Official note
When fitting the trailer coupling the regulations for fitting mechanical fastening systems in accordance with Appendix VII of Directive 94/20/EC appendix 7 ECE R 55 and the national regulations for commercial vehicles must be observed.

Subject to technical changes without prior notice

Safety instructions

1. Installation 17 – 18
1.1 Before installation 17
1.2 Installation of the hitch 18

2. Operation 19 – 20
2.1 Tow hitch 19
2.1.1 Hitching 19
2.1.2 Unhitching 20

3. Maintenance 21
3.1 Care 21
3.2 Inspection 21

Technical data 22 – 24

Retrofit kit 24
Inspection 25
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 hitches, prime movers and trailers the relevant safety regulations in the respective country must be observed (e.g. Berufsgenossenschaft in Germany). 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 hitch may only be operated by authorised persons.
- The installation and operating instructions of the respective hitch retain their validity and must be observed.
- Only use the hitch 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.
- The remote indicator does not exempt the driver from the obligation to check before driving off subject to StVZO (Regulations Authorising the Use of Vehicles for Road Traffic). Before driving off, among other things, the coupling status of the mechanical connection device for the tractor vehicle and the trailer must be checked.

**Safety instructions for maintenance**

- For maintenance work, only use the prescribed 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 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 injuries!**

The installation of the hitch on the prime mover must be carried out in accordance with Annex VII of EC Directive 94/20, Annex 7 of ECE R 55 and must be checked accordingly. As applicable, the relevant licensing regulations in the respective country must be observed. This is why the installation must be documented.

The hitch, the remote control and the remote indicator are connection devices 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 type approval, which in turn invalidates the vehicle operation permit.
1.1 Before installation

The installation guidelines of the vehicle manufacturer must be observed.

Observe clearance for axial and vertical twisting of the coupling head (see Figs. 6 and 7).

1.1.1 Installation of the tow hitch

- For RO56E a heavy duty cross member with a hole pattern (see Fig. 1) with 10xØ17 borings is required.

- For RO561E are reinforced cross member with a hole pattern G6 160 x 100 (see Fig. 2) with 4xØ21 is required.

Note:
- Cross member thicknesses in accordance with the specification of the truck manufacturer.
- for the use as a pusher, observe that the middle area of the tow hitch is supported and the cross member is suitable for that usage.
1.2 Installation of the hitch RO*56 E

- Put the fully preassembled tow hitch in place with the rear side of the fastening bracket on the cross member and bolt it tight to the cross member with the fastening bolts.

**Note: Do not pre-damage the bolts at mounting**
- the screw length must be adjusted to the thickness of the cross member (T) (overhang of the nut (M) min. 3 mm) see fig. 3
- observe that the screwflange is not thicker than the face for the screw
  \[ D_{\text{max.}} = \text{RO*56E} = \text{max.} \, \phi \, 30 \, \text{mm} / \text{RO*561E} = \text{max.} \, \phi \, 38 \, \text{mm} \]

**Hitch Screw Quality Tightening performance size torque (Nm)**

<table>
<thead>
<tr>
<th>Hitch performance</th>
<th>Screw size</th>
<th>Quality</th>
<th>Tightening torque (Nm)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO*56 E</td>
<td>M16x1,5</td>
<td>10.9</td>
<td>235</td>
</tr>
<tr>
<td>RO*561 E</td>
<td>M20x1,5</td>
<td>10.9</td>
<td>460</td>
</tr>
</tbody>
</table>

¹ Tightening torque, screws are to fix with a torque wrench at DIN EN ISO 6789, classe A or B

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**Fig. 3**
2.1 Tow hitch

On hitching and unhitching the applicable regulations (e.g. employer’s liability insurance etc.) must be observed.

**Do not stand between the vehicles!**

### 2.1.1 Hitching

- Pull the hand lever H forwards until it engages.
- Check that the coupling jaw is locked.
- Release the brake on the front axle of the articulated drawbar trailer.
- Reverse the towing vehicle slowly.
2. Operation

Closing hitch manually
- Swing the hand lever H back (in the direction of the cross member)

2.1.2 Unhitching
- Secure the trailer against rolling away!
- Disconnect the supply lines to the trailer
- Pull the hand lever H forwards until it engages.
  If there is tension between the tractor vehicle and the trailer, remedy this by jerking or with the aid of the pneumatic suspension.
- Separate the tractor vehicle

When the towing eye leaves the coupling, the coupling closes automatically

Check
After each coupling-up procedure, it is essential to check that the coupling is correctly closed and locked.

The control pin must not protrude out of its guide after coupling-up (see fig. 5)
If the lock-control pin protrudes from its guide (in the dark detectable by touching it), the coupling procedure has been carried out incorrectly and there is the risk of an accident!

Driving a trailer in that condition is not allowed.

If not correctly coupled:
- move the towing vehicle forward (approximately 1 m)
- check again
In-cab status indicator upgrade kit available for retrofitting.
3. Maintenance

3.1 Care

- Before cleaning with a high-pressure washer, close the coupling.
- Before initial operation and after prolonged usage or cleaning with a high-pressure washer, lubricate the coupling pin, the bearing surface for the lower bush and the towing eye with viscous, water-resistant grease (3 EP).
- Apply grease to the automatic system when changing the coupling pin (e.g. ROE 96063).
- When changing the coupling pin remove all of the old grease and replace with multi-purpose grease (Lithium-based NLGI-2, temperature range –40 to +120 degrees).

3.2 Inspection

- After initial installation of the tow hitch, the fastening bolts must be checked and tightened as necessary. This must be documented.

For inspection intervals and documentation see Page 22.

- The coupling pin diameter may not be less than $\phi \ 46.5\ mm$ section. Otherwise the coupling pin must be replaced.
- Coupling pin height clearance max. 3 mm
- The internal diameter of the lower bush may not be less than $\phi \ 47.1\ mm$
- The downwards opening must be free.
Fig. 7

Section A-A

\( \phi 40 \text{ mm} \)
## Technical data

<table>
<thead>
<tr>
<th>Article-number</th>
<th>Equipment</th>
<th>Hole pattern (mm)</th>
<th>Permissible D-value (kN)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO 567 A80000</td>
<td>A</td>
<td>Special hole pattern (see Fig. 8)</td>
<td>314</td>
<td>81</td>
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<tr>
<td>RO 567 A66000</td>
<td>A</td>
<td>160 x 100</td>
<td>200</td>
<td>61</td>
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</table>

Equipment: A = hand lever upwards

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## Retrofit kit

<table>
<thead>
<tr>
<th>Remote indicator</th>
<th>Article no.</th>
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<tbody>
<tr>
<td>Electronic remote indicator</td>
<td>ROE 71546</td>
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</table>

Display in driver’s cab
Extension cable 15 m
2x sensor
**Inspection of the fastening bolts**

<table>
<thead>
<tr>
<th>Truck kilometres</th>
<th>Interval</th>
<th>Tightening torque of the fastening bolts / nuts checked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date</td>
</tr>
<tr>
<td>Initial installation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation km + 1,000 km</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation km + 15,000 km</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation km + 60,000 km</td>
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<td>Installation km + 120,000 km</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation km + 180,000 km</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation km + 240,000 km</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation km + 300,000 km</td>
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