

# Technical Bulletin

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## Subject: **Bendix Air Disc Brake Pad Replacement**

Bendix Spicer Foundation Brake LLC is issuing this product notification concerning the potential brake performance degradation associated with use of certain non-approved, aftermarket replacement friction materials on Bendix® and Knorr-Bremse air disc brakes.

A compatible combination of disc pads and rotor material promotes the safe and reliable performance of air disc brakes and also helps to extend the useful life of both parts.

Bendix Spicer Foundation Brake has optimized the disc pad and rotor material combination ("the friction couple") for use with Bendix® air disc brakes. Bendix offers service replacement parts that maintain the same quality and compatibility as the original equipment pads and rotors.

Recent benchmarking tests by Bendix Spicer Foundation Brake with two different non-approved aftermarket brake pad brands indicate that there can be a risk of brake performance degradation if certain non-approved friction materials are used with Bendix or Knorr-Bremse air disc brakes. The aftermarket pads tested demonstrated the following shortcomings:

- At high operating temperatures the non-approved pads had approximately 20% lower friction level than the original equipment friction material.
- During fade testing, brake torque was 50% to 60% of original material levels.

- Significant brake torque reduction was experienced at increased temperatures.
- Tests to replicate stops on mountain roads and other severe service conditions showed significant performance reductions.
- Insufficient pad strength caused cracking across the friction material.
- Shear testing of the friction material adhesion resulted in the friction material completely separating from the backing plate in many instances.
- Pad wear was accelerated.
- Early rotor cracking symptoms were observed much earlier than for typical genuine parts.

As a result, Bendix Spicer Foundation Brake LLC strongly recommends against the use of non-approved aftermarket brake pads and service parts on Bendix and Knorr-Bremse air disc brakes. Brake performance, reliability and service life can be degraded if certain non-approved aftermarket replacement parts are used in Bendix and Knorr-Bremse air disc brake systems.

To maintain your vehicle's air disc brakes at their original performance standard, we recommend use of only genuine, approved service replacement parts on Bendix and Knorr-Bremse air disc brake systems. Use of non-genuine Bendix or Knorr-Bremse friction materials may void the limited warranty on the air disc brakes.

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**BRAKE DUST WARNING:****AVOID CREATING DUST WHEN WORKING WITH BRAKE PADS DUE TO POSSIBLE CANCER AND LUNG DISEASE HAZARD.**

While Bendix Spicer Foundation Brake LLC does not offer asbestos-containing brake linings or disc pads, the long-term effects of certain non-asbestos fibers have not been determined. Current OSHA Regulations cover exposure levels to some, but not all, components of non-asbestos linings and pads. The following precautions should be used when handling these materials:

- Avoid creating dust. Compressed air or dry brushing must never be used to clean brake assemblies or the work area.
- Brake workers must take steps to minimize their exposure to airborne brake lining particles. Procedures to reduce exposure include: working in a well-ventilated area, segregating areas where brake work is performed, using local filtered ventilation systems or enclosed cells with filtered vacuums for all brake work. Respirators approved by the Mine Safety and Health Administration (MSHA) or National Institute for Occupational Safety and Health (NIOSH) should be worn at all times during brake servicing.
- Workers must wash before eating or drinking, should not use tobacco products in any form, shower after working, and not wear work clothes home. Work clothes should be vacuumed using a high efficiency particulate filter (HEPA) vacuum and laundered separately without shaking.
- OSHA Regulations regarding testing, disposal of waste and methods of reducing exposure for asbestos are set forth in 29 Code of Federal Regulations §1910.001. These Regulations provide valuable information which can be utilized to reduce exposure to airborne particles.
- Material Safety Data Sheets on Bendix® air disc brake pads, as required by OSHA, are available from Bendix Spicer Foundation Brake LLC.

**Bendix Spicer  
Foundation Brake LLC**

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