

Press Release

Munich, April 26, 2010

Knorr-Bremse accesses Japanese high-speed market

Japanese railway company JR East has commissioned Knorr-Bremse to supply braking components for the traction bogies of 23 units of the new E5 generation of the Shinkansen high-speed train. Knorr-Bremse has thus succeeded in accessing the Japanese high-speed rail market. The Executive Board Member of Knorr-Bremse AG responsible for the Rail Vehicle Systems division, Dr. Dieter Wilhelm, attributed this success to the company's persistent efforts in the Japanese rail vehicle market over many years and its outstanding expertise, particularly in respect of high-performance brakes.

With the new E5 generation of the Shinkansen, JR East will be extending the "Tohoku" line between Tokyo and Hachinohe further north to Aomori, the farthest north city of the main island of Honshu. If they are to compete with air travel, the high-speed trains need to complete the trip within three hours. This means increasing their top speed from a current 275 km/h to 320 km/h, which calls for a braking system with substantially higher performance capabilities. Eight years ago now, JR East began studying and testing sophisticated new bogie equipment for an initial series of trains that would run at over 300 km/h. To meet these requirements, Knorr-Bremse developed an ultra-compact lightweight type of brake caliper based on a tried-and-tested modular design. The brake discs and flexible ISOBAR sintered brake pads were specially developed for the extreme demands of possible emergency-braking in the event of an earthquake. The order from JR East confirms the superiority of Knorr-Bremse's technology in terms of both performance and life cycle costs.

JR East is the world's largest railway company for passenger transportation and in 2008 carried almost 17 million passengers a day on its approximately 7,500-kilometer network. The company originated as one of seven successors to national rail operator Japan National Railways, which was privatized in 1987.

The **Knorr-Bremse Group** is the world's leading manufacturer of braking systems for rail and commercial vehicles. For more than 100 years now the company has pioneered the development, production, marketing and servicing of state-of-the-art braking systems. Other lines of business in the rail vehicle systems sector include automatic, electro-pneumatic or electric door systems, air conditioning systems, control components and windscreen wiper systems, as well as platform screen doors. In the commercial vehicle systems sector, the product range includes complete braking systems with driver assistance systems, as well as torsional vibration dampers and powertrain-related solutions such as the Pneumatic Booster System (PBS) and transmission control system for enhanced energy efficiency and fuel economy.

Contact:

Knorr-Bremse AG
Moosacher Strasse 80
80809 Munich, Germany

Christoph Günter
Head of Corporate Communications
Tel: 089-3547-1402, Fax: 089-3547-1403
Email: christoph.guenter@knorr-bremse.com
www.knorr-bremse.com