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Service Information Bulletin

SUBJECT	DATE
Symptom Diagnostics - Combustion Gas in Coolant	July 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	Symptom Diagnostics - Combustion Gas in Coolant	This is a new section.



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2 Symptom Diagnostics - Combustion Gas in Coolant

Combustion Gas in Coolant

Check as follows:

1. Verify that the contaminant in the coolant is combustion gas. Oil can darken the coolant appearance and lead to misdiagnosis.
2. Pressure test the Exhaust Gas Recirculation (EGR) cooler.
 - a. For DD13, Refer to section "Testing and Inspection of the DD13 Exhaust Gas Recirculation Cooler Water Manifold Assembly".
 - b. For DD15/16, Refer to section "Testing and Inspection of the DD15 and DD16 Exhaust Gas Recirculation Cooler".
3. Did the EGR cooler pass testing and inspection?
 - a. Yes; Go to step 4.
 - b. No; replace the EGR cooler.
For DD13, Refer to section "Installation of the DD13 EGR Cooler Water Manifold Assembly".
For DD15/16, Refer to section "Installation of the DD15 and DD16 Exhaust Gas Recirculation Cooler".
4. Bypass the coolant supply and return to the air compressor.
5. Does the coolant system pressurize?
 - a. Yes; Go to step 6.
 - b. No; replace the air compressor.
6. Remove the cylinder head.
 - a. For DD13, Refer to section "Removal of the DD13 Cylinder Head".
 - b. For DD15/16, Refer to section "Removal of the DD15 and DD16 Cylinder Head".
7. Inspect the cylinder head gasket for torn or damaged grommets.
8. Is the cylinder head gasket damaged?
 - a. Yes; replace the cylinder head gasket.
 - b. No; Go to step 9.
9. Inspect the cylinder head for cracks and damaged valves.
10. Is the cylinder head or valves damaged?
 - a. Yes; replace the cylinder head.
For DD13, Refer to section "Installation of the DD13 Cylinder Head".
For DD15/16, Refer to section "Installation of the DD15 and DD16 Cylinder Head".
 - b. No; Go to step 11.
11. Inspect the cylinder liners.
Refer to section "Inspection of the Cylinder Liner".
Refer to section "Further Analysis of the Cylinder Liner".
12. Are the cylinder liners damaged?
 - a. Yes; replace the damaged liners and pistons.
Refer to section "Removal of the Cylinder Liner".
Refer to section "Removal of the Piston and Connecting Rod Assembly".
 - b. No; contact the Detroit™ Customer Support Center at 800-445-1980.