

22 November 2023

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## Agreement

### **Concerning the Adoption of Harmonized Technical United Nations Regulations 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 United Nations Regulations\***

(Revision 3, including the amendments which entered into force on 14 September 2017)

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#### **Addendum 47 – UN Regulation No. 48**

#### **Revision 14 - Amendment 3**

Supplement 3 to the 08 series of amendments – Date of entry into force: 24 September 2023

#### **Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2023/30.



**UNITED NATIONS**

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\* Former titles 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 (original version); 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, done at Geneva on 5 October 1995 (Revision 2).



*Paragraph 2.3.11.*, amend to read:

"2.3.11. "Park condition of a vehicle" means:

2.3.11.1. For a motor vehicle, when the vehicle is at standstill and its propulsion system is not running and its movable components are in the normal position(s) as defined in paragraph 2.3.9.;

2.3.11.2. And for a trailer, when the trailer is connected to a drawing motor vehicle in the condition as described in paragraph 2.3.11.1. and its movable components are in the normal position(s) as defined in paragraph 2.3.9."

*Paragraph 5.5.3.*, amend to read:

"5.5.3. Satisfy the same colorimetric requirements."

*Paragraph 5.5.4.*, amend to read:

"5.5.4. Have substantially identical photometric characteristics. This shall not apply to a matched pair of a function and/or an AFS."

*Paragraph 5.9.2.*, amend to read:

"5.9.2. The photometric characteristics of any lamp may vary:

- (a) In relation to the ambient light;
- (b) As a consequence of other lamps being switched ON or OFF; or
- (c) When the lamp is being used to provide another lighting function;

provided that any variation in the photometric characteristics is in compliance with the technical provisions for the lamp concerned."

*Paragraph 5.21.1.*, amend to read:

"5.21.1. Additional lamps satisfying all the position, geometric visibility, colorimetric and photometric requirements for the above indicated lamps shall be switched ON when the apparent surface in the direction of the reference axis of these lamps is more than 50 per cent hidden by the movable component; or"

*Paragraph 6.1.8.*, for "Circuit-closed" read "Closed-circuit".

*Paragraph 6.1.8.1.*, for 6.1.7.1. read 6.1.7.2.

*Paragraphs 6.1.9.3.1. and 6.1.9.3.1.1.*, for 6.1.7.1. read 6.1.7.2.

*Paragraph 6.1.9.3.2.*, for 6.1.7.1. read 6.1.7.2.

*Paragraph 6.1.9.3.4.(a)*, for 6.1.7.1. read 6.1.7.2.

*Paragraph 6.1.9.3.5.*, for 6.1.7.1. read 6.1.7.2.

*Paragraph 6.2.8.2.*, amend to read:

"6.2.8.2. A visual failure tell-tale whether flashing or not is mandatory:

- (a) In the case where the whole beam or the kink of the elbow of the cut-off is moved to produce bend lighting; or
- (b) If one or more LED modules are used to produce the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

It shall be activated:

- (a) In the event of a malfunction of the displacement of the kink of the elbow of the cut-off; or
- (b) In case of a failure of any one of the LED module(s) producing the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

It shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the propulsion system, is switched ON and OFF."

*Paragraph 6.2.9. and its subparagraphs, amend to read:*

- "6.2.9. Other requirements
- 6.2.9.1. The requirements of paragraph 5.5.2. shall not apply to dipped-beam headlamps.
- 6.2.9.2. Dipped-beam headlamps with a light source or LED module(s) producing the principal dipped-beam having a total objective luminous flux for each headlamp which exceeds 2,000 lumens shall only be installed in conjunction with the installation of headlamp cleaning device(s) according to Regulation No. 45<sup>11</sup>.
- 6.2.9.3. With respect to vertical inclination the provisions of paragraph 6.2.6.2.2. above shall not be applied for dipped-beam headlamps with a light source or LED module(s) producing the principal dipped beam and having an objective luminous flux for each headlamp which exceeds 2,000 lumens.

In the case of filament lamps for which more than one test voltage is specified, the objective luminous flux which produces the principal dipped-beam, as indicated in the communication form for the type approval of the device, is applied.

In the case of dipped-beam headlamps equipped with an approved light source, the applicable objective luminous flux is the value at the relevant test voltage as given in the relevant data sheet in the Regulation, according to which the applied light source was approved, without taking into account the tolerances to the objective luminous flux specified on this datasheet.

- 6.2.9.4. Only dipped-beam headlamps according to UN Regulations Nos. 98, 112 or 149 may be used to produce bend lighting.

If bend lighting is produced by a horizontal movement of the whole beam or the kink of the elbow of the cut-off, it shall be switched ON only if the vehicle is in forward motion; this shall not apply if bend lighting is produced for a right turn in right hand traffic (left turn in left hand traffic)."

*Paragraph 6.3.5., footnote 13, delete.*

*Paragraph 6.3.6.1.1., reference to footnote 13, delete.*

*Paragraph 6.3.8., amend to read:*

- "6.3.8. Tell-tale  
Closed-circuit tell-tale mandatory."

*Paragraph 6.4.8., amend to read:*

- "6.4.8. Tell-tale  
Tell-tale optional, however a tell-tale indicating failure is mandatory if required by the component regulation."

*Paragraph 6.5.7., amend to read:*

- "6.5.7. Electrical connections  
Direction-indicator lamps shall switch ON independently of the other lamps. All direction-indicator lamps on one side of a vehicle shall be switched ON and OFF by means of one control and shall flash in phase.  
On M<sub>1</sub> and N<sub>1</sub> vehicles less than 6 m in length, with an arrangement complying with paragraph 6.5.5.2. above, the amber side-marker lamps, when mounted,

shall also flash at the same frequency (in phase) with the direction-indicator lamps.

A direction indicator capable of being activated in different modes (static or sequential), shall not switch between both modes once activated.

If two optional lamps (category 2a or 2b) are installed on vehicles in categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub>, N<sub>3</sub>, they shall be operated in the same mode as the other mandatory rear direction indicator lamps (category 2a or 2b); i.e. static or sequential."

*Paragraph 6.5.8., reference to footnote 13, delete.*

*Paragraph 6.6.8., for "circuit-closed" read "closed-circuit".*

*Paragraph 6.7.8., amend to read:*

"6.7.8. Tell-tale

Tell-tale optional, however a tell-tale indicating failure is mandatory if required by the component regulation."

*Paragraph 6.9.8., for "Circuit-closed" read "Closed-circuit".*

*Paragraph 6.10.8., for "Circuit-closed" read "Closed-circuit".*

*Paragraph 6.11.8., amend to read:*

"6.11.8. Tell-tale

Closed-circuit tell-tale mandatory.

A tell-tale indicating failure is mandatory if required by the component regulation."

*Paragraph 6.12.8., amend to read:*

"6.12.8. Tell-tale

Closed-circuit tell-tale optional. If there is one, it shall not be possible to confuse it with the tell-tale for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation."

*Paragraph 6.18.8., amend to read:*

"6.18.8. Tell-tale

Tell-tale optional. If it exists its function shall be carried out by the tell-tale required for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation."

*Paragraph 6.18.9., amend to read:*

"6.18.9. Other requirements

When the rearmost side-marker lamp is combined with the rear position lamp reciprocally incorporated with the rear fog-lamp or stop lamp, the photometric characteristics of the side-marker lamp may be modified during the entire time of the rear fog lamp or stop lamp are switched ON.

Rear side-marker lamps shall be amber if they flash with the rear direction-indicator lamp.

When an optional side-marker lamp is grouped or combined with a position lamp that is reciprocally incorporated or grouped with the direction indicator, the electrical connection of the side-marker lamp on the relevant side of the vehicle may be such that it is switched OFF during the entire period (both ON and OFF cycle) of activation of the direction indicator lamp."

Paragraph 6.19., headline, for "Day-time" read "Daytime".

Paragraph 6.20., amend to read:

"6.20. Cornering lamp (UN Regulation No. 119 or 149)"

Paragraph 6.20.8., amend to read:

"6.20.8. Tell-tale

None. However, a tell-tale indicating failure is mandatory if required by the component regulation."

Paragraph 6.22.4.1.2., footnote 14, renumber to 13.

Paragraph 6.22.7.4.3., amend to read:

"6.22.7.4.3. The class E mode(s) of the passing-beam shall not operate unless the vehicle's speed exceeds 60 km/h and one or more of the following conditions is/are automatically detected:

- (a) The road characteristics correspond to motorway conditions<sup>14</sup> or the vehicle's speed exceeds 110 km/h (E-signal applies);
- (b) In case of a class E mode of the passing-beam which, according to the system's approval documents /communication sheet, complies with a "data set" of UN Regulation No. 123, Annex 3, Table 6, or of UN Regulation No. 149, Table 14 only.  
Data set E1: the vehicle's speed exceeds 100 km/h (E1-signal applies);  
Data set E2: the vehicle's speed exceeds 90 km/h (E2-signal applies);  
Data set E3: the vehicle's speed exceeds 80 km/h (E3-signal applies)."

Paragraph 6.22.7.4.5., footnote 16, renumber to 15.

Paragraph 6.22.9.1., amend to read:

"6.22.9.1. An AFS shall be permitted only in conjunction with the installation of headlamp cleaning device(s) according to UN Regulation No. 45<sup>1716</sup> for at least those lighting units, which are indicated under item 9.2.3. of the communication form conforming to the model in Annex 1 to UN Regulation No. 123 or under item 9.3.2.3. of the communication form conforming to the model in Annex 1 to the 00 series of amendments to UN Regulation No. 149, or under item 9.2.2.3. of the communication form conforming to the model in Annex 1 to the 01 series of amendments to UN Regulation No. 149, if the total objective luminous flux of the light sources of these units exceeds 2,000 lm per side, and which contribute to the class C (basic) passing-beam."

Paragraph 6.24.9.1., amend to read:

"6.24.9.1. The exterior courtesy lamp shall not be switched ON unless the vehicle is stationary and one or more of the following conditions is satisfied:

- (a) The propulsion system is stopped; or
- (b) A driver or passenger door is opened; or
- (c) A load compartment door is opened.

The provisions of paragraph 5.10. shall be met in all fixed positions of use."

Paragraph 6.24.9.2., for "day-time" read "daytime".

Paragraph 12.2., footnote 18, renumber to 17.

Annex 1,

Item 9.2., amend to read:

"9.2. Dipped-beam headlamps: yes/no<sup>2</sup> .....

9.2.1. Tell-tale indicating failure, as required by component regulation and/or indicating failure of bend lighting function as required in paragraph 6.2.8.1., fitted:  
 yes/no<sup>2</sup> .....

Item 9.4., amend to read:

"9.4. Reversing lamps: yes/no<sup>2</sup> .....

9.4.1. Tell-tale indicating failure, as required by component regulation, fitted:  
 yes/no<sup>2</sup> .....

Item 9.13., amend to read:

"9.13. Rear fog-lamps: yes/no<sup>2</sup> .....

9.13.1. Tell-tale indicating failure, as required by component regulation, fitted:  
 yes/no<sup>2</sup> .....

Item 9.14., amend to read:

"9.14. Parking lamps: yes/no<sup>2</sup> .....

9.14.1. Tell-tale indicating failure, as required by component regulation, fitted:  
 yes/no<sup>2</sup> .....

Item 9.20., amend to read:

"9.20. Side marker lamps: yes/no<sup>2</sup> .....

9.20.1. Tell-tale indicating failure, as required by component regulation, fitted:  
 yes/no<sup>2</sup> .....

Item 9.23., amend to read:

"9.23. Cornering lamps: yes/no<sup>2</sup> .....

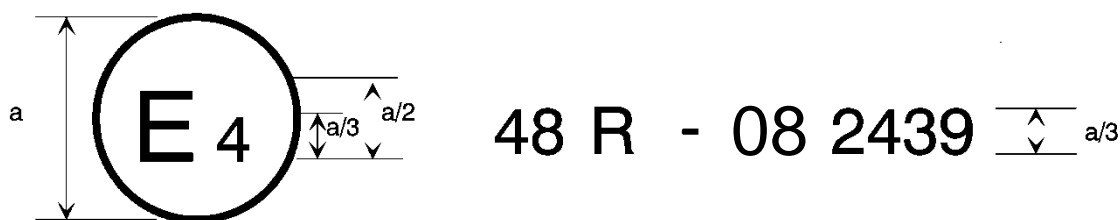
9.23.1. Tell-tale indicating failure, as required by component regulation, fitted:  
 yes/no<sup>2</sup> .....

Annex 2, amend to read:

## "Arrangements of approval marks

Model A

(See paragraph 4.4. of this Regulation)

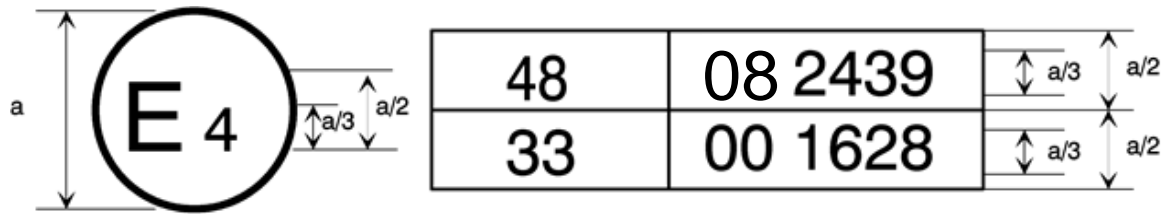


a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the installation of lighting and light-signalling devices, been approved in the Netherlands (E4) pursuant to UN Regulation No. 48 as amended by the 08 series of amendments. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No. 48 as amended by the 08 series of amendments.

Model B

(See paragraph 4.5. of this Regulation)



a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E4) pursuant to UN Regulation No. 48 as amended by the 08 series of amendments and UN Regulation No. 33.<sup>1</sup> The approval number indicates that, at the dates when the respective approvals were given, Regulation No. 48 was amended by the 08 series of amendments and UN Regulation No. 33 was still in its original form.

<sup>1</sup> The second number is given merely as an example."

*Annex 6, paragraph 5.4.3., amend to read:*

"5.4.3. Vehicles with non-conventional suspension, where the propulsion system has to be running.

Before making any measurement wait until the vehicle has assumed its final attitude with the engine running."