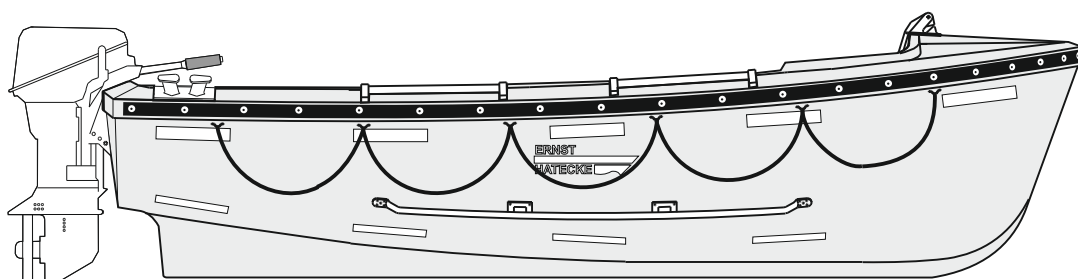


**MANUAL FOR OPERATION,
MAINTENANCE AND TRAINING
FOR
RESCUE BOAT
TYPE: RB 400
(acc. to MSC.1/Circ.1206)**



GmbH
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EDITION: 01/15

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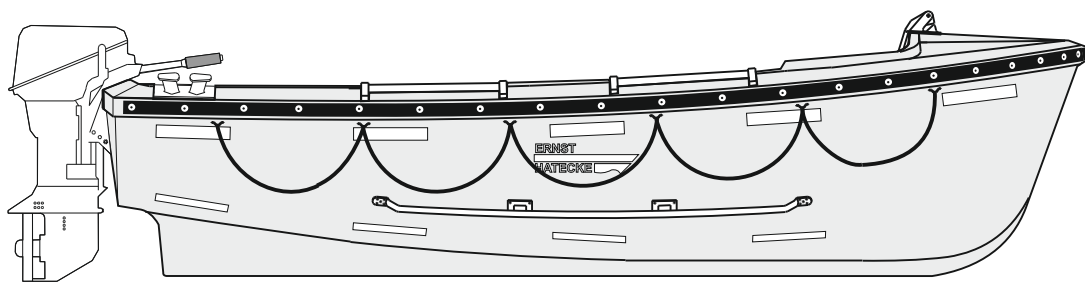
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1.1 OPERATION MANUAL



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1.1.1 In the interest of safety



WARNING

1. During operation of the davit be cautious with long links, snap hooks and counter weights!
2. DO NOT put your hands on snap hooks, long links, counter weights and falls with tension on these parts!
3. Always keep hands and feet clear near moving and rotating machinery!
4. Keep off in reach of propeller!
5. Before starting read engine instruction manual!

6. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odourless and deadly poison!
7. DO NOT store, spill, or use gasoline near an open flame!
8. DO NOT refuel indoors where area is not well ventilated!
9. Avoid skin contact to battery acid (corrosive)!

10. Misuse of the release gear can injure or kill!

1.1.2 Yard and yardnumber

The information given in this manual is based on our long experience and "know-how" in the building of all kinds of boats.

In case of an engagement it is very important, that every one knows how to handle the boat.

All personal should study this manual at boat drill, to make themself thoroughly conversant with the system to ensure a speedy and safe engagement.

The technical specifications are not binding and can be altered without prior notice.

In case of enquiries regarding existing boats please quote the details given below.

Boat type: **RB 400** _____

IMO no.: _____

Yard: _____

Hull no.: _____

serial no.: _____

1.1.3 Description of boat

Construction:

The hull is built in round-frame-construction.

Square stern provided to install an outboard engine.

All parts are built of GRP.

Polyurethane foam filled buoyancy tanks.

Outside with rubber stripes and grab line.

One thwart fore with hatch and equipment locker for the inventory.

Fittings:

At the fore end one painter releaser.

Aft two bollards.

Fittings for hoisting slings.

Engine:

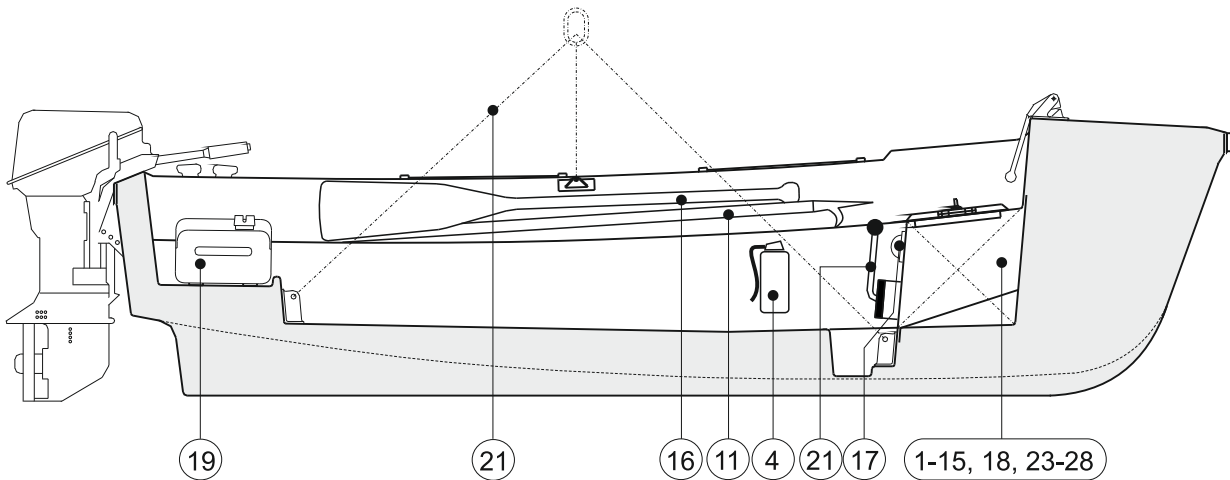
One hand-steered outboard engine,
long shaft.

20 ltrs. fuel tank.

Loose equipment:

Look at page 1.1.4

1.1.4 Stowage plan for equipment

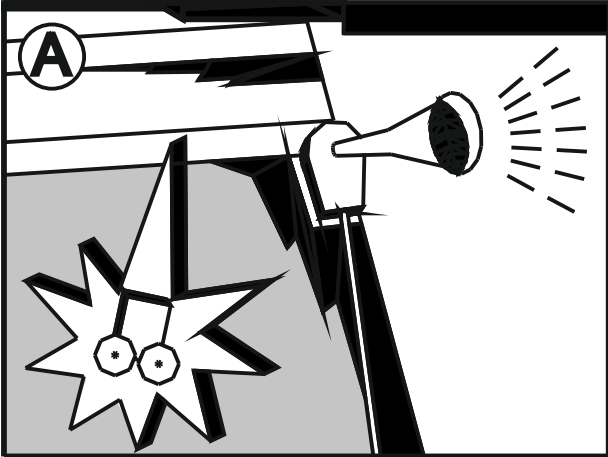


- 1 1 bailer
- 2 1 bucket, 5 ltrs. with lanyard
- 3 1 Container with distress signals
 - 1 jack knife with tin-opener
 - 1 el. torch with spare bulb and 2 spare batteries
 - 1 whistle
- 4 1 fire extinguisher
- 5 1 sea anchor with lanyards
- 6 1 painter with long link
- 7 2 buoyant line with ring
- 8 1 buoyant towing line
- 9 1 first aid kit
- 10 1 radar reflector
- 11 1 boat hook
- 12 1 search light
- 13 1 rope ladder
- 14 2 thermal protective aids
- 15 1 towing line for liferaft
- 16 2 paddles
- 17 1 compass (fixed installed)
- 18 1 securing wire for outboard engine
- 19 1 fuel tank
- 20 1 bilge pump
- 21 1 hoisting sling

Spare parts for engine:

- 22 1 spare fuel tank
- 23 1 cool water pump impeller
- 24 1 set of sealings
- 25 2 spark plugs
- 26 1 starter rope
- 27 1 flush connection
- 28 1 bag with tools

1.1.5 ALARM

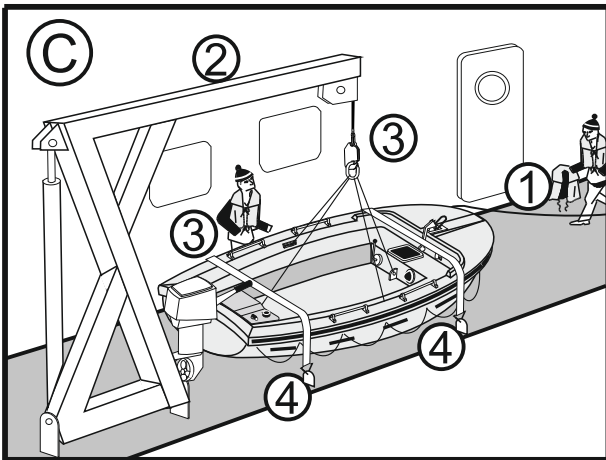


A + B ALARM

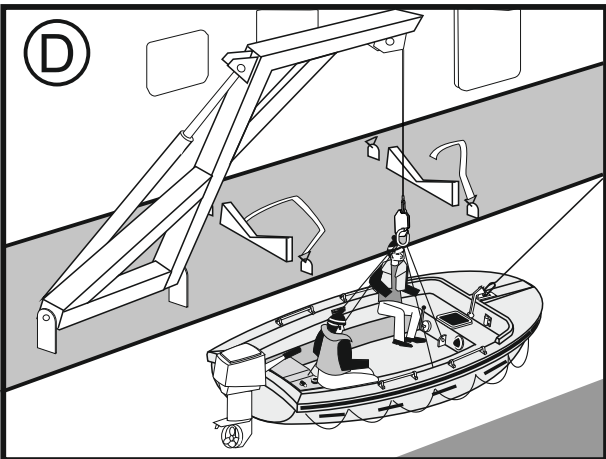


At alarm all boat personal went, equiped with their personal equipment, to their meating place.

1.1.6 Preparation for lowering

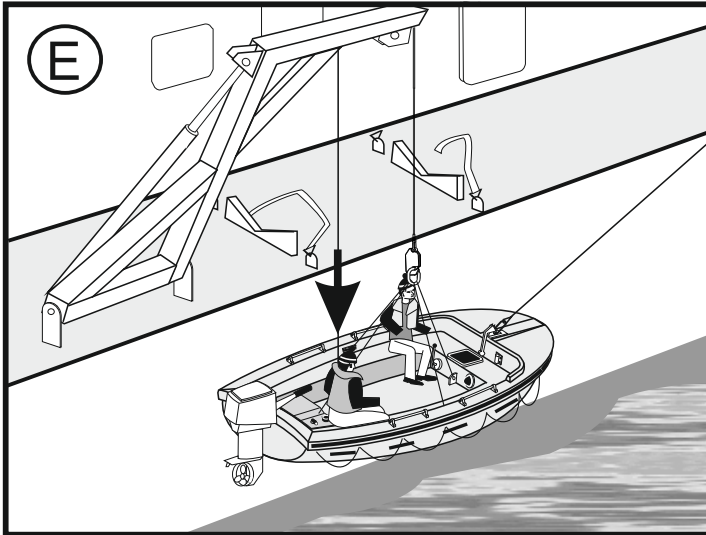


- C** **Abandoning the ship:**
CHECK THAT EVERY BODY IS PRESENT!
1. Fasten painter.
 2. Davit clear for lowering (study the davit / crane manufacturers instructions).
 3. Remove lashings.
 4. Lower the outer end of the boat storage rest if necessary.

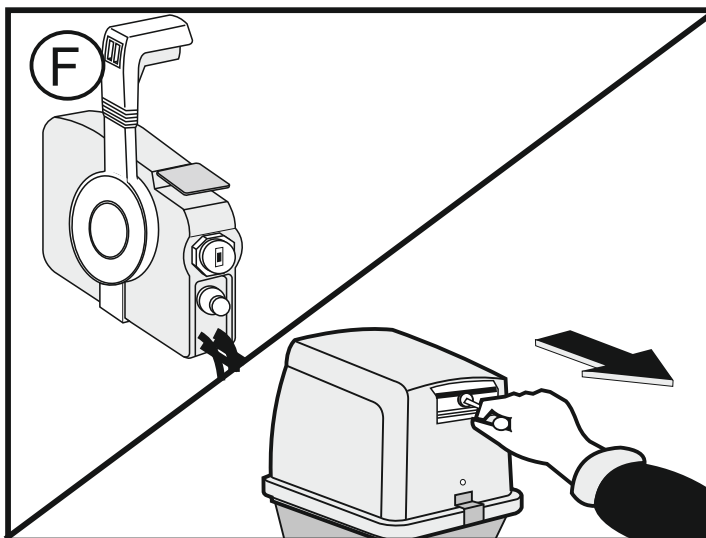


- D** **Board the boat (wait until order is given), swing out the davit.**
1. The occupants take place on the marked areas.
Take care for the proper trim of the boat hanging in the hoisting sling.
 2. Swing out the davit (study the instructions of the davit manufacturer).

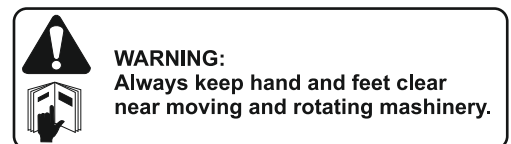
1.1.7 Lower the boat - start engine



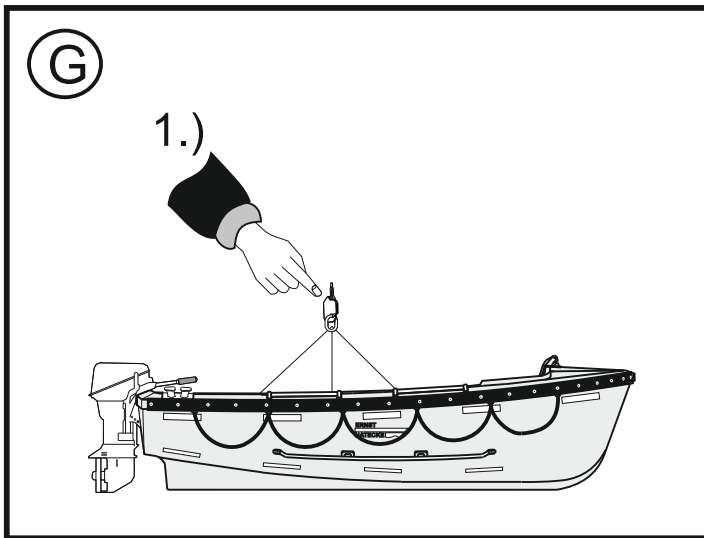
- E Lowering.**
With the remote control wire it is possible to operate the boat winch from inside the boat.
(Study the also the winch manufacturers instructions).



- F Start the engine :**
For starting instruction look at the engine manufacturers handbook in the appendix of this manual.

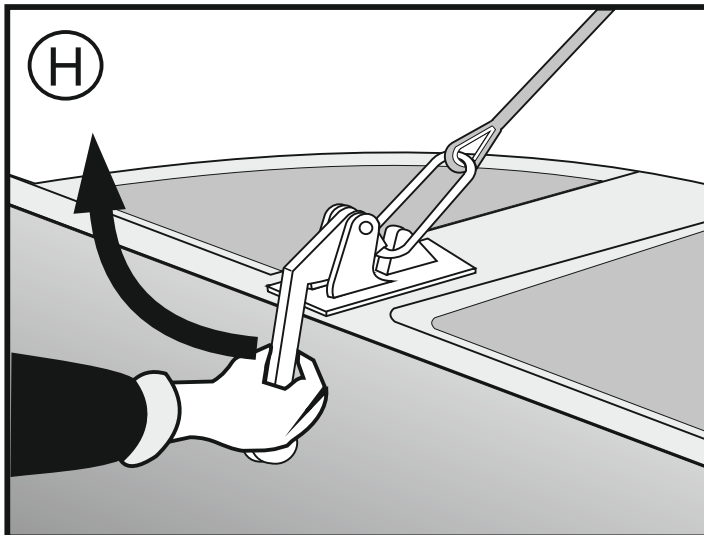


1.1.8 Disengage hoisting hook and painter



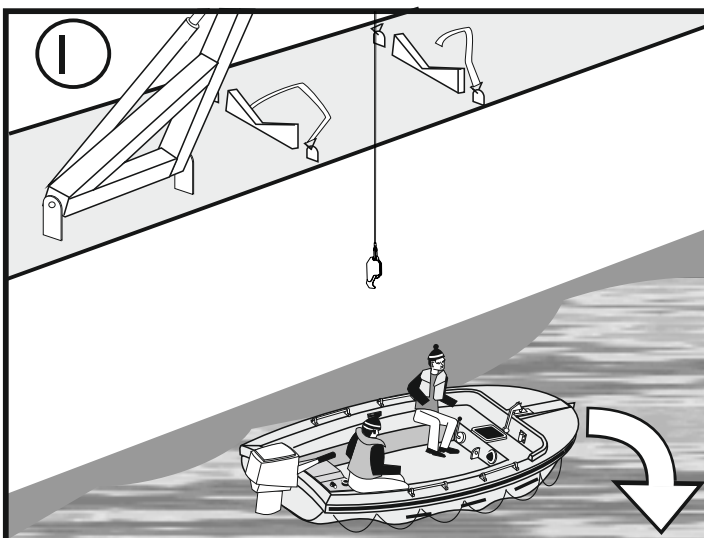
G Release hoisting hook.

1.) After the boat is waterborne release the hoisting hook.
(for further instruction see operation manual of hook supplier.)



H Release painter.

Pull up forceful (arrow direction) the painter releaser lever.

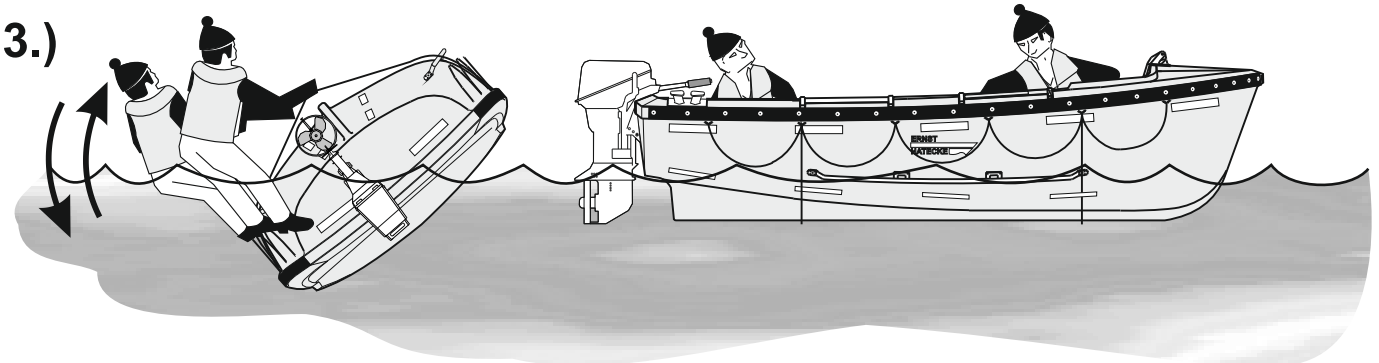
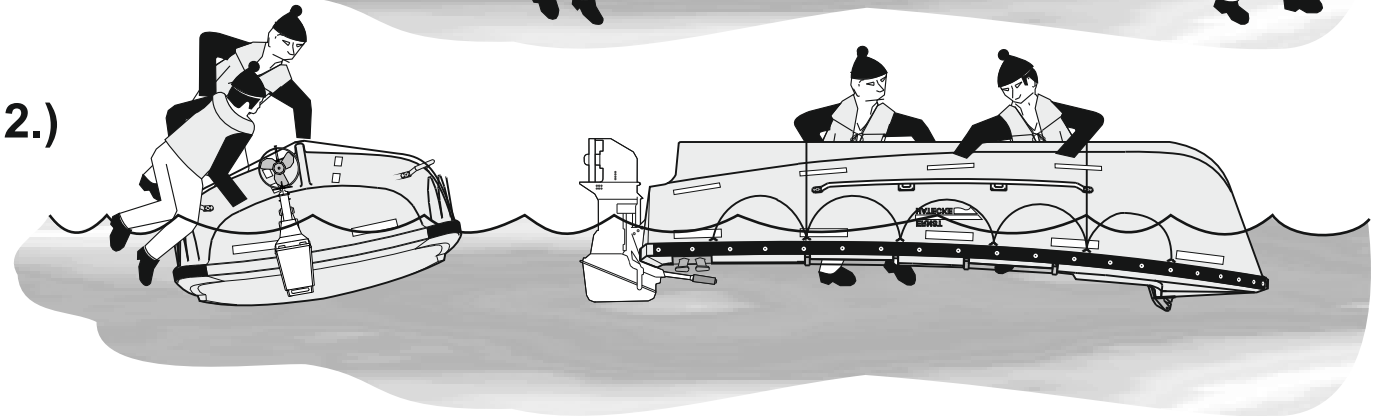


I The boat is now free.
Engage the motorgear to forward, run the outboard engine with high speed and steer away from the vessel.

1.1.9 Turn the capsized boat

In case of capsizing the boat will not right it self.

The swimming boat crew (1) has to enter the boats bottom at the outboard engines side (2) and to take the grablines. Than they have to swing (3) the boat up and down until it rotates.

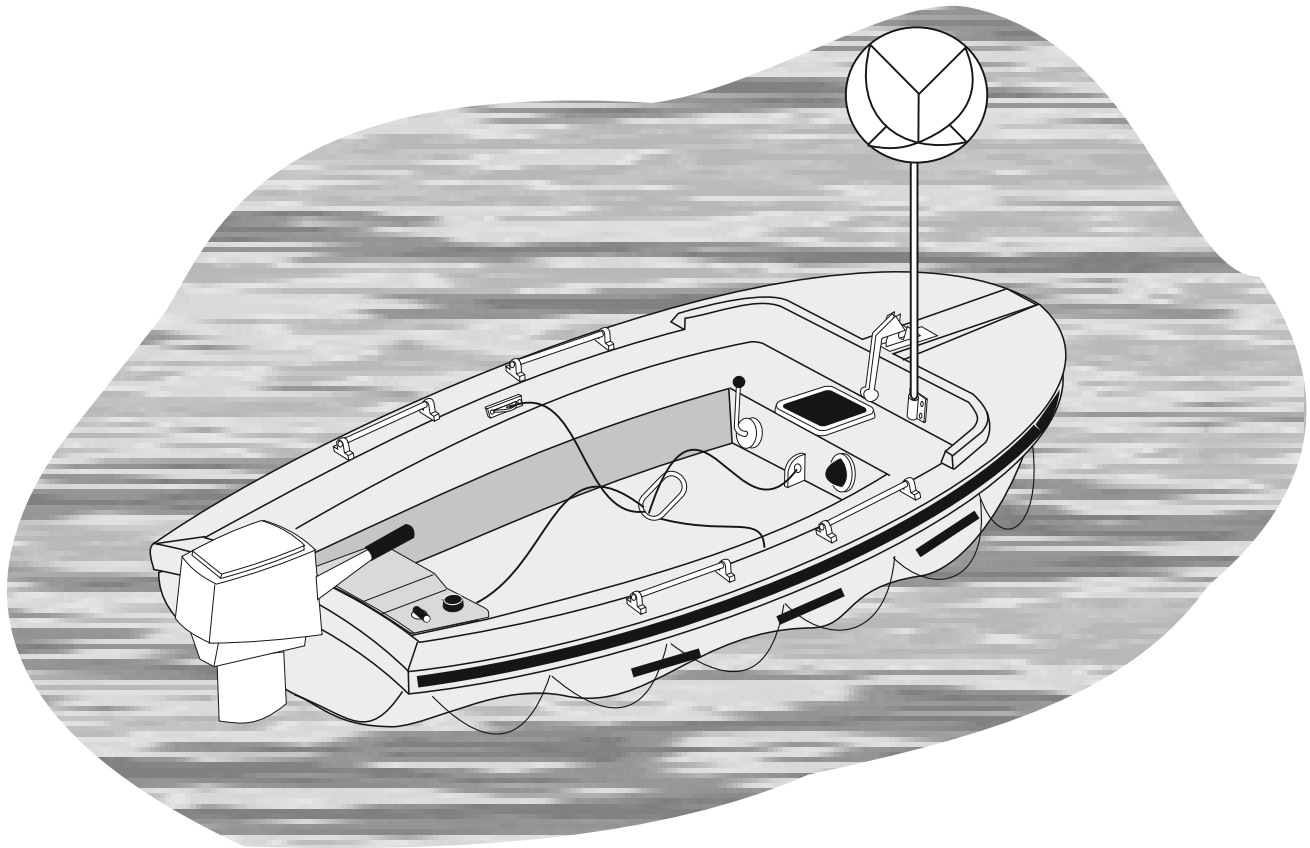


4.)

After turning the boat drain it with the bilge pump.

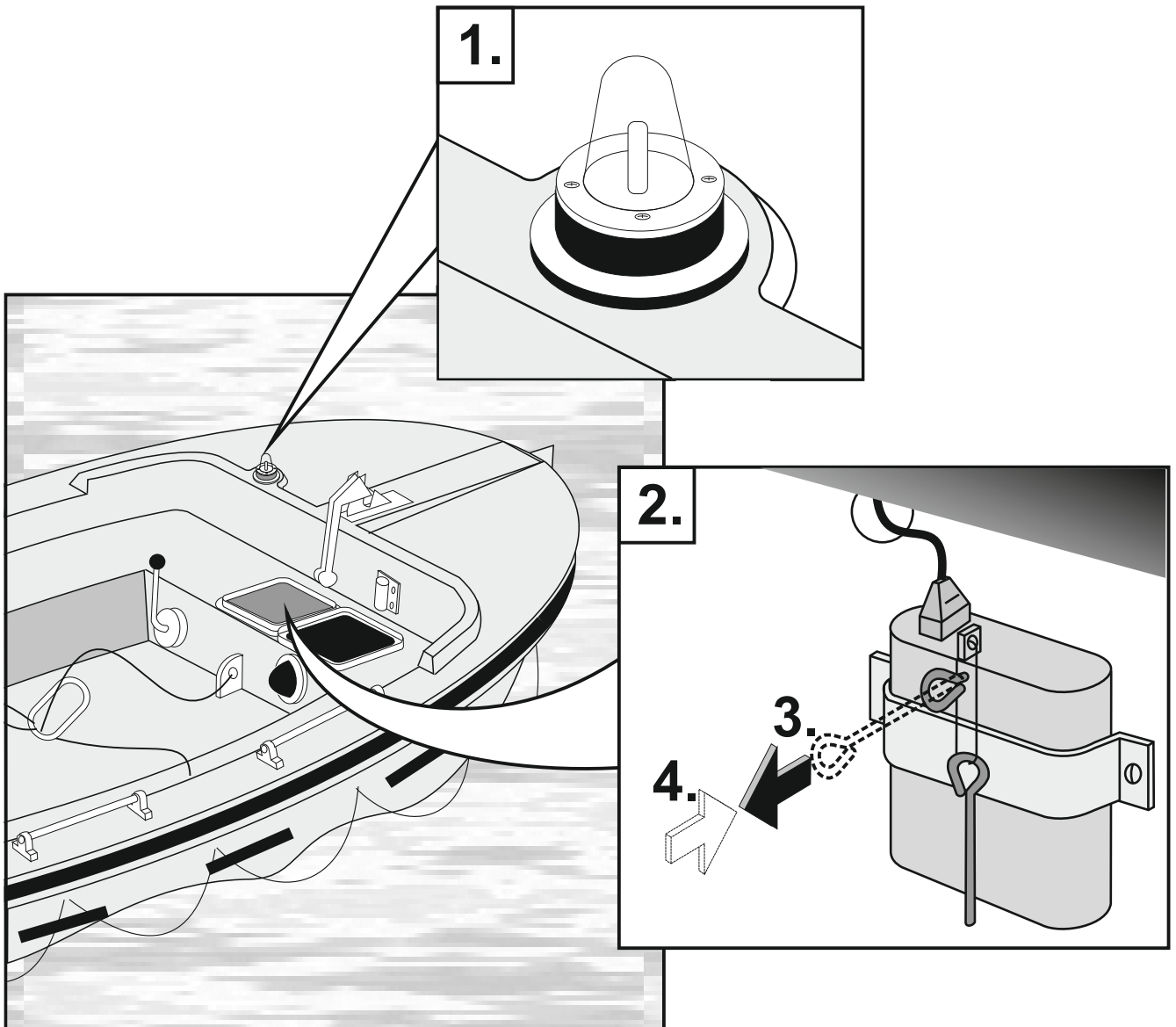
CAUTION: The boat crew must leave the boat during turning, to prevent accidental contact with the boat.

1.1.10 Radar reflector



In the equipment of this boat is also a radar reflector, it is stored in the inventory locker. Assemble it to the enclosed instruction, erect it on the socket at the forward bulkhead.

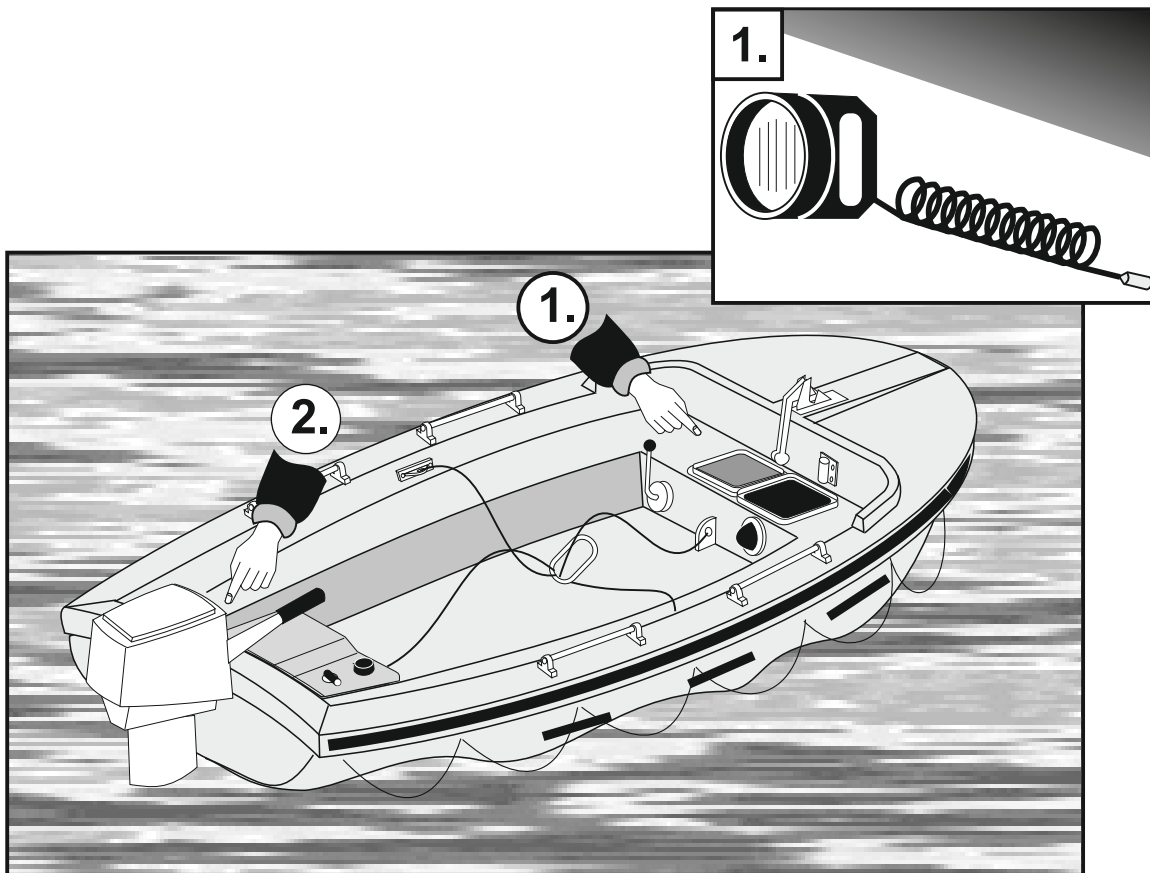
1.1.11 Flash light



The boat is equipped with a flash light. Switch on the flash light in bad weather condition and in the night.

1. The flash light fix mounted on the fore deck.
2. The battery of the flash light is fix installed in the inventory locker.
3. To switch on the flash light pull out the wire pin.
4. To switch off the flash light push in the wire pin.

1.1.12 Search light (optionally)

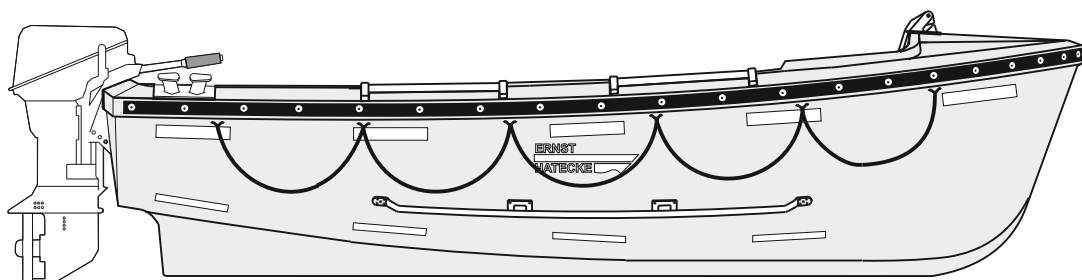


In the equipment of this boat is also a search light.

1. The search light is stored in the inventory locker.
2. For function put the plug into the socket of the outboard engine.

Caution: Search light works only with running outboard engine.
There is no battery the current comes direct from the ignition coil.

1.2 MAINTENANCE MANUAL



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1.2.1 In the interest of safety



WARNING

1. During operation of the davit be cautious with long links, snap hooks and counter weights!
2. DO NOT put your hands on snap hooks, long links, counter weights and falls with tension on these parts!
3. Always keep hands and feet clear near moving and rotating machinery!
4. Keep off in reach of propeller!
5. Before starting read engine instruction manual!

6. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odourless and deadly poison!
7. DO NOT store, spill, or use gasoline near an open flame!
8. DO NOT refuel indoors where area is not well ventilated!
9. Avoid skin contact to battery acid (corrosive)!

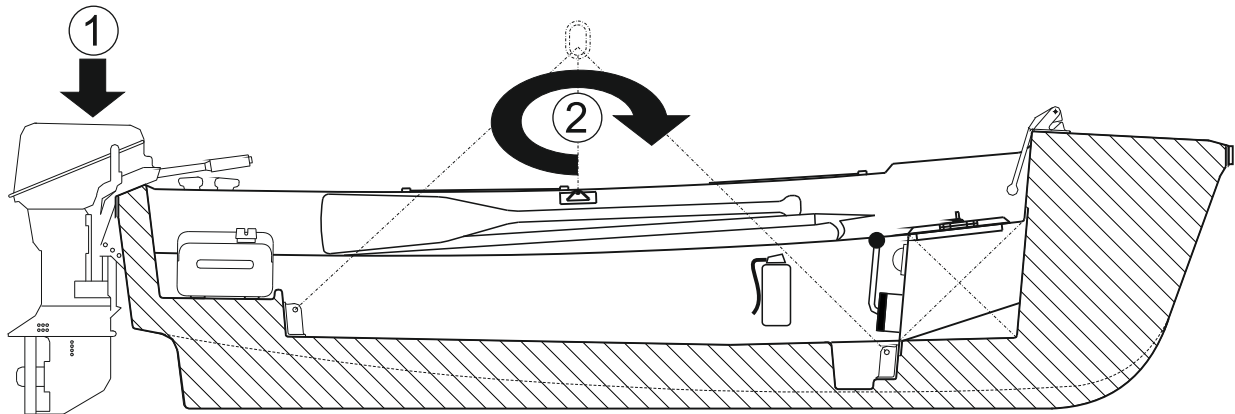
10. Misuse of the release gear can injure or kill!

1.2.2.1 Weekly inspection



Qualification level.

By supervision of a senior ships officer in accordance with the information provided by the manufacturer.



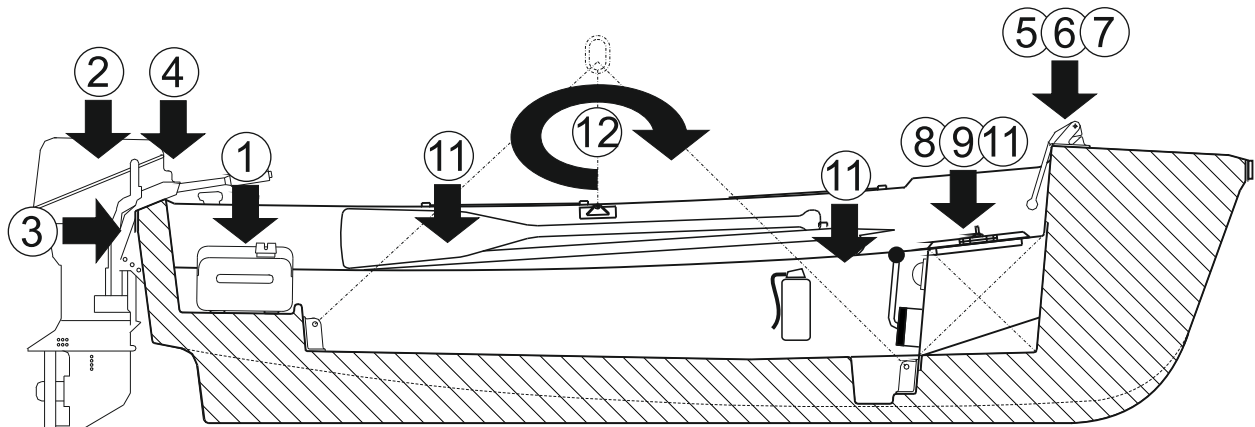
Outboard engine: (look also manufacturers manual)	done	remark
1. Test run the engine, demonstrat that the gear box and gearbox train are engaging satisfactorily.		
Miscellaneous:		
2. Visual inspection to ensure that the boat is ready to use.		

1.2.2.2 Monthly inspection



Qualification level.

By supervision of a senior ships officer in accordance with the information provided by the manufacturer.



Outboard engine: (look also manufacturers manual)	done	remark
1. Check fuel level in the tank.		
2. Check gear oil level (Change gear oil at least after one year).		
3. Grease the moveable parts.		
4. Testrun the engine with the boat in the water, demonstrate that the gear box and gear box train are engaging satisfactory.		
Painter releaser:		
5. Clean the painter releaser (remove salt deposits).		
6. Lubricate and oil moveable part of the painter releaser.		
7. Check function.		
Miscellaneous:		
8. Check the the flash lights battery voltage (if necessary change the battery).		
9. Lubricate all hinges.		
10. Clean the boat with water and soap, flush with fresh water.		
11. Check equipment.		
12. Visual inspection to ensure that the boat is ready to use.		

1.2.2.3 Annual thorough examination (acc. to MSC.1/Circ.1206)



Qualification level.

By manufacturers representative or a person appropriately trained and certified by the manufacturer.
Look at page 1.2.2.6 Authorized service stations.

Items listed in checklists for the weekly/monthly inspections also form the first part of the annual thorough examination, when carrying out this examination the inspection of these items should be performed by the ship's crew in the presence of the manufacturer's representative or a person appropriately trained and certified by the manufacturer for the work to be done.

Inspection and maintenance records of inspections and routine maintenance carried out by the ship's crew and the applicable certificates for the launching appliances and equipment should be available.

Rescue boat: Examination and check for satisfactory condition and operation *

1. Condition of Rescue boat structure including fixed and loose equipment.
2. Engine and propulsion system.
3. Manoeuvring system.
4. Power supply.
5. bailing system.

Release Gear: Examination and check for satisfactory condition and operation *

6. Operation devices for activation of release gear.
7. Excessive free play (tolerances).
8. Hook fastening.
9. Operational test of on-load release function.
10. Operation test of off-load release function.

* according to manufacturer's checklist (Doc. no. 0502)

1.2.2.4 5-Years Overhaul & Testing (acc. to MSC.1/Circ.1206)



Qualification level.

By manufacturers representative or a person appropriately trained and certified by the manufacturer. Look at page 1.2.2.6 Authorized service stations.

Items listed in checklists for the weekly/monthly inspections also form the first part of the annual through examination, when carrying out this examination the inspection of these items should be performed by the ship's crew in the presence of the manufacturer's representative or a person appropriately trained and certified by the manufacturer for the work to be done.

Inspection and maintenance records of inspections and routine maintenance carried out by the ship's crew and the applicable certificates for the launching appliances and equipment should be available.

Lifeboat: Examination and check for satisfactory condition and operation *

1. Condition of Rescue boat structure including fixed and loose equipment.
2. Engine and propulsion system.
3. Manoeuvring system.
4. Power supply.
5. bailing system.

Release Gear: Overhaul *

6. Dismantling of hook release units.
7. Examination with regard to tolerances and design requirements.
8. Adjustment of release gear system after assembly.
9. Operational test with a load according to SOLAS Reg.III/20.11.2.3.
10. Examination of vital parts with regard to defects and cracks.

**replace
hoisting
hook by an
overhauled
one.**

* according to manufacturer's checklist (Doc. no. 0502)

1.2.2.6 Authorized service stations

Necessary larger repairs, as well as the “annual thorough examination” and the “5-years overhaul” should be conducted by the manufacturer’s representative or a person appropriately trained and certified by the manufacturer.



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1.2.3.1 Maintenance of GRP-boats (GRP- repair)

Even GRP-boats are subject to damage to greater or lesser extent. The most common damages are scratches in the gelcoat which may also penetrate the laminate.

The gelcoat colours are:

Outer surface: orange RAL 2004

Inner surface: light green RAL 6019

In case of extensive damage contact the manufacturer.

Sometimes the gelcoat finish looks dull and the colour is faded.

Restore the original finish by sanding the surface with a fine grade water sandpaper of grade 400 or finer, or using a rubbing compound.

After sanding or rubbing the surface must be waxed. Rubbing should be done by hand or with a rotary polishing buff. Waxing should always done by hand.

DAMAGES OF GRP SHOULD BE REPAIRED AS SOON AS POSSIBLE, WATER WILL BREAK IN THE LAMINATE AND DESTROY LARGER PARTS!

LOOK AT SKETCH BELOW

1.1 Small not through going damages.

1.2 Grind the damage with sandpaper or a rasp until you reach unbroken laminate. Repair procedure as under no. 2.1.

2.1 Through going damages.

2.2 Cut away the broken material with a jig saw and a rasp.

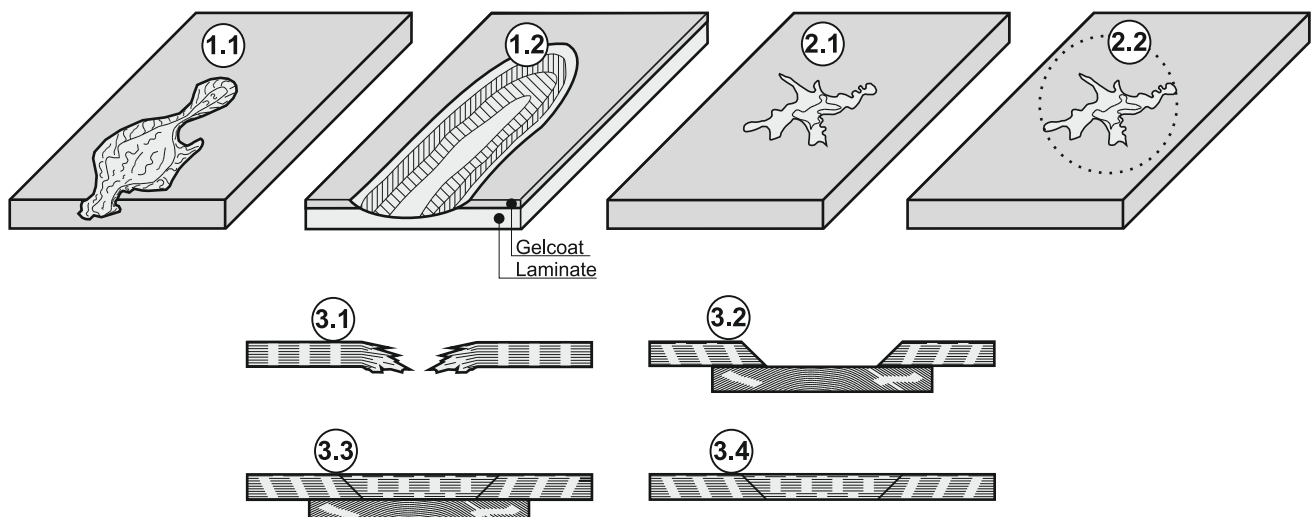
3.1 Sharp the edges with sandpaper.

3.2 Take a piece of wood as a rabbet behind the laminate. Clean the surface with a thinning agent.

3.3 Start to laminate with resin and glassfibre until the hole is filled up.

3.4 After starching take the wood away (abt. 30-40 min.) and grind the surface before painting.

GREATER DAMAGES, DAMAGES OF HIGHLY STRAINED OR STRESSED PIECES AND BULKHEADS SHOULD BE REPAIRED BY THE YARD!



1.2.3.2 Maintenance of GRP-boats (GRP- repair)

THE MANUFACTURING FOR REPARATURES WITH GLASSFIBRE STARCHED POLYESTER RESIN (Not obligatory terms of reference)

FUNDAMENTAL: For the starching of polyester resin the addition of starching substances and dispatching substance is necessary. All three substances are highly inflammable. The starching substance is poisonous and eye corrosive (CAUTION !) Please be careful, when putting these substances together. Spots, which should be repaired, must be dry.

When working with these materials, take care, that you work in a temperature from abt.20°C. Storing capacity: 9 months.

IMPORTANT: Starching substance and dispatching substance in no case should meet together (**EXPLOSION**)!!!!

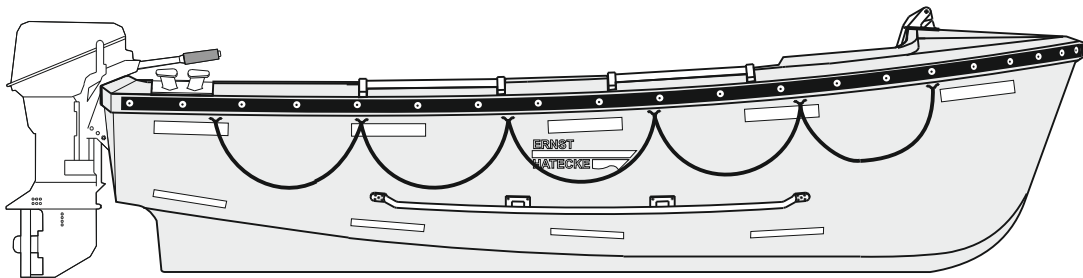
Preparing: On the spot of reparature the loose fabrics should be put away, the brinks should be bevelled and roughed. From the glassfibre mat are to be cut out great enough pieces. For to get a good effect at the brinks the mat is to be pitch out at the ends (1 quire glassfibre mat will give abt. 1mm material thickness). The polyester resin could be thinned with monostyrol (abt.10%) for a better working. The mixing with starching substance and dispatching substance should be done in the following proportion:
1000 polyester : 20 starching substance : 5 dispatching substance.
First the polyester resin is to be mixed with the starching substance exactly. Then the dispatcher is be mixed with the other both substances. Pay attention, that you don't prepare more materials than you need.

Manufacturing: The cutted glassfibre mats should be put on the spots of reparature. With a brush you touch lightly the mixed polyester resin, until the mat is wet. With the following pieces you do this in the same way, until you have the necessary material thickness.

After starching (starching time abt.30-40 minutes) you may polish the spot. if you like painting, please use DD-lacs.

For cleaning the tools, use monostyrol (50%) or acetone (chemically clean).

1.3 TRAININGS MANUAL



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1.3.1 Trainings instructions

To the:

“Consolidated text of the International Convention for the Safety of Life at Sea, 1974, Chapter III, Reg.19:”

4 On-board training and instructions

- 4.1** On-board training and in the use of the ship’s life saving appliances, including survival craft equipment, and in the use of the ship’s fire-extinguishing appliances shall be given as soon as possible but not later than two weeks after a crew member joins the ship. However, if the crew member is on a regularly scheduled rotating assignment to the ship, such training shall be given not later than two weeks after the time of first joining the ship. Instruction in the use of the ship’s fire-extinguishing appliances, life-saving appliances, and in survival at sea shall be given at the same interval as the drills. Individual instruction may cover different parts of the ship’s life-saving and fire-extinguishing appliances, but all the ship’s life-saving and fire-extinguishing appliances shall be covered within any period of two months.
- 4.2** Every crew member shall be given instructions which shall include but not necessarily be limited to:
- 4.2.3** special instructions necessary for use of the ship’s life-saving appliances in severe weather and severe sea conditions; and.....

*) for more detailed information to all points look the original IMO papers.

1.3.2 In the interest of safety



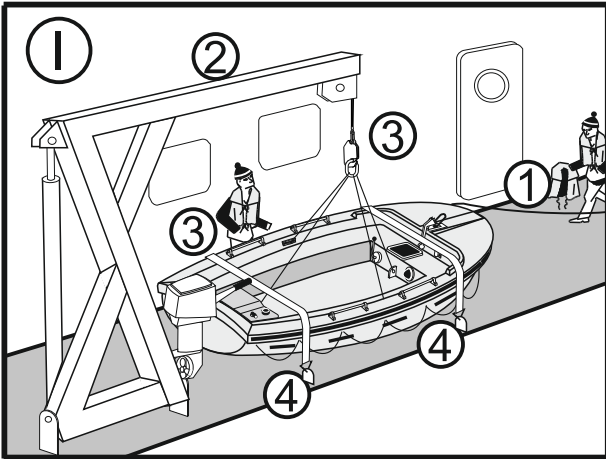
WARNING

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4. Keep off in reach of propeller!
5. Before starting read engine instruction manual!

6. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odourless and deadly poison!
7. DO NOT store, spill, or use gasoline near an open flame!
8. DO NOT refuel indoors where area is not well ventilated!
9. Avoid skin contact to battery acid (corrosive)!

10. Misuse of the release gear can injure or kill!

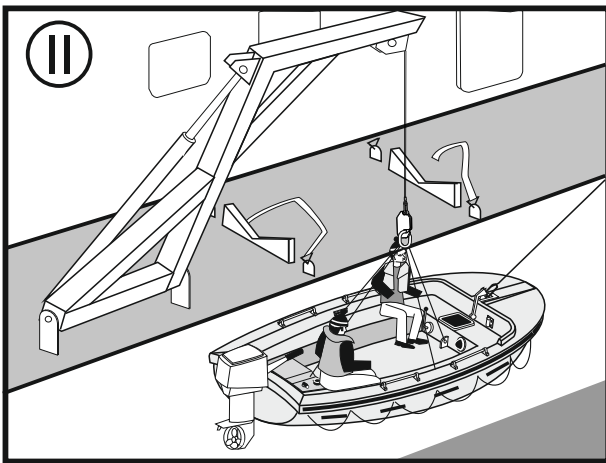
1.3.3 Launching and recovery instructions



I

Abonding the ship: CHECK THAT EVERY BODY IS PRESENT!

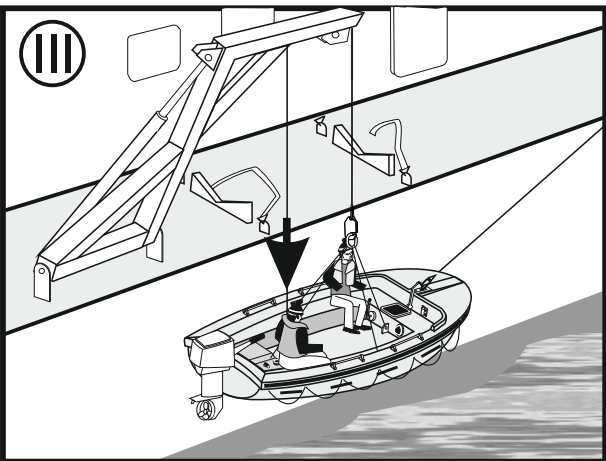
1. Fasten painter.
2. Davit clear for lowering (study the davit /crane manufacturers instructions).
3. Remove lashings.
4. Lower the outer end of the boat stowage rest if necessary.



II

Board the boat (wait until order is given), swing out the davit.

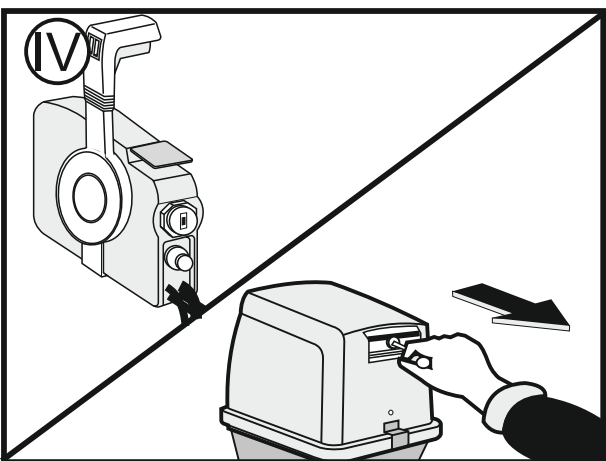
1. The occupants take place on the marked areas. Take care for the proper trim of the boat hanging in the hoisting sling.
2. Swing out the davit (study the instructions of the davit manufacturer).



III

Lowering.

With the remote control wire it is possible to operate the boat winch from inside the boat. (Study the also the winch manufacturers instructions).



IV

Start the engine :

For starting instruction look at the engine manufacturers handbook in the appendix of this manual.

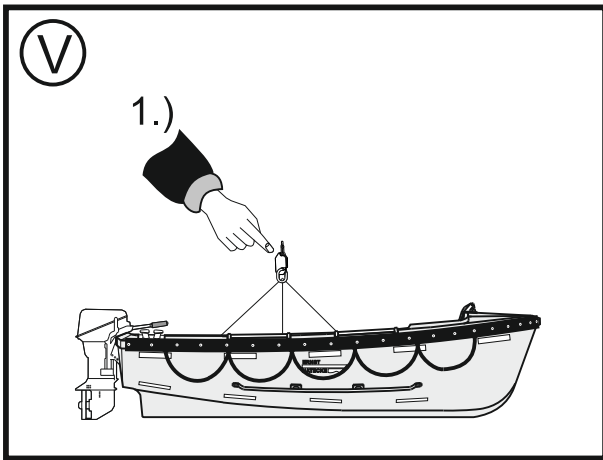


CAUTION:
Keep off of reach of propeller



WARNING:
Always keep hand and feet clear near moving and rotating mashinery.

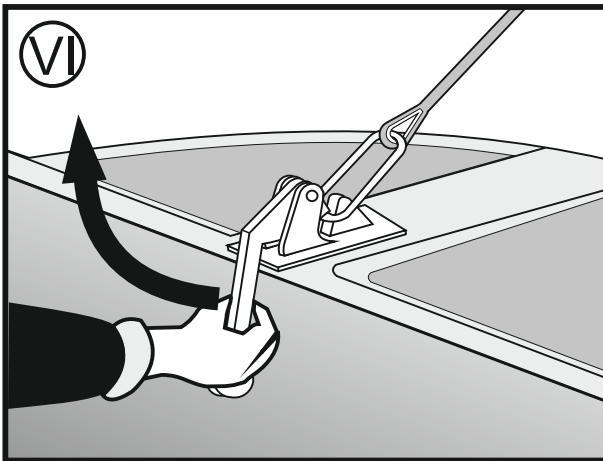
1.3.4 Launching and recovery instructions



V Release hoisting hook.
1.) After the boat is waterborne release the hoisting hook.
(for further instruction see operation manual of hook supplier.)

Release painter.

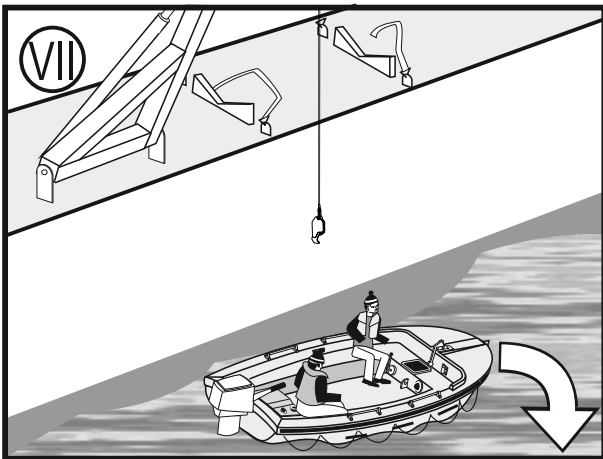
Pull up forceful (arrow direction) the painter releaser lever.



VI

The boat is now free.

Engage the motorgear to forward, run the outboard engine with high speed and steer away from the vessel.

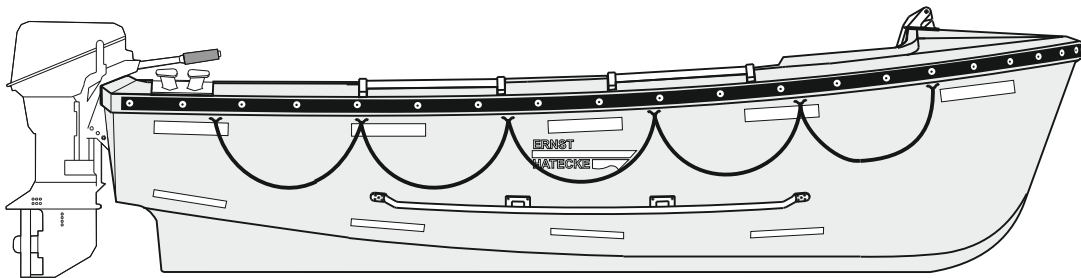


VII

Recovery will be done by reverse step VII to I.



1.4 ADDITIONAL



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