



Service Bulletin

Bulletin No.: 15-00-89-004E

Date: September, 2022

INFORMATION

Subject: Information Regarding the Differences Between Fluid Leakage and Seepage

Models: 2023 and Prior GM Passenger Cars and Trucks

Attention: This bulletin also applies to any of the above models that may be Export from North America vehicles.

This bulletin has been revised to add the 2023 Model Year and the first Important statement. Please discard Corporate Bulletin Number 15-00-89-004D.

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

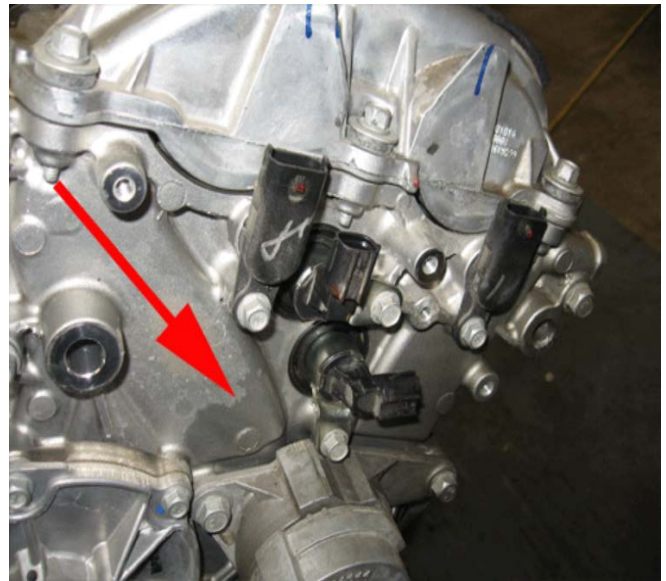
This bulletin is intended to help identify the differences between what is considered a fluid leak and what is considered seepage. Improper diagnosis may lead to unnecessary component replacement. Use the following information to determine if the condition is normal acceptable seepage or a defective component.

Seepage

Seepage is defined as oil, film, or dust accumulation on the exterior of the component. When fluid droplets appear hanging from a component or fluid that has dripped to another component, see the section titled "Leakage" below.

Important: Seepage is a normal condition and warranty does NOT cover the cost of repair attempts.

Examples:



4170711

The engine illustrated above shows residual oil staining from assembly. There are no drips or leak paths present.



4164326

You can see the darker area where fluid has attracted dirt. There are no droplets at the bottom of the seal area.



4164331

The housing illustrated above just has a light coating of dirt; there is no sign of fluid. So this would also be considered seepage. A very small amount of fluid coated the outer surface of the housing and dirt was attracted to the moisture.

Seepage is Considered a Normal Condition

Any time a seal is used to hold back fluid on a moving component, some fluid will get past the seal over time. Even seals on lines that aren't moving can seep.

Vehicles are being subjected to large variations in temperature and vibrations that over time, may allow a small amount of fluid to be released.

Many new seals have a coating of grease to aid in installation. Once the seal is heated up during use, the grease can melt and leak out. Dirt will be attracted to the melted grease and it may appear that the seal has failed, but this is normal operation.

All lip seals that run directly on output shafts, axle shafts, transmission yokes, etc. have a grease pack between the sealing lip and the dust lip. This grease pack, over time will weep some oily residue past the dust lip. The dust lip is there to keep dust and grime away from the sealing lip, not to keep oil in. This is also considered normal operation.

If these seals are replaced, the new one will probably also seep over time as well.



4164328

There is slight staining around the mount, but there are no droplets formed and fluid has not dripped onto other components.

Leakage

Leakage is defined as fluid droplets hanging from a component or fluid that has dripped to another component.

Examples:



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A droplet is formed on the end of the stud and the surrounding area is also covered with fluid.



4164336

This shock is also leaking. The surface of the shock housing is wet and droplets formed at the bottom and dripped onto the ground.



4164339

This is also a leak because there is a droplet formed on the bottom of the power steering line and fluid has dampened the drive axle.



4164341

This would also be considered a leak because fluid has coated the fitting and hose. Although there were no droplets hanging from the component, it's obvious that a reasonable volume of fluid has been lost and when we followed the line to its low point, we did find droplets there.

Once a leak is identified, determine the cause of the leak by performing the following steps:

1. Operate the vehicle until the engine reaches normal operating temperature.
2. Park the vehicle on a level surface, over a large sheet of paper or other clean surface.
3. Wait 15 minutes.
4. Inspect for drippings.

For more information on diagnosing oil leaks, refer to *Oil Leak Diagnosis* in SI.

