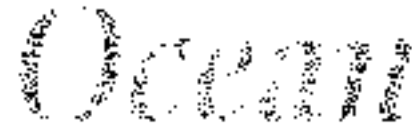
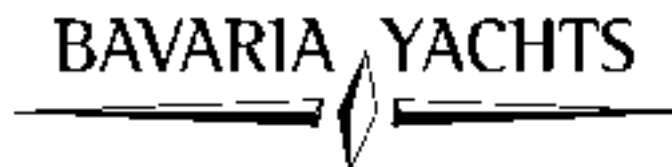


# BAVARIA 42



## Sailing Yacht Manual:

<b>Model</b>	Bavaria 42 Ocean
<b>Layout category</b>	ocean
<b>Ship's name</b>	
<b>Owner</b>	
<b>Home port</b>	



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## **I INTRODUCTION**

**BAVARIA YACHTBAU** would like to welcome you as a new **BAVARIA** owner and thank you for the trust you have shown in our products by purchasing this yacht.

This manual was written to enable you to sail your watercraft safely and get the most enjoyment out of it. Apart from details about the watercraft itself, its equipment and accessories, included or attached, this manual also contains information on operation and upkeep. Please read it carefully and familiarize yourself with everything before you set sail in your watercraft.

If this is your first watercraft, or if you have changed to a new type with which you are less familiar, then please be sure to acquaint yourself thoroughly with how to handle and operate the watercraft before taking command - for your own safety and comfort. Your dealer, the national sailing or motorboat association or yacht club will be glad to inform you of local yachting schools or experienced instructors.

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

1. Your sailing yacht is a product which was manufactured using the most recent technical findings and technologies in conjunction with many years of experience by extraordinarily well-qualified and motivated employees.  
The finished yacht is given a series building certificate which guarantees series-building supervision based on the most recent effective classification and building regulations in conformance with symbol of classification 100 A 5.
2. To ensure the serviceability and utility potential of your yacht, please ask your signatory or the dealer selling our products for the check list included with each one of our ships be filled out at the time of purchase and signed by the dealer (signatory) and owner, and returned to us right after the purchase is completed.

Otherwise, it will be difficult for us to process any complaints which may arise and assume responsibility for warranties, and any claims to justified warranty claims will no longer apply.

Please understand that only in this case can speedy processing of warranty claims be ensured.

3. In the certificate of identity also included with each of our products, the most important data on your yacht are found, such as the works number, serial number, details on installed diesel engine, etc.
4. Please ask your signatory to fill out and return to us all the warranty certificates for pieces of equipment not manufactured by Bavaria included with our product - for example, engine, instruments, pumps - to the manufacturer indicated.

The warranty certificates are found in the owner's folder with all other documents.

5. Our development department is constantly working on improving our products, and any suggestions or wishes our customers may express can be incorporated. This allows us to keep our ships up to the state of the art and modern construction methods at all times.
6. The representatives selling our products will be glad to answer any questions you may have concerning utilization, warranty, improvements, extra equipment, innovations, etc.

Do not lay this manual down unread. You will discover that it contains a great deal of important information. It makes it easier to operate the yacht and to understand how the installed equipment functions.

Your signatory and the management and employees of **BAVARIA YACHTBAU GmbH** wish you lots of fun with your new sailing yacht.

*So clear sailing, and may you always have a span of water under your keel.*

BAVARIA YACHTBAU GmbH  
- Management -

W. Herrmann

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### **Enclosures**

The following documents and keys can be found in the handy owner's folder included with this manual:

1. Brochure, series-building description, price list
2. Check list
3. Confirmation of handing-over (including manual)
4. Instructions for use and manuals for the installed products of other manufacturers:
  - Installed diesel engine
  - Navigational instruments
  - Rigging
  - Water pumps, pump lavatory
  - Automatic pilot (optional)
  - Windlass (optional)
  - GPS (optional)
  - Hot-air heating (optional)
  - Battery charging apparatus (optional)
  - Refrigeration unit (optional)
  - miscellaneous
5. Key to plug bulkhead
6. Key to engine (if designated)
7. GL certificate (if ordered)

### **III PERMITS, CERTIFICATES, IDENTIFICATION**

On June 16, 1994, the guideline of the European Union concerning sport boats with a minimum length of 2.5 m and a maximum length of 24.00 m was adopted. This means that all sport boats in the EU will have to be built, subjected to an acceptance test and provided with a CE mark following specific rules beginning in mid-1996 when they are brought to market, insofar as they do not fall under the transitional provisions.

The BAVARIA 42 Ocean is built in conformance with Design Category A, "High Seas" (Aa module). This design category requires the yacht to be suited to extensive cruises with wind velocities of more than 8 (Beaufort scale) and significant wave heights above 4 meters and which allow this yacht to prevail largely under its own power.


This also means that the manufacturer itself certifies the agreement of construction and equipment with the guideline but that stability and freeboard, as well as buoyancy and flotation, was inspected by an authorized inspection agency.

Each yacht is provided with a works number. This hull code is imprinted on the starboard edge of the transom below the deck.

The works number of your sailing yacht is:

A second works number (specification plate) is laminated into a hidden place in the boat known only to the manufacturer.

**Bavaria Yachtbau GmbH**  
**97232 Giebelstadt**  
**Germany**

<b>Hersteller:</b>		
<b>Kennzeichnung:</b>	CE 0098	<b>1.)</b>
<b>Kategorie:</b>	A	<b>2.)</b>
<b>Höchstlast:</b>	_____ kg	<b>3.)</b>
<b>zul. Personen:</b>	_____ Pers.	<b>4.)</b>

The manufacturer's nameplate is laminated into the starboard locker seat toward the wall toward the cockpit.

The data mentioned above are prescribed in conformance with the guideline and are explained as follows:

#### **Explanations of the information required in the guideline:**

1. CE mark as proof that the boat has been built according to the requirements of the guideline. The sequence of the digits is the identification number of the certifying agency, in this case, the German Lloyd (please refer to the Declaration of Conformity)
2. Design category A, high seas
3. These weight data include: fuel, water, provisions, personal equipment and persons.
4. Maximum number of persons recommended by manufacturer when the boat is in sea waters corresponding to its design category.

German Lloyd, Vorsetzen 32, 20459 Hamburg, Germany, under the management of Mr. Dirk Brügge, Certified Engineer, was appointed to be the "Notified Body" for the certification within the scope of the new guideline, 94/25/EC, and undertakes the required inspection and testing as the basis for the CE mark. This permit was awarded by the Zentralstelle der Länder für Sicherheitstechnik (ZLS).

**IV CERTIFICATE OF IDENTITY:**

(to be filled out by the dealer or signatory)

1. Initial touching down on water:  
.....
2. Date of delivery to owner:  
.....
3. Owner's name:  
.....
4. Owner's address:  
.....
5. Owner's telephone number:  
.....
6. Model:  
.....
7. Hull or works number.:.  
.....
8. Serial number:  
.....
9. Name of the yacht:  
.....
10. Make and model of engine:  
.....
11. Engine number:  
.....
12. Gears: / Make, model, gearing:  
.....
13. Propeller: / Make, model, dimensions:  
.....
14. Dealer, agent:  
.....
15. Dealer's address/telephone:  
.....
16. Owner's signature:  
.....
17. Dealer's stamp/signature :  
.....

-

## V TECHNICAL DESCRIPTION OF THE SAILING YACHT

Overall length:		12.98 m
Length of hull:		12.85 m
Length of waterline:		11.15 m
Width:		3.98 m
Dead weight:		approx. 10,200 kg
Ballast:		approx. 3600 kg
Draft, normal keel:		approx.. 1.95 m
Draft, flat plate keel:		approx. 1.65 m
Sail area:	Standard mainsail	
	Full battened mainsail	approx. 46.50 sqm (only with exclusive package)
	Furling mainsail	approx. 41.50 sqm
	Furling genoa	approx. 55.50 sqm

Height above waterline (O.K. mast): 18.34 meters

max. permissible engine power:	please refer to standard machine
Electrical equipment:	direct current 12 V
Installed diesel engine:	Perkins-Volvo MD 22 43.6 kW/59 hp
Propeller:	three-bladed, fixed pitch, 17 x 12 LH
Engine circuit:	one battery 55 Ah
Shipboard circuit:	one battery 135 Ah

### Tank capacities:

- Fuel:	approx. 230 liters.
- Fresh water, astern	approx. 230 liters.
- Fresh water, fore ship	approx. 150 liters.
- Sewage tank (optional)	approx. 60 liters.
- Gas bottle container:	
- intended for a three-kilogram bottle (butane) -	

Gel coat:	white:	RAL 9016
	ocean blue:	RAL 5010



Design category: A - „High Seas“

Module: B + F

Maximum permissible load: 3,000 kg  
Number of persons: 9 persons

- Please refer as well to the brochure and the series-building description -

During crane operations, the straps must be adapted to circumstances pertaining on the crane cross-pieces. Attention must be paid to preventing damage to the Saildrive, the rudder and the instrument transmitter on the hull.

If you should use the same crane often, we recommend marking the position of the straps with the enclosed decals (Navitisch) below the foot rail.

**VI LIST OF PLANS** - please refer to appendix -

1. Deck plan with equipment and legend
2. Deck plan with running rigging and legend
3. Mast and sail plan
4. General equipment
5. Waste water installation
6. Fresh water installation
7. Engine installation
8. Gas installation
9. Electric installation
10. Electric circuit diagram
11. Circuit diagram, panel, Calira
12. Rudder layout
13. Design, horizontal plan
14. Design, longitudinal section with keel and rudder
15. Openings in the hull

## **VII STANDARDS AND REFERENCES EMPLOYED**

### **1. EN standards**

Hull identification	EN ISO 10087
Rope pull control	EN 28847
Owner's manual	EN ISO 10240
Fuel hoses, fireproof	EN ISO 7840

### **2. ISO standards (some still in preparation)**

Manufacturer's nameplate	ISO/WD 14945
Openings, hatchways, portholes	ISO/DIS 12216
Cockpit, cockpit drain	ISO/CD 11812
Gravity drainage systems	ISO/WD 15083
Anchors, mooring lines, towing gear	ISO/WD 15084
Fuel system	ISO/CD 10088
Direct current system	ISO 10133
Alternating current system	ISO 13297
Liquid gas system	ISO/DIS 102392
Fire protection	ISO/DIS 9094-1.2
Sludge tanks and hoses	DIN EN ISO 8099
Prefabricated fuel tanks	ISO 10088
Prefabricated hatchways and portholes	ISO/DIS 12216
Electrical navigation lights	ISO/TG 188 N 361
Sea valves, Openings in the hull	DIN EN ISO 9093-1

### **3. Other technical regulations**

- Classification and building regulations of  
German Lloyd, I Marine Technology, Part 3  
Water sports boats
  
- G 608, Technical Regulations for Liquid Gas Systems  
on Water Sports Boats (DVGW)
- Appendix I to Guideline 94/25/EC

## **Symbols and notices on board your BAVARIA 42 OCEAN**

### **Explanation: Attention**

**refers to a reminder of safety precautions or draws attention to operations which can be unsafe and cause personal injuries or damage to the boat or components.**

### **Warning**

**means that a source of danger is present which can cause injuries or even death if appropriate precautions are not taken.**

### **Danger**

**means that a source of genuine, extreme danger is present which is highly probable to cause death or irreparable injuries if appropriate precautions are not taken.**

- |   |             |
|---|-------------|
| 1. on bulkhead toward rudder mechanism in the aft port and starboard cabins   | (Warning)   |
| 2. on AK bulkhead beneath transom bulkhead toward mess room beneath transom (fore ship)   | (Warning)   |
| 3. on cooking stove cover (when open)   | (Danger)    |
| 4. in the aft starboard cabin on front edge of bed  | (Attention) |
| 5. notice of next inspection of liquid gas system<br>- glued to cooking stove cover -   | (Attention) |
| 6. identification of filler neck, fuel ( diesel)  | (Attention) |
| 7. notice of attachment points for straps during craning operations<br>Position: two marks on each side beneath foot rail.<br>(if attached) - please refer to instructions on Page 10 - | (Attention) |
| 8. notice in gas box  | (Danger)    |
| 9. notice of gas shutoff cock in cabinet (on cabinet door)  | (Attention) |

1.

**WARNUNG**

Unsachgemäß gestaute Gegenstände  
können die Ruderanlage blockieren!

**WARNING**

Improper stowed objects  
can block the rudder system!

2.

**WC- und Ausgußventile  
sind nach Gebrauch  
zu schließen!**

**WC and drain valves  
have to be closed  
after using!**

3.

**Bei Betrieb des Herdes  
müssen verschließbare Lüfter  
und Luken offen sein.**

**Der Herd darf nicht als  
Raumheizung benutzt werden.**

**While the stove works lockable  
ventilators and hatches  
have to be open.**

**Don't use the stove for heating.**

4.

**Brennstofftank  
Notabsperung  
Fuel Tank  
Urgency Cutoff**

5.



6.



7.

**Gurt/Belt**



8.

**ACHTUNG!**  
Gasabstellhahn  
im Schrank

9.

**Rauchen und offenes  
Feuer verboten.  
Explosionsgefahr!**  
**No smoking,  
no open fire.  
Danger of Explosion!**

## **VII ASPECTS OF ENVIRONMENTAL PROTECTION**

Terms such as ozone hole, CO<sub>2</sub> and NO<sub>x</sub> emissions, as well as the rise of both the temperature and sea level, have been served up to us now for quite some time in a new context. Other topics of discussion also include burning fossil fuels and the increasing loss of rain forests, our planet's "green lungs".

**BAVARIA YACHTBAU** already took the currently effective exhaust regulations into account when selecting the installed diesel engine. An Exhaust Gas Type Verification and Test Certificate can be supplied at a later time upon request.

Especially in the vicinity of a port, care must be taken to ensure that the yacht is moved responsibly in order to avoid excessive noise and swells. The waste accumulating in the course of sea travel must be collected and brought to the containers provided for this purpose at the next port.

In the event of oil and fuel leaks which cannot be cleaned up by the usual means on board, it is absolutely necessary to call in a qualified professional. Liquid which has leaked out must be collected in a container and left for disposal in port. Moreover, cleaning agents and similar substances must not be drained off into the water. Substances of this type should be used only on land.

### **The Ten Golden Rules for water sports enthusiasts**

1. Avoid sailing into reed banks or other obscure, overgrown areas along the shore. In addition, keep away from gravel, sand and mud banks (resting places for birds) and stands of trees along the shore. Avoid shallow waters (spawning grounds), especially in the presence of water plants.
2. Keep a sufficient distance from reed banks and other obscure, overgrown areas along the shore, as well as stands of trees on the shore - for example, 30 to 50 meters on wide rivers.
3. Be sure to adhere to the effective regulations in nature protection areas. Water sports are often prohibited in nature protection areas all through the year, at certain times or only allowed under certain conditions.
4. When engaging in water sports in "internationally significant wetlands", be sure to be especially considerate. These areas serve as habitats for rare species of animals and plants and are hence especially deserving of protection.
5. When docking, use the places intended for this purpose or such places at which it is obvious that no damage can be done.
6. Do not get too close to reed banks or other thick shoreline vegetation from land, either, since entering these habitats could endanger birds, fish, small animals and plants.
7. Only observe or photograph animals from a distance.
8. Do not make a run at resting seals, since this can disturb the animals or drive them away. Stay at least 300 to 500 meters away from places where seals or birds gather and even then, stay close to the marked waterways. In such places, always sail at a low speed.
9. Help to keep the water clean. Waste does not belong in the water, especially the contents of chemical toilets. This waste must be disposed of at collecting points in port, just as used oil. While in port, use the sanitary facilities on land only. When your boat is laid up, do not let the engine run unnecessarily, since this pollutes the environment with noise and exhaust gases.
10. Before setting sail, familiarize yourself with these rules and those effective in the areas in which you intend to travel. Be sure to pass on this knowledge and your own exemplary behavior in regard to the environment to young people and especially to unorganized devotees of water sports.



## **IX DELIVERY**

The first tasks to be performed once the yacht has reached its destination by truck entail various preparations necessary for launching, rigging up and putting into service. This work can only be successfully performed when a competent and experienced person is on hand. Hence we recommend leaving this work to your **BAVARIA** dealer or hiring a professional team. However, there are definitely tasks which you as owner can attend to. This will turn out all the better if you follow the instructions in this manual:

### **1. Unloading off the truck**

Unloading or transferring to a suitable base (sawhorse) is usually done in larger yacht harbors or marinas. A traveling crane and service staff are often available at these places. If you use a mobile crane or the usual harbor crane, we will give you some recommendations on safe unloading in the following:

- use only the crane straps to lift the ship
- check the condition and bearing capacity of the straps
- rig the straps and ropes in such a way that the boat hangs horizontally, fend off the straps.
- these must be connected to one another by means of tackle or ropes to prevent the straps from slipping.
- pay close attention to the rails and stanchions of the railing, if these should already be mounted and run crosswise to the direction in which the straps are pulled.
- if the direction of the straps runs tightly around the foot rail upward and inward, then wooden blocks are required under the straps beneath the railing strip to protect the foot rail.
- check whether the transmitters for the speedometer and the depth gauge are inserted in their case and do not protrude from the boat's hull.
- the ship should stand firmly on its keel and be straight in longitudinal and transverse directions and, in addition, be supported with four wooden blocks, blocks of timber or steel supports.
- the area of the respective pads should be at least 25 x 25 cm and have a soft surface to prevent scratches in the gel coat.

### **2. Inspection of the yacht to ensure that nothing is missing**

At this juncture, you should make use of the series-building description or the order confirmation of your signatory.

### **3. Underwater coat of paint**

It is urgently advised that you give the yacht a coat of anti-vegetative paint below the water line, since otherwise barnacles will soon reduce the yacht's sailing performance enormously. A coat of paint containing epoxy resin is beneficial, although not absolutely necessary.

Anti-fouling paint not supplied by the shipbuilder must be applied following the recommendation of the respective manufacturer.

If the anti-fouling coat must be ground or sanded, arrange this with your storing company. During grinding or sanding, the surface beneath the boat must always be covered with sheeting to collect the special waste generated in the form of sanding dust.

#### 4. Mast and rigging

Makeup of the rigging:

The mast included in the standard equipment is a 9/10 sport rig with two pairs of crosstrees with sweep astern. The crosstrees are bearing and the permanent backstay with gearing serves to create the mast bend and as an additional safety feature.

#### **Sport rig**

Standing rigging

made of 1 x 19 braid, material 4401, contains:

forestay with excessive footage	1 x
lower shroud	2 x
upper shroud	2 x
intermediate shroud	2
permanent backstay with strainers	1 x

running rigging

drawn into mast:

- main halyard
- genoa halyard
- lift
- in addition, three weighing lines

optional spinnaker equipment:

- spinnaker halyard (included)
- spinnaker boom uphaul
- spinnaker boom downhaul

drawn into main boom:

two reef lacings

one foot jig

#### **Optional: exclusive package**

contains: Spinnaker elevator system  
 rod kick with gas pressure spring  
 (lift no longer necessary)  
 slide system for full battened mainsail

**Optional: Furlin rig**

with two pairs of crosstrees with sweep astern

Standing rigging

made of 1 x 19 braid, material 4401, contains:

forestay with excessive length	1 x
lower shroud	2 x
upper shroud	2 x
intermediate shroud	2 x
permanent backstay with strainer	1 x

running rigging:

drawn into mast:

- main halyard
- genoa halyard
- in addition, three weighing lines

optional spinnaker equipment:

- spinnaker halyard (included)
- spinnaker boom uphaul
- spinnaker boom downhaul

drawn into main boom: outhaul line

**Optional exclusive package**

contains: spinnaker elevator system

- Rod kick with gas pressure spring  
(lift no longer necessary)
- Anti-vibration strips

*We would also like to draw your attention to the manufacturer's trimming instructions enclosed.*

## 5. Preparation and rigging out the mast

- the mast should stand on wooden or soft-covered supports at working height.
- the supports for the instruments which are mounted after the mast has been rigged out (wind measuring system, VHF antenna) are fastened.
- pull the cables for the antennas, VHF or wind measuring system through. (in the event of ordering in the shipyard, cables are drawn in)
- devices or instruments which are permanently mounted (that is, cannot be dismantled) must be protected against being damaged while the mast is rigged out.

### Mounting the crosstrees:

- fasten the crosstrees to the fittings provided for this purpose on the mast.
- tape the bolts and their safeguards with reinforced tape to prevent damage to the lifting sail (especially the spinnaker).

### Mounting the standing rigging:

- unpack the wires and sort them in advance.  
please be sure that the rope retainers do not drag across the hard ground and suffer scratches or even damaged threads. The best thing to do is to protect these beforehand by winding tape around them.
- grease the threads in the rope retainers.
- fasten the separate wires to the appropriate positions on the mast.
- give the upper shrouds a moderate amount of tension (roughly ½ thread) pay attention to symmetry and make sure it is secure. In doing so, the crosstrees should retain the angle intended by their anchoring on the mast, i.e., they should not be pressed upward or downward.
- the headsail reef system is mounted according to the manufacturer's instructions found in the box.
- following the mounting process, the system is fastened and secured to the mast.
- the shrouds should be secured on the mast to lift the rigging so that they do not flap around and pose a danger to the Eloxal.

## 6. Preparation engine, propeller

- check oil level in engine and gears. If necessary, refill.
- inspect the propeller screw for strength and security.

## 7. Launching

In the event that the guardrail was not mounted at the shipyard:

- mount and secure bow pulpit.
- insert the rail stanchion in the rail stanchion pillar heels and secure.  
insert all the rails through the rail stanchions with the respective rope retainer astern.
- mount cross-wires. (stern pulpit)
- close all valves leading outside the ship.
- insert the transmitters for log and depth gauge.
- fasten the fenders to the railing.
- prepare the mooring lines.
- during launch with a traveling crane, follow the instructions of the operating staff.  
If you use a crane or a mobile crane, we ask you to be sure to observe the same points as when unloading from a truck (please refer to page 18)

### The following is also important:

- the movements of the ship swinging freely in the air must be controlled by means of two lines (one fastened to the stern and one to the bow).
- during crane operations, no person may be on deck or in the ship.

### - **ATTENTION:**

*never linger beneath the suspended load.*

As soon as the ship is afloat for the first time, you should take a few precautions before removing the straps:

- open all sea valves and check that they do not leak.
- check the transmitters of the boat tachometer and the echo sounder in the fore ship for leaks.
- open the cooling water valve for the engine.
- start the engine and check whether cooling water leaks out. (aft port)
- test the mechanical system and the working order of the switch lever for the installed diesel engine.
- check the rudder's mechanical system and the lower rudder bearing for leaks.

## 8. Running rigging

makeup, except for the halyards, which have already been inserted in the mast:

Standard:

- main sheet 1 x
- genoa sheet 2 x
- genoa reef line

optional spinnaker equipment:

- spinnaker boom downhaul 1 x
- spinnaker halyard
- lift

- please refer to the drawing of the deck in which the positions of the various lines are numbered.
- (by J& J Design) -

## 9. Sails

### **Mainsail:**

#### Furlin

- bend to shroud and carefully insert into the groove of the furling system.
- one person slowly pulls on the shroud over the halyard winch on the superstructure, the second person makes sure that the insertion into the groove is without wrinkles.
- as soon as the sail is fully hoisted, the sail tack is attached to the fitting (gooseneck fitting) provided for this purpose on the mast and then the shroud is again set up.
- insert roll-out line on the back end of the main boom and furl up the sail by means of the furling line which is not yet continuous.
- splicing the roll-up line: (please refer to instructions in owner's folder)

### **Furling genoa:**

- the reef line should already be rolled up into the drum.
- insert the luff through the feeder which is connected to the upper fitting of the furling system.
- attach the genoa halyard.
- pull the genoa slowly up by means of the halyard winch. Attach the pulled up reaching jib to the bottom and sweat up the halyard once again.
- attach the genoa sheets by means of a bowline hitch to the sail and slowly furl in the reaching jib without creating wrinkles. Run the sheets through the sledges to the winches.

In the event of nonconforming technical equipment, we refer to our technical descriptions or plans, respectively.

## 10. Before putting out to sea for the first time

- a) deck equipment and running rigging
- b) mast and standing rigging
- c) engine and drive



**Recommendation:**

If possible, the first trial cruise should be taken with the signatory/seller of your yacht (please refer to the handing-over checklist). By the same token, the dealer or signatory should break in the engine. The engine is an essential and occasionally lifesaving piece of your sailing yacht's equipment:

- it is an untiring workhouse
- indispensable for harbor maneuvers
- it gives off heat
- it lets you reach a port during a calm
- it is a trustworthy helper at need

for these reasons, the engine should be cared for regularly and conscientiously and kept up. (please refer to the manufacturer's operating instructions)

**Diesel tank and filling:**

- do not leave the tank permanently empty, since otherwise too much condensed water can collect.
- the tank is under the berth on the starboard side and is equipped with transmitters for tank level indicator and dummy plugs for connecting a heating unit.
- moisten the surface of the deck around the filler neck or lay a cloth around the filler neck before tanking up. In this way, you will not have to clean up so much spilled diesel fuel.
- fill by way of the starboard filler neck (red screwed joints and symbol: please refer to page 15) on the transom of the yacht. To do so, open up and turn up the mechanism worked into the deck joint. The filling should be done carefully and under constant observation to prevent an overflow of fuel.
- your tank has a safety valve (please refer to installation engine) with which you can shut off the supply of diesel fuel in the event of danger from fire. Check and note the position.
  - on the bulkhead of the bed in the aft cabin on the starboard side -
- if any fuel should splatter onto the deck it must be cleaned off immediately and disposed of in such a manner as not to pollute the environment.
- before starting the engine, check the oil level and the tension of the V-belt on the dynamo.
- your engine has a Saildrive drive. It causes no problems and saves you worrying about a leaking shaft. The cooling water is brought in through the foot of the Saildrive.

- to change the oil in the engine, a suction pump must be used (not included with standard equipment), since draining as with a car is not possible. The frequency of the oil change is described in the manufacturer's user manual included.

A well kept engine should never leak. To keep even small amounts of oil out of the bilge, where it could get into the bilge water, the engine base is designed in the form of an enclosed tub. If water should collect there which is possibly contaminated with traces of oil, it must be filled in a separate container and disposed of together with used oil. In any case, there should be an oil binding agent on board.

### **ATTENTION**

It is only possible to run the engine and heating unit without difficulties when the fuel is clean. Therefore, the filter/water separator must be regularly inspected and cleaned.

Once each year, the diesel tank should be fully emptied and cleaned.

### **WARNING**

to fill the tank:           - switch off/stop engine, heating unit and hot plate

during filling:           - never smoke  
                              - never handle an open flame

### **Starting up the engine:**

- close the circuit at the main switch.
- give some gas at the engine lever and check while doing so whether the gearshift and drive are in neutral.
- close the circuit to the engine panel with the key or push button.
- after a few seconds, press the start button on the engine panel.
- if the engine does not start up, turn no longer than ten seconds. Wait for 30 seconds and try again to start it.
- do not let the engine run too fast.
- check whether the control lamps light up.
- check whether the cooling water circulation system is in working order.
- while the engine is running, the electric circuits at the main switch may not be disconnected, since this could pose a danger of damage to the dynamo.

## 11. Maneuvers using the engine

- before starting, check whether there are any lines, chains or other ropes in the water in the area of your maneuvers which could easily get caught in the propeller.
- likewise, check whether the ship is not connected to the 220-volt land cable.
- discover if there is a potential undertow and in which direction, the same applies to the wind force.
- do not set sail before you have left the harbor and have gained enough room.
- please remember that you always need a certain speed to steer the boat and therefore need sufficient room in this direction.
- find a quiet, sheltered place where you can learn to estimate and control the operating procedures governing your yacht's maneuverability.
- observe the turning circle which you attain using the engine for running forward and backward.

In doing so, you will ascertain in which direction the sailing yacht is pushed during acceleration.

You will have to use this propeller action often when maneuvering alongside and casting off ("wheel effect").

- determine the distance needed to stop the boat at various speeds. Take a buoy as your target and set your course by it.

The gearshift will not enjoy being shifted directly from forward to reverse, so have a heart and go easy on your gearshift. Explain this to the members of your family and your sailing companions.

- sail with the engine in reverse and observe the movements of the rudder and the forces which act on the rudder. The rudder has a limit on both sides. However, it is still important never to let the rudder out of your hand when sailing with the motor. Accustom yourself to keeping the wheel firmly in your hand.
- for longer cruises using the engine, we recommend reducing the engine output to between 20 % and 80 % of the maximum speed.

### Stopping the engine:

- throttle the engine down to idle speed.
- activate the engine shutdown pull.
- alarms will sound.
- switch off the supply of electric current by means of the engine switch.

*We would also like to draw your attention to the enclosed manufacturer's description.*

## 12. The first attempts at sailing

The steps described below with respect to the first attempts at sailing are just as important as well-coordinated seamanship will be later.

### Before every cruise:

- check wires, ropes, rigging screws and split pins
- secure the split pins by means of adhesive tape or by bending them.
- replace deformed or damaged bolts.

### For the first "trial run", the ideal weather conditions should be as follows:

- actual wind velocity 5 to 15 knots, calm without a rough sea.
- engine maneuvers as described in the "Engine" chapter
- unfurling of the mainsail and the genoa.

In order to stretch the canvas slowly, the first tacking should not take place in a strong wind. When the sails furl out, you should use the engine to move your **BAVARIA** slowly with the wind. Drop off slowly, let the ship gather speed and switch the engine off.

If you do not have a mainsail that can be furled, the mainsail is sufficiently stretched when the creases in the vicinity of the mast disappear. Too much tension in the halyard can be detected by the fact that creases form roughly parallel to the mast. If pockets remain standing between the individual mast track slides, then the halyard is too loose.

You can make similar observations along the main boom and thus attain the proper extension of the outhaul. Now all that is left to do is to trim the sheets and the main boom downhaul, taking account of the current wind force.

When the genoa which has already been furled on the profiled luff stay is unfurled, only the lying stopper through which the furling reefing line runs is opened. The sail is unfurled by pulling the genoa sheet. In doing so, consideration must be taken to see to it that the foresail furls easier when you point off from the wind slightly (about 10 degrees).

The same applies on deck: here, all lines, chains, anchors, fenders and other pieces of equipment must be stowed so as to be in working order, safe and ready to hand. Later, every second may be important.

Among other things, good seamanship also includes adapting the sail area to the wind force at the right time and in the right way, i.e., reefing. Do not wait until the last minute, even though the furling systems usually available enable fast and easy reefing. A good measure of when reefing is necessary is the foot rail. If this skims over the surface of the water not only occasionally, during gusts, but constantly, the time is right to reef. During stepless reefing, the heel should not amount to more than twenty degrees. Then the water will come up to approx. 25 cm under freeboard.

During the running course, you will get help deciding when to reef from the anemometer display with the values you have gained from experience. You can only discover how long you can keep the ship on course in a rough sea by trial and error. The wind velocity up to which the ship remains capable of being steered depends strongly on the waves and the direction of the waves and the wind. By the same token, only sufficient experience and sails of differing proportions will enable you to discover the optimum coordination between mainsail area and furling genoa for the prevailing conditions.

### **Standard mainsail**

In inclement weather, the reef lines should be tied in the sail and the remaining lines laid ready, stowed and cleared away in an orderly manner on deck.

- sail close-hauled.
- give a pull to the lift, tip: mark the spot on the lift in front of the stopper with which the main boom is held at a height favorable to reefing.
- slacken the boom downhaul.
- slacken the main sheet.
- let a member of the crew work the halyard and another sailing companion the reef line.
- the halyard should be slackened until the mainsail comes down to the first row of reefs. At the same time, the reef line on the winch should be sweated up until the reef points on the sail are hauled tight toward the main boom. The Selden reef system is called „single line-slab reefing“, which means that one line simultaneously pulls the luff and the leech downward.
- after the mainsail is reefed, the reef earings should be tied in and the reefing eyelet on the luff hung on the hook provided for this purpose.
- slacken the lift.
- extend the main boom downhaul appropriately for the course.

### **Reefing**

Before we discuss the subject of "reefing", we would like to draw your attention to how important it is to check the ship before setting out in inclement weather, or even if bad weather is forecast, to make sure that it is seaworthy.

This means: tidying up in the ship, all objects stowed well and securely, and at the same time, preventing them from coming loose and endangering crew and equipment.

### **Furling mainsail**

- here, the outhaul line should be slackened and at the same time pulled on the continuous line over the winch. The mainsail furls into the mast. Observe whether creases form in the sail and whether the furling process proceeds without great resistance. If the continuous line should stall, it can also be reefed directly to the mast by means of the winch crank (please refer to description by Selden.)

### **Furling genoa**

- furling is done by pulling on the furling line. This is easy to accomplish manually in a light breeze, but later you will have to put the furling line on the winch.
- furling goes better if there is plenty of tension in the headstay. So use the power tackle to set up the backstay before furling.
- before the reefing process, the sheet should be slackened slightly and, immediately after furling up, the sheet carriage should be pulled forward accordingly. The angle of the sheet to the sail should point roughly to the upper third.
- ***important:*** during reefing operations, never use too much force. The line can break, making it impossible to continue furling.
- **if it does not pull smoothly:**
  - check whether the line in the drum runs properly and is not coiled over each other.
  - take a look at the mast to see whether a free halyard was not furled up with it.

*We would also like to draw your attention to the enclosed manufacturer's description.*

## **X UTILIZATION OF THE YACHT**

### **1. Mast and tackle**

### **2. Sails**

### **3. Deck fittings**

Deck equipment and fitting in the appropriate dimensions were chosen to facilitate maneuvering. However, the forces which act on these fittings can be reduced or kept within reasonable limits by following these suggestions:

- the mainsail should never be pulled up or furled under full wind load.
- if possible, keep the mainsail from flapping.
- when turning, let a member of the crew shift the mainsail before the full wind load impinges on the sail
- before loosening the stoppers, always rove the line in the stopper at the winch somewhat. This will make it easier to open the stoppers and reduce wear and tear on the lines.
- before you start winching operations, always throw at least two or three hitches of the lines or sheets around the winch drum.

### **Tip:**

Anti-piling winches can injure fingers.

### **Hence:**

Be careful and explain this attentively to inexperienced crew members and especially children, using examples.

### **4. Windlass**

When the electric windlass is operated, the installed diesel engine should always run at low speed as well. Likewise, you will help the winch by motoring slowly in the direction of pull of the anchor chain. This will save the batteries and keep them from running empty too soon and possibly causing damage. Moreover, you are then able to maneuver as soon as the anchor lifts off the sea floor. (please refer as well to the manufacturer's description)

## 5. Rudder system and rudder

The steering wheel has a brake built into it which you can secure by turning. Important: do not forget to check frequently to ensure that the brake is not on. This is especially important when sailing by automatic pilot. Otherwise, the electric motor will be put under needless strain.

When steering by hand with a small crew, you will learn to make use of the help offered by this brake to keep the ship on course for short periods of time. When the ship is in port, the brake should remain on to prevent the waves from turning the rudder blade back and forth, which is annoying.

The base of the rudder system is integrated into the design of the deck. The case with the hub of the trick wheel is set on top of the base. A chain is laid over one gear of the hub. The two rope pulls run from the quadrant tiller over the guide roller to the chain ends where they cross and are fastened with double rope clips and protected by shrink-wrap.

One rope retainer each for both rope ends is attached on the rudder quadrant. It is advisable to check this rope often and tighten it when necessary.

The rudder bearing employed by **BAVARIA YACHTBAU** is a self-aligning bearing. Rudder bearings are parts which are always subject to wear and tear and must be inspected and maintained at regular intervals.

Changing the bushings is effected by dismantling the rudder blade

- loosening of the lock nut (on top of the emergency tiller shaft)
- loosening of the rudder quadrant(s)
- pulling off of the rudder blade
- set rudder bushing vertically in the bearing and press out

Emergency tiller

The emergency tiller is in the starboard locker seat.

If the rudder system should break down, the steering wheel, the rudder quadrant for the rope pull control and the quadrant for the self-steering systems (optional) must be removed.

The rudder cover must be removed, the emergency tiller set up on it and secured.

### Attention:

Please make sure that the rudder bearing is lubricated with water-resistant grease (or Teflon) between the rudder stock and bearing, as well as between the rudder bearing and the seat of the bearing.

"Play" in the rudder bearing must be eliminated by means of a reset operation on the upper rudder bearing.

The rudder shaft must be free of play but not too tight.



## 6. Windows and hatches

As soon as the first drops of water fall, all hatches should remain closed.

**Important:**

Before setting off, always check whether all hull windows are closed. It will happen again and again that children open hatches unnoticed - especially when under way. Please consider that inventory and wall paneling damaged by salt water can only be dried again by means of tedious exertion.

The hook-out skylight (50 x 50 cm) in the forward cabin is to be seen as an emergency exit. To this end, the blue slide (safeguard) must be pressed toward the outside, the handle turned longitudinally toward the yacht and the hatch opened upward.

If a fire should break out in the yacht despite all precautions, you should proceed as follows: All persons who cannot actively combat the flames should go out on deck, either

- through the companion hatch or

when a fire breaks out in the pantry or the engine room

- through the escape hatch above the forward berths.

### **In the event of a fire in the pantry**

First close the valve on the gas supply!

If the fire has spread to parts of the equipment or furnishings, use the fire extinguisher.

### **In the event of a fire in the engine room**

First close the valve on the fuel supply.

Do not open the mounting hatch behind the companion hatch!

In this there is a small opening.

Put the nozzle of the fire extinguisher into the hole and empty it completely.

Wait a few minutes before opening the hatch to the engine room to assess the damage.

**In the event of a fire in the living quarters**

A draw bucket should be at hand in the locker seat so that the powder fire extinguisher only has to be used in cases of emergency.

**7. Electrical circuitry (direct current system)**

- please refer as well to the warnings (notices) on pages 56 - 59 -

Two batteries are included among the standard equipment:

- a starter battery 88 Ah
- a consumer battery 135 Ah

Both are connected by means of diodes to the dynamo and the recharging device (if ordered). They must be maintained regularly and properly, following the manufacturer's instructions. You will find more detailed information in the appendices. During charging, the engine battery has priority.

**Note** even lead-antimony batteries must be recharged in winter (state of charge at least 50%), so that you do not freeze.

Once each year, all contacts should be checked and sprayed with a special spray.

Familiarize yourself with the circuitry and the entire electrical system so that you can respond quickly in the event of malfunctions. When a device breaks down, check first whether it is defective.

**ATTENTION:** always check the following before starting out:

- the battery voltage
- whether the navigational lights are in working order (always take along replacement bulbs)

**ATTENTION:****You should never:**

- work on electrical systems while the system is live.
- modify fuses or overload protection equipment.
- change the electrical installation or the appurtenant layouts, this must be reserved for a qualified professional operation.
- install electrical appliances or use replacement parts which exceed the permissible load limit of the circuit.
- leave the boat unattended when the electrical system is in operation.

**Caution:**

The yacht's electrical system or appurtenant drawings may not be altered.

Customer service, maintenance and repair must be reserved for a professional operation.

**8. Land connection (alternating current system) 220 volts**

The 220-volt connection from land to ship is found over the starboard bathing platform on the transom. From there, the following 220-volt cables are laid:

- 1 x to the recharging unit (if ordered)
- 1 x to the control panel on the side of the chart table

Electric power may only be obtained from land in the harbor or pier in the marina with approved cables or (and) appropriate extensions.

Important: be sure that your hands are dry before you touch the 220-volt cable and its terminal connector strip.

## 9. Main switch 12V

The ship is equipped with a main switch. It is located at the electric panel on the chart table. Important as long as the diesel engine is running, you may not interrupt the 12-volt circuit using the main switch.

## 10. Electric control panel

All switches for consumers of 12-volt electric power are grouped on the electric control panel. Hence switching separately in groups is possible. These are marked with logos and partially lettered. Some switches are prepared for subsequent installation of electric consumers. By the same token, conduits are provided in the ship by means of empty pipes. The fuses are automatic, in the event of a breakdown it is usually sufficient merely to press the appropriate button. If a fuse should repeatedly jump out, you must find and eliminate the cause or call upon the services of a qualified professional (electrician).

## 11. Lighting

The supply of electric power and the fuse for the lighting elements are arranged in two groups. These are located on the panel. Switching on is effected by way of push buttons on the panel or directly at the individual lamps.

## 12. Refrigeration unit

In the ice box, a thermostat is mounted on the side near the eutectic plate. You can use the thermostat to regulate the temperature in the box. As long as you are keeping food, you should check the temperature regularly and ensure that it does not fluctuate immoderately. If you stay ashore for a longer period of time, you should leave the refrigeration unit in a clean condition and with an open lid for ventilation purposes (please refer to the manufacturer's description).

### **13. Installations**

Fresh water

Hot water

Hot water is produced by way of the engine cooling cycle, as well as electrically by way of a 220V cartridge-type heater.

Sewage lines

Diesel lines

Gas lines

Tanks (fuel - please refer to p. 26; fresh water, sewage)

Your reserve supply of fresh water amounts to approx. 350 liters in two tanks. The forward tank is located under the forward berth and holds 150 liters. The fresh water is fed in by way of the deck with connection pieces next to the anchor box lid. The second tank holds 230 liters and is located beneath the berth in the aft port cabin. It is filled by way of the connection pieces in the stern. Please refer to deck plan as well as water installations. Both tanks are equipped with an inspection port, as well as with a transmitter for the water level indicator. They can also be separately emptied.

### **14. Pressure water installation**

The pressure water pump is located in the shower room behind the flap (ship's wall), together with a compensating tank and a changeover tap for bow and stern tanks. The pressure water pump serves to produce pressure water for the entire hot and cold water circulation system. When it is running, the pressure pump can be interrupted by closing all outlets. If the pump continues despite the fact that all cocks are tightly closed, all water lines should be checked for leaks.

The pump is protected by a filter which must be checked regularly and cleaned when necessary.

## 15. Gravity drainage system

The cockpit of **BAVARIA** yachts is laid out to be self-bailing. The bailers in the back (deepest) part of the cockpit are laid by means of hoses leading astern to the transom (outlet).

- the cockpit of the Ocean versions is drained by way of the passage on the transom (under the helmsman's seat)
- on middle cockpit models, the cockpit is drained by way of two vertical outlets.

The anchor box has drains on both sides which are covered by a baffle. In addition, your yacht is equipped with a manual draining pump and an electrical bilge pump (capacity 130 lt./min.).

Both pump strainers are located in the bilge at the lowest point in the mess area. The floor timbers in the mess area are connected by drilled holes so that if water should enter, both pumps can be put to use.

When the manual bailing pump is used, the cover flap of the pump beneath the seat in the shower room must be opened and the pump lever put into the opening provided for this purpose. Pump motions allow the bailing process to be undertaken.

The electric bailing pump is set in operation by activating the switch on the panel marked by a symbol.

- in all cases, switch off the main switch beforehand -

We recommend using the electric bailing pump only when the engine is running, since this allows the pump to reach its full capacity.

### **ATTENTION**

The yacht is equipped with an electric bailing pump. Check regularly that it is in proper working order. The pump handle of the manual bailing pump is located in the topmost lateral compartment of the "navitable".

### **WARNING**

The entire pump capacity may possibly be insufficient to bail out the yacht in the event of a collision (with flotsam, for instance). Take steps to cover such an exceptional case by means of collision mats, etc.

## 16. Lavatory

Sewage is conveyed outward by means of a manual pump next to the lavatory through a gas-tight hose, diameter 1 1/2" or 38 mm, through a stop valve at the end. While sailing, valves should be in closed position, that is, perpendicular to the direction of the hose. The same applies for the salt water supply hose by way of which the lavatory is flushed and secured with a 1/2" or 12.7 mm-diameter ball valve.

Shower water facilities - series: 1 x astern -

The water for showers is collected in the molded floor tub and is directed toward the outside by means of an electric pump. The switch button to activate the shower pump is located on the side of the wash basin.

**Tip:** Correct functional use of the lavatory is always a delicate matter...

Hence it is eminently advisable to explain to all guests, especially if they are sailing for the first time, exactly how "it all works with the valves" and to provide them with a practical demonstration. The valves are located beneath the wash basin in the lavatory. Under the handle of the lavatory pump is a small lever with which you can select the two functions of the pump.

- 1) pumping out and flushing at the same time, or
- 2) only pumping out

To flush the bowl after use:

- open both valves
- pump a few times at setting 1, approx. 10 times
- pumping out and flushing until clean (pump set to 2)
- approx. 15 times -

In this way, the sewage hose is cleaned along its entire length. We recommend filling the toilet bowl with some sea water before using it by means of a few strokes.

**Important:**

- never activate the manual pump when the valves are closed
- do not throw large or solid objects into the toilet bowl. (Instructions for use of lavatory systems with the option of a sewage tank)

**Note:**

In port, use the toilets on land if possible, since the capacity of the sewage tank, should there be one, is limited. The use of deodorizing chemicals should be omitted entirely, since the system is closed and the hoses free of odor.

The yacht is likewise equipped with a three-way cock. Here you have the choice of draining the water directly by way of the sea valve into the water or choosing the route by way of the (optional) sewage tank.

### **17. Wash basin in the Pantry**

Water is supplied by way of the water cock (mixing faucet in the presence of hot water). Bailing into the ocean through the 1/2" valve. For reasons of safety, this valve should also remain closed when not in use while sailing.

(please refer to the sketch of the hull culverts)



## **18. Anchors and mooring equipment**

The layout of the bow anchor was selected along the lines of the building regulations of German Lloyd and is available as an option.

The bow anchor (plowshare anchor), approx. 21 kg., hot-dip galvanized (considered to be an anchor with a high level of holding power). It lies acockbill in a mooring roll with a tilt joint and is secured with a bolt. The chain (also optional) length 50 meters, nominal thickness 8 mm (10 mm optional). It runs into an anchor capstan (also optional) which is operated by means of a remote control. The remote control is attached to the anchor box before use and the function switched on at the panel.

Furthermore, it is also advisable to have a stern anchor (if appropriate, a shifting-stock anchor), as well as mooring lines and towing gear of adequate dimensions on board.

### **ATTENTION**

#### **Before setting off, the pilot must make sure that**

- the windlass is in working order
- the bow anchor is bent to its chain.
- the necessary mooring and tow lines are on board and in usable condition.

## **XI CARE AND UPKEEP**

### **1. Mast and Tackle**

Please refer to manufacturer's instructions

### **2. Sails**

The sails are manufactured from Dacron. This material is extremely robust and resistant to wear and tear. Hence the sails will keep their shape for a long time, especially when you adhere to the following suggestions for proper handling:

**- on furling the sails for furling reefing systems:**

please do not furl up the canvas too tightly. Otherwise, damaging creases can form. Creases also form when the headstay is not sufficiently set up. To keep the clew from working loose in a strong wind and flapping, it must be secured with the sheets and additional sail ties.

**- on the furled sails:**

Always protect the sails where they lie stored by means of a tarpaulin. This also applies to UV-stabilized materials. As with every other canvas, it should not be exposed unnecessarily to damaging environmental influences. We recommend not too wide a cut for the tube of the furling sail so that its canvas does not flap in a strong wind. It should be made of fabric that is permeable to air so that the ventilation of the canvas is ensured.

**- on furling the sails:**

If the mainsail is taken in or unbent for winter storage, it should be folded up loosely and stowed in a spacious bag.

If the cloth is pressed into too small a bag, strong creases can occur which can permanently weaken the dimensional stability of the profile.

The best way to keep a sail in good shape is to fold it up parallel to the foot rope in sections roughly 60 cm wide.

And: it may not be stowed away when wet, since this poses the danger of the formation of mildew spots.

**- on stowing the sail:**

Please try to store the sail as dry as possible and ventilate the stowage space thoroughly.

**- on removing dirt and mildew spots:**

please spray the sail regularly with fresh water to rinse off the salt. Lukewarm water and a mild cleaning agent are usually sufficient to remove even tough stains. Mildew spots should be eliminated immediately, since they can weaken the laminate. The best way to care for them is to treat them with a mild solution of chlorine (roughly 1 %): the affected areas are first soaked for about two hours and then scrubbed clean with clear water and a soft brush.

**- on avoiding damage:**

Since the foil of laminated materials must be protected from coming in contact with sharp-edged fittings, before setting sail for the first time please check the standing and running rigging, such as horns, cotter pins that are not taped, sharp-edged blocks on the backstays, etc. Those places in the canvas which can rub against the crosstrees or the shrouds must be protected by means of self-adhesive fabric on both sides. The same applies to the foot rope if it can chafe on the life line.

**- on handling the sail:**

this applies especially to laminated cloth: please adhere strictly to the wind force recommended by your sailmaker at which the sail must be taken in. Especially in our meteorological situation, you should be careful. A strong gust can already be enough to ruin the artistically installed profile of your new sail.

**- on tightening the halyards:**

Laminated materials respond substantially more sensitively to overstretching than conventional fabrics. This is why you should deal with the halyard tension carefully. Rule of thumb: sweat up the halyard until the creases across the luff just disappear.

**- on the hauling points:**

When you have reefed or unfurled the sails please remember to shift the hauling points accordingly. If this is not done, the incorrect angle of traction of the sheet will prevent the sail from assuming the proper position. After reefing, for instance, the consequence of this is that the foot rope will be overstretched while the leech will be excessively twisted and start flapping. The sail will no longer let itself be pulled in an optimum manner and will wear out prematurely. This is why it is advisable to put marks of different colors on or near the rail, on a 130 % genua, for example: green at 100 %, yellow at 70 % and red at 40 %.

It also makes things easier to use a slack line to adjust the hauling point cradles from the cockpit and to mark it in colors, as well (for example, whippings).

**Notice:**

Please bear in mind that damages to the canvas are almost always the result of handling the sail improperly; especially when the sail is allowed to flap, is continually exposed to UV radiation or improperly stowed.

If you should have any questions regarding types of canvas, please do not hesitate to contact your sailmaker or manufacturer.

**3. Deck fittings**

- wash the entire deck frequently with fresh water, including fittings.
- even parts made of stainless steel can acquire a thick film of rust in the course of time as a result of environmental factors. You can easily remove these rust spots with a commercial polish.
- care for the winches in the same way at regular intervals.
- if it should become difficult to move the winch drum smoothly, it is time to clean and lubricate it.

**Dismantling a winch is not complicated, but it does require a bit of concentration and caution:**

- lay a container next to the winch to put the separate parts in when you have dismantled them (otherwise it is easy to lose them).
- make a (mental) note of the parts before dismantling so that all parts will again be put to use during the reassembly process.
- clean the parts with solvent and grease them with the lubricant recommended by the manufacturer.

**ATTENTION:**

- Reassembling the parts incorrectly can cause accidents!  
(return kick of the starting crank)
- the rigging screws should be greased every few months (for example, with WD 40)
- the guide rolls and blocks with Delrin bearings do not need to be greased; however, we recommend rinsing them with fresh water so that they do not collect sand and salt.

**ATTENTION:**

- always remove the ball-bearing sheet carriages from the rails carefully to avoid scattering the ball bearings on the deck; use a piece of rail with a closed end.

**4. Windows and Plexiglas****Important:**

- parts or panes made of Perspex or Plexiglas may not be washed with aggressive cleaning agents.  
Pay particular attention to this near the sliding hatchway cover and other window panes. Only mild agents may be put to use; using acetone is also prohibited.
- if the Plexiglas exhibits minor scratches which are not particularly deep, these can be polished over with polish and a soft cloth.

**5. Wood on the outside of the boat**

The best way to clean an unpainted teak deck is with clean sea water. This makes it uniformly light gray and enables it to stand up to outside influences. It also makes it possible to wash it with fresh water or other methods and materials found on the market.

## 6. Glass fiber reinforced plastic

- the gel coat is known to react very sensitively to being hit with sharp objects or scratches, so:
- use only clean and properly dimensioned fenders. In the end, they are much less expensive than repairing damages to the ship's walls.
- when docking, pay attention to sharp objects or hard places protruding from the pier.
- glass fiber reinforced plastic can be cleaned with water and mild cleaning agents.
- in the course of time, however, your sailboat's shell will become somewhat duller and can discolor slightly. The yacht will shine again if the gel coat is treated with polish and lambskin.

Smooth any scratches or cracks which may appear with touchup gel coat (putty); let it set, then grind and polish it. Here you should get in contact with your signatory regarding the appropriate color (RAL no.).

In time, barnacles can damage the paint layer. In particular, small mussels and snails can eat into the gel coat after a time, which is poison for the shell.

When washing the sailboat with high-pressure cleaning apparatus (or similar machines), never use hot water. The distance to the gel coat should not be less than 30 cm (never use on a teak deck).

## 7. Electrical systems

The batteries should be kept in good condition, i.e., always full if possible.

Check the load connections on the control panel and their working order at regular intervals. Before a planned night cruise, all navigation lights should be checked. Always have reserve fuses on board.

## 8. Engine

All available manuals or descriptions of all devices or instruments that are installed or included in the standard equipment are enclosed with this manual in the **BAVARIA** owner's folder. One of the sets of operating instructions refer to the installed diesel engine. Please read them carefully, as well, and follow the advice and recommendations of the manufacturer, which are certain to be of benefit. We will list the most important topics here once again:

- checking the level and quality of the motor oil and gear lubricating oil in due time.
- check the cooling water pump.
- check the sacrificial anode on the foot of the gear in front of the propeller at least once each year  
and supplement if necessary.
- clean and care for the engine at regular intervals.

Fuel lines have been laid in conformance with installation engine (please refer to the list of plans). The diesel supply line has been equipped with a safety cutoff valve.

## 9. Installations

Gas installation and gas cooking stove:

The gas line to the gas cooking stove is an 8mm copper wire and comes from the standard 3kg gas bottle. The container for the gas bottles is integrated in the transom (tread). All gas lines have been laid in conformance with strict German safety regulations. The pull date is imprinted on the soft connecting hoses between the outside gas tanks and the permanent copper wire, as well as further to the cooking stove. After this date, you must replace these hoses.

The system runs on the blue, three-kilogram gas bottles (butane) commonly used in the trade. The pressure reducer in the gas box has an inlet pressure of 30 mbr. The flow rate is one kilogram per hour.

## 10. Equipment, furniture, upholstery

The worst enemy of interior decorations is moisture. This is why it is important to air out the ship continuously or as often as possible in the interest of the service life of the furniture and upholstery.

The standard design of **BAVARIA Yachts** already includes vents on deck. (please refer to deck plan with equipment). However, there are still things that you yourself can do against moisture inside the ship. For one, you should look for leaks and eliminate them as soon as you find them. For another, you can make sure that the bilge is always kept dry and clean. Dirt can damage the bilge pump and render it dysfunctional. The furnishings are made of high-quality mahogany and have been given several coats of paint. The furniture may not be cleaned with aggressive cleaning agents.

It is advisable to touch up scratches and other blemishes in the wood, or plywood with veneering, immediately to keep the wood protected against water and salt. You should sand down the places which you wish to paint over with fine-grained sandpaper and then give them three coats of paint.



## **XII PRESERVATION AND PROTECTION AGAINST WINTER FROST**

If possible, the following objects should be taken from the sailboat during the winter and stored in a dry place that is not too cold:

- ship's papers and other documents
- charts, books, instruments
- mattresses, upholstery, blankets and sleeping bags
- sails and lines
- food
- gas bottles
- safety equipment
- rubber boat and life rafts
- batteries

### **Tip:**

**Before putting the boat in winter storage, you should pay particular attention to the following parts and protect them accordingly:**

- wash the transmitters for log and perpendicular.
- you should take care of the electrical systems by cleaning them and using a suitable material at regular intervals. (WD 40)
- water lines are successfully cleaned with dilute acid such as white vinegar.
- the water valves should be disassembled and greased.
- the lavatory and the appurtenant lines are cleaned with fresh water.
- the rudder should be fixed so that it cannot move.  
(this can be achieved simply by securing the tiller or wheel)

### **Engine:**

- fill up the fuel tank
- change sacrificial anode on the propeller (if necessary)
- empty cooling water out of engine and follow the manufacturer's instructions
- relieve tension on all belts (dynamo, other motor-driven units)

## **Mast and Tackle**

The following may not always be possible, but is still recommended:

- lower the mast.
- remove the standing and running rigging.
- check the cables and other lines.
- check the bolts, strainers and other anchoring devices for possible signs of fatigue or cracks
- wash all aluminum parts with fresh water.
- wash all lines with fresh water and store them in a dry place.
- wash all guide rolls on mast and boom. (grease them)

**BAVARIA YACHTBAU GmbH** makes every effort to improve its products and increase the quality of the services on offer. This applies as early as the conception and design of the yachts and continues throughout the selection of materials and building methods to improve the ships' service life. Efforts at proper care and adherence to these suggestions will show up at the latest in the price you secure when you sell the yacht.

### **XIII PREPARATION FOR THE COMING SAILING SEASON**

This consists in principle of the same steps described above, but in reverse order:

- wash the entire shell with a mild, nonaggressive cleaning agent and plenty of fresh water.
- wash and polish all gel coat surfaces or parts made of glass fiber reinforced plastic.
- wash and polish all parts made of stainless steel.
- wash and oil all parts made of teak wood on deck.
- wash and lubricate all mechanical parts. (Do not forget the winches and windlass)
- reinstall (attach) pieces of equipment removed the previous autumn
- fit out the engine in conformance with the operating instructions.
- change the oil in the engine and gear
- change the filter for oil and diesel.
- refill cooling water.
- reinstall the batteries.
- wash all water tanks with vinegar and fresh water, then fill them.
- preserve the electrical systems for protection and insulation.
- check that all technical systems are in full working order, carry out all necessary repairs and overhauls.
- replace books and charts in the chart table and on the shelves.
- check that all ship's papers are still valid.

#### **ATTENTION:**

*Is the ship still covered by the insurance policy or must it be renewed?*

**XIV INFORMATION AND INSTRUCTIONS FOR THE  
SKIPPER / SHIP-OWNER:**

1. This watercraft is equipped with portable fire extinguishers with the following extinguishing capacities and in the following areas:

- a) starboard locker seat      fire classification: ABC, 2 kg, type: P2G
- b) in seat / chart table      fire classification: ABC, 2 kg, type: P2G

2. The vehicle's owner / skipper is responsible for the following:

- having the fire extinguishing equipment checked at the intervals indicated on the equipment.
- having the fire extinguishing equipment replaced when the time indicated has run out or when the apparatus has been used; the replacement units must have the at least the same or greater extinguishing capacity.
- having the crew informed of
  - arrangement and operation of the fire extinguishing equipment
  - arrangement of discharge openings in the engine room
  - arrangement of escape hatches
  - ensuring easy accessibility to the fire extinguishing equipment when the watercraft is manned.

**Repairs:**

In the event of minor repairs, you should ask your signatory about suitable materials or replacement parts. Major repairs should always be performed by a trained professional. In this connection, ask your signatory or a recognized repair yard. The building yard will also be able to assist you with advice.

**Safety equipment:**

Unattached safety equipment is the responsibility of the user, for example

- life vests
- life rafts
- fire extinguishers
- anchor, anchor chain / line
- mooring lines, towing gear

**Maintenance, cleaning:**

Use only small amounts of cleaning agent and avoid letting it drain into the water.

**Also observe the following:**

- it is preferable to clean the boat on land.
- avoid abrading the shell as far as possible; instead, use high-pressure water cleaning units.
- do not use solvents.

**Winter storage:**

- follow the tips in the operating instructions for the engine.
- store the batteries in a charged state in a ventilated place protected against rust
- grease the control cable and other control components
- remove all water from the ship and protect it against rain water.
- replace structural components whose working order or conditions appear doubtful.

**ATTENTION :****3. NEVER**

- block routes to hatchways and exits.
  - block safety equipment, such as fuel valves, gas valves, switches of electronic systems.
  - block the portable fire extinguishers which are stored in the lockers.
  - leave the vehicle unattended when cooking or heating units are in use.
  - use gaslights on the sailboat.
  - alter anything in the vehicle's systems. (Especially not the electric, fuel and gas systems).
  - fill the fuel tanks or replace the gas bottles when the engine is running or cooking or heating units are in use.
  - smoke when handling fuel or gas.
4. Keep the bilges clean and check them at regular intervals to see if they are giving off fuel or gas fumes.
  5. Only parts which bear the same designation or have comparable technical and fire-retardant properties and are intended for the purpose may be used when replacing parts of the fire extinguishing system.
  6. Do not affix any freely suspended curtains or other materials near or above cooking units or other units with open flames.
  7. Flammable material may not be stored in the engine room. Insofar as non-inflammable materials are stored in the engine room, they must be secured in such a way as not to be able to fall into the machine system and present no obstacle to access to or egress from this room.
  8. Work on electrical system when the electrical system is in operation.

**9. Safety tip**

During a cruise, persons should keep out of areas which could pose a danger to them. Avoid standing during the cruise and wear life vests.

**10. The following must also be observed or checked:**

- regular inspection
- fuel hoses and their fittings
- battery terminals, acid level
- gravity drainage pumps
- control equipment

**11.** There is a place to stow the life raft in the stern of the sailing yacht. The door is integrated in the deck superstructure. We recommend informing the crew before starting off of the existence of a life raft. The skipper must be convinced that the life raft is in proper condition and all lifesaving gear is available before starting off on a cruise.

**12.** All sea valves should be closed when the yacht is vacated.

### **WARNINGS**

- the end of the land connection cable must **n o t** be allowed to get into the water. The electrical field can cause injuries or even death to swimmers.

#### **- Avoid electric shocks and fire.**

- the on-board switch for the land connection should be set to "off" before making or interrupting the connection.

- first plug in the cable on board, then activate the switch on land.

- if the polarity is incorrect, disconnect the cable immediately.

- tightly close the on-board socket for the land connection.

- never change the cabling on the land supply line.

- always loosen the cable on land first, then loosen it on the boat.

**IMPORTANT:** - for liquid gas systems -

There are two cutoff valves in the gas line.

One is near the cooking stove, the other on the gas bottle itself.

The manufacturer's instructions for use must be strictly followed when starting and using the liquid gas system, as well as the instructions listed in the following:

1. Close the valves of the supply line and the bottle when the devices are not in operation.  
Close the valves immediately in the event of an emergency.
2. Make sure that the devices' valves are closed before the bottle valve is opened.
3. Check the liquid gas system regularly for possible leaks. Check all connections by
  - observing the pressure gauge (if there is one) while the valves on the gauge and on the bottle are closed, or
  - with a manual leak detector, or
  - using soapy water or cleaning agent solutions. (in this case, the valves on the devices must be closed and the valves on the bottle and the system opened).

If leaks should appear, close the bottle valve and have the system repaired before continuing to use it. The repair work should be performed by a trained professional.

**Caution: Do not use any solvents which contain ammonia.**

**Attention: Never use an open flame to search for leaks.**

4. When fuel is burnt, oxygen is used by the devices and combustion residues are released into the boat. Hence sufficient ventilation must be provided while the devices are running. Use neither cooking stove nor oven to heat the room. Never close the vents. It is advisable to use the deck superstructure window above the cooking stove (or to open the hull window, if there is one).



5. Never block access to the liquid gas systems' components.
6. Make sure that the valves on the empty gas bottles are closed and disconnected from the system. Keep lids, caps or stoppers at hand and ready to use. Stow reserve bottles or empty bottles on deck or in gas-tight cabinets provided for the purpose which ventilate outside the ship.
7. The range of the surrounding temperature when the liquid gas system is in operation is 40° C for the liquid gas we recommend (butane).
8. Never use the gas bottle cabinets or boxes to store other pieces of equipment.
9. Never leave your watercraft unattended when devices run by liquid gas are in operation.
10. Do not smoke or use open flames when you replace the liquid gas bottles.
11. Check the hose lines of the liquid gas system at regular intervals, at least once each year. Replace them if you discover damages.
12. Check the exhaust gas pipes at least once each year. Replace them if they are damaged or exhibit holes.

## **XV GUARANTEE**

**BAVARIA** guarantees that new yachts, accessories and equipment are free of defects at the time they are handed over to the **CUSTOMER**.

The guarantee begins on the day of receipt by the **CUSTOMER** and, if the customer deals commercially with ships or charters them, at the time of handing over to the **BAVARIA** customer. Yachts which **CUSTOMERS** first use for demonstration purposes and then sell to third parties are exempt from any and all warranties.

**BAVARIA** guarantees the **CUSTOMER**, whether he or she is a dealer or final consumer, the static strength of the boat's body beyond the legal regulations for a period of five years. Any inspection resulting from customer complaints must be carried out in **BAVARIA'S** production facilities; the haulage costs in this case must be borne by the **CUSTOMER**.

Otherwise, the warranty period shall amount to six months. If a longer guarantee for mounting parts, devices and instruments, accessories and equipment and/or other parts of the yacht has been agreed between **BAVARIA** and its suppliers and/or outfitter, then **BAVARIA** shall pass this on to its customers and hereby transfers all its warranty claims arising from its supply contract with its suppliers/outfitters to the **CUSTOMER** while at the same time disclosing the contractual stipulations required to assert a warranty claim.

If **BAVARIA'S** customer is either a dealer or a commercial charterer of yachts, then he or she must perform all services for his or her customer (= final purchaser) required at the time of handing over of the yacht (= handing-over services) in conformance with the appendix to this contract. The dealer or charterer is likewise obliged to perform subsequent improvement and warranty work for which **BAVARIA** will provide the necessary materials and objects free of charge. **BAVARIA** pays its customer for the expenses caused by subsequent improvement, such as haulage, transportation, labor and period costs, or costs for commissioning third-party companies for the purpose of performing subsequent improvement and warranty work, or other costs, by means of a proportional credit on the list price at the time of purchase of the yacht in the form of its dealer and charterer discount.

**Note:**

Since the yachts manufactured by **BAVARIA Yachtbau GmbH** are always sold through the specialized trade, there is no direct contractual relationship between the shipyard and the final customer.

**BAVARIA Yachtbau GmbH** is thus unaware of details of the contract and it is not absolutely necessary that your signatory assume the terms of our guarantee in full.

It is thus absolutely necessary for you to contact your signatory in the event of a warranty claim.