

**** SOLUTION ****

Title	Volvo Chassis - Equipped With An Automated Manual Transmission Model D or F (I-Shift, AMT-D, AMT-F) - Transmission Oil Leakage From Transmission Input Shaft Seal Or Output Shaft Seal - US10 And Newer Emissions, Common Model Years 2010 And Newer
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Volvo Models

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

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

Engine family	11L Engine , 13L Engine , 16L Engine
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Transmission

Transmission	AMT-D , AMT-F
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**** SOLUTION ******Cause**

Accumulation of debris in the left side vent ports of the transmission main case (corrosion, road salt, dirt, etc) may result in oil leaks present at the transmission input and output shaft seals.

The vent ports allow air exhausted from the shift solenoids and pistons to exit the main case. It also allows for equalization of internal and external pressures, as heat generated from operation will cause pressure in the case to increase. **For the AMT-F this is the only vent for the TECU and gearcase.**

Blockage of these ports allows pressure to build to a point that it forces oil past the input and output shaft seals. In extreme cases, the pressure buildup can be high enough that operation can be affected. Excessive internal pressure caused by blocked vents may result in slow or sluggish gear shifts.

Solution**When diagnosing and repairing a shaft seal leak:**

1. Check the vent ports on the upper left side of the the main gearbox housing for any sort of blockage or obstruction.



Clogged vent ports

2. Clean out any debris that is observed during the inspection.
3. Check the transmission oil level in the gearbox.
 - **If the lube level is excessively low:** Proceed to the next section.
 - **If the lube level is at an acceptable level:** Fill the transmission oil to the correct level and check operation.

For excessively low transmission oil levels, or customer report of noise from the transmission:

1. The transmission will need to be inspected for internal damage. Removal may be required for proper inspection.

NA_Sister solutions	K21250579
Solution visibility	Dealer distribution
Function(s)/component(s) affected	
Function affected	Input Shaft , Output Shaft , Lubrication
Function Group	
Function Group	43 gearbox
Customer effect	
Main customer effect	fluid
Noise	whine
Fluid problem	leak , level incorrect
Fluid implicated	Transmission Oil
Visual appearance	leaking
Conditions	
Vehicle operating mode	when driving
Frequency of occurrence of problem	random
Location of problem	underneath cab

Administration

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