## 1 6 07-13



# **Service Information Bulletin**

SUBJECT	DATE
SPN 3361/FMI 7 - EPA10	June 2013

#### Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	EPA10 DD Platform	SPN 3361/FMI 7 - EPA10	Added directions to squeeze pipette ball to force water through air channel. Removed last step to call the CSC and changed to repair verification.



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### 2 SPN 3361/FMI 7 - EPA10

This diagnostic is typically Diesel Exhaust Fluid (DEF) Metering Unit - Unable to Clear Restriction.

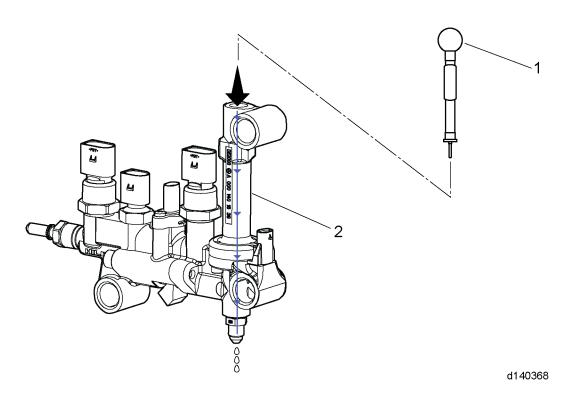
#### Table 1.

SPN 3361/FMI 7		
Description	DEF Unit - Unable to clear Restriction	
Monitored Parameter	DEF pressure, DEF air pressure	
Typical Enabling Conditions	Dosing Enabled	
Monitor Sequence	SPN 4335/FMI 14 and 31 Active	
Execution Frequency	Continuous when enabling conditions met	
Typical Duration		
Dash Lamps	MIL, CEL	
Engine Reaction	Derate 25%	
Verification	Selective Catalyst Reduction (SCR) Quantity Test	

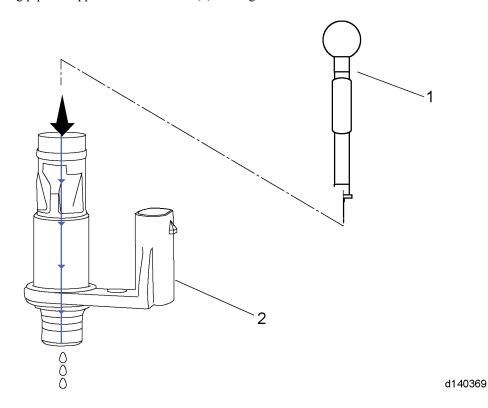
- 1. Connect DDDL 7.04SP2 or higher.
- 2. Turn ignition ON (key ON, engine OFF).
- 3. Compare DEF air pressure to barometric air pressure (Baro) and DEF pressure.
- 4. Is DEF air pressure within 28 kPa (4.0 psi) of barometric air pressure (Baro) and DEF pressure?
  - a. Yes; Go to step 8.
  - b. No; Go to step 5.
- 5. Remove DEF air pressure sensor, Refer to section "Removal of the Diesel Exhaust Fluid Metering Unit Air Pressure Sensor" and re-connect harness to connector.
- 6. Compare DEF air pressure to barometric air pressure (Baro) and DEF pressure.
- 7. Is DEF air pressure within 28 kPa (4.0 psi) of barometric air pressure (Baro) and DEF pressure?
  - a. Yes; Go to step 8.
  - b. No; replace the DEF air pressure sensor. Refer to section "Installation of the Diesel Exhaust Fluid Metering Unit Air Pressure Sensor". Go to step 17.
- 8. Remove the DEF metering unit air supply line and the DEF metering unit compressed air supply screen. Refer to section "Removal of the Diesel Exhaust Fluid Metering Unit Compressed Air Supply Screen".
- 9. Inspect the DEF metering unit air inlet screen for debris and oil. Is there debris or oil restricting the air flow through the inlet screen?
  - a. Yes; replace the air inlet screen. Go to step 10.
  - b. No; Go to step 10.

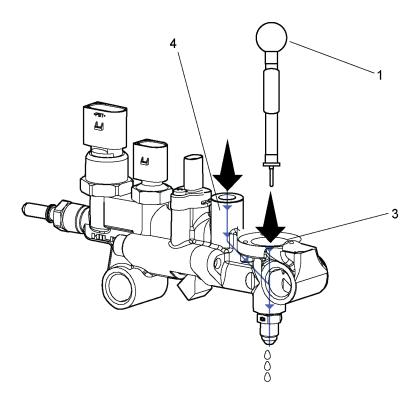
NOTE: If inlet screen needs replacing, continue diagnostics before installation of new inlet screen.

- 10. Remove the DEF nozzle supply hose and flush the DEF metering unit air channel (2) using warm water; see figure below. Using pipette (1) supplied in DEF test kit W060589001900, seal the pipette to the air channel and squeeze the pipette ball to force water through the air channel. Does water flow from the DEF nozzle supply fitting?
  - a. Yes; Go to step 16.
  - b. No; Go to step 11.



- 11. Remove the metering unit; Refer to section "Removal of the Diesel Exhaust Fluid Metering Unit".
- 12. Remove the three screws from the bottom of the metering unit; remove the diffuser heater. Refer to section "Removal of the Diesel Exhaust Fluid Metering Unit Diffuser Heater".
- 13. Flush the diffuser heater (2), DEF air pressure channel (4) and the metering unit mixing chamber (3) with warm water to dissolve DEF crystals using pipette supplied in DEF test kit (1). See figures below.





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- 14. Does water flow through the diffuser heater?
  - a. Yes; Go to step 15.
  - b. No; replace the diffuser heater. Use service kit A000 140 4539.
- 15. Inspect DEF nozzle and supply hose for damage.
  - a. If damage is found, replace nozzle and/or supply hose. Refer to section "Installation of the Diesel Exhaust Fluid Nozzle". Go to step 16.
  - b. If no damage is found, install nozzle and supply hose. Refer to section "Installation of the Diesel Exhaust Fluid Nozzle". Go to step 16.
- 16. Install removed components.



#### **WARNING: EYE INJURY**

To avoid injury from flying debris when using compressed air, wear adequate eye protection (face shield or safety goggles) and do not exceed 276 kPa (40 psi) air pressure.

17. Perform SCR air pressure test (60-second duration) to verify repair. Normal air pressure readings are between 131 to 200 kPa (19 to 29 psi).