

**** SOLUTION ****

Title	Automated Manual Transmission (AMT) Clutch Failures At Service Replacement; New Clutch Found To Be Damaged When Unboxed Or Fails Soon After Replacement
-------	---

Mack Models

Mack Model	AN - Anthem , CHU - Pinnacle, Axle back , CXU - Pinnacle, Axle front , GR - Granite , GU - Granite , PI - Pinnacle
-------------------	--

Volvo Models

Volvo Model	VNL , VNM , VNR , VNX , VAH , VHD
--------------------	-----------------------------------

Emission Standard

Emission Standard	US17 , US17+OBD16 , US17+OBD18
-------------------	--------------------------------

Engine family

Engine family	11L Engine , 13L Engine , MP7 , MP8
---------------	-------------------------------------

Transmission

Transmission	AMT-F With Crawler Gears , AMT-F Without Crawler Gears , AMT-C , AMT-D , AMT-F , AMT-C , AMT-D , AMT-F With Crawler Gears , AMT-F Without Crawler Gears
--------------	---

**** SOLUTION ****

Cause	A new clutch that is replaced in the aftermarket may be found damaged when removed from packaging, or experience failure shortly after installation. This situation is likely to occur before the vehicle leaves the shop or during the first test drive after replacement. It has been determined that this issue arises due to damage that occurs during shipping and handling of the new part. Damage of this nature normally occurs to the tabs shown in the photo below:
-------	---



Note: This issue has not been seen in vehicles new from the factory. If a clutch is found failed in a new vehicle, normal repair procedure should be followed.

S
o
l
u
t
i
o
n

Prior to Installation

- The box should be inspected for damage before opening and if damage is found the clutch should be inspected to make sure the tabs shown in the picture above are not cracked or broken from shipping and handling.



- When inspecting the clutch, if the tabs are aligned in the box along the box sides they are more likely to get damaged in shipping and handling. If they are aligned in the corners of the box as shown below they are less likely to be damaged.



- **Clutches should always be stored flat on the shipping pallet and never on edge. Damage to the clutch may result from the on edge storage.**



Correct



Incorrect

If the exposed tabs are found to be broken/cracked

1. A parts claim should be filed with the PDC for a damaged component.

2. If this issue is encountered pre-installation only:

2.1. Take clear pictures of the broken tab as it was found when the packaging was opened.

2.2. Open an eService case. The case should include:

- A description of the problem as it is found. **Be sure to specify that the part was broken out of the box.**
 - Acceptable Description Example: "Vehicle was brought in for clutch replacement. New clutch was found to be damaged when box was opened."
 - Unacceptable Description Example: "Clutch broke"
- The pictures of the damage.

3. If the part is installed and then found to be bad:

- The warranty claim filed must be a parts warranty claim due to the labor involved with the job.
- An eService case is not required.

Internal comments (BO)

Jeff Grainger investigating. 12/4/18

Solution visibility

Dealer distribution

Function(s)/component(s) affected

Function affected Clutch

Function Group

Function Group 411 mechanical clutch

Customer effect

Main customer effect noise , visual appearance

Noise rattling noise , grinding , knock , rubbing noise

Road behaviour driveability

Visual appearance crack/fracture

Conditions

Vehicle operating mode on start-up , when driving

Frequency of occurrence of problem random

Other conditions after a workshop procedure on the vehicle

Administration

Author UT9268H

Dealer ID UT9268H

Last modified by RU4469V

Creation date 15-11-2018 20:11

Date of last update 23-05-2019 21:05

Review date 22-07-2019 00:07

Status Published

NA_Reviewer ut9268h

NA_Author_Group GTT
