Rear axle installed	107

Oil Types and Filling Capacities

Rear axle **without** differential lock (positive traction)		Hypoid transmission fluid SAE 90 Refer to pertinent instructions page No. 235
Rear axle **with** differential lock (positive traction) (name plate on rear axle housing)		Special hypoid transmission fluid Refer to pertinent instructions page No. 235.3
Filling capacity	large center housing	1,3 lits.

Gear Assembly

Model	Vehicles	Ratio	Number of Teeth	Center Housing
107.024 107.044	Standard	1 : 3,07	46 : 15	large

Tightening Torques	Nm	(kpm)
Hex. socket screws for attaching rear rubber mounting to end cover	120	(12)
Hex. bolts for attaching rear rubber mounting to frame floor	25	(2,5)
Hex. bolt for attaching rear axle shaft to rear axle shaft flange	95	(9,5)
Self-locking nuts for attaching rear axle shaft center housing to rear axle carrier	100	(10)
Clamping nut of propeller shaft	30–40	(3–4)

Special Tools

Vehicle jack top	Small center housing	115 589 35 63 00
	Large center housing	116 589 02 63 00
Assembly fixture for rear axle shaft		115 589 09 61 00

35.1 Removal and Installation of Rear Axle Center Housing with Rear Axle Shafts

Removal

1 Drain oil from rear axle.

2 On vehicles wothout starting torque compensation, unscrew brake caliper at the right and suspend on hook (Fig. 1).

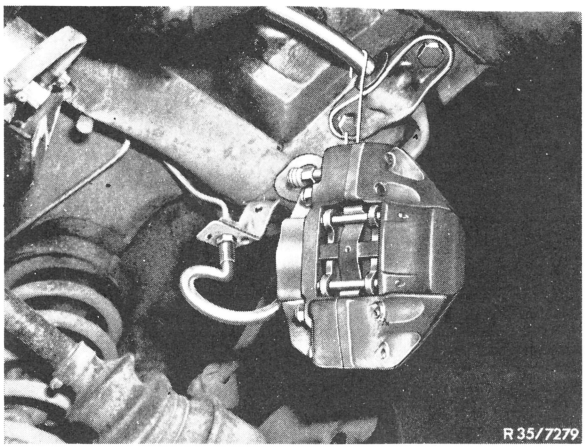

Fig. 1

2a On vehicles with starting torque compensation, disconnect brake cable control, unscrew holding bracket on wheel carrier, remove rubber sleeve and push cover back.

3 Unscrew hex. bolt for attaching rear axle shaft to rear axle shaft flange on both sides (Fig. 2).

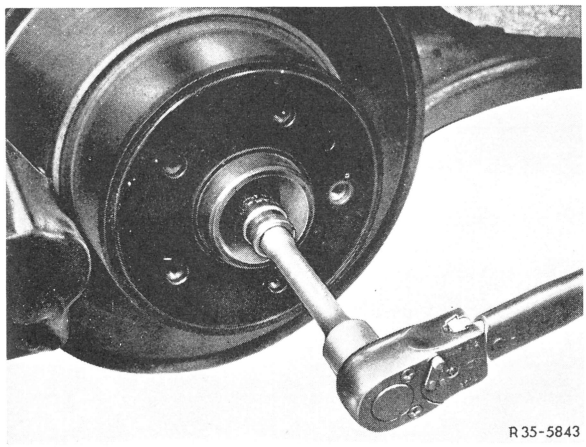

Fig. 2

4 Force rear axle shaft out of rear axle shaft flange by means of assembly fixture (Fig. 3).

Note: If required, loosen righthand rear shock absorber on upper suspension and lower semitrailing arm down to spring stop.

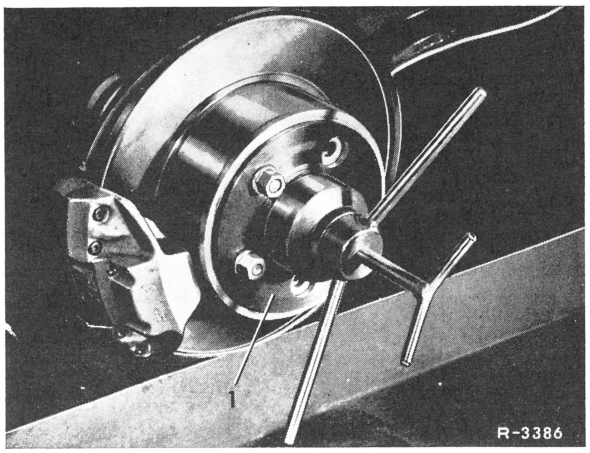

Fig. 3

1 Assembly fixture

5 Remove exhaust assembly (Service Manual „Engines" 49.1–100).

6 Unscrew shielding plate.

7 Loosen clamping nut (15) and unscrew propeller shaft intermediate bearing on frame floor (Fig. 4).

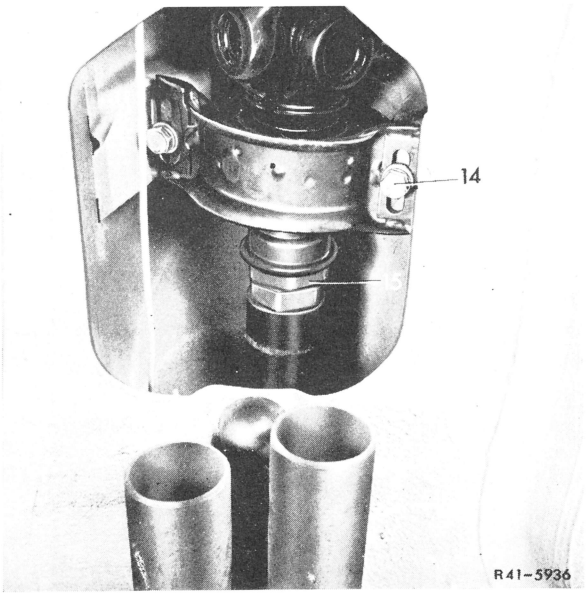

Fig. 4

14 Hex. bolt 15 Clamping nut

8 Unflange propeller shaft on rear axle and push forward out of centering (Fig. 5).

9 Support rear axle housing with vehicle jack or pit lift and pertinent top (Fig. 6).

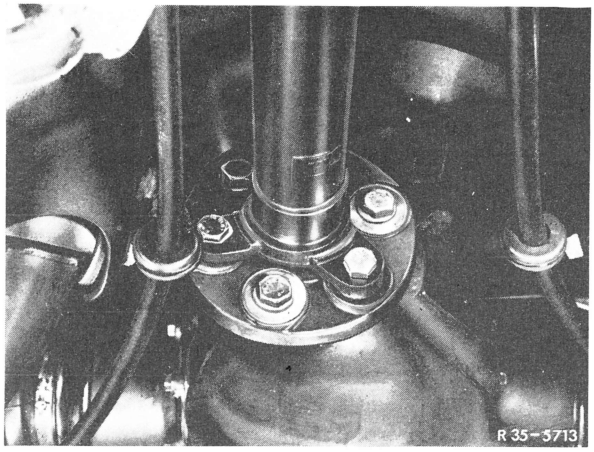

Fig. 5

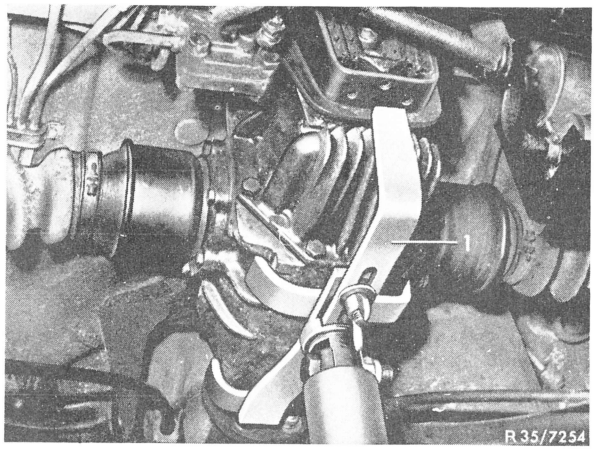

Fig. 6

1 Vehicle jack top (version 2)

10 Unscrew rear rubber mounting (5) on frame floor (Fig. 7).

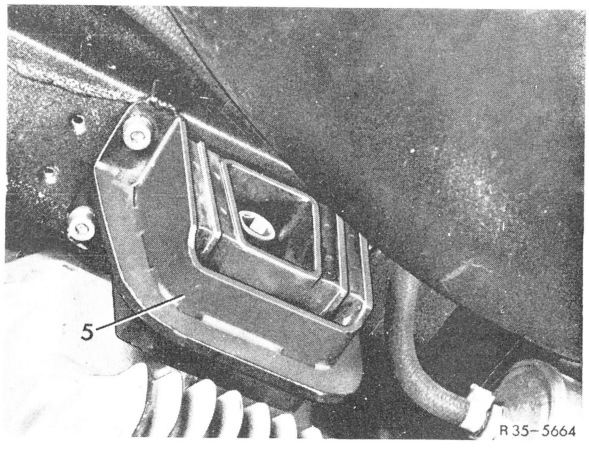

Fig. 7

11 Lower vehicle jack or pit lift until self-locking hex. nuts are accessible.

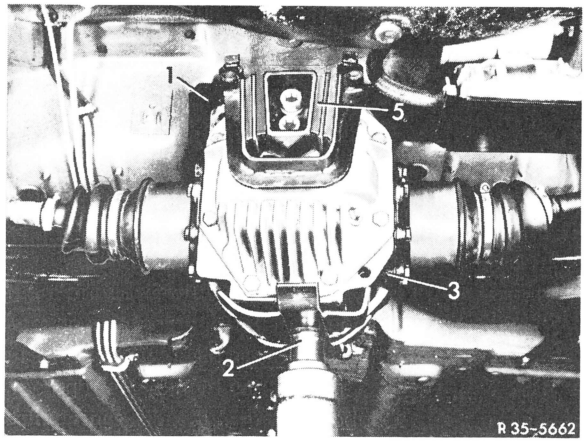

Fig. 8

1 Rear axle carrier
2 Vehicle jack top (version 1)
3 Rear axle center housing
5 Rubber mounting

12 Unscrew rear axle center housing (3) from rear axle carrier (1) (Fig. 9).

13 Lower rear axle center housing and remove together with rear axle shafts.

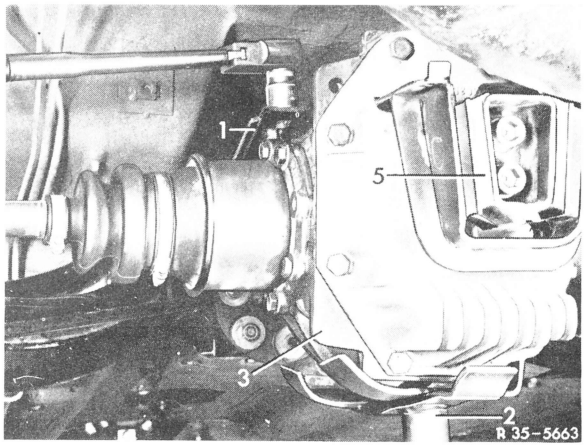

Fig. 9

1 Rear axle carrier
2 Vehicle jack top (version 1)
3 Rear axle center housing
5 Rubber mounting

Caution! When transporting rear axle center housing together with rear axle shafts, make sure that **rear axle shafts are not dropped.** This would damage housings of the two inner synchronous joints and result in leaks.

14 Inscrew rubber mounting from rear axle center housing (Fig. 10).

15 Check rubber mounting and replace, if required.

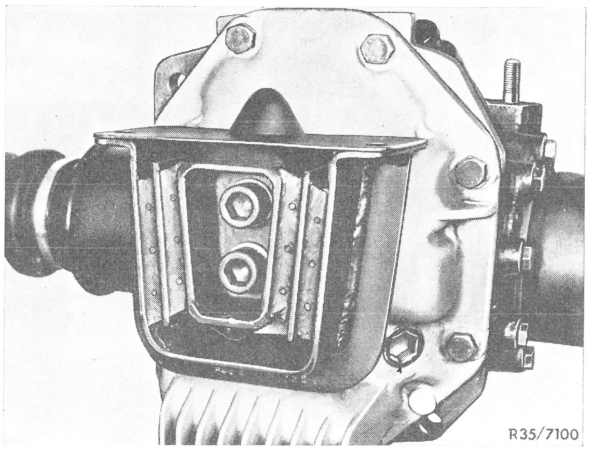

Fig. 10

Installation

16 Attach rubber mounting to rear axle center housing. Tighten hex. socket screws to 120 Nm (12 kpm) (Fig. 10).

17 Place rear axle center housing with rear axle shafts on vehicle jack top and move into installation position (Fig. 8).

18 Mount rear axle center housing to rear axle carrier. Tighten self-locking nuts to 100 Nm (10 kpm) (Fig. 9).

19 Install both rear axle shafts with fixture into rear axle shaft flange (Fig. 11).

20 Tighten hex. bolts to 95 Nm (9.5 kpm) (Fig. 2).

21 Lift rear axle center housing up to frame floor and attach rubber mounting to frame floor. Tightening torque of hex. bolts 25 Nm (2,5 kpm) (Fig. 7).

Caution! Use locking bolts with plastic coating (micro-encapsulated) only once.

22 Flange-on propeller shaft (Fig. 5).

23 Lightly attach propeller shaft intermediate bearing.

24 On vehicles without starting torque compensation, mount brake caliper with new lock washer and tighten to 90 Nm (9 kpm).

24a On vehicles with starting torque compensation, mount holding bracket for brake cable control to wheel carrier. Slide-on cover and rubber sleeve, attach cable control and adjust parking brake (Service Manual „Brakes, Steering" 42.1–525 or 42.3–525).

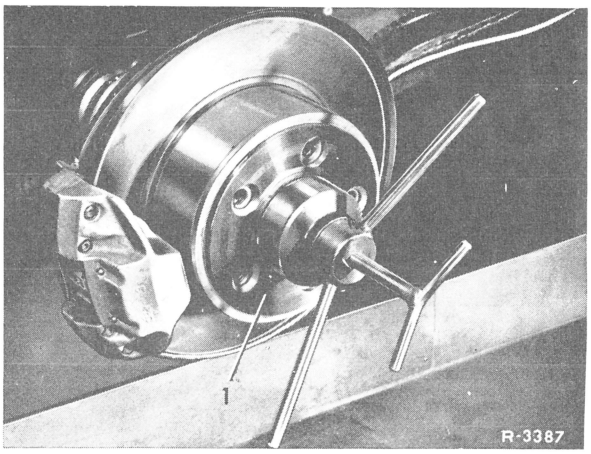

Fig. 11

1 Assembly fixture

25 Fill oil into rear axle up to overflow through filler hole.

26 Move vehicle several times back and forth in condition ready for driving, then tighten clamping nut on propeller shaft to 30–40 Nm (3–4 kpm) (Fig. 12).

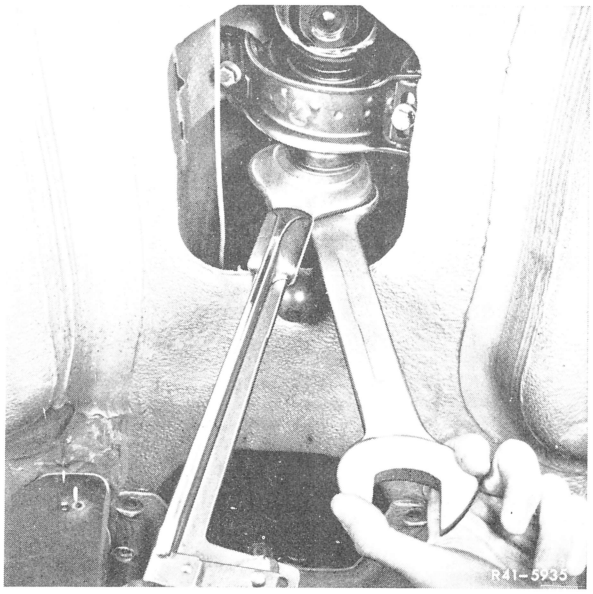

Fig. 12

27 Tighten propeller shaft intermediate bearing (Fig. 4).

28 Mount shielding plate.

29 Install exhaust assembly (Service Manual „Engines" 49.1–100).