

Tandem trailers

Operating Instructions

Part 2 - HA - HN - HT



MACHT'S MÖGLICH

en



2000 series

humbaур.com

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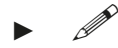
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Name and address of dealer:

Name: _____

Address: _____

Telephone: _____



- ▶ Please enter the name of your dealer.

Notes on use/target group



PART 2 - Original - "Tandem Trailer" Operating Instruction Manual

This "Tandem Trailer" Operating Instruction Manual Part 2 is intended for you as the user of a ready-to-use trailer.

It provides detailed instructions for handling tandem trailers.

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

This specific operating instruction manual (Part 2) for your trailer is provided on the enclosed CD. You can also download it from

www.humbaur.com in the section: Download – Operating Instructions.

PART 1 – "Trailers up to 3.5 to 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 warranty entitlement.
- Keep this operating instruction manual in a safe place for the entire service life of your trailer.
- We advise you to store the operating instruction manual in the driver's cab and to keep it on hand for reference.
- It should be passed on to the new user/owner if you rent out or sell your trailer.





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

- This includes carrying out regular service and maintenance 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 car trailers (PART 1).

Product name: Tandem trailers

2000 Series:


HA flatbed trailer

- Type 1: HA 202513
- Type 2: HA 203015
- Type 3: HA 253015

HN wheels-in trailer

- Type 1: HN 202616
- Type 2: HN 203116
- Type 3: HN 203118
- Type 4: HN 253118
- Type 5: HN 303118
- Type 6: HN 203121
- Type 7: HN 253121
- Type 8: HN 303121
- Type 9: HN 204118
- Type 10: HN 254118
- Type 11: HN 304118
- Type 12: HN 204121
- Type 13: HN 254121
- Type 14: HN 304121
- Type 15: HN 255121
- Type 16: HN 305121

1.1 Confirmation of compliance

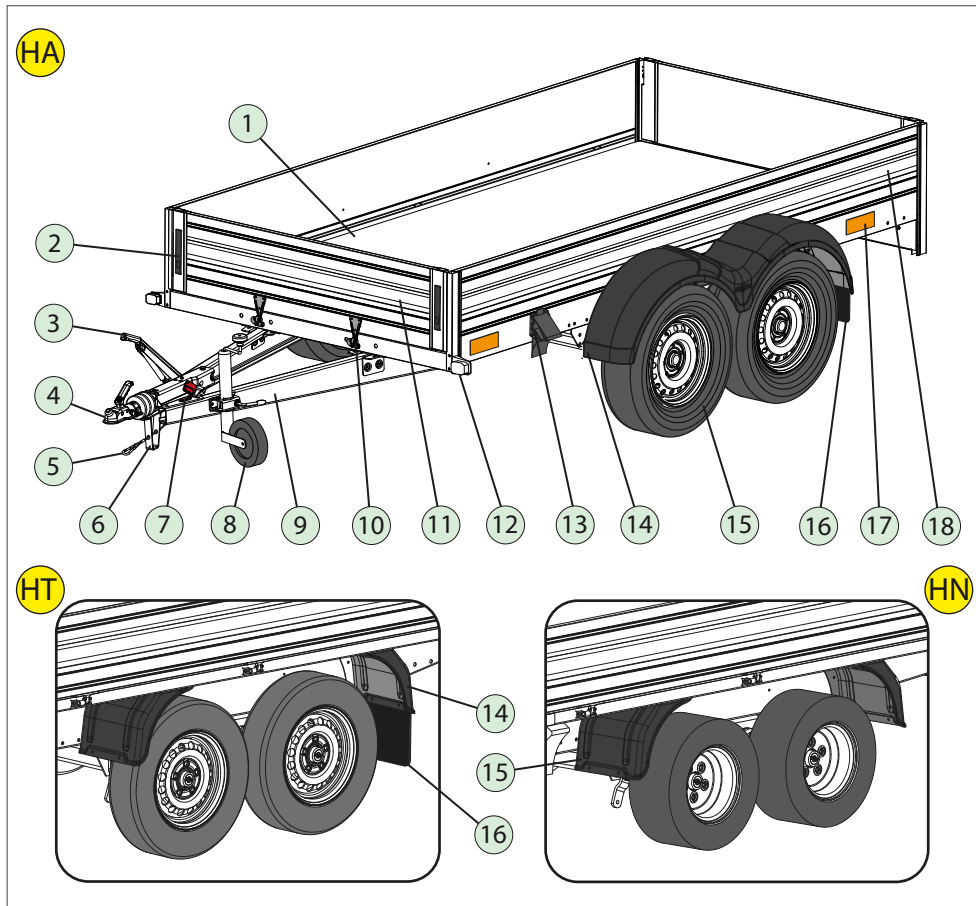
 Humbaur GmbH hereby confirms compliance with all relevant EU directives for the registration and safe use of trailers of the 2000 series tandem trailers with accessories.
You may request a detailed EU declaration of conformity from us separately.

HT wheels-in trailer

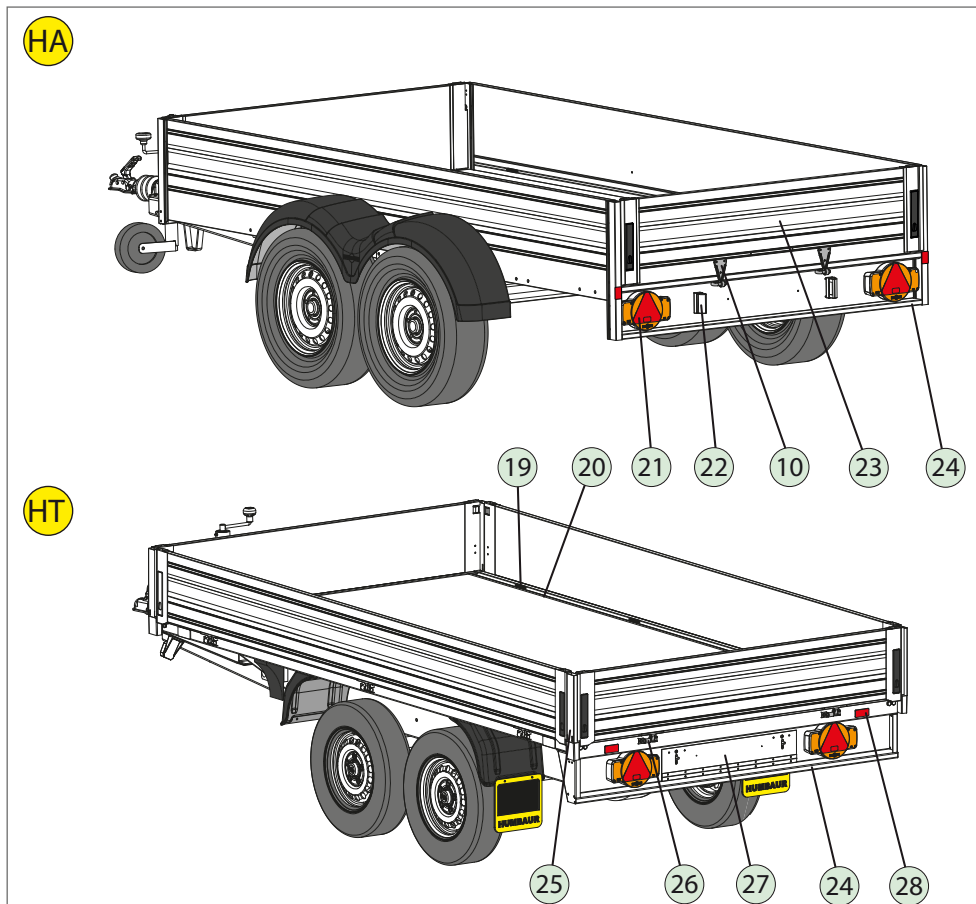
- Type 1: HT 202616
- Type 2: HT 203116
- Type 3: HT 203118
- Type 4: HT 253118
- Type 5: HT 303118
- Type 6: HT 353118
- Type 7: HT 203121
- Type 8: HT 253121
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- Type 19: HT 255121
- Type 20: HT 305121
- Type 21: HT 355121
- Type 22: HT 255124
- Type 23: HT 305124
- Type 24: HT 355124
- Type 25: HT 256121
- Type 26: HT 306121
- Type 27: HT 356121
- Type 28: HT 256124
- Type 29: HT 306124
- Type 30: HT 356124

2 Product description

Illustrated examples



Front view



Rear view

2.1 Components

1. Cargo bed
2. Covered lock
3. Hand brake lever
4. Ball coupling
5. Safety cable
6. Drawbar support
7. Parking socket electric systems / plug holder
8. Jockey wheel
9. V drawbar
10. Drop side hinge (HA)
11. Front drop side
12. Front reflector / side light
13. Wheel chock
14. Mudguard
15. Wheel/tyre
16. Spray flap
17. Side reflector / yellow reflector
18. Side drop side
19. Tie-down point
20. V lashing rails
21. Tail light, combined with triangular reflector, indicator, brake light, rear fog light, optional reversing light, position lamp
22. Number plate light
23. Rear drop side
24. Underride protection
25. Stanchion
26. Drop side hinge (HN/HT)
27. Ramp slot
28. Rear reflector / red reflector



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

2.2 Flatbed trailers aluminium HA

The HA is equipped with anodised aluminium drop sides. The rear and side drop side can be folded down and removed. The locks are recessed in the drop sides. The 15-mm thick floor plate is made of multiple layers of laminated wood and an anti-slip coating.

The HA is available braked with 2000 kg and 2500 kg gross weight. The HA permits a wide range of applications for payloads of up to 2113 kg.

The load is secured with the aid of 6 tie-down brackets integrated into the side drop sides.

The tie-down brackets are Dekra-tested and allow a tractive force of 400 daN (kg) per tie-down bracket.

The tyres have a standard size of 13" or 15" (inch).



HA front view



HA rear view

2.3 Aluminium HN and HT wheels-in trailer

The HN/HT is equipped with anodised aluminium drop sides. All of the drop sides can be folded down and removed.

The locks are recessed in the drop sides.

The 18-mm thick floor plate is made of multiple layers of laminated wood and an anti-slip coating.

The load height with HN is lower than with HT due to the smaller wheels.

HN

The HN is available braked with 2000 kg, 2500 kg and 3000 kg gross weight.

The HN permits a wide range of applications for payloads of up to 2495 kg.

The load is secured with the aid of 4 tie-down brackets recessed into the V-profile of the trailer frame.

The tyres have a standard size of 10" (inch).

HT

The HT is available braked with 2000 kg, 2500 kg, 3000 kg 3500 kg gross weight.

The HT permits a wide range of applications for payloads of up to 2930 kg.

The load is secured with the aid of 4 tie-down brackets recessed into the V-profile of the trailer frame.

The tyres have a standard size of 13" to 15" (inch).



HN front view



HT front view



HT / HN rear view

2.4 Special versions

Ramp wall with tarpaulin cover



Ramp wall rear view

Tarpaulin cover without drop sides



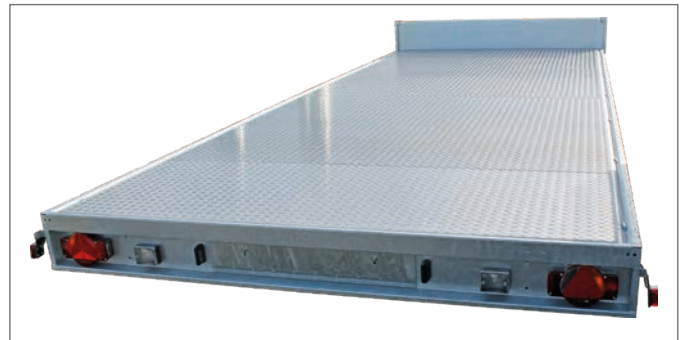
Tarpaulin cover without drop side

3-axle trailer



3-axle trailer rear view

Vehicle transporters

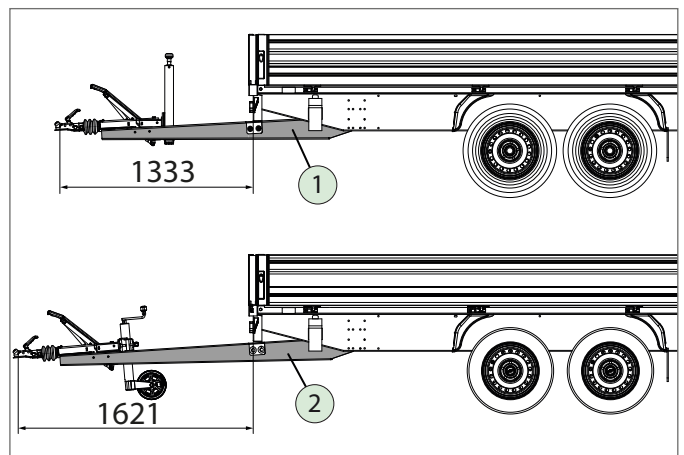


HN with aluminium checker plate, rear view



HN with cable winch frame, front view

Long drawbar



HN / HT with long drawbar, side view

1. Standard drawbar
2. Long drawbar (288 mm longer)

2.5 Optional accessories



H-frame



Side wall extension



Drawbar toolbox



HN/HT toolbox



Wood/aluminium cover



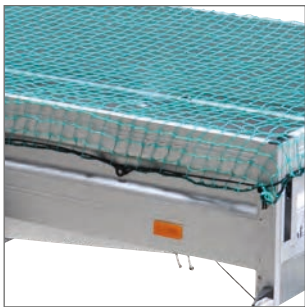
Rail



Drawbar spare wheel



Side spare wheel



Cover net



Two-part drop side



Prop stand



Telescopic prop stand



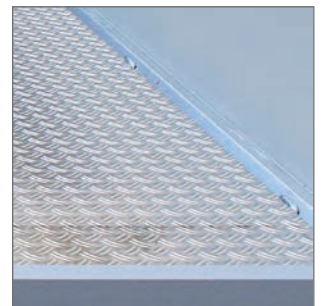
Flat cover



Tarpaulin + frame



Steel mesh extension



Aluminium checker plate



Aluminium drive-up ramp



Grid ramp wall



Lashing ring



HV drawbar

3 Intended use

- Transport of goods, with the exception of hazardous goods, e.g., explosive, chemical or liquid materials.
- Transport of fixed and loose loads.
- Transport of long loads (e.g., square timber, profiles).
- Transport of materials and load materials as solid/packaged load units, such as bricks on pallets.
- Load securing on the cargo bed with lashing brackets using form and force load securing methods.

3.1 HA

- Transport of vehicles – only for version with grid ramp wall.

3.2 HN / HT

- Transport of large loads as a flat-bed variant, without drop sides and stanchions.
- Transport of vehicles – only for version with drive-up ramp.

4 Foreseeable misuse

- Transport of persons and animals.
- Driving with insufficient load securing.
- Driving with an unsecured, projecting load.
- Driving with the wood/aluminium cover/drop sides not locked.
- Driving with side wall extensions/H-frame not bolted to stanchions.
- Driving with support devices not retracted at the rear.
- Transport of inadequately secured vehicles.
- Non-observance of the safety instructions in the operating instruction manual, "Trailers up to 3.5 to" (Part 1).

4.1 HA

- Overloading the grid ramp wall.
- Driving with unsecured grid ramp wall.

4.2 HN / HT

- Overloading the drive-up ramp.
- Driving as flat-bed without drop sides, but with inserted stanchions.

5 General safety instructions



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



WARNING

Driving with folded down/unsecured drop sides/side wall extensions.

Folded down/unsecured drop sides and side wall extensions may be torn off and flung away while driving – risk of impact/crushing!
Folded down drop sides cover the vehicle lights/vehicle markings – increased accident risk!

- ▶ Before driving off, check that all drop sides/side wall extensions are closed and secured.
- ▶ Remove all drop sides/side wall extensions/stanchions when using the trailer as a flat-bed.



Loading/unloading bulk goods!

The bulk goods can press against the drop sides during loading. Unsecured drop sides may spring open, presenting a hitting/crushing risk!

- ▶ Before loading bulk goods, make sure that all drop sides are closed and secured.
- ▶ Stand to one side when unlocking the drop sides – not directly in front of it.

Materials on the trailer!

Materials such as snow/ice can be thrown on the road during the journey – accident risk!

- ▶ Remove ice and snow from the cargo bed/tarpaulin in general and before driving off.
- ▶ Check that there are no loose objects on the cargo bed/tarpaulin before driving off.



Loose objects on the cargo bed



Climbing on the tarpaulin is absolutely prohibited!
The operator accepts full responsibility if this is disregarded.

6 Loading and unloading





6.2.1 Loading/unloading the trailer

CAUTION



Folding ramp wall


After unlocking, the ramp wall can fall down uncontrollably, e.g., from load pressure – impact risk!
This can result in feet being crushed.

- ▶ Stand to the side when unlocking the ramp wall.
- ▶ Relieve the load pressure beforehand if necessary.
- ▶ 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 ramp wall.
- ▶  Keep people away from the area around the ramp wall during unfolding.
- ▶ Use  .



Walking on the mudguards is prohibited!

You can fall if you walk on the mudguards, since the plastic mudguard gives way.

- ▶  Do not climb on the mudguards.
- ▶ If necessary, use a stable access aid, e.g., a ladder or stool.



The trailer must be secured so 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.

6.1 Load distribution



Before loading, check the max. load capacity that you are able to transport with your trailer.
Check that the max. permissible body dimensions of your trailer are not exceeded.

The load distribution works directly on the road handling of the towing vehicle tension.

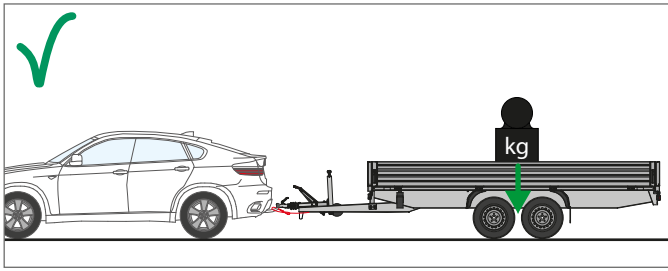
NOTICE

Poor/one-sided load distribution of the goods!

Strongly uneven/point load distribution can lead to overstressing and damage to the trailer components.

- ▶ Before loading your trailer, check which load objects are the heaviest.
- ▶ Position the heaviest objects centrally on the cargo bed and in the area of the axles.
- ▶ Distribute the goods evenly over the cargo bed
- Avoid point/one-sided load distribution.

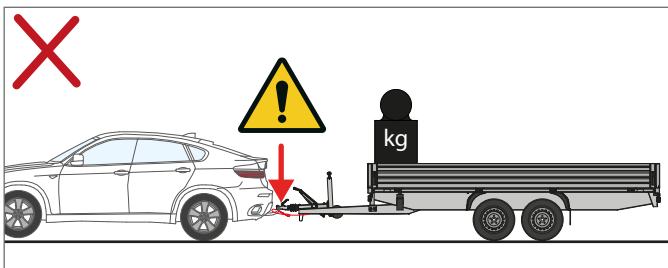
Correct load distribution



Load in axle area

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

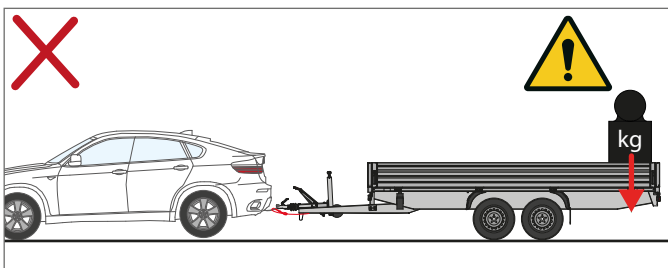
Incorrect load distribution



Load too far forward (toward motor vehicle)

The trailer tilts forwards; the towing vehicle tilts backwards = the max. drawbar load has been exceeded.

Incorrect load distribution



Load too far backwards (from motor vehicle)

The trailer tilts backwards; the towing vehicle tilts forwards = the drawbar load is too low or is negative.

6.2 Load securing



For relevant safety information for load securing, refer to the section "General load securing" in the operating instruction manual "Trailers up to 3.5 to – General part 1."

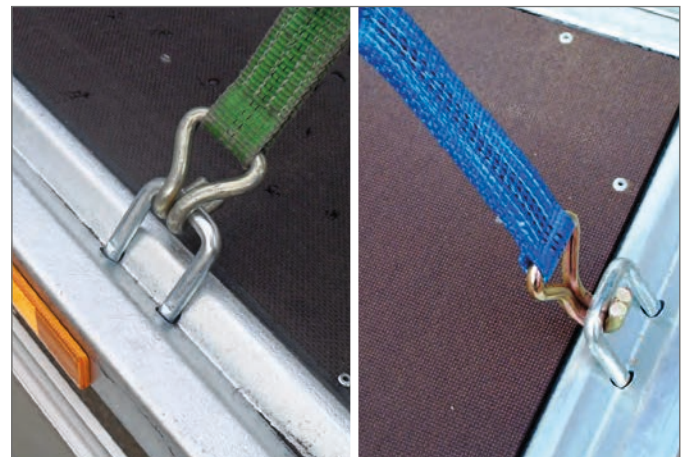


WARNING

Unsecured load!

The load can be thrown around during the journey. The trailer may start to lurch – accident risk!

- ▶ Make sure that the load is secured by form and force-fitting before driving off.
 - ▶ If required, have tie-down points retrofitted.
-
- ▶ 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.



Tie-down options

The hook of the ties can be fastened to the tie-down bracket from the inside or from the outside.

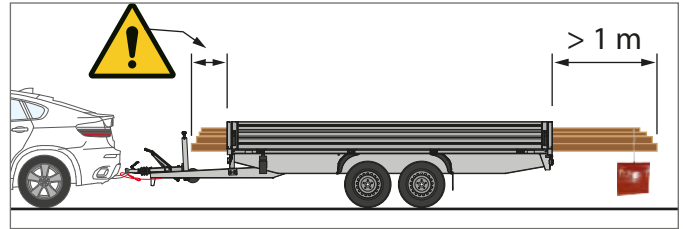


Loose load, not secured

6.2.1 Projecting load



In Germany, goods that project over the cargo bed or drop sides must be marked in accordance with Section 22 of the StVO (German Road Traffic Act).



Marking goods

1. Sign/flag (30 cm x 30 cm) or cylindrical body (\varnothing 35 cm x 30 cm), bright red

- ▶ Check that your load does not exceed the maximum permissible values according to Section 22, "Goods," of the StVO.
- ▶ Mark any projecting goods.
 - Make use of the prescribed means for doing so.
- ▶ Do not load the goods too far forward.
 - The required swerving range for driving around bends must remain open!



WARNING

Restricted swerving range – risk of collision!

Supporting the load on the front drop side and allowing it to project forwards reduces the swerving range when driving around bends – accident risk!

- ▶ Before driving off, check that the restricted swerving range will allow your towing vehicle to drive around bends.
- ▶ Adjust the distribution of the load towards the centre between the drawbar if necessary.
- ▶ If necessary, remove the front drop side.



Driving with open front drop side



Secured with tie-down



Secured with tie-down



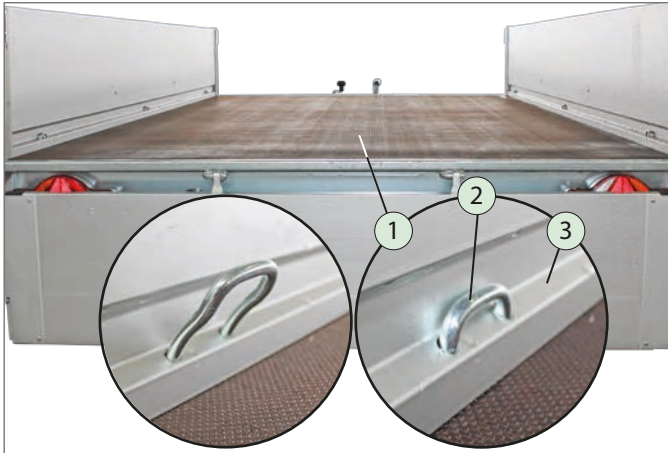
Secured with tie-down



Secured with form-fitting and tie-down

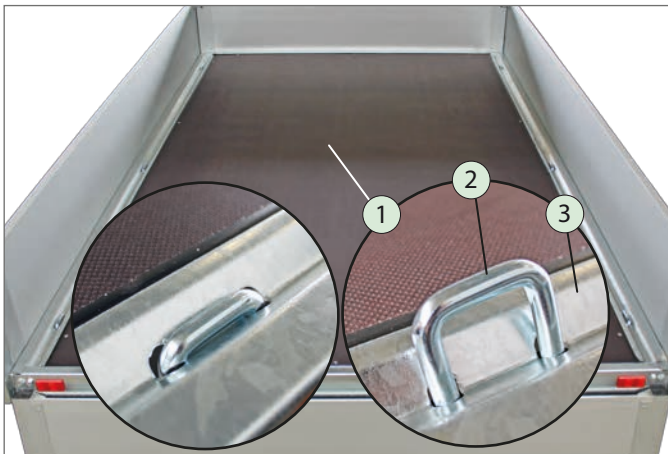
6.2.2 Tie-down points

Tying down goods



HA - tie-down points (tie-down force = max. 400 daN (kg))

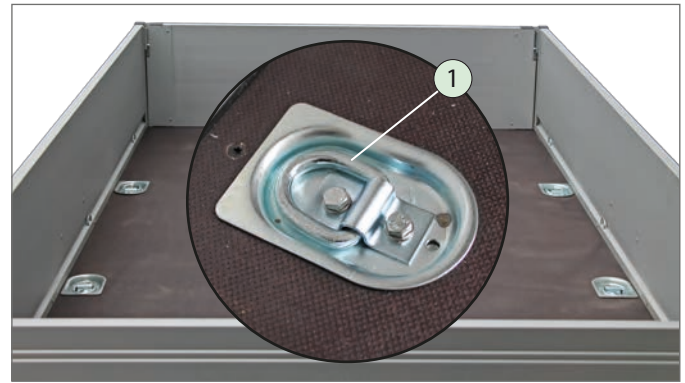
1. Loading platform
2. Tie-down brackets, recessed
3. Side drop side



HN/HT - tie-down points (tie-down force = max. 400 daN (kg))

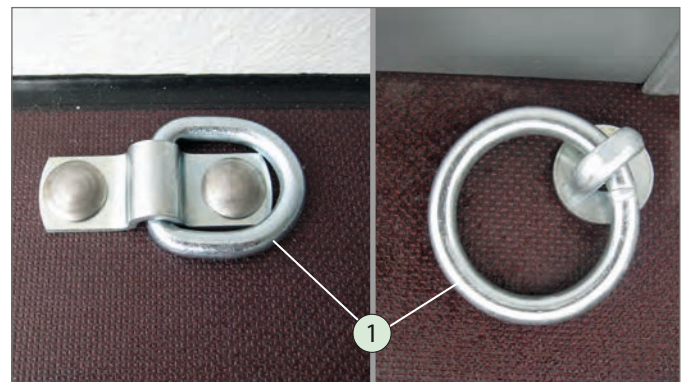
1. Loading platform
2. Tie-down brackets, recessed
3. V-frame profile

- ▶ Tie down the load.
 - Do not exceed the maximum permissible tie-down forces per tie-down point.
- ▶ Take note of the sticker providing information about the maximum tie-down forces on the trailer.



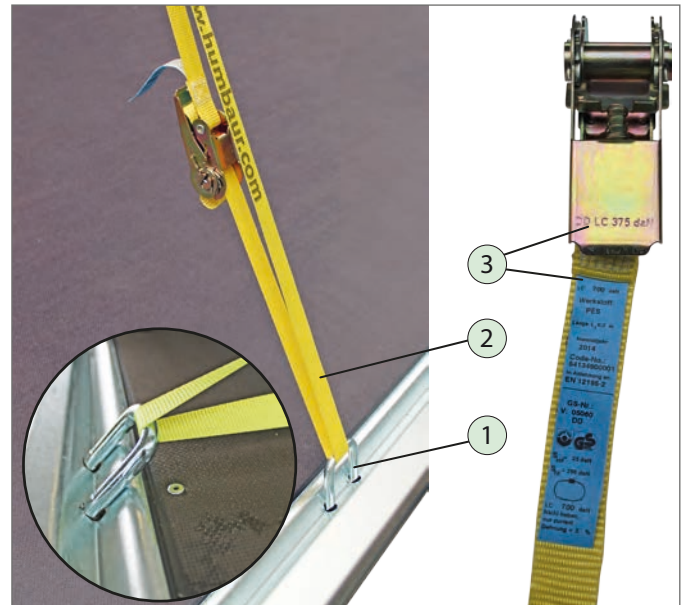
Optional/additional tie-down points

1. Tie-down ring recessed in tie-down groove, in loading platform (tie-down force = max. 400 or 200 daN (kg))



Optional/additional tie-down points

1. Folding rings on the loading platform



Tie-down of load

1. Tie-down point
2. Tie-down equipment (tension belt)
3. Tie-down force information

- ▶ Adhere to the maximum tie-down force for the tie-down equipment (e.g., tension belts).

6.3 Drop sides

WARNING

Driving with the rear drop side folded down!

Any rear lights are covered. The trailer cannot be seen in traffic – danger of accident!

- ▶ Remove the rear drop side when driving with a load projecting to the rear.

NOTICE

Driving with the front drop side folded down!

The front drop side is not secured and can move while driving – risk of material damage!

- ▶ Remove the front drop side when driving with a load projecting to the front.



Drop sides and stanchions fitted

1. Side drop side
2. Front drop side
3. Rear drop side
4. Stanchion
5. Covered lock
6. Drop side hinge

6.3.1 Drop side – HN / HT

Functional explanation

- The 4 drop sides can be folded down, depending on the loading/unloading process.
- The drop sides can be removed in order to transport longer and wider cargo.
- The stanchions are secured by the closed drop sides to prevent them from falling out.
- The stanchions can be removed when the drop sides are removed.

WARNING

Driving as flat-bed with stanchions inserted!

The stanchions may be flung out while driving and hit people – risk of accident/impact!

- ▶ Remove all drop sides before starting to drive.
- ▶ Remove all stanchions before starting to drive.



Driving as flat-bed (drop sides/stanchions removed)

Opening



Unlocking locks

1. Drop side
2. Covered lock

- ▶ Unlock the recessed locks on both sides.
- While doing so, hold the drop side with one hand.



Folding down the rear drop side

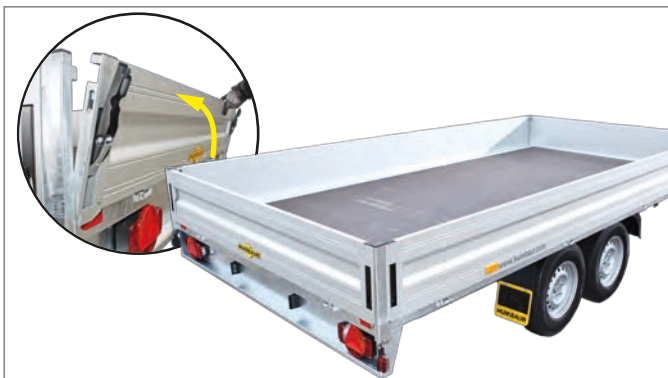
- ▶ Carefully fold down the drop side in a controlled manner.



Rear drop side, folded down

1. Rear drop side, folded down

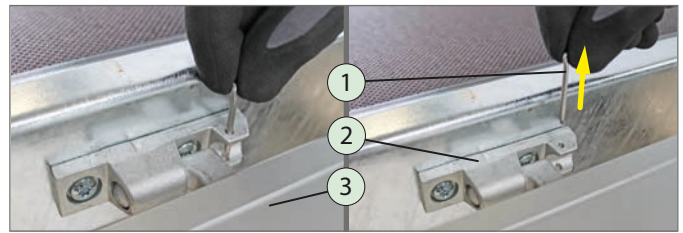
Closing



Closing the drop sides

- ▶ Open the covered locks as required.
- ▶ Fold up the drop side.
- ▶ Lock all locks on the drop side.
While doing so, hold the drop side with one hand.
- Ensure that they correctly engage with the locking lugs of the stanchions.

Taking off the drop side



Drop side hinge release

1. Securing split pin
2. Drop side hinge
3. Drop side

- ▶ Remove the securing split pin from the drop side hinge.
- ▶ Hold the drop side in about the middle lengthwise.
- ▶ Fold the drop side to a horizontal position.



Taking off the drop side

- ▶ Carefully pull out the drop side in the direction that is now unobstructed.
- ▶ Put the drop side where it is safe from damage.



Removing stanchion

removed

1. Stanchion
2. Stanchion pocket

- ▶ Pull the stanchions out of the stanchion pockets.

If the stanchions are stuck:

- ▶ Release them by carefully tapping the side with a soft-head hammer.



Drop sides removed, stanchions removed

- ▶ Store the stanchions/drop sides safely to prevent damage.



Putting on the drop side

- ▶ Hold the drop side in about the middle lengthwise.
- ▶ Slide the drop side onto its hinges in a horizontal position.

Fitting the drop sides



Stanchions inserted

1. Locking lugs on stanchion
 - ▶ Insert all stanchions into the stanchion recesses so that the locking lugs are pointing towards to cargo bed.



Securing the drop side

- ▶ Insert the securing split pin into one of the hinges.
- ▶ Force the securing split pin apart slightly.
- ▶ Open the locks as required.
- ▶ Fold up the drop side.
- ▶ Lock the covered locks.




Drop sides fitted, driving position

6.3.2 Drop side – HA

Functional explanation

- The front and rear drop side can be removed when transporting long cargo.
- The front and rear drop side can be folded down, depending on the loading/unloading process.

- ▶  Instructions for operating (opening/closing) the drop sides are provided in the Drop side – HN / HT section.

Opening



Front drop side

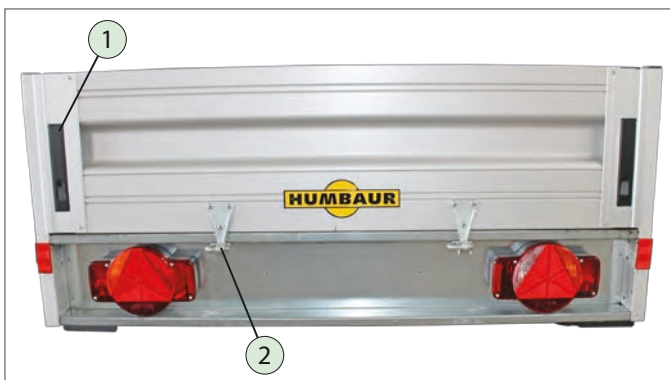
1. Front drop side, folded down



Rear drop side

1. Rear drop side, folded down

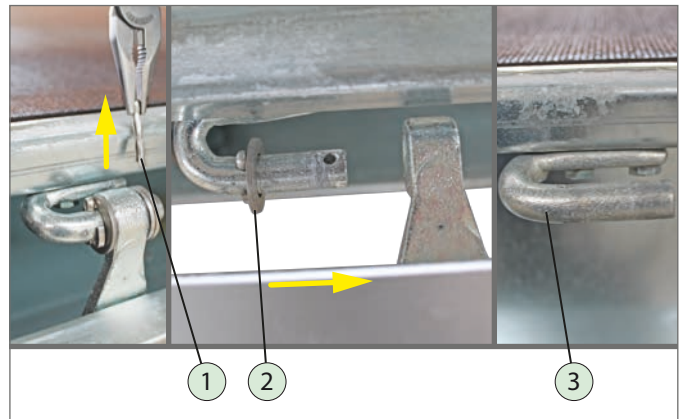
Closing



Rear drop side closed

1. Covered lock
2. Drop side hinge, secured

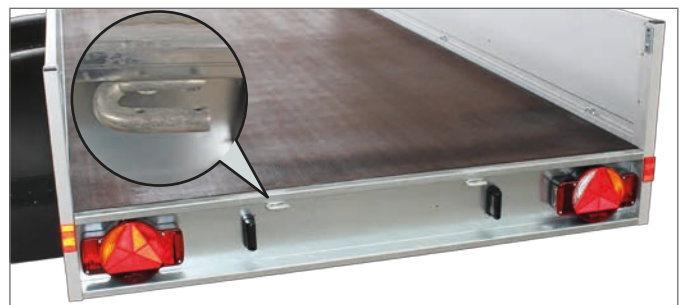
Removal



Removing the front drop side

1. Securing split pin
2. Disk
3. Drop side hinge

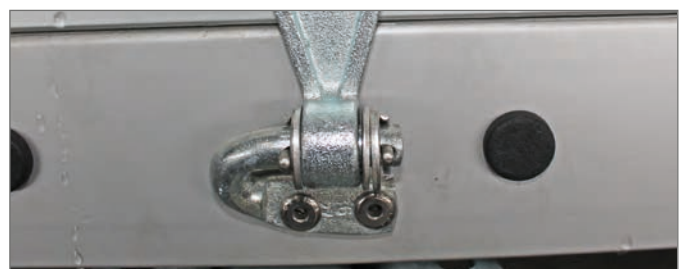
- ▶ Remove the securing split pin and disk from the drop side hinge.
- ▶ Fold the front/rear drop side into a horizontal position.
- ▶ Carefully pull out the front/rear drop side in the direction that is now unobstructed.
- ▶ Put the front/rear drop side where it is safe from damage.



Front drop side removed

Mounting

- ▶ Slide the front /rear drop side onto its hinges in a horizontal position.
- ▶ Insert the disks and the securing split pin.
- ▶ Open the covered locks as required.
- ▶ Close and lock the front/rear drop side.

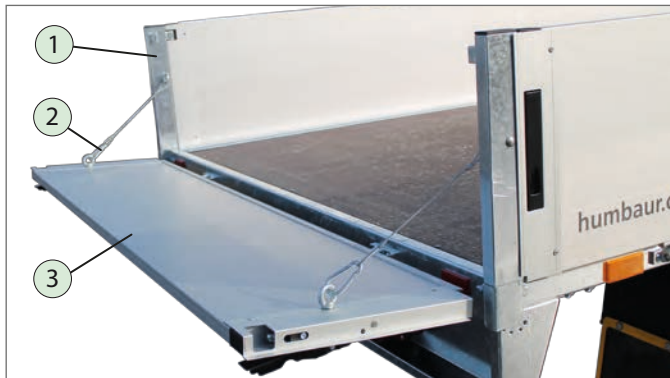


Drop side hinge secured with securing split pin

6.3.3 Rear drop side with support rope (optional)

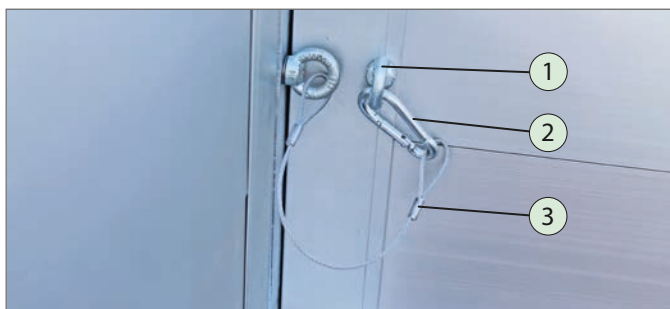
Functional explanation

- The rear drop side can be held open in a horizontal position by means of a support rope.
- Long cargo can be transported without removing the rear drop side.



Drop side secured with support rope

1. Stanchion
2. Support rope
3. Rear drop side



Support rope secured

1. Eyelet
2. Snap hook
3. Support rope

- ▶ Open the rear drop side.
- ▶ Close the locks.

The support ropes hold the rear drop side in the horizontal position.



Releasing the support rope

- ▶ Loosen the carabiner from the eyelet. The rear drop side can be folded down.

6.4 Side wall extension (optional)

Functional explanation

- The side wall extension (350 mm) increases the loading volume of the trailer.
- When not in use, the side wall extension can be taken off.



The corner post extensions must be secured in the stanchions of the base drop sides!
The stanchion extensions can be removed as needed.



Read and observe the assembly instructions.



WARNING

Driving without secured side wall extension/corner post extensions!

Unsecured side wall extensions/corner post extensions may be thrown off while driving, causing accidents!

- ▶ Screw the corner post extensions into the stanchions of the base drop sides.
- ▶ Close all locks on the base drop sides before driving.
- ▶ Before driving check that all side wall extensions and lamellar plugs are securely mounted.

NOTICE

Open the main drop side while the side wall extension is in place!

The side wall extensions are mounted on the main drop sides. When opening the main drop sides, the side wall extensions can be damaged.

- ▶ Remove the side wall extension before opening the main drop side.



Side wall extension inserted

1. Main drop side
2. Covered lock
3. Corner post extension
4. Side wall extension

Removal



Removing the side wall extension

- ▶ Open the locks.
- ▶ Remove the side wall extension.
- ▶ Close the locks.
- ▶ Put the side wall extension where it is safe from damage.



Rear side wall extension removed + rear drop side folded down

- ▶ Fold the main drop side down if necessary.

Mounting




Putting on the side wall extension

1. Overlapping the side wall extension
 - ▶ Close the main drop side if necessary.
 - ▶ Hold the side wall extension firmly with one hand.
 - ▶ Close the locks one by one.

6.5 Two-part drop side (optional)

Functional explanation


- The HN and HT trailers are optionally available with a two-part main drop side with a centre stanchion.
- A two-part side wall extension with centre stanchion is available.

- ▶  Instructions for operating (opening/closing) the drop sides are provided in the Drop side – HN / HT section.



Two-part main drop side with centre stanchion

1. Centre stanchion
2. Main drop side

- ▶  Instructions for operating (opening/closing) the side wall extension are provided in the Side wall extension section.



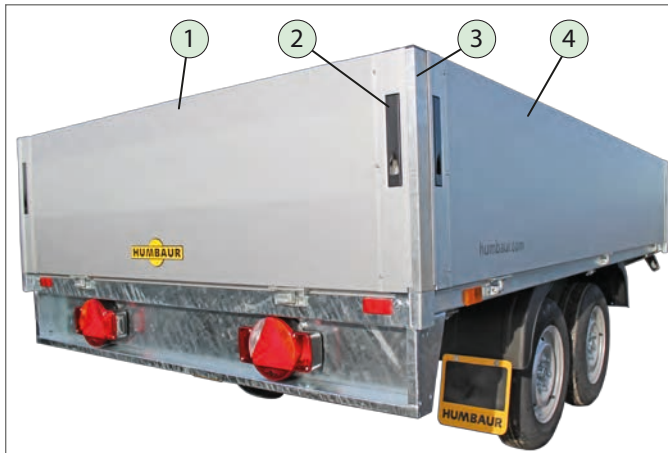
Two-part side wall extension with centre stanchion

1. Centre stanchion extension
2. Side wall extension

6.6 Raised drop side (optional)

Functional explanation

- The HA, HN and HT trailers can optionally be equipped with a raised drop side of 500 mm.



Raised drop side

1. Rear drop side
2. Covered lock
3. Stanchion
4. Side drop side

6.7 Steel mesh extension – HA (optional)

Functional explanation

- HA trailers can be optionally equipped with a steel mesh extension.
- The steel mesh extension (620 mm) increases the loading volume of the trailer.



Instructions for operating the steel mesh extension are provided in the operating instruction manual, "Trailers up to 3.5 to" General Points – Part 1.



Read and observe the assembly instructions.



Steel mesh extension

1. Steel mesh extension

6.8 Supports (optional)

6.8.1 Telescopic prop stands – HN/HT

Functional explanation

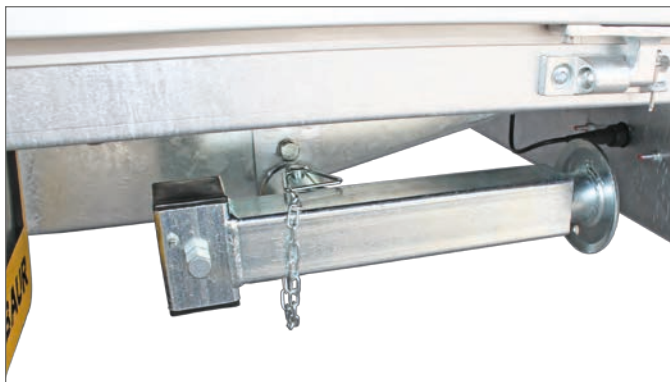
- HN / HT trailers can be optionally equipped with swivelling telescopic prop stands.
- The supports may only be retrofitted at the attachment points provided.
- The frame already has drill holes for fitting the supports.



Instructions for operating the telescopic prop stands are given in the operating instruction manual, "Trailers up to 3.5 to" General Points – Part 1.

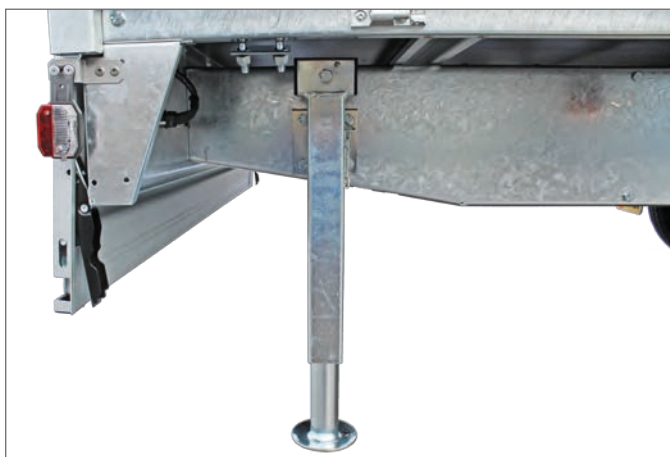


Read and observe the assembly instructions.



Telescopic prop stands driving position

- ▶ Raise the telescopic prop stands before driving off and secure them in the horizontal position.



Telescopic prop stands

- ▶ Lower and secure the telescopic prop stands for loading/unloading.

6.8.2 Prop stands

Functional explanation

- As an option, the prop stands are available loose or as fitted accessories.
- The prop stands can be fitted in the rear area of the chassis.
- The frame is usually fitted with the mounting holes for the prop stands.



Instructions for operating the prop stand are provided in the operating instruction manual, "Trailers up to 3.5 to" General Points – Part 1.



Read and observe the assembly instructions.



Driving position

Stand position

- ▶ Raise the prop stands before driving off.
- ▶ Tighten up the handle.
- ▶ Lower and secure the prop stands for loading/unloading.
- ▶ Tighten up the handle.

6.9 Wood/aluminium cover (optional)

Functional explanation

- The wood/aluminium cover is used for the protected transport of sensitive goods.
- The wood/aluminium cover can be locked with a key and thus protects your goods against theft.
- The loading volume is increased by the internal height of the wood/aluminium cover, i.e., by 185 mm.
- The wood/aluminium cover is supported by a gas strut for easier opening. The gas strut keeps the cover in an open position.
- The wood/aluminium cover for the HA is available with rail and bicycle stands. It has been specifically adapted to the trailer size.

WARNING



Driving with cover open/unlocked!


The cover can spring open while driving and be torn off/deformed. The goods may be flung off. The trailer could lurch from side to side or tip over and be uncoupled from the towing vehicle.

- ▶ Do not drive with the cover open/half-open.
- ▶ Before driving off, check that the cover is properly closed and locked.



Presence in the trailer with the cover closed!

Risk of suffocation due to lack of oxygen in loading area.

- ▶  Avoid being in the closed trailer.
- ▶ Do not transport any live animals.
- ▶ Before closing the cover, check that there are no persons/animals in the trailer.

CAUTION



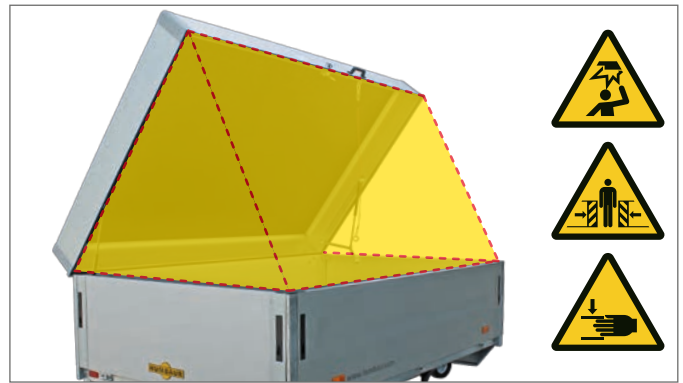
Operating the cover!

You may catch your hands/body in the cover or bump your head while folding the cover down.



You can be hit in the head.

- ▶ Operate the cover carefully.
 - Do not allow the cover to fall shut on its own.
- ▶ Use the handle to operate the cover – do not reach over the closing edge or into the transmission linkage.
- ▶ Use the pull strap to close the cover and hold it firmly by the handle.



Risk areas

CAUTION



Worn gas strut!

Where a gas strut is leaking/worn, the cover may fold down on its own and hit you.

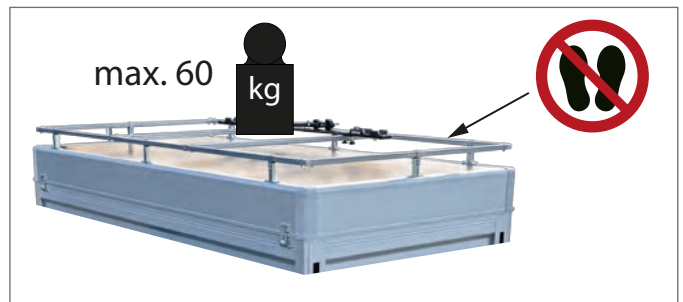
- ▶ When operating the cover, ensure that it does not fall down by itself.
- ▶ Have any faulty/worn gas struts replaced immediately by a specialised workshop.

NOTICE

Overload on cover/rail!

The cover/rail may become deformed or break.

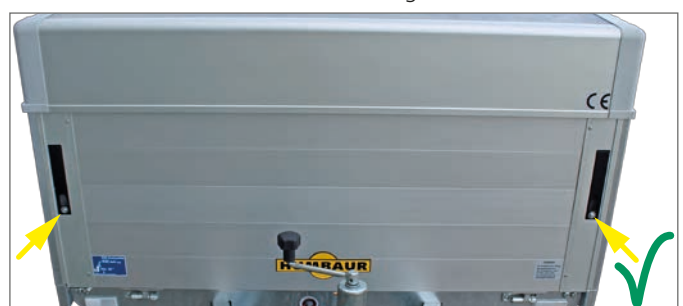
- ▶ Limit the weight on the cover/rail to a maximum of 60 kg.
- ▶ Do not climb onto the cover/rail.



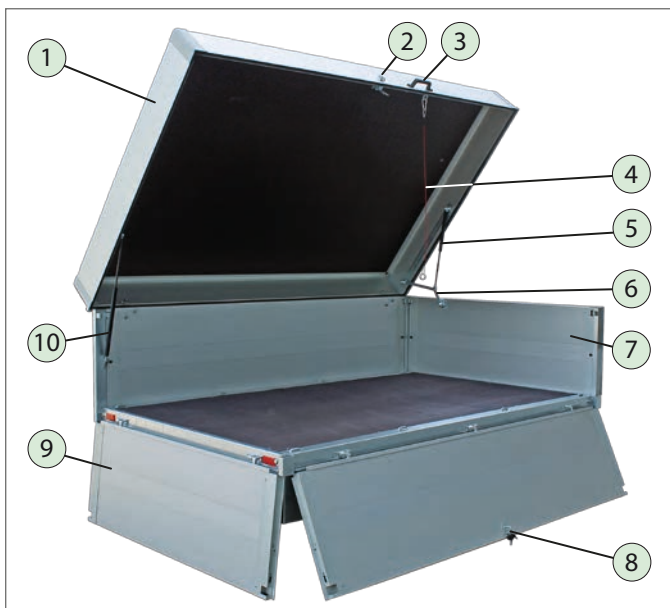
Opening the folding front drop side!

The transmission linkage for the gas strut is attached to the front drop side. Opening the front drop side results in deformation of the cover. It may fall down.

- ▶ Never open the front drop side.
- ▶ Do not remove the lock securing screws.



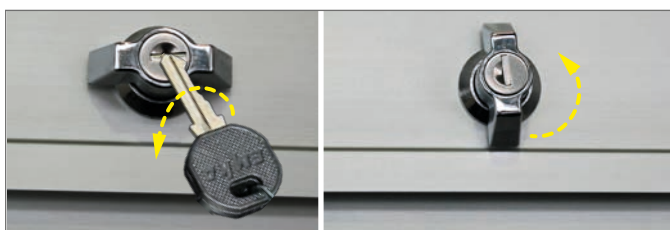
Operating the cover



Wood/aluminium cover

1. Cover
2. Lock
3. Handle
4. Pull strap
5. Gas strut (front drop side)
6. Transmission linkage
7. Front drop side, fixed
8. Side drop side, folding
9. Rear drop side, folding
10. Gas strut (rear drop side)

Unlocking



Lock unlocked

- ▶ Use the key to open the lock.
- ▶ Turn the lock into a vertical position.

Opening



Cover open

- ▶ Take hold of the handle and lift the cover.
- The gas struts assist in opening the cover
- ▶ Hold the cover open as far as it will go.

Closing



Closing the cover

- ▶ First close the rear and side drop sides.
- ▶ Take hold of the pull strap and pull the cover downwards until you can reach the handle.
- ▶ Push the cover completely shut.
- Ensure that the lock is in the open position.

Locking



Lock locked

- ▶ Turn the lock to the horizontal position.
- ▶ Use the key to lock the lock.

Cover with rail

Functional explanation

- The cover with a rail may be used as an additional cargo bed for light loads.
- The rail on the cover is used to transport and secure loads such as bicycles, surfboards, boxes, etc.
- The two lateral crossbars on the rail are used to attach the bicycle stands, for example.

CAUTION



Opening the cover after placing a load on it!

The cover may fold down unexpectedly, as the gas strut is not designed to carry additional load. Load can slip/fall – risk of crushing/impact.

- ▶ Only open the cover when there is no load present.
- ▶ When opening the cover, ensure that no unsecured load on the cover can slide down.
 - First remove the load from the cover.

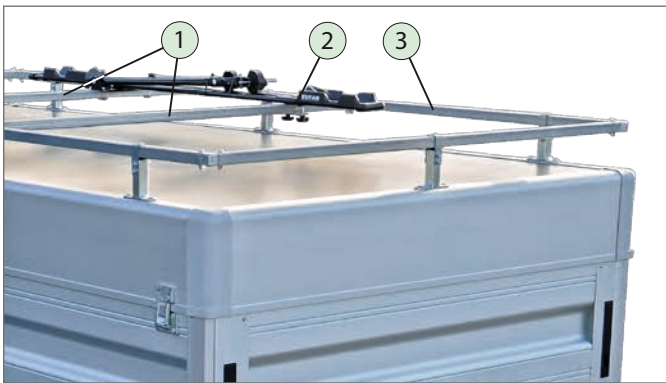
Rail with lateral bracing



The rail can also be retrofitted. Fitting should only be performed by persons with mechanical expertise.



Read and observe the assembly instructions.



Wood/aluminium cover with rail and lateral bracing

1. Lateral bracing (x2)
2. Bicycle stand with bracket
3. Rail

Bicycle stand



The rail must be equipped with 2 lateral crossbars when using a bicycle stand.




Read and observe the assembly instructions.



Bicycle stand attached to lateral crossbar

1. Lateral crossbar
2. Crossbar for bicycle stands

- ▶ Safely secure the bicycle stand onto the lateral bracings.
 - Depending on the space required, a max. of two bicycle stands may be fitted.
- ▶  Read the operating instruction manual for the bicycle stand.



- ▶ Fasten and properly secure the bicycle to be transported.
- ▶ Observe the maximum payload of the bicycle stand.
- ▶ Use the lock to secure the bicycle against theft.
- ▶ Secure the bicycle stand when it is not in use.

6.10 Flat cover (optional)

Functional explanation

- In addition to the flat cover, trailers also receive one or two lateral bracings.
- The lateral bracing(s) support the centre of the flat cover.
- Any water/load accumulating on the flat cover may cause it to sag and damage it.
- The fastening rope prevents unauthorised opening.



Instructions for operating the flat cover are given in the operating instruction manual, "Trailers up to 3.5 to" General Points – Part 1.

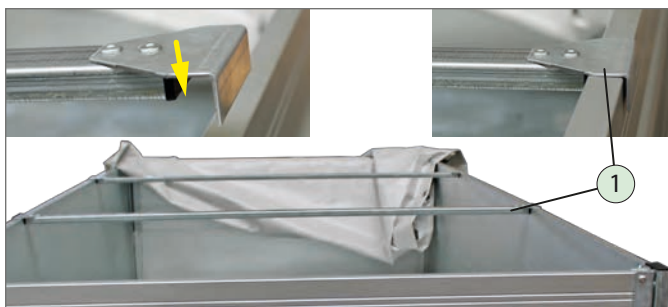


Flat cover closed

1. Round button
2. Flat cover



Operating the flat cover



Lateral bracing inserted

1. Lateral bracing, fitted
 - ▶ Fit the lateral bracing(s) to the drop sides at the centre of the side drop sides.
 - ▶ Set out the lateral bracing(s) at a 90° angle to the side drop side.

The flat cover can be secured against unauthorised opening by means of a fastening rope (see tarpaulin cover)

6.11 Tarpaulin cover (optional)

Functional explanation

- Trailers can optionally be fitted with a tarpaulin cover and a frame.
- The tarpaulin cover can be fixed either with a strap or a tension rope.
- The tarpaulin cover and the frame are secured by stanchions and staples.
- The tarpaulin cover can be opened at the back and sides for easy loading/unloading.
- The drop sides can be folded down for loading/unloading.
- The fastening rope prevents unauthorised opening.



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

! WARNING



Slot-in slats not inserted/inserted incorrectly!

The tarpaulin can be pressed inwards by wind while driving - risk of lurching/accident!


- ▶ Insert all slot-in slats.
- ▶ Check that the slot-in slats are firmly inserted before driving off.

! CAUTION



Removing slot-in slats

Slot-in slats that are incorrectly inserted/under tension can jump out and fall down during removal – risk of being hit!

- ▶ Use  .
- ▶ Before removal, eliminate the load pressure from the slot-in slats.
- ▶ Do not use damaged slot-in slats.

Tarpaulin cover with tension rope



Tarpaulin cover/frame with tension rope

1. Tension rope/loop
2. Tarpaulin cover/frame
3. Staple

Tarpaulin cover with belt



Tarpaulin cover/frame with belt

1. Belt
2. Tarpaulin cover
3. Staple

Closing



Tarpaulin cover closed / secured

1. Buckle
2. Staple

- ▶ Close the rear drop side.
- ▶ Roll up the tarpaulin cover.
- ▶ Secure the tarpaulin cover at the rear with the staples.
- ▶ Secure the tarpaulin cover at the side with the belts/buckles.

Opening

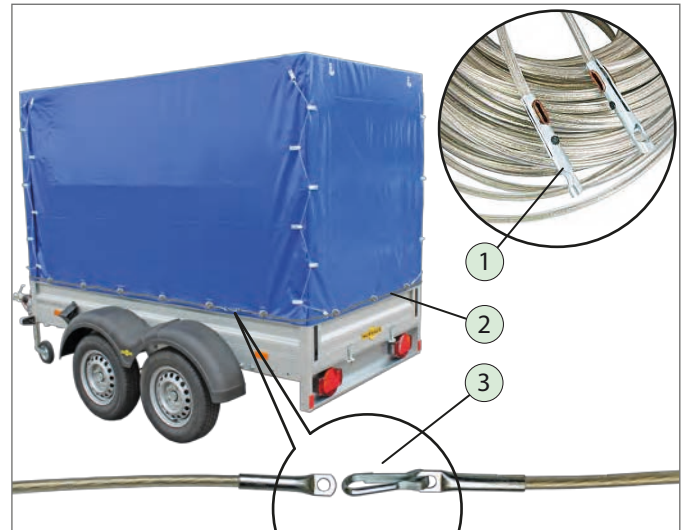


Tarpaulin cover open / secured

1. Top holding eyelet/buckle
- ▶ Release the tarpaulin cover.
 - ▶ Roll the tarpaulin cover upwards.
 - ▶ Secure the tarpaulin cover with the top buckles.
 - ▶ Fold down the rear drop side.

The trailer can be loaded from the rear.

Securing with fastening rope



Securing with fastening rope

1. Rope end fastener
 2. Fastening rope
 3. Rope ends for lead seal
- ▶ Feed the fastening rope through all closed staples.
 - ▶ Connect the two rope end fasteners to each other.
 - ▶ If necessary, use a lock such as a shackle lock to secure the ends.

6.11.1 Swing-out frame

Functional explanation

- The frame makes it easier to operate and open the cover parts.
- Side and rear cover parts can be swung open.



Frame

1. Swinging frame, side
2. Frame
3. Swinging frame, rear
4. Stanchion

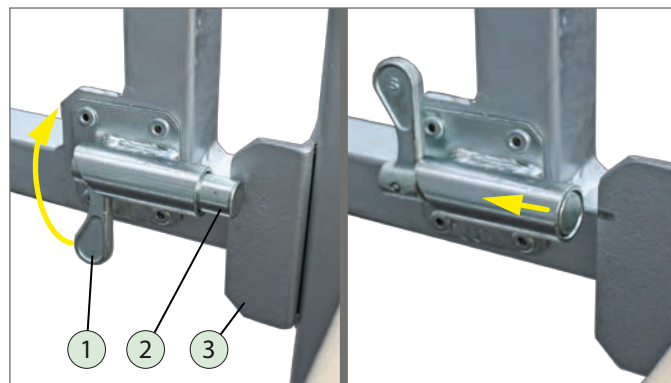


Closed tarpaulin cover

1. Belt
2. Hook
3. Staple

- ▶ Release the relevant cover part.
- ▶ Roll the cover part up and secure it on the hook.

Opening



Frame clip

Released

1. Lever
2. Bolt
3. Bracket

- ▶ Release the bolts on both sides.
- ▶ Hold the frame part tightly and open it.



Frame part swung out

1. Gas strut
2. Piston catch

- ▶ Secure the gas struts with the piston catch (turn and clip in).

6.11.2 Lateral sliding tarpaulin

Functional explanation

- The side cover parts can be slid open.



Tarpaulin cover with side sliding tarpaulin

1. Tensioning rope
2. Sliding tarpaulin
3. Staple



Sliding tarpaulin open

- ▶ Release the sliding tarpaulin.
- ▶ Slide the tarpaulin to one side of the trailer.



Sliding tarpaulin opened + drop side folded down

- ▶ Remove the slot-in slats if necessary.
 - ▶ Open the drop sides.
- The trailer can be loaded.

6.11.3 Tarpaulin cover without drop side

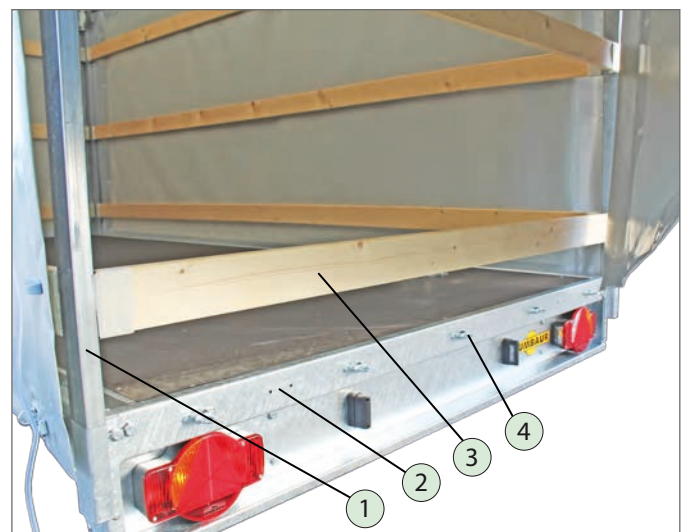
Functional explanation

- The tarpaulin cover can be fitted and secured directly to the chassis.



Tarpaulin cover without drop side, closed

1. Sliding tarpaulin
2. Cover part



Tarpaulin cover without drop side, opened

3. Frame
4. Chassis
5. Slat inserts
6. Staple

6.12 Ramp wall – HN/HT (optional)

Functional explanation

- The ramp wall allows the cargo to be loaded with forklift or rolling containers, for example.

WARNING



Ramp wall overloaded!

The ramp wall may become deformed or break. The goods/vehicle to be loaded may tip over – risk of crushing!

- ▶ Drive up the ramp wall, e.g., with a pallet truck, evenly and slowly.
- ▶ If necessary, check the gross weight of the loading vehicle with the goods before starting.

Folding down the ramp wall!

When unlocking and folding down the ramp wall, feet/hands/fingers can be crushed between the ramp wall and the ground!

- ▶ Hold onto the side of the ramp wall firmly with one hand.

- ▶ Use  .

CAUTION



Closing the ramp wall

Fingers/hands may be crushed in the area of the closing edges when closing the ramp wall.

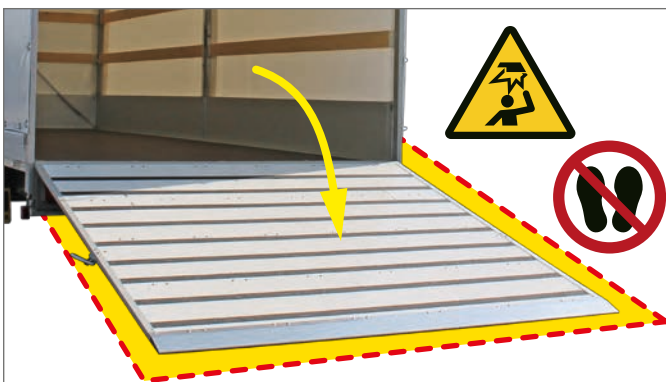
- ▶ Carefully close the ramp wall – do not slam it.
- ▶ Keep your hands / fingers away from the area of the closing edges.

NOTICE

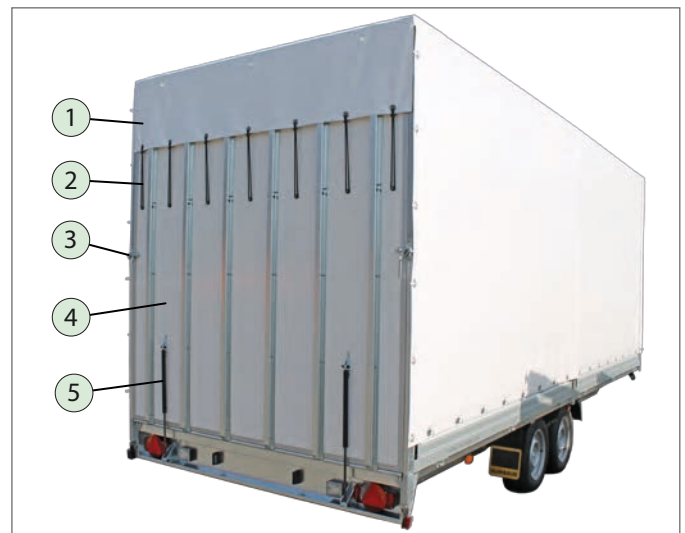
Overloading the ramp wall

The ramp wall can become deformed as a result of overloading! Components of the ramp wall, e.g., hinges can be damaged.

- ▶ Avoid point/one-sided loading when using the ramp wall.
- ▶ Distribute the load evenly over the ramp wall.



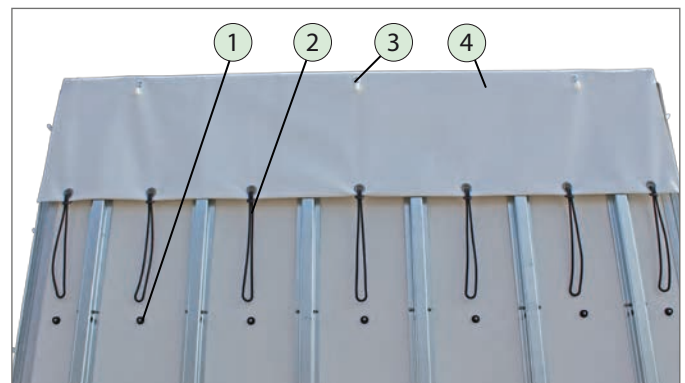
Risk zone



Ramp wall

1. Top cover part
2. Elastic cord fastener/round button Angle lever lock
3. Ramp wall
4. Gas strut

Opening



Release cover part

1. Round button
2. Elastic cord fastener
3. Upper eyelet holder
4. Top cover part

- ▶ Detach the elastic cord fasteners from the round buttons.
- ▶ Roll or fold up the top cover part (if necessary use aid such as a broom).

Unlocking locks

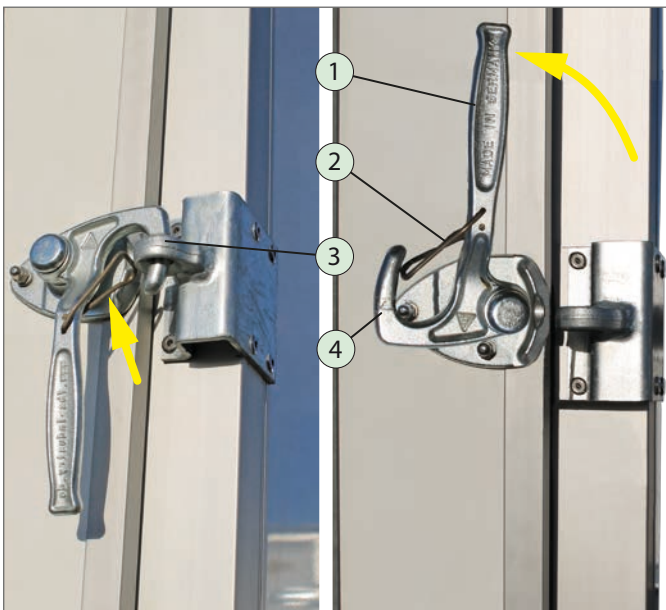
WARNING



Unsecured angle lever locks!

The ramp wall could burst open while driving – accident risk!

- ▶ Check that all angle lever locks are secured with locking springs before driving off.
-
- ▶ Position yourself on the side next to the ramp wall before unlocking the angle lever lock.



Angle lever lock closed

released

1. Lever
2. Locking spring
3. Eyelet
4. Hook

- ▶ Unlock the angle lever lock.
 - Push in the locking spring while turning the lever to the completely open position.

The hook is released.

- ▶ Use  

- ▶ Stand to the side of the ramp wall.
- ▶ Grip the handle of the ramp wall.
- ▶ Slowly lower the ramp wall.
 - If necessary, push it downwards.
 - Make sure that your hands/feet are not under the edge of the ramp wall.



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



Ramp wall tilted

1. Ramp wall (max. 300 kg loading capacity)

The cargo bed can be loaded.



Make sure that the trailer is secured so that it cannot roll away.
The cargo bed may only be loaded when the trailer is hitched.

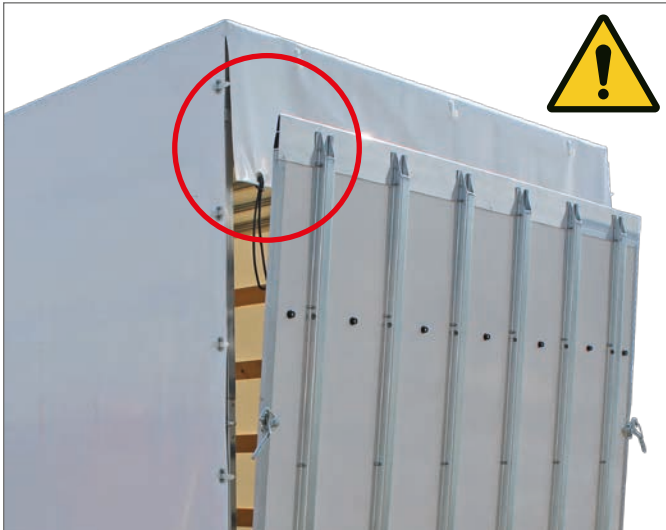
- ▶ Make sure that road traffic safety is not impaired when loading and unloading the trailer.
- ▶ If necessary, use additional signalling devices, e.g., signs, barriers.



Loading example

- ▶ Ensure that you do not overload the ramp wall (max. 300 kg).
- ▶ Slowly and carefully drive onto the ramp wall or slowly push the vehicle to be loaded upwards in a controlled manner.
- ▶ Make sure that the vehicle being loaded is in line with the ramp wall.

Closing



Closing the ramp wall

- ▶ Lift up the ramp wall from the side.
- ▶ Close the angle lever locks in turn.
- ▶ If necessary, use a fixed climbing aid.
- ▶ Roll up the top cover part.
- ▶ Pull the elastic cord fasteners over the round buttons.



Ramp wall closed

1. Angle lever lock, secured

The ramp wall is secured against automatic opening while driving.

6.13 H-frame (optional)

Functional explanation

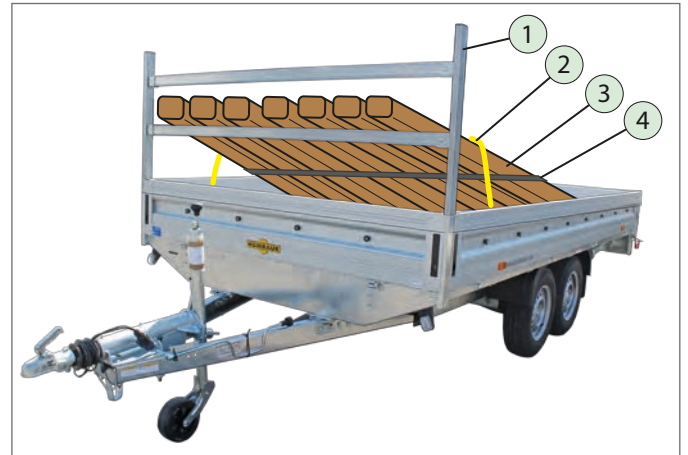
- The H-frame is inserted into the front stanchions and secured.
- The H-frame is used to transport and secure long loads.



Read and observe the assembly instructions.

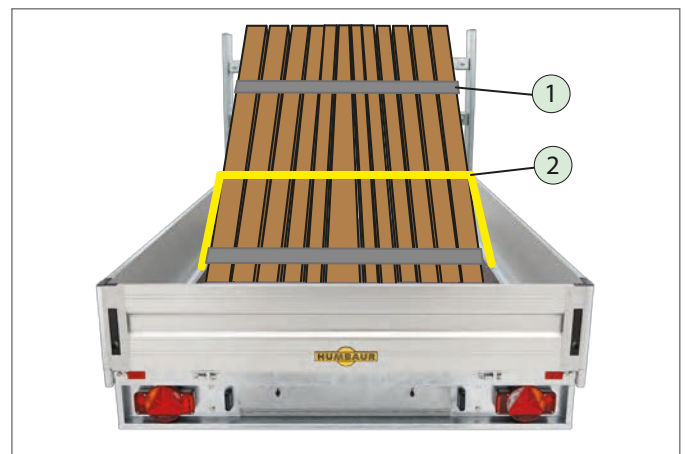


Long loads must be secured as individual loading units. It is not permitted to drive with loose loads on the H-frame. The loads must be secured and tied down to the trailer or H-frame.



Load securing with H-frame

1. H-frame
2. Lashing strap
3. Loading unit (long pipes, rods, planks)
4. Securing the loading unit



Load securing with H-frame


1. Securing the loading unit
2. Lashing strap

- ▶ Position the load safely so that it cannot slip.
- ▶ Use tension belts to tie down the load to the H-frame and to the tie-down points on the cargo bed.

6.14 Drive-up ramp – HN / HT (optional)

Functional explanation

- The drive-up ramps are made of aluminium and 2230 mm or 2650 mm long depending on the trailer.
- The drive-up ramps are available as fitted accessories.
- This makes it possible to load vehicles such as ride-on mowers.
- The drive-up ramps are transported in the ramp slot while driving.

- ▶  Read and observe the manufacturer's operating instructions before using the drive-up ramps.

Drive-up ramp 2230 mm

Max. values/load capacity	
Drive-up angle max.	30% (16.5°)
Wheelbase 1 m	1780 daN
Wheelbase 1.5 m	1930 daN
Weight per ramp	15 kg

Drive-up ramp 2650 mm

Max. values/load capacity	
Drive-up angle max.	30% (16.5°)
Wheelbase 1 m	2600 daN
Wheelbase 1.5 m	2950 daN
Weight per ramp	19 kg

WARNING



Drive-up ramps overloaded!

The drive-up ramps can be deformed.
The vehicle may fall/tip over - risk of impact/crushing!

- ▶ Observe the type plate with the max. load specifications.
- ▶ Observe the maximum values.

WARNING



Drive-up ramps not secured!

The drive-up ramps can slip off from the cargo bed. The vehicle may fall from the drive-up ramps - risk of impact/crushing!

- ▶ Before loading/unloading, check that the drive-up ramps are secured to the edge of the cargo bed.
- ▶ Note the warning label on the drive-up ramps.



Risk of loss of stability!

When loading/unloading with vehicles, trailer can lose stability and the load can tip over.

- ▶ Before operating the drive-up ramps, extend the support legs and secure them.
- ▶ Only perform loading/unloading on a solid and secure surface. Where necessary, place a solid surface under the support legs.
- ▶ Keep persons out of the risk area.




Trailer supported

CAUTION



Removing/positioning drive-up ramps!

You can crush your fingers/hands/feet!

- ▶ Use  .
- ▶ Remove and position the drive-up ramps carefully.
- ▶ Take hold of the drive-up ramps from the side with both hands.

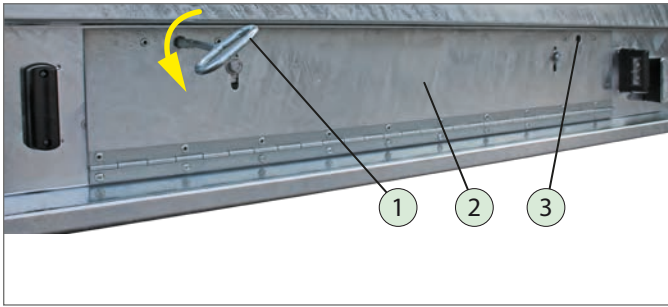


Stepping on the drive-up ramps!

The drive-up ramps may be dirty and wet. You may slip – risk of falling!

- ▶ Use .
- ▶ Walk on the drive-up ramps carefully and slowly.

Removal



Removing the drive-up ramps

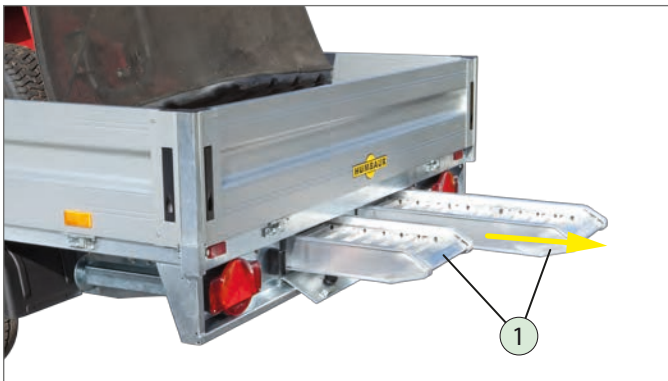
1. Square key
 2. Ramp slot cover
 3. Keyhole
- ▶ Release the ramp slot cover.
 - ▶ Fold down the ramp slot cover.



Supporting the trailer

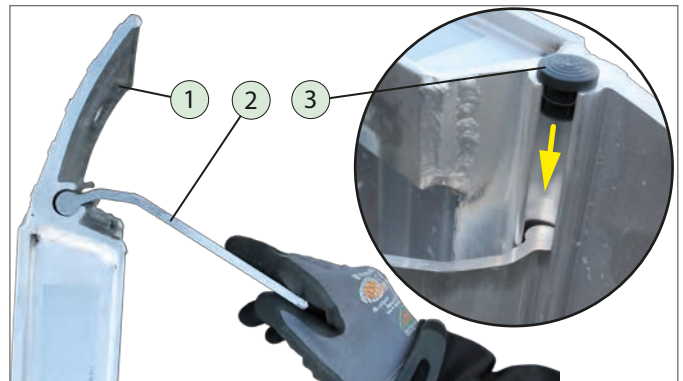
- ▶ Open the rear drop side and carefully fold it down.
- ▶ Place the telescopic prop stands underneath.

Preparing the drive-up ramps



Removing the drive-up ramps

1. Drive-up ramps
- ▶ Pull the drive-up ramps out of the ramp slot one after the other and with both hands up to the limit stop – not completely.
 - ▶ Lift the end of the drive-up ramps out of the ramp slot slightly.
 - ▶ Slowly and carefully place the drive-up ramps on the ground – do not drop.



Preparing the drive-up ramps

1. Drive up ramp
 2. Locking strap
 3. Stopper
- ▶ Slide the locking strap into the drive-up ramp. - Make sure that it is correctly positioned.
 - ▶ Use the stopper to secure the locking strap on both sides so it cannot fall out.



Closing the ramp slot

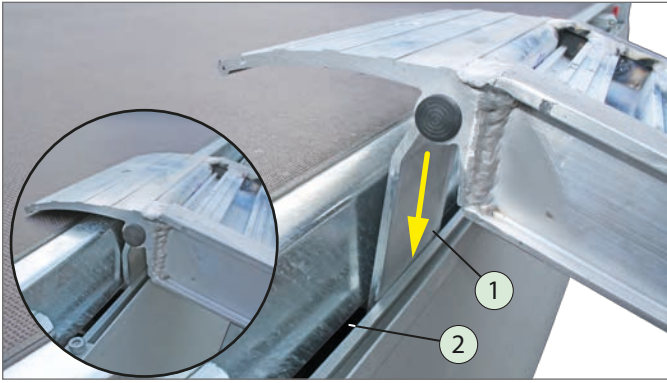
- ▶ Close and lock the ramp slot cover.



Prepared drive-up ramps

The drive-up ramps can now be positioned on the cargo bed.

Positioning



Drive-up ramps positioned

1. Locking strap
2. Gap between chassis and rear drop side

- ▶ Lift the drive-up ramp with both hands.
- ▶ Place the drive-up ramp on the cargo bed so that the locking strap is inserted into the gap between chassis and rear drop side.

Setting the track width

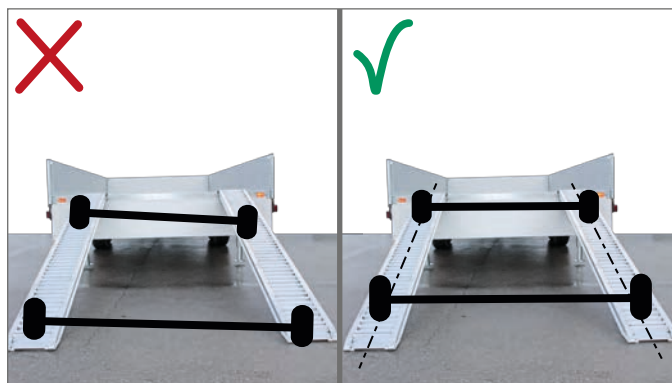
WARNING



Drive-up ramps positioned to incorrect track width!

The vehicle to be loaded may fall from the drive-up ramps – risk of impact/crushing!

- ▶ Position the drive-up ramps at the correct track width before loading/unloading.



Setting the track width

- ▶ Adjust the drive-up ramps to the track width of the vehicle to be loaded.
- ▶ Align the vehicle straight (at a 90° angle) to the trailer/to the drive-up ramps.
- ▶ Centre the track.



Drive-up ramps positioned

Driving up



It is only permitted to drive up the drive-up ramps if the driver can see the wheels directly. If the wheels cannot be seen directly, the drive-up ramps may only be used under the supervision of an assistant.

Avoid abrupt stopping and re-starting.



Example of using the drive-up ramps

- ▶ Drive up the drive-up ramps slowly and carefully – at a max. speed of 0.3 km/second.



Stepping on the drive-up ramps

CAUTION



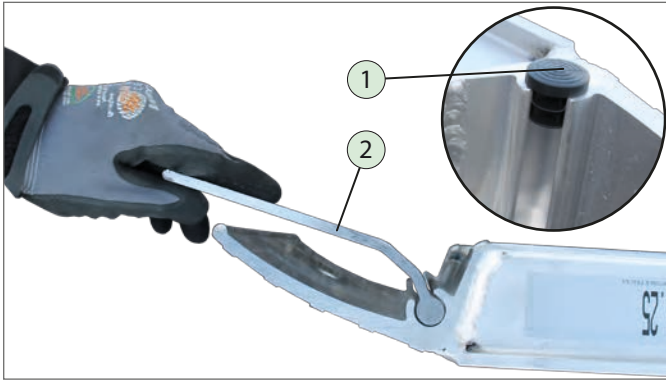
Stepping on the drive-up ramps!

The drive-up ramps may be dirty and wet. You may slip – risk of falling!

- ▶ Use 

- ▶ Walk on the drive-up ramps carefully and slowly.

Stowing/securing



Setting down/re-inserting the drive-up ramps

1. Stopper
2. Locking strap

- ▶ Lift the drive-up ramp from the cargo bed.
- ▶ Slowly and safely place it onto the ground.
- ▶ Remove one stopper.
- ▶ Re-insert the locking strap.
- ▶ Insert the stopper.

The drive-up ramps can be stowed in the ramp slot.



Opening the ramp slot

- ▶ Close the rear drop side.
- ▶ Open the ramp slot cover.
- ▶ Position the drive-up ramps in the ramp slot - with the upper locking strap forwards.
- ▶ Close and lock the ramp slot cover.



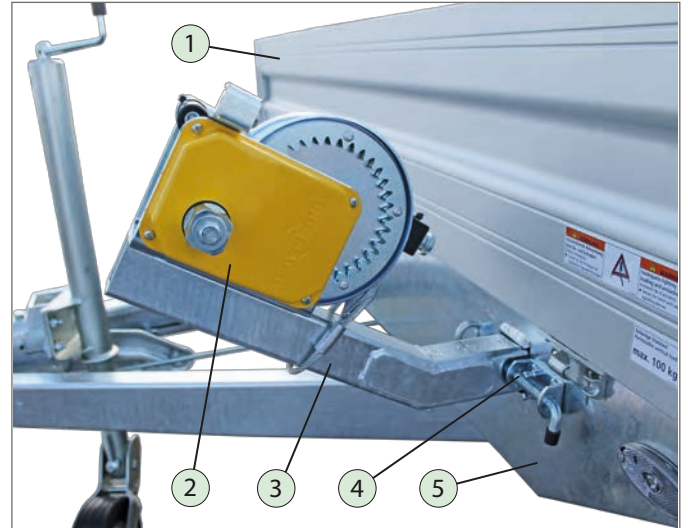
Example of loading with load securing

6.15 Cable winch (optional)

Functional explanation

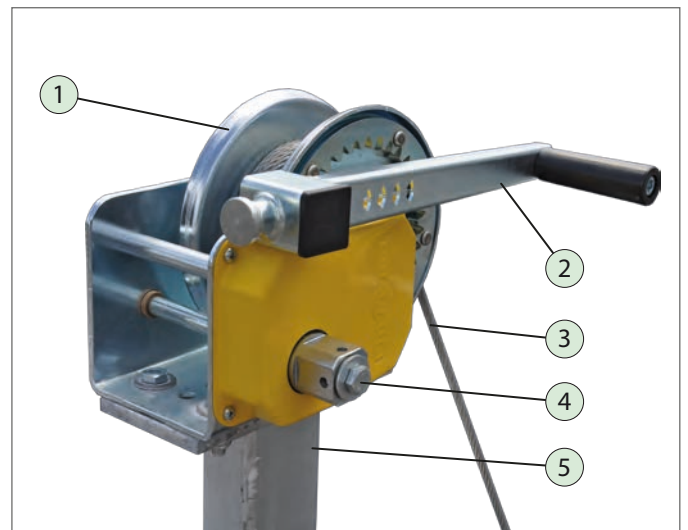
- The cable winch is located centrally or laterally on the drawbar.
- Defective vehicles can be pulled onto the cargo bed using the cable winch.

6.15.1 Cable winch



Cable winch frame

1. Front drop side
2. Cable winch
3. Frame
4. Locking bolt
5. Chassis



Cable winch frame components

1. Cable winch
2. Crank handle
3. Cable (steel)
4. Crank base
5. Frame

WARNING



Using a damaged cable winch

A damaged cable will be weakened and may tear when placed under load. People could be hit or crushed by the cable and/or the load.


- ▶ Only use the cable winch if it is undamaged and in perfect condition.
- ▶ Have the cable winch regularly serviced and repair it immediately if it is faulty.

CAUTION



Operating the cable winch

You could crush your hands/fingers in the cable winch while rolling or unrolling the cable. You could lacerate your hands on broken individual wires of the cable.

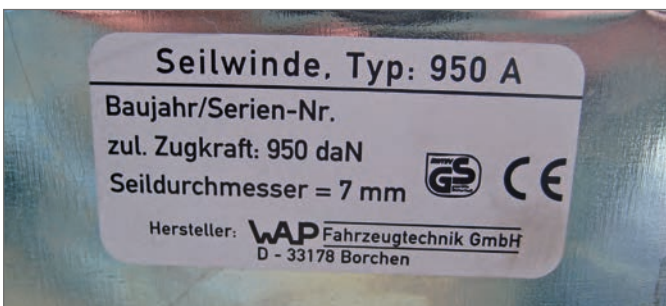
- ▶ Use .
- ▶ When operating the cable winch, ensure that the cable has no individual broken wires.
- ▶ Ensure that your fingers do not get caught in the cable winch when rolling up the cable.

NOTICE

Overloading the cable winch

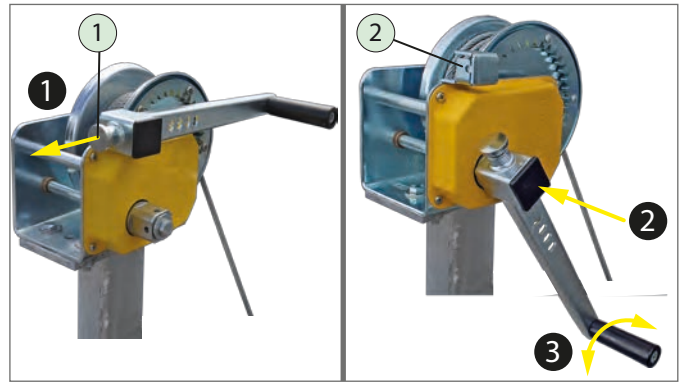
Overloading the cable winch may result in it breaking off or the cable tearing.

- ▶ Adhere to the maximum permissible tractive force of the cable winch, i.e., 950 daN or approximately 900 kg.
- ▶ Observe the type label on the cable winch.



Type label

Preparing the cable winch



Insert the crank handle

1. Securing pin
2. Parking holder for the crank handle

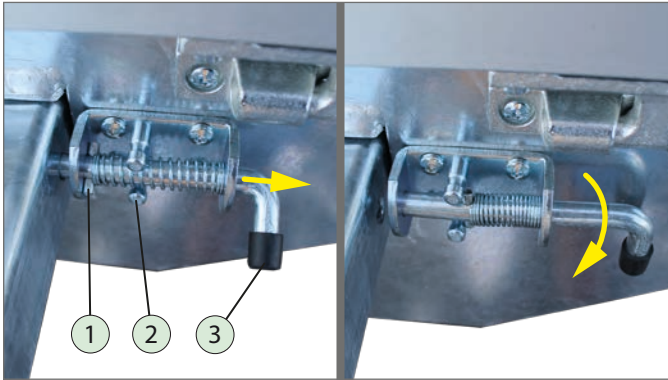
- ▶ ❶ Pull on the securing pin, while at the same time removing the crank handle from its parking position.
- ▶ ❷ Insert the crank handle into the crank base.
- Simultaneously pull out the securing pin and place it into one of the holes.
- ▶ ❸ The crank handle can be turned.



Loosening the snap hooks

- ▶ Relax the cable by turning the crank handle in a counter-clockwise direction.
- ▶ Unhook the snap hook from the eyelet.

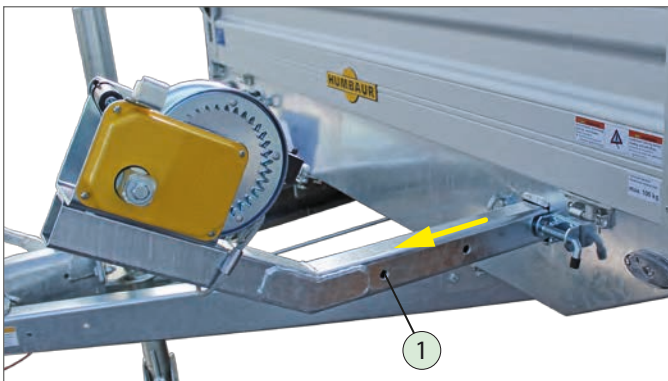
Folding down the drop side



Releasing the cable winch frame

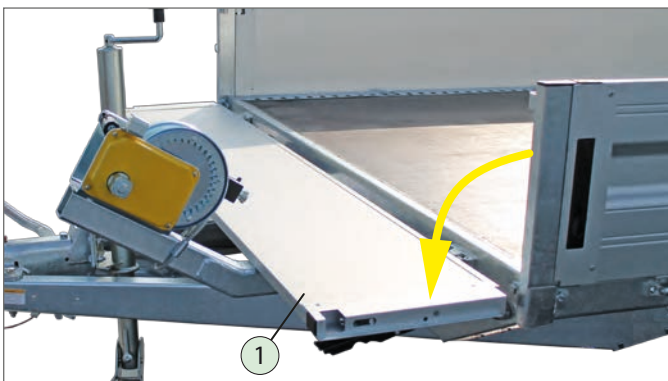
1. Securing pin
2. Locking pin
3. Locking bolt

- ▶ Pull the locking bolts to the side and turn them 90°.
- ▶ Lock the locking bolts in the locking pins.



Adjusting the cable winch frame

1. Hole
 - ▶ Pull the cable winch frame out until it can be locked in the third hole.
 - ▶ Use the locking bolts to secure the cable winch frame.
 - ▶ Fold down the drop side.



Front drop side folded down

1. Front drop side

Extending/unrolling the cable

- ▶ Manually extend the cable.
 - Ensure that the crank handle turns.
 - If necessary, remove the crank handle beforehand.

Securing/winching the load

- ! Amongst others, the loader is responsible for securing the load with tie-down devices!
Winching the load/vehicle is the most dangerous phase during operation of the cable winch!
- ▶ Ensure that nobody is standing in the danger area during loading.

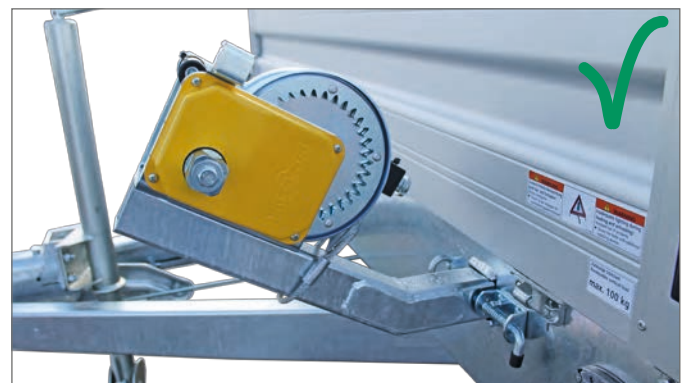
- ! The cable may not be used for load securing.

Rolling up the cable and securing the cable winch



Unsecured cable/crank handle

- An unsecured cable/crank handle may rattle around while driving, be torn off and hit a person.
- ▶ Before driving off, ensure that the cable is fastened in the eyelet with the snap hook and pulled tight.
 - ▶ Ensure that the crank handle is in the parked position and secured with the securing pin.



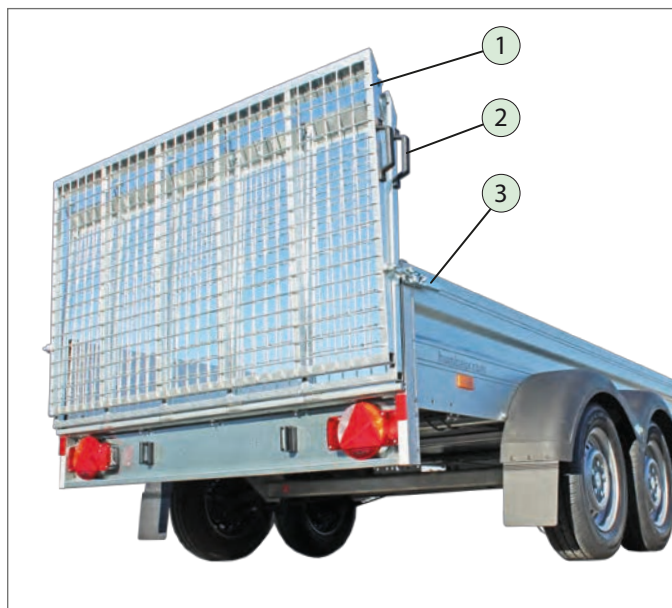
Cable winch frame secured (driving position)

- ▶ Carefully roll up the cable on the cable winch after use with the aid of the crank handle.
- ▶ Close the front drop side.
- ▶ Slide in the cable winch frame and lock it.
- ▶ Insert the snap hook into the eyelet.
- ▶ Slightly tighten the cable.
- ▶ Remove the crank handle from the crank base.
- ▶ Position the crank handle on the parking bracket.
 - Ensure that the crank handle points in the correct direction (towards the cargo bed).
 - Ensure that the crank handle has been secured.

6.16 Grid ramp wall – HA (optional)

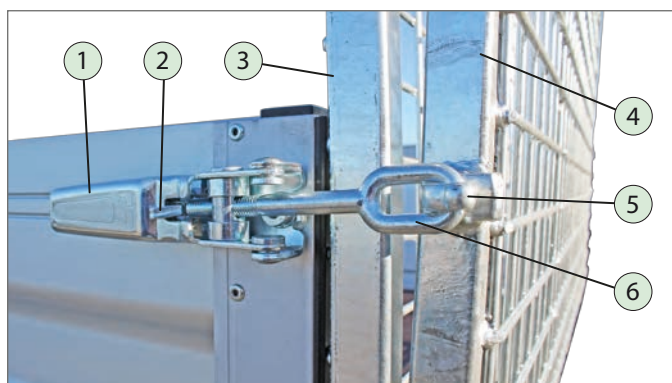
Functional explanation

- The grid ramp wall allows vehicles to be loaded.



Grid ramp wall closed (driving position)

- Ramp wall divided into two parts
- Handle
- Lock



Lock


- Quick-release lever
- Snap-lock
- Upper section
- Lower section
- Hook
- Eyelet

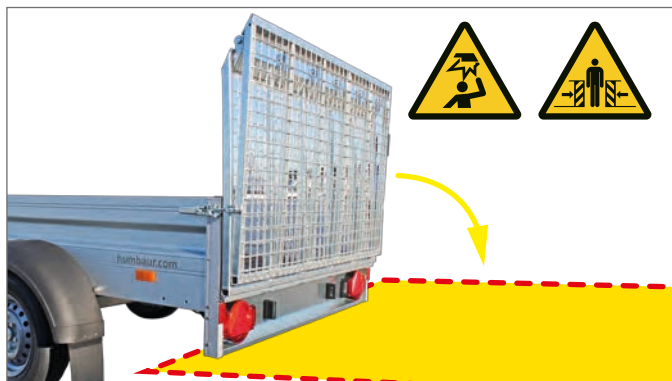
CAUTION



Unlocking the grid ramp wall

Grid ramp wall can fall down uncontrollably – risk of impact/crushing!

- Keep firm hold of the grid ramp wall when unlocking it.
- Fold the grid ramp wall down in a slow, controlled manner.
-  It takes two people to operate the grid ramp wall.



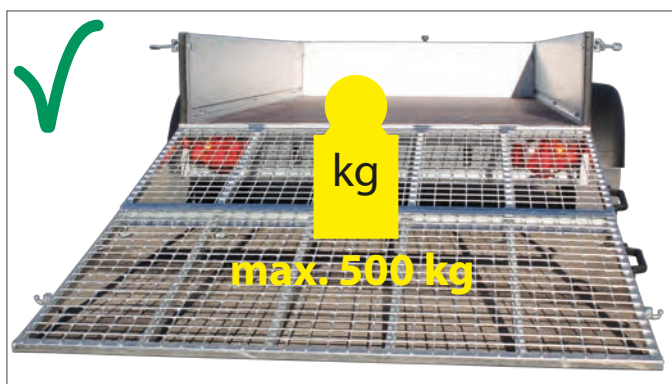
Grid ramp wall danger zone

WARNING

Grid ramp wall overloaded!

The grid ramp wall may become deformed. Deformed grid ramp wall could fall down while driving – accident risk!

- Do not place more than 500 kg load onto the grid ramp wall.
- Do not drive over the grid ramp wall with a pallet loader or a mobile lifting platform (high point load due to small wheels).
- Do not drive with a deformed grid ramp wall – replace it immediately.



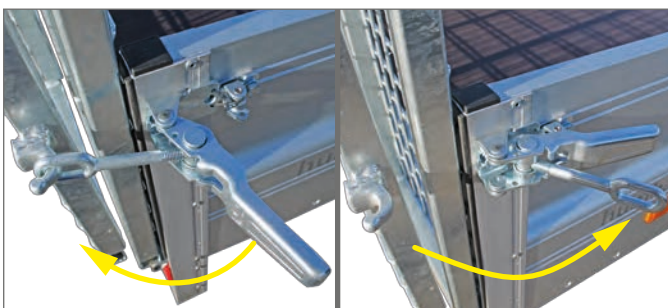
Grid ramp wall – folded open

Opening/folding down



Unlocking locks

- ▶ Unlock the lock on the drop-side side without handles on the grid ramp wall.
- ▶ Engage the snap lock.



Opening locks

- ▶ Pull the quick-release lever open and take the eyelet off the hook.
- ▶ Push the quick-release lever shut.
- ▶ Unlock the lock on the drop-side side with handles on the grid ramp wall.



Grid ramp wall – fold open

- ▶ Hold the unlocked grid ramp wall firmly at the handles with both hands.
- ▶ Carefully unfold the ramp wall to result in an even driving surface.

Driving up

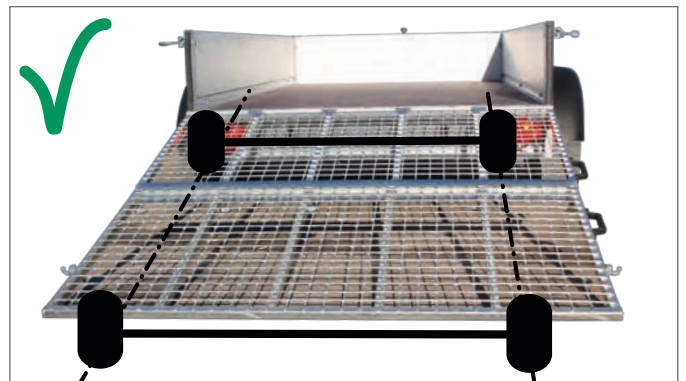


Grid ramp wall – as an even driving surface

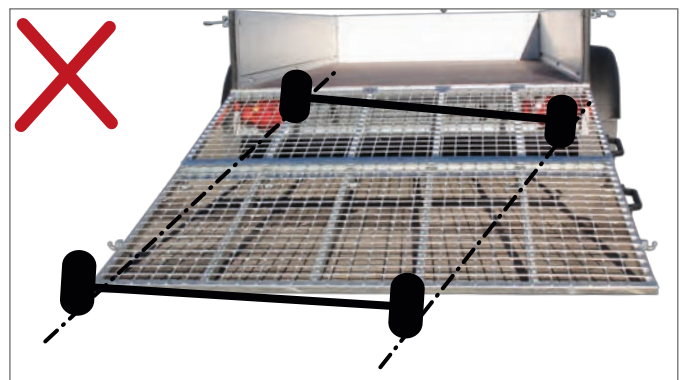


The cargo bed may only be loaded when the trailer is hitched.

- ▶ Align the vehicle to be loaded straight (at a 90° angle) to the trailer/to the grid ramp wall.
- ▶ Slowly and carefully drive over the grid ramp wall.



Correct positioning of the load vehicle, track aligned



Incorrect positioning the load vehicle

Folding up/locking



Grid ramp wall folded up

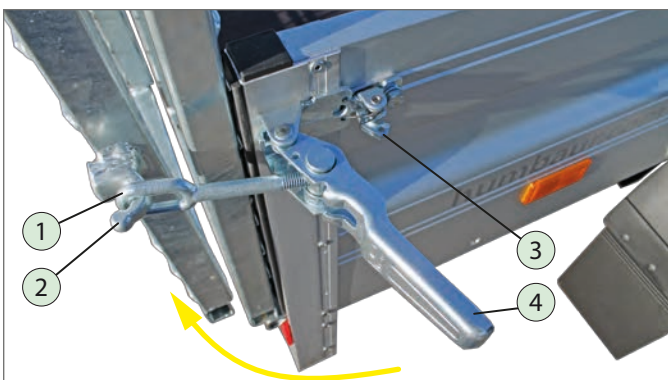
- ▶ Hold the grid ramp wall firmly at the handles with both hands.
- ▶ Fold the top and bottom part upright.
- ▶ Guide the grid ramp wall to the rear of the trailer.
- ▶ Keep firm hold of the grid ramp wall.



Securing the grid ramp wall

- ▶ Push the quick-release lever shut. This must engage with the snap lock.
- ▶ Close the lock on the other side.
- ▶ Check that the locks have tightened the grid ramp wall (leaving no play).
- ▶ If necessary, open the locks and retighten the eyelets by turning them clockwise.

The grid ramp wall is closed and secured.



Attaching locks

1. Eyelet
2. Hook
3. Snap-lock
4. Quick-release lever

- ▶ Engage the snap lock.
- ▶ Pull the quick-release lever outwards, so that the eyelet engages with the hook.
- ▶ Push the eyelet over the hook.



Grid ramp wall secured (driving position)

6.17 Toolbox (optional)

Functional explanation

- The trailer can be optionally equipped with a toolbox that can be used to store tools and accessories, such as cleaning equipment, tie-down equipment, etc.
- The toolbox is mounted to the side on the chassis in the HN and HT versions.
- The toolbox is mounted on the drawbar in the HA version.



The toolbox must be bolted and locked with a key before driving.

6.17.1 Toolbox – HA



Instructions for operating the toolbox on the drawbar are given in the operating instruction manual, "Trailers up to 3.5 to" General Points – Part 1.



Read and observe the assembly instructions.



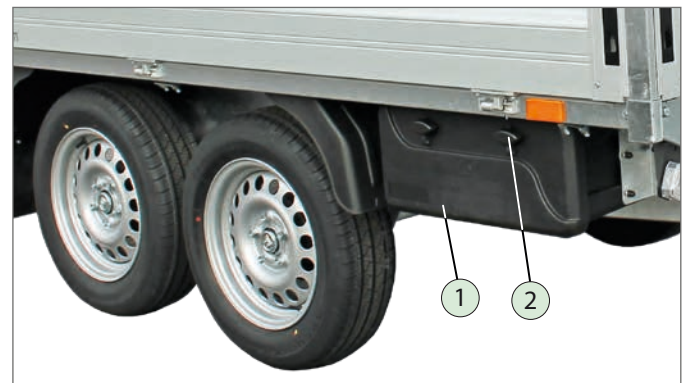
Closed toolbox

1. Cover
2. Locking shoe (lock)
3. Toolbox
4. U-bracket



Open toolbox

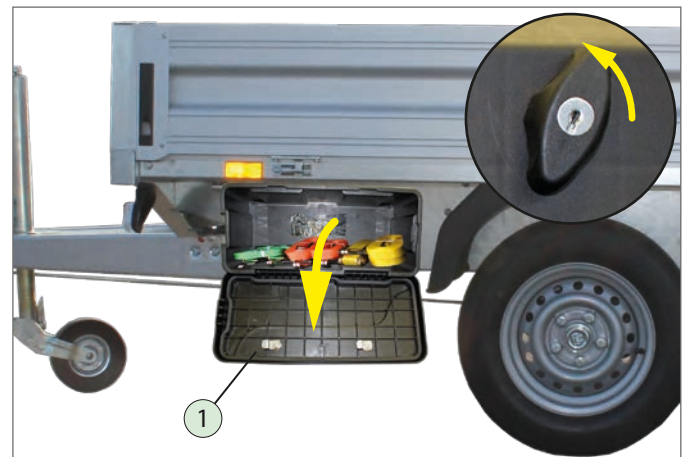
6.17.2 Toolbox – HN / HT



Closed toolbox

1. Box with lid
2. Locking shoe (lock)

Using the toolbox



Open toolbox

1. Cover, folded away
 - ▶ Use a key to open the lock.
 - ▶ Open the locks by turning.
 - ▶ Carefully fold down the cover.
 - Make sure that no tools/tie-down equipment falls out.
 - ▶ Remove or store the desired tools.
 - ▶ Close the lid and lock it with both locks.
 - ▶ Use a key to close the lock.

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.

- ▶ If necessary, 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)



Your trailer can be licensed for a top speed of max. 100 kph. For this, several conditions must be fulfilled.
- For information, see www.humbaur.com

- ▶ Adapt your driving style to the road and weather conditions!
- Reduce your speed and drive particularly carefully around bends/when turning!
- ▶ Apply the brakes smoothly (not suddenly).



Driving example HA



Driving example HN

8 Parking



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

- ▶ Also make sure that the drop sides, side wall extensions, etc. are closed and secured.

8.1 Parking an uncoupled trailer


Manoeuvring options



Manoeuvring is only permitted when the trailer is not loaded.



Manual manoeuvring of the trailer

- ▶ Crank up the jockey wheel until the front axle loses contact with the ground.
- ▶ Lock the body, if necessary.
- ▶ Release the handbrake.
- ▶ Pull/push the trailer in the desired direction.
- ▶ Ensure that your feet are never under the jockey wheel.
- ▶ Use  .
- ▶ Park the trailer wherever possible on level ground/an even surface – not on a slope or on an uphill or downhill incline.
- ▶ Apply the handbrake.

Using wheel chocks



Observe the safety instructions for operating wheel chocks in the operating instruction manual, "Trailers up to 3.5 to – " General PointsPart 1.



CAUTION



Removing wheel chocks

When removing the wheel chocks you may crush your hands/fingers.
You could also hit your head on the chassis.

► Use



► Be careful when working with the wheel chocks – avoid jerky movements.



Placing the wheel chocks

- Remove the wheel chocks from the retainer.
- Place the wheel chocks under the wheels - watch out for the inclination of the road while doing so.
- After use, place the wheel chocks in the holder until they click into place.

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.
Additional specific maintenance instructions may be found here.

9.2.1 Tyres/wheels

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

9.2.2 Gas struts

- The gas struts are intrinsically maintenance-free.
- However, the gas struts are subject to wear that can be reduced by regular maintenance.



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 regularly.

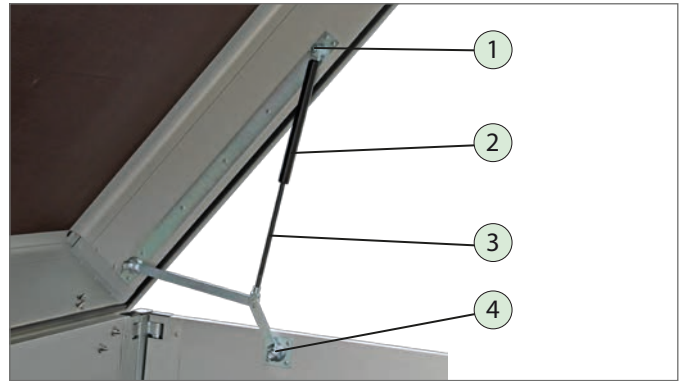


WARNING

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 (see gas struts).
- ▶ Have worn/defective gas struts replaced by qualified personnel only.



Wood/aluminium cover gas strut

1. Attachment
2. Gas strut (body)
3. Piston rod
4. Rod retainer

- ▶ Secure the wood/aluminium cover against falling when fitting/removing the gas strut.
- ▶ Exchange worn gas struts in pairs.
- ▶ Only use gas struts of the same type – take note of the force information.



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

- ▶ Clean the piston 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).



Gas strut of ramp wall

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

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

10 Troubleshooting

Malfunction	Possible cause	Solution
Cover with gas struts can no longer be easily lifted.	- Gas struts are too weak. - The gas struts are defective.	▶ Have the gas struts replaced in a specialist workshop.
Ramp wall can only be lifted with difficulty.	- Gas struts are too weak. - Gas struts are defective.	▶ Have the gas struts replaced in a specialist workshop.

Troubleshooting table

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 Shutdown

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

11.2 Disposal

- ▶ Bring the individual parts or the complete 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.

Humbaur wishes you a pleasant & safe journey!



Notes





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