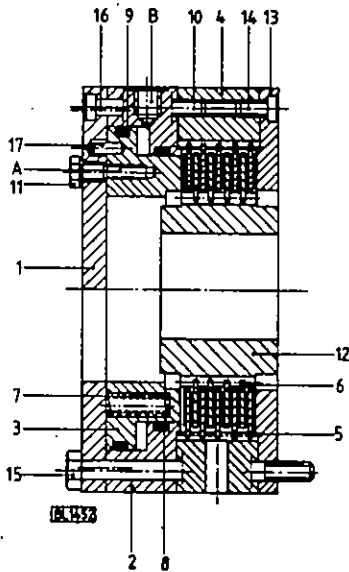


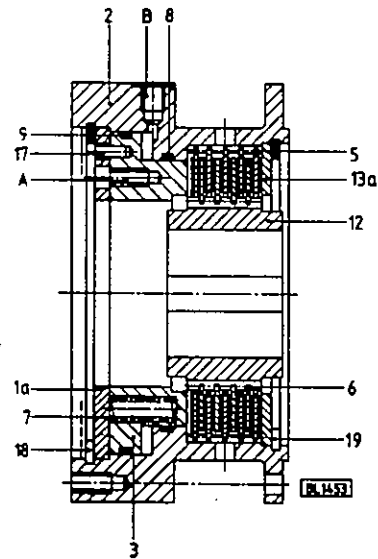
The pneumatically released spring-applied multi-plate brake is a safety brake, only for dry running.

Fig. 1: series 0-422..8.



- 1 Flange
- 1a Spring support plate
- 2 Cylinder
- 3 Piston
- 4 Ring housing
- 5 Outer plate
- 6 Inner plate
- 7 Spring
- 8 Inner seal
- 9 Outer seal
- 10 Screw
- 11 Plug screw
- 12 Hub
- 13 Pressure plate
- 13a Pressure plate
- 14 Screw
- 15 Fitted bolt
- 16 Dowel
- 17 Dowel
- 18 Circlip
- 19 Circlip

Fig. 2: series 0-422..1.



**1. Operation**

The springs (7) force together the outer plates (5) which engage in the housing (4) and the inner plates (6) which are positioned on the hub (12). Thus torque can be transmitted from hub to housing. The brake is fixed to the shaft either by keys or with a spline. The pneumatic connection is M 12 x 1,5 (or R 1/4 if required).

**1.1 Emergency operation**

If the pneumatic system breaks down, the brake can be disengaged mechanically. Remove the plugs (11) and screw in jacking screws (see table below) into the tapped holes A. The screws are then tightened evenly to disengage the brakes. The jacking screws are only supplied if requested.

Size of brake	11	15	23	25	31	39	47	55	63	69
Outside diameter	fig. 1 105	120	135	155	180	205	245	290	345	400
	fig. 2 —	—	—	170	190	215	250	315	—	—
Jacking screws DIN 931-8.8	M6x16	M6x20	M6x25	M8x25	M8x25	M8x25	M10x30	M12x35	M12x35	M12x35

## 2. Dismantling the unit

### 2.1 Changing the plate pack (5 and 6)

Disengage the brake mechanically (as per 1.1 above). Remove the screws (14) or circlips (19). Remove the pressure plate (13) or (13a) and then the inner and outer plates. Starting with an outer plate (5), replace the plate pack.

Re-align the brake on the machine casing, and secure it. Then remove the jacking screws. If the jacking screws are removed first, the inner plates (6) will be extremely difficult to align on the hub (12).

### 2.2 Changing the seals (8 and 9)

Note: Spring (7) is under load.

In order to release the tension in the springs slowly, a force must be exerted on the flange (1) or spring support plate (1a) (eg. by a flypress). Remove the screws (10) or circlip (18) release the spring pressure and dismantle the unit completely.

## 3. Adjustment

Adjustment is not necessary since the action of the piston automatically compensates for plate wear. The plate stack has to be replaced when the brake torque drops below the accepted figure due to heavy wear or contamination of the friction linings.

## 4. Spare parts

When ordering spare parts it is necessary, in addition to description and part number, to state the factory number which is stamped on the brake. To avoid delivery of wrong parts, always place orders in writing or by telex.

## 5. Accessoires

Min. operating pressure 5 bar.

In mobile applications or if no central air supply is available the size of the compressor is decided by the air consumption of the brake. The table below gives the cylinder volume of the different sizes. The volume of the supply line between the brake and the control valve must be added.

### 5.1 Air accumulator

Especially with high engagement figures it is recommended to use a pressure compensating tank (accumulator) of suitable size in order to avoid a drop in pressure during engagement. A pressure switch can be incorporated to prevent engagement at too low a pressure which might cause the brake to slip.

Size	Cylinder capacity in litres	
	Minimum (new linings)	Maximum (worn linings)
0-422-...-11-...	0,0015	0,0040
0-422-...-15-...	0,0028	0,0063
0-422-...-23-...	0,0049	0,0157
0-422-...-25-...	0,0048	0,0174
0-422-...-31-...	0,0081	0,0278
0-422-...-39-...	0,0123	0,0410
0-422-...-47-...	0,0200	0,0610
0-422-...-55-...	0,0284	0,0910
0-422-...-63-...	0,0458	0,1373
0-422-...-69-...	0,0613	0,2042

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