

7 July 2011

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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 82: Regulation No. 83**

### **Revision 4 – Amendment 1**

Supplement 1 to the 06 series of amendments - Date of entry into force: 23 June 2011

### **Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements**



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.

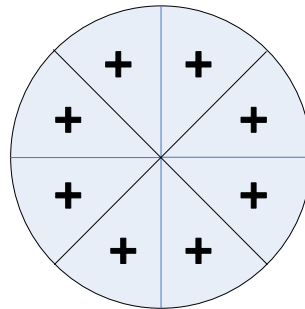
Annex 4,

Paragraph 6.1.3., amend to read:

"6.1.3. A current of air of variable speed shall be blown over the vehicle. The blower speed shall be within the operating range of 10 km/h to at least 50 km/h or within the operating range of 10 km/h to at least the maximum speed of the test cycle being used. The linear velocity of the air at the blower outlet shall be within  $\pm 5$  km/h of the corresponding roller speed within the range of 10 km/h to 50 km/h. At the range over 50 km/h, the linear velocity of the air shall be within  $\pm 10$  km/h of the corresponding roller speed. At roller speeds of less than 10 km/h, air velocity may be zero.

The above mentioned air velocity shall be determined as an averaged value of a number of measuring points which

- (a) For blowers with rectangular outlets are located at the centre of each rectangle dividing the whole of the blower outlet into 9 areas (dividing both horizontal and vertical sides of the blower outlet into 3 equal parts).
- (b) For circular blower outlets, the outlet shall be divided into 8 equal arcs by vertical, horizontal and  $45^\circ$  lines. The measurement points lie on the radial centre line of each arc ( $22.5^\circ$ ) at a radius of two thirds of the total (as shown in the diagram below).



These measurements shall be made with no vehicle or other obstruction in front of the fan.

The device used to measure the linear velocity of the air shall be located at between 0 and 20 cm from the air outlet.

The final selection of the blower shall have the following characteristics:

- (a) Area: at least  $0.2 \text{ m}^2$ ;
- (b) Height of the lower edge above ground: approximately 20 cm;
- (c) Distance from the front of the vehicle: approximately 30 cm.

As an alternative, at the request of the manufacturer the blower speed shall be fixed at an air speed of at least 6 m/s (21.6 km/h).

The height and lateral position of the cooling fan may be modified, if appropriate."

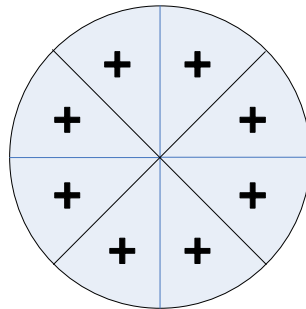
Annex 4a,

Paragraph 3.4.2., amend to read:

"3.4.2. A current of air of variable speed shall be blown over the vehicle. The blower speed shall be, within the operating range of 10 km/h to at least 50 km/h or within the operating range of 10 km/h to at least the maximum speed of the test cycle being used. The linear velocity of the air at the blower outlet shall be within  $\pm 5$  km/h of the corresponding roller speed within the range of 10 km/h to 50 km/h. At the range over 50 km/h, the linear velocity of the air shall be within  $\pm 10$  km/h of the corresponding roller speed. At roller speeds of less than 10 km/h, air velocity may be zero.

The above mentioned air velocity shall be determined as an averaged value of a number of measuring points which:

- (a) For blowers with rectangular outlets are located at the centre of each rectangle dividing the whole of the blower outlet into 9 areas (dividing both horizontal and vertical sides of the blower outlet into 3 equal parts).
- (b) For circular blower outlets, the outlet shall be divided into 8 equal arcs by vertical, horizontal and  $45^\circ$  lines. The measurement points lie on the radial centre line of each arc ( $22.5^\circ$ ) at a radius of two thirds of the total (as shown in the diagram below).



These measurements shall be made with no vehicle or other obstruction in front of the fan.

The device used to measure the linear velocity of the air shall be located at between 0 and 20 cm from the air outlet.

The final selection of the blower shall have the following characteristics:

- (a) Area: at least  $0.2 \text{ m}^2$ ;
- (b) Height of the lower edge above ground: approximately 0.2 m;
- (c) Distance from the front of the vehicle: approximately 0.3 m.

As an alternative, at the request of the manufacturer the blower speed shall be fixed at an air speed of at least 6 m/s (21.6 km/h).

The height and lateral position of the cooling fan may be modified, if appropriate."