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Service Information Bulletin

SUBJECT	DATE
Exhaust Gas Recirculation Crossover Pipe	December 2018

Additions, Revisions, or Updates

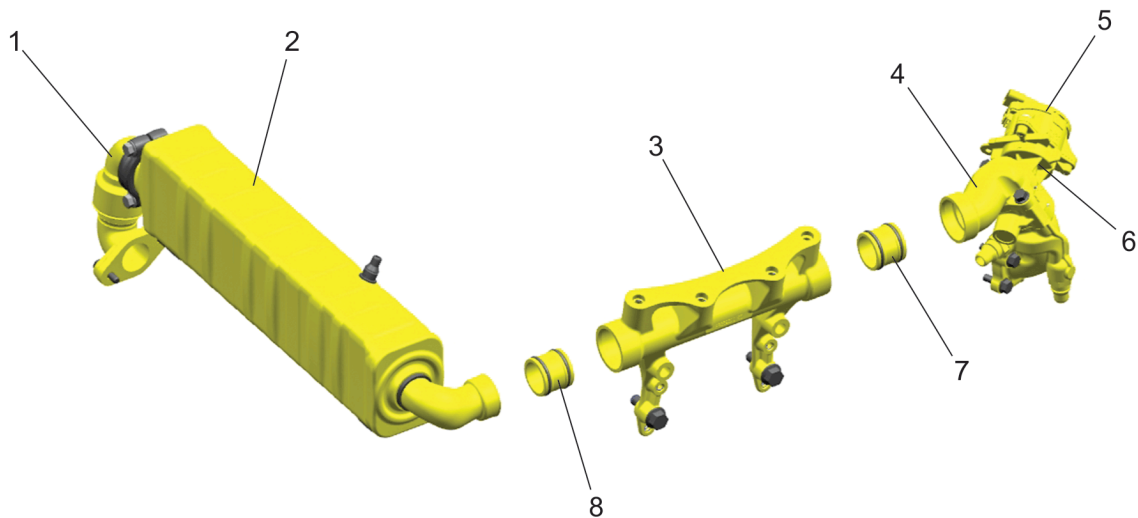
Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0198	GHG17 DD8	Description and Operation of the EGR Crossover Pipe (Cast)	New section for a secondary EGR crossover pipe (cast) which applies to some applications.
		Removal of the EGR Crossover Pipe (Cast)	Added the missing instructions for removal of the front engine lifting bracket/bolts and EGR crossover pipe mounting bolts.
		Inspection of the EGR Crossover Pipe (Cast)	New section for a secondary EGR crossover pipe (cast) which applies to some applications.
		Installation of the EGR Crossover Pipe (Cast)	Added the missing instructions for installation of the front engine lifting bracket/bolts and EGR crossover pipe mounting bolts.



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2 Description and Operation of the Exhaust Gas Recirculation Crossover Pipe (Cast)

The Exhaust Gas Recirculation (EGR) crossover pipe (3) delivers recirculated exhaust gas from the EGR cooler (2) to the EGR valve (5). The EGR crossover pipe connects to the EGR cooler using a connection fitting (8) with O-rings that seal to the inside of both pipes.



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- 1. EGR Hot Pipe
- 2. EGR Cooler
- 3. EGR Crossover Pipe
- 4. EGR Crossover Pipe Elbow

- 5. EGR Valve
- 6. EGR Mixer Housing
- 7. Connection Fitting
- 8. Connection Fitting

Figure 1. EGR Crossover Pipe and Related Parts

3 Removal of the Exhaust Gas Recirculation Crossover Pipe (Cast)

Remove as follows:

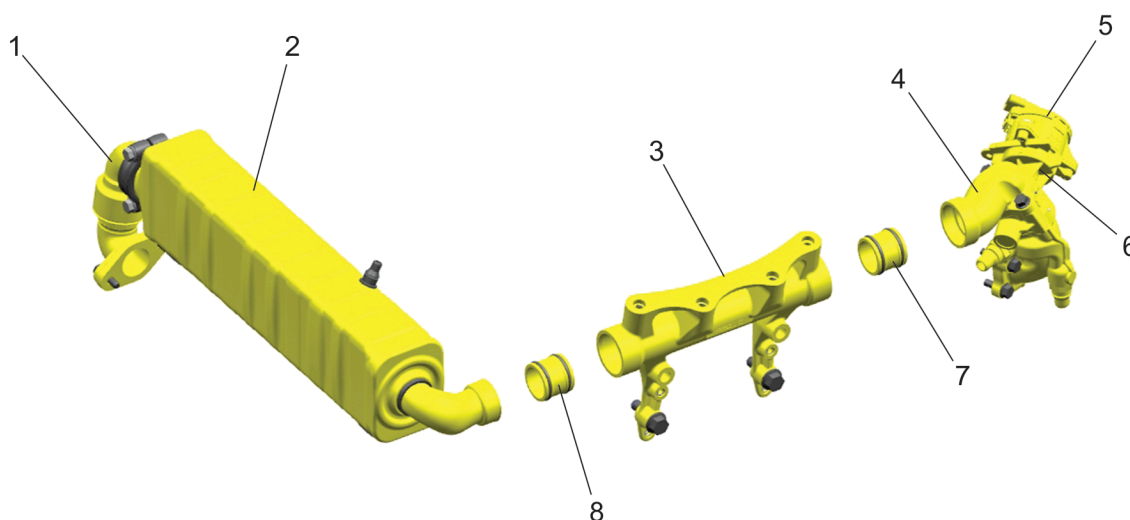
1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.



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 end(s).
5. Remove driver side radiator support.
6. Remove cold boost pipe resonator. Refer to section "Removal of the Cold Boost Pipe Resonator".
7. If needed, remove OEM air conditioning line bracket(s), and move lines out of the way.
8. Remove the two retaining bolts for the Exhaust Gas Recirculation (EGR) valve (5), and move valve out of the way.



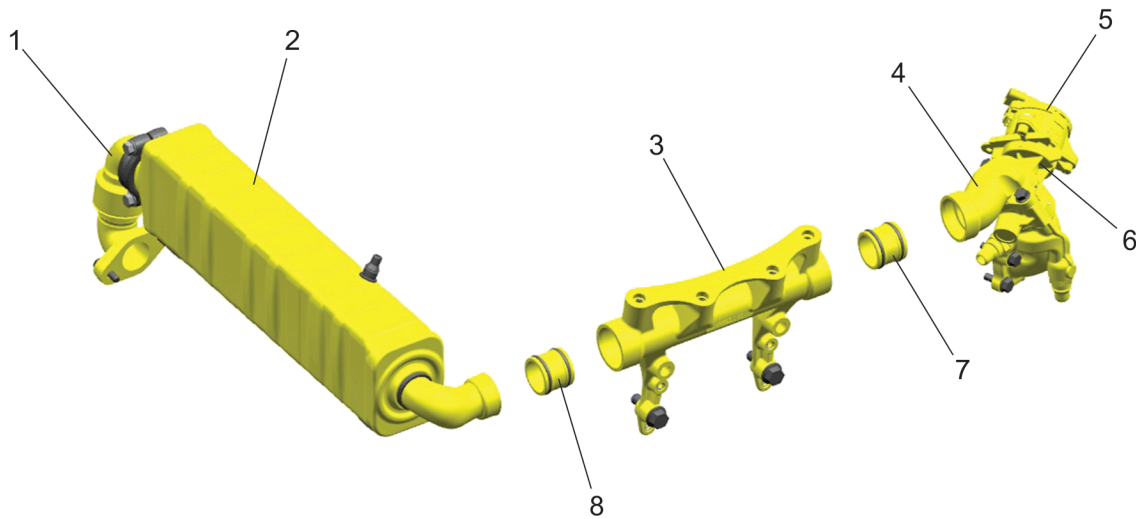
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9. Remove the front engine lifting bracket mounting bolts and front engine lifting bracket. Refer to section "Removal of the Front Engine Lifting Bracket".
10. Remove the two mounting bolts securing the EGR crossover pipe (3) to the cylinder head.
11. Slide EGR crossover pipe elbow (4) and crossover pipe (3) out. See graphic above.
12. If replacing the EGR crossover pipe (3), remove the EGR crossover pipe elbow (4), and discard O-rings on both connection fittings (7, 8).

4 Inspection of the Exhaust Gas Recirculation Crossover Pipe (Cast)

Inspect as follows:

1. Inspect the Exhaust Gas Recirculation (EGR) crossover pipe (3) for any cracks or leaks. Replace the EGR crossover pipe if damage is found.



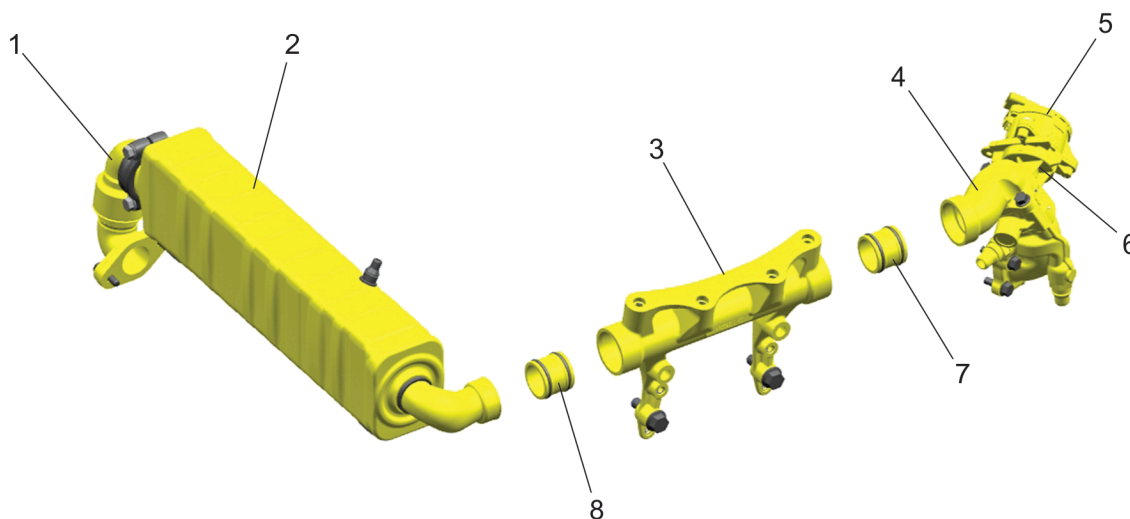
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2. Inspect the mounting hardware for stripped or damaged threads. Replace as needed.

5 Installation of the Exhaust Gas Recirculation Crossover Pipe (Cast)

Install as follows:

1. If removed, install the Exhaust Gas Recirculation (EGR) crossover pipe elbow (4) onto the EGR crossover pipe (3) using new O-rings on the connection fitting (7).



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2. With new O-rings on the connection fittings (7, 8), slide the EGR crossover pipe (3) and EGR crossover pipe elbow (4) into the EGR cooler outlet (2). See graphic above.
3. Install the two mounting bolts securing the EGR crossover pipe (3) to the cylinder head. Torque to 120 N·m (89 lb·ft).
4. Install the two mounting bolts securing the front engine lifting bracket and EGR crossover pipe to the cylinder head. Refer to section "Installation of the Front Engine Lifting Bracket".
5. Reposition the EGR valve (5), and secure EGR crossover pipe elbow (4) and EGR valve (5) with the two retaining bolts. Torque to 25 N·m (18 lb·ft).
6. If removed, install OEM air conditioning line bracket(s).
7. Install the cold boost pipe resonator. Refer to section "Installation of the Cold Boost Pipe Resonator".
8. Install the driver side radiator support bracket.
9. If needed, install the bumper ends(s).



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10. Connect the batteries.
11. Close hood.