



This field service bulletin replaces bulletin 252-029 dated 9.2013.

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Muffler Inlet Pipe  
ISL-G  
MRU

## FSB 252-029, Muffler Inlet Pipe

(May 2014)

Some MACK MRU trucks equipped with the Cummins ISL-G engine built before September 16, 2013 may experience a issue with the muffler inlet pipe falling out of the muffler. A new muffler inlet pipe, lengthened exhaust flex pipe and a turbocharger outlet pipe has been design to work together to reduce rigidity of the exhaust to address this condition. The new exhaust has been implemented in production and is now available in the aftermarket for any vehicle that may encounter this condition

All three exhaust pipes need to be installed together for correct installation.

**Note:** The exhaust clamps must NOT be reused, they are one time use only parts. The correct torques can not be reproduced once loosened.

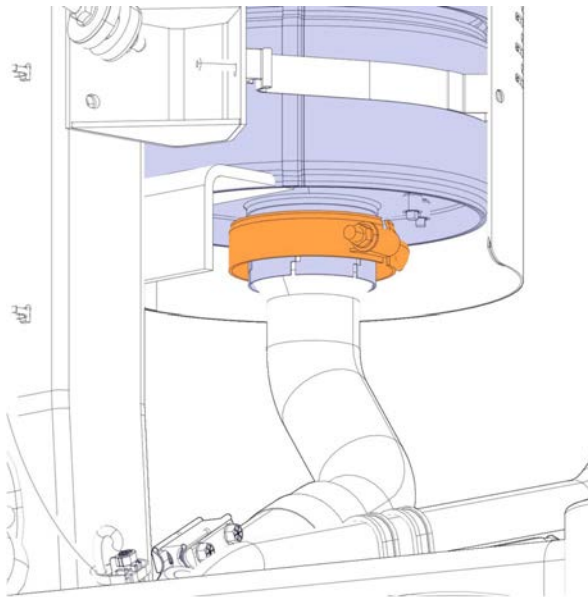
Part Number	Description	Quantity
22216914	Exhaust Pipe (MRU Muffler Inlet)	1
22216925	Hose Exhaust (Flex Pipe)	1
22216977	Exhaust Pipe (Turbocharger Outlet)	1
21380071	Clamp	2
25020944	Clamp (Catalyst Inlet)	1
21465729	Clamp (Turbocharger Outlet)	1

**Note:** Transfer parts as needed such as sensor and heat shield.

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.

## Procedure

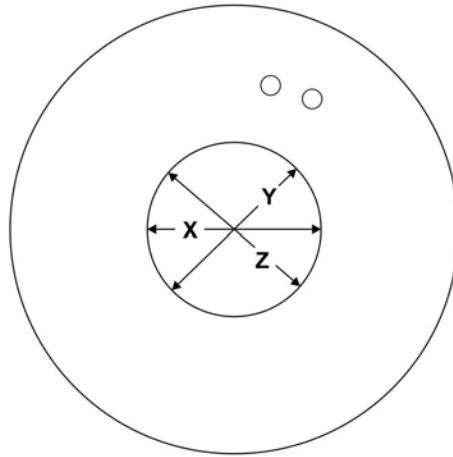
- 1 Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheel, and placing the transmission in neutral.
- 2 Disconnect all cables from the negative (ground) and positive battery terminals to prevent personal injury from electrical shock and prevent damage to electrical components.
- 3 Disconnect sensor connector from sensor in turbocharger outlet pipe.
- 4 Secure any loose items in the cab to prevent damage to the dash or windshield when the cab is tilted. Unlock the pump and tilt the cab forward.
- 5 Remove the V-band clamp at the turbocharger outlet pipe and separate pipe from turbocharger.
- 6 Mark the clamp bolt location on the exhaust catalyst inlet.
- 7 Loosen the clamp bolt and disconnect the exhaust pipe from the exhaust catalyst inlet. Discard the band clamp.



W2070233

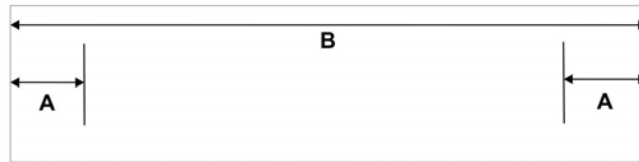
- 8 Remove the exhaust pipe assembly and discard.

- 9 Inspect the exhaust catalyst inlet flange by measuring the inside diameter at three locations (X, Y and Z). The inside diameter must be 101.7 – 102.7 mm (4 – 4.04 in). If necessary, gently tap the flange inward or outward to meet the specification.



W2089472

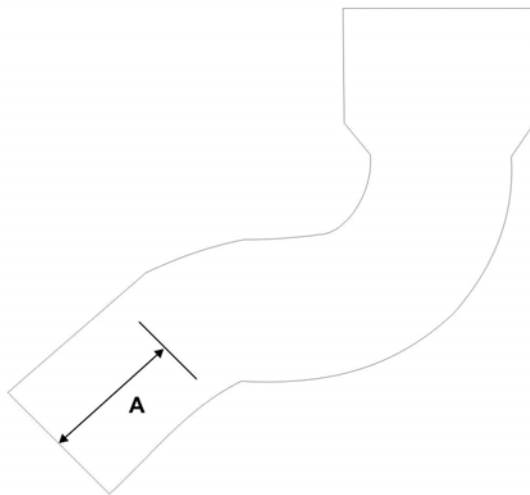
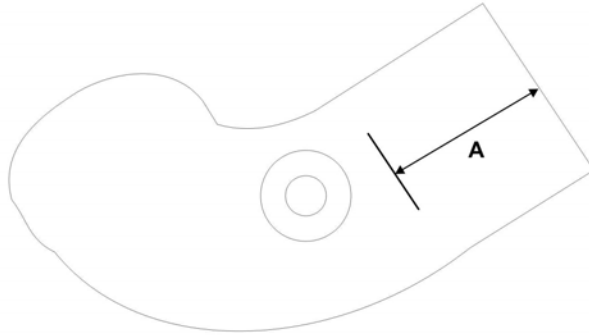
- 10 Clean the sealing surfaces on the exhaust catalyst inlet.  
11 Adjust flex pipe to 300 mm (12 in) in length (B). To determine the clamp insertion depth on the flex pipe, mark 35 mm (1.5 in) from either end (A).



W2089513

A = 35 mm (1.5 in), B = 300 mm (12 in)

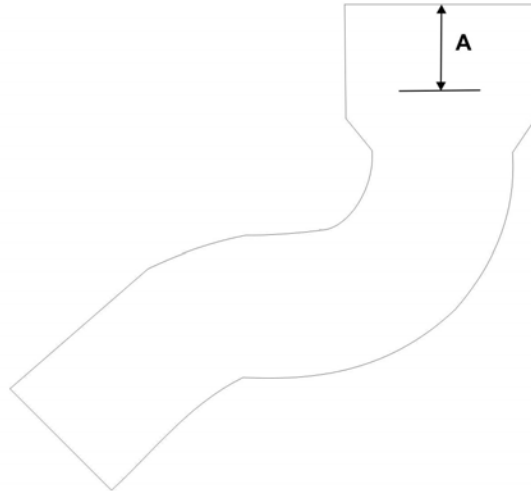
12 To determine insertion depth of piping into clamps, mark the turbocharger outlet pipe and the catalyst inlet pipe 76 mm (3 in) inward from the mating end to the flex pipe.



W2089516

A = 76 mm (3 in)

- 13 To determine insertion depth of the inlet pipe into catalyst inlet flange, mark 58 mm (2.25 in) from end of catalyst inlet pipe.

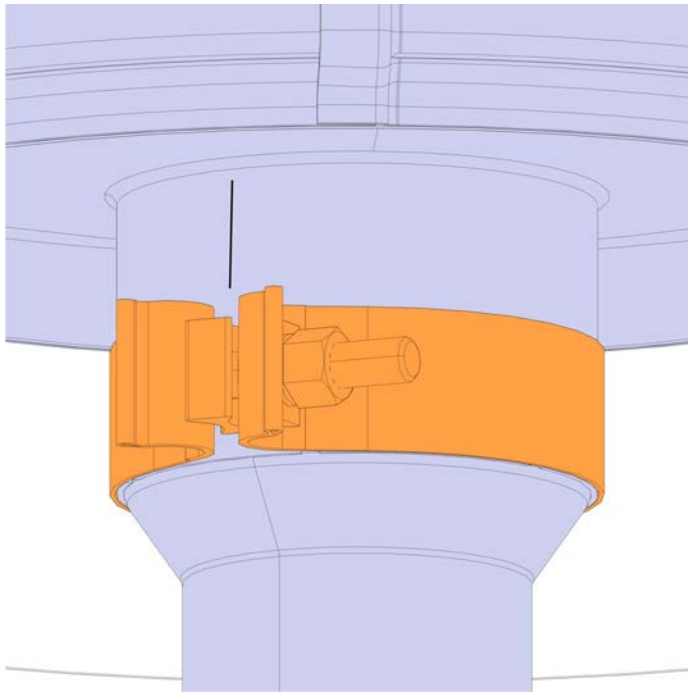


W2089517

A = 58 mm (2.25 in)

- 14 Loosen and remove the band clamp/heat shield assembly from the old exhaust catalyst inlet pipe.
- 15 Position the heat shield on the new exhaust catalyst inlet pipe.
- 16 Install the band clamp securing the flex pipe to the exhaust catalyst inlet pipe and tighten the band clamp to  $48 \pm 7$  Nm ( $35 \pm 5$  lb-ft).
- 17 Install the band clamp securing the turbocharger outlet pipe to the flex pipe.
- Note:** Only hand tighten the band clamp at this time to allow the turbocharger outlet pipe to be rotated into position during the installation of the exhaust pipe assembly. Use the alignment marks as guides.
- 18 Install the exhaust pipe assembly into position. Use the alignment mark as a guide.

- 19 Position clamp so that top of all slots are covered by clamp and clamp spacer block is between slots. Ensure exhaust catalyst inlet flange aligns with previously indicated mark on inlet pipe. Position and tighten the band clamp at the catalyst inlet to  $60 \pm 7$  Nm ( $45 \pm 5$  lb-ft).



W2089689

- 20 Install a new V-band clamp at the turbocharger outlet and tighten to  $48 \pm 7$  Nm ( $35 \pm 5$  lb-ft).
- 21 Tighten the band clamp at the turbocharger outlet pipe to flex pipe to  $48 \pm 7$  Nm ( $35 \pm 5$  lb-ft). Use the alignment marks as guides.
- 22 Position the heat shield on the exhaust catalyst inlet pipe and tighten to  $9 \pm 1$  Nm ( $84 \pm 12$  lb-in).
- 23 Connect sensor connector to sensor in turbocharger outlet pipe.
- 24 Lower the cab to the closed and locked position.
- 25 Install all previously removed cables to the negative (ground) battery cables.
- 26 Start the engine, check for leaks and proper operation. Use Guided Diagnostics to read and clear any diagnostic trouble codes (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	2343E-ZU-80 — 0.9 hrs
<b>Causal Part</b>	21533953

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.