

# LAGOON 440

## User's guide



[www.cata-lagoon.com](http://www.cata-lagoon.com)



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We share a common passion for the sea: we, LAGOON, as boat-builders and you, who want to live out your enthusiasm for the ocean.

We are delighted to welcome you to the great family of LAGOON boat owners and we would like to congratulate you on your purchase.

This instruction guide is intended to help you to enjoy your boat in comfort and safety. It includes the boat specifications, the equipment provided or installed, the systems on board and tips on use and maintenance. Read this manual carefully before you put out to sea so that you can make the most of her and avoid any damage and difficulties. Read it carefully and familiarize yourself thoroughly with your boat before sailing.

In order to share as much new technology, new equipment and new materials with you as possible, our boats are constantly improved. This is why the specifications and information given are not contractual and can be modified without notice and we are not obliged to provide updates.

This instruction guide has a general purpose and it may mention some equipment or accessories or deal with some points or questions that are not relevant to your own boat ; if in doubt, refer to the inventory that you received on delivery of your boat.

**Our network of LAGOON authorized dealers is available to help you get acquainted with your boat and is best qualified to take care of her maintenance.**

If this is your first boat or if you are changing to a new type with which you are not familiar, first obtain some training in boat handling and sailing to ensure your safety and comfort before taking the helm of your boat. Your dealer, international sailing association or yacht club will be able to recommend local sailing schools or professional instructors.

Although everything possible has been planned and designed with the safety of the boat and its users in mind, remember that sailing is highly dependent on the weather conditions and the conditions of the sea, and that only an experienced and very fit crew, handling a well-maintained boat, can sail satisfactorily.

The sea and wind conditions that correspond to design categories A, B and C are changeable and are still susceptible to the risk of unusually large waves or strong gusts of wind. Total safety cannot therefore be guaranteed, even if your boat meets the requirements of a category.

**Always consult the weather and shipping forecasts before taking your boat out to sea.  
Make sure that the sea and wind conditions forecast correspond to the category of your boat, and that you and your crew are able to handle the boat in these conditions.**

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The sea and the water are not Man's natural environment and we must respect their laws and their strength.

Adapt the use of your boat to her condition, which deteriorates with time and use.

Any boat, however well built, may be severely damaged if badly used. This is not compatible with safe sailing. Always adapt the speed and direction of your boat to the sea conditions.

The 'COLREG' international regulations for the prevention of collisions at sea, published by the International Maritime Organization, specify the rules relative to steering and courses, navigation lights etc. throughout the world. Make sure that you are familiar with these regulations and that you have a list present on board which explains them.

In many countries, a license, an authorization or training certificate will be required.

Make sure you have the necessary legal authorization before you use your boat.

Always ensure an experienced professional carries out the maintenance of your boat, installs any accessories and makes any small modifications. The written authorization of the builder or his legal representative is compulsory for modifications that alter the specifications of the boat, in particular the vertical arrangement of forms (installing radar, modifying the mast, changing the engine etc.).

**For standard or optional equipment (engine, electronics etc.) refer to their respective manuals supplied with your boat.**

Users of the boat are informed of the following:

- The entire crew must be properly trained.
- The boat must not carry a load heavier than the maximum load recommended by the builder, in particular the combined weight of food supplies, equipment not supplied by the builder and people on board. The weight carried by the boat must be properly distributed.
- The water in the bilge must be maintained at a minimum.
- Stability is reduced when you add weight to the upper sections.
- In the event of heavy weather, the hatches, lockers and doors must be closed in order to minimize the risk of water entering the boat.
- Stability may be reduced when towing another boat or when lifting heavy weights using the davits or the boom.
- Breaking waves are a serious danger to stability.
- If your boat is equipped with a life-raft, read the instructions carefully. All the proper safety equipment must be carried on board (harnesses, flares, life-raft, etc.) according to the type of boat, the country in which it is used, the weather conditions, etc.
- The crew must be familiar with the use of all the safety equipment and all emergency safety procedures (MOB, towing etc.).
- All people on deck must wear a life jacket or a buoyancy aid. Please note that in some countries it is compulsory to wear an approved buoyancy aid at all times.

**Keep this manual in a safe place and give it to the new owner if you sell your boat.**

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# Navigation

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## GETTING UNDER WAY

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**BLOCKING OF  
SLIDING DOOR**



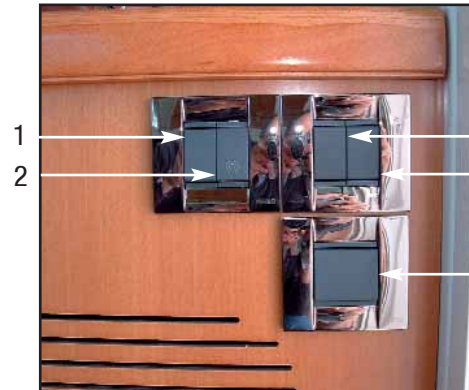
**PORT AND STARBOARD  
AFT CABIN  
BATTERY SWITCHES**



**FUEL VALVE**

NAVIGATION

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**ENTRY SWITCHES**

- 1 - Saloon ceiling light switch, starboard.
- 2 - Saloon ceiling light switch, entrance.
- 3 - Saloon ceiling light switch, central.
- 4 - Cockpit spotlight switch.
- 5 - Courtesy lighting switch (optional extra).



### ■ Getting under way

The sliding door locks in three different positions: closed, ajar (airing position) and open.

A latch on the doorframe enables locking from inside the saloon.

#### RECOMMENDATION

While sailing block the sliding door shut.

#### RECOMMENDATION

When entering the saloon be careful of the step leading down into the port hull.

Switch on the main power of the boat by activating the battery switches located in the port and starboard aft cabins, then activate the different accessory switches on the electrical panel.

Check the charge rate of the batteries, the water level in the tanks and the fuel level (see ELECTRICITY and MOTORIZATION chapter).

Carry out the inventory of compulsory safety equipment and instruct the crew concerning its location and operation.

#### DANGER

Remember to disconnect the shore power supply before casting off.

### ■ Visibility in navigation

The international regulations to prevent collision at sea (COLREG) and course regulations make mandatory a permanent and proper surveillance and the respect of priority.

Make sure there is no other boat in your way.

Visibility from the steering station may be obstructed by the following:

- Load and load distribution.
- Sea conditions, rain, spray, fog or darkness.
- Lights on inside the boat.
- People and mobile equipment in the helmsman's field of visibility.



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NAVIGATION

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LAGOON 440

### ■ Navigation under motor

Before starting the engine:

- Ensure that the fuel valves are open.
- Open the valves for the engine cooling systems (see chapter MOTORIZATION).

To start the engines, refer to the manufacturer's manual too.

#### • ENGINE STARTING

Turn on the battery switches located in the port and starboard aft cabins.

- Disengage the gear (to allow acceleration in neutral).

Proceed in the following order:

- Start the port engine first.
- Then start the starboard engine.

After starting the engine check for cooling water running out of the exhaust and observe the color of exhaust gases.

#### • BATTERY COUPLING

In the case of low engine battery power use the battery coupling function by turning on the coupling handle located in the starboard aft cabin.

Once the engines have been restarted make sure that the coupling handle is turned back to its original position.

#### • NAVIGATION

When using the engine, avoid making noise and waves near other users.

Respect speed limits.

#### **WARNING**

**Never cut off the ignition or the electrical circuit when the engine is running.**

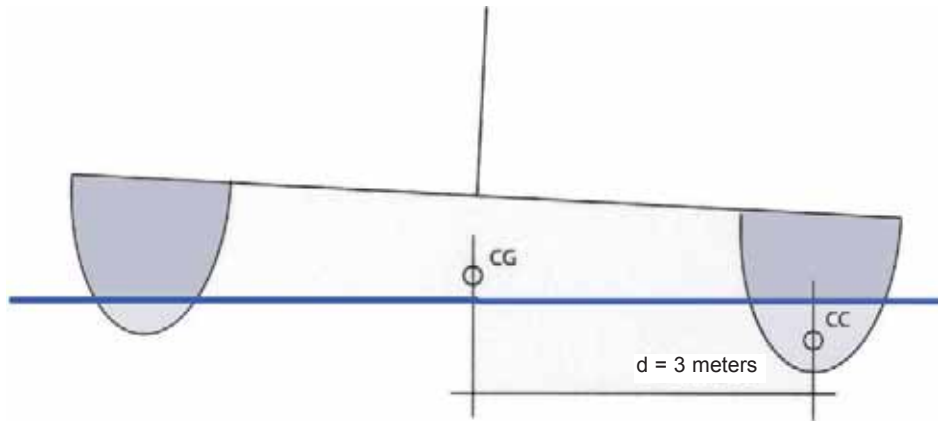
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NAVIGATION

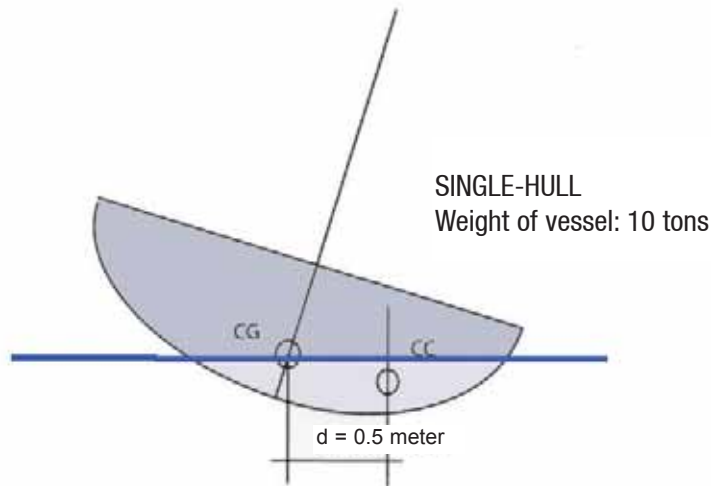
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# RIGHTING MOMENT



CATAMARAN  
Weight of vessel: 10 tons



SINGLE-HULL  
Weight of vessel: 10 tons

Illustration showing the difference between the righting moments of a single-hull vessel and a catamaran of 10m length.

$d$ : distance between centre of buoyancy and centre of gravity.

RMmax: weight of vessel x  $d$   
(RMmax: maximum righting moment)

**RMmax single-hull** : 10 tons x 0.5 meters  
: **5 tons.meters**

**RMmax catamaran** : 10 tons x 3 meters  
: **30 tons.meters**

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### ■ Navigation under sail

- BEWARE

A catamaran presents 6 times greater heel resistance than a single-hull vessel. In terms of ship design we speak of righting moment (multiplication of the vessel's weight by the transverse distance between the centre of gravity and the centre of flotation (or buoyancy).

See illustration on previous page.

This fact has real consequences for the handling and sail-trimming of a catamaran.

The fact that the boat will not heel over could conceal an excessive sail surface area in use, which could be dangerous for the crew and the vessel. It is therefore essential to constantly monitor the real wind speed and to trim the sail surface area as a priority in accordance with this speed.

These latter adjustments are valid in calm seas. In rough seas one should take the precaution of reducing 10% earlier in terms of real wind speed. Generally speaking, it is essential to constantly look to relieve the vessel rather than to put it under stress.

One should always look for the sail angle of attack to be headed to the apparent wind and the sails to be not over-trimmed so that the airflows leaving the sail are parallel to each other, that is to say they do not create turbulence behind the sail.

Failure to follow the above recommendations can be dangerous for the boat and the crew, and the manufacturer cannot be held responsible in the event of an accident.

- CLOSE HAULED TRIMMING (between 75 and 50° to true wind)

#### Given wind force in apparent wind

- **From 0 to 16 knots:** full sail; mainsail traveler 30 cm to windward of center, mainsail trimmed with a slightly opened leech (boom centered).

The Genoa jib is trimmed near the spreader, the Genoa traveler is placed so that the angle of the Genoa sheet forms a straight line with the clew and the luff, at 40% of its height.

- **From 16 to 20 knots:** full sail; the mainsail traveler moves up to 60 cm to windward of center, mainsail trimmed with a slightly more open leech (boom still in line: so the sheet will have to be slackened).

The Genoa traveler does not change position but adjust the sheet so that the leech is 10 cm from the spreader.

- **From 20 to 26 knots:** 1 reef, full Genoa; the mainsail traveler comes back to 30 cm to windward of center.

The Genoa traveler does not change position but the sheet is slackened slightly so that the leech is 20 cm from the spreader.

- **From 26 to 30 knots:** 1 reef, 75% of the Genoa; the mainsail traveler moves up to 60 cm to windward of center.

The Genoa traveler remains in place or moves slightly forward but it is adjusted so that the leech forms a propeller, the upper part dumping air out under strong gusts of wind.

- **From 30 to 36 knots:** 2 reefs, 60% of the Genoa; the mainsail traveler returns to the 30 cm to windward of center, the boom is slackened to fly 50 cm leeward.

The Genoa traveler is moved slightly forward, the adjustment remains the same.

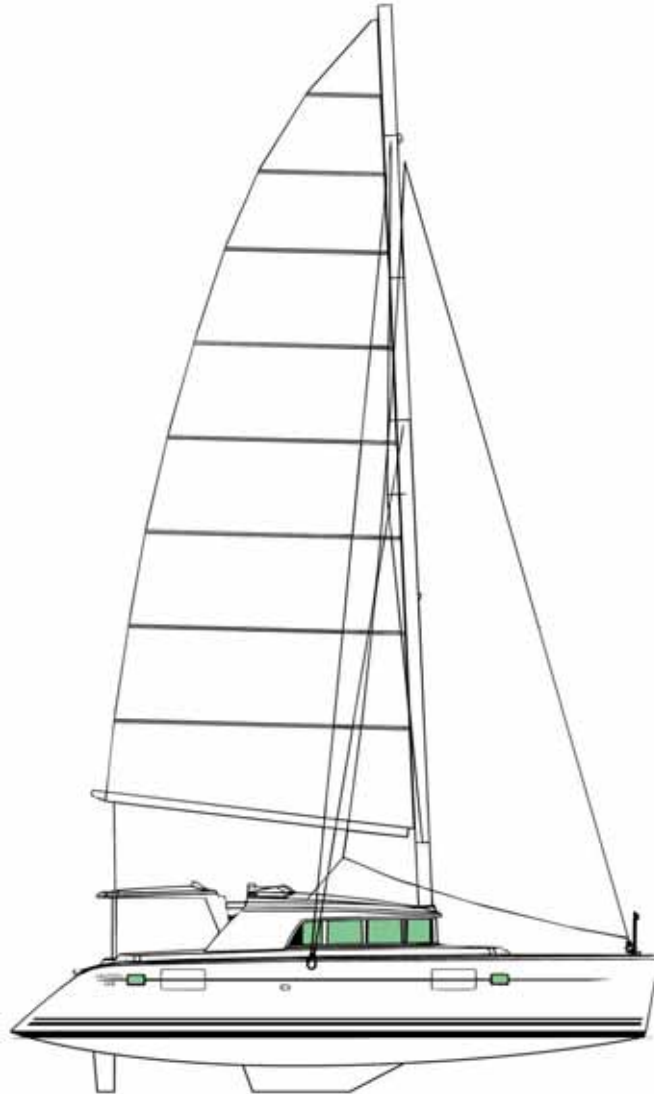


## SAILS

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NAVIGATION

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### SURFACE AREA OF MAINSAIL STANDARD EUROPE MAST

Mainsail high: 71.30 m2.  
Mainsail 1 reef: 59.10 m2.  
Mainsail 2 reefs: 44.20 m2.  
Mainsail 3 reefs: 29.40 m2.

### SURFACE AREA OF MAINSAIL SHORT MAST

mainsail high: 58.70 m2.  
mainsail 1 reef: 39.30 m2.  
mainsail 2 reefs: 31.20 m2.  
mainsail 3 reefs: 21.10 m2.

- **From 36 to 45 knots:** 2 reefs, 40% of the Genoa. The mainsail traveler is dead center and the boom veers 1 meter to leeward. The Genoa traveler moves forward slightly, the sheet is slackened to open wide in strong wind conditions.
- **From 45 to 55 knots:** 3 reefs alone (either storm sail or lie to), traveler in the center, mainsail out by 1 meter. The boat will be more at ease scudding in this weather.
- **Over 55 knots:** lie to, drag anchor or, preferably, scud bare poles.
- CLOSED REACHED TRIMMING (between 75 and 130° to true wind)
  - **From 0 to 23 knots:** full sail; the traveler is positioned between 1 meter from centre up to windward of center, depending on the wind angle, the sheet is slackened so that boom is veering out anything from 50 cm in calm weather to 2 meters when the wind is forcing. In every case no more than one batten should be allowed to chafe at the shroud at the fastest speeds. The Genoa jib is slackened so that its average attack angle is head on to the apparent wind.
  - **From 23 to 28 knots:** 1 reef, full Genoa. The adjustments are identical.
  - **From 28 to 33 knots:** 2 reefs, 80% of the Genoa. The adjustments remain identical.

- **From 33 to 38 knots:** 2 reefs, 60% of the Genoa. The adjustments remain identical.
- **From 38 to 45 knots:** 3 reefs (or mainsail lowered and a little more Genoa), 40% of the Genoa. The adjustments remain identical.
- **From 45 to 55 knots:** mainsail lowered, 40 to 30% of the Genoa, sufficiently trimmed so as not to flap.
- **Over 55 knots:** scudding, depending on the sea conditions the mooring lines can be looped round behind the vessel and attached on the opposite side to act as a brake.

These indications are given for your information only and are dependant on outside conditions.

### WARNING

**Your boat is designed to sail without the need to climb onto the roof for any maneuvers. It is dangerous to climb or stay on the roof particularly in the event of gibing. Keep children under close supervision.**

### RECOMMENDATION

**Under sail put all engine controls in neutral to avoid any damage to engines (with fixed or folding propellers).**



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- REDUCING SAIL

The boat is fitted with 3 reefs.

Reefs n°1 and n°2 are automatic, n°3 is traditional.

The luff eyelet of reef n°3 is fitted with a strap with a snap shackle to clip on to the eye bolt on the boom.

Putting in reefs n°1 and n°2:

- 1 - Head the boat into the wind.
- 2 - Pull tight the topping lift.
- 3 - Slacken the mainsail sheet.
- 4 - Slacken the mainsail halyard and then trim reef line n°1 or n°2, as needed, until the reefing blocks which correspond to the luff and the mainsail leech are a few centimeters from the boom.
- 5 - Close the line cam cleat of the respective reef.
- 6 - Hoist taut the mainsail halyard.
- 7 - Slacken the topping lift and take in the mainsail sheet.

Follow the lowering and raising of the sail with the help of the head downhaul.

Putting in reef n°3:

Repeat steps 1 to 3 as before, then:

- 4- Slacken the mainsail halyard then trim reef line n°3 until the mainsail leech block is a few centimeters away from the boom.
- Clip the snap shackle on the luff eyelet of reef n°3 onto the eye bolt located on the boom.
  - Take up the slack in the lines of reefs n°1 and 2.
  - Repeat steps 5 to 7 as before.

Refer to the running rigging diagram (chapter on RIGGING AND SAILS) for identification of ropes.

### RECOMMENDATION

**For safety, the reef line used should always stay on the winch with 3 turns around the drum.  
Re-close the cam cleat for greater safety.**

- NAVIGATION WIND ASTERN

- Do not fall off more than 150° to the apparent wind.
- Put the traveler out as far as possible and slacken the sheet slightly.
- Make sure the mainsail does not touch the shrouds; the rubbing of the battens will wear the material and cable very rapidly.
- Keep mainsail + solent up to 15 knots speed and put in one reef or more if the accelerations are sudden and strong or if sea conditions deteriorate.

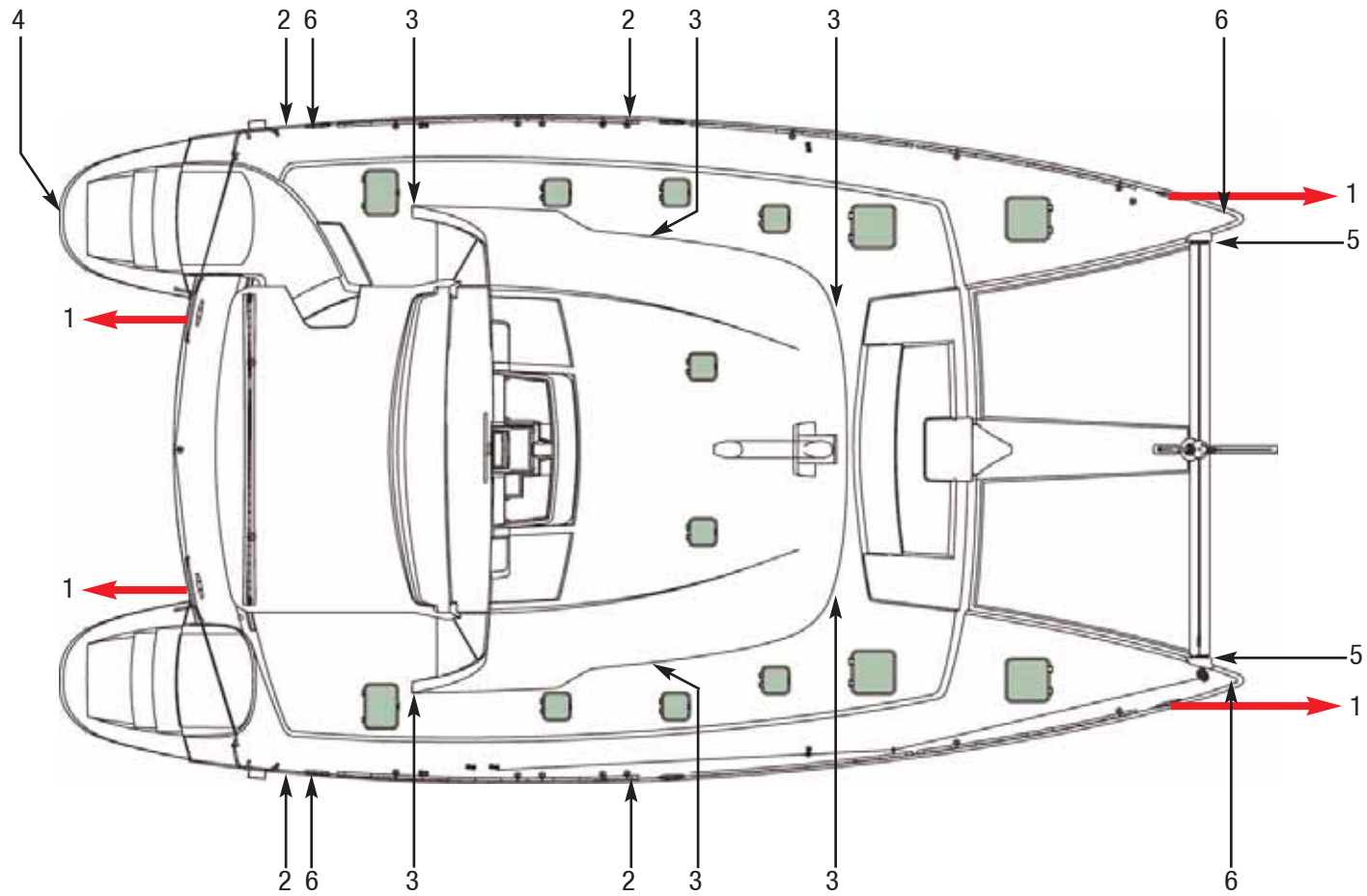
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NAVIGATION

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## DECK LAYOUT



NAVIGATION

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1 - Midship cleat for towing.  
2 - Midship cleat.

3 - Jack-line fastening.  
4 - Swimming ladder.

5 - Anchor bridle fastening.  
6 - Padeye/spinnaker/gennaker sheet block.

### ■ Mooring

A sufficient number of dockside lines of a size suitable for the environment should be on board for mooring your boat.

- Always maneuver your boat using the engine.
- Make allowances for currents and wind when handling your boat.
- Protect your boat properly with suitably sized fenders.
- Always keep the dockside lines clear and stored away.
- Maneuver at a reduced speed.

#### **DANGER**

**Do not try to stop the boat with your foot, your hand or a boat hook.**

#### AFTER MOORING

- Protect the dockside lines from chafing with chafe guards.
- Allow for tide variations if necessary.

#### **WARNING**

**Do not let the hull's large plexiglass windscreens come into contact with fenders or hawsers: surface damage would be irreparable.**

### ■ Towing

#### TOWING

Tow another boat at a reduced speed and as smoothly as you can.

Be particularly careful when throwing or catching the towing line (it may catch on the propeller).

N.B.: Stability may be reduced when towing a boat.

#### BEING TOWED

- Keep steering your boat and ensure you stay in the wake of the towing boat.

### ■ Anchoring

As a rule, set the anchor line at least 3 times the water depth.

#### **RECOMMENDATION**

**Before anchoring check the depth of water, the power of the current and the nature of the sea bed.**

#### • PREPARATION OF ANCHORING (illustrations following page)

- Install the bridle by fixing it to the chain plates located at the ends of the fore beam.
- Put the bridle through the stem bow roller.
- Shackle the bridle to the central cleat during the lowering of the chain.

#### • MANUAL ANCHORING

- Point your boat into the wind and at zero speed.
- Release the brake on the chain lifter.
- Pay out the chain while reversing slowly.
- Secure the anchor chain on the bridle.
- Lead out the chain until the guy becomes taut.



# ANCHORING



**ATTACH THE BRIDLE TO THE FORWARD BEAM**



**RUN THE BRIDLE THROUGH THE BOW ROLLER**



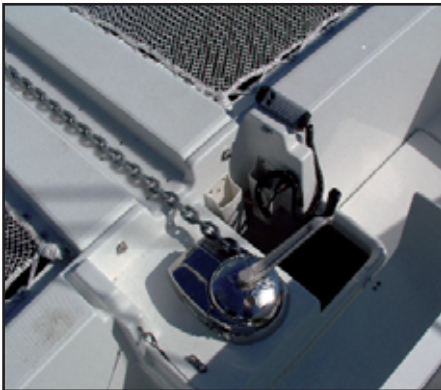
**SHACKLE THE BRIDLE TO THE CHAIN**

NAVIGATION

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**WINDLASS SWITCH**



**WINDLASS CONTROL**



**WINDLASS CIRCUIT BREAKER (FORWARD COCKPIT LOCKER)**

### • WINDLASS ANCHORING

#### **WARNING**

All anchoring maneuvers using the electric windlass should be carried out with the port engine running.

Activate the windlass with the control found in the windlass locker or from the steering station.

If the port engine is not functioning, the windlass can work on service batteries (if available) by switching on the port engine ignition only (the engine alarm will then sound while the windlass is in use).

N.B.: The batteries can be recharged via the generator (optional extra) if the engines do not start.

### • HOISTING ANCHOR

- Apply the brake on the chain lifter.
- Ensure the chain is properly set on the chain gypsy.
- Slowly advance the vessel using your engine (do not use your windlass to advance the boat).
- Release the bridle from the chain.
- Lift the anchor completely.
- Visually check the final meters until the anchor makes contact with the davit.
- Check the position of the anchor on the stem-head fitting.
- Secure the anchor or anchor chain to the cleat.

#### **WARNING**

Windlass operations are dangerous:

- Always keep the anchor line clear and unencumbered.
- Always proceed with care, using gloves and always wearing shoes.

In the case of electrical failure use the winch handle on the windlass to lift anchor.

### • MAINTENANCE

After each trip rinse the windlass and dockside line with fresh water.

Refer to the manufacturer's instructions for windlass maintenance at the beginning or end of the season.



# DAVITS

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**ATTACH  
DAVIT LINES**



**DAVIT BLOCKERS**



**PULLING UP TENDER  
WITH WINCH**



**BLOCKING TENDER  
AGAINST THE DAVITS**

NAVIGATION

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### ■ Davits (optional extra)

#### **WARNING**

Nobody should be aboard the tender during maneuvers carried out with the davits. Tie up the tender out of the way during maneuvers.

- INSTALLING A TENDER ONTO THE DAVITS
  - Fix the davit line hooks to the forward and aft of the tender.
  - Close the blockers found on the davits.
  - Pull the bow of the tender up to halfway using the cockpit winch.
  - Repeat the operation for the stern.
  - Alternatively raise bow and stern until the tender comes into contact with the davits.
- LAUNCHING A TENDER FROM THE DAVITS
  - Ensure that the blockers on the davits are closed.
  - Thread the davit rope attached to the stern of the tender around the winch (minimum of three turns).
  - Open the blocker and let the line feed out until halfway.
  - Close the blocker.
  - Repeat the procedure for the bow.
  - Alternatively lower stern and bow until the tender comes into contact with the water.

#### **WARNING**

When under sail remove the tender engine and store it on board the boat.  
Secure the tender according to sea conditions.

#### **WARNING**

The davits are designed to support a maximum load of 250 kg and a tender of 3.80 meters in length at maximum.

### ■ Environment

#### **RECOMMENDATION**

We share a love for the ocean. Help us to preserve them!

Do not discharge oil into the sea.

Take every precaution to prevent hydro-fuel overflow when filling the engine tank.

When in port, only use the onboard toilets if they are equipped with organic waste reservoirs.

The use of detergents is implicated in the destruction of marine plant and animal life. Choose fully biodegradable cleaning products.  
Do not throw plastic bags and bin bags into the sea. Use the bins provided for this purpose at ports.







# Winter Storage

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# BLOCKING THE BOAT ASHORE

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WINTER STORAGE

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### ■ Laying up

- Take ashore all the ship's documents, any lines that are not used for mooring, galley equipment, supplies, clothes, safety equipment, batteries and gas bottles.
- Check the safety equipment, check expiration dates and have the life-raft overhauled.
- Take advantage of the laying up to draw up a complete inventory of equipment.

#### • BLOCKING THE BOAT ASHORE

Preparation for each hull:

- A large rectangular wooden block of 1m in length and a tire to be placed under the stern, across the keel.
- A steel jack-stand of a minimum of 1m in height which will be placed under the forward part of the forward bulkhead.

Make sure that the aft part of the keel is well-chocked (on its block) before very carefully lowering the forward section onto the jack-stand.

### ■ Protection and maintenance

#### • INTERIOR

- Drain all the fresh water hoses and rinse them with water and vinegar (do not use a chlorine based product).
- Lubricate and close all the water inlet valves and thru-hull fittings. Rinse and completely drain the heads bowls and pumps.

- Retract the sounder and speedometer sensors.
- Seal air inlets as much as possible.
- Install an air dehumidifier in the saloon and leave the cabin and storage unit doors open (lockers, ice boxes).
- Air the cushions outside for as long as possible before returning them to the boat, placing them upright on one side to limit contact surfaces.

#### • EXTERIOR

- Thoroughly rinse the hull and deck.
- Lubricate all mechanical and mobile parts with Vaseline (bolts, hinges, locks etc.).
- Protect all lines and dockside lines against chafing.
- Protect the boat to the highest degree with fenders.
- Make sure the boat is properly moored.

This list of recommendations is not exhaustive. Your dealer can advise you and carry out the technical maintenance of your boat.

#### • ENGINES

#### RECOMMENDATION

Winter storage of the engines is the domain of professionals. Storage conditions will depend on whether the boat is stored afloat or ashore.





# Launching

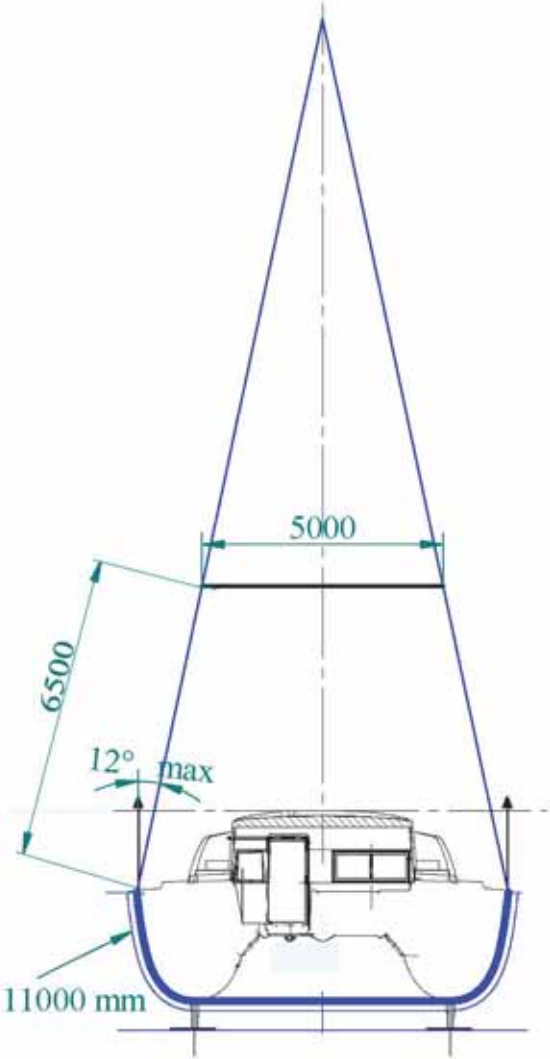
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# POSITIONING THE HOISTING BELTS

LAUNCHING

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### ■ Recommendations

A lot of skill and care is required to commission your boat for the first time.

The future proper functioning of your boat and its equipment depends on the quality of the commissioning operation.

In order to validate the warranty in the event of the failure of certain equipment, the initial launch and equipment tests must be carried out by your LAGOON dealer or agent.

#### RECOMMENDATION

All future maintenance should be carried out with the greatest care by professionals.

If the LAGOON boatyard is not involved in maintenance operations, your guarantee will not cover any incidents linked to handling errors.

#### • BEFORE LAUNCHING

- If your boat is to be fitted with a sounder and speedometer, allow for the relevant fittings and their installation.
- Check the water intake strain box for cleanliness.
- Check the engine and reduction gear oil levels (refer to engine manual).
- All the optional accessories should be sealed with paste.
- Retract the speedometer into its housing (it may be damaged by the handling belts).
- Turn off all the water inlet and drain valves (sink, washbasin, heads and engine).

#### • HOISTING

Tie off the vessel fore and aft with fenders.

Prepare:

- 2 belts (minimum 11 meters).
- 4 slings (see diagram opposite).
- Attach the 4 slings to the belts.

# 3

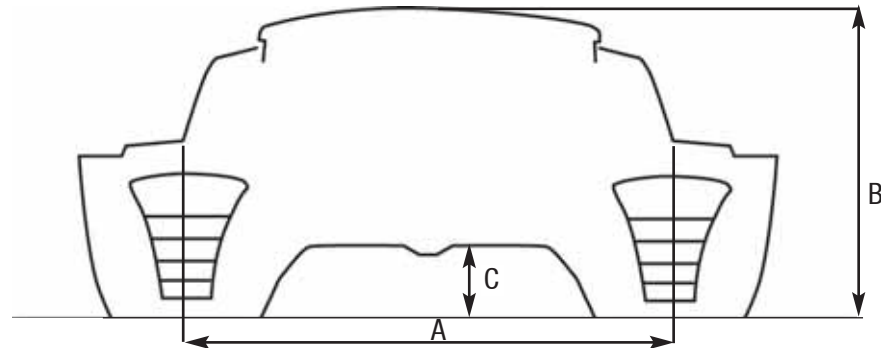
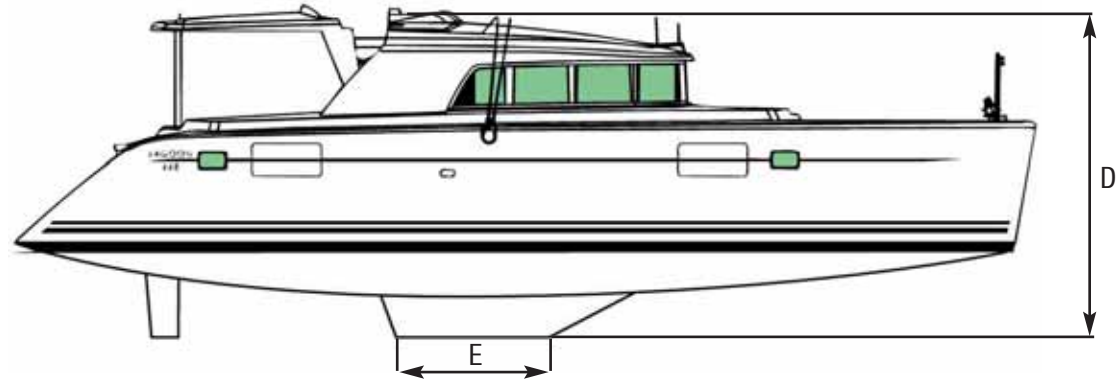
LAUNCHING

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# PACKING

FURTHER INFORMATION RELATIVE TO THAT GIVEN IN THE GENERAL SPECIFICATIONS CHAPTER



Mark	Identification	Size (m)
A	Width between hull centers	5,30
B	Height clearance (without mast or appendices)	3,34
C	Waterline height under nacelle	0,67 - 0,81
D	Vessel height on its keels (without mast or appendices)	4,64
E	Length of keels	2,25
	Length of boom	6,80
	Length of Europe mast	19,20

LAUNCHING

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- Put it slightly under tension; the sling hooks should be situated at the boat's centre of gravity, either in the longitudinal centre or plumb with the shroud chain-plates in the transverse plane.

Hoist gently, and control the movement of the boat with dock lines.

### **DANGER**

**Do not stay on board or under the boat during hoisting.**

### **RECOMMENDATION**

**Never place belts or fenders in contact with the large glass windows in the hulls.**

- AFTER LAUNCHING
  - Check the sounder and speedometer fittings for tightness if necessary.
  - Open the valves and make sure that they are watertight.

Before starting the engine, refer to the MOTORIZATION chapter.

## ■ Stepping the mast

If later you have to step the mast anywhere other than at your LAGOON dealer, proceed as follows:

### • BEFORE STEPPING THE MAST

- Protect the mast against possible chafing by the crane hook and cable.
- Tie down the shrouds and all the riggings to the base of the mast with lashing long enough to guide the mast heel when stepping the mast.
- Protect the spreader end fittings and the roller furler drum.
- Put around the mast a line of about 1.50 m with an eye and thimble at both ends and covered with rags; place this rope over the second level of cross trees.
- Link together both thimbles (in front of the mast) with a shackle large enough to receive the crane hook.
- Raise the whole till it is taut under the spreader bases.

### • DURING MAST STEPPING

- Take the necessary steps to avoid damaging the mast head equipment.
- Use the backstay and lashing at the base of the mast to control the handling.
- Engage the electrical harness in the mast base.
- Ensure the base of the mast bears fully on its base plate.

# 3

LAUNCHING

31



---

LAUNCHING

32



**MAST  
JUNCTION BOX**

- AFTER MAST STEPPING

- Lubricate all the turnbuckles (see recommendations in the RIGGING chapter).
- Tension the rigging (refer to RIGGING chapter for settings).
- Reconnect the electrical cables in the junction box at the base of the mast located in the forward cockpit locker after running the cables through the gooseneck located at the front of the mast (see ELECTRICITY chapter).
- Carefully check the tightness of the turnbuckle cotter pins, and protect with adhesive tape.
- Replace the boom and re-lead all the lines.

### RECOMMENDATION

Re-adjust the mast after a few miles.

- DISMASTING

Proceed by carrying out the operations recommended for stepping the mast in reverse order, taking care to mark the line locations with stickers.

### RECOMMENDATION

Before all dismasting operation, remember to disconnect the electric cables.  
Pull gently while guiding the cables.

# 3

LAUNCHING

33





# Hull & deck

4

<b>CONSTRUCTION .....</b>	<b>37</b>
<b>MAINTENANCE .....</b>	<b>37</b>
<b>HAUL OUT .....</b>	<b>37</b>
<b>GEL-COAT REPAIR .....</b>	<b>39</b>
<b>STEERING GEAR .....</b>	<b>39</b>
<b>DECK WASH PUMP .....</b>	<b>41</b>

# HAUL OUT

---

HULL  
& DECK

36



Submerged area (including appendices): 63 m<sup>2</sup>.

### ■ Construction

The LAGOON 440 is built of balsawood sandwich (monolithic below the water line), polyester resin and vinyl-ester; the counter-moulds are monolithic and the partitions are made of laminated plywood.

The nacelle and deck are of balsawood sandwich composite.

### ■ Maintenance

The materials and equipment of your boat have been selected for their high quality and performance and for their ease of maintenance. However you must carry out a small amount of maintenance in order to protect your boat from external elements (salt, sun, corrosion...).

Clean your boat preferably on shore with fresh water.

Use as few cleaning products as possible.

Do not use solvents or aggressive detergents.

Do not discharge cleaning products into the sea.

Regularly brush the deck with a degreasing cleanser and fresh water.

#### RECOMMENDATION

**We strongly advise against the use of pressure washers.**

**Do not use hot water or steam.**

#### DECK FITTINGS

- Thoroughly rinse all your equipment with fresh water.
- Periodically lubricate blocks, sheaves, turnbuckles, winches, tracks and travelers with water-repellent grease.
- Stainless steel that is showing small spots or blisters of rust should be cleaned and polished with a chrome and steel renovator.

#### EXTERNAL TEAK FITTINGS / TECK DECK

Regularly clean all exterior wood with fresh water using a sponge (if necessary some mild soap may be added).

#### PLEXIGLASS

- Rinse Plexiglass with fresh water.
- Polish with a soft cloth soaked in liquid paraffin.
- Use polishing paste to remove scratches.

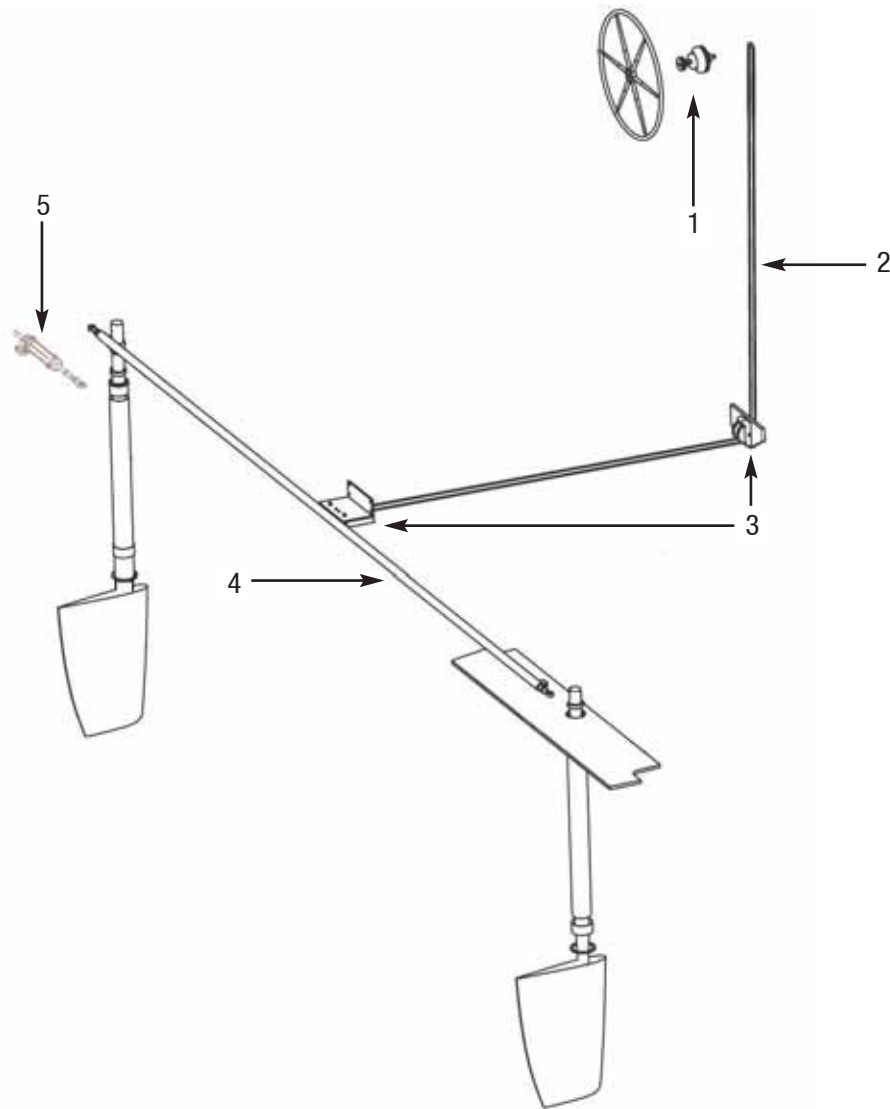
### ■ Haul out

Applying a tin-free anti-fouling paint every year will avoid the need for tedious and frequent haul-outs. An epoxy undercoat is recommended. You are reminded that sanding before applying antifouling paint attacks the gel coat and impairs its durability.

Polishing will restore your boat's original shine. If a persistent and isolated problem arises, contact your dealer.



## STEERING GEAR



1 - Steering gear.

2 - Cables.

3 - Cable sheave.

4 - Connecting rod.

5 - Autopilot ram (optional extra).

HULL  
& DECK

38



**CABLE TENSION  
SYSTEM**



### ■ Gel-coat repair

#### PROPORTIONS

Our products contain an accelerator. You simply need to add the catalyst (a colorless liquid). The usual proportion is 2%.

The gel setting time (working time) is about 30 minutes, complete hardening takes about 10 hours.

#### WARNING

Please respect the following conditions for successful repairs:

- Dry weather.
- Temperature between 15 and 25°C.

#### APPLICATION

- To fill a blister hole or a scratch, sand and clean the area with acetone.
- Prepare the necessary amount of gel coat, preferably on a glass plate.
- Apply the product with a spatula or a nib in a layer thick enough to enable further sanding.
- In order to even out minor touch-ups on smooth surfaces, stick cellophane tape (or better, Mylar tape) on the freshly applied gel coat.
- Remove sellotape after hardening.
- To obtain a high shine finish, sand with extra fine paper and water, then polish.

#### STORAGE

Store gel coat components in a cool, dry and dark place.

The components can be kept for a maximum of 6 months.

Polyester products are flammable, so take the usual precautions.

#### CLEANING YOUR TOOLS

Clean your tools with acetone.

#### DANGER

The catalyst is a dangerous product:

- Keep it out of the reach of children.
- Avoid any contact with skin and mucous.
- Wash with soapy water and rinse thoroughly.

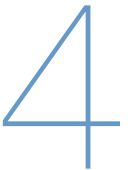
### ■ Steering gear

The steering system is accessed via the engine compartment.

- Regularly check tightening.
- Do not over-tighten the steering cables.
- Grease all elements.

Treat nylon, ertalon or Teflon bushings with WD40 only.

Proper settings result in gentle steering resistance, without hard points and without looseness.

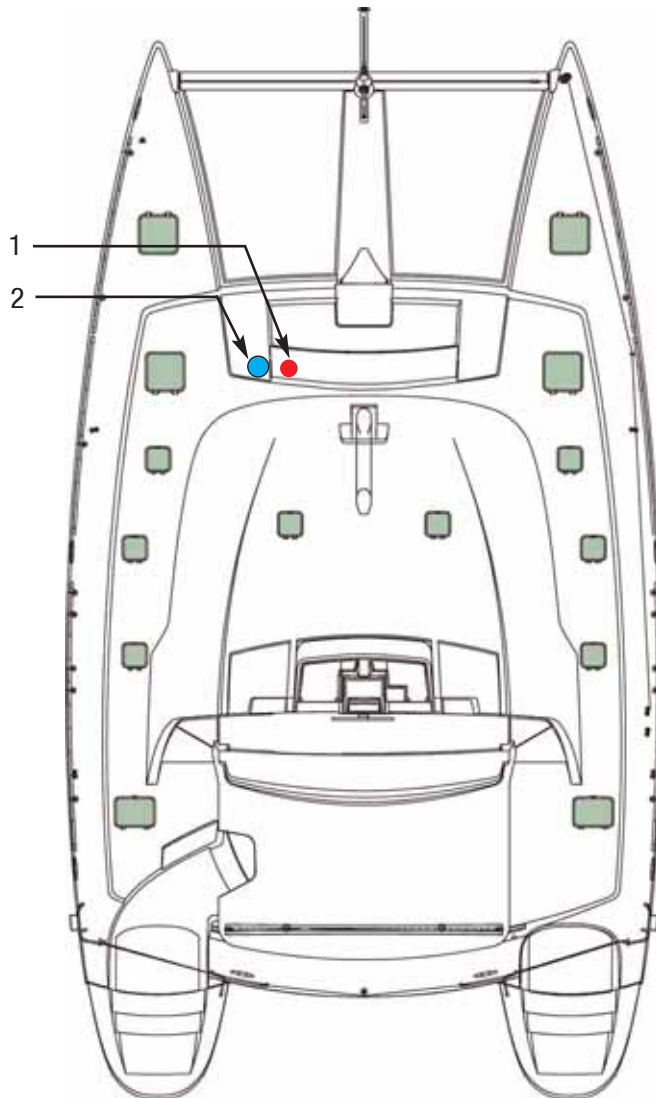


## DECK WASH PUMP

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HULL  
& DECK

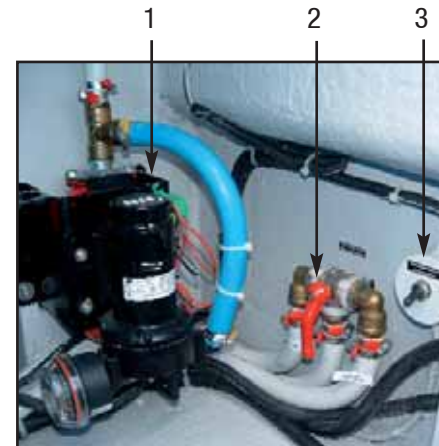
40



1 - Deck wash pump.

2 - Three-way valve for fresh/sea water.

3 - Switch.

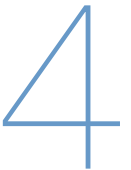


### ■ Deck wash pump (optional extra)

The deck wash pump is located in the forward port cockpit locker.

It supplies sea or fresh water from the port tanks (access to the selector valve through the forward port cockpit locker).

An activating switch is located next to the deck wash pump. It is on 12 V supply as soon as the boat's power is turned on (Service battery switch).



HULL  
& DECK

**41**





# Layouts

5

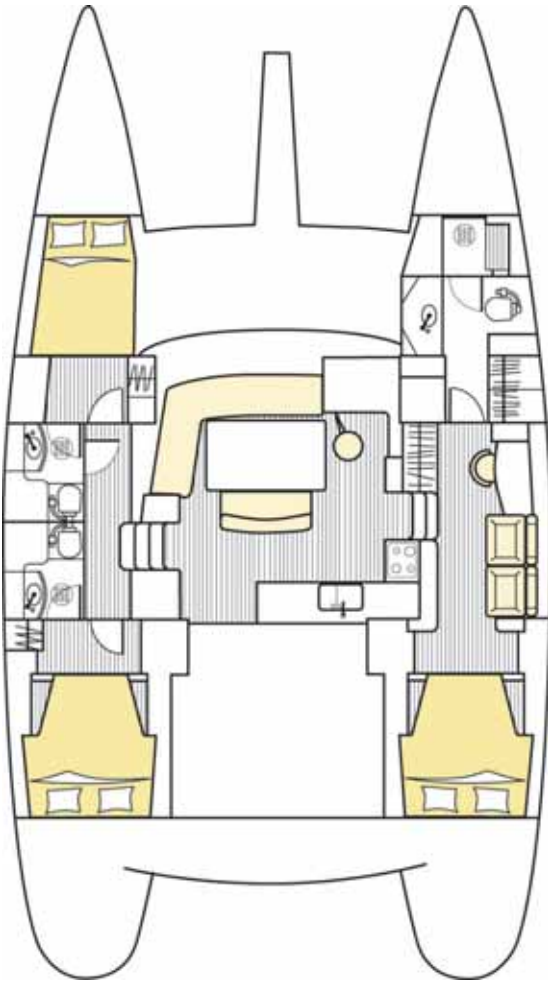
<b>INTERIOR MAINTENANCE .....</b>	<b>45</b>
<b>FABRICS .....</b>	<b>45</b>
<b>COCKPIT TABLE .....</b>	<b>47</b>
<b>PORTHOLES AND HATCHES .....</b>	<b>47</b>
<b>WASHING MACHINE - DISHWASHER ....</b>	<b>49</b>
<b>HEATING .....</b>	<b>49</b>
<b>AIR CONDITIONING .....</b>	<b>51</b>

# LAYOUTS

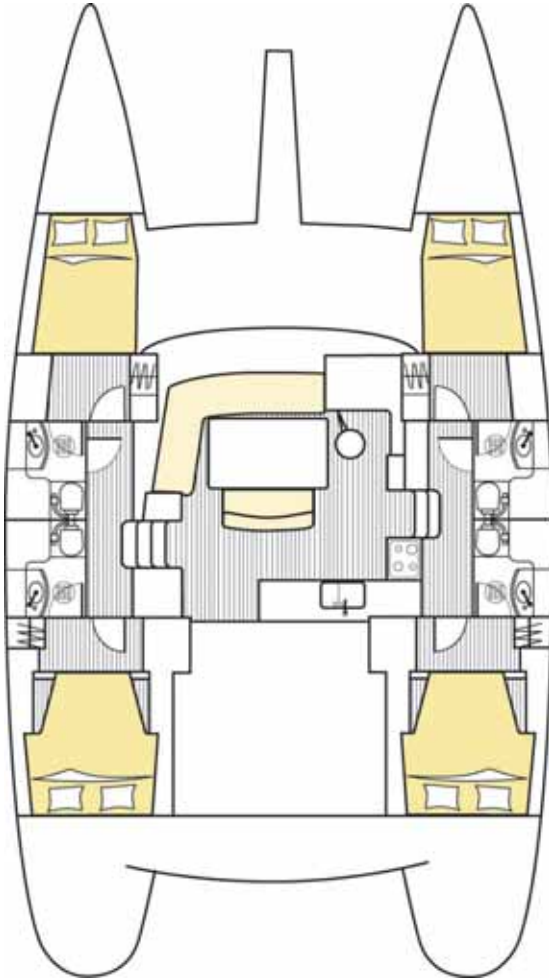
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LAYOUTS

44



3 cabin version.



4 cabin version.

### ■ Interior maintenance

- Take advantage of nice weather to air the sofa and berth cushions.
- Stand the cushions vertically if you leave the boat for a prolonged period.
- Use sun shades to protect the inside of the boat from UV rays.
- Ensure the bilges are kept clean and dry.

#### • INTERIOR VARNISH

- Rinse interior varnish with fresh water mixed with spot removing furniture shampoo.
- Polish interior varnish with chamois leather.

#### RECOMMENDATION

Use as few cleaning products as possible.  
Do not discharge cleaning products into the sea.

### ■ Fabrics

ADVICE: Mark each cover and foam pad when dismantling for easy identification.

#### • STAIN REMOVING

- Remove as much of the stain as you can with the blade of a knife (starting from the edge and moving towards the centre).
- Dab with a dry cloth.
- Remove the stain using a clean cloth dipped in solvent. Never pour solvent directly onto the stain.

- Rub with a clean, dry cloth.
- Brush the fabric against the grain.
- Vacuum the fabric when dry.

#### PVC AND COATED FABRICS

- Use a sponge and soapy water (household soap).
- For persistent stains, dab with a cloth soaked in white spirit, do not rub.

#### RECOMMENDATION

For PVC fabrics do not use solvents or solvent based products.

#### JACQUARD 100% POLYESTER / DRALON

If the fabric cannot be removed:

- Vacuum.
- Clean with synthetic foam (see the product's instructions for use).

If the fabric can be removed:

- Hand-wash at 30° with standard washing powder.

Both types of fabric can be dry-cleaned. Remove stains as soon as possible with a damp cloth.



## COCKPIT TABLE - DECK HATCH

---

LAYOUTS

46



**STOWING  
COCKPIT TABLE**



**LOCKING  
DECK HATCH**

(Left-hand handle button in open position.)  
(Right-hand handle button in closed position.)



### JACQUARD COTTON

- Dry clean.
- Do not iron.
- Do not use bleach.
- Remove stains with fractionated petrol.

### ALCANTARA

- Wash in warm water with pH-neutral soap.
- Leave to dry naturally.
- Dry clean with perchloroethylene.

### LEATHER

- Use a leather cream for day-to-day care.
- Do not use detergent.
- Do not use silicone-based products.
- Clean with a sponge and soapy water.
- Remove ball point pen marks with methylated spirit.
- Remove grease stains with an absorbent powder (e.g. talcum powder).

### ■ Cockpit table

The cockpit ceiling is used for stowing the outside table. To install the cockpit table release the ceiling and remove the table while being careful of movement of the boat. The two tables (saloon and cockpit) are interchangeable. Carefully fasten the ceiling back into place after removing or replacing the cockpit table.

### ■ Portholes and deck hatches

The portholes and deck hatches are equipped with latch systems to keep them in a closed position. At mooring, intermediate opening positions allow for airing of the boat.

# 5

LAYOUTS

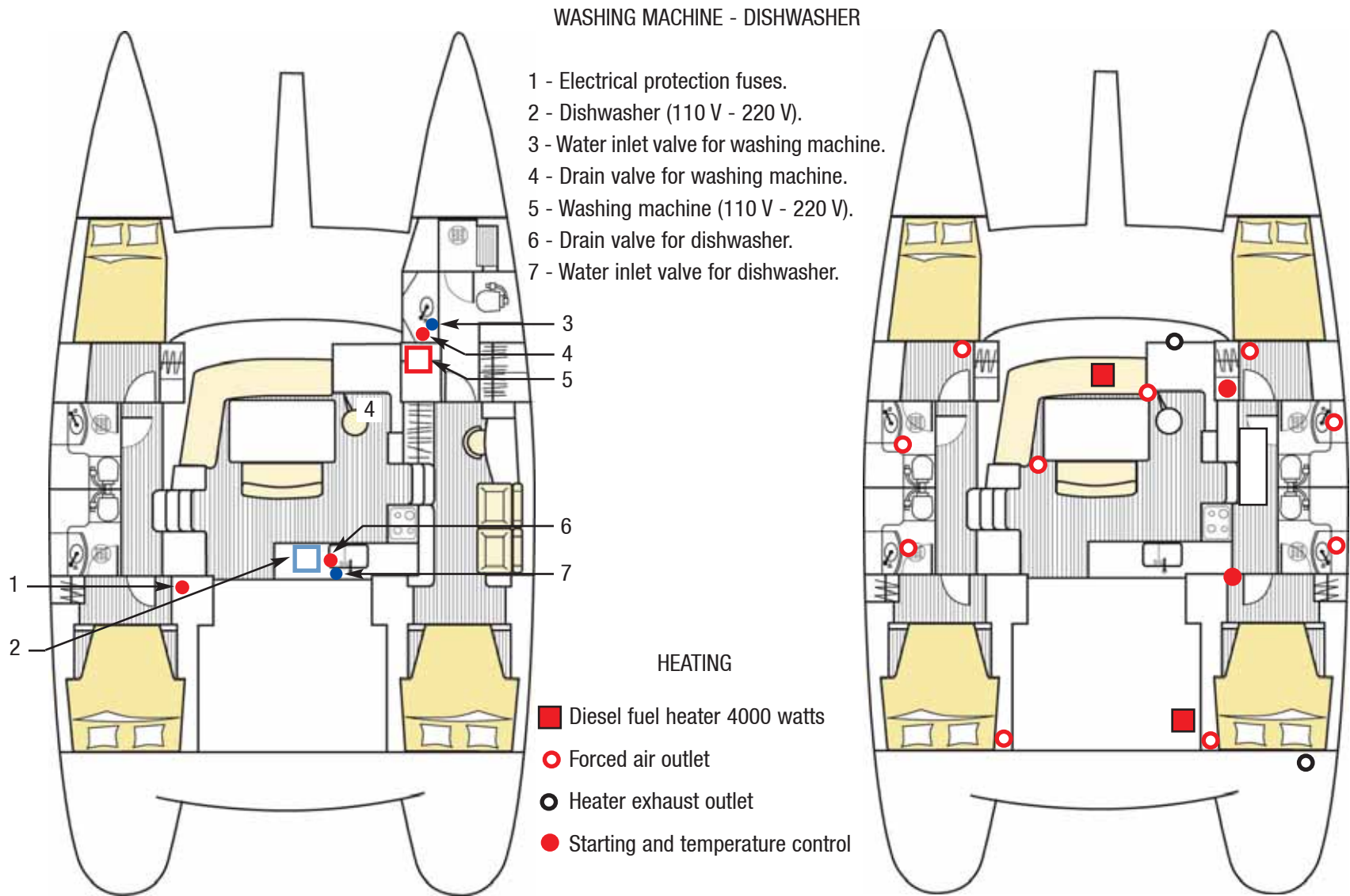
47



# WASHING MACHINE - DISHWASHER - HEATING

LAYOUTS

48



*The positions are the same for the other layout version.*

### ■ Washing machine - dishwasher (optional extras)

- Make sure that there is sufficient fresh water before using the washing machine or dishwasher.
- Open the water supply and drain valves of the respective machine.

#### Water supply:

Washing machine: under the washbasin in the forward starboard toilet.

Dishwasher: under the galley sink.

#### Drainage:

Washing machine: under the washbasin in the forward starboard toilet.

Dishwasher: connected to the galley sink drains.

- Connect the shore power supply or start the generator (see ELECTRICITY chapter).
- Switch on the circuit breakers in the port aft cabin cupboard.
- Switch on the relevant machine.

For use and maintenance of the washing machine or dishwasher refer to their relevant instruction guide.

### ■ Heating (optional extra)

The heating system works on 12 V.

It consists of two 4000 W heaters located under the forward saloon bench seat and in the starboard aft cockpit locker.

The heaters are supplied with diesel from the starboard tank.

#### To operate the system:

- The system is supplied with 12 V current as soon as the boat power is switched on (Service battery switch).
- Switch on the heaters with their controls located in the starboard aft cabin and in the saloon at the steering station.
- Adjust to the required temperature.

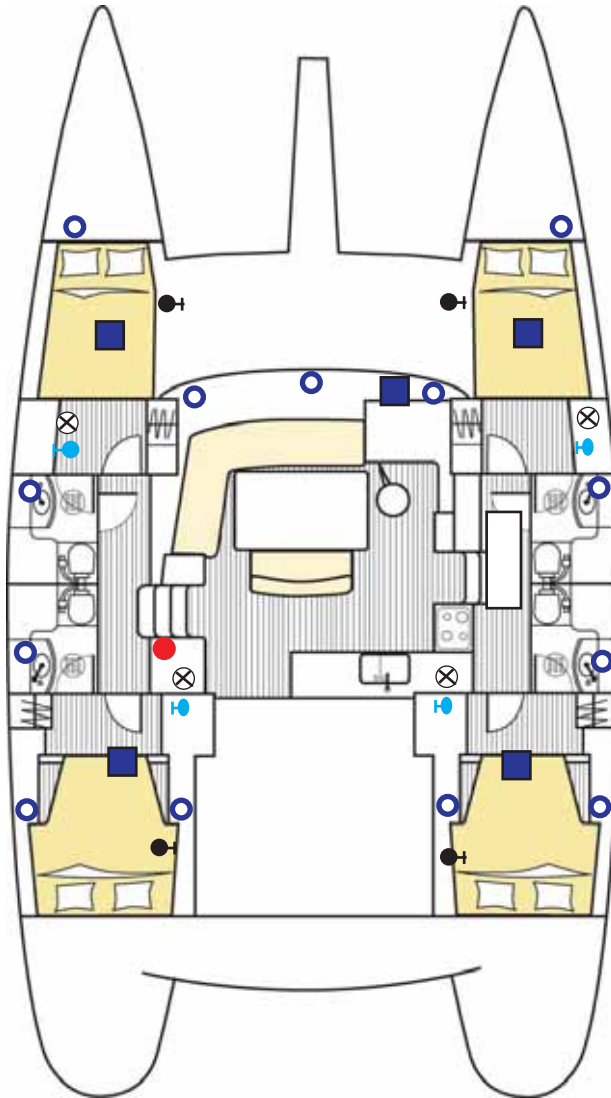
For use and maintenance of the heating refer to the instruction guide.









# AIR CONDITIONING

LAYOUTS

50



POWER: 44 000 BTU for the Charter version.  
46 000 BTU for the Owner version.

-  Compressor
-  Sea water pump
-  Water supply valve for pumps
-  Drain valve for compressor
-  Air outlet
-  Electrical fuse protection



**SEA WATER PUMP FOR  
AIR CONDITIONING**

### ■ Air conditioning (optional extra)

The air conditioning system works on 110 V - 220 V.

To operate the system:

- Open the pump water supply valves (one in each hull for the supply of several compressors).
- Open the compressor drain valves (2 in each hull).
  
- Connect the specific air conditioning shore power supply (220 V only) or start the generator (see ELECTRICITY chapter).
- On the electrical panel select the air conditioning supply on QUAL or GENERATEUR.
- Turn on the mains switch (AC-MAIN) for the air conditioning on the electrical panel.
  
- Operate the air conditioning units on the electrical panel. Wait 30 seconds between the starting of each unit.
- Adjust to the required temperature and ventilation on the air conditioning controls in the respective areas.

For use and maintenance of the system refer to the instruction guide.





# Electricity

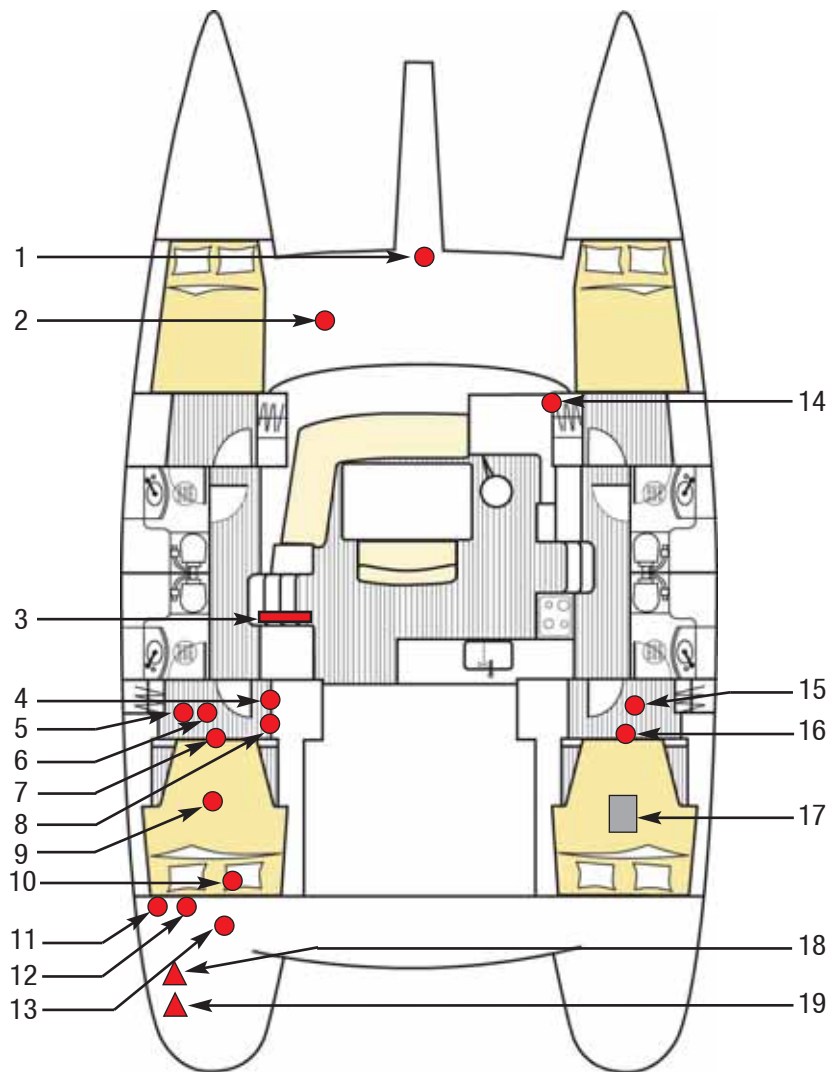
6

<b>BATTERIES/CIRCUIT BREAKER...</b>	<b>55</b>
<b>OPERATION.....</b>	<b>57</b>
<b>110 V - 220 V CIRCUIT .....</b>	<b>59</b>
<b>SERVICE COMPARTMENT.....</b>	<b>59</b>
<b>GENERATOR.....</b>	<b>61</b>
<b>BATTERY CHARGER .....</b>	<b>61</b>
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<b>MAST WIRE HARNESS.....</b>	<b>63</b>
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## ELECTRICS LAYOUT

### ELECTRICITY

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*Locations are the same for the other layout version.*

- 1 - Windlass.
- 2 - Windlass circuit breaker.
- 3 - Electrical panel.
- 4 - 110 V / 220 V circuit breakers + inverter.
- 5 - 5th battery option.
- 6 - Engine battery.
- 7 - Battery switches.
- 8 - Washing machine / dishwasher circuit breaker.
- 9 - Service battery + 4th battery (option).
- 10 - Automatic pilot calculator.
- 11 - Shore power supply circuit breaker.
- 12 - Air conditioning shore power supply circuit breaker.
- 13 - Battery charger.
- 14 - Electric compressor fridge.
- 15 - Engine battery.
- 16 - Battery switches.
- 17 - Water heater.
- 18 - Shore power supply.
- 19 - Air conditioning shore power supply.



### ■ Batteries and circuit breakers

The electricity onboard is 12 V DC.

The electrical system consists of service batteries. The batteries supply power to all the functions on board (see SPECIFICATIONS chapter for battery capacity).

The general 12 V system is turned on by switching to ON the battery switches located in the port and starboard aft cabins.

#### • MAINTENANCE

Keep the batteries charged (essential to ensure longevity).

It is possible to operate with the battery store charged to 80% on the condition that the batteries are charged weekly to 100%.

Never run batteries down below 70% of their nominal capacity.

Use the battery charger when in a marina to ensure you begin each trip with properly charged batteries.

A battery monitor (DC meter on the electrical panel) enables control of the charge, voltage and depletion rate of the service batteries and of the generator (optional extra).

For its use see the instruction guide.

Always check the battery and charge system condition before you put out to sea.

Keep the batteries clean and dry in order to avoid premature wear.

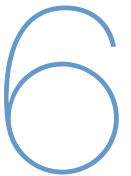
Have the acidity level of the battery checked if left unused for a prolonged period. Check the level regularly.

Tighten and maintain the terminal connectors by lubricating them regularly with Vaseline.

#### **WARNING**

**A damaged battery will never recover its original capacity.**

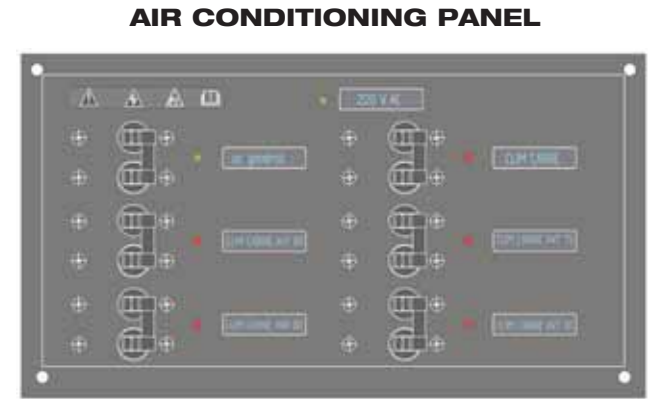
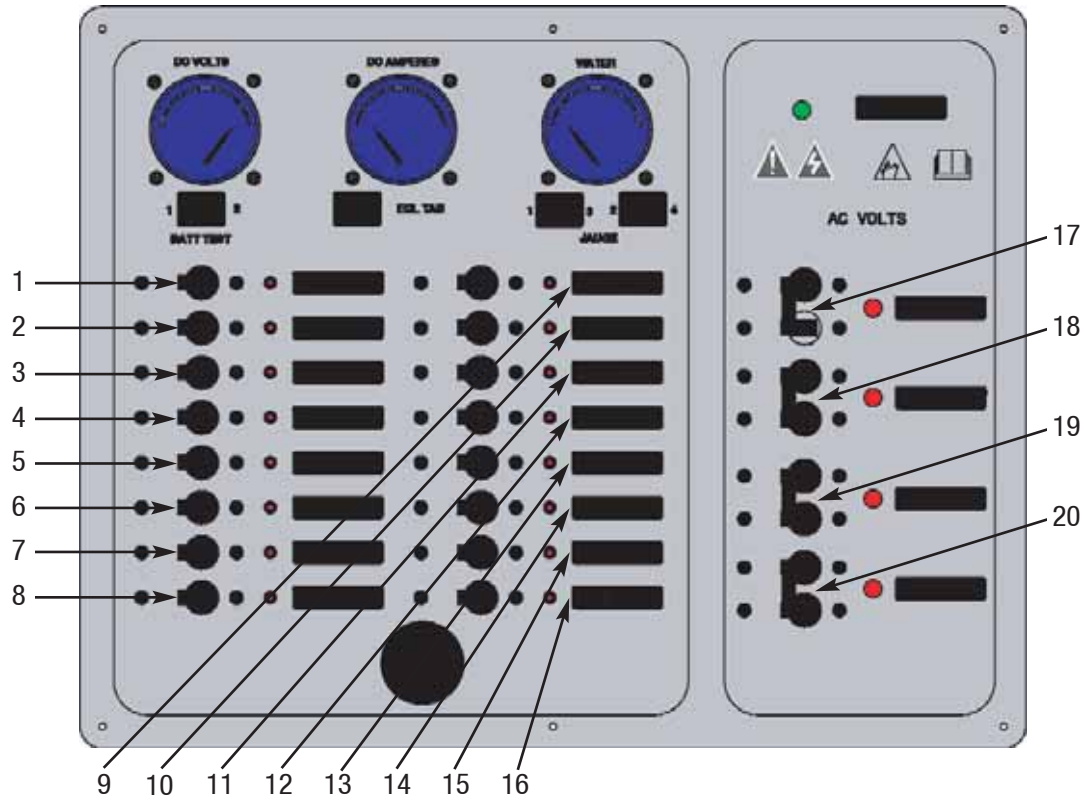
**The service batteries should be charged to their maximum.**



# ELECTRICAL PANELS

## ELECTRICITY

56



- |                          |                                  |                                |
|--------------------------|----------------------------------|--------------------------------|
| 1 - Navigation lights.   | 8 - 12 V DC socket.              | 15 - Port bilge pump.          |
| 2 - Mooring lights.      | 9 - Water pump.                  | 16 - Miscellaneous 2.          |
| 3 - Steaming light.      | 10 - Starboard bilge pump.       | 17 - 220 V AC sockets.         |
| 4 - Deck light.          | 11 - Refrigerator.               | 18 - 220 V AC battery charger. |
| 5 - Interior lighting.   | 12 - Confort (Waste water pump). | 19 - 220 V AC water heater.    |
| 6 - Saloon lighting.     | 13 - Navigation station.         | 20 - 220 V AC miscellaneous.   |
| 7 - Instrument lighting. | 14 - VHF.                        |                                |

### ■ Use of 12 V circuit

#### RECOMMENDATION

Never leave the boat unattended when the electrical system is switched on (except the safety equipment directly connected to the battery and protected by a circuit breaker).

In the event of an electric appliance is not receiving power, check:

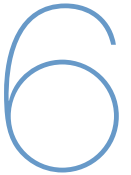
- The main power supply.
- The switches and circuit breakers on the line
- The relevant electrical unit.

#### WARNING

Never work on a live electrical circuit.

#### RECOMMENDATION

- Never modify an electric fixture or the relevant layouts yourself.
- Call in a technician skilled in marine electricity to carry out any electrical modifications.
- Never change the breaking capacity (amperage) of the excess current safety devices.
- Never install or replace any electric appliances (or any electrical equipment) by components exceeding the capacity (amperage) of the circuit (wattage for bulbs).



ELECTRICITY

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**SERVICE COMPARTMENT**

---

ELECTRICITY

58



**LOCATED BEHIND THE ELECTRICAL PANEL**

### ■ 110 V - 220 V Circuit

#### • SWITCHING ON DEVICES FUNCTIONING ON 110 V - 220 V

To use appliances that work on 110 V - 220 V (washing machine, water-maker, etc.), proceed as follows:

- Make sure that the appliances are OFF on the electrical panel.
- Switch to the 110 V - 220 V source (start the generator or plug into the shore power supply).
- Select the proper source on the electrical panel for it to supply the electrical panel.
- Switch on the circuit breaker for the appliance to be used (washing machine, water-maker, etc.) on the electrical panel.

Once the above has been carried out, turn on the appliance using its own controls.

For air conditioning, wait 10 to 15 seconds between turning on each unit (in order to allow the generator to stabilize and to deliver the necessary power for switching on).

#### • SWITCHING OFF DEVICES FUNCTIONING ON 110 V - 220 V

To turn off appliances functioning on 110 V - 220 V (washing machine, water-maker, etc.), proceed as follows:

- Stop the apparatus using its own controls.

To stop 110 V - 220 V equipment wait 10 to 15 seconds after turning off each device (in order to allow the generator to stabilize).

- Switch off the circuit breaker of the relevant apparatus on the electrical panel.
- Turn the 110 V - 220 V source selector to OFF (generator or shore power supply).
- Stop the generator or unplug the shore power supply.

#### **WARNING**

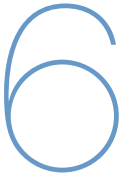
**Before turning the 110 V - 220 V source selector to OFF, ensure that no other appliance is in use (danger of an electric arc which can destroy the switch and damage the generator).**

#### • PROTECTION

Connect the metallic covers or boxes of the electric appliances that are installed to the ground conductor of the boat (green conductor with yellow stripes).

### ■ Service compartment

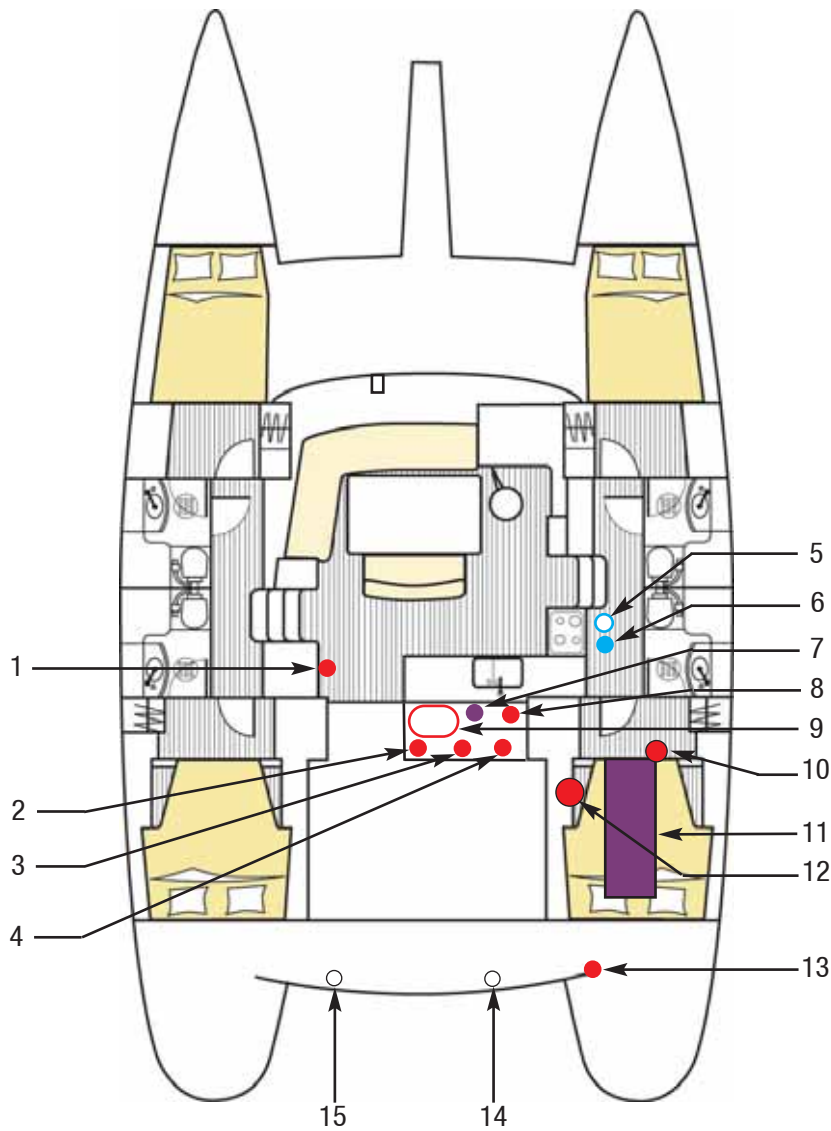
The service compartment where the fuses are located is situated behind the electrical panel. To access this area lift up the plate above the electrical panel in order to unclip it (2 clips), then pull it towards you to remove the plate from the end groove into which it is fitted.



## GENERATOR - DIESEL TRANSFER PUMP

ELECTRICITY

60



- 1 - Remote generator control.
- 2 - Circuit cutout.
- 3 - Exhaust hose.
- 4 - Water/gas separator.
- 5 - Seawater inlet.
- 6 - Seawater filter.
- 7 - Fuel filter for generator.
- 8 - Generator battery.
- 9 - Generator.
- 10 - Diesel valve.
- 11 - Fuel tank.
- 12 - Pull-switch for transfer to port fuel tank.
- 13 - Diesel feeding pump.
- 14 - Hot air extraction.
- 15 - Fresh air suction.

**PULL-SWITCH  
FOR TRANSFER**



### ■ Generator (optional extra)

- GENERATOR

The generator is located in the central cockpit locker. Its function is to re-supply the batteries via the chargers and to supply 110 V - 220 V electricity on board. The generator is supplied by the tank in the starboard hull.

The generator is started either at the generator itself or by the remote control on the electrical panel after opening of the fuel valve (starboard aft cabin) followed by the seawater cooling valve (access under the floor in the starboard gangway).

Concerning use and maintenance of the generator, refer to its instructions.

- PULL-SWITCH FOR TRANSFER (OPTIONAL EXTRA)

Use the pull-switch found at the foot of the std berth to change over from one tank to the other.

### ■ Battery charger (optional extra)

The battery charger can be used with shore power supply or with the generator in use.

It can be accessed through the port engine compartment.

- Turn on the charger with the circuit breaker on the electrical panel.

Concerning use and maintenance of the charger refer to its instructions.

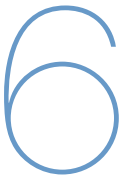
### ■ Inverter (optional extra)

The inverter enables 220 V equipment to operate from 12 V supply.

It is located in the aft beam (access through the port engine cover).

- Turn on the inverter with the circuit breaker on the electrical panel.

For use and maintenance of the inverter refer to its instructions.



---

ELECTRICITY

**62**





### ■ Shore power supply

#### **DANGER**

Never leave the extremity of a boat/shore power supply cable hanging in the water - it could create an electrical field liable to injure or kill any nearby swimmers.

#### **RECOMMENDATION**

In order to reduce the risk of electric shock and fire:

- Before you plug in or unplug the boat/shore power supply cable, switch off the shut off device connected on the shore supply side.
- Connect the boat/shore supply cable in the boat before connecting it to the shore supply socket.
- Unplug the boat/shore supply cable on shore first. Close the shore socket cover.
- Do not modify the connections of the boat/shore supply cable.

### ■ Mast wire harness

During mast-stepping insert the cables through the base of the mast.

The connection is made at the switch box on the mast bulkhead. See LAUNCHING chapter.

### ■ Electronics

Do not install electronic instruments or repeaters less than 1.5 m away from the radio loudspeakers, if your boat has them.

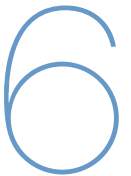
Do not place the autopilot compass less than 0.5 m away from the electrical harnesses.

#### **RECOMMENDATION**

For your electrical requirements, we recommend you consult a specialist or our network of technicians.

- ELECTRONICS PACKS (OPTIONAL EXTRAS)

Different electronics packs are offered on option.



ELECTRICITY

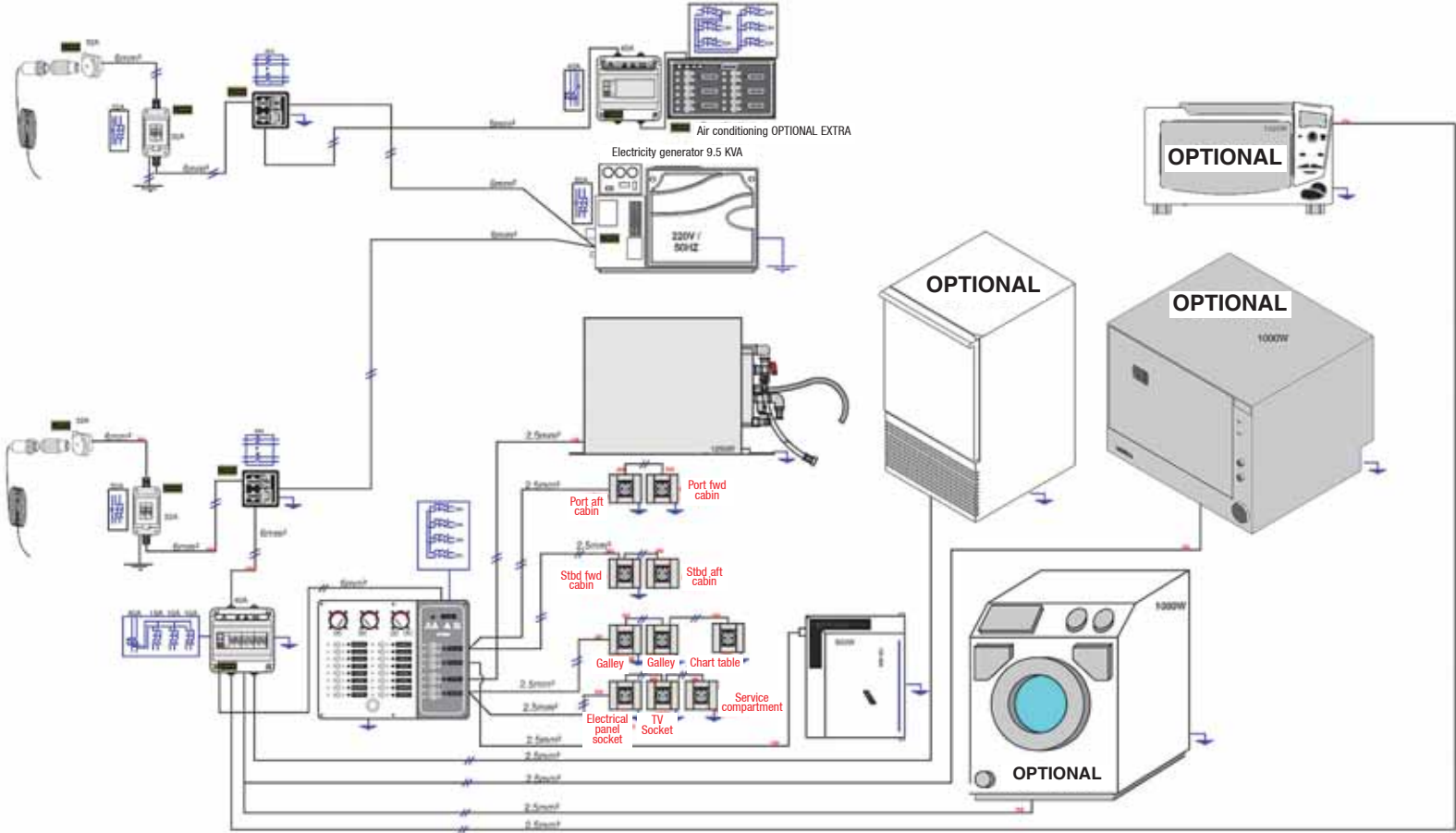
63



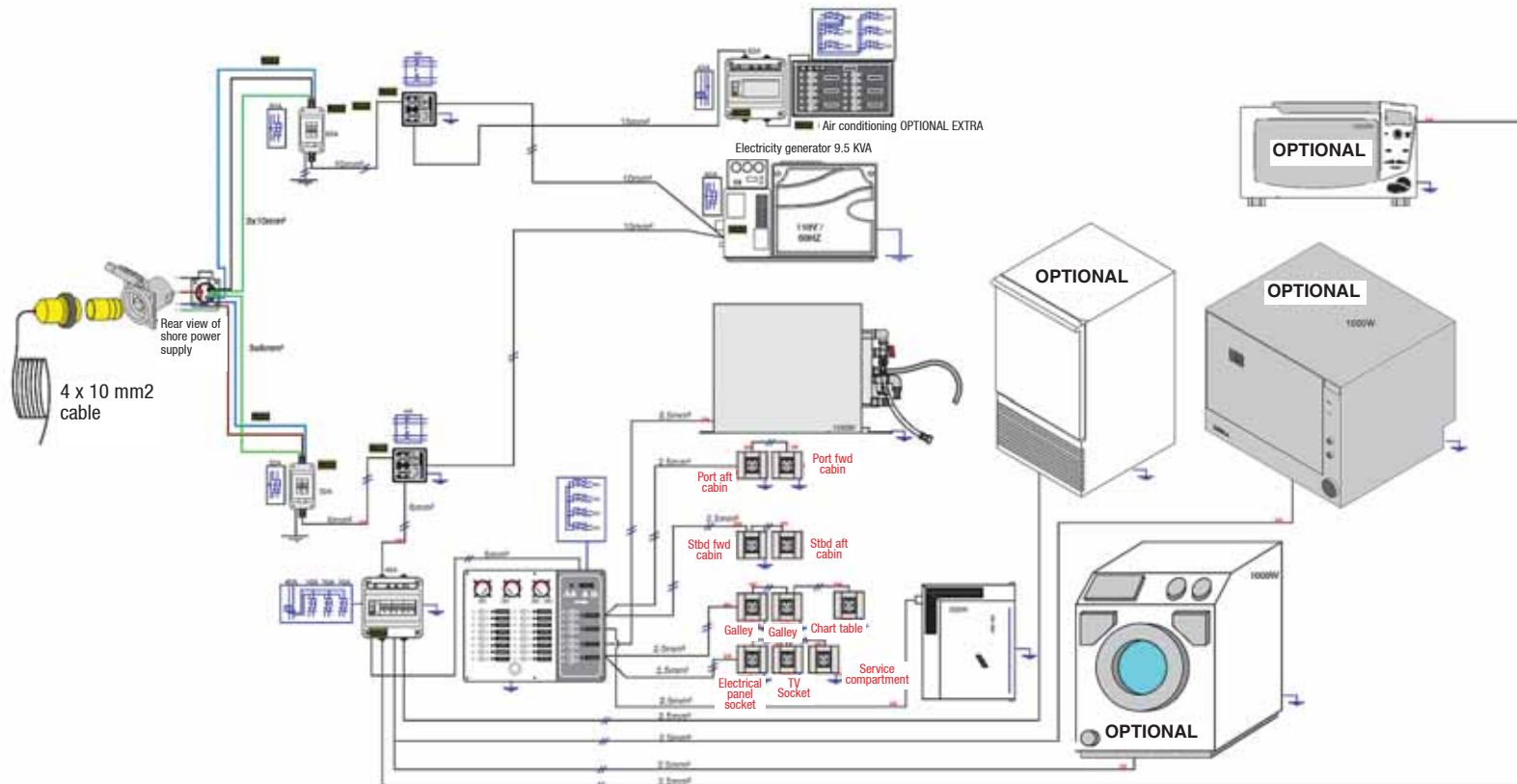
# APPENDIX - 220 V DIAGRAM

## ELECTRICITY

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# APPENDIX - 110 V DIAGRAM



6

ELECTRICITY

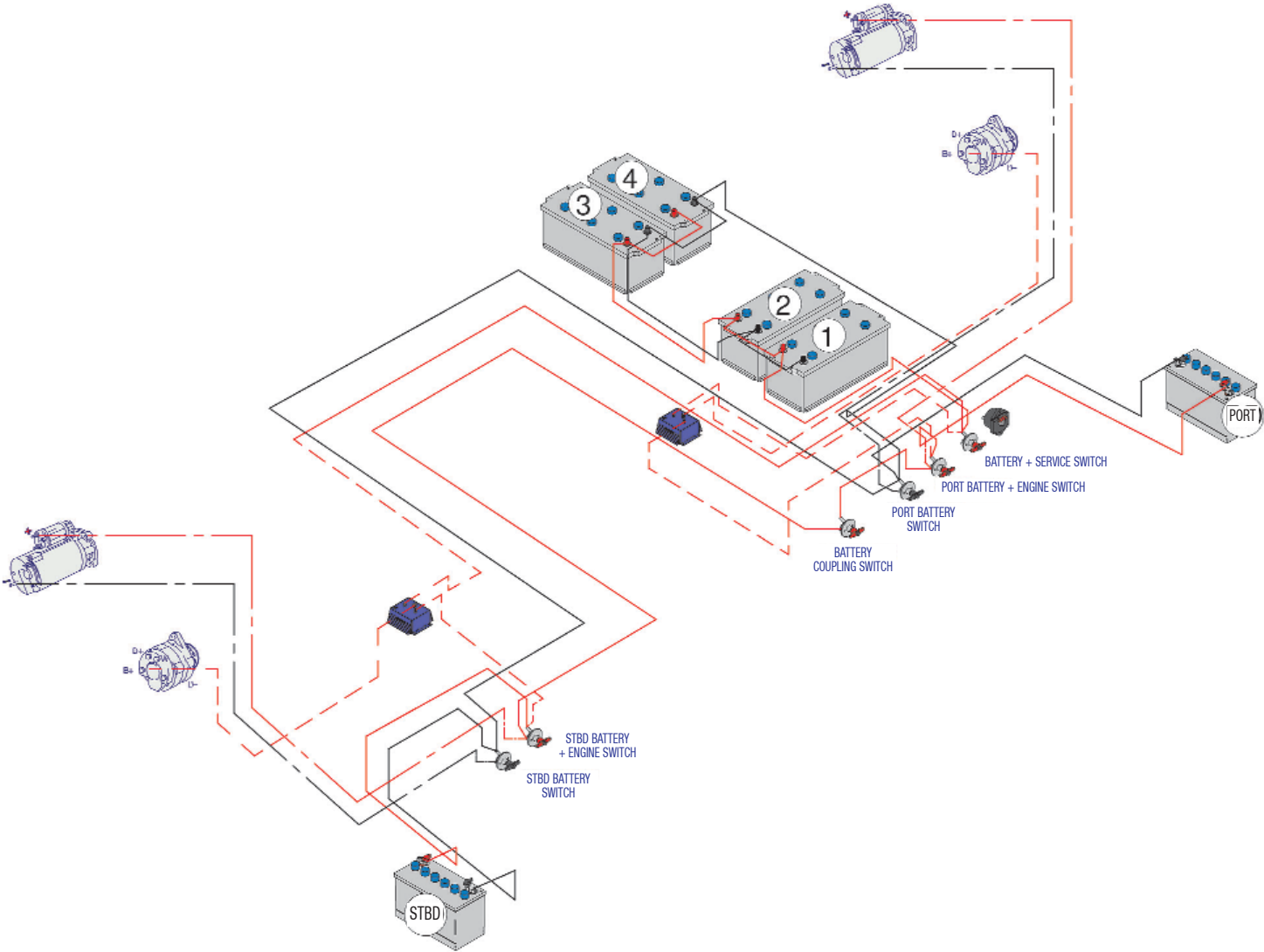
65



# APPENDIX - BATTERY DIAGRAM

ELECTRICITY

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# 6

ELECTRICITY

67



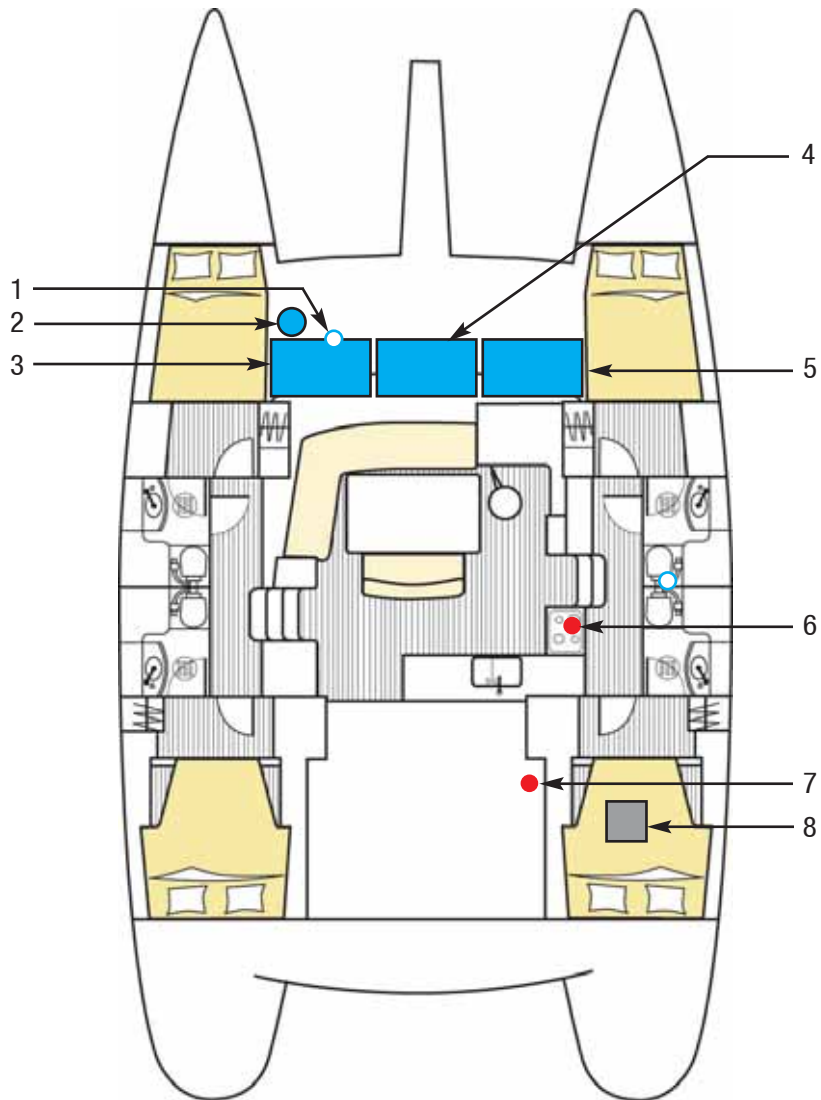


# Plumbing

7

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## FRESH WATER AND GAS



- 1 - Deck filler.
- 2 - Water pump + expansion chamber.
- 3 - Forward port tank.
- 4 - Forward central tank.
- 5 - Forward starboard tank.
- 6 - Gas valve.
- 7 - Regulators in gas compartment.
- 8 - Water heater.

PLUMBING

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**WATER PUMP +  
EXPANSION CHAMBER**



*Locations are the same for the other layout version.*



### ■ Water tanks

#### • FILLING

In order to prevent any handling mistakes, never fill the water and fuel tanks at the same time.

During filling, avoid handling contaminants near the fillers.

Open and close the filler caps with the suitable key.

Check the filler cap seals for condition during filling.

The tanks are fitted with overflow outlets and vents.

Never insert the water filling hose deep down into the system in order to prevent any over-pressure in the systems.

#### • MAINTENANCE

#### RECOMMENDATION

- Check the quality of the water when filling. Check whether or not it is drinking water.
- The tanks can be sterilized using a Clonazone tablet (available from chemists).
- In the case of long periods of inactivity purify tanks and piping using the appropriate treatment.

Inspection points are provided on tanks and from which it is possible to clean the inside.

NB: The capacity of the fresh water tank or tanks indicated on the SPECIFICATIONS page may not be completely useable depending on the trim and load of the boat.

### ■ Fresh water system

The water pump is switched on at the electrical panel.

The three tanks are linked through gravity. The overall level can be read on mark n°1 on the electrical panel gauge.

#### RECOMMENDATION

- Never operate the water system equipment when the valves are closed or the tank is empty (the electrical equipment may be damaged).
- Check the water filter for condition (refer to manufacturer's instructions).

### ■ Gas system

Refer to the SAFETY chapter.

Refer to the "FRESH WATER AND GAS" diagram.

When changing the gas bottle, refit the cap in place on the regulator threaded section (to avoid corrosion).

#### RECOMMENDATION

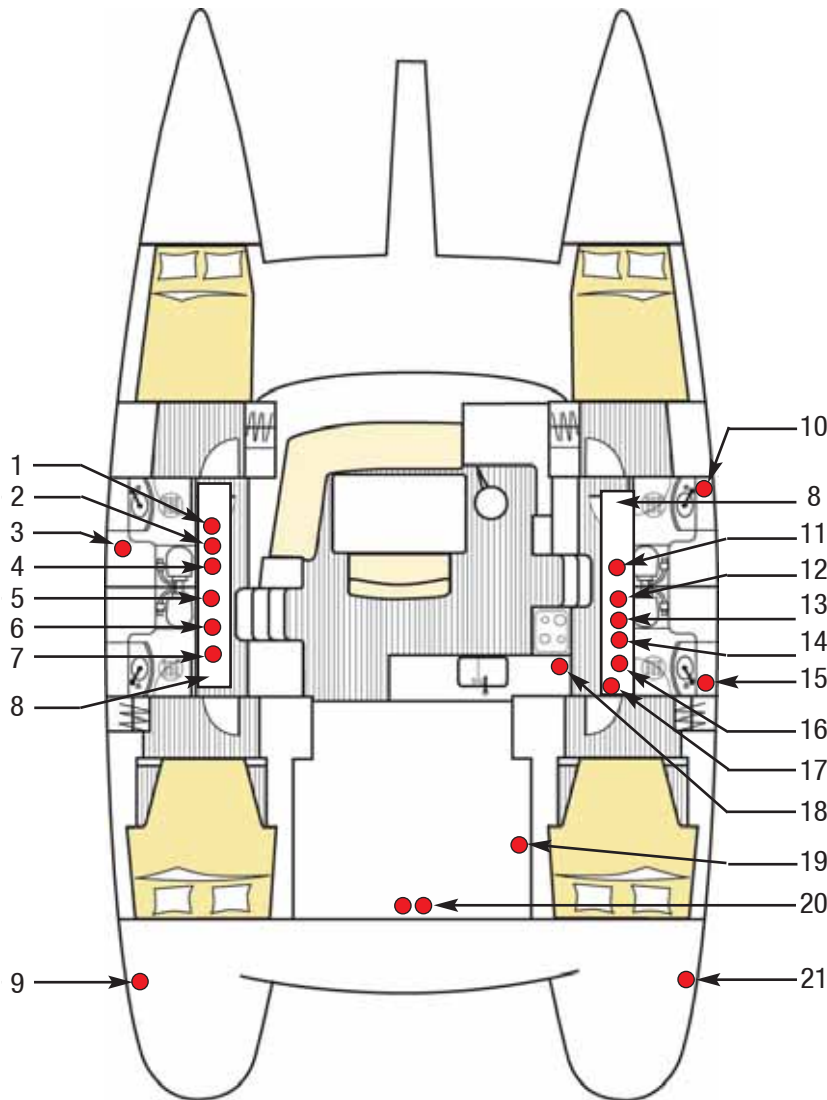
- Shut off the gas safety valve and the regulator valve when the stove is not in use.



## WASTE WATER SYSTEM

### PLUMBING

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- 1 - Drain valve for forward port watertight compartment.
- 2 - Drain pump for port shower.
- 3 - Forward port toilet drain.
- 4 - Strainer for port electric bilge pump.
- 5 - Port electric bilge pump.
- 6 - Drain valve for port aft watertight compartment.
- 7 - Port bilge pump with automatic start + filter.
- 8 - Sump drain.
- 9 - Drain for port electric bilge pump.
- 10 - Forward starboard toilet drain.
- 11 - Drain valve for forward starboard watertight compartment.
- 12 - Strainer for starboard electric bilge pump.
- 13 - Drain pump for starboard shower.
- 14 - Starboard aft toilet drain.
- 15 - Starboard electric bilge pump.
- 16 - Starboard bilge pump with automatic start + filter.
- 17 - Drain valve for starboard aft watertight compartment.
- 18 - Sink drain.
- 19 - Starboard aft cockpit drain.
- 20 - Manual bilge pump.
- 21 - Drain for starboard electric bilge pump.

*Locations are the same for the other layout version.*

### ■ Water system drainage

A main sump well is located under the floor of each hull.

It is drained by:

- A manual bilge pump in cockpit.
- A manually activated electric bilge pump (electrical panel and steering station).
- An automatically activated submersible pump located in the well.

The fore compartments and the engine bilges are watertight. A hose equipped with a valve enables water that enters accidentally to run into the sump. These valves are located under the floor in fore and aft cabins, near the sump.

Under normal conditions these remain closed.

Waste water drainage off the sink and the toilets is ensured by thru-hull fittings with quarter turn valves (valve closed when the handle is perpendicular to the pipe, valve open when the handle is in line with the pipe).

### • MAINTENANCE

- Regularly check the valves and thru-hull fittings for proper operation and water-tightness.
- Turn off the valves when the water system is not in use.
- Visually check water pump flow.
- Check the clamps and flexible hose connections for tightness, check condition of the seals.
- Regularly make sure that the sump and bilge are perfectly clean.

### RECOMMENDATION

**Immediately switch off the electric system if a pump starts running when all the water supplies are turned off.**

- **Check the system and neutralize the problem.**

### WARNING

**The bilge pump system is not designed to provide buoyancy for the boat in the event of damage. The bilge pump system is designed to drain water from sea spray or leaks but absolutely not to drain water entering through a hole in the hull as a result of damage.**

# 7

PLUMBING

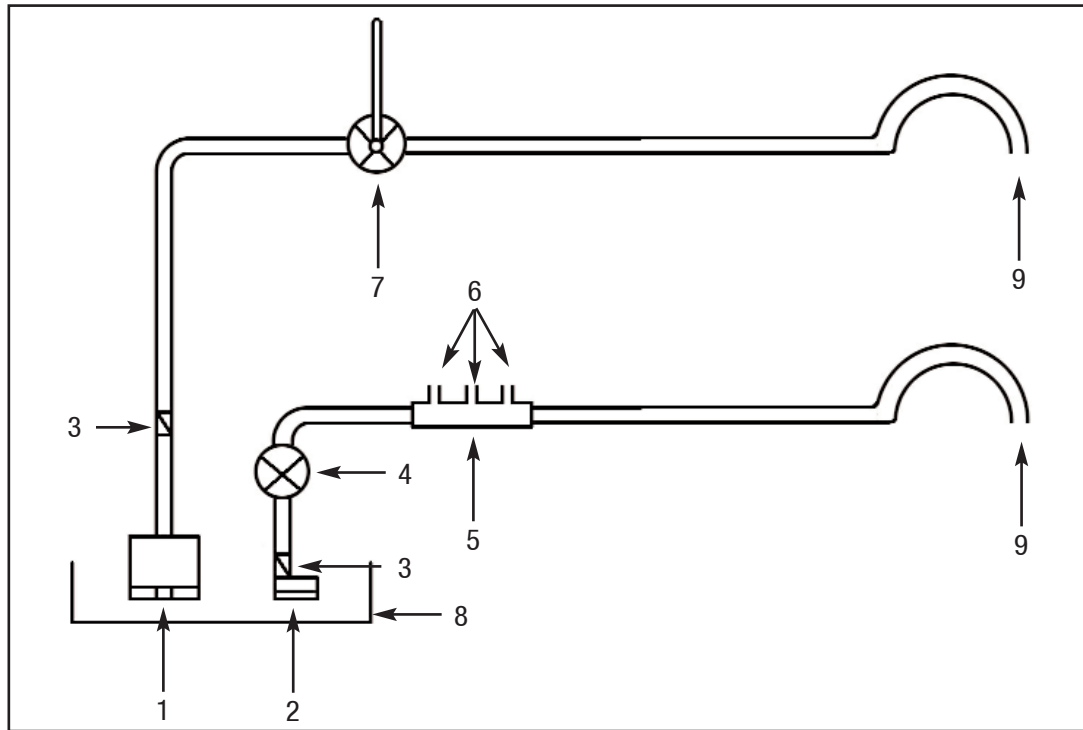
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## MAIN WATER DRAINAGE SYSTEM DIAGRAM

PLUMBING

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SUMP WELL



- 1 - Automatically activated submersible bilge pump.
- 2 - Strainer.
- 3 - Anti-return valve.
- 4 - Manually activated electric bilge pump (control on the electrical panel).

- 5 - Distribution/recovery manifold for waste water.
- 6 - Waste water drainage from bathroom.
- 7 - Manual bilge pump in cockpit.
- 8 - Sump drain.
- 9 - Drainage outlet.

### ■ Sanitary equipment

#### • USE OF BASINS AND SHOWERS

Waste water from the shower room is evacuated to the sump by an automatic start pump (located under the trough).  
In the event of a breakdown in the automatic system, use the switch to action the pump manually (located next to the pump).

Clean filters and trays regularly.

#### RECOMMENDATION

**When alongside, use the sanitary facilities of the port authorities (if available).  
The waste holding tank must be used in marinas or countries where the discharge of waste waters is prohibited.**

#### • USE OF MARINE TOILETS

Before you use the heads, check that the water intake and draining valves are open.

To empty the bowl:

- Set the control lever of the pump slantwise (FLUSH).
- Activate the pump.

To dry the bowl:

- Set the lever to vertical (DRY).
- Activate the pump.

#### ELECTRIC TOILETS (OPTIONAL EXTRA)

Ensure that the fuel valves are open.

The electric toilets are activated by the switch on the electrical panel.  
Concerning use and maintenance of electric toilets refer to their instructions.

In order to avoid clogging the heads, use absorbent paper only.

Rinse the heads regularly with fresh water.

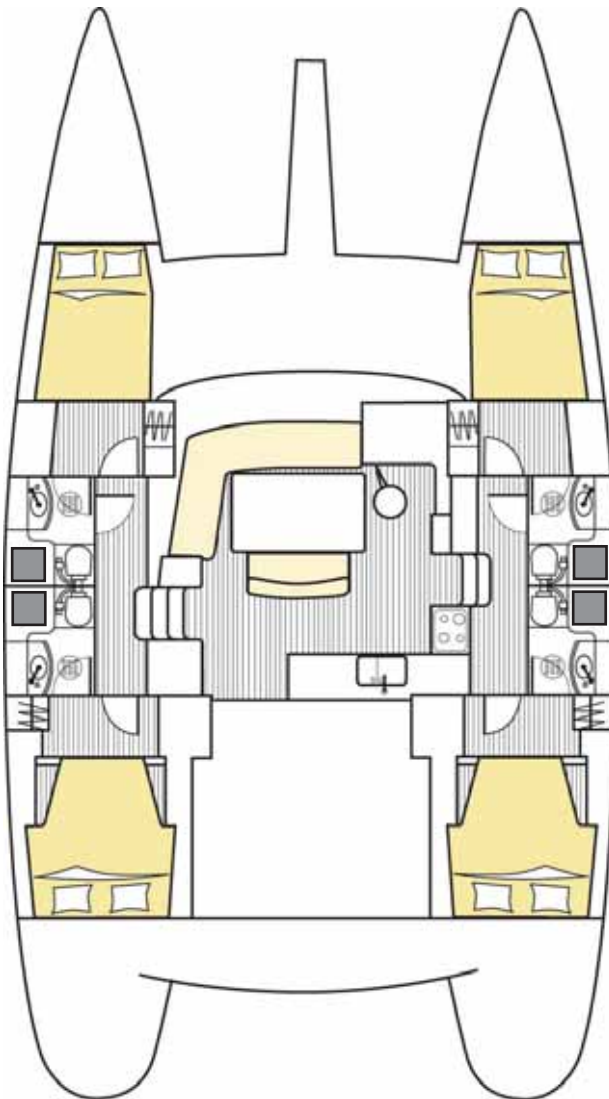
Close the valves after each use (particularly when the boat is left unattended).



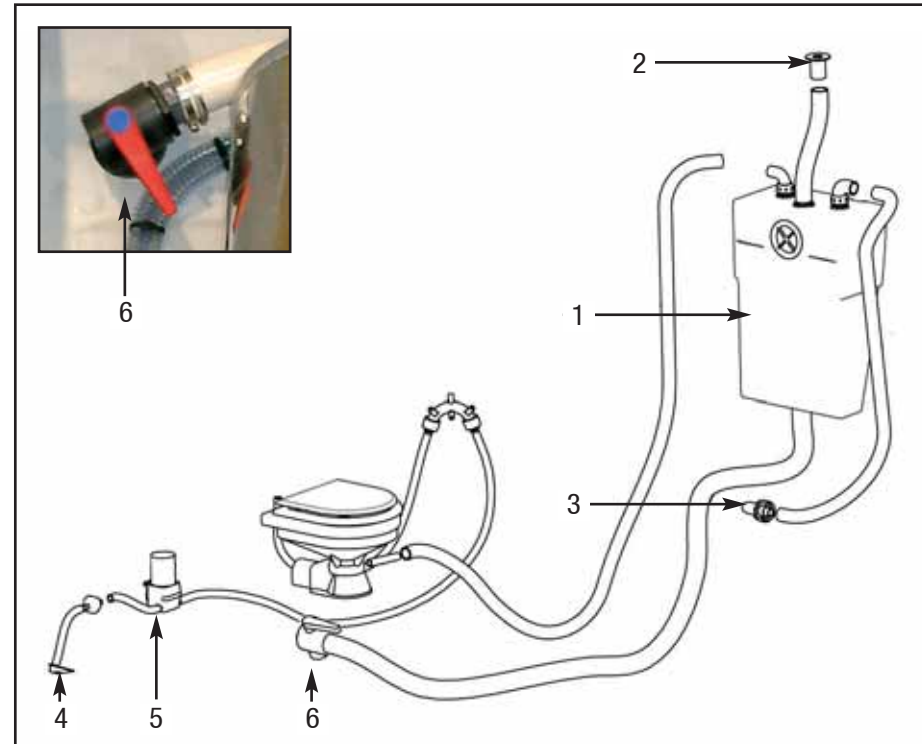
# WASTE HOLDING TANKS

PLUMBING

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## WASTE WATER TANK SYSTEM (PRESENT WITH ELECTRIC TOILET OPTION)



- 1 - Waste holding tank.
- 2 - Deck pump-out fitting.
- 3 - Vent hole.
- 4 - Sea water intake strainer.
- 5 - Electric pump.
- 6 - Drainage valve on hull.

The port aft toilets are fitted with a soil water tank. The other toilets can have them fitted as an optional extra.

Before use ensure that the drain valve on the bowl is closed in order to avoid any inadvertent discharge (valve is closed when the valve handle is perpendicular with the pipe).

To empty the tank:

- In an authorized area, open the drainage valve.
- In marinas equipped with an organic waste suction system, insert the aspiration hose into the tank through the deck pump-out fitting, then start the suction.

### **WARNING**

**Find out about current law in your country or marina relative to discharging waste water into the sea.**

The filler caps are opened and closed with an appropriate key.

When the tank has been emptied, check the cap seal for condition then close the filler.

To rinse out the system, fill the tank with fresh or sea water, then empty.

Only use domestic cleaning products.

The tanks must be empty when the boat is moored in negative temperatures.

### **RECOMMENDATION**

**Use the pump system at ports or marinas to empty the waste holding tanks.**

### **RECOMMENDATION**

**For the protection of the environment, do not discharge the contents of the waste holding tanks near the shore.**

# 7

PLUMBING

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# Motorization

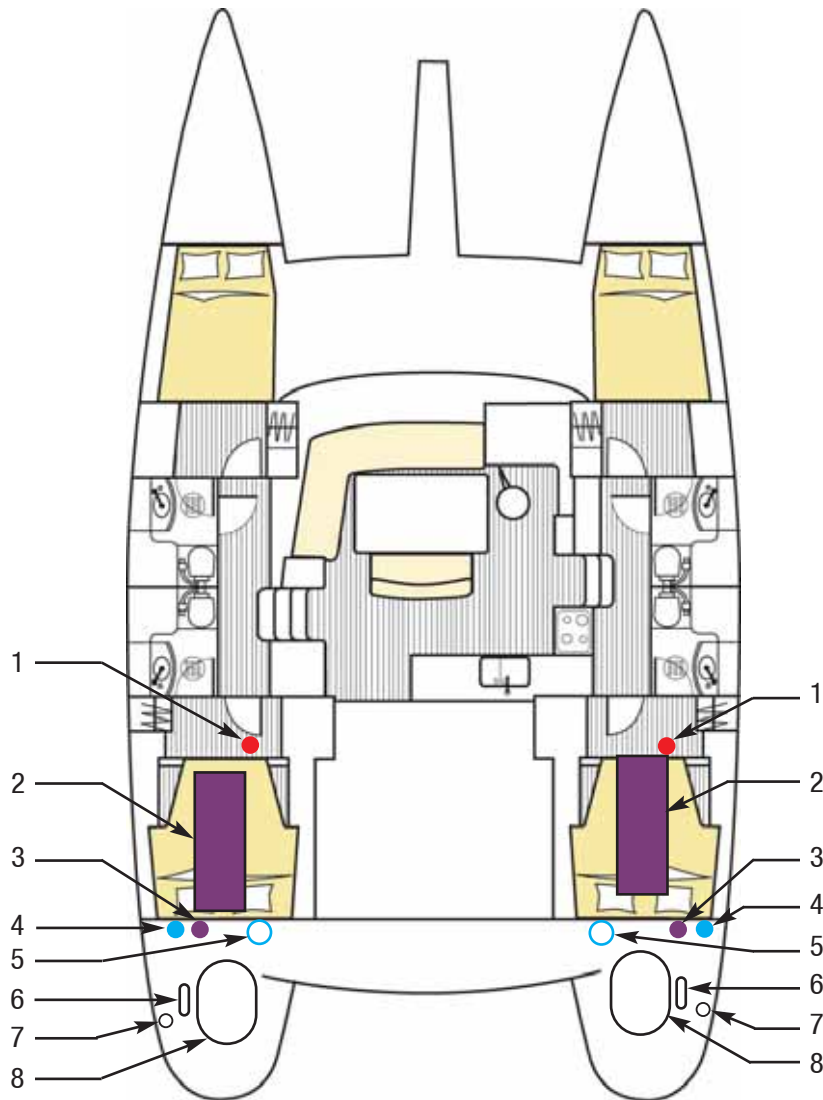
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# IMPLANTATION MOTORIZATION

MOTORIZATION

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- 1 - Fuel selector valve (push/pull).
- 2 - Fuel tanks.
- 3 - Fuel filter.
- 4 - Sea water filter.
- 5 - Expansion tank.
- 6 - Exhaust hose.
- 7 - Fuel fillers for tanks.
- 8 - Engine.

### ■ Fuel tanks

The boat is fitted with two tanks (one in each hull). They are both filled independently. They both have a fuel gauge on the engine panel.

#### • FILLING

Take the general precautions stated in the PLUMBING chapter relative to filling the water tanks.

Fill the tanks using the two fuel fillers.

In order to protect the deck from possible fuel splash, wet the area around the filler with sea water before you remove the filler cap.

In case of splashes, rinse the deck thoroughly (after refitting the filler cap).

#### **DANGER**

**Stop the engine and do not smoke while filling fuel tanks.**

#### • MAINTENANCE

- Regularly check the condition of the O-ring of the filler (in order to prevent water entering the tanks).
- Do not shut the fuel valves after each use (except in the event of prolonged absence).
- Keep the fuel tank as full as possible (to avoid condensation).

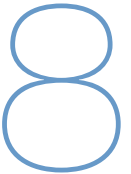
- Every 5 years clean the tank to remove any sludge deposits.
- Every year check the condition of the fuel system (hose, valves, etc.).

The capacity of the fuel tanks indicated on the SPECIFICATIONS page may not be completely useable, depending to the trim and load of the boat.

Always keep 20% of fuel as a reserve.

#### **RECOMMENDATION**

**Have a professional carry out any work on damaged parts of the fuel system.**



## ENGINE INSTALLATION (PORT COMPARTMENT)

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1 - Seawater filter.

2 - Fuel filter.

3 - Exhaust hose.

4 - Sea water engine intake valve.

5 - Expansion tank.

6 - Battery charger.

7 - Engine.

MOTORIZATION

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### ■ Fuel filters

Problems with the engine may have various causes, one of which is dirty fuel.

The injection pump may break down if there is water in the system. Water in the fuel is a result either of condensation caused by an insufficiently filled tank or by a filler-cap either not being closed properly or with a damaged seal.

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

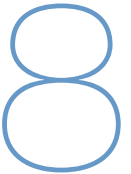
- The first filter is on the pipe that joins the tank to the engine, it has the functions of a water decanter and pre-filter.
- A second filter is an integral part of the engine its role is to filter fuel very finely. For information about maintenance and replacement, please refer to the engine manual.

Drain by undoing the knurled screw at the base of the decantation bowl (but not removing it).

Allow to flow into a box till the fuel looks clean.

Carry out this operation several times a year.

Change the pre-filter at least once a year (for access, remove the bowl).



**FUEL VALVE / ENGINE WATER VALVE**

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MOTORIZATION

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**FUEL VALVES**



**ENGINE WATER INLET**

### ■ Engines

#### RECOMMENDATION

Read carefully the instructions provided with your boat.

#### WARNING

Never run the engine when the boat is out of the water.

#### • ACCESS TO ENGINES

Access to the engines is through the companionway hatches.

#### RECOMMENDATION

Stop the engine before opening the hatches. Should you need to access an engine while it is running:

- Stay away from belts and mobile parts.
- Be careful to avoid catching clothing, long hair or rings in the engine.
- Wear appropriate clothes (gloves, hat, etc.).

#### • ENGINE WATER SUCTION INLETS

The water inlet valves are essential for the operation of the engine. These valves must be open before the engine is started (risk of rapid deterioration of the exhaust pipe and of major damage to the engine).

- Keep the strainer under the hull as clean as possible.
- Brush the strainer when the boat is hauled.
- Do not cover the strainer with antifouling paint.

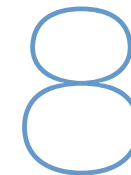
RECOMMENDATION: Get into the habit of checking immediately after starting the engine that water is expelled with the exhaust gases.

If no water is expelled:

- Stop the engine immediately.
- Check that the valve is open.

Close the water inlet valve if the boat is left unattended for a prolonged period.

Inspect and clean the water filter regularly.



## ANODES

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MOTORIZATION

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**ANODE**  
(On hull, under water line)



- FUEL

Do not wait until the fuel is nearly completely used up before filling up (the system may stop due to lack of fuel).  
Ensure you have enough fuel before sailing.

- MAINTENANCE

Refer to the manufacturer's manual provided with your boat.  
Be careful to avoid any spillage of fuel or oil.  
Check the color of exhaust gases. In the case of excessive white or black smoke, consult an engine specialist.

### ■ Instrument panel

The instrument panel contains all the checking functions of the engine and it does not require any special precautions (refer to the engine manual).

### ■ Propellers and anodes

The propellers supplied as a standard with your boat are the result of tests carried out jointly with the engine manufacturer.

#### RECOMMENDATION

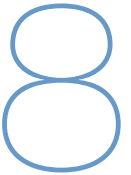
**Do not change the propellers without a specialist's advice.**

Remove the foldaway propellers (optional extra) at the end of each season, dismantle them and clean them carefully.  
Grease the thrust bearing surfaces and teeth.  
Check that the propeller blades move easily.  
If necessary, install new anodes (on hulls and base plates).

Replace anodes before they are 50% corroded.

#### RECOMMENDATION

**Ensure that the base plate anodes have good metal contact with the transmissions.**  
**Never paint the anodes.**  
**Assemble the propellers before re-launching the boat.**





# Rigging & sails

9

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<b>SAILS .....</b>	<b>97</b>

## RUNNING RIGGING TABLE

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RIGGING  
& SAILS

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Rope identification	length (m)	diameter (mm)	type
Reef 1	27	12	polyester
Reef 2	35	12	polyester
Reef 3	31	12	polyester
Main halyard	67	14	Dynema core
Spinnaker halyard (optional)	48	14	polyester
Spinnaker sheet (optional)	2 x 29	14	polyester
Genoa halyard	44	14	Dynema core
Boom topping lift	42	12	polyester
Genoa sheet	2 x 19	14	polyester
Mainsail sheet	50	14	polyester
Traveler control line	1 x 15 to port 1 x 16 to starboard	10	polyester
Genoa furler	33	10	polyester
Lazy-jack	NC	6	polyester

### ■ Standing rigging

#### • ADJUSTMENTS

Your mast will have been pre-set both by the boatyard and by the mast manufacturer during the first mast stepping.

However, after a few sea trips, the mast should be reset once the cables have "given" to their full length.

Proceed as follows:

- Slacken the lower shrouds.
- Tighten the topping lift or use the mainsail halyard in its place.
- Loosen the lazy-jacks.
- Take up the upper and lower diamonds, evenly in order to obtain a straight profile. The mast should now curve evenly towards aft.
- The forestay is pre-adjusted to have an angle of 2.6° to aft.
- Tension the backstays by tightening the turnbuckles with a wrench and a 30 cm pipe (check that the mast head is centered).
- Take the tension back up in the lower shrouds by turning the turnbuckles by hand.
- Take the lazy-jacks back up.
- The mast should remain curved towards aft.

Under sail with a 20 knot apparent cross wind, it is normal for the leeward rigging to be slightly slack; if necessary, thread a shock cord between the backstay and the lower shroud leeward to stop any flapping.

#### • MAINTENANCE

Before each trip, carefully inspect the mast from top to bottom. Periodically check the tension of the rigging and the lock nuts or pins for tightness (you should check them for the first time after a few days sailing in all types of weather).

Secure and lubricate the turnbuckles with tallow, graphite grease or other (never use silicone).

Check the tightness of the turnbuckles.

Inspect the turnbuckles for possible wear (due to chain-plate chafe if the rigging is slack).

Change any shroud or stay with severed wires or kinks.

Regularly check the chain-plates for wear.

#### **DANGER**

**To hoist a crew member up to the top of the mast, make a bowline with the halyard directly on the bosun's chair ring (never use the halyard shackle or snap shackle).**

**Do not hoist a crew member when sailing in heavy weather.**

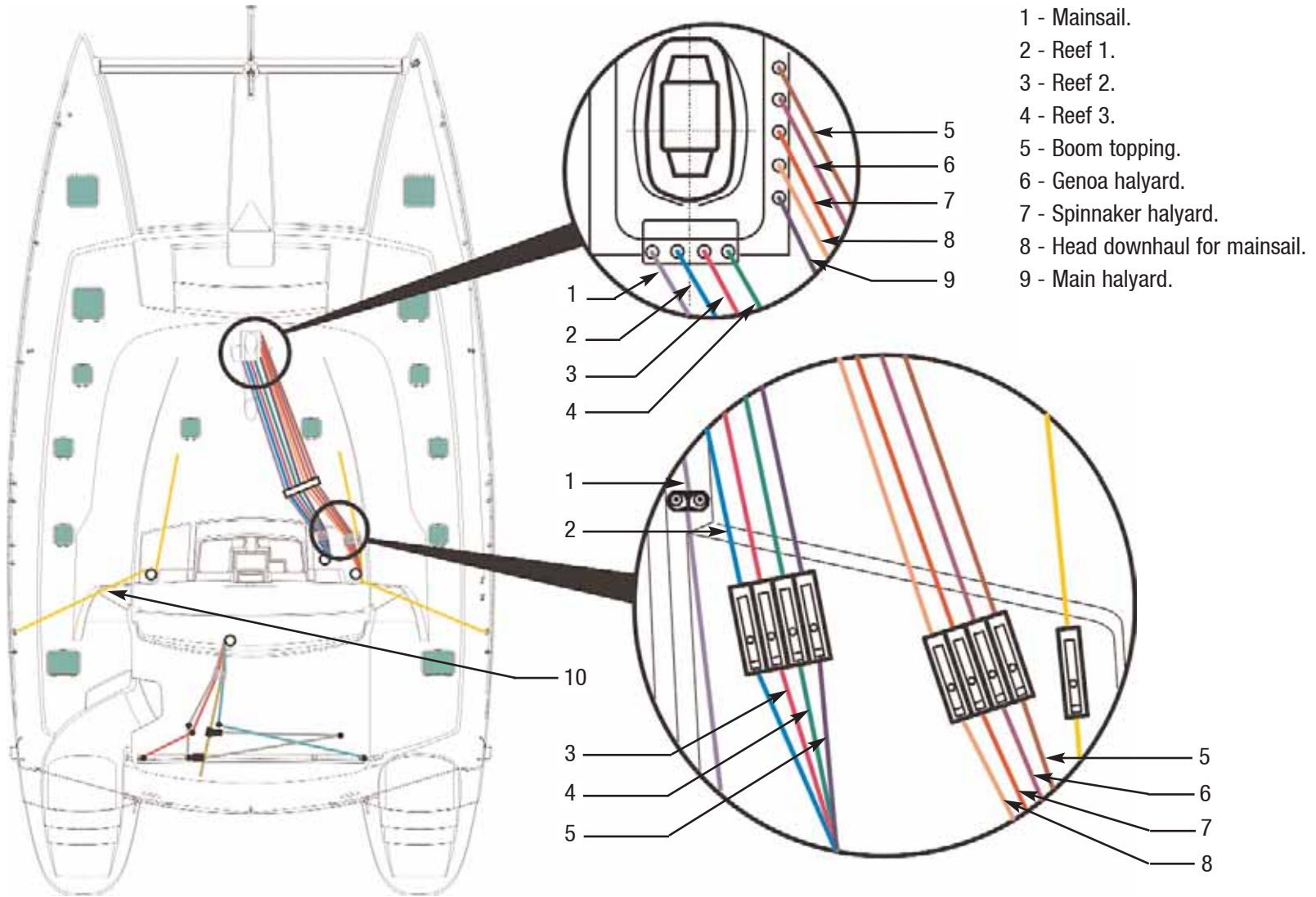
RECOMMENDATION: Your LAGOON dealer can carry out all maintenance operations.



# RUNNING RIGGING

RIGGING  
& SAILS

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### ■ Running rigging

Lubricate the sheaves with silicone. Replace any distorted or dented sheaves. Inspect the sheave pins at the top of the mast once a year. Regularly check the jam cleat jaws for condition. Inspect the halyards for wear and condition. Regularly clean the blocks (excess grease, corrosion spots). Lightly lubricate the block axles. Avoid ill-timed gibing in order to reduce premature wear on the sheets and attachment points.

### ■ Winches

Avoid line jamming during winch handling. Do not leave lines loose on the winches - fasten them on cleats. Adjust the winches on taking delivery of your boat (rinse them regularly during the season). The winches should rotate freely; they need an overhaul when slight seizing is noticed.

#### • MAINTENANCE

Carry out complete maintenance of the winches regularly, before and during the sailing season.

- Disassemble the drums to clean them.
- Lubricate the drums with a film of white grease or Teflon to reduce friction and prevent corrosion (this type of grease is clean, non toxic and biodegradable).

#### WARNING

Refer to the manufacturer's instructions to remove and refit the winches. Incorrect re-assembly may result in accidents (e.g. crank handle kick).

#### RECOMMENDATION

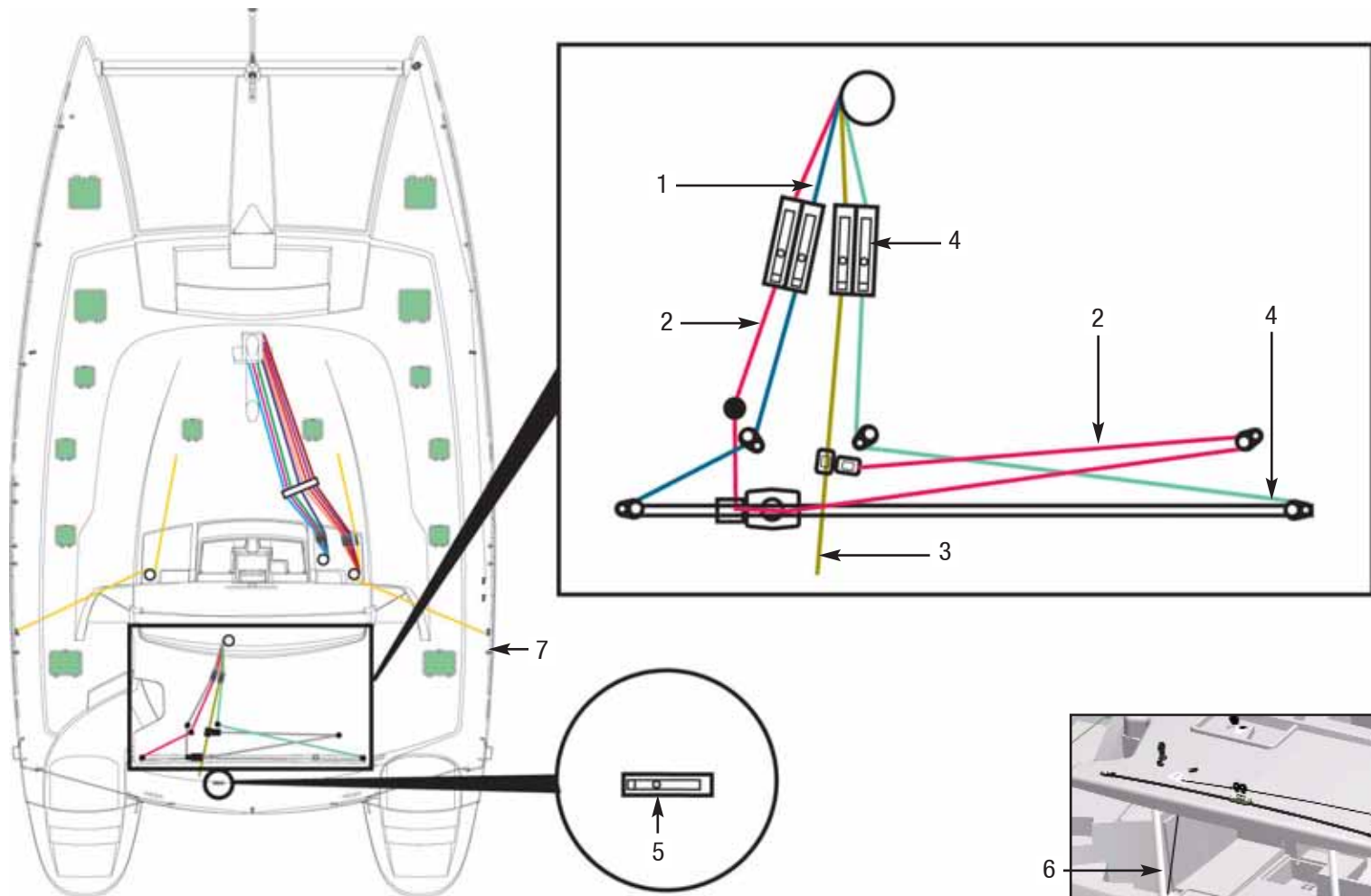
A winch drum is designed to have a minimum number of turns necessary so that it does not slip and that the stress is not passed on to the self-tailing mechanism. Make at least 3 or 4 turns on the winch.



## RUNNING RIGGING

RIGGING  
& SAILS

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1 - Adjustable traveler for mainsail.

2 - Mainsail sheet.

3 - Genoa furler.

4 - Adjustable traveler for mainsail.

5 - Mainsail sheet (spare in cockpit).

6 - Passage of the mainsail sheet from the flying bridge.

7 - Padeye for Gennaker/Spinnaker block.



### ■ Setting the sails

- GENOA FURLER

Before getting under way, take advantage of a windless period to hoist the Genoa.

Pre-roll the drum by hand to set the furling line on it.

Be careful of the way which the drum winds: The UV band should be on the outside.

- Secure the head and halyard to the swivel. Secure the tack to the drum and sheets to the clew.

- Insert the bolt line into the hole and hoist it, taking care not to tear it.

- Tighten the halyard sufficiently but hoist it less taut than a sail on a normal stay.

Hoist it until the horizontal creases disappear (adjust the tension of the luff after a few miles at sea).

- Before you furl the Genoa, remove the ring that is used to guide the luff tape. Keep the ring in a safe place and replace it before any handling (lowering etc).

- Pull on the stopper from the cockpit to furl the Genoa.

Never force it in case it seizes when you furl or unfurl the head sails.

Check that no halyard is caught up in the furler and that the sail is not too taut.

#### MAINTENANCE

- Rinse the drum and swivel regularly.

- Lubricate the bearings if recommended by the manufacturer.

- Unrig the sails if your boat is not to be used for a prolonged period.

- MAINSAIL

To hoist the mainsail :

- Head into the wind.

- Slacken the mainsail sheet.

- Hoist the sail taking care that the battens do not catch up on the lazy-jacks.

- GENNAKER

Before getting under way, take advantage of a windless period to hoist the Genoa.

- Fix the chain swivel to the gennaker head.

- Fix the take-up drum to the tack.

- Put the take-up drum on to the spar with a snap shackle.

- Fix the halyard to the head chain swivel.

- Hoist the gennaker.

#### **WARNING**

**After chocking it, remove the gennaker halyard from the starboard winch and lash it to the cleat.**

Use the take-up drum stopper to furl or unfurl the gennaker.

#### SHEETS

- Fix the sheets to the gennaker clews.

- Thread the sheets around the outside of the stay and of the shrouds and over the jack-lines.

- Fasten the sheet return blocks to the bolts.



# GENNAKER

---

RIGGING  
& SAILS

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**FIXING OF THE GENNAKER  
HALYARD  
ONTO THE HEAD**



**CHAIN SWIVEL  
TAKE-UP DRUM**



**RETURN BLOCK FOR  
GENNAKER SHEET**



**PASSAGE OF  
GENNAKER SHEET**

- Lead the sheets back to the Genoa sheet winches.

### WARNING

**De-rig the gennaker when not in use (danger of damage through UV rays and accidental unfurling).**

### ■ Sails

How long a sail lasts mainly depends on how regularly it is maintained.

Advice: At the end of the sailing season, and if possible before winter, take your sails to a specialist for proper maintenance and repairs.

When the boat is under sail trim the sails properly and in accordance with any stresses in order to reduce harmful strains on the fabric.

Prevent tears and wear: protect against chafing from accessories with rough surfaces (protection for spreaders, stanchions etc.).

Between sea-trips, slacken the halyard (for the sails on furler) and the foot of the mainsail.

Ensure you have a sail maker's kit and a manual so that you may carry out emergency repairs until you can seek the assistance of a sail maker.

### • CLEANING AND MAINTENANCE

Rinse the sails with fresh water from time to time and dry without delay in order to avoid the formation of mildew.

Do not dry the sails by hoisting and letting them flap (when the sails flap the seams become worn and the sails may be torn by the rigging).

To remove grease spots: Use trichloroethylene and rinse immediately with water.

### • STORING/FOLDING

Avoid storing wet sails to prevent mildew from forming.

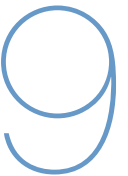
Accordion-fold the sail parallel to the foot, then roll it up to the dimensions of the bag.

### • PROTECTION

UV rays are harmful to polyester and nylon.

If the sails remain on the mast, even for 24 hours, protect them with a cover or a protective material placed on the leech and foot of the furled sails.

Our network of agents offers accessories selected by the yard to meet your needs.





# Safety

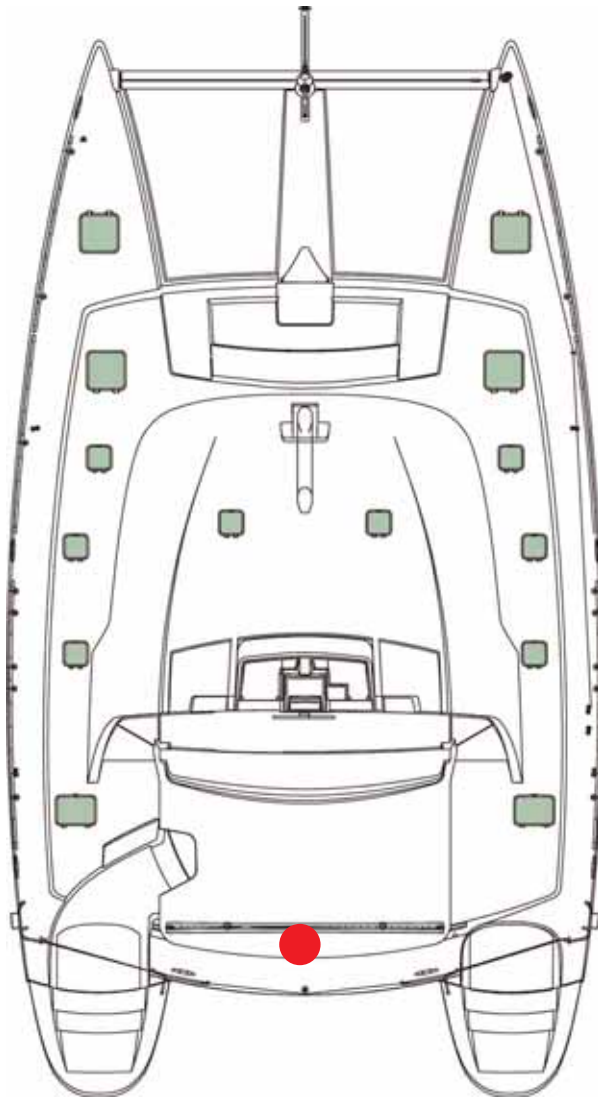
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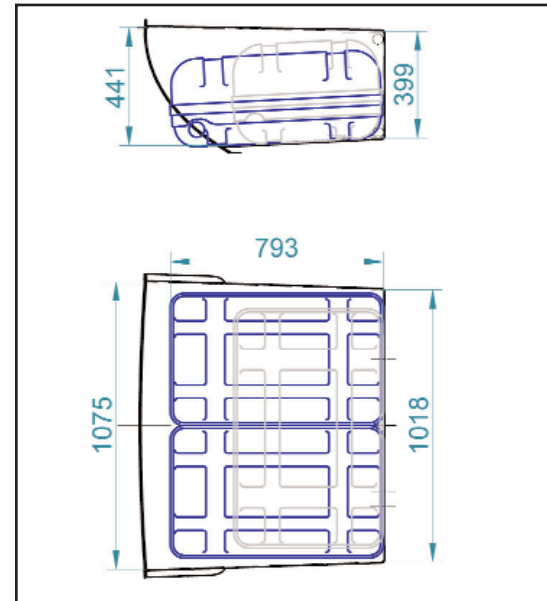
## POSITION OF THE LIFE-RAFT

SAFETY

100



**DIMENSIONS OF LIFE-RAFT  
LOCKER IN MM**



### ■ Safety equipment

#### **WARNING**

**The inventory of compulsory safety equipment corresponds to a standardized category.**

- Before you sail, carry out a check of the compulsory safety equipment.
- Attach jack-lines to the deck and underneath the nacelle body (close to the manholes).
- Do not exceed the number of people on board indicated in the SPECIFICATIONS chapter.
- Without taking account of the number of people, the combined weight of the people and equipment on board should never exceed the maximum load recommended by the manufacturer.

#### **RECOMMENDATION**

**Close the deck hatches and fore portholes before leaving the dock or anchorage.**

#### • LIFE-RAFT

The life-rafts are located in the aft beam.

Two life-rafts for 6 and 8 people respectively are provided (14 people for Category D).

For boats equipped for 10 people, a second life-raft must be provided for the maximum number of people on board (14 people).

#### **RECOMMENDATION**

**Before setting sail, read the life-raft launching instructions carefully.**

# 10

SAFETY

101

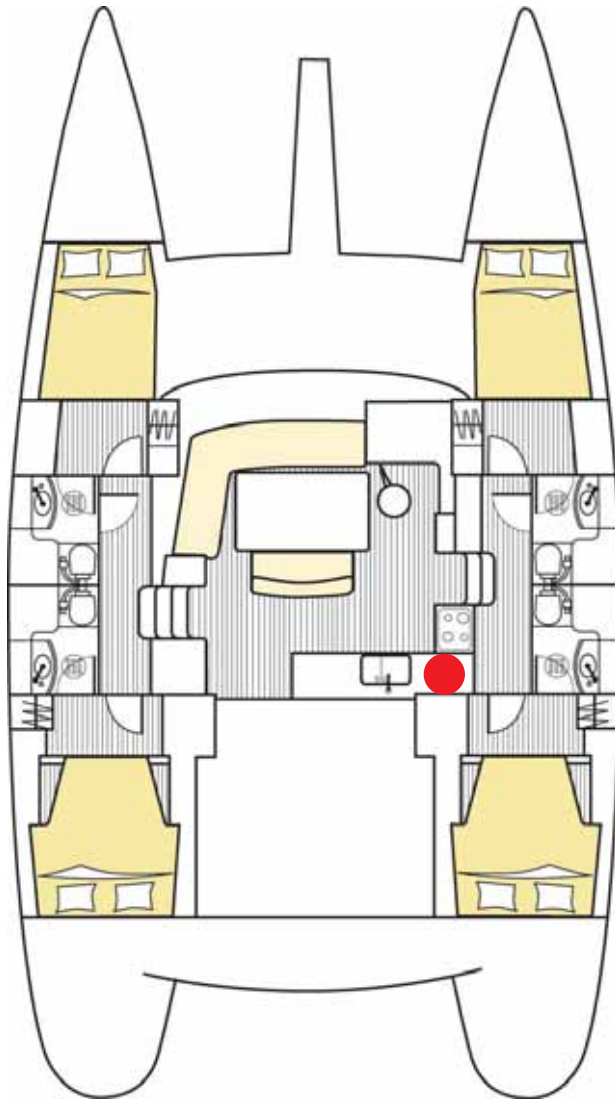


## GAS VALVES

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SAFETY

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**GAS VALVES**  
(Locker to right of oven)



### ■ Safety instructions concerning the gas system

The gas bottles are located in the starboard locker of the aft cockpit. The type of bottle (butane) is according to the current standards in your country.

Close the system and gas bottle valves when the appliances are not in use.

Close the valves before changing the gas bottle and immediately in the event of an emergency.

Never leave an unattended appliance in use.

Do not fit or store flammable materials above the stove (curtains, paper, napkins etc.).

Do not use the oven or stove as back-up heaters.

Never obstruct access to the components of the gas system.

Ensure that all appliance valves are closed before you open the gas bottle or hose valve.

If you smell gas or find that the burners have gone out (although appliances cut off automatically if the flames go out), close the appliance valves. Ventilate the boat to evacuate any residual gas. Find the cause of the problem.

Test the gas system regularly in order to detect any gas leaks.

Check all connections using soapy water or a detergent solution, closing all appliance valves and opening the gas bottle valve.

If you detect a leak, close the gas bottle valve and repair it before you use it again.

### WARNING

- Do not use a solution containing ammonia.
- Do not use a naked flame to detect leaks.
- Do not smoke, and do not use a naked flame when changing the gas cylinder.

The appliances use oxygen from the cabin and release flammable gases. Ventilate your boat when using the appliances.

Do not obstruct the air vents and leave at least the door open.

Lock the cooker in position when not in use in order to avoid damage to the gas hose when sailing.

Keep the valves of empty gas bottles turned off and the gas bottles disconnected.

Keep protective guards, lids, covers and caps in their correct places.

Store any spare and empty gas bottles on the deck or in a locker with exterior ventilation.

Do not use the gas bottle storage compartment to store other equipment. Store the gas bottles in their proper compartment only.

Regularly check and replace the rubber tubing that links the gas bottle to one end of the circuit and the stove to the other, according to the current norms and regulations in your country.

Pay particular attention to maintaining in good condition the screw thread of the gas bottle where the regulator is located. Check the condition of the regulator every year and change it if necessary. Use regulators which are identical to those already fitted.

Have any repairs carried out by a skilled technician.

# 10

SAFETY

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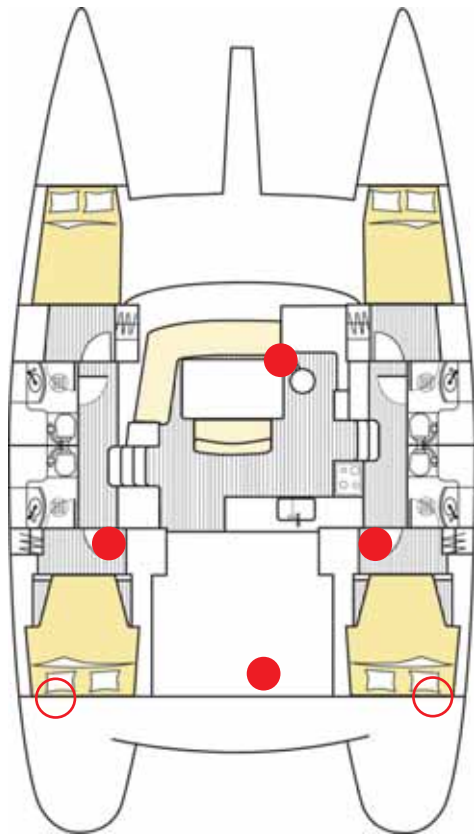


## SUGGESTED LOCATIONS OF THE FIRE EXTINGUISHERS

- Other locations are possible; an extinguisher should be found within 5m from any berth.
- An extinguisher must be positioned within at most 2m from each extinction access hole.
- An extinguisher or fire blanket (ISO 1869) must be placed within 2m from any naked flame apparatus.
- An extinguisher must be found within 1m from the steering station.
- All extinguishers should be easily accessible and should be able to be reached rapidly for use, maintenance or repair without having to use tools or to remove any part of the boat including drawers and shelves.

SAFETY

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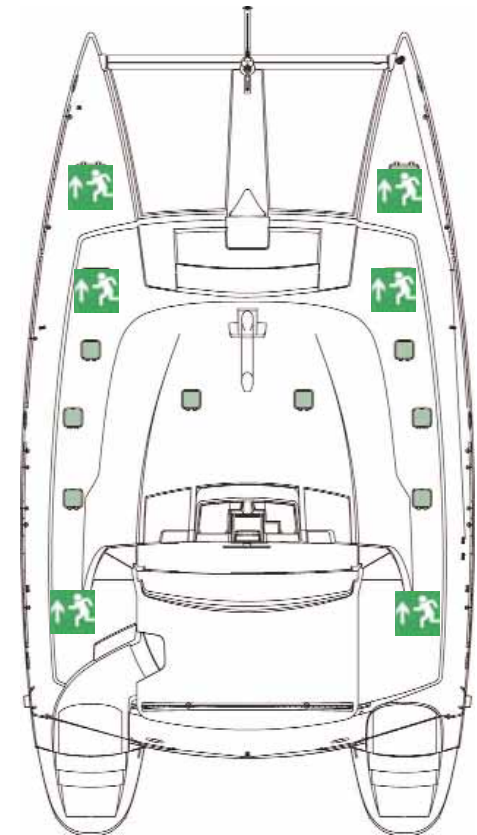
● Extinguisher

↑ Emergency exit

○ Engine compartment fire access hole



**EXTINCTION HOLE**



*Locations are the same for the other layout versions.*

### ■ Firefighting

#### **WARNING**

**The boat is delivered without extinguishers; you are responsible for applying your country's fire safety laws (number of extinguishers, capacity, type and location).**

The extinguishers must be within easy reach and kept away from any potential fire source.

The engine compartments are fitted with an access hole which allows extinguisher contents to be projected into them without having to open the usual access panels.

Procedure in the event of fire in the engine compartment bilge:

- Stop the engine.
- Switch off power and cut off fuel supply.
- First remove the cap then project the extinguishing substance through the extinction hole situated on the partition of the aft cabin.
- Wait one minute before approaching.
- Open the access hatch to carry out repairs.

#### **WARNING**

**Keep an extinguisher to hand in case the fire should start again.**

It is the responsibility of the owner or skipper:

- To have the extinguishers checked according to the instructions given.
- To replace any empty or expired extinguishers with others of an equal or a greater capacity.
- To ensure the extinguishers are accessible when people are on board.

And also inform the crew of:

- The location of the extinguishers and how to use them.
- The location of the extinction holes in the engine compartments.
- The location of the emergency exits.

#### **WARNING**

**Never:**

- **Obstruct access to the emergency exits.**
- **Obstruct the safety controls (fuel valves, gas valves, power switches).**
- **Obstruct access to the extinguishers placed in lockers.**
- **Leave the boat unattended when a stove or heater is in use.**
- **Use gas lamps on the boat.**
- **Alter any of the boat's systems (electricity, gas or fuel).**
- **Fill up a tank or change a gas cylinder when an engine is running or a stove or heater is on.**
- **Smoke while handling fuels or gas.**

# 10

SAFETY

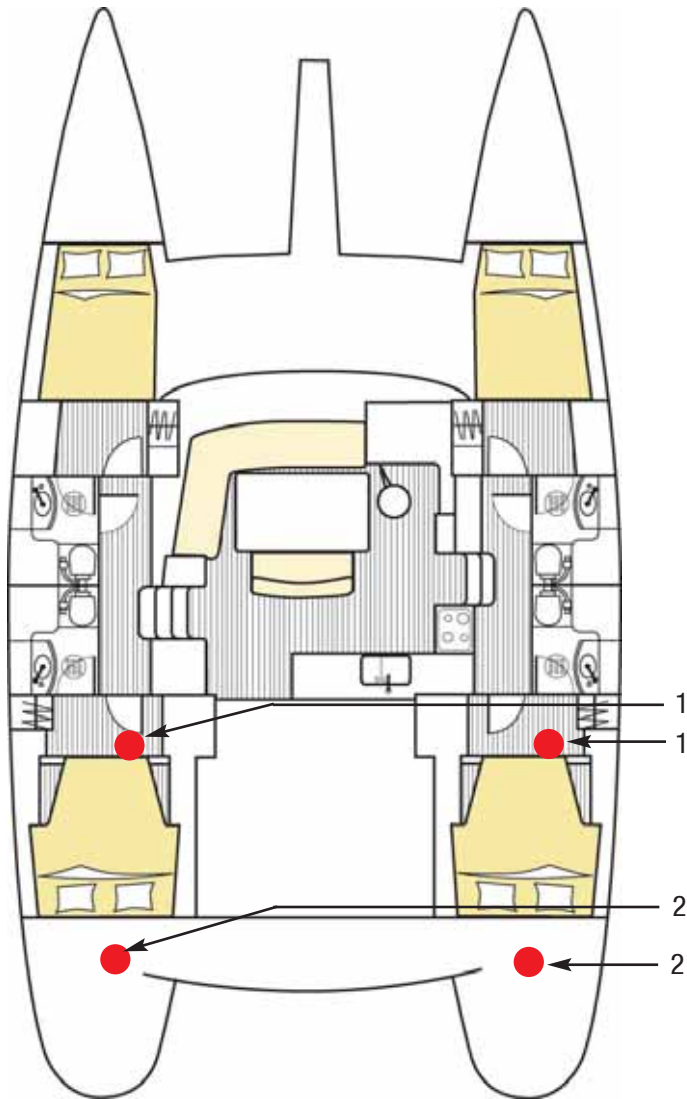
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## FUEL VALVES / EMERGENCY TILLER

SAFETY

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- 1 - Fuel valves.
- 2 - Deck plates for emergency tiller.



**FUEL VALVES**



**EMERGENCY TILLER**

Keep the bilge clean. Check regularly for the presence of fuel or gas vapor.

Use only compatible spare parts for extinguishers. Spare parts should have the same specifications or be technically equivalent relative to their resistance to fire.

Always attach the curtains with their snap fasteners when the gas cooker is in use.

Flammable products should not be stored in the engine compartment. Non-flammable products stored in the engine compartment should be attached to prevent them from falling on the machine and obstructing access.

### **WARNING**

**Use only carbon dioxide (CO<sub>2</sub>) extinguishers to fight electrical fires.**

**Evacuate the immediate area after discharging the product to prevent asphyxia, and ventilate before entering.**

### ■ Bilge pumping

#### ELECTRIC BILGE PUMPS

The electric pumps for bilge, sump and engine compartment operate automatically.

See PLUMBING chapter.

#### MANUAL BILGE PUMPS

The manual bilge pumps are located along the sides of the aft cockpit bench.

### ■ Emergency tiller

The emergency tiller is located in a cockpit locker. It must be easily accessible.

To put the tiller into operation:

- Use a winch handle to unscrew one of the emergency tiller deck plates located on the first step of the rear transom.
- Insert the tiller into the rudderstock, ensuring it is fully engaged in the square.

### RECOMMENDATION

The emergency tiller is designed to be used only while sailing at low speed when the main tiller has been damaged.

Regularly check tension of the turnbuckles on the turnbuckles steering cables.

# 10

SAFETY

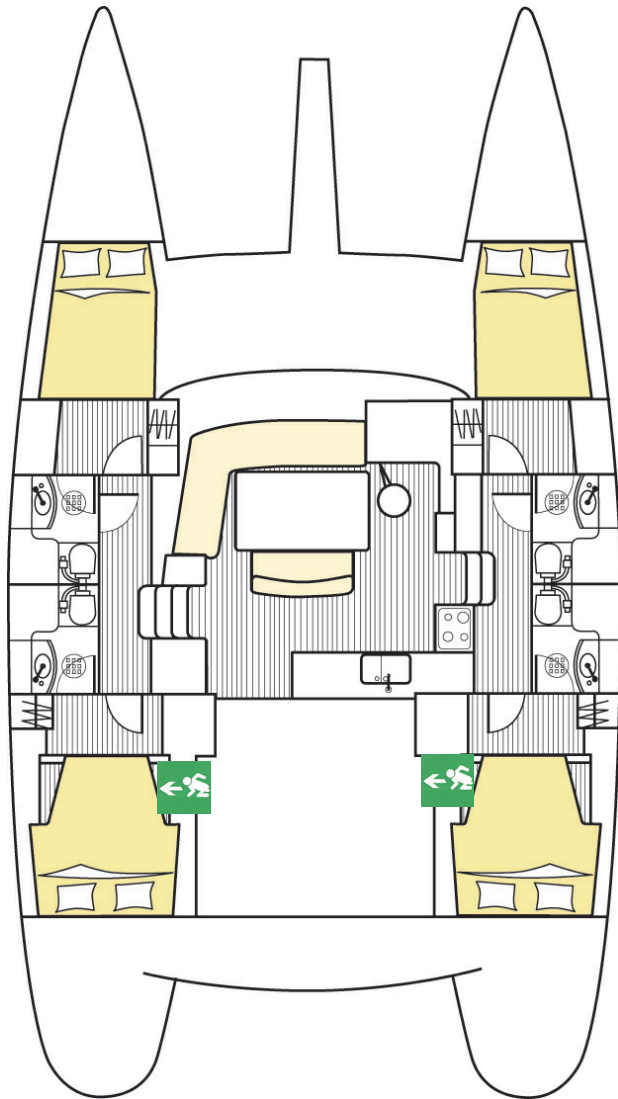
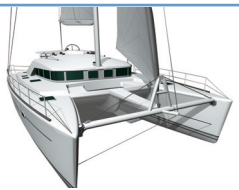
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# ESCAPE HATCHES

SAFETY

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### ■ Capsizing

#### IN THE EVENT OF CAPSIZING:

Escape hatches are fitted in the aft cabins.

In the event of capsizing break the glass using the hammer.

The life-rafts are accessible on the transom (see the beginning of the chapter).

### ■ Engine

- Never start the engine when the boat is out of the water.
- Never turn the propellers when the boat is out of the water.
- Be careful not to cut yourself on the sharp edges of the propellers.
- Be careful not to injure yourself when opening or closing the blades.

- Stop the engine before diving or swimming around the boat.
- The propeller blades are sharp and can cause major damage when rotating.
- Never attempt to release a fishing net or line caught in the propeller when it is rotating.

- Before setting sail, check that the propellers are working in both fore and aft positions.

- In the event of unusual noises or vibrations emanating from the propellers, stop the engines immediately.

If the problem persists, contact the builder or your nearest supplier.

If you are using a propeller with fold-away blades, read the manufacturer's use and maintenance instructions carefully.

# 10

SAFETY

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# General specifications

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**DESIGN CATEGORIES..... 112**

**SPECIFICATIONS ..... 113**

## DESIGN CATEGORIES

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### ■ Category A

This boat is designed for sailing in winds exceeding force 8 on the Beaufort scale and in waves of a significant height of 4m or more, and is to a large extent self-sufficient. Unusual conditions such as hurricanes are excluded.

You may encounter such conditions when you sail long crossings, for instance trans-ocean passages, or close to the shore when not protected from the wind or waves over a stretch of several hundred nautical miles.

### ■ Category C

This boat is designed for sailing in winds that may exceed force 6 on the Beaufort scale and in waves of a significant height of 2m or less. Such conditions can be encountered in exposed inshore waters, in estuaries or in coastal waters in moderate weather.

### ■ Category B

This boat is designed for sailing in winds not exceeding force 8 on the Beaufort scale and in waves of a corresponding height (significant height of 4m or less).

These conditions may be encountered out to sea or near the coastline when you are not protected from the wind and waves over several dozen nautical miles. These conditions may also be encountered in inshore waters of proportions sufficient to give waves as high as those mentioned above.

### ■ Category D

This boat is designed for sailing in winds not exceeding force 4 on the Beaufort scale and in waves of a corresponding size (occasional waves of 0.5m maximum).

Such conditions can be encountered in sheltered inshore waters and in coastal areas in good weather.

- Note:

The significant height of a wave is the average height of the upper third of the wave. This corresponds approximately to the height of a wave as assessed by an experienced observer. Some waves will be twice as high as this value.

#### GENERAL SPECIFICATIONS

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## GENERAL SPECIFICATIONS

### ■ Boat

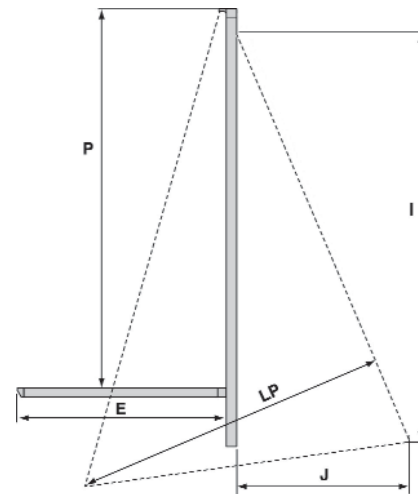
Length overall.....	13,61 m
Length on the waterline.....	12,75 m
Main beam .....	7,70 m
Height .....	21,40 m
Draught .....	1,30 m
Light displacement in theory.....	10500 kg
Maximum load displacement in theory.....	13500 kg
Authorized maximum load in theory .....	5900 kg
Including the weight of the people authorized on board (75 kg per adult), supplies, liquids (fresh water and fuel) in fixed, completely full tanks, additional loads, optional equipment, life-raft and the scope for load.	
Water capacity .....	3x300 l
Fuel capacity .....	3x325 l
Refrigeration unit capacity .....	330 l
Battery capacity (standard version) .....	3 x 140 Ah (12 V)
Engine batteries .....	2 x 110 Ah (12 V)
Maximum engine power .....	2 x 55 CV

CE category	Number of persons
A.....	12
B.....	14
C.....	20
D .....	25

### ■ Sails

Sail area close hauled (Standard Europe mast) .....	113,30 m <sup>2</sup>
Sail area close hauled (Short mast).....	100,70 m <sup>2</sup>
Battened mainsail (Standard Europe mast).....	71,30 m <sup>2</sup>
Battened mainsail (Short mast) .....	58,70 m <sup>2</sup>
Furling genoa.....	42,00 m <sup>2</sup>
Asymmetric spinnaker (optional extra) .....	145,00 m <sup>2</sup>
Gennaker (optional extra) .....	90,00 m <sup>2</sup>

I.....	17,23 m
J .....	4,25 m
P.....	17,06 m
E.....	6,50 m
LP .....	5,17 m



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GENERAL  
SPECIFICATIONS

113



# YOUR LAGOON 440

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NAME OF BOAT: .....

OWNER'S NAME: .....

VERSION: .....

ADDRESS: .....

DELIVERY DATE: .....

REGISTRATION NUMBER: .....

DOOR KEY NUMBER: .....

HULL N°: .....

MAKE OF ENGINE: .....

ENGINE KEY NUMBERS: .....

STARBOARD ENGINE SERIAL NUMBER: .....

STARBOARD TRANSMISSION SERIAL NUMBER: .....

PORT ENGINE SERIAL NUMBER: .....

PORT TRANSMISSION SERIAL NUMBER: .....

**Tel N° / Address in the case of an emergency**



[www.cata-lagoon.com](http://www.cata-lagoon.com)

# PERSONAL NOTES

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Dealer's stamp







[www.cata-lagoon.com](http://www.cata-lagoon.com)

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