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| REFERENCE: | TSB: 18-011-25 REV. B GROUP: 18 - Vehicle Performance | Date: | August 1, 2025 | REVISION: | 18-011-25 REV. A |
| VEHICLES AFFECTED: | 2024 (JL) Jeep Wrangler This bulletin applies to vehicles equipped with a 2.0L I4 DOHC DI Turbo Engine W/ESS (Sales Code EC1). | | | MARKET APPLICABILITY: <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/> MEA <input checked="" type="checkbox"/> SA <input checked="" type="checkbox"/> IAP <input checked="" type="checkbox"/> **EE** <input type="checkbox"/> CH NOTE: This bulletin applies to the **Enlarged Europe** North America, South America, India & Asia Pacific, Middle East and Africa and China markets. | |
| CUSTOMER SYMPTOM: | <p>Customers must experience a Malfunction Indicator Lamp (MIL) illumination and the vehicle must exhibit/set one or more of the following Diagnostic Trouble Codes (DTCs):</p> <ul style="list-style-type: none"> ● P0133 - O2 Sensor 1/1 Slow response. ● P2453 - Particulate Filter Pressure Sensor "A" Circuit Range/Performance. ● P245F - Particulate Filter Pressure Sensor "B" Circuit Range/Performance. ● P0420 - Catalyst System Efficiency Below Threshold Bank 1. ● P0017 - Crankshaft/camshaft Timing Misalignment - Bank 1 Sensor 2. ● P000A - Bank 1 Camshaft 1 Position Slow Response. ● P219A - Bank 1 Air-fuel Ratio Imbalance. <p>Customers may also experience the following:</p> <ul style="list-style-type: none"> ● A no crank/no start condition. <p>In addition, the following software enhancement is available:</p> <ul style="list-style-type: none"> ● Smart charge change: Battery life improvements. | | | | |
| CAUSE: | PCM software | | | | |

This bulletin supersedes Technical Service Bulletin (TSB) 18-011-25 REV. A, date of issue July 25, 2025, which should be removed from your files. All revisions are highlighted with **asterisks**** and include an additional market.**

REPAIR SUMMARY:

This bulletin involves possibly replacing the Oil Control Valves (OCVs), and/or the Catalytic Converter and also reprogramming the PCM with the latest available software.

CLAIMS DATA:

| Labor Operation No: | Labor Description | Skill Category | Labor Time |
|---------------------|--|-----------------------------------|------------|
| 09-05-37-91 | Inspect and Replace Both OCVs (Oil Control Valves) (1 - Semi Skilled) | 1 - Engine Repair and Performance | 2.7 Hrs. |
| 11-50-01-90 | Inspect Catalytic Converter (1 - Semi Skilled) | 1 - Engine Repair and Performance | 0.3 Hrs. |
| 11-50-01-91 | Inspect Catalytic Converter And Replace (1 - Semi Skilled) | 1 - Engine Repair and Performance | 1.7 Hrs. |
| 26-99-00-10 | Perform oil and filter change (1 - Semi Skilled) | 1 - Engine Repair and Performance | 0.4 Hrs. |
| 18-19-06-BN | Module, Powertrain Control (PCM) - Inspect Software Level and Reprogram (1 - Semi Skilled) | 1 - Engine Repair and Performance | 0.3 Hrs. |
| Failure Code | CC | Customer Concern | |

The dealer must use failure code CC with this Technical Service Bulletin.

- If the customer's concern matches the SYMPTOM identified in the Technical Service Bulletin, failure code CC is to be used.
- When utilizing this failure code, the 3C's (customer's concern, cause and correction) must be provided for processing Technical Service Bulletin flash/reprogramming conditions.

SPARE PARTS:

| Qty | Part No. | Description | Notes |
|--------|------------|---|---------------------|
| 2 (AR) | 05048148AE | Valve, Oil Control | Intake/Exhaust |
| 1 (AR) | 68629623AA | Converter, Catalytic - Front | |
| 1 (AR) | 68381406AC | Gasket, Turbocharger To Catalytic Converter | Mica Ring Gasket |
| 1 (AR) | 04892339BE | Filter, Engine Oil | |
| 5 (AR) | 05166241PA | Oil, Engine | |
| 1 (AR) | 05048234AB | Gasket - Cylinder Head Cover | |
| 1 (AR) | 68153921AA | Coolant | |
| 1 (AR) | 68377814AA | Sealer-RTV Gray | 25KG RTV Container |
| 1 (AR) | 68409465AA | Sealer-RTV Gray | 310ML RTV Container |

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerCONNECT/ Service Library, verify all related systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes any of the symptoms listed above in the customer symptom section, perform the Repair Procedure.

SPECIAL TOOLS/EQUIPMENT:

| Description | Ref. No. | Notes |
|--------------------------|------------|-------|
| wiTECH or Equivalent | – | – |
| Borescope | – | – |
| Wrench, Camshaft Holding | 2050800090 | – |

REPAIR PROCEDURE:

1. Scan the PCM for DTCs then follow the steps below for any of the following DTCs:
 - **P0017/P000A:** Proceed to [Step 2](#).
 - **P219A:** Proceed to [Step 7](#).
 - **P0420:** Proceed to [Step 8](#).
2. Check if engine oil is contaminated by metallic debris.
3. Is the engine oil contaminated by metallic debris?
 - YES>>> Replace the engine oil and filter. Refer to the detailed service procedures listed in DealerCONNECT>Service Library>Service Info>under: 09 - Engine, 2.0L / Lubrication / Standard Procedure Engine oil and filter change. Proceed to [Step 4](#).
 - NO>>> Proceed to [Step 4](#).
4. Remove and inspect both OCVs for torn screens [Fig. 1](#) and [Fig. 2](#). Refer to the detailed service procedures listed in DealerCONNECT>Service Library>Service Info>under: 09 - Engine, 2.0L / Valve Timing / Phaser, Camshaft / Removal and Installation.

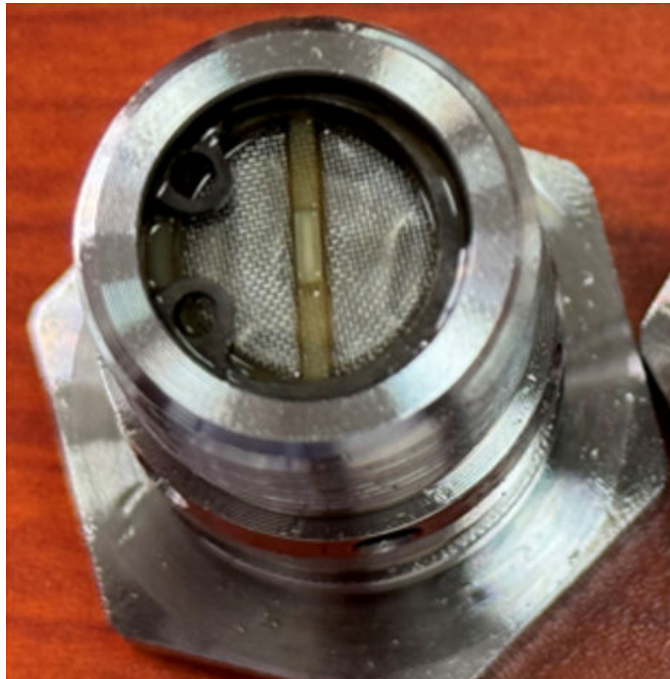


Fig. 1
OCV Filter OK



Fig. 2
OCV Filter Torn

5. Are the OCV filter screen(s) torn?

- YES >>> Replace the OCVs and change the engine oil and filter. Refer to the detailed service procedures listed in DealerCONNECT>Service Library>Service Info>under: 09 - Engine, 2.0L / Lubrication / Standard Procedure Engine oil and filter change. Use LOPs (09-05-37-91) and (26-99-00-10). Proceed to [Step 11](#).
- NO >>> Proceed to [Step 6](#).

6. Does the PCM have the latest software level?

- YES >>> Follow diagnostic procedures referring to DealerCONNECT>Service Library> Service info>28 - DTC-Based Diagnostics / Module, Powertrain Control (PCM), 2.0L>P000A-Bank 1 camshaft 1 position slow response and/or P0017-Crankshaft/camshaft Timing Misalignment - bank 1 sensor 2.
- NO > >> Proceed to [Step 11](#).

7. Does the PCM have the latest software level?

- YES >>> Follow diagnostic procedures referring to DealerCONNECT>Service Library> Service info>28 - DTC-Based Diagnostics / Module, Powertrain Control (PCM), 2.0L>P219A-Bank 1 Air-Fuel Ratio Imbalance.
- NO >>> Proceed to [Step 11](#).

8. Check for any other Oxygen Sensor (O2) DTCs.

9. Are there any other O2 DTCs?

- YES>>> Perform diagnostic procedures referring to DealerCONNECT>Service Library> Service info>28 - DTC-Based Diagnostics / Module, Powertrain Control (PCM), 2.0L for each specific DTC that has been set.
- NO>>> Follow diagnostic procedures referring to DealerCONNECT>Service Library> Service info>28 - DTC-Based Diagnostics / Module, Powertrain Control (PCM), 2.0L>P0420-Catalyst System Efficiency Below Threshold Bank 1.

10. Remove the Upstream Oxygen Sensor and using a borescope, is the catalytic converter internally melted/ cracked or brain pattern [Fig. 3](#) and [Fig. 4](#) ?



Fig. 3
Melted Catalyst



Fig. 4
Brain Pattern

- YES >>> Replace the catalytic converter. Refer to the detailed service procedures listed in DealerCONNECT>Service Library>Service Info>under: 11 - Exhaust System / Converter, Catalytic / Removal and Installation. Use LOP (11-50-01-91). Proceed to [Step 11](#).
- NO >>> Use Inspect LOP (11-50-01-90). Proceed to [Step 11](#).

NOTE: Install a battery charger to ensure battery voltage does not drop below 13.2 volts. Do not allow the charging voltage to climb above 13.5 volts during the flash process.

NOTE: If this flash process is interrupted/aborted, the flash should be restarted.

11. Reprogram the PCM with the latest software. If issues arise when flashing a module using the wiTECH Diagnostic Application, please submit a ticket to the Helpdesk. The helpdesk can be found within the Help menu.
12. Clear any DTCs that may have been set in any modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow them to be cleared.
13. Test drive vehicle and make sure the DTC SET conditions in service information are met to verify the DTCs do not set again.
14. Did P0017, P000A, P219A and/or P0420 DTCs return?
 - YES >>> Perform diagnostic procedures referring to DealerCONNECT>Service Library> Service info>28 - DTC-Based Diagnostics / Module, Powertrain Control (PCM), 2.0L for each specific DTC that has been set.
 - NO >>> This bulletin is complete.

NOTE: For SA market only, after applying this TSB, it is not necessary to send DID-I or DID-A.

POLICY:

Reimbursable within the provisions of the warranty.

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