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Service Information Bulletin

SUBJECT	DATE
GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator	July 2015

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0083	DD Platform	Removal of the GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator	Notices and links were added
		Installation of the GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator	Notices and links were added. Graphic added at step 6.



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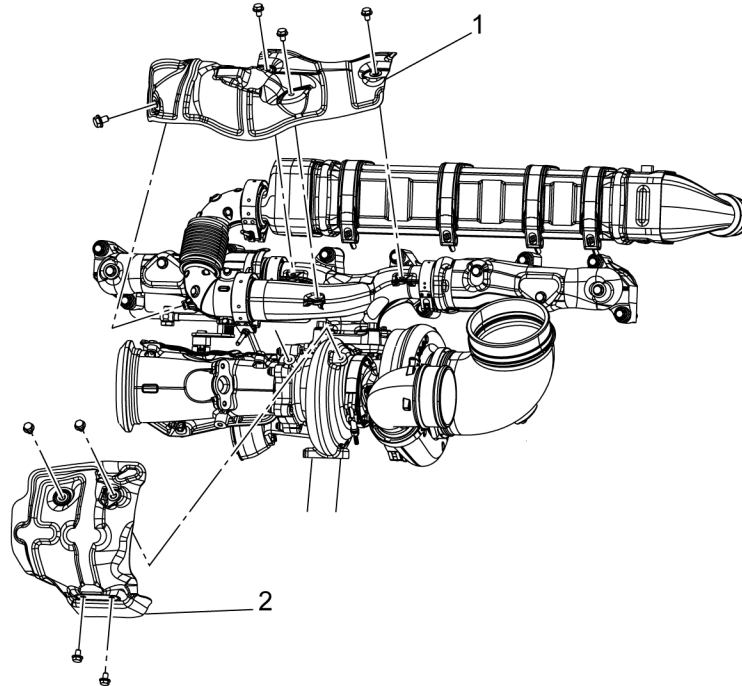
2 Removal of the GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator

On the DD15 with an asymmetrical turbocharger, the Exhaust Gas Recirculation (EGR) actuator is located on the cylinder block as opposed to the turbo-compound model DD15, where the EGR actuator is mounted in a bracket on the exhaust manifold.

Remove as follows:

NOTICE: The clamping nut and actuator rod must remain installed to the actuator linkage when removing or installing the lock nut to avoid damage to the actuator valve gears.

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Disconnect the batteries. Refer to OEM procedures.
3. Open the hood.
4. Remove the turbocharger inlet pipe from the air filter housing and turbo inlet elbow.
5. Drain the coolant. Refer to section "Cooling System Drain Procedure".
6. Remove the turbocharger (2) and exhaust manifold (1) heat shield. See figure below.



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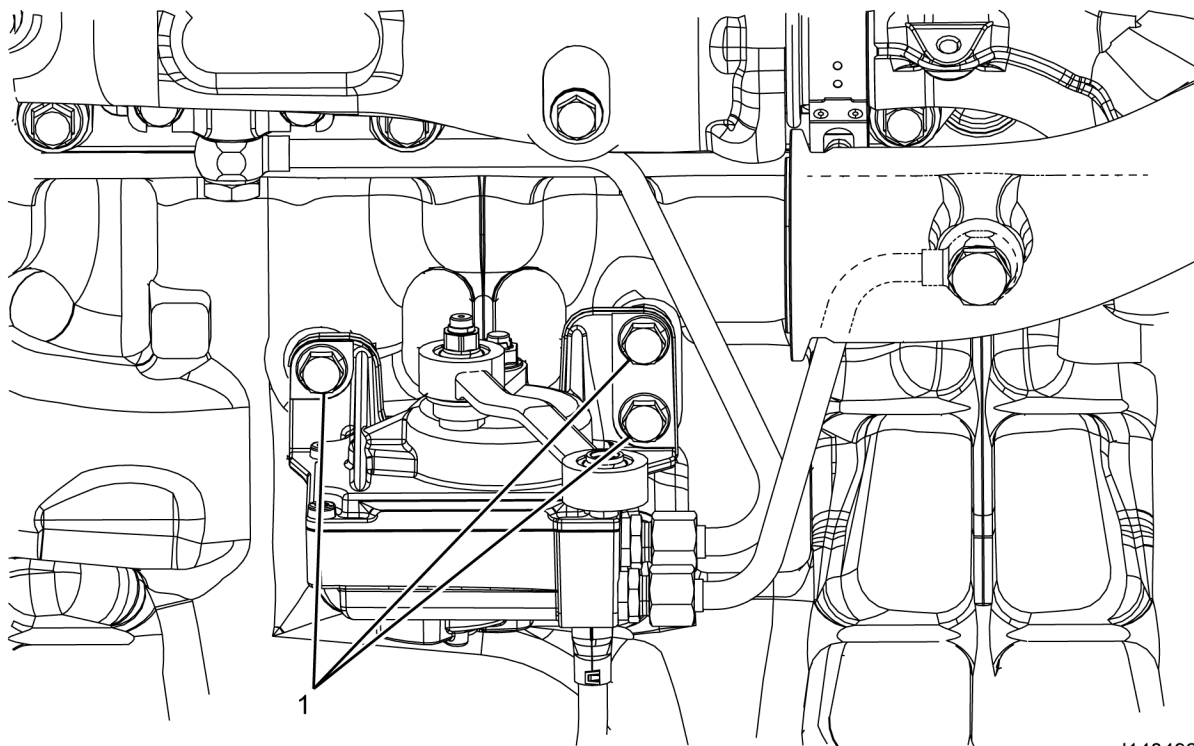
NOTICE: The EGR valve actuator shaft must be held still using a wrench when removing or installing the actuator lever or pull rod clamping nuts to avoid damage to the EGR valve actuator internal end stops.

7. Remove the EGR valve actuator pull rod. Refer to section "Removal of the GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator Pull Rod".

NOTE: If replacing the EGR valve actuator, remove the EGR actuator valve lever. Refer to section "Removal of the Exhaust Gas Recirculation Actuator Lever".

NOTICE: To prevent damage to the coolant inlet and outlet lines, hold the adaptor fittings with a wrench during line removal.

8. Remove the coolant inlet line from the EGR valve actuator and cylinder block adaptor fitting. Discard seal rings.
9. Remove the coolant outlet line from the EGR valve actuator adaptor and water manifold. Discard seal rings.
10. Disconnect the electrical harness connector from the EGR Valve actuator and unclip the actuator harness from the bracket. The gray tab slides out and then must be pressed in order to be released.
11. Remove the three actuator bolts (1) holding the EGR actuator to the cylinder block and remove the EGR actuator.



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Table 1.

Note: If replacing the EGR valve actuator, remove the coolant line fittings with sealing rings from the EGR valve actuator
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3 Installation of the GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator

On the DD15 with an asymmetrical turbocharger, the Exhaust Gas Recirculation (EGR) actuator is located on the cylinder block as opposed to the turbo-compound model DD15, where the EGR actuator is mounted in a bracket on the exhaust manifold.

Install as follows:

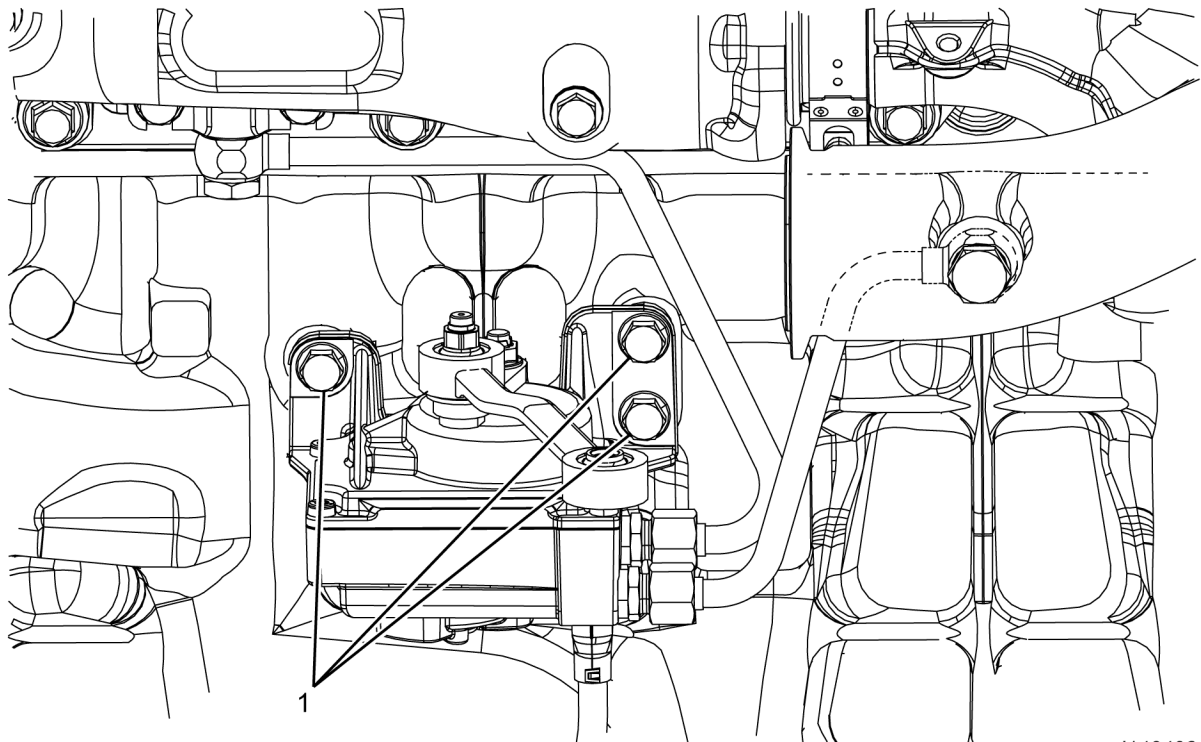
NOTICE: If reusing the original Exhaust Gas Recirculation (EGR) valve actuator bracket bolts, always apply a small amount of copper-based anti-seize compound to the bolts. The original coating will burn off and that makes it necessary to reapply the anti-seize compound.

NOTICE: Ensure the bracket and exhaust manifold are at ambient temperature when the actuator bracket bolts are torqued.

NOTICE: Do not turn on the ignition power until all of the installation steps are completed.

NOTE: If replacing the EGR valve actuator, the coolant line fittings on the EGR valve actuator will be reused from the previous actuator. Install the coolant line fittings with new sealing rings. Torque the fittings to 25 N·m (18 lb·ft).

1. Install the Exhaust Gas Recirculation (EGR) valve actuator to cylinder block with the three bolts. Torque bolts to 30 N·m (22 lb·ft)



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NOTICE: The EGR valve actuator shaft must be held still using a wrench when removing or installing the actuator lever or pull rod clamping nuts to avoid damage to the EGR valve actuator internal end stops.

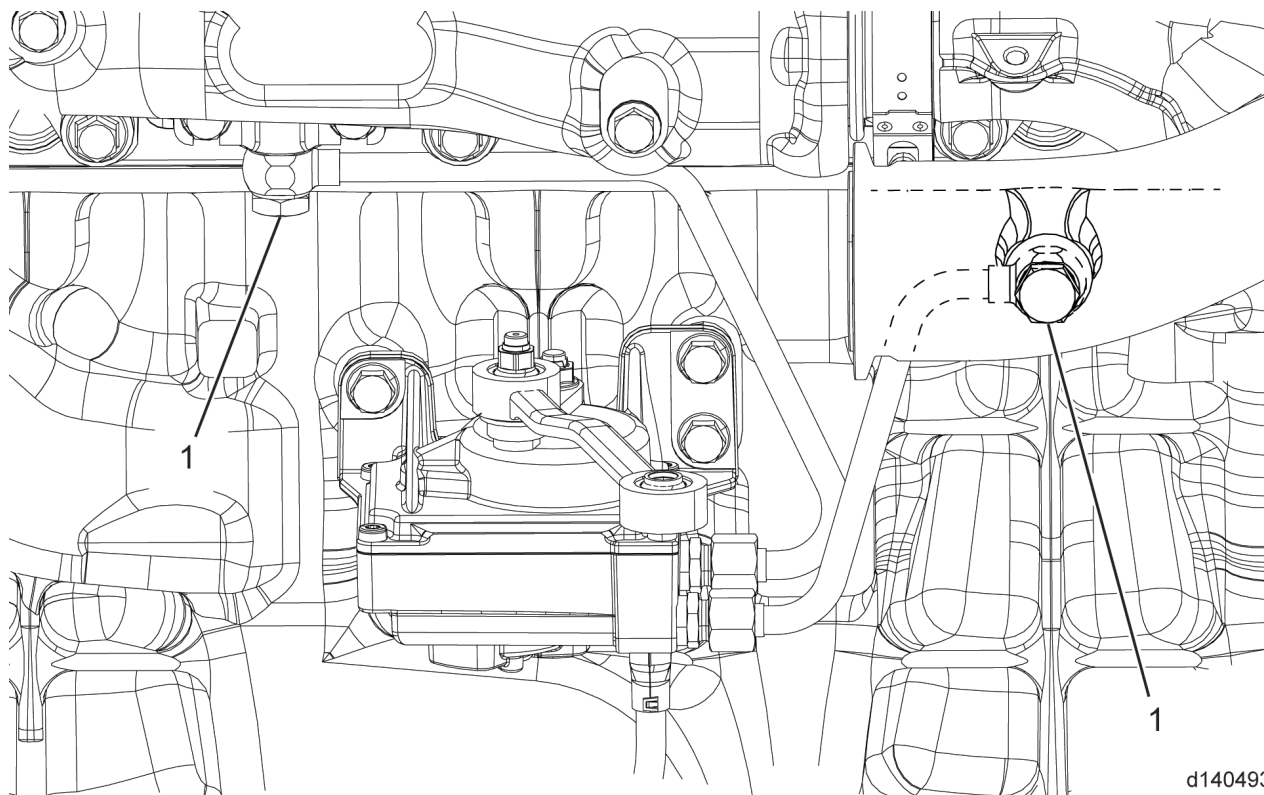
NOTICE:

If replacing the EGR valve actuator, the EGR actuator valve lever will be reused from the previous actuator. Install the EGR valve actuator lever. Refer to section "Installation of the Exhaust Gas Recirculation Actuator Lever".

2. Install the EGR valve actuator pull rod. Refer to section "Installation of the GHG14 DD15 AT Exhaust Gas Recirculation Valve Actuator Pull Rod".

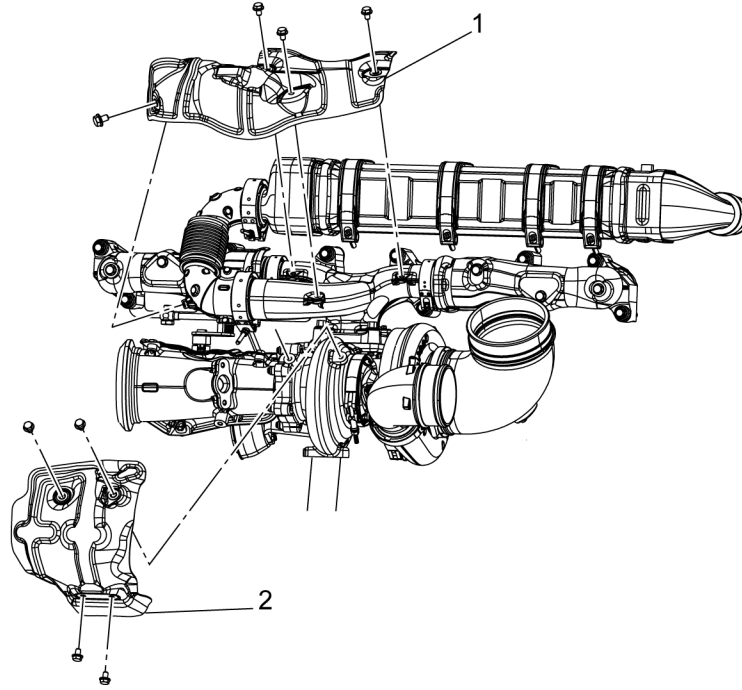
NOTICE: To prevent damage to the coolant inlet and outlet lines, hold the adaptor fittings with a wrench while line is being set to the proper torque.

3. Install the outlet coolant line from the EGR valve actuator to the water manifold . Torque the coolant line to the EGR valve actuator and the coolant line banjo bolt to the water manifold to 35 N·m (25 lb·ft).



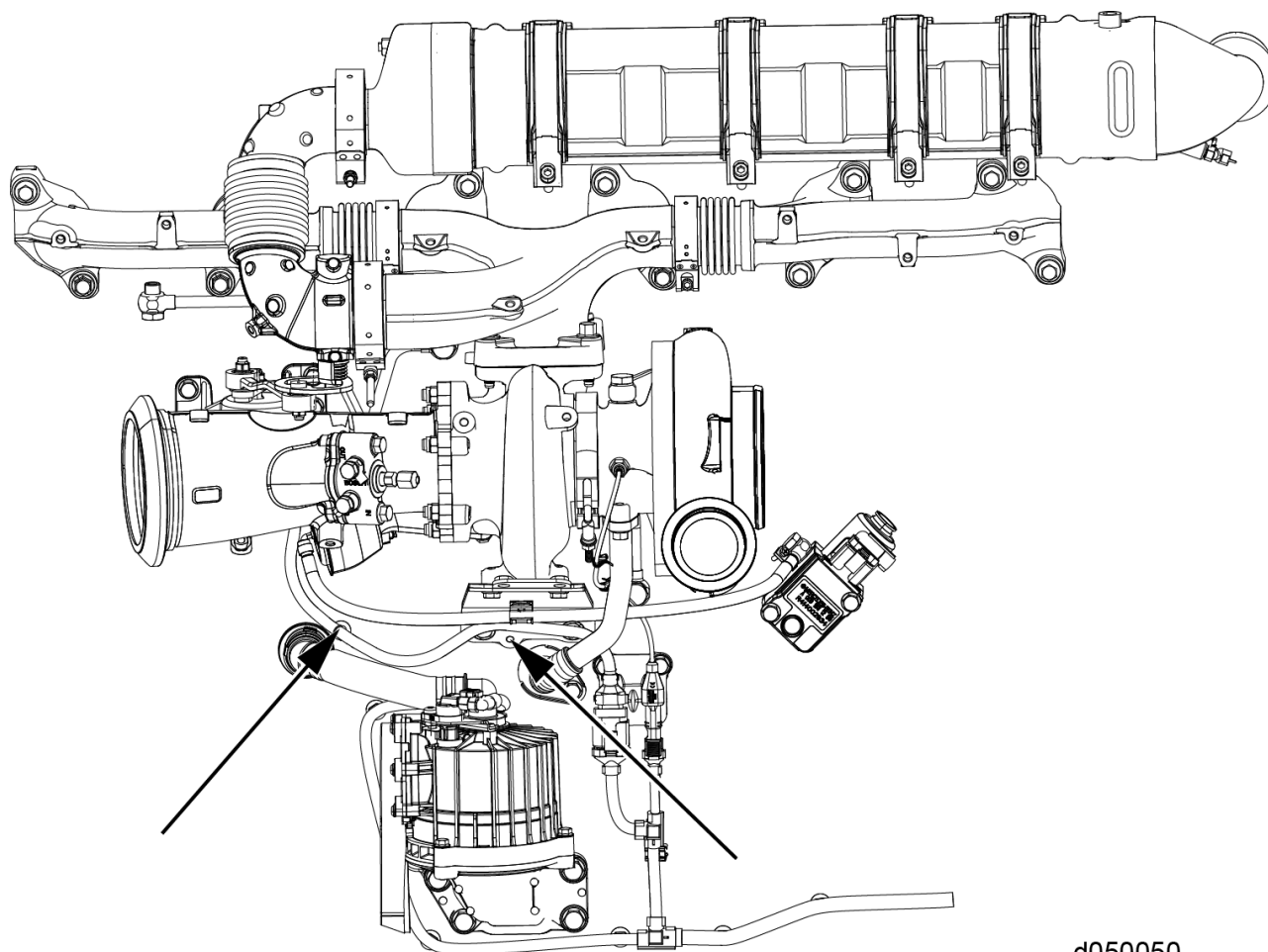
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4. Install the inlet coolant line from the engine block to the EGR valve actuator. Torque the coolant line to EGR valve actuator and the coolant line banjo bolt to the cylinder block to 35 N·m (25 lb·ft).
5. Install the turbocharger (2) and exhaust manifold (1) heat shields. Torque bolts to 12 N·m (106 lb·in.).



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6. Connect the electrical harness connector to the EGR valve actuator. Secure the connector to the mounting bracket on the cylinder block. See figure below.



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7. Connect the batteries. Refer to OEM procedures.
8. Fill the cooling system with coolant. Refer to section "Cooling System Fill Procedure".
9. Run the "EGR Actuator Slow Learn" procedure in DiagnosticLink[®]

**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.

10. Start the engine and check for coolant and exhaust leaks.