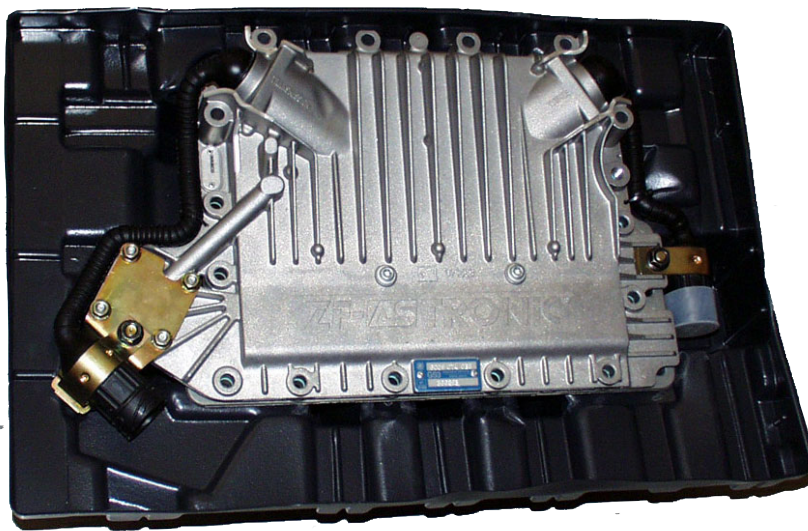


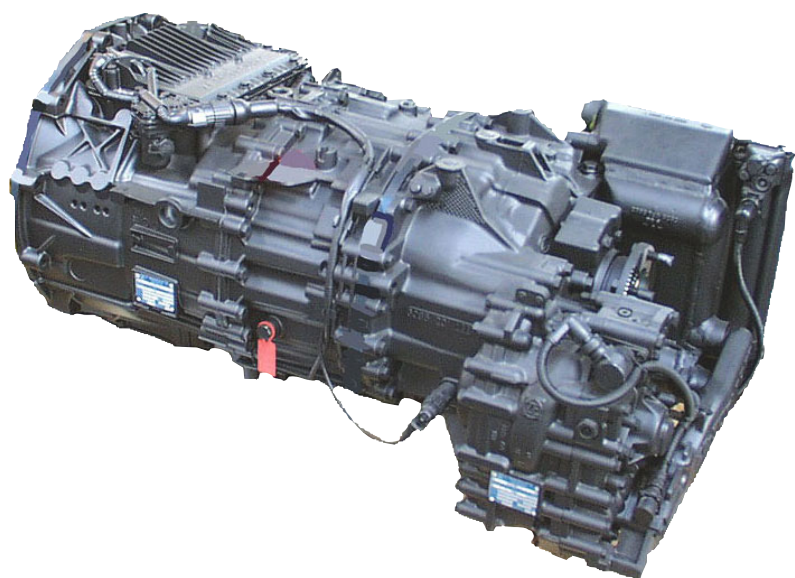


Replacement of gear actuator on AS-Tronic and TC-Tronic

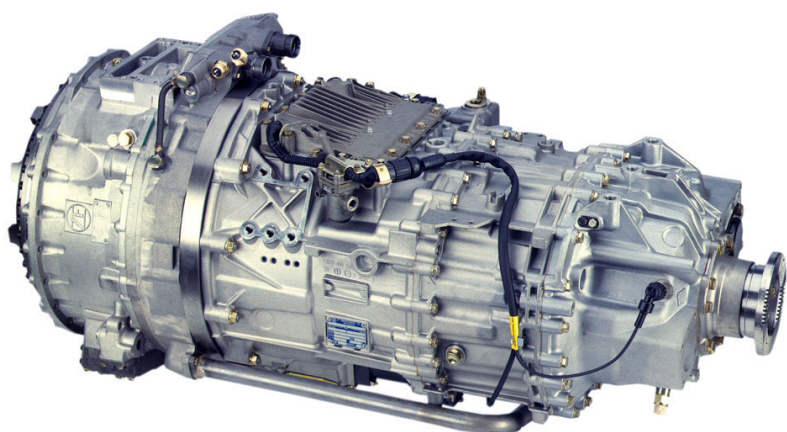
1 Gear actuator replacement set ID. 571802308 comprises:

- 1 x gear actuator
- 1 x sealing
- 2 x straight pin 6x16
- 9 x screw M8x45
- 6 x screw M8x70
- 1 x breather





ZF-AS TRONIC®



ZF-IG TRONIC®

8 Transmission actuator

20-pin standard version: 12 AS 2302

Special 18-pin version: 16 AS 2602

The ZF numbers listed above contain:
transmission actuator, gasket and vent.

CAUTION

Only work on the transmission actuator if the ignition is off.

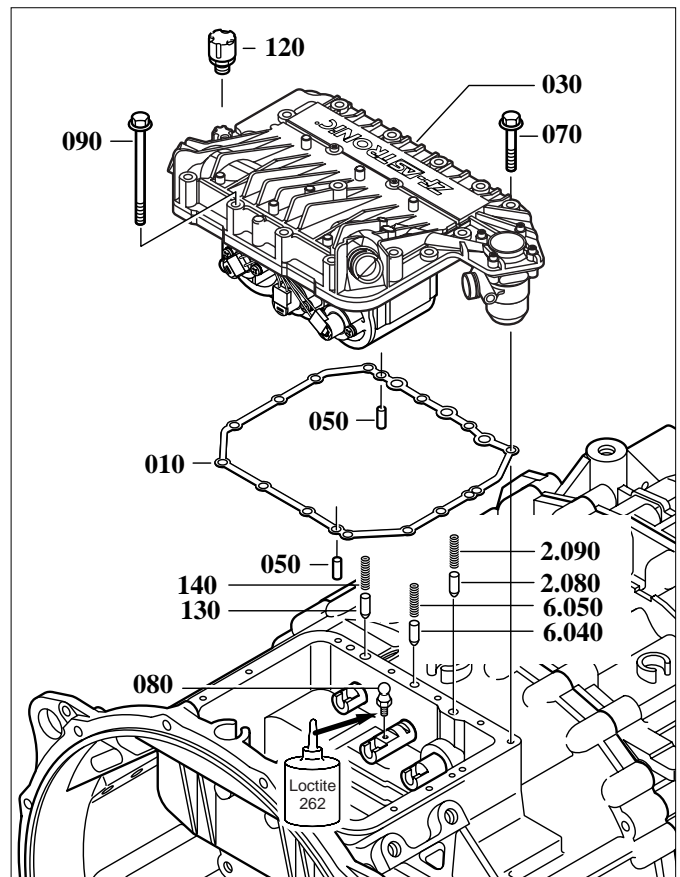
8.1 Removal**CAUTION**

If vehicle-specific parts need to be removed (e.g. fuel pump, exhaust pipe or steering pump), please contact the vehicle manufacturer.

- 1 Disconnect the electrical plug connections on the transmission actuator.
Remove compressed air line from transmission actuator.
- 2 Remove vent (120) from transmission actuator (030).
- 3 Remove 15 M8 hex bolts (090; 070) from transmission actuator (030).
- 4 Remove transmission actuator from transmission housing.
- 5 Remove the compression springs (6.050; 140 and 2.090) and detent pins (6.040; 130 and 2.080). Replace the 2 cylindrical pins (050) if damaged.
- 6 Remove gasket (010) and clean sealing faces on transmission housing and on transmission actuator.

NOTE

A transmission actuator kit is available. This consists of transmission actuator (030), gasket (010) and vent (120).



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8.2 Installation

CAUTION

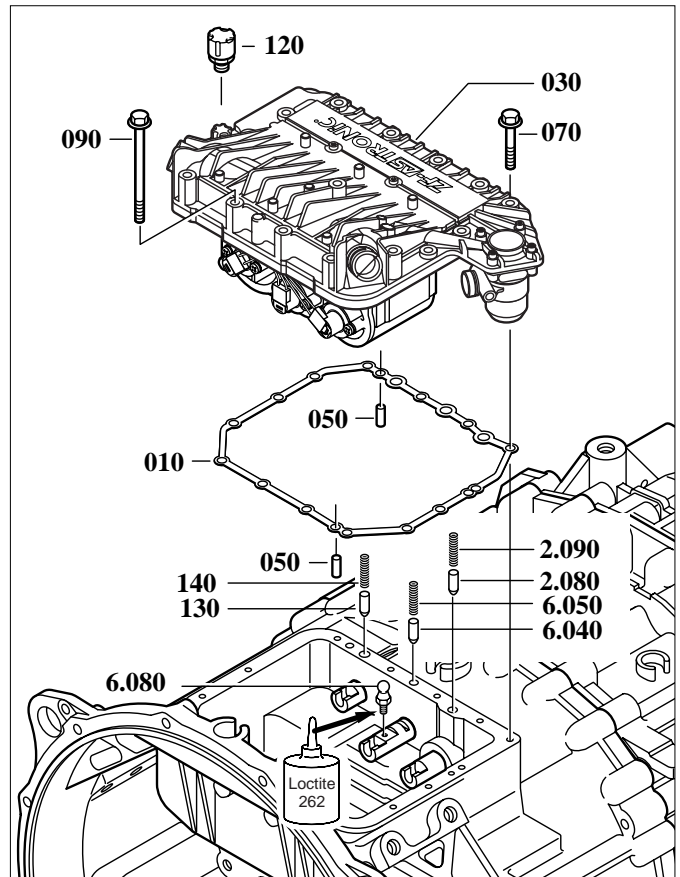
If the transmission actuator is changed, the following should be noted.

- **Re-program the transmission actuator.**
- **Transfer vehicle parameters from removed transmission actuator or re-enter them.**
- **Transfer the position (installation dimensions) of the piston rods from the removed transmission actuator to the actuator to be installed.**

- 1 If the ball pin is changed, coat thread of ball pin (6.080) with **Loctite no. 262**. Tighten ball pin to 23 Nm.
- 2 Place new gasket (010) on transmission housing.
- 3 Insert the detent pins (6.040; 130 and 2.080) and compression springs (6.050; 140 and 2.090).
- 4 Fit transmission actuator (030). When fitting, ensure that the piston rods of the transmission actuator mesh in the shift rails of the transmission.
- 5 Tighten 6 M8x70 hex bolts (090) and 9 M8x45 hex bolts (070) to 23 Nm.
- 6 Tighten vent (120) to 10 Nm.
- 7 Connect air line to pressure limiting valve of transmission actuator.
- 8 Reconnect transmission and vehicle wiring harness. If this is not done, the function test cannot be conducted.

NOTE

Use diagnosis device to check transmission actuator before the vehicle-specific parts are refitted.



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Warning when changing transmission actuator.

Replace old generation with new generation

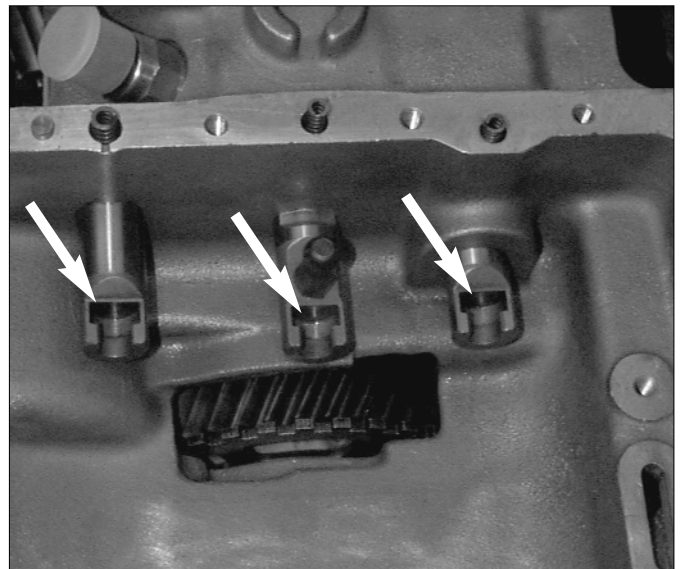
6009 374 025 with 6009 374 040 (20-pin) or

6009 374 026 with 6009 374 041 (18-pin)

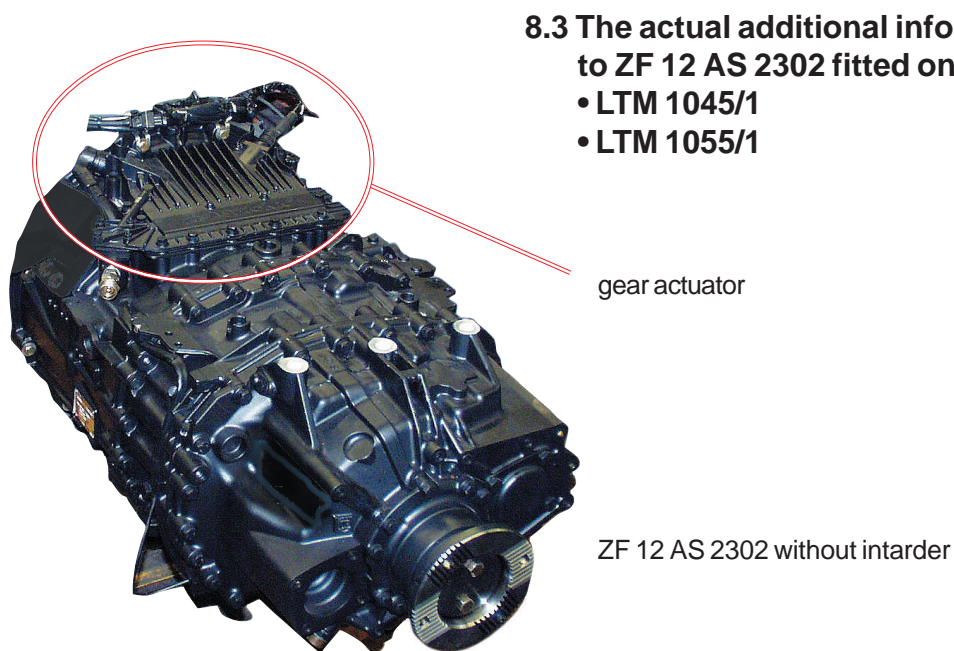
The GP detent compression spring (140)

0732 042 679 (41 mm) should also be replaced with

0732 042 766 (approx. 10 mm longer).



015 019



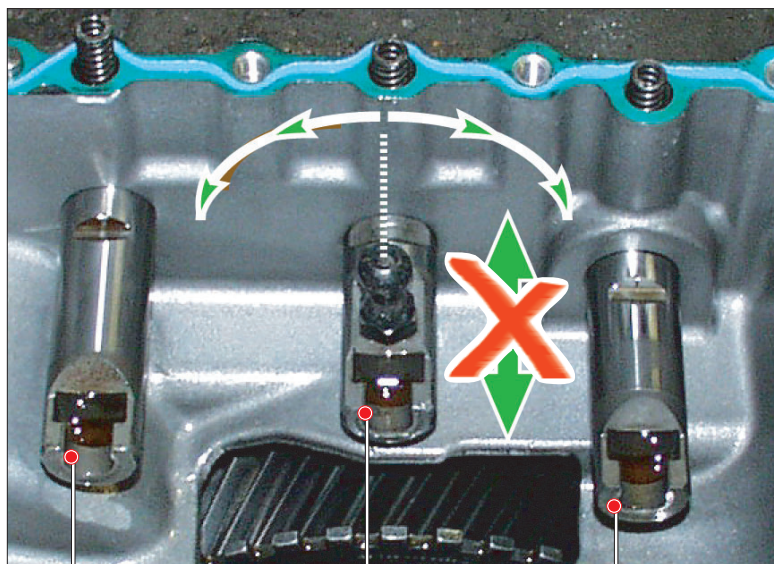
8.3 The actual additional information refers only to ZF 12 AS 2302 fitted on:

- LTM 1045/1
- LTM 1055/1

gear actuator

ZF 12 AS 2302 without interarder

! During the replacement of the gear actuator on the ZF-ASTRONIC 12 AS 2302, absolutely observe the following indication - otherwise damages will occur which would require the replacement of the entire gear box!

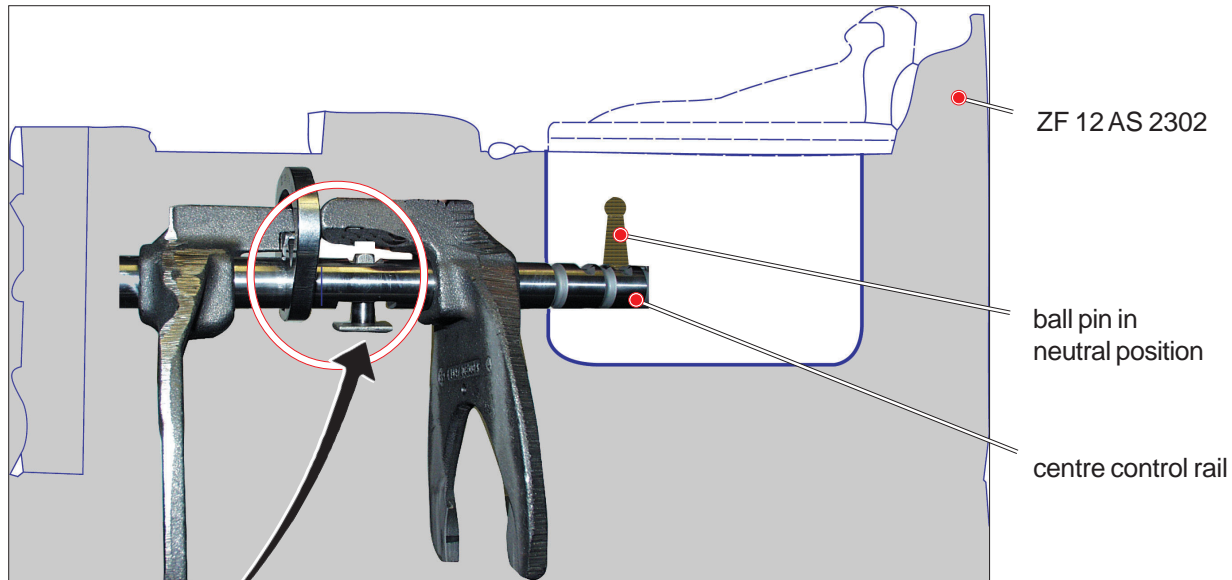


Warning:
On the 12-speed gear box, do not extend nor retract the centre control rail when the ball pin is in vertical position.
(explanation see overleaf)

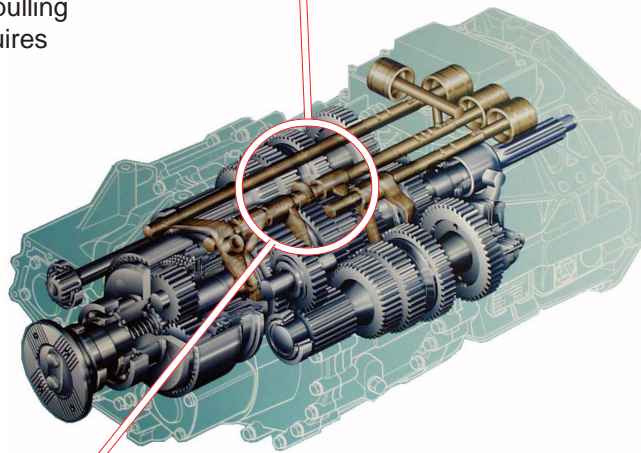
outer control rail for range group

centre control rail for control cylinder
3-speed in neutral and ball pin in
vertical positionouter control rail for
split group

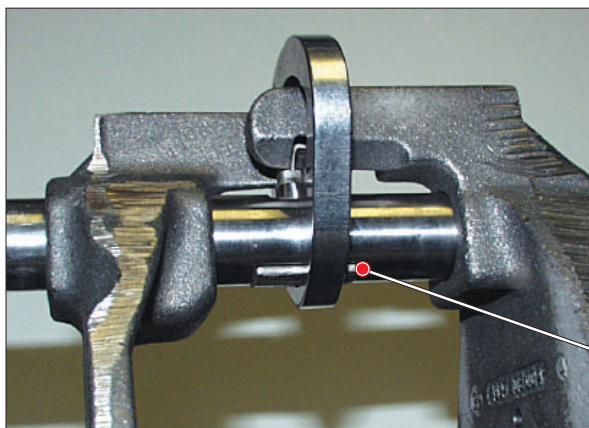
8.4 Why is it not admissible to extend and retract the centre control rail in neutral position on the 12-speed ZF-ASTRONIC gear box?



If the centre control rail in neutral position (ball pin vertically upwards) is extended or retracted, this pulling pin, as shown, drops into the gear box. This requires the gear box to be dismantled and replaced!



Normal condition in operation:



In operating condition, the pulling pin is kept as shown.