



Economic and Social Council

Distr.: General
21 January 2016

Original: English

Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Lighting and Light-Signalling

Seventy-fifth session

Geneva, 5–8 April 2016

Items 6 (a) and 7 (l) of the provisional agenda

Regulation No. 48 (Installation of lighting and light-signalling devices):

Proposals for amendments to the 05 and 06 series of amendments

Other Regulations: Regulation No. 87 (Daytime running lamps)

Proposal for collective amendments to Regulation No. 48 (Installation of lighting and light-signalling devices) and Regulation No. 87 (Daytime running lamps)

Submitted by the expert from Germany*

The text reproduced below was prepared by the expert from Germany in cooperation with the experts from the International Automotive Lighting and Light Signalling Expert Group (GTB), taking into account the discussions on Informal document GRE-73-14 at the seventy-fourth session of GRE (ECE/TRANS/WP.29/GRE/74, para. 16). The modifications to the existing text of the Regulations are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2014–2018 (ECE/TRANS/240, para. 105 and ECE/TRANS/2014/26, 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. Regulation No. 48

Paragraph 6.19.7.5., amend to read:

- "6.19.7.5. If the distance between the **edge of the apparent surface in the direction of the reference axis of the front direction-indicator lamp of categories 1, 1a or 1b and that of the apparent surface in the direction of the reference axis of the daytime running lamp installed on the same side of the vehicle** is equal or less than 40 mm, the electrical connections of the daytime running lamp on the relevant side of the vehicle **shall** be such that either:
- (a) It is switched OFF **during the entire period (both ON and OFF cycle) of activation of the front direction-indicator lamp;** or
 - (b) Its luminous intensity is reduced during the entire period (both ON and OFF cycle) of activation of **the front direction-indicator lamp, to attain not more than 140 cd in any direction the lamp is visible. The conformity to this requirement shall be verified at the time of the daytime running lamp type approval and indicated in the related communication form."**

Paragraph 6.19.7.6., amend to read:

- "6.19.7.6. If a **front** direction-indicator lamp is reciprocally incorporated with a daytime running lamp:
- 6.19.7.6.1. having totally common apparent surfaces,** the electrical connections of the daytime running lamp on the relevant side of the vehicle shall be such that the daytime running lamp is switched OFF during the entire period (both ON and OFF cycle) of activation of the **front** direction-indicator lamp.
 - 6.19.7.6.2. having partially common apparent surfaces, the electrical connections of the daytime running lamp on the relevant side of the vehicle shall be such that either:**
 - (a) **the whole daytime running lamp is switched OFF during the entire period (both ON and OFF cycle) of activation of the front direction-indicator lamp; or**
 - (b) **only the common apparent surfaces of the daytime running lamp are switched off and the luminous intensity of any remaining part is reduced, during the entire period (both ON and OFF cycle) of activation of the front direction-indicator lamp, to attain not more than 140 cd in any direction the lamp is visible. The conformity to this requirement shall be verified at the time of the daytime running lamp type approval and indicated in the related communication form."**

B. Regulation No. 87

Add a new paragraph 7.5., to read:

"7.5. Upon request of the applicant, the daytime running lamp shall also be tested for a "reduced luminous intensity", in application of paragraph 6.19.7.5. or 6.19.7.6. of Regulation No. 48.

In this case, in addition to the photometric value prescribed in paragraphs 7.1. to 7.3., the reduced luminous intensity of the light emitted by each lamp shall not exceed 140 cd in any direction the lamp is visible."

Add a new paragraph 10.6., to read:

"10.6. All measurements, photometric and colorimetric, of the "reduced luminous intensity" shall be carried out applying to the input terminals of the lamp the voltage declared by the manufacturer. Where necessary, the test laboratory may require from the manufacturer the light source control gear needed to supply the light source and the applicable functions."

Annex 1, item 9, amend to read:

"9. Concise description:
 By category of lamp:.....
Reduced luminous intensity **Yes/No²**
 Number, category and kind of light source(s):¹
 Voltage and wattage:
 Application of an electronic light source control gear:
 (a) Being part of the lamp: Yes/No²
 (b) Being not part of the lamp: Yes/No²
 Input voltage supplied by an electronic light source control gear:
 (a) **for normal luminous intensity:**
 (b) **for reduced luminous intensity:**.....
 Electronic light source control gear manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body):..... "

II. Justification

1. At its seventy-fourth session in October 2015, GRE discussed the proposal of the experts from Germany to clarify the switching conditions for daytime running lamps (DRL) reciprocally incorporated with the front direction indicator (DI) or located at ≤ 40 mm from it. GRE agreed that a revised version of the proposal, based on the comments received during and after the session, would be reconsidered at the seventy-fifth session in April 2016 (ECE/TRANS/WP.29/GRE/74, para. 16).

2. The existing text results in different interpretations, with completely different results, of which some are in contradiction with the needs for the visibility of direction indicator lamps at day time conditions and, therefore, with the demands for road safety.

¹ For daytime running lamps with non-replaceable light sources indicate the number and total wattage of the light sources used.

3. The experts from GRE and GTB had already discussed some proposals for the possibility of partly switching off DRL when only part of it is reciprocally incorporated with the direction indicator lamp.
4. In the current Regulation No. 48, when reciprocally incorporated with a turn indicator, the front/rear position lamp or “the reciprocally incorporated part of it” may be switched off during the complete activation of the turn indicator. However, this possibility is not foreseen for DRL.
5. The new proposal is clearer, gives the manufacturers more freedom and increases road safety, because it could improve the visibility of direction indicator lamps and avoid the masking of their function.
6. The present proposal, prepared with valuable contribution of the experts of GTB, includes:
 - (a) A proposal for amendment to Regulation No. 48 to clarify the DRL switching-off conditions (also aligning them with the existing switching-off conditions for front position lamps reciprocally incorporated with DI) and/or light intensity reduction when DRL and DI are totally or partially reciprocally incorporated and when their distance is equal or less than 40 mm.
 - (b) A proposal for amendment to Regulation No. 87 to solve the problem of the verification of the DRL reduced luminous intensity required/allowed by Regulation No. 48. It introduces in this Regulation the possibility of a supplemental verification and certification of the “reduced luminous intensity”, fulfilling the pertinent requirements in Regulation No. 48.
8. It is hoped that this comprehensive amendment proposal to Regulations Nos. 48 and 87 would be able to solve the problems encountered by the Administrations and by the vehicles/components manufacturers in the application of the involved requirements.
