

**** SOLUTION ****

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

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

Volvo Model	VNL , VNM , VNR , VNX , VAH , VHD
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Emission Standard

Emission Standard	US17 , US17+OBD16 , US17+OBD18
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Engine family

Engine family	11L Engine , 13L Engine , MP7 , MP8
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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
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**** 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:
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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.

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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
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Function Group

Function Group	411 mechanical clutch
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Customer effect

Main customer effect	noise , visual appearance
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Noise	rattling noise , grinding , knock , rubbing noise
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Road behaviour	driveability
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Visual appearance	crack/fracture
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Conditions

Vehicle operating mode	on start-up , when driving
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Frequency of occurrence of problem	random
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Other conditions	after a workshop procedure on the vehicle
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Administration

Author	UT9268H
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Dealer ID	UT9268H
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NA_Reviewer	ut9268h
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NA_Author_Group	GTT
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