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World Forum for Harmonization of Vehicle Regulations

181st session
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Item 4.6.5 of the provisional agenda
1958 Agreement:
Consideration of draft amendments to existing
UN Regulations submitted by GRSP

Proposal Supplement 2 to the 03 series of amendments to UN Regulation No. 94 (Frontal collision)

Submitted by the Working Party on Passive Safety *

The text reproduced below was adopted by the Working Party on Passive Safety (GRSP) at its sixty-sixth session (ECE/TRANS/WP.29/GRSP/66, para. 31). It is based on ECE/TRANS/WP.29/GRSP/2019/29, as amended by Annex VI to the report. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration at their June 2020 sessions.

^{*} In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.





Paragraph 1, amend to read:

"1. Scope

This Regulation applies to vehicles of category M_1^1 of a total permissible mass not exceeding 3,500 kg and to vehicles of category N_1 of a total permissible mass not exceeding 2,500 kg; other vehicles may be approved at the request of the manufacturer."

Insert new paragraphs 2.36. and 2.37., to read:

- "2.36. "*Displacement system*" means a device by which the seat or one of its parts can be displaced and/or rotated, without a fixed intermediate position, to permit easy access of occupants to and from the space behind the seat concerned.
- 2.37. "*Ladder frame*" means a chassis composed of two longitudinal rails transversally connected by crossbeams and where the cabin, made of panels, is connected to such rails."

Paragraph 5.2.5.1., amend to read:

"5.2.5.1. To open at least one door per row of seats. Where there is no such door, it shall be possible to allow the evacuation of all the occupants by activating the displacement system of seats, if necessary. This is not applicable to convertibles where the top can be easily opened to allow the evacuation of the occupants.

This shall be assessed for all configurations or worst-case configuration for the number of doors on each side of the vehicle and for both left-hand drive and right-hand drive vehicles, when applicable."

Insert new paragraphs 5.3. to 5.3.2., to read:

- "5.3. Specific provisions
- 5.3.1. Vehicles of category M_1 of a total permissible mass exceeding 2,500 kg that are based on vehicle types of category N_1 of a total permissible mass exceeding 2,500 kg are deemed to meet the requirements of paragraph 5. where the requirements of UN Regulation No. 137 are fully complied with and at least one of the following conditions is met:
 - (a) The acute angle alpha (α), measured between a horizontal plane passing through the centre of the front axle and an angular transverse plane passing through the centre of the front axle and the R-point of the driver's seat (see Figure 4 below), is more than 22°;
 - (b) Or the ratio between the distance from the driver's R-point to the centre of the rear axle (L101-L114) and the centre of the front axle and the driver's R-point (L114) is more than 1.30 (see Figure 4 below).

This shall be verified by the Technical Service and subject to the decision of the Type Approval Authority, as well as stated under point 8.2. on the approval communication of Annex 1.

- 5.3.2. Vehicles of category N₁ of a total permissible mass exceeding 2,250 kg but not exceeding 2,500 kg are deemed to meet the requirements of paragraph 5, where their structural basis is a ladder frame and the requirements of UN Regulation No. 137 are fully complied with and at least one of the following conditions is met:
 - (a) The acute angle alpha (α), measured between a horizontal plane passing through the centre of the front axle and an angular transverse plane

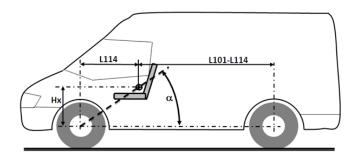
¹ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2. – www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

passing through the centre of the front axle and the R-point of the driver's seat (see Figure 4 below), is more than 22° ;

(b) Or the ratio between the distance from the driver's R-point to the centre of the rear axle (L101-L114) and the centre of the front axle and the driver's R-point (L114) is more than 1.30 (see Figure 4 below).

This shall be verified by the Technical Service and subject to the decision of the Type Approval Authority, as well as stated under point 8.2. on the approval communication of Annex 1.

Figure 4



Annex 1, item 8, amend to read:

- "8. Mass of the Vehicle
- 8.1. Mass of vehicle submitted for testing:

Front axle: Rear axle: Total:....

8.2. Where paragraph 5.3.1. or 5.3.2. applies:

Total permissible mass.....

Proof of compliance with UN Regulation 137 (i.e. type approval number or test report): " $% \mathcal{T}_{\mathrm{rep}}^{(1)}$