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Service Information Bulletin

SUBJECT	DATE
GHG14 DD15 Asymmetrical Turbocharger Exhaust Manifold	January 2013

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0083	DD Platform	Removal of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Manifold	Added instructions for tool J-36107.
		Installation of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Manifold	



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2 Removal of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Manifold

Remove as follows:

Table 1.

Service Tools Used in the Procedure	
Tool Number	Description
J-36107	Exhaust Manifold Guide Stud

1. Drain the coolant. Refer to OEM procedures.
2. Remove the nut connecting the Exhaust Gas Recirculation (EGR) valve actuator to the actuator pull rod. Refer to section "Removal of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Gas Recirculation Valve Actuator Pull Rod".
3. Remove the EGR/Hot Pipe from the EGR cooler and exhaust manifold center section; discard the hot pipe clamps. Refer to section "Removal of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Gas Recirculation Valve/Hot Pipe".
4. Remove the turbocharger. Refer to section "Removal of the GHG14 DD15 Asymmetrical Turbocharger".

NOTE: Exhaust manifold bolts are reusable components if not damaged.

5. Remove the exhaust manifold heat shields.
6. Remove two bolts from the exhaust manifold center section and install guide studs (J-36107). Remove remaining ten bolts securing the front, rear and center exhaust manifolds to the cylinder head and remove exhaust manifolds as an assembly.
7. Remove and discard all exhaust manifold gaskets, turbocharger gasket, and exhaust manifold clamps.

3 Installation of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Manifold

Install as follows:

Table 2.

Service Tools Used in the Procedure	
Tool Number	Description
J-36107	Exhaust Manifold Guide Stud

1. Install the exhaust manifold guide studs into the cylinder head to hold the two exhaust manifold gaskets in the correct position to facilitate manifold installation.

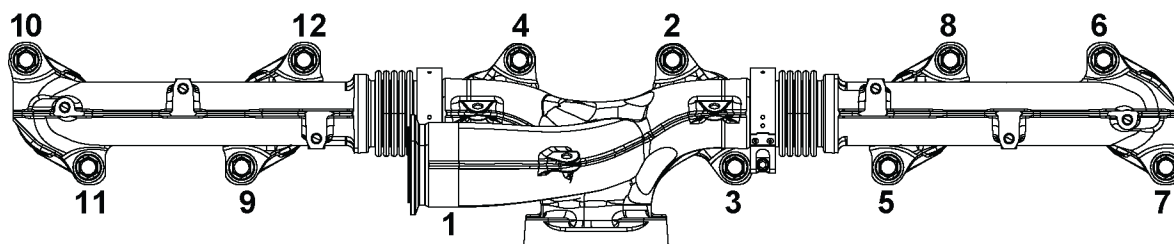
NOTE: Ensure the guide studs and gaskets are positioned correctly for the ports and bolt holes to be lined up properly.

NOTE: To avoid torsional stress on the bellows, verify that the bellows clamps are not torqued and the exhaust manifolds can twist on the bellows pipe.

2. Install the exhaust manifold gaskets.
3. Install the assembled exhaust manifold onto the guide studs.

NOTICE: Use high temperature anti-seize compound to ensure proper torque. Hand-tighten the exhaust bolts to avoid bending the bellows pipe.

4. Using the proper tightening sequence shown below, install the twelve bolts and torque to 40 N·m (29 lb·ft). Be sure to perform the torque sequence twice.



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5. Torque the 6mm bolt on the bellow clamps to 6-8 N·m (53-70 lb·in.) and the 1/4x28 bolt to 11-13 N·m (97-115 lb·in.).
6. Install the front and rear exhaust manifold heat shields.

7. Install the Exhaust Gas Recirculation Valve/Hot Pipe. Refer to section "Installation of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Gas Recirculation Valve/Hot Pipe".
8. Install the EGR valve actuator pull rod. Refer to section "Installation of the GHG14 DD15 Asymmetrical Turbocharger Exhaust Gas Recirculation Valve Actuator Pull Rod".
9. Install the turbocharger gasket, and the turbocharger. Refer to section "Installation of the GHG14 DD15 Asymmetrical Turbocharger".
10. Install the EGR/Hot Pipe and turbocharger heat shields.



WARNING: PERSONAL INJURY

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

- Always start and operate an engine in a well ventilated area.
- If operating an engine in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system or emission control system.



WARNING: ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.



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.

11. Start the engine and check for exhaust leaks.
12. If exhaust gas leaks are detected, recheck all fittings, clamps, gaskets, seals, and bolt torques. Retest for leaks.