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Item 24 of the provisional agenda

UN Regulation No. 137 (Frontal impact with focus on restraint systems)

Proposal for Supplement 3 to the 01 series of amendments to UN Regulation No. 137 (Frontal impact with focus on restraint systems)

**Submitted by the expert from the European Commission on behalf of
the drafting task force***

The text reproduced below was prepared by the experts of the drafting task force:

- to align UN Regulations with the provisions of the revised General Safety Regulation of the European Union, thus, expand the scope of the UN Regulation No. 137,
- to provide appropriate transitional provisions, and
- to make minor adaptations and clarifications to the existing requirements.

It is based on GRSP-65-12 that was distributed during the sixty-fifth session of the Working Party on Passive Safety (GRSP). The modifications to the current text of the UN Regulations are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, Cluster 3.1), the World Forum will develop, harmonize and update UN regulations to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



I. Proposal

Paragraph 1., amend to read:

"1. Scope

This Regulation applies to vehicles of category M₁¹ with a maximum permissible mass ~~below 3.5 tonnes~~ **not exceeding 3,500 kg and to vehicles of category N₁**; ~~other vehicles may be approved at the request of the manufacturer."~~

Insert new paragraph 2.32., to read:

"2.32. **"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."**

Paragraph 5.2.1.2.3., amend to read:

"5.2.1.2.3. The thorax compression criterion (ThCC) shall not exceed 34 mm² **in the case of vehicles of category M₁ and 42 mm in the case of vehicles of category N₁**."

Paragraph 5.2.5.1., amend to read:

"5.2.5.1. To open at least one door ~~if there is one, per row of seats, and W~~ where there is no such door, ~~to move the seats or tilt their backrests as necessary~~ **it shall be possible to allow the evacuation of all the occupants by activating the displacement system of seats, if necessary. This is however, only applicable to vehicles having a roof of rigid construction. 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."

II. Justification

1. The European Union in 2019 is adopting the revised General Safety Regulation which introduce a range of new safety features. However, it also addresses a number of exemptions of essential vehicle safety requirements for, e.g. light commercial vehicles such as vans.

2. These exemptions can no longer be justified in the light of protection of workers that use light commercial vehicles.

3. In wide vehicles it may be not necessary for the front seats to have a displacement system (in accordance with UN Regulation No. 17), as occupants can move forward between the seats. This should also apply in this UN Regulation to allow for the evacuation of rear-seated occupants through a front door in case of a crash. The amended text "by activating the displacement system of seats, if necessary" reflects this option.

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

² This threshold limit is derived from the injury criteria of a 65-year old fifth percentile female. This criterion should be limited to the front outboard passenger position under the load case and the test condition of this Regulation. Its usage should only be extended following further consideration and review.

4. To avoid diverging interpretations by Technical Services and Type-Approval Authorities, a worst-case configuration had been identified so that the side doors must be assessed, and prevent that certain configurations would somehow not be checked.
