Transmitted by the expert from IMMA

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Collective amendments - Regulation Nos. 53 and 113

Proposal for Amendment to Regulation 53 (Installation of lighting and light-signalling devices on category L3 vehicles) for introducing bend lighting

Submitted by the expert from IMMA

The text reproduced below was prepared by the expert from the IMMA in order to introduce amendments to introduce bend lighting. The modifications to the current text of the Regulation are marked in bold or strikethrough characters.

A. PROPOSAL

Insert new paragraph 2.30., to read:

2. DEFINITIONS

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

Insert new paragraph 6.2.3.1.4., to read:

6. INDIVIDUAL SPECIFICATIONS
6.2. PASSING BEAM HEADLAMP
6.2.3. Position
6.2.3.1. Width

6.2.3.1.4. The additional lighting unit(s) which provide bend lighting, type approved according to regulation No. 113, shall be installed under the following conditions:

If the additional lighting units are composed of the same number from side to side, the reference centre of each pair(s) must be symmetrical in relation to the median longitudinal plane of the vehicle.

If single additional lighting unit is fitted, its reference centre must be located within the medium longitudinal plane of the vehicle.

Insert new paragraphs 6.2.5.7.to 6.2.5.8., to read:

6.2.5. Orientation

6.2.5.7. Additional light source(s) may be activated to produce bend lighting. The illuminating area produced by additional light source(s) must not illuminate the area above the H-H line on the side intended to provide bend lighting in relation to the median longitudinal plane of the vehicle.

6.2.5.8. The requirement in paragraph 6.2.5.7. shall be tested under the following conditions:

The test vehicle shall be set as specified in paragraph 5.4. Measure the bank angles on both sides of the vehicle under every condition which additional light source(s) starts activating. The bank angles to measure are specified in regulation No.113 type approval.

The handlebar may be fixed in the straight ahead position so as not to move during the vehicle inclination.

For the test, the additional light source(s) may be activated by means of a signal generator provided by the manufacturer.

The system is considered to satisfy the requirements of paragraph 6.2.5.7., if all measured bank angles on both sides of the vehicle are greater than or equal to the horizontal inclination angles given in the type approvals specified in Regulation No 113. Conformity to paragraph 6.2.5.7. may be demonstrated by the manufacturer using other means accepted by the authority responsible for type approval.

Insert new paragraph 6.2.7.1., to read:

6.2.7. Electrical connections

6.2.7.1. The additional light source(s) shall be so connected that it (they) cannot be activated unless the principal passing beam headlamp(s) is(are) in switch ON condition.
The additional light source(s) on each side of the vehicle may only be switched ON automatically when either

1. **the direction indicators on the same side of the vehicle are switched ON, or**
2. **the bank angle(s) is greater or equal to the horizontal inclination angle(s) given in the type approvals specified in Regulation No 113, or**
3. **both 1) and 2) together**

Insert new paragraph 6.2.9.1., to read:

6.2.9. Other requirements

6.2.9.1. In the event of additional light source(s) control system failure, additional light source(s) must be switched OFF automatically.

B. JUSTIFICATION

This proposal specifies the requirements concerning additional light source type headlamps installed on motorcycles.
In the case of a motorcycle, due to its driving characteristics, the headlamp inclines with the vehicle when the vehicle is running on a curved road, narrowing the illumination area of the headlamp in the traveling direction. Therefore, by supplementing the principal headlamp's light distribution by additional illumination from additional light source(s) to keep the illumination area wide enough, the night-time visibility for the rider is expected to improve.

This effect is similar to HIAS.
