Service Bulletin

Bulletin No.: 22-NA-173
Date: August, 2022

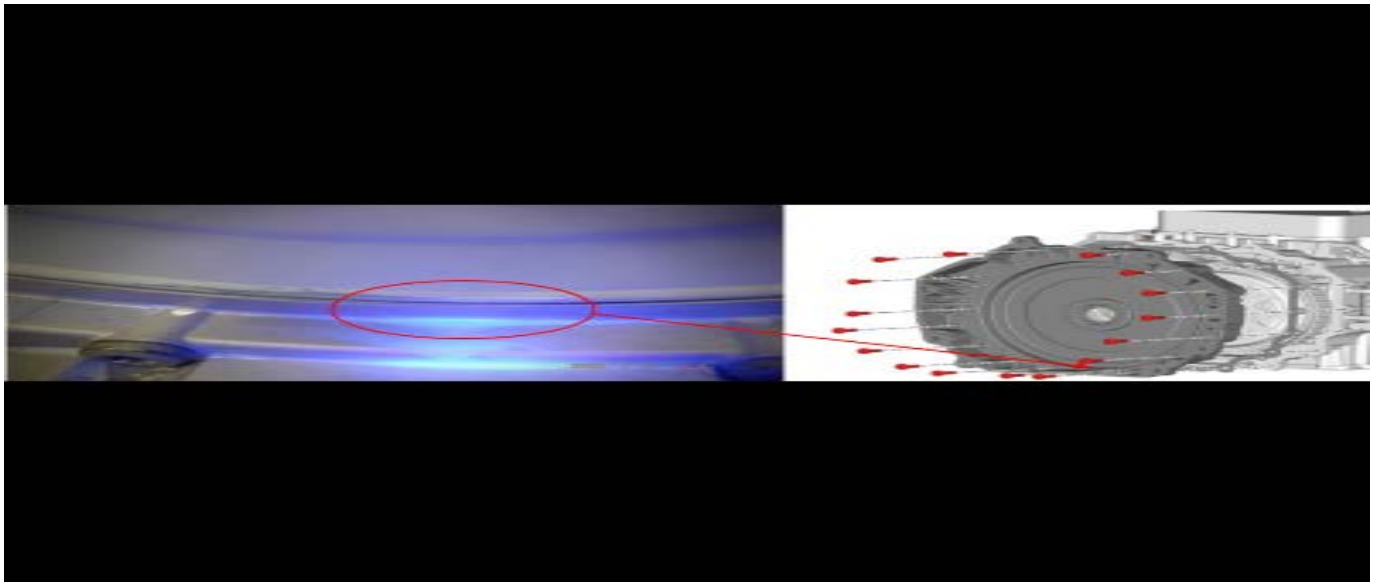
INFORMATION

Subject: Information on Transmission Fluid Leak

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Corvette	2020	2023	—	—	6.2L (RPO LT2)	8–Speed Automatic (RPO M1L)

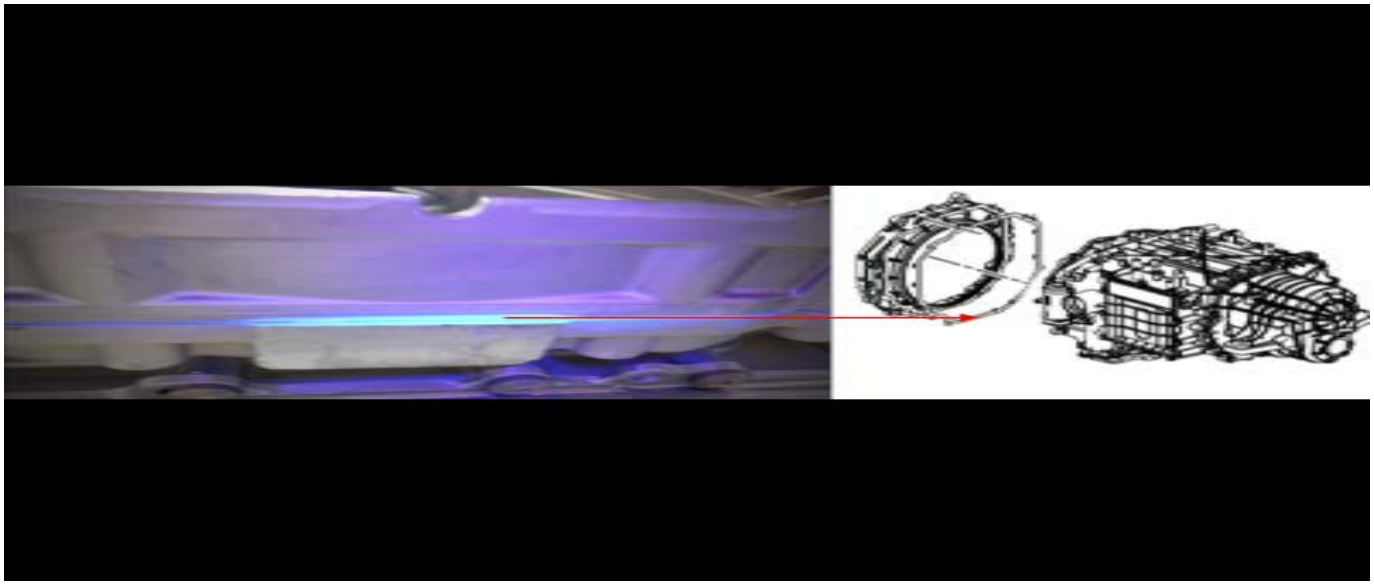
Involved Region or Country	North America, Europe, Middle East, Australia/New Zealand
Condition	Some customers may comment that transmission fluid can be seen under vehicle.
Information	The following photos are only for informational purposes and to help guide technicians to known areas of possible leaks. Testing in the photos used fluorescent dye to aid in better photography. These transmissions were scrapped after dye was added. At no time should a technician in the field add dye to the M1L transmission. Technicians should only follow the trace powder diagnosis procedure recommended in *Fluid Leak Diagnosis* in the Service Manual.

Examples of Transmission Leak Areas of Concern



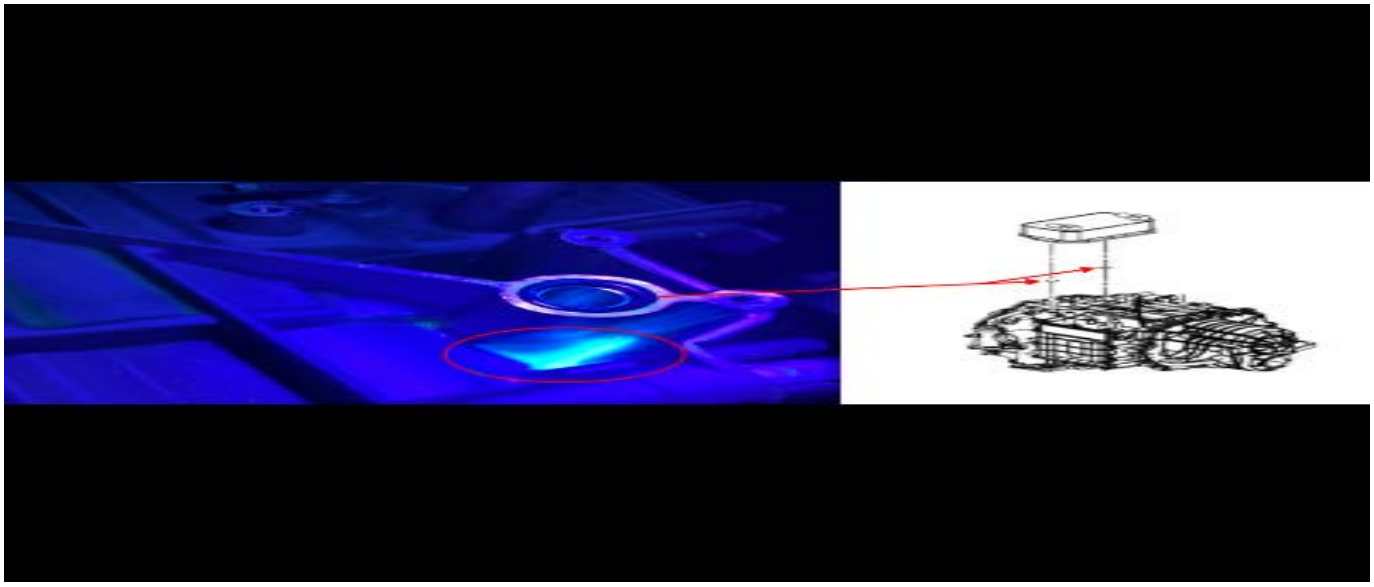
6142752

A leak between sealing plate and Bell Housing.



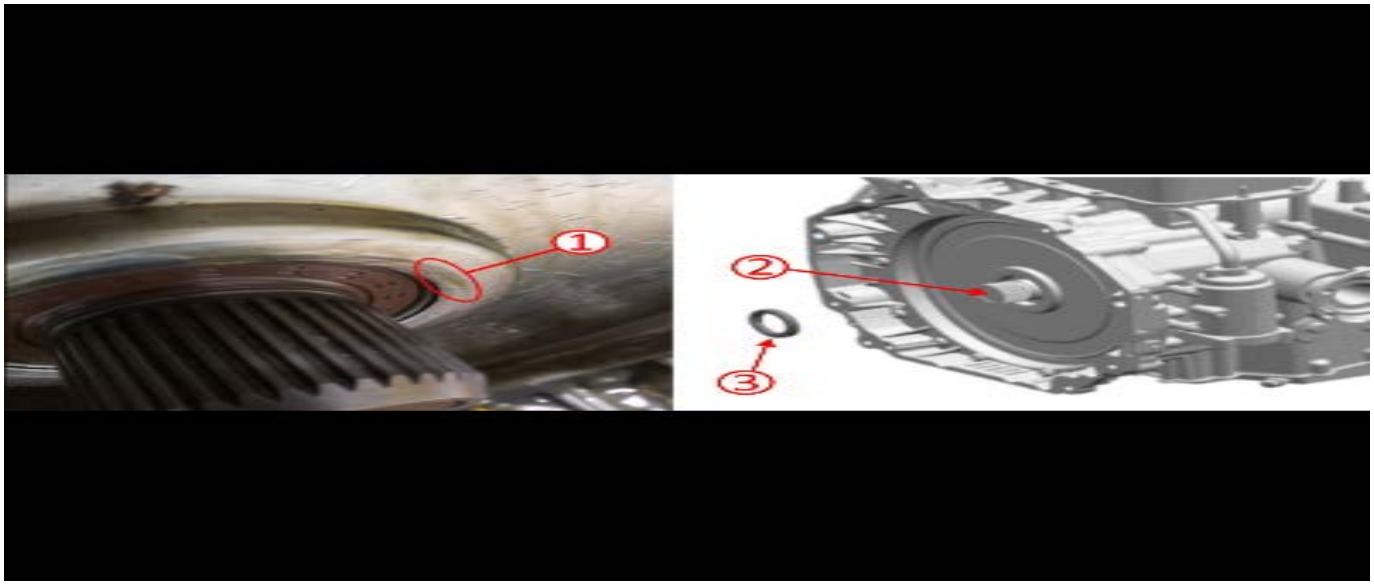
6142966

Leaks at the gasket area between the clutch and differential cover and the main case. There is a gasket in this area.



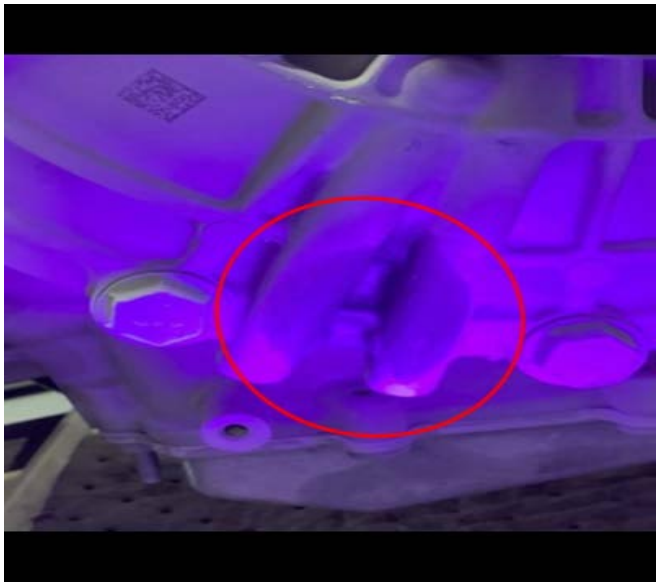
6142841

This is an area that is often mis-diagnosed as a transmission cooler issue. It was found that in most cases, leaks in this area are caused by transmission case porosity under the transmission cooler. Proper diagnosis in this area would be to inspect the cooler for any signs of physical damage. If no damage is found, carefully remove the cooler and inspect the two (14) O-rings for damage and proper sealing. The dye photo shows a puddle of oil just under the cooler sealing area in the pocket, the fluid is being pushed through the case due to material porosity. This concern will require transmission assembly replacement.



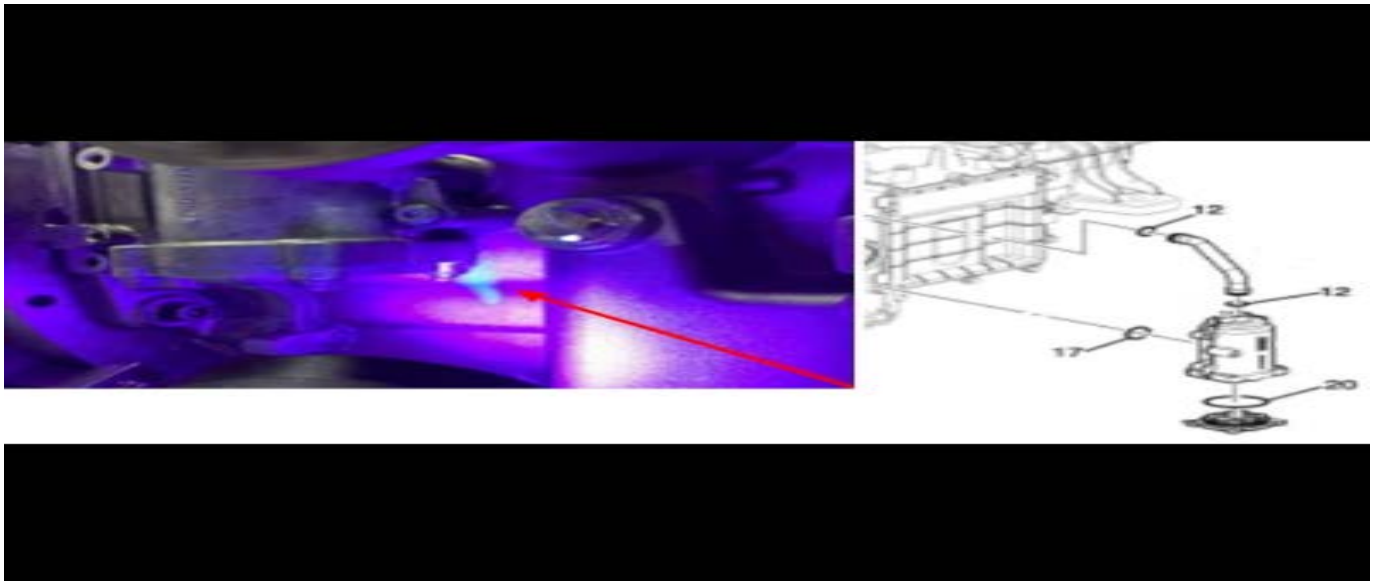
6142814

A small crack in the clutch cover area (1) of the input shaft seal can be mis-diagnosed as an input shaft seal leak (3). Additional cases have been verified at the input shaft end plug/seal (2), was damaged during transmission to engine mating.



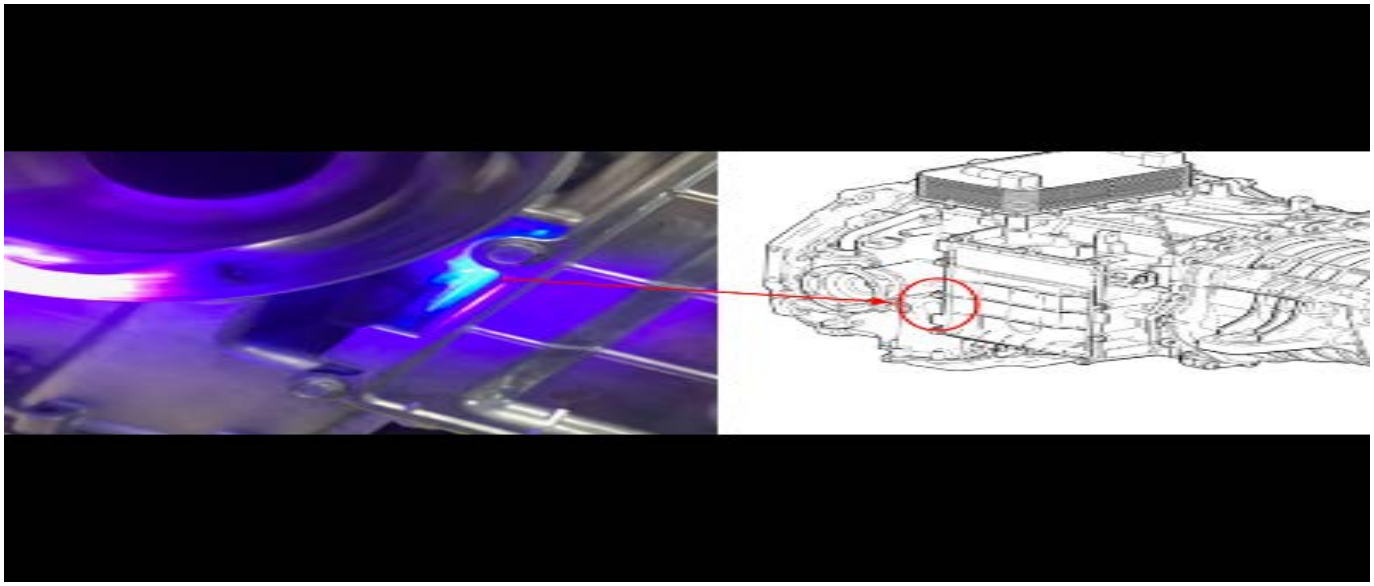
6142818

Porosity concerns with the differential cover. This area needs to be carefully powder tested to verify the leak is not associated with the cover seal (16) or the dog-bones and seals. Technicians have stated that they have found the cover double-gasketed when they confused the metal differential shims with what they thought were gaskets. All shims need to be re-installed to retain proper bearing load on differential. If porosity is found in the cover, the transmission will require replacement.



6142744

The auxiliary canister filter can create leaks in several areas. The most common area is cover seal (20), O-ring installation issues after filter replacement. Other areas of concern can be found at the are O-rings (12) and (17).



6142979

Transmission case porosity concerns have been found in the SAV cover area of the transmission. This is often the most misdiagnosed leak on this transmission. The fluid seeps through the case and runs down between the SAV cover and case to the pan rail, and often the transmission pan and gasket get replaced, then the SAV cover, and finally the transmission. Often these leaks will not develop by just allowing the engine to run. Usually, the vehicle will need to be lifted safely on a hoist with the wheels raised to allow the vehicle to run in gear. This action applies to most porosity leaks.

Version	1
Modified	Released August 24, 2022