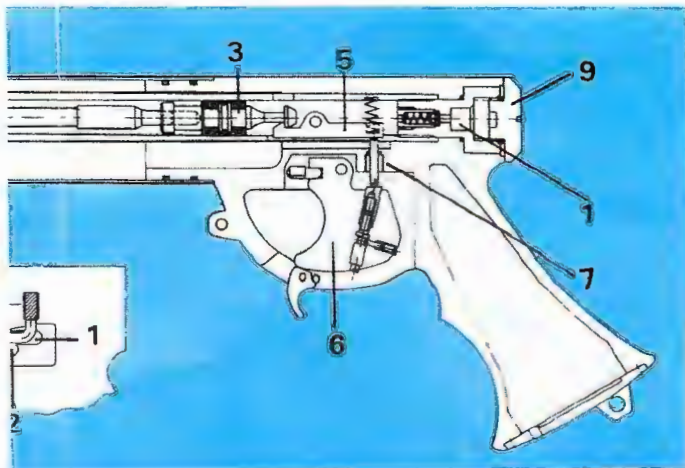




LOADING

The gun is ready to be used, when it has the necessary pressure. Place the shaft, in the muzzle of the gun, pressing inwards, till the piston gets hooked by the trigger mechanism; in other words till you hear the characteristic "click" of the hooking. Never load when you are out of the water or near swimmers. The figures below show the correct positions for loading:

"SR" - WITH 2 SPEEDS BASIC DIFFERENCE

It is the product of SR with capacity of choosing two speeds or shooting forces. This is succeeded with the separation of the air-chamber in two parts when we want reduced force, to use for shooting smaller quantity of air than that contained in the gun. The same we do, in order to decrease the required muscular force for the loading.

CHOOSING THE SPEEDS

The numbers of the text correspond to those of the figure, given here. At the left of the grip, exactly over the thumb (while we hold the gun with the right) there is the lever for the selection of speeds, which when in position (1) we have the greatest output of the gun. In order to decrease the shooting force, we push the lever frontwards and down to the position. (2). In this position, the lever is clutched, so that to stay there for as long as we want. If we want to cancel this decision, we push the lever upwards so that it returns to position (1).

EASE IN LOADING

When we put the lever in position (2) then we have blocked the free flow of the air between the two parts of the air-chamber leaving as only outlet the non-return valve of the shutter (3).

The compressed air therefore, while loading, which passes to the other part, cannot return back. In case we repeat the same steps, we will ascertain that this time the force needed is essentially smaller. With this technique, we load with two, three, or more efforts, a gun, which cannot be loaded with one. The SR is so designed, (relation of air-chamber with barrel) to maintain, almost unreduced, pressure exercised on the piston, in its whole travel. So, the spear, is accelerating firmly, till it gets out of the barrel, and starts with the greatest possible initial speed (velocity). This has as result, of further distance to the target with greater force.

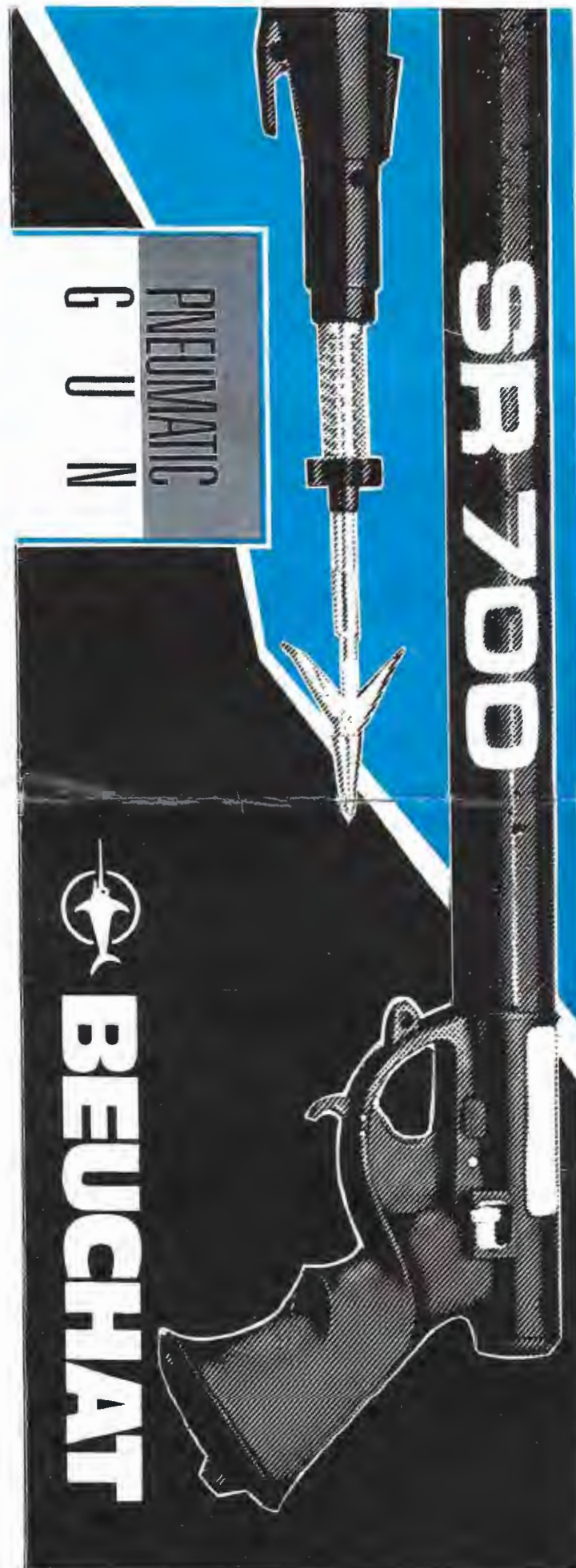
MAINTENANCE

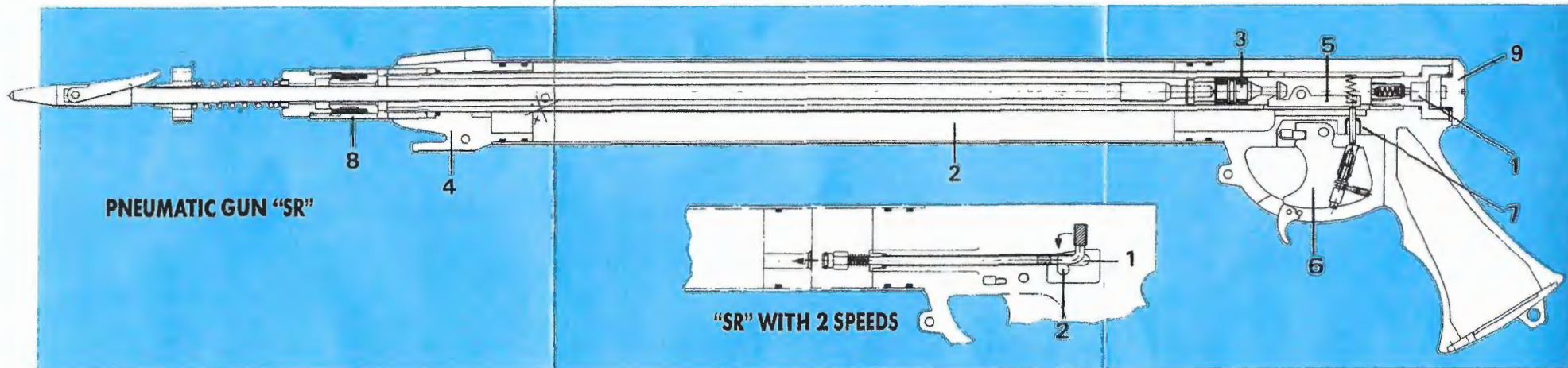
The accurate output of the gun, depends mainly on the tightness of holding the air. When the gun, is in the water or out, take care that the barrel will not permit the entrance of sand or dirt. If such a thing happens, rinse it with water and clean the muzzle well. Be sure that all debris has been removed. It is advisable, after the use, to rinse the gun with fresh water well, and mainly its muzzle and trigger. Check the gun for any leaks of oil and air.

If the SR is not functioning properly contact an authorized Beuchat dealer for service or Beuchat USA.

SR 550	5 covers	SR 850	9 covers
SR 700	7	SR 1000	11

Apart from the rubber pieces of the piston, the only accessory which may need replacement is the rubber piece of the brake (A2), which with the long use, may get hardened.





PNEUMATIC GUN "SR"

"SR" WITH 2 SPEEDS

BASIC PRINCIPLE OF OPERATION

The SR are spear fishing-guns, using compressed air. In other words they use the air - under pressure - as propulsive force, for propelling the spear. The basic advantage of the pneumatic-guns, is that their pushing force (the air) is not subject to wear and tear or alterations. It does not lose its elasticity, or its force, it does not get rust, broken, never gets... lost. The basic advantage of the SR, is that they exploit in the best way this force for many years and for immense number of uses. The basic principle of their operation is simple: Pushing the shaft in the barrel, the air is compressed even more, because along with the shaft, the piston which traps the air in the chamber created between the barrel and the outside casing is also lowered. With the pull of the trigger, the piston gets released and the air which seeks an outlet, pushes it towards the opening of the rifle, giving a strong and instantaneous push. This makes the shaft, which is in front of the piston, to obtain a high initial speed and to continue to accelerate until the muzzle of the gun. At this point, it becomes separated from the piston and continues its travel towards the target. One more advantage of the pneumatic-guns, is that they allow the change of the push force, in various levels, with the pressure height in the chamber which is fixed at the desired level (depending on the pressure, which we shall give, with the pump).

DESCRIPTION OF THE OPERATION

The numbers contained in the text, correspond to those of the figure shown at the right. When we fill the SR with air, with the pump (spout) through the valve (1) the air-chamber (2) becomes a tank of force, which waits for an outlet to escape. Let us assume that we have a pressure of 20 atmospheres and the piston (3) is in the mouth (4). At this moment, the pressure, is divided between the chamber and the barrel. As we press the shaft inwards, the piston is compressed and glides in the barrel, without letting the air shaft escape towards the front. So, forcibly the air is compressed even more in the barrel. As soon as the piston has completed its travel in the barrel, it gets hooked on the trigger catch (5) while at the same time, with its special socket, holds the shaft, enough, so that its weight will not fire. Now, the gun, is ready for use. Pressing the trigger (6) the motion is transferred through the pin (7) on the hook which holds the piston, and releases it. In doing so, the compressed air, pushes

PUMP TRAVELS	ATMOSPHERES PER TYPE OF GUN			
	SR 550	SR 700	SR 850	SR 1000
50				
100	10			
150	20	10		
200	25	15	10	
300	30	20	15	10
400		30	20	15
500			30	20
600				25
700				28
800				30

You may see on the table the relation between the strokes of the pump and the pressure atmospheres which are created in the chamber. The gun is delivered with an approximate pressure of 15 atm. sufficient for average use. Before the use, we supplement as much as we need so that we will be able to load it easily. In order that we decrease the pressure, we push with a pointed object the ball of the valve. In this case, use care, so that you will not get sprayed with oil, which escapes out along with the compressed air. For this reason, before you press the valve, leave the gun, with the barrel downwards for 10-15 minutes and keep it vertical when the air is brought out. The SR is particularly a strong gun. The material and the way of its construction, allow it to operate with a pressure of 30 atmospheres, while maintaining the highest safety standards.

ADJUSTMENT OF THE TRIGGER

The SR is designed, to have a smooth trigger, while the adjustment capacity and travel capacity, are an very accurate advantage which only the under water hunters, with great experience can appreciate. It has been given, special importance while designing of the gun, and BEUCHAT, not paying attention to great expense differences, present a mechanism of adjustment, which consists of three metallic accessories. When all the competitors for the sake of cost, have a simple screw which however since it is directly screwed to the plastic, destroys little by little the trigger, while in many types of guns, in order to adjust the trigger, you must first dismantle it. In the SR, a simple turn to the left of the small screw which is shown under the trigger in order to increase or decrease the travel of the trigger mechanism, as much as we want.

LOADING

The gun is ready to be used, when it has the necessary pressure. Place the shaft in the muzzle of the gun, pressing inwards, till the piston gets hooked by the trigger mechanism; in other words till you hear the characteristic "click" of hooking. Never load when you are out of the water or near swimmers. The figures below show the correct positions for loading:

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EASE IN LOADING

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Pressing the trigger (6) the motion is transferred through the pin (7) on the hook which holds the piston, and releases it. In doing so, the compressed air, pushes it outwards. With the same force, it pushes the shaft, in the barrel, till the opening (4). At this point, the piston stops, holding the air in the barrel while the shaft continues its way towards the target.

The braking of the piston, is made smoothly, in the brake chamber (8) with the rubber of special composition which absorbs the percussion strength. At the same time, from the holes of the chamber, the water which has entered while loading, gets out.

The operation is simple, as it is described. Equally simple is the mechanism. The part that is difficult and most important, is the accurate planing and the correct performance in the total of the accessories, the quality of the material and their connection. and this makes SR something different.

PREPARATION OF THE GUN

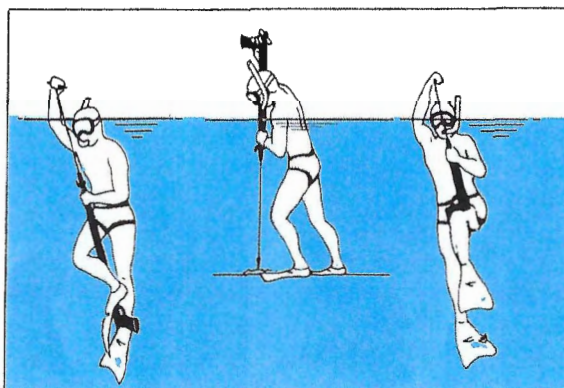
In order to prepare the gun, or in order to enhance its strength, it is necessary to transfer air into the air-chamber. For succeeding this we unscrew the plug of the pressure cap (9) and we screw the pump tightly. We place the gun vertically and we pump with full strokes of the pump (it must strike up and down).

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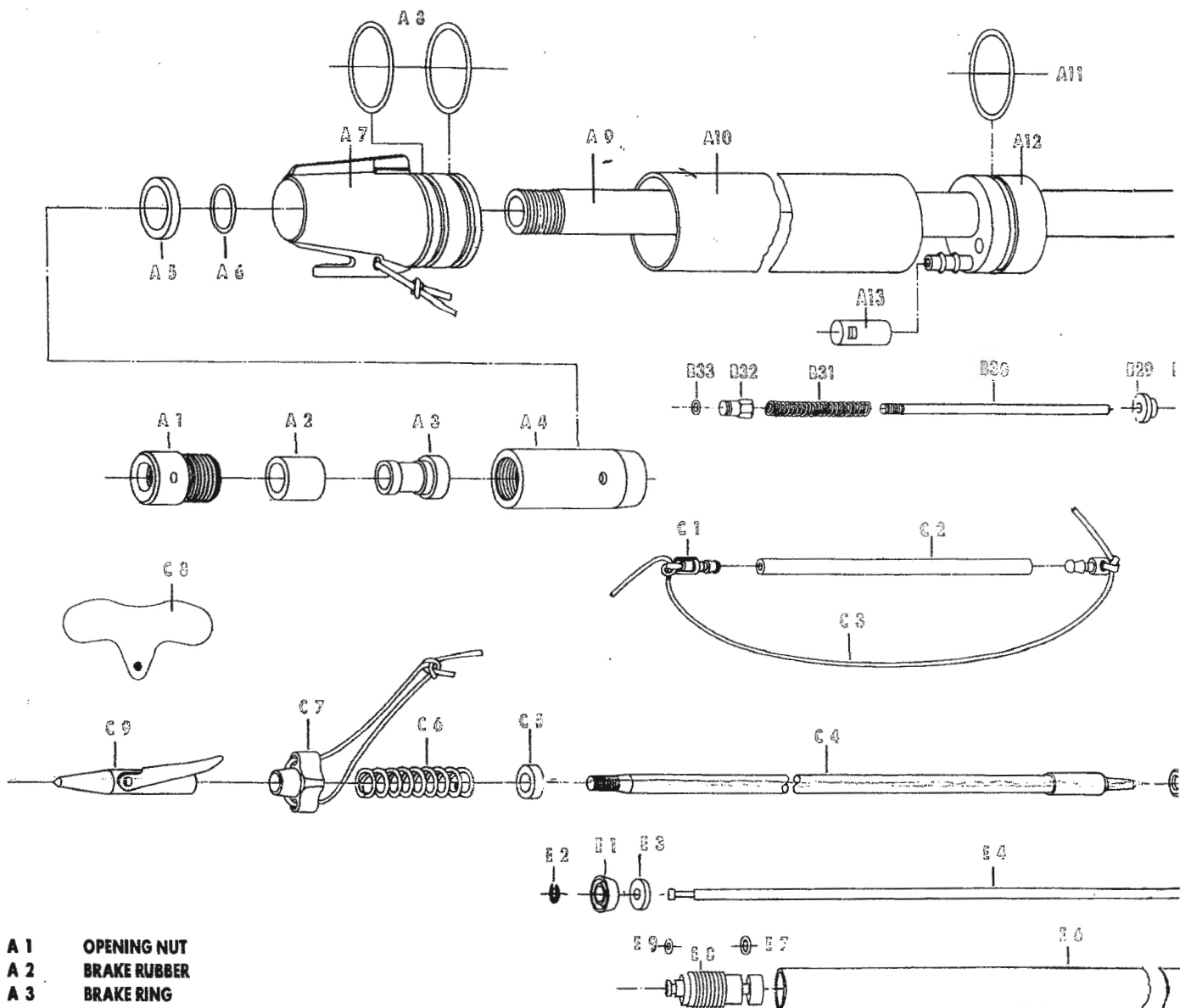
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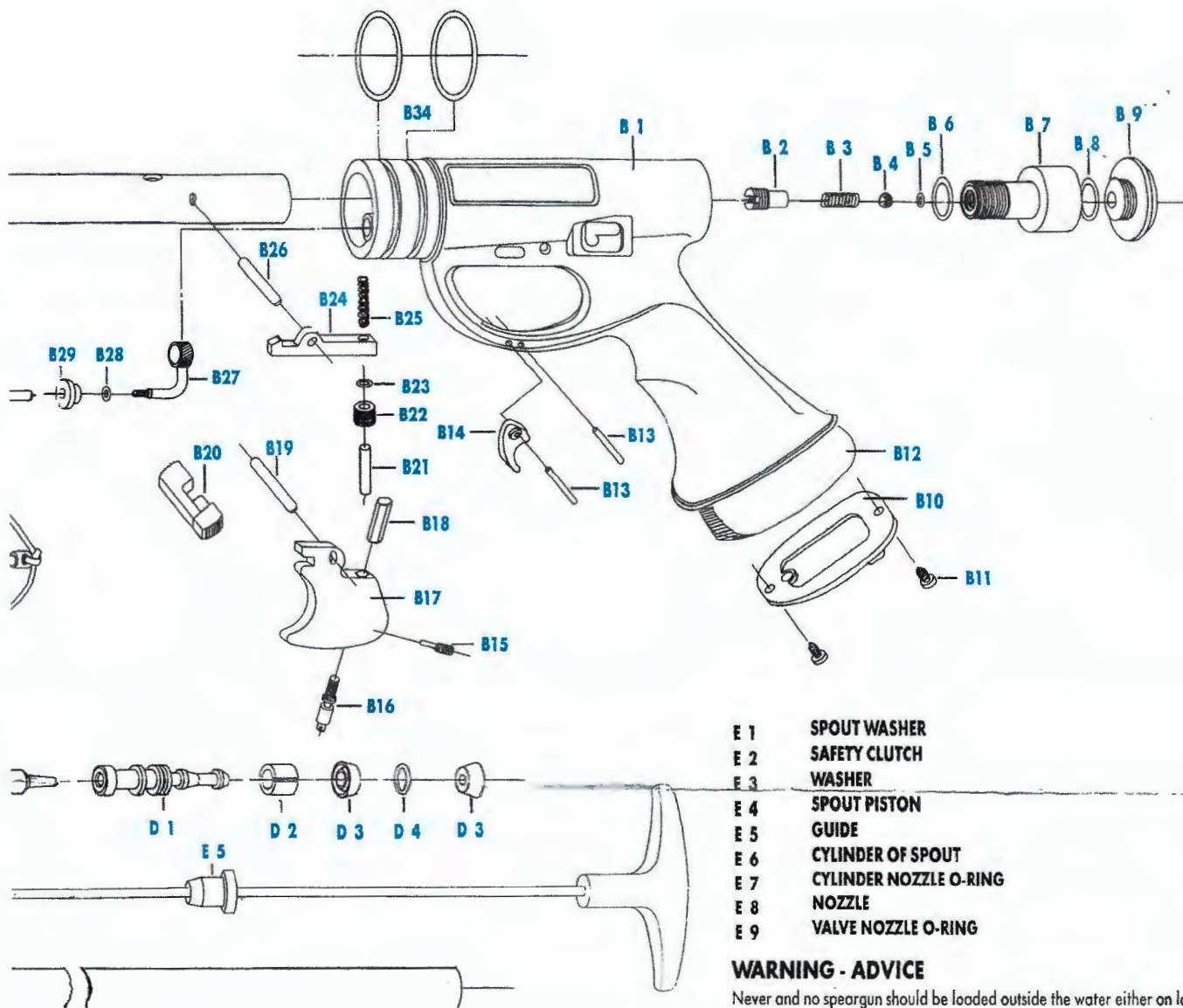
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- A 1 OPENING NUT
- A 2 BRAKE RUBBER
- A 3 BRAKE RING
- A 4 BRAKE CHAMBER
- A 5 O-RING PRESSURE WASHER
- A 6 BARREL OPENING O-RING
- A 7 OPENING
- A 8 AIR-CHAMBER OPENING O-RING
- A 9 BARREL
- A10 AIR-CHAMBER
- A11 AIR-CHAMBER SHUTTER O-RING
- A12 SHUTTER
- A13 RUBBER FLAP OF SHUTTER

- B 1 GRIP
- B 2 PERFORATED VALVE SCREW
- B 3 VALVE SPRING
- B 4 VALVE BALL
- B 5 VALVE O-RING
- B 6 GRIP VALVE O-RING
- B 7 VALVE BODY
- B 8 VALVE PLUG O-RING
- B 9 VALVE PLUG
- B10 GRIP COVER
- B11 COVER SCREW

- B12 FLOATER
- B13 PIN
- B14 CORD HOOK
- B15 FIXING SCREW
- B16 ADJUSTMENT SCREW
- B17 TRIGGER
- B18 TRIGGER HEXAGONAL
- B19 TRIGGER PIN
- B20 SAFETY
- B21 TRIGGER PUSH ROD
- B22 TUBULAR SCREW
- B23 GRIP-ROD O-RING
- B24 HOOK
- B25 HOOK SPRING
- B26 HOOK PIN
- B27 REDUCER CONTROL
- B28 O-RING
- B29 ROD GUIDE
- B30 REDUCER ROD



B31 ROD SPRING
B32 PLUG
B33 PLUG-SHUTTER O-RING
B34 AIR-CHAMBER GRIP O-RING

C 1 STRETCHER TIGHTENING
C 2 STRETCHER
C 3 CORD
C 4 BAR
C 5 STOP RING
C 6 GUIDE SPRING
C 7 SLIDE RING
C 8 LOADER
C 9 POINT

D 1 PISTON BODY
D 2 PLASTIC PISTON RING
D 3 PISTON SEAL
D 4 PISTON O-RING

E 1 SPOUT WASHER
E 2 SAFETY CLUTCH
E 3 WASHER
E 4 SPOUT PISTON
E 5 GUIDE
E 6 CYLINDER OF SPOUT
E 7 CYLINDER NOZZLE O-RING
E 8 NOZZLE
E 9 VALVE NOZZLE O-RING

WARNING - ADVICE

Never and no speargun should be loaded outside the water either on land or on a boat.

Never and no one, must aim with speargun towards the direction of another person even if they are far away.

You must never discharge outside the water, nor towards the water or damage to speargun will result.

Never use grease, or cleaning liquids, other than those suggested in writing and with full responsibility by the manufacturer.

Never start to dismantle the speargun, if you are not certain that you have emptied all the air.

In case the "SR", gets clutched, and cannot be fired, before proceeding to any action, empty the air, holding it turned towards the ground tightly and carefully, as if you are expecting that it will fire by itself.

You may not use another source or air, beyond the pump that accompanies the "SR".

All "SR" spearguns are covered by a one year warranty.



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