

Construction machine transporter

# Operating Instructions

Part 2 - HS



en



3500 series

[humbaur.com](http://humbaur.com)

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Please enter the name of your dealer.

## Notes on use/Target group



### PART 2 - Original - "HS" Operating Instruction Manual

This "HS" operating instruction manual Part 2 is intended for you as the user of a ready-to-use trailer. It describes detailed steps for handling the HS trailers.

It contains all relevant details on safe operation, care / cleaning, maintenance / servicing, troubleshooting and decommissioning / disposing.

This specific operating instruction manual (Part 2) for your trailer is on the enclosed CD. You can also download it from **www.humbaur.com in section: Download - Operating Instructions.**

### PART 1 - "Trailers up to 3.5 to range" General Points

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

- PART 1 and PART 2 together form the complete documentation for your trailer, which you as the user should have at your disposal.



Read this operating instruction manual carefully and completely before using your trailer for the first time and observe all of the instructions, safety information and warnings. Comply with the steps for handling.

- Non-observance of any of the documentation can cause injuries to you and to other persons and can cause material damage.
- Non-observance may invalidate your guarantee entitlement.
- Keep this operating instruction manual in a safe place for the entire service life of your trailer.
- It forms part of the product and also serves as a CHECK LIST for regular inspections of your trailer.
- We advise you to store the operating instruction manual in the driver's cab and to keep it at hand in case you need to consult it.
- It should be passed on to the new user / owner if you rent out or sell your trailer.





In addition, as a road user, you are obliged to observe all national regulations for driving a vehicle and trailer and to comply with your obligations as the owner of a commercial vehicle.

- This includes carrying out regular maintenance and care tasks and periodically subjecting your trailer to a full technical inspection.
- Observe any special stipulations that are specific to your country.

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# 1 Identification

- ▶  Put a cross next to the type of trailer you have acquired.
- ▶  Read the general operating instruction manual for trailers up to 3.5 to (PART 1).

**Product name:**  
**Tandem-axle trailer - construction machine transporter**

**3500 Series:** \_\_\_\_\_

**With loading ramps**



A jockey wheel and ball head coupling on the V drawbar are part of the standard equipment for the HS.  
As an optional, the HS can be fitted with a height-adjustable HV drawbar and optional towing ring.

**With ramp walls**



**HS 25**

Type 1: HS 253016 - 2014  
Type 2: HS 253718 - 2014



The HS, with a gross weight of up to 3,500 kg, permits a range of applications for payloads of up to 2,800 kg.

**HS 30**

Type 3: HS 303016 - 2014  
Type 4: HS 303718 - 2014



Optional accessories:

Tool box, excavator shovel holder, spare wheel and spare wheel bracket attached to side or to drawbar, tarpaulin cover and frame.

**HS 35**

Type 5: HS 353016 - 2014  
Type 6: HS 353718 - 2014



The individual parts of the HS construction machine transporter are explained in the illustrations below.

# 2 Product Description

## 2.1 HS with loading ramps / ramp wall

The HS is a robust construction machine transporter. The entire chassis and its loading aids are galvanised.

The welded drop sides and bolted mudguards are made from 3 mm galvanised steel plate.  
The ramps are made of metal grating.  
The ramps can be manually adjusted.  
Operation of the ramp wall is supported by 2 gas struts.

The locks secure the ramps in a upright position.

The 18mm thick floor plate is made of multiple layers of laminated wood.  
As an option, the floor plate can be replaced with an aluminium floor.

## 1.1 Declaration of Conformity

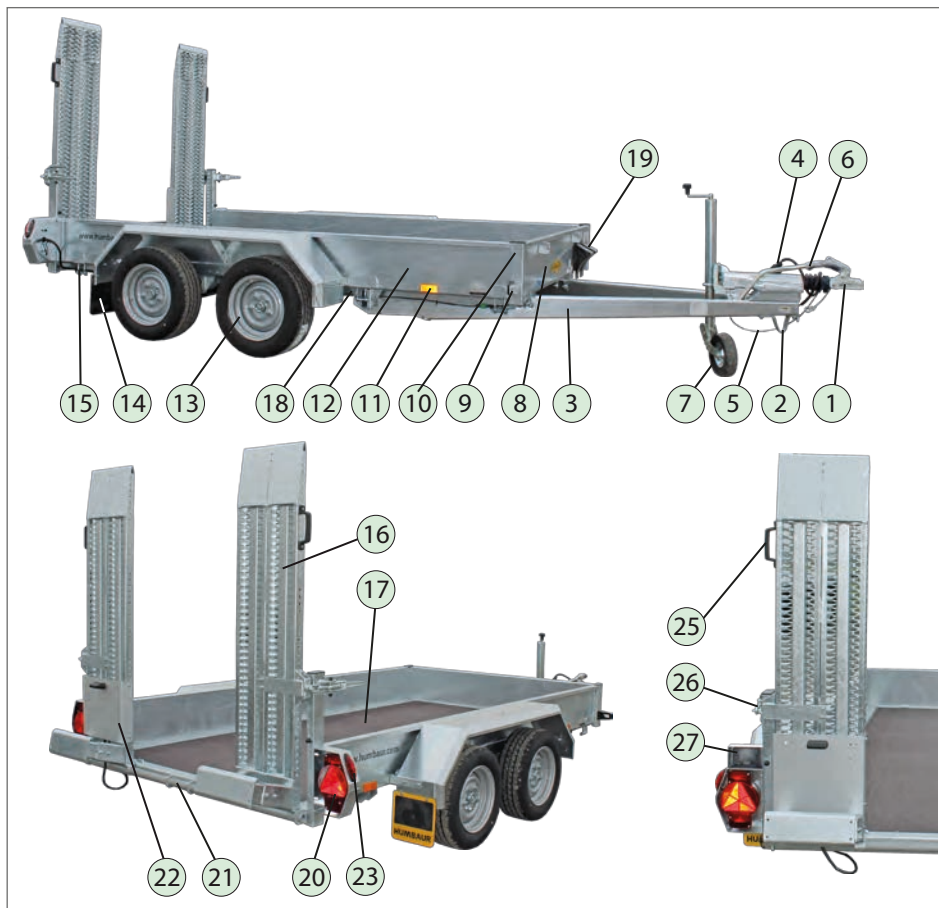


Humbaur GmbH hereby confirms that all relevant EU directives for the registration and safe use of trailers of the 3500 series with accessories have been complied with.

You can request a detailed EU declaration of conformity from us separately.



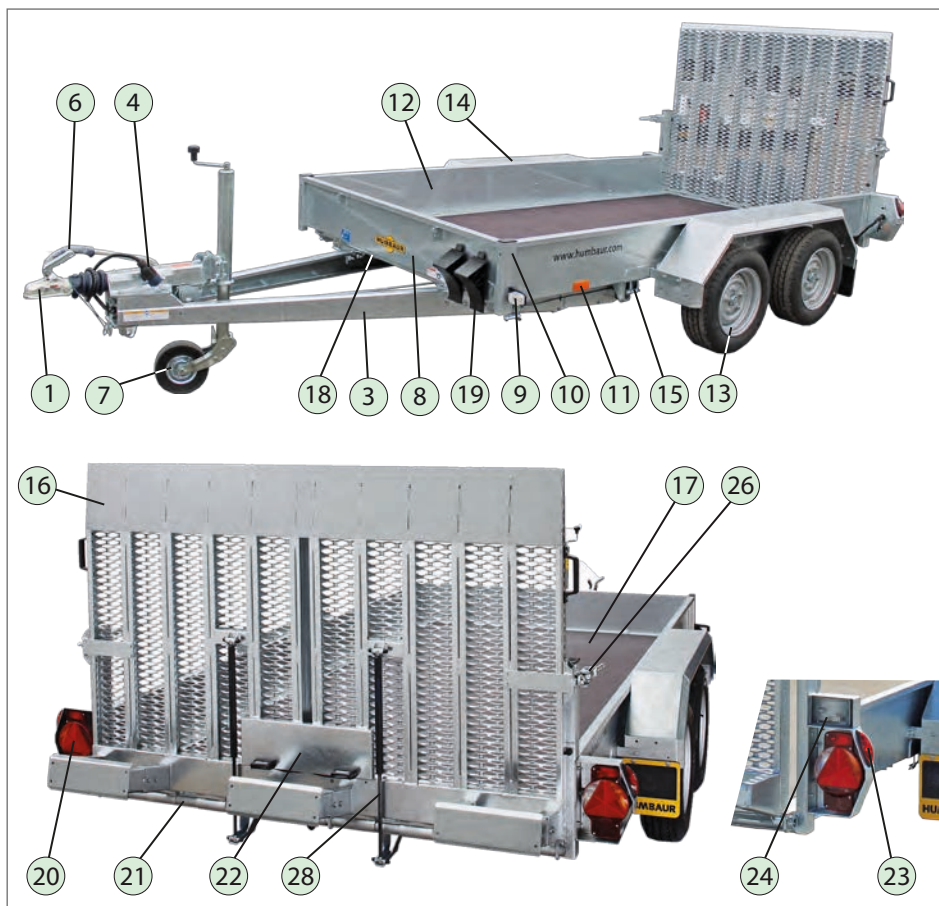
## Illustrated examples



HS with loading ramps - front / rear

## Components:

1. Ball coupling
2. Drawbar support
3. V-drawbar
4. Electrical plug
5. Safety cable
6. Overrun hitch with hand brake lever, brake linkage, spring mechanism
7. Jockey wheel
8. Front drop side (facing drop side)
9. Front reflector / white reflector or front position lamp
10. Stanchion
11. Side reflector / yellow reflector
12. Lateral drop side
13. Wheel (tyre)
14. Mudguard (with / without spray guard)
15. Tie-down bracket, recessed
16. Loading aid (loading ramps, ramp wall)
17. Cargo bed / loading platform
18. Chassis
19. Wheel chock
20. Tail light, combined with triangular reflector, direction indicator, brake light, rear fog light, possibly reversing light
21. Hinge for loading aids
22. Number-plate holder
23. Rear position lamp
24. Reversing light (white)
25. Handle of loading aid
26. Ramp lock
27. Reversing light (white)
28. Gas strut

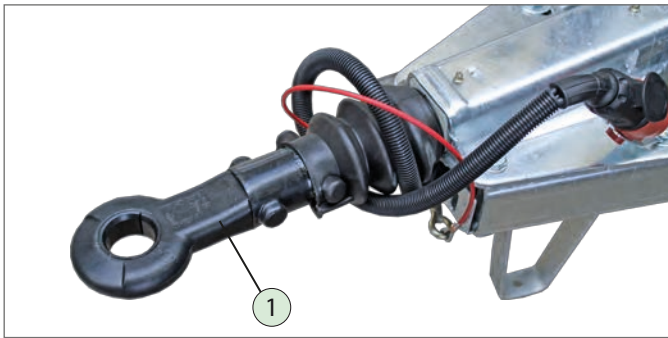


HS with ramp wall - front / rear



Accessories / extensions are explained separately in the part description below or in the operating instruction manual, "Trailers up to 3.5 t" General Points - Part 1.

## 2.2 Optional accessories



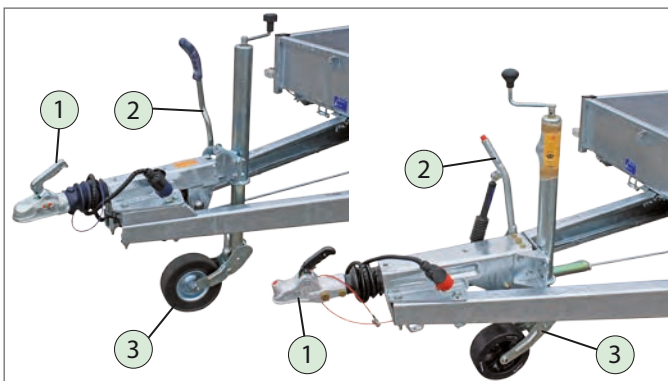
**HS - V-shaped drawbar (towing ring)**

1. Towing ring (Ø 40 mm)



**HS - with height-adjustable drawbar**

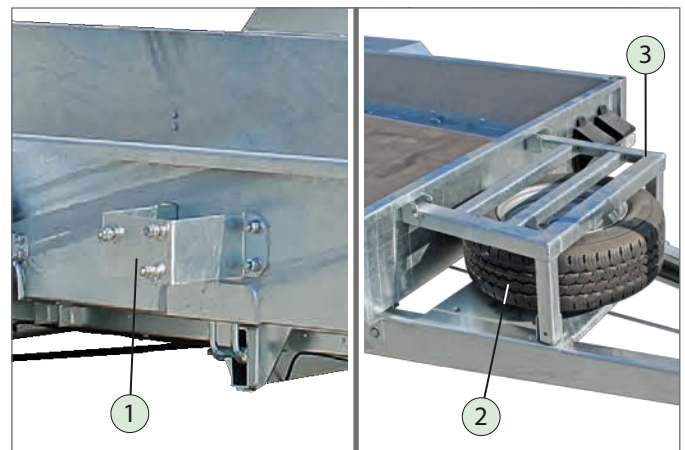
1. Height-adjustable drawbar (with ball head coupling)
2. Towing ring (optional)



**V-shaped drawbar (standard)**

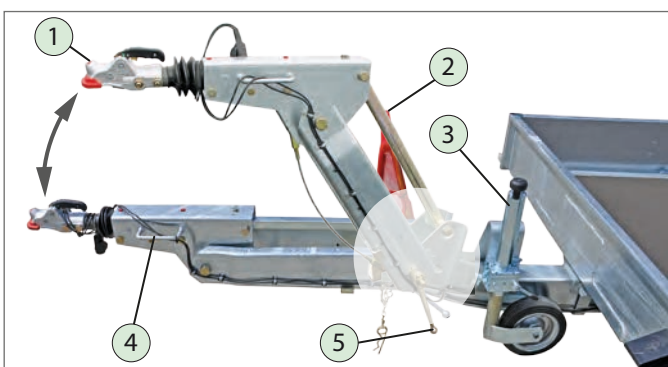
Manufactured by BPW /  
Knott / AL-KO

1. Ball head coupling or towing ring
2. Hand brake lever
3. Standard support wheel or automatic jockey wheel



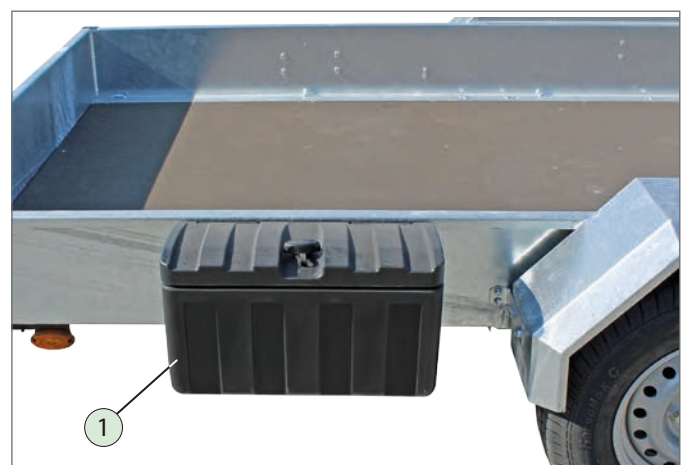
**HS - with spare wheel**

1. Spare wheel bracket on drop side
2. Spare wheel on drawbar
3. Excavator shovel holder



**HV-drawbar (optional)**

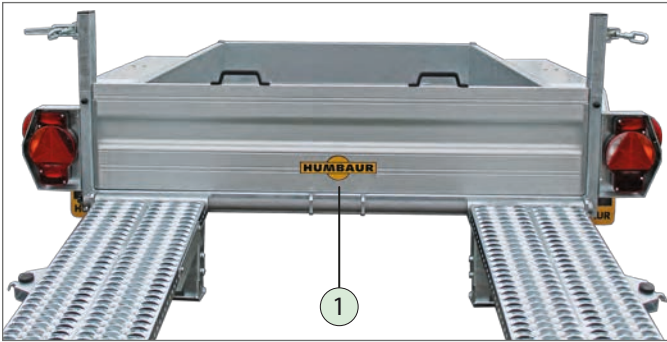
4. Handle
5. Toggle locking switch



**HS - with tool box**

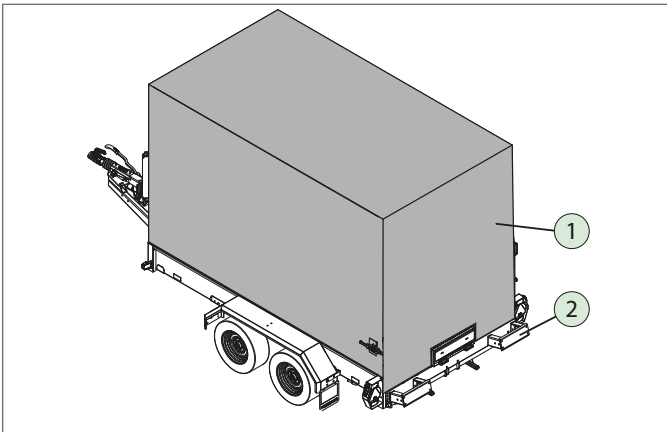
1. Tool box on the drop side

## 2.3 HS - General accessories



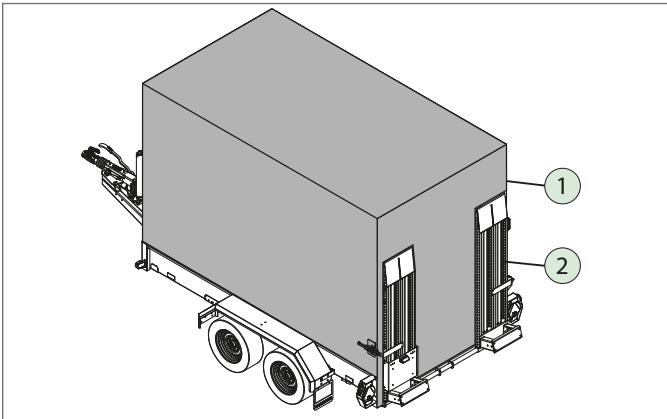
HS - with end-to-end aluminium slot-in partition wall

1. Aluminium slot-in partition wall - 350 mm high



HS - cover with ramp wall

1. Tarpaulin Cover / frame
2. Ramp wall



HS - tarpaulin cover for ramp walls

1. Tarpaulin Cover / frame
2. Loading ramps



Adapter 7/13-pin



Spare wheel / holder loose



Shock absorbers



Towing ring



### 3 Intended Use

- The loading/unloading and transporting of construction machinery with a low chassis clearance and of other construction materials.
- Transporting of goods, with the exception of hazardous goods, e.g. explosive, chemical or liquid materials.
- Transporting fixed loads.
- Transporting loose loads with corresponding accessories (aluminium slot-in partition wall) or with a ramp wall.
- The loading ramps should only be used by plastic caterpillar tracks or rubber wheels.

### 4 Foreseeable misuse

- Transporting of persons or animals.
- Driving with insufficient load securing.
- Driving with incompletely lifted and secured loading ramps or ramp walls.
- Driving onto the loading ramps with steel-tracked vehicles.
- Transporting objects / people on the excavator shovel holder.
- Non-observance of the safety instructions in the operating instruction manual, "Trailers up to 3.5 to" (Part 1).

### 5 General safety instructions



#### Folding loading aids!

The loading aids may suddenly fold down after unlocking - risk of impact!  
This can result in feet being crushed.

- ▶ Stand to the side when unlocking the loading aids.
- ▶ Hold the loading aids with one hand from the side.
- ▶ Allow the ramp wall to fall to the floor if the gas struts are defective.  
Never try to stop it.
- ▶ Keep your feet away from the area around the loading aid.
- ▶ Keep persons away from the area around the loading aids (rear area) during lowering.
- ▶ Use .



Observe the other general safety recommendations in the operating instruction manual, "Trailers up to 3.5 to General Points - Part 1".

### 6 Loading and Unloading

#### 6.1 Load distribution



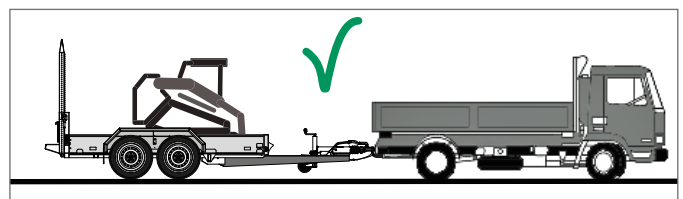
#### Negative / insufficient drawbar load! Maximum permissible drawbar load exceeded!

A negative / insufficient drawbar load or exceeding the maximum permissible drawbar load may result in accidents.

- ▶ Distribute the weight evenly across the trailer.
- ▶ Do not fall below the minimum drawbar load of the trailer (for trailers up to 750 kg gross weight, this is: 4% of the towed load or 25 kg).
- ▶ Do not exceed the maximum permissible drawbar load of the towing vehicle and trailer coupling.
- ▶ Where possible, make use of the maximum permissible drawbar load (see COC papers, Section 19).
- ▶ Observe the information on the maximum permissible drawbar load in your vehicle papers and the trailer coupling.
- ▶ Do not exceed the maximum permissible drawbar load of the trailer. Observe the information on the maximum permissible drawbar load in the COC papers, Section 19.

<b>VORSICHT</b> Überschreitung der zul. Stützlast! Kann zu Unfällen führen-Schleudergefahr. ▶ Min. 4 % der Anhängerlast einhalten, mehr als 25 kg nicht notwendig. ▶ Zul. Stützlast des Zugfahrzeugs beachten!		<b>CAUTION</b> Exceeding the permissible vertical load! Can lead to accidents-risk of skidding. ▶ Min. 4 % of the trailer load to comply, more than 25 kg are not necessary. ▶ Perm. Note vertical load of the vehicle!
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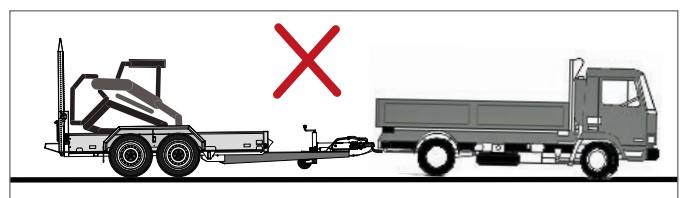
#### Correct load distribution



Construction vehicle loaded correctly

The trailer and the towing vehicle are stable with all wheels on the ground.

#### Incorrect load distribution

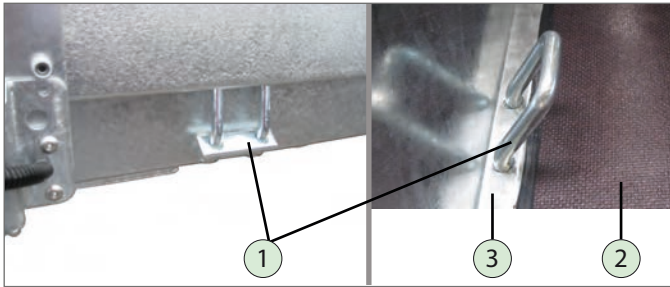


Construction vehicle loaded incorrectly

The trailer is tilting backwards; the towing vehicle is tilting forwards = the drawbar load is too low or negative. The rear axle on the tandem trailer and the front axle of the towing vehicle are excessively loaded.

## 6.2 Securing a load

### Tying down goods



Lashing ring from outside

Lashing ring from inside

1. Tie-down brackets, recessed
2. Loading platform
3. Frame profile

- ▶ Secure the load using the lashing rings which are integrated into the cargo bed.
- ▶ Observe the maximum permitted lashing force per lashing ring.



Tie-down points - arrangement on cargo bed

1. Tie-down points:

for **HSxx30xx**; 4x per drop side  
 for **HSxx37xx**; 5x per drop side

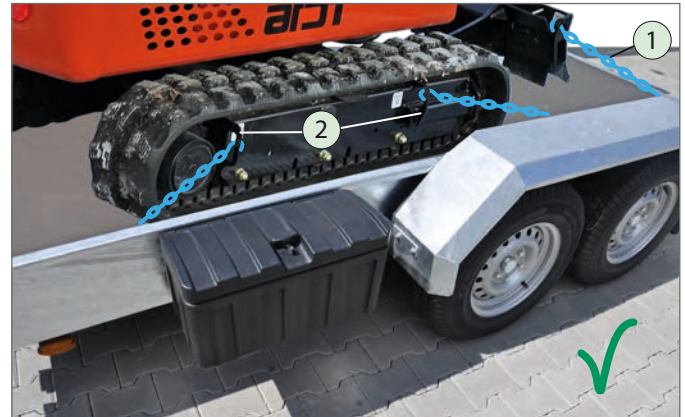
Additionally:  
 2x at front;  
 2x at rear

- ▶ Take note of the sticker providing information about the maximum tie-down forces on the trailer.



### Tying down construction site vehicles

- ▶ Tie down the load (construction machine), using the tie-down brackets.
- ▶ Make use of anti-skid mats where necessary.
- ▶ Do not exceed the maximum permissible tie-down forces per tie-down point.



Mini-excavator, tied-down

1. Ties (e.g. chains, ropes, tension belts)
2. Tie-down point on mini-excavator



Example of accident (mini-excavator was not tied down)

### Securing a combined load

- ▶ Ideally, secure the load with a combination of form-fitting and force-fitting:
  - Force-fitted by: Direct tie-down of the load.
  - Form-fitted by: Supporting the various components of the load against each other, against the drop sides and against the cargo bed extensions, without spaces in-between.

## Tying down loads

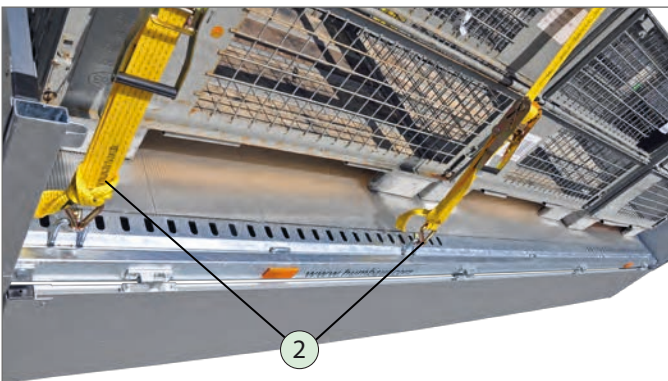


Example of "force-fitting load securing"

1. Loading unit (load)
2. Tie-down strap (tie-down equipment)



Example of "form-fitting load securing"



Example of "tie-down"

- ▶ Tie down the load units in a force-fitting way, using tie-down equipment.
- ▶ Where possible, secure the load units in both a form-fitting and force-fitting way.

## 6.3 Securing the load with extension and accessories

### 6.3.1 Aluminium slot-in partition wall

Functional explanation

- The optional aluminium slot-in partition wall closes off the rear of the trailer, thus forming a closed box.
- The aluminium slot-in partition wall makes it possible to transport loose loads such as sand, gravel, building rubble, etc.

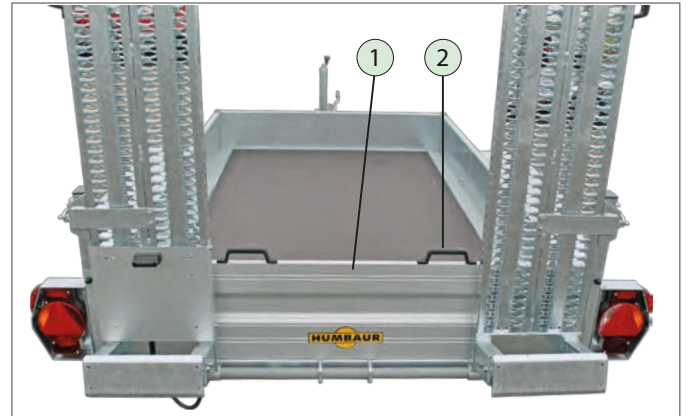
#### WARNING



#### Driving with the aluminium slot-in partition wall only partially secured!

Incompletely slotted-in aluminium partition walls may be thrown out while driving - risk of impact / accident!

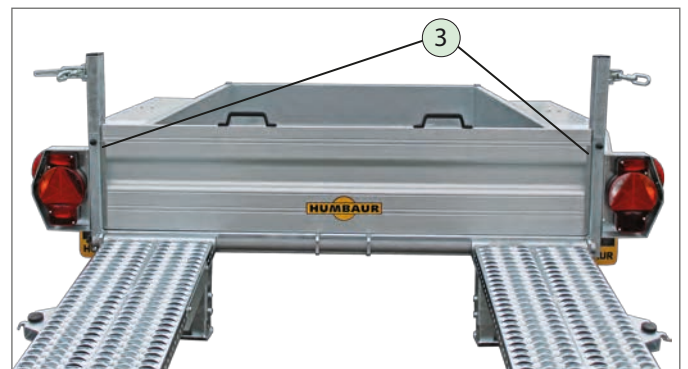
- ▶ Before starting off, ensure that the aluminium slot-in partition wall has been slotted in all the way to the cargo bed and that it fully rests on the cargo bed.



Aluminium slot-in partition wall

1. Aluminium slot-in partition wall 350 mm
2. Handle
3. Holding guide

#### Operation



Lowering the loading ramps

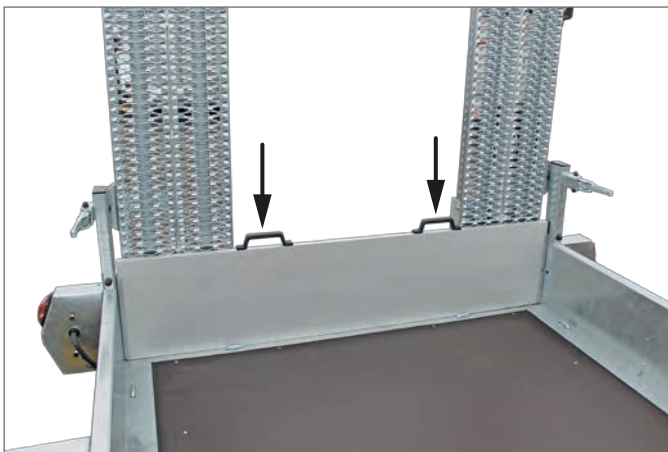
- ▶ Lower both loading ramps (see section: "Operating the loading ramps").





**Remove the aluminium slot-in partition wall**

- ▶ Take the handles with both hands and pull out the aluminium slot-in partition wall upwards.
- ▶ Put the aluminium slot-in partition wall where it will be safe from damage.



**Insert the aluminium slot-in partition wall**

- ▶ Remove any dirt from the retaining guides.
- ▶ Insert the aluminium slot-in partition wall into the lateral retaining guides, with the handles pointing upwards, vertically from top to bottom.
  - Ensure that the aluminium slot-in partition wall is completely inserted up to the cargo bed.
- ▶ Close and secure the loading ramps (see section: "Operating the loading ramps").

**6.3.2 Cover**



The frame and cover is inserted into the corner stanchions of the HS trailer and secured all round the drop sides. The tarpaulin cover can be opened at the back and sides for easy loading / unloading.



**Closed tarpaulin cover**

1. Eyelet
2. Strap
3. Tarpaulin Cover
4. Buckle
5. Tension rope with hooks



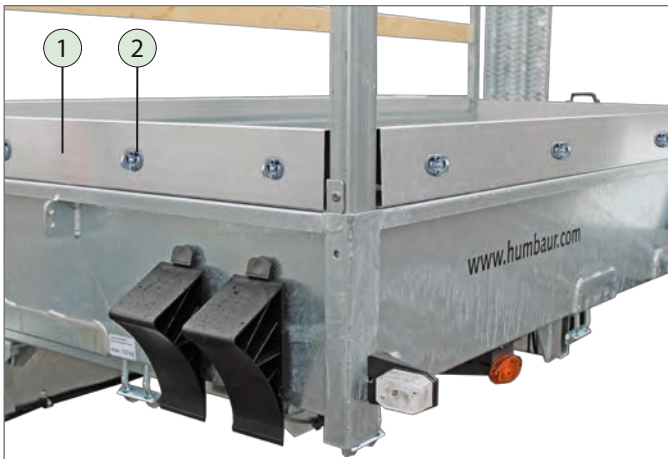
**Tarpaulin Cover opened / frame**

6. Frame
7. Frame slats (wood)



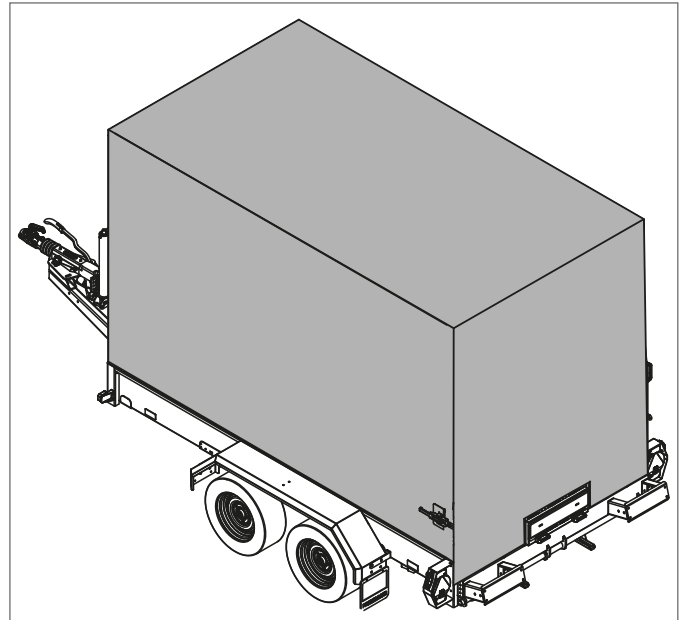


The cover is secured on 3 sides (front, left and right) using the clamps.



**Aluminium cover strip**

1. Aluminium cover strip, 3 sides
2. Staple

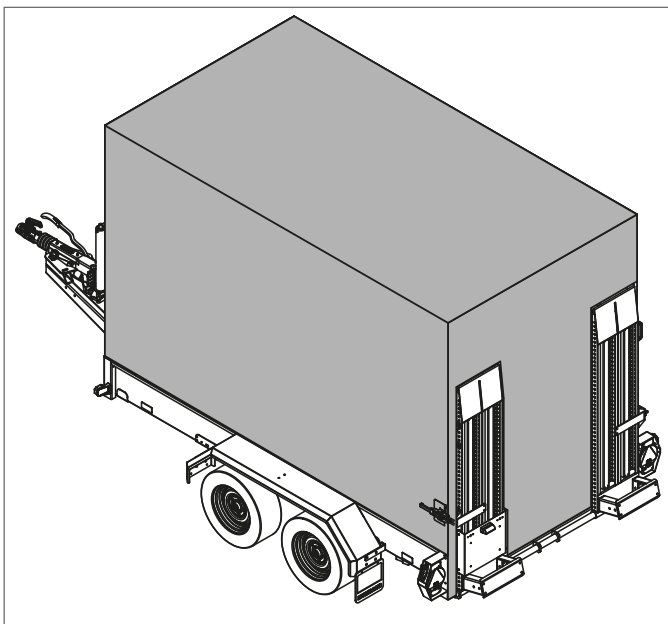


**Tarpaulin Cover with ramp wall**

- ▶ Close the ramp wall before you close the tarpaulin cover.



Instructions for operating the tarpaulin cover / frame are given in the operating instruction manual, "Trailers up to 3.5 to" General Points - Part 1.



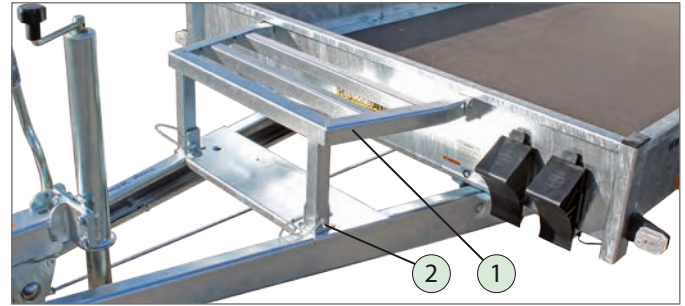
**Tarpaulin Cover with loading ramps**

- ▶ Fully lower the loading ramps.
- ▶ Open the tarpaulin cover.
- ▶ Remove the slot-in slats.

### 6.3.3 Excavator shovel holder

#### Functional explanation

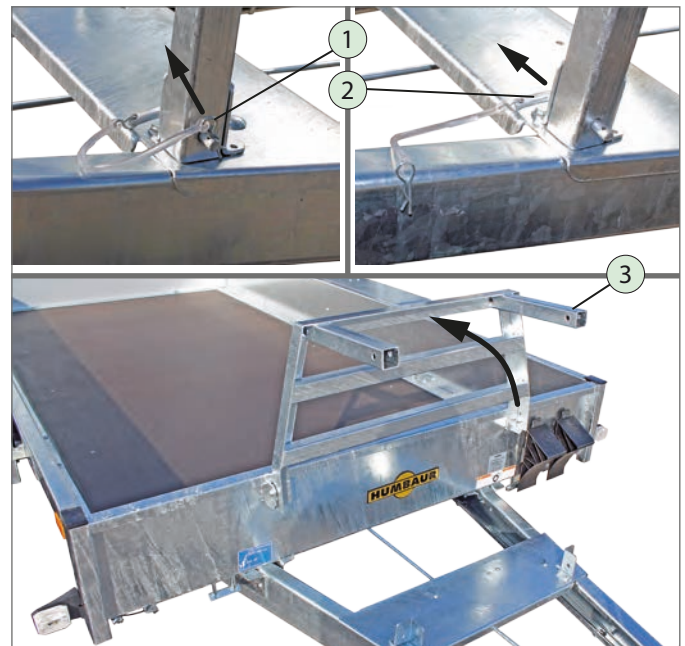
- The excavator shovel holder is only intended to hold an excavator shovel that is permanently connected to the construction machine.
- With standard V drawbars, the holder takes the form of a foldable frame.
- With height-adjustable drawbars, the holder takes the form of a fixed frame.
- The holder frame also serves as a bracket for the spare wheel on the V drawbar.



Excavator shovel holder (V drawbar - standard)

1. Frame (folding)
2. Securing bolt with cotter pin

#### Folding up



Holder frame, folded up

1. Cotter pin
  2. Securing pin
  3. Frame
- ▶ Remove the cotter pins on both sides.
  - ▶ Pull out the securing pins on both sides.
    - Keep them in a safe place.
  - ▶ Swing the holder frame upwards up to the limit stop.

### CAUTION



#### Operating the holder frame!

You may catch your hands / fingers while folding the holder frame down.

- ▶ Operate the holder frame carefully.
  - Hold it at the top with one hand.
  - Swing the holder frame down.



#### Climbing onto the holder frame!

You could slip and fall when stepping onto the holder frame.

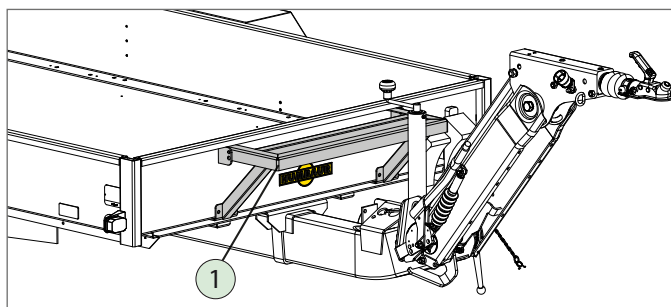
- ▶ Do not step onto the holder frame.
- ▶ Only step onto the cargo bed from the rear or carefully step over the drop sides.

### NOTICE

#### Overloading the excavator shovel holder!

The excavator shovel may become deformed. The maximum permissible drawbar load is exceeded.

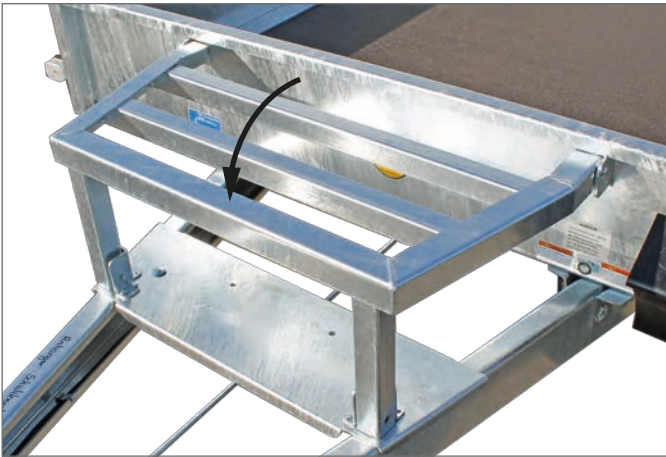
- ▶ Do not place more than 100 kg load onto the excavator shovel holder.
- ▶ Carefully / slowly position the excavator shovel.



Excavator shovel holder (HV drawbar)

1. Frame (fixed)

## Folding down



Holder frame, folded down

- ▶ Swing the holder frame down.

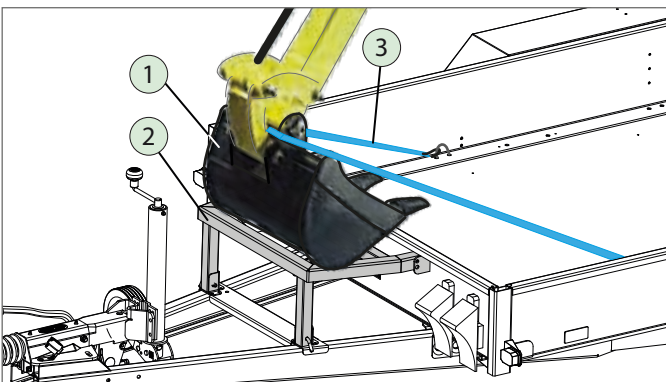


Holder frame, secured

- ▶ Insert the securing pins on both sides.
- ▶ Insert the cotter pins on both sides.


The holder frame has now been secured.

## Tying down / securing the excavator shovel




Secured excavator shovel

1. Excavator shovel
2. Excavator shovel frame
3. Ties (tie-down straps, chains, wire ropes, etc.)


 The excavator shovel must be securely tied down on the excavator shovel frame.

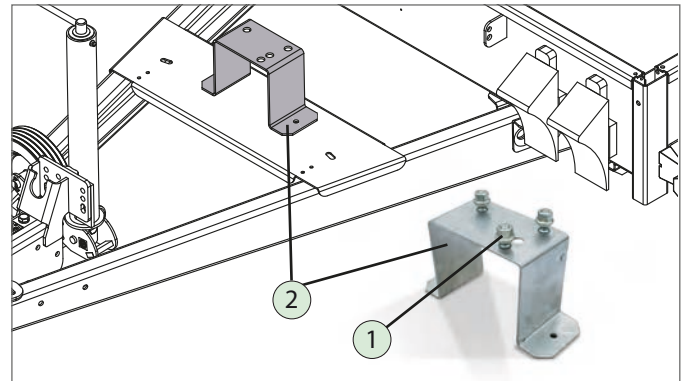
- ▶ Carefully position the excavator shovel on the excavator shovel frame.
- ▶ Tie down the excavator shovel securely, using the tie-down points.

## 6.3.3.1 Spare wheel

 The excavator shovel holder frame also serves as a bracket for the spare wheel on the V drawbar.

- ▶ The spare wheel is attached to the spare wheel holder with the 3 wheel nuts.

 You will find the safety-related information about handling the spare wheel holder in the operating instruction manual on "Trailers up to 3.5 to" General - Part 1.



Spare wheel holder on drawbar

1. Wheel nuts
2. Spare wheel holder



Spare wheel, attached

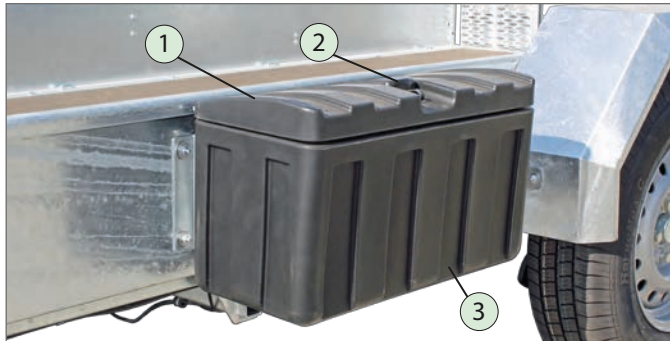


### 6.3.4 Tool box

- The tool box can be attached to the drop side at the factory as an option.



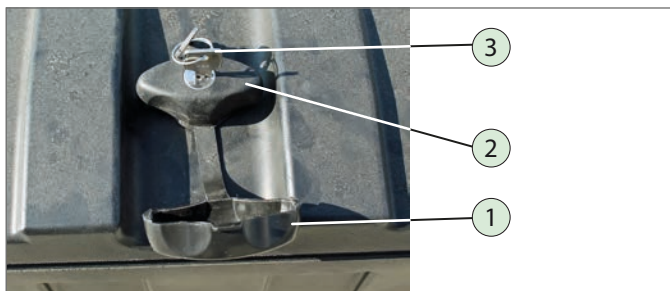
You will find the safety-related information about handling tool boxes in the operating instruction manual on "Trailers up to 3.5 t" General - Part 1.



Tool box on the drop side

- Cover
- Locking shoe (with lock)
- Box

### Unlocking / opening



Tool box unlocked and opened

- Locking cover
- Locking shoe (with lock)
- Key

- Pull off the locking cover.
- Use a key to open the lock.
- Turn the lock counter-clockwise.
- Fold up the cover.

Closing and locking of the cover takes place in the reverse order.

## 6.4 Loading / unloading the trailer



Make sure that the trailer is secured so that it cannot roll away.



- Make sure that road traffic safety is not impaired when loading and unloading the trailer.
- If necessary, use additional signalling devices, e.g. signs, barriers.

### Loading aids in general



#### WARNING



#### Folding loading aids during transportation!

If the loading aid is not properly secured with the locks, it can come open on its own - risk of impact / accident!

- Do not load your trailer so that the load protrudes over the loading aid.
- Secure the loading aids using the locks. Never tie them down with straps.
- Before starting out, ensure that the loading aids are securely locked (holding springs engaged).



#### CAUTION



#### Risk of crushing!

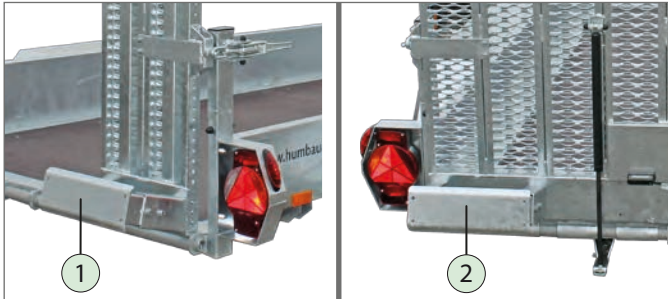
When you release and fold down the loading aid, your fingers / hands can be crushed between the loading aid and the ground or the loading aid and corner stanchion. They can also be crushed when the lock is opened / closed.

- Only operate the loading aids from the side - not from the back.
- When releasing the loading aid, make sure that your fingers are not near the corner stanchions.
- Use

## Supporting the loading aids



The height-adjustable supports reinforce the rear of the trailer while loading / unloading the construction machine. The supports will make contact with the ground during the loading / unloading process, thus stabilising the trailer.

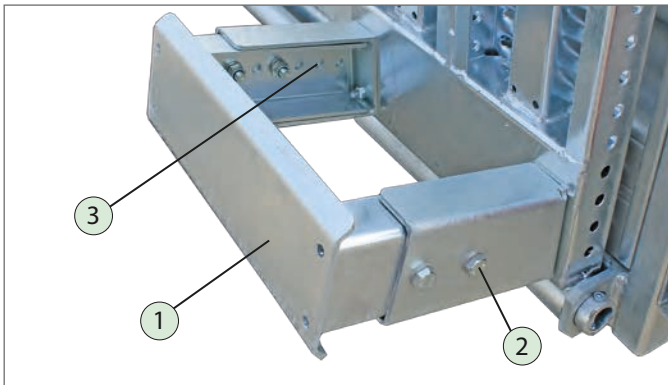


### Supports (height-adjustable)

1. Support for loading ramps
2. Support for ramp wall

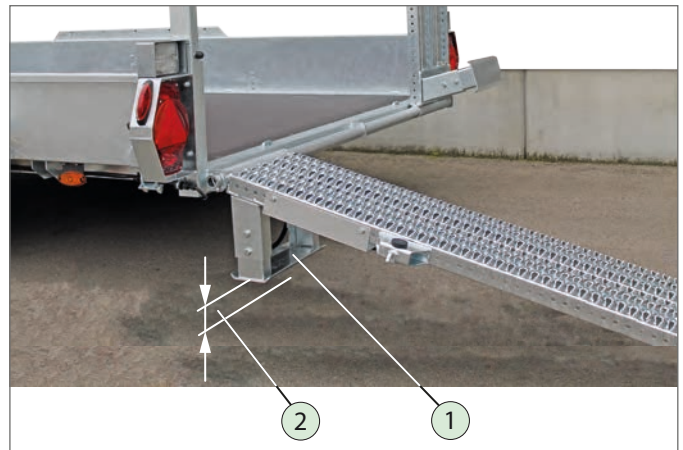


The height-adjustable supports must be secured with a quadruple screw connection after adjustment.

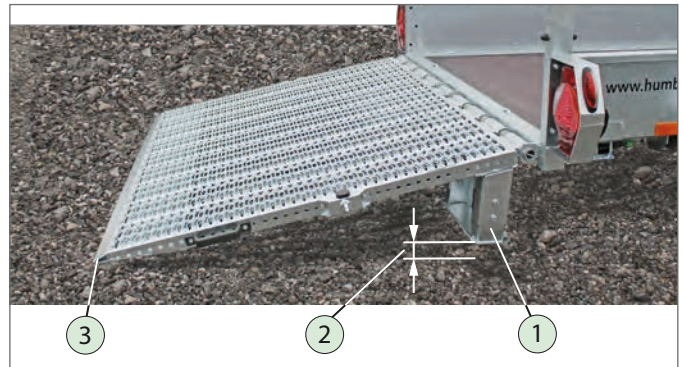


### Adjusting the support

1. Support leg
2. Screw attachment
3. Adjustable holes



### Support for loading ramps



### Support for ramp wall

1. Support
2. Distance from ground
3. Tip of loading aid

- ▶ Before loading / unloading the construction machine, ensure that the supports do not make complete contact with the ground.
  - There must be a slight distance to the ground.
  - The tip of the loading aids must be completely in contact with the ground.

## Preparing the trailer for loading / unloading



The trailer should not be able to slip away during the loading process.



### Trailer coupled

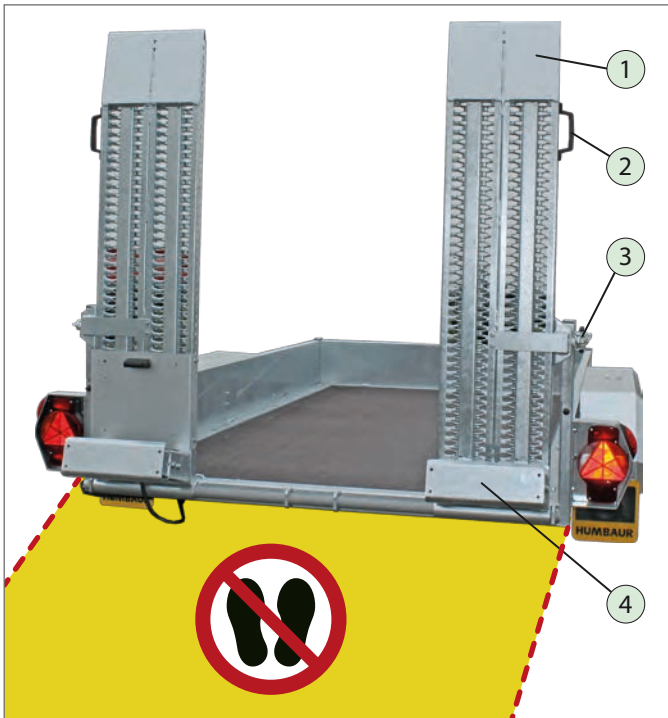
- ▶ Place the trailer on solid ground.
- ▶ First, couple the trailer to the towing vehicle, then operate the parking brake of the towing vehicle.
- ▶ Additionally secure the trailer against rolling by using wheel chocks.



Instructions for operating the ball head coupling / height-adjustable drawbar are given in the operating instruction manual, "Trailers up to 3.5 to" General Points - Part 1.

### 6.4.1 Operating the ramp walls

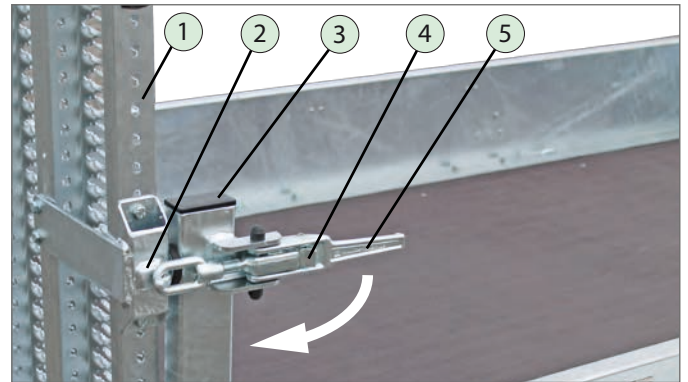
- ▶ Operate the ramp walls one by one.



### Operating the ramp walls

1. Loading ramp
2. Handle
3. Lock
4. Support

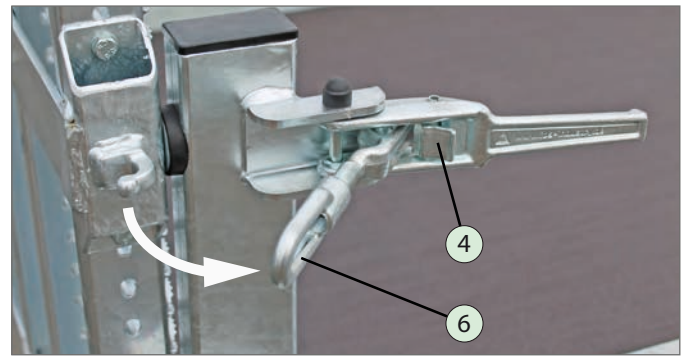
## Unlock locks



### Unlock locking lever

1. Loading ramp
2. Locking hook
3. Stanchion
4. Securing device
5. Handle

- ▶ Depress the safety catch on the handle.
- ▶ Pull the handle out at the same time.



### Unlocking the ramp door

6. Eyelet

- ▶ Swing the unlocked eyelets out of the hook.



### Lowering the loading ramp

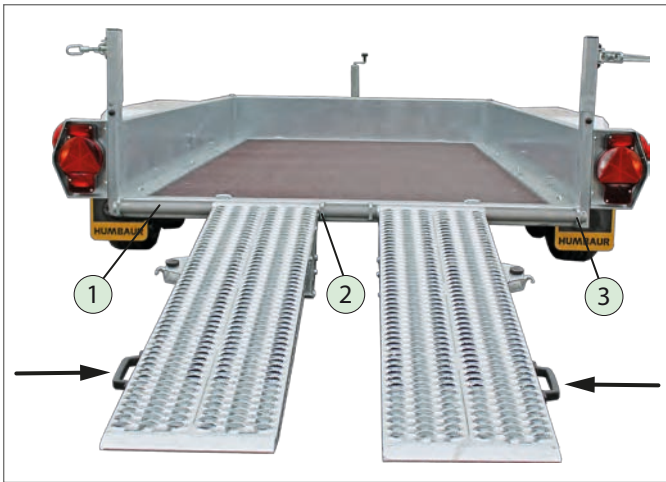
- ▶ Hold the handle from the side and allow the loading ramp to descend slowly.



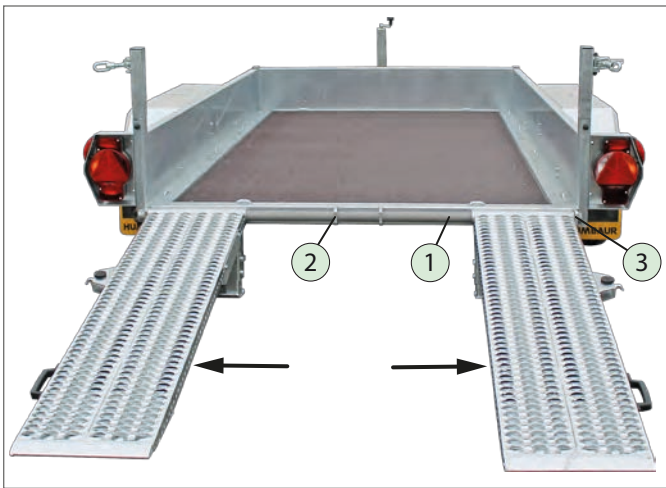
Make sure that your feet are not under the loading ramp.



## Setting the track width



**Minimum track width**



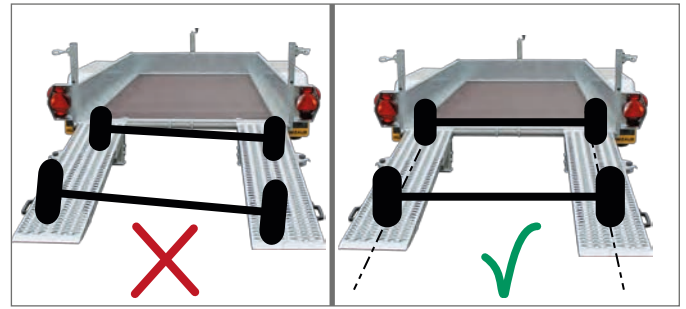
**Maximum track width**

1. Guide hinge for loading ramp
2. Inner ramp limit stop
3. Outer ramp limit stop

- ▶ Adjust the loading ramps to the track width of the vehicle to be loaded.
  - Take the loading ramp by the handle and lift it slightly, then push it sideways in the direction required.

**!** The loading ramps should be at equal distances from the centre of the trailer. The wheels of the vehicle to be loaded must be able to drive onto the centre of the loading ramps.

## Driving



**Positioning the load vehicle**

- ▶ Slowly and carefully drive over the loading ramp(s) and slowly push the vehicle to be loaded upwards in a controlled manner.
- ▶ Ensure that the vehicle to be loaded is facing the loading ramps and that the track is centred.



**Maximum load on loading ramps**

**!** The loading ramps can support a maximum of 1,500 kg of evenly distributed load.

- ▶ Avoid point loads, e.g. by driving over the loading ramps with vehicles with small wheels, such as platform trucks and mobile lifting platforms.
- ▶ Observe the following:
  - ▶ 6.1 Load distribution
  - ▶ 6.2 Load securing
  - ▶ 6.3 Load securing with extension and accessories

**!** Never exceed the maximum permitted total weight and drawbar load of the trailer.

**!** Observe the maximum permitted drawbar load of your towing vehicle and trailer coupling.



## Closing / locking

### **WARNING**

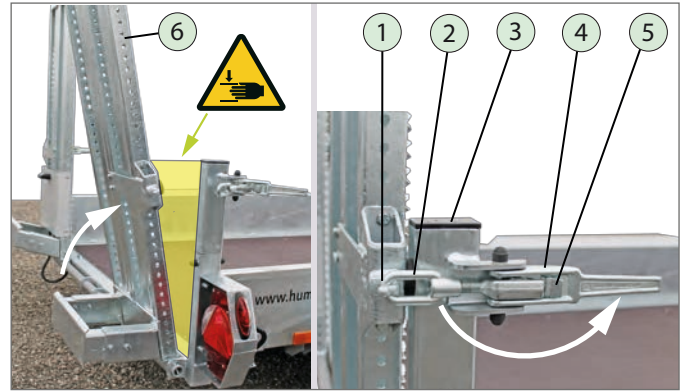


#### **Crushing hazard!**

When you close and lock the ramp wall, your fingers / hands can be crushed between the loading ramp and the corner stanchion/ lock.

- ▶ Take particular care when closing and locking the loading ramp.
- ▶ Make sure that your fingers are not between the corner stanchion and the loading ramp.

- ▶ Use  .

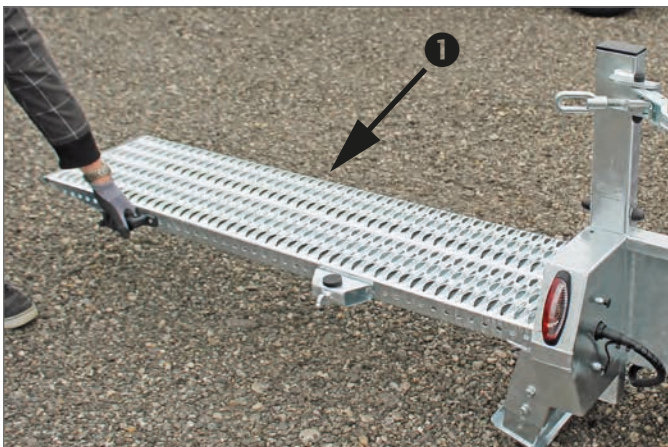


**Closing the loading ramp**

**Securing the locks**

1. Locking hook
2. Eyelet
3. Stanchion
4. Handle
5. Securing device
6. Ramp wall

- ▶ Swing the eyelet onto the locking hook.
- ▶ Pull the locking lever backwards and insert the eyelet into the locking hook.
- ▶ Push the locking lever until it engages in its final position.
  - The lock has engaged.
  - The loading ramp is locked.



**Pushing the loading ramps**

- ▶ Take the loading ramp by the handle and lift it slightly, then push it sideways up to the outer limit stop.



**Closing the loading ramps**

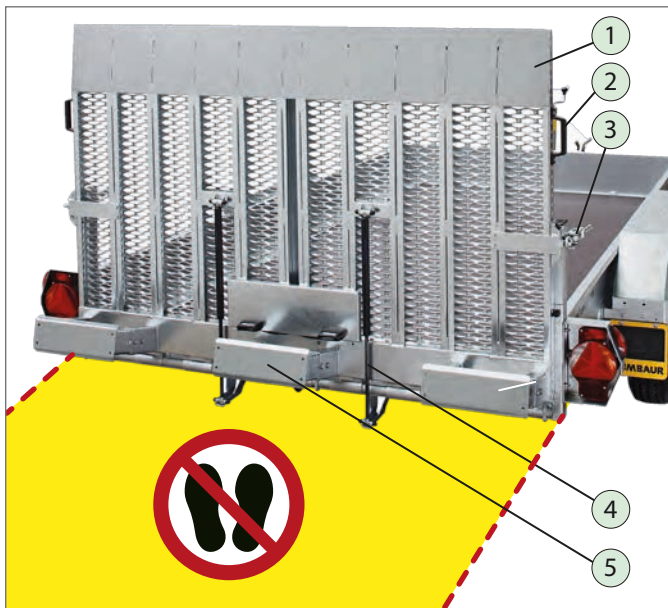
- ▶ Lift the loading ramp into the vertical driving position.



**Loading ramp closed and locked**

The loading ramps are secured against automatic opening while driving.

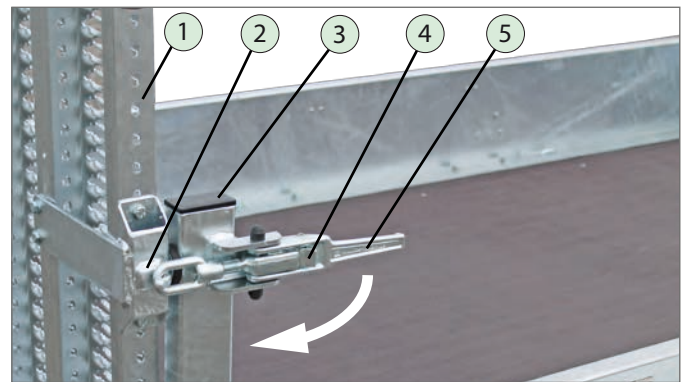
## 6.4.2 Operating the ramp wall



### Operating the ramp wall

1. Ramp wall
2. Handle
3. Lock
4. Gas strut
5. Support

## Unlock locks

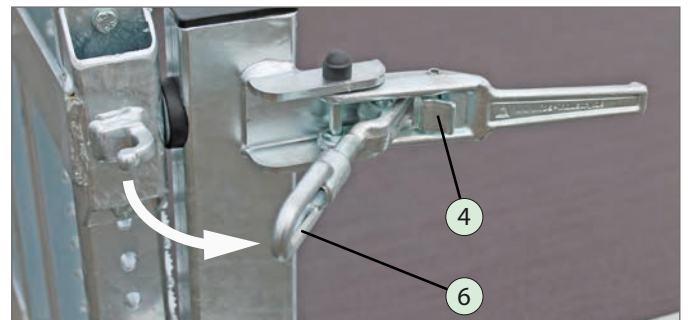


### Unlock locking lever

1. Ramp wall
2. Locking hook
3. Stanchion
4. Securing device
5. Handle

Unlock the interlocks on both sides, one after the other.

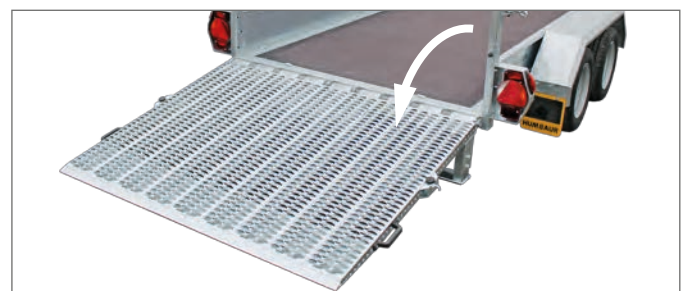
- ▶ Depress the safety catch on the handle.
- ▶ Pull the handle out at the same time.



### Unlock ramp wall

6. Eyelet

- ▶ Swing the unlocked eyelets out of the hook.



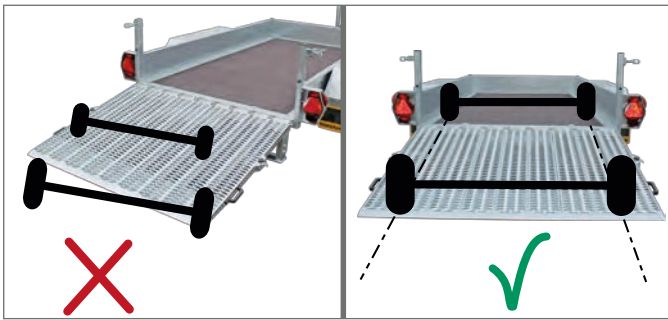
### Lower ramp wall

- ▶ Hold the handle from the side and allow the ramp wall to descend slowly.



Make sure that your feet are not near the edge of the ramp wall.

## Driving



### Positioning the load vehicle

- ▶ Slowly and carefully drive over the ramp wall and slowly push the load vehicle upwards in a controlled manner.
- ▶ Take care that the load vehicle is facing the ramp wall.



### Maximum load on ramp wall



The ramp wall can support a maximum of 2,500 kg of evenly distributed load.

- ▶ Avoid point loads, e.g. by driving over the ramp wall with vehicles with small wheels, such as platform trucks and mobile lifting platforms.
- ▶ Observe the following:
  - ▶ 6.1 Load distribution
  - ▶ 6.2 Load securing
  - ▶ 6.3 Load securing with extension and accessories



Never exceed the maximum permitted total weight and drawbar load of the trailer.



Observe the maximum permitted drawbar load of your towing vehicle and trailer coupling.

## Closing / locking




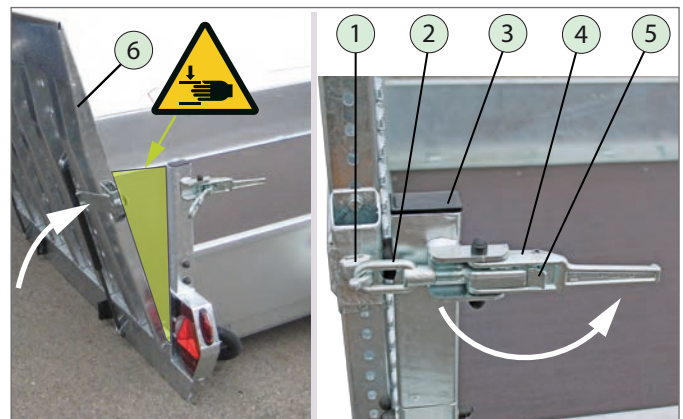
### WARNING



#### Crushing hazard!

When you close and lock the ramp wall, your fingers / hands can be crushed between the loading ramp and the corner stanchion/lock.

- ▶ Take particular care when closing and locking the loading ramp.
- ▶ Make sure that your fingers are not between the corner stanchion and the loading ramp.
- ▶ Use  .



Closing the ramp wall

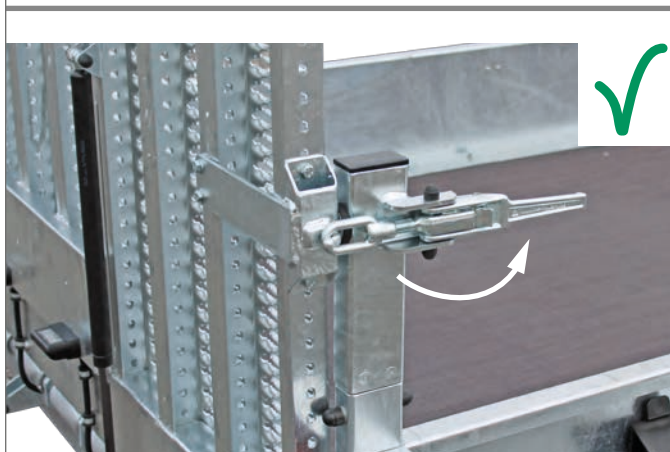
Securing the locks

1. Locking hook
2. Eyelet
3. Stanchion
4. Handle
5. Securing device
6. Ramp wall

Lock the interlocks on both sides, one after the other.

- ▶ Hold the handle and lift the loading ramp.
  - The gas struts help you to do this.
- ▶ Swing the eyelet onto the locking hook.
- ▶ Pull the locking lever backwards and insert the eyelet into the locking hook.
- ▶ Push the locking lever until it engages in its final position.
  - The lock has engaged.
  - The ramp wall is locked.





**Ramp wall closed and locked**

The ramp wall is secured against automatic opening while driving.

### 6.4.3 Stepping onto / off the cargo bed



The HS trailers have reinforced steel fenders that can be used as mounting aids during the loading and unloading process.

The steel mudguards can support a maximum of 80 kg of evenly distributed load. The steel mudguards may only be used to step onto / off the cargo bed.



**Stepping onto the steel mudguards**

1. Steel mudguard
2. Drop side edge



### CAUTION



#### Stepping onto / off the cargo bed!

You could fall when stepping onto / off the cargo bed over the drop sides, the excavator shovel holder, the drawbar or the steel mudguard.

- ▶ Do not climb onto the edges of the drop sides.
- ▶ Do not step onto the excavator shovel holder.
- ▶ Try to step onto / off the cargo bed from the rear wherever possible.
- ▶ Take particular care when stepping onto the steel mudguard.
  - Step onto it with your entire foot.

- ▶ Use  .


### NOTICE


#### Overloading the steel mudguard!

The steel mudguard can suffer deformation.

- ▶ Do not place more than 80 kg load onto the steel mudguards.
- ▶ Do not place any objects onto the steel mudguards.

## 7 Driving


 Before setting off, make sure that the maximum permissible loads (load capacity and drawbar load) are not exceeded.

 Observe the maximum permissible towing load and drawbar load of your towing vehicle and the trailer coupling.

- ▶ Where required, check the weight information for the goods to be loaded.
- ▶ Carry out a departure check (see operating instruction manual, "Trailers up to 3.5 to" (General Points - Part 1))




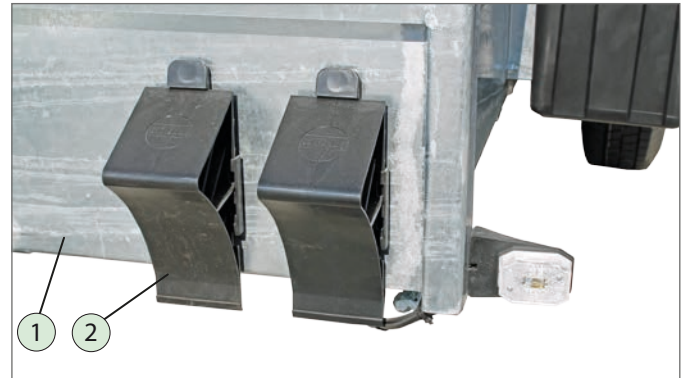
Driving in car and trailer combinations (example image)

 Please note that mini-excavators have a high tilting moment.

- ▶ Adapt your driving style accordingly!
  - Reduce your speed and drive particularly carefully around bends / when turning!

## 8 Parking

 Observe the general safety and warning instructions on parking your trailer safely in the operating instruction manual, "Trailers up to 3.5 to" General Points - Part 1.



Wheel chocks

1. Front drop side
2. Wheel chock

- ▶ Make use of the wheel chocks attached to the front drop side.

## 9 Cleaning / Maintenance / Servicing

### 9.1 Care / Cleaning



Observe the safety instructions and instructions for general cleaning / care of trailers in the operating instruction manual, "Trailers up to 3.5 to" General Points - Part 1.

### 9.2 Maintenance / Servicing



Maintenance instructions are given in the operating instruction manual, "Trailers up to 3.5 to" General Points - Part 1. Further specific maintenance instructions may be found here.

#### 9.2.1 Tyres / Wheels

The following tyre sizes can be used on HS trailers:

Tyre type	p <sub>max.</sub> in bar	Type HS
185 / 60 R 12 C	6.25	HS25 / HS30 / HS35
195 / 50 R 13 C	6.5	HS25 / HS30 / HS35
185 R 14 C	4.5	HS25 / HS30 / HS35

Table: Tyre pressure / tyre size

- ▶ Check the tyre pressure on all wheels on a regular basis and before long journeys. (See the table: Maintenance instructions in the operating instruction manual "Trailers up to 3.5 to General Points - Part 1")

#### 9.2.2 Gas struts



#### WARNING

##### Removing gas struts!

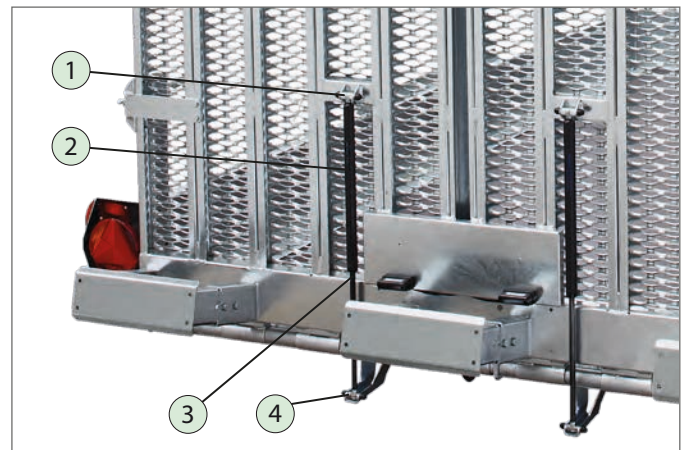
The gas struts are under high pressure!  
Improper fitting / removal may result in injury to persons  
- Impact / collision risk!

- ▶ Observe the safety warnings on the gas struts.
- ▶ Take note of the instructions provided by the gas strut manufacturer.
- ▶ Have worn / defective gas struts replaced by qualified staff only.



The working range of the gas struts is:  
- 25°C to + 60°C.

Service life, functionality and safety depend largely on ensuring that the gas struts are serviced and maintained.



Maintaining gas struts

1. Attachment
2. Gas strut (body)
3. Piston rod
4. Fixing system / attachment

- ▶ Secure the ramp wall against falling when fitting / removing the gas strut.



During spraying, do not aim the water jet directly at the gas struts.

- ▶ Keep films and paper packaging away (electrostatic charging is possible).
- ▶ Do not scratch or paint the piston rod or treat it with aggressive media (abrasives).
- ▶ Grease the piston rod.

## 10 Troubleshooting



For further causes of faults and rectification measures, see the operating instruction manual "Trailers up to 3.5 to General Points - Part 1".

## 11 Decommissioning / Disposal



Observe the safety instructions for decommissioning / disposal of trailers in the operating instruction manual, "Trailers up to 3.5 to General Points - Part 1".

### 11.1 Decommissioning

- ▶ Secure your trailer against unauthorised use by third parties, e.g. using wheel clamps.
- ▶ Park your trailer so that it cannot cause any further hazards for third parties, e.g. by tipping over, rolling away, or causing a traffic obstruction.

### 11.2 Disposal

- ▶ Take the individual parts or the entire trailer to a car/vehicle recycling facility. The specialists at the car / vehicle recycling facility will dispose of the individual components in the proper manner.









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