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Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

109th session Geneva, 3–7 May 2021 Item 5 (a) of the provisional agenda Proposals for amendments to annexes A and B of ADR: Construction and approval of vehicles

Section 9.7.6 – Rear protection of vehicles

Executive summary:	The proposal aims to clarify the requirements of 9.7.6 in
	respect of the distance of at least 100 mm between the rear
	wall of the tank and the rear of the bumper, as well as of
	tilting shells, to avoid problems of interpretation.
Action to be taken:	Amend 9.7.6 of ADR.
Related documents:	ECE/TRANS/WP.15/2020/5
	ECE/TRANS/WP.15/251, paras. 23–24

Transmitted by the Government of France*

Introduction

1. A discussion on the requirements of 9.7.6 of ADR took place at the November 2020 session of WP.15 on the basis of documents ECE/TRANS/WP.15/2020/5 from France and INF.16 from the United Kingdom. Views were divided as to how to measure the prescribed distance of at least 100 mm, and it was agreed to continue to reflect on this issue.

2. Some delegations provided information on how these provisions were interpreted in their countries, confirming the disparities expressed.

3. It is therefore essential to improve the wording of these requirements in order to guarantee the required level of safety.

4. The requirements of 9.7.6 are generally fulfilled by positioning the vehicle's rear underrun protection device according to UN Regulation No. 58 so as to maintain a clearance of 100 mm.



^{*} A/75/6 (Sect.20), para. 20.51.

5. This device is thus positioned in such a way that there is clearance of at least 100 mm between the rear wall of the tank (or its projecting fittings in contact with the substance being carried) and the rear face of the underrun protection device, i.e. the face of the protection device facing the rear wall of the tank.

6. The aim of this safety requirement is rear protection of the tank, particularly in the event of an impact, and we believe it is essential that the distance of 100 mm be respected. We therefore propose that the wording of the second sentence of 9.7.6 be amended as specified in proposal 1 below.

7. Furthermore, the third sentence of 9.7.6 deals with the case of vehicles with tilting shells. It seems to us necessary to clarify the meaning of this alternative provision, which could possibly be extended to tank-vehicles that do not have a clearance of at least 100 mm.

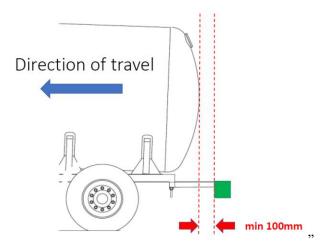
8. In addition, by analogy with the protection of fittings and accessories mounted laterally according to special provision TE19, a requirement in respect of the resistance of this additional protection would facilitate its application. We therefore propose that the wording of the third sentence of 9.7.6 be amended as specified in proposal 2 below.

9. Furthermore, in view of the differences in interpretation of these requirements, it appears necessary to provide for a transitional measure that allows for existing tank-vehicles that do not comply with them to continue to be used.

Proposal 1

10. Amend the first two sentences of 9.7.6 to read as follows:

"A bumper sufficiently resistant to rear impact shall be fitted over the full width of the tank at the rear of the tank-vehicle. There shall be a clearance of at least 100 mm between the rear of the tank (or of its projecting fittings in contact with the substance being carried) and the face of the bumper facing the rear wall of the tank. This clearance shall be measured as specified in the figure below:



Proposal 2

11. Amend the third sentence of 9.7.6 to read as follows:

"Vehicles with a tilting shell with rear discharge for which the clearance of 100 mm cannot be respected shall be provided with a means of protection which protects the shell and the rear fittings in the same manner as a bumper. This additional protection shall have a section modulus of at least 20 cm³ and have a minimum clearance of 100 mm measured as above between the rear of the tank (or of its projecting fittings in contact with the substance being carried) and the face of this protection facing the rear wall of the tank."

Proposal 3

12. Add a new transitional measure to 1.6.5, as follows:

"1.6.5.23 Tank-vehicles registered (or entering into service if registration is not mandatory) before 1 July 2023 that do not comply with the requirements of 9.7.6 applicable as from 1 January 2023 may still be used."

Justification

13. These amendments facilitate the application of these requirements by ensuring a common interpretation of the 100 mm clearance required between the rear wall of the tank and the rear bumper. In view of this clarification and the differences in interpretation encountered, a transitional measure is proposed to allow existing vehicles to continue to be used.