

35-010 Removal and installation of complete rear axle

A. Models 114, 115

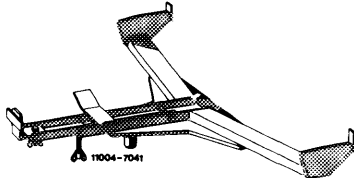

Oil type and capacities

Hypoid gear oil SAE 90	refer to specifications for service products page 235
Models with cast iron rear axle end cover	1.15 litre
Models with aluminum rear axle end cover	1.0 litre

Tightening torques

	Nm	
Hex socket necked down bolt for attaching rear rubber bearing to rear axle end cover (rubber bearing 1st version)	140	
Hex. socket or hex. head bolts for attaching rear rubber bearing on rear axle end cover (rubber bearing 2nd version)	120	
Hex bolts for attaching rear rubber bearing to frame floor	25	
Hex bolts, self-locking for attaching rear rubber bearing to frame floor	30	
Hex bolts for attaching front rubber bearings to frame floor	120	
Hex bolts for attaching supporting plate to frame floor	40	
Clamping nut of propeller shaft (2-piece)	30-40	
Clamping nut of propeller shaft (3-piece)	front	30-40
	rear	200

Special tools

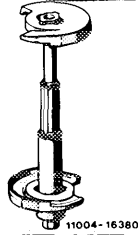
Vehicle jack top for removal and installation of complete rear axle		116 589 10 61 00
Torque wrench 25-130 Nm with plug-in ratchet 1/2" square		001 589 66 21 00
Torque wrench 40-200 Nm with plug-in ratchet 1/2" square		001 589 67 21 00

Open end wrench 46 mm for torque wrench
for clamping nut of propeller shaft



126 589 00 01 00

Spring tensioner for rear spring



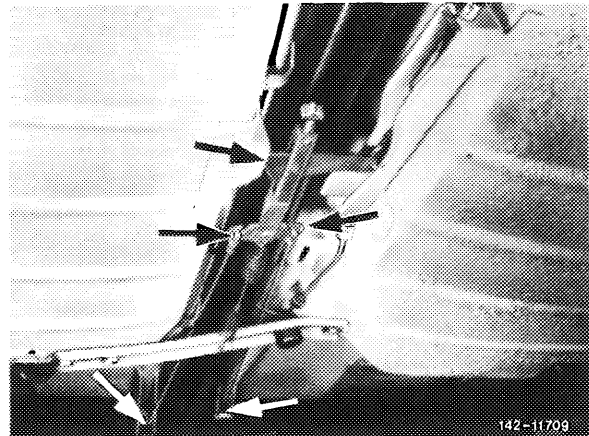
124 589 06 31 00

Note

Remove rear axle only with wheels removed first to avoid damage to rear axle shaft during transportation of complete units.

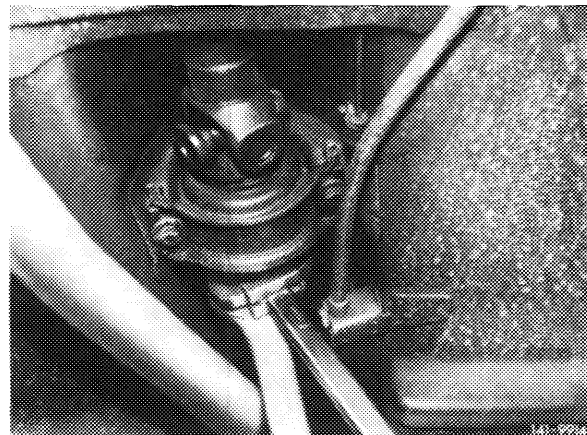
Removal

- 1 Remove exhaust system (49–100).
- 2 Disconnect cable controls of parking brake on frame floor and on compensating lever.



- 3 Loosen clamping nut of propeller shaft, and hex bolts of propeller shaft intermediate bearing on frame floor.

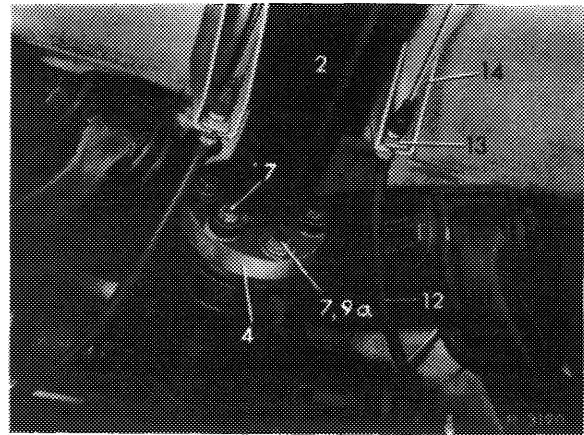
Note: On 3-piece propeller shaft loosen front clamping nut only.



4 Unflange propeller shaft (2) at the rear and push out of centering in forward direction.

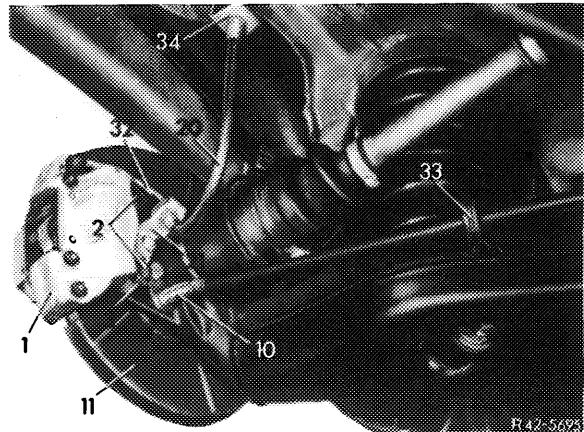
5 Remove shock absorber or struts (32-110 or 32-610).

6 Remove rear springs (32-230).

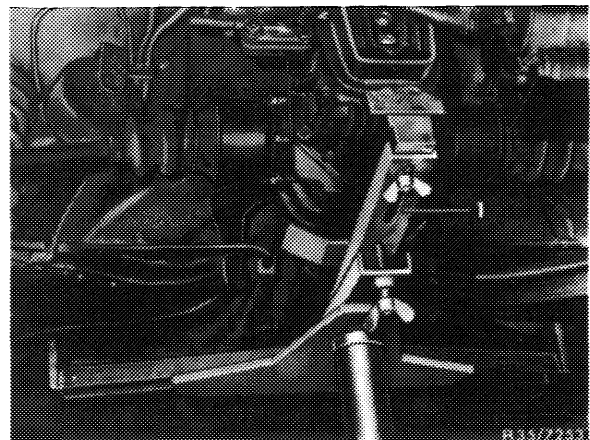


7 Loosen connecting rod for torsion bar on semi-trailing arm (32-310).

8 Unscrew both brake hoses (20) on brackets of frame side members and close brake lines against penetration of dirt (42-228).

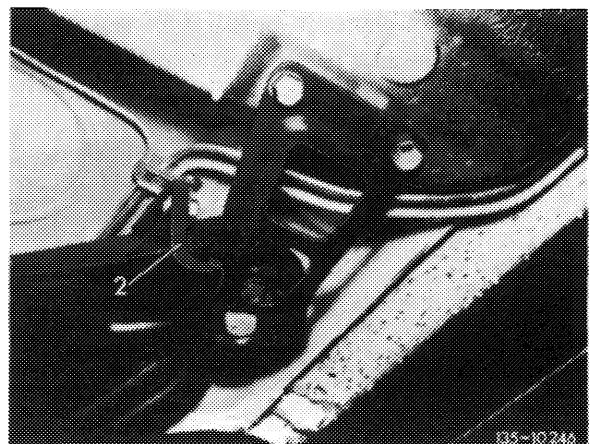


9 Slip vehicle jack top (1) with a vehicle jack or pit lift under rear axle and lift up to stop against rear axle carrier.



10 Loosen stop limitation (2) on rear axle carrier and remove (model 115.114 only).

11 Loosen hex bolts of supporting plates and remove.

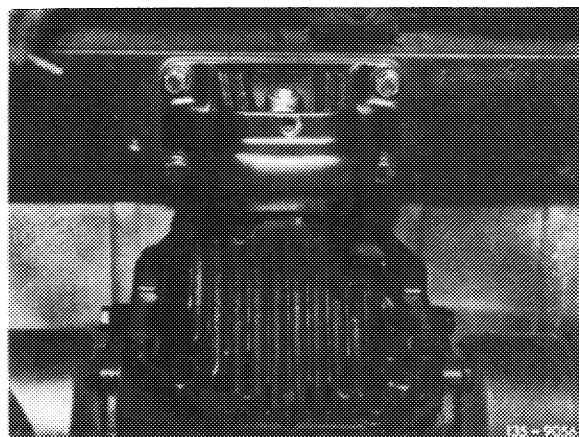


12 Unscrew rear rubber bearing from frame floor.

13 Carefully lower rear axle.

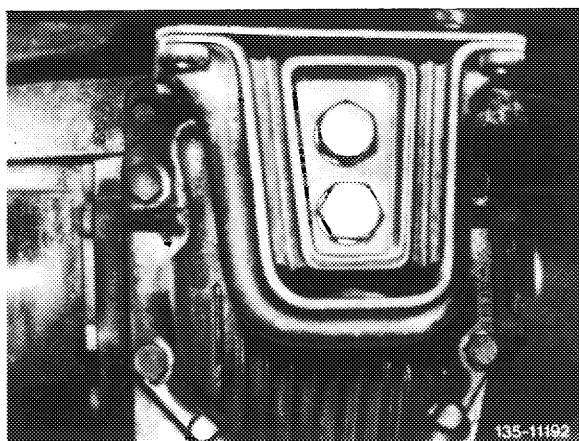
Attention!

When lowering and transporting rear axle do not damage cover plates of brake discs.



14 Unscrew rear rubber bearing from rear axle end cover.

15 Check front and rear rubber bearing and renew, if required.



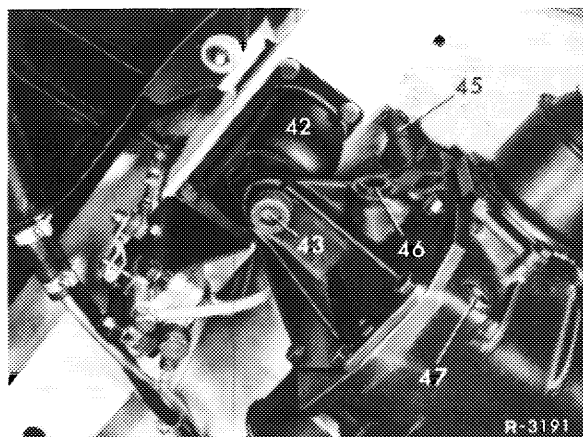
Installation

16 Attach rear rubber bearing (42) of 1st version to frame floor. Tightening torque of hex bolts 25 Nm.

Attention!

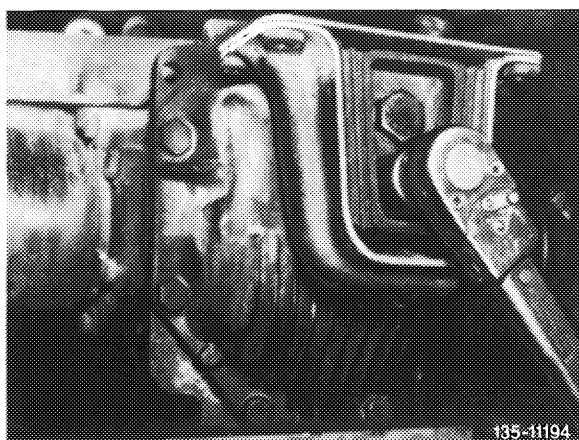
The rubber bearing is asymmetrically designed. To guarantee installation free of tensions, install rubber bearing only with narrow end in driving direction.

1st version



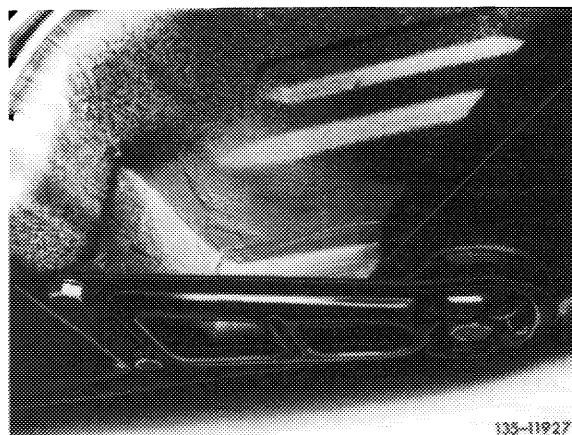
17 Attach rear rubber bearing of 2nd version to rear axle end cover, tighten hex socket bolts or hex bolts to 120 Nm.

2nd version



18 Lift rear axle with vehicle jack top and insert front rubber mounting into guides on frame floor.

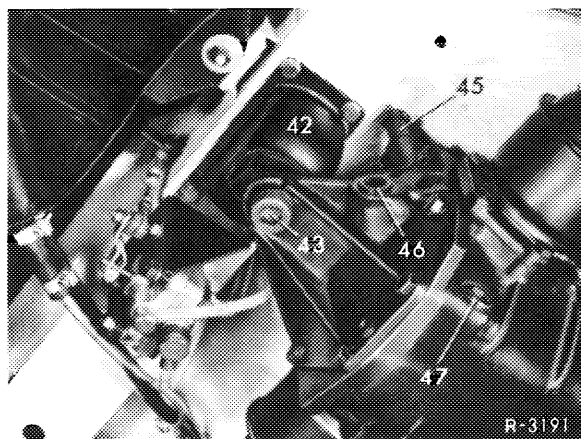
19 Mount supporting plates of rubber bearing to frame floor. Tighten hex bolts of rubber bearing to 120 Nm and hex bolts of supporting plates to 40 Nm.



20 Attach rear rubber bearing of 1st version to rear axle end cover. Tighten hex socket necked down bolt (43) to 140 Nm.

Note: Always replace hex socket necked down screw following one-time use.

1st version

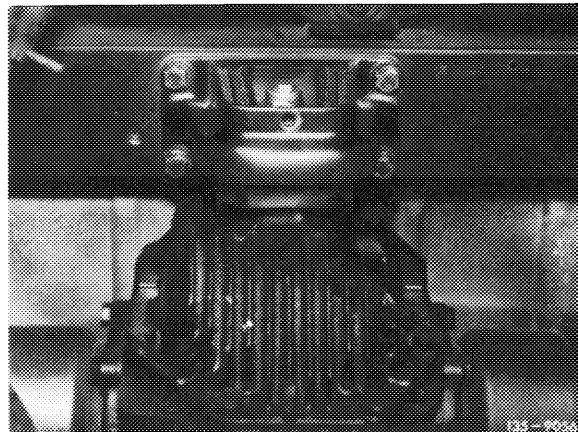


21 Mount rear rubber bearing of 2nd version with hex bolts, snap rings and washers or new self-locking hex bolts to frame floor. Tightening torque of hex bolts 25 Nm, of self-locking hex bolts 30 Nm.

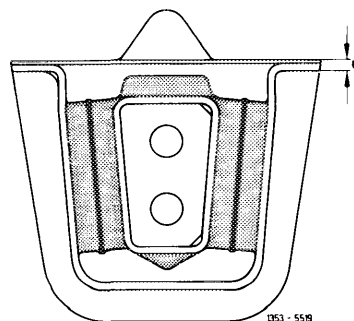
Attention!

Use self-locking hex bolts with plastic coating (micro-encapsulated) only once.

2nd version



22 For rubber bearing **without** washers (dimension "a" 5 mm) on fastening eyes, use hex bolt with snap rings and washers.

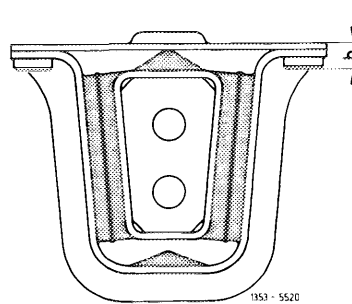


23 For rubber bearing **with** washers (dimension "b" 12 mm) on fastening bolts, use self locking hex bolts.

24 Remove vehicle jack top.

25 Flange-on propeller shaft.

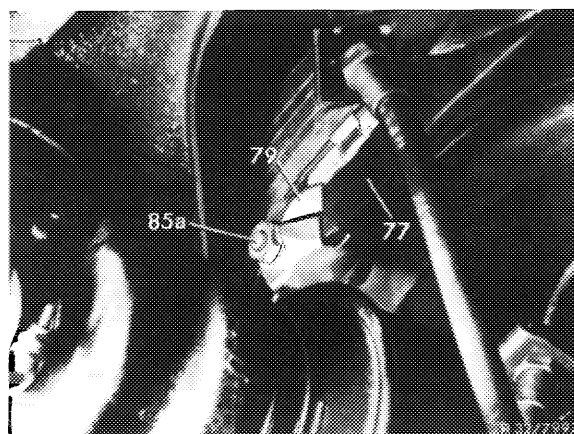
26 Install rear springs (32–230).



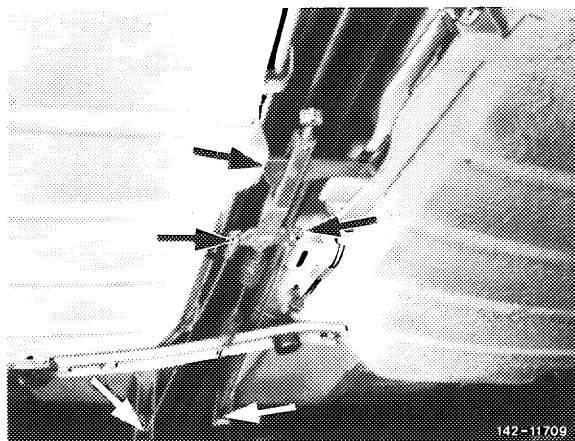
27 Install shock absorbers or struts (32–110 or 32–610).

28 Attach torsion bar linkage (85a) (32–310).

29 Connect both brake hoses and bleed brake system (42–010).

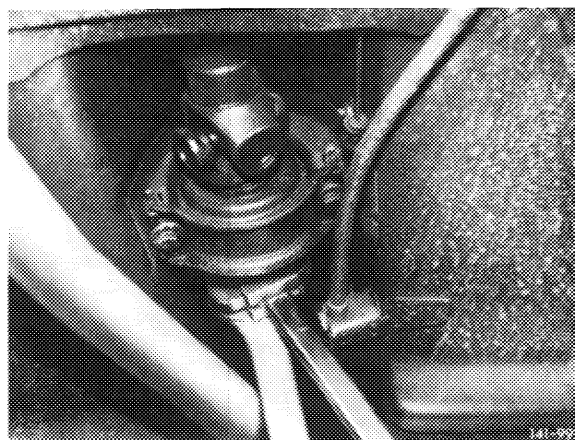


30 Attach cable controls of parking brake and adjust (42–525).



31 Tighten clamping nut on propeller shaft to 30–40 Nm.

32 Tighten propeller shaft intermediate bearing.

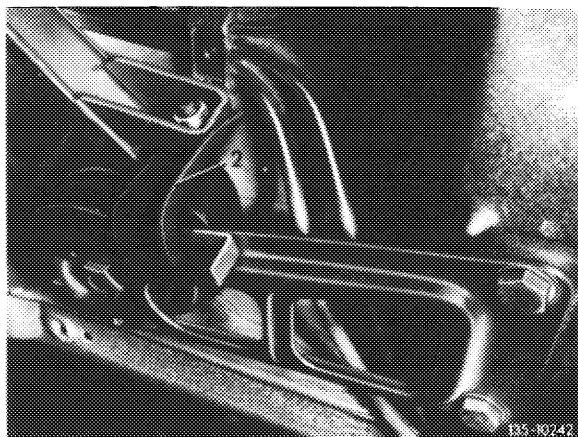


33 Mount stop limitation (2) at front on rear axle (model 115.114 only).

Attention!

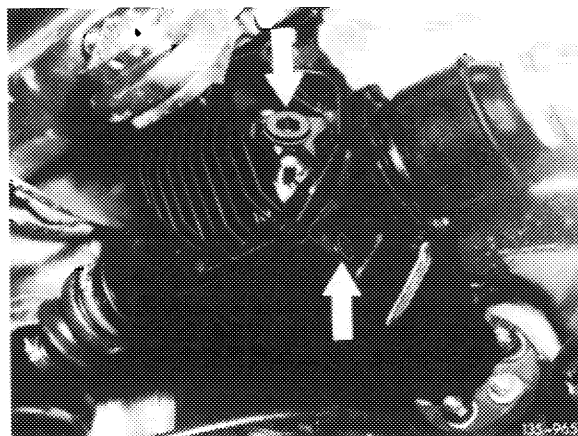
Clearance between rubber buffer of stop limitation and supporting plate should be 2–3 mm with vehicle ready for driving. To adjust, make sheet metal angle piece with the following dimensions:

Thickness 2.5 mm, length 60 mm, height 20 mm, width 10 mm.



34 Install exhaust system (49–100).

35 Check oil level in rear axle and add oil up to level of filler bore, if required.



36 Check vehicle level at rear axle (40–300 or 310).

37 Check headlight adjustment (82–250).

