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Group of Experts for the revision of the IMO/ILO/UNECE Guidelines for Packing of Cargo Transport Units

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Updates on the second draft of the Code of Practice for Packing of Cargo Transport Units

Comments on the second draft of the CTU Code

Transmitted by the expert of Slovakia

The comments on the second draft of the CTU Code from the expert of Slovakia are presented below for consideration by the Group of Experts.

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I. CTU Code (Informal document EG GPC No. 15 (2012))

2. Sec. 6.3 – acceleration coefficient for combine transport. If permitted shunting speeds are not exceeded by rail operator than following acceleration coefficients for combine transport could be considered.

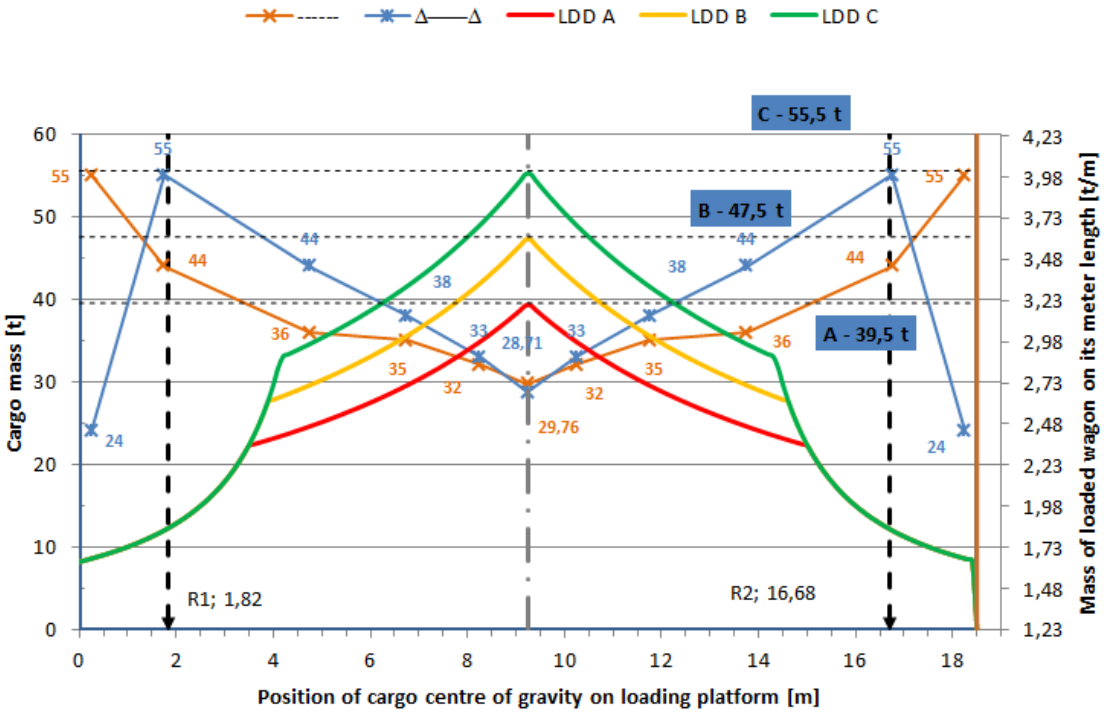
Rail transport (combined transport)				
Securing in	**Acceleration coefficients**			
	Longitudinally (c_x)		Transversely (c_y)	Minimum vertically down (c_z)
	forward	rearward		
Longitudinal direction	[0.5]*	[0.5]*	-	[1.0]*
Transverse direction	-	-	0.5	[1.0]*
*Above values apply for normal transport conditions. Under abnormal conditions, c_x may increase to 1.0 and c_z may decrease to 0.7]				

For sea transport Significant 20 year wave height should be considered.

Sea transport					
Significant 20 year wave height in sea area		**Securing in**	**Acceleration coefficients**		
			Longitudinally (c_x)	Transversely (c_y)	Minimum vertically down (c_z)
A	$H_s \leq 8$ m	Longitudinal direction	0.3	-	0.5
		Transverse direction	-	0.5	1.0
B	8 m < $H_s \leq 12$ m	Longitudinal direction	0.3	-	0.3
		Transverse direction	-	0.7	1.0
C	$H_s > 12$ m	Longitudinal direction	0.4	-	0.2
		Transverse direction	-	0.8	1.0

3. Sec. - 7.5.4 The maximum payload is generally not a fixed value for the distinguished wagon, but allocated case by case by means of the intended track category (categories A, B, C, D, E (25 tonnes per axle), F (27,5), G(30 tonnes per axle permitted)) and the speed category (S: ≤ 100 km/h; SS: ≥ 120 km/h). These payload figures imply a homogeneous load distribution over the entire loading area.

4. Sec. 7.5.5 – as an example here could be load distribution diagram of railway wagon showing explicitly both tables from 7.5.4 and 7.5.5. (also could be considered in chapter 10.3.1.7)

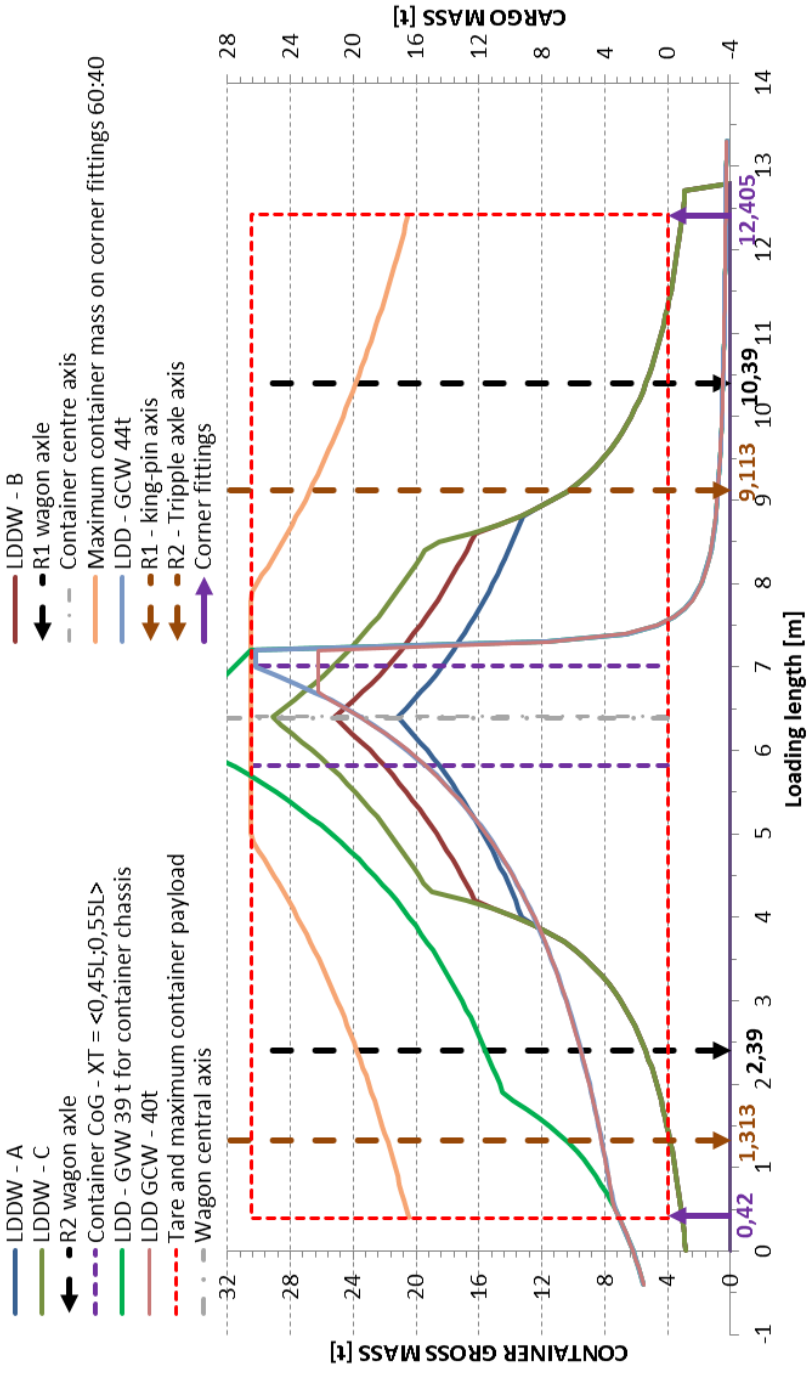


5. Sec. - 10.2.4.17 – Modular lashing systems can be used to such cargo mass which strength of the lashings points and number of lashing lines allows it. It can be used also to prevent upper incomplete layers against shifting.

6. Sec. – 10.3.1.4-to 10.3.1.7 – Examples of load distribution diagram of container and railway wagon shall be inserted. Also our previous comments refer to intermodal load distribution diagrams (for explanation see http://pernerscontacts.upce.cz/26_2012/Jagelcak.pdf). Equations (1) and (2) should be as follows>

$$R_{2max} = 0.5 \cdot (P + T) - 0.05 \cdot P \cdot \frac{L}{l} \quad = 13911.03 \text{ kg}$$

$$R_{1max} = 0.5 \cdot (P + T) + 0.05 \cdot P \cdot \frac{L}{l} \quad = 16568.97 \text{ kg}$$



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Load distribution diagram of 40-foot maritime container loaded on two-axle Lgs container wagon and container chassis

7. Sec. 10.3.1.7 – Figure 10-19 and 10-20 – these examples are not correct because the maximum payload is behind the 5% boundary for containers. It means that these vehicles are not suitable for carriage of containers or swap-bodies. The centre of gravity of cargo of maximum payload is usually around the centre of loading platform.

8. Sec. 10.3.1.4 - *Under particular circumstances (e.g. for CTU used in the sea mode only, **without road or rail transport involved)** an eccentricity of up to ±10% could be accepted, as advanced spreaders for handling ISO containers are capable of adjusting such eccentricity.* This requirement is not good to exclude road and rail vehicles. It depends on load distribution diagram of such vehicles/wagons. When load distribution diagram allows it than it can be 10% but when load distribution diagram does not allow it than even eccentricity of 3% is not acceptable.

9. Sec. - 10.4.2.2 – Examples of loading plans of suitable sizes of pallets should be included also here e.g. 1150x800 mm, 1150 x 1150 mm where it is not necessary to fill void spaces.

10. Sec. 10.4.3.3 – Figure 10-31 – A warning that lashing should be prevented from falling down during carriage shall be included or holding straps included in the figure.

11. Sec. 11.3.8 – Figure 11-1 – This marking usually marks for new IBC's stacking mass for transport (vertical variation sea 1,8g). When stacking in warehouses is it allowed using stacking mass indicated in UN code of the packaging?

12. Annex 4 – Calculation 5 – Calculation of eccentricity of loaded CTU centre of gravity should also be included with reference to sec. 10.3.1.4.

13. Annex XVIII should be deleted or considerably reduced. Proposal for construction of load distribution plan is beyond practical use where minority of haulers have such information, because vehicle tare mass per axles is usually not available and each vehicle must be weighed before the construction of load distribution plan. To correctly follow this annex we should also include procedure for construction for containers and railway wagons which is also not for practical use. Annex shall explain how to work with diagrams not how to construct them.

II. Comments on the second draft of the CTU Code (Informal document EG GPC No. 18 (2012))

14. Chapter X - Annex 6 – Practical methods for the determination of the friction factor
Test condition for pulling tests – The test climate shall be defined as temperature range of 15°C to 30 °C and a relative humidity range of 50% to 85 %. If the test climate differs from this, it should be documented. (ref. VDI 2700 – Part 14 - 2011)
The pulling speed should be 100mm/ min ± 10%.

Justification seems to be not correct as requirements for pulling tests are also in Annex 6.