

Inflatable Boat

# RANGER

Models:

R380, R420, R460

USER`S MANUAL

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

## TECHNICAL DATA SPECIFICATION

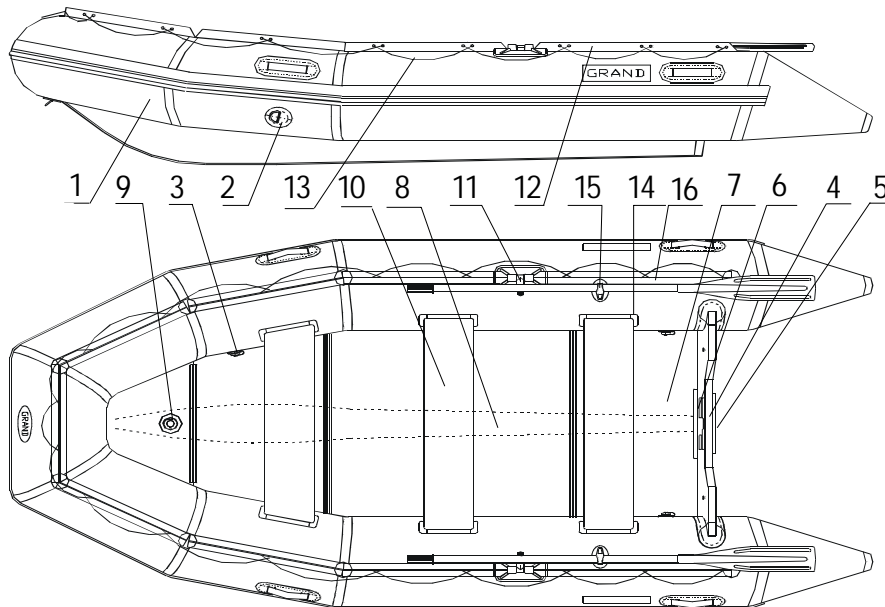
Model	R380				R420		R460	
Length	m	ft-inches	3,8	12' 6"	4,2	13'9"	4,6	15'1"
Width	m	ft-inches	1,9	6'3"	2,05	6'9"	2,05	6'9"
Tube diameter max	m	ft-inches	0.46	18"	0,48	19"	0,48	19"
Number of air chambers	pcs		3+1		5+1		5+1	
Carrying capacity	kg	lbs	700	1540	800	1760	900	1980
Pessengers capacity	pers.		7		9		10	
Max. engine power	kW	Hp	22,1	30	29,4	40	36,8	50
Nominal pressure	bar	PSI	0,15	2.15	0,15	2.15	0,15	2.15
Complete weight	kg	lbs	70	154	90	198	110	242
Package dimensions <sup>1</sup> 1	m	ft-inches	1,48x0,68x0,38 / 4'10"x2'3"x1'3"		1,68x0,78x0,38/ 5'6"x2'7"x1'3"		1,68x0,93x0,43/ 5'6"x3'x1'5"	
Package dimensions <sup>1</sup> 2	m	ft-inches	1,28x0,63x0,23 / 4'2"x2'1"x9"		1,28x0,78x0,23 / 4'2"x2'7"x9"		1,28x0,78x0,23/4'2"x2'7"x9"	

## COMPLETE SET

Model	R380	R420	R460
Boat	1	1	1
Inflatable keel	1	1	1
Plywood floor section	5	5	5
Removable H-shaped stop	4	4	4
Lateral beam	2	2	2
Wooden seat with stops and brackets	3	3	4
Foot pump	1	1	1
Oars	2	2	2
Maintenance kit:			
- repair patches	2	2	2
- seat stops	2	2	2
Carry bag	2	2	2
User's manual	1	1	1

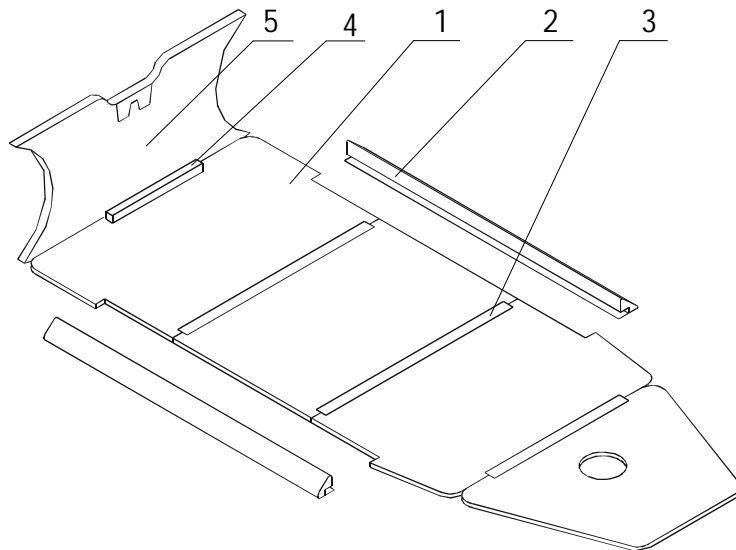
Rem: Technical data and complete set alternations may take place.

# Ranger



1	Inflatable tube
2	Towing eye
3	Tube inflation/deflation valve
4	Rigid transom
5	Transom plate
6	Drain valve
7	Sectional floor (full rigid deck)
8	Inflatable elastic keel
9	Keel inflation/deflation valve
10	Wooden seat
11	Oar lock
12	Lifeline stanchion
13	Lifeline
14	Wooden seat bracket
15	Oar post
16	Oar

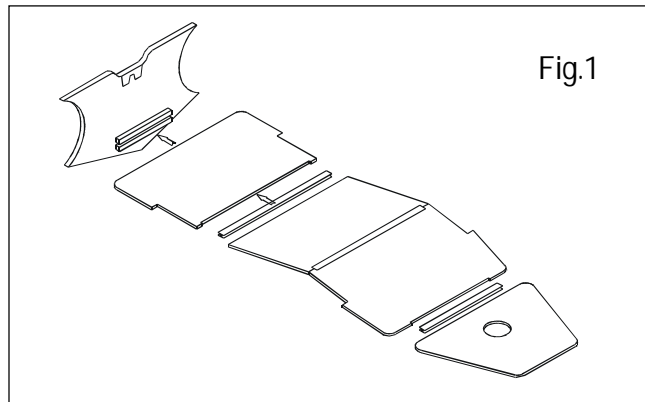
## Sectional floor



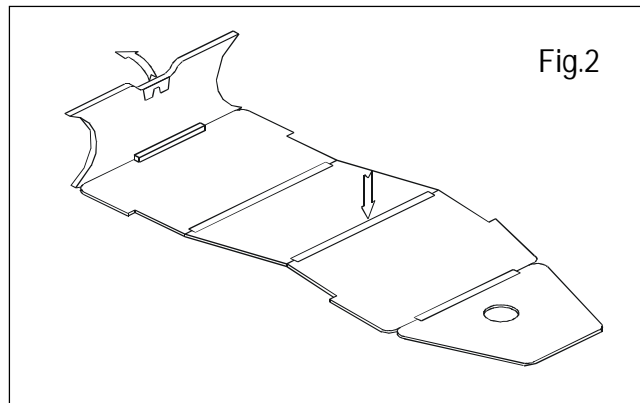
Pos	Item
1	Floor section
2	Lateral beam
3	Removable H-shaped stop
4	Transom stop
5	Transom

## PREPARATION FOR EXPLOITATION

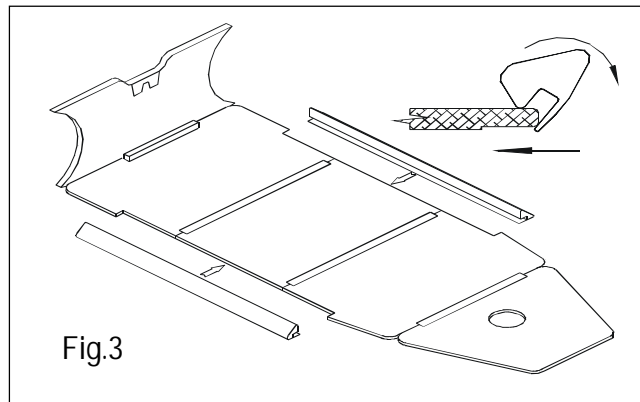
1. Unpack the boat and unfold the inflatable tube.
2. Activate all valve into inflation position (look below).
3. Straighten the keel along the bottom axis so that the keel valve may be faced upwards.
4. Assemble the rigid floor. For that:
  - insert the first section (the section number is applied on the section upper surface) as far as possible into the bow angle;
  - insert the transom section (last section) between the stops provided on the transom as show on fig.1;
  - set the removable H-shaped stops in the cut-outs provided on the sections and fit all section together as show on fig.1;



- check that all sections and H-shaped stops are correctly aligned
- make sure that the edges of the remaining sections fall within the folding line of the balloon and bottom connecting tape;
- to flattening floor apply the force to the sections connecting zone apex as show on fig.2;



- set the lateral beams in the cut-outs provided on section, for that: hook the floor edge with the beam from below and make a pushing motion from top to bottom and forward as show on fig.3;



- check to ensure that the beams don't "catch" the balloon;
  - make sure again that the section edges and beams fall within the folding line of balloon and bottom connecting tape.
5. Apply the foot pump to fill the afterbody compartments with air to the pressure being slightly below its rated value (the balloon will be completely straightened). Then fill the forebody compartment with air up to the rated pressure.
- The rated pressure value is 0.15 bar (2.15 psi).
6. Fill the inflatable keel with air up to the rated pressure value 0.15 bar (2.15 psi).
7. Install the wooden seat. For that:
- insert the seat stops on the lower surface of the wooden seats into the holes of the brackets on the tube,
  - turn the stops caps to 90 degrees till they click as shown in the figure (see Fig.4).

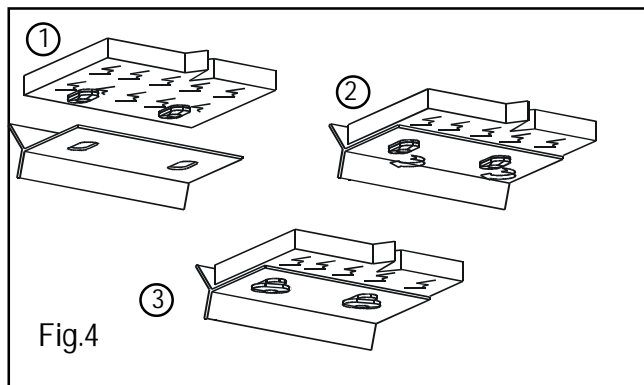


Fig.4

8. On completion of filling close the valves with bonnets B (rotate them clockwise, see Fig.5).
9. Assemble the oars by entering the removable parts with blades into the locks until the click. Use the holes provided in the oar handles to set the oars into the rowlocks with the blades being faced to the aft. Secure the oars in the holders.
10. When mounting the outboard engine make sure that it is reliably fixed to the transom. In addition, take every precaution to avoid any contacts of the fuel with the boat surfaces.

#### INFORMATION!

In order to discharge air from the compartments, open the valves (by counterclockwise rotation) and switch the valves over into condition "OPEN" (see Fig.5).

#### INFLATION / DEFLATION VALVES OPERATION

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

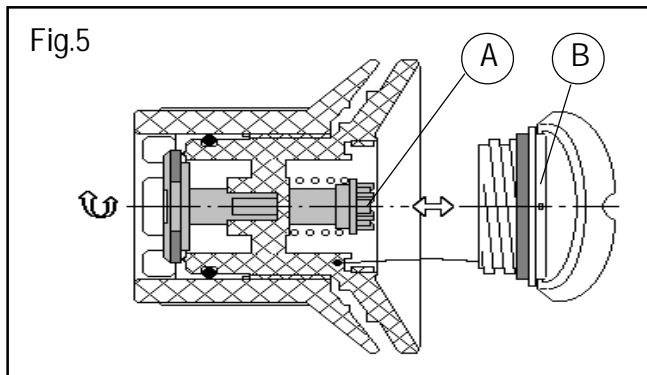
- sliding part A is withdrawn - operation condition of the valve (compartment air filling mode);
- sliding part A is recessed - valve in condition "OPEN" (compartment air discharge mode).

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.

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)(see Fig. 5).

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

For notes

**ATTENTION !**

1. Boat exploitation with board and keel pressure more than nominal decreases boat service life.
2. Board air chambers and keel are hermetical if they keep own form during 8 hours. In this case:
  - primary pressure has to be nominal;
  - input valves openings have to be tightly closed by plugs.
3. Until sailing satisfy oneself that drain opening on a transom is closed by plug.

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 floor, tube body, partitions or seams it is recommended to apply for professional repair in authorised service station.

Dear user,

We thank your 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 use the boat with the wave height being above 0.5 m;
- to bring the tube pressure up to the value exceeding the rated one ( 0.15 bar/ 2.15 psi );
- 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 wooden floor. 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!

MODEL

SERIAL No.

Date of manufacture

Quality inspection stamp