

Oil Leak Diagnosis and Repair

Service Category Engine/Hybrid System

Section Lubrication

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2000 - 2020	4Runner, 86, Avalon, Avalon HV, C-HR, Camry, Camry HV, Celica, Corolla, Corolla BR-Prod, Corolla Hatchback, Corolla HV, Echo, FJ Cruiser, Highlander, Highlander HV, iA, iM, Land Cruiser, Matrix, Mirai, MR2 Spyder, Prius, Prius C, Prius PHV, Prius Prime, Prius V, RAV4, RAV4 EV, RAV4 HV, Sequoia, Sienna, Solara, Supra, Tacoma, Tundra, Venza, Yaris, Yaris HB MEX-Prod, Yaris R, Yaris SD MEX-Prod, Yaris THAI-Prod	

Introduction

Vehicles may display evidence of a **fluid leak** or **fluid seep** from powertrain components. This bulletin explains how to determine the differences between a fluid leak versus a fluid seep. Cases that are determined to be a “leak” should be repaired accordingly and will be covered under warranty if applicable. Cases that are determined to be a “seep” should be documented on the repair order and inspected at the next service interval. Follow the Repair Information in this bulletin to determine if the concern in question is a fluid leak or fluid seep and review the Repair Procedure section to address the condition.

NOTE

This bulletin applies to ALL powertrain fluids excluding fuel and coolant.

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
N/A	Refer to Applicable Warranty Box Below	–	–	–	–

APPLICABLE WARRANTY

- **Warranty coverage is based on the failed component. Please refer to the Warranty Policy and Procedures Manual and the Powertrain Parts List for specific coverage.**
- **Warranty application is limited to occurrence of the specified condition described in this bulletin.**

Warranty Claim Submission: Warranty Policy 4.21

- ANY leak repair to be performed under warranty requires photo documentation of the active leak.
- This Documentation showing the cause of defect **MUST** be created prior to the start of the repair and attached to the warranty claim.
- Photos **MUST** be clear and provide perspective image(s) that identify the affected component(s) and close up image(s) that illustrate the defect or condition.
- For additional information regarding application and eligibility please reference Warranty Policy 4.21.

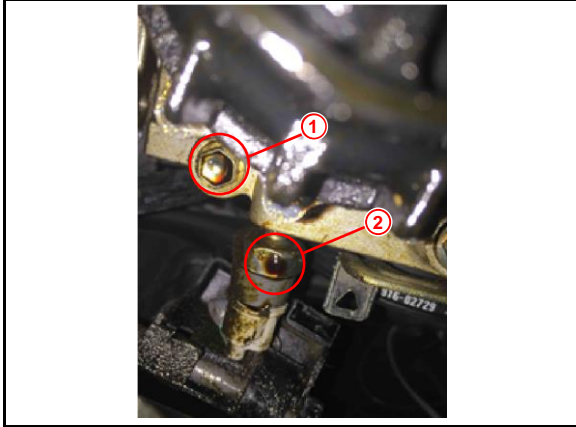
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Repair Information

Leak Definition

A leak is verified by the identification of pooling fluid with the formation of droplets and dripping. Below are examples determined to be a leak.

Figure 1. Oil Leak From Engine Oil Pressure Sensor



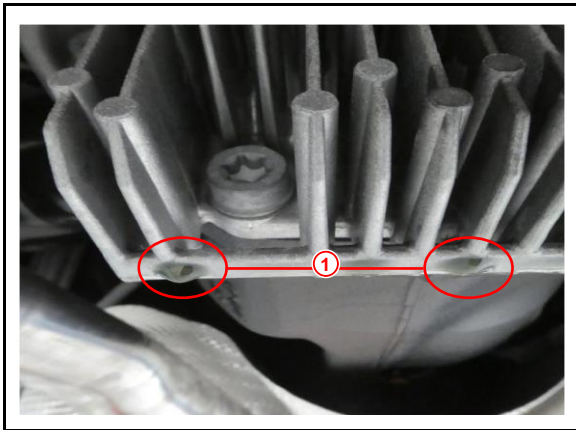
1	Oil Droplet Formed on Bolt Head
2	Oil Droplet Formed on Sensor

Figure 2. Oil Leak From Transmission Oil Pan



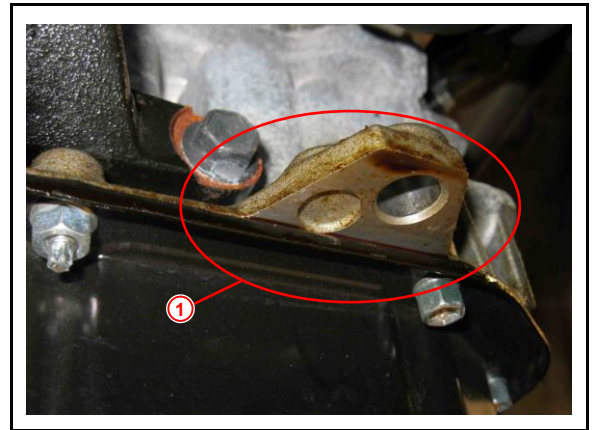
1	Oil Droplet Formed on Bolt Head
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Figure 3. Oil Leak From Differential



1	Oil Droplets Formed on Bottom of Differential Cover
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Figure 4. Oil Leak from Oil Pan



1	Oil Drops Forming at Mating Surface
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Oil Leak Diagnosis and Repair

Repair Information (continued)

Seep Definition

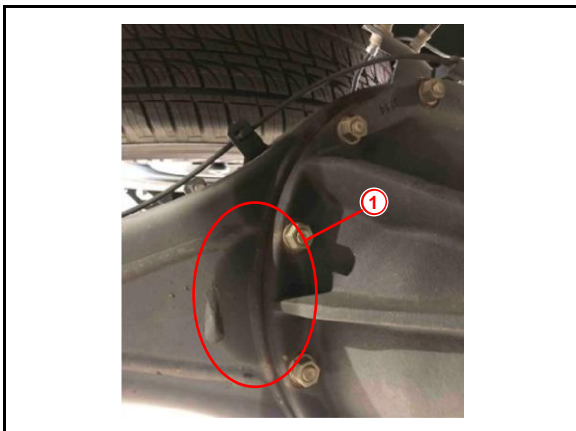
A seep is defined as a thin accumulation, film, or coating of oil on the exterior of a component. The area often has a darker or damp appearance compared to the rest of the part and may attract dust or dirt over time.

NOTE

Seepage is a normal condition seen at mechanical joints that does not require repair but should be noted on the repair order for future reference.

Below are examples determined to be seepage.

Figure 5. Oil Seep From Differential



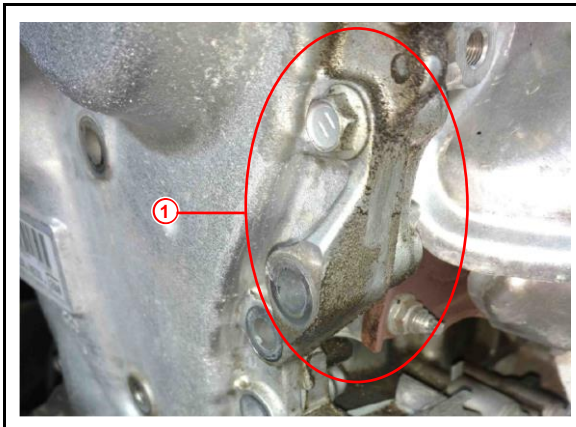
1 Darkened or Damp Appearance

Figure 6. Oil Seep From Engine Oil Pressure Sensor



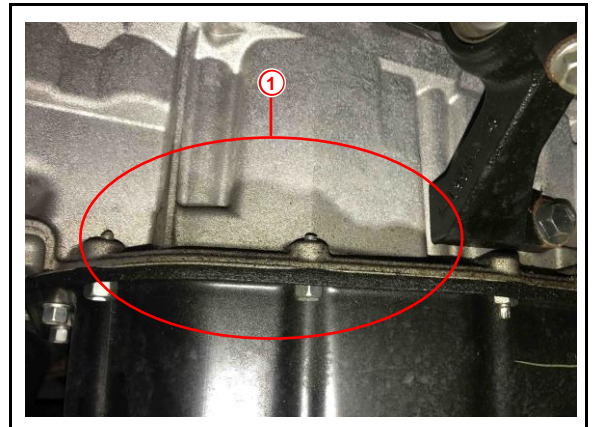
1 Darkened Area but not Wet or Dripping

Figure 7. Oil Seep From Timing Cover



1 Dark Area With Dirt Accumulation

Figure 8. Oil Seep From Oil Pan



1 Damp Appearance but not Wet or Dripping

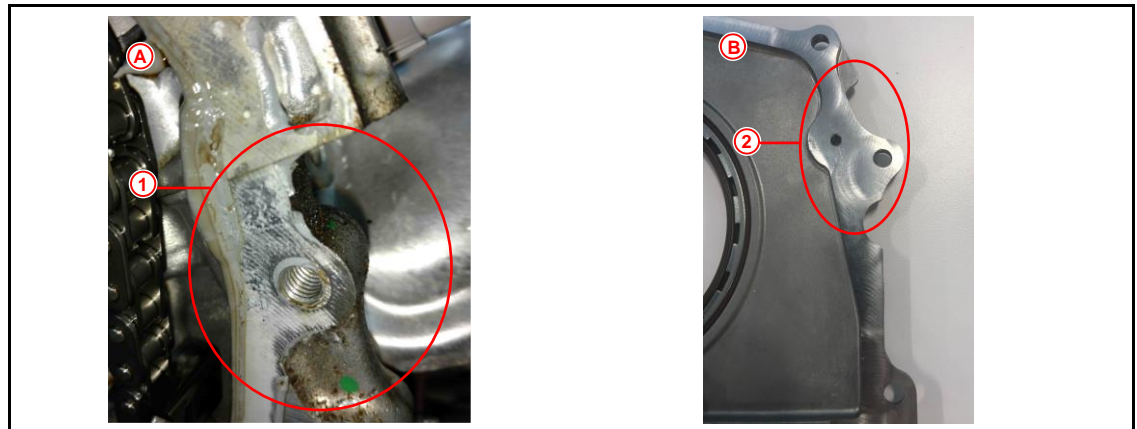
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Repair Procedure

If a repair is needed, reference the information below to ensure an adequate repair:

1. AFTER disassembly, clean, inspect and prepare each sealing surface BEFORE reassembly:
 - A. For Joints Sealed with Gaskets/ O-Rings/ Seals:
 - (1) Clean: Remove ANY gasket material stuck to each sealing surface.
 - (2) Inspect: Check the sealing area for ANY surface imperfections (pitting, grooves, gaps, etc.) and replace part if necessary.
 - (3) Prepare: Remove ALL oil residue and wipe each surface with the appropriate cleaner and allow to dry.
 - (4) Install a NEW gasket and reassemble components per the applicable repair manual.
 - B. For Seal Packing/ Form in place Gasket (FIPG) Sealed Joints:
 - (1) Clean: Remove ALL sealant from each surface
 - (2) Inspect: Check the sealing area for ANY surface imperfections (pitting, grooves, gaps, etc. replace part if necessary)
 - (3) Prepare: Remove ALL oil residue and wipe each surface with the appropriate cleaner and an oil-free cloth. Allow to dry BEFORE applying new seal packing.

Figure 9. Inappropriate vs. Appropriate Sealing Surface



A	Inappropriate Sealing Surface
1	Seal Packing and Oil Residue on the Sealing Surface

B	Appropriate Sealing Surface
2	Surface is Dry and Clear of Seal Packing and any Imperfections

- (4) Apply new seal packing to appropriate areas and reassemble components per the repair manual within **3 minutes** of applying seal packing.
 - (5) Allow at least **2 hours** AFTER installation BEFORE adding oil.
2. Confirm the repair is complete, test drive vehicle and make sure that there are no leaks from the repaired area.