

Revision: Revised.

Tightening Torques

	Nm	(kpm)
Propeller shaft clamping nut	30	(3.0)
Hex. bolts of propeller shaft intermediate bearing	20	(2.0)
Hex. bolts for torque converter on driven plate	42	(4.2)
Hex. bolts engine — transmission M 10	55	(5.5)
Hex. bolts engine — transmission M 12	65	(6.5)

Special Tools

Remover and installer	116 589 06 62 00
Torque wrench handle 20–100 Nm (2–10 kpm)	001 589 35 21 00
Open end wrench for torque wrench handle	000 589 13 01 00
Syringe	112 589 00 72 00
Handle for removing and installing torque converter	116 589 02 62 00

Removal

- 1 Disconnect minus (negative) cable from battery.
- 2 Place vehicle on supporting stand.

- 3 Drain transmission oil. For this purpose, unscrew oil filler pipe (2) on oil pan (3) of transmission. Unscrew drain plug (15) out of torque converter (Fig. 1). Use clean vessel only. Then screw-in drain plug (15) with new sealing ring and tighten well.

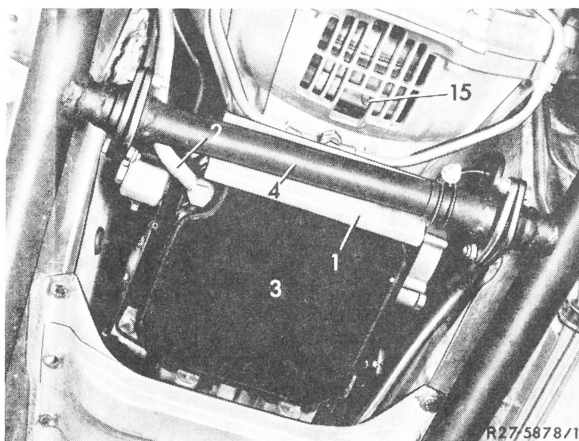


Fig. 1

- | | |
|-------------------|---------------------------|
| 1 Shielding plate | 4 Compensating connection |
| 2 Oil filler pipe | 15 Drain plug |
| 3 Oil pan | |

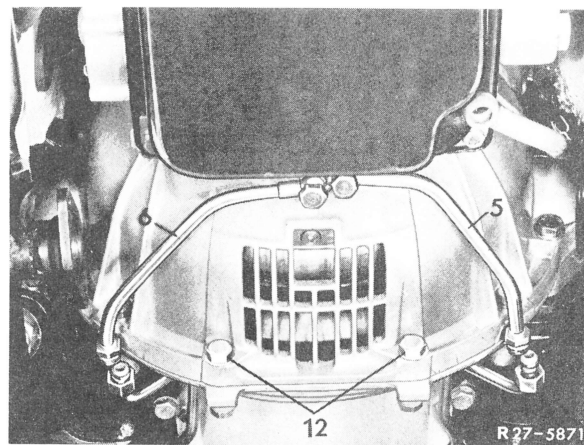


Fig. 2

- | | |
|---------------|--------------------|
| 5 Feed line | 12 Fastening bolts |
| 6 Return line | |

4 Remove complete exhaust system on model 107 (Job No. 49.1–100).

5 Unscrew oil cooler lines (5) and (6) (Fig. 2).

6 Loosen both fastening bolts (7) of universal shaft intermediate bearing, but do not unscrew (Fig. 3).

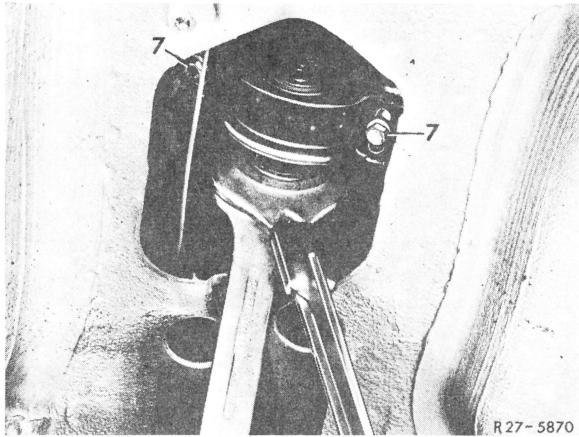


Fig. 3

7 Fastening bolts

7 Loosen propeller shaft clamping nut with torque wrench 001 589 44 21 00 and open end wrench 000 589 13 01 00 (Fig. 3).

8 Hold engine in installation position by placing a wooden block underneath (Fig. 4).

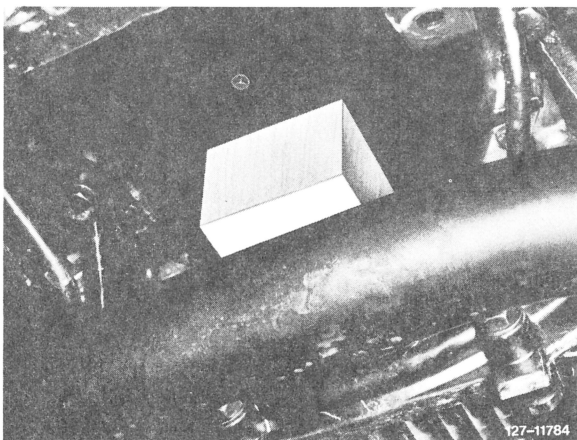


Fig. 4

9 Unscrew both fastening bolts (19) from engine mounting (Fig. 5).

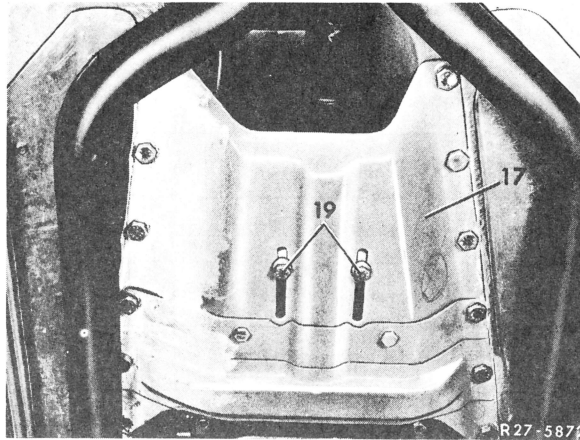


Fig. 5

17 Tunnel closing plate, model 107
19 Fastening bolts for engine mounting

10 Unscrew engine carrier or tunnel closing plate (17) on model 107 (Fig. 5).

11 Unscrew rear engine mounting (18) on transmission (Fig. 6).

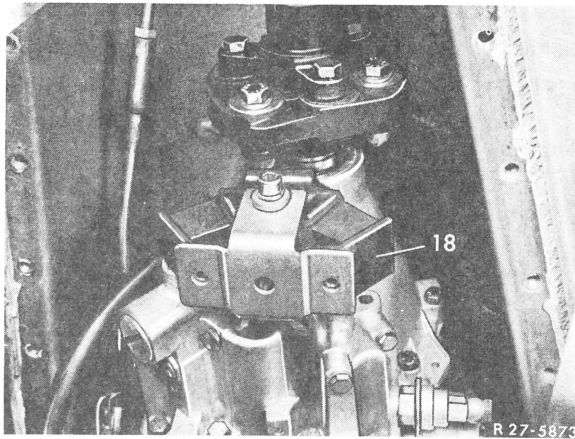


Fig. 6

18 Rear engine mounting

12 Unscrew propeller shaft on transmission while leaving universal plate on propeller shaft.

13 Slide propeller shaft toward the rear as far as the center bearing and the clamping piece permit.

14 Place suitable piece of wood underneath propeller shaft at front in tunnel (model 107) in such a manner that the shaft is pushed completely upwards.

15 Pull out plug for starter lock-out and back-up light switch (8) (Fig. 7).

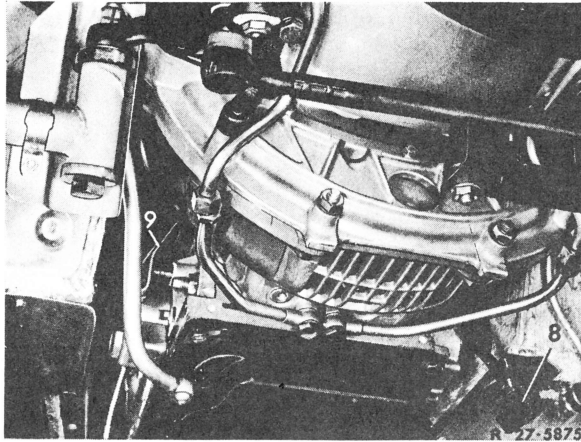


Fig. 7

- 8 Plug for starter lock-out and back-up light switch
9 Lever — control pressure

16 Unscrew clamping screw from lever for control pressure (9) and pull lever from shaft (Fig. 7).

17 Unscrew cable from kickdown solenoid valve (10) (Fig. 8).

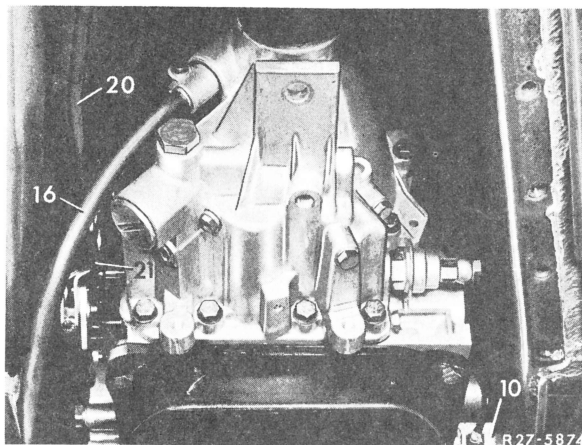


Fig. 8

- 10 Kickdown solenoid valve
16 Tachometer shaft
20 Shift rod
21 Range selector lever

18 Disconnect selector rod (20) on range selector lever (21) and set range selector lever to position "P".

19 Disconnect tachometer shaft (16) on transmission.

20 Unscrew vacuum line (22) from vacuum box (23), **while counterholding at hex. head 14 mm width over flats** (Fig. 9).

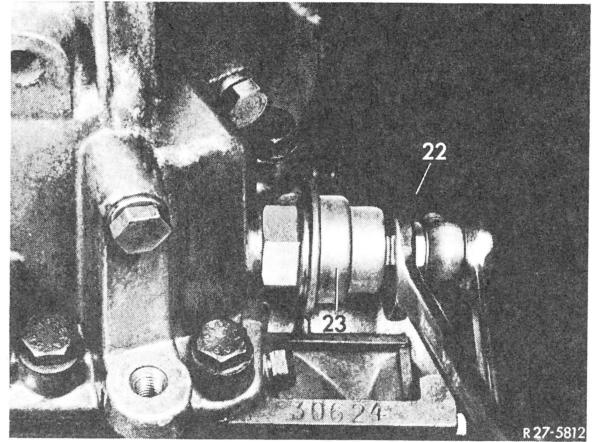


Fig. 9

- 22 Vacuum line
23 Vacuum box

On transmission with vacuum boxes made of plastics, unscrew bracket (35) and pull rubber hose (36) from closing cap (37) (Fig. 10).

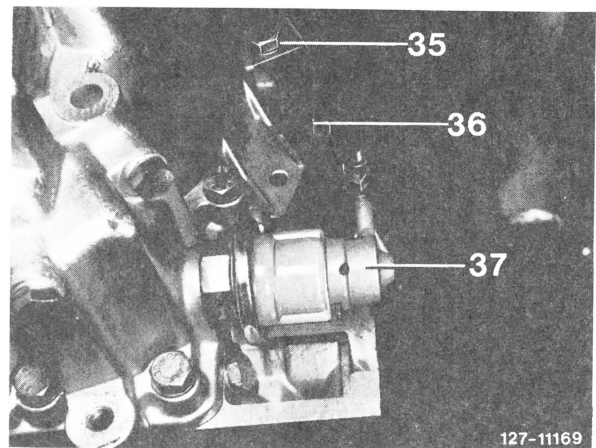


Fig. 10

- 35 Bracket
36 Rubber hose
37 Closing cap

21 Pull covering plug out of intermediate flange. Separate torque converter from driven plate by unscrewing six fastening bolts (11) (Fig. 11).

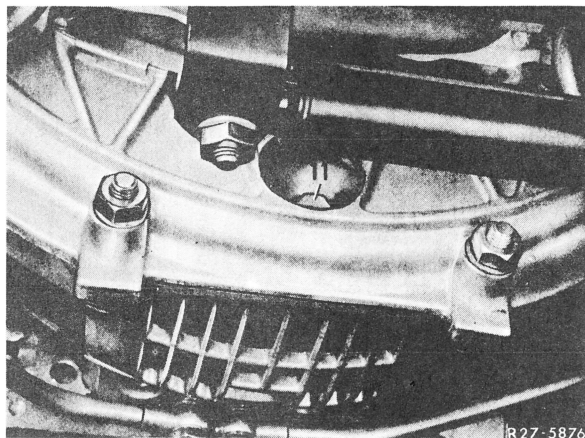


Fig. 11
11 Fastening bolts

22 Lift transmission by means of remover and installer.

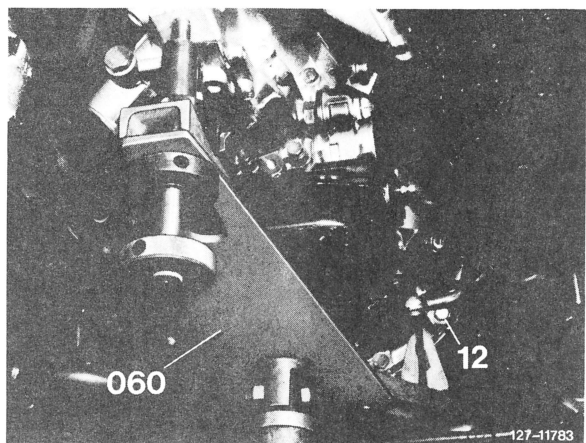


Fig. 12
12 Fastening bolts

23 Unscrew all fastening bolts for transmission — engine, removing the two lateral bolts (12) last (Fig. 12).

24 Push transmission with torque converter in direction of rear axle until the bearing journal of the torque converter can no longer touch the intermediate flange.

25 Lower transmission carefully and remove from fixture.

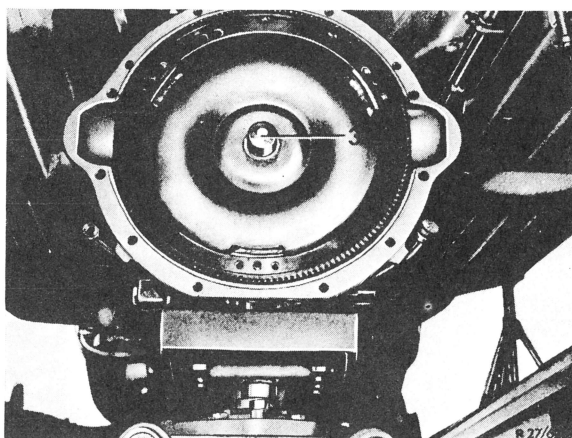


Fig. 13
32 Bearing journal

26 Place transmission in vertical position. Screw handling plate to torque converter and pull out in upward direction.

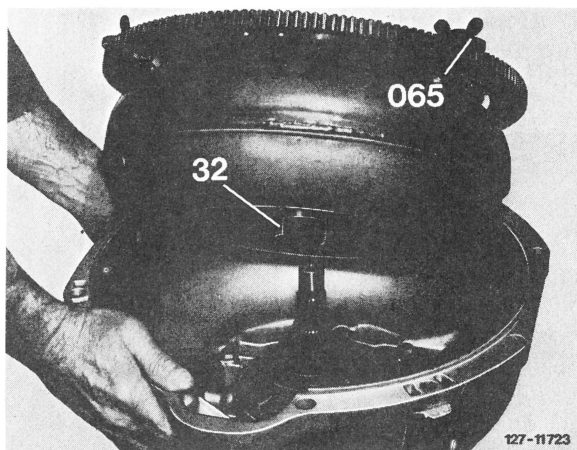


Fig. 14

Installation

Attention! The torque converter cannot be flushed. If the amount of sludge or chips in transmission is abnormally high, replace torque converter.

Prior to installing transmission, thoroughly flush transmission fluid cooler in lower header including feed lines with benzine and blow out. Check driven plate (14 in Fig. 18) for cracks and replace, if required.

All exchange and warranty transmissions are provided with a guard for the vacuum box. This guard prevents damage to vacuum box during transportation and when installing transmission. Remove guard (1) only following installation of transmission and screw back to removed transmission for return (Fig. 15).

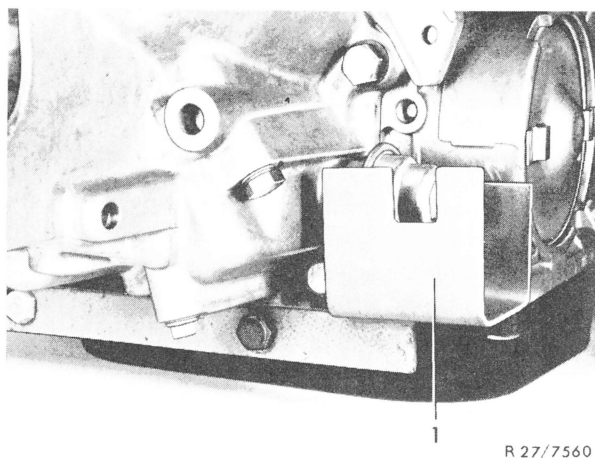


Fig. 15

27 Screw handling plate to torque converter. Slightly grease drive flange (29 in Fig. 16) and bearing journal (32 in Fig. 13) with Molykote.

28 Place transmission in vertical position. Move drivers on drive flange (29) opposite pump wheel into engaging direction.

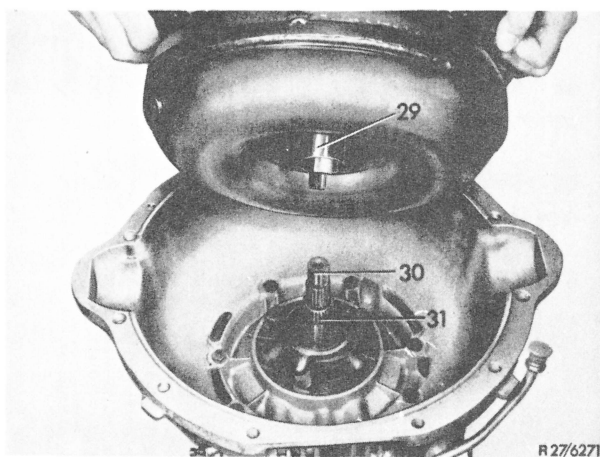


Fig. 16

29 Drive flange
30 Drive shaft

31 Stator shaft

29 Carefully insert torque converter while turning slightly back and forth (Fig. 12). Also make sure that the sealing lip of the primary pump radial sealing ring is not damaged during installation.

Attention! When the torque converter is correctly inserted, dimension "K" should amount to approx. 4 mm (Fig. 17).

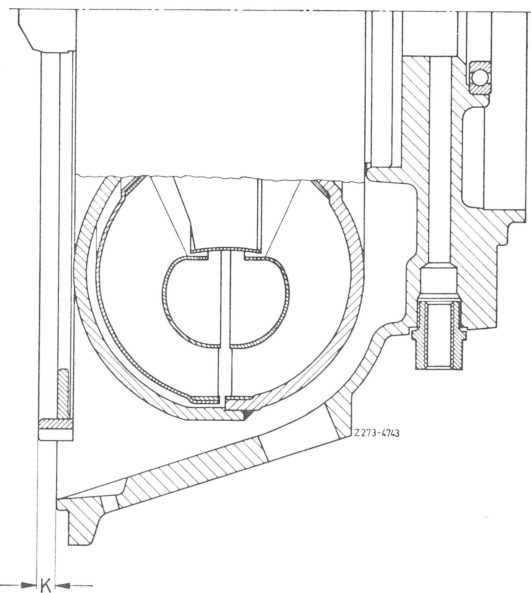


Fig. 17

30 Place transmission on installer and remover. Turn torque converter in such a manner that two fastening bores are below (Fig. 13) and are in alignment with bores (13) in driven plate (14).

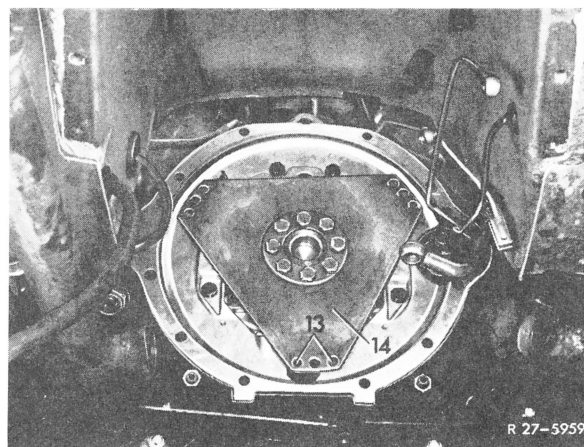


Fig. 18

13 Fastening bores

14 Driven plate

27.2 Removal and Installation of Transmission

31 Introduce transmission and lift until the lower bolt holes of the converter housing are in alignment with the bores in the intermediate flange.

32 Push transmission forward until converter housing rests flat against intermediate flange (do not use force).

33 Screw transmission and engine together. Tighten fastening bolts M 10 to 55 Nm (5.5 kpm) and fastening bolts M 12 to 65 Nm (6.5 kpm).

34 Push torque converter forward (arrow in Fig. 19) by applying a screw driver through the venting slot to cancel distance "A".

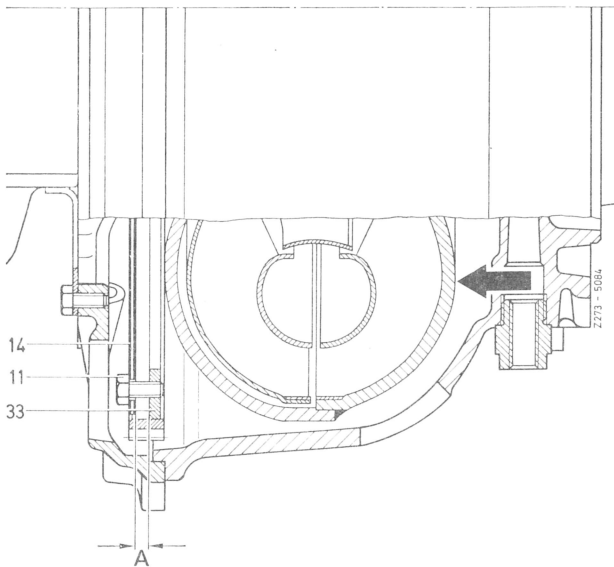


Fig. 19

35 Screw-in the six hex. bolts (11) M 8 x 14 (12 K) and tighten to 42 Nm (4.2 kpm) (Fig. 19).

36 Connect vacuum line (22) to vacuum box (23), **while applying counterhold to hex. head (14 mm width over flats) on vacuum box (Fig. 9).**

Transmission with plastic vacuum box; screw-on bracket (35) and attach rubber hose (36) (Fig. 10).

37 Connect tachometer shaft (16) to transmission (Fig. 8).

38 Attach selector rod (20) to range selector lever (21) (Fig. 8).

39 Connect cable to kickdown solenoid valve (10) (Fig. 8).

40 Slip control pressure lever (9) on shaft and tighten clamping screw well (Fig. 7).

41 Attach plug (8) for starter lockout and back-up light switch (Fig. 7).

42 Screw propeller shaft to transmission.

43 Screw rear engine mounting (18) to transmission (Fig. 6).

44 Screw-on engine carrier or on model 107 tunnel closing plate (17) (Fig. 5).

45 Screw both fastening bolts (19) into rear engine mounting and tighten (Fig. 5).

46 Remove vehicle from supporting stands, move back and forth for a short distance, then tighten propeller shaft clamping nut to 30 Nm (3.0 kpm) by means of torque wrench and open end wrench (Fig. 3).

47 Tighten fastening bolts (7) of propeller shaft intermediate bearing (Fig. 3).

48 Install exhaust system (Job No. 49.1–100).

49 Screw-on feed line (5) and return line (6) for oil cooler using new sealing ring (Fig. 2).

50 Screw oil filler pipe (2) to oil pan (3) with new sealing rings (Fig. 1).

51 Connect minus (negative) cable to battery.

52 Add transmission fluid (27.2–010).