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Case Number: S2218000018

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Symptom/Vehicle Issue: Check engine lamp/Mil lamp-on. Engine misfires.

Customer Complaint/Technician Observation: Customer complaint may include a Check Engine lamp/Mil lamp-on condition along with the engine misfiring while driving. Upon further investigation there may be misfire fault codes setting in the PCM.

The fault codes that may set are one or more of the following:

- P0300-Multiple Cylinder Misfire
- P0301-Cylinder 1 Misfire
- P0302-Cylinder 2 Misfire
- P0303-Cylinder 3 Misfire
- P0304-Cylinder 4 Misfire

If the above condition matches the customer's complaint, please perform the inspection procedure explained below before proceeding with published diagnostic routines for any of the fault codes in the preceding list.

Discussion:

1. Drive the vehicle keeping the engine speed below 4000 RPM until the engine coolant temperature has reached at least 158 deg F (70 deg C).

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

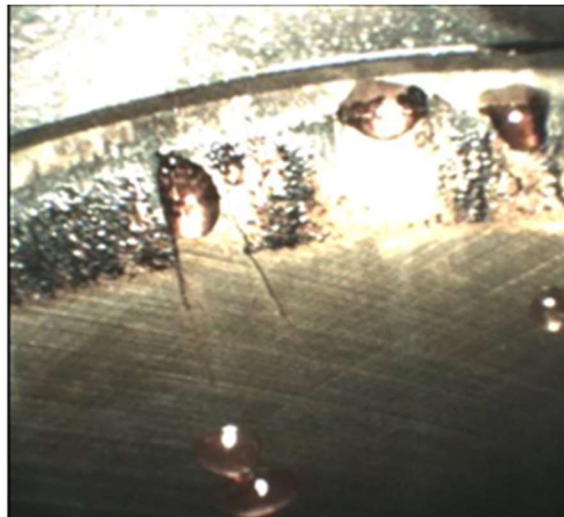
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2. Then drive the vehicle, keeping the engine speed approximately 5200 RPM until the engine coolant temp has reached 194 deg F +/- 41 deg (90 deg C +/- 5 deg.). It's recommended to use manual mode for the transmission to achieve a lower vehicle speed/higher engine speed.
3. After reaching 194 deg F +/- 41 deg (90 deg C +/- 5 deg.) engine coolant temp, park the vehicle, shut the engine off, open the hood and allow for cool down time to safely proceed with step 4. A minimum of 20-30 minutes is recommended.
4. Remove the spark plugs from any cylinder that had fault codes set for misfire. Remove all spark plugs if a P0300-Multiple Cylinder Misfire has set.
5. Use a borescope to check for the presence of engine coolant inside of the affected cylinders.
6. If there are trace of coolant or coolant drops (see below), replace the engine.



If there is no evidence of coolant in any of the cylinders, perform the published diagnostic routines for any fault codes that were set.

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