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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

DRAFT SUPPLEMENT 4 TO THE 02 SERIES  
OF AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Note: The text reproduced below was adopted by the Administrative Committee (AC.1) of the amended 1958 Agreement at its twenty-first session, following the recommendation by WP.29 at its one-hundred-and-twenty-seventh session. It is based on document TRANS/WP.29/2002/10/Rev.1, as amended (TRANS/WP.29/861, para. 150).

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Insert a new paragraph 2.26., to read:

"2.26.            "Bend lighting" means a lighting function to provide enhanced illumination in bends."

Insert new paragraph 2.7.25., to read:

"2.7.25.        "Cornering lamp" means a lamp used to provide supplementary illumination of that part of the road which is located near the forward corner of the vehicle at the side towards which the vehicle is going to turn."

Paragraph 2.9.1., amend to read:

"2.9.1.        "illuminating surface of a lighting device" (paragraphs 2.7.9., 2.7.10., 2.7.18., 2.7.20. and 2.7.25.) means the orthogonal projection of the full aperture of the reflector, or in the case of headlamps with an ellipsoidal reflector of the "projection lens", on a transverse plane. If the lighting device has no reflector, the definition of paragraph 2.9.2. shall be applied. If the light emitting surface of the lamp extends over part only of the full aperture of the reflector, then the projection of that part only is taken into account.  
....."

Paragraph 2.16.1., amend to read:

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

Paragraph 5.15., add at the end the new text reading:

" .....  
cornering lamp:        white."

Paragraph 6.1.6., amend to read:

"6.1.6.        Orientation  
  
Towards the front.  
  
Not more than one main-beam headlamp on each side of the vehicle may swivel to produce bend lighting."

Insert a new paragraph 6.2.6.4., to read:

"6.2.6.4.        Horizontal orientation  
  
The horizontal orientation of one or both dipped-beam headlamps may be varied to produce bend lighting, provided that if the whole beam or the kink of the elbow of the cut-off is moved, the kink of the elbow of the cut-off shall not intersect the line of the trajectory of the centre of gravity of the vehicle at distances from the front of the vehicle which are larger than 100 times the mounting height of the respective dipped-beam headlamps."

Paragraph 6.2.7., amend to read:

" ..... during the main beam operation.

One additional light source, located inside the dipped-beam headlamps or in a lamp (except the main-beam headlamp) grouped or reciprocally incorporated with the respective dipped-beam headlamps, may be activated to produce bend lighting, provided that the horizontal radius of curvature of the trajectory of the centre of gravity of the vehicle is 500 m or less. This may be demonstrated by the manufacturer by calculation or by other means accepted by the authority responsible for type approval.

Dipped-beam headlamps may be switched ON or OFF automatically. However, it shall be always possible to switch these dipped-beam headlamps ON and OFF manually."

Paragraph 6.2.8., amend to read:

"6.2.8.            Tell-tale

Tell-tale optional.

However, in the case where the whole beam or the kink of the elbow of the cut-off is moved to produce bend lighting, an operational tell-tale is mandatory; it shall be a flashing warning light which comes on in the event of a malfunction of the displacement of the kink of the elbow of the cut-off."

Paragraph 6.2.9., amend to read (footnote 4/ not modified):

"6.2.9.            Other requirements

The requirements of paragraph 5.5.2. shall not apply to dipped-beam headlamps.

Dipped-beam headlamps with gas-discharge light sources shall only be permitted in conjunction with the installation of headlamp cleaning device(s) according to Regulation No. 45. 4/ In addition, with respect to vertical inclination, the provisions of paragraph 6.2.6.2.2. shall not be applied when these headlamps are installed.

Only dipped-beam headlamps according to Regulations Nos. 98 or 112 may be used to produce bend lighting.

If bend lighting is produced by a horizontal movement of the whole beam or the kink of the elbow of the cut-off, it shall be activated only if the vehicle is in forward motion; this shall not apply if bend lighting is produced for a right turn in right hand traffic (left turn in left hand traffic)."

Paragraphs 6.19.7. and 6.19.8. amend to read:

"6.19.7.            Electrical connections

If installed, the daytime running lamps shall be switched ON automatically when the device which starts and/or stops the engine is in a position which makes it possible for the engine to operate. It shall be possible to activate and deactivate the

automatic switching ON of daytime running lamps without the use of tools.

The daytime running lamp shall switch OFF automatically when the headlamps are switched ON, except when the latter are used to give intermittent luminous warnings at short intervals.

6.19.8. Tell-tale

Closed-circuit tell-tale optional."

Insert new paragraphs 6.20. to 6.20.9., to read:

"6.20. CORNERING LAMP

6.20.1. Presence

Optional on motor vehicles.

6.20.2. Number

Two.

6.20.3. Arrangement

No special requirement.

6.20.4. Position

6.20.4.1. In width: that point on the apparent surface in the direction of the reference axis which is farthest from the vehicle's median longitudinal plane shall not be more than 400 mm from the extreme outer edge of the vehicle.

6.20.4.2. In length: not further than 1,000 mm from the front.

6.20.4.3. In height:  
minimum: Not less than 250 mm above the ground.  
maximum: Not more than 900 mm above the ground;

However, no point on the apparent surface in the direction of the reference axis shall be higher than the highest point on the apparent surface in the direction of the reference axis of the dipped-beam headlamp.

6.20.5. Geometric visibility

Defined by angles  $\alpha$  and  $\beta$  as specified in paragraph 2.13.,  
 $\alpha = 10^\circ$  upwards and downwards,

$\beta = 30^\circ$  to  $60^\circ$  outwards.

6.20.6. Orientation

Such that the lamps meet the requirements for geometric visibility.

6.20.7. Electrical connections

The cornering lamps must be so connected that they cannot be activated unless the main-beam headlamps or the dipped-beam headlamps are switched ON at the same time.

The cornering lamp on one side of the vehicle may only be switched ON automatically when the direction indicators on the same side of the vehicle are switched ON and/or when the steering angle is changed from the straight-ahead position towards the same side of the vehicle.

The cornering lamp shall be switched OFF automatically when the direction indicator is switched OFF and/or the steering angle has returned in the straight-ahead position.

6.20.8. Tell-tale

None.

6.20.9. Other requirements

The cornering lamps shall not be activated at vehicle speeds above 40 km/h."

Annex 1,

Insert new item 9.22., to read:

"9.22. Cornering lamps: yes/no 2/ .....

Items 9.22. (former) and 9.23., renumber as items 9.23. and 9.24., to read:

"9.23. Equivalent lamps: yes/no 2/ .....

9.24. Maximum permissible load in the boot: .....

Annex 9, paragraph 1.4., amend the reference to "paragraphs 5.11. to 5.13." to read "paragraphs 5.11. to 5.14."

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