

# DUFOUR YACHTS

LA ROCHELLE

## OWNER'S MANUAL



DUFOUR | 455  
*Grand'Large*

**Your agent**

**Name**

is **DUFOUR YACHTS'** representative and will give you all the help you need to solve any problems you might have during launching and masting, as well as with technical checks for bringing your boat into service and maintaining it. If necessary, he will help you with the administrative process of registering your boat.

As soon as you become the owner, familiarize yourself with the manual supplied with your boat, sign and date the receipt acknowledgements below, and give (or send) the last one to your agent.

**Owner's Manual receipt acknowledgement to be kept in your Manual**

I, the undersigned:

Name

Address

owner of **DUFOUR 455** no.

confirm that I have received the **DUFOUR 455** Owner's Manual and accept its being written in the French language.

Dated:

Signature:

Detach along dotted line

**Owner's Manual receipt acknowledgement to be returned to DUFOUR YACHTS**

*1, Rue Blaise Pascal- 17187 PERIGNY CEDEX - FRANCE*

I, the undersigned:

Name

Address

owner of **DUFOUR 455** no.

confirm that I have received the **DUFOUR 455** Owner's Manual and accept its being written in the French language.

Dated:

Signature:

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## INTRODUCTION

**DUFOUR YACHTS** is delighted to present you with this manual that will enable you to get to know your boat better.

This manual has been produced to help you enjoy the use of your boat in complete safety. It contains details about on board fittings and installations as well as information for use and maintenance. Read it carefully, in particular to avoid fire and flooding risks, and familiarize yourself with your boat before using it.

If this is your first boat, or if you are changing to a type of boat you are unfamiliar with, for your convenience and safety, make sure you gain experience in handling and use before taking command of your boat. Your agent, your national yachting federation or your yacht club will be more than happy to recommend local sailing schools or qualified instructors.

**KEEP THIS MANUAL IN A SAFE PLACE AND PASS IT ON TO THE NEW OWNER IF YOU SELL YOUR BOAT.**

***NOTICE:*** *Our boats are regularly improved in the light of our customers' experiences and research by the shipyard, and so the specifications given in this Owner's Manual are not contractually binding and may be changed without notice and without any obligation to update.*

*This manual is intended to cover as much information as possible, so certain equipment or paragraphs might not apply to your boat. In case of doubt, please refer to the inventory which should have been given to you by your agent when you placed your order.*

# I. GENERAL INFORMATION

## A. DESIGN CATEGORY

Your **DUFOUR 455** comes under the OCEAN-GOING design category (category A).

Under normal conditions of use, your boat is designed to sail in waves higher than 4 m and winds that are stronger than force 8 (Beaufort scale), for which is it largely self-sufficient.

This sailing capability is equally dependent on the skills of the crew, their physical capacities, the maintenance of the boat and its equipment.

**So always take care before putting to sea.**

DUFOUR YACHTS is not able to guarantee perfect functioning of the boat in exceptional sea conditions (violent storms, hurricanes, cyclones, waterspouts,...)

### SUMMARY OF DESIGN CATEGORIES

<b>Design Categories</b>	<b>Type of sailing</b>	<b>Wind strength (Beaufort)</b>	<b>Wind speed</b>	<b>Effective wave height to be taken into account</b>
A	Ocean-going	Superior to 8	Stronger than 21m/s	Higher than 4 m
B	Open sea	Up to and including Force 8	Up to 21 m/s	Up to and including 4 m
C	Inshore	Up to and including Force 6	Up to 17 m/s	Up to and including 2 m
D	Sheltered waters	Up to and including Force 4	Up to 13 m/s	Up to and including 0-3 m

## B. CERTIFICATION

For ships with hulls longer than 12 m, European Directives require module B (standard EC exam) combined with module C (builder's affidavit that manufactured boats are conform to certified ship).

ICNN (Institut pour la Certification et la Normalisation dans le Nautisme) is responsible for certification. (refer to Safety Compliance Declaration)

## C. IDENTIFICATION

Hull identification number is located on starboard side of rear panel. It contains a series of letters and numbers that begin with FR-DUF...

## D. BUILDER'S PLATE



Builder identification plate is located in the cockpit. It contains important information that is explained below.

Design category of yacht = **A** : Ocean-going (refer to 1.1)

Maximum number of people = 10 : Recommended by the builder for navigation in sea conditions for category for which it was built.



Additional maximum load = **2610 kg** : includes 10 people with equipment, personal belongings and supplies. (includes various tank capacities (water, diesel fuel,...))



**CE 0607** : CE label indicates that the boat complies with all regulations in the Directive. The sequence of numbers is the Certification institution's code. In this case, ICNN (Institut pour la Certification et la Normalisation dans le Nautisme), La Rochelle (refer to Safety Compliance Declaration)

## II. MAIN SPECIFICATIONS

Model:	<b>DUFOUR 455</b>
Designer:	Umberto Felci
Design category	A
Notified organization no.	CE/0607
LOA:	13.75 m
Hull length:	13.45 m
LWL:	11.91 m
Maximum beam:	4.30 m
Draught:	2.00 m
Mast height clearance:	17.90 m
Ballast weight:	3,000 kg
Light displacement: ( safety ) : (incl. safety equipment):	10,426 kg
Displacement at maximum loading:	13035 kg
Standard mainsail area (approximate)	41.20 m <sup>2</sup>
Roller-furl Genoa area (approximate)	55.00 m <sup>2</sup>
Water capacity excluding water-heater (approximate)	530 L
Diesel capacity (approximate)	250 L
Holding tank (depending on option)	45 L/ 90L
Engine battery	100 Ah
Auxiliary battery (standard version)	200 Ah
Primary means of propulsion	Sail
Maximum permissible engine power	55 kW

**Nb: in general, various tank capacities for fresh water and diesel fuel are not completely usable due to trim and ship's load. It is recommended to maintain a diesel fuel reserve equal to 20%.**



### III. ELECTRICAL SYSTEMS

#### A. SAFETY AND OPERATING INSTRUCTIONS FOR THE ELECTRICAL SYSTEM

##### WARNING

Always:

- Check the condition of the batteries (charge and electrolyte level) and the charging system before putting to sea.
- Disconnect and remove batteries for wintering.
- Do not let battery voltage drop below 10.5 V during wintering.
- Carry spare lamps for all navigation lights and interior lighting. Respect power ratings, particularly for navigation lights.
- Check operation of the navigational instruments.
- Check operation of navigation lights before night sailings

Never:

- Work on an electrical installation that is live.
- Make any modification to an installation and the relevant diagrams, unless it is carried out by a electrician qualified in marine electrics.  
Check the system every 2 years.
- Change or modify the breaking capacity of overload protection devices.
- Install or replace electrical apparatus or equipment with units requiring higher current than circuit's minimum current.
- Leave the boat unattended when the electrical installation is powered, with the exception when applicable of the automatic bilge pump and the fire or theft protection circuits.

If a fuse or circuit-breaker blows continually, a specialist must be consulted to determine the origin of the short-circuit.

#### B. INSTALLING NEW EQUIPMENT

Since the 1<sup>st</sup> January 1996, electrical equipment is subject to the European "electromagnetic compatibility" directive (Ref 89/336/CEE). Hence it is necessary to install new equipment meeting this standard and bearing the CE mark. Equipment must also be supplied with a compliance certificate and instructions for use.

In the case of 220 or 110 V installations, use only double-insulated or earthed equipment. When such equipment is being installed, respect the fitting instructions (conductor size, protection).

To avoid maintenance problems, be sure to mark in the manual and modifications that may be made to the electrical diagram.

## C. BATTERIES

The battery capacity has been designed to meet the power requirements of the on-board accessories. To avoid any problems, it is necessary to keep a close eye on the maintenance and correct charging of the batteries.

### NOTE

- When installing new electrical appliances, take care that the overall consumption of these appliances remains within the capacity of your batteries.
- Always disconnect the -ve battery terminal before the +ve battery terminal
- Never allow a conductive object (tools, etc...) to bridge the two battery terminals
- When handling batteries, keep them horizontal to avoid spillage of electrolyte. Wear gloves and protective clothing that will prevent any risk of contact with electrolyte in the event of a leak.
- In the event of electrolyte splashes, rinse the affected part of the body copiously and consult a doctor.

## D. ELECTRIC WINCH

### NOTE

It is essential to run the engine with the throttle slightly open when using the electric winch.

## E. 220/110 VOLTS INSTALLATION

- Your boat is not supplied with a shore/boat supply cable or a plug for the shore outlet. The cable must be suitable for outdoor use. Its cross-sectional area must be adjusted according to its length and the rating of the main circuit-breaker (see electrical diagram). The plug must be suitable for the socket on the shore (if necessary, seek the advice of a professional. It should be as near as possible to the **IP 67 / IEC529 type**
- Disconnect boat's power supply when system is not in use.
- Connect electrical cases or metallic covers for installed electrical equipment to ship's protective conductor (green wire, or green with yellow stripe wire).
- Use double-insulated or earthed equipment.

### **WARNING**

In order to reduce the risk of electrical shock and fire

- Switch off the shore supply at the on-board isolator before connecting or disconnecting the shore/boat supply cable.
- Connect the shore/boat supply cable at the boat end before connecting it to the shore outlet
- Disconnect the shore/boat supply cable at the shore outlet before disconnecting it at the boat end
- Close the shore outlet cover properly
- Do not modify power connections ship/shore only use compatible connectors.

### **WARNING**

Never let a ship/shore supply line hang in the water. It may create an electrical field that could injure or kill nearby swimmers.

## IV. GAS INSTALLATION

### A. OPERATING ADVICE

- Read carefully all instructions for cooker and regulator before use or maintenance.
- Ensure that the gas cylinder and regulator are in accordance with the requirements of the cooker (flow rate, pressure, type of gas) and with the regulations in force in the country where it is being used.
- Make sure that appliance taps are closed before opening valve on gas cylinder.

#### **ATTENTION!**

Appliances burning fuel use up the oxygen in the cabin and release combustion Products into the boat. Ventilation is required when appliances are alight. Open the coachroof ports while you are cooking.

- Do not use the stove as a heater.
- Do not obstruct quick access to the elements of the gas installation (cylinder locker, shut-off valve).
- The gas cylinder must always be stowed in the appropriate and ventilated space provided. Do the same for spare or empty cylinders. No other equipment should be stored in this space.

#### **ATTENTION!**

Never leave the boat unattended when gas appliances are alight.

- Close all valves in the circuit when the boat is left empty (shut-off valve, regulator valve), even if the cylinder is considered to be empty.
- After the boat has been shut up, never smoke when going below, and ensure that there is no smell of gas.
- If you smell gas, close the circuit valves and the cooker taps, ventilate the boat, and find the leak before using the installation again.

#### **WARNING**

In the event of an emergency, the circuit valves must be closed immediately.

## **B. CHECKING THE SYSTEM**

- The gas system must be tested periodically:
  - Close all the cooker taps.
  - Open the cooker supply and regulator valves.
  - Check all connections are gas-tight using a leak detector or by applying soapy water.

### **ATTENTION!**

Do not use solutions containing ammonia.

### **DANGER!**

Never use a naked light to look for leaks.

Repairs and modifications to the system should be carried out by a qualified person.

Flexible hoses must be:

- checked regularly, at least once a year,
- replaced if the expiry date marked on the hose is passed,
- replaced five years after the date of manufacture that may be marked on them,
- replaced in the event of deterioration.

## **C. CHANGING THE GAS CYLINDER**

### **ATTENTION!**

- Close the cooker taps and the one upstream of the cooker.
- Do not smoke nor use a naked light during replacement of the gas cylinder.

## V. DRAIN AND SANITATION SYSTEM

### A. SPECIFICATIONS OF THE DRAIN SYSTEM

Pump type	Theoretical flow rate
Manual	40.5 l / 45 strokes/min
Electric	32 L / min

Read carefully the operating and maintenance instructions for the bilge pump that goes with your boat.

#### **WARNING!**

- Ensure that bilge pumps are in working order before putting to sea
- Know where to find the hand pump and its handle
- Know where to find the switch for the electric pump on the electrical panel
- Clean the well and pump filters regularly
- The bilge pump system is not intended to keep the boat afloat in the event of damage. It is intended to remove water coming from spray, leaks from seacocks or any other moderate leaks.

### B. PRESSURIZED FRESH-WATER PUMP

Fresh water is supplied to the sink and washbasins by an electric pump. A filter is installed upstream of the pump, and must be cleaned regularly. A filter is installed upstream of the pump, and must be cleaned regularly.

**Never allow the pump to run if the tank is empty. Change over to the other tank or fill up.**

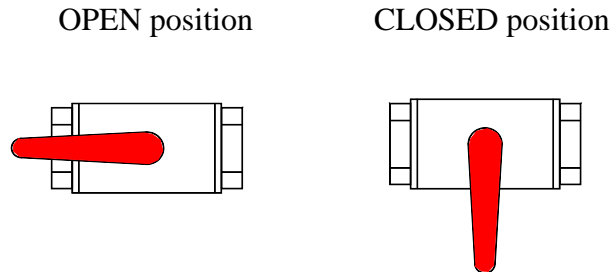
Hot water is produced by a water-heater connected to the engine cooling circuit and the shore electric supply.

After the water-heater has been emptied, make sure that the element is covered before power is re-applied.

## C. SEA-COCKS

Sea-cocks are of the ¼-turn type:

- OPEN position: handle in line with sea-cock body,
- CLOSED position: handle perpendicular to sea-cock body.



### ATTENTION!

- Never interfere with the tightening of the sea-cocks to the hull. In the event of a leak, consult a professional.
- In bad weather or when leaving your boat, close all the sanitation system sea-cocks.
- Keep sea-cocks closed when not being used.
- During wintering, clean and rinse the sea-cocks and skin fittings. Inspect the brass accessories; slight surface corrosion is normal.
- In the event of more serious corrosion, consult your agent.

## D. OPERATION OF THE HEAD

- Open the sea water inlet sea-cock.
- Open the bowl emptying sea-cock.
- Set the lever to the "FLUSH" position.
- Operate the pump.
- To empty the bowl and avoid any water slopping when heeling, set the lever to the "DRY BOWL" position.
- Operate the pump until the bowl is dry.
- Repeat these flushing / emptying operations as many times as is necessary to ensure complete emptying of the pipes.
- When toilets are not being used, set the lever to the "DRY BOWL" position, or the "CLEF" position for certain models.
- **Close sea-cocks after use, as the toilet is below the waterline**
- Change the toilet seals regularly

## VI. FLOODING

Boat flooding risks:

- Before putting to sea, always check that portholes, deck hatches and any other openings that could allow flooding are shut.
- When under sail, close all seacocks, except the engine water intake.
- Periodically check:
  - Skin fittings, sea-cocks and pipes are watertight
  - Proper emptying of the cockpit drains
  - Watertightness of the stern gland.

### **WARNING!**

Cockpit locker lids must be fastened shut before putting to sea. This is particularly important for the lockers representing a major flooding risk (e.g. starboard helm seat locker)

## VII. FIRE PROTECTION

### A. INSTALLATION

- Fire extinguishers are subject to national regulations, and for this reason they are not supplied with your boat.
- We recommend you to equip your boat with fire extinguishers meeting the ISO 9094-1 standard, with the following specifications:
  - a) Minimum capacity per extinguisher: 5A/34B,
  - b) Minimum combined extinguisher capacity: 10A/68B,
  - c) 1 extinguisher within:
    - 1 m from cockpit for boat <10 m or 2 m for boat >10m
    - 2 m of the extinguisher opening for dowsing the engine,
  - d) 1 extinguisher within 2 m of the cooker,
  - e) 1 extinguisher within 5 m of the bunks.
  - f) CO2 extinguishers may be placed in accommodation areas only where flammable liquids are present (e.g. galley) or where there is powered electrical equipment. There must not be more than one CO2 extinguisher per area at risk, and its maximum capacity must not exceed 2 kg.

Only compatible replacement parts must be used in fire protection systems. They must bear the same markings and be technically equivalent.

In addition, a fire blanket should be stored close to the galley, very useful in case the cooker catches fire with oil.



## B. SAFETY INSTRUCTIONS

### NOTE

It is the responsibility of the owner / captain to:

- Have fire-fighting equipment checked in accordance with the stipulations of the builder and the regulations in your country.
- Replace fire-fighting equipment if it has expired or been discharged, by extinguishers of equal or greater capacity.
- Show members of the crew:
  - The location and operation of fire-fighting equipment
  - **The location of the engine compartment extinguishing hole (located on the companionway).**
- Ensure that fire-fighting equipment is readily accessible whenever the boat is occupied.

**Never:**

- Change any installation on the boat (especially electrical, fuel or gas installations) or allow unqualified person modify these installations
- Obstruct gangways to emergency exits (deck hatches)
- Obstruct safety controls (gas valves, fuel valves, electrical switches).
- Obstruct fire extinguisher stowages.
- Leave the boat unattended with a cooker or heater alight.
- Use a gas lamp in the boat
- Fill a fuel tank or change a gas cylinder while the engine is running, or the cooker or heater are alight.
- Smoke while handling fuel or gas.
- Fit free-hanging curtains near the cooker or any other appliance with an open flame.
- Store flammable products in the engine compartment.

Always keep the bilges clean and check that there is no fuel vapor or gas.

### WARNING

- If a CO<sub>2</sub> extinguisher is fitted, the following information must be displayed close to its location:

***"This extinguisher contains CO<sub>2</sub> - use only on electrical or cooker fires. To avoid suffocation after discharging, leave the area immediately. Ventilate before re-entering."***

- Do not open the engine compartment immediately after putting out a fire, to avoid the release of toxic smoke or spraying of burning materials (oil, water).

## VIII. PROPULSION ENGINE

Regular maintenance must be carried out in accordance with the engineer's recommendations. Read carefully the operating and maintenance instructions for the engine that goes with your boat. Do not hesitate to consult your agent or a qualified professional.

### A. GENERAL PRECAUTIONS

#### NOTE

- Ensure that the cooling circuit water intake seacock is open, and that water is coming out of the engine exhaust.
- Boats fitted with rotating seal stern gland: bleed the air from the gland after each launch.
- Do not obstruct ventilation openings (vents, engine ventilation grilles).
- Avoid all contact between inflammable materials and hot motor parts.

Regularly check the condition of the anodes and ensure that they are suitable for the boat's environment (fresh water, salt water).

Any engine change must respect the capacities of the boat and be performed by an engineer specializing in marine mechanics.

### B. EXHAUST GAS EMISSION

#### DANGER!

Internal combustion engines produce carbon monoxide. Prolonged exposure to exhaust gasses can have serious consequences, and may even cause death.

### C. SAFETY

#### DANGER!

- In order to avoid all risk of serious injury from the propeller, the engine must not be started when there are swimmers near the boat.
- Whenever possible, the engine must be stopped for any engine maintenance or checking operations. If not, special attention must be paid to moving items (belts, shaft, etc...) in order to avoid any risk of injury.
- Do not use sail and engine if the heel angle is more than 10°

## D. WINTERING

Read carefully the operating and maintenance instructions for the engine that goes with your boat and the instructions for wintering.

In the absence of other instructions, proceed as follows:

- Close the engine water intake seacock,
- Disconnect the pipe from the engine water intake seacock,
- Drain the sea-water circuit,
- Place the pipe into a drum of -25° anti-freeze coolant,
- Run the engine until the fluid comes out of the exhaust,
- At the end of this operation, re-connect the pipe to the seacock,
- Attach a notice to the electrical panel and the battery isolator to the effect that the engine water intake seacock is closed.

## IX. FUEL INSTALLATION

In the event of deterioration flexible fuel pipes must be replaced by pipes bearing the same markings.

### **ATTENTION!**

- Depending on the trim and loading of your boat, the whole of the nominal fuel capacity may not be usable. Always maintain a 20% reserve for safety.

**Never:**

- Store flammable materials in unventilated spaces.
- Smoke while filling tanks.
- Modify the installation, unless this is carried out by a technician qualified in this field.

## X. STEERING SYSTEM

The steering system plays a vital rôle in the safety and comfort of your boat.

### A. STEERING WHEEL

The **Dufour 455** is fitted with a dual wheel with a system of rudder cables and chains.

Periodic checks to be performed: check the play in the various components (rudder stock/bearings, rudder cable tension and wear).

In the event of doubt or a problem, consult your agent.

## B. EMERGENCY TILLER

### NOTE

- The **Dufour 455** is equipped with an emergency tiller that must be kept readily accessible, we advise you to stow it in a cockpit locker near the tiller deck plate.
- It is only designed for sailing at reduced speed in the event of damage to the helm.

To use it:

- Unscrew the tiller deck plate cover located in the cockpit floor,
- Fit the tiller onto the head of the rudder stock.

## XI. NAVIGATION

### WARNING

- In all situations, suit the speed of your boat to the surrounding conditions and always maintain a safety margin. Pay particular attention to:
  - The state of the sea, currents, the strength of the wind.
  - Other boat movements
  - Manœuvres in port
  - When passing through mooring areas.
- Obey the rules of priority as defined in the rules of the road and imposed by the COLREG
- Ensure that you always leave enough room for stopping or manœuvring if necessary to avoid a collision
- Respect speed limit zones
- Out of courtesy and for the safety of other boats, take care not to create a large wash near other boats

### WARNING

- You must fit your boat with grab lines. Fixing points are provided on the deck. Refer to your boat's deck fittings drawings.
- The stability of your boat was designed taking into account the shipyard catalogue options. Any alteration to on-board weight distribution (for example: adding a radar, changing the engine, etc...) can affect the stability, trim and performance of your boat.
- Towing a boat causes a significant extra strain that will have an unfavourable effect on the stability of your boat.
- **Never:**
  - Use the boom to lift heavy weights.

## XII. LIGHTNING PROTECTION

Your boat is protected against lightning. The rigging is electrically connected to earth. Nonetheless, for your safety, it is necessary to respect certain precautions.

### A. MAINTENANCE

If the boat has been struck by lightning:

- The protection installation must be inspected to detect physical damage and check the integrity of the device, as well as the continuity of the earthing.
- The compasses, electrical and electronic devices must be examined to ascertain if damage or calibration changes have occurred.

### B. PROTECTION OF PEOPLE DURING A THUNDERSTORM

#### WARNING

During a thunderstorm, it is preferable to obey the following instructions:

- People should stay below as far as possible.
- People should stay out of the water and not let their arms or legs hang into the water.
- Whilst maintaining satisfactory control of the boat and its sailing, people should not touch any part connected to a lightning protection installation, especially not in such a way as to form a link between such parts.
- Personnel should ideally avoid any contact with metal parts of the rigging, the spars, deck fittings and the lifelines.

## XIII. ENVIRONMENTAL PROTECTION AND SAFETY

We recommend keeping yourself informed about local regulations concerning respect for the environment, and to obey international regulations against pollution in the marine environment (MARPOL) as well as codes of good practice.

#### ATTENTION!

- Most cleaning products, engine oils and hydrocarbons are likely to affect the environment, so they should be discharged in authorized locations (check with the Harbour Master's office).
- Certain products can likewise represent a risk for your own and others' safety, which is why it is important to read and obey the instructions for use.
- Substances used must be labelled and stored in an appropriate, ventilated place in the boat.

## XIV. SAFETY FACILITIES

There is no harmonization of obligatory safety equipment across the European Community. You should seek information about national requirements for CE-marked boats.

In France, yachts that have the CE label must carry safety material and equipment on board as specified in modified Division 224, for two navigation categories, closer or farther than 6 miles from shelter.

If your boat is equipped with a life-raft, read its instruction manual carefully. The crew should be familiarized with the use of all safety equipment (harnesses, flares, life-raft, etc...). Training sessions are organized regularly by sailing schools and clubs.

## XV. HANDLING, TRANSPORTING, HAULOUT

When craning, take care that the slings are correctly positioned and are not fouling the propeller, the sail-drive or a fragile sensor.

Lifting frames should be wide enough, or fitted with spreaders to avoid exerting excessive lateral pressure on the rubbing band.

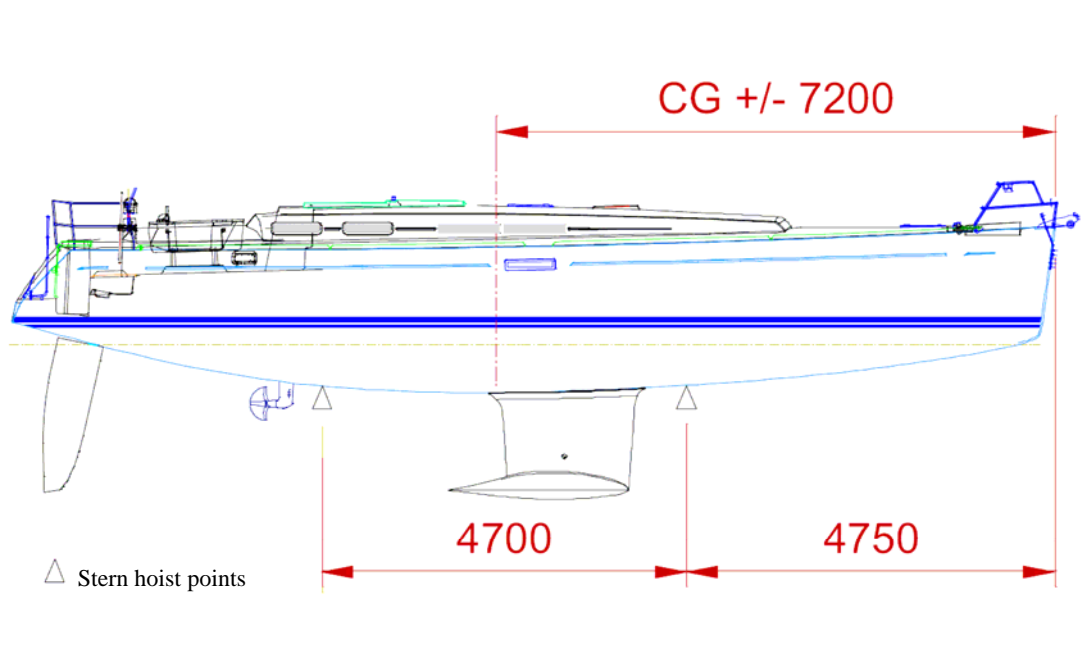
Avoid letting slings foul the lifelines. During transport or haulout, the keel should be in proper contact with its support and should be taking most of the boat's weight.

Cradle pads must be positioned against structural elements and exert only the pressure necessary for the boat's good balance.

Whenever the boat is out of the water, use the opportunity to inspect the propeller, rudder, skin fittings and sensors.

### ATTENTION!

Stern hoist point is located near the sail-drive



# XVI. GUARANTEE, TRANSFER OF OWNERSHIP

## Art. 1 TYPES OF GUARANTEE.

### Art. 1.1 LEGAL GUARANTEE

The Boatbuilder must make the legal guarantee defined in Articles 7 and 8 of Law no. 675 of 3rd January 1967 covering boats.

### Art. 1.2 OBVIOUS DEFECTS AND DISCREPANCIES

In the case of professional purchasers, acceptance (or delivery in the meaning of these conditions) frees the Boatbuilder from its guarantee obligations for obvious defects and obvious discrepancies. They must point out the obvious defect or discrepancy at the time of acceptance. Private customers must do this within a fortnight of the boat's being available to them, during which time they must carry out all necessary checks.

### Art. 1.3 CONTRACTUAL GUARANTEE

In addition to the guarantees imposed by law, sailing yachts built by DUFOUR YACHTS Boatbuilders benefit from a contractual guarantee for a period of one year from the date of delivery of the yacht to the end customer.

This guarantee covers the replacement or repair (at DUFOUR YACHTS' discretion) of any part specifically acknowledged as defective by the boatbuilder's technical services, without this rectification's having the effect of extending said guarantee.

### Art. 1.4 OPTIONAL GUARANTEE

The contractual guarantee can be extended to three years for mainland France, subject to both the following conditions being met:

- The boat must be used exclusively for private purposes
- The yacht's owner must have a technical inspection carried out every year: This inspection will take place at the request of the owner and in the DUFOUR YACHTS network (DUFOUR YACHTS approved technical bases and distributors in mainland France), by any technician or surveyor designated by DUFOUR YACHTS, upon payment in advance of a fee set by the Boatbuilder.  
Handling, escorting, parking and immobilization costs connected with this inspection will be at the owner's expense.  
This inspection must be notified by sending to the Boatbuilder an inspection docket duly completed and signed by both the inspector and the customer.

### Art. 1.5 HULL GUARANTEE

The hull, i.e. the skin of the hull and its structure, is guaranteed for 5 years from the delivery date to the first owner against any construction defect acknowledged by DUFOUR YACHTS technical services.

The optional and hull guarantees described above do not apply to boats used professionally (it being expressly specified that any kind of hiring comes into this category), nor to yachts taking part in competitions, which can benefit from special guarantees.

## Art. 2 COMMON GUARANTEE CONDITIONS

All requests for service under guarantee must be confirmed in writing to DUFOUR YACHTS within 8 days of the discovery of the problem, and must state the serial number of the boat concerned, and where applicable the reference numbers of the part involved in the guarantee request.

Furthermore, the request must indicate the exact circumstances under which the problem occurred.

In order to investigate the request, DUFOUR YACHTS may ask for any details and appoint, at its own expense, a surveyor or technician of its choice to determine the circumstances of the occurrence of the problem and demand any necessary papers.

The contractual guarantee in no way impedes the right to invoke the legal guarantee of Articles 1641 et seq. of the Civil Law.

Remember that the owner is subject to the provisions of Article 8 of the Law of 3rd January 1967 covering boats and other sea-going vessels.

Immobilization following problems encountered and/or replacement and/or repair work, whatever the duration, does not create entitlement to compensation.

Parking fees, customs dues and other ancillary expenses will, under all circumstances, remain at the owner's expense.

All repairs and/or replacements will be carried out by an authorized DUFOUR YACHTS agent or by a professional duly acting under the Boatbuilder's instructions. If the nature of the repairs demands that the guarantee work be carried out in DUFOUR YACHTS workshops or in any place other than where the yacht is located, the costs of return transport to the boatbuilder's yard will be born by the owner.

In the event of the boat's needing to be taken out of the water, haul-out and re-launching costs will be at the owner's expense.

## Art. 3 GUARANTEE LIMITATIONS AND EXCLUSIONS

### Art. 3.1 CONTRACTUAL AND OPTIONAL GUARANTEE EXCLUSIONS

The contractual and optional guarantees do not include:

- Damage resulting from normal wear, and those parts intended to be regularly replaced (anodes, filters or sails, rigging, upholstery...);
- Crazeing and discoloration of the gelcoat;

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DUFOUR 455



- Parts added on of different origin or/and modified or converted original parts, and the consequences of fitting such parts and said modifications or conversions;
- Damage arising from poor maintenance, or improper or negligent use;
- Deterioration connected with an accident or following a fire, explosion or natural catastrophe, corrosion or slow deterioration, or any phenomenon of any kind and of any origin whatsoever of which the builder could not have been aware, at the date of building, by reason of the absence of scientific or technical data about this phenomenon;
- Transport, towing, salvage, handling, escorting and parking costs;
- Costs incurred by the owner in taking normal measures to protect the boat from a worsening of the damage, and the consequences of the lack or unsuitability of said measures.

**Art. 3.2 OPTIONAL GUARANTEE SPECIFIC EXCLUSIONS**

The optional guarantee does not include:

- corrosion and oxidization phenomena.
- the engine system and on-board electronics supplied by the Boatbuilder, which are covered by the supplier's guarantee.

**Art. 4 TRANSFER OF GUARANTEES**

The guarantees are afforded to the first purchaser of the boat involved.

They are only transferable with DUFOUR YACHTS' prior written agreement.

An ownership transfer note is supplied with the boat documents. This must be sent to DUFOUR YACHTS within 30 days of the transfer.

This note must bear the names, addresses and telephone numbers of the old owner and the purchaser, the date of sale, and the yacht's hull number.

Upon reception, DUFOUR YACHTS will confirm the guarantee expiry dates and specify whether the unit has received the annual inspection that gives entitlement to the continuation of the contractual guarantees.

**TRANSFER OF OWNERSHIP CERTIFICATE**  
**TRANSFER OF OWNERSHIP**

Modèle boat: .....

Hull N°: .....

From: Mr: ..... Address: .....

.....

ZIP CODE: ..... Town: ..... Tel: .....

Date of Purchase: .....

**BEING SOLD TO:**

Mr: ..... Address : .....

.....

ZIP CODE: ..... Town: ..... Tel: .....

Date of Purchase: .....

Signed at ..... on .....

Seller ..... Buyer .....

Signed for DUFOUR YACHTS on: .....

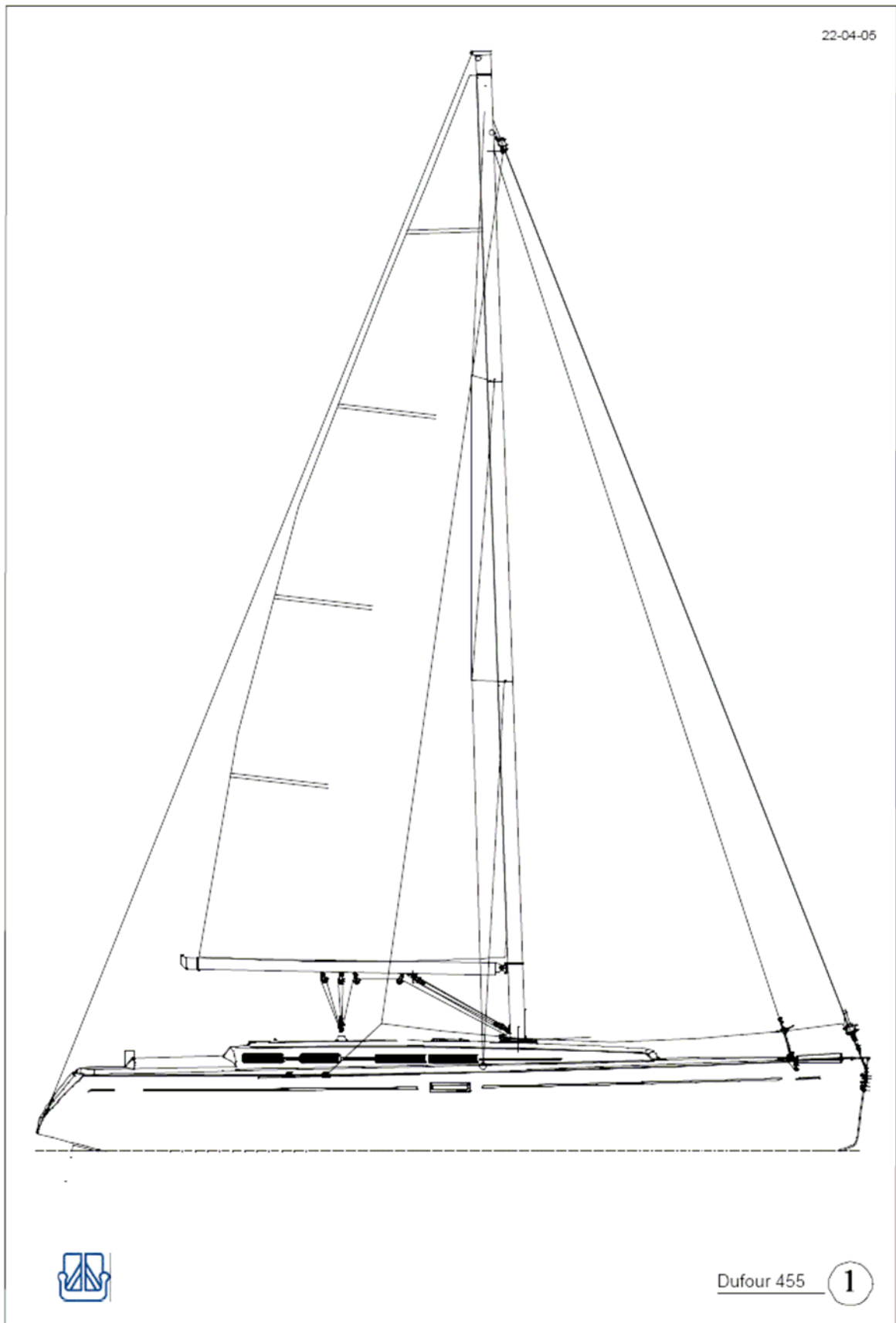
Return the copy within 15 days after the transaction to  
S A V DUFOUR YACHTS 1 rue Blaise Pascal – 17187 –  
PERIGNY CEDEX FRANCE

# DRAWINGS

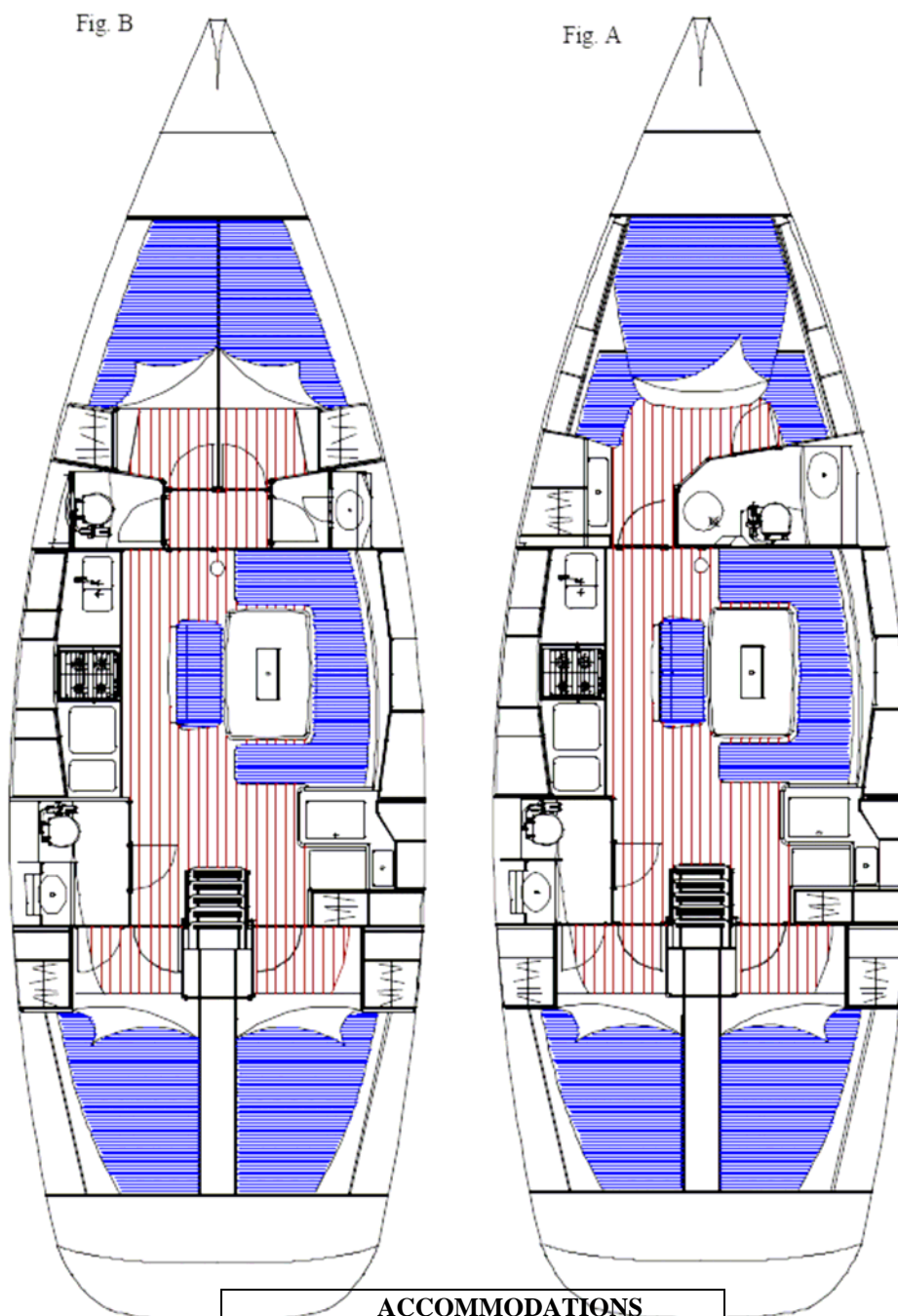
## DUFOUR 455

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# I. Presentation plan



## II. Accommodation layout



### ACCOMMODATIONS

fig.A Layout 3 cabins 2 heads

fig.B Layout 4 cabins 3 heads



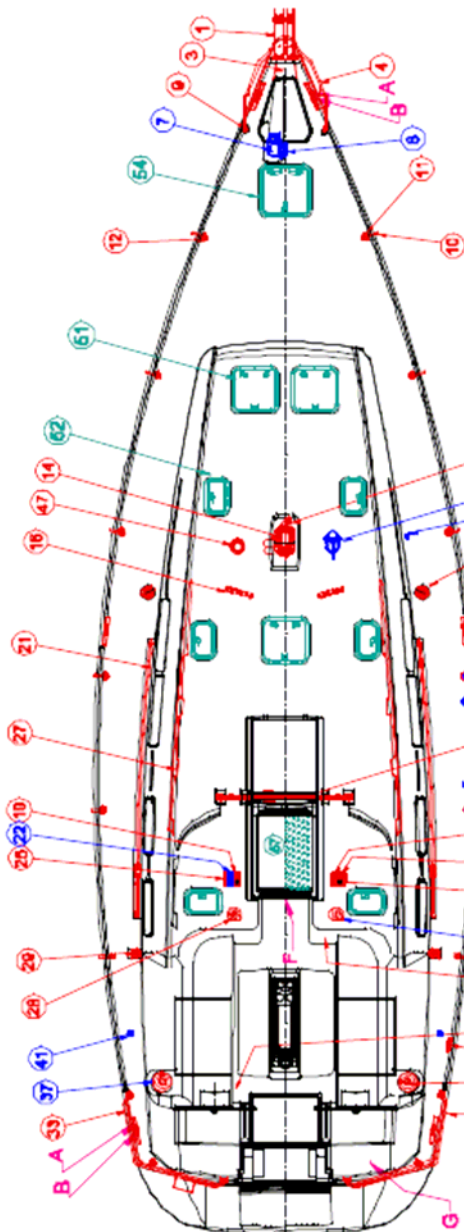
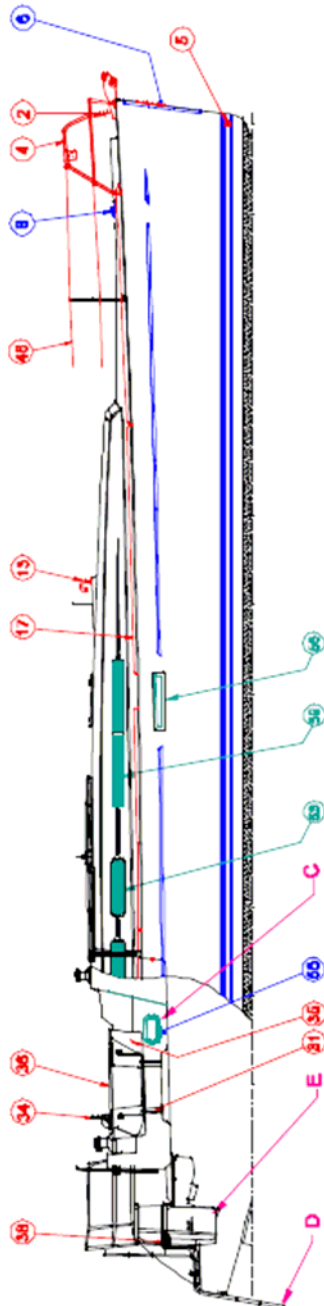
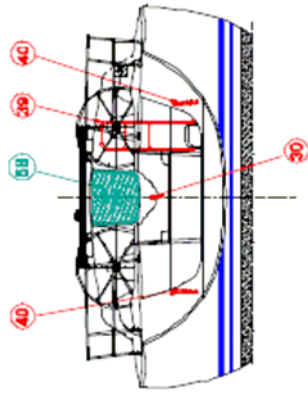
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### III. Deck fittings plan

Rep.	Description	Qty
1	Stemhead fitting	1
2	Stay chain plate	1
3	Chain anti-chafe plate	1
4	Bow rail	1
5	Stainless steel deflector	2
6	Stem protector *	1
7	Electric winch *	1
8	Releasable stay chain plate *	1
9	Stanchion pulley for roller-reefer	1
10	Stanchion	12
11	Stanchion base	18
12	Stanchion fairlead for roller-reefer	4
13	Mast-foot swan neck	1
14	Mast step	1
15	Shroud chain-plate	2
16	4 Deck organizer	1
17	Wood molding	1
18	Triple ratchet	1
19	Double jam-cleat	1
20	Cleat	6
21	Genoa track + carriage and ends	2
22	Single jam-cleat *	1+1
23	Mainsail track, complete	1
24	Vertical deflecting pulley	2
25	Single jam-cleat	3
26	Single jam-cleat	1
27	Wood handrail	2
28	Halyard winch	1
29	Deck cheek block with ratchet	2
30	Folding chain plate	1
31	Cockpit table leg	2
32	Sheets winch	2
33	Stern Port balcony	1
34	Starboard stern rail	1
35	Cockpit polyester table	1
36	Wood opening table-top +hinged flap	1
37	Optional electrical winch*	1
38	Helmsman's seat hinge and floor	2
39	Bathing ladder	1
40	Preventer stay chain plate	2
41	Folding chain plate *	2

Rep.	Description	Qty
42	Handle pocket	2
43	Stanchion with strut *	4
44	Folding chain plate *	1
45	Handrail cockpit table	1
46	Stainless Lifelines (set)	1
47	Deck ventilator	2
48	Dorade ventilation box + protection *	2
51	Deck hatches T44	3
52	Deck hatches T20	6
53	Roof porthole T4	4
54	Deck hatches T60	1
55	Cockpit porthole T0 *	2
56	Hull porthole	2
57	Sliding hatch	1
58	Deckhouse hatch	1
59	Stationary deckhouse porthole	4
A	Grab-line fixing point (on port & starboard cleats)	
B	Towing points (port & starboard)	
C	Ports must be kept closed when sailing	
D	"Man overboard": reboarding ladder	
E	Space provided for stowing life-raft	
F	Safety harness fixing point	
G	Locker (must be kept closed when sailing)	

\* Option



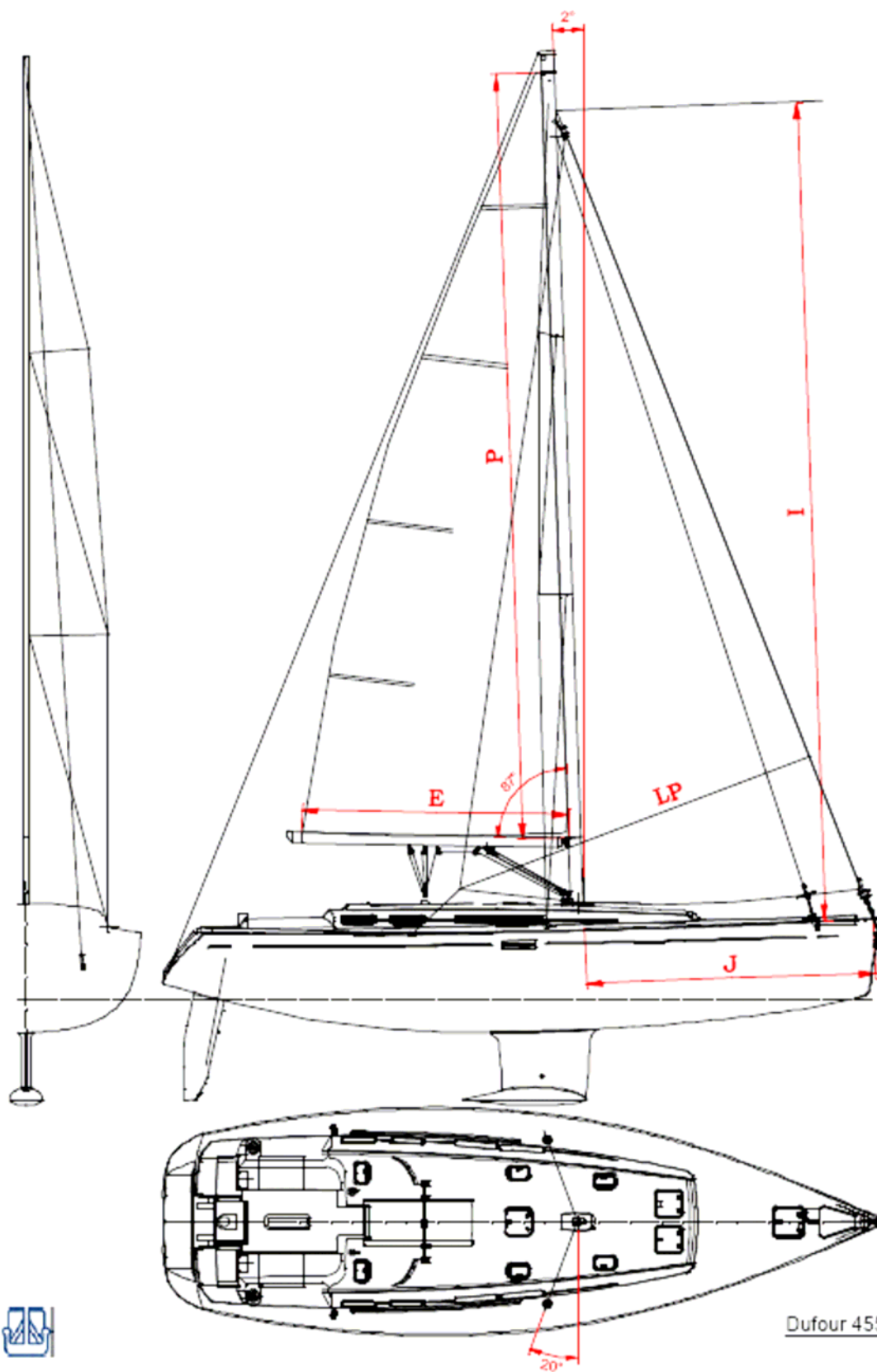
Option



## IV. Sail plan

I	15.35 m
J	5.42 m
P	14.35 m
E	5.00 m
LP (130%)	7.05 m
Genoa area	55.0 m <sup>2</sup>
Mainsail area	41.2 m <sup>2</sup>





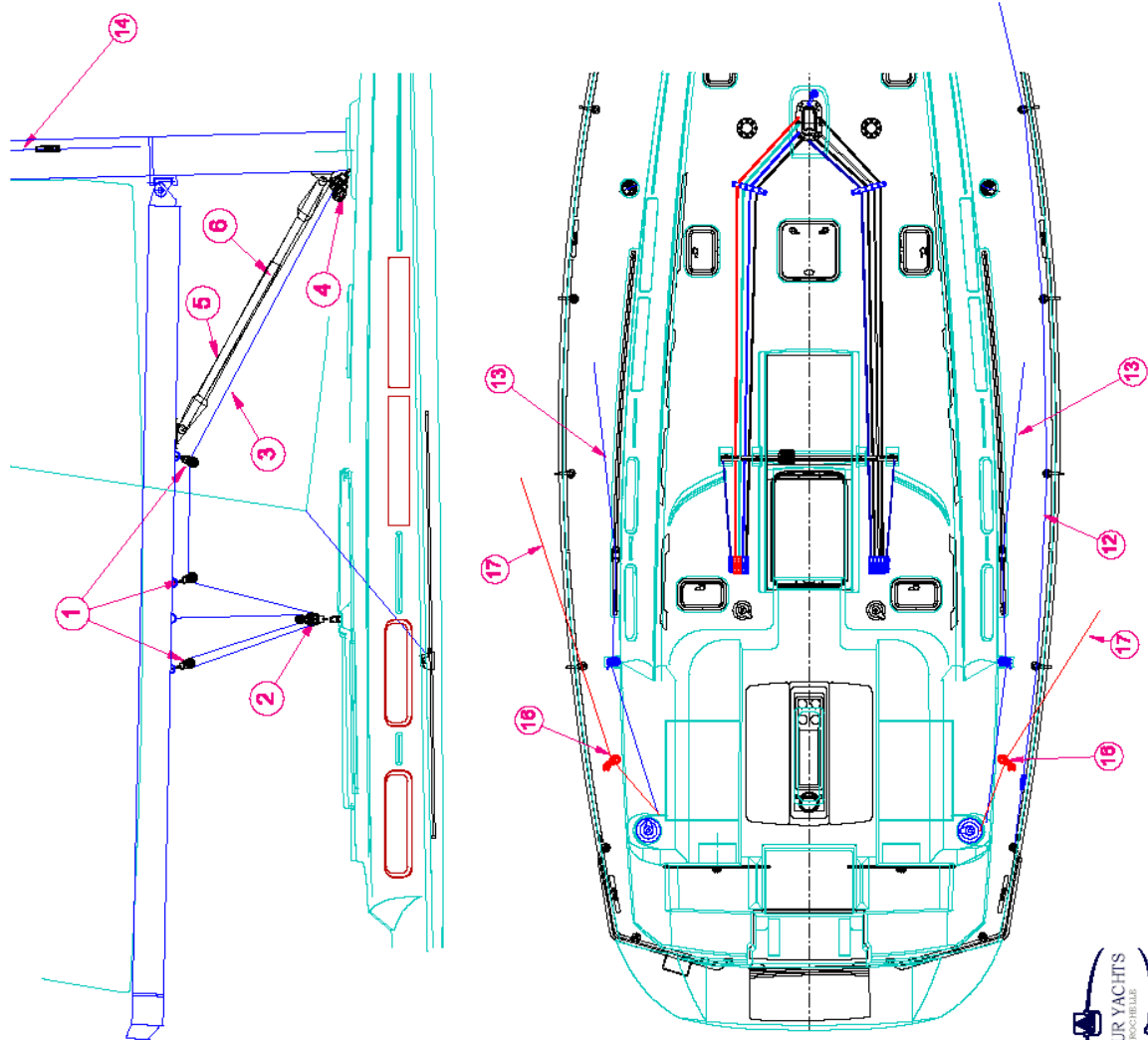
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## V. Halyard and sheet rigging plan

<i>Rep.</i>	<i>Description standard mast</i>	
1	Simple swivel block & T 57 shackle	3
2	Fiddle block	1
3	Mainsail sheet - Light blue	1
4	Simple swivel block & T 75 shackle	1
5	Boom vang – Black	1
6	Rigid downhaul	1
7	Outhaul - White	1
8	Mainsail halyard – Black	1
9	Adjusting Mainsail car - Light blue	2
10	Reef N°1 – Black	1
11	Reef N°2 – White	1
12	Genoa furling line- Light blue	1
13	Genoa sheet - Light blue	2
14	Genoa halyard - Light blue	1
15	Spinnaker halyard -Ø12 - Red *	1
16	Simple swivel block & shackle *	2
17	Spinnaker sheet - Ø12 - Red *	2
	Releasable forestay halyard-Ø12 -Green	
18	*	1
19		

\* Option

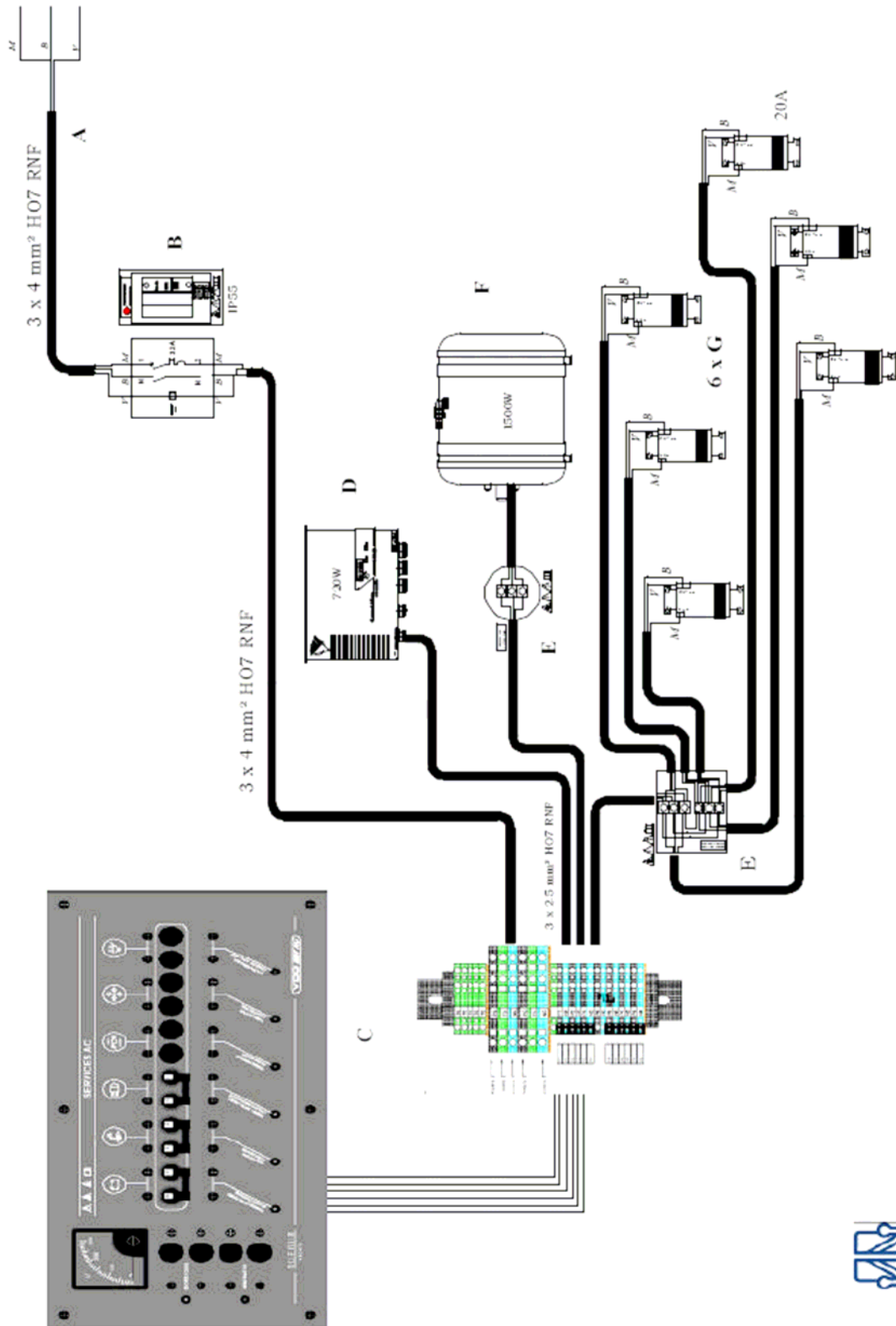


## VI. 110V Circuit diagram

<i>Rep.</i>	<i>Description</i>
<b><i>Equipment</i></b>	
A	Shore cable *
B	Electrical box with main circuit breaker*
C	Electrical panel with circuit breaker *
D	Battery charger*
E	Connection box*
F	Water heater
G	110V outlets - 60Hz*
<b><i>Colours of electrical wiring</i></b>	
<i>b</i>	Light blue
<i>g</i>	Green
<i>m</i>	Brown
<i>n</i>	Black
<i>r</i>	Red
<i>v</i>	Green yellow
<i>w</i>	White

\* Option

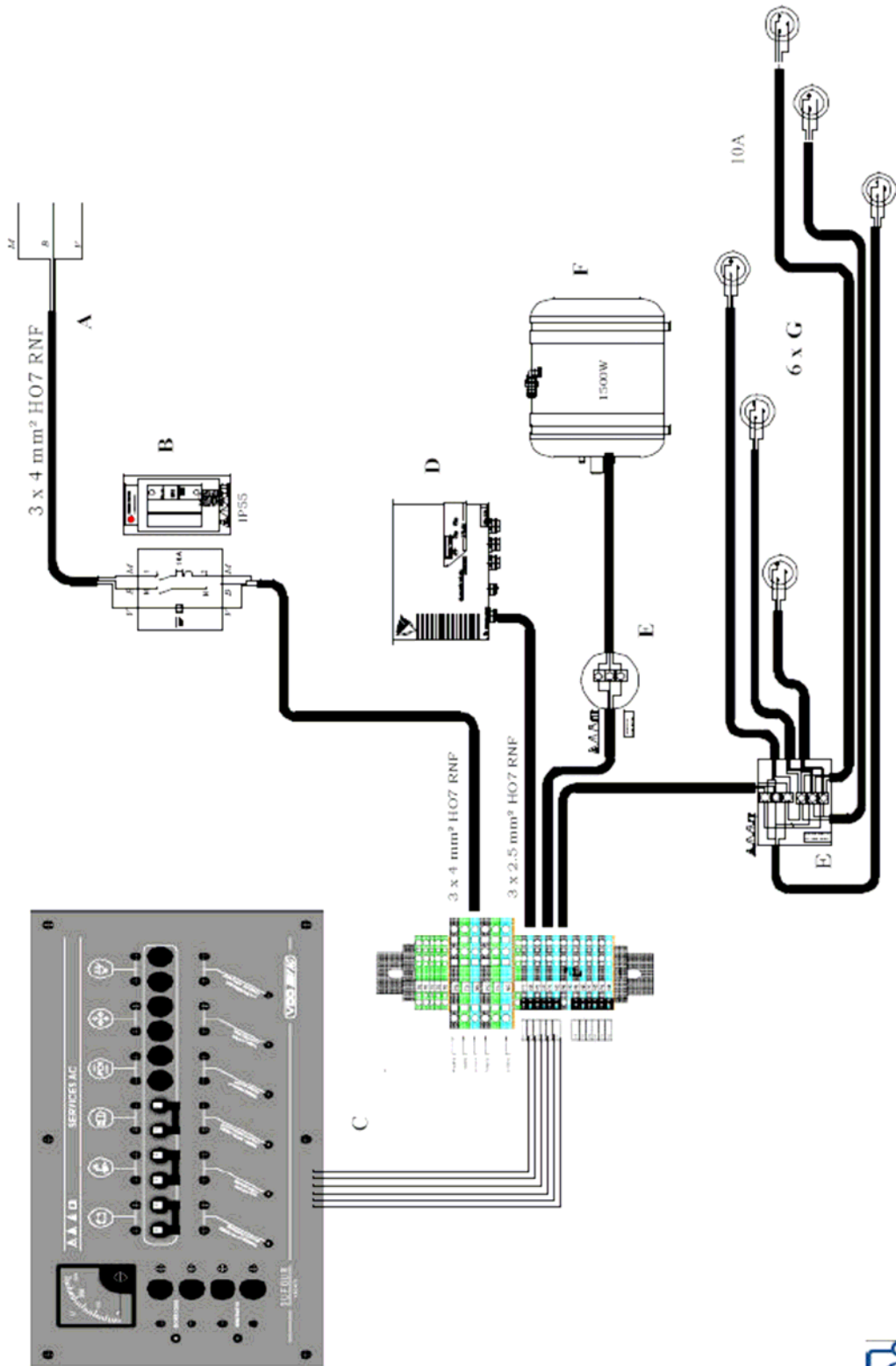
\*\* Not supplied



## VII. 220V Circuit diagram

<i>Rep.</i>	<i>Description</i>
<b><i>Equipment</i></b>	
A	Shore cable *
B	Electrical box with main circuit breaker*
C	Electrical panel with circuit breaker *
D	Battery charger*
E	Connection box*
F	Water heater
G	220V outlets*
<b><i>Colours of electrical wiring</i></b>	
<i>b</i>	Light blue
<i>g</i>	Green
<i>m</i>	Brown
<i>n</i>	Black
<i>r</i>	Red
<i>v</i>	Green yellow
<i>w</i>	White

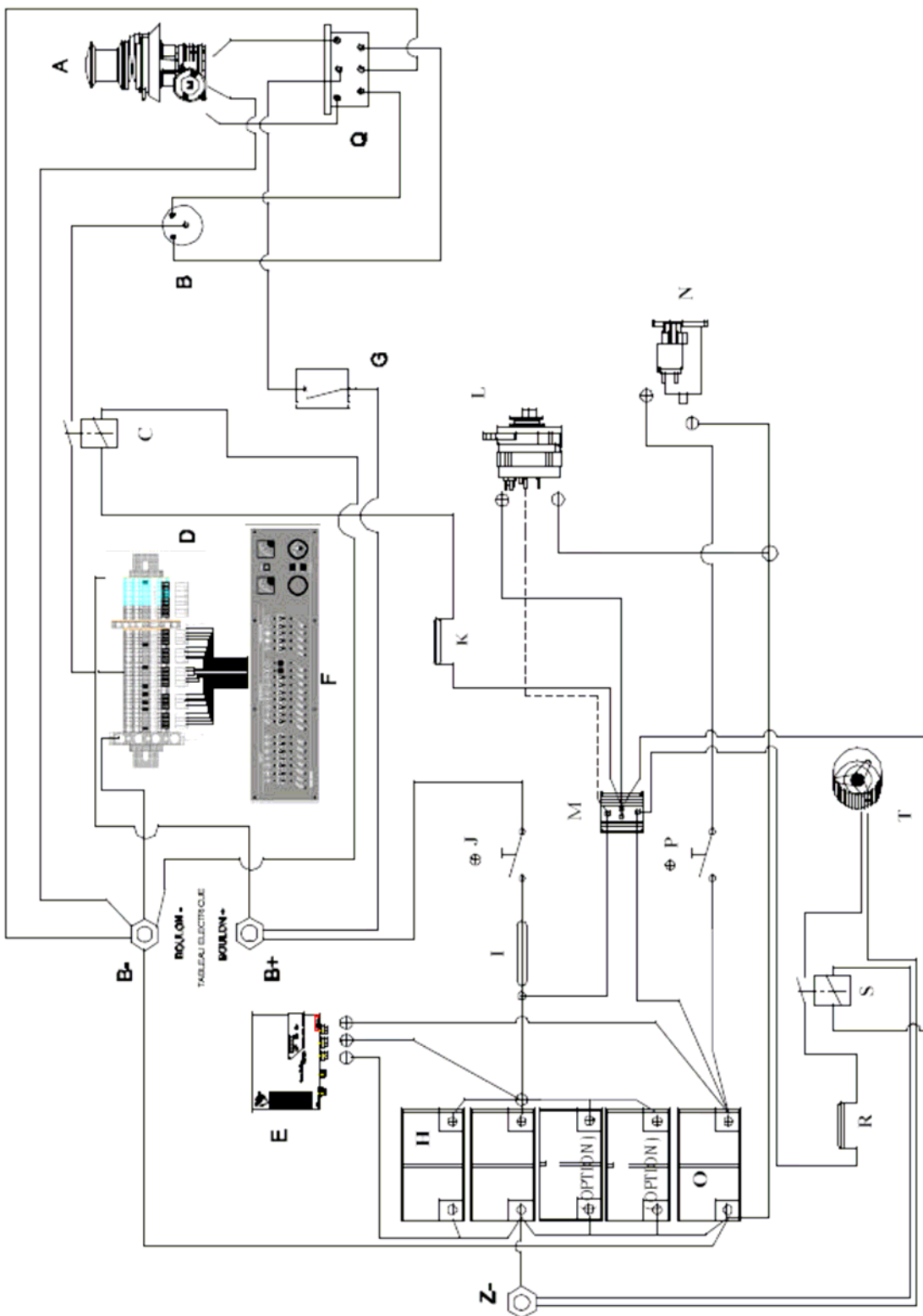
\* Option



## VIII. Charging and power circuit diagram

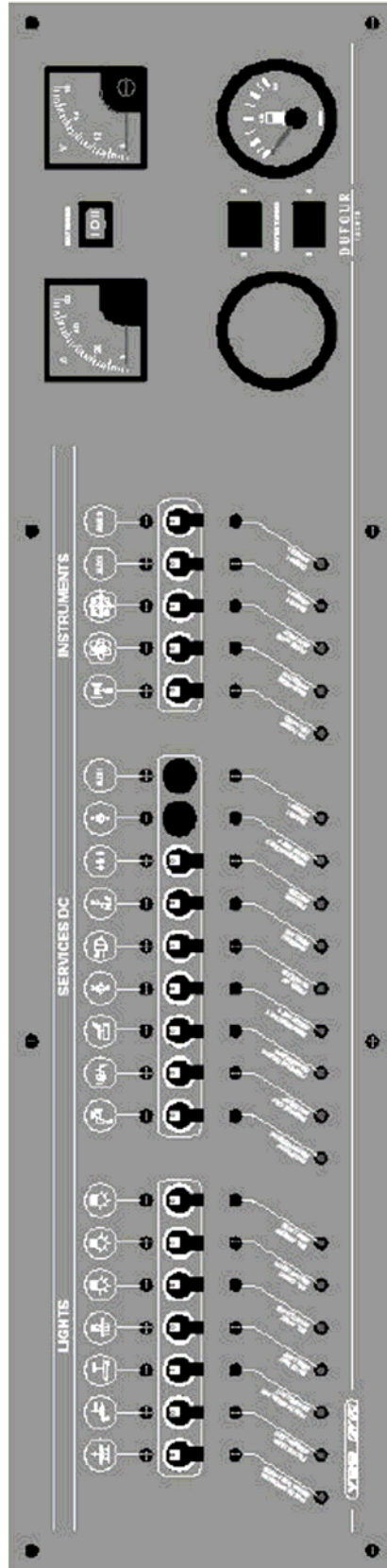
<b>Rep.</b>	<b>Description</b>
A	Electric winch*
B	Windlass control * (remote control)
C	Remote control relay *
D	Terminal strip
E	Battery charger*
F	12VDC panel
G	Single pole 100A circuit breaker*
H	House batteries (2 as std) (4*)
I	125A fuse
J	Battery switch
K	5A fuse*
L	Alternator
M	Splitter
N	Starter motor
O	Engine battery
P	Engine battery switch
Q	Windlass relay *
B-	-ve terminal Chart table
B+	+ve terminal Chart table
R	5A fuse for engine compartment fan
S	Fan relay
T	Fan
Z-	-ve terminal motor comp.
*	Option





## IX. 12 V / 220 V Electrical panel diagram

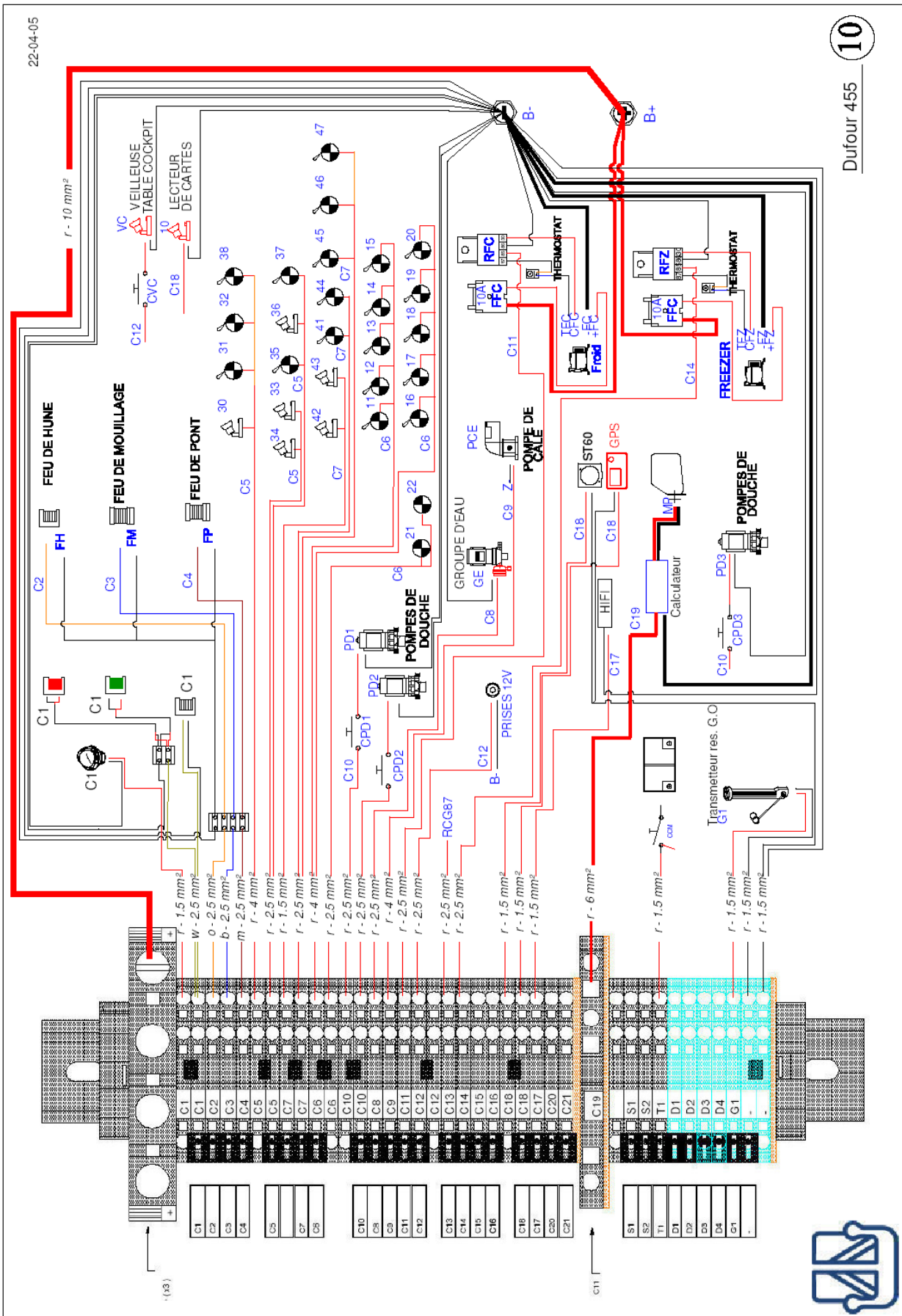
<i>Description</i>	<i>Protection</i>	
Navigation light	6A	LIGHTS
Steaming light	6A	
Mooring light	6A	
Deck light	6A	
Lighting stern area	16A	
Saloon lights 2	16A	
Bow lights	16A	
Fresh water pump	10A	SERVICES
Bilge pump	10A	
Shower pump	10A	
12V outlet	10A	
Windlass	10A	
Refrigerator	10A	
Freezer	10A	
Hi-Fi / Audio	6A	INSTRUMENTS
Navigation instrument pack	10A	
Autopilot	20A	
Spare1	10A	
Spare 2	10A	



## X. Electrical panel terminal diagram

<b>Rep.</b>	<b>Description</b>
-	Battery negative
+	Battery positive
C1	Navigation light and compass
C2	Steaming light
C3	Mooring light
C4	Deck light
C5	Stern Cab. lighting and head
C6	Saloon lights
C7	Bow Cab. lighting and head
C8	Fresh water pump
C9	Bilge pump
C10	Shower drain pump(s)
C11	Fridge thermostat relay
C12	12V outlet and cockpit night light
C13	Windlass*
C14	Freezer thermostat relay*
C17	Hi-fi
C18	Navigation equipment* and chart table separate light
C19	Autopilot *
T1	Engine battery test
G1	Fuel jauge sensor
B+	+ve terminal Chart table
B-	-ve terminal Chart table
Z-	-ve terminal motor compartment
	<b>Colours of electrical wiring</b>
n	Black
r	Red
w	White
o	orange
m	Brown
b	Light blue

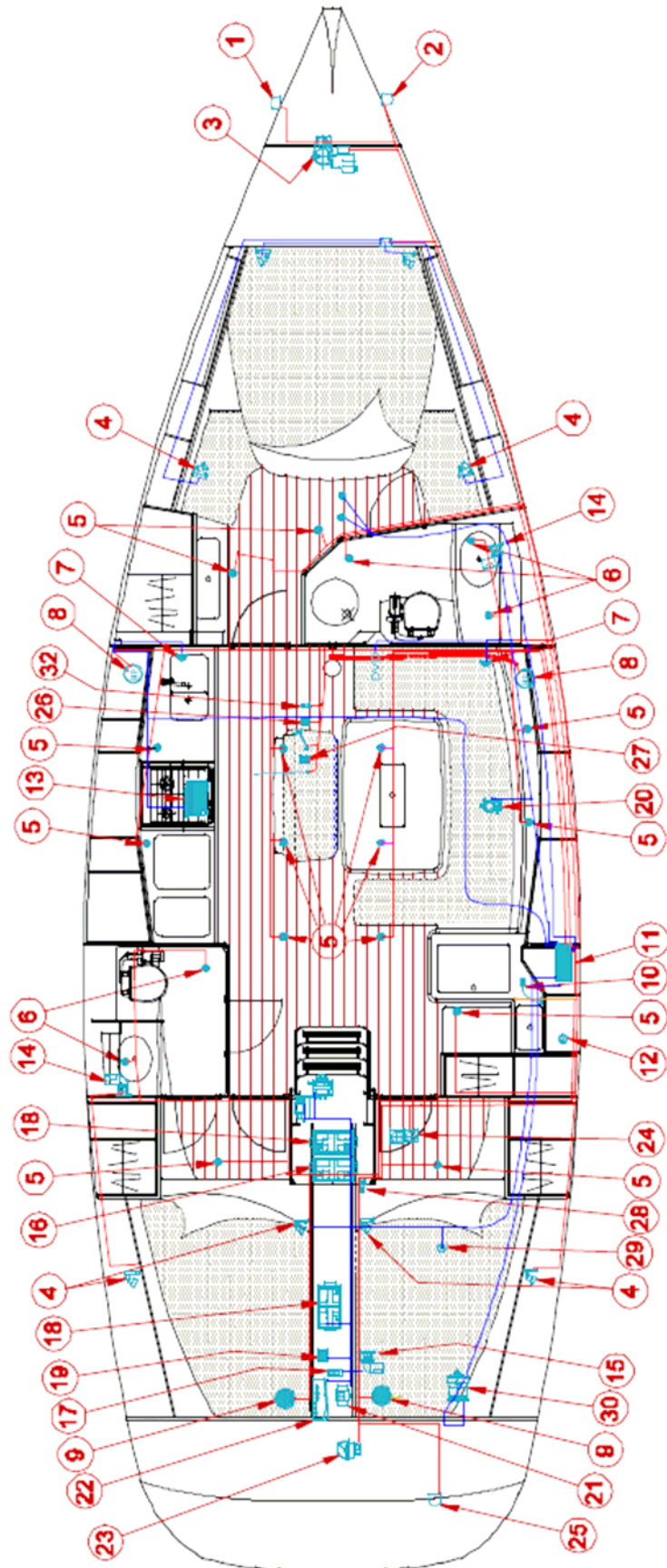
\* Option



## XI. 12 V Electrical installation drawing

<b>Rep.</b>	<b>Description</b>
1	Port navigation light
2	Starboard navigation light
3	Windlass *
	Windlass relay*
4	Swivelling spot
5	Bulkhead light + switch
6	Head bulkhead light + switch
7	Adjustable reading light
8	HI FI/radio CD speaker
9	Cockpit speaker *
10	Chart reading light
11	12V electrical panel
12	12V outlet
13	Refrigerator
14	Shower pump
15	Bilge pump
16	Engine battery
17	General service fuse
18	Auxiliary battery x2(x4*)
19	Splitter
20	Fresh water pump
21	Bilge fan
22	Battery charger*
23	Compass
24	Navigation instrument pack *
25	Stern light
26	Steaming light
27	Mooring light
28	Battery switch
29	Fuel level gauge
30	Auto-pilot motor *
	Through-hull depth sounder &
31	speedo*
32	Deck light

\* Option

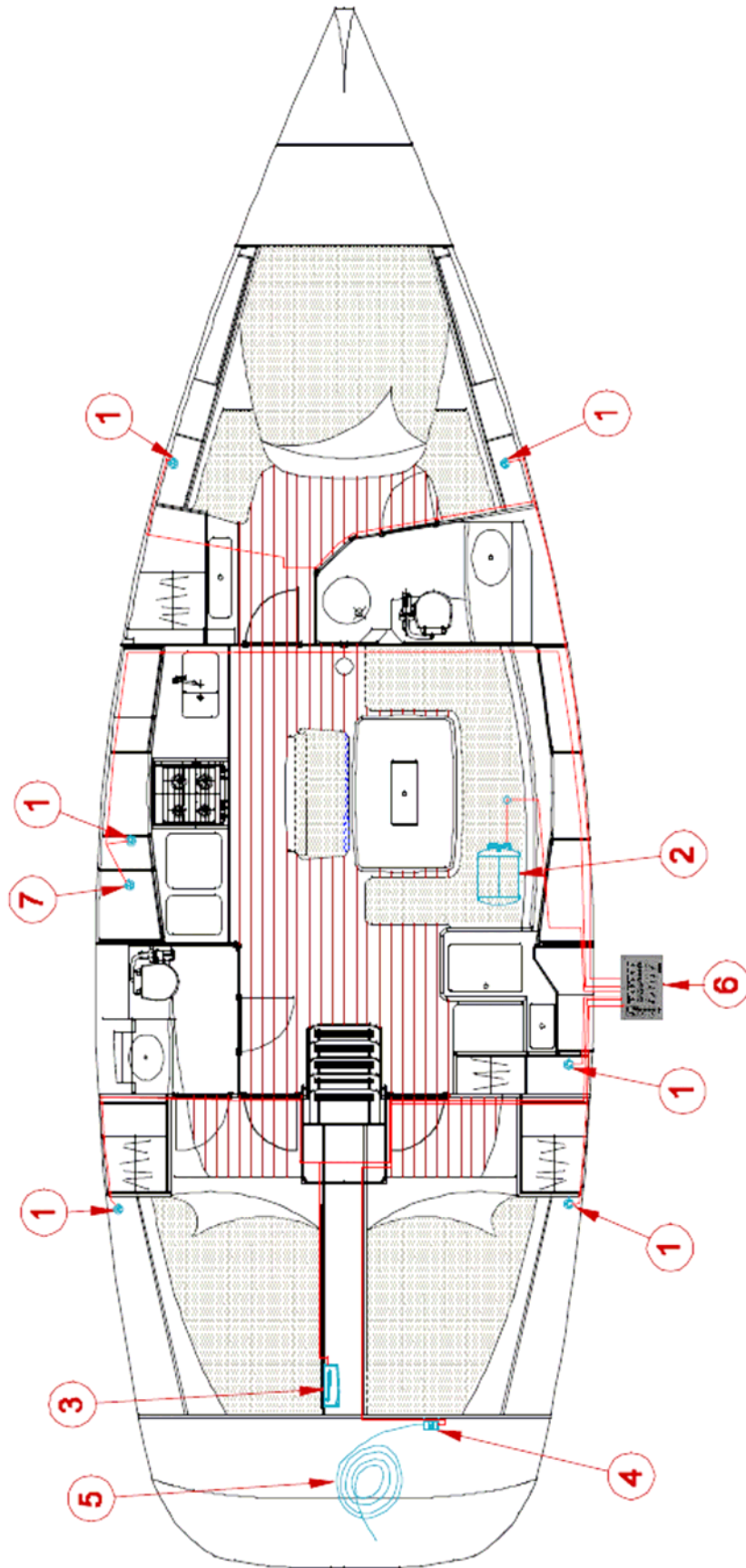


## XII. 220 V Electrical installation drawing

<b>Rep.</b>	<b>Description</b>
1	220V ( or 110V ) outlet *
2	Water-heater
3	Battery charger *
4	Main circuit breaker*
5	Shore cable *
6	Electrical panel *
7	Microwave plug *

\* Option

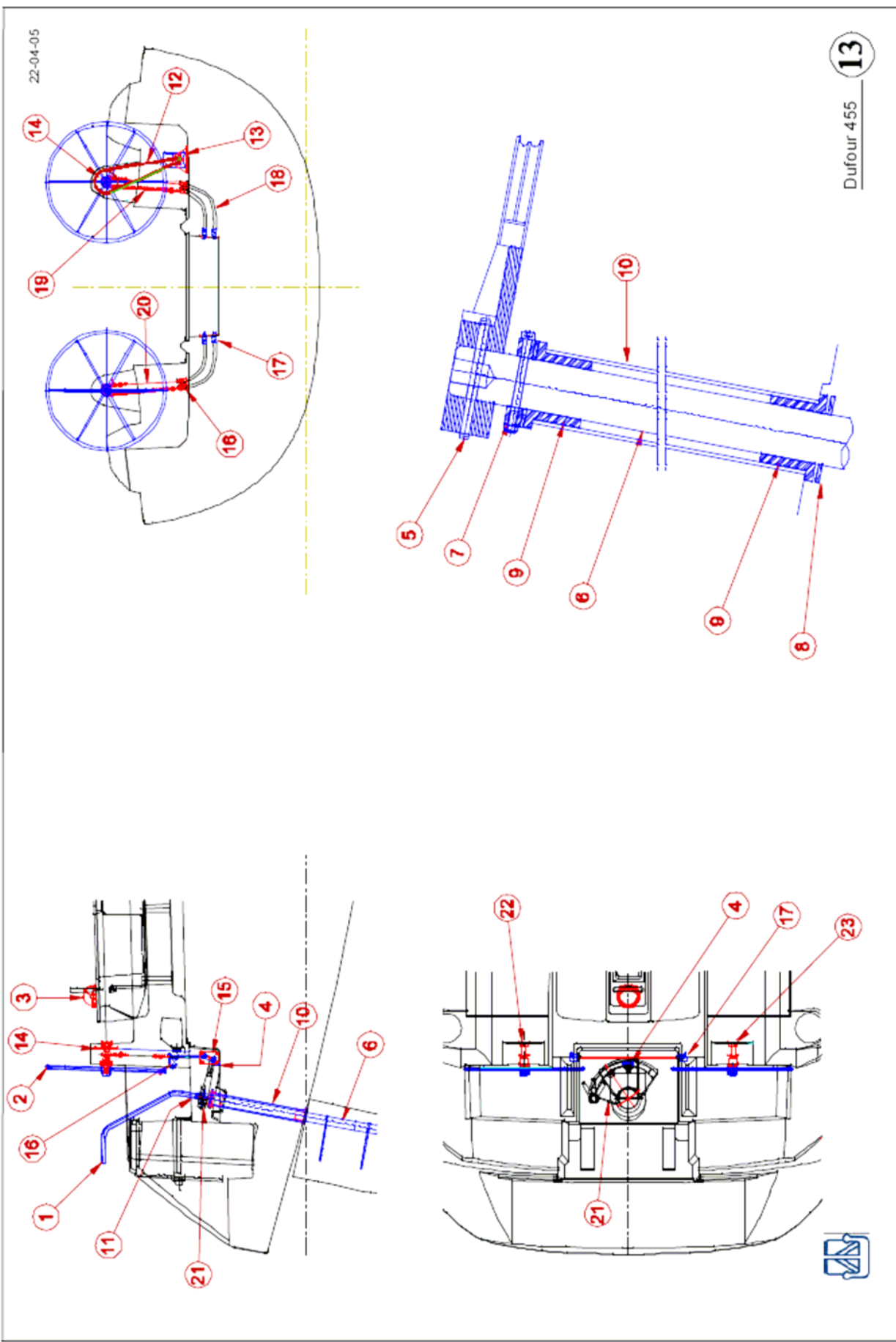




## XIII. Steering system drawing

<b>Rep.</b>	<b>Description</b>
1	Emergency tiller
2	Steering wheel (2)
3	Compass (x2 Mill.06)
4	Rudder stop
5	Helm shaft
6	Blade + spindle
7	Trust bearing
8	Nylon grommet
9	Upper and lower bearings
10	Rudder post
11	Tiller deck plate
12	Pilot chain
13	Auto-pilot motor *
14	Automatic pilot gear *
15	Plate with reinforced sheath end
16	Square sheath
17	Sheath ends
18	Sheath
19	5/8P chain assembly
20	5mm dia. Cable
21	Quadrant
22	Bulkhead device
23	Bulkhead fitting + brake

\* Option



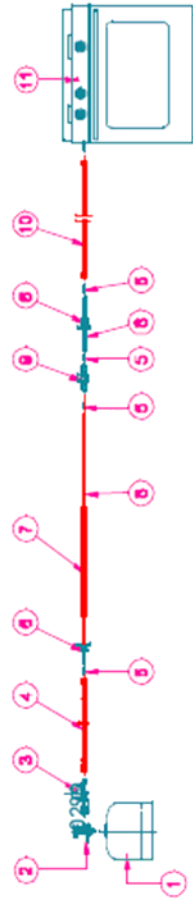
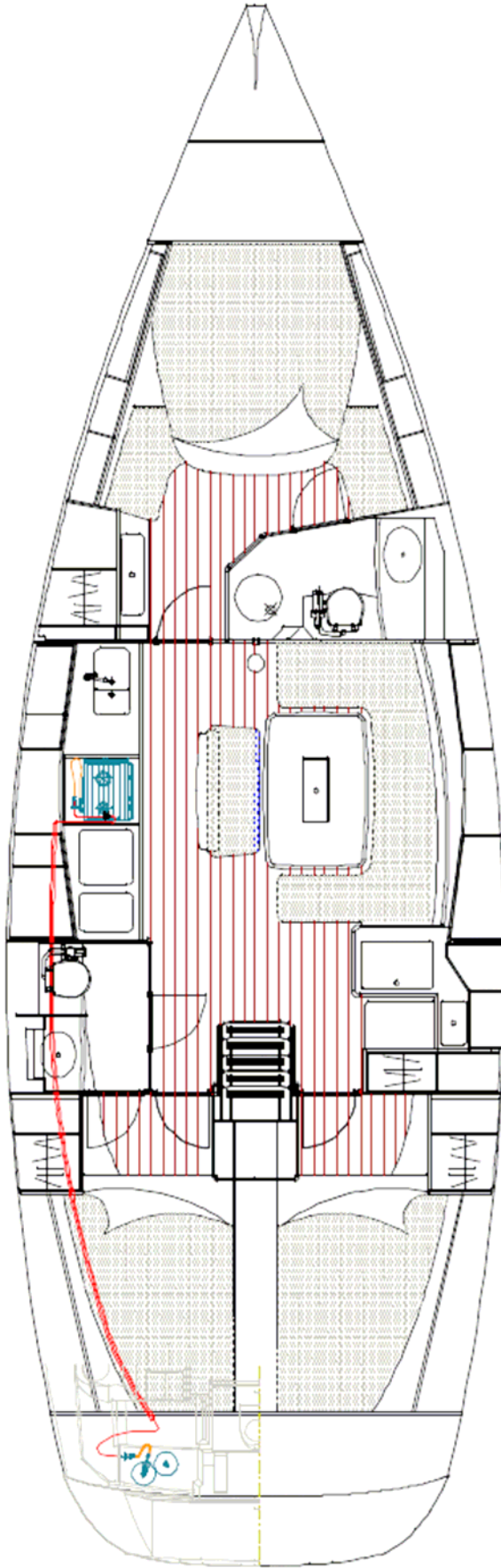
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## XIV. Gas system diagram

<i>Rep.</i>	<i>Description</i>
1	Gas tank **
2	Valve tap **
3	Regulator
4	Medium length connection hose
5	Spacer piece / 6x8 pipe
6	Watertight bulkhead grommet
7	PVC pipe
8	6x8 copper pipe
9	CE gas shut-off valve (in compartment under stove / oven)
10	Long length connection hose
11	3 burner stove / oven

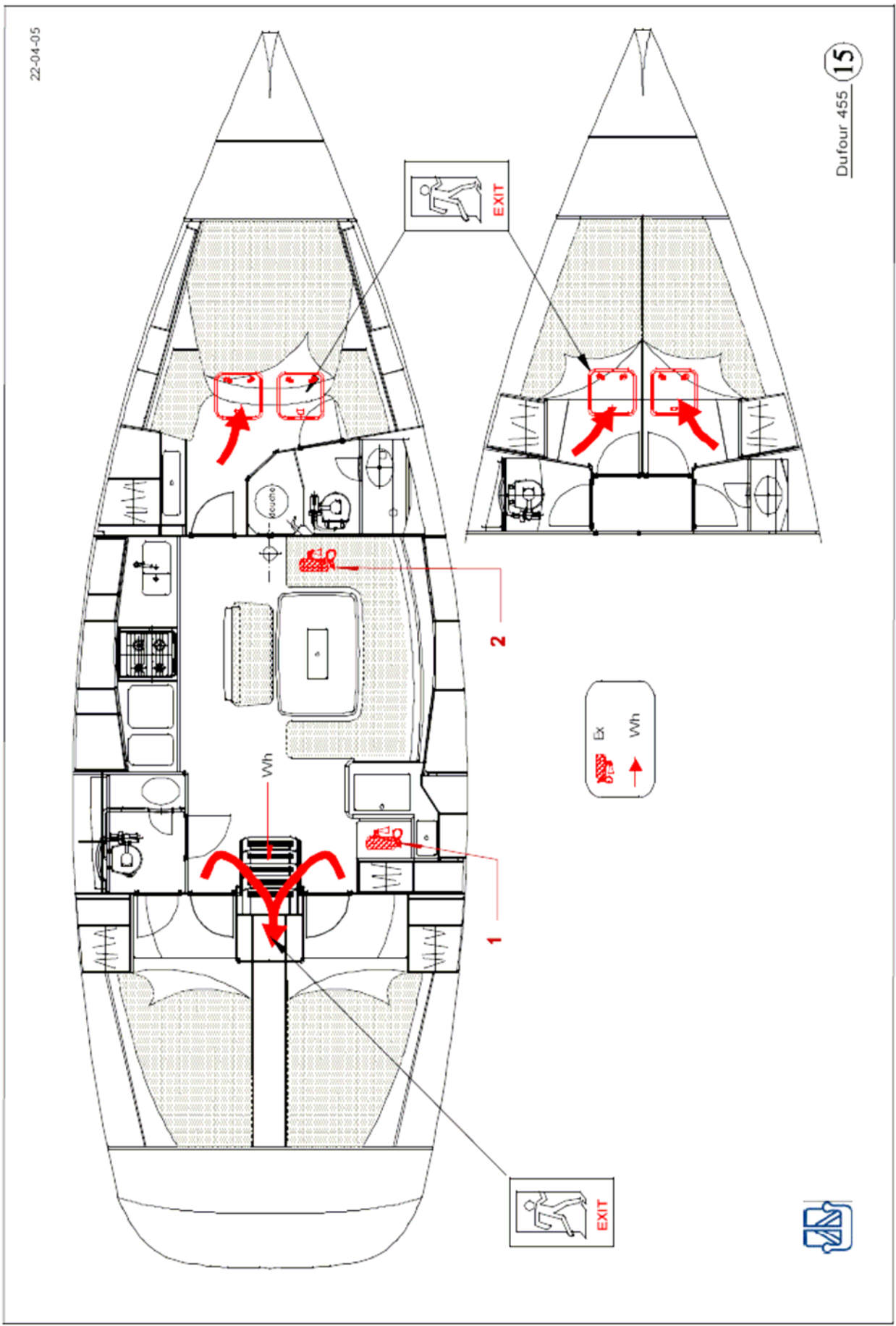
\*\* Not supplied



## XV. Abandon ship plan

<i>Rep.</i>	<i>Description</i>
EXIT	Exit
Ex	Recommended fire-extinguisher location
1	Under navigator's desk **
2	Under square seating **
Wh	Engine compartment extinguishing hole

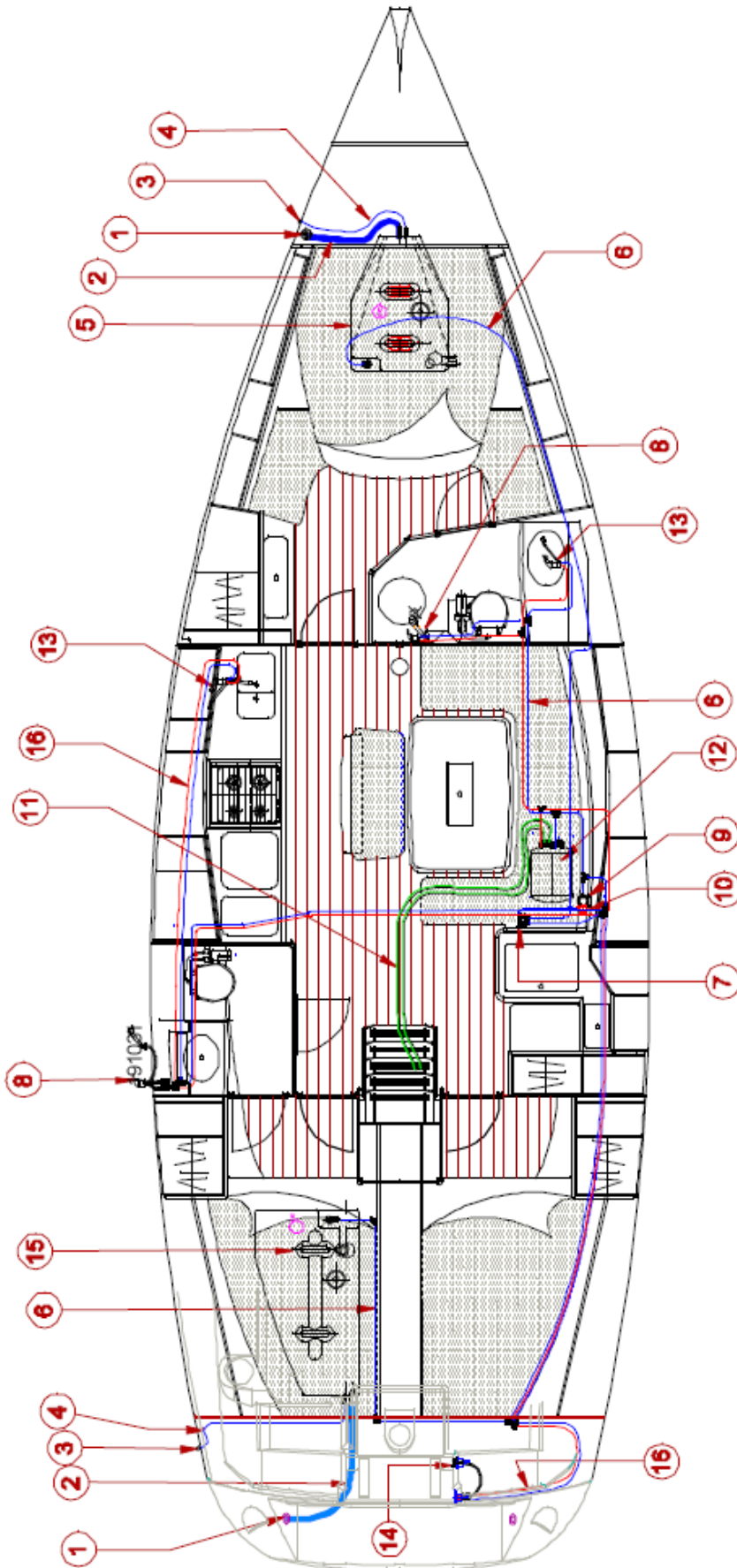
\*\* Not supplied



## XVI. Fresh water system diagram

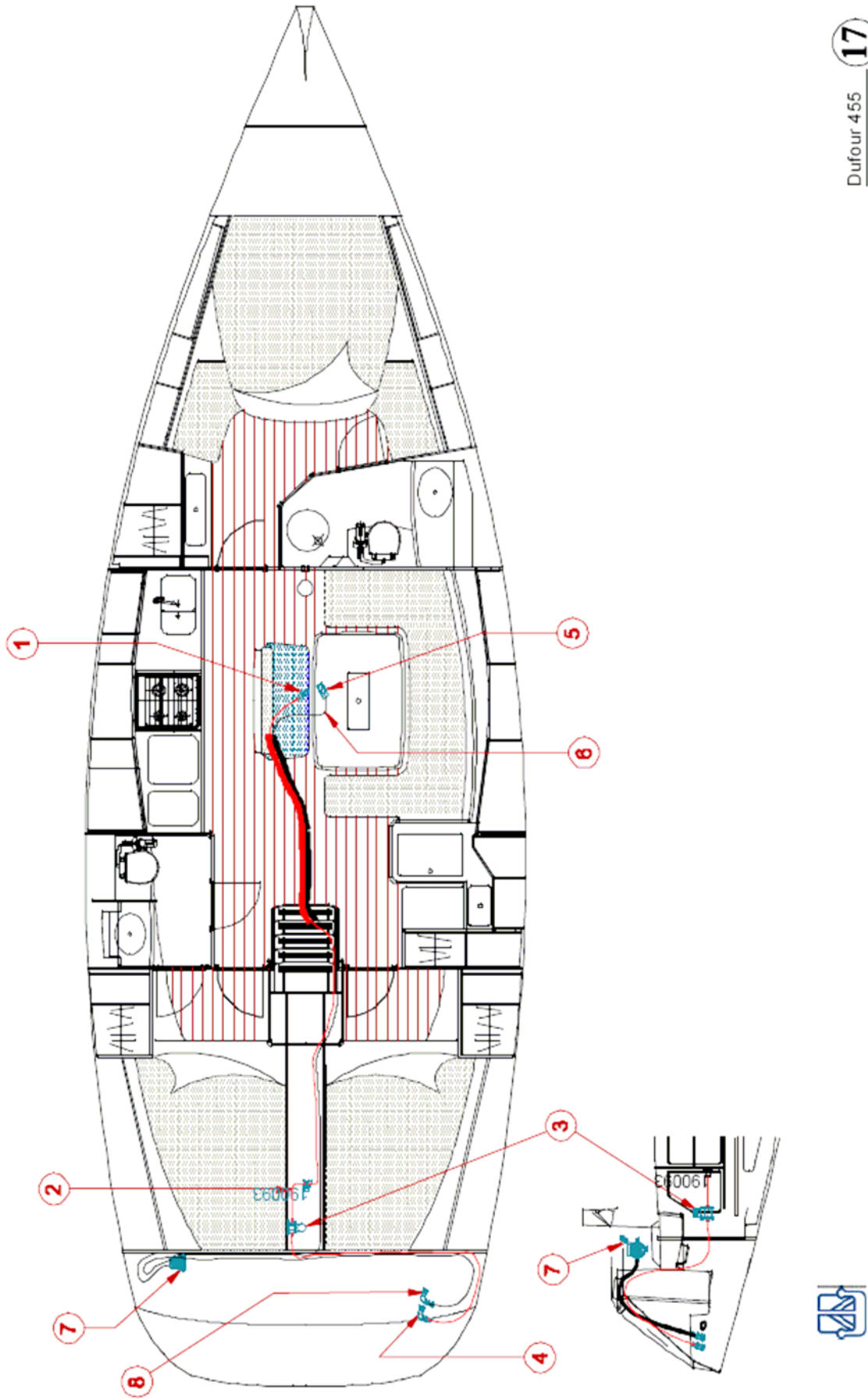
<i>Rep.</i>	<i>Description</i>
1	Filler deck plate
2	Filler hose
3	Vent
4	Vent hose
5	Bow water tank
6	Cold water pipe
7	2 way manifold
8	Shower mixer tap
9	Water pump unit
10	Fresh water pump
	Hot-water tank/engine heat exchanger
11	pipe
12	Water-heater
13	Combination fitting
14	Deck shower + Mixing faucet
15	Stern water tank
16	Hot water pipe





## XVII. Drainage system diagram

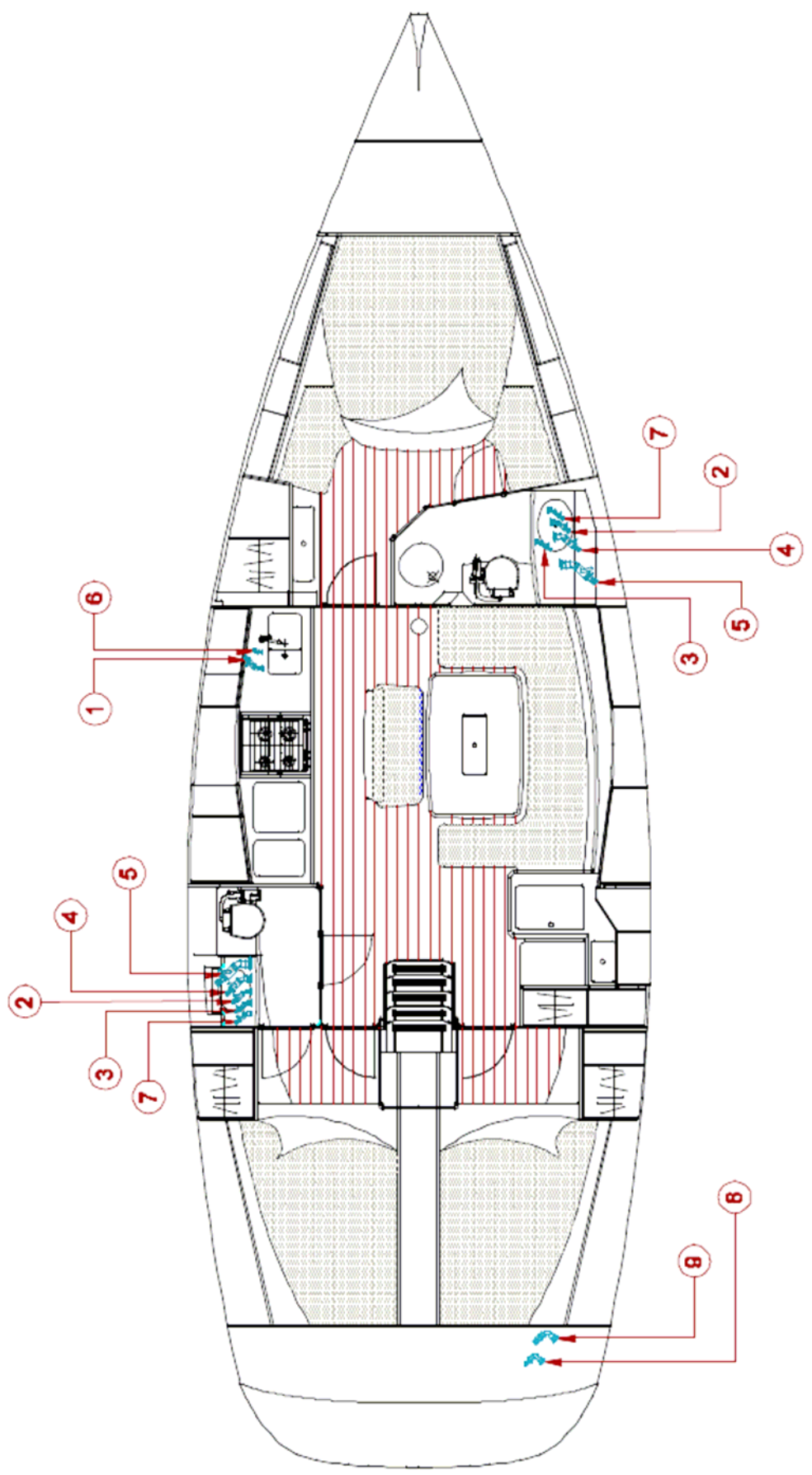
<i>Rep.</i>	<i>Description</i>
	<b><i>Electric bilge pump</i></b>
1	Strainer
2	Ø20 discharge hose
3	Electric bilge pump
4	Skin fitting
	<b><i>Manual bilge pump</i></b>
5	Strainer
6	Ø25 discharge hose
7	Manual bilge pump
8	Skin fitting



## XVIII. Skin fitting location diagram

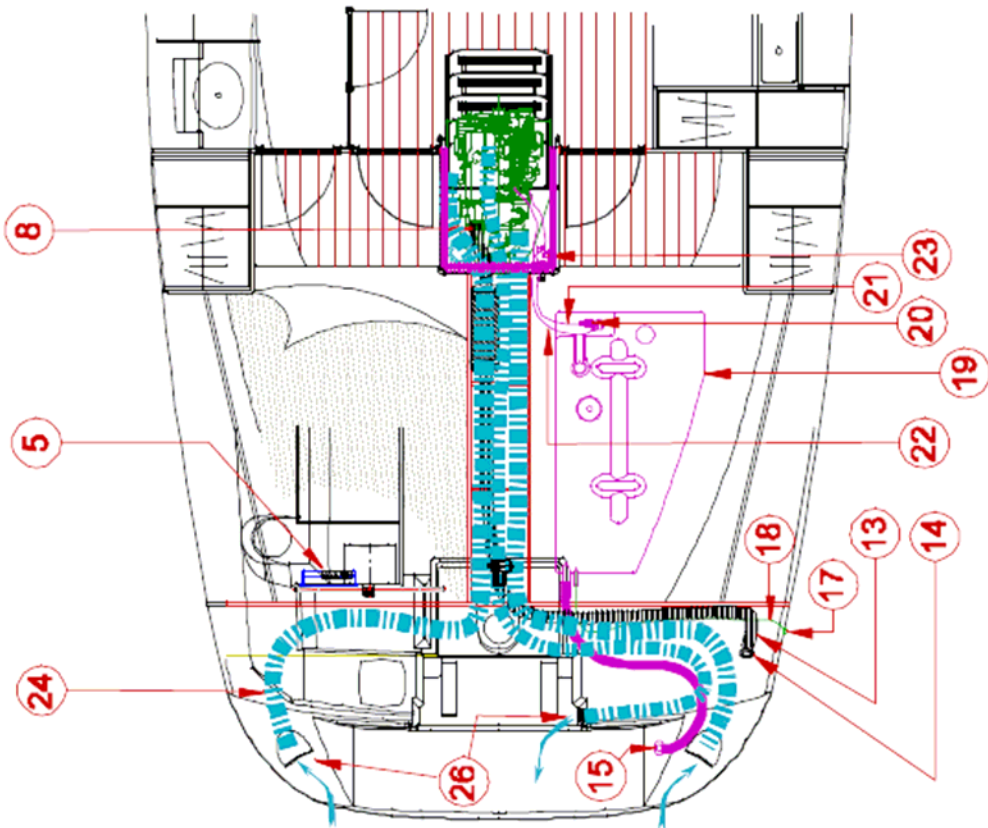
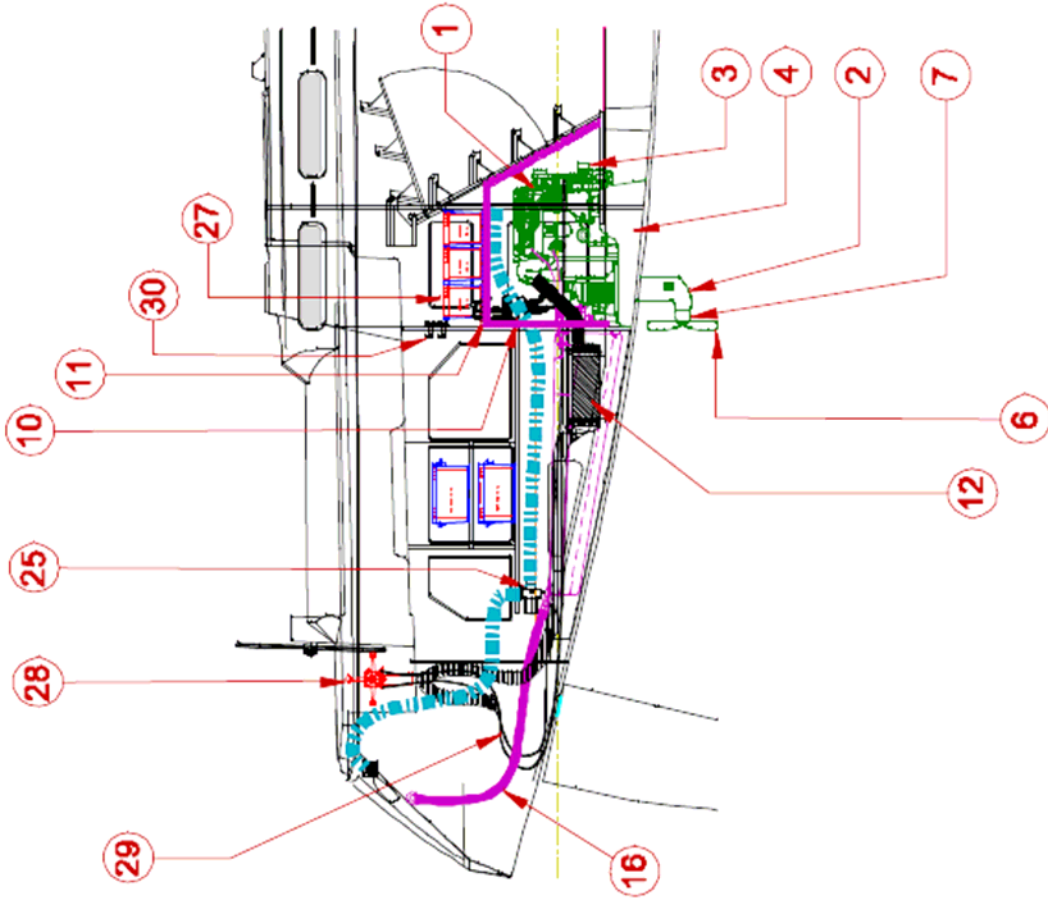
<i>Rep.</i>	<i>Description</i>	<i>Ø</i>
<b><i>Skin fittings + seacocks</i></b>		
1	Galley sink discharge	1"
2	Washbasin discharge	1"
3	Toilet sea water intake	3/4"
4	Toilet discharge	1"1/4"
5	Holding tank discharge *	2"
6	Foot pump sea water intake*	1/2"
7	Shower outlet	3/4"
<b><i>Skin fittings</i></b>		
8	Electric bilge pump discharge	3/4"
9	Manual bilge pump discharge	1"

\* Option



## XIX. Engine installation drawing

<i>Rep.</i>	<i>Description</i>
	<b><i>General</i></b>
1	Propulsion engine
2	S-drive
3	Engine raw water pump
4	Polyester chassis
5	Engine controls panel (Starboard)
6	Propeller
7	Anode
	<b><i>Cooling / Exhaust system</i></b>
8	Sea water valve
9	
10	Raw water strainer
11	Anti-siphon swan neck
12	Waterlock silencer
13	Exhaust pipe
14	Exhaust outlet
	<b><i>Fuel system</i></b>
15	Fuel filler deck plate
16	Filler hose
17	Diesel tank vent
18	Vent hose diesel tank
19	Diesel tank
20	Fuel shut-off valve
21	Fuel feed hose
22	Fuel return hose
23	Fuel filter
	<b><i>Ventilation</i></b>
24	Ventilation duct
25	Bilge fan
26	Ventilation grill
	<b><i>Miscellaneous</i></b>
27	Engine battery
28	Control box (Starboard)
29	Control cables
30	Circuit breaker

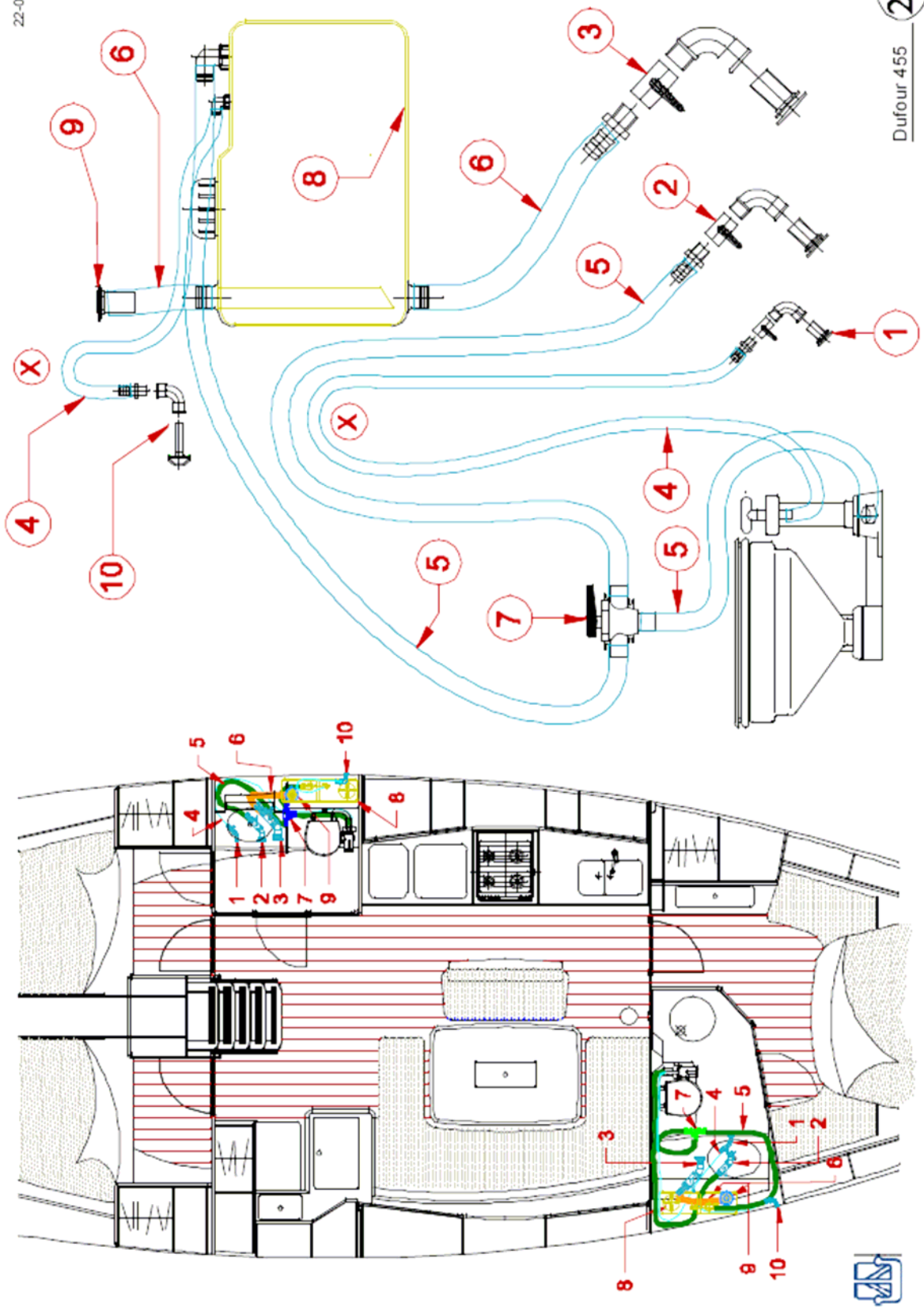


## XX. Holding tank fitting drawing - layout 3 cabins

<i>Rep.</i>	<i>Description</i>
	<b><i>Layout 2 cabins</i></b>
1	Skin fittings & 3/4" seacock
2	Skin fittings & 1"1/4 seacock
3	Skin fittings & 2" seacock *
4	Ø20 hose
5	38 mm Ø anti-odour hose *
6	51 mm Ø anti-odour hose *
7	3-way 38 mm Ø PVC valve *
8	Polythene holding tank *
9	50 mm Ø alu. waste deck plate *
10	Chromed brass vent *
ⓧ	Swan neck
	* Optional equipment

Supplied as standard





## XXI. Holding tank fitting drawing - layout 4 cabins

<i>Rep.</i>	<i>Description</i>
	<b><i>Layout 3 cabins</i></b>
1	Skin fittings & 3/4" seacock
2	Skin fittings & 1" 1/4 seacock
3	Skin fittings & 2" seacock *
4	Ø20 hose
5	38 mm Ø anti-odour hose *
6	51 mm Ø anti-odour hose *
7	3-way 38 mm Ø PVC valve *
8	Polythene holding tank *
9	50 mm Ø alu. waste deck plate *
10	Chromed brass vent *
ⓧ	Swan neck
	* Optional equipments
	Supplied as standard

