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DEKRA-Certificate 304 / 2289 / 703550 1821000938 - 3
Secure loading of stacked Lead sow packets for road transport

1. Erfüllte Rechtsvorschriften	
⇒ § 22 StVO (Road Traffic Regulations):	„Payload must be secured“
⇒ § 23 StVO (Road Traffic Regulations):	„Duties of vehicel operator“
⇒ § 30 StVZO (Road Traffic Licensing Regulations):	„Vehicle condition“
⇒ § 31 StVZO (Road Traffic Licensing Regulations):	„Operational responsibility“
⇒ § 412 HGB (Commercial Code):	„Operationally secure loads“

2. Erfüllte technische Richtlinien und Normen	
⇒ VDI 2700:	Securing payload on road vehicles
⇒ VDI 2700 Page 2:	Calculation of load restraint and securing forces
⇒ VDI 2700 Page 3:	Load securing means
⇒ VDI 2700 Page 4:	Load distribution plan
⇒ VDI 2700 Page 5:	Quality assurance system for securing loads
⇒ VDI 2700 Page 14:	Friction coefficients and how to derive them
⇒ VDI 2700 Page 15:	Anti-slip materials
⇒ DIN EN 12195-1:	Calculation of load restraint and securing forces
⇒ DIN EN 12195-2:	Load restraint webbing made of synthetic fiber
⇒ DIN EN 12640:	Load restraint and lashing points on commercial vehicles
⇒ DIN EN 12642:	Commercial vehicle superstructures Annex B
⇒ § 22 BGV D 29:	UVV – Rules for commercial vehicle superstructures

3. Road test: On 11/15 and 11/23/2017 on the premises of Firma F&T LaSiSe gGmbH , Selm	
Dynamic test series:	Test at 0,5 g laterally and rearward and 0,8 g toward the front

4. Loading units with load and securing means
4.1 Semitrailer / truck and trailer
4.1.1 Vehicle equipment CODE L or XL
<ul style="list-style-type: none"> Vehicles with sliding tarps, lashing points per DIN EN 12640, max. Spacing 1.0m, minimum 2 lashings in usable condition per load row with at least $LC \geq 2.500 \text{ daN}$, $S_{HF} = 50 \text{ daN}$, $S_{TF} = 500 \text{ daN}$ (see label, blue stripe on lashings).

5. Load units

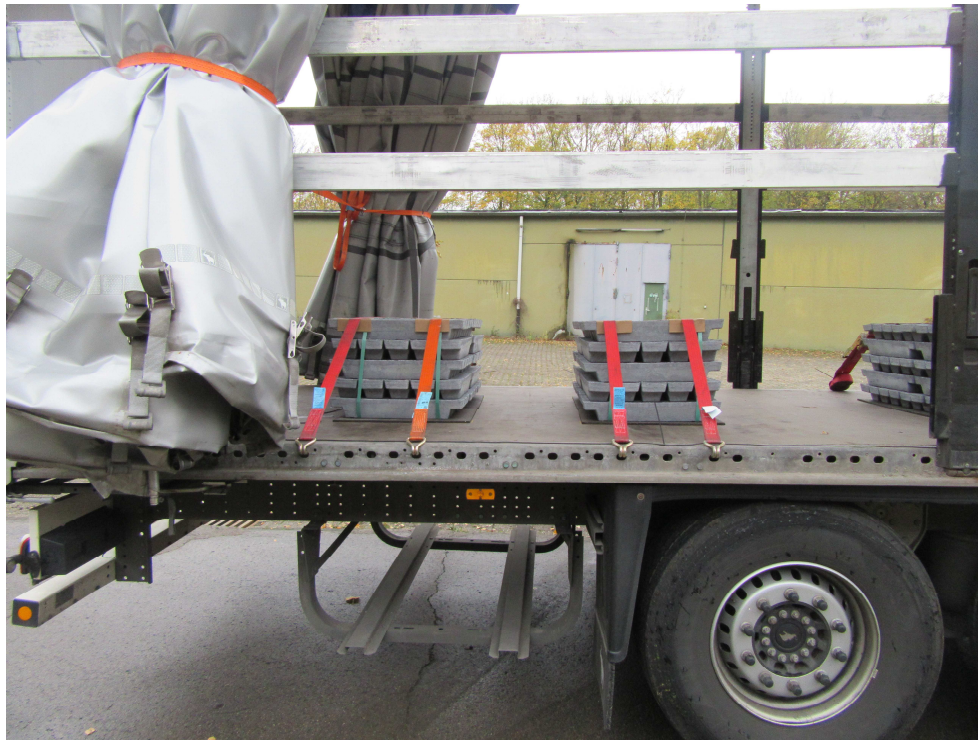
Lead sow packets with 2 or 4 straps
Static load unit test of 11/03/2016

6. Loading and securing means

- The loading surface must be free of ice and grease and must be swept clean
- Permissible axle loads and gross vehicle weight must be observed
- Underlay lead bar packages over the entire area with friction-enhancing material ($\mu \geq 0.6$), friction-enhancing material completely under cargo (with guarantee that cargo does not rest on the loading floor, a mat, dimensions at least 60 X 60 cm, $\mu=0.6$)
- Lash down two lashings over each load row (LC = 2.500 daN, STF= 500 daN)
- Use edge protectors on the outside edges of the lead package
- Minimum pretension on lashing is 500 daN !!!



Side view of the loaded vehicle



Position of lashings on each load row



Anti. Slip mats placed under full surface of each package

7. Anti-slip material for dispose

- Permanent deformation or indentations
- Cracks
 - Wear on the surface
 - Swollen areas
 - Loose areas of material
 - Embrittlement
 - Dirt that impairs functionality

8. Lashings ready for use

- Damage
- Fabric tears, thermal damage to the surface
 - Lateral cracks > 5 mm
 - missing labels
 - Defective / bent lashing hooks
 - Damaged / sticky ratchets

9. DEKRA instructions and conditions

The stability of the tested loading units meets the required accelerations per DIN EN 12642, Annex B, Dynamic road testing and per DIN EN 12195-1 Calculation of lashing forces. Certification applies only to the tested form and to loading weights in conformance with the load rating of the vehicle. It expires if new legal provisions take effect or changes are made to substantial portions of the packaging, loading, and securing regulations. Substantial changes or New developments in the packaging, loading, and securing variants must be recertified by DEKRA Automobil GmbH.

- **Observe axle loads when loading**
- **Friction-enhancing material completely under cargo with guarantee that cargo does not rest on the loading floor, a mat, dimensions at least 60 X 60 cm, $\mu=0.6$**
- **Place 2 lashings over each load row and lash down (LC=2.500 daN , STF=500 daN)**
- **Use edge protectors on the outside edges of the packages**

10. DEKRA certification boda

DEKRA Expert

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