

10 November 2006

## **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 47: Regulation No. 48**

#### **Revision 4 - Amendment 1**

03 series of amendments - Date of entry into force: 10 October 2006 \*\*/

### **UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO THE INSTALLATION OF LIGHTING AND LIGHT- SIGNALLING DEVICES**



**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.

\*/ Except for Bosnia and Herzegovina, which notified its disagreement to the amendments. (Reference: C.N. 810.2006.TREATIES-5 dated 4 October 2006)

GE.06-

Paragraph 2.7.16.3., amend to read:

"2.7.16.3. other retro-reflective plates and signals which must be used to comply with national requirements for use as regards certain categories of vehicles or certain methods of operation;"

Insert a new paragraph 2.7.16.4., to read:

"2.7.16.4. retro-reflecting materials approved as Class D or E according to Regulation No. 104 and used for other purposes in compliance with national requirements, e.g. advertising."

Paragraph 2.7.17., should be deleted.

Insert new paragraphs 2.7.17. to 2.7.17.2., to read:

"2.7.17. "Conspicuity marking" means a device intended to increase the conspicuity of a vehicle, when viewed from the side or rear, by the reflection of light emanating from a light source not connected to the vehicle, the observer being situated near the source;

2.7.17.1. "Contour marking" means a conspicuity marking intended to indicate the horizontal and vertical dimensions (length, width and height) of a vehicle;

2.7.17.1.1. "Full contour marking" means a contour marking that indicates the outline of the vehicle by a continuous line;

2.7.17.1.2. "Partial contour marking" means a contour marking that indicates the horizontal dimension of the vehicle by a continuous line, and the vertical dimension by marking the upper corners.

2.7.17.2. "Line marking" means a conspicuity marking intended to indicate the horizontal dimensions (length and width) of a vehicle by a continuous line."

Paragraph 4.2., amend to read:

"4.2. An approval number shall be assigned to each type approved. Its first two digits (at present 03, corresponding to the 03 series of amendments) shall indicate the series of amendments .... "

Paragraph 5.15., amend to read:

"5.15. The colours of the light emitted by the lamps are the following:

....

cornering lamp: white  
conspicuity marking: white or yellow to the side;  
  
red or yellow to the rear. 5/

5/ Nothing in this Regulation shall preclude the Contracting Parties applying this Regulation from allowing the use of white conspicuity markings to the rear in their territories."

Paragraphs 6.21. to 6.21.3.2., amend to read:

"6.21. CONSPICUITY MARKINGS

6.21.1. Presence

6.21.1.1. Prohibited: on vehicles of categories M<sub>1</sub> and O<sub>1</sub>.

6.21.1.2. Mandatory:

6.21.1.2.1. to the rear:

full contour marking on vehicles exceeding 2,100 mm in width of the following categories:

(a) N<sub>2</sub> with a maximum mass exceeding 7.5 tonnes and N<sub>3</sub> (with the exception of chassis-cabs, incomplete vehicles and tractors for semi-trailers)

(b) O<sub>3</sub> and O<sub>4</sub>

6.21.1.2.2. to the side:

6.21.1.2.2.1. partial contour marking on vehicles exceeding 6,000 mm in length (including the drawbar for trailers) of the following categories:

(a) N<sub>2</sub> with a maximum mass exceeding 7.5 tonnes and N<sub>3</sub> (with the exception of chassis-cabs, incomplete vehicles and tractors for semi-trailers)

(b) O<sub>3</sub> and O<sub>4</sub>

6.21.1.2.3. However, where the shape, structure, design or operational requirements make it impossible to install the mandatory contour marking, a line marking may be installed.

6.21.1.3. Optional:

6.21.1.3.1. on all other categories of vehicles, not otherwise specified in paragraphs 6.21.1.1. and 6.21.1.2. above, including the cab of tractor units for semi-trailers and the cab of chassis-cabs.

6.21.1.3.2. partial or full contour marking may be applied instead of mandatory line markings, and full contour marking may be applied instead of mandatory partial contour marking.

6.21.2. Number

According to the presence.

6.21.3. Arrangement

The conspicuity markings shall be as close as practicable to horizontal and vertical, compatible with the shape, structure, design and operational requirements of the vehicle.

6.21.4. Position

6.21.4.1. Width

6.21.4.1.1. The conspicuity marking shall be as close as practicable to the edge of the vehicle.

6.21.4.1.2. The cumulative horizontal length of the conspicuity marking elements, as mounted on the vehicle, shall equate to at least 80 per cent of the overall width of the vehicle, excluding any horizontal overlap of individual elements.

6.21.4.1.3. However, if the manufacture can prove to the satisfaction of the authority responsible for type approval that it is impossible to achieve the value referred to in paragraph 6.21.4.1.2. above, the cumulative length may be reduced to 60 per cent and shall be indicated in the communication document and test report 10/.

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10/ This provision does apply until 5 years after the official date of entry into force of the 03 series of amendments to this Regulation.

6.21.4.2. Length

- 6.21.4.2.1. The conspicuity marking shall be as close as practicable to the ends of the vehicle and reach to within 600 mm of each end of the vehicle (or cab in the case of tractor units for semi-trailers).
- 6.21.4.2.1.1. for motor vehicles, each end of the vehicle, or in the case of tractors for semi-trailers the each end of the cab;
- 6.21.4.2.1.2. for trailers, each end of the vehicle (excluding the drawbar).
- 6.21.4.2.2. The cumulative horizontal length of the conspicuity marking elements, as mounted on the vehicle, excluding any horizontal overlap of individual elements, shall equate to at least 80 per cent of:
- 6.21.4.2.2.1. for motor vehicles, the length of the vehicle excluding the cab, or in the case of tractors for semi-trailers, if fitted, the length of the cab;
- 6.21.4.2.2.2. for trailers, the length of the vehicle (excluding the drawbar).
- 6.21.4.2.3. However, if the manufacture can prove to the satisfaction of the authority responsible for type approval that it is impossible to achieve the value referred to in paragraph 6.21.4.2.2. above, the cumulative length may be reduced to 60 per cent and shall be indicated in the communication document and test report 10/.

10/ This provision does apply until 5 years after the official date of entry into force of the 03 series of amendments to this Regulation.

6.21.4.3. Height

- 6.21.4.3.1. Line markings and contour markings lower element(s):

As low as practicable within the range:

Minimum: not less than 250 mm above the ground.

Maximum: not more than 1,500 mm above the ground.

However, a maximum mounting height of 2,100 mm may be accepted where technical conditions prevent compliance with the maximum value of 1,500 mm or, if necessary, to fulfil the requirements of paragraphs 6.21.4.1.2., 6.21.4.1.3., 6.21.4.2.2. and 6.21.4.2.3., or the horizontal positioning of the line marking or the lower element(s) of the contour marking.

6.21.4.3.2. Contour markings upper element(s):

As high as practicable, but within 400 mm of the upper extremity of the vehicle.

6.21.5. Visibility

The conspicuity marking shall be considered visible, if at least 80 per cent of the illuminating surface of the marking is visible when viewed by an observer positioned at any point within the observation planes defined below:

6.21.5.1. for rear conspicuity markings (see Annex 11, Figure 1) the observation plane is perpendicular to the longitudinal axis of the vehicle situated 25 m from the extreme end of the vehicle and bounded by:

6.21.5.1.1. in height, by two horizontal planes 1 m and 3.0 m respectively above the ground,

6.21.5.1.2. in width, by two vertical planes which form an angle of 15° outwards from the vehicle's median longitudinal plane and which pass through the intersection of the vertical planes parallel to the vehicle's median longitudinal plane delimiting the vehicle's overall width, and the plane perpendicular to the longitudinal axis of the vehicle that delimits the end of the vehicle.

6.21.5.2. for side conspicuity markings (see Annex 11, figure 2) the observation plane is parallel to the longitudinal median plane of the vehicles situated 25 m from the extreme outer edge of the vehicle and bounded by:

6.21.5.2.1. in height, by two horizontal planes 1 m and 3.0 m respectively above the ground,

6.21.5.2.2. in width, by two vertical planes which form an angle of 15° outwards from a plane perpendicular to the vehicle's longitudinal axis and which pass through the intersection of the vertical planes perpendicular to the vehicle's longitudinal axis delimiting the vehicle's overall length and the extreme outer edge of the vehicle.

6.21.6. Orientation

6.21.6.1. To the side:

As close as practicable to being parallel to the median longitudinal plane of the vehicle, compatible with the shape, structure, design and operation requirements of the vehicle.

6.21.6.2. To the rear:

As close as practicable to being parallel to the transverse plane of the vehicle, compatible with the shape, structure, design and operation requirements of the vehicle.

6.21.7. Other requirements

6.21.7.1. Conspicuity markings shall be considered continuous if the distance between adjacent elements are as small as possible and do not exceed 50 per cent of the shortest adjacent element length.

6.21.7.2. In the case of a partial contour marking, each upper corner shall be described by two lines at 90° to each other and each at least 250 mm in length.

6.21.7.3. The distance between the conspicuity marking fitted to the rear of a vehicle and each mandatory stop lamp should be greater than 200 mm.

6.21.7.4. Where rear marking plates conforming to the 01 series of amendments to Regulation No. 70 are installed these may be considered, at the discretion of the manufacturer, as part of the conspicuity marking to the rear, for the purposes of calculating the length of the conspicuity marking and its proximity to the side of the vehicle.

6.21.7.5. The locations on the vehicle designated for conspicuity markings shall allow for the installation of markings of at least 60 mm in width."

Paragraphs 12. to 12.11., amend to read:

"12. TRANSITIONAL PROVISIONS

12.1. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 03 series of amendments.

12.2. As from 12 months after the date of entry into force of the 03 series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 03 series of amendments.

12.3. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.

12.4. Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as

amended by the preceding series of amendments during the 12 month period which follows the date of entry into force of the 03 series of amendments.

- 12.5. No Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 03 series of amendments to this Regulation.
- 12.6. Until 36 months after the date of entry into force of the 03 series of amendments to this Regulation, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the preceding series of amendments to this Regulation.
- 12.7. Starting 36 months after the entry into force of the 03 series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse first national or regional registration (first entry into service) of a vehicle which does not meet the requirements of the 03 series of amendments to this Regulation.
- 12.8. As from 60 months after the date of entry into force of the 03 series of amendments to this Regulation, approvals to this Regulation shall cease to be valid, except in the case of vehicle types which comply with the requirements of this Regulation as amended by the 03 series of amendments.
- 12.9. Notwithstanding the transitional provisions above, Contracting Parties whose application of this Regulation comes into force after the date of entry into force of the most recent series of amendments are not obliged to accept approvals which were granted in accordance with any of the preceding series of amendments to this Regulation.
- 12.10. Notwithstanding paragraph 12.7. or 12.8., approvals of the vehicle types to the preceding series of amendments to the Regulation which are not affected by the 03 series of amendments shall remain valid and Contracting Parties applying the Regulation shall continue to accept them.
- 12.11. Until the United Nations Secretary-General is notified otherwise, Japan declares that in relation to the installation of lighting the light signalling devices, Japan will only be bound by the obligations of the Agreement to which this Regulation is annexed with respect to vehicles of categories M<sub>1</sub> and N<sub>1</sub>."

Paragraph 12.12., should be deleted.

Paragraphs 12.13. to 12.6. (former), renumber as paragraphs 12.12. to 12.15.



Annex 1,

Insert new items 9.23. to 9.23.3., to read:

"9.23.	Conspicuity markings:		
		Rear	Side
9.23.1.	Full contour markings:	yes/no <u>2/</u>	yes/no <u>2/</u>
9.23.2.	Partial contour markings:	yes/no <u>2/</u>	yes/no <u>2/</u>
9.23.3.	Line markings:	yes/no <u>2/</u>	yes/no <u>2/</u> "

Items 9.23. and 9.24. (former), renumber as items 9.24. and 9.25.

Insert a new item 10.4., to read:

"10.4.           Comments regarding the extent of coverage of the conspicuity marking if it is less than the minimum value of 80 per cent required by paragraphs 6.21.4.1.2. and 6.21.4.2.2."

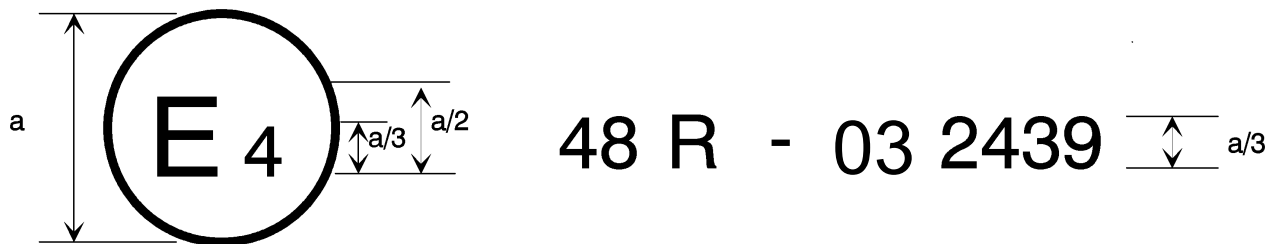
Annex 2, amend to read:

"Annex 2

ARRANGEMENTS OF APPROVAL MARKS

Model A

(See paragraph 4.4. of this Regulation)

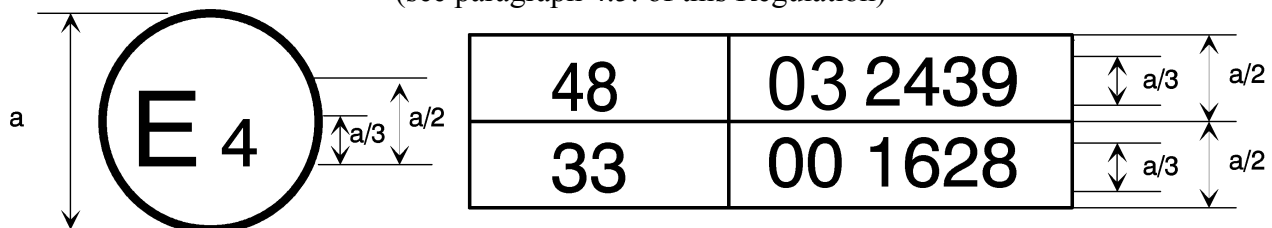


a = 8 mm min.

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 Regulation No. 48 as amended by the 03 series of amendments. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 48 as amended by the 03 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 Regulation No. 48 as amended by the 03 series of amendments and 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 03 series of amendments and Regulation No. 33 was still in its original form."

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

Insert a new Annex 11, to read:

"Annex 11

VISIBILITY OF CONSPICUITY MARKINGS TO THE REAR AND  
SIDE OF A VEHICLE

(see paragraph 6.21.5. of this Regulation)

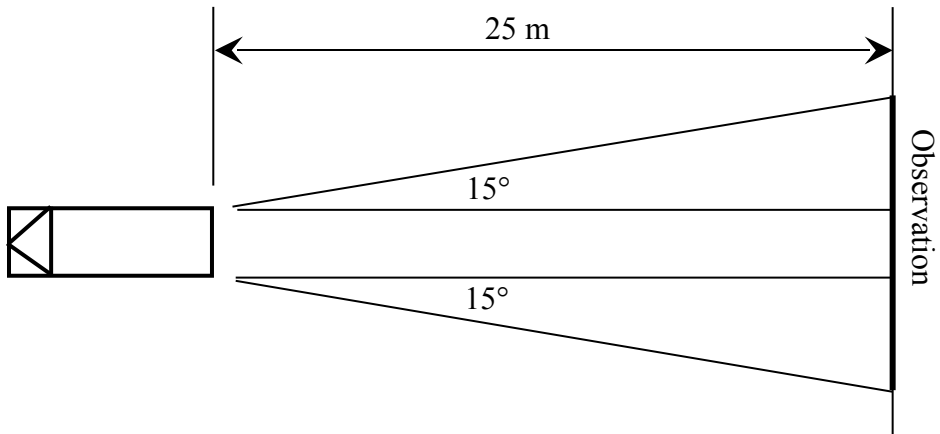


Figure 1

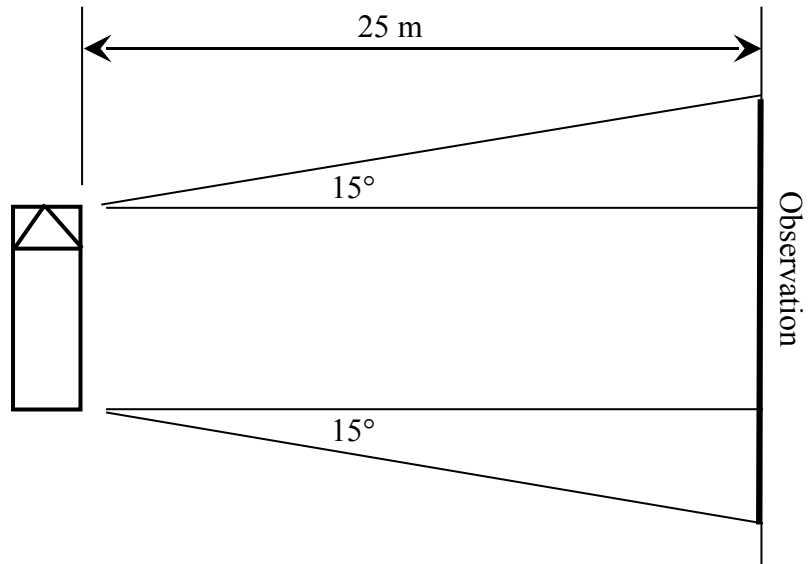


Figure 2"

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