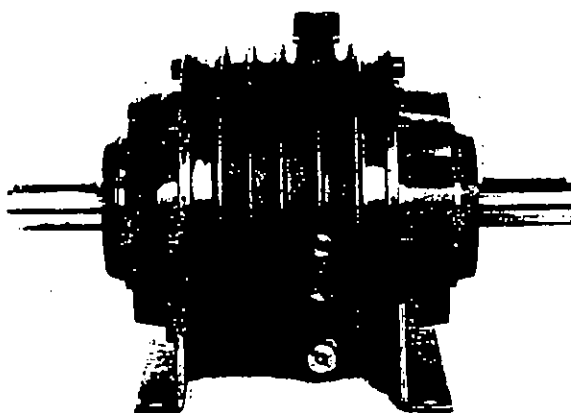
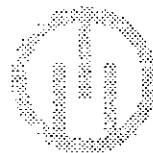


Ortlinghaus

Clutch plates · Clutches · Drives



Technical Product Information No. 801

**Pneumatically actuated
clutch/brake combined units
series 0-404**

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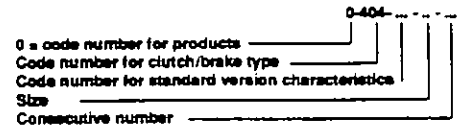
About this technical product information note (TPI)

To whom is this TPI addressed?

This technical product information note is addressed to the final manufacturer's methods engineers and fitters and the final customer's works fitters and machine operators.

What will you find in the TPI?

The TPI offers you all the important information needed for the installation and maintenance of the clutch/brake combined unit series 0-404. It includes a summary drawing. You will have received this in the course of the processing of the order. If by any chance you have not, please order one from us quoting the article number given on the order confirmation.



What will you not find in the TPI?

The TPI does not provide information to support you in design work. You will find such information in the catalogue and in the prospectuses.

Significance of the symbols accompanying the text

There is a danger of injury during installation and in the course of production!



There is a danger of damage to materials during installation and in the course of production!



Please pass on this TPI to your customers

You can order further copies of it from us for your customers. You may also make copies of this TPI to pass on to your customers.

On the product

Purpose and mode of functioning of the clutch/brake combined unit

Multi-plate clutch/brake combined units with the steel/sintered material friction plate pairs for wet running are well suited for applications with high switching (engaging of clutch/disengaging, braking) frequencies and short switching times where precise reproducibility is required, i.e. for applications with short, precise movements of the type that arise in, for example, metering, packing and cutting operations, in the production of packaging material as well as in feed movements in mechanical and apparatus engineering.

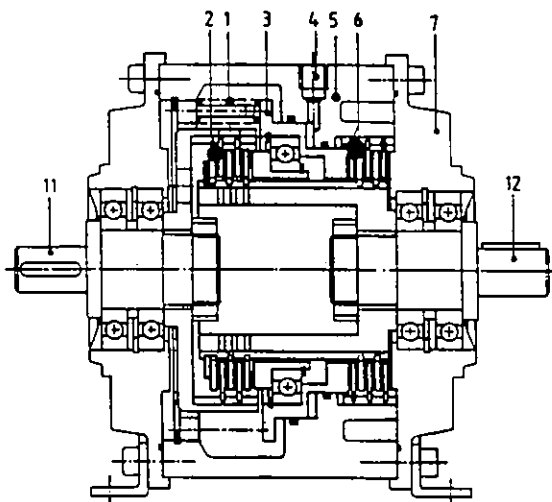


Fig. 1: shaft version

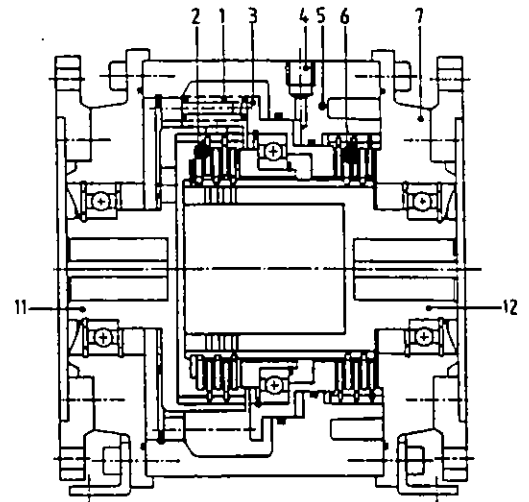


Fig. 2: flange version

Braking: Pressure springs 1 press against piston 3 in housing 5. This causes brake plates 6 to be pressed against flange 7, thus bringing about the braking action. Output shaft 12 is shown in the braked position.

Engaging the clutch: Compressed air is applied to piston 3 via air intake 4. This causes brake plates 6 to be released and clutch plates 2 to engage.

The normal operating pressure is **6.0 bar**. **Never** operate the clutch/brake combined unit with a **higher pressure** since this will severely reduce the life of the integrated ball bearings.

- Before using the clutch/brake combined unit for the first time, fill it with ATF oil up to the middle of the oil level glass.

State in which the clutch/brake combined units are supplied

The clutch/brake combined units are supplied fully assembled but without any oil in them.

Different forms of execution

0-040-0.- Connection G1/8 with feet with external air cooling
0-404-1.- Connection G1/8 with feet without external air cooling
0-404-5.- Connection G1/8 without feet with external air cooling
0-404-6.- Connection G1/8 without feet without external air cooling
Input side
0-404-0.- Shaft (flange in accordance with customer requirements)
0-404-1.-
0-404-2.- Shaft + positive flange
0-404-3.-
0-404-5.- Hollow shaft ((flange in accordance with customer requirements)
0-404-6.-
0-404-7.- Hollow shaft + negative flange
0-404-8.-
Output side
0-404-0.- Shaft (flange in accordance with customer requirements)
0-404-1.-
0-404-2.- Shaft + positive flange
0-404-3.-
0-404-5.- Hollow shaft ((flange in accordance with customer requirements)
0-404-6.-
0-404-7.- Hollow shaft + negative flange
0-404-8.-

Initial assembly

In the case of shaft-version clutch/brake combined units, use connecting elements which can compensate for any non-alignment of the shafts, e.g. elastic couplings or couplings with curved teeth.

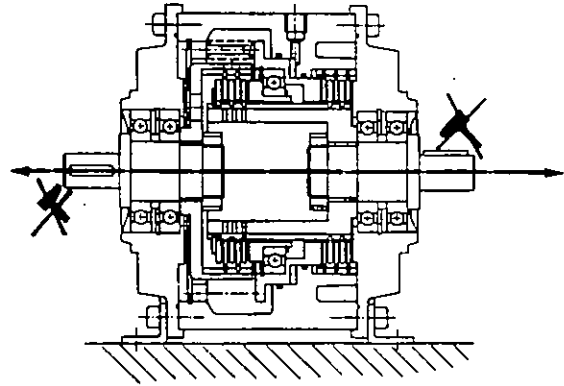


Fig. 3: Fitting position

- The clutch/brake combined unit must always be mounted horizontally.
- The clutch/brake combined unit should not exercise any force on the shafts.

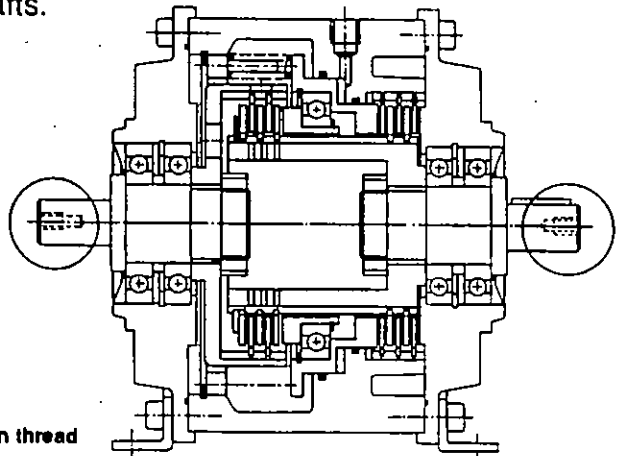


Fig. 4: Drawing-on thread

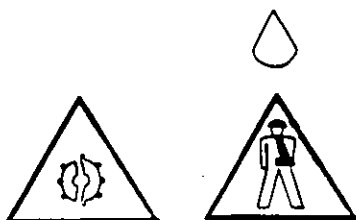
- Use the drawing-on thread provided for the fitting of drive pulleys, toothed wheels etc.
- Fill the clutch/brake combined unit with ATF oil up to the middle of the oil level glass.

Maintenance

Checking the unit in the course of use

Check the level of the oil in the clutch/brake combined unit regularly.

- Change the oil not later than after 1,000 operating hours or 5 million engaging/disengaging cycles.



The unit should only be dismantled completely by our customer service.

Aid in the case of problems - only for our customer service

Problem	Reason	Remedy
Engagement time and braking time change	Valve dirty	Change valve
	clutch/brake combined unit defective or worn	Change plates
Oil emerges from the fan plug at engaging/disengaging	Piston seals defective	Change seals
In the case of any problems other than the ones described above, contact our customer service or the machine manufacturer.		

Changing the plates and piston seals

Always check the piston seals each time you change plates.

Spring reception plate 15 is under spring pressure.
Observe the instructions on page 7!

- Drain off the oil from the unit
- Remove the clutch/brake combined unit from the machine.

Removing the clutch plates (input side)

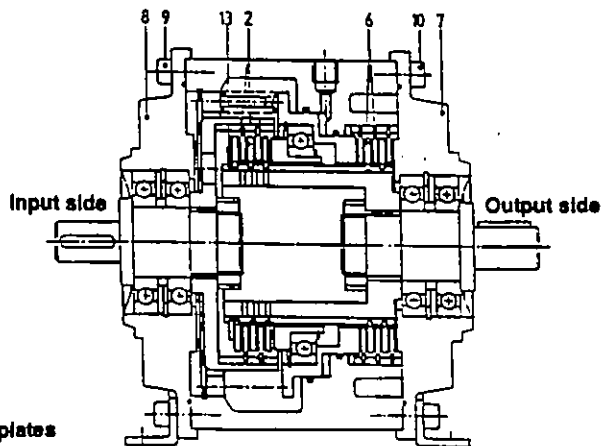


Fig. 5: Removing the plates

- Slacken screws 9.
- Remove drive flange 8.
- Remove locking ring 13.
- Take out clutch plates 2.

Removing the brake plates (output side)

- Slacken screws 10.
- Remove output side flange 7.
- Take out brake plates 6.

Removing the piston seals

- Remove clutch and brake plates.

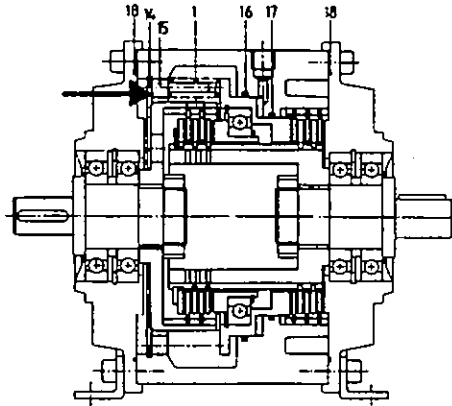


Fig. 6: Removing the piston seals



Locking ring 14 is under spring pressure.

Press spring reception plate 15 against spring 1 with a suitable tool. The locking ring is now no longer under tension and can be removed.

Slowly remove the pressure applied with the tool until the springs are no longer compressed.

- Draw out spring reception plate 15 (with springs 1 and piston 3) to the input side.
- Dress the surfaces against which the seals run or renew the piston if there are signs of wear.
- Remove seals 16 and 17.

Assembly

Clean all seal surfaces. Renew the plates and piston seals.

Assembly is carried out in the reverse order to dismantling.

Observe the following points at assembly:



Fig. 7: Outer plate

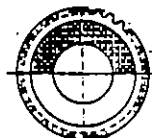
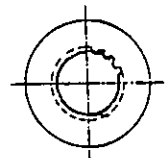


Fig. 8: inner plate



- When fitting the new clutch plates, fit them in the following order: inner plate, outer plate, inner plate,....., inner plate.
- Align the tothing of the plates so that the input drive flange can be pushed on to the clutch plates.
- When fitting the brake plates, fit them in the following order: outer plate, inner plate, outer plate,....., outer plate.
- Check to see whether O-rings 18 can be used again and replace if necessary.
- Fill the unit with ATF oil up to the middle of the oil level glass.



Spare parts

Our guarantee for our products only applies when you use original Ortlinghaus spare parts.
Please order spare parts only in writing.

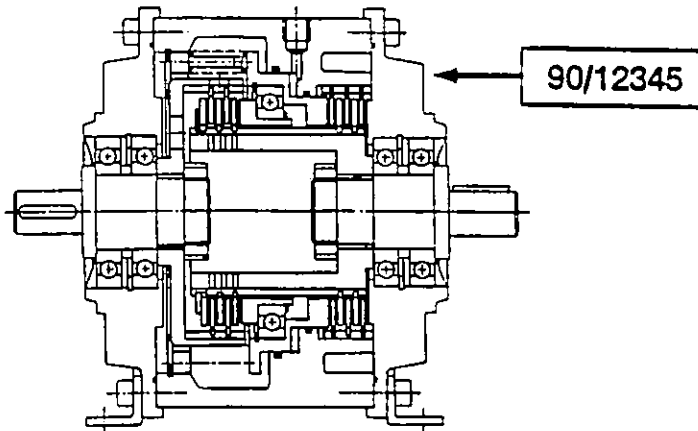
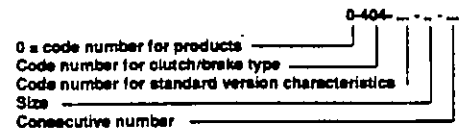


Fig. 7 Fabrication number

You will find the fabrication number, under which your clutch/brake combined unit was manufactured, punched on the housing. Always state this number. It is made up of two digits for the year and a consecutive number, e.g. 90/12345.

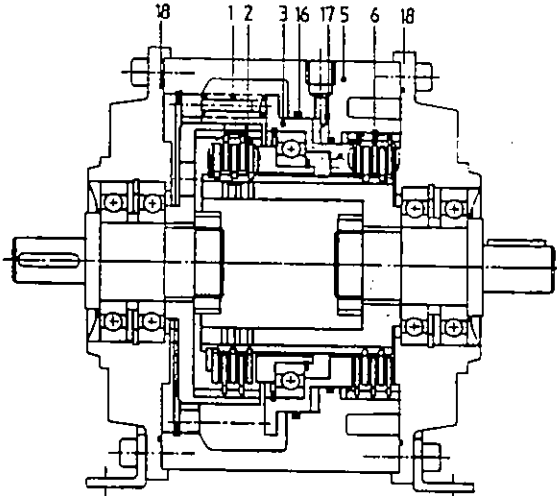
In addition state if possible the article number of your clutch/brake combined unit.

In the appendix you will find the list of spare parts; this includes the designation of each part and its item number, the latter being also shown on the blow-up drawing. State both this item number and the designation when ordering, e.g. 2. - clutch plates.



Spare parts list

"Pneumatically Actuated Clutch/Brake Combined Units
of Series 0-404"



No.	Designation
1	Springs
2	Clutch plate set
3	Piston
5	Housing
6	Brake plate set
16	Piston sealing ring
17	Piston sealing ring
18	Sealing ring