



Manuel du Propriétaire - Owner's Manual

ZODIAC X10CC

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Rev C

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FR

Enregistrez votre bateau dès aujourd'hui sur le "Zodiac Club"
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I. INTRODUCTION

Dear Boat Owner,

Welcome to the family of proud Zodiac brand owners. This Owner's Manual has been produced to ensure the safe and enjoyable use of your boat. It provides detailed information on the boat itself, its equipment and systems, as well as instructions on how to use them. It is therefore essential that you read it carefully.

This manual is not a substitute for seamanship or training in safety at sea. If you are a novice or if you have recently acquired this boat, we strongly recommend that you gain sufficient experience before heading to sea.

Also ensure that the forecast weather conditions correspond to the design category of your boat and that both you and your crew are sufficiently experienced to handle the boat in these conditions. Sea and wind conditions vary considerably, from strong storms in category A to severe conditions at the top end of category C. These conditions can be dangerous and require an experienced, physically fit crew and a well-maintained boat.

Always beware as even the most robust boats can suffer serious damage if misused. It is therefore essential to constantly adjust speed and heading according to the sea conditions encountered.

This owner's manual is not a substitute for a detailed maintenance or repair guide and emphasises the importance of contacting ZNAUTIC or its local representative when fitting accessories or making modifications. Modifications can have a major impact on the characteristics, safety and performance of your boat. They must therefore be assessed, carried out and documented by qualified personnel. Please note that ZNAUTIC cannot be held responsible for any modifications made to the boat without its prior approval.



There are a number of crucial points to bear in mind when it comes to safety, including:

Using the life raft: If your boat is equipped with a life raft, it's essential to read its user's manual carefully so that you know how to use it correctly in an emergency.

Mandatory safety equipment: Make sure your crew has all the

etc., suited to the boat and the weather conditions. It is important for the crew to be familiar with its use and with emergency safety procedures, such as man overboard recovery or towing.

Training and coaching: Sailing schools and clubs regularly organise training sessions to familiarise the crew with safety equipment and emergency procedures. It is recommended that you take part in such sessions to improve your safety at sea skills.

Compliance with maritime safety rules: It is crucial to respect the rules of maritime safety as defined by the Rules of the Road, in particular those set out in the Convention on the International Regulations for Preventing Collisions at Sea (COLREGS). Some regions may also have their own regulations.

Finally, in some countries, a licence or specific authorisation may be required to operate a boat. It is therefore advisable to find out about local regulations beforehand.

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

II. TERMS AND DEFINITIONS

1. DEGREES OF DANGER

DANGER

- Indicates the existence of an extreme intrinsic risk that may give rise to a high probability of death or serious injury if appropriate precautions are not taken.

WARNING

- Indicates the existence of a risk that may give rise to death or injury if appropriate precautions are not taken.

CAUTION

- Provides a reminder of safety measures or draws attention to unsafe practices that could cause injury to persons or damage to the vessel or its components.

RECOMMENDATION & NOTE

- Indicates information considered important, but not related to a danger, for example regarding material damage.

2. SAFETY LABELS



General Danger



Electrical hazard



Fire hazard



3. DEFINITIONS

LH: This length includes all structural parts and those that are an integral part of the boat, such as wooden, plastic or metal forepeaks and transoms, bulwarks and deck/hull joints. This length excludes removable parts that can be detached non-destructively without affecting the structural integrity of the boat, for example spars, bowsprits, bow or stern pulpits, bow fittings, rudders, outboard engine brackets, stern drives, diving and climb platforms, fender strips and fender flanges.

This length also includes detachable parts of the hull that act as hydrostatic or hydrodynamic support when the boat is idle or underway.

Lmax: This length includes all structural parts and those that are an integral part of the boat, such as wooden, plastic or metal forepeaks or transoms, bulwarks and deck/hull joints. This length includes all parts which are normally fixed to the boat, such as fixed spars, bowsprits, bow or stern pulpits, bow fittings, rudders, outboard engine seats, propulsion bases, turbines and any propulsion system extending aft, diving and climbing platforms, scuttles and fender flanges. Propulsion bases, turbines, other propulsion systems and all moving parts must be measured in their normal condition of use up to their maximum longitudinal extension when the boat is underway. This length excludes outboard engines and any other type of equipment that can be detached without the use of tools.

BH: The hull beam includes all structural or integral parts of the boat, such as hull extensions, deck/hull joints and bulwarks. The hull beam excludes removable parts that can be detached non-destructively, without affecting the integrity of the hull, for example scuttles, fenders, handrails and stanchions projecting beyond the boat's sides and other similar equipment. The hull beam also includes detachable parts of the hull that act as hydrostatic or hydrodynamic support when the boat is idle or underway.

Bmax: The maximum beam includes all structural or integral parts of the boat, such as hull extensions, deck/hull joints, extensions such as doublers, runners, chainplates, scantlings, fender flanges and railings extending beyond the boat's sides.

Mlc: The weight of the boat in light condition corresponds to a boat in its unloaded state, in accordance with ISO 8666:2020. For boats with outboard engines, this weight includes the weight of the heaviest outboard engine recommended.

M_{LDC}: The fully loaded displacement is the sum of the light displacement (**M_{lc}**) plus the maximum load (**M_L**) used for stability calculations as defined by ISO 12217 and ISO 6185 standards.

M_{MBP}: The maximum load indicated on the builder's plate includes the weight of all recommended persons on-board, supplies and personal belongings, all equipment not included in the boat's light weight, the cargo (where applicable), less the liquids in the fixed tanks (fuel, drinking water, waste water, oil, fish tanks and ballast tanks).

M_T: The weight of the boat when carried on a trailer includes all permanently installed deck fittings, bathing platforms, boarding ladders, steering systems, winches, sprayhoods, cockpit tables, gratings, flagpole(s), anchors, ropes and chains, movable external equipment such as fenders, hawsers and mooring lines.

4. DESIGN CATEGORIES

Category A: A boat given design category A is considered to have been designed to operate in winds below Beaufort force 10 and the associated significant wave heights. These conditions may be encountered when operating far out in open seas, for example during ocean crossings or near the coastline when not protected from the wind and waves over several hundred nautical miles. Abnormal conditions such as hurricanes, tornadoes and violent storms are excluded.

Category B: A boat considered to have been designed to operate in winds of Beaufort force 8 or less and significant wave heights of up to 4 metres. Such conditions may be encountered when operating offshore, or close to the coast, where there is no protection from the wind and waves for several tens of nautical miles. These conditions may also be encountered in large inland seas where this wave height may occur.

Category C: A boat considered to have been designed to operate in winds of Beaufort force 6 or less and significant wave heights of up to 2 metres. Such conditions may be encountered when operating in exposed inland seas, in estuaries and in coastal waters under moderate weather conditions.

Category D: A boat considered to have been designed to operate in winds of Beaufort force 4 or less and significant wave heights of up to 0.3 metres with occasional wave heights of up to 0.5 metres. Such conditions may be encountered when operating in sheltered inland seas and in coastal waters during good weather.

Category	Wind force (Beaufort scale)	Significant wave height
A	Greater than 8 but less than 10 metres	Over 4 metres
B	Up to and including 8 metres	Up to and including 4 metres
C	Up to and including 6 metres	Up to and including 2 metres
D	Up to and including 4 metres	Up to and including 0.3 metres (0.5 metres max.)







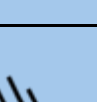






[Weather conditions / design categories](#)



5. BEAUFORT SCALE

The Beaufort scale, used for maritime applications, is an empirical measure of the average wind speed over a period of ten minutes and comprises 13 degrees (from 0 to 12).

In France, from force 7 upwards, weather conditions are considered serious, particularly for coastal craft. This is why the Centre Régional Opérationnel de Surveillance et de Sauvetage (**CROSS**) issues a Special Meteorological Bulletin (**BMS**) on VHF to alert sailors.

Force	Terms	Symbols	Speed (Knots)	Speed (Kph)	Sea state	Effects on shore (at a height of 10 m)
0	Calm		< 1	< 1	Sea like a mirror, smooth and without waves.	Smoke rises vertically.
1	Light air		1 - 3	1 - 5	A few ripples with the appearance of scales are formed, without foam crests. Waves of 0 to 0.2 m.	Wind direction shown by smoke drift. Weathervanes do not provide indications.
2	Light breeze		4 - 6	6 - 11	Small wavelets that do not break, from 0.2 to 0.5 m.	Wind felt on face. Leaves rustle. Weathervanes moved by wind.
3	Gentle breeze		7 - 10	12 - 19	Large wavelets of 0.5 to 1 m. Ridges of white foam (scattered white horses) begin to break here and there. Glassy foam.	Flags flutter in the wind. Leaves are constantly in motion.
4	Moderate breeze		11 - 16	20 - 28	Small waves of 1 to 2 m, frequent white horses.	Raises dust. Small branches moved.
5	Fresh breeze		17 - 21	29 - 38	Moderate waves of 2 to 3 m, white horses, chance of spray.	Small trees in leaf begin to sway. The tops of trees move. Crested wavelets form on inland waters.
6	Strong breeze		22 - 27	39 - 49	Crests of white foam, large waves, spray, 3 to 4 m waves.	Wind whistling is heard. The large branches in motion. Umbrellas may be turned inside out.
7	High wind		28 - 33	50 - 61	Spindrift, sea heaps up, 4 to 5.5 m waves.	Whole trees in motion. Sailing against the wind can be difficult.
8	Gale		34 - 40	62 - 74	Edges of crests of waves break into spindrift, well-marked streaks, waves of 5.5 to 7.5 m.	Twigs break off trees. Sailing against the wind is very difficult, if not impossible.
9	Strong gale		41 - 47	75 - 88	High waves, reduced visibility due to spray, waves of 7 to 10 m.	Wind can cause slight structural damage to buildings, with tiles and slates flying off.
10	Storm		48 - 55	89 - 102	Very high waves with long overhanging crests. The resulting foam agglomerates into large banks and is blown away in dense white streaks. Waves of 9 to 12.5 m.	Considerable structural damage to buildings. Roofs may be blown off. Some trees may be uprooted.
11	Violent storm		56 - 63	103 - 117	Exceptionally high waves. Sea completely covered with long white patches of foam stretching in the direction of the wind. Waves from 11.5 to 16 m.	Widespread damage.
12	Hurricane force		≥ 64	> 118	Air is filled with foam and spray. Sea is completely white with driving spray. Waves of over 14 m.	Devastation on the scale of a natural disaster.

III. TECHNICAL DATA

1. GENERAL CHARACTERISTICS

Symb.	Description	Value	Unit
	Model	X10CC	
	Architect	ZNAUTIC	
	Builder or person responsible for bringing to market	ZNAUTIC	
Cat.	Design category	B + C	
	Notified body number	CE 0607	
	Main means of propulsion	Outboard motors	
L _H	Hull length (LH):	9.99	m
L _{wl}	Waterline length (LWL):	8.59	m
L _{max}	Maximum length (Lmax):	10.00	m
B _H	Hull beam (BH):	3.75	m
B _{max}	Maximum beam (Bmax):	3.80	m
B _{wl}	Beam at the waterline	2.78	m
T _{max}	Max. draught (at full load):	0.68	m
H _A	Air draught (light condition):	3.50	m
	Freshwater capacity excluding water heater	80	L
	Fuel capacity	800	L
	Black water tank	43	L
	Weight of permanent tanks (full)	700 (optional: 725)	kg
P _{max}	Maximum permissible engine power	661.5 (900)	kW (hp)
	Maximum permissible weight of motor(s)	884	kg
M _T	Weight of boat for carriage by trailer	5284	kg

General information

Some of this information is shown on the builder's plate fixed to the boat.

NOTE

- The capacity of the various freshwater and fuel tanks is generally not fully usable, depending on the trim, the load of the boat or the points where the tanks are emptied and filled. For fuel, a 20% reserve is recommended.



2. CATEGORY OF YOUR BOAT

Your boat comes under design category **B**.

Under normal conditions of use, your boat is designed to operate in waves with a significant height of 4 m or less and winds not exceeding force 8 on the Beaufort scale.

NOTE

▪ Significant wave height represents the average height of the upper third of the waves, which approximately corresponds to the wave height estimated by an experienced observer. Some waves will be twice as high as this value.

The manufacturer cannot guarantee that the boat will operate perfectly in exceptional sea conditions (violent storm, hurricane, cyclone, waterspout, etc.). So be careful and check the weather forecast before setting out to sea.

The ability to operate also depends on the skills of the crew, their physical abilities, the maintenance of the boat and the equipment.

In port: the harbour office displays daily weather reports and forecasts for the coming days. You can also consult weather or ocean rescue organisations like Météo France or the **CROSS** in France, which issue several bulletins a day.

3. LOADS

The stability of this boat has been assessed by considering the following loads and displacements expressed in kg:

Symb.	Design category	A	B	C	D
	Number of passengers	-	9	20	20
M _{ec}	Empty displacement (kg)	-	3589	3589	3589
M _{lc}	Light displacement (unladen) (kg)	-	4799	4799	4799
M _{ldc}	Maximum load displacement "stability" (kg)	-	7334	8344	8244
M _{ML}	"Max" load (kg)	-	1790	2800	2700
M _{mbp}	Maximum load shown on CE plate (kg)	-	1040	2050	2050

[Loading / design category](#)

WARNING

When loading the boat:

- Do not exceed the maximum recommended load, as this may lead to flooding and loss of stability.
- Do not exceed the maximum number of people recommended. No matter how many people are on-board, the total weight of passengers and equipment must never exceed the maximum recommended load.
- Always use the designated seats or seating areas.
- Always load the boat carefully and distribute the load appropriately, to maintain the theoretical trim (approximately horizontal).
- Avoid placing heavy loads high up.

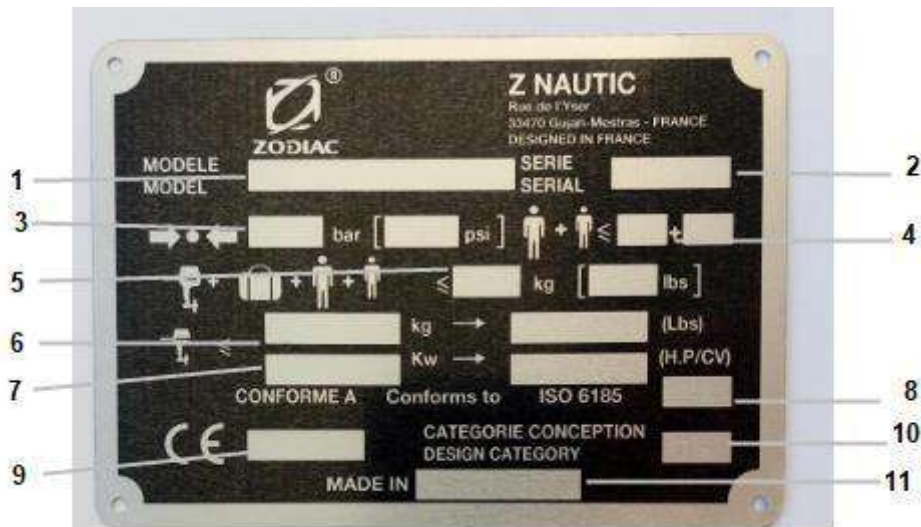
WARNING

- Your attention is drawn to the finishing process in which structural components such as helm station, seats and superstructure elements are installed by parties other than the manufacturer. These elements should be installed in compliance with the relevant requirements of ISO 6185-4 to ensure that all such installations do not invalidate the initial assessment made.

4. MANUFACTURER'S ID PLATE

The manufacturer's ID plate fixed in the cockpit provides the user with the main information to know about the design and loading of the boat.

The information we have provided is not an exhaustive list. Operating requirements may differ from country to country or state to state (mandatory safety equipment on the boat, maximum authorised distance from a sheltered port, etc.). Always inform yourself and comply with the national and local regulations of the country in which you are using the boat.



Manufacturer's ID plate

No.	Meaning	Units
1	Model designation	
2	Serial number	
3	Nominal inflation pressure	Bar and Psi
4	Maximum number of people (1)	
5	Maximum load Mmbp (2)	kg and lbs
6	Maximum outboard weight	kg and lbs
7	Maximum outboard power	kW and hp
8	ISO standard used	
9	Notified body number for certification purposes	
10	Design category	
11	Country of manufacture	

(1) / The maximum number of people is 9 in category B and 20 in category C (recommended by the manufacturer when the boat is operated in sea conditions corresponding to its design category).

(2) / The maximum load stated on the manufacturer's ID plate excludes the 700 kg weight of the tanks (freshwater option 110 litres: 725 kg) when full, as well as that of the ballast.

NOTE

▪ The maximum number of people on-board is given by the example of 4 people weighing 75 kg each = 300 kg. If children are part of the crew, this number may be higher, but the total weight of 300 kg must not be exceeded and the weight of each child must not exceed 37.5 kg. Above this weight they are considered adults.

5. BOAT IDENTIFICATION

The Craft Identification Number (**CIN**), engraved on a plate, is located on the starboard side of the transom. This number is unique to each unit. It is made up of a series of letters and numbers such as:

FR-XDCXXXXXXXXX

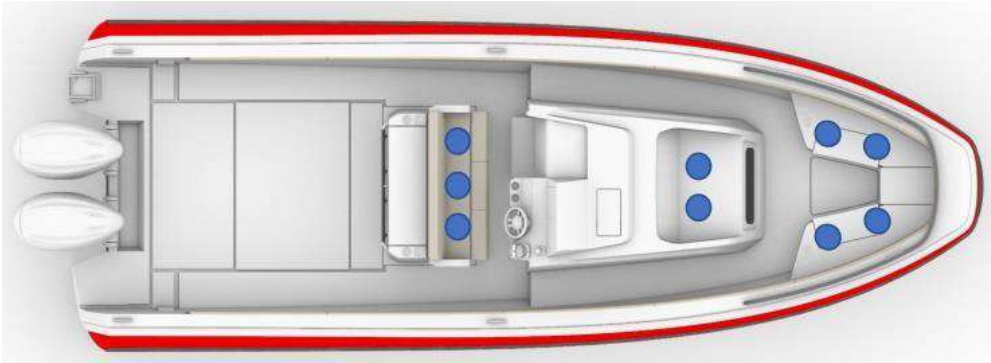


Craft Identification Number

6. PASSENGER PLACEMENT

6.1. CATEGORY B

Your boat can accommodate 9 people in Category B. All have a seat and at least one handhold.



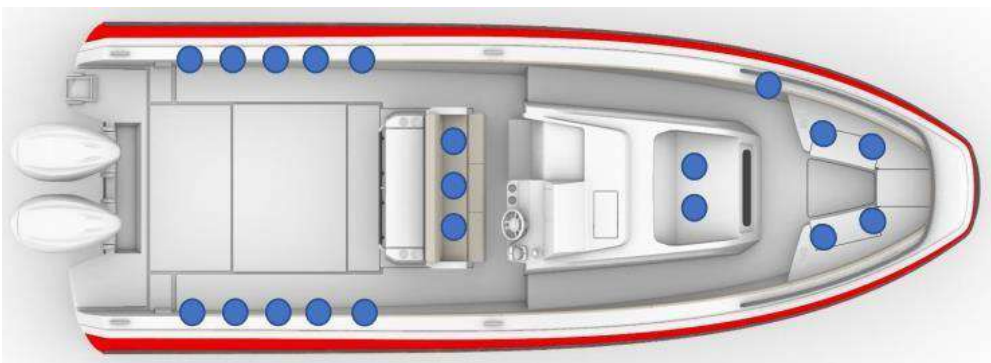
Cat. B seating plan

6.2. CATEGORY C

In category C, your boat can accommodate up to 20 people. Some standing with two handholds and others sitting with one handhold. There are two possible configurations depending on the layout of the central benches.



Cat. C seating plan with benches



Cat. C seating plan without benches

IV. SAFETY RULES AND EQUIPMENT

1. SAFETY EQUIPMENT

Mandatory safety equipment is not harmonised within the European Community. Please refer to the national regulations in force for boats with the CE mark.

In France, pleasure boats bearing the CE mark must have on-board the safety equipment specified for their category of navigation and ensuring this is the yachtsperson's responsibility.

Basic	Up to 2 miles from a shelter
Coastal	Up to 6 miles from a shelter
Semi-offshore	Between 6 and 60 miles from a shelter
Offshore	More than 60 miles from a shelter

Distances from a shelter

Item	Basic	Coastal	Semi-offshore	Offshore
Individual floatation equipment	■	■	■	■
Lights	■	■	■	■
Fire fighting equipment (shown in the owner's manual)	■	■	■	■
Manual bailing equipment	■	■	■	■
Towing equipment	■	■	■	■
Mooring line (if empty weight \geq 250 kg)	■	■	■	■
Tide charts	■	■	■	■
National flag (outside of territorial waters)	■	■	■	■
A man overboard identification and assistance system like a horseshoe or all-season buoy		■	■	■
Three hand-held red lights		■	■	■
Magnetic compass (or GPS for coastal sailing)		■	■	■
Official navigation charts (refer to the Nautical Documents form)		■	■	■
International collision prevention rules (COLREGs)		■	■	■
Description of the buoyage system		■	■	■
Life raft			■	■
Position taking equipment			■	■
Up to date list of lights (see nautical documents form)			■	■
Log			■	■
Reception system for weather bulletins			■	■
A harness and tether per boat for motor boats			■	■
A harness and tether per person for sail boats			■	■
A first aid kit compliant with article 240-2,16			■	■
A light system for searching and identifying at night			■	■
Maritime emergency position indicating radio beacon (EPIRB)				■
Fixed VHF radio (since 1 Jan. 2017)			■	■
Portable VHF radio				■

List of mandatory equipment in France

2. LIFE RAFT

If your boat is fitted with a life raft, an inspection by a specialist body is mandatory every three years, then every year from the fifteenth year onwards.

Read the user manuals carefully. The crew must be familiar with the use of all safety equipment (harnesses, flares, life raft, etc.). Sailing schools and clubs regularly organise training sessions.

WARNING

- If you padlock the life raft, don't forget to unlock it before setting out.



Location of life rafts



3. PREVENTING FALLS OVERBOARD

Your boat is equipped with:

- Harness anchor points.
- A bathing ladder: use it to pull up a person who has fallen overboard.
- A non-slip work deck.



Handholds



Attachment points



Bathing ladder

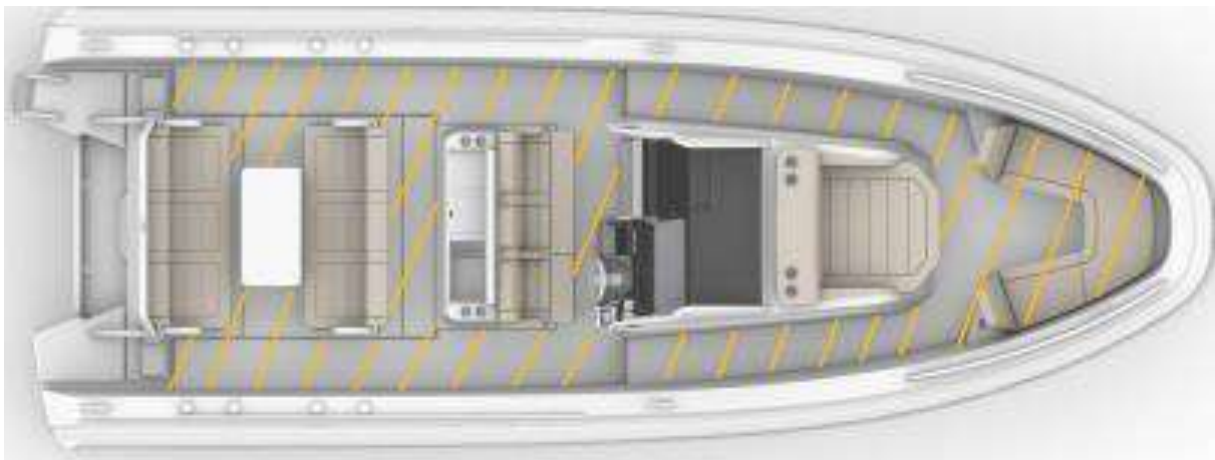
The bathing ladder unfolds freely once the Velcro fastener has been removed and the unit is tilted backwards.

The illustration below shows the areas of the working deck that can be used for sailing (hatched in yellow) and the

DANGER

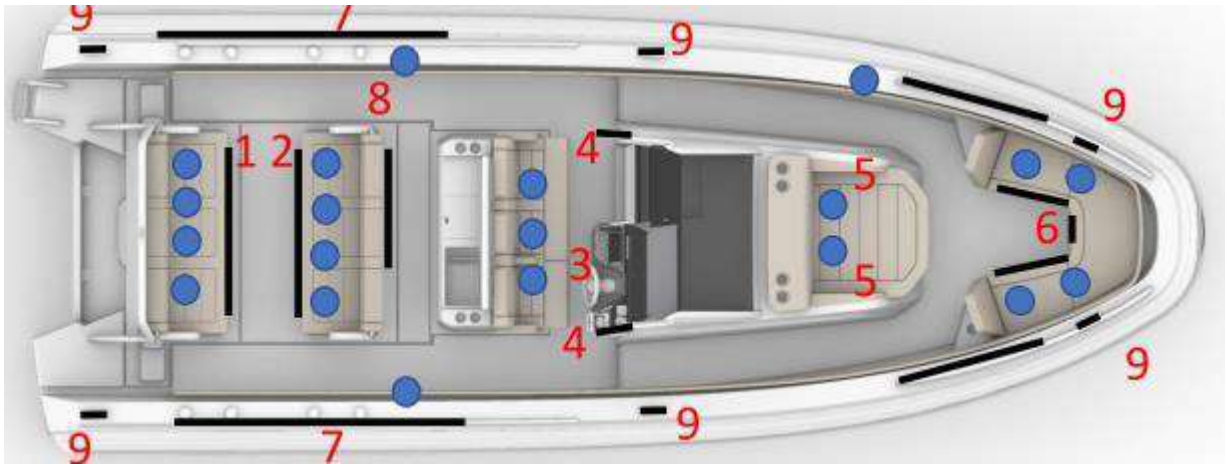
- The bathing ladder, which is the means of getting back on-board, must be deployed at all times if the boat is used single-handed, whether it is anchored, moored, stopped or sailing. We advise you to deploy the bathing ladder as soon as a person is alone on deck.
- If your boat is fitted with synthetic lifelines, an annual inspection and periodic replacement should be carried out every five years.

areas that cannot be used for there is a risk of falling overboard.

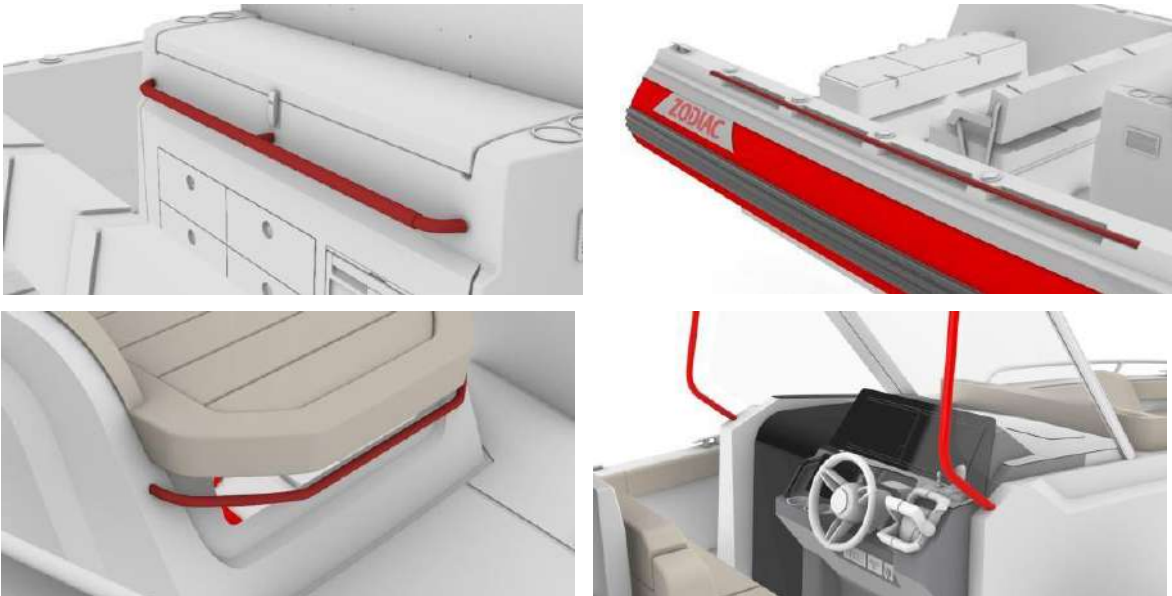


Working deck

The illustration and photographs below show the position of the handholds for safe movement.



Handholds



Detailed view of handholds

4. SAILING

WARNING

- In all situations, adapt your boat's speed to the surrounding conditions and always maintain a sufficient safety margin by showing good seamanship.
- You are responsible for the proper operation of your boat.

WARNING

Pay attention to:

- Surrounding traffic.
- Speed limits.
- During harbour manoeuvres.
- When in a swimming area.
- When passing anchored vessels.
- Sea state, currents and wind strength.
- Beware of offshore winds and currents!
- The priority rules set out in the **COLREGs**.
- When manoeuvring, always make sure you have enough room to stop or avoid a collision.

RECOMMENDATIONS

- Make sure that everyone on-board wears a life jacket at all times.
- Avoid sudden course changes at full speed.
- For everyone's comfort and safety, reduce your speed in waves or rough seas.
- In addition to the obvious safety risks, it is illegal to drink and drive and boating under the influence (BUI) is illegal. Heavy penalties are applied by regional (state) and federal bodies.
- Learn to read nautical charts and keep them on your boat to familiarise yourself with the area in which you are sailing.



5. STRUCTURE

If a "non-structural" stiffener fails, it is possible that the adjacent structure could crack, leading to further failure. Such cracks should be monitored and investigated immediately by your local representative.

CAUTION

- The outer skin of your boat is strong enough to withstand design pressure, but is not designed to withstand local damage caused by impacts against hard/sharp objects. If the outer skin is damaged, it must be repaired immediately.

6. STABILITY

The boat's stability and resistance to flooding were assessed using ISO 12217-1 and ISO 6185 standards.

WARNING

- Any change in the arrangement of the weights on-board (e.g. the addition of a raised structure for fishing, a radar, changing the engine, etc.) can significantly affect the boat's stability, trim and performance.
- Always keep the bilge water level to a minimum.
- Stability is reduced by the addition of any weight in the topsides and generally above the main deck.
- In heavy weather, always close panels, lockers and doors to minimise any risk of flooding.
- Stability can be reduced when towing a boat or lifting heavy weights with a davit.
- Carefully secure the moving parts on-board the boat when it is underway.
- Cresting waves represent a major vessel stability hazard;

Beaching is not a risk-free manoeuvre and must be carried out with caution, under the full responsibility

7. BEACHING

of the skipper, while complying with certain important rules:

- Pay attention to the tidal range.
- Keep a close eye on weather conditions.
- Have a thorough knowledge of the location and always check the seabed.
- Raise your outboards as high as possible.
- Always rig a stern anchor.

WARNING

- The skipper must keep a continuous watch on the boat while beached, particularly during the rising and falling tide phases.

8. VISIBILITY

The boat operator's vision from the steering position may be obstructed due to the following variable conditions:

- Propulsion base angle.
- Vessel load and distribution.
- Speed.
- Fast acceleration.
- Transition from full hull motion to planing.
- Sea conditions.
- Reduced visibility (i.e. due to rain, darkness and fog).
- Cabin lights.
- Position of the curtains.
- Persons or movable equipment in the operator's field of vision.

CAUTION

- Keep a watchful eye forward and aft, as required by the **COLREGs** and the rules of the road at sea.
- Observe priority rules as defined by the rules of the road and the COLREG Regulations for Preventing Collisions at Sea.
- Ensure that you always have sufficient distance to stop or manoeuvre to avoid a collision, if necessary.
- Respect the speed limit zones.
- As a courtesy, and for the safety of other boats, please ensure that you do not create a large wake near other boats.
- In all cases, keep up to date with local and international regulations (**MARPOL**).

9. ANCHORING - TOWING - MOORING

Your boat can be towed using the bitts and cleats provided. Please refer to the **diagram provided in the appendix**.

- The strength of the forward anchor points is greater than 34.2 KN (3486 Kg).
- The strength of the aft anchor points is greater than 27.9 KN (2844 kg).

CAUTION

Always:

- Tow or be towed at slow speed. Never exceed the speed limit of a displacement hull when towing.

CAUTION

- A towing cable must always be moored in such a way that it can be released under load.
- The boat owner/operator is responsible for ensuring that the mooring ropes, towing cables, chains, anchor lines and anchors are adequate for the boat's intended use. This means that the breaking strength of the lines or chains does not exceed 80% of the breaking strength of the corresponding anchor point. In addition, the owner should consider the actions required when securing a towline on-board.
- Towing a boat causes significant overloading, reducing your boat's stability.
- If non-metallic anchor points are installed on the boat, it is important to bear in mind their limited lifespan. They should be replaced as soon as they show signs of deterioration, visible surface cracks or permanent deformation.



Anchor



Cleat



Windlass + anchor locker

RECOMMENDATIONS

- Your boat has a towing point. Do not use the other cleats, even in cases of necessity.



Mooring cleat

10. NAVIGATION LIGHTS

The navigation lights on your boat are essential to maritime safety and play a crucial role in preventing collisions, particularly in poor visibility conditions. These lights, regulated by international standards such as **COLREGs** (Regulations for Preventing Collisions at Sea, 1972), are designed to enable other boats to detect the position, direction and type of boat encountered on the water.

That's why we strongly recommend that you look after them properly and familiarise yourself with their use before setting out to sea.

The system consists of the following components:

- Two separate red/green sidelights on the bow of your boat.
- A white all-round/anchor light on your boat's T-Top.

For the location of fuses and circuit-breakers, please refer to the **diagram in the appendix**. The location of the switches can be found in the description of the console in the appendix.



Navigation lights

WARNING

- Periodically check the lights are working properly. If a light does not work, always replace it before going out to sea again.



11. BEST PRACTICE

11.1. BEFORE DEPARTURE

✓	Departure checklist
	Weather forecast.
	Provisioning.
	Clothing for going to sea.
	Mandatory documents and equipment on-board and in working order.
	Safety equipment (life jackets, harnesses, fire extinguishers, distress flares).
	Safety instructions given to the crew, including equipment locations.
	Bilge pumps in working order.
	Navigation lights in working order.
	Fuel tanks filled.
	Water tank filled.
	Check all circuits for leaks.
	Clean and undamaged fuel filters.
	Battery levels.
	Close portholes and deck hatches.

11.2. ONCE BACK IN PORT

✓	Return checklist
	Boat properly moored and protected.
	Safety equipment dried and stored.
	Frequently wash down the boat with freshwater.
	Coil the different ropes.
	Check that there are no leaks from the fuel circuits.
	Check that there are no leaks from the sanitation and drainage circuits.
	Close the valves.
	Open the fridge.
	Shutdown the electrical circuit.

V. PROTECTING THE ENVIRONMENT

We recommend that you keep up to date with local environmental regulations, follow codes of practice and comply with the International Convention for the Prevention of Pollution from Ships (**MARPOL**).

CAUTION

- Do not use on-board toilets in port.
- Do not discharge toilets or the contents of holding tanks near the coast or in prohibited areas.
- Use the pumping systems in harbours or marinas to empty the retention tanks before leaving harbour.

CAUTION

- Some products may represent hazards to your safety and that of others and this is why it is important to read and follow the instructions for use.
- The substances used must be labelled and stored in an appropriate place on the boat.
- Most maintenance products, engine oils and hydrocarbons are not environmentally friendly, so they must be discharged in regulated areas (check with the harbour master's office).
- Store your waste for disposal when you return to port.
- Don't throw anything overboard.

CAUTION

- Do not start the bilge pump when there is oil or hydrocarbons in the engine compartment, as these products must only be discharged in regulated areas.

IMPORTANT

- Strictly follow the recommendations for the products you use.
- Never cover the anode with a layer of antifouling.
- As a general rule, paints and cleaning agents are harmful to the environment, so use them in special careening areas.



The table below provides an overview and comparison of the rules applicable to discharges in the different MARPOL Annex V areas:

Type of waste ¹	Ships outside special areas (The distances indicated are in relation to the nearest land)	Ships in special areas (distances shown are from the nearest land or ice shelf)	Offshore platforms ⁴ located more than 12 nautical miles from the nearest land and ships alongside or or less than 500 metres from these platforms
Food waste put through a shredder or crusher ²	Discharge permitted more than 3 nautical miles away, vessel underway and as far away as possible	Discharge permitted more than 12 nautical miles away, vessel underway and as far away as possible ³	Discharge permitted
Food waste not put through a shredder or crusher	Discharge permitted more than 12 nautical miles away, vessel underway and as far away as possible	Discharge prohibited	Discharge prohibited
Cargo residues ^{5,6} not contained in wash water	Discharge permitted more than 12 nautical miles away, vessel underway and as far away as possible	Discharge prohibited	Discharge prohibited
Cargo residues contained in wash water	Discharge permitted more than 12 nautical miles away, vessel underway and as far away as possible	Discharge authorised more than 12 nautical miles, ship underway and as far as possible (subject to the conditions laid down in Regulation 6.1.2 and paragraph 5.2.1.5 of Part II-A of the Polar Code)	Discharge prohibited
Cleaning agents or additives ⁶ present in cargo hold wash water	Discharge permitted	Discharge authorised more than 12 nautical miles, ship underway and as far as possible (subject to the conditions laid down in Regulation 6.1.2 and paragraph 5.2.1.5 of Part II-A of the Polar Code)	Discharge prohibited
Cleaning agents or additives present in deck and outer surface wash water	Discharge permitted	Discharge permitted	Discharge prohibited
Animal carcasses (must be cut up or treated to sink immediately)	The vessel must be underway and as far from the nearest land as possible Must be more than 100 nautical miles away and with a maximum water depth	Discharge prohibited	Discharge prohibited
Any other waste, including plastics, synthetic rope, fishing tackle, plastic garbage bags, incinerator ash, clinkers, cooking oil, driftwood, cladding and packaging materials, paper, rags, glass, metal, bottles, crockery and similar garbage	Discharge prohibited	Discharge prohibited	Discharge prohibited

¹ / Where garbage is mixed with or contaminated by other substances the discharge of which is prohibited or subject to different requirements, the most stringent provisions shall apply.

² / Crushed or ground food waste must be able to pass through a sieve with a maximum mesh size of 25 mm.

³ / The evacuation of poultry products introduced into the Antarctic area is prohibited, unless they have been incinerated or treated by autoclave or other means to sterilise them.

⁴ / Offshore platforms located 12 nautical miles from the nearest land and other vessels designating all fixed or floating platforms engaged in the offshore exploration, extraction or processing of mineral resources from the seabed, and all vessels alongside or less than 500 metres from these platforms.

⁵ / Cargo residues refer only to cargo residues that cannot be recovered by commonly available methods for unloading.

⁶ / These substances must not be harmful to the marine environment.

VI. FITTINGS

The Zodiac X10CC is available in a standard version with options.

1. INTERIOR FITTINGS

1.1. CABIN

- One double berth.
- Storage space under the berth and in the storage pocket.
- Two opening portholes and one fixed porthole.
- The electrical panel with fuses, pilot lights and USB sockets.
- Technical access to the bow thruster battery, bilge pump and black water discharge valve.



Cabin details



Cabin technical details

1.2. BATHROOM

- An electric toilet connected to the freshwater tank.
- A cupboard with a washbasin (cold water).
- Technical access to the black water tank and the level gauges for the freshwater tank and the black water tank.
- Technical access to the back of the helm station.



Toilet details



Cabin technical details

1.3. BATHROOM

- An electric toilet connected to the freshwater tank.
- A cupboard with a washbasin (cold water).
- Technical access to the black water tank and the level gauges for the freshwater tank and the black water tank.
- Technical access to the back of the helm station.



Toilet details

2. EXTERIOR FITTINGS



Perspective view of the boat

2.1. FOREDECK

- A bench that can be converted into a double sun lounger, with a section that can be used as a table or seat.
- A double seat / fixed sun lounger.
- Under the bow bench: two storage lockers and the anchor locker with windlass.
- A host of accessories including USB sockets, cupholders, shade supports and speakers.
- Technical access to the windlass circuit breaker.
- Mooring cleats and handrails.





Detailed view of the foredeck

2.2. AFT DECK

- Two bench seats with adjustable backrests that can be converted into sun loungers.
- Storage compartments under the seats.
- A retractable table.
- A storage unit topped by a sink and fitted with a refrigerator.
- Access to the life raft + technical access to electrical installations (circuit breakers, batteries, etc.).
- Access to the main circuit breakers (under the aft seat).
- Hand operated bilge pump.
- Shore power plug + 220 volt socket (optional).
- A host of accessories including USB sockets, cupholders, aft shade supports and speakers.
- A fish tank (optional).
- Mooring cleats, handrails and aft gates.



Detailed view of the aft deck

2.3. HELM STATION

- The helm station with all the navigation and control equipment.
- Height-adjustable seat (bolster) + folding armrest.
- Storage space under the seat.
- Fuel and freshwater fillers.
- The waste water drain opening.
- Technical access to fuel filters, fuel shut-off valve and technical vents.
- Rod holders on the T-Top.
-

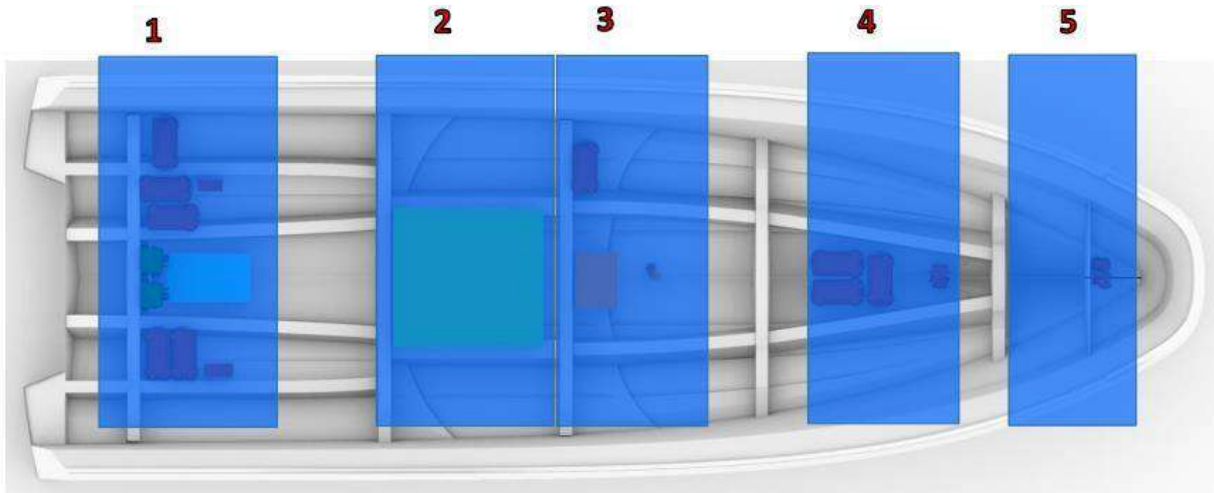
- Speakers.
- Natural ventilation above the windscreen.



Detailed view of the steering position

VII. TECHNICAL ARRANGEMENTS

Whether electric or hydraulic, your boat has a large amount of technical equipment. To make it easier for you to use and maintain them, we've divided the boat into five distinct areas:



Technical areas

1. AFT BENCH SEAT AND TRANSOM

- Service batteries.
- Engine batteries.
- Steering pump.
- Bilge pump.
- Freshwater tank.
- Freshwater pump.
- Standard electrical components.
- Inverter (optional).
- Charger (optional).
- Shore power connector system (optional).
- Seawater valve and pump (optional fish tank).

2. OUTDOOR GALLEY AND DRIVER'S SEAT

- Fuel tank.
- Fuel system components (filters, fillers, vents, etc.).
- Freshwater network.

3. CABIN STAIRS

- Black water tank with macerator.
- Black water discharge.

4. CABIN

- The bow thruster.
- Bow thruster battery (optional).

5. BOW

- Windlass.
- Mooring.

VIII. INFLATABLE BUOYANCY TUBE

Your boat's buoyancy tube is a crucial component in ensuring its smooth operation. It plays an essential role in the dynamic behaviour of your boat, and is indispensable for guaranteeing stability and seaworthiness.

To meet ISO 6185 design standards, the buoyancy tube has been divided into several watertight compartments. Each compartment has its own inflation valve.

WARNING

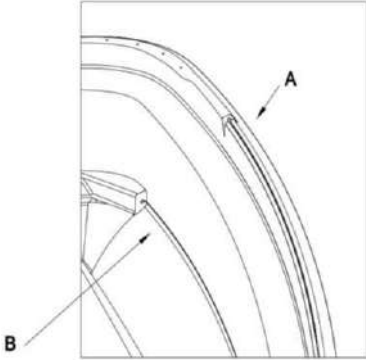
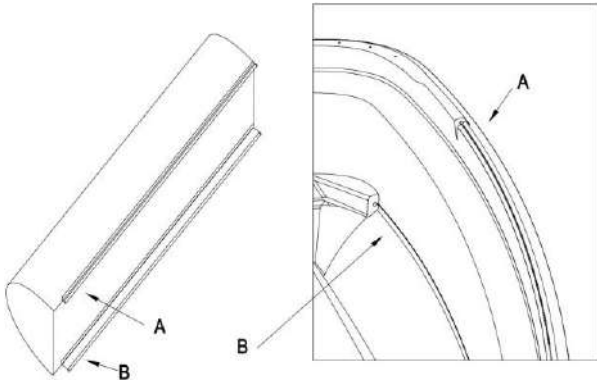
Failure to follow the recommendations in this manual, and especially those relating to the inflation and assembly sequences, may cause significant damage to your boat. Please follow them in full.

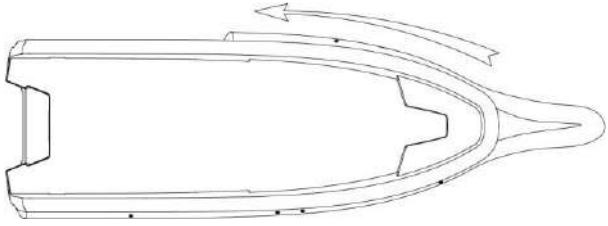
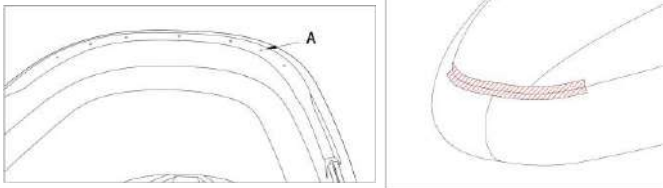

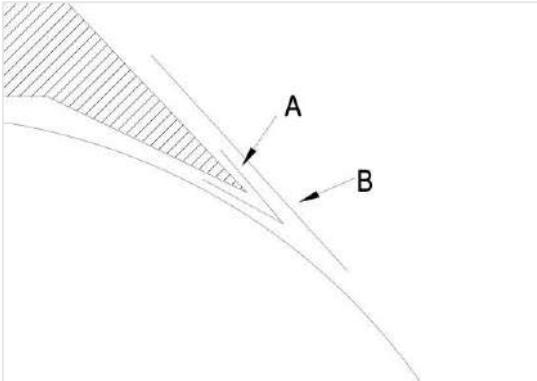

1. MOUNTING THE BUOYANCY TUBE ON THE HULL

The buoyancy tube is mounted on the hull when deflated.

WARNING

The replacement (removal/refitting) operation calls for specialist expertise. Please contact your nearest dealer

Explanatory diagram	Procedure
	<p>- To make it easier to mount the tube, place some liquid soap or grease in the hull rails (A, B).</p>
	<p>- Position the short tube headline (A) in the upper hull rail (A) and the long tube headline (B) in the lower rail (B) located at the front of the hull. Pull the buoyancy tube to bring the headlines to the end of the rail.</p>

	<ul style="list-style-type: none"> - Repeat for the other side of the buoyancy tube.
 	<ul style="list-style-type: none"> - Pull the nose of the buoyancy tube so as to attach the (red) flap onto the nose of the tube at the hull insert level (A). - Pull the two tabs on the buoyancy tube as far as they will go towards the stern of the boat, trying to centre the nose in relation to the front of the hull. - Inflate the nose of the buoyancy tube slightly to check that it is centred and fits snugly against the hull. Repeat the operation if the buoyancy tube is not correctly positioned.
 	<ul style="list-style-type: none"> - Once the buoyancy tube is positioned, gluing operations between the buoyancy tube and the deck are required. - A corner strip (A) needs to be glued along the first five metres at the front of the buoyancy tube. - A finishing strip (B) needs to be glued over the full length of the joint between the deck and the buoyancy tube. - All of these operations should be performed by a professional.

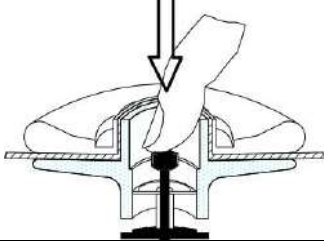
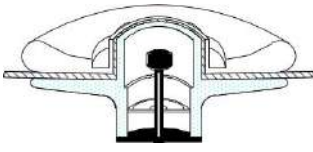
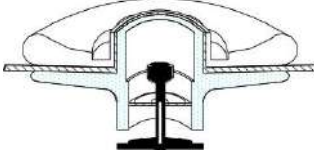
NOTE

- You can inflate the non-installed buoyancy tube (pressure 110 mb) and let it stabilize for around one hour. Then deflate it.
- If the buoyancy tube has been stored at a temperature below 0°C, leave it in a temperate location (20°C) for 12 hours before unfolding.

2. INFLATION SYSTEM

2.1. "EASY-PUSH" VALVES

Your boat is fitted with an inflator to be connected to the inflation valves.

To change position	In inflating position	In deflating position
		
Push	When the membrane is closed, the plunger is up	When the membrane is open, the plunger is down



Inflation valve

NOTE

- Always replace the valve cap after inflating or deflating.

3. INFLATING THE BUOYANCY TUBE

- Place all the valves in the inflation position.
- Attach the hose connector to the inflation pump inflation port.
- To inflate your boat properly, the inflation pump should be correctly placed on the ground.
- The boat inflates rapidly if the inflation pump is used smoothly and without haste.

CAUTION

- Never use a compressor or compressed air cylinder.

4. PRESSURE

Add the adaptor corresponding to the diameter of the semi-recessed valve to the end of the inflator hose, then proceed to inflate the buoyancy tube by balancing the pressures between the different compartments until the partitions are no longer visible (**pressure = 110 mb**). Make sure you proceed in stages, inflating all the compartments as you go along.

CAUTION

Never fully inflate a compartment while the adjacent compartments are still fully deflated.

If in doubt, consult your local dealer. See the **diagram provided in the appendix**.

NOTE

- Observing a slight air loss before screwing the valve cap on is perfectly normal. Only the plugs provide final airtightness.

Your boat is fitted with an ACCESS pressure indicator which provides a quick, efficient readout during inflation (see explanations for use in the "Inflation system" section).

The ambient air or water temperature has a proportional effect on the level of internal pressure in the buoyancy tube:	Ambient temperature	Buoyancy chamber Internal pressure
	+1°C	+4 mb / 0.06 PSI
	-1°C	-4 mb / 0.06 PSI

NOTE

- Check and adjust the pressure in the inflatable compartments (by inflating or deflating as appropriate) in line with temperature variations (especially when there are significant temperature variations between morning and evening in areas that are particularly hot) and make sure that the pressure does not deviate from the recommended pressure range.

4.1. UNDERPRESSURE HAZARD

EXAMPLE: your boat is exposed to bright sunlight on the beach (temperature = 50°C) at the recommended pressure level (110 mb). When you put it in the water (temperature = 20°C), the temperature of the inflatable compartments and the pressure inside them will fall in step (by up to 70 mb) and you will need to reflate to regain the millibars lost due to the difference in temperature between the ambient air and water. It is normal to observe a drop in pressure at the end of the day when the outdoor temperature drops.

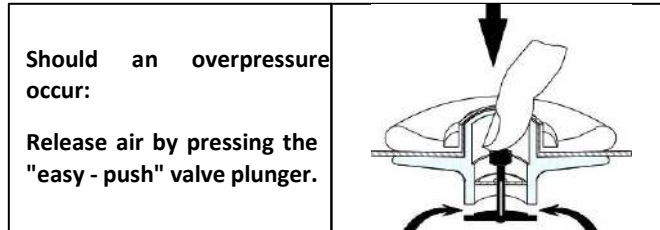
4.2. OVERPRESSURE HAZARD

EXAMPLE: Your boat is inflated to its recommended pressure (110 mb) at the start or the end of the day (low outside temperature = 10°C). Later in the day, your boat is exposed to direct sunlight (temperature = 50°C).

Temperature inside the inflatable compartments will increase (up to 70°C) especially with a dark colour tube, causing the initial pressure to double (220 mb).

To avoid any overpressure, the buoyancy tube is equipped with an overpressure valve for every compartment. This valve ensures that a pressure of 130 mb is never exceeded and it closes again at a pressure of 120 mb, i.e. the maximum permitted pressure level.

You will need to deflate to return to the initial and recommended pressure levels.



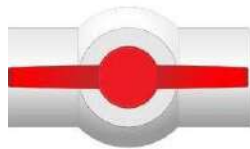
IX. OPENINGS IN THE HULL

The **diagrams provided in the appendix** show the various plumbing circuits identifying all of the valves and through-hull fittings present on the boat.

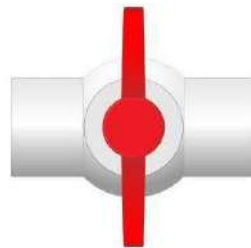
1. VALVES

The valves used on your boat are of the 1/4 turn type. Below is a description of open and closed positions.

- **Open** position: lever **parallel** to pipe.
- **Closed** position: lever **perpendicular** to pipe.



Open



Closed

WARNING

- Never change the tightening of the valves on the hull. In the event of a leak, consult a professional.
- In bad weather or when leaving your boat, close all the valves in the sanitary circuits.
- Keep valves closed when not in use.
- Every year, when wintering, clean and rinse the through-hull fittings and valves. Check for leaks, retighten the clamps and test correct operation.
- In the event of more serious corrosion, consult your dealer.



Detailed view of the valve

2. THROUGH-HULL FITTINGS

Most through-hull fittings are located on the starboard and port sides of your boat, with the exception of the black water discharge valve located on the boat's centreline.



Detailed view of the through-hull fittings

RECOMMENDATIONS

Periodically check:

- Watertightness of through-hull fittings, valves and pipes.

3. BOAT DRAINS

Your boat has a system for draining the cockpit and anchor locker. It is made up of drains and pipes leading to the sea. For your own safety, keep these drains in good condition and unblocked at all times.

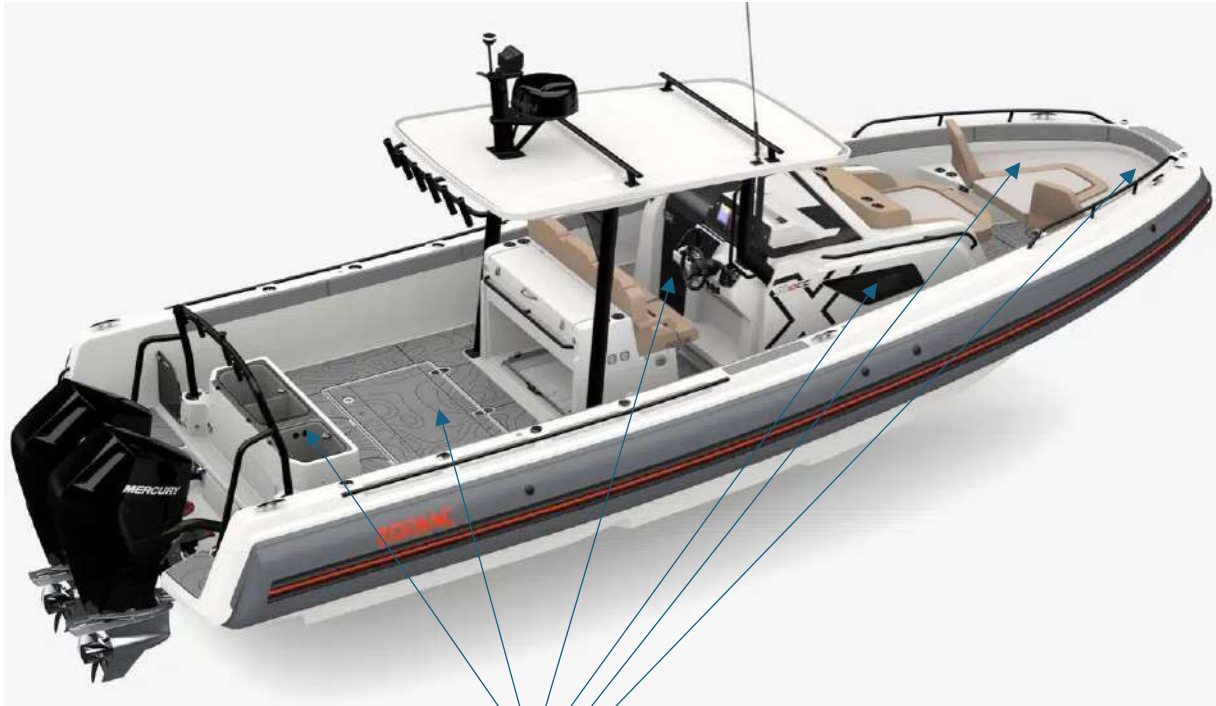
RECOMMENDATIONS

- Periodically check that the cockpit and anchor locker drains drain properly.

X. FLOODING POINTS

RECOMMENDATIONS

- Keep portholes, windows, removable panels, doors, hatches or ventilation openings closed when appropriate, for example in heavy weather or at planing speeds.
- All opening equipment installed in the cavities must be closed at sea, and only the companionway openings (i.e. its door and horizontal sliding part) are opened to allow passage for entry and exit from inside.
- Semi-fixed coamings, including hatch boards, must be raised to their high position.



Deck hatches, openings and lockers

WARNING

- Before setting out, make sure that the cockpit locker covers are closed and locked.



Detailed view of openings

XI. DRAINAGE SYSTEM

1. SYSTEM FEATURES

The boat has four bilge pumps. Please refer to the **diagram provided in the appendix** for their location on board. Also, carefully read the instructions for use and maintenance of the bilge pumps that come with your boat.

The two electric bilge pumps are activated automatically or manually from the helm station, and are accompanied by a rising water alarm.

The hand operated bilge pump, located at the stern of your boat, has an operating lever located under the stern thwart.

To ensure the best possible circulation of water to the pumps, drain ports are fitted throughout the boat's structure.

Id.	Description	Capacity	Reference
1	Electric pump	48 l/min	Europump II G750 12 V
2	Electric pump	48 l/min	Europump II G750 12 V
3	Hand operated pump	32 l/min at 45 strokes/min	Whale BP0350
4	Hand operated pump	35 l/min at 70 strokes/min	Whale BP0350

Pump designation and capacity



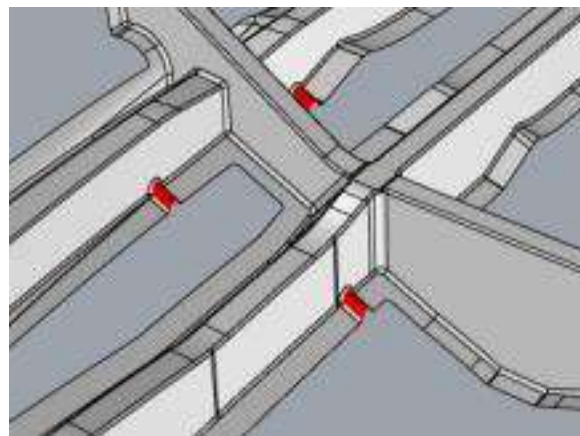
Hand operated



Hand operated pump lever



Electric pump



Drain ports in the structure

WARNING

- The total capacity of the bilge pump system is not designed to drain the boat in the event of damage. It is only intended for draining water from spray, leaking valves or other moderate leaks.
- To reduce the risk of water ingress, hull valves, cockpit drains, fillers and other opening/closing devices must be closed when not in use.

CAUTION

- The bilge pump system is designed to keep the water level in the bilges to a minimum; it is up to the crew to drain the bilges completely by hand.
- Make sure the bilge pumps are in working order before setting out.
- Regularly clean the sump and pump suction points or strainers of any debris that could clog them.
- If the fore and aft peak bulkheads are fitted with valves, these must be closed and only opened to drain water into the main bilges.

RECOMMENDATIONS

- Locate the hand pump and its lever.
- Locate the switch for the electric bilge pumps on the electrical panel.
- Position a plug of the correct diameter close to each through-hull fitting or hull outlet.

XII. FRESHWATER INSTALLATION

1. COMPONENTS

The boat's freshwater circuit is as follows:

- An 80-litre water tank under the cockpit floor (105 litres optional).
- An 11 l/min pressurisation diaphragm pump.
- A washbasin and an electric marine toilet located in the cabin.
- A sink in the outdoor kitchen.
- A deck shower on the transom port side.
- A water filler and a vent on the transom port side.
- A gauge located near the toilet.

Number of tanks	Capacity	Location
1	80 L	Central under-cockpit

Please refer to the **diagram provided in the appendix** for further information.

NEVER

- Run the pump when the tank is empty.



Kitchen sink



Bathroom washbasin + Toilet



Water tank filler



Freshwater tank

XIII. BLACK WATER SYSTEM

1. COMPONENTS

The black water (or waste water) circuit is as follows:

- An electric toilet.
- A 43-litre tank located behind the toilet.
- An overboard discharge valve located under the floor of the companionway.
- A drain opening on-deck.
- A venting system with anti-odour filter.
- A gauge located near the toilet.

Number of tanks	Capacity	Location
1	43 L	Central under-cockpit

Please refer to the **diagram provided in the appendix** for further information.

2. MARINE TOILET

RECOMMENDATIONS

- Don't dispose of anything in the toilet.
- If the drainage system is blocked, check that the valves are closed before disconnecting the pipes.
- Make sure you change the toilet seals regularly.

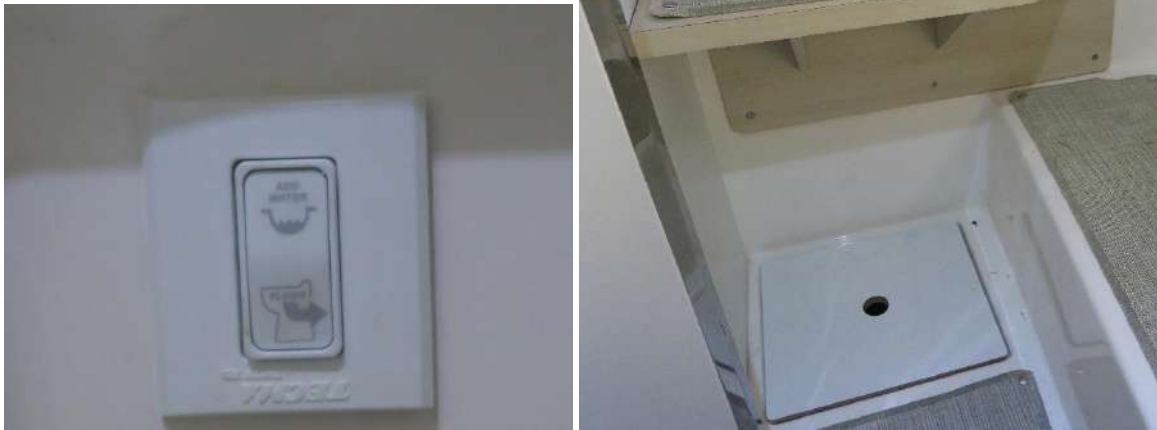
2.1. ELECTRIC TOILET OPERATION

Filling cycle: water is added to the toilet bowl by pressing and holding the "add water" button until the bowl is completely full.

Draining cycle: the toilet bowl is emptied by pressing and holding the "Flush" button until the bowl is completely emptied.

Note that black water is conveyed by a dedicated electric pump.





Detailed views and access to the marine toilet

3. DISCHARGES

The marine toilet drains directly into the holding tank. It can be emptied by suction at a suitable station via the deck fittings provided, or directly into the sea via the discharge valve. Beware, however, that some localities prohibit you from discharging directly into the sea.

Out of respect for the environment, please do not discharge toilets or the contents of holding tanks near the coast or in prohibited areas, and use port or marina pumping systems to empty holding tanks before setting out.

RECOMMENDATIONS

- Refer to the chapter on the environment for more information on best practice.

CAUTION

- To prevent any inadvertent discharge, always lock the drain valve on the black water tanks.
- If required by local regulations, discharge valves can be locked with a seal or padlock.
- Never overfill the tank, as this could cause irreversible damage to the filter installed in the vent line.
- Tanks must be kept empty in sub-zero temperatures.



Drain valve



Black water tank



Black water pumping outlet

The discharge valve is sealed simply by locking the valve in the closed position (perpendicular to the pipe) and passing the seal between the hole in the valve handle and the lug fixed to the hull.



XIV. ELECTRICAL INSTALLATIONS

The boat is equipped with a 12 V direct current (DC) circuit and a 230 V alternating current (AC) circuit:

As standard:

- One 55 Ah AGM service battery.
- One 110 Ah starter battery per engine.
- One 110 Ah AGM accessory battery.
- 12 V DC power distribution.

Optional extras:

- One additional 110 Ah AGM audio system battery.
- One additional 110 Ah AGM battery.
- Shore power supply (without transformer).
- Charger/inverter.
- 230 V AC 50 Hz or 120 V AC 60 Hz power distribution (only with shore power).
- Inverter.
- Galvanic isolation.

Please refer to the **diagrams provided in the appendix** for further information.

DANGER

- Incorrect use of DC and AC power systems can lead to fire or explosion.
- Incorrect use of AC power systems can lead to electric shock hazards.

If a fuse or circuit-breaker continues to fail, or if a short-circuit alarm goes off, we recommend that you call in a specialist to determine the source of the problem.

If the polarity reversal indicator is activated, it is important not to use the electrical installation. It is necessary to correct the polarity error before starting up the boat's electrical installation.

Other equipment, such as interior lighting, comfort equipment, etc., is protected by fuses. Please refer to the **diagrams provided in the appendix** for further information.

CAUTION

Never:

- Work on an electrical installation while the circuit is powered up.
- Never leave the boat unattended when the electric power circuit is powered up, except for the

IMPORTANT

Always:

- Check the condition of the batteries and charging system before setting out.
- Disconnect and remove the batteries for winter storage.
- Keep battery voltage above 12 V during winter storage.
- Check that the navigation equipment is working properly.
- Keep spare fuses on-board for the power circuits.
- Check that the navigation lights are working before putting to sea at night.
- Have the installation inspected at least once every two years.
- Disconnect the shore power connections when the circuit is not in use.
- Connect the metal casings or enclosures of installed electrical equipment to the boat's protective conductor (green conductor or green with yellow stripe).
- Use double-insulated or earthed electrical equipment.

1. INSTALLATION OF NEW EQUIPMENT

Since 1 January 1996, electrical equipment has been governed by the European directive on "electromagnetic compatibility" (Ref. 89/336/EEC). Consequently, it is imperative that new equipment installed complies with this directive and bears the CE mark. In addition, each appliance must be accompanied by a certificate of conformity and instructions for use.

We recommend using only double-insulated or earthed electrical equipment for 220 V installations. When installing these devices, it is essential to scrupulously follow the installation instructions, particularly with regard to the cross-section of the wires and protective measures.

To avoid maintenance problems at a later date, it is advisable to record any changes to the wiring diagram in this manual.

CAUTION

Never:

- Modify the boat's electrical circuit or the relevant diagrams; installation, modifications and maintenance should be carried out by a qualified marine electrical technician.
- Change or modify the current rating of overcurrent protection devices.
- Install or replace electrical appliances or devices with components that exceed the circuit's current rating.

2. 12 VOLT CIRCUIT

2.1. BATTERY BANKS

To avoid any problems, make sure your batteries are properly charged and maintained.

Each engine has its own starter battery. The 12 V circuit includes three battery banks.

Their capacity has been designed to meet the power needs of on-board accessories:

Function	Qty.	Capacity (Ah)	Type	Location
Starting outboards	2	110	AGM	Central under-cockpit
Service bank	2	110	AGM	Central under-cockpit
Service bank (optional)	1	110	AGM	Central under-cockpit
Windlass + Bow thruster	1	55	AGM	Under the bunk

The state of charge of the batteries used to start the outboards can be checked from the display on the switchboard by the cabin entrance.

Each battery bank is connected to a positive circuit-breaker, with the "-" switches shared.

The battery isolators are located under the rear bench. Fuses located near the banks protect the circuits.



Battery detailed views (services and outboard motors / bow thruster)

Note

- It is safer to operate the boat with a missing battery than with a damaged one. Therefore, if a visual check of the banks reveals a battery that cannot be used during the journey, it is preferable to disconnect it, taking all the necessary precautions to avoid an electrical accident, and to put the rest of the bank back into service. However, the batteries will have to be brought back up to standard as quickly as possible in order to restore the production/consumption balance originally defined by the manufacturer.

CAUTION

- Always disconnect the - terminal of the battery before the + terminal.
- When you install new electrical appliances, make sure that the overall consumption of these appliances remains in line with the capacity of your batteries.
- Never make contact between the two terminals of a battery using conductive objects (tools, etc.).
- Batteries must be carefully secured.
- When charging and connecting/disconnecting batteries, cut the electrical circuit using the battery isolators.
- When handling batteries, avoid any leakage of electrolytic liquid by keeping them horizontal. Wear gloves and suitable clothing to avoid any risk of contact with the electrolytic liquid in the event of a leak.
- Never obstruct battery ventilation ducts.

RECOMMENDATIONS

- Keep your battery clean and dry to avoid premature deterioration.
- Tighten and service the connectors on the battery terminals taking care to regularly grease them with Vaseline.
- Keep the batteries and the electrolyte out of the reach of children.
- Never lay the battery on its side.
- When adding electrolyte or when recharging the battery, always remove it from its location.
- When charging or using a battery, work in a well-ventilated environment.

RECOMMENDATIONS

- Battery electrolyte is a toxic and dangerous liquid. It contains sulphuric acid which can cause serious burns. Avoid contact with skin, eyes and clothes.
- Batteries may release explosive gasses. Keep sources of sparks, naked flames and cigarettes, etc. away from batteries.
- Always protect your eyes when working close to a battery.

2.2. CHARGING SYSTEMS

Your boat is fitted as standard with an engine powered charging system. These are fitted as standard with power alternators connected to the service circuit and the starter batteries. This system uses battery distributors to improve charge regulation.

An optional shore power charger is available (only compatible with shore power). When a shore power outlet is available, the service and engine batteries are supplied by a charger.

The charge distributors and battery charger are located behind the starboard access panel in the main stowage compartment.



Charge distributor / shore charger

CAUTION

- Regularly check the condition and tension of the alternator belts.

2.3. CIRCUIT BREAKERS

To power up the installation, the circuit-breakers must be enabled. The electrical panel will then be powered-up.

Isolated battery: turn the handle to the "off" position. Battery operating:

turn the handle to the "on" position.



Main circuit breakers



Windlass circuit breaker and fuse



Windlass and bow thruster circuit breaker



Motor/service battery coupler

The coupler enables the engines to be started using the service battery bank. It can be used in the event of an engine battery failure. It is advisable to test its operation at least once a year.

2.4. ELECTRICAL SWITCHBOARDS

The fuse-protected 12V electrical switchboard is located in the cabin. To power a function, first switch on the fuse corresponding to the function, then activate the equipment from the helm station. See the **diagrams provided in the appendix**.



12 Volt switchboard



Helm station switches

2.5. ELECTRIC POWER LOAD

The battery capacity is designed to meet the power needs of the accessories on-board: To avoid any problems, make sure your batteries are properly charged and maintained.

To calculate the approximate power consumption of your appliances and determine how long your batteries will last before you need to recharge them, simply multiply the power consumption by the number of appliances and by the operating time in hours.

Example of electrical appliance consumption:

- VHF on standby 1 A.
- VHF when transmitting 5 A.
- Cooling unit 5 A.

2.6. WINDLASS AND BOW THRUSTER

CAUTION

- When using the windlass or thruster, we recommend that you run your engines at a slightly faster speed.
- Always disconnect the control unit power supply from the electrical panel when not in use.

3. 220 VOLT CIRCUIT

DANGER

- The 220 V installation on-board is protected by a circuit breaker and fitted with an earth leakage unit. Wiring of additional on-board AC accessories must be carried out by professionals, with the general circuit breaker recalibrated if necessary.

See the **diagrams provided in the appendix**.

3.1. DOCK POWER PLUG

As an option, your boat can be fitted with a shore charger system.

WARNING

To reduce any risk of electric shock or fire hazard during handling:

- Turn off the boat's shore power switch before connecting or disconnecting the power cable from the dock terminal.
- First connect the shore line to the boat before connecting it to the dock terminal.
- If the polarity reversal indicator is activated, switch off the boat's shore power immediately and rectify the polarity error before switching on the boat's electrical system again.
- First disconnect the shore line at the shore terminal before disconnecting it on the boat.
- Close the power inlet cover (connector plug) on the boat's shore power plug securely.

The dock power plug is located on the starboard transom. The earth leakage circuit breaker is located near the battery

WARNING

Never:

- Swim near a boat connected to a shore power outlet = electrocution hazard!
- Never allow the end of the boat/dock power cable to dangle in the water; this can create an electric field that could injure or kill nearby swimmers.
- Do not modify the shore power cable connections; use only compatible plugs and sockets.

charger. When the boat is docked, turn the circuit breaker to the open position. The boat is supplied with a general synoptic describing the electrical architecture of the unit.

CAUTION

- We recommend testing the residual current circuit breaker once a month.



Residual current and main circuit breakers



Shore power plug



Before using the appliances listed below, please refer to their manuals and read the safety instructions. These devices have been designed and tested in accordance with international standards and must only be used for the designated application.

Before carrying out any maintenance or repair work, always switch off the mains supply and disconnect the batteries. For any repairs, call in a qualified professional.

3.2. INVERTER

As an option, your boat can be fitted with an inverter. This produces a 220 Volt current from the 12 Volt circuit.

RECOMMENDATIONS

- Do not use the inverter if the panels have been removed.
- All repairs must be carried out by a qualified technician.
- Do not use the inverter in an explosive or dusty area.
- Make sure that there is sufficient space around the inverter to allow ventilation and that the ventilation holes are not obstructed.
- Consult the battery manufacturer's information to ensure that the battery used is compatible with the inverter.
- Follow the battery manufacturer's safety instructions.

3.3. CHARGER-INVERTER

As an option, your boat can be fitted with a charger/inverter. This allows you to recharge your batteries via the 220 Volt shore power plug.

RECOMMENDATIONS

- An earth leakage switch must be installed in the AC supply circuit.
- The appliance contains no user-serviceable parts. Do not remove the casing or switch on the appliance without the protective casing in place.
- Never use the appliance in a place where there is a risk of explosion or where it is subject to dust.
- Follow the battery manufacturer's safety instructions.
- Explosive gases may be generated during battery charging. Avoid all sources of naked flames or sparks in the vicinity. Make sure that air can circulate freely around the appliance during charging.
- The On/Off indicator on the front panel does not electrically isolate this charger from the mains.

RECOMMENDATIONS

- The appliance contains no user-serviceable parts. Do not remove the casing or switch on the appliance without the protective casing in place.
- Never use the appliance in a place where there is a risk of explosion or where it is subject to dust.
- Follow the battery manufacturer's safety instructions.

3.4. DISPLAY

Your boat's electrical switchboards are fitted with water-resistant warning signs (examples below), permanently mounted and containing the following information:

- Electric shock hazard.
- Fire hazard.
- Consult the owner's manual.



Examples of warning signs

XV. LIGHTNING STRIKE PROTECTION

Your boat is protected against lightning strikes, but for your own safety you should take certain precautions.

CAUTION

During a thunderstorm, it is advisable to follow the following instructions:

- Stay inside the closed boat as far as possible.
- Don't stand in the water and don't let your arms or legs hang down in the water.
- While ensuring satisfactory control of the boat and navigation, do not touch any part connected to a lightning protection device, especially not in such a way as to connect these parts. (For example, it is inadvisable for the operator to touch the reversing levers at the same time as a pump handle).

1. MAINTENANCE

RECOMMENDATIONS

If the boat has been struck by lightning:

- The lightning protection device must be inspected for damage and checked for integrity and continuity of earthing.
- The compass, electrical and electronic equipment needs to be examined to determine whether any damage was suffered or any change in calibration.
- If they are designed to form part of the lightning protection system, flexible radio aerials must not be attached downwards during a thunderstorm.



XVI. PROPULSION

1. MAKE AND TYPE OF OUTBOARD

Your boat has one of the following outboards:

Power	Name
2 x 250 hp	2 x Mercury 250 (V8) XL
2 x 300 hp	2 x Mercury 300 (V8) XL
2 x 350 hp	2 x Mercury 350 (V10) XL
2 x 400 hp	2 x Mercury 400 (V10) XL
2 x 450 hp	2 x Yamaha 450 (V8) XTO ETX
2 x 350 hp	2 x Yamaha 350 (V6) XTO ETX
1 x 450 hp	1 x Yamaha 450 (V8) XTO ETU

WARNING

- Always use the kill cord. In the event of a operator ejection, this can save the operator's life or that of someone else.

WARNING

- Please refer to the engine data sheet to familiarise yourself with the handling procedure.

CAUTION

- Any change of power unit must match boat's capacity and be carried out by an power specialist in marine mechanics.
- Never use this boat with an engine with a rated power level that exceeds that recommended for the boat.

2. OPERATION

✓	Start-up procedure
	Open the fuel valve on the tank.
	Check that the throttle levers are in the neutral position.
	Check that the ventilation openings are clear.
	Switch on the ignition and start the engine(s).
	Check the water outlet.
	Switch off alarms and indicator lights.
	Allow the engine to warm up at idle for 5 to 6 minutes.
✓	Shut-down procedure
	Idle the engine for 5 minutes.
	Operate the Stop/Stop switch.
	Switch off the ignition.
	Close the various valves.

DANGER

- Combustion engines produce carbon monoxide (CO). Prolonged exposure to exhaust fumes can cause serious harm or even death.
- To avoid any risk of serious injury from the propeller, the engine must not be running when bathers are near the boat.
- If possible, the engine should be stopped for any maintenance or inspection operation. Otherwise, particular care must be taken with moving parts (belts, etc.) to avoid any risk of injury.

CAUTION

- Do not block or modify the ventilation system on-board the boat.
- Keep your fuel lines well maintained.

RECOMMENDATIONS

- Do not start the engine unless the throttle is in the neutral position.
- Do not store fuel in compartments not intended for this purpose.
- If you have any doubts or problems, consult the technical manuals, drawings or your dealer.

XVII. FUEL INSTALLATION

1. COMPONENTS

Each engine is fitted with a filter designed to isolate particles and separate water from the fuel before it is supplied to the engine. If water is detected in the filters, it is essential to empty them to prevent damage to the engines.

The fuel tank compartment is naturally ventilated and the tank itself has a vent.

Number of tanks	Capacity	Fuel	Location
1	760 L	Fuel	Central under-cockpit

Please refer to the *diagrams provided in the appendix* for further information.

RECOMMENDATIONS

- Fuel hoses must be replaced at the first sign of deterioration with hoses bearing the same markings.



Vent - fuel compartment ventilation



Fuel shut-off valve



Fuel filters



Fuel non-return valve

The fuel tank complies with CE (ISO 10088) and ABYC H24 requirements.

CAUTION

- Make sure that the ventilation ducts are always free of obstructions.

2. FILLING THE FUEL TANK

✓	Fuel tank filling procedure
	Fire extinguisher nearby.
	Engine(s) off.
	Electrical equipment cut off.
	Deck hatches and portholes closed.
	Do not fill the tank completely to allow the fuel to expand.

CAUTION

- It may not be possible to use the full nominal capacity of the tank depending on the trim and the load of your boat. To be on the safe side, keep a reserve of 20%.
- Avoid contact between flammable materials and hot engine parts.

CAUTION

NEVER

- Store fuel in spaces or compartments not intended for this purpose.
- Store inflammable materials in unventilated spaces not intended for this purpose.
- Smoke while filling tanks.
- Modify the installation unless this is done by a qualified technician.

A shut-off valve allows you to isolate the tank from the rest of the circuit if necessary.

RECOMMENDATIONS

- Make sure you have enough fuel left before going out to sea.
- Don't wait until fuel reserves are almost exhausted before refuelling (risk of fuel system de-priming).

3. VENTILATION

Your boat has natural ventilation to allow any explosive fuel vapours to escape from the compartment containing the fuel tank.

DANGER

Before starting your engine:

- Make sure that the ventilation ducts are always free of obstructions.

XVIII. FIRE PROTECTION

WARNING

Never:

- Leave the boat unattended when cooking and/or heating appliances are switched on, unless these appliances are designed for unattended operation.
- Never change boat systems unless you have the skills required to make these changes.
- Fill fuel tanks or replace gas cylinders when the engine is running, or when open flame appliances or radiant heaters are in use.
- Never smoke while handling fuel or gas.
- Never store fuel tanks in any area that is not specially designated for fuel storage.
- Use a gas lamp in the boat.

CAUTION

It is the responsibility of the owner/skipper to:

- Equip the boat with fire-fighting equipment before it is placed into service.
- Have your fire fighting equipment checked at the intervals shown on the equipment and in line with local regulations.
- Replace out-of-date or discharged fire-fighting equipment with extinguishing appliances of equal or greater capacity.
- Provide at least one fire bucket equipped with its handle and stored in an immediately accessible place.
- Make sure that the fire fighting equipment is in working order and immediately accessible when the boat is occupied.
- Unlock deck hatches or any other locked fire escape opening.

CAUTION

It is the responsibility of the owner/skipper to inform crew members of:

- The location and operation of fire-fighting equipment.
- The location of fire ports.
- The location of escape routes and fire escapes, and what to do in the event of a fire.

CAUTION

Always:

- Keep the bilges clean.
- Check at regular intervals, and before starting the engines, that there are no fuel or gas vapours or fuel leaks.
- Specify, when replacing out-of-date or discharged fire-fighting equipment, extinguishing appliances of similar type or with technical capacities and fire resistance of equal or greater capacity.

CAUTION

- Do not install free-hanging curtains or other fabrics near or over open flame appliances, radiant heaters or electric heating and cooking appliances.

1. FIRE EXTINGUISHERS

Your boat is delivered without a fire extinguisher. We therefore invite you to equip it in accordance with the ISO 9094 standard, but also according to your flag of registration, which may be the most demanding. Portable extinguishers must comply with standard NF-EN3-7 and ISO 7165 or equivalent.

The ISO 9094 standard requires at least the following points:

- Minimum capacity per extinguisher per 20m²: 5A/34B.
- Minimum combined capacity of extinguishers: 10A/68B.

In addition, there must be a portable fire extinguisher located at a distance less than or equal to:

- 1 m unobstructed distance from the main steering position.
- 2 m from any cooking or heating appliance or any permanently installed open-flame appliance, but placed in such a position that it is accessible in the event of a fire on one of these appliances.
- 5 m unobstructed distance, measured in the horizontal plane, from the centre of a berth.
- 3 m from an outboard motor or the fire port.

To make it easier for you to find your way around, the yard has already marked the locations of the fire extinguishers with safety labels such as:



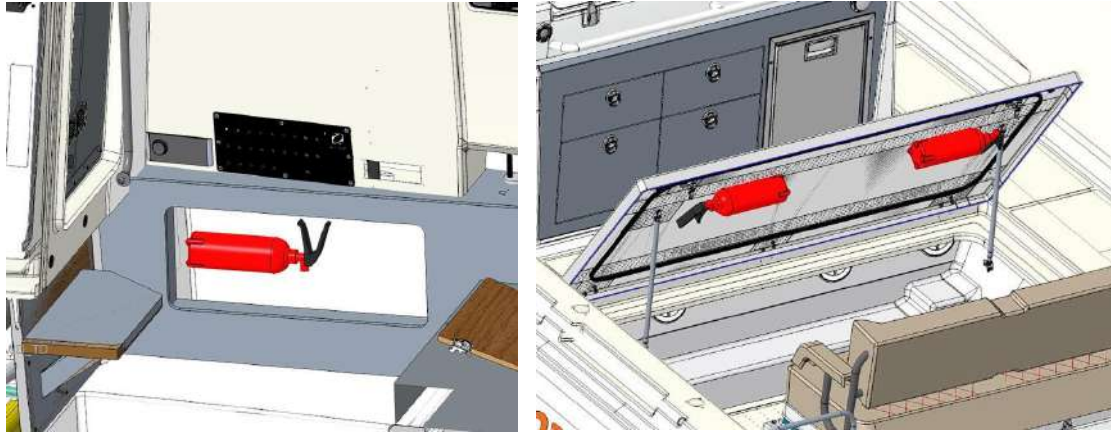
Fire extinguisher location label

The **diagram provided in the appendix** provides information on minimum capacities and recommended locations in accordance with the ISO 9094 standard (only). We recommend at least the following capacities:

Protection	Type	Capacity (kg)	Qty.	Capacity	Location
Fitting	ABC powder	1	1	5A/34B	Near the helm console
Engines	ABC powder	4	2	21A/113B	Under the cockpit locker
The two engine extinguishers can be replaced by a single one as follows:					
Engines	ABC powder	9	1	43A/233B	Under the cockpit locker

WARNING

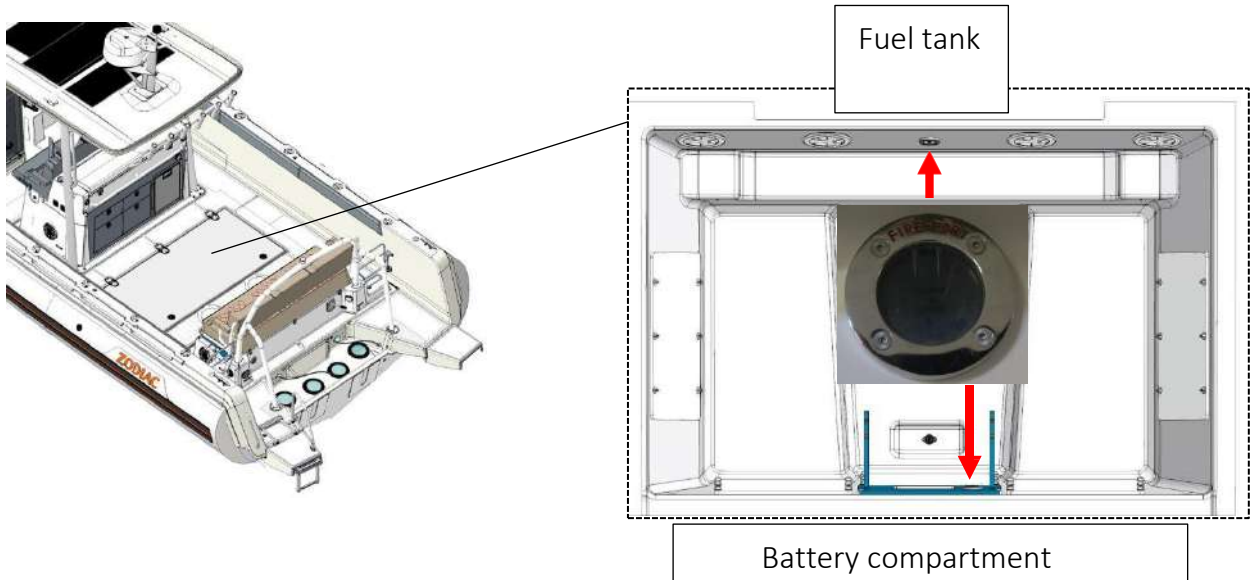
- Carbon dioxide extinguishers may only be used in living areas where flammable liquids are present (e.g. galleys) or where there is live electrical equipment.
- There must be only one CO2 extinguisher per risk area, with a maximum capacity of 2 kg.
- After extinguishing a fire, do not immediately open the fuel compartment to avoid the release of toxic fumes and splashes of incandescent products (oil, etc.).
- If a CO2 extinguisher is installed, the following information must be displayed near its location: "This extinguisher contains CO2 - Use it only to fight electrical or kitchen fires. To avoid asphyxiation after discharge, leave the area immediately. Ventilate before entering."



Recommended locations

2. FIRE PORT

If a fire occurs in the fuel tank compartment under the outdoor kitchen, it can be quickly extinguished. To do this, access the life raft locker, locate the "Fire Port" on the front bulkhead, insert the nozzle into this opening, then activate the extinguisher. See the **diagram provided in the appendix**.



Fire port

3. FIRE ESCAPES

The main emergency exit is via the cabin companionway. See the *diagram provided in the appendix*.



Fire escape

WARNING

Never:

- Obstruct passageways to fire panels or fire escapes.
- Obstruct the safety controls, e.g. fuel and gas cut-off valves, electrical system switches.
- Deliberately or inadvertently obstruct the ventilation of compartments or spaces, particularly those containing permanently mounted fuel engines, fuel tanks and batteries.
- Obstruct access to portable extinguishers or fire ports.

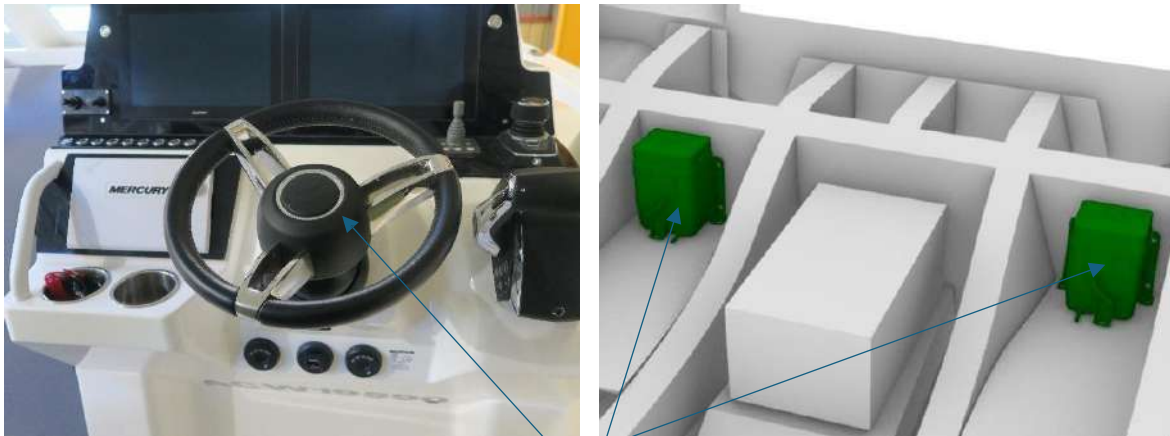
XIX. STEERING SYSTEM

Your boat is equipped with an electric steering system that will guarantee you the best results in terms of reliability, maintenance and use.

All the essential instructions for the correct operation of the system can be found in the documentation supplied by its manufacturer:

- Other possible means of operation in the event of a breakdown.
- Maintenance operating procedures.
- Guidelines for correcting faults, including the corresponding indicators.
- Installation diagram showing a typical configuration.
- List of frequently and easily replaceable components.

Familiarise yourself with your helm console by consulting the ***description provided in the appendix.***



Steering system

The steering system is vital to the safety and manoeuvrability of your boat.

- Periodically check the clearance between the various components making up the system.
- Regularly grease all moving parts with lithium-type hydrophobic grease.

See the ***diagram provided in the appendix.*** If in doubt, consult your local dealer.

XX. HANDLING

Handling must be performed by professionals. When craning, make sure that the slings are correctly positioned and that they do not come into contact with the engine or a fragile sensor. Be sure to deflate the buoyancy tube for this operation and protect it.

Lifting gantries must be wide enough or fitted with spacers so as not to exert excessive transverse forces on the hull sides or lines.

The cradle runners must be positioned level with structural elements and the weight of the boat must be evenly distributed over all the runners.

CAUTION

Please observe the following precautions when craning:

- Switch off your engine.
- Don't stay on-board.
- Do not stand under the boat once it has been raised.
- Check that the rear strap is not resting on an engine.

For correct positioning of the slings and to find out the weight when transported on a trailer (M_T), please refer to the **diagram provided in the appendix** and the general data.

WARNING

- Always use a trailer suited to the boat and its weight.

XXI. MAINTENANCE

An out of water refit for your boat is an important stage in its life. Not only can it be used for all maintenance and cleaning operations, it can also be used to check the condition of certain components that are not usually accessible when your boat is afloat. It allows you to check that the following items are working properly:

- Propeller(s) of the engine(s).
- Valves and through-hull fittings.
- Anodes.

RECOMMENDATIONS

- Strictly follow the recommendations for the products you use.
- Rinse your boat frequently in freshwater to preserve its original appearance.

1. HULL AND DECK

1.1. ANNUAL MAINTENANCE

To minimise the annual work involved, it is advisable to maintain the hull regularly. To carry out the following operations, we recommend that you put the boat in a careening area and use suitable products and equipment.

The gelcoat coating is renowned for its high gloss, scratch resistant finish and exceptional resistance to UV rays and humidity, and it requires very little maintenance. However, it is advisable to carry out certain maintenance work at least twice a year.

- Start by power washing the hull and deck.
- Next, remove any grease with a suitable degreasing product (gelcoat only).
- Finally, we recommend applying an anti-UV wax or polish to the smooth areas. This will preserve their shine while preventing dirt from becoming embedded too quickly.

We recommend that you avoid using silicone-based products. Silicone will prevent any future paint or gelcoat repairs (as the products will not adhere).

1.2. MAJOR MAINTENANCE

As it ages, gelcoat becomes dull and porous (after 5 to 10 years, depending on its quality).

To restore it to its original appearance, the solution is to polish it. The polish will reduce the flourey appearance and restore the gelcoat's shine. Some polishing creams can also be used to remove micro-scratches. Once you have a smooth, scratch-free hull, you can apply a renovation product. This product protects the gelcoat by preventing dirt from sticking to it.

RECOMMENDATIONS

- Before considering repainting your hull, we recommend that you polish it.

2. BUOYANCY TUBE

The buoyancy tube of your boat is made of fabric using plastomer. Maintenance is easy but essential for the longevity of your boat.

2.1. CLEANING THE BUOYANCY TUBE

Buoyancy tube inflated:

- Open the cockpit self bailer and rinse the boat with a hose to remove sand and other debris.
- Regularly clean the buoyancy tube with fresh water and soap, at least monthly during periods of use.
- Remove all traces of tar (for resistant stains, use the product recommended by ORCA available from your Dealer).
- Rinse with freshwater and dry thoroughly.

CAUTION

- Do not use a high-pressure washer on the inflatable parts (buoyancy tube).
- Never use unsuitable products on inflatable parts (buoyancy tubes), such as aggressive detergents (acid, trichloroethane, fuel, acetone) or silicone-based products. If a spill occurs, wash off with water.

When deflating:

- Check that the valves and gaskets are clean and not damaged (sealing compound, sand, etc.).
- Check that the cockpit drains are not blocked.

2.2. CHECK AIRTIGHTNESS OF THE BUOYANCY TUBE

Using the pressure indicator (supplied with some models or available from your dealer), measure the pressure loss after 24 hours.

Loss of pressure:

Loss of pressure of up to 20% over 24 hours is not unusual (ISO 6185).

If you notice pressure drops by more than this value, contact your local dealer.

CAUTION

- Temperature has a great influence on air pressure. A variation of 1°C results in a variation in the direction of about 0.06 PSI (0.004 Bar = 4 millibars).
- If you have a problem with an air leakage: first, check all valves are intact and in closed position (nothing clogging the valves and their seals). Do not hesitate to contact your dealer.

3. ENGINES

Regular maintenance should be carried out in accordance with the engine manufacturer's recommendations.

Read the engine manual that comes with your boat carefully. Please contact your dealer or a qualified professional for further details. In particular, follow the instructions for winter storage.

A brief check of the propeller fastening may be carried out when the boat is launched. You should be aware that a malfunctioning propeller causes considerable vibration.

4. ANODES

The role of consumable anodes is to balance the apparent potential between the anode and the dissimilar metals (stainless steel, bronze, etc.). Their average lifespan is 1 to 2 years. Check their condition regularly and make sure they are suitable for the surrounding environment (fresh or salt water). Replace them if necessary.

These anodes are usually made of zinc. Those made of magnesium (suitable for freshwater) should be avoided for marine use. Cathodic protection systems using impressed current should be avoided.

If the anodes are not damaged, simply check:

- That they're not painted.
- That they are correctly mounted and in contact with the metal parts.
- That they are made of zinc.

5. STAINLESS STEEL

Over time, all sorts of deposits can form on your stainless steel, leading to superficial rust pitting. This can be the case when you use metal tools on your stainless steel parts.

We recommend regular washing of your fittings, as well as the application of a passivating paste.

RECOMMENDATIONS

- To avoid rust spots on the stainless steel, it is advisable to rinse it after each sea trip.

6. GLAZING

It is important never to use solvents or abrasive products to clean the windows. Always use suitable products.

7. HULL

In a port, a boat is attacked by atmospheric pollution, hydrocarbons and marine life. It is therefore essential to regularly apply antifouling paint to the brightwork on your boat. This will protect the hull against dirt from algae and shellfish.

RECOMMENDATIONS

- Always keep your propeller and hull as clean as possible. A dirty boat can lose 25% of its rated speed!

8. ROPES

To ensure that ropes retain their original qualities for as long as possible, they should be rinsed in freshwater. It is not recommended to leave a salty rope in the sun as it will deteriorate rapidly.

9. BATTERIES

When you do not intend to use your boat for a month or more, remove the battery and store it in a cool, dark, dry place. Fully recharge the battery before reusing it.

If the battery is to be stored for a longer period, check the electrolyte density at least once a month and recharge the battery as soon as the density is too low. With

maintenance the specific gravity of the electrolyte must be: 1.28 at 20°C.

Without maintenance the specific gravity of the electrolyte must be: 1.32 at 20°C.

10. FRESHWATER TANK

The tank can be sterilised using tablets (available from chemists).

Every year:

- Clean it by filling it with water and a bactericidal detergent.
- Leave the product to work for a few hours.
- Rinse two or three times.

In winter, fill the tank as full as possible to prevent the growth of algae or bacteria, or empty it completely if there is a risk of frost. **Never use antifreeze.**

11. BLACK WATER TANK

- The black water tank must be rinsed after each emptying to prevent deposits from clogging the orifices and/or the level sensor.
- Periodically check that the vent is working properly.
- Always check the liquid level.
- The tank is equipped with odour filters fitted with a cartridge that needs to be replaced regularly (see instructions for use).
- Only use cleaning, deodorising or winter storage products designed exclusively for this purpose.

12. WINTERING

Winter storage is not just an opportunity to carry out the maintenance operations listed above; it's also a good opportunity for checking the general condition of your boat.

In general, we recommend that you:

- Remove any equipment from aboard that can easily be removed.
- Check the condition, expiry dates and quantity of your safety equipment.
- Remove the seating, clean it and store it in a dry place.



For the engines, while it is preferable to consult a professional or the manufacturer's instruction manual, it is possible to carry out certain operations yourself, particularly if you are not carrying out an overhaul.

In all cases, we recommend that you carry out the following operations:

- Rinse the engine.
- Grease moving mechanical parts.
- Put a stabiliser in the fuel.
- Disconnect the batteries if your bilge pump is not required and store them in a dry place protected from the cold.
- Protect your boat from the elements either by placing it under cover or by covering it with a hard-wearing, UV-resistant tarpaulin.

PRECAUTION

- If your boat is to be wintered in sub-zero temperatures, remember to drain all your fuel tanks beforehand.



XXIII. APPENDICES - GENERAL DIAGRAMS

1. FITTINGS

2. LOCATION OF ELECTRICAL EQUIPMENT

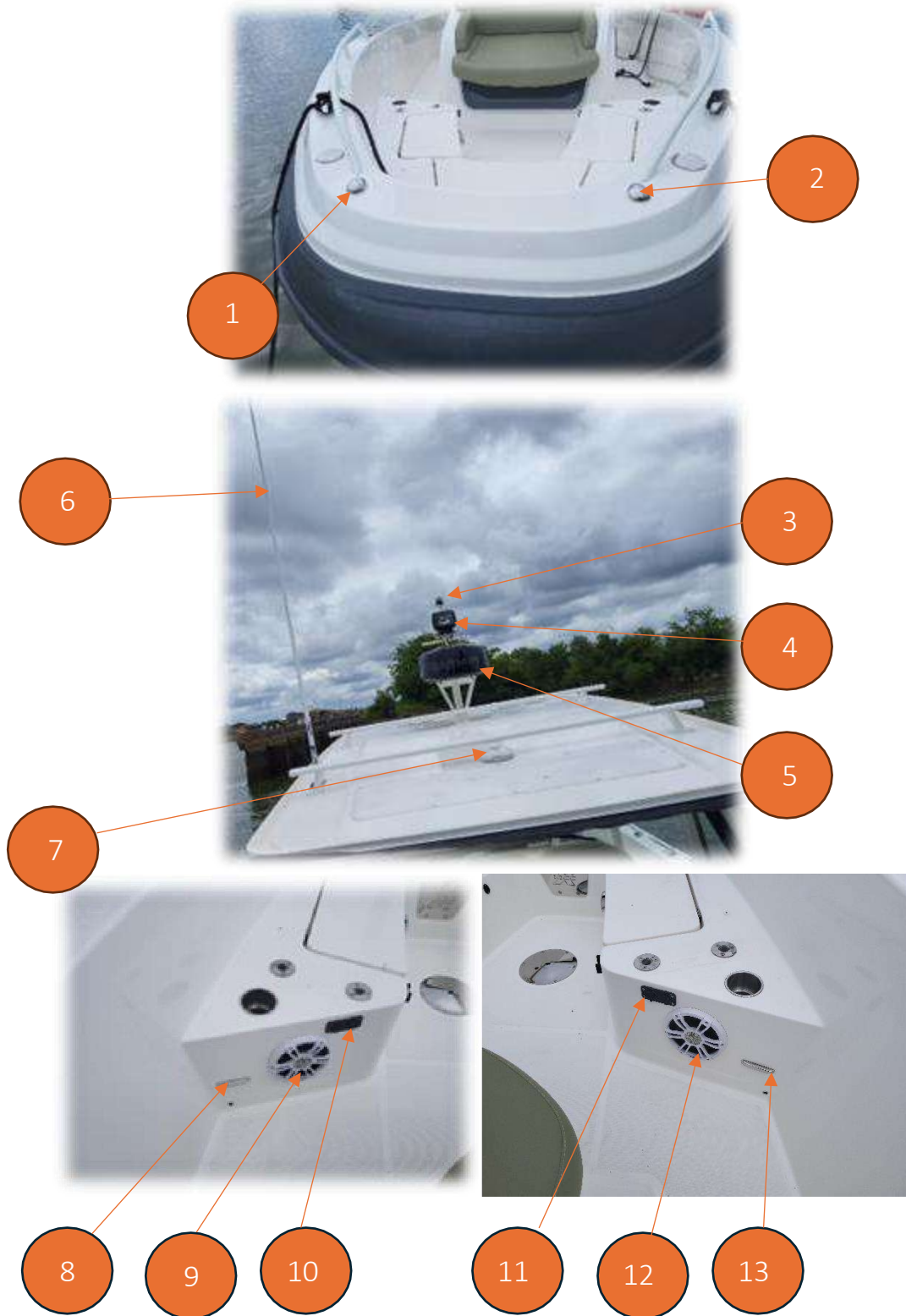
2.1. LIST OF EQUIPMENT

Number	Description	Additional information
1	Starboard navigation light	Standard
2	Port navigation light	Standard
3	Anchor light	Standard
4	Searchlight	Searchlight option
5	Radar	Radar option
C	VHF antenna	Standard
7	GPS	Mercury engine option
8	Port forward courtesy light	Deck and interior lighting option
3	Port forward speaker	Fusion Pack option
10	Port USB + 12V sockets	Standard
11	Starboard USB + 12V sockets	Standard
12	Starboard front speakers	Fusion Pack option
13	Starboard forward courtesy light	Deck and interior lighting option
14	Port side courtesy lights	Deck and interior lighting option
15	Starboard side courtesy lights	Deck and interior lighting option
1C	Master Navigation Screen	Navigation screen option
17	Master Navigation Screen switch	Navigation screen option
18	Slave Navigation Screen	Navigation screen option
13	Slave Navigation Screen switch	Navigation screen option
20	Bow thruster joystick	Bow thruster option
21	Engine joystick	Mercury engine option
22	Engine control levers	Mercury engine option
23	Wheel	Mercury engine option
24	Engine screen	Mercury engine option
25	Vessel control panel	Standard but depends on options
2C	Searchlight control panel	Searchlight option
27	Control panel USB + 12 V socket	Standard
28	Port engine ignition key	Mercury engine option
23	Circuit-breaker (HALM)	Mercury engine option
30	Starboard engine ignition key	Mercury engine option
31	VHF	Standard
32	Windscreen wiper motor	T-Top option
33	Port T-Top speaker	T-Top option
34	Starboard T-Top speaker	T-Top option
35	Starboard T-Top rear spotlight	T-Top option
3C	Port T-Top rear spotlight	T-Top option
37	Port bolster speaker	Fusion Pack option
38	Port bolster courtesy light	Deck and interior lighting option
33	Starboard bolster courtesy light	Deck and interior lighting option
40	Starboard bolster speaker	Fusion Pack option

41	Port bolster tweeter	Fusion Pack option
42	230 V socket	EMEA shore power option
43	Starboard bolster tweeter	Fusion Pack option
44	Port aft light	T-Top option
45	Starboard aft light	T-Top option
4C	T-Top ambient light	T-Top option
47	Central forward bench seat courtesy light Starboard	Deck and interior lighting option
48	UBS + 12V sockets	Standard
43	Central forward bench seat courtesy light	Deck and interior lighting option
50	Battery isolation switch box	Standard
51	Starboard side bench seat courtesy light	Deck and interior lighting option
52	Starboard bench seat speaker	Fusion Pack option
53	Port bench seat speaker	Fusion Pack option
54	Port side bench seat courtesy light	Deck and interior lighting option
55	Radio set	Fusion Pack option
5C	Vessel protection and control panel	Standard
5CA	Audio battery voltage display	Standard
5CB	Services battery voltage display	Standard
57	Port cabin reading light	Standard
58	USB socket	Standard
53	USB socket	Standard
C0	Starboard cabin reading light	Standard
C1	Cabin ambient light	Standard
C2	Forward cabin spotlight	Standard
C3	Cabin entrance spotlight	Standard
C4	Cabin switch	Standard
C5	Windlass and bow thruster battery cut-off	Standard
CC	ANL fuse	Bow thruster option
C7	Windlass battery	Standard
C8	Windlass circuit breaker	Standard
C3	Bow thruster motor	Bow thruster option
70	Windlass relay	Standard
71	Windlass	Standard
72	Windlass remote control	Standard
73	Toilet light switch	Standard
74	Toilet spotlight	Standard
75	Freshwater level indicator	Standard
7C	Black water level indicator	Standard
77	Toilet light switch	Standard
78	Distribution frame No. 1	Standard
73	Common Busbar	Standard
80	Distribution frame No. 2	Standard
81	Dock charger	Dock charger option
82	110/230 V box	EMEA shore power option

83	Galvanic isolator	EMEA shore power option
84	Negative audio busbar	Fusion Pack option
85	Positive audio busbar	Fusion Pack option
8C	LED ctrl/cmd box fuse holder	Fusion Pack option
87	Midi amp fuse holder	Fusion Pack option
88	Midi amp fuse holder	Fusion Pack option
83	LED ctrl/cmd box	Fusion Pack option
30	Amplifier	Fusion Pack option
3f	Amplifier	Fusion Pack option
32	Underwater spotlight	Underwater spotlight option
33	Dock power plug	EMEA shore power option
34	Underwater spotlight	Underwater spotlight option

2.2. LOCATION OF EXTERNAL ELECTRICAL EQUIPMENT





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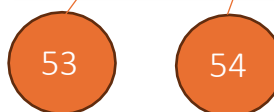
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2.3. LOCATION OF ELECTRICAL EQUIPMENT INSIDE THE CABIN



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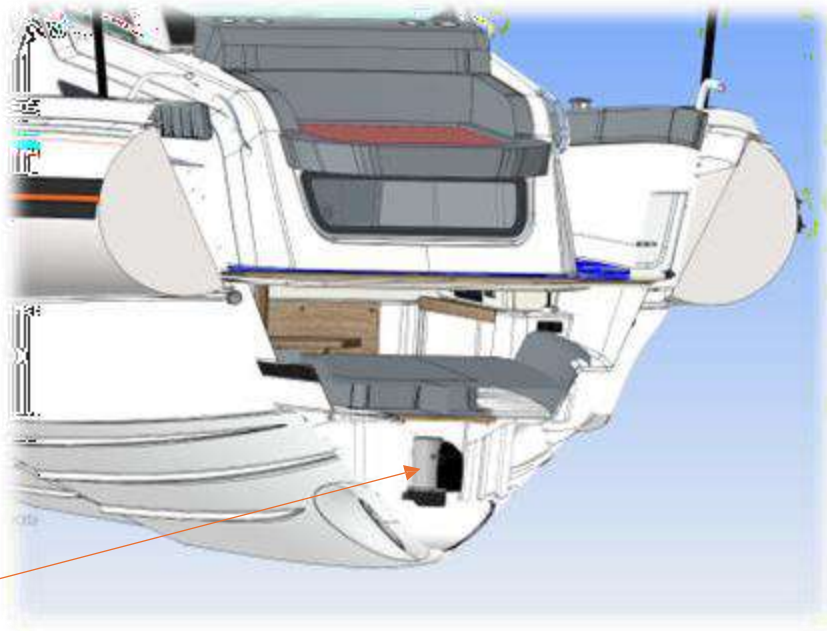
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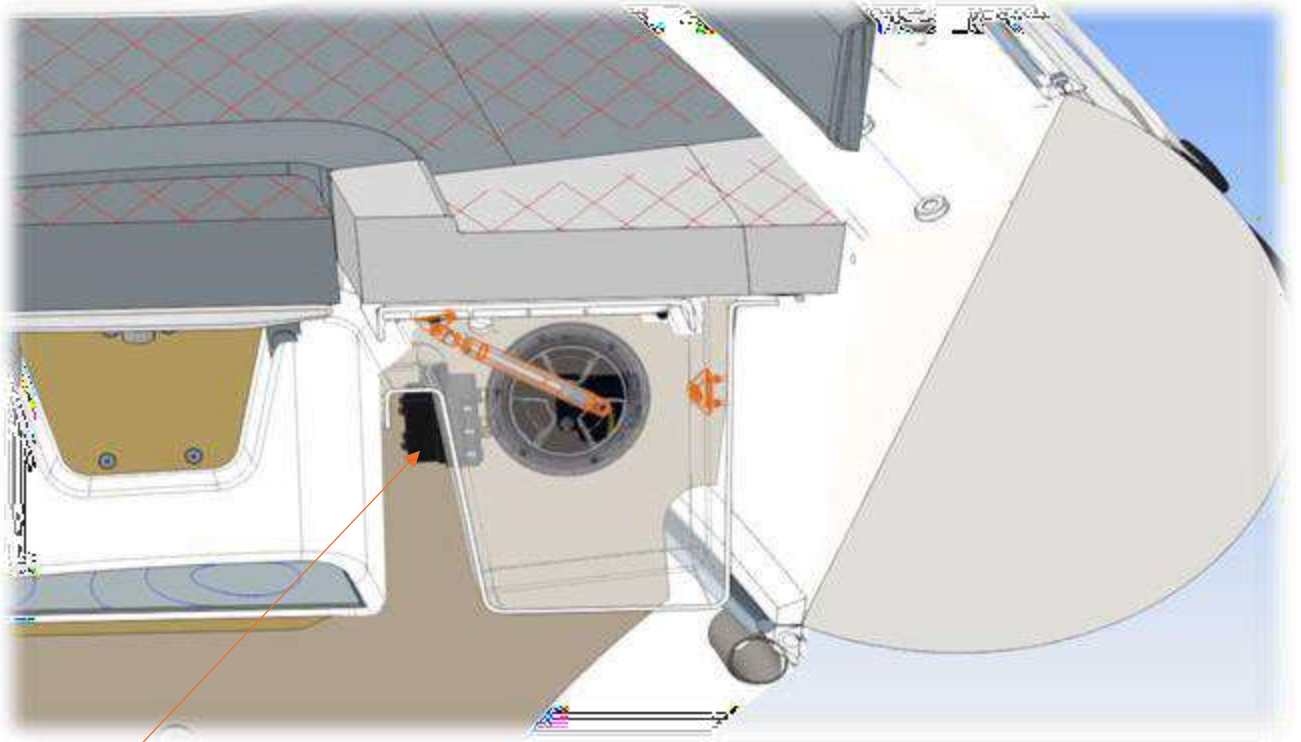
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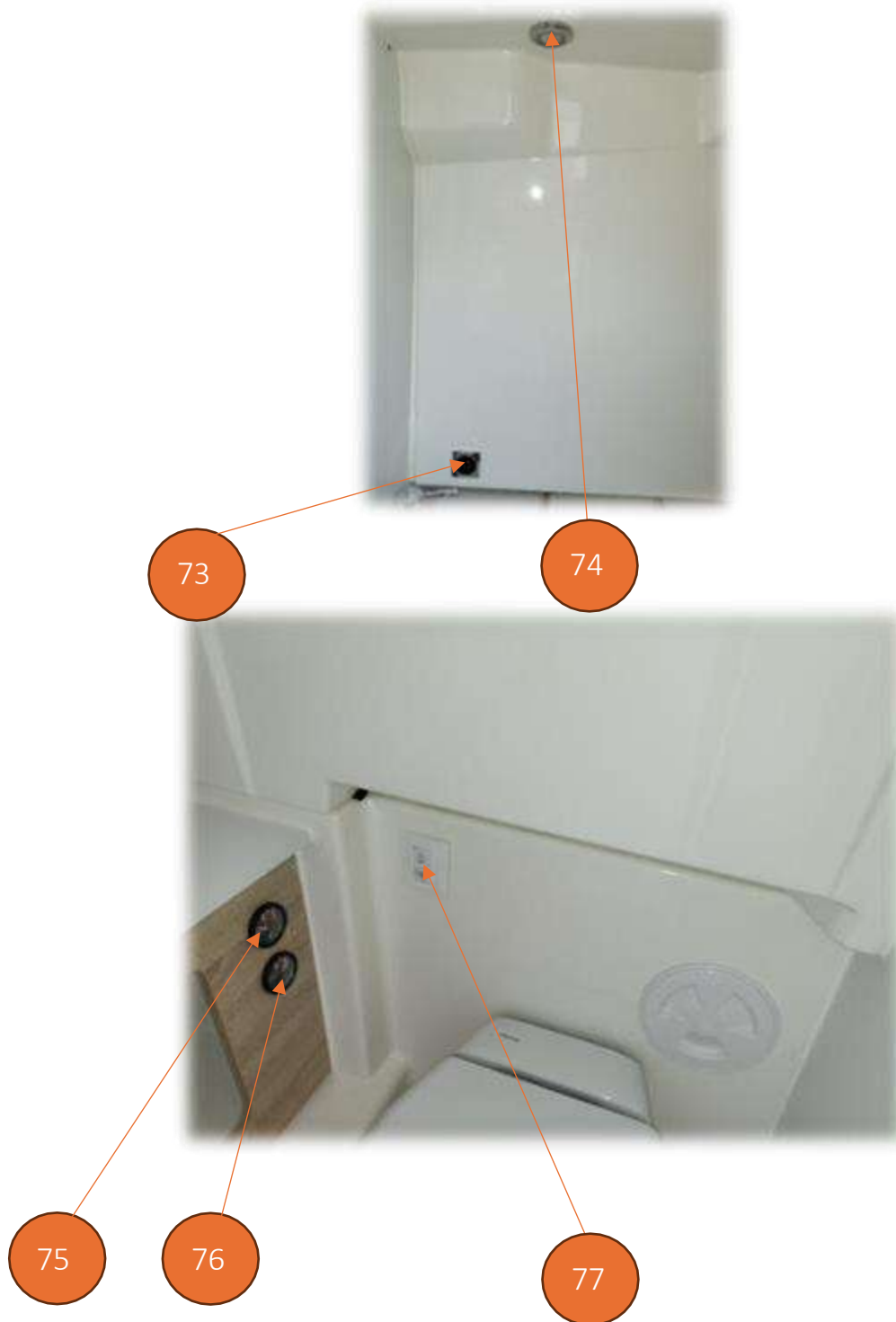
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2.4. LOCATION OF ELECTRICAL EQUIPMENT INSIDE THE TOILET



2.5. LOCATION OF ELECTRICAL EQUIPMENT IN THE STARBOARD TECHNICAL AREA



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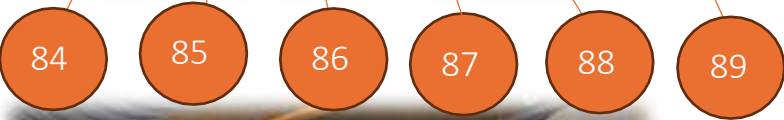
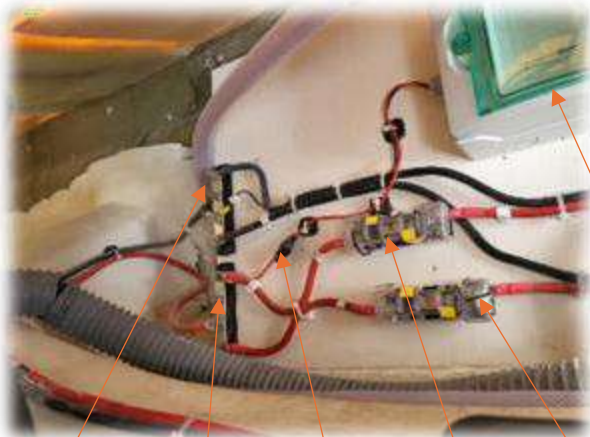
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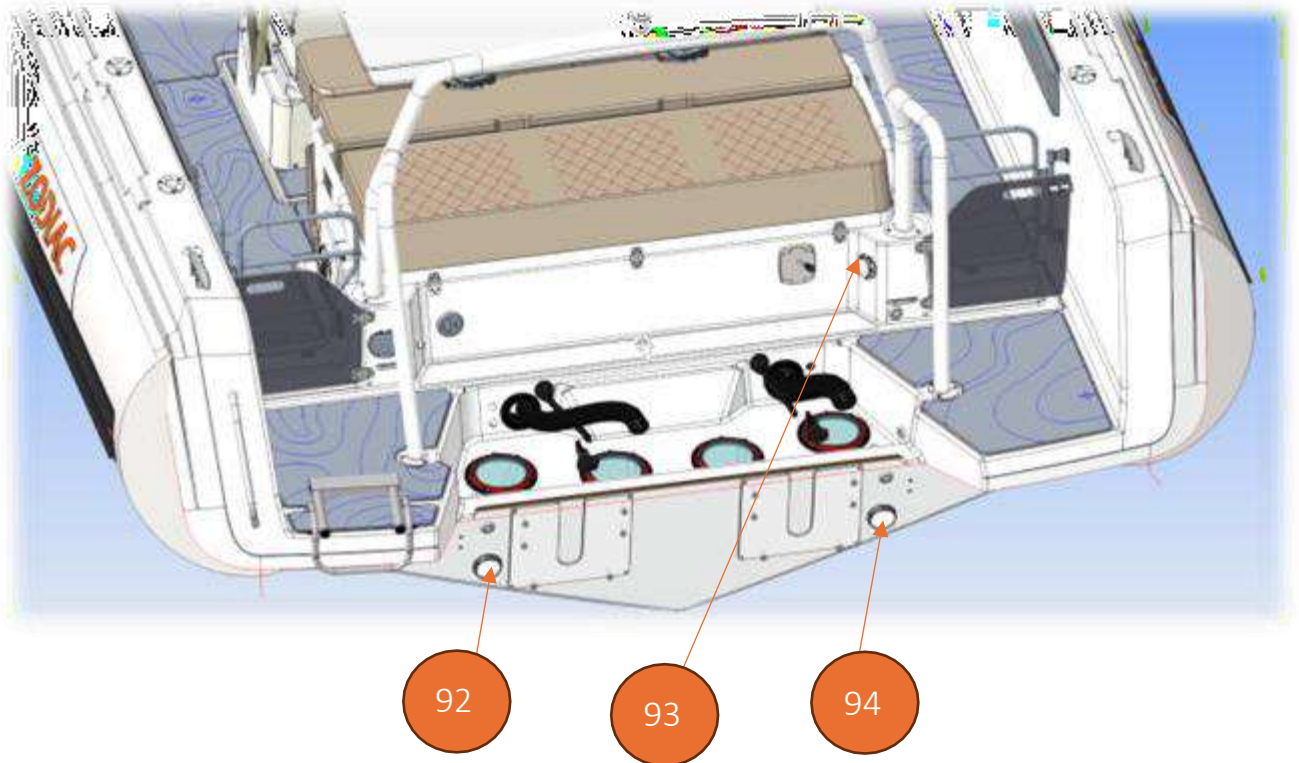
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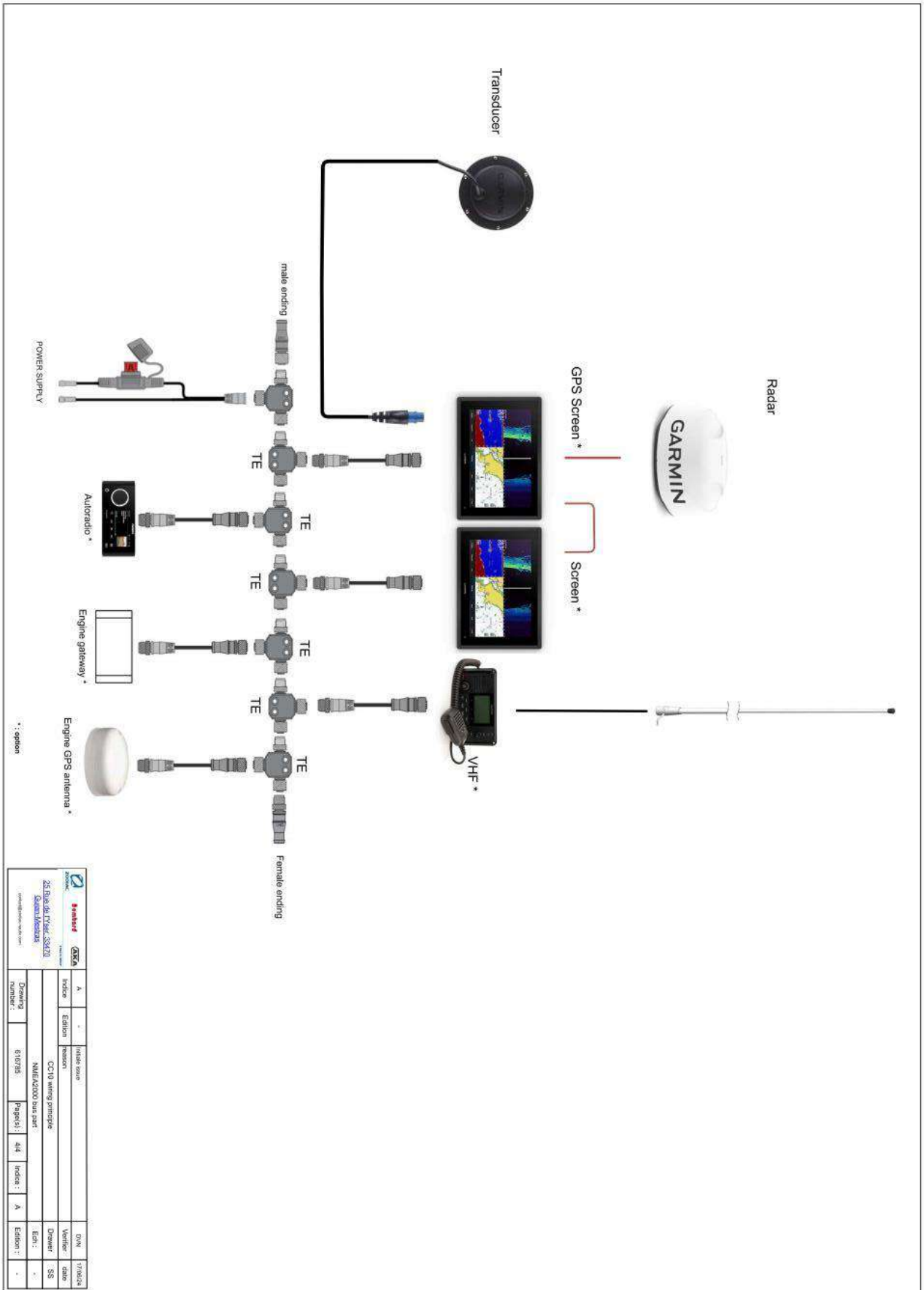
2.6. LOCATION OF ELECTRICAL EQUIPMENT IN THE PORT TECHNICAL AREA

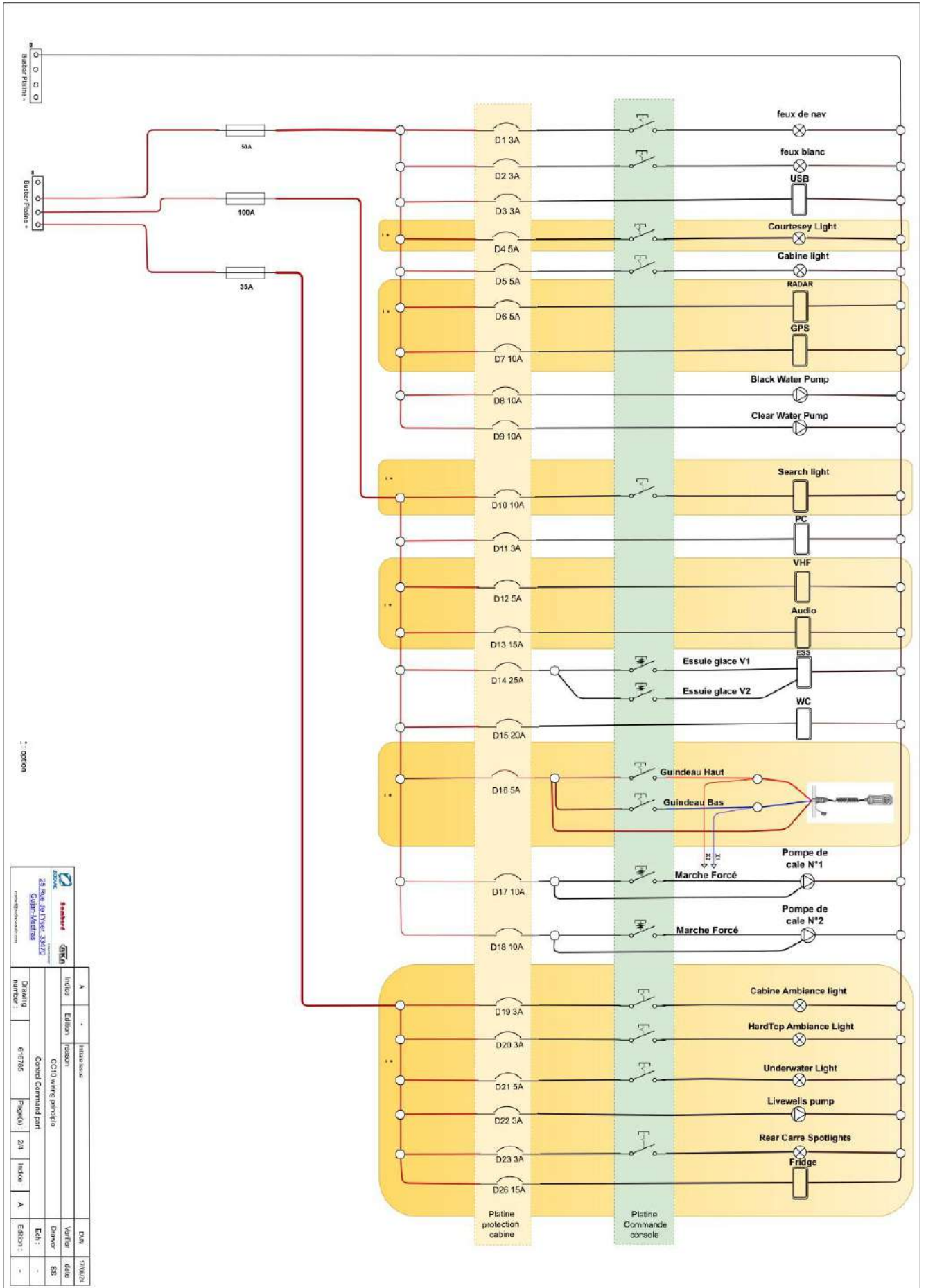


2.7. LOCATION OF STERN TECHNICAL EQUIPMENT



3. ELECTRICAL DIAGRAMS





.. option

25-30A, 30-D, 30-E, 30-F, 30-G		Super-Motors		www.zodiac-marine.com	
index	A	titre	titre	D.N.	27/06/24
Edition	1	raison	mise en service	Verifier	date
Grand Command part			CC10 wiring principle	Drawn	SS
Drawing number	6-10735	Page(s)	2/4	index	A
Edition	-			Edition	-

4. PREVENTING FALLS OVERBOARD

OPEN VERSION

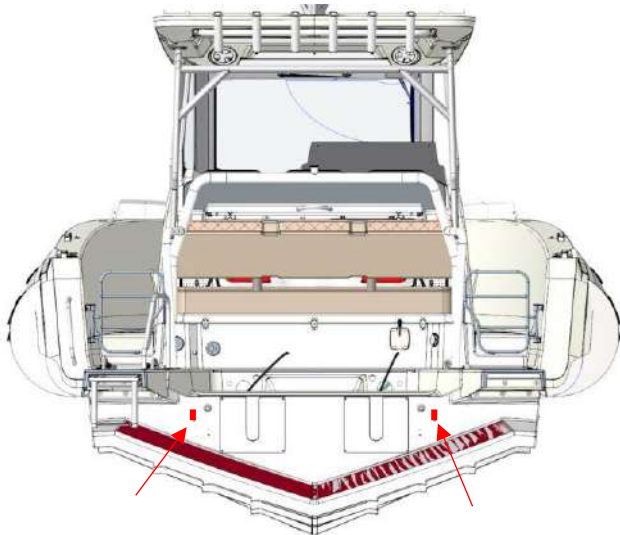
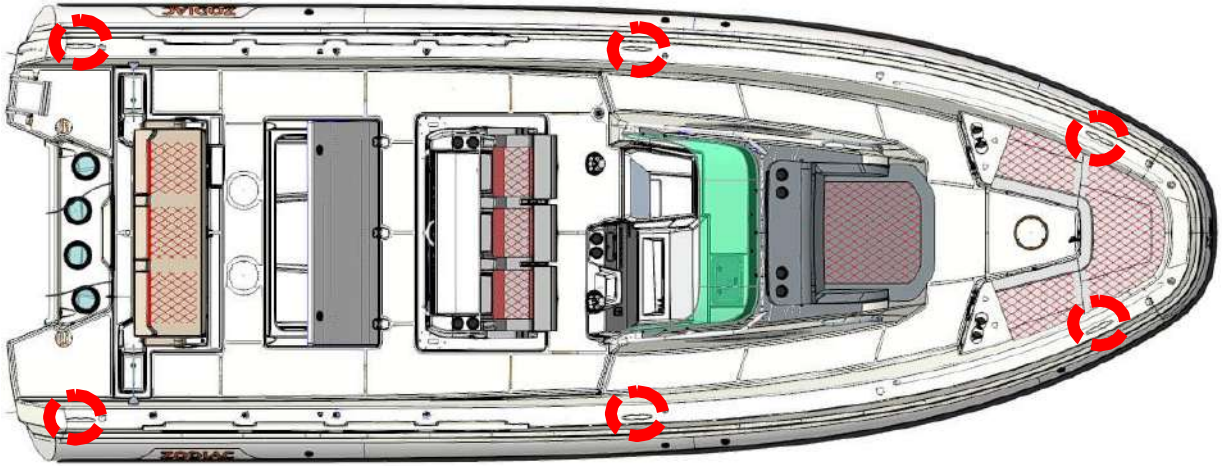


T-TOP VERSION



5. ANCHORING – TOWING – MOORING

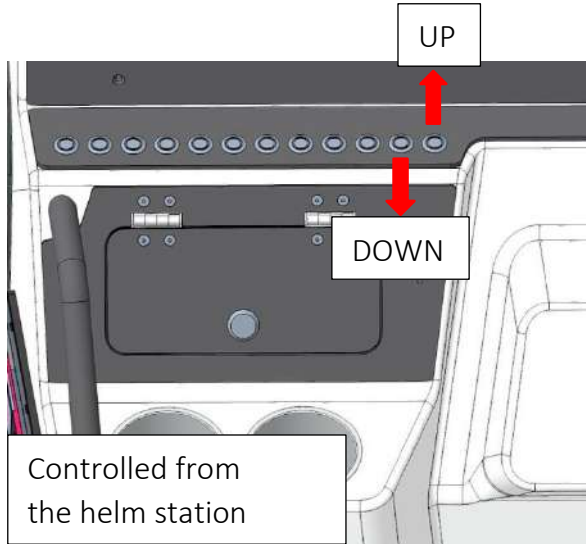
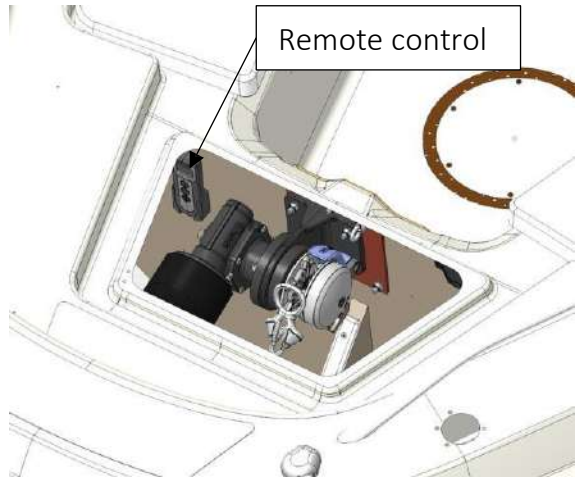
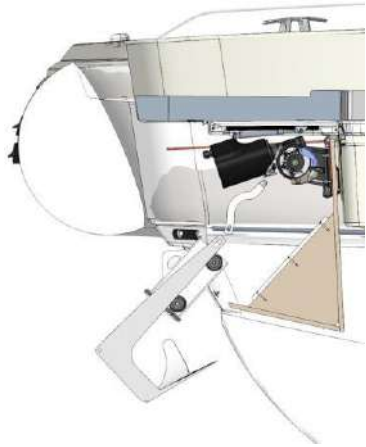
CLEATS



Aft towing chain plates



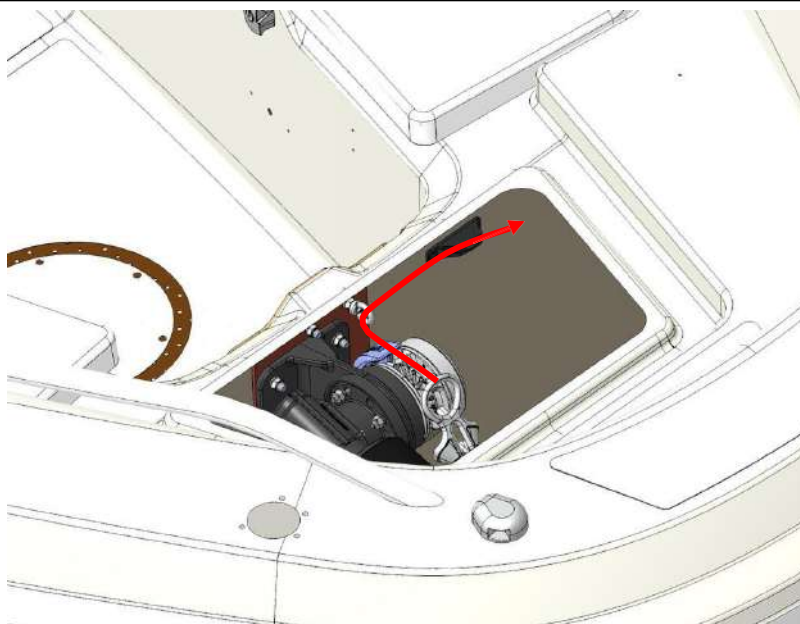
Forward towing point



CAUTION

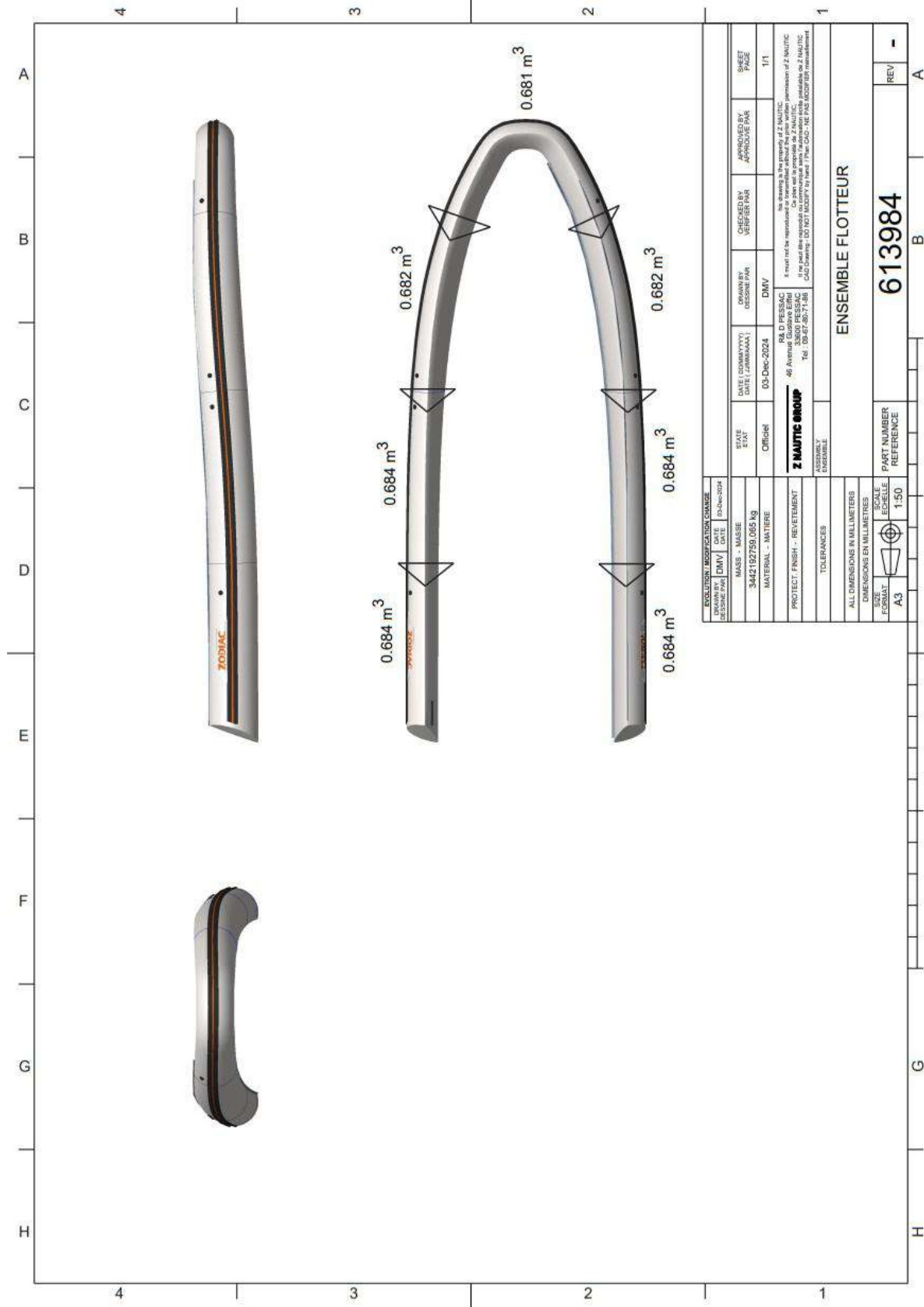
Slow the rise of the anchor chain before the anchor enters the hawsehole and then use short bursts until the anchor reaches its stops.

Tighten the brake



6. FITTINGS

7. INFLATABLE BUOYANCY

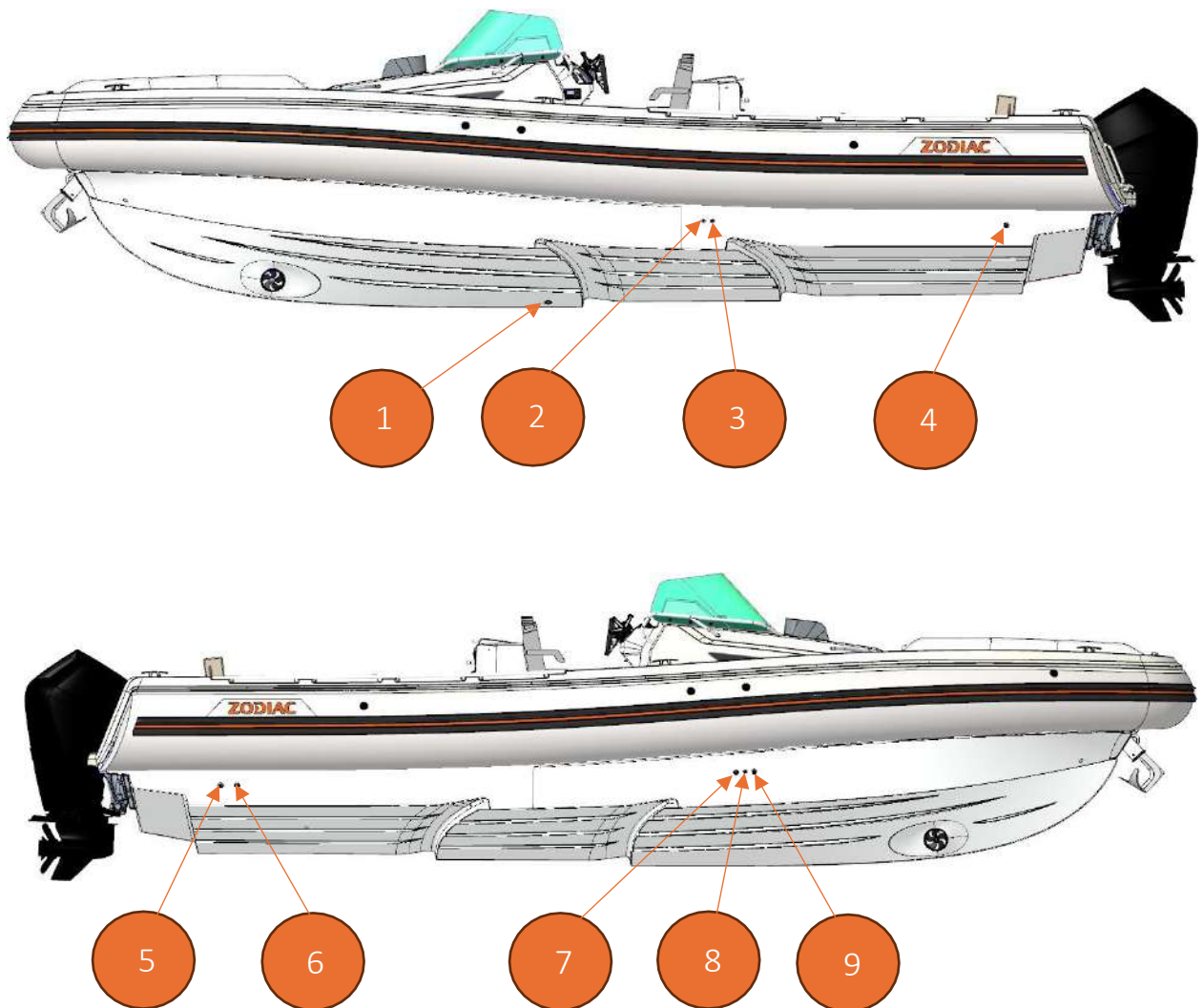


8. OPENINGS IN THE HULL

8.1. LIST OF THROUGH-HULL FITTINGS

Number	Description	Additional information
1	Black water gravity drain	Standard
2	Through-hull fitting hand operated bilge pump No. 2 drain	Standard
3	Bolster sink drain	Standard
4	Port cockpit quick drain	Standard
5	Through-hull fitting electric bilge pump No. 1 drain	Standard
C	Starboard cockpit quick drain	Standard
7	Black water tank vent	Standard
8	Through-hull fitting electric bilge pump No. 2 drain	Standard
3	Grey water drainage washbasin	Standard

8.2. THROUGH-HULL FITTINGS LOCATIONS





9. FLOODING POINTS

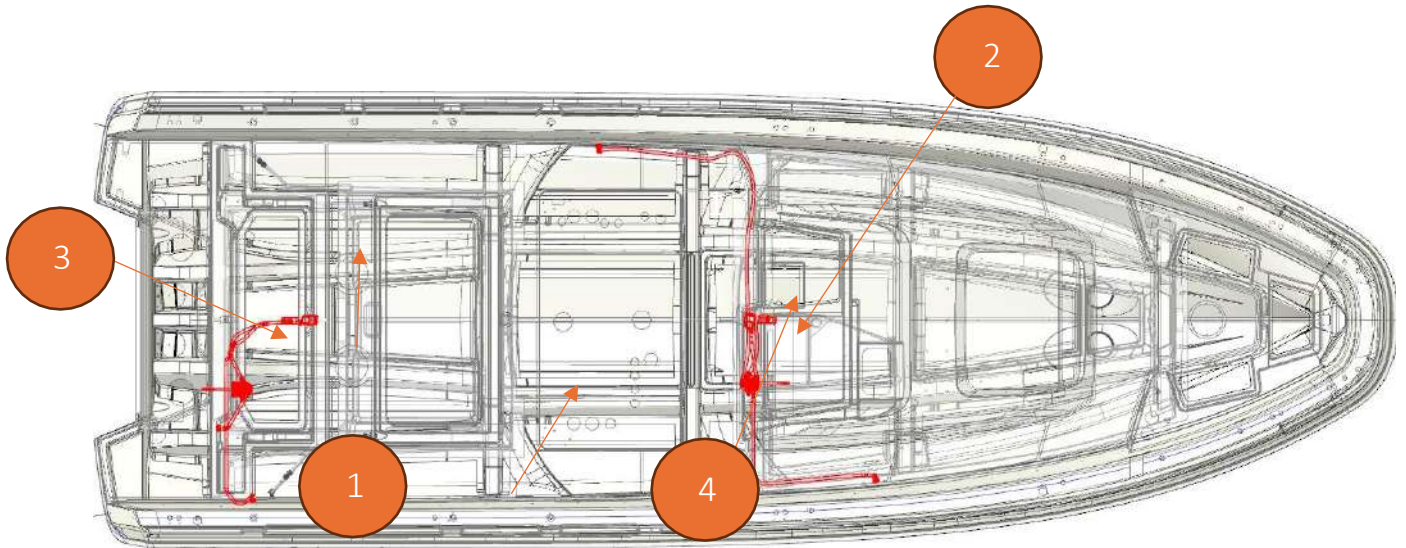
10. DRAINAGE SYSTEM

10.1. LIST OF BILGE PUMP AND QUICK DRAIN LOCATIONS

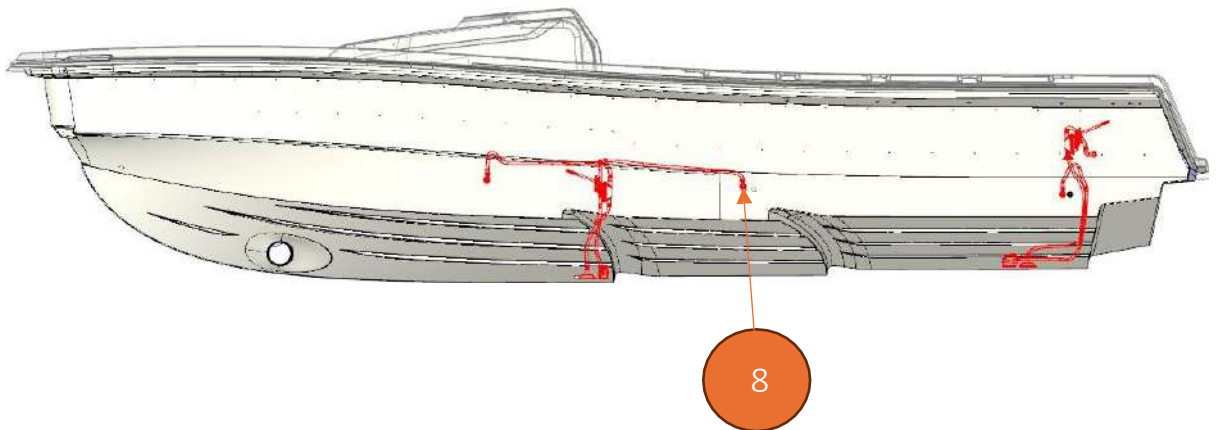
Number	Description	Additional information
<u>1</u>	Electric bilge pump No. 1	Standard (double clamps)
2	Electric bilge pump No. 2	Standard (double clamps)
3	Hand operated bilge pump No. 1	Standard (double clamps)
4	Hand operated bilge pump No. 2	Standard (double clamps)
5	Through-hull fitting electric bilge pump No. 1 drain	Standard (double clamps)
C	Through-hull fitting electric bilge pump No. 2 drain	Standard (double clamps)
7	Through-hull fitting hand operated bilge pump No. 1 drain	Standard (double clamps)
8	Through-hull fitting hand operated bilge pump No. 2 drain	Standard (double clamps)
3	Port cockpit quick drain	Standard (double clamps)
<u>10</u>	Starboard cockpit quick drain	Standard (double clamps)
<u>11</u>	Port cockpit quick drain	Standard (double clamps)
<u>12</u>	Starboard cockpit quick drain	Standard (double clamps)
<u>13</u>	Port cockpit quick drain non-return valve	Standard (double clamps)
<u>14</u>	Starboard cockpit quick drain non-return valve	Standard (double clamps)

10.2. LOCATION OF BILGE PUMPS

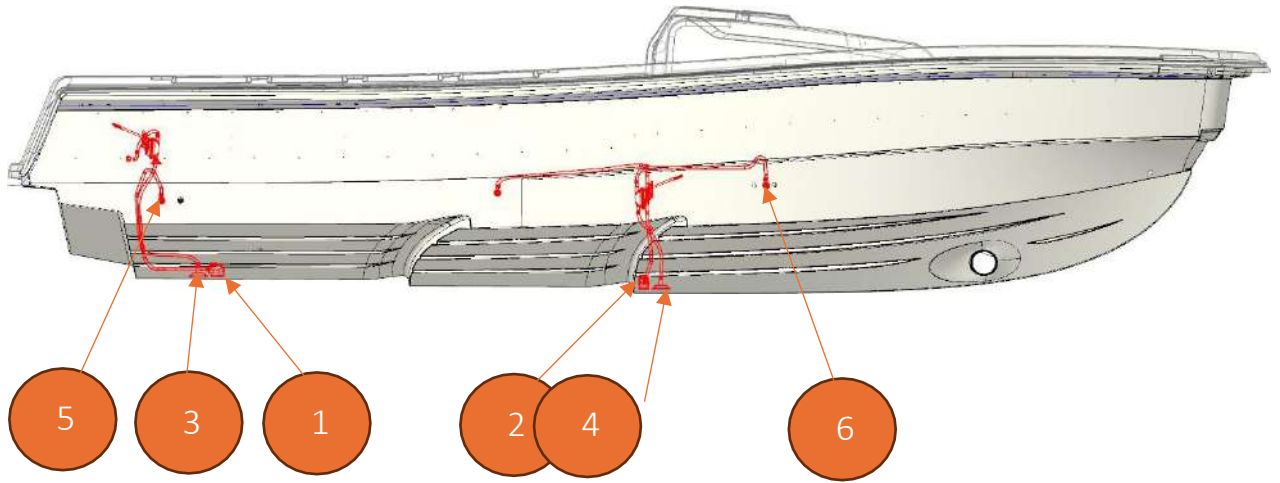
TOP VIEW



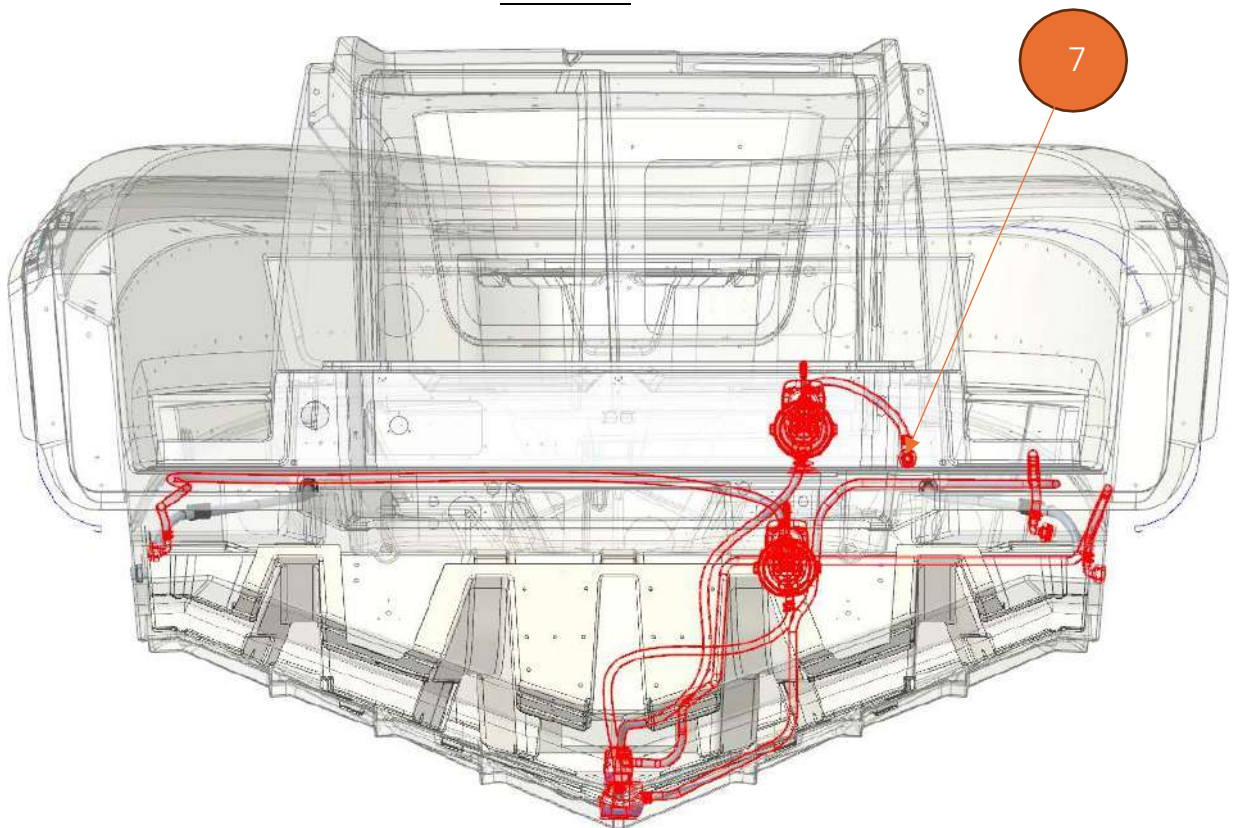
PORT VIEW



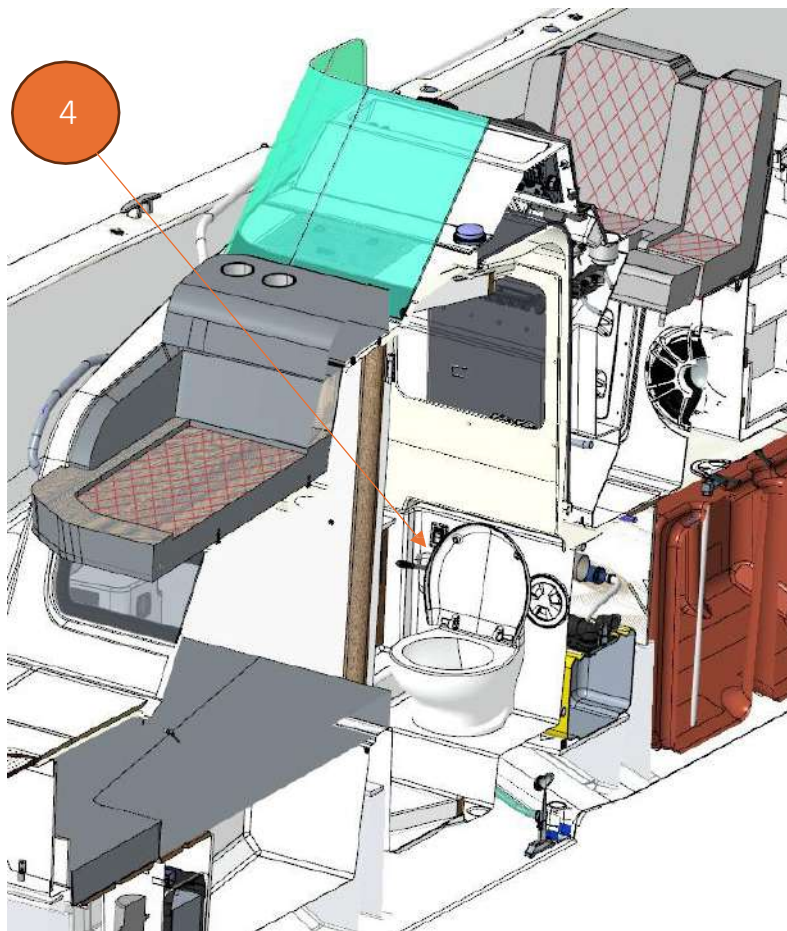
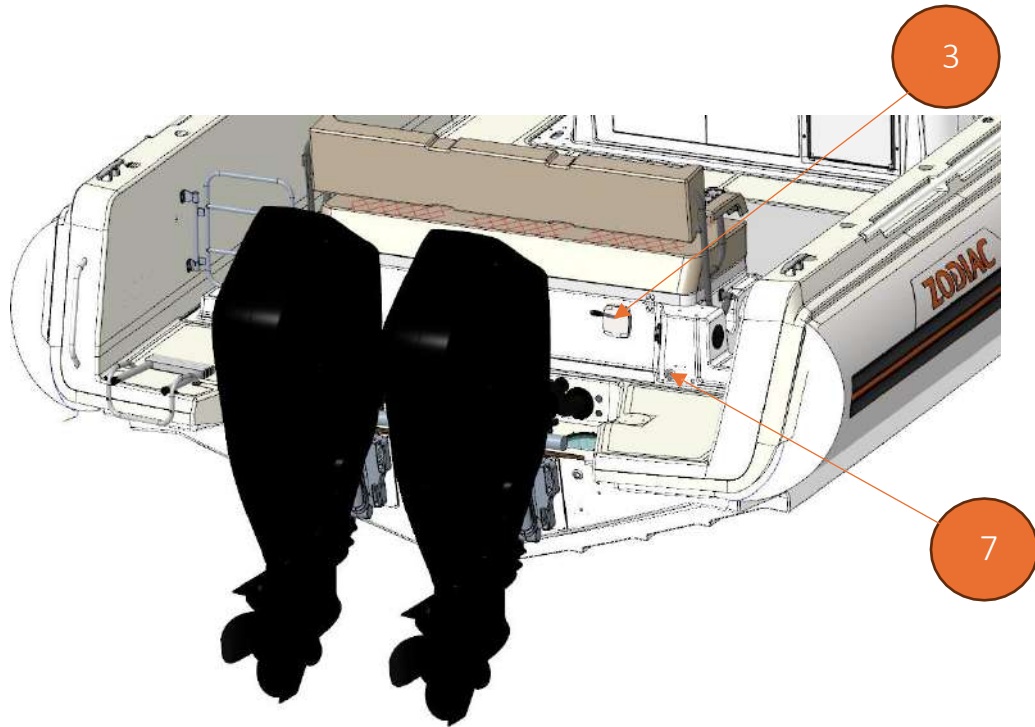
STARBOARD VIEW



AFT VIEW

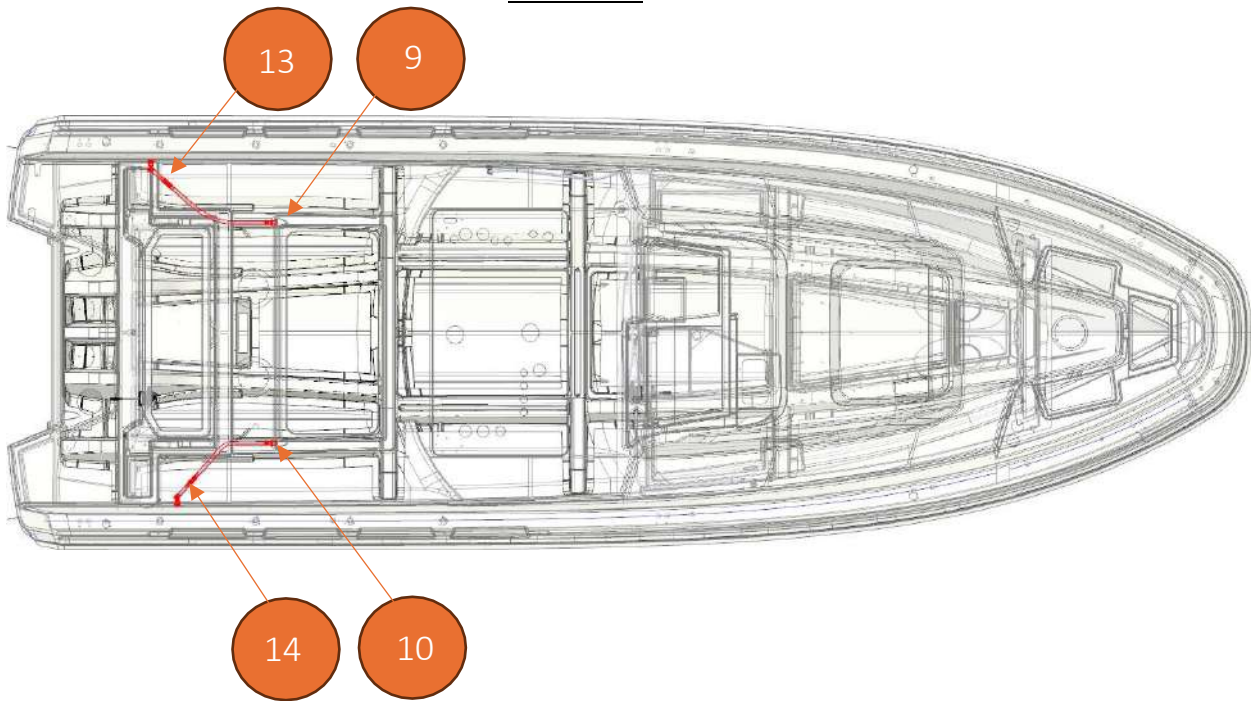


10.3. LOCATION OF HAND OPERATED PUMPS

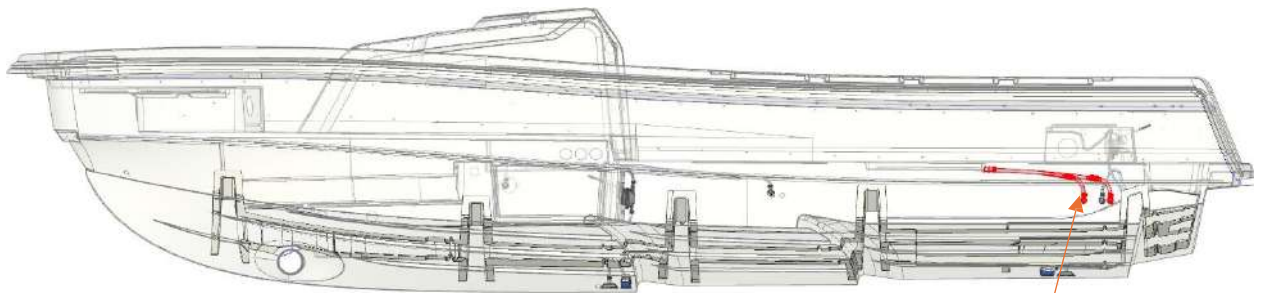


10.4. LOCATION OF COCKPIT QUICK DRAINS

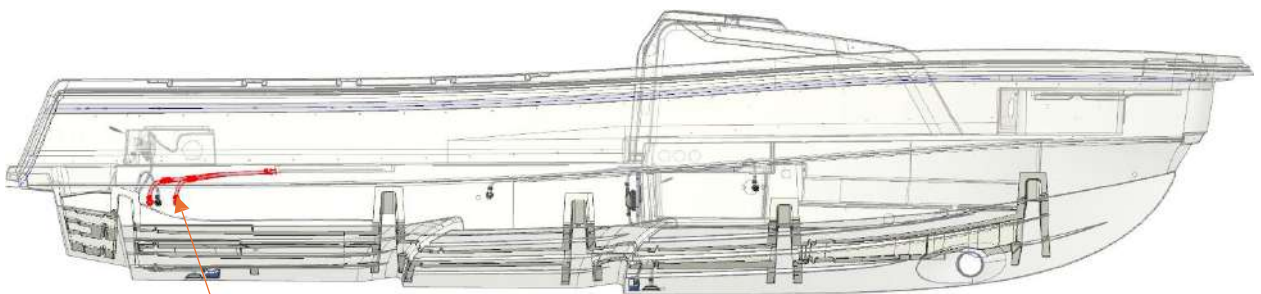
TOP VIEW



PORT VIEW



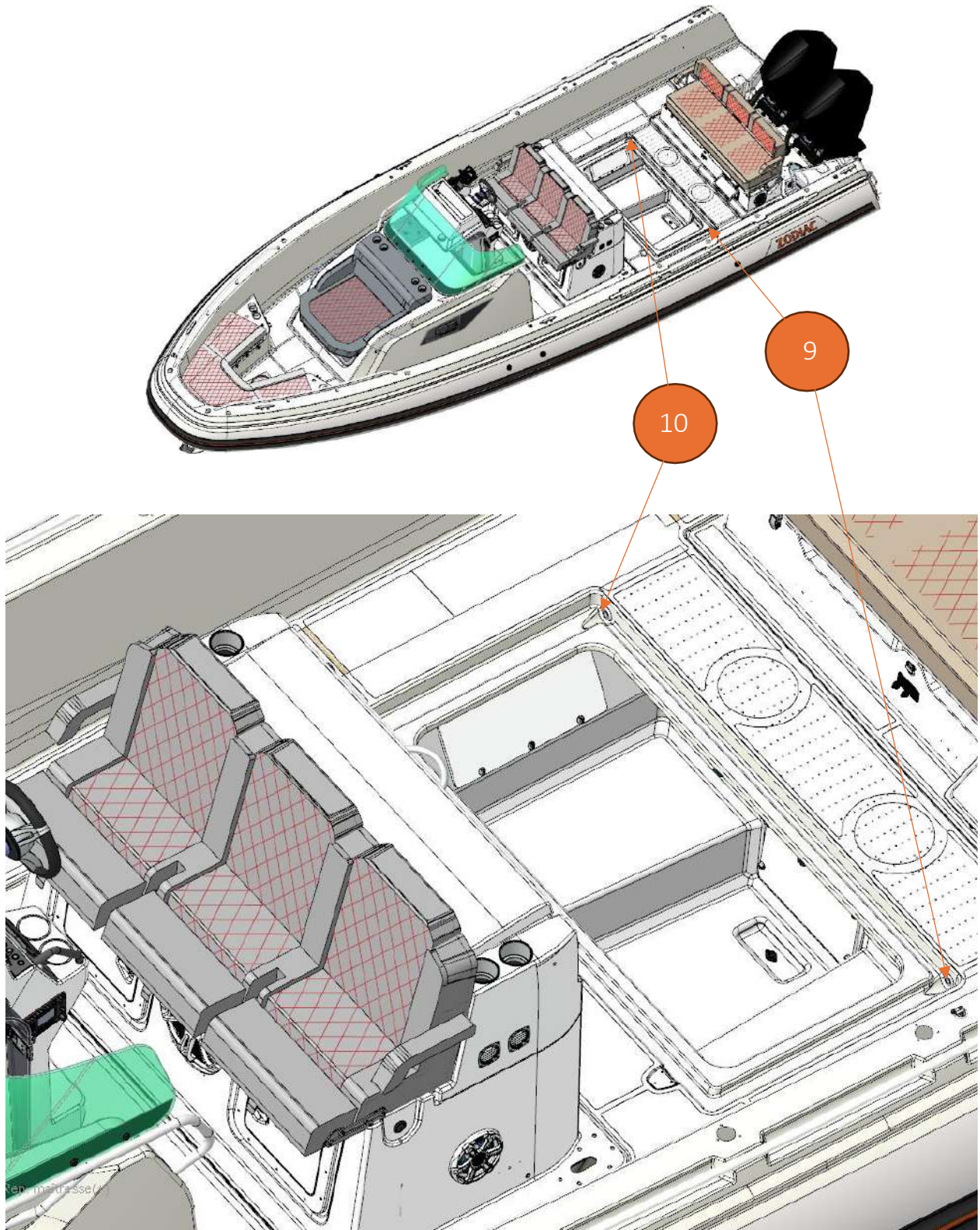
STARBOARD



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10.5. LOCATION OF COCKPIT SCUPPERS



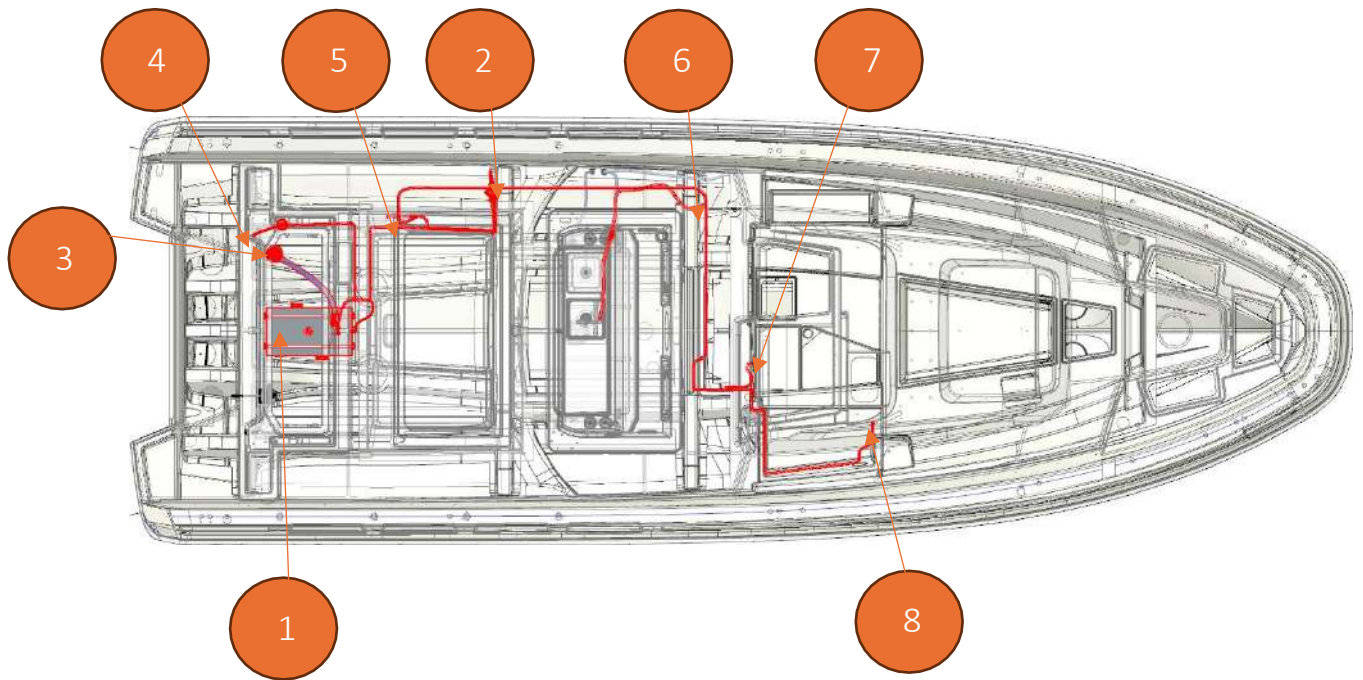
11. FRESHWATER INSTALLATION

11.1. LIST OF FRESHWATER SYSTEM COMPONENTS

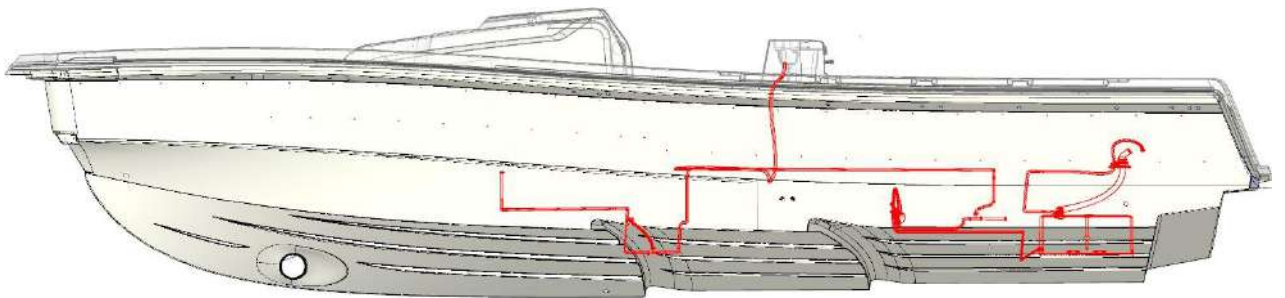
Number	Description	Additional information
1	Freshwater tank	Standard
2	Electric freshwater pump	Standard
3	Freshwater tank filler	Standard
4	Freshwater tank air vent	Standard
5	Hand shower water supply	If hand shower option
C	Bolster sink water supply	Standard
7	Toilet water supply	Standard
8	Washbasin water supply	Standard

11.2. LOCATION OF FRESHWATER EQUIPMENT

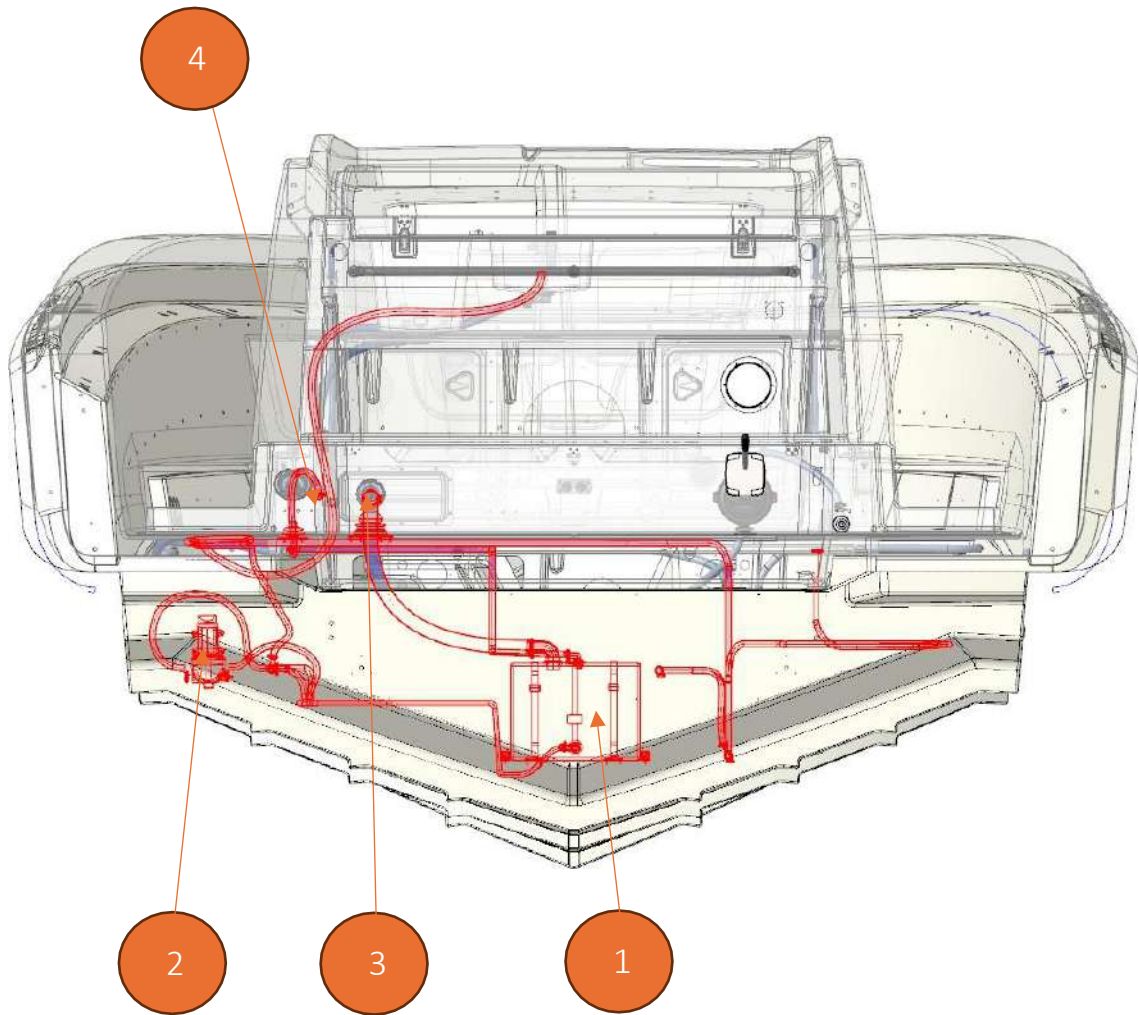
TOP VIEW



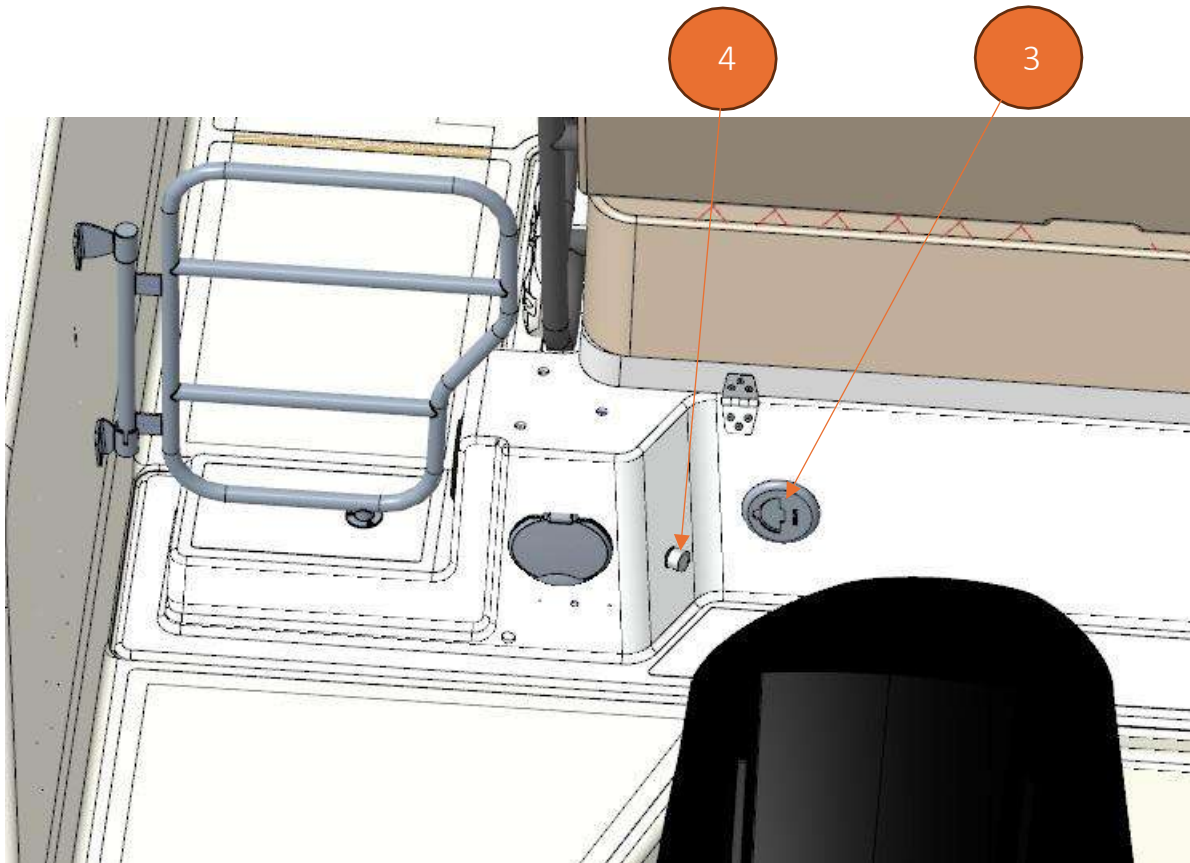
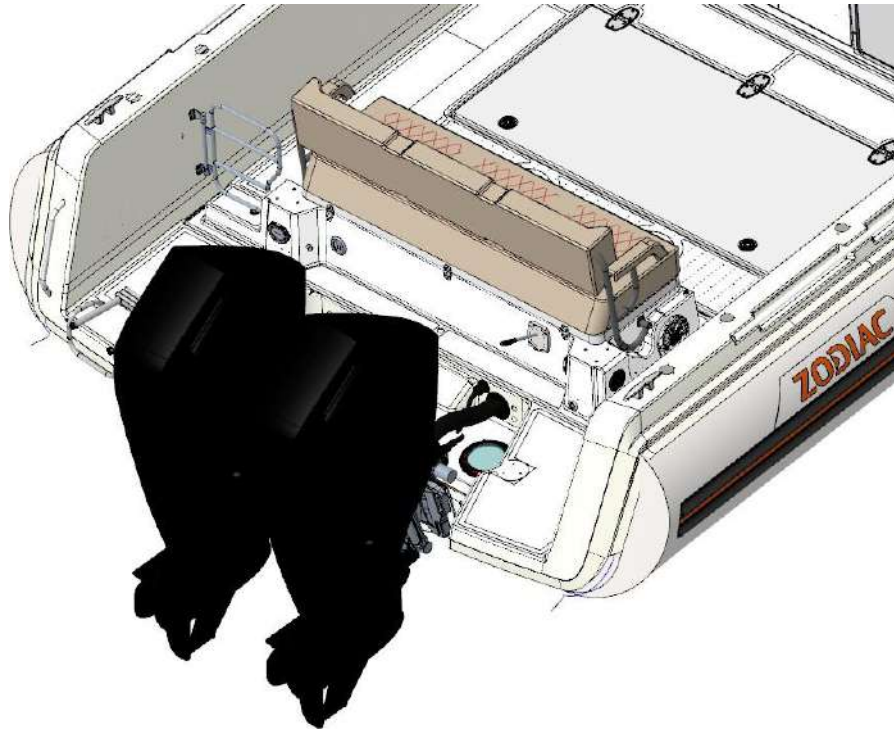
PORT VIEW



AFT VIEW



11.3. LOCATION OF FRESHWATER TANK FILLER AND AIR VENT



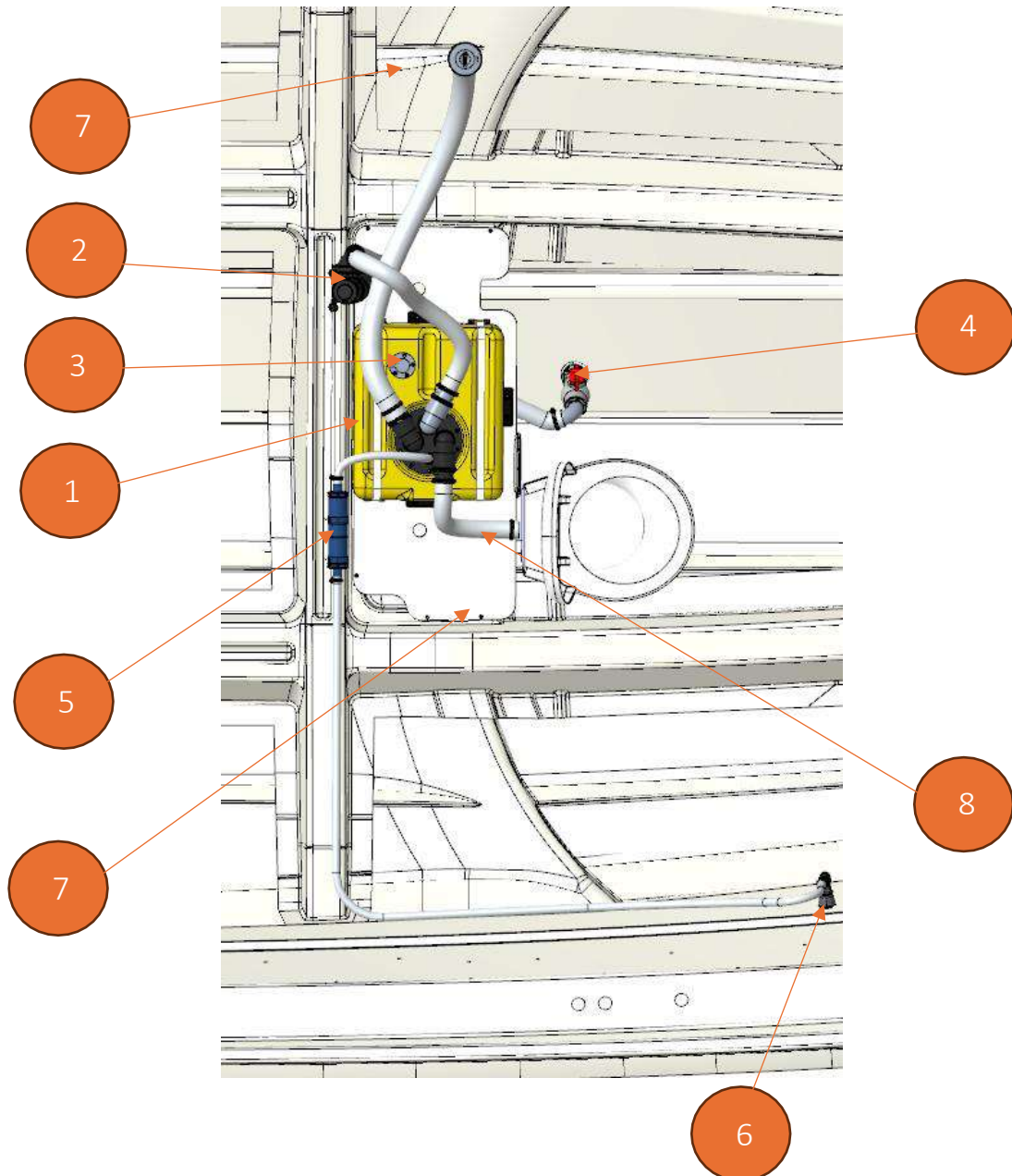
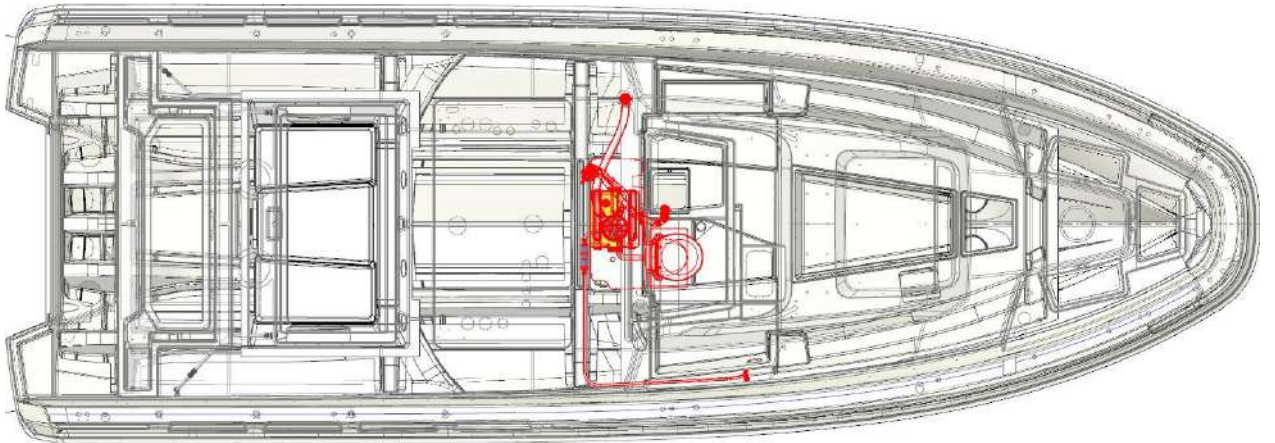
12. BLACK WATER SYSTEM

12.1. LIST OF BLACK WATER SYSTEM COMPONENTS

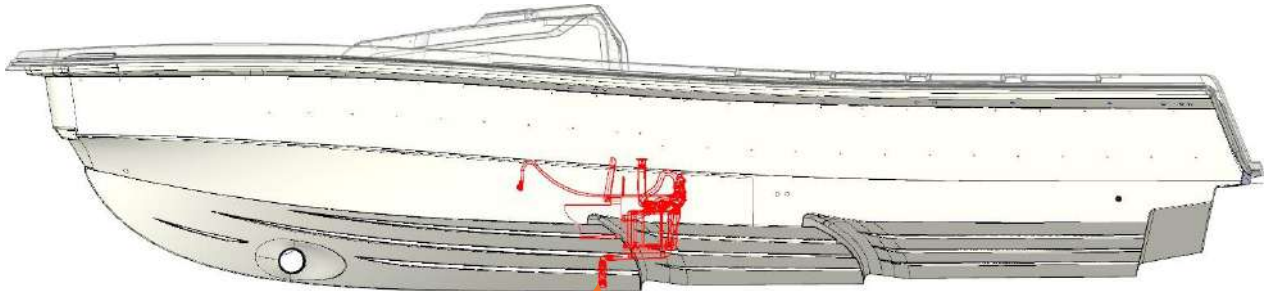
Number	Description	Additional information
1	Black water tank	Standard
2	Overboard discharge pump	Standard (double clamps)
3	Black water level indicator	Standard
4	Shut-off valve for through-hull discharge	Standard (double clamps)
5	Black water odour filter	Standard
C	Black water tank vent	Standard
7	Vacuum emptying of black water tank	Standard
8	Toilet drain line	Standard

12.2. LOCATION OF BLACK WATER EQUIPMENT

TOP VIEW

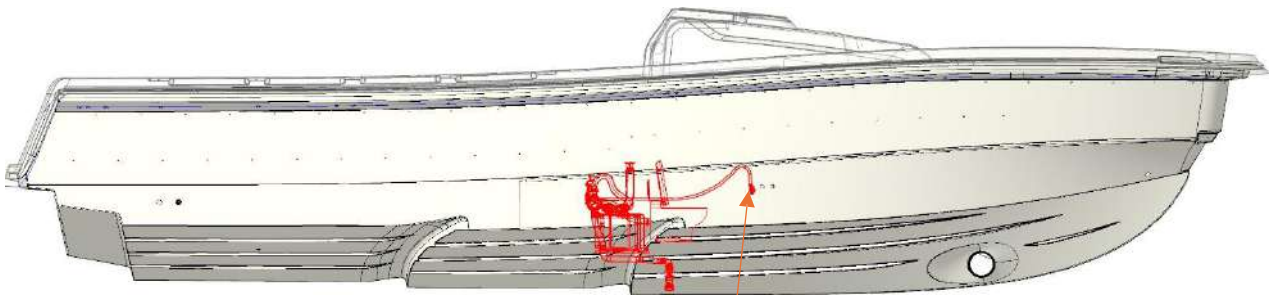


PORT VIEW



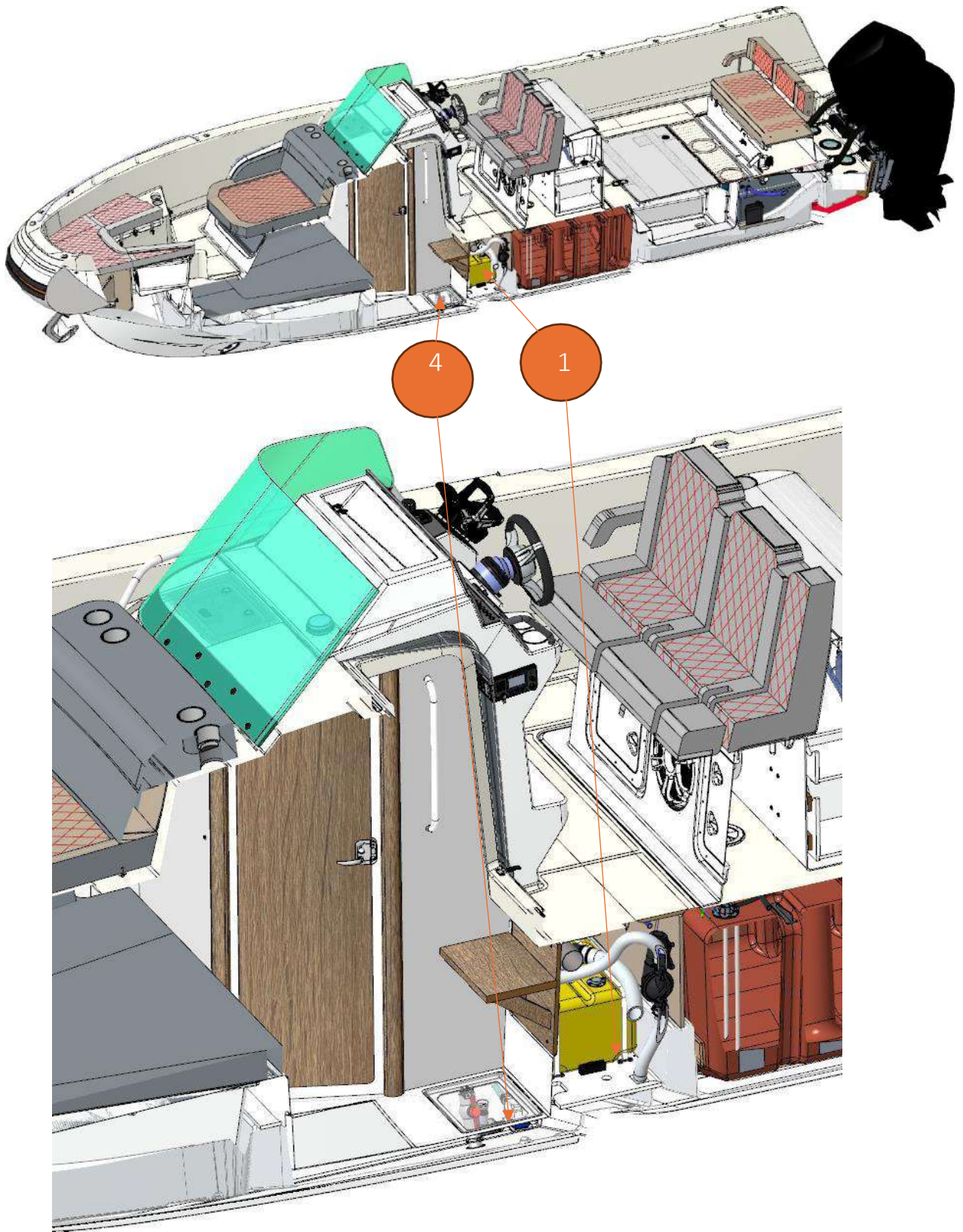
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STARBOARD VIEW



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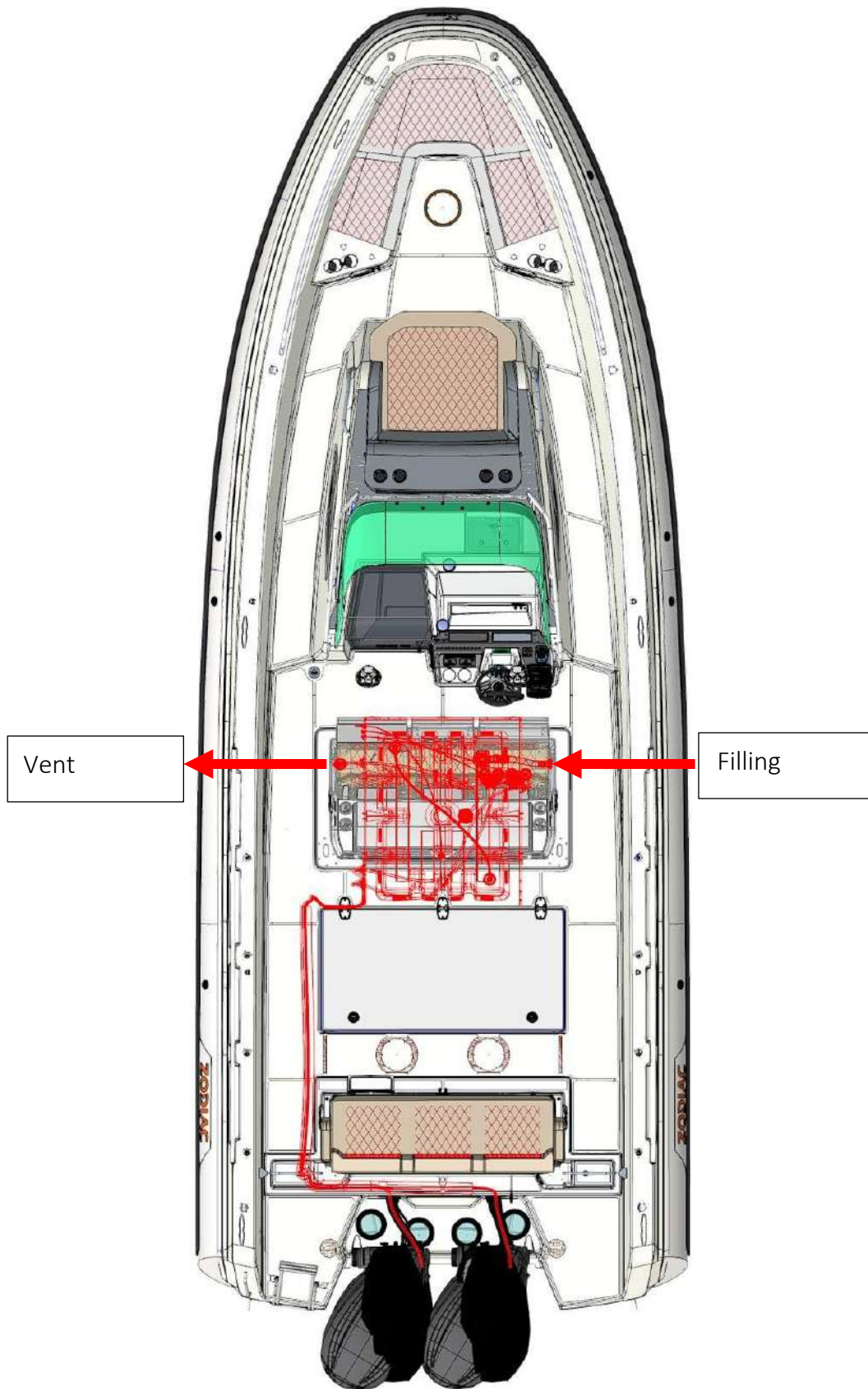
12.3. LOCATION OF BLACK WATER SYSTEMS



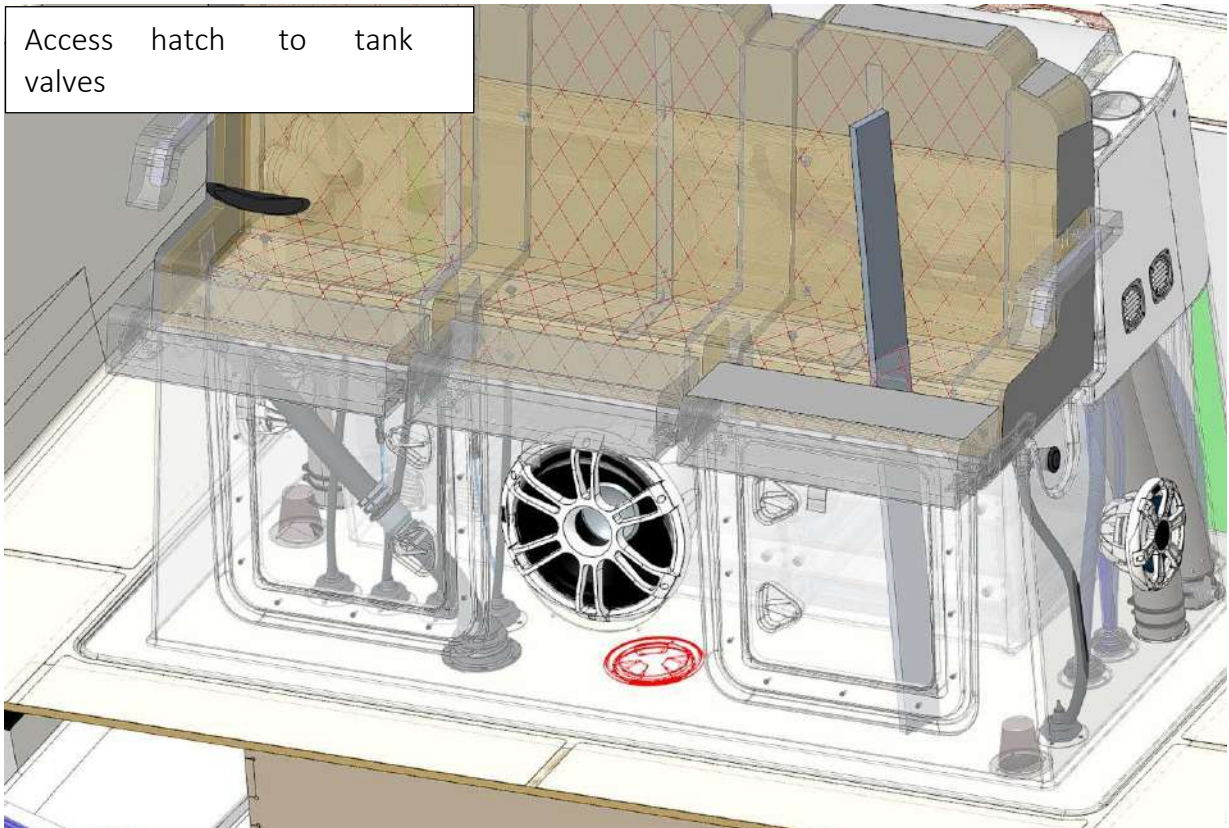


13. PROPULSION

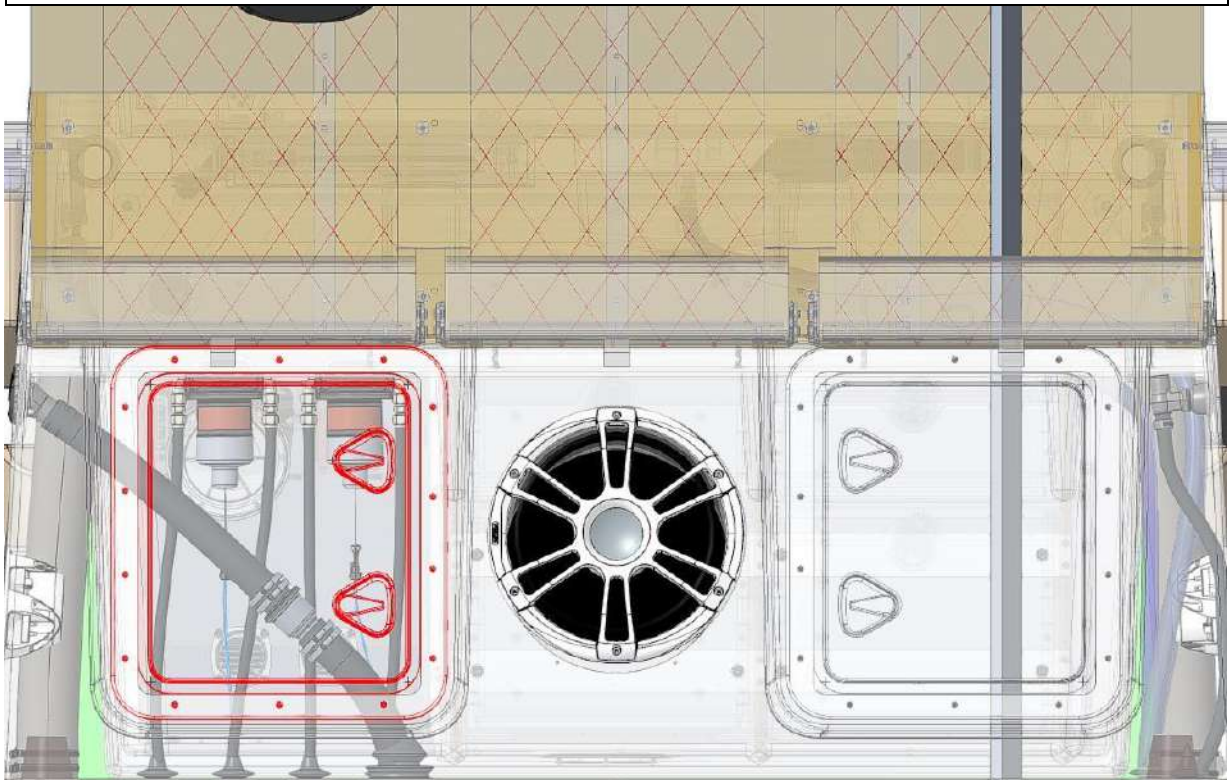
14. FUEL INSTALLATION

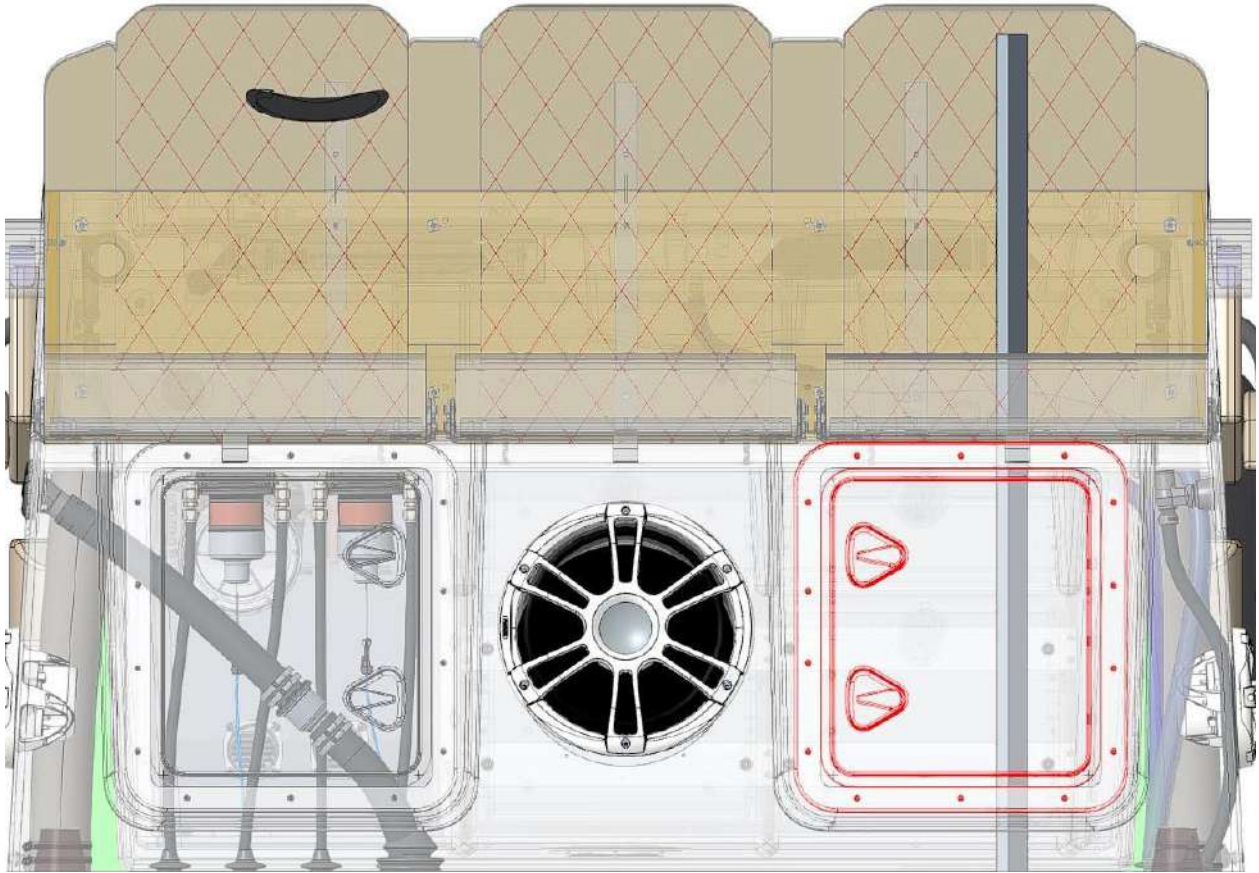


Access hatch to tank valves

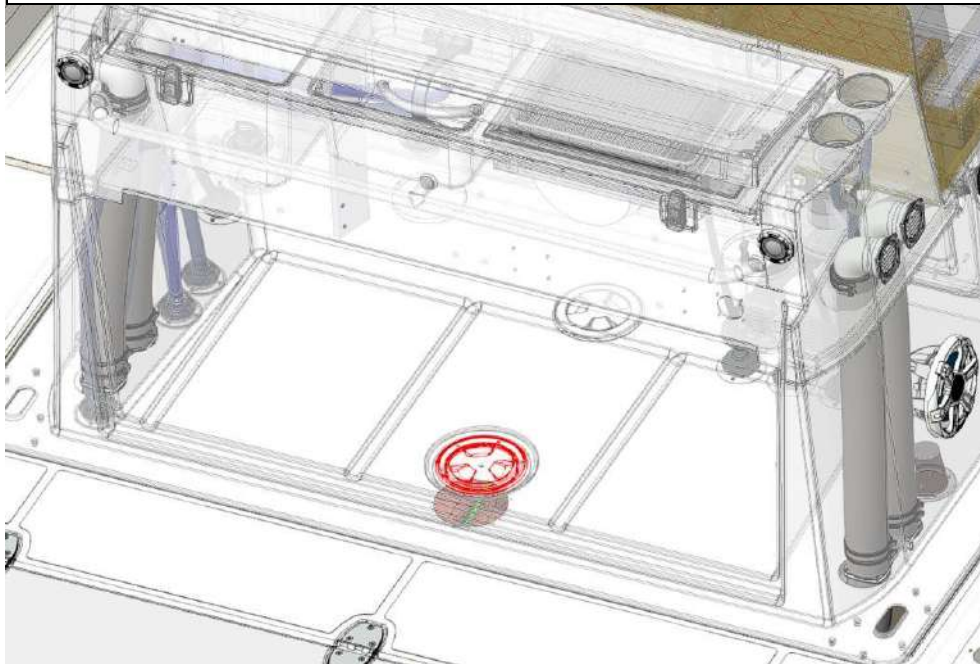


The fuel pre-filters are accessed through the equipment hatch starboard of the bolster



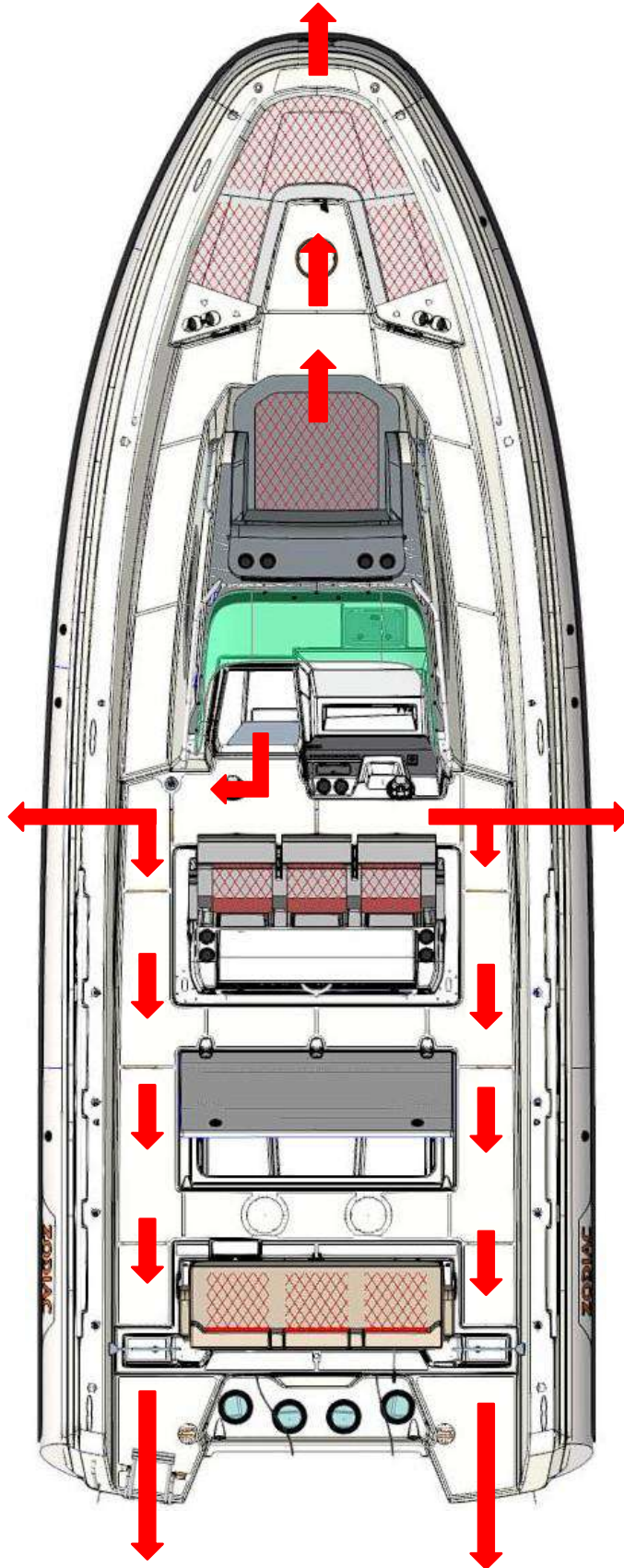


The fuel level gauge is accessed through the hatch behind the bolster



15. FIRE PROTECTION

ESCAPE DIAGRAM





16. STEERING SYSTEM