Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by the Tool Connection for incorrect use of any of our products, and the Tool Connection cannot be held responsible for any damage to personnel, property or equipment when using the tools. Incorrect use will also invalidate the warranty.

If applicable, the applications database and any instructional information provided has been designed to offer general guidance for a particular tool’s use and while all attention is given to the accuracy of the data no project should be attempted without referring first to the manufacturer’s technical documentation (workshop or instruction manual) or the use of a recognised authority such as Autodata.

It is our policy to continually improve our products and thus we reserve the right to alter specifications and components without prior notice. It is the responsibility of the user to ensure the suitability of the tools and information prior to their use.

**Guarantee**

This item contains consumable elements and are **NOT** covered by the Tool Connection Guarantee. For spares contact our service department direct on: +44 (0) 1926 818186.

- Designed to remove and replace the brake caliper slides and seals on the Knorr-Bremse HGV pneumatic disc brakes caliper.
- Use with the following repair kits: DAF 1847716, MAN 81508226034, MAN 81508226037, BPW Trailer Kit 0980106330.
- Replacement of lower (short) caliper slide bush and seal.
- May be used on vehicle where access permits.
Brake Caliper Lower Bush Replacement Tool – Knorr-Bremse

Reports from our customers suggest that the Knorr-Bremse brake caliper lower sliders wear and seize over time which can lead to poor brake performance as well as accelerated brake wear. This issue normally requires the complete removal of the brake caliper from the axle.

Designed by an HGV Technician who brought his idea to Laser Tools, the Laser 7105 in most cases allows the lower slider to be replaced with the caliper on the vehicle.

The tool kit is designed to work specifically with the caliper slider repair kits listed (lower slider only).

### Components

<table>
<thead>
<tr>
<th>Ref</th>
<th>Spare Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>60470</td>
<td>Force Screw</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>Stepped Washer</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>Pull-in Plate</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>Force Screw End Nut</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>Rubber Bush Installer Cup</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>Stubby Hex Key</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td>Hex Key 1/2&quot;D</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td>Extraction/Insertion Tube</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td>Support Bush</td>
</tr>
<tr>
<td>J</td>
<td>1810</td>
<td>Force Screw Nut and Bearing Assembly</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td>Collar Nut</td>
</tr>
</tbody>
</table>

### Fitting New Bush

1. Remove any corrosion and dirt from the caliper slider bore hole and surrounding area.
2. Lubricate the new bush using grease provided with the bush kit.
3. Slide the Support Guide (I) into the new bush and push the bush/Support assembly in the Install Cup (E).
4. Lubricate the Force Screw. Assemble the Force Screw (A), Force Screw Nut with bearing (J) with the Support Guide (I) and bush on to the caliper as shown.
5. Screw the Pull-in Plate (C) on to the inner end of the Force Screw (A) ensuring full thread contact.

**NOTE:** Ensure the raised ridge on the Pull-in Plate engages correctly with the raised ridge inside the caliper to ensure the bush is correctly aligned. OEM instructions state that the torque required to insert the bush should be between 8-45 Nm. If torque required is outside of this limit the caliper should be replaced.

6. Assemble the caliper as per manufacturer’s instructions, before fitting pads ensure caliper slides freely and smoothly on the caliper sliders.
Applications

- Include: Knorr-Bremse calipers as fitted to DAF and MAN trucks as well as BPW Trailers.
- Use with the following repair kits:
  DAF 1847716,
  MAN 81508226034,
  MAN 81508226037,
  BPW Trailer Kit 0980106330

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicles manufacturer’s own data or Autodata.

The use of this Caliper Bush Replacement Tool is purely down to the user’s discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused whatsoever.

Extraction of Slider Bush

1. Remove as much of the rubber part of the bush and lever out the tin part of the bush where possible to aid removal of the bush.
2. Lubricate the force screw (A) with Molybdenum Disulphide grease, insert through the centre of the caliper pin and fit collar nut (K) on to the inner end of (A). Ensure full contact between (A) and (K).
3. Assemble components H, B and J as shown. Holding the force screw (A) with a suitable wrench wind the guide bush out using the force screw nut and bearing assembly as shown.
**Instructions**

**Preparation**
1. Using a suitable lever move the caliper on the sliders towards the centre of the vehicle to ensure there is access to the inside face of the disc and the back face of the caliper.
2. Remove the slider bolt cover to gain access to the socket headed caliper mounting bolt. Check the bolt head is clean to ensure full insertion of the stubby hex key provided (F).
3. Remove the lower caliper fixing bolt.
4. Clean the metal surface inside and out around the bush and slider.
5. Position the caliper to give best access to both sides of the bush and slider, if possible raise the lower part of the caliper and use a wedge to hold the caliper up.

**NOTE:** Before using this kit please ensure all threaded components are well lubricated with Molybdenum Disulphide grease and free from grit and dust. Failure to use the correct type of grease will void the product warranty. Ensure before applying any load to the tooling that all components are correctly aligned.

**Extraction of Caliper Pin:**
1. Lubricate the force screw (A) with Molybdenum Disulphide grease, insert through the centre of the caliper pin and fit extractor nut (D) on to the inner end of (A). Ensure full contact between (A) and (D).
2. Assemble components H, B and J as shown. Holding the force screw (A) with a suitable wrench wind the guide pin out using the force screw Nut and bearing assembly as shown.