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Item 5(g) of the provisional agenda

Collective amendments- Regulation Nos. 48 and 112

Proposal for collective amendments to Regulations Nos. 48 and 112

Submitted by the expert from Germany*

The text reproduced below was prepared by the expert from Germany with the support of the expert from The Netherlands, to introduce requirements to avoid intentional non approved (voltage) variation of the principal passing beam, using halogen light sources and to harmonize this with operating voltage requirements in UN Regulation 48. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

I. Proposal

A. Proposal for Supplement 3 to the 06 series of amendments to Regulation No. 48

Paragraph 5.9.2., amend to read:

"5.9.2. The photometric characteristics of any lamp, **except from those producing the principal passing beam**, may vary:

(a) in relation ..

...."

Insert a new paragraph 5.27.4., to read:

"5.27.4. **In the particular case where devices equipped with a filament light source produce the principal passing beam in conjunction with an electronic light source control gear, which is stabilizing the voltage, the effective voltage (root-mean-square, r.m.s.), determined over a sufficient long time to measure the correct value at the terminals of the filament light source when the electrical system of the vehicle is in a constant voltage operating condition according to paragraph 5.27., shall be not less than 6.0 V (6 Volt-Systems), 12.0 V (12 Volt-Systems) or 24.0 V (24 Volt-Systems).**

The manufacturer shall demonstrate, by measurements for the approval test of the corresponding device, that the required photometric performance according to the relevant Regulation under stabilized conditions is met."

Paragraph 5.27.4.(former), renumber as paragraph 5.27.5.

B. Proposal for Supplement 5 to the 01 series of amendments to Regulation No. 112 (Headlamps emitting an asymmetrical passing beam)

Paragraph 5.3.1.3., amend to read:

"5.3.1.3. A means ..., such means of voltage control shall ~~not~~ be considered to be part of the headlamp ~~and shall be disconnected during the testing to verify performancee according to the requirements of this Regulation.~~ "

Insert a new paragraph 5.3.1.4., to read:

"5.3.1.4. **In the case that the stabilized conditions of the voltage are different from the conditions for testing as specified in paragraph 6.1 to this Regulation, additional measurements for the principal passing beam shall be carried out under these different conditions, to verify that the minimum and maximum requirements in the paragraphs 5.9. and 6 .2. to this Regulation are met."**

II. Justification

1. During the sixty-seventh session of GRE, ECE/TRANS/WP.29/GRE/2012/12 proposed by the expert from GTB was adopted. The expert from International Electrotechnical Commission (IEC) introduced the informal documents GRE-67-17 and GRE-67-30, raising some concerns to the proposal. GRE noted that the experts from Germany and the Netherlands raised their objection to the possibility for a general voltage variation of filament lamps.
 2. Unnecessary reduction of the lifetime of halogen filaments light sources is potentially detrimental to traffic safety, especially when there is no mandatory tell-tale showing the malfunction of a lamp.
 3. This is the reason why the German expert, with the support of the expert from The Netherlands, proposes to introduce requirements to avoid intentional (voltage) variation of the principal passing beam, using halogen light sources.
 4. Paragraph 5.9. of UN Regulation No. 48 is clarified.
 5. A lower voltage limit is proposed in (new) paragraph 5.27.4. of the 06 series of amendments to UN Regulation No. 48. The verification of the compliance with the beam requirements under deviating conditions is proposed in a new paragraph 5.3.1.4. of UN Regulation No. 112.
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