



Der Anhänger

Operating Instructions Part 1 - general

for STEMA Trailers

02/2021



ENGLISH



INFORMATION | OPERATION | SERVICE

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Important notice!

Before operating the trailer, read through the operating instructions completely. The specifications of the operating instructions must be observed. The failure to observe this may invalidate warranty claims. Please note that all illustrations are sample illustrations. STEMA reserves the right to make deviations and technical changes.

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Prior to putting it into operation

1.1 Documents that also apply

Part 1 - The general operating instructions for STEMA trailers

The Operating Instructions Part 1 contains the basic steps in handling the trailer and provides a lot of additional information. Before using the trailer for the first time, read the operating instructions carefully and follow all instructions and steps.

Part 2 - The supplement to the general operating instructions¹

Depending on the trailer model, the Operating Instructions part 1 is completed with the operating instruction manual part 2. The Operating Instructions Part 2 supplement the Operating Instructions part 1 with instructions and action steps for trailers with special characteristics and more extensive commissioning. The Operating Instructions Part 1 and 2 form the overall documentation of the trailer. The Operating Instructions can be supplemented with further instructions for use. Keep the Operating Instructions for the service life of the trailer and pass them on when selling the trailer. When the trailer is delivered, the following general documents are handed over in addition to the operating instructions:

- Supplementary assembly instructions
- Confirmation of 100 km/h Regulation¹

When the trailer is delivered, the following vehicle documents are handed over:

- Registration certificate Part II
- Certificate of Conformity / CoC

1.2 Data reconciliation between the documents

When the trailer is delivered, it is equipped with a type plate and an embossed vehicle identification number (VIN). Compare the data between the plates attached to the trailer and the vehicle documents. Please note that the documents are issued once and may not be changed independently. In the event of the loss of the vehicle documents and if you have already received the registration including the registration plates, please contact only the registration authority responsible for you. The vehicle identification number of the trailer is located on the type plate either on the right-hand side of the frame in the direction of travel or on

the drawbar. Modifications to the embossed VIN, the type plate or its attachment to the trailer may only be performed by an officially recognised expert from a technical inspection body.

1.3 Requirements for the registration

1.3.1 Within Germany

In Germany, trailers are subject to compulsory registration. In order to participate in road traffic, you must insure your trailer and obtain a road traffic licence.

You will need the following documents for the registration:

- Vehicle registration document (Registration certificate Part II)
- Confirmation of Insurance
- Valid identity card or passport (with confirmation of registration from the residents' registration office)
- in the case of companies: Business registration or extract from the commercial register
- If necessary a Certificate of Conformity / CoC

1.3.2 Outside of Germany

In EU member states, registration is possible on the basis of the Certificate of Conformity (CoC). Nevertheless, national legal provisions apply in all states. In this case, find out about the country-specific regulations.

1.4 Main inspection

1.4.1 Within Germany

According to Section 29 of the Road Traffic Licensing Regulations (StVZO) the owner of a trailer is obliged to have the vehicle inspected at his/her own expense and at regular intervals. For trailers, the following intervals apply according to Annex VIII, Section 29 Inspection of vehicles 2.1.5:

- for trailers ≤ 0.75 t or without their own brake system, the first general inspection is due after 36 months following initial registration. The other inspections are due every 24 months.
- In the case of trailers > 0.75 t ≤ 3.5 t, the first general inspection is due after initial registration and all further inspections are due after 24 months.
- In the case of trailers which are rented out

¹ depends on the model

commercially without being registered for the hirer, the general inspection is due after 12 months.

1.4.2 Outside of Germany

In EU Member States, national legal provisions apply. In this case, find out about the country-specific regulations.

1.5 Specialist dealers and service workshops

For further information, downloads, service workshops and specialist dealers, visit our website at www.stema.de. Always have the vehicle identification number ready when asking for service.

1.6 Scope of delivery

After receiving the delivery or accepting the trailer, always check the scope of delivery for completeness, functionality and intactness.

2.1 Use

2.1.1 Intended use

The trailers manufactured by STEMA are load trailers and may only be operated within the scope of their intended use. Acts contrary to the intended use are prohibited acts. Intended use includes observing all instructions in the supplied operating instructions Part 1 and Part 2, manufacturer's manuals for components, assembly instructions and compliance with the maintenance intervals and maintenance work prescribed by the manufacturer.

Intended use includes:

- The transportation of goods
- The equipment with STEMA accessories and spare parts.
- The equipment with STEMA authorised accessories and spare parts.
- Observing all safety instructions on the product and in the documents supplied with the product.
- Commissioning in a completely flawless technical condition.

Safety

2.1.2 Foreseeable misuse

STEMA Metalleichtbau GmbH accepts no liability for damage resulting from actions due to misuse. Guarantee and warranty claims shall lapse.

Foreseeable cases of misuse include:

- Failure to observe the notices and instructions in the documents that come with the delivery.
- Transport of animals and people
- Transport of goods within the hazardous goods field.
- Transport of goods for which STEMA trailers are not equipped and approved.
 - hot and liquid goods such as tar and concrete.
 - Food industry goods.
- Exceeding the permissible total weight.
- Exceeding the drawbar load.
- Exceeding the loading capacity.
- Making unauthorised technical changes.
- Travelling with an unsecured load.
- Initial use with defects to brake equipment, axles and wheels, drawbar and other trailer components.
- Initial use with dirty or non-functional lighting equipment.
- Travelling with open walls, flaps, doors and lids of any superstructure.
- Driving with incomplete planking and superstructure planking.
- Driving with the safety catches open.
- Driving with loose accessories and spare parts.
- Driving with the parking and set-up supports up.
- Driving with the jockey wheel up.
- Driving with suspended ramps.
- Driving with the tarpaulin open.
- Driving with loose bolted connections on components of the trailer and any accessories and spare parts.

Safety

- Any modification to the type plate or its attachment.
- Any change to the embossed vehicle identification number.

2.1.3 In particular the following applies

- The interior of the trailers is not waterproof. Please note that the load inside the trailer is only protected against splash water, depending on the available cover. Additionally secure

moisture-sensitive loads.

- Accessories and spare parts with which the trailer is subsequently equipped must be mounted in accordance with the assembly instructions and secured against accidental loss with the safety elements provided.
- Accessories and spare parts that are used in a position that differs from their original position must be returned to their original position before driving off.

2.2 Safety

2.2.1 Terms and symbols employed

CAUTION!

Warning of damage to property and the environment



CAUTION!

Hazard with a low degree of risk



NOTICE

Additional Information



WARNING!

Hazard with a medium degree of risk



DANGER!

Hazard with a high degree of risk

	Warning of hand injuries		Wear foot protection
	Warning of danger of falling		Use hand protection
	Warning of slipping hazard		Wear protective clothing
	Danger of crushing		Use a safety waistcoat
	Do not enter the area		

Safety

2.2.2 Fundamental safety instructions

DANGER!

Disregarding the instructions and guidelines

Disregarding the instructions and guidelines of the operating instructions can lead to damage to property and injuries or even death. Actions contrary to the instructions and specifications will lead to exclusion of liability, guarantee and warranty.

- Always observe all instructions and specifications in the operating instructions and the other documents provided

DANGER!

Transport of people and animals

STEMA trailers are not equipped and approved for the transport of persons and animals. Missing fastening and safety devices do not ensure safe transport. People and animals can be injured or killed.

- Only transport goods approved for the respective trailer type.

WARNING!

Access by unauthorised persons

Unauthorised persons can be injured or killed on the trailer and in the immediate area of influence of the trailer.

- Only instructed persons are allowed to be on the trailer and to operate it.
- If necessary, block off the immediate sphere of influence for unauthorised persons necessary.

WARNING!

Entering and encroaching on unsuitable areas

Walking on and loading of unsuitable surfaces may cause damage both to the surfaces and to other trailer parts.

- Only enter the loading area and areas designated for this purpose.
- Only load the loading area and approved superstructures with a load.

WARNING!

Operation and assembly without protective gloves and suitable personal protective equipment

There may be unevenness and sharp cut edges on the machine-made trailer parts. People can injure themselves on the parts during operation.

- Always wear protective gloves during operation.
- Wear appropriate personal protective equipment.
- Other suitable personal protective equipment may include protective work shoes, work clothing and protective work helmet.

WARNING!

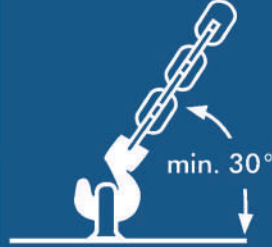
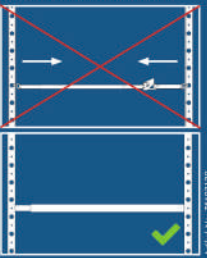
Technical modifications

Unapproved, subsequently made technical modifications can lead to the loss of the operating permit.

- Only make technical modifications to the trailer if this is expressly instructed in the operating instructions.
- Only make technical modifications to the trailer if the manufacturer has expressly instructed you to do so.
- Please note that technical modifications may have to be inspected by an officially recognised expert.

Safety

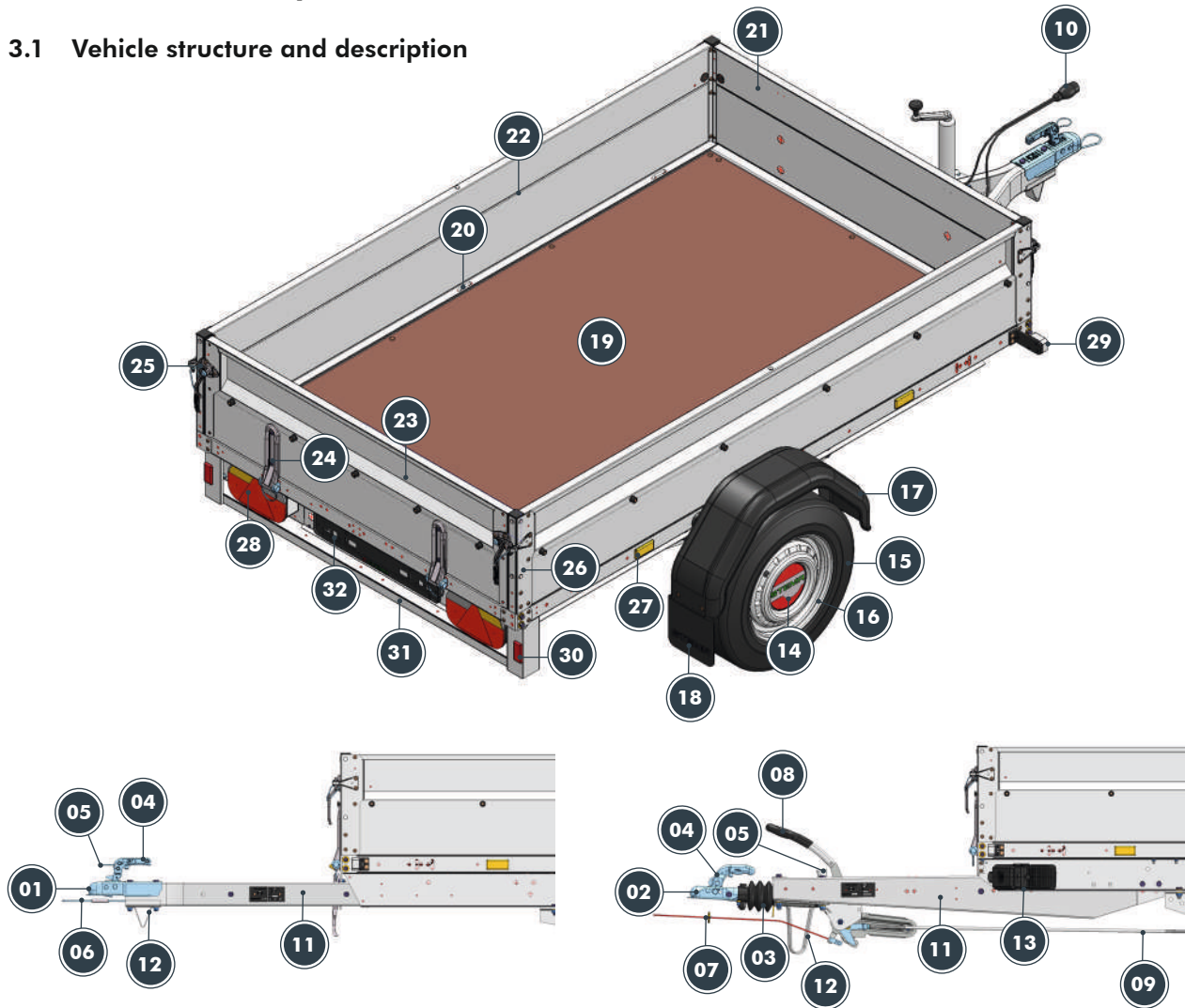
2.3 Sticker on the trailer

Zul. Stützlast max. kg Mindeststützlast 4% der Anhängelast mehr als 25 kg nicht nötig Zul. Stützlast des Zugfahrzeuges beachten	• The bearing load is dependent upon the model • The maximum specified drawbar load must not be exceeded.¹ • The minimum bearing load must be 4% of the actual weight to be towed by the towing vehicle, but must not exceed 25 kg. • The minimum bearing load must not be fallen short of.
Geprüfter Zurrpunkt Ringschraube: Zugkraft LC: 100 daN Ringöse: Zugkraft LC: 400 daN Anzugsdrehmoment MB: 25 Nm Sperstangen: Blockierkraft BC: 400 daN  min. 30° ACHTUNG! Ankerprofile nicht gegeneinander verzurren.  Artikel-Nr.: Z5603132	• The lashing point is tested. • The lashing force depends on the model • The specified lashing force corresponds to the maximum lashing force and must not be exceeded. • The specified minimum angle must be observed.
ACHTUNG! Tragen Sie geeignete persönliche Schutzausrüstung.  Artikel-Nr.: Z5603131	• The wearing of personal protective equipment is strongly recommended.
 ACHTUNG Spannverschlüsse nur bei geschlossenem Deckel lösen Art.-Nr. Z5603092	• When tipping, it is imperative that the cover is completely closed before releasing the tension locks.

¹ depends on the model

Product description

3.1 Vehicle structure and description

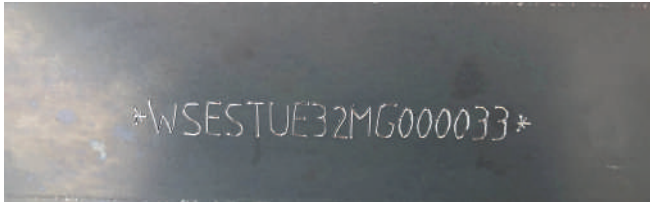


3.2 Control components and their function

- | | |
|---|--------------------------------------|
| 1. Drawbar coupling | 17. Mudguards |
| 2. Drawbar coupling with overrun device | 18. Spray rag |
| 3. Bellows | 19. Floor (loading area) |
| 4. Clutch lever | 20. Lashing points |
| 5. Connector holder | 21. Planking front wall |
| 6. Arrestor cable | 22. Planking of the side wall |
| 7. Breakaway cable | 23. Planking of the rear wall |
| 8. Hand brake lever | 24. Planking hinge |
| 9. Brake linkage | 25. Planking of the lock |
| 10. Main cable with a plug | 26. Corner column |
| 11. Drawbar | 27. Side reflector |
| 12. Support bracket | 28. Rear light (Multifunction light) |
| 13. Wheel chocks | 29. Front position lamp |
| 14. Hub cap | 30. Rear non-triangular reflectors |
| 15. Tyres | 31. Number plate holder |
| 16. Wheel rim | 32. Licence plate support |

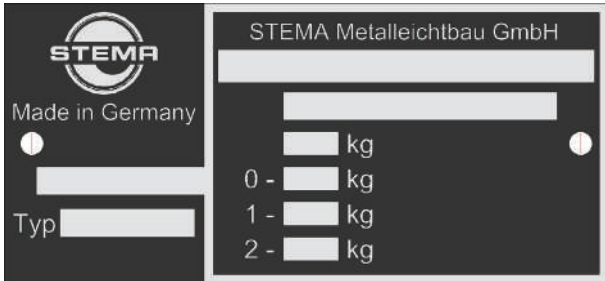
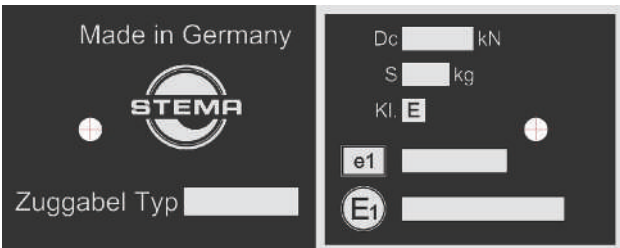
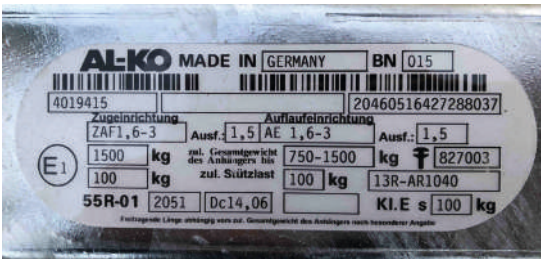
Product description

3.3 Signs and stamping

	Stamped vehicle identification number
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NOTICE

STEMA trailers always begin with „WSE ...“

 STEMA Metalleichtbau GmbH Made in Germany Typ [] 0 - [] kg 1 - [] kg 2 - [] kg	Type plate of the vehicle • Type approval number • Vehicle identification number • Permissible total weight • Permissible drawbar load at the coupling point • Permissible axle load per axle • Variant code of vehicle type
 Made in Germany STEMA Zuggabel Typ [] Dc [] kN S [] kg Kl. E e1 [] E1 []	Type plate of the drawbar • Permissible drawbar load • EC or ECE approval number or test report number
 AL-KO MADE IN GERMANY BN 015 4019415 20460516427288037 Zugvorrichtung Ausf. 1,5 AE 1,6-3 Ausf. 1,5 zul. Gesamtgewicht des Anhängers bis zur Stützlast 1500 kg 750-1500 kg 827003 55R-01 2051 Dc14,06 13R-AR1040 Kl.E s 100 kg	Type plate overrun device and towing device³

³ Sample illustration; representation may vary depending on manufacturer

Produktbeschreibung

	Embossed approval data Coupling head⁴ • Permissible drawbar load • Type and design • EC or ECE approval number or test report number
	Type plate of the CE marking With the CE marking, the manufacturer declares conformity of the product with the applicable requirements imposed on the manufacturer by the European Community.

i NOTICE

What do I need this data for?

- Data reconciliation in the vehicle documents
- Service requests for spare and accessory parts

⁴ Sample illustration; position of the embossed data can vary depending on the manufacturer

Initial operation

4.1 Driving with trailer

DANGER!

If you stay between towing vehicle and trailer or behind the trailer

persons can be overlooked, hit or run over. People can be injured or killed. Items can be damaged.

- Do not stand between the towing vehicle and trailer or behind the trailer during loading, unloading and manoeuvring operations.
- Do not climb over the towing device.
- Before driving off, make sure that there are no objects between the towing vehicle and the trailer.

WARNING!

Driving off without a properly fastened breakaway rope or arresting rope

In the event of a separation of the trailer and towing vehicle, the trailer cannot be braked or caught. The uncontrolled trailer may interfere with the road traffic following it. People can be injured or killed. Items can be damaged.

- Before driving off, check that the breakaway rope or safety rope is properly fastened.
- Observe all the safety instructions concerning the breakaway and arrestor cable in chapter 4.2!

WARNING!

Driving off without an electric connection between the towing vehicle and the trailer

If the lighting equipment on the trailer is not functional, you cannot be seen by road users. People can be injured or killed.

- Before driving off, check that the plug is correctly inserted in the socket on the towing vehicle.
- Before driving off, check that all parts of the lighting system are in working order.

WARNING!

Loose objects on the trailer Depending on

weather conditions and storage location, objects may accumulate on the trailer. Water, snow, ice, leaves, branches or similar objects can become deposited on the roof surface of box bodies, tarpaulins, covers or on the platform. Objects sliding down while driving can affect the following traffic. People can be injured.

- Ensure water drainage by, for example, parking the trailer on the support bar or cranking up the jockey wheel.
- Remove all loose objects before driving off.

CAUTION!

Disregard of clearance heights

Disregarding height limits can cause damage to the trailer, towing vehicle and to the load. The following road traffic may be affected.

- Observe the maximum permissible vehicle height.
- Observe the maximum permissible clearance height.

CAUTION!

Driving off with the incorrect air pressure

Tyres with underinflated or overinflated tyres can affect the optimum road holding of the vehicle and trailer combination. There is an increased risk of skidding. The following road traffic may be affected.

- Check the air pressure of the tyres before driving off and adjust the tyre pressure according to the load of the trailer.

Initial operation

4.1.1 Departure checklist

Does the trailer reveal any external damage?	☐
Are parts of the trailer loose?	☐
Is the trailer properly coupled?	☐
Have any supports been removed or placed in the driving position?	☐
Is the jockey wheel properly retracted?	☐
Is the plug of the trailer in the socket of the towing vehicle?	☐
Is the breakaway or arresting cable properly attached to the trailer?	☐
Are the wheel chocks removed from the wheels and properly secured in the bracket?	☐
Is the parking brake released? ¹	☐
Is the lighting equipment functional?	☐
Are all fasteners closed?	☐
Are the tilt bearings secured? ²	☐

4.1.2 Speed

WARNING!

Exceeding the speed limit

The driving characteristics and optimum road holding of the vehicle/trailer combination may deteriorate. There is an increased risk of skidding. The trailer and towing vehicle can be damaged. People can be injured or killed.

- Do not exceed the technical or legal speed limits for the trailer.
- Adjust your speed to the road conditions.

Within Germany

According to Section 3 of the German Road Traffic Act -Speed, the maximum permissible speed outside built-up areas for passenger vehicles with trailers is 80 km/h. Approval for a speed of 100 km/h is possible if the vehicle-trailer combination meets the requirements of the currently valid exemption regulation from the regulations of the Road Traffic Act. Please note that vehicle-trailer combinations are only allowed to reach a maximum speed of 100 km/h on motorways and designated roads.

Outside of Germany

The validity of a 100 km/h permit for vehicle-trailer combinations depends on country-specific regulations.

4.1.3 Extending of the braking distance

Please note that due to the additional load (weight of the trailer with accessories and load) on the towing vehicle, the braking distance of the vehicle-trailer combination is increased. Increase the safety distance.

4.1.4 Restriction in the field of vision

Please note that the visibility may be restricted by the loads and trailers. Superstructures such as a high tarpaulin, box, lattice attachment, high rear loading panel or ladder rack can impair the field of vision to the rear.

4.1.5 Driving restrictions

Driving with a trailer impairs the following factors:

- The curve radius or turning radius of the vehicle-trailer combination increases.
- The ability to accelerate is reduced due to the higher total mass.
- The braking distance is increased due to the higher total mass.

¹ Necessary for models with overrun brakes ² Necessary for models with tiltable drawbar or tiltable loading area

Initial operation

4.1.6 In extreme weather conditions

Weather conditions can affect the driving behaviour of the vehicle/trailer combination.

Stormy weather and gusts of wind

Trailers with a large-area, fully enclosed superstructure offer an increased area of exposure for storms and gusts of wind. There is a risk of tipping and skidding. The stability of the vehicle/trailer combination is reduced and the trailer can tip over. Driving with an empty trailer or open body favours the influence of storms and wind gusts.

Driving in the event of storms and gusts of wind:

- do not drive with an empty trailer
- exclusively with a closed body
- at an adapted speed in line with the conditions

Heavy rain and icy conditions

Heavy rain and slippery conditions caused by ice, roads eroded by the rain, wet paved roads or similar conditions can impair the optimum road holding of the vehicle/trailer combination. There is an increased risk of skidding. The driver's view may be restricted. The braking path of the vehicle/trailer combination is increased.

Driving in the event of heavy rain and icy roads:

- at an adapted speed
- with an increased distance to the traffic ahead

4.1.7 In poor road conditions

Poor road conditions can impair the driving behaviour of the vehicle/trailer combination. The vehicle/trailer may start to sway from side to side due to poor road conditions. The stability of the vehicle/trailer combination is reduced and the trailer can tip over.

Poor road conditions can affect and damage the axles, their suspension, shock absorbers, the wheels or the drawbar coupling.

In poor road conditions drive:

- at an adapted speed in line with the conditions

4.2 Breakaway cable and arrestor cable

Securing between the trailer and towing vehicle using a safety cable is necessary and can save lives in an emergency. The legal status regarding the use and attachment of a safety rope and the penalties for non-compliance are country-specific. Therefore, before travelling abroad, inform yourself about the country-specific laws and recommendations. The current state of the art is to no longer place the breakaway and arresting cable as a loop over the ball coupling of the towing vehicle, but to fasten it in an eyelet or borehole.

4.2.1 What is the difference between breakaway cable and an arrestor cable?

Both cables are safety cables and are intended to reduce the extent of damage to following road traffic in the event of separation of the towing vehicle and trailer. The arrestor cable is only used on brakeless trailers. If the trailer separates from the towing vehicle, the safety cable has the task of holding the trailer behind the vehicle. In an emergency, the safety cable is the only connection between the towing vehicle and the trailer. The driver can stop the vehicle/trailer combination without the trailer getting out of control in road traffic. The breakaway cable is used on trailers with brakes. Should the trailer separate from the towing vehicle, the breakaway cable releases the brake on the trailer due to the pulling effect and then breaks away from the towing vehicle in a controlled manner. The trailer thus comes to a standstill on its own.

Initial operation

4.2.2 Which attachment options correspond to the current technical state of the art?

	Attachment for unbraked trailers
	Attachment on trailers with brakes

NOTICE

For the attachment of the safety cable, the eyelet on a fixed part on the vehicle or the integrated eyelet on the trailer towing device can be used for permanently installed trailer towing devices. In the case of detachable towing devices, the attachment must be attached to a fixed part on the vehicle.

4.2.3 How should the safety cable no longer be attached?

	INCORRECT
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Initial operation

4.3 Safety indicator on the coupling

Symbol	Colour	Meaning	Sample illustration
-	Red	Faulty / wear limit exceeded	
+	Green	Properly closed and ready for operation	
x	Red	opened	
-	None	Faulty / wear limit exceeded	
+	None	Properly closed and ready for operation	
	Yellow	Faulty / wear limit exceeded	
	Green	Properly closed and ready for operation	
Open	Red	opened	

NOTICE

The safety display is not shown uniformly on every drawbar coupling. Depending on the model, the meaning of the symbols and colours may differ and the display may be simplified.

4.4 Coupling and uncoupling

DANGER!

Commissioning with the drawbar coupling open.

If the drawbar ball coupling is not properly locked, the safe connection between towing vehicle and trailer cannot be guaranteed. The trailer can detach from the towing vehicle and disrupt the following traffic. People can be injured or killed.

- Before driving off, check that the coupling is properly inserted.
- Only put the vehicle/trailer combination into operation when the coupling is properly locked.

WARNING!

Driving off with a worn or damaged drawbar coupling on the trailer

A worn towbar coupling does not provide a secure connection between the towing vehicle and the trailer. There is an increased risk of skidding. The following road traffic may be affected.

- Perform regular visual inspections for wear and damage.
- Adhere to the maintenance procedures to reduce the wear process.

Initial operation

WARNING!

Coupling and uncoupling on slopes

Without sufficient securing against rolling away, the trailer may start moving. The trailer and the load can be damaged. People can be injured.

- Secure the wheels with wheelchocks.
- Apply the parking brake of the trailer.

CAUTION!

Exceeding the standard height for the coupling

Exceeding the standard height can lead to permanent and excessive stress on the axle.

- Before coupling, check the height of the ball head coupling on the towing vehicle.
- The distance from the centre of the ball of the ball head coupling and the roadway should be in the range of 350 mm 420 mm.³
- Conditions:
 - Observation of the permissible total weight.
 - Horizontal alignment of the superstructure
 - Observation of the specified tyre

CAUTION!

Greased ball head coupling on the towing vehicle when using an anti-rolling coupling

The greased ball head coupling impairs the effect of the anti-rolling coupling. There is an increased risk of skidding.

- Never grease the ball head coupling of the towing vehicle.
- Never grease the coupling of the anti-rolling coupling.
- Keep the couplings free of dirt.

4.4.1 Before the coupling

- Secure the towing vehicle so it cannot roll away.
- If necessary, remove impurities from the ball head coupling of the towing vehicle and from the ball head coupling of the trailer.

- Grease the ball head coupling of the towing vehicle if necessary.
- If necessary, remove the wheel chocks from the wheels and stow them properly.
- If necessary detach the parking brake from the trailer.⁴
- Position the trailer behind the towing vehicle. The trailer and towing vehicle stand in a line.

4.4.2 Coupling

1. Position the trailer's drawbar coupling of the trailer above the ball head coupling of the towing vehicle.



2. Open the file drawbar coupling. The safety indicator is now in the red zone.⁵



3. Lower the drawbar coupling. The drawbar coupling audibly locks into place.

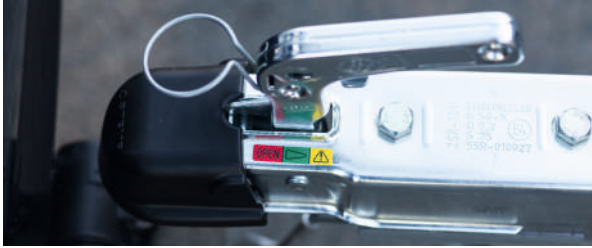


³ Applies according to ECE-R55 for vehicle classes M1, M2, N1 and not for G ⁴ Only necessary for braked models

⁵ Deviating display, see chapter 4.3

Initial operation

4. The safety indicator is now in the green zone.⁵



5. Perform a pick-up test. The drawbar coupling may now no longer come loose from the ball head coupling.



6. Depending on the design of the trailer, attach the breakaway cable or the arrestor cable to the towing vehicle. The correct procedure and further information on the different ropes can be found in the previous chapter under „Breakaway cable and arrestor cable“.



7. Insert the plug of the main cable into the socket on the towing vehicle. Please note that the alignment of the plug connection is mechanically predetermined.



NOTICE

Depending on the model, the trailers are equipped with a 7- or 13-pin plug at the factory- If necessary, use an adapter for the socket on the towing vehicle.

8. Check that the lighting system is functioning properly.



4.4.3 Prior to departure

- If necessary, move the jockey wheel to the driving position (see chapter „Jockey wheel“).
- Close and secure all fasteners on the trailer.

4.4.4 Before the uncoupling

- Secure the towing vehicle so it cannot roll away.
- Additionally secure the trailer so it cannot roll away. Use the parking brake and the wheel chocks for this purpose.
- If necessary, lower the jockey wheel (see chapter „Jockey wheel“).

4.4.5 Uncoupling

1. Unplug the main cable from the socket on the towing vehicle. Secure the connector properly in the holder on the trailer. Secure the connector properly in the holder on the trailer.

⁵ Deviating display, see chapter 4.3

Initial operation



2. Depending on the design of the trailer, detach the breakaway cable or the arrestor cable from towing vehicle and attach it properly to the trailer.



3. Open the drawbar coupling. Pull the clutch lever upwards and swing it forwards (in the direction of travel). The safety indicator is now in the red zone.⁶



4. Left the drawbar coupling off the ball head coupling. Place the drawbar on the support bracket. In the case of trailers with a jockey wheel, turn the jockey wheel upwards by means of the turning crank until the drawbar coupling disengages from the ball head coupling and is completely above the ball head coupling. Move the trailer to the rear away from the vehicle. Place the drawbar on the jockey wheel.



4.5 Components for couplings

4.5.1 Height adjustment

The drawbar coupling is factory fitted at a height of 430 mm $\pm$ 35 mm.⁷ The ball head coupling on the towing vehicle should be at a height of 350-420 mm.⁸ Before using the trailer for the first time, check that the trailer's coupling head and the towing vehicle's ball coupling match in height.

4.5.2 Anti-rolling coupling

CAUTION!

Greased ball head coupling on the towing vehicle when using an anti-rolling coupling

The greased ball head coupling impairs the effect of the anti-rolling coupling. There is an increased risk of skidding.

- Never grease the ball head coupling of the towing vehicle.
- Never grease the coupling of the anti-rolling coupling.
- Keep the couplings free of dirt.

The anti-rolling coupling has the function of improving the stability of the vehicle/trailer combination while driving. Anti-rolling coupling reduce movements that occur while driving and can minimise the risk of skidding on poor road surfaces. Refer to the respective manufacturer's operating instructions concerning the operation of the anti-rolling coupling.

⁶ Deviating display, cf. chapter 4.3 ⁷ Applies according to ECE-R55 for vehicle classes O1 and O2; With maximum load and level structure

⁸ Applies according to ECE-R55 for vehicle classes M1, M2, N1 and not for G

Initial operation

4.6 Loading

DANGER!

Exceeding the maximum permissible total weight

Overloading impairs optimum road holding of the vehicle trailer combination. There is an increased risk of skidding. The braking distance increases considerably. The trailer can be damaged.

- Adhere to the specifications for the maximum permissible total weight.

DANGER!

Exceeding or falling below the specified drawbar load

Exceeding or falling below the drawbar load can impair the driving characteristics. Components of the towing device can be damaged. People can be injured.

- Adhere to the specification for the drawbar load on the coupling.
- Check the drawbar load with the aid of a drawbar load scale.

WARNING!

Danger and hazards due to / from other road users

Wear a high-visibility waistcoat when unloading.

- Switch on the hazard warning lights.
- Put up a warning triangle.

WARNING!

Tipping dry loads

Dust can form when tipping dry loads. The formation of dust can lead to impaired visibility. People in the immediate sphere of influence can be injured.

- Tip dry load slowly.
- Interrupt the tipping process

WARNING!

Limited visibility due to load

People and objects can be overlooked due to the limited visibility. People can be injured or killed. Objects, the trailer and the towing vehicle can be damaged.

- Before reversing, check whether there are any persons between the towing vehicle and the trailer or behind the trailer. Clear the corresponding area.
- Have an experienced person instruct you.
- Ensure that the person giving directions or other road users keep sufficient distance and are always visible in the exterior mirror.

WARNING!

Entering the loading area

There is an increased risk of slipping when entering the loading area. People can slip and fall.

- Only enter the loading area if it is absolutely necessary.
- Wear appropriate personal protective equipment when entering the loading area.
- Remove any soiling before entering the loading area.
- Climb on and off the loading platform with increased caution.
- Do not jump from the loading area.
- When walking, pay attention to the perimeter of the loading area.

The user of the trailer is solely and fully responsible for the transport of loads and the corresponding securing of it. Find out about the country-specific laws for the transport of loads and the securing of them before you start your journey.

Load may only be placed on suitable surfaces. No other trailer components may be loaded unless they are expressly approved for this purpose.

Initial operation

4.6.1 Important Terms

Permissible total weight (pTW)

Indicates the maximum permissible total mass of the trailer. The weight of the trailer including accessories and load must not exceed the permissible total weight.

Loading capacity

Indicates the maximum load that may be loaded, taking into account all accessories. How do I calculate the loading capacity? The prerequisite for the calculation is knowledge of the mass of the unloaded, ready-to-use trailer including accessories. Equipping the trailer with accessories such as dropside extensions or high bows and high tarpaulin reduces the loading capacity.

Calculation:

m Loading capacity = **m** pTW - **m** Dead weight of the trailer

- **m** Accessory 1
- **m** Accessory 2
- **m** Accessory 3

Drawbar load

Position the trailer's drawbar coupling of the trailer above the ball head coupling of the towing vehicle. Refers to the weight with which the trailer's drawbar coupling on the ball head coupling of the towing vehicle. The minimum drawbar load must be 4% of the actual weight to be towed by the towing vehicle. The minimum drawbar load may not exceed 25 kg.

Maximum permissible drawbar load⁹

Refers to the weight with which the trailer's drawbar coupling may be loaded on the ball head coupling of the towing vehicle. Depending on the model, individual components may be approved for higher drawbar loads. Nevertheless, the smallest specification for the drawbar load of trailer and towing vehicle is always decisive.

Trailer load of the towing vehicle

Indicates the maximum permissible mass that the towing vehicle may tow.

4.6.2 Loading process for general cargo and bulk goods

WARNING!

Loading the trailer on an uneven road surface or in a sloping position

Due to the trailer's inclined position, it is not possible to place the load properly over the axle or to distribute bulk goods evenly on the loading area. The load shifts and the trailer can tip uncontrollably. People in the immediate sphere of influence can be injured. The trailer and items can be damaged.

- Make sure that there are no persons or objects in the sphere of influence of the load.
- Ensure that the underground is straight, level and surfaced.

WARNING!

Loading process in uncoupled state

If the trailer is not coupled to the towing vehicle during the loading process, it cannot be loaded properly. The trailer may tip or start moving uncontrollably. Trailer parts and the load can be damaged. People in the immediate sphere of influence of the trailer can be injured.

- Always couple the trailer to the towing vehicle during the loading process.
- Secure the trailer so it cannot roll away.
- Use support devices if necessary.

CAUTION!

Loading with the front wall folded down

Loads protruding forwards can impair the swivelling range of the trailer.

- Position the load protruding forwards centrally between the drawbar rails.
- Do not guide the load past the towing vehicle.
- Before driving off, check that the vehicle/trailer combination can swivel sufficiently.

⁹ Field 13 in Registration certificate Part I

Initial operation

- Couple the trailer to the towing vehicle properly (see "Coupling" chapter).
- Place the wheel chocks under the wheels.
- If necessary, place the additional parking supports on the trailer. (see chapter „Supporting devices“.)
- If necessary, fold down the drop sides to reach the loading area more easily. (see chapter „Fasteners“).
- Load the trailer.
- Secure the load in an orderly manner.

NOTICE

Information on the correct load distribution and load securing can be found in the chapter of the same name.

- Information on the correct load distribution and load securing can be found in the chapter of the same name.
- Close all drop sides before driving off.
- If necessary, bring the additional parking supports into the driving position.
- Properly attach the wheel chocks to the trailer.
- Release the parking brake.

NOTICE

Please note: First unload the load that is outside the axle area. The trailer may otherwise tilt in one direction or the axle will be overstressed.

4.6.3 Loading process for vehicles

⚠ DANGER!

Exceeding the maximum permissible load of the ramps

The drive-on ramps can be damaged by excessive loading. Secure loading is no longer guaranteed. The trailer and the load can be damaged. People in the immediate sphere of influence can be injured or killed.

- Before loading, check that the weight of the load corresponds to the maximum permissible load.

⚠ DANGER!

Loading process:

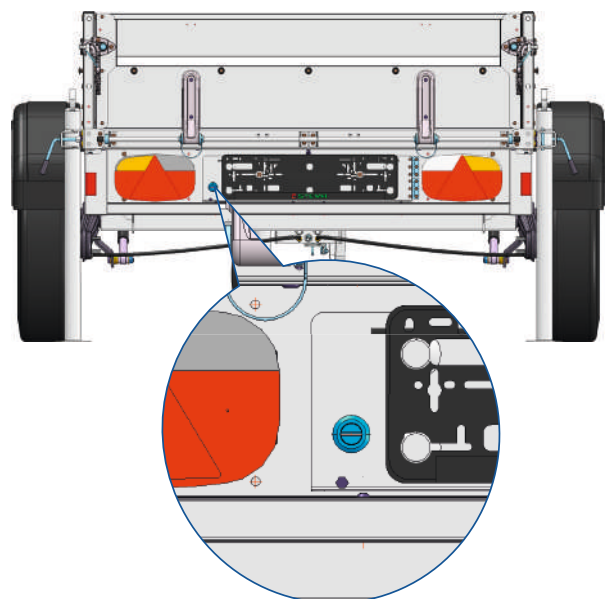
- On sloping, uneven or unsurfaced surfaces.
- If the track width of the ramps is incorrectly set.

Loading the trailer on an uneven road surface or in a sloping position. The ramps can sink, tip or slip. Loads on the ramps can fall down, be damaged and cause further damage to property. People in the immediate sphere of influence can be injured or killed.

- Ensure that the underground is straight, level and surfaced.
- Adjust the ramps according to the track width of the load.
- Make sure that the ramps are free of moisture, ice, snow and dirt.

- Couple the trailer to the towing vehicle properly (see "Coupling" chapter).
- Place the wheel chocks under the wheels if necessary.
- Place the additional parking supports on the trailer. (see see chapter „Supporting devices“.)¹⁰

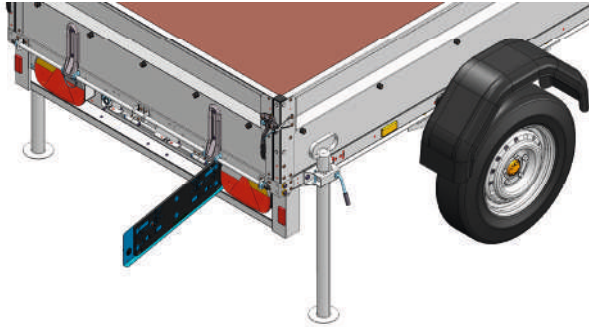
1. Open the number plate flap.¹¹



¹⁰ This step is not necessary for models with a tiltable loading platform that is parked on the road. ¹¹ Depending on the model, different versions of the flap or the locking mechanism may be installed.

Initial operation

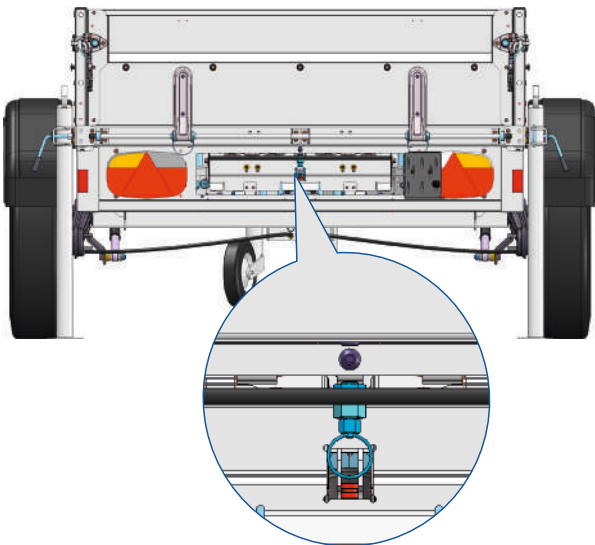
2. Pull the flap open from the side.



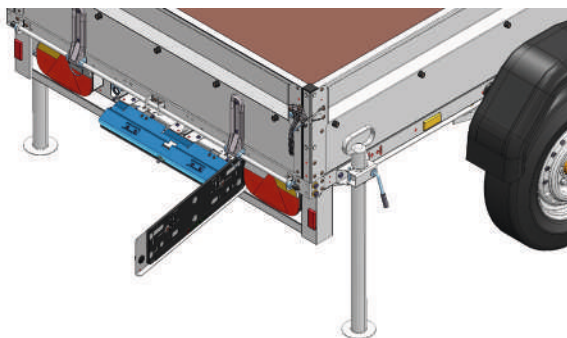
NOTICE

The lock can be opened with a coin. Insert the coin into the slot and turn it.

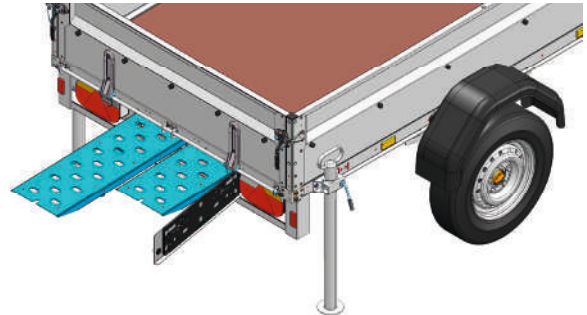
3. Open the clamping profile.
Pull on the locking ring.



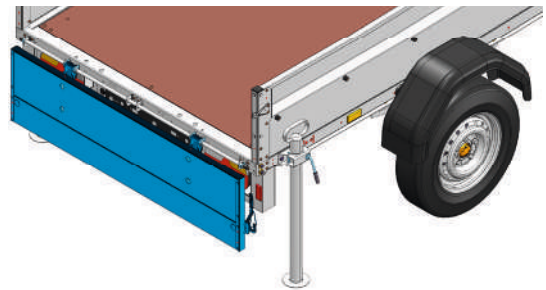
4. Unfold the profile towards the front. Place the clamping profile on the licence plate holder.



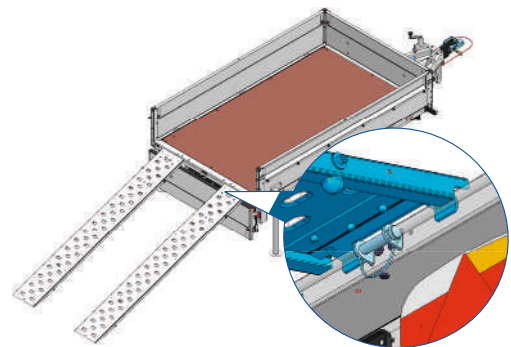
5. Remove the drive-on ramps from the ramp shaft. Put down the drive-up ramps. Close the clamping profile and the licence plate flap.



6. If necessary, fold down the rear wall.



7. Position the drive-on ramps in the holder provided for this purpose. Observe the track width of the vehicle to be loaded. Check the stability of the drive-on ramps. Load the trailer.



- Stow away the drive-on ramps before driving off.
- Bring the additional parking supports into the driving position.
- Properly attach the wheel chocks to the trailer.

Initial operation

4.6.4 Load distribution

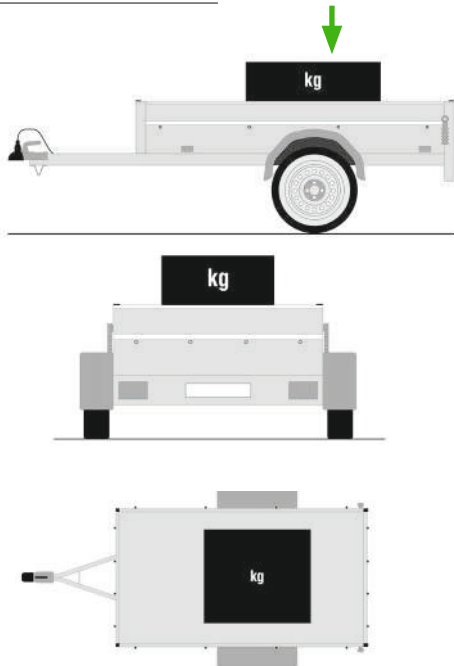
⚠ WARNING!

Driving with an incorrectly distributed load

Incorrect distribution of the load impairs the road holding of the vehicle/trailer combination. There is an increased risk of skidding. The ability to steer and braking effect may be impaired. verloading and punctual loads cause damage to components of the towing vehicle and trailer.

- Avoid the occurrence of punctual and one-sided loading.
- Distribute bulk material evenly on the loading area.
- Distribute general cargo on the loading area near the axle.
- Carefully place the load down on the loading area.

Correct Load Distribution



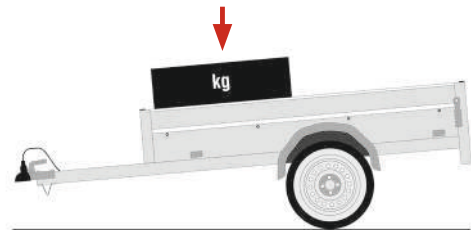
- The centre of gravity of the load is directly or as close as possible above the axles.
- Further loads are distributed evenly over the loading area.
- The loading area is not loaded selectively.
- The loading area is not loaded on one side.
- The maximum permissible drawbar load is not exceeded.

- The minimum drawbar load to be observed is not exceeded.

Effects:

- The trailer is loaded evenly.
- The full braking effect can be used.
- The risk of skidding is minimised.
- All wheels have full contact with the ground.
- The optimum driving characteristics of the vehicle/trailer combination are ensured.

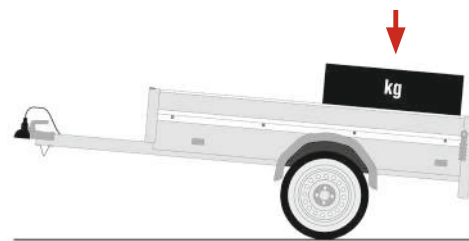
Incorrect Load Distribution



Load is placed on the loading area in front of the axles.

Effects:

- The actual drawbar load exceeds the maximum permissible drawbar load (on the trailer and on the towing vehicle).
- Braking efficiency, road holding and driving characteristics are impaired.
- Rear axle of the towing vehicle is excessively stressed.



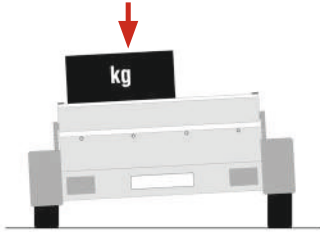
Load is placed on the loading area behind the the axles.

Effects:

- The actual drawbar load is lower than the minimum drawbar load to be observed.
- The rear axle of the towing vehicle is relieved too much.
- Braking efficiency, road holding and driving characteristics are impaired.
- There is an increased risk of skidding.

Initial operation

- Wear of the coupling on the trailer and the towing vehicle increases.



The load is placed on one side.

Effects:

- The axle of the trailer is excessively stressed on one side.
- Braking efficiency, road holding and driving characteristics are impaired.
- Wear of the coupling on the trailer and the towing vehicle increases.

4.6.5 Special features

Bulk goods

- High superstructures tempt people to overload with bulk goods. Before loading, determine how high the trailer's payload is and how much bulk goods will be loaded onto the trailer.
- Please note that, in contrast to dry cargo, wet cargo does not have a larger volume, but a higher weight. This rapidly leads to unintentional overloading of the trailer.
- Make sure that bulk goods are not lost during the journey. For securing and protecting of the bulk goods, we recommend a net or tarpaulin.

Load protruding beyond the loading area

- The front wall may be folded down while driving if the protruding load does not impair the swivelling range of the trailer. Do not lead any load protruding forwards past the towing vehicle. Use a ladder rack if necessary. The folded down front wall must not rest loosely on the drawbar.
- The rear wall may be dismantled for loads protruding to the rear.
- The load projecting to the rear must not obscure the lighting equipment. Also observe the necessary viewing angle of 15° from the horizontal plane upwards.
- The rear wall must not be folded down for load protruding to the rear while driving.

4.6.6 Securing of the load

WARNING!

Travelling with an unsecured load

The load can slip and get lost. Slipping loads can affect optimum road holding. There is an increased risk of skidding. Lost loads may interfere with the road traffic following it. People can be injured or killed. Trailer parts and items can be damaged.

- Observe the generally applicable load securing regulations of the relevant country (Germany §22 Road Traffic Regulations (StVO)).
- Before each journey, check that the load securing device is firmly in place.
- Do not drive with damaged or unsuitable load securing equipment.

WARNING!

Exceeding the lashing and blocking forces of the lashing points or the load securing equipment

The lashing points and load securing equipment provide safety up to a fixed value, depending on the design. If the maximum values are exceeded, the load can no longer be properly secured. The lashing points, the load securing equipment and the load can be damaged. The load can slip on the loading surface and impair the driving characteristics of the vehicle/trailer combination.

- Observe the maximum lashing and blocking forces.

Initial operation

⚠ CAUTION!

Lashing the load over unsuitable superstructures

Loads lashed or placed over superstructures are considered unsecured. The load cannot be properly secured and can slip uncontrollably. The optimum road holding of the vehicle/trailer combination may be impaired. People can be injured by ejected loads. Trailer parts and the load can be damaged.

- Secure the load using the specified lashing points.

The following things must be particularly observed when securing the load.

- The load must not move on the load platform during the journey.
- The load securing equipment must not come loose during the journey.
- Only suitable lashing points and load securing equipment may be used.
- The load securing equipment must be adapted to the load.
- The load must be stowed and secured in such a way that it meets the legal requirements and complies with the recognised rules of technology.
- Points that are not approved as lashing points must not be used for the securing of the load.

4.6.7 Important Terms

Direct lashing

- The load is secured by the load securing equipment in a combination of a force and form locking connection. Compared to tie-down lashing, direct lashing is more effective with the same load securing equipment.
- Examples: Diagonal lashing, lashing at an angle or similar.

Lashing down

The load is secured to the loading area by the load securing equipment in a purely fore-locking manner. The decisive factor is the actual friction coefficient between the load and the loading surface in the individual case.

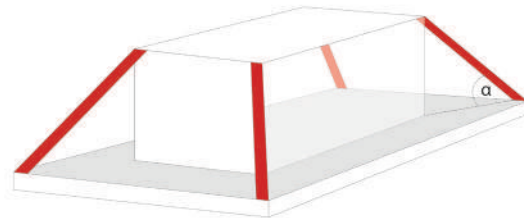
Blocking capacity BC

- Maximum permissible load of load securing equipment such as locking beams in case of a form closure.
- The specification normally only applies to line or area loads, not to point loads.

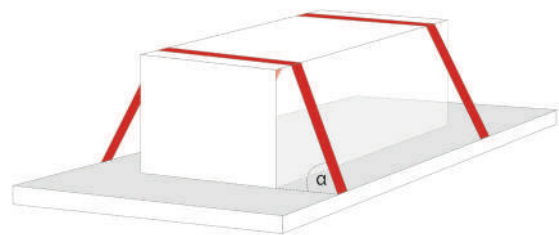
Lashing capacity LC

- Maximum permissible load of load securing equipment such as lashing straps in the direction of pull.

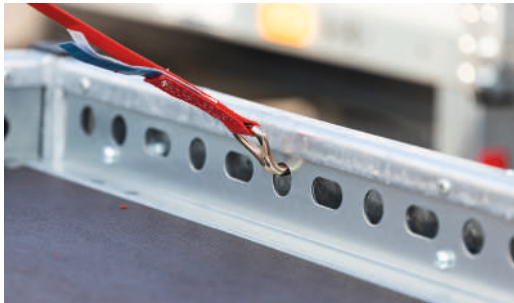
Positive securement of the load in the form of direct lashing:



Positive securement of the load in the form of tie-down lashing:



Initial operation

Lashing point	Lashing capacity (LC) Blocking capacity (BC)	Combination with suitable load securing equipment
Screw Hooks	LC = 50 daN	
Ring bolt	LC = 100 daN	
Lashing bracket	LC = 400 to 800 daN (depending on the model)	 
Slotted holes in the railing	LC depending on the model	

Initial operation

Lashing point	Lashing capacity (LC) Blocking capacity (BC)	Combination with suitable load securing equipment
Recessed eyelets	LC = 800 daN	
Anchor profile	BC = 400 daN	

Further suitable load securing equipment

Net (not suitable for fine-grained loads)	
Flat tarpaulin	

The information about the lashing force of the various lashing points depends on the model and is usually on a sticker on the trailer.

If necessary, refer to the operating instructions part 2 for the approved lashing points. We recommend using the load securing equipment in accordance with DIN ISO 12195-2.

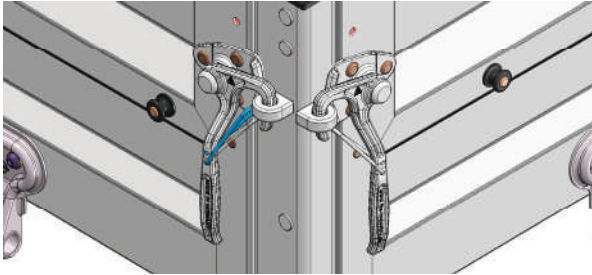
Initial operation

4.7 Control components and their functions

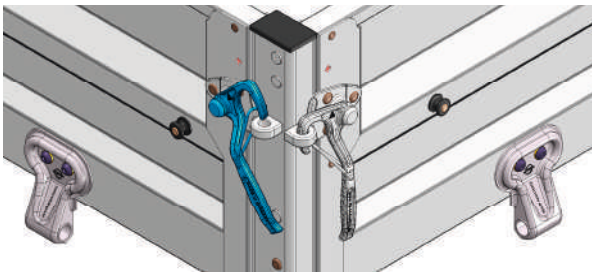
4.7.1 Closures

Angle lever lock

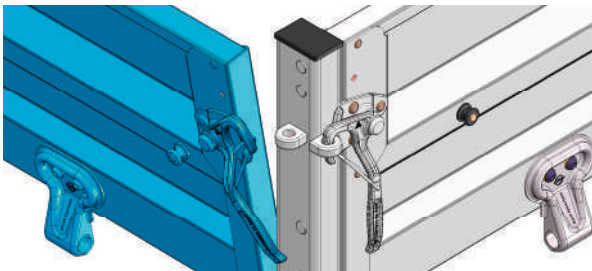
1. Loosen the securing bracket.



2. Turn the lever out of the eyelet.

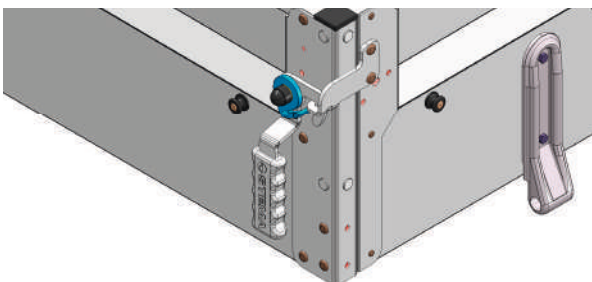


3. Open the side wall.

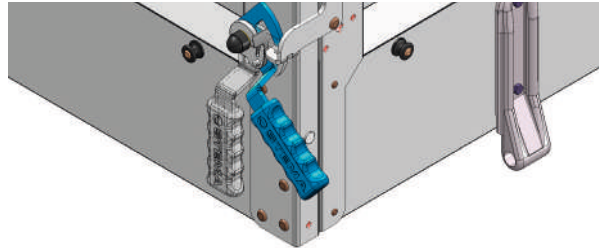


STEMA safety catch

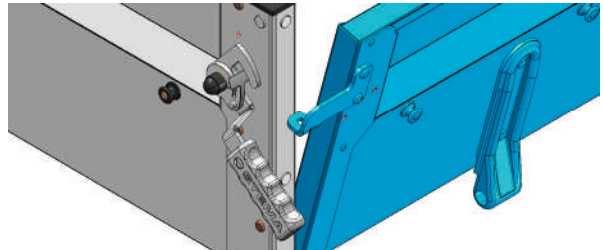
1. Release the safety catch.



2. Turn the lever out of the eyelet.

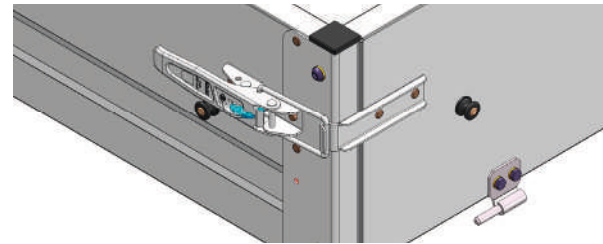


3. Open the side wall.

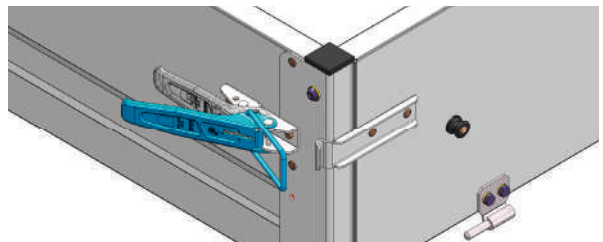


Clamp fastener

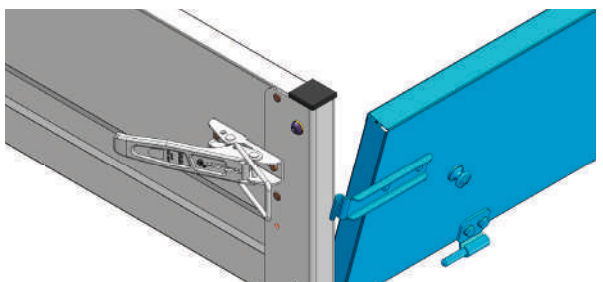
1. Release the safety catch.



2. Operate the lever and release the safety bracket.



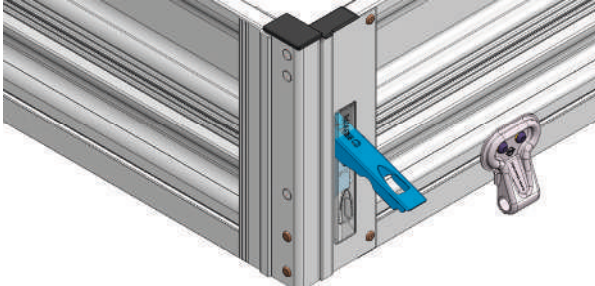
3. Open the side wall.



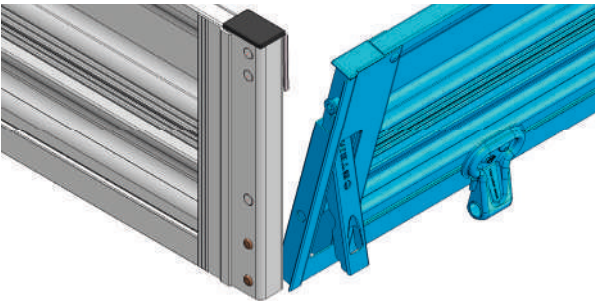
Initial operation

Bolt lock

1. Release the safety catch.

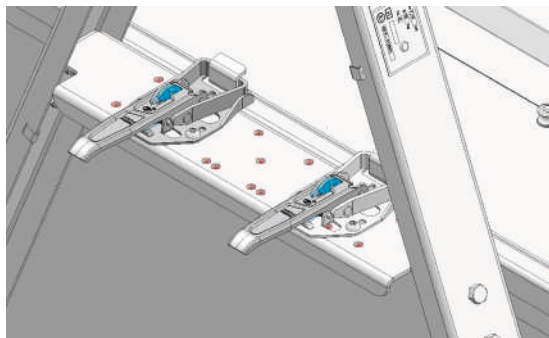


2. Open the side wall.

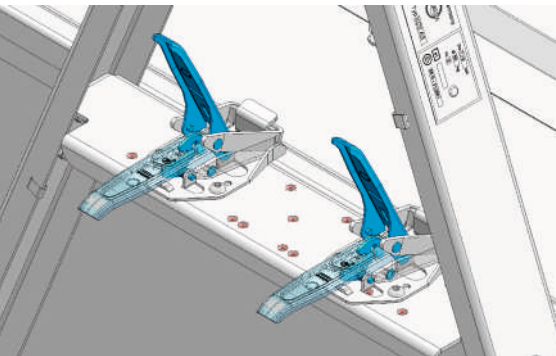


Clamp fastener

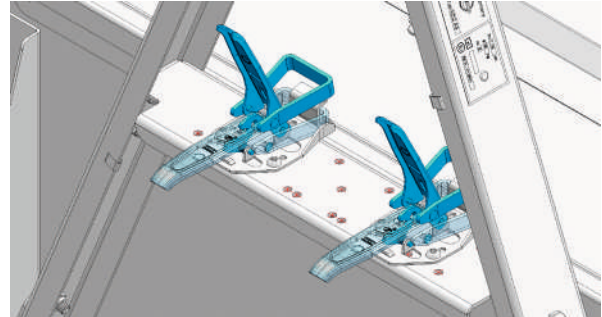
1. Release the safety catch.



2. Operate the lever.

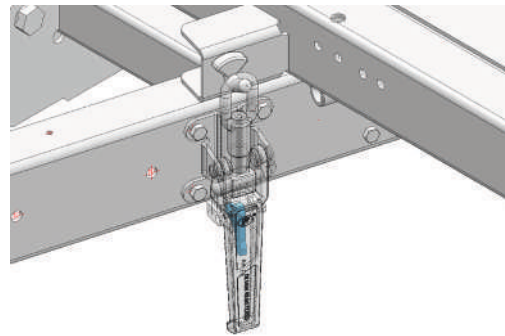


3. Loosen the securing bracket.

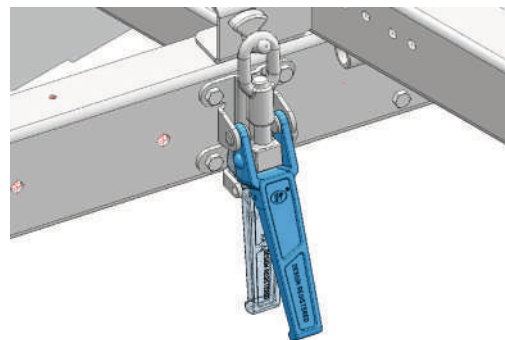


Eccentric lock

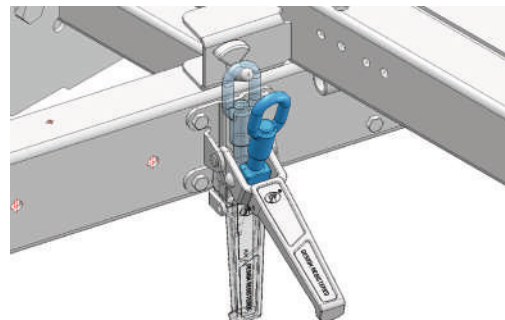
1. Release the safety catch.



2. Operate the lever.



3. Loosen the securing bracket.



Initial operation

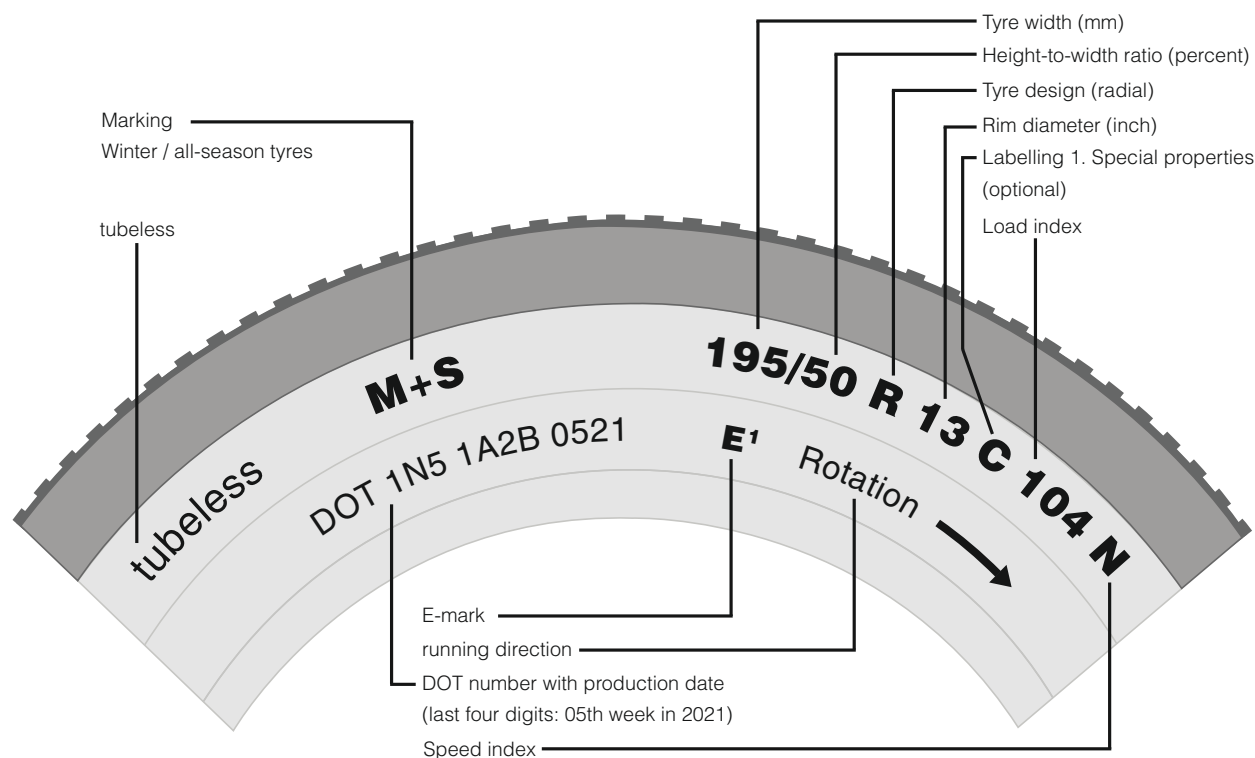
4.7.2 Wheels

WARNING!

Loose screw connections on the wheels, wheel nuts and wheel bolts can loosen over time

The wheel can come loose and impair optimum road holding of the vehicle/ trailer combination may deteriorate. There is an increased risk of skidding. The vehicle/trailer combination may interfere with the road traffic following it.

- After the first assembly and after the first 50 kilometres of driving, check the tightness of the screw connections.
- Continue to check the tightness of the screw connections at regular intervals.



Initial operation

Which wheels may be mounted on the trailer?

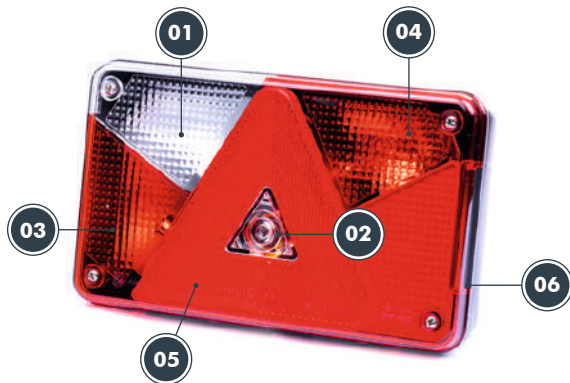
The following applies: For wheels that are not listed in the vehicle documents, a subsequent inspection and an addendum in the vehicle documents are required when fitting them. Wheels listed in the following documents may be mounted without subsequent inspection:

- Registration certificate Part I and II
- EC-Certificate of conformity

4.7.3 Lighting equipment

4.7.3.1 Exemplary construction of a combination luminaire

- 01 Reversing lights
- 02 Direction indicator light
- 03 Brake light/tail light
- 04 Rear fog lamp
- 05 Triangular reflector
- 06 Number plate lighting



4.7.4 Electric Connection



7 pin plug



13 pin plug

i NOTICE

For pin assignment and further information, see „Maintenance“ chapter.

Initial operation

4.7.5 Jockey wheel

⚠ WARNING!

Driving with the jockey wheel up

The jockey wheel can become partially or completely detached and break off during travel. The following road traffic may be affected. The trailer can be damaged. People can be injured.

- Before driving off, check that the jockey wheel is actually retracted and properly stowed.
- Check the tight fit of the rotary crank and the toggle screw on the clamp.

⚠ CAUTION!

Height adjustment via the clamp on the uncoupled trailer

Do not adjust the height via the clamp when the trailer is disconnected from the towing vehicle. The drawbar may come down in an uncontrolled manner and injure the operator.

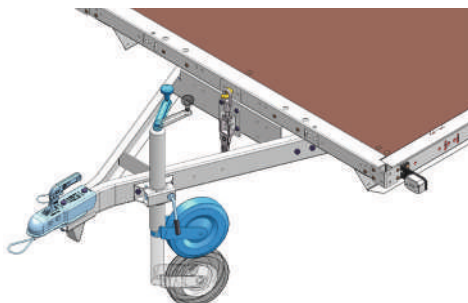
- Adjust the height via the rotary crank.
- Adjust the height via the clamp only on the hitched trailer.

Set jockey wheel properly in driving position

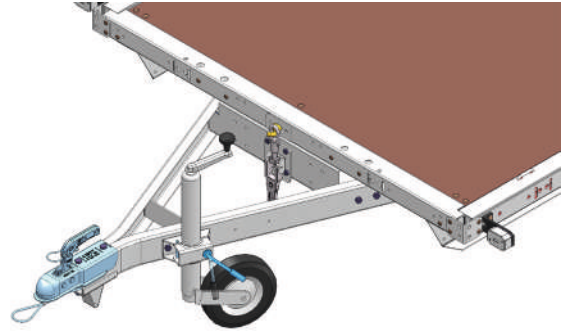
Prerequisite for height adjustment via the clamp: It is mandatory that the trailer is hitched to the towing vehicle.

Jockey wheel with clamp

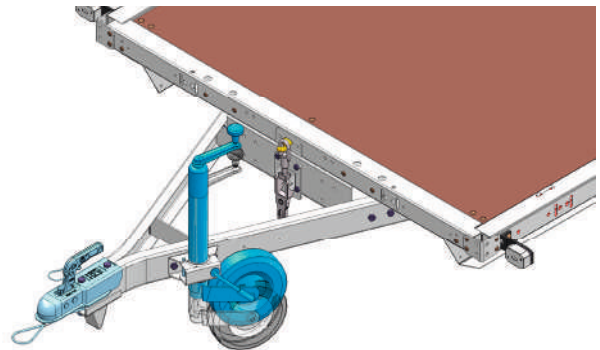
1. Crank the jockey wheel upwards with the crank handle. The wheel must lock into place in the anti-rotation lock.



2. Release the safety catch on the clamp.



3. Pull the complete jockey wheel upwards.



4. Reattach the safety mechanism.



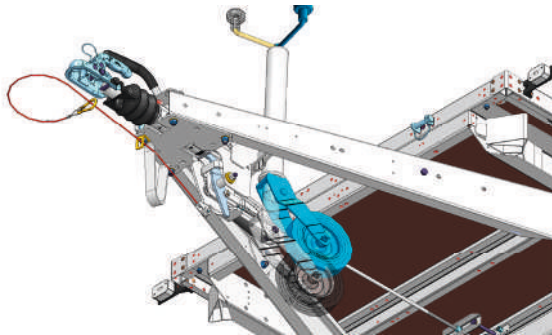
Initial operation

Automatic jockey wheel

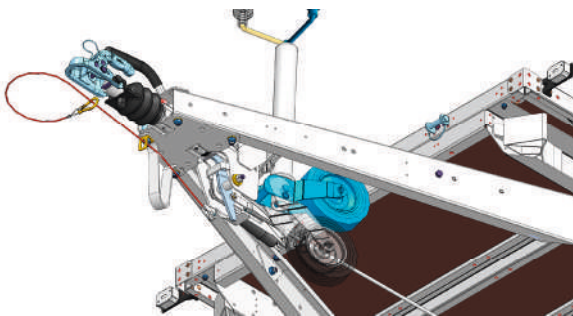
1. Crank the jockey wheel upwards with the crank handle. The wheel must lock into place in the anti-rotation lock.



2. Crank the jockey wheel upwards.



3. Turn the crank until the wheel is all the way up.



4.7.6 Supporting devices

⚠ CAUTION!

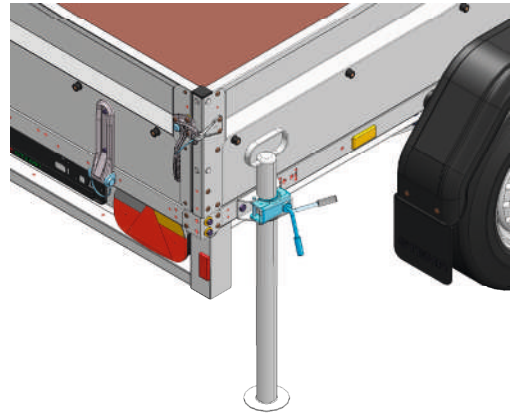
Driving with the supports up

Mounted supports can be lost while driving. Following road traffic may be affected and the trailer damaged. People can be injured.

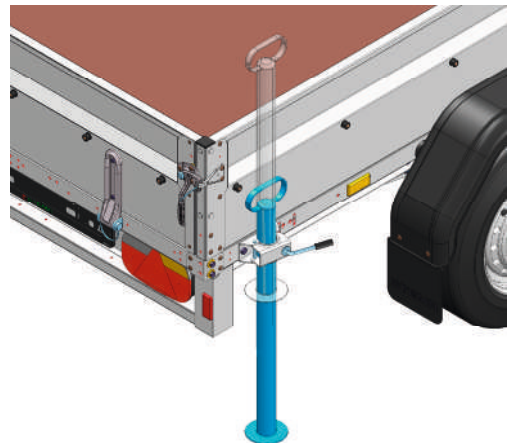
- Dismantle the supports before driving off.
- Stow them properly.

Parking supports

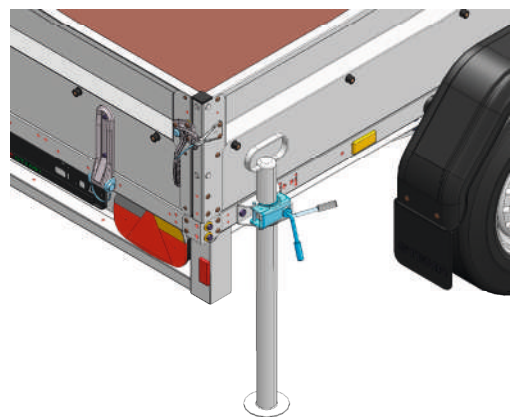
1. Release the safety catch and open the clamp.



2. Lower the support to just before the floor.



3. Attach the safety mechanism.

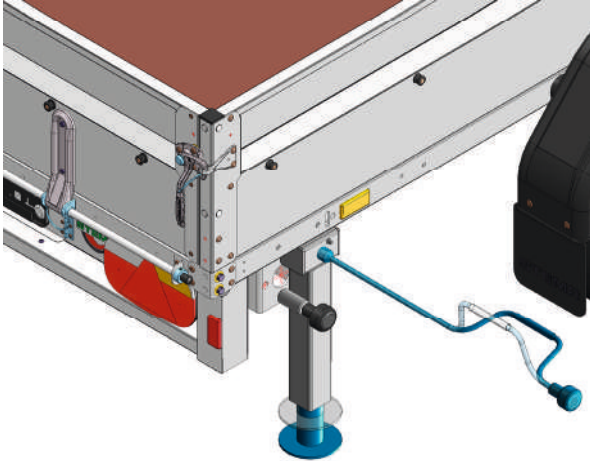


Maintenance

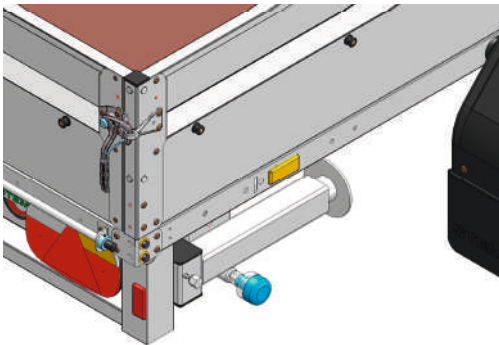
5.1 Maintenance concept

Telescopic crank supports

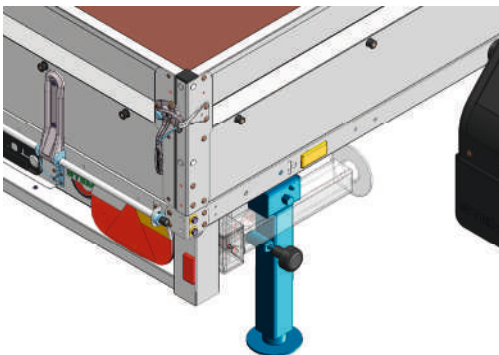
1. Release the safety catch.



2. Fold down the support.



3. Put on the crank and turn it. Lower the support foot to just before the floor. Stow the crank away properly.



CAUTION!

Damage resulting from neglected maintenance and servicing measures will lead to the exclusion of the warranty and guarantee

- Only use original STEMA spare parts or spare parts from STEMA authorised suppliers for maintenance and servicing.
- Have all inspection work carried out documented in the „Inspection record“ section.

NOTICE

In the event of faults and repairs which you cannot rectify or carry out yourself or which must be carried out by trained specialist personnel, contact a specialist or service workshop. For specialist and service workshops, repair guides and further information are available in the STEMA dealer portal or on request.

Handover inspection

Prior to the first delivery to the customer

Interval Inspection

after 1500 km every 6 Months

Interval Inspection

after 5000 km every 12 Months

Interval Inspection

after 5000 km every 12 Months

Interval Inspection

Maintenance

5.2 Maintenance work & intervals

Component	Description of the work	before driving off	1500 km or 6 Months	5000 km or 12 Months
Mechanical functional elements	Check the function of all locks, locking cylinders, hinges and other mechanical functional elements, clean and lubricate lubrication points if necessary.		●	●
Electrical system, reflectors	Check the function of all switches, electrical consumers and other operating elements. Visual inspection for cracks and damage	●	●	●
Battery	Visual inspection for leaks and damage, check battery charge level		●	●
Chassis, draw gear, frame parts	Visual inspection for damage, check bolted connections, check draw gear for technical modifications.		●	●
Drawbar coupling	Visual inspection for damage, check function and wear condition, clean and lubricate lubrication points if necessary (does not apply to anti-rolling couplings).	●	●	●
Overrun device	Visual inspection for damage, check function. Check wear condition, check bellows for cracks, clean and lubricate sliding and lubrication points.	●	●	●
Arrestor cable, breakaway cable	Visual inspection for damage, check attachment	●	●	●
Axles, suspension, chassis dampers	Visual inspection for damage and corrosion, check rocker arm position and wheel bearing play, check prescribed tightening torque of bolt connections.		●	●
Brake system	Visual inspection for damage, check function of brake mechanism, check state of wear of brake pads, check uniform braking effect.		●	●
Brake setting	Check response threshold, carry out basic brake adjustment if necessary, check function of the parking brake.		●	●
Wheels, tyres	Visual inspection for damage. Check tyre condition and inflation pressure, check concentricity if necessary.	●	●	●
Hydraulic functional elements	Check all hydraulic functional elements for damage, leaks and function, check oil level, clean and lubricate lubrication points if necessary		●	●
Hydraulic lines	check for leaks, ageing and damage		●	●
Hydraulic oil	Replace it	every 2 Years or every 12 Months ¹		
Hydraulic hoses	Replace them	every 6 Years		
Superstructure, drop sides	Visual inspection for damage and corrosion, check rivet and screw connections		●	●
Support elements	Check gas springs and other support elements in terms of their function and for damage		●	●
Floor	Visual inspection for damage		●	●
Securing of the load	check all lashing points and anchor profiles for damage	●	●	●
Safety net, tarpaulin	Visual inspection for damage		●	●
Cable winch	Check winch incl. wire rope or webbing in terms of their function and for damage. Clean and lubricate the sprocket, bearing bushes and drum hub	●	●	●
Accessory superstructures	Visual inspection for damage and corrosion, check rivet and screw connections, if necessary clean and lubricate the lubrication points		●	●

¹ under difficult operating conditions

Maintenance

5.3 Self-help

5.3.1 Wheels

WARNING!

Staying under the trailer

Staying under the trailer during the wheel change is not necessary. If the trailer starts moving in an uncontrolled manner, persons may be injured.

- Do not stay under the trailer.
- If it is necessary to lift the vehicle to perform maintenance or repair work, secure the lifted vehicle additionally

CAUTION!

Worn, aged tyre

Aged tyres can be damaged while driving. Damaged tyres can impair the optimum road holding of the vehicle trailer combination. There is an increased risk of skidding. The following road traffic may be affected.

- Do not use damaged, porous or worn tyres.
- Change the tyres after 6 years at the latest.

NOTICE

In addition to the tread depth, regularly check the general condition of the tyres. Tyres do not only wear out through use while driving. Even on little-used trailers, tyres can become damaged or porous, for example, due to the effects of weather or standing in one place for long periods of time.

Wheel change

NOTICE

Only jack up the trailer when it is empty. Choose a jack that is suitable for the trailer's dead weight.

- Secure the trailer so it cannot roll away. Use wheel chocks for this purpose and pull the parking brake if necessary.
- Place the jack on the axle tube behind the wheel to be changed.
- Loosen the wheel bolt.
- Remove the wheel
- Attach the new wheel
- Loosely screw in the wheel bolts or wheel nuts.
- Always tighten the wheel bolts or wheel nuts crosswise.
- Tighten the wheel bolts or wheel nuts using a torque spanner to the prescribed tightening torque².

You must regularly check the following things where the wheels are concerned:

- Check tyre inflation pressure and correct it if necessary.
- Visual inspection for evidence of damage to tyres and rims.
- Check the ageing condition of the tyres.
- Check the tread depth of the tyres.
- Check wheel bolts and tighten if necessary.

² Tightening torques see chapter „Bolted connections“

Maintenance

Tyre inflation pressure

Tyre description	Recommended tyre inflation pressure
4.00-8	4,25 bar
5.00-8	5,20 bar
4.50-10	4,30 bar
5.00-10	3,50 bar
145 R10	4,50 bar
145/80 R10	3,40 bar
195/55 R10C	6,00 bar
155/70 R12C	6,50 bar
195/60 R12C	6,50 bar
135/80 R13	2,40 bar
135 R13	2,50 bar
145 R13	2,60 bar
145/70 R13	3,70 bar
145/80 R13	3,00 bar
155/70 R13	3,10 bar
155/80 R13	2,80 bar
155 R13	3,00 bar
155 R13C	4,50 bar

Tyre description	Recommended tyre inflation pressure ⁴
165 R13	2,50 bar
165 R13C	4,50 bar
185/70 R13	6,00 bar
195/50 R13C	6,50 bar
175 R14C	4,50 bar
185 R14C	4,50 bar
185/65 R14	3,40 bar
185/70 R14	2,70 bar
195 R14C	4,50 bar
195/60 R14	2,70 bar
195/65 R14	2,70 bar
195/70 R14	3,10 bar
195/70 R14C	4,50 bar
195/55 R15	2,70 bar
195/60 R15	2,70 bar
195/65 R15	3,00 bar
195/70 R15C	4,50 bar

⁴ Specification applies to operation with maximum permissible gross weight. ⁵ only applies for manufacturer BPW

Maintenance

5.3.2 Lubricants and lubrication points

Specified lubricants:

- Multi-purpose grease DIN 51825 K3K-30
- Synthetic, water-repellent, creeping adhesive lubricant
- Service oil

Coupling	Ball seat	Multi-purpose grease
	Locking mechanism	Multi-purpose grease
	Bolt of the locking mechanism	Adhesive lubricant
Overrun device	Tow bar (grease nipple)	Multi-purpose grease
	Hinge points of hand brake lever and bell crank	Serviceöl
Axle (lowerable)	Grease inlet port (lubricating nipple)	Multi-purpose grease
	Unlocking mechanism ⁵	Adhesive lubricant
Hydraulic cylinder	Upper and lower bearing	Multi-purpose grease
Manual hydraulic pump	Hinge points of the lever mechanism	Adhesive lubricant
Tilting bearing	single axle tilting bearing	Multi-purpose grease
	Tilting ball bearing	Multi-purpose grease
Hinges, fasteners	Hinge joints	Adhesive lubricant
	Lock mechanism	Adhesive lubricant
Locks	Lock cylinder	Serviceöl
	Locking mechanism	Adhesive lubricant

Jockey wheel	Spindle drive (grease nipple)	Multi-purpose grease
Telescopic crank support	Locking bolt	Adhesive lubricant
	Spindle drive (grease nipple)	Multi-purpose grease

5.3.3 Screw connections

Specified torque levels:

Screw connections	Strength class	Torque level	Strength class	Torque level
M6	8.8	10 Nm	10.9	15 Nm
M8	8.8	25 Nm	10.9	35 Nm
M10	8.8	45 Nm	10.9	70 Nm
M12	8.8	85 Nm	10.9	120 Nm
M14	8.8	135 Nm	10.9	180 Nm
M16	8.8	190 Nm	10.9	280 Nm
Wheel bolt (steel rim)	8.8	90 Nm	-	-
Wheel bolt (aluminium rim)	-	-	10.9	125 Nm

5.3.3 Electric system

WARNING!

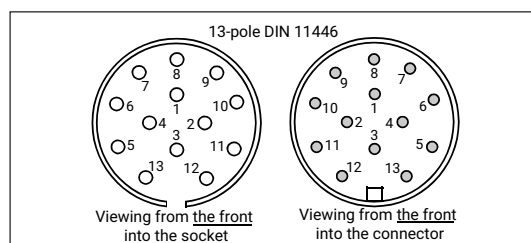
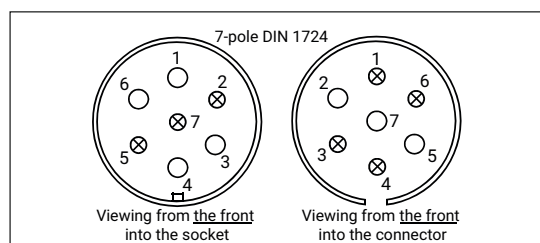
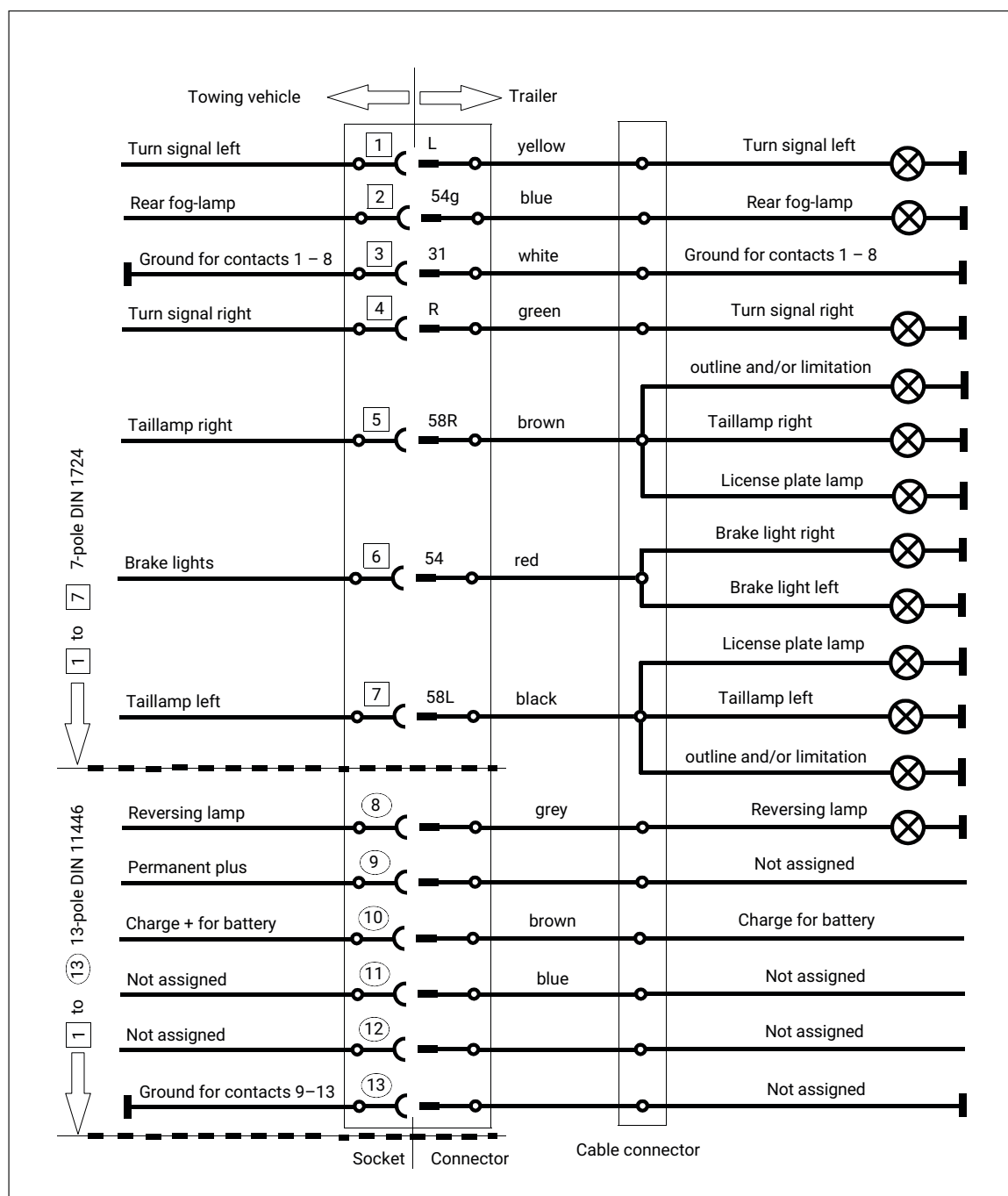
Maintenance and repair work on the trailer's electrical system while it is live

People can be injured. The trailer's electrical system may be damaged.

- Disconnect the electrical connection between the trailer and the towing vehicle before starting maintenance and repair work.
- Disconnect the connection to the battery.

Maintenance

5.3.4 Plug and plug pin assignment



Maintenance

5.3.5 Lighting equipment

Changing the bulbs

⚠ WARNING!

Changing the bulbs without protective gloves

Bulbs are easily breakable and may have sharp edges. People can injure themselves on the parts when replacing them.

- The natural greasy film of the skin and other impurities on the hands can impair the durability and functionality of the lamps.
- Always wear protective gloves during operation.

CAUTION!

Fragile lamp glasses

The lamp lenses are very fragile.

- Treat the lamp lenses with increased caution.
- Screw the lamp glasses together with increased caution.
- Loosen the screw connections of the cover (lamp glass)
- Open the cover.
- Unscrew the bulb from the socket.
- Insert the new bulb.
- Screw the bulb into its correct end position.
- Close the cover.
- Hand-tighten the screw connection crosswise.

The following bulbs can be used:

Indicator light Rear fog light Reversing light ⁷	Socket light E15	12V 21W
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Combined stop/ tail light	Socket light E15d	12V 21/5W
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Number plate light, marker light	Soffitte	12V 5W
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⁷ depends on the model

Maintenance

5.4 Assistance in case of malfunctions

Malfunction	Possible causes	Remedy
Braking effect is too low	- Increased friction in the overrun device - Corrosion on the drawbar or the housing of the overrun device - Dirty or corroded brake cables - Damaged transmission device	- Remove dirt and corrosion (specialist or service workshop). - Cleaning and lubricate lubricant points - Check ease of movement of the components
Overheating of the brakes when driving forwards	- Parking brake operated - Jockey wheel blocks the brake linkage - Deformed brake linkage - Long-term storage of the trailer with the parking brake applied	- Release the parking brake - Properly secure the jockey wheel (see chapter „Jockey wheel“) - Visit a specialist or service workshop
Unsteady driving behaviour or jerky braking	- Damaged or defective shock absorber in the overrun device - Dirty or corroded housing or drawbar	Check overrun device (specialist or service workshop)
Increased braking effect during load change of the towing vehicle	Damaged or defective shock absorber in the overrun device	Check overrun device (specialist or service workshop)
Braking effect when reversing	- Parking brake operated - Corrosion on parts of the brake system - Long-term storage with the parking brake applied - Defective automatic reversing system	- Release the parking brake - Remove dirt and corrosion - Cleaning and lubricate lubricant points - Visit a specialist or service workshop
Overrun device reaches the end stop	Damaged or defective shock absorber in the overrun device	Visit a specialist or service workshop
Overrun device runs up too far	- Increased play in the transmission device - Worn brake pads	Check the state and setting of the brake system (specialist or service workshop).
Braking effect of the parking brake is too slight	- Increased play in the transmission device - Worn brake pads	Check the state and setting of the brake system (specialist or service workshop).
Damaged tyre tread	Check the state and setting of the brake system (specialist or service workshop).	Visit a specialist or service workshop
Uneven wear of the tyre tread	- Long-term driving with incorrect tyre inflation pressure - Damage to the axle geometry	Visit a specialist or service workshop
Trailer runs unsteadily	- Imbalance or lateral run-out on the wheel - Increased wear of the drawbar coupling or the tension ball - Overrun device is not aligned in the longitudinal centre plane of the vehicle - Damaged or deformed drawbar	- Imbalance or lateral run-out on the wheel - Increased wear of the drawbar coupling or the tension ball - Overrun device is not aligned in the longitudinal centre plane of the vehicle - Damaged or deformed drawbar
Damaged or defective jockey wheel	- Overloading due to exceeding the payload or drawbar load - Overstressing due to steering manoeuvres - Ageing of the plastic wheel	Repair jockey wheel, replace if necessary
Trailer stands unloaded on level surface tilted to one side	- One-sided loading or overloading - axle swing arm has different degree positions - Defective suspension on one side	- Check load distribution of the payload - Visit a specialist or service workshop
Corrosion on cutting edges	Increased exposure to weather and splashing water	- Remove corrosion on cutting edges - Apply protective paint to the affected cut edges
Loosened screw connections	- Settling behaviour - Increased dynamic stress while driving	- Check screw connections using a torque spanner - Replace damaged screw connections

Maintenance

5.5 Maintenance

Regular maintenance of the trailer can extend its service life. Damage resulting from neglected maintenance will lead to the exclusion of the warranty.

5.6 Cleaning

The cleaning of the trailer and the accessories and superstructures may only be carried out at designated washing areas. Clean the trailer regularly. Always clean the trailer after it has come into contact with caustic substances. This includes: Fertilisers, road salts and other substances containing salt, lime, acid or ammonia. Long-term contact of these substances with the surfaces of the trailer can lead to visible deposits and damage to the anti-corrosion coating. Use suitable containers and films to protect the surfaces when transporting these substances. Use clear water and a suitable cleaning agent for cleaning. Chemically aggressive cleaning agents can damage the materials and components used on the trailer. It is possible to use a high-pressure cleaner to clean the trailer. Avoid direct contact of the beam with sensitive components of the trailer, such as the drawbar coupling, the overrun device, the brake linkage, the tyres, the wheel hubs and the wheel bearings as well as the lighting system. When cleaning with high-pressure cleaners, maintain a distance of at least

- 60 cm for tarpaulins, sandwich and plywood panels, and
- 30 cm from all other parts of the trailer.

Printed or pasted tarpaulins or case walls must not be cleaned with a high-pressure cleaner. The printed or pasted surface may be damaged. Rinse off the trailer with clear water after cleaning it. Allow the trailer to dry completely. Ensure the surfaces are adequately ventilated. We recommend letting the trailer dry outdoors. Stagnant moisture and insufficient ventilation in combination with high humidity in rooms leads to visible white rust formation on the galvanised surfaces of the trailer and also to mould growth. After cleaning, protect the surfaces additionally with conventional car protection wax. All surfaces can be cleaned and treated according to these instructions.

5.7 Protection and behaviour of the materials used.

5.7.1 Surfaces

The production of the trailers, accessories and spare parts is performed on an industrial scale. There may be unavoidable forming marks or scratches on the surface. They do not impair the protective oxide layer and the use of the trailer. At times, a reddish-brown colouring may occur at the cutting edges. This is unavoidable. Scratches and the discolourations mentioned do not affect the use of the trailer. They are harmless and do not represent a defect in terms of the guarantee or warranty.

5.7.2 Galvanised surfaces

The surfaces of the trailer components, accessories and spare parts are protected against corrosion by one of the following procedures:

- Electrogalvanising (with sealant)
- Immersion bath galvanising

This corrosion protection is a long-term and continuous process. The surfaces darken, become matt and form a protective top layer. This protective layer can be damaged by weather, environmental or mechanical influences. Depending on the thickness of the zinc coating and the type of surface damage, the zinc protective layer can be reformed independently. Components with GALVALUME® coating have an additional proportion of aluminium in the galvanising layer and thus offer higher corrosion protection. The resulting honeycomb or drop-shaped surface is due to technical reasons and therefore does not represent a defect. The additional sealing layer also causes significantly improved dirt repellency. The formation process of the protective top layer is prevented by moisture, wetness and a low air supply. As a result, so-called white rust forms instead of the top layer. The formation of white rust is not a measure of the quality of the galvanisation and in the majority of cases is merely a visual impairment of the galvanisation. The occurrence of white rust depends on the weather conditions and the way the galvanised steel parts are stored. Small amounts of white rust are transformed into the protective top layer after elimination of these favourable conditions. Slight white rust can be removed with water and a nylon brush or a non-metallic

Maintenance

sponge. Surface areas with a completely removed zinc coating must be repaired after drying with zinc protection paint and finally sealed with a wax coating.

Avoidance of renewed formation of white rust:

- Store the trailer in a dry location
- Ensure sufficient ventilation.
- Do not cover your trailer with a tarpaulin if weather conditions favour the formation of condensation and moisture.
- Store dismantled drop sides or add-on walls vertically or horizontally with the corrugations pointing downwards so that water can run off.
- Only pack galvanised parts if you can exclude the formation of moisture inside the packaging. (transport, storage or shipping of individual parts).

If the maintenance measures are observed, the corrosion protection provided by galvanisation lasts for a period of 12 years and longer.

5.7.3 Powder coated surfaces

Powder coatings on galvanised surfaces prolong the corrosion protection of the zinc coating. The zinc coating is protected from weather-related influences by the additional powder coating. In addition, powder-coated components are better protected against mechanical damage. Damage to the powder coating has no effect on the component if the zinc coating between the coating and the base material remains undamaged. We declare the waiving of the guarantee and warranty for use-related damage to powder-coated surfaces.

5.7.4 Anodised surfaces

Anodised aluminium is used for the production of aluminium drop sides. During anodising, a hard oxide layer is built up from the existing aluminium, which increases wear and corrosion resistance.

5.7.5 Corrosion on surfaces and on cutting edges

Corrosion occurs when the protective layer of the surface is permanently damaged. Surface corrosion is usually unproblematic if it is treated immediately. The affected area must be completely freed of corrosion, repaired with protective zinc paint and finally sealed with a protective wax coating.

5.7.6 PVC-coated synthetic fabric

The tarpaulins are made of polyester (PES) coated on both sides with polyvinyl chloride (PVC). Bends and folds are unavoidable due to the packaging and transport methods employed. Due to the type of material involved, white spots may become visible, which do not affect the usage properties. These spots can be reduced if you pull up the tarpaulin immediately after receipt or at least unfold it.

You can use a tarpaulin cleaner to clean the tarpaulin. Apply the tarpaulin cleaner according to the manufacturer's instructions. In the case of printed or glued tarpaulins, first check a small area to ensure that the tarpaulin cleaner does not damage the printed or glued areas.

We recommend not cleaning in direct sunlight or at very low temperatures. When using a tarpaulin cleaner, it must be rinsed thoroughly with water. Only clean the tarpaulin in suitable washing areas.

During operation of the trailer with the tarpaulin mounted, increased stress (abrasion) may occur on the contact surfaces underneath the tarpaulin in conjunction with road dust. These signs of abrasion are dependent on use and do not represent a defect in terms of the guarantee or warranty.

To avoid these abrasion marks, we recommend a self-adhesive protective film in these areas.

Maintenance

5.7.7 Wooden floors and wooden side walls

Wooden floors and wooden shelves are made of sturdy, waterproof glued multi-layer plywood with a phenolic film or plastic coating on both sides. Wood is an organic material, is subject to the influences of the environment and weather and reacts to:

- Stagnant moisture with bulges and washouts of the dyes and solvents.
- Strong sunlight with fading.
- Drying out with porosity.
- Overstressing due to overloading with deformation, cracks or fractures.

The washed-out paint and solvents can deposit on galvanised parts and cause discolouration or stained deposits.

Appropriate measures to prevent damage:

- Remove accumulations of leaves, metallic objects or other objects that may affect the surface of the floor or prevent sufficient surface ventilation.
- Park the trailer at an angle. Any remaining water can run off and the formation of stagnant moisture is prevented.

Do not use coloured lacquers for touch-ups on wooden panels. These compact the surface. Scratches and abrasions can be treated with a wood varnish. Deeper damage can be repaired with wood putty.

5.7.8 Printed and pasted surfaces

Tarpaulins and case walls can be printed or pasted afterwards. Contact a specialist for this (agency, print shop, paint shop or similar). The tarpaulins and case walls can become deformed, roughened, faded, torn or otherwise damaged due to incorrect and unprofessional printing or labelling. Avoid printing on the edges of the tarpaulin. The printing can become detached due to wind and weather conditions, as the tarpaulin is a flexible component. Surfaces that are already heavily worn and weathered should no longer be printed or pasted on.

5.7.9 Ropes

Tarpaulin ropes consist of multiple rubber strands covered with a fabric tube. Rubber is subject to natural wear and tear, which is aided by high stresses and direct sunlight. If the tarpaulin rope is porous, damaged or torn, it must be replaced immediately.

5.7.10 Seal

Seals are subject to the influence of the environment and weather. They are subject to the natural ageing and wear process. Environmental and weather influences can cause the sealant to harden, shrink or become porous. The sealing joint may tear. Damaged sealing joints must be reworked or replaced.

Maintenance certificate

Handover inspection

before first delivery

Stamp, date and signature

next inspection

1. Interval inspection

after 1 500 km or 6 Months

Stamp, date and signature

next inspection

2. Interval inspection

5000 km or 12 Months¹

Stamp, date and signature

next inspection

3. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

4. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

5. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

6. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

7. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

8. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

9. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

Maintenance certificate

10. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

11. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

12. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

13. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

14. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

15. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

16. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

17. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

18. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

19. Interval inspection

every 5000 km or 12 Months¹

Stamp, date and signature

next inspection

Parking and storage

CAUTION!

The trailer is exposed to constant water-logging and high humidity when parked or stored.

- Humidity and moisture cause damage to the trailer. The properties of the materials used can change. Stagnant moisture and high humidity can lead to corrosion and mould. Materials can swell.
- Ensure sufficient water drainage by, for example, parking the trailer on the support bar or cranking up the jockey wheel.
- Ensure sufficient ventilation of the parking location.
- Ensure sufficient ventilation of the surfaces.

CAUTION!

Condensation in the interior

In the case of trailers with a closed body, condensation can form in the interior due to irregular ventilation. The formation of condensation can lead to corrosion and mould. Materials can swell.

- Regularly ventilate the interior of the trailer.

The parked or stored trailer must not constitute an obstacle or a source of accident. Road traffic must not be impaired. Only park the trailer at suitable places. Choose a place where the trailer is protected from external environmental influences. Certain weather conditions can damage the trailer and possibly cause it to become inoperable. Park the trailer in a covered, dry place with level, stable ground. Protect the trailer from theft and access by unauthorised persons.

7.1 Correct storage and parking

7.1.1 The following instructions must be observed during short-term downtimes:

- Apply the parking brake¹.
- Additionally secure the trailer with wheel chocks so it cannot roll away.
- Protect the trailer from unauthorised use with an anti-theft device.

- Close and secure all drop sides, tarpaulins and doors. Return the drive-up aids and support devices to their original position.

7.1.2 The following instructions must be observed in the event of longer term idle times:

- Loads must not remain on the trailer longer than necessary. Long-term loading can cause damage to the axle, brake system and wheels. The braking effect may be impaired. The tyres may become deformed.
- Release the parking brake at regular intervals. The parking brake can get stuck due to the long-term idle time and is difficult to release. The braking system can be damaged. The braking effect may be impaired. Secure the trailer with wheel chocks so it cannot roll away.
- Move the trailer at regular intervals to avoid damaging the tyres. Long-term idle times at one location can cause the tyres to deform.
- We recommend that you jack up the trailer or stand the trailer up to take the load off the wheels and axle.
- Remove foreign objects from the trailer. Water accumulation or deposits of wet leaves prevent sufficient surface aeration and can cause stagnant moisture. Trailer parts can be damaged. Discoloured tarpaulins and drop sides or swollen loading areas as well as mould growth can be the result.
- Ensure sufficient ventilation at the parking location. The humidity in the room should be kept low.
- Close all drop sides, tarpaulins and doors. Return the drive-up aids to their original position.
- Ensure sufficient ventilation. Condensation can form in the interior of the trailer with a closed high tarpaulin, flat tarpaulin, closed box superstructure or cover. Ventilate the interior of the trailer at regular intervals and remove condensation if necessary.

¹ Only for trailers with brakes. ² depends on the model

Parking and storage

7.1.3 In the case of short or long-term idle periods in public spaces, the following additional instructions must be observed:

- The lighting equipment and the registration number of the parked trailer in the public space must not be concealed.
- Parking the trailer in public spaces within Germany is subject to regulations according to Road Traffic Licensing Regulations (StVZO) and the German Road Traffic Act (StVO). Depending on the equipment of the trailer, the installation of parking warning signs or parking lights may be required.
- Parking the trailer in public spaces outside of Germany is subject to country-specific regulations.

7.2 Special types of parking:

Depending on the model, there is the option of standing the trailer upright. Secure the trailer additionally against tipping over using suitable equipment.

WARNING!

Placing the trailer upright

It always takes two people to place the trailer upright.³

- Never place the trailer upright on your own.
- Do not underestimate the size and dead weight of the trailer.

WARNING!

Operation and assembly without protective gloves and suitable personal protective equipment

There may be unevenness and sharp cutting edges on the machine-made trailer parts. People can injure themselves on the parts during operation.

- Always wear protective gloves during operation.
- Wear appropriate personal protective equipment.
- Do not underestimate the size and dead weight of the trailer.

WARNING!

Danger of the trailer tipping over

The trailer is stable, but can still tip over under certain conditions. The trailer is particularly vulnerable to gusts of wind and storms.

- Secure the trailer additionally against tipping over using suitable equipment.

CAUTION!

Placing the trailer on its side.

Trailers must not be stored sideways or in other deviating positions. Trailer parts can be damaged. Safe loading cannot be guaranteed.

- Store the trailer in the driving position or upright.⁴

CAUTION!

Placing the trailer upright with insufficient height clearance

Placing trailer upright with insufficient height clearance may cause damage to the parking site and the trailer.

- Check in advance whether your parking location has sufficient height.
- Information about the dimensions of the trailer placed upright can be found in the following table under the item „Dimensions and space requirements“.

Close all drop sides properly. All other superstructure options and accessories must be dismantled before placing it upright. Depending on the model, additional supports are required to place it upright. These must either be mounted or inserted. Refer to the operating instructions, part 2, for information on suitable installation supports for your trailer.

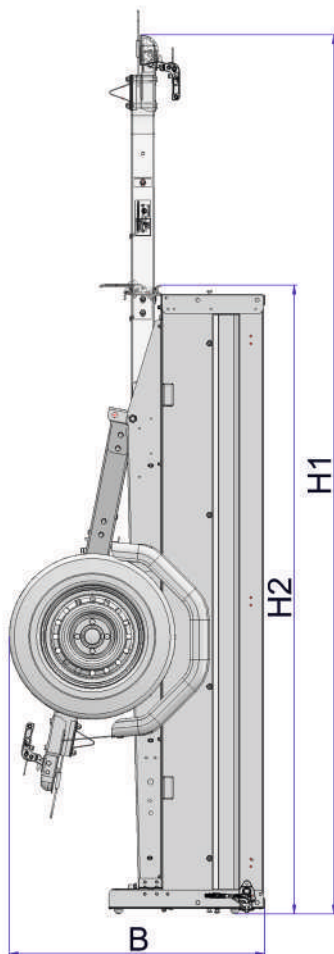
³ According to LasthandhabV (Lastenhandhabungsverordnung - Ordinance on Safety and Health Protection in the Manual Handling of Loads at Work), Hettinger Table, based on two male persons aged 19 to 45 in a good physical condition. ⁴ depends on the model

Parking and storage

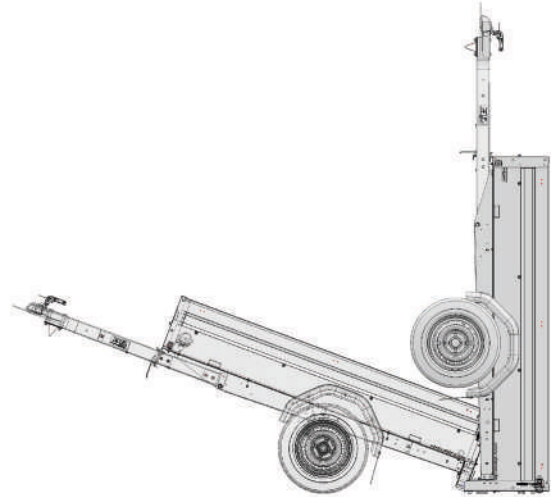
Dimensions and space requirements

Modell	Brake	H1 (m)	H2 (m)	B (m)
FT 7.5	No	2,97	2,13	0,86
FT 7.5G / 8.5	Yes	2,93		0,86
BASIC 550 / 750	No	2,97	2,15	0,86
BASIC 850	Yes	2,93		0,86
AN 750	No	2,92		0,80
STEMA Retro ⁵	No	2,50	1,67	1,35
Wooden trailer	Yes/No	2,93		0,95

All the dimensions are approximate dimensions. Subject to deviations. Subject to technical changes.
The illustrations are sample illustrations. At least two people are necessary for the following steps.

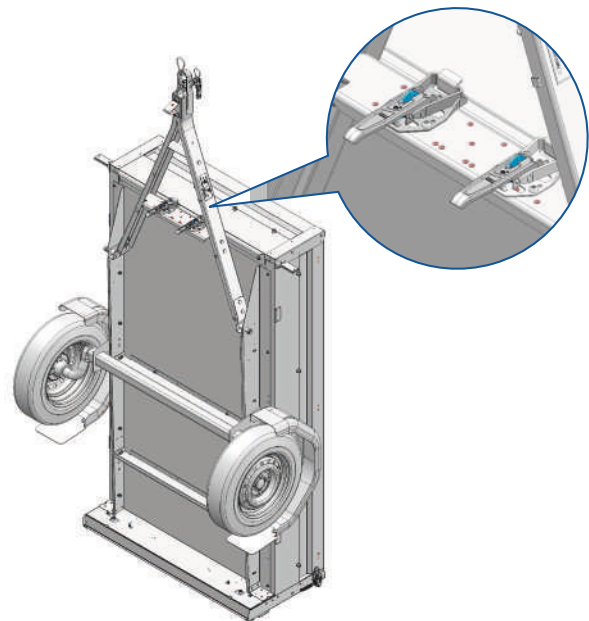


- Grasp the drawbar with one hand and the front cross member with the other hand.
- Cautiously place the trailer upright.



Further procedure for trailers with tiltable drawbar:

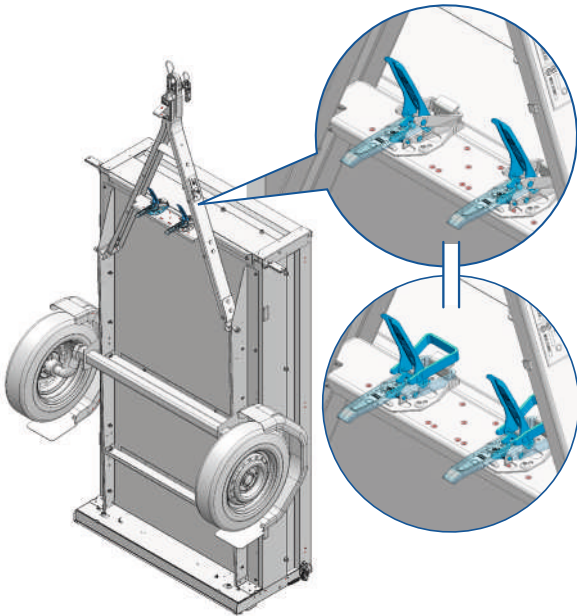
- Push the latch of the lock backwards.
- The handle can now be moved upwards.



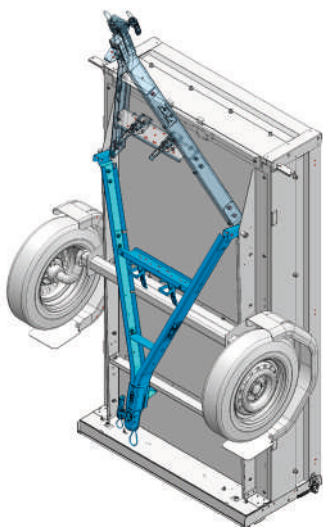
⁵ additional supports are necessary

Parking and storage

- Pull the handle upwards and guide the locking bar upwards over the locking hook.
- Open the fasteners completely.
- Secure the drawbar from folding down by itself.



- Slowly fold down the drawbar
- Do not reach into the pivot point.
- You can fold down the drawbar until it rests on the axle.
- Additionally secure the trailer that has been placed upright so it cannot tip over.



7.3 Putting it out of operation and disposal

7.3.1 How do you dispose of the trailer or parts of the trailer?

The trailer or parts of the trailer must be disposed of in accordance with the laws currently in force at the time of disposal.

Always take the trailer or parts of the trailer to the car recycling centre. The specialist staff of the car recycling company will dispose of them properly there.

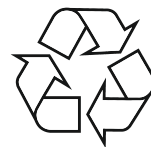
7.3.2 Electrical scrap



Appliances marked with this symbol are subject to the European Directive 2002/96/EC

All electronic and electrical waste must be disposed of separately from household waste. Ask your local authority how to dispose of old appliances in an environmentally friendly way.

7.3.3 Batteries



Batteries do not belong in the household waste. As a consumer, you are legally obliged to return used batteries. You can hand in your old batteries at the public collection

points in your municipality or wherever batteries of the type in question are sold.

7.3.4 Old tyres

Dispose of old tyres in accordance with the regional regulations.

Guarantee conditions / warranty

The guarantee and warranty provisions only cover trailers, components, accessories and spare parts that are originally manufactured by STEMA Metalleichtbau GmbH or purchased from STEMA authorised suppliers.

The STEMA guarantee and warranty conditions always refer to the STEMA operating instructions, maintenance and care instructions, operating and assembly instructions and the documentation supplied with the components.

8.1 Contents

- a. The guarantee and warranty is granted for a period of 24 months from the date of sale of the product to the contractual partner of STEMA. The delivery note or the invoice shall be considered as proof. These receipts are to be submitted to STEMA. The contractual partner must be notified of a defect without delay and requires a written request by the contractual partner vis-à-vis STEMA to remedy the defect.
- b. Within the guarantee and warranty period, in the event of justified complaints, the goods shall be repaired (max. three attempts) or replaced within a reasonable period. The form of performance shall be determined by the guarantor at its own discretion. A repair does not extend the guarantee and warranty period.
- c. The warranty covers material defects, workmanship defects and design defects. The warranty is only granted for original parts in the original design of STEMA and its authorised suppliers. The warranty is only provided for accessories and spare parts in combination with STEMA trailers.
- d. The guarantee and warranty on depreciated or price-reduced goods shall only be granted in relation to the function of the trailer. The warranty is excluded if the customer is an entrepreneur or a legal entity under public law or a special fund under public law.
- e. Our guarantee and warranty is only valid within the Federal Republic of Germany. The place of jurisdiction is Germany.

8.2 The following do not represent defects under the guarantee and warranty:

- a. Damage from violations of the intended use
- b. Events and conditions which, according to the current state of knowledge, correspond to the state of the art. Modifications due to technical advances are possible.
- c. Damage caused by overloading, improper handling and use contrary to the operating, maintenance, care and installation instructions.
- d. Damage which has been aided or caused by neglected and absent maintenance measures and the proof of maintenance has not been provided and the duty to cooperate has not been exercised.
- e. Damage due to wear and tear, usage characteristics, force, damage and environmental conditions. Wearing parts include, but are not limited to, the drawbar coupling, components of the overrun device and brake, plain bearings, brake pads, tyres and wheel bearings.

STEMA excludes any guarantee and warranty for these points.

8.3 Exclusion of guarantee/warranty

Any guarantee, warranty claims of the contractual partner/end consumer shall expire if:

- a. The guarantee and warranty claims of the contractual partners or the end user shall expire if:
- b. Unauthorised structural changes are made to the trailer and accessories and spare parts. The implementation of unauthorised structural modifications may lead to the expiry of the EC approval and the decommissioning of the trailer.
- c. Repairs have not been agreed and confirmed with STEMA within the guarantee and warranty period and/or unauthorised repairs have been commissioned.
- d. Your STEMA trailer is used, serviced or maintained by unauthorised persons.
- e. The facts of the case are not reported truthfully.

Guarantee conditions / warranty

The liability of the manufacturer for slight or simple negligence shall be excluded.

8.4 Other details concerning the guarantee

Warranty claims of the consumer against the contractual partner are not affected by the guarantee-

Our guarantee does not cover compensation for other damage. This includes the loss of function due to labour costs spent in vain, loss of use, loss of profit and the like.

Binding declarations within the scope of the STEMA guarantee are issued exclusively by STEMA Metalleichtbau GmbH.

The guarantee and warranty does not cover the costs for necessary maintenance measures.

8.5 Other details concerning the warranty

If STEMA Metalleichtbau GmbH acts as seller vis-à-vis the consumer, it shall provide a warranty within the scope of the statutory provisions.

In the case of the warranty, the statutory regulations for Germany shall apply at the time of transfer of the goods to the contractual partner.

The statutory regulations for product liability in Germany remain unaffected by this.

EC Declaration of Conformity

In accordance with the EC Machinery Directive (2006/42/EC)

The Manufacturer:

STEMA Metalleichtbau GmbH
Riesaer Straße 50
01558 Großenhain

hereby declares that the following machines:

Model:

SH O1-1	AT 1520
SH O1-2	AT 2027
SH O2-1	AT 2035
SH O2-2	
ST O1-1	STEMA 01
ST O1-2	STEMA 02
ST O2-1	STEMA O1N
ST O2-2	
	MT 0750
SR O1	MT 0850
SHN2 O2-2	SK O2-1
	SK O2-2
BMAT	

comply with the provisions of the following EC directives:

- Machinery Directive 2006/42/EC
- EEC Directives of the European Community for road vehicles and their trailers (Class M, N, O)
- Directive 2007/46 EC according to Regulation (EU) No. 214/2014
- Regulation 2018/858 and associated implementing regulations
- ECE - Regulations - Regulations of the Economic Commission for Europe for motor vehicles and their trailers.
- Low Voltage Directive 2014/35/EU

and applied standards and specifications:

- DIN EN ISO 12100:2011-03: Safety of machinery
- DIN EN ISO 13854:2020-01: Safety of machinery - Minimum distances to avoid crushing of body parts
- DIN EN ISO 4413:2011-04: Fluid technology - General rules and safety requirements for hydraulic systems and their components
- DGUV 113-020: DGUV (German Social Accident Insurance) regulations Hydraulic hose lines and hydraulic fluids

Information on the person of the authorised signatory:



Michael Jursch, Managing Director

Your STEMA partner / specialist retailer:

Your trailer passport

Trailer model:

Chassis number:

WSE

Permissible total weight:

Date of purchase:

Tyre size:



Der Anhänger