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PROPOSAL FOR DRAFT SUPPLEMENT 6 TO THE 02 SERIES
OF AMENDMENTS TO REGULATION No. 7

(Position, stop, and end-outline marker lamps)

Transmitted by the Working Party on Lighting
and Light-Signalling (GRE)

Note: The text reproduced below was adopted by GRE at its forty-third, forty-fourth, forty-fifth and forty-sixth sessions and is transmitted to WP.29 and AC.1 for consideration. It is based on documents TRANS/WP.29/GRE/1998/21/Rev.2, as amended, TRANS/WP.29/GRE/1999/7 (French only), not amended, TRANS/WP.29/GRE/2000/4, not amended, TRANS/WP.29/GRE/2000/5, as amended, TRANS/WP.29/GRE/2000/23 and Add.1, as amended, and TRANS/WP.29/GRE/2001/12, as amended (TRANS/WP.29/GRE/43, para. 38; TRANS/WP.29/GRE/44, paras. 19 and 21; TRANS/WP.29/GRE/45, paras. 31 and 36; TRANS/WP.29/GRE/46, paras. 33-36).

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Add a new paragraph 2.1.4., to read:

"2.1.4. In the case of a category S3 stop lamp, whether it is intended to be mounted outside or inside (behind the rear window) the vehicle."

Add a new paragraph 2.1.5., to read:

"2.1.5. At the choice of the applicant, that the device may be installed on the vehicle with different inclinations of the reference axis in respect to the vehicle reference planes and to the ground or rotate around its reference axis; these different conditions of installation shall be indicated in the communication form."

Paragraph 2.2.1., amend to read:

"2.2.1. Drawings, in triplicate, in sufficient detail to permit identification of the type of the device and showing in what geometrical position(s) the device (and if applicable for category S3 lamps the rear window) may be mounted on the vehicle; the axis of observation"

Paragraph 2.2.2., amend to read:

"2.2.2. A brief technical description Regulation No. 37; in the case of a category S3 stop lamp, which is intended to be mounted inside the vehicle, the technical description shall contain the specification of the optical properties (transmission, colour, inclination, etc.) of the rear window(s);"

Add a new paragraph 2.2.5., to read:

"2.2.5. In the case of a category S3 stop lamp which is intended to be mounted inside the vehicle, a sample plate or sample plates (in case of different possibilities) having the equivalent optical properties corresponding to those of the actual rear window(s)."

Insert a new paragraph 3.5., to read:

"3.5. Lamps operating at voltages other than the nominal rated voltages of 6 V, 12 V or 24 V respectively, by the application of an additional supply system or having a secondary operating mode, must bear a marking denoting the rated secondary design voltage, if the additional supply is not part of the device."

Paragraph 4.2.2.5., amend to read:

"4.2.2.5. On front or rear position lamps of which the visibility angles are asymmetrical with regard to the reference axis in a horizontal direction, a horizontal arrow pointing towards the side on which the photometric specifications are met up to an angle of 80° H;"

Paragraph 4.2.2.6., amend to read:

"4.2.2.6. On devices which may be used as part of an assembly of two lamps, the additional letter "D" to the right of the symbol mentioned in paragraph 4.2.2.1. and 4.2.2.4."

Add a new paragraph 4.2.2.7., to read:

"4.2.2.7. On devices with reduced light distribution in conformity to paragraph 2.3. in annex 4 to this Regulation a vertical arrow starting from a horizontal segment and directed downwards."

Add a new paragraph 4.3.4., to read:

"4.3.4. The approval marking shall be clearly legible and indelible. It may be placed on an inner or outer part (transparent or not) of the device which cannot be separated from the transparent part of the device emitting the light. In any case the marking shall be visible when the device is fitted on the vehicle or when a movable part such as the hood or boot lid or a door is opened."

Insert new paragraphs 5.5. and 5.5.1., to read:

"5.5. Position (side) lamps, which are reciprocally incorporated with another function, using a common light source, and designed to operate permanently with an additional system to regulate the intensity of the light emitted, are permitted.

5.5.1. However, in the case of rear (side) position lamp reciprocally incorporated with a stop lamp, the device shall either:

- (i) be a part of a multiple light source arrangement, or
- (ii) be intended for use in a vehicle equipped with a failure monitoring system for that function.

In either case, a note shall be made within the communication document."

Paragraph 6.1., fifth column of the table, amend to read (deleting also the reference to "(paragraph 4.2.2.6.)"):

"Total for the assembly of two or more lamps"

Paragraph 6.1., footnote 2/, amend to read:

"2/ The total value of maximum intensity for an assembly of two or more lamps is given by multiplying by 1.4 the value prescribed for a single lamp.

When an assembly of two or more lamps having the same function is deemed to be, for the purpose of installation on a vehicle, a "single lamp" (following the definition of Regulation No. 48 and

its series of amendments in force at the time of application for type approval), this assembly shall comply with the minimum intensity required when one lamp has failed, and all the lamps together shall not exceed the admissible maximum intensity (last column of the table).

In the case of a single lamp containing more than one light source:

- (i) all light sources which are connected in series are considered to be one light source;
- (ii) the lamp shall comply with the minimum intensity required when any one light source has failed. However, for lamps designed for only two light sources, 50 per cent of the minimum intensity in the axis of reference of the lamp shall be considered sufficient, provided that a note in the communication form states that the lamp is only for use on a vehicle fitted with an operating tell-tale which indicates when any one of these two light sources has failed.
- (iii) when all light sources are illuminated the maximum intensity specified for a single lamp may be exceeded provided that the single lamp is not marked "D" and the maximum intensity specified for an assembly of two or more lamps (last column of the table) is not exceeded."

Paragraph 6.2.4.2., add the following text:

". . . .

If the rear position (side) lamp or the stop lamp or both contain more than one light source and are considered as a single lamp as defined in note 2 of the table in paragraph 6.1 above, the values to be considered are those obtained with all sources in operation;"

Paragraphs 7. and 7.1., amend to read:

"7. TEST PROCEDURE

7.1. All measurements, photometric and colorimetric, shall be made with a colourless standard filament lamp of the category prescribed for the device, the supply voltage being so regulated as to produce the reference luminous flux required for that category of lamp."

Insert a new paragraph 7.1.1., to read:

"7.1.1. In the case of a system with more than one intensity, the reference luminous flux prescribed for the specific category of filament lamp shall be applied to the greatest intensity."

Paragraph 7.1.1. (former), renumber as paragraphs 7.1.2. and 7.1.3., and amend to read:

- "7.1.2. All measurements, photometric and colorimetric, on lamps equipped with non-replaceable light sources (filament lamps and others) shall be made at 6.75 V, 13.5 V or 28.0 V, respectively.
- 7.1.3. In the case of light sources supplied by a special power supply, the above test voltages shall be applied to the input terminals of that power supply. The test laboratory may require from the manufacturer the special power supply needed to supply the light sources."

Insert new paragraphs 7.3.1. and 7.3.2., to read:

- "7.3.1. Where a position (side) lamp is reciprocally incorporated with another lamp, and is designed to operate permanently with an additional system to regulate the intensity of the light emitted, measurement of the light emitted shall be performed at 6,75 V, 13.5 V or 28 V respectively, where the additional system is part of the device.
- 7.3.2. Where the additional system is not part of the device, then the tests shall be performed at the rated secondary design voltage applied to the light source. The test laboratory may require from the manufacturer the additional system needed to regulate the light source."

Add a new paragraph 7.6., to read:

- "7.6. In the case of a category S3 stop lamp, which is intended to be mounted inside the vehicle, a sample plate or sample plates (in case of different possibilities) as supplied (see paragraph 2.2.5.) shall be positioned in front of the lamp to be tested, in the geometrical position(s) as described in the application drawing(s) (see paragraph 2.2.1.)."

Paragraph 14., amend to read:

- "14. TRANSITIONAL PROVISIONS
- 14.1. Signalling lamps not equipped with filament lamps and category S3 stop lamps intended to be mounted inside a vehicle
- 14.1.1. As from the date of entry into force of Supplement 6 to the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approvals under this Regulation as amended by Supplement 6 to the 02 series of amendments.
- 14.1.2. As from 36 months after the date of entry into force of Supplement 6 to the 02 series of amendments, Contracting Parties

applying this Regulation shall grant approvals only if the type of lamps as described in paragraph 14.1. above meets the requirements of this Regulation as amended by Supplement 6 to the 02 series of amendments.

- 14.1.3. Contracting Parties applying this Regulation shall not refuse to grant extensions of approvals to the preceding series of amendments to this Regulation.
- 14.1.4. Contracting Parties applying this Regulation shall continue to grant approvals to those types of lamps as described in paragraph 14.1. above which comply with the requirements of this Regulation as amended by the preceding series of amendments during the 36 months' period which follows the date of entry into force of Supplement 6 to the 02 series of amendments.
- 14.2. Fitting of lamps described in paragraph 14.1. above on a vehicle
 - 14.2.1. As from the date of entry into force of Supplement 6 to the 02 series of amendments, no Contracting Party applying this Regulation shall prohibit the fitting on a vehicle of lamps described in paragraph 14.1. above approved under this Regulation as amended by Supplement 6 to the 02 series of amendments.
 - 14.2.2. Contracting Parties applying this Regulation shall continue to allow the fitting on a vehicle of lamps described in paragraph 14.1. above approved to this Regulation as amended by the preceding series of amendments during the 48 months' period which follows the date of entry into force of Supplement 6 to the 02 series of amendments.
 - 14.2.3. Upon the expiration of a period of 48 months after the date of entry into force of Supplement 6 to the 02 series of amendments, Contracting Parties applying this Regulation may prohibit the fitting of lamps described in paragraph 14.1. above which do not meet the requirements of this Regulation as amended by Supplement 6 to the 02 series of amendments on a new vehicle for which type approval or individual approval was granted more than 24 months after the entry into force of Supplement 6 to the 02 series of amendments to this Regulation.
 - 14.2.4. Upon expiration of a period of 60 months after the date of entry into force of Supplement 6 to the 02 series of amendments, Contracting Parties applying this Regulation may prohibit the fitting of lamps as described in paragraph 14.1. above which do not meet the requirements of this Regulation as amended by Supplement 6 to the 02 series of amendments on a new vehicle first registered more than 60 months after the date of entry into force of Supplement 6 to the 02 series of amendments to this Regulation."

Annex 1, first sentence, amend to read:

"In all cases, the minimum vertical angles of light distribution in space are 15° above and 15° below the horizontal for all categories of devices included in this Regulation, except:

- (a) for lamps with a permissible mounting height # 750 mm above the ground, for which they are 15° above and 5° below the horizontal;
- (b) for category S3 stop lamp for which they are 10° above and 5° below the horizontal;

Annex 2, item 9, amend to read:

"9. concise description: 3/

By category of lamps:

For mounting either outside or inside or both 2/

Colour of light emitted: red /selective yellow / white 2/

Number and category of filament lamp(s):

Special supply voltage: Volts

Application of additional supply system yes/no 2/

Specification of this supply system

Switched power supply:

Duty cycle: peak to peak voltage: and/or effective
voltage Volts

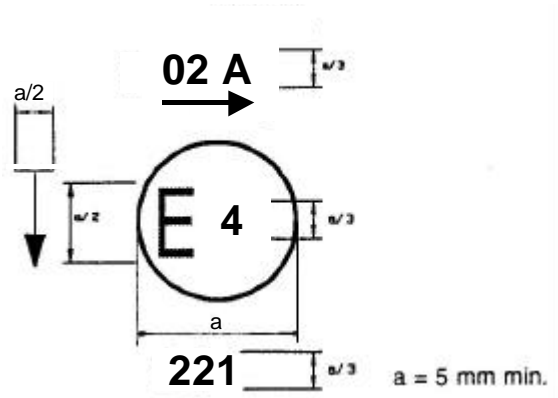
Geometrical conditions of installation and relating variations
if any:

Only for limited mounting height of equal to or less than 750 mm above
the ground yes/ no "

Annex 3,

The example of the approval mark, amend to read:

"1. Front position (side) lamp



Caption below Figure 1, second sentence, amend to read:

".... 02 series of amendments. The horizontal arrow indicates angle of 80° H. The vertical arrow starting from a horizontal segment and directed downwards indicates a permissible mounting height of equal to or less than 750 mm from the ground for this device."

Annex 4,

Add a new paragraph 1.3., to read:

"1.3. In the case where the device may be installed on the vehicle in more than one or in a field of different positions the photometric measurements shall be repeated for each position or for the extreme positions of the field of the reference axis specified by the manufacturer."

Add a new paragraph 2.3., to read:

"2.3. However, in the case where a device is intended to be installed at a mounting height of equal to or less than 750 mm above the ground, the photometric intensity is verified only up to an angle of 5° downwards."

Paragraph 3, amend the title to read:

"3. Photometric measurement of lamps"

Paragraph 3.2., amend to read:

"3.2. For replaceable filament lamps:
when equipped with filament lamps at 6.75 V, 13.5 V or 28.0 V the luminous intensity values produced shall be corrected. The

correction factor is the ratio between the reference luminous flux and the mean value of the luminous flux found at the voltage applied (6.75 V, 13.5 V or 28.0 V). The actual luminous fluxes of each filament lamp used shall not deviate more than ± 5 per cent from the mean value. Alternatively a standard filament lamp may be used in turn, in each of the individual positions, operated at its reference flux, the individual measurements in each position being added together."

Add a new paragraph 3.3. to read:

"3.3. For any signalling lamp except those equipped with filament lamp(s), the luminous intensities, measured after one minute and after 30 minutes of operation, shall comply with the minimum and maximum requirements. The luminous intensity distribution after one minute of operation can be calculated from the luminous intensity distribution after 30 minutes of operation by applying at each test point the ratio of luminous intensities measured at HV after one minute and after 30 minutes of operation."

Annex 5, add at the end the following text:

".

In the case of a category S3 stop lamp, which is intended to be mounted inside the vehicle, the colorimetric characteristics shall be verified with the worst case combination(s) of lamp and rear window(s) or sample plate(s)."
