

STAR ONLINE PUBLICATION

Case Number: S2018000003

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Symptom/Vehicle Issue: Customer complaint may include MIL/Check Engine lamp on. Upon further inspection, fault code P219A - Bank 1 Air-Fuel Ratio Imbalance may be found in the powertrain control module (PCM) as pending, active, or stored. Other fault codes P1066, P1068, P106A, or P106C (Solenoid Valve Switch Off Time Out of Range) may also be stored. Customer may also complain about loss of power or engine running rough while P219A is active.

Discussion: P219A has proven to have had different causes in the field. It is recommended that published diagnostic routines be performed in an attempt to diagnose the root cause of the condition. If normal diagnostic routines prove to be unsuccessful in diagnosing a particular vehicle, perform the procedure below:

The Multiair Assembly (MAIR) on some 2.4L Tigershark engines may intermittently malfunction during cold engine operation, causing P219A to set. If the customer indicates that the MIL/Check Engine lamp consistently comes on while driving (not idling) in the first 5-10 minutes after a cold start, the MAIR unit could be the cause of the problem.

It will be necessary to access the MAIR (under the valve cover) to locate the serial number and find out when the MAIR was made. If the MAIR was built within a certain time period, it is possible that the MAIR could be the cause of the fault code.

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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1. Remove the valve cover (cylinder head cover) per published service instructions found in Service Library.
2. Once the MAIR is exposed, locate the serial number etched into the side of the MAIR. See Figures 1 and 2 below for location.

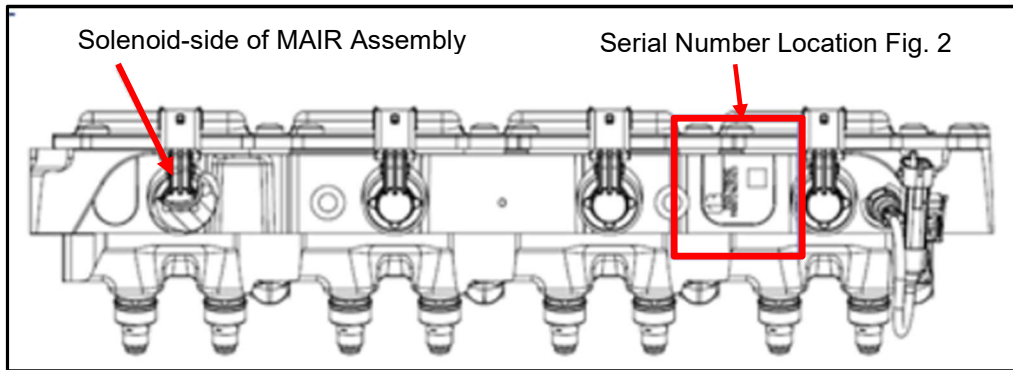


Fig. 1

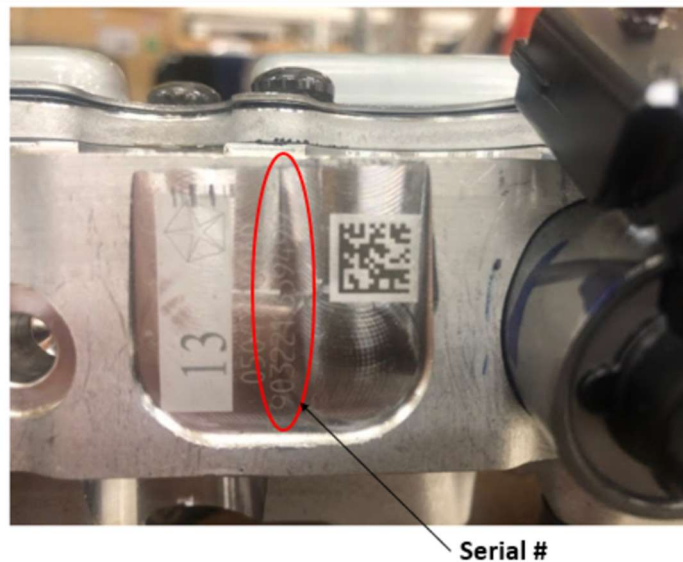


Fig.2

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How to Decode the Serial Number to Determine Build Date

Example S/N: **9100411113650**

The first 5 characters of the serial number (shown in red) are the build date in YMMDD format. In the example above, the part was produced **2019-10-04**. If the first 5 digits were 00101, the build date would be 2020-01-01. Parts produced after 2019-10-04 are considered clean.

3. If the published diagnostic routine for the fault code listed above does not clearly lead to an engine hardware issue, and the MAIR on the engine was produced before the 10/04/19 clean point, the MAIR unit is suspect and should be replaced.

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