

TO: Service Locations

FROM: Service Systems Development

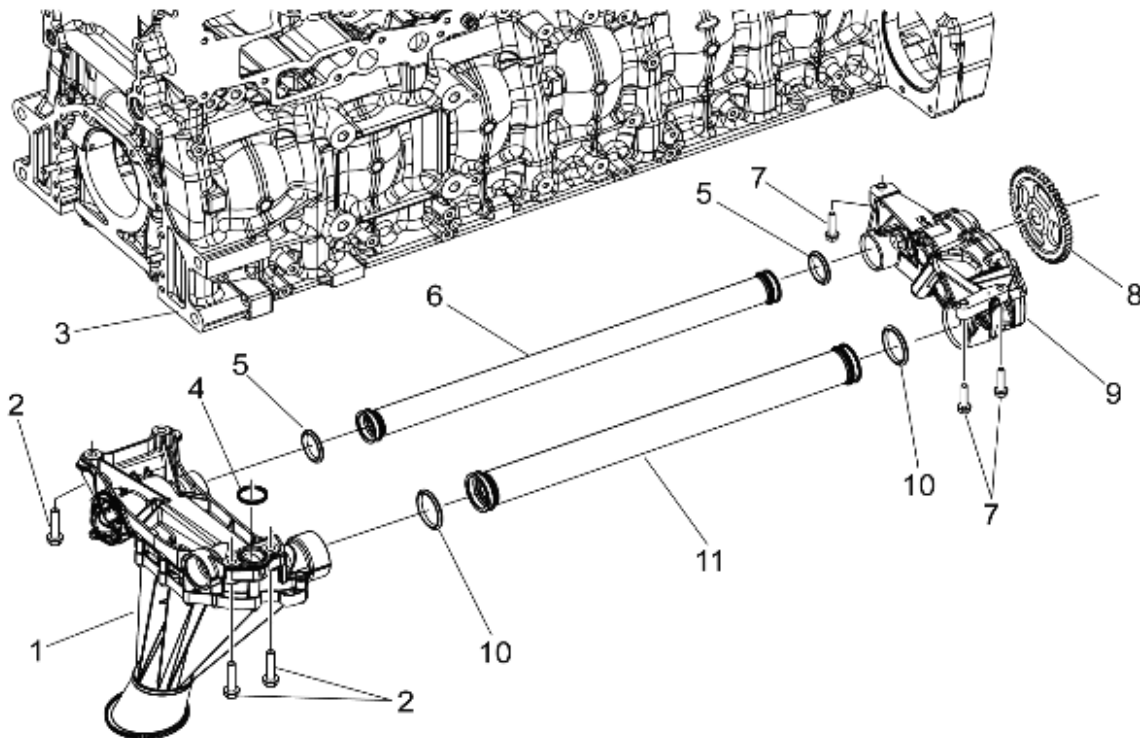
SUBJECT: **EPA07 and EPA10 DD Platform Engines With Low Oil Pressure Codes**

**ISSUE**

EPA07 and early EPA10 DD Platform engines may experience low oil pressure codes not related to low oil level or oil dilution.

**CAUSE**

There are five O-rings related to the oil pick-up tube assembly that may become brittle and allow air to enter the engine oil system. This failure mode is experienced only at high mileages – generally, 400,000 miles and greater. See Figure 1. The O-rings in question are item numbers 4, 5 (two locations), and 10 (two locations).



**Figure 1 – O-ring Location**

Improved pickup tube seals (item numbers 5 and 10) became effective with engine s/n (last six digits) 170300 built on November 20, 2012. Not all units before the changepoint will have this issue.

Improved oil suction manifold seal (item number 4) became effective with engine s/n (last six digits) 206879 built on August 8, 2013. Not all units before the changepoint will have this issue.

### REQUIRED ACTION

Once low oil pressure codes are verified, the O-rings may need to be replaced. In extreme cases, the rod bearings may need to be inspected and replaced.

In rare cases, the oil suction manifold may also need to be replaced if an acceptable oil pressure is not achieved after the initial O-rings are replaced.

The MCM may need programming to provide updated low oil pressure tables for trucks using lower viscosity oils other than 15W-40.

### REQUIRED MATERIAL

Table 1 provides a list of the correct service part numbers. Note that these part numbers are for a typical front sump plastic oil pan. Rear sump, low profile, and/or aluminum pans may have different part numbers. All part numbers should be confirmed in e-Parts Catalog.

Item Location	New P/N	Old P/N	Qty.	Description
1*	A4711801451	NA	1	EPA07 DD13 Oil Suction Manifold
1*	EA4721800351	NA	1	EPA07 DD15/16 Oil Suction Manifold
1*	A4721806551	NA	1	EPA10 Oil Suction Manifold
4	A4721881480	A4721880680	1	O-Ring, oval shaped, for all plastic Oil Suction Manifold
4	A4721881080	A4721880080	1	O-Ring, round, for plastic and aluminum Oil Suction Manifold
5	A4721870980	A4721870580	2	O-Ring
10	A4721870880	A4721870480	2	O-Ring
Not Shown	A4710140022	NA	1	Oil Pan Gasket

\*If necessary

**Table 1 – Oil System O-Rings For A Typical Front Sump Plastic Oil Pan**

### REPAIR PROCEDURE

Follow the published troubleshooting for the applicable low oil pressure code(s) in Power Service Literature in the *EPA07/10/GHG14 DDEC VI/10 Electronics and Troubleshooting*

*Manual* (DDC-SVC-MAN-0084). There are many items listed in the troubleshooting that can contribute to low oil pressure codes, including the O-rings noted above.

Verify low oil pressure complaint with a manual gauge or using DiagnosticLink™. If verified, check the O-rings for item numbers 4, 5 (two locations), and 10 (two locations). Remove the oil pan and inspect for signs of bearing debris. If no debris is found, reinstall the oil pan. If bearing debris is found, remove and inspect the rod bearings. If rod bearings show severe distress, replace the crankshaft. See Figure 2, Rod Bearing Inspection. In extreme cases only, if replacing O-rings for item numbers 4, 5 (two locations), and 10 (two locations), do not give the desired pressure of greater than 11 psi (DD13, DD15TC, DD16) or 10 psi (DD15AT) at idle and operating temperature, the oil suction manifold should be replaced.

The MCM software must meet or exceed- these levels if the customer is using lower viscosity engine oils other than 15W-40:

- EPA07: MCM software 13.4.2.0 or higher
- EPA10: MCM software 7.6.0.46 or higher

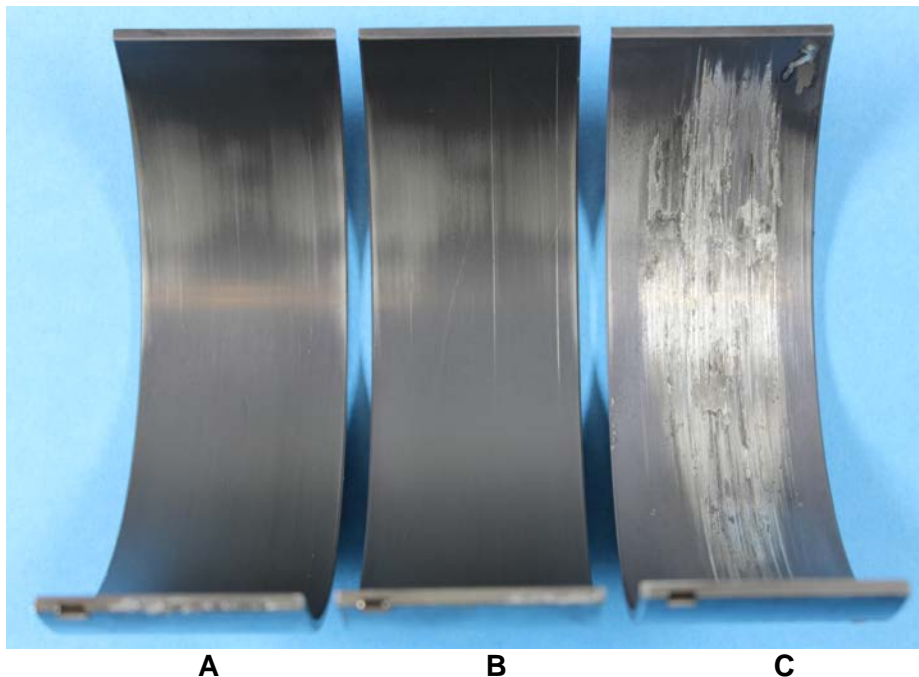
**NOTE:**

**A rod bearing inspection is only required if signs of metal debris are present in the oil pan.**

Bearing A – No signs of distress, normal wear for high mileage bearing.

Bearing B – Small scratches on rod bearing surface, but typical for high mileage bearing.

Bearing C – Bearing surface shows heavy signs of damage. Replace crankshaft, main bearings, and rod bearings.



**Figure 2 – Rod Bearing**

**CLAIM PROCESS**

Normal in-warranty procedures apply. **Proactive repairs of properly functioning engines are not allowed under warranty.**

**CONTACT INFORMATION**

Please contact the Detroit Customer Support Center at 800-445-1980 or email [csc@daimler.com](mailto:csc@daimler.com) if you have any questions.