



Mack Trucks, Inc.
Greensboro, NC USA

Service Program Trucks

This Service Program replaces program PI0796 dated 7.2012.

Date	Group	No.	Release	Page
8.2012	293	014	02	1(12)

EGR Valve Modification
MP7 and MP8 US2010
CHU, CXU, GU, LEU, MRU

PI0796, EGR Valve Modification

(August 2012)

Mack Trucks has authorized an EGR valve modification on certain EPA2010 emission level vehicles equipped with MACK MP7 and MP8 engines built April through June 2012 that have accumulated less than 8000 km (5000 mi). The poppet shaft end cap O-rings must be removed from the EGR valves on these engines. The O-rings were designed to be consumed during the first major heat cycle, but cases have been reported where the O-rings have caused the valve to malfunction. **No action is required on vehicles that have accumulated 8000 km (5000 mi) or more as the O-rings have been consumed as designed.** Before proceeding, verify campaign eligibility by checking Service Program status in eWarranty.



CAUTION

Removal and installation of EGR valve can cause progressive damage if care is not taken. Please ensure that all components and mounting surfaces are clean and free of debris before removal and reassembly.

Note: This bulletin does not apply to Mack Trucks Australia.

Parts Required

Part Number	Description
20850815	EGR Valve Gasket (1)
20841816	Hot Pipe Gaskets (2)
21007187	Diffuser Gasket (1, MP7 only)
21095721	Exhaust Piping Gasket (1 for MP7, 2 for MP8)
976014	EGR Oil Line O-Ring (2)

Note: Part number 976014 O-rings come in quantity of 25.

For this procedure the existing EGR mounting bolts and EGR hot pipe mounting clamps are to be reinstalled unless damaged.

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.

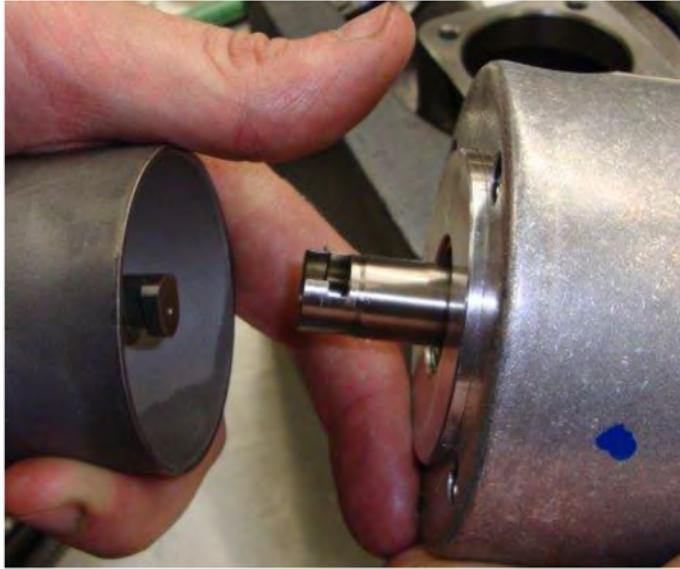
- 1 Apply parking brake and place shift lever in neutral.
- 2 Remove all cables from ground (negative) battery terminals to prevent personal injury from electrical shock.
- 3 Remove EGR valve from engine. Refer to Function Group 29.
- 4 Secure valve in vise, do NOT clamp on the EGR valve mounting surface. Remove 4 fasteners from EGR valve. Remove hydraulic actuator with heat shield, end cap and poppet from casting. Retain spacer for reassembly.

Note: Mark orientation of actuator before removing from casting.



W2075169

- 5 Remove T-shaped clevis joint on shaft by pushing the shaft in opposite directions to separate actuator and heat shield from end cap and poppet.



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6 Retain the clevis joint washer for reassembly.



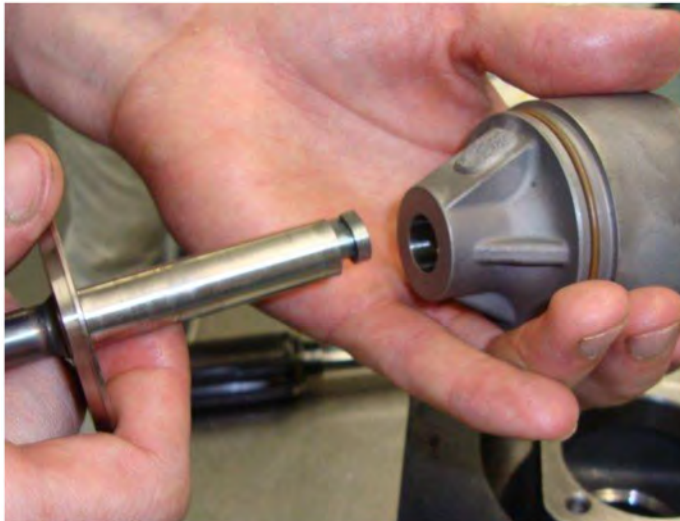
W2075099



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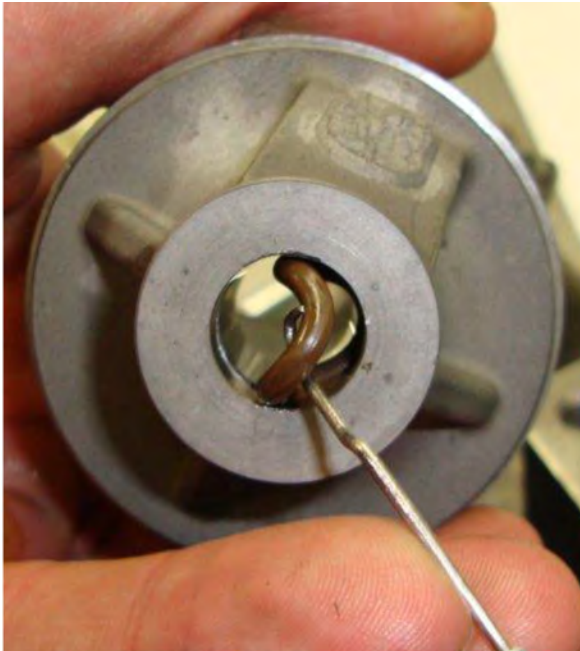
- 7 Remove the poppet shaft from end cap.

Note: If the shaft is stuck and can not be removed from the casting, replace the EGR valve using part kit number 85133799.



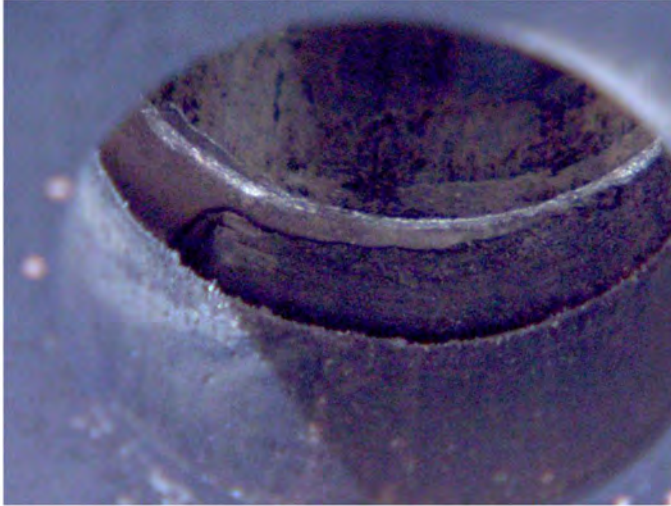
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- 8 Remove internal O-ring from end cap and discard. Check the bore surface and remove any additional debris.



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9 If O-ring has been consumed, make sure any debris is thoroughly cleaned and removed.



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10 Remove end cap external O-ring and discard.



W2075168

- 11 Clean the end cap with proper cleaning material/solution to remove debris from the bore and enclosure area.



CAUTION

Removal and installation of EGR valve can cause progressive damage if care is not taken. Please ensure that all components and mounting surfaces are clean and free of debris before removal and reassembly.

- 12 Install poppet shaft in end cap. Slide the end cap to the poppet flange providing the maximum visibility and clearance for poppet and piston coupling.

Note: Shaft should slide with no interference in the end cap bore. If interference exists, make sure all debris is removed from end cap bore. If cleaning does not allow shaft to slide with no interference, replace EGR valve using part kit number 85133799 and file under standard warranty procedures.



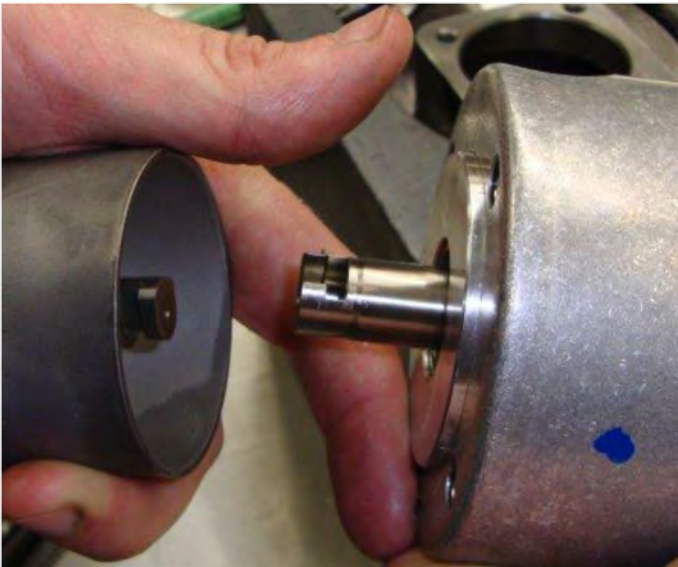
W2075282

13 Position clevis joint washer with dished side toward the hydraulic actuator.



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14 Connect the shaft clevis joint.



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15 Position end cap aligning orientation marks on casting with spacer and install fasteners.

16 Tighten fasteners in three stages as shown.

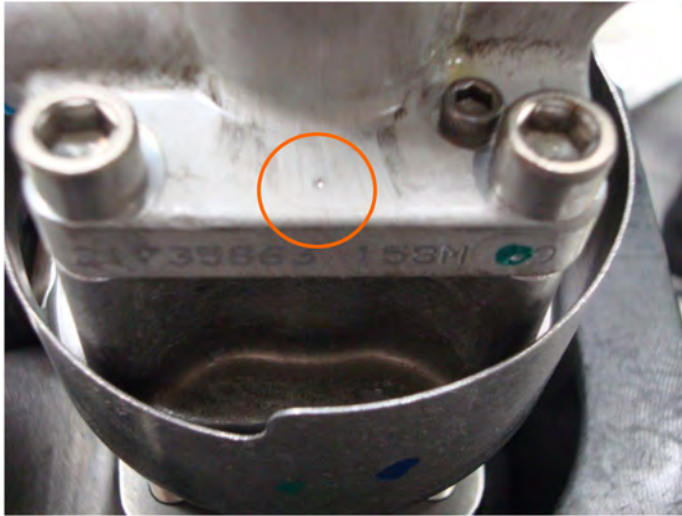


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Stage 1	Tighten fasteners 1 and 4 to 40 in-lbs, then tighten fasteners 2 and 3 to 40 in-lbs.
Stage 2	Tighten fasteners 2 and 3 to 120 in-lbs, then tighten fasteners 1 and 4 to 120 in-lbs
Stage 3	Retighten fasteners 2 and 3 to 120 in-lbs, then tighten fasteners 1 and 4 to 120 in-lbs

17 Activate poppet by hand to ensure proper function.

18 Mark the valve with a punch to indicate work completed.



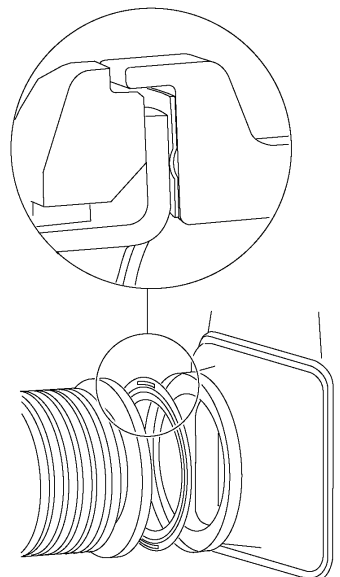
W2075266

19 Install new gaskets into the EGR valve end of the hot pipe and the inlet of the EGR cooler. Make sure the gaskets lay flat against the flange surfaces with the bead of the gaskets facing toward the hot pipe. Install EGR valve. Refer to Function Group 29. For this procedure the existing EGR mounting bolts and EGR hot pipe mounting clamps are to be reinstalled unless damaged.



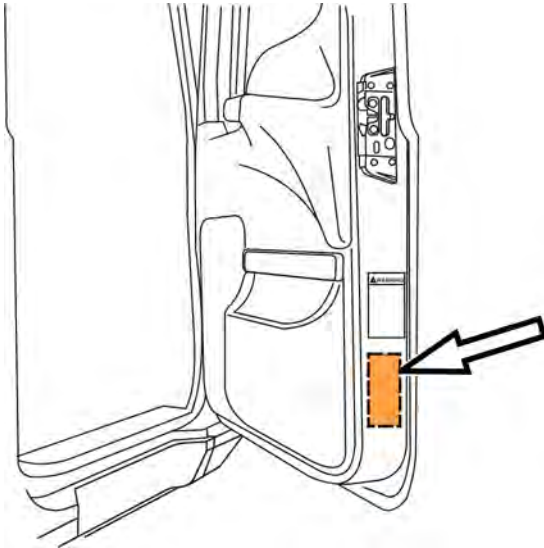
CAUTION

Hot pipe gaskets can easily slip out of position causing damage to turbocharger. Please insure gaskets are securely in place when reinstalling pipe.



W2006187

- 20 Reconnect all previously removed cables to the negative (ground) battery terminals.
- 21 Start the engine. Check for leaks and proper operation.
- 22 To signify that the campaign has been completed, using a permanent-type marker (such as a Sharpie®) to write the campaign number (PI0796) and completion date in the spaces provided on the Campaign Completion label located inside the cab as shown in the illustration below. If a label is not already affixed inside the cab, apply a label (part number TS897) and supply the information as required. Campaign Completion labels are available in packs of 50 and can be ordered by faxing a completed BR313 to Pacesetters Business Services at 610-264-9465.



W8034103

Reimbursement

This repair is covered by an authorized Service Program. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	41
Recall Status	
Vehicle inspected, repair not required	1- Inspected OK
Vehicle repaired per instruction	2- Modified per instruction
Labor Code	
Primary Labor Code for EGR Valve Modification	2145G-01-96 — 0.3 hrs
Labor Code for EGR Removal and Installation	214QD-36-45 • CHU, CXU GU with MP7 — 2.8 hrs • LEU, MRU with MP7 — 1.5 hrs
	214QD-37-45 • CHU, CXU, GU, MRU with MP8 — 1.7 hrs
Time to take charge and determine campaign status	101AA-0A-00 — 0.3 hrs
Causal Part Number	20940438
Other Materials	
Parts Disposition	
Authorization Number	PI0796
Expiration Date	30-Nov-12

Note: Take Charge Time is not included in the Labor Code for this operation. Take charge may be eligible but can only be used once per repair visit. If vehicle is having other warranty repairs performed, take charge should be charged to the warranty repair, otherwise take charge can be charged to this service program.