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Coding Information

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Title: SPN 3055 FMI 17 FRP above maximum with minimum command Troubleshooting

Applies To: EPA 2010 MaxxForce 11 / 13

SPN 3055 FMI 17 - FRP Above Maximum with Minimum Command

Condition / Description	Setting Criteria	Enable Conditions / Values	Time Required
FRP governor deviation below minimum limit	FRP governor error less than 725 PSI at 600-750 RPM	Key ON ECM Not in limp-home mode Metering unit flow < 327670 mm3/sec Engine speed > 0 rpm OR Fuel Rail Pressure > 90000 kpa for more than 20 engine revolutions Fuel injector quantity command > 5 mg/stroke ECT1 > -40°F (-40°C) Engine Not overrunning	10 seconds

Fault Overview

Fault code sets when the Engine Control Module (ECM) detects Fuel Rail Pressure (FRP) exceeds 13053 psi (90000 kPa) when the Fuel Pressure Control Valve is commanded to minimum pressure.

Malfunction Indicator Lamp (MIL) Reaction

MIL will illuminate when this fault is detected during two consecutive drive cycles.

Associated Faults

SPN 94 FMI 0 (FDP); SPN 157 FMI 3, 4, 20, 21 (FRP); and SPN 633 FMI 3, 4, and 5 (FPCV)

Drive Cycle to Determine Fault Status

Drive Cycle 2 in 2013 HD-OBD Diagnostic Reference Manual.

Possible Causes

- Restricted high-pressure pump fuel return line
- Fuel Pressure Control Valve (FPCV) or circuit fault

Step	Action	Decision
1	Check fuel level. Read fuel level using the vehicle instrument panel gauge and perform a visual inspection of fluid level in the fuel tank. Is sufficient fuel in the fuel tank and not leaking?	Yes: Go to step 2. No: Add fuel or repair leaks, and prime engine.
2	Using Electronic Service Tool (EST) with ServiceMaxx™ software, check Diagnostic Trouble Code (DTC) list for SPN 94 FMI 0 (FDP); SPN 157 FMI 3, 4, 20; and 21 (FRP) or SPN 633 FMI 3, 4, and 5 (FPCV). Is the EST DTC list free of SPN 94 FMI 0; SPN 157 FMI 3, 4, 20, and 21; and SPN 633 FMI 3, 4, and 5?	Yes: Go to step 3. No: Repair SPN 94 FMI 0; SPN 157 FMI 3, 4, 20, and 21; and SPN 633 FMI 3, 4, and 5. See health report for link to diagnostics.
	Step Action	Decision

3	Check for restricted fuel return line. Perform HP Pump Fuel Return Pressure Test (page 174). Is pressure < 13 psi?	Yes: Go to step 4. No: Repair restriction in fuel return line between high-pressure fuel pump and fuel tank.
Step Action		Decision
4	Check for a failed FPCV. Using EST, perform the High Pressure Pump Test (see page 180). Does the pressure differential maintain < 80 bar or 1160 PSI throughout the test?	Yes: Verify each step was completed correctly and if SPN 3055 FMI 17 remains notify supervisor. No: Replace Fuel Pressure Control Valve.

NOTE: After performing all diagnostic steps, if SPN 3055 FMI 17 remains, verify each step was completed correctly and the proper decision was made. Notify supervisor for further action.

Qty	Part Description	Part Number	Step	SRT Description	SRT link	SRT(hr)	Group	Nou
1	Fuel Pressure Control Valve (FPCV)	7092109C91	4	Electronic Engine Control Sensors/Valves (MaxxForce 11/13), Replace	A12-5034	1.5	12000-Engine	454

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