

DRV Air Line Service Kit

M-258-006

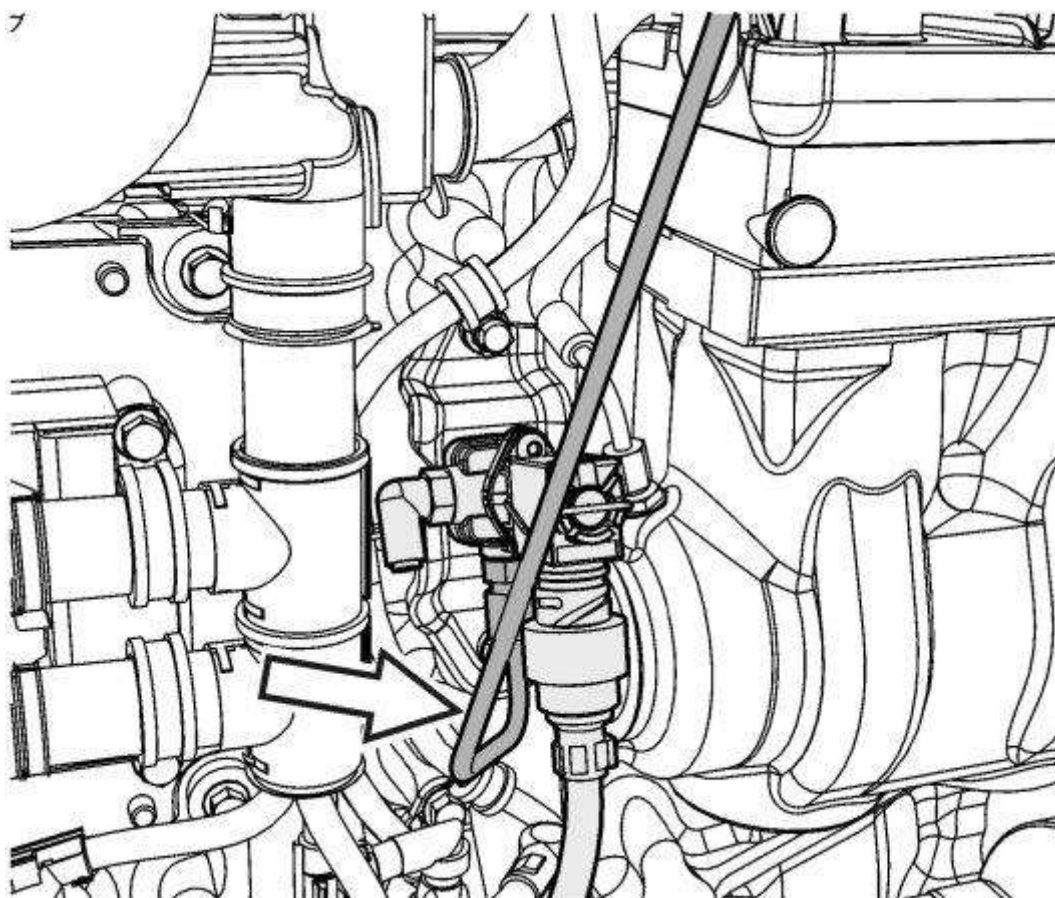
(July 2009)

Valid for

Mack trucks with US07 emissions and an MP7 Mack engine.

Case description

Discharge Recirculation Valve (DRV) air line service kit 21377589 has been developed for the repair or replacement of DRV air line on Mack MP7 engines. If the DPF (Diesel Particulate Filter) failed regeneration due to slow T1 temperature rise during activation of the DRV, there may be an issue with a broken DRV line. The original single piece, steel tubing DRV line may be broken at the control solenoid valve on the left side of the engine. Fault Code MID 128 PPID 330 FMI 7 may be logged when this occurs. Repair of this single piece steel tubing requires removal of a section of line and installation of service kit 21377589. The service kit consists of a section of flexible braided line with a compression fitting used to splice into the existing line.



Parts

DRV Air Line Service Kit 21377589				
Item	Part Number	Description	Notes	Quantity
1	21364555	Pipe Set	N/A	1

2	8079360	Cable Tie	N/A	1
3	20960413	P-Clamp	N/A	1

Procedure

You must read and understand the precautions and safety guidelines in "Safety Information" section, Mack MP7 Diesel Engine service manual 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

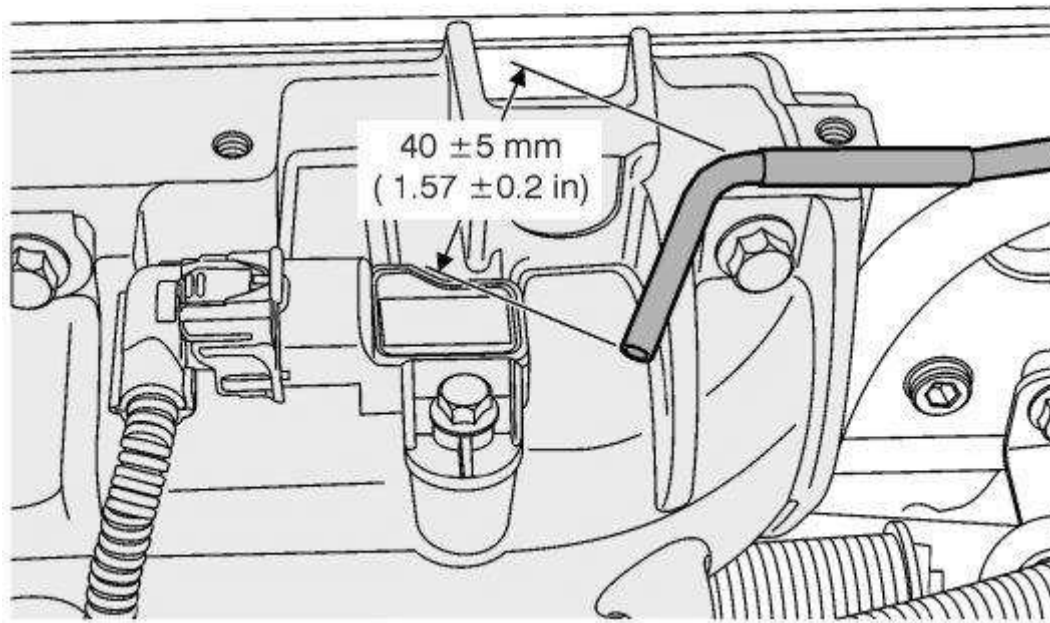
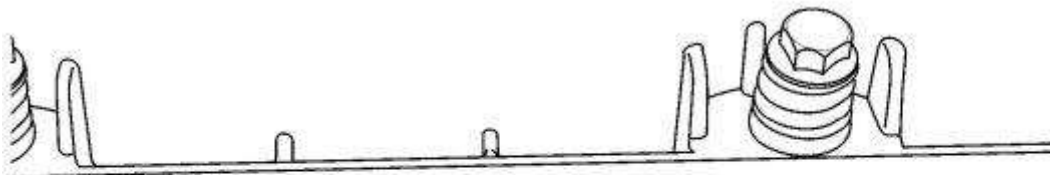
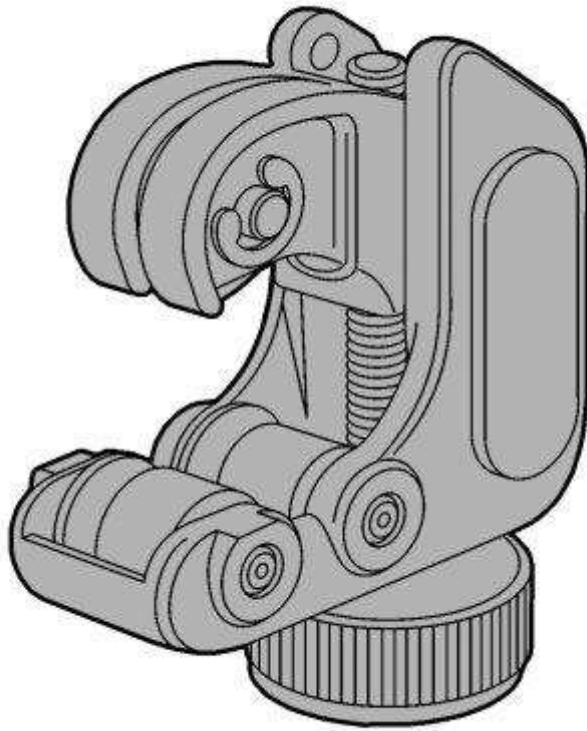
Do not attempt to repair or service this vehicle without having sufficient training, the correct service literature and the proper tools. Failure to follow this could make the vehicle unsafe and lead to serious personal injury or death.



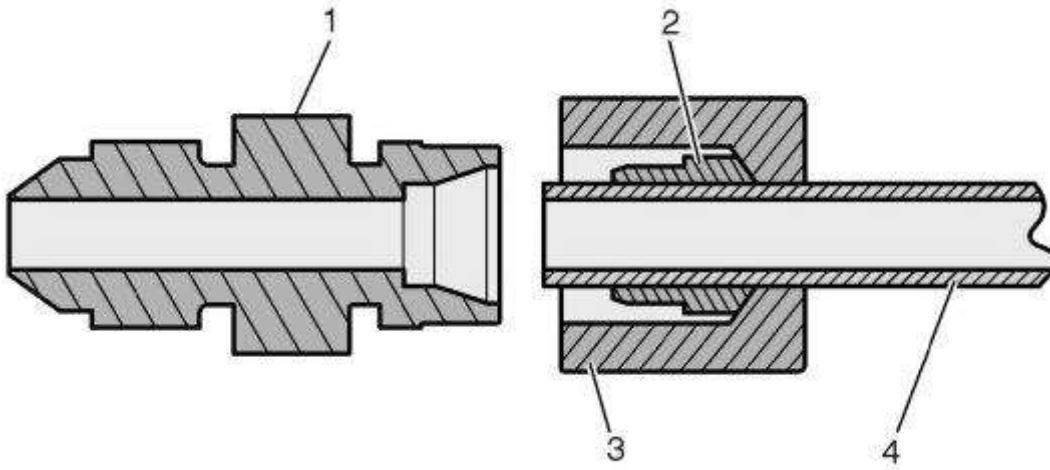
Caution

Possible damage to electronic components. Turn the vehicle ignition switch OFF before disconnecting or connecting any electronic components. Failure to de-energise circuits may result in permanent damage to electronic components. To de-energise circuits may result in permanent damage to electronic components.

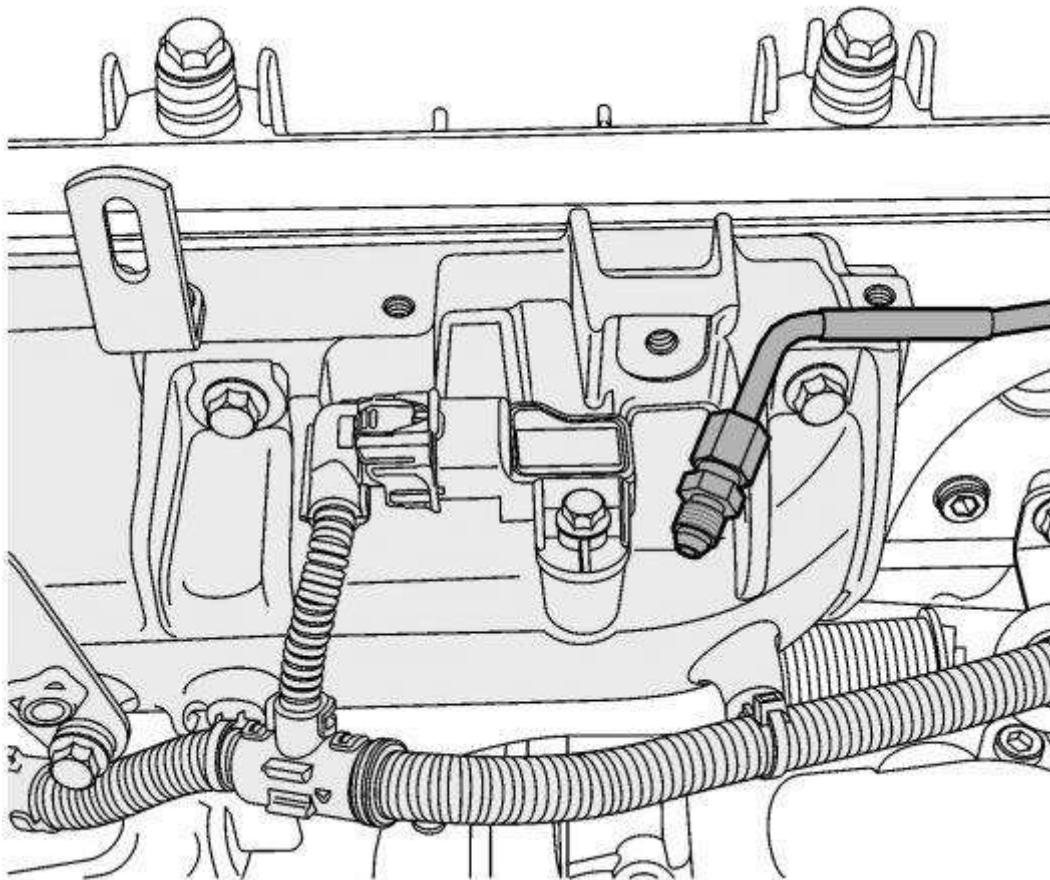
1. Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheel and placing the transmission in neutral.
2. Completely drain chassis air system.
3. Disconnect DRV air line at the DRV valve.
4. Remove P-Clamp and cut pipe as shown with compact tube cutter.



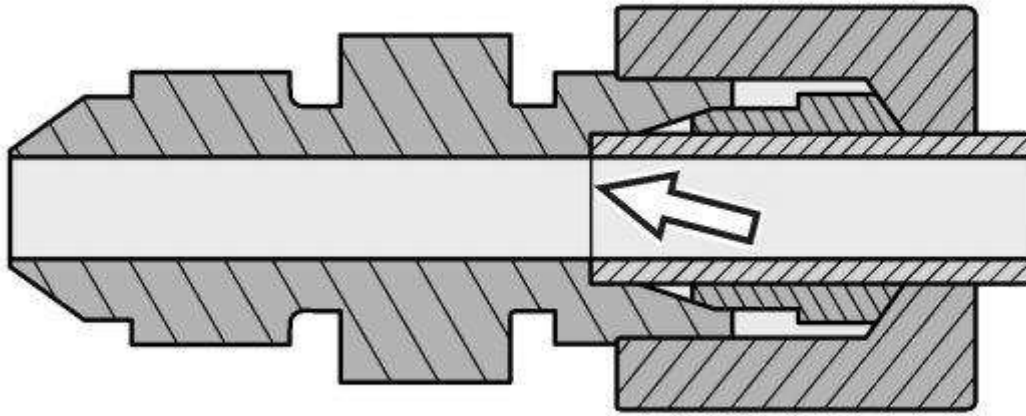
5. Slip nut and ferrule over de-burred and cleaned pipe end. Ensure the ferrule is oriented as shown in figure.



Union Adapter Parts	
Item	Description
1	Fitting
2	Ferrule
3	Nut
4	Pipe



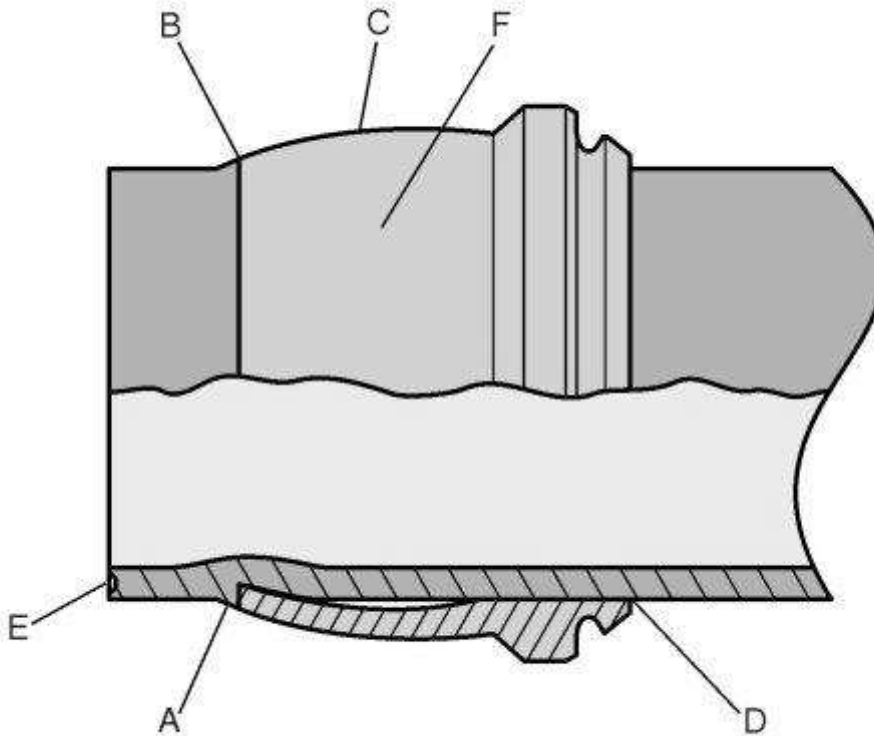
6. Lubricate the ferrule with engine oil.
7. Insert pipe, ferrule and nut assembly into the fitting. Ensure pipe is bottomed in the fitting, then hand tighten nut.



8. Using a wrench, tighten the nut 3–4 flats.

Note: Ferrule Bite/Pre-Set inspection is required for proper installation of the ferrule to the pipe.

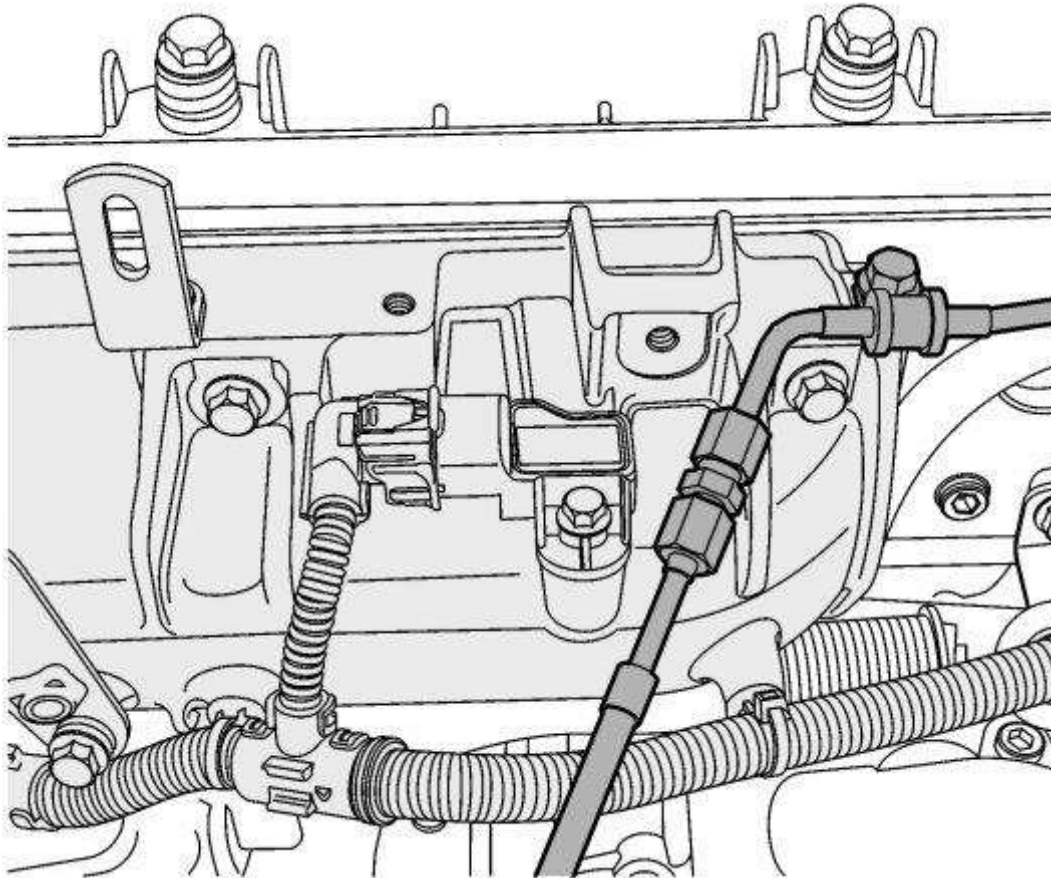
9. Follow detailed steps for Ferrule Bite/Pre-Set inspection.



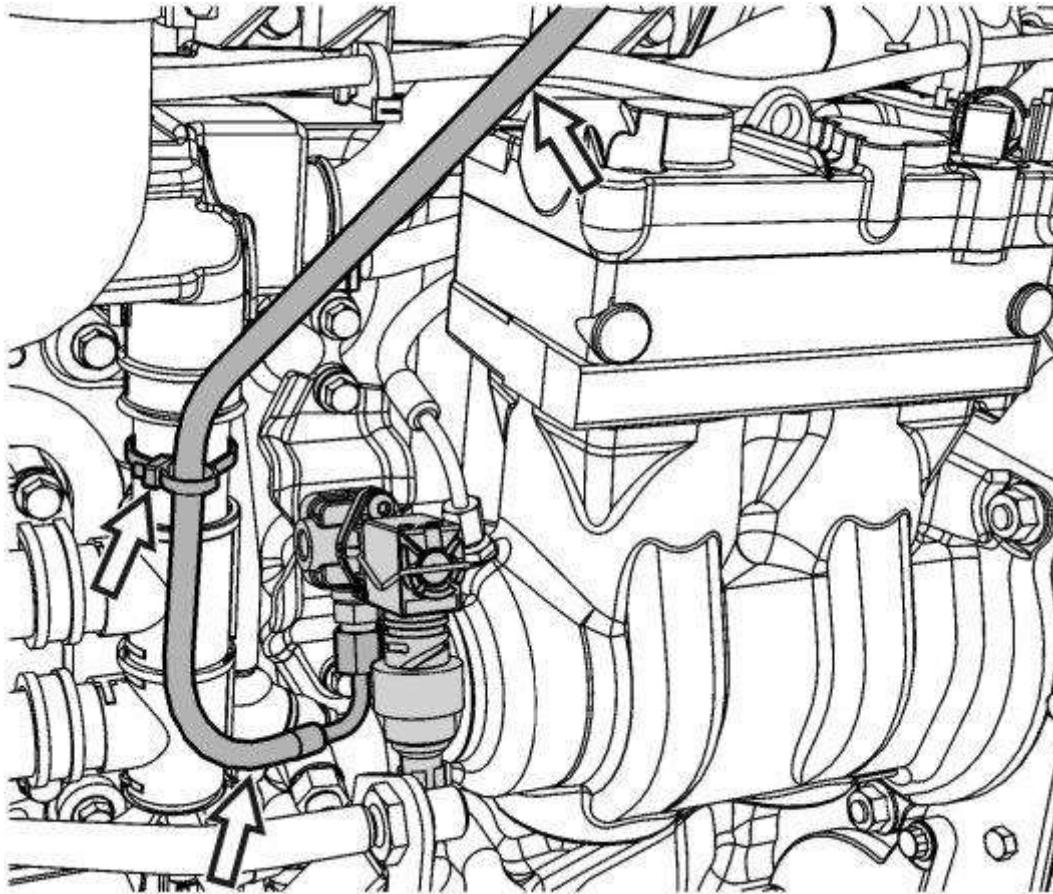
Ferrule Bite/Pre-Set Inspection	
Item	Item
A	A ridge of metal is raised above the pipe surface. The thickness of the raised

	surface is 50% of the ferrule's leading edge around the pipe.
B	The leading edge of the ferrule must be flat.
C	There is a slight bow to the pilot section of the ferrule.
D	The tail of the ferrule is snug against the pipe.
E	There is a slight indentation around the end of the pipe. The indentation indicates the pipe was bottomed in the tool or fitting during pre-setting. If evidence of complete contact is not visible, the ferrule is not properly seated.
F	Avoid rotating the ferrule. Do not move the ferrule back and forth along the pipe beyond the bite area.

10. After inspection, retighten the nut until wrench resistance is noticeable, then tighten nut an additional 1/6 to a 1/4 turn.
11. Connect union adapter to hose assembly and torque to 17 ± 2 Nm (13 ± 1 ft-lb).
12. Clean the pipe of tape and assemble new P-clamp 20960413. Torque fastener to 24 ± 4 Nm (18 ± 3 ft-lb)



13. Connect the other end of the hose assembly to solenoid valve, then torque to 17 ± 2 Nm (13 ± 1 ft-lb). Leave a clearance of 10 mm (.34 in) away from surrounding parts.
14. Ensure a minimum of 13 mm (.5 in) of clearance between the fresh air inlet pipe and hose assembly.
15. Secure hose assembly to engine harness using cable tie 8079360. Ensure clearance between hose assembly and engine harness.



16. Perform a Service Regen while conducting a bubble test (water and Soap) on the union adapter and pipe end fittings. Listen for possible air leaks.

Warranty information

Reimbursement

This Repair may be eligible for reimbursement if a product failure was experienced within the time and mileage limits of the applicable warranty coverage. Reimbursement is obtained via normal claim handling process.	UCHP Reimbursement
Claim Type (used only when uploading from the Dealer Bus. Sys.)	01
Labour Code	
Primary Labour Code	21410-19-56
	1.7 hrs
Causal Part	20992675

Issued by

Technical Service

Mack Trucks, Inc. engages in a continuous program of testing and evaluating to provide the best possible product. Mack Trucks, Inc., however, is not committed to, or liable for updating existing chassis.