Hydraulic brake calipers

Applications
- Streetcars
- Low-Floor Streetcars
- Commuter Trains
- People Mover

KNORR-BREMSE
**Hydraulic brake calipers**

Knorr-Bremse has a wide range of hydraulic brake calipers for generation of braking force. The compact modules are suitable for a wide variety of vehicle platforms and requirements.

**ADVANTAGES**
- High application force within small installation space
- Application force and mechanical emergency release adjustable
- Mounting possible to gearbox as floating support or e.g. to the bogie frame as elastic suspension
- Maintenance-friendly thanks to completely sealed bearings and joints
- Design principles successful worldwide and in use for many years
- Optional remote mechanical release
- Force actuator with automatic wear compensation

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Model</th>
<th>HC1P45 Plus</th>
<th>HC1P28</th>
<th>HH1P38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Floating caliper with lever type design</td>
<td>Floating caliper with lever type design</td>
<td>Floating caliper with lever type design</td>
</tr>
<tr>
<td>Actuator</td>
<td>Spring actuator brake</td>
<td>Spring actuator brake</td>
<td>Spring actuator brake</td>
</tr>
<tr>
<td>Force</td>
<td>up to 100 kN</td>
<td>56 kN</td>
<td>76 kN</td>
</tr>
<tr>
<td>Circuits</td>
<td>2 hydraulic release circuits</td>
<td>2 hydraulic brake circuits</td>
<td>2 hydraulic release circuits</td>
</tr>
<tr>
<td>Disc</td>
<td>100 mm</td>
<td>60 mm</td>
<td>100 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>around 60 kg</td>
<td>around 35 kg</td>
<td>around 65 kg</td>
</tr>
</tbody>
</table>

**DESIGN**

Knorr-Bremse’s hydraulic brake calipers are suitable for many different types of rail vehicle and installation conditions. A wide range of interfaces can be equipped. Their robust design means they are unaffected by concussion or harsh environmental conditions. They are available as:
- Fixed calipers in frame type design
- Floating calipers in frame type or lever type design
- Elastic-mounted calipers as frame type or lever type design
- Brake calipers for special mounting positions

Knorr-Bremse hydraulic brake calipers are designed for high application force within small installation space, adjustable application force, and mechanical emergency release. They are suitable for a wide variety of interfaces and are maintenance-friendly thanks to completely sealed bearings and joints. The robust design ensures they are unaffected by concussion or harsh environmental conditions. These calipers are available in fixed, floating, and elastic-mounted caliper designs.