Solution K39135131
Friday, October 4, 2019 4:25:44 PM CEST

** SOLUTION **

Title	Diagnostic Trouble Code (DTC) P215A-64, Fault Code SPN 84 FMI 19; Speedometer Drop-Out, Speedometer Inoperative

Mack Models

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

Volvo Models

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

Emission Standard

Emission Standard	US07 , US10 , US10+OBD13 , US14+OBD13 , US14+OBD15 , US14+OBD16 , US 17+OBD16 , US17+OBD18 , US17+OBD19

** SOLUTION **

Cause

Vehicles may experience an inoperative speedometer, or a speedometer that jumps or drops out. It has been determined that this condition may be caused by a missing or dislodged output shaft bearing snap ring, which results in a damaged transmission speed sensor.

Solution

Follow instructions for R&R the output shaft seal, 4349-03-02-03 Sealing Ring, Rear Output Shaft, Replacement. Reposition the output shaft bearing forward in the auxiliary housing. If the snap ring is still there but has come out of the groove you will need to inspect for damage to the groove, if ok, re-install the snap ring and insure it is fully seated in the groove. If it is missing IMPACT shows 4 different thickness rings you will need to get. The correct thickness snap ring is the one that provides the tightest fit for the bearing.

- 1652802, THK 3.70
- 1652803, THK 3.80
- 1652804, THK 3.90
- 914556, THK 4.00

You need to remove the companion flange and inspect for a missing or dislodged output shaft bearing snap ring. If the snap ring is missing there are 4 different thickness snap rings available. You will need to get them all and use trial and error method to find the one that fits the tightest while fully seated. If the snap ring is still there but has come out of the groove you will need to reposition the shaft/bearing forward in the transmission, inspect for damage to the groove, if ok, re-install the snap ring and insure it is fully seated in the groove.

Remove the companion flange and seal and inspect for the presence of the output shaft support bearing snap ring. Reposition the shaft/bearing forward in the trans. inspect the snap ring groove. If the snap ring is there but has come out of the groove, if it is not damaged it can be reinstalled. If it is not there IMPACT shows 4 different thickness rings you will need to get. The correct thickness snap ring is the one that provides the tightest fit for the bearing.

During replacement of the sensor for SPN 84 FMI 19, if the technician finds the sensor damaged in this manner (see below) the snap ring for the tail shaft bearing is missing or not seated. This repair can be done in the field.

- There are 4 different thickness snap rings:
  - 1652802, THK 3.70
  - 1652803, THK 3.80
  - 1652804, THK 3.90
  - 914556, THK 4.00

- Follow instructions for R&R the output shaft seal, 4349-03-02-03 Sealing Ring, Rear Output Shaft, Replacement.
- Reposition the tail shaft bearing forward in the auxiliary housing.
- To find the correct size snap ring start with the thickest and use the largest one that fully seats in the groove.

- Reassemble

Solution visibility	Dealer distribution

Function(s)/component(s) affected

Function affected	dashboard/information display

Function Group

Function Group	383 speedometer; trip meter; hour counter; clock , 4 power transmission

Fault Codes And Error Codes

US10 Fault Codes (SPN-FMI Format)	SPN 84 FMI 19
OBDII Diagnostic Trouble Codes (P, U, B Format)	P215A

Administration

Author	UT0846A

Dealer ID	UT0846A
Last modified by	RU4469V
Creation date	11-09-2019 20:09
Date of last update	23-09-2019 16:09
Status	Published

UNCONTROLLED COPY. Printed document is for temporary use only and should not be retained.