



15. Indicator for the automatic ventilator

This comes on when the ventilator is running in automatic mode.

16. Ventilator key

Allows you to select manual or automatic mode for the ventilator.

17. Ventilator speed indicator

Shows the ventilator speed.

NOTES

- When the system is programmed in dehumidifying mode, the system's safety devices remain active: if there is an interruption in the flow of sea water or a drop in AC voltage, the system automatically stops.
- In cooling mode, the system works efficiently when the sea water temperature is below 30 degree C.
- In heating mode, the system works efficiently when the sea water temperature is above 13 degree C.
- It is important to switch the system to HEATING mode at least once a month, to prevent the crossover cock becoming stuck in COOLING mode.

Locking method

- It is possible to lock the control buttons to avoid any accidental handling: Press the three buttons at once: MODE, UP (arrow pointing up), FAN.

LC appears on the screen, which signifies "LOCK".

- To unlock and resume use of the buttons, press the three buttons at the same time: MODE, UP (arrow pointing up), FAN.

UL appears on the screen, which signifies "UNLOCK".

Screen lighting

- If the control box is switched off by a fault (in the cabins for example), just touching a button automatically lights up the screen in a blue colour instantly.

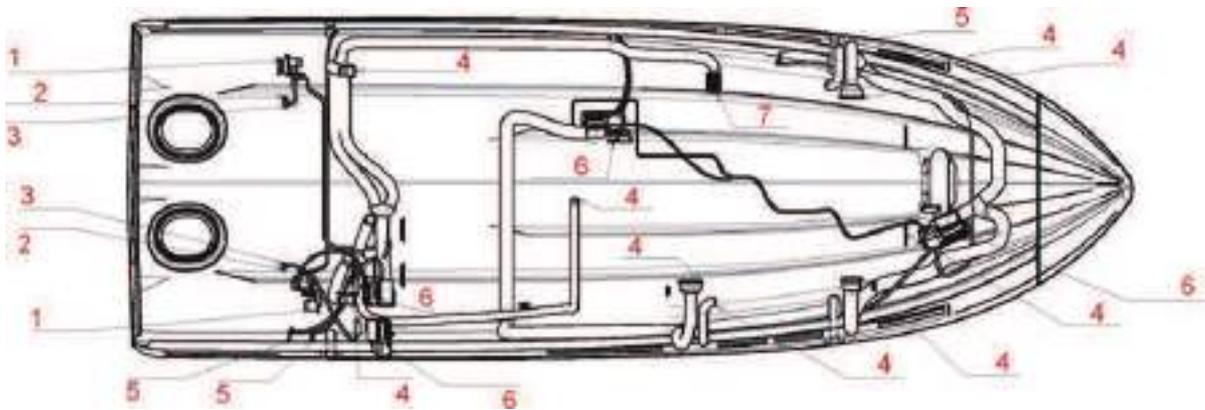
To alter the light intensity of the screen, press the two buttons simultaneously: MODE, UP (arrow pointing up) until the required intensity is reached.

- It is possible to programme whether or not a box is illuminated by default: In this case mode ON must be selected for a permanently illuminated box or mode SLEEP for a permanently unilluminated box.

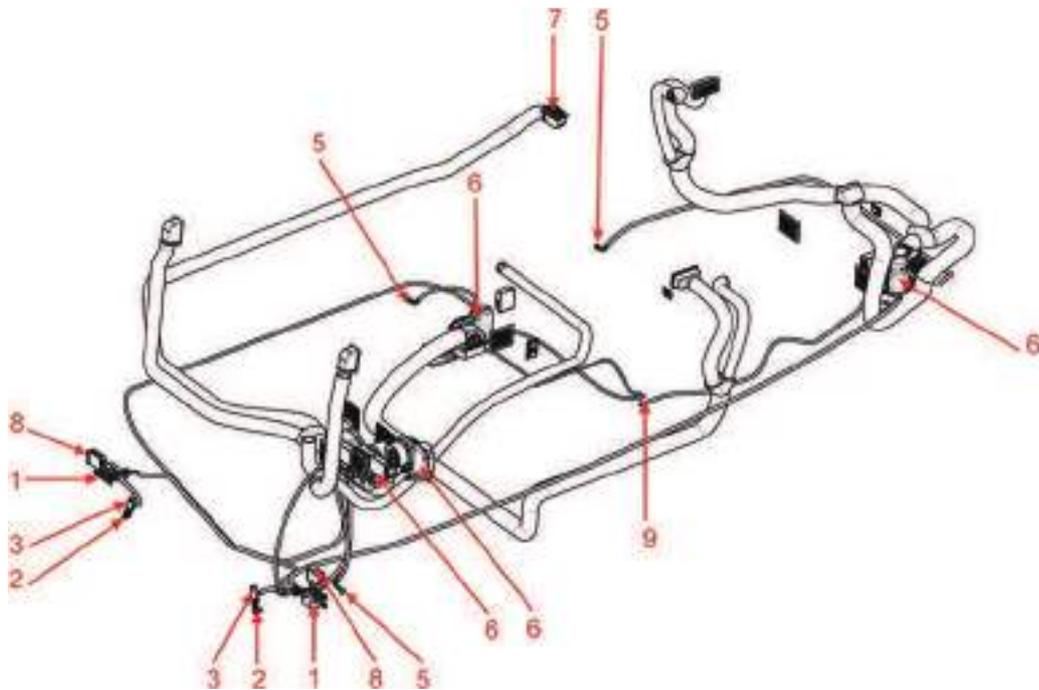
Procedure:

- Simultaneously press the 2 buttons: MODE and DOWN (arrow pointing down).
- With the arrows select n°18 on the menu, then confirm by pressing MODE.
- With the arrows select either ON for illumination by default or SL (SLEEP) to turn the box off.
- The press 2 times on FAN to confirm the selection.

Diagram - Location



Exploded view



Reference	Designation
1	Pump sea water
2	Sea water intake
3	Filter
4	Grid
5	Drainage
6	Compressor
7	Collector
8	Relay box
9	Water - Condensation (in the sump)

Elements



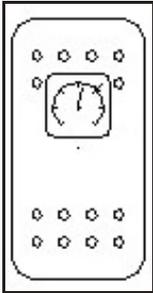
Location: Engine compartment - Starboard

1. Sea water intake + Filter
2. Relay box (Pump sea water)
3. Pump sea water

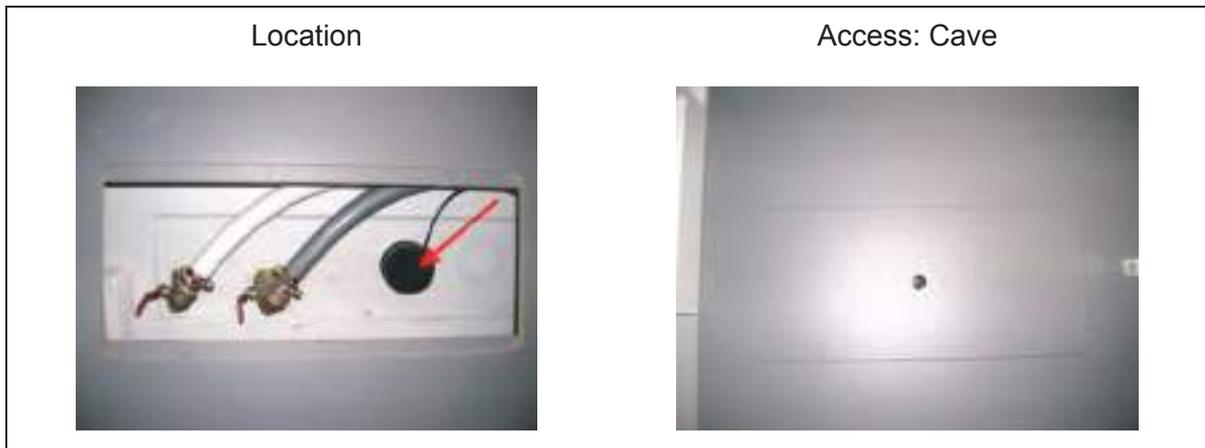
11.2 ELECTRONIC EQUIPMENT

The onboard electronics are powered by direct current.

Control: Steering station

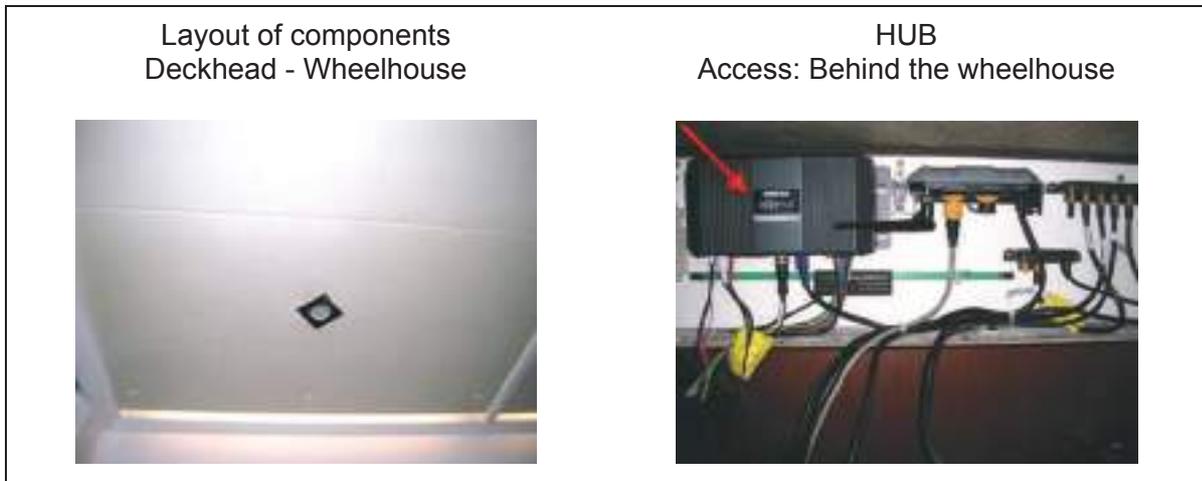


LEAD LINES



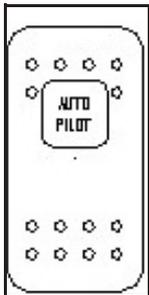
- Do not store material on top of the sensors.
- Do not cover the sensors in antifoul when antifouling the hull.
- Regularly clean the sensors.

Auto pilot



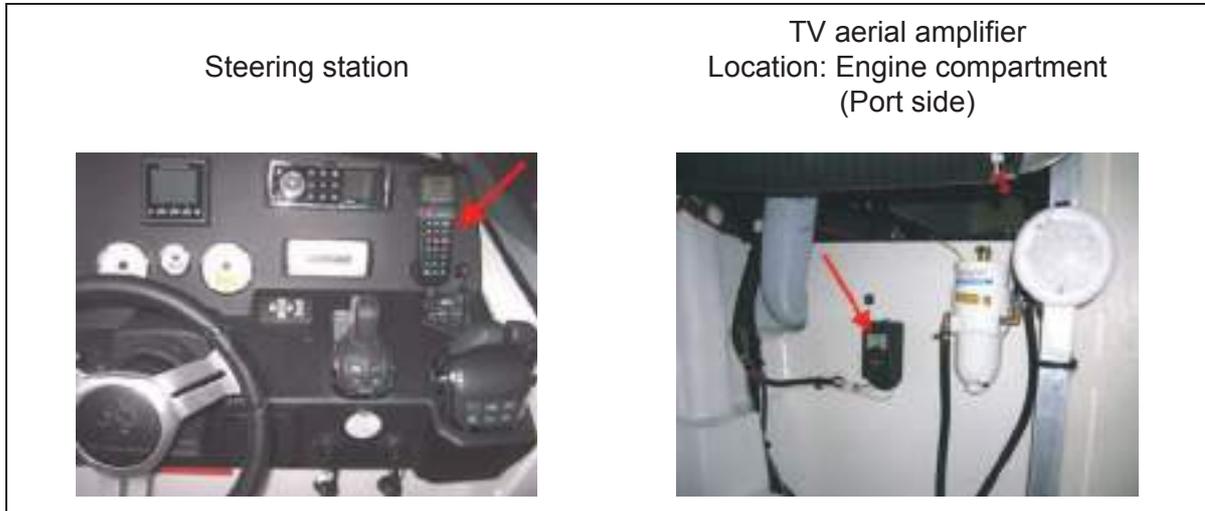
- To ensure optimum performance, keep all metallic objects away from the gyrocompass.
- Do not store material close to the calculator and electrical connections.

Control: Steering station



VHF

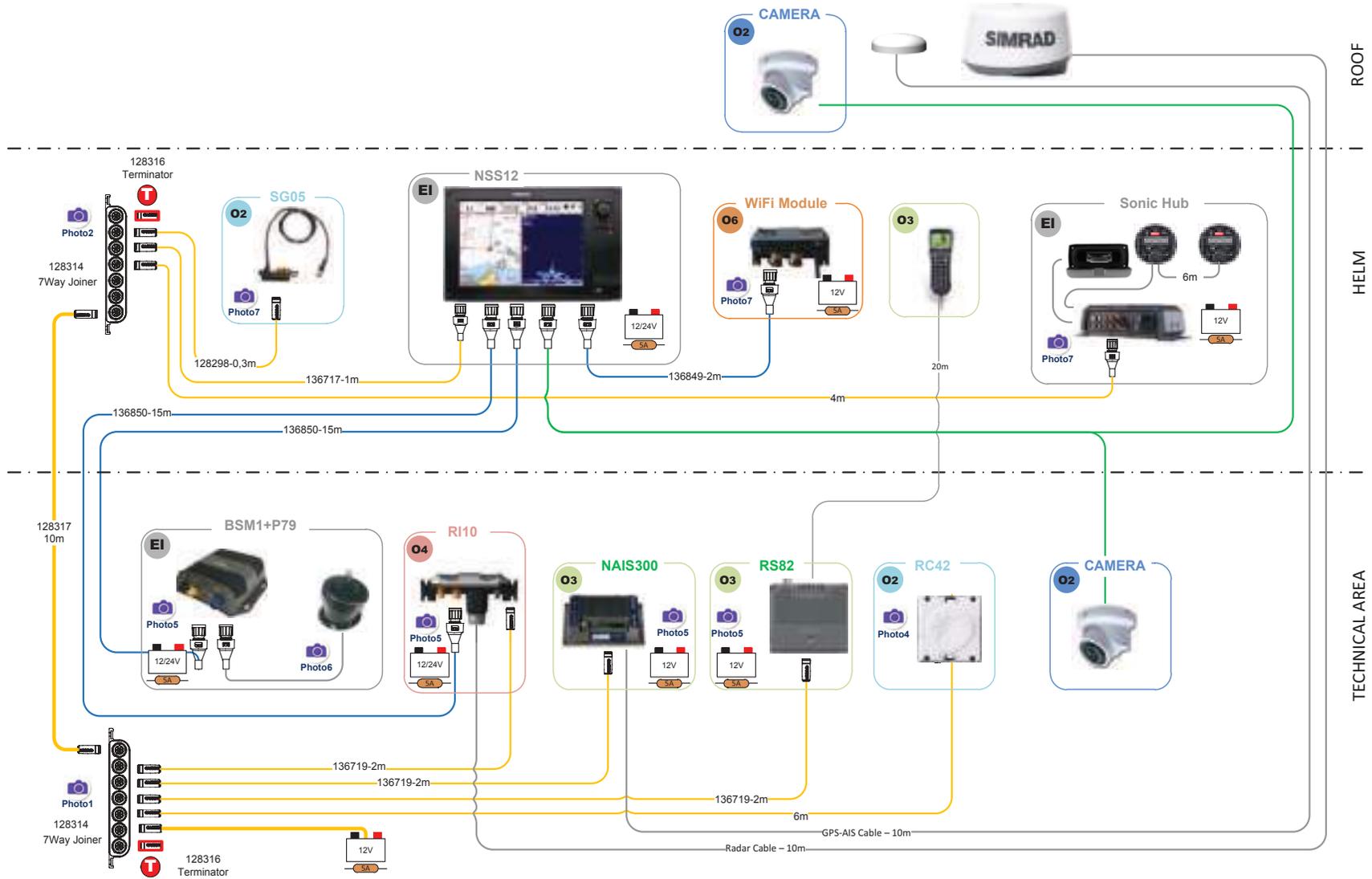
Layout of components:



ADVICE-RECOMMENDATION

- Place the protective covers on the repeaters when unused for long periods.
- When sailing store the protective covers inside the boat to avoid losing them.
- The various repeater displays are back-lit.
- Regularly clean the fascias of the repeaters with fresh water.
- Refer to manufacturer's instructions for use and maintenance.

Diagram of the layout - Electronic instruments



ROOF
HELM
TECHNICAL AREA



	SimNet
	Ethernet
	Video - RCA

ONBOARD COMFORT

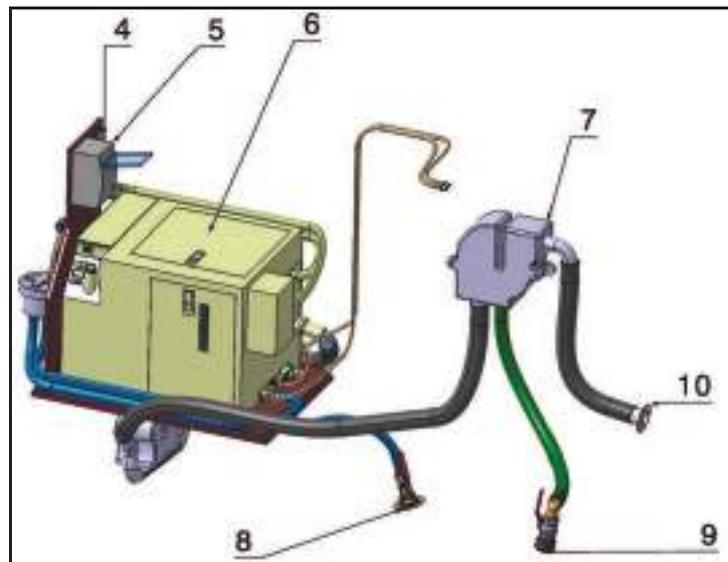
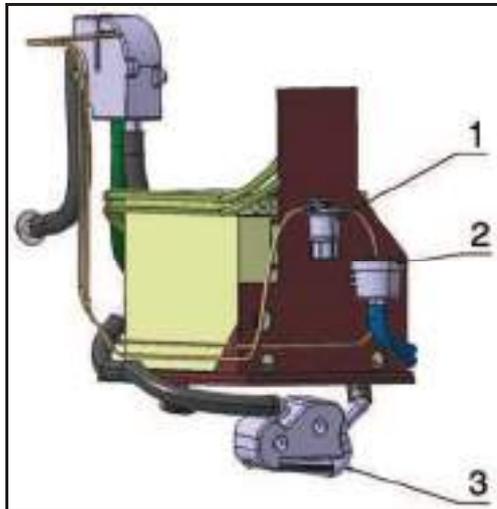
11.3 EQUIPMENT OTHER THAN FOR PROPULSION, WHICH BURNS FUEL (GENERATOR, HEATING)

11.3.1 General points

- Make sure that the ventilation openings in the engine (and generator, if installed) compartment are well cleared.
- Stop the engine and refrain from smoking during fuel tank filling.
- Get your fuel circuit checked regularly by a professional engineer.
- Avoid any contact between inflammable materials and the hot sections of the engine.
- Take all necessary precautions to avoid contact with naked flames and other hot areas.
- Do not obstruct or modify the ventilation system.
- Fuel stored outside the fuel tanks (jerry cans, spare cans) must be kept in a well-ventilated place.

11.3.2 Generator

Layout diagram



Reference	Designation
1	Fuel filter
2	Sea water filter
3	Water trap
4	Anti-siphon valve
5	Differential circuit breaker
6	Generator
7	Water - Gas separator
8	Seawater inlet
9	Seawater discharge
10	Outlet

General points

- The generator is a machine which can produce AC electrical power using mechanical power (fuel). The generator will feed the onboard equipment operating at 220V or 110V, moored or sailing.
- The generator starts with its own battery (12 V circuit).
- Make sure that there is enough fuel in the fuel tank before using the generator. The generator is supplied with fuel from the starboard tank.
- The cooling water and exhaust gases are separated in the separator to avoid noise pollution. The seawater is discharged below the waterline. The exhaust- pipe is located above the waterline. Check visually that the exhaust gases are being expelled properly. Make sure that the ventilator in the generator compartment is working.
- Check to see if any leaks appear (sea water, coolant, fuel, exhaust gases). If there is a leak, stop the generator at once and get the leak repaired.
- The generator is earthed by an earthing plate which is located under the hull (see earthing plate chapter).
- Maintenance of the generator must only be done by qualified and proficient personnel. Before working on the generator, it is imperative to isolate the generator's battery power, to prevent it from starting accidentally.
- The generator can be started by the switch on the generator or by the switch on the control panel (Touch screen).

Starting up

- Open the raw water intake valves and evacuation valves.
- Open the fuel supply valve.
- Turn the generator's battery switch to the ON position.
- Switch the generator's circuit-breaker to the ON position.
- Turn on the generator using the remote control (Touch screen).
or on the generator itself.
- Make sure that no AC equipment is running. Then set the shore power/ generator switch.

General view



In the event of the generator catching fire

- Don't open it.
- Cut the supply (electrical and fuel) to the boat's engines, to the generator and to the ventilators.
- Use the extinguisher access port on the generator to discharge the contents of the portable extinguisher.



- Please refer to the manufacturer's instructions for using the generator.
- Never start the generator when the climate function is already on. Always turn off the air conditioning before turning off the generator.
- Never connect the shore power to the generator: danger of electric shock.
- An extinguisher access port is provided on the generator to put out a fire starting in the generator.

Extinguisher access hole



Layout of components
Engine compartment

The control located on the equipment



Battery - 50A



1. Seawater discharge
2. Outlet
3. Anti-siphon valve
4. Sea water filter
5. Expansion tank
6. Battery charger
7. Fuel filter
8. Sea water intake

AC breakers
Generator / Shore
Generator / Air conditioning



Positive battery isolator switch & Negative terminal
Location: Cave





11.3.3 Warm air heating system

General points

- The heating is powered by DC supply. The electrical supply is provided by the onboard battery bank.
- A fuse protects the circuit.
- The fluid used for the heating is a mixture of water and coolant.
- You are advised to run the heating system for about 15 minutes every month (to prevent the operating components from becoming blocked/to refresh the fuel in the pipeline).
- The warm air heating system, installed at the back of the boat draws in the air outside via an integrated ventilator.
- The air warmed in the heating system is blown through the warm air ducts to the living area of the boat.
- The fuel is supplied via a feed pump by the fuel tank (Port side).
- The combustion system is separate from the heating system: The air intake for combustion is separate from the warm air heating system.
- The exhaust gases are expelled outside by an exhaust pipe with a silencer.
- The heating system compares the actual temperature with the desired temperature and automatically adjusts the heating power required.

Annual maintenance

- Clean or replace the fuel filter.
- Check that the heating ducts are in good condition.

Manual control

Location: Starboard saloon



Reference	Designation
1	Function selector (economy, normal, fast, ventilation)
2	ON/OFF
3	Temperature selector
4	Tell-tale

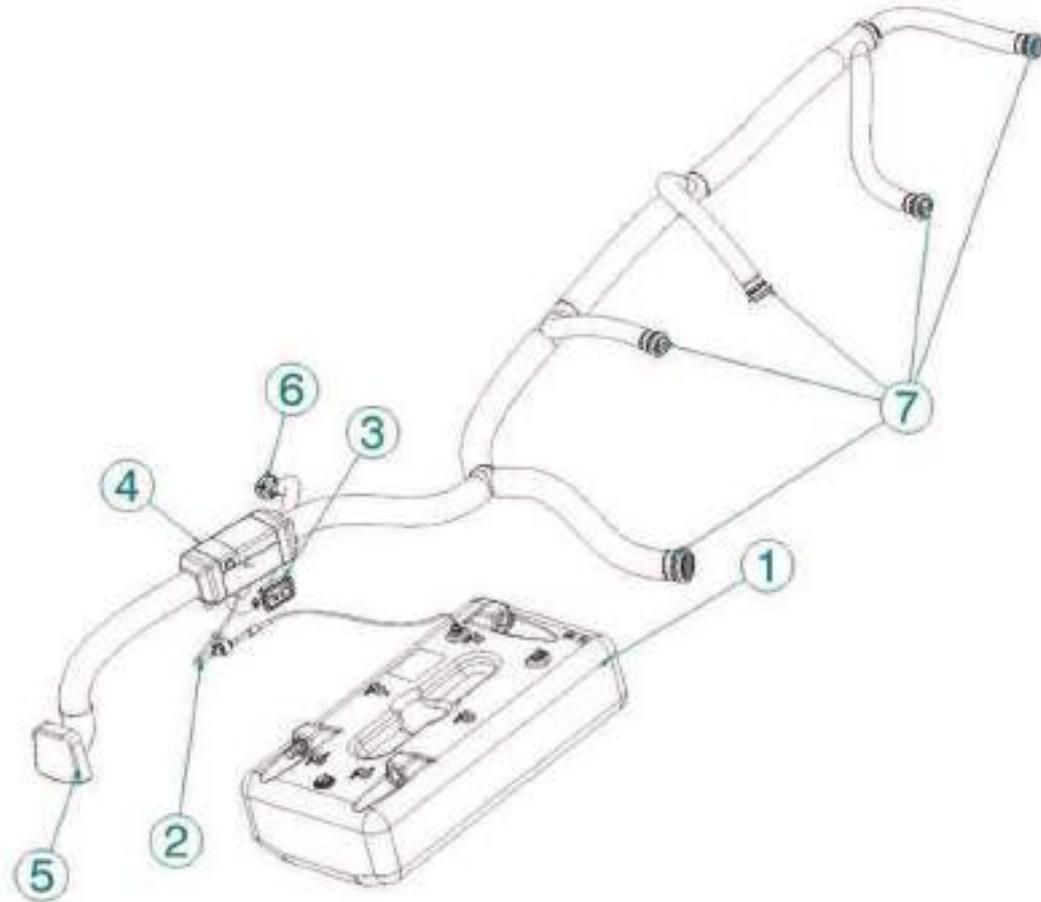


- Please refer to the manufacturer's instructions for the use and maintenance of the heating system.

- A sudden cut in the electrical supply risks damaging the heater: **REMEMBER TO SWITCH OFF THE HEATER BEFORE ISOLATING THE BATTERIES.**

- It is imperative to disconnect the electrical supply and to allow the hot components to cool before doing any maintenance or work on the heater.

Layout diagram



ONBOARD COMFORT

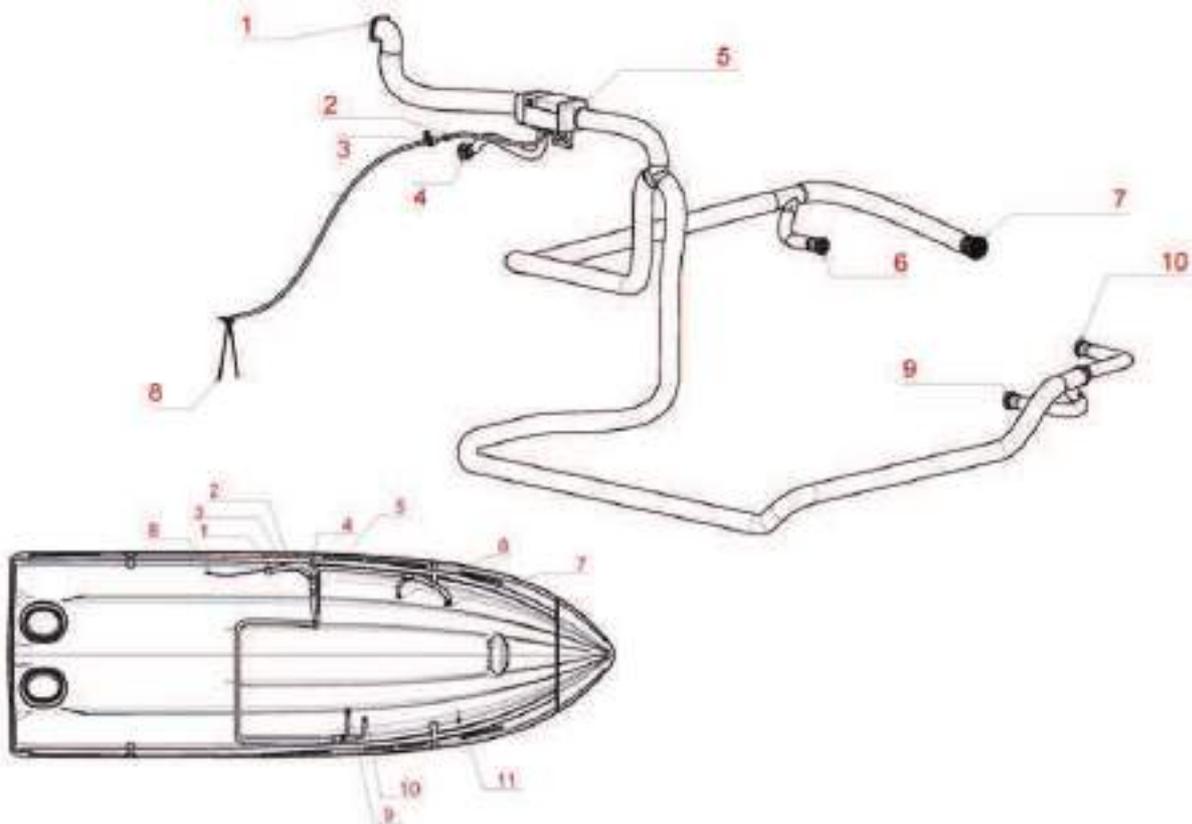
Reference	Designation
1	Diesel tank
2	Metering pump
3	Control box
4	Heater
5	Fresh air intake
6	Heating exhaust
7	Hot air openings



- The heater must be switched off when refilling the fuel tank.
- The heater's exhaust gases are very hot: they risk burning the shock mounts or the cables running too close to the exhaust outlet skin fitting.

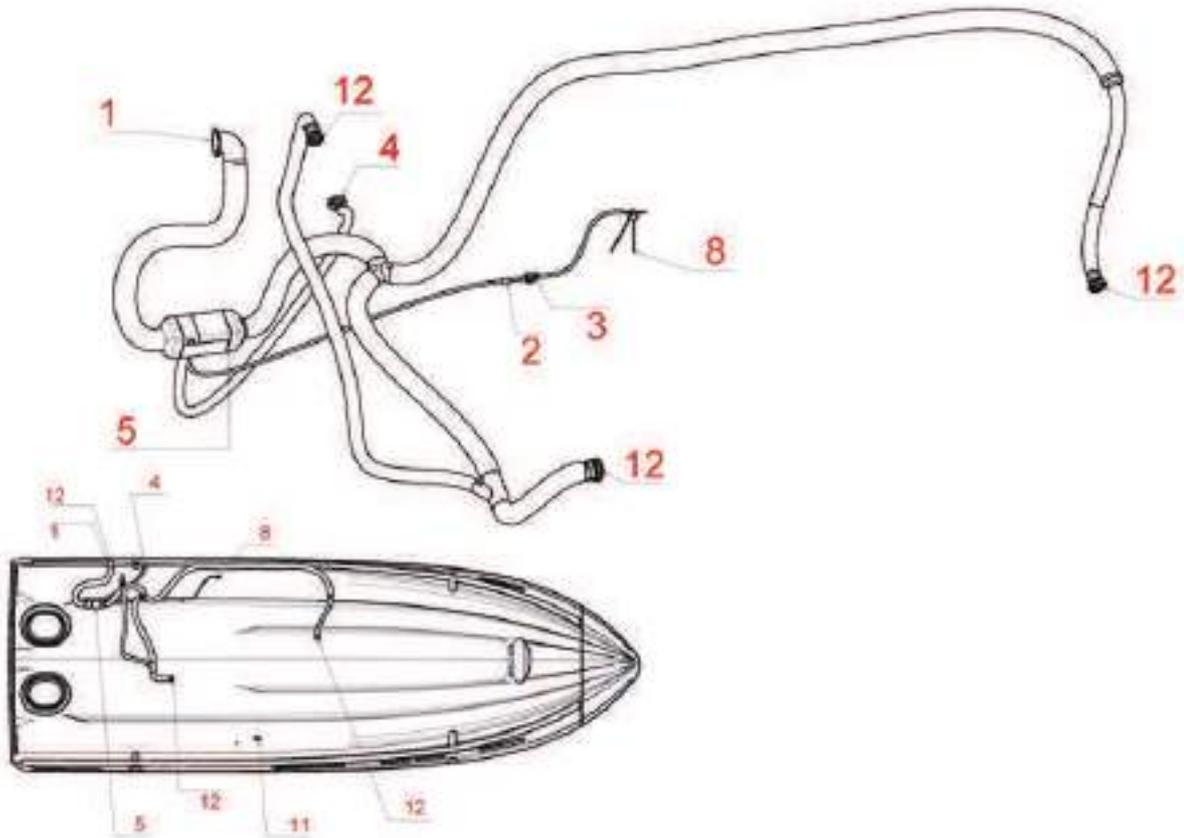
Diagram of the layout

Cabins



Reference	Designation
1	Fresh air intake
2	Fuel filter
3	Pump - Fuel
4	Outlet
5	Heater 12V - 5500W
6	Outlet - Heating - Head
7	Outlet - Heating - Forward cabin
8	Diesel connection
9	Outlet - Heating - Starboard cabin
10	Outlet - Heating - Head
11	Control + Sensor
12	Outlet - Heating - Wheelhouse

Wheelhouse



ONBOARD COMFORT

Heater



12 WATER SYSTEMS

12.1 GENERAL POINTS

- It is essential to rinse the entire on-board water system the first time the boat is used (The water system is protected in the factory by a dietary anti-freeze).
- The water tanks may have had an anti-algae treatment using a copper sulphate based product. It is advisable to renew the treatment according to the area in which the boat is sailing.
- Drain all the water systems during winterisation (in particular the cockpit shower and water heater) to avoid damage from freezing.
- Clean/change the filters regularly.



- Regularly check water-tightness of joints in the water system installations. Check that screws and bolts are well tightened and replace them if they are worn or corroded.

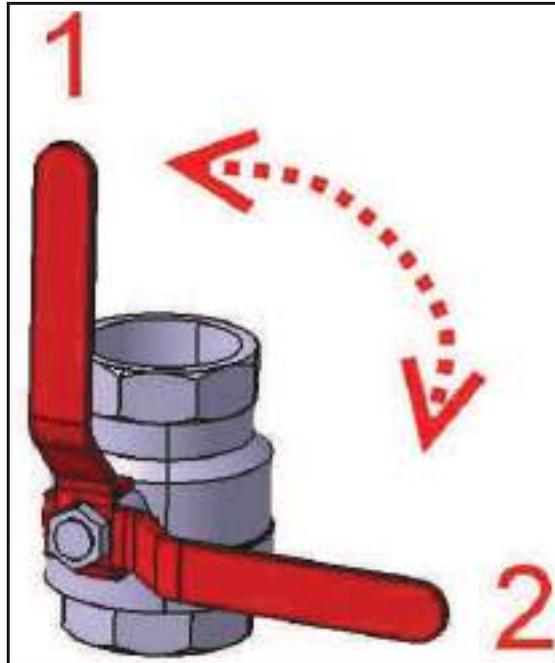
- Disconnect shore water supply before leaving the boat (if fitted).

- If the boat is sailing in temperatures below freezing, it is possible to use anti-freeze in the water systems: use a non-toxic anti-freeze marked for dietary use.

NEVER USE AUTOMOBILE ANTI-FREEZE: RISK OF POISONING.

12.2 USING A VALVE

The valve is shut when the valve handle is at right angles to the pipe, the valve is open when the valve handle is in line with the pipe.

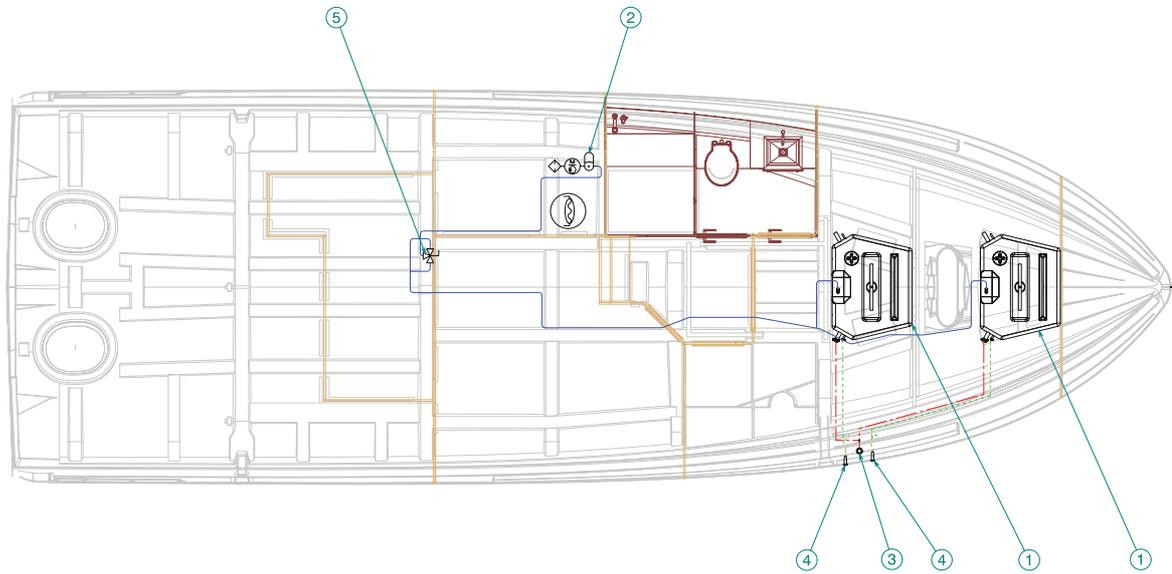


Reference	Designation
1	Open valve
2	Closed valve



- Valves have a lifespan of approximately 5 years. It is essential to have all valves on board checked by a professional every 5 years and possibly replace them.

12.3 FRESH WATER FILLING SYSTEM

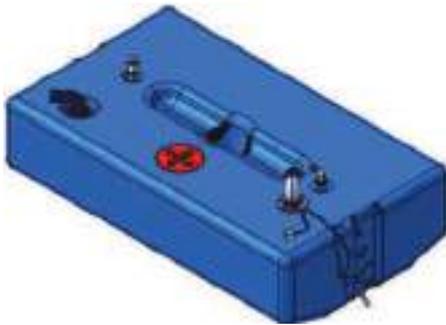


WATER SYSTEMS

	Supply pipe
	Pipe - Vent hole
	Pipe filling

Reference	Designation
1	Fresh water tank
2	Water unit
3	Deck filler
4	Tank vent hole
5	Tank selection valves

Water tank
Location: Forward cabin
Capacity: 206 litre x 2



Relationship between the tank number, its position and the gauge (Touch screen)

Tank no.1: Forward tank

Tank no.2: Aft tank

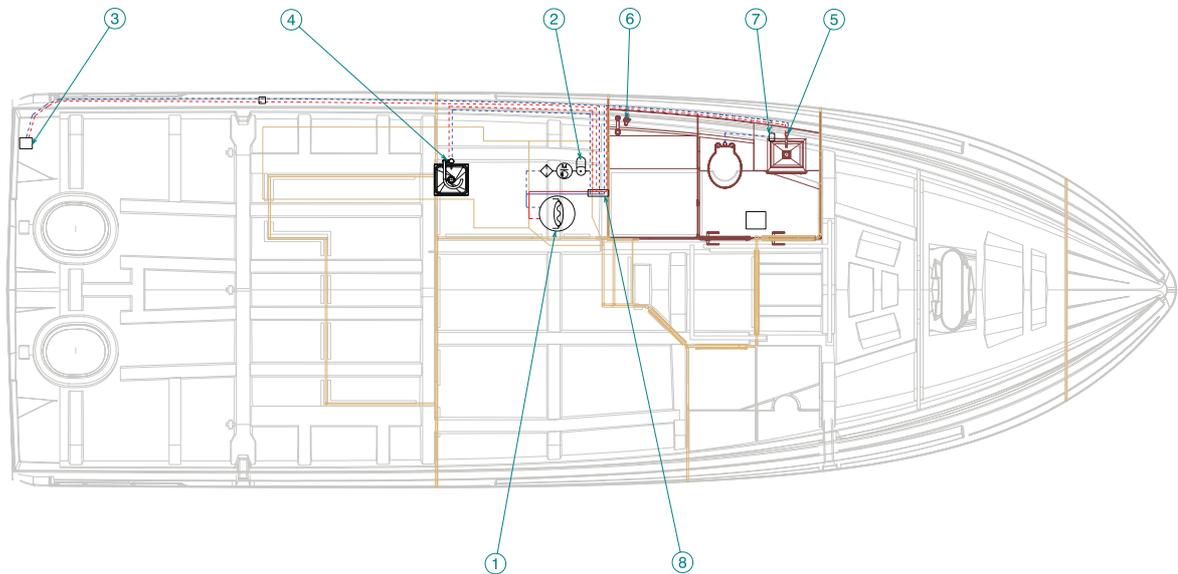


Water tank direction valves
Location: Cave



12.4 FRESH WATER DISTRIBUTION SYSTEM

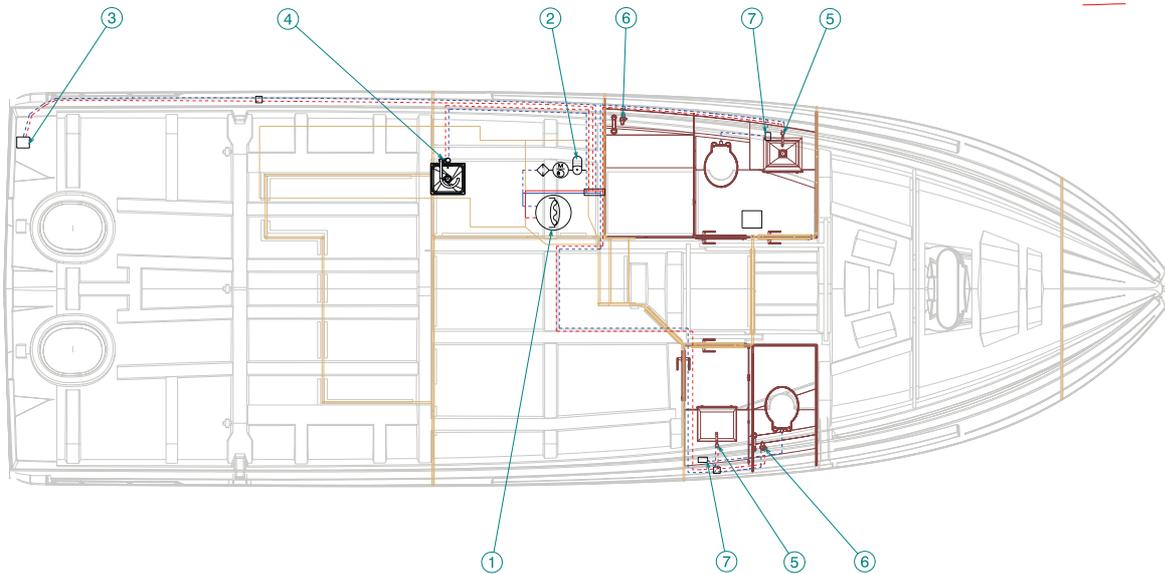
Version: 1 Head



	Pipe - cold water - Ø 19mm
	Pipe - hot water - Ø 19mm
	Pipe - cold water - Ø 12mm
	Pipe - hot water - Ø 12mm

Reference	Designation
1	Water heater
2	Water unit
3	Cockpit shower
4	Mixer tap - Galley sink
5	Washbasin mixer tap
6	Mixer shower
7	Valve - WC
8	Tank supply tap

Version: 2 head compartments



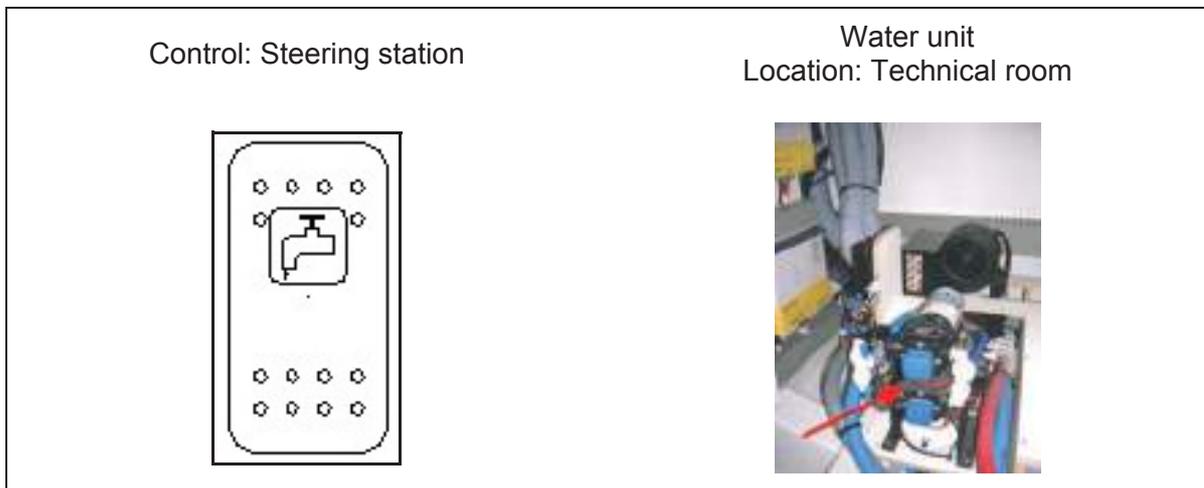
	Pipe - cold water - Ø 19mm
	Pipe - hot water - Ø 19mm
	Pipe - cold water - Ø 12mm
	Pipe - hot water - Ø 12mm

Reference	Designation
1	Water heater
2	Water unit
3	Cockpit shower
4	Galley sink
5	Washbasin
6	Shower
7	Electromagnetic valve - WC

12.5 MAIN PLUMBING EQUIPMENT

12.5.1 Water unit

- The water unit is supplied by direct current.
- It serves to feed all the boat's plumbing equipment with fresh water. It is fitted with a pressure switch that activates the flow when the pressure in the water system falls.
- The water unit must only be used with the fresh water supply. All other use (with sea water or bilge water, with oil products) is prohibited.
- The water unit control switch is inside the wheelhouse.
- Make sure that the water unit is never run dry.
- The pressure and capacity of the water unit depend on the temperature of the stored fresh water supply.



12.5.2 Cockpit shower

- The cockpit shower allows the use of fresh water for rinsing off.
- The shower is fitted with a mixer tap.

The tap has a dual function:

- It allows the water to be turned on/off ;
- It allows a choice of water temperature (hot water / Cold water).

Operation:

To use the shower, turn on the water by tipping the tap on its axis.

Then press the button on the top of the shower to allow the flow of water.

Choose the required temperature by turning the tap clockwise or anti-clockwise.

After using the shower, it is important to turn off the water by tipping the tap on its axis.

Location: Port cockpit



12.5.3 Deck wash pump (Sea water)

- The deck wash pump is supplied by direct current.
- The deck wash pump allows the deck or the boat's tender to be washed.
- The deck washer pump control switch is situated inside the wheelhouse.

Control: Steering station



Location: Cockpit

1. Control - Deck wash pump
2. Connection - Cockpit



Location: Engine compartment - Port side

3. Sea water intake
4. Deck wash pump + Filter



Connection - Mooring locker

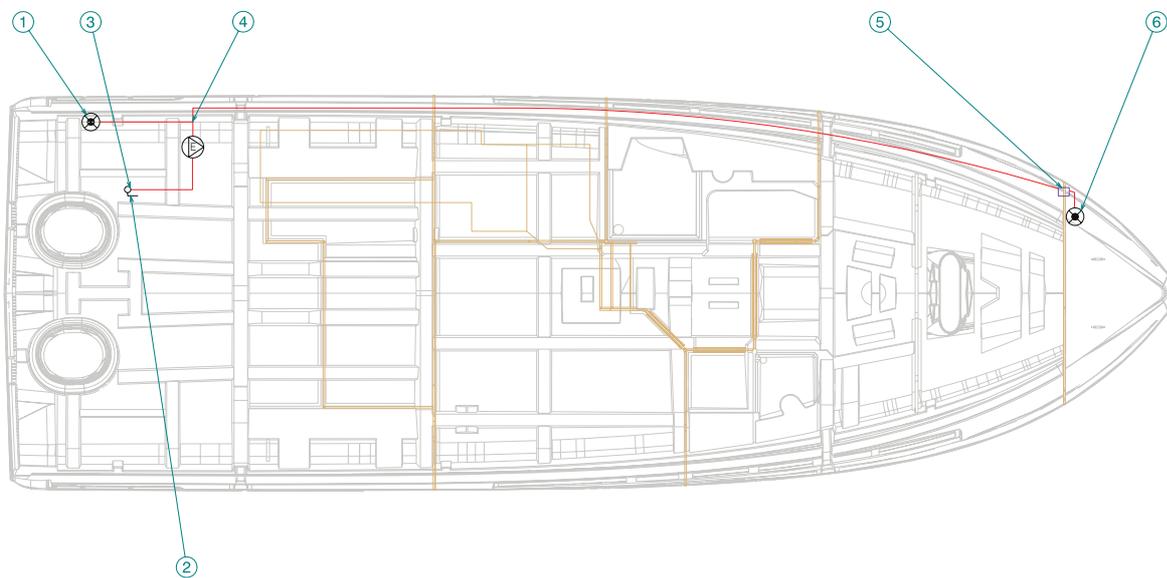


Operation

- Open the sea water intake valve.
- Attach a hose to the connector provided in the cockpit.
- Start the pump.



Diagram of the layout - Deck wash pump



Reference	Designation
1	Connection - Cockpit
2	Deck wash pump
3	Seawater inlet
4	Join Y
5	Mooring locker
6	Connection - Mooring locker

12.5.4 Shore freshwater supply

- The shore fresh water supply arrives directly into the fresh water plumbing system via the water unit, without passing through the tanks.
- A non-return valve in the distribution circuit allows the shore supply water to be used without opening the valve.
- The shore water supply connection is located in the cockpit.
- **Disconnect shore water supply before leaving the boat.**



12.5.5 Water heater

- The water heater allows the use of hot water on board the boat.
- The water heater operates by recovering heat from the starboard engine cooling circuit or by means of the boat's AC electrical circuit.
- The water heater thermostat regulates the water temperature only when it is operating with electrical resistance. The thermostat is pre-set in the factory.
- The mixer tap allows the temperature leaving the water heater to be adjusted.
- Never switch on the water heater if it is not filled with water.
- A valve/supply tap allow the water heater to be connected to the heat exchanger. This valve allows you to isolate a faulty circuit.

Location: Technical room



Supply valve - Starboard engine /
Water heater

1. Water heater - 40 litre
2. Thermostatic mixer valve



12.5.6 Ice maker (Ice maker)

General points

- The ice maker provides a supply of ice from the onboard water system.
- The ice maker runs on the AC power supply.
- A circuit-breaker protects the circuit.

Operation

- The ice maker is supplied with water from the tanks via a supply valve.
- Turn on the water unit to supply the ice maker.
- Open the supply valve onboard water / ice maker.
- Turn on the AC power (shore or generator) and actuate the ice maker circuit-breaker.
- Start the ice maker using the control on the appliance.

Maintenance

- A carbon filter is installed in the ice maker water system. Change the filter regularly.
- Clean the evaporator with a damp cloth at least once a year. Never use cleaners which are abrasive, acid or which contain solvents for cleaning the evaporator.
- Clean the hinge of the ice maker door regularly with a damp cloth.
- Clean and defrost the ice maker regularly.
- During overwintering, leave the ice maker door open to avoid mould and odour formation.
- During prolonged absences, drain the ice maker system to avoid damage caused by freezing.



- Refer to manufacturer's instructions for use and maintenance.
- Never heat or use tools to defrost the inside of the fridge more quickly.
- Never obstruct the heat exchanger of the fridge.

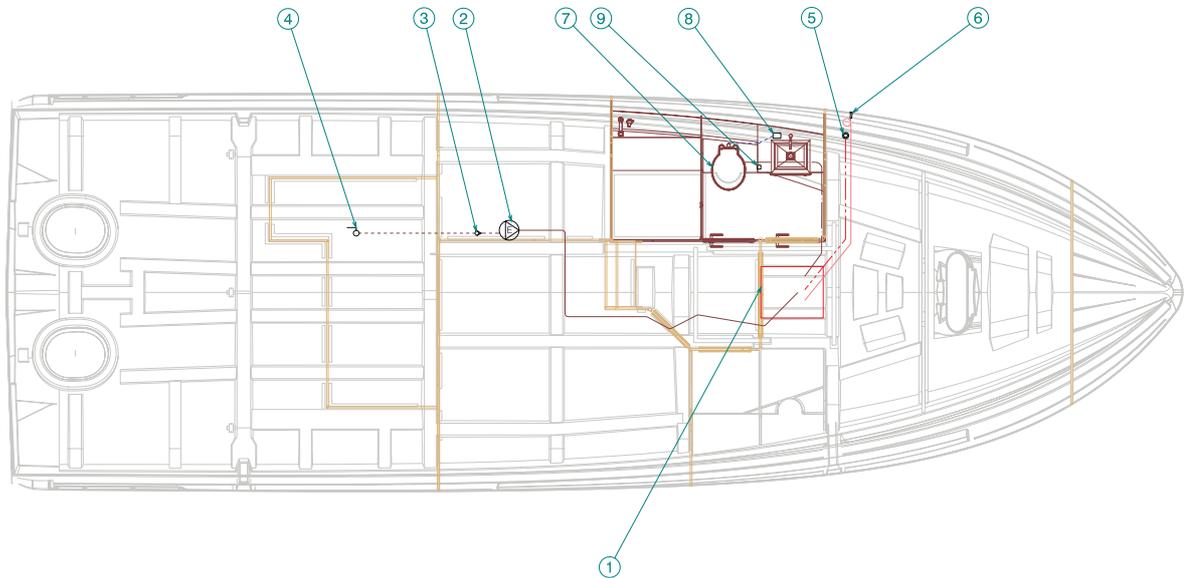
12.6 BLACK WATER SYSTEM (WC)

General points

- Black water is human waste including the flushing water from the toilets.
- Close the valves after each use and above all when the boat is unattended.
- Regularly check the valves and thru-hull seacocks for proper operation and watertightness.
- Regularly check the tightness of the flexible pipe clamps and connections.

12.6.1 Location diagram of black water system

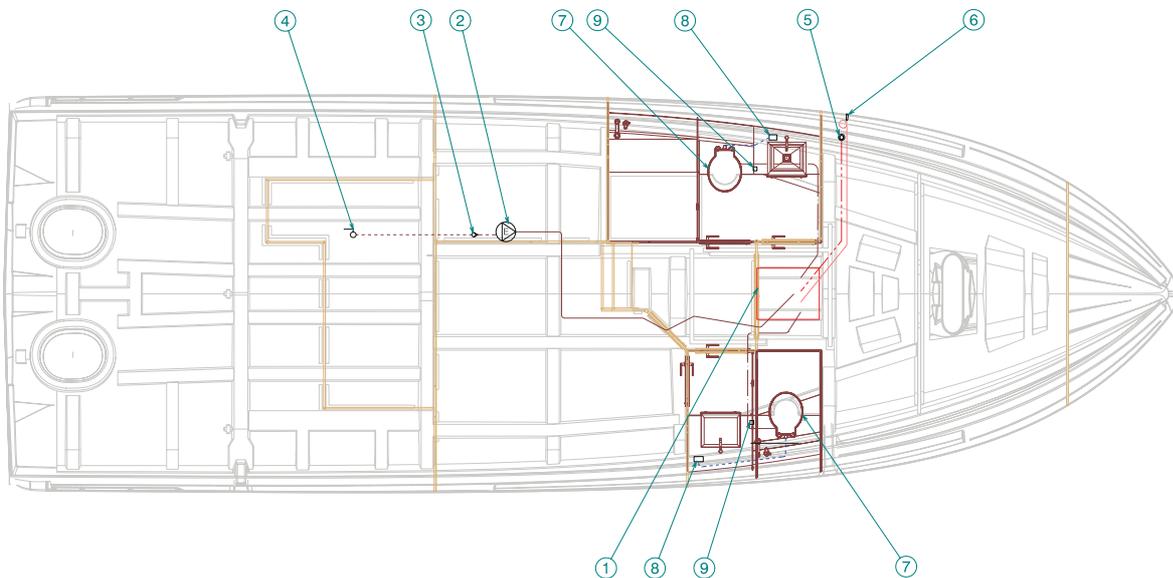
Version: 1 Head



	Supply pipe - Fresh water - Ø 20mm
	Pipe - Vent hole - Ø 25mm
	Draining hose - Ø 25mm
	Pipe - Intake - Ø 50mm
	Pipe - Intake - Ø 38mm
	Pipe - Sewage - Ø 25mm

Reference	Designation
1	Black water tank - 120 litre
2	Pump - Masher (Sewage drainage to sea)
3	Non-return valve
4	Thru-hull fitting (WC evacuation to sea)
5	Filler cap - Intake (WC evacuation - Deck)
6	Vent hole
7	Electric toilet
8	Electromagnetic valve
9	Switch - WC

Version: 2 head compartments



	Supply pipe - Fresh water - Ø 20mm
	Pipe - Vent hole - Ø 25mm
	Draining hose - Ø 25mm
	Pipe - Intake - Ø 50mm
	Pipe - Intake - Ø 38mm
	Pipe - Sewage - Ø 25mm

Reference	Designation
1	Black water tank - 120 litre
2	Pump - Masher (Sewage drainage to sea)
3	Non-return valve
4	Thru-hull fitting (WC evacuation to sea)
5	Filler cap - Intake (WC evacuation - Deck)
6	Vent hole
7	Electric toilet
8	Electromagnetic valve
9	Switch - WC



YOUR BOAT IS FITTED WITH A BLACK WATER TANK

To minimise the smells coming from this tank, we advise the following use and maintenance:

1) Holding tank

- A black water tank is used solely for the temporary collection of water coming from the toilets.
- The tank can be emptied in 2 ways:
 - By connection to a pumping system that empties the tank by suction. This system uses the 'WASTE' deck connection.
 - Via the thru-hull fitting emptying directly into the sea (on condition that this is allowed by law in the country where the boat is sailing).
- Only use water soluble toilet paper to avoid any blockage.

Note: Sanitary towels and other items (paper handkerchiefs, dressings etc) in the toilets and black water tank will inevitably lead to blockages.

- Faecal matter causes formation of unpleasant odours in the black water tanks, to which the use of salt water for flushing the toilets also contributes. Algae present in salt water also give off unpleasant odours.
- Completely empty the black water system before leaving the vessel unattended in temperatures below freezing.
- Ask for information about the laws in force in your country or your marina about discharging your waste waters into the sea.

2) Use of toilets

- Every time the toilets are used, flush afterwards with copious amounts of water in the bowl using the toilet pump (manual or electric).
- When you are leaving the boat for several days, flush with fresh water, using for example the head's shower. Sea water that stagnates in the bowl gives off bad smells.

3) Maintenance of black water tank

- The risk of unpleasant odours forming increases when the waste water remains in the tank for a long time.
- Whenever possible empty the tank regularly even before it is full.
- Every time the tank is emptied put in about 5 litres of fresh water and add an appropriate detergent additive (available from chandleries). A very simple method is soda salts, which clean and disinfect at the same time.
- Before winterising, flush the tank with copious amounts of fresh water filling it through the 'WASTE' deck connection. Leave at least 5 litres of fresh water mixed with a detergent additive.
- Disinfecting: Disinfect the tank once a year by filling it with a solution of Javel water (1 to 1000).



- Never use automobile anti-freeze in the black water system: risk of poisoning.

ADVICE-RECOMMENDATION

- Respect local regulations regarding the emptying of black water tanks.

Black water tank
Capacity: 120 litre
Location: Forward cabin



Masher
(Pump - WC evacuation to sea)
Location: Technical room



WC evacuation to sea
Access: Cave



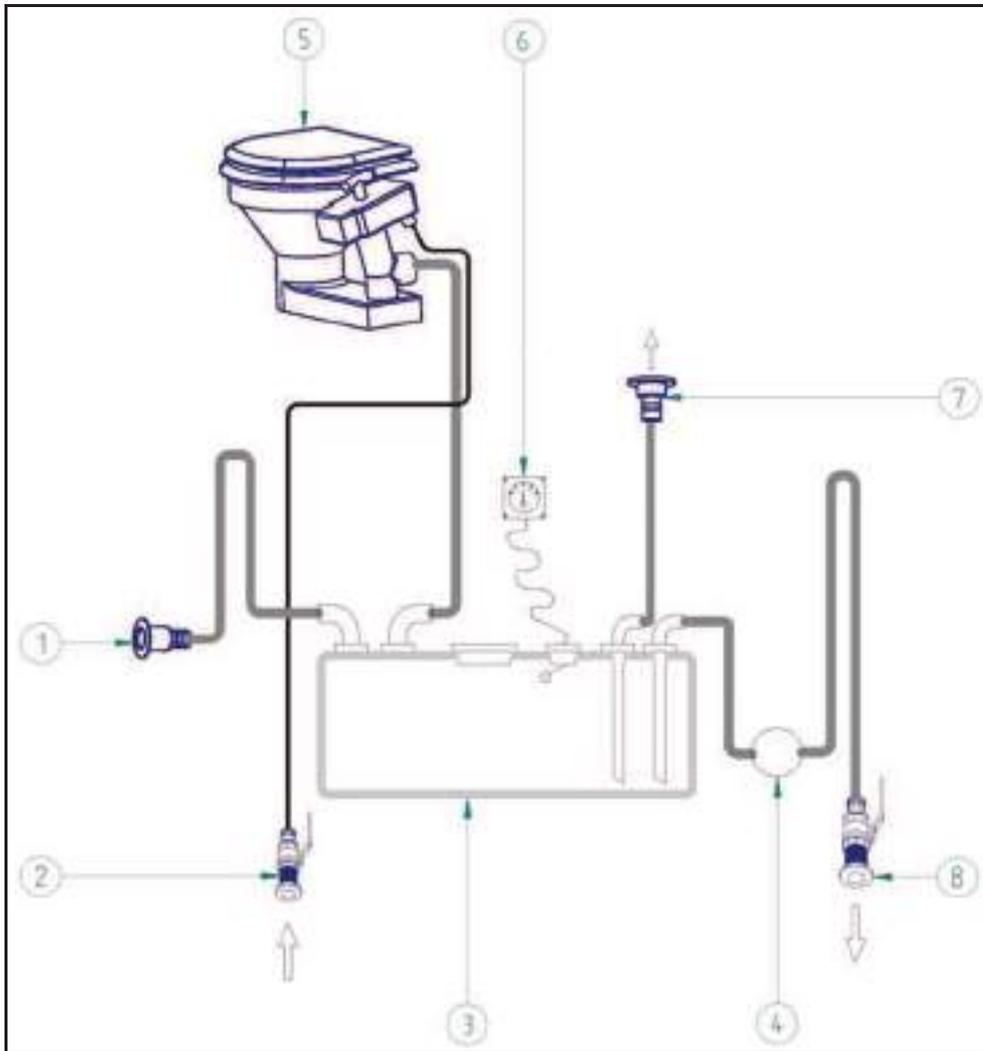
Location: Port washroom



1. Black water tank gauge
2. Masher control

NOTE: The valve must be opened before starting the pump.

Layout diagram of black water system
Drainage by electric pump DC (Masher)



Reference	Designation
1	Vent hole
2	Seawater intake valve
3	Black water tank
4	Masher (WC drainage pump)
5	WC
6	Gauge
7	'WASTE' deck connection
8	Sea discharge valve



Using a marine toilet with a tank drain by macerator

- I. Open the sea water intake valve (Ref 2).
- II. Fill the bowl by using the manual toilet pump.
- III. Using the toilet (Ref 5).
- IV.a. To empty the organic waste in the tank:
 - Make sure the thru-hull seacock (Ref 8) is closed.
 - Empty the bowl using the manual toilet pump.
- IV.b. In the case of a direct discharge into the sea:
 - Open the thru-hull seacock (Ref 8).
 - Empty the bowl using the manual toilet pump.
 - Empty the tank by switching the electric pump (Ref 4).
- IV.c. To discharge through the deck:
 - Open the deck connection marked 'WASTE' (Ref 7).
 - Use the pump-out system where fitted at a port.

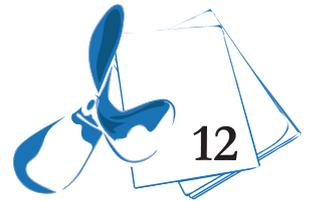
Use of a DC electric toilet has a tank-discharge macerator

- I. Open the sea water intake valve (Ref 2).
- II. Fill the bowl by pressing the fill button.
- III. Using the toilet (Ref 5).
- IV.a. To empty the organic waste in the tank:
 - Make sure the thru-hull seacock (Ref 8) is closed.
 - Empty the bowl by pressing the empty button.
- IV.b. In the case of a direct discharge into the sea:
 - Open the thru-hull seacock (Ref 8).
 - Empty the bowl by pressing the empty button.
 - Empty the tank by switching the electric pump (Ref 4).
- IV.c. To discharge through the deck:
 - Open the deck connection marked 'WASTE' (Ref 7).
 - Use the pump-out system where fitted at a port.

Control - Electric toilet



Refer to manufacturer's instructions for use and maintenance.



12.7 WASTE WATER SYSTEM

General points

- The waste water system is the water coming from the sink, showers, air conditioning drains and washbasins. All this water is collected in the grey water tank, drained via a discharge pump controlled by a float switch.
- Close the valves after each use and above all when the boat is unattended.
- Regularly check the valves and thru-hull seacocks for proper operation and watertightness.
- Regularly check the tightness of the flexible pipe clamps and connections.

Use of the waste water tank

- A sensor with automatic pump activation enables the tank contents to be emptied. If the house electricity system is off the tank will not empty.
- When the DC supply light shows, a 3 -minute drainage cycle automatically starts up.

ADVICE-RECOMMENDATION

- Observe local regulations regarding the emptying of grey water tanks.

Drainage of the waste waters
Access: Cave



Collector - Waste water
Location: Companionway
Capacity: 50 litre



Pump - Drainage of the waste waters
Location: Technical room



Shower plug hole



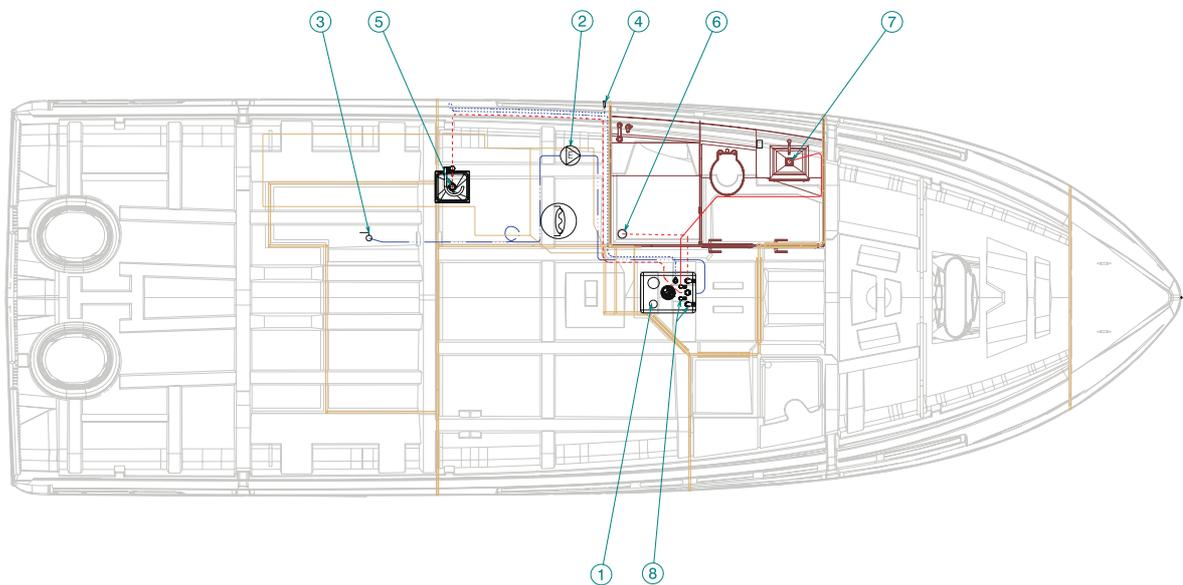
Shower screen



Must be secured while sailing

Diagram of the layout - Waste water system

Version: 1 Head

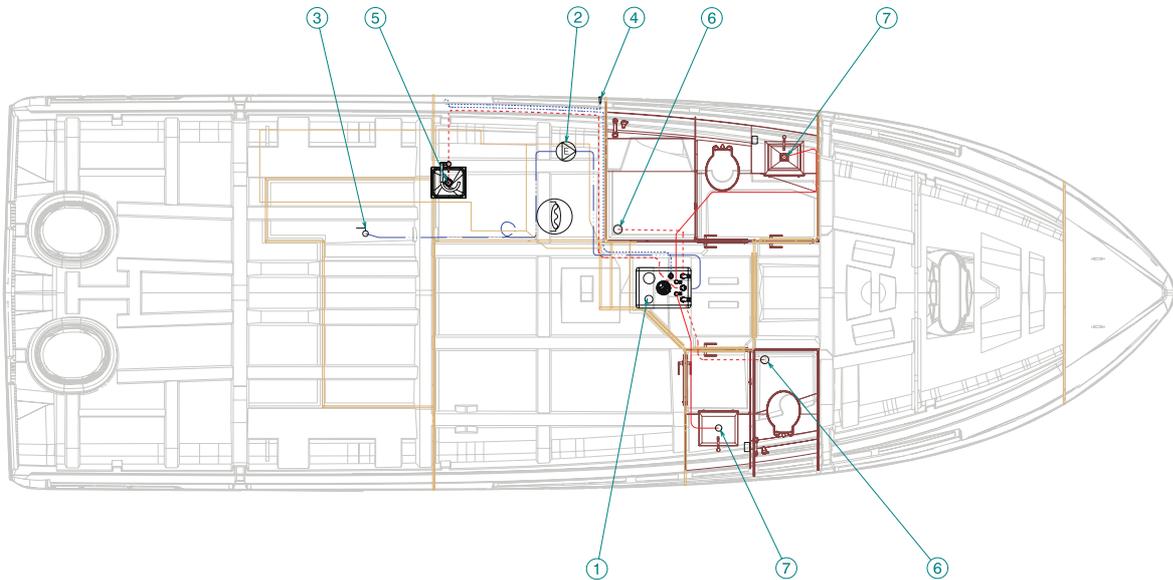


WATER SYSTEMS

	Pipe - Vent hole - Ø 16mm
	Pipe - Waste water - Ø 20mm
	Pipe - Waste water - Ø 25mm
	Pipe - Waste water - Ø 40mm

Reference	Designation
1	Collector - Waste water - 50 litre
2	Pump - Drainage of the waste waters
3	Thru-hull fitting
4	Vent hole
5	Drain plug - Galley sink
6	Shower plug hole
7	Washbasin drain plug
8	Plugs

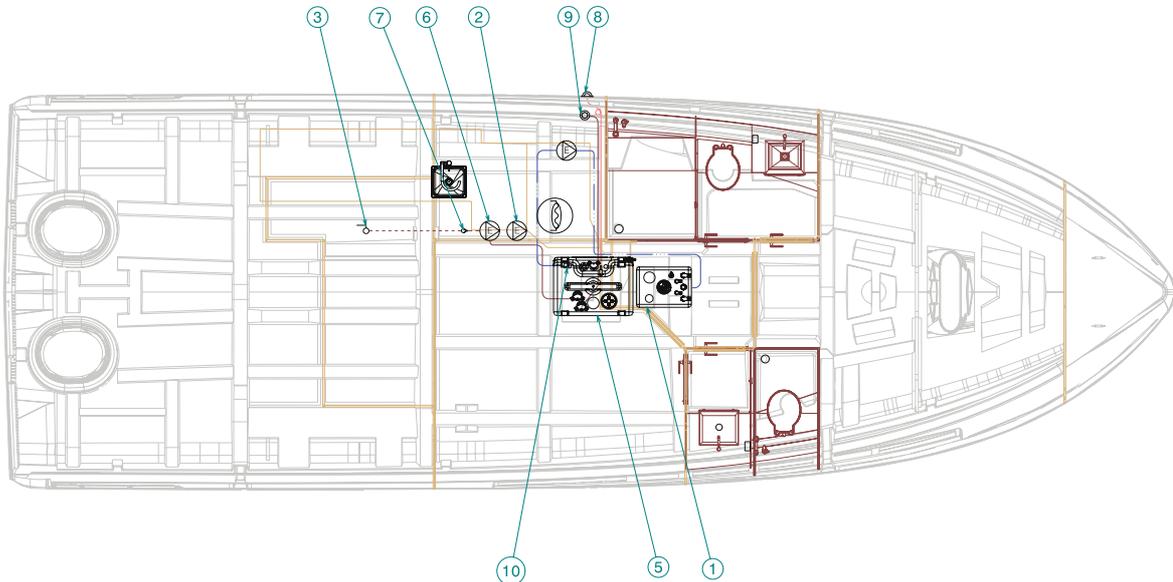
Version: 2 head compartments



	Pipe - Vent hole - Ø 16mm
	Pipe - Waste water - Ø 20mm
	Pipe - Waste water - Ø 25mm
	Pipe - Waste water - Ø 40mm

Reference	Designation
1	Collector - Waste water - 50 litre
2	Pump - Drainage of the waste waters
3	Thru-hull fitting
4	Vent hole
5	Drain plug - Galley sink
6	Shower plug hole
7	Washbasin drain plug

Diagram of the layout - Waste water tank (Optional equipment / specification for SWITZERLAND)



	Pipe - Vent hole - Ø 16mm
	Pipe - Waste water - Ø 20mm
	Pipe - Waste water - Ø 25mm
	Pipe - Waste water - Ø 40mm
	Pipe - Vent hole - Ø 25mm

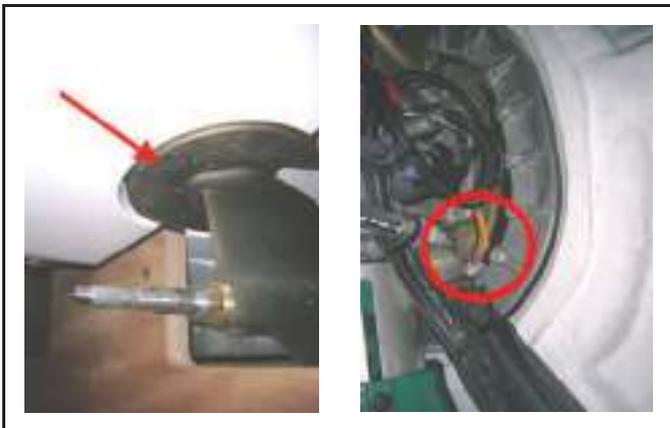
Reference	Designation
1	Collector - Waste water - 50 litre
2	Pump
3	Thru-hull fitting
4	Vent hole
5	Tank - Waste water
6	Pump discharge - Waste water
7	Non-return valve
8	Vent hole
9	Filler cap - Intake (Drainage - Waste water - Deck)
10	Adapter

13 ENGINE

13.1 INFORMATION ABOUT THE RISKS OF FIRE AND OF EXPLOSION OF ENGINES

- Make sure that the coolant is circulating properly.
- Ensure that the engine compartment ventilation air inlets are kept clear.
- Stop the engine and refrain from smoking during fuel tank filling.
- Get your fuel circuit checked regularly by a professional engineer.
- Avoid any contact between inflammable materials and the hot sections of the engine.
- Never switch off or de-energise the electric system when the engine is running.
- Never block the access of the fuel supply valve.
- Do not obstruct or modify the ventilation system.
- Never turn the engine over when the boat is on land.
- Fuel stored outside the fuel tanks (jerrycans, spare cans) must be kept in a well-ventilated place.
- Regularly check that the engine compartment is clean and dry.

Engine water intake valve: Located directly on the saildrive



Fuel supply valve: located directly on the tank



13.2 DANGER FROM MOVING MECHANICAL PARTS

- Keep away from the moving parts of the engine (belts and moving parts or hot components) and the drive shafts etc..
- Be careful if you have long hair, bulky clothing, rings etc (at risk of being caught).

13.3 GENERAL POINTS

- Don't install an engine more powerful or heavier than recommended on this boat, this risks compromising the boat's stability.
- Make sure you have enough fuel before sailing.
- Stop the engine before opening the engine compartment.
- Don't close the fuel supply valve between each use of the engine (unless for a lengthy absence).
- Get the whole propulsion system checked at least once a year by a professional engineer. see the chapter on "Manoeuvrability".

Always start the engine with the control lever in neutral.

ADVICE-RECOMMENDATION

- Regularly check that the O ring on the filler cap is in good condition, to prevent any water ingress.
- Keep the fuel tank as full as possible to prevent condensation.
- Be careful with any possible risk of oil and fuel spillage.
- Follow the engine manufacturer's instructions exactly.
- **Never switch off the battery breakers when the boat's engine is running (risk of serious damage to the charging circuit).**

13.4 STARTING THE ENGINE

Before starting the engine, it is imperative:

- to open the fuel supply valve ;
- to open the sea water intake valve of the engine ;
- to switch on the battery supply by using the battery isolator switches ;
- to put the control lever in neutral ;

Make a habit of looking to see if sea water is pumped out with the exhaust gases as soon as you start the engine. If no water runs out, stop the engine immediately. Check the coolant flow.

Engine compartment is ventilated via the ventilators located on the aft sides of the boat. Regularly check/clean the foam in these ventilators.



- Before using the engine, make sure you carefully read the handbook provided by the engine manufacturer.



- Always start the engine with the control lever in neutral.
- Learn how to judge the necessary distance of deceleration for the vessel to come to a complete stop (The reverse gear is not a brake).

Type of motorisation

Your boat is fitted with two in-board diesel engines.

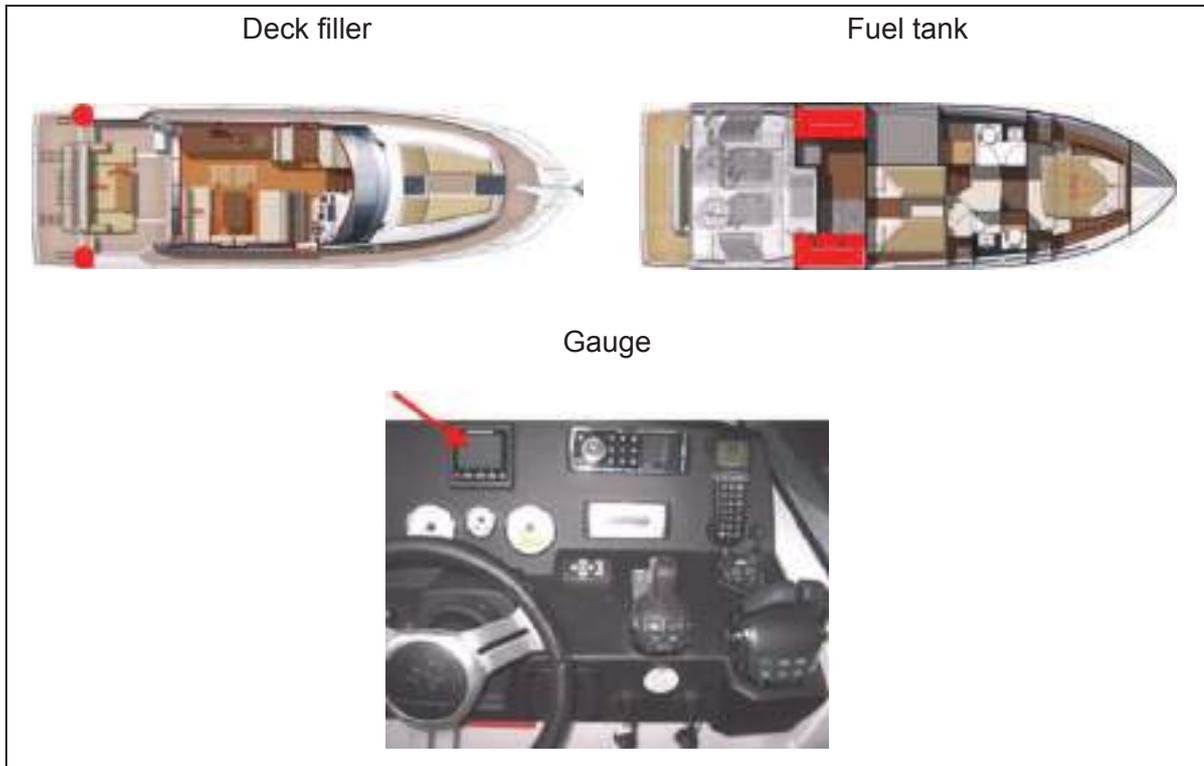
The transmission is POD type.

Filling up with fuel

- Fill the fuel tank by opening the cap marked "DIESEL", provided for this.
- Fuel capacity: 2 x 450 litre.
- Position of tanks: Engine compartment
- Regularly check that the O ring on the filler cap is in good condition, to prevent any water ingress.
- Each fuel supply valve supplies one engine.
- The generator has its own fuel supply valve.

Gauge

- The level of fuel is transmitted to the indicator on the wheelhouse thanks to the dipstick.
- Some of the gauges must be calibrated when you first fill the tanks: please consult your dealer.



- The tanks' nominal capacity cannot be fully used due to the load and the need to maintain the correct trim. A 20% reserve should be kept.

13.5 ENGINE WATER INTAKE VALVE

The sea water intake valve plays a crucial role in ensuring that the engine runs well.

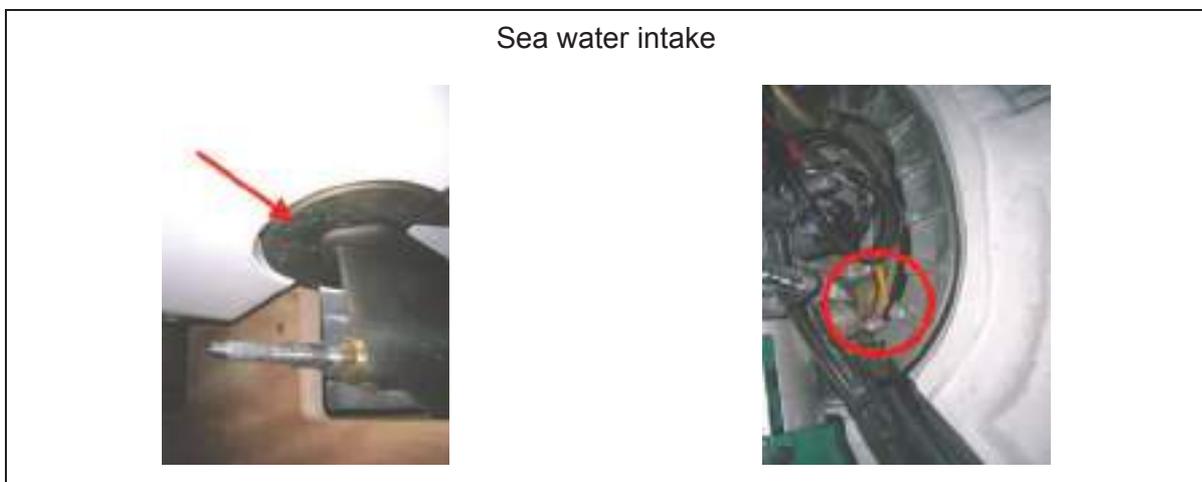
- Keep the strainer under the hull as clean as possible ;
- Brush the strainer whenever the boat is lifted out ;
- Don't cover the strainer in antifoul.

This valve must absolutely always be opened before starting the engine.

A sea water filter filters the water before it goes through the heat exchanger (supplied by the engine manufacturer).

Regularly inspect the sea water filter and clean it if necessary.

For lengthy absences, close the engine's sea water intake valve.



13.6 FUEL FILTER

Engine running problems may have different origins, including dirty fuel. The injection pump may wear out if there is water in the system. The water results either from the condensation resulting from an insufficiently filled tank, or from a filler cap either not closed properly or with a damaged seal.

In order to prevent any water infiltration, the fuel runs through two filters:

- One filter is an integral part of the engine, its role is to filter fuel very finely. Please refer to the engine manufacturer's notes for any maintenance and for the frequency of filter changes.
- The second filter is on the pipe that links the tank to the engine, it plays the role of a water decanter and prefilter.

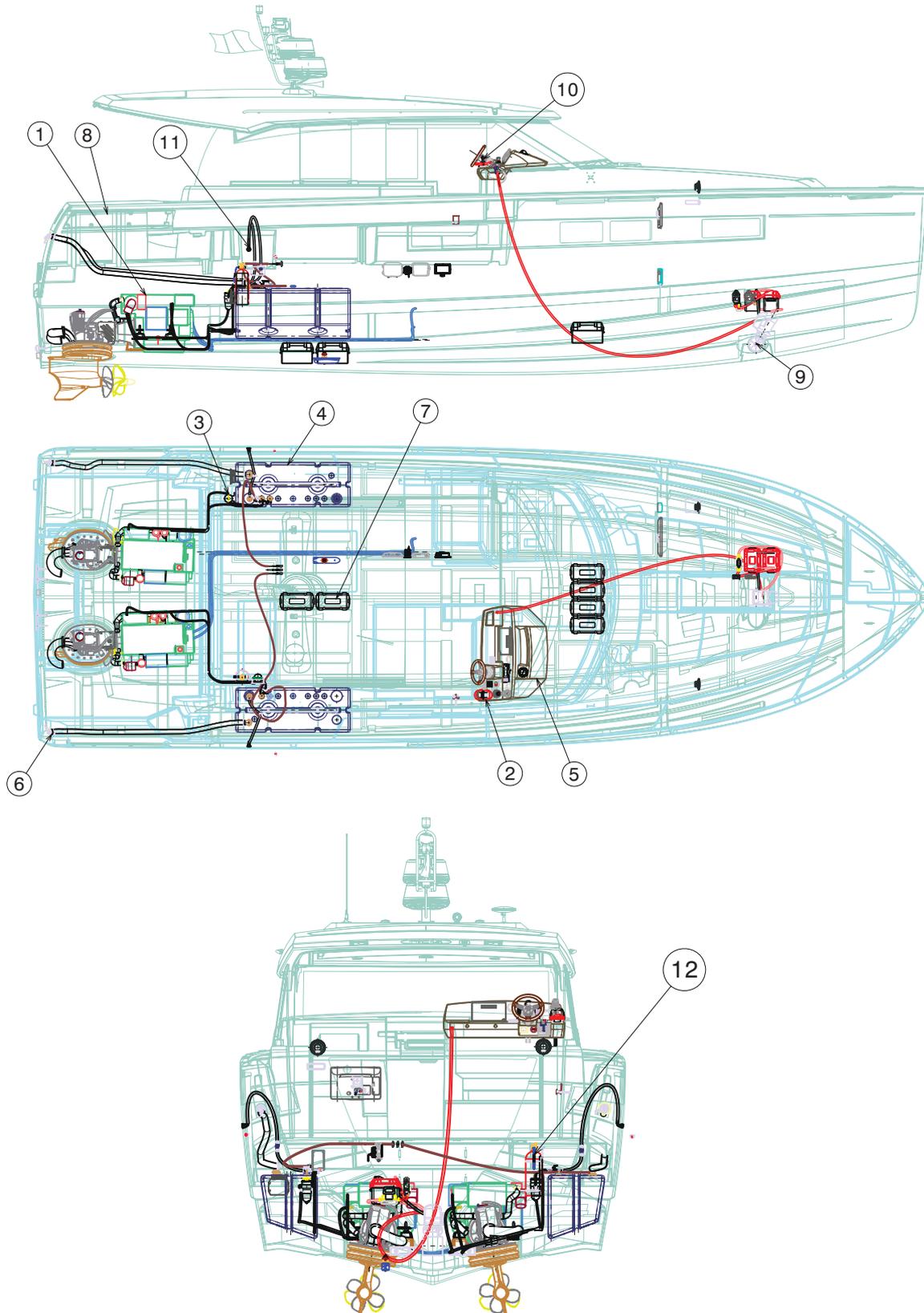
Maintenance

- Purge the impurities by unscrewing the screw located at the base of the decanting bowl (without removing it). Let the liquid run into a receptacle until the fuel runs clear. Do this several times a year.
- Change the pre-filter at least once a year.



13.7 ENGINE INSTALLATION

Diagram of the in-board engine layout





Reference	Designation
1	Engine
2	Engine control
3	Fuel filter
4	Fuel tank
5	Instrument panel - Engine
6	Deck filler
7	Battery
8	Ventilation
9	Bow thruster
10	Steering
11	Vents
12	Fixed extinguisher

ENGINE

POD engine installation



13.8 ENGINE CONTROL

- The engine manufacturer's notes provide detailed explanations on how to operate the engine and keep it running well.
- Read the manufacturer's notes on use and maintenance of the engine.





13.9 ACCESS TO THE ENGINE

The access to the engine is via:

- The cockpit.

All access hatches to the engine absolutely must be kept shut when at sea.

13.10 FLAPS

General points

- The flaps (trim control system) allow the pilot to adjust the boat's trim under way and thus to reduce fuel consumption.
- The flaps run on DC power.
- A fuse protects the electrical circuit.
- They are operated by means of a push button situated on the wheelhouse and their position is adjustable.
- The flaps only work when the boat's engines are running.

ADVICE-RECOMMENDATION

- Refer to manufacturer's instructions for use and maintenance.
- Adjust the flaps gradually to avoid abrupt hull movements. At high speeds, take care when adjusting the flaps.
- Retract the flaps fully if there is a heavy swell on the stern of the boat.

General points

The flaps are controlled electrically.

The actuator is mechanical.

The flaps need to be protected by an anode (see the chapter on Electricity).

Operation

When the tabs are lowered, the bow of the boat has a tendency to lift out of the water.

When the tabs are raised, the bow of the boat has a tendency to drop.

Maintenance

Clean the tabs regularly with clean water.

During lift-outs, repaint the tabs and actuator with antifouling. Do not cover the section below the anode or the anode itself with antifouling.

Control
Location: Steering station



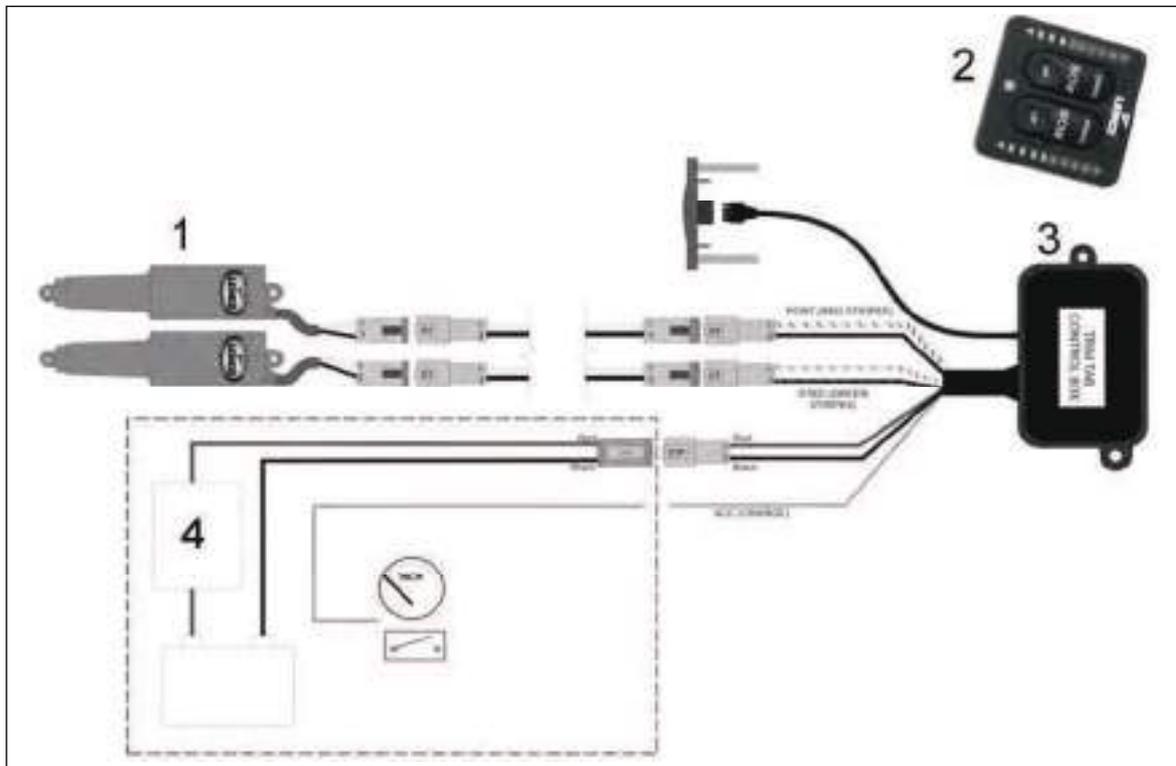
Trim tab box
Location: Engine compartment
(Port side)



Flaps



Layout diagram



ENGINE

Reference	Designation
1	Mechanical actuator
2	Control panel
3	Control box
4	Fuse

13.11 PROPELLER

- The propeller delivered with the boat represents the end result of trials carried out in collaboration with the engine manufacturer. Never change the propeller without first consulting a professional engineer.
- Propeller efficiency will drop if the propeller blades are damaged in any way or dirty: regularly clean the blades carefully.
- During a lift-out, check the propeller: it should turn freely on its axis and there should be no play.
- Boats with twin engines are equipped with counter-rotating propellers.

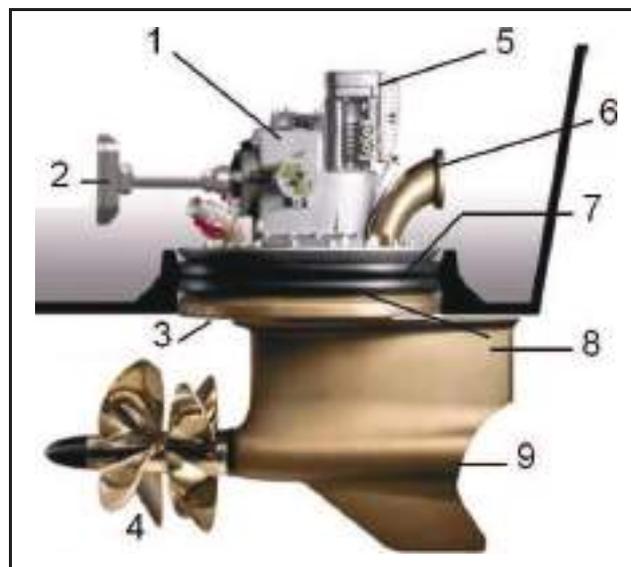


- Respect speed limits.

14 STEERING SYSTEM

14.1 GENERAL POINTS

- The steering is electric.
- The steering system is an important safety feature. For this reason, the annual inspection of the whole system must be carried out by a professional engineer.
- The EVC (Electronic Control Vessel) system controls the whole of the steering system: reverse, acceleration, base rotation.
- The steering system is an important safety feature. For this reason, the annual inspection of the whole system must be carried out by a professional engineer.



Reference	Designation
1	Electrically controlled hydraulic reverse
2	Shaft
3	Seawater inlet
4	Counter-rotation propeller
5	Steering
6	Outlet
7	Watertight ring
8	Base
9	Exhaust

14.2 BOW THRUSTER

General points

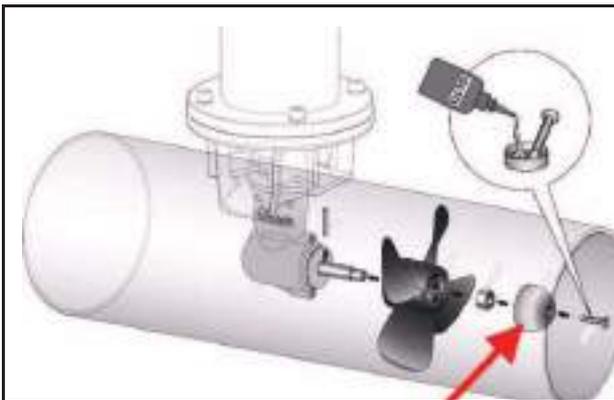
- The bow-thruster's motor is DC powered.
- The bow-thruster assists with steering the boat when manoeuvring at low speed (picking up a mooring buoy or berthing on a pontoon for instance).
- An operating relay is installed in the circuit.
- A fuse protects the electrical circuit.
- The bow-thruster motor has its own battery bank.

Operation

- The engine's positive battery isolator automatically comes on and goes off when the engine is started/stopped. The negative supply of the bow-thruster motor is connected to the main earthing point of the boat.
- The bow-thruster motor must operate with the boat's engine running.
- A control panel is located in the cockpit / in wheelhouse.
- When the bow-thruster motor is not in use, switch off the electrical supply both:
 - to the control panel,
 - and to the switches of the motor's batteries.

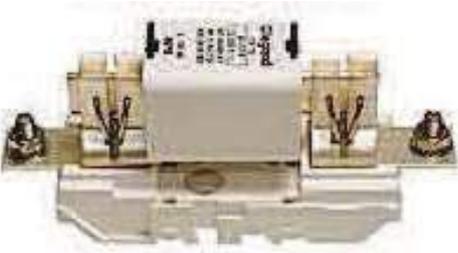
Maintenance

- Regularly check the charge state of the motor's batteries: a loss of voltage will cause premature wearing of the motor's relay contacts and brushes.
- Check the anode regularly (See Anodes chapter).



During lift-out

- Check that the propellers turn properly, with neither play nor stiffness.
- Clean the blades carefully.
- Remove the propeller, clean the housing and the shaft, smear the shaft and the stainless steel capsules with silicon-based grease before putting the propeller back.
- After cleaning and applying a primer, antifoul the housing and the propellers.

<p style="text-align: center;">Fuse</p> 	<p style="text-align: center;">General view</p> 
<p style="text-align: center;">Control</p> 	<p style="text-align: center;">Location: Forward cabin</p> <ol style="list-style-type: none"> 1. Battery set: 2 x 50A 2. Positive battery isolator switch 3. 315A fuse 

ADVICE-RECOMMENDATION

- Refer to manufacturer's instructions for use and maintenance.
- Never run the motor when the propeller is out of the water.
- In the case of dual control, be careful to use just one control at a time.
- The motor must not run for longer than 3 minutes (risk of overheating).



15 DECK FITTINGS

15.1 GENERAL POINTS

15.1.1 Polyester

- Regularly brush the deck using a gentle de-greasing agent then rinse the deck with fresh water.
- Use as few cleaning agents as possible.
- Don't use solvents or aggressive detergent agents.
- Don't discharge cleaning agents into the water: Consult the harbourmaster's office to find out the conditions of water use and the maintenance area for cleaning your vessel.
- Don't use a pressure washer.

15.1.2 Plexiglas (PMMA)

- Rinse plexiglas with fresh water.
- Use a polish paste for thin scratches.
- Consult your dealer concerning deep scratches.

ADVICE-RECOMMENDATION

Never use solvents, alcohol, acetone or detergents on the plexiglass.

15.1.3 STAINLESS STEEL

Stainless steel is an alloy of iron and carbon (steel) with the addition of chromium. This chromium provokes the formation of a protective film which separates the steel from the atmosphere outside. This coating is usually invisible as it's so thin. So in spite of its name this steel is not stainless and requires a minimum of maintenance:

- The use of chrome tools is preferable whenever handling stainless steel ;
- Re-nourish the protective film regularly with passivation paste.

15.1.4 Solid wood on exterior wooden panelling

- Wood exposed to harsh conditions, such as salty air and UV rays tends to become whiter and to lose its natural colour. This phenomenon has no effect on the intrinsic qualities of the wood, but can spoil its aesthetic appeal.
- To maintain the colour of the wood, regularly wash the woodwork in fresh water using a sponge (if necessary, use a mild soap).
- It is recommended to oil the external woodwork regularly using teak oil to protect them from the harsh conditions.

ADVICE-RECOMMENDATION

Never use detergents, acetone or other harsh products on the wood.

15.1.5 Exterior cushions

- Bring the removable cushions inside (washed with soapy water then dried) when the vessel is unoccupied.
- Put canvas sheets/protective covering over the fixed upholstery.

Maintenance

To maintain the quality of the fabric, you are advised to spray it regularly with clarified water and to brush it with a soft brush (brush for clothes). It is advisable to clean thoroughly every 2 years.

Stain removal

Follow these steps for routine cleaning::

- Remove as much debris as possible using a soft brush ;
- Spray the fabric with water ;
- Prepare a cleaning solution using mild soap and water (Do not use detergent) ;
- Wash with a soft brush ;
- Wait for soapy solution to act ;
- Rinse thoroughly in fresh water ;
- Dry in the open air.

ADVICE-RECOMMENDATION

Never:

- Use a heat source (hairdryer/clothes dryer) ;
- Use detergent, silicone, acetone, chlorine-based products or hot water ;
- Use a high pressure cleaner.

15.2 EQUIPMENT

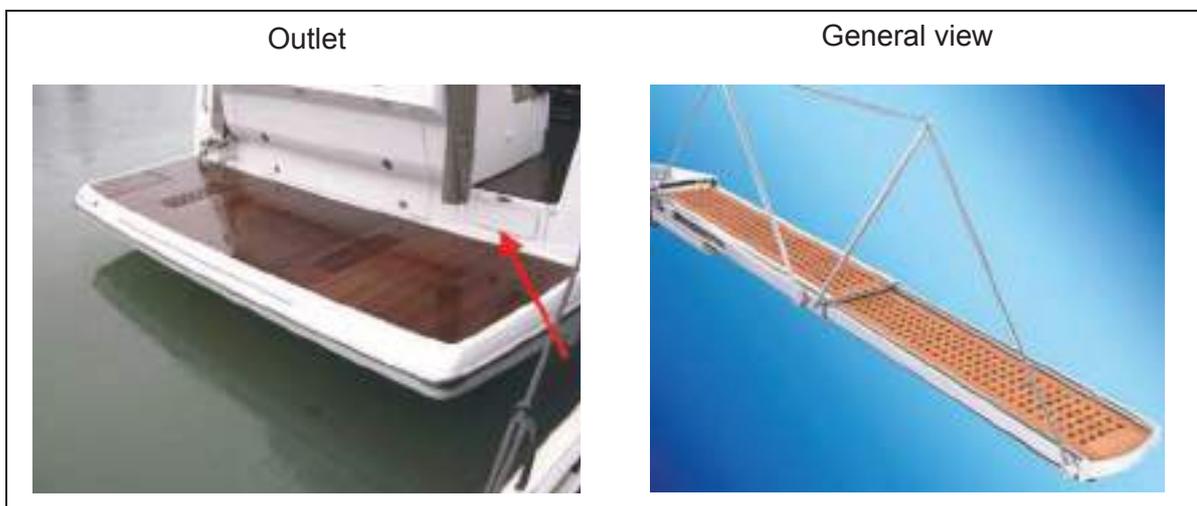
15.2.1 Gangway

Description

- The gangway allows you to embark/disembark easily when the boat is moored stern on to the pontoon.
- The gangway is hydraulic and telescopic (adjustable length).
- The gangway control is situated in the cockpit.
- The gangway is comprised of the external part and a hydraulic unit situated in the engine compartment.
- A control box situated on the hydraulic unit prevents accidental operation of the control panel. As a precaution it is advised to leave it on the 'AUTO' setting.
- The hydraulic pump controlled by the electric motor is situated under the hydraulic unit reservoir. The motor has a speed regulator: it controls the speed at which the gangway moves.

Operation

- The gangway runs on DC power.
- A breaker protects the electrical circuit.
- The gangway motor is designed to run continuously for a maximum of 4 minutes. After this the motor will cut out automatically (risk of overheating).



Maintenance

- Wash the gangway off regularly with clean water.
- Its location at the stern of the boat makes the gangway particularly prone to fouling due to the exhaust gases: clean the fouled areas regularly with a non-abrasive detergent.
- Change the oil in the hydraulic unit at least once a year.
- Regularly check the connections which could loosen with vibration.

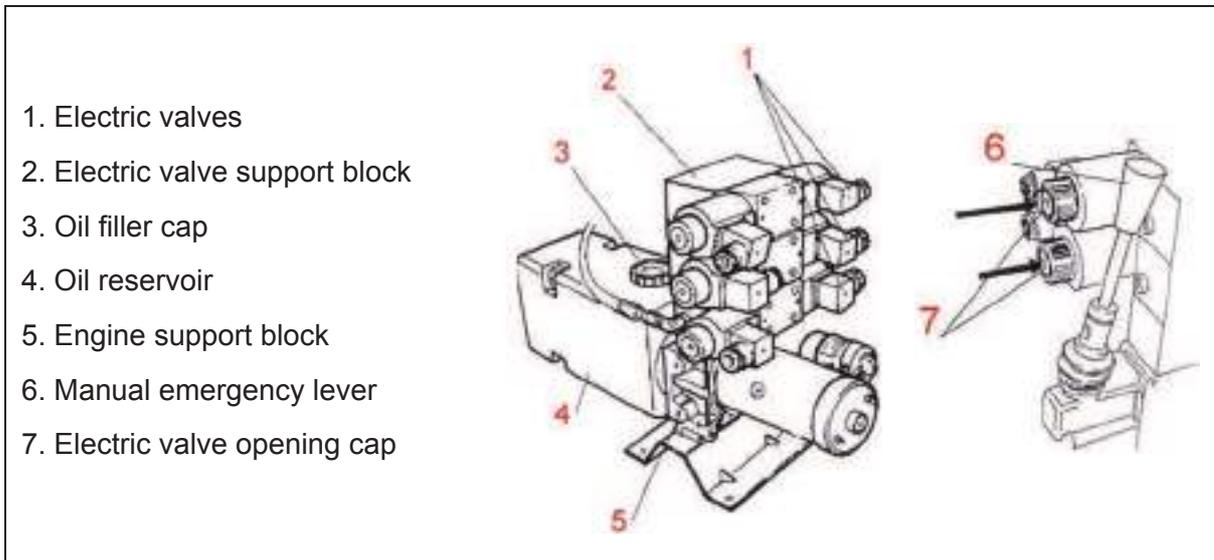


- Do not use the gangway when at sea.
- Never manoeuvre the gangway with anyone on it, below it or within its arc of movement.
- Do not use the gangway as a diving board.

ADVICE-RECOMMENDATION

- Refer to manufacturer's instructions for use and maintenance.
- Maximum load permitted on gangway: 150 kg.
- Telescopic gangway: Ensure that the stanchions are correctly seated in their sockets before recovering the gangway.
- Manual operation prevents the position sensors from working: the electronics are no longer able to correct the alignment of the gangway if it is not retracting correctly into its housing. Use this procedure with caution.

Hydraulic unit



1. Electric valves
2. Electric valve support block
3. Oil filler cap
4. Oil reservoir
5. Engine support block
6. Manual emergency lever
7. Electric valve opening cap

Emergency procedure

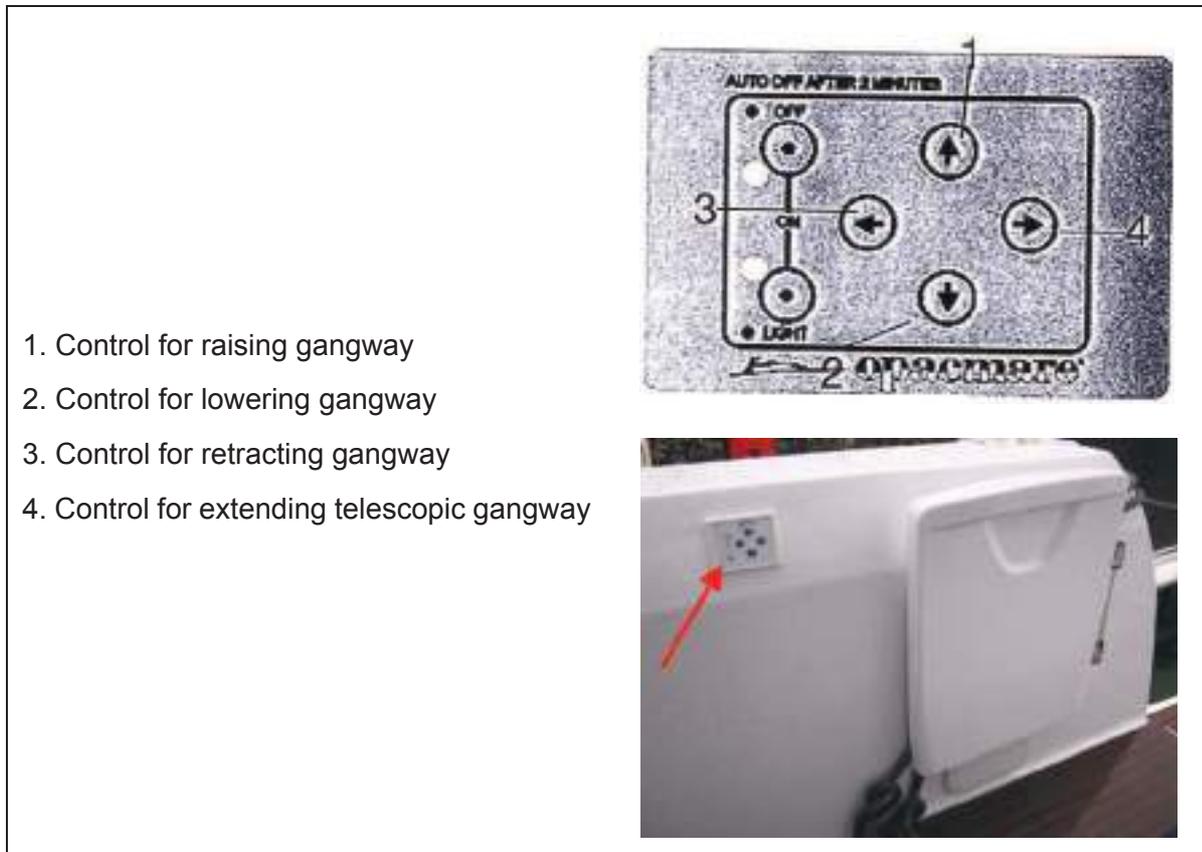
In the event of power failure the system can be operated manually. The hydraulic unit is equipped with a manual emergency pump. The electric valve can also be opened or closed manually.

In this case, manoeuvring of the gangway will be slower but still possible:

1. Activate the lever of the manual pump with one hand. To control one of the available hydraulic manoeuvres, open the electric valve of the desired function.
2. With the other hand, press on the electric valve opening cap using a pointed tool (e.g. screwdriver). When the lever is operated, oil will be directed towards the piston. The lever must be activated several times to expel air and pressurise the system.



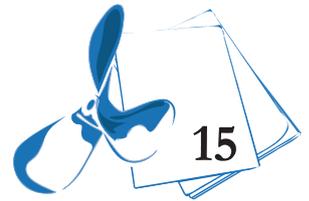
Control



The ON/OFF button turns the control on and off.

The green light is illuminated when the gangway is being operated.

The red light is illuminated when the system is turned off.



15.2.2 Tender lift

- The platform (tender lift) facilitates launching and recovery of the tender and also serves as a swim platform. Any other use is dangerous and forbidden.
- The platform runs on the DC power supply.
- A breaker protects the electrical circuit.

Description

- The hydraulic platform can be lowered below the water level to enable launching/hauling up of light boats (such as attached crafts, jet ski, etc.).
- The platform is controlled from the cockpit.

Operation

- Before starting the platform, press the LIFT control (during 2 seconds), before activating the LOWERING control.
- Move the platform up to the LIFTING/LOWERING limit stop and then press the control for 4 seconds, approximately.
- The platform motor is designed to operate continuously for a maximum of 4 minutes. Beyond this interval, the motor risks overheating.

Locking

- A safety locking device prevents the platform from moving downwards. Make sure the system is properly locked when sailing or leaving the boat. An alarm is activated when the safety lever is fixed once the platform reaches its highest position. The locking system allows the platform to be lifted when loaded.

Hydraulic system

- The hydraulic pump has a storage reservoir. In case of power failure, the manual level allows the platform to be operated. To manually operate the platform, push down the valve button (using a screwdriver, for example) and activate the manual pump.
- If the platform has been locked for a long time (e.g. during winter storage), the hydraulic pressure of the circuit can be slightly lower.
- The oil level of the pump reservoir must be regularly checked and refilled, if needed.



- It is strictly prohibited to climb to the platform while in operation.
- Make sure the lifting/lowering system is unobstructed before operating.
- The hydraulic lifting platform can be used for transportation purposes, launching and hauling of boats or heavy floating bodies only, within its capacity limits. Any other use is dangerous and forbidden.
- Maximum load permitted on the platform: 600 kg (Load must be uniformly distributed).
- Do not use the platform when under way.
- Do not use the platform in rough seas.
- The boat's engines must be shut down while the platform is operated.



- When you leave the boat, be sure to leave the platform in the 'up' position.
- Check the platform anodes regularly (See Anodes chapter).
- Platform off position is the 'up' position.
- Use platform/leave the boat ONLY if the lock is engaged (platform in 'up' position).

During platform opening or closure:

- Beware of the system movements to avoid injuries ;
- Never leave children unattended when they are using the system.

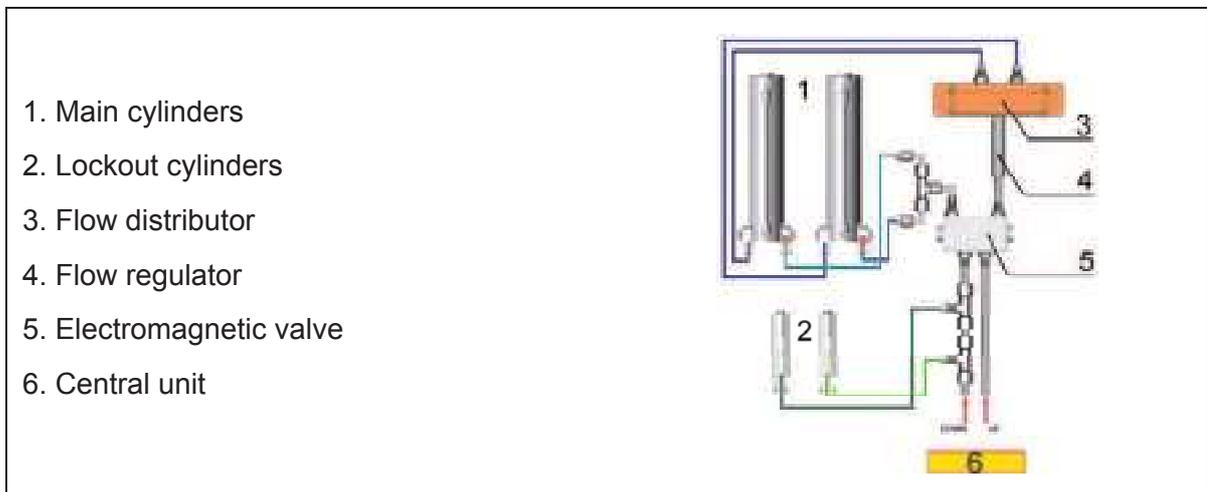
ADVICE-RECOMMENDATION

- Wash the platform off regularly with clean water.
- Its location at the stern of the boat makes the platform particularly prone to soiling due to the exhaust gases: clean the fouled areas regularly with a non-abrasive detergent.
- Change the oil in the hydraulic unit at least once a year.

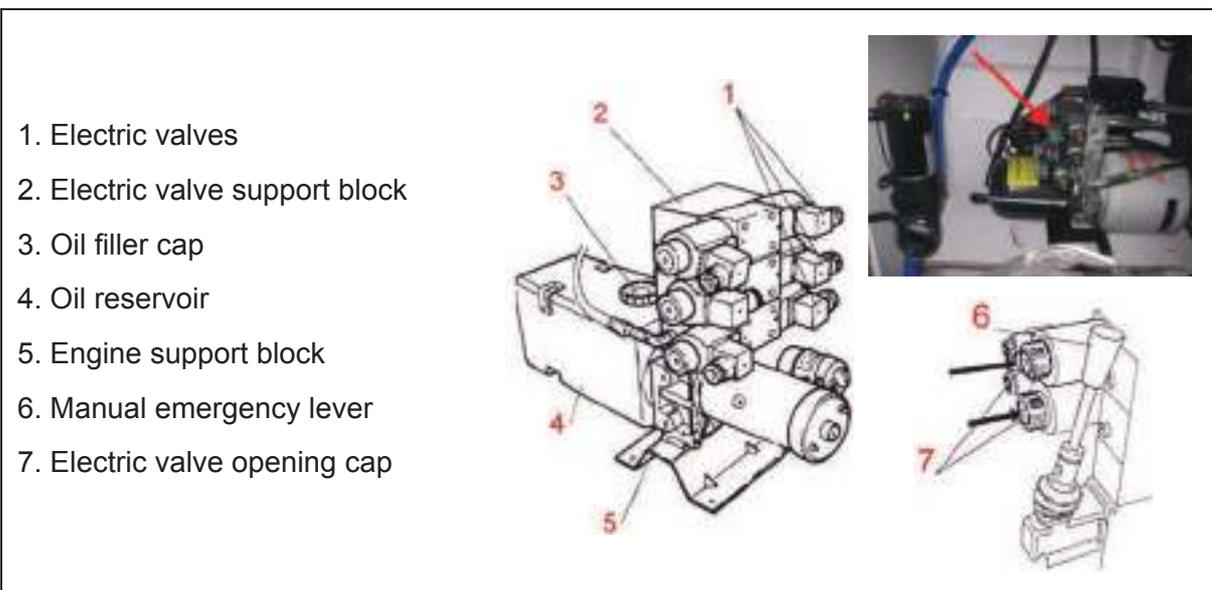
Overview



Diagram of hydraulic principle



Hydraulic unit

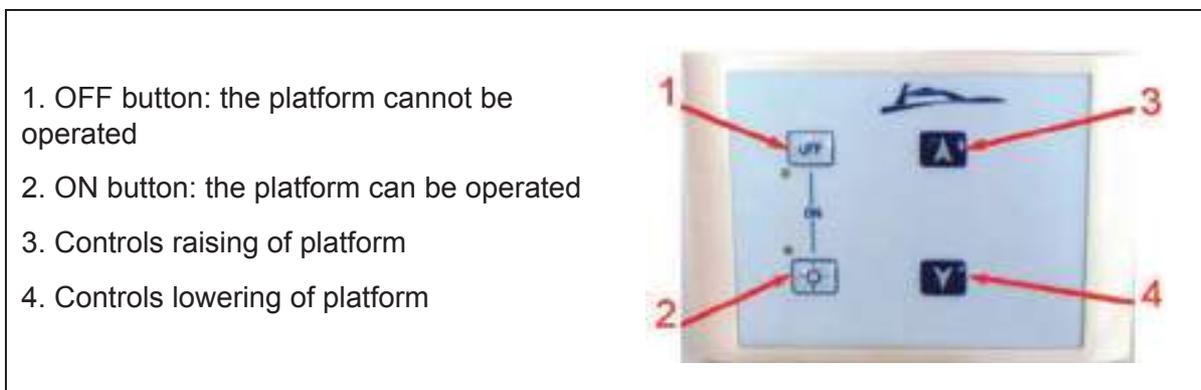


Emergency procedure

- In the event of power failure the system can be operated manually. The hydraulic unit is equipped with a manual emergency pump. The electric valve can also be opened or closed manually.

In this event manoeuvring of the platform will be slower but still possible:

1. Activate the lever of the manual pump with one hand. To control one of the available hydraulic manoeuvres, open the electric valve of the desired function.
2. With the other hand, press on the electric valve opening cap using a pointed tool (e.g. screwdriver). When the lever is operated, oil will be directed towards the piston. The lever must be activated several times to expel air and pressurise the system.



Uplock hook

Location:



15.2.3 Sun roof

General points

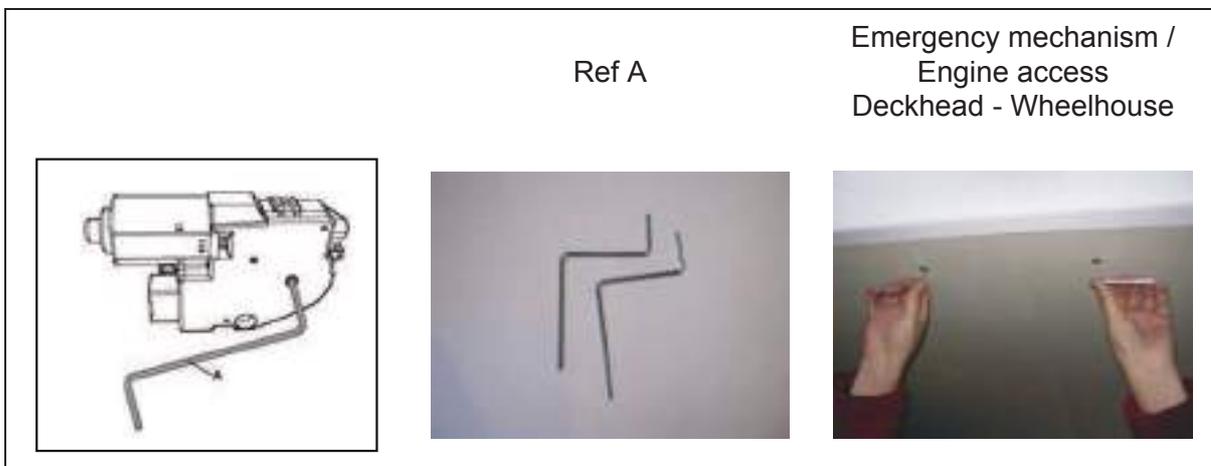
- The roof must be absolutely open OR closed navigation. It is dangerous to use with the Sport partially open.
- Handling sunroof (opening / closing) a strong wind or seas becomes difficult: be particularly vigilant.
- It is forbidden to use the roof to enter / exit the wheelhouse.

Operation

- The sunroof is supplied with direct current.
- A fuse protects the electrical circuit.
- It is possible to manually operate the sunroof to close in case of power failure. Two people are needed to close the sunroof manually. This operation must be done by disconnecting the DC motors.

emergency procedure

The drive shafts of the motors can be rotated using key relief (reference A). If the roof was operated manually, you must reset the control system (refer to the manufacturer's instructions).



Layout of components

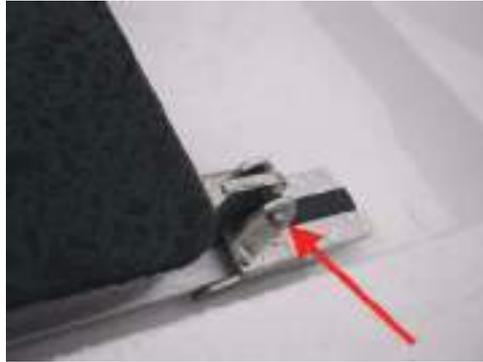
Control
Steering station (Deckhead)



Access to the engines is from the outside of
the boat

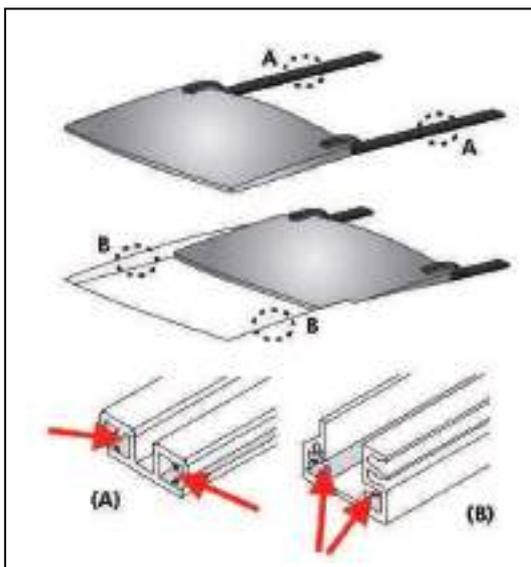


To access the engines the 2 end pieces of the opening roof must be undone to be able to tilt the opening roof towards the stern of the boat



Maintenance

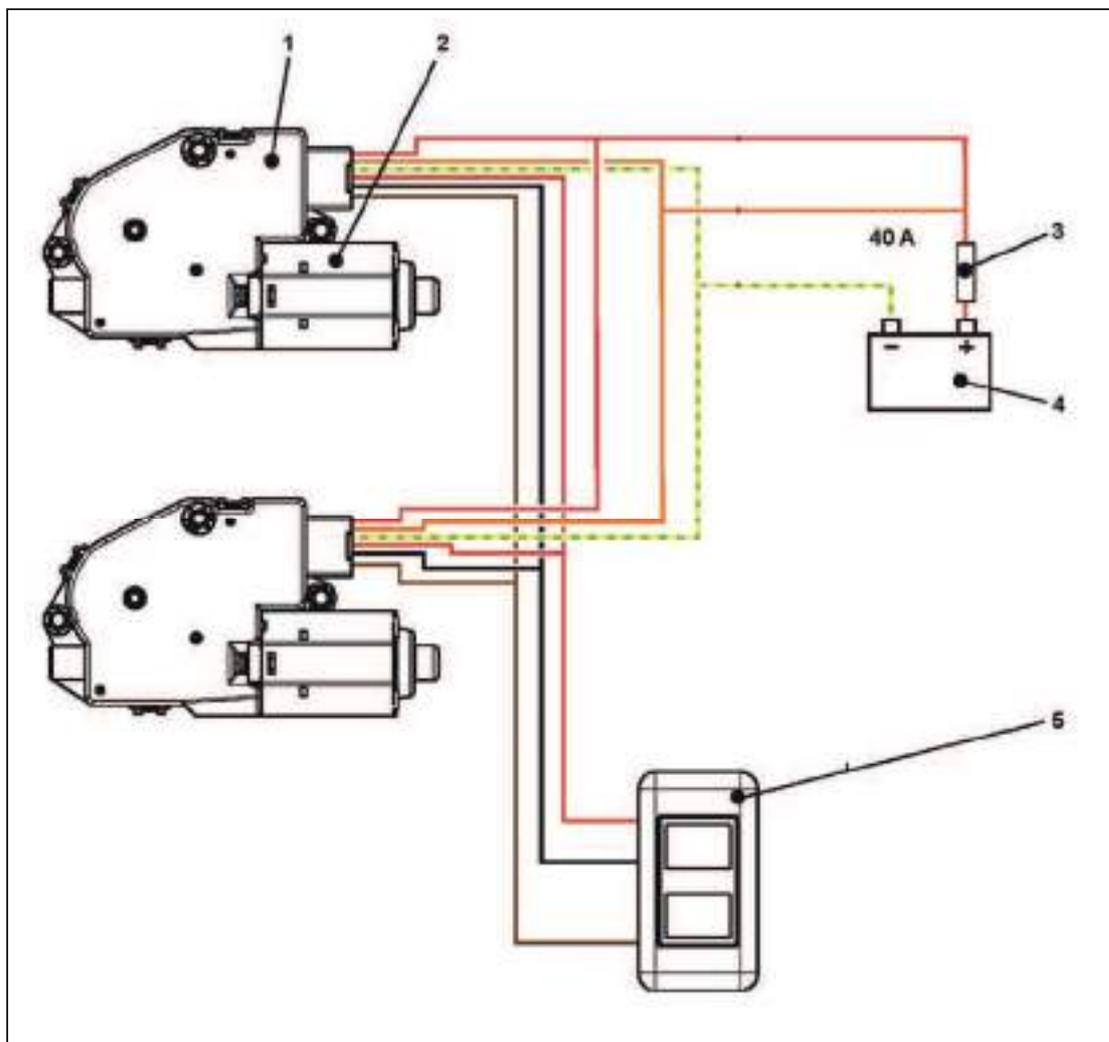
- Regularly clean the water passage of the draining scuppers.
- Before and after winter storage (At least 2 times a year):
 1. Clean and dry the rail throughout its length (Closed roof and open roof) ;
 2. Clean and dry the cable storage rack ;
 3. Then brush on white petrolatum on the opening / closing of sunroof (Ref. A and B).



ADVICE-RECOMMENDATION

- Refer to manufacturer's instructions for use and maintenance.
- It is forbidden to use high pressure washing on the rail or the sunroof motor.
- It is forbidden to climb on the roof (flexible or rigid).
- Never use rubbing alcohol or window cleaner to clean the roof.

Layout diagram



Reference	Designation
1	Engines
2	Connection boxes
3	40A fuse
4	Service battery
5	Control switch
<p>Color son:</p> <p>Orange: positive circuit DC</p> <p>Green / yellow: DC negative circuit</p> <p>Red: command the closing of the roof</p> <p>black: negative circuit motors</p> <p>Brown: controls the opening of the roof</p>	

15.3 BERTHING, ANCHORING, TOWING

15.3.1 Anchor points

Responsibility

It is the responsibility of the owner/user of the boat to ensure that the berthing lines, towing cables, chains and mooring lines and the anchors are adequate for the intended use of the boat, i.e. that the lines or chains do not exceed 80 % of the breaking strength of the corresponding anchor point.

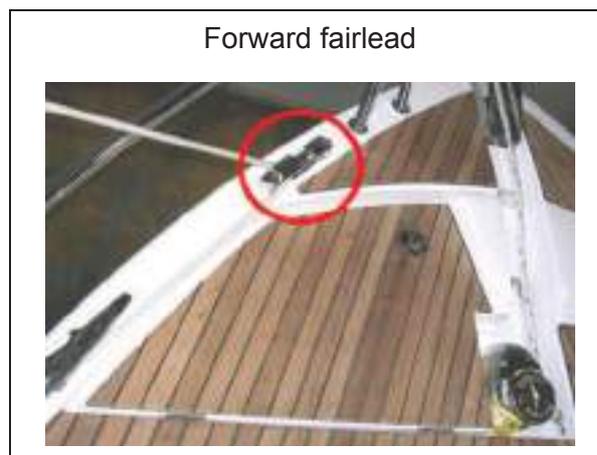
	MOORING LINES	MOORING	TOWING
Reference	A&B	B	B
Anchor Point Breaking Strength	28.5	41.0	41.0
Mooring Line/Chain Breaking Strength	22.8	32.8	32.8

NOTE: Measurements are expressed in kN.

If non-metal anchor points are installed on the boat, their limited lifespan must be taken into account. They must be replaced as soon as they show signs of deterioration, visible surface cracks or permanent deformation.

Note: black components are less sensitive to UV radiation than light coloured ones.

Pass warps through the fairleads provided for this purpose.



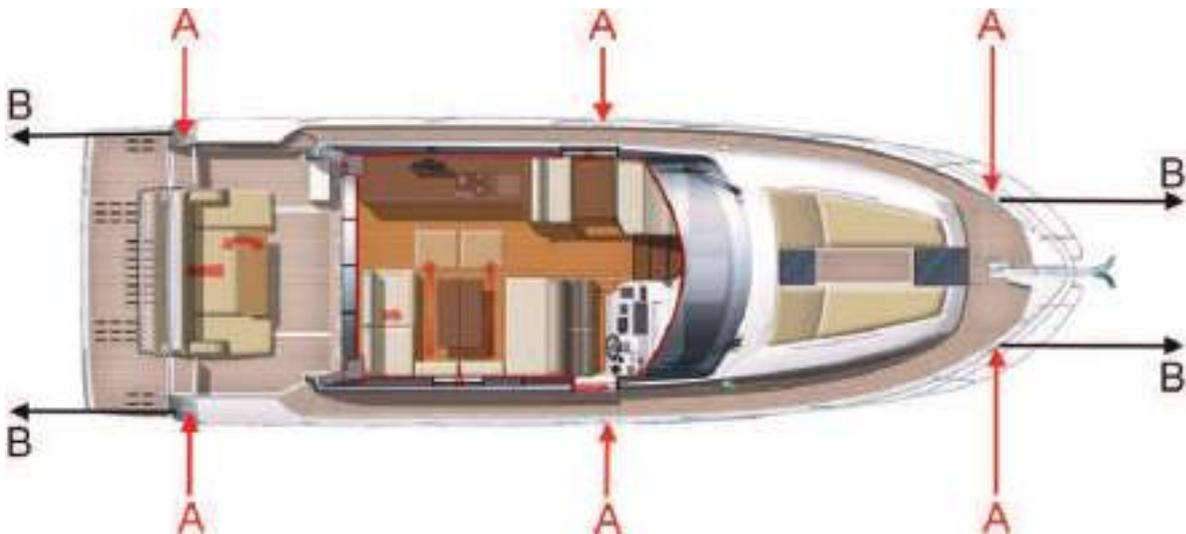
15.3.2 Towing

Responsibility: It is important that the owner thinks through the actions required when securing a towing cable onboard.

If the boat is towed, it is essential that the PODs are in line with the boat.

In the event of steering gear damage, an emergency kit is supplied by the manufacturer to align the PODs with the boat's axis (see Chapter "Instructions in the event of steering gear failure").

Location of attachment points



A. Mooring cleats which correspond to the anchor points for the lifelines.

B. Towing:

- at the bow, to be towed
- at the stern, to tow

- Generally the breaking strength of lines/chains must not exceed 80% of the breaking strength of the anchor points.

- Always tow or be towed at low speed. Never exceed the maximum speed of a displacement hull during a tow.

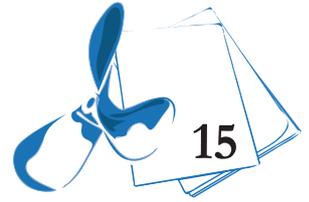


- Be particularly vigilant when the end of a towing cable is being thrown or received (risk of the end becoming caught in the propeller).

- A towing cable must always be secured in such a way that it can be released under load.

- Do not try to stop the boat by using a boathook or your foot, hand or any other part of your body.

15.4 MAIN COMPONENTS OF THE ANCHOR WELL



Refer to manufacturer's instructions for use and maintenance.

Windlass operations are dangerous:

- Always keep the anchor chain or rode free and unfouled ;
- Carry out manoeuvres carefully and always wear shoes ;
- Avoid wearing baggy clothing, long hair that's loose and jewellery that could get caught in the engine when it is running.

Windlass - forward



1. Bow fitting
2. Mooring locker
3. Windlass - 12 V - 1000 W
4. Chain holder
5. Chain rim - 10 mm diameter
6. Remote control
7. Handle

Operation relay
Location: Under the bed -
Forward cabin

DC circuit-breaker - 120A
Location: Technical room



Windlass - aft



Location: Platform - lit

1. Anchor
2. Anchor stowage
3. Mooring cleats



Location: Engine compartment
(Starboard)

4. Operation relay
5. Mooring locker
6. Windlass - 12 V - 600 W

DC circuit-breaker - 40A
Location: Technical room



Remote control
Location: Starboard cockpit



15.5 ELECTRIC WINDLASS

Two windlasses can be fitted to the boat, one forward and the other aft.

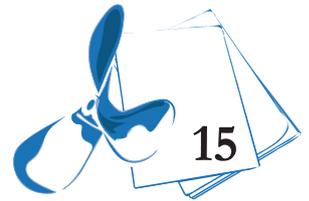
NOTE: The forward windlass must be used as the boat's main anchoring point.

- **The aft windlass must not be used as the main anchoring point.**
- **The aft windlass must never be used alone for anchoring.**
- **The aft windlass serves as an auxiliary to the forward windlass.**
- **The aft windlass must only be mounted on the fixed platform.**

Windlass - forward

General points

- The windlass is DC powered.
- The windlass is designed for anchoring purposes: Any other use is dangerous and forbidden.
- An operation relay is fitted to the electrical circuit.
- A circuit-breaker protects the power supply to the windlass.
- The windlass operation is activated by an operational interlock relay which is powered by the engine's alternator: the windlass only works when the boat's engine is running.
- The controls to raise/lower the windlass are protected by a circuit-breaker positioned between the batteries and the windlass relay.



Operation

- Before lowering the anchor, make sure that the chain or anchor rode is securely attached to the clinch.
- Activate the circuit-breaker then use the control to start the windlass.

Control: Steering station



- **When at sea, secure the chain or anchor rode to secure points such as the chain stopper or the anchor rode to the belaying cleat (the windlass must not be used as the only method of securing the chain or rode).**
- In the case of dual control, be careful to use just one control at a time.
- When raising the anchor, use the boat's engine to move towards the position of the anchor, until the boat is just over it: never use the windlass as a winch to move the boat forward.
- When out at sea, cut the electrical supply to the windlass.
- Cut the electrical supply when using the windlass manually.

Maintenance

- once a year, dismantle, carefully wash and grease all the moving parts of the windlass.
- Regularly grease the supply terminals of the electric motor of the windlass and of the relay control box.

Emergency anchoring procedure

In the event of an electrical fault, it is possible to lower the anchor manually: Put the handle in the space provided for this to release the chain grab. Then let the chain run out using the handle to control its speed as it runs.



The handle serves only to release the chain grab in order to lower the anchor manually should the electric windlass break down. The handle cannot be used to raise the anchor manually.

ADVICE-RECOMMENDATION

- Before anchoring check the depth of water, the power of the current and the nature of the sea bed.
- Check the swinging area once the boat is at anchor.
- After each trip rinse the windlass and anchor chain or rode with fresh water.

Windlass - aft

- The aft windlass is mounted on the fixed platform.
- The windlass is DC powered.





16 HULL FITTINGS

16.1 UPHOLSTERY

LEATHER

Maintenance

Leather must be regularly cleaned and waxed.

To do so, clean the leather surface with a damp rag. This operation will remove dust.

Every 6 months to a year depending on use, apply a leather shampoo on the leather then use a hydrating cream which will also protect it.

Stain removal

If the leather surface gets stained, clean immediately using an absorbent piece of paper. Do not scour. Clean inwards to prevent the stain from spreading.

- Buffer applying denatured alcohol with a piece of cotton (ink and food stains).
- Apply absorbent powder (talcum) on grease stains.

Wait a couple of hours, then brush the excess of powder.

- Other: Apply white vinegar or acetic acid diluted in water.

ADVICE-RECOMMENDATION

- Test the product on a small hidden area of the surface before cleaning.
- Avoid excessive moisture.
- Do not scrub on leather surfaces.
- If you notice leather colour on the rag, immediately stop cleaning.

ALCANTARA (microfibre)

Stain removal

The fabric must be free from dust before removing. To do so, use a vacuum cleaner to achieve optimal cleanness.

Rub with a duster soaked in a solution containing ammonia diluted by 10%. Dilute to the strength appropriate for this fabric. Try it out first on a hidden corner, the hem for instance, if the appearance of the fabric changes, dilute accordingly.

Scrub the Alcantara fabric in all directions, particularly on the stains.

Rinse off the cleaning solution using a damp cloth.

Dry in the open air.

After taking the Alcantara fabric off, it's a good idea to use a soft brush on it to bring back its supersoft quality.

For difficult stains, dry-cleaning is recommended.

SYNTHETIC FABRIC

Stain removal

If you can remove the fabric:

- Clean in the washing machine (use the program for delicate fabric) at 30°.
- Do not iron.
- Never use Javel water.
- Do not dry-clean.
- Do not use a clothes drier.

If you cannot remove the fabric:

- Clean with the vacuum cleaner,
- Clean with a foam for synthetic fabrics (see foam use instructions).



COATED FABRIC (PVC)

Maintenance

- The PVC must be regularly cleaned with soapy water to maintain its appearance and avoid accumulation of debris. Try to avoid using the following products: lacqueurs, aggressive cleaning products, detergents, xylene or acetone-based products which can cause permanent damage or make the fabric deteriorate. The use of such products is at the owner's risk.

Stain removal

- All stains must be quickly removed to avoid formation of permanent stains.
- Use mild water to remove the stains found on the fabric surface. Use only clean, white, damp pieces of cloth.
- Difficult stains can be removed using a mixture of water (25%) and white spirit.
- Rinse with clean water.
- Dry with a soft piece of cloth.

ACRYLIC

Maintenance

To maintain the quality of the fabric, you are advised to spray it regularly with clarified water and to brush it with a soft brush (brush for clothes). It is advisable to clean thoroughly every 2 years.

Stain removal

Follow these steps for routine cleaning::

- Remove as much debris as possible using a soft brush ;
- Spray the fabric with water ;
- Prepare a cleaning solution using mild soap and water (Do not use detergent) ;
- Wash with a soft brush ;
- Wait for soapy solution to act ;
- Rinse thoroughly in fresh water ;
- Dry in the open air.

16.2 INTERIOR WOODWORK

- Clean the interior varnish using a de-greasing shampoo on a damp cloth.
- Polish the interior varnishing with a chamois leather.
- If there are any stains or light scratches, it is possible to polish the varnish. Doing this can give the polished area more of a shine than the rest of the varnishing onboard.
- If there are deeper scratches, it is possible to sand the scratched area lightly and then re-varnish it (consult your dealer).

BED - FORWARD CABIN

The bed in the forecabin is of the "butterfly" type: The two single berths can be placed side by side to make a double berth.

Mechanism:

- To share the bed, the 2 berths are brought together and joined with a key located in the starboard locker under the berth.
- To separate the berths ("butterfly" type separate berths), it is necessary to unscrew the key that joins the 2 berth lockers.





16.3 INTERIOR MAINTENANCE

- Take advantage of fine weather to air the interior upholstery.
- Remove the cushions during lengthy periods of absence.
- Make sure the bilges are clean and dry.
- For lengthy periods of absence, leave the icebox and fridge doors open to prevent mould from developing.
- Install a dehumidifier in the saloon and leave open all the cabin doors and storage spaces (cupboards, iceboxes...).

ADVICE-RECOMMENDATION

If the stains persist or if in doubt, consult a cleaning specialist.

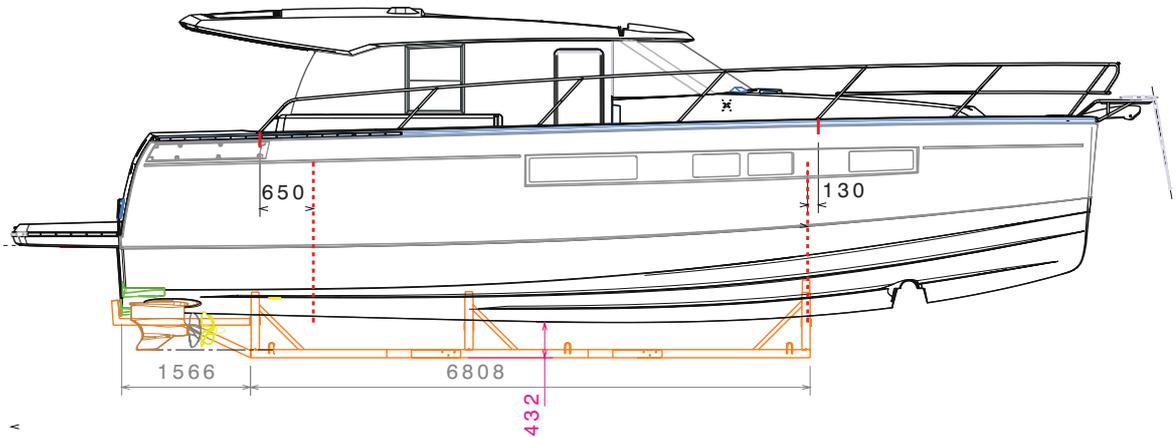
When winterising the boat, make sure the curtains are pulled to prevent the fabrics from being exposed to the sun's rays for a lengthy period (risk of fading).

NEVER:

- Use a heat source (hairdryer/clothes dryer) ;
- Use detergent, silicone, acetone, chlorine-based products or hot water ;
- Use a high pressure cleaner.

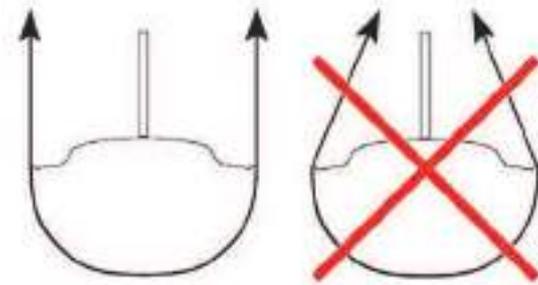
17 HANDLING, TRANSPORT

17.1 LIFTING PLAN



Note: Measurements are expressed in mm.

The position of the lifting slings is shown in the pictogram below:



17.2 LIFTING

The wet surface area of the boat is about: 43 m²

- Before applying the first coat of antifouling on the hull, you can key the hull using wet sandpaper of 400 grade or higher.
- The lower hull of your boat should be covered with an anti-fouling paint which will prevent the adhesion of marine growth.
- The nature of the water where you keep your boat and the frequency of lifting it out determines the choice of antifouling.
- All bronze or steel surfaces, including the propellers, should be protected by a suitable antifoul paint.
- During lift-outs, check the anodes, cutlass bearing and propeller (see corresponding chapters).

Before applying the antifoul NEVER:

- Do any sandblasting ;
- Use any other solvents than ethylic alcohol ;
- Use detergents under pressure ;
- Use scrapers ;
- Use grinding tools.

If cleaning off existing antifouling requires high pressure washing:

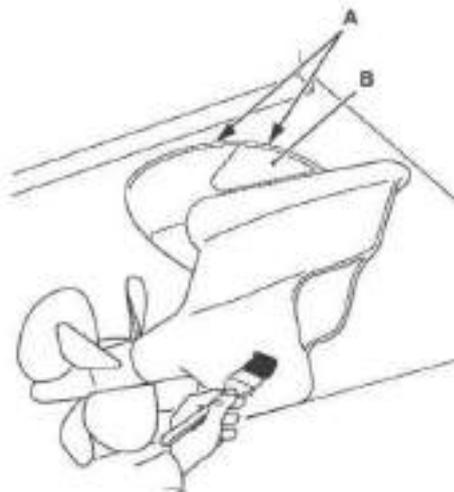
- Ensure the water temperature does not exceed 15 degrees ;
- The water pressure must not exceed 150 bars ;
- The distance between the hose nozzle and the hull must not be less than 10 centimetres.

IPS version

- On IPS drive units, do not cover the joint (point A) between the propulsion unit and the hull or the exhaust silent block (point B) with antifouling.

A: Joint

B: Exhaust silent block

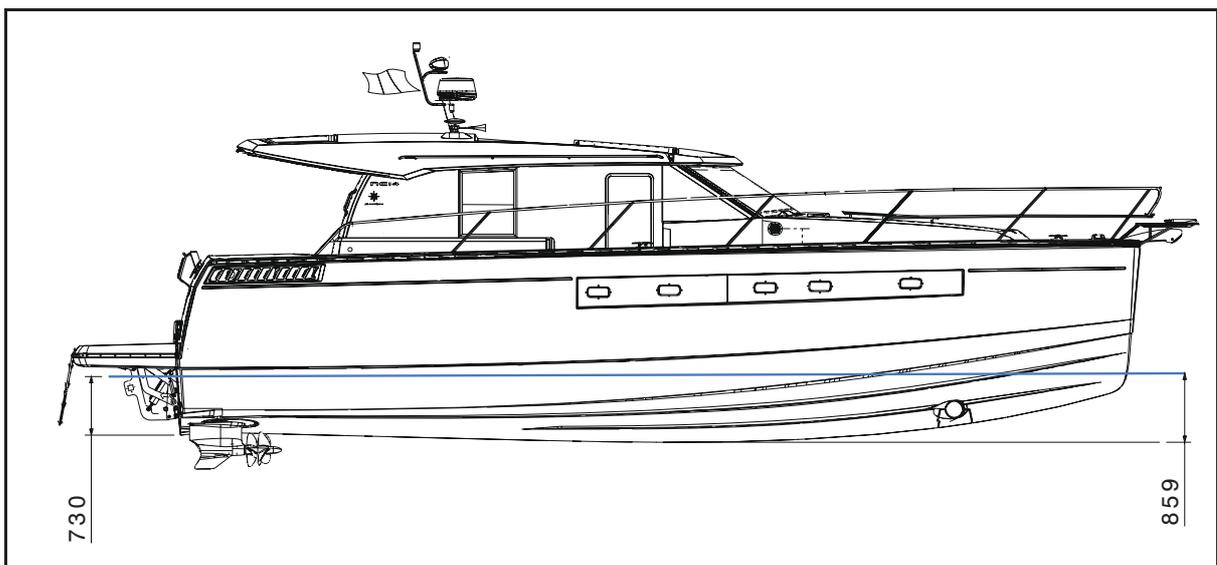




- Follow the manufacturer's recommendations scrupulously when applying antifouling.
- Never cover with antifouling:
 - the anodes ;
 - the earthing plates (Generator) ;
 - the refrigeration unit condenser ;
 - the sea water strainers ;
 - the sensors of the electronic instruments.
- Avoid using copper or tin-based antifouling: these are banned in some countries.

17.3 UPPER LIMIT OF ANTIFOUL

Measurements are expressed in millimetres.



17.4 LAUNCH/LIFT OUT

A lot of skill and care is required to commission your boat. The proper working of all your boat's equipment is the result of the quality of the commissioning operations. This is why the initial launch must be overseen by your dealer.

Before launching

- Replace the log in its housing.
- Check the cleanliness of the sea water strainers.
- Check the anodes (see the chapter on Electricity).
- Check the propeller (see the chapter on Steering).
- Prepare enough fenders and lines.
- Check the engine's sea water intake valve and the fuel feed valve (see the chapter on motorisation).



Do not remain onboard or beneath the boat during the handling operations.



- When placing the slings make sure that the positioning marks are still visible.
- Submerge the sling fully under the engine mounting.



17.5 WINTER STORAGE

- Take advantage of laying up the boat to carry out a full inventory of the equipment.
- Check the expiry dates of the safety equipment.
- Have the liferaft overhauled.
- Empty the complete water system inside and outside and rinse it through with a mix of water and vinegar (do not use a chlorinated product).
- Empty and rinse the complete black water system.
- Dry out and clean the boat's bilges.
- Grease and close all the valves and through-hull fittings.
- Close all the boat's seacocks.
- Remove the depth sounder and log sensors.
- Put the covers back on the electronic screens.
- Install a dehumidifier in the saloon and leave open all the cabin doors and storage spaces.
- Air all of the cushions and upholstery for a good while before putting them back onboard and arranging them so as to limit the surface areas touching.
- Close the black-out curtains.
- Leave open the fridge/icebox doors to prevent mould and smells from developing.
- Protect the boat as well as possible with fenders.
- Make sure the boat is properly moored.
- Grease all mechanical and moving parts (bolts, hinges, locks...).
- Remove the movable upholstery.
- Disconnect the batteries. Make sure you recharge them during the winter period if the boat is left inactive for too long.

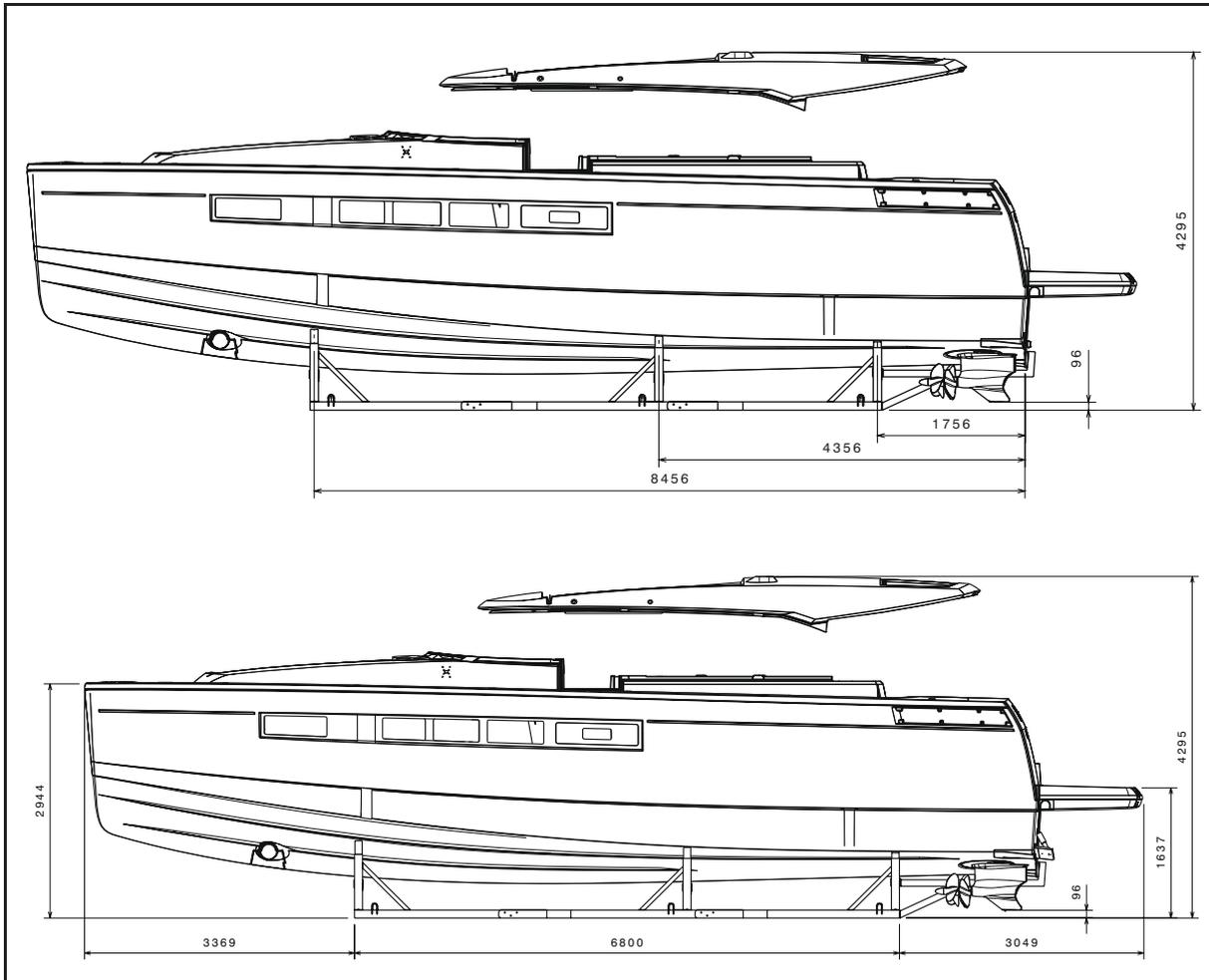
ADVICE-RECOMMENDATION

- The winterisation of the engine requires the skills of a professional engineer: please consult your dealer.
- This is not an exhaustive list of recommendations: Your dealer will give you the advice you need and will carry out the technical maintenance of your boat.

17.6 PACKING PLAN

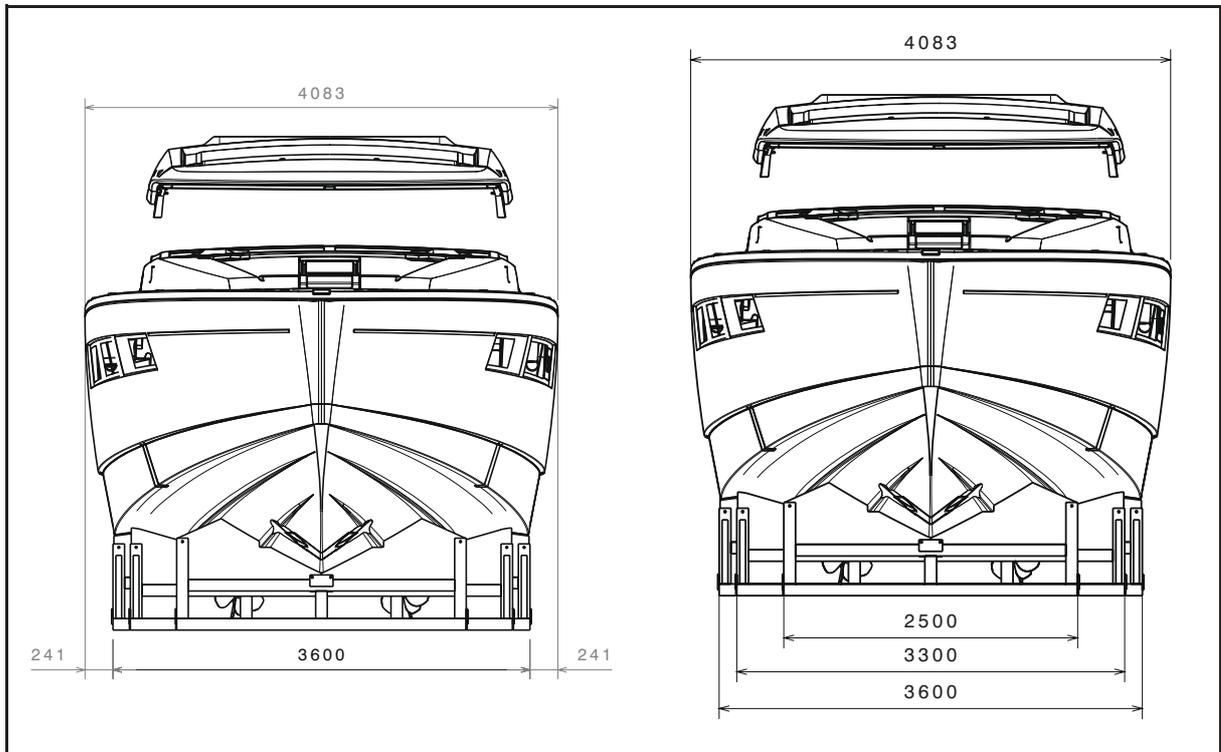
IMPLEMENTATION OF TRANSPORT CRADLES

View - Side



NOTE: Take care to position the pad properly beneath the engine base at the stern of the boat.
Measurements are expressed in mm.

View - forward



HANDLING, TRANSPORT

NOTE: Take care to position the pad properly beneath the engine base at the stern of the boat. Measurements are expressed in mm.



18 ENVIRONMENT

Waste management:

- Throw all packaging in the recycling containers provided for this.
- Once a piece of equipment has completely stopped working, find out about the relevant recycling regulations from your nearest recycling centre or from your dealer.
- Make sure you follow the relevant local laws when you scrap it.
- Some onboard equipment can have a toxic effect on the environment and on human health, caused by the specific substances they contain: Do not throw any equipment in household waste containers and absolutely not in the sea.
- Dead batteries are toxic to health and to the environment. So, batteries must not be put in with household waste, but must be recycled separately. Contact the harbour master or a specialist company about recycling them.



- Make sure you know the local environmental regulations and follow the codes of best practice.
- Do not pump out the toilets or the contents of the black water tank near the coast or in areas where it's forbidden. Use the pump-out facilities available in ports or marinas to empty the contents of the black water tank before leaving port.
- Make sure you know the international regulations to prevent pollution in the marine environment (Convention MARPOL) and follow these as much as possible.

