Manuelle Anhängekupplung mit Flansch
Non-automatic trailer coupling with flange
Attelage verrouillage manuel avec palier à platine
Table of contents

Series RO*810 B
Non-automatic trailer coupling with flange
- Type 810
  Version A with socket pin above
  Version B with socket pin below
- Hand lever Ø 30,2 mm

Safety instructions  12

1. Fitting  13

2. Operating  14
  2.1 Hitching  14
  2.2 Unhitching  14

3. Maintenance  15 – 16
  3.1 Inspection  15 – 16

4. Technical data  17 – 18

Drawbar eyes  18
Single hand pins  18

Note:
When fitting the trailer coupling the Council Directive 89/173 EEC and the relevant national regulations must be observed. The coupling must be fitted in accordance with these assembly and operating instructions.

If the installation of the trailer coupling should alter the load values of the vehicle (e.g. permissible axle load, total weight, permissible vertical load) the vehicle documents must be altered accordingly.

We reserve the right to make technical alterations.

The assembly and operating instructions must be kept in the vehicle!

The coupling may only be fitted by qualified personnel!

Read these instructions carefully before starting work!

The TÜV Management Service logo indicates that the product meets the required safety standards.

The coupling may only be fitted by qualified personnel!

Read these instructions carefully before starting work!
Safety instructions

The safety instructions are summarised in a single chapter. In any situation where the user of the trailer coupling is at risk, the safety instructions are repeated in the individual sections and marked with the warning symbol shown here.

When handling trailer couplings, tractor vehicles and trailers, the relevant safety regulations in the respective country must be observed. Any safety instructions in the operating manual of the tractor vehicle and the trailer remain valid and must be observed.

For operation, maintenance and assembly, the safety instructions listed below must be observed. Further safety instructions are then given in the individual case which relate directly to the respective activity.

Safety instructions for operation

- The trailer coupling may only be operated by authorised persons.
- The installation and operating instructions of the respective trailer coupling retain their validity and must be observed.
- Only use the trailer coupling and the towing eye of the trailer if they are in perfect technical condition.
- Only carry out hitching / unhitching operations on firm, level ground.
- During hitching, nobody may stand between the tractor vehicle and the trailer.
- After every hitching operation, the correct locked status of the trailer coupling must be checked by means of the control pin or the remote indicator. Only drive the rig in the correctly locked status.
- Never reach into the opened coupling.

Safety instructions for maintenance

- For maintenance work, only use the specified lubricants.
- Maintenance work may only be carried out by qualified personnel.

Safety instructions for installation

- Installation may only be carried out by authorised workshops.
- Installation must be carried out in compliance with the relevant accident prevention regulations and the technical regulations for mechanical equipment.
- Only original ROCKINGER components may be used.
- Instructions and installation guidelines of the vehicle manufacturer must be observed, e.g. type of fastening, clearances etc.
- All screwed connections must be tightened with the prescribed tightening torque.
- Work may only be carried out on the trailer coupling when it is closed. Risk of injury!
- The trailer coupling must be installed in accordance with these installation and operation instructions and may only be carried out on agricultural or forestry tractor machines in accordance with Directive 74/150/EEC.
- Type plates and warnings must be clearly visible before the coupling or drawbar eye are used and must not be rendered illegible in any way. Paint residues or protective foils must be removed.

Trailer couplings are vehicle connection parts which require model approval and are subject to the highest safety requirements. Alterations of any kind shall cause the warranty to lapse and invalidate the model approval, which in turn invalidates the vehicle operation permit.
1. Fitting

The coupling is supplied in a ready-to-use condition.

- On installation the relevant regulations must be observed.
- Regulations of the vehicle manufacturer
- Clearance for axial rotation of the coupling head

- Fit the fastening bearing on the cross bar
- Fastening with 4 hex bolts DIN 931

810B30: M14, quality 8.8 – tightening torque approx. 135 Nm
810B40: M16, quality 8.8 – tightening torque approx. 210 Nm
810B40: M20, quality 8.8 – tightening torque approx. 410 Nm
and self-locking nuts quality 8

Note: The nut and bolt quality of the vehicle manufacturer may deviate from these values!

Attention: Only use ROCKINGER hand lever and Fendt plug in accordance with the general model approval (ABG)!
Failure to observe this will invalidate the model approval.

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Hole pattern</th>
<th>Bolt size</th>
<th>Tightening torque</th>
<th>ROCKINGER bolt set</th>
</tr>
</thead>
<tbody>
<tr>
<td>850/860/873...</td>
<td>120x 55</td>
<td>M 14</td>
<td>180 Nm</td>
<td>58095</td>
</tr>
<tr>
<td>...B30</td>
<td>140x 80</td>
<td>M 16</td>
<td>210 Nm</td>
<td>58096</td>
</tr>
<tr>
<td>...B50</td>
<td>160x100</td>
<td>M 20</td>
<td>410 Nm</td>
<td>58097</td>
</tr>
</tbody>
</table>
2. Operating

The legal stipulations must be observed for hitching and unhitching.

2.1 Hitching

- Place the towing eye at the centre of the funnel
- Open the coupling by removing the hand lever
- Release the brake on the front axle of the articulated drawbar trailer
- When connecting to a rigid drawbar trailer the towing eye must be placed as precisely as possible at the center of the funnel. Failure to observe this can lead to damage!
- Reverse the tractor vehicle slowly until the towing eye and body boring are aligned.
- Close the coupling by inserting the hand lever

Check:
The hand lever must be secured after coupling.

2.2 Unhitching

- Secure the trailer against rolling away or extend support feet
- Release and remove the hand lever
- Move the tractor vehicle forwards.
3. Maintenance

To reduce wear on the coupling and towing eye, lubricate with multipurpose grease at regular intervals depending on the application conditions and after cleaning with pressure washers:

- At the lubricating nipple (N)
- Towing eye seat (A)

3.1 Inspection

- **Body boring**
  top and bottom in driving position max. 35 mm oval

- **Bearing** (articulated joint)
  Gap at the articulated joint
  between the funnel and flange collar with light pressure on the lower edge in the driving position: max. 3 mm
3. Maintenance

**RO**<sup>810B</sup>

---

**Fig. 5**

---

**Fig. 5a**

---

### Single hand pin

- **Diameter**
  
<table>
<thead>
<tr>
<th>Nominal dimension (mm)</th>
<th>Minimum wear limit (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30–31,5</td>
<td>28</td>
</tr>
</tbody>
</table>

- **Locking:**
  
  No deformation of the locking elements

- **Maximum height clearance:**
  
  max. 6 mm
### 4. Technical data

**RO*810 B**

**RO*810 B**

<table>
<thead>
<tr>
<th>RO*</th>
<th>a (mm)</th>
<th>b (mm)</th>
<th>c (mm)</th>
<th>d (mm)</th>
<th>e (mm)</th>
<th>f (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>810B30</td>
<td>120</td>
<td>55</td>
<td>15</td>
<td>155</td>
<td>90</td>
<td>16</td>
</tr>
<tr>
<td>810B40</td>
<td>140</td>
<td>80</td>
<td>17</td>
<td>180</td>
<td>120</td>
<td>21</td>
</tr>
<tr>
<td>810B50</td>
<td>160</td>
<td>100</td>
<td>21</td>
<td>200</td>
<td>140</td>
<td>20</td>
</tr>
</tbody>
</table>
## 4. Technical data – Drawbar eyes / Single hand pins RO*810B

<table>
<thead>
<tr>
<th>RO</th>
<th>Hole pattern</th>
<th>T (t)</th>
<th>S (t)</th>
<th>D (kN)</th>
<th>Single hand pin</th>
<th>ABG M</th>
<th>EC e1</th>
</tr>
</thead>
<tbody>
<tr>
<td>810B30004</td>
<td>120 x 55</td>
<td>6,0</td>
<td>1,5</td>
<td>50,0</td>
<td>–</td>
<td>9769</td>
<td>0296</td>
</tr>
<tr>
<td>810B30504</td>
<td>120 x 55</td>
<td>6,0</td>
<td>1,5</td>
<td>50,0</td>
<td>66887</td>
<td>9769</td>
<td>0296</td>
</tr>
<tr>
<td>810B40004</td>
<td>140 x 80</td>
<td>11,0</td>
<td>2,0</td>
<td>78,2</td>
<td>–</td>
<td>4916</td>
<td>0027</td>
</tr>
<tr>
<td>810B40504</td>
<td>140 x 80</td>
<td>11,0</td>
<td>2,0</td>
<td>78,2</td>
<td>66887</td>
<td>4916</td>
<td>0027</td>
</tr>
<tr>
<td>810B50004</td>
<td>160 x 100</td>
<td>14,0</td>
<td>2,0</td>
<td>89,3</td>
<td>–</td>
<td>9770</td>
<td>0297</td>
</tr>
<tr>
<td>810B50504</td>
<td>160 x 100</td>
<td>14,0</td>
<td>2,0</td>
<td>89,3</td>
<td>66887</td>
<td>9770</td>
<td>0297</td>
</tr>
</tbody>
</table>

Observe data on type plate

### Drawbar eyes

<table>
<thead>
<tr>
<th>DIN</th>
<th>a (mm)</th>
<th>b (mm)</th>
<th>c (mm)</th>
<th>horizontal</th>
<th>vertikal</th>
</tr>
</thead>
<tbody>
<tr>
<td>11026</td>
<td>100</td>
<td>40</td>
<td>42</td>
<td>min. 70°</td>
<td>min. 20°</td>
</tr>
<tr>
<td>11043</td>
<td>100</td>
<td>40</td>
<td>32</td>
<td>min. 70°</td>
<td>min. 22°</td>
</tr>
<tr>
<td>74053</td>
<td>115</td>
<td>50</td>
<td>45</td>
<td>min. 78°</td>
<td>min. 20°</td>
</tr>
<tr>
<td>74054</td>
<td>100</td>
<td>40</td>
<td>30,5</td>
<td>min. 76°</td>
<td>min. 20°</td>
</tr>
<tr>
<td>9678</td>
<td>120</td>
<td>50</td>
<td>30</td>
<td>min. 60°</td>
<td>min. 25°</td>
</tr>
</tbody>
</table>

Do not use any other towing eyes: **risk of accident!**

### Single hand pins

<table>
<thead>
<tr>
<th>Item</th>
<th>Length (l) (mm)</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>–</td>
<td>66887</td>
</tr>
<tr>
<td>2</td>
<td>–</td>
<td>66984</td>
</tr>
<tr>
<td>3</td>
<td>345</td>
<td>67075</td>
</tr>
<tr>
<td>4</td>
<td>500</td>
<td>67086</td>
</tr>
<tr>
<td>5</td>
<td>650</td>
<td>67549</td>
</tr>
</tbody>
</table>