33-400 Removal and installation of steering knuckle

Hex. nut of track rod ball joint	35
Hex. nut of guide joint	40
Hex. nut of supporting joint	80
Hex. bolts of fixed caliper	115
Hex. bolts of steering knuckle arm	80
Self-locking hex. head screw for fastening rpm sensor to steering knuckle	8
Special tools	
Pressing-off tool for supporting joint	116 589 09 33 00
Pressing-off tool for guide joint of steering knuckle	116 589 16 33 00
Pulling-off and pressing-on tool for hub cap (wheel cap)	116 589 22 33 00
Holder for dial gauge for adjusting wheel bearing end play	363 589 02 21 00
Conventional tools	
Dial gauge A 1 DIN 878	e.g. made by Mahr, D-7300 Esslingen Order No. 810
Self-made tool	
Spacing plate	refer to Fig. item 13

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.

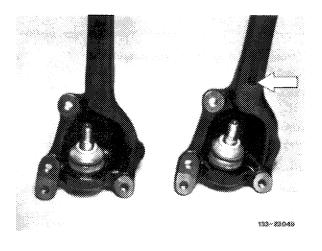
Do not force-off guide joint with front axle half free of load, since otherwise the rubber sleeve will be damaged.

Immediately renew sleeves of supporting or guide joint damaged during assembly jobs (33-430).

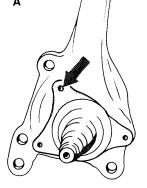
Do not replace damaged or leaking sleeves on joints which have already been used. In such a case, exchange supporting joint or upper control arm on principle.

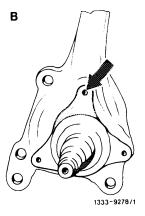
Renew self-locking nuts and screws on principle!

Model 116.036 has a reinforced steering knuckle. A hump (arrow) is located on steering knuckle inside for identification. When renewing a steering knuckle, make sure that only this version is installed.



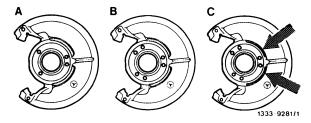
Note: Since January 1980, uniform brake cover plates with vent slots (next Fig.-"C"-arrows) and modified steering knuckles (arrows) are installed.





A = Steering knuckle
1st version (up to May 1979)
B = Steering knuckle
2nd version (starting June 1979)
Fig. shows righthand steering knuckle

- A Brake cover plate 1st version with 4 fastening holes (up to February 1979)
- B Brake cover plate 2nd version with 6 fastening holes (starting March 1979)
- C Brake cover plate
 3rd version with 6 fastening
 holes and vent slots
 (starting January 1980)



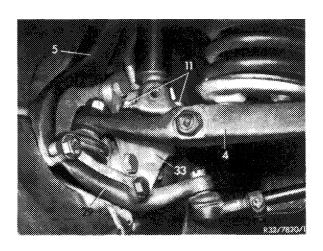
When installing a steering knuckle of 2nd version, be sure to use a brake cover plate with 6 fastening holes (2nd or 3rd version). Cover plates of 2nd and 3rd version can also be mounted to steering knuckle 1st version.

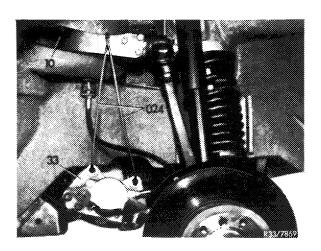
Removal

- 1 Jack-up vehicle at front, position supporting stands at outside front at lower control arms. Remove front wheel.
- 2 Unscrew steering knuckle arm (29) from steering knuckle.
 - 4 Lower control arm
 - 5 Steering knuckle
 - 11 Lower shock absorber suspension
 - 29 Steering knucke arm
 - 33 Brake caliper
- 3 Screw fixed caliper (33) from steering knuckle and suspend on torsion bar with a suitable hook.

Attention!

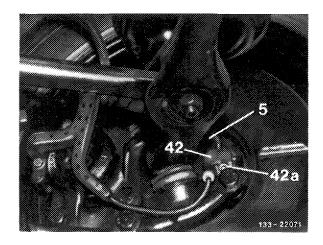
Do not subject brake hose to tensile strain!



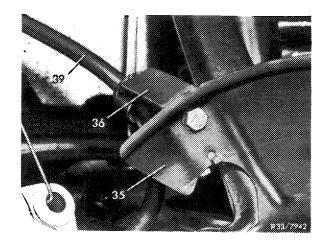


Note: On vehicles with ABS, additionally remove rpm sensor (41) from steering knuckle. Loosen hex. socket screw (41a) for this purpose (42-712).

4 Remove front wheel hub (33-310).

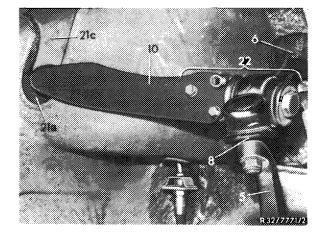


5 Loosen holder (36) for brake hose on cover plate.

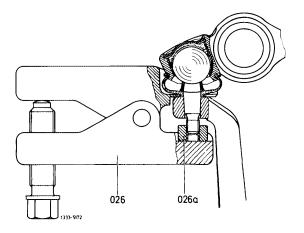


35 Cover plate36 Holder for brake hose39 Brake hose

6 Loosen hex. nut on guide joint and remove joint from steering knuckle with pertinent device.

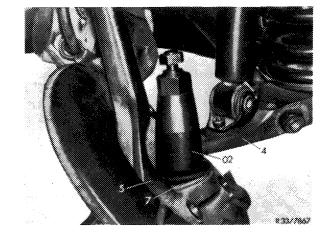


- Steering knuckle Upper control arm 6 8 10 21a 21c 22 Guide joint Torsion bar Rubber mounting
- Cover Support of upper control arm on torsion bar



026 Remover 026a Thrust piece

- 7 Loosen hex. nut on supporting joint.
- 8 Swivel upper steering knuckle slightly outwards and force supporting joint from lower control arm.



- Lower control arm
- Steering knuckle
- Supporting joint
- Remover
- 9 Remove steering knuckle.
- 10 If required, unscrew cover plate from steering knuckle.

Installation

- 11 Check supporting joint in steering knuckle (33-425).
- 12 Check cover plate and screw to steering knuckle.
- 13 Attach steering knuckle to lower and upper control arm.

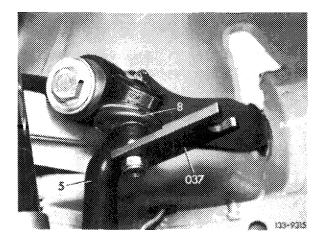
Attention!

Keep cone of ball pins and seats in steering knuckle or lower control arm free from grease. Use new, selflocking hex. nuts.

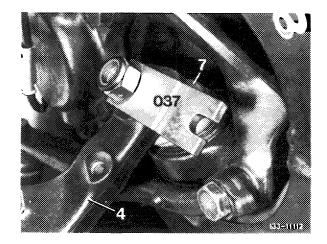
- 43 29
- Lower control arm Steering knuckle Upper control arm

- Supporting joint
- Guide joint
- Front wheel hub Steering knuckle arm Brake disc
- 29 34 43 Disc wheel

14 If ball pin on guide or supporting 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.

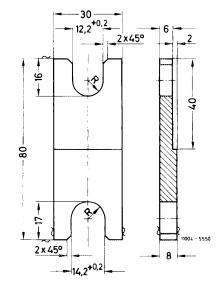


5 Steering knuckle 8 Guide joint 037 Spacing plate

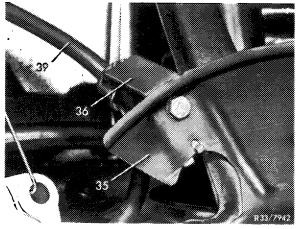


4 Lower control arm7 Supporting joint037 Spacing plate

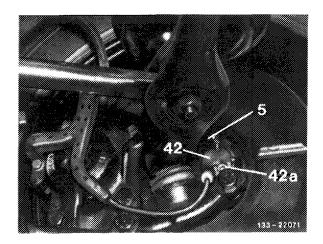
Spacing plate can be self-made.



15 Attach holder for brake hose on cover plate.



Note: On vehicles with ABS, fasten rpm sensor (42) with hex, socket screw (42a) in steering knuckle (42–712).



- 16 Install front wheel hub (33-310).
- 17 Adjust wheel bearing end play (33-300).
- 18 Installed fixed caliper (42-100).

Attention!

Do not twist brake hose and do not subject to tensile strain

- 19 Mount steering knuckle arm with new self-locking screws to steering knuckle.
- 20 Mount front wheel, lower vehicle.
- 21 Check wheel adjustment on front axle and correct, if required (40-320).
- 22 Check adjustment of headlights.

