

9 November 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 12 – Regulation No. 13**

### **Revision 8 - Amendment 3**

Supplement 13 to the 11 series of amendments – Date of entry into force: 8 October 2015

### **Uniform provisions concerning the approval of vehicles of categories M, N and O with regard to braking**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2015/6.



**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 10,*

*Paragraph 1.1.,* amend to read:

"1.1. Vehicles of categories M<sub>2</sub>, M<sub>3</sub>, N, O<sub>2</sub>, O<sub>3</sub> and O<sub>4</sub> shall meet all the requirements of this annex. If a special device is used, this shall operate automatically.<sup>1</sup>

However, vehicles in the above categories which are equipped with an anti-lock braking system and fulfil the relevant requirements of Annex 13, shall also fulfil all the relevant requirements of this annex with the following exceptions:

- (a) Compliance with the adhesion utilization requirements associated with diagrams 1A, 1B or 1C, as appropriate, is not required.
- (b) In the case of towing vehicles and trailers, equipped with a compressed air braking system, compliance with the unladen compatibility requirements associated with diagrams 2, 3 or 4, as appropriate, is not required. However, for all load conditions, a braking rate shall be developed between a pressure of 20 kPa and 100 kPa or the equivalent digital demand value at the coupling head of the control line(s)."

*Paragraph 1.3.1.,* amend to read:

"1.3.1. At the time of type approval it shall be checked that the development of a braking on an axle of each independent axle group shall be within the following pressure ranges:

- (a) Laden vehicles:

At least one axle shall commence to develop a braking force when the pressure at the coupling head is within the pressure range 20 to 100 kPa or equivalent digital demand value.

At least one axle of every other axle group shall commence to develop a braking force when the coupling head is at a pressure < 120 kPa or equivalent digital demand value.

- (b) Unladen vehicles:

At least one axle shall commence to develop a braking force when the pressure at the coupling head is within the pressure range 20 to 100 kPa or equivalent digital demand value."

*Paragraph 6.,* amend to read:

"6. Requirements to be met in case of failure of the braking distribution system

When the requirements of this annex are fulfilled by means of a special device (e.g. controlled mechanically by the suspension of the vehicle) or if the vehicle is equipped with such a special device, it shall be possible, in the event of the failure of its control, to stop the vehicle under the conditions specified for secondary braking in the case of power-driven vehicles; for those power-driven vehicles authorized to tow a trailer fitted with compressed-air braking systems, it

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<sup>1</sup> In the case of trailers with electronically controlled brake force distribution, the requirements of this annex shall only apply when the trailer is electrically connected to the towing vehicle by the ISO 7638:2003 connector.

shall be possible to achieve a pressure at the coupling head of the control line within the range specified in paragraph 3.1.3. of this annex. In the event of failure of the control of the device on trailers, a service braking performance of at least 30 per cent of that prescribed for the vehicle in question shall be attained."

*Paragraphs 7. and 7.1.*, amend to read:

- "7.           Markings
- 7.1.          Vehicles which meet the requirements of this annex by means of a device mechanically controlled by the suspension of the vehicle or if the vehicle is equipped with such a device, shall be marked to show the useful travel of the device between the positions corresponding to vehicle unladen and laden states, respectively, and any further information to enable the setting of the device to be checked ..."

*Annex 13,*

*Paragraph 1.1.*, amend to read:

- "1.1.          This annex defines the required braking performance for road vehicles equipped with an anti-lock braking system(s)."
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