

Technical Service Bulletin (TSB)

Make Up Air (MUA) Valve Leak

REFERENCE:	TSB: 09-010-23 REV. A GROUP 09 - Engine	Date:	June 14, 2023	REVISION:	09-010-23
VEHICLES AFFECTED:	2023 (WS) Grand Wagoneer/Wagoneer This bulletin applies to vehicles before **June 22, 2023 (MDH 0622XX)** equipped with the 3.0L I6 Twin Turbo Engine W/ESS (Sales Code EFH).			MARKET APPLICABILITY: ☒ NA☒ MEA ☐ SA☐ IAP ☐ EE☐ CH	
CUSTOMER SYMPTOM:	Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find that the following Diagnostic Trouble Code (DTC) has been set: P2C90 - Crankcase Ventilation System - Hose "A" Disconnected.				
CAUSE:	MUA check valve spring undersized (too short).				

This bulletin supersedes Technical Service Bulletin (TSB) 09-010-23, date of issue March 16, 2023, which should be removed from your files. All revisions are highlighted with ****asterisks**** and include an updated build date, RSU number, LOPs, parts table, Inspection Procedure and Repair Procedure steps.

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) ****23-168**, date of issue June 14, 2023^{**}. All applicable RSU VINs have been loaded. To verify this RSU service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty. This RSU will expire 18 months after the date of issue.

REPAIR SUMMARY:

This bulletin involves replacing the MUA check valve, or performing an inspection and possibly replacing the PCV valve.

CLAIMS DATA:

Labor Operation No:	Labor Description	Skill Category	Labor Time
**25-01-17-9K	Perform Crankcase Ventilation System Test – Inspection (Inspection Only) (0 - Introduction)	09 - Engine	0.6 Hrs.
25-01-17-9M	Perform Crankcase Ventilation System Test Inspection, Replace Make Up Air (MUA) Valve, PCV Valve and Repeat Test Inspections (0 - Introduction)	09 - Engine	0.9 Hrs.
25-01-17-50	Second PCV Valve Replacement and Additional Test Inspection (0 - Introduction)	09 - Engine	0.3 Hrs.

Labor Operation No:	Labor Description	Skill Category	Labor Time
25-01-17-51	Third PCV Valve Replacement and Additional Test Inspections (0 - Introduction)	09 - Engine	0.5 Hrs.
25-01-17-9L	Perform Crankcase Ventilation System Test Inspection and Replace Make Up Air (MUA) Valve (0 - Introduction)	09 - Engine	0.7 Hrs.**
Failure Code	ZZ	Service Action	

SPARE PARTS:

Qty	Part No.	Description	Notes
1 (AR)	68358481AD	Valve, PCV	
1 (AR)	68483328AC	Valve, Check	MUA

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 a customer's VIN is listed in VIP or your RSU VIN list, perform the Inspection Procedure. If any vehicle not on the VIN list exhibits any of the symptom listed above in the customer symptom section, perform the Inspection Procedure.

1. **Was the vehicle built **before** March 06, 2023?
 - YES>>> Proceed to [Step 2](#) of the Repair Procedure.
 - NO>>> The vehicle was built after March 06, 2023. Proceed to [Step 2](#).
2. Start the engine.
3. Ensure the transmission is in the park position.

NOTE: Engine coolant temperature must remain above 80 °C (176 °F) while performing this Inspection Procedure.

4. Idle the engine until the engine coolant temperature reaches 80 °C (176 °F).

NOTE: The MAX A/C button is only available on the touchscreen.
5. Turn the Heating, Ventilation and Air Conditioning (HVAC) to MAX A/C (**blower speed will default to high**).
6. Turn off engine and wait five minutes.

NOTE: If coolant temperature has dropped below 80 °C (176 °F), allow engine to idle until that temperature has been achieved.

7. Restart engine and ensure engine settles to 1,200 RPM after start up. **Verify engine coolant temperature is 80 °C (176 °F) or above.**
8. Once coolant temperature exceeds 80 °C (176 °F) and engine RPM at 1,200, apply the brake pedal and shift the transmission into the drive position.
9. Hold the vehicle while in drive for 30 seconds.
10. Shift the vehicle back into the park position and turn the engine off.

11. Repeat steps [Step 4](#) through [Step 6](#). Then proceed to [Step 12](#).
12. Using wiTECH, check for DTC P2C90.
13. Was DTC P2C90 present?
 - YES>>> Proceed to [Step 1](#) of the Repair Procedure.
 - NO>>> This bulletin has been completed. Use inspect LOP (25-01-17-9K) to close the active RSU.
Or use the proper Inspect With Additional Test LOPs (25-01-17-50 or 25-01-17-51) to close the active RSU if a second or third test was performed.**

SPECIAL TOOLS/EQUIPMENT:

Description	Ref. No.	Notes
wiTECH or Equivalent	—	—

REPAIR PROCEDURE:

CAUTION! **Do not replace the PCV valve more than three times if DTC P2C90 persists. If the DTC is still present after a third replacement and test, normal diagnosis should be performed.

1. Replace the PCV valve. Refer to the detailed service procedures listed in DealerCONNECT>Service Library under: 25 - Emissions Control / Crankcase Ventilation / Valve, Positive Crankcase Ventilation (PCV) / Removal and Installation. Use LOP (25-01-17-9M). Proceed to [Step 3](#).**
2. Replace the MUA check valve. Refer to the detailed service procedures listed in DealerCONNECT>Service Library under: 25 - Emissions Control / Crankcase Ventilation / Valve, Make Up Air (MUA) / Removal and Installation. Proceed to [Step 4](#).

NOTE: **Ensure the vehicles Low Fuel Warning Light is not on for the inspection test. In the event the Low Fuel Warning Light is on, add three gallons fuel in the fuel tank.

3. Repeat [Step 2](#) through [Step 13](#) of the Inspection Procedure until DTC P2C90 is not present, performing the test and replacement of the PCV valve no more than three times.**
4. Clear all DTCs that may have been set.

POLICY:

Reimbursable within the provisions of the warranty.

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