

**GTB PROPOSAL TO AMEND THE  
1968 VIENNA CONVENTION ON ROAD TRAFFIC  
7 March 2002**

1. BACKGROUND

- 1.1 The interrelationship between the technical requirements in ECE Regulations regarding lighting and light-signalling devices and their installation and corresponding provisions in the Vienna Convention has been discussed at several instances by GRE. At the forty-third session, the Chairman invited GTB to consider in detail the prescriptions relating to lighting of the Vienna Convention, and to propose possible amendments in order to bring its text in line with the latest developments in lighting equipment of vehicles. The expert from GTB accepted to study the subject and to inform GRE about possible amendments to the Convention that should be suggested to WP.29 and WP.1 (TRANS/WP.29/GRE/43, paras. 107. - 109.).
- 1.2 The principal objectives of the Vienna Convention are set out in Article 2; Contracting Parties shall take appropriate measures to ensure that
- their rules of the road conform to the provisions of Chapter II;
  - the rules concerning the technical requirements for motor vehicles and trailers conform to the provisions of Annex 5.
- 1.3 As regards rules of the road, GTB has already drawn attention to the influence of use regulations on vehicle construction and to the negative consequences of different national provisions for manufacturers when designing the electrical connections for the installation of lighting devices in vehicles (TRANS/WP.29/GRE/2001/41). These problems have again become evident during the preparation of a draft Global Technical Regulation (GTR) on lighting installation, in particular concerning front fog lamps and daytime running lamps. The differences in national rules regarding the use of lamps can also be seen in Table 10 of document TRANS/WP.1/80.
- 1.4 In the strict legal sense, the task of GTB would be restricted to compare the ECE Regulations actually in force with the provisions of Annex 5 of the Convention. However, it should be borne in mind that
- the rules concerning the use of lighting devices may seriously affect vehicle design;
  - amendments to the Convention only occur at time intervals of several years.
- It is therefore considered advisable to cover all relevant provisions of the Convention and to take into account new technical developments, such as the adaptive front lighting system (AFS) and bend lighting, which are liable to be introduced into ECE Regulations in the foreseeable future.
- 1.5 The detailed proposals for amendments are set out below. In view of ongoing work in GRE regarding new developments and their introduction into ECE Regulations these proposals should be considered as a basis for discussion.  
If necessary, explanatory notes have been added.

## 2. PROPOSAL

### 2.1 Article 32, paragraph 4

Amend to read:

"Rear fog lamps may only be lit in thick fog and falling snow, heavy rain or similar conditions. Front fog lamps may be used either with or as a substitute for passing lamps or as part of an adaptive front lighting system. They may be lit in thick fog and falling snow, heavy rain or similar conditions; they may also be used at night on narrow, winding roads, whatever the weather condition."

*Note:*

- *WP1 is re-considering the use of front fog lamps in "heavy rain and similar conditions".*
- *GRE is currently discussing the question of the use of front fog lamps together with a passing beam or a main beam in relation to the GTR on the installation of vehicle lighting and light signalling devices; WP1 is also considering the same question.*
- *The use of front fog lamps as part of an AFS should be covered.*

### 2.2 Article 32, paragraph 7:

Delete the last sentence.

*Note:*

- *The actual version of Regulation No. 48 does not require that the rear position lamps be switched on when daytime running lamps are switched on.*

### 2.3 Annex 1

Paragraph 8:

Amend to read :

"Contracting Parties may refuse to admit to their territories in international traffic any motor vehicle equipped with passing lamps or an adaptive front lighting system with asymmetric beams if such beams have not been adapted to suit the direction of traffic in their territories, or replaced by a passing beam with a symmetrical beam pattern."

*Note:*

- *The text has been completed to cover all technical solutions.*

### 2.4 Annex 2

#### 2.4.1 Paragraph 3:

Amend to read:

"When the registration number is displayed on a special plate, apart from any raised lettering or numbering, this plate shall be flat and fixed in a vertical or nearly vertical position and at right angles to the vehicle's median longitudinal plane, or in a position defined by national law".

*Note:*

- *Contracting Parties should have the possibility to define the position of the registration number plate on certain vehicles or categories of vehicles which by construction do not permit the installation of a registration plate according to the current requirements in paragraph 3 of Annex 2.*

#### 2.4.2 Paragraph 4

Amend to read:

"Subject to the provisions of Article 61 (g), the plate or surface on which the registration number is displayed or painted may be of a retro-reflecting material.

*Note:*

- *The reference to the Article 32, paragraph 5 is no longer valid as it corresponds to the original text of the Convention prior to its amendment which entered into force on 3 September 1993.*

## 2.5 Annex 5, Chapter II

### 2.5.1 Paragraph 19

#### 2.5.1.1 Amend definitions to read:

"Driving lamp" means the lamp used to illuminate the road over a long distance ahead of the vehicle or the relevant parts of an adaptive front lighting system;

"Passing lamp" means the lamp used to illuminate the road ahead of the vehicle without causing undue dazzle or inconvenience to oncoming drivers or other road users or the relevant parts of an adaptive front lighting system;

"Daytime running lamp" means the lamp intended to improve the daytime conspicuity and visibility of the front of a vehicle in running use or the relevant parts of an adaptive front lighting system;"

#### 2.5.1.2 After "Passing Lamp", add new definitions:

"Adaptive front lighting system" (AFS) means an adaptive passing lamp system comprising several light emitting components on either side of the vehicle, operated automatically and providing (optionally) an adaptive main beam or daytime running light;

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

*Note:*

- *These amendments are intended to cover new technical developments such as the adaptive front lighting system (AFS) and bend lighting.*

#### 2.5.1.3 Amend the definition of "Stop lamp" to read as follows:

"Stop lamp" means the lamp used to indicate to other road users to the rear of the vehicle that the service brake is applied and/or longitudinal movement of the vehicle is intentionally retarded."

*Note:*

- *This amendment reflects the actual state of discussion in GRE and WP29.*

#### 2.5.1.4 Add a new definition to read:

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

*Note:*

- *This amendment reflects the GRE proposal for introduction of cornering lamps into Regulation No. 48.*

#### 2.5.1.5 Delete the definition of "illuminating surface".

*Note:*

- *This proposal is consequent to the proposal to amend paragraph 21 (see item 2.5.2 below).*

### 2.5.2 Paragraph 21

Amend to read as follows:

"With the exception of .....driving lamps or an adaptive front lighting system capable of....."

*Note:*

- *This wording introduces the possibility of fitting AFS; it also adapts the Convention to the current version of Regulation No.48 concerning the position of passing beam lamps at the front of a vehicle.*

*The second sentence can be deleted in order to align the Convention to the current version of Regulation No. 48.*

### 2.5.3. Paragraph 22

Amend to read as follows:

"With the exception of....passing lamps or an adaptive front lighting system capable of...in clear weather.

A motor vehicle shall be equipped with a device such that

- no more than two passing beams, including their bend lighting function (if present), may be lit simultaneously, or
- the components of an adaptive front lighting system located on either side of the vehicle contribute to the passing beam, whatever their mode of operation."

*Note:*

- *This wording provides the possibility of fitting bend lighting or an AFS.*

- 2.5.4 Paragraph 23  
Amend to read:  
"Every motor vehicle other than a two-wheeled motor cycle without side-car shall be equipped in front with two white or amber front position lamps. These front position lamps ..."  
*Note:*  
- *This wording corresponds to actual requirements in Regulation No. 48 and in national regulations.*
- 2.5.5 Paragraph 26  
Add a sentence at the end to read as follows:  
"When passing lamps or an adaptive front lighting system are/is used as daytime running lamps, the electrical connections may be such that the front position lamps are not switched on."  
*Note:*  
- *This sentence will to allow for passing lamps and AFS to provide the daytime running lamp function.*
- 2.5.6 Paragraph 40  
In the first sentence, delete "or selective yellow".  
Add a sentence at the end to read as follows:  
"If front fog lamps are part of an adaptive front lighting system, their beams shall be adjusted to comply with the definition of a passing lamp in paragraph 19 above."  
*Note:*  
- *This wording corresponds to the actual version of Regulation No. 48 and also covers front fog lamps as part of an AFS.*
- 2.5.7 Paragraph 42  
Add another sub-paragraph to read:  
"Every motor vehicle may be fitted with cornering lamps. If such lamps are fitted they shall emit white light"  
*Note:*  
- *This wording would allow the fitting of cornering lamps, now included in Regulation No. 48.*
- 2.5.8 Paragraph 43  
After sub-paragraph (b) insert a new sub-paragraph (c) to read as follows:  
"(c) In case of an adaptive front lighting system the sum of the light-emitting components located on the right and left side of the vehicle which are lit simultaneously shall be considered as an even number of lamps."  
*Note:*  
- *Due to the special design features of an AFS, the number and light intensity of components illuminated simultaneously may not be symmetrical to the median longitudinal plane of the vehicle. However, the technical requirements for the approval of AFS and its installation in the vehicle, which are based on research, ensure that the vehicle will be clearly recognized and identified.*
- 2.5.9 Paragraph 44  
The second and third sentences should be placed in a separate paragraph, to which the following sentence should be added:  
"These provisions do not apply to an adaptive front lighting system."  
*Note:*  
- *As noted under paragraph 43 above, special provisions are necessary for an AFS.*

2.6 Annex 5, Appendix

2.6.1 Amend the title to read:  
"COLOR OF LIGHT EMITTED BY LAMPS (TRICHROMATIC COORDINATES)"

2.6.2 Amend the values for colours red and amber as follows:

Red	limit towards yellow	$y = 0.335$
	limit towards purple	$y = 0.980 - x$
Amber	limit towards red	$y = 0,390$
	limit towards green	$y = x - 0,120$
	limit towards white	$y = 0.790 - 0,670x$

2.6.3 Amend and number the sentence at the end of the list of colours as follows:

"1. For verifying the colorimetric characteristics of the signalling devices incorporating (a) white removable light source(s), a source of white light at a colour temperature of 2856°K (corresponding to the illuminant A of the International Commission on Illumination) shall be used.

2.6.4 Add the following sentences:

"2. For verifying the colorimetric characteristics of the signalling devices incorporating (a) colored removable light source(s), the light source(s) shall be operated at the voltage which produces the colour of the Illuminant A for a white light source of the same type.

3. For verifying the colorimetric characteristics of the signaling devices incorporating (a) non-removable light source(s), the light source(s) shall be operated at the voltage(s) specified by the manufacturer."

*Note:*

- *The amendments reflect the harmonisation of trichromatic coordinates for amber and red and current laboratory practice.*

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