



Montage- und Betriebsanleitung

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Installation and operating instructions

GB

Instructions de montage et d'utilisation

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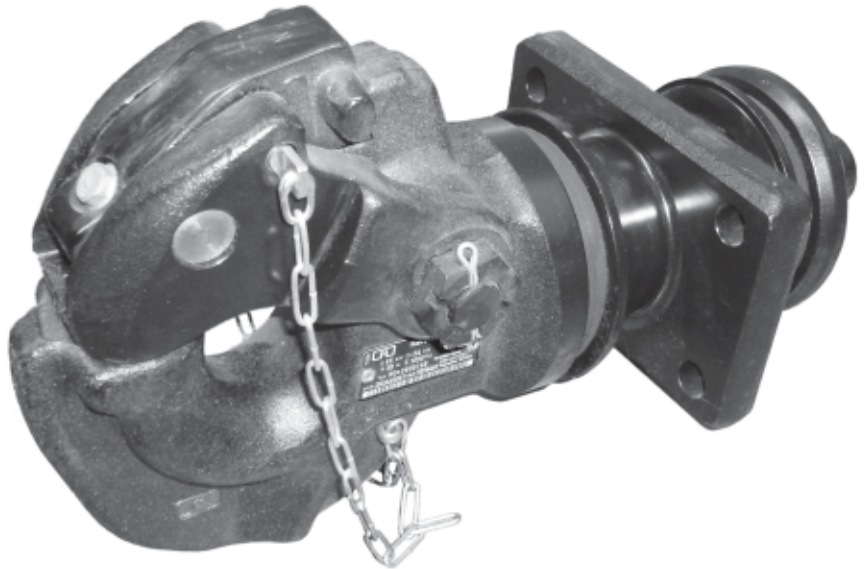
Modellreihe – Series – Type

**RO\*283 T2**

Hakenkupplung

Pintle Hook Hitch

Attelage de crochet



## Modell RO★283T2

### Pintle Hook Hitch

Technical version 2

Suitable for:

- Ring towing eyes  $\varnothing$  76 mm NATO VG 74059
- Towing eyes in accordance to ECE R55-01 Class L2-L4
- ROCKINGER towing eyes ROE 57006, ROE 57294, ROE 57295



**Installation must be carried out by qualified personnel!**  
**Before installation, please read these instructions carefully!**

#### Note:

When fitting the trailer coupling, EC Directive 94/20, in particular Annex VII or ECE R 55-01, Annex 7 and the relevant national regulations must be observed.

The fitting and operating instructions must be kept in the vehicle.

**Subject to technical changes without prior notice!**

**Further informations you'll find under [www.jost-world.com](http://www.jost-world.com)**

## Safety instructions

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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 hitch 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 and ECE 55-01 and must be checked accordingly. As applicable, the relevant licensing regulations in the respective country must be observed.

§§ 19, 20 and 21 StVZO apply in Germany. The hitch is a safety component.

**This is why the installation must be documented.**



**The hitches are connection devices with 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.**

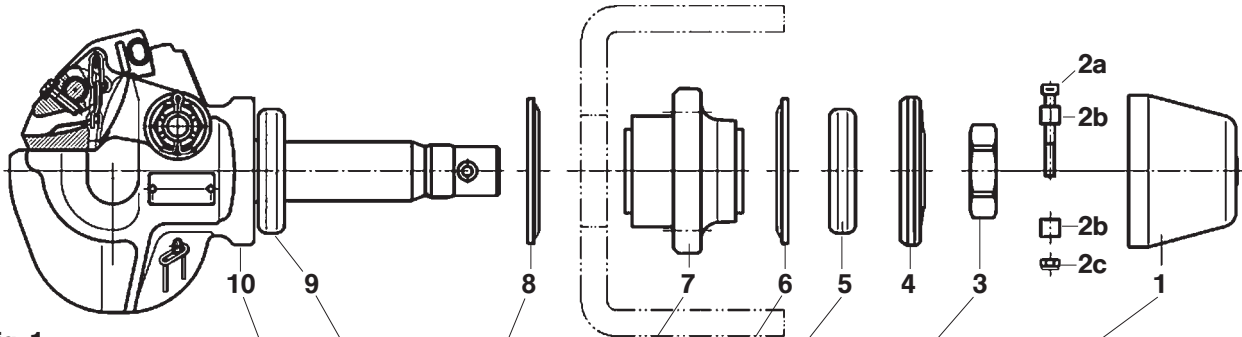


Fig. 1

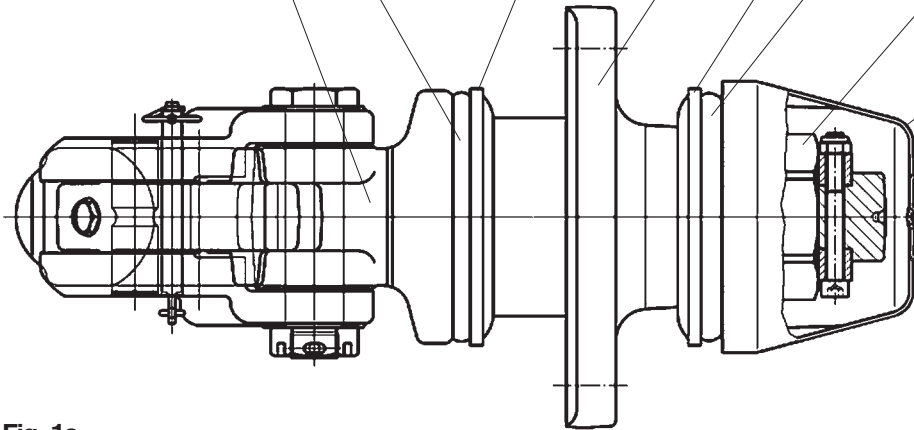


Fig. 1a

- 1 Sealing cap
- 2a Cheese-head screw
- 2b Spacer bushing (2)
- 2c Hexagon nut
- 3 Hexagon nut
- 4 Conical cap
- 5 Rubber buffer
- 6 Protective buffer cap
- 7 Bearing
- 8 Protective buffer cap
- 9 Rubber buffer
- 10 Hook with drawbar

## 1.1 Before Mounting

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**Note:** Please comply with following when fitting hitch:

- applicable national regulations
- vehicle manufacturers specifications
- clearance for axial rotation of coupling head of at least  $\pm 25^\circ$  min.

**Fig. 1:**

- Unscrew **3**
- Remove **4, 5, 6** and **7** (**8** and **9** remain on **10**)

**Note:**

- **1** and **2** are in the equipment pack  
**Do not remove** the copper grease and the special grease from the parts.

## 1.2 Mounting

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- Install the bearing (**6**) onto the inner side of the cross member (**T**)
- Secure with 4 hexagon bolts DIN 931, grade 8.8) and self-locking nuts, grade 8.

Size of bolts, nuts and torque to be chosen, see table

**Note:** Observe manufactures' instructions in case different bolts and nuts are recommended!

**ATTENTION:**

**Mount bolt heads on the side directed towards the funnel (outside the cross member) to avoid impairing movability of the hitch (see Fig. 2)**

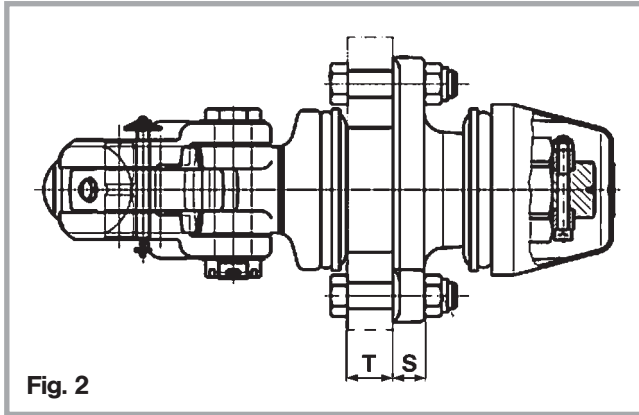


Fig. 2

- Insert spring cap (8) (concave side facing 9) onto 7
- Shaft of hitch 10 with 9 into 7 (do not remove grease, if necessary regrease with EP3 grease)
- (6) concave side facing 5), 5 and 4 (like 6) onto 10
- Tighten 3, **tightening torque 500 Nm (350 Nm by G 135)**
- 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 32 Nm**
- Fit the sealing cap (1) to protect against corrosion.  
**Valid for all technical releases!**

**Note:** Before painting, it is essential to close hitch and grease or **cover** coupling pin. After painting clean and regrease the coupling pin.

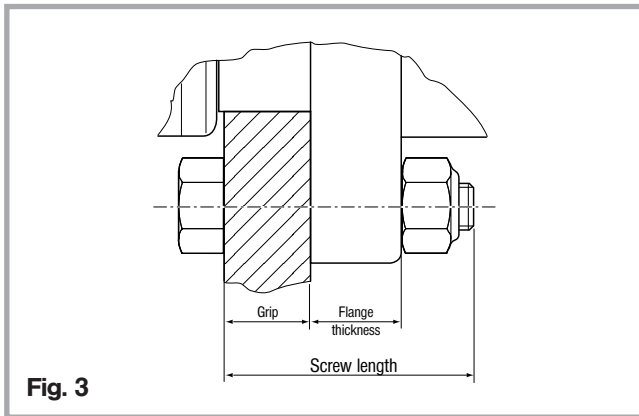


Fig. 3

### Torque of bolts on the bearing

Size of hitch	Size of bolts	Width across flats S (mm)	Tightening torque <sup>1</sup> (Nm)	ROCKINGER set of bolts part no.
150	M 20	30	410	70971
145	M 16	24	210	70952
135	M 14	22	135	70970

<sup>1)</sup> Tighten bolts with a torque wrench according DIN EN ISO 6789, class A or B

### Grip (thickness) of cross member (s. fig. 3)

Size of hitch:	145 / 150	135
Central-axle-trailer:	11 – 35 mm	11 – 32 mm
Drawbar trailer:	max. 35 mm	max. 32 mm

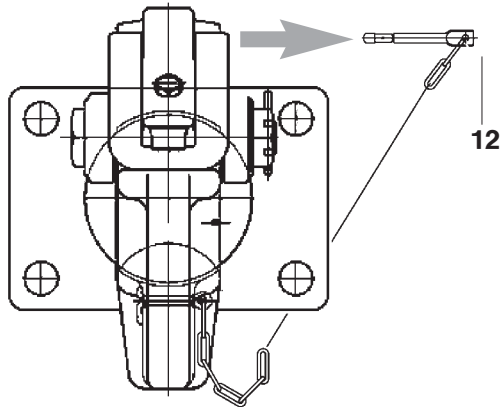


Fig. 4

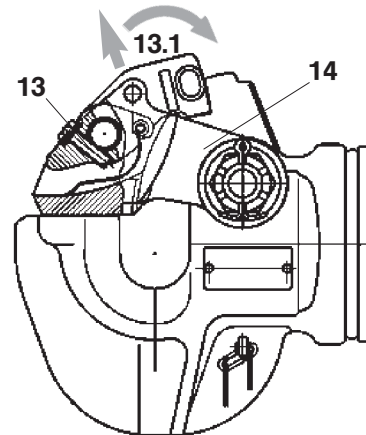


Fig. 5

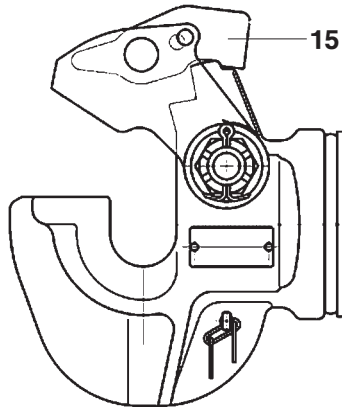
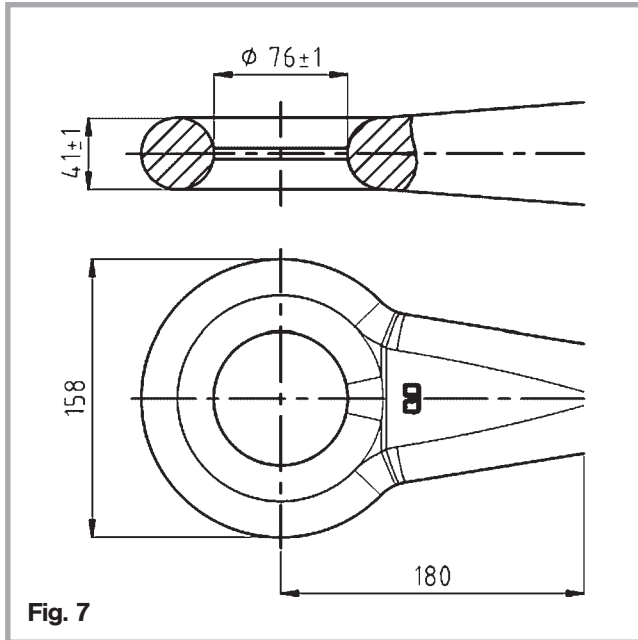


Fig. 6

### 2.1 Operate hitch

**Note:** The relevant national regulations (f.e. safety-at-work) must be observed when hitching and unhitching.

- withdraw the security pin (12) (see fig. 4 and 5)
- lift up the locking lever (13) at the handle (13.1) open the complete locking device (14) move the locking device to the rear until it latches (13) in the open position (15) (Fig.6)
- The hitch is ready for coupling.



## 2.2 Hitching (see fig. 7)



### Attention:

Keep off your hands at closing area of pintle hook hitch.  
You may risk injuries!

- Lay the drawbar into the hitch ring.  
For correct and safe hitching – please use Ring towing eyes  
 $\phi 76$  mm NATO VG 74059 or ECE R 55-01 class L2-L4



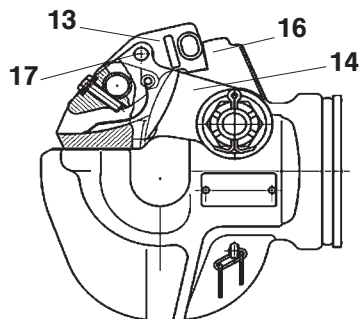


Fig. 8

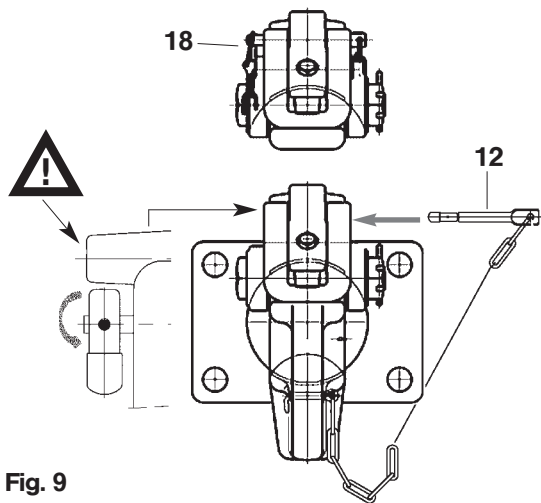


Fig. 9

### 2.3 Close hitch

- push the complete locking device (**14**) into closed position
- secure the locking mechanism with the security pin (**12**).
- the end part of the security pin **must swing down**. (see fig. 9)

#### Check:

After insertion of security pin it is not possible to move locking device (**14**) nor locking lever (**13**) from its safety position.

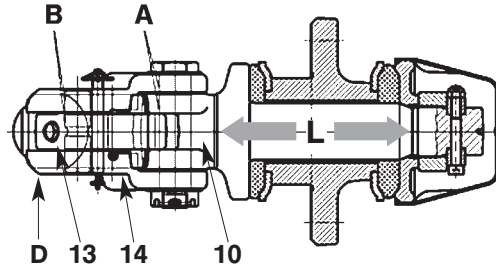


Fig. 10

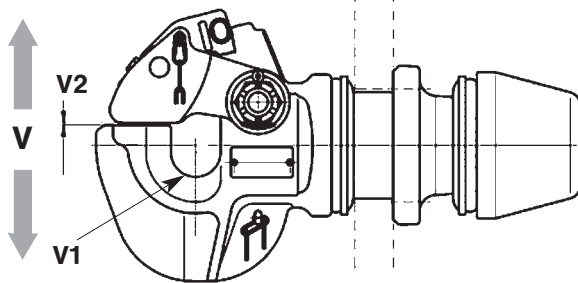


Fig. 11

## 3.1 Care

The bearing is permanently greased.

The re-greasing of all movable parts and the hook contact area should be done in regular intervals at least every 3 month.

- grease locking bearing (A) and hook (B)  
with ROCKINGER Special-Oil Spray order no. ROE 96047

## 3.2 Inspection

### Bearing:

#### - Longitudinal play

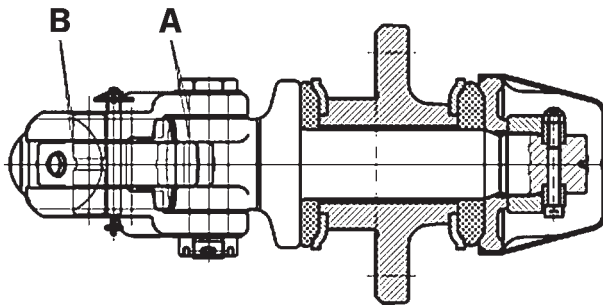
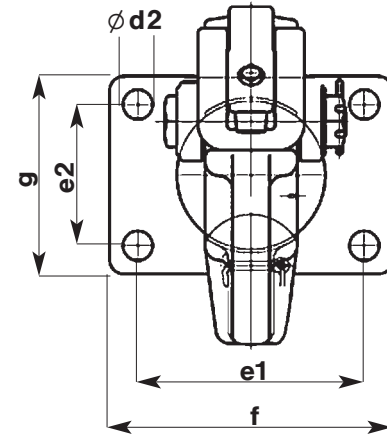
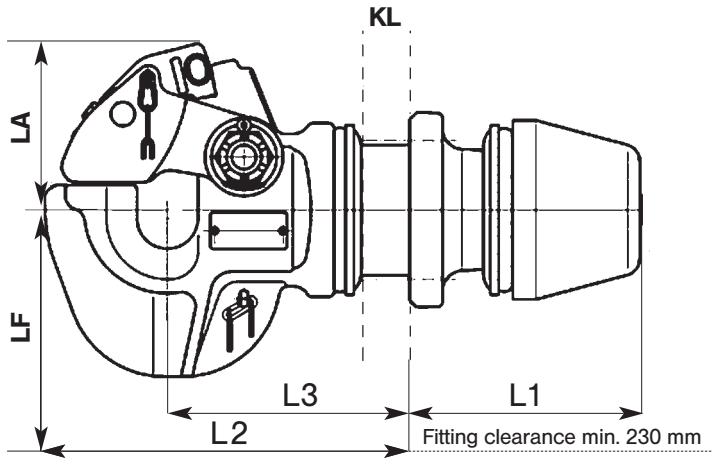
- Grip coupling head with both hands when uncoupled and move rigorously in longitudinal direction (see fig. 10)
- **No longitudinal play is allowed.**

#### - Vertical play

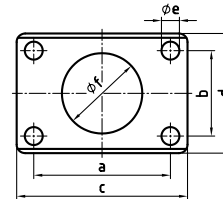
- Move coupling head up and down with appropriate tool (V) (s. Fig. 11):
- Vertical play may **not exceed 3 mm** measured at hook ground (V1)

#### - Locking play

- Locking wear (V2) **max. 4 mm** at the standard versions
- Locking wear (V2) **max. 2 mm** for the special version (283Axxx9x)
- Play of the closing unit sideward (14) measured at point D **max. 10 mm**



Flange size according 94/20/EG



Size	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	KL max. (mm)
135	120	55	155	90	15	74	32
145	140	80	180	120	17	84	35
150	160	100	200	140	21	94	35

## 4. Technical data

RO★283

ROCKINGER Order number RO★	Drawbar trailer				Central-axle trailer				General Data				Dimensions (mm)						Painting		Usable drawbar eyes*	
	D value (kN)	T (mm) min.,max.		R (t)	Dc value (kN)	V value (kN)	admiss. vert. load (kg)	T (mm) min.,max.		C (t)	Hitch weight (kg)	SP min.,max.		LA ±2	LF ±5	L1 ±5	L2 ±5	L3 ±5	C ±1,2	Top coat		KTL e-coat
283A50002	160	-	35	40	54	21,6	1500	-	35	9	28	-	2	120	120	166	262	174	23,5	-	X	ø76mm NATO VG 74059 ROE 57006 ROE 57294 ROE 57295
283A50092	160	-	35	40	54	21,6	1500	-	35	9	28	0,1	1	120	120	166	262	174	23,5	X	X	
283A45002	95	-	35	30	54	21,6	1000	-	35	9	26	-	2	120	120	166	262	174	23,5	-	X	
283A35002	70	-	32	16	42,5	15,6	800	-	32	6,5	24	0,1	1	120	120	147	258	170	22	-	X	

\* Not included at the standard version

\* RAL 6031





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