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Working Party on Lighting and Light-Signalling (GRE)  
(Forty-seventh session, 1-5 October 2001,  
agenda item 1.2.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Revision 1

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

Note: The text reproduced below was prepared by the expert from GTB in order to respond to the invitation by the Chairman at the forty-sixth session of GRE regarding the consolidation of all documents and comments on bend lighting (TRANS/WP.29/GRE/46 para. 16).

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

GE.01-22624

**A. PROPOSAL**

Insert a new paragraph 2.26., to read:

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

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."

Paragraph 6.2.8., amend to read:

"6.2.8. Tell-tale

Tell-tale optional.

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."

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\*/ Another amendment to this paragraph is proposed in document TRANS/WP.29/GRE/2000/16/Rev.1.

Paragraph 6.2.9., amend to read:

" ..... 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)."

[Paragraph 6.3.6., amend to read:

" .... and other road users.

The horizontal orientation of one or both front fog lamps may be varied 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 acceptable to the authority responsible for type approval."

Paragraph 6.3.7., amend to read:

" ..... of main- and dipped-beam headlamps.

One [or both] front fog lamp[s] 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 acceptable by the authority responsible for type approval."]

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## **B. JUSTIFICATION**

At its forty-sixth session GRE discussed a GTB proposal intended to introduce into Regulation No. 48 provisions regarding bend lighting (TRANS/WP.29/GRE/2001/15).

During the discussion a number of additional proposals were presented, either as verbal contributions or as informal documents. In particular, the following issues were addressed:

- Separation of the definition of "bend lighting" from the requirements;
- Use of front fog lamps for bend lighting;
- Use of an additional light source for bend lighting;
- Restrictions concerning the use of main-beam headlamps for bend lighting.

As it was not possible to arrive at a consensus, the GRE Chairman invited GTB, OICA and Japan to compile all documents and suggestions and prepare a formal document to be considered at the forty-seventh GRE session.

In the meantime, discussions have been held between GTB and Japanese experts at the SAE Lighting Committee meeting in April 2001 in Vancouver and at the ninety-first GTB session in May 2001 in Rome; the latter discussion also involved experts from automobile manufacturers.

As a result of this work GTB has prepared a new proposal for amendments to Regulation No. 48 which is set out below; it replaces the proposals in document TRANS/WP.29/GRE/2001/15. In view of the conflicting opinions regarding the use of front fog lamps for bend lighting, amendments to paragraphs 6.3.6. and 6.3.7. have been placed in square brackets.

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