Aufrüstsatz mechanische Fernbedienung
Upgrade kit mechanical remote control
Kit d’équipement commande à distance mécanique
Kit complementare meccanico l’apertura del gancio a distanza

ROE 70962
ROE 70962
mechanical remote control
for Series
RO*400 until technical revision C
RO*430 until technical revision 0
RO*500 G3, G4, G5, G6, G61, G65
RO*530, RO*560

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Official note
When installing the remote indicator, EC Directive 94/20, in particular Annex VII and ECE R 55 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
1. 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 (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 installation, 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.
- The remote display does not exempt the driver from checking before driving off as prescribed by StVZO (German Regulations authorising the use of vehicles for road traffic). Before starting to drive, among other things, the coupling status of the mechanical connection of tractor vehicle and trailer must be checked.

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 accident!

The trailer coupling must be connected to the tractor vehicle in accordance with the requirements of Annex VII of Directive 94/20/EC and Annex 7 of Directive R 55-01 ECE and must be inspected. As applicable, the approval regulations of the respective country must be observed. For Germany §§ 19, 20 and 21 of StVZO apply. The mechanical remote control and the mechanical remote display are devices with safety components. For this reason the installation must be documented.

The trailer coupling, the mechanical remote control and the remote displays are connection devices and 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. Mounting

ROE 70962

Fig. 1

- Mounting ROE 70962
- Gearbox casing
- Length A-B: 2030 mm
- Force max. 20 kg

Dimensions:
- min. \( \phi 300 \)
- \( \phi 50 \)
- HH A
- Gearbox casing
- post greasing
- 76
- 58
- \( \phi 6.5 \) (2x)
- 150°
- 200
Before Mounting

Note: When mounting servicing or repairing the coupling, any local regulations – together with the technical instructions issued by ROCKINGER and the vehicle manufacturer – must be observed. There must be sufficient clearance that the coupling head can rotate axially through ±25°.

Lay the Bowden line such that it is not damaged if the trailer coupling travels axially up to ±30°, ensuring a minimum radius of 150 mm (see figure). Avoid places where chafing can occur!

An opening of at least 50 mm is necessary in any dividing walls to enable the Bowden line to be fitted (the vehicle manufacturer must be consulted on any modification of the chassis).

The actuator hand lever (HH) must be accessible from outside and fitted so that every position permits a clearance of at least 100 mm towards other components.
1. Mounting

Mounting

- Insert Bowden line through the eventually available chassis bore.

- Mount actuator unit on vehicle using two M6 screws and self-locking nuts in relevant bores (see hole pattern) on vehicle, ensuring appropriate clearance, as specified above.

- Fit mounting place (P) to bores in locking housing (tightening torque 25 Nm) with three screws (S)

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Fig. 2

Locking housing

30°

play 2 mm when coupling is closed

only for type 500 technical revision 0
Mounting for types RO*500
(technical revision 0)

(technical revision is indicated by the last position of the part no., see type plate)

- 2 distance plates (E, 2 mm each) should be pushed onto hand lever shaft (H) (**only on the left**, opposite hand lever) see figure 3.

- By the closed coupling a fit dog (M) is to be slipped over (angle approx. 30°, see figure 2)

- Safety ring (R) is to be fastened by means of the circlip pliers

Type RO*500, technical revision 0

Fig. 3
1. Mounting

Mounting for types
\textit{RO\(^*\)400, RO\(^*\)430, RO\(^*\)460, RO\(^*\)500 (from technical revision 1 to 2)}
\textit{RO\(^*\)530 and RO\(^*\)560 (technical revision C)}

- 1 distance plate (E, 2 mm) should be pushed onto hand lever shaft (H) 
  \textit{(only on the left, opposite hand lever) see fig 4.}
- By the closed coupling a fit dog (M) is to be slipped over (angle approx. 30\(^\circ\), see figure 2)
- 1 distance plate (E, 2 mm) should be pushed onto hand lever shaft (H)
- Safety ring (R) is to be fastened by means of the circlip pliers

Types \textit{RO\(^*\)400, RO\(^*\)430, RO\(^*\)460, RO\(^*\)500 (from technical revision 1 to 2)}
\textit{RO\(^*\)530, RO\(^*\)560 (technical revision C)}
1. Mounting

Mounting for types RO*500
(from technical revision 3);
RO*530 and RO*560 (from technical revision 0)

- By the closed coupling a fit dog (M) is to be slipped over
  (angle approx. 30° and bore in line with the groove of the hand
  lever shaft, see figure 2/5)

- Push the flange screw (S1) trough the borehole and fix it with the
  flange nut (S1) (Torque 20 Nm)

Type RO*500 (from technical revision 3)
Type RO*530 and RO*560
(from technical revision 0)
Further mounting procedure for all the types is the following:

- Slide Bowden line (B) into groove in mounting plate (P) (Fig. 2/5)
- Thread hexagon nut (A) onto stop of mounting plate (P) and hand-tighten
- Check that Bowden line operates smoothly. If movement is all tight, twist Bowden line axially
- Tighten hexagon nut (A) (tightening torque 130 Nm)

**Check:** Spacing between dog (M) and thrust pad (D) on Bowden line should be approx. 2 mm, adjust in case of weare:
- the fastening screw (T) should be bolted to the gearbox casing
- the lock nut is to be released (K)
- the bowden line hose should be firmly hold in its place and the transmission housing is to be rotated in such way that the admissible play of 2 mm can be achieved, when the coupling is locked (see figure)
- the lock nut should be tightened

**Recommendation:** Bowden cable should be at least half a year post-greased (SN, Fig. 6) and the clearance between (M) and (D) is to be checked (s. fig. 2/5)

**Caution:**
If coupling and drawbar eye are tensioned relative to each other do not overload (20 kg max.) actuator lever and never force coupling open with mechanical aids.
Release any tension between coupling bolt and drawbar eye by moving vehicle either forwards or backwards. In emergency open coupling with hand lever.