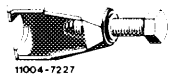
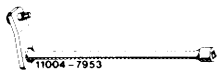
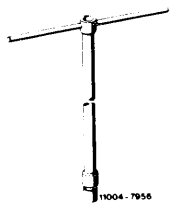
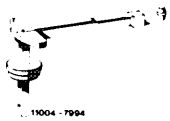
| Adjusting value | Ncm | (kpcm) |
|---|---|---|
| Total friction torque of steering measured at steering worm | 110–160 | (11–16) |

| Tightening torques | Nm | (kpm) |
|---|---|---|
| Hex. head collar nut to adjusting screw | 60–65 | (6–6.5) |
| Self-locking hex nut on pitman shaft | 160–200 | (16–20) |

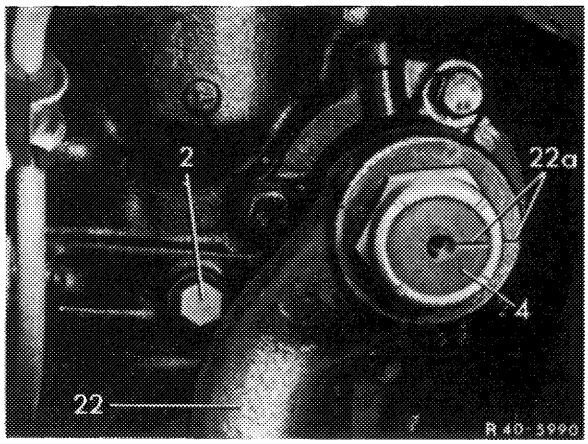
**Special tools**

| | | |
|---|---|---|
| Puller for pitman arm |  11004-7227 | 100 589 04 33 00 |
| Allen wrench insert 6 mm 3/8" square |  11004-7953 | 123 589 01 10 00 |
| Box wrench insert 19 mm 1/2" square |  11004-7954 | 123 589 01 03 00 |
| Socket wrench 19 mm |  11004-7956 | 123 589 01 09 00 |
| Torque wrench 1/2" square 0–400 Ncm (0–40 kpcm) |  11004-7994 | 123 589 02 21 00 |
| Mounting for torque wrench 1/2" square |  11004-10488 | 126 589 13 63 00 |

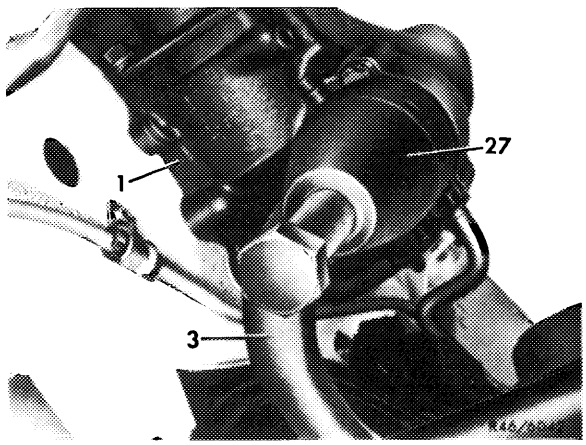
**Conventional tools**

| | | |
|---|---|---|
| Allen wrench insert 3/8" with joint for hex. socket screw 6 mm | e.g. made by Hazet order No. 2740 | 5630 Remscheid |
| Slide handle 3/8" 200 mm long | e.g. made by Hazet order No. 8815 | 5630 Remscheid |
| Extension 3/8" 255 mm long | e.g. made by Hazet order No. 8821-10 | 5630 Remscheid |

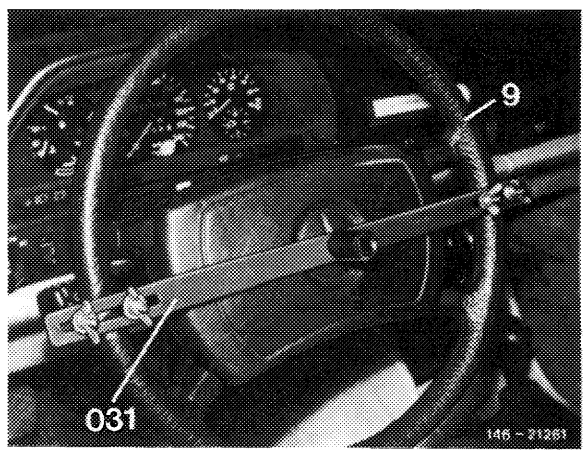
1 Unscrew self-locking hex nut from pitman shaft.



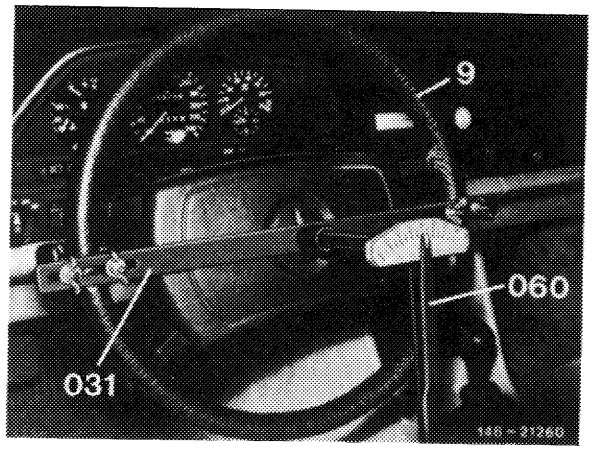

2 Pull pitman arm (3) from pitman shaft by means of puller (27).




3 Fasten mounting for torque wrench to steering wheel.



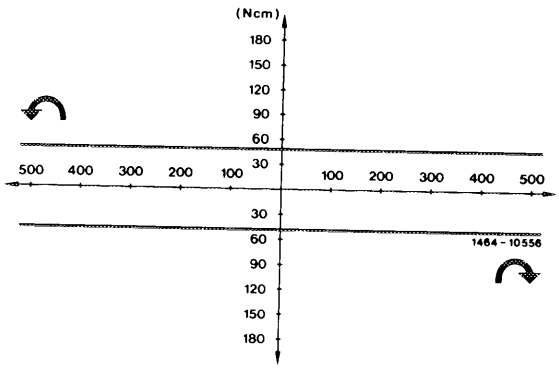
4 Place torque wrench (060) into mounting (031) and turn steering several times from lock to lock. Measure friction torque while turning steering wheel.




5 Readjust steering if, while turning steering from lock to lock, there is no more increase of friction value in center range.

**Example:** Friction torque of used steering. Friction torque is the same over entire turning range.

**Attention:**
If friction torque increases above 110 Ncm in center range of steering, do not readjust steering.




## Adjusting friction torque

6 Loosen hex. collar nut (57) and turn adjusting screw (47) approx. 1/4 turn to the left. Tighten hex. collar nut to 60 Nnm.

7 Check friction torque. In center range, torque should be 30–60 Ncm above basic friction torque measured before.

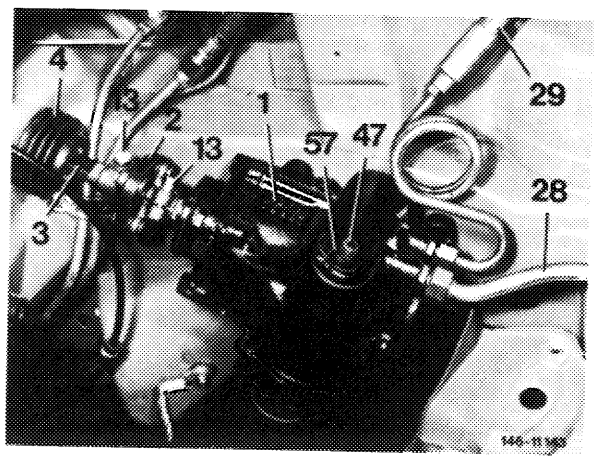
**Example:** Friction torque of steering following adjustment

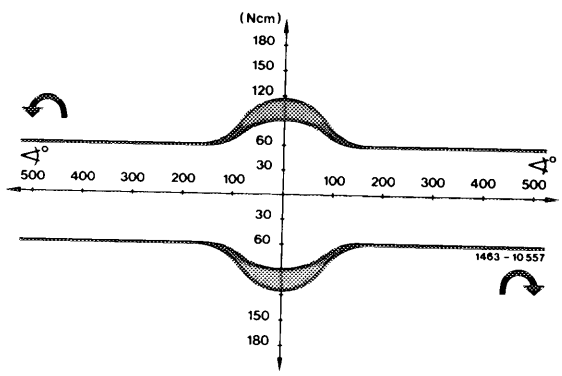
Basic friction torque = 60 Ncm

Increase in center range = 30–60 Ncm

Total friction torque = 90–120 Ncm

If this increase is not attained, screw adjusting screw again outward by 1/8 to 1/4 turn.

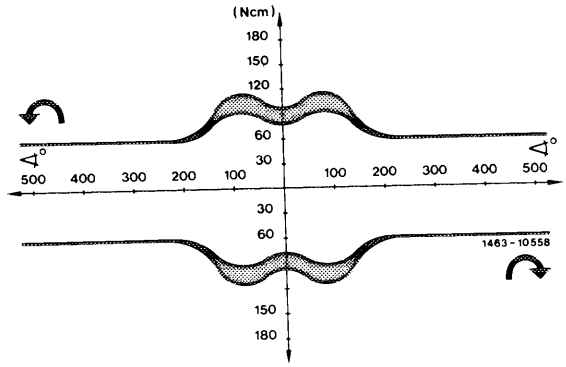


**When turned beyond center position the total friction should not exceed 120 Ncm.**

Turn steering from lock to lock. Steering should not bind across entire turning range.

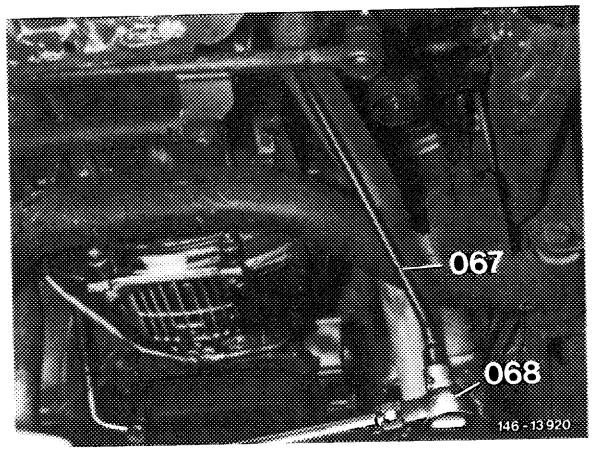
**Note:** On a steering gear which has been operated for an extended period and has not been readjusted, the friction torque may drop slightly in center range but will increase at left and right of center. Such a slight drop is unobjectionable and is noticed on steering wheel by a minimum play which cannot be removed.



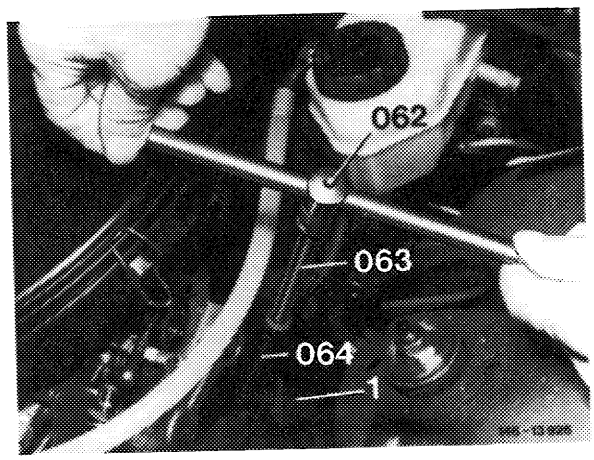

8 Application of special tools and conventional tools:

**Models 107.022 and 107.042**

For loosening or tightening hex. collar nut, use box end wrench 123 589 01 03 00.

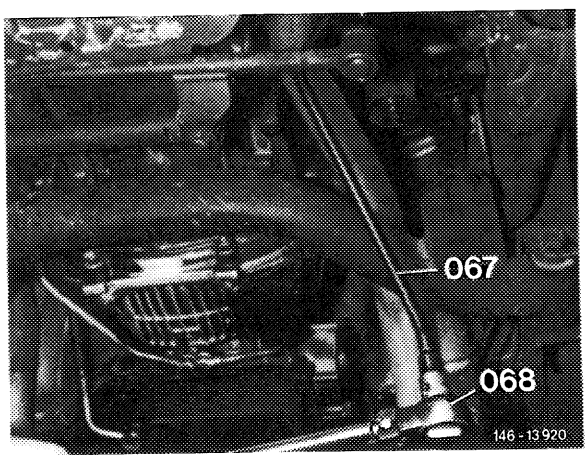



Required for setting adjusting screw: Allen wrench with joint (064), extension (063) and sliding handle (062).



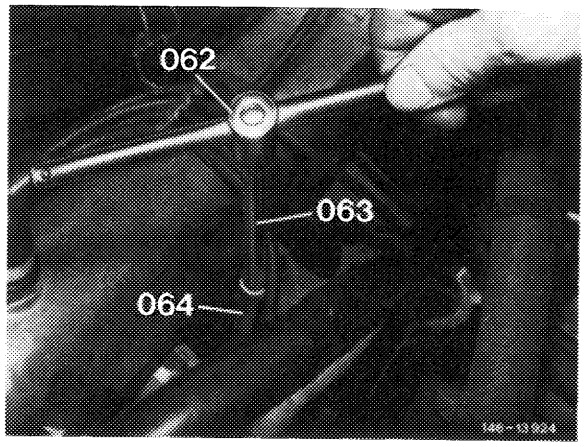

**Models 107.023, 107.024, 107.025, 107.026, 107.043, 107.044, 107.045 and 107.046**

For loosening or tightening hex. head collar nuts from below, box wrench 123 589 01 03 00 (067) will be required.



Setting of adjusting screw requires the following: Allen wrench with joint (064), extension (063) and slide handle (062).

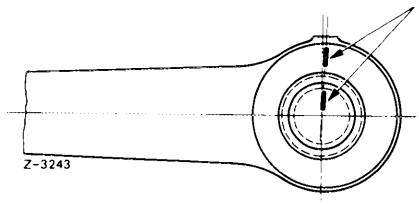
**Note:** On engine with electronic injection the shielding plate on lefthand exhaust manifold and, in addition, the air filter on engine with CIS injection must be removed.




**All models**

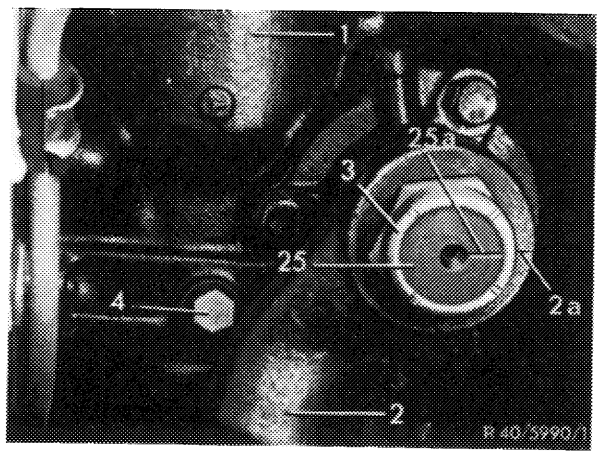
9 Clean serrations (notches) on pitman shaft and on pitman arm.

10 Slip pitman arm on pitman shaft, making sure that the marking on arm is in alignment with marking on pitman shaft.




11 Screw new self-locking hex nut on pitman shaft and tighten to 160–200 Nm (16–20 kpm).

**Attention!**
**Always replace self-locking hex nuts.**




12 Remove mounting from steering wheel.