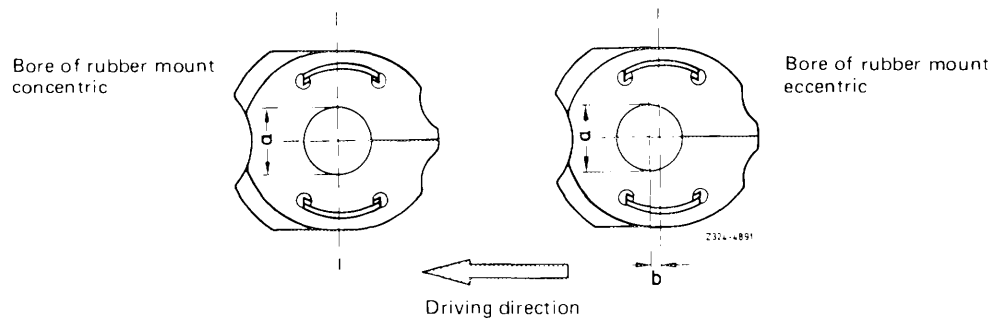


32–300 Removal and installation of torsion bar on front axle

A. Model 116.036

Data

Torsion bar		Rubber mount of torsion bar bearing			
Part no.	Dia.	Part no.	Bore dia. "a"	Eccentricity "b" of bore	Identification
116 323 52 65	25.5	116 323 36 85	23.5	—	—
		116 323 35 85		3	blue dot



Tightening torques	Nm
Hex. head clamping screw in clamping piece	30
Hex. bolts for fastening clamping piece to torsion bar	10
Hex. bolts of torsion bar bearing at front wall	20
Hex. bolt of upper control arm support on torsion bar support 1st version without spacing sleeve ¹⁾	Up to end of thread in clamping piece
Hex. bolt of upper control arm support on torsion bar support 2nd version with spacing sleeve ²⁾	100
Hex. nuts of actuating lever bearing on torsion bar	7
Hex. nuts of clip for fastening connecting shaft to torsion bar	3

¹⁾ Installed as standard equipment up to February 1979.

²⁾ Installed as standard equipment starting March 1979.

Note

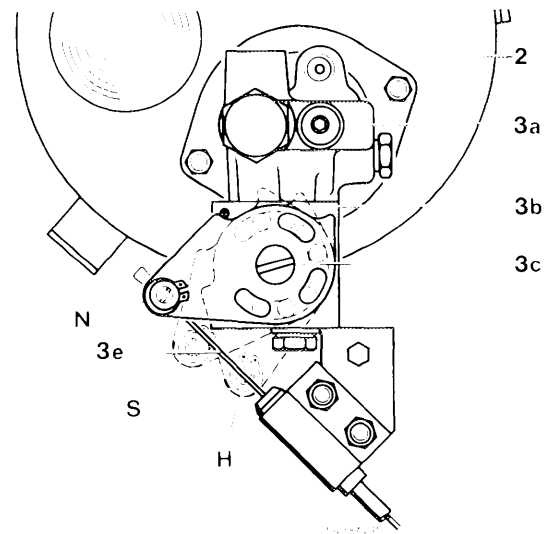
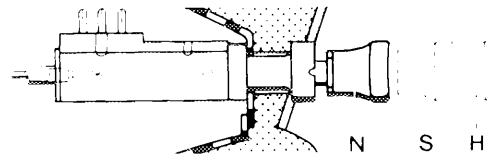
- a) To avoid any distortion of upper control arm support on torsion bar during assembly jobs when jacking up vehicle, do not place support against frame floor but against lower control arm.
 - b) The rubber mounts of the torsion bar bearing at front wall may vary to compensate for body tolerance (refer to table and illustration).
- During installation, make sure that the rubber mounts are returned to the same location as before to avoid changes in front wheel caster.
- c) Mount and tighten torsion bar bearing on front end and support of upper control arm on torsion bar only in the position in which the vehicle is ready for driving.
 - d) In the event of repairs on upper control arm support on torsion bar, mount only rubber mounts with spacing sleeve of 2nd version.
 - e) Lubricate hex. socket clamping screw in clamping piece on torsion bar prior to assembly.

Always replace self-locking hex. nuts as a matter of principle!

Removal

- 1 Move puller for adjusting switch on valve unit to position S = "detent position" (switch locked in center position on instrument panel).

The pressure in suspension element will remain even though the vehicle has been jacked up.



- 2 Oil supply tank
- 3a Pressure regulator of valve unit
- 3b Adjusting switch of valve unit
- 3c Control disk
- 3e Puller for adjusting switch

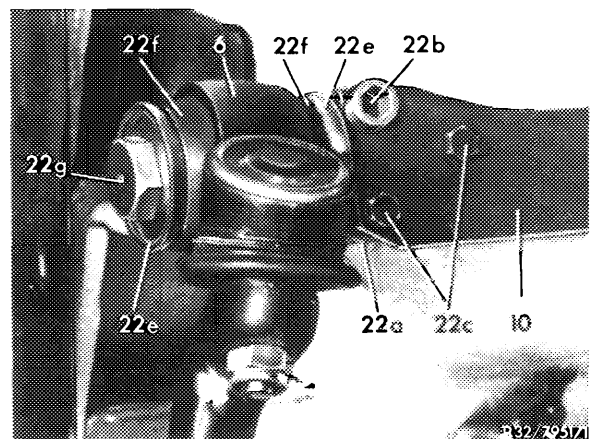
Positions of adjusting switch:

- N = normal level
switch pushed down or control disk against stop at front
- S = detent position
switch locked in center position or control disk pulled into 1st detent
- H = higher level
switch fully pulled or control disk pulled into 2nd detent

2 Jack up vehicle at front, place supports at outside front against control arms, remove front wheels.

3 Loosen hex. socket clamping screw (22b) on clamping piece (22a) and unscrew hex. screw (22g) of upper control arm support on torsion bar left and right.

4 Loosen the two hex. bolts (22c) of clamping piece left and right on torsion bar and remove clamping pieces.



- 6 Upper control arm
- 10 Torsion bar
- 22a Clamping piece
- 22b Hex. head clamping screw
- 22c Hex. screws with washers and self-locking hex. nuts
- 22e Disk washers
- 22f Rubber mount
- 22g Hex. bolt

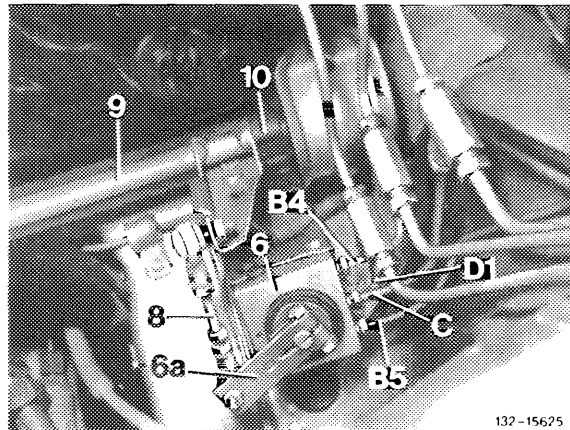
- 5 Remove tandem master cylinder and brake unit (42–310 and 350).
- 6 Remove air filter.
- 7 Completely remove regulating valve for automatic climate control (83–632).
- 8 Remove water hoses and pipes.
- 9 Empty air conditioning system (83–850).
- 10 Disconnect hoses of air conditioning system and oil pressure line.
- 11 Pull off suction line for vacuum systems on suction pipe.
- 12 Remove regulating linkage.

13 Disconnect connecting rod (8) on lever of level controller. For this purpose, loosen hex. nut, while applying counterhold at ball pins with a 10 mm open end wrench.

Attention!

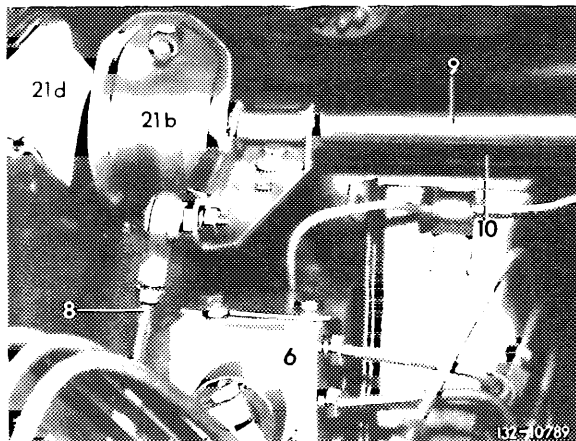
Do not pull ball pin out of ball socket.

Note: On lefthand steering vehicles, the level controller is at front wall right, on righthand steering vehicles at the left.



132-15625

14 Loosen hex. bolt and hex. nut of torsion bar bearing on front wall left and right, remove holding clip.



132-10789

- Torsion bar bearing right
- 6 Level controller for front axle
 - 8 Connecting rod
 - 9 Connecting shaft
 - 10 Torsion bar
 - 21b Holding clip
 - 21d Cover

Attention!

On rubber mounts (21a) of torsion bar bearing on front wall left and right, the layout of the bores may be different (refer to table and illustration).

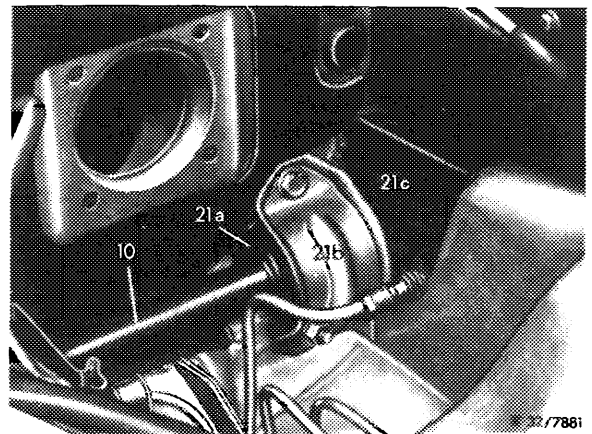
15 Mark rubber mounts with "left" and "right" and remove from torsion bar.

16 Remove covers right and left on wheel assembly.

17 Remove torsion bar.

Torsion bar bearing left

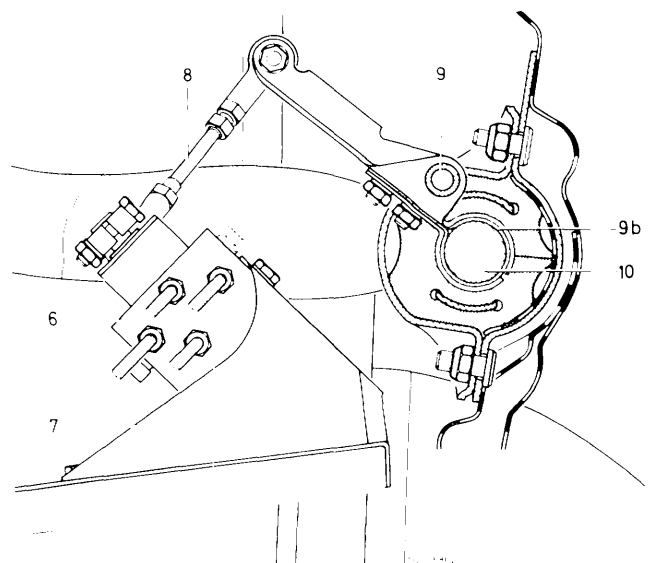
- 10 Torsion bar
- 21a Rubber mount
- 21b Holding clip
- 21c Cover



Removing and installing actuating linkage for level controller

18 Loosen connecting shaft (9) on torsion bar.

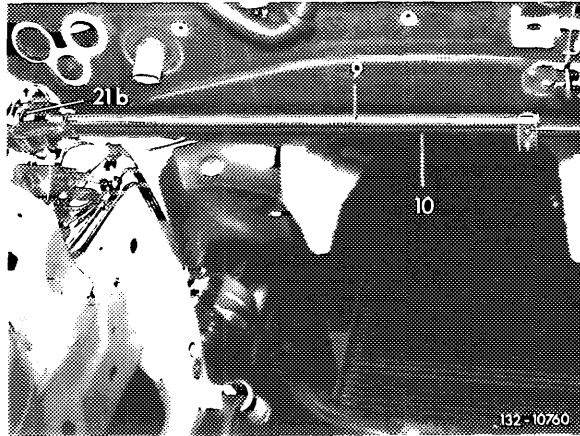
19 Check plastic shim (9b) for wear and replace, if required.



- 9 Connecting shaft
- 9b Plastic shim
- 10 Torsion bar

20 Attach actuating linkage for level controller to torsion bar, making sure that the lever of the connecting shaft is against surface of torsion bar.

- 9 Connecting shaft
- 10 Torsion bar
- 21b Holding clip

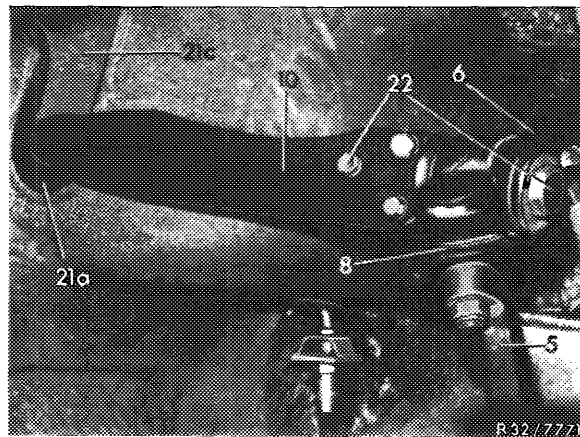


Checking

21 Check rubber mount of torsion bar bearing and support of upper control arm on torsion bar.

Installing

22 Insert torsion bar (10) in such a manner that the curved sides of the torsion bar arms are pointing forward. In installed condition, the curved sides are pointing upwards.



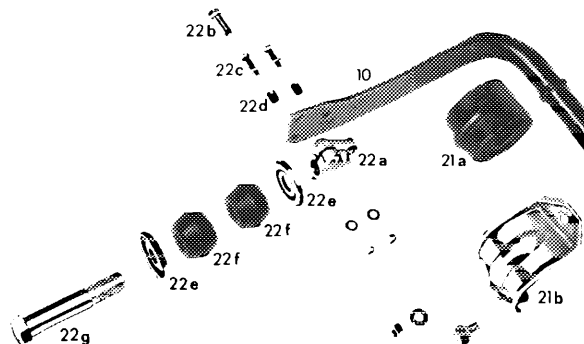
23 Attach clamping pieces left and right to torsion bar.

Attention!

The clamping sleeves should be flush with torsion bar.

1st version

- 10 Torsion bar
- 21a Rubber mount
- 21b Holding clip
- 22a Clamping piece
- 22b Hex. head clamping screw
- 22c Hex. screws with washers and self-locking hex. nuts
- 22d Clamping sleeves
- 22e Disk washers
- 22f Rubber mount
- 22g Hex. bolt

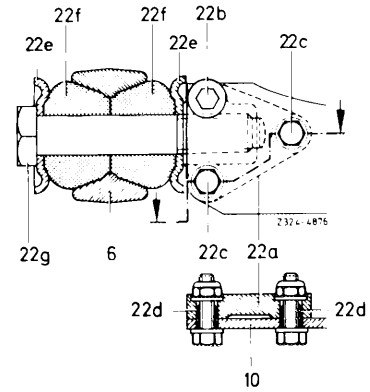


132-8020

24 Mount support of upper control arm to torsion bar. Tighten hex. bolt (22g) on support of 1st version up to end of threads in clamping piece and tighten hex. head clamping screw (22b).

1st version

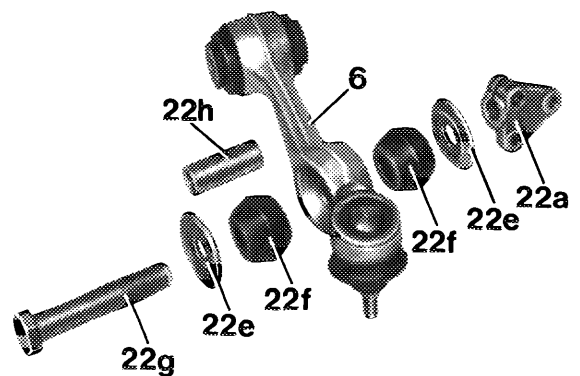
- | | |
|---|--|
| 6 Upper control arm | 22c Hex. screw with washers and self-locking hex. nuts |
| 10 Torsion bar | 22d Clamping sleeves |
| 21a Rubber mount | 22e Disk washers |
| 21b Holding clip | 22f Rubber mount |
| 22a Clamping piece | 22g Hex. bolt |
| 22b Hex. head clamping screw or hex. socket head clamping screw | |



On support 2nd version with spacing sleeve, tighten hex. bolt (22g) to specified torque, also tighten clamping screw (22b).

2nd version

- | | |
|---|---|
| 6 Upper control arm | 22c Hex. screws with washers and self-locking hex. nuts |
| 10 Torsion bar | 22d Clamping sleeves |
| 21a Rubber mount | 22e Disk washers |
| 21b Holding clip | 22f Rubber mount |
| 22a Clamping piece | 22g Hex. bolt |
| 22b Hex. head clamping screw or hex. socket head clamping screw | 22h Spacing sleeve |



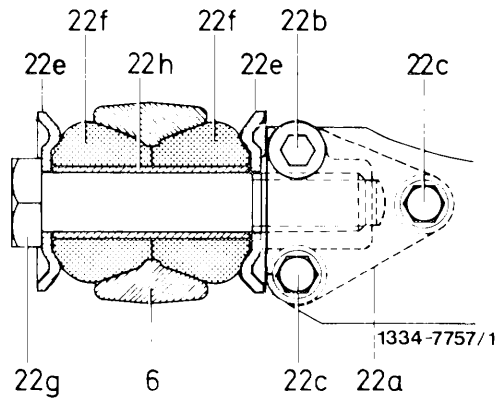
Attention!

During assembly of hex. bolt (22g) make sure that the rubber mounts are not distorted when seated in control arm eye.

Lubricate threads of clamping screw M 10 x 30 prior to installation.

2nd version

- 6 Upper control arm
- 22a Clamping piece
- 22b Hex. head clamping screw or hex. socket head clamping screw
- 22c Hex. screws with washers and self-locking hex. nuts
- 22d Clamping sleeves
- 22e Disk washers
- 22f Rubber mount
- 22g Hex. bolt
- 22h Spacing sleeve

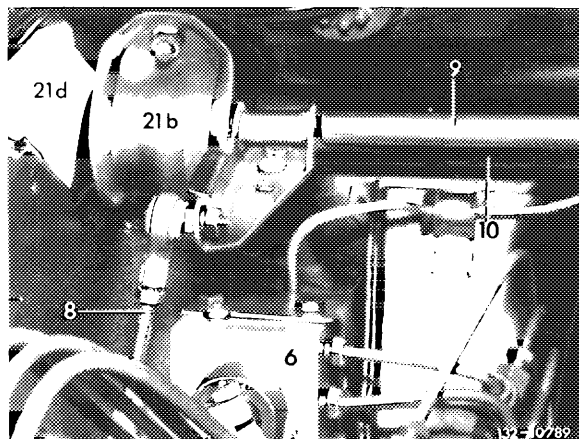


25 Attach covers left and right on wheel assembly.

26 Slip rubber mount of torsion bar bearing on front wall left and right with parting slot facing toward the rear, while paying attention to mark applied during removal. Mount holding clips with hex. bolts and hex. nuts.

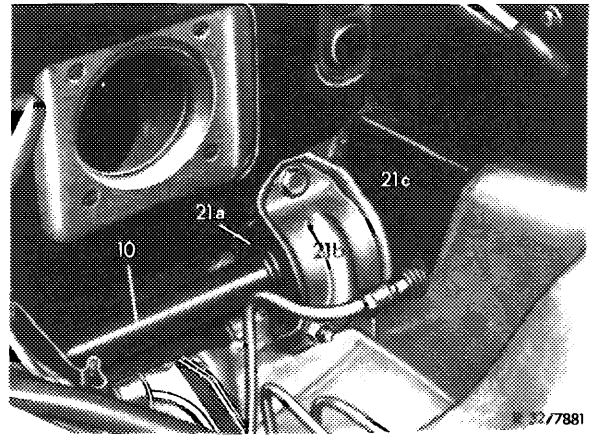
Torsion bar bearing right

- 6 Level controller for front axle
- 8 Connecting rod
- 9 Connecting shaft
- 10 Torsion bar
- 21b Holding clip
- 21d Cover



27 Attach connecting rod to level controller

Torsion bar left
10 Torsion bar
21a Rubber mount
21b Holding clip
21c Cover



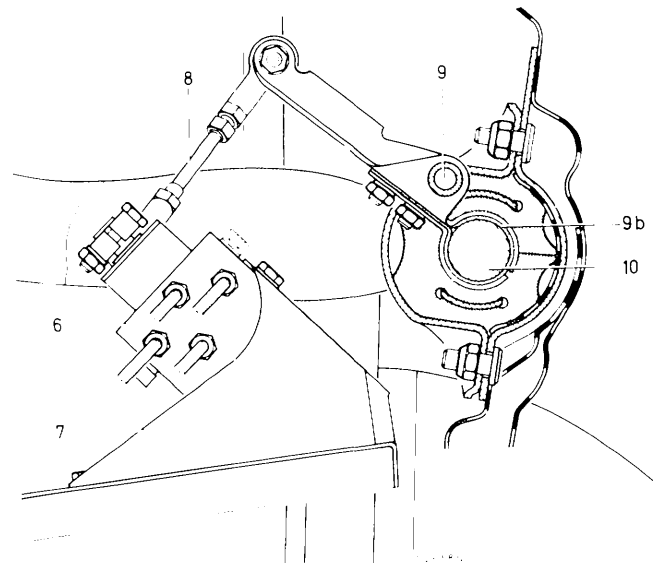
28 Install regulating linkage, water hoses and pipes.

29 Connect vacuum hose, hoses of air conditioning and oil pressure line.

30 Install regulating valve for automatic climate control and air cleaner.

31 Install tandem master cylinder and brake unit (42–310 and 350).

32 Mount front wheels, lower vehicle.



9 Connecting shaft
9b Plastic shim
10 Torsion bar

33 Move puller for adjusting switch of valve unit into position N = "normal level" (switch on instrument panel depressed).

34 Fill air conditioning (83–840).

35 Check vehicle level and adjust (40–315).