

# Removal, Installation and Adjustment of Steering Column Gear Shift

Type 220a

## Procedure:

1. Disconnect negative cable from battery as well as signal and direction indicator lines from luster terminal.
2. Turn out clamping screw on steering coupling as well as setscrew in jacket tube (Fig. G 14a/2). Set steering column lock to position "Garage", remove the key and pull steering shaft out of steering coupling.

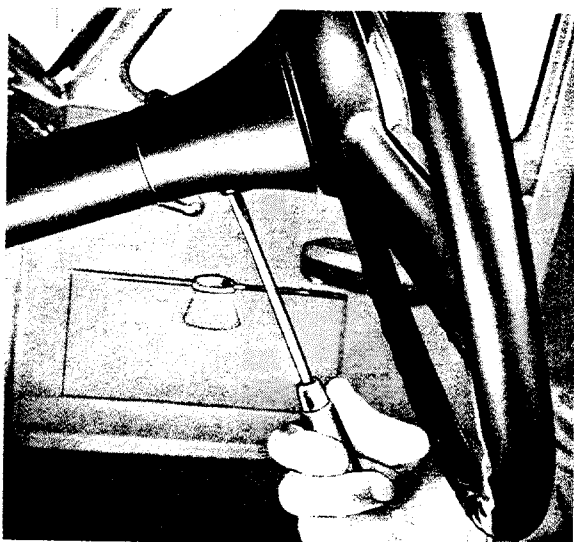


Fig. G-14a/2

3. Detach brake cable from hand brake lever, disconnect cable to back-up switch and remove back-up switch.
4. Detach selector and shift rods from bearing body, remove selector lever (2) and detach connecting piece (4). See Fig. G 14a/4.
5. Fold back rubber and felt mats in the car and loosen all jacket tube support fastening screws.
6. Loosen nut on jacket tube strap and remove strap towards the rear.
7. Turn jacket tube with steering column gear shift a little in anti-clockwise direction, depress bearing body and pull the entire gear shift system out (with an assistant inside the car). See Fig. G 14a/7.

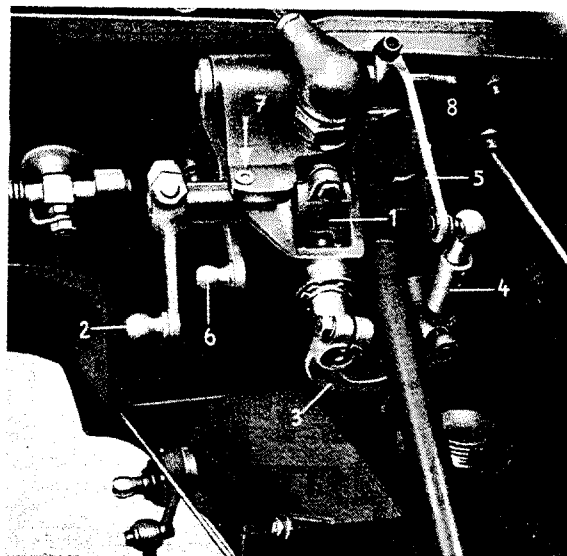


Fig. G 14a/4

- |                           |                               |
|---------------------------|-------------------------------|
| 1 Selector lever with dog | 5 Intermediate arm            |
| 2 Selector lever          | 6 Intermediate shaft with arm |
| 3 Arm                     | 7 Bearing body                |
| 4 Connecting piece        | 8 Jacket tube support         |

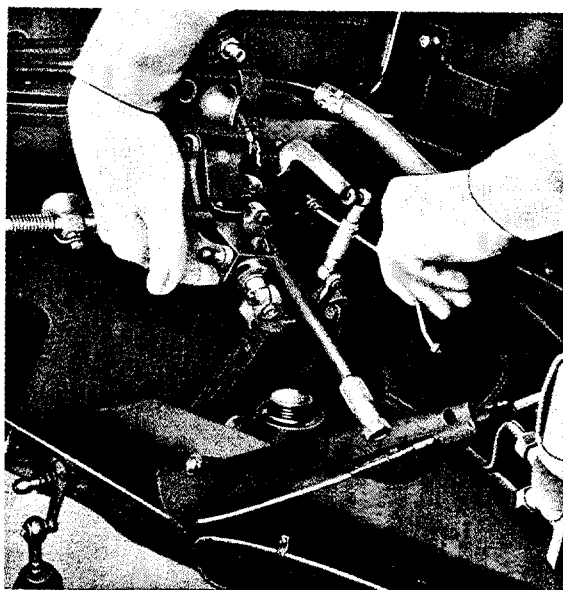


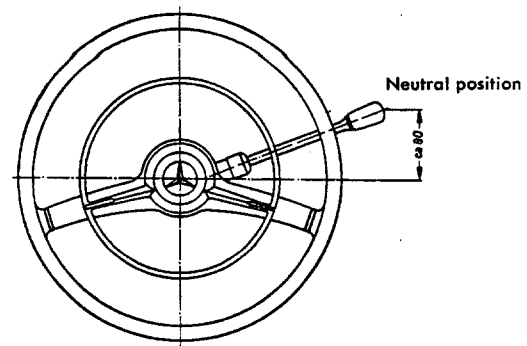
Fig. G 14a/7

8. Installation is effected in reverse order of removal. Be careful to install the selector and shift rods so that they are free from stress and do not hit against any part. If necessary, straighten the linkages.

**Tighten clamping screw of selector lever (2) later on when making the adjustment.**

**Note:** If the hexagonal screws for fastening the bearing body must be replaced, use only hexagonal screws M 6 × 25 S with castellated nuts M 6 and cotter pins 2 × 15. Install the castellated nuts on the bearing body side.

The fastening screws must be correctly seated.



Approx. 80 mm (3.15")

Fig. G 14a/11

### Adjustment of Steering Column Gear Shift

9. Before adjustment of the steering column gear shift is attempted, check whether intermediate and selector lever shafts can be easily rotated. There must be no end play; otherwise correct adjustment is not possible and shifting troubles may result.
10. Press selector lever (2) back to second stop (overcoming the arrest of the reverse speed in the transmission cover) and shift into reverse gear. Have an assistant move the gear shift lever at the steering wheel upwards to the stop, then tighten clamping screw at selector lever (2). Move gear shift lever at steering wheel into neutral position and release it. Now the lever must return into home position. When the gear shift lever is again moved upward, the overcoming of the first stop (arrest of reverse speed) must be distinctly felt.
11. Check position of hand gear shift lever at steering wheel. In neutral position (home position) the distance of the lever from the horizontal line upward is approx. 80 mm = 3.15" (Fig. G 14a/11), in second or fourth speed it is approx. 20 mm (0.8") from the horizontal line downward.
12. If major deviations are discovered, shift into fourth gear and pull arm (3) off the splines, move hand gear shift lever into the above-

mentioned position for the fourth speed and clamp arm (3) again on the shift tube.

Make sure that the arm clears the steering shaft when shifting into second and fourth speed; otherwise the two arms (3 and 5) must be displaced on the splines.

In order to alter the position of the hand shift lever or to rule out that arm (3) hits against the steering shaft, minor corrections can be made at the ball socket of shift rod for arm (6).

**Note:** When shifting the gears in the standing car **press down clutch pedal**.

13. Secure the ball and socket joints!

**Do not forget to provide the selector lever shaft from time to time with a few drops of oil** (see arrow in Fig. G 14a/4).

In neutral position the resilient connecting piece (4) must be in middle position to rule out that the axial motions of the engine are transmitted to the gear shift lever (see Fig. G 14a/4). Under particularly adverse conditions (bad roads) the gears might disengage. In such a case it is also recommended to check whether the engine supports are too soft and permit excessive axial motions of the engine.