

Transmitted by the experts from Germany

Informal document **GRE-85-24**  
(85th GRE, 26-29 October 2021,  
Item 4 (e) of the agenda)

## **Regulation No. 53 (Installation of lighting and light-signalling devices for L3 vehicles)**

This informal document is an additional proposal to GRE/2021/19 and GRE/2021/20 to increase road safety for motorcycles of class L3.

a) **Proposal to GRE/2021/19**  
**Item 4 (e) of the provisional agenda**

**Proposal for a Supplement to the 01 series of amendments to UN Regulation No. 53 (Installation of lighting and light-signalling devices for L3 vehicles)**

**I. Proposal**

*Paragraph 6.1.6., amend to read:*

"6.1.6. Electrical connections

The passing-beam(s) may remain ~~illuminated~~ **switched ON** with the driving-beam(s).

**However, when the vehicle is fitted with secondary driving-beam(s) approved in accordance with UN Regulations Nos. 113 or 149, at least one of the following lamps shall remain switched ON with the secondary driving beam(s):**

- (a) **Passing-beam(s);**
- (b) **Primary driving-beam approved according to UN Regulations Nos. 113 or 149;**
- (c) **Driving-beam of Class A or B approved according to the 01 and subsequent series of amendments to UN Regulation No. 149."**

*Paragraph 6.2.1.1., amend to read:*

"6.2.1.1. ...

- (i) Class **A<sub>2</sub>**, B, D, **BS<sub>2</sub>**, CS, DS or ES of UN Regulation No. 149;
- (j) **Class C or V of the 01 and subsequent series of amendments to UN Regulation No. 149."**

*Paragraph 6.2.1.2., amend to read:*

"6.2.1.2. ...

- (h) Class **A<sub>2</sub>**, B, D, **BS<sub>2</sub>**, DS or ES of UN Regulation No. 149;
- (i) **Class C or V of the 01 and subsequent series of amendments to UN Regulation No. 149.**

Two of approved type according to:

- (hj) Class C of UN Regulation No. 113;
- (jk) Class CS of UN Regulation No. 149."

b) **Proposal to GRE/2021/20**  
**Item 4 (e) of the provisional agenda**

# Proposal for a Supplement to the 02 and 03 series of amendments to UN Regulation No. 53 (Installation of lighting and light-signalling devices for L<sub>3</sub> vehicles)

## I. Proposal

*Paragraph 6.1.6.*, amend to read:

"6.1.6. Electrical connections

The passing-beam(s) may remain ~~illuminated~~ switched ON with the driving-beam(s).

**However, when the vehicle is fitted with secondary driving-beam(s) approved in accordance with UN Regulations Nos. 113 or 149, at least one of the following lamps shall remain switched ON with the secondary driving beam(s):**

- (a) Passing-beam(s);
- (b) Primary driving-beam approved according to UN Regulations Nos. 113 or 149;
- (c) Driving-beam of Class **A or B** approved according to the 01 and subsequent series of amendments to UN Regulation No. 149."

*Paragraph 6.2.1.1.*, amend to read:

"6.2.1.1. ...

- (i) Class **A**, B, D, CS, DS or ES of UN Regulation No. 149;
- (j) **Class C or V of the 01 and subsequent series of amendments to UN Regulation No. 149.**

*Paragraph 6.2.1.2.*, amend to read:

"6.2.1.2. ...

- (h) Class **A**, B, D, DS or ES of UN Regulation No. 149;
- (i) **Class C or V of the 01 and subsequent series of amendments to UN Regulation No. 149.**

Two of approved type according to:

- (**ij**) Class C of UN Regulation No. 113;
- (**jk**) Class CS of UN Regulation No. 149."

## **II. Justification**

1. The accident rates of motorised two-wheelers are too high worldwide, especially compared to multi-track motor vehicles. Passive safety for motorbikes is essentially limited to personal protective equipment. Active safety includes steering, brakes and, among other things, lighting equipment. Motorbikes up to 125 ccm reach top speeds of 80 km/h to over 100 km/h. For reasons of road safety, there is no need to illuminate the road less well than with motorcycles over 125 ccm.
  2. In proposal ECE/TRANS/WP.29/GRE/2021/21 it is proposed/ regulated for slow-moving mopeds by the footnote: "Headlamps of Class A of UN Regulation No. 113 with LED modules or class AS of UN Regulation No. 149 with LED modules only on vehicles with a maximum design speed not exceeding 25 km/h."
  3. Taking into account No. 1 und 2 of the justification and in order to improve road safety for motorcycles Germany proposes to delete Class A from the R 53. With the same intention Germany propose to delete Class BS for motorcycles in Supplement to the 01 series of amendments to UN Regulation No. 53.
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### III. Appendix

ECE/TRANS/WP.29/GRE/2021/14

Proposal for a new series 01 of amendments to UN Regulation No. 149 on Road Illumination Devices (RID)

Extract:

5.1.4. The luminous intensity distribution of the driving-beam, referring to Figures A4-II, A4-III or A4-IV, shall meet the requirements of Table 5.

The minimum performance of class A and class BS is significantly worse than class B. In many areas, not even 50% of class B is achieved.

Table 5  
Type approval photometric requirements for driving-beam

Element	Angular coordinates in deg.		Minimum luminous intensity in cd					
	vertical	horizontal	Class A	Class B	Class RA (Auxiliary)	Class BS	Class CB (Secondary)	Class DS (Secondary)
2U-V	2°U	0°	1.00·10 <sup>3</sup>	1.70·10 <sup>3</sup>	-	-	1.00·10 <sup>3</sup>	1.70·10 <sup>3</sup>
H-12L	0°	12°L	6.00·10 <sup>2</sup>	1.50·10 <sup>3</sup>	-	-	-	-
H-9L	0°	9°L	2.00·10 <sup>3</sup>	3.40·10 <sup>3</sup>	-	-	-	-
H-6L	0°	6°L	3.40·10 <sup>3</sup>	5.00·10 <sup>3</sup>	-	2.50·10 <sup>3</sup>	3.40·10 <sup>3</sup>	5.00·10 <sup>3</sup>
H-3L	0°	3°L	1.20·10 <sup>4</sup>	1.75·10 <sup>4</sup>	-	9.00·10 <sup>3</sup>	1.20·10 <sup>4</sup>	1.75·10 <sup>4</sup>
H-V <sup>a</sup>	0°	0°	0.8×I <sub>max</sub>	0.8×I <sub>max</sub>	0.8×I <sub>max</sub>	1.60·10 <sup>4</sup>	2.00·10 <sup>4</sup>	3.00·10 <sup>4</sup>
H-3R	0°	3°R	1.20·10 <sup>4</sup>	1.75·10 <sup>4</sup>	-	9.00·10 <sup>3</sup>	1.20·10 <sup>4</sup>	1.75·10 <sup>4</sup>
H-6R	0°	6°R	3.40·10 <sup>3</sup>	5.00·10 <sup>3</sup>	-	2.50·10 <sup>3</sup>	3.40·10 <sup>3</sup>	5.00·10 <sup>3</sup>
H-9R	0°	9°R	2.00·10 <sup>3</sup>	3.40·10 <sup>3</sup>	-	-	-	-
H-12R	0°	12°R	6.00·10 <sup>2</sup>	1.50·10 <sup>3</sup>	-	-	-	-
I <sub>max</sub>	-	-	2.70·10 <sup>4</sup>	4.00·10 <sup>4</sup>	1.00·10 <sup>4</sup>	2.00·10 <sup>4</sup>	2.70·10 <sup>4</sup>	4.00·10 <sup>4</sup>

Notes: In the Table 5

<sup>a</sup> In case of a matched pair, the contribution of each lamp on H-V point shall not be less than 40 per cent of the relevant beam class minimum I<sub>max</sub> required.