

TO: Dealers Only

FROM: Service Systems Development

SUBJECT: **Detroit™ DT12™ Split Rod Bushing Repair**

Note: This document supersedes Technical Service Letter 16 TS-22.

ISSUE

Detroit™ DT12™ automated manual transmissions may experience difficulty going into gear, especially when the transmission is not at operating temperature.

CAUSE

The steel split rod wears on the aluminum transmission housing, causing the split rod to stick. The Shift Controller cannot read the correct position of the split rod and will not shift into gear. To correct this, a hardened steel bushing and new design split rod with three flattened sides were implemented with transmissions built in August, 2016. For Detroit-built transmissions (transmission serial number beginning with 716), the change took place on August 9, 2016, with approximate transmission serial number 716310E0008107. For German-built transmissions (transmission serial number beginning with 715), the change took place on August 29, 2016, with approximate transmission serial number (last seven digits) 1806530. See Figure 1 for the new bushing and split rod.



Figure 1 – New Steel Bushing and Split Rod

REQUIRED ACTION

Refer to new symptom-based diagnostics for a complaint of “Cold Gear Engagement” found in the *Detroit Transmissions Manual* (DDC-SVC-MAN-0140). The troubleshooting will indicate whether or not a split rod bushing repair is necessary.

REQUIRED MATERIAL

The necessary parts to install the new bushing and split rod are contained in service kit P/N: A 960 268 23 74. The new kit is also shown in PartsPro in design group 342.

REPAIR PROCEDURE

In the *Detroit Transmissions Manual* (DDC-SVC-MAN-0140), reference the chapter titled “Internal Component Repair” and section “Split Rod Bushing Repair”. A supplemental video can be found on ddcsn.com. Go to Support, then Multimedia, then DT12 Transmission, then Split Pin Bushing Repair. See Figure 2 for the new bushing installed in a transmission. Note how the cut side of the bushing matches up with the transmission housing.



Figure 2 – New Steel Bushing Installed

CLAIM PROCESS

Normal vehicle OEM in-warranty procedures apply. **Proactive installations of the split rod and bushing are not allowed under warranty.**

If a mechanical failure is found in warranty, file the claim as follows.

- Claim type: 1 (base warranty) or 2 (extended coverage)
- Primary Failed Part: A 960 268 23 74.
- Fault type: 83
- Parts return: None.

Troubleshooting may include the following labor operations:

- Labor Operation 342-6030Q, Cascadia chassis, BUSHING, SPLIT PIN, DT12, R/R
- Labor Operation 342-6030Q, Western Star 5700XE chassis, BUSHING, SPLIT PIN, DT12, R/R
- Admin Labor Operation 939-6010B

CONTACT INFORMATION

Please contact the Detroit™ Customer Support Center at 800-445-1980 or email csc@daimler.com if you have any questions.