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Roadranger
SUPPORT

Subject: Heat Exchanger Failure Causing Transmission Lube Contamination / Flush Procedure

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Issue Description:

Heat exchanger failure causes engine coolant to enter the transmission case and mix with the lubricant. A flush procedure is required to clean contamination from the transmission as a part of the heat exchanger replacement.

Containment/Corrective Action:

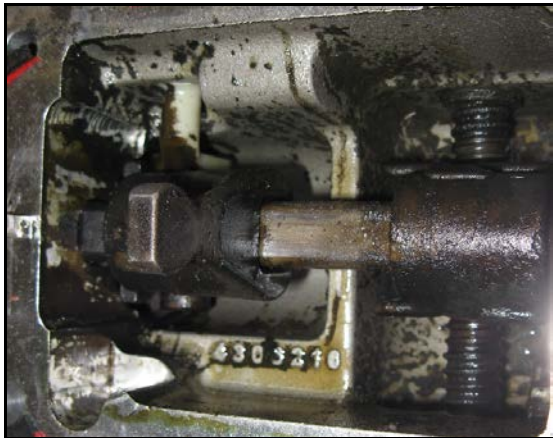
1. Drain contaminated lubricant from the transmission.
2. On units with externally mounted heat exchangers, disconnect both oil hoses at the heat exchanger and connect them using an SAE 37° flare union fitting with 7/8"-14 threads. (FR Series transmissions with internal coolers use either 3/4"-16 UNF-2B or 1/2" -14 NPTF at the coolant hose to transmission case fittings.)
3. Fill the transmission with Dexron automatic transmission fluid.
4. Disconnect the driveshaft at the output yoke end of the transmission.
5. Block the vehicle tires and set air brakes to ensure the vehicle does not move.
6. Place transmission in the appropriate gear per reference table below. (On automated models, place the transmission in Manual mode and use the up shift button to select the appropriate gear.)

Transmission Model	Gear
10 / 15-Speed	5 th gear
8LL / 9 / 11 / 13-Speed	4 th gear
18-Speed	9 th gear

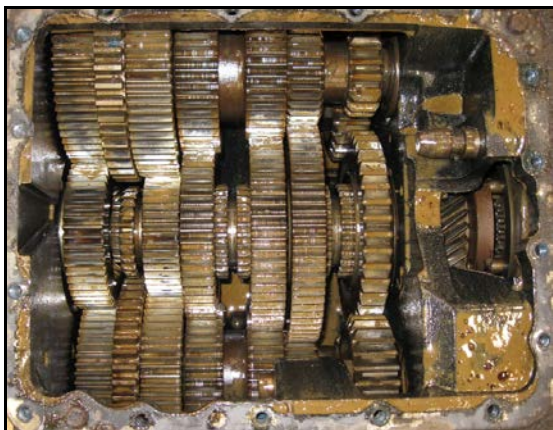
7. Operate the engine at 1800 RPMs for 30 minutes or until the transmission reaches normal operating temperature.
8. Remove the transmission drain plug and allow ATF to completely drain.

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9. Remove the bottom 8-bolt PTO cover to inspect transmission for damaged gearing and proper flush of contamination. (Remove the oil cooler cover assembly on FR-Series transmissions with internal coolers. Replace cooler before reinstalling cover assembly.)
10. Reinstall the PTO cover using a new gasket; fill the transmission with approved synthetic CD-50 lube.
11. The XY shifter on automated transmissions must be removed and inspected for sludge build-up and corrosion damage after the flush procedure has been completed. Replace complete assembly as needed.
12. Refer to engine OEM for service procedure if engine coolant system is contaminated with transmission lubricant.
13. Replace the heat exchanger, reconnect oil hoses and driveline. Test drive vehicle and inspect for transmission lube or engine coolant leaks.



Inspect XY shifter for sludge build up and corrosion around the ballscrew to motor connection.



Contamination caused by engine coolant entering the transmission.

Affected Models/Population:

All Eaton Fuller heavy-duty transmissions with an Eaton installed engine coolant heat exchanger

Warranty Information:**Warranty Parts:**

- Appropriate cooler, ATF and CD50 (at or below warranty maximum pricing)

Warranty Labor:

- Applicable OEM SRT for Heat Exchange R&R, PTO Cover R&R, Trans Flush
- Applicable OEM SRT for Engine Flush if required and Heat Exchanger that failed was an Eaton Heat Exchanger
- Applicable OEM SRT for XY Shifter if an Automated Unit

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