

Tightening Torques

		Nm	(kpm)
Hex. bolts for rubber mountings of suspension on frame floor	M 10	45	(4,5)
Hex. nuts of lower shock absorber suspension	M 8	20	(2)
Hex. bolts of front engine mounting	M 12 x 1,5	35	(3,5)
Hex. nuts of track rod joints	M 10 x 1	35	(3,5)

Special Tools

Carrying stirrup for engine	107 589 02 61 00
Cradle for pit lift	115 589 06 63 00
Intermediate angle piece for pit lift	115 589 02 63 00
Remover for track rod	136 589 12 33 00

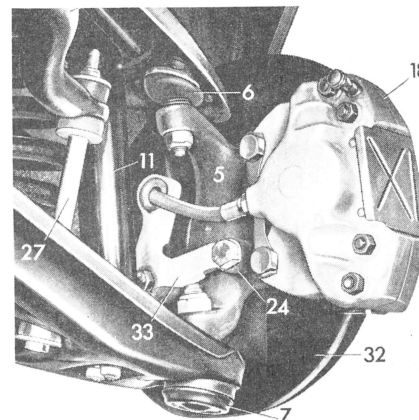
Notes

The jobs described below apply when the individual parts are subsequently controlled or the front axle is repaired. In such a case, the shock absorber, the torsion bar and the front springs are already removed on vehicle.

But if the vehicle will be placed on the frame straightening bench, for example, as the result of repairs following an accident in which the front axle has not been damaged, remove front axle **complete** with front springs, shock absorbers and torsion bar.

The front shock absorbers are serving simultaneously as a deflection stop for the front wheels. Therefore loosen shock absorber suspension only when the vehicle is on its wheels or when the lower control arm is supported.

There is a safety stop between the upper control arm and the front axle carrier.



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Fig. 1

- | | |
|-------------------------|-----------------------------------|
| 5 Steering knuckle | 24 Steering knuckle arm |
| 6 Guide joint | 27 Torsion bar connecting linkage |
| 7 Supporting joint | 32 Cover plate |
| 11 Front shock absorber | 33 Holder for brake hose |
| 18 Brake caliper | |

Removal

- 1 Loosen lower shock absorber suspension (Fig. 1).
- 2 Jack-up vehicle at front and rear while making sure that all the four supporting stands are set to the same height. Remove front wheels.

33.1 Removal and Installation of Front Axle

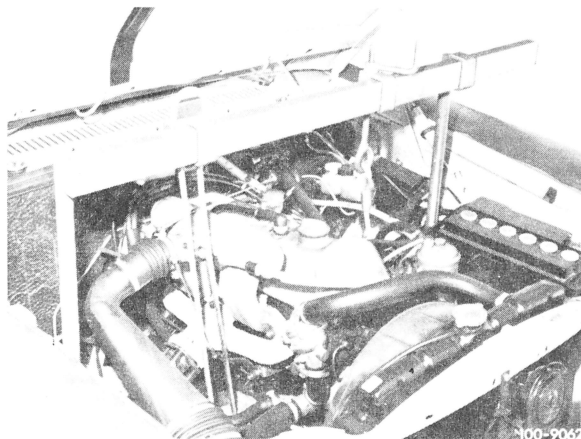


Fig. 2
Carrying stirrup for engine

- 3 Remove front shock absorbers (32.1–100)
- 4 Connect carrying stirrup to engine (Fig. 2)
- 5 Additional work on type 107:
Unscrew the right and left metal shields from exhaust manifold.
- 6 Loosen hex. bolts of front engine mounting right and left.
- 7 Separate brake lines and brake hoses from each other (Fig.3). Close connections with rubber plugs.
- 8 Remove track rods left and right from steering knuckle arm (Fig. 4) ("Brakes, Steering", 46.1–530 and 46.2–530).

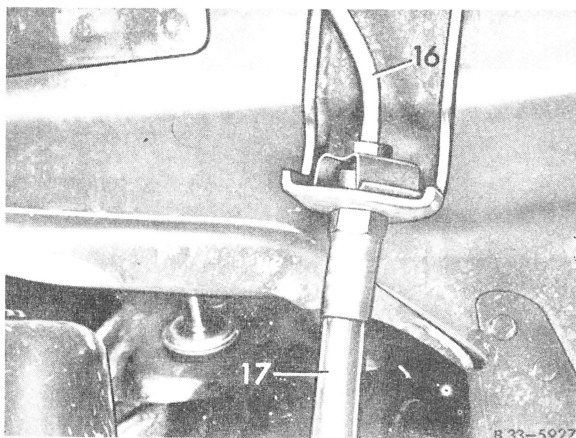


Fig. 3
16 Brake line 17 Brake hose

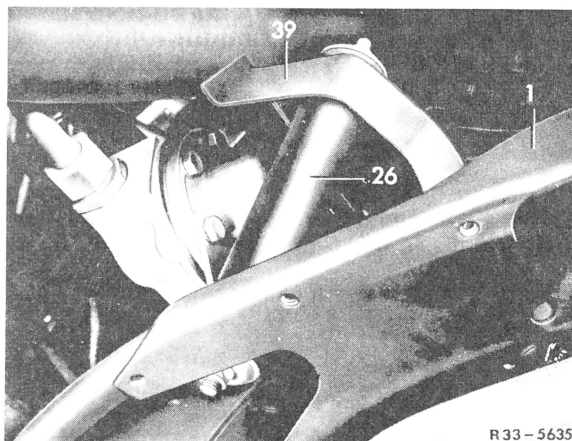


Fig. 5
1 Front axle carrier 39 Holder for engine shock absorber
26 Engine shock absorber

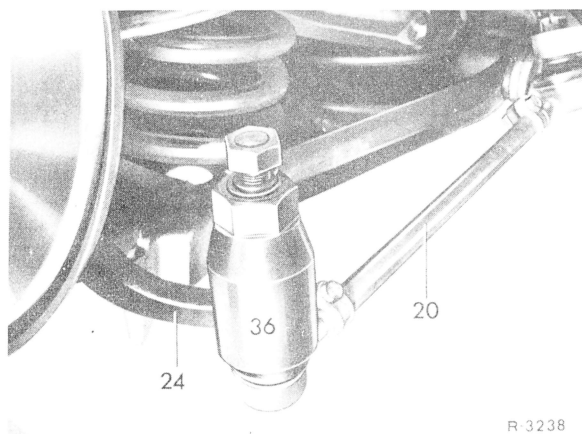


Fig. 4
20 Track rod 36 Remover
24 Steering knuckle arm

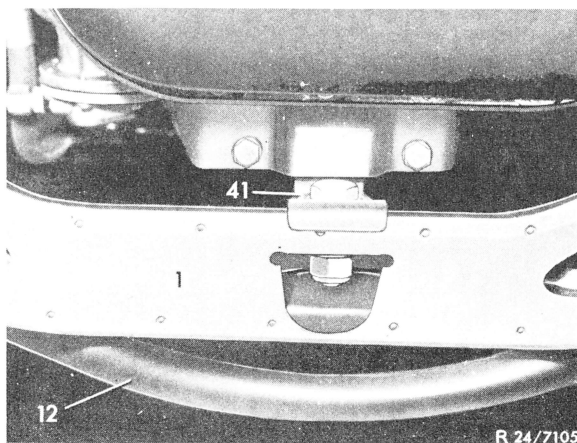


Fig. 6
1 Front axle carrier 41 Engine movement limiter
12 Torsion bar

9 Remove front torsion bar (32.1—300).

10 On vehicles with engines M 110, 115.951, 116, 117, 130, 180 and OM 616, detach the engine shock absorber suspension from the front axle carrier (Fig.5).

11 On vehicles with engines M 115.920, 115.923 and OM 615, detach the engine movement limiter from the front axle carrier (Fig. 6).

12 Remove front springs (32.1—200), attach lower control arms again temporarily to front axle carrier.

13 Support front axle carrier with pit lift and cradle (43) with supplementary member (43a) (Fig.9).

14 Loosen hex. bolts of four rubber mount (2) for attaching front axle carrier to frame floor (Fig. 9).

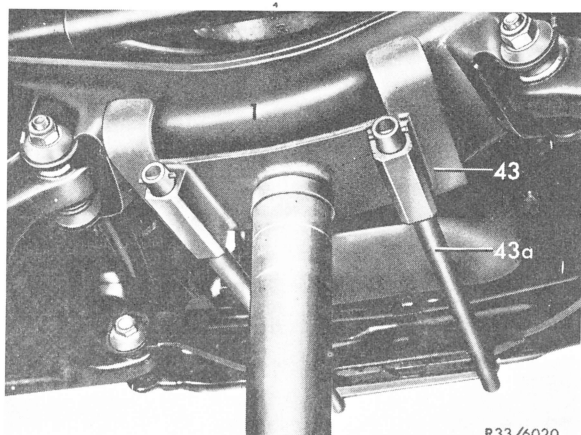


Fig. 7

- | | |
|----------------------|---|
| 1 Front axle carrier | 43a Supplementary member for removal and installation of front axle |
| 43 Cradle | |

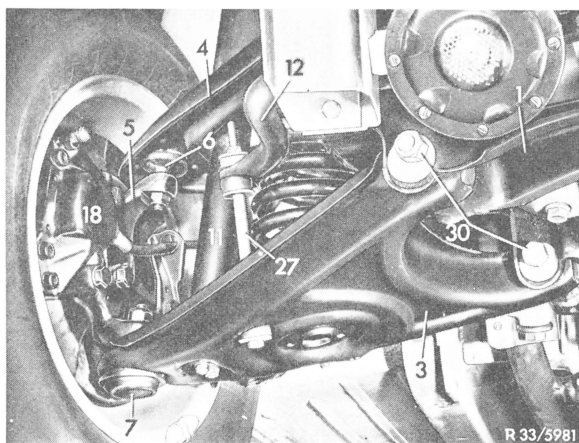


Fig. 8

Front axle seen from the front

- | | |
|----------------------|-----------------------------------|
| 1 Front axle carrier | 11 Front shock absorber |
| 3 Lower control arm | 12 Torsion bar |
| 4 Upper control arm | 18 Brake caliper |
| 5 Steering knuckle | 27 Torsion bar connecting linkage |
| 6 Guide joint | 30 Cam bolt |
| 7 Supporting joint | |

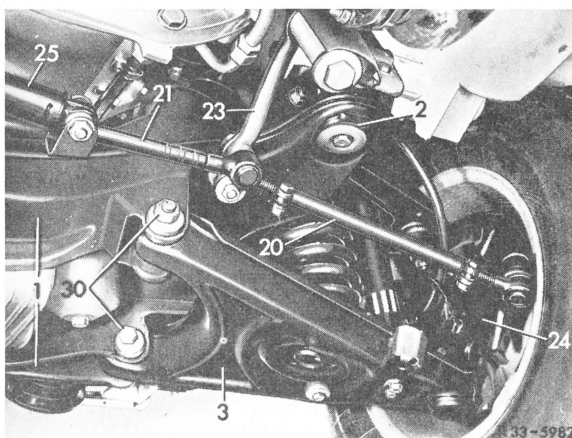


Fig. 9

Front axle seen from the rear

- | | |
|----------------------|--------------------------------|
| 1 Front axle carrier | 23 Intermediate steering lever |
| 2 Rubber mount | 24 Steering knuckle arm |
| 3 Lower control arm | 25 Steering damper |
| 20 Track rod | 30 Cam bolt |
| 21 Drag link | |

15 Lower pit lift and remove front axle (Fig. 10).

Installation

16 Check rubber mount of front engine mounting ("Engines" 00.1—220).

17 Check condition of rubber mount for suspending front axle and for tight seat in front axle carrier (33.1—110).

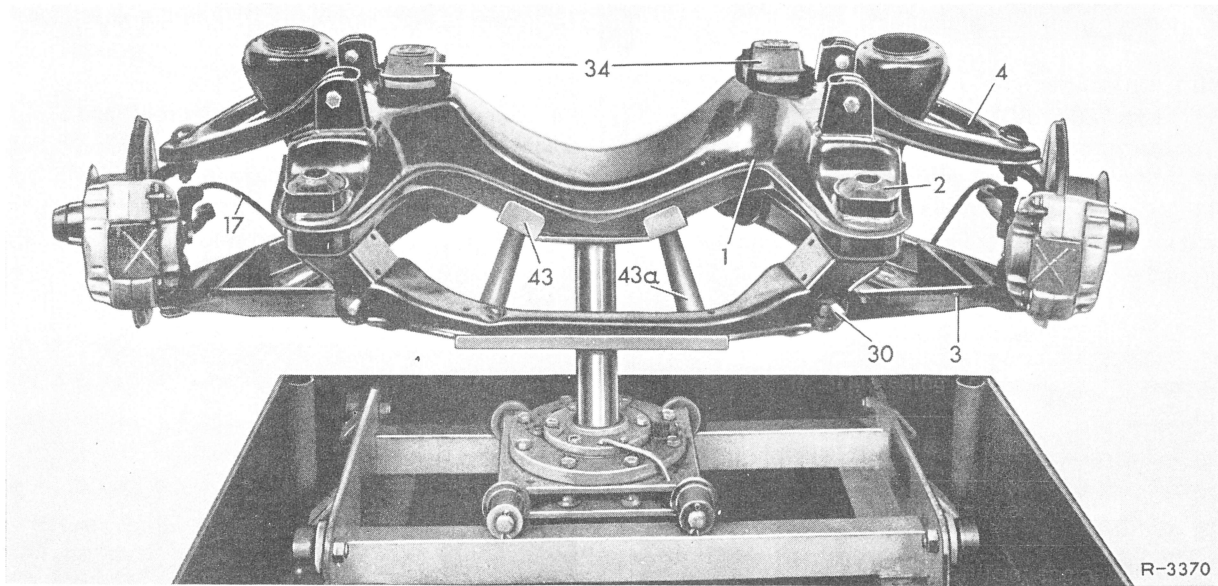
18 Introduce front axle and attach to frame floor (Fig. 11).

19 Remove engine carrying stirrup. Install the hex. bolts for the engine suspension.

20 On type 107: Attach right and left metal shields to the exhaust manifold.

21 Connect brake hoses.

33.1 Removal and Installation of Front Axle



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Fig. 10

- | | | | |
|----------------------|---------------------|---|---|
| 1 Front axle carrier | 4 Upper control arm | 34 Rubber mount of front engine mounting. | 43a Supplementary member for removal and installation of front axle |
| 2 Rubber mount | 17 Brake hose | 43 Cradle | |
| 3 Lower control arm | 30 Cam bolt | | |

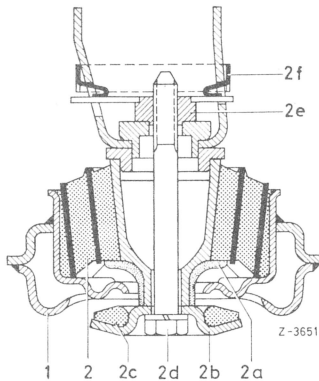


Fig. 11

- | | |
|-------------------------------|-------------------------------|
| 1 Front axle carrier | 2c Stop buffer for deflection |
| 2 Rubber mount | 2d Hex. bolt |
| 2a Stop buffer for deflection | 2e Fastening nut |
| 2b Stop plate | 2f Holder for fastening nut |

22 Install front springs (32.1–200).

Attention: Only tighten the nuts on the excentric bolts for the lower control arms if the vehicle is standing on its own wheels and is in drive-away condition.

23 Install front shock absorbers (32.1–100).

24 Mount track rod joints ("Brakes, Steering" 46.1–530 and 46.2–530).

25 Install torsion bar (32.1–300).

26 On vehicles with engines M 110, 115.951, 116, 117, 130, 180 and OM 616, attach the engine shock absorber to the front axle carrier.

27 On vehicles with engines M 115.920, 115.923 and OM 615, install the engine movement limiter on the front axle carrier and adjust (see "Engines" 00.3–210).

28 Bleed brake system ("Brakes, Steering" 42.0–010).

29 Install front wheels. Lower vehicle.

30 Check vehicle level at front axle (40.1–300).

31 Check wheel adjustment at front axle and correct if necessary (40.1–320).

32 Check adjustment of headlights ("Electrical Systems" 82.1–250).