

Innovations in load securing on car transporters

according to VDI 2700 Part 8 and Sheet 8.1
as of 2024



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What is changing?

- In the future, the body of car transporters must be certified, this also applies to the existing fleet
- Belts must comply with the new standards
- Wedges must be approved for the respective body and manufacturer
- Load securing is carried out according to vehicle weights

Valid for transports in and through Germany in connection with the StVO, in other EU countries depending on national regulations and manufacturer/customer regulations.

Advanced certificate

Ask your body manufacturer for a certificate for the new VDI 2700 Sheet 8 and Sheet 8.1

There are two categories for which a structure can be certified according to the anchorage strength of the road sheets:

- **700 daN anchorage point strength:**
vehicles with an actual mass of up to 4,500 kg may be loaded
- **500 daN anchorage point strength:**
only vehicles with an actual mass of up to 1,500 kg may be loaded, and for higher vehicle weights, separate load securing equipment or retrofitting options must be considered.
- The load securing is also based on the anchorage point strength and the vehicle weight to be loaded

The certificate must be updated annually in the form of an inspection (workshop, TÜV, Dekra, ...). The certificate can be requested digitally or in writing during a check by the police and the customer.



Example: Anchor point on the road plate

Source: Robin Repper

Belts

In the future, belts must meet the following requirements

- Standard: DIN EN 12195-2
- Elongation: $\leq 4\%$
- LC: 1500 daN
- STF: ≥ 330 daN
- Webbing width at least 35 mm
- Belt controller with ETA value at least 0.5
- Belt controller must cover at least half of the wheel
- Belt systems may only be used manufacturer-specific and in an unchanged form
- The hook systems used must be approved by the body manufacturer.



Dolezych strap with
ETA value on the controller

Source: Robin Repper

Wedges

Wedges must meet the following requirements:

- Wedges must be used by the respective body manufacturer
- Wedges must not be changed in their design
- Wedges from other manufacturers require a certificate and must be approved for the respective structure
- Wedges must have a minimum height of 12cm



Load securing wedge on car transporter
Source: Robin Repper

Breakdown of load securing into weight classes

Load securing is carried out in 4 weight classes, into which vehicles to be loaded are divided

< 1.500 kg

Actual weight of the vehicle



Structure 500 daN

< 2.000 kg

Actual weight of the vehicle



**2.000 bis
3.000 kg**

Actual weight of the vehicle



**3.000 bis
4.500 kg**

Actual weight of the vehicle

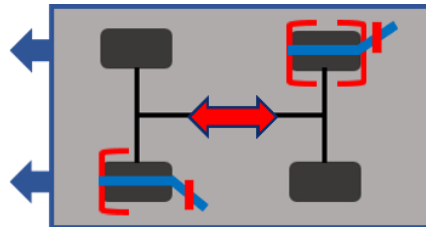


Aufbau Anschlagpunktbelastung 700 daN

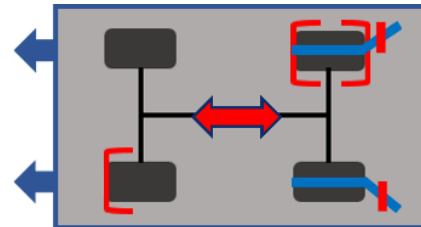
Load securing



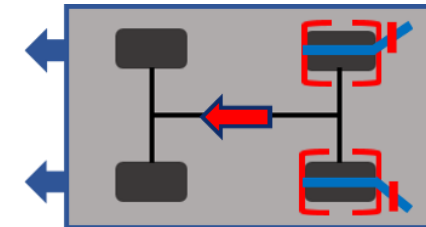
Loading Image 1



Loading Image 2



Loading Image 3



An additional belt
must be placed
for each wedge
that cannot be
set!

700 daN

Vehicles in all positions up to 2,000 kg except last position at the top and bottom, allows stacking +/- 25°

500 daN

Vehicles in all positions up to 1,500 kg, except for the last position at the top and bottom, allows stacking +/- 25°

500 / 700 daN

These loading diagrams may only be used in cases where loading diagram 1 is not technically applicable, with the exception of the last position at the top and bottom. e.g. when loading in the first position above the driver's cab. Allows stacking up to +10°/-25°

Loading Image 2

700daN up to 2,000 kg / 500daN up to 1,500 kg

Loading Image 3

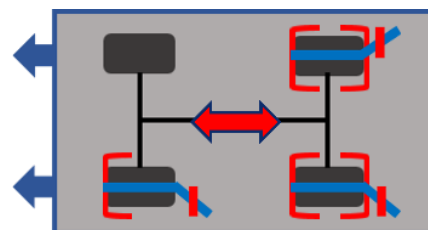
700daN up to 3,000 kg / 500daN up to 1,500 kg



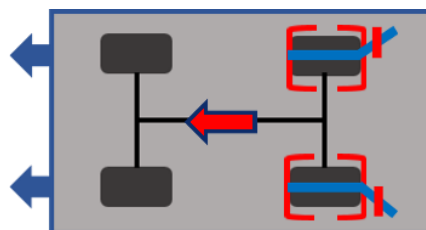
Load securing



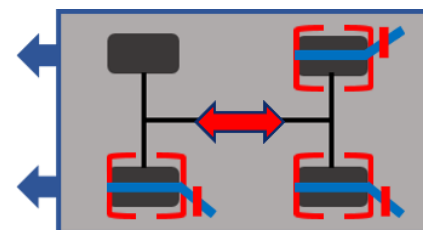
Loading image 6



Loading image 3



Loading image 5



An additional belt
must be placed
for each wedge
that cannot be
set!

700 daN

Vehicles in all positions with actual weight of
2,000 – 3,000 kg, but not in the last position at
the top and bottom

Loading screen 6
allows stacking +/- 25°

Loading screen 3
allows stacking +10°/-25°

700 daN

Vehicles in the last position up to 3,000kg
allows stacking +/- 25°

500 daN

Vehicles in the last position up to 1,500 kg
allows stacking +/- 25°

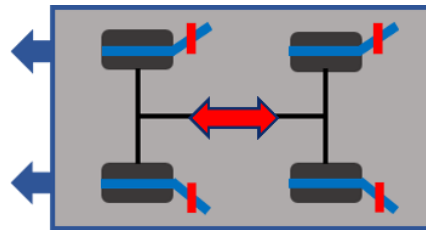


Direction of
travel

Load securing



Loading image 4



500 / 700 daN

Alternatively applicable to all vehicles up to 1,500 kg except in the last position at the top and bottom, allows stacking +/- 10°

Alternatively, **if it is not possible to secure the vehicle to be loaded with wedges for technical reasons** and the loading diagrams 1,2,3,5,6 cannot be used, securing can be done with four belts. However, it is imperative that the distance between the vehicles be increased to avoid damage.

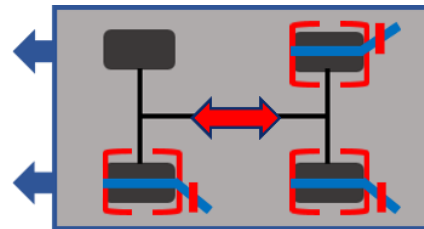
However, this procedure does not apply if the vehicle can be secured with wedges by changing its position.

Load securing

For vehicle bodies with anchorage point strength of 700 daN, securing vehicles from 3,000 kg to 4,500 kg actual weight at any position on the truck, permitted stacking +/-10°



Loading image 5



An additional belt
must be placed
for each wedge
that cannot be
set!

Thank you very much!

