

6 August 2013

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## Agreement

### **Concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions\***

(Revision 2, including the amendments which entered into force on 16 October 1995)

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#### **Addendum 111 – Regulation No. 112**

#### **Revision 3 - Amendment 1**

Supplement 4 to the 01 series of amendments – Date of entry into force: 15 July 2013

**Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing-beam or a driving-beam or both and equipped with filament lamps and/or light-emitting diode (LED) modules**



**UNITED NATIONS**

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\* Former title of the Agreement: Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

*Paragraph 1.3., amend to read:*

- "1.3. "Headlamps of different types" means headlamps which differ in such essential respects as:
- 1.3.1. The trade name or mark;
  - 1.3.2. The characteristics of the optical system;
  - 1.3.3. The inclusion or elimination of components capable of altering the optical effects by reflection, refraction, absorption and/or deformation during operation;
  - 1.3.4. Suitability for right-hand or left-hand traffic or for both traffic systems;
  - 1.3.5. The kind of beam produced (passing beam, driving beam or both);
  - 1.3.6. The category of filament lamp used and/ or the LED module specific identification code(s);
  - 1.3.7. However, a device intended for the installation on the left side of the vehicle and the corresponding device intended for the installation on the right side of the vehicle shall be considered to be of the same type."

*Insert new paragraphs 3.5. to 3.5.3., to read:*

- "3.5. LED module(s) submitted along with the approval of the lamp:
- 3.5.1. Shall bear the trade name or mark of the applicant. This marking shall be clearly legible and indelible;
  - 3.5.2. Shall bear the specific identification code of the module. This marking shall be clearly legible and indelible.  
  
This specific identification code ... shall be from the same applicant.
  - 3.5.3. If the LED module(s) are non-replaceable, the markings for LED module(s) are not required."

*Paragraph 5.3., insert a new paragraph 5.3.1.3. and amend paragraph 5.3.2.1. to read:*

- "5.3. The headlamp shall be equipped with:
- ...
  - 5.3.1.3. A means of controlling the voltage at the terminals of the device, within the limits as defined in Regulation No. 48, may, for convenience, be located within the body of the headlamp. However, for the purposes of type approval of the passing and/ or driving beam according to the provisions of this Regulation, such means of voltage control shall not be considered to be part of the headlamp and shall be disconnected during the testing to verify performance according to the requirements of this Regulation.
  - 5.3.2. And/or LED module(s):
    - 5.3.2.1. Electronic light source control gear(s) associated with the operation of LED module(s), if applicable, shall be considered to be part of the headlamp; they may be part of the LED module(s);  
  
..."

Annex 2, amend to read:

## "Annex 2

### Examples of arrangement of approval marks

Figure 1

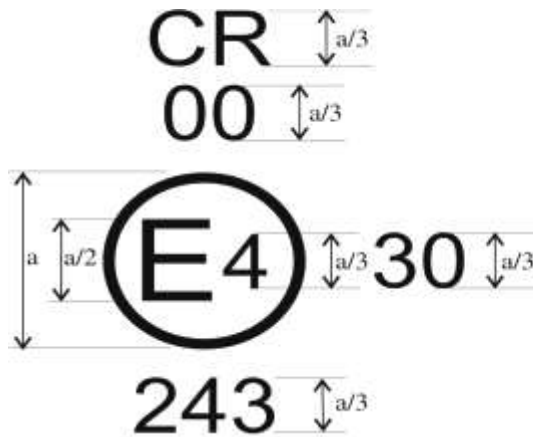
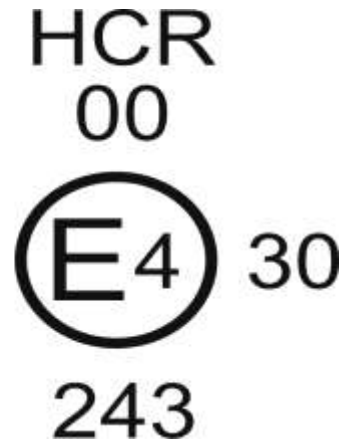


Figure 2



$a \geq 8$  mm (on glass)

$a \geq 5$  mm (on plastic material)

..."

Annex 4,

Paragraph 1.1.2.2., amend to read:

"1.1.2.2. Photometric test:

...

Passing-beam:

50 R - B 50 L – 25 L for headlamps designed for right-hand traffic

50 L - B 50 R – 25 R for headlamps designed for left-hand traffic

Driving beam: Point  $I_{\max}$

Another aiming may be carried out to allow for any deformation of the headlamp base due to heat (the change of the position of the cut-off line is covered in paragraph 2. of this annex).

Except for point B 50 L, a 10 per cent discrepancy between the photometric characteristics and the values measured prior to the test is permissible including the tolerances of the photometric procedure. The value measured at point B 50 L shall not exceed the photometric value measured prior to the test by more than 170 cd."

*Annex 6,*

*Paragraph 2.6.1.2.,* amend to read:

2.6.1.2. Results

After the test, the results of photometric measurements carried out on the headlamp in accordance with this Regulation shall not exceed:

- (a) By more than 30 per cent the maximum values prescribed at points B 50 L and HV and by more than 10 per cent below the minimum values prescribed at point 75 R (in the case of headlamps intended for left-hand traffic, the points to be considered are B 50 R, HV and 75 L)

or

- (b) By more than 10 per cent below the minimum values prescribed for HV in the case of a headlamp producing driving beam only."

*Annex 10,*

*Paragraph 4.3.1.1.,* amend to read:

- "4.3.1.1. A photometric measurement of the headlamp shall be made after 1 minute of operation for the specific function at the test point specified below. For these measurements, the aim can be approximate but must be maintained for before and after ratio measurements.

Test points to be measured:

Passing-beam 25 R

Driving-beam HV "

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