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Working Party on Lighting and Light-Signalling (GRE)  
(Forty-ninth session, 30 September - 4 October 2002,  
agenda item 1.3.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Transmitted by the Expert from the Working Party "Brussels 1952" (GTB)

Note: The text reproduced below is based on the original proposal by GTB (document TRANS/WP.29/GRE/2001/13/Rev.1). It was prepared by the expert from GTB, at request of GRE at its forty-eighth session (TRANS/WP.29/GRE/48, paras. 15 and 16). The modifications to document TRANS/WP.29/GRE/2001/13/Rev.1 are marked in **bold** text.

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Note: This document is distributed to the Experts on Lighting and Light-Signalling only.

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**A. PROPOSAL**

Paragraph 2.7.16.3., amend to read:

"2.7.16.3. other retro-reflective markings **and plates** which must be used to comply with national requirements for use as regards certain categories of vehicles or certain methods of operation."

Insert a new paragraph 2.7.17., to read: 1/

"2.7.17. "Retro-reflective marking" means an additional marking or plate of characteristic shape and/or pattern covered with retro-reflective and in some cases combined with fluorescent materials, intended to increase the visibility and easy identification of certain categories of vehicles and their trailers."

Paragraphs 2.7.17. (former) to 2.7.24., renumber as paragraphs 2.7.18. to 2.7.25.

Insert new paragraphs 6.21. to 6.21.7., to read:

"6.21. REAR MARKING PLATES FOR HEAVY AND LONG VEHICLES AND THEIR TRAILERS (Regulation No. 70, 01 series of amendments).

6.21.1. Presence

[**Mandatory 1/**] on vehicles of category N2, N3, M2, M3 and their trailers.

6.21.2. Number

One, two or four.

6.21.3. Arrangement

Every rear marking shall be fitted such that the lower edge is horizontal. Every part of the rear marking shall lie within 5° of a transverse vertical plane at right angles to the longitudinal axis of the vehicle and shall face to the rear. The set of markings shall be arranged with respect to the median longitudinal plane of the vehicle.

Position

In width: no individual specifications

In height: above the ground, not less than 250 mm (lower edge), not more than 2,100 mm (upper edge).

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**1/ At its 49<sup>th</sup> session GRE will discuss the opportunity to make these additional rear plates mandatory or optional in view of the legal requirements at EU Commission level. It may consider to add a new footnote to read: " The installation of these additional plates may be optional on the basis of national legislation." for those Contracting Parties that are not members of the EU.**

6.21.5. Geometric visibility

Horizontal angle: 30° inwards and outwards

Vertical angle: 15° above and below the horizontal

6.21.6. Orientation

Rearwards.

6.21.7. Other requirements

For heavy vehicles of category N2, N3, M2 and M3:

Class 1. Alternate, oblique stripes of red fluorescent and yellow retro-reflective materials;

Class 3. Alternate, oblique stripes of red retro-reflective and yellow retro-reflective materials.

For long vehicles of categories O1 to O3 - trailers / semi trailers exceeding 8 m in length (including the draw bar) and category O4:

Class 2. Yellow retro-reflective centre with a red fluorescent border;

Class 4. Yellow retro-reflective centre with a red retro-reflective border."

Insert new paragraph 6.22. to 6.22.4., to read: 2/

"6.22. SIDE AND REAR RETRO-REFLECTIVE STRIP AND CONTOUR MARKINGS  
(Regulation No. 104)

6.22.1. Presence

Optional.

6.22.2. Arrangement

6.22.2.1. Retro-reflective marking materials installed on vehicles may be made up of an element or of several elements preferably continuously, parallel or as close as possible to parallel to the ground. The same rule applies for tractors, semi-trailers and other vehicle combinations.

6.22.2.2. Retro-reflective marking materials installed on vehicles shall have **a maximum height compatible with the requirements relating to the design and operation requirements of the vehicle.** The lower part of the retro-reflective marking should have a minimum height above the ground of at least 250 mm.

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2/ This paragraph replaces all the proposals for amendments to the requirements found in paragraphs 6.14.; 6.15.; 6.16. of document TRANS/WP.29/GRE/2001/13/Rev.1. It is in conformity with the corresponding paragraphs of the latest version of the text found in annex 9 of Regulation No. 104.

6.22.3. Geometric visibility

6.22.3.1. The mounting of the markings should identify as close as possible the entire length and width (strips) or shape (contour markings) of the vehicle. "Entire" means at least 80 percent of the length and/or width of a marked vehicle.

6.22.3.2. In case of non-continuous strips the distance between single elements should be as small as possible and should not exceed 50 percent of the shortest element length.

6.22.4. Other requirements

Retro-reflective strips and contour markings shall show the following colours:

6.22.4.1. To the sides: white or yellow

6.22.4.2. To the rear: red \*/"

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\*/ Nothing in this Regulation shall preclude the national authorities from permitting the use of yellow line or contour markings to the rear of a vehicle registered in their territories.

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**B. EXPLANATORY NOTES**

1. At its forty-fourth session in April 2000, GRE agreed to include in future discussions regarding Regulation No. 70, 01 series of amendments a proposal by GTB which would incorporate into Regulation No. 48 requirements for additional rear marking plates according to Regulation No. 70, 01 series of amendments for heavy and long vehicles and their trailers.

The scope of Regulation No. 48 covers the installation requirements for lighting and light-signalling devices of power-driven vehicles intended for use on the road with not less than four wheels, and a design speed exceeding 25 km/h and their trailers, with the exception of vehicles which run on rails, agricultural or forestry tractors and machinery, and public works vehicles.

3. At present no installation requirements exist in Regulation No. 48 for any of the retro-reflective markings and materials used to supplement the mandatory retro-reflective light-signalling devices of the different categories of vehicles mentioned in its scope.

4. The above GTB proposal, **reflecting the decisions taken at the forty-seventh and forty-eighth sessions of GRE**, covers installation requirements for **supplementary** retro-reflective markings and **additional rear marking plates** on vehicles covered in the scope of Regulation No. 48, **according to** Regulations Nos. 70, 01 series of amendments and 104, annexed to the 1958 Agreement. **Currently the installation requirements are only recommended in their respective annexes.**

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