

Proposal for 07 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices) and for Supplement 20 to Regulation No. 87 (Daytime running lamps).

The modifications to the existing text of the Regulations are marked in bold for new or strikethrough for deleted characters.

I. Proposal

A Regulation No. 48

Paragraph 6.19.7.5., amend to read:

"6.19.7.5. If the distance between the **edges of the apparent surfaces in the direction of the reference axis of the front direction-indicator lamp of categories 1, 1a or 1b and that of the daytime running lamp on the same side of the vehicle** is equal or less than 40 mm, the electrical connections of the daytime running lamps ~~on the relevant side of the vehicle may~~ **shall** be such that ~~either:~~

- ~~a) It is switched OFF or~~
- ~~b) Its luminous intensity is reduced during the entire period (both ON and OFF cycle) of activation of a front direction indicator lamp.~~
- (a) the daytime running lamp on the relevant side of the vehicle is switched OFF during the entire period (both ON and OFF cycle) of operation of the front direction-indicator lamp; or**
- (b) the luminous intensity of the daytime running lamp on the relevant side of the vehicle is reduced during the entire period (both ON and OFF cycle) of operation of the front direction-indicator lamp, to attain not more than 140 cd in any direction of geometric visibility [see paragraph 7.5. of UN Regulation 87] *. 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 **in such a way that they have:**

6.19.7.6.1. totally common apparent surfaces, the electrical connections ~~of the daytime running lamp on the same side of the vehicle~~ shall be such that the daytime running lamp **function** on the relevant side of the vehicle is switched OFF during the entire period (both ON and OFF cycle) of ~~activation~~ **operation** of the **front** direction-indicator lamp; **or**

- 6.19.7.6.2.** partially common apparent surfaces, the electrical connections of the daytime running lamp shall be such that either:
- (a) the whole daytime running lamp function on the relevant side of the vehicle is switched OFF during the entire period (both ON and OFF cycle) of activation of the front direction-indicator lamp; or
 - (b) the daytime running lamp function on the relevant side of the vehicle is switched off only for the part of apparent surface being in common with the one of the front direction indicator lamp while the luminous intensity of any remaining part [of the apparent surface] is reduced, during the entire period (both ON and OFF cycle) of operation of the front direction-indicator lamp, to attain not more than 140 cd in any direction of geometric visibility [see paragraph 7.5. of UN Regulation 87] *. 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 12., add a new paragraph 12.6., to read:

- "12.6. Transitional provisions applicable to 07 series of amendments.**
- 12.6.1.** As from the official date of entry into force of the 07 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type approvals under this UN Regulation as amended by the 07 series of amendments.
 - 12.6.2.** As of 1 September [20XX], Contracting Parties applying this UN Regulation shall not be obliged to accept UN type approvals of new vehicle types to the preceding series of amendments, first issued after 1 September [20XX].
 - 12.6.3.** Until 1 September [20YY], Contracting Parties applying this UN Regulation shall accept UN type-approvals to the preceding series of amendments, first issued before 1 September [20XX].
 - 12.6.4.** As from 1 September [20YY], Contracting Parties applying this UN Regulation shall not be obliged to accept type-approvals issued to the preceding series of amendments to this Regulation.
 - 12.6.5.** Notwithstanding the transitional provisions above, Contracting Parties who start to apply this UN Regulation after the date of entry into force of the most recent series of amendments are not obliged to accept UN type-approvals which were granted in accordance with any of the preceding series of amendments to this UN Regulation.
 - 12.6.6.** Contracting Parties applying this UN Regulation shall not refuse to grant UN type-approvals according to any preceding series of amendments to this UN Regulation or extensions thereof."

* *Editorial note:* this text in square brackets will be aligned to that of paragraph 7.5. of UN Regulation 87 as will be approved.

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 of geometric visibility as defined in Regulation No. 48 for daytime running lamps] [any direction of geometric visibility as defined in Regulation No. 48 for front direction indicator lamps] **."

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
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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):..... "

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

** *Editorial note:* we propose two different possible solutions for this paragraph based on different technical reasons. GRE will decide which choose and, on the basis of this decision, the text of paragraphs 6.19.7.5. b) and 6.19.7.6.2. b) will be completed accordingly.

II Justification

1. At its seventy-fourth session in October 2015, GRE discussed the proposal of the experts from Germany (Informal document GRE-73-14) 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, should be reconsidered at the seventy-fifth session in April 2016 (ECE/TRANS/WP.29/GRE/74, para. 16).
 2. At the seventy-fifth session in April 2016 a revised proposal of the Experts from Germany (document ECE/TRANS/WP.29/GRE/2016/8) was discussed and GRE decides (ECE/TRANS/WP.29/GRE/75, para. 18) to further improve the proposal based on the OICA suggestions of Informal Documents GRE-75-11 and GRE-75-11-Rev.1. This document mentioned that when the distance between direction indicators of categories 1a and 1b and dipped-beam headlamps is in the range of 20 mm to 40 mm, it is not required to switch-off nor to dim the dipped-beam headlamps (see prescriptions of paragraph 6.5.3. of Regulation No. 48). Therefore, in order to align the two requirements “dipped beam & direction indicator” versus “daytime running lamp & direction indicator” it should be optional for categories 1a and 1b to be switched off or to be dimmed.
 3. The existing text of Regulation No. 48 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.
 4. 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.
 5. 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.
 6. 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.
 7. The present proposal, 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.
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