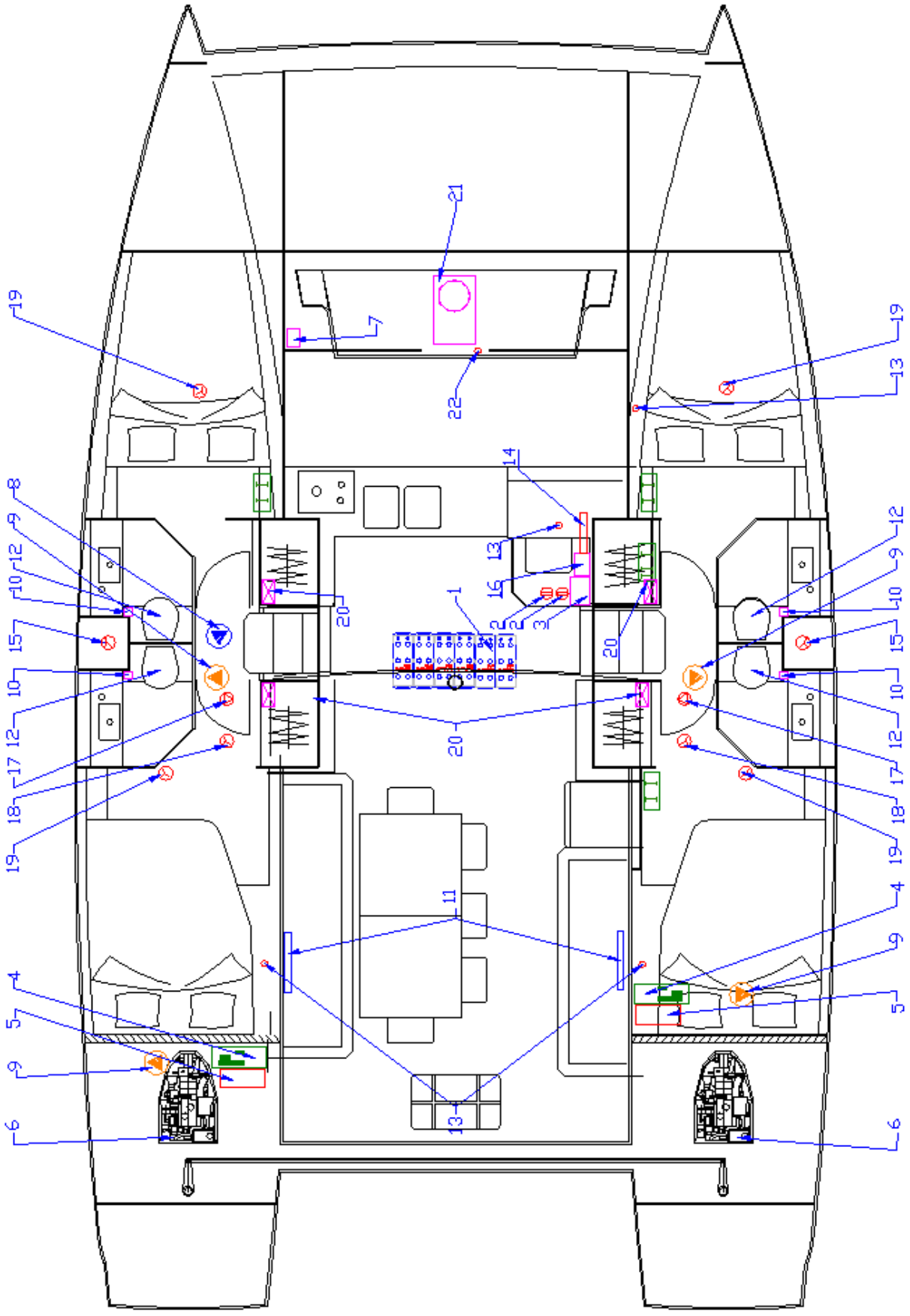

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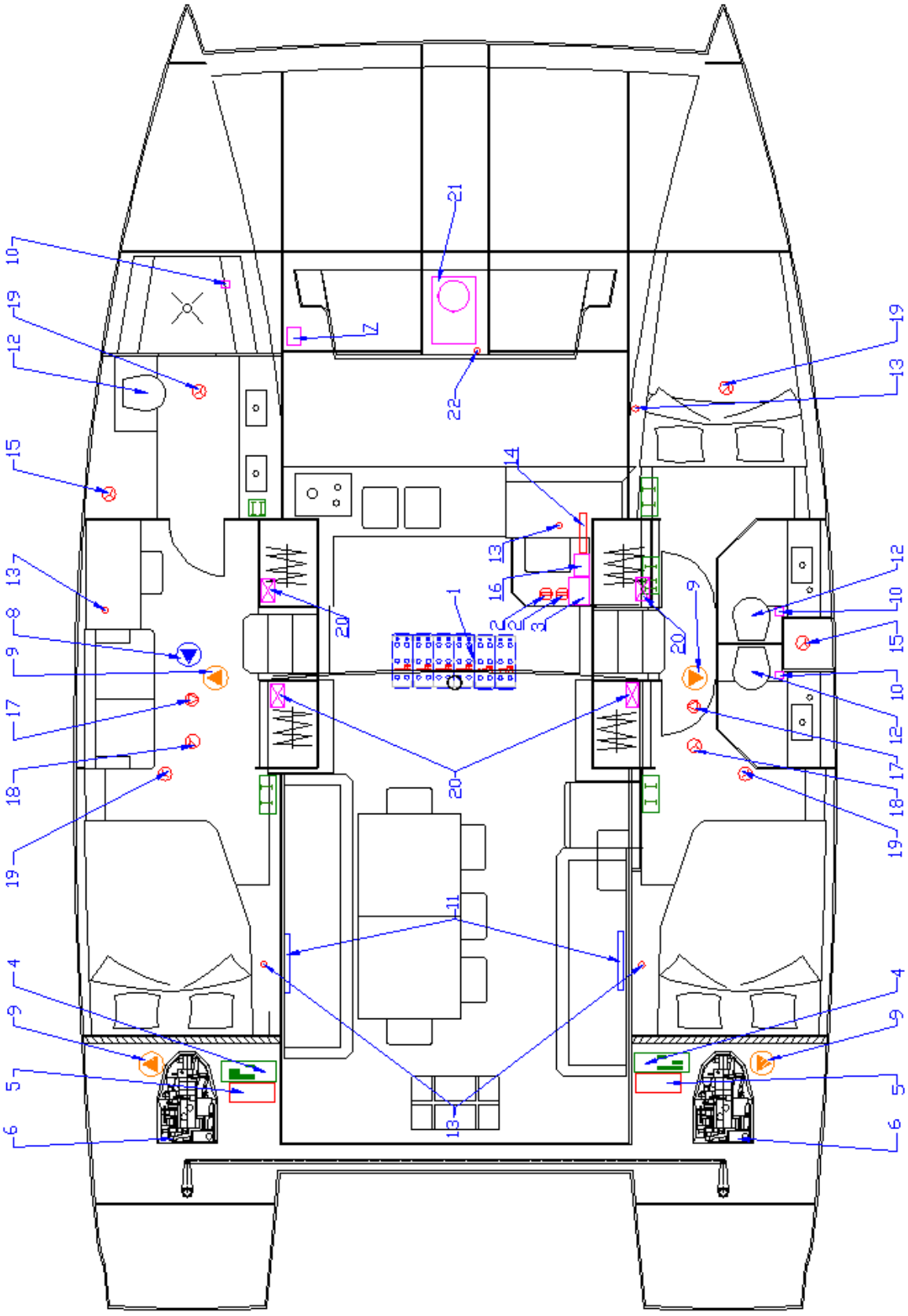
3 Cabin, 3 Bathroom Version



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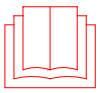
IMPLANTATION 12 V DE COQUE		12 V ELECTRICAL INSTALLATION	
Rep.	***Désignation***	***Ref.***	***Description***
1	Batterie de service (4 x 120 Ah)	1	Service batteries (2 x 120 Ah)
2	Coupe batterie servitude	2	Service battery shut-off switch
3	Convertisseur / chargeur 12V/220V/70A	3	12V/220V/70A Inverter/charger
4	Batterie moteur 120 Ah	4	Engine starter battery
5	Coupe batterie moteur	5	Engine starter battery shut-off switch
6	alternateur moteur	6	Alternator
7	Groupe d'eau douce	7	Fresh water pump
8	Pompe d'eau de mer	8	Sea water pump
9	Pompe de cale	9	Bilge pump
10	Inter de pompe d'évacuation d'eaux usées	10	Waste water pump switch
11	Pilote automatique	11	Autopilot
12	WC électrique (option)	12	Electric WC (option)
13	Prise 12V	13	12V socket
14	Tableau électrique TAC + bornier de connexion	14	AC electric panel + connection
15	Jauge HT	15	Holding tank jauge
16	Convertisseur 12V/220V/1000W dédié au frigo	16	12V/220V/1000W fridge inverter
17	Pompe eaux grises (option)	17	Grey water pump (option)
18	Jauge eaux grises (option)	18	Grey water tank gauge (option)
19	Jauge réservoir eaux douces	19	Freshwater tank gauge
21	Guindeau	21	Windlass
22	Prise 12V étanche	22	Waterproof 12V socket
23		23	
24		24	


Attention

Risque de choc électrique

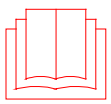

Risque d'incendie


Consulter le manuel du propriétaire


Warning


Electrical shock hazard


Fire hazard


Read owner's manuel

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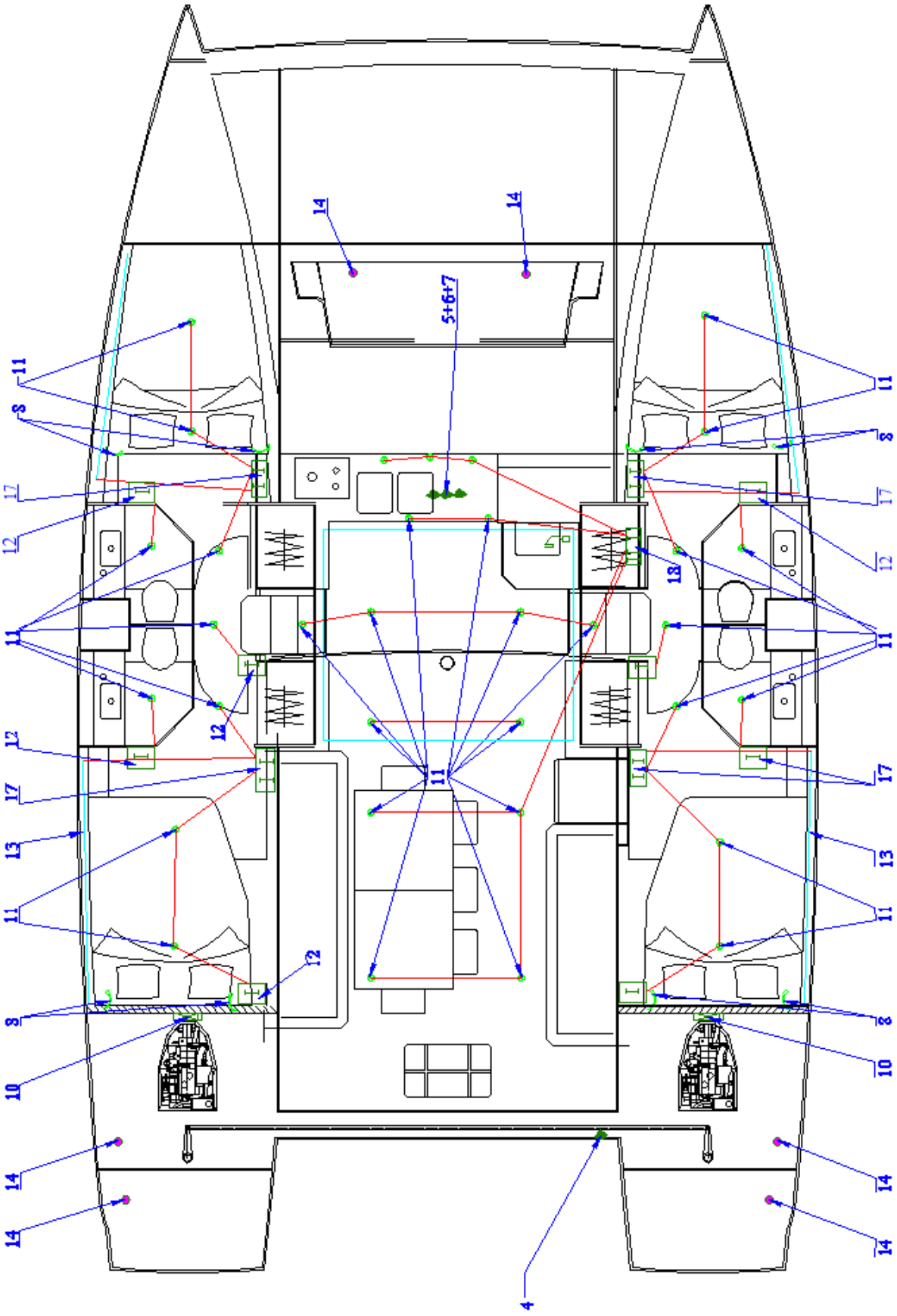
4 Cabin, 4 Bathroom Version



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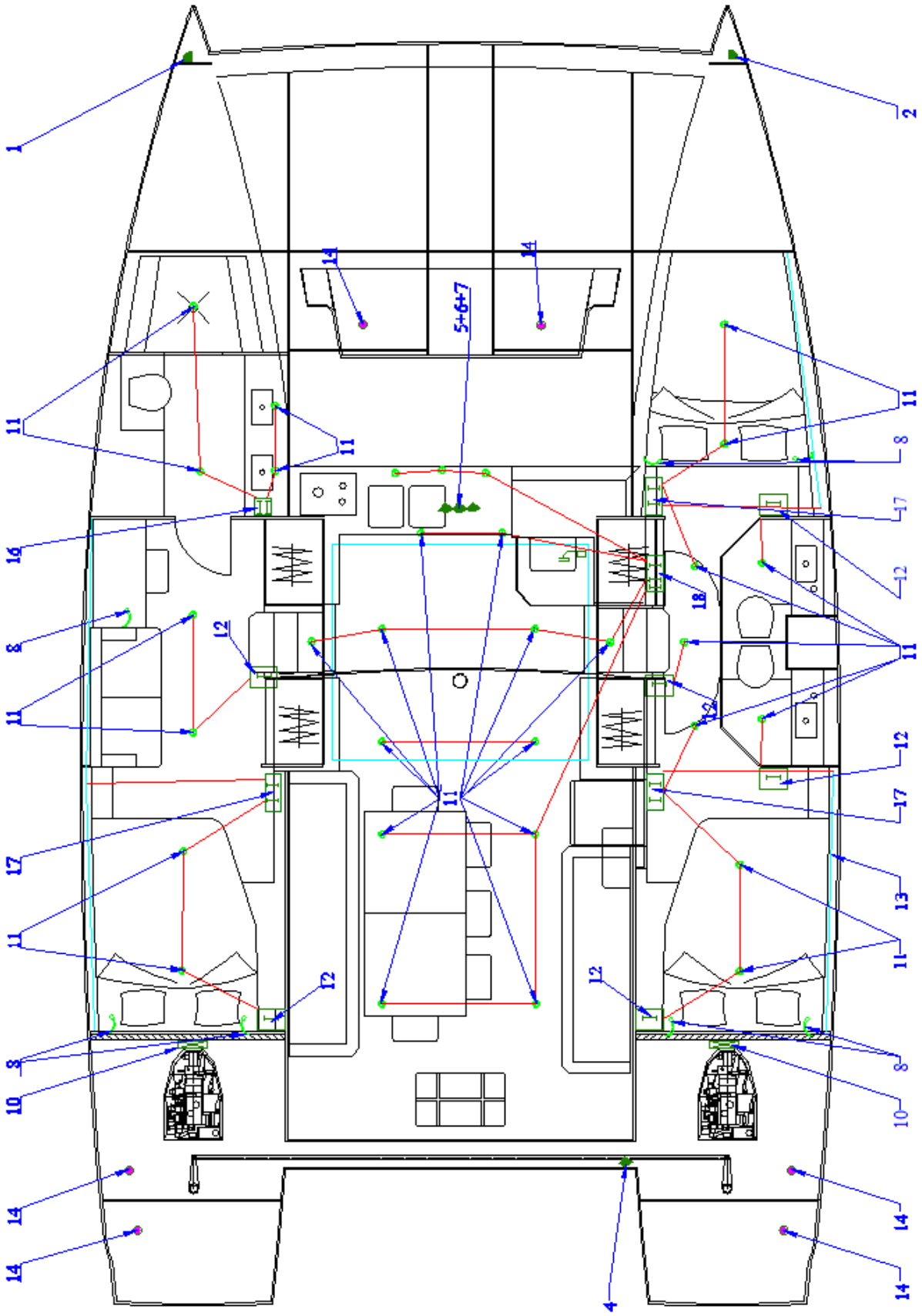
3 Cabin, 3 Bathroom Version



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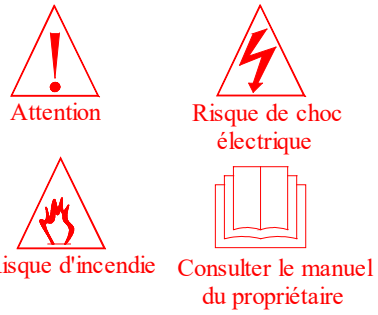
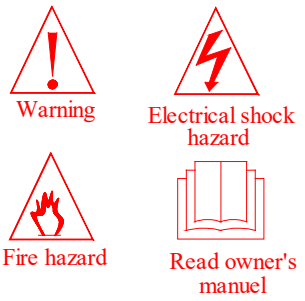
IMPLANTATION 12 V PONT		12 V ELECTRICAL INSTALLATION	
Rep.	***Désignation***	***Ref.***	***Description***
1	Feu de Navigation. Bd	1	Port navigation light
2	Feu de Navigation. Td	2	Starboard navigation light
3		3	
4	Feu de poupe	4	Stern light
5	Feu de hune	5	Masthead light
6	Feu de mouillage	6	Anchor light
7	Feu de pont	7	Deck light
8	Liseuse	8	Reading light
9	Liseuse table à cartes	9	Chart table light
10	Plafonnier néon	10	Neon ceiling light
11	Plafonnier encastré à leds	11	Recessed LED ceiling light
12	Inter simple marron	12	Single switch (brown)
13	Bandeau leds courtoisie	13	LED courtesy striplight
14	Eclairage courtoisie jupe et cockpit avant	14	Sugarscoop + fwd cockpit light
15		15	
16	Inter double blanc	16	Double switch (white)
17	Inter simple + va et vient marron	17	Single + 2-way switch (brown)
18	Inter simple + inter double	18	Single and double switch





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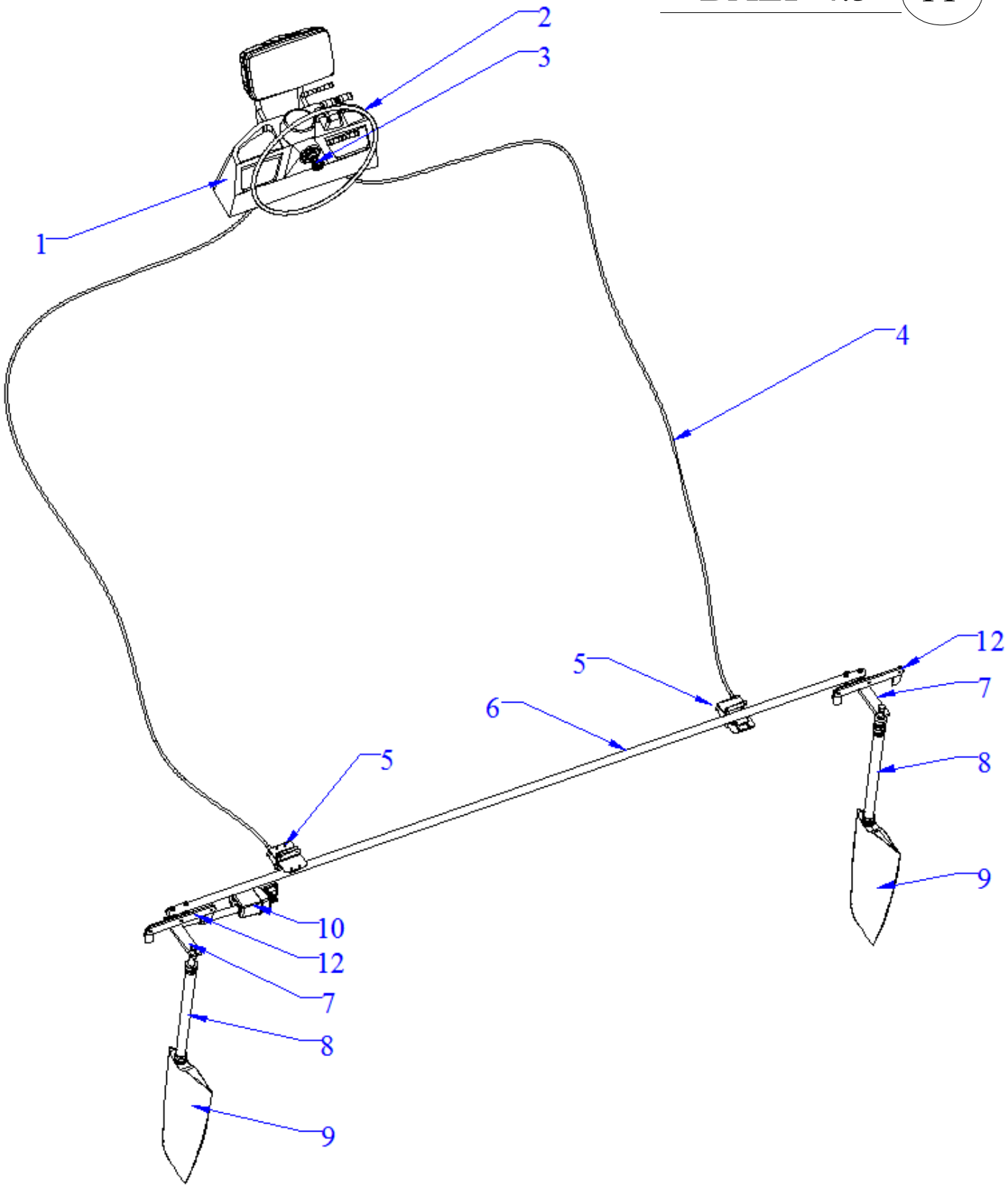

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SYSTEME DE GOUVERNAIL		STEERING SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Console de barre	1	Helm console
2	Barre à Roue "Nautex FVC Y D900mm"	2	Steering wheel
3	Axe barre a roue pignon + chaine "Lewmar 89101125 + 89100091"	3	Steering wheel axle gear+chain
4	Drosse inox 7x19 D5 + gaine	4	7x19 stainless cable + conduit
5	Poulie de renvoie + support poulie	5	Return pulley + bracket
6	Barre de liaison BD/TD	6	Link bar port/stbd
7	Bras de mèche	7	Steering quadrant
8	Tube jaumière	8	Rudder tube
9	Safran	9	Rudder blade
10	Pilote automatique	10	Autopilot
11	Barre franche de secours	11	Emergency tiller
12	Butée de barre	12	Rudder stop
13		13	
14		14	
15		15	

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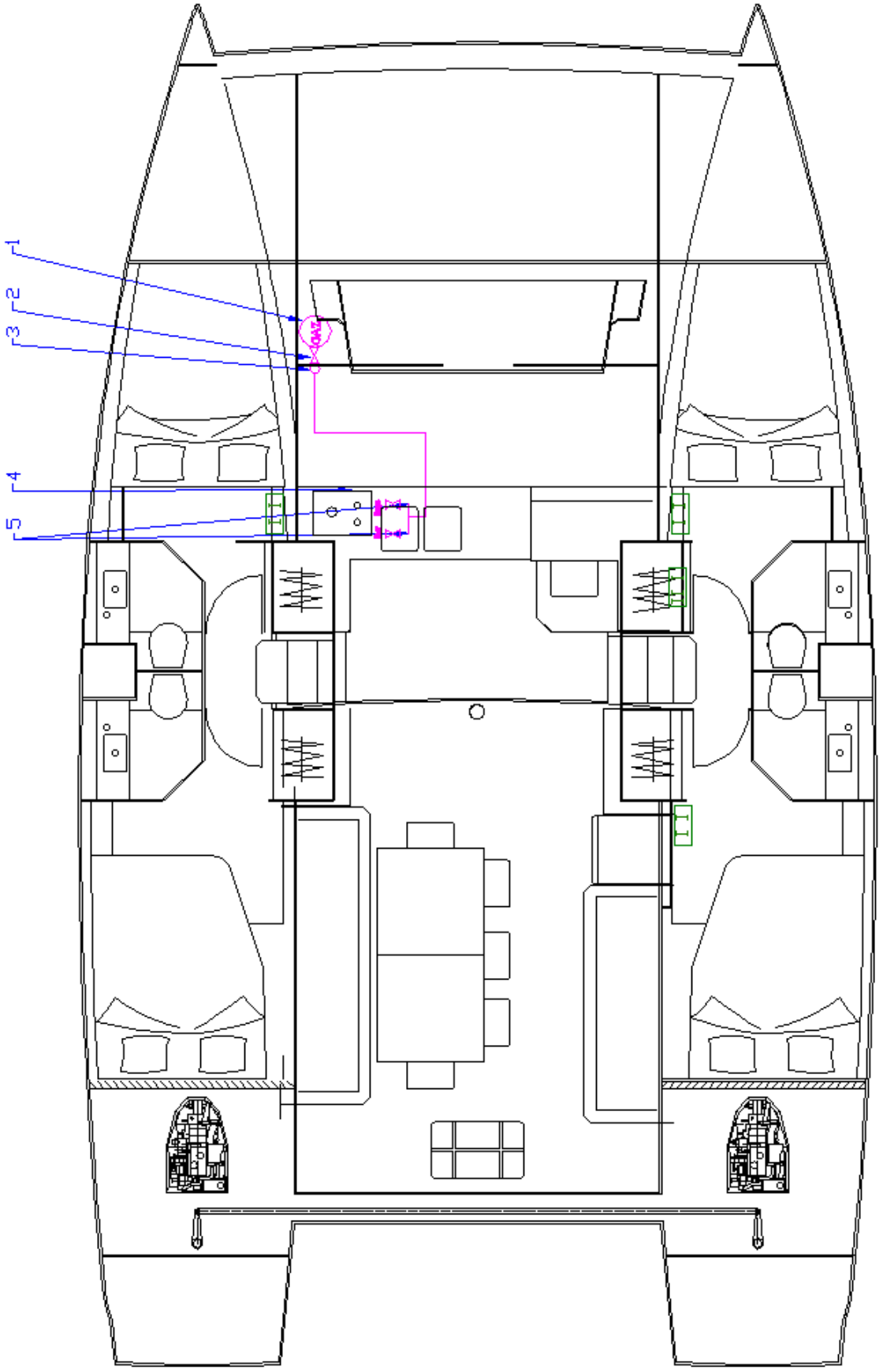
4 Cabin, 4 Bathroom Version



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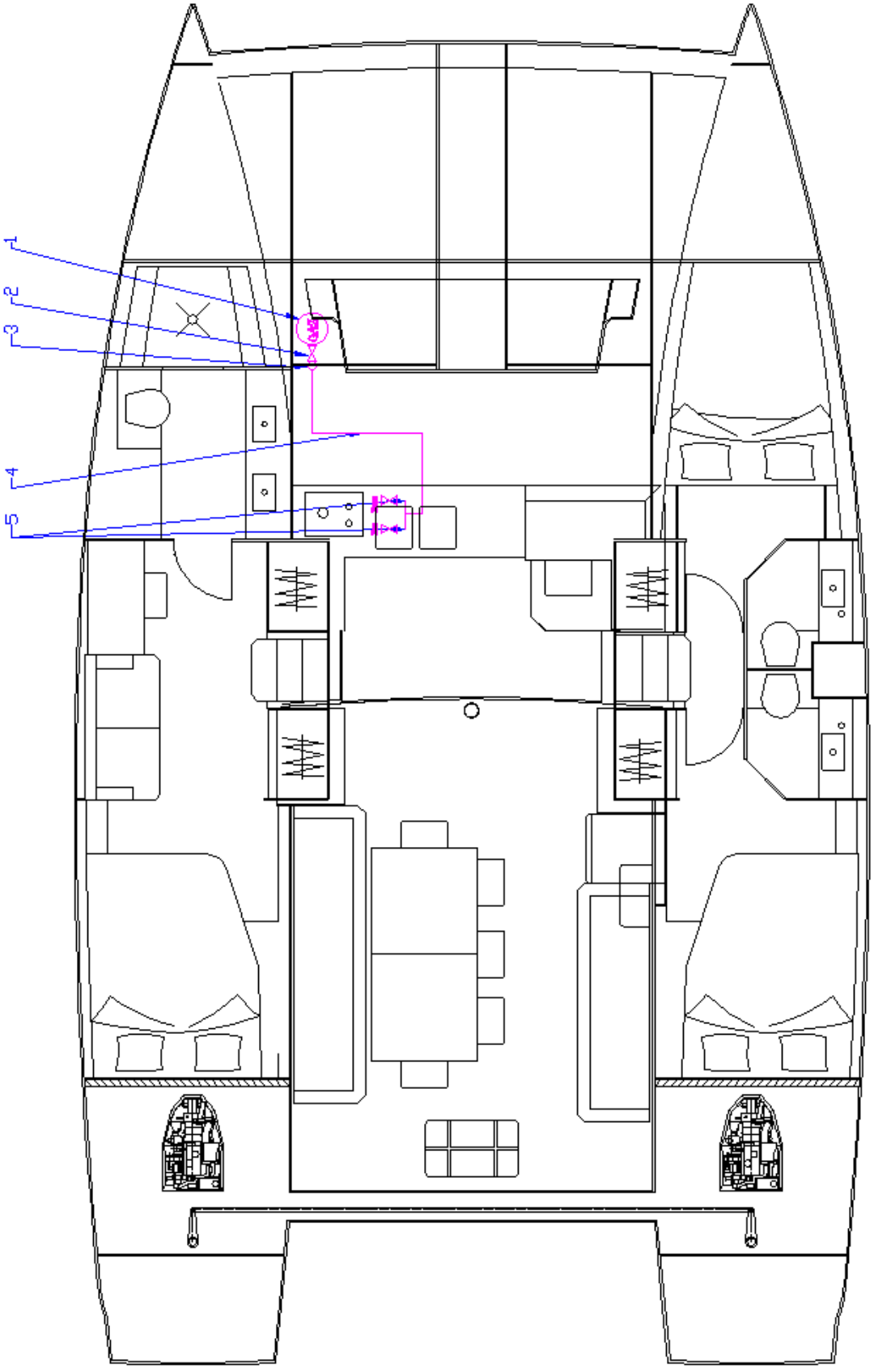
Version 3 cabines, 3 SDB



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CIRCUIT GAZ		GAS SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Bouteille de gaz 13kg (2ème Option)	1	13 kg gas bottle (2nd as option)
2	Vanne d'arrêt gaz	2	Gas shutoff valve
3	Détendeur	3	Regulator
4	Gaine PVC et tuyau cuivre Ø8	4	PVC conduit & Ø8 copper pipe
5	Raccordement pour équipement	5	Connection for equipment
6		6	
7		7	

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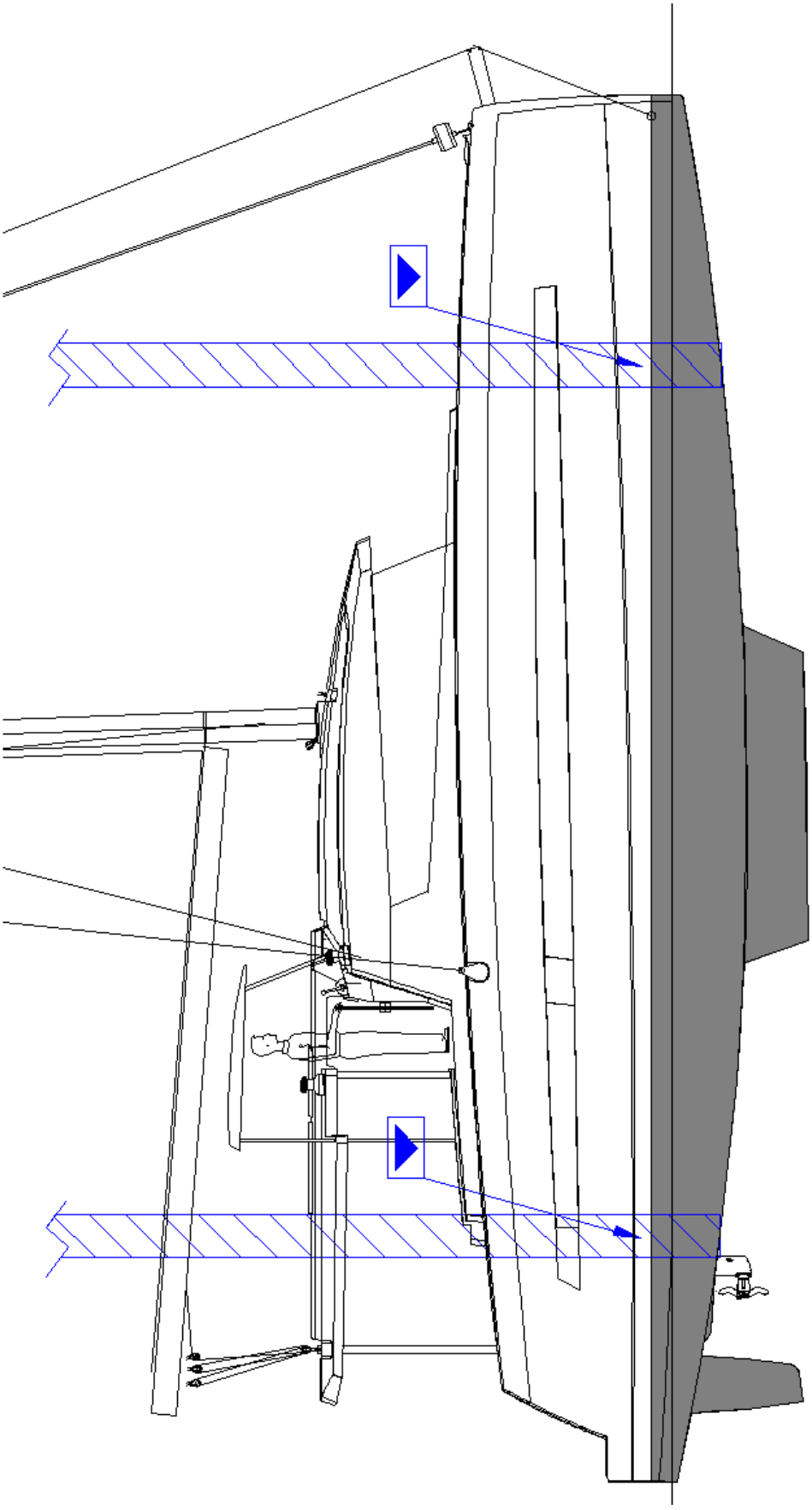

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PLAN DE GRUTAGE		LIFTING DIAGRAM	
Rep.	***Désignation***	***Ref.***	*Description*
	Point de levage ou de calage Voir repère en forme de triangle de couleur rouge au-dessus de la bande déco de flottaison Déplacement condition lège Mlc 11300 kg Maître bau 7.10 m Tirant d'eau 1,18 m		**Lifting or resting point** See red triangle shape above the boot top line above the waterline Light displacement Mlc 11,300 kg Maximum beam 7.10 m Draft 1.18 m

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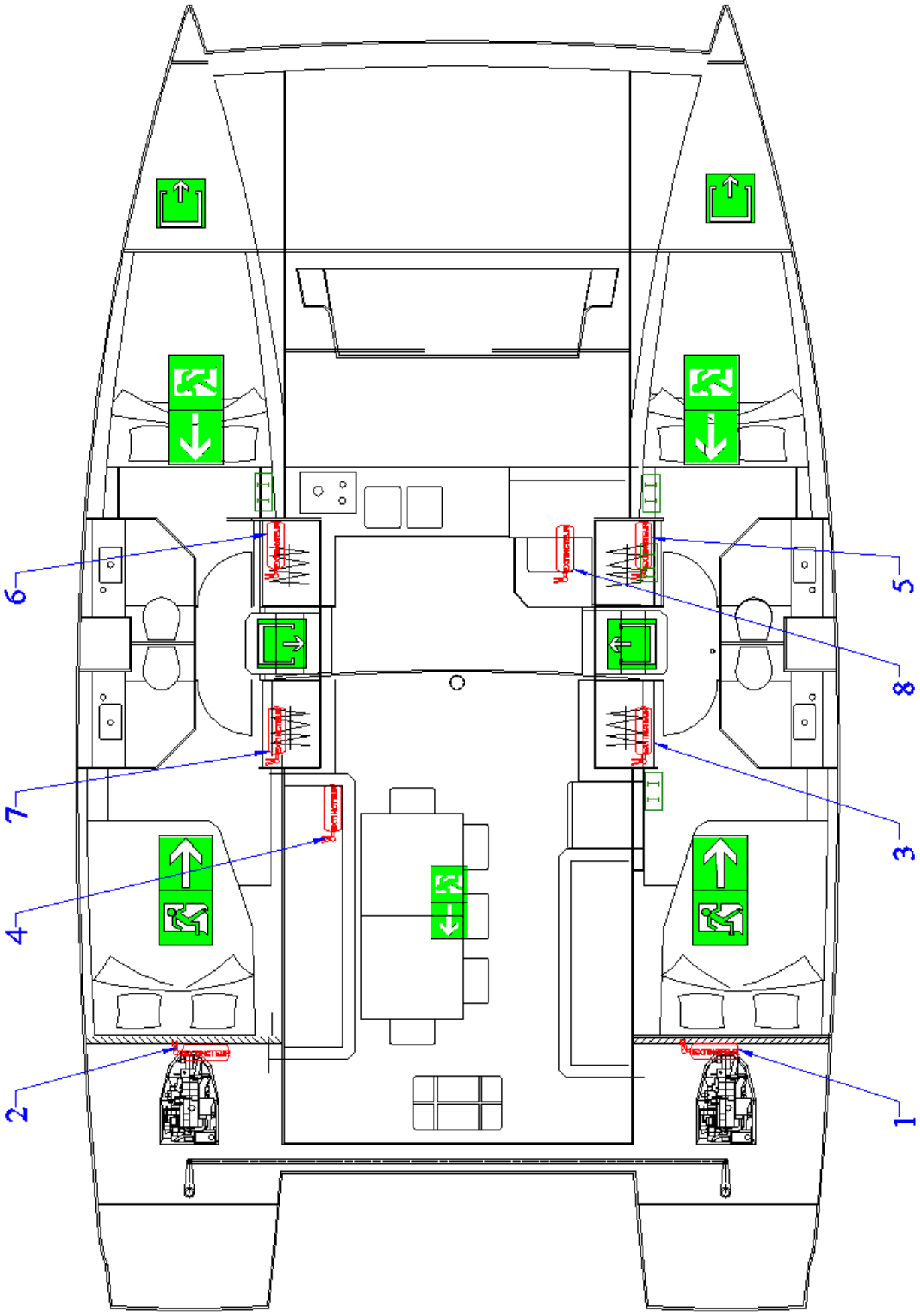

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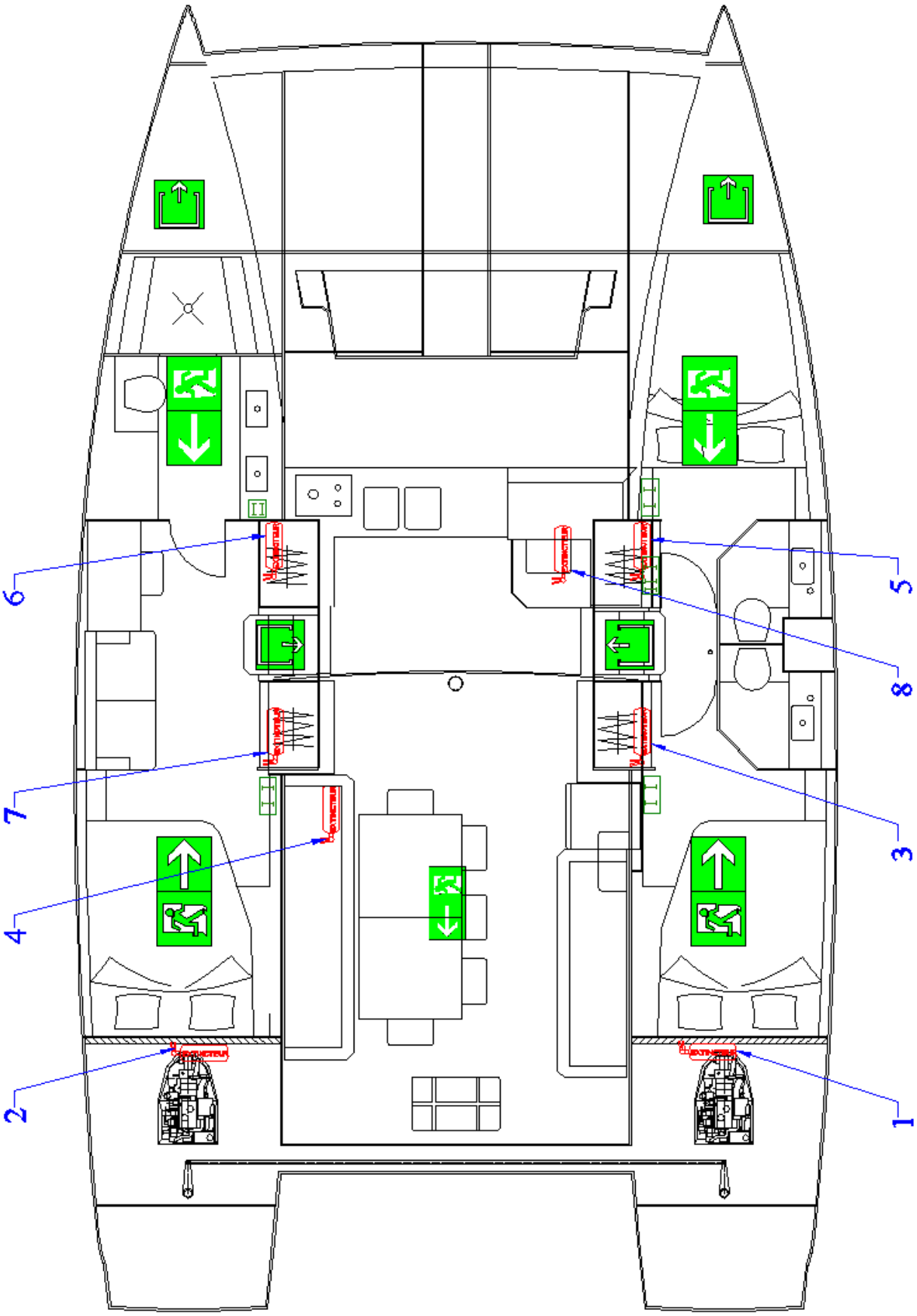

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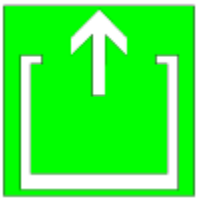
EVACUATION DU NAVIRE		ABANDONING SHIP			
Rep.	***Désignation***	***Rep.***			***Description***
1	Extincteur auto fixe comp. moteur TD 2KG	1			Auto extinguisher stbd engine 2kg
2	Extincteur auto fixe comp. moteur BD 2KG	2			Auto extinguisher port engine 2kg
	Emplacements préconisés pour les extincteu				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			Fwd cabin stbd:capacity 2kg
6	Cabine AV BD ; Capacité 2kg	6			Fwd cabin port: capacity 2kg
7	Cuisine ; Capacité 4kg	7			Galley: capacity 4kg
8	Nacelle ; Capacité 4kg	8			Bridgedeck: capacity 4kg
9		9			

	Direction vers laquelle s'échapper	Direction for abandoning ship
	Sortie la plus proche, par exemple panneaux de pont	Nearest exit. Eg. Deck hatch
	Emplacement désigné pour un extincteur portatif ou le placard ou il est entreposé	Location of portable fire extinguisher
	Prés de liquides inflammables (bouchons, réservoirs, coffre à gaz)	Proximity of flammable liquids (tanks, gas locker)

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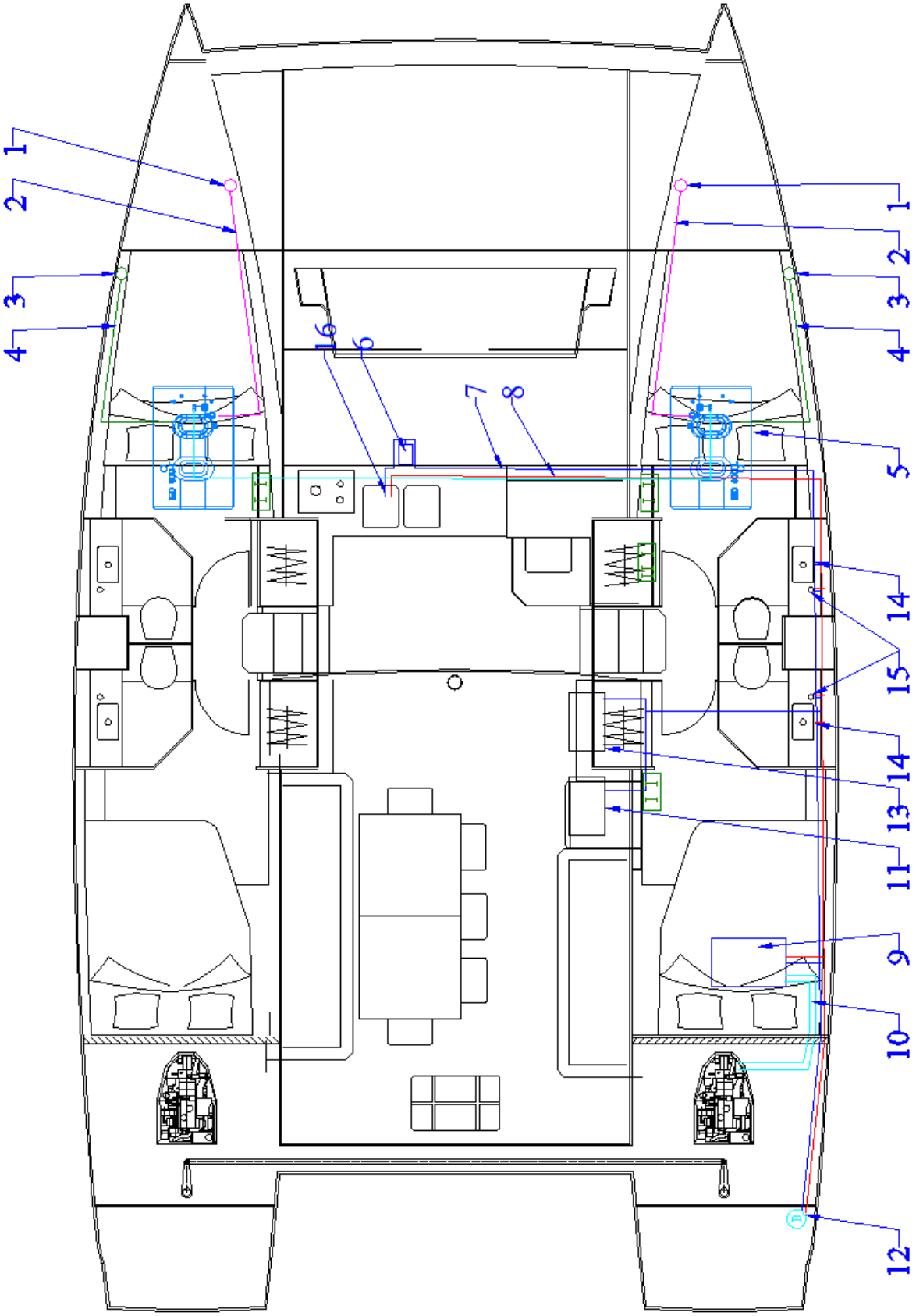

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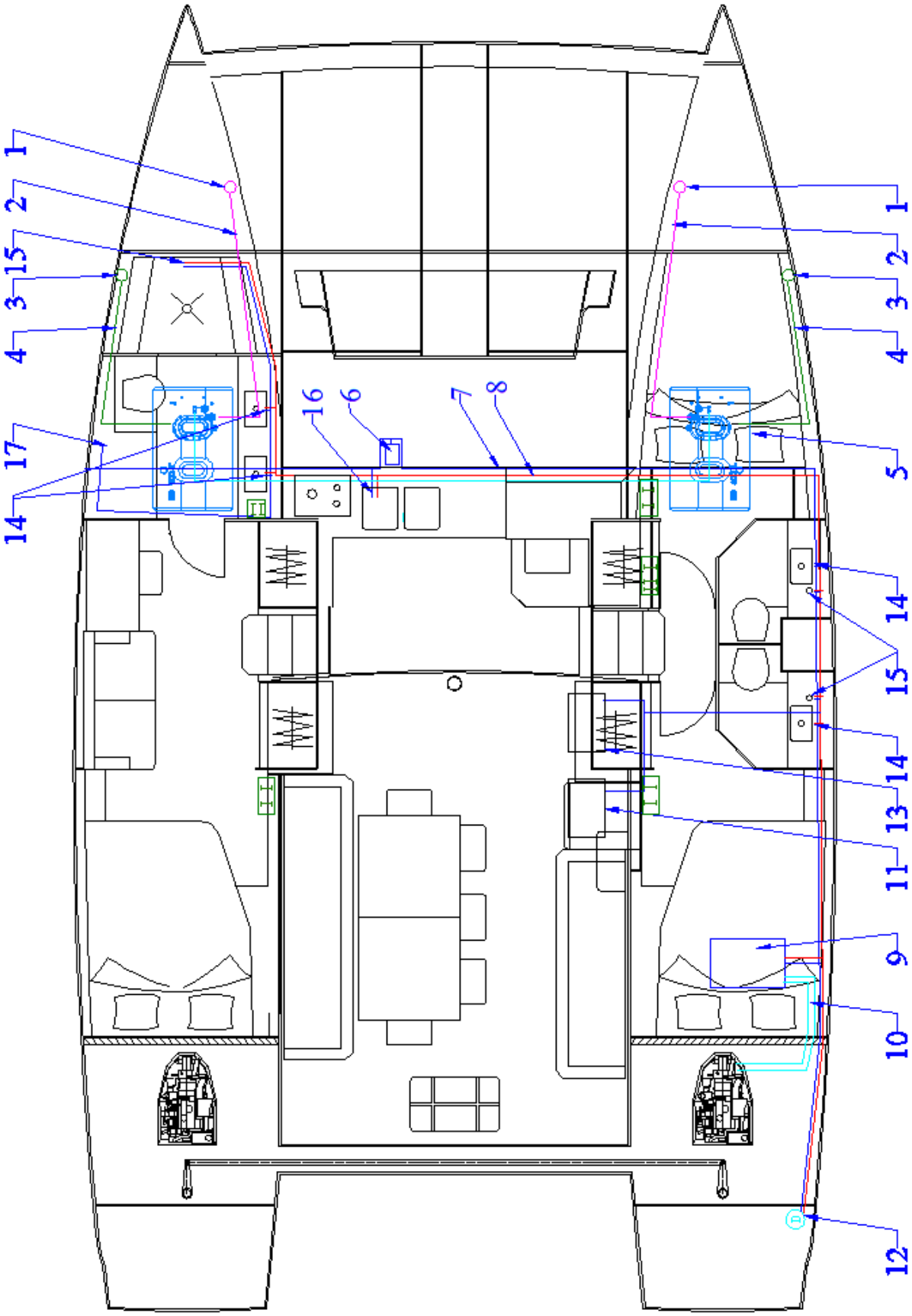
3 Cabin, 3 Bathroom Version



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CIRCUIT EAU DOUCE		FRESHWATER SYSTEM	
Rep.	***Désignation***	***Ref.***	***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 16 mm	4	Vent pipe Ø 16mm
5	Réservoir d'eau 400	5	Water tank 400 l
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 55 L	9	Water heater 55 l
10	Tuyau d'échangeur moteur	10	Engine heat-exchanger pipe
11	Réfrigérateur américain	11	American refrigerator
12	Douchette de pont	12	Deck shower
13	Machine à laver la vaisselle	13	Dishwasher
14	Mitigeur Lavabo	14	Washbasin mixer tap
15	Mitigeur douche	15	Shower mixer tap
16	Mitigeur cuisine	16	Galley mixer tap
17	Machine à laver le linge	17	Washing machine
18		18	
19		19	

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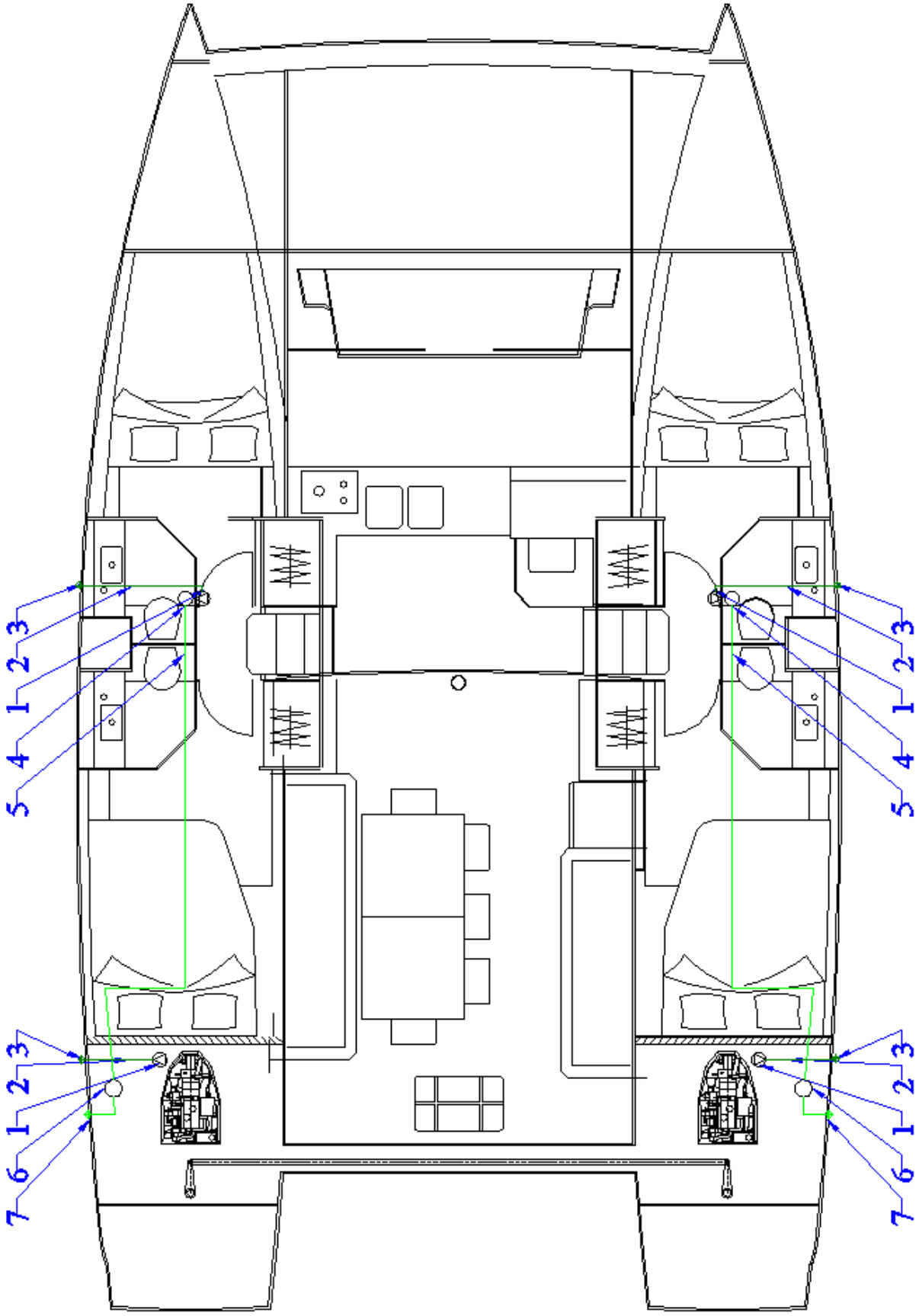
4 Cabin, 4 Bathroom Version



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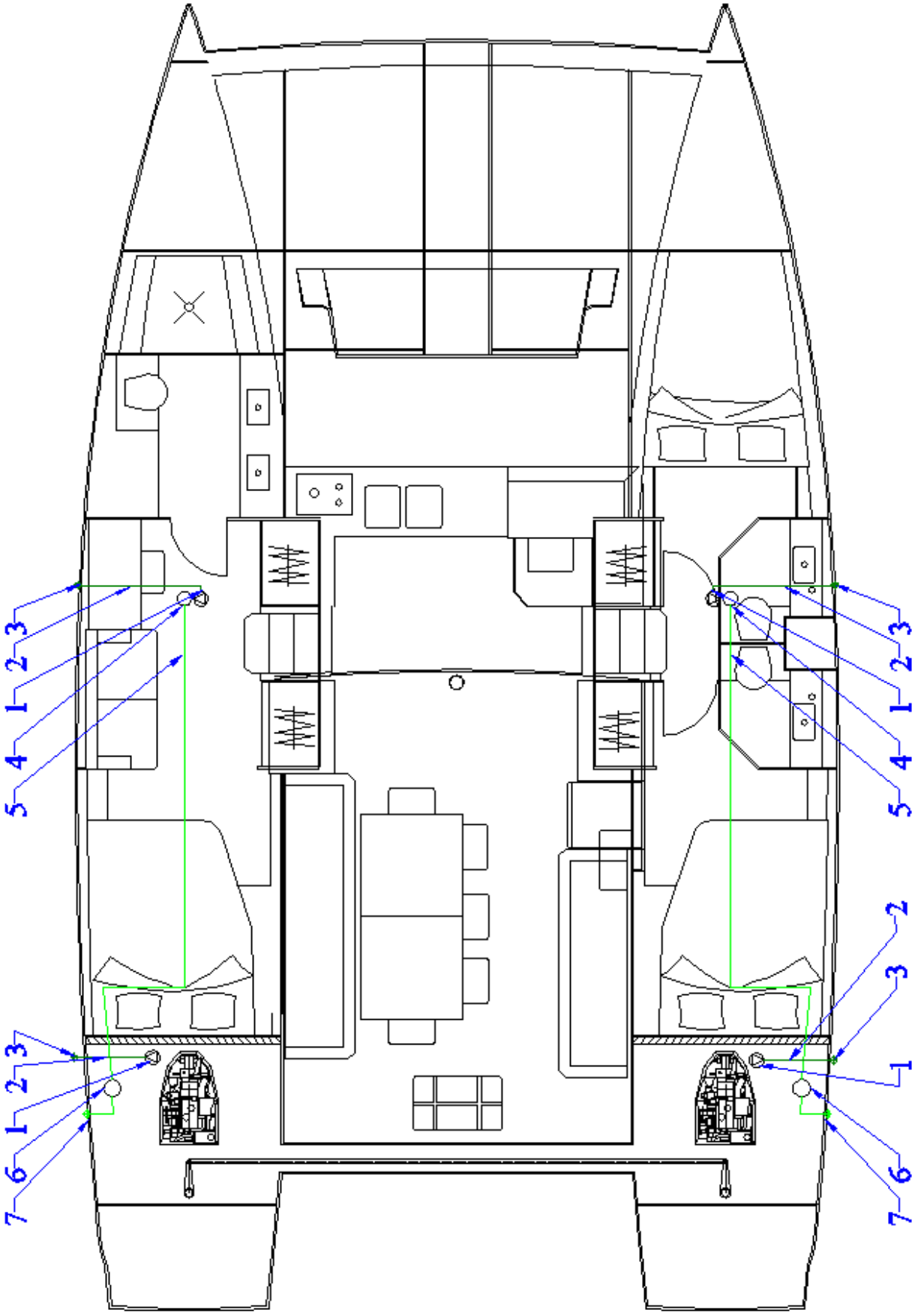
3 Cabin, 3 Bathroom Version



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CIRCUIT D'ASSECHEMENT		BAILING 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 outlet
	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 outlet

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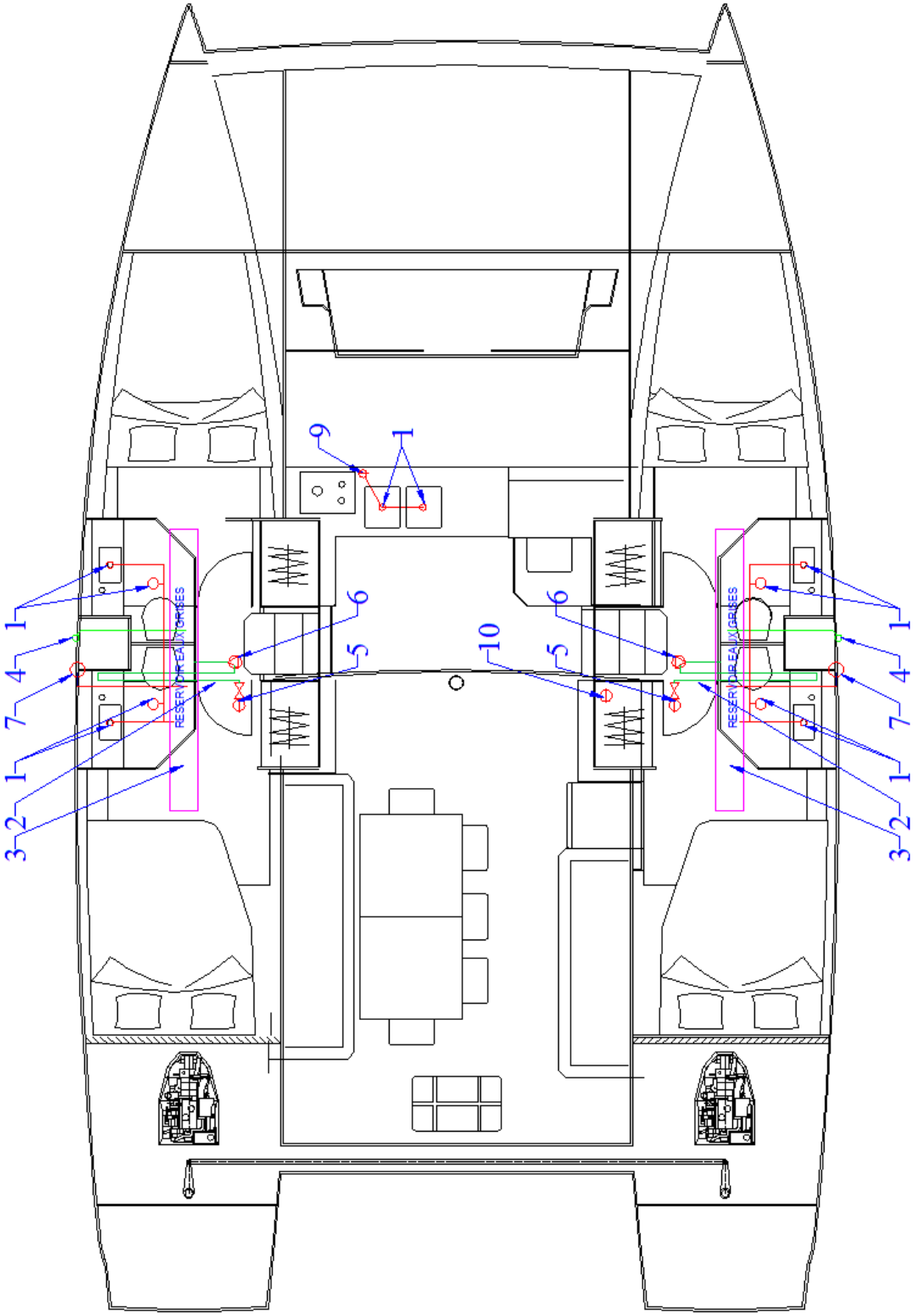
4 cabin, 4 bathroom Version



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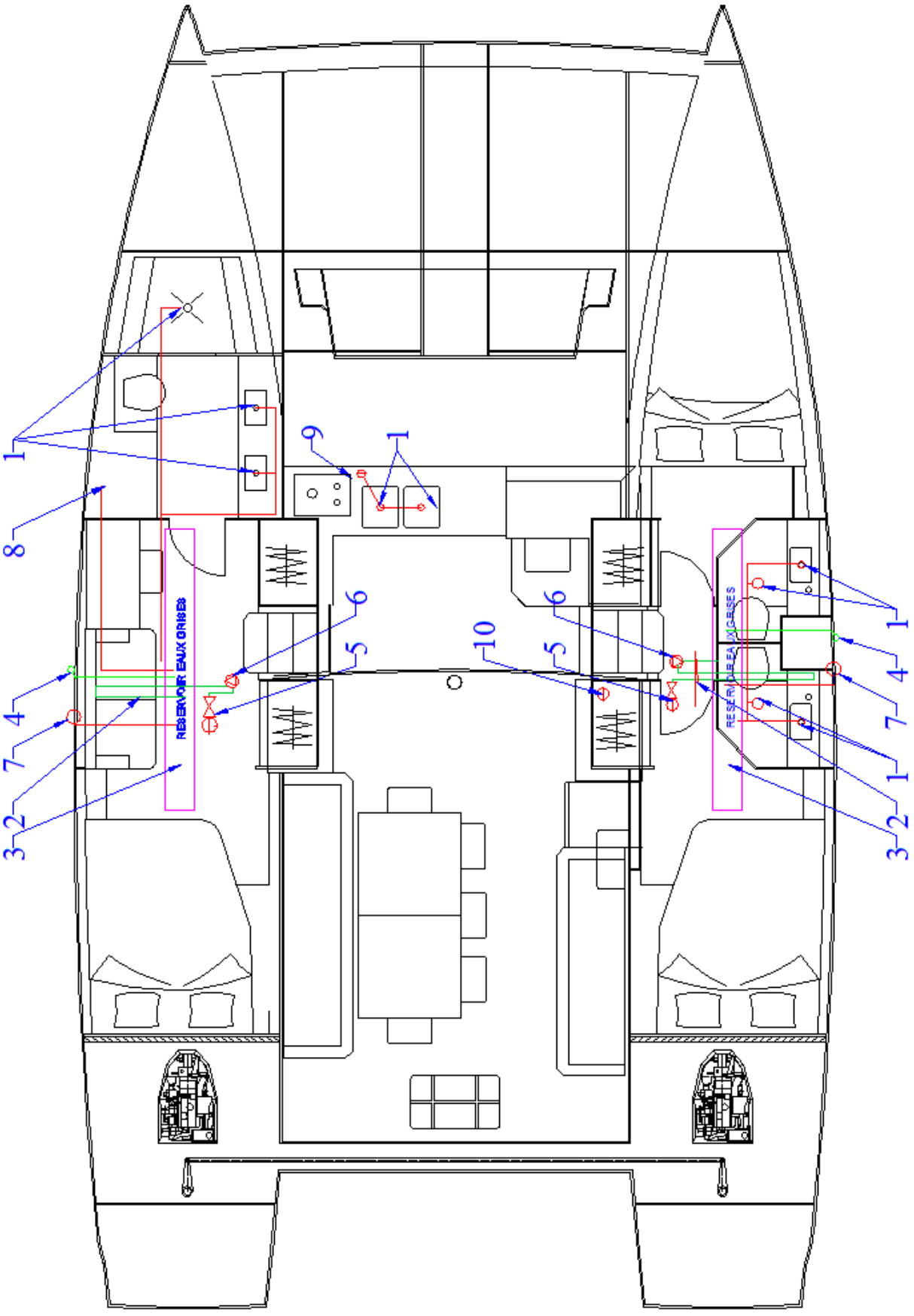

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CIRCUIT D'EAUX GRISES			
Rep.	*Désignation*	*Ref.*	*Description*
1	Bonde lavabo / douche / évier	1	Basin / shower drain
2	Tuyau anti-odeur	2	Anti-odour pipe
3	Réservoir eaux grises quillon	3	Grey water tank
4	Event	4	Vent
5	Passe coque d'évac. eaux usées + vanne	5	Waste water thru-hull + tap
6	Pompe d'évacuation du réservoir	6	Tank emptying pump
7	Nable de pont eaux usées	7	Waste water deck outlet
8	Machine à laver	8	Washing machine
9	Rejet cuisine	9	Galley waste outlet

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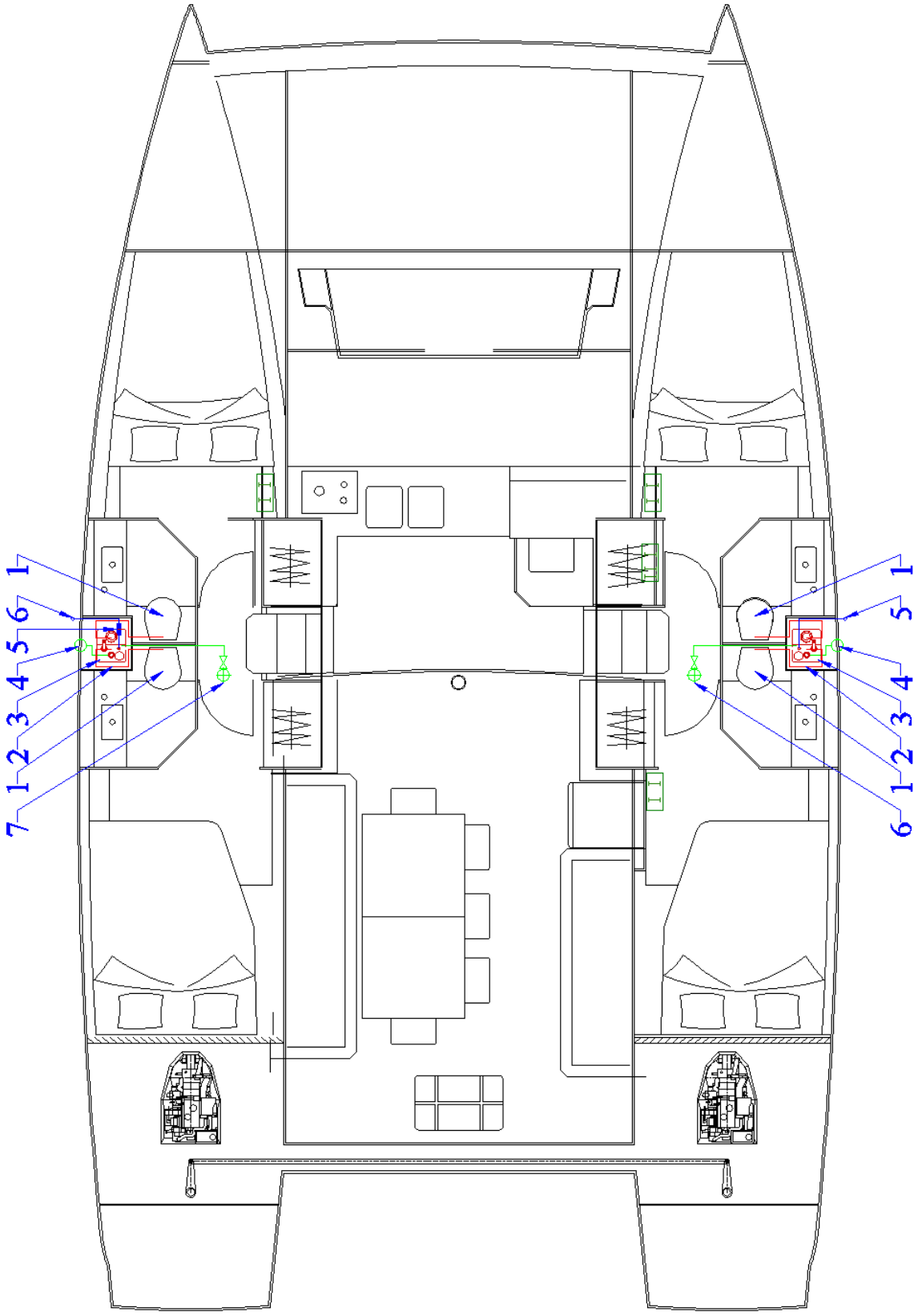
4 cabin, 4 bathroom Version



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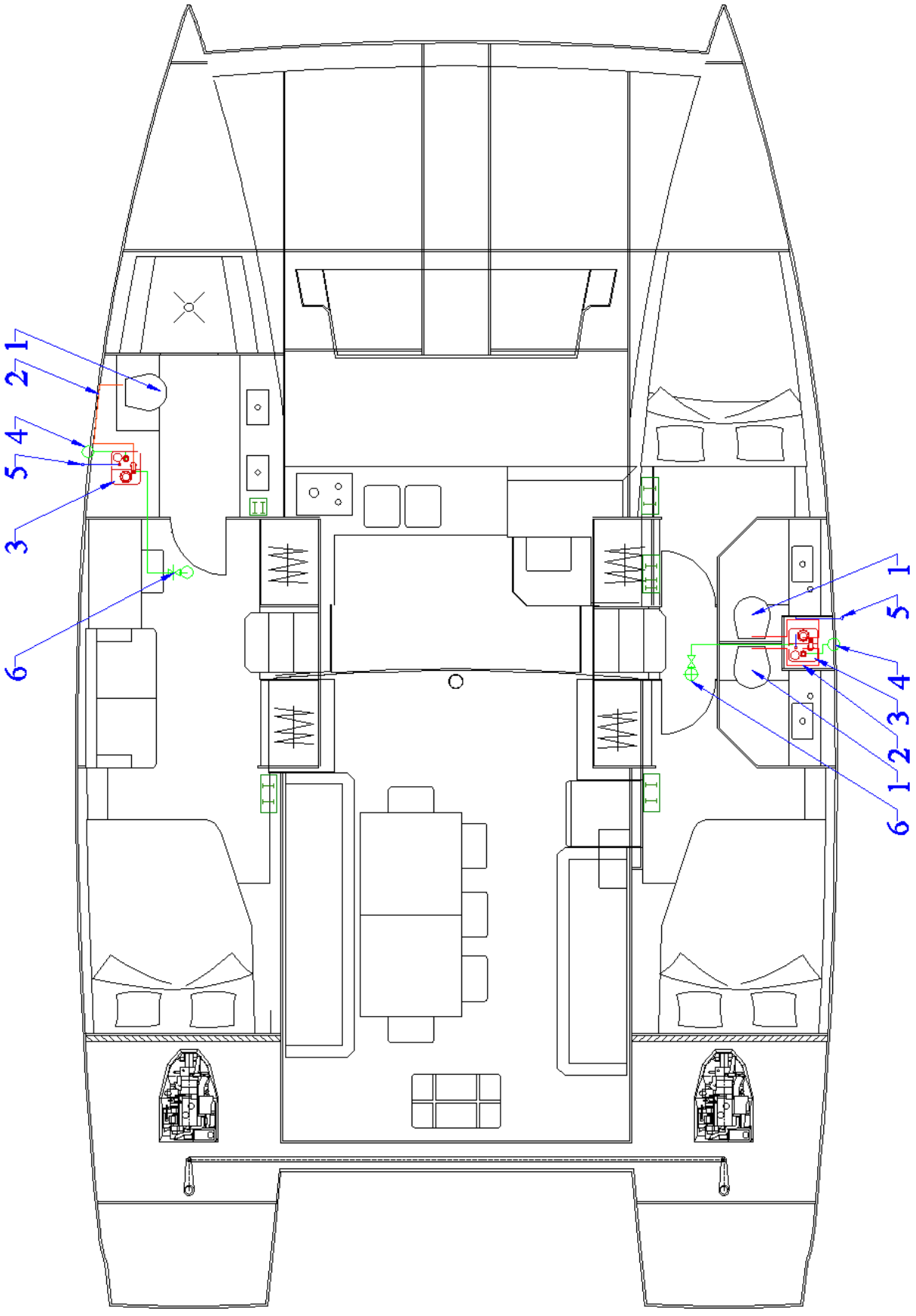
3 cabin, 3 bathroom Version



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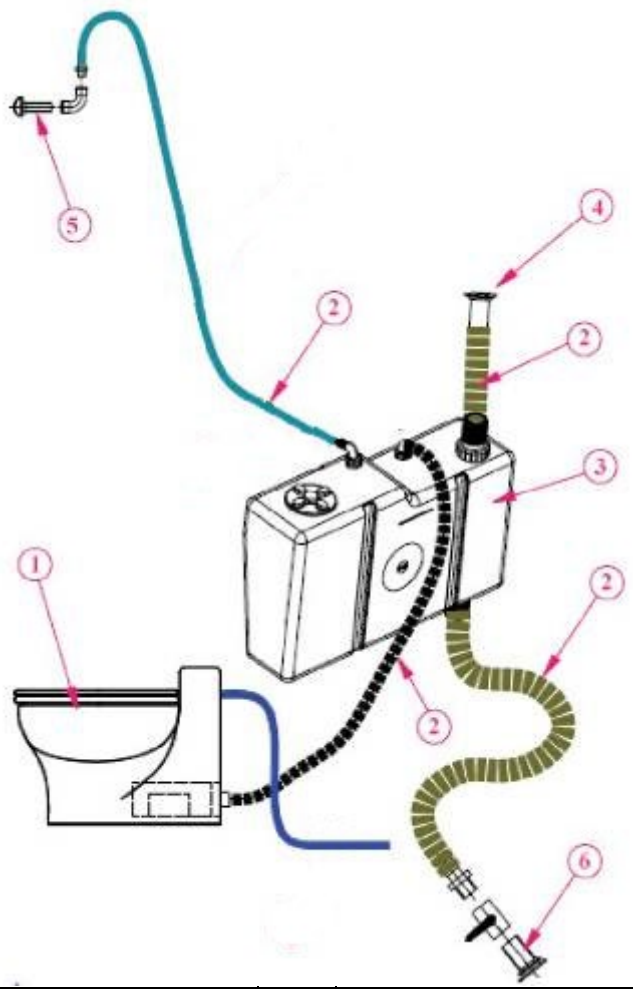
HOLDING TANK		HOLDING TANK	
Rep.	***Désignation***	***Ref.***	***Description***
1	WC	1	WC
2	Tuyau anti odeur	2	Anti-odour hose
3	Holding tank polyéthylène 60L	3	Polyethylene holding tank 60L
4	Nable de pont eaux usées	4	Waste water deck outlet
5	Event	5	Vent
6	Passe coque + vanne	6	Through-hull + valve
7		7	
8		8	
9		9	
10			
*			

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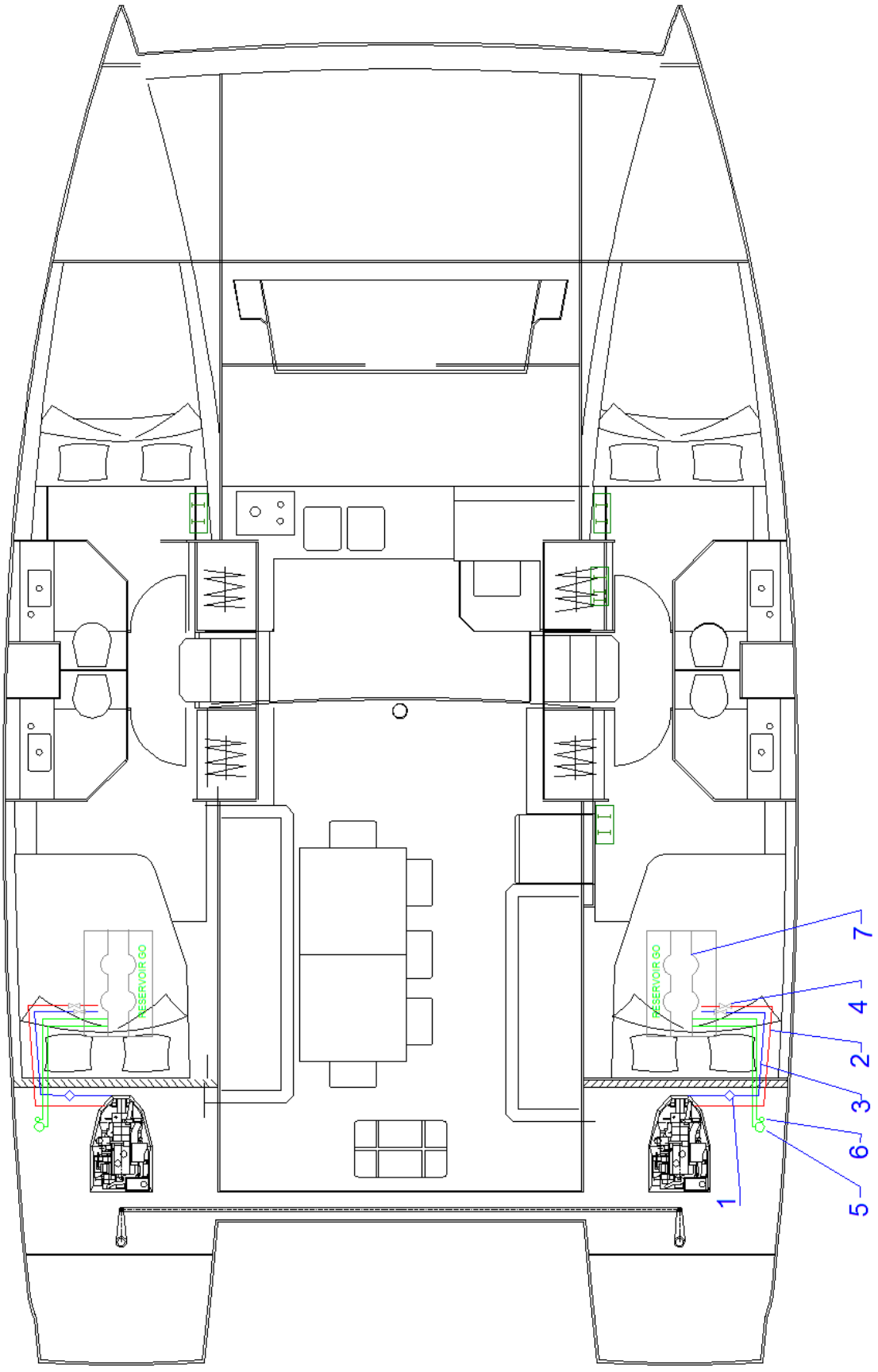

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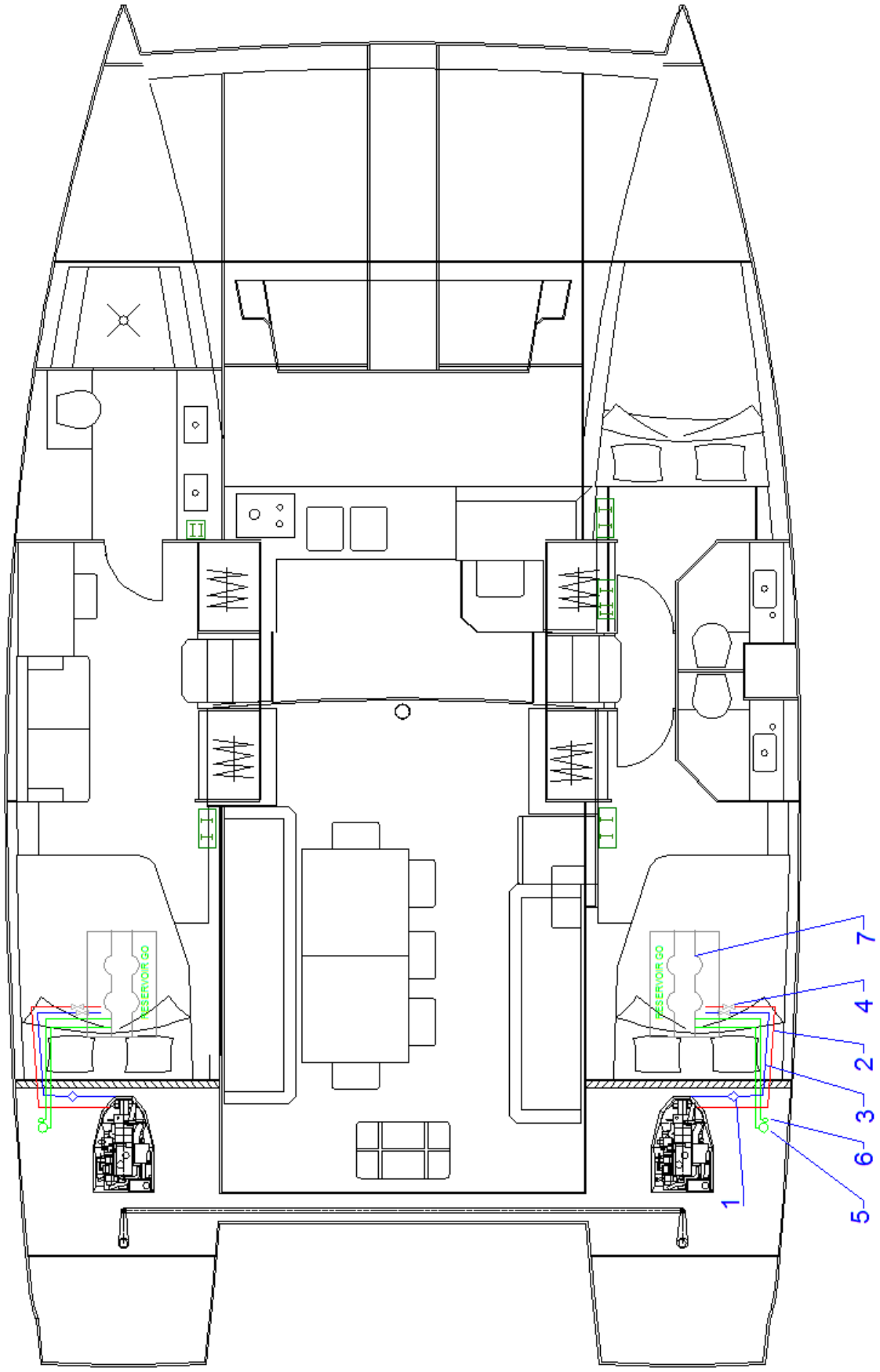
3 cabin, 3 bathroom Version



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CIRCUIT GASOIL		FUEL SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Filtre GO	1	Diesel filter
2	Tuyau de retour moteur	2	Engine fuel return pipe
3	Tuyau d'alimentation moteur	3	Engine fuel feed pipe
4	Vanne de coupure gasoil	4	Diesel shut-off tap
5	Nable de gasoil	5	Diesel filler neck
6	Event	6	Vent
7	Réservoir gasoil	7	Diesel tank
8		8	
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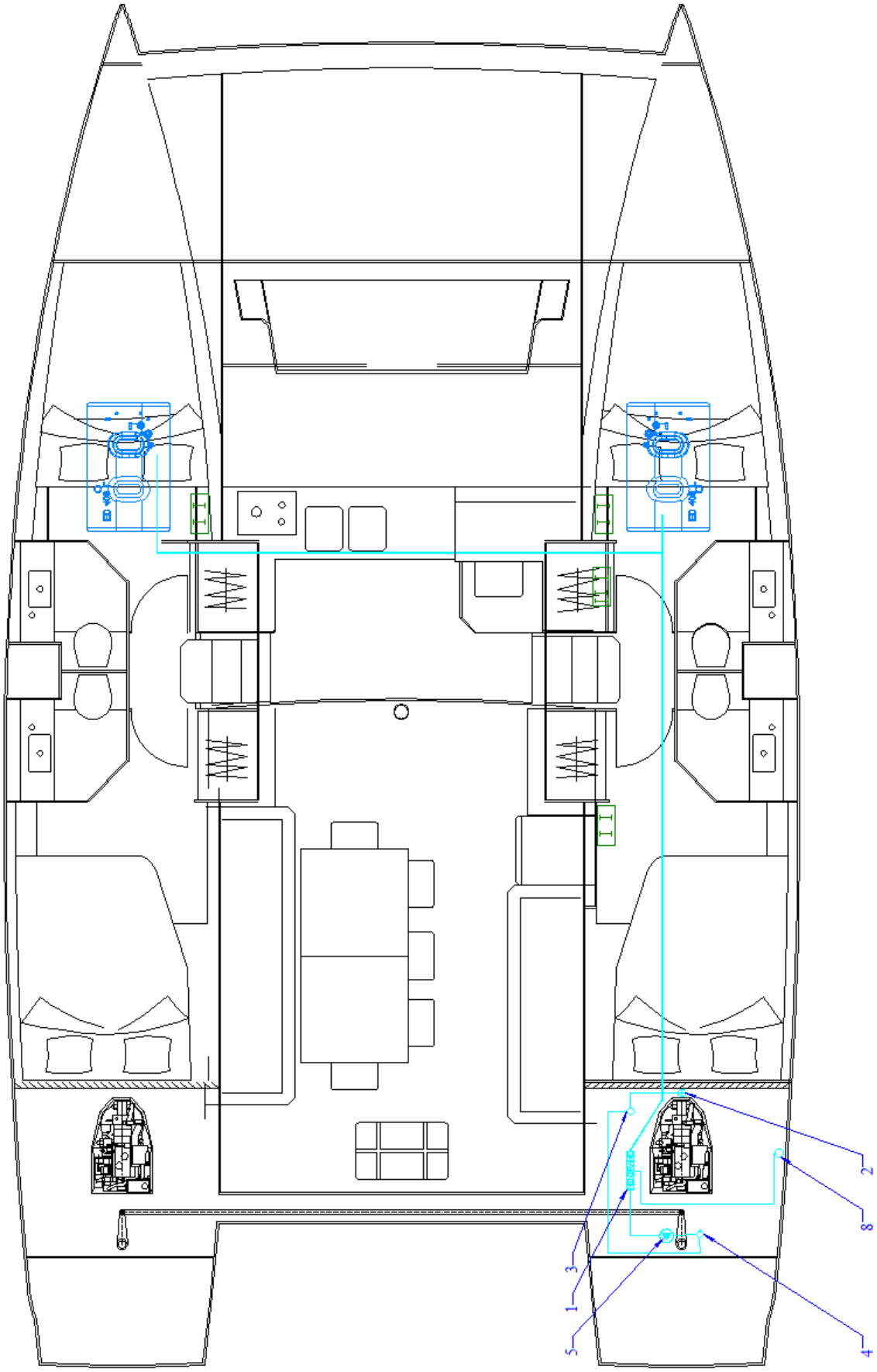

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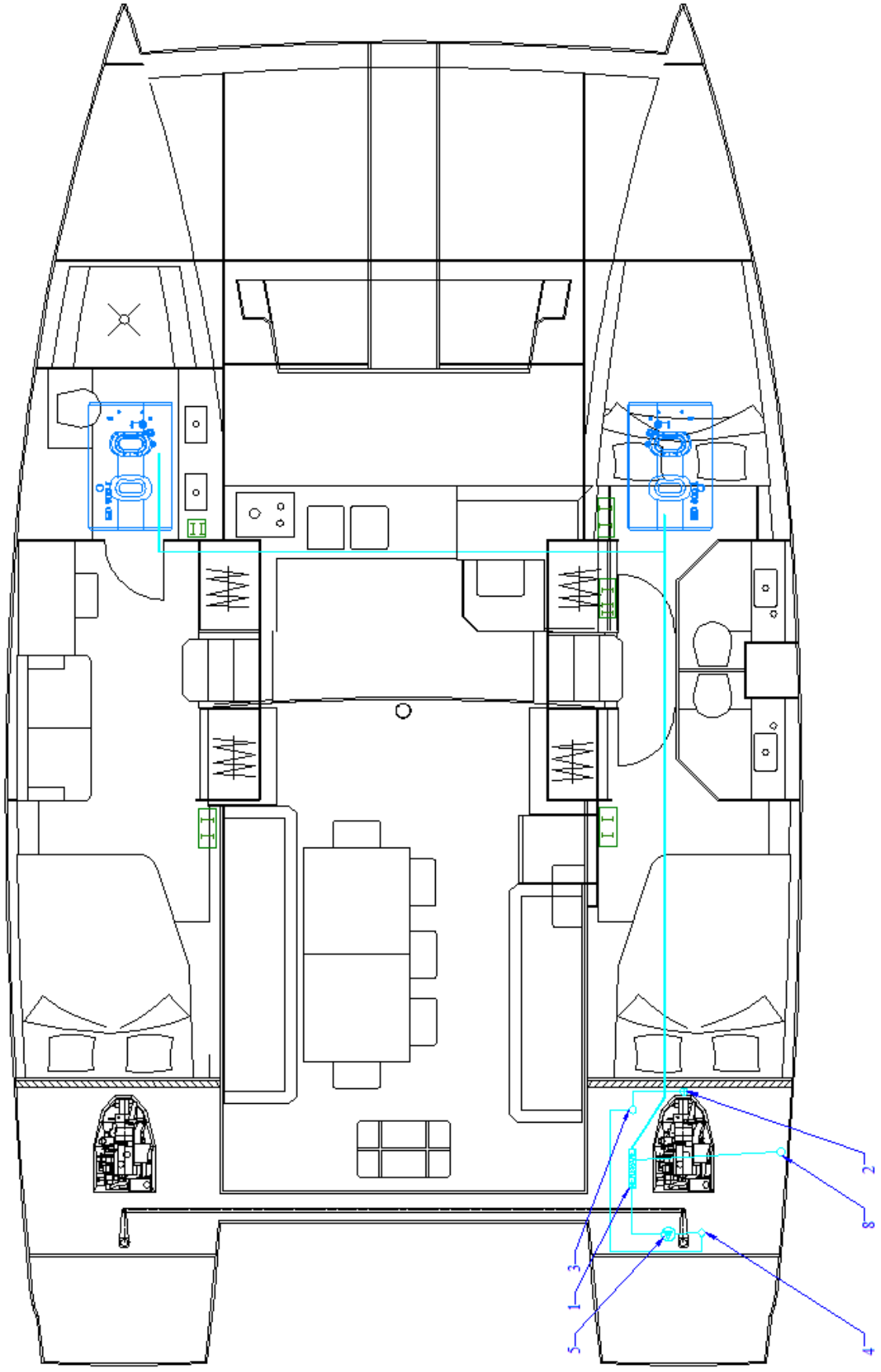
3 cabin, 3 bathroom Version



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	DESSALINISATEUR		
Rep.	***Désignation***	***Ref.***	***Description***
1	Membranes de dessalinisateur		Watermaker membrane
2	Puisage d'eau de mer		Seawater intake
3	Crépine eau de mer		Seawater strainer
4	Filtre eau de mer		Seawater filter
5	Pompe basse pression + pompe haute pression		Low+high pressure pumps
6	Circuit de production		FW production circuit
7	Réservoir eau douce		Fresh water tank
8	Rejet à la mer		Reject brine outlet
9			
10			

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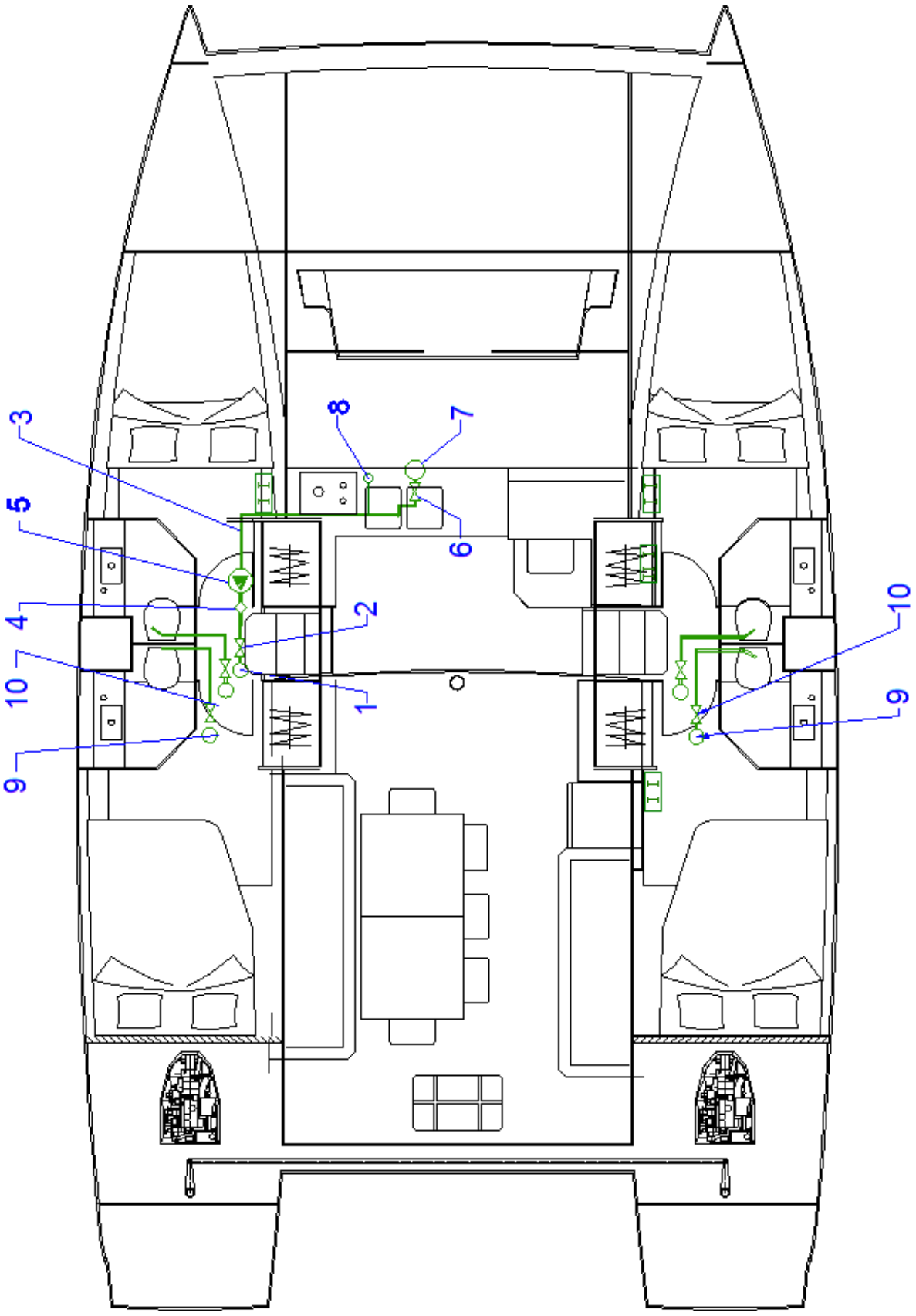
4 cabin, 4 bathroom Version



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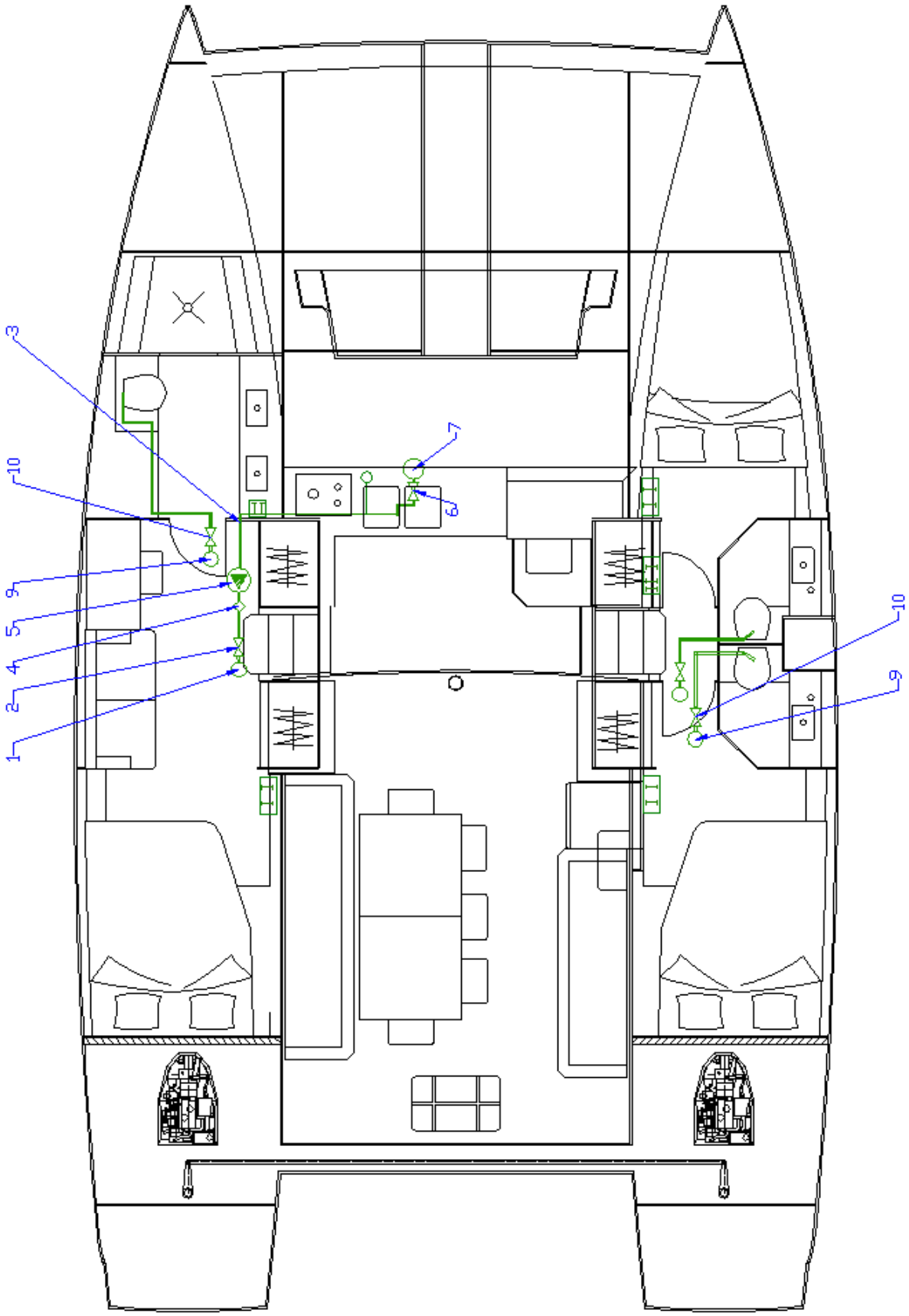
3 cabin, 3 bathroom Version



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EAU DE MER

Rep.	*Désignation*	*Rep.*	*Description*
1	Puisage d'eau de mer	1	Seawater intake
2	Vanne 1/4 de tour de puisage	2	1/4 turn intake valve
3	Réseau eau de mer	3	Seawater circuit
4	Filtre eau de mer	4	Seawater filter
5	Pompe d'aspiration	5	Pressure pump
6	Vanne sortie pied de mat	6	Mast base outlet valve
7	Embout Gardena sortie pied de mat	7	Hosepipe connector mast
8	Robinet eau de mer cuisine	8	Galley seawater tap
9	Passe coque prise eau de mer wc	9	WC water intake thru-hull
10	Vanne eau de mer WC	10	WC seawater valve

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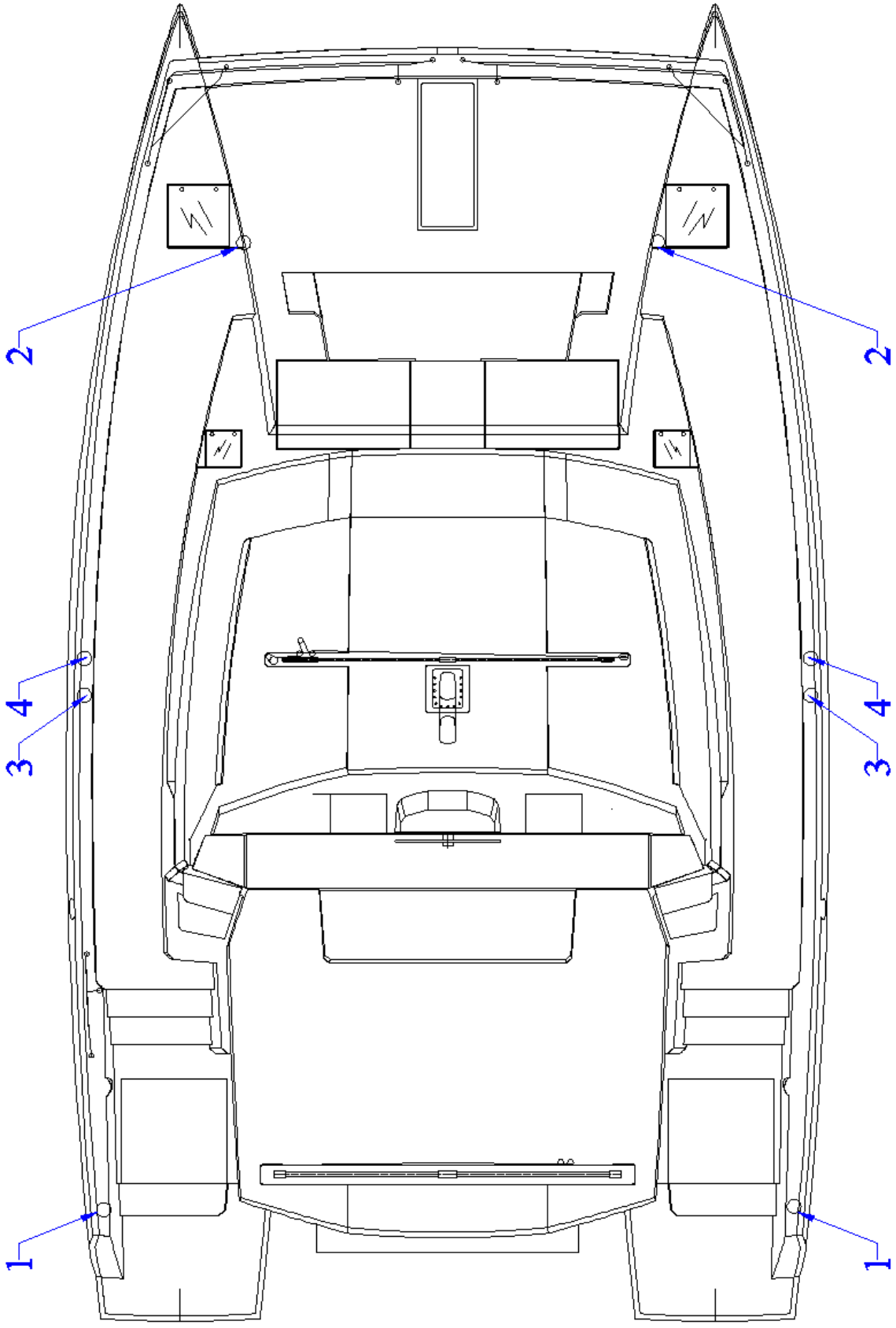

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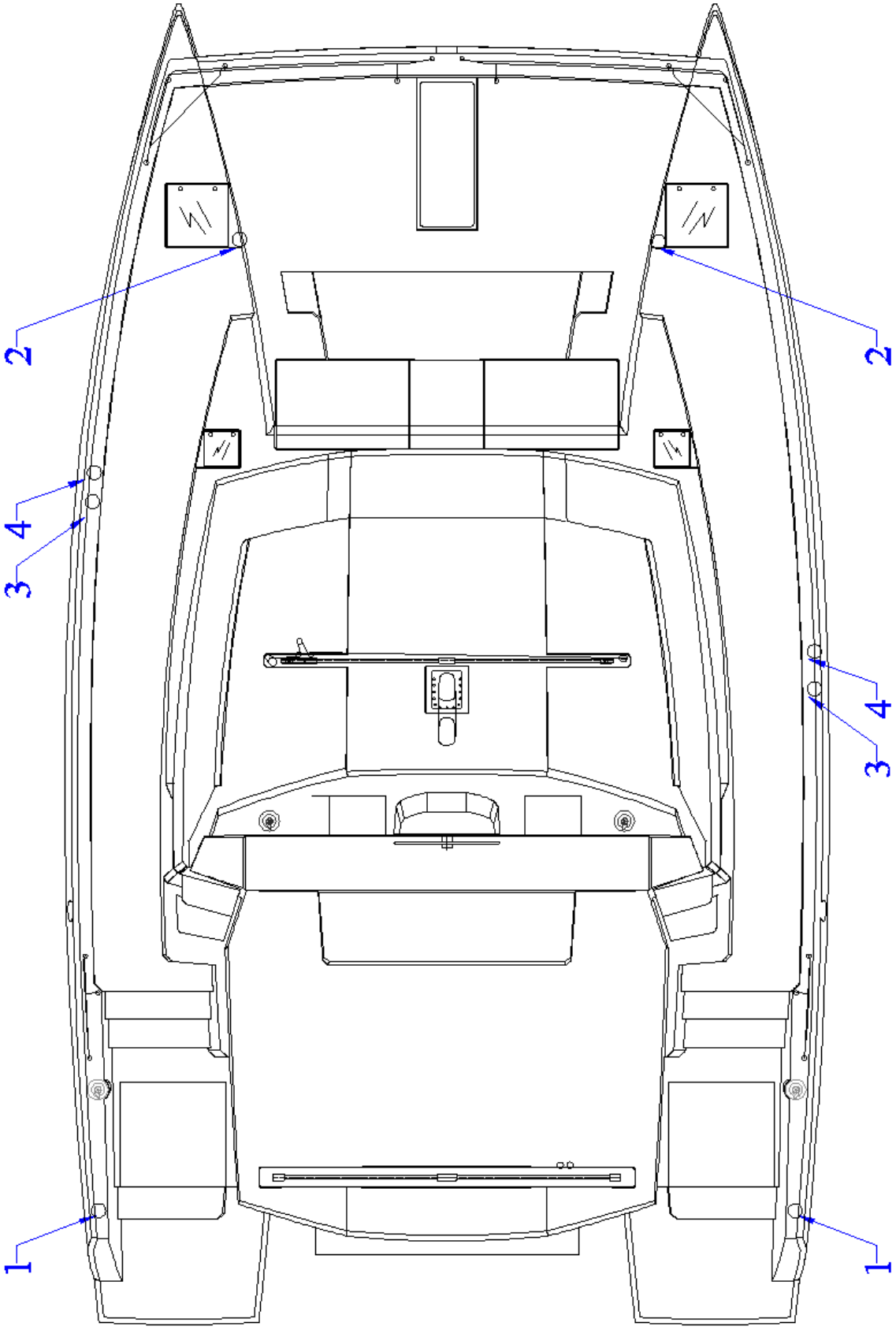

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LOCALISATION DES NABLES		FILLER NECKS	
Rep.	***Désignation***	***Ref.***	***Description***
1	Nable fuel	1	Fuel filler
2	Nable eau douce	2	Freshwater filler
3	Nable eaux grises	3	Grey water outlet
4	Nable eaux noires	4	Black water outlet

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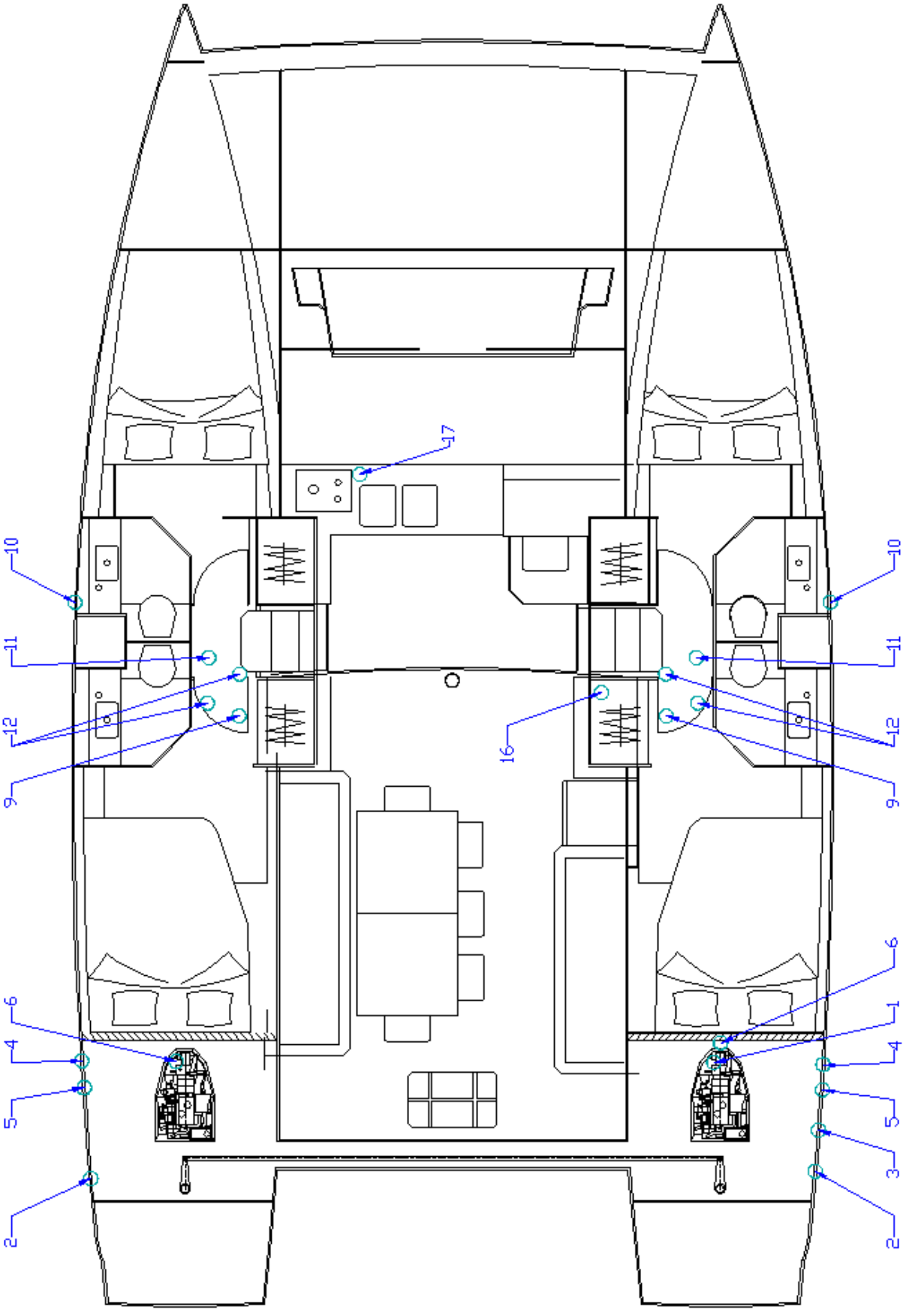

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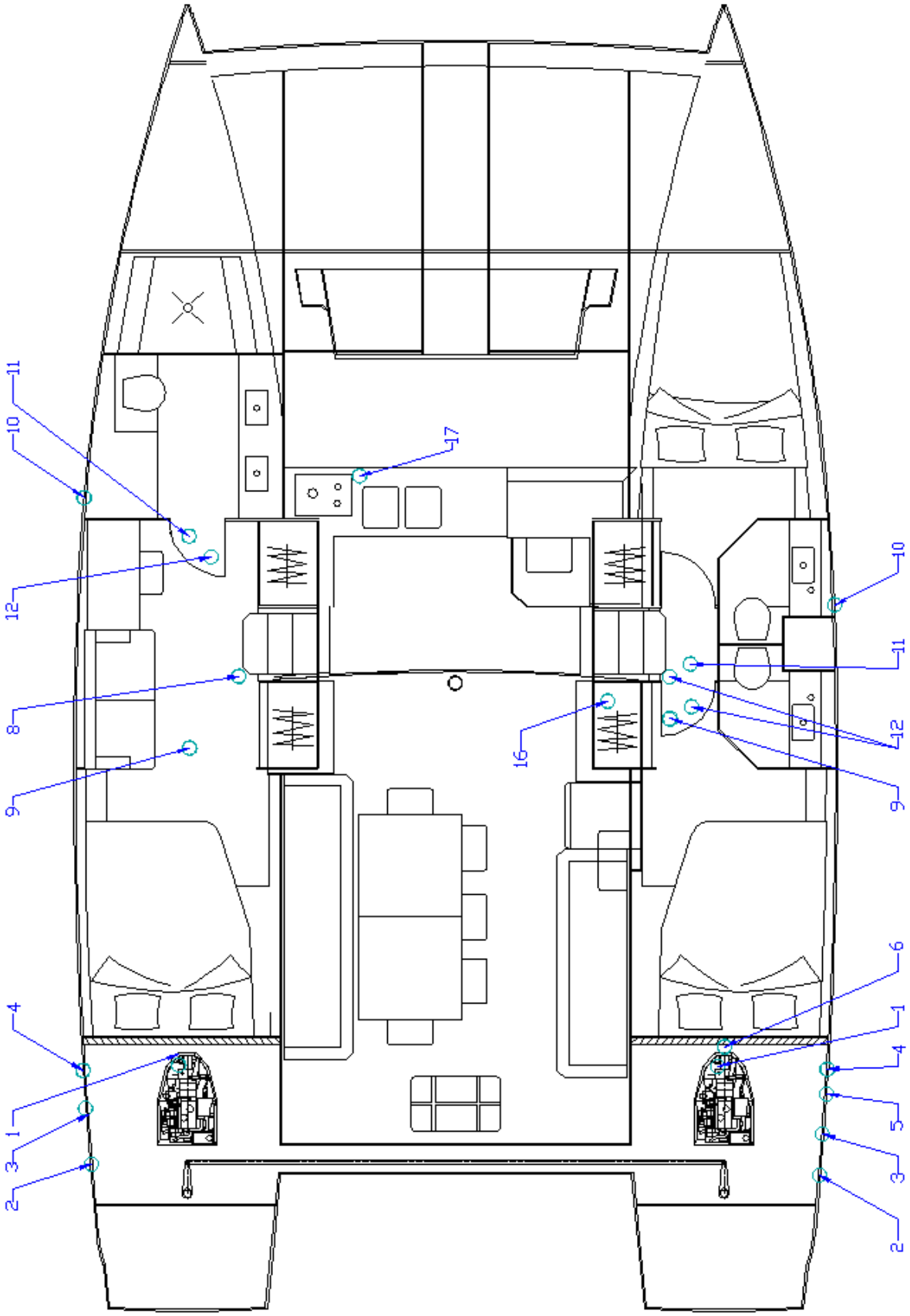

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LOCALISATION DES PASSES COQUE		LOCATION OF THRU-HULL FITTINGS	
Rep.	*Désignation*	*Ref.*	*Description*
1	Prise eau moteur	1	Cooling raw water intake
2	Rejet moteur	2	Engine outlet
3	Rejet pompe de cale manuelle	3	Manual bilge pump outlet
4	Rejet pompe de cale électrique cale moteur	4	Electric bilge pump outlet
		5	Watermaker brine outlet
5	Rejet dessalinisateur	6	Watermaker inlet
6	Prise eau dessalinisateur	7	
7		8	Seawater circuit intake
8	Prise eau circuit eau de mer	9	Grey water outlet
9	Rejet eau grise	10	Passageway pump outlet
10	Rejet pompe de cale électrique coursive	11	Black water outlet
		12	WC flush inlet
11	Rejet eau noire	13	
12	Prise eau WC	14	
13		15	
14		16	Dishwasher outlet
15		17	Galley grey water outlet
16	Rejet lave vaisselle	18	
17	Rejet eau grise cuisine	19	
18		20	
19			
20			

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24. LIST OF DOCUMENTS ENCLOSED

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 the winches**
8. **Hob and oven user manual**
9. **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 option)**
15. **Water heater instructions**

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