

Press Release

Munich, October 29, 2018

Vehicle approval included: Knorr-Bremse modernizes braking systems for Desiro Classic VT 642 multiple units

- Knorr-Bremse drives forward solutions for low life-cycle costs
- Federal Railway Authority (EBA) issues Knorr-Bremse with its first ever 'authorization for placing in service' in the course of a brake modernization project
- Knorr-Bremse RailServices modernizes VT 642 Desiros with new ESRA 3.0 brake control system, in a package that also reduces approval costs for customers

Munich, October 29, 2018 – Knorr-Bremse, the global market leader for braking systems and a leading supplier of other rail and commercial vehicle subsystems, is expanding its modernization services with a focus on minimizing life-cycle costs.

"Modernization can be an attractive business option for extending the service life of older vehicles or equipping them with state-of-the-art technology. It allows them to benefit from the latest technologies and ensures a secure supply of spare parts in years to come," explains Dr. Jürgen Wilder, Member of the Executive Board of Knorr-Bremse AG with responsibility for the Rail Vehicle Systems division. "Until now, the work of our modernization specialists at Knorr-Bremse RailServices ended once the retrofit was complete. By obtaining the 'authorization for placing in service' from the German Federal Railway Authority, they have now filled the last remaining gap in their service portfolio, allowing them to provide full braking system modernizations including the final vehicle approval, all from a single source." The authorization is also a milestone for Knorr-Bremse's next-generation ESRA 3.0 brake control systems.

Knorr-Bremse RailServices obtained approval for volume production in the course of a project to retrofit a Desiro Classic VT 642 vehicle belonging to Chemnitzer Erzgebirgsbahn with the ESRA 3.0, replacing its ageing MRP brake control system. "The Desiro fleet's current brake control system was designed in the mid-1990s," explains Mark Cleobury, Member of the Management Board of Knorr-Bremse Rail Vehicle Systems. "Spare part stocks for certain electronic components are dwindling rapidly, potentially jeopardizing the smooth operation of scheduled services," he adds. A modern wheel slide protection system – the ABS system for rail vehicles – is also fitted alongside the new brake control system.

The "authorization for placing in service" (Inbetriebnahmegenehmigung – IBG) issued by the Federal Railway Authority makes life a lot easier for Desiro Classic operators: If their VT 642s are retrofitted with the new brake control system by RailServices, vehicle approval is granted almost automatically.

Secure supply of electronic spare parts

The IBG also has significant market potential for Knorr-Bremse. The Desiro mass transit multiple units are a familiar sight on railroad lines, particularly in Europe. "There are between 600 and 700 vehicles in service worldwide," says Cleobury. "Before long, they will all be facing the problem of shrinking stocks of electronic spare parts." Although the Federal Railway Authority authorization does not guarantee full compliance with the regulations of all other countries, the vast majority of national authorities require very little additional certification to recognize German approvals.





Caption: The authorization issued by the Federal Railway Authority (EBA) allows Knorr-Bremse to offer all Desiro Classic VT 642 operators a package that includes vehicle approval alongside the modernization of their braking systems with the ESRA 3.0. | © Erzgebirgsbahn

Knorr-Bremse is the global market leader for braking systems and a leading supplier of other safety-critical rail and commercial vehicle subsystems. Knorr-Bremse's products make a decisive contribution to greater safety and energy efficiency on rail tracks and roads around the world. For more than 110 years the company has been the industry innovator, driving innovation in mobility and transportation technologies with an edge in connected system solutions. Knorr-Bremse is one of Germany's most successful industrial companies and profits from the key global megatrends: urbanization, eco-efficiency, digitization and automated driving.

Approximately 29,000 employees (per June 30, 2018) at over 100 sites in more than 30 countries use their competence and motivation to satisfy customers worldwide with products and services. Localization is a central focus of Knorr-Bremse's strategy. Knorr-Bremse delivers braking, entrance, control and auxiliary power supply systems, HVAC and driver assistance systems for rail vehicles, as well as braking, steering, powertrain and transmission control solutions, and driver assistance systems for commercial vehicles.

In 2017, Knorr-Bremse's two divisions together generated revenues of EUR 6.2 billion (IFRS). A comprehensive aftermarket & services business with high entry barriers gives these revenues increasingly cyclically independent stability. The company benefits from strong, entrepreneurial and experienced management. Technical excellence, reliability, passion and responsibility are deeply embedded in its corporate culture.

Contact:

Alexandra Bufe Head of Corporate Communications Tel: +49 (0)89 3547 1402

E-mail: <u>alexandra.bufe@knorr-bremse.com</u>

Knorr-Bremse AG Moosacher Straße 80 D-80809 Munich www.knorr-bremse.com

