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Working Party on Lighting and Light-Signalling (GRE) (Forty-seventh session, 1-5 October 2001, agenda item 1.4.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Transmitted by the Expert from Italy

Note: The text reproduced below was prepared by the expert Italy with a view to proposing a revised definition of a "single lamp", as an alternative to the previous proposal, which remains pending (TRANS/WP.29/2001/8). The new proposed text is shown in **bold** type, whilst the text to be deleted (or moved to another paragraph) is shown as crossed out.

Note: This document is distributed to the Experts on lighting and lightsignalling only.

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A. PROPOSAL

Paragraph 2.16.1., amend to read: */

"2.16.1. "A single lamp" means a device or part of a device having one lighting or light-signalling function, one or more light source(s) and one apparent surface in the direction of the reference axis, which may be a continuous surface or composed of two or more distinct parts [meeting the requirements of paragraph 5.7.1. below].

For the purpose of installation on a vehicle, a "single lamp" also means any assembly of two independent or grouped lamps, whether identical or not, having the same function, if they are installed so that the projection of their apparent surfaces in the direction of the reference axis occupies not less than 60 per cent of the smallest rectangle circumscribing the projections of the said apparent surfaces in the direction of the reference axis.

In such a case, each of these lamps shall, where approval is required, be approved as a type "d" lamp.

This possible combination does not apply to main beam headlamps, dipped beam headlamps and front fog lamps."

Insert new paragraphs 5.7.1. to 5.7.2., to read:

- "5.7.1. Where the apparent surface in the direction of the reference axis of a single lamp is composed by two or more distinct parts, it shall satisfy the following requirements:
- 5.7.1.1. the total area of the projection of the distinct parts (composing the apparent surface in the direction of the reference axis) on a plane tangent to the exterior surface of the transparent material and perpendicular to the reference axis shall occupy not less than 60 per cent of the smallest quadrilateral circumscribing the said projection or, the distance between two adjacent/tangential distinct parts (composing the apparent surface in the direction of the reference axis) shall not be more than 15 mm measured perpendicularly to the reference axis;
- 5.7.1.2. Where distinct parts of one function are intermixed with distinct parts of another function of a different colour, any straight line intersecting the projections of the apparent surfaces of these functions on a plane perpendicular to the reference axis shall not encounter more than six colour changes.

Retro reflectors are exempted from this requirement.

5.7.2. Any assembly of two independent or grouped lamps, whether identical or not, having the same function and installed so that the projection of their apparent surfaces in the direction of the reference axis occupies not less than 60 per cent of the smallest quadrilateral circumscribing the projections of the said apparent surfaces in the direction of the reference axis shall be considered a single lamp. In such a case, each of these lamps shall be approved as a type "D" lamp."

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B. JUSTIFICATION

Document TRANS/WP.29/2001/8, prepared on the basis of the text approved by GRE with negative comments by Italy, was not considered by WP.29, because of an European Community opposition, and a negative comment of the WP.29 Chairman. During the last WP.29 session the discussion of said document was postponed, giving to GRE the opportunity to re-examine the two items therein contained and subjected to negative comments.

In the meantime, Italy re-examined its position on the problem of the "single lamp" requirements, concluding that an improvement of the requirements is necessary.

On this base the Italian experts requested a technical support by the GTB to elaborate a proposal that, taking into account the discussion in GRE, may improve the application of the new requirements on a "single lamp".

The above proposal contained was discussed during the GTB meeting of May 2001 in Rome and received the consensus of the GTB experts.

In respect to the proposal contained in document TRANS/WP.29/2001/8, a requirement to evaluate the acceptability or not of the intermixing of parts of lamps of different colours was introduced.

The criterion of a certain number of changes of colour has been introduced to avoid the complication and incertitude of other previously proposed evaluations.

The limit of six colour changes has been judged acceptable from the point of view of the correct perception of the light-signals.

From the redactional point of view and in line with the general agreement to separate as much as possible the definitions from the technical requirements, it is also proposed to move from the paragraph 2.16.1. to the new paragraph 5.7.2. the provision relating to the "D" marked lamps.

During the discussion in GTB, the introduction of an additional requirement for a specific verification of the colour of the light emitted to be applied not only in the specific case above, but extended to the grouped, reciprocally incorporated and combined functions was envisaged, and a text to be introduced at the end of paragraph 5.7. was proposed.

However, since this proposed text refers to a verification of the colour of the light emitted to be carried out during the type approval of the lamps as component, parallel amendments to the various ECE Regulations dealing with the components (i.e. Regulations. Nos. 6, 7, 23, etc) are necessary too.

GTB has inserted in its program of work the item "Evaluation of the colour of light emitted by grouped, combined and reciprocally incorporated functions" and the necessary proposals of amendments should be prepared in a short time.