



Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****165th session**

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Item 4.7.1 of the provisional agenda

**1958 Agreement – Consideration of draft amendments
to existing Regulations submitted by GRRF****Proposal for Supplement 13 to the 11 series of amendments
to Regulation No. 13 (Heavy vehicle braking)****Submitted by the Working Party on Brakes and Running Gear***

The text reproduced below was adopted by the Working Party on Brakes and Running Gear (GRRF) at its seventy-eighth session (ECE/TRANS/WP.29/GRRF/78, para. 15). It is based on ECE/TRANS/WP.29/GRRF/2014/27, not amended. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Executive Committee AC.1 for consideration.

* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, 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.

Annex 10

Paragraph 1.1., amend to read:

"1.1. Vehicles of categories M₂, M₃, N, O₂, O₃ and O₄ shall meet all the requirements of this annex. If a special device is used, this shall operate automatically.¹

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 shall be possible to achieve a pressure at the coupling head of the control line

¹ 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.

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)."
