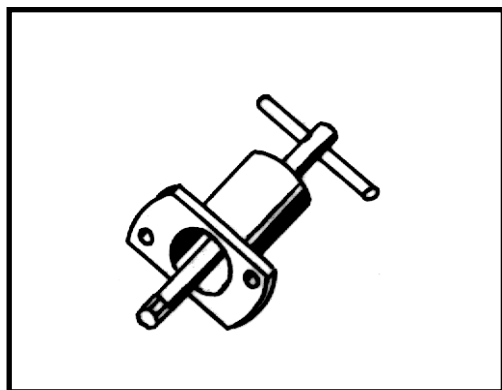


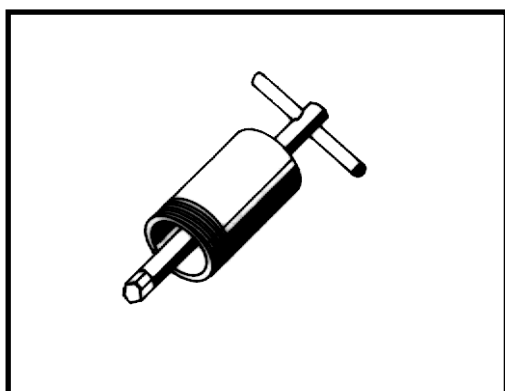
**Service-Manual
for Kessler axles
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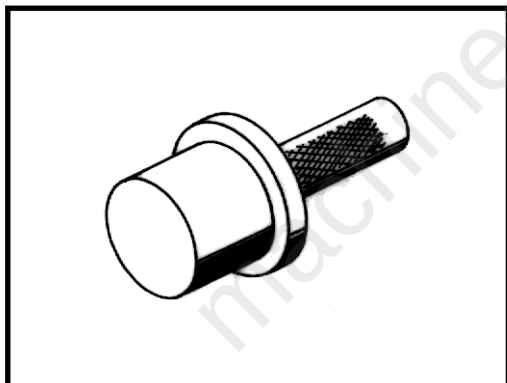




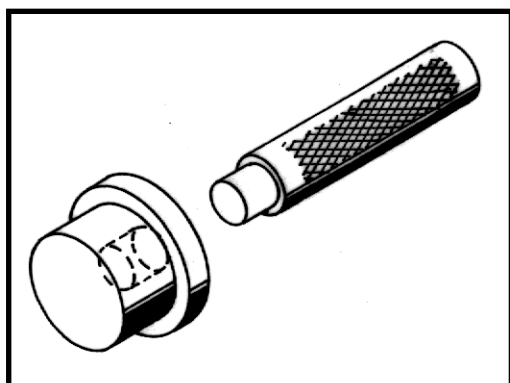
Assembly sleeve for piston
(Differential lock)



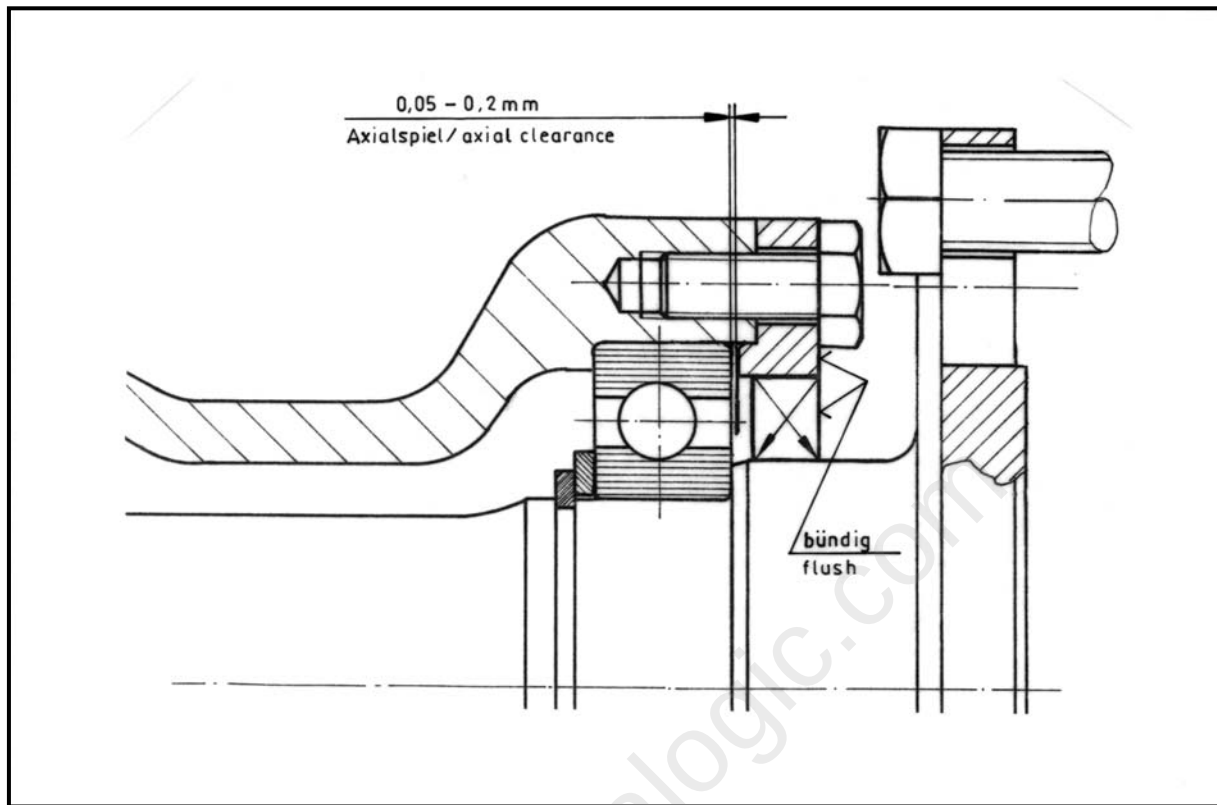
Assembly sleeve for piston
(Differential lock)



Sleeve driver for universal joint bearing
(Needle bearing / bearing bushing)



Sleeve driver for bearing bushings
(Steering knuckle bearing)



Between cover and deep groove ball bearing must be a axial clearance of 0,05 to 0,2 mm. (Check the axial clearance by measurement, if necessary correct it).

- Install the radial seal ring with Loctite 572 applied into the cover. (Radial seal ring must be flush with the cover outside). Fill the radial seal ring with bearing grease.
- Place the cardan screws into the drive-through shaft.
- Push the cover with radial seal ring onto the drive-through shaft.
- Press the deep groove ball bearing onto the drive-through shaft.
- Install the support disc.
- Install the circlip into the slot of the drive-through shaft.

1. Assembly pol wheel:

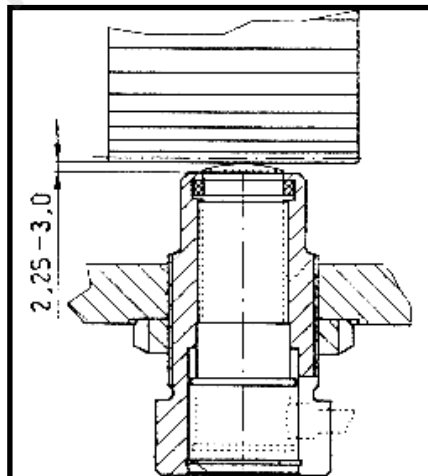
Coat the universal joint resp. the axle shaft at the according position with Loctite 638 (adhesion surface area must be free of grease and oil → washed). Heat the pol wheel to max. 120°C and place it onto the universal joint resp. axle shaft. Time needed for Loctite 638 to harden = 12 h.

2. Assembly sensor installation:

The sensor installation has to be mounted after the mounting of the universal joint resp. axle shaft. Grease the o - ring and place it into the slot of the bushing. Screw the grooved nut onto the bushing, coat the thread of the bushing with Loctite 572 and screw the bushing into the axle housing till touching the pol wheel. Produce a clearance of 2,25 - 3,0 mm by turning back the bushing 1,5 - 2 rotations. Counter the bushing in this position with the grooved nut.

3. Assembly sensor:

Coat the sensor with special grease. Install the clamp sleeve and the sensor by pressing them in until touching the pol wheel. Do not hammer them! Install the circlip.

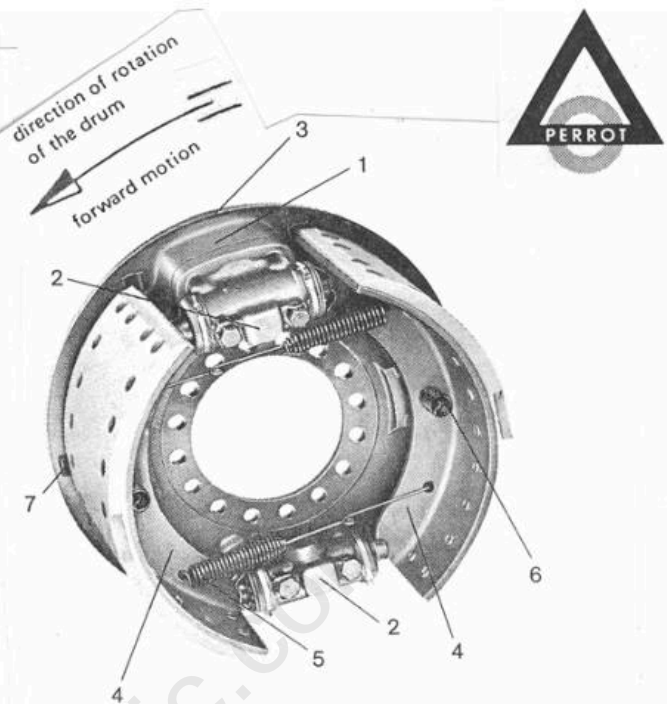


Description of the duo - duplex wedge brake

General

The Duo-Duplex Brake (pict. 1) consists of 2 expander units (2), mounted to the backing plate / brake spider (1), a cover shield (3), 2 brake shoes (4) and springs (5 & 6).

The brake shoes (4) are leading in both directions of travel, ensuring equal brake capacity (Duo-Design). Two inspection holes (7) in the cover plate (3) allow for the checking of brake lining wear. Automatic adjusters are utilized to compensate for brake lining and drum wear.

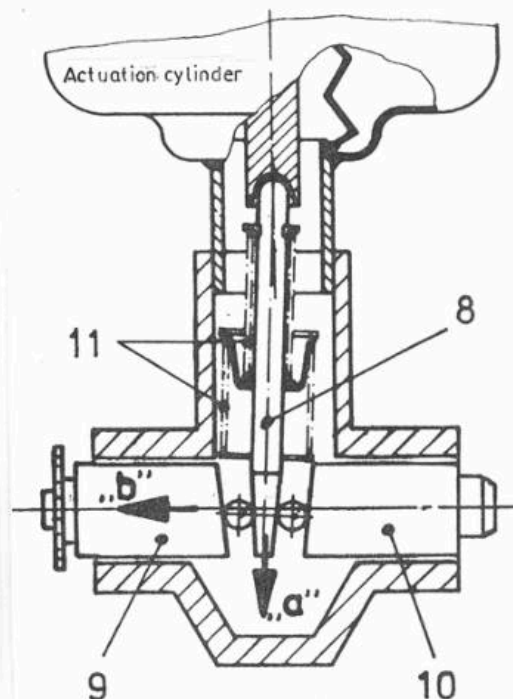


picture 1

Function

Upon actuation of the brake the shaft (12 illustr. 2) of the actuation cylinder (air / spring loaded or hydraulic) forces the wedge (8 - pict.2) in direction of arrow "a". The roller bearings (3), installed between wedge (8) and pistons (9 & 10), cause the piston (9) to move in direction of arrow "b". This piston, with integrated adjuster, forces the brake shoes (4) against the brake drum. The opposite piston (10), without adjuster, abuts against the expander housing, resulting in an angular position of the wedge (8) as shown.

When braking is completed, internal compression springs (11) of the expander and the brake shoe return springs (5 - pict. 1) ensure complete retraction of the expander unit and brake shoes to their neutral / starting positions.



picture 2

Work Sequences	Figures
• Install brake pads and set clearance. Carry out according to Section 3. and pay attention to Notes.	 Fig. 55

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