

**OTIF**



**ORGANISATION INTERGOUVERNEMENTALE POUR  
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN  
INTERNATIONALEN EISENBAHNVERKEHR**

**INTERGOVERNMENTAL ORGANISATION FOR INTER-  
NATIONAL CARRIAGE BY RAIL**

**OTIF/RID/CE/2008/23**

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Original: German

**RID:** 46<sup>th</sup> Session of the Committee of Experts on the Transport of Dangerous Goods  
(Hamburg, 21 - 23 October 2008)

**Subject:** Mechanical strength of tank-wagons in accordance with RID 6.8.2.1.2

**Comments from Germany on the UIP proposal OTIF/RID/CE/2008/16**

#### **SUMMARY**

**Summary:** Following the entry into force of Directive 2001/16/EC and the "TSI Freight Wagons" (with a reference to EN standard 12663:2000), these new regulations must be referred to in RID 6.8.2.1.2 in connection with mechanical strength in order to deal clearly with the question of responsibility and the standards to be applied.

**Decision to be taken:** Adoption of an amended proposal for the new version of RID 6.8.2.1.2.

**Reference documents:** Report of the 9<sup>th</sup> meeting of the working group on tank and vehicle technology, paragraphs 36 and 37, and the UIP proposal OTIF/RID/CE/2008/16.

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## Introduction

In principle, Germany agrees with UIP's proposal and is also of the view that the rules in RID 6.8.2.1.2 concerning responsibilities and the standards to be applied should be adapted to the new circumstances and be defined more clearly.

However, Germany considers that the UIP proposal must be amended in three places:

### 1. "Calculations and/or tests"

The wording "tests or calculations" in the second sentence of the proposal should be deleted. In order to demonstrate the strength of the wagon superstructure, the standard that applies, EN 12663:2000, requires "calculations **and**/or tests". As the newly proposed text from Germany for RID 6.8.2.1.2 on the "Technical Specifications for Interoperability, subsystem: rolling stock, freight wagons" ("TSI Freight Wagons") refers to EN standard 12663:2000, there is no need to specify in detail in RID how the strength is to be demonstrated. Referring to the standard makes it clear that in certain cases, tests may be dispensed with (e.g. when certified data exists on tests that have already been carried out on similar structures).

### 2. "at the points where it is attached"

Germany is of the opinion that account should be taken not only of the points where the tank is attached to the sub-frame, but also the whole intersection area between the sub-frame and the tank into which energy is transferred.

### 3. Delete the last sentence

The reference to the regulations to be applied has made the last sentence superfluous.

## Proposal

Germany proposes to replace RID 6.8.2.1.2 with one of the following alternatives:

### Alternative 1 (direct reference to EN standard 12663:2000)

**"6.8.2.1.2** Tank-wagons shall be constructed so as to be capable of withstanding, under the maximum permissible load, the stresses which occur during carriage by rail. This requirement shall be considered as satisfied if the testing body responsible for the vehicle has tested and certified that the tank is of sufficient strength in the area where energy is transferred between the sub-frame and the shell in accordance with the latest applicable version of EN standard 12663:2000."

### Alternative 2 (reference to Directive 2001/16/EC and "TSI Freight Wagons")

**"6.8.2.1.2** Tank-wagons shall be constructed so as to be capable of withstanding, under the maximum permissible load, the stresses which occur during carriage by rail. This requirement shall be considered as satisfied if, in the framework of the EC testing procedure in accordance with Directive 2001/16/EC (Interoperability of the trans-European conventional rail system), a notified body according to this Directive has tested and certified that the tank is of sufficient strength in the area where energy is transferred between the sub-frame and the shell on the basis of the Technical Specifications for Interoperability, sub-system: rolling stock, freight wagons ("TSI Freight Wagons")."

## **Notes on the two alternatives**

The two alternatives differ as follows:

The "TSI Freight Wagons" sets out the basic requirements concerning strength, vehicle structure and load security for freight wagons (tank-wagons). EN standard 12663:2000, which is referred to in the "TSI Freight Wagons" gives the stresses that wagon superstructures must be able to withstand, and sets out the principles to be used to secure the construction by means of calculations and tests.

In this respect, Germany would prefer the more comprehensive alternative 2. On the other hand, not every RID tank-wagon is tested in the framework of the EC test procedure in accordance with Directive 2001/16/EC, and there is a question of principle as to whether the "notified body" in accordance with Directive 2001/16/EC or the "TSI Freight Wagons" can be referred to at all, and if so, how this requirement can be met outside the EU. The RID Committee of Experts should examine these questions.

## **Justification**

The entry into force of the "TSI Freight Wagons" and the associated new responsibilities lead to problems of coordination between the new competent bodies and the competent bodies according to RID, which in extreme cases, can lead to duplicate testing and/or incomplete assessments.

It would therefore seem sensible that the testing and assessment of the stresses which occur on a tank-wagon during carriage by rail be transferred wholesale to one body. This could be the notified body in accordance with Directive 2001/16/EC.

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