

UN-ECE R93-00

OICA comments to proposal from EC
per document

ECE/TRANS/WP.29/GRSG/2019/19



R93 Amendment Proposal

The EC proposal consists of 3 modifications:

- (1) Elongated cab introduction
- (2) Accommodation to test set-up
- (3) Scope modification & provisional transition

(1) Elongated cab introduction

➤ Proposal

- The amendment aims at allowing more rounded shape of the cab in view of better aerodynamic performance.
- Transitional provisions: Q3-2020.

➤ Feedback

- **Proposal fully supported by OICA**
- For clarity of the regulation OICA support updating the figures 1 and 2 accordingly.

(2) Accommodation to test set-up

- Proposal
 - Insert new paragraph 2.2.6 to Annex 5, allowing slight adaptations of the FUP at the time of type approval to accommodate the test ram.

- Feedback
 - Proposal supported by OICA
 - This proposal is seen as an endorsement of current practice



(3) Scope modification

Background

➤ Actual

1.3. The requirements of this Regulation do not apply to:

1.3.1. off-road vehicles of categories N₂G and N₃G 1/

1.3.2. vehicles such that their use is incompatible with the provisions of front underrun protection.

➤ Proposed

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

➤ Presented justification

“5. 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.”



Scope modification

Impact on UN R93

- The Proposal is a radical **change of scope** of the regulation rather than a simple clarification:
 - Deletion of the exemptions for “G” category
 - Extension of the “incompatibility” criterion to the full range of categories
- **No off-road vehicle** is currently designed to be equipped with a FUP. The installation of a FUP would lead to a tremendous re-design of vehicle front, having impact on other regulations (e.g. UN R61).
- Foldable and adjustable FUP for off-road vehicles simply **do not exist currently on the market**. The logics of UN R73 cannot apply to UN R93.
- The proposed new text opens room for potentially different interpretations from Type Approval Authorities on the exemptions. This leads to **non-harmonization**.



Scope modification

Impact on UN R93 (cont'd)

- Removable FUP would anyway **not** be **applicable in the real world**:
 - Handling time would severely affect the productive working time
 - Existing removable FUP are usually not used again after having been removed since they are affected by the handling itself
- The logics of UN R73 or UN R58 cannot apply to UN R93.
 - UN R73 (Lateral Underrun Protection) does **not refer to off-road** vehicle - “G” category
 - UN R58 (Rear Underrun Protection) **addresses the rear** of the vehicle:
 - Backed by accidentology
 - Technically feasible

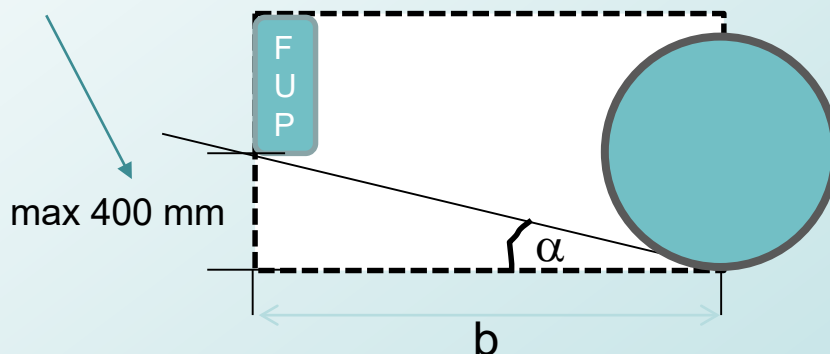


Scope modification

Impact on Off Road Vehicles

- Off-road vehicles are defined by functional criteria per R.E.3 section 2.8. Category N2G and N3G were fully exempted from UN R93 because these criteria do interact per se with the FUP.
- The proposed text is **inconsistent** with the off-road definition of R.E.3: approach or ramp angle cannot be met.
- Installation of a FUP would limit the front overhang to 857 mm to satisfy the definition of off-road vehicle.

Required by UN R93



$$\text{R.E.3: } \alpha = 25^\circ$$

$$b = 400 \text{ mm} / \tan(25^\circ) \sim \mathbf{858 \text{ mm}}$$



Scope modification

Conclusion

➤ Adopt provisions for elongated cabs

(paragraph 10.5)

➤ Accept accommodation of test set-up

(paragraph 2.2.6. of Annex 5)

➤ Keep paragraph 1.3.1. unchanged

“The requirements of this Regulation do not apply to vehicles of categories N₂G and N₃G”