Extra-large tank-containers: pressure resistance of closures

Transmitted by the Secretariat of OTIF* **

Summary

**Executive summary:** In the discussion on safety issues in connection with the carriage of extra-large tank-containers, the RID Committee of Experts’ standing working group and the working group on tank and vehicle technology noted that the requirements of 6.8.2.2.4 which only concern the construction of tank-wagons should also be included for RID/ADR extra-large tank-containers.

**Action to be taken:** Amend 6.8.2.2.4 and include a transitional measure in 1.6.4.61.

**Related documents:**
- ECE/TRANS/WP.15/AC.1/2020/6 (OTIF Secretariat)
- Informal document INF.45 (ITCO) from the Joint Meeting in September 2020
- ECE/TRANS/WP.15/AC.1/158/Add.1 (report of the September 2020 Joint Meeting’s working group on tanks)
- ECE/TRANS/WP.15/AC.1/2021/8 (Belgium)
- ECE/TRANS/WP.15/AC.1/162/Add.1 (report of the March 2021 Joint Meeting’s working group on tanks)
- OTIF/RID/CE/GTP/2021-A (report of the thirteenth session of the RID Committee of Experts’ standing working group)

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* A/76/6 (Sect.20), para. 20.76.
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**Introduction**

1. In September 2020, the Secretariat of OTIF submitted document ECE/TRANS/WP.15/AC.1/2020/6 to the Joint Meeting, in which it proposed to extend the requirement of 6.8.2.2.4, which requires a pressure resistance for closures of openings on tank-wagons of 0.4 MPa (4 bar), to extra-large tank-containers.

2. This provision was included in the past for tank-wagons to avoid leaks from the closures due to surge movements of the load.

3. The RID Committee of Experts' working group on tank and vehicle technology was informed that the extra-large tank-containers built so far already met this requirement. Furthermore, it was found that standard EN 14025 already prescribes this pressure value for all types of tanks.

4. The Joint Meeting's working group on tanks in September 2020 did not reach a consensus on the mandatory fitting of 4 bar manhole covers to all tank-containers. In particular, for tank-containers for the carriage of powdery substances with the letter "G" in the tank code, this requirement, which exists because of the liquid surge, was not considered to be justified. The RID Committee of Experts' standing working group was asked to reconsider the proposal, together with a possible transitional measure (see report of the working group on tanks ECE/TRANS/WP.15/AC.1/158/Add.1, paragraph 4). The Joint Meeting endorsed this recommendation (see report of the Joint Meeting ECE/TRANS/WP.15/AC.1/158, paragraph 10).

5. Following another discussion at the working group on tank and vehicle technology, Belgium submitted document ECE/TRANS/WP.15/AC.1/2021/8 to the Joint Meeting in March 2021, in which the required pressure resistance was limited to tank-containers with a capacity of more than 40,000 litres. This limit had been proposed by the International Tank Container Organisation (ITCO) in informal document INF.45 of the Joint Meeting in September 2020.

6. In March 2021 the Joint Meeting's working group on tanks supported the proposal in principle but decided to put the text in square brackets for the time being, pending a definition of extra-large tank-containers. The working group on tanks also agreed on a transitional measure, which was also placed in square brackets. This transitional measure was provided in the case of extra-large tank-containers that did not yet meet this requirement (see report of the Joint Meeting's working group on tanks ECE/TRANS/WP.15/AC.1/160/Add.1, paragraphs 3 to 6). The Joint Meeting adopted both proposals in square brackets (see Joint Meeting report ECE/TRANS/WP.15/AC.1/160, paragraph 7).

7. At its meeting in Geneva, from 15 to 18 November 2021, the RID Committee of Experts' standing working group supported the principle of including a definition of extra-large tank-containers, which specifies a capacity of more than 40,000 litres to distinguish them from ISO tank-containers. The representatives of the International Union of Wagon Keepers (UIP) and the European Chemical Industry Council (Cefic) were asked to submit a specific proposal for a definition to the Joint Meeting in March 2022 (see report OTIF/RID/CE/GTP/2021-A, paragraphs 24 to 26). This proposal is included in document ECE/TRANS/WP.15/AC.1/2022/7.

8. Based on the decision to include a definition of extra-large tank-containers, the standing working group adapted the proposed amendment to 6.8.2.2.4. In addition, it decided to use the term "substances in the liquid state" to align with 4.3.2.2.4 to also cover solid substances carried in the molten state. The Secretariat of OTIF was asked to submit this proposed text to the Joint Meeting in March 2022 (see report OTIF/RID/CE/GTP/2021-A, paragraph 27).
Proposal

9. It is proposed to amend RID/ADR 6.8.2.2.4 as follows:

6.8.2.2.4 After the first sentence in the right-hand column, insert:

“These openings for extra-large tank-containers intended for the carriage of substances in the liquid state which are not divided by partitions or surge plates into sections of not more than 7,500 litres capacity shall be provided with closures designed for a test pressure of at least 0.4 MPa (4 bar). Hinged dome covers for these tank-containers with a test pressure of more than 0.6 MPa (6 bar) shall not be permitted.”

10. It is also proposed that the following transitional measure, which was already adopted by the Joint Meeting in March 2021, be included in square brackets:

"1.6.4.61 Tank-containers constructed before 1 July 2023 in accordance with the requirements in force up to 31 December 2022, but which do not conform to the requirements of 6.8.2.2.4, second paragraph, applicable from 1 January 2023, may still be used."