

03/08/2021
CAL FTL 49-002

Subject: Adding Exhaust Shim to ATS Exhaust Outlet and Replacing Exhaust Elbow and Clamp

Models Affected: Twenty-Three Freightliner New Cascadia vehicles manufactured on January 4th, 2021 through January 7th, 2021

Our records indicate that you are the owner of a New Cascadia vehicle or vehicles built in January 2021. An undersized ATS outlet pipe was installed on these vehicles, causing the exhaust clamp used to fasten the exhaust elbow to not clamp securely.

To resolve this issue please follow the included Work Instructions to add a new ATS outlet shim and replace the exhaust elbow and clamp.

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Parts

Parts Required		
Part Number	Part Description	Quantity
ZZZZZ	ATS Exhaust Outlet Shim – Supplied by Vendor	1
04-34491-001	ELBOW-ATS OUT,INBRD,HDEP,116DC	1
04-34213-000	CLAMP-BND,120MM,PLN,DURASEAL	1

Table 1, Parts Required

Work Instructions

1. Park the vehicle on a level surface, apply the parking brakes, and shut down the engine. Chock the tires.
2. Disconnect the batteries.

 **CAUTION**

The vehicle is equipped with electronic control units. Serious damage to ECUs and components may result when welding unless the following precautions are taken.

3. If a supplemental restrain system (SRS) is installed, disconnect it.
4. Disconnect all wiring from electronic control modules near the weld site.
5. Attach the ground electrode as close as possible to the weld site (within 18 inches (46 cm)). Remove paint, rust, and grease to provide a clean, bare-metal connection for the ground electrode.
6. Remove and discard the exhaust clamp located at the ATS outlet; see callout 2 in [Fig. 1](#).

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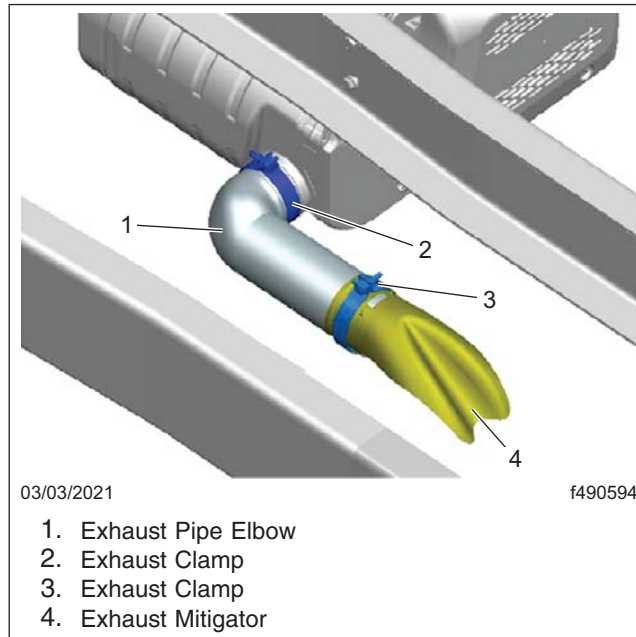


Fig. 1, Horizontal Exhaust Pipe Installation

7. Remove the exhaust assembly and then remove the exhaust clamp that attaches the exhaust mitigator to the exhaust elbow pipe. See [Fig. 1](#).
8. Discard the exhaust elbow pipe.
9. Assemble an exhaust assembly from the new exhaust elbow pipe (part number 04-34491-001), exhaust mitigator, and exhaust clamp. Ensure the exhaust elbow pipe is inserted until stopped by the tab on the exhaust mitigator. See [Fig. 2](#). Torque the clamp fastener to 41 ± 6 lbf·ft (55 ± 8 N·m). Set the exhaust assembly aside.

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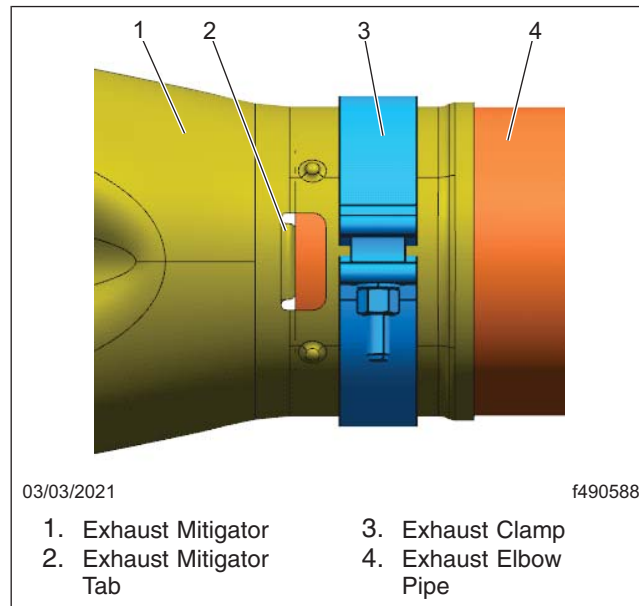


Fig. 2, Exhaust Elbow Pipe Inserted in Exhaust Mitigator

10. Place the provided ATS exhaust outlet shim on the ATS outlet with the groove in the shim at the top. The outer formed edge will need to be trimmed approximately .11 in (3 mm) to allow for the exhaust elbow pipe to fit over it. See [Fig. 3](#). Using a metal ruler, ensure the shim is flush with the pipe. See [Fig. 4](#).

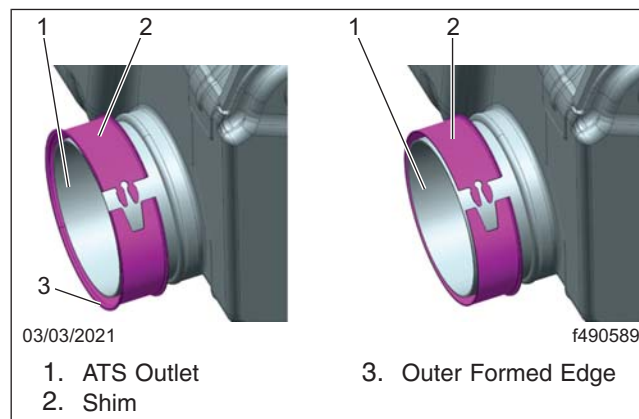
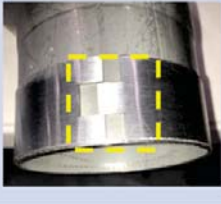



Fig. 3, Installation of Shim on the ATS Outlet

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No	Description	Image
1	Insert the Shim over the pipe with the groove at the top	
2	Using a metal rule ensure the Shim is flush with the pipe	


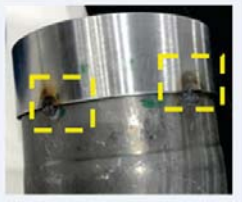
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Fig. 4, Shim Installation

⚠ WARNING

Wear protective welding masks and gloves when welding. Failure to do so could result in personal injury due to the intensity of heat, sparks, and flying debris.

- Keeping the ruler in place, make two spot welds at the bottom rear side of the shim. As shown in [Fig. 5](#), the spot welds must be separated by at least 3 in (8 cm)

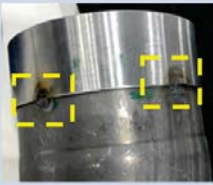
No	Description	Image
3	Keeping the rule make two spot welding in the bottom in the rear side of the Shim	
4	The spot welds must be separated at least 3" +/- 1/4".	

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Fig. 5, Shim Spot Welding

- Grind the spot welds to be flush with the shim. See [Fig. 6](#).

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No	Description	Image
5	Grind the spot weld to be flush with the shim. Recommended to use a flapper wheel or, something similar, to ensure not too much material is removed.	

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Fig. 6, Shim Spot Smoothing

13. Install the exhaust assembly using the new exhaust clamp (part number 04-34213-000). Torque the clamp fastener to 41 ± 6 lbf·ft (55 ± 8 N·m).
14. Remove the ground electrode.
15. Reconnect the electrical connections.
16. Connect the batteries.