

Commission Decision of 28 July 2006 concerning the technical specification of interoperability relating to the subsystem ‘rolling stock — freight wagons’ of the trans-European conventional rail system (notified under document number C(2006) 3345) (Text with EEA relevance) (2006/861/EC) (repealed)

## ANNEX

Technical Specification for Interoperability relating  
to the subsystem Rolling Stock — Freight Wagons

## ANNEX YY

### STRUCTURES AND MECHANICAL PARTS

Strength requirements for certain types of wagon components

#### YY.5. HIGH-SIDED OPEN WAGONS

YY.5.1. Resistance of side-walls to transverse forces and of the edges of side and end rails to impacts

The following load cases apply, acting outwards in the horizontal direction at a level of 1,5 m above the floor:

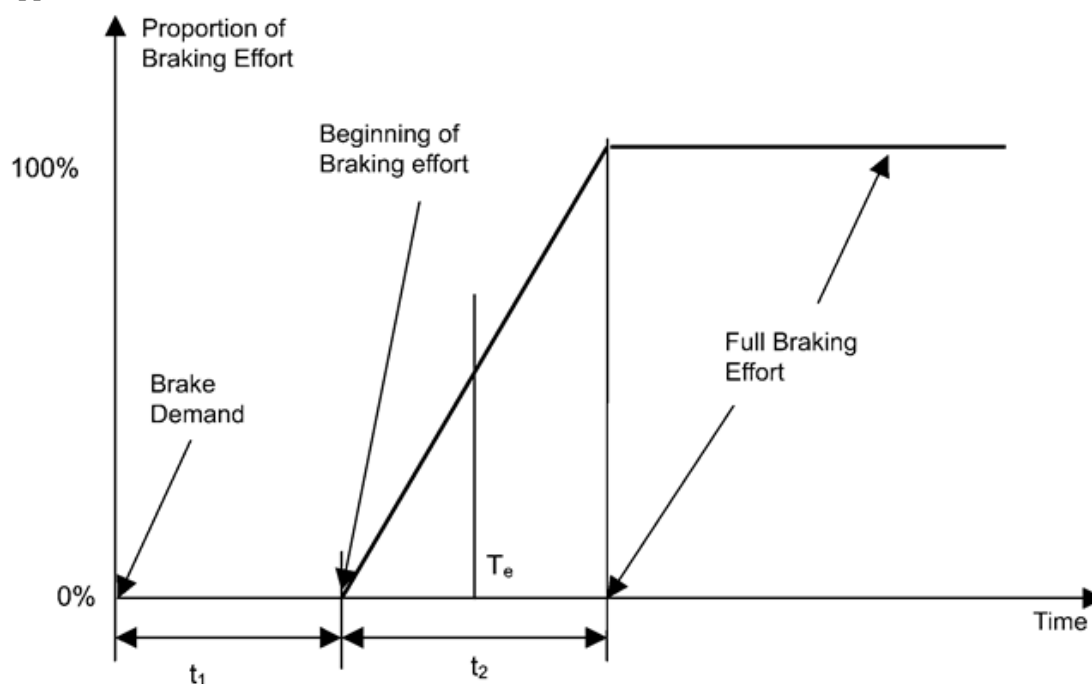
- a force of 100 kN applied at four centre posts of each side-wall, as indicated below;
- a force of 40 kN applied at the corner posts of wagons equipped with drop ends;
- 25 kN at the middle of the upper side-wall rails;
- 60 kN at the middle of the upper rail of the end swing doors, for wagons equipped with these.

*Note:* For the tests a) and b), the stipulated forces should be applied twice successively and only the deformations measured during the second load application should be taken into account.

The permanent deformation at the point where the force is applied should not exceed 1 mm. In addition, the elastic deformation should not result in any encroachment of the loading gauge.

#### Local deformation tests

Denting tests should be performed on the upper rails of the side-walls by applying a vertical force of 40 kN, as indicated below. The permanent deformation at the point where the force is applied should not exceed 2 mm.



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**Status:** This is the original version (as it was originally adopted).

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#### YY.5.2. Strength of the side doors

A horizontal force of 20 kN should be applied at a the height of the door locking bar or 1 m above the floor and on the centre-line of the opening. The permanent deformation must not exceed 1 mm on the door itself, and no deterioration or permanent deformation of the bridges or closing elements should result.