Tread Brake Units are air-powered brakes for rail vehicles comprising brake cylinder, transmission mechanism and automatic slack adjuster. Being compact and space-saving, they can be installed even in bogies with very narrow space restrictions. Depending on the application Knorr-Bremse offers rigid or flexible tread brake units. Both types are highly modularized to match any application, mounting space and operational conditions. This equipment incorporates a proven robust design delivering highest availability and low life-cycle costs.

**CUSTOMER BENEFITS**
- Compact and modular design
- Preassembled and ready to install
- Constant high efficiency of 95%
- Weight-optimized
- Low LCC
- Low maintenance, low noise because of sealed bearings

**APPLICATIONS**
- Locomotives
- Metros
- Regional & commuter trains
- High-speed trains
PEC7 IN RIGID DESIGN
FOR STANDARD BOGIES

PEC7 IN FLEXIBLE DESIGN
FOR HIGH LATERAL AXLE MOVEMENTS

TECHNICAL DATA
- High variation of internal ratio from 2.0 to 5.5
- Block force of service brake up to 60 kN
- Block force of parking brake up to 45 kN
- Service unit can be added with spring or hand-applied parking brake

KEY FEATURES
- Standard interface to bogie
- Installation space independent of brake force
- Robust design for very harsh environmental conditions (ice, sand, low temperature -60 °C)
- Sealed bearings for less wear, less noise, low maintenance and longer overhaul intervals
- Superposition of brake forces in failure cases admissible

Modular design with optional features:
- spring-operated, pneumatically released parking brake
- hand-operated parking brake (hand wheel)
- suitable for UIC, AAR or other brake block types
- electrical indication of brake status
- pneumatic valves for various functions

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