



News Release

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FOR IMMEDIATE RELEASE

BENDIX TALKS BRAKE SAFETY WEEK:
HOW TO PREPARE AND WHAT TO EXPECT

Getting Ready for the Upcoming Weeklong CVSA Inspection Program

AVON, Ohio – Aug. 16, 2023 – Imagine a convoy of 5,059 trucks on the highway. Quite a sight, right? That’s how many vehicles were placed out of service during last year’s Brake Safety Week. Those trucks represented 13.3% of the 38,117 commercial motor vehicles inspected across the United States, Canada, and Mexico during the annual weeklong event run by the Commercial Vehicle Safety Alliance (CVSA). The 2023 Brake Safety Week happens August 20-26. As it approaches, the team at Bendix Commercial Vehicle Systems LLC (Bendix) offers practical tips for being prepared, staying safe, and passing inspection.

“Out-of-service violations are situations that present actual hazards to roadway safety for the drivers and everyone around them – and so many of these violations are preventable through proper maintenance practices and regular equipment examination,” said Fred Andersky, Bendix director – demos, sales, and service training. “Brake Safety Week is an industry touchpoint for good reason: What goes on at the wheel-ends and in the braking system is critical to so many aspects of safe vehicle operation, including optimal performance of today’s higher-level safety systems like full stability and collision mitigation. You simply can’t overstate the importance of keeping up with maintenance and inspection of those areas.”

Brake Safety Week is part of CVSA’s Operation Airbrake initiative – an outreach and enforcement campaign that aims to reduce the number of highway crashes caused by faulty brake systems on commercial motor vehicles. The event involves local, state, provincial,

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territorial, and federal motor carrier safety officials in the United States, Canada, and Mexico inspecting large trucks and buses, focusing on brake system violations.

What to Expect

Brake Safety Week roadside inspectors conduct North American Standard Inspections, which cover a range of driver qualifications, documentation, and vehicle equipment conditions.

They'll be checking for:

- Missing, nonfunctioning, loose, or cracked parts
- Holes caused by rust and through rubbing or friction
- Broken springs in the spring brake housing section of the parking brake
- Air leaks around brake components and lines
- Air pressure in the target range of 90-100 psi
- Proper pushrod travel
- Slack adjusters not at the same length
- Mismatched air chamber sizes across axles
- Warning device functionality (such as antilock braking system indicator lights)
- Proper operation of the tractor protection system, including the bleed-back system on the trailer
- The breakaway system being operable on the trailer

Inspectors will also keep a special eye out for contaminated, worn, cracked, and missing linings or pads – the focus of this year's Brake Safety Week.

How to Get Ready

“What you do in the shop and during pre-trip walk-arounds – looking at every aspect of your vehicle – can make an important difference on the road and during a brake system inspection, simply by catching brake-related issues before they become problems,” said Mark Holley, Bendix director of marketing and customer solutions, Wheel-End. “Your regular inspections can go a long way toward catching some obvious violations, including loose hoses or damaged components like air chambers or pushrods.” He recommends the following:

Every day:

- Check for damaged or loose-hanging air chambers, pushrods, or slack adjusters.

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- Make sure slack adjusters on each axle are extended out to the same angle. Different angles can indicate an out-of-adjustment brake or a broken spring brake power spring.
- Examine tubing and hose condition, positioning, and connections.

Every week:

- Perform a 90- to 100-psi brake application with the wheels chocked and the parking brakes released, and listen for leaks.
- Check air disc brake rotors for cracks.
- Inspect drum brake linings for wear and cracks.

Every month:

- Check for moisture in the air system to prevent contamination that leads to component deterioration and system leaks.

Any time you've got a vehicle in the shop, it's also worth greasing the S-cam brake tubes and automatic slack adjusters. This quick process helps prevent rust and corrosion, and it helps keep the slack functioning properly.

Differences Between Drums and Disc

Air disc brakes and drum brakes have a few differing maintenance needs where Brake Safety Week is concerned – key among them the measurement of brake stroke. Because air disc brakes include an internal adjustment mechanism, their brake stroke is not measured externally, as is the case with drum brakes.

“Measuring a drum brake’s chamber stroke is a matter of checking the distance from the air chamber to the clevis pin with the brakes released, and then again after a fully charged brake application,” Holley explained. “The difference between these measurements is the brake stroke, and its maximum length depends upon the brake chamber type and size.”

Improperly adjusted brakes can also drag – impacting fuel efficiency and speeding up pad wear – or experience decreased stopping power. Bendix has developed an infographic (included below and attached) to note the differing maintenance needs of air disc and drum brakes.

Parts Selection for Brake System Health

“When it’s time to replace a component in your brake system, whether it’s at the wheel-end or in the air supply, be sure to select parts that won’t degrade the performance level or bring it below the original equipment manufacturer’s standards,” Holley said. “This selection is particularly true when it comes to brake friction, where the aftermarket is more crowded than ever, and the wrong choice can actually harm your system and your vehicle safety.”

Not all replacement linings that are marketed as acceptable for federal stopping distance requirements will actually perform to the standard. Other complications arising from improper friction selection can include cracks, degradation of braking performance, or damage to other wheel-end components. Remember, these issues are things that a roadside inspector will note and penalize you for.

“Whether you’re replacing air disc brake pads or drum brake shoes, select components that will ensure the original equipment manufacturer (OEM) requirements are met so the vehicle remains compliant,” Holley said.

Bendix recommends using an oil-coalescing air dryer cartridge such as the Bendix® PuraGuard® to protect the air supply against corrosive oil aerosols that lead to leaks and potential violations. It’s important to note that while oil-coalescing cartridges can be used to replace standard cartridges, the reverse is not the case: You shouldn’t downgrade from an oil-coalescing cartridge to a standard.

Tech Support

“Any indication of something out of compliance can be a sign of potentially wider maintenance issues,” Andersky said. “Taken individually, everything inspectors are looking for – such as a kink in an air hose or an active full-stability light on the dash – may seem inconsequential. But it’s critical to take this holistic approach to upkeep when considering the complex interconnectivity of the entire brake system and more advanced safety technologies. One small sign of something out of compliance can be an indicator of more widespread maintenance issues.”

Andersky emphasizes the importance of communication between drivers and technicians.

“A driver out on the road may be the first one to notice an issue with the truck,” he said. “It’s vital that the driver be able to tell the technician what happened, where it happened, and details such as weather conditions. And it’s just as vital for the technician to ask questions to gain a clearer understanding of the situation.”

And when technicians need support, Bendix is there, equipping them with the latest knowledge and tools to help keep vehicles on the road and in good operating condition. Bendix offers a variety of resources that provide the most current and in-depth training and information, including:

- **The Bendix Document Library on [B2Bendix.com](#)** – Find service data sheets, operating manuals, technical bulletins, and a host of other documents offering detailed information – including maintenance and troubleshooting.
- **The Bendix Brake Training School** – Long-running hands-on training programs are conducted in person across the United States, with a virtual option available. [Here's the 2023 schedule.](#)
- **The Bendix On-Line Brake School** at www.brake-school.com – You'll find more than 100 courses covering the full spectrum of braking and active vehicle safety product topics. Registration is free, and the site serves over 150,000 registered users.
- **"Truck Talk with Bendix"** – This podcast is available via Google Play, Apple Podcasts®, and Stitcher.
- **Bendix's Knowledge Dock™** at www.knowledge-dock.com – This site includes an archive of the Bendix "Tech Tips" series, as well as videos, white papers, and other insights.

The Bendix team of field-tested sales and service professionals, along with its veteran field technical support team and the Bendix Tech Team at 1-800-AIR-BRAKE, also provide expert technical support such as service advice, brake system troubleshooting, and product training.

Maintenance tips from Bendix to help your fleet avoid CVSA inspection issues.

Air Disc Brakes



Inspect the

- Caliper & air chamber mounting hardware
- Pad for abnormal (tapered) wear and cracks
- Tappets & boots, for visible damage (wheels off)
- Rotor for cracks (verify against allowable limits)



Measure the

- Rotor thickness (verify against allowable limits)
- Pad thickness (verify against allowable limits)

NA CVSA Out of Service limit = .0625 in. (1.6 mm)
 US DOT min. pad thickness = .125 in (3.2 mm)
 CA CCMTA min. pad thickness = .080 in. (2 mm)



Verify the

- Caliper slides freely
- Proper pad-to-rotor running clearances

Drum Brakes



Inspect the

- Friction for cracks & abnormal wear



Measure the

- Brake free play – (between 3/8" and 5/8")
 If outside this range, inspect for damage / out-of-spec conditions
- Wheel-end brake stroke (compare to chamber specification)



Lubricate the

- Slack adjusters regularly
- S-cam



Avoid

- Manual adjustment of automatic slack adjuster to correct out-of-adjustment brakes

(A consistent out of adjustment condition indicates another problem and requires investigation)



A quick check of your brake system can save you time and money in the long run. Although brakes shown are Bendix® brand, these inspection tips may be applied to any air disc or drum brake. Refer to OE Manufacturer's recommended service practices.

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About Bendix Commercial Vehicle Systems LLC

Bendix Commercial Vehicle Systems, a member of Knorr-Bremse, develops and supplies leading-edge active safety technologies, energy management solutions, and air brake charging and control systems and components under the Bendix® brand name for medium- and heavy-duty trucks, tractors, trailers, buses, and other commercial vehicles throughout North America. An industry pioneer, employing more than 4,400 people, Bendix – and its wholly owned subsidiary, R.H. Sheppard Co., Inc. – is driven to deliver the best solutions for improved vehicle safety, performance, and overall operating cost. Contact us at 1-800-AIR-BRAKE (1-800-247-2725) or visit bendix.com. Stay connected and informed through Bendix expert podcasts, blog posts, videos, and other resources at knowledge-dock.com. Follow Bendix on Twitter at twitter.com/Bendix_CVS. Log on and learn from the Bendix experts at brake-school.com. And to learn more about career opportunities at Bendix, visit bendix.com/careers.

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