

## Installation Instructions

### AIR DISC BRAKE SHIELD KIT

**CAUTION:** Follow all standard safety procedures including, but not limited to, those on page 2 of this instruction sheet. See the vehicle manufacturer's recommendations. When working on foundation brakes, be sure that the vehicle is on level ground, that the vehicle is parked by other means than the foundation brakes, and that the wheels are chocked.

This shield kit includes a brake pad shield, a rotor shield and the required attaching hardware for use in Bendix® ADB22X™ Air Disc Brake applications where external contamination and excessive road debris is a concern. Brake pad and rotor shields greatly reduce damage and/or premature wear of pads and rotors under these conditions.

During installation, the technician needs to verify that the shield(s), when installed, will not come into contact with any vehicle components through the full range of operating motion of the wheel end components. This may be affected by the particular use of the vehicle, the orientation of the brake on the axle/torque plate, the proximity of another axle, and/or the wheel/tire configuration used on the wheel end.

### INSTALLATION

#### 1. Brake Pad Shield.

Remove and discard the spring clip and washer from the pad retainer pin. Remove and retain the retainer bar and retainer pin. Position the pad shield as shown and re-insert the retainer bar. Install the retainer pin. Use the included spring clip and washer to secure the retainer pin. Check that the pad shield is held securely in place by the retainer bar.

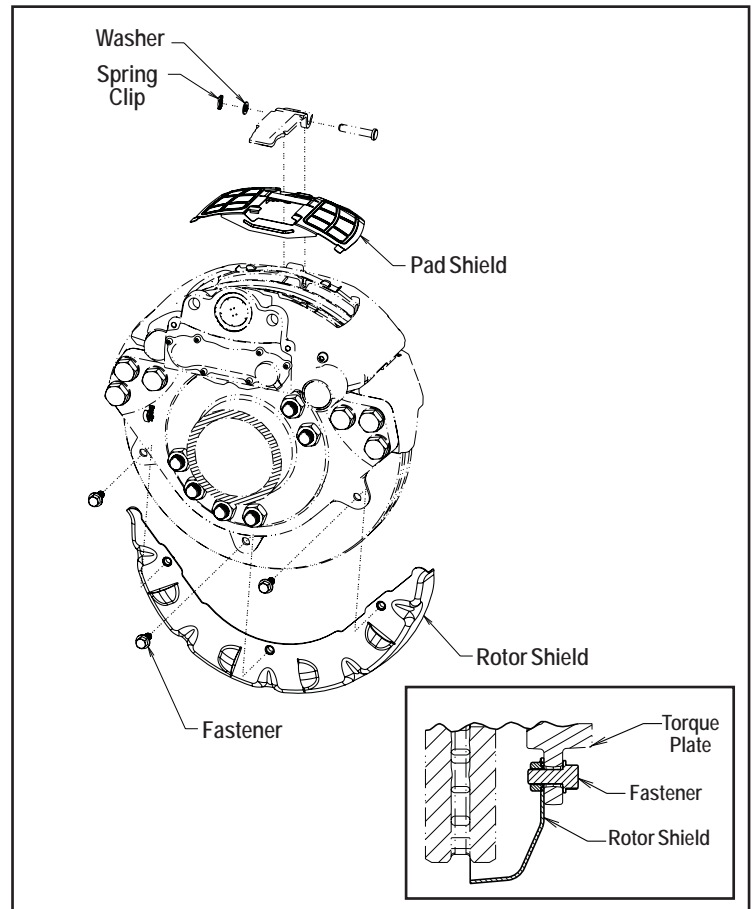
#### 2A. Drive or Steer Axle Rotor Shields (see Figure 1)

Position the rotor shield with between the torque plate and the rotor. The supplied cap screws pass through the mounting tabs in the torque plate and install into the shield. Torque cap screws to 44 Ft. Lbs. (528 in. lbs.).

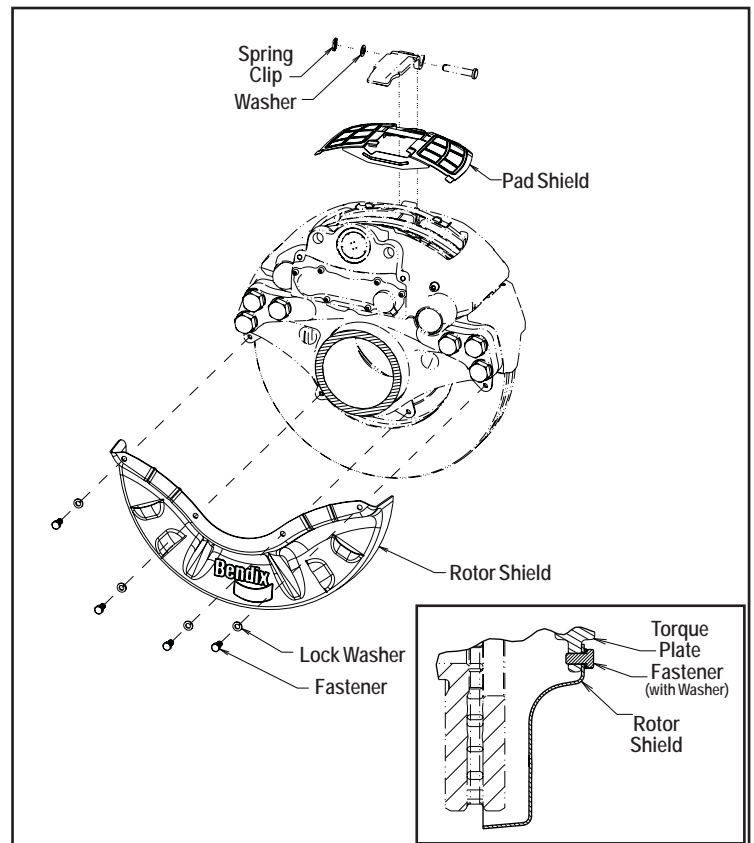
#### 2B. Trailer Axle Rotor Shields (see Figure 2)

Position the rotor shield with the torque plate between the shield and the rotor. With one (supplied) lock washer in place on each cap screw, pass the screws through the shield before mounting onto the threaded torque plate holes. Torque cap screws to 24 Ft. Lbs. (288 in. lbs.).

Torque plates manufactured after January 1, 2007 typically have the required torque plate mounting tabs to facilitate the installation of these shields.



**FIGURE 1 - DRIVE OR STEER AXLE EXPLODED VIEW WITH INSET SHOWING ROTOR SHIELD INSTALLATION**



**FIGURE 2 - TRAILER AXLE EXPLODED VIEW WITH INSET SHOWING ROTOR SHIELD INSTALLATION**

Note: The installation of air disc brake shields does not eliminate the need for periodical maintenance and inspection of the Air Disc Brake and entire wheel end for damage and/or

wear. In addition, the Truck and Trailer manufacturer's specific criteria for the shield requirements for brake shield use on air disc brakes should be consulted before either installing or removing air disc brake shields from a wheel end(s).

## **SAFE MAINTENANCE PRACTICES**

### **WARNING! PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO AVOID PERSONAL INJURY OR DEATH:**

When working on or around a vehicle, the following general precautions should be observed at all times:

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels. Always wear safety glasses. Where specifically directed, the parking brakes may have to be released, and/or spring brakes caged, and this will require that the vehicle be prevented from moving by other means for the duration of these tests/procedures.
2. Stop the engine and remove ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated or electrically charged components.
3. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
4. If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle. If the vehicle is equipped with an AD-IS<sup>®</sup> air dryer system or a dryer reservoir module, be sure to drain the purge reservoir.
5. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
6. Never exceed manufacturer's recommended pressures.
7. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
8. Use only genuine Bendix<sup>®</sup> replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
9. Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the

vehicle and component manufacturer.

10. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
11. For vehicles with Antilock Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.

**WARNING:** Not all wheels and valve stems are compatible with Bendix Air Disc Brakes. Use only wheels and valve stems approved by the vehicle manufacturer to avoid the risk of valve stem shear or interference with the wheel, or other compatibility issues.

### **WARNING: AVOID CREATING DUST. POSSIBLE CANCER AND LUNG DISEASE HAZARD.**

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

- Avoid creating dust. Compressed air or dry brushing must never be used for cleaning brake assemblies or the work area.
- Bendix recommends that workers doing brake work must take steps to minimize exposure to airborne brake lining particles. Proper procedures to reduce exposure include working in a well-ventilated area, segregation of areas where brake work is done, use of local filtered ventilation systems or use of enclosed cells with filtered vacuums. 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, drinking or smoking; shower after working, and should not wear work clothes home. Work clothes should be vacuumed 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 this product, as required by OSHA, are available from Bendix. Call 1-800-247-2725 and speak to the Tech Team or e-mail [techteam@bendix.com](mailto:techteam@bendix.com).