

Heavy Commercial Vehicles

Recipients of the bulletin	Service Manager	Warranty Manager	Spare Parts Manager	Head Technician	Service Advisor	BMIS
	✓	✓	✓	✓	✓	✓

Subject	Front Area Oil Leak Check on Ecotorq 16S AMT Transmissions
Model	GEN 1.5 and GEN 2 Vehicles
Summary	Inspection and part replacements to be performed if oil leakage is detected in the front section of the transmission.

Labor;

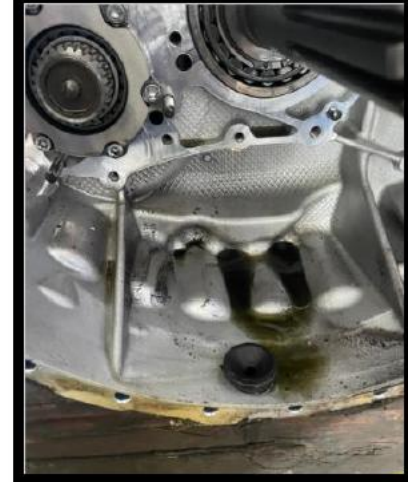
Labor Code	Labor Name	Time (hours)
F4V48 7D289	Front plate R/I	0,25
F4V48 7K481	(A/T) Transmission R/I (Intarder Coolant Hose & Air Lines & Cardan Shaft Detach and Wiring Disconnection Included.)	3,5
F2V86 CABTILT	Cab Tilting	0,1
F4V48 7M168	Conact R/I	0,17
F4V48 7C081	Input shaft seal leak visual control	0,17
F4V48 7J226	SCU air ports visual control	0,25
F4V48 7Z369	SCU R/I	0,5
F4V48 7Z369C	SCU clean	0,25
F4V48 7D289C	Front plate clean	0,25
F4V48 7P307	LSB Piston R/I	0,17
F4V48 7550C	Clutch Discs visual control	0,25
Total		5,86

Required Parts (In case of need);

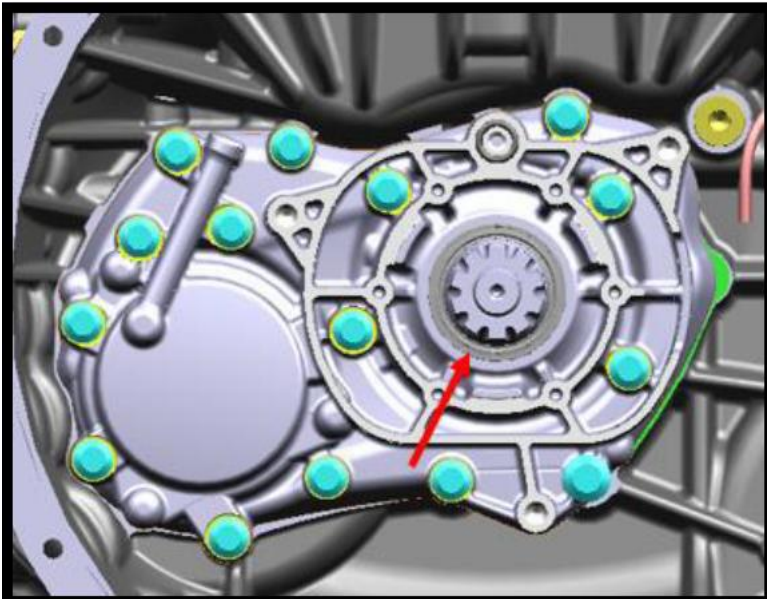
Part Number	Part Name	Qty
LC46-7P303-A*	LSB Piston Seal	1 unit, In case of oil leak detection
LC46-7P307-A*	LSB Piston	1 unit, In case of oil leak detection
PC46-7D289-A*	Front Area Cover Kit	1 unit, for cases where the transmission number starts with LC46-7K481-***.
SC46-7D289-A*	Front Area Cover Kit	1 unit. In cases where the transmission number starts with SC46-7K481-***.
LC46-7Z004-A*	Front Cover Gasket	1 unit, In case of oil leak detection

Service Application;

- The transmission must be removed from the vehicle, and the color of the transmission fluid should be checked.
- If the color of the leaking oil is consistent with transmission oil (**turquoise in new vehicles, dark green in vehicles with higher mileage**), the following possible leak locations should be checked.

**Potential areas for monitoring leakage activity;****a-) Input Shaft Seal Area**

If there is a leakage between the shaft and the seal lip that is different from the required oil film appearance and continues downwards, only the seal can be replaced. A visual of the area where the oil leakage occurs must be included in the work order to be opened.



**Regardless of whether any problems are detected in the felt area, it is necessary to proceed to step "b" of the inspection process.*

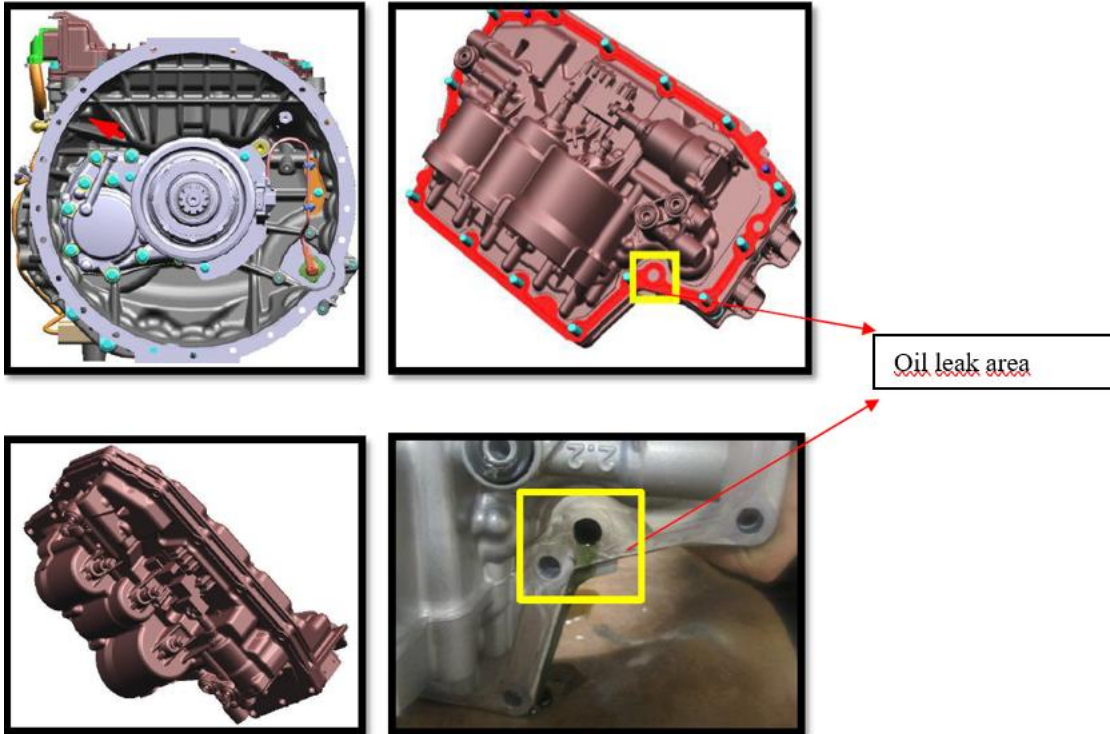
b-) Transmission Control Unit Air Exhaust Duct Area

If there is some oil leakage from the transmission control unit air exhaust duct, the oil leak may be arising from the transmission control unit. In this case, the transmission control unit should be removed and the oil drained from the unit.



Steps for Draining Oil from the Transmission Control Unit:

- Position the transmission control unit so that it drains the oil from the air duct. Continue this process until all the oil from the transmission control unit has been completely drained into a clean case.
- Record how much oil has been drained.



- After the oil draining process is complete, observe the oil in the case, check for the presence of any other liquid such as water, and attach the relevant photograph to the work order.

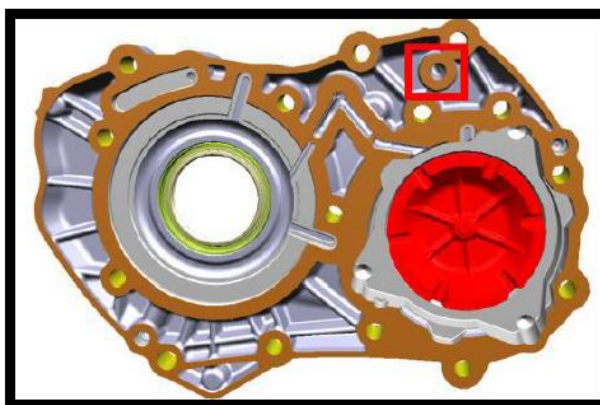
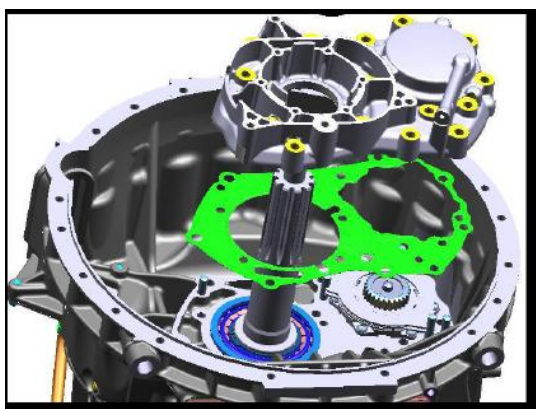
**After cleaning the Transmission Control Unit (TCU), regardless of whether any problems are detected, you must proceed to step "c" of the inspection process.*

c-) Front Cover Area;

The front cover of the transmission must be removed from the transmission. The auxiliary shaft brake piston must be removed from the front cover, and the presence of oil in the area under the piston must be checked.

- If there is no oil; the area under the piston, the air channels of the front plate (front cover) and the air channels of the transmission housing should be cleaned and reused.

- If there is oil; the amount of oil should be photographed, the health of the piston seal should be checked, and the findings should be added to the work order.



**According to observations, if the layshaft (auxiliary shaft) brake piston and seal are heavily lubricated, it is recommended to replace the following parts.*



Company-Specific

- LC46-7P303-A – Replace the auxiliary shaft brake piston seal if it is lubricated and deformed as described above.
- PC46-7D289-A or SC46-7D289-A – Replace the entire front cover kit if there is wear.



Summary of the Control-Decision Matrix:

Control Step	Observation/Condition	IF Yes	IF No
1. Oil Color Check	Is the oil color compatible with the transmission fluid? (New: Turquoise / Used: Dark Green)	Proceed to controlling the leakage area. (Steps a, b, and c)	The process is stopped. Find the source of the oil's discoloration.
2. Input Shaft Felt Area (a)	Is there downward oil leakage between the seal lip and the shaft?	Replace the input shaft seal. Proceed to the next checkpoint.(b)	Proceed to the next checkpoint.(b)
3. Transmission Control Unit Air Exhaust Duct (b)	Is there oil leakage from the Transmission Control Unit's air exhaust duct?	The Transmission Control Unit is removed, the oil is drained, and the oil level is observed. Proceed to the front cover inspection step. (c)	Proceed to the front cover inspection step.(c)
4. Front Cover(c)	Is the auxiliary shaft brake piston and its rear end heavily lubricated with oil?	Felt replacement is recommended. Felt deformation must be documented visually. (LC46-7P303-A)	The piston and seal are checked. The air ducts are thoroughly cleaned before reuse.
5. Front Cover Kit	Is there any wear on the front cover kit?	The PC46-7D289-A or SC46-7D289-A complete kit must be replaced.	No replacement is needed; it can be cleaned and reused.

Best regards,
Ford Trucks Service Engineering