

A. Model 114, 115

Oil type and capacities

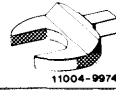
Hypoid gear oil SAE 90	refer to specifications for service products page 235
Rear axle center piece with cast iron rear axle end cover	1.15 litres
Rear axle center piece with aluminum rear axle end cover	1.0 litre

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 bolts or hex bolts for attaching rear rubber bearing to 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 bolt for attaching rear axle shaft to rear axle shaft flange	1st version M 12	95
	2nd version M 8	30
Threaded bushing in rear axle shaft for reduction from M 12 to M 8 (repair version)		30
Self locking nuts for attaching rear axle center piece to rear axle carrier		100
Lock nut of propeller shaft (2-piece)		30–40
Lock nut of propeller shaft (3-piece)	front	30–40
	rear	200
Studs on rear axle housing		50

Special tools

Torque wrench with plug-in ratchet	25–130 Nm		001 589 66 21 00
1/2" square	40–200 Nm		001 589 67 21 00

Open end wrench 46 mm for torque wrench handle for lock nut of propeller shaft



126 589 00 01 00

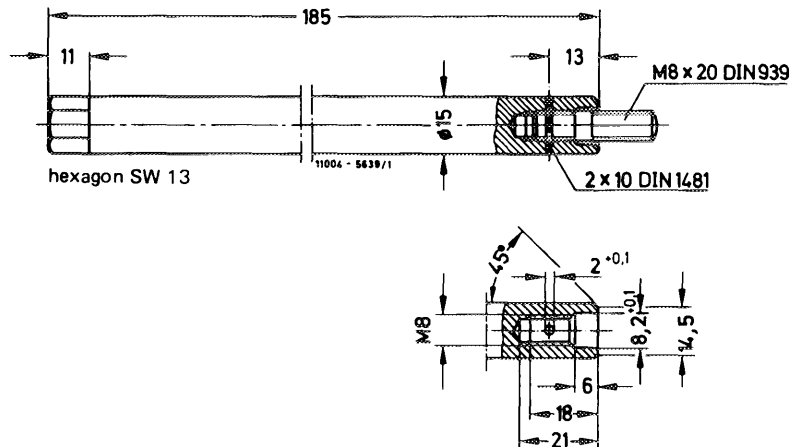
Assembly tool for removal and installation of rear axle on rear axle shaft flange



201 589 00 61 00

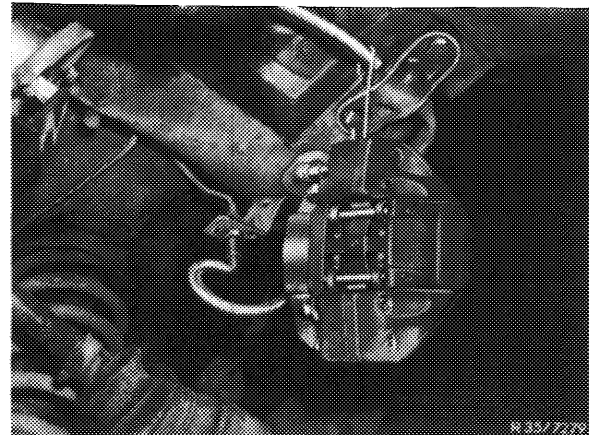
Self-made tool

Tool for screwing threaded bushing into rear axle shaft

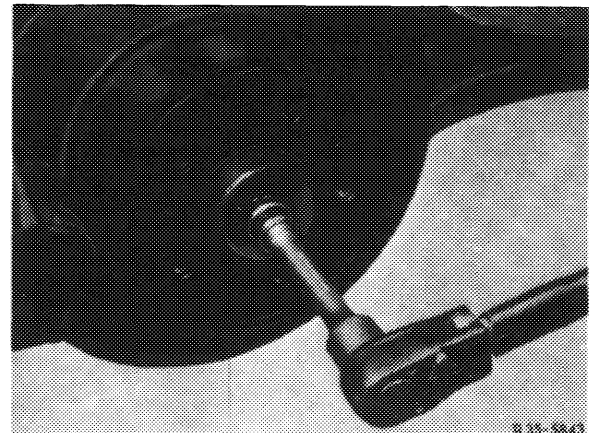


Removal

- 1 Drain oil from rear axle
- 2 Unscrew caliper at the right and suspend by means of a hook.



- 3 Loosen hex bolt (M 12) on both sides of 1st version or hex bolt (M 8) with spacing sleeve and clamping disc of 2nd version for attaching rear axle shaft to rear axle shaft flange and remove.

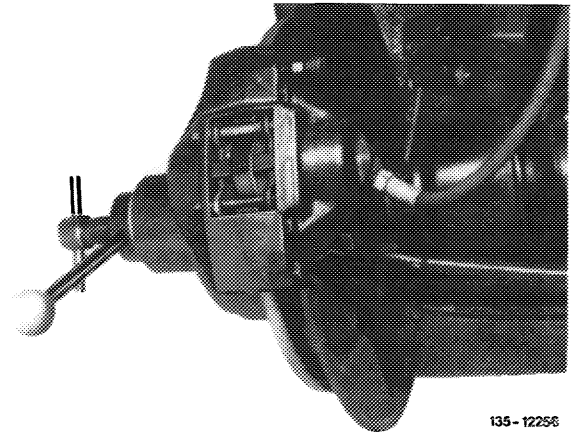


4 If required, force rear axle shaft out of rear axle shaft flange by means of assembly fixture.

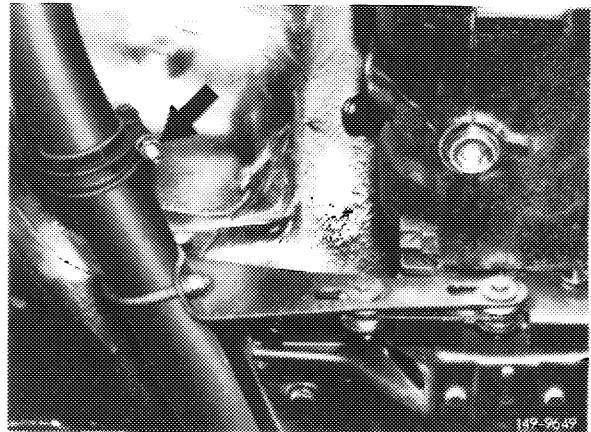
Attention!

When removing assembly tool be sure to hold rear axle shaft in place. Do not let rear axle shaft drop down, since this would damage the housing of the synchromesh joint and make it leak. If the rear axle shaft cannot be removed in spite of being fully telescoped, loosen rubber bearing from frame floor and rear center piece from rear axle carrier. Lower center piece and swivel to one side. Then remove rear axle shaft from rear axle shaft flange.

Do not release shock absorbers, since they are required for holding axle.



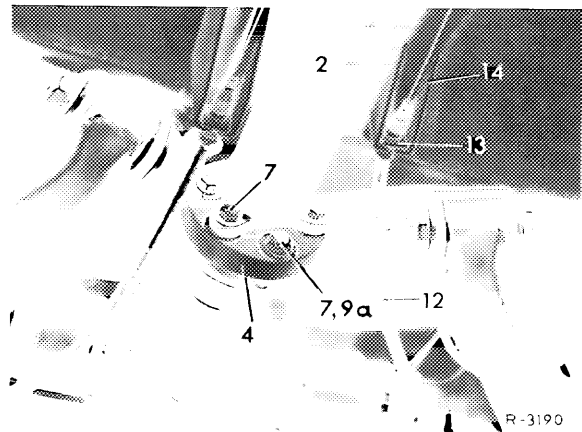
5 If required, remove exhaust system starting at plug connection.



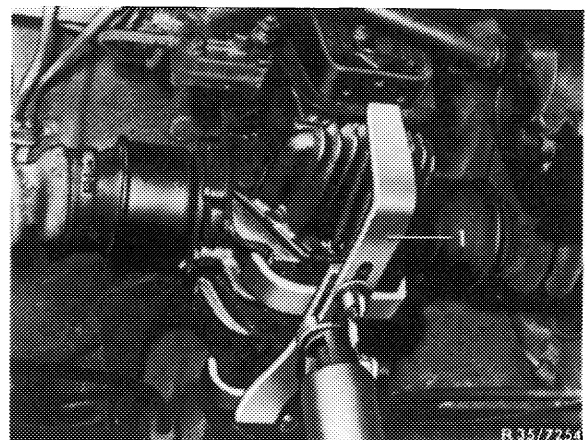
6 Loosen lock nut and propeller shaft intermediate bearing on frame floor.

Note: On three-piece propeller shaft, loosen only front lock nut or both propeller shaft intermediate bearings on frame floor.

7 Unflange propeller shaft on rear axle and slide forward out of concentric alignments.

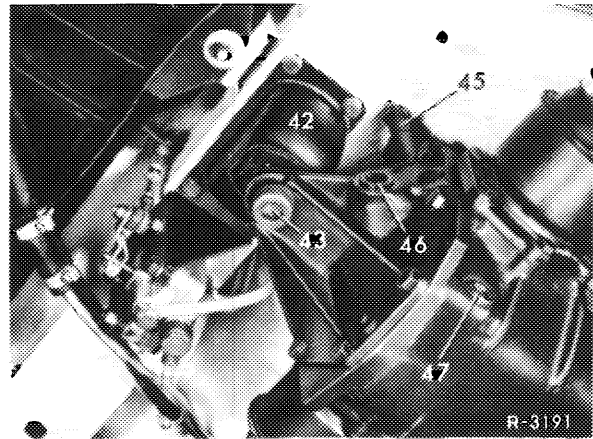


8 Support rear axle housing with a vehicle jack or with pitlift and vehicle jack top.

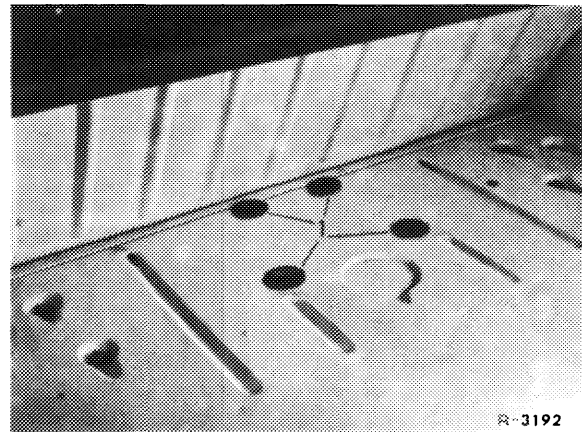


9 On 1st version, unscrew hex socket necked-down bolt (43) for rubber bearing on rear axle end cover. On 2nd version, unscrew hex bolts for attaching rubber mounting to frame floor.

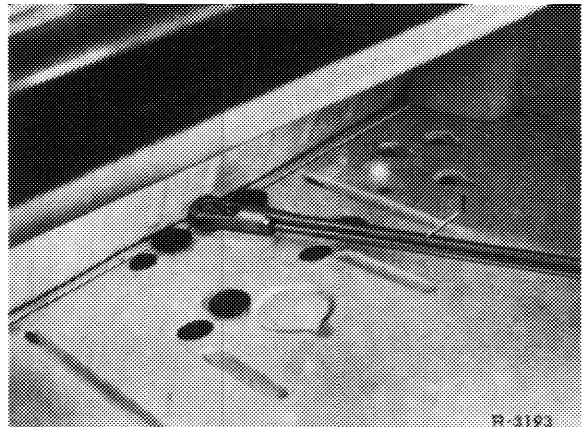
Rear rubber mounting of 1st version



10 Fold back rubber mat in trunk and remove rubber plugs (1).



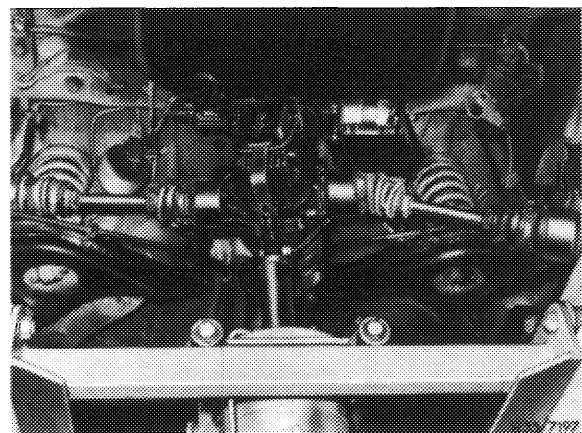
11 Unscrew rear axle center piece from rear axle carrier.



12 Lower rear axle center piece and remove together with rear axle shaft.

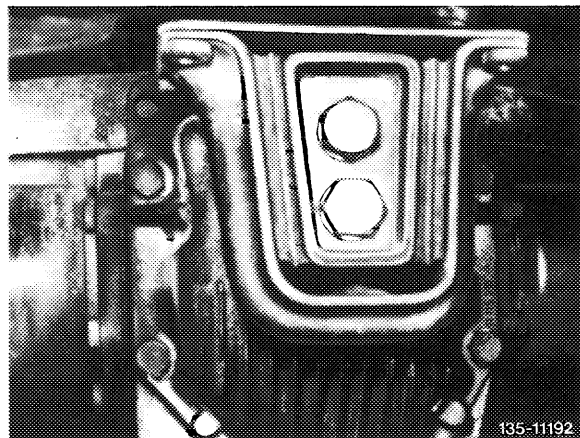
Attention!

When transporting rear axle center piece with rear axle shafts make sure, that the rear axle shafts are not falling down, since this would result in damage and leaks to the housings of the toothed inner synchro-mesh joints.



13 Unscrew rubber bearing (1st version) on frame floor and rubber bearing (2nd version) from rear axle center piece.

14 Check rubber bearings and renew, if required.

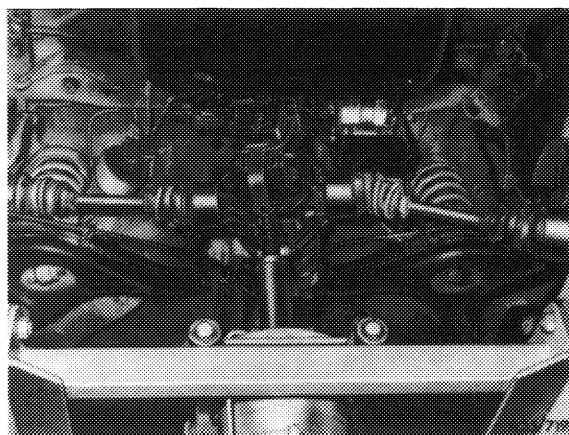


Rear rubber bearing of 2nd version

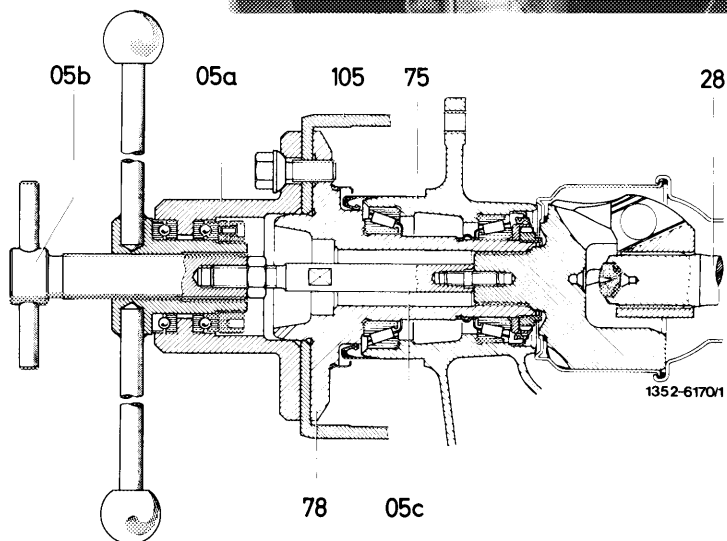
Installation

15 Tighten rubber bearing of 1st version on frame floor to 25 Nm and rubber bearing of 2nd version on rear axle center piece to 120 Nm.

16 Place rear axle center piece with rear axle shafts on vehicle jack top and move into installation position.



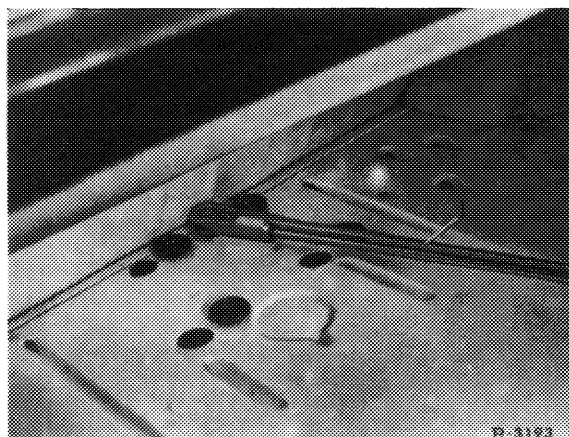
17 Introduce rear axle shafts into rear axle shaft flange by means of assembly fixture. Remove assembly fixture.



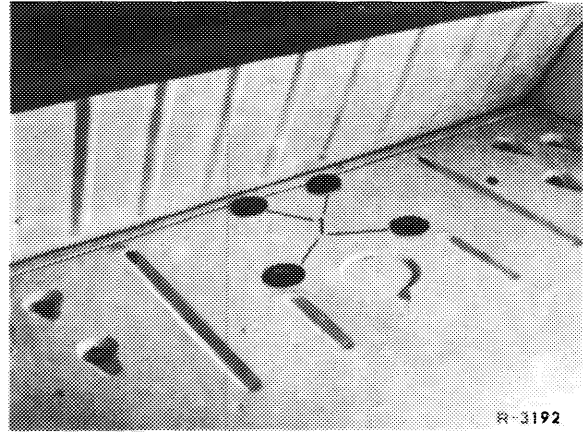
18 Lift rear axle center piece and attach to rear axle carrier. Tighten self-locking nuts to 100 Nm.

Attention!

Renew self-locking hex. nuts on principle.



19 Close through-holes with rubber plug (1) and put back rubber mat.



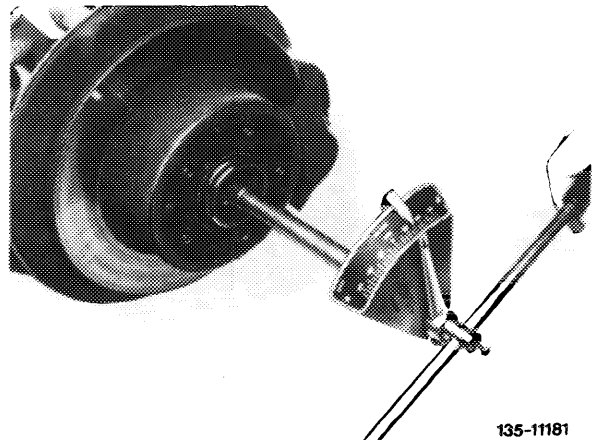
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20 Rear axle shafts to rear axle shaft flange. Tighten hex. screw M 12 on 1st version to 95 Nm.

On 2nd version, mount hex. screw M 8 with clamping disc and spacing sleeve and tighten to 30 Nm.

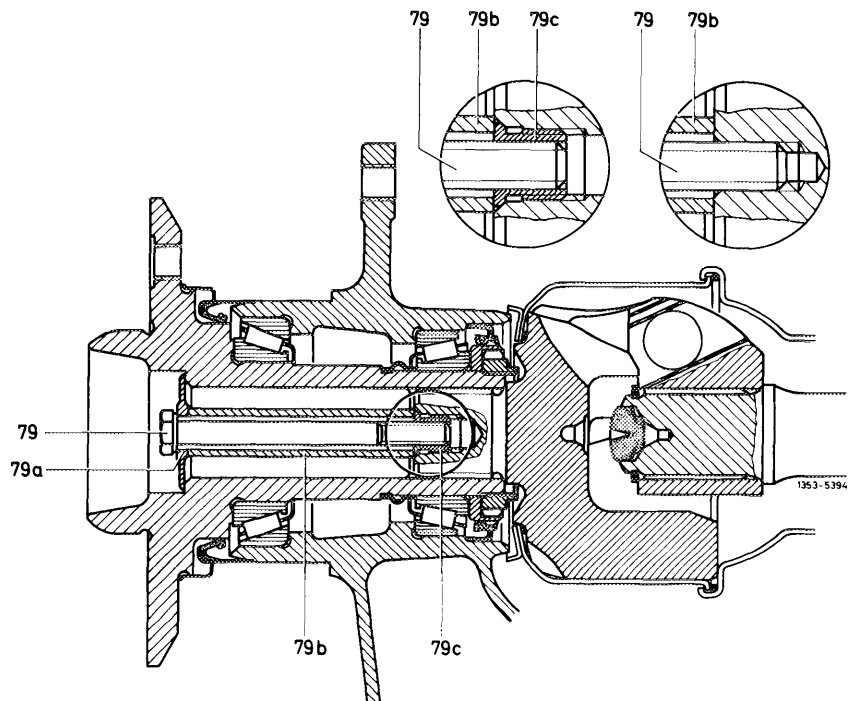
Attention!

Remove clamping disc after onetime use. Lubricate clamping disc in range of screw head.



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Note: In the event of clicking noises, exchange hex. screw M 12 with thick washer for hex. screw M 8 (79) with pertinent spacing sleeve (79b) and clamping disc (79a). To reduce threads, screw a threaded bushing (79c) into rear axle shaft by means of self-made tool. (Detail at left). Tightening torque of threaded bushing 30 Nm.



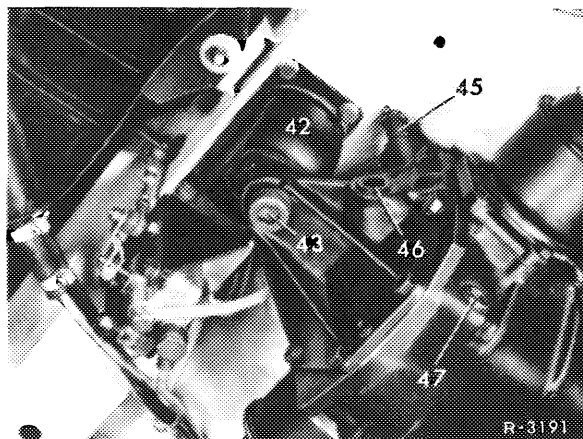
- 79 Hex bolt
- 79a Clamping disc
- 79b Spacing sleeve
- 79c Threaded bushing

Detail left:
repair solution

Detail right:
standard version

21 On rubber bearing of 1st version, lift rear axle center piece up to rubber bearing (42) and tighten hex socket necked-down bolt (43) to 140 Nm.

Rear rubber bearing of 1st version

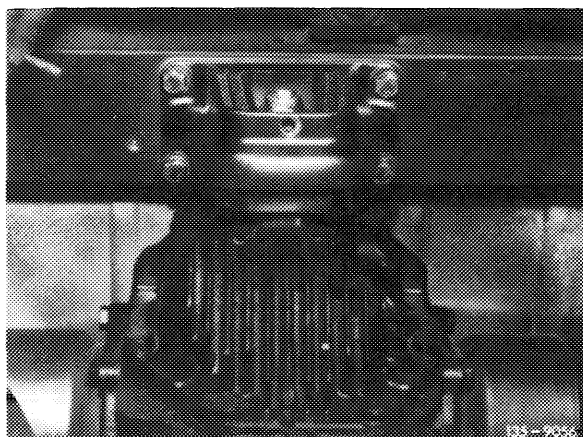


22 On rubber bearing of 2nd version, lift rear axle center piece up to frame floor and attach rubber bearing to frame floor. Tightening torque of hex. screws 25 Nm. Tightening torque of self-locking hex. screws 30 Nm.

Attention!

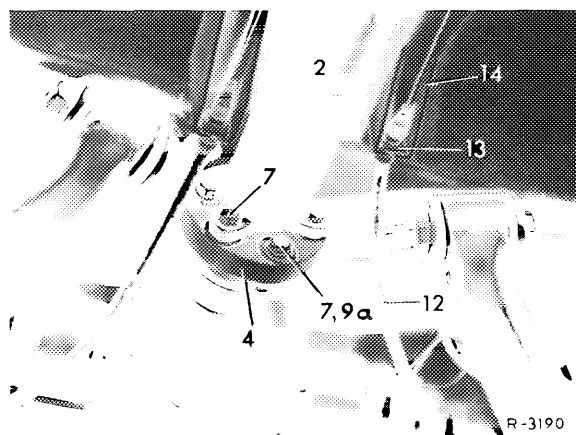
Use self-locking hex. screws only once.

Rear rubber bearing of 2nd version



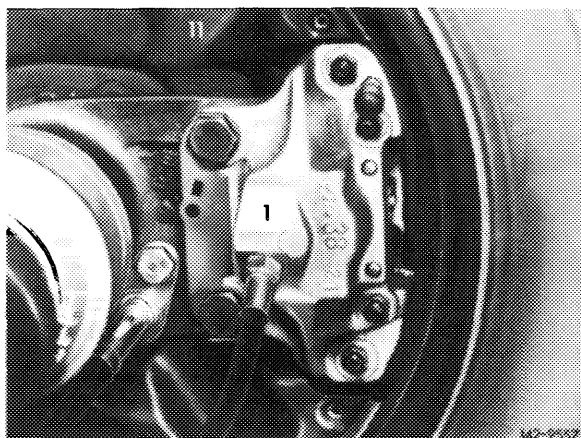
23 Mount propeller shaft (2) to universal flange of drive pinion.

24 Attach propeller shaft intermediate bearing, but do not yet tighten.



25 Mount caliper with new locking plate or locking bolts and tighten to 90 Nm.

26 Fill oil into rear axle up to level of filler hole.



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

28 Tighten propeller shaft intermediate bearing.

29 Install exhaust system.

