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Other business

Proposal for Supplement 1 to the 03 series of amendments to UN Regulation No. 58 (Rear underrun protective devices (RUPDs))

Submitted by the expert from Finland*

The text reproduced below was prepared by the expert from Finland proposing an amendment to UN Regulation No. 58 to clarify some requirements. The modifications to the current text of UN Regulation No. 58 are marked in bold for new characters and as strikethrough for deleted ones.

* 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.

GE.19-00565(E)



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I. Proposal

Paragraph 2.4., amend to read:

"2.4. Any vehicle of category G will be deemed to satisfy the condition for the ground clearance set out ~~above~~ **in this Regulation**, if the departure angle (ISO 612:1978) does not exceed:

- (a) 10° for vehicles of categories M₁G and N₁G;
- (b) 20° for vehicles of categories M₂G and N₂G; and
- (c) 25° for vehicles of categories M₃G and N₃G;

over a width which is not shorter than that of the rear axle by more than 100 mm on either side (excluding any bulging of the tyres close to the ground).

Where there is more than one rear axle, the width to be considered is that of the widest. The requirements of subparagraphs (a) to (c) of this paragraph shall be satisfied at least on a line:

- (a) At a distance of not more than 450 mm from the rear extremity of the vehicle;
- (b) That may have interruptions summing up in not more than 200 mm."

PART II. Approval of a vehicle with regard to the installation of an RUPD of an approved type

Paragraph 16.1., amend to read:

"16.1. For vehicles of the categories N₂ with a maximum mass exceeding 8 t, N₃, O₃ and O₄, the ground clearance with respect to the underside of the protective device, even when the vehicle is unladen, shall not exceed:

- (a) 450 mm for motor vehicles and trailers with hydropneumatic, hydraulic or pneumatic suspension or a device for automatic levelling according to load. In any case, a departure angle up to 8° according to ISO 612:1978 with a maximum ground clearance of 550 mm shall be deemed to satisfy the requirements.
- (b) 500 mm ~~or a departure angle according to ISO 612:1978 of 8°, whichever is less~~, for vehicles other than those in (a) above. In any case, a departure angle up to 8° according to ISO 612:1978 with a maximum ground clearance of 550 mm shall be deemed to satisfy the requirements.

This requirement applies over the entire width of the motor vehicle or trailer and shall be such that the height above the ground of the points of application of the test forces applied to the device according to Part I of this Regulation and recorded in the type approval communication form (Annex 1, item 7) does not exceed the values in the paragraphs (a) and (b) above, increased by half the minimum section height required for the cross member of the RUPD.

The height requirement for the application of the test forces shall be adjusted to the adjusted ground clearance due to the provisions for the departure angle specified above."

PART III. Approval of a vehicle with regard to its rear underrun protection (RUP)

Paragraph 25.1., amend to read:

"25.1. For vehicles of the categories N₂ with a maximum mass exceeding 8 t, N₃, O₃ and O₄, the ground clearance with respect to the underside of the RUP, even when the vehicle is unladen, shall not exceed:

(a) 450 mm for motor vehicles and trailers with hydropneumatic, hydraulic or pneumatic suspension or a device for automatic levelling according to load. In any case a departure angle up to 8° according to ISO 612:1978 with a maximum ground clearance of 550 mm shall be deemed to satisfy the requirements.

(b) 500 mm ~~or a departure angle according to ISO 612:1978 of 8°, whichever is less~~, for vehicles other than those in (a) above. In any case a departure angle up to 8° according to ISO 612:1978 with a maximum ground clearance of 550 mm shall be deemed to satisfy the requirements.

This requirement applies over the entire width of the motor vehicle or trailer and shall be such that the height above the ground of the points of application of the test forces applied to the device according to Part I of this Regulation and recorded in the type approval communication form (Annex 1, item 7) does not exceed the values in subparagraphs (a) and (b) above, increased by half the minimum section height required for the cross member of the RUPD.

The height requirement for the application of the test forces shall be adjusted to the adjusted ground clearance due to the provisions for the departure angle specified above."

Annex 7, table, amend to read:

"

Vehicle category or type of vehicle	Geometry referred to in paragraph			Test force referred to in paragraph(s):
	Section height	Ground clearance before the test	Horizontal distance between the rear of the RUPD and the rear of the vehicle	
M, MG, N ₁ , N ₁ G, N ₂ with a MaxM* < 8 t, N ₂ G with a MaxM* < 8 t, O ₁ , O ₂ -G	2.3./ 2.4./ 7.1./25.5.	2.3./2.4./ 16.2./25.2.	2.3./ 2.4./ 16.4./25.3.	2.3./ 2.4./ A5/3.1.1. to 3.1.2.
N ₂ with a MaxM* > 8 t, N ₂ G with a MaxM* > 8 t, N ₃ , N ₃ G	7.1. or 25.5.	2.4/ 16.1. or 25.1.	16.4. or 25.3.	A5/3.1.1. to 3.1.2.
O ₃ , O ₄	7.1. or 25.5.	16.1./16.2. or 25.1./25.2.	16.4. or 25.3.	A5/3.1.1. to 3.1.2.
Specific vehicles (see Annex 6)	7.1. or 25.5.	16.1./16.2. or 25.1./25.2.	16.4. or 25.3.	A5/3.1.3.

* MaxM means maximum mass.

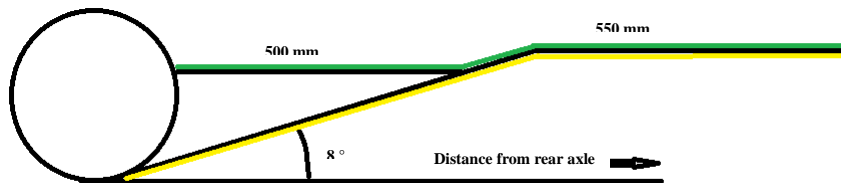
Note: A reference such as A5/3.1.1. in the table indicates the annex (Annex 5) and paragraph (3.1.1.) of that annex, where the relevant vehicle or requirement is described and

specified. A reference such as 2.3. in the table indicates paragraph (2.3.) of this Regulation, where the relevant requirement is specified."

II. Justification

1. Paragraph 2.4. regulates when vehicles of category G (off-road vehicles) will be deemed to satisfy the condition for the ground clearance. The reference "set out above" is replaced with more general reference "in this Regulation". In addition, the table of Annex 7 (Requirements for different vehicle categories) is amended to clarify which requirements in this Regulation apply for vehicles of categories M₁G, N₁G, M₂G, N₂G, M₃G and N₃G. The reference to paragraph 2.4. is marked only in the relevant column "Ground clearance before the test" in the table.

2. Paragraph 16.1. concerns the installation of RUPD. The current wording leads to the situation marked with yellow in the drawing below. A RUPD should be placed just behind the rear wheel and vertically near the ground level. The interpretation of Finland is that the position originally meant is marked with green in the drawing below. Thus the strikethrough text needs to be removed from paragraph 16.1.



3. Paragraph 25.1. concerns the approval of the rear under run protection of a vehicle. Thus, the same change as in paragraph 16.1. is also needed in paragraph 25.1.