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Service Information Bulletin

SUBJECT	DATE
Symptom Diagnosis - ATD Checklist	March 2015

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	ATD Checklist - EPA07 - EPA10 - GHG14	Minor addition to Step 9; Step 11 is new.



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2 ATD Checklist - EPA07/EPA10/GHG14

Check as follows:

- Reference [FLB 09-35 \(http://servicelit-dtna.app.corpintra.net/newbulletins/serviceBulletins.asp\)](http://servicelit-dtna.app.corpintra.net/newbulletins/serviceBulletins.asp) and verify the air filter is installed correctly. Measure the Air Inlet Restriction with a manual gauge under 100% load (**do not use the gauge on the air filter assembly**). Is the Air Inlet Restriction greater than 18 H₂O"?

Table 1.

_____	Yes	_____ H ₂ O"
_____	No	_____ H ₂ O"

- Pressurize the intake track, including the Charge Air Cooler (CAC) and associated piping, inspecting for leaks. Was a leak found?

Table 2.

_____	Yes	Repair(s) made: _____
_____	No	

- With engine OFF, visually inspect the Exhaust Gas Recirculation (EGR) linkage for damage or limited travel.

Table 3.

_____	Moves freely _____
_____	Repair(s) made: _____

- Inspect for excessive oil coming out of the turbocharger compressor wheel or turbine wheel. Was oil found?

Table 4.

_____	Yes	Compressor or Turbine Wheel? _____
_____	No	



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.



WARNING: ENGINE EXHAUST

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

- Using DiagnosticLink[®], sweep the Intake Throttle Valve (ITV). Is the ITV stuck or is there limited travel?

Table 5.

_____	Moves freely
_____	Stuck/binding. Replace the ITV.

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6. Inspect for exhaust leaks before the Aftertreatment Device (ATD), are any exhaust leaks found?

Table 6.

_____	Yes	Repair(s) made: _____
_____	No	

7. Inspect for plugged delta P ports. Are the delta P ports plugged?

Table 7.

_____	Yes	Clean ports using procedure in 14 TS-2 (http://ddcsn-ddc.freightliner.com/cps/rde/xbcr/ddcsn/14TS2.pdf)
_____	No	

8. Using DiagnosticLink, with the ignition ON (key ON, engine OFF), is the Barometric Pressure (BP) sensor reading above 69 kPa (10 psi) and below 110 kPa (16 psi)?

Table 8.

_____	Yes	
_____	No	Try a test MCM

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9. Compare Inlet Manifold Pressure (IMP) _____ kPa _____ (psi) and Barometric Pressure (BP) sensor _____ kPa _____ (psi). Are both sensor readings within 10.3 kPa (1.5 psi) of each other?

Table 9.

_____	Yes	
_____	No	Replace IMP sensor and verify it is now reading correctly

10. Get readings of ATD temperature sensors with the ignition ON (key ON, engine OFF). Note coolant temperature. The best way to determine if a sensor has drifted out of range is to check the system with the ATD cool.

- Coolant _____ °C (_____ °F)
- DOC in _____ °C (_____ °F)
- DOC out _____ °C (_____ °F)
- DPF out _____ °C (_____ °F)
- SCR in _____ °C (_____ °F)
- SCR out _____ °C (_____ °F)

11. Check the maximum engine speed in DDEC Reports. You must view the Life-To-Date data instead of Trip Activity data. Life-To-Date data can be found by selecting the "View" drop down menu, then selecting "Life-To-Date," and then selecting "Engine." In the resulting page view, look at the Peak Engine rpm and the date it occurred. Is the maximum engine speed greater than the values shown in the chart below?

Table 10.

12 Lobe Intake Camshaft	2800 rpm
6 Lobe Intake Camshaft	3000 rpm

Table 11.

_____	Yes	View past warranty and repair history to determine if both camshafts were replaced after the engine over speed. If they have not been replaced, in the Test-E worksheet, record an X in the "replace" column for both camshafts. Inspect the engine brake rocker arms for loose actuator piston retainers and loose or missing return springs; record necessary repairs.
_____	No	

12. Inspect the CAC Outlet Temperature/Inlet Manifold Pressure (combination) sensor connector for corrosion. Was corrosion found?

Table 12.

_____	Yes	Replace the sensor and pigtail
_____	No	

13. Inspect the IMT sensor connector for corrosion. Was corrosion found?

Table 13.

_____	Yes	Replace the sensor and pigtail
_____	No	



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14. Perform Idle Speed Balance (ISB) test. Record results below.

CYL 1	%	CYL 2	%	CYL 3	%
CYL 4	%	CYL 5	%	CYL 6	%

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15. Perform a Relative Cylinder Compression Test with DiagnosticLink.

CYL 1	%	CYL 2	%	CYL 3	%
CYL 4	%	CYL 5	%	CYL 6	%

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16. Remove DOC inlet pipe from ATD and perform three throttle snaps. There should be one puff of smoke (the size of a basketball) that quickly clears. Is there excessive smoke?

Table 14.

_____	Yes	Manually cut cylinders to try and identify an over-fueling injector
_____	No	