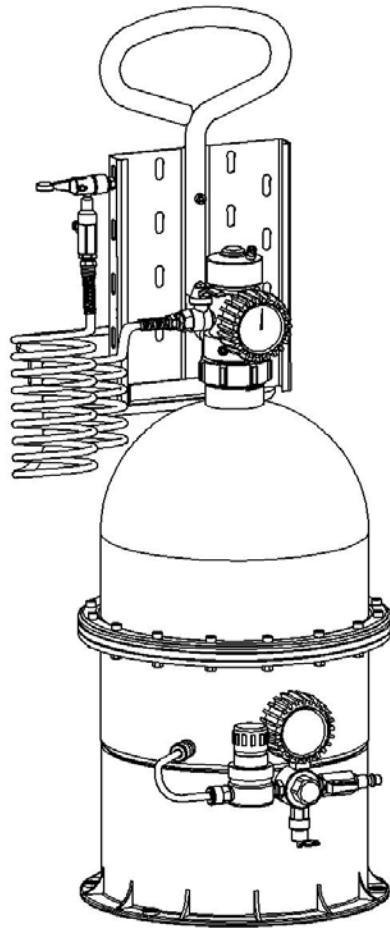


# BLAKE BLEEDERS



## INTRODUCTION

Chromed appliance, pneumatic operation, suitable for bleeding hydraulic brakes and clutches on all motor vehicles. Bleeding can be carried out in just a few minutes by one person. The appliance has an inside elastic diaphragm which hermetically separates the fluid from air contained in an underlying chamber, thus preventing any risk of emulsion.

Brake fluid reservoir capacity:7litres. Supplied with three recovery tanks and a filler funnel.

## OPERATION(fig.1)

1. top chamber: contains brake fluid
2. low-pressure middle chamber: separated by a diaphragm from the top fluid which is under the same constant pressure(2ATM).
3. high-pressure bottom chamber: by means of a pressure regulator, feeds the appliance, enabling it to carry out several bleeds with just one air fill(with just one air fill, all 7 litres of appliance fluid are used). Safety valve calibrated to 10ATM.
4. Elastic diaphragm
5. Fluid reserve indicator
6. Pressure regulator

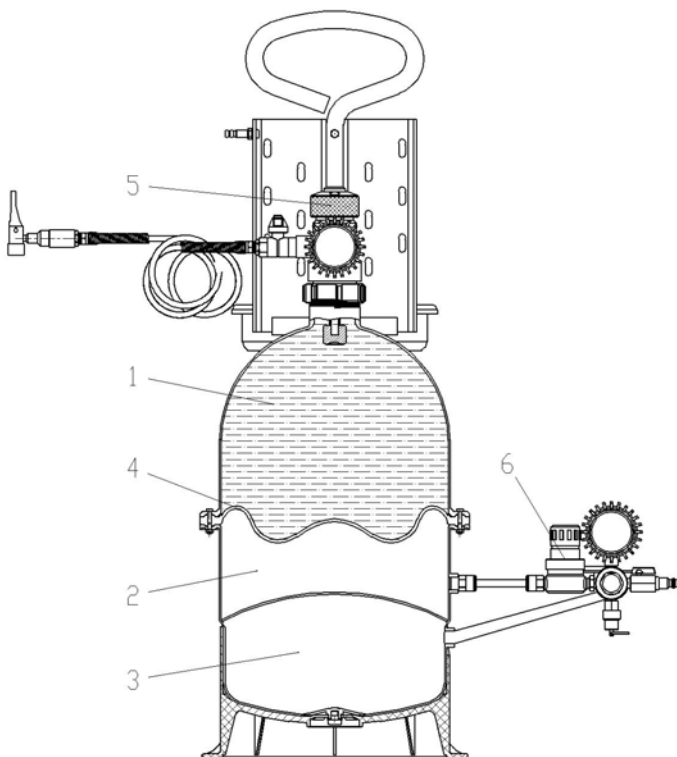


Fig.1

## WARNING!

Do not remove the cap 5 before completely discharging the pressure(fig.1)

Periodically check the good working of the manometer.

Discharge the pressure before any maintenance, cleaning and disassembly operation.

Keep the reservoir away from heat sources.

Do not do any welding on the reservoir.

Only use the appliance for its intended purpose.

DO not tamper with any parts.

Operators are advised to use gloves during use.

## PREPARATION

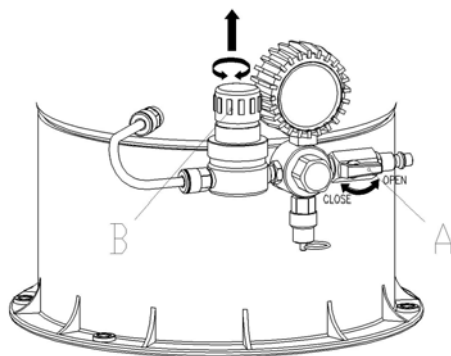


Fig.2

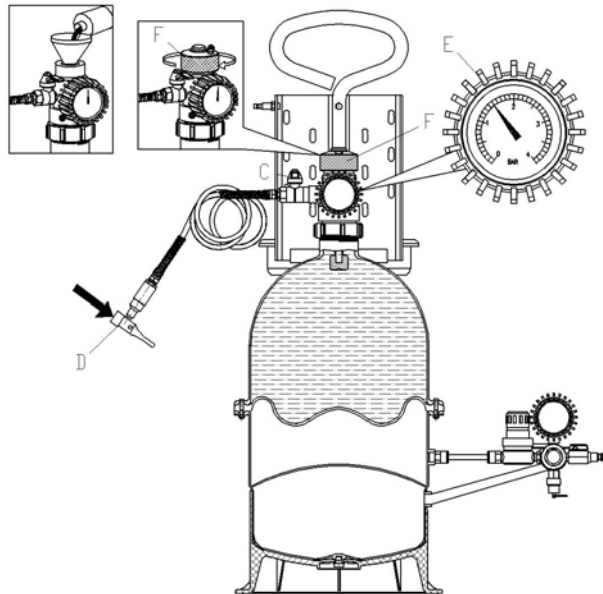
Before filling or topping up the brake bleeder, completely discharge the pressure. In order to do so, open valve A (fig.2), lift and turn knob B anticlockwise. There may, however, be residual air in the reservoir which

prevents lowering of the diaphragm, and thus reducing the fluid reservoir capacity.

Fig.3 Open valve C and blow with compressed air, directly through quick-release coupling D up to a max. of 1-2 atm. indicated on

manometer E. Made sure cap F is tight.

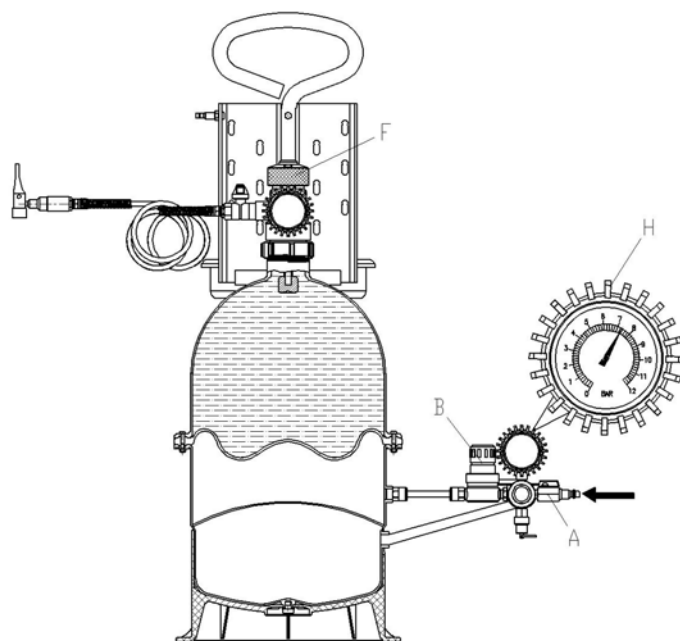
Fig.3



When the diaphragm is in place, close cock C, remove by unscrewing cap F, fill with fluid, through the special funnel, and retighten cap F.

**WARNING!!**

Never try using a sharp object to push the diaphragm down directly through the filler.



### **PRESSURIZATION**

Fig.4 Open valve A and connect up to a compressed air line until obtaining a pressure of 8-10 atm. readable on the manometer H.

Fig.4

Fig.5 Lift and turn clockwise the knob of regulator B until reading a Pressure of not higher than 2 atm. on manometer E. Close valve A and disconnect the compressed air line from the appliance.

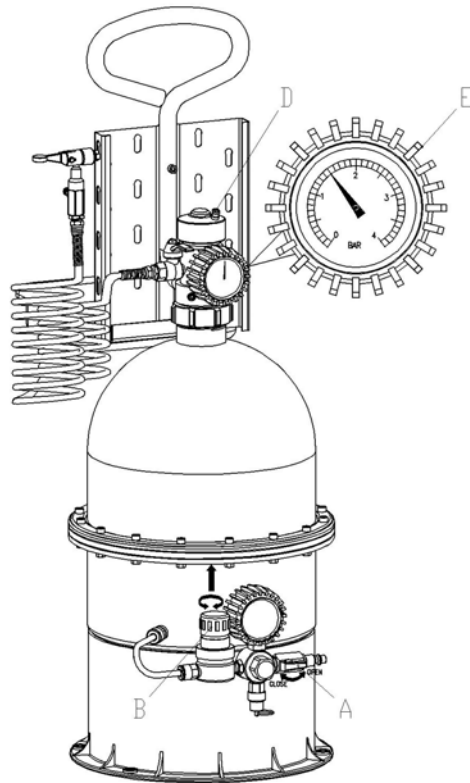


Fig.5

Let settle, then bleed the reservoir of residual air in the chamber by means of the bleeder D situated on the filler cap.

## **USE WITH MOTOT VEHICLES**

### **IMPORTANT!!**

Fig.6 First of all, fill the vehicle's hydraulic circuit reservoir with fluid, directly with delivery tube M, opening valve C. This operation gives dual results which are absolutely essential:

A) total bleeding of the appliance    B) removal of air from the vehicle's

reservoir.

Close valve C.

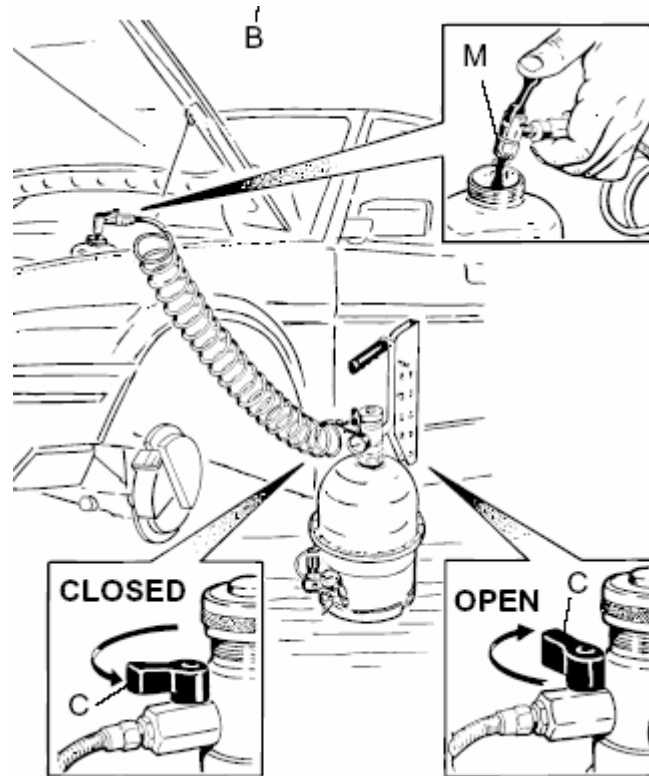


Fig.6

Tighten the corresponding connection cap (fig.7) to the vehicle's reservoir(see cap list on brake-bleeding list).



The W universal cap has the characteristic of being usable on many types of reservoirs: it hooks with brackets on the union (fig.8-11a) or under the

reservoir (fig.8-11b) and is closed with stoppers of different diameter on the union or by expansion directly inside the tank.

Connect quick-coupler M to the connection cap (fig.9)

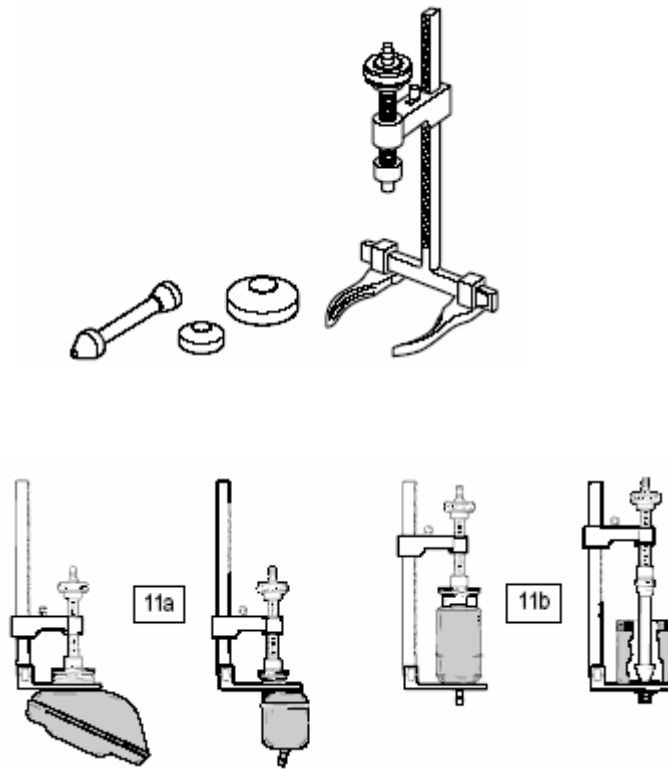


Fig.8

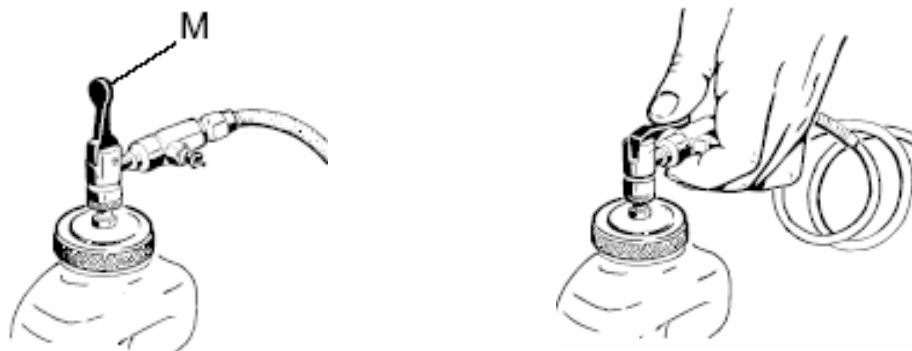


Fig. 9

Begin by bleeding the rear whets, especially if the vehicle is fitted with a braking control.

-Apply the two recovery devices S on the bleeder valves of the wheels (fig.10)

-Open the bleeder valves.

-Open cock C slowly in order to prevent any risk of emulsion(fig.10).

-Wait until the air contained in the braking system is completely removed, checking through the clear tubes of the recovery devices.

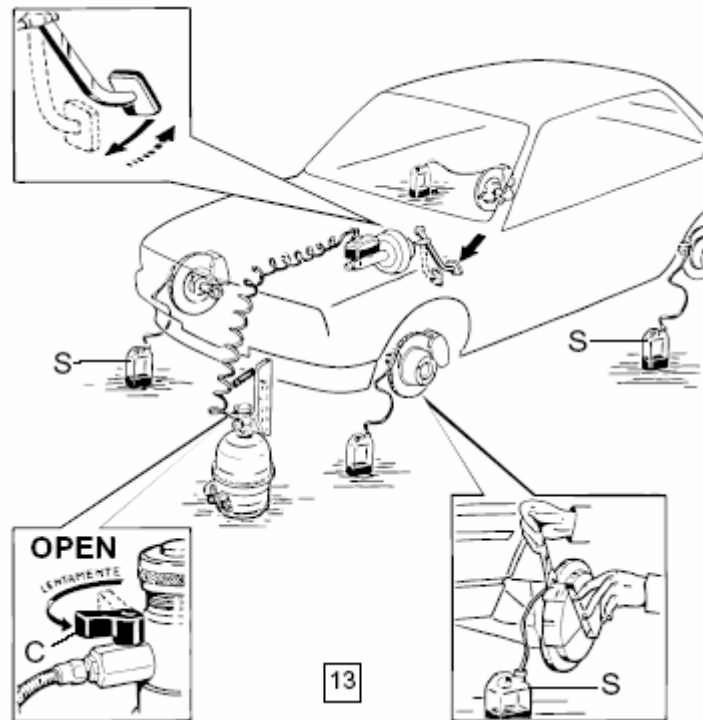


Fig.10

NB: if the disk-brake pads or the liners of drum brakes of the vehicle have been replaced, adjustment Must be made (whenever arranged), before carrying out the bleeding.

In any case during the bleeding, when the bleeder valves are still open, press the brake pedal rapidly 2-3 times, allowing it to return slowly(fig.10)

Then, close the valves and repeat the operation on the front wheels.

When bleeding has been carried out, close cock C and before disconnecting connection M from the cap (fig.11), apply a recovery device S to valve N and press until completely discharging the residual



pressure of the system (fig.11)

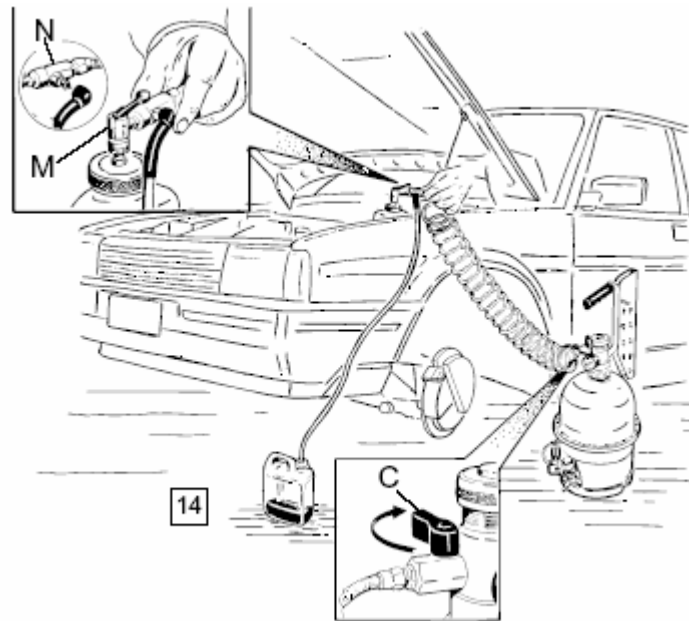
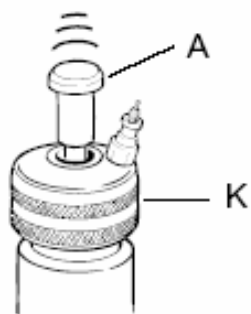


Fig. 11

Notes-Adjustment of the handbrake must always be carried out after the bleeding operation.



-On cap K is mechanical level indicator A which rises by about 1 cm when the fluid is depleted (fig.12)

Fig. 12

## TRUCK HYDRAULIC CLUTDH BLEEDING

Fig.13 Bleeding the hydraulic clutches of trucks must, on the other hand, be carried out in the reverse order of that given above. The appliance must be connected to the clutch valves and not to the reservoir. Therefore, the recovery device must be connected to the hydraulic fluid reservoir by

means of special caps, which are supplied on request. For connection to the bleeder valves, a series of accessories suitable for quick-connection cannot be supplied, due to the great differences in the same, therefore we recommend using an X type nozzle, which we supply on request, a transparent connection tube B and two tube clamps C.

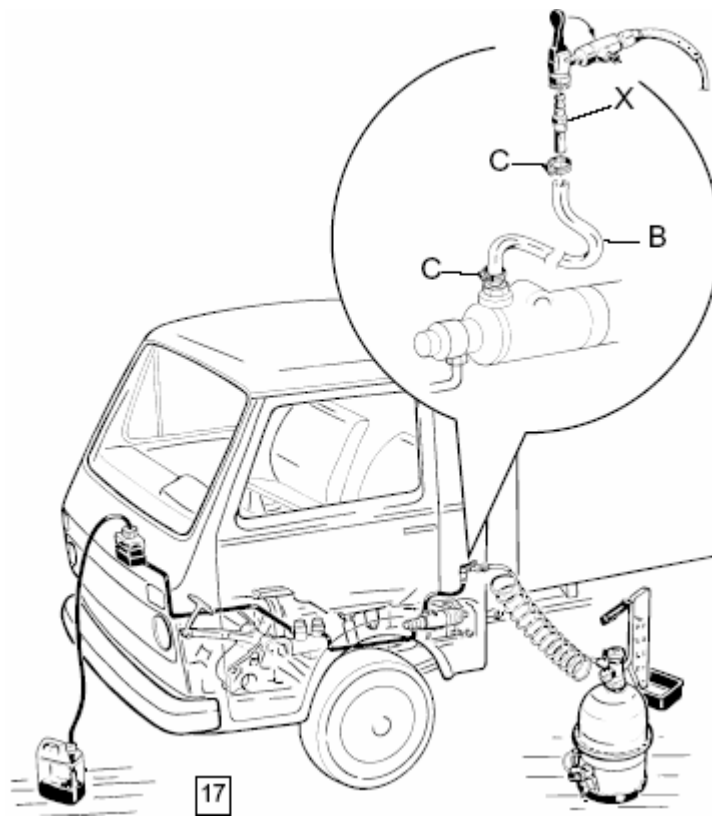


Fig. 13