

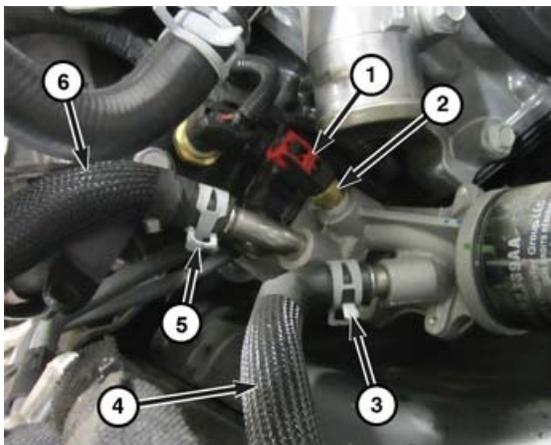


Engine Oil Leak on 2014 Dodge/Ram 6.4L Engines

The AERA Technical Committee offers the following information regarding an engine oil leak on 2014 Dodge/Ram 6.4L engines. The engines affected are in the sales codes of ESA or ESB in various Ram truck models. Engine oil leaks have been reported near the engines oil cooler and Oil Filter Adapter (OFA). Leakage is considered a safety concern as risk of fire may exist if the condition is not remedied.

If the source of leak is not evident from the OFA or oil cooler the use of a chemical dye Part #05010042AB may help to pin point leakage locations. The use of a special tool, Snap-on TMUSM8A 1/4 in. drive, 6 pt. 8mm shallow universal, will also speed up the repair if necessary. Follow the steps listed below to resolve oil leakage/seepage on these engines.

1. Install one bottle of Mopar leak detection dye into the oil fill tube.
2. Start engine and allow to idle for approximately 15 minutes to allow the dye to adequately circulate through the entire oiling system.
3. Raise vehicle on a suitable hoist.
4. Using a black light, inspect the mating areas between the oil cooler and OFA and between the OFA and engine block. Were any signs of seepage present?
 - a. Yes>>> Proceed to Step 5.
 - b. No>>> Repair Complete.



1. Oil Temperature Sensor Connector
2. Tighten Sensor to 108 IN/LBS (12 Nm)
3. Coolant Hose Clamp
4. Coolant Hose
5. Coolant Hose Clamp
6. Coolant Hose

5. Using tool TMUSM8A and appropriate length extension, verify the OFA to engine block fasteners are torqued to 108 IN/LBS (12 Nm). Tighten the fasteners if necessary.

NOTE: Tool TMUSM8A (or equivalent) is required to obtain proper torque when checking OFA fastener torque with the cooler installed on engine.

6. Verify the oil cooler to OFA fasteners are torqued to 108 FT/LBS (12 Nm). Tighten the fasteners if necessary.



7. Using a clean shop towel, remove any residual oil from the leak points noted in Step 4.
8. Start engine again and allow to idle for approximately 15 minutes.
9. Using a black light, inspect the mating areas between the oil cooler and OFA and between the OFA and engine block. Were any signs of seepage present?
 - a. Yes>>> Proceed to Step 10.
 - b. No>>> Repair Complete.
10. Remove the oil filter drip tray from the frame crossmember.
11. Remove the oil cooler to OFA fasteners and separate the cooler from the OFA.
12. Replace the O-rings.
13. Were there any signs of seepage noted between the OFA and the engine block in Step 9?
 - a. Yes>>> Proceed to Step 14.
 - b. No>>> Repair Complete.
14. Using clamping pliers, clamp off both the inlet and outlet coolant hoses near the OFA connections.
15. Remove both coolant hoses from the OFA.
16. Disconnect the oil temperature sensor connector.
17. Remove the OFA to engine block fasteners and separate the OFA from the block.
18. Replace the O-rings.
19. Reinstall the OFA assembly on the engine block. Torque fasteners to 108 IN/LBS (12 Nm).

NOTE: Ensure both O-rings remain in position before installing fasteners. Utilize an inspection mirror if necessary.
20. Reinstall both coolant hoses to the OFA connections.
21. Reconnect the oil temperature sensor connector.
22. Reinstall the oil cooler on the OFA. Torque fasteners to 108 IN/LBS (12 Nm). Ensure all four O-rings remain in position before installing fasteners.
23. Reinstall engine oil filter drip tray.
24. Verify proper engine coolant level and verify proper engine oil level.
25. Start engine again and allow to idle for approximately 15 minutes and verify no seepage exists.

PARTS REQUIRED DESCRIPTION

Quantity	Part Number	Description
1	05010042AB	Dye, 4 in 1 Leak Detection
1	53021661AA	Large O-Ring, Oil Filter Adapter
1	53021660AC	Small O-Ring, Oil Filter Adapter
1	68241151AA	O-Ring Package, Engine Oil Cooler