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INLAND TRANSPORT COMMITTEE

Working Party on the Construction of Vehicles

Working Party on Lighting and Light-Signalling (GRE) (Forty-third session, 4-8 October 1999, agenda item 2.4.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 91 (Side marker lamps)

Transmitted by the Expert from the Liaison Committee for the Manufacture of
Automobile Equipment and Spare Parts (CLEPA)

Note: The text reproduced below was prepared by the expert from CLEPA in order to allow a reduced field of photometric performance for devices with a mounting height equal or less than 750 mm above the ground. It is a revised text which includes the amendments agreed during the forty-first session (italic character) and the forty-second session (italic bold character) of GRE (TRANS/WP.29/GRE/41, paras. 38 and 39; TRANS/WP.29/GRE/42, para. 46).

 $\underline{\text{Note}}$: This document is distributed to the Experts on Lighting and Light-Signalling only.

A. PROPOSAL

Add a new paragraph 5.4.4., to read:

"5.4.4. On devices with reduced light distribution in conformity to paragraph 2.5 in annex 4 to this Regulation a vertical arrow starting from a horizontal segment and directed downwards."

Add a new paragraph 5.12., to read:

"5.12. 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."

Paragraph 7.1.4., add the following sentence at the end:

"

All light sources which are connected in series are considered to be one light source."

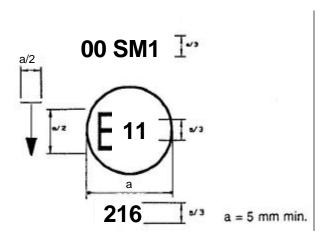
Annex 1, add a new sentence after the figure of "minimum vertical angles SM1 and $\underline{SM2:"}$, to read:

"The angle of 10° below the horizontal may be reduced to 5° in case of lamps with a mounting height of equal to or less than 750 mm above the ground."

Annex 2, item 9, add at the end:

"Only for limited mounting height of equal to or less than 750 mm above the ground, $yes/no \ \underline{2}/"$

Annex 3, Example 1 (a) , amend to read:



Annex 3, add a new sentence at the end of the caption below the figure, to read:

".... number 216. The vertical arrow starting from a horizontal segment and directed downwards indicates a mounting height of equal to or less than 750 mm from the ground for this device.

. "

Annex 4,

Add a new paragraph 2.5., to read:

"2.5. 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., the title, amend to read:

"3. Photometric measurement of lamps"

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."

* * *

B. JUSTIFICATION

In Regulation No. 48, for devices approved according to Regulation No. 91, the angles of geometric visibility may be reduced to 5° below horizontal when installed not higher than 750 mm.

Regulation No. 91 however requires a field of photometric performance of 15° below the horizontal.

Due to this inconsistency the photometric performance of the device for type approval purposes has to be much higher than required when installed on a vehicle. With modern, aerodynamic vehicle designs it is becoming increasingly difficult to meet the photometric requirements for type approval in the extreme lower measuring points of the photometric grid.

For these reasons it is proposed to amend Regulation No. 91 to allow a reduced field of photometric performance for devices with a mounting height of equal to or less than 750 mm above the ground.