



# OWNER'S MANUAL



This manual is specifically assigned to **J109** N° FR – JBE \_\_\_\_\_

This document must always be kept on board.

It contains 37 pages, numbered 1 to 37,  
plus 28 pages of appendices numbered A1 to A28.

Issued 18 April 2007



## Your dealer

Name :

Address :

Tel :

This is our local representative who can provide all the necessary assistance and answer all your questions. He can also guide and advise you on the technical checks for commissioning your boat and on how to maintain it.

As soon as you receive your owner's manual date and sign the receipt below and return it within 8 days to **J EUROPE**, to be covered by our warranty. If not, date of departure from our yard will be taken into account as departure for the warranty.

## Owner's manual receipt

I undersign :

Name

Adress

Owner of **J109** N :

FR-JBE \_ \_ \_ \_ \_

déclare that I have received the owner's manual and accept its redaction in english language.

Date:

Signature :

**Receipt to return in last page**



# SOMMAIRE

Page

1. VESSEL DESIGN CATEGORY .....	6
2. TECHNICAL CHARACTERISTICS .....	8
3. CONTRUCTION .....	9
4. INTERNAL FITTINGS .....	10
5. ELECTRICITY .....	12
6. LIGHTNING PROTECTION .....	16
7. MECHANICAL SYSTEM .....	17
8. FUEL SYSTEM .....	18
9. STEERING EQUIPMENT .....	21
10. GAS.....	22
11. PLUMBING SYSTEM .....	24
12. FLOODING / DRAINING.....	25
13. FIRE PROTECTION .....	26
14. SAILS AND RIGGING .....	28
15. TOPSIDE FITTINGS.....	30
16. SAFETY.....	31
17. PROTECTION DE L'ENVIRONNEMENT .....	33
18. PROTECTION OF THE ENVIRONMENT .....	34
19. HANDLING, DRY-DOCKING.....	35
20. WARRANTY .....	36
21. SEA AND RIVER CHARTER.....	37



## INTRODUCTION

Dear “J” Owner,

Welcome aboard ... and welcome to the “family of J owners”.

This manual has been compiled to help you to use and enjoy your vessel safely. It contains details on the vessel, the equipment supplied or installed, its systems and information on their use. Read it carefully and familiarise yourself with the vessel before you use it. Even if your vessel is rated for them, the sea and wind conditions corresponding to design categories A, B and C vary from a strong storm to severe conditions with the risk of abnormal waves or gusts. These are therefore dangerous conditions, in which only an experienced, fit and well-trained crew operating a well-maintained vessel can navigate satisfactorily.

Ensure that the forecast wind and sea conditions match your vessel’s design category and that you and your crew are capable of operating the vessel in these conditions.

This owner’s manual is not a course in navigating safely or exercising marine common sense. If this is your first vessel or if you are changing to a type of vessel with which you are not familiar, for your own comfort and safety ensure that you obtain experience in manoeuvring and operating it before you take over the controls. Your dealer, your national sailing federation or your local yacht club will be pleased to inform you of the sailing schools and competent instructors in your area.

This owner’s manual is not a detailed maintenance or repairs guide. In case of difficulties, contact the vessel’s manufacturer or his representative.

Always use the services of an experienced profession for maintenance and fitting accessories. Any modifications that may affect the vessel’s safety characteristics must be assessed, performed and documented by appropriately skilled people. The vessel’s manufacturer cannot be held responsible for any modifications he has not approved.



NB: Any change in the weight distribution on board (for example, the addition of, radar or a reefing mast, changing an engine, etc.) can affect the stability, trim and performance of your vessel.

Users of this vessel are advised that:

- All the crew must receive appropriate training;
- The vessel must not be loaded beyond the maximum load recommended by the manufacturer;
- Any water in the bilges must be kept to a minimum;
- Stability is reduced when weight is added to the tops;
- In the event of heavy weather, the hatch covers, lockers and doors must be closed to minimise the risk of water penetrating;
- Stability may be reduced when towing a vessel or lifting heavy weights using davits or the boom;
- Breaking waves represent a significant danger to stability;
- In certain countries, a navigation licence or authorisation is required or specific regulations are in force.

Always maintain your vessel correctly and note any deterioration caused by the weather or heavy or inappropriate use of the vessel.

Any vessel – however robust – can be severely damaged if it is wrongly used. This is not compatible with safe navigation. Always adapt the vessel's speed and direction to the sea and wind conditions.

If your vessel is equipped with a life raft, read its instruction manual carefully. The crew must be familiar with the use of all the safety equipment (safety harness, signal rockets, life raft, etc.) and the emergency operations (recovering someone from the sea, towing, etc.): sailing schools and clubs regularly organise training sessions.

Please keep this manual in a safe place and pass it on to the new owner if you sell the vessel.

### **PLEASE NOTE**

***We make regular improvements to our vessels based on our customers' experiences and research conducted by the shipyard: the specifications in this owner's manual are therefore not contractual and may be modified without notice and without any requirement to update this manual. The manual is designed to cover a maximum amount of information and some paragraphs and equipment may not concern your vessel. If you are in any doubt, please refer to the inventory that your dealer must have supplied you with when you placed your order.***

# **1. VESSEL DESIGN CATEGORY**

## **1.1. GENERAL**

Your **J109** falls under the HIGH SEAS design category (Category A) in European Directive 94/25/CE amended 2003/44 CE relating to the design and construction of pleasure boats.

Your vessel is therefore designed to sail in normal conditions of use with wind could be upper than Beaufort Force 8 and significant wave heights upper than 4m.

Your vessel's ability to sail also depends on the skills of your crew, their physical capabilities, your vessel's maintenance and how it is equipped.

It is the skipper's responsibility to keep himself informed of the state of the sea and the meteorological conditions as well as the forecasts in the area in which he envisages sailing in order to keep within the limits described in the table below.

**J EUROPE** cannot warranty that the vessel will perform perfectly in exceptional wind and sea conditions (violent storm, hurricane, cyclone, waterspout, etc.).

<b>Design categories</b>	<b>Type of navigation</b>	<b>Wind strength (Beaufort scale)</b>	<b>Wave height to consider significant</b>
A	High sea	More than 8	More than 4 m
B	Off-shore	Up to and including 8	Up to and including 4m
C	Coastal	Up to and including 6	Up to and including 2m
D	Sheltered waters	Up to and including 4	Up to and including 0.3m

This boat has been assessed using the Stability Index (STIX), which is a measure of the overall stability safety and considers the effects of boat length, displacement, hull proportions, stability characteristics and resistance to downflooding. This assessment has yielded the following data:

	<b>Minimum operating condition</b>	<b>Maximum load condition</b>
<b>STIX</b>	<b>32.08</b>	<b>32.63</b>



## 1.2. MAXIMUM AUTHORISED LOAD

**J EUROPE** has determined the maximum authorised load in order to assess the stability and buoyancy for each sailing category

Design category	A	B	C	D
Number of people (x75) weight of crew	450	600	750	750
Personnal equipment	190	190	190	190
A : Fuel weight : 70	200	200	200	200
B : Fresh water weight : 130				
C : Black water weight : 0				
D : Grey water weight :				
Total liquid mass (A + B + C + D) : 200				
Additionnal weight	20	20	20	20
Raft	60	60	60	60
Options :	380	230	80	80
Autres :				
<b>Total : maximum load recommended <math>m_{MTL}</math> :</b>	<b>1300</b>	<b>1300</b>	<b>1300</b>	<b>1300</b>

Le dépassement de la charge maxi est un risque d'envahissement et de perte de stabilité.

### ATTENTION:

La charge max indiquée sur la plaque constructeur (conformément à la législation) correspond à la charge maximale moins la masse totale des liquides) soit pour le **J109**

Charge max (1300 kg) – carburant 70 kg – eau douce 130kg = indication sur la plaque 1100 kg

**THEREFORE PLEASE TAKE CARE BEFORE PUTTING TO SEA**

Check the weather before setting sail.

In port: every day, the harbour authority posts weather bulletins and forecasts for the following days.

Météo France: Tel 08.36.68.08.08.

Navifax – direct line: 08.36.70.18.52.

VHF: CROSS broadcasts several bulletins every day after an announcement on Channel 16.



## 2. TECHNICAL CHARACTERISTICS

Model : **J109**  
 Architect : Rod Johnstone  
 EC design category : A Certificate n°: A010054V  
 Notified organization : ICNN (CE/0607)

Length overall : 10.75 m  
 Length wateline : 9.30 m  
 Max. beam : 3.51 m  
 Draft :  
     Short draft 1.85 m  
     Standard draft 2.10 m  
 Mast height above water 16.50 m

Ballast (short / std): 1 970 kg / 1 760 kg  
 Displacement - lightship : 5 160 kg / 4 950 kg

Category :	A	B	C	D
Max. load capacity (kg) :	1300	1300	1300	1300
Number of persons :	6	8	10	10

### **Exceeding the max. loading authorized is a risk of water invasion and stability loss.**

Mainsail area:	38.0 m <sup>2</sup>	I :	14.17 m
Medium Genoa :	45.0 m <sup>2</sup>	J :	4.05 m
Solent :	30.0 m <sup>2</sup>	P :	13.18 m
Jib storm :	6.0 m <sup>2</sup>	E :	4.72 m
Asy Spin.	120 m <sup>2</sup>	ISP	5.72 m
Medium Asy Spin	90 m <sup>2</sup>		

Water tank : 1 x 130 l approx.  
 Fuel tank : 1 x 85 l approx.

Engine: ..... N° .....  
 Installed power : .....HP .....kW  
 Max. authorized power : 25 kW

Engine battery : 1 x 12 V 70 A (approx.)  
 Service battery : 1 x 12 V 120 A (option total = 160 A approx)  
 Alternator : 12 V 115 A / h  
 Gaz bottle : 2.8 kg type camping gaz  
 Hull area : 24 m<sup>2</sup> approx.

Aluminium mast: Sparcraft  
 Furling system : Harken Unit 1





### **3. CONSTRUCTION**

Your **J109** has benefited both from the care and attention of all the workers in the shipyard who have been involved in its construction and from architectural and technological innovations, which place this vessel on the cutting edge of progress. From its wealth of experience, **J EUROPE** has selected only high quality products for the construction of your **J109**.

The hull and the deck are in sandwich using unified, bidirectional materials. They have been manufactured by infusion using the TPI patented “SCRIMP” process, which enables a laminate to be produced with a glass content in excess of 65% in the structural components.

The interior fittings in your **J109** are made from polyester and marine plywood and are laminated to the hull and the deck for greater homogeneity and rigidity. We pay particular care and attention to the quality of the varnish, which is applied in several coats.

The floors are in grooved laminated plywood.

The ballast is glued with epoxy adhesive and solidly bolted to the hull with stainless steel backing plates and nuts. It is fitted at the end of construction, once the hull has become sufficiently rigid to avoid any risk of deformation. The lead ballast is protected with an epoxy coating.

Your **J109's** Bowsprit is made from carbon. A U-shaped chain plate wire enables you to lash the tacking control end block for the asymmetric spinnaker. Inside, an end enables the jib boom to extend from the rear of the cockpit. Warning: do not operate the jib boom when there is someone in the front cabin.

The rudder is suspended on self aligning bearings and made from glass laminate on an aluminium rudder stock .

## **4. INTERNAL FITTINGS**

The interior woodwork is in solid wood, veneer or glued laminate. All the wooden components are varnished or covered with white Formica. The floors are grooved, laminated plywood.

The ceiling panelling is in insulated washable imitation leather over foam rubber in the cabins and grooved wood in the saloon. The mattresses have removable covers.

### **4.1. FRONT CABIN**

- Large double berth with storage underneath
- Access door to the saloon
- Large closet and desk with storage above and below.
- Locker the length of the panelling above the port berth
- Lighting provided by a deck hatch (emergency exit) and spotlights

### **4.2. SALOON**

- Bench seats convertible to berths facing each other
- Extending central table on stainless steel support with flaps. Storage and bar in the fixed section of the table.
- Large storage space behind the seat backs
- Drinking water tank under the starboard seats
- Stainless steel handrails in the ceiling
- Lockers and bookshelves on either side (option)

### **4.3. HEAD**

- Access door to the saloon
- Moulded unit for better maintenance, including shower tray, WC pedestal and vanity unit with access doors to the valves, toilet roll holder
- Shower with hot and cold water under pressure
- Marine WC
- Shower drain pump
- Colour-contrasted synthetic resin counter top
- Towel rail
- Locker with mirror along the upper panelling
- Access door to the cockpit locker

#### **4.4. GALLEY (L shaped, portside)**

Stove with oven and 2 gas burners, with protective bar  
Stainless steel double basin sink built into the synthetic resin worktop  
Hot and cold water under pressure  
90-litre moulded refrigerator with large freezer compartment  
Storage under the sink.  
Large lockers along the upper panelling with display unit  
Laminated backsplash glued all round the worktop with integral handrail  
Waste bin under return unit with direct access from the worktop.

#### **4.5. CHART TABLE (Starboard)**

Large chart facing forward:  
Chart storage under table lid & pencil box  
Locker under chart table  
Bookshelves  
Large instrument panel on, with electric display 12V 12-functions  
Navigator's chair with storage below

#### **4.6. AFT CABINS**

Access door to saloon  
Large hanging locker  
Locker with doors, storage below and above  
Shelf along the hull side  
Large double berth  
Engine access door  
Fuel tank under berth

## 5. ELECTRICITY

Your **J109** is equipped with a 12V DC circuit and a 230V AC circuit

### 5.1. SAFETY ADVICE & INSTRUCTIONS FOR USING THE ELECTRICAL SYSTEM

#### WARNING

**Never:**

- ✎ Work on any electrical installation while it is switched on or receiving power.
- ✎ Alter an installation and the relevant layout, unless this is done by a qualified marine electrician.
- ✎ Change or alter the rating of the overload protection fuses and breakers.
- ✎ Install or replace electrical equipment and material with components exceeding the prescribed ratings without recalibrating the conductors and their protection.
- ✎ Leave the vessel unattended when the electrical system is powered.

#### IMPORTANT

**Always:**

- ✎ Check the condition of the batteries (charge and electrolyte level) and the charging system before putting to sea.
- ✎ Disconnect and remove the batteries for wintering.
- ✎ Keep the battery voltage at over 10.V during wintering.
- ✎ Check that the navigation equipment is operating.
- ✎ Check that the navigation lights are working properly before night voyages and carry replacement bulbs for all the navigation and interior lights.

### 5.2. 12V DC CIRCUIT

The 12V circuit contains two sets of batteries. An approx. 70A gel or AGM battery for the engine and one 120A (approx.) gel or AGM batterie for the domestic equipments. Each set of batteries is linked to cut-outs (+ and -). The cut-outs are located under the chart table. The circuit is protected by a 160A (approx.) fuse located near to the domestic equipment batterie. The charger and the divider are located aft the engine.

To switch the installation on, you must switch on both the “+” and “-“ cut-outs. Power is then supplied to the electrical panel.

The 12V DC 12-functions electrical panel, protected by single-pole circuit breakers, is located on the chart table. Close the relevant switch to power a particular function. The relevant wiring diagrams are enclosed with this manual.

## IMPORTANT

Never turn the engine with the load circuit disconnected, otherwise you could damage the alternator.

### 5.3. ELECTRICAL CONSUMPTION

The capacity of the batteries has been designed to meet the power requirements of the accessories on board. You must ensure that they are well-charged and well-maintained to avoid any problems.

## IMPORTANT

When you install new electrical equipment, ensure that your battery can still handle the overall consumption.

#### 5.3.1. Calculating the consumption

To calculate your equipment's consumption and determine how long your batteries can operate before they need to be recharged, you simply have to multiply the consumption by the number of appliance and the operating time in hours.

E.g. 1 navigation light       $2.1 \text{ Ah} \times 1 \text{ light} \times 3 \text{ hours} = 6.3 \text{ A}$

The batteries' output equals 70% so this result must be multiplied by 1.4, i.e.:

$6.3 \times 1.4 = 8.8 \text{ A}$ .

The **J109** alternator supplies 115A in one hour. You must therefore run the engine for  $(8.8 \times 60) / 115 = 4.6$  minutes to recharge the batteries.

#### 5.3.2. Maximum consumption of the electrical equipment

Type of equipment	Consumption
Two-colour light	2.1 A
Ceiling light	0.8 A
Electric pump	10 A

#### 5.3.3. Sample consumptions of electrical appliances

Type of equipment	Consumption
Radiotelephone, VHF on standby	1A
Radiotelephone, VHF transmitting	5A
Speedo log	0.1A
Anemovane	0.1A
Refrigeration unit	5A

## **5.4. INSTALLATION OF NEW EQUIPMENT**

Since January 1<sup>st</sup> 1996, the equipment electric has been subject to the European “Electromagnetic Compatibility” Directive (Ref. 89/336/EEC). Only new equipment meeting this standard and bearing the CE mark must be installed. The equipment must also be supplied with a certificate of conformity and an instructions manual.

Contact your concessionaire for installing the equipment or carefully follow the installation instructions (cable cross-sections, protection).

To avoid maintenance problems, note any alterations to the electrical layout in the manual.

### **IMPORTANT**

When you install new electrical equipment, ensure that your battery can still handle the overall consumption.

## **5.5. ELECTRIC WINDLASS (OPTION)**

### **IMPORTANT**

When you use the electric windlass, remember that it consumes a lot of electricity and read the manufacturer’s instructions.

## **5.6. 230V AC (110V AC) CIRCUIT**

The 220V or 110V system on board is protected by a circuit breaker and fitted with a differential switch located aft the engine room. Any additional wiring for 220V or 110V accessories on board must be performed by professional marine electricians and the main circuit breaker recalibrated if necessary.

### **IMPORTANT**

- 🔧 Do not alter the vessel’s electrical installations or the relevant layouts. Installation, modification and maintenance should be performed by a qualified marine electrician.
- 👉 Check the system at least every two years.
- 👉 Disconnect the vessel’s power connections when the system is not being used
- 👉 Connect the metal boxes and casings for the electrical appliances installed to the vessel’s protective conductor (green or green/yellow wire).
- 👉 Use double-insulated or earthed (grounded) electrical appliances

### 5.6.1. Standard circuit

The AC 230V circuit is protected by a 16A-30mA differential switch (located on the charger), and two 10A distributional circuit breakers supplying the water heater and 230V AC sockets. Your vessel is fitted with a water heater and a charger located in the engine compartment.

If you wish to install any 230V AC equipment yourself, use double-insulated or 3-wire equipment as far as possible. Connect the metal boxes and casings for the electrical appliances installed to the vessel's protective conductor (green or green/yellow wire).

#### WARNING

##### **To reduce the risks of electric shock or fire:**

- 👉 Cut off the power supply from the quay using the isolating system installed before connecting or disconnecting the vessel / quay power supply cable.
- 👉 Connect the vessel / quay power supply cable to the vessel before connecting it to the power point on the quay.
- 👉 Disconnect the vessel / quay power supply cable first of all from the power point on the quay.
- 👉 Carefully close the protection over the quay power point
- 👉 Do not let the end of the vessel / quay power supply cable dangle in the water, this can create an electrical field capable of injuring or killing swimmers nearby.
- 👉 Do not alter the connections for the vessel / quay power supply cable. Only use appropriate connections.

#### AVERTISSEMENT

##### **Pour réduire les risques de choc électrique et d'incendie :**

- 👉 Couper l'alimentation à quai au niveau du dispositif de sectionnement installé avant de brancher ou de débrancher le câble d'alimentation navire / quai.
- 👉 Brancher le câble d'alimentation navire / quai dans le navire avant de le brancher à la prise du quai.
- 👉 Débrancher le câble d'alimentation navire / quai d'abord au niveau de la prise de quai.
- 👉 Bien fermer la protection de la prise de quai
- 👉 Ne laisser pas l'extrémité du câble d'alimentation navire / quai pendre dans l'eau. Il peut en résulter un champ électrique susceptible de blesser ou tuer des nageurs situés à proximité.
- 👉 Ne pas modifier les raccords du câble d'alimentation navire / quai. N'utiliser que des raccords compatibles.

## 6. LIGHTNING PROTECTION

Your **J109** is protected against lightning. The rigging is electrically connected to the earth system a stainless steel via a chain plate and an earthing braid connecting the earth to the ballast bolts. However, for your own safety, you must take certain precautions.

### 6.1. MAINTENANCE

If the vessel is struck by lightning:

- The lightning protection system must be examined for any physical damage and the system's integrity and earth continuity must be checked.
- The compasses and electrical and electronic devices must be inspected to determine whether they have suffered any damage or change in calibration.
- If they are designed to form part of the lightning protection system, the flexible radio antennae must be attached at the bottom during a storm

### 6.2. PROTECTING PEOPLE DURING A STORM

#### WARNING

It is best to follow the instructions below during a storm:

- 👉 Remain inside the closed vessel as much as possible.
- 👉 Do not go into the water or dangle your hands and/or legs in the water.
- 👉 Ensure satisfactory control of the vessel and the steering but do not touch any part connected to a lightning protection system, and particularly not so as to form a connection between these components. (For example, we do not recommend that the operator touches the reversing levers at the same time as the control handle for a searchlight).
- 👉 Avoid any contact with the metal parts of the rigging, the spars, the topside fittings and the metal cables.



## **7. MECHANICAL SYSTEM**

### **7.1. GENERAL**

Your vessel is fitted as standard with a 13KW Volvo Sail-drive D1-20-130S engine. It has a two bladed folding type propeller: LH 16x11 twin bladed two bladed folding  
As an option, your vessel can be equipped as follows:

Engine

Volvo D1-30 – 130S

Propeller

type: LH 17x14 twin-blade duckbill

### **7.2. OPERATION**

To start the engine, you must switch on both the “+” and “-“ cut-outs. Then follow the instructions below after reading the engine’s operating instructions.

### **7.3. MAINTENANCE**

You must perform regular maintenance in accordance with the manufacturer’s recommendations.

Carefully read the engine and sail drive operating instructions supplied with the vessel.  
Do not hesitate to contact your dealer.

In particular, follow the instructions regarding wintering. In the absence of any precise details, proceed as follows:

- Close the engine water inlet valve
- Disconnect the hose from the water inlet valve
- Drain the seawater circuit
- Insert the hose into a can of permanent -25° fluid
- Turn the engine until liquid flows from the exhaust
- Reconnect the hose to the valve when the operation is complete
- Stick a notice on the electrical control panel and the battery cut-outs indicating that the engine water inlet valve is closed.

#### **IMPORTANT**

- 👉 Check the oil and water levels regularly (engine and reversing system).
- 👉 Carefully observe the maintenance and overhauling instructions provided by the manufacturer of the engine and the sail drive.
- 👉 Regularly check the condition of the sail drive’s anode and replace it if necessary.
- 👉 Do not stow anything in the engine compartment.

## 7.4. EXHAUST GAS EMISSION

### DANGER

Combustion engines produce carbon monoxide. Prolonged exposure to exhaust gases can have serious after-effects and even result in death.

## 7.5. SAFETY

### PRECAUTIONS !

In all circumstances, adapt your vessel's speed to the prevailing conditions and maintain a safety margin. Pay particular attention to:

- The condition of the sea, the currents and the force of the wind.
- Traffic.
- Port manoeuvres.
- Travelling through the mooring areas.
- The noise, movements and wake you create.

## 8. FUEL SYSTEM

### 8.1. GENERAL

### WARNING

The nominal fuel capacity is not fully usable, depending on your vessel's loading and trim. For safety's sake keep a reserve of 20%

#### Never:

- ☞ Stow inflammable material in unventilated spaces.
- ☞ Smoke while filling the tanks.
- ☞ Obstruct the ventilation holes (vent and engine ventilation grill).
- ☞ Block access to the isolating valve

### 8.2. DIESEL CIRCUIT

Your **J109's** diesel circuit has been produced in accordance with ISO 7840 standards. There is an isolating valve on the tank (under the saloon seat). There is a fuel gauge on the electrical panel.

*Do not modify your vessel's diesel circuit. Regularly check the condition of the pipes and especially the collars. If there is any deterioration, replace the pipes with pipes bearing the same markings. Regularly check the condition of the diesel pre-filter and replace the cartridge regularly.*



### **STARTING THE ENGINE:**

- Open the fuel valve
- Check the engine's oil level
- Check the coolant level
- Check the battery charge level
- Set the fuel control lever to the middle position and the clutch to neutral
- Turn the ignition
- Start the engine
- Check the water outflow
- Check all alarms and warning lights are off.
- Let the engine warm up on tick-over for 5 to 6 minutes
- Check the cooling, fuel, lubricant and exhaust circuits are well sealed

If you are in any doubt or encounter a problem, consult the owner's manual, the technical instructions and the drawings or contact your dealer.

### **STOPPING THE ENGINE:**

- Let the engine tick over for 5 minutes
- Press the Start/Stop button
- Switch off the ignition
- Close the various valves.

If you are in any doubt or encounter a problem, consult the owner's manual, the technical instructions and the drawings or contact your dealer.

### **FILLING THE TANK:**

- Keep a fire extinguisher nearby
- Switch off the engine
- Switch off the electrical equipment
- Close the hatches and portholes
- Do not fill the tank completely to allow for the fuel to expand

If you are in any doubt or encounter a problem, consult the owner's manual, the technical instructions and the drawings or contact your dealer.

## **BEFORE LEAVING PORT**

Check the weather

Take on supplies

Sailing clothing

Compulsory on-board and operating documents and equipment

Safety equipment (life jackets, harnesses, extinguishers, distress rockets, emergency tiller)

Safety instructions given to the crew with indication of the equipment locations

Bilge pumps in operating condition

☐ Navigation lights in operating condition

☐ Fuel tanks filled

☐ Water tank filled

☐ Check all the circuits are well sealed

☐ Check the coolant level

☐ Check the rudders are operating correctly

☐ Diesel filters clean and in good condition

☐ Engine oil levels

☐ Battery levels

☐ Rigging in good condition (tension of the shrouds)

Topside fittings in good condition (pulleys, winches, cordage, winders, cranks, nuts)

Sheets in good condition (seams, bolt ropes, carriers)

Close the portholes and hatch covers

If you are in any doubt or encounter a problem, consult the owner's manual, the technical instructions and the drawings or contact your dealer.

## **ON RETURN:**

Correctly moor and protect the vessel

Dry and stow the sails

Dry and stow the safety equipment

Rinse off the vessel with fresh water

Rig the halyards so that they do not flap

Coil the various rope ends

No leaks in the fuel circuits

No leaks in the plumbing and drainage circuits

Close the valves

Open the fridge (to allow to air) circulate

Switch off the electrical circuit

If you are in any doubt or encounter a problem, consult the owner's manual, the technical instructions and the drawings or contact your dealer.

## 9. STEERING EQUIPMENT

The steering equipment is an essential element for your vessel's comfort and safety.

The **J109** is fitted with a chain/wire system. The rudder is mounted on self-aligning bearings, which gives the system remarkable flexibility and sensitivity.

### 9.1. HELM

The **J109** is fitted with a chain/wire system type of helm.

Periodic checks to make:

- Check the play in the various elements (rudder spindle / bearings, quadrant / spindle, pulley shafts, etc.).
- Tension of the steering cables (it is normal to retighten the wires after first use).

If you are in any doubt or encounter a problem, contact your dealer.

### 9.2. EMERGENCY TILLER

#### IMPORTANT

The **J109** is fitted with an emergency tiller, which must remain readily accessible.

To use this:

- Fit out the cap of the rudder bearing (on the cockpit floor).
- Fit the tiller on the top of the rudder spindle.
- Reduce your speed

## 10. GAS

### 10.1. SYSTEM CHARACTERISTICS

Type of bottle: Camping Gaz butane 2.8 kg, maximum flow through the regulator: 500 g/h, system operating pressure: 28 mb. There is an isolating valve in the locker near the galley. The ventilation holes are the access door and the porthole above the stove.

#### INSTRUCTIONS FOR USE

- 👉 Carefully read the instructions for using the stove and the regulator.
- 👉 Close the valves on the supply hoses and the bottles when the appliances are not being used, even if the bottle is considered to be empty.
- 👉 Ensure that the stove's taps are closed before opening the bottle valve
- 👉 Close all the gas circuit's valves when the vessel is not occupied, even if the bottle is considered to be empty.
- 👉 Ensure that the valves on empty bottles are closed and disconnected. Keep the protective devices, the caps and the stoppers in place. Store spare bottles in well-ventilated places under the deck or in the gas-tight, externally ventilated locker provided for this purpose.
- 👉 Appliances with a naked flame burning fuel use up oxygen in the cabin and emit combustion products into the vessel. Ventilation is required when these appliances are in use. Open the ventilation openings provided for this purpose when using these installations.
- 👉 If you smell gas, close the taps on the stove and on the gas circuit, ventilate the vessel and trace the leak.
  
- 🚫 Do not use the stove or the oven to heat the living areas.
- 🚫 Never block the openings provided for ventilation purposes.
- 🚫 Never block access to parts of the installation supplied with LPG in any way whatsoever.
- 🚫 Never use the storage area (locker) for LPG bottles for storing other equipment.
- 🚫 Never smoke when going down into the vessel's interior when this has been closed up: ensure there is no smell of gas
- 🚫 Do not use the stove when there is the probability of a large amount of roll or a permanent list.

#### WARNING

- 👉 The gas circuit's valves must be closed immediately in the event of an emergency.
- 🚫 Never leave the vessel unattended with a gas appliance operating.

## 10.2. CHECKING THE CIRCUIT

The gas circuit must be periodically checked as follows:

Regularly check that the LPG system is correctly sealed. Check that all the connections are tight using a leak detector or soapy water with the appliance's taps closed and the gas bottle's tap open. In the event of a leak, close the gas bottle's tap and repair the installation before using it again. The repairs should be done by a qualified marine electrician. Do not hesitate to contact your concessionaire.

### WARNING

👉 Do not use solutions containing ammonia.

### DANGER

👉 The hoses must be regularly checked, at least once a year, and replaced on the date written on the hose or if they are damaged.

👉 Never use a naked flame to search for leaks

## 10.3. CHANGING THE GAS BOTTLE

### WARNING

👉 Close the stove's taps and the tap in the rear starboard cabin's closet.

👉 Close the taps before changing the bottle and immediately in the event of an emergency.

👉 Ensure that the appliance's taps are closed before opening the tap on the bottle.

👉 Do not smoke or use a naked flame while replacing the gas bottle.

## 11. PLUMBING SYSTEM

### 11.1. GENERAL

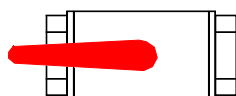
The various plumbing layouts are attached

The standard valves used on your **J109** are ¼ turn type valves:

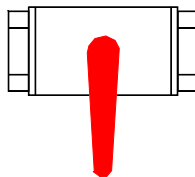
CLOSED position: lever perpendicular to the pipe

OPEN position: lever in the same direction as the pipe.

Valve open



Valve closed



Total shut-off valves and through-hulls can be fitted as an option.

#### WARNING

- 👉 In bad weather or when leaving your vessel, close all the plumbing circuit valves.
- 👉 Always keep the valves closed when sailing if they are not being used.
- 👉 During wintering, clean and rinse the through-hulls and valves. Inspect the brass accessories. Slight superficial corrosion is normal.
- 👉 If there is more serious corrosion, contact your dealer.
- 👉 If a holding tank is fitted, ensure that the 3-port valve on the EVACUATION TANK is locked to avoid any inadvertent discharge.
- 👉 Never alter the tightness of the valves on the hull. If there is a leak, contact your concessionaire.

### 11.2. FRESHWATER CIRCUIT

The **J 109's** pressurised fresh water circuit consists of one tank linked to the water system located behind the back of the bench seat in the saloon starboard-side. This system enables the pressure in the circuit to be controlled and “surges” to be avoided.

**Never run the pump if the tank is empty: switch to the other tank (if fitted) or refill the tank.**

Hot water is produced by a water heater connected to the engine's cooling circuit and the electrical socket on the quay.



### **11.3. OPERATION OF THE MARINE WC**

- Open the seawater inlet valve.
- Open the seawater drain valve.
- Set the lever to the "OPEN - FLUSH' position'.
- Operate the pump.
- To empty the bowl and avoid the water moving around when listing, set the lever to "CLOSED - DRY BOWL".
- Run the pump until the bowl is dry.
- When the WCs are not being used, set the lever to the "CLOSED - DRY BOWL" position
- **Close the valves after use.**

Never throw anything into the WCs. If the drain should become blocked, check that the valves are correctly closed before disconnecting the pipes.

## **12. FLOODING / DRAINING**

### **12.1. . CHARACTERISTICS OF THE DRAINAGE SYSTEM**

The **J109** has two bilge pumps enabling the vessel to be pumped out:

- A 12V DC bilge pump with a minimum flow of 30 l/min located in the keel sump. This pump is fitted with a level contactor; you can choose between automatic and forced operation.
- A manual bilge pump, located in the cockpit, pumping out in front of the engine compartment or in the keel sump.

Carefully read the instructions for the pumps, especially regarding their maintenance.

### **12.2. DRAINAGE CIRCUIT (See Drawing)**

Ensure that the bilge pumps are in good operating condition before putting to sea. Familiarize yourself with the bilge pump system

- Locate the hand pumps and their operating lever,
- Locate the switch for the electric bilge pumps on the electrical control panel.

## WARNING

To reduce the risk of the vessel flooding:

- 👉 Check that all the bilge pumps are working correctly at regular intervals.
- 👉 Remove any accumulated debris blocking the suction holes.
- 👉 Close the plumbing system's valves when sailing.
- 👉 Close the hatch covers and portholes every time before you sail.
  
- 👉 Periodically check that:
  - The through-hulls, valves and pipes are watertight.
  - The cockpit drains are working correctly.

## WARNING

The total capacity of the bilge pump system is not designed to drain the vessel in the event of damage to the hull.

## 13. FIRE PROTECTION

### 13.1. FIRE-FIGHTING EQUIPMENT

Fire extinguishers are subject to national regulations and therefore your vessel is supplied without an extinguisher. If a fire occurs in the engine compartment, you can extinguish the fire without opening the compartment. To do this, you must remove the plug marked "Fire Extinction Hole" under the engine compartment access hatch, place the nozzle over this opening and operate the fire extinguisher.

The emergency exits are the companion ladder and the deck hatch in the front cabin

### 13.2. PORTABLE EXTINGUISHERS

Your **J109** must be equipped when in use with portable extinguishers with the following fire extinction capabilities, installed in the following locations in accordance with ISO 9094-1 standard

No. 1:	Cockpit locker	Minimum fire extinction capability: 5A/34B
No. 2:	Companion ladder	Minimum fire extinction capability: 8A/68B
No. 3:	Front cabin	Minimum fire extinction capability: 5A/34B

Only suitable replacement parts must be used for the fire-protection systems. They must have the same indications and be technically equivalent.



### 13.2.1. Fire blanket

A fire blanket must be placed under the sink near to the stove and the engine compartment.

### 13.3. SAFETY INSTRUCTIONS

#### IMPORTANT

##### **It is the owner's responsibility of his skipper:**

- 👉 To equip the boat with the fire-fighting equipment before to use the boat.
- 👉 To have the fire-fighting equipment checked in accordance with the manufacturer's instructions.
- 👉 To replace the fire-fighting equipment, when it is out-of-date or discharged, with equipment of equal or greater capacity.
- 👉 To ensure that the fire-fighting equipment is easily accessible when the vessel is occupied
- 👉 To indicate to the members of the crew:
  - The fire-fighting equipment's location and operation
  - The location of the engine compartment discharge hole on the companion ladder (red plug).
  - The location of the routes and exits.

#### WARNING

##### **Always:**

- 👉 Ensure that the bilges are clean and regularly check that there are no fumes or gas or fuel leaks.
- 👉 When replacing fire-fighting equipment, only use similar items of the same designations and with equivalent technical capabilities and fire resistance

#### WARNING

##### **Never:**

- 👉 Block the passages to the emergency exits (exits and deck hatches).
- 👉 Block the safety controls (gas valve, fuel valve, electrical switch).
- 👉 Block the storage places for the extinguishers.
- 👉 Leave the vessel unattended with the stove lit and the heating system on
- 👉 Use gas lamps in the vessel.
- 👉 Fill a fuel tank or change a gas bottle when the engine, the stove or the heating system is on.
- 👉 Alter any of the vessel's installations (especially the electrical, fuel and gas installations) or let unqualified people alter any of the vessel's installations.
- 👉 Smoke while working with fuel or gas.
- 👉 Install freely hanging curtains or other fabric near or above the cooking appliances or other appliances with a naked flame.
- 👉 Store combustible materials in the engine compartment. If non-combustible materials are stored in the engine compartment, there must be no risk of their falling onto the machinery and they must not obstruct access into and out of the engine compartment.

#### WARNING

- 👉 Extinguishers operating on CO2 should only be used to combat electrical fires.
- 👉 Fire in the engine compartment should be extinguished using the extinguisher nozzle hole in the companion ladder's panel (red plug).
- 👉 Once a fire is out, avoid opening the engine compartment immediately so as to prevent any release of toxic fumes or the projection of incandescent products (oil, water).

## **14. SAILS AND RIGGING**

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

For metal cables:

- ROD standing rigging must be checked by a professional engineer at least every year
- Check for corrosion, particularly on the connection with the turnbuckles.
- Check the end pieces and turnbuckles are in good condition.

For the synthetic cables (Kevlar, Twaron, etc) for the runners and tackles, the halyards, the sheets, mooring ropes, etc., change them as soon as any signs of fraying or wear appear, and at least every 24 months.

Regularly check the other elements of the rigging, the sheets, the mooring ropes, etc. and replace them if worn

### **14.1. MAST – STANDING RIGGING**

The mast is an essential element of your boat so it is well dimensioned and strongly supported. However, your mast must be correctly adjusted and its condition regularly checked, as well as that of the standing rigging. On your **J109**, the mast is made from aluminium in standard and carbon (in option) and the standing rigging is made of discontinuous ROD. The backstay is equipped with a hydraulic cylinder. Carefully follow the mast manufacturer's instructions for adjusting and maintaining the masting.

### **14.2. GENOA/JIB FURLER**

Your **J109** is fitted with a Harken furler system, which has been chosen for its ease of use, its sturdiness and the quality of service the manufacturer provides. Regularly check the condition of the drum and the tubes. Follow the manufacturer's instructions.

### **14.3. THE SAILS**

The sails are your vessel's engine. Take care of them and they will provide their full performance. Follow the advice for setting and maintaining your vessel.

#### **14.3.1. Distributing the sails**

The table below provides some idea of the sail area to adopt according to the wind. However, you must also take into account elements other than the wind:

- The sea conditions.
- The crew's comfort and capabilities.
- Entering or leaving a port, the nearness of any danger
- Encountering a squall or fog.

### WARNING

This vessel can broach if it carries too much sail. Such circumstances could arise. It is advisable to reduce the sail area if the wind exceeds Force. 4 on the Beaufort scale. It is also advisable to be particularly vigilant if the wind is gusty or squally.

#### 14.3.2. Sails set

Maximum beaufort force advised for each sail combinaison

Main sail + Genoa jib	Force 4
Main sail with 1 reef + jib (75% of Lp)	Force 5
Main sail with 2 reefs + jib (50% of Lp)	Force 6
Main sail with 3 reefs + storm jib	Force 7
Storm jib	Force 8 and more

#### NOTES:

The wind force indicated above includes a margin to take into account the effect of gusts. In the case of violent winds or erratic or breaking seas, it is advisable to take additional precautions

In the event of a severe gust, FREE SHEETS

If wind is closehauled, LUFF UP

If wind is abeam, FREE SHEETS

If wind is abaft the beam, BEAR AWAY

Special care should be taken when turning from a following wind onto a beam reach, because both the apparent wind speed and heeling effect will increase. Such turns should not be made rapidly, and consideration should be given to a reduction in sail before such a manoeuvre

#### 14.4. RUNNING RIGGING

So that the ropes keep their original qualities as long as possible, you must rinse them in fresh water. It is inadvisable to leave rope permeated with salt in the sun because it will deteriorate rapidly.

## Description of the standard running rigging

$\emptyset$	Lg m	Type	Désignation	Description
10	40	Vectran	1 drisse de GV	Mainsail halyard
10	38	Vectran	1 drisse de foc	Jib halyard
12	40	Polyester	1 drisse de spi	Spin halyard
12	40	Dynema	1 écoute de GV	Mainsail sheet
12	18	Polyester	2 écoutes de foc	2 Jib sheets
12	25	Dynema	2 écoutes de spi	3 Spin sheets
10	22	Polyester	1 bout d'amure spi	Spin tack end
10	20	Polyester	1 bosse de ris1	Reef 1
10	24	Polyester	1 bosse de ris2	Reef 2
8	16	Polyester	1 contrôle bout dehors	Bow sprit control
6	2.5	Dynema	1 butée de bour dehors	Bowsprit end stop
8	10	Dynema	2 arthur GV	2 Mainsail travellers control line
6	12	Dynema	2 bouts réglage chariot génois	2 Jib traveller control lines
4	2.3	Dynema	palan fin GV	Small mainsail sheet

## 15. TOPSIDE FITTINGS

**J EUROPE** has selected high-quality topside fittings for your **J109**. Your vessel's topside fittings are set on appropriate reinforcements according to the load they will bear. Rinsing all the deck and topside fittings frequently in fresh water increases the various fittings' service life.

### 15.1. MAINTENANCE

The winches must be maintained at least once a year and before any major sailing activity.

The pulleys contain aluminium and stainless steel components and small pockmarks may therefore appear due to electrolysis. To slow down this phenomenon, rinse them frequently with fresh water and lubricate them with a Teflon or silicon-based product.

It is also possible that traces of rust may appear on your stainless steel components. The quality of the steel used should not be questioned; more often than not this is a ferruginous deposit or atmospheric agents. However, do not leave this in place: rinse it with fresh water and rub it gently with a passivating paste.

### 15.2. MOUNTING ADDITIONAL TOPSIDE FITTINGS

There should be no improvisation when mounting additional topside fittings. You must take several parameters into account; the position of the item, conflict with other parts, access from inside, load, etc. Contact your concessionaire, who is a professional.

## 16. **SAFETY**

### 16.1. **VISIBILITY FROM THE HELM**

Visibility from the cockpit can be obstructed because of the large angle of the vessel's trim or other factors caused by one or more of the following conditions:

- Loading and load distribution;
- Speed;
- Rapid acceleration;
- Transition from sailing to planing mode;
- The sea conditions;
- Rain and spray;
- Darkness and fog;
- Lights inside the vessel;
- The position of the upper and side awnings;
- The position of the sails
- People or removable equipment in the helmsman's field of vision.

The international rules to prevent collisions at sea (COLREG) and the traffic rules require constant appropriate vigilance and respect for priority. Compliance with these rules is essential.

#### **WARNING**

The field of vision from the cockpit is limited. Beware of collisions. When you are using the cockpit, keep a watch to front and rear as COLREG and the traffic rules require.

#### **WARNING**

The field of vision may be restricted when under sail. Beware of collisions. When you are using the cockpit, keep a watch to front and rear as COLREG and the traffic rules require.

### 16.2. **MAN OVERBOARD**

Your vessel is fitted with:

- Anchoring points for lifelines. Permanently fix lifelines and do not hesitate to attach harnesses to them as soon as you are operating under difficult sea or wind conditions,
- A harness anchoring point in the cockpit
- A swim ladder in the rear skirts: use this to rescue a man overboard.

### 16.3. **LIFT RAFT**

The requirement for and the definition of the type of life raft depends on each individual country. Nevertheless, the life raft(s) can be stored in the aft cockpit locker.

Carefully read their operating instructions. The crew must be familiar with the use of all the safety equipment (harness, distress rockets, life raft, etc.). Sailing schools and clubs regularly hold training sessions.

**If you padlock the cockpit lockers, remember to unlock them before getting under way.**

#### **16.4. SAFETY EQUIPMENT**

The compulsory safety equipment has not been harmonised within the European Community. It is advisable to inform you of the national regulations to which your boat is subject according to its registration flag.



## 17. PROTECTION DE L'ENVIRONNEMENT

### 17.1. GENERALITES

La plupart des produits d'entretien, les huiles moteurs et les hydrocarbures ne sont pas neutres pour l'environnement, il faut donc les décharger dans des lieux réglementés (renseignez-vous auprès de la capitainerie).

#### ATTENTION

- 👉 Certains produits peuvent également présenter des risques pour votre sécurité et celle des autres, c'est pourquoi il est important de lire et de respecter les conseils d'utilisation.
- 👉 Les substances utilisées doivent être étiquetées et stockées dans un endroit approprié du bateau.
- 👉 Ne pas mettre en route la pompe de cale quand il y a présence d'huile ou d'hydrocarbures dans le compartiment moteur car il est nécessaire de décharger ces produits dans des lieux réglementés.
- 👉 Ne pas utiliser les WC du bord dans un port
- 👉 Stocker vos poubelles pour les jeter une fois de retour au port.
- 👉 Ne jeter rien à la mer

### 17.2. RESERVOIRS A EAUX NOIRES / USEES

Le bateau n'est pas équipé en standard de réservoirs de rétention d'eaux noires / usées. Il est cependant possible en option de monter ce type de réservoir. Contacter votre concessionnaire.

### 17.3. PEINTURE, AGENT DE NETTOYAGE ET AUTRE PRODUITS TOXIQUES

Vous devez protéger les œuvres vives de votre coque par une peinture anti-salissures (antifouling) de façon régulière. Cette dernière protégera votre coque des algues et petits coquillages qui peuvent abîmer votre coque et nuire considérablement aux performances de votre **J109**.

#### IMPORTANT

- 👉 Respecter scrupuleusement la notice et la mise en œuvre des produits que vous utilisez
- 👉 Ne jamais recouvrir l'anode avec une couche d'antifouling

En règle générale les peintures et agents de nettoyage sont agressifs pour l'environnement, utilisez les sur des aires de carénage prévues à cet effet.

## **18. PROTECTION OF THE ENVIRONMENT**

### **18.1. GENERAL**

Most maintenance products, engine oils and hydrocarbons are not environmentally friendly and must be disposed of in the regulation locations (details available from the harbour office).

#### **WARNING**

- 👉 Certain products can also represent a risk to your health and that of others, which is why it is important to read and comply with the operating instructions.
- 👉 The substances used must be labelled and stored in an appropriate place in the vessel.
- 👉 Do not start the bilge pump when there is oil or hydrocarbons in the engine compartment because such products must be disposed of in the regulation locations.
- 👉 Do not use the on-board WC when in a port
- 👉 Store your waste bins so that they can be emptied once you return to port.
- 👉 Do not throw anything into the sea.

### **18.2. WASTEWATER TANKS**

The vessel is not fitted as standard with tanks for holding waste water; however these can be fitted as an option. Please contact your concessionaire.

### **18.3. PAINT, CLEANING AGENTS AND OTHER TOXIC PRODUCTS**

You must regularly protect the bottom of your hull with anti-fouling paint. This will protect your hull from algae and small seashells, which could damage your hull and seriously affect your vessel's performance.

#### **IMPORTANT**

- 👉 Carefully follow the instructions and application of the products you are using
- 👉 Never cover the anode with a layer of anti-fouling paint.

As a general rule, paint and cleaning agents are harmful to the environment: only use them on the areas of the hull designed for them.

## 19. HANDLING, DRY-DOCKING

Any handling operations must be carried out by professionals. During craning, ensure that the slings are positioned correctly and that they are not pressing against the base of the engine or a fragile sensor. There are small arrows under the washboard rail showing the position of the slings.

The gantry cranes must be quite broad or equipped with spacers so as not to exert excessive transverse stresses on the planking or the guard rails.

When transporting or dry-docking the vessel, the (lead) keel must be resting on its sole plate without supporting the whole weight of the boat.

The cradle pads must be positioned on the structural elements. The weight of the vessel must be distributed evenly over all the pads.

Take advantages of the vessel being out of water to inspect your hull, the engine's sail drive base plate, the rudder, the through-hulls and the sensors and to check the condition of the anodes.

### IMPORTANT

Precautions to take for removing your vessel from the water

- 👉 Raise the log propeller.
- 👉 Check that the rear strap is not pressing on the sail drive's base plate.
- 👉 Check the mast's attachment.
- 👉 Switch off the engine before removing the vessel from the water.
- 👉 Do not remain on board during craning.

## **20. WARRANTY**

We provide a warranty for the legal period against any hidden defect that would render our products unsuitable for sailing. Any modification of the products, in particular by the addition of parts other than original parts will result in the warranty being rescinded.

The warranty allows the purchaser to obtain the repair or the replacement of any component acknowledged as defective once the user has performed the required maintenance normally and appropriately. Our warranty does not cover transport expenses or handling charges, or any other damage, particularly in relation to the vessel being immobilised.

### **Legal warranty**

The shipyard is required to provide the legal warranty defined in Articles 7 and 8 of Act No. 6765 of 3/01/67 regarding the condition of vessels, worded as follows:

Article 7: The manufacturer is the guarantor against any hidden defects in the vessel despite its acceptance by the customer without reservation.

Article 8: Any action under the warranty against the manufacturer is restricted to one year. This period does not commence as regards a hidden defect until its discovery.

### **Contractual warranty**

Without prejudice to the legal warranties, the owner, who a company or a physical person, benefits personally from a one-year warranty, from the final date of the receiving the vessel, covering, inter alia, any material or construction defects.

The warranty covers the whole of the vessel, the materials and the equipment installed on board the vessel by the shipyard, its suppliers and its subcontractors, for which the shipyard has issued an invoice.

The warranty covers parts and labour

It is restricted to repairing or replacing parts or equipment acknowledged as defective for use without the manufacturer having to bear the costs or the consequences of the defect.

The warranty is rescinded and the manufacturer released from liability if:

The equipment has been transformed, modified or repaired outside the shipyard without the manufacturer's prior consent.

A. If the use does not correspond to its technical characteristics,

B. The damage is due to fortunes of sea, negligence or poor maintenance.

The purchaser may only take advantage of the warranty if he warns the manufacturer by recorded delivery letter with acknowledgement of receipt, within one month from discovery of the defect.

### **Disputes**

Before going to litigation, the manufacturer and the purchaser undertake to seek an amicable solution by means of a person chosen by mutual agreement between both parties. This intermediary must give his opinion within one month

### **Jurisdiction**

Any disputes that may arise regarding the interpretation or the application of the present contract shall be subject to the sole jurisdiction of the courts local to the manufacturer's head office, ruling under French law, even in the case of there being several defendants.

## 21. SEA AND RIVER CHARTER

Water is a living, fragile medium

It is also a precious resource

To protect this medium,

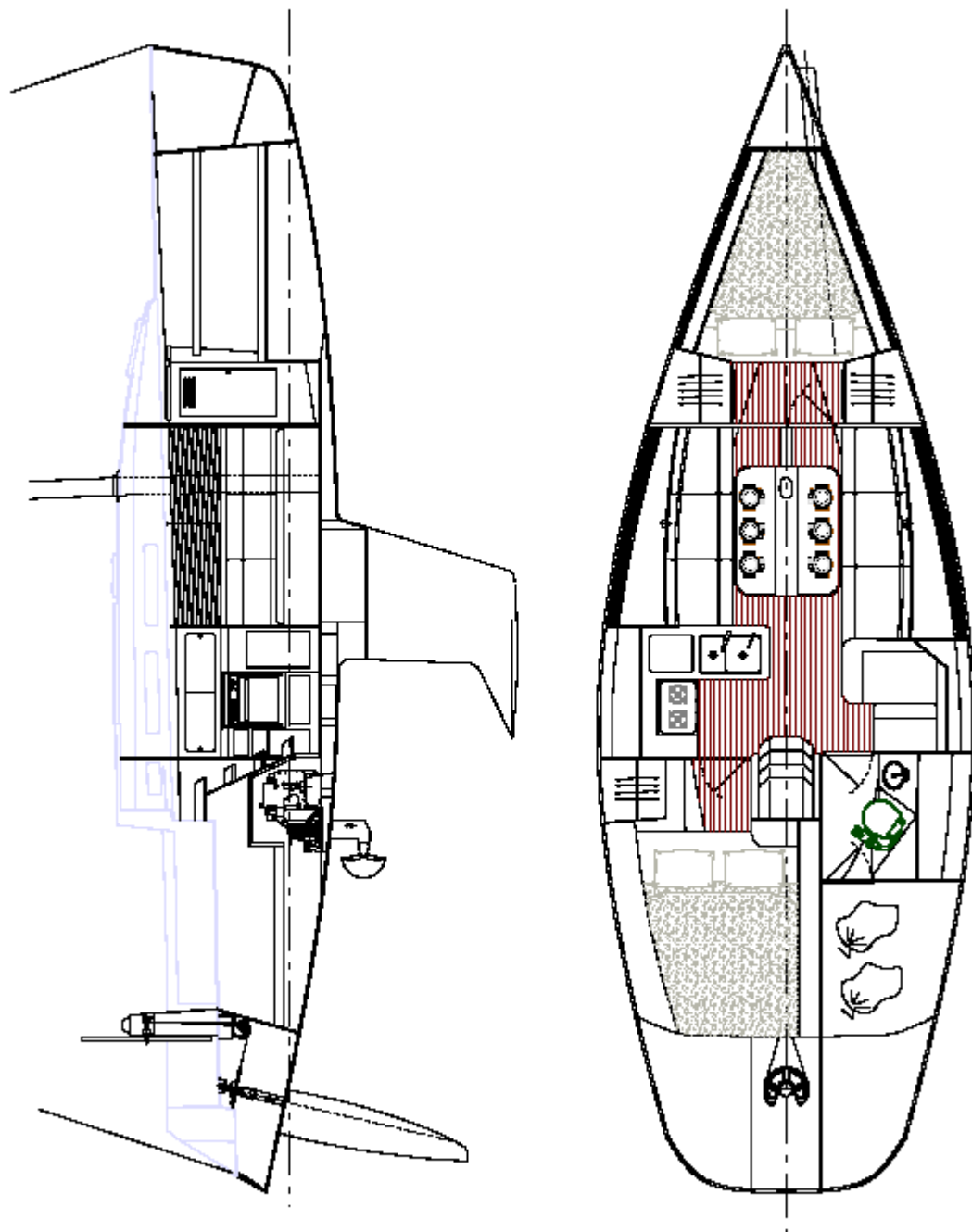
- I respect the sea and the rivers; I do not impact on protected areas; I restrict my fishing to the authorised species and sizes; I watch the animals without touching or disturbing them
- 
- Before anchoring, I find out about the nature of the bottom to avoid damaging it. Preferably, I use mooring buoys.
- 
- I dispose of my domestic waste in containers and my toxic, solid and liquid waste at the port waste processing plant.
- 
- I use the port's sanitary installations. I empty my wastewater tank into the pumping stations. I use the most environmentally friendly detergent products.
- 
- I ensure that all maintenance operations (on the vessel and the equipment) are conducted in an environmentally friendly manner. I handle with care any fluid capable of causing pollution while it is being transferred.

# ANNEXES

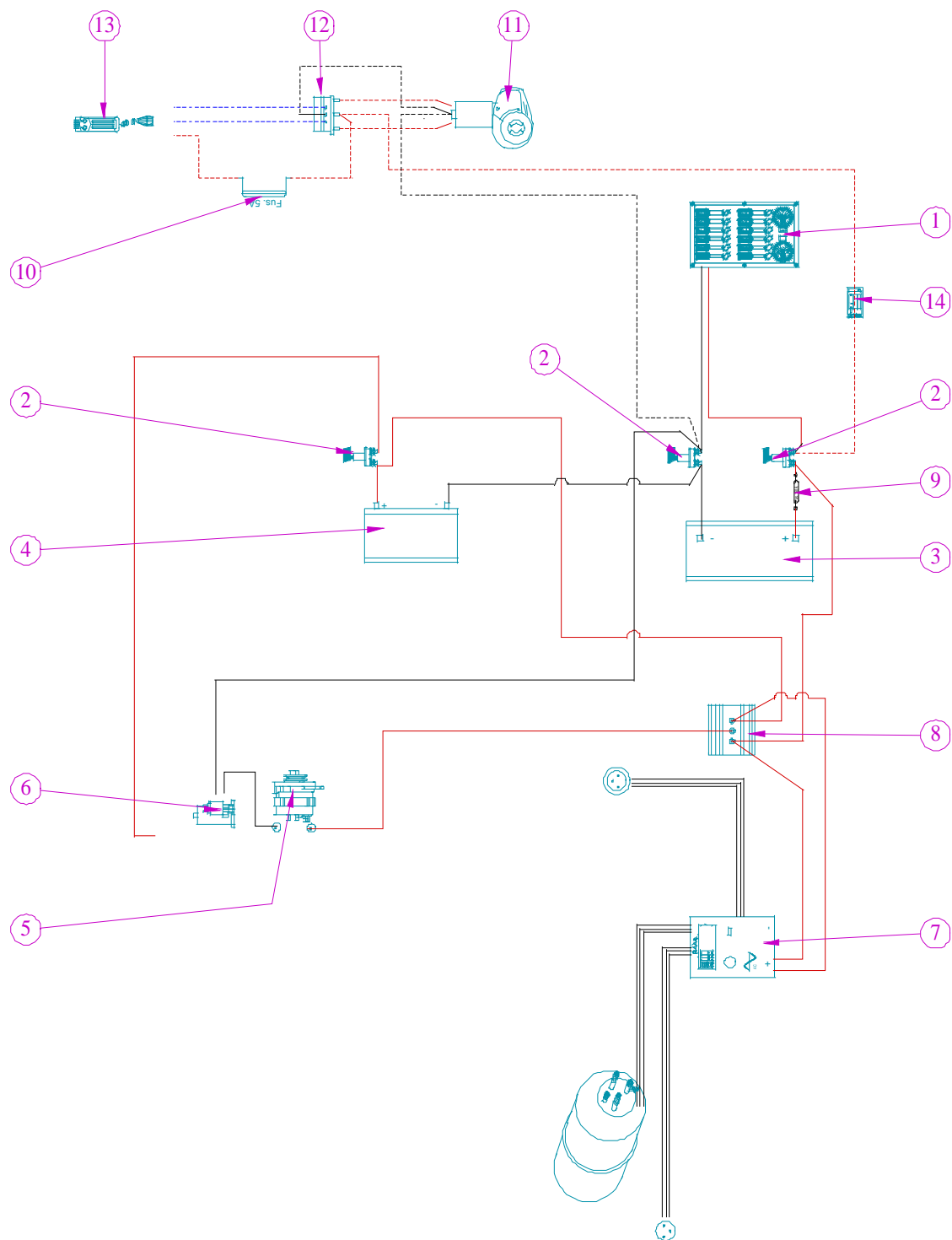
## PLANS ET SCHEMAS

1.	AMENAGEMENT / INTERIOR LAYOUT.....	2
2.	CIRCUIT DE CHARGE / CHARGING SYSTEM .....	3
3.	CIRCUITS 12Vcc et 230V AC / 12VDC & 230V AC SYSTEM .....	4
4.	TABEAU ELECTRIQUE / ELECTRIC PANELS.....	5
5.	MECANIQUE / INSTALATION CARBURANT / ENGINE & DIESEL SYSTEM .....	6
6.	APPAREIL A GOUVERNER / STEERING SYSTEM .....	7
7.	CIRCUIT GAZ / GAS SYSTEM.....	8
8.	PLOMBERIE / PLUMBING.....	9
9.	EAUX NOIRES / BLACK WATER.....	10
10.	VANNE ET PASSE-COQUES / VALVES AND SEACOCKS .....	11
11.	PROTECTION CONTRE L'INCENDIE / FIRE EXISTS & FIRE FIGHTING .....	12
12.	PLAN DE VOILURE / SAIL PLAN.....	13
13.	REDUCTION DE VOILURE / SAIL AREA REDUCTION .....	14
14.	GREEMENT COURANT / RUNNING RIGGING.....	15
15.	ACCASTILLAGE / DECK GEAR.....	16
16.	MOYENS DE SAUVETAGE / SAFETY FEATURES .....	17
17.	MANUTENTIONS .....	18
18.	SYMBOLE ET REPERAGE A BORD .....	19
19.	LEGENDES .....	20

## 1. AMENAGEMENT / INTERIOR LAYOUT

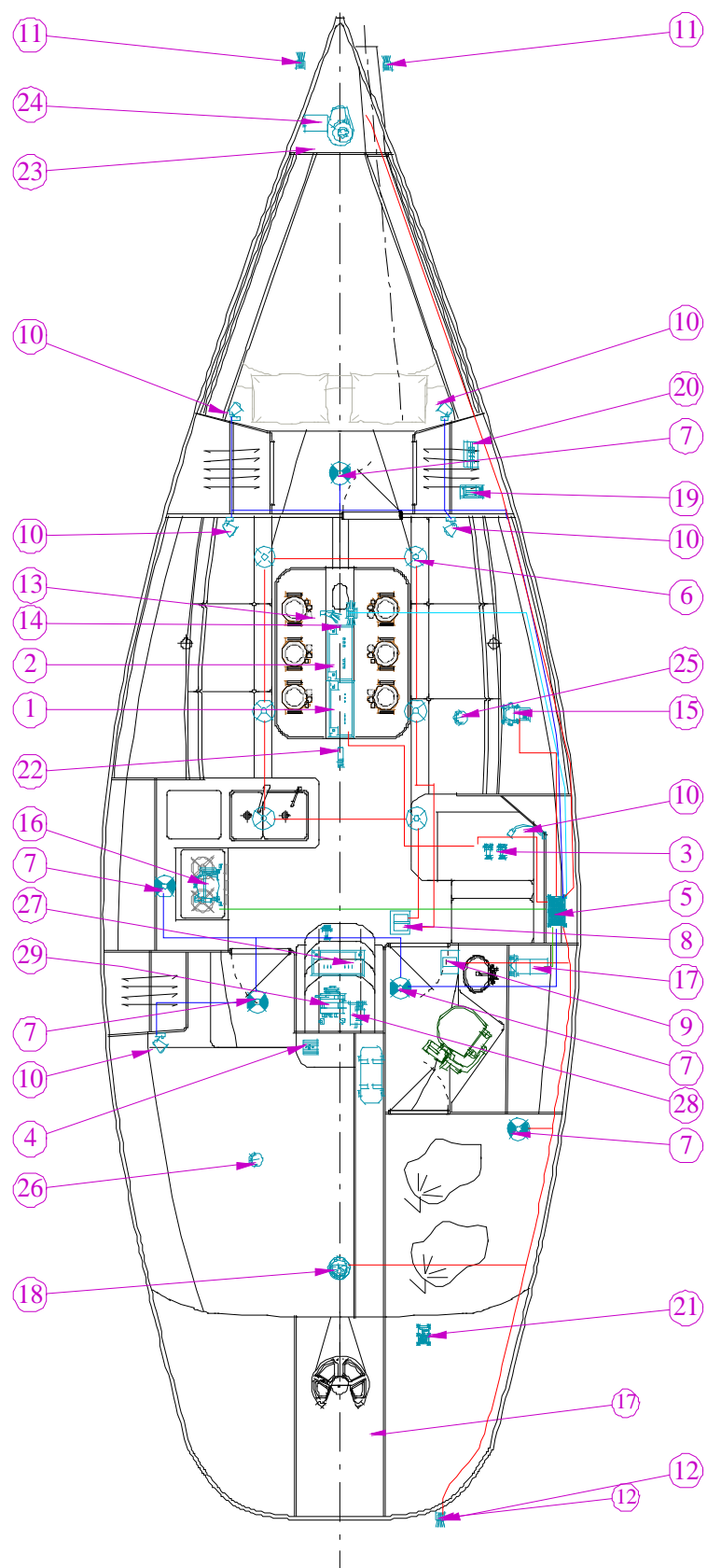


## 2. CIRCUIT DE CHARGE / CHARGING SYSTEM

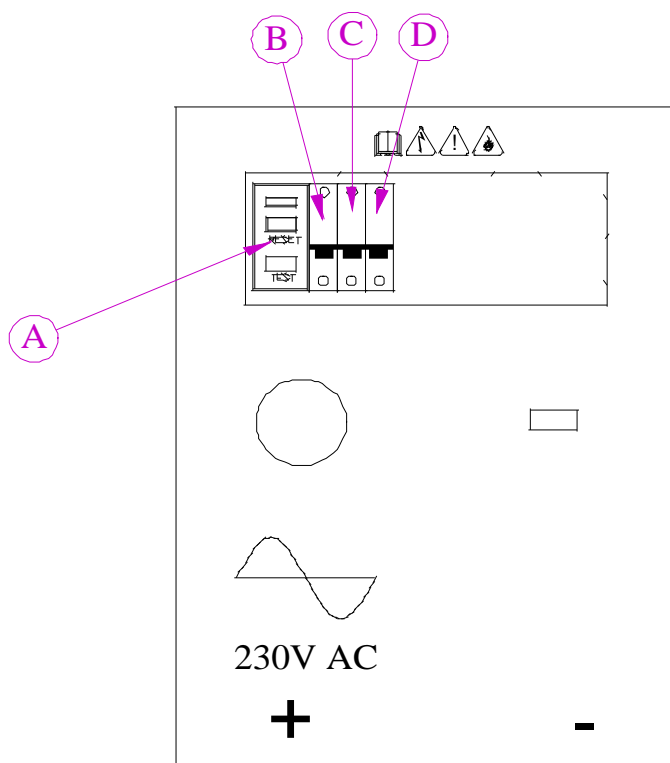
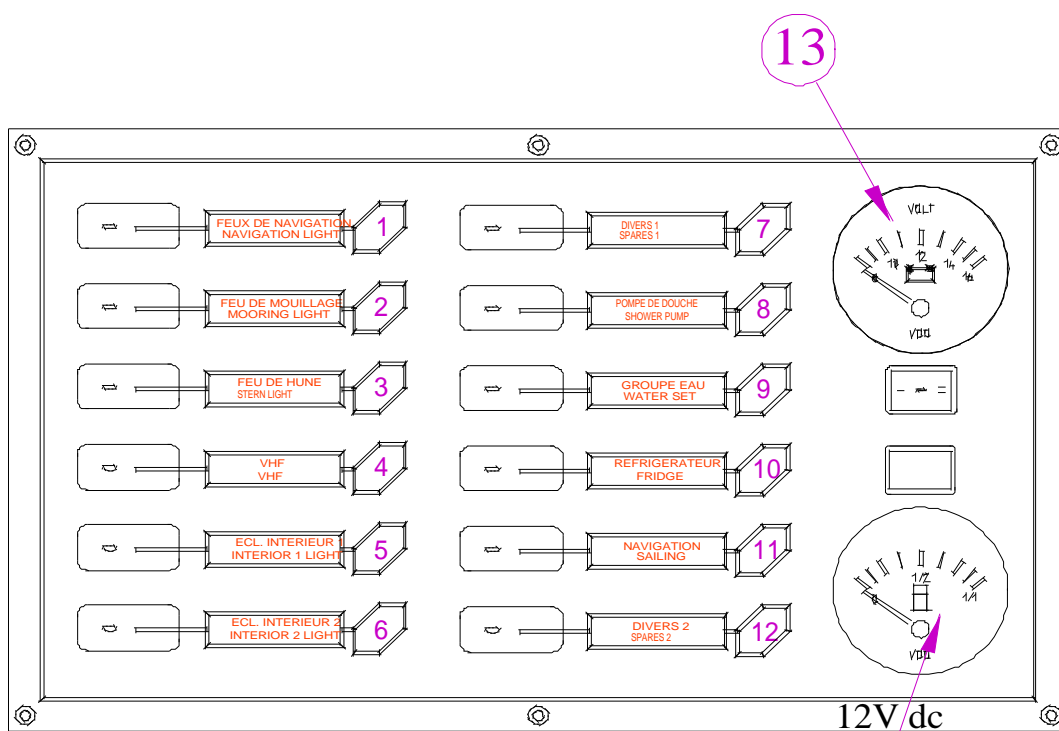




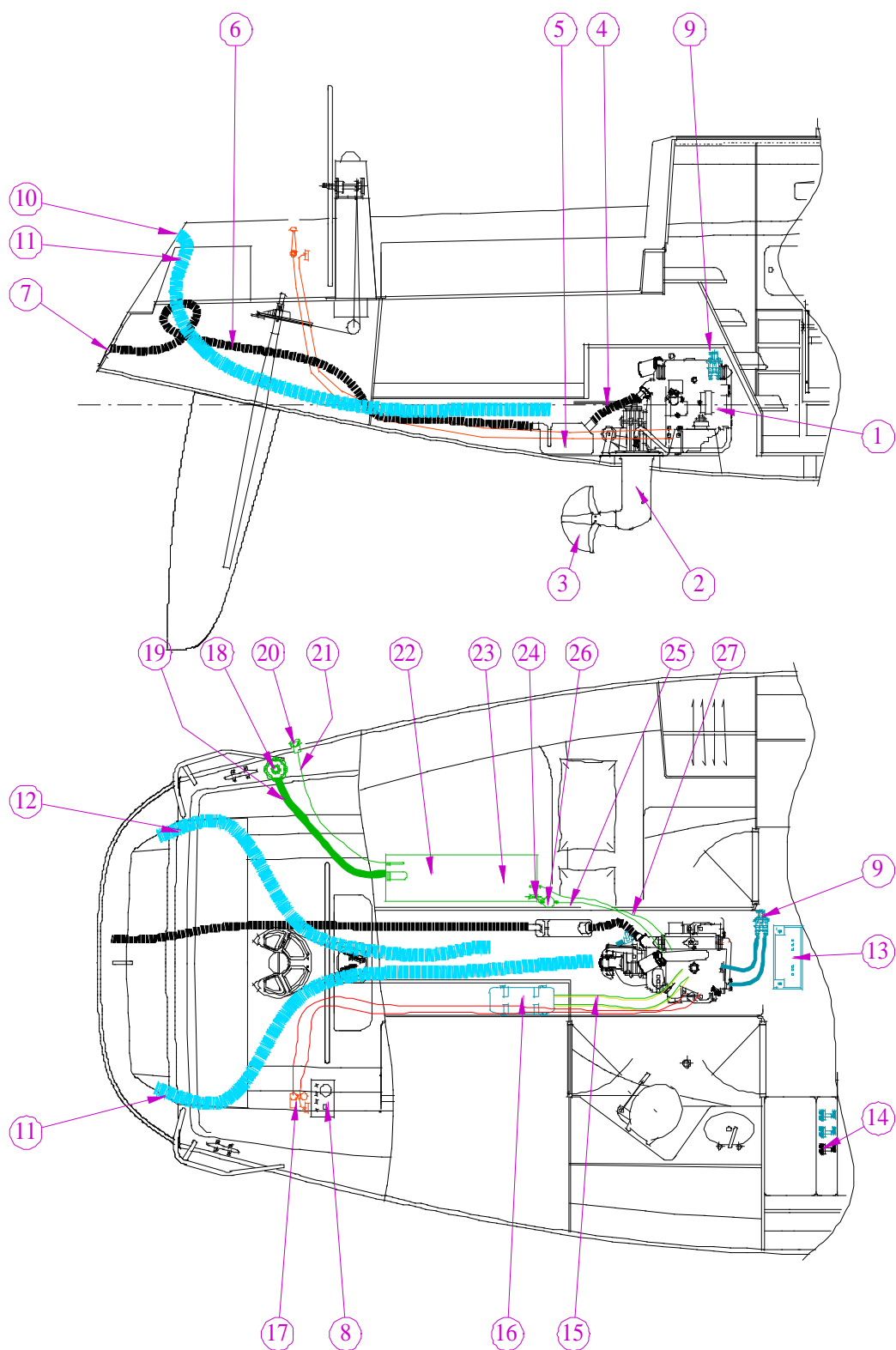
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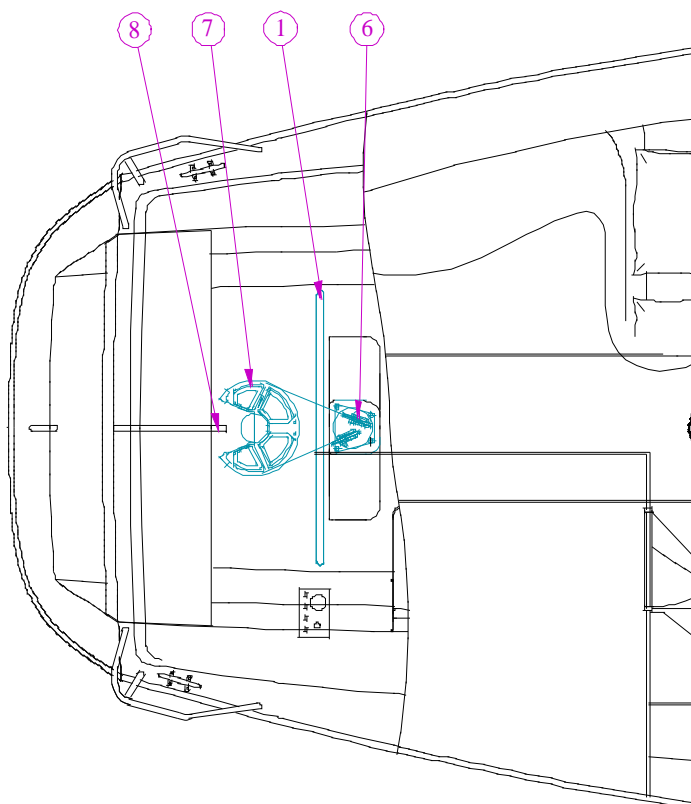
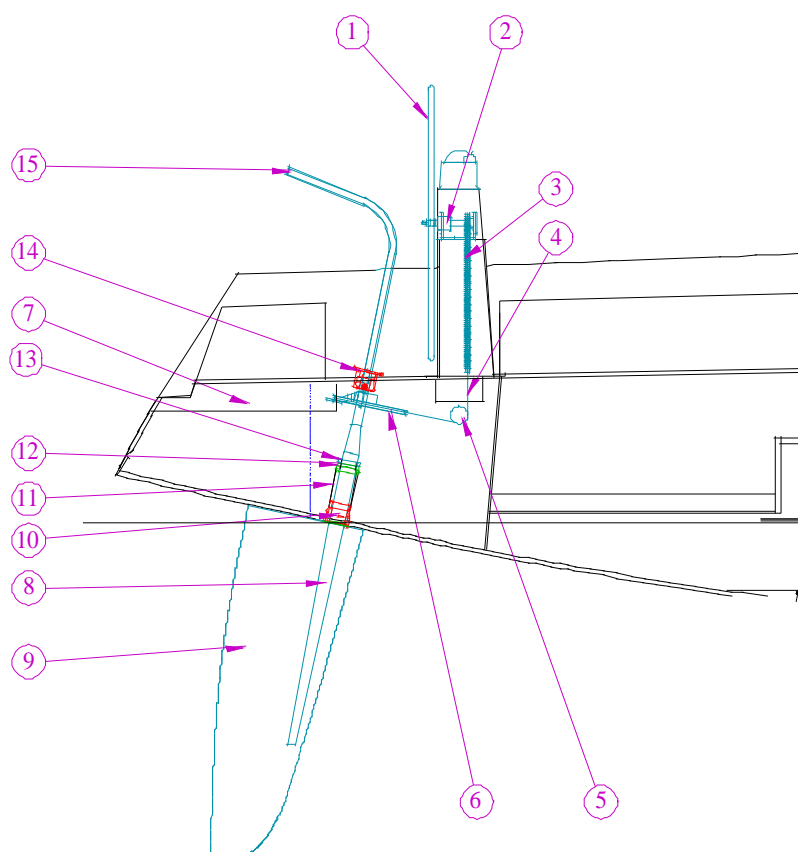
#### 4. TABLEAU ELECTRIQUE / ELECTRIC PANELS



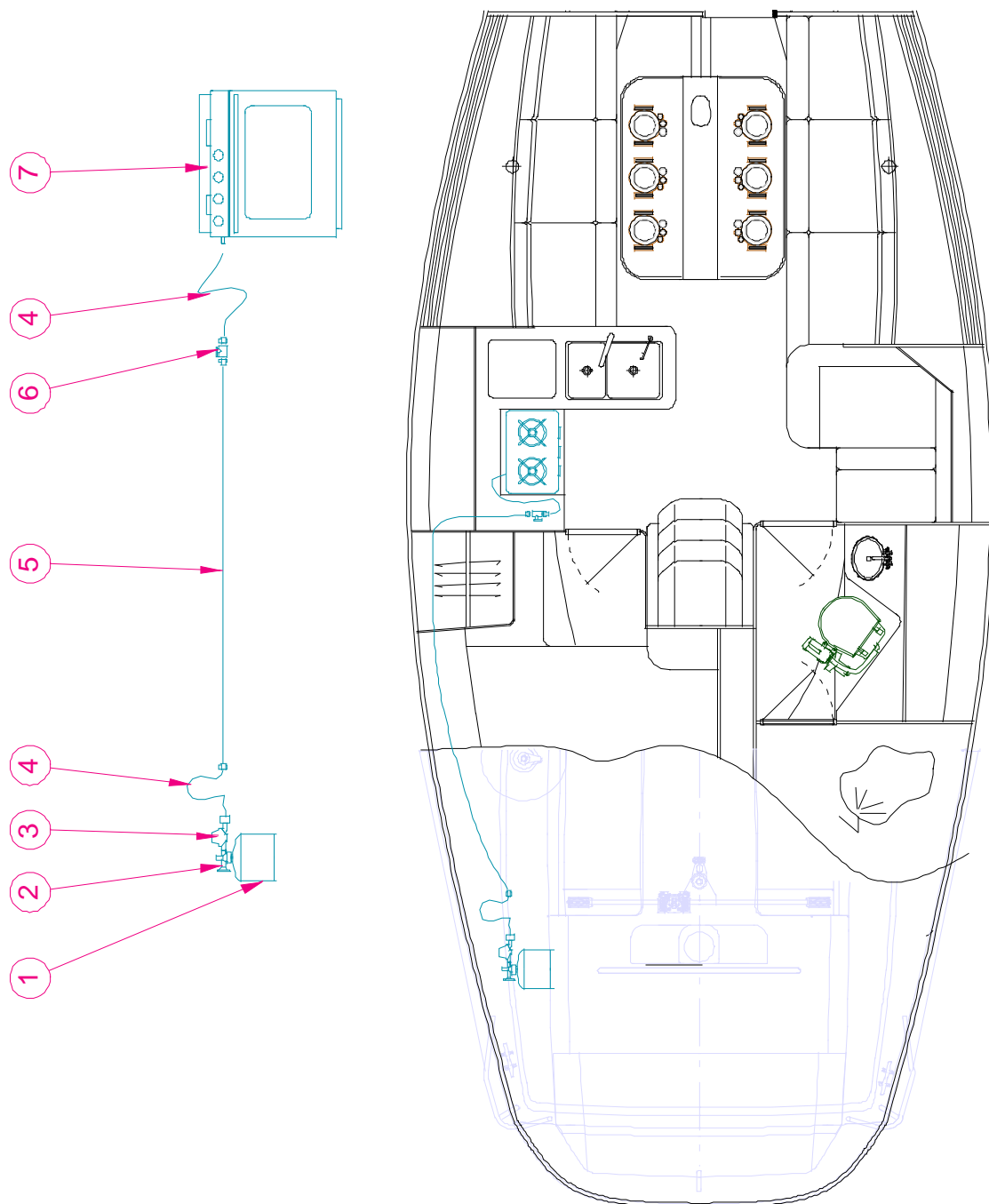
## 5. MECANIQUE / INSTALATION CARBURANT / ENGINE & DIESEL SYSTEM



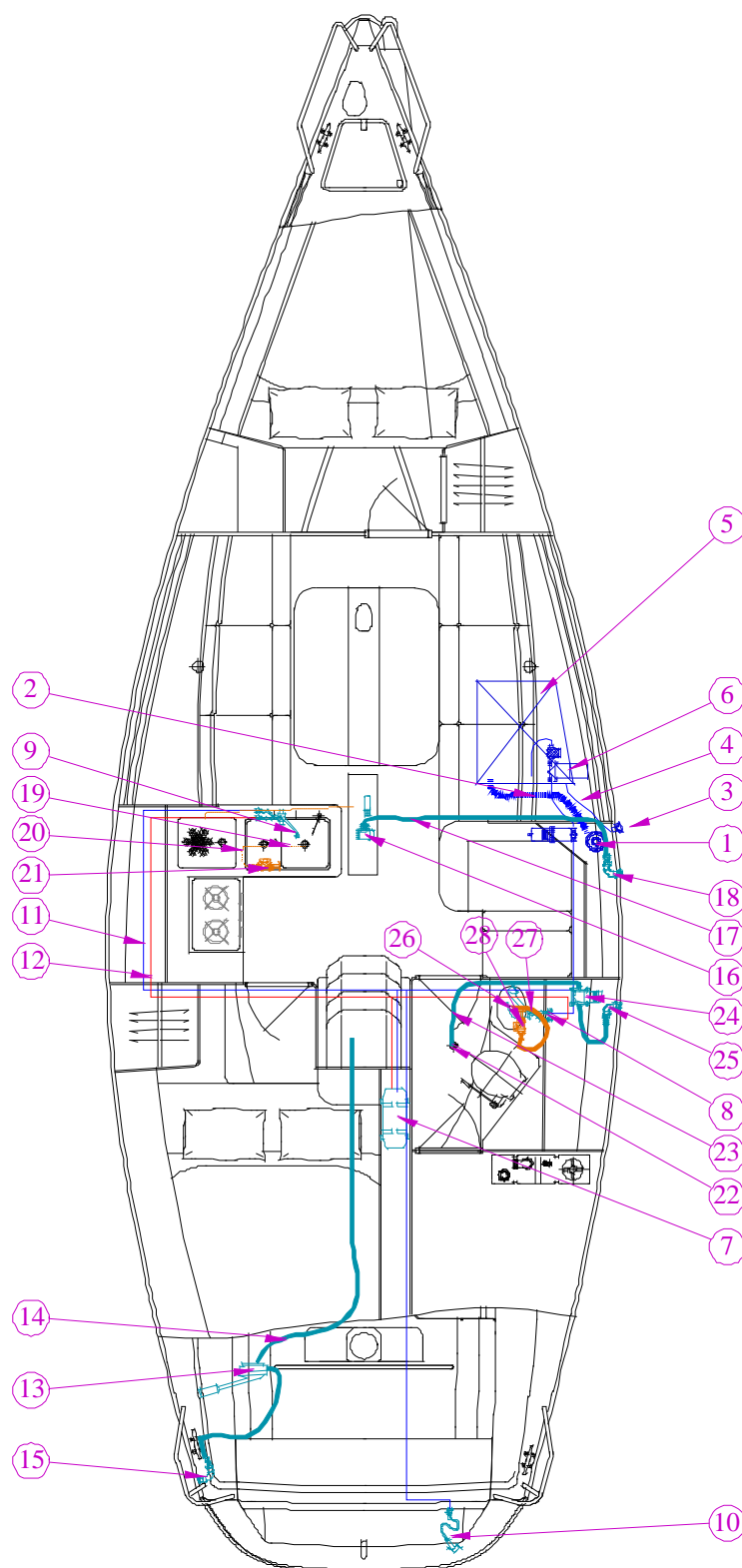
## 6. APPAREIL A GOUVERNER / STEERING SYSTEM



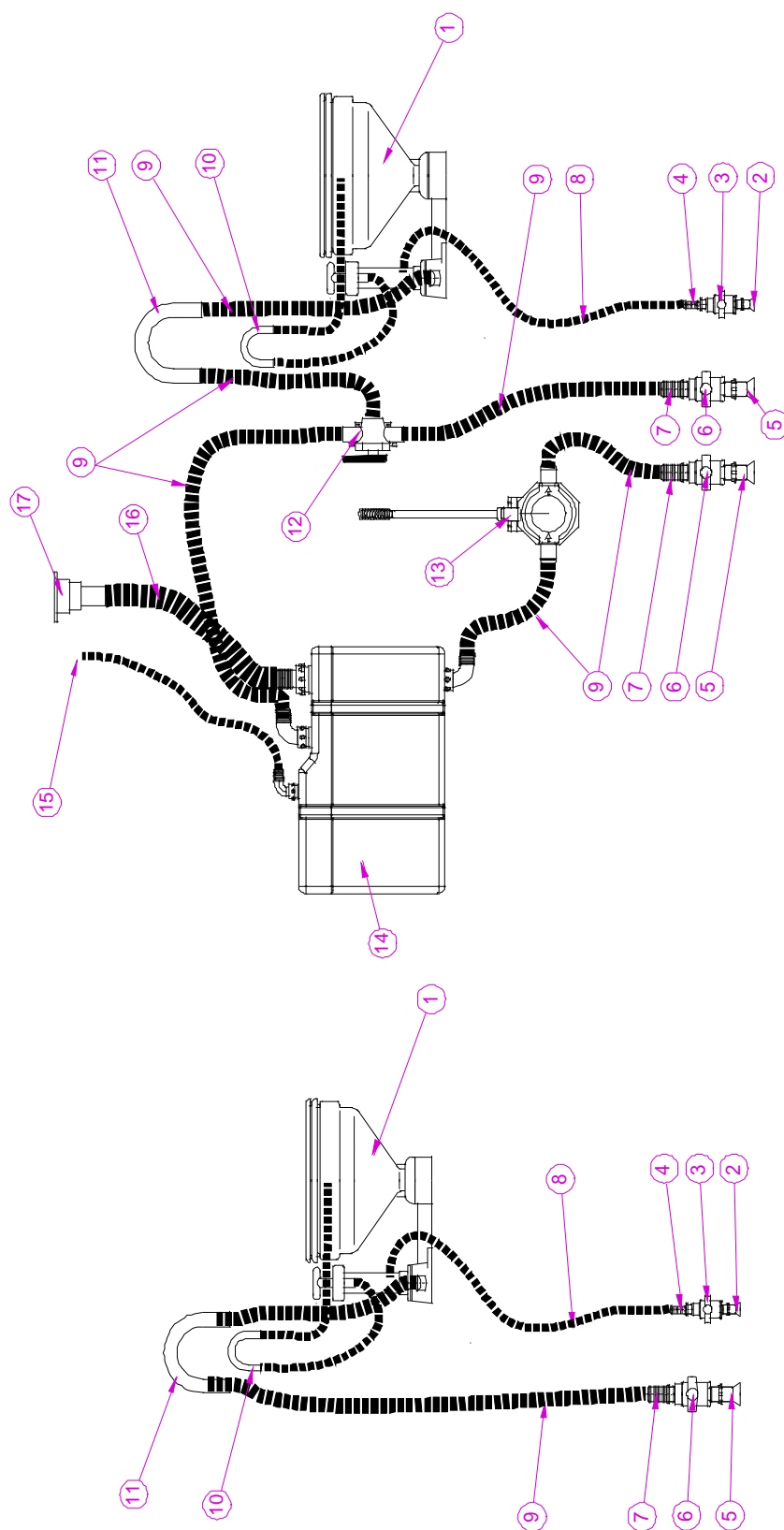
## 7. CIRCUIT GAZ / GAS SYSTEM



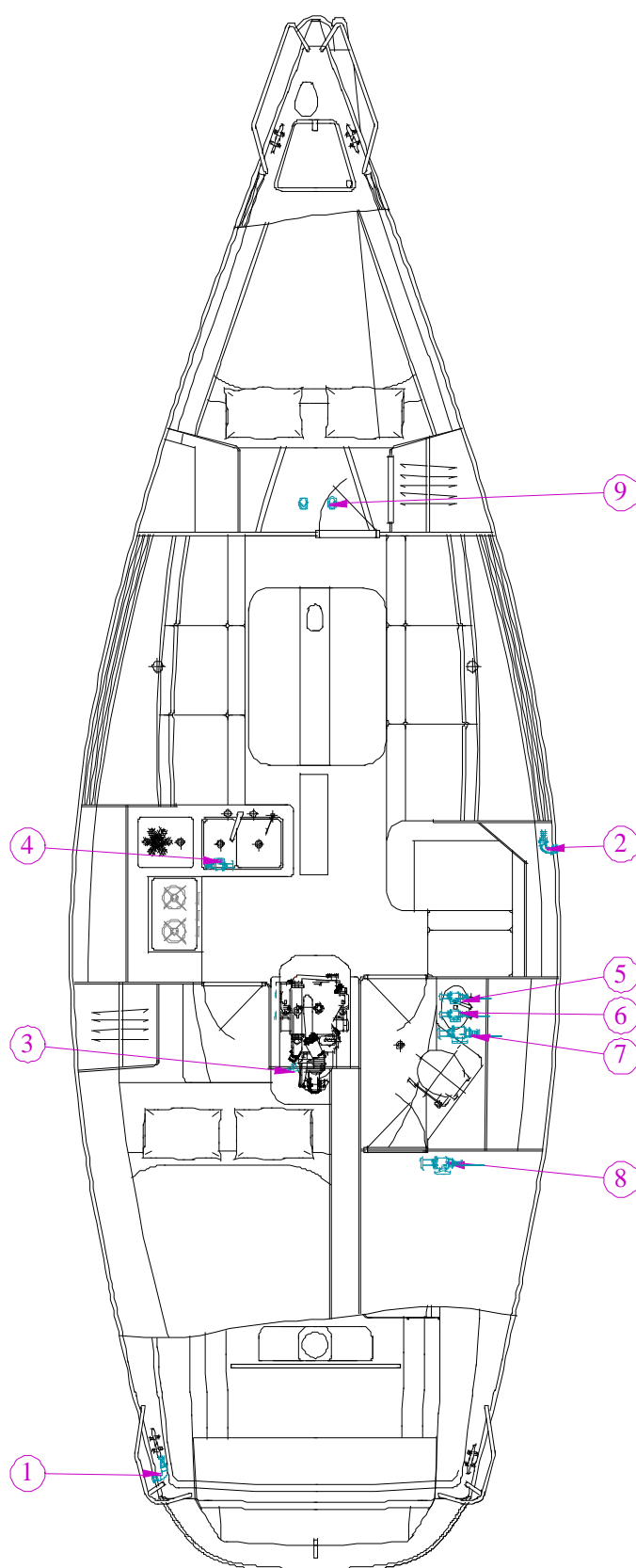
## 8. PLOMBERIE / PLUMBING



## 9. EAUX NOIRES / BLACK WATER

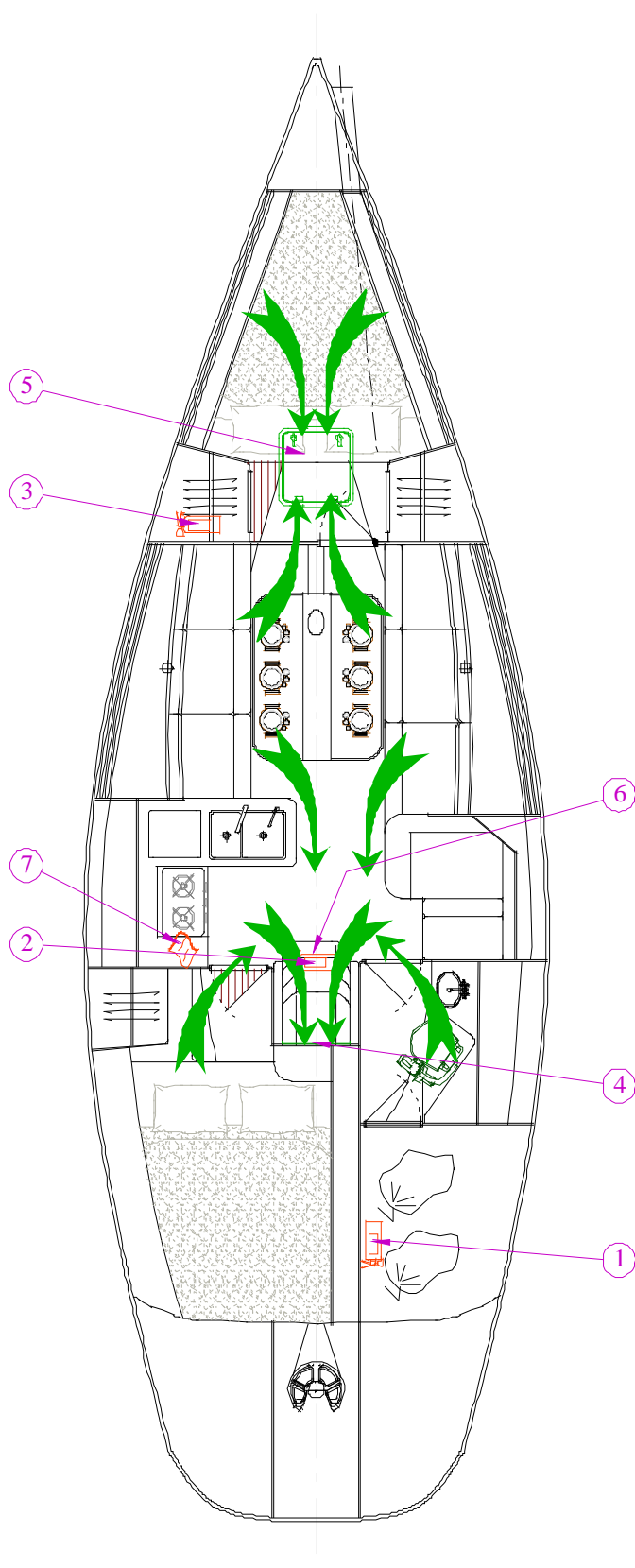


## 10. VANNE ET PASSE-COQUES / VALVES AND SEACOCKS

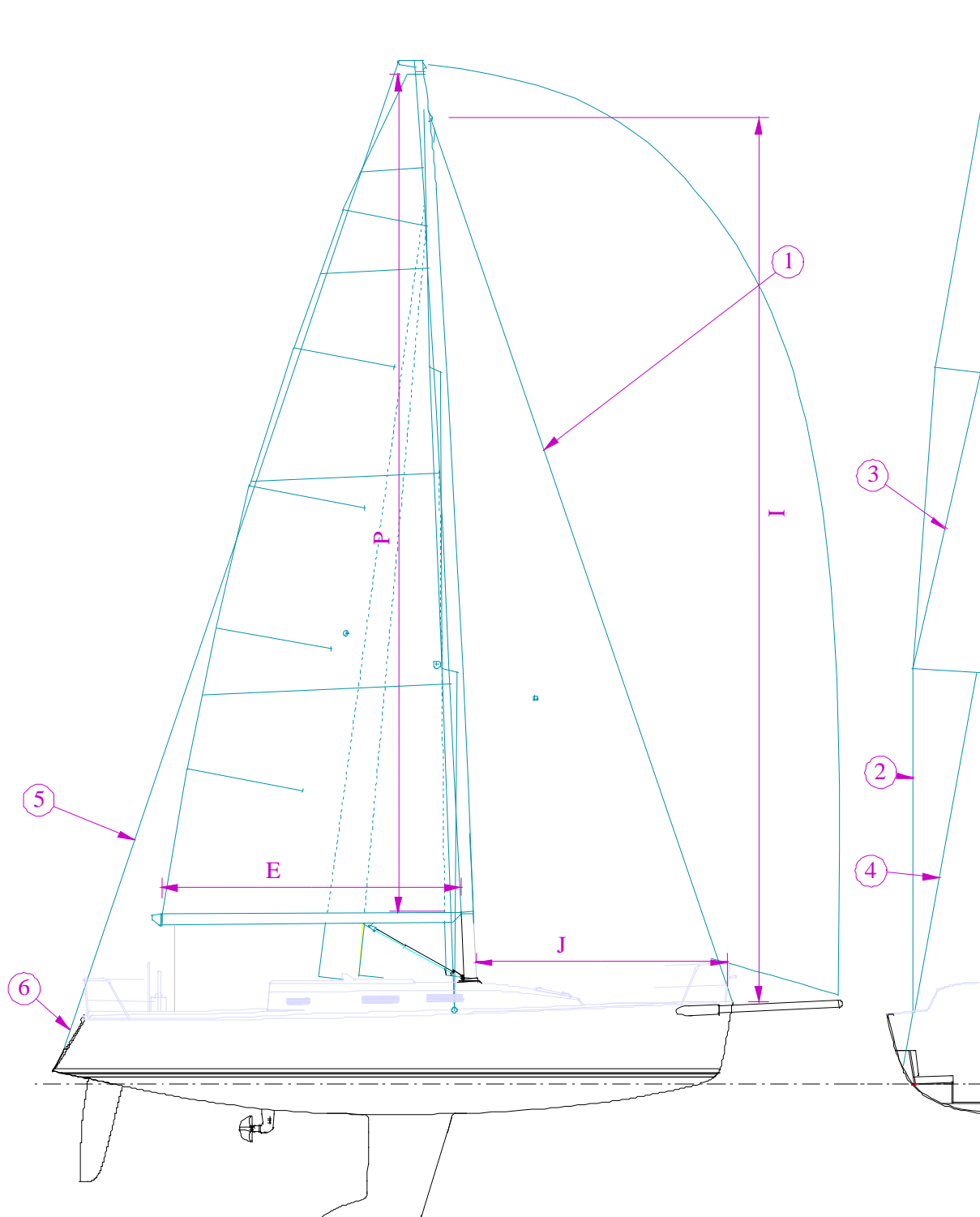




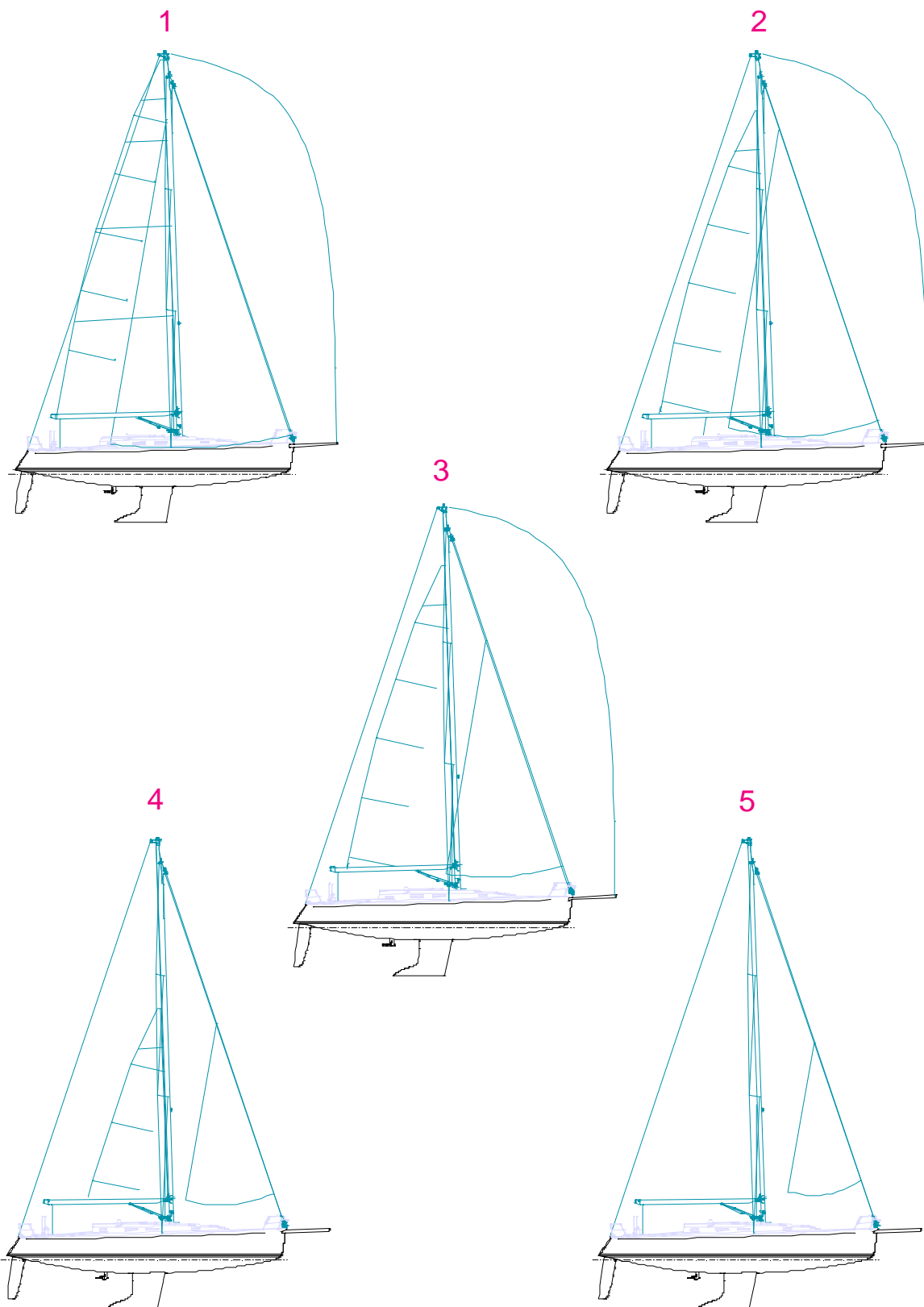
## 11. PROTECTION CONTRE L'INCENDIE / FIRE EXITS & FIRE FIGHTING



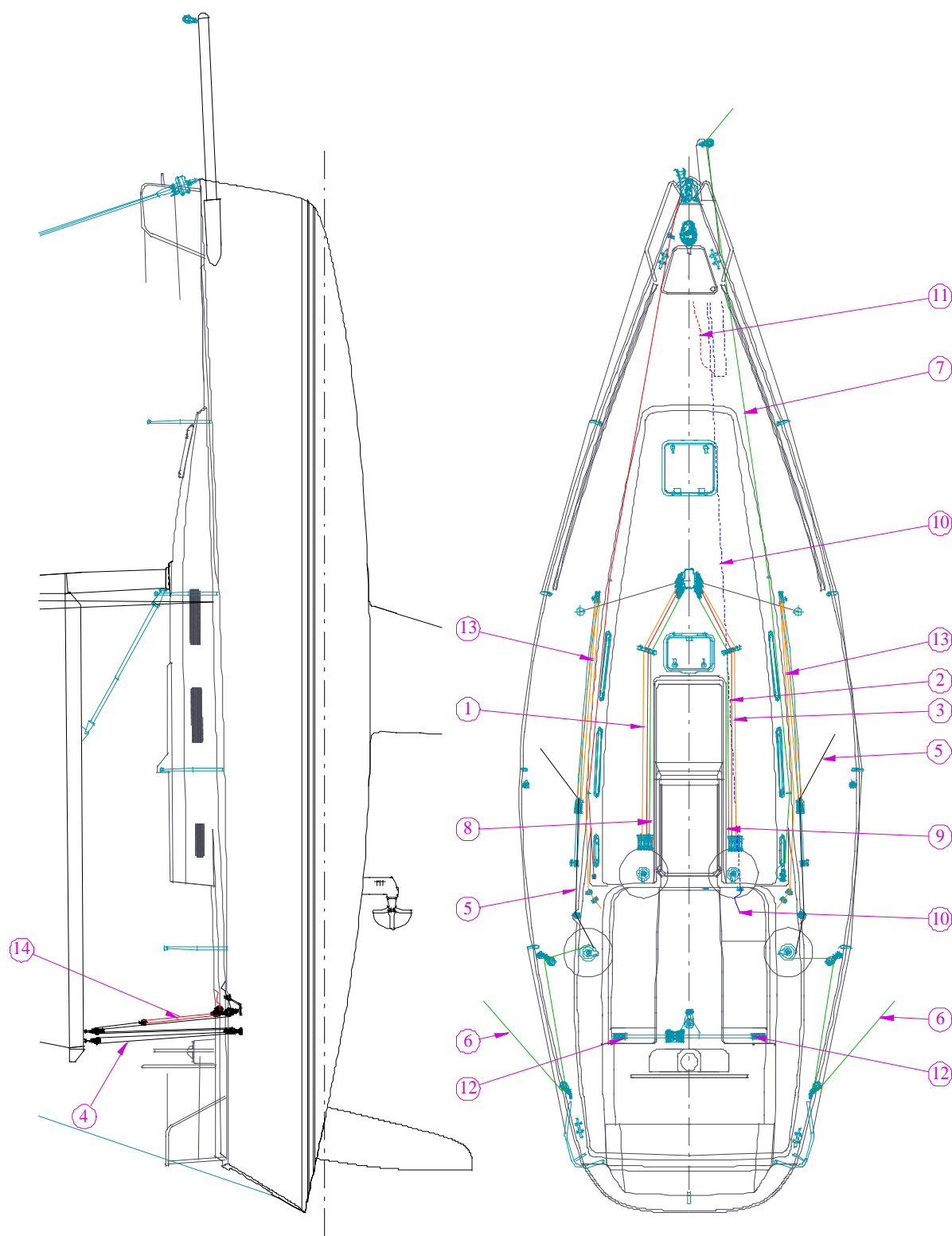
## 12. PLAN DE VOILURE / SAIL PLAN



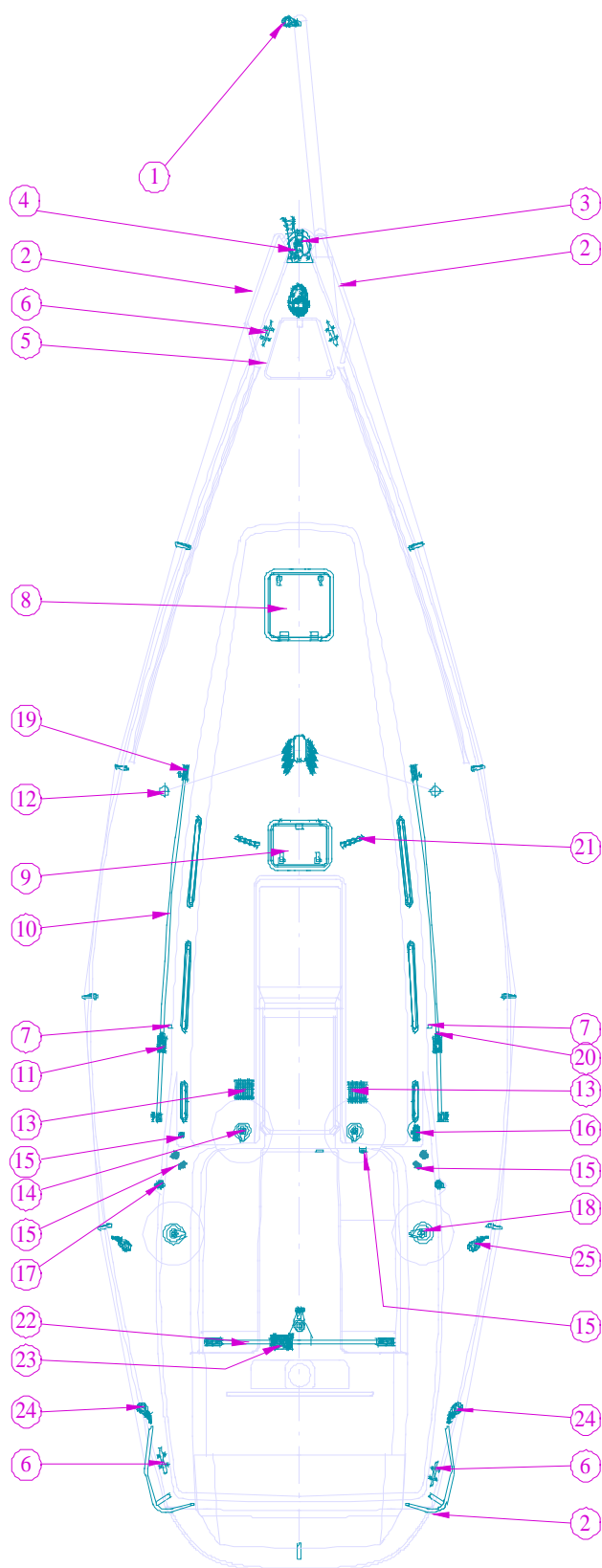
### 13. REDUCTION DE VOILURE / SAIL AREA REDUCTION



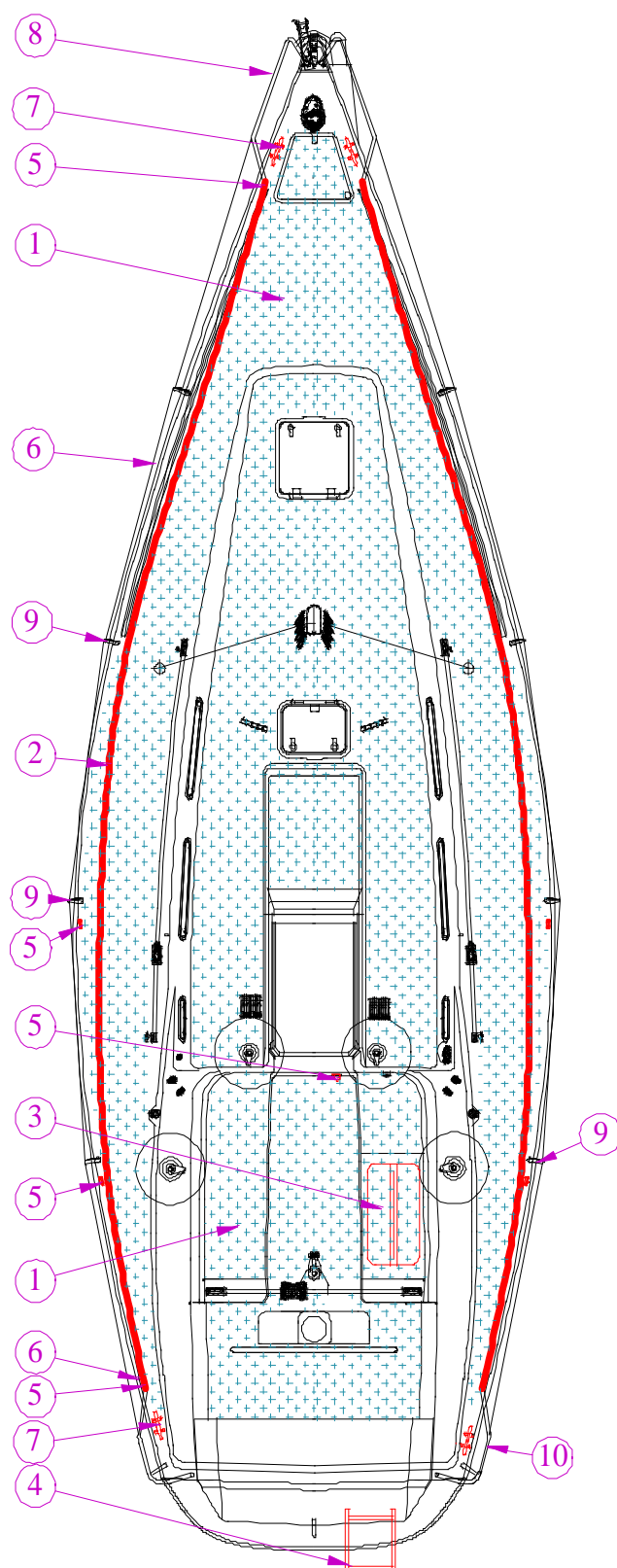
## 14. GREEMENT COURANT / RUNNING RIGGING



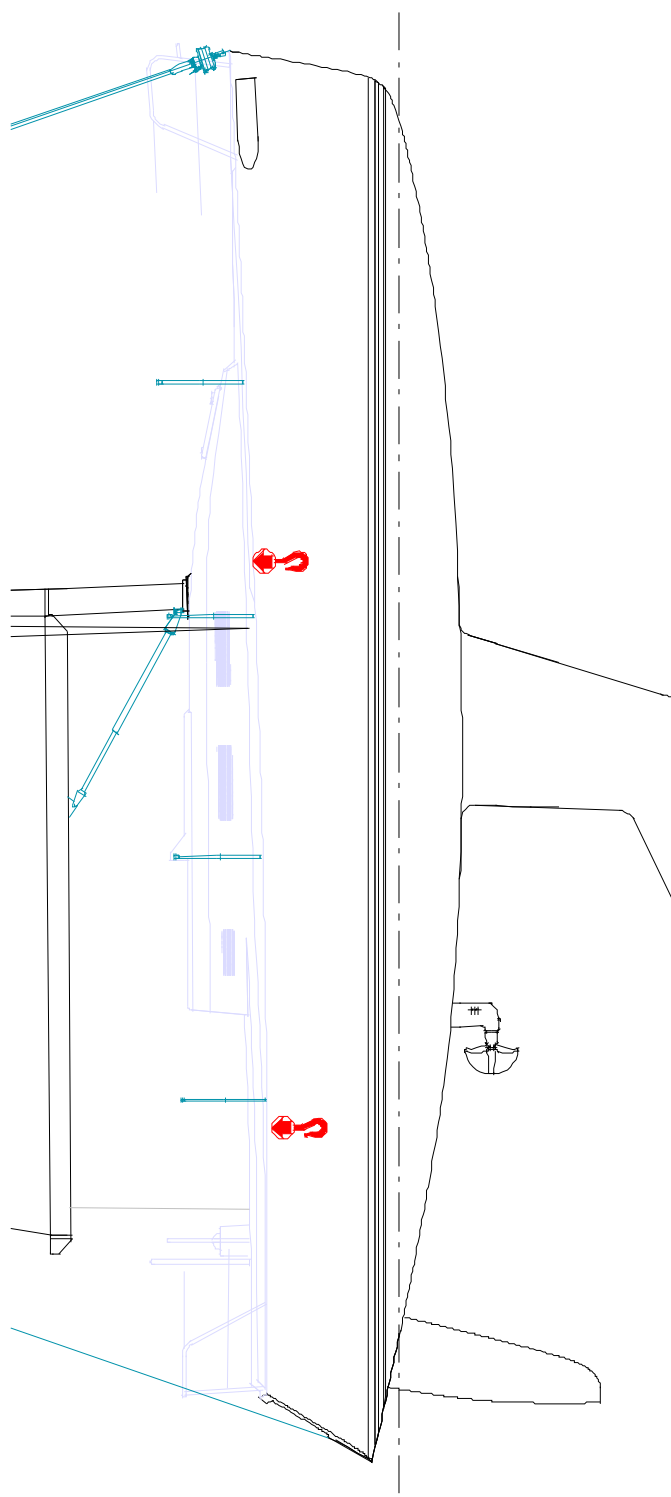
## ACCASTILLAGE / DECK GEAR

















## 15. MOYENS DE SAUVETAGE / SAFETY FEATURES



## 16. MANUTENTIONS



## 17. SYMBOLE ET REPERAGE A BORD

Symboles - Marquage	Désignation	Description
	Extincteur	Fire extinguisher
	couverture anti feu	Fire blanket
	orifice de décharge moteur	Engine box access
	Logement bouteille de gaz	Gas bottle locker
	Robinet sectionnement Gaz	Gas supply tap
	Ne pas approcher une flamme	No naked flames
	Robinet sectionnement Gasoil	Diesel fuel valve
	Consulter le manuel du propriétaire	Read owner's manual
	Sortie de secours	Emergency exit
	Radeau survie	Liferaft locker
	Risque de feu	Warning! Fire risk
	Attention Danger	Beware danger
	Risque de choc électrique	Risk of electric shock
	Position sangles de levage	Lifting strap location



## 18. LEGENDES



### 01 - Amenagement



### 01 - General arrangment

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
Lh	10,75 m	Lh	10,75 m
Lwl	9,30 m	Lwl	9,30 m
Bh	3,51 m	Bh	3,51 m

### 02 - Circuit de charge

### 02 – Charge circuit

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Tableau services 12V CC	1	12V domestic electrical panel
2	Coupe-batteries	2	Battery breakers
3	Batteries services	3	Domestic batteries
4	Batterie Moteur	4	Engine Battery
5	Batterie service supplémentaire	5	Additionnaldomestic battery
6	Alternateur 115A	6	Alterbator 115A
7	Démarrreur	7	Starter
8	Chargeur 220VAC/ 12V - 40A	8	Alternator
9	Répartiteur	9	Splitting diod
10	Fusible 160 A	10	160A fuse
11	Fusible 5 A	11	5A fuse
12	Guindeau	12	Winlass
13	Boitier relais	13	Solenoid
14	Télécommande guindeau	14	Winlass joystick
15	Fusible / disjoncteur 100A	15	100A winlass fuse
	<b>Circuit 230 V AC</b>		<b>230V AC Standard circuit</b>
16	Prise de quai 220 V AC	16	220V Shore power socket
17	Disjoncteur différentiel / Tableau	17	Differential circuit breaker / Panel
18	Dusjoncteur divisionnaire	18	Circuit breaker
19	Chauffe-eau	19	Water heater Calorifier
20	Prise électrique 220 V AC	20	220V plug socket

### 03 - Circuits électriques

### 03 – Electric wiring

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
	<b>Circuit 12 V CC</b>		<b>12V DC Standard circuit</b>
1	Batterie services 1x120A env.(std)	1	Domestic batteries 1x120A approx. (std)
2*	Batterie services 2x80A env (service)	2*	Optionnal services batteries 2x80A approx.
3	Coupe batterie service	3	Service batteries breaker
4	Répartiteur	4	Splitting diod
5	Tableau électrique 12V - 12 fonctions	5	Electrical panel 12V - 12 functions
6	Plafonnier 10W	6	10W ceiling light
7	Plafonnier à inter incorporé 10W	7	10W ceiling light with switch
8	Inter double	8	Double switch
9	Inter simple	9	Single switch
10	Lisseuse 10W	10	10W reading light
11	Feux de navigation	11	Navigation lights
12	Feu de poupe	12	Stern light
13	Feux de mât	13	Masthead light
14	Pompe de cale	14	Bilge pump
15	Groupe hydrophore	15	Water system
16	Compresseur froid	16	Fridge compressor
17	Pompe vidange de douche	17	Fridge compressor
18	Ventilateur extracteur	18	Ventilator / extractor
19	Compas	19	Compass
20*	Disjoncteur guindeau	20*	Winlass circuit breaker
21*	Relais Guindeau	21*	Winlass solenoid
22	Tableau moteur	22	Engine panel
23	Détecteur de niveau	23	automatic bilge pump
24	Prise télécommande guindeau	24	Winlass control socket
25	Guindeau	25	Winlass
26	Capteur jauge à eau	26	Water gauge sensor
27	Capteur jauge gasoil	27	Fuel gauge sensor
28	Batterie 1x70A env.(moteur)	28	Engine battery 1x70A approx.
29	coupe batterie moteur	29	Engine battery switch
30	Démarrreur	30	Starter
31	Alternateur	31	Alternator

### 04 - Tableaux électriques

### 04 – Electrics panels

<i>Rep.</i>	<i>Désignation</i>	<i>Fuse</i>	<i>Rep.</i>	<i>Désignation</i>	<i>Fuse</i>
	<b>12 V CC</b>			<b>12V DC</b>	
1	Feux de navigation	10		Navigation lights	10
2	Feu mouillage	10		Mooring light	10
3	Feu de hune	10		Steaming light	10
4	VHF	10		VHF	10
5	Eclairage int 1 (cabines)	10		cabin light	10
6	Eclairage int. 2 (carré)	10		Main saloon light	10

7	Divers 1	10	7	Spares 1	10
8	Pompe de douche	10	8	Shower pump	10
9	Groupe d'eau	10	9	Water system	10
10	Refrigérateur	10	10	Fridge	10
11	Navigation - Electronique	10	11	Navigation instruments area	10
12	Divers 2	10	12	Spares 2	10
13	Voltmètre		13	Volmeter	10
14	Cadran de jauge		14	Gauge	10
	<b>230V AC</b>			<b>230V AC</b>	
A	Chargeur 230V AC			Battery charger	
B	Interrupteur différentiel 30mA	16		30mA differential switch	
C	Disjoncteur	10		Circuit breaker	
D	Disjoncteur	10		Circuit breaker	

### 05 - Mécanique - Circuit gasoil

### 05 – Engine / Fuel system

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Moteur	1	Engine
2	Embase sail-drive	2	Saildrive base
3	Hélice	3	Propellor
4	Tuyau échappement	4	Exhaust pipe
5	Pot échappement	5	Waterlock
6	Tuyau échappement	6	Exhaust pipe
7	Sortie d'échappement inox	7	S/s exhaust exit
8	Tableau moteur	8	Engine panel
9	Casse syphon	9	Anti-syphon Valve
10	Boîte aération	10	Ventilation box
11	Gaine ventilation Ø70 aspiration	11	ventilation hose inlet
12	Gaine ventilation Ø70 extraction	12	ventilation hose outlet
13	Batterie 70A	13	70A Battery
14	Coupe batterie	14	Battery switch
15	Tuyau échangeur	15	Water cooler hose
16	Chauffe eau	16	Water heater Calorifier
17	Poignée commande gaz / inverseur	17	Engine gear
18	Nable gasoil	18	Fuel filler cap
19	Tuyau remplissage ISO7840	19	Filler Hose in ISO7840
20	Event	20	Vent
21	Tuyau d'évent ISO 7840	21	Vent tube ISO7840
22	Réservoir gasoil env. 70l	22	Fuel tank
23	Jauge gasoil	23	Fuel gauge
24	Vanne de sectionnement	24	Shut off valve
25	Tuyau d'alimentation Ø8 int	25	Feeding pipe Ø8
26	Pré-filtre gasoil	26	Fuel pre-filter
27	Tuyau de retour Ø8 int	27	Return pipe

**06 - Appareil à gouverner****06 – Steering gear**

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Barre à roue	1	Steering wheel Ø1600mm
2	Appareil de cloison 5/8" 15T SPKT	2	Steerer
3	Chaîne 5/8"	3	Chain 5/8"
4	Câble inox extra souple Ø6	4	s/s flexible cable Ø6
5	Poulies 6"	5	Blocks
6	Secteur 8"	6	8" quadrant
7	Butée de secteur	7	Quadrant stop
8	Mèche	8	Rudder stock
9	Pelle de safran	9	Rudder
10	Palier bas	10	Lower bearing
11	Tube jaumière	11	Rudder tube
12	bague	12	Ring
13	bague de retenue	13	Retaining ring
14	Palier haut	14	Upper bearing
15	Barre franche de secours	15	Emergency tiller

**07 - Gaz****07 - Gas**

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Bouteille de gaz		Gas bottle
2	Robinet de coupure		Shut off valve
3	Détendeur avec valve de surpression		Regulator with tension valve
4	Tuyau souple		Flexible pipe
5	Tube cuivre		Copper pipe
6	Vanne de sectionnement (penderie)		Shut of valve
7	Réchaud four		Gas Stove with oven

**08 - Plomberie****08 - Plumbing**

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
	<i>Eau douce</i>		<i>Fresh water</i>
1	Nable eau douce		Filler cap freshwater
2	Tuyau remplissage		Filler hose
3	Event		Vent
4	Tuyau d'évent		Vent pipe
5	Réservoir		Watertank
6	Groupe hydrophore		Water set
7	Chauffe eau		Water heater calorifier
8	Mitigeur douchette		Shower tap
9	Mitigeur évier		Sink tap
10	Douchette de pont		Cockpit shower
11	Tuyau eau froide		Cold water pipe
12	Tuyau eau chaude		Hot water pipe

	<i>Assèchement</i>		<i>bilge pump systems</i>
13	Pompe de cale manuelle		Hand pump
14	Tuyau annelé		Splined pipe
15	Sortie de coque		Seacock
16	Pompe de cale immergée (puisard)		Electric pump 30l/min minimum
17	Tuyau annelé		Splined pipe
18	Sortie de coque		Thruhull
	<i>Eaux grises</i>		<i>Grey water</i>
19	Collecteur evier		Outlet for kitchen sink
20	Tuyau annelé		Splined pipe
21	Sortie de coque 3/4"		Thruhull 3/4"
22	Bonde de douche		Shower plug hole
23	Tuyau annelé		Splined pipe
24	Pompe de vidange douche		Drain shower pump
25	Sortie de coque		Thruhull
26	Bonde lavabo		Sink plug hole
27	Tuyau annelé		Splined pipe
28	Sortie de coque 3/4"		Thruhull 3/4"

### 09 - Eaux noires

### 09 - Black water

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	WC	1	Toilet
2	Passe coque 3/4" *	2	Seacock 3/4"
3	Vanne 1/4 tour 3/4" *	3	¼ turn valve 3/4"
4	Embout cannelé 3/4" *	4	Hosetail 3/4"
5	Passe coque 1"1/4 *	5	Seacock 1"1/4
6	Vanne 1/4 tour 1"1/4 *	6	¼ turn Valve 1"1/4
7	Embout cannelé 1"1/4 *	7	Hosetail 1"1/4
8	Tuyau anti-odeur Ø20	8	Odourless pipe Ø20
9	Tuyau anti-odeur Ø38	9	Odourless pipe Ø38
10	Casse syphon Ø20	10	Valve Ø20
11	Casse syphon Ø38	11	Valve Ø38
12	Vanne 3 voies	12	3 ways valves Ø38
13	Pompe de vidange	13	Draining pump for holding tank
14	Holding tank	14	Holding tank
15	Event	15	Vent
16	Tuyau anti-odeur Ø50	16	Odourless pipe Ø50
17	Nable eaux noires	17	Black water deck pump out cap

## 10 - Vannes et passe-coques

## 10 - Sea cocks

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Evacuation pompe de cale manuelle		Manuel bilge pump drain
2	Evacuation pompe de cale électrique		Electric bilge pump drain
3	Prise d'eau moteur		Engine seawater inlet
4	Evacuation évier 3/4"		Kitchen sink drain 3/4"
5	Aspiration eau de mer WC 3/4"		Toilet seawater inlet 3/4"
6	Evacuation lavabo 3/4"		Sink drain 3/4"
7	Evacuation WC 1"1/4		Toilet drain 1"1/4
8	Evacuation holding tank 1"1/4 (option)		Holding tank drain 1"1/4
9	Capteur / sondes		Transducer

## 11 - Lutte contre l'incendie

## 11 - Fire fighting

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Extincteur 5A/34B (coffre cockpit)		Extinguisher (cockpit)
2	Extincteur 5A/34B (descente)		Extinguisher (companionway)
3	Extincteur 5A/34B (cabine avant)		Extinguisher (forcabin)
4	Porte de cockpit		Companionway
5	Panneau cabine avant		Fore cabin hatch
6	Trou de décharge moteur		Engine discharge hole
7	couverture anti feu (cuisine)		Fire blanket

## 12 - Plan de voilure

## 12 - Sailplan

<i>Rep.</i>	<i>Désignation</i>		<i>Ref.</i>	<i>Description</i>	
	I	14,17 m		I	14,17 m
	J	4,05 m		J	4,05 m
	P	13,18 m		P	13,18 m
	E	4,72 m		E	4,72 m
1	Etai	Rod #10	1	Rod forestay	Rod #10
2	Galhauban	Rod #10	2	Galhauban	Rod #10
3	Inter	Rod #6	3	Inter	Rod #6
4	Bas Hauban	Rod #10	4	Bas Hauban	Rod #10
5	Pataras	Rod #8	5	backstay	Rod #8
6	Verin de pataras		6	Hydraulic backstay	

## 12 - Plan de voileure

## 12 - Sailplan

Rep.	Désignation		Ref.	Description	
	I	14,17 m		I	14,17 m
	J	4,05 m		J	4,05 m
	P	13,18 m		P	13,18 m
	E	4,72 m		E	4,72 m
1	Etai	Rod #10	1	Rod forestay	Rod #10
2	Galhauban	Rod #10	2	Galhauban	Rod #10
3	Inter	Rod #6	3	Inter	Rod #6
4	Bas Hauban	Rod #10	4	Bas Hauban	Rod #10
5	Pataras	Rod #8	5	backstay	Rod #8
6	Verin de pataras		6	Hydraulic backstay	

## 13 - Plan de voileure

## 13 - Sailplan

Rep.	Désignation	Ref.	Description
1	GV entière / Genois entier	1	Mainsail + Genois
2	1 Ris / Génois 90 à 75 % de LP	2	1 reef + Genoa 90 to 75% LP
3	2 Ris / Génois75 à 60 % de LP	3	2 reefs + Genoa 75 to 60% LP
4	3 Ris / Génois 45% de LP ou Tourmentin	4	3 reefs + Genoa 45% LP or Jib
5	GV Affalée / Tourmentin	5	No mainsail / storm jib
Pour limiter le risque de casse et de chavirage la voilure sera reduite en fonction de la force du vent mais aussi d' éléments tel que:  Etat de la mer Confort et aptitude de l' équipage Entrée et sortie de port Rafale de vent ou brouillard		In oder to limit the risk of breakage or capsizing the sails will be reduced according to the wind speed but also according to:  Sea state, Confort and ability of the crew , Difficulties of entering and exiting the harbour Gusting wind and fog	

## 14 - Gréement courant

## 14 - Running rigging

Rep	Ø	Lg m	Type	Désignation	Description
1	10	40	Vectran	1 drisse de GV	Mainsail halyard
2	10	38	Vectran	1 drisse de foc	Jib halyard
3	12	40	Polyester	1 drisse de spi	Spin halyard
4	12	40	Dynema	1 écoute de GV	Mainsail sheet
5	12	18	Polyester	2 écoutes de foc	2 Jib sheets
6	12	25	Dynema	2 écoutes de spi	3 Spin sheets
7	10	22	Polyester	1 bout d'amure spi	Spin tack end
8	10	20	Polyester	1 bosse de ris1	Reef 1
9	10	24	Polyester	1 bosse de ris2	Reef 2
10	8	16	Polyester	1 contrôle bout dehors	Bow sprit control
11	6	2.5	Dynema	1 butée de bour dehors	Bowsprit end stop
12	8	10	Dynema	2 arthur GV	2 Mainsail travellers control line
13	6	12	Dynema	2 bouts réglage chariot génois	2 Jib traveller control lines
14	4	2.3	Dynema	palan fin GV	Small mainsail sheet

## 15 - Accastillage

## 15 - Deck plan

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Poulie amure spi 1958	1	spin tack block
2	Feux de navigation	2	Navigation lights
3	cadène d'étai	3	forestay chainplate
4	Enrouleur	4	Furler
5	Poulie drosse enrouleur	5	Furling system block
6	Taquet	6	Cleat
7	Filoir bagué	7	Bullseye
8	Panneau de pont	8	Deck Hatche
9	Panneau de pont	9	Deck Hatche
10	Rail de foc mid range	10	Gibtrack
11	Chariot génois	11	Gib car
12	Cadène	12	Chainplate
13	Bloqueur	13	XCS clutch
14	Winch 40ST	14	40ST Winch
15	Cam cleat	15	Clam cleat
16	Bloqueur à plaquer	16	Side mounted rope clutch
17	Poulie génois	17	Gib block
18	Winch 46 ST	18	46ST Winch
19	Poulie réglage chariot génois	19	Gib car control line block
20	Poulie réglage chariot génois	20	Gib car control line block
21	Rail GV	21	Mainsail track
22	Chariot GV	22	Mainsail traveller
23	Poulie écoute de spi	23	Spin sheet block
24	Poulie écoute de spi	24	Spin sheet block

## 16 - Moyens de sauvetage



## 16 – Safety equipment

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
1	Zone de pont avec anti-dérapant	1	Non-skid area
2	Emplacement des lignes de vie	2	Jackstays fitting position
3	Emplacement radeau de survie	3	Life raft location
4	Echelle de bain	4	Swimming ladder
5	Cadène accrochage de harnais	5	Harness pad eye
6	Filières	6	Guardwires
7	Taquet amarrage / remorquage	7	Mooring Cleat
10	Balcon avant	10	Pulpit
11	Chandelier	11	Stanchion
12	Balcon arrière	12	Pushpit



## 17 - Grutage

## 17 - Lifting

<i>Rep.</i>	<i>Désignation</i>	<i>Ref.</i>	<i>Description</i>
	Voir repère de couleur rouge sur le livet de pont		See red sticker on deck
	Déplacement lège: 4 950 kg		Displacement 4 950 kg
	Déplacement en charge maximum: 6 250 kg		Gross weight 6 250 kg
	Maitre bau 3,51 m		Beam 3,51 m
	Tirant d'eau 1,85/2,1 m		Draft 1,85/2,1 m

Ce manuel a été réalisé par

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Ingénierie

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## Receipt to return to your dealer

I undersign:

Name:.....

Surname:.....

Adress:.....

.....

.....

.....

Owner of **J109** N : HIN : FR-JBE \_ \_ \_ \_ \_

déclare that I have received the owner's manual and accept its redaction in english language.

Date .....

Signature