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Service Information Bulletin

SUBJECT | DATE
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Testing of the Exhaust Gas Recirculation Cooler | October 2015

Additions, Revisions, or Updates

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<th>Change</th>
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<td>DD Platform</td>
<td>Testing of the DD13 Exhaust Gas Recirculation Cooler Water Manifold Assembly - In Chassis</td>
<td>Title Change Procedure Change</td>
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<td>Testing of the DD15 and DD16 Exhaust Gas Recirculation Cooler</td>
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13400 Outer Drive, West, Detroit, Michigan 48239-4001
Telephone: 313-592-5000
www.demanddetroit.com

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2 Testing of the DD13 Exhaust Gas Recirculation Cooler Water Manifold Assembly - In Chassis

Table 1.

<table>
<thead>
<tr>
<th>Tool Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>W470589019100</td>
<td>EGR Cooler Leak Tester (DD13/DD15/DD16)</td>
</tr>
<tr>
<td>W470589003700</td>
<td>EGR Cooler Leak Tester (DD13)</td>
</tr>
<tr>
<td>J-47192</td>
<td>EGR Cooler Leak Test Kit</td>
</tr>
</tbody>
</table>

Test as follows:

NOTE: Before performing this procedure, turn off the engine and allow it to cool, coolant should be below 60°C (140°F).

1. Remove the Exhaust Gas Recirculation (EGR) hot pipe. Refer to section "Removal of the Exhaust Gas Recirculation Hot Pipe".
2. Remove EGR mixer pipe. Refer to section "Removal of the Mixer Pipe".
3. Disconnect coolant inlet temperature sensor electrical harness connector.
4. Remove the venturi pipe. Refer to section "Removal of the Exhaust Gas Recirculation Venturi".
5. Unbolt and move the exhaust gas crossover tube/lifting the eye to the side, away from the EGR cooler. Refer to section "Removal of the Exhaust Gas Recirculation Crossover Tube".
6. Install special tools W470589019100 and W470589003700 onto the EGR cooler water manifold assembly.
   • Install the EGR hot pipe cap (2) with the supplied Marmon clamp (3) on to the hot pipe end.
   • Install the cold pipe plug (1). Use a suitable lubricant on the outer diameter in which the O-ring will not be damaged during installation.
   • Install one shell (4) on the outside of the EGR cooler water manifold assembly cold pipe side and retain it with the supplied clamp.
Table 2.

<table>
<thead>
<tr>
<th>Special Tools W470589019100 and W470589003700</th>
</tr>
</thead>
</table>

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Table 3.

<table>
<thead>
<tr>
<th>Correct Installation of the Special Tools W470589019100 and W470589003700</th>
</tr>
</thead>
</table>

7. Use regulator from kit J–41473 and apply 30 psi air pressure to the cooler. Close the valve and disconnect the air supply.

8. Spray a soapy water mixture around both inlet and outlet connections of the EGR cooler water manifold assembly. Verify no bubbles are coming from the tool connections. The figure below shows leaking tool connections.
9. Wait 30 minutes and record the air gauge reading. There should be no drop in pressure. If the EGR cooler water manifold assembly is leaking it should be replaced. Refer to section "Removal of the DD13 Exhaust Gas Recirculation Cooler Water Manifold Assembly".
3 Testing of the DD15 and DD16 Exhaust Gas Recirculation Cooler

Table 4.

<table>
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</tr>
</tbody>
</table>

Test as follows:

**NOTE:** Before performing this procedure, turn off the engine and allow it to cool, coolant should be below 60°C (140°F).

1. Remove the Exhaust Gas Recirculation (EGR) hot pipe. Refer to section "Removal of the Exhaust Gas Recirculation Hot Pipe".
2. Remove the four bolts from the EGR cooler straps and remove straps.
3. Remove the EGR cooler from the water manifold and place it on a suitable work bench.
4. Install W470589019100 onto the EGR cooler.
   - Install the hot pipe cap (2) with the supplied Marmon clamp (3) on to the hot pipe end.
   - Install the cold pipe plug (1) into the cold pipe end. Use a suitable lubricant on the outer diameter in which the O-ring will not be damaged during installation.
   - Install the supplied clamshell and clamp (4).

Table 5.

Special Tools W470589019100 and W470589003700
5. Use regulator from kit J–41473 and apply 30 psi air pressure to the cooler. Close the valve and disconnect the air supply.

6. Spray a soapy water mixture around both inlet and outlet connections of the EGR cooler water manifold assembly. Verify no bubbles are coming from the tool connections. The figure below shows leaking tool connections.
7. Wait 30 minutes and record the air gauge reading. There should be no drop in pressure. If the EGR cooler water manifold assembly is leaking, it should be replaced. Refer to section "Removal of the DD15 and DD16 Exhaust Gas Recirculation Cooler".