

22 June 2015

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## **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 69 – Regulation No. 70**

#### **Revision 1 - Amendment 3**

Supplement 9 to the 01 series of amendments – Date of entry into force: 15 June 2015

#### **Uniform provisions concerning the approval of rear marking plates for heavy and long vehicles**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2014/61.



**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.

*Paragraph 2.1.3.*, add at the end:

"2.1.3. ...  
Class 5: Rear marking plates for motor vehicles or trailers with red and white retro-reflective alternative stripes."

*Annex 5,*

*Paragraph 2.*, add at the end:

"2. ...  
For mounting of Class 5 devices on non-articulated vehicles, the retro-reflective material shall be made with alternate, oblique stripes of white and red colour."

*Paragraph 3.2.*, add at the end:

"3.2. ...  
Class 5 devices shall incorporate a minimum of 9 standard areas as described in paragraph 3.4. below on large vehicles with available mounting space, but may be reduced to a minimum of 4 standard areas on vehicles with limited mounting space."

*Paragraph 3.4.*, add at the end:

"3.4. ...  
Class 5 retro-reflective materials shall consist of red and white diagonal stripes each 100 mm wide sloping outwards and downwards at 45°. The basic standard area is a square of 141 mm in length subdivided diagonally into a white half and red half, which represents one standard area.  
Prescribed shapes, patterns and dimensional features of Class 5 devices are illustrated in Figure 3 of Annex 12 to this Regulation."

*Paragraph 3.5.*, amend to read:

"3.5. Rear marking plates or Class 5 devices supplied in sets shall form matching pairs."

*Annex 6,*

*Paragraph 2.*, amend the title to read:

"2. Yellow, red or white retro-reflective material"

*Paragraph 2.1.1.*, amend to read:

"2.1.1. Luminance factor for:  
(a) Yellow colour shall be  $\geq 0.16$ .  
(b) Red colour shall be  $\geq 0.03$ .  
(c) White colour shall be  $\geq 0.25$ ."

Annex 7,

Paragraph 1.1., insert a new Table 3 after Table 2 and amend to read:

"When illuminated with a CIE Standard Illuminant A and measured as recommended by CIE TC 2.3 (CIE Publication No. 54, 1982), the coefficient of retro-reflection R' in candelas per square metre per lux of the yellow, white or red retro-reflective area in new condition shall be at least as indicated in Tables 1, 2 or 3, according to the Class. Devices of Class 1 and Class 2 shall fulfil the values in Table 1, devices of Class 3 and Class 4 those in table 2, devices of Class 5 those in Table 3.

...

Table 3  
**Coefficient of retro-reflection R' [cd.m<sup>-2</sup>.lx<sup>-1</sup>]**

Observation angle $\alpha$ [°]	Entrance angle $\beta$ [°]				
	$\beta_1$	0°	0°	0°	0°
20'	$\beta_2$	5°	30°	40°	60°
Coefficient R' [cd.m <sup>-2</sup> .lx <sup>-1</sup> ]	Colour: White	450	200	90	16
	Red	120	30	10	2

"

Paragraph 1.3., Table 3, renumber as Table 4 and amend to read:

"Table 4  
**Luminance factor  $\beta$**

Colour	Luminance factor $\beta$
Red	$\geq 0.03$
Yellow	$\geq 0.16$
White	$\geq 0.25$

"

Annex 12,

After Figure 2, insert a new title and new Figures 3a and 3b to read:

"Rear marking plates (Class 5)

Figure 3a

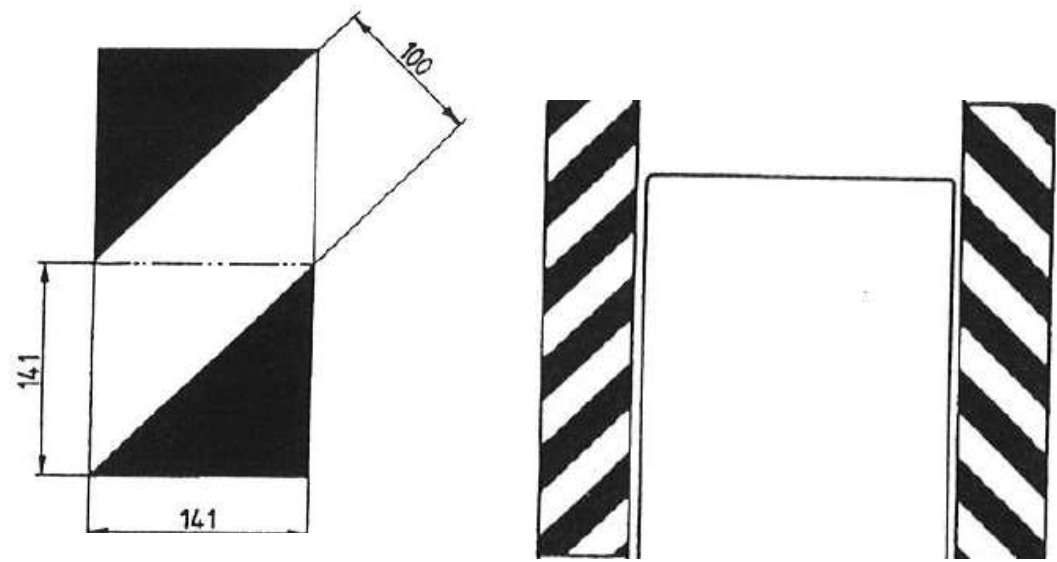
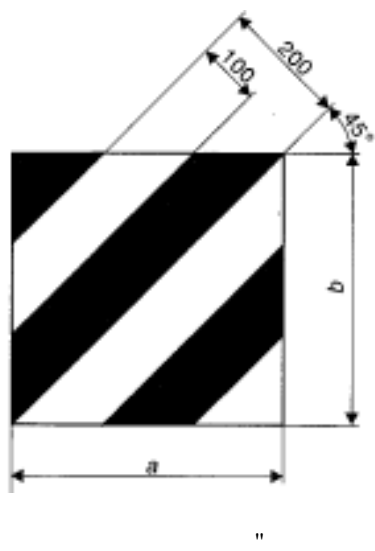


Figure 3b  
Example for a plate design



Annex 15,

Paragraph 2., amend to read:

"2. Scope

The main purpose of these guidelines is to establish requirements for installation, arrangement, position and geometric visibility of rear marking plates on heavy and long vehicles as well as on special utility vehicles and trailers. It increases the visibility and permits an easy identification of these vehicles."

*Paragraph 2.1.*, amend to read:

"2.1. Heavy motor vehicles

The installation of rear marking plates for heavy motor vehicles according to the provisions of this annex is required for vehicles of categories N<sub>2</sub> with a maximum mass exceeding 7.5 tonnes and N<sub>3</sub> with the exception of tractors for semi-trailers, and for articulated buses of classes II and III. The rear marking plates may also be installed on special utility vehicles of categories other than above."

*Paragraph 4.*, add subparagraph (c) to read:

"4. Arrangement

...

(c) For special utility vehicles or trailers:

Class 5 - red and white retro-reflective alternative stripes."

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