

Removal and Installation of Shift Tube and Steering Column Jacket

Job-No.

26 — 15

Removal:

1. Detach the hand brake cable and remove the bearing assembly (see Job No. 26 — 12, Paragraphs 1—7).
2. Fold back the rubber and felt mats in the vehicle. Unscrew the screws attaching the steering column jacket to the cowl.
3. Loosen the tightening strap holding the steering column jacket by unscrewing the hexagon nut (3) at the steering column bracket. Then remove the tightening strap by pushing it toward the front (seen in direction of travel) and pull out the steering column jacket complete with steering wheel and steering tube (Fig. 26 — 15/1).

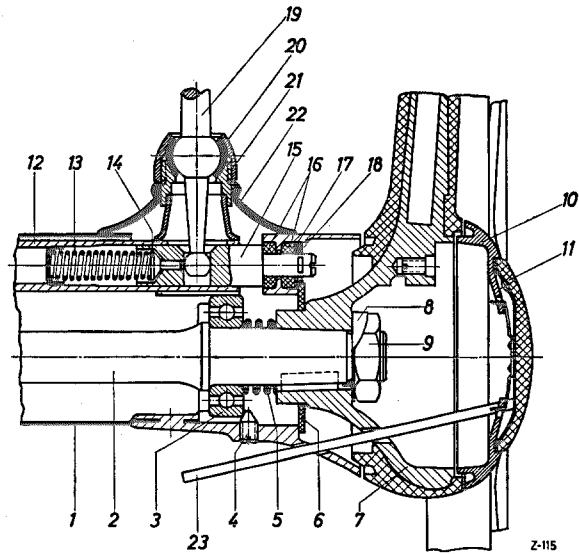


Fig. 26 — 15/2

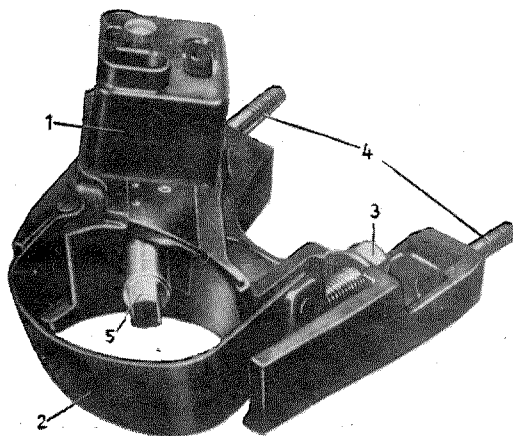


Fig. 26 — 15/1

- 1 Steering column bracket, complete with lock
- 2 Tightening strap for steering and steering column jacket suspension
- 3 Clamping nut
- 4 Stud bolts for fixing nuts
- 5 Lock bolt

- 1 Steering column jacket
- 2 Steering tube
- 3 Annular grooved bearing
- 4 Grub screw
- 5 Pressure spring for steering tube
- 6 Rubber washer
- 7 Steering wheel
- 8 Locking plate
- 9 Hexagon nut
- 10 Horn ring
- 11 Trademark plate
- 12 Shift tube
- 13 Pressure spring for shift tube
- 14 Spring seat pin
- 15 Guide pin
- 16 Rubber ring
- 17 Shim
- 18 Snap ring
- 19 Shift lever
- 20 Rubber cushion
- 21 Cover cap
- 22 Rubber cuff
- 23 Welding rod (3 mm thick) to press off the trademark plate

4. Pull steering tube and steering wheel out of the steering column jacket.
5. Remove rubber cuff (22) at the shift lever (Fig. 26 — 15/2).
Unscrew the cover cap (21) for the shift lever at the shift tube, using Special Wrench 187 589 01 01, and remove the shift lever.

6. Turn the guide pin (15) 180° with a screw driver and remove the snap ring (18) together with the shim (17) and the upper rubber ring (16) (see Fig. 26 — 15/2).
7. Push the guide pin (15) down until it protrudes from the guide in the steering column jacket. Then press the guide pin in and remove it from inside the steering column jacket together with spring seat pin (14), pressure spring (13), and lower rubber ring (16) (see Fig. 26 — 15/2).
8. Pull out the shift tube.

Checking

9. Check the shift tube for run-out. Maximum run-out 0.2 mm.
10. Steering column jacket, shift tube, and steering tube are available in two different lengths (with a difference of 50 mm, see table below). This allows optimum driving comfort irrespective of the driver's height.

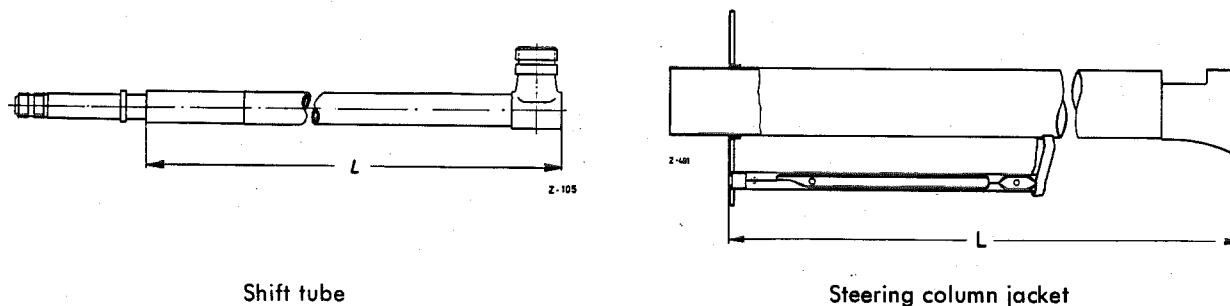


Fig. 26—15/3

Length	Shift tube L	Steering column jacket L	Steering tube Total length
Standard version			
Standard	798 mm	773 mm	1142 mm
Special version			
50 mm longer	848 mm	823 mm	1192 mm

Installation:

11. Insert the shift tube in the steering column jacket.
12. Smear the guide pin (15) together with lower rubber ring (16), spring seat pin (14), and pressure spring (13) with roller bearing grease and install them in such a way that the spot-faced bore of the guide pin points toward the inside of the steering column jacket (see Fig. 26—15/2)
13. Press the guide pin downward and insert the recessed end of the guide pin into the bore of the steering column jacket.
14. Install the upper rubber ring (16) and the shim (17).
15. Insert a rod in the shift lever bore of the guide pin (15) and press the guide pin (15) upward until the snap ring (18) can be installed.
Install the snap ring (18) and turn the guide pin (15) 180° by means of a screw driver. The spot-faced bore of the guide pin should now point toward the outside of the steering column jacket (see Fig. 26—15/2).

16. Rub talc into the inside and outside of the rubber cushion (20) and slide the rubber cushion into the shift lever mounting. Insert the shift lever (19) into the shift tube and the guide pin. Tighten the cover cap (21) by means of Special Wrench 187 589 01 01 and slide on the rubber cuff (22).
17. Install the steering tube together with steering wheel.
18. Install the steering column jacket by screwing in the screws attaching the steering column jacket to the cowl. Then install the tightening strap in the steering column bracket from the front and attach the steering column jacket by screwing in the hexagon nut (3) at the steering column bracket (see Fig. 26 — 15/1).
19. Install the bearing assembly (see Job No. 26 — 12, Paragraphs 8 — 13).
20. If the steering tube should bear against the bearing assembly or against the spring-loaded ball cup connector, loosen the screws attaching the steering column jacket to the cowl and shift the steering column jacket to the side to free the steering tube. Then re-tighten the fixing screws.
21. Attach the brake cable and adjust the hand brake (see Job No. 42 — 19, Section C).