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**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations****Working Party on General Safety Provisions****118th session**

Geneva, 30 March-3 April 2020

Item 9 of the provisional agenda

**UN Regulation No. 93 (Front Underrun Protection)****Proposal for the 01 series of amendments to UN Regulation  
No. 93 (Front Underrun Protection (FUP))****Submitted by the expert from the European Commission\***

The text reproduced below was prepared by the expert from the European Commission to update the provisions on Frontal Underrun Protection (FUP) approved as integrated part of the motor vehicle. The amendment is proposed, in particular, to extend to more vehicle models the safety and aerodynamic benefits from the recent evolution of cab (flexibility and rounded shape). The modifications to the current text of the UN Regulations to the document ECE/TRANS/WP.29/GRSG/2019/19, as amended GRSG-117-48, are marked **in bold**.

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\* 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.



## **Proposal for the 01 series of amendments to UN Regulation No. 93 (Front Underrun Protection (FUP))**

### **I. Proposal**

*Paragraph 1.3., amend to read:*

**"1.3. Vehicles where any FUP (e.g. fixed, removable, foldable, adjustable, etc.) is incompatible with their on-road use may be partly or fully exempted from this Regulation, subject to the decision of the Type Approval Authority"**

*Paragraphs 1.3.1. and 1.3.2. shall be deleted*

*Paragraph 10.5., amend to read:*

**"10.5. The FUP shall have sufficient strength so that the horizontal distance measured in the rearward direction between the foremost part of the vehicle, as measured in the vertical plane which is parallel to the median longitudinal plane of the vehicle and which is corresponding with the geometric centre of the test ram contact surface in its initial position, ~~after the application of the test forces (specified in this annex)~~ and the test ram contact surface on the vehicle after the application of the relevant test forces (as specified in Annex 5), does not exceed 400 mm."**

*Insert new paragraphs 11. to 11.6., to read:*

### **"11. Transitional provisions**

**11.1. As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 01 series of amendments.**

**11.2. As from 7 January 2026, Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the original series, first issued after 7 January 2026.**

**11.3. Until 7 January 2029, Contracting Parties applying this Regulation shall accept type approvals to the original series of amendments, first issued before 7 January 2026.**

**11.4. Notwithstanding paragraph 11.3., Contracting Parties applying this Regulation shall continue to accept type approvals of the FUPDs issued according to the original series of amendments to this Regulation.**

**11.5. Notwithstanding paragraph 11.3., Contracting Parties applying this Regulation shall continue to accept type approvals issued according to the original series of amendments to this Regulation, for the vehicles which are not affected by the changes introduced by the 01 series of amendments.**

**11.6. Contracting Parties applying this Regulation shall not refuse to grant type approvals according to the original series of this Regulation or extensions thereof,"**

*Annex 5, add a new paragraph 2.2.6., to read:*

**"2.2.6. In order to avoid lateral loading on the test ram during the test, the FUP may be locally adapted to provide for an appropriately flat area for force application. Any such modification shall however not act as a reinforcement of the FUP structure itself."**

## II. Justification

1. It is expected that truck cabs will become more aerodynamic to improve fuel efficiency and CO2 emissions. This may lead to more rounded cabs and more unique truck cab shapes. Hence, the proposal is to update Part III where the FUP is integrated in the motor vehicle.
  2. In order to reduce the possibility of inappropriate exemptions, it is proposed to align the basis for exemptions to that as agreed for UN Regulation No. 73.
  3. The exemption from front cab for off-road vehicles is already possible via the RE3 requirement for 4 out of 6 specifications to validate (including item on front underrun cab).
  4. Possibility to link the transitional provisions to Direct Vision (January 2026 for new types and January 2029 for existing models); because Direct Vision will require a complete redesign of cabs. Opportunity to redesign the front underrun at the same time.
  5. To ensure a broader integration of the changes proposed in this document, it is more suitable to keep the changes to the exemptions in the document.
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