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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SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2018-2021MY Crosstrek PHEV
2018-2025MY Crosstrek 2.0L DI
2021MY Crosstrek 2.5L DI
2017-2025MY Impreza 2.0L DI
2019-21MY Forester 2.5L DI
2020-22MY Legacy & Outback 2.5L DI

NUMBER: 09-81-21R
DATE: 09/24/21
REVISED: 07/27/26

SUBJECT: Fuel Injector- Design Change
Misfire DTC P030* / Engine Knocking / DTC P219C-D-E-F

INTRODUCTION:

This bulletin announces design changes made to the fuel injector in response to the DTCs listed above. Changes have been made to the internal needle flange to enhance durability. In some cases, the needle flange may develop excessive internal wear causing restricted fuel flow which can result in engine vibration and / or engine misfire DTC(s). This condition can also result in DTC P219C/D/E/F. Since a similar concern and / or DTC(s) may result from carbon buildup, it is critical to confirm if the condition continues after two carbon cleanings with P.E.A. are completed before proceeding with any part replacement.

PRODUCTION CHANGE INFORMATION:

The new injectors have been incorporated into vehicle production as per the table below.

MODEL	STARTING VIN
Impreza (4 Door)	TBD
Crosstrek & Impreza (5 Door)	SH296367
Forester	MH590961
Legacy	N3026427
Outback	N3271290
BRZ	TBD

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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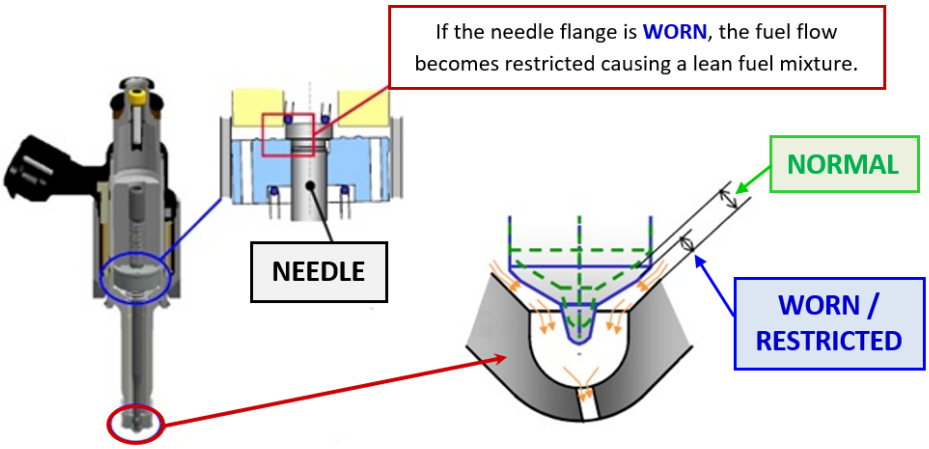
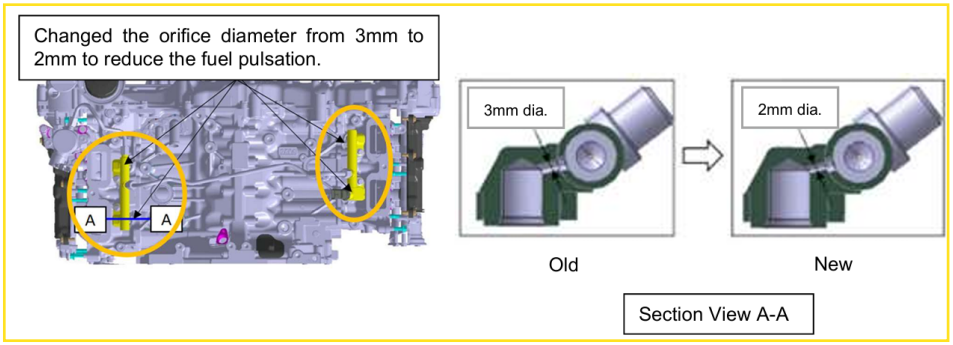
PART INFORMATION:

FUEL INJECTORS: The new fuel injector tips have changed from 3 holes to 6 holes to reduce the fuel pulsation.



Injector Assembly Part Number	Flow Rate Number
16611AA972	MARK 4
16611AA982	MARK 5
16611AA992	MARK 6
16611AB072	MARK 7
16611AB082	MARK 8
16611AB092	MARK 9
16611AB030 (2.5L)	N/A
16611AB06A (2.5L)	N/A

For 2019-2023 MY Crosstrek HEV and 2024-2025 MY Crosstrek and Impreza models, it is necessary to replace both fuel rail assemblies. The fuel pipe orifice diameter has changed from 3mm to 2mm to reduce fuel pulsation.



Part Description	Part Number
PIPE ASSEMBLY FUEL,RIGHT	17522AB091
PIPE ASSEMBLY FUEL,LEFT	17523AB101

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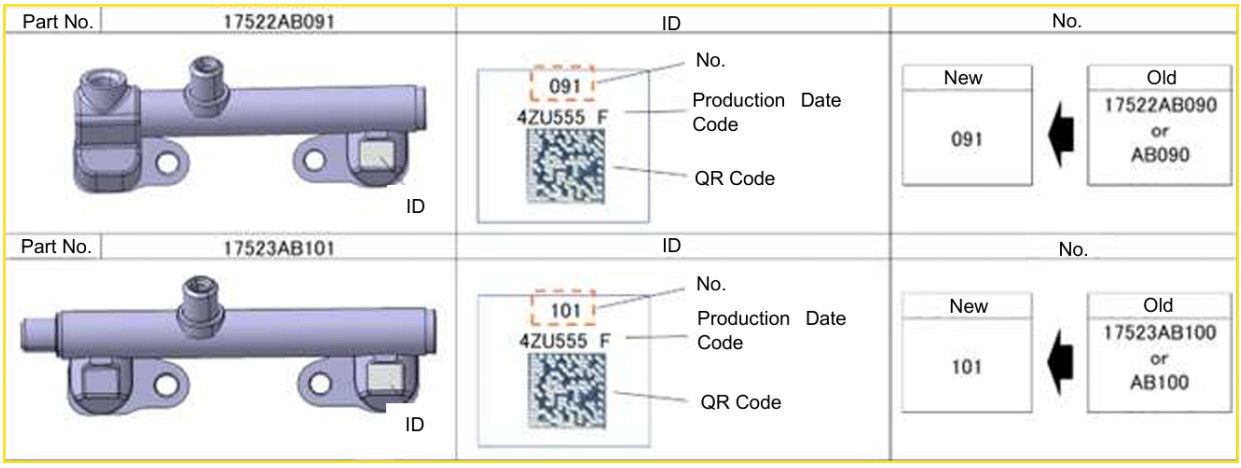
VERY IMPORTANT:

- Using the illustration below for identification reference, always replace an injector assembly and fuel pipe (if applicable) with the newer vendor part number than the originally equipped.

- Using the illustration below for identification reference, always replace an injector assembly with the same flow rate number as originally equipped. The flow rate does not apply to 2.5L engines.

INJECTOR IDENTIFICATION:

FUEL PIPE IDENTIFICATION (For Impreza/Crosstrek Vehicles Requiring Fuel Rail Replacement):



SERVICE PROCEDURE / INFORMATION:

REMINDER: Customer satisfaction and retention starts with performing quality repairs.

NOTE: Subaru Select Monitor data may be required for processing Warranty Claims related to these procedures.

Follow the proper diagnostics for any of the DTCs listed using the procedures provided in the applicable Service Manual. **BEFORE** any injector assembly replacement, it is important to perform a carbon deposit cleaning procedure FIRST as outlined in TSB **09-74-21**. Doing so (if successful) can prevent unnecessary injector replacements which may not resolve the condition. If injector replacement is still determined to be required, the cleaning procedure will remove carbon from surrounding combustion chamber components for any newly installed injector(s).

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STEP 1) Is DTC P219C/D/E/F current or stored in the ECM memory?

Yes → Proceed to **STEP 8**.

No → Proceed to next **STEP**.

NOTE: DTC's found stored in the ECM **MUST** be recorded and entered into the note section of the claim. This is a **REQUIREMENT** for Warranty claim submission.

STEP 2) Confirm DTC P030* is current or stored in the ECM memory.

STEP 3) Verify any engine vibration or knocking condition has been experienced by the customer.

STEP 4) If an injector(s) is determined to be the fault source, perform the P.E.A. carbon cleaning procedure as per **09-74-21** along with a post-cleaning road test. Start with **STEP 1C** of TSB **09-74-21**. Follow balance of steps for DINA models. If more than one PEA cleaning is required, change the engine oil.

STEP 5) Has the condition been resolved?

Yes → No additional work is needed. See Warranty / Claim Information section of this bulletin.

No → Proceed to next **STEP**.

STEP 6) Perform a second P.E.A. carbon cleaning procedure as per **09-74-21** followed by a road test. Perform an engine oil and filter change following this second cleaning.

STEP 7) Has the condition been resolved?

Yes → No additional work is needed. See Warranty / Claim Information section of this bulletin.

No → Proceed to next **STEP**.

STEP 8) Identify the injector assembly(s) by confirming the vendor part number and flow rate number engraved on the injector body as shown in the Parts Information section above. Replace the injector(s) as necessary with the **NEW** part(s) having the matching flow rate. Identify the left and right fuel rail ID and replace as needed for Impreza /Crosstrek 2.0L models. Remove any carbon build-up found during replacement: Engine > FUEL INJECTION (FUEL SYSTEMS) > Fuel Injector.

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IMPORTANT: Do Not replace fuel injector(s) without performing two P.E.A. carbon cleaning procedures **FIRST**.

CRITICAL: When replacing injector(s), **NEVER** reuse parts identified in the applicable Service Manual as one-time-use items: Engine > FUEL INJECTION (FUEL SYSTEMS) > General Description > COMPONENT. This area of the Service Manual uses a **black star** in the illustrations to indicate one-time use parts.

IMPORTANT NOTE: Whenever reconnecting the ground cable terminal to the battery sensor, torque to 7.5Nm (5.5ft.-lbs. or 66inch-lbs.) while supporting the sensor with the other hand as outlined in the applicable Service Manual under: STARTING/CHARGING SYSTSEMS > Battery Sensor.

WARRANTY / CLAIM INFORMATION:

REMINDER: Subaru Select Monitor data may be requested when processing Warranty Claims related to these procedures. This is including but not limited to DTC's stored in the ECM.

For vehicles within the Basic New Car Limited or Powertrain Limited Warranty period, this repair may be submitted using the following claim information:

Carbon Cleaning ONLY			
Labor Description	**Labor Operation #**	**Labor Time**	**Fail Code**
DTC DIAGNOSIS, ONE PEA CLEANING	A449-221	6.1	DGN-42
DTC DIAGNOSIS, OIL CHANGE & TWO PEA CLEANINGS	A449-222	8.8	DG0-42

For vehicles within the Basic New Car Limited or Powertrain Limited Warranty period or covered by an active Subaru Added Security Powertrain, Classic or Gold plan, this repair may be submitted using the following claim information:

Carbon Cleaning with Injector(s) Replacement ONLY			
Labor Description	**Labor Operation #**	**Labor Time**	**Fail Code**
DTC DIAG, OIL CHANGE, 2 PEA TREATMENTS, ONE DIRECT FUEL INJECTOR REPLACED	B442-308	10.1	DCY-42
EACH ADDITIONAL DIRECT INJECTOR ASSEMBLY REPLACED	C442-305	0.2	DG0-42

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.