Proposal for supplement 3 to the 03 series of amendments of UN Regulation No. 58 (Rear Underrun Protective Devices)

Submitted by the Working Party on General Safety Provisions *

The text reproduced below was adopted by the Working Party on General Safety Provisions at its 121st session, held in April 2021 (ECE/TRANS/WP.29/GRSG/100, para. 60). It is based on ECE/TRANS/WP.29/GRSG/2021/15. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Administrative Committee of the 1958 Agreement (AC.1) for consideration and vote at their November 2021 sessions.

* In accordance with the programme of work of the Inland Transport Committee for 2021 as outlined in proposed programme budget for 2021 (A/75/6 (part V sect. 20) para 20.51), 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 16.4., amend to read:

"16.4. For vehicles of categories M, N₁, N₂ with a maximum mass not exceeding 8 t, O₁ and O₂, the device shall be so fitted that the horizontal distance between the rear of the cross-member of the device and the most rearward point at the rear extremity of the vehicle, including any platform lift system or access ramp(s), does not exceed 400 mm diminished by the largest total deformation including both plastic and elastic deformation (paragraph 7.3. of Part I) measured and recorded during the test at any of the points where the test forces are applied (Annex 1, item 8) during the type approval of the rear underrun protective device in conformity with the provisions of Part I of this Regulation and recorded in the type approval communication form. In measuring this distance, any part of the vehicle which is more than 2 m above the ground for every loading condition of the vehicle shall be excluded.

For vehicles of categories N₂ with a maximum mass exceeding 8 t, N₃, and vehicles of categories O₃ and O₄, equipped with a platform lift or access ramp(s) or being designed as a tipping trailer, the same requirement as above applies; however, for vehicles of these categories, the horizontal distance shall not exceed 300 mm measured to the rear of the cross-member before the test forces are applied.

For vehicles of categories O₃ and O₄, without any platform lift system or access ramp(s) and not being designed as a tipping-trailer, the maximum horizontal distances are reduced to 200 mm before the test forces have been applied and 300 mm diminished by the largest total deformation including both plastic and elastic deformation (paragraph 7.3. of Part I) measured and recorded during the test at any of the points where the test forces are applied (Annex 1, item 8).

In any case non-structural protrusions such as tail lamps and those of less than 50 mm of size in any direction, such as rubber bumpers, resilient buffers, hinges and latches shall be excluded from the determination of the most rearward point at the rear extremity.

In any case aerodynamic devices that comply with the provisions in annex 8 shall be excluded from the determination of the most rearward point at the rear extremity.

Before the application of the test forces, the maximum allowed horizontal distance of a single, a segmented or an inclined cross-member of a RUPD is 100 mm between the rear of the cross-member measured at the most forward point and the rear of the cross-member measured at the most rearward point, measured in the longitudinal plane of the vehicle."

Paragraph 25.3., amend to read:

"25.3. For vehicles of categories M, N₁, N₂ with a maximum mass not exceeding 8 t, O₁ and O₂, the RUPD shall be situated as close to the rear of the vehicle as possible. The maximum horizontal distance between the rear of the device and the most rearward point at the rear extremity of the vehicle, including any platform lift system or access ramp(s), does not exceed 400 mm measured to the rear of the cross-member and recorded during the test when the test forces are applied.

For vehicles of categories N₂ with a maximum mass exceeding 8 t, N₃, and vehicles of categories O₃ and O₄, equipped with a platform lift or access ramp(s) or being designed as a tipping trailer, the same requirement as above applies; however, for vehicles of these categories, the horizontal distance shall not exceed 300 mm measured to the rear of the cross-member before the test forces are applied.

For RUP for vehicles of categories O₃ and O₄, without any platform lift system or access ramp(s) and not being designed as a tipping-trailer, the maximum
horizontal distance is reduced to 200 mm before and 300 mm during the test when the test forces are applied.

In any case non-structural protrusions such as tail lamps and those of less than 50 mm of size in any direction, such as rubber bumpers, resilient buffers, hinges and latches shall be excluded from the determination of the most rearward point at the rear extremity.

In any case aerodynamic devices that comply with the provisions in Annex 8 shall be excluded from the determination of the most rearward point at the rear extremity.

Before the application of the test forces the maximum allowed horizontal distance of a single, a segmented or an inclined cross-member of a RUPD is 100 mm between the rear of the cross-member measured at the most forward point and the rear of the cross-member measured at the most rearward point, measured in the longitudinal plane of the vehicle.”