



Commercial Vehicle Safety Alliance

North American Standard Inspection Program

I N S P E C T I O N B U L L E T I N

2007-01

Revised September 15, 2008

Express Brake International, Inc. – Segmented Brake Linings

Summary

This *Inspection Bulletin* is intended to help identify the presence of segmented brake linings during a roadside inspection and provide guidance to assist with identifying the different style of foundation brake system. Express Brake International, Inc. has developed and patented a new style of air brake shoe and lining system that provides an alternative for the heavy duty truck brake shoe industry. Express Brake International, Inc. has provided CVSA with technical information to communicate with inspectors and familiarize them with the product so inspectors may recognize and understand the Express Brake shoe and lining system.

Background

The brake system uses segmented linings that are mounted to a stainless steel brake table that has full seam welded webs with hardened ends and stainless steel lining retainers in lieu of rivets or bonding. The linings are machined with tapered grooves on both the inner and outer edges and designed such that the retainers pull them tight onto the brake table as they are tightened.

Express Brake stainless steel brake shoes are FMVSS 121 tested and have met the requirements for on highway use in North America.



2007-01

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A wear mark is provided on some linings, nominally placed 1/8 inch (3mm) above the center post for visual indication, however, due to some variability in relining operations, it is recommended minimum friction material thickness be verified by physical measurement (see Figure 1).

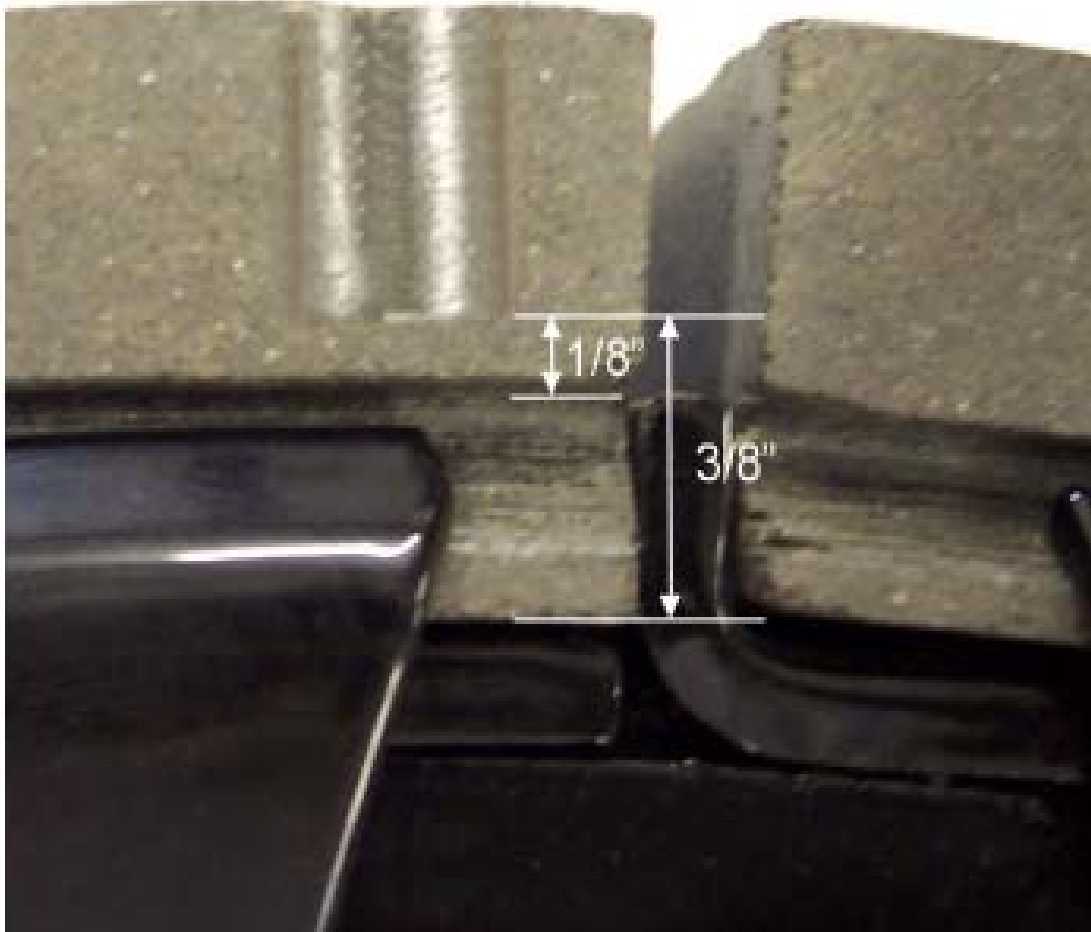


Figure 1 – Acceptable Lining Thickness

2007-01

Revised September 15, 2008

Express Brake International, Inc. – Segmented Brake Linings

The brake linings are segmented into four friction blocks per shoe (see Figure 2). The vertical seam line between blocks is normal and is part of the brake design. Both factory installed and relined brake shoes have this seam and it is not a violation.

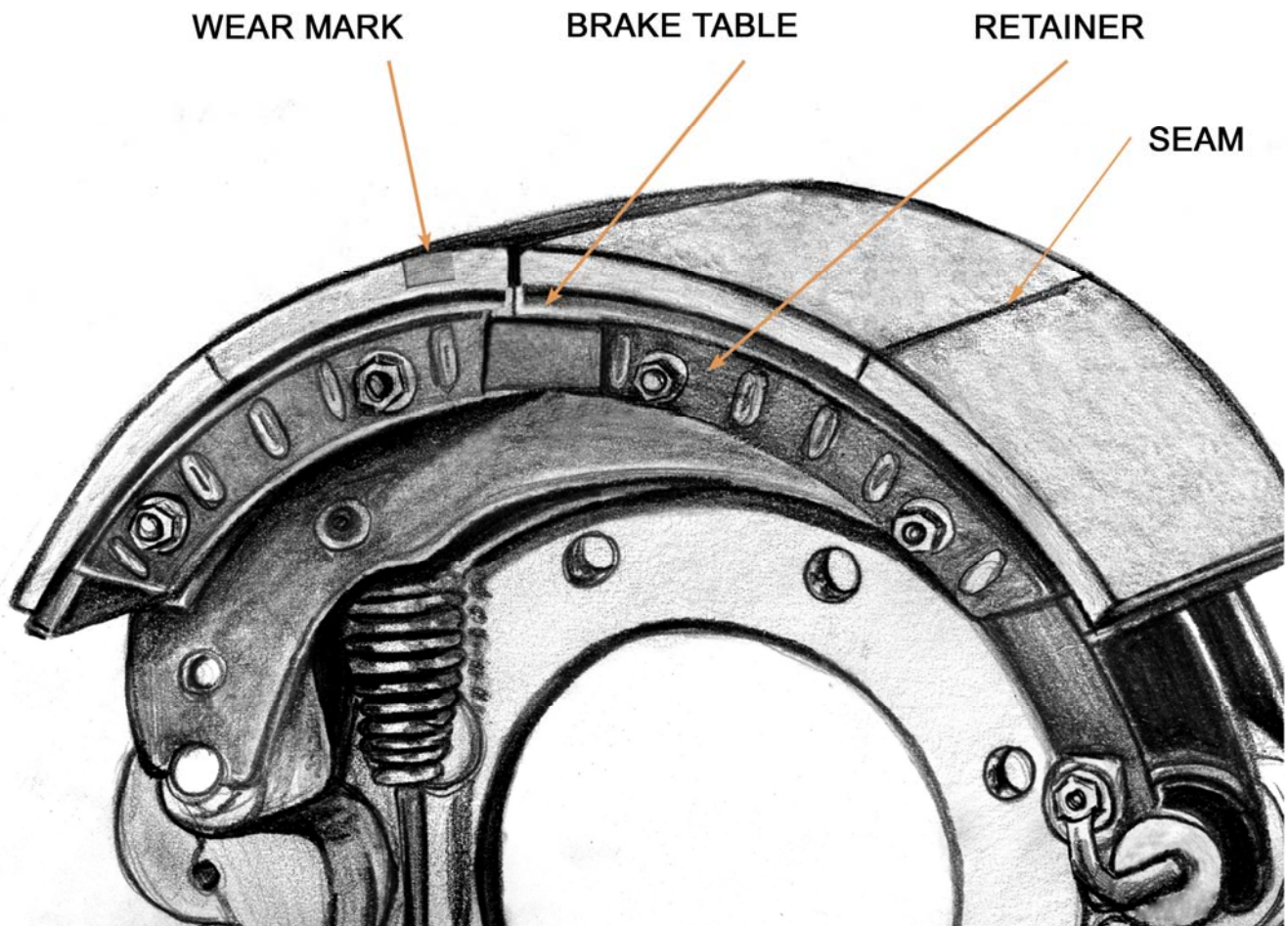


Figure 2 – Segmented Brake Linings

2007-01

Revised September 15, 2008

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When inspecting Express Brake shoes with dust covers installed, identification of this brake can be determined by the following:

Express Brake Dust Covers may be used with Express Brake shoes. These dust shields are constructed of 304 grade stainless steel and mount directly onto the brake shoes using four (4) fasteners (see Figure 3). This attachment system is unique to Express Brake and can be easily identified.



Figure 3 – Express Brake Dust Shields

Brake lining inspection is performed visually by inspecting linings using the upper or lower view ports installed at the 6 or 12 o'clock positions in the dust covers. Through these ports, lining thickness can be verified.

Inspection Guidance

If the brake is found to be loose, have cracks (other than the manufactured vertical seams already noted) or any other defect(s) common to air brake linings or shoes, the violation(s) should be noted. Lining thickness must be measured from the stainless steel brake table. If the brake lining is found to measure less than OOSC limits for air brakes from the stainless steel brake table, the appropriate action should be taken.

This *Inspection Bulletin* should be circulated to all inspectors and officers in the field for their information and guidance. If an inspector has any questions regarding the Express Brake System, please contact Express Brake International, Inc. at 888-844-7734, or visit www.expressbrake.com.