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Service Information Bulletin

SUBJECT	DATE
DD15 and DD16 Delphi [®] Exhaust Gas Recirculation Valve Actuator and DD15 and DD16 Soneboz [®] Exhaust Gas Recirculation Valve Actuator	July 2015

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0083 DDC-SVC-MAN-S083 DDC-SVC-MAN-0183 DDC-SVC-MAN-S183	DD Platform Euro IV	Removal of DD15 and DD16 Delphi [®] Exhaust Gas Recirculation Valve Actuator	Extensive changes were made to the procedures.
		Installation of the DD15 and DD16 Delphi [®] Exhaust Gas Recirculation Valve Actuator	
		Removal of the DD15 and DD16 Soneboz [®] Exhaust Gas Recirculation Valve Actuator	
		Installation of the DD15 and DD16 Soneboz [®] Exhaust Gas Recirculation Valve Actuator	



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2 Removal of DD15 and DD16 Delphi® Exhaust Gas Recirculation Valve Actuator

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Drain the coolant. Refer to section "Cooling System Drain Procedure".

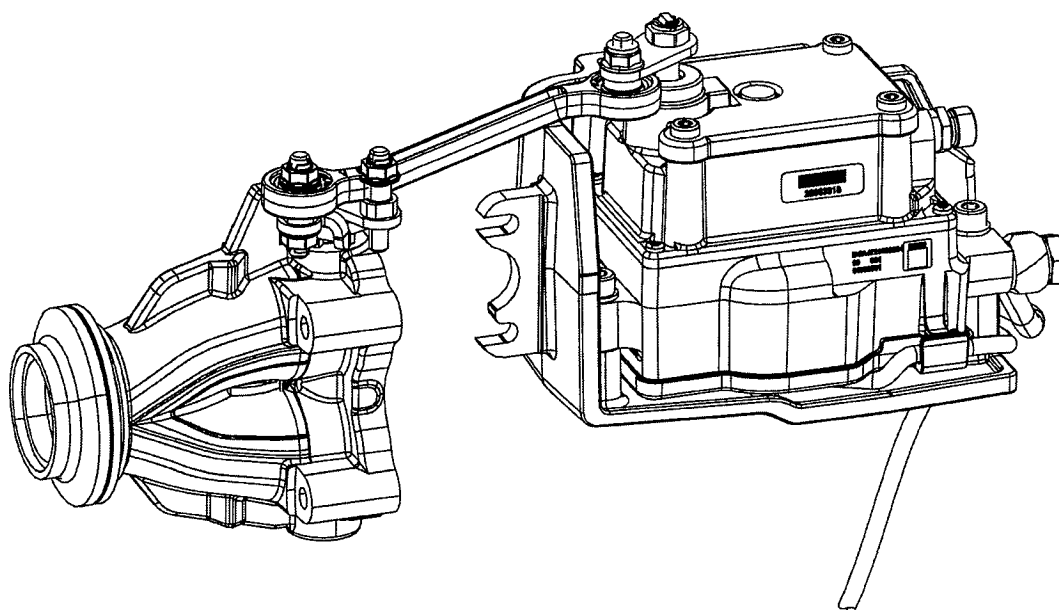
NOTICE: The EGR valve actuator shaft must be held still using a wrench when removing or installing the actuator lever or pull rod clamping nuts to avoid damage to the EGR valve actuator internal end stops.

3. Remove the EGR valve actuator pull rod clamping nut and remove the pull rod from the actuator.

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.

4. Remove the coolant line from the EGR valve actuator and water manifold.
5. Remove the coolant line from the EGR valve actuator and cylinder block. Discard seal rings.
6. Disconnect the electrical harness connector from the EGR Valve actuator and unclip the actuator harness from the block.
7. Remove the three bolts and washers from the EGR valve actuator and remove actuator from bracket.



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Table 1.

Note: If replacing the EGR valve actuator, remove the coolant line fitting with sealing ring from the EGR valve actuator.

3 Installation of the DD15 and DD16 Delphi® Exhaust Gas Recirculation Valve Actuator

Install as follows:

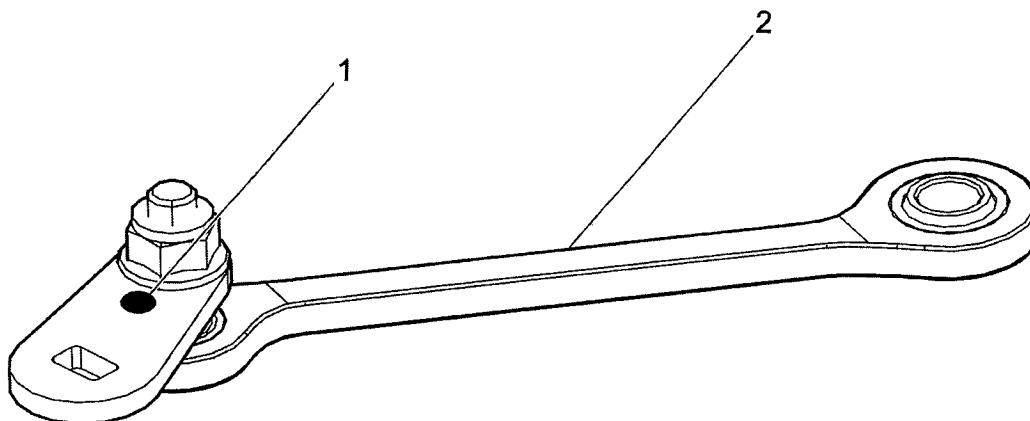
NOTICE: If reusing the original actuator bracket bolts, always apply a small amount of copper-based anti-seize compound to the bolts. The original coating will burn off and that makes it necessary to reapply the anti-seize compound.

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 fitting on the EGR valve actuator will be reused from the previous actuator. Install the coolant line fitting with new sealing ring. Torque the fitting to 25 N·m (18 lb·ft).

1. Install actuator onto bracket using three bolts and washers. Torque bolts to 20 N·m (15 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.

NOTE: If replacing the EGR valve actuator, the EGR valve actuator 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 onto the actuator. Apply a small amount of copper based anti-seize compound to the nut threads and tighten. Make sure that the anti-seize is applied only to the threads and does not get on the pull rod bearings. Torque clamping nut to 25 N·m (18 lb·ft).

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

3. Install the coolant line to the EGR valve actuator and cylinder block. Install new sealing rings with the banjo bolt. Torque the actuator coolant line banjo bolt to 35 N·m (26 lb·ft). Torque coolant line to cylinder block to 35 N·m (26 lb·ft).
4. Install coolant line to EGR valve actuator and water manifold. Torque coolant line to EGR valve actuator and water manifold to 35 N·m (26 lb·ft).
5. Connect the electrical harness connector to the EGR valve actuator.
6. Fill the cooling system with coolant. Refer to section "Cooling System Fill Procedure".
7. For EPA 07 engines, turn the ignition key on in order to slow learn the EGR actuator.
8. For EPA 10 and newer engines, 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.

9. Start the engine and check for leaks.

4 Removal of the DD15 and DD16 Sonceboz® Current Exhaust Gas Recirculation Valve Actuator

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Drain the coolant. Refer to section "Cooling System Drain Procedure".

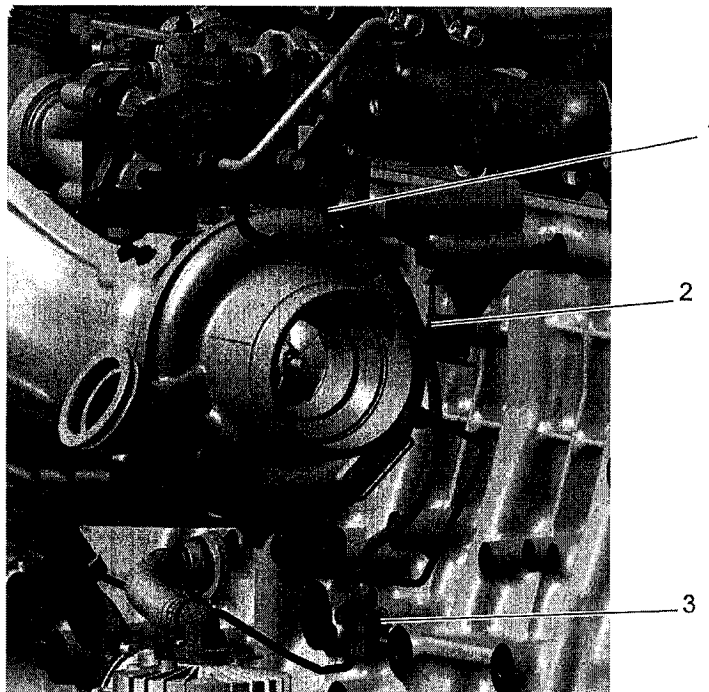
NOTICE: The EGR valve actuator shaft must be held still using a wrench when removing or installing the actuator lever or pull rod clamping nuts to avoid damage to the EGR valve actuator internal end stops.

3. Remove the Exhaust Gas Recirculation (EGR) valve actuator pull rod clamping nut and remove the pull rod from the actuator.

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

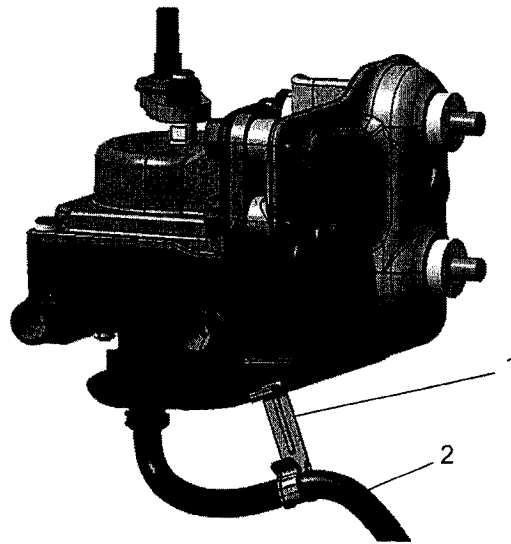
NOTICE: To prevent damage to the coolant inlet and outlet lines, hold the coolant line fittings with a wrench during line removal.

4. Remove the coolant line from the EGR valve actuator and water manifold.
5. Remove the coolant line from the EGR valve actuator and cylinder block.
6. Disconnect the EGR Valve actuator electrical harness connector (3) from the engine electrical harness.



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7. Unclip the EGR actuator electrical harness from the clip behind the turbocharger ((2) See figure above).
8. Unclip the EGR actuator electrical harness (2) from the attachment point (1) below the actuator.



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NOTE: DO NOT drop washers from the bottom of the brackets.

9. Remove the three bolts and washers from actuator and remove actuator from bracket.

Table 2.

Note: If replacing the EGR valve actuator, remove the coolant line fittings with sealing rings from the EGR valve actuator.

5 Installation of the DD15 and DD16 Sonceboz® Exhaust Gas Recirculation Valve Actuator

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).

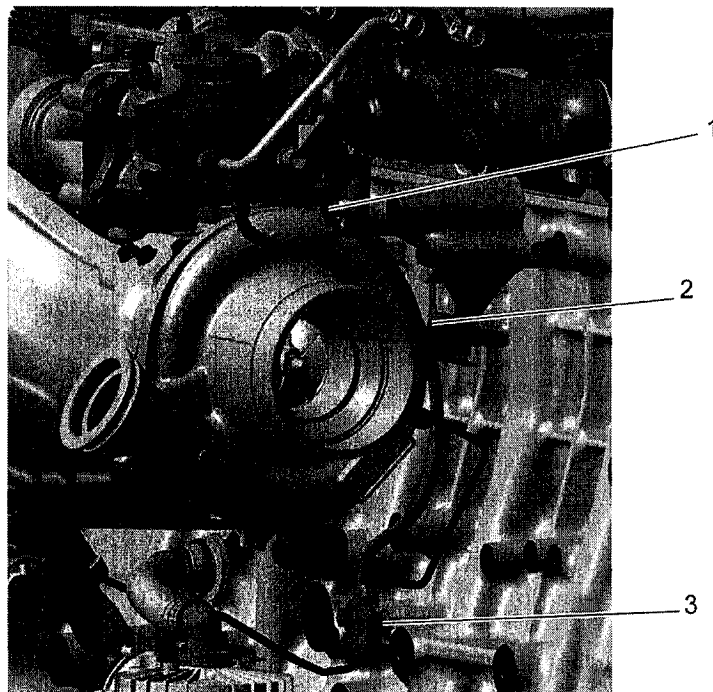
NOTICE: The EGR valve actuator shaft must be held still using a wrench when removing or installing the actuator lever or pull rod clamping nuts to avoid damage to the EGR valve actuator internal end stops.

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 onto the actuator. Apply a small amount of copper based anti-seize compound to the nut threads and tighten. Make sure that the anti-seize is applied only to the threads and does not get on the pull rod bearings. Torque nut to 20 N·m (15 lb·ft).

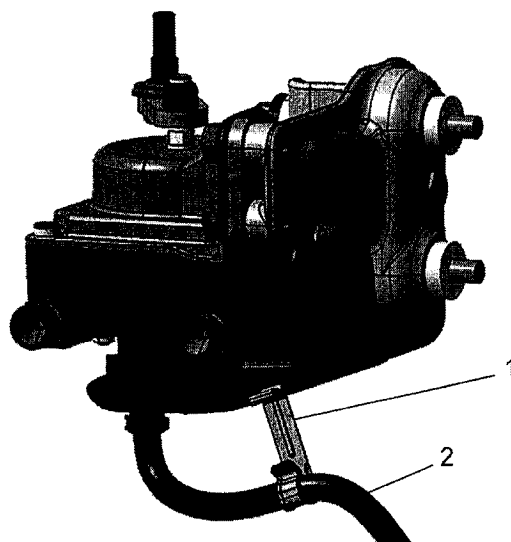
NOTICE: To prevent damage to the coolant inlet and outlet lines, hold the coolant line fittings with a wrench during line installation.

3. Install the coolant line from the EGR valve actuator to the cylinder block. Torque coolant line to EGR valve actuator and cylinder block to 35 N·m (26 lb·ft).
4. Install the coolant line from the EGR valve actuator to water manifold adaptor. Torque coolant line to EGR valve actuator and water manifold to 35 N·m (26 lb·ft).
5. Position the EGR actuator electrical harness behind the turbo and connect it to the mounting point on the block (3).



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6. Connect the EGR actuator electrical harness to the engine electrical harness.
7. Clip the EGR actuator electrical harness to the attachment point behind the turbo ((2) See figure above).
8. Clip the EGR actuator electrical harness (2) to the attachment point (1) below the EGR actuator.



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9. Fill the cooling system with coolant. Refer to section "Cooling System Fill Procedure".
10. For EPA 07 engines, turn the ignition key on in order to slow learn the EGR actuator.
11. For EPA 10 and newer engines, run the "EGR Actuator Slow Learn" procedure in DiagnosticLink®.

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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.

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12. Start the engine and check for leaks.