


### 33–510 Removal and installation of lower control arm


Tightening Torques	Nm
Hex. nut of supporting joint	80
Eccentric bolt of lower control arm bearing	180
Hex. nut of track rod ball joint	35
Double hex. screws of lower shock absorber suspension	20
Hex. head screws of control arm bearing on frame side member	140
Hex. head screws for fastening spring plate to lower control arm	20

#### Special Tools

Puller for ball joint of track rod  186 589 10 33 00

Spring tensioner for font spring  116 589 06 31 00

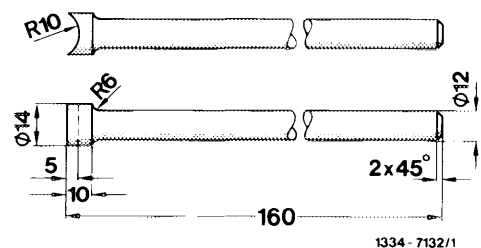
Tubular socket 24 mm 1/2" square for spring tensioner  116 589 01 09 00

Pressing-off device for supporting joint  116 589 09 33 00

Wrench for upper shock absorber suspension  107 589 00 09 00

#### Self-made Tools

Adjusting gauge for basic adjustment of caster



Spacing plate

refer to Fig. item 17

## Note

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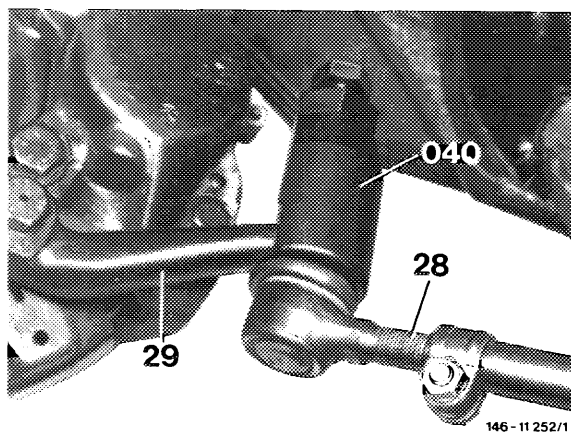
Tighten eccentric bolt of lower control arm bearing only if vehicle is resting on its wheels in ready-to-drive condition. If this bearing is tightened with the wheels free of respective load, wrong values of control arm position would result.

The front shock absorber serves simultaneously as a deflection stop of front wheel. For this reason, loosen shock absorber suspension only if the vehicle is resting on its wheels or the lower control arm is supported. With the shock absorber released, the upper control arm rests on end stop at front end. For assembly of upper suspension either place vehicle on its wheels or lift axle half at lower control arm. Renew self-locking screws and nuts on principle!

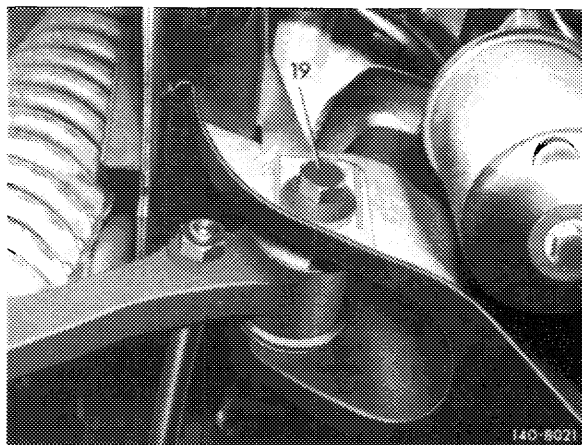
## Removal

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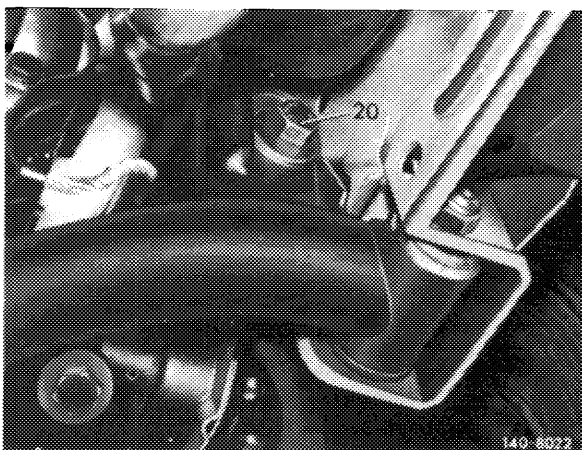
- 1 Remove front shock absorber (32–100), making sure that the upper shock absorber suspension is released first.
- 2 Jack-up vehicle at front, remove front wheel.
- 3 Remove front spring (32–200).
- 4 Loosen track rod on pitman arm and remove (46–540).



- 5 Mark position of both cam bolts on bearing of lower control arm in relation to frame cross member or cross yoke.



19 Front cam bolt (camber adjustment)

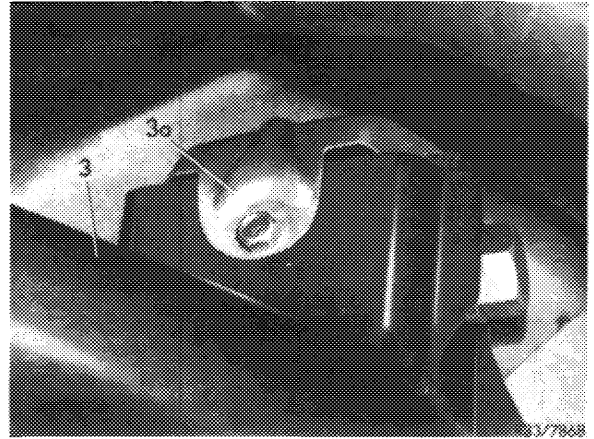


20 Rear cam bolt (caster adjustment)

6 Unscrew cover on cross yoke.

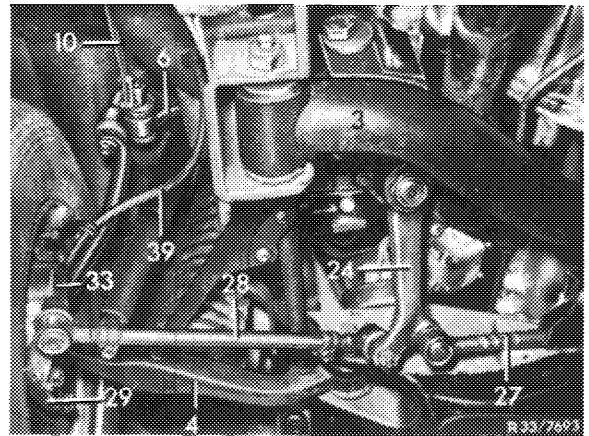
7 Loosen cam bolt on front and rear bearing of lower control arm and knock out.

- 3 Cross yoke
- 3a Shielding plate



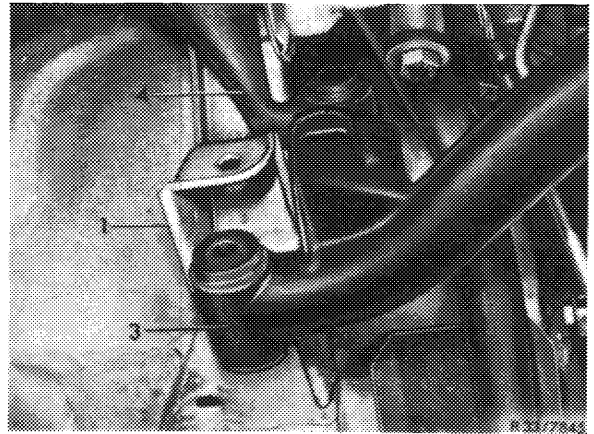
8 Loosen hex. screw of cross yoke bearing and remove; loosen screw at opposite end.

- 3 Cross yoke
- 4 Lower control arm
- 6 Upper control arm
- 10 Torsion bar
- 24 Pitman arm
- 27 Drag link
- 28 Track rod
- 29 Pitman arm
- 33 Brake caliper
- 39 Brake hose



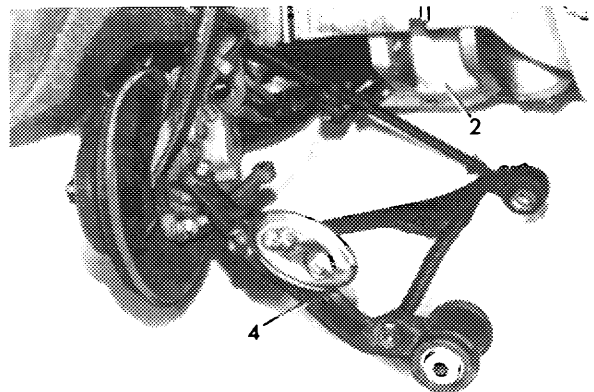
9 Pull cross yoke slightly downwards.

- 1 Frame side member
- 3 Cross yoke
- 4 Lower control arm



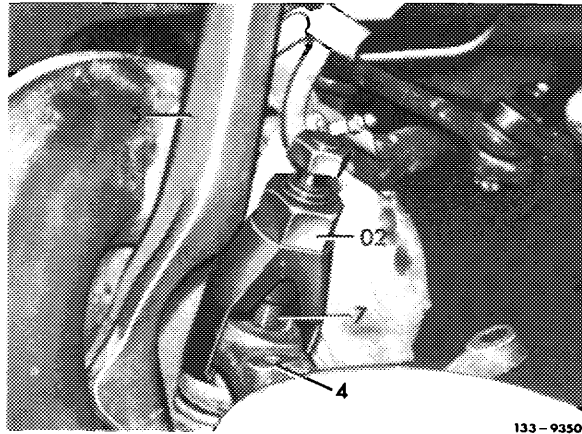
10 Remove cross yoke from frame cross member and swivel in forward direction.

- 2 Frame cross member
- 4 Lower control arm



11 Force supporting joint from lower control arm.

- 4 Lower control arm
- 5 Steering knuckle
- 7 Supporting joint
- 02 Remover



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## Installation

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**Note:** Paint new control arm prior to installation.

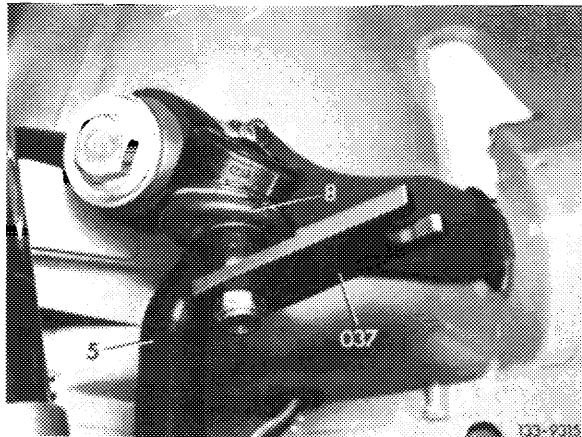
12 Mount control arm to supporting joint.

### **Attention!**

Use self-locking hex. nut only.

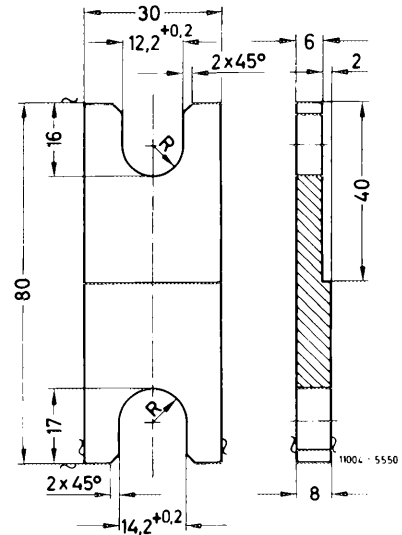
13 If ball pin on supporting joint is also turning when tightening hex. nut, insert spacing plate and pull cone of ball pin into control arm by tightening hex. nut. Then loosen hex. nut, remove spacing plate and tighten hex. nut to specified torque.

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



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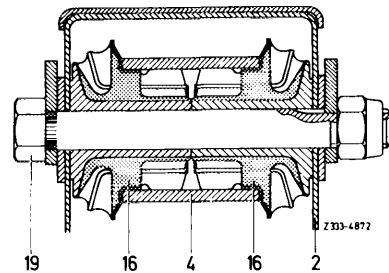
Spacing plate can be self-made.



14 Mount front bearing of lower control arm to frame cross member.

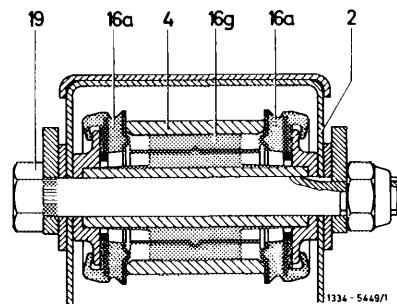
Front bearing of lower control arm on frame cross member (1st version)

- 2 Frame cross member
- 4 Lower control arm
- 6 Rubber mount
- 19 Cam bolt



Front bearing of lower control arm on frame cross member (2nd version)

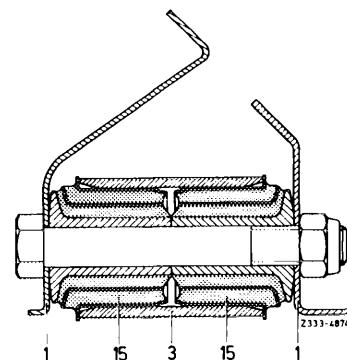
- 2 Frame cross member
- 4 Lower control arm
- 16a Axial slide bearing
- 16g Radial torsion bearing
- 19 Cam bolt



15 Attach cross yoke to frame side member.

Bearing of cross yoke on frame side member

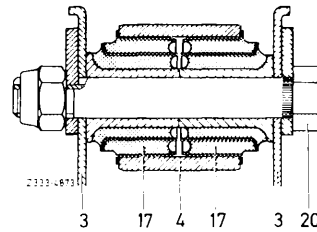
- 1 Frame side member
- 3 Cross yoke
- 15 Rubber mount



16 Mount rear bearing of lower control arm to cross yoke.

Rear bearing of lower control arm on cross yoke

- 3 Cross yoke
- 4 Lower control arm
- 17 Rubber mount
- 20 Cam bolt



**Attention!** Cam bolts of control arm bearing are of different length.

- Front cam bolt: Total length 150 mm
- Rear cam bolt: Total length 123 mm

17 Install front spring (32–200).

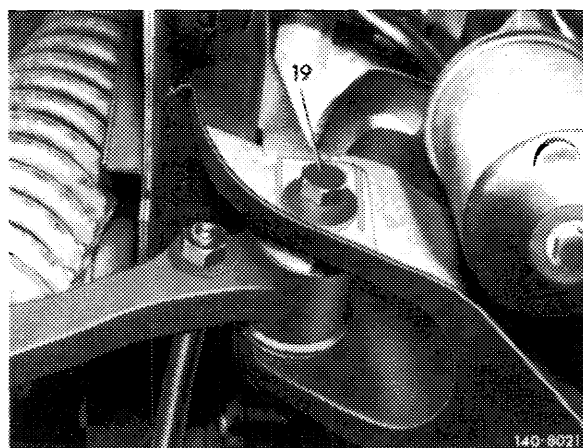
18 Mount front shock absorber (32–100).

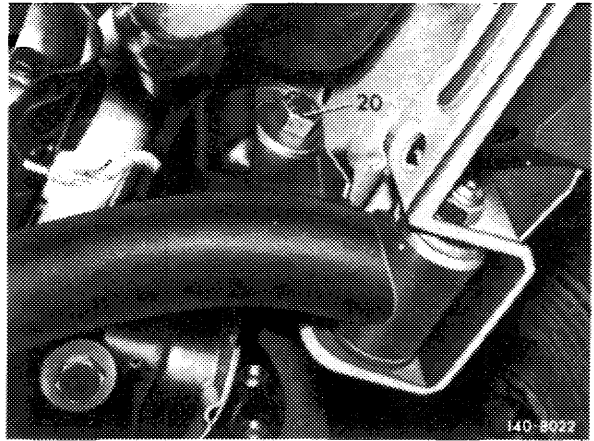
19 Mount front wheel, lower vehicle.

20 Place cam bolt of camber and caster adjustment on previously made marks and tighten.

**Attention!**

If position of cam bolt has not been marked during removal, mount cam bolt into center position for initial adjustment.





- 21 Mount track rod to drag link (46–540).
- 22 Check vehicle level at front axle.
- 23 Check adjustment of front wheels and correct, if required (40–320).
- 24 Check adjustment of headlights.