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World Forum for Harmonization of Vehicle Regulations

Working Party on Lighting and Light-Signalling

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COLLECTIVE AMENDMENTS

Regulations Nos. 7 and 48

Proposal for Supplement 17 to the 02 series of amendments to Regulation No. 7

Submitted by the expert from the Working Party "Brussels 1952" */

The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) to introduce new provisions for interdependent lamps. The modifications to the current text of Regulation No. 7 are marked in bold or strikethrough characters.

^{*/} In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

A. PROPOSAL

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 **the following:**
 - (a) in what geometrical position(s) the device (and if applicable for category S3 or S4 lamps the rear window) may be mounted on the vehicle; the axis of observation to be taken is the axis of reference in the tests (horizontal angle $H = 0^{\circ}$), vertical angle $V = 0^{\circ}$); and the point to be taken as the centre of reference in the said tests.
 - (b) The geometrical conditions of installation of the device(s) that meet(s) the requirements of paragraph 6.
 - (c) In the case of an interdependent lamp system, the interdependent lamp or the combination of interdependent lamps that fulfil the requirements of paragraph 6.1. and of Annex 4 to this Regulation.
 - (d) The drawings shall show the The position intended for the approval number and the additional symbols in relation to the circle of the approval mark;"

Paragraph 4.1.1., amend to read

"4.1.1. If the two devices which are submitted in pursuance of paragraph 2.2.4. above satisfy the provisions of this Regulation, approval shall be granted. All the devices of an interdependent lamp system must be submitted for type approval by the same applicant."

<u>Insert a new paragraph 4.2.2.8.</u>, to read:

"4.2.2.8 On interdependent lamps, which may be used as part of an interdependent lamp system, the additional letter "Y" to the right of the symbol mentioned in paragraph 4.2.2.1 to 4.2.2.4. shall be marked on each device."

Add a new paragraph 5.9, to read;

"5.9 An interdependent lamp system shall meet the requirements when all its interdependent lamps are operated together."

Annex 2, item 9, amend to read:

- "9. Concise description:
- 9.1 By category of lamp:
 For mounting either outside or inside or both: 2/

• • •

Variable luminous intensity: yes/no 2/

9.2 Function(s) produced by an interdependent lamp forming part of an interdependent lamp system:

Front position lamp	yes/ no <u>2</u> /
R1 Rear position lamp	$\frac{1}{2}$ yes/ no $\frac{1}{2}$
R2 Rear position lamp	$\frac{1}{2}$ yes/ no $\frac{1}{2}$ /
S1 Stop lamp	$\frac{1}{2}$ yes/ no $\frac{1}{2}$
S2 Stop lamp	$\frac{1}{\text{yes/ no } 2}$
S3 Stop lamp	$\frac{1}{\text{yes}}$ no $\frac{1}{2}$
S4 Stop lamp	$\frac{1}{\text{yes}}$ no $\frac{1}{2}$
End-outline marker lamp	yes/ no $\frac{1}{2}$ /"

Annex 3, insert a new paragraph 9, to read:

"9. Interdependent lamps



Marking of an interdependent lamp comprising part of an interdependent lamp system providing:

A rear direction indicator lamp (category 2a) approved in accordance with the 01 series of amendments to Regulation No. 6,

A red rear position (side) lamp (R1) approved in accordance with the 02 series of amendments to Regulation No. 7. This is also marked Y as it is an interdependent lamp forming part of an interdependent lamp system,

<u>A stop-lamp</u> with variable luminous intensity (S2) approved in accordance with the 02 series of amendments to Regulation No. 7."



Marking of an interdependent lamp comprising part of an interdependent lamp system providing:

A red rear position (side) lamp (R1) approved in accordance with the 02 series of amendments to Regulation No. 7. This is also marked Y as it is an interdependent lamp forming part of an interdependent lamp system,

B. JUSTIFICATION

Modern vehicle designs, especially on smaller models, need to optimize rear access for cargo loading i.e. maximum width opening / low lift over. One solution to achieve this user requirement is to divide the rear combination lamps into more than one part, with one part on the fender, and the other part(s) on the tailgate / trunk lid. This design, infrequently used in the past, has become increasingly popular in recent years.

The division of a rear-lamp into two parts was introduced into the regulations under the provisions for "D" lamps on the basis that two independent lamps, that are not necessarily identical and maybe individually type approved and perhaps produced by different manufacturers, are installed on the vehicle in such a way that they comply with the "single lamp" definition in Regulation No. 48.

Modern vehicle design has to meet various legislative requirements whilst ensuring an appearance that is commercially acceptable. This places particular demands upon the design of signalling lamps that have to comply with positional, geometric visibility and photometric requirements. These demands can be satisfied by a divided lamp specifically designed and produced by one manufacturer that is mounted partly on the fender and partly on the moving component. In this case provisions for the "D" lamp impose unnecessary requirements and costs.

Combination rear lamps that are, in effect, one lamp with multiple light sources that is split into several parts have been granted type approvals based upon interpretation of the "single lamp" definition of Regulation No. 48. These lamps, installed on high class vehicles are performing satisfactorily and are accredited to achieve good signalling performance and pleasing appearance. However, the interpretation of the provisions of regulation 48 allowing the type approval of these lamps is not generally accepted by all type approval authorities and it is necessary to introduce specific provisions into the regulations for "interdependent lamp systems".

This proposal, introducing interdependent lamps forming parts of an interdependent lamp system, is therefore intended to improve vehicle functionality and expand the scope for rear lamp combination design without compromising road user safety.

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