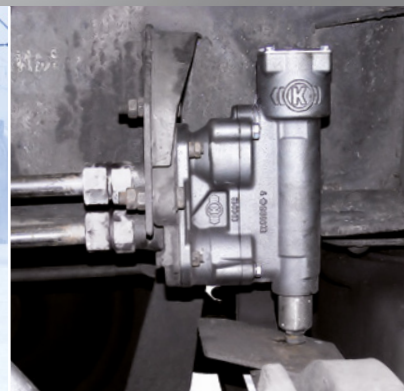




AKB1 Load-dependent Brake Valve



APPLICATION

1520 mm gauge freight cars

KNORR-BREMSE



ROBUSTNESS AND DURABILITY



Top technologies for braking equipment on 1520 mm gauge railroads. The newly-developed AKB1 load-dependent brake valve protects against wheel flats on freight trains and ensures delivery of the required braking performance. Based on cutting-edge technologies and manufactured on state-of-the-art assembly lines, the AKB1 complements the KAB60 control valve and rounds off Knorr-Bremse's product portfolio for 1520 mm gauge freight cars.

DESIGN / FUNCTION

The AKB1 load brake valve is designed for 1520 mm gauge freight wagons operating at ambient temperatures from -60°C to $+60^{\circ}\text{C}$. By means of a mechanical sensing device the AKB1 detects deflection of the bogie suspension resulting from wagon load, and regulates the brake cylinder pressure accordingly. This reliably ensures prescribed stopping distances and protects the wheels against excessive braking and overheating. Individual shocks and random movements of the suspension are reliably filtered out and do not influence the brake cylinder pressure.

In terms of its geometry, installation and functionality the AKB1 load-dependent brake valve is compatible with rail vehicles and equipment currently in service. During the development phase there was a particular focus on ensuring its low-temperature resistance, durability, accuracy and reliability, even under extreme mechanical stresses.

AKB1 LOAD-DEPENDENT BRAKE VALVE

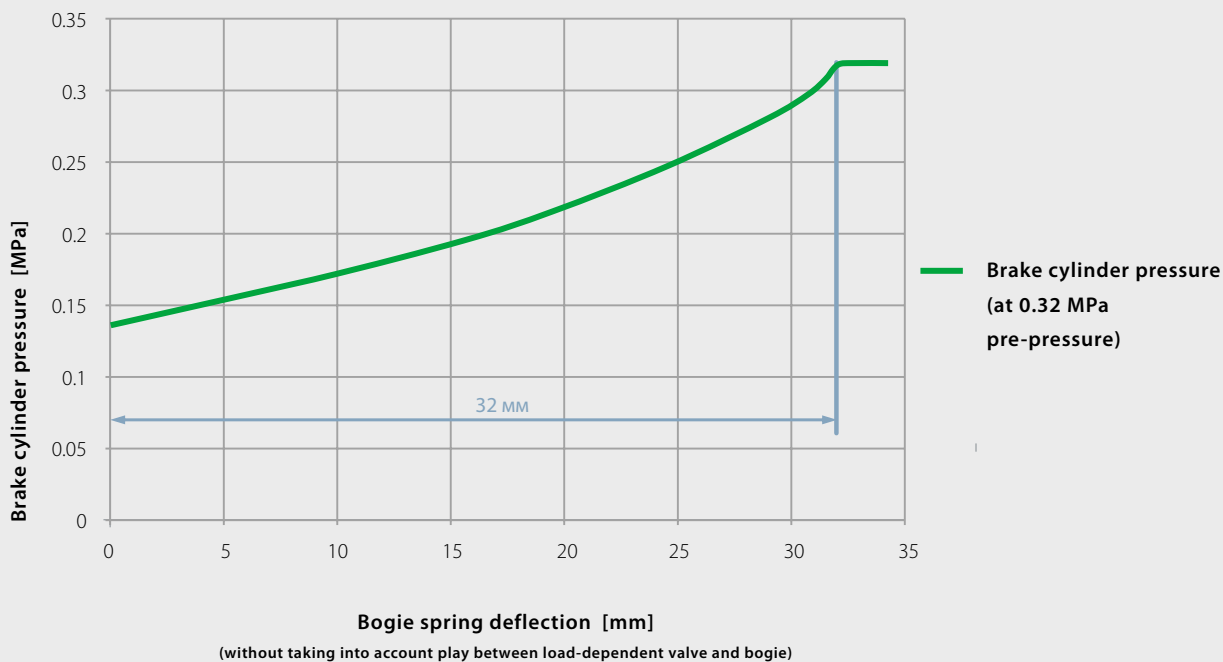
ADVANTAGES

- Extended maintenance intervals (minimum 6 years)
- Compensates effectively for vibration and jolting
- Enhanced protection against dirt and poor air quality
- High-quality materials and corrosion-resistant steels for prolonged operating life
- Extended working range between empty and loaded
- Simple, rapid maintenance
- Low wear due to use of special bearing materials
- Enhanced protection against mechanical influences (e.g. rock chips)
- Simple, protected pressure setting
- Compact design and low weight

TECHNICAL DATA

- Working stroke: 32 mm
- Maximum permissible stroke: at least 120 mm
- Maximum input pressure: 0.5 MPa
- Weight without/with mounting: 11/15 kg
- Dimensions (D x W x H): 245 x 206 x 421 mm
- Damper drawdown time: 18-60 s
- Setting range for brake cylinder pressure on empty freight car: 0.11-0.16 MPa

Static characteristic curve for AKB1 load-dependent brake valve



Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Moosacher Straße 80
80809 Munich
Germany
Tel: +49 89 3547-0
Fax: +49 89 3547-2767

WWW.KNORR-BREMSE.COM



Knorr-Bremse Group

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