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Service Information Bulletin

SUBJECT	DATE
GHG17 Heavy Duty- Exhaust & EGR - EGR Actuator Coolant Lines	April 2017

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0190	GHG17 Heavy Duty DD13/15/16	Removal of the DD13 and DD15 EGR Valve Actuator Coolant Return Line	New Sections.
		Installation of the DD13 and DD15 EGR Valve Actuator Coolant Return Line	
		Removal of the DD13 and DD15 EGR Valve Actuator Coolant Supply Line	
		Installation of the DD13 and DD15 EGR Valve Actuator Coolant Supply Line	
		Removal of the DD16 EGR Valve Actuator Coolant Return Line	
		Installation of the DD16 EGR Valve Actuator Coolant Return Line	
		Removal of the DD16 EGR Valve Actuator Coolant Supply Line	
		Installation of the DD16 EGR Valve Actuator Coolant Supply Line	



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2 Removal of the DD13 and DD15 Exhaust Gas Recirculation Valve Actuator Coolant Return Line

Remove as follows:



WARNING: PERSONAL INJURY

To avoid injury, never remove any engine component while the engine is running.

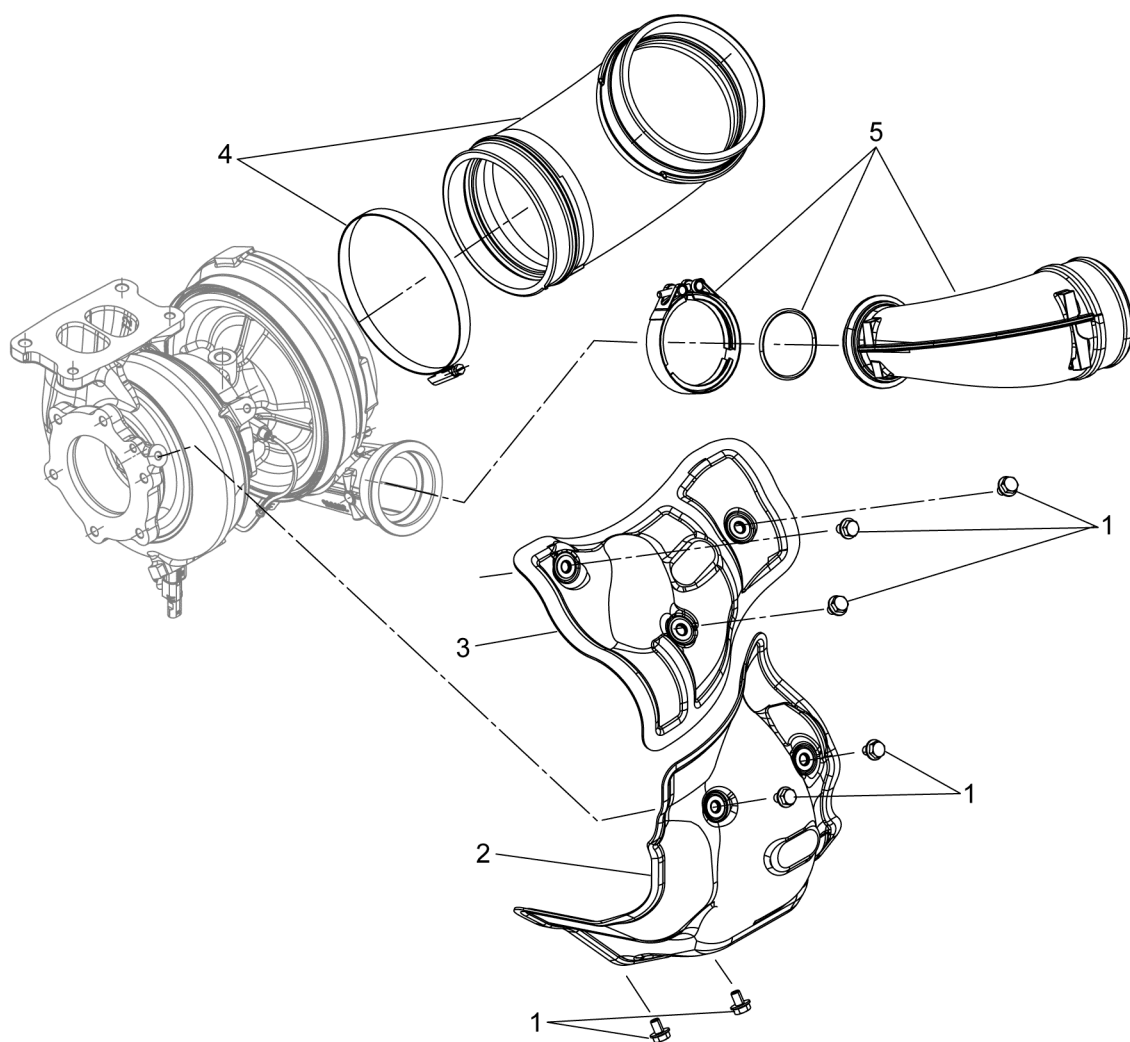
1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

2. Disconnect batteries.
3. Open hood.
4. If needed, remove the bumper. Refer to OEM procedures.
5. If needed remove the splash shield. Refer to OEM procedures.
6. Drain the coolant. Refer to section "Cooling System Drain Procedure".
7. Remove the Exhaust Gas Recirculation (EGR) valve heat shield (3).

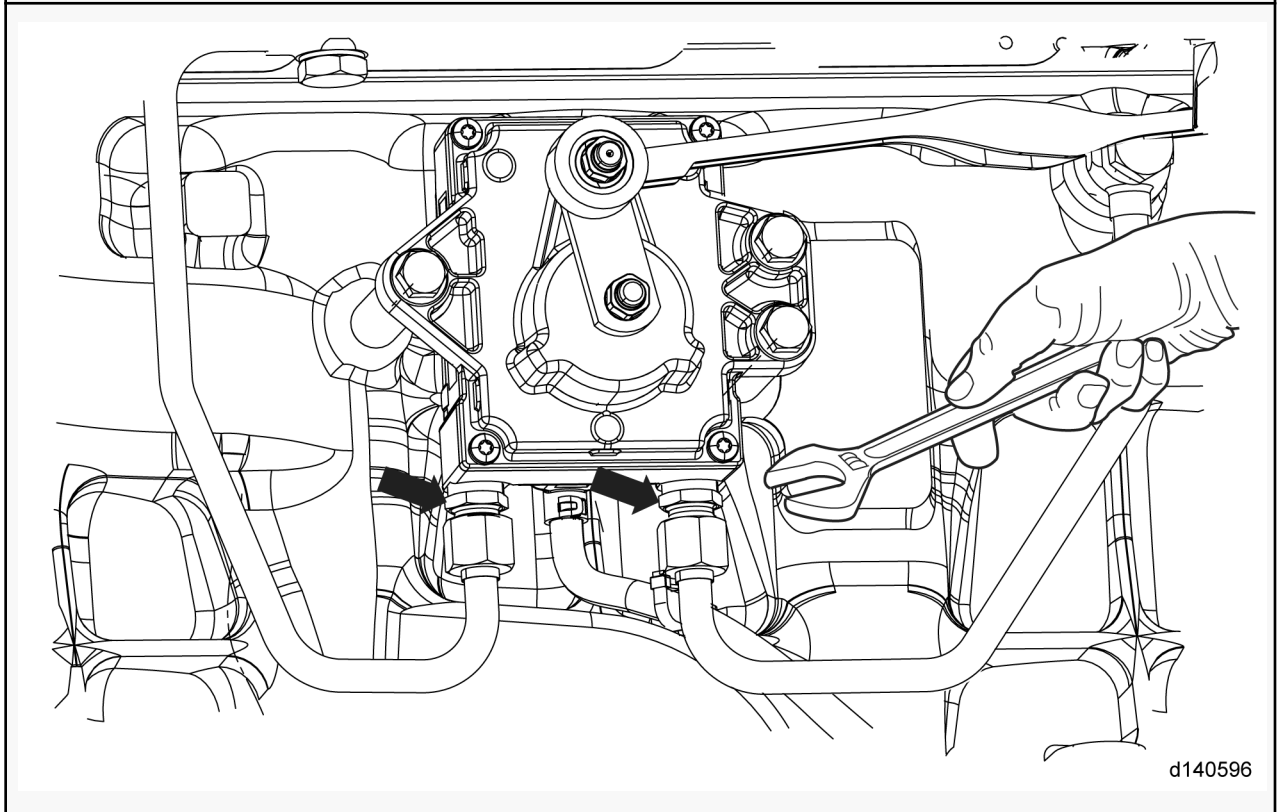


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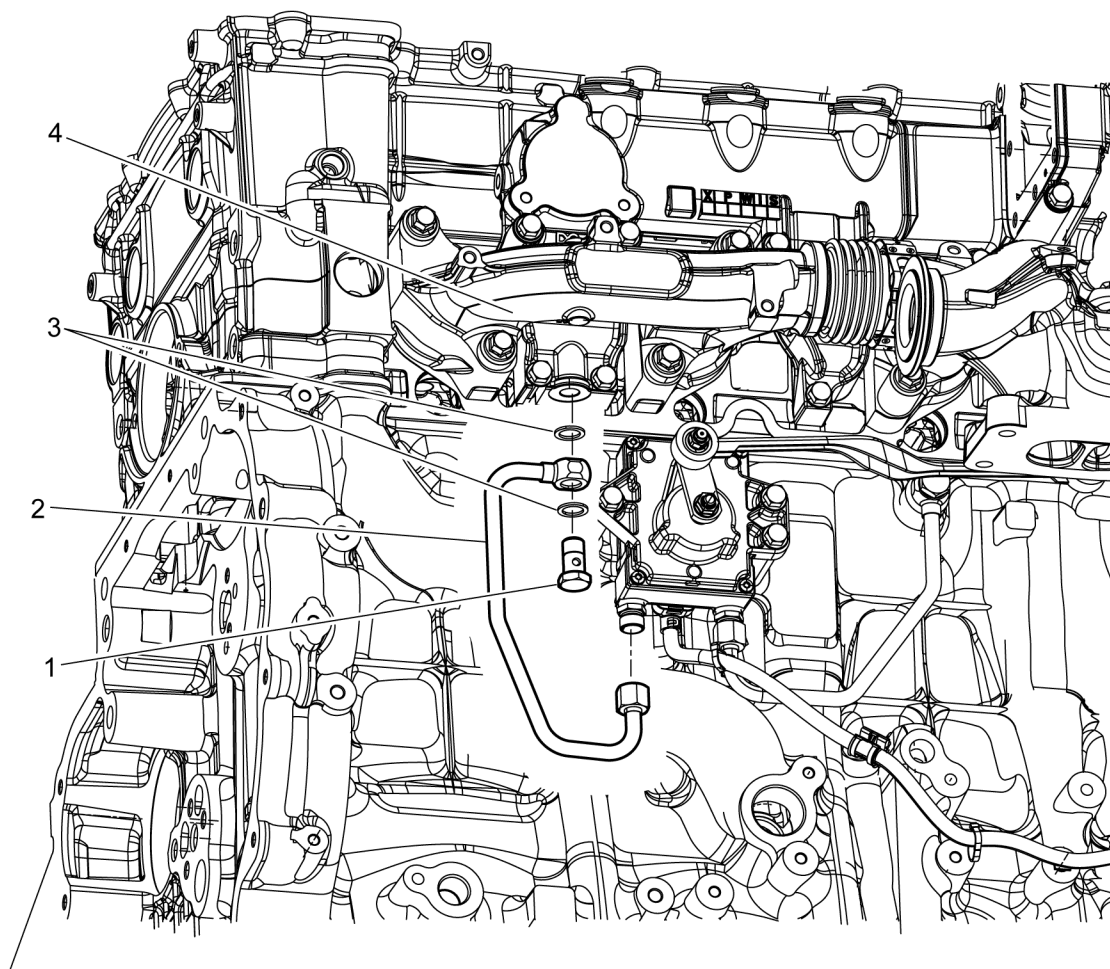
8. Remove the turbocharger heat shield (2).

Table 1.

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



9. Remove the EGR actuator coolant return line (2) banjo bolt (1) at the EGR cooler water manifold and flare nut at the EGR valve actuator(4). Discard seal rings (3).



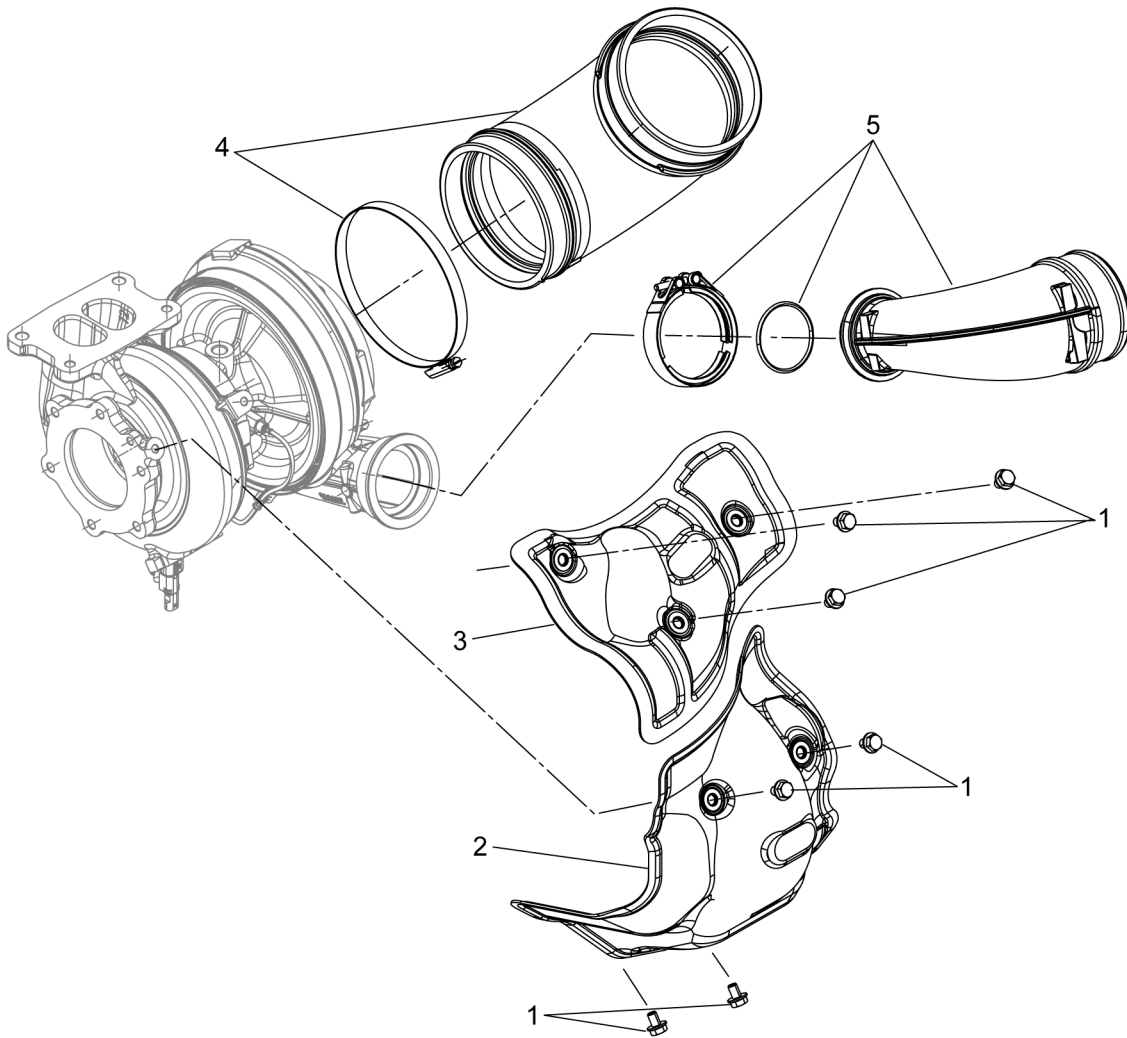
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3 Installation of the DD13 and DD15 Exhaust Gas Recirculation Valve Actuator Coolant Return Line

Install as follows:

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

1. Install the EGR valve actuator coolant return line to the EGR valve actuator and water manifold with new seal rings. Hand tighten.
2. Torque both EGR valve actuator coolant return line flare nut and banjo bolt to 35 N·m (26 lb·ft).
3. Install the turbocharger heat shield (2).



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4. Install the Exhaust Gas Recirculation (EGR) valve heat shield (3).
5. Fill the coolant system. Refer to section "Cooling System Fill Procedure".
6. If removed, install the bumper. Refer to OEM procedures.
7. If removed install the splash shield. Refer to OEM procedures.

**CAUTION: ELECTRICAL SHOCK**

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

8. Connect the batteries.
9. Close hood.

4 Removal of the DD13 and DD15 Exhaust Gas Recirculation Valve Actuator Coolant Supply Line

Remove as follows:

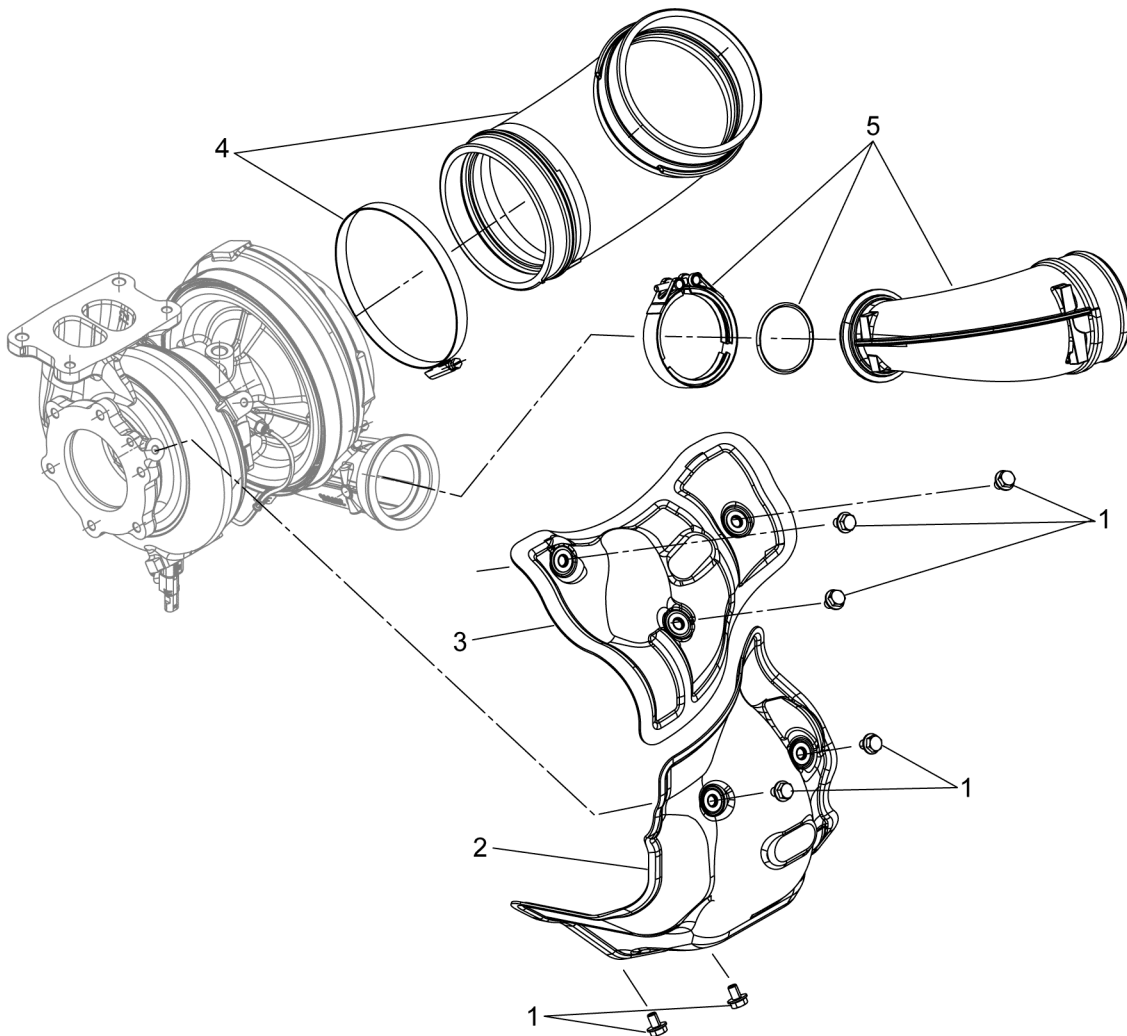
1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

2. Disconnect batteries.
3. Open hood.
4. If needed, remove the bumper. Refer to OEM procedures.
5. If needed remove the splash shield. Refer to OEM procedures.
6. Drain the coolant. Refer to section "Cooling System Drain Procedure".
7. Remove the Exhaust Gas Recirculation (EGR) valve heat shield (3).

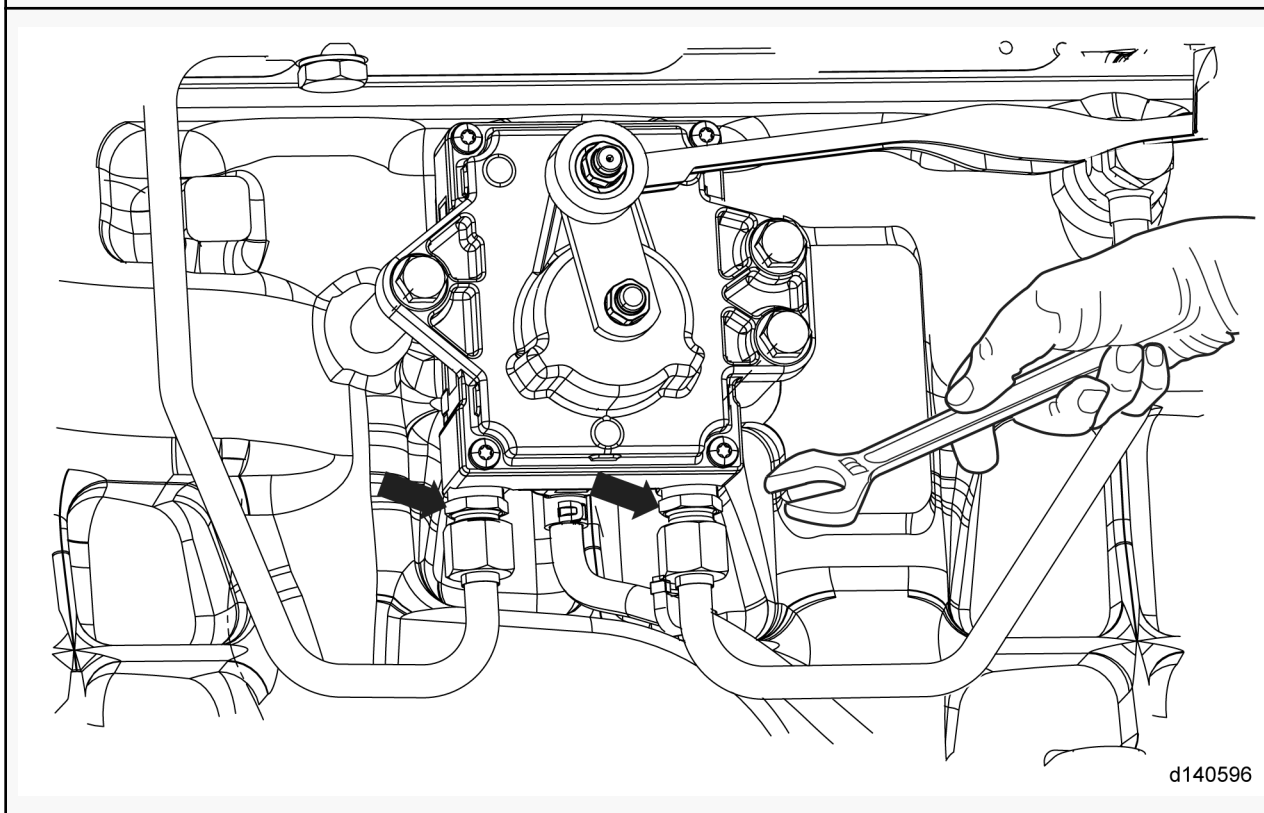


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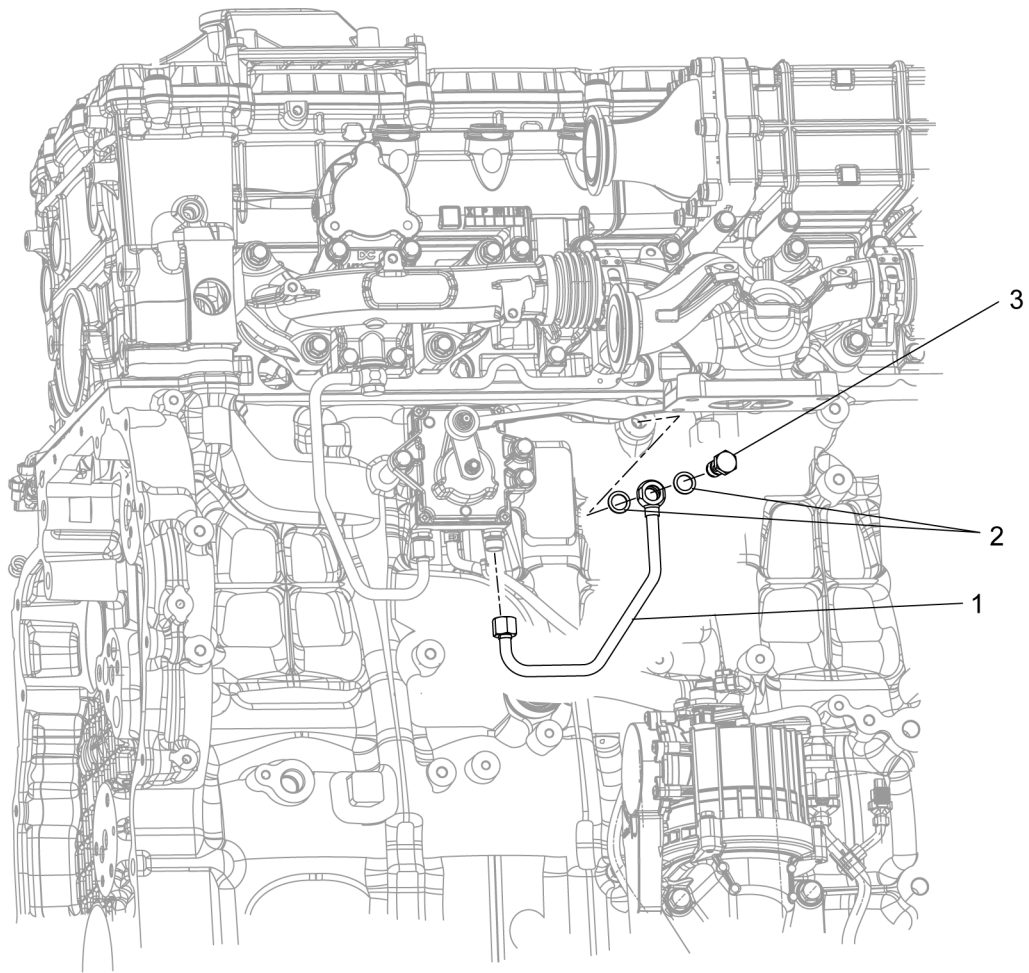
8. Remove the turbocharger heat shield (2).

Table 2.

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



9. Remove the EGR actuator coolant supply line (1) banjo bolt (3) at the cylinder block and flare nut at the EGR valve actuator. Discard seal rings (2).

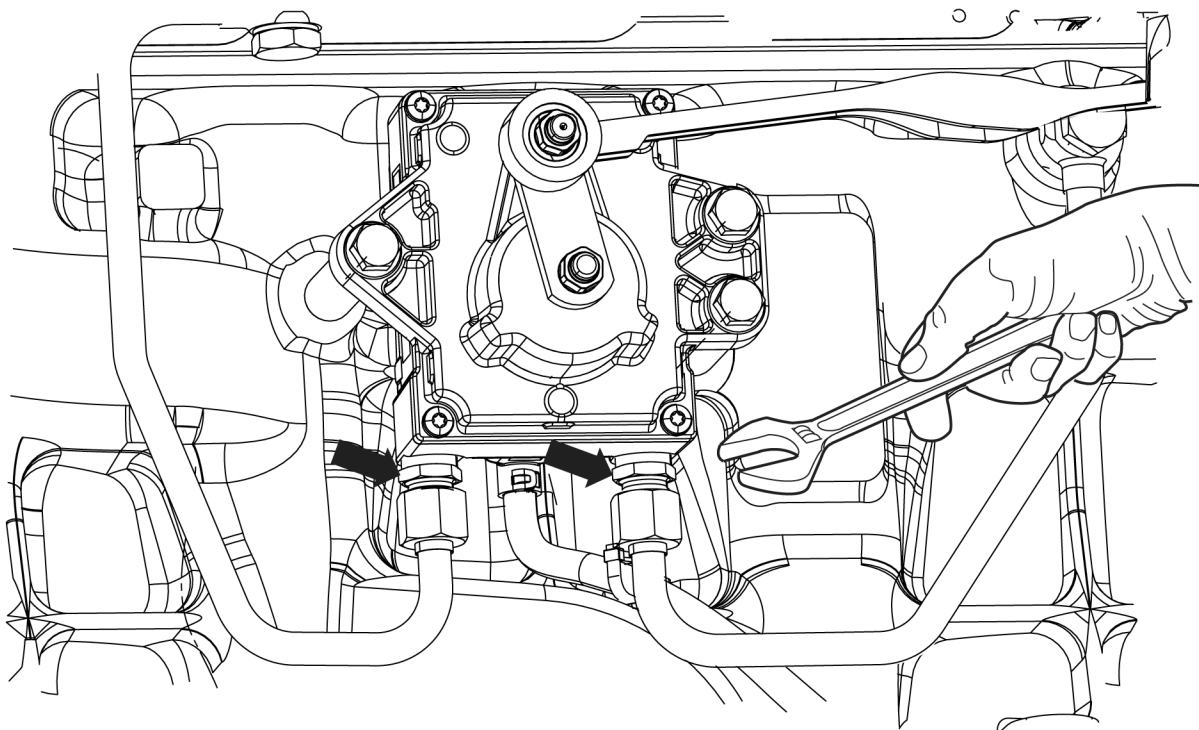


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5 Installation of the DD13 and DD15 Exhaust Gas Recirculation Valve Actuator Coolant Supply Line

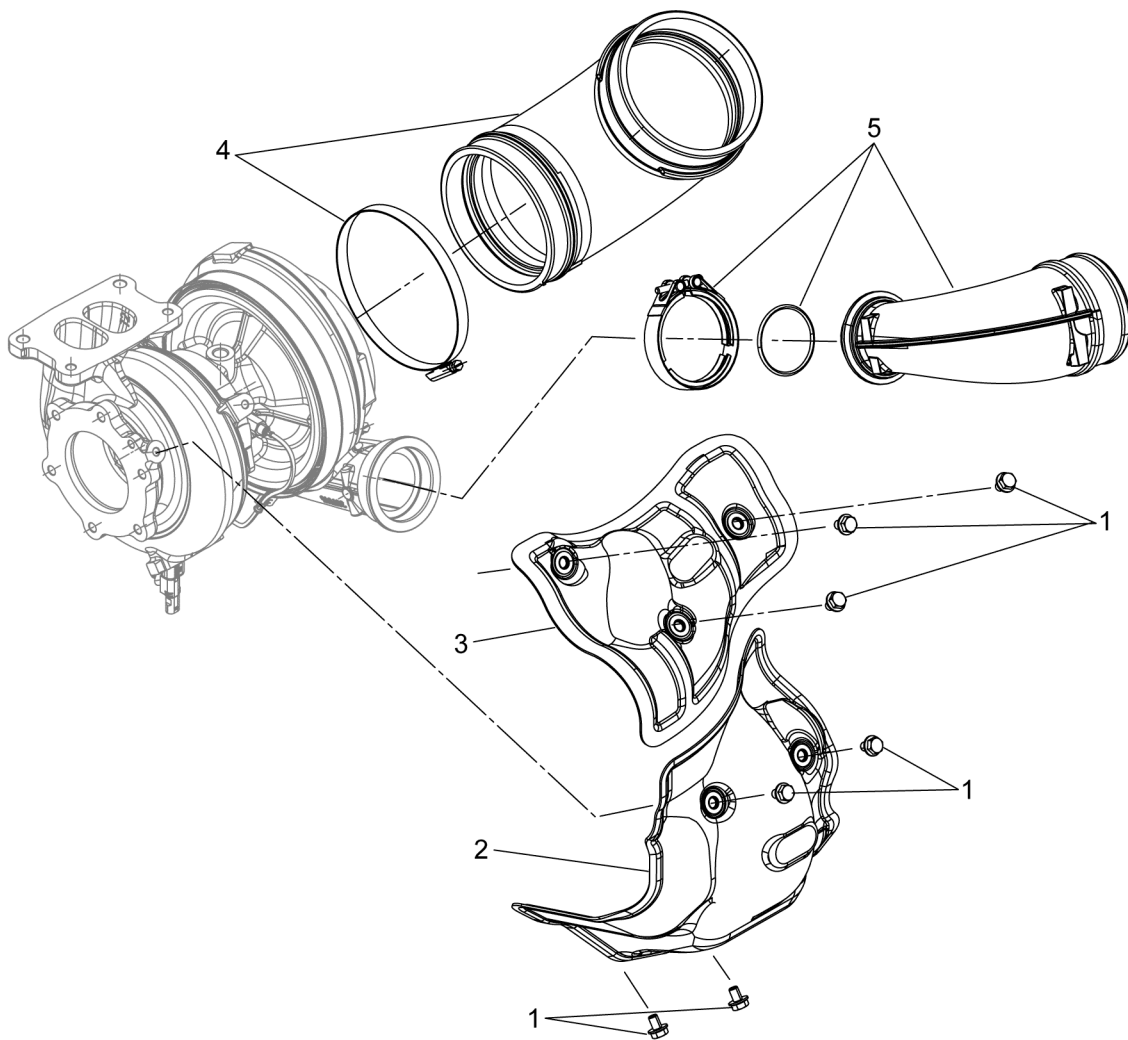
Install as follows:

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



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1. Install the EGR valve actuator coolant supply line to the manifold with new seal rings. Hand-tighten.
2. Torque both EGR valve actuator coolant return line flare nut and banjo bolt to 35 N·m (26 lb·ft).
3. Install the turbocharger heat shield (2).



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4. Install the Exhaust Gas Recirculation (EGR) valve heat shield (3).
5. Fill the coolant system. Refer to section "Cooling System Fill Procedure".
6. If removed, install the bumper. Refer to OEM procedures.
7. If removed install the splash shield. Refer to OEM procedures.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

8. Connect the batteries.
9. Close hood.

6 Removal of the DD16 Exhaust Gas Recirculation Valve Actuator Coolant Return Line

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.



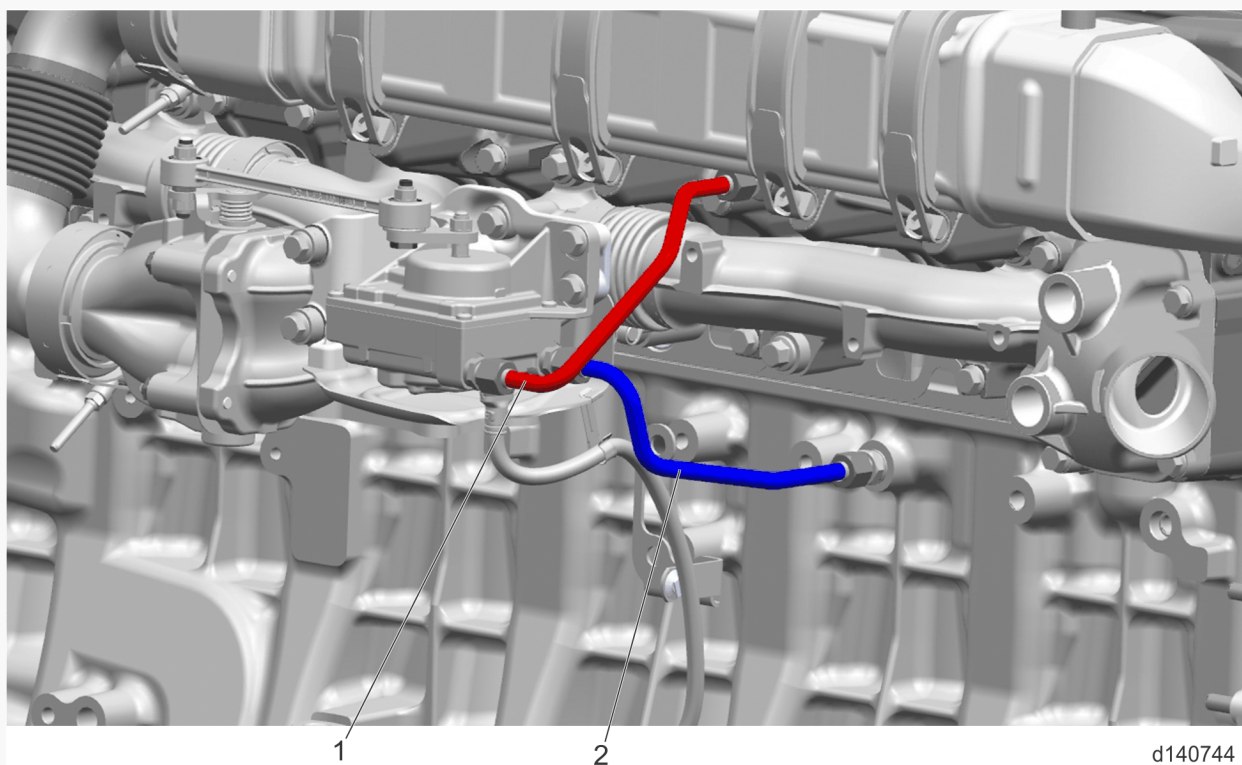
CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

2. Disconnect batteries.
3. Open hood.
4. If needed, remove the bumper. Refer to OEM procedures.
5. If needed remove the splash shield. Refer to OEM procedures.
6. Drain the coolant. Refer to section "Cooling System Drain Procedure".
7. Remove the Exhaust Gas Recirculation (EGR) valve heat shield.
8. Remove the turbocharger heat shield.

Table 3.

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

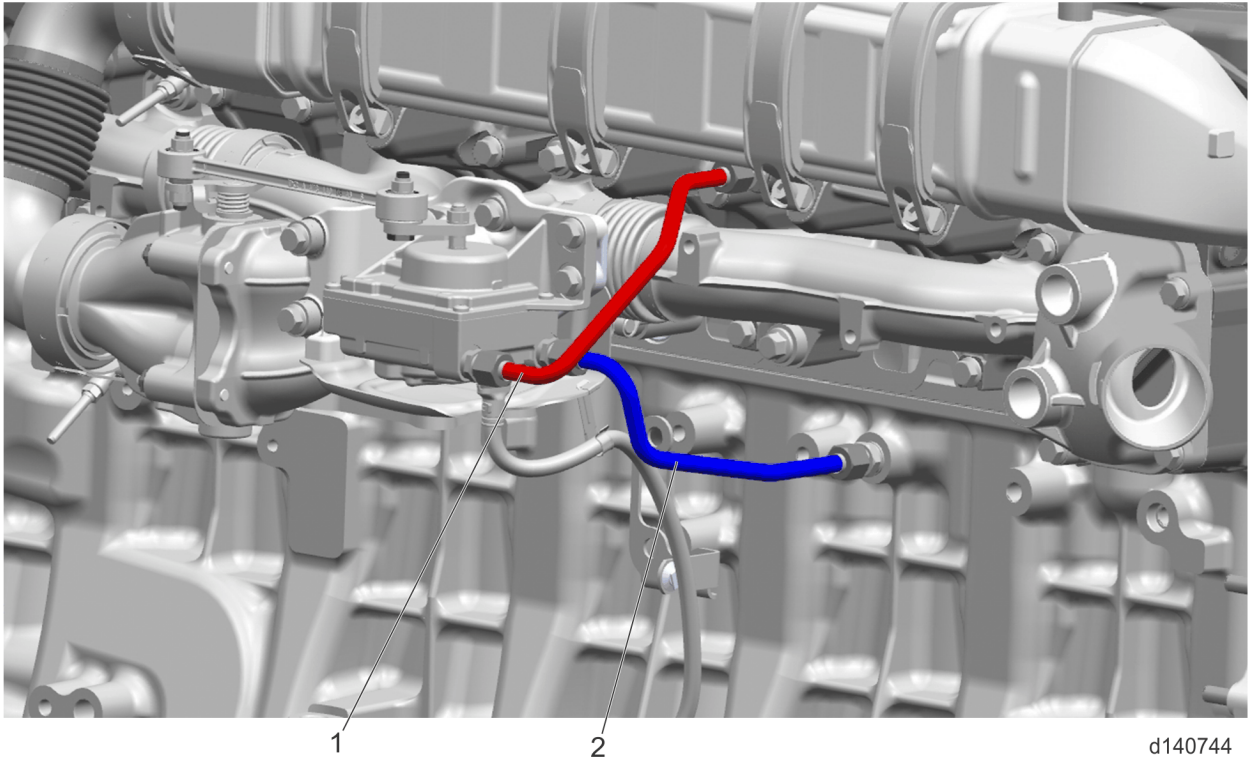


9. Remove the EGR actuator coolant return line (1).

7 Installation of the DD16 Exhaust Gas Recirculation Valve Actuator Coolant Return Line

Install as follows:

1. Install the Exhaust Gas Recirculation (EGR) actuator coolant return line (1).



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

2. Torque both flare nut fittings to 35 N·m (26 lb·ft).
3. Install the turbocharger heat shield.
4. Install the Exhaust Gas Recirculation (EGR) valve heat shield.
5. Fill the coolant system. Refer to section "Cooling System Fill Procedure".
6. If removed, install the bumper. Refer to OEM procedures.
7. If removed install the splash shield. Refer to OEM procedures.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

8. Connect the batteries.
9. Close hood.

8 Removal of the DD16 Exhaust Gas Recirculation Valve Actuator Coolant Supply Line

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.



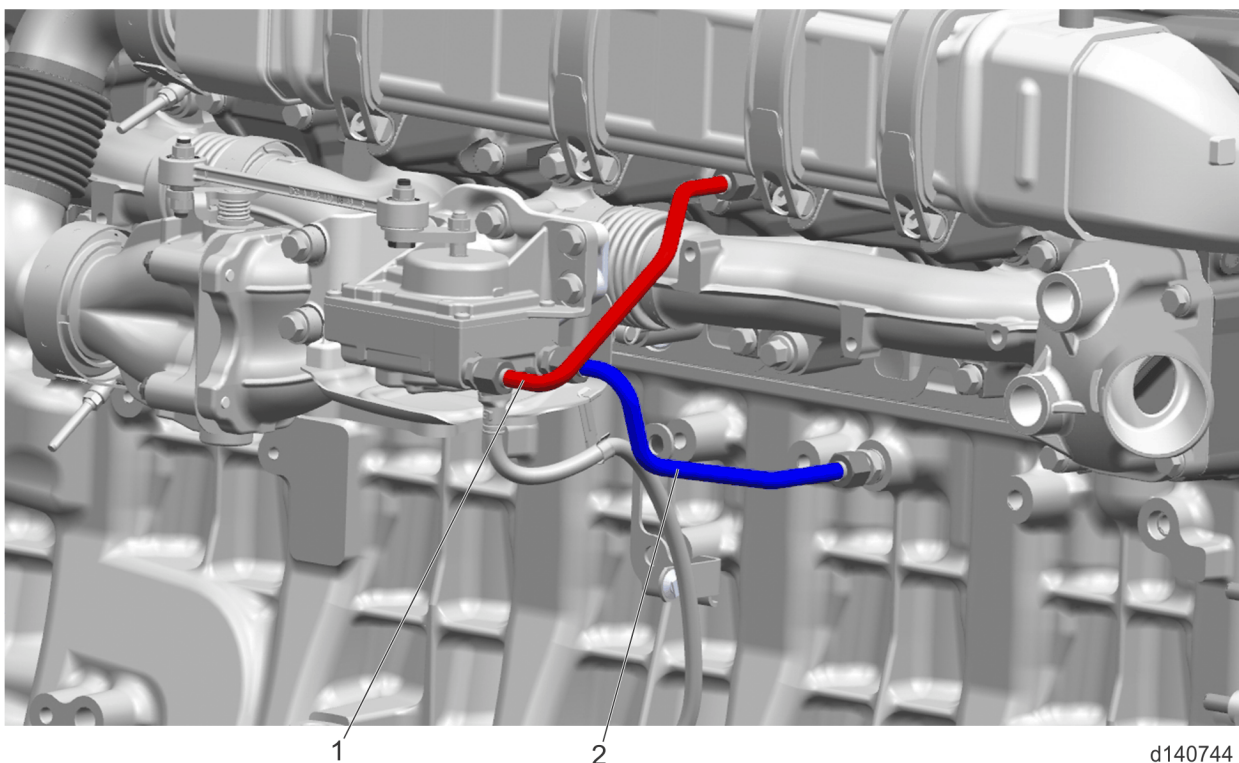
CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

2. Disconnect the batteries
3. Open hood.
4. If needed, remove the bumper. Refer to OEM procedures.
5. If needed remove the splash shield. Refer to OEM procedures.
6. Drain the coolant. Refer to section "Cooling System Drain Procedure".
7. Remove the Exhaust Gas Recirculation (EGR) valve heat shield.
8. Remove the turbocharger heat shield.

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

9. Remove the EGR actuator coolant supply line (2).

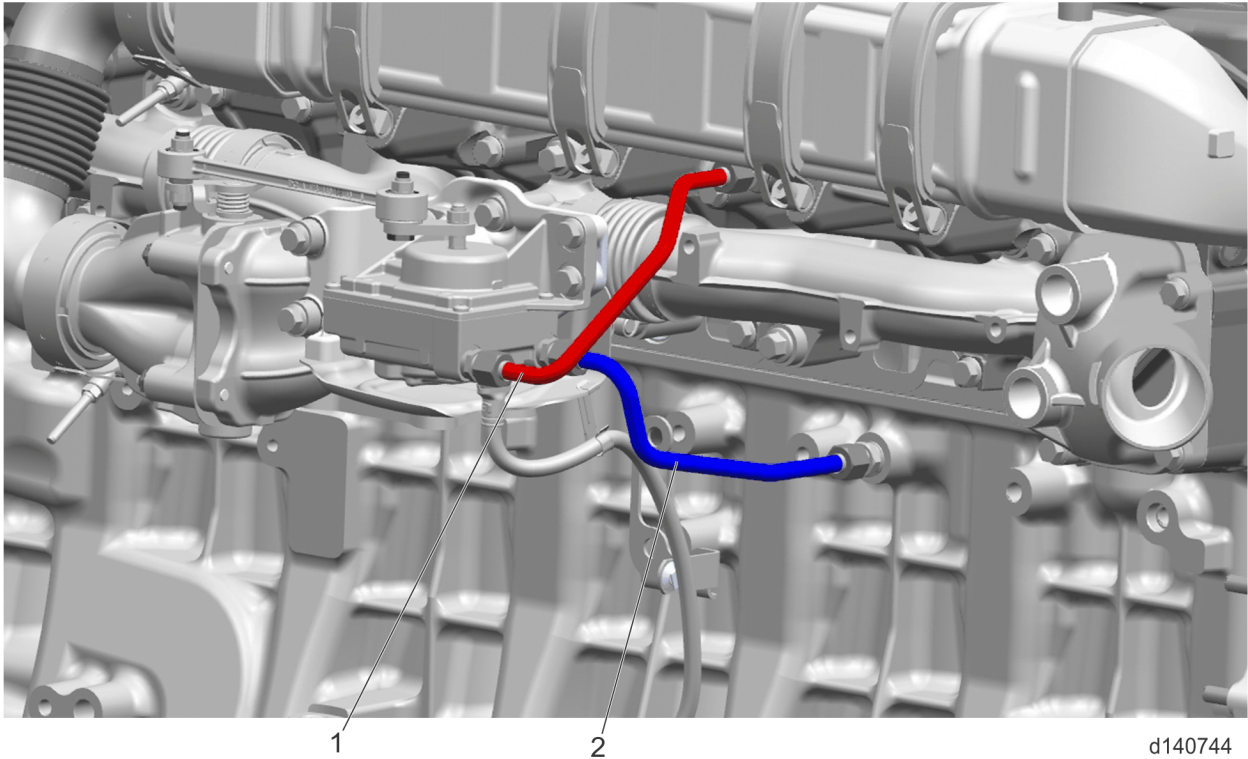


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9 Installation of the DD16 Exhaust Gas Recirculation Valve Actuator Coolant Supply Line

Install as follows:

1. Install the Exhaust Gas Recirculation (EGR) actuator coolant supply line (2).



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

2. Torque both flare nut fittings to 35 N·m (26 lb·ft).
3. Install the turbocharger heat shield.
4. Install the Exhaust Gas Recirculation (EGR) valve heat shield.
5. Fill the coolant system. Refer to section "Cooling System Fill Procedure".
6. If removed, install the bumper. Refer to OEM procedures.
7. If removed, install the splash shield. Refer to OEM procedures.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

8. Connect the batteries.
9. Close hood.