

Skipper's Manual



Sailing Yacht “Hanse 370”

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Proof of Identity

Acknowledgement of Receipt

Introduction

This manual is to help you handle your sailing yacht safely and with pleasure. It contains general information on the yacht and its systems, as well as on operation and maintenance. Please use this manual to acquaint yourself with your yacht before setting off on your first voyage. Further help regarding individual devices that are part of the yacht's equipment can be obtained in the device's operating instructions.

This Skipper's Manual is not a course dealing with watercraft safety or the art of sailing. For your own safety and convenience, should this be your first sailing yacht or if you are not yet familiar with the special features of a sailing yacht, please acquaint yourself with the handling and operation of this yacht before taking charge of it. Your dealer or national sailing or motor boat association or yacht club will be pleased to inform you of training possibilities in case you would like to expand or refresh your knowledge in this way.

Please make sure that the expected wind and swell conditions are in accordance with the design category of your boat and that you and your crew are capable of handling the boat under these conditions.

Your yacht is adequately designed, but you must be able to cope with the sea and wind conditions of storms of category A up to the serious conditions of the top category C, including the risk of breakers or strong gusts of wind, which comply with the design categories A, B and C. They are considered to be dangerous conditions under which only a competent, capable and trained crew with a well maintained watercraft can operate in a satisfactory manner.

This manual is not a detailed instruction guide for maintenance or trouble-shooting. In case of problems, please consult your dealer. If a maintenance manual is provided, use it to perform maintenance on your watercraft.

Only commission trained and competent staff for maintenance, repairs or modifications of this yacht. Modifications that could have an impact on the safety features of the boat must be assessed, implemented and recorded by qualified specialists. The boat's manufacturer cannot be made responsible for modifications that he has not approved.

In some countries, a license or an authorisation is required, or special regulations apply.

Perform maintenance work on your boat in a proper manner and consider the wear that can occur over time and through frequent or improper use of the boat.

Any watercraft, no matter how solidly it is built, can be seriously damaged by improper handling. This is not compatible with safely handling of your boat. Always adapt the boat's speed and direction of travel to the sea conditions.

If your boat is equipped with an inflatable life raft, read the corresponding operating instructions carefully. The watercraft should have the appropriate rescue equipment on board (life jackets, safety belts, etc.) in accordance with the type of watercraft, the weather conditions, etc. In some countries, this equipment is mandatory. The crew should be familiar with how to handle all safety equipment and with manoeuvring in cases of emergency (man-overboard rescue, mooring, etc.). Sailing and motor boat schools and clubs organise training courses on a regular basis.

When above deck, all persons should wear buoyancy aids (life jackets, personal buoyancy aids). Please pay attention to the fact that in some countries legal requirements stipulate wearing a buoyancy aid in compliance with national regulations.

We recommend keeping this manual on board so that it can be used as an operating guide or for possible trouble-shooting.

Certain figures may contain equipment features that are not included in the contract.

**PLEASE KEEP THIS MANUAL IN A SAFE PLACE AND GIVE IT
TO THE NEW OWNER IF YOU SELL THE YACHT.**

The **Hanse Yachts GmbH** warmly welcomes you to the circle of Hanse sailing yacht owners and thanks you for the confidence you have placed in our product by purchasing this yacht.

Your contracting party as well as the management and employees of **Hanse Yachts GmbH** wish you a lot of pleasure with your new sailing yacht.

May you always have good sailing!

Hanse Yachts GmbH & Co. KG

Management

Design Category

One of the requirements of the European Recreational Craft Directive is that each watercraft must be classified in a design category.

The sailing yacht “Hanse 370” is classified as category A.

In the Directive, design category A is characterised as follows:

Design category A: Ocean

Designed for extended voyages where conditions may exceed wind force 8 (Beaufort scale) and significant wave heights of 4 m and above, and vessels largely self-sufficient. Extreme weather conditions such as hurricanes are excluded.

Certification

In accordance with the EC Directive, the certification module B+C was chosen for this yacht. The notified body issued an EC type-examination certificate for this type, certifying that the essential requirements were checked and have been fulfilled. The manufacturer confirms the conformity with the type.

Lloyd's Register Quality Assurance GmbH – Yacht Services –, located in Hamburg, was commissioned as a notified body according to the EC Recreational Craft Directive (see Declaration of Conformity).

Identification

The hull identification is mounted on the starboard side of the transom. It is a globally unique sequence of numbers and letters.

Another number is affixed at a concealed place only known to the manufacturer. This serves to identify your yacht in case of theft.

The number is:

Builder's Plate

In accordance with the requirement of the Directive, the builder's plate is affixed in the cockpit. The



information it contains is stipulated and should be explained here.

Explanations

– Design Category A :

– Max.  = 8 = 600 kg:

– Max. =  +  = 1.200:

– CE:

Ocean

Maximum number of persons recommended by the manufacturer when the boat is underway in the sea territory of its design category.

The maximum additional load consisting of 8 persons, food and provisions, (the basic equipment, life rafts, tank contents and personal equipment are not included). Please take note of Sections 1.2.2 and 1.1.

CE marking as proof that the boat was built according to the requirements of the Directive and conforms to the type checked by a notified body (here: Lloyd's Register Quality Assurance GmbH).

Warning Notes

In many chapters of the owner's manual you will find notes meant to facilitate trouble-free operation and maintenance, but also to warn against dangers. For reasons of clarity, they are highlighted in boxes.



Danger

Indicates that there is an extreme, real source of danger that is very likely to cause death or irreparable injuries should no appropriate measures be taken.



Attention

Stands for a reminder of safety precautions or draws attention to ways of handling that may be unsafe or lead to personal injuries or damage the watercraft, its components or the environment.



Warning

Means that there is a source of danger that may cause injuries or death should no appropriate measures be taken.



Note

Here we give you valuable advice facilitating the operation or handling of the watercraft or its components.

EC Declaration of Conformity**in compliance with the EC Recreational Craft Directive 94/25/EC,
Annex XV**

We hereby declare that this boat, which is described in more detail below, complies with the essential safety and health requirements as laid down in the EC Recreational Craft Directive regarding its concept and construction as well as the model placed on the market by us. This statement shall lose its validity in case of any modifications to the boat that have an effect on the "essential safety requirements" and which have not been agreed upon with us.

Name of boat: Hanse 370

Type: Sailing yacht

Serial number of hull:

Design category: A (Ocean)

Certification module: Aa

Applicable Directive: EC Recreational Craft Directive (94/25/EG)
See Annex to the Declaration of Conformity

Notified body: Lloyd's Register Quality Assurance GmbH
- Yacht Services -
Identification number: 0098

Address: Mönckebergstraße 27, D-20095 Hamburg
Germany

Certificate of Conformity No.: 88.01.0836 / Date 15 August 2005

Date / Signature of the authorized representative in the EU



Dr. Helmut Risch

Address of signatory: Südkaten 12b, D-18375 Wieck/Darß

Manufacturer :Hanse Yachts GmbH & Co. KG; Salinenstraße 22; D- 17489 Greifswald

Annex to the Declaration of Conformity

APPLIED HARMONISED STANDARDS AND/OR DRAFT STANDARDS

RELATING TO THE PARAGRAPHS OF DIRECTIVE 94/25/EC

EC Directive	Applied standards:
1. Main dimensions	8666
2.1. Hull identification	<u>10087</u>
2.2. Builder's plate / Number of persons	<u>14945</u> , 11192, <u>14946</u>
2.3. Protection from falling overboard	<u>15085</u>
2.5. Owner's manual	<u>10240</u>
3.1. Structure	Germanischer Lloyd, ABS
3.2. Stability and freeboard	<u>12217-2</u>
3.3. Buoyancy and floatation	<u>12217-2</u>
3.4. Openings in hull	<u>12216</u> ; <u>9093 Part 1</u>
3.5. Flooding	<u>11812</u> ; <u>12216</u> ; <u>15083</u>
3.6. Maximum recommended load	<u>14946</u>
3.7. Liferaft stowage	In accordance with the requirements of the Directive
3.8. Escape	<u>9094- Part 1</u> , <u>12216</u>
3.9. Anchoring, mooring and towing	<u>15084</u>
5.1. Inboard engines	<u>8665</u> , <u>9094 Part 1</u>
5.2. Fuel system	<u>10088</u> , <u>7840</u>
5.3. Electrical system	<u>28849</u> , <u>10133</u> , <u>13297</u>
5.4. Steering system	<u>13929</u>
5.5. Gas system	<u>10239</u>
5.6. Fire protection	<u>9094 Part 1</u>
5.7. Navigation lights	COLREG72
5.8. Discharge prevention	<u>8099</u>

(e.g. 28849 – harmonised standards)



Chapter 1 Safety Notes

1. Description of the Boat

1.1. General description

You can find the general description of the yacht in the standard specification and the corresponding contract specification.

1.2. Main data¹

1.2.1. Main dimensions

Overall length	L_{OA}	11.25 m
Length of hull	L_H	11.35 m
Length of hull on waterline	L_{WL}	10.05 m
Beam of hull	B_H	3.75 m
Mast height		17.77 m
Draught (lower edge of the keel)	T_{max}	
Deep keel		approx. 1.95 m
Shallow keel (option) ²		approx. 1.60m
Sail surface ²		
Mainsail		42.50 m ²
Self-tacking jib		28.60 m ²
Storm jib (option)		-----
Genoa		44.90 m ² ²
Gennaker (option)		approx. 100.00 m ² ²
Total sail surface		87.40 m ²

¹ All dimensions, weights and surfaces are approximate values.

² Depending on the contract specification.



Attention: The specified sail surface may not be expanded without prior consultation with the shipyard.

Water displacement (empty vessel)	m_{LCC}	approx. 6,250 kg
Fuel tank content		140 l
Water tank content		300 l
Headroom cabin		+ 1.95 m
Maximum number of persons		8 Crew

1.2.2. Displacement and masses

Mass of the empty vessel	m_{LCC}	6,520 kg
Mass of liquids in installed tanks		427 kg
Basic equipment		80 kg
Life raft		30 kg
Additional load (provisions)*)		350 kg
Personal equipment		120 kg
Number of persons (8 persons)*)		600 kg
Mass of the fully loaded boat – ready to sail	m_{LDC}	8,130 kg

*) Included in the load capacity on the builder's plate



Attention: The owner or skipper is responsible for ensuring that the fully equipped boat does not exceed the mass according to the table above.

1.2.3. Maximum number of persons and load capacity

The Directive stipulates that for each craft a recommendation be made as to the maximum number of persons who should be on board when the boat in the sea territory it is conceived for. This yacht is designed for the ocean, meaning extended voyages between ports.

We therefore recommend the following:

In case of voyages over the ocean lasting several days, no more than 8 persons should be on board, since this corresponds with the number of berths.

This category is deemed appropriate for significant wave heights of more than 4 m and for wind forces of more than 8 on the Beaufort scale, under the precondition that:

- the crew possesses sufficient knowledge and experience;
- the boat is satisfactorily built and its equipment is well maintained.



Attention: Life jackets must be provided for all persons on board. The inflatable life rafts, with which the boat must be equipped, must correspond to the number of persons on board.



Warning: The recommended maximum number of persons may not be exceeded. No matter how many persons are on board, the total weight of persons and equipment may never exceed the recommended maximum load capacity.



Warning: The stability criteria of the watercraft are designed for the specified masses and the arrangement and storage of the additional load provided for in compliance with the regulations.

Persons using this boat should heed the following notes:

- the crew members should be appropriately trained;
- the boat should not be loaded beyond the limit recommended by the manufacturer;
- water in the bilge should be drained to the greatest extent possible;
- stability is reduced by heavy objects above the centre of gravity;
- in case of rough weather, the hatches, locker seats and companionways must be kept shut to keep the risk of water penetration as low as possible;
- stability is reduced, if davits are used for towing or for lifting heavy weights;
- breaking waves pose a serious danger to the lateral stability of the boat.



Attention: Weather conditions under which breaking waves could approach the boat abeam are to be avoided. Therefore, voyages should be planned taking the weather forecast into account.

Additional load g

The Directive stipulates that the maximum additional load be recommended by the manufacturer. It comprises persons and the equipment marked with *) in. The maximum load capacity is indicated on the builder's plate. The maximum additional load for the "Hanse 370" is 1,200 kg.



Warning: The recommended maximum additional load must never be exceeded when loading the watercraft. Loading must always be carried out cautiously, distributing the load in such a way that the design trim is maintained. Heavy items must be placed as low as possible.

The masses of fresh water and fuel were not taken into account in the maximum additional load.

1.2.4. Motorization

For details on the engine type and its technical specifications, please refer to the operating instructions for the engine and the contract specification.

Max. power (EN ISO 8665)	max. 29.5 kW (1224 PS)
Number	1
Cooling	indirect (seawater/fresh water)

1.2.5. Electrical system

The yacht is equipped with an electrical system with 12 V direct current and a 230 V alternating current system.

Do not make any changes to the electrical system or the circuit diagrams. Allow only trained and instructed personnel to perform work on the electrical system.



Danger! Open the switchboards only when they are current free, because you might contact live elements that are not protected by fuses. There is a risk of electric shock.



Danger! There is a risk of fire and explosion when handling electrical direct current (DC) and alternating current (AC) systems in an improper manner.

230 V ALTERNATING CURRENT



Warning! Never perform work on a live alternating current system.

Heed the following notes:

- If possible, only use electrical consumers with earthed conductors.
- Connect metal housings or systems of installed electrical devices to the earthed conductor in the boat (green or green with yellow stripes).



Attention: Never leave the shore-connecting cable hanging in the water. This could injure or result in the death of persons swimming nearby!



Attention: To avoid electric shocks and to reduce the risk of fire

- Do not modify the electrical system. Allow work to be done on the electrical system only by qualified specialists for marine electrical equipment!
- If possible, only use devices that are insulated twice or triple braided!
- Switch the shore connection switch off first before plugging or unplugging the shore connecting cable.

- Connect the shore-connecting cable to the boat first before connecting it to the shore source of power.
- First separate the connection at the shore source of power.
- If the reverse polarity display¹ is activated, disconnect immediately!
- Close the cap of the shore connector box.
- Do not modify the shore connections, only use compatible circuit connectors.

12 V direct current

Batteries supply the current for the 12V installation on board.

Distribution occurs via the distribution fuse panel. The labels next to the switches designate the respective consumers. If required, your dealer can provide the circuit diagram.

Changing the batteries

When removing the batteries, always disconnect the negative pole first and make sure that the pole terminal does not come in contact with other parts of the electrical system! Take care not to simultaneously touch both poles with the tool you are using, thus establishing an electric circuit.



Danger! Only use insulated tools to detach or fasten the pole terminals at the batteries.

There is a risk of fire and injuries!

When connecting the batteries, take care to first plug in and secure the positive poles before subsequently attaching the negative poles.

1.3. General plan

1.3.1. Description of the structure

Structure

The sailing yacht “Hanse 370” is a cruiser constructed using glass-fibre reinforced plastics, optional in polyester or epoxy resin.²

The properties of all utilised materials comply with the requirements of classification societies or ISO standards.

Should you require these materials or the accompanying data sheets, please contact your dealer.

Always maintain a sufficient distance to the sea bottom. On principle, it is not possible to take severe collisions with solid underwater obstacles into account when dimensioning the yacht.

¹ Depending on the contract specification

² Depending on the contract specification



Note: Touching the sea bottom or collisions with objects below the waterline can result in damage to the hull and thus impair its strength.

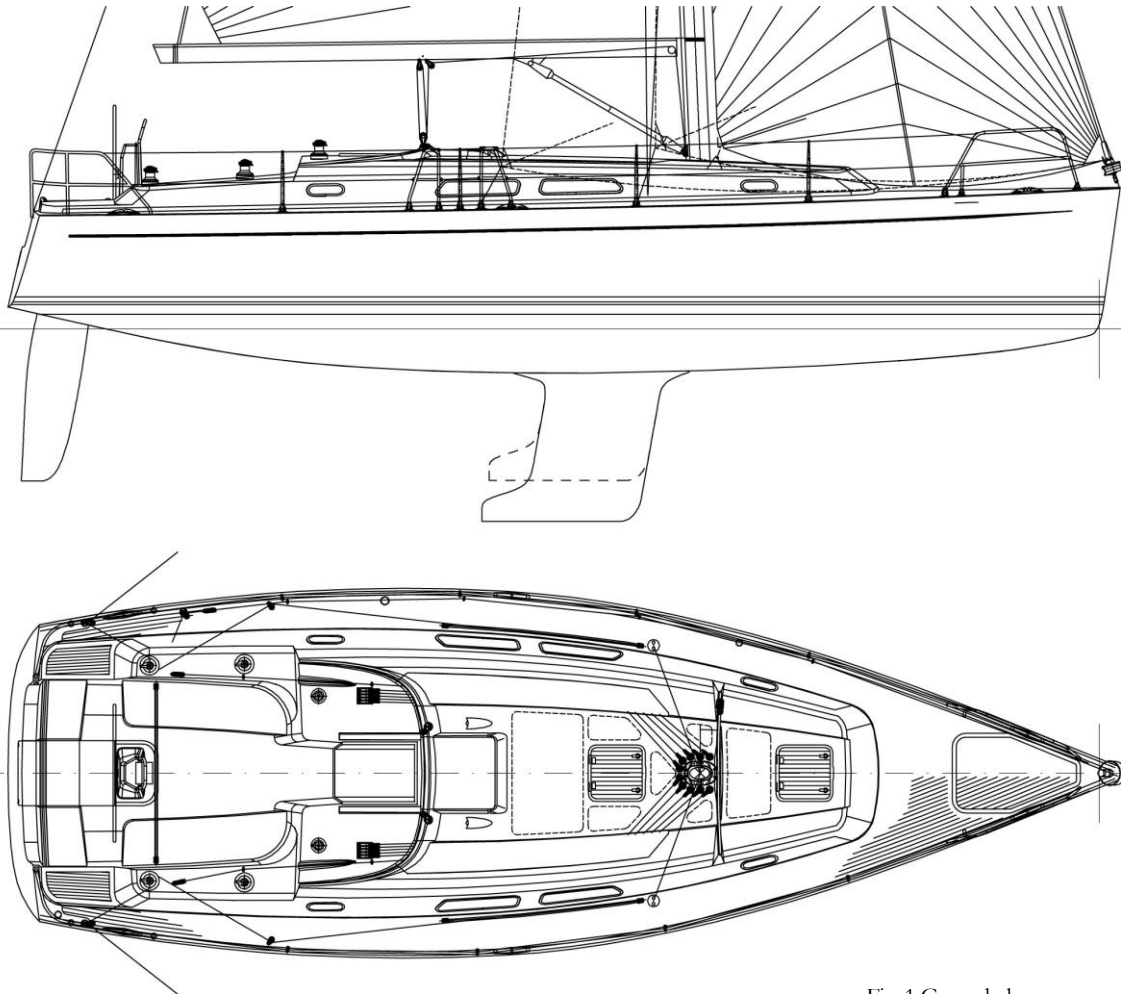


Fig. 1 General plan

Preservation

Osmosis protection is ensured by the use of an isophthalic acid gel coat and an isophthalic acid resin for the hull laminate. In addition, areas of the laminate surfaces heavily exposed to water were preserved with a top coat.

All parts not consisting of FRP are necessarily colour-preserved or consist of materials that are corrosion-proof.

An antifouling painting system against incrustation by foreign matter should be applied to the underwater body.

Deck covering

All areas of the working deck are provided with an anti-slip covering.

Fittings and hatches

All fittings and hatches are made of rustproof, saltwater-proof materials. To securely transfer the arising forces, reinforcements are laminated into the deck at the places where the fittings are mounted.

The hatches and portholes as well as the windows are certified or in compliance with the requirements or regulations such that they resist the impact of breaking waves.

Working deck

The boat's working deck comprises the cockpit area, the gunwale and the forecastle (Figure 2).



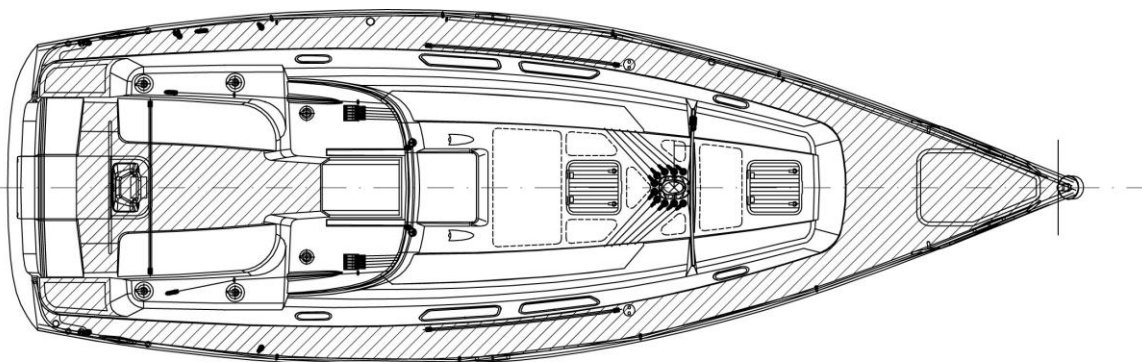
Warning: Never enter the areas that do not belong to the working deck when the boat moving. There is a risk of falling overboard.

It is generally recommended to secure persons on deck with personal rescue and safety equipment (e.g. life jackets, safety belts).



Danger: When landing in the port or docking to other boats, as well as when putting to sea, take care not to get caught between your boat and the quay wall or the other boat.

There is no toe rail at the rear part of the cockpit. Please take note of this when you are there.



Arbeitsdeck

Fig. 2 Working deck

The sliding hatch at the companionway must not be stepped on!



Attention! Do not leave loose objects lying in the area of the working deck or the emergency hatches. Secure all pieces of equipment against sliding!

Guardrail

The boat has a surrounding guardrail with a top and bottom rail. Except for the bow and stern pulpits, the top and bottom rails are made of stainless steel.

Hand-rails and boarding ladder

Additional hand-rails and the arrangement of the deck gear provide protection against falling overboard.

The swing-out boarding ladder is at the transom. It extends below the waterline. Reboarding is ensured by the boarding ladder. Acquaint yourself with the handling of the boarding ladder and practice reboarding, e.g. in a man overboard manoeuvre (MOB).



Attention! Instruct the crew in this respect before setting off on a voyage! We advise you against sailing the yacht alone (single-handed yachtsman).

1.3.2. Furnishing plan

See Figure 3 (Interior furnishing variants).

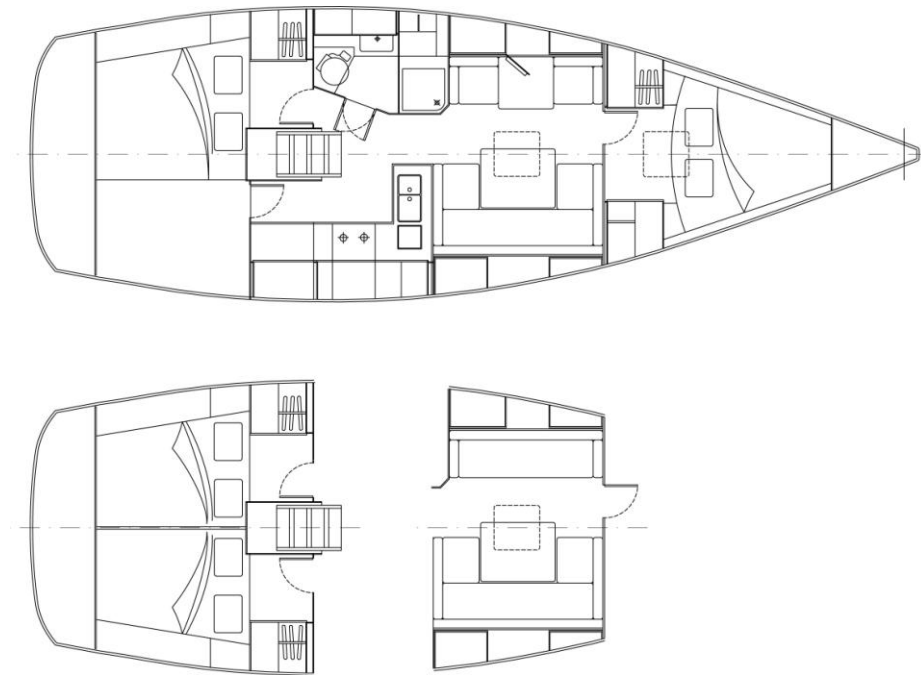


Fig. 3 Interior furnishing variants

1.4. Drive system

1.4.1. Engine room, motoring

The engine room is located underneath the companionway from the deck to the saloon. All aggregates necessary for running the boat are situated here.

The room encloses the installation and is ventilated by an air inlet and an air evacuation duct. The engine room is lined with flame-resistant insulation. The engine room can be accessed either by lifting up the companionway stairs and entering through a door located behind the stairs or through a door in the stern cabin.

The drive shaft and other rotating components are provided with appropriate protective gear.



Danger! Never remove the protective gear from rotating components while they are running. Never touch the rotating components. Only step on the areas provided for.



Attention! The engine room is not stowage space. Do not leave loose objects lying around. Store inflammable liquids in appropriate vessels in boxes or locker seats in the outside area!

1.5. Safety notes

1.5.1. Flooding, watertight integrity

The sailing yacht “Hanse 370” is constructed with great care in accordance with established technological regulations. However, external events, faulty operation or other unforeseen events can lead to a risk of flooding and the sinking of the yacht.

The strength of the hull, its mounting parts and systems is dimensioned such that it securely resists existing strain when travelling in the areas the boat is designed for.

It is necessary to drive and equip the yacht according to nautical rules. In some cases, the standard equipment supplied by the shipyard may not suffice.

The watercraft is equipped with a self-draining cockpit so that water that washes over and rain drain off to the outside.

If there is a risk of flooding, the hatches and openings must be shut in any case.



Attention! During the voyage, all portholes and deck hatches, especially the stern hatch, must be shut!

Weather conditions to this effect should be avoided, and voyages should be planned according to the weather forecast.

Observe the following notes:



- Keep order on board so that the systems remain accessible at all times!
- Check the outboard openings and seacocks for tightness!

- Keep the bilge systems in running order!
- Equip your boat with leak stoppage material!
- Stable buckets are an efficient help for draining.
- Adapt your yacht to the given weather conditions!
- In case of heavy weather, shut the hatches, windows and vent holes (to the greatest possible extent)!
- Do not undertake any technical modifications without consulting the shipyard beforehand!
- Ensure regular inspections and expertly repairs!
- Avoid the risk of touching ground or stranding

1.5.2. Hull openings, seacocks

Openings in the hull are points that pose a risk of water penetrating to the inside. They require your special attention.

They have been selected and installed according to established technical rules. It is necessary to check their condition on a regular basis.

All underwater hull openings can be shut with seacocks. If you leave the boat unattended, they should always be shut.

For safety reasons, the hose connections are always double. Do not change this!

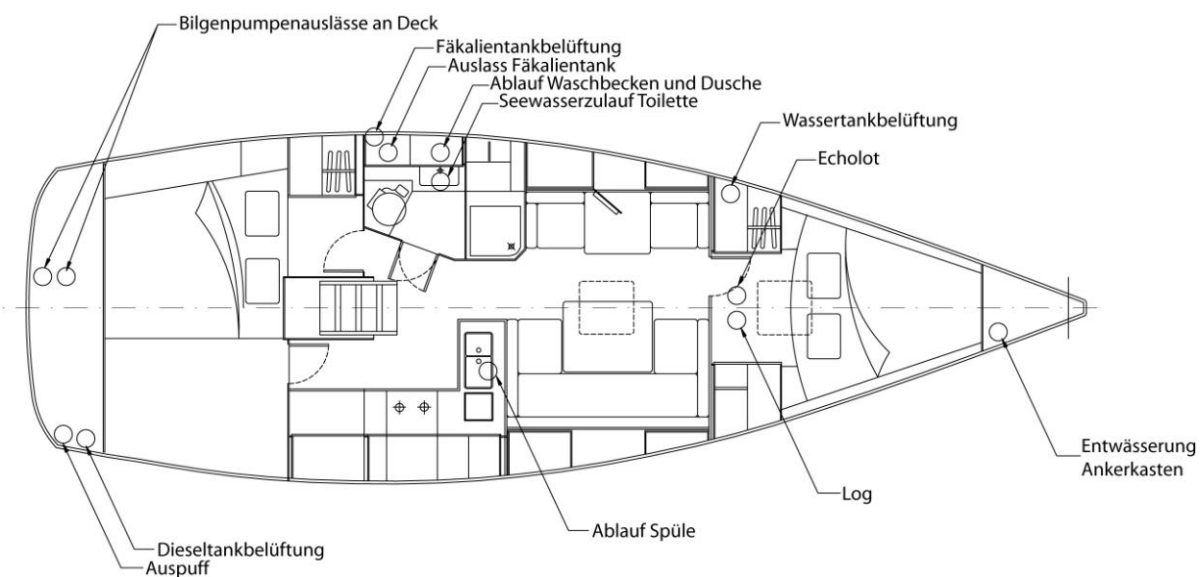


Fig. 4 position hull openings

Through hull fittings such as echo depth sounders are specially constructed and cannot be shut by seacocks.

**Attention!**

When not in use, keep the seacocks shut.

You can see if they are shut:

Shut – Lever is in perpendicular to the hose or pipe

Open – Lever is in the same direction as the hose or pipe

To avert danger you should keep leak stoppers in different sizes on board. In case of damages, they can seal openings quickly and effectively.

1.5.3. Stability

Stability is the property of the yacht that enables it to regain an upright position after a heel caused by wind and/or waves. Stability is ensured if there are no significant amounts of water in the boat. Shape, weight distribution and dimensioning lend the yacht sufficient stability.

Any change in the distribution of masses on board can have a considerable impact on the watercraft's lateral stability, trim and driving characteristics.

1.5.4. Fire protection**Preventive fire protection**

In addition to penetrating water, fire is the greatest risk for any boat and also for a sailing yacht. An FRP yacht is made of a combustible material, even if it is fire-resistant. We dedicated a great amount of attention to the risks of fire when building the yacht. This included, among other things, the choice of materials and their treatment.

The engine room is lined with a fire-resistant, soundproof material that can resist fire extremely well for a short period of time.



Warning! During refuelling, the engine, the heating system and the cooker must not be in operation.

Smoking and open fire are prohibited!

The bilges must be kept clean and checked at regular intervals to determine whether they contain oil leakages or fuel and/or fuel vapours. No inflammable material may be stored in the engine room. Non-inflammable materials in the engine room must be secured in such a way that they cannot fall into the machines. They must not obstruct access to the engine room.

We have kept inflammable materials such as curtains away from the cooker unit. Please keep it this way.

Please instruct your crew how to use the fire extinguishers!



Attention! The most crucial sources of fire are the engine and the cooker unit, as well as open fire.



The owner/skipper is responsible for providing portable fire extinguishers. Your sailing yacht should be equipped with appropriate portable fire extinguishers in compliance with the recommendation below at the places marked with the sign you see to your left. Please pay attention to regional regulations regarding the number of and provision with portable fire extinguishers. Don't start running the yacht before conforming requirements!

They should be located at the following places:

- | | | |
|---|-------------------------------------|--------------------|
| • in the cabinet of the stern cabin on the galley side ¹ or in the sideboard | • CO ₂ fire extinguisher | • at least 10A/34B |
| • saloon bench starboard or bare board navigation place | • dry powder fire extinguisher | • at least 10A/34B |
| • helm position | • dry powder fire extinguisher | • at least 10A/34B |

The CO₂ fire extinguisher is **only** to be used to fight fire in the galley. In all other living spaces the dry powder fire extinguishers are to be used.



Danger! Please take note that after triggering the dry powder fire extinguisher the dry powder spreads out in the room. It is absolutely necessary to air the room before entering it again.

Supplement your equipment with a fire blanket, which is highly effective in the area of the cooker, especially with hot grease.



Note: Comply with the inspection periods of the fire extinguishers and make sure that they are ready to work.

Fire extinguishers past the expiration date or which have already been used must be replaced by fire extinguishers with the same fire classification and the same or a higher capacity. If parts of the fire-extinguishing system are replaced, only use appropriate components that have the same sign or are equal in terms of their technical and fire-retarding properties

Instruct your crew and your guests as to the arrangement and handling of the alarm and fire extinguishing equipment on the yacht. You should additionally include alternative possibilities to extinguish fires such as water buckets, fire blankets etc.

The skipper must inform the crew of

- the arrangement of fire extinguishers and the operation of fire extinguishing gear,
- the arrangement of the discharge openings in the engine rooms
- and the arrangement of escape hatches.

When the boat is manned care must be taken to ensure that the fire extinguishers are easily accessible.



Attention: Never

- obstruct exits and hatches;
- apply blocks to hatches when persons are on board;
- obstruct safety installations such as fuel valves and switches of

¹ Only in the version with double stern cabin.

electrical systems;

- obstruct fire extinguishers that are kept in cabinets;
- leave the vessel unattended when cooking or heating devices are in use;
- use gas lamps in the watercraft!
- modify the watercraft's installations (especially not the electrical, fuel and gas systems);
- fill up fuel tanks when the engine is running or when heating devices are in use;
- smoke when handling fuel

Active fire fighting



Danger! Any fire poses an immediate risk to you, the crew and the yacht! All persons on board must start fighting the fire with all means and without hesitation immediately after the alarm.

All persons who cannot actively engage in fire fighting should go above deck using the escape hatches and put on their personal life jackets. The burning rooms must be sealed off from air supply as far as this is possible when fighting the fire.

In case of fire in the galley:

- Shut the gas supply valve!
- Smother flames with fire blankets!
- Use the fire extinguisher if the fire has spread to the furnishing!

In case of fire in the engine room:

In case of fire you must immediately turn off the engines to the extent that nautical safety allows you to do so! Do not open the hatches!

- Turn off the engines!
- Shut the fuel cocks!
- Do not open the hatches!
- There is a small opening behind the companionway between the steps of the engine room flap. Insert the nozzle of the fire extinguisher here and empty its entire content into the engine room.
- Open the engine room only once you are sure that the fire has been extinguished, the room has cooled down and you are able to fight a new fire that might flare up.



Danger! Fire on a yacht can turn into a nautical distress. Try to establish radio contact (mayday or pan pan). Keep the distress signals ready.

In case of fire in the other areas

- Try to extinguish the fire with the fire blanket or with water if no inflammable liquids are involved. Otherwise, use the fire extinguisher to fight the fire.

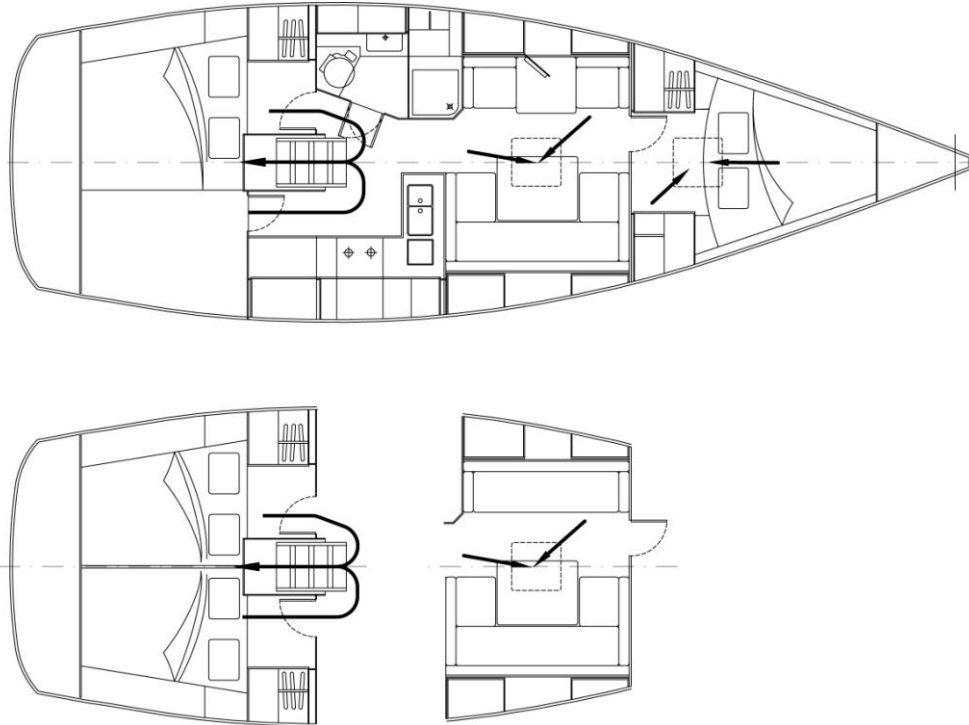


Fig. 5 Escape routes

Safety notes regarding the operation of the liquefied petroleum gas (LPG) unit

The yacht is equipped with an LPG unit. Please observe the following notes when operating it:

Action in case of a smell of gas

If you smell gas, shut the valve of the gas cylinder and air the boat intensively. The presence of gas fumes can be checked for by means of gas detectors.

Have a specialist examine and remedy the cause before using the gas system again!

Notes on preventing malfunctions of the LPG unit:

- Shut the valves of the supply line and the cylinder if the stove is not in use. In case of an emergency, shut the valves immediately.
- Make sure that the valves of the appliances are shut before opening the valve of the cylinder!
- Check the LPG unit for possible leakages on a regular basis. Check all connections with soap water. (When doing so, the valves of the appliances must be shut and the valves of the cylinders and the unit open.)

- If there are leakages, shut the valve of the cylinder and have the system repaired by a specialist before using the appliance again.
- Since flames consume oxygen, the room must be ventilated well. Do not use the stove to heat the saloon.
- Never block access to the LPG system.
- The valves of empty cylinders must be shut and disconnected from the system. Keep lids and sealing caps ready for use. Store reserve cylinders and empty cylinders on the open deck or in the provided spaces that have outboard ventilation!
- Never use the lockers or boxes meant for the gas cylinders to store other equipment!
- Never leave the yacht unattended if the stove is on.
- Check the hose assemblies of the LPG system on a regular basis, at least once a year. Have them replaced if they are damaged.
- If you replace the stove, make sure that the new one has the same working pressure.
- Never use the stove in case of high waves or large heel angles (if the boat is not equipped with a gimbaled stove)!



Note: Comply with the inspection intervals of the entire system! The inspection should only be carried out by a maintenance firm specialised in LPG systems on boats.



Note: If the boat is travelling under the German flag, you, as owner, are obliged to have the gas system inspected on a biannual basis by a specialist of the “Deutscher Verband der Gas- und Wasserinstallateure mit der Zulassung für Caravane und Boote”.

Please observe the following notes and the manuals or operating instructions of the appliance manufacturers!



Danger! Escaping gas is heavier than air. It accumulates in the hull. In this case there is a **risk of suffocation and explosion**. If you smell gas, never use fire or unsafe light or electrical devices!



Attention!

- Never use solutions containing ammonia to check the conduit.
- Never use an open flame to search for leakages
- Never smoke or use an open flame when connecting or replacing gas cylinders.

2

Chapter 2 – Further Technical Details

1. Installations and Systems

1.1. Tank capacities

1 Fuel tank	approx. 140 l	The tank is located underneath the bed in the stern cabin. It is equipped with electrical transmitting devices, inspection lids and connecting conduits with valves, as well as with discharge valves and ventilation.
1 Fresh water tank	approx. 300 l	The fresh water tanks are equipped with inspection lids, compensating joints, valves and ventilation. The tanks are located underneath the saloon floor.
1 Black water tank	approx. 30 l	<p>The tank is located in the immediate vicinity of the toilet.</p> <p>The tank is firmly installed. The system includes appropriate valves and deck openings to suck out the content on shore and a seacock for direct discharge into the sea.</p> <p>The black water indicator is located on the central control panel (see also contract specification).</p>

1.2. Water systems

1.2.1. Drinking water

The yacht has 1 water tank with a total capacity of approx. 300 l. Each tank is provided with an opening at the top for cleaning.

The filler necks are located on the forecabin.

Before filling, check whether the marking on the filler neck is correct.

The pressure water pump (12 V) draws the water from the tanks and feeds cold water to the taps. A pressure vessel ensures steady water pressure in the drinking water system. When taps are opened, the pump is activated. When they are shut, the pump is switched off by the counter-pressure.

Should the pump continue to run, the system must be checked for leakage.

**Note**

Note: If air bubbles come from a water tap, immediately switch off the corresponding pressure water pump at the distribution fuse panel. The pumps are safe to run dry for a short period of time. When running dry for a longer period of time, the pump's impeller may be damaged.

You can obtain spare impellers from specialist shops or the trader. When ordering, always specify the exact type of the pump.

**Attention**

Attention! If drinking water is stored for a longer period of time, disease-causing bacteria can develop. Use appropriate and approved agents to protect against bacteria. Change the water frequently and rinse the tank.

An electric boiler is installed to make hot water. The cold fresh water is supplied via the pressure pump. Due to the pressure drop in the cold water system when filling the boiler, the pressure water pump automatically switches on.

**Note**

Note: Empty the system and the tanks if there is a risk of temperatures below freezing.

1.2.2. Seawater

Seawater is used for two circuits:

- for the engine system (see Section)
- for flushing the toilet

**Attention**

Attention! The seawater valves must be shut after use!

Clean seawater free of impurities is necessary for the faultless operation of the systems. Therefore, check the seawater filter on a regular basis, and clean or replace the filter pads if necessary.

**Danger**

Danger! Ensure that the filter lids are firmly fastened and that the hose clamps are firmly fixed, otherwise there is a risk of water penetration.

1.2.3. Black water

Black water designates all sewage from the toilets. Seawater is used for flushing. It is pressed into the bowl and pumped into the black water tank with the contents of the bowl.

The black water tank with a capacity of 30 litres is a firmly installed tank in the immediate vicinity of the toilet. The tank's ventilation ends in the boat's side.

The tank is emptied either via the respective deck suction nozzle with the help of a suction plant on shore or outboard via the seacock. Please check whether the hoses are compatible with the use of chemicals.

Before leaving the port, make use of the available pumping facilities to empty the black water tank in any case.

Emptying using deck nozzles

The deck nozzle is located on deck and marked "Waste".



Note

Note: Please make sure that the ventilation of the black water tank is ensured; otherwise the system could be damaged when emptying the tank.



Note

Note:

When pumping out the tank, keep to the following sequence:

- Open the deck screwing, insert the suction nozzle
- Suck out/pump out
- Fasten the deck screwing.

Emptying via seacock

To empty the black water tank outboard, open the seacock(s). Then switch on the pump. After pumping out, shut the seacock(s) again.



Note

Note: Please note that there are regulations for certain ports and travelling areas where it must be ensured that no sewage can be pumped outboard (e.g. the Baltic Sea Convention). Instruct your crew and guests how to deal with this.



Attention

Attention! The toilets and the black water tanks may not be drained near the coast or in any protected area (see also 3.8)!

To this end, the outboard discharge can be locked and sealed.

Operating the system

Observe the symbols at the toilet to use the WC. Never throw solid or clogging materials or objects into the toilet.

Maintenance of the system

Never use aggressive liquids, aggressive cleansing agents or deodorants to clean the system because they may damage the conduit.

Never use pure antifreeze agents when getting the system ready for winter storage. If necessary, contact your dealer. Always completely empty the system in case temperatures below freezing are expected.

1.2.4. Bilge system

The anchor locker and the cockpit are self-draining so that no pumps are needed here. The openings must be kept free of blockages.

The yacht is equipped with a manual and an electrical bilge pump, each with a capacity of 30 l/min. Their functionality is to be regularly checked.

The manual bilge pump is located at the helm position in the cockpit. The electrical bilge pump is accessible through the floor hatch of the companionway.

The electrical bilge pump can be operated in two modes:

- Automatically – the pump switches on if the bilge has reached a certain level
- Manually – the pump is operated manually from the operating panel of the bilge pump.

Please pay attention to whether the valves are open or shut. Take special care to ensure that the bilge in the engine room is free of oil.



Warning! The functionality of all bilge pumps is to be checked regularly. The intakes of the pumps are to be cleansed of dirt.



Warning! The bilge system is not designed for damage control. See Section 1.4 “Safety notes”.

The boat should be additionally equipped with a bucket on a rope or a bailer.

1.3. Fuel system

The fuel tank with approx. 140l capacity is located underneath the bed of the stern cabin(s). It can be filled through the filler neck marked “Fuel” or “Diesel” located on the gunwale. To do so, unscrew the lid. Check whether the ventilation apertures are clean.

The level can be read at the central control panel.

The fuel reaches the engine via a suction pipe and a preliminary fuel filter with a water separator. Due to the short lines, the system predominantly consists of fireproof fuel pipes.

Please note that the return pipes are always open to ensure the return to the tank.

Tanking up

The boat should be tanked up carefully so that no fuel spills onto the deck or into the water. Keep an oil absorbing cloth at hand. Open the cap and insert the funnel or the nozzle of the fuel pump. Take care to establish contact with the filler neck (earthing). Then start tanking up.



Note: Only tank up clean fuel (diesel). Check and cleanse the filter and the water separator on a regular basis.

Do not fill the inlet pipe all the way to the top. When you hear the sound of rising fuel stop tanking.

Sealing off the tank in an emergency situation

In case a leakage occurs in the fuel system or if there is a fire in the engine room, the supply to the engine can be shut by means of a valve.

1.4. Steering system

The helm is set in motion by means of the two steering wheels in the cockpit.

The tiller and the gearing can be accessed through the hatch in the stern part of the cockpit.

The rudder spindle is set in motion by the concentric mounting of the hydraulic cylinder.



Note

Note: Take care that your helm operates free from play, but also that it is not sluggish.

If there is a failure in the steering system, you can operate the rudder with the emergency tiller.

To steer using the emergency tiller, proceed as follows:

- Open both rudder spaces and check the steering mechanism.
- Remove the cap for the emergency tiller on deck.
- Take the emergency tiller from the mounting in the room beneath the cockpit and insert it in the mounting on deck.
- Steer on deck.



Attention

Attention

In case of failure of the steering system

- Head to the wind
- Mount the emergency tiller as described above.



Note

Note

The helm room is not a stowage place for equipment or other objects.

Moveable components of the helm should be treated with water-resistant greases within the scope of winter overhauling.

1.5. Electrical systems

The boat possesses two electrical systems: 12 V direct current and 230 V alternating current.

Information on the scope and the equipment can be found in the operating instructions and the contract specification. Take note of the operating instructions that include circuit diagrams for the electrical systems and devices!

The electrical systems can be switched and controlled via the respective central control panels.



Attention

Attention! When operating the engine the main switches may not be switched off, since this would destroy the diodes of the generator.

1.5.1. Direct current system

The direct current system is in charge of starting the engine and supplying power to the navigation instruments, the lighting and part of the electrical equipment on board.

Use the 220 Volt system when connected to shore power.

The power is distributed via the switchboard in the saloon. The circuits have switches so that the consumers can be switched on and off centrally. All power circuits within the system must be protected against overload by fuses. The fuses indicate whether there is a failure in the system. The circuit diagram can be made available by your dealer if required. The individual circuits are described in more detail here.

Take into consideration that the power from the batteries is only available for a limited period of time. If the voltage falls below 10.5 V, a recharge is necessary by starting the engine.

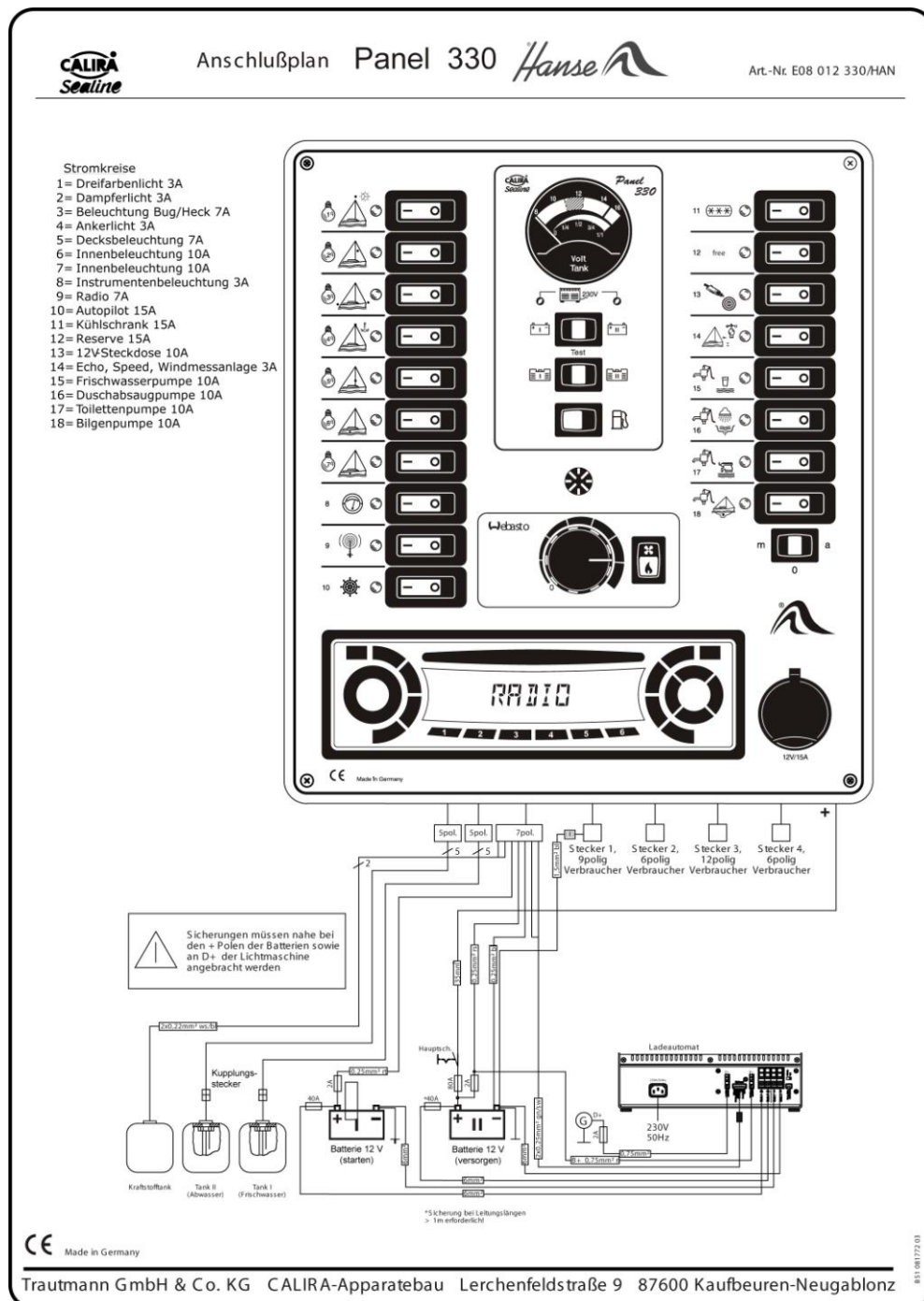


Fig. 6 DC switchboard

The essential circuits of the direct current consumers are:

- position lights
- interior and deck lighting
- electrical devices
- 220 V devices via current converters (according to the contract specification)

The interior and deck lighting consists of energy-saving halogen or fluorescent lamps and requires relatively little power. The navigation electronics also require very little power. Nevertheless, you should turn off the consumers you no longer need as soon as possible. This can also be done centrally from the central control panel.

If, for certain reasons, it is not possible to recharge the batteries at sea, you must be economical with the electrical energy. Nautical lighting has absolute priority. In case a capacity bottleneck occurs due to a failure in the supply, all other consumers must be switched off first.

We recommend switching on the consumers according to their importance:

- at night only the position lights
- chart table lighting only when it is used
- switch navigational instruments to “stand-by” if possible
- VHF radio only in critical situations



Note: If an autopilot is installed, it can consume a lot of power, especially when sailing in heavy swell, because the hydraulic steering pump may have to carry out significant steering corrections depending on the swell conditions.

The general lighting should also only be switched on when necessary. One should dispense with the refrigerator box, the heating and other consumers that require a great amount of energy.

Remember to recharge the batteries when at sea, as well. Running the engine while sailing can recharge the batteries up to the desired state so that the next most important consumers can be switched on.

In case of malfunctions, you should check the electrical systems and installations to find out the reason for insufficient charging.

ENGINE BATTERY

The engine battery is used to start the engine.

BATTERY SELECTOR SWITCH

The battery switch is underneath the companionway.

MAINTENANCE

The gel batteries require little maintenance and should be well charged at all times. Please regularly check if this is the case.

In the winter season it is necessary to store the well-charged batteries in a dry and frost-protected place. Take care that the poles are clean and protected against corrosion with pole grease.

1.5.2. Alternating current system

The 230 V installation on board is supplied with current via the shore connection, the batteries via an inverter or the generator (option).

In case there is no shore connection or a generator at your disposal, you should use the 230 V devices via the inverter in a very energy-conscious way, because the capacity of the batteries is limited. You may have to start the engine to recharge the consumer batteries. Therefore: Use the 220 Volt system when connected to shore power.

The current is distributed via the switchboard in the saloon. The circuits are provided with switches so that the consumers can be switched from a central location. Fuses protect all electrical circuits within the system against overload. The fuses indicate whether there is a failure in the system. If required, your dealer can provide the circuit diagram.

SHORE CONNECTION

If the yacht is equipped with a shore connection socket, you have 230 V at your disposal. With the appropriate shore-connecting line you can ensure power supply in a way that spares the batteries.

The shore connection socket is protected by a fuse. The connection is established by means of a compatible shore-connecting line.

Please consider that on the shore there is usually a limitation of connecting power so that this shore current cannot be used for heating.



Attention

Establish the shore connection by first connecting on board and then on the shore. Voltage is then immediately available.

Interrupt the connection on the shore side first.

Lay the cable in such a way that it does not hang in the water and that the plug connections are protected from water or waterproof (rain).

For your own safety the shore connection is equipped with a fault current breaker that switches the installation voltage-free within a split second.



Note: This functionality of the switch must be regularly tested by pressing the release button or with the help of an electric tester.

BATTERY CHARGERS

The batteries can be charged using the built-in battery charger when there is power supply from the shore and during generator operation. Do not change the charging current circuit on your own, because this could damage the batteries. Take note of the operating instructions of the battery charger.

SOCKETS

On board there are sockets for 220 V alternating current at several places.

1.5.3. Navigation systems

Navigation systems are installed as options.

The position lights are firmly installed as navigation lighting. They include the side, stern, top and anchor lights.

Keep a supply of spare bulbs on board.

1.6. Anchoring, towing and mooring equipment

1.6.1. General

The boat owner/skipper is responsible for ensuring that the docking lines, towing lines, anchor chains and anchors are sufficient for the area in which you are planning to travel. Boat owners should also consider which measures are required to attach a towing line on board.

1.6.2. Anchoring

The bow anchor is located ready to be dropped on the bow roller in the forepeak.

The chain falls in a chain locker beneath the stowage room. This is where the end is fastened.



Attention! Please note that in case of bad anchoring grounds, unfavourable weather conditions, swell and strong wind, the holding force may not suffice and that you must take special nautical measures to increase the holding force or leave the anchorage in due time.

1.6.3. Towing

The anchor line can be used for towing. However, a special towing line of the same strength is more suitable. Fasten the towing line in the shape of a crowfoot to the two cleat pairs at the bow. In case of longer towing distances wind a rope of the same strength around the entire boat in order to distribute the great forces. Other points, e.g. the guardrail or the mast step, are not suited for towing. A towing line may only be attached in such a way that it can be slipped under load. Abrasions must be avoided!



Attention! Please note that, when towing, the speed of both the towing and the towed vessel must be below the so-called hull speed, otherwise the towing forces can damage the boat. This boat's hull speed is approx. 11.0 kn (= 20.4 km/h).

Depending on the weather conditions, swell and depth of the water, it could be necessary to reduce this speed considerably, since the occurring loads can lead to damages.

1.6.4. Mooring

The cleats arranged on the bow and stern, which are sufficiently dimensioned to deal with the normal forces in protected ports, are used for mooring.



Attention! Use the onboard winches or cleats in pairs to position the boat.

In case the boat is unattended for a longer period of time, protect the mooring lines against wearing through and unintentional detachment.



Note: Before setting off on a voyage, the skipper must make sure that

- the anchor and the mooring line with chain leader are clear

- the necessary docking and towing lines are on board and in working order.



Attention! Only use the cleats and winches to moor the boat. The guardrail and other points on deck are not suitable.

1.7. Engine system

1.7.1. Structure of the engine room

The centrally arranged main engine on a stable mount takes up most of the space. It is elastically bedded so as to absorb vibrations and sound. The area underneath the machines is shaped like an oil tray that must be cleaned regularly. Due to the light colour, you can immediately see whether there are leaks in the oil circulation. The area below the engines should be checked periodically to detect oil leaks in due time. This area must always be kept clean.

All hull openings are equipped with seacocks. Before travelling, check whether they are open and whether the seawater filters are dirty.



Note: Observe the operating instructions of the engine system and the notes on operation, maintenance and care therein.

Include the opening for the sail drive in your regular inspections.

The exact description of the drive plant is in the operating instruction for the engine.

1.7.2. General

The boat may be operated with a maximum engine performance of 1 x 29.5 kW. Changes to the concept must always be implemented in agreement with your dealer. The shipyard cannot take on liability for changes to the concept that were not agreed upon with the shipyard.

The speed must be reduced on crowded, much used waterways or in case of poor visibility. Reduce the speed and keep a lookout for reasons of courteousness and your own and other people's safety. Observe the speed limits and the notices to avoid breaking waves.

Observe the right of way as it is demanded by the rules for waterways (COLREGS).

Always keep a sufficient distance so that you can stop or manoeuvre to avoid collisions.

1.7.3. Instruments

HELM POSITION

Rev counter

This instrument displays the number of the engine's revolutions per minute. The rpm when travelling depends on the external conditions and the type of engine.

Alarm systems

The alarm is set off if the cooling water temperature is exceeded or the oil pressure is too low. The oil pressure switch triggers the alarm when the engine's ignition is switched on but the engine is not yet running.



Note

Note: If the alarm is heard during the operation of the machine, the engine should be switched off immediately and the reason for the fault investigated.



Note

Note: The engine should be warmed up slowly and not accelerated to full speed if the operating temperature has not yet been reached.

1.7.4. Cooling system

The engine is equipped with a two-circuit cooling system.

The internal system is a closed circuit. In case of frost, an antifreeze agent must be added to the internal circuit. The temperature is controlled by a thermostat. During winter storage, the cooling water needn't be drained off if it is mixed with an antifreeze agent suited for the existing temperatures below freezing.

The external circulation draws seawater through the seacock in the front part of the engine room. The cooling water is transported in the heat exchanger and then sprayed into the exhaust system in the exhaust manifold. The exhaust is thus cooled and the sound absorbed. The exhaust is discharged at the stern.

The heat exchanger serves to cool the engine oil, the cooling water of the primary circulation and the hydraulic oil of the gears. The heat exchanger is provided with a zinc anode to avoid electrolytic corrosion.

The seawater filter must be cleansed on a regular basis.



Attention

Attention

Check the seawater filter on a regular basis. Depending on the water quality, cleansing may be necessary.



Attention

Attention

After starting the engine, check whether water is discharged from the exhaust, also intermittently, in addition to the exhaust gas.

In addition, the cooling water supply must be checked and ensured.

Before starting the engine:

- make sure that the cooling water inlet is open,
- make sure that the engine room is ventilated,
- take a look into the engine room to check for possible leaks,
- keep the engine room hatch closed (danger posed by loose objects).

When the engine is running:

- visually check whether cooling water comes out of the exhaust.

The temperature guard sets off a visual and acoustic alarm if the engine is overheated. In this case turn off the engine and check the cooling water circulation!



Attention

If the engine does not start after the third attempt, please shut the seawater valve for cooling the engine. Try to start the engine again. If the engine starts, open the seawater valve again (within half a minute).

1.7.5. Exhaust system

The exhaust is discharged at the stern, thus reducing the sound emission. The exhaust gas duct consists of hoses with a water collector which simultaneously functions as a sound absorber. The exhaust installation is included in the seawater cooling systems.

Beneath the manifold the water is led to the exhaust installation and discharged to the outside along with the exhaust gases. It cools the exhaust. This simultaneously absorbs the sound.

It is very important that the cooling circuit is running. As already mentioned in the section on the cooling system, check whether water is discharged from the exhaust pipe while the engine is running. The exhaust gas should neither be sooty nor blue. If this is the case, either the engine's air filter must be cleaned – which you can do yourself – or a specialist workshop has to adjust the engine.

For safety reasons, the hose connections on the suction side are equipped with double hose clamps.

If the boat is not in use, shut the seacocks and drain the water out of the exhaust duct.

Notes on winter storage

Freshwater and seawater circuits are to be emptied according to the detailed instructions in the engine's maintenance guide, and the conduits are to be ventilated.

1.7.6. Lubrication

The machines are lubricated according to the specifications in the operating instructions of the engine and other installations.

Please note that during oil change the oil must be sucked out with a pump. When changing the filter you should use an oil absorbing cloth against dirt.

The oil must be changed at least once a year even if the boat has travelled very little.

A well maintained boat should never leak. All the same, the engine's mount is shaped in the form of a closed tub, so that not even the smallest amount of oil can enter the bilge and thus the pumped out bilge water. In case water that is possibly mixed with traces of oil collects there, it must be filled into a separate canister by means of a small draining pump and disposed of together with the used oil.

1.7.7. Gears

The gears to change from forward to reverse and the other way around are hydraulic gears. They are flanged directly onto the engine. Please read the gears' special operating guide and the maintenance instructions

In terms of use, the gears are designed in such a way that they fulfil the manoeuvring demands. However, avoid abrupt gear changes from full forward to full reverse, even if these are hydraulic converter gears.

1.7.8. Gear shift

The engine's speed and the gears are controlled via mechanical gear shifting with Bowden wires. The actual gearshift in the gears is performed hydraulically (see 1.7.7).

1.7.9. Sail drive

The sailing yacht has a sail drive. The output of the drive is similar to a Z drive transmitted to the propeller, but the difference is the propeller is under the yacht. The lead through at the stern post is sealed.



Attention!

Also check the tightness of the shaft seal during your inspections.



Attention!

Avoid touching the sea bottom because this could damage the propeller or the shaft.



Note: Check all underwater components of the shafting when preparing for winter storage and remove mussels and other deposits from the bearings.



Note: Watch out for flotsam and jetsam. Rope ends or plastic bags can damage the propeller and the shaft, thus reducing their service life.

1.7.10. Propeller

The propeller is calculated according to the performance and planned speed. Watch out for unusual vibrations in the area of the propeller that could be caused by damages to the propeller.

Notes regarding winter storage

For winter storage, the propeller should be cleaned of possible incrustation of foreign matter, inspected and the flapping mechanism greased. In case of deformations, dents or nicks, the propeller must be repaired and balanced by a specialist.

1.8. Ventilation

Ventilation can take place via the existing hatch openings and inlets. The engine room is ventilated passively (no electrical ventilator). The air circulation must not be obstructed and the ventilation system may not be altered.

Good ventilation prevents corrosion, marks caused by mould or mildew and fungus. This applies to both summer and winter. The low humidity in winter during clear weather lets the boat dry well.



Note

Note: Air the boat as often and as well as possible for the sake of the boat and your own wellbeing. Humidity and changes in temperature can lead to the precipitation of moisture.

1.9. Heating ⁵

If your yacht is equipped with heating (option), please read the operating instructions.



Note

Note: Observe the operating instructions of the heating system and the notes on operation, maintenance and care therein.

Keep the hot air pipes of the heating system free of equipment.



Attention

Attention! Do not obstruct or close the openings. Otherwise there is a risk of fire.

1.10. Liquefied petroleum gas system

1.10.1. Installation

The gas cylinders are stored in the port-side stowage box in the cockpit. The gas system for the cooker is installed in accordance with the European standard EN ISO 10239. Please heed the special regulations of the country under which flag you are sailing!



Warning

Warning!

Never:

- Change the state of the cylinder box.
- Create openings to the inside of the boat from the cylinder box.
- Install electrical systems or conduits in the cylinder box.
- Use the cylinder box as a stowage space.

Any modifications to the concept of the LPG system may only be carried out by a maintenance technician for LPG systems on boats and by the shipyard.

The cylinder box is ventilated outboard. Possible water that has penetrated is drained off through the opening.



Note

Note: Keep the ventilation opening free of blockages. Regularly check the state of the opening!

⁵ According to contract specification

1.10.2. Changing the gas cylinder

Change the gas cylinder as follows:

- First, switch off all gas consumers.
- Switch off the engine and the generator.



Danger: Never smoke or use open fire when changing the cylinder.

- Shut the valve at the cylinder.
- Loosen the pressure reducer at the valve of the cylinder. Only use appropriate tools so that you don't damage the connection and the fitting.
- Detach the empty cylinder from the mounting and take the cylinder from the cylinder box.
- Insert the new cylinder in the mounting.
- Fasten the mounting to the cylinder.
- Check if the connector thread at the cylinder is damaged.



Danger: Cylinders with damaged threads may not be used. There is a danger of leaking gas.

- Carefully place the union nut and screw it hand-tight.
- Screw the union nut tight with an appropriate tool.
- Check whether the connection is tight.



Danger: Never use grease at the cylinder connection or the valves.

1.10.3. Operating the gas system

The gas system must be operated with great care. You should therefore keep to the following sequence:

- Check if the cooker valve is shut.
- Open the valve in the cylinder box.
- Open the valve in front of the cooker. It is inside the cabinet next to the stove.
- Open one of the burner valves, keep it pressed (safety pilot) and ignite the gas.
- Keep the valve pressed until the flame burns stably!

When turning off, keep to the following sequence:

- Shut the valve at the cylinder; the flame extinguishes.
- Then shut the valve in front of the cooker and the burner valve!

1.11. Corrosion protection, painting system

High-quality materials were used to build the boat. They are for the most part corrosion-proof.

Sea climate is very aggressive so that the metallic components may acquire a rust film, especially if rusty metallic parts are nearby. This corrosion is only superficial; it can be removed with the appropriate metal polish.

Please take care that the components and fittings made of aluminium alloys as well as rust-resistant and acid-resistant steels (stainless steel) are not permanently in contact with other metals.

The wooden parts do not require special protection. Section 5 describes how to care for them.

Underwater painting can be applied to the underwater body to prevent the danger posed by incrustation of foreign matter on the hull.

1.12. Manuals and operating instructions

Depending on the contract specifications, manuals, operating instructions etc. can be included.



Warning! Carefully read and comply with the guidelines and notes they contain!

2. Initial Operation

2.1. Transport, craning, slipping

2.1.1. General notes

Transport by water is more preferable than by land.

If your yacht is transported by land, this is considered a special transport because the boat's dimensions exceed the usual transport dimensions on the road and by train.

Make sure that the haulier transports your boat only with a special vehicle designed for boat transport.

It is customary nowadays to lift boats with a crane or other special lifting gear such as a travel lift. If possible, a crosshead should be used so that no forces press the boat together (see also section 2.1.2).

But there is also the possibility of slipping, meaning that the boat is taken from the water by means of a cradle.

During all transport procedures, possible points of abrasion are to be protected.



Attention!

The boat must be secured when it is lifted, possibly with a stern line.
The belts must be secured against sliding.

It is prohibited to stand under hanging loads!

2.1.2. Attachment points for lifting gear, support points for slipping and transport

Craning

In many ports yachts are brought on land by means of a crane and lift fixture. The belts must be attached in a way complying with the stability of the hull and the distribution of weights so that the boat is, as far as possible, in a horizontal position.

The boat may only be lifted with belts and a crosshead dimensioned for the load. The exact positions are shown in the figure “Side view” (with underwater body and ribs). The correct position of the belts should be marked with stickers below the toe rail.



Attention! The rear belt is in the area of the shaft. It may not be attached over the shaft or the propeller!

Slipping

If the yacht is transported to the shore on a slipway, it is recommended to use an appropriate cradle for transport and storage preventing the yacht from tipping over. The yacht may stand on its keel.

If the yacht is to stand on its keel for a longer period of time, the forebody and after-body must be supported to relieve the strain on the structure.

Storage

On principle, the yacht is only to be stored using an appropriate transport and storage cradle. The supports should always be applied plane. A three-point bearing is permitted.

Transport

Transport by land can only be carried out by an appropriate special transporter.

For the most part, the same rules apply as listed under slipping. In addition, the yacht must be supported under the forebody and after-body to relieve the strain on the structure. The yacht must be secured with at least 2 appropriate belts.

2.2. Underwater painting

If the boat has not been provided with an underwater painting by the shipyard or the trader, you should do so or have it done by a specialist firm before the first sea landing. It prolongs the service life of your boat and reduces the travelling resistance.

2.3. Engine, propeller

The boat is delivered with an installed drive system ready for operation. Make sure that the batteries are connected and there is fuel in the tank.

You may only start the engine when the boat is in the water and the seacock is open. Start the engine according to the operating instructions of the drive system.

Check if cooling water is discharged from the exhaust after the engine is started.

To run in the engine, follow the operating instructions. Do not run the engine with too many revs and keep to the oil change intervals.

2.4. Equipment

The boat is provided with essential nautical equipment that renders it ready to travel. Further equipment is generally necessary and sensible for nautical travelling, depending on the respective area of travel.

Equip your boat in compliance with the area of travel.

2.5. First voyage

Before setting off on a “grand voyage”, calmly familiarise yourself with the systems and the drive system, even if this is not your first boat.

You can arrange an instructional trip with your trader.

First, travel by engine propulsion and make yourself familiar with the boat's manoeuvring behaviour using the engine. Pay attention to the propeller efficiency when travelling forward and backward.

2.6. Manoeuvring by engine

Heed the information given in the engine's operating instructions before starting.

- Switch off the main switch.
- Check whether the single-lever control is in neutral.
- Begin the start procedure.
- In case the engine does not ignite, repeat the start procedure after a short pause.
- If the engine does not ignite after 3 attempts, search for the reason.

After the engine ignites and you have checked that all systems, especially the cooling water system, are functioning, you can set off on your first trip. Pay attention to the turning efficiency of the propeller and manoeuvre carefully.

Anchoring should also be part of the training programme.

2.7. Checking the systems

On principle, the boat is delivered in working order, if not otherwise agreed upon. We attempt to convey the necessary knowledge and special features to you when delivering the boat.

Upon initial operation, you should check all systems on board step by step. To do so, use the structure of this manual. You will simultaneously gain knowledge of the arrangement and functioning of the systems.

Perform these checks if the boat hasn't been used for a longer period of time and at the start of the water sports season.

3. Environmental Protection

During the development and manufacturing of our boats, we have taken care that the utilised materials, when used properly, do not harm the environment. There are a number of regulations regarding environmental protection, and we ask you to observe them when using your boat. In the following, we address several special notes on the environmental-friendly use of your boat.

Sailing is a quiet sport. Please handle your boat in a responsible manner and thus make your contribution to not harming nature more than necessary.

Please pay attention to the following sections!

3.1. Fuels and oils

Fuels and oils are an environmental hazard because they pollute, impair and damage nature for a longer period of time.

Handle these substances carefully on board so that nothing goes overboard when tanking, filling or emptying.

Take special care before draining the boat that there is no oil in the bilge water. If this is the case, use special oil absorbers to clean the bilge water or pump the bilge water into special canisters, which you should then properly dispose of on shore.

3.2. Waste

Waste of all sorts must be disposed of according to environmental regulations. For this purpose you should separate the waste on board and dispose of it on shore in the appropriate waste containers provided by the ports.

Reduce the amount of waste, in particular by reducing packaging! Use packaging that can be reduced in volume after use.

Glass packaging does not belong in the water either!

3.3. Sound

Noise is also an environmental burden. We have taken soundproofing measures in constructing our boats that reduce the sound, particularly of the engine, below the legally permissible values. Maintain the sound insulation in the engine room by keeping it clean and not covering it with paint

You should additionally choose engine speeds that keep noise within bearable limits.

3.4. Swell

Reduce speed when driving in narrow waters and in the vicinity of protected coastal zones.

Watch out for speed limits on the water and keep to them.

3.5. Exhaust gases

Exhaust gases are an unavoidable environmental burden. We chose our engines according to the most favourable exhaust emission values. Pay attention to the colour of the exhaust gas as this can be an indication of a faulty adjustment of the engine. A blue or sooty appearance is a sign of serious adjustment errors. Have them repaired!

Do not run the engine as an “auxiliary aggregate” in the port for charging the batteries. Use the shore connection instead.

3.6. Antifouling, painting

The underwater painting is to prevent incrustation of foreign matter on the hull. There are different painting systems. We recommend applying antitoxic antifouling. Consult your trader or a specialist shop on this issue.

When treating, sanding etc. you should place a foil underneath the boat or use an efficient suction device and dispose of the sanding dust according to the manufacturer's instructions. At any rate, consult with the person renting out the berth.

3.7. Varnish removal

Use mechanical methods if possible to remove layers of paint. Don't use varnish or paint removers.

3.8. Black water

The toilet produces most of the black water on board. It is collected in a tank and should be disposed of on shore by sucking it out. When in a port, it makes sense to always use the port's facilities.

Please note that the Baltic Sea Convention, for example, prohibits the discharge of black water tanks. Some countries have adopted regulations prescribing that the board discharge openings be sealed.

3.9. Nature conservancy

Please handle your boat in a responsible way and thus make your contribution to not harming nature more than necessary.

Pay attention to the information on conservation areas, national parks and other protected areas.

Navigate carefully to keep a distance to these areas and not expose yourself to danger in difficult sea territories.

Also be aware of the international treaties on keeping the seas clean.

4. Maintenance

4.1. External inspection

Winter storage is the right opportunity to thoroughly inspect the hull and all supporting components. Should the varnish layer be damaged and the laminate or wood is visible, the painting structure must be built up completely new, starting with grinding the ground, applying filling material and then applying the coat of varnish. For this purpose you can obtain the original packages and targeted advice from your trader.

Information on the entire technical gear can be found either in this manual under the respective topic or in the manufacturer's manuals delivered with the components (appendix to this manual).

4.2. Care and cleaning

The boat should only be cleaned with fresh water if possible. Environmentally compatible cleaning agents suitable for FRP and varnished surfaces may be used for persistent dirt. Do not use any agents containing silicone.

Special agents are offered for further treatment like refurbishing and sealing FRP surfaces. Only use agents suitable for this!

Metallic parts may only be cleaned with metal polish. Please note that aluminium parts are anodised and must not be treated with scratching or polishing agents.

4.3. Rigging and sails

4.3.1. Rigging

Stainless steel fittings that are tarnished or have a rust film should be polished to maintain their good properties.

4.3.2. Sails

Plastic sails are sensitive to UV radiation and should always be covered.

4.4. Painting

Painting is only applied to the underwater body and must be reworked or renewed regularly. It depends on the frequency of use how often this is necessary. If possible, do not alter the painting system if the compatibility of the systems is unknown.

Dispose of the sanding dust according to the manufacturer's instructions.

The varnish inside the boat only needs to be reworked or renewed if damaged. If necessary, contact the trader on this issue.

4.5. Expendable parts and replacements

Should the boat be damaged, only use original parts or components of the same quality if possible. This particularly applies to parts that must resist certain strains, e.g. parts of the rigging, the deck gear etc.

Your trader can help you in this respect.

4.6. Repairs

Repairs at the hull, drive, systems, tanks, and sails should be performed by a specialist firm, because they have the required technical equipment and expertise regarding the way in which a repair can again lead to a fully functioning boat. This is especially the case with structural damages.

Our shipyard will support you and can name specialist firms able to perform expertly repairs.

4.7. Inspection of installations and systems

The reliable functioning of the individual systems is important for safely operating the watercraft. Check the functioning of the installations and systems on a regular basis. For this purpose, use the manual and the enclosed operating instructions.

Appropriate measures must be taken to prevent damages to the fuel conduits.



Attention! Prevent inflammable materials or liquids from coming in contact with hot parts of the engine!



Attention! Equipment that contains petrol may not be stored in areas that are not meant for it!

4.8. Winter storage

Winter storage is the time during which your boat is left unattended for a longer period of time. During this period it must stand securely and should be stored in a place protecting it from the effects of weather.

Please read section 2.1 Transport, craning, slipping.

Dispose of all waste.

Remove all valuables from the boat. Cushions should be stored in dry, airy and frost-free places.

If the boat is covered by a tarpaulin, you should ensure that the air can circulate well underneath it. If possible, keep the ventilation apertures of the boat open.

The tarpaulin should be tied together well so that no abrasions occur on the boat's body and especially the hull.

4.8.1. Hull and deck

If possible, clean your yacht right after it has been taken out of the water. High-pressure cleaning devices can remove all incrustation of foreign matter.

For boats sailing in seawater, keep in mind that salt remnants bind water and lead to quicker corrosion.

The boat should only be cleaned with fresh water if possible. Environmentally compatible cleaning agents suitable for FRP and varnished surfaces may be used for persistent dirt.

Special agents are offered for further treatment such as refurbishing and sealing varnished surfaces. Only use agents suitable for this!

Metallic parts may only be cleaned with metal polish. Please note that aluminium parts are anodised and must not be treated with scratching or polishing agents.

4.8.2. Rigging

Prior to winter storage, rinse the entire rigging and the sails with ample fresh water. In the winter storage the rigging should undergo a thorough visual inspection. This includes, in particular, the running rigging, but also the halyard block, the mast and boom extrusion as well as their bearings. Minor damages can be repaired with little effort when the rigging is down.

Seams and thimbles should be closely examined and repaired if necessary.

4.8.3. Electrical equipment

Contacts must be free of corrosion and firmly connected. Check the connections once a year.

The batteries should be taken from board and stored, well charged, in a dry and frost-free place. If they remain on board, they should be recharged regularly around once a month.

4.8.4. Systems and tanks

Also rinse the black water conduits well. Empty the drinking water and black water tanks and all conduits belonging to them. Open all the conduits and clean the connections properly. Cover the open tanks, conduits and hoses at the ends with gauze or cloth (air: YES, dust: NO).

It is better to fill the diesel tank to reduce condensation. Check whether the conduits are firmly seated.

At the engine, the seawater circuit including the exhaust system are to be emptied of water. If the internal cooling water circuit contains an antifreeze agent for expected low temperatures, it needn't be drained.

5. Rescue equipment

On principle, the watercraft is **not** equipped with rescue equipment. Equip the boat with life jackets corresponding to the number of persons on board. When travelling over the ocean you should have sufficient self-inflatable life rafts on board and ready to work for rescuing several people at once.

The container with the life rafts can be attached to the outer side of the stern pulpit.



Attention!

If you use self-inflatable life rafts or life jackets, keep to the inspection intervals.

Life jackets can be stored in the cockpit's locker seats. If necessary, further rescue equipment should be included on board.

6. Warranty

In case of a warranty claim, turn to your contracting party.

7. Concluding remarks and notes

In the preceding sections we have provided you with some information on using your boat.

You have certainly gained experience with boats yourself. Our information can only serve as a supplement and it does not replace your personal nautical duty to take care as owner or skipper.

As shipyard, we have delivered you a product that, according to the best available technology and in compliance with the European Recreational Craft Directive, is a safe and reliable sailing yacht satisfying the demands arising from its use.

Extreme strains stemming from touching the sea bottom, collisions etc. can, of course, damage the boat.

The owner or skipper is responsible for personal safety equipment and for providing all persons on board with personal life jackets. This also includes the acquisition and maintenance of a life raft, emergency signals, first-aid box, tools, important spare parts, etc.

Since the European Recreational Craft Directive pays special attention to safety and fire protection, you should familiarise your crew with the safety installations and fire extinguishers and how to handle them.

We are constantly working on the further development of our sailing yachts. Please understand that shape, equipment and technology are subject to change. For this reason, no claims can be made from any information, figures or descriptions in this manual.

Should your sailing yacht be provided with equipment details not described in this manual or if no description is included in the owner's manual and operating instructions, your contracting party will inform you of the correct operation and care.

8. List of delivered manuals, plans and operating instructions

See delivery notes

Proof of Identity

(to be filled out by the trader or contracting party)

1. First sea landing:
2. Date (delivery to the owner):
3. Boat type:
4. Hull and/or construction no.:
5. Contract number:
6. Name of the yacht:
7. Engine (make and type):
8. Engine number:
9. Drive (make, type, gear reduction):
10. Propeller (make, type, dimensions):
11. Trader, representative (name, address):
12.
13.
14. Signature/stamp of trader:

All readings in this skipper's manual base upon information of the shipyard and it's technical graphs. The author assumes no liability for false specifications or changes in systems and equipments.

- Leerseite -

Please sign and send back to:

Trader's address:

Acknowledgement of Receipt

Name:

Address:
.....

Owner of the sailing yacht "Hanse 370" with the HIN _____

This watercraft receives the warranties that were handed over with the vehicle.

This warranty commences on.....(date)

Signature:.....

Information for the trader:

Please send this acknowledgement of receipt

to:

Hanse Yachts GmbH & Co. KG

After Sales Department

Salinenstrasse 22

D-17489 Greifswald, Germany

