

Constellation
Heritage
4700 Models
4800 Models
4900 Models

4900X Models
> 5700 Models
5900 Models
6900 Models

Western Star
Service Bulletin

General Information

Some Western Star 5700 vehicles equipped with Meritor® steer axle drum brakes with a front axle rating less than 13,300 lb (6038 kg) have experienced brake squealing noise when the service brakes are applied at lower speeds.

NOTE: This is a nuisance noise issue and not a failure. The solution given in this service bulletin may fix this issue.

For a video showing an example of brake squeal noise, see [DTNA.info/MeritorBrakeSquealWST](https://www.dtna.info/MeritorBrakeSquealWST).

This issue can be resolved by replacing the brake drums per the truck specifications in [PartsPro®](#), and the brake shoes (part number TDA KIT8946) using the instructions below.

General Safety Precautions

WARNING

When replacing brake pads, shoes, rotors, or drums, always replace components as an axle set.

- **Always reline both sets of brakes on an axle at the same time.**
- **Always replace both rotors/drums on an axle at the same time.**
- **Always install the same type of linings/pads or drums/rotors on both axle ends of a single axle at the same time. Do not mix component types.**

Failure to do so could cause uneven braking and loss of vehicle control, resulting in property damage, personal injury, or death.

When working on or around a vehicle, observe the following precautions:

- Park the vehicle on a level surface and apply the parking brakes. Shut down the engine and chock the tires.
- If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning any work on the vehicle. Depleting air system pressure may cause the vehicle to roll. Keep hands away from brake chamber pushrods and slack adjusters, which may apply as air pressure drops.
- Disconnect the batteries.
- Never connect or disconnect a hose or line containing compressed air. It may whip as air escapes. Never remove a component or pipe plug unless you are certain all system pressure has been released.
- Never exceed recommended air pressure. Always wear safety glasses when working with compressed air. Never look into air jets or direct them at anyone.
- Do not remove, disassemble, assemble, or install a component until you have read and understood the service procedures. Some components contain powerful springs, and injury can result if not properly disassembled. Use the correct tools and observe all precautions pertaining to use of those tools.
- Replacement hardware, tubing, hose, fittings, etc. should be the equivalent size, type, length, and strength of the original equipment.
- Make sure when replacing tubes or hoses that all of the original supports, clamps, or suspending devices are installed or replaced.
- Replace devices that have stripped threads or damaged parts. Repairs requiring machining should not be attempted.

- Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

Parts

Parts Required	
Part Number	Description
TDA KIT8946	KIT-BRAKE O/H MAJ

Table 1, Parts Required

Brake Drum and Brake Shoe Replacement

1. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires on the rear axle.
2. Remove the wheels. For instructions, refer to **Group 40** of the applicable workshop manual.
3. Remove the brake drums. For instructions, refer to **Group 33** of the applicable workshop manual.
4. Remove the brake shoes. For instructions, refer to **Group 42** of the applicable workshop manual.
5. Install new brake shoes (part number TDA KIT8946). For instructions, refer to **Group 42** of the applicable workshop manual.
6. Install new brake drums. For instructions, refer to **Group 33** of the applicable workshop manual.

IMPORTANT: Check the brake system and ensure that it is in proper operating condition before attempting the brake burnishing procedure.

7. It is recommended to burnish the brakes as follows.
 - 7.1 In a safe area, drive the vehicle at a speed of 20 to 25 mph (32 to 40 km/h). Make light brake application while maintaining slight engine throttle for a duration of 15 to 20 seconds. Release the service brakes for 15 to 20 seconds.

NOTE: After continuous brake applications, it is normal to notice a hot brake odor.

- 7.2 Using a hand-held temperature gun, immediately check the temperature on the outside of the brake drums. Repeat substep 7.1 until the brake drum temperatures are greater than or equal to 450°F (232°C) at the coolest wheel-end brake, and not exceeding 550°F (260°C) at the warmest wheel end.

IMPORTANT: Drum temperature differences from side-to-side of approximately 50°F (10°C) or greater can indicate brake imbalance. If this condition exists, correct the issue before continuing.

- 7.3 Rest the vehicle for at least 30 minutes for the brakes to cool.
- 7.4 Check all the wheel ends for the correct minimum free stroke measurement, and ensure the applied stroke measurements are within Commercial Vehicle Safety Alliance (CVSA) specifications.

Is the brake complying to CVSA specifications?

YES → Go to the next step.

NO → Adjust the automatic slack adjuster. For instructions, refer to **Group 42** of the applicable workshop manual.

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NOTE: After performing the brake burnishing procedure, there should be no brake noise and the brakes should have good stopping ability.

7.5 Test drive the vehicle. Does the brake squeal noise still occur?

YES → Repeat step 7.

NO → No further work is needed.

Warranty

This is an informational bulletin only. Warranty does not apply.