



DD15™ Service Information

NUMBER: 08 DD15 -2 **S.M. REF.:** 1.16.2 **ENGINE:** DD15 **DATE:** June 2008

SUBJECT: ENGINE BRAKE

PUBLICATION: DDC-SVC-MAN-0002

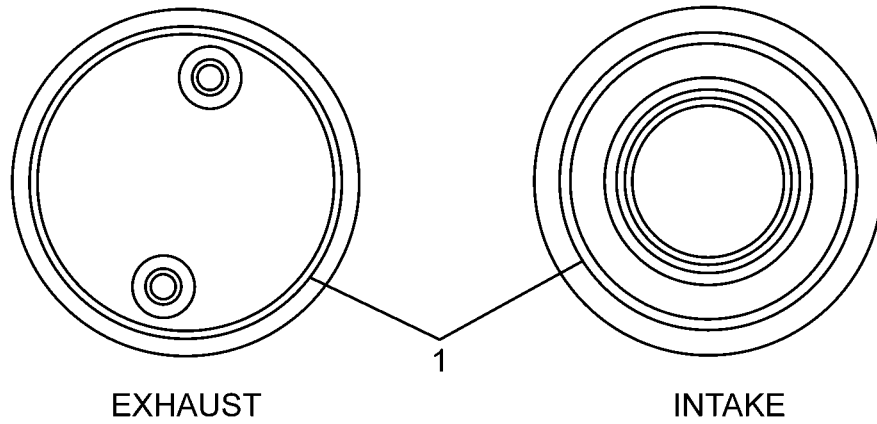
The Installation of the Engine Brake Section has been updated.

1.16.2 INSTALLATION OF THE ENGINE BRAKE

Install as follows:

1. Install the exhaust rocker arm with actuator (2) and brake rocker arm (3) onto exhaust rocker shaft.

NOTICE:
The camshaft journal area is lubricated by oil that has to travel through the rocker shaft. If the rocker shaft is installed incorrectly, oil passages do not line up. This results in insufficient lubrication and damage to the camshaft journals. Incorrect shaft installation may also result in the engine brakes not functioning and cause damage to the rocker arm bushings. See Figure 1.

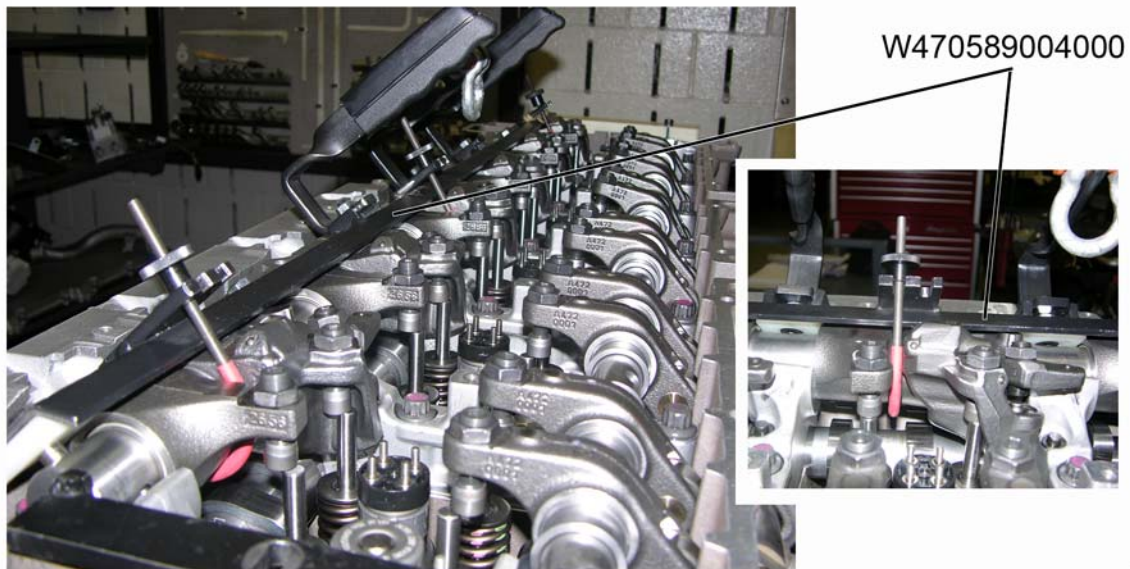


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1. Marking Groove — faces rear of engine

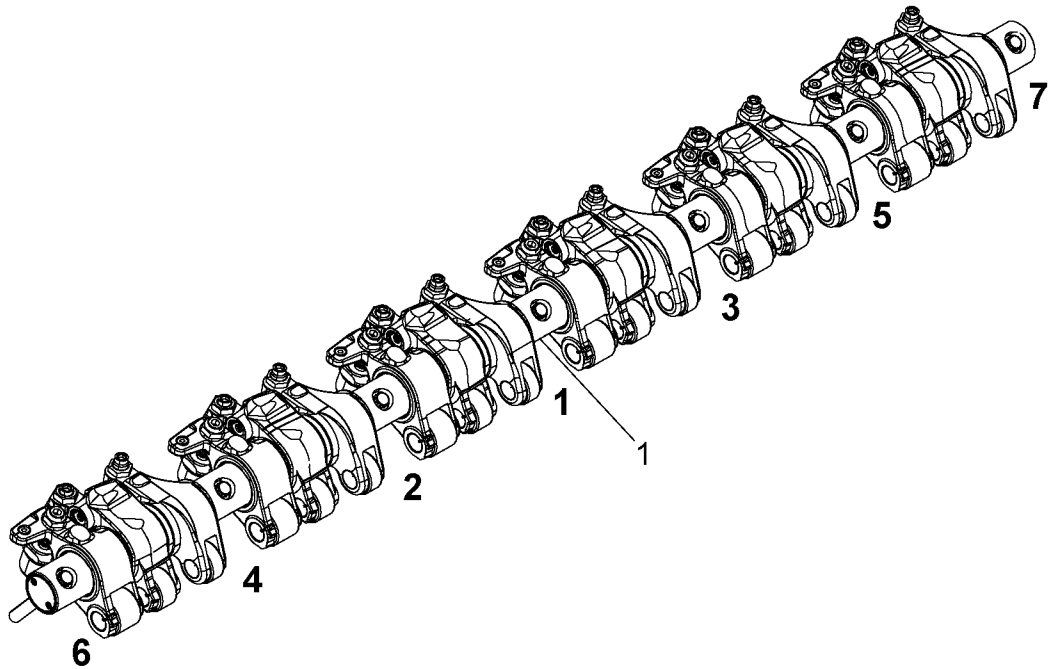
Figure 1 Marking Groove

2. Install rocker arm assembly using installation tool (W470589004000) onto rocker arm assembly and install assembly into camshaft housing. See Figure 2.



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Figure 2 Tool W470589004000



d050021

1. Exhaust Rocker Shaft

Figure 3 Exhaust Rocker Shaft Torque Sequence

NOTE:

Assemble the brake rocker arm springs before tightening shaft bolts.

3. Install seven bolts into the exhaust rocker shaft and bracket.

NOTICE:

Ensure when tightening the rocker shaft bolts that the bolts are drawn down from the inside bolts outward in 1/2 turn increments, before final torque. If the rocker shaft bolt is fully torqued without using the increment procedure the rocker shaft can break. See Figure 3.

4. Tighten the seven bolts 55 - 60 N·m (41- 44 lb·ft) 90 degree torque turn.

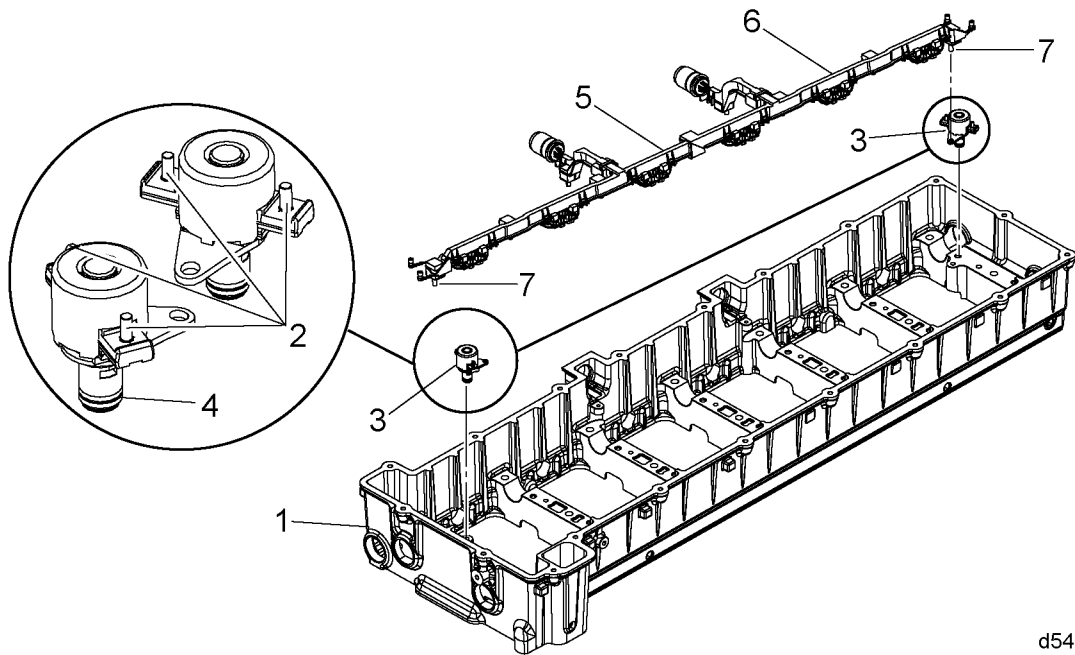
NOTE:

Ensure solenoid is completely seated in bore prior to torquing screw.

NOTE:

The hold-down screws are located in the injector harness.

5. Install the two brake solenoids with new seal O-rings. Torque the solenoid hold-down screws to 10 N·m (7.37 lb·ft). See Figure 4.



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1. Camshaft Housing

2. Engine Brake Solenoid Posts

3. Engine Brake Solenoids

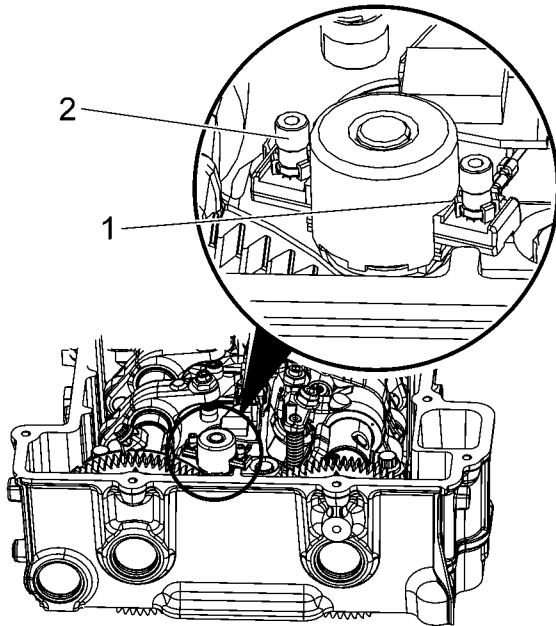
4. Seal O-rings

5. Rear Injector Harness

6. Front Injector Harness

7. Solenoid hold-down Screw

Figure 4 Solenoid and Seal O-ring Location



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1. Terminal Connector

2. Interference Point between the Solenoid and Connector

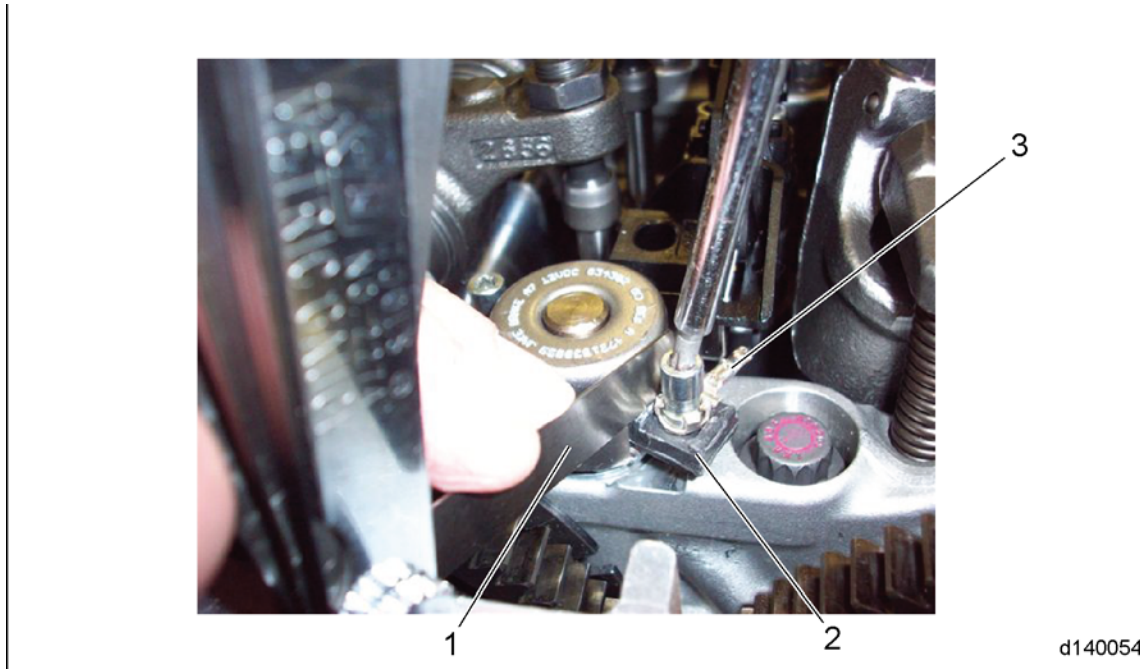
Figure 5 Location of Connector and Solenoid

6. Install injector harness contacts to solenoids.

NOTICE:

Ensure when tightening the terminal connector that the connector does not contact the solenoid housing. A short to all the injectors will occur if contact is made. See Figure 5.

7. Place a 0.65 mm feeler gauge (or equivalent) as a spacer between the connector and the solenoid housing to keep sufficient clearance to avoid a short between the connector and solenoid housing. Torque the connector nut to 1.5 N·m (13 in·lbs). See Figure 6.



1. Feeler Gauge
2. Solenoid

3. Connector

Figure 6 Feeler Gauge Installed Between Solenoid and Connector

8. Install rocker cover. Refer to section 1.9.

ADDITIONAL SERVICE INFORMATION

Additional service information is available in the Detroit Diesel *DD15 Workshop Manual*, (DDC-SVC-MAN-0002). The next revision to this manual will include the revised information.

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