



For more information, contact:

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

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

> FOR IMMEDIATE RELEASE MATS 2019 Booth No. 32330

FRICTION, KITS, AND REMAN: BENDIX SPICER FOUNDATION BRAKE OFFERS A GUIDE TO THE AIR DISC BRAKE AFTERMARKET

The Right Maintenance Choices Directly Impact Safety and Total Cost of Ownership

ELYRIA, Ohio – March 27, 2019 – There was a time when the North American market for commercial vehicle air disc brakes was a little less crowded – and a lot less complicated. Things are much different these days, and Bendix Spicer Foundation Brake LLC (BSFB) is helping an ever-growing number of fleets and owner-operators using air disc brakes understand what their aftermarket choices mean for safety, uptime, and return on investment as they navigate a sea of suppliers, components, and replacement friction.

"When Bendix introduced the ADB22X[™] air disc brake in 2005, it was a new brake system for North America, which meant few others gave any thought to providing replacement pads or remanufactured components," said Keith McComsey, BSFB director of marketing and customer solutions, Wheel-End. "Now, air disc brakes are on more than 25 percent of all airbraked Class 6-8 tractor wheel-ends and nearly 15 percent of trailers – and we expect those numbers to increase, approaching one-third of all Class 6-8 air brake installations within the next couple years.

"With the Bendix[®] ADB22X equipped on about 85 percent of wheel-ends in the market today," McComsey added, "we feel a responsibility to make sure second and third owners of air disc-braked tractors and trailers are well-informed about aftermarket options and their long-term impacts."

FRICTION, KITS, AND REMAN: BENDIX SPICER FOUNDATION BRAKE OFFERS A GUIDE TO THE AIR DISC BRAKE AFTERMARKET March 27, 2019/Page 2

Friction Facts

Performance, quality, and value are critical in selecting an air disc brake (ADB) friction, no matter where a vehicle is in its life cycle. As adoption of ADBs has grown, friction has evolved to account for varying fleet factors, including application, tractor/trailer brake combinations, and duty cycle.

For line-haul tractors and trailers, an increase in wearable volume over typical pads, coupled with a revised formulation for longer life make the Bendix[®] BX276[™] genuine OEM replacement pad Bendix's highest-performing air disc brake friction.

Vehicles that undergo a high frequency of brake usage – refuse, school bus, and pickup/delivery, for example – can benefit from a severe-duty friction like the Bendix[®] BX283[™]. The BX283 pad is designed to handle higher temperature conditions, so it offers longer life in these harsh applications.

Earlier this year, Bendix added the BA235[™] air disc brake aftermarket pad kit to its expanded air disc brake pad portfolio. The company recognizes that as the ADB market has matured, many ADB-equipped trucks are now in the hands of second or third owners, who may have different business needs than the original owner. The BA235 pad provides a lower-cost replacement pad option while still meeting all Bendix requirements for FMVSS-121 wear performance. In addition, the pad kit includes OEM hardware, which supports customers' ability to maintain their Bendix warranty. Like the Bendix BX276 and BX283 pads, the BA235 pads can be used as replacement friction for both the ADB22X[™] and the ADB22X[™]-LT trailer air disc brake.

Proper friction selection matters on two key levels: Maintaining safety and protecting return on investment. In Bendix testing, several aftermarket frictions displayed inferior performance in both stopping distance and park-hold. These longer stopping distances either bring the vehicle to a drum brake level of performance and/or extend performance out beyond 250 feet, which can put a vehicle out of compliance with FMVSS-121 requirements and may increase the potential for rear-end collisions and the risk for a vehicle rollaway.

The wrong friction can not only offset the performance advantages gained by investing in air disc brakes, but it can actually wind up costing more in vehicle repairs and downtime as well. For example, ongoing Bendix testing has shown that use of other aftermarket pads may lead to accelerated wear, including stress cracking of the rotor, which is costly to replace.

"Bendix designs a friction couple – which is the friction and rotor together – to provide optimal performance," McComsey noted. "Anybody can design a brake pad for long life, but fleets need to consider the impact these aggressive pads have on rotor life. And if that friction

FRICTION, KITS, AND REMAN: BENDIX SPICER FOUNDATION BRAKE OFFERS A GUIDE TO THE AIR DISC BRAKE AFTERMARKET March 27, 2019/Page 3

causes stress cracks, now you're looking at the potential costs of rotor replacement, more downtime, and even risk of CSA (Compliance, Safety, Accountability) violations if the crack exceeds the out-of-service requirements."

Kits and Component Considerations

Beyond the friction itself, aftermarket air disc brake kits and components also vary widely – again, with serious implications for safety and performance.

All Bendix pad replacement kits include the complete OEM hardware kit – that includes pad retention springs, retainer bars, and shear adaptors. While they may seem like unimportant accessories, these pieces play an important role in proper ADB function and service life. Some aftermarket pad kits do not include the retainer bar, requiring the customer to reuse a part that was not designed to be reused. Other AM pad kits also use weak pad springs. These two conditions introduce the risk of retainer bar failure and/or damage to the caliper and carrier. Since these kits don't use the OEM shear adaptor, on average they shear at a torque that is 1.5 times higher, which can damage the adjuster mechanism, necessitating a replacement of the entire caliper.

Remanufactured parts continue to occupy a significant portion of the aftermarket landscape, and the right supplier can offer value and quality while highlighting the importance of looking beyond the lowest price. Bendix recently announced its own remanufactured air disc brake caliper, providing a high-quality alternative to new calipers from unproven sources in the expanding air disc brake aftermarket.

"More than ever, it's important to understand where your parts are coming from, and how your suppliers handle process and quality," McComsey said. "There's no guarantee that these 'new' or reman calipers entering the market – some from overseas – will deliver the same quality as true new or remanufacture by a genuine OE supplier like Bendix. The cost of one failed part more than offsets what you might save in a lower-price component."

The road-proven and time-tested advantages of air disc brakes, along with the importance of reliable, stable stopping power in an age of ever-advancing higher-level safety systems like full stability and collision mitigation, means ADBs are here to stay.

Bendix, which has produced nearly 3 million air disc brakes, will continue driving the technology forward in pursuit of safer trucks and roads. Its parent company, the Munich, Germany-based Knorr-Bremse Group, is the worldwide leader in air disc brake production, at over 40 million.

FRICTION, KITS, AND REMAN: BENDIX SPICER FOUNDATION BRAKE OFFERS A GUIDE TO THE AIR DISC BRAKE AFTERMARKET March 27, 2019/Page 4

Strengthening return on investment and lowering total cost of ownership, BSFB delivers safety, reliability, and stopping power to fleets and owner-operators. BSFB wheel-end solutions are backed by unparalleled post-sales support and are part of an overall safety equation aimed at improving vehicle and highway safety across North America.

For more information about Bendix air disc brake pads, call 1-800-AIR-BRAKE or visit www.foundationbrakes.com.

About Bendix Spicer Foundation Brake LLC

Bendix Spicer Foundation Brake LLC combines and expands the complementary wheel-end foundation brake technologies of two global leaders – Bendix Commercial Vehicle Systems LLC and Dana Commercial Vehicle Products, LLC. The joint venture, formed in July 2004, is a single, complete source for OEM brake system design, manufacturing, hardware, and support for all foundation brake components and actuation systems, as well as all-makes coverage of nearly 50,000 medium- and heavy-duty aftermarket parts. Contact us at 1-866-610-9709 or visit foundationbrakes.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 Spicer Foundation Brake, visit bendix.com/careers.

###