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Case Number: S2618000003 Rev. E

Release Date: July 2026

Symptom/Vehicle Issue: MIL-On, Engine Runs Rough

Models Affected: 2026 Jeep Grand Cherokee (WL)

Customer Complaint/Technician Observation: The customer's complaint may include a MIL-on condition. They may also experience a rough running engine. Upon further inspection, the technician may find Diagnostic Trouble Codes (DTCs) for one or more of the following issues:

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

Discussion: There are circumstances where spark plug damage can cause cylinder misfire and subsequent engine failure. If the vehicle is exhibiting any of the symptoms mentioned in the section above, perform the following inspection to determine the proper diagnostic path based on the vehicle's condition:

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Inspection:

- Remove the Main Chamber and Pre-Chamber Spark Plugs and mark the location of each plug (as shown in Fig. 1) so they can be easily identified once they are removed from the engine (use locations 1-8 as indicated in Fig. 2). **Be sure to take clear pictures of the spark plugs, they will be needed for claim submission.**



Fig. 1

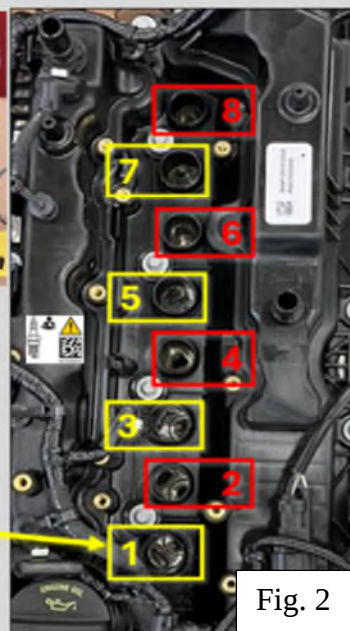
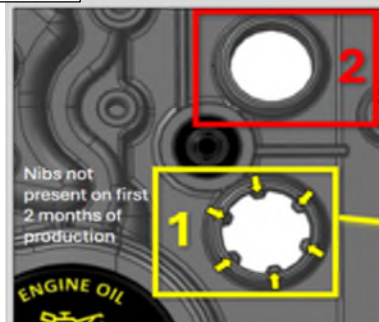
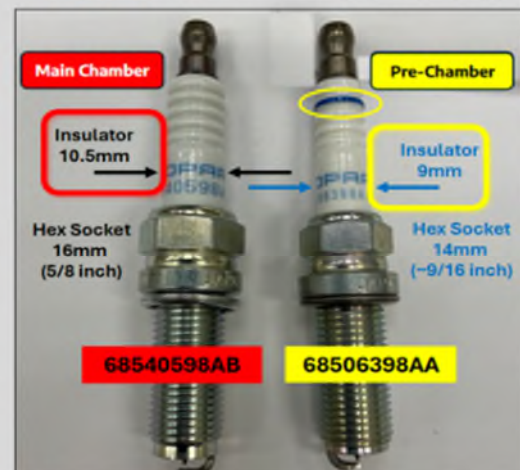


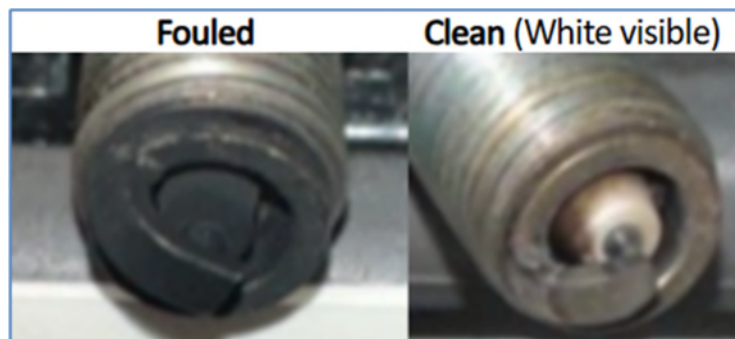
Fig. 2

The 2.0L Hurricane4 (EVO) engine is equipped with two spark plugs per cylinder: Pre-Chamber and Main Chamber. These spark plugs are not interchangeable. Installing the wrong spark plug in the wrong location can result in serious engine damage.

- Verify the hex socket size of each spark plug
- Match each spark plug to its correct location
- For added assurance:
 - Check the insulator diameter to confirm proper placement
 - Blue line on Pre-Chamber insulator (MOPAR spark plugs)



- Identify the condition of each spark plug:



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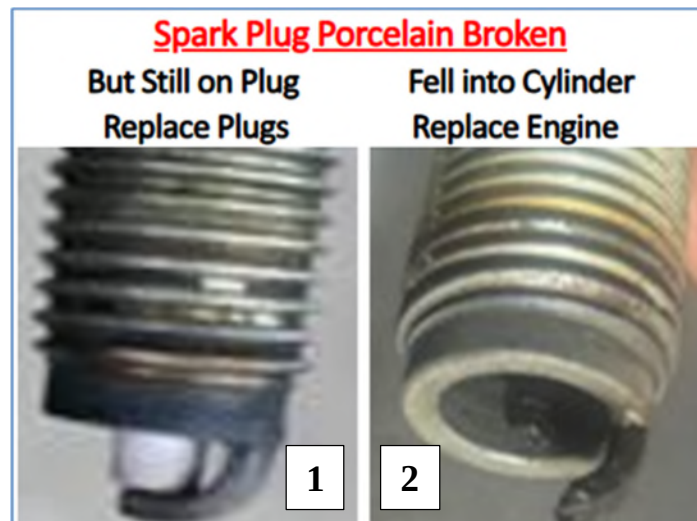
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- o If the spark plugs are clean, you should proceed with applicable published diagnostic testing for cylinder misfire found in Service Library.
- o If the spark plugs are fouled, replace all 8 spark plugs (see part numbers below), but applicable diagnostic testing should be performed to ensure there is not a root cause for the misfire different than the spark plug itself.



- o If any of the spark plugs look like the plug in example 1 above, replace all 4 spark plugs of the corresponding set. For example, if a main chamber spark plug fails, replace all 4 main chamber spark plugs (p/n-68540598AB or latest) OR if a pre-chamber spark plug fails, replace all 4 pre-chamber spark plugs (p/n- 68506398AA or latest).
- o If any of the **main chamber** spark plugs look like the plug in example 2 above, replace the engine (68576058AD or latest).
- o If any of the **pre-chamber** spark plugs look like the plug in example 2 above, block plug openings to other cylinders. For the cylinder with the damaged spark plug, use a soft-tipped air gun to pressurize the cylinder through the main chamber plug opening to clear any debris from the pre-chamber plug opening. Replace all 4 main pre-chamber spark plugs (p/n- 68506398AA or latest).

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Repair: If spark plug or engine replacement is necessary for any repairs, be sure to also perform the procedures below after repairs are complete:

- Using wiTECH, perform the "Reset Fuel O2 and Spark Adaptives" routine located in the PCM → Misc Functions → Reset Memory menu.
- Clear DTCs.

If spark plug replacement is performed, please top-off the fuel tank using **premium fuel** before returning the vehicle to the customer. If the engine is replaced, please drain the fuel tank using the applicable procedure found in Service Library (09 - Engine, 2.0L / Fuel System / Standard Procedure / DRAINING FUEL TANK). **Leave enough fuel (as required) in the fuel tank to drive the vehicle to a fueling station.** Take the vehicle to a fueling station and fill it with **premium fuel** before returning the vehicle back to the customer. For more information regarding the fuel fill process, please see Warranty Bulletin D-26-13 for spark plug replacement repairs and D-26-14 for engine replacement repairs.

If any of the above conditions do not apply to the vehicle but possible misfire symptoms still exist, please follow published diagnostic routines found in Service Library.

At this time, service replacement engines for this application are on parts restriction and must be ordered through the STAR Center. Please contact STAR as soon as possible to support expedited parts procurement for repairs.

Engineering is currently investigating conditions under which spark plug damage may occur. Additional updates and recommended actions will be provided as they become available.

In the interim, please ensure affected customers are supported through the Courtesy Transportation Program.

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