



Montage- und Betriebsanleitung

D

Installation and operating instructions

GB

Monterings- och driftanvisning

S

**ROCKINGER**

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**Modellreihe**

**Series**

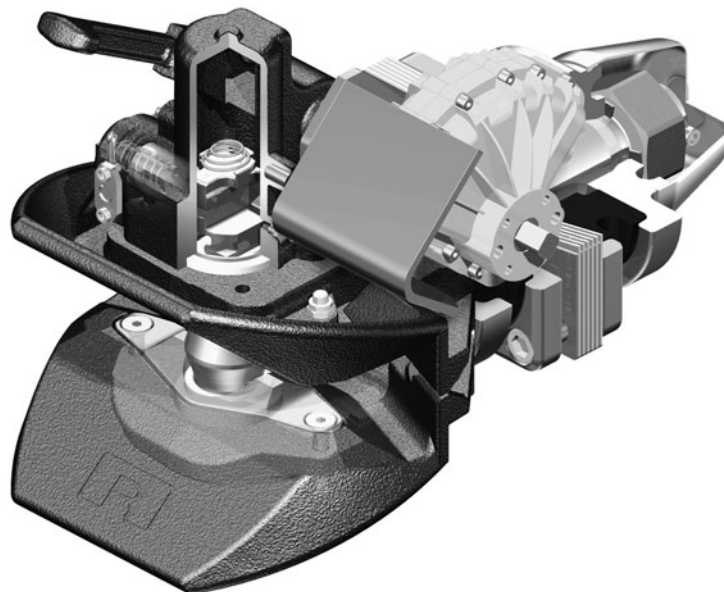
**Modellserie**

**RO\*57flex**

**Selbsttätige Anhängerkupplung**

**Automatic Trailer Coupling**

**Automatisk släpvagnskoppling**



## Series RO\*57flex Automatic Trailer Coupling

\*94/20\*e11\*00-4982 Class S

Suitable for:

- turntable drawbar trailers
- for drawbar eyes with a diameter of 57.5 mm



**The coupling must be installed by authorised personnel!**

**Read these instructions carefully before fitting!**

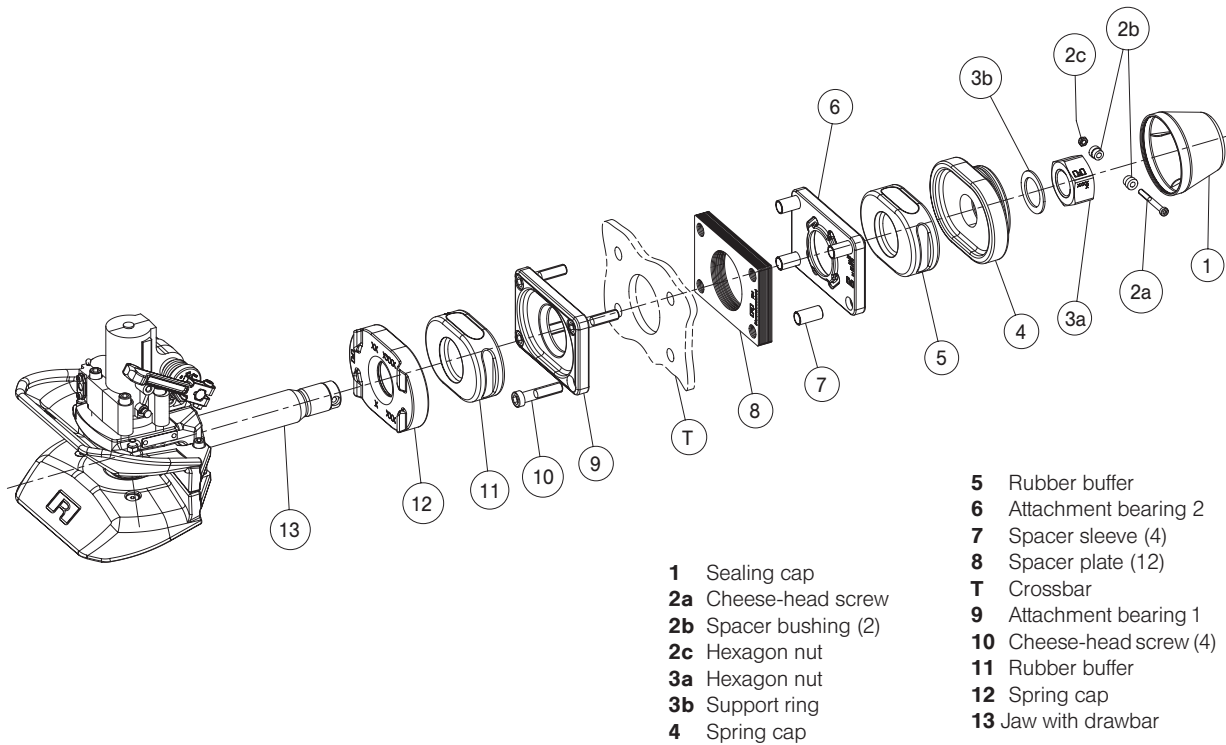
### Official note

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

**Subject to technical changes without prior notice**

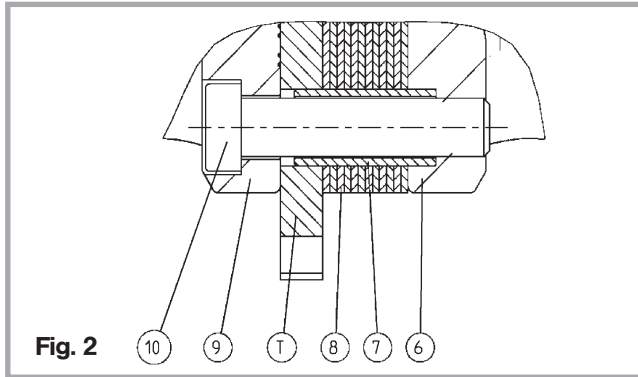
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- 1 Sealing cap
- 2a Cheese-head screw (2)
- 2b Spacer bushing (2)
- 2c Hexagon nut
- 3a Hexagon nut
- 3b Support ring
- 4 Spring cap
- 5 Rubber buffer
- 6 Attachment bearing 2
- 7 Spacer sleeve (4)
- 8 Spacer plate (12)
- T Crossbar
- 9 Attachment bearing 1
- 10 Cheese-head screw (4)
- 11 Rubber buffer
- 12 Spring cap
- 13 Jaw with drawbar

**Fig. 1**



**Fig. 2**

<b>T</b> (mm)	12-13	14-15	16-17	18-19	20-21	22-23
<b>8</b> (Number)	12	11	10	9	8	7
<b>T</b> (mm)	24-25	26-27	28-29	30-31	32-33	34-35
<b>8</b> (Number)	6	5	4	3	2	1

## 1.1 Before fitting

**Note:** When fitting the coupling observe:

- applicable national regulations
- vehicle manufacturer's mounting specifications
- clearance for axial turning of coupling head min.  $\pm 25^\circ$

### Fig. 1

- Loosen **2c** and withdraw **2a**
- Withdraw **2b** and unscrew **3a**
- Remove **3b, 4** and **5**
- Unscrew **10**: remove **6, 8, 9** (**11, 12** remain on **13**)

**Take care** that **7** does not fall out!

**Note:** **1** in accompanying pack

**Caution:** Do not remove the copper grease from **3a, 3b, 4** and **13**

## 1.2 Fitting

- Locate **9** externally on **T**
- Locate **10** (M 16 x 70, 8,8)
- Slide **8** corresponding to **T max.** (see table) from inside onto **10**:  
**T max. 36 mm, 1 x 8:2 mm** (Fig. 2)
- Screw **6** (if necessary, after inserting **7**) from inside to **10** (**210 Nm**)
- Carefully slide **13** with **12** and **11** through **T**
- Slide **5, 4** and **3b** onto **13**
- Tighten **3**, **tightening torque 750 Nm**
- Locate 1 x **2b** onto **2a**
- Slide **2a** and **2b** through the bore in **3**
- Locate 1 x **2b** onto **2a** and tighten with **2c**: **tightening torque 25 Nm**
- Locate **1**

**Note: Before painting, close coupling.**

**It is essential to cover or grease coupling pin.**

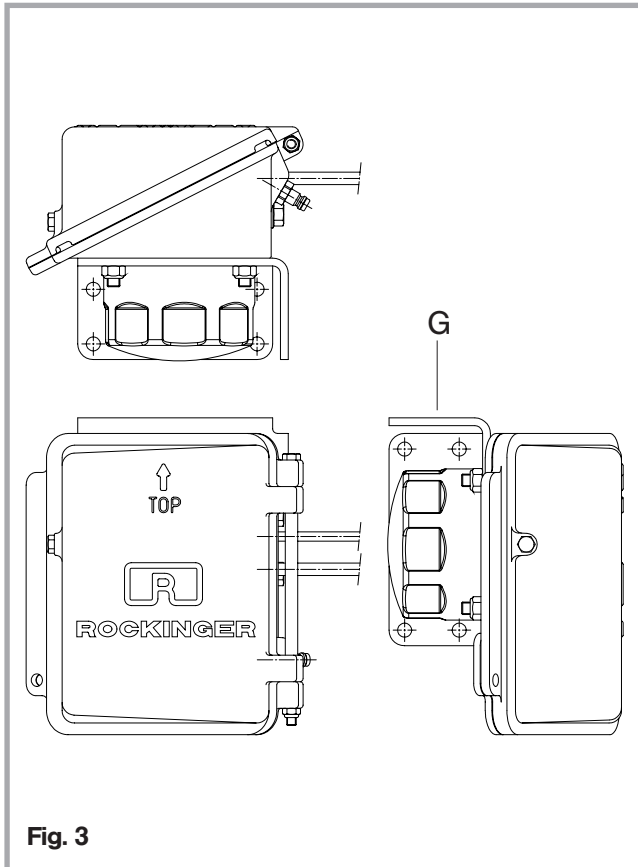


Fig. 3

**Control unit** (see fig. 3)

(optional)

- **Note installation position:** the Head of arrow (**TOP**) pointing upwards
- Mount control unit with 4 screws M8 in suitable location on Vehicle from where hitching process can be observed
- Controlunit **must be locked against unauthorised use**

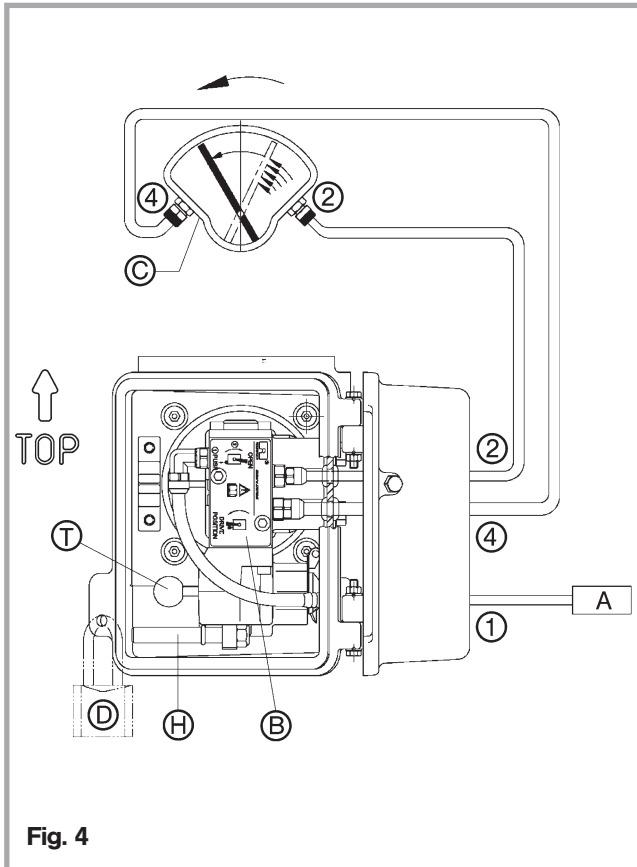


Fig. 4

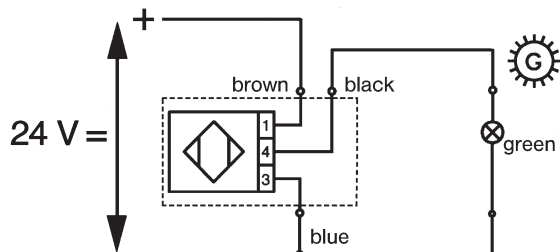
## **Pneumatic system connection** (max. 10 bar, Fig. 4)

(optional)

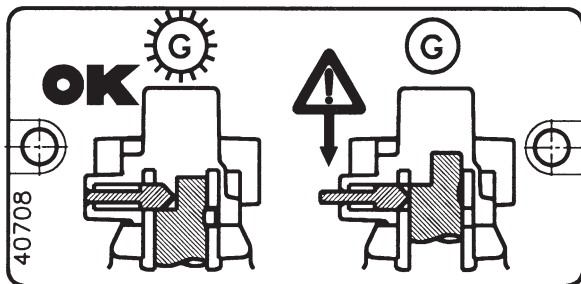
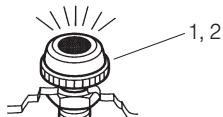
For vehicles of an operating pressure in excess of 10 bar fit a pressure reducer in front of **S ①** (setting pressure 8 bar).

It is **essential** for the compressed-air connections between the threaded connectors on the control unit and the part-turn actuator to be made **exactly as shown**:

- Supply from auxiliary consumer (**A**) to the quick coupling of the control unit **S ①** (ø 8 x 1, black)
- Part-turn actuator **②** to control unit **②** (ø 6 x 1, red)
- Part-turn actuator **④** to control unit **④** (ø 8 x 1, black)



**Fig. 5** Wiring diagram (no. 87005)



**Fig. 6** Indication board

## Remote indicator (optional)

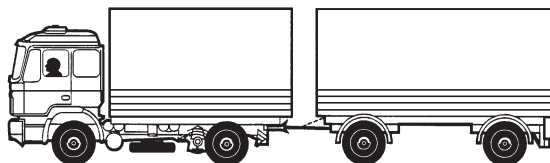
- The tell-tale lamp is to be installed in the cabin, namely in the driver's field of view (hole 17 mm)
- The filament bulb should be inserted into tell-tale lamp
- The indication board is to be fitted
- The limit switch and the tell-tale lamp should be connected according to the wiring diagram as follows (see fig. 5):
  - Use three-core cable (3 x 0.34 mm<sup>2</sup>)
  - Lay cable carefully, avoiding places where chafing can occur
  - Connect tell-tale in cab
  - Connect cable to limit switch cable (taking adequate steps to prevent corrosion)

## Check

- The coupling is **safety locked**: The **green** tell-tale lights are up
- Hand lever is slowly to be moved into the position **OPEN**:  
The indication disappears: The function **OK**

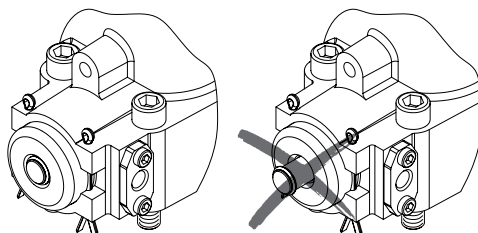
In case there are no lights, the following **re-adjustment** should be carried out:

- The lock nut is to be released
- The limit switch should carefully be turned as long as the lights are on
- The lock nut can now be screwed: **2,5 Nm**
- The function is to be **checked once again** (see the above)  
If the function is **OK**, then the lock nut should be fixed in its safety position the tightening torque



Truck with turntable trailer

Fig. 7



o.k.

Fig. 8

## 2.1 Trailer coupling manually

### Hitching (Fig. 7)

**Note:** The relevant regulations must be observed when hitching and unhitching.

#### No one must stand between the vehicles!

- To engage, press lever upwards until it engages
- Position drawbar eye in centre of funnel
- Disengage brake on **front axle** of **turntable drawbar trailer**
- **Slowly** reverse prime mover

### Check

After every hitching operation it is essential to check that the coupling is engaged as specified in regulations.

The check pin must be **flush** with its guide bush after hitching (Fig. 8). If the check pin protrudes (this can also be felt in the dark), this indicates that hitching has not been carried out correctly and that you are at **risk of an accident!**

**The truck may not be driven with the trailer in this condition!**

#### Remedy:

- Extend prime mover/trailer connection (drive approx. 1 m forwards and then reverse again)
- then **check again**



### **Closing coupling manually**

(e.g. for tow-rope):

Lift coupling pin using suitable tool.

**Note:** Should the drawbar eye not activate the coupling pin during hitching, this can be because the necessary standby gap (gap between the drawbar eye and the coupling pin) is insufficient (see Fig. 15).

**Remedy:** Check the drawbar eye and coupling pin.

### **Unhitching**

Observe the regulations laid down by professional trade associations when hitching and unhitching!

- Secure trailer to prevent it from rolling away.
- Disconnect supply lines to trailer.
- Open coupling.
- Advance prime mover.

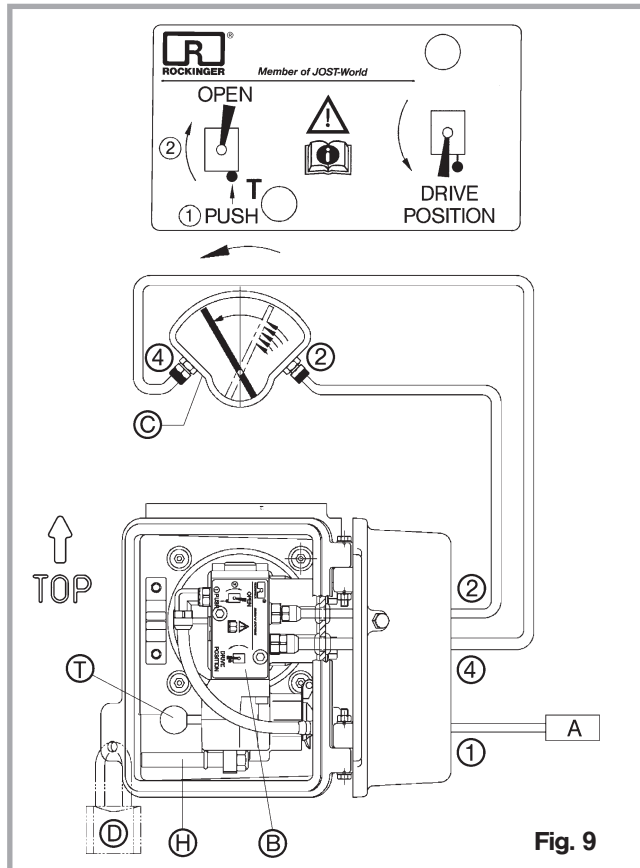


Fig. 9

### 2.2 Trailer coupling with pneumatic remote control

#### Hitching

- Coupling open (see 2)
- Check that control lever (H) is in **DRIVE POSITION**.
- Reverse tractor unit.

The air stored in the compressed-air reservoir assists the closing process when hitching.

In the event of bracing between the tractor unit and trailer assist the hitching process by **moving the vehicle backwards and forwards** or by using the **air suspension system**.

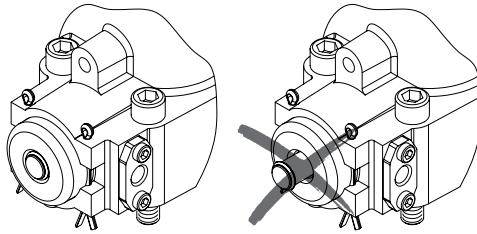
#### Unhitching

Observe the regulations laid down by professional trade associations when hitching and unhitching!

- Secure trailer to prevent it from rolling away.
- Disconnect supply lines to trailer.
- Open the lock (D) with the key.
- Press safety button (T) on control unit and hold down.
- Move control lever (H) to end position: coupling opens.

In the event of bracing between the tractor unit and trailer assist the unhitching process by **moving the vehicle backwards and forwards** or by using the **air suspension system**.

- Unhook tractor unit.
- Return control lever (H) to **DRIVE POSITION** until the safety button (T) is engaged.



O.k.

Fig. 10

**Check**

After every hitching operation it is essential to check that the coupling is engaged as specified in regulations or with the in-cab status indicator:

**The check pin must be flush with its guide bush after hitching** (see Fig. 10)!

If the check pin protrudes (this can also be felt in the dark), this indicates that hitching has not been carried out correctly and that you are **at risk of an accident! The truck and trailer may not be driven in this condition.**

**Remedial action:**

- Extend tractor unit/trailer connection (drive approx. 1 m forwards and then reverse again).
- Then **check again.**

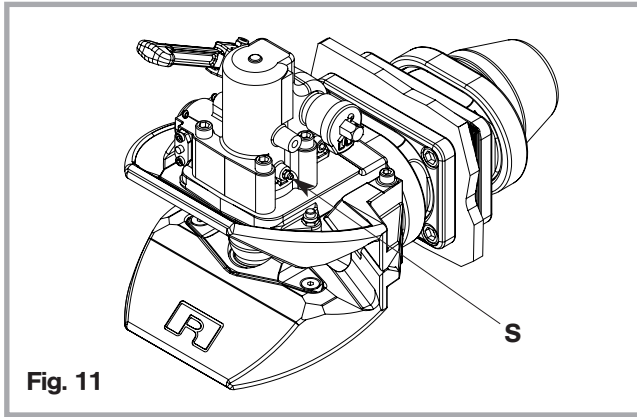


Fig. 11

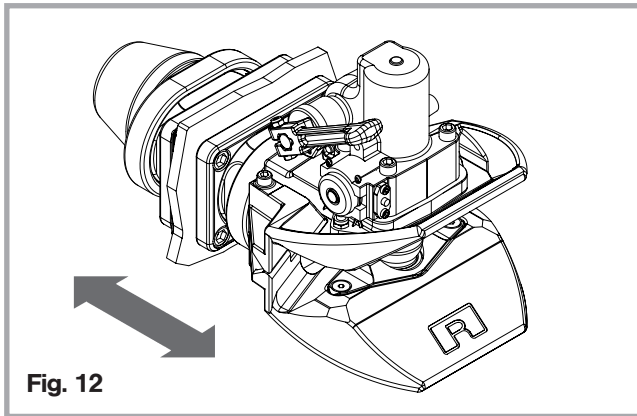


Fig. 12

### 3.1 Towing hitch with remote control

Before starting maintenance work on the coupling:

- Ensure that coupling is closed. **Accident risk** (see 2.1)
- Disconnect quick coupling (**S**, see Fig. 3) from control unit.
- Open/close several times using control lever (**H**) until compressed air has been released.

### 3.2 Maintenance

- Before first use and after extended period of use lubricate coupling pin, support and drawbar eye with viscous grease (EP3) with maximum water repellence.
- Low-maintenance automatic unit has a grease reservoir (regular greasing unnecessary).  
Bearing requires no further lubrication.
- Close coupling before cleaning with high-pressure washers (see item 2.2).
- After cleaning, regrease coupling pin and support.  
Please note following when carrying out repairs on coupling (e.g. changing coupling pin):
- Remove as much of old grease as possible.
- Please use the enclosed grease.

### 3.3 Testing

#### Bearing: Longitudinal play

- Move coupling head (not funnel) vigorously in direction of travel when unhitched (see Fig. 12):  
**No longitudinal play** may be present.

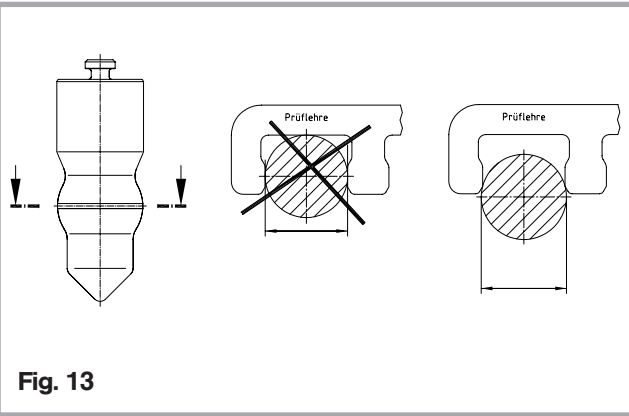


Fig. 13

#### Coupling pin:

- Diameter of crowned part may not be less than **55 mm**.  
Otherwise new coupling pin must be used (see Fig. 13).

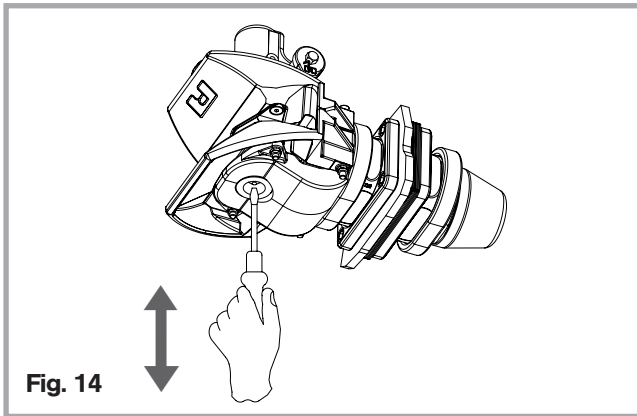


Fig. 14

- Maximum vertical play on coupling pin (see Fig. 14) is **max. 1.8 mm**

#### Lower bush:

- Internal diameter of lower bush may not exceed **45.7 mm**
- There must be free passage downwards.

#### Upper bush:

- Internal diameter of upper bush may not exceed **59.5 mm**

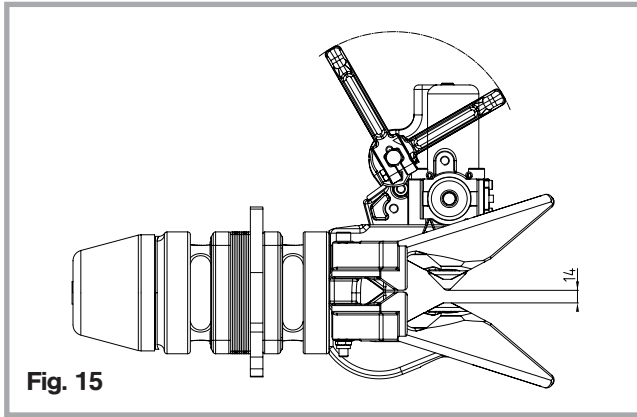


Fig. 15

#### Standby gap:

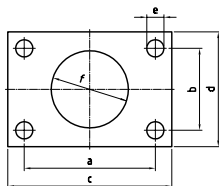
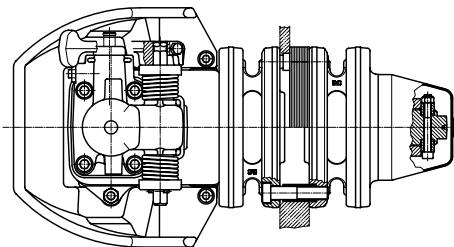
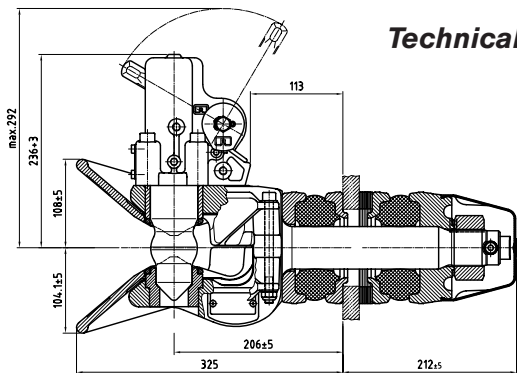
- Gap between lower edge of coupling pin and support must be min. **14 mm** and max. **15.3 mm** (see Fig. 15).
- Always grease support well to reduce wear!

#### Remote control (optional)

- Check the operation of limit switch in connection with coupling check pin **at regular intervals**
- In case of malfunction of the safety-locked coupling it is required to carry out the **visual check** and examination of the coupling's operating conditions before considering the possibility of repair.

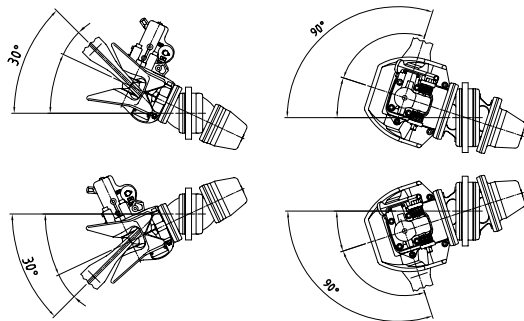
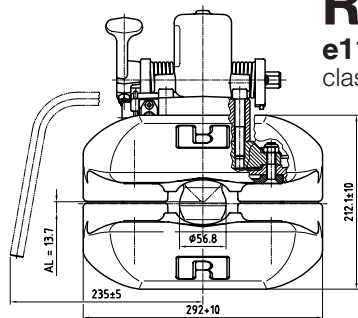


Technical Data



RO\*57flex

e11\*94/20\*4982\*00  
class S


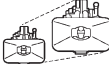





	a	b	c	d	e	f
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
6	160	100	200	140	21	94



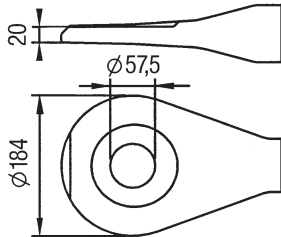
## Technical Data

RO\*57flex

Order no.					
	C	D	(mm)	D (kN)	(kg)
576C6100	C	6	160x100	260	57
576D6100	D	6	160x100	260	57
576C6140	C	6	160x100	260	63

## Drawbar eye to fit

RO\*57flex



e.g.:  
 drawbar eye with flange  
 ROE 57370  
 e1\*94/20\*1356\*00  
 or weldable drawbar eye  
 ROE 57371  
 e1\*94/20\*1355\*00  
 or similar type approved drawbar eyes

## Upgrade kits

RO\*57flex

### Pneumatic remote operation upgrade kit

Order no. ROE

Comfort RO\*PC57-C power actuating to open and close:  
 Content: part-turn actuator, control unit, pneumatic connection kit 71167

### Upgrade kit in-cab status indicator

Order no. ROE

Upgrade kit 70936  
 For spare parts see catalogue





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