

Rigid Inflatable Boat

SILVER LINE

Models:

S520, S520L, S520LF, S520S

User's Manual

INTRODUCTION.

"GRAND" inflatable motor boat of the "SILVER LINE" series: S520, S520L, S520F and S520S has been designed under requirements of ISO 6185 "Plastomer and Elastomer Inflatable Boats" and DIN 7870 "Inflatable Boats with Reinforced Shells".

PURPOSE.

The rigid inflatable motor boat of the "SILVER LINE" series relates to the category of pleasure boats and is intended for water sports, tourism, the use as a floating means on board of launches, yachts and other vessels.

TECNICAL DATA SPECIFICATION

| Model | Unit | S520 / S520L/S520F/S520S |
|------------------------------------|-----------------------|---|
| Length overall | m ft-inches | 5,2 17'1" |
| Length inside | m ft-inches | 3.85 12'8" |
| Width overall | m ft-inches | 2,2 7'3" |
| Width inside | m ft-inches | 1,15 3'9" |
| Tube diameter max | m ft-inches | 0,5 20" |
| Number of chambers | | 5 |
| Passenger capacity | pers. | 9 |
| Load capacity | kg lbs | 1000 2200 |
| Boat weight | kg lbs | 265/325/340/290 583/715/750/638 |
| Engine power recommended | HP kW | 70 51,5 |
| Engine power max | HP kW | 100 73,6 |
| Engine weight max | kg lbs | 175 386 |
| Engine shaft length | ft-inches | 20"(long) |
| Boat design Category(Dir.94/25/EC) | | Ñ |

COMPLETE SET

| Model | | | S520 | S520L/F | S520S |
|---|------|------|--------------------------|--------------------------|--------------------------|
| Description | unit | q-ty | availability | availability | availability |
| STANDART FEATURES | | | | | |
| Fiberglass hull | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Molded-in spacious bow locker with access door | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Towing bow eye, 2front and 2 rear lifting eyes | set. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cocpit drain plug and hull drain plug | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Soft curved multi-chamber buoyancy tube | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Rear cleats | pcs. | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tough raised rubbing strake with splash guard | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bow grab handle, safety grab handles | pcs. | 1+12 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Paddles with posts | pcs. | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Foot pump | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Maintenance kit | set. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| User's manual | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| STANDART FEATURES FOR DELUXE VERSION | | | | | |
| Steering console CL-03 with windshield | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Steering system with cable, and wheel | | | | | |
| Rear duble seat with seat back | pcs | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| STANDART FEATURES FOR SPORT VERSION | | | | | |
| Steering console CS-01W with windshield and railing | pcs | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Steering system with cable, and wheel | pcs | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

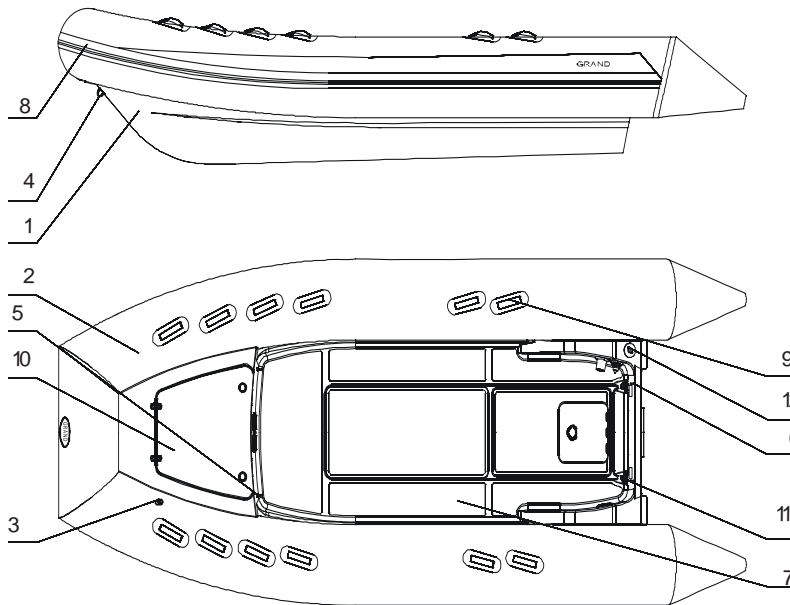
COMPLETE SET

| Model | | S520 | S520L/F | S520S | |
|---|------|------|--------------------------|--------------------------|--------------------------|
| Description | unit | q-ty | availability | availability | availability |
| OPTIONAL EQUIPMENT | | | | | |
| Fiberglass step end of the inflatable tube | pcs. | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Keel protection | set | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tube protection | set. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Upgrade to close sell foam cushions | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Stainles steel railing for steering console CL-03 | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Overall cover | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Steering console cover | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Overpressure valve | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bow step plate with clam bollard | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bow locker removable cushion | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Stainles steel navigation arch | pcs | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Removable sundeck | pcs | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Collapsible bimini top | pcs | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Electric package | set | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 90 lit. build-in fuel system with send and filler | pcs. | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

— Your "GRAND" boat "SILVER LINE" complete set included this items.

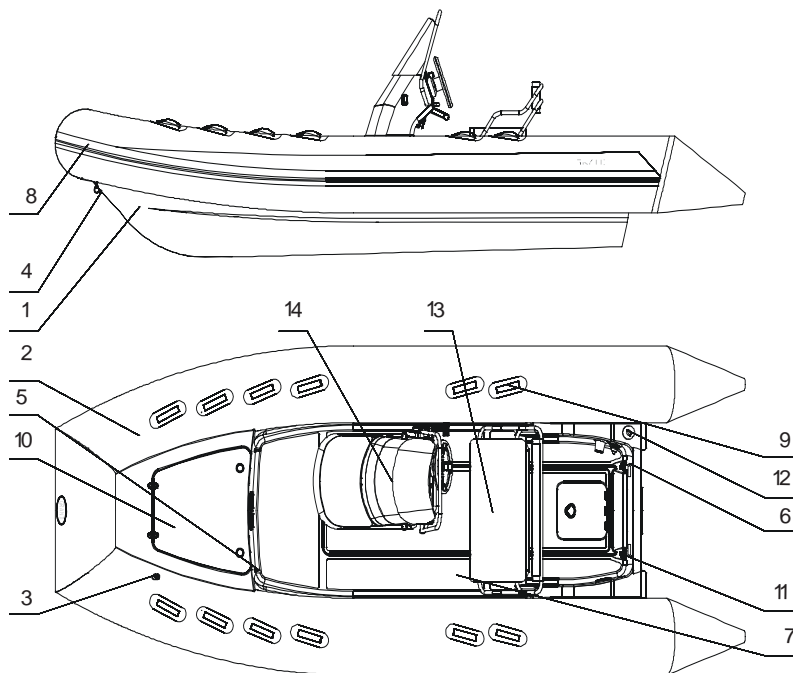


S520



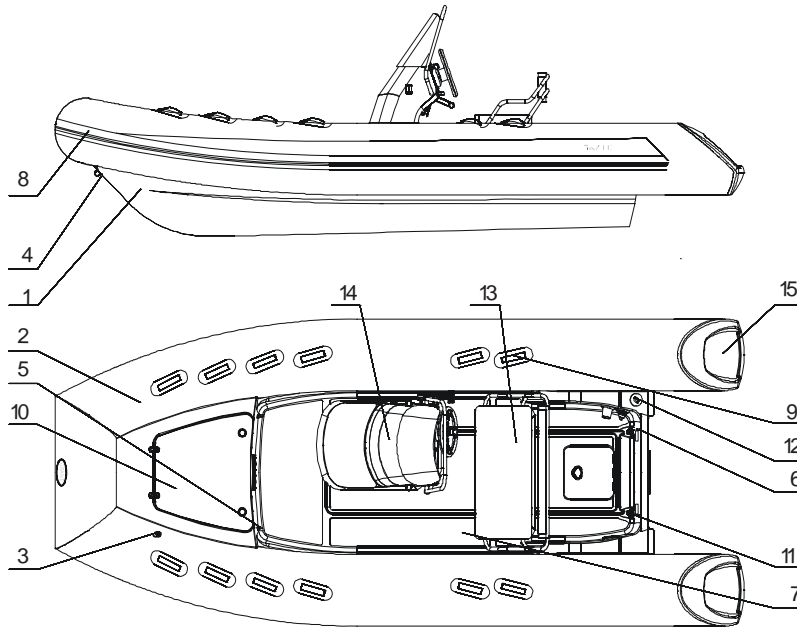
| Pos | Item |
|-----|-----------------------------|
| 1 | Fiberglass hull |
| 2 | Buoyancy tube |
| 3 | Inflation / deflation valve |
| 4 | Bow towing eye |
| 5 | Bow lifting eye |
| 6 | Stern lifting eye |
| 7 | Antiskid deck surface |
| 8 | Raised rubbing strake |
| 9 | Safety grab handles |
| 10 | Molded-in bow stowage |
| 11 | Hull drain plug |
| 12 | Fuel fill |

S520L



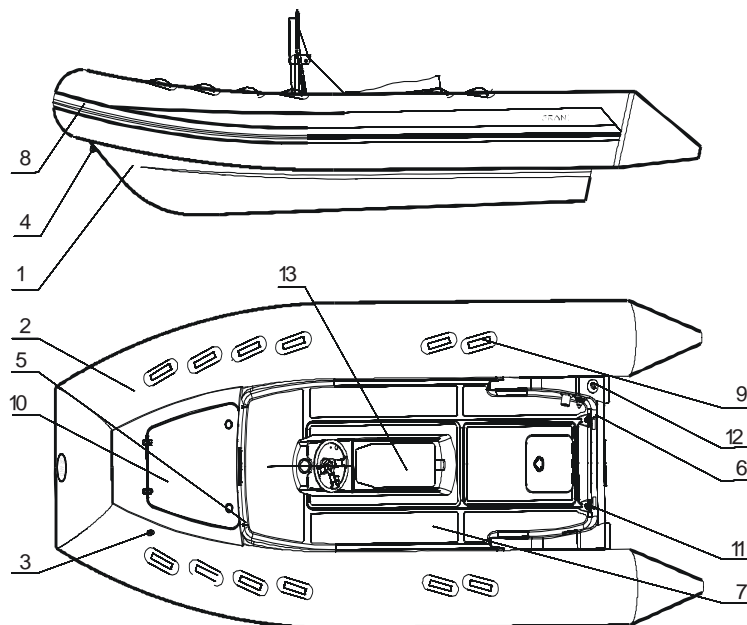
| Pos | Item |
|-----|--|
| 1 | Fiberglass hull |
| 2 | Buoyancy tube |
| 3 | Inflation / deflation valve |
| 4 | Bow towing eye |
| 5 | Bow lifting eye |
| 6 | Stern lifting eye |
| 7 | Antiskid deck surface |
| 8 | Raised rubbing strake |
| 9 | Safety grab handles |
| 10 | Molded-in bow stowage |
| 11 | Hull drain plug |
| 12 | Fuel fill |
| 13 | Double seat SD-02 with container, cushion, soft back |
| 14 | Steering console CL-03 |

S520F



| Pos | Item |
|-----|--|
| 1 | Fiberglass hull |
| 2 | Buoyancy tube |
| 3 | Inflation / deflation valve |
| 4 | Bow towing eye |
| 5 | Bow lifting eye |
| 6 | Stern lifting eye |
| 7 | Antiskid deck surface |
| 8 | Raised rubbing strake |
| 9 | Safety grab handles |
| 10 | Molded-in bow stowage |
| 11 | Hull drain plug |
| 12 | Fuel fill |
| 13 | Double seat SD-02 with container, cushion, soft back |
| 14 | Steering console CL-03 |
| 15 | Fiberglass step end |

S520S



| Pos | Item |
|-----|---|
| 1 | Fiberglass hull |
| 2 | Buoyancy tube |
| 3 | Inflation / deflation valve |
| 4 | Bow towing eye |
| 5 | Bow lifting eye |
| 6 | Stern lifting eye |
| 7 | Antiskid deck surface |
| 8 | Raised rubbing strake |
| 9 | Safety grab handles |
| 10 | Molded-in bow stowage |
| 11 | Hull drain plug |
| 12 | Fuel fill |
| 13 | Steering console CS-01 with container and cushion |

PREPARATION FOR EXPLOITATION.

In order to set the boat in the operation condition perform as follows:

- unfold the inflatable tube;
- mount the outboard engine on the transom in accordance with its own installation instruction.

For boats S470L, S470S:

- extend the engine remote control cables and steering system cable from the engine mounting place to the steering console mounting place .

INFLATION / DEFLATION VALVE OPERATION.

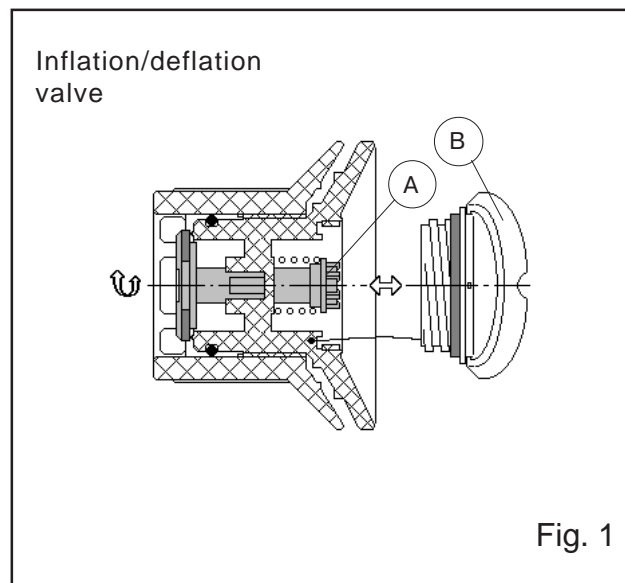
The valve has two positions of sliding part A corresponding to its two conditions (modes):

- sliding part A is with drawn - operation condition of the valve (compartment air filling mode);
- sliding part A is recessed - valve in condition "OPEN" (compartment air discharge mode).

In order to switch the valve over from one condition to another, just press sliding part A with your finger to turn it by 90 degrees in any direction until it is fixed (See Fig.1).

Prior to begin the compartment filling process set all valves in the operating condition. On completion of filling close the valves with bonnets B (rotate them clockwise).

In order to discharge air from the compartments, open the valves (by counterclockwise rotation) and switch the valves over into condition "OPEN".



ATTENTION ! Overinflating of your boat, when the air pressure is more than nominal, sufficiently decreases the boat life time.

STEERING CONSOLE INSTALATION

Mount the engine remote controle block on the right side of the steering console;

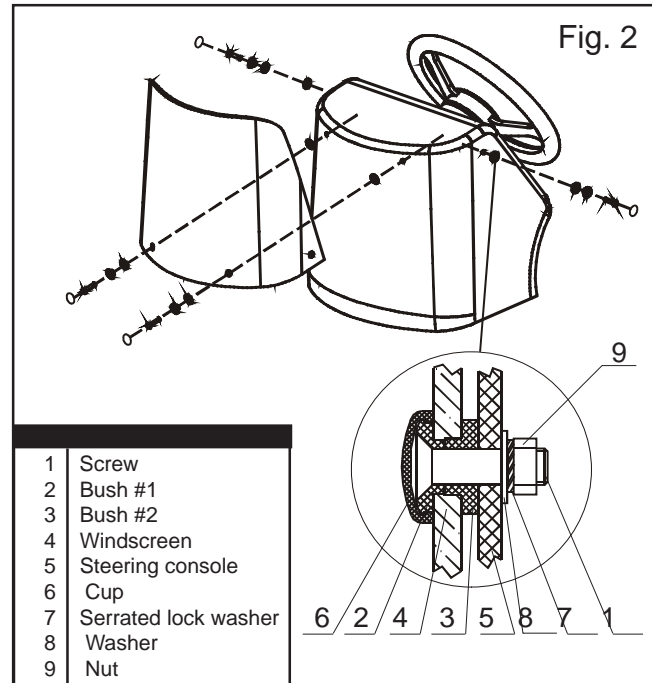
In order to install the windscreen onto the console perform the next operations (Fig. 2):

- unfix and hinge out overhead part of steering console or seat for steering console CS-01 «Sport»;
- align holes in the windscreen with holes in the console overhead part;
- fix windscreen by means of the screws M6x25, bushes , washers and nuts M6 from the complete set;

For steering console CS-01 «Sport»:

- align holes in the windscreen railing with holes in the console «Sport»;
- fix windscreen railing by means of the bolts M12x20, support windscreen railing and washers from the complete set;
- tighten all the bolts and screws.

ATTENTION ! *To avoid the water penetration into the console inner layers, please, tight all the hole free space with any water resistant filler.*



In order to install the steering console CL-03 on the deck perform the next operations (Fig. 3):

- align holes in the bottom of steering console with holes on the deck;
- fix steering console to the deck by means of bolts M8*25 and washers (see Fig.3);
- attach steering system cable in accordance with its own installation (manual);
- replace and fix overhead part of the steering console by means of serrated lock washers, washers and nuts M8 from complete set (see Fig.3).
- tighten all the bolts and nuts.

ATTENTION ! To avoid the water penetration into the console and hull inner layers, please, tight all the hole free space with any water resistant filler.

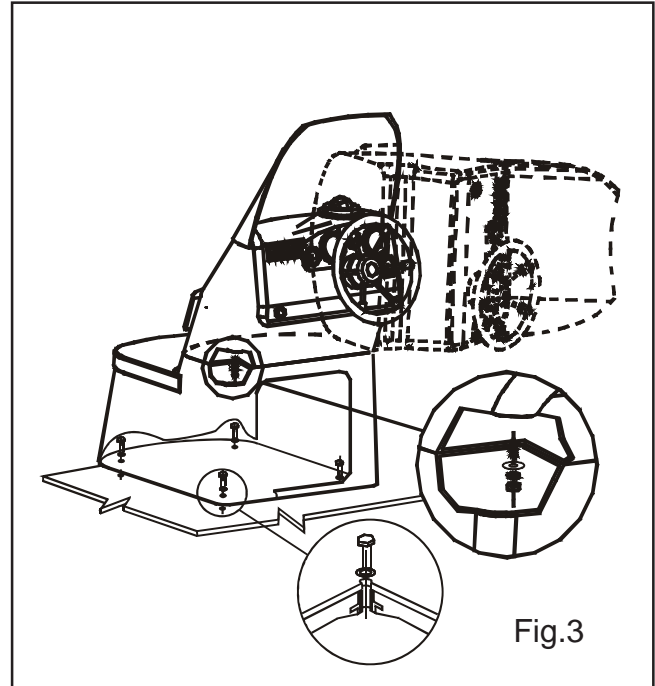
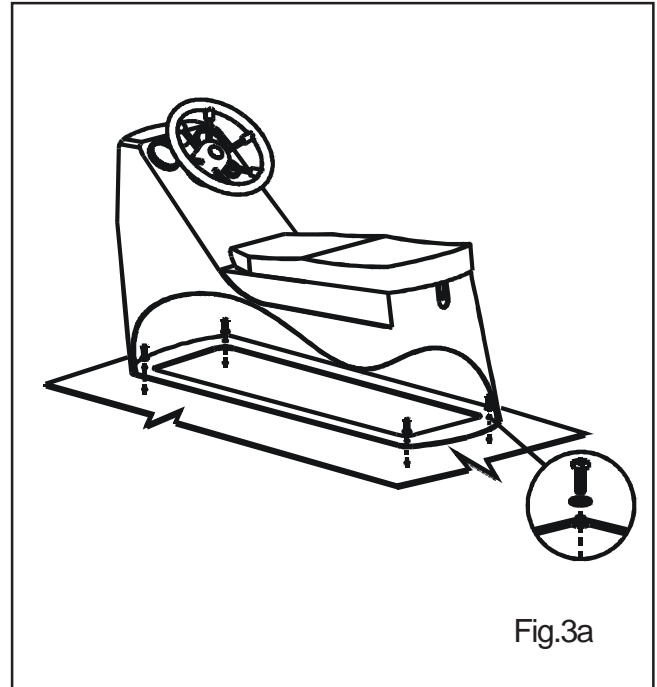


Fig.3

For steering console CS-01:

- align holes in the bottom of steering console with holes on the deck;
- fix steering console to the deck by means of bolts M8*25 and washers (see Fig.3a);
- attach steering system cable in accordance with its own installation (manual);
- tighten all the bolts.



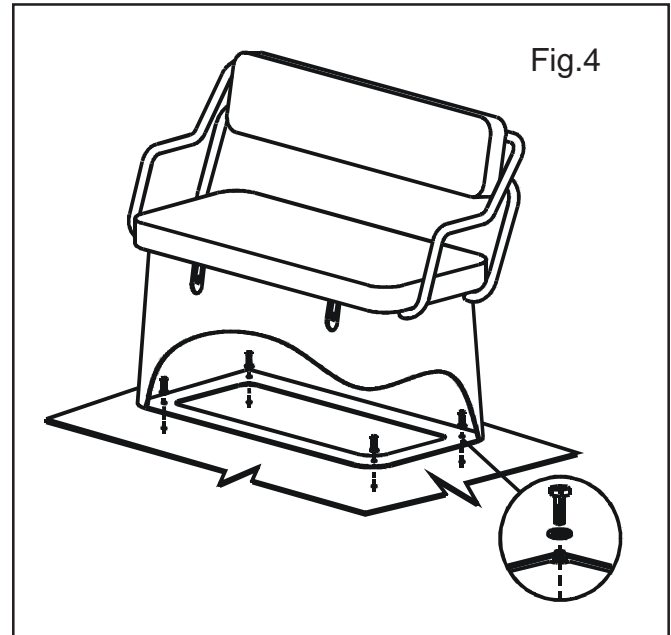
ATTENTION ! To avoid the water penetration into the console and hull inner layers, please, tight all the hole free space with any water resistant filler.

CONTAINER INSTALATION

In order to install the container onto the deck perform the next operations (Fig. 4):

- hinge out the seat;
- align holes on the bottom container with holes on the deck;
- fix container to the deck by means of bolts M8*25 and washers (see Fig.4).
- tighten all the bolts.
- replace the seat.

ATTENTION ! *To avoid the water penetration into the hull and container inner layers, please, tight all the hole free space with any water resistant filler.*



MAINTENANCE

Main conditions of long service life is right and careful service.

■ Avoid excessive increasing of pressure in the board, especially from heating by the sun rays.

■ After exploitation take off sand and dirt from boat surface, and carefully dry it.

■ Avoid the water getting into the chambers. If a fuel or an oil / gas gets to the boat surface it is necessary to wash the soiling place by soap water as soon as possible and dry.

■ Pay attention to the condition of bottom and seat surfaces. If the coating is destroyed it is necessary to dry this element and restore the defend ply.

■ After the season prepare the boat to winter keeping. Clean boat surface from sand and dirt and make the necessary repairs, if damages take place. If it is possible, keep the boat in the open and slightly pumped state in air temperature 0-25°C. The boat must be protected from the sun rays.

■ Insignificant boat repairing (eliminating the board punctures or cuts) you may carry out by yourself. In this case use the coated fabric patches from the complete set. Ask your dealer for the correct type of glue you may use for the repair.

■ In case if sufficient damages of hull, tube body, partitions or seams it is recommended to apply for professional repair in authorised service station.

OPERATING REGULATIONS

Dear user,

We thank you for your purchase and do hope that you will have a great fun of it. However, to make your joy and pleasure complete, we would request you to read carefully and observe the directions and recommendations specified below.

IT IS STRICTLY FORBIDDEN :

to handle the boat in the state of intoxication and without individual rescue means being used (life-saving belts, jackets, etc.)

IT IS FORBIDDEN :

- to overload the boat above the design weight-carrying capacity;
- to use an outboard engine of power exceeding the maximum allowable value;
- to bring the tube pressure up to the value exceeding the rated one (0.15 bar);
- to drag the boat across a rough surface.

■ Danger of usage of engine having insufficient or excessive power

According to the safety regulations, each inflatable boat should be furnished with an outboard engine having the maximum allowable power. You will find the data on the maximum allowable power of the engine on the manufacturer's plate with the designation of the model type inscribed thereon. The plate is fixed in the afterbody of the boat. However, you should choose the engine power within the allowable range so as to ensure that you may safely reach the shore when heading into the wind or into the current.

■ Observation of local shipping regulations

For each particular water area the local shipping regulations are in force. You may apply for information to the appropriate water transport and shipping directorate, as well as to the water police.

■ Proper usage of boat equipment and accessories

Use the boat equipment and accessories only on their direct purpose to ensure reliable service.

■ Availability of Oars

Even when sailing with an outboard engine you should always have the oars available with you so that you were able to reach the shore without outside assistance in case of any damage to the boat.

■ Usage of emergency stop switch

On your request any outboard engine seller may provide your engine with the emergency stop switch. During navigation the switch should be connected to the wrist of your hand by means of a cord. In case you fall overboard, even if being a steersman, the switch will cut out the engine and the propeller. This arrangement will enable you to avoid any traumas and to reach the boat.

■ Prevention of damages caused by electrolyte or fuel leakages

Take all possible precautions against penetration of fuel or electrolyte from the storage battery into the inflatable boat. If it does happen wash thoroughly the fouled spots with water.

■ Cargo arrangement and stowing, attachment of items and prevention of falling overboard

You should be always sure that the number of people on board never exceeds that specified in the user's manual or on the manufacturer's plate provided on the transom. The boat will retain an adequate floatability and will not keel over only provided that the load is arranged reasonably. Therefore, do not accommodate all passengers on the same side of the boat. Arrange the cargo to be carried uniformly inside the boat, all items being reliably secured on the bottom of the boat. All passengers should be accommodated inside the boat. The

occupied seats should not be left throughout the entire sailing time. When sailing with an outboard engine the steersman should shift his body forward in the course of acceleration to prevent the boat forebody from raising under the force of upthrust waves.

■ Presence of sharp and pricking objects on board

Despite the strong shell of the boat we are recommended to handle sharp and pricking objects being on board with care. For example, it concerns a knife blade, fish-hook point, etc.

■ Rocky shore, mole, shoals (for example, sand banks, coral reefs, rocks)

Approach rocky shores, shoals, moles, etc. carefully to avoid damages to the boat. It is strictly prohibited to drag the boat across rough surfaces (shingle, rocks, concrete, etc.).

■ Check at navigation

In case of prolonged navigation with the use of an outboard engine, regularly check to ensure that the engine is reliably attached to the boat. If the engine was attached carelessly the attachment may work loose under the action of vibration. Besides, check air chambers pressure at regular intervals, since the pressure may vary under the effects of outside air temperature and atmospheric pressure variations. Never forget to monitor regularly the quantity of fuel in the fuel tank. Keep always in mind that the quantity of fuel should be sufficient for you to sail to your final destination.

■ Availability of rescue means (life-saving jackets, distress signals, spare parts)

If you are planning to go beyond the protected water areas you should provide all passengers on board with life-saving

jackets. All passengers should put on life-saving jackets under strong wind and heavy seaways conditions. Those passengers who cannot swim should always carry the life-saving jackets while on board! It is also recommended to keep constantly distress signal means on board.

■ **Towing**

At towing the towing rope length should not be at least 3 lengths of the boat, the rope being secured to both boats in a manner ensuring its immediately, single-motion release. The steersman of the towed boat should be assisted by another crew member to monitor the process of towing. In this case, certain communication gestures should be agreed upon beforehand.

■ **Damage to one of air chambers**

The inflatable boat is designed to provide an adequate stability in case of the complete damage to one the air chambers (balloon compartments) at the expense of the remaining air chambers and the hull. Thanks to it, you will be able to reach safely the nearest shore. Reduce the speed and shift your body to the undamaged part of the boat. Watch changes in stability. After this immediately head for the nearest shore. To prevent penetration of water into the boat, pull the shell of the damaged air chambers upwards.

■ **Anchor and mooring fast fastening**

Fix the anchor and towing ropes in the forebody of the boat to the front towing ring. Fix the back spring on the transom via special holes.

■ **Danger of currents and wind**

Before navigation of the boat in unfamiliar waters make detail inquiries about local conditions and regulations! Currents, wind, shoals, rising and falling tides, as well as weather variations may imply serious danger!

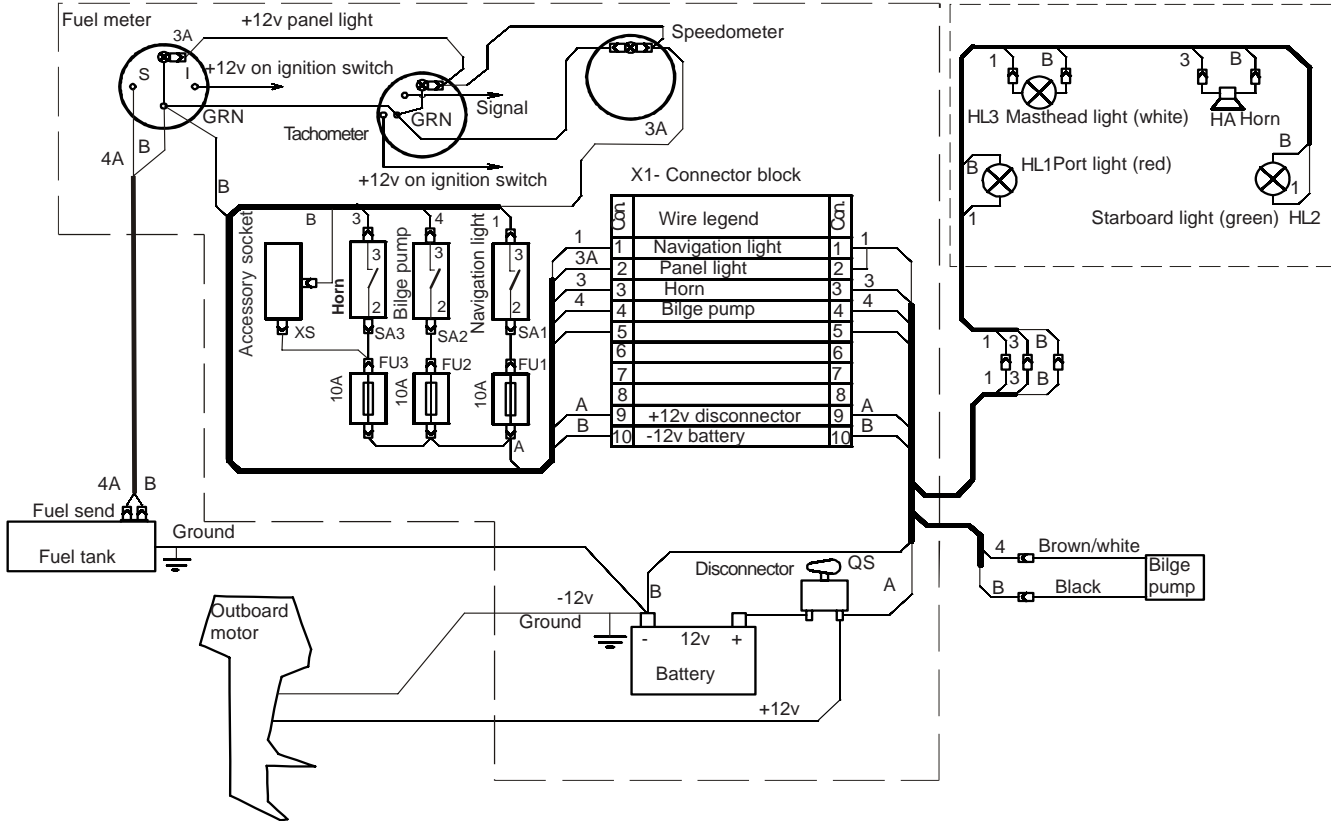
■ **In emergency stay in boat**

In any unexpected situation (engine failure, boat damage, etc.) do not ever leave the boat provided it is still afloat. Even if you believe that the shore is just nearby stay in the boat, since you will be looked for in this particular place and, most probably, will be found. Should the boat become partially flooded throw heavy objects (batteries, fuel tank, engine) overboard to ensure additional floatability.

The "GRAND" Company employees would like to wish you a pleasant and safe leisure time!

WIRING DIAGRAM

NAVIGATION ARCH



For notes