Excess 15

OWNER'S MANUAL

C2105R

VERSION 3 - MARCH 2020

CONSTRUCTION NAVALE BORDEAUX

CONTENT

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CONTENT

1

Dear Sir/Madam,

You have just taken delivery of your new Excess, and, first of all, we thank you for the trust you have shown in buying a boat of our brand.

An Excess is made to last: from its design to its construction and eventually to its launching, every boat, including the smallest details, is considered with the very care it deserves in order to ensure you the years of joy you expect.

This manual is intended to help you enjoy your boat in safety. It includes many details about the boat's specifications, the provided or installed equipment and also information on how to use it. Read it carefully and familiarize yourself with the boat before sailing.

This Owner's manual is not a course on safety at sea or good sailing sense. If this is your first boat, or if you are changing to a new type of boat that you are not familiar with, both for your comfort and your safety, we would advise you to obtain some training before taking the helm of your new boat. Your retailer, your national sailing or motor boat federation or your yacht club would be delighted to inform you about the local sailing schools or skilled instructors in the area.

Make sure that the forecast wind and sea conditions match with the build category of your boat, and that you and your crew are capable of sailing your boat safely in such conditions. Even when your boat is suited, the sea and wind conditions corresponding to the build categories A, B and C may vary from heavy storm for the A category to severe conditions for the C category. These situations, during which you may experience exceptional waves and gusts, are therefore dangerous and only an experienced crew, well trained and prepared, is able to sail a boat, provided it is properly maintained.

This Owner's manual is not a course in maintenance and repair. Should you have any difficulty, please contact your builder or representative. If a maintenance manual is provided, do not hesitate to use it.

Always ask an experienced professional to carry out any maintenance on your boat, or to install further accessories or make any modification. Any modifications which may alter the safety specifications of the boat have to be estimated, carried out and documented by qualified people. The builder cannot be held liable for modifications that would not have been approved.

Please note that, in some countries, a sailing license or authorisation is required or specific regulation has to be observed.

Always keep your boat correctly maintained and take into account damage due to time or, if applicable, due to an intensive or inappropriate usage of the boat. Any boat, however solid it may be, may be severely damaged if not sailed properly. This is not compatible with a safe sailing experience. Always adapt the speed and the direction of the boat to the sea conditions.

If your boat is fitted with a life raft, read its user's guide carefully. The crew must have on-board access to all the relevant safety equipment (life jackets, harnesses, etc.) corresponding to boat type, weather conditions, etc. In certain countries this equipment is mandatory. The crew must be familiar with the use of all the safety equipment and with the emergency safety procedures (MOB, towing, etc.); training sessions are held at sailing schools and clubs on a regular basis.

It is recommended that everybody wears appropriate safety equipment (life jacket, individual buoyancy aids) when they are on deck. Please note that, in some countries, always wearing a buoyancy aid in conformity with the local standards has been made compulsory.

The users of this boat are informed that:

- All crew members have to be properly trained;

- Any boat, however solid it may be, may be severely damaged if not sailed properly. This is not compatible with a safe sailing experience. Always adapt the speed and the direction of the boat to the sea conditions.

- Do not sail at maximum speed in areas of dense traffic or in case of reduced visibility, strong winds or high waves. Reduce the speed and the wake of the boat, in respect of others and also as a measure of safety, both for them and for yourself. Respect the speed and wake limits when zones are defined.

- Respect the priority rules set by the navigation regulations and laid down by the COLREG.

- Make sure that you always maintain a sufficient distance to stop or steer the boat in order to avoid a collision.

KEEP THIS MANUAL IN A SAFE PLACE AND PASS IT ON TO THE NEW OWNER IF YOU SELL THE BOAT.

COMMENTS ON HOW TO READ THIS MANUAL

The various warning statements used throughout this guide break down as follows:

DANGER

Warns you about the existence of an extreme hazard that is very likely to induce serious or fatal consequences if the appropriate precautions are not taken.

WARNING

Warns you about the existence of a hazard that may have serious or fatal consequences if the appropriate precautions are not taken.

CAUTION

Warns you about safety practices or draws your attention to dangerous practices that may hurt people or result in damage to the boat, its components or the environment.

ADVICE-RECOMMENDATIONS

Shows a recommendation or a piece of advice to take the appropriate actions or manoeuvres adapted to what you are thinking of doing.

Some information or drawings in this manual may show details that differ slightly from your own boat; all the essential information, however, remains the same. Depending on the requirements, any changes made will appear in the manual's later editions.

As part of our ongoing commitment to the continuous improvement of our products, CNB Excess reserves the right to modify their design, outfitting or equipment as it deems necessary.

For this reason, boat characteristics and details are not contractual and may be modified at any time, with no prior notice and no updating obligation.

This owner's manual has been produced in several languages. French is the reference language and shall prevail.

This owner's manual has been drafted and edited by CNB-Excess. Any full or partial copy, direct or indirect, permanent or temporary, produced by any means and in any format, any any change made to this manual by a third party for commercial gain, is formally prohibited.

2. Specifications

2.1 ■ IDENTIFICATION SHEET OF YOUR BOAT

- MANUFACTURER'S NAME . Construction Navale Bordeaux
- MODEL ..... EXCESS 15
- BUILD CATEGORY..... A
- MAIN PROPULSION ..... sail
- MAXIMUM RECOMMENDED POWER..... 160 CV .....(116 Kw)
- CERTIFYING ORGANISATION NUMBER CE0607

CATEGORY	WAVE HEIGHT (m)	WIND FORCE (BEAUFORT)
A	> 4	> 8
B	≤ 4	≤ 8
C	≤ 2	≤ 6
D	≤ 0.5	≤ 4

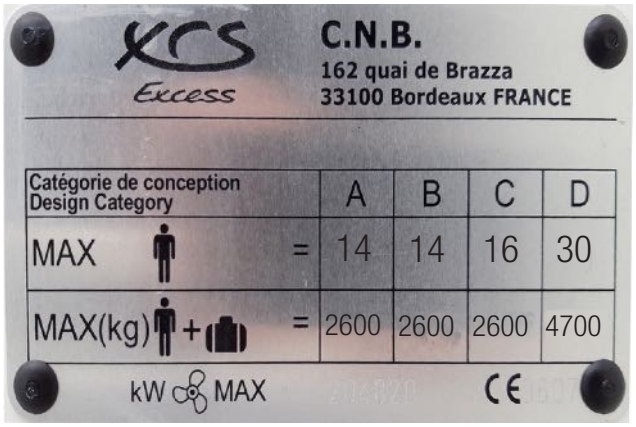
MAXIMUM NUMBER OF PEOPLE RECOMMENDED PER BUILD CATEGORY:

CATEGORY	MAXIMUM NUMBER OF PEOPLE
A	14
B	14
C	16
D	30

WARNING

Do not exceed the recommended maximum number of people. Regardless of the number of people on board, the total weight of people and equipment must never exceed the maximum recommended load.
Always use the seats or seating provided.

2.2 ■ SHIPBUILDER'S PLATE



The manufacturer's plate is attached at the base of the starboard steering wheel.
It must never be removed from the boat.

2.3 ■ DIMENSIONS

LENGTH OF HULL (HL)	14.76 m*
HULL BEAM (HB)	8.10 m*
MAXIMUM LENGTH (maxL)	16.20 m**
MAXIMUM BEAM (maxB)	8.10 m
MAXIMUM ALLOWABLE DRAUGHT	1.40 m
MAX. AIR DRAUGHT - UNLADEN BOAT	27.90 m

* According to ISO 8666.
** including optional bowsprit.

2.4 ■ LOAD

M_{LC}	Unladen boat weight (kg)	19056
M_{MO}	Sailing at the minimum sailing requirement (kg)	19492
M_{LDC}	Maximum load displacement cat. A (kg)	27013
	Maximum load cat. A (kg)	7957

Maximum load displacement (ISO 12217)

Category A	Category B	Category C	Category D
27013 kg	27013 kg	27013 kg	27833 kg

REAL LOAD CAPACITY (ISO 14946)

Category A	Category B	Category C	Category D
3966 kg	3686 kg	3676 kg	4786 kg

MAXIMUM RECOMMENDED LOAD = maximum load displacement - unladen vessel

The recommended maximum load includes the weight of all the people on board, all the supplies and personal belongings, and all the equipment not included in the unladen vessel weight.

TOTAL WEIGHT OF LIQUIDS: 1360Kg (fuel + fresh water)

WARNING

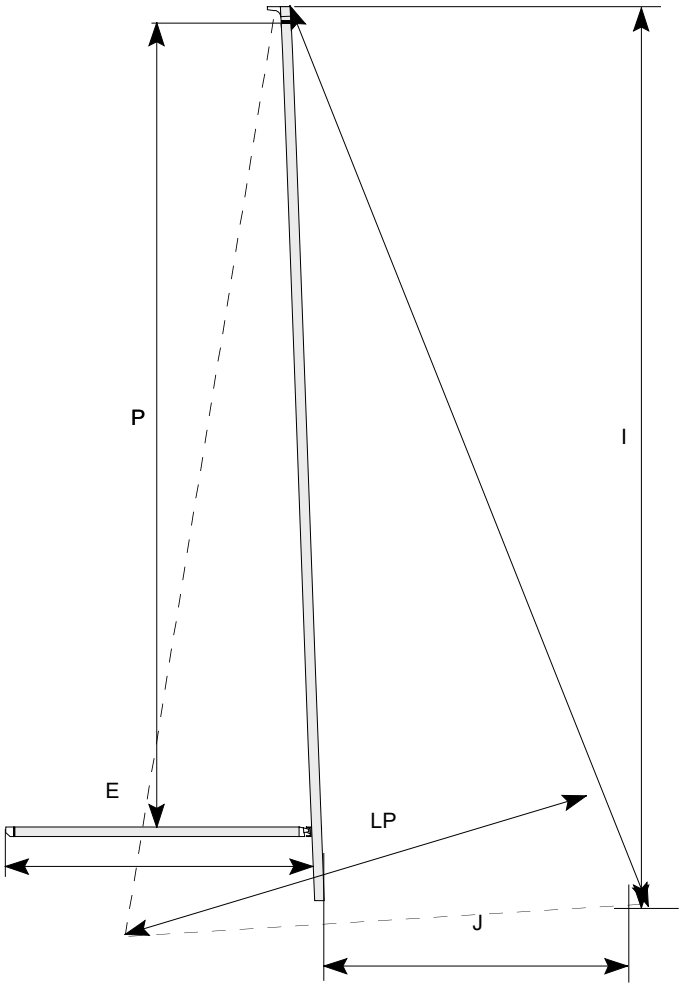
When loading the boat, never exceed the maximum recommended load.
You should always load the boat with care and distribute the loads in the best possible way to preserve the theoretical trim (more or less horizontal). Avoid placing heavy loads in the upper storage space.

2.5 ■ RIGGING AND SAILS

2.5.1 ■ Sail characteristics

Standard aluminium mast

SAIL	SURFACE AREA		Standard	Pulse line
STANDARD MAINSAIL	104.5 m²	I	19.215 m	20.824 m
PULSE LINE MAINSAIL	112.25 m²	J	7.228 m	7.228 m
STANDARD JIB	55 m²	P	22.198 m	23.653 m
PULSE LINE JIB	59.35 m²	E	5.895 m	5.895 m
STANDARD CODE 0	117 m²			
PULSE LINE CODE 0	127 m²			



2.5.2 ■ Maintenance of the rigging

ADVICE-RECOMMENDATIONS

Regularly check the standing and running rigging, at least once a year.

Regarding metal cables:
- Have them changed as soon as the first "rust-spot" appears.
- Check for corrosion, particularly at connections with the turnbuckles.
- Check that the end fittings and the turnbuckles are in good condition.

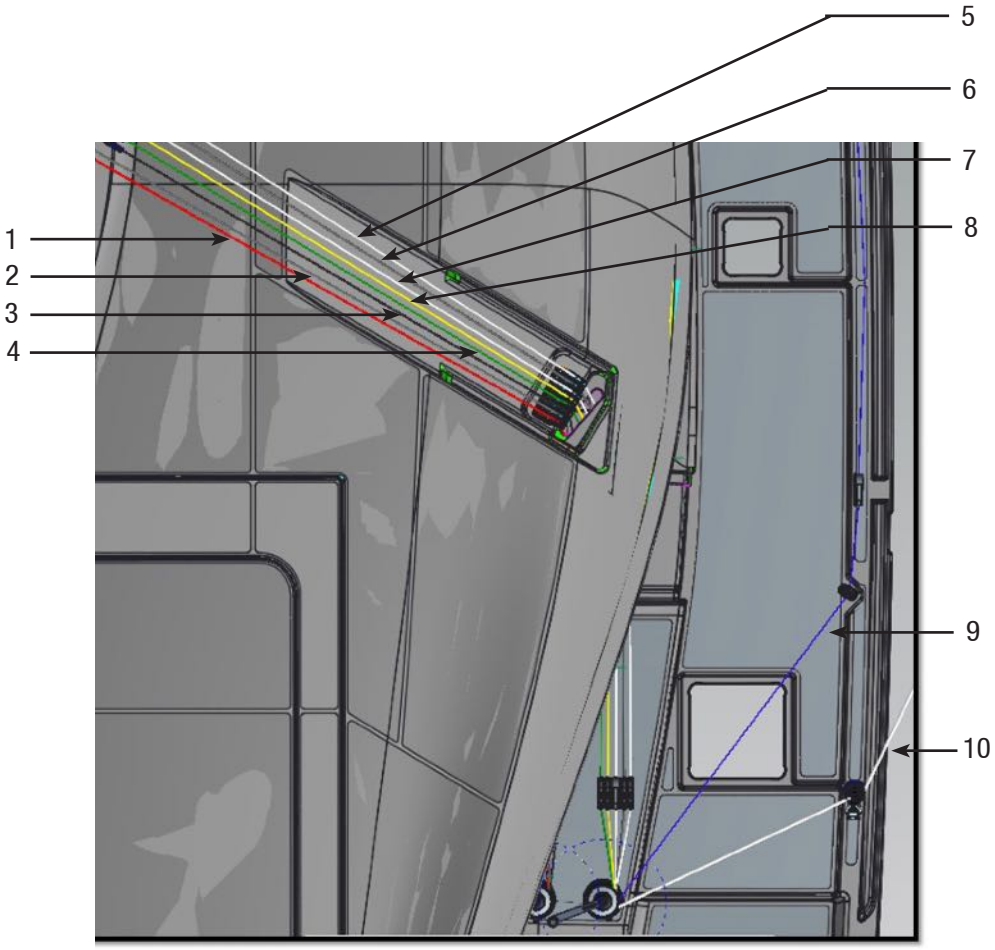
Regarding synthetic ropes of backstays, halyards, sheets, mooring lines, etc.:
- Have them changed as soon as the first signs of wear and tear or chafing appear.
- Check the other parts of the rigging, sheets, mooring lines, etc. on a regular basis, and replace them if they show signs of wear and tear.

Plan:
ROD:
- Revision every 5 years (change Rod and re-use parts) or 40,000 miles with adjustment of the mast by qualified persons.
- Complete change (rod+parts) every 10 years or 80,000 miles - have the mast adjusted by qualified professionals.

CABLE:
- Complete replacement of cables every 10 years or 50,000 miles with mast adjustment by a professional.

KEVLAR:
- Replacement every 6 years or 35,000 miles provided that the sheaths are completely intact with mast adjustment by a professional.
- If the fibre is compromised by sunlight, replace immediately.

2.5.3 ■ Mast handling diagram



1 - Reef 1.
4 - Reef 2.
2 - Mainsail sheet.
3 - Reef 3.
5 - Self-tacking jib sheet.
6 - Jib halyard.
7 - Mainsail halyard.
8 - Topping lift.
9 - Jib furler.
10 - Code 0 sheet.

SHORTENING THE SAILS

CAUTION

Any adjustment differing from these instructions may cause the mast to rupture. IN PARTICULAR, THE USE OF A 100% GENOA WITH 2 REEFS IN THE MAINSAIL IS PROHIBITED.

apparent wind angle | AWA : 30-70°				apparent wind angle | AWA > 70°			
apparent wind (knots)	mainsail	jib	code 0	apparent wind (knots)	mainsail	jib	code 0
0-5	full sail	0%	full sail	0-16	full sail	0%	full sail
0-23	full sail	full sail	0%	0-20	full sail	full sail	0%
23-28	reef 1	full sail	0%	20-24	reef 1	full sail	0%
28-33	reef 1	75%	0%	24-30	reef 2	75%	0%
33-38	reef 2	60%	0%	30-34	reef 3 |0%*	60%	0%
38-45	reef 2	40%	0%	34-38	reef 3 |0%*	40%	0%
45-55	reef 3 |0%*	0%	0%	38-50	0%	25%	0%
> 55	0%	0%	0%	> 50	0%	0%	0%

* 0% if mainsail with 2 reefs

This information is given for reference only and is to be adapted according to external conditions.

- The manufacturer's recommended sail plan is shown on a label on the helm station.
- The skipper must take account of this information in order to prevent any risk of dismasting or capsizing.
- The skipper is solely responsible for deciding how to set the sails according to apparent wind and sea conditions, in order to ensure safe sailing.
- While it is possible to sail windward under power, it is prohibited and dangerous to sail upwind using only the engine.

3. Safety

3.1 ■ RISK OF FIRE OR EXPLOSION

3.1.1 ■ Risks

The main risks are related to the propulsion system (§ 4.1) and the electrical system (§ 4.4).
Please refer to the appropriate sections.

3.1.2 ■ Fire fighting equipment

Portable extinguishers: to be provided by the owner;
You are responsible for enforcing compliance with the national legislation of the flag under which you are sailing. The boat, when sailing, must be fitted with portable extinguishers.

DANGER

Before unloading, cut the engines and the fans.

ADVICE-RECOMMENDATIONS

We advise you to provide at least 1 extinguisher within 5 meters of each berth, within 2 meters of the engine compartment's extinguisher access port, within 2 meters of every appliance using a naked flame and, eventually, 1 extinguisher within 1 meter of the helm station. We recommend a total capacity of at least 8A/68B for all portable extinguishers, each of them with a minimum capacity of 5A/34B. CO2 extinguishers must be used for kitchen or electrical fires.

The boat is delivered without portable fire extinguishers for engines, generator and installations.

Be sure:
- To fit the boat with extinguishers in compliance with the regulations of the country where your boat is registered.
- To have the extinguishers checked in accordance with the instructions given.
- To refill or replace the extinguishers with similar equipment if the extinguishers have been used or are out of date.
- Make sure that the extinguishers are accessible when people are on board.
- To protect the deck, the owner/user of the boat must provide at least 1 fire bucket fitted with its lanyard, to be stored where it is readily to hand.

Before making any sea trip, show the crew:
. Where the extinguishers are and how they work,
. Where the emergency exits are.

ESSENTIAL RULES OF PRUDENCE
Never:
- Obstruct access to the emergency exits.
- Obstruct safety controls (fuel valves, gas valves, power switches).
- Obstruct the access to the extinguishers placed in cupboards or lockers.
- Leave the boat unattended when a stove or heater is in use.
- Use gas lamps in the boat.
- Alter any of the boat's systems (electricity, gas or fuel).
- Fill up a tank or change a gas bottle when an engine is running or a stove or heater is on.
- Smoke while handling fuels or gas.

Do not install free hanging curtains or any other textile next to or over cooking appliances or any other naked flame devices.

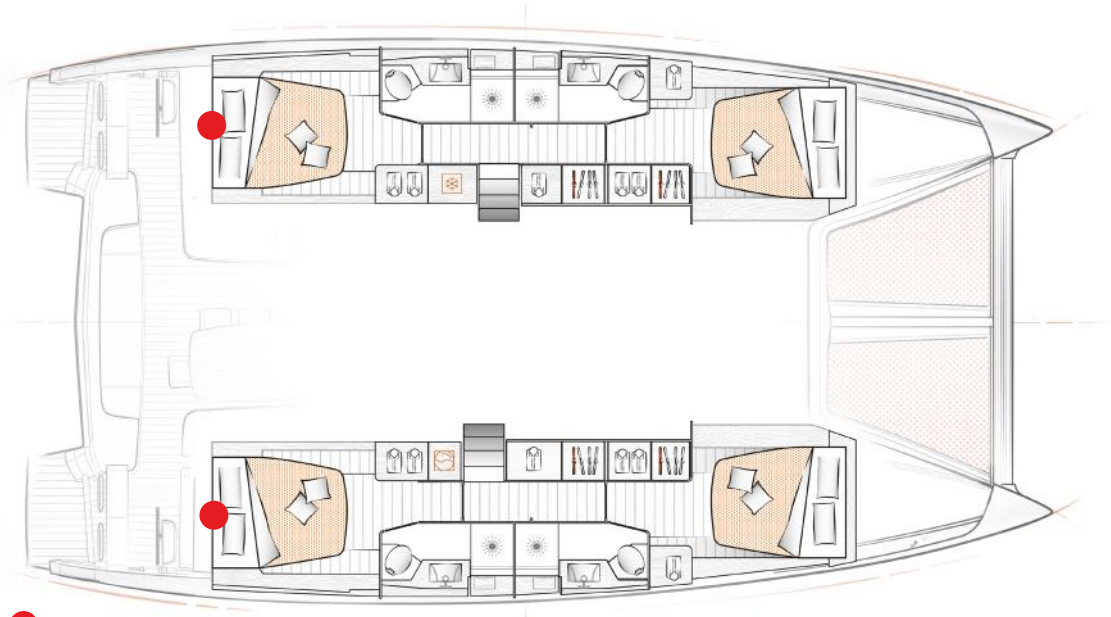
Make sure that the bilges remain clean, and check regularly that there are no fumes or leaks of fuel and gas.
Flammable products should not be stored in the engine room. Non-flammable products stored in the engine room should be fastened to prevent them from falling on the engines and obstructing access.

Operating instructions for the fire-fighting system:
In the engine compartments:
- Ensure that all persons have evacuated the engine compartment concerned.
- Check that the access to this area are closed.

1 - Switch off the ventilation to the engine compartment concerned.
2 - Shut off the engine fuel supplies.
3 - Remove the mattresses from the beds of the aft cabins.
4 - Remove the partition plugs.
5 - Operate the fire extinguisher through the hole in the partition.

In the generator compartment:
- Make sure that all persons have evacuated the engine compartment.
- Check that the access to this area are closed.

1 - Shut off the generator fuel supplies.
2 - Open the forward cockpit port hood (generator room).
3 - Operate the fire extinguisher in the generator compartment.



Location of fire extinguisher access ports.

Portable fire extinguisher with nozzle + hose to prevent the cylinder being placed horizontally.

CAUTION

Have fire fighting equipment checked on a regular basis, according to the frequency indicated on the equipment.
Replace any portable fire fighting equipment that has passed its use-by date or that has been discharged, with devices of an identical or superior extinguishing capability.

EQUIPMENT LOCATION

Portable extinguishers and fire blankets (not supplied)

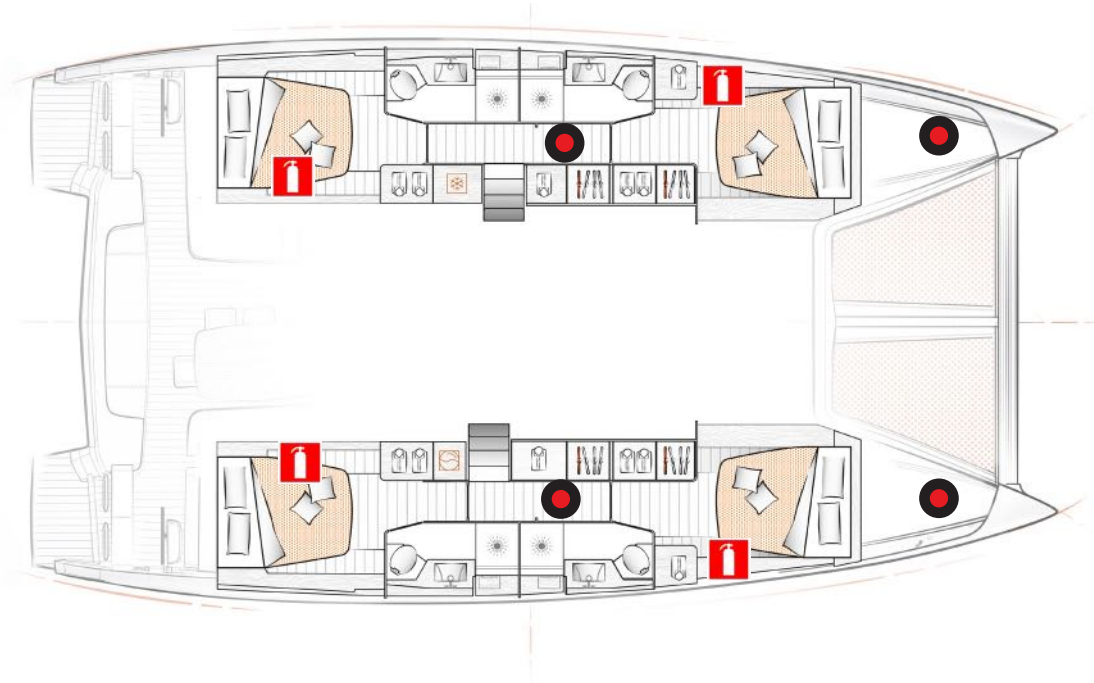
When in service, this boat must be fitted with portable extinguishers that have minimum extinguishing capabilities of 5A/34B, located immediately next to the helm stations and at the locations described below.

Portable extinguisher locations are shown on the following pictogram:

When in service, this boat must be fitted with a fire blanket designed to protect the cooking appliance and/or kitchen, installed at the following location: close to the cooking appliance.
Where required as indicated in Table 1, a fire blanket conform to EN 1869 must be placed within easy reach of all naked flame cooking appliances or fryers, so as to be easily available in the event of fire.

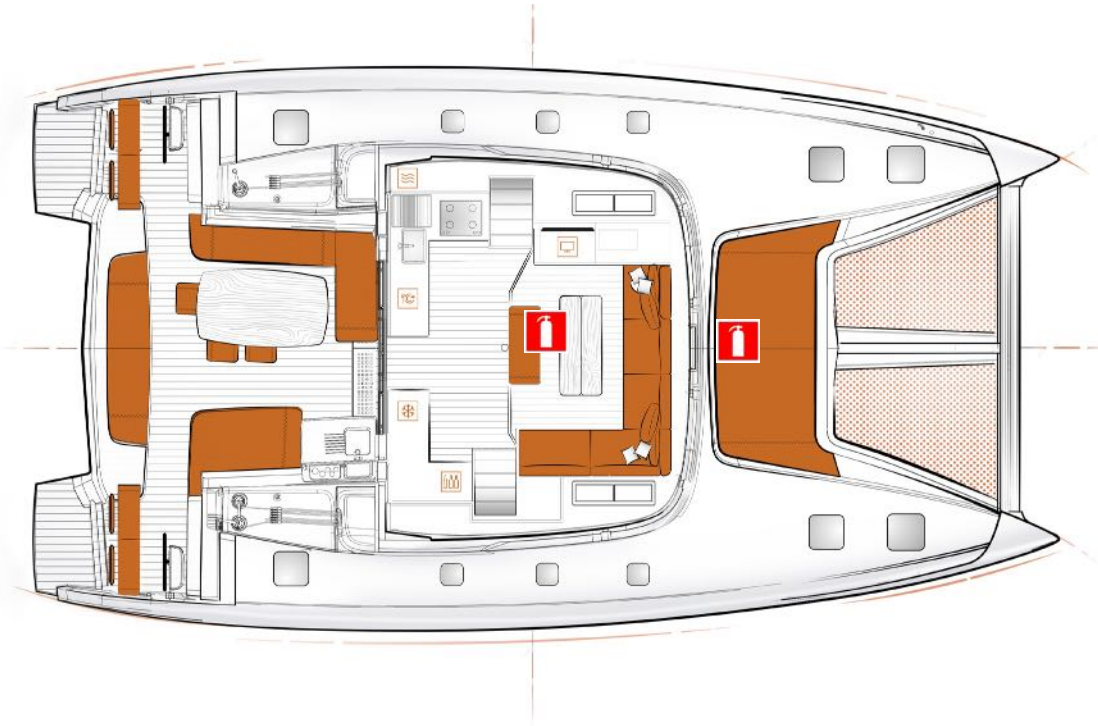
The fire blanket must be readily accessible and available for immediate use.

The information on fire blankets must be conform to Annex B.

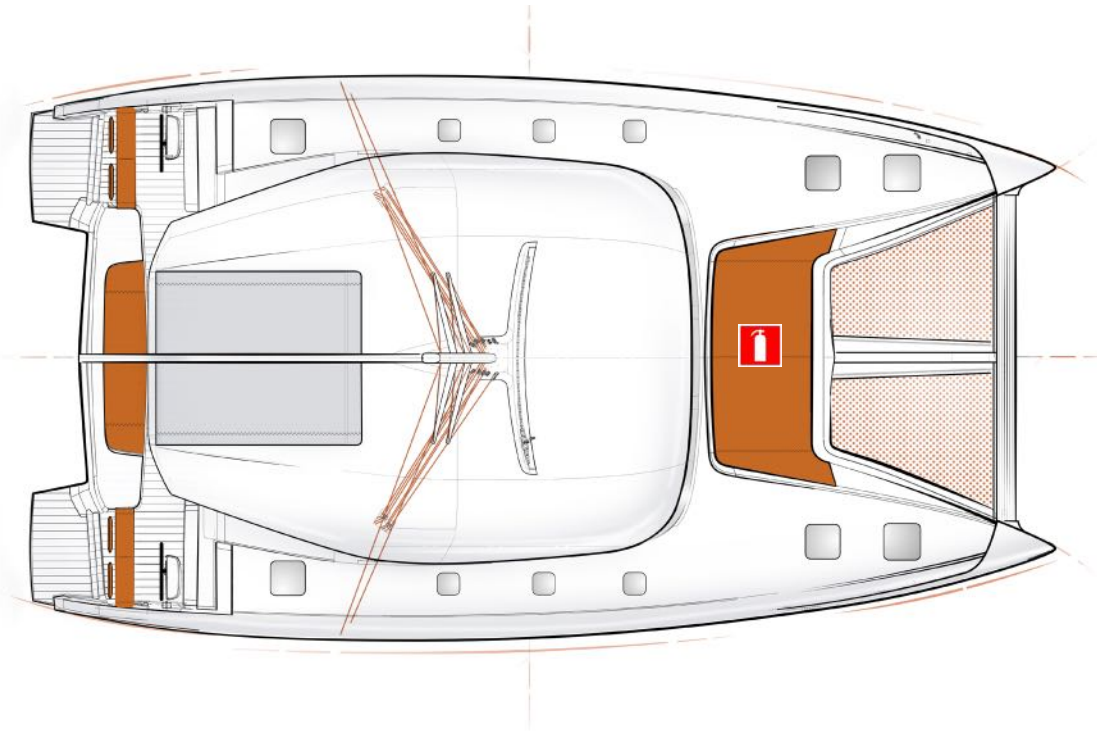


Recommended location to install the fire extinguisher.
The door of the closet or the opening part of the confined space must feature the appropriate ISO symbol.

Location of smoke detectors (one for each enclosed area).

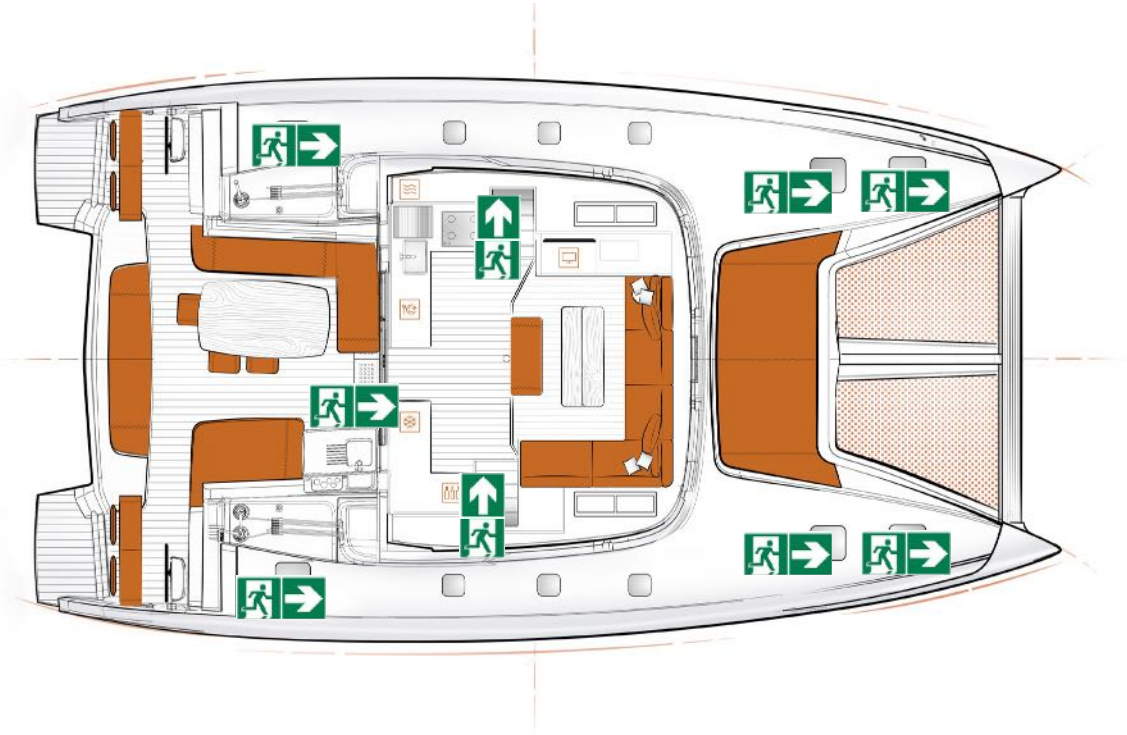


Recommended location to install the fire extinguisher.
The door of the closet or the opening part of the confined space must feature the appropriate ISO symbol.



3.1.3 ■ Emergency exits

The recommended emergency exits are indicated on the diagram below:



Emergency exit

Emergency panel

The EXCESS 15 emergency exits are as follows:
- Main bay window
- Forward deck panel (access via stainless steel rungs on partition)
- Forward starboard cockpit deck panel (access via removable step on the berth)
- Forward port cockpit deck panel (access via removable step on the berth)
- Aft starboard cockpit deck panel (access via removable step on the berth)
- Aft port cockpit deck panel (access via removable step on the berth)

3.1.4 ■ General points

- Do not install free hanging curtains or any other textile next to or over cooking appliances or any other naked flame devices.
- Make sure that the bilges remain clean, and check regularly that there are no fumes or leaks of fuel and gas.
- Do not store flammable products in the engine compartment.
- Do not leave the boat unattended when using cooking and or heating devices.
- Do not smoke while handling fuels or gas.

- Make sure that fire fighting equipment can be reached easily when people are on board.

Inform the crew of:
- the location and operation of fire fighting equipment.
- the location of discharge outlets in the engine compartment.
- the location of routes and exits.

- Should you replace components of the fire extinction system, only proper components with the same designation or with equivalent technical capacities and fire resistance should be used.
- Any non-flammable products kept in the engine compartment must be stored in such a way that they cannot fall on the machinery, or block the entrance or exit of the engine compartment.
- Do not block the passageways leading to exits, or the hatchways.
- Do not block safety controls such as: fuel stopcocks, gas valves, electrical system switches.
- Do not block the access to the portable extinguishers stored in the cupboards.
- Do not use gas lamps in the boat.

- Do not alter any equipment on board (especially the electrical, fuel and gas systems) nor allow unqualified people to alter any of the boat's equipment.
- Do not fill up the fuel tanks or replace the gas bottles when the engine is running or when cooking or heating devices are in use.

Fire fighting equipment maintenance

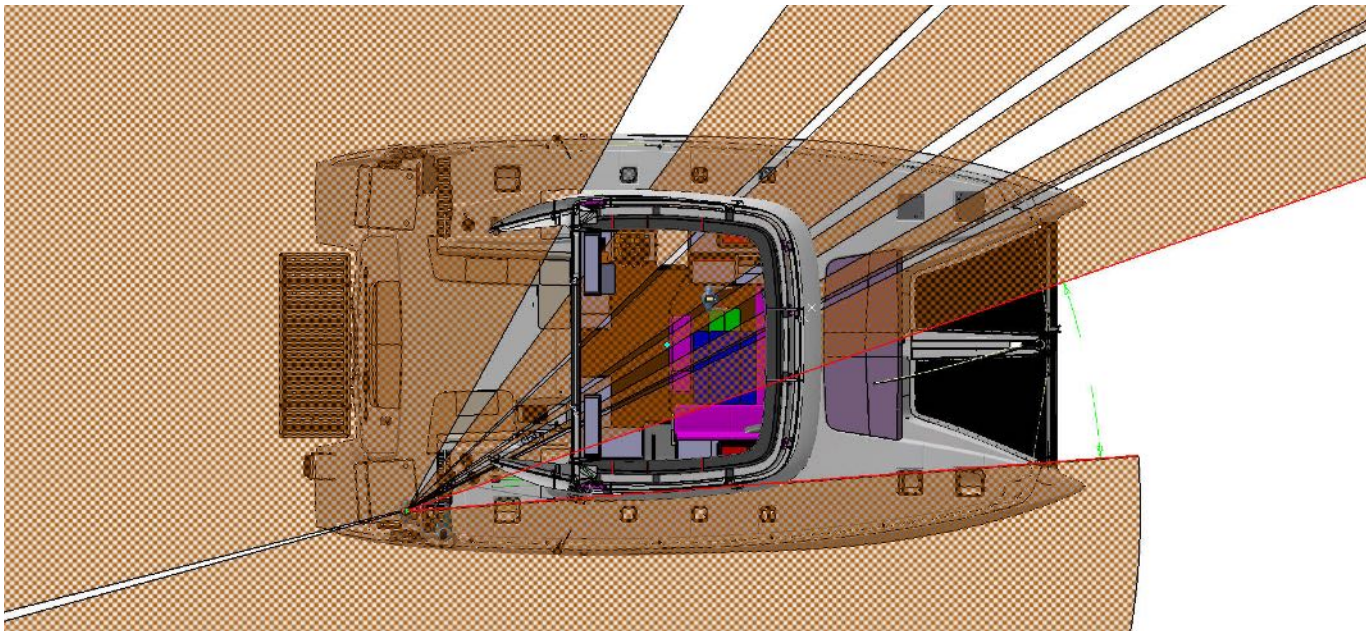
The owner / user is responsible for:
- Having fire fighting equipment checked on a regular basis, according to the frequency indicated on the equipment.
- Replacing any portable fire fighting equipment that has passed its use-by date or that has been discharged, with devices of an identical or superior extinguishing capability.
- Having any fixed extinguishing systems that have passed their use-by date or that have been discharged, filled up or replaced.

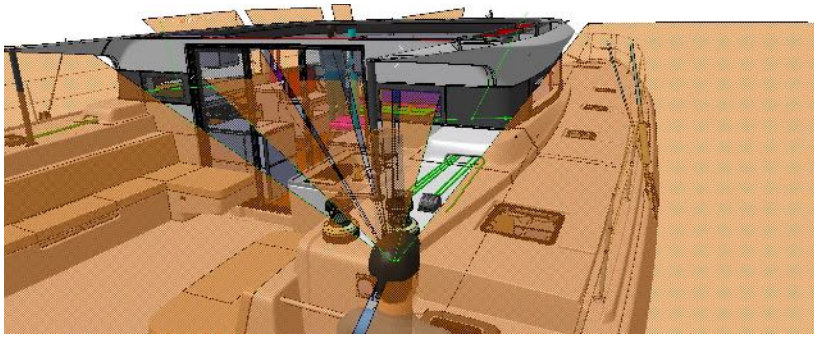
3.2 ■ Visibility

Visibility from the command post may be hindered because of extreme leaning due to the boat's trim or due to other factors linked to one or several of the following conditions:
- Load and load distribution
- Speed
- Sea conditions
- Rain and spray
- Darkness and fog
- Lights on inside the boat
- Position of the upper and lateral awnings
- Non-fixed persons or equipment located in the helmsman's field of view
- In motor-driven boats, rapid acceleration or transition from drive-limit to hydroplaning
- Angle of the trim regulator with regard to the engine (for the boats equipped)
- Angle of the trim regulator with regard to the hull (for the boats equipped)
- Sailing heel, the sails reducing visibility leeward (genoa, staysail, code 0, spinnaker).

The internal regulations governing the prevention of collisions at sea (COLREG) and course regulations require permanent and proper supervision and the observance of priority. Compliance with these rules is essential.

VIEWING ANGLES WITHOUT THE SAILS





3.3 ■ STABILITY, DANGER OF INFILTRATION

3.3.1 ■ Openings in the hull

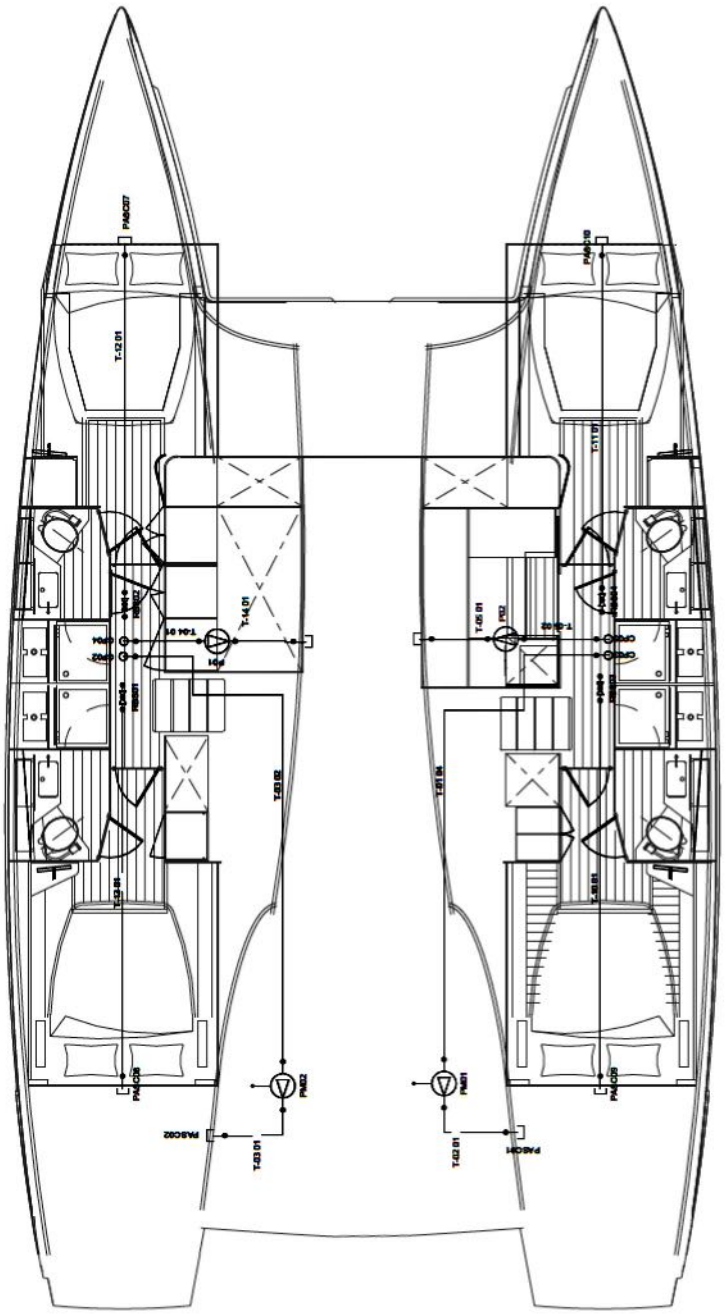
CAUTION

While sailing, keep every porthole, window and removable door closed.

CAUTION

Keep hull valves, cockpit drain valves, drain holes and other opening/closing systems in the open or closed position, as necessary, in order to minimise risks of infiltration.
Where necessary, provide the use instructions for this equipment.

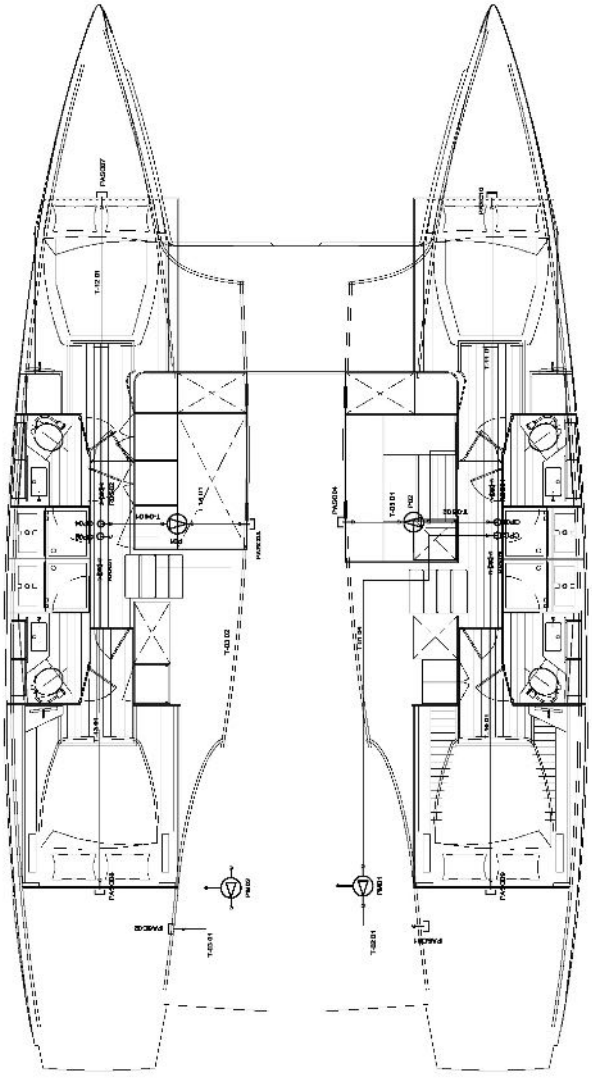
VALVES AND SEA-COCKS FITTINGS

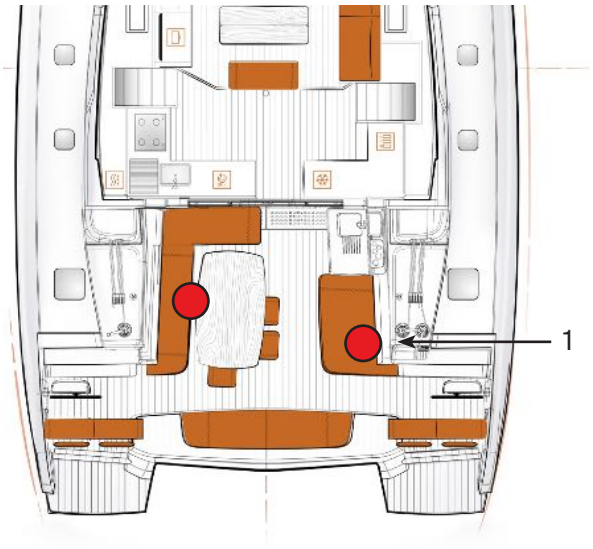


3.3.2 ■ Bilge and Drainage Pumps

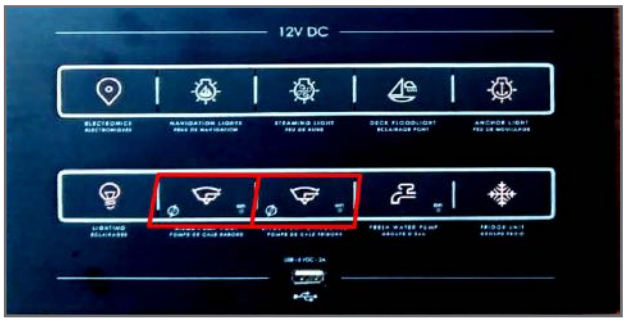
The EXCESS 15 bilge system consists of:
- Two electric bilge pumps on the central sumps at keel level.
- Two manual bilge pumps on the central sumps at keel level.
- Drainage management of the engine hold and front compartments is ensured via pipes equipped with valves at the sumps.

The chain locker is a watertight zone sealed off from the boat. It is accessible by an emergency panel to be kept closed except for work on the chain.
It is emptied via two scuppers above the waterline under normal conditions.





Using the manual bilge pumps (Item 1):
The manual bilge pumps are activated from the port and starboard sides of the cockpit.
The pumping lever must be stored at its intended location under the cockpit port hood.



Operating the electric bilge pumps:
The electric bilge pumps are operated via the electrical panel in the companionway to the starboard float,

For each of the two electric pumps, on the electrical panel:
- Press the switches to activate their forced operation.
- An audible signal sounds when the high level sensor is reached (on the main panel and on the starboard helm console).

WARNING

The bilge pumps system is not designed to control water entering the boat through breaches in the hull.

ADVICE-RECOMMENDATIONS

Do not let the pumps run empty. This may cause damage to the pumps.
The water in the bilges must be kept at a minimum.
Make a regular, visual check to ensure each bilge pump is operating correctly.
Check that pump suction strainers or points are not blocked by debris.

CAUTION

Check on a regular basis that each bilge pump is operating correctly .
Clean pump suction strainers or points of any debris which may obstruct them.
If there are watertight partitions separating the forward and aft valve points, these should be closed under normal conditions and opened only in order to drain off water from the main bilge.
On boats where a bilge pump is not required, the user/ owner is responsible for making sure there is at at least one bucket / bailer on board equipped with a device that prevents it being lost overboard.

Capacity of an electric bilge pump: 45 L/min
Capacity of a manual bilge pump: 0.9 litre / cycle or 40 litres / minute

CAUTION

When the cut-offs are OFF the bilge pumps are disconnected and off.

3.3.3 ■ Stability and buoyancy

Stability is reduced when upper storage spaces are loaded.
Stability may be reduced when another boat is towed or when heavy weights are lifted with the davits or the boom.
Compartments marked as being air pockets must not be pierced.
If your boat is certified as unsinkable, it is capable of bearing its passengers, even in the event of infiltration.
Any modification in the arrangement of on-board weight (e.g. by adding an elevated fishing platform, a radar, a furling mast, engine replacement, etc.) may have a significant impact on the boat's stability, trim and performance.

CAUTION

Never sail a boat with a negative trim adjustment (low stem) at high speed. This may cause the boat to heel over and therefore cause an instability in the turns.
Use a negative trim when going from limit speed to hydroplaning speed, and at lower speeds in the chop.
Breaking waves represent serious hazards, both for stability and water infiltration. Fasten the doors and hatchways in the event of rough seas.

ADVICE-RECOMMENDATIONS

Reduce your speed before making tight turns in order to avoid losing control.
In heavy weather conditions, close hatchways, lockers and doors in order to minimise the risk of water infiltration;
Keep bilge water to a minimum.

3.3.4 ■ In the event of rollover

Should the boat capsize:
- Break the emergency panels located in each hull with the specific hammer provided.
The hammers are located next to the panels under the port and starboard companionways.
A hammer is also located outside in the life raft compartment should external action be required to extricate people in the boat.



3.4 ■ PREVENTION OF MAN OVERBOARD

The swim ladder is stationed on the starboard aft skirt; this tilts aft into the water.
Deck areas which are not considered part of the working deck, and which should not be used when sailing are hatched on the diagram on the next page.

Possible impact of chafing on a textile guardrail (visible red core).

Regularly check the lifelines:
Regarding metal lifelines, check for the appearance of rust-spots and corrosion, particularly at connection points.
Regarding synthetic lifelines, have them changed as soon as the first signs of wear and tear appear due to chafing or UV.

The lashing at the ends of the guardrails are used to adjust guardrail tension.
The lifetime of a textile guardrail is between 5 and 7 years depending on its area of use and the boat's navigation programme.
Check the guardrails annually in order to identify any signs of wear and tear and chafing.
Guardrails must be replaced after 7 years or if they show signs of chafing.

- Rinse the guardrails with fresh water after sailing.
- Textile guardrails can be dismounted during the boat's wintering period in order to protect them against UV.
- Make sure that each textile guardrail is properly labelled to ensure correct repositioning during their re-mounting.

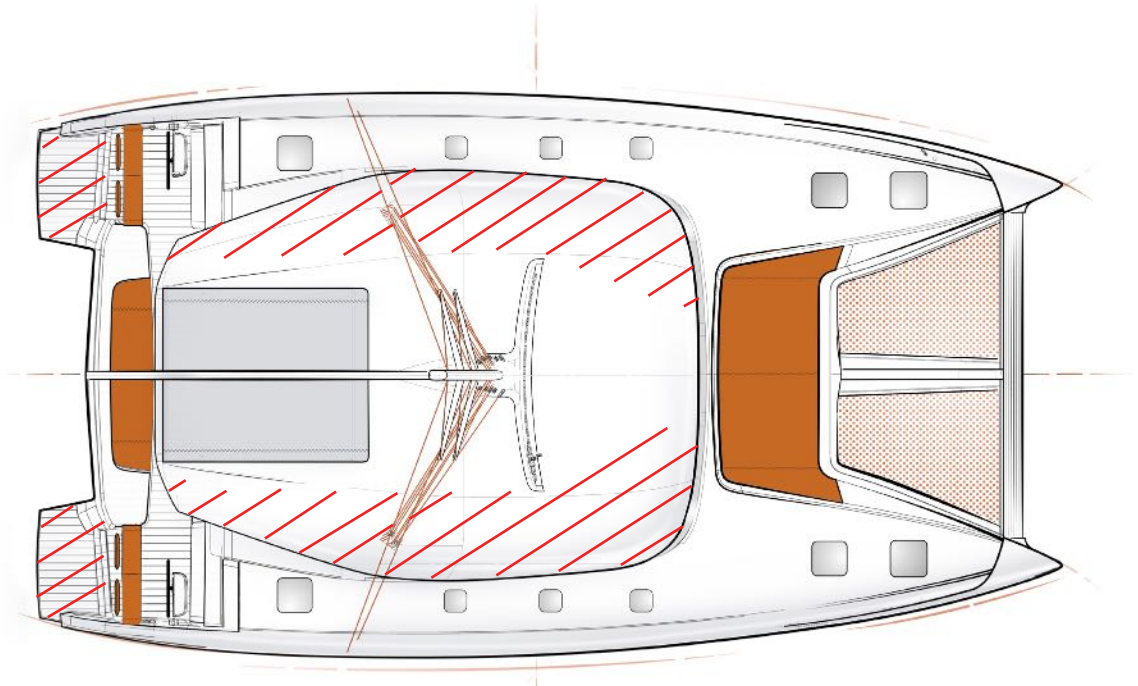
3.5 ■ RE-BOARDING METHODS

The emergency ladder fits into the aft pulpit by stowing.
The cord can be pulled by someone in the water to open the flap covering the ladder's storage space.
The ladder then deploys automatically.
The ladder is specially designed to lower into the water by itself. To facilitate re-boarding there are two rungs under water.

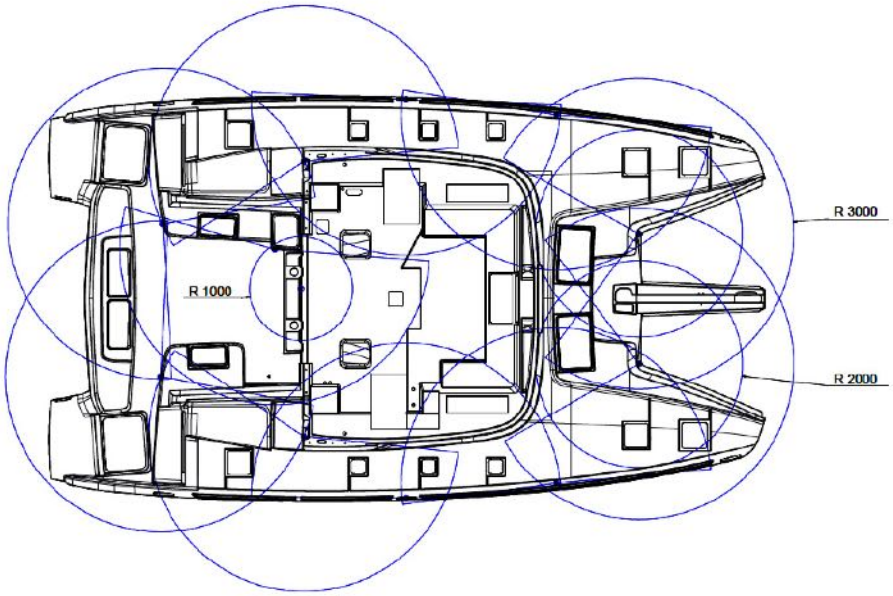
The moment anyone comes on board, make sure that the boarding ladder's trigger control is no more than 500 mm above the water's surface.

3.6 ■ DEFINITION OF WORKING DECK AREAS

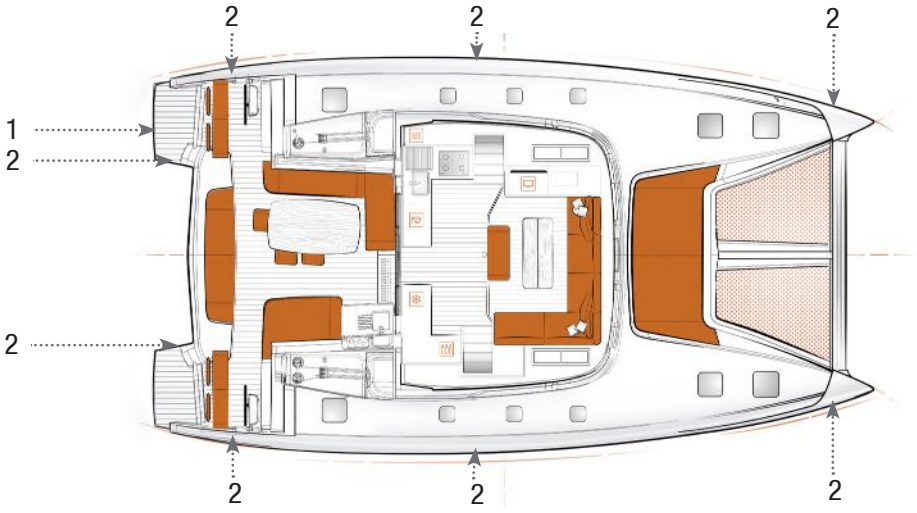
The areas shown in the drawing below correspond to zones not included in the working deck areas and areas that are closed while sailing.
These areas are not surrounded by any human protection means to prevent man overboard.



FIXED STRONG POINTS FOR LANYARDS



FIXED STRONG POINTS FOR LIFE LINES



1 - Location of the re-boarding equipment.
2 - Mooring cleats (corresponding to life line anchor points).

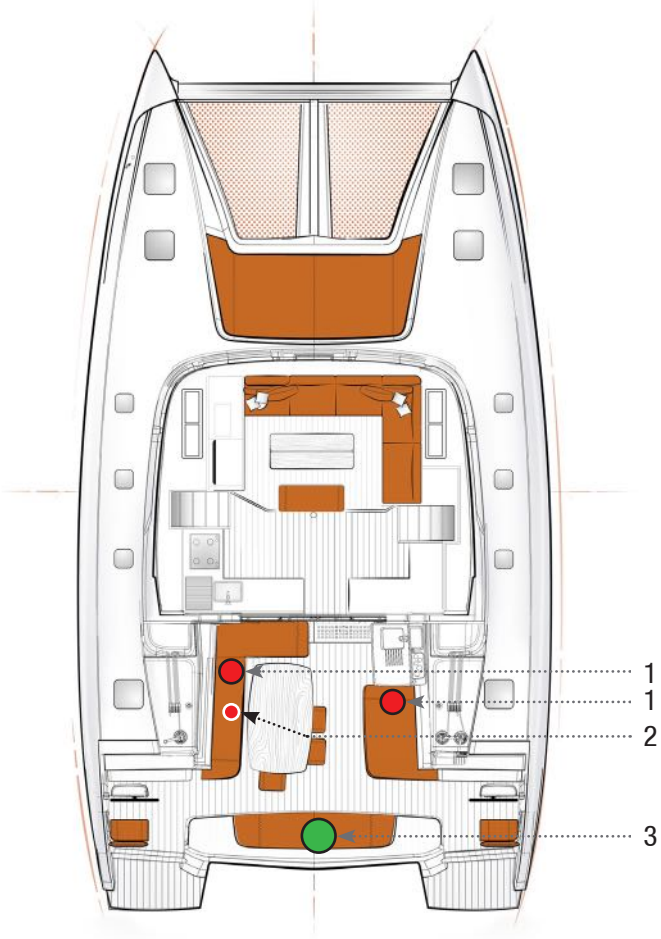
3.7 ■ EMERGENCY EQUIPMENT

This paragraph describes the location of emergency equipment (to be supplemented with your own safety equipment if desired).

SAFETY

The 2 life raft compartments are accessible from above and below the hull in the event of capsizing.
NEVER climb into the life raft housing.

Read the user manuals carefully.



1 - Manual bilge pump.

2 - Tip-up location.

3 - Location of the life raft.

4 - Fire extinguishers.

5 - Lifebuoy ring.

6 - .....

7 - .....

8 - .....

9 - .....

10 - .....

11 - .....

12 - .....

13 - .....

14 - .....

15 - .....

ADVICE-RECOMMENDATIONS

Some items have no pre-determined location.
Complete this drawing according to the boat's actual safety equipment.

4. Equipment

For more information on the fitted devices, please refer to the manuals attached to the boat documentation.

4.1 ■ PROPULSION

4.1.1 ■ Directions for use

WARNING

Stop the engine. Do not smoke when filling up the fuel tanks.
Beware of loose fitting clothing, hair, rings which may get caught up. Wear appropriate clothes (gloves, hat, etc.).
If equipped with a petrol engine, beware of the danger of falling asleep due to carbon monoxide fumes.

CAUTION

Do not install on this boat an engine that is heavier or more powerful than the one recommended: this may affect the boat's stability.
Avoid any contact between flammable products and hot parts of the engine.
It is not recommended to work on or next to moving parts (engine, line shaft, etc.).
If work is needed, stop the engine and or the rotation of the line shaft before working on one of these parts.

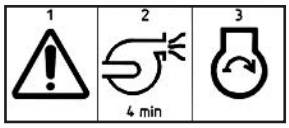
The manufacturer's engine booklet gives detailed instructions on the engine's operation and on all the operations that enable proper use of the engine.
Please refer to the manufacturer's booklet for instructions on engine operation and maintenance.

ADVICE-RECOMMENDATIONS

For outboard engines fitted with a jerrican, fill up the portable tank outside the boat in a well ventilated area, well away from any fire risk.
The fuels stored outside the tanks (feeders, jerricans, etc.) must be stored in a well-aired room.
Before starting, ensure that the engine hold is clean and dry. Any trace of fuel in the bilges should make you postpone your departure.
Locate the extinguisher access port which would allow you to put out a fire in the engine hold.
For boats equipped with a petrol engine, ventilate the engine compartment using the engine blower during 4 minutes in order to evacuate any possible petrol fumes.
Some models come with a fixed extinguisher system that can be used to put out a fire in the engine hold. Check out the location of its trigger switch and make sure you know how it works (see 3.1.2). It is necessary to ventilate the engine hold after triggering.
Check that ventilation openings are clear of any obstruction.
Check that the seawater cooling system is circulating correctly.
Check the condition of fuel pipes on a regular basis.
Do not block or modify the ventilation system.
Before starting, make sure that:
- the engine control is not engaged
- the cooling system's water inlet valve is open, and check that there is some water actually coming out of the exhaust when the engine has started (water may be mixed with exhaust gas in case of wet exhaust).

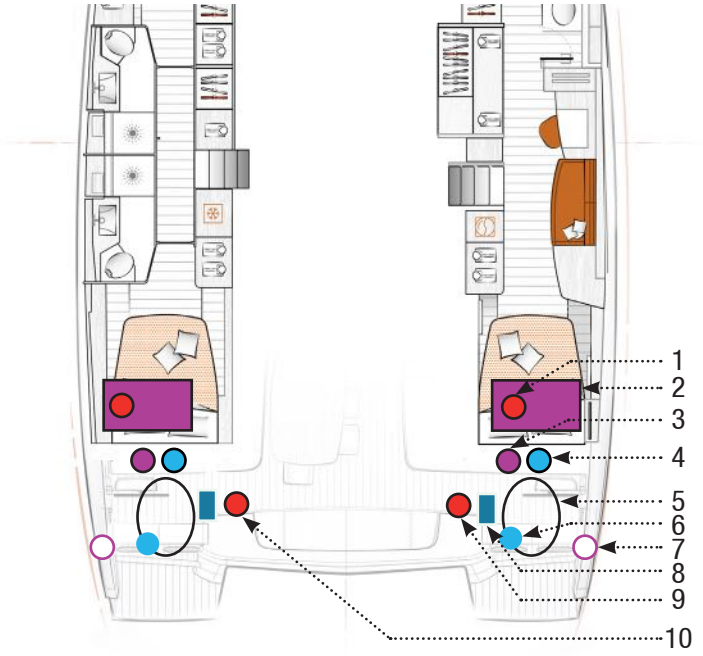
Before starting, clean up any fuel spillages on the deck that may occur when filling up.
Plan ahead for deterioration in fuel pipes.
Fuel hoses must be replaced by hoses bearing the same markings.

Key to symbols:



1. Attention
2. Ventilate for four minutes
3. Switch on

4.1.2 ■ Fuel tanks: 2 x 520 litres GAS OIL



1 - Fuel valve.
2 - Fuel tank.
3 - Fuel filter.
4 - Seawater filter.
5 - Engine.
6 - Engine water intake valve.
7 - Fuel tank filler cover.
8 - 12 V battery.
9 - Starboard engine cut-out.
10 - Port engine cut-out + battery couplings.

The same items are found in each hull.
Note: every valve in the boat is identified.

CAUTION

The tanks may contain zones of leftovers that the pumps cannot reach due to the boat's trim or the design of suction tappings.
You are advised to maintain a 20% fuel reserve.

4.2 ■ HELM STATIONS

4.3 ■ STEERING SYSTEM

4.3.1 ■ General description

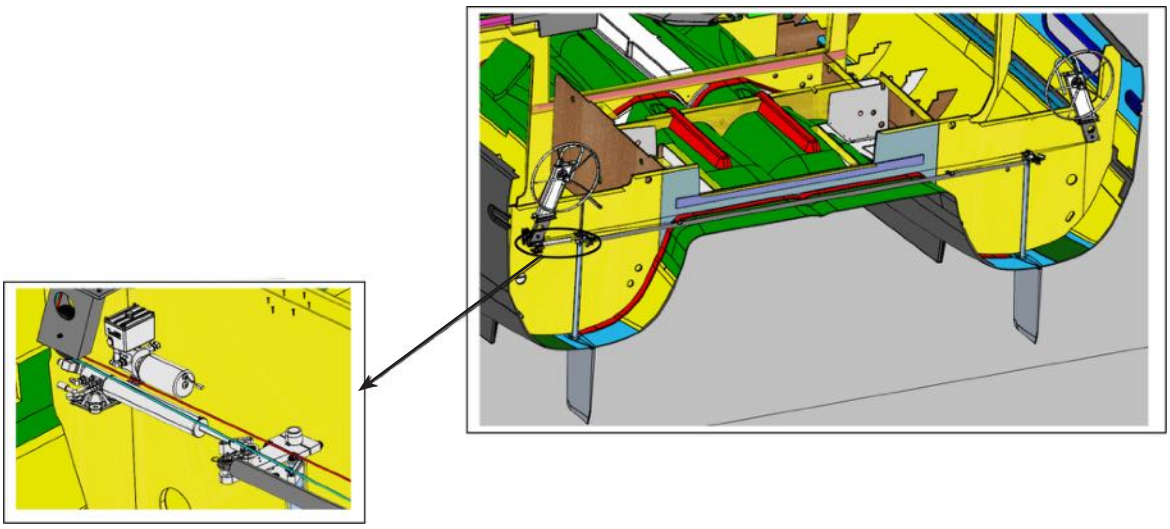
The steering system comprises textile steering lines and two aluminium rudder sections.
The system is accessed via the port and starboard engine compartments.

Hanging rudders are fitted with stainless steel shafts.

CAUTION

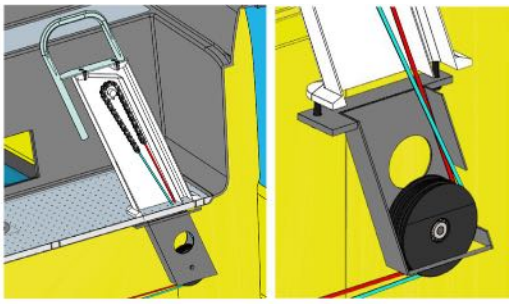
When the boat is stationary, check regularly that the tension of resting steering lines is between 45 and 60 Kg.

4.3.2 ■ Identification of component parts



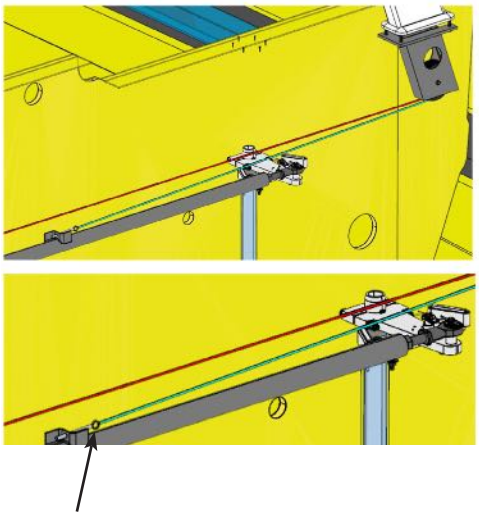
Hydraulic cylinder

HELM CONSOLE - DETAILS



Chain Steering lines

TEXTILE STEERING LINES - DETAILS



Eye-bolt used to adjust steering line tension.
Port and starboard adjustments.

4.3.3 ■ Maintenance

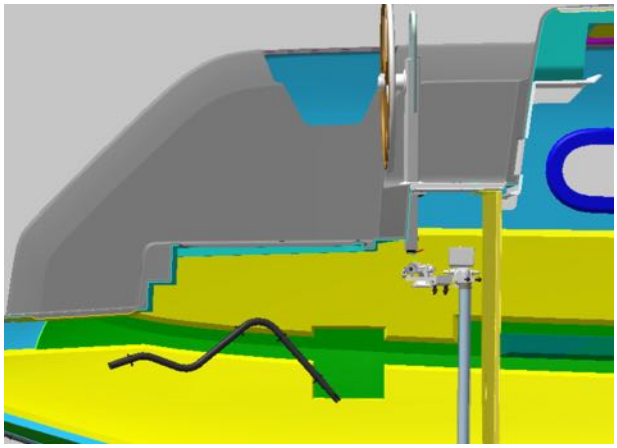
- Check that steering lines are in proper working order on a regular basis.
- After several sailing trips, check that steering lines are at a tension of 45 KG.

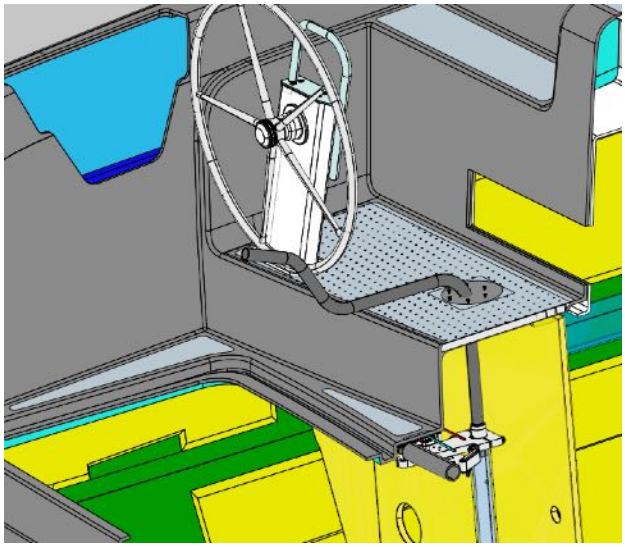
Ask a professional to change the steering lines every five years.
Use only WD40 to maintain rings made of nylon, ertalon or teflon.

4.3.4 ■ Emergency system

Boats fitted with a steering wheel have an emergency tiller.
The emergency tiller is designed for sailing at reduced speed only in the event of a wheel failure.
The emergency tiller is stored in the port engine hold, and must remain easily accessible at all times.

To deploy the tiller:
- Switch the autopilot system to OFF.
  - Use a winch handle to unscrew one of the emergency tiller covers located behind the port and starboard floats.
  - Fit the emergency tiller into the rudder shaft, making sure that it is pushed down properly.





4.4 ■ ELECTRICAL SYSTEM

CAUTION

Never work on a live electric circuit.
Never modify the boat's electrical circuit or the relevant diagrams: all installations, modifications cleaning and maintenance must be carried out by a technician qualified in marine electricity.
Never modify the specifications of appliances protecting against overloads.
Never install or replace electrical equipment or appliances with new components exceeding the permissible circuit amperage.
Do not leave the boat unattended when the electrical system is powered up, excepting the automatic bilge pump and the fire and burglar protection systems.

4.4.1 ■ Electrical panel and circuit 12 V

DANGER

In order to avoid short-circuiting between the two poles of the battery, do not store any conductive objects next to the batteries (metallic tools, etc.).

WARNING

Do not block the battery ventilation vents: some of them release hydrogen, which could be an explosion risk.
Do not leave the boat unattended when the electrical system is powered up, excepting the automatic bilge pump and the fire and burglar protection systems.
Never install or replace electrical equipment or appliances by new components that exceed the circuit's amperage.
Never modify an installation. Ask a technician skilled in marine electricity to do so.
When charging, connecting or disconnecting the batteries, switch off the battery cut-outs.
Batteries have to be handled with care. In the event of electrolyte projection, abundantly rinse the part of the body which has been affected and consult a doctor.

CAUTION

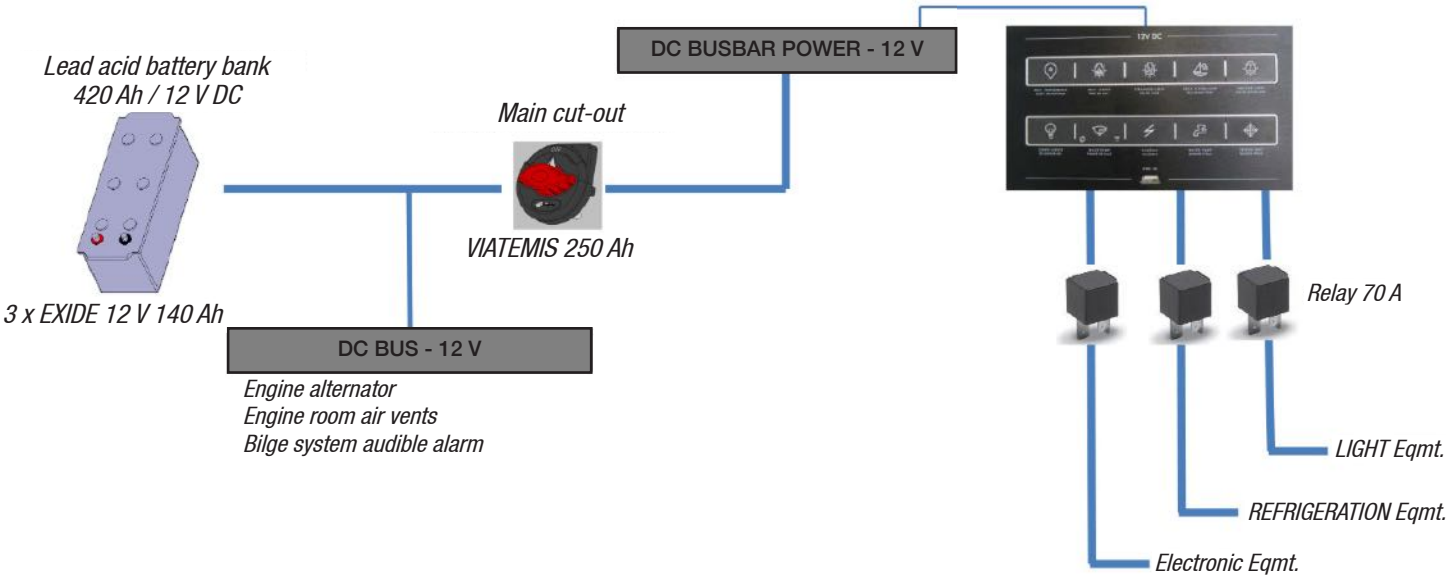
The batteries must be carefully secured.

CAUTION

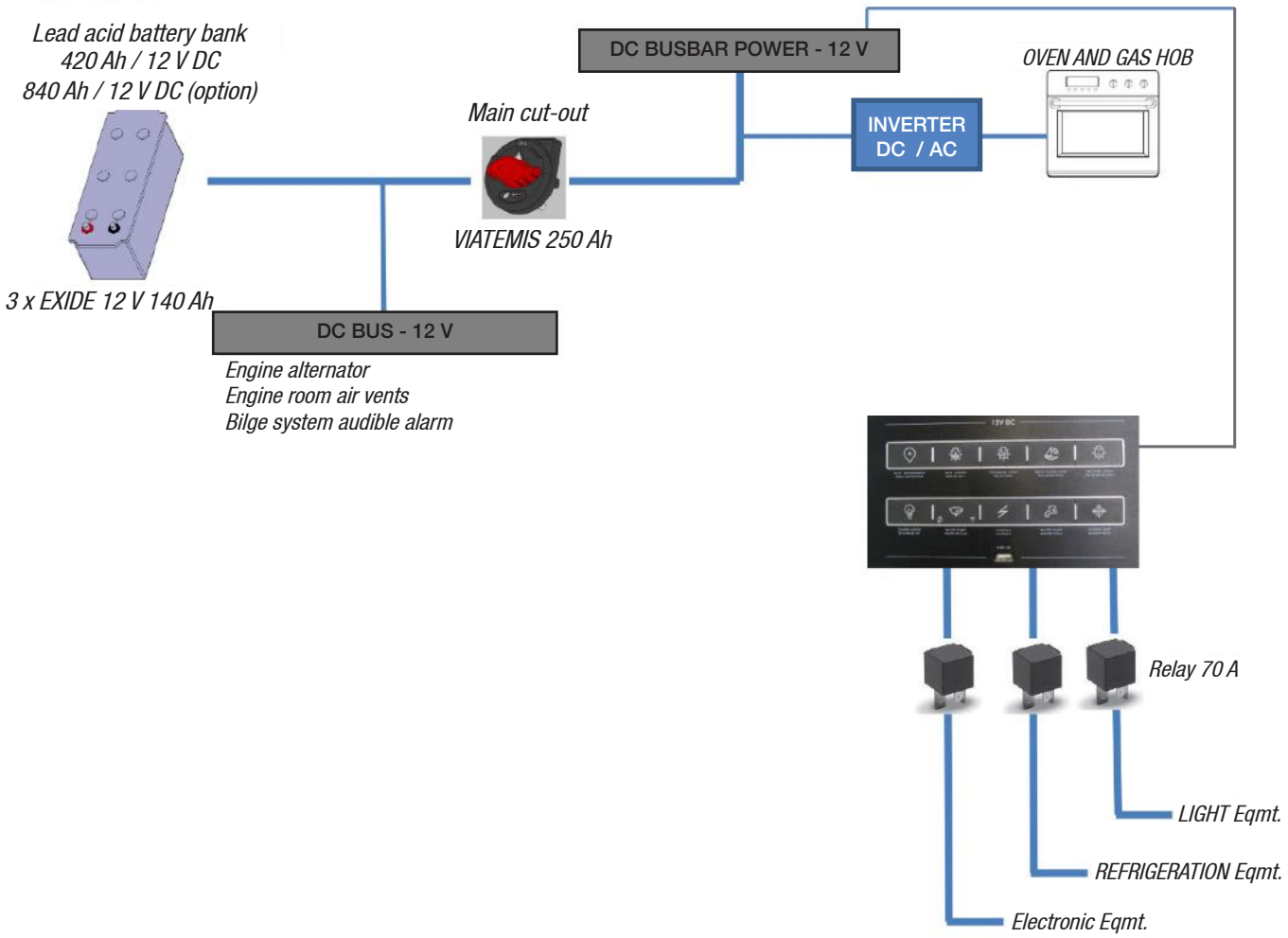
Before replacing a fuse, switch off the battery cut-outs.

Please note that the 12 V circuit wires are red for live and black for negative.

EUROPE 12 V CIRCUIT

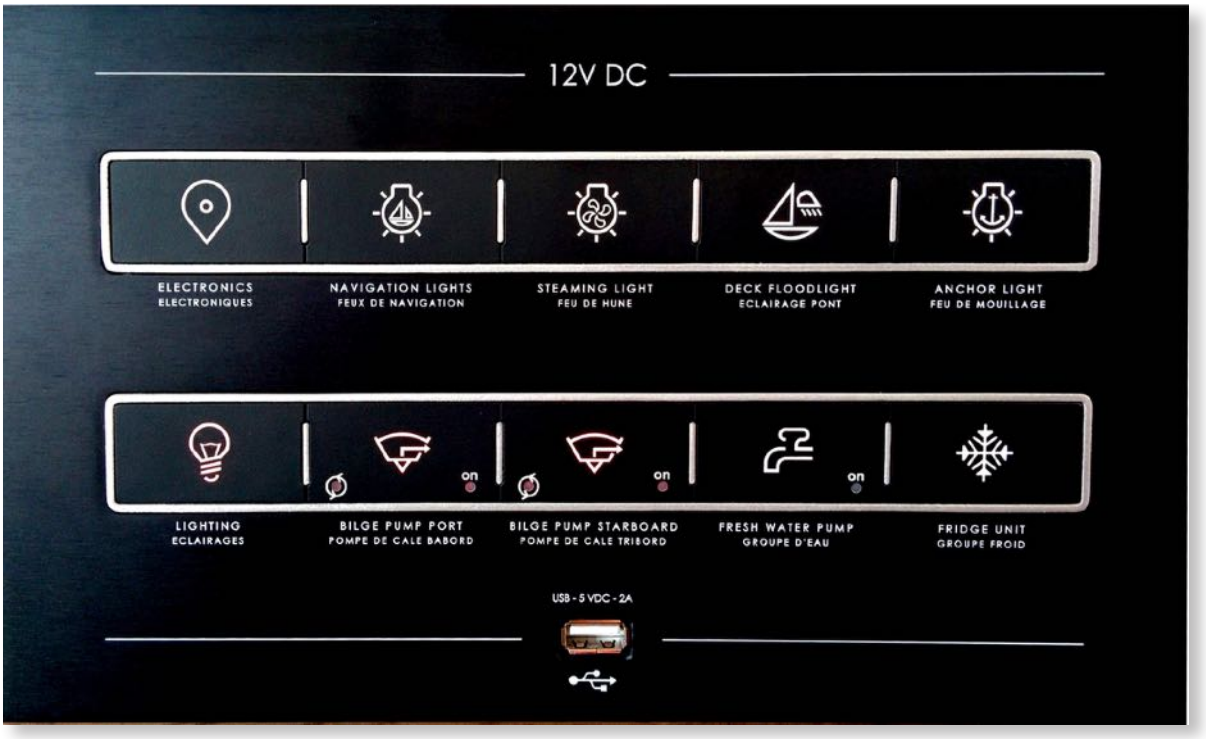


US 12 V CIRCUIT



4

MAIN 12 V ELECTRIC PANEL AND DESCRIPTION OF FUNCTIONS



Pictogram	Functions	Circuit breaker	By-pass
	To power the navigation electronics. - White backlight or off: Electronics not powered - Red backlighting: Electronics powered	FU5	FU25
	Turn on and off the navigation lights (port and starboard lights at the forepeaks, and the stern light at the rear of the roof) - White backlight or off: Lights off - Red backlighting: Lights on	FU8	FU28
	Turn on and off the masthead light (on the mast) - White backlight or off: Light off - Red backlighting: Light on	FU9	FU29
	Turn on and off the deck searchlight (on the mast) - White backlight or off: Light off - Red backlighting: Light on	FU6	FU26
	Turn on and off the anchor light (on the masthead) - White backlight or off: Light off - Red backlighting: Light on	FU7	FU27
	Powers direct lights and wireless lighting modules - White backlight or off: Lights off - Red backlighting: Lights on	FU11 FU10	FU31 FU30
	Powers the port bilge pump. The first press powers the pump automatically, using a float, the indicator lights A second press forces the pump to operate and both lights come on	FU2	FU22
	Powers the starboard bilge pump. The first press powers the pump automatically, using a float, the indicator lights A second press forces the pump to operate and both lights come on	FU4	FU24
	Turn on and off the water unit - White backlight or off: water unit off - Red backlight: water unit on The indicator displays the operation of the water unit	FU3	FU23
	Turn on and off all boat cooling units - White backlight or off: cooling units off - Red backlight: cooling units on	FU1	FU21

4.4.2 ■ Electrical circuit 110 V - 220 V

WARNING
RISK OF ELECTRIC SHOCK

Avoid the risk of electric shock (electrocution).
Disconnect the alternative current (AC) power from the dock and the direct current (D.C.) from the battery to the inverter before opening the panel.

WARNING
RISK OF ELECTRIC SHOCK

The boat is equipped with a transformer converting direct current (DC) into alternative current (AC.).
Avoid the risk of injury or death by electric shock.
Disconnect the dock AC power line and the DC power on the inverter before opening the electrical panel or intervening on the circuits.

General warning sign | Electricity warning | Warning: flammable material | Read the owner's manual

A) Warning sign using symbols

WARNING– To limit the risks of electric shocks and fire:
1 Turn off the onboard shore power switch before connecting or disconnecting the shore power cable. 2 Connect the shore power cable to the onboard power socket before connecting it to the shore socket. 3 If a reversed polarity is signalled, disconnect the cable immediately. 4 First, disconnect the shore socket power cable. 5 Close the onboard power socket cover carefully.
DO NOT CHANGE THE FITTINGS OF THE SHORE POWER CABLE

Some boats are fitted with a 110 V or 220 V circuit (in their standard version or as an option according to the model).

Please note that live wires are blue, neutral wires are brown and earth wires are green and yellow.

DANGER

Unplug the boat shore supply cable first on the shore side.
Turn off the shore power with the cut-off device fitted on board before plugging or unplugging the boat shore supply cable.
Never let the end of the boat shore supply cable fall into the water.
Never work on the live electric circuit.

WARNING

When the shore supply socket is plugged, there could be a difference between the "earth" on the boat and the one of the power grid. This could create a danger of electrical cross-currents and therefore electrocution (particularly for nearby swimmers).
Connect the boat shore supply cable in the boat before plugging it to the shore supply socket.

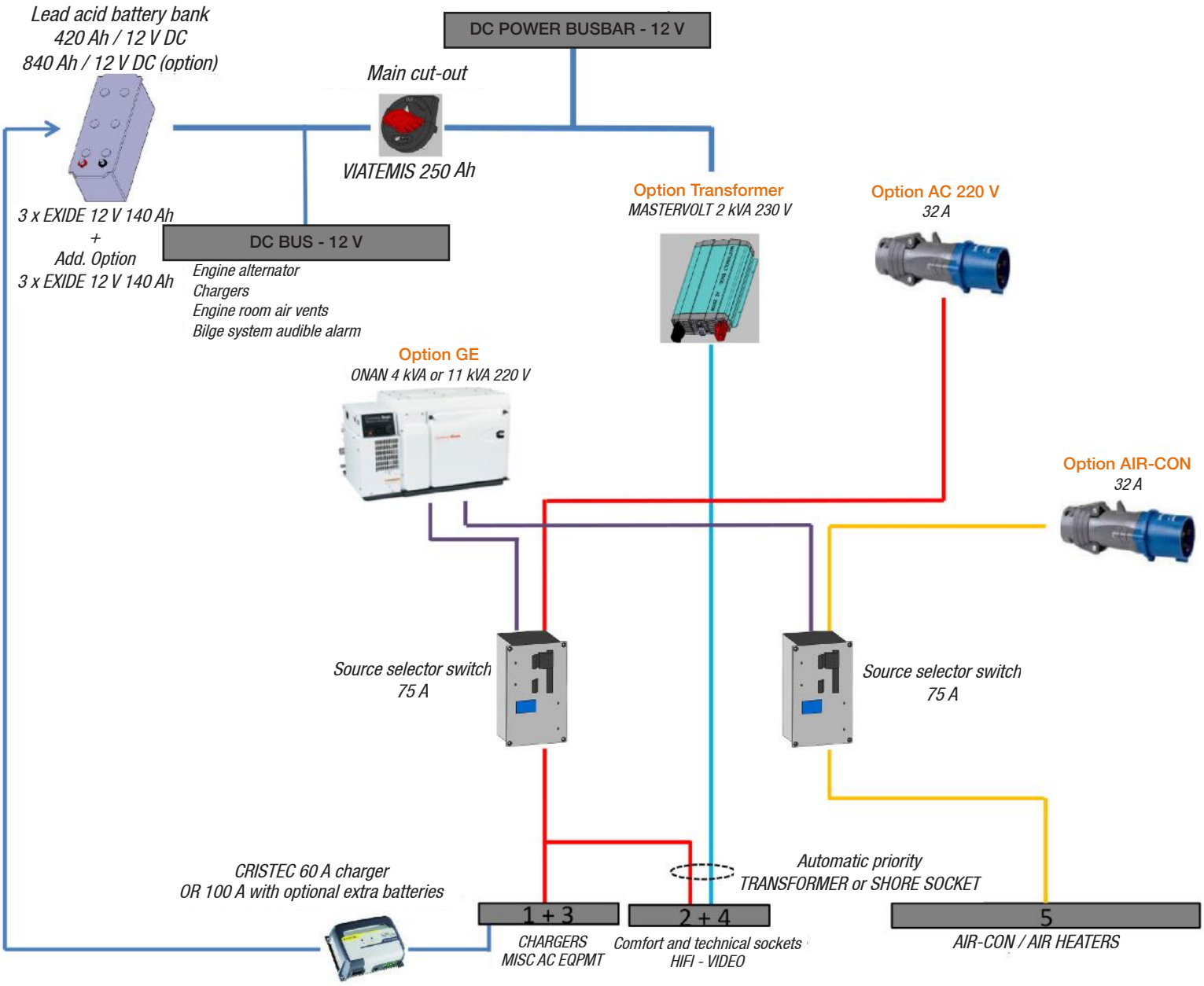
CAUTION

Switch off the ship's power when the system is not in use, in order to prevent the risk of fire.
Do not modify the boat's electrical system or the relevant diagrams.
All modifications and maintenance must be carried out by a technician skilled in marine electricity. Have the system checked at least twice a year.
Do not modify the connections of the boat / shore supply cable; only use compatible connections.
If the reverse polarity indicator is on, unplug the cable immediately.
Correct the polarity error before using the boat's electrical system.

ADVICE-RECOMMENDATIONS

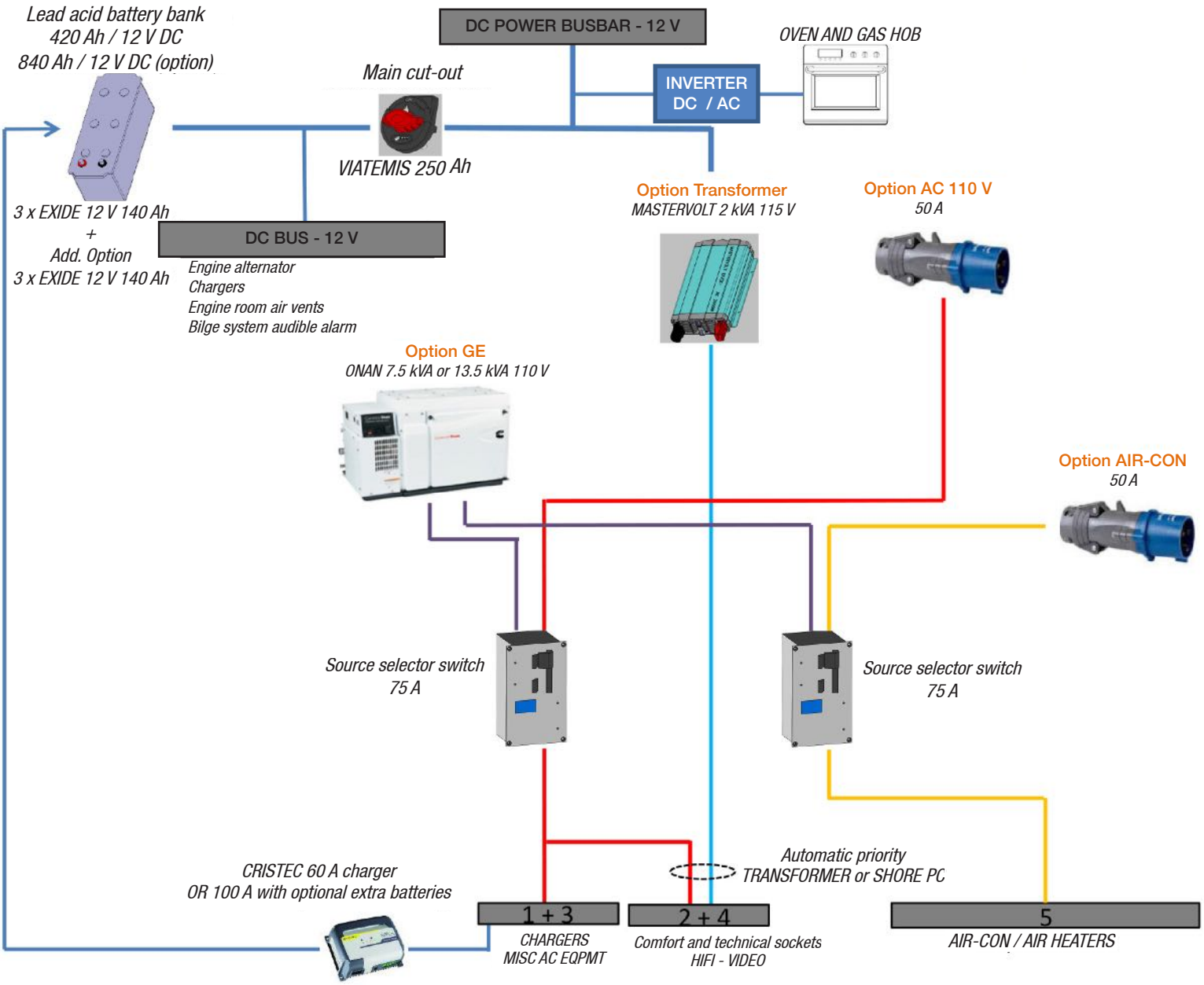
Only use electrical devices with double insulation or earth.
Connect the electrical appliances' metallic covers or boxes to the boat's protective conductor (green conductor with yellow stripes).
Close the shore socket cover carefully.

EUROPE 220 V CIRCUIT



Light blue wire:	standard
Dark blue wire:	generator
Red wire:	shore power socket
Yellow wire:	air-conditioning system

US 110 V / 220 V CIRCUIT



Light blue wire:	standard
Dark blue wire:	generator
Red wire:	shore power socket
Yellow wire:	air-conditioning system

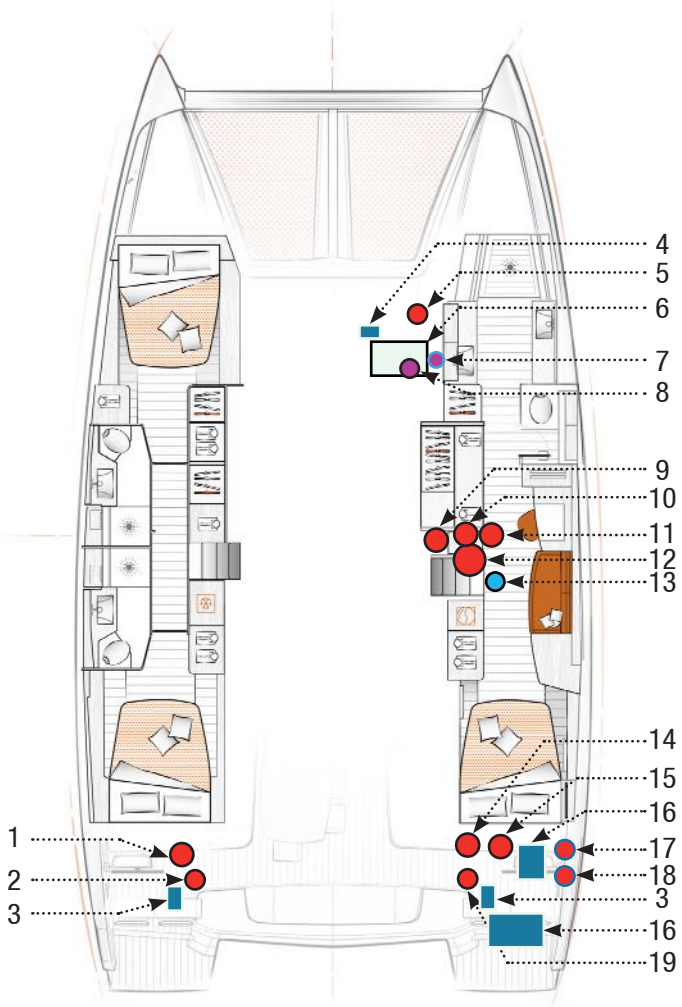
4.4.3 ■ Emergency starting

If the engine batteries are not available, a coupling system of the port and starboard 12 V starting batteries is available (in the engine compartment port side).

To select the battery coupling:
- Turn on (ON) the coupling circuit-breaker in the port compartment and the port or starboard engine battery circuit-breaker, while turning off the defective battery (OFF position).
- Start the engines, both port and starboard sides.
- Once both engines have started, switch off (OFF position) the coupling cut-out.

4.4.4 ■ Location of the battery cut-outs, electrical panels and appliances

Some equipment shown in the diagram below may be optional.



1 - Circuit breakers for air-conditioning components.
2 - Port engine cut-out +
Engine batteries / coupling cut-out.
3 - Engine battery.
4 - Generator battery.
5 - Generator cut-out.
6 - Generator.
7 - Port / starboard fuel tank selection pull-rod.
8 - Generator fuel filter.
9 - On-board circuit breakers.
10 - 220 V source selector switches, touch screen display, generator control.
11 - 12 V / 110 V - 220 V transformer + circuit breaker.
12 - 12 V electric panel.
13 - Water intake valve + generator water filter.
14 - 12 V circuit breakers.
15 - Battery chargers.
16 - 12 V house batteries.
17A - Onboard shore socket circuit breaker.
17B - Air-conditioning shore socket circuit breaker.
18A - 110 V - 220 V shore socket / Onboard.
18B - 220 V shore socket / Air-conditioning.
18C - 110 V shore socket / Onboard + Air-conditioning.
19 - Onboard and starboard engine cut-outs.

4.5 ■ GAS-FIRED APPLIANCE

4.5.1 ■ Gas hob

DANGER

Do not install flammable materials above the hotplate (curtains, papers, serviettes, etc.).
Do not smoke or use a naked flame when replacing LPG cylinders. Close the valves on empty cylinders before disconnecting and replacing them.
Never use a flame to search for leaks.

WARNING

Smoking and naked flames are strictly prohibited when searching for a gas leak or changing a gas cylinder, or during any other work on the gas circuit.
Never leave the boat unattended when using naked-flame appliances fuelled by LPG.
Fuel-burning naked flame appliances use the oxygen of the cabin and release combustion products in the boat.
Do not use a hot plate or an oven to heat living quarters.
Adequate ventilation must be ensured when these appliances are in use. Open the purpose-designed air vents when using appliances. Never block air vents.
The boat's ventilation requirements are calculated based on LPG-fired appliances such as those installed on the boat. Additional air vents may be fitted if other appliances are to be used at the same time.
Do not change the boat's LPG system.
The system must be installed, modified and serviced by an experienced professional. Have the system checked periodically or fixed according to national requirements.
If you detect a leak, close the main LPG supply valve and do not use LPG-fired appliances.

CAUTION

Fuel-burning appliances use the oxygen of the cabin and release combustion products in the boat. The boat must be properly ventilated when using gas-fired appliances. Do not block the boat's air vents (ventilator) and leave the door open at the very least.
Do not use cooking appliances to heat rooms.
Make sure that burner valves are closed before opening the valve for the cylinder and piping system.
Close the valves both before changing the cylinder and immediately in the event of an emergency.
Do not use ammonia-based solutions to clean up or identify a leak.

ADVICE-RECOMMENDATIONS

Never leave the boat unattended when appliances fuelled by gas or alcohol are in use.
If you smell gas, or if burner flames are accidentally extinguished (even though the gas supply cuts out automatically if the flame is extinguished), close the valves and create a breeze to evacuate any remaining gas. Identify the cause of the problem.
Close the gas supply pipe valve and the cylinder valves when appliances are not in use.
The cylinders for stoves with built-in cylinders must be changed outside the boat. Test the stove before replacing it in the boat's galley. Make sure to lock stove hinges down once in place.
Never block air vents.
Store spare cylinders in well-ventilated housings on the deck or in purpose-designed lockers that are gastight and vented to the outside.
Do not block the access to gas circuit components - especially the valves (cylinders and gas cooker).
Flexible hoses connecting the cylinder at one end of the circuit and the stove at the other end, must be changed according to the regulations of your home country. Only use hoses that are conform to your home country's current norms and standards.

ADVICE - RECOMMENDATIONS

Do not use gas cylinder housings to store other equipment.

Take care not to damage the cylinder thread used to fit the regulator. Check the condition of the regulator once a year - change if necessary. Only use regulators that are identical to those already fitted.

Make sure that the valves on empty cylinders are closed and disconnected. Keep all protection mechanisms, caps or plugs in situ.

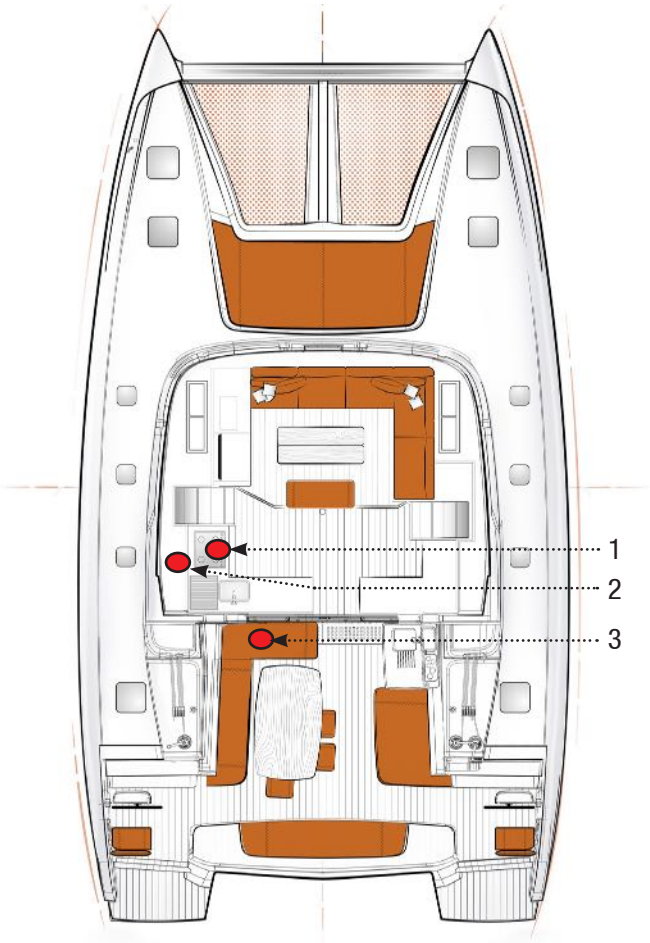
4.5.2 ■ Drawing of the gas circuit

- The LPG appliance has an operating pressure of 28 millibars.
- Recommended cylinder capacity:

  Europe version: 2.75 kg of butane.

  US version: 10 lb of propane.

COMPONENT LOCATIONS:



1 - Gas valves.

2 - Electrovalve switch (version U.S.).

3A - Locker / storage space of gas bottles.

3B - BubbleLeak detector.

3C - Electrovalve (U.S. version).

3D - Pressure gauge (U.S. version).

4

The cockpit's forward locker is designed to house two gas cylinders.
The circuit opening / closing valves are located in the cupboard under the oven.

The boat's U.S. version includes an electrovalve located in the cylinders' storage locker.
Switch the electrovalve on using the switch on the gunwale behind the stove.

GAS VALVES

ELECTROVALVE SWITCH
(U.S. VERSION)

BUBBLE LEAK
DETECTOR

PRESSURE GAUGE LEAK DETECTOR
(U.S. VERSION)

• GAS LEAK DETECTION

The gas circuit is equipped with a leak detection system.

STANDARD VERSION : a bubble leak detector is placed on the circuit after the regulator in the cylinder storage container.
When the cylinder is open (system pressurised) and the valve under the gas appliance is closed, press the red button on the detector.
If nothing happens, the circuit is sealed.
The appearance of bubbles in the detector liquid signals a leak on the gas circuit.
Use the leak detector according to the manufacturer's instructions. If an LPG leak is detected or suspected, cut the LPG supply at the main supply valve(s).

US VERSION : a pressure gauge is placed on the circuit after the regulator in the cylinder storage container.
When the cylinder is open (system pressurised) and the valve under the appliance is closed, the pressure on the manometer must remain constant.
If the pressure drops then this means that there is a leak on the gas circuit.
The pressure gauge only indicates the vapour pressure, which is constant at a given temperature, and not the amount of liquid LPG remaining in the cylinder.

• INSTALLATION OPERATION AND MAINTENANCE:

Please refer to the manufacturer's instruction booklet for details on the operation and maintenance of the LPG-fired cooking appliance.

- Close the valves on the LPG supply pipes and on the cylinders when the appliances are not in use. Close the valves both before changing the cylinder and immediately in the event of an emergency.

- Make sure that the appliance's valves are closed before opening the valve on the cylinder.

- Test the LPG-fired appliance to check for leaks before use.

- Check the bubble leak detector on a regular basis (Europe version).

• IN THE EVENT OF A LEAK:

- Close the cylinder's supply valve immediately.
- Turn off all naked flames and other flammable sources (heaters, cookers, pilot lights, etc.).
- Do not activate the electric switch.
- Where possible, evacuate the area.
- Do not use any leaking appliance until it has been inspected and repaired by an experienced professional.
- Make sure that all components in LPG-fired appliances are fully accessible at all times.
- Make sure that the valves on empty cylinders are closed and disconnected. Keep all protection mechanisms, caps or plugs in situ. Store spare cylinders in well-ventilated housings on the deck or in purpose-designed lockers that are gastight and vented to the outside.
- Do not use LPG cylinder housings or lockers to store other equipment.
- Flexible hoses for LPG-fuelled appliances must be checked at regular intervals, at least once a year, and replaced if they show any signs of damage or wear and tear.
- Check outlet pipes at least once a year. Replace the pipes if they show any signs of damage or cracking.
- Do not use the stove when there is a likelihood that the boat is going to be subject to large angles or roll or angles of heel (unless the boat is fitted with a gimballed stove).

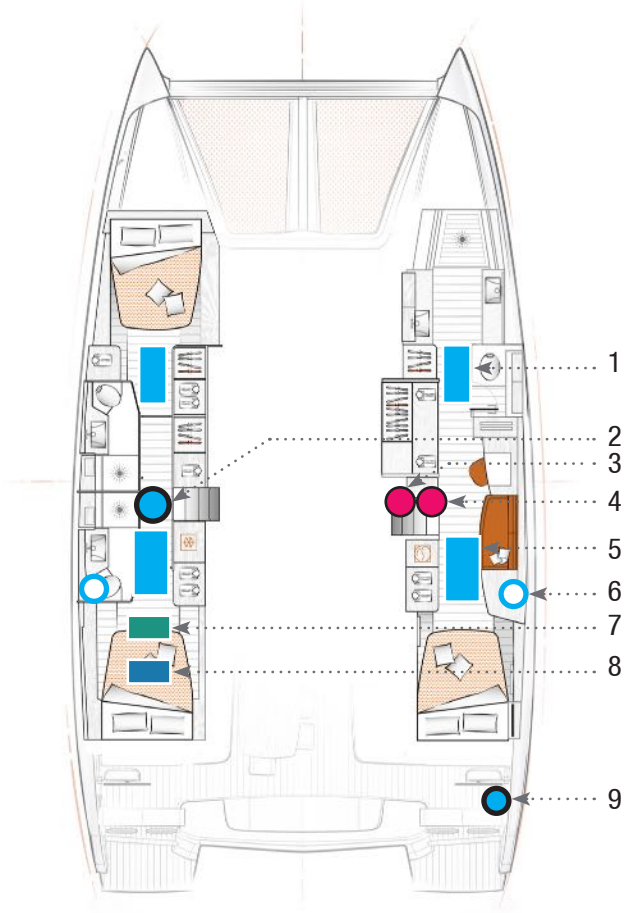
Despite the above tests carried out by the user, the boat shall still have to be checked by an experienced professional authorised to handle and service LPG systems.

To change the LPG cylinder:

1. Close the valve at the level of the LPG cylinder
2. Unscrew the LPG cylinder
3. Replace the LPG cylinder
4. Screw the new LPG cylinder down
5. Open the valve at the level of the LPG cylinder

4.6 ■ FRESH WATER SYSTEM

4.6.1 ■ Fresh water circuit: 2 x 240 L



1 - Optional 175-litre tank.
2 - Water unit.
3 - ON switch for the water unit.
4 - Touch screen display (tank gauges).
5 - 240-litre fresh water tank.
6 - Filler hole.
7 - Water maker (option).
8 - Water heater.
9 - Fresh water shore socket.

The EXCESS 15 is equipped with two rotomoulded food-grade plastic fresh water tanks of 240 litres each, under the passageway floors.
There is no direct transfer between the two tanks.

If the boat is equipped with a watermaker (option), a main valve lets you choose which tank is fed by the watermaker.

The selection of freshwater tanks feed from the watermaker is under the port aft cabin floors.

CAUTION

**The tanks may contain zones of leftovers that the pumps cannot reach due to the boat's trim or the design of suction tappings.
You are advised to maintain a reserve.**

4.7 ■ BLACK WATER HOLDING TANKS

4.7.1 ■ SPECIFICATIONS

The three and four cabin versions of the EXCESS 15 are equipped as standard with two black water tanks of 120-litres each, under the passageway floors.
The six cabin version is equipped with four 120-litre tanks as standard.
The three cabin version may be equipped with one 120-litre tank as an option, while the four cabin version may have two additional 120-litre tanks.
- These capacities may not be completely usable depending on the trim, the load and the position of the possible filling and drainage point(s).

- Do not empty toilets near the coasts.
- Keep yourself informed of the local regulations on the respect of the environment, and always follow rules of best practice.
- Follow the international rules against marine pollution (Marpol).

4.7.2 ■ Operation of the black water retention system

Toilets are emptied via the black water tanks only, which are then emptied as well:
- either by pumping: deck cover
- or by draining into the sea: valve

ADVICE-RECOMMENDATIONS

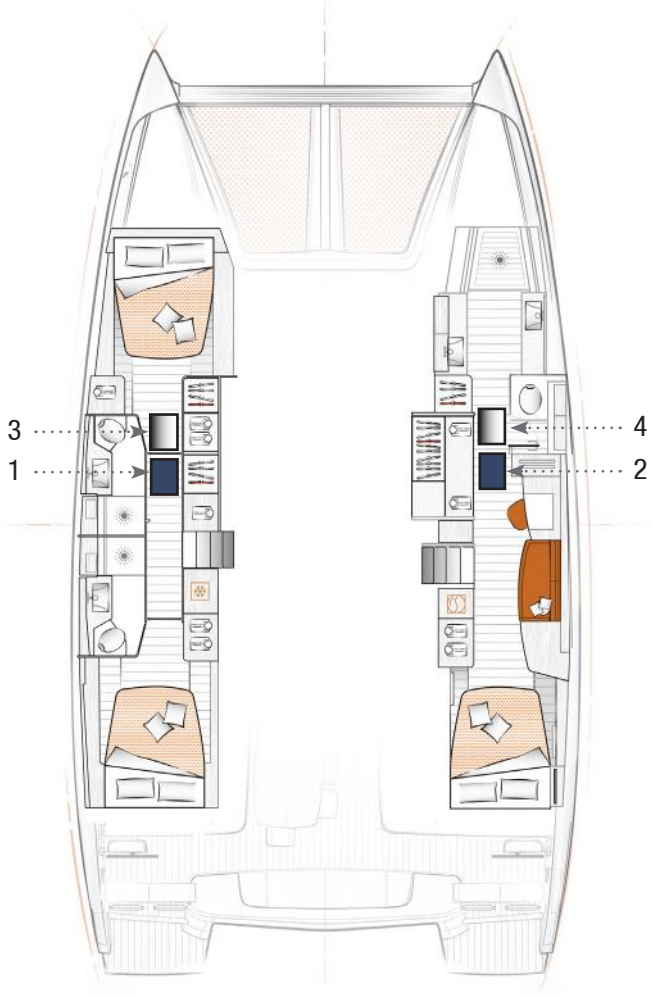
After each use, rinse the whole system: fill the tank with fresh or sea water then empty it.
Use domestic cleaning products.
The whole system has to be drained when the boat is halted and the temperature is negative.

CAUTION

For respect of the environment:
Do not unload the retention tanks close to the coasts, use the pumping systems provided by harbours or marinas to empty the tanks before leaving.
Please check that the outlet valve is closed in order to avoid any accidental discharge.

4

Location of black water tanks



1 - 2: Black water tank - 3 or 4 cabin version.

1 - 2 - 3 - 4: Black water tank - 6 cabin version.

3 - 4: Additional black water tank - 3 or 4 cabin versions (option).

3 - 4: Additional grey water tank - 3 or 4 cabin versions (option).

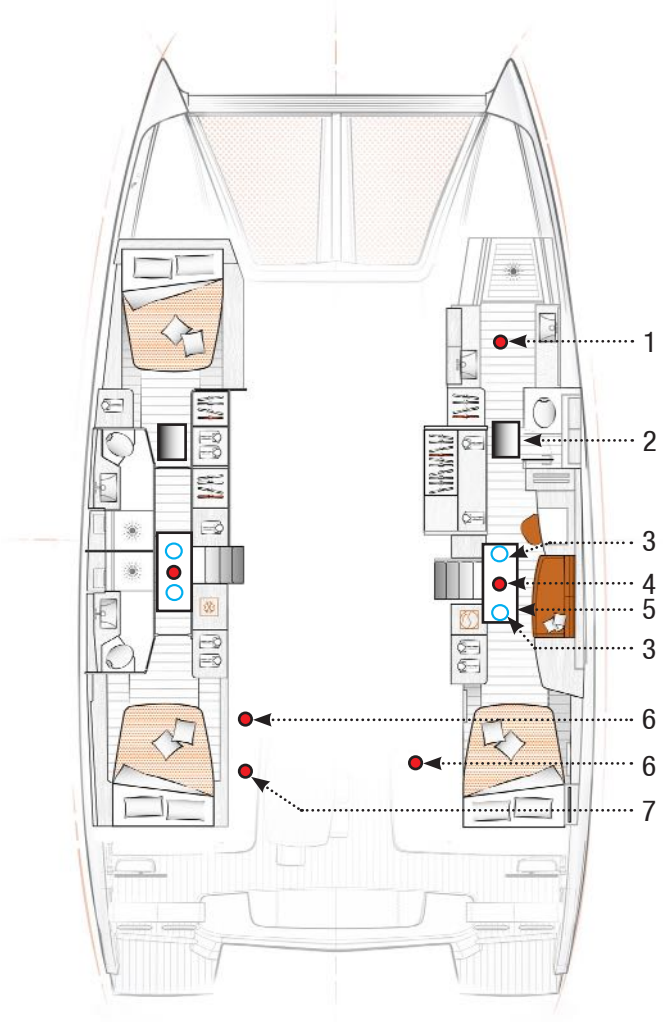
4.8 ■ GREY WATER HOLDING TANKS

4.8.1 ■ SPECIFICATIONS

The three and four cabin version of the EXCESS 15 can be equipped with two optional 120-litre grey water tanks (under the port and starboard hull floors).
- These capacities may not be completely usable depending on the trim, the load and the position of the possible filling and drainage point(s).

- Keep yourself informed of the local regulations on the respect of the environment, and always follow rules of best practice.
- Follow the international rules against marine pollution (Marpol).

Location of the grey water tanks



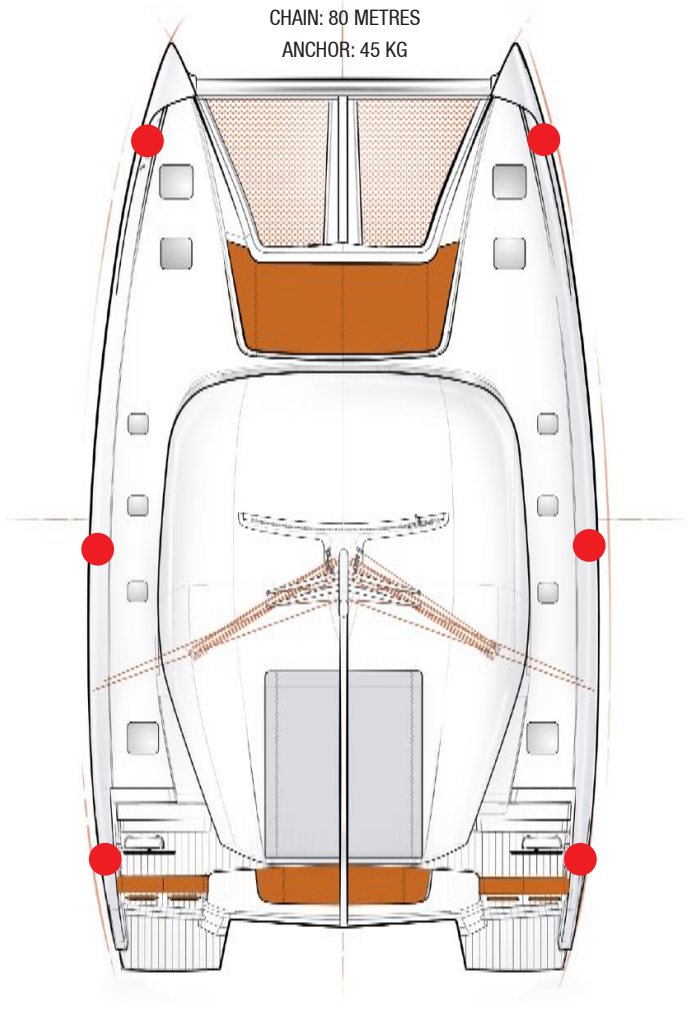
1 - Shower drain pump.
2 - Grey water tank.
3 - Forward / aft compartment drain valve.
4 - Electric bilge pump.
5 - Hull sump.
6 - Manual bilge pump.
7 - Manual bilge pump tip-up.

Note: every valve in the boat is identified.

5. Anchoring, mooring and towing

- Keep the chain locker panel or hatch closed at sea.
- Towing must always be carried out at low speeds.
- A tow must be taken in such a way that it can be released when loaded.
- The owner must ensure that mooring and towing ropes as well as fastening points and chains correspond to the condition of use of the boat.

MAIN MOORING CLEATS



WARNING

If the boat is fitted with non-metallic strong points, their limited lifetime must be taken into account. This means that they will have to be replaced as soon as they show any signs of damage, visible surface cracks or permanent distortion.
NOTE: Dark-coloured elements are less sensitive to UV light than light-coloured elements.

WARNING

It is the owner's/operator's responsibility to ensure that the mooring ropes, towing cables, chains and anchorage lines as well as anchors are suitable for the planned use of the boat, i.e. that the lines or chains do not exceed 80% of the rupture resistance for the corresponding strong point.
It is also important that the owner take into consideration the actions required to fix a towing cable on-board.

	MOORING	ANCHORING	TOWING
Strong point breaking strength	560 kN	74 kN	74 kN
Line/chain breaking strength	41.6 kN	59.2 kN	59.2 kN

CAUTION

In the event of replacement, the breaking strength of lines/chains must, in general, not exceed 80% of the breaking strength of the strong points.

CAUTION

If the use of a specific strong point is not clear, the manufacturer will have to label the strong point (strong point designed to be used for anchoring and/or towing) and mark this clearly in the owner's manual.

CAUTION

Make sure all towing operations are conducted at low speed. Never exceed the speed limit for a travelling hull while it is being towed.

CAUTION

A tow rope must be moored in such a way that it can be released when loaded.

6. Hoisting and transport

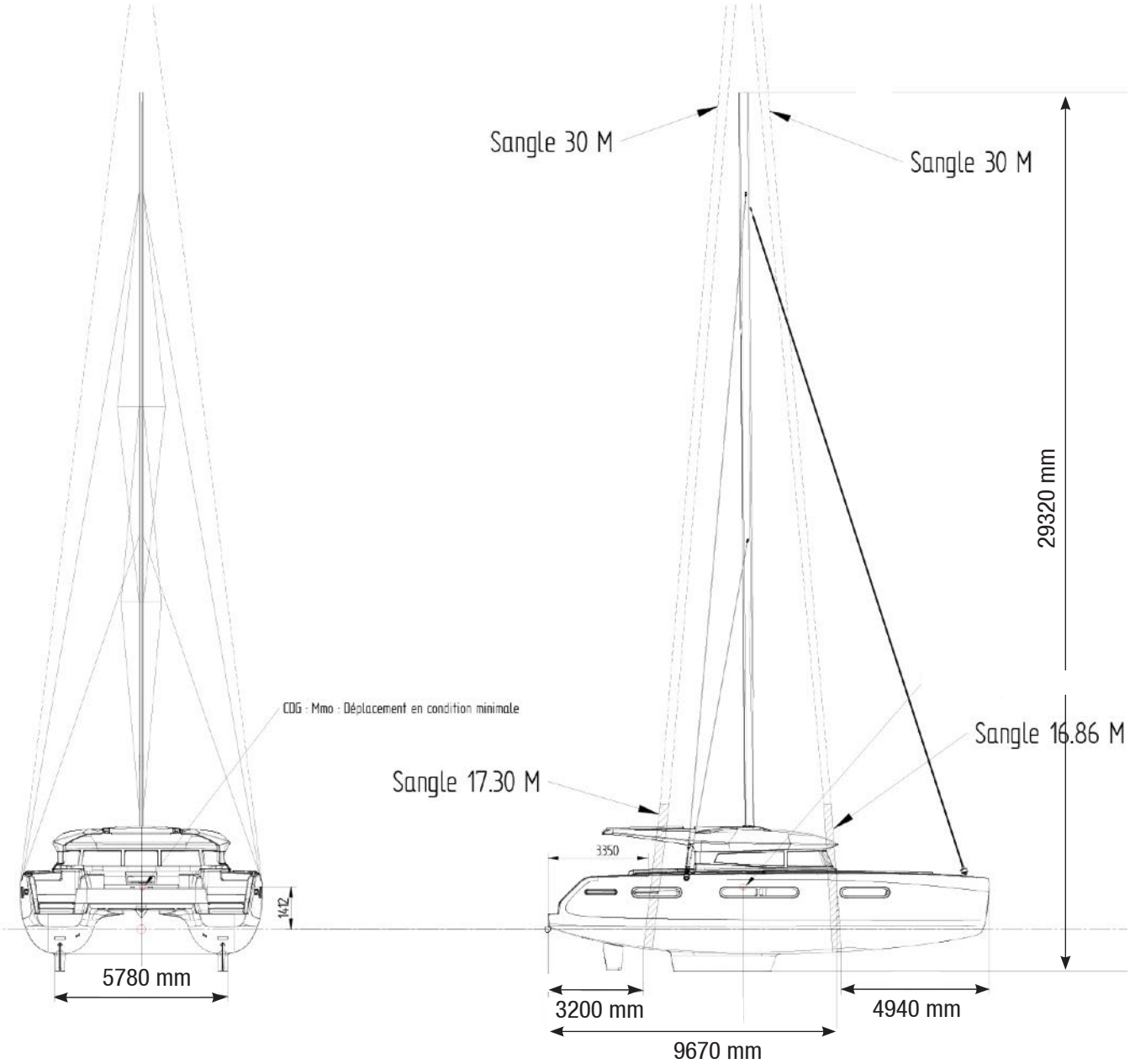
6.1 ■ DIAGRAM, DIMENSIONS AND POSITIONS OF THE HOISTING BELTS

CAUTION

Make sure that the boat is stable on its tow lines, both lengthways and widthways.

ADVICE-RECOMMENDATIONS

Call on a diver for the strainers and sea-cocks fittings.



The necessary hoisting belts are described below:
- Two lifting slings with flat straps
- Four carrying bands
- Two folded eyes – CAT2

CMU: 16 T
Working length: 17M30 (AFT) and 16M86 (BOW)

7. Other precautions

WARNING

Naked flame appliances using fuel use the oxygen of the cabin and release combustion products in the boat.
It is necessary to ventilate when these appliances are in use.
Open the vents provided for this purpose when these appliances are in use.
Never block air vents and check that flued appliances are in proper working order.

CAUTION

Check that all mobile components are fixed to their seagoing station when sailing.

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