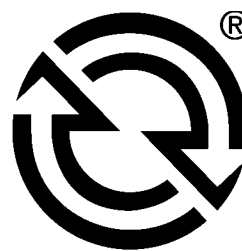


# **DETROIT DIESEL**



## **SERIES 60® 2007 Service Information**

**NUMBER:** 08 60-7   **S.M. REF.:** 8.5   **ENGINE:** EPA07 Series 60   **DATE:** November 2008

**SUBJECT: EGR RATE MEASUREMENT SYSTEM**

**PUBLICATION: DDC-SVC-MAN-0005**

EGR Rate Measurement System has new information added.

### **EGR RATE MEASUREMENT SYSTEM**

The EGR Rate Measurement system provides DDEC with measurements resulting in EGR flow rate prediction. The EGR Delta Pressure Sensor and its associated hardware such as venturi, etc. have been removed from the EPA07 Series 60 engine effective with engine serial number 06R0999679 built on March 13th, 2008. Updated fuel maps that turn the sensor off are being used to calculate EGR flow rates instead of using the sensor. A straight tube and flange assembly replaced the venturi.

<b>NOTICE:</b>
The EGR Delta Pressure Sensor and its associated hardware such as venturi, etc. have been removed from the EPA07 Series 60 engine effective with engine serial number 06R0999679 built on March 13th, 2008. Updated fuel maps that turn the sensor off are being used to calculate EGR flow rates instead of using the sensor. A straight tube and flange assembly replaced the venturi. For removal and installation procedures; refer to section "Removal of Straight Tube and Flange Assembly."

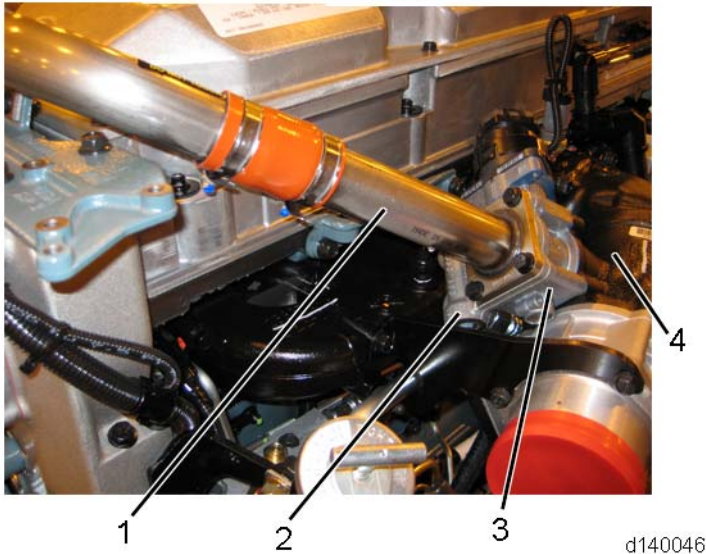
### 8.5.3 REMOVAL OF STRAIGHT TUBE AND FLANGE ASSEMBLY

Remove as follows:

 <b>WARNING:</b> <b>PERSONAL INJURY</b>
<b>To avoid injury, never remove any engine component while the engine is running.</b>

 <b>WARNING:</b> <b>PERSONAL INJURY</b>
<b>To avoid injury from accidental engine startup while servicing the engine, disconnect/disable the starting system.</b>

1. Apply the parking brake, chock the wheels, disconnect vehicle battery power, and perform any other applicable safety steps.



1. Tube and Flange EGR Valve Inlet Pipe

3. EGR Valve

2. EGR Valve Heater Plate (if equipped)

4. Mixer Housing (Horizontal version shown)

**Figure 1 Removal of Straight Tube and Flange Assembly**

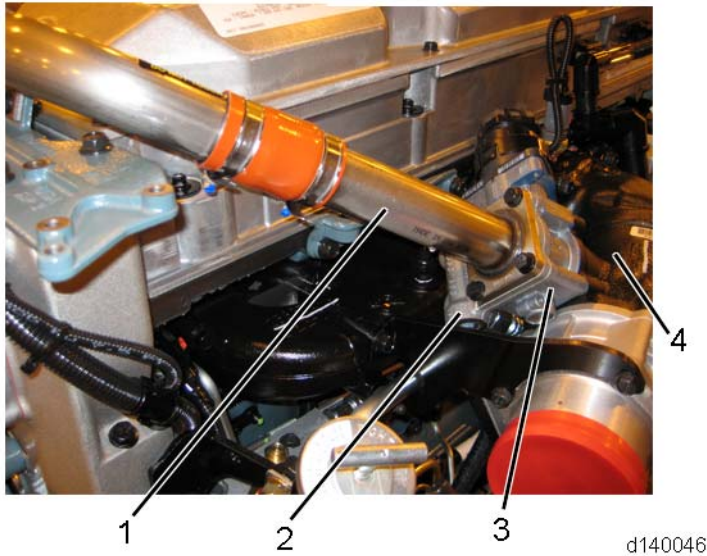
2. Loosen the clamps on the EGR delivery pipe hose and straight tube. Push the delivery pipe hose upward onto the delivery pipe.
3. Remove the four bolts from the EGR straight tube and flange (1).
4. Remove the straight tube and flange assembly (1) from the engine, remove the O-ring and discard.
5. Remove the EGR Valve (3) and EGR heater (if equipped) (2) from the engine; remove the O-ring and discard.
6. Slide the EGR delivery pipe hose off the delivery pipe.

#### **8.5.4 INSTALLATION OF STRAIGHT TUBE AND FLANGE ASSEMBLY**

Install as follows:

1. Install new delivery pipe hose with two new hose clamps onto the EGR delivery pipe. Do not tighten the hose clamps.
2. Carefully slide the new tube and flange EGR valve inlet pipe into the new delivery pipe hose. Do not tighten the hose clamps.

3. Position the EGR valve onto the mixer housing with two new O-ring seals. If equipped, position the EGR heater plate assembly with new O-ring seal between the EGR valve and new tube and flange EGR valve inlet pipe. Using four bolts, attach the tube and flange EGR valve inlet pipe, EGR valve heater plate (if equipped) and EGR valve to mixer housing. Torque four bolts in an X pattern to 30-38 N·m (22-28 lb·ft). Reconnect the Engine Harness to the EGR valve. See Figure 2.



1. Tube and Flange EGR Valve Inlet Pipe
2. EGR Valve Heater Plate (if equipped)

3. EGR Valve
4. Mixer Housing (Horizontal version shown)

**Figure 2 Tube and Flange EGR Valve Inlet Pipe, Heater Plate (If equipped), and EGR Valve Installation**

4. If necessary, adjust the location of the delivery pipe hose to ensure a proper fit between the EGR delivery pipe and tube and flange EGR valve inlet pipe. Make sure the pipes are NOT touching inside the hose. If necessary, adjust the pipes to provide clearance.
5. Torque the two EGR delivery pipe hose clamps to 6-6.5 N·m (53-57 in·lbs).



**CAUTION:**

**Electrical Shock**

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

6. Reconnect vehicle battery power.



**WARNING:**

**ENGINE EXHAUST**

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

7. Start engine and verify repair.

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## **ADDITIONAL SERVICE INFORMATION**

Additional service information is available in the *Detroit Diesel Series 60 Service Manual* (DDC-SVC-MAN-0005). The next revision to this manual will include the revised information.

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