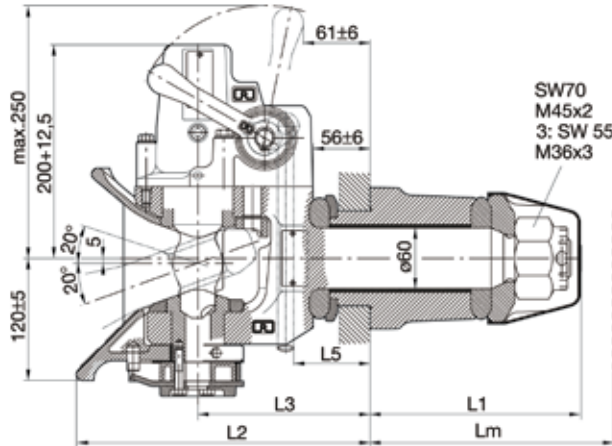
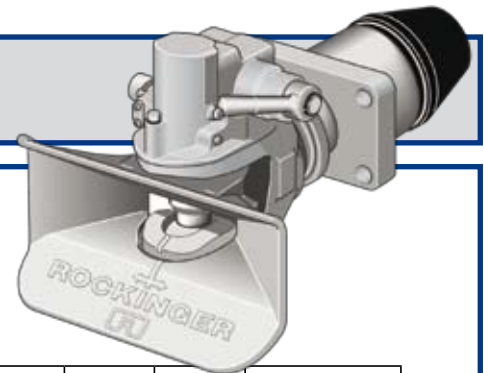
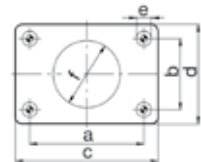


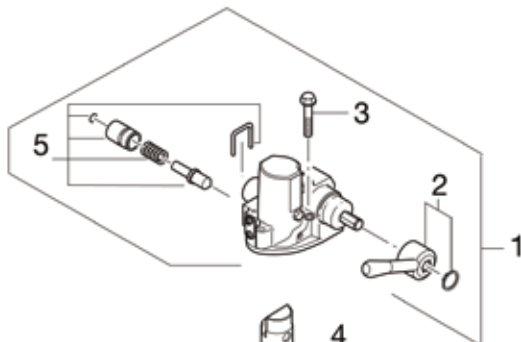
## RO 500



Model	D (Kn)	S (Kg)	Weight (Kg)
500A6100	190	1000	43,0
500A6300	190	2500	44,0

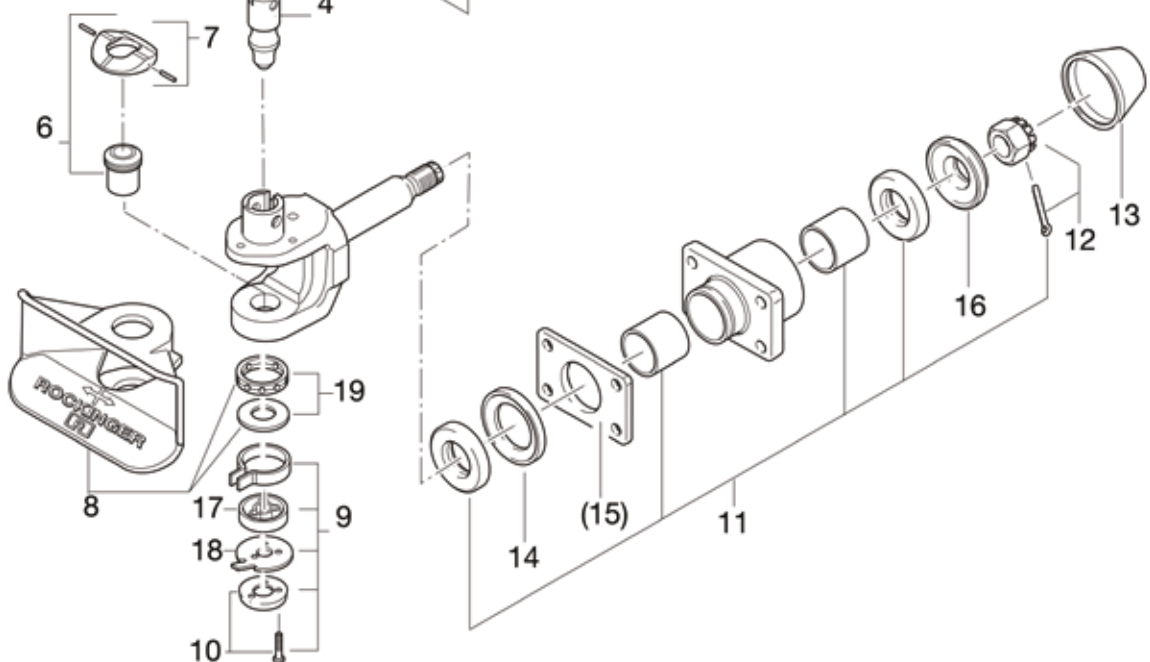


a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)
160,0	100,0	200,0	140,0	21,0	94,0



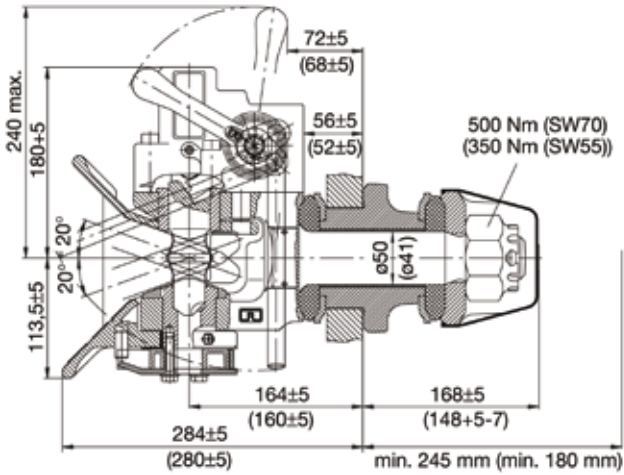
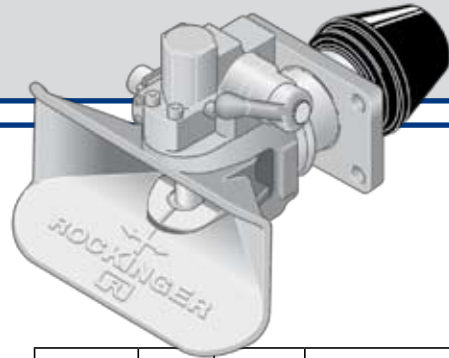
a = 50mm  
 DIN 74053  
 CE/94/20  
 ISO 1102

Size	L1 (mm)	L2 (mm)	L3 (mm)	Lm (mm)	C (mm)	S (mm)
6100	209	290	170	Min. 285	30,5	-
6300	184	315	195	Min. 260	23,5	13

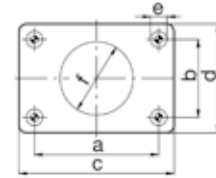


# TRAILER COUPLINGS

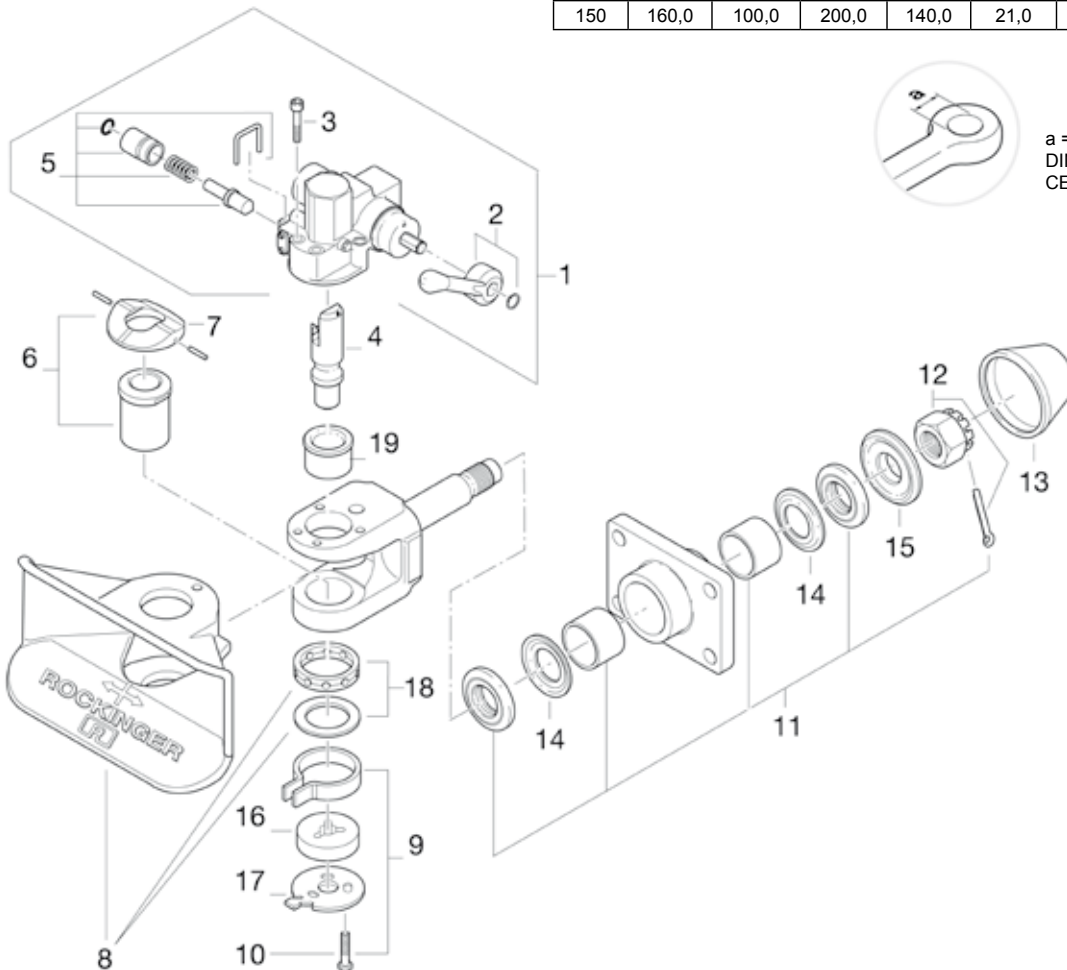
## RO 400



Model	D (Kn)	S (Kg)	Weight (Kg)
400A4600	145	1000	34,0
400A5100	145	1000	35,0



Size	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)
145	140,0	80,0	180,0	120,0	17,0	84,0
150	160,0	100,0	200,0	140,0	21,0	94,0



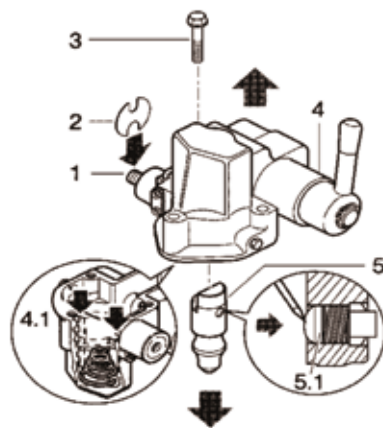
a = 40mm  
DIN 74054  
CE/94/20

## MAINTENANCE

### 1. Changing the automatic unit and the coupling pin

**Warning do not remove the hand lever axle (10)!**

- Open coupling with hand lever (9)
- Attention! Do not reach into the jaw!
- THIS INVOLVES RISK OF ACCIDENT!
- Loosen 4 hexagonal bolts (2)
- Remove automatic unit (3) in upwards direction.
- Gently press automatic unit (3) with coupling pin (4) onto work bench (coupling pin 4 will fall out).

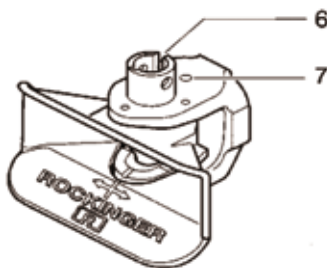


**When replacing the coupling pin, the safety lock must be replaced too.**

- Remove old grease out of the automatic unit.
- Insert new coupling pin into the body (upper bush 5).

**Attention: The coupling pin should be withdrawn to the side of the safety lock (1).**

- Before mounting automatic unit, push jaw stop bolt (3a) in direction of bore (6).
- Place automatic unit (3) lifting hand lever (9) slightly in the process and guiding throw-up lever (3b) into groove of coupling pin underneath retaining pin (4a) to enable coupling bolt to be raised from throw-up lever and push jaw stop device into bore (6).
- Secure automatic unit (3) gently with screws (2).
- Press hand lever (9) gently upwards: check safety for fouling (1).
- Secure automatic unit (3) with screws (2).
- Tightening torque 49 Nm.
- Use screws M10 x 60 DIN 912, grade 8.8!
- Lubricate via a lubrication nipple on the automatic unit only when coupling open (coupling pin in up position, ca 120g NLGI 2)



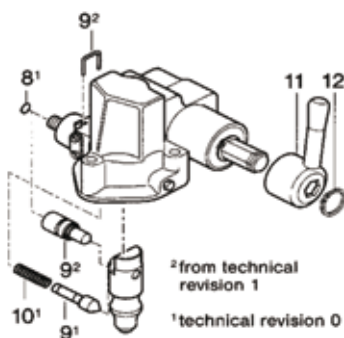
### 2. Changing the safety lock.

- Safety shackle (7) is to be bent up and withdrawn.
- Safety lock (1) should completely be extracted out of the housing.
- The new safety lock (1) is to be inserted.
- Insert the new wire bar (7).
- Wire ends of the safety shackle are to be bent over.

**Check: Press hand lever (9) gently upwards: check safety for fouling (1)**

### 3. Changing the hand lever.

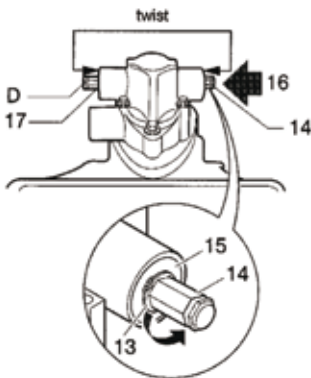
- Remove circlip (8) with circlip pliers A1 from hand lever axle (10).
- Dismantle hand lever (9)
- Fit new hand lever
- Secure new circlip with circlip pliers A1  
**(do not overstretch circlip)**



## MAINTENANCE

### 4. Switching the hand lever over to left (repairset 71079)

- Remove circlip (8) with circlip pliers A1 from hand lever shaft (10).
- Dismantle hand lever (9).
- Remove circlip (11) with circlip pliers A1.
- Insert new circlip (18 x 1,5) into the groove (12).
- Clamp bearing washers (13) with suitable assembling tool (see illustr.) on left and right.
- Knock hand lever axle (10) through carefully.
- Dismount spacer (D)
- Remove circlip (14) with circlip pliers A1.
- Insert new circlip (18 x 1,5) inside position.
- Push hand lever into position.
- Secure new circlip (18 x 1,5) circlip pliers A1: (take care to ensure interference fit).

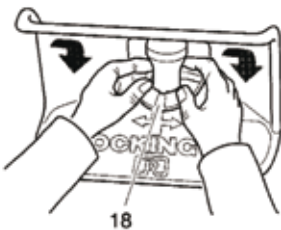


### 5. Changing the support ring

- Close coupling: otherwise risk accident!

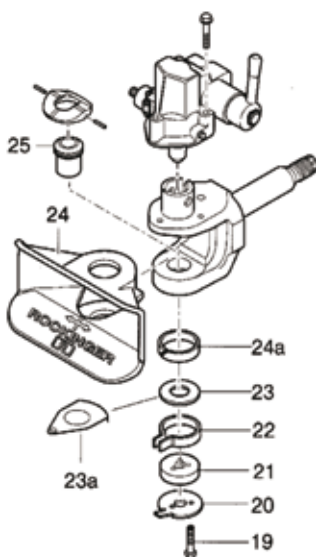
Raise coupling pin with suitable tool or strike hand lever knob briefly in opening direction with heel of hand.

- Remove the support ring (15) with help of the chisel which is to be placed on the lateral recesses.
- Lift coupling pin with hand lever.
- Take out the support ring.
- Clean support ring surface and groove.
- Fit new support ring (with position marking 16 facing forwards)
- Both slot pins in the support ring (15) must be knocked into laterally.



### 6. Changing the jaw

- Close coupling (see point 5).
- Loosen 3 screws (17) on base plate (18).
- Remove bottom part with guide bush (19), spring (20) and washer (21) or transmitter disk (21a) for turn-angle alarm system.
- Raise coupling bolt with hand lever and lift out jaw (22)
- Insert new jaw (support ring 22a is mounted in the jaw).
- Upward and downwards support wear are to be greased.
- Proceed with assembly in reserve sequence (pay attention to bore alignment; insert transmitter disk 21a in correct position).  
When inserting screws, jaws must be located in central position: Spring surrounds retaining pin (M) on jaw.
- Opening coupling: Jaw lock should be inserted.
- Tighten screws (17) when the jaw is in the central position:  
**Tightening torque 30 Nm**
- Please, check the lock and movement of the jaw.



### 7. Changing the lower and/or the upper bush

- Dismantle couplings from crossbar.
- Disassemble automatic unit with coupling bolt, jaw and support ring.
- Squeeze lower bush (23) or/and upper bush (24).
- Press in new lower bush facing right direction (bush grooves A are to be parallel to the couplings central axle) or/and press in new upper bush.
- Re-assemble and mount coupling, check function.