



# EN LAGOON 620

# OWNER'S MANUAL

www.cata-lagoon.com

# CONTENTS

OWNER'S MANUAL

Updated 12.2015

1.	INTRODUCTION	4
2.	SPECIFICATIONS	6
2.1.	Identification sheet of your boat	6
2.2.	Dimensions	6
2.3.	Load	7
2.4.	Rigging & sails	9
3.	SAFETY	12
3.1.	Fire	12
3.2.	Visibility	15
3.3.	Stability, danger of infiltration	15
3.4.	Prevention of man overboard	16
3.5.	Liferaft (not provided)	17
4.	EQUIPMENT	18
4.1.	Motorization	18
4.2.	Steering system	19
4.3.	Electrical system	20
4.4.	Gas and fresh water system	26
4.5.	Waste holding tanks	28
4.6.	Pumps, valves and sea-cock fittings	30
5.	ANCHORING, MOORING AND TOWING	32
6.	HOISTING AND TRANSPORT	33
7.	REFERENCES AND STANDARDS	34

#### Dear Sir / Madam,

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

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

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

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

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

This Owner's manual is not a course in maintenance and repair. In case of difficulty, do not hesitate to ask your builder or representative. If a maintenance manual is provided, do not hesitate to use it. Always ask an experienced professional for the maintenance or your boat, for the installation of further accessories or for any modification. Any modification which may alter the safety specifications of the boat have to be estimated, carried out and documented by qualified people. The builder can not be liable for modification that would not have been approved.

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

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

If your boat is fitted with a life raft, read carefully its user's guide. It is necessary that the crew can find on board all the safety equipment (life jacket, harness, etc.) corresponding to the boat, to the weather conditions, etc. This equipment has been made mandatory by some countries. It is necessary for the crew to be familiarized with the use of all the safety equipment and with the emergency safety procedures (MOB, towing, etc.). Sailing schools and yacht clubs often offer training sessions.

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

# INTRODUCTION

#### The users of this boat are informed that:

All the crew members have to be properly trained. Do not sail at maximum speed in areas of dense traffic or in case of reduced visibility, strong winds or high waves. Reduce the speed and the wake of the boat, by respect to others but also as a measure of safety, both for them and for yourself. Respect the speed and wake limits when zones are defined.

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

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

The different warning used throughout this guide are as follow :

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

# X DANGER

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

# 

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

# **!** ATTENTION

Warns you about safety practices or draw your attention to dangerous practices that may hurt people or caused damages to the boat, its components or to the environment.

### **2. SPECIFICATIONS**

#### 2.1 • Identification sheet of your boat :

Builder's plate: certain information is given on the builder's plate fixed to the boat.

NAME OF THE BUILDER	CONSTRUCTION NAVALE BORDEAUX
BUILD CATEGORY	A
MAXIMUM RECOMMENDED POWER	2 X 110CV (2 X 81 KW)
CERTIFYING ORGANISATION NUMBER	CE0607

Category	Wave height (m)	Wind force (Beaufort)
А	> 4	> 8
В	< 4	≤ 8
С	< 2	≤6
D	< 0.5	≤ 4

Number of people recommended per build category

Category	Maximum number of people
А	14
В	14
С	16
D	30

#### **REMINDER OF THE CATEGORIES**

**Category A:** the boat is designed for sailing in winds that may exceed force 8 on the Beaufort Scale and in waves of a significant height of 4 m or more and the boat is to a large extent self - sufficient. Unusual conditions such as hurricanes are excluded. You may meet with such conditions when sailing long crossings, for instance across the oceans, or close to the shore when you are not protected from the winds and waves over several hundreds of nautical miles.

**Category B:** the boat is designed for sailing in winds that may not exceed force 4 on the Beaufort Scale and in corresponding waves (waves of a significant height of 4 m or less (see Note 1 below). You may meet with such conditions when sailing at open sea during quite a sufficient time, or close to the shore when you are not protected from the winds and waves over several dozens of nautical miles. You may also meet with such conditions when sailing quite important inland seas which could produce waves of this height. You will find an extensive explanation of this information in the dedicated chapter of this manual.

# WARNING

Do not overcome the recommended maximum number of people. Regardless of the number of people on board, the total weight of the people and of the equipment should not exceed the maximum recommended load. Always use the seating provided.

### 2.1 • Dimensions

LENGTH OF THE HULL	18,20 m*
HULL BEAM	10,00 m*
MAXIMUM LENGTH	18,90 m
MAXIMUM BEAM	10,00 m
KEEL DRAUGHT	1,55 m
MAXIMUM HEIGHT	31,00 m

\* according to ISO 8666

The sails are the principal means of propulsion of the Lagoon 620.

The Lagoon 620 is in conformity with the Directive 2003 44 CE.

**Category C:** the boat is designed for sailing in winds that may not exceed force 6 on the Beaufort Scale and in corresponding waves (waves of a significant height of 2 m or less (see Note 1 below). You may meet such conditions when sailing exposed inland waters, estuaries and inshore waters with moderate weather conditions.

**Category D**: the boat is designed for sailing in winds that may not exceed force 8 on the Beaufort Scale and in corresponding waves (occasional waves of 0.5 m maximum (see Note 1 below). You may meet such conditions when sailing non exposed inland waters and inshore waters under good weather conditions.

NOTE 1 - The significant height of a wave is the average height of the upper third of the waves, which corresponds more or less to the height an experienced observer can assess. Some waves will be twice as high as this value.

# SPECIFICATIONS

### 2.3 • Charge

NAVIGATION CATEGORIES	А	В	C	D
Light boat:	29 960	29 960	29 960	29 960
Safety equipment		50		
Sail		410		
Light displacement		30 52	0	
Life-raft: (2)		160		
Crew	1 050	1 050	1 200	2 250
Water		960		
Fuel		1 040	)	
Supplies and personal belongings: ICNN instruction : 30kg minimum Cat A, 20kg Cat B, 10kg Cat C, 5kg Cat D	420	280	160	200
Optional equipment	A	В	C	D
Anchoring (anchors + chain + anchor chain)		500		
Spinnaker rigging + spinnaker		60		
Gennaker rigging + spinnaker		60		
Electric genoa sheet winch x2		64		
Electric genoa sheet winch x2		52		
Lazy bag + Lazy jack		13		
Canvas surround with windows		18		
Supplementary swimming ladder		7		
Davits		350		
Tenderlift		350		
Teck option		235		
Sunbathing cushion		7		
Forward and aft cockpit cushion		35		
2nd cockpit deck shower		2		
Inlet valve for shore freshwater		2		
Microwave oven		17		
Dishwasher		28		
Replacement with coolbox or supple- mentary fridge		15		
Watermaker (x2)		130		
Icemaker		18		
Replacement with coolbox or supple- mentary fridge		75		
Ventilators in the saloon		2		
Ventilators in the cabins		2		
Heating (not compatible with air conditionning)		56		
Air conditionning		250		

NAVIGATION CATEGORIES	A	В	С	D
Berth cabin in port bow	60			
Berth cabin or bathroom in starboard bow	50			
Entry door curtain		3		
2 battery chargers 100 A		18		
Inverter 12 V / 220 V		8		
Genset + cocon 17 KVA - 220 V		450		
Dual engine controls		12		
Antifouling		88		
Laser loader radio + 2 speakers		3		
Cockpit watertight loudspeaker (x4)	2			
VHF		1		
GPS	2			
Electronics: Speedometer/depth sounder/plotter	5			
Autopilot	10			
Radar	3			
Mooring lines and fender	50			
Tenders + engine	450			
Diving equipment	120			
Others	450			
MAXIMUM LOAD DISPLACEMENT (kg)	38 290	38 150	38 180	40 020
MAXIMUM LOAD (kg)	7 770	7 630	7 660	9 500

MAXIMUM LOAD = maximum load displacement - light boat

The recommended maximum load includes the weight of all people on board, of the supplies and personal belongings, of all the equipments which are not included in the weight of the light boat, of the freight (if applicable) and of all the consumable liquids (water, fuel, etc.).

# WARNING

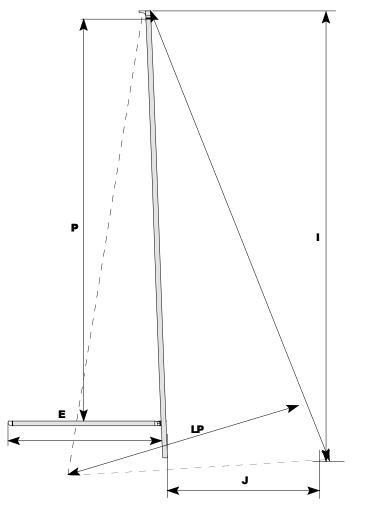
When loading the boat, you should never exceed the recommended maximal load. You should always load the boat with caution and distribute the loads thoroughly in order to preserve the theoretical trim (approximately horizontal). Avoid placing heavy loads in the upper storage space.

# SPECIFICATIONS

### 2.4 • Rigging & sails

#### 2.4.1 • Sails specifications:

VOILE	SURFACE		Dimensions
MAIN SAIL	146 m <sup>2</sup>	I	25.36 m
GENOA (MAXI)	97 m <sup>2</sup>	J	6,289 m
STAYSAIL	51 m <sup>2</sup>	Р	24,7 m
GENNAKER	175 m <sup>2</sup>	E	8,26 m
SPINNAKER	300 m <sup>2</sup>		



#### 2.4.2 . Maintenance of the rigging:

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

#### Considering the metal cables:

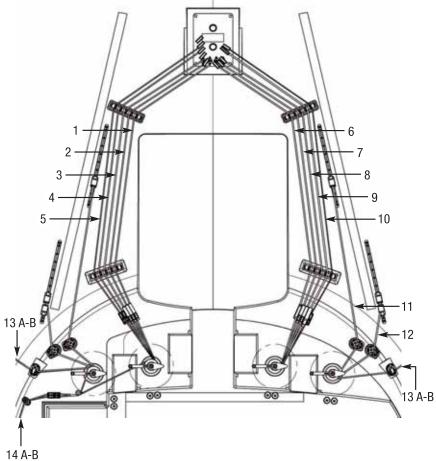
Have them changed as soon as the first rustspot appears. Check for corrosion, particularly at connections with the turnbuckles. Check that the end fittings and the turnbuckles are in good condition. Considering the synthetic ropes of the backstays, halyards, sheets, mooring lines, etc.:

Have them changed as soon as the first signs of wear and tear or chafing appear.

Regularly check the other parts of the rigging, sheets, mooring lines, etc. and have them replaced if worn.



### 2.4.3 • Mast handling diagram



- 1 Spinnaker / gennaker halyard (option)
- 2 Mainsheet
- 3 Reef pendant 3
- 4 Luff pendant reef 3
- 5 Mainsail topping lift
- 6 Reef pendant 1
- 7 Reef pendant 2
- 8 Main halyard

- 9 Luff pendant reef 1
- 10 Luff pendant reef 2
- 11 Staysail sheet
- 12 Genoa sheet
- 13a-b -Spinnaker / gennaker sheet + spinnaker guy
- 14a -Portside control lines for mainsheet traveller
- 14b -Starboard control lines for mainsheet traveller

# SPECIFICATIONS

a

### SAIL REDUCTION



Any adjustment differing from these instructions may cause the rupture of the mast. In particular, the 100% genoa with 2 reefs in the mainsail must be absolutely avoided.

#### MAX. TRUE WIND

			4
WIND FORCE 1 - 4	KNOTS 20	SAILS MAINSAIL 100 % GENOA 100%	
WIND FORCE 5	KNOTS 25	SAILS MAINSAIL 1 REEF GENOA 85%	
WIND FORCE 6	KNOTS 30	SAILS MAINSAIL 1 REEF GENOA 70 % OR STAYSAIL 100%	
WIND FORCE 7	KNOTS 35	SAILS MAINSAIL 2 REEFS STAYSAIL 85 %	
WIND FORCE 8	KNOTS 40	SAILS MAINSAIL 3 REEFS GENOA 40%	
WIND FORCE 9	KNOTS 45	SAILS MAINSAIL 3 REEFS	

**GENOA 30%** 

### **3. SAFETY**

3.1 • Fire

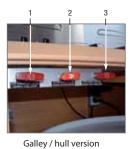
#### 3.1.1 • Risks

The main risks are related to the motorization (\$4.1), to the electrical system (\$4.3) and to the gas system (\$4.4).

#### 3.1.2 • Fire fighting equipment

Portable extinguishers: to be provided by the owner. The enforcement of the national regulation under the flag of which you are sailing is your responsibility. The boat, when sailing, must be fitted with portable extinguishers.

We advise you to provide at least 1 extinguisher within a 5 meter distance to each berth, within a 2 meter distance of the extinguisher access hole to the engine compartment, within a 2 meter distance to every appliance using a naked flame and, eventually, 1 extinguisher within 1 meter of the steering wheel.



- 1 Cut off device of generator tank fuel supply (portside).
- 2 -Release mechanism of portside engine bilge extinguisher.
- 3 Cut off device of portside tank fuel supply.

Access by the pull handles under the hob in the gallery in the portside hull aft

Please refer to the appropriate sections.

We advise a total capacity of at least 8A / 68B for all the portable extinguishers, each of them with a least a capacity of 5A / 34B. The CO2 extinguishers have to be used for the kitchen or electrical fires.

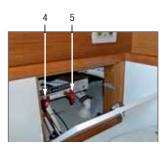
The boat is delivered with 1 CO2 extinguisher in every engine compartment.

The location is defined in the diagram below. This location is the same for any of the 3 versions.



- 1 Cut off device of portside tank fuel supply.
- 2 Release mechanism of portside engine bilge extinguisher.
- 3 Cut off device of generator tank fuel supply (portside).

Access by the pull handles behind the hatch under the bedside storage at the aft end of the port hull.



- 4 Release mechanism of starboard engine bilge extinguisher.
- 5 Cut off device of starboard tank fuel supply.

Access through the hole behind the WC in the starboard hull aft.



 Fixed extinguishing system for the engine bilge.

Access in the engine bilges.

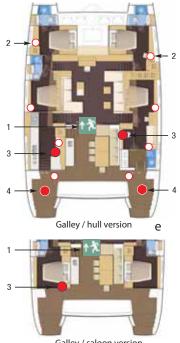
# SAFETY

### 3.1.3 • EMERGENCY EXITS

The recommended emergency exits are indicated on the opposite diagram:



- 1 Emergency exit.
- 2 Extinguisher.
- 3 Release pull handle of engine extinguisher.
- 4 Engine extinguisher.
- 5 Distress flares.
- 6 First aid kit.
- 7 VHF (optional).
- 8 ..... 9 - ..... 10 - ..... 11 - ..... 12 - ..... 13 - ..... 14 - ..... 15 - ..... 16 - .....

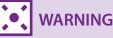


Galley / saloon version

#### RECOMMENDATIONS

Some elements do not have pre-determined location. Fill-in this diagram with your own safety equipment.

#### **General points**



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

Ensure the bilges remain clean and check regularly there is no vapor or leaks of fuel and gas.

Do not store flammable products in the engine compartment.

Do not leave the boat unsupervised when using cooking and or heating devices. Do not smoke while handling fuel or gas.

Make sure the fire fighting equipment can be reached easily when people are on board. Inform the crew of:

- the location and functioning of the fire fighting equipment.
- the location of discharge valves in the engine compartment.
- the location of routes and exits.

In case you had to replace some elements of the fire fighting equipment, only use appropriate appliances, bearing the same reference or having similar technical specifications and fire resistance.

If non flammable products are stored in the engine compartment, they must be stored in order not to fall on the machinery and they should not prevent neither the entrance nor the exit of the engine compartment.

- Do not block the way out nor the hatchways.
- Do not block the safety control such as: fuel valves, gas valves, electrical system switches.
- Do not block the access to the portable extinguishers fitted in the cupboards.

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

#### Fire fighting equipment maintenance

It falls to the owner / user:

To have the fire fighting equipment regularly checked, respecting the frequency indicated on the equipment

- If the portable fire fighting equipment has passed its use-by date or if it is discharged, to replace it with devices of same or superior extinguishing capacity.
- If the fixed extinguishing systems have passed their use - by date or if they are discharged, to have them filled up or replaced.

# SAFETY

### 3.2 • Visibility

Visibility from the command post may be hindered because of extreme leaning due to the boat's trim or because of other factors linked to one or several of the following conditions:

- · Load and load distribution
- Speed
- Sea conditions
- Rain and spray
- Obscurity and fog
- Light in the boat
- Position of the upper or lateral awnings
- People or removable equipment in the helms man's field of view
- In motor-driven boats, rapid acceleration or transition from drive-limit to hydroplaning
- Angle of the trim regulator with regard to the engine (for the boats equipped)

### 3.3 • Stability, danger of infiltration

## Reduce your speed before making tight bends in order to avoid losing control.

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

Stability is reduced when upper storage spaces are loaded.

Stability may be reduced when another boat is towed or when heavy weights are lifted with the davits or the boom.

Breaking waves are serious dangers both for stability and water infiltration.

Fasten the doors and hatchways in case of rough seas.

Never sail a boat with a negative trim adjustment (low stem) when sailing high speed.

- Angle of the trim regulator with regard to the hull (for the boats equipped)
- Sailing heel, the sails reducing the visibility leeward.

The international regulation to prevent collisions at sea (COLREG) and course regulations make mandatory a permanent and proper supervision and the observance of priority. To observe these rules is essential.

This can induce the boat to heel over and therefore cause an instability in the turns. Use a negative trim when going from limit speed to hydroplaning and at lower speed in the chop.

The compartment marked as being air pockets should not be pierced.

If your boat is certified as unsinkable, it is capable of bearing its passengers, even in case of infiltration.

On boats where a bilge pump is not required, it is the responsibility of the user / owner to have on board at least a bucket / bailer equipped with a mean to prevent its loss overboard.

### 3.4 • Prevention of man overboard

The swimming ladder is removable. It is stored in the aft cockpit locker.

The deck areas which are not considered as being

part of the working deck and which should not be used when sailing are hatched on the diagram below.



Regularly check the lifelines:

Considering the metal lifelines, check the appearance of rust-spots and corrosion, particularly at connection points.

Considering the synthetic lifelines, have them changed as soon as the first signs of wear and tear appear because of chafing or of UV.

# SAFETY

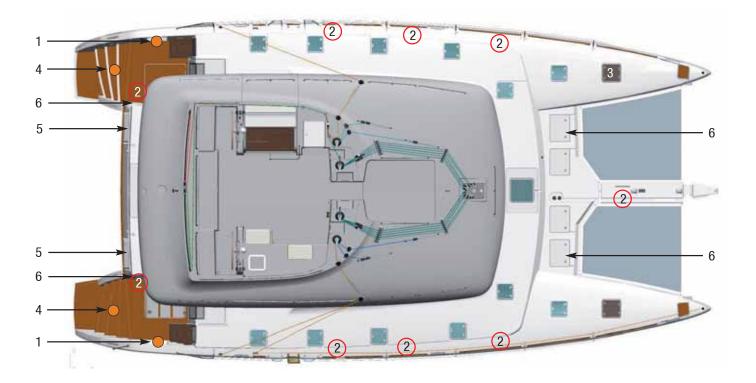
### 3.5 • Life raft (not provided)

Carefully read its user's guide.

Security equipment location (to complete with your own safety equipment if necessary).

- 1 Location for life buoy.
- 2 Deck eye for life line fastening.
- 3 Emergency tiller.
- 4 Emergency tiller cover.
- 5 Location for life raft.
- 6 Manual bilge pump.

7 - Extinguisher. 8 - ..... 9 - ..... 10 - ..... 11 - ..... 12 - .....



**4. EQUIPMENT** 

For more information on the fitted devices, read the provided manuals attached to the boat documentation.

### 4.1 • Motorization

#### 4.1.1 • Directions for use

Do not install on this boat a heavier or more powerful engine than what has been recommended: this may induce a risk for the stability.

Stop the engine. Do not smoke when filling up the fuel tank.

For outboard engines fitted with a jerrican, fill up the portable tank outside the boat in a well ventilated area, far from any fire risk.

Fuel stored somewhere else than in the tanks (jerricans, feed tanks...) must be kept in a ventilated place.

Before starting, ensure that the engine hold is clean and dry. Any trace of fuel in the bilges should make you postpone your departure.

Avoid any contact between flammable products and hot parts of the engine.

Locate the extinguisher access hole which would allow you to knock down a fire in the engine hold. For boats equipped with a petrol engine, ventilate the engine compartment using the engine blower during 4 minutes in order to evacuate any possible petrol vapors.

For certain models, a fixed extinguisher system, allowing knocking down a fire in the engine hold, is provided. Learn where to find its activation switch and how it works (see 3.1.2). It is necessary to ventilate the engine hold after having used it.

Check that the apertures for ventilation are clear of any obstruction.

Do not block nor modify the ventilation system.

Before starting, ensure that:

- the engine control is not engaged,

- the water control intake valve of the cooling system is open and check that there is some water actually coming out of the exhaust when the engine has started (water may be mixed with exhaust gas in case of wet exhaust).

It is not recommended to work on moving parts or next to them (engine, line shaft, etc.).

If an intervention is made necessary:

- stop the engine and or the rotation of the line shaft before working on one of their parts.
- beware of loose fitting clothing, hair, rings which may get caught up. Wear appropriate clothes (gloves, hat, etc.).

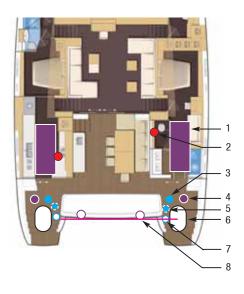
If equipped with a petrol engine, beware of the danger of falling asleep because of carbon dioxides fumes.

In case of fuel spillage on the deck when filling up, have it cleaned before starting.

Anticipate the deterioration of fuel pipes.

Fuel hoses have to be replaced by hoses bearing the same markings.

### 4.1.2 • Fuel tanks: 2x650 liters DIESEL



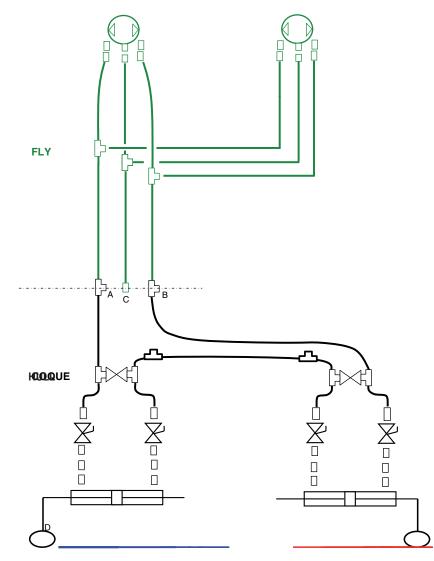
- 1 Fuel tanks.
- 2 Fuel closing pull handle.
- 3 Sea water filter.
- 4 Fuel filter.
- 5 Engine water inlet valve .
- 6 Engine.
- 7 Expansion tank.
- 8 Diesel oil tank fillers.

Each hull has the same components.

Nota : each valve in the boat is identified.

### 4.2 • Steering system

The steering system is hydraulic.

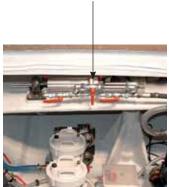


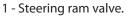
#### **Emergency tiller**

For the boats equipped with a steering wheel, an emergency tiller is provided. Ensure it can be easily reached anytime.

Unscrew the tiller cover on the aft step, push the emergency tiller in the print in the rudder head. Fasten the emergency tiller with the screw and the nut (#3).

The emergency tiller is designed for sailing at reduced speed only, in the event of a wheel failure.





- 2 Emergency tiller.
- 3 Emergency tiller screw and nut.
- 4 Valve of the ram in the by-pass position.



#### 4.3.1 • Electrical panel and circuit and 12V-24V

Never work on a live electric circuit.

The batteries must be thoroughly fastened. Do not block the battery ventilation conducts: some of them let out hydrogen, which could be an explosion risk.

Batteries have to be handled with care. In the event of electrolyte projection, abundantly rinse the part of the body which has been affected and consult a doctor.

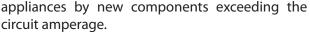
In order to avoid short-circuiting between the two poles of the battery, do not store any conductive objects next to the batteries (metallic tools...).

When charging, connecting or disconnecting the batteries, switch off the battery cut-outs.

Never modify the specifications of the appliances protecting against overloads.

Never modify an installation. Ask a technician skilled in marine electricity to do so.

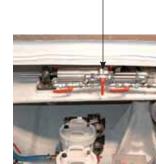
Never install or replace electrical equipment or



Do not leave the boat unsupervised when the electrical system is under power, this excepting the automatic bilge pump and the fire and burglar protection systems.

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

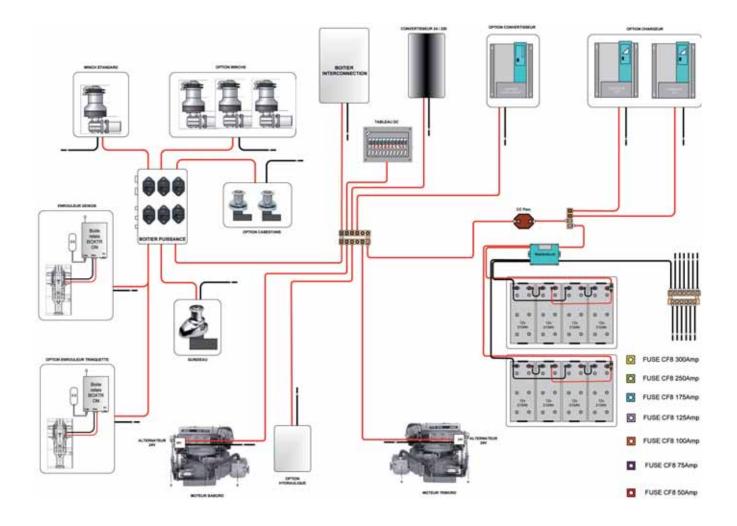
Those of the 24 V circuit are white or brown for live and blue for negative.







### 24 V CIRCUIT

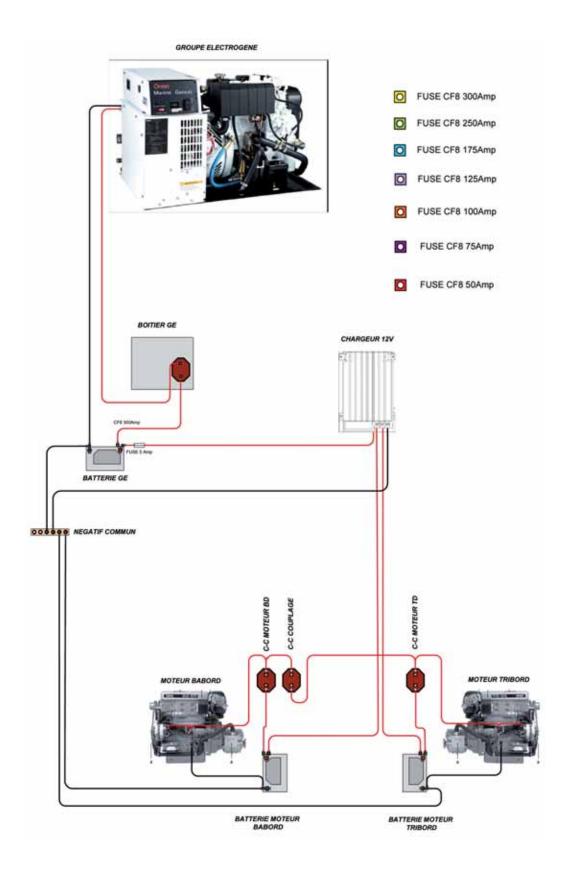




24 V PANEL

GENERAL BOARD CUT OUT

### **12 V CIRCUIT**



#### 4.3.2 • 110 V - 220 V Electrical system

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

It is necessary to observe the following rules in order to avoid electric shocks and fire:

Never work on the live electric circuit.

Connect the boat shore supply cable in the boat before plugging it to the shore supply socket. Never let the end of the boat shore supply cable fall into the water.

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

Turn off the shore power with the cut off device fitted on board before plugging or unplugging the boat shore supply cable.

Unplug the boat shore supply cable first on the shore side.

If the reverse polarity indicator is on, immediately unplug the cable. Solve the polarity problem before using the electrical system of the boat.

Thoroughly close the shore socket cover.

## Do not modify the connections of the boat / shore supply cable; only use compatible connections.

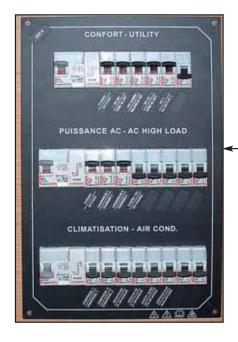
Do not modify the boat electrical system nor the relevant diagrams. It is necessary that any modification and maintenance are carried out by a technician skilled in marine electricity. Have the system checked at least twice a year.

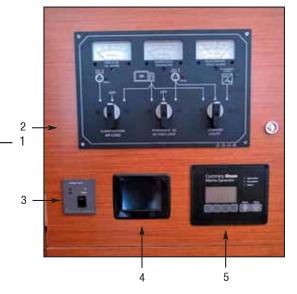
Unplug the boat's supply when not in use, in order to avoid any fire risk.

Connect the electrical appliances metallic covers or boxes to the protective conductor of the boat (green conductor with yellow stripes).

Only use electrical devices with double insulation or earth.

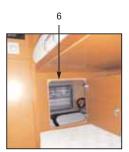
Please note that live wires are blue, neutral wires are brown and earth wires are green and yellow.





- 1 110 V 220 V protection panel.
- 2 110 V 220 V selection panel.
- 3 Starting / stop control of the converter.
- 4 Starting / stop control of the watermaker (optional).
- 5 Starting / stop control of the generator.
- 6 Household appliances circuit breakers.





CONTROL OF THE 110 - 220 V CONSUMING APPLIANCES

#### 110 V - 220 V SELECTION PANEL

This selection panel is composed of 3 switches allowing choosing the supply source for the different 110 V - 220 V consuming appliances on board.

#### **COMFORT - UTILITY SELECTOR**

- Allows using the appliances grouped together on the COMFORT - UTILITY bus, using 110V - 220V current from the generator, shore or converter (automatic start of the converter when selected).

#### PUISSANCE AC - AC HIGH LOAD SELECTOR:

 Allows using the appliances grouped together on the PUISSANCE AC HIGH LOAD bus using 110 V
220 V current from the generator or shore.

#### AIR CONDITIONING SELECTOR:

- Allows to use air conditioning on the AIR CONDITIONING bus using 110 V - 220 V current from the shore power socket #2 or generator.

#### 4.3.3 • Emergency starting

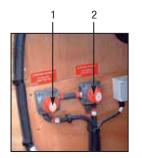
If the engine batteries are not available, a coupling system of the port and starboard 12 V starting batteries is available (in the engine compartment port side).

To select the battery coupling:

- Activate (ON position) the general cutout, the

starboard and port side engine cut outs and then the coupling cut out located in the engine compartment port side.

- Start the engines, both port and starboard sides.
- When both engines have started, switch off (OFF position) the coupling cut out.



- 1 Battery coupling (12 V) cut out.
- 2 Port side engine (12 V) cut out.

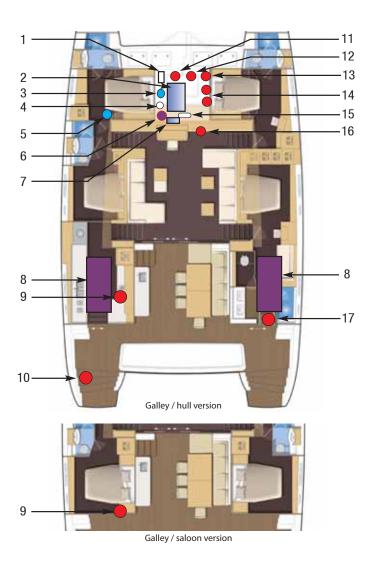
**Please note:** in a normal configuration, the 12 V engine starting batteries would then be charged by the engine 12 V alternators.

### 4.3.4 • Location of the battery cut outs, electrical panels and appliances.

Before replacing a fuse, switch off the cut outs.

Some equipment appearing on the panel below may be optional.

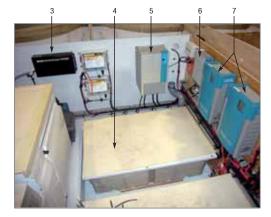
### **GENERATOR - SHORE POWER SUPPLY - CHARGERS - INVERTERS**



#### 1 - Generator start battery.

- 2 Generator.
- 3 Separator drain valve.
- 4 Air extractor of service room.
- 5A Generator sea water filter.
- 5B Generator sea water inlet valve.
- 6 Generator fuel filter.
- 7 Water / gas separator.
- 8 Fuel tanks.
- 9 Fuel / generator stop pull handle.
- 10 Circuit breakers of the shore power sockets + shore power sockets.
- 11 24 V / 220 V inverter.
- 12 12 V / 220 V inverter.
- 13 220 V / 12 V battery charger.
- 14 220 V / 24 V battery chargers.
- 15 Generator exhaust pipe.
- 16-24 V 12 V inverter (access behind bilge pump panel).
- 17 Diesel oil transfer pump (Starboard tank to port tank).

#### SERVICE ROOM



- 3 24 V / 220 V 2000 W inverter as standard.
- 4 Battery bank.
- 5 24 V / 220 V 2500 W or 4500 W inverter (optional extra).
- 6 220 V / 12 V 35 Ah charger.
- 7 220 V / 12 V 100 Ah charger.

### 4.4 • Gas and fresh water system

#### 4.4.1 • Stove unit

Never put flammable products over the stove unit (curtains, papers, towel...).

Do not leave the boat unsupervised when gas or alcohol devices are in use.

In the case you smell an odour of gas or if the flames are extinguished accidentally (even though gas supplying is automatically cut in case of extinction), close the taps and create a draft to evacuate remaining gas. Find the cause of the problem.

Do not smoke or use a naked flame when looking for a gas leak or changing a gas cartridge or during any other intervention the gas system.



Naked flame devices using fuel use the oxygen of the cabin and let out combustion products in the boat. It is necessary to ventilate when these devices are in use. Do not block air vents and check that devices with smoke conducts function properly.

Close the supplying pipe valve and the taps on the gas cartridges when the devices are not in use. For stove units with fitted cartridge, the cartridge must be changed outside the boat. Test the stove before bringing it back in the galley. Carefully lock the stove brackets into position when reinstalling them. Never use cooking devices as heating devices. Never obstruct the air vents.

Check that the tap burners are closed before opening the supplying pipe valve and cartridge tap.

Close the taps before changing the cartridge and immediately in case of emergency.

Store the spare bottles in the ventilated spaces on the deck or in the lockers intended to this purpose, being gas tight and ventilated to the outside.

Do not obstruct the access to the components of the gas system, particularly to the taps (cartridges and stove unit).

The gas hoses connecting the cartridge and the stove unit must be changed according to the local regulations. Only use hoses complying with your local regulations.

Never use gas cartridge spaces to store other equipment.

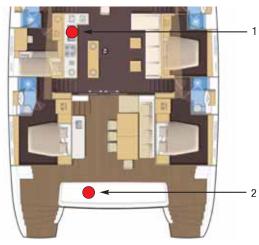
Be careful not to damage the cartridge thread to which you will connect the pressure-regulator. Check the pressure-regulator every year and have it replaced if necessary. Use the same pressure-regulators as those already fitted.

Ensure the taps of empty cartridges are closed and disconnected. Keep all protection devices, covers and plugs.

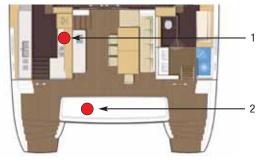
Do not use ammoniac-based solvents for cleaning or finding a leak.

### 4.4.2 • Gas system layout

The gas cartridge locker is located in the aft cockpit beam.



Galley / hull version

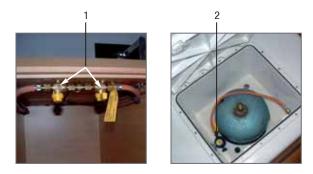


Galley / saloon version

1 - Gas valves. (access in the cupboard on the left under the hob - Galley / hull version)

(access in the cupboard on the right under the hob - Galley / saloon version)

2 - Regulator. (access in the portside locker of the cockpit settee)



#### 4.4.3 • Alcohol stove



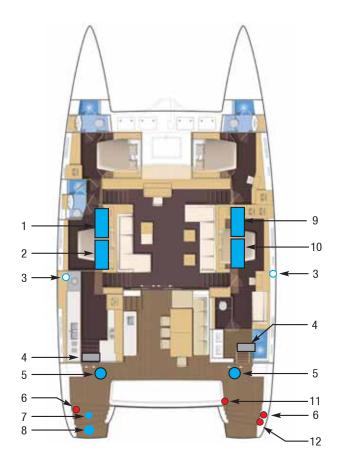
Do not smoke while handling fuel.

Keep the fuel in a container dedicated to this purpose, away from the stove unit and from any other heat sources.

Follow the builder's instructions for filling up the burners. Do not pour alcohol directly in the burner over the stove. Only use denatured alcohol. Gasoline, petrol, propane, fuel oil or any other fuel or flammable product should not be used.

Immediately wipe up any spill out of the burner tank.

#### 4.4.4 • Fresh water circuit

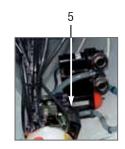


- 1 Port forward tank.
- 2 Port aft tank.
- 3 Deck filler.
- 4 Water heater.
- 5 Pressure water pump.
- 6 Water unit stop valve.
- 7 Valve for shore fresh water supply.

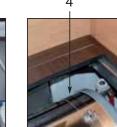
12

6

- 8 Shore fresh water supply.
- 9 Starboard forward tank.
- 10 Starboard aft tank.
- 11 Transfer valve.
- 12 Deck shower valves.







### 4.5 • Waste holding tanks

#### 4.5.1 • Specifications

1 waste holding tank (73 liters) per toilet.

These capacities may not be completely usable depending on the trim, the load and the position of the possible filling and drainage point(s).

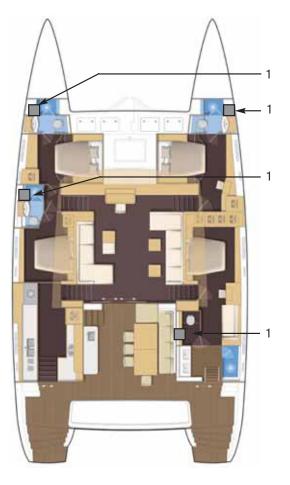
Do not empty toilets near the coasts.

Keep yourself informed of the local regulations about the respect of the environment and always follow rules of best practice.

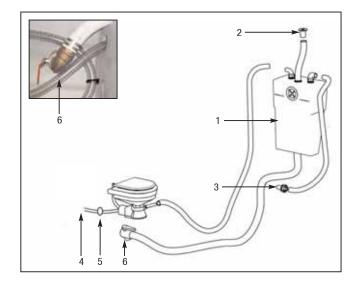
Follow the international rules concerning marine pollution (Marpol).

### 4.5.2 • Functioning of the black waters retention system

The system functions as described on the diagram below.



#### **BLACK WATER TANK SYSTEM**



- 1 Black water tank.
- 5 Electrovalve / fresh water
- 2 Drain bung hole on deck.
- 3 Vent.
- 4 Fresh water tank inlet.
- inlet.
- 6 Drain valve on hull.

The toilets are only drained in the waste holding tanks which are then drained either: by pumping: cover on the deck (2) or by drainage in the sea: valve (6)

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

#### For the respect of the environment:

Do not unload the retention tanks close to the coasts, use the pumping systems provided by harbours or marinas to empty the tanks before leaving.

Please check that the outlet valve is closed in order to avoid any accidental unloading.

### 4.6 • Pumps, valves and sea-cocks fittings

#### 4.6.1 • Pumps

The bilge pump system is not designed to ensure buoyancy for the boat in case of damages. Do not let the pump turn empty. This may cause

damages to the pumps.

The water in the bilges must be kept at a minimum. Check visually and regularly the correct functioning of each bilge pump.

### **ATTENTION**

Check regularly the correct functioning of each bilge pump. Clean the strainers or suction pumps from any debris which may obstruct them. If there are watertight partitions separating the forward and aft valve points, these should be closed under normal conditions and opened only in order to drain off water from the main bilge.

#### 4.6.2 • Valves, sea-cocks and drainage

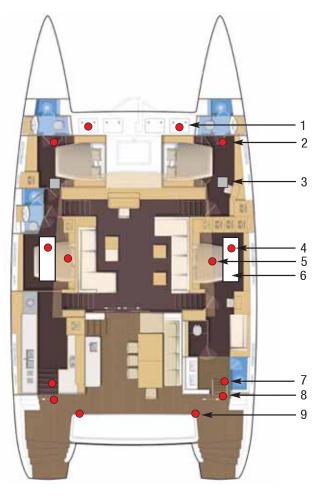
#### DRAINAGE



### WARNING

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

#### Capacity of an electrical bilge pump: 2640 liters / hour Capacity of a manual bilge pump: 0,9 liter / cycle or 40,5 liters / minute

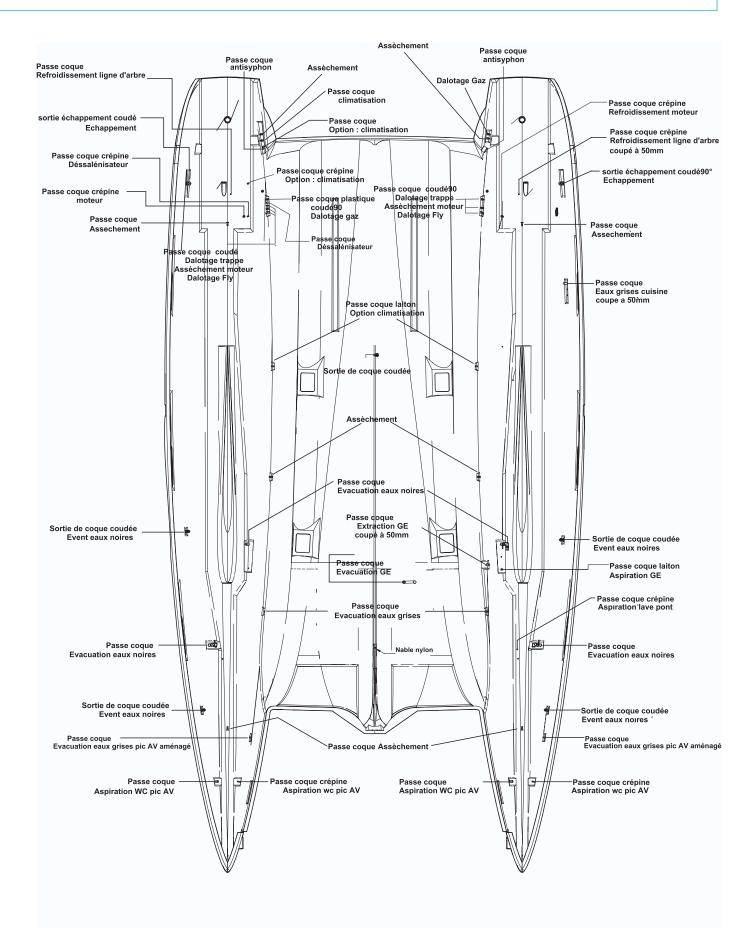


CLOSED OPEN SEA-COCK SEA-COCK WOT I

- 1 Forward compartment manual bilge pump.
- 2 Outlet valve of forward compartment.
- 3 Grey water tank.
- 4 Automatic start mechanisms of the electric bilge pump.
- 5 Electric bilge pump / sump.
- 6 Hull sump.
- 7 Drain valve of engine bilge.
- 8 Electric bilge pump / engine bilge.
- 9 Rear manual bilge pump.

Each hull has the same components.

Nota : each valve in the boat is identified. 9





# ANCHORING, MOORING AND TOWING

Keep the hatch or the well door sea tight.

Always tow at low speed.

Secure the tow line in such a way that it can be released under tension.

The owner must ensure that mooring and towing ropes as well as fastening points and chains correspond to the condition of use of the boat.





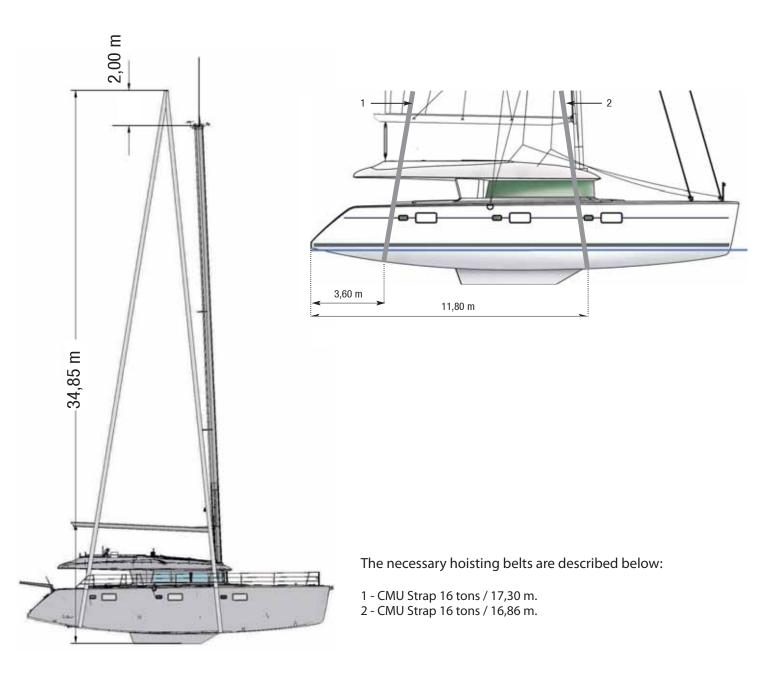
Anchor bridle fastening



# HOISTING AND TRANSPORT

#### Diagram, dimensions and positions of the hoisting belts.

Make sure the boat is stable on its tow line, as much lengthways as widthways.



**RECOMMENDATION** Get a diver intervene for the strainers and sea cock fittings.



# REFERENCES AND STANDARDS

ISOFDIS 8099 Art.12 EN / NF - ISO 9094 - 2 annex B EN / NF - ISO 14895 annex B EN / NF - ISO 15083 annex A



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