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### ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Construction of Vehicles  
(One-hundred-and-nineteenth session,  
9-12 November 1999, agenda item 5.10.)

#### PROPOSAL FOR DRAFT SUPPLEMENT 2 TO THE 02 SERIES OF AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

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

Note: The text reproduced below was adopted by GRE at its forty-second session, and is transmitted for consideration to the Working Party and to the Administrative Committee (AC.1). It consolidates document TRANS/WP.29/GRE/1997/10/Rev.2, as amended, with documents TRANS/WP.29/GRE/1999/2 and TRANS/WP.29/GRE/1999/3, not amended (TRANS/WP.29/GRE/42, paras.18, 20 and 32).

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Paragraph 2.16.1., amend to read:

"2.16.1.        "A single lamp" means a device or part of a device having one function, one or more light sources 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 which satisfy either of the following criteria:

- 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 rectangle circumscribing the said projection or,

- the maximum 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.

For the purpose of installation on a vehicle ...

.....

dipped beam headlamps and front fog lamps."

Paragraph 5.16., amend to read:

"5.16.        Number of lamps

5.16.1.        The number of lamps mounted on the vehicle should be equal to the number(s) specified in each of the paragraphs 6.1. to 6.19.

Paragraphs 6.2.4.1. and 6.4.4.2., amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles".

Paragraph 6.5.3., amend to read :

"6.5.3.        Arrangements (see figure below)

A:        Two front direction indicator lamps of the following categories :

1 or 1a or 1b :        (unchanged)

1a or 1b :                (unchanged)

1b :                        (unchanged)

two rear direction-indicator lamps (category 2a or 2b);

two optional lamps (category 2a or 2b) on all vehicles in categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub>, N<sub>3</sub>.

two side direction-indicator lamps ...

..... (unchanged)

B: Two rear direction-indicator lamps (category 2a or 2b);

two optional lamps (category 2a or 2b) on all vehicles in categories O<sub>2</sub>, O<sub>3</sub> and O<sub>4</sub>."

Paragraph 6.5.4.1., amend to read:

"6.5.4.1. In width: the edge ... outer edge of the vehicle. This condition shall not apply to the optional rear lamps.

The distance between the inner edges ... "

Paragraph 6.5.4.2.1., amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles".

Paragraph 6.5.4.2.3., amend to read :

"6.5.4.2.3. If the structure of the vehicle does not permit these upper limits, measured as specified above, to be respected, and if the optional lamps are not installed, they may be increased ... categories 1, 1a, 1b, 2a and 2b."

Insert a new paragraph 6.5.4.2.4., to read:

"6.5.4.2.4. If optional lamps are installed, they shall be placed at a height compatible with the applicable requirements of paragraph 6.5.4.1., the symmetry of the lamps, and at a vertical distance as large as the shape of the bodywork makes it possible, but not less than 600 mm above the mandatory lamps."

Paragraph 6.5.4.3., amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles".

Paragraph 6.5.5.1., amend to read:

"6.5.5.1. Horizontal angles (see figure below).

Vertical angles: 15 above and below ... category 6. The vertical angle above the horizontal may be reduced to 5° if the optional lamps are not less than 2,100 mm above the ground.

..... (FIGURE unchanged)";

In addition note (\*) below the figure, amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles"

Paragraph 6.5.5.2., amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles"

Paragraph 6.5.8., amend to read:

"... thus formed to be detected.

For the optional pair of direction-indicator lamps on trailers/operating tell-tale shall not be mandatory."

Paragraph 6.7.2., amend to read:

"6.7.2.                Number

To S1 or S2 category devices and one S3 category device on all categories of vehicles.

6.7.2.1.            Except the case where category S3 device is installed, two optional category S1 or S2 devices may be installed on vehicles in categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub>, N<sub>3</sub>, O<sub>2</sub>, O<sub>3</sub>, and O<sub>4</sub>.

6.7.2.2.            Only, when the median longitudinal plane ...  
.....  
or to the right of the median longitudinal plane."

Paragraph 6.7.4.1., amend to read:

"6.7.4.1.            In width:  
For M<sub>1</sub> and N<sub>1</sub> category vehicles : ..... "

Paragraph 6.7.4.2., amend to read:

"6.7.4.2.            In height:

6.7.4.2.1.           For S1 or S2 category devices: ... within 1,500 mm and if the optional lamps are not installed. If the optional lamps are installed, they shall be positioned at a height compatible with the requirements of the width and the symmetry of the lamps, and at a vertical distance as large as the shape of the bodywork makes it possible, but not less than 600 mm above the mandatory lamps).

6.7.4.2.2.           For S3 category devices ...  
.....  
apparent surface of S1 or S2 categories devices."

Paragraph 6.7.5., amend to read:

"6.7.5.           Geometric visibility

Horizontal angle:           (unchanged)

Vertical angle:           For S1 or S2 category devices ... less than 750 mm. The vertical angle above the horizontal may be reduced to 5° in the case of optional lamps not less than 2,100 mm above the ground;

For S3 category devices ...  
..... "

Paragraphs 6.9.4.1., and 6.9.5.2., amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles".

Paragraph 6.10.2., amend to read:

"6.10.2.           Number

Two

6.10.2.1.       Except the case where end-outline marker lamps are installed, two optional position lamps may be installed on all vehicles in categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub>, N<sub>3</sub>, O<sub>2</sub>, O<sub>3</sub>, and O<sub>4</sub>."

Paragraph 6.10.4.1., amend to read:

"6.10.4.1.       In width: that point ... outer edge of the vehicle. This condition shall not apply to the optional rear lamps.

The distance between the inner edges ..... of the reference axes shall:

For M<sub>1</sub> and N<sub>1</sub> category vehicles : have no special requirement;  
For all other categories ..... less than 1,300 mm."

Paragraph 6.10.4.2., amend to read:

"6.10.4.2.       In height : above the ground : ... within 1,500 mm and if the optional lamps are not installed. If the optional lamps are installed, they shall be placed at a height compatible with the applicable requirements of paragraph 6.10.4.1., the symmetry of the lamps, and at a vertical distance as large as the shape of the bodywork makes it possible, but not less than 600 mm above the mandatory lamps."

Paragraph 6.10.5., amend to read:

6.10.5.           Geometric visibility

6.10.5.1.       Horizontal angle:       45° inwards and 80° outwards.

                  Vertical angle:       15° above ... 750 mm above the ground.  
  The vertical angle above the  
  horizontal may be reduced to 5° in the  
  case of optional lamps not less than  
  2,100 mm above the ground."

Paragraphs 6.10.5.2., 6.12.4.2., 6.14.4.1., 6.16.4.1. and 6.17.4.3., amend the words "M<sub>1</sub> category vehicles" to read "M<sub>1</sub> and N<sub>1</sub> category vehicles".

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