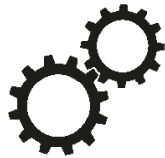
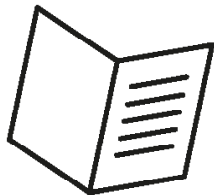


# OPERATING INSTRUCTION

PART 2 | ► CABLE REEL TRANSPORTER

## 8500 SERIES

EN



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Mercedesring 1  
86368 Gersthofen  
Germany

Tel. + 49 821 24929-0 | info@humbaur.com  
Fax + 49 821 249-100 | www.humbaur.com

**Trailer data:**

Date of first registration \_\_\_\_\_

Gross weight \_\_\_\_\_

Load capacity \_\_\_\_\_

**Owner 1**

Name \_\_\_\_\_

Address \_\_\_\_\_

Date (from - to) \_\_\_\_\_

**Owner 2**

Name \_\_\_\_\_

Address \_\_\_\_\_

Date (from - to) \_\_\_\_\_

**Owner 3**

Name \_\_\_\_\_

Address \_\_\_\_\_

Date (from - to) \_\_\_\_\_

Keep these specific operating instructions Part 2 and the general operating instructions Part 1 ready to hand in the towing vehicle!

Pass on the entire documentation to the new owner if you sell the trailer.

## Notes on use

### PART 2

This operating instruction manual "Cable reel Transporter / Part 2" is intended for you as the user of a ready-to-use trailer.

It provides detailed instructions for handling a cable reel trailer and its specific accessories.

It contains supplementary information on safe operation, care / cleaning, maintenance and troubleshooting of the trailer.

You can download this specific trailer operating instruction manual (Part 2) from [www.humbaur.com](http://www.humbaur.com) in the section: **Download – Operating Instructions.**

### PART 1

For all other general information on trailers up to 3.5 to, see the operating instruction manual, "Trailers up to 3.5 to / Part 1 - General".



Refer to the technical documentation of the installed components, e.g. electric cable winch, for additional information.

### Obligations of the operator

Only use the trailer if it is in perfect condition.



Ensure that the operating instruction manual is complied with in all life cycle phases of the trailer and that the prescribed personal protective equipment is worn.

Provide the requisite operating and auxiliary materials. Personnel must have been verifiably trained to safely operate the cable reel trailer!

## Keyword index

Use the **keyword index** from page **3** to search for **specific** topics.

### 1 Safety

- from page **5**
- Safety-related information
- Read this chapter before driving for the first time

### 2 General information

- from page **11**
- Information on trailer identification

### 3 Operation

- from page **15**
- Safety when operating the reel
- Load distribution / securing
- Parking

### 4 Chassis

- from page **23**
- Chassis
- Support devices

### 5 Body

- from page **29**
- Operating the body / frame
- Securing the cable reel

### 6 Electrical system

- from page **41**
- Lighting system
- Battery

### 7 Testing, care, maintenance

- from page **47**
- Maintaining operational safety
- Necessary cleaning, care
- Regular maintenance

### 8 Troubleshooting guide

- from page **57**
- Self-help, troubleshooting



<b>A</b>	
Action in the case of faults .....	58
Automatic jockey wheel .....	24
<b>B</b>	
Brake frame	
locking .....	40
operating .....	38
<b>C</b>	
Cable reel	
operating .....	21
positioning .....	19
securing .....	20
Cable reel trailer	
Equipment .....	14
Cable reel trailer components .....	12
Cable winch	
securing in driving position .....	37
Cable winch, electric .....	34
Cable winch, manual .....	32
CE conformity .....	13
Chapter	
Body .....	29
Electrical system .....	41
General information .....	11
Operating the chassis .....	23
Operation .....	15
Safety .....	5
Testing, care and maintenance .....	47
Troubleshooting guide .....	57
Charging battery / trickle charge .....	45
Contact	
Address Humbaur GmbH .....	58
Humbaur Service Partners .....	58
Parts logistics .....	58
Technical customer service .....	58

<b>D</b>	
Driving with the towing vehicle and trailer .....	15
<b>E</b>	
Electric battery .....	43
Electrical system .....	41
Extending supports .....	18
<b>G</b>	
General information .....	11
<b>H</b>	
Hand brake .....	25
Handling	
Chassis .....	23
Help in the event of problems .....	59
<b>I</b>	
Instructions for using operating manual .....	1
Intended use .....	6
<b>K</b>	
Keyword index .....	1
Keywords .....	3
<b>L</b>	
Lighting system .....	42
<b>M</b>	
Maintenance .....	47
Axles / wheels .....	48
Gas struts .....	51
Lubrication .....	52
Mechanics / securing elements .....	50
Overrun device .....	48
<b>O</b>	
Obligations of the operator .....	1

Operation .....	15
<b>P</b>	
Personal protective equipment .....	6
<b>R</b>	
Reel frame	
operating .....	30
securing .....	36
Regular inspection .....	48
<b>S</b>	
Safety	
Driving with / without cable reel .....	8
Loading / unloading cable reel .....	7
Parking with / without cable reel .....	9
<b>T</b>	
Telescopic crank supports	
fixed (rear) .....	24
swivel .....	24
Testing .....	47
Toolbox (optional) .....	26
Transport shaft	
fasten .....	18
releasing .....	16
Troubleshooting .....	59
Troubleshooting guide .....	57
<b>U</b>	
Use	
Foreseeable misuse .....	6
Intended .....	6
<b>W</b>	
Wheel chocks .....	25
Wheels / tyres .....	25

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1

**Safety**

### Intended use

The cable reel trailer is especially designed for using and transporting cable reels.

The following is permitted:

- Transporting one cable reel.
- Unrolling the cable from the cable reel.

### Foreseeable misuse

Any use extending beyond the prescribed transport applications is regarded as other than intended.

In particular, this includes:

- Driving when the cable reel is unsecured / not in driving position.
- Tipping the cable reel frame when there are people or objects in the danger zone.
- Tipping the load onto people or objects.
- Driving with a tipped / unsecured cable reel frame.
- Driving with lowered / positioned support legs.
- Climbing on the frame or standing under the tipped frame.
- Non-observance of the safety information in the operating instruction manual "Trailers up to 3.5 to / Part 1 - General".

### Personal protective equipment

For your own protection, wear the following protective equipment:



The cable reel trailer may only be used by trained personnel.


The personnel must be aware of residual risks so as to be able to take appropriate action.



## Safety when loading / unloading the cable reel




Fig. 1 Danger during loading / unloading

 Picking up or setting down a cable reel is dangerous and may only be carried out by trained personnel!


## Requirements:

- The operator must supervise the trailer during the entire pick-up / set down process.
- People who have not been trained (children) must not be in the proximity of the trailer.
- The pick-up / set down process of the cable reel may only be carried out while the trailer is coupled to the towing vehicle.
- The trailer must be stable with all 4 support legs and wheels on level ground.


**! DANGER**

 **Unsecured / rolling cable reel!**  
The cable reel could roll over people and crush them.

- ▶ Make sure that the cable reel is placed on level ground and cannot roll away by itself.
- ▶ Secure the cable reels with securing elements to prevent them rolling away, e.g. position wheel chocks under the wheels.

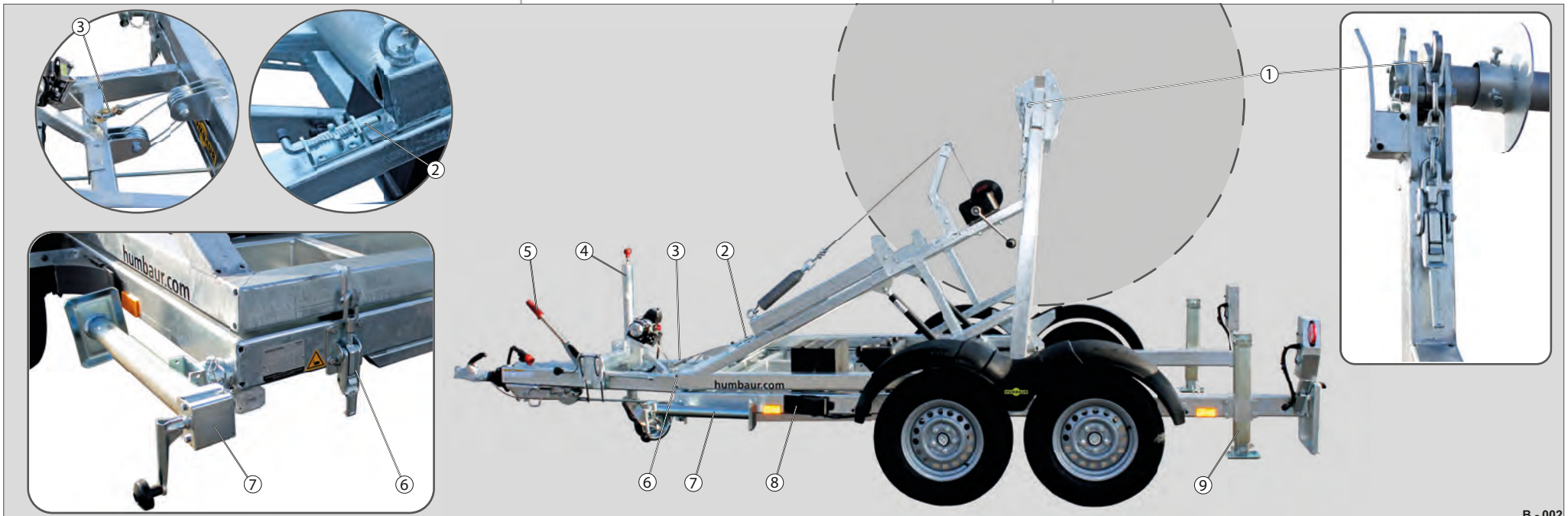
 Keep assistants and third parties away from the danger zone of the cable reel.

**! WARNING**

 **Moving frame / parts of frame!**  
People could crush their fingers / hands / feet.

- ▶ When moving the frame, keep a safety distance – do not reach into the danger zone with any part of your body.
- ▶ Only secure the cable reel once the frame is no longer moving.
- ▶ Always keep in sight of an assistant.

## Safety when driving with / without cable reel



B - 002

Fig. 2 Securing the frame

- 1 Securing the transport shaft (eccentric fastener with chain)
- 2 Securing the brake frame (bolts)
- 3 Securing the cable (cable winch)
- 4 Automatic support, cranked up
- 5 Hand brake, released
- 6 Securing the cable reel frame (eccentric fastener)
- 7 Supports, in driving position (horizontal)
- 8 Wheel chocks, secured in brackets
- 9 Supports, cranked up (vertical)

**WARNING**

**Unsecured cable reel / frame**

While driving, there could be unexpected slewing movements (when cornering) - risk of snaking / accidents!  
 ► Before driving off, check that the cable reel frame / brake frame / transport shaft are locked.



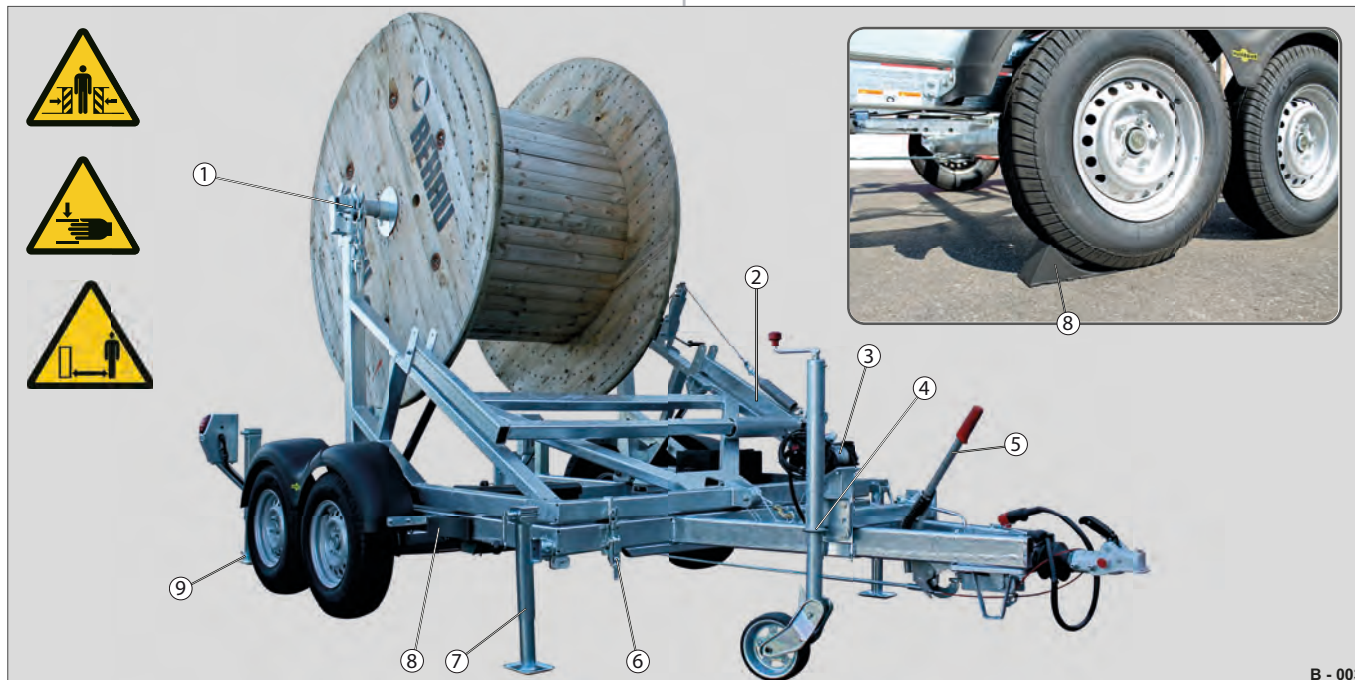
You may only drive with the cable reel trailer if the cable reel frame has been put in driving position and has been locked in place with all the securing elements!

Conditions for driving:

- The transport shaft for the cable reel is positioned in the middle and is secured with the locking lever and the eccentric fastener (Fig. 2 /1) left and right.
- The cable reel is positioned in the middle of the transport shaft and fastened with flanges.
- The brake frame (Fig. 2 /2) is folded down and fastened with bolts.
- The cable reel frame is in contact with the chassis and is secured with eccentric fasteners (Fig. 2 /6) right / left.

- The support legs at the front (Fig. 2 /7) are secured in a horizontal position.
- The support legs at the back (Fig. 2 /9) are completely cranked up and secured.
- The hand levers for the supports is securely stowed away.
- The wheel chocks (Fig. 2 /8) are fastened in brackets.
- The cable winch (Fig. 2 /3) is retracted and fastened. The cable is slack - not under tension. Operating lever or remote control are stowed away.
- The automatic jockey wheel (Fig. 2 /4) is cranked up.
- The hand brake (Fig. 2 /5) is completely disengaged.

## Safety when parking with / without cable reel



**Fig. 3** Securing the frame / trailer

- 1 Securing the transport shaft (eccentric fastener with chain)
- 2 Securing the brake frame (bolts)
- 3 Securing the cable (cable winch)
- 4 Automatic support, cranked down
- 5 Hand brake, completely applied
- 6 Securing the cable reel frame (eccentric fastener)
- 7 Supports, in support position (vertical)
- 8 Wheel chocks, placed under wheels
- 9 Supports, completely lowered

The cable reel trailer may be uncoupled and parked with the cable reel positioned on it.

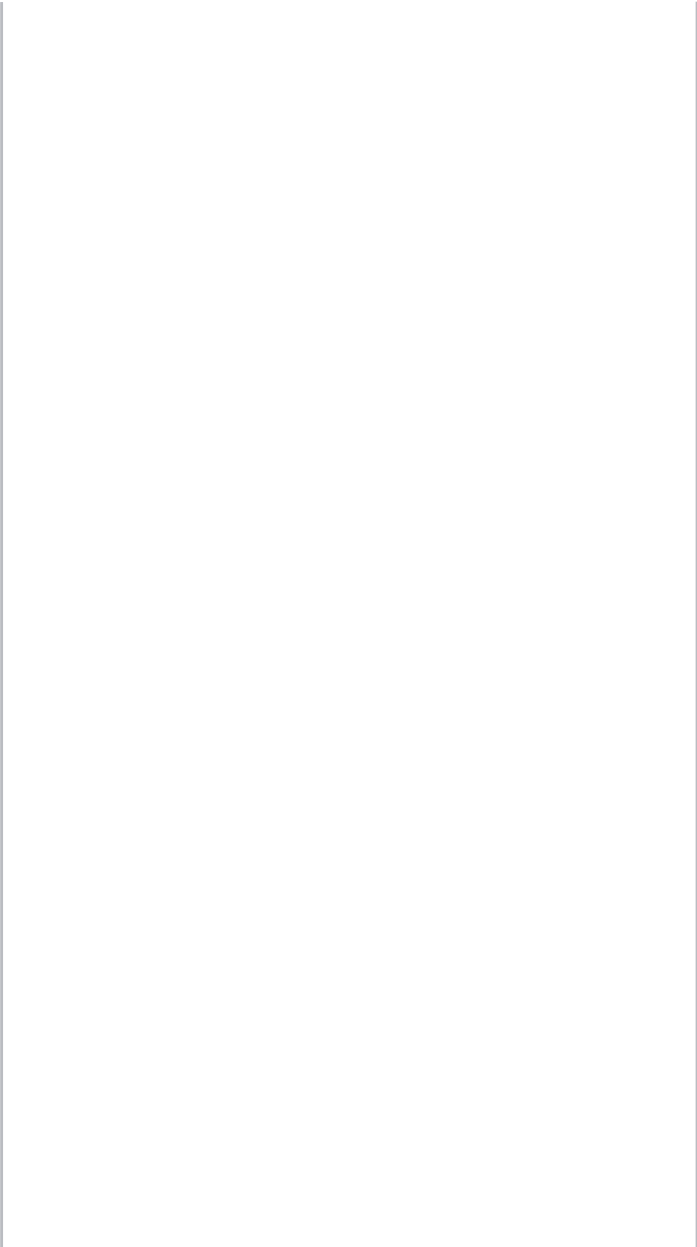
The cable reel trailer may only be parked on level / solid ground - do not park it on an unsecured slope.



You may only uncouple and park the cable reel trailer if the cable reel frame has been put in driving position and has been locked in place with all the securing elements!

Conditions for parking:

- The cable reel is positioned in the middle of the transport shaft (Fig. 3 /1) and is secured with the locking lever and eccentric fastener.
- The brake frame (Fig. 3 /2) is folded down and fastened with bolts.
- The cable reel frame is in contact with the chassis and is secured with eccentric fasteners (Fig. 3 /6) right / left.
- The support legs at the front (Fig. 3 /7) are lowered into support position and are cranked down to the ground.
- The support legs at the back (Fig. 3 /9) are completely cranked down.
- The wheel chocks (Fig. 3 /8) are placed under the wheels.
- The cable winch (Fig. 3 /3) is retracted and fastened. The cable is slack - not under tension. Operating lever or remote control are stowed away.
- The automatic jockey wheel (Fig. 3 /4) is cranked down.
- The hand brake (Fig. 3 /5) is completely applied.





2

## General information

## Cable reel trailer components

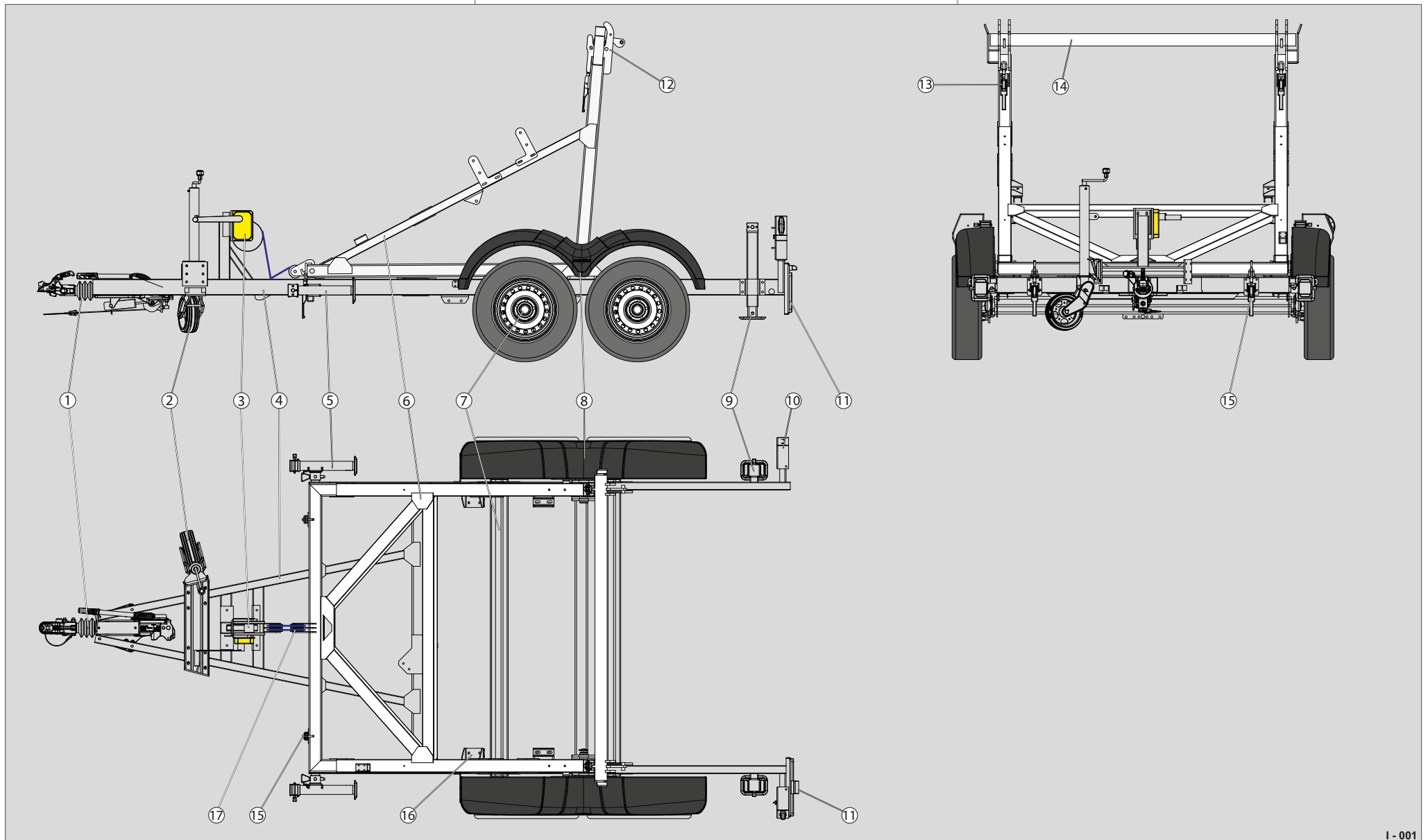


Fig. 1 Overview of cable reel trailer (standard)

I - 001

- 1 Overrun hitch with hand brake lever, brake linkage, spring accumulator
- 2 Automatic jockey wheel, mounted on side flange
- 3 Cable winch on cable winch frame, middle, manual
- 4 V drawbar / chassis
- 5 Telescopic crank stand, can be swivelled
- 6 Cable reel frame
- 7 Wheel (tyre) / axle
- 8 Mudguard
- 9 Telescopic prop stands, fixed vertical
- 10 Light mounting with multifunctional lighting, fitted horizontally
- 11 License plate holder, for two-row license plate
- 12 Locking lever for transport shaft
- 13 Eccentric fastener with securing chain
- 14 Transport shaft
- 15 Eccentric fastener for cable reel frame
- 16 Gas strut holder
- 17 Cable pulleys / steel cable

The model of the cable reel trailer as a tandem trailer with a permissible gross weight 3.0 t / 3.5 t is made with a welded, hot-dip galvanised chassis.

As standard, the trailer has 14" tyres.

The four telescopic support legs provide a secure base for picking up and setting down the cable reel.

The cable reel frame can be tipped backwards and raised manually using the cable winch.

Optional accessories:

- Toolbox
- Electric cable winch with battery
- Brake frame for the cable reel

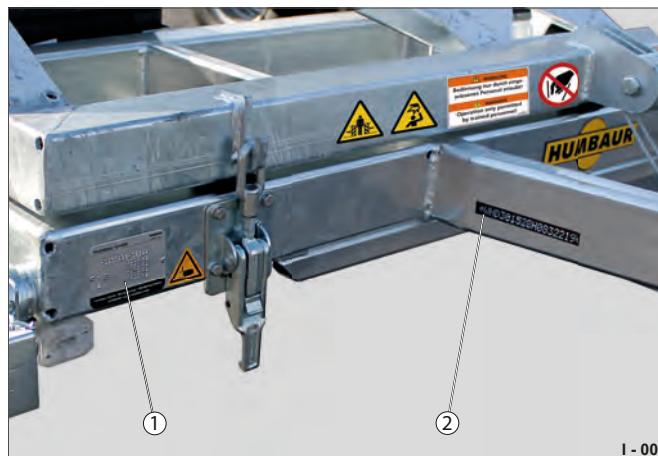


Fig. 2 Vehicle identification

- 1 Manufacturer type plate
- 2 FIN engraved

The cable reel trailer is available in two different sizes:

Model	Gross weight max. (kg)	Load capacity (kg)
8500	3000	2240
8502	3500	2700

designed for cable reels with the dimensions:  
D= max. 2800 mm, width = max. 1450 mm

### CE conformity

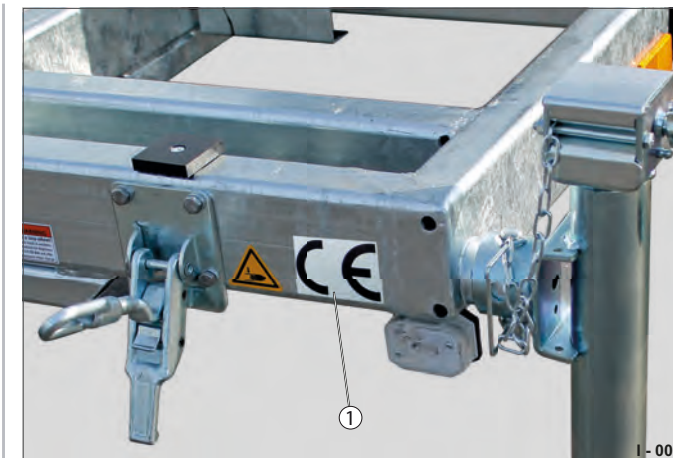


Fig. 3 CE conformity

- 1 CE sticker

**CE** Humbaur GmbH hereby confirms that all the relevant EU directives for the approval and safe use of cable reel trailers have been complied with.

► If required, request an EC declaration of conformity from us separately.

## Cable winch, manual

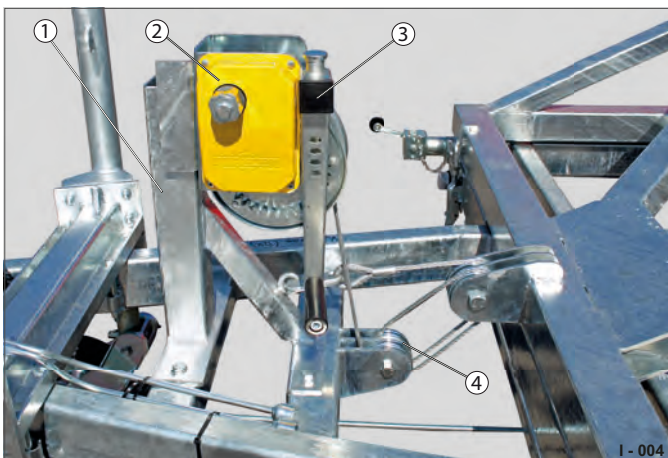


Fig. 4 Cable winch in driving position

- 1 Cable winch frame, on middle of V drawbar
- 2 Cable winch made by Humbaur type: 950 A
- 3 Crank handle, in parking bracket
- 4 Pulleys with steel cable D=7 mm

A manually operated cable winch (Fig. 4 ) is installed as standard.

As an option, an electrically operated cable winch with a remote control can be installed.

The electric cable winch (Fig. 5 ) is operated with 12 V from a supply battery (Fig. 6 ).

The remote control for the electric cable winch can be stowed away in the optional toolbox (Fig. 7 ).

If required, a brake frame (Fig. 8 ) with a manual cable winch (with a brake) can be installed.

## Cable winch, electric (optional)

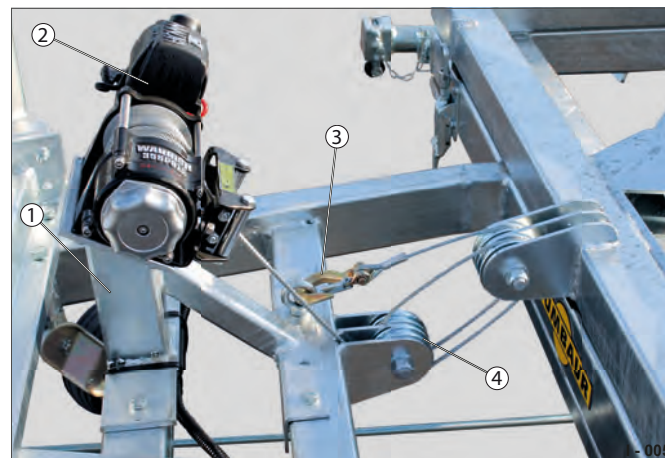


Fig. 5 Cable winch in driving position

- 1 Cable winch frame, on middle of V drawbar
- 2 Electric cable winch
- 3 Snap hook
- 4 Pulleys with steel cable D=7 mm

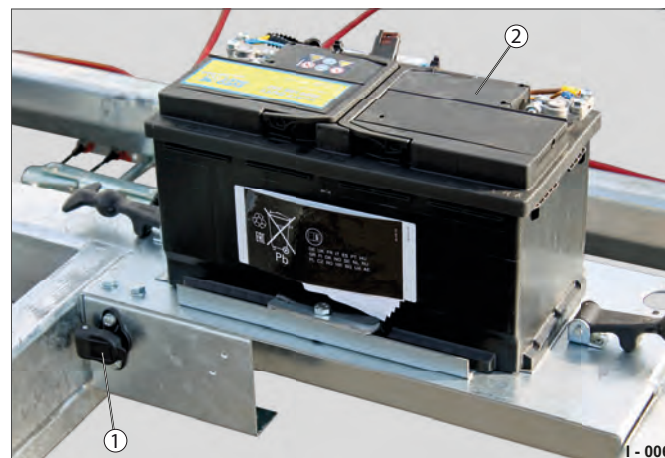


Fig. 6 Supply battery (without housing)

- 1 Connection for external battery charger (12 V)
- 2 Supply battery 12 V

## Toolbox (optional)



Fig. 7 Toolbox (optional)

- 1 Toolbox, locked
- 2 Chassis, cross pipe

## Brake frame (optional)



Fig. 8 Brake frame (optional)

- 1 Brake frame, raised
- 2 Cable winch, manual with brakes made by AL-KO





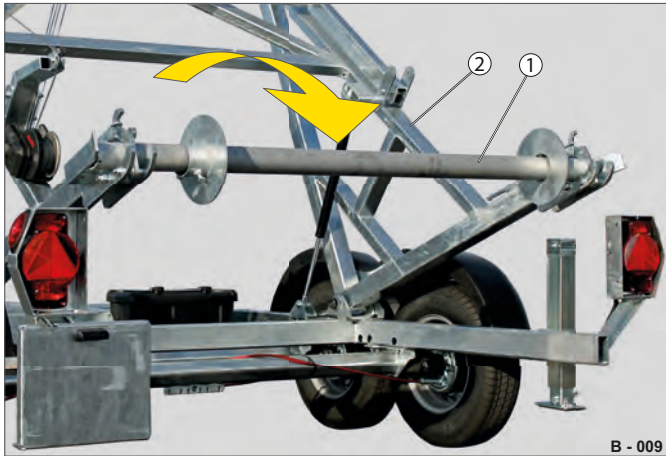
Competence in Trailers



3

Operation

## Releasing transport shaft



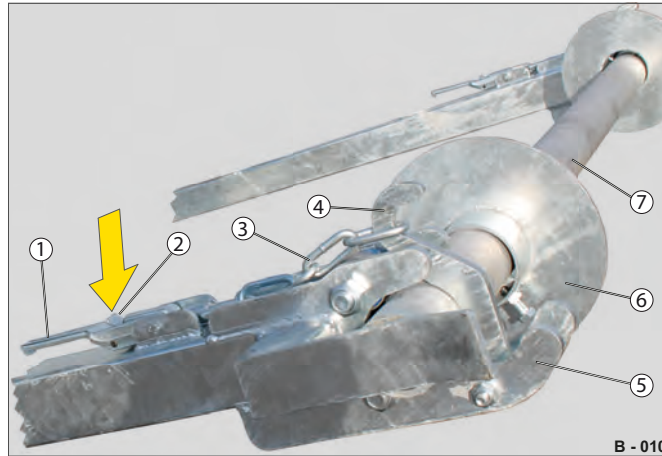
**Fig. 1** Reel frame tilted towards back

- 1 Transport shaft, secured
- 2 Reel frame



Operating the reel frame - see "Reel frame" on page 30 in the „Body“ chapter.

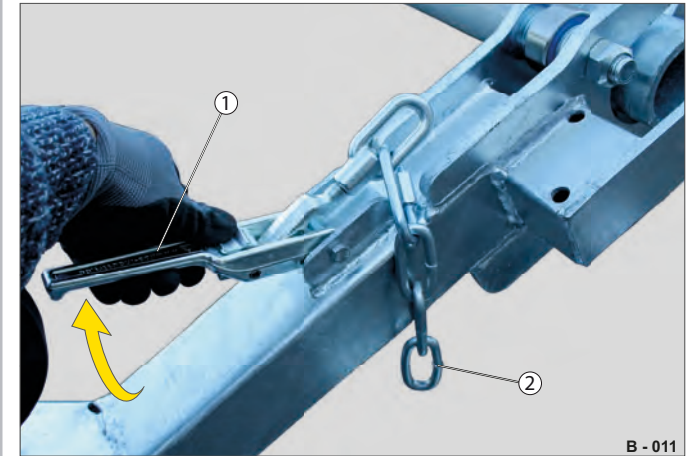
- ▶ Tilt the reel frame (Fig. 1 /2) towards the back.



**Fig. 2** Transport shaft secured

- 1 Eccentric fastener / lever
- 2 Securing device
- 3 Chain
- 4 Hook
- 5 Claws
- 6 Flange
- 7 Transport shaft

- ▶ Hold the lever (Fig. 2 /1) of the eccentric fastener and press in the securing device (Fig. 2 /2). The chain (Fig. 2 /3) is released.



**Fig. 3** Transport shaft released

- 1 Lever
- 2 Chain

- ▶ Lift the lever (Fig. 3 /1) and remove the chain (Fig. 3 /2) from the hook (Fig. 2 /4). The transport shaft is released on one side.
- ▶ Release the other end of the transport shaft.

## Removing transport shaft

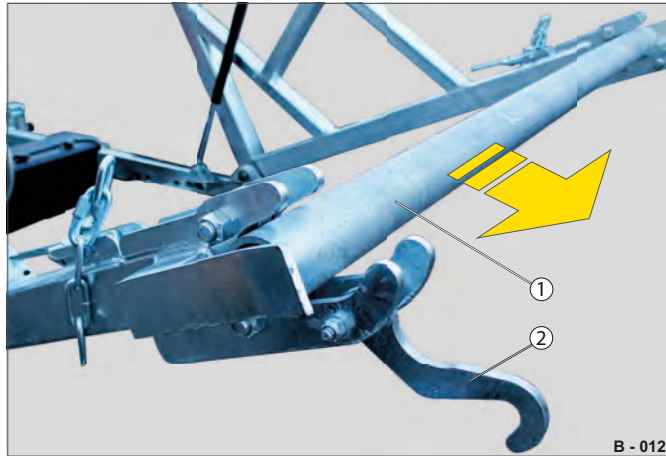


Fig. 4 Removing transport shaft

- 1 Transport shaft
- 2 Hook, released

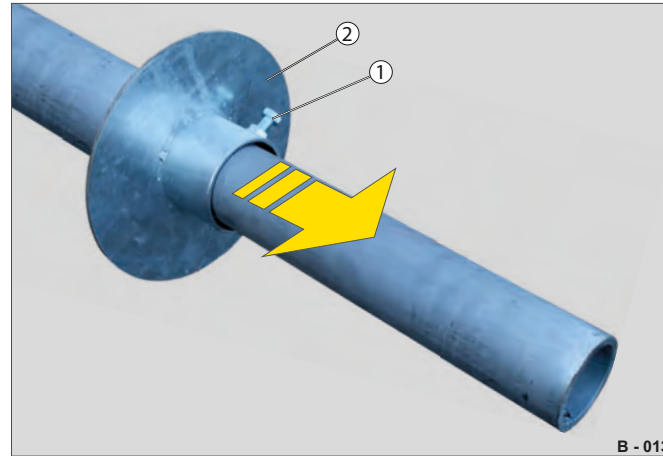


Fig. 5 Removing flange

- 1 Bolts
- 2 Flange

- ▶ Undo the screws (Fig. 5 /1).
- ▶ Pull the left and right flange (Fig. 5 /2) off the transport shaft.

## Inserting transport shaft



Fig. 6 Inserting transport shaft

- 1 Cable reel (wooden)
- 2 Transport shaft (D=76 mm)

- ▶ Pay attention to the general safety information when operating the cable reel - see "Picking up / setting down cable reel" on page 7.

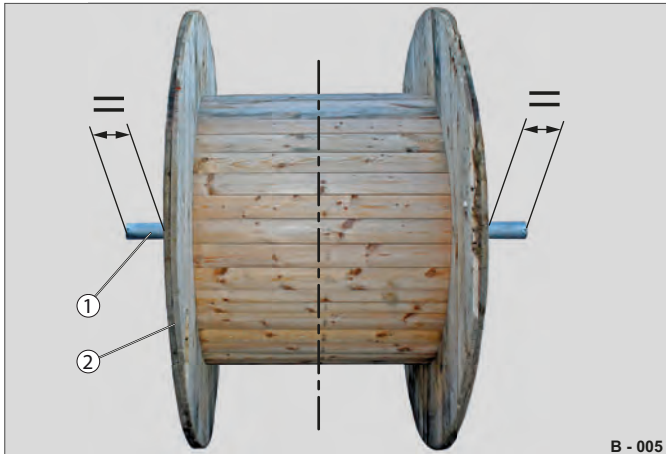
- ▶ Insert the transport shaft (Fig. 6 /2) through the drill hole in the cable reel (Fig. 6 /1).

**CAUTION****Operating a heavy transport shaft**

The transport shaft could fall down - risk of impact / crushing!

- ▶ Hold tight to the transport shaft - if necessary get someone else to help you.
  - ▶ Place the transport shaft down, secured against rolling away.
- 
- ▶ Remove the transport shaft (Fig. 4 /1) from the reel frame.

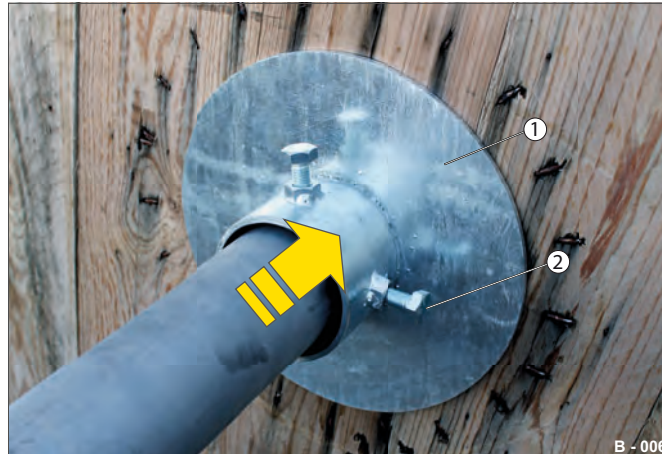
## Fastening transport shaft



**Fig. 7** Evening out position

- 1 Transport shaft
- 2 Cable reel

► Position the transport shaft (Fig. 7 /1) centred in the cable reel (Fig. 7 /2).

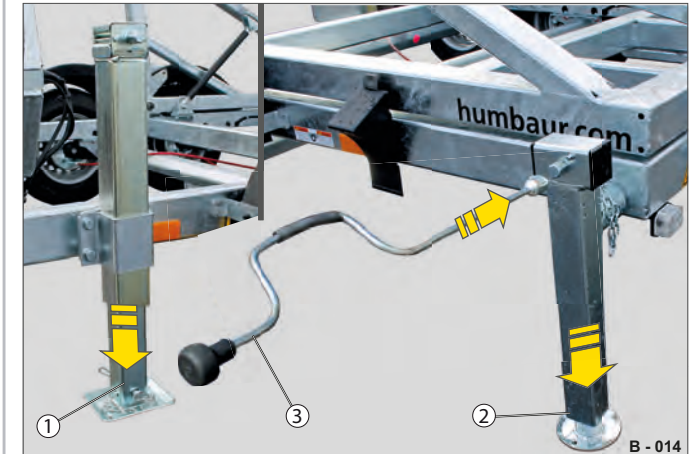


**Fig. 8** Fastening transport shaft

- 1 Flange
- 2 Bolt

► Push the flange (Fig. 8 /1) on right and left onto the transport shaft.  
 ► Screw the screws (Fig. 8 /2) tight - tighten evenly.

## Extending supports



**Fig. 9** Stabilising trailer

- 1 Supports at the rear
- 2 Supports at the front
- 3 Crank handle for square neck

► Plug the crank handle (Fig. 9 /3) onto the square neck of the support (Fig. 9 /1 & Fig. 9 /2) or use an available crank handle directly on the support.  
 ► Crank the support legs down - see "Telescopic crank supports, swivel" on page 24 & see "Telescopic crank supports, fixed at rear" on page 24.  
 ► Adhere to all safety procedures - see "Picking up / setting down cable reel" on page 7 in the "Safety" section.

Positioning cable reel

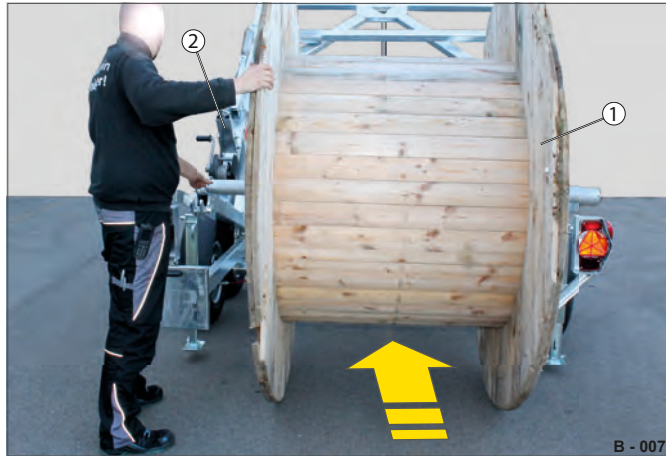


Fig. 10 Guiding cable reel towards position

- 1 Cable reel with fixed transport shaft
- 2 Reel frame

Picking up cable reel

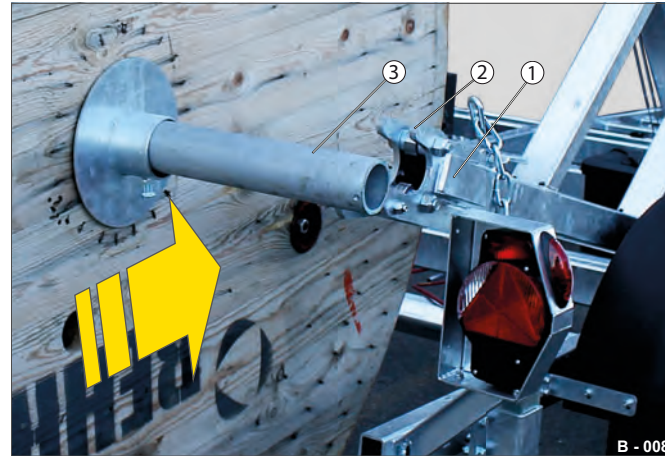


Fig. 11 Placing cable reel down

- 1 End stop at side
- 2 Claw
- 3 Transport shaft

► Guide the cable reel towards the reel frame - make sure that the transport shaft (Fig. 11 /3) is on the inside of the side end stops (Fig. 11 /1) right / left.

Adjust height

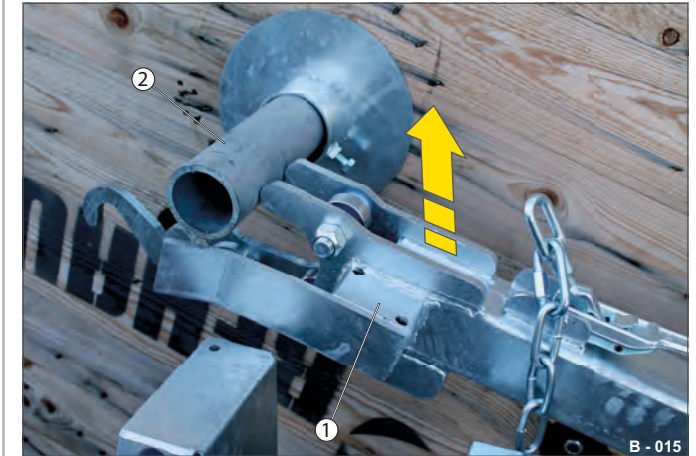



Fig. 12 Placing cable reel down

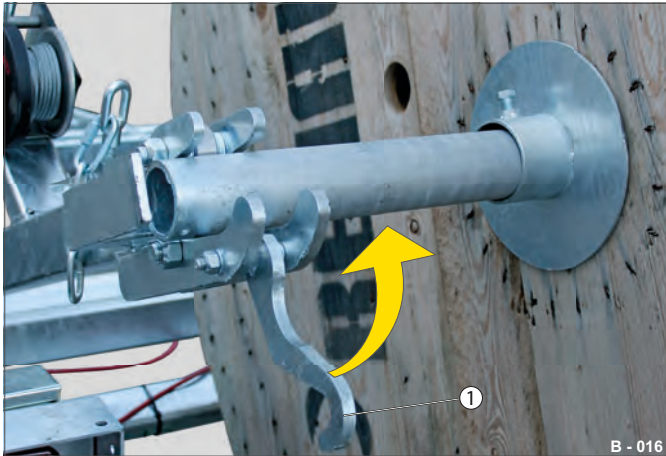
- 1 Reel frame
- 2 Transport shaft

► Raise or lower the reel frame (Fig. 12 /1), so that the transport shaft (Fig. 12 /2) slides into the claw holders.

 Pay attention to the general safety information when operating the cable reel - see "Picking up / setting down cable reel" on page 7.

- Position the cable reel (Fig. 10 /1) centred on the reel frame (Fig. 10 /2).
- Secure the cable reel against rolling away.

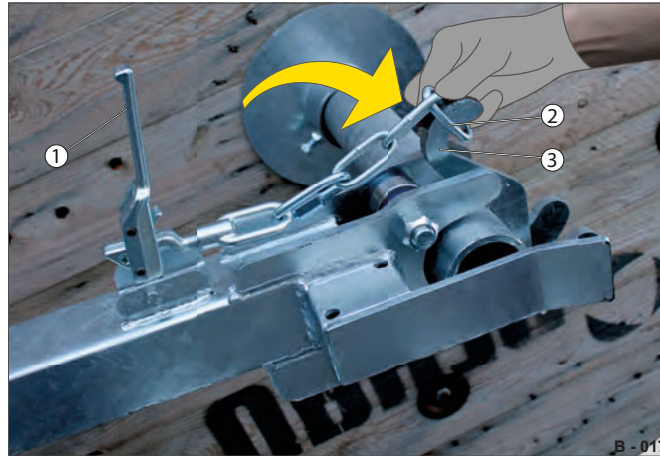
## Securing cable reel



**Fig. 13** Cable reel positioned

- 1 Hook

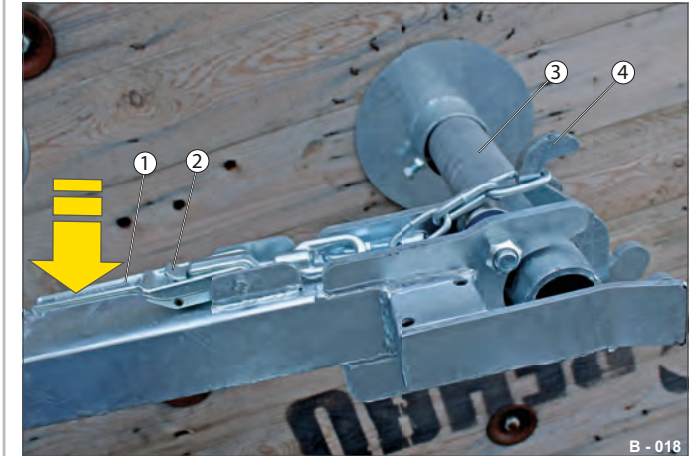
► Pull the hook (Fig. 13 /1) up and around the transport shaft.



**Fig. 14** Securing cable reel

- 1 Lever eccentric fastener  
2 Chain ring  
3 Hook

► Lift the lever (Fig. 14 /1) and place the chain ring (Fig. 14 /2) on the hook (Fig. 14 /3).



**Fig. 15** Cable reel secured

- 1 Lever eccentric fastener  
2 Securing device, locked in place  
3 Transport shaft  
4 Hook, secured with chain

► Push the lever (Fig. 15 /1) closed with your flat hand. The securing device will snap into place, the eccentric fastener is closed.  
The cable reel has been positioned and secured.

## Operating cable reel on the trailer



B - 019

Fig. 16 Lifting reel cable / operating cable

- 1 Cable reel
- 2 Cable rolled up



See the "Body" section see page 30 for more information on operating the reel frame.

Pay attention to the general safety information - see page 8.

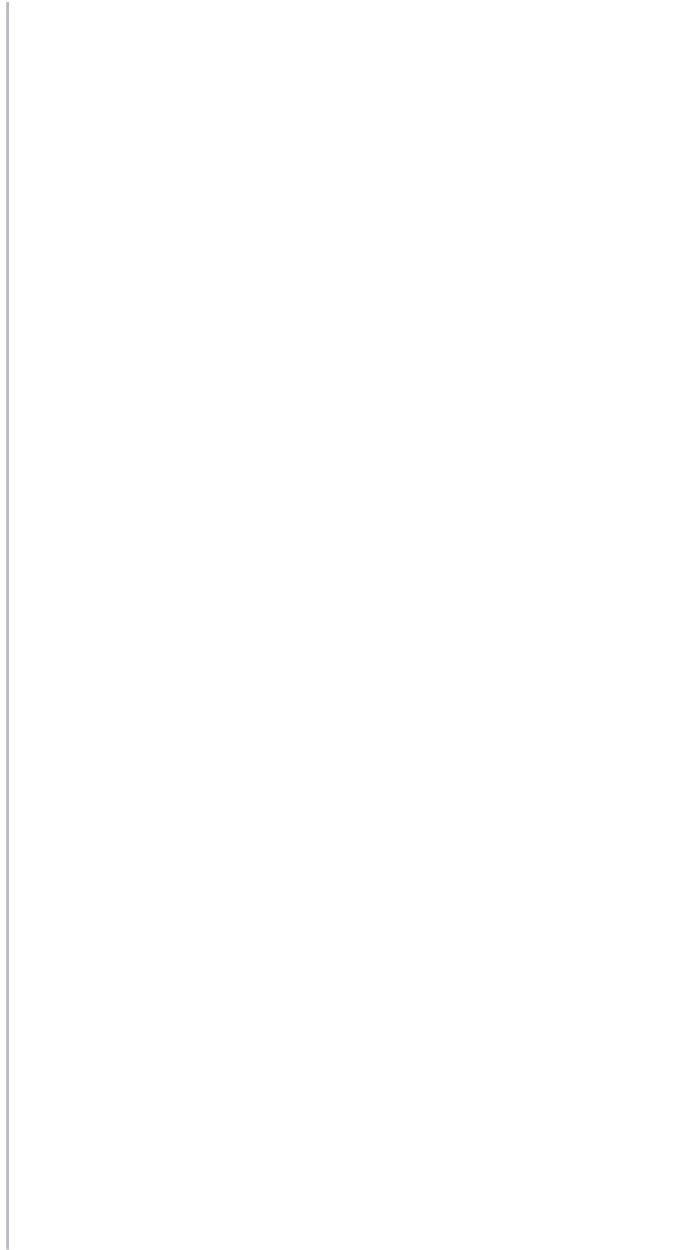


The trailer operator is responsible for safety and compliance with operating instructions as well as training personnel to safely operate the cable reel loaded on the trailer!

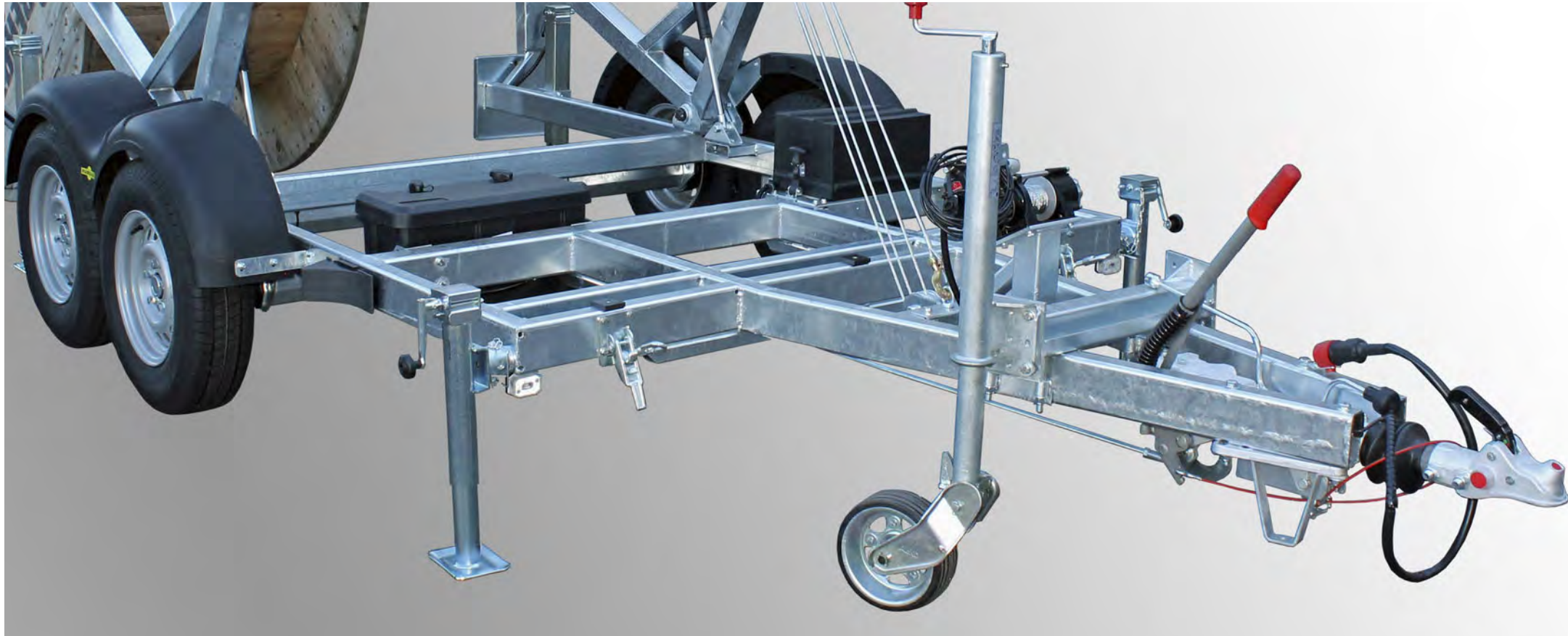
**WARNING****Using cable reel for other goods / unsecured cable**

Additional devices attached to the cable reel can lead to unexpected risks. An unsecured cable could unravel by itself - risk of accidents!

- ▶ Check that the cable reel does not have any additional objects / devices on it.
- ▶ Check that the cable is properly rolled up and secured.







**4**

**Chassis**

## Automatic jockey wheel

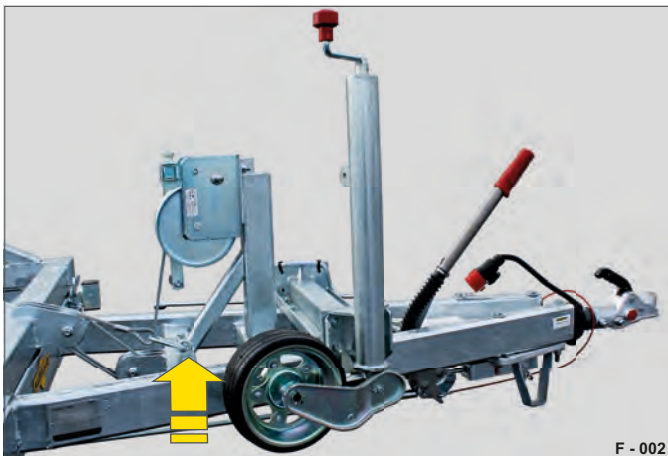


Fig. 1 Automatic jockey wheel in driving position



Fig. 2 Automatic jockey wheel in support position



Find out how to operate the automatic jockey wheel in the operating instruction manual "Part 1 - General".

## Telescopic crank supports, swivel



Fig. 3 Telescopic crank supports in driving position



Fig. 4 Telescopic crank supports in support position



Find out how to operate the telescopic crank supports in the operating instruction manual "Part 1 - General".

## Telescopic crank supports, fixed at rear

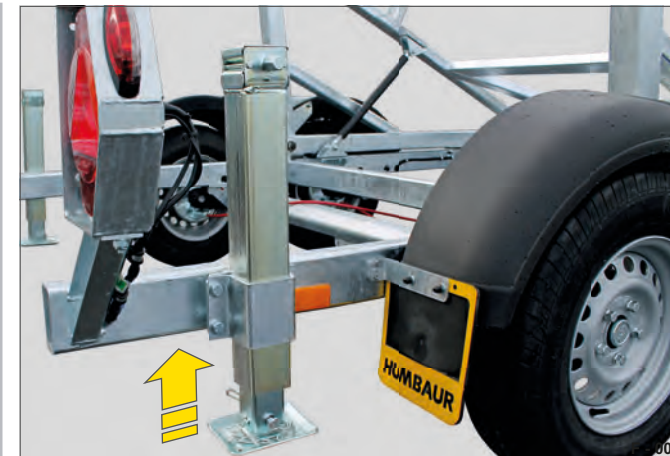


Fig. 5 Telescopic crank supports in driving position



Fig. 6 Telescopic crank supports in support position



Find out how to operate the telescopic crank supports in the operating instruction manual "Part 1 - General".

Hand brake

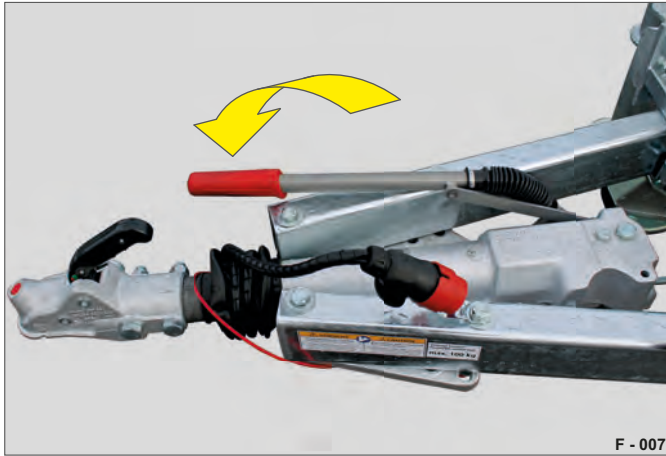


Fig. 7 Hand brake released in driving position

Wheel chocks

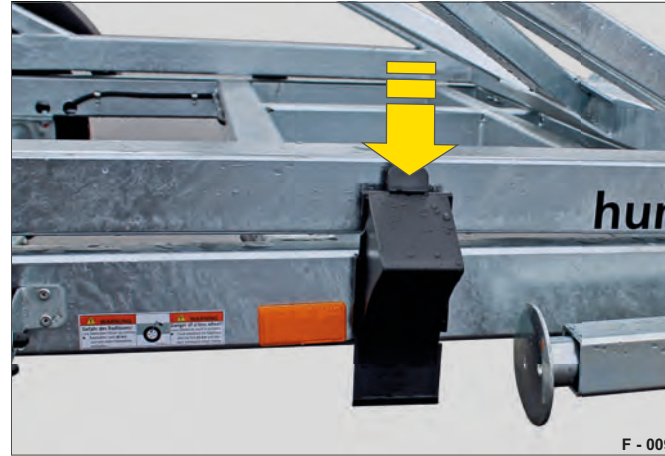


Fig. 9 Wheel chock secured in driving position

Wheels / tyres



Fig. 11 Wheel chock secured in driving position

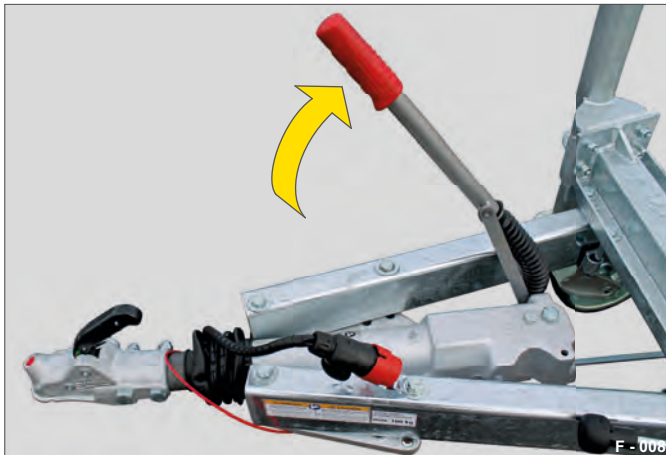



Fig. 8 Hand brake applied in park position





Fig. 10 Wheel chocks positioned, in parking position

Tyre type	p max. in bar
185 R14C - 8 PR	4.5

Tab. 1 Tyre pressure / tyre size

 Find out how to operate the hand brake in the operating instruction manual "Part 1 - General".

 Find out how to operate the wheel chocks in the operating instruction manual "Part 1 - General".

 Find out how to maintain the tyres / wheels in the operating instruction manual "Part 1 - General".

## Toolbox

A lockable toolbox is available as an option.

The toolbox is located on the front of the chassis on the right in the direction of travel.



### CAUTION



#### Operating toolbox under reel frame

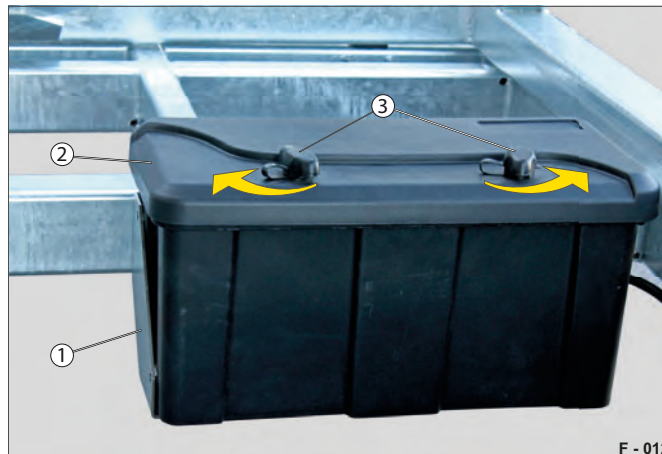
You could also hit your head on the reel frame - risk of injury!

- ▶ Ensure that the reel frame is not being operated.
- ▶ Move slowly and carefully under the reel frame - avoid hasty movements.



Please note the specified surface loading (see manufacturer's specification on the inside of the lid, approx. 30 kg).

## Opening the toolbox

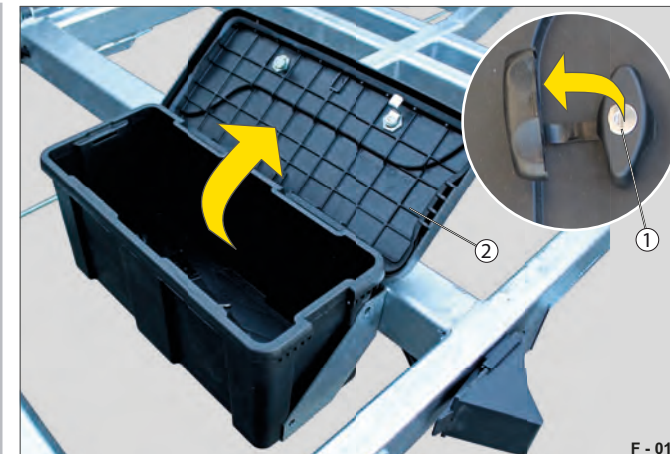


**Fig. 12** Toolbox locked

- 1 Attachment console right/left
- 2 Lid
- 3 Cover

- ▶ Fold open the covers (Fig. 12 /2) of the rotary locks with lock cylinders (Fig. 13 /1).
- ▶ If required, use a key to open the rotary locks.
- ▶ Open the locks by turning.
- ▶ Fold up the lid (Fig. 13 /2).

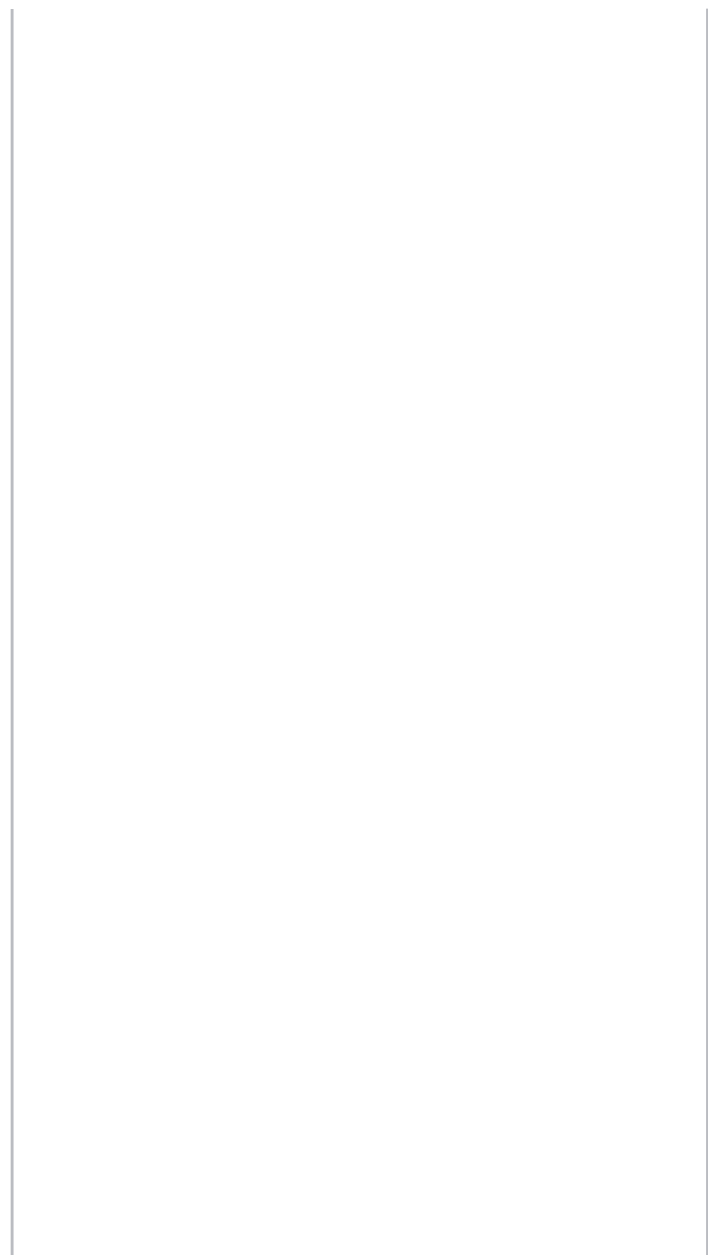
## Closing the toolbox

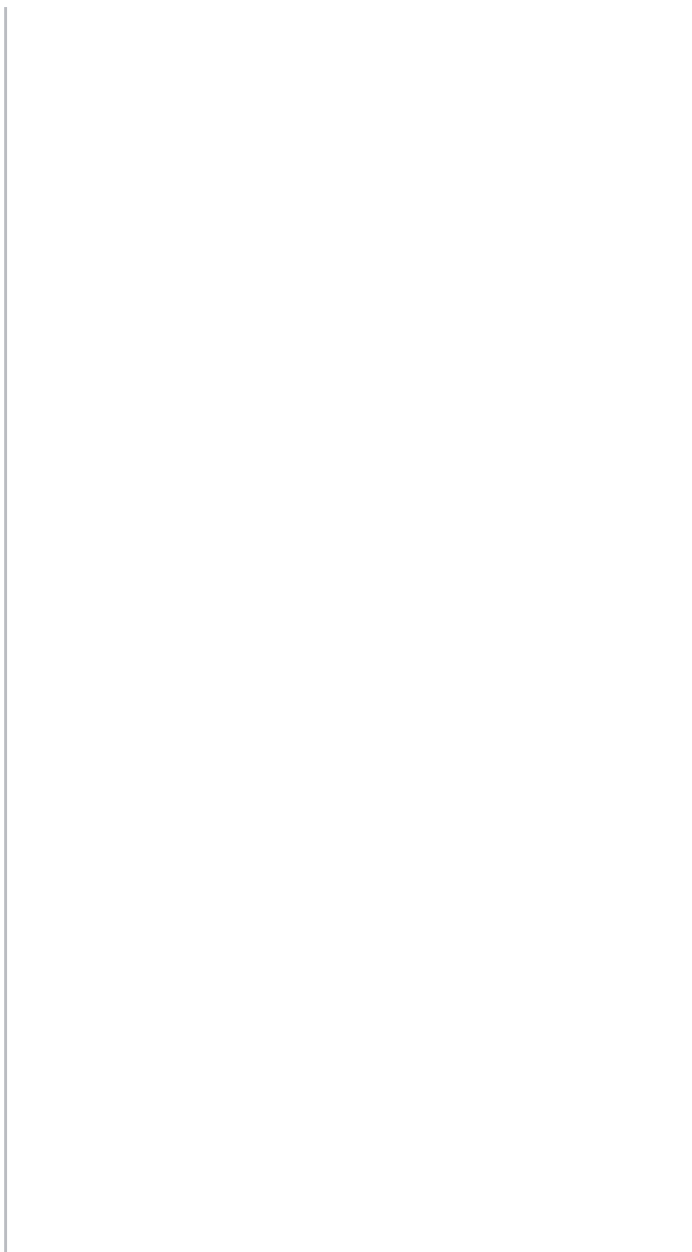


**Fig. 13** Toolbox open

- 1 Rotary locks with lock cylinder
- 2 Lid

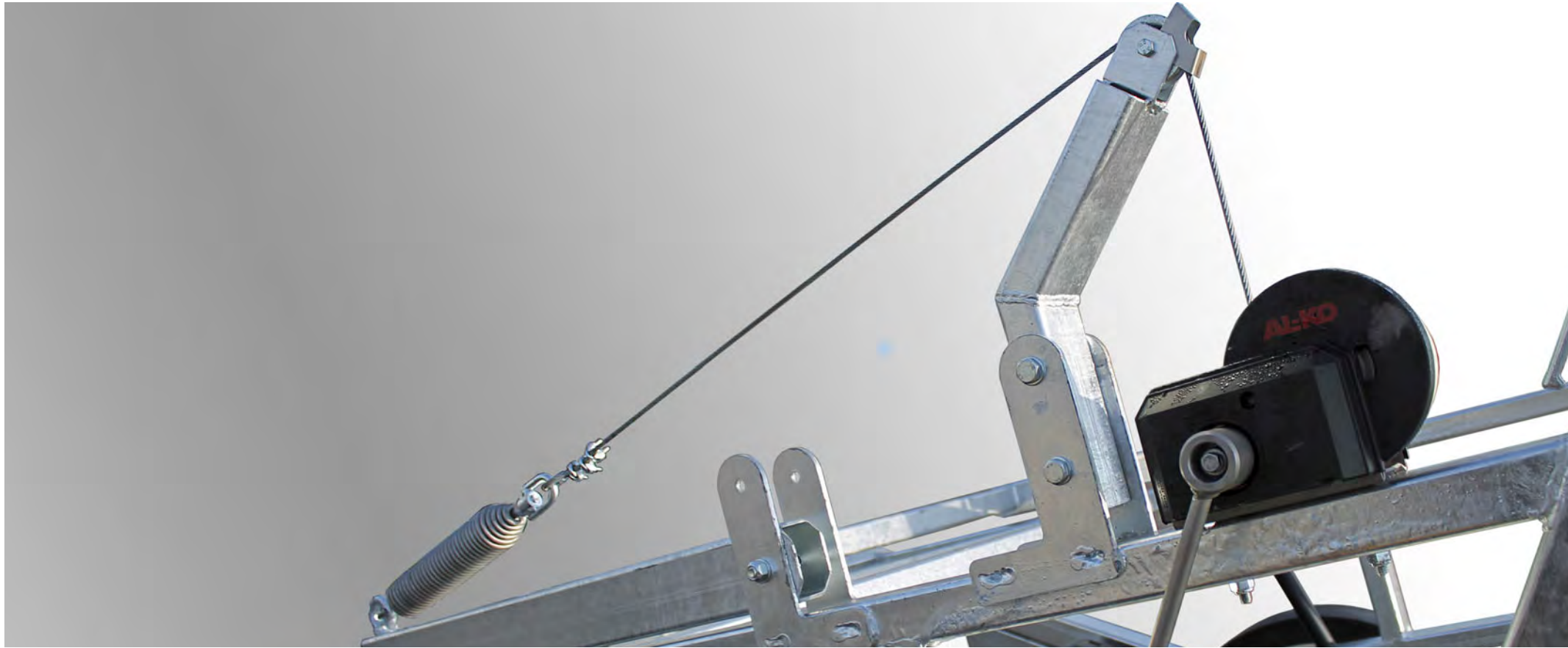
- ▶ Fold down the lid (Fig. 13 /2).
- ▶ Close the locks (Fig. 13 /1) by turning.
- ▶ If required, use the key to lock the toolbox. The lid is locked.
- ▶ Fold the covers (Fig. 12 /3) closed.







Competence in Trailers



5

Body

## Operating reel frame

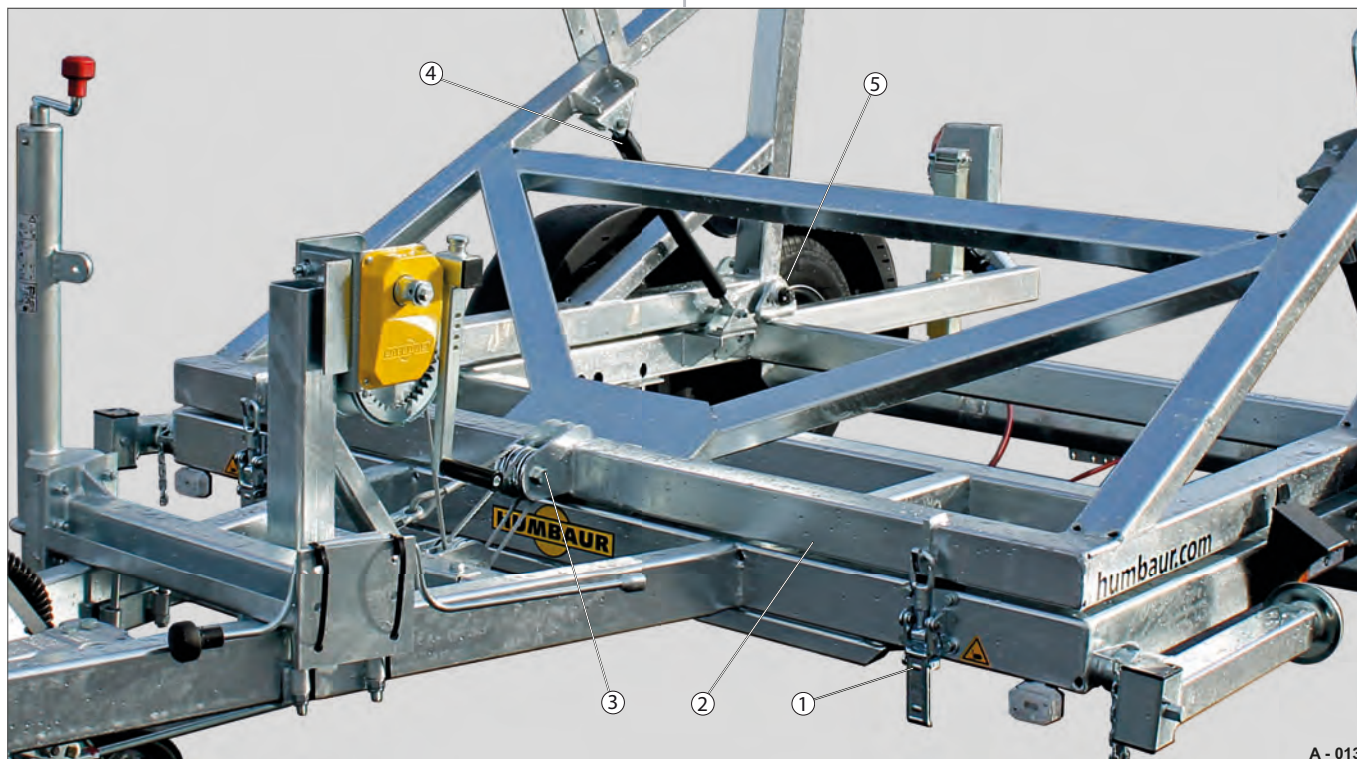


Fig. 1 Reel frame in driving position

- 1 Eccentric fastener (right / left)
- 2 Reel frame
- 3 Pulleys
- 4 Gas strut (right / left)
- 5 Bearing point
- 6 Snap hook

The reel frame (Fig. 1 /2) is supported on the chassis so that it can swivel (Fig. 1 /5).

The eccentric fasteners (Fig. 1 /1) lock the reel frame to the chassis.

The reel frame is operated using the cable winch (manual or electric).

The gas struts (Fig. 1 /4) push the reel frame upwards - which allows the cable reel to be picked up and placed down.



The reel frame / trailer may only be operated by a trained person / specialist familiar with operating a trailer and the associated risks and residual risks!



**WARNING**

**Bedienung nur durch eingewiesenes Personal erlaubt!**



**WARNING**

**Operation only permitted by trained personnel!**

620.00535



**WARNING**



**Moving reel frame!**

People could crush their fingers/hands/feet – risk of being hit or crushed!

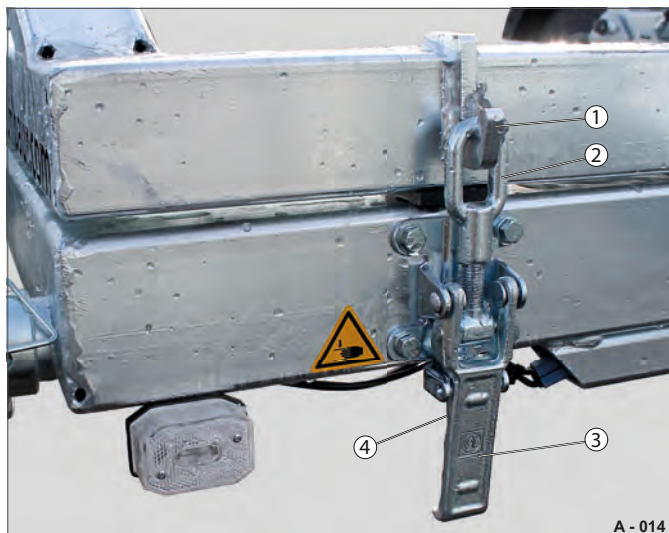


▶ When moving the reel frame, keep a safety distance – do not reach into the danger zone with any part of your body.

▶ Always keep in sight of an assistant.



## Unlocking reel frame



A - 014

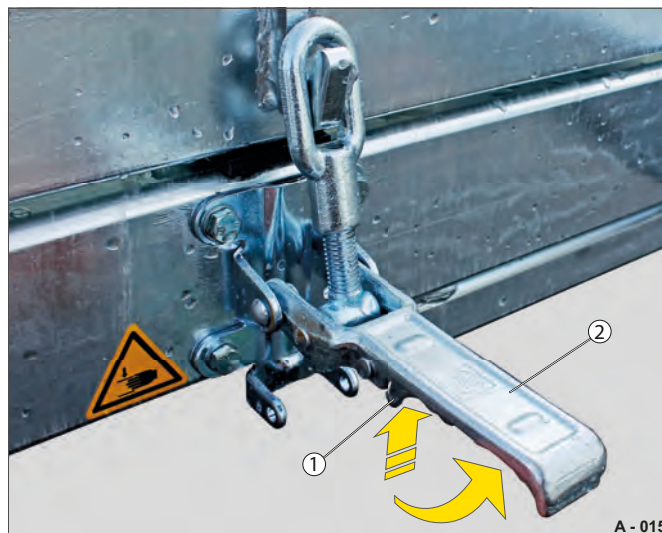
**Fig. 2** Eccentric fastener locked

- 1 Hook
- 2 Ring (adjustable)
- 3 Locking lever
- 4 Securing device

The eccentric fastener has a securing device.

The securing device ensures that the locking lever cannot be simply unlocked.

The locking pressure can be set by regulating the ring.

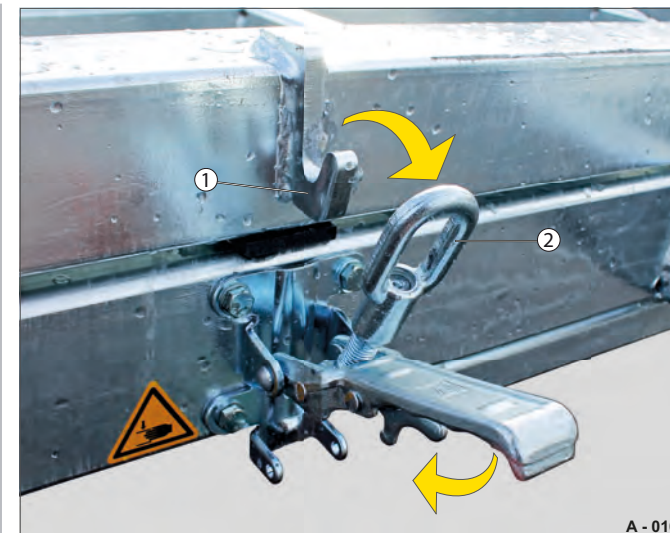


A - 015

**Fig. 3** Eccentric fastener unlocked

- 1 Securing device
- 2 Locking lever, released

- ▶ Push in the securing device (Fig. 3 /1).
- ▶ Pull open the locking lever (Fig. 3 /2).  
The ring is released.



A - 016

**Fig. 4** Reel frame unlocked

- 1 Hook
- 2 Ring

- ▶ Release the ring (Fig. 4 /2) from the hook (Fig. 4 /1).  
The reel frame is unlocked.

## Cable winch, manual

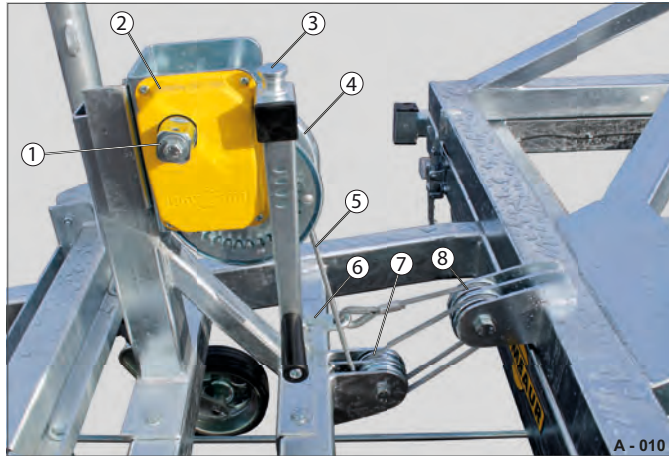


Fig. 5 Cable winch in driving position

- 1 Crank base
- 2 Gearbox housing
- 3 Crank on parking bracket
- 4 Cable winch
- 5 Cable (steel)
- 6 Snap hook
- 7 Pulleys (chassis)
- 8 Pulleys (reel frame)

### WARNING

**Open toothed segments / rolls / cable**  
People could crush their fingers / hands in the cable winch / pulleys or have them pulled in.

Keep your hands/fingers away from the cable winch / pulleys.

Do not grab the cable.

## Preparing the cable winch

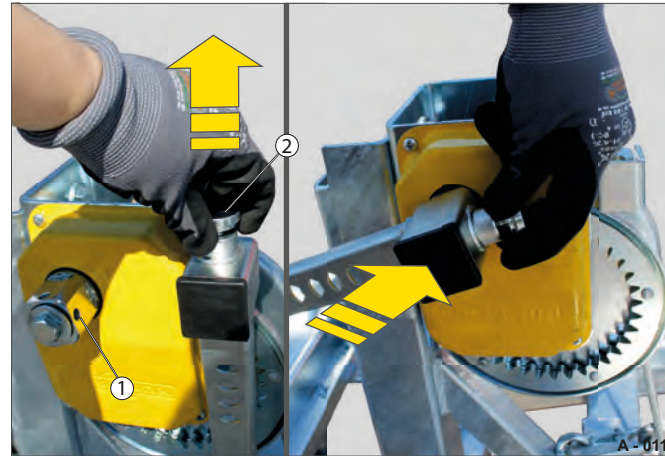


Fig. 6 Insert the crank handle

- 1 Crank base holes
- 2 Securing pin

- ▶ Pull on the securing pin (Fig. 6 /2) while at the same time removing the crank handle from its parking bracket.
- ▶ Insert the crank handle with the securing pin raised into the crank base (Fig. 6 /1).
- ▶ Release the securing pin.  
The crank handle locks into a hole on the crank base.

## Operating the cable winch

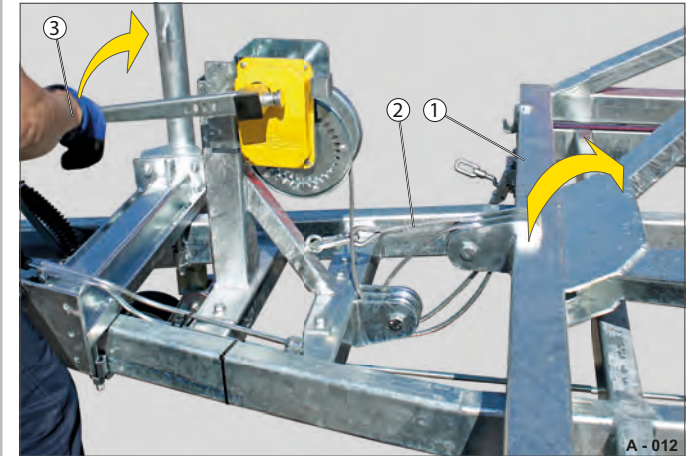


Fig. 7 Cable winch in operating position

- 1 Reel frame, unlocked
- 2 Cable, slackened
- 3 Crank handle

- The eccentric fasteners must be unlocked - operation see page 31.
- ▶ Turn the crank handle (Fig. 7 /3) in a clockwise direction.  
The cable (Fig. 7 /2) will slacken. The reel frame (Fig. 7 /1) is slowly pushed upwards with the gas struts.

## Tipping reel frame backwards



A - 017

Fig. 8 Tipping reel frame backwards

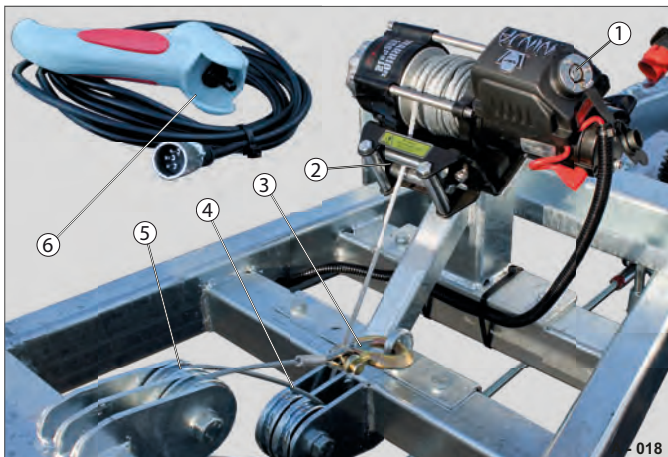
- 1 Cable winch
- 2 Reel frame
- 3 Gas struts



Make sure that nobody is at the back of the trailer  
(in the swivel radius of the reel frame)!

- ▶ Operate the cable winch (Fig. 8 /1) until the claw holders for the transport shaft are approximately in the pick-up position for the cable reel.

## Cable winch, electric



**Fig. 9** Cable winch in driving position

- 1 Plug connection remote control
- 2 Guide rollers
- 3 Snap hook
- 4 Pulleys (chassis)
- 5 Pulleys (reel frame)
- 6 Manual remote control

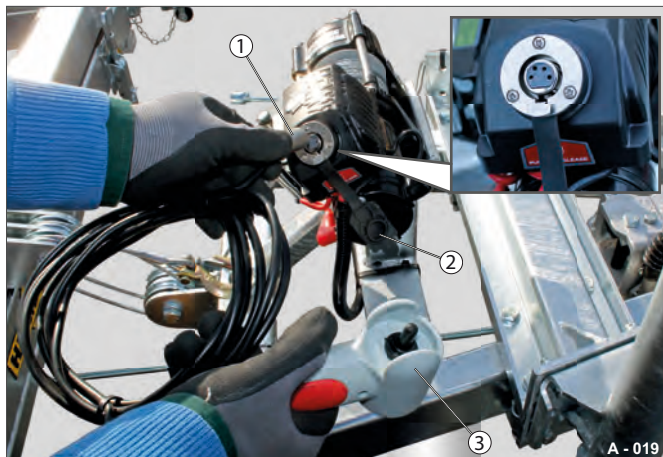
**WARNING**

**Open rolls / cable**  
People could crush their fingers / hands in the cable winch / pulleys or have them pulled in.

Keep your hands/fingers away from the cable winch / pulleys.

Do not grab the cable.

## Preparing the cable winch



**Fig. 10** Connecting remote control

- 1 Plug
- 2 Sealing cap
- 3 Manual remote control

- ▶ Pull the sealing cap (Fig. 10 /2) off the plug connection (Fig. 9 /1).
- ▶ Plug in the plug (Fig. 10 /1).
- ▶ Hold the manual remote control (Fig. 10 /3) tight and wind up according to the length of cable you require.

## Operating the cable winch



**Fig. 11** Controlling cable winch

- 1 Manual remote control
- 2 Cables (steel)



Before using the cable winch, you need to read the operating instruction manual from the manufacturer!

Pay attention to all safety information and comply with instructions.



- ▶ Maintain the cable winch as specified by the manufacturer - see maintenance intervals.


## Tipping reel frame forwards



A - 021

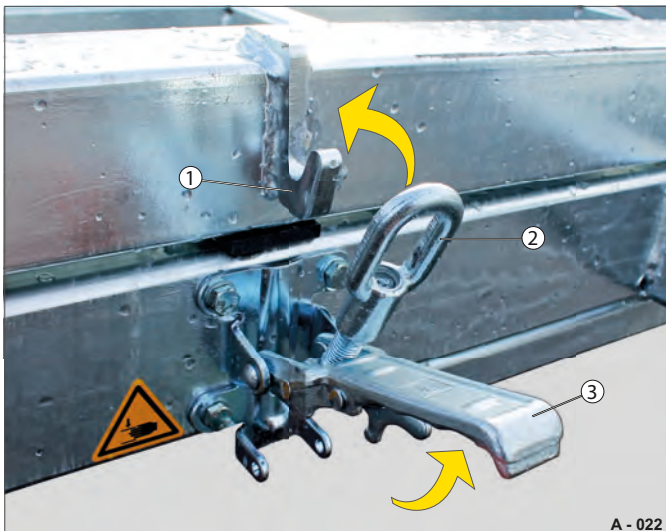
Fig. 12 Tipping reel frame forwards

- 1 Cable winch / manual remote control
- 2 Reel frame
- 3 Transport shaft with reel, secured

 The reel supported on the transport shaft (Fig. 12 /3) needs to be secured before tipping it back - see "Operation" section" Page 20.

- Operate the cable winch (Fig. 12 /1) until the reel frame is completely on the chassis.

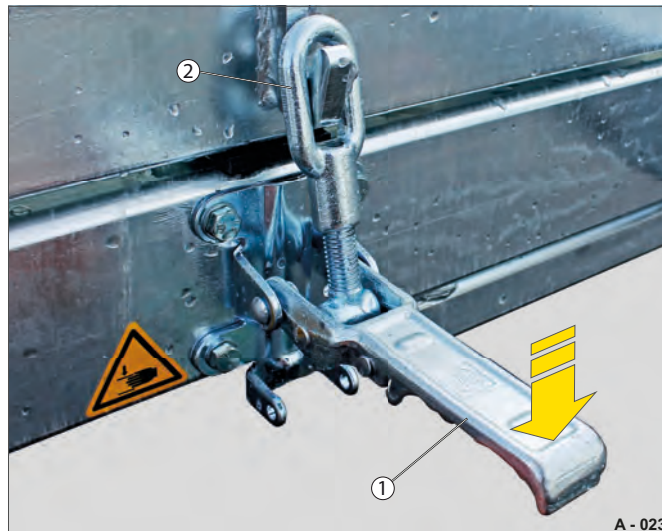
## Securing reel frame



**Fig. 13** Eccentric fastener unlocked

- 1 Hook
- 2 Ring
- 3 Locking lever

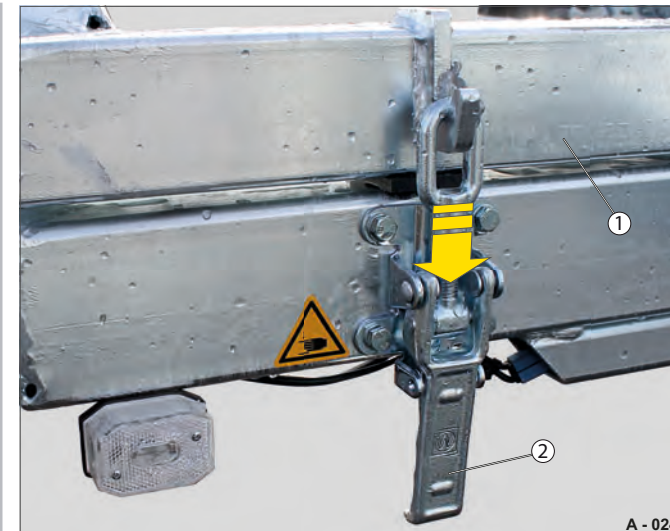
- ▶ Raise the locking lever (Fig. 13 /3).
- ▶ Place the ring (Fig. 13 /2) on the hook (Fig. 13 /1).



**Fig. 14** Positioning ring

- 1 Locking lever
- 2 Ring

- ▶ Using a flat hand, press the locking lever (Fig. 14 /1) all the way down until the securing device locks of its own accord.



**Fig. 15** Reel frame locked / driving position

- 1 Reel frame
- 2 Locking lever, secured

- ▶ Ensure that both locking levers (Fig. 15 /2) are locked. The reel frame (Fig. 15 /1) is secured in driving position.

Securing cable winch in driving position

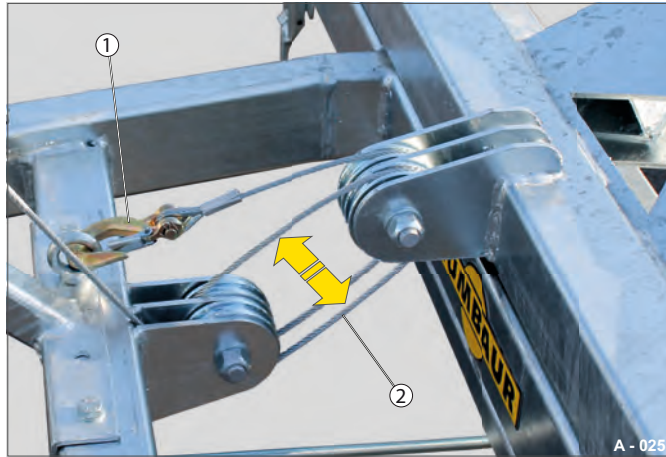


Fig. 16 Cable slack

- 1 Snap hook, attached
- 2 Cable



The cable should not be permanently tensioned!

- ▶ Release the cable (Fig. 16 /2) slightly after locking the reel frame.
- ▶ Ensure that the snap hook (Fig. 16 /1) has been secured in the ring

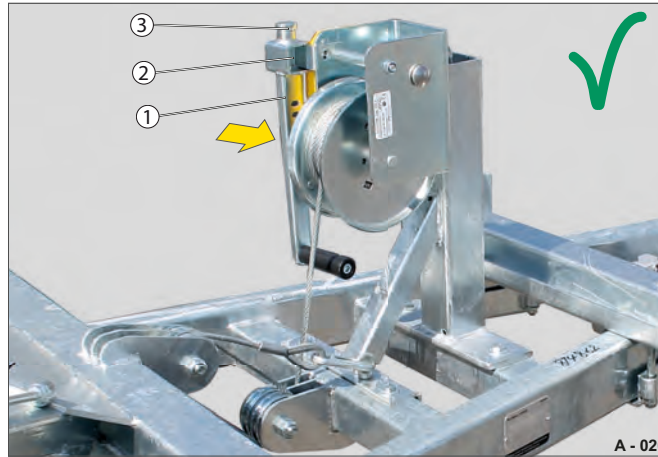


Fig. 17 Cable winch manual in driving position

- 1 Parking bracket
- 2 Crank handle, in parking bracket
- 3 Securing pin

- ▶ Raise the securing pin (Fig. 17 /3).
- ▶ Position the crank handle (Fig. 17 /2) on the parking bracket (Fig. 17 /1).
- ▶ Release the securing pin (Fig. 17 /3) and make sure that the crank handle is securely fastened.
- ▶ Alternatively, the crank handle can be stored in the toolbox (optional).

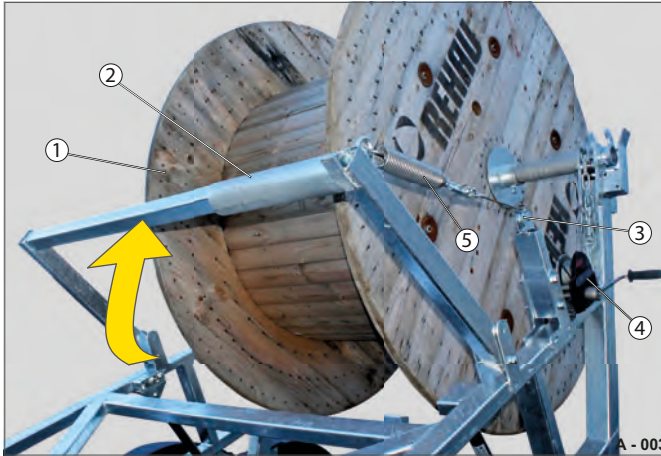


Fig. 18 Cable winch electric in driving position

- 1 Sealing cap for plug connection
- 2 Manual remote control

- ▶ Release the plug on the manual remote control (Fig. 18 /2).
- ▶ Place the sealing cap (Fig. 18 /1) on the plug connection.
- ▶ Wrap the cable of the manual remote control up neatly and store it in the toolbox (optional).

## Operating brake frame

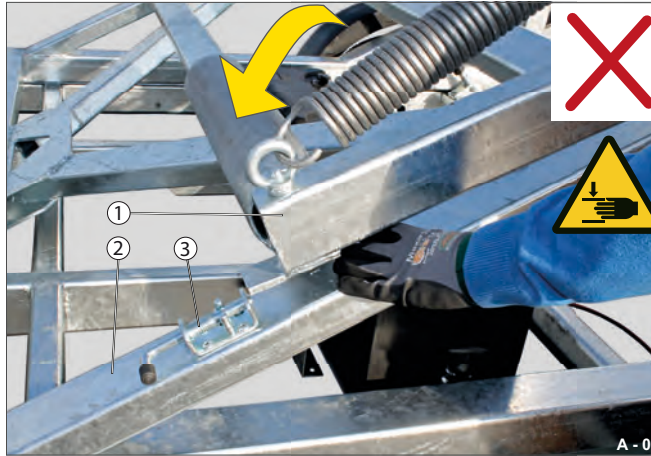


**Fig. 19** Brake frame

- 1 Reel
- 2 Brake frame
- 3 Pulley
- 4 Cable winch, manual
- 5 Tension spring

- The brake frame (Fig. 5 /2) presses against the reel (Fig. 5 /1) and brakes it or ensures that the reel does not continue turning by itself.
- The brake frame is operated with a cable winch (Fig. 5 /4).
- The steel cable is fed over the pulley (Fig. 5 /3) and braked.
- The tension spring (Fig. 5 /5) generates contact pressure on the reel.

The optional brake frame is assembled on the reel frame and is secured in driving position with a locking bolt. The brake function is used to unroll the cable from the reel.



**Fig. 20** Crushing points

- 1 Brake frame
- 2 Reel frame
- 3 Locking bolt

### CAUTION



#### Moving brake frame

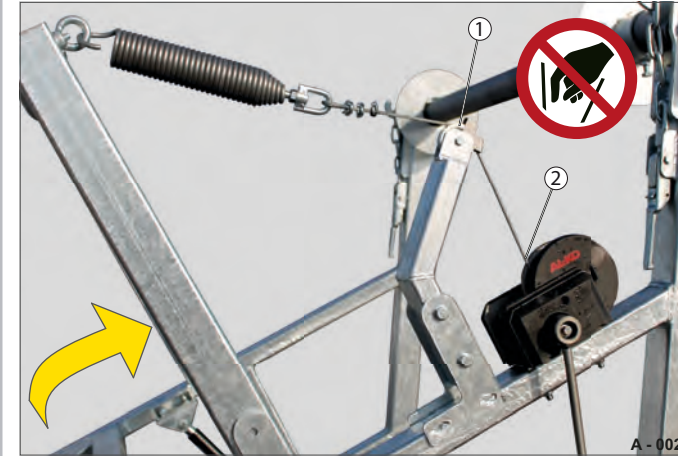
People can crush their hands / fingers between the brake frame and the reel frame.

- ▶ Keep your hands away from the crush area.



The brake frame needs to be locked with locking bolts (Fig. 20 /3) before setting off and before lowering the reel frame!

The brake frame (Fig. 19 /2) may only be operated with a reel (Fig. 19 /1) loaded on the trailer.



**Fig. 21** Crushing / shearing points

- 1 Pulley
- 2 Drum of cable winch

### CAUTION



#### Operating brake frame with cable winch

People can crush their hands / fingers on the cable winch / pulley.

- ▶ Do not reach into the pulley on the cable winch or into the drum of the cable winch.



Unlocking the brake frame

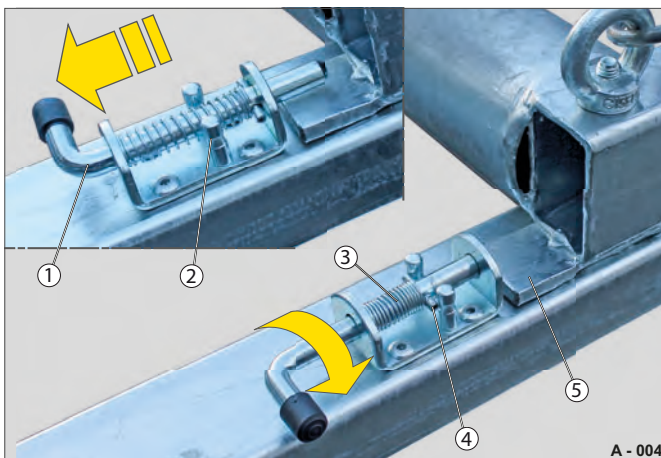


Fig. 22 Unlocking locking bolts

- 1 Locking bolt
- 2 Latching pins
- 3 Compression spring
- 4 Securing pins
- 5 Brake frame lug

- ▶ Pull on the locking bolt (Fig. 22 /1) against the force of the compression spring (Fig. 22 /2).
- ▶ At the same time, turn the locking bolt through 90° and lock the securing pins (Fig. 22 /4) behind the latching pins (Fig. 22 /2).  
The lug on the brake frame (Fig. 22 /5) is released.  
The brake frame is now released.

Operating the cable winch

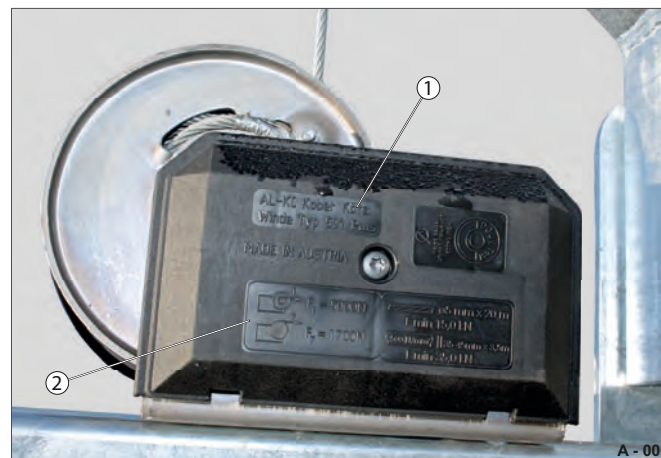


Fig. 23 Cable winch made by AL-KO / Type 501 Plus

- 1 Manufacturer / type
- 2 Technical data / load specified



Before using the cable winch, you need to read the operating instruction manual from the manufacturer!

Pay attention to all safety information and comply with instructions.



- ▶ Maintain the cable winch as specified by the manufacturer - see maintenance intervals.

Cranking up brake frame

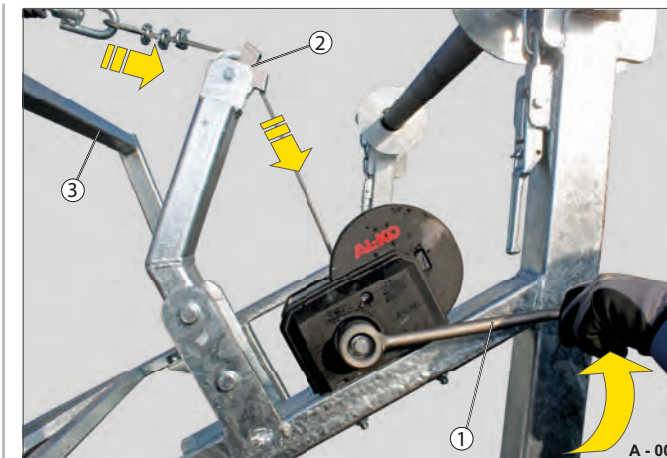
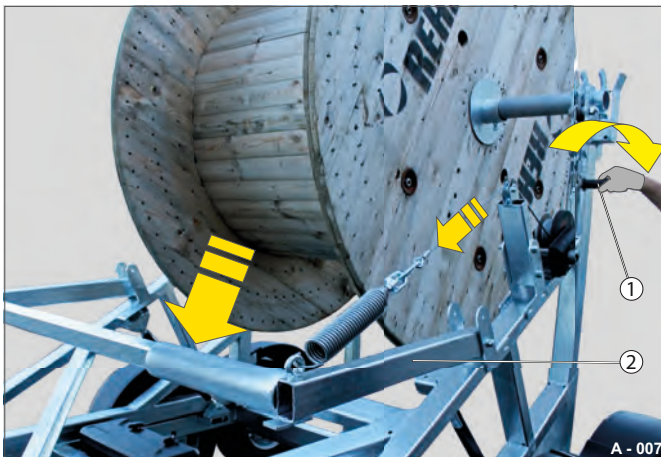


Fig. 24 Lifting brake frame

- 1 Hand lever
- 2 Pulley
- 3 Brake frame

- ▶ Crank the hand lever (Fig. 24 /1) anticlockwise.  
The cable is fed over the pulley (Fig. 24 /2) and rolled up.  
The brake frame (Fig. 24 /3) lifts and presses against the reel.
- ▶ Release the hand lever.  
The cable winch has an integrated brake.

## Cranking down the brake frame



**Fig. 25** Lowering brake frame

- 1 Hand lever
- 2 Brake frame

► Crank the hand lever (Fig. 25 /1) in a clockwise direction. The cable is unrolled.

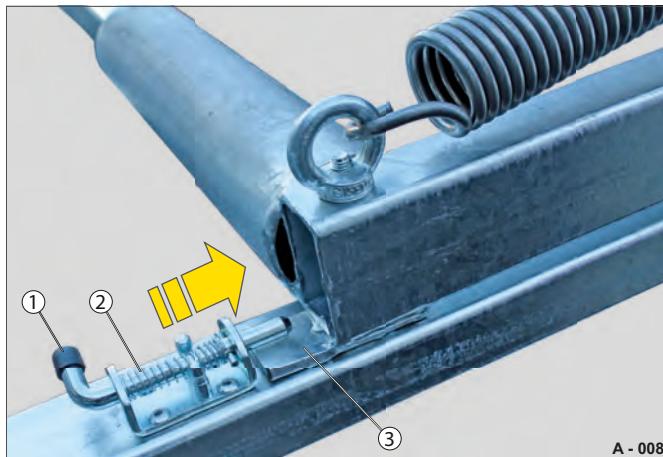
The brake frame (Fig. 25 /2) is lowered onto the reel frame.

► Keep your hands away from the crushing / shearing area between the brake frame and the reel frame.

► Release the hand lever.

The brake frame is laying completely flat on the reel frame.

## Locking the brake frame



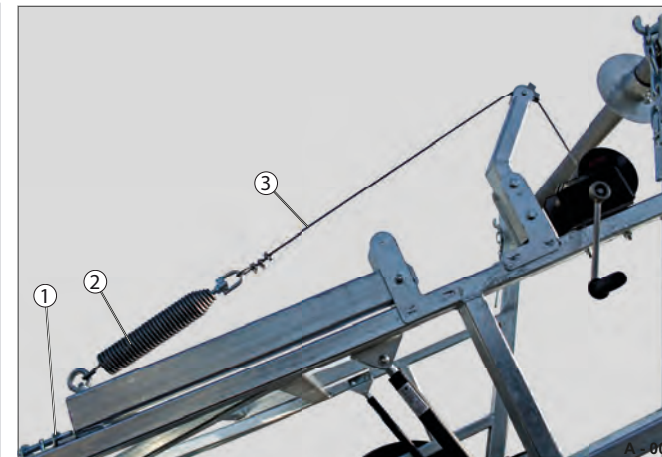
**Fig. 26** Locking bolts locked

- 1 Locking bolt
- 2 Compression spring
- 3 Brake frame lug

► Turn the locking bolt (Fig. 26 /1) through 90° and let it go. The compression spring (Fig. 26 /2) presses the bolt into the locked position.

The lug (Fig. 26 /3) on the brake frame is locked.

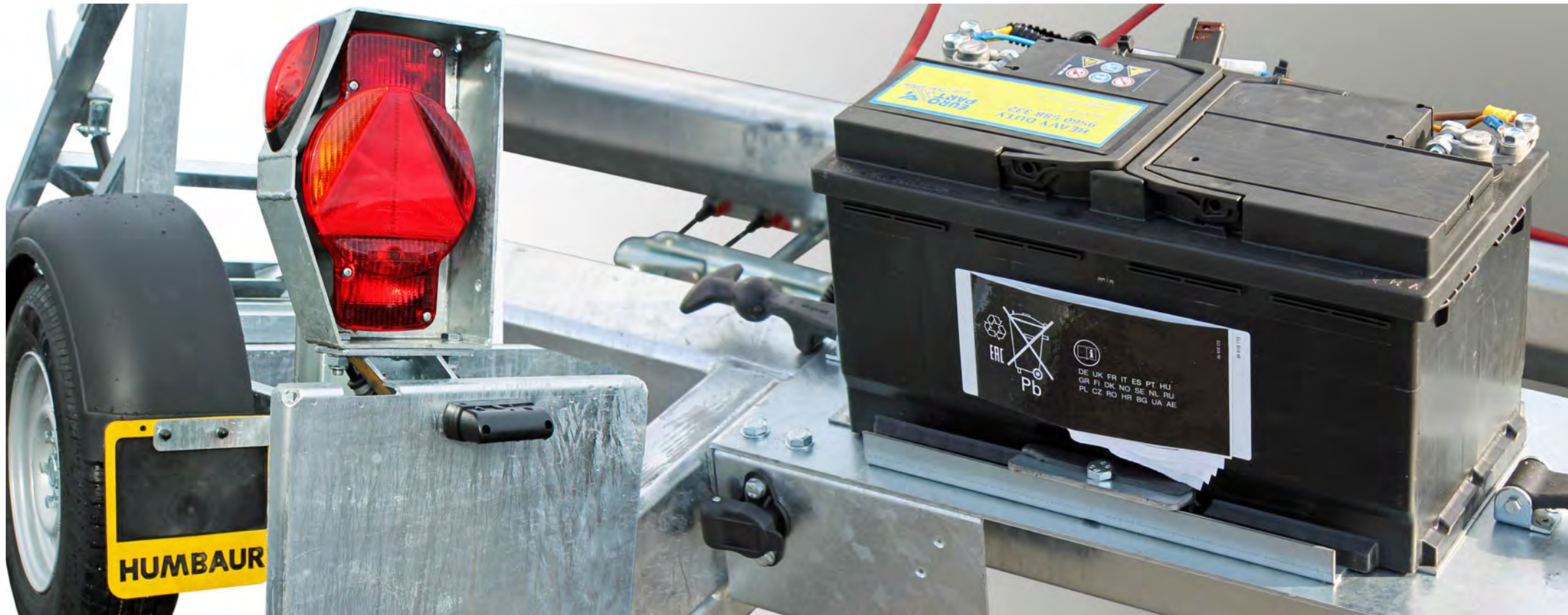
## Brake frame in driving position



**Fig. 27** Brake frame locked

- 1 Locking bolts, locked
- 2 Tension spring, released
- 3 Cable, slack

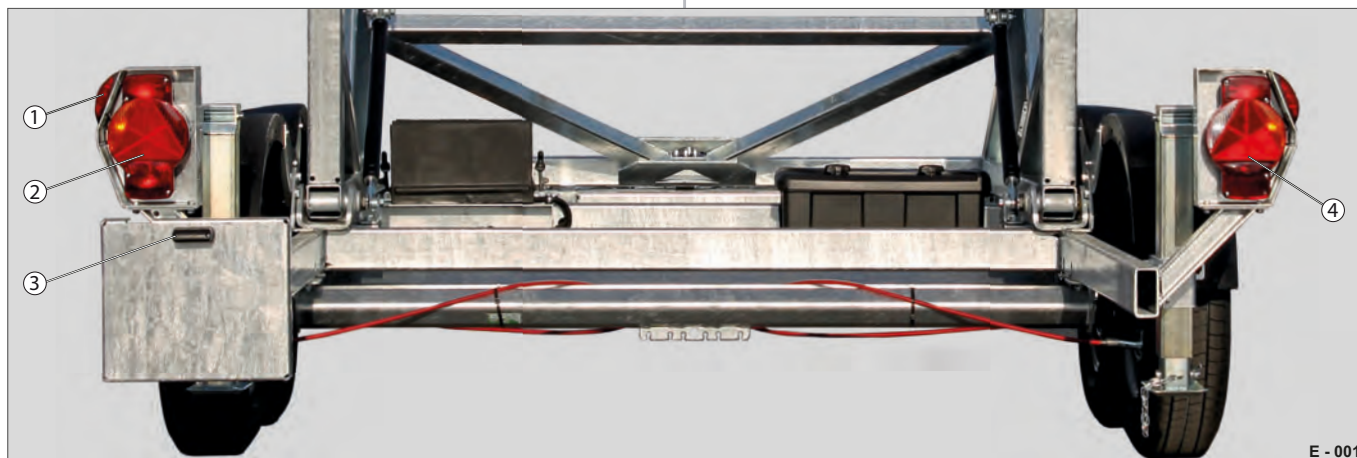
► Ensure that the brake frame is locked before driving off.



## 6

## Electric systems

## Lighting system / Electrical supply



E - 001

Fig. 1 Rear lighting

- 1 Marker light, side
- 2 Multifunction light, left version
- 3 Number plate light
- 4 Multi-function light, right version (with reversing light)



E - 002

Fig. 2 Lights at the front

- 1 Position lamp (front)
- 2 Reflector orange (on side of chassis)



Take note of the safety information and the instructions for the electric system in the operating instruction manual, "Trailers up to 3.5 t / Part 1 - General".

The electrical lighting system operates at 12 V as standard.

## Electric battery / power supply for electric cable winch

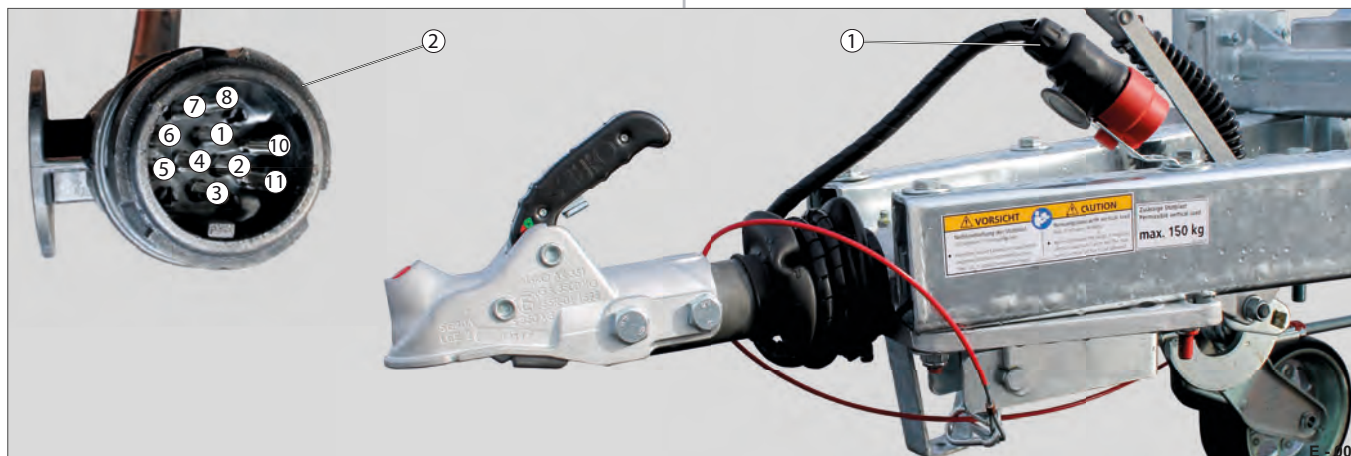


Fig. 3 Plug connection according to ISO 11466-12 V

- 1 Plug parked
- 2 Pin assignment (10-pin)



Standard pin assignment see the “Electric systems” section of the operating instruction manual “Trailers up to 3.5 to / Part 1 - General”.

Pay attention to the information on trickle charging and the way to check the battery charge.



Charging cable no. 10 and the ground circuit no. 11 are only assigned for the version with a battery for the electric cable winch!



### CAUTION



#### Operating battery under reel frame

You could also hit your head on the reel frame - risk of injury!

- ▶ Ensure that the reel frame is not being operated.
- ▶ Move slowly and carefully under the reel frame - avoid hasty movements.



### WARNING

#### Failure of electrical functions

Road users can not identify the direction of movement of the vehicle or its directions of travel due to lack of notification of the vehicle condition - risk of accidents!

- ▶ Check that all electrical connections have been made before driving off.
- ▶ Check the condition of the electrical plugs and cables before driving off.
- ▶ Do not drive with cracked or defective electric system connections.



### WARNING



#### Danger when handling batteries

Batteries can explode as a result of spark generation or short circuits.



- ▶ Wear safety glasses, gloves, boots, and a full-body protective suit.
- ▶ Avoid short circuits and the formation of sparks.
- ▶ Do not place any tools / objects on the batteries.
- ▶ Cover the terminals of the batteries prior to starting work on batteries.

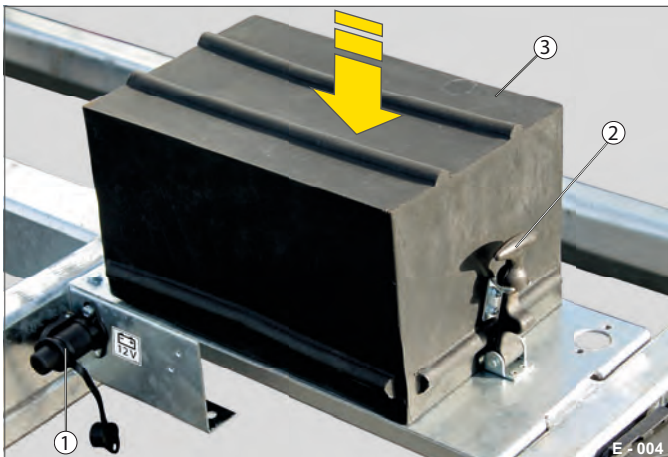


- ▶ Do not smoke near batteries and keep naked flames away.



- ▶ Wear personal protective equipment when handling the battery.

## Battery access



**Fig. 4** Battery covered / secured

- 1 Charging plug / socket
- 2 Rubber drawstring
- 3 Cover (plastic)


### WARNING

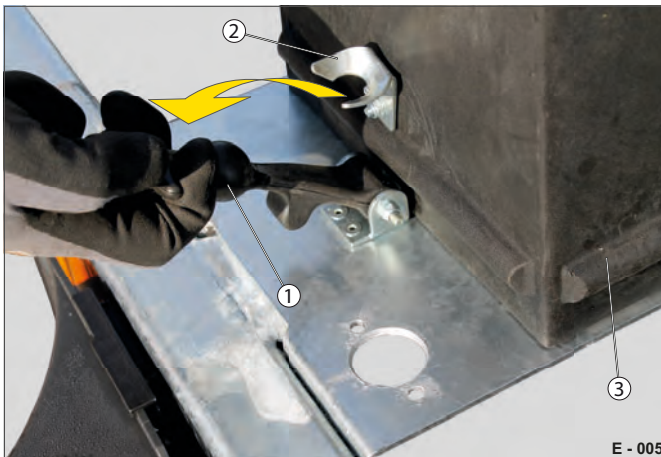
**Bridging batters / short circuit**  
A short circuit with bridged batteries could create a fire hazard! The battery becomes hot.

- ▶ Do not place any tools on the battery.
- ▶ Allow the battery to cool down before you start working on it.

### WARNING


**Leaking battery acid**  
Battery acid is corrosive, and there is a danger of acid burns if it comes into contact with you.

- ▶  You must consult a doctor immediately in the event of chemical burns.



**Fig. 5** Cover unlocked

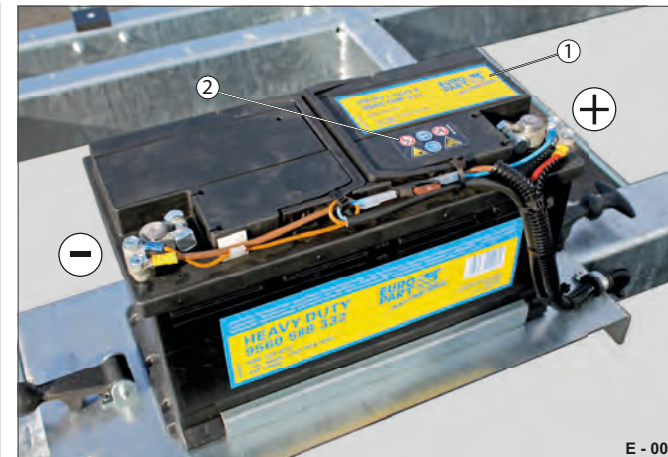
- 1 Rubber drawstring
- 2 Catch
- 3 Cover

 The battery is intrinsically maintenance-free.  
The state of charge needs to be checked on a regular basis – see maintenance intervals specified by manufacturer.

- ▶ Pull the rubber drawstring (Fig. 5 /1) upwards and guide it out of the catch (Fig. 5 /2).
- ▶ Lift the cover (Fig. 5 /3) upwards.  
The battery is freely accessible.

### Covering battery:

- ▶ Put the cover on the battery (Fig. 4 /3).
- ▶ Slide the rubber drawstrings (Fig. 4 /2) onto the catch.  
The battery is covered and secured (see Fig. 4).



**Fig. 6** Battery

- 1 Manufacturer / type / performance data
- 2 Warning notices

- ▶ Check the charging cable with an approved test device – e.g. using Battery Guard via Smartphone.
- ▶ Observe the manufacturer information (Fig. 7 /1). Adhere to the safety precautions specified by the manufacturer.



**Fig. 7** Manufacturer information

- 1 Documentation / safety information

## Battery charging option

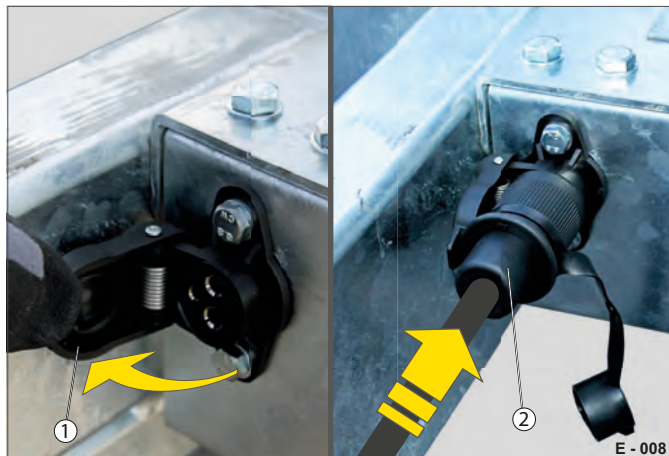


Fig. 8 Plug in charger

- 1 Cover on socket
- 2 Charging plug

The battery terminals can be directly connected to a suitable vehicle charger or can be easily charged using a charging plug (Fig. 8 /2).

The charging plug needs to be pre-assembled first.

- ▶ Open the cover (Fig. 8 /1).
- ▶ Plug in the plug (Fig. 8 /2).
- ▶ Completely charge the battery.

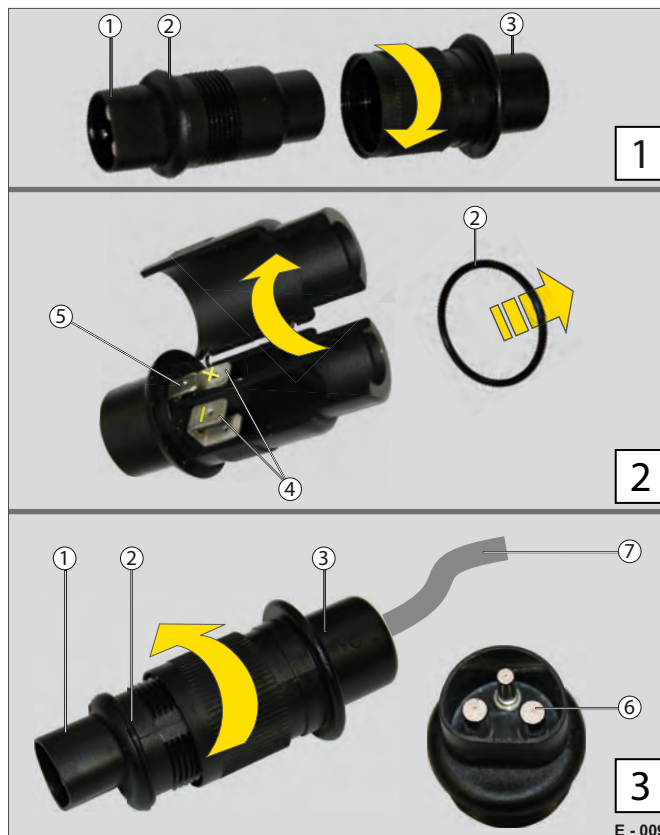


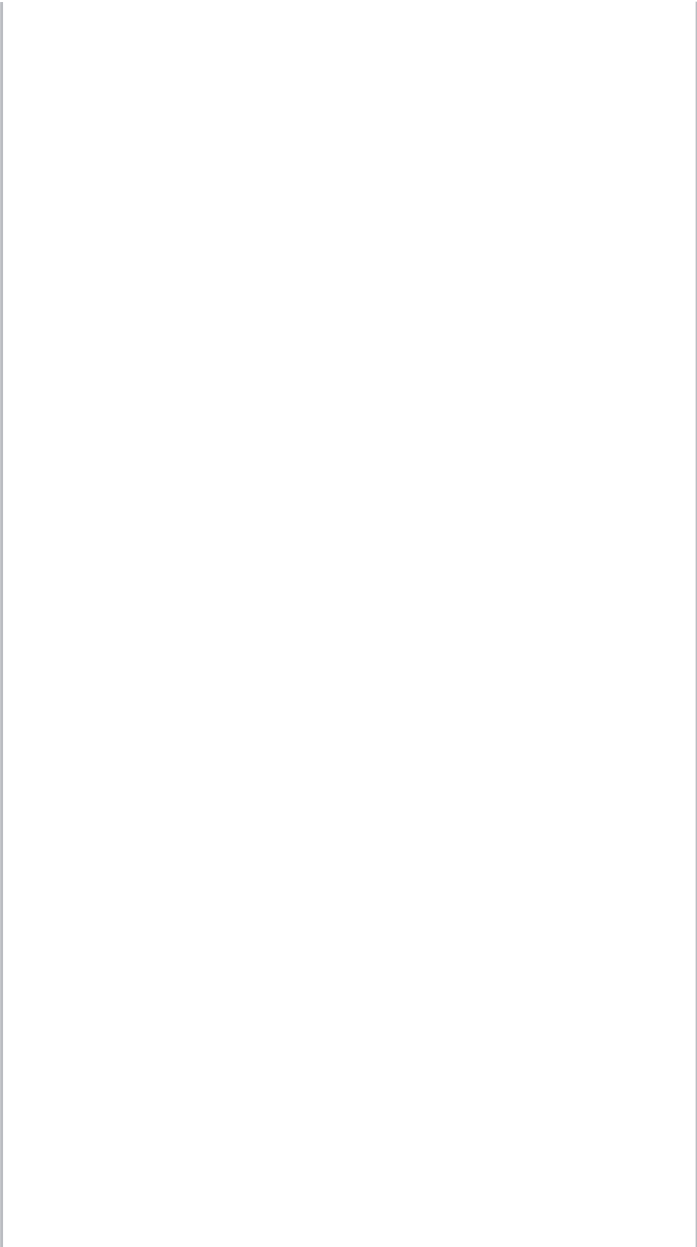
Fig. 9 Pre-assembled charging plug

- 1 Front section of plug (with contacts)
- 2 Rubber sealing ring
- 3 Back of plug
- 4 + line No. 15/30; – line No. 31
- 5 Pin terminal No. 82 (free)
- 6 Contacts
- 7 Charging line, connected

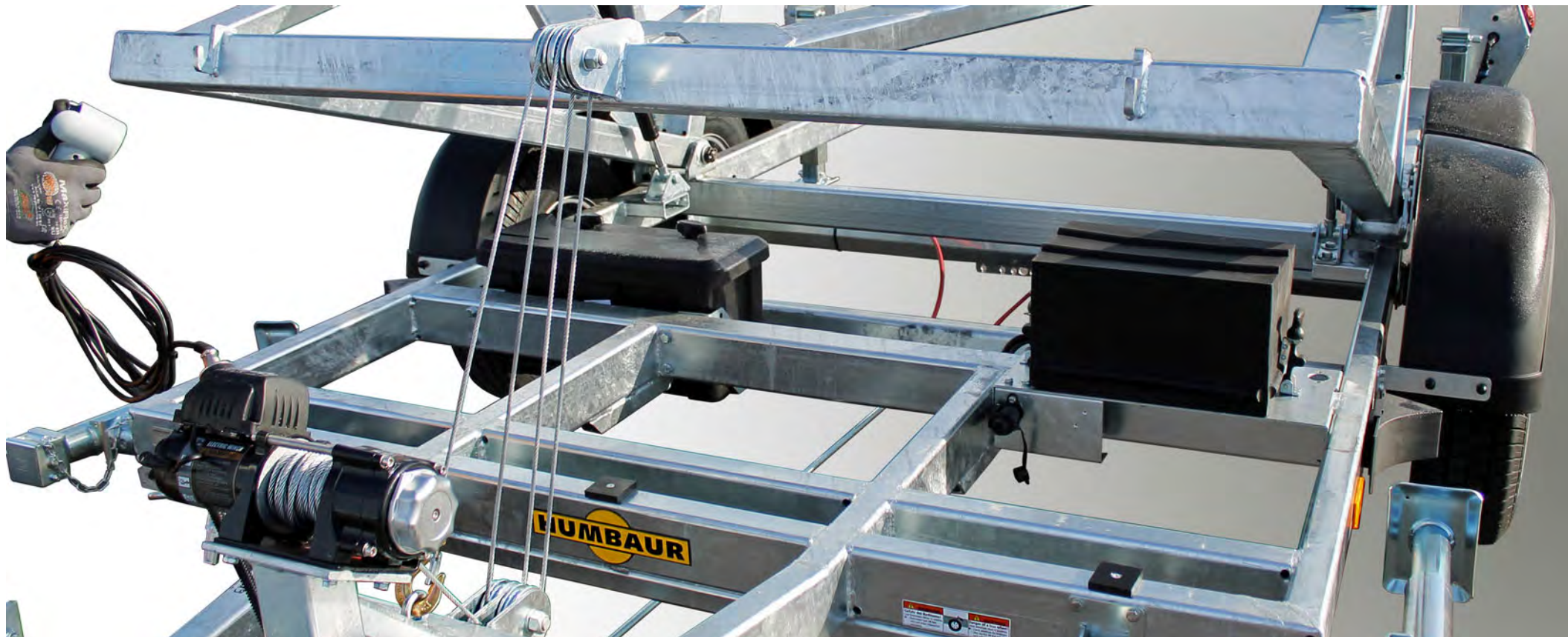
## Pre-assembling charging plug

- ▶ Screw on the charging plug (see Fig. 9 / step 1).
- ▶ Remove the rubber sealing ring (Fig. 9 /2) - (see Fig. 9 / step 2).
- ▶ Pull the rear section of the plug (Fig. 9 /3) on to the charging line (Fig. 9 /7).
- ▶ Open the front section of the plug (Fig. 9 /1).
- ▶ Clamp the + line to terminal no. 15/30 and the - line to terminal no. 31 (Fig. 9 /4).
- ▶ Close the front section of the plug and slide the rubber sealing ring onto it.
- ▶ Screw the front section of the plug to the back section of the plug (see Fig. 9 / step 3).

The charger can be connected via the socket (Fig. 8 /1) using the charging plug (Fig. 8 /2).







7

# Testing, care and maintenance



Note the maintenance regulations in the operating instruction manual "Trailers up to 3.5 t / General – Part 1".

Certain maintenance work may only be carried out by trained and qualified personnel.

The prescribed maintenance intervals must be complied with.

The safety precautions need to be taken for all maintenance / repair work - see "Safety" section.



## WARNING



### Unsecured reel frame / brake frame during repair / component replacement!

Loose frame components can twist down - risk of crushing body, hands, limbs! Risk of impact with head!



- ▶ Secure the loose parts of the frame using tools such as lifting aids, crane.



- ▶ Always use two people to carry out repair work.



- ▶ Wear the personal protective equipment.

## Overrun device

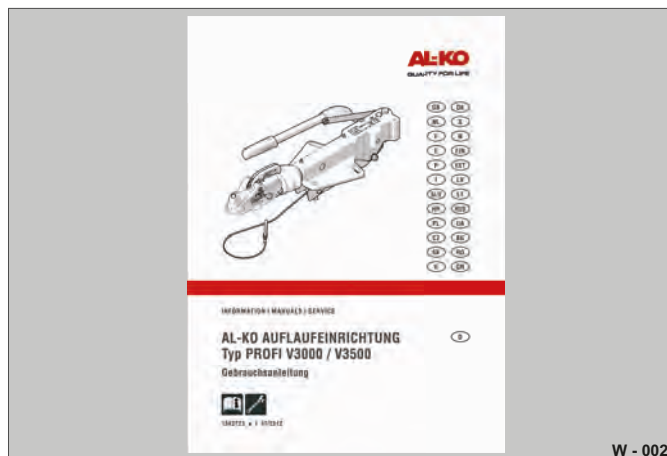


Fig. 1 Example: Operating instructions for overrun device

- ▶ Carry out the prescribed visual inspections and maintenance work or have them carried out by qualified specialist workshops.
- ▶ Have the inspections documented in the service booklet.

## Maintenance of axles / wheels

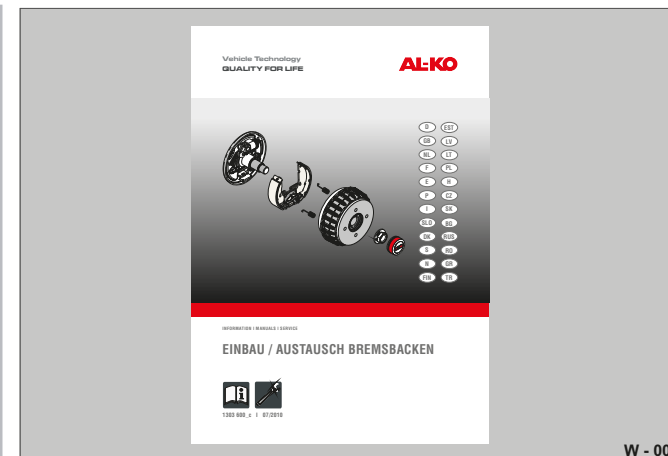


Fig. 2 Example: Operating instruction manual for axles / brakes

- ▶ Carry out the prescribed visual inspections and maintenance work or have them carried out by qualified specialist workshops.
- ▶ Have the inspections documented in the service booklet.

## Cable winch, manual

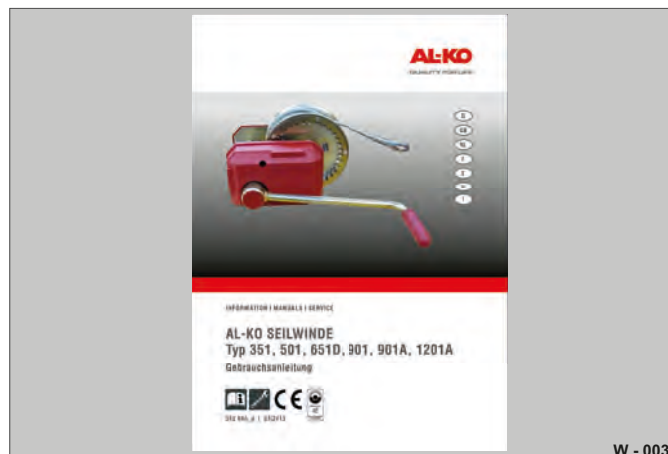


Fig. 3 Example: Operating instruction manual for manual cable winch

- ▶ Carry out the prescribed visual inspections and maintenance work or have them carried out by qualified specialist workshops.
- ▶ Have the inspections documented in the service booklet.

## Cable winch, electric



Fig. 4 Example: Operating instruction manual for electric cable winch

- ▶ Carry out the prescribed visual inspections and maintenance work or have them carried out by qualified specialist workshops.
- ▶ Have the inspections documented in the service booklet.

## Gas struts

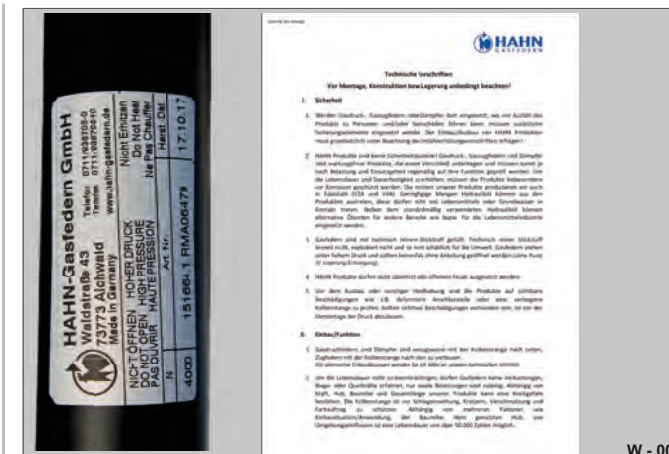
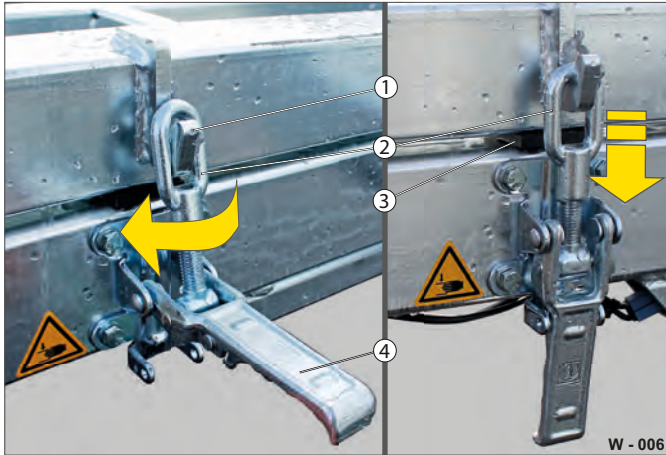


Fig. 5 Example: Operating instruction manual for gas struts

- ▶ Carry out the prescribed visual inspections and maintenance work or have them carried out by qualified specialist workshops.
- ▶ Have the inspections documented in the service booklet.

## Reel frame eccentric fasteners

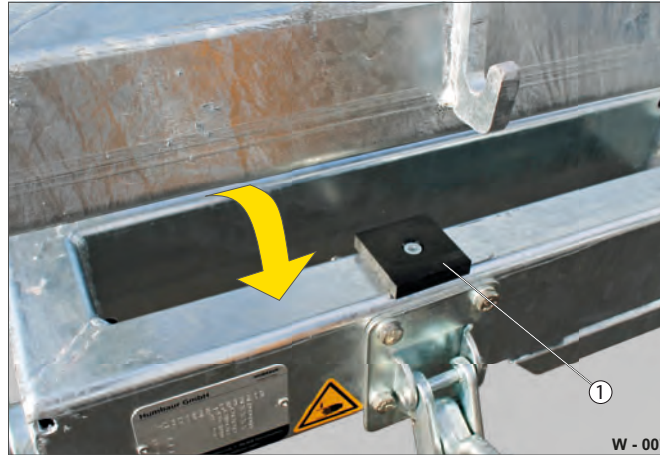


**Fig. 6** Adjusting eccentric fasteners

- 1 Hook (reel frame)
- 2 Ring
- 3 Rubber pad
- 4 Lever

The tension in the eccentric fasteners can slacken over time.

- ▶ Check the eccentric fasteners for signs of wear, breakage, tension build-up.
- ▶ Readjust the eccentric fasteners if the tension build-up reduces
  - Open the fastener.
  - Twist in the ring (Fig. 6 /2) a couple of turns of the thread.
  - Close the fastener: The lever (Fig. 6 /4) must be locked.
- ▶ Adjust both eccentric fasteners so that they provide the same tension.



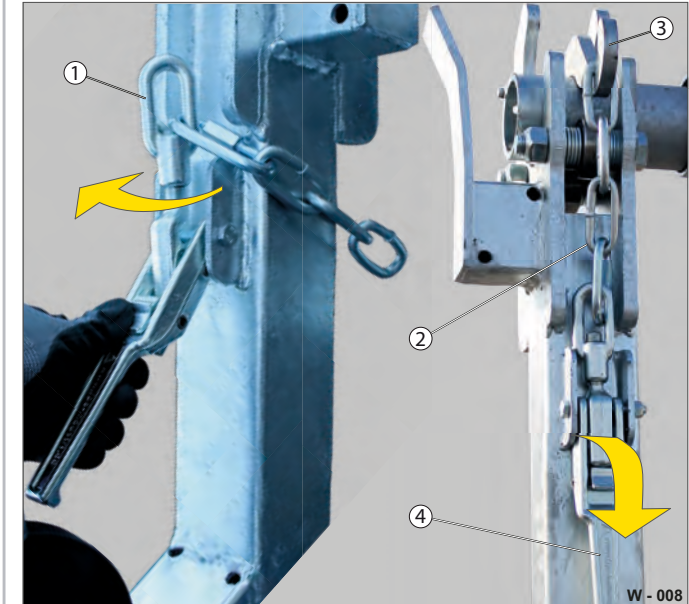
**Fig. 7** Check pad

- 1 Rubber pad

The rubber pads (Fig. 7 /1) can wear.

- ▶ Check that the reel frame is positioned evenly on the rubber pads.
- ▶ Replace any deformed / worn rubber pads.

## Transport shaft eccentric fasteners



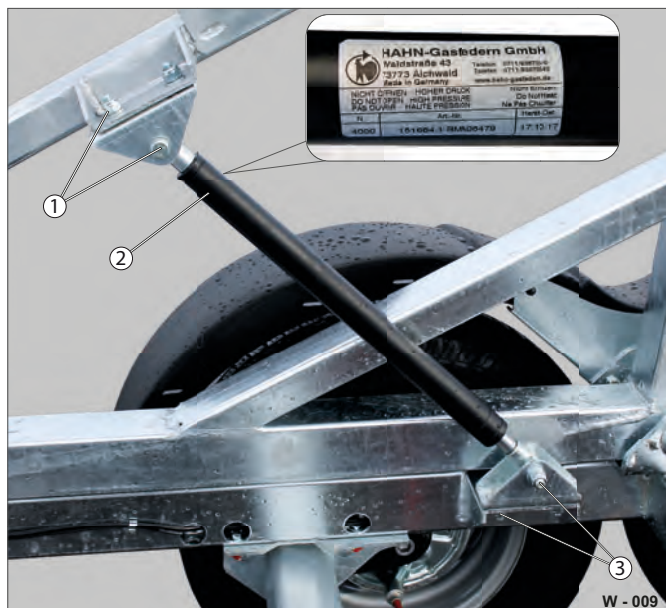
**Fig. 8** Adjust chain lock

- 1 Ring
- 2 Chain links
- 3 Hook
- 4 Lever

**!** The tension on the eccentric fasteners must not be too great - it must still be possible to move the chain! The hook (Fig. 8 /3) must not be clamped in the transport shaft!

- ▶ Check the eccentric fasteners / chain lock for signs of wear, breakage, tension build-up.
- ▶ Readjust the eccentric fasteners if necessary.
  - Open the fastener.
  - Twist in the ring (Fig. 8 /1) a couple of turns of the thread.
  - Close the fastener: The lever (Fig. 8 /4) must be locked.
- ▶ Adjust both eccentric fasteners so that they provide the same tension.

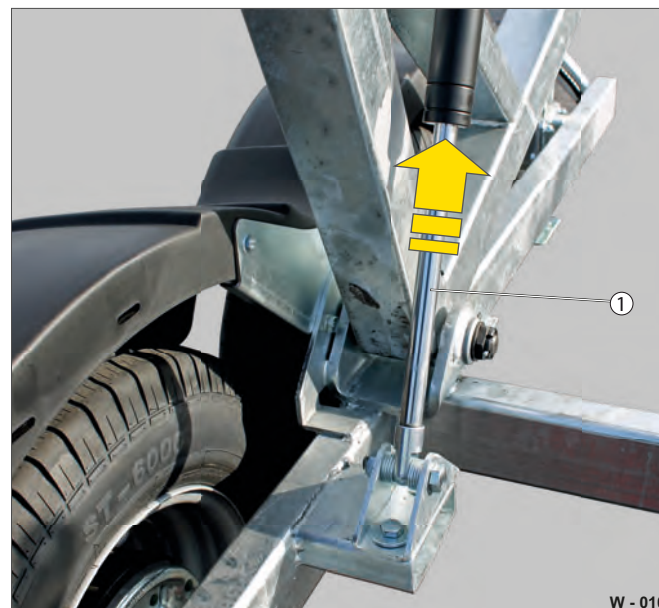
## Mounting the gas struts



**Fig. 9** Checking mounting points

- 1 Screw connections top console
- 2 Gas strut made by HAHN / 4000 N
- 3 Screw connections bottom console


- ▶ Check the screw connections on the top console (Fig. 9 /1) to ensure they are tight.
- ▶ Check the screw connections on the bottom console (Fig. 9 /2) to ensure they are tight.
- ▶ Check that the manufacturer's label has been applied.



**Fig. 10** Check gas struts

- 1 Pistons extended

- ▶ Secure the reel frame against falling when fitting/removing the gas struts.
- ▶ Only use gas struts of the same type – take note of the force information (see label).
- ▶ Clean the piston (Fig. 10 /1) with a clean cloth.
- ▶ Keep films and paper packaging away – electrostatic charge is possible.
- ▶ Do not scratch or paint the piston rod or treat it with aggressive media (abrasives).

- ▶  Do not aim the water jet directly at the gas struts when cleaning.



### WARNING



#### Removing gas struts!

The gas struts are under high pressure! Improper fitting/removal may result in injury to persons – risk of explosion!

- ▶ Observe the safety information on the gas strut.
- ▶ Take note of the instructions provided by the gas strut manufacturer – see manufacturer's documentation.
- ▶ Have worn/defective gas struts replaced by qualified personnel only.



The gas struts are intrinsically maintenance-free. However, the gas struts are subject to wear that can be reduced by regular maintenance. Worn gas struts must be replaced in pairs!

The operating temperature range of the gas struts is - 25 °C to + 60 °C.

The service life, functionality and safety depends to a large extent on the regular maintenance/care of the gas-struts.

## Reel frame bearings



**Fig. 11** Bearings / lubrication points reel frame

- 1 Grease nipple

► Lubricate the bearing points right / left at the grease nipple (Fig. 11 /1) using a grease gun.

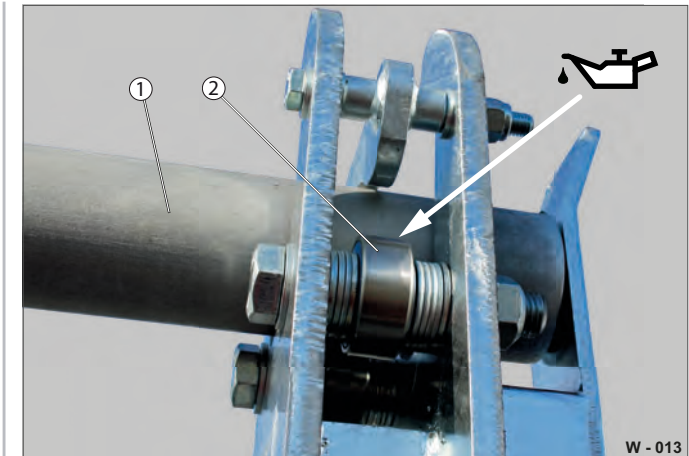


**Fig. 12** Bearings / lubrication points reel frame

- 1 Bearing point / grease leaking out

► Tip the reel frame up and down several times - the grease will distribute itself in the bearing point (Fig. 12 /1).  
 ► Remove any excess grease from the bearing point.

## Transport shaft bearings

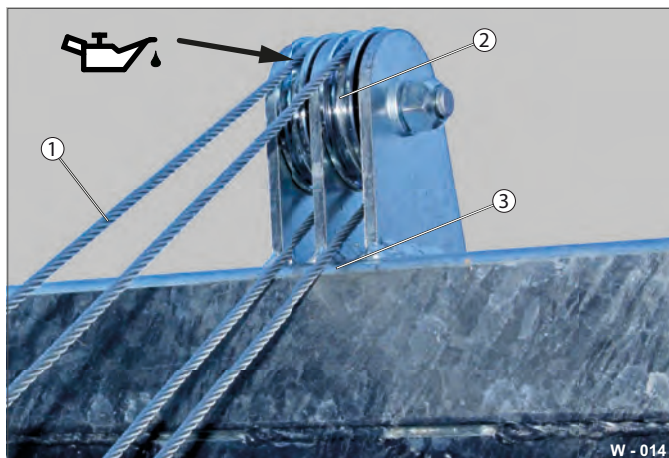


**Fig. 13** Bearings / lubrication points transport shaft

- 1 Transport shaft  
 2 Ball-bearings

► Regularly clean the bearing point of the transport shaft (Fig. 13 /1).  
 ► Check and make sure that no foreign bodies are blocking the ball bearings (Fig. 13 /2).  
 ► Lightly oil the ball bearings.

## Cable winch / wire cable / pulleys



**Fig. 14** Check / oil wire cable / pulleys

- 1 Wire cable (steel, D=7mm)
- 2 Pulleys
- 3 Friction points



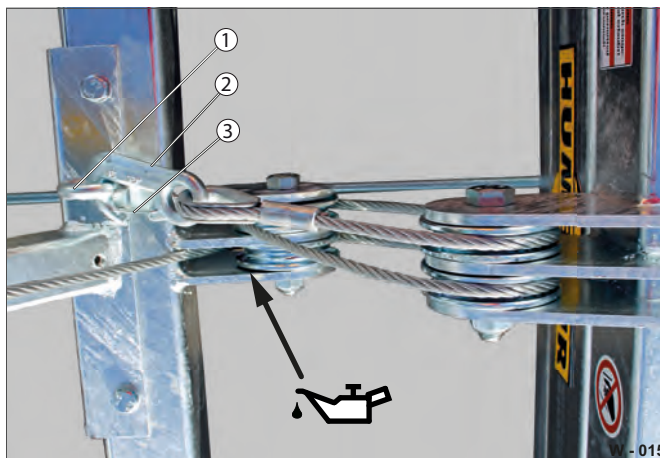
The cable winch must be inspected by specialised staff at least once a year.

Servicing work may only be carried out by qualified technical personnel!

The cable winch / mount must be checked for damage, ageing, material fatigue, tight fit.

The wire cable must be checked for wire breakages, strand breakages, buckling, flat areas, bends, kinks.

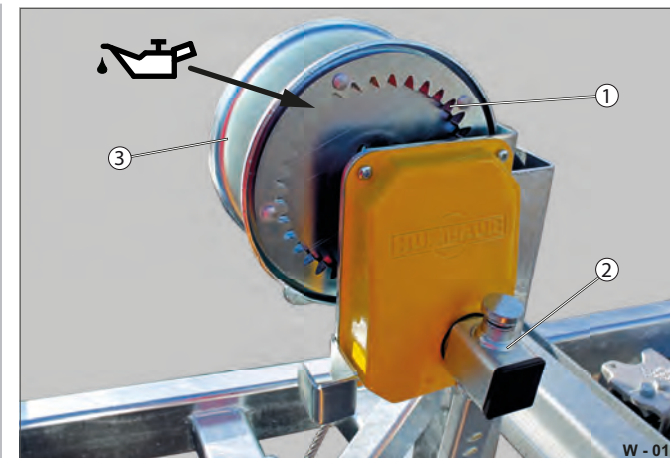
- ▶ Regularly clean the pulleys (Fig. 14 /2).
- ▶ Inspect the extended wire cable (Fig. 14 /1) for possible damage.
- ▶ Check the friction points (Fig. 14 /3) for damage – rework any worn spots with zinc spray and grease them.



**Fig. 15** Check guide / securing of wire cable

- 1 Ring
- 2 Hook
- 3 Spring latch

- ▶ Check that the wire cable is firmly attached to the support on the drawbar.
- ▶ Check the ring (Fig. 15 /1) for tight fit.
- ▶ Check the hook (Fig. 15 /2) and make sure it is not damaged / deformed – the hooks must be secured with a spring latch (Fig. 15 /3).



**Fig. 16** Testing / greasing the cable winch

- 1 Toothed segments
- 2 Drum
- 3 Crank handle (operating position)

- ▶ Release the hook (Fig. 15 /2) from the ring (Fig. 15 /1).
- ▶ Pull the wire cable all the way out.
- ▶ Check the toothed segments (Fig. 16 /1) for damage.
- ▶ Check the reels (Fig. 16 /3) for deformation / wear.
- ▶ If necessary, clean the toothed segments.
- ▶ If necessary, clean the wire cable with a cloth.
- ▶ If necessary, replace a damaged wire cable – do not carry out any repairs.
- ▶ Oil the toothed segments and with wire cable with machine oil.
- ▶ Plug the lever (Fig. 16 /3) onto the base and make sure it clicks securely into place.
- ▶ Fasten the hook to the ring (see Fig. 15 ).
- ▶ Wind the wire cable neatly onto the reel.
- ▶ Put the lever on the parking bracket.

## Brake frame (optional)

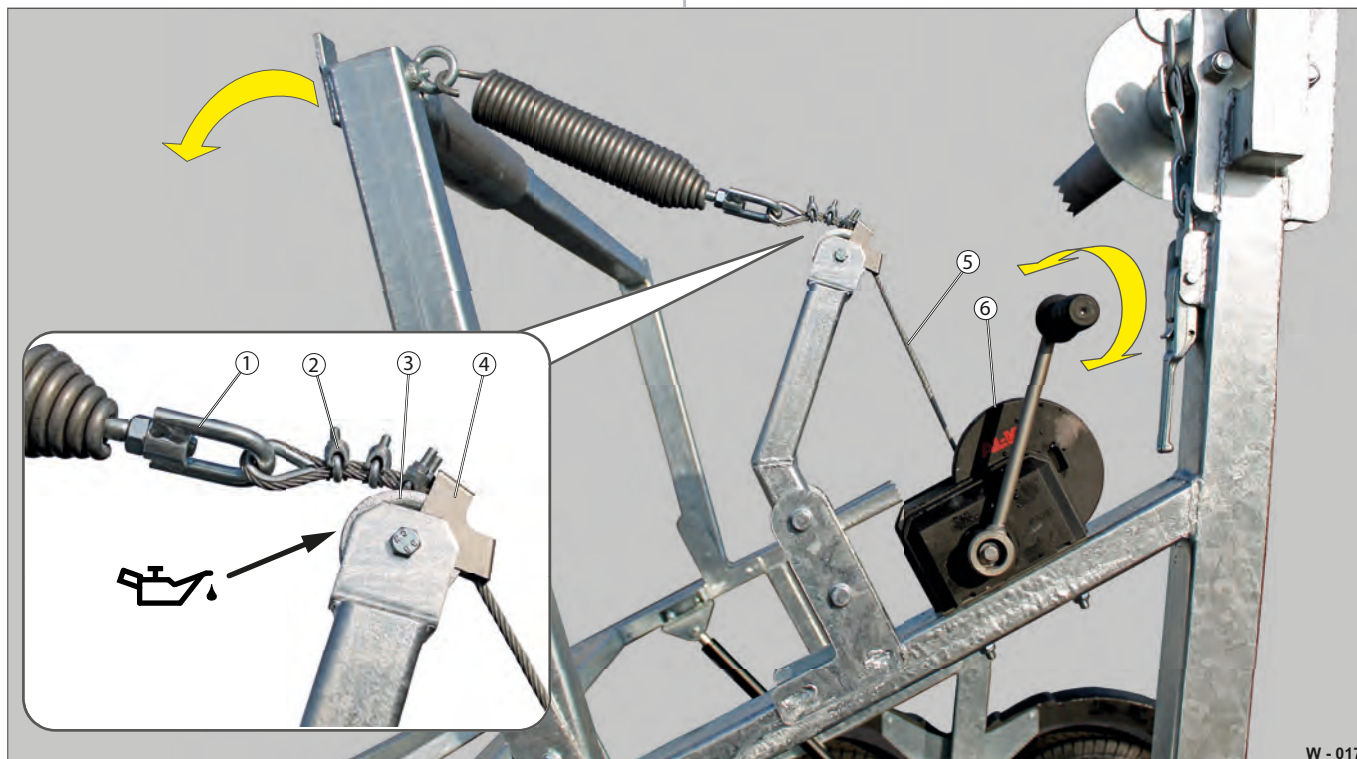


Fig. 17 Cable winch for brake frame

- 1 Ring / tension spring
- 2 Clamp fastening
- 3 Pulley
- 4 Bracket
- 5 Wire cable
- 6 Cable winch made by ALKO



The brake frame / attachments need to be checked at least once a year to make sure that they work.

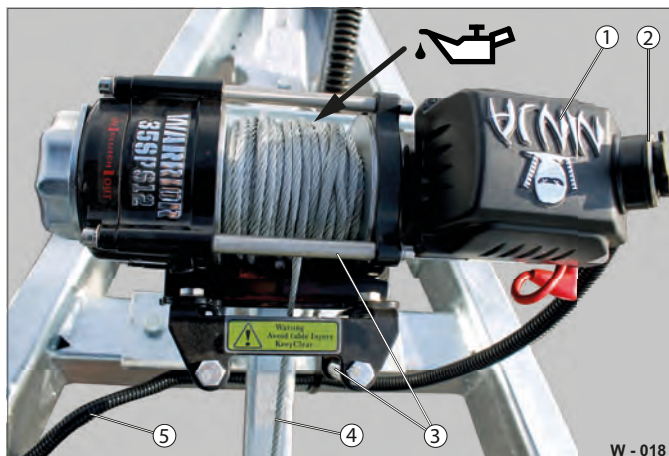


Manufacturer's documents from ALKO must be complied with.

- ▶ Check the tension spring (Fig. 17 /1) and its mounts for damage / deformation.
- ▶ Adjust the ring on the tension spring if necessary.
- ▶ Check the clamp joints (Fig. 17 /2) for tight fit.
- ▶ Check the extended wire cable for damage – see “Cable winch / wire cable / pulleys” on page 53.
- ▶ Clean the wire cable (Fig. 17 /5) with a cloth and oil it with machine oil.
- ▶ Oil the pulley (Fig. 17 /3).
- ▶ Check the cable winch / reel for damage – see manufacturer's documents from ALKO.
- ▶ Move the brake frame up and down several times – check that the brake frame and its locks swivel freely.



### Electric cable winch



**Fig. 18** Check / oil electric cable winch

- 1 Electric winch made by WARRIOR NINJA 35SPS12
- 2 Socket for remote control
- 3 Guide rollers
- 4 Wire cable (steel, D=7mm)
- 5 Electric cable



The cable winch must be inspected by specialised staff at least once a year.

Servicing work may only be carried out by qualified technical personnel!

The cable winch / mount must be checked for damage, ageing, material fatigue, tight fit.

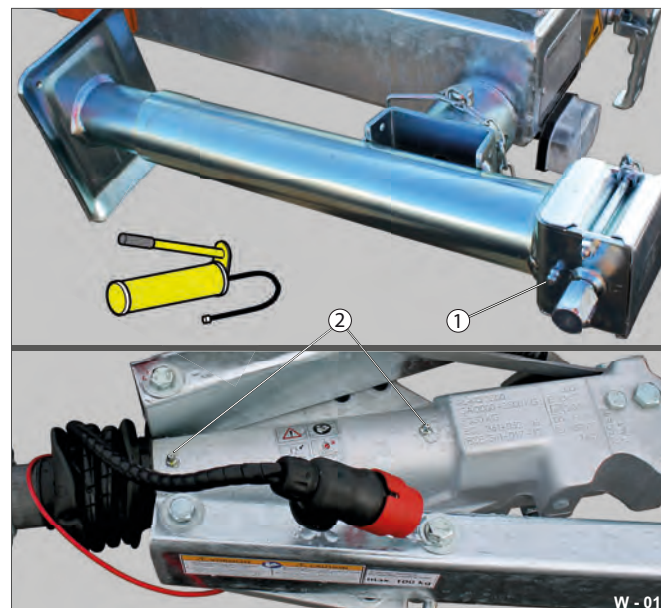
The wire cable must be checked for wire breakages, strand breakages, buckling, flat areas, bends, kinks.



Manufacturer's documents for type: WARRIOR NINJA 35SPS12 must be complied with.

- ▶ Clean the guide rollers (Fig. 18 /3).
- ▶ Inspect the extended wire cable (Fig. 18 /4) for possible damage.
- ▶ Oil the wire cable (Fig. 18 /4) with machine oil.
- ▶ Check the electric cable (Fig. 18 /5) and socket (Fig. 18 /2) for damage.

### Telescopic supports / overrun device



**Fig. 19** Lubrication points

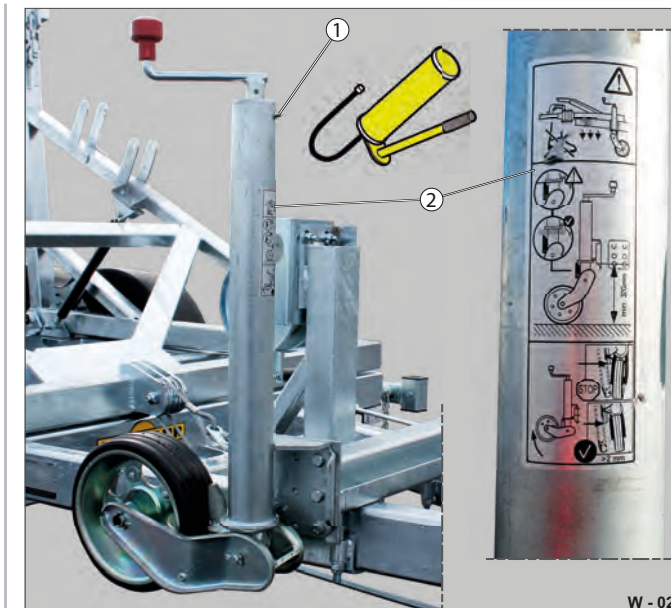
- 1 Grease nipple telescopic supports front / back
- 2 Grease nipple overrun device



Greasing the fundamental trailer components is described in the Maintenance section of the operating instruction manual Part 1 - General.

- ▶ Lubricate the telescopic supports at the grease nipple (Fig. 19 /1).
- ▶ Lubricate the overrun device at the grease nipple (Fig. 19 /2).

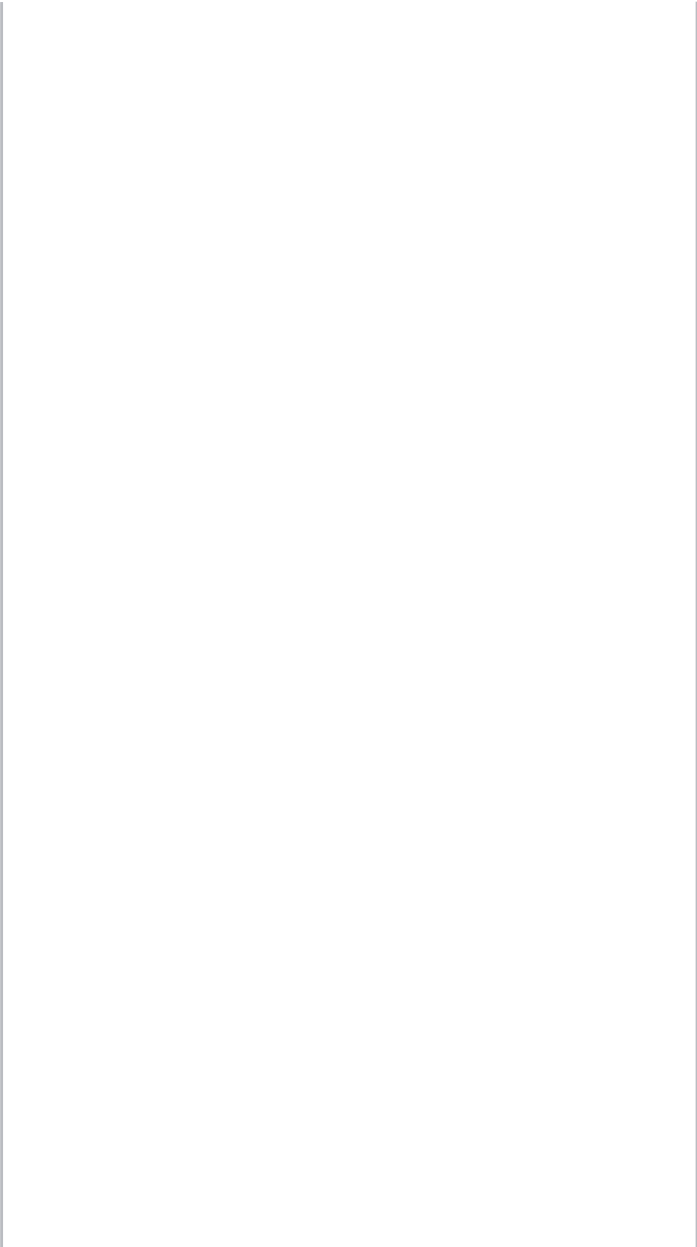
### Jockey wheel



**Fig. 20** Check / grease jockey wheel

- 1 Grease nipple
- 2 Label with operating instructions

- ▶ Lubricate the jockey wheel at the grease nipple. (Fig. 20 /1).
- ▶ Crank the jockey wheel up and down several times.
- ▶ Ensure that the label (Fig. 20 /2) is present and legible.
- ▶ Check that the jockey wheel is not damaged and is securely positioned.
- ▶ Replace a defective / deformed jockey wheel.





Competence in Trailers



8

# Troubleshooting guide

**Action in the case of faults**

For information on common faults which might occur during operation of the trailer, see the operating instruction manual, "Trailers up to 3.5 t / Part 1 - General".

**WARNING****Improper fault rectification**

Improper troubleshooting can cause components to fail - accident risk!

- ▶ Have faults rectified only by a qualified specialist workshop.
- ▶ Do not carry out repairs / maintenance on safety-relevant components yourself.

**Service / repair work**

Any warranty claims become invalid if the trailer or its modules have been altered or disassembled without previous written agreement from Humbaur GmbH.

In both cases, please feel free to contact your local dealer. They are your contractual partner and will be best able to meet your requirements. This also applies if you have bought your Humbaur product online.

The Internet platform acts only as a broker, your contractual partner is always your dealer.

**Humbaur Service Partners**

can be found at [www.humbaur.com](http://www.humbaur.com)  
under Dealers/Service: Finding a dealer/service partner

**Guarantee and warranty**

Obviously, Humbaur is responsible for defective products and damage in terms of legal requirements.

**Technical customer service**

tel.: +49 821 24929 0  
fax.:+49 821 24929 540  
email: [service@humbaur.com](mailto:service@humbaur.com)

**Address of the manufacturer**

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tel.: +49 821 24929 0  
fax.:+49 821 24929 100  
[www.humbaur.com](http://www.humbaur.com)  
[info@humbaur.com](mailto:info@humbaur.com)

**Spare parts / Accessories**

Only use genuine Humbaur spare parts!

Your local Humbaur dealer can provide expert advice on accessories. Alternatively, you can obtain accessories and spare parts from our Humbaur webshop.

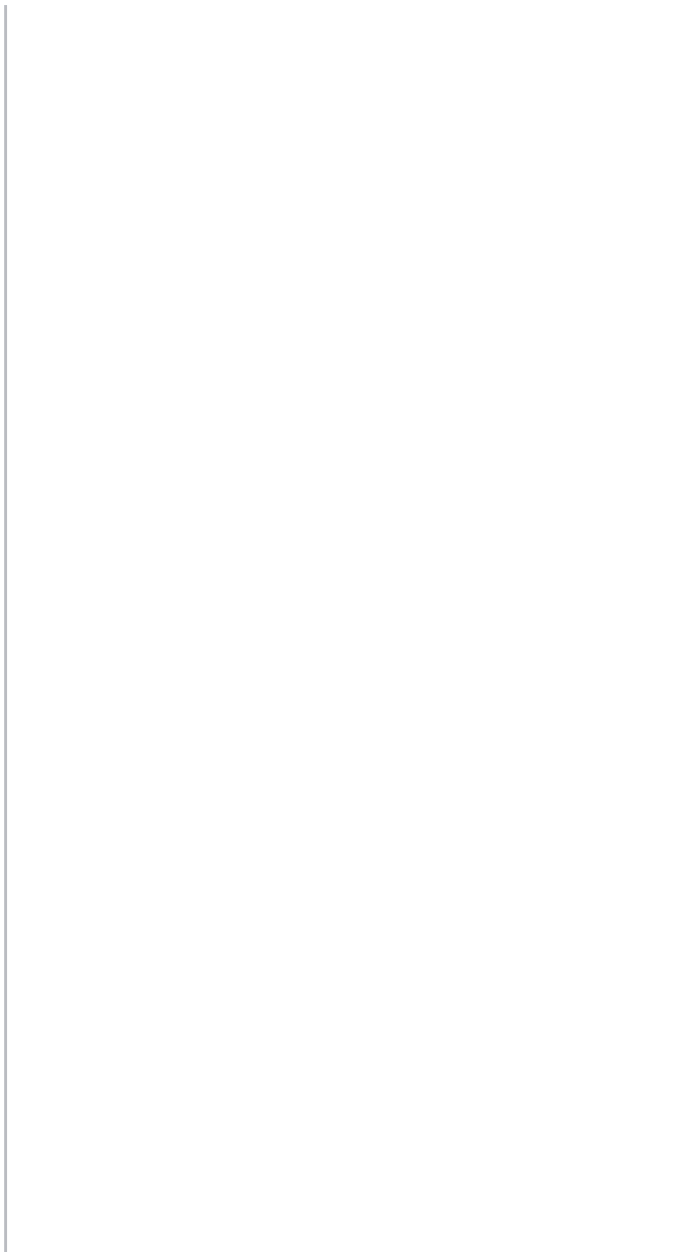
can be found at [www.humbaur.com](http://www.humbaur.com)  
under Dealers/Service: Spare parts and accessories  
or at: Shop

Spare parts can be procured by specifying the VIN and parts description (article number) by e-mail or by telephone:

**Contact parts logistics**

tel.: +49 821 24929 0  
fax.:+49 821 24929 200  
email: [parts@humbaur.com](mailto:parts@humbaur.com)

Fault	Possible causes	Remedy
Reel frame cannot be tipped.	Gas struts are defective / worn. The cable winch is defective. The cable is damaged. The electric battery is discharging / empty.	<ul style="list-style-type: none"> <li>▶ Have both gas struts replaced in a specialist workshop.</li> <li>▶ Have the cable or cable winch repaired / replaced in a specialist workshop.</li> <li>▶ Charge the electric battery.</li> </ul>
Reel frame rattles while driving.	The eccentric locks are misaligned. The tensile force has diminished - the reel frame is not fastened in place.	<ul style="list-style-type: none"> <li>▶ Readjust the eccentric locks.</li> <li>▶ Check whether the pads are deformed.</li> <li>▶ Replace the pads if necessary.</li> </ul>
The trailer swerves while driving.	The cable reel was not placed in the middle. The trailer is unevenly loaded / loaded on one side. The cable reel has not been fastened on the transport shaft.	<ul style="list-style-type: none"> <li>▶ Position the cable reel in the middle on the transport shaft.</li> <li>▶ Fasten the cable reel with the flanges - re-tighten screw connections.</li> </ul>
The cable reel will not turn.	The transport shaft has been overtightened with the chain lock. The brake frame has been overtightened.	<ul style="list-style-type: none"> <li>▶ Release the chain lock and loosen the eccentric locks evenly.</li> <li>▶ Slightly loosen the cable winch on the brake frame.</li> </ul>



*We wish you a pleasant & safe journey!*

NOTES:

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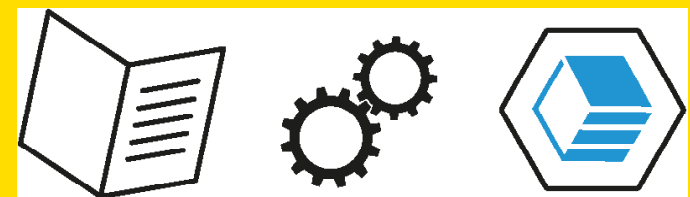
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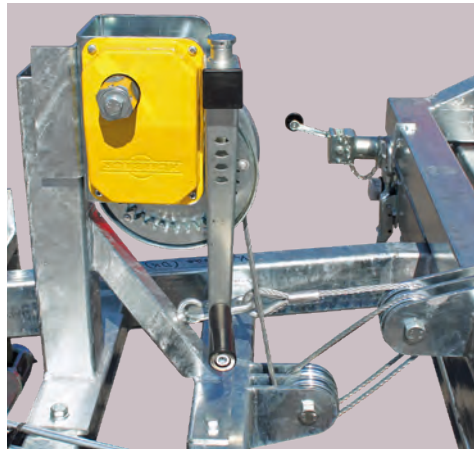
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