



## *News Release*

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***FOR IMMEDIATE RELEASE***  
***Infographic Included***

**BRAKE SAFETY WEEK: BENDIX SHARES TIPS ON**  
**WHAT TO EXPECT AND HOW TO PREPARE**

*Be Ready for the Upcoming Weeklong CVSA Inspection Program*

**AVON, Ohio – Aug. 19, 2024** – One of the biggest touchstones on the North American commercial vehicle industry’s calendar is approaching: Brake Safety Week, happening August 25-31. The annual weeklong inspection and enforcement event run by the Commercial Vehicle Safety Alliance (CVSA) examines vehicles across the United States, Canada, and Mexico. The team at Bendix Commercial Vehicle Systems LLC (Bendix) offers suggestions on getting ready.

“During last year’s CVSA Brake Safety Week, nearly 13% of the 18,875 vehicles inspected – a total of 2,375 – were placed out of service for brake-related issues,” said TJ Thomas, Bendix director of marketing and customer solutions, Controls. “So many violations are preventable through proper maintenance practices and regular equipment examination. You simply can’t overstate the importance of keeping up with maintenance and examination of the wheel-ends and braking system, because so many aspects of safe vehicle operation are directly impacted by what goes on in those areas.”

Thomas continued, “Everything is linked to how well the brakes and wheel-ends perform when they’re needed, from stopping power to helping support the performance of higher-level technologies like collision mitigation.”

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
- S-cam flip-over
- Air leaks around brake components and lines
- Slack adjusters not at the same length
- Mismatched air chamber sizes across axles
- Air pressure in the target range of 90-100 psi
- Holes caused by rust and through rubbing or friction
- Broken springs in the spring brake housing section of the parking brake
- Proper pushrod travel
- 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

For this year's Brake Safety Week, inspectors will keep a special eye out for contaminated, worn, cracked, and missing linings or pads.

### **How to Prepare**

"Pre-, post-trip, and regular inspections can go a long way toward catching brake-related issues before they become problems, such as loose hoses or damaged components like air chambers or pushrods," said Brian Screeton, manager – technical training and service at Bendix. He recommends the following:

Daily:

- 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.

### Weekly:

- 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.

### Monthly:

- 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,” Screeton said. “This quick process helps prevent rust and corrosion, and it helps keep the slack functioning properly.”

### **How Drums and Discs Differ**

Where Brake Safety Week is concerned, air disc brakes and drum brakes have a few differing maintenance needs.

“Key among the differences is the measurement of brake stroke,” Screeton said. “Because air disc brakes include an internal adjustment mechanism, their brake stroke is not measured externally, as is the case with drum brakes. The internal adjustment mechanism significantly lowers the risk of out-of-adjustment violations.”

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. The difference between these 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.

## **Select the Right Parts**

If you notice it's time for new brake friction, then make sure to keep things up to spec: Not all friction that is marketed as "acceptable" under current reduced stopping distance (RSD) regulations will actually perform to that standard. 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 that the vehicle remains compliant.

"The aftermarket is more crowded than ever, particularly when it comes to brake friction," Thomas said. "The wrong choice can harm your system and undermine vehicle safety. Complications arising from improper friction selection can include cracks, degradation of braking performance, or damage to other wheel-end components. Remember, these are things that a roadside inspector will note and penalize you for."

You'll also want to protect the air supply against corrosive oil aerosols that lead to leaks and potential violations. Bendix recommends using an oil-coalescing air dryer cartridge like the Bendix® PuraGuard®. Oil-coalescing cartridges can be used to replace standard cartridges, but the reverse is not the case: You shouldn't downgrade from an oil-coalescing cartridge to a standard.

## **Tech Support**

"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," Thomas said. "But any indication of something out of compliance can be a sign of potentially wider maintenance issues. It's critical to take a 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."

Thomas emphasized the importance of communication between drivers and technicians.

"A driver on the road may first notice an issue with the truck," he said. "It's critical 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."

Keeping vehicles operating safely also depends on technicians remaining knowledgeable about ever-advancing commercial vehicle safety components and technologies. Fleets have a variety of options from Bendix when it comes to equipping technicians with the most current and in-depth training and information.

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Bendix's long-running Brake Training School is well known for its thorough in-person and hands-on sessions. Every year, the company schedules classes all across the country, including virtual options in different time zones. [Here's the 2024 schedule.](#) Bendix also directly offers on-site maintenance demonstrations, detailed system explorations, and additional education that covers troubleshooting and system maintenance.

The free [Bendix On-Line Brake School](#) provides more than 100 maintenance courses and tests for sharpening technical skills 24/7/365. More than 150,000 users have registered at the site, where students can access a Bendix-developed curriculum covering the full spectrum of braking and active vehicle safety system product topics. Bendix can also create custom education plans for fleets and industry organizations.

The "Truck Talk with Bendix" podcast is available via Google Play, Apple Podcasts®, and Stitcher. It's also found on [Bendix's Knowledge Dock™](#), which hosts regularly updated videos, white papers, and blog posts addressing maintenance and other critical topics.

At the [Bendix Document Library](#) on the [B2Bendix.com](#) hub, find service data sheets, operating manuals, technical bulletins, and a host of other documents offering detailed information – including maintenance and troubleshooting.

Field-tested sales and service professionals form the heart of Bendix's training education programs, along with its veteran field technical support team and the Bendix Tech Team at 1-800-AIR-BRAKE (1-800-247-2725) – an expert technical support group providing 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 and air chamber mounting hardware
- Pad for abnormal (tapered) wear and cracks
- Tappets and boots, for visible damage (wheels off)
- Rotor for cracks\*



#### Measure the

- Rotor thickness\*
- Pad thickness\*

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

*\*Confirm that the findings are in spec. by referencing the brake component manufacturer's service information.*



#### Verify the

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

### Drum Brakes



#### Inspect the

- Friction for cracks and 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](https://www.bendix.com). Stay connected and informed through Bendix expert podcasts, blog posts, videos, and other resources at [knowledge-dock.com](https://www.knowledge-dock.com). Follow Bendix on X, formerly known as Twitter, at [twitter.com/Bendix\\_CVS](https://twitter.com/Bendix_CVS). Log on and learn from the Bendix experts at [brake-school.com](https://www.brake-school.com). And to learn more about career opportunities at Bendix, visit [bendix.com/careers](https://www.bendix.com/careers).

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