

7 November 2000

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 entered into force on 16 October 1995)

Addendum 103: Regulation No. 104

Amendment 1

Supplement 1 to the original version of the Regulation - Date of entry into force: 13 January 2000

**UNIFORM PROVISIONS CONCERNING THE APPROVAL OF RETRO-REFLECTIVE MARKINGS
FOR HEAVY AND LONG VEHICLES AND THEIR TRAILERS**



UNITED NATIONS

*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Parts, done at Geneva on 20 March 1958.

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Paragraph 5.4.1., footnote 1/, amend to read:

"... 24 for Ireland, ... 30 (vacant), 31 for Bosnia and Herzegovina, 32 for Latvia, 33 (vacant), 34 for Bulgaria, 35-36 (vacant), 37 for Turkey, 38-39 (vacant), 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Community (Approvals are granted by its Member States using their respective ECE symbol), 43 for Japan, 44 (vacant), 45 for Australia and 46 for Ukraine. Subsequent numbers shall be assigned to other countries in the chronological order in which they ratify or accede to the 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, and the numbers thus assigned shall be communicated by the Secretary-General of the United Nations to the Contracting Parties to the Agreement."

Paragraph 5.4.3.3., correct to read (French only).

Insert a new paragraph 5.4.3.4., to read:

"5.4.3.4. "D/E" for materials for distinctive markings or graphics as base or background in printing process for fully coloured logos and markings of class "E" in use which fulfil the requirements of class "D" materials."

Paragraph 7.2., amend to read:

"7.2. Advertising, consisting of retro-reflective logos, distinctive markings letters/characters has to be decent.

It may consist of marking materials of class "D" if the total retro-reflective area is less than 2 m²; if the total retro-reflective area is least 2 m² class "E" shall be used. 2/"

Insert a new paragraph 7.2.3., to read:

"7.2.3. White retro-reflective marking materials intended as base or background in printing processes for fully coloured logos and markings of class "E" in use, without unprinted blank areas, may fulfil the requirements in annex 7, table 2, for class "D" materials and must be marked as class "D/E"."

Annex 6,

Paragraph 1, amend to read:

"1. Retro-reflective marking materials (class C) shall be white, yellow or red. Retro-reflective distinctive markings and/or graphics (classes D and E) may be of any colour."

Paragraph 2., table 1, add a new row, to read:

"

Table 1 Chromaticity Co-ordinates					
Colour	1	2	3	4	Luminance factor â [1]
.....
x [1]	0.690	0.595	0.560	0.650	\$ 0.03
red					
y [1]	0.310	0.315	0.350	0.350	

"

Paragraph 3., table 2, add a new row to read:

"

Table 2 Chromaticity Co-ordinates				
Colour	1	2	3	4
.....			
x [1]	0.720	0.735	0.665	0.643
red				
y [1]	0.258	0.265	0.335	0.335

"

Annex 7,

Paragraph 1., amend to read:

".... R' in candelas per m² per lux (cd.m⁻².lux⁻¹) of the retro-reflective areas in new condition shall be at least as indicated in table 1 for yellow and white materials and at least as indicated in table 2 for red materials."

Insert a new table 2, to read:

"

TABLE 2					
Minimum values for the Coefficient of Retro-reflection R' [cd.m ⁻² .lux ⁻¹]					
Observation angle $\hat{\alpha}$ [E]	Entrance angle $\hat{\alpha}$ [E]				
$\hat{\alpha} = 0.33E$ (20')	$\hat{\alpha}_1$	0	0	0	0
	$\hat{\alpha}_2$	5	20	30	40
<u>Colour</u>					
red		120	60	30	10

"

Annex 9,

Insert new paragraphs 1.1.1. and 1.1.2., to read,

- "1.1.1. Those installed on the rear of vehicles may be red in colour.
- 1.1.2. Those installed on the sides of vehicles shall be white or yellow in colour."

Insert new paragraph 1.5., to read:

- "1.5. the distance between the retro-reflective marking materials fitted to the rear of a vehicle and each obligatory stop lamp should be greater than 200 mm."

Insert new paragraphs 2.1.1 and 2.1.2, to read,

- "2.1.1. Contour markings installed on the rear of vehicles may be red in colour.
- 2.1.2. Contour markings installed on the sides of vehicles shall be white or yellow in colour."

Insert new paragraph 2.4., to read:

- "2.4. The distance between the retro-reflective marking materials fitted to the rear of a vehicle and each obligatory stop lamp should be greater than 200 mm."

Paragraph 3.2.4., correct to read (French only).
