

- 1 Plate carrier
- 2 Stop plate
- 3 Outer plate
- 4 Inner plate
- 5 Pressure spring
- 6 Sealing ring
- 7 Sealing ring
- 8 Piston
- 9 Cylinder
- 10 Pot housing

1. Description (Fig. 1)

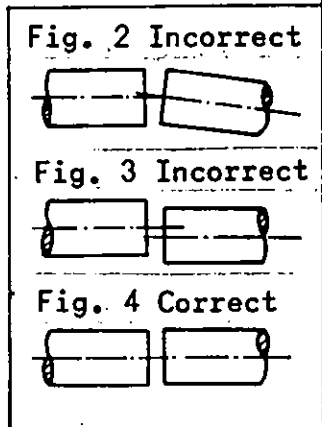
When piston (8) is subjected to air pressure it compresses the plate stack (3,4). Frictional contact between the outer and inner clutch plates (3,4) thus creates power transmission between housing (10) and carrier (1). (Friction pairing: steel/organic frictionlining "ORTEX". For dry-running only!)
When air pressure is exhausted from piston (8) the pressure springs (5) return the piston into its original position.

2. Spare parts

When ordering spare parts, always state the manufacturer's serial number appearing on outer housing or plate carrier in addition to the number of the spare part required. To avoid errors in supplies, please always submit spare parts orders in writing or by telegram and not by telephone (spare part designations, see Section 1).

3. Fitting guidelines

The bearings supporting the housing should be brought as closely as possible to the clutch. If two shafts are to be connected by a clutch, a self-aligning bearing within the clutch will be required. Shafts must be in accurate relative alignment (see Figs. 2-4). The inner plate carrier is then firmly secured to the shaft and must be prevented from axial movement. The outer housing should after assembly rotate easily relative to the inner plate carrier when idling, but must also be safeguarded against axial movement.



4. Re-adjustment

Re-adjustment is not required because clutch plate wear is automatically compensated by piston travel. If in the event of excessive wear the piston travel should no longer prove sufficient, the plate stack will have to be renewed.

5. Clutch removal and fitting

Withdrawing the clutch from the clutch shaft

If the clutch has to be withdrawing from the shaft, two or three screws on the stop plate or the cylinder end will have to be removed. The screws of an extractor can now be inserted into the tapped holes.

Renewing the sealing rings

Renewing the sealing rings demands the utmost care. When dismantling, the screws on the cylinder end have to be released and both carrier and cylinder should be marked to ensure correct reassembly in identical position. After removing the cylinder, the piston can be taken out and the sealing rings renewed.

Reassembly takes place in reverse sequence. Prior to assembly, thoroughly flush all components so that no swarf can damage the piston running surfaces. Any dowels and sealing media must be renewed. If at all possible, the screws should be tightened with a torque wrench to ensure reliable clamping.

Exchanging the plate stack and pressure springs

The clutch plates as well as the pressure springs can be renewed after slackening the screws and removing the stop plate.

6. Accessories for pneumatically actuated clutches

Sealing the clutch relative to the shaft is best carried out as shown in Fig. 5. Where no centralized compressed air system exists, the size of the compressor required must be established from the air consumption of the clutch.

The cylinder volume appears in the table. The volume of pipe runs up to the control valve must also be taken into consideration.

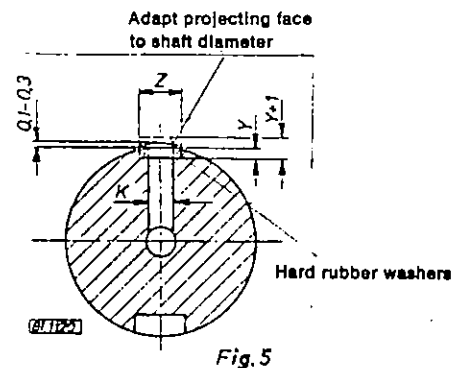


Fig. 5

Model	Cylinder volume in litres		I/D of pipes and valves	Connexion measure in mm by sealing the clutch on the shaft		
	Min. volume with new clutch plates	Max. volume with worn clutch plates		K	Y	Z
0-402-007-15	0,010	0,019	1/4"	4,0	3,0	12
0-402-007-27	0,012	0,026	1/4"	4,5	3,0	12
0-402-007-32	0,017	0,044	1/4"	5,5	3,0	15
0-402-007-39	0,033	0,062	1/4"	6,0	3,0	15
0-402-007-43	0,021	0,093	1/4"	7,0	5,0	20
0-402-007-47	0,081	0,148	1/2"	7,0	5,0	20
0-402-007-55	0,126	0,277	3/4"	10,0	7,0	25

Pressure compensating air reservoir

When high engagement frequencies apply it is advisable to interpose a pressure compensating air reservoir of a capacity to suit the clutch size and this should be positioned just in front of the control valve. A compensating reservoir of this type is necessary to ensure that sufficient compressed air is available during the engagement cycle. Incorporation of a pressure switch will prevent clutch slipping in the event of insufficient air pressure.

Pipelines

The data given in the table are recommended for internal diameters of pipes and valves.

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