



Montage- und Betriebsanleitung

D

Installation and operating instructions

GB

Instructions de montage et d'utilisation

F

Member of JOST-World

Modellreihe – Series – Type

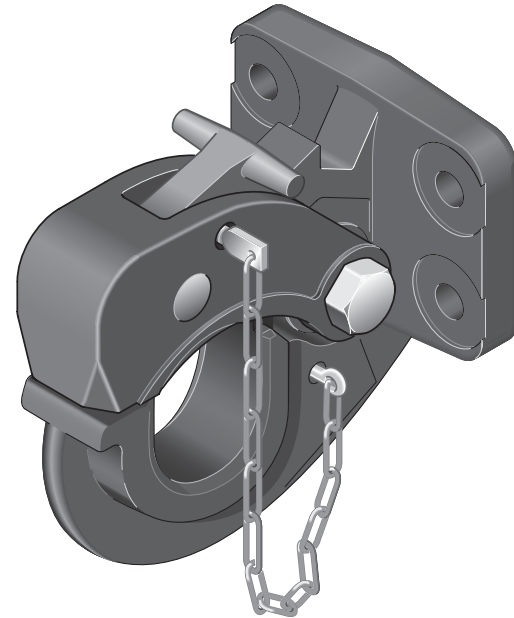
RO*231-S

RO*231

Haken-Kupplung

Pintle Hook Hitch

Attelage de crochet



Modell RO★231-S

Pintle Hook Hitch

Size 05 and 11, Class S

ECE (E1) 55R-1 1958

Suitable for:

- Ring towing eyes in accordance with ECE R55-01 Class L1-L5 and VG 74059 NATO
- Towing eyes in accordance with BNA NF R 41-102
- Towing eyes \varnothing 40 mm DIN 74054 and EC/ECE-class S
- Swiss Towing eye \varnothing 40 mm ROE 57229

Model RO★231 without ECE R55-01



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

Safety instructions

16

1. Installation

17 – 19

1.1 Before installation

17

1.2 Installation

18

1.3 Usable towing eyes

19

2. Operation

20 – 21

2.1 Operate hitch

20

2.3 Hitching

21

3. Maintenance

22 – 24

3.1 Care

22

3.2 Inspection

23

3.2.1 Inspection of fastening bolts

23

3.2.2 Ware

24

4. Technical data

25 – 26



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.

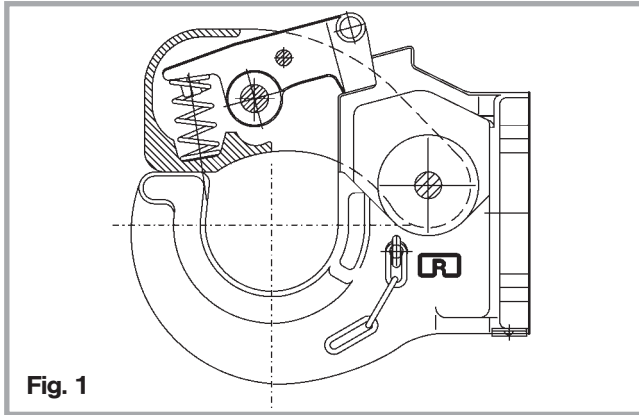


Fig. 1

1.1 Before installation

Please observe:

- the relevant national regulations (e.g. accident prevention regulations for vehicles, VBG 12, Federal Motor Vehicle Authority (KBA) code of practice)
- assembly instructions of the vehicle manufacturers

Note:

The hitch can be coupled with a hinged drawbar trailer or a central axle trailer. For calculation of the hitching loads, see the D-value calculation in the catalogue or on the Internet at: www.jost-world.com/produkte/rockinger-strassenverkehr/produktkatalog-online.html



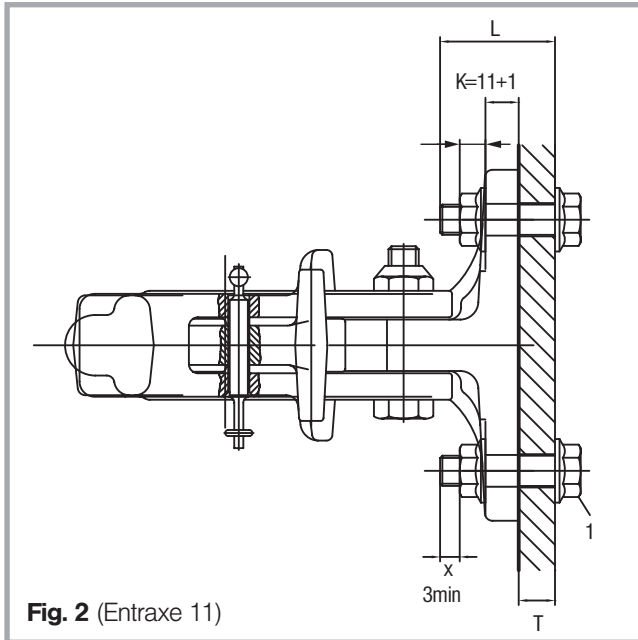


Fig. 2 (Entraxe 11)

1.2 Installation

Note:

The hitch is ready for operation on delivery. The trailer coupling may only be bolted on **to an even surface**, evenness 0.2

- Fasten the coupling with 4 bolts and self-locking nuts (see table) (see Fig. 4).
- Tightening torque (see table)

Attention:

- The fastening of the hitch to a hollow profile with inserted fastening bolts **is not permitted**.

Tightening torque of the bolts at the fastening bearing

Hitch size	Screw size	Quality	Designation of screws	Tightening torque ¹⁾ (Nm)
A05	M 12	8.8	DIN 931	85
A 11	M 10	8.8	DIN 931	49

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

Note:

Please observe any nut and bolt qualities of the manufacturer deviating from these specifications. The head of the bolt and the surface under the nut must be even, **clean and free of dirt**.

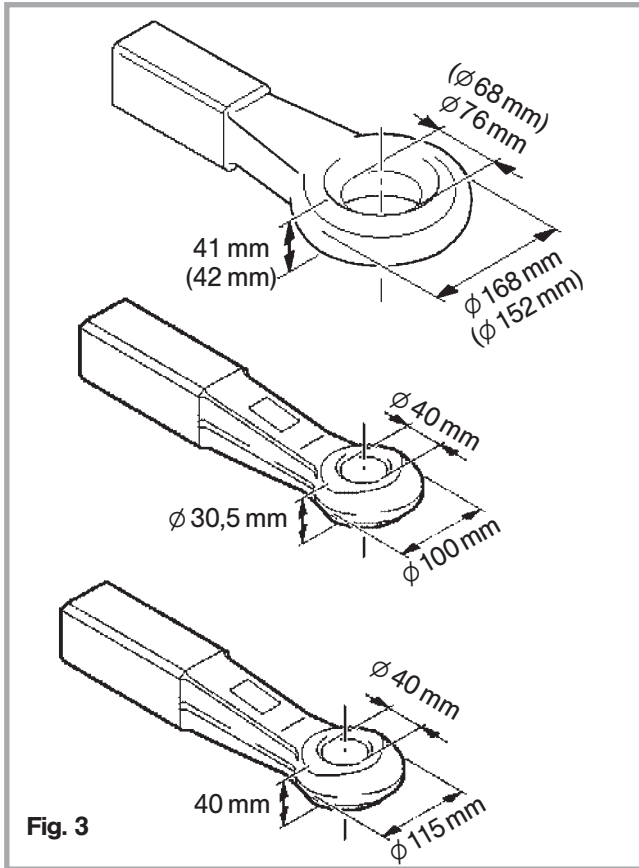


Fig. 3

1.3 Usable towing eyes

- Ring towing eyes in accordance with ECE R55-01 Class L1-L5 and VG 74059 NATO
 - Towing eyes in accordance with BNA NF R 41-102 (Values in brackets)
 - Towing eyes ø 40 mm DIN 74054 and EC/ECE-class S*
 - Swiss Towing eye ø 40 mm ROCKINGER order no. ROE 57229*
- * only for version RO*231-S and RO*31 with article numbers 231A05530/231A05531 and 231A11530/231A11531

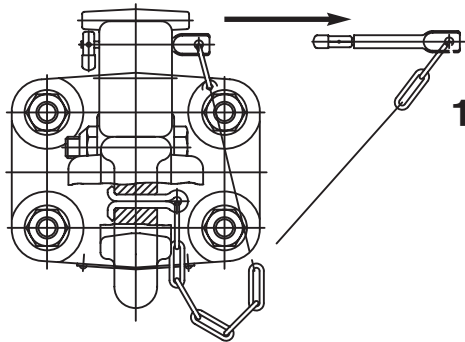


Fig. 4

2.1 Operate hitch

- 1 withdraw the saftepin
- 2 lift up the locking lever at the handle
- 3 open the complete locking device
- 4 move the locking device to the rear until it latches in the open position

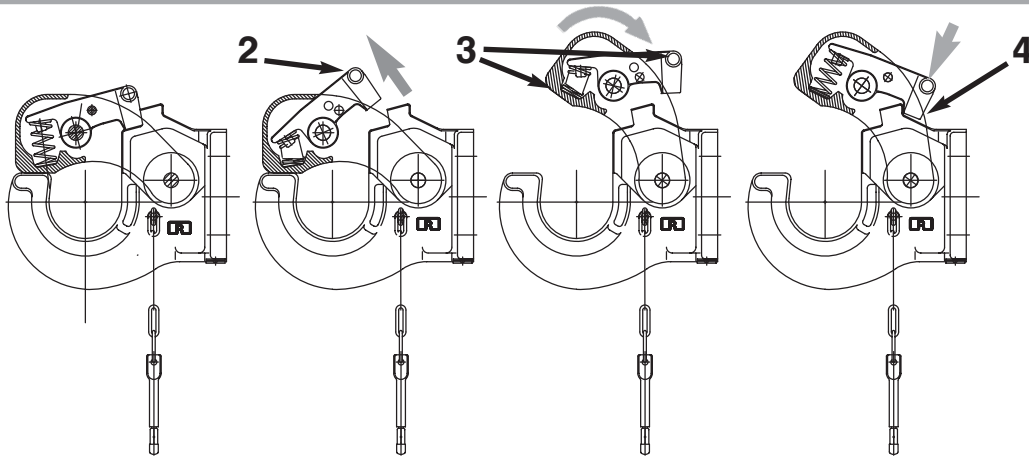


Fig. 5

2.2 Hitching

- 1 lay the drawbar into the hitch ring
- 2 push the complete locking device into closed position
- 3 secure the locking mechanism with the security pin
- 4 the end part of the security pin **must swing down** (see 6 down right)

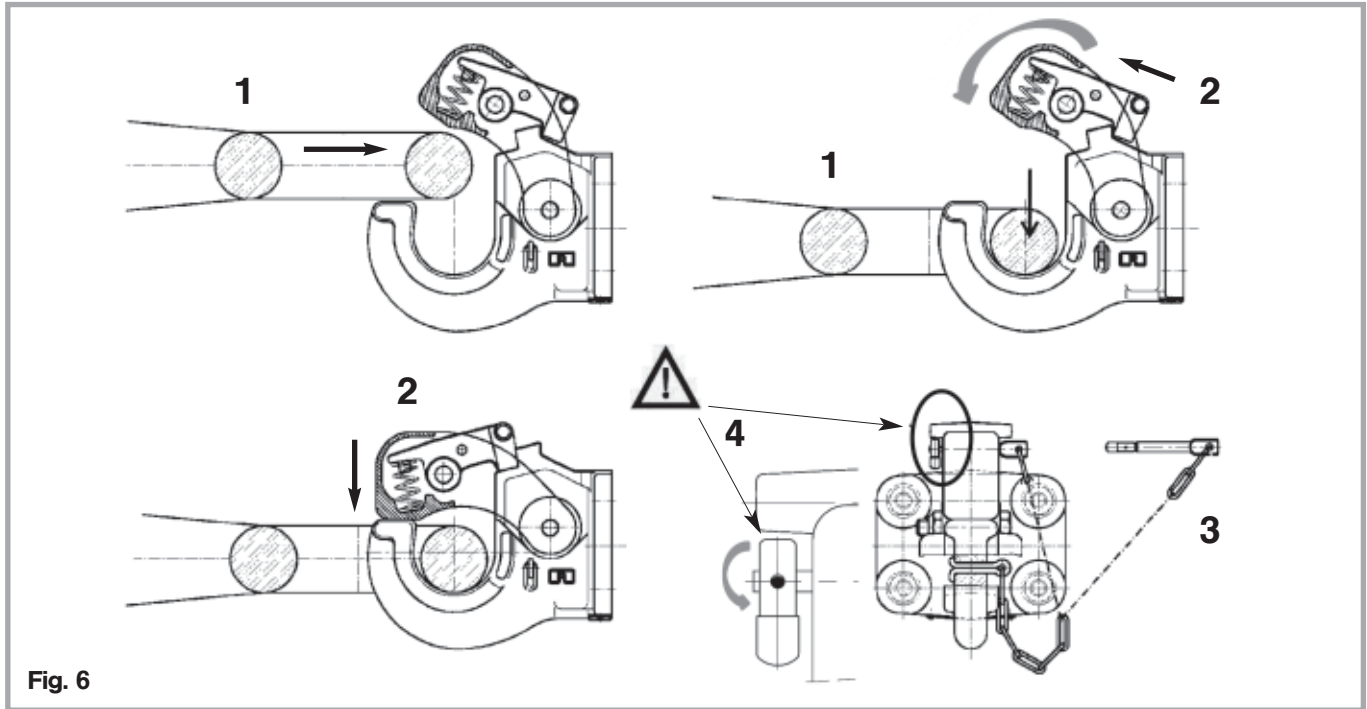


Fig. 6

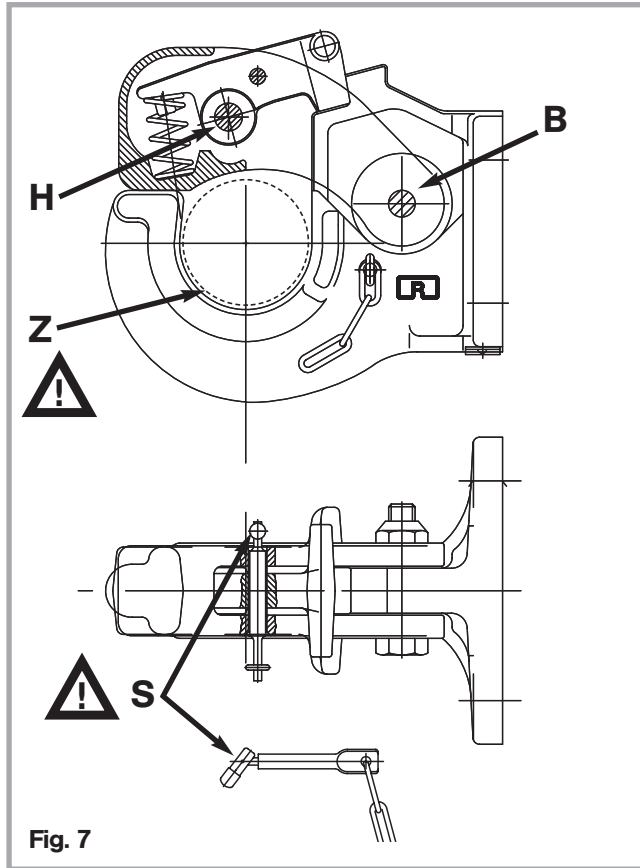


Fig. 7

3.1 Care

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

- **bearing position B**
Grease locking unit with
ROCKINGER Special-Oil oder-No. ROE 96047
- **bearing position H**
Grease latch of the Locking unit with
ROCKINGER Special-Oil oder-No. ROE 96047
- **bearing position S**
grease the safety pin with
ROCKINGER Special-Oil oder-No. ROE 96047
- **Hook contact area Z**
grease with dense grease NLGI 3
f.e. **ROCKINGER ROE 96063**
or **JOST Hochleistungsschmierstoff SKE 00567000**
After cleaning, especially cleaning with high-pressure washers,
relubricate all parts.

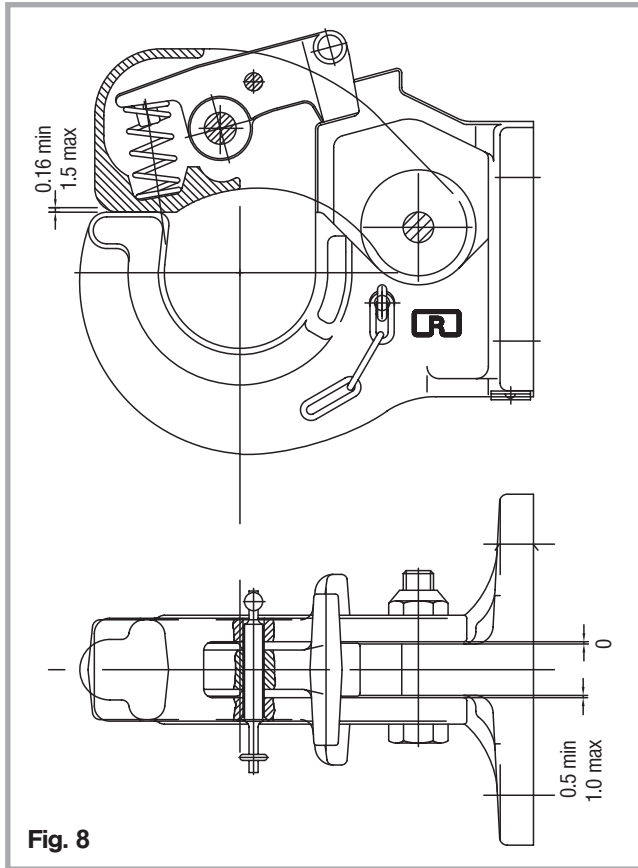


Fig. 8

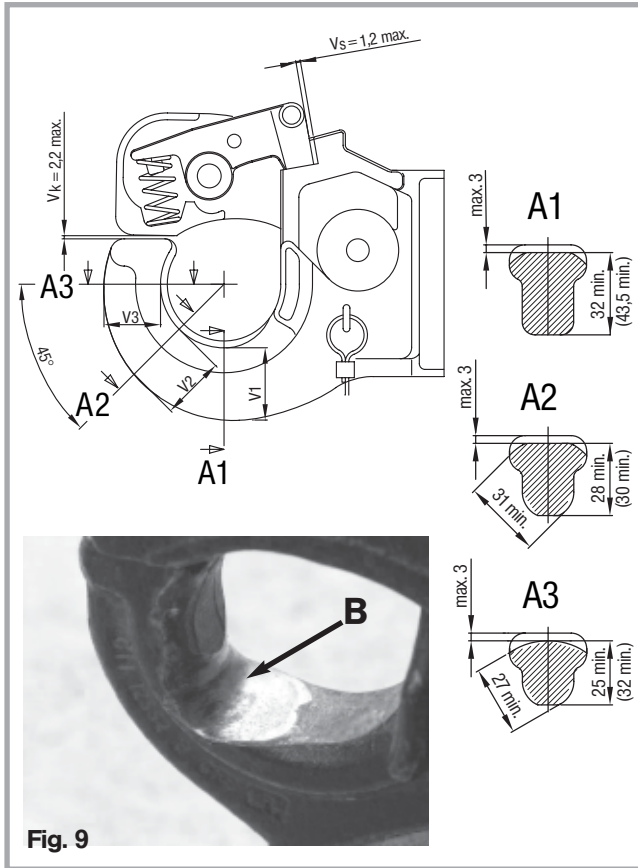
3.2 Inspection

3.2.1 inspection of fastening bolts



Inspection of the tightening torques of the fastening bolts (for values see table on chapter 1.2)

- check the gap in the latch. The normal gap is between **0,16 und 1,5 mm**, Replace the latch when the gap exceeds (see also 3.2.2)
- play of the closing unit
 - the normal play of the closing unit is 0.5 until 1.0 mm if the unit is in line with one side.
 - if play exceeds tident the safety nut until the normal play is reached.



3.2 Ware

3.2.2 Inspection of wear



Check all wear limits at least **once a year**

- There are no notches allowed in the contact area **A2** by using a 40 mm drawbar eye (see picture)
- Replace the Replace complete product when wear exceeds more than the max. limited wear (**A1 to A3 or B**) see picture

Note: Values in (...) are only for 231A05000 and 231A05090 as well for 231A11000

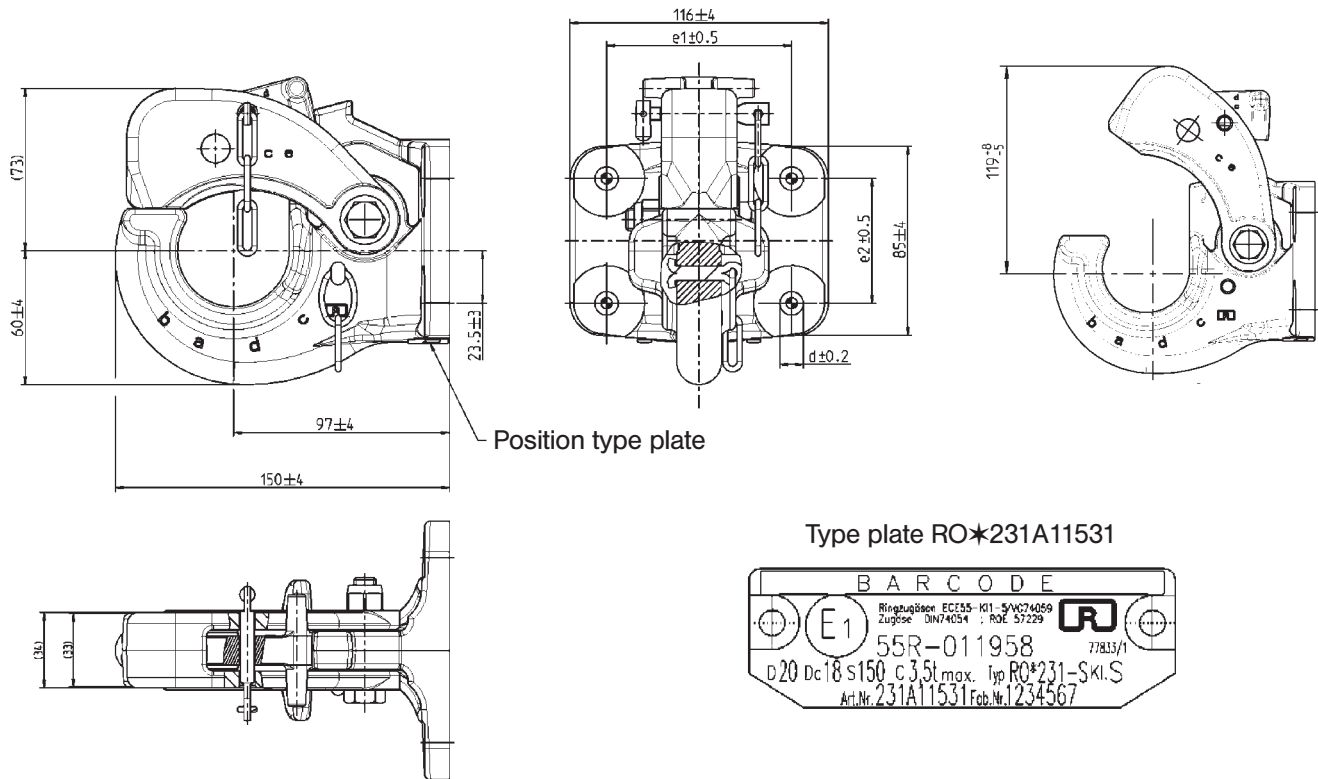


Fig. 10

RO★231-S ECE (E1) 55R-1 1958

Article-number RO★	Type	Class	D value (kN)	Dc value (kN)	V value (kN)	S max. (kg)	C max. (t)	Hitch weight (kg)	Hole pattern			Size of screws
									d	e1	e2	
231A 11531	RO★231-S	S	20	18	–	150	3,5	3,5	10,5	83	56	M10
231A 05531									13	86	45	M12

RO★231

Article-number RO★	Type	Class	D value (kN)	Dc value (kN)	V value (kN)	S max. (kg)	C max. (t)	Hitch weight (kg)	Hole pattern			Size of screws
									d	e1	e2	
231A 05000	RO★31	–	25	22	14,4	250	–	5	13	86	45	M12
231A 05090		–	25	22	14,4	250	–	5	13	86	45	M12
231A 05530		–	20	18	9,6	150	–	3,6	13	86	45	M12
231A 11000		–	25	22	14,4	250	–	5	10,5	83	56	M10
231A 11530		–	20	18	9,6	150	–	3,6	10,5	83	56	M10



JOST-Werke · Siemensstr. 2, D-63263 Neu-Isenburg · Telefon +49(0)61 02 2 95 - 0 · Fax +49(0)61 02 2 95 - 298 · www.jost-world.com

ZDE 199 88 292-1-00 · 1/2013