

33–500 Removal and installation of upper control arm

Tightening Torques	Nm
Hex. bolt of upper control arm bearing on front end	80
Hex. nut of guide joint	40
Hex. socket clamping screw in clamping piece	45
Hex. screw of support of upper control arm on torsion bar support 1st version without spacing sleeve ¹⁾	Up to end of thread in clamping piece
Hex. screw of support of upper control arm on torsion bar support 2nd version with spacing sleeve ²⁾	100

¹⁾ Installed as standard equipment up to February 1979.

²⁾ Installed as standard equipment starting March 1979.

Special tool

Pressing-off device for guide joint		116 589 16 33 00
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Self-made Tool

Spacing plate	refer to Fig. item 9
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Note

Loosen hex. nuts on supporting and guide joint with front spring installed only, if the supporting jacks at the front are located on frame floor, at lower control arms; otherwise, remove front spring.
Do not force-off guide joint with front axle half free of load, since otherwise the rubber sleeve will be damaged.

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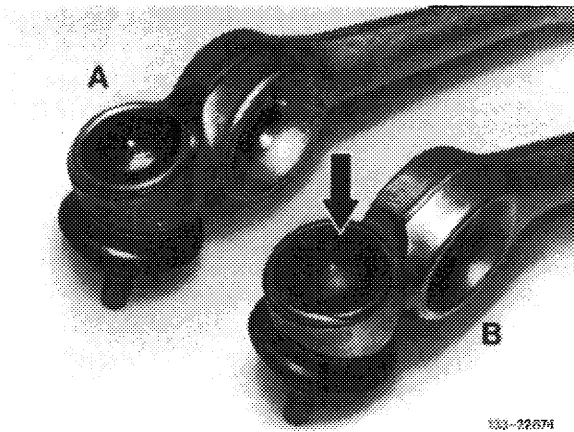
Immediately renew sleeves of supporting or guide joint damaged during assembly.

Damaged or leaking sleeves of joints already used must not be replaced. In such a case, replace supporting joint or upper control arm on principle.

Tighten bearing of upper control arm on front end, support of upper control arm on torsion bar, as well as bearing of torsion bar on front end only in ready-to-drive condition of vehicle. During assembly jobs on upper control arm, no preload should show up via torsion bar. If required, slightly lift front axle half on lower control arm at opposite vehicle side.

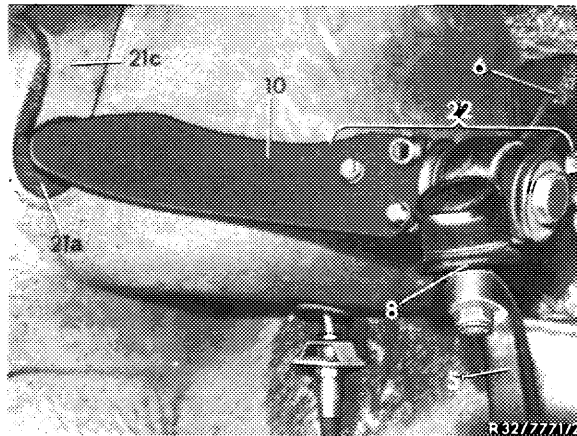
Renew self-locking screws and nuts on principle!

Note: For replacement, use only control arms which are provided with a plastic coating in range of cover at upper part of guide joint (available as a spare part since September 1981).

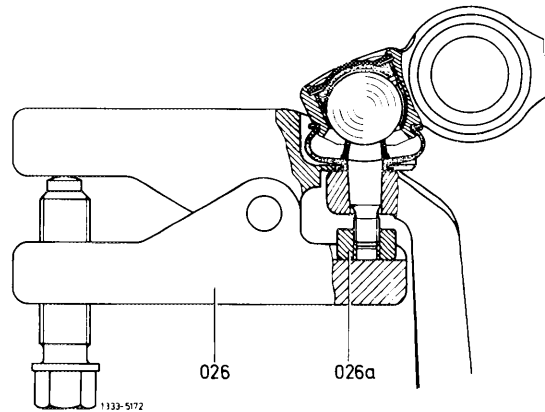


Removal

- 1 Jack-up vehicle at front, place supporting stands at outside front against lower control arm, remove front wheel.
- 2 Loosen hex. nut of guide joint (8).

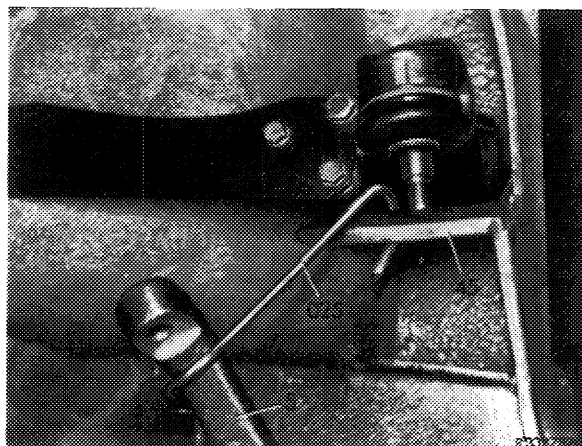


- 3 Remove guide joint from steering knuckle with pertinent device.



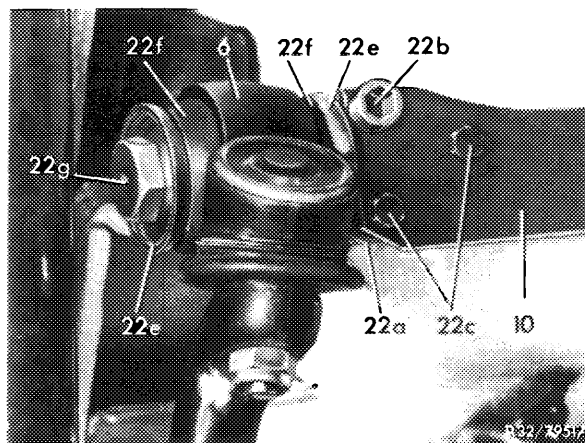
026 Remover
026a Thrust piece

- 4 Secure steering knuckle (5) against tilting off by means of suitable hook on end stop (45) of upper control arm.

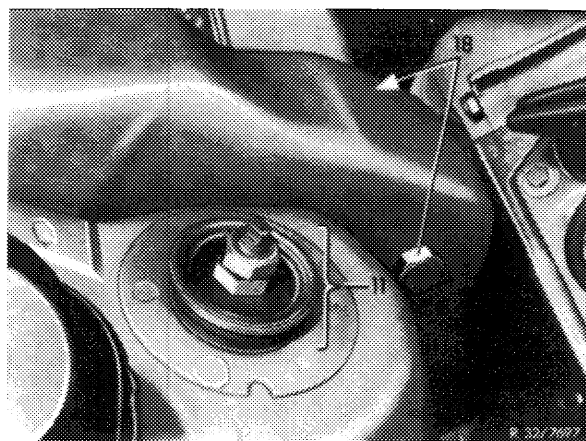


5 Loosen support of upper control arm on torsion bar by loosening hex. socket clamping screw (22b) in clamping piece and unscrewing hex. screw (22g).

- 6 Upper control arm
- 10 Torsion bar
- 22a Clamping piece
- 22b Hex. socket clamping screw
- 22c Hex. bolts with washers and self-locking hex. nuts
- 22e Cup washers
- 22f Rubber mounting
- 22g Hex. screw



6 Loosen hex. screw (18) of upper control arm bearing at front end from direction of engine compartment and remove upper control arm.

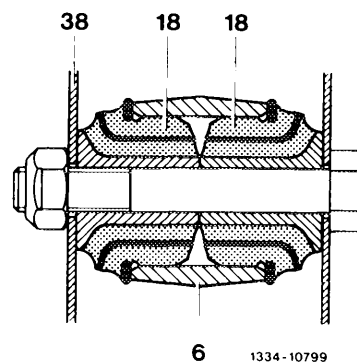


Installation

7 Check guide joint and rubber mounting in upper control arm (33-425).

8 Attach upper control arm to front end.

Note: Starting September 1978 the hex. head screw is mounted from the rear toward the front.



Bearing of upper control arm at front end (Version with two-piece rubber mountings)

- 6 Upper control arm
- 18 Rubber mounting
- 38 Front end

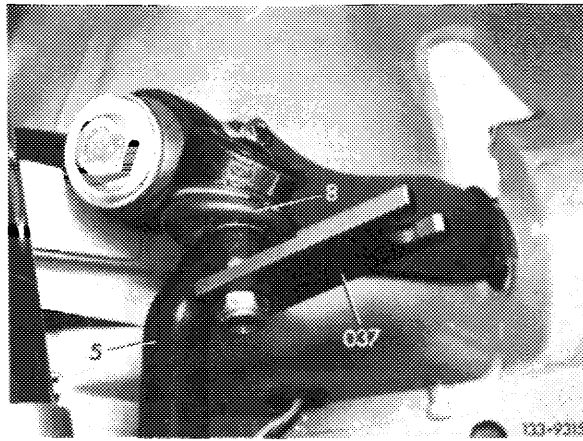
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9 Connect guide joint to steering knuckle.

Attention!

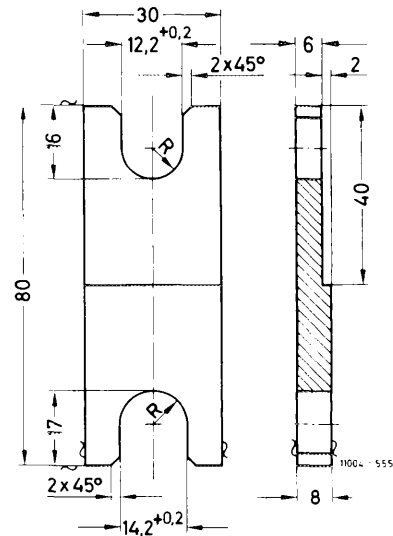
Use new self-locking hex. nut. Keep taper of ball pin and seat in steering knuckle free of grease.

If ball pin on guide joint is also turning when tightening hex. nut, insert spacing plate and pull cone of ball pin into steering knuckle by tightening hex. nut. Then loosen hex. nut, remove spacing plate and tighten hex. nut to specified torque.



- 5 Steering knuckle
- 8 Guide joint
- 037 Spacing plate

Spacing plate can be self-made.



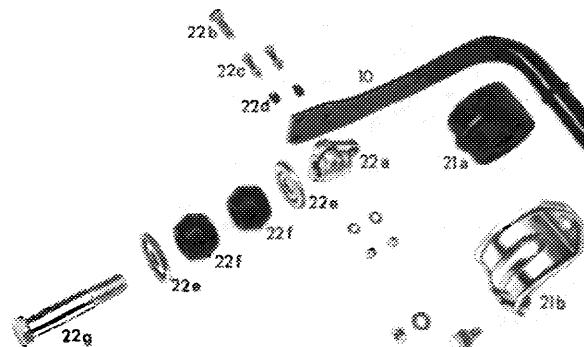
10 Mount support of upper control arm to torsion bar.

Note: Screw-in hex. head screw (22g) up to end of threads in clamping piece (22a) and screw back by 1/6 turn. Bolt end of hex. head screw (22g) must then be flush with rear edge of clamping piece (22a). On vehicles up to December 1972, the hex. head screw (22g) is shorter, so that it will project into clamping piece by approx. 1 mm in assembled condition. Then tighten hex. socket screw (22b).

Lubricate threads of clamping screw (22b) prior to insertion.

Support of upper control arm on torsion bar
(1st version up to January 1979)

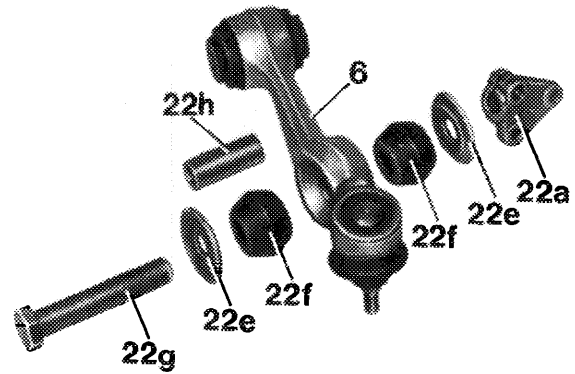
- 6 Upper control arm
- 10 Torsion bar
- 22a Clamping piece
- 22b Hex. socket clamping screw
- 22c Hex. screws with washer and self-locking hex. nuts
- 22d Clamping sleeves
- 22e Cup washers
- 22f Rubber mounting
- 22g Hex. screw



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

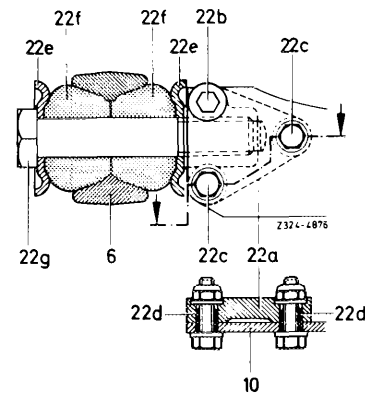
- | | | | |
|-----|--------------------------------------------------------|-----|----------------------------------------------------------|
| 6 | Upper control arm | 22c | Hex. head screws with washers and self-locking hex. nuts |
| 10 | Torsion bar | 22d | Clamping sleeves |
| 21a | Rubber mounting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



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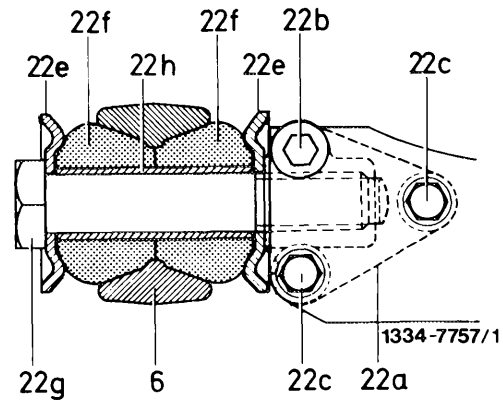
Support of upper control arm on torsion bar
1st version (up to January 1979)

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



Support of upper control arm on torsion bar
2nd version (starting February 1979)

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



Attention!

When inserting hex. head screw (22g) make sure that the rubber mountings are not distorted in control arm seat. Lubricate threads of clamping screw M 10 x 30 prior to insertion.

- 11 Mount front wheel, lower vehicle.
- 12 Check wheel adjustment on front axle and correct, if necessary (40-320).
- 13 Check adjustment of headlights.