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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Lighting and Light-Signalling****Seventy-ninth session**

Geneva, 24-27 April 2018

Item 4 of the provisional agenda

**Simplification of lighting and light-signalling Regulations****Proposal for Supplement [2] to the 02 series of amendments  
to Regulation No. 53****Submitted by the Informal Working Group on Simplification of  
Lighting and Light-Signalling Regulations (IWG SLR)\***

The text reproduced below was prepared by IWG SLR on the basis of GRE-78-11 and with the aim to introduce into the 02 series of amendments to Regulation No. 53 references to the three new simplified Regulations on Light-Signalling Devices (LSD), Road Illumination Devices (RID) and Retro-Reflective Devices (RRD). The modifications to the existing text of Regulation No. 53 are marked in bold for new or strikethrough for deleted characters. Some text is shown in square brackets to indicate that discussion and a decision are required.

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\* In accordance with the programme of work of the Inland Transport Committee for 2014–2018 (ECE/TRANS/240, para. 105 and ECE/TRANS/2014/26, cluster 02.4), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



## I. Proposal

*Paragraph 5.8.1.*, amend to read:

“5.8.1. The photometric characteristics of a direction indicator lamp except for categories 5 and 6 specified in Regulation No. 6 **or [LSD]**, and of a direction indicator lamp specified in Regulation No. 50 **or [LSD]** may be varied during a flash by sequential activation of light sources as specified in paragraph 5.6. of Regulation No. 6 **or paragraph 5.6.11. of Regulation No. [LSD]** or in paragraph 6.8. of Regulation No. 50.

This provision shall not apply when direction indicator lamps of categories 2a and 2b of Regulation No. 6 **or [LSD]** or category 12 of Regulation No. 50 **or [LSD]** are operated as emergency stop signal according to paragraph 6.14. of this Regulation.”

*Paragraph 5.14.4.*, amend to read:

“5.14.4. Stop lamp, S1 category device specified in Regulation No. 7 **or [LSD]** or stop lamp specified in Regulation No. 50 (paragraph 6.4.) **or stop lamp for category L vehicles in Regulation No [LSD];**”

*Paragraph 5.15.4.*, amend to read:

“5.15.4. Stop lamp, S3 category device specified in Regulation No. 7 (paragraph 6.4.) **or [LSD];**”

*Paragraph 6.1.1.1.*, amend to read:

“6.1.1.1. For motorcycles having a cylinder capacity  $\leq 125 \text{ cm}^3$

One or two of approved type according to:

- (a) Class C, D or E of Regulation No. 113;
- (b) Regulation No. 112;
- (c) Regulation No. 1;
- (d) Regulation No. 8;
- (e) Regulation No. 20;
- (f) Regulation No. 57;
- (g) Regulation No. 72;
- (h) Regulation No. 98.
- (i) **Class [A, B, D, CS, DS or ES] of Regulation No. [RID]**”

*Paragraph 6.1.1.2.*, amend to read:

“6.1.1.2. For motorcycles having a cylinder capacity  $> 125 \text{ cm}^3$

One or two of approved type according to:

- (a) Class D or E of Regulation No. 113;
- (b) Regulation No. 112;
- (c) Regulation No. 1;
- (d) Regulation No. 8;

- (e) Regulation No. 20;
- (f) Regulation No. 72;
- (g) Regulation No. 98;
- (h) Class [A, B, D, DS or ES] of Regulation No. [RID]**

Two of approved type according to:

- (i) Class C of Regulation No. 113;**
- (j) Class CS of Regulation No. [RID]**

*Paragraph 6.2.1.1., amend to read:*

“6.2.1.1. For motorcycles having a cylinder capacity  $\leq 125 \text{ cm}^3$

One or two of approved type according to:

- (a) Class C, D or E of Regulation No. 113;
- (b) Regulation No. 112;
- (c) Regulation No. 1;
- (d) Regulation No. 8;
- (e) Regulation No. 20;
- (f) Regulation No. 57;
- (g) Regulation No. 72;
- (h) Regulation No. 98;
- (i) Class [A, B, D, CS, DS or ES] of Regulation No. [RID]**

*Paragraph 6.2.1.2., amend to read:*

“6.2.1.2. For motorcycles having a cylinder capacity  $> 125 \text{ cm}^3$

One or two of approved type according to:

- (a) Class D or E of Regulation No. 113;
- (b) Regulation No. 112;
- (c) Regulation No. 1;
- (d) Regulation No. 8;
- (e) Regulation No. 20;
- (f) Regulation No. 72;
- (g) Regulation No. 98;
- (h) Class [A, B, D, DS or ES] of Regulation No. [RID]**

Two of approved type according to:

- (i) Class C of Regulation No. 113;**
- (j) Class CS of Regulation No. [RID]**

*Paragraph 6.2.3.1.4., amend to read:*

“6.2.3.1.4. If installed, additional lighting unit(s) which provide bend lighting, type approved as part of the passing-beam according to Regulation No. 113 **or [RID]**, shall be installed under the following conditions:

In the case of (a) pair(s) of additional lighting units, they shall be installed so that their reference centre(s) are symmetrical in relation to the median longitudinal plane of the vehicle.

In the case of a single additional lighting unit, its reference centre shall be coincident with the median longitudinal plane of the vehicle.”

*Paragraph 6.2.5.7., amend to read:*

“6.2.5.7. Additional light source(s) or additional lighting unit(s) may be activated only in conjunction with the principal passing-beam or the driving-beam to produce bend lighting. The illumination provided by the bend lighting shall not extend above the horizontal plane that is parallel with the ground and containing the reference axis of the headlamp producing the principal passing-beam for all bank angles as specified by the manufacturer during type approval of the device according to Regulation No. 113 **or [RID]**.”

*Paragraph 6.2.5.8., amend to read:*

“6.2.5.8. The requirement in paragraph 6.2.5.7. above shall be tested as follows:

The test vehicle shall be set as specified in paragraph 5.4. of this Regulation. Measure the bank angles on both sides of the vehicle under every condition where the bend lighting is activated. The bank angles to measure are the bank angles specified by the manufacturer during type approval of the device according to Regulation No. 113 **or [RID]**.

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

For the test, the bend lighting 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. above, if all measured bank angles on both sides of the vehicle are greater than or equal to the minimum bank angles given in the communication form for the type approval of the device according to Regulation No. 113 **or [RID]**.

Conformity to paragraph 6.2.5.7. above may be demonstrated by the manufacturer using other means accepted by the Type Approval Authority responsible for type approval.”

*Paragraph 6.2.6., amend to read:*

“6.2.6. Electrical connections

The control for changing over to the passing-beam(s) shall switch off the driving-beam(s) simultaneously. Passing-beam headlamps with a light source approved in accordance with Regulation No. 99 shall remain switched on when the driving-beam is illuminated.

6.2.6.1. The additional light source(s) or additional lighting unit(s) used to produce bend lighting shall be so connected that it (they) cannot be activated unless

the headlamp(s) producing the principal passing-beam or the driving-beam is (are) also activated.

The additional light source(s) or additional lighting unit(s) used to produce bend lighting on each side of the vehicle may only be automatically activated when the bank angle(s) is(are) greater or equal to the minimum bank angle(s) given in the communication form for the type approval of the device according to Regulation No. 113 **or [RID]**.

However, the additional light source(s) or additional lighting unit(s) shall not be activated when the bank angle is less than three degrees.

The additional light source(s) or additional lighting unit(s) shall be deactivated when the bank angle(s) is (are) less than the minimum bank angle(s) given in the communication form for the type approval of the device according to Regulation No. 113 **or [RID]**.”

*Paragraph 6.3.2.*, amend to read:

“6.3.2. Arrangement

Two front indicators (category 1 as specified in Regulation No. 6 **or [LSD]** or category 11 specified in Regulation No. 50 **or [LSD]**).

Two rear indicators (category 2 as specified in Regulation No. 6 **or [LSD]** or category 12 specified in Regulation No. 50 **or [LSD]**).”

*Paragraph 6.4.1.*, amend to read:

“6.4.1. Number

One or two approved as a category S1 device according to Regulation No. 7 **or [LSD]** or stop lamp according to Regulation No. 50 **or stop lamp for category L vehicles of Regulation No. [LSD]**.

Optional one approved as a category S3 device according to Regulation No. 7 **or [LSD]**.”

*Paragraph 6.4.3.*, amend to read:

“6.4.3. Position

6.4.3.1. For category S1 device specified in Regulation No. 7 or Regulation No. [LSD] or stop lamp specified in Regulation No. 50 **or [LSD]**

In height: not less than 250 mm nor more than 1,500 mm above the ground;

In length: at the rear of the vehicle.

6.4.3.2. For the category S3 device specified in Regulation No. 7 **or [LSD]**

In height: The horizontal plane tangential to the lower edge of the apparent surface shall not be less than 850 mm above the ground.

However, the horizontal plane tangential to the lower edge of the apparent surface shall be above the horizontal plane tangential to the upper edge of the apparent surface of the category S1 device specified in Regulation No. 7 **or [LSD]** or stop lamp specified in Regulation No. 50 **or stop lamp for category L vehicles of Regulation No. [LSD]**.

In length: at the rear of the vehicle.”

*Paragraph 6.4.4.*, amend to read:

“6.4.4. Geometric visibility

For category S1 device specified in Regulation No. 7 **or [LSD]** or stop lamp specified in Regulation No. 50 **or stop lamp for category L vehicles of Regulation No. [LSD]**

Horizontal angle: 45° to left and to right for a single lamp;  
45° outwards and 10° inwards for each pair of lamps;

Vertical angle: 15° above and below the horizontal.

However, where a lamp is mounted below 750 mm (measured according to the provisions of paragraph 5.7.), the downward angle of 15° may be reduced to 5°.

For category S3 device specified in Regulation No. 7 **or [LSD]**

Horizontal angle: 10° to the left and to the right of the longitudinal axis of the vehicle.

Vertical angle: 10° above and 5° below the horizontal.”

*Paragraph 6.5.1.*, amend to read:

“6.5.1. Number

One, approved as a category 2 device according to Regulation No. 50 **or [LSD]**. The device may consist of several optical components designed to illuminate the space reserved for the registration plate.”

*Paragraph 6.13.2.*, amend to read:

“6.13.2. Number

One or two of approved type according to Regulation No. 87 **or [LSD]**.”

## II. Justification

In the past, some references to the device Regulations were introduced to Regulation No. 53 for clarification. With the new simplified Regulations on LSD, RID and RRD produced by IWG SLR it is necessary to introduce additional references in Regulation No. 53. This amendment deals with such additional references to the new simplified Regulations for the 02 series of amendments to Regulation No. 53.

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