1 2 22-14

Service Information Bulletin

SUBJECT	DATE
SPN 4334/FMI 7 (ACM) (EPA10)	February 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform - EPA10-ACM	SPN 4334/FMI 7 - EPA10	Updating several steps 1, 4, 5, 8, 9, 12, and 13. Adding several notes throughout procedure.

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2 SPN 4334/FMI 7 - EPA10

This diagnostic is typically DEF Pressure Low.

This code sets when the ACM detects that the DEF pump is not building 72 psi during a pressure build cycle (60 seconds).

Table 1.

SPN 4334/FMI 7	
Description	DEF Pressure Low
Monitored Parameter	DEF Pressure
Typical Enabling Conditions	Pressure Limiting Unit On, Dosing Enabled
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	60 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	SCR Quantity Test

NOTE: If there is oil present in the air system, the Pressure Limiting Unit (PLU), Diesel Exhaust Fluid (DEF) metering unit and the associated air lines should be cleaned to prevent repeat failures.

1. Check the Diesel Exhaust Fluid (DEF) for contamination. Refer to section "Checking Diesel Exhaust Fluid Quality". Is there contamination in the DEF?
   a. Yes; Refer to section "Diesel Exhaust Fluid in Fuel" for fuel intrusion or Refer to section "Diesel Exhaust Fluid in Coolant" for coolant intrusion. Verify repair.
   b. No; Go to step 2.
2. Connect DiagnosticLink™. Go to step 3.
3. Turn the ignition ON (key ON, engine OFF). Go to step 4.
4. Check for other fault codes. Are there any fault codes present for the following components?
   - Pressure Limiting Unit (PLU)
   - DEF pump
   - DEF pressure sensor
   - DEF air pressure sensor
   - DEF tank level/zone faults
   - Low DEF air pressure

   a. Yes; diagnose and repair the other fault codes first. Verify repair.
   b. No; Go to step 5.

WARNING: ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

WARNING: PERSONAL INJURY

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.

5. Start and run the engine to build up the air pressure in the vehicle. Does the air pressure in the secondary air system build and hold above 689 kPa (100 psi)?

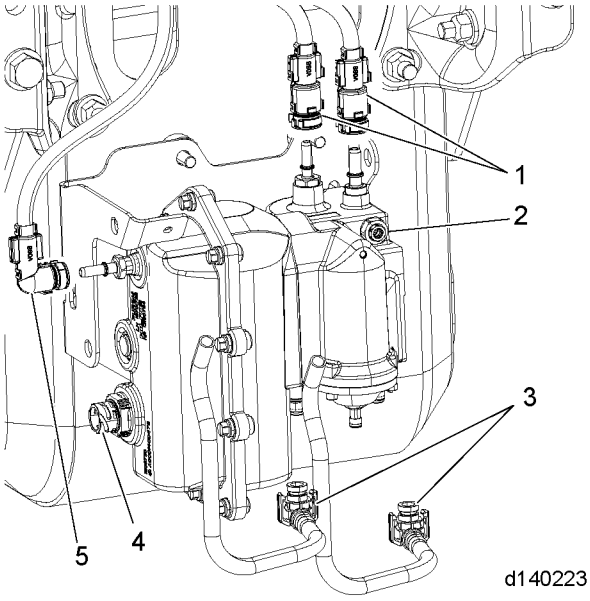
a. Yes; Go to step 6.
b. No; refer to air compressor diagnostic literature to diagnose the low air pressure concern. Verify repair.

6. Turn the ignition OFF. Go to step 7.
7. Wait five minutes for the purge cycle to complete. Go to step 8.
8. Visually/audibly inspect air supply lines for leaks, kinks, cracks or melting from the air tank to Pressure Limiting Unit (PLU) and from pressure limiting unit to DEF pump and DEF metering unit. Are there any damaged lines or air leaks present?
   a. Yes; repair as necessary. Verify repair.
   b. No; Go to step 9.

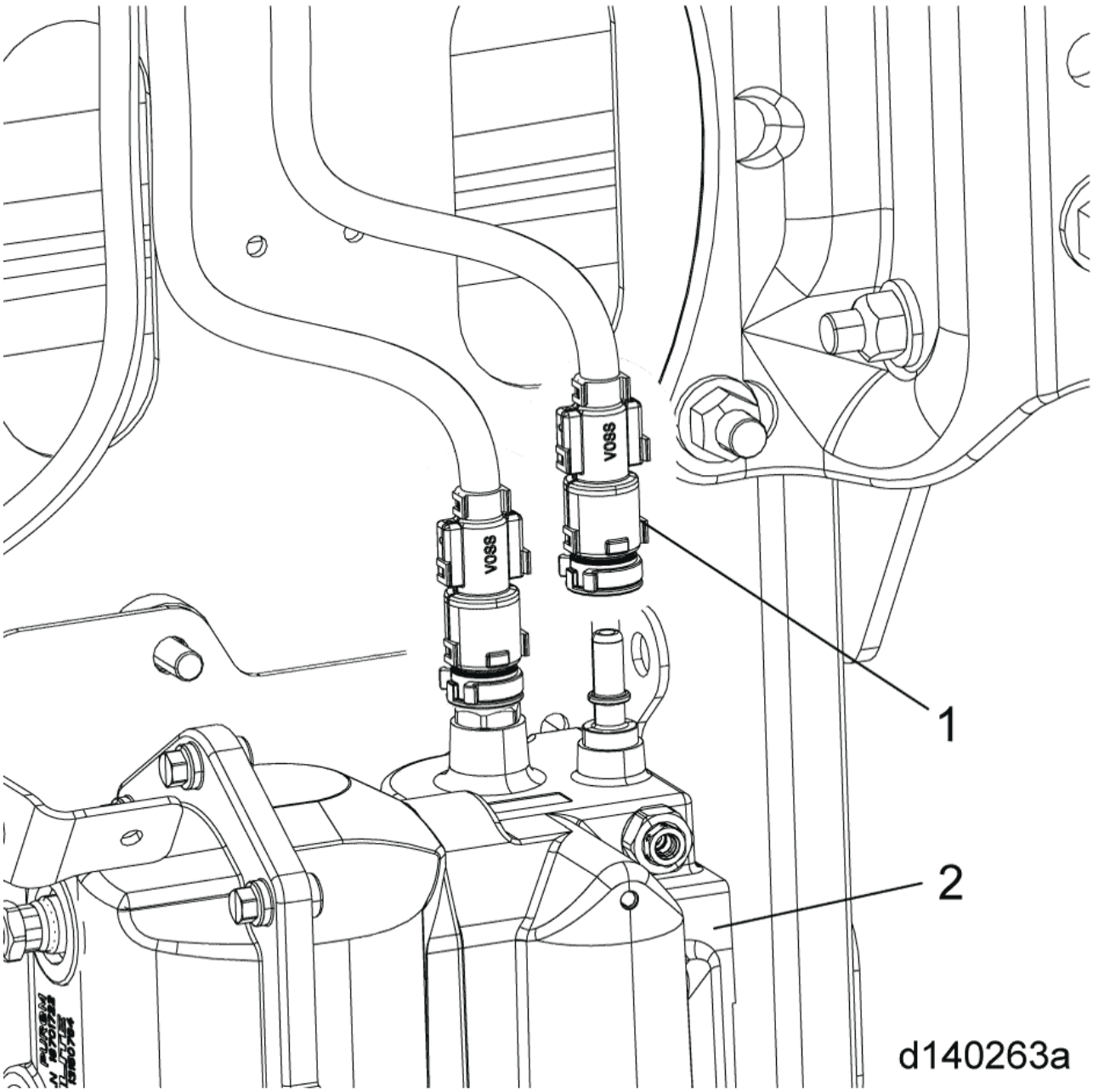
WARNING: EYE INJURY

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.

9. Disconnect the air supply line at the DEF pump (1). Go to step 10.



10. Connect a suitable air pressure gauge (0 to 1379 kPa) (0 to 200 psi) to the end of the DEF air supply line. Go to step 12.
11. Turn the ignition ON (key ON, engine OFF). Go to step 12.
12. Using DiagnosticLink™, perform the SCR air pressure test (60 second duration) while monitoring the air pressure gauge. Is the air pressure between 517 to 586 kPA (75 to 85 psi)?
    a. Yes; remove the air pressure gauge and reconnect the air supply line to the DEF pump. Go to step 14.
    b. No; Go to step 13.
13. Inspect PLU for contamination. Is there any debris, oil or coolant present in the PLU?
    a. Yes; diagnose and repair the cause of the contamination. Clean the PLU, DEF Metering Unit and associated air lines as necessary. Verify repair.
    b. No; replace the PLU. Verify repair.
14. Disconnect the DEF tank return line (1) from the DEF pump (2). Refer to section "Removal of the Diesel Exhaust Fluid Line Connections".



NOTE: It is normal to have some DEF discharge from the pump outlet after the SCR air pressure test has been performed.

15. Observe the DEF tank return outlet fitting on the pump while running the SCR air pressure test (60 second duration). Is there fluid discharge from the pump return outlet during the SCR air pressure test?
    a. Yes; replace the DEF pump pneumatic pump switch valve. Refer to section "Removal of the Diesel Exhaust Fluid Pump Module Pneumatic Switching Valve".
    b. No; reconnect the DEF pump tank return line. Go to step 16.
16. Disconnect the DEF pump inlet line. Attach a clear rubber hose over the DEF pump inlet port and place the other end of the hose in a clean container with fresh water. Go to step 17.
17. Perform the SCR air pressure test while monitoring the DEF pressure. Does the DEF pressure reach 496 kPa (72 psi)?
    a. Yes; Go to step 18.
    b. No; replace the DEF pump. Refer to section "Removal of the Diesel Exhaust Fluid Pump Module". Verify repair.
18. Inspect the DEF pump suction line for damage or restrictions. Is the DEF pump suction line damaged or restricted?

a. Yes; replace the DEF pump suction line. Refer to section "Removal of the Diesel Exhaust Fluid Lines (Tank to Pump)". Verify repair.
b. No; inspect the DEF tank header for restrictions. Repair as necessary. Verify repair.