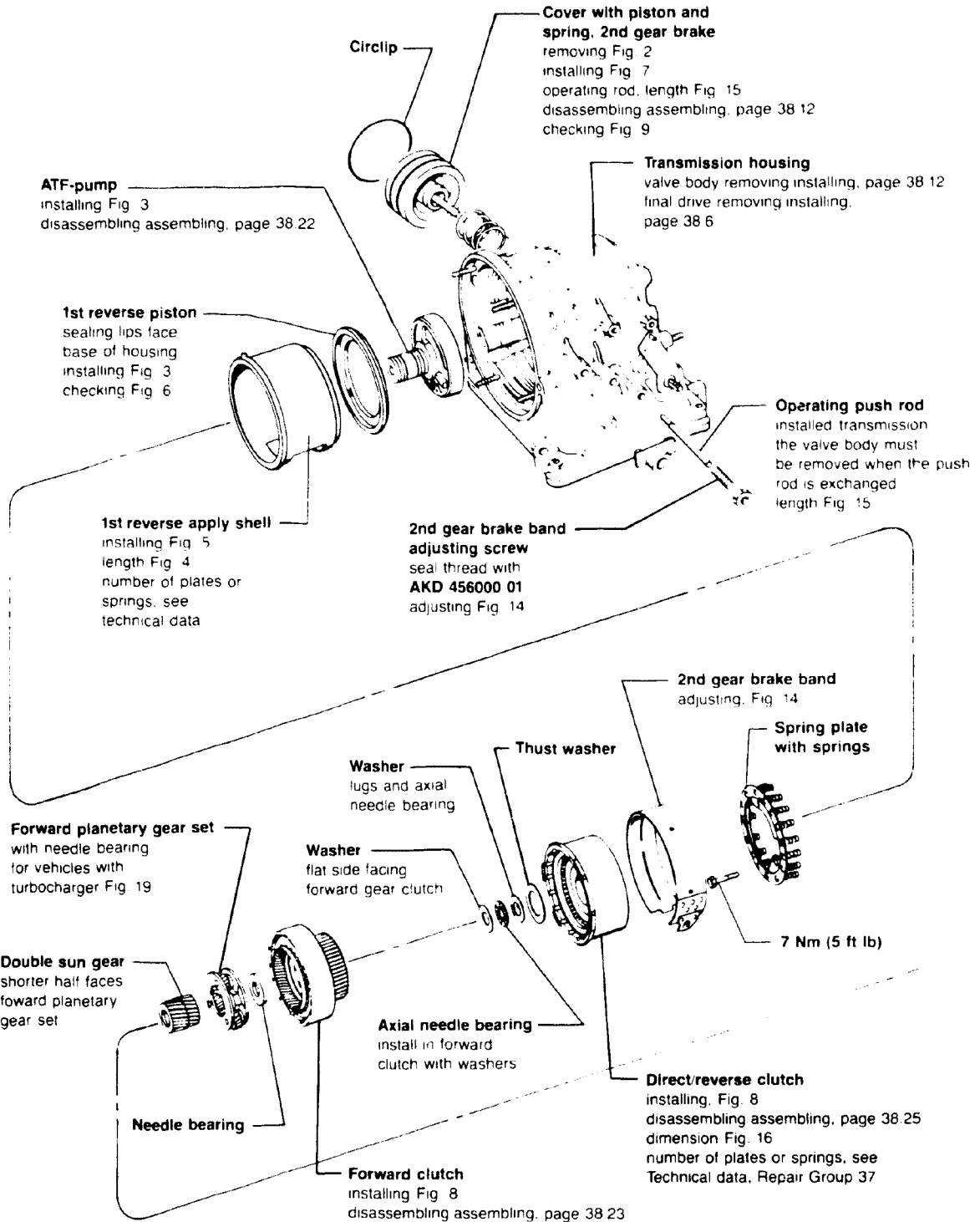


Automatic Transmission – Case, Gears, Shaft

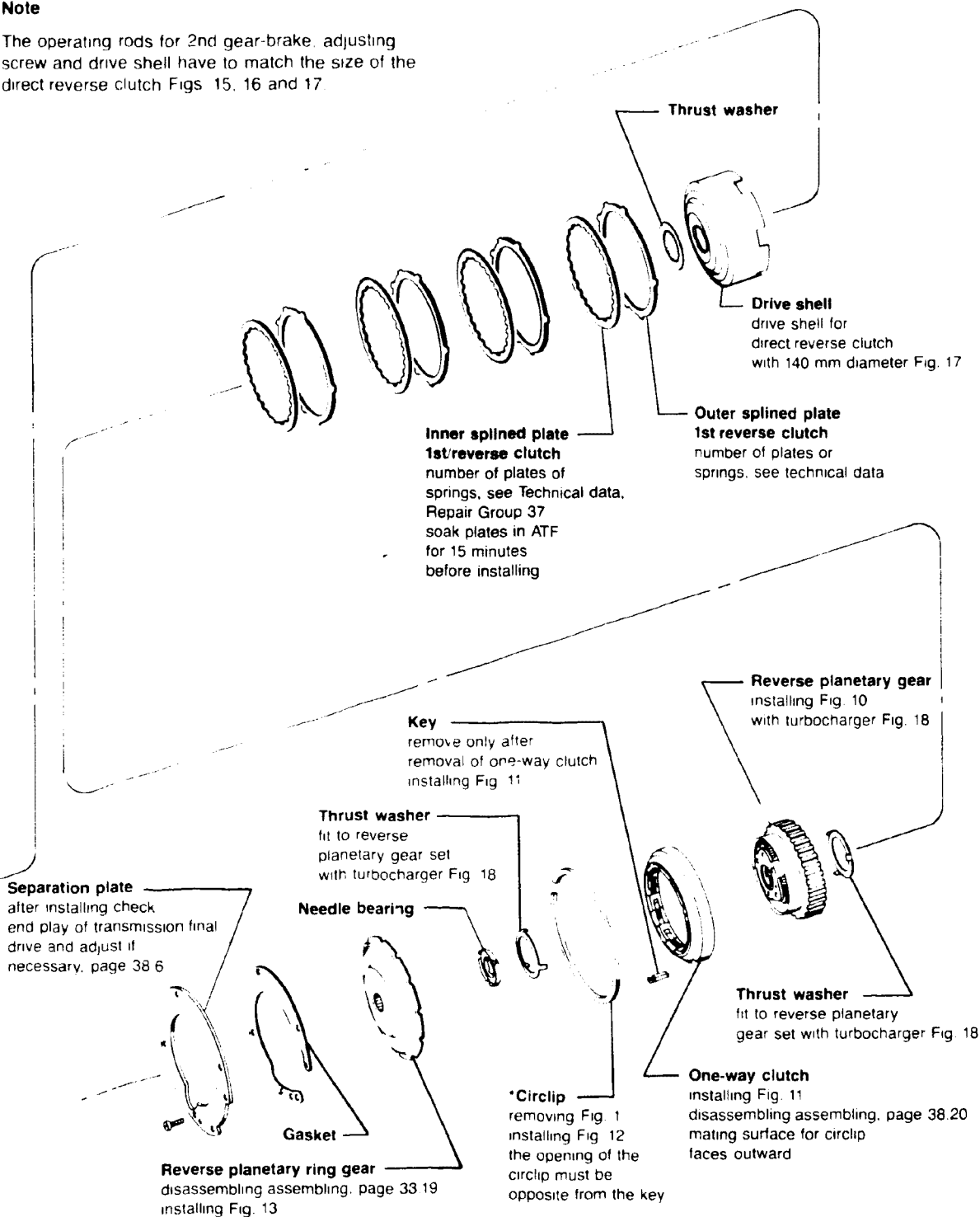


38-A004

Automatic Transmission – Case, Gears, Shaft

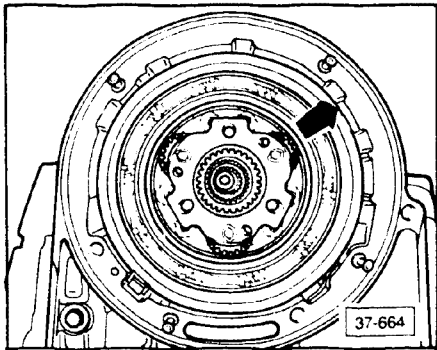
Note

The operating rods for 2nd gear-brake, adjusting screw and drive shell have to match the size of the direct reverse clutch Figs 15, 16 and 17

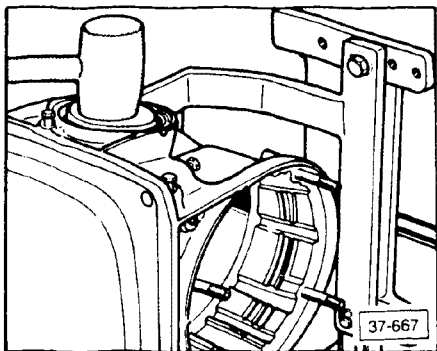


37-727

Automatic Transmission – Case, Gears, Shaft

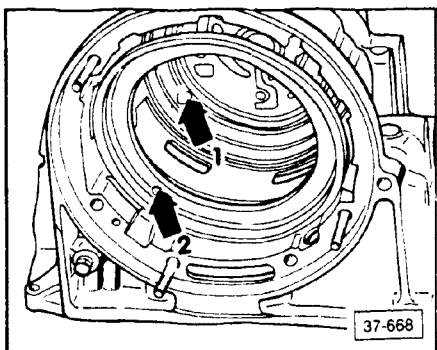


► Fig. 1 Circlip, removing



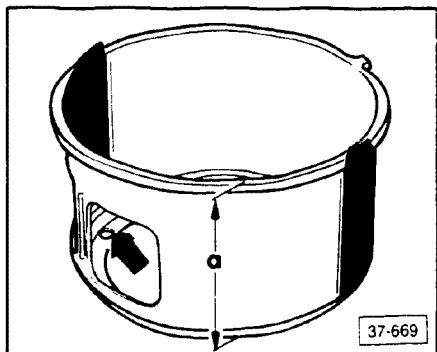
► Fig. 2 2nd gear brake band piston, removing

- remove circlip
- remove piston by tapping with a rubber mallet



► Fig. 3 1st/reverse gear piston, installing

- push piston onto ATF pump housing
- insert ATF pump into transmission case so that the thin rib points upward and the piston ball valve (**arrow 2**) is aligned with the bore of the transmission case (**arrow 1**)



► Fig. 4 1st/reverse apply shell, measuring

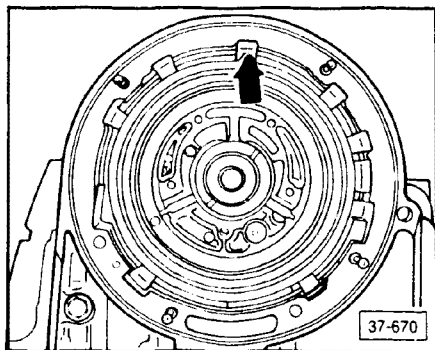
- different shells are available
- install only shell with indicated dimension **a**

Allocation:

Inner splined plates	Outer splined plates	Dimension a
4 each	4 each	97 mm

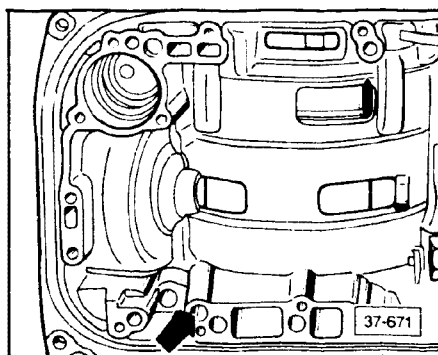
- the bore (**arrow**) must be aligned with the 1st reverse piston ball valve
- number of splined plates, see technical data

Automatic Transmission – Case, Gears, Shaft



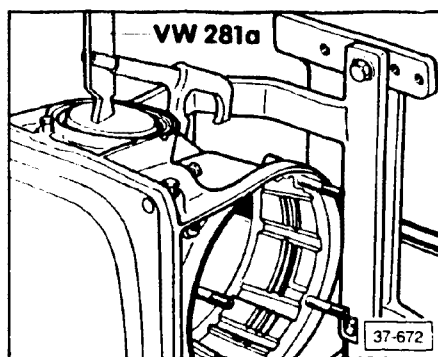
► Fig. 5 1st/reverse shell, installing

- insert tab (arrow) in groove



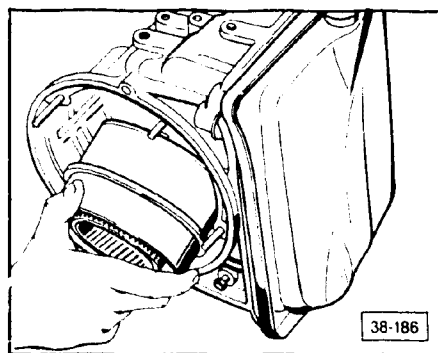
► Fig. 6 1st/reverse clutch, checking

- apply low air pressure to part (arrow)
 - piston must compress the springs
 - when compressed air is removed, the piston must return to original position



► Fig. 7 2nd gear brake band piston, installing

- push piston as shown
- insert circlip and install 2nd gear brake band



► Fig. 8 Direct/reverse and forward clutches, installing

- assemble direct reverse and forward clutches first
- insert axial needle bearing in forward clutch
- with transmission case opening angled downward, push clutches onto the neck of oil pump
- turn transmission case until opening points upward
 - check that axial needle bearing is seated correctly on the ATF pump neck

Automatic Transmission – Case, Gears, Shaft

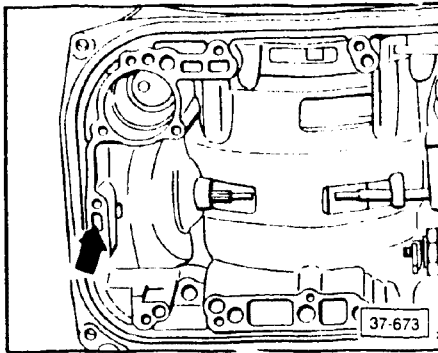
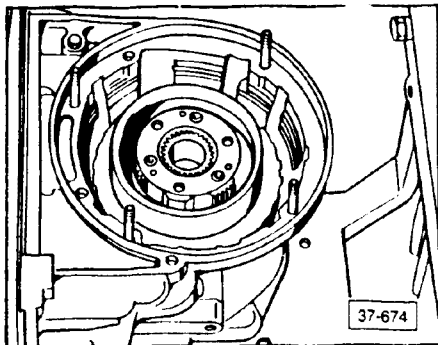


Fig. 9 2nd gear brake band, checking

- ▶ ■ apply low air pressure to part (**arrow**)
- piston must compress brake band
- when air is removed, piston must return to its original position



▶ Fig. 10 Reverse planetary gear set, installing

- insert splined plates

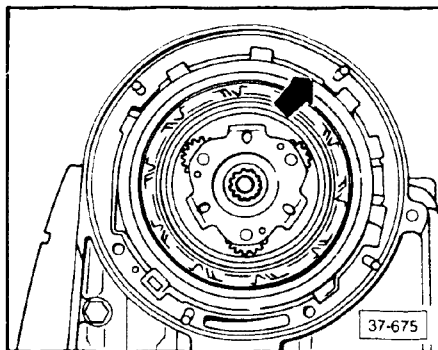
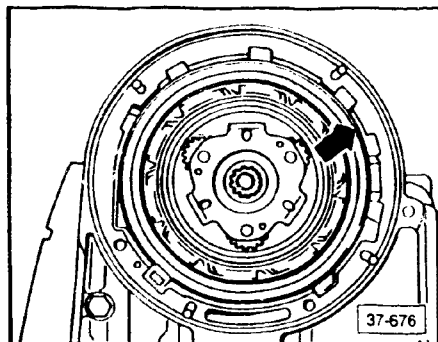


Fig. 11 One-way clutch and locking key, installing

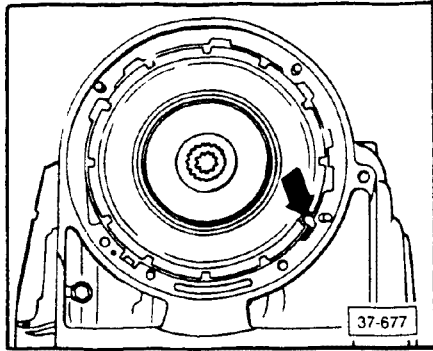
- ▶ ● the parts are assembled correctly if the slot for circlip is open (**arrow**)
- test one way clutch
- planetary gear set must **not** turn counter-clockwise



▶ Fig. 12 Circlip, installing

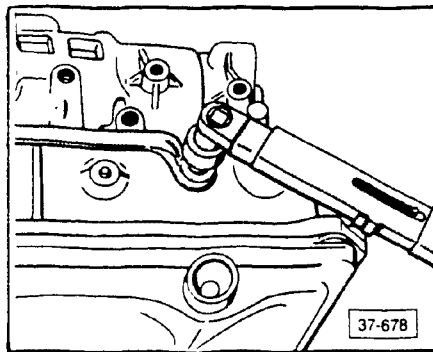
- circlip opening (**arrow**) must be opposite the locking key

Automatic Transmission – Case, Gears, Shaft



► Fig. 13 Reverse planetary ring gear, installing

- planetary gear notches must be centered with parking pawl (arrow)

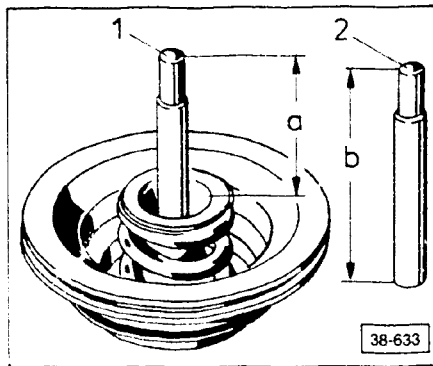


► Fig. 14 2nd gear brake band, adjusting

- seal adjusting bolt thread with Part No. **AKD 456 000 Ø1**
- tighten adjusting bolt to **10 Nm (7 ft lb)**. Loosen and re-tighten to **5 Nm (44 in. lb or 51 cm kg)**
- turn out adjusting bolt exactly **2 or 2-1/2 turns** (see Technical data, Repair Group 37)
- tighten locknut

CAUTION

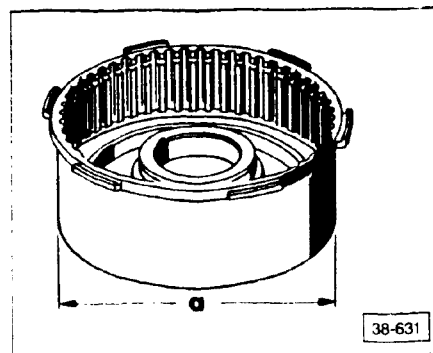
Adjust brake band only with transmission in horizontal position, otherwise band may jam.



► Fig. 15 Piston/push rod, identification

- 1 — 2nd gear brake piston push rod
- 2 — adjusting screw push rod

	Dimension A 1 (mm)	Dimension B 2 (mm)
Direct/reverse clutch 140 mm diameter	40	82.5



► Fig. 16 Direct/reverse clutch, dimension

Dimension A = 140 mm