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PROPOSAL FOR DRAFT AMENDMENTS TO THE 1968 VIENNA CONVENTION  
ON ROAD TRAFFIC

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

Note: The text reproduced below was prepared by the experts from GTB in order to establish provisions in the Vienna Convention that would provide use of the latest technologies/developments concerning vehicle lighting use on road traffic. The modifications to the existing text of the Vienna Convention are marked in **bold** characters.

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

**A. PROPOSAL**

Article 32, paragraph 4, amend to read:

"4. **Rear fog lamps may only be lit in thick fog and falling snow, 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 also be used at night on narrow, winding roads, whatever the weather condition.**"

Article 32, paragraph 7, delete the last sentence:

~~"Rear position lamps shall in this case be used together with the front lamps".~~

Annex 1,

Paragraph 8, amend to read:

"8. 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.**"

Annex 2,

Paragraph 3, amend to read:

"3. 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.**"

Paragraph 4, amend to read:

"4. Subject to the provisions of **paragraph 61(g) of Annex 5**, the plate or surface on which the registration number is displayed or painted may be of a **retro-reflecting** material."

Annex 5,

Chapter II, paragraph 19, amend the following definitions to read:

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

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

"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.**"

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

Chapter II, paragraph 19 definition "Illuminating surface", amend to read:

**"Illuminating surface of a reflex-reflector" means the visible surface of the reflex-reflecting optical unit.** For a reflex-reflector, the effective surface is the visible surface of the reflex-reflecting optical unit."

Chapter II, paragraph 19, insert the following 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;**

**"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;"**

Chapter II, paragraph 21, amend to read:

"21. With the exception of motorcycles, every motor vehicle capable of exceeding **45 km (28 miles)** per hour on level road shall be equipped in front with an even number of white ~~or selective-yellow~~ driving lamps **or an adaptive front lighting system** capable of adequately illuminating the road at night in clear weather. The outer edges ... ."

Chapter II, paragraph 22, amend to read:

"22. With the exception of motorcycles, every motor vehicle capable of exceeding 10 km (6 miles) per hour on level road shall be equipped in front with an even number of white ~~or selective-yellow~~ passing lamps **or an adaptive front lighting system** capable of adequately illuminating the road at night and in clear weather. A motor vehicle shall be equipped with a device such that no more than **either two passing beams, including their bend lighting function (if present) or, the components of an adaptive front lighting system located on either side of the vehicle which contribute to the passing beam, whatever their mode of operation,** may be lit simultaneously. Passing lamps shall be so adjusted as to comply with the definition in paragraph 19 of this Annex."

Chapter II, paragraph 23, amend to read:

"23. 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. ~~;however, selective yellow shall be permitted for front position lamps incorporated in driving lamps or passing lamps which emit a selective yellow beam.~~ These front position lamps ..."

Chapter II, paragraph 26, amend to read:

"26. The electrical connections on all motor vehicles (including motor cycles) and all combinations consisting of a motor vehicle and one or more trailers shall be such that driving lamps, passing lamps, front fog lamps and front position lamps of the motor vehicle and the lighting device referred to in paragraph 25 above cannot be switched on unless the rearmost rear position lamps of the motor vehicle or combination of vehicles are switched on as well.

Rear fog lamps shall be able to be switched on only if the driving lamps, the passing lamps or the front fog lamps are switched on.

However, this provision shall not apply to driving lamps or passing lamps when they are used to give a luminous warning referred to in Article 32, paragraph 3, of this Convention. In addition, the electrical connections shall be such that the front position lamps of the motor vehicle are always switched on when the passing lamps, driving lamps or front fog lamps are on. **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."**

Chapter II, paragraph 40, amend to read:

"40. If front fog lamps are fitted on a motor vehicle they shall emit white or selective yellow light, be two or, in the case of a motorcycle, one in number and be placed in such a way that no point of their illuminating surface is above the highest point on the illuminating surface of the passing lamps. **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."**

Chapter II, paragraph 42, amend to read:

"42. No lamps, other than direction-indicator lamps and special warning lamps shall emit a ~~winking or~~ flashing light. Side lamps may ~~wink~~ flash at the same time as the direction-indicator lamps."

Chapter II, add a new paragraph 42 octies to read:

**"41 octies. Every motor vehicle may be fitted with cornering lamps. If such lamps are fitted they shall emit white light."**

Chapter II, paragraph 44, amend to read:

"44. Lamps on a given vehicle having the same function and facing in the same direction, shall be of the same colour. Lamps and reflex-reflectors which are of even number shall be placed symmetrically in relation to the vehicle's median longitudinal plane except on vehicles with an asymmetrical external shape. The intensity of the lamps in each pair shall be substantially the same. **These provisions do not apply to an adaptive front lighting system.**"

Annex 5,

Appendix, amend the title to read:

**"COLOUR OF LIGHT EMITTED BY LAMPS (TRICHROMATIC COORDINATES)"**

Appendix, amend the values for colours red and amber to read (including the deletion of footnote 3/):

"Red	.....	limit towards yellow	...	$y = 0.335$
		limit towards purple	<u>1/</u>	... $y = 0.980 - x$
Amber	<u>2/</u> .....	limit towards red	<u>1/</u>	... $y = 0.390$
		<b>limit towards green</b>		... $y = x - 0.120$
		limit towards white	<u>1/</u>	... $y = 0.790 - 0.670x$ "

Appendix, amend and number the sentence at the end of the list of colours to read:

"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 [CIE]) shall be used."

Appendix, add the two sentences after above mentioned sentence to read:

"2. For verifying the colorimetric characteristics of **the signalling devices incorporating (a) coloured replaceable 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 signalling devices incorporating (a) non-replaceable light source(s)**, **the light source(s) shall be operated at the voltage(s) specified by the manufacturer.**"

## **B. JUSTIFICATION**

GTB was asked to consider the prescriptions relating to vehicle lighting in the Vienna Convention, and to propose amendments in order to allow the certain latest technologies/developments.

The principal objectives of the Vienna Convention are to:

- allow vehicles to cross borders ("international traffic")
- be the basis for national legislation (this is mainly for the rules of the road, because the technical regulations are dealt with by the UN ECE regulation system).

The Convention must therefore include all vehicles on the road in its provisions.

In the strict legal sense, the task of GTB is to:

- compare the provisions of the Convention and its Annex 5 with the ECE Regulations;
- consider the requirements for adaptive front lighting systems.

However, it should be borne in mind that amendments to the Convention only occur at time intervals of several years and the next batch will probably be ready around 2009.

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