

ATTENTION:

- GENERAL MANAGER
- PARTS MANAGER
- CLAIMS PERSONNEL
- SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: All Models Equipped with FA & FB Engines

NUMBER: 09-53-12R

SUBJECT: Judgment Standards for Water Pump Replacement

DATE: 09/12/12

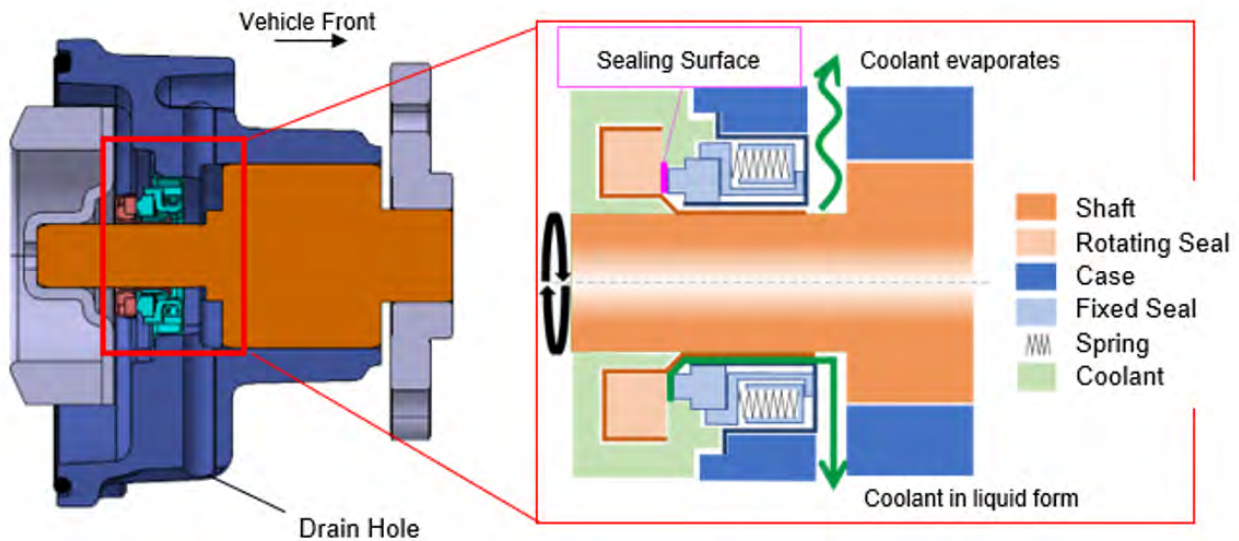
REVISED: 03/29/23

INTRODUCTION:

The purpose of this bulletin is to help clarify when a water pump replacement is necessary based only on its **exterior** appearance.

SERVICE PROCEDURE / INFORMATION:

The mechanical type coolant seal used for engine water pumps equipped for FA/FB type engines has a mechanical seal that allows a small amount of coolant seepage/leakage through the drain hole at the initial stage of vehicles usage (up to 1800 miles) until the mechanical seal is well broken-in. Cases when low mileage vehicles exhibit a small amount of liquid coolant or dried coolant stain/residue on or around the water pump area including exhaust parts, or undercover, it is not defect of the water pump. If it is the case, it is not necessary to replace the water pump.



Section View of Water Pump and Mechanical Seal

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

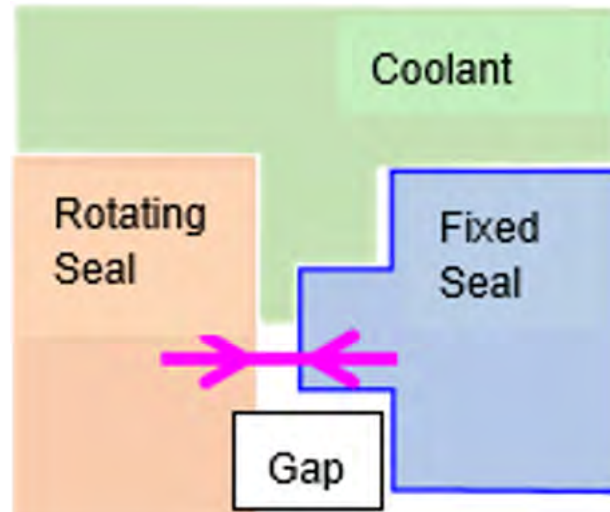
Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

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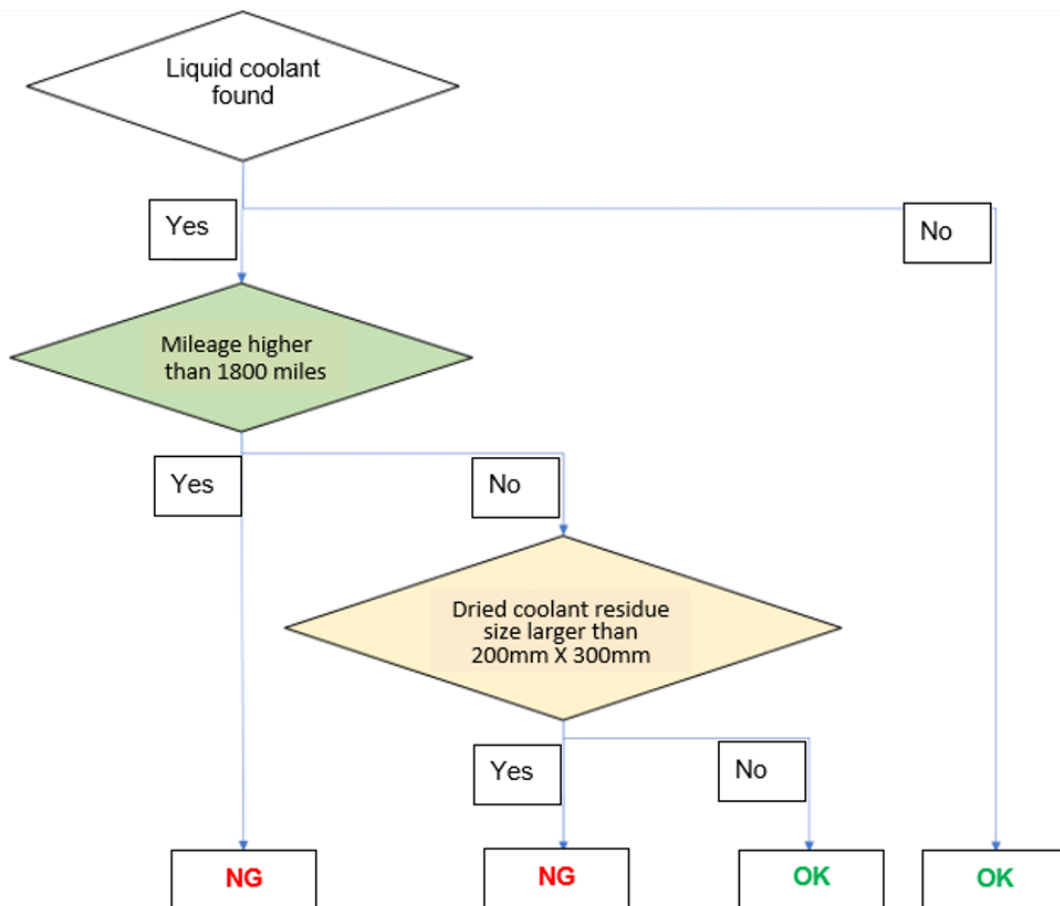
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The sealing surface between the Rotating Seal and the Fixed Seal has slight gap. The sealing surface is lubricated by coolant to avoid the possible surface wear.



During the vehicles initial state of usage (up to 1800 miles), the sealing surface is not broken-in yet, allowing a small amount of coolant to exit through the drain hole. This will reduce after the sealing surface is broken in. This is a normal characteristic of the water pump.

If liquid form coolant in still can be seen on vehicles with the mileage higher than 1800 miles, or the coolant leakage amount is a higher than normal amount (200mm X 300mm) with mileage less than 1800 miles, the water pump may need require replacement. See the inspection procedure outlined below to determine if water pump replacement is required.



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INSPECTION PROCEDURES WHEN COOLANT DETECTED IN THE WATER PUMP AREA IS IN LIQUID FORM:

The inspection procedures differ slightly depending on the engine type. Refer to the table below.

Checking Location	How to Access	Engine Type		
		1.6L NA 2.0L NA 2.5L NA	1.6L DIT 2.0L DIT	2.4L DIT
Under Water Pump	From under the vehicle (Remove undercover)	Yes*	-	Yes
	From the engine top (Use inspection mirror)	Yes*	Yes	-

NOTE*: Can be checked either way (from under the vehicle or from the engine top).

Example of Inspection Mirror:



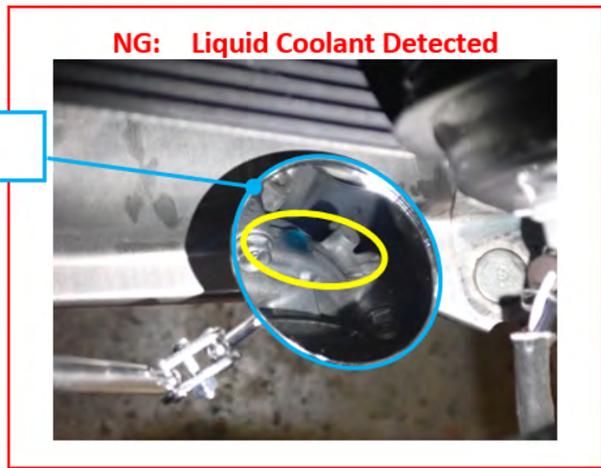
For Naturally Aspirated Engines Including:

- 1.6-liter, 2.0-liter NA 2.5-liter FB type engines.
- 2.0-liter and 2.4-liter FA type engines.

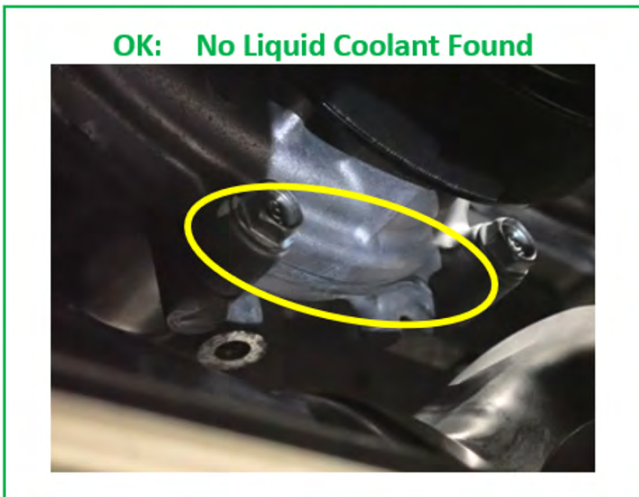
1: The water pump can be inspected front the top of the engine area with the aid of an inspection mirror. See the images below.



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2: The water pump can be inspected from under the vehicle with the lower panel removed.

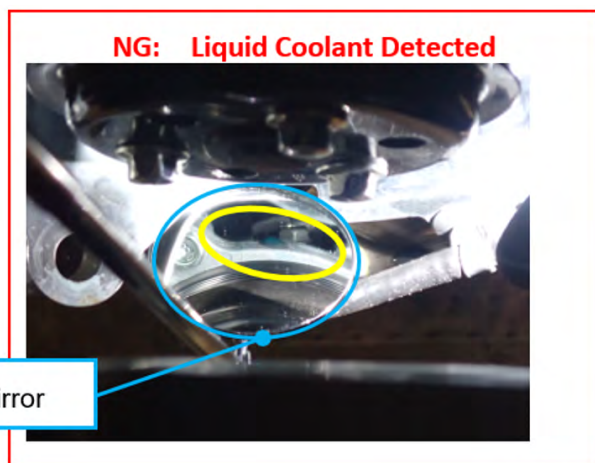
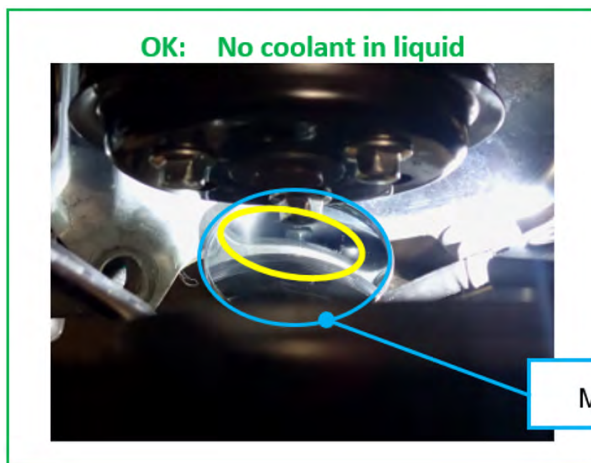


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For Direct Injected Turbo Engines Including:

- **1.6-liter FB type engines.**
- **2.0-liter FA type engines.**
- **2.4-liter FA type engines.**

1: The water pump can be inspected front the top of the engine area with the aid of an inspection mirror. See the images below.



2: The water pump can be inspected from under the vehicle with the lower panel removed.

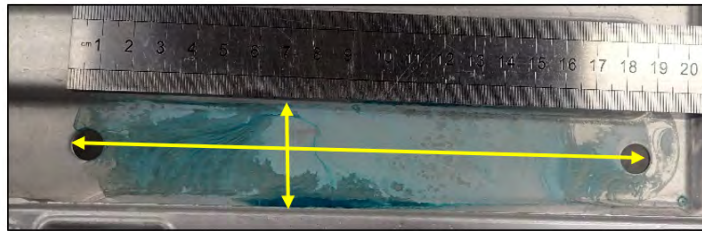


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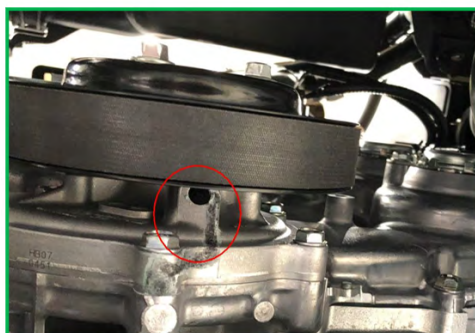
INSPECTION PROCEDURES WHEN COOLANT DETECTED IN THE WATER PUMP AREA IS IN DRIED COOLANT STAIN/RESIDUE FORM:

Inspect the area and measure the size of the dried coolant residue on the exhaust component or undercover. If the size of the residue is larger than **200mm X 300mm** in a rectangular form, the leakage is considered 9cc or higher requiring water pump replacement.



200mm X 300mm
in size is considered equivalent to 9cc leakage.

If coolant is dried and found to not be in liquid form, it is considered normal seepage through the drain hole. This would confirm the water pump replacement to be unnecessary. See the images below.



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IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.