



**Mack Trucks, Inc.**  
Greensboro, NC USA

# Field Service Bulletin Trucks

	Date	Group	No.	Release	Page
The Field Service Bulletin replaces bulletin FSB 221-010 dated 6.2013.	9.2013	<b>221</b>	<b>010</b>	<b>02</b>	1(4)

Diagnostic Trouble Codes (DTCs), Low Oil Pressure  
CXU, GU, LEU, MRU  
MP7 EPA2010, OBD2013

## FSB 221-010, Diagnostic Trouble Codes (DTCs), Low Oil Pressure

(September 2013)

### Information

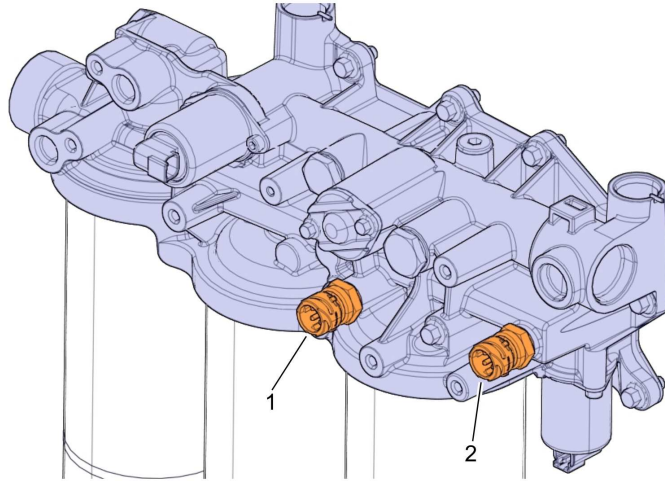
During long hard pull conditions, diagnostic trouble codes (DTC) SPN 100 FMI 1 or P052400 can log on certain MACK CXU, GU, LEU and MRU vehicles built between January 1, 2010 and current production with MP7 EPA2010 and OBD2013 engines. If either DTC occurs during the conditions described in this bulletin, with or without an engine shut down lamp, follow Guided Diagnostics for fault tracing.

Follow Guided Diagnostics fault tracing and verify the oil pressure readings with a manual gauge at various engine revolutions per minute (RPM). After verifying all checks are within specification, if the issue is still present and there are no obvious signs of oil dilution, replace the pressure reduction valve using the procedure below.

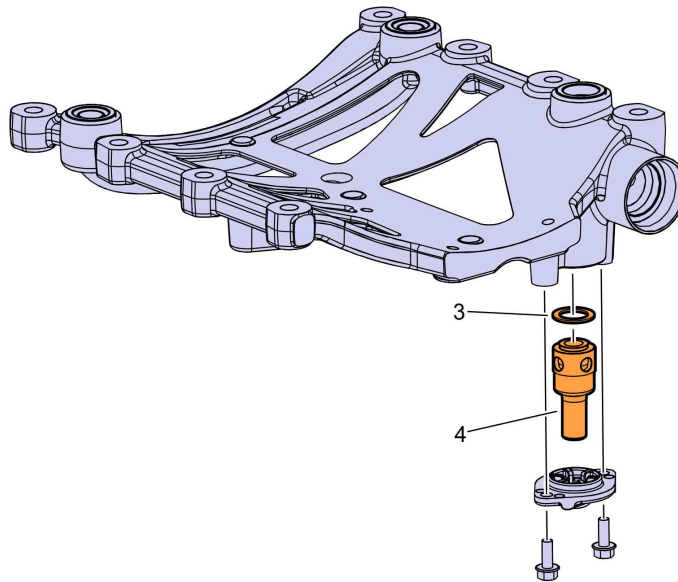
**Note:** Drain all engine oil into a clean container for reuse. Do not reuse engine oil if it is not reusable or the engine is due for normal oil change service.

**Note:** This bulletin does not apply to MACK Trucks Australia.

## Required Parts



W2084377



W2084376

Required Parts			
Item Number	Part Number	Description	Quantity
1	21634021	Engine Piston Cooling Oil Pressure Sensor	1
2	21634021	Engine Oil Pressure (EOP) Sensor	1
3	469846	O-Ring, Internal	1
4	22188378	Pressure Reduction (Relief) Valve, Purple	1

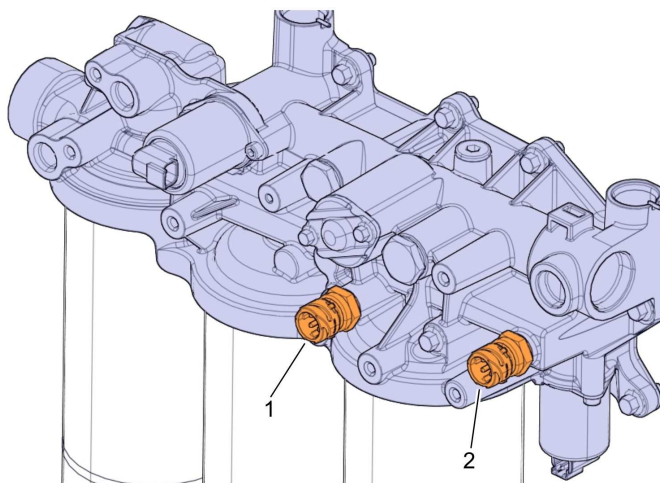
## Procedure

You must read and understand the precautions and guidelines in Service Information, Function Group 20, "Engine Safety Practices" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

### **DANGER**

Do not attempt to repair or service this vehicle without having sufficient training, the correct service literature and the proper tools. Failure to follow this could make the vehicle unsafe and lead to serious personal injury or death.

- 1 Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheels, and placing the transmission in neutral or park.
- 2 Disconnect all battery cables from the negative (ground) battery terminals to prevent personal injury from electrical shock and prevent damage to electrical components.
- 3 Inspect the oil pressure sensors and note the part numbers on them. If the part number is 21302639 or less, remove and replace the engine oil pressure sensor and engine piston cooling oil pressure sensor with new sensor part number 21634021. Tighten sensors to  $30 \pm 5 \text{ Nm}$  ( $22 \pm 4 \text{ ft-lbs}$ ).

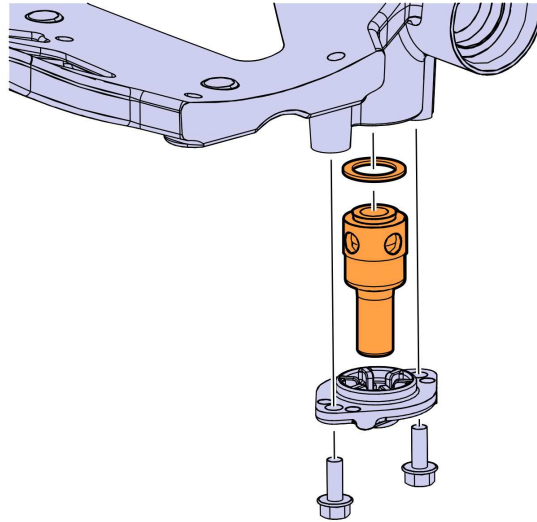


W2084377

1	Engine Piston Cooling Oil Pressure Sensor
2	Engine Oil Pressure (EOP) Sensor

- 4 Remove the oil pan. Refer to Function Group 21.

- 5 Remove and replace the pressure reduction (relief) valve in the oil valve body with part number 22188378 and replace the internal O-ring with part number 469846. Tighten cover fasteners to  $10 \pm 2$  Nm ( $88 \pm 17$  in-lbs).



W2082023

- 6 Install the oil pan. Refer to Function Group 21.
- 7 Refill the engine oil to the proper level.
- 8 Reconnect all previously removed cables to the negative (ground) battery terminals.
- 9 Start engine, check for leaks and proper operation. Clear any DTC.

**Reimbursement**

<b>This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.</b>	
<b>Claim Type (used only when uploading from the Dealer Bus. Sys.)</b>	01
<b>Labor Code</b>	
Primary Labor Code	2192C-36-80 — 2.9 hrs.
<b>Causal Part</b>	3826265

MACK Trucks North America engages in a comprehensive program of testing and evaluating to provide the best possible product. MACK Trucks North America however, is not committed to, or liable for updating existing vehicles.