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Case Number: S2221000003 REV. A

Release Date: September 2023

Symptom/Vehicle Issue: 8-Speed Transmission, Additional Transmission Fluid Leak Inspection/Repair Guidelines.

Discussion: Reports are being received of various transmission fluid leaks that are being misdiagnosed as leaking transmission pans/pan gaskets. Below are some examples of potential leak points that can be easily mistaken for a transmission pan leak, along with guidelines on how to properly diagnose and repair them.

Leak Area #1: The first potential leak point is at the transmission case near the electrical connector. Please see (Figure 1).

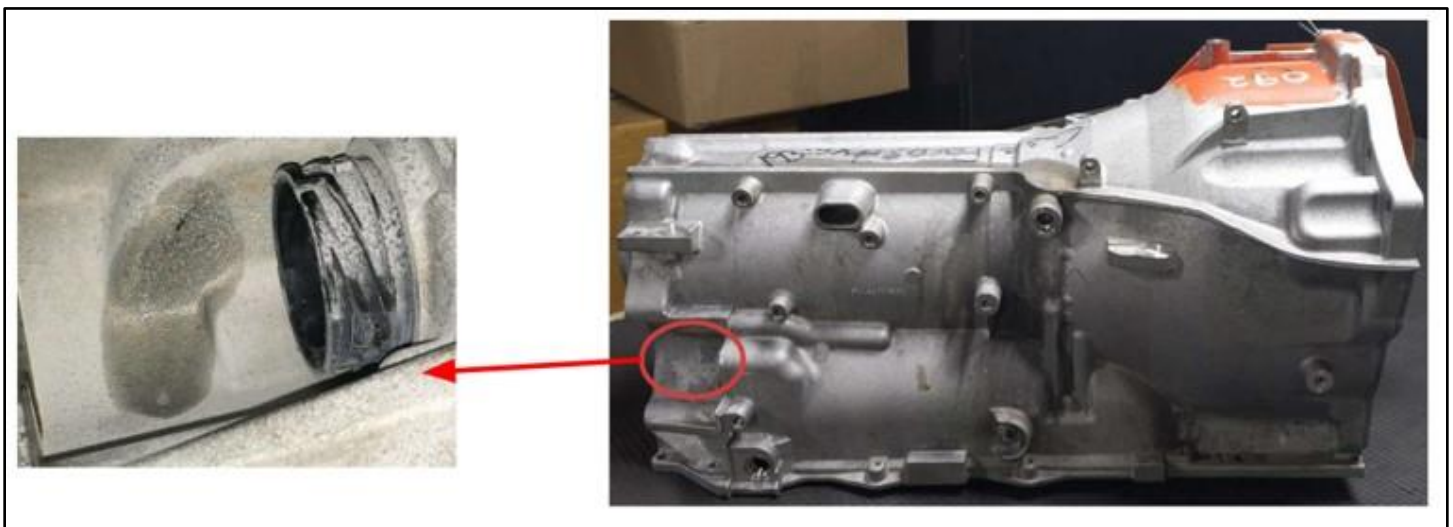


Figure 1.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

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Leak Area #2: The second potential leak point is from either the torque converter area or the lower bell housing area. Please see (Figure 2).

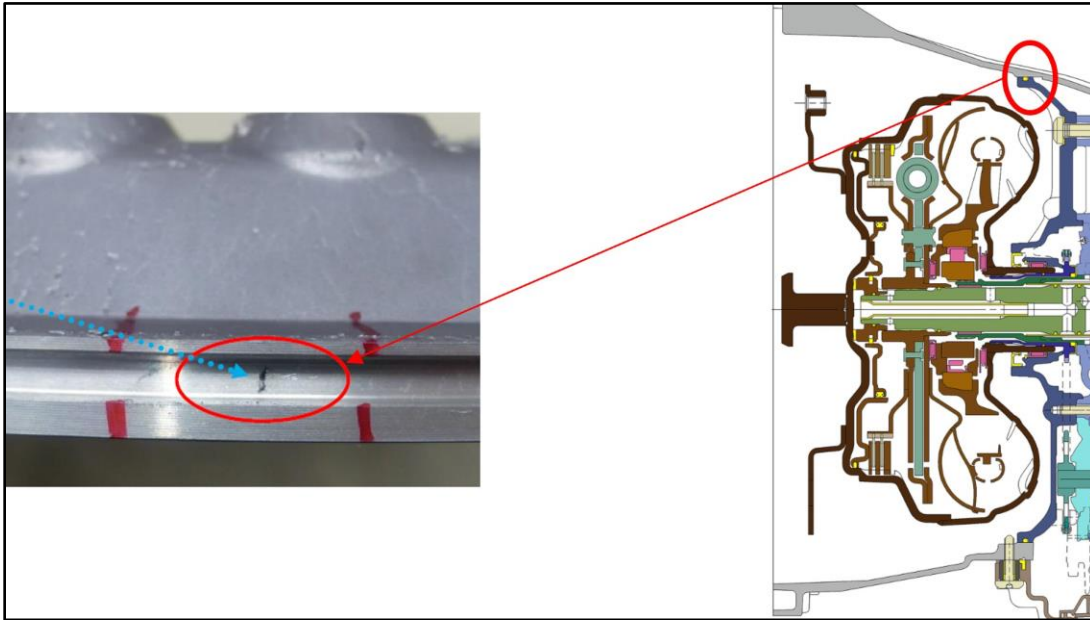


Figure 2.

Leak Area #3: The last potential leak point is from the Transmission Oil Heater (TOH) boss. Please see (Figure 3).

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Figure 3.

These potential leak points can leak fluid down onto the transmission/transmission pan sealing flange and be easily mistaken for a pan and/or pan gasket leak. To properly diagnose and repair a fluid leak in one of these areas, please follow the diagnosis/repair steps below.

Diagnosis/Repair:

1. Using a UV Blacklight, inspect all potential leak points for signs of fluid leakage. The fluid used in these transmissions fluoresces under a blacklight. Please see ([Figure 4](#)).

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Figure 4.

2. Thoroughly clean the leak area using a suitable brake parts cleaner and allow the area to completely dry before continuing.
3. Spray the entire suspect area using a suitable leak trace powder.
4. Start and run the vehicle safely on a hoist and attempt to duplicate the leak.
5. If the leak is not evident using the leak trace powder, use the UV Blacklight to inspect for the leak. If the leak still cannot be duplicated take the vehicle on a suitable road test, bringing the transmission up to operating temperature and recheck for the leak using the UV Blacklight.
6. Was the leak found in one of the areas outlined in this document?
 - a. Yes>>> Replace the transmission assembly.
 - b. No>>> This document no longer applies. Diagnose the leak using normal published diagnostics and repair as necessary.

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