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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Lighting and Light-Signalling****Eighty-second session**

Geneva, 22-25 October 2019

Item 6 (b) of the provisional agenda

UN Regulation No. 48 (Installation of lighting and light-signalling devices):**Proposals for new series of amendments to UN Regulation No. 48****Proposal for a new 08 series of amendments to UN
Regulation No. 48 (Installation of lighting and light-signalling
devices)****Submitted by the expert from the Special Interest Group***

The text reproduced below was prepared by the expert from Special Interest Group with the aim to define the switching conditions of dipped beam and daytime running lamps (DRL) and the variable intensity of rear lamps in conjunction with traffic conditions. The modifications to the current 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 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21 and Add.1, Cluster 3), 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.

GE.19-13524(E)



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I. Proposal

Paragraph 4.2., amend to read:

"4.2. An approval number shall be assigned to each type approved. Its first two digits (at present **08**, corresponding to the **08** series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign this number to another vehicle type or to the same vehicle type submitted with equipment not specified in the list referred to in paragraph 3.2.2. above, subject to the provisions of paragraph 7. of this UN Regulation."

Paragraph 5.26., amend to read:

"5.26. Rear direction indicator lamps **of category 2b**, rear position lamps **of category R2 and** stop lamps ~~(except stop lamps of category S4) and rear fog lamps of category S2~~ with variable luminous intensity control, which respond simultaneously to ~~at least one or more of the following external influences: ambient lighting, fog, snowfall, rain, spray, dust clouds, contamination of the light emitting surface, provided that their prescribed intensity relationship is maintained throughout variation transitions. No sharp variation of intensity shall be observed during transition. Stop lamps of category S4 may produce variable luminous intensity independent from the other lamps. It may be possible for the driver to set the functions above to luminous intensities corresponding to their steady category and to return them to their automatic variable category.~~ **conditions listed in paragraphs 5.26.1. and 5.26.2., are allowed, provided that:**

- (a) **The intensity of the all lamps mentioned above, when combined, grouped or reciprocally incorporated, vary all together in the same manner and in a similar proportion.**
- (b) **In the entire intensity range, the specific prescribed ratio between the luminous intensities of two lamps, if applicable, shall be maintained throughout variation transitions.**

5.26.1. Environmental conditions

Increase and decrease of the luminous intensity, in the limits prescribed in the pertinent UN Regulations, is allowed in relation to the following conditions:

- (c) **ambient lighting,**
- (d) **fog,**
- (e) **snowfall,**
- (f) **rain,**
- (g) **spray,**
- (h) **dust clouds,**
- (i) **contamination of the light emitting surface.**

5.26.2. Traffic conditions

Independent from environmental conditions mentioned under 5.26.1. a decrease of the luminous intensity, in the limits prescribed in the pertinent

UN Regulations, is allowed as long as the vehicle speed is equal or less than 20 km/h or the distance to the following vehicle is equal or less than 20 m.

However as long as the vehicle speed is equal or less than 50 km/h the intensity decrease already activated may remain active.

5.26.3. Stop lamps of category S4 and rear fog lamps of category F2 may produce variable luminous intensity, based on the conditions listed in paragraphs 5.26.1. and 5.26.2., independently from the other lamps.

5.26.4. No sharp variation of intensity shall be observed during transition.

It may be possible for the driver to set the functions above to luminous intensities."

Paragraph 6.2.7.5., delete.

Paragraph 6.2.7.6., amend to read:

"6.2.7.56. The dipped-beam headlamps shall be switched ON and OFF automatically relative to the ambient light conditions (~~e.g. switch ON during night time driving conditions, tunnels, etc.~~) according to the requirements of Annex 13.

In addition, the following subparagraphs 6.2.7.5.1. apply.

6.2.7.5.1. Irrespective of the requirements of paragraph 6.2.7.5., under conditions requiring the dipped beam headlamps to be switched ON, the dipped-beam headlamps may remain switched OFF or, once automatically switched ON, may be switched OFF manually and remain switched OFF while one or more of the following conditions exist:

- (a) the automatic transmission control is in the park position;
- (b) the parking brake is in the locked position;
- (c) prior to the vehicle being set in motion for the first time after each manual activation of the device, which starts and/or stops the propulsion system;
- (d) (i) the control is designed in such a way that manual deactivation shall not be possible with less than two deliberate actions. The lamps referred to in paragraph 5.11. shall be switched ON,

or

- (ii) if the vehicle speed does not exceed [25 km/h], the control shall be designed in such a way that manual deactivation shall not be possible with less than two deliberate actions. The lamps referred to in paragraph 5.11. may remain switched OFF provided that, throughout the entire period that these lamps are switched OFF, it is indicated to the driver with an optical and with an acoustic or haptic warning signal.
- (e) the front fog lamps are switched ON;

[(f) ...].

The automatic operation of the dipped-beam headlamps shall be resumed as soon as the conditions in this paragraph no longer exist."

Insert a new paragraph 6.2.7.6., to read:

"6.2.7.6. Irrespective of the requirements of paragraph 6.2.7.5., it shall always be possible to switch the dipped beam headlamps ON manually."

Insert a new paragraph 6.2.7.7., to read:

"6.2.7.7. The driver shall at all times be able to engage the automatic operation."

Paragraph 6.2.7.7. (former), renumber and amend to read:

"6.2.7.7.8 ~~Without prejudice 6.2.7.6.1.,~~ **Notwithstanding the provisions of paragraph 6.2.7.5., in cases where the ambient illuminance is 1,000 lx or more** the dipped-beam headlamps may switch ON and OFF automatically relative to other factors such as time or ambient conditions (e.g. time of the day, vehicle location, rain, fog, etc.)."

Paragraph 6.9.8., amend to read:

"6.9.8. Tell-tale

Circuit-closed tell-tale mandatory.

This tell-tale shall be non-flashing and shall not be required if the instrument panel lighting can only switch ON simultaneously with the front position lamps.

~~This requirement does not apply when light signalling system operates according to paragraph 6.19.7.4.~~

This requirement does not apply while the daytime running lamps are switched ON.

However, a tell-tale indicating failure is mandatory if required by the component regulation."

Paragraph 6.10.8., amend to read:

"6.10.8. Tell-tale.

Circuit-closed tell-tale mandatory. It shall be combined with that of the front position lamps.

~~This requirement does not apply when light signalling system operates according to paragraph 6.19.7.4.~~

This requirement does not apply when daytime running lamps are switched ON.

However, a tell-tale indicating failure is mandatory if required by the component Regulation."

Paragraph 6.19.7.1., amend to read:

"6.19.7.1. The daytime running lamps shall be switched ON automatically when the device which starts and/or stops the propulsion system is set in a position which makes it possible for the propulsion system to operate ~~However, the daytime running lamps may remain OFF while the following conditions~~ **and neither of the following exist:**

(a) **the front fog lamps are switched ON;**

(b) **the headlamps are manually switched ON, except when they are used to give intermittent luminous warnings at short intervals;**

- (c) **conditions of Annex 13 for automatic switching ON of dipped-beam headlamps exist."**

Insert a new paragraph 6.19.7.2., to read:

- "6.19.7.2. Irrespective of the requirements of paragraphs 6.19.7.1. and 6.19.7.5., under conditions requiring the daytime running lamps to be switched ON, the daytime running lamps may remain OFF or, once automatically switched ON, may be switched OFF manually and remain OFF while at least one of the following conditions exists:**
- ~~6.19.7.1.1~~ (a) ~~the automatic transmission control is in the park position; or~~
 - ~~6.19.7.1.2.~~ (b) ~~the parking brake is in the locked position;~~
 - ~~6.19.7.1.3.~~ (c) ~~Prior to the vehicle being set in motion for the first time after each manual activation of the device, which starts and/or stops the propulsion system.~~
 - ~~6.19.7.2.~~ (d) ~~The daytime running lamps may be switched OFF manually when the vehicle speed does not exceed 15 km/h, provided they switch ON automatically when the vehicle speed exceeds 10 km/h or when the vehicle has travelled more than 100 m] and they remain ON until deliberately switched off again."~~

Insert a new paragraph 6.19.7.3., to read:

- "6.19.7.3. The automatic operation of the daytime running lamps shall be resumed as soon as the conditions described in paragraph 6.19.7.2. no longer exist."**

Paragraph 6.19.7.3. (former), renumber and amend to read:

- "6.19.7.34. The daytime running lamp shall switch OFF automatically when the device which starts and/or stops the propulsion system is set in a position which makes it impossible for the propulsion system to operate or as well as when either of the following conditions exists:**
- (a) **the front fog lamps are switched ON; or**
 - (b) **the headlamps are manually switched ON, except when the later they are used to give intermittent luminous warnings at short intervals⁴⁵;**
 - (c) **conditions of Annex 13 for automatic switching ON of dipped-beam headlamps exist."**

Paragraph 6.19.7.4. (former), renumber and amend to read:

- "6.19.7.45. ~~The lamps referred to in paragraph 5.11. may be switched ON w~~When daytime running lamps are switched ON, **at least the rear position lamps [shall] be switched ON. Other lamps may also be switched ON according to paragraph 5.11."****

Paragraph 6.19.7.5. (former), renumber and amend to read:

- "6.19.7.56. If a front direction-indicator lamp is not reciprocally incorporated with a daytime running lamp and the distance between the edges of the apparent surfaces in the direction of the reference axis of the front direction-indicator lamp and the daytime running lamp is equal or less than 40 mm, the electrical connections of the daytime running lamp 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 within the angles of geometric visibility. 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.

If the luminous intensity of the front direction-indicator lamp in HV is at least 50% higher than the luminous intensity of the daytime running lamp in HV, the daytime running lamp does not need to be switched OFF as required under (a) of this paragraph nor dimmed as required under (b) of this paragraph. In this case the applicant shall demonstrate compliance with a concise description or other means acceptable to the Type Approval Authority."

Paragraph 6.19.7.6. (*former*), renumber and amend to read:

"6.19.7.67. If a **front** direction-indicator lamp is reciprocally incorporated with a daytime running lamp, **either with:**

6.19.7.7.1. 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 **function on the relevant side of the vehicle** is switched OFF during the entire period (both ON and OFF cycle) ~~activation of operation~~ of the **front** direction-indicator lamp

or

6.19.7.7.2. 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) for category 1a or 1b front direction-indicator lamp the daytime running lamp function on the relevant side of the vehicle is switched OFF for the part of the apparent surface in common with the one of the front direction indicator lamp and the luminous intensity of the part of the apparent surface not in common 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 within the angles of geometric visibility. 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."

At the end of paragraph 12., add a new paragraph 12.7. and its subparagraphs to read:

- "12.7. Transitional provisions applicable to 08 series of amendments.
- 12.7.1. As from the official date of entry into force of the 08 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 08 series of amendments.
- 12.7.2. As of 1 September [2023] Contracting Parties applying this UN Regulation shall not be obliged to accept UN type approvals to the preceding series of amendments, first issued after 1 September [2023].
- 12.7.3. Until 1 September [2027], Contracting Parties applying this UN Regulation shall accept UN type-approvals to the preceding series of amendments, first issued before 1 September [2023]
- 12.7.4. As from 1 September [2027] , Contracting Parties applying this UN Regulation shall not be obliged to accept type-approvals issued to the preceding series of amendments to this UN Regulation.
- 12.7.5. 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.
- 12.7.6. Notwithstanding paragraph 12.7.4. Contracting Parties applying this UN Regulation shall continue to accept UN type-approvals to the preceding series of amendments to this UN Regulation, for the vehicle types which are not affected by the changes introduced by the 08 series of amendments.
- 12.7.7. 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."

Annex 2, amend to read:

"Arrangements of approval marks

Model A

(See paragraph 4.4. of this Regulation)

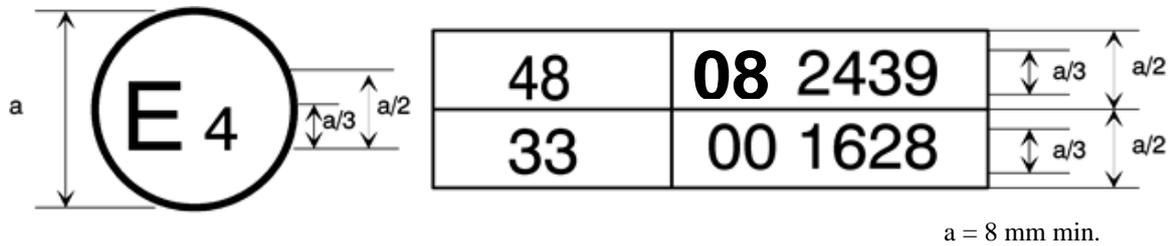


$a = 8 \text{ mm min.}$

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the installation of lighting and light-signalling devices, been approved in the Netherlands (E4) pursuant to UN Regulation No. 48 as amended by the 08 series of amendments. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No. 48 as amended by the 08 series of amendments.

Model B

(See paragraph 4.5. of this Regulation)



The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to UN Regulation No. 48 as amended by the **08** series of amendments and UN Regulation No. 33.⁵ The approval number indicates that, at the dates when the respective approvals were given, UN Regulation No. 48 was amended by the **08** series of amendments and UN Regulation No. 33 was still in its original form.

⁵ The second number is given merely as an example.”

II. Justification

Detailed explanations for all modifications will be provided in a separate informal document.
