ROTHSCHENK

CERTIFICATE

EUROSAFE global transport safety

Version: 02 Update of 12.03.2025	**Restraint system Red Lash - System CV 1200 for wooden IBCs in ISO sea containers according to CTU code**				**2016-12-001 (English Version)**
Certificate no. Basic version:	2016-12-001	**Place of Review:**	Aub	**Test date:**	19.09.2016 12.03.2025 (update)
Client:	G & H GmbH Rothschenk, Industriestrasse 8-10, 97239 Aub	**Persons present:**	G & H GmbH Rothschenk: Andre Bauer EUROSAFE GmbH: Mr. Wolfgang Neumann		

1. Fundamentals / General

This certificate confirms the functionality and stability of the G & H GmbH Rothschenk triple restraint system in the overall system through dynamic driving tests in rail, road and sea traffic.

Fig.1 Wooden crate UN 11D/X/BJ/S.../5800/1070/70

Fig.2 Preparation of 3-piece lashing

Fig. 3: Stowing the wooden crates up to the door

Fig. 4: Closing the restraint system

2. Loading information

20 x 1,000 kg wooden IBCs with the basic dimensions (l x w x h) 1140 x 1140 x 1110 mm are connected crosswise vertically with 4 pieces of 16 mm PET strapping each and palletized on 1140 x 1140 mm pallets. The wooden IBCs are confirmed in the container stacked in two layers on top of each other.

The measured values determined for this purpose from dynamic driving tests in Leverkusen on June 23, 2014 can be found in the EUROSAFE test report 2014-06-12 (measured values, images and videos). During the road tests, at least 1.0 g was generated by horizontal impact in and against the direction of travel in accordance with the requirements of the CTU Code:2014. The maximum values for multiple horizontal impact tests were 1.8 g.

3. Result

The load remained undamaged and shifted less than 1 cm. The restraint system remained permanently effective and was fully functional even after a triple impact against freight wagons in direct succession with loads of at least 1.0. The doors were not loaded and were not contacted by the IBC due to the load.

4. Tested load limits of the restraint system (sling hooks and container lashing points)

The system can be loaded with an MSL of 4,000 daN per restraint system (2-part with 3 horizontal straps). The minimum material thickness of the lashing points on the ring diameter must always be> 12 mm. The load-bearing capacity of the lashing point (bottom/top) is verified by an FEM calculation with at least 1,000 daN. A safety factor of 1.5 has already been applied by the inspector (SF:1.5= 1,500 daN, calculated minimum load capacity at the lashing point).

The tested breaking load of the entire flexible restraint system is 8,000 daN (MSL = 4,000 daN).

Tester Overall system:	EUROSAFE GmbH, Wolfgang Neumann, personally certified expert according to DIN EN ISO/IEC 17024:2012 for road, rail and sea transport (including dangerous goods) for load securing, packaging and load unit formation	**Certification number Checker:**	ZN-20120507-0253 valid until 08/2027
Signature / Stamp:	 	**Exhibition venue** Am Germanenring 30 63486 Bruchköbel **Date of issue of certificate:** 19.09.2016 (first issue) 12.03.2025 (revision)	