

05/31/2019
CAL WS 49-001

Subject: ATD Inlet Pipe Bellows Assembly

**Models Affected: Specific Western Star 4900 Low Max Car Hauler
Model Year 2017 through 2020 vehicles manufactured from January 1, 2016 to June 31, 2019.**

Our records indicate that you are the owner of certain Western Star vehicles, and DTNA has decided to share the following documentation with you.

Some Western Star Low Max 4900 Car Hauler applications with DD13 GHG17 engines containing bellows pipe part number 04-32700-000, may experience high failure rates due to cracking at the ATD flange. Western Star will be providing a modified pipe to mitigate the cracking issue. This pipe modification will be done locally under the supervision of Transwest Truck, an authorized dealer for Western Star, and/or Western Star Management.

Please see the following documentation for the repair procedure.

05/31/2019
CAL WS 49-001

Work Instructions

Subject: ATD Inlet Pipe Bellows Assembly

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ATD Inlet Pipe Bellows Assembly Replacement

IMPORTANT: Exhaust leaks are often due to improperly installed clamps. If a bellows failure is suspected, carefully inspect the bellows for soot marks. If soot marks are not seen, carefully feel for a leaking exhaust while the engine is idling.

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

WARNING

Aftertreatment Device (ATD) internal temperatures can remain hot enough to cause personal injury, or ignite combustible materials, for hours after the engine is shut down.

To avoid potentially serious burns or material damage:

- Let the ATD cool before handling it; be especially careful when opening it to expose the DPF.
 - Wear appropriate protective gear.
 - Be careful not to place the ATD where flammable gases or other combustible materials may come into contact with hot interior parts.
3. Allow the exhaust system to cool before working on it.
 4. Remove the inner fender/splash shield.
 5. Remove the spherical clamp at the turbocharger outlet pipe. Discard the clamp and gasket.
 6. Remove the spherical clamp at the ATD inlet. Discard the clamp and gasket.
 7. On DD13 engines only, remove the turbocharger outlet pipe support bracket clamp, if equipped. Save the clamp for reuse.
 8. On DD13 engines only, remove the ATD inlet pipe support bracket clamp, if equipped. Save the clamp for reuse.
 9. On DD13 engines only, if needed to make clearance, remove the ATD inlet pipe support bracket from the frame rail.
 10. Remove the bellows and ATD inlet pipe as an assembly. See [Fig. 1](#).

05/31/2019
CAL WS 49-001

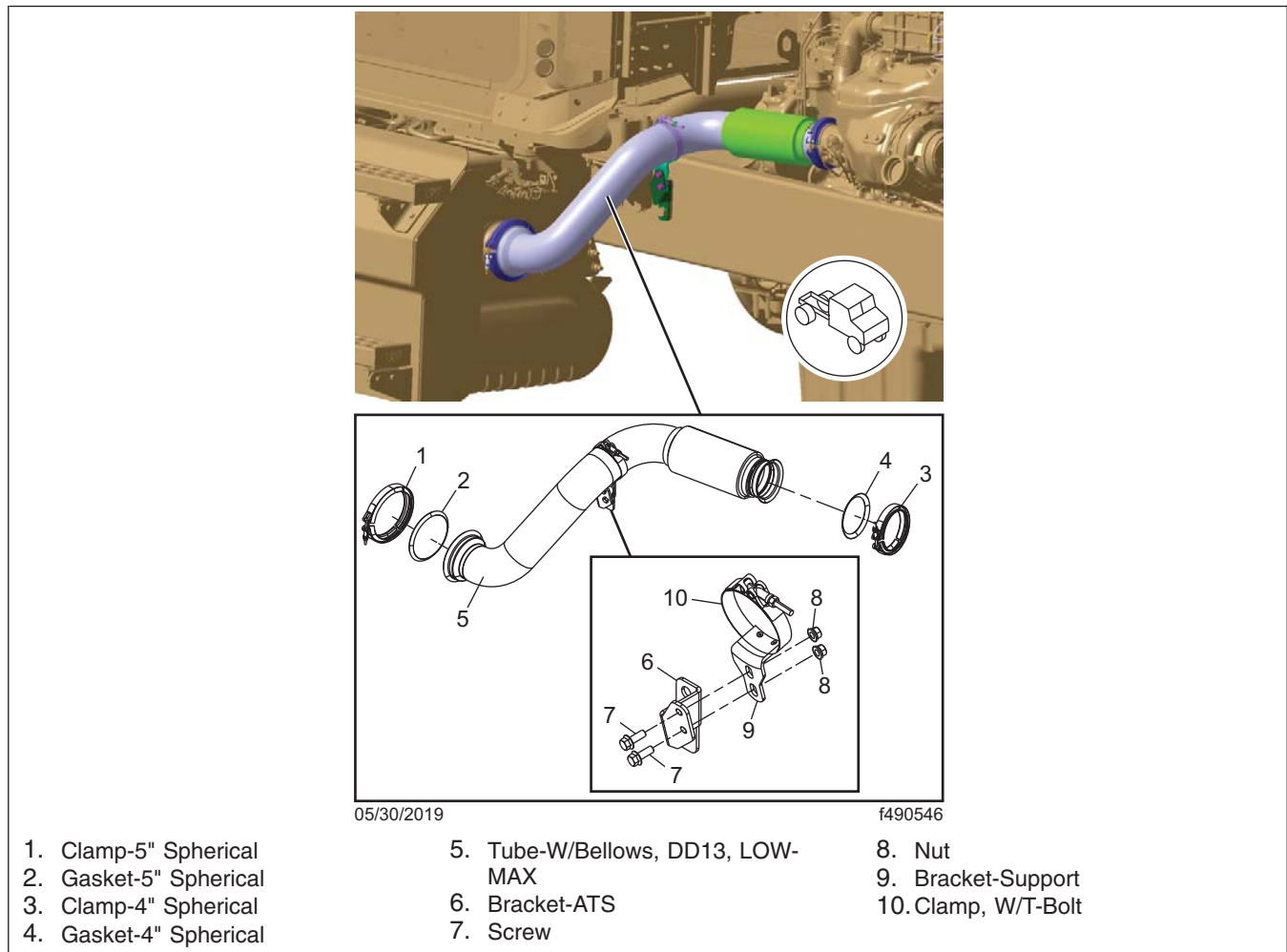


Fig. 1, Bellows Assembly

NOTE: Always use new exhaust pipe clamps and gaskets when installing exhaust system components.

11. Position the new bellows and the ATD inlet pipe assembly on the vehicle.
12. Install the new spherical clamp and gasket at the ATD inlet. Do not tighten at this time.
13. Install the new spherical clamp and gasket at the bellows-to-turbocharger outlet pipe connection. Do not tighten at this time.
14. On DD13 engines only, install the ATD inlet pipe support bracket clamp. Do not tighten at this time.
15. Using a straight edge, align the bellows, the ATD inlet pipe, and the turbocharger outlet pipe. Check from at least two positions about 90 degrees apart. All three components should form a straight line through the connections.
16. Tighten the spherical clamp at the turbocharger outlet pipe connection as follows.
 - 16.1 Tighten the nut 126 to 138 lbf·in (1425 to 1560 N·cm).
 - 16.2 Using a plastic or rubber mallet, tap around the outside of the clamp to seat the clamp against the pipe.
 - 16.3 Tighten the nut a second time 126 to 138 lbf·in (1425 to 1560 N·cm).

05/31/2019
CAL WS 49-001

17. Tighten the spherical clamp at the ATD inlet connection as follows.
 - 17.1 Tighten the nut 126 to 138 lbf·in (1424 to 1560 N·cm).
 - 17.2 Using a plastic or rubber mallet, tap around the outside of the clamp to seat the clamp against the pipe.
 - 17.3 Tighten the nut a second time 126 to 138 lbf·in (1424 to 1560 N·cm).
18. On DD13 engines only, tighten the turbocharger outlet-pipe support bracket clamp 24 lbf·ft (32N·m).
19. On DD13 engines only, tighten the ATD inlet pipe support bracket clamp 24 lbf·ft (32 N·m).
20. Start the engine and check for leaks. Further tighten the clamps on any leaking connections as needed.
21. Install the inner fender/splash shield.

Parts

Parts are available at the PDCs. See [Table 1](#) for required parts.

Required Parts		
Part Number	Description	Qty.
TCXT130158342AB2	CTRL ROD-TRNSV,635MM,TAPER PIN	1
TCXFMS190	BRKT,TORQUE ROD SUSP	1
TCXT130130349AB2	CLAMP-4" SPHERICAL	1
TCXFMS191	GASKET-4" SPHERICAL	1
04-32700-000*	TUBE-W/ BELLOWS,DD13,LOWMAX	1
23-11007-100	SCREW-FLG,HEXAGON,3/ 8-16,PO	2
23-13861-106	NUT-HEX,FLNG,LKG,3/8-16,ZN AL	2
04-20164-000	CLAMP,T-BOLT,4 INCH	1

* Use the part modified by Transwest until A04-35135-000 is available

Table 1, Required Parts