Technical Service Bulletin

Technical Service Bulletin: TSB220216	**Released Date**: 28-Aug-2023
C500D6RE Exhaust Bellow Cracking Issue	

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Warranty Statement

The information in this document authorizes specific changes to the repair practice for failures covered under product warranty coverages.

Contents

Product Affected

- C500D6RE

Issue

Symptom:

- Melted downpipe blanket
- Melted insulation panels from hot exhaust
- Exhaust gas leaking inside enclosure

Root Cause:

- Assembly issue putting pressure on the exhaust bellow causing it to crack

Verification/Confirmation

Inspect both ends of the exhaust insulation for soot. If soot is found remove the insulation and inspect the bellow.

Inspect the ceiling area and exhaust insulation above the radiator. If any melting is observed, proceed to the resolution to replace the exhaust bellow.

Resolution

On generator sets that experience exhaust bellow failure, the damaged exhaust pipe assembly will be removed and replaced with new parts. Careful attention must be paid when assembling the new exhaust assembly to ensure that the bellow is installed in a neutral state.

Refer to the service instructions for repair steps and the service parts availability for part numbers and steps to get parts.

Service Instruction

Step 1: Remove Roof

A. Two roof panels of the enclosure need to be removed to allow access to the exhaust assembly

B. Cut caulk between roof panels

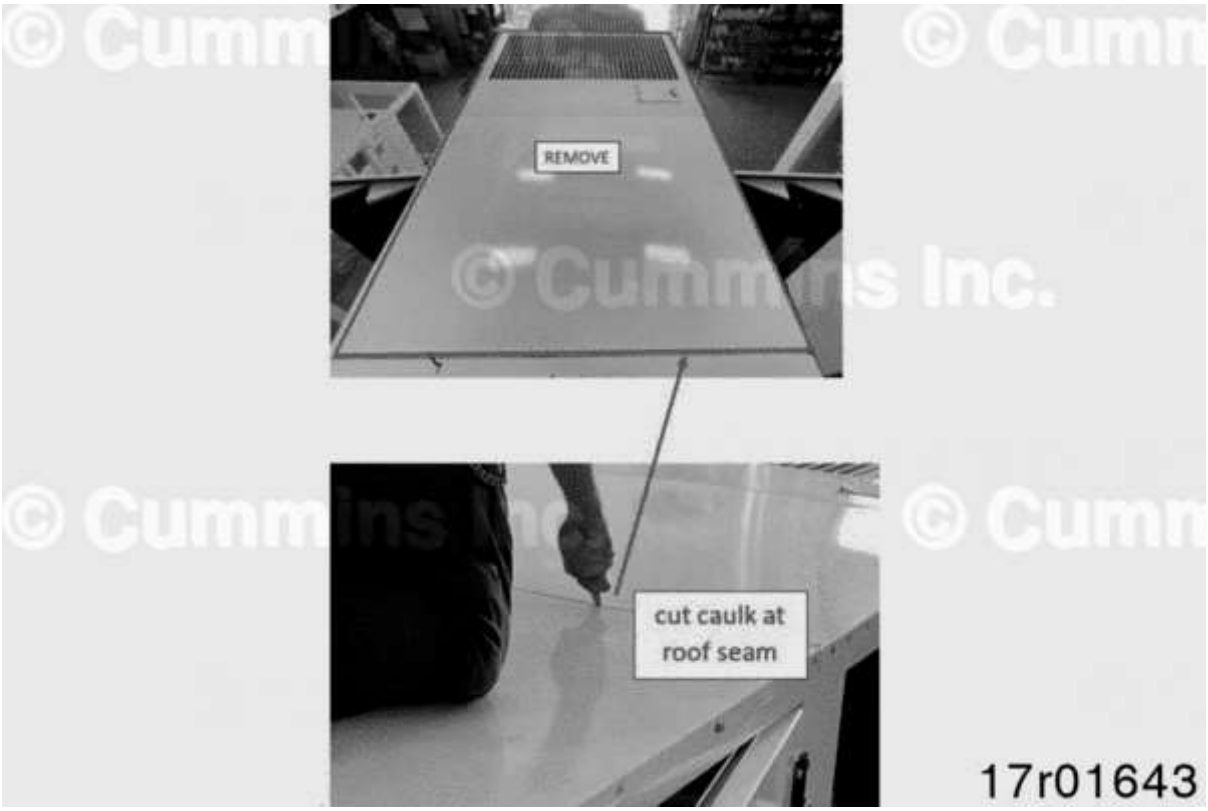


Figure 1, Roof Removal

C. Remove exhaust support bracket from roof - **Note :** Only the bottom nut needs to be removed from the all-thread rod (the rod can remain attached to the roof)

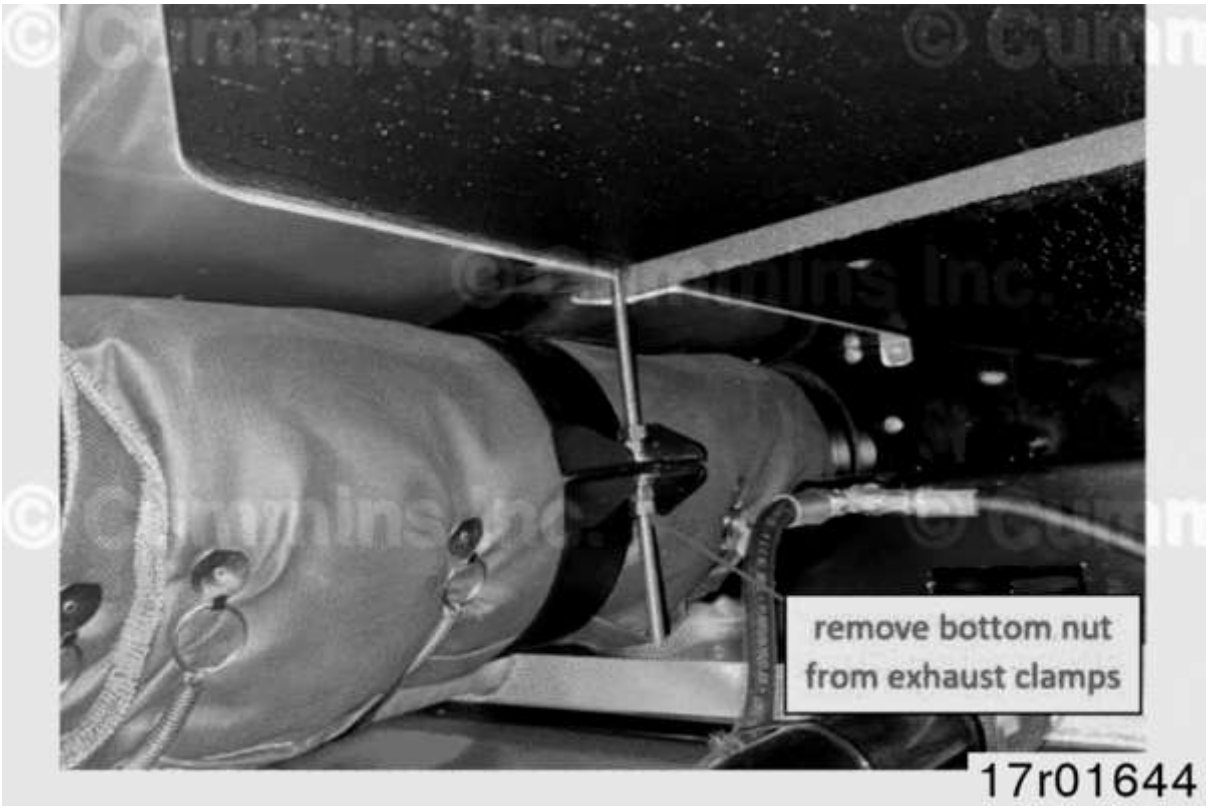


Figure 2, Exhaust Clamp Removal

D. Remove all necessary bolts – **Note:** Enclosure hardware will be reused

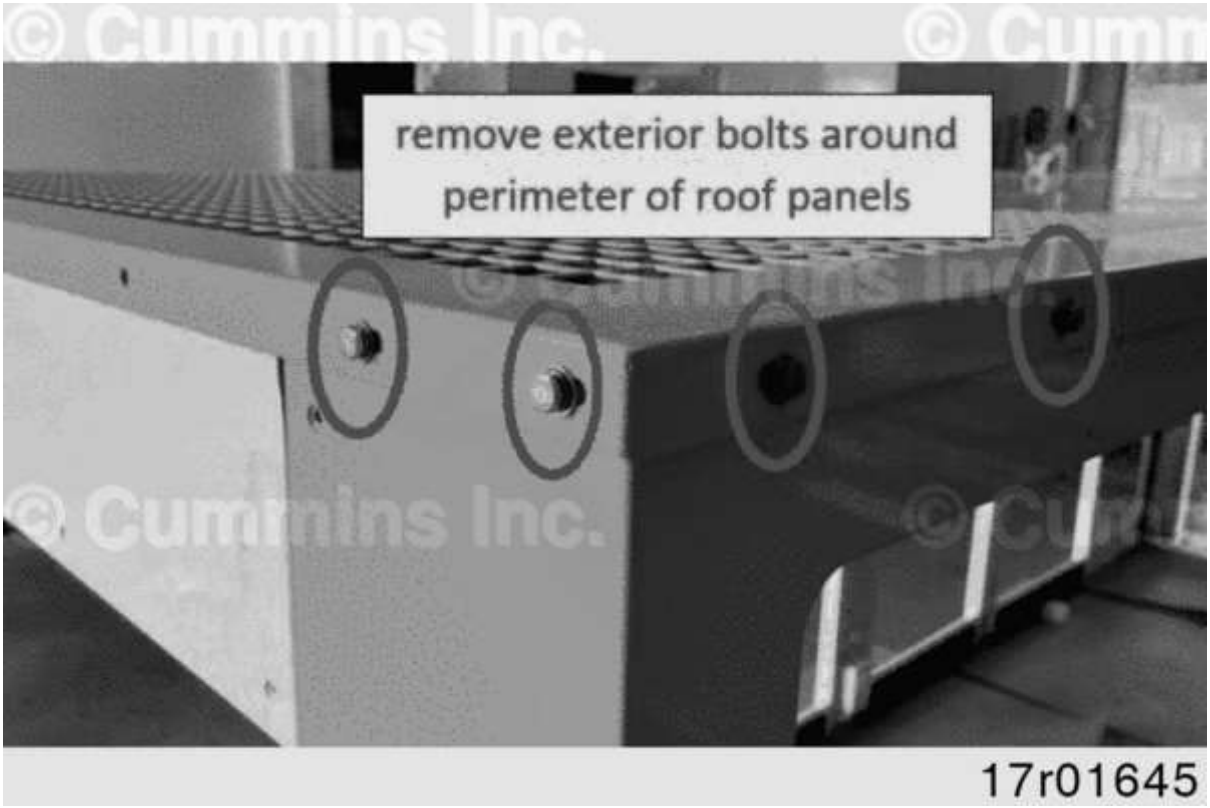


Figure 3, Exterior Roof Mounting Bolts

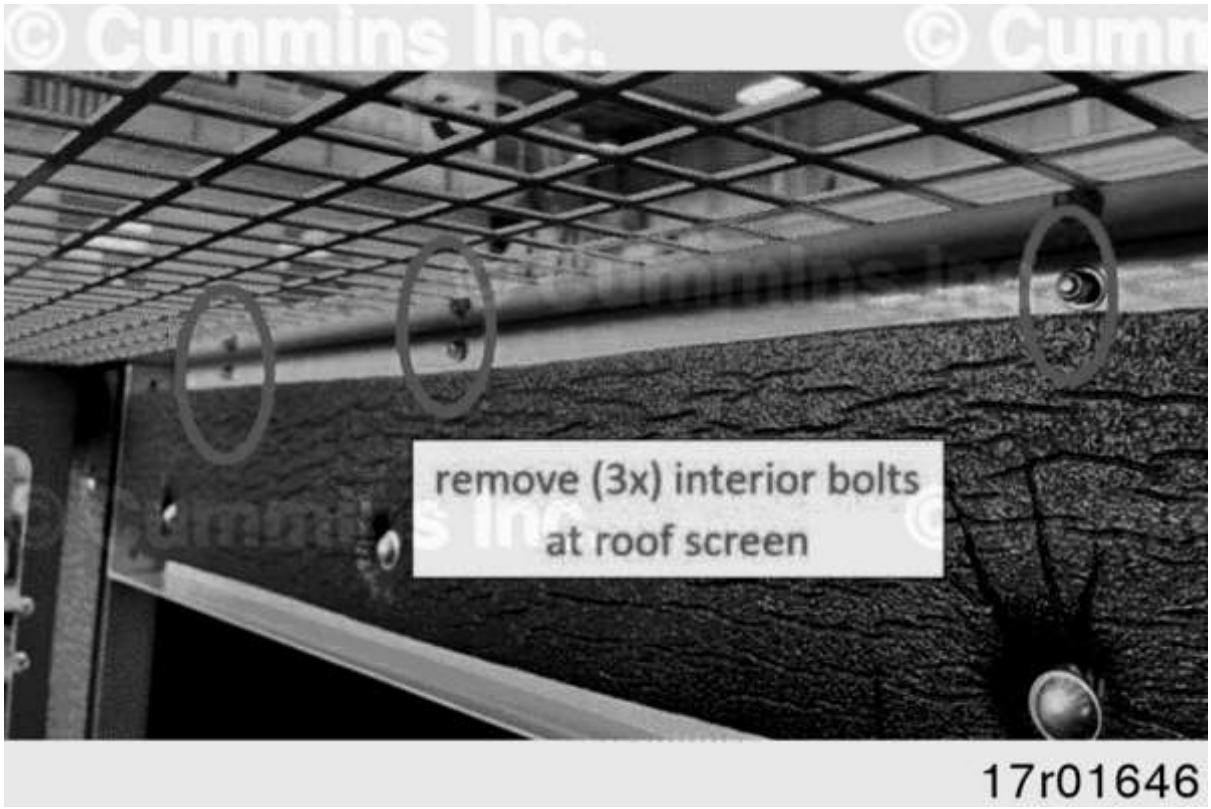


Figure 4, Interior Roof Mounting Bolts



Figure 5, Hidden Interior Roof Mounting Bolts

E. Lift roof off unit – **Note:** Panels can be separated or lifted together as shown

Warning: Use caution when lifting. Follow all local lifting regulations.



Figure 6, Removing Roof

Step 2: Remove damaged pipe assembly

A. Drill out rivets holding heat shield to divider wall and remove heat shield



Figure 7, Heat Shield Mounting Rivet

B. Remove insulation wrap from pipes

C. Remove SS band clamp at turbo elbow

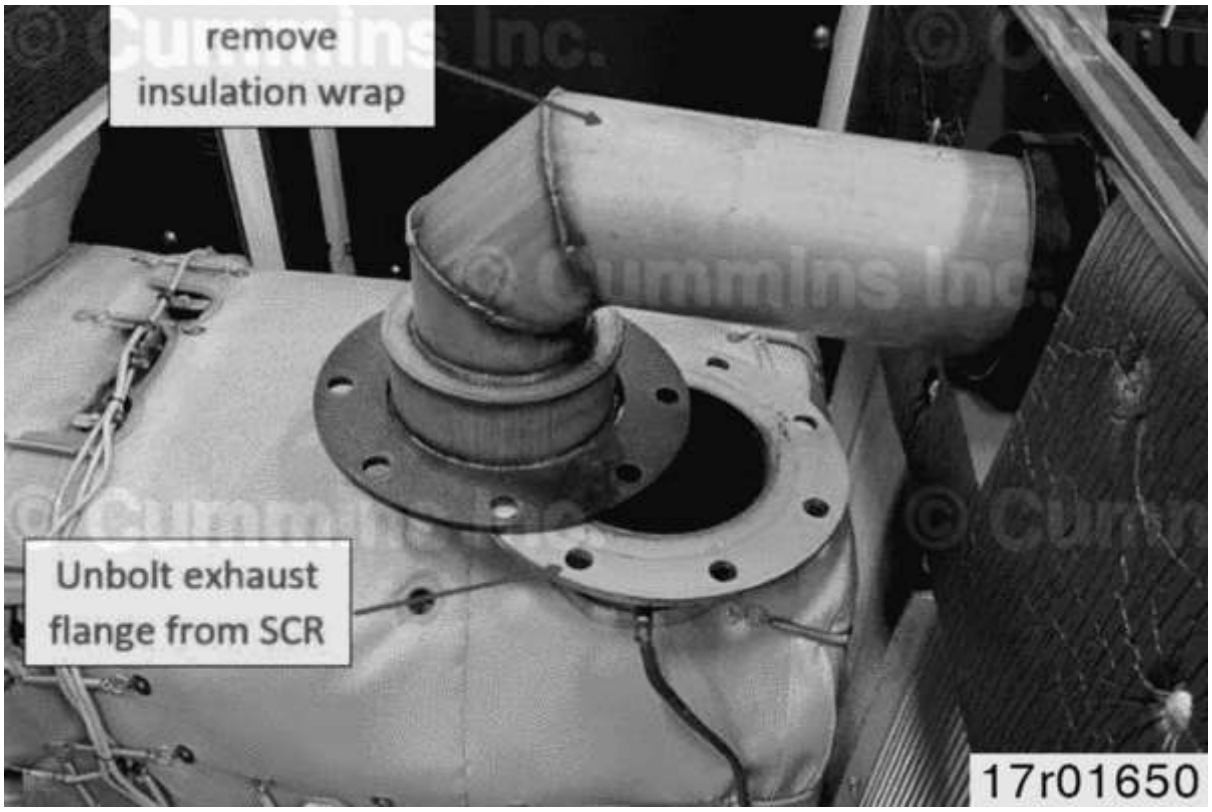


Figure 8, Remove Insulation Wrap on Exhaust

D. Remove SS band clamp between pipe assemblies

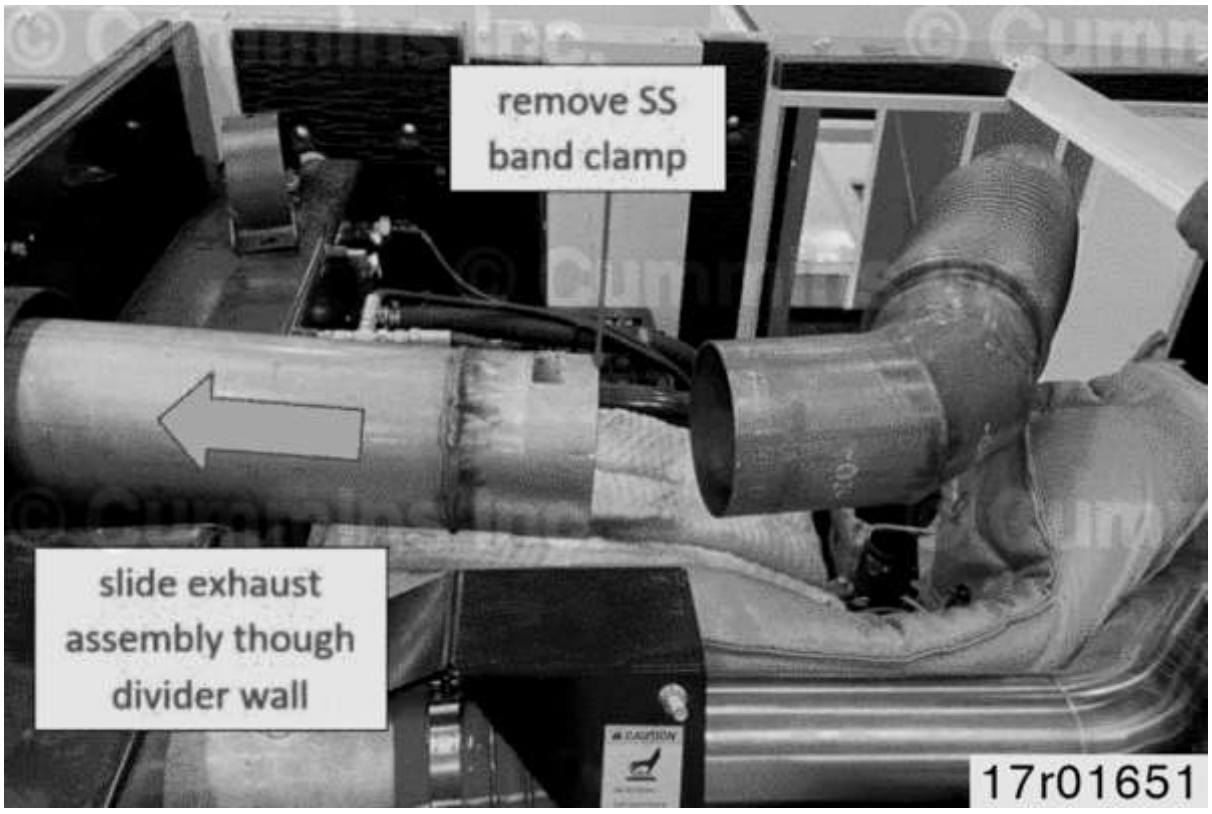


Figure 9, Exhaust Joint

E. Unbolt exhaust assembly from SCR (Selective Catalytic Reduction)

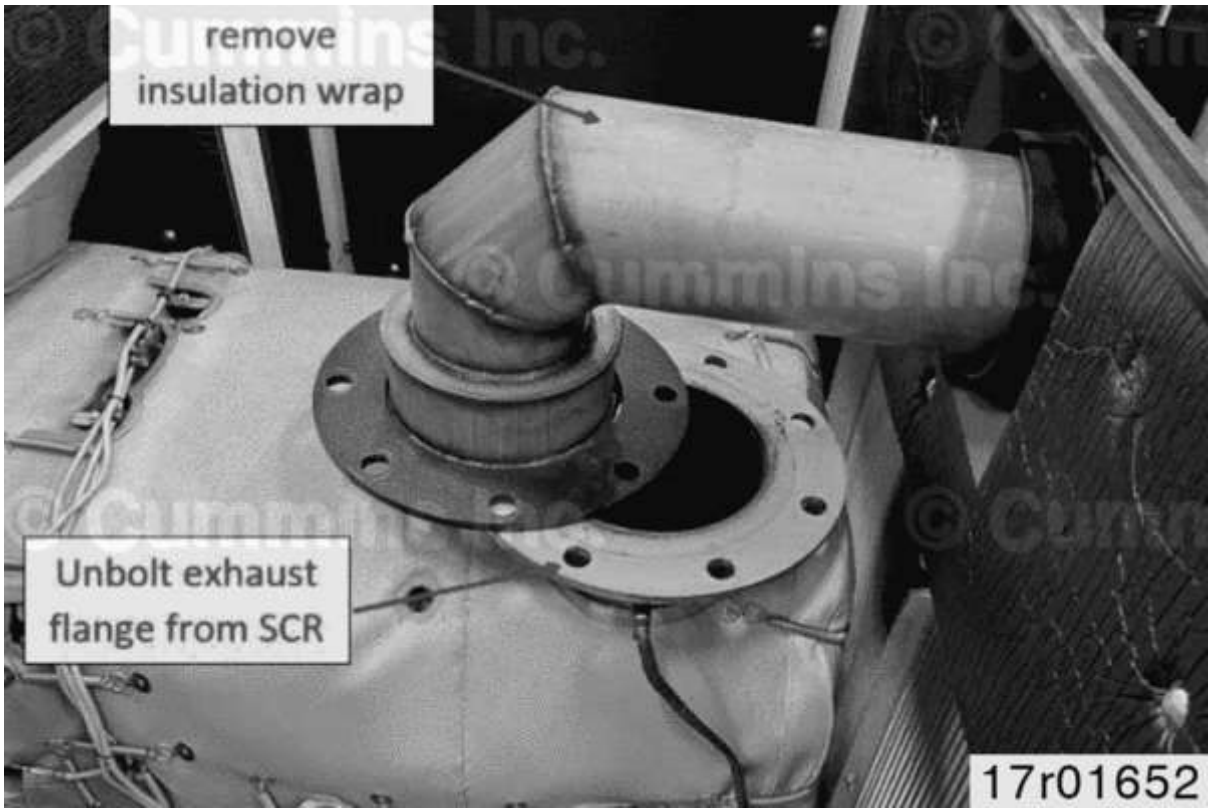


Figure 10, Unbolt Exhaust from SCR

Step 3: Install new pipe assembly (**Note:** Assembly order needs to be followed to ensure bellows is in neutral position)

A. Slide **EXT29-0002-W11** though divider wall



Figure 11, New Exhaust Section

B. Bolt **EXT29-0002-W11** to SCR with **GSK-ANS08-T-STK** exhaust gasket

C. Slide **EXT29-0002-W10** into **EXT29-0002-W11** (Do NOT install Riker Band Clamp at this point)



Figure 12, New Exhaust Adjustment

D. Slide **EXT29-0002-W10** over turbo elbow (Do NOT install Riker Band Clamp at this point)

Note: ensure bellow is in a neutral position – If centerline of bellows is not in-line with adjacent tubing, adjust assemblies at the overlap joints until all offsets are removed

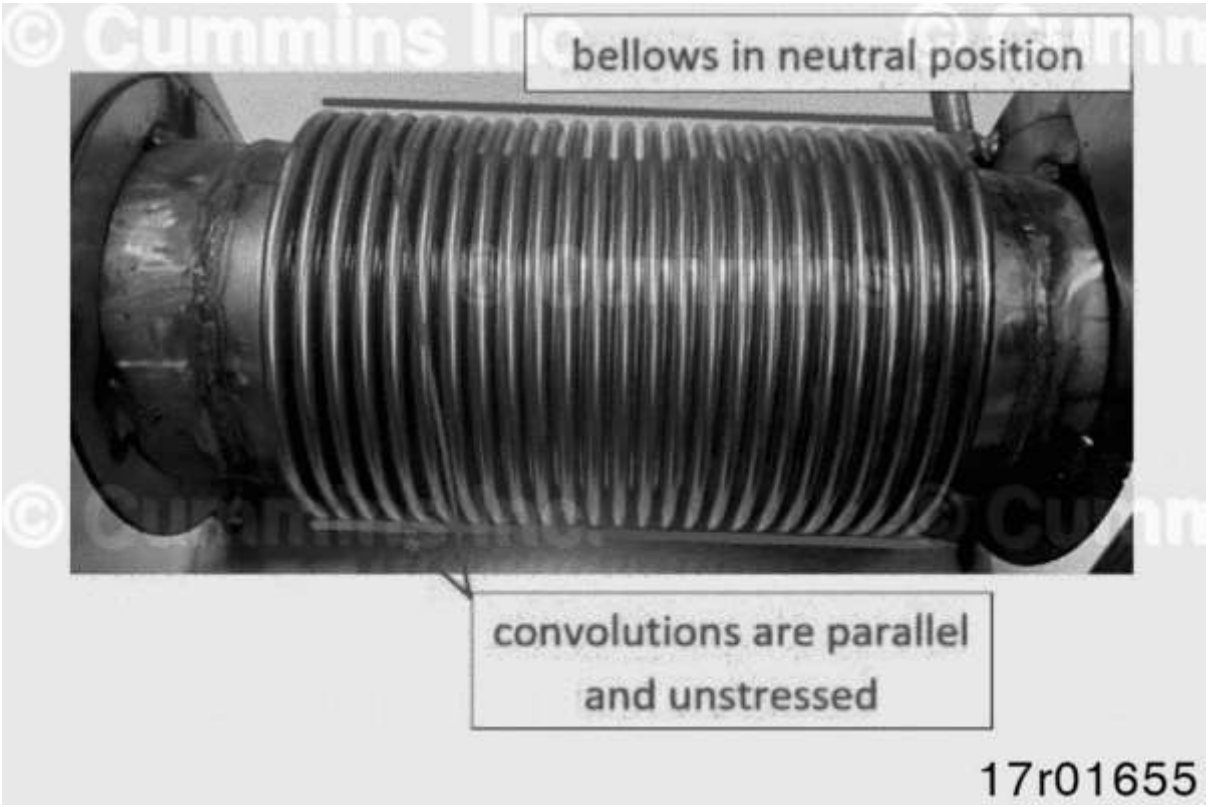


Figure 13, Neutral Bellow Reference

E. Install **RIKER-TEC600** at each joint

Ei. Evenly tighten bolts and torque to 50lbs

F. Double check bellows is still in neutral position

Step 4: Reassemble

A. Install insulation wrap

B. Install top portion of exhaust clamp under heat shield

C. Rivet heat shield to divider wall

D. Install roof panels

Warning: Use caution when lifting. Follow all local lifting regulations.

E. Caulk roof seam

F. Install exhaust support clamp

End of repair

Warranty Claim filing instructions:

To procure replacement parts, a Purchase Order (PO) to purchase parts from Girtz will be required. Include PO amount in warranty claim if failure occurred on unit under Cummins factory warranty.

Fail Code: OXEUBR

Account Code: 67

Applicable SRTs:

00-901: 0.4 hours- Administrative time (shop)

99-999: 16 hours- Exhaust bellow repair

To order replacement parts, contact Girtz via email at sales@girtz.com

Note: repairs and parts outside of warranty will not be covered by Cummins Inc. and responsibility of the customer.

Service Parts Availability

Service parts are to be ordered from Girtz via email at warranty@girtz.com

See Table 1 for part numbers.

Table 1, Service Parts

Find Number (see Figure 14)	Part Description	Part Number (Girtz)
N/A	6” Exhaust Assembly (engine side)	EXT29-0002-W10
N/A	6” Exhaust Assembly (SCR side)	EXT29-0002-W11
N/A	6” Stainless Steel Band Clamp	RIKER-TEC600
N/A	8” Exhaust Gasket	GSK-ANS08-T-STK
N/A	Exhaust Wrap (if damaged)	EXT29-0002-R01
N/A	Rivet	RIV.AL.T.187-3_8
N/A	Caulk	DOWSIL 700 INDUSTRIAL GRADE SILICONE SEALANT
29	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-012
30	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-013

Table 1, Service Parts		
Find Number (see Figure 14)	**Part Description**	**Part Number (Girtz)**
31	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-014
32	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-015
33	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-016
34	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-017
35	Insulation Panel - 2.5LBS/CU. FT. (if damaged)	INS12-0004-018

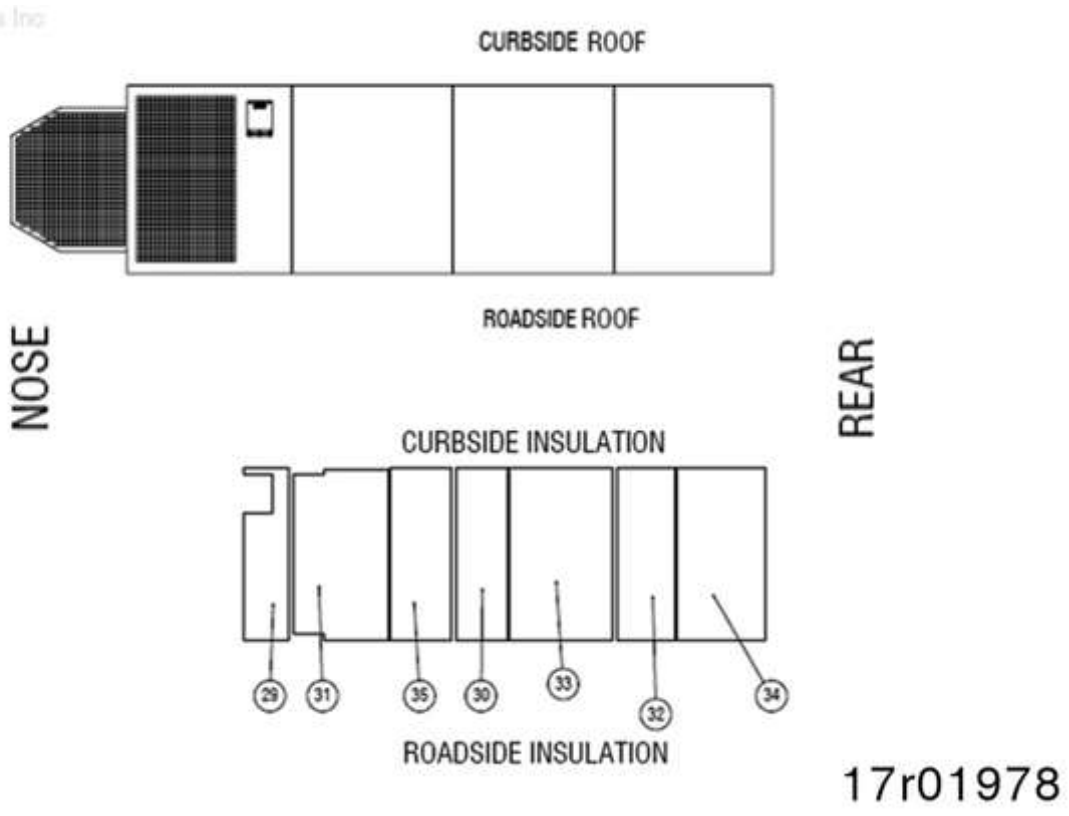


Figure 14, Insulation Parts Diagram

Document History

Date	Details
2022-10-21	Module Created
2023-2-27	Non-Product Problem Solving (PPS)
2023-3-20	Non-Product Problem Solving (PPS)
2023-8-25	Non-Product Problem Solving (PPS)

Last Modified: 28-Aug-2023