

**** SOLUTION ****

Title	Automated Manual Transmission (AMT) Oil Filter Cap Leak After Service
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Mack Models

Mack Model	MRU - TerraPro , TE - TerraPro , AN - Anthem , CHU - Pinnacle, Axle back , CXU - Pinnacle, Axle front , GR - Granite , GU - Granite , PI - Pinnacle , TD - Titan
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Volvo Models

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

Emission Standard	US04 , US07 , US10 , US10+OBD13 , US14+OBD13 , US14+OBD15 , US14+OBD16 , US17 , US17+OBD16 , US17+OBD18 , US17+OBD19
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Engine family

Engine family	11L Engine , 13L Engine , 16L Engine , MP7 , MP8 , MP10
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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**

The AMT gearbox oil filter housing has been found to develop debris buildup or corrosion under the filter cover flange on the lead in chamfer to the o-ring sealing surface.

Failure to inspect and properly clean this area during an oil and filter change can lead to a sealing ring failure during installation of the cap that may not be found during the oil change. The subsequent oil leak can lead to catastrophic gearbox failure due to loss of oil if not detected and corrected.

Solution	Click here for more information about this issue.
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Solution visibility	Dealer distribution
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Function(s)/component(s) affected

Function affected	Transmission Oil Filter and Housing
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Function Group

Function Group	222 oil filter , 431 gearbox, manual
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Customer effect

Main customer effect	noise , fluid , road behaviour , efficiency/abnormal behavior , loss of drive
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Noise grinding , whine

Fluid problem leak

Fluid implicated Transmission Oil

Visual appearance leaking

Conditions

Other conditions after a workshop procedure on the vehicle

Administration

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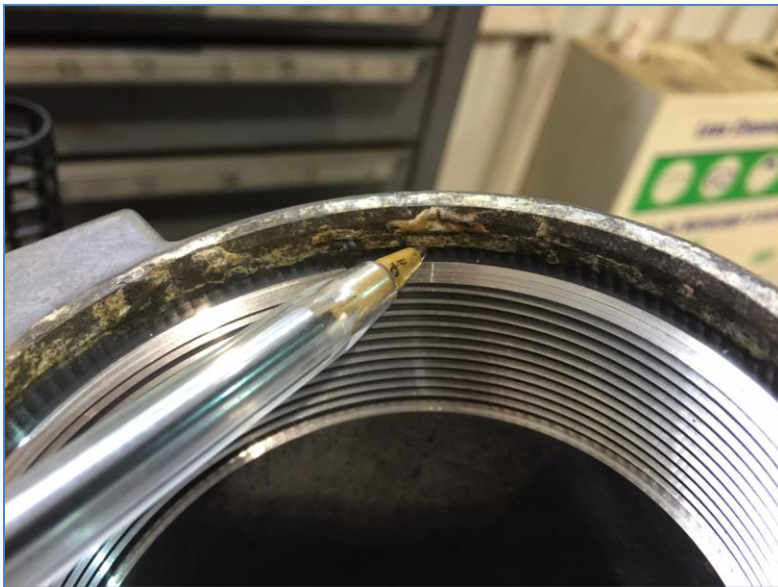
NA_Reviewer ut9268h

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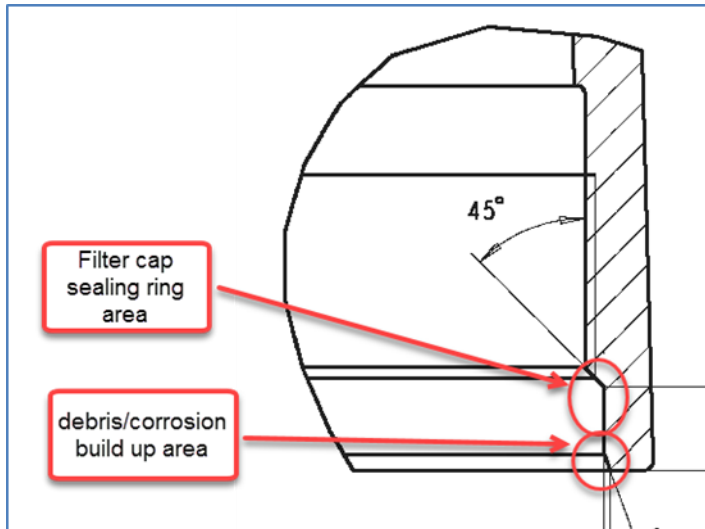
AMT oil filter housing corrosion

The AMT gearbox oil filter housing has been found to develop debris buildup or corrosion on the filter cover flange.

Failure to inspect and properly clean this area during a filter change can lead to a sealing ring failure during installation of the cap that may not be found during the oil change. The subsequent oil leak can lead to catastrophic gearbox failure due to loss of oil if not detected and corrected.



If you detect corrosion on the location shown above do not attempt to clean or reuse this housing. The corrosion is harder than the aluminum. This housing must be replaced.



Inspection and cleaning of the sealing surface for the cap o-ring is important to avoid this damage. When cleaning is required DO NOT use power tools or grinders to clean the sealing area as this can damage the housing beyond repair. Gently scrape by hand or use abrasive paper to clean the area. If the area cannot be reliably cleaned or there is damage to the sealing surface for the o-ring, the housing must be replaced.



Filter housings that show normal dirt build up (left image) can be cleaned with a Scotchbrite pad or equal. Some residual staining of the aluminum housing (right image) may still be present after cleaning. Clean the threads and sealing surfaces before reassembly. Apply a small amount of silicone grease that meets the specification below on the o-ring, filter housing sealing area and the cap flange below the o-ring prior to assembly to help seal out moisture and dirt. There must be enough grease present to allow squeeze-out under the flange so the dirt and moisture is sealed out of the area of concern. Clean the filter cap of any excess grease squeeze-out after assembly to prevent giving false impression of a leak.



Silicone grease

Base	Silicone
Consistency	NLGI 2
Thickener	Lithium soap
Temperature range	-70°C to +160°C

Approved cleaning pad red or green Scotchbrite pad or equal.

