

TS 1033768: Western Star Front Brake Squeal - Burnishing Procedure

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Concern

Front Brake Squeal occurs in low percentage of Western Star Trucks

Symptoms

Squeal/chatter from brakes in light braking applications.

Potential Solution

Burnish Brakes

Brake Burnishing Procedure

The brake burnishing procedure can be used to help reduce brake related noise or imbalance concerns which may occur in the field.

WARNING

To prevent serious personal injury and damage to components, burnish the brakes in a safe area.

1. Adjust the automatic slack adjuster using the initial manual

Setup procedure. Refer to Section 6.

2. Find a service road or non-busy state road where the vehicle can be driven safely at 20-25 mph (32-40 km/h).

3. Drive the vehicle at a speed of 20-25 mph (32-40 km/h). While driving at this speed, apply a light service brake application while applying a slight engine throttle application for a duration of 15-20 seconds. Release the service brakes for 15-20 seconds.

4. Using a hand-held temperature gun, immediately check the temperatures on the outside of the brake drums. Repeat Step 3 as many times as needed to obtain brake drum temperatures at least 450° F (232° C) at the coolest wheel-end brake, but not to exceed 550° F (260° C) at the warmest wheel end.

5. 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.

6. Once the brake drums reach a temperature range above 450° F (232° C), return the vehicle to the service facility.

7. Let the truck sit for a minimum of 30 minutes for the brakes to Cool to ambient temperature.

8. Check all wheel ends for the correct minimum Free Stroke measurement and ensure the Applied Stroke measurements are within CVSA specifications.

If the brake is not within specifications: Readjust the automatic slack adjuster using the initial manual setup procedure. Refer to Section 6.

9. Road test the vehicle and correct any issues if found.

If a noise, shimmy or pull still exists after attempting to correct it: Repeat Steps 2-8 again to try to resolve the issue.

If the problem still exists follow steps below;

Step 1.

Rough up brake lining and brake drum with Emery Cloth.

Step 2.

With OEM/Engineering approval change brake valve crack pressure up or down to slightly adjust brake balance.

Step 3.

With OEM/Engineering approval change brake drum or brake lining to another available option appropriate to the application.

Step 4.

Review with OEM/Engineering the potential of chamber size change.

