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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****154th session**

Geneva, 21–24 June 2011

Item 4.7.1 of the provisional agenda

**1958 Agreement – Consideration of draft amendments
to existing Regulations submitted by GRPE****Proposal for Supplement 2 to the 06 series of amendments to
Regulation No. 83 (Emissions of M₁ and N₁ vehicles)****Submitted by the Working Party on Pollution and Energy***

The text reproduced below was adopted by the Working Party on Pollution and Energy (GRPE) at its sixty-first session to insert new specifications for the proportional speed fan which can be used during testing of the vehicle on the chassis dynamometer. It is based on ECE/TRANS/WP.29/GRPE/2011/6, as reproduced in Annex IV to the report (ECE/TRANS/WP.29/GRPE/61, para. 34). It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208/, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

Add new paragraph 12.1.2. (Transitional provisions), to read:

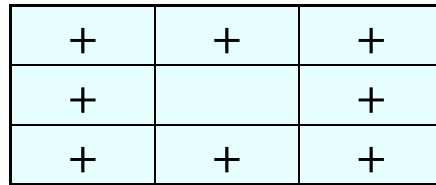
"As from 36 months after the date of entry into force, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements as amended by Supplement 2 to the 06 series of amendments of this Regulation."

Annex 4, paragraph 6.1.3., amend to read:

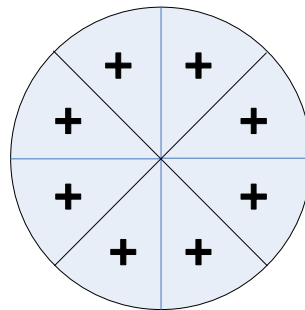
"6.1.3. A current of air of variable speed shall be blown over the vehicle. The blower speed shall be within the operating range of 10 km/h to at least the maximum speed of the test cycle being used. The linear velocity of the air at the blower outlet shall be within ± 5 km/h of the corresponding roller 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 ± 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). The centre area shall not be measured (as shown in the diagram below).



- (b) For circular blower outlets, the outlet shall be divided into 8 equal arcs by vertical, horizontal and 45° lines. The measurement points lie on the radial centre line of each arc (22.5°) 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 m²;
- (b) Height of the lower edge above ground: approximately 20 cm;
- (c) Distance from the front of the vehicle: approximately 30 cm.

The height and lateral position of the cooling fan may be modified at the request of the manufacturer and if considered appropriate by the approval authority.

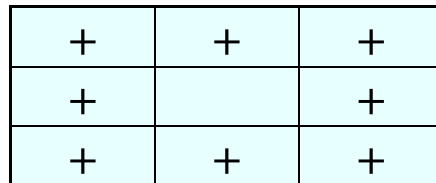
In the cases described above, the cooling fan position and configuration shall be recorded in the approval test report and shall be used for conformity of production (COP) and in-service conformity (ISC) testing."

Annex 4a, paragraph 3.4.2., amend to read:

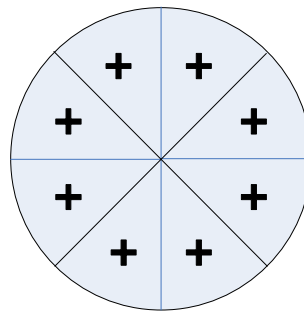
"3.4.2. A current of air of variable speed shall be blown over the vehicle. The blower speed shall be, within the operating range of 10 km/h to at least the maximum speed of the test cycle being used. The linear velocity of the air at the blower outlet shall be within ± 5 km/h of the corresponding roller 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 ± 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). The centre area shall not be measured (as shown in the diagram below).



- (b) For circular blower outlets, the outlet shall be divided into 8 equal arcs by vertical, horizontal and 45° lines. The measurement points lie on the radial centre line of each arc (22.5°) 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 m²;
- (b) Height of the lower edge above ground: approximately 0.2 m;
- (c) Distance from the front of the vehicle: approximately 0.3 m.

The height and lateral position of the cooling fan may be modified at the request of the manufacturer and if considered appropriate by the approval authority.

In the cases described above, the cooling fan position and configuration shall be recorded in the approval test report and shall be used for conformity of production (COP) and in-service conformity (ISC) testing."
