News Release

For more information, contact:

Barbara Gould
Bendix Commercial Vehicle Systems LLC
(440) 329-9609
barbara.gould@knorr-bremse.com

or

Ken Kesegich
Marcus Thomas LLC
(888) 482-4455
kkesegich@mtllc.com

FOR IMMEDIATE RELEASE
From the Bendix Tech Tips Series

BENDIX TECH TIPS: SPRING MAINTENANCE FOR BRAKING, AIR, AND SAFETY SYSTEMS

Guidance to Support Safe, Reliable Operation of Commercial Vehicles in the Months Ahead

AVON, Ohio – Feb. 24, 2026 – Winter's grip takes a toll on vehicles. With the coming of spring across North America, it's time to think about preventive maintenance to help keep trucks on the road and rolling safely. This installment of the Bendix Tech Tips series shares springtime tips to help fleets and owner-operators shake off the long winter.

Brake System Checkup

Wheel-end components face considerable stress during winter months from road chemicals, temperature swings, debris, and other hazards. A thorough spring review involves looking for corrosion, damage, and missing or loose components – similar to any standard inspection.

"Post-winter inspections should search for obvious damage and beyond," said Richard Conklin, Bendix director of engineering, Wheel End. "Look closely at components like friction, chambers, and automatic slack adjusters. Corrosion, contamination, and loss of lubrication can all affect brake performance, even when components appear intact."

Examine brake friction for cracks, missing material, contamination from oil or grease, and minimum thickness. Time for new friction? Choose linings that meet original equipment

manufacturer (OEM) specifications, as well as Reduced Stopping Distance (RSD) and copper-content requirements. Remember: Not all friction that is marketed as "acceptable" under current RSD regulations will actually perform to that standard. Replace friction on both sides of the axle for balanced braking and vehicle stability.

For brake chambers, confirm that dust plugs are properly seated and free of damage. Measure chamber stroke at each wheel-end to verify proper adjustment. In addition, inspect air lines to make sure they're securely fastened, free of chafing, and don't show signs of wear in the mounting mechanism.

"Lubrication is another critical post-winter step," Conklin said. "Moisture left behind from cold-weather operation can contribute to corrosion in slack adjusters, cam tubes, shafts, and bushings. Applying fresh grease helps displace residual moisture and keep brake operation smooth."

Vehicles equipped with air disc brakes require their own inspection steps. Check the rotor cooling fins for clogs, which can prevent the rotor from cooling properly. Inspect the chamber for damage or corrosion. Also, look at the air hoses and clamping mechanism to confirm they're intact.

"Because any opening into the caliper can lead to corrosion, we advise technicians to inspect the boots for punctures or tears, too," Conklin said. "At the same time, check the integrity of the guide pins. Where necessary, replace parts, and make sure the shear adapter cover is in place and fully seated. The pads should move freely in the carrier – if necessary, remove them and clean the carrier surface with a wire brush. Additionally, check to be sure the brake moves freely on its guidance system."

Inspecting for Air System Readiness

"A dependable supply of clean, dry compressed air is foundational to modern commercial vehicles – it's critical to a wide range of functions beyond braking, including Automated Manual Transmissions (AMTs), emissions controls, and stability systems," said Tony Fischbach, air treatment product group director at Bendix. "Winter exposure can accelerate expected corrosion and material fatigue across air system components like air dryers, air tanks, and valve seals, making spring a critical inspection window."

Start by examining air dryers mounted on the frame rail. They are susceptible to corrosion because of exposure to the road – this is particularly true of the seats around the purge and pressure protection valves, as well as the governor connection. Moisture mixed with dirt, sand, and road chemicals can form residue that interferes with the operation of the valves

and other dryer parts. Also, inspect steel air tanks for corrosion or pinhole leaks, which can lead to unexpected pressure loss.

Did you replace your air dryer cartridge or the purge valve in the fall? If not, then do it now. And service your pressure protection valves if they are serviceable. Follow fleet guidelines for oil-coalescing air dryer cartridge models if required by your application. Remember to replace oil-coalescing cartridges like-for-like.

“During inspections, keep an eye out for cracking or breakage of plastic air-line tubing that connects the dryer to the truck’s air system,” Fischbach said. “Chemicals and temperature cycling can also affect push-to-connect air fittings.”

Keep in mind that air system leaks may be present even if they’re not seen or heard. Slower system pressurization or more frequent charging cycles can signal underlying issues. Increased charging cycles place additional demand on the air dryer and can shorten cartridge life, making early detection especially important for keeping trucks in good operating condition this spring.

Maintaining Brake Valves

Air-powered brake components depend on well-functioning valves to regulate pressure, so keeping them in good shape is essential for smooth, responsive braking.

Brake valves rely on properly lubricated seals to regulate airflow smoothly. Exposure to moisture and de-icing chemicals can degrade that lubrication over time, increasing the risk of sticking or inconsistent brake response.

“Valve-related issues often develop gradually,” said Brian Screeton, Bendix manager – technical training and service. “Spring inspections give technicians a chance to catch early signs of corrosion-related sticking before they turn into performance complaints.”

Because brake anti-freeze compounds can wash away internal lubrication, Bendix recommends avoiding their use whenever possible – understanding that sometimes they’re unavoidable for getting trucks back on the road quickly and safely. Inspect valves for external air leaks, stiff movement, or uneven airflow if you used de-icing products. Testing valve function under operating pressure helps confirm proper performance.

“Now is a good time to replace valves that may be sticking internally,” Screeton said. “Some fleets routinely change out air valves as part of post-winter preventive maintenance.”

For help in checking valve operation, refer to Bendix Technical Bulletin offering Air Pressure Balance and Threshold Pressure Tests (BW1555), which provides the pneumatic

balance test to check the relay valves. It's available online in the Document Library at B2Bendix.com.

Safeguarding Advanced Safety Technologies

Advanced driver assistance systems (ADAS) – including antilock braking systems (ABS), electronic stability control (ESC), and collision mitigation – rely on sensors, wiring, and electrical connections that are vulnerable to winter exposure. Moisture intrusion, corrosion, and chafing can lead to intermittent faults. These faults may not immediately trigger diagnostic alerts but can result in the system becoming inoperable.

"Wiring and connector issues are a common source of post-winter system problems," said Andy Pilkington, advanced driver assistance systems product group director at Bendix. "Wiring harnesses – particularly those connected to wheel-speed sensors, radar units, and cameras – are especially vulnerable to damage from winter conditions. Once moisture and road salt enter a damaged harness, the resulting trouble codes can persist."

Bendix advises inspecting wiring harnesses connected to wheel-speed sensors, cameras, and radar units for frayed insulation, cracked housings, or corroded pins. Run a diagnostic scan to help catch active or inactive trouble codes before they escalate into full-system failures.

Check front-mounted radar units for corrosion at their connectors, as these components face direct exposure to road spray and chemicals. For radar surfaces obstructed by grime or residue, gentle cleaning with approved solutions can help restore proper operation.

Following front-end service or alignment, steering angle sensor recalibration is also essential to ensure proper ADAS function.

"ESC and collision mitigation rely on accurate steering input data, and an uncalibrated steering angle sensor can cause unexpected system responses, such as unintended interventions or incorrect driver alerts," Pilkington said. "It is important to note that a collision mitigation system cannot operate without a fully functional radar unit, so regular inspection of the radar unit is essential."

Tires play an important role in ADAS performance as well. Tread depth, wear patterns, and proper inflation all influence system operation. Because temperature fluctuations affect tire pressure, make sure tire pressure monitoring systems (TPMS) are operating properly – running on the right inflation is critical.

Bendix notes that advanced driver assistance technologies complement safe driving practices. No commercial vehicle safety technology, including Bendix safety technologies,

replaces a skilled, alert driver exercising safe driving techniques and proactive, comprehensive driver training. Responsibility for the safe operation of the vehicle remains with the driver at all times. Never wait for the system to intervene. Every driver should carefully review the Operator's Manual and be trained by the fleet or vehicle owner on the proper operation and limitations of the ADAS system during operation.

This spring, hit the road with enhanced safety, uptime, and peace of mind by addressing winter's effects on your trucks.

Bendix recommends always checking the Service Data Sheets and Operator's Manuals of the vehicle OEMs and suppliers for complete maintenance information.

Information from the Bendix Tech Tips series can be found in the Bendix multimedia center at knowledge-dock.com. Support is also available by calling the Bendix Tech Team at 1-800-AIR-BRAKE (1-800-247-2725). Complete maintenance and troubleshooting information can be found in the library of Service Data Sheets and Technical Bulletins located at B2Bendix.com and bendix.com.

About the Bendix Tech Tips Series

Bendix, the North American leader in the development and manufacture of leading-edge active safety, air management, and braking system technologies, is committed to helping keep commercial vehicles on the road and in good working condition. The Bendix Tech Tips series addresses common commercial vehicle maintenance questions and issues concerning the total range of components found within foundation and air brake systems, as well as advanced safety systems.

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 3,600 people, Bendix 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 X, formerly known as Twitter, at x.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.

# # #