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## Economic Commission for Europe

### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

#### 182nd session

Geneva, 10-12 November 2020

Item 4.10.1 of the provisional agenda

#### 1958 Agreement:

Consideration of draft amendments to existing

UN Regulations submitted by GRVA

## Proposal for Supplement 17 the 11 series of amendments to UN Regulation No. 13 (Heavy vehicle braking)

### Submitted by the Working Party on Working Party on Automated/autonomous and Connected Vehicles \*, \*\*

The text reproduced below was adopted by the Working Party on Automated/autonomous and Connected Vehicles (GRVA) at its fifth session, in February 2020 (see ECE/TRANS/WP.29/GRVA/5, para 67). It is based on ECE/TRANS/WP.29/GRVA/2020/13. It is submitted to World Forum for Harmonization of Vehicle Regulations (WP.29) and the Administrative Committee of the 1958 Agreement (AC.1) for consideration and vote at their November 2020 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

\*\* This document was scheduled for publication after the standard publication date owing to circumstances beyond the submitter's control.



*Annex 7 (Provisions relating to energy sources and energy storage devices (energy accumulators), Part A (Compressed-Air braking systems):*

*Paragraph 1.2.1., amend to read:*

"1.2.1. The energy storage devices (energy reservoirs) of power-driven vehicles shall be such that after eight full-stroke actuations of the service braking system control the pressure remaining in the energy storage device(s) shall be not less than the pressure required to obtain the specified secondary braking performance."

*Paragraph 1.2.2.3., amend to read:*

"1.2.2.3. In the case of power-driven vehicle to which the coupling of a trailer is authorized and with a pneumatic control line, the supply line shall be stopped and a compressed-air reservoir of 0.5 litre capacity shall be connected directly to the coupling head of the pneumatic control line. Before each braking operation, the pressure in this compressed-air reservoir shall be completely eliminated. After the test referred to in paragraph 1.2.1. above, at the additional (ninth) actuation of the service braking system control, the energy level supplied to the pneumatic control line shall not fall below a level equivalent to one-half the figure obtained at the first brake application. "

*Paragraph 1.3.1., amend to read:*

"1.3.1. The energy storage devices (energy reservoirs) with which trailers are equipped shall be such that, after eight full-stroke actuations of the towing vehicle's service braking system, the energy level supplied to the operating members using the energy obtained at the additional (ninth) actuation of the towing vehicle's service braking system, does not fall below a level equivalent to one-half of the figure obtained at the first brake application and without actuating either the automatic or the parking braking system of the trailer."

*Annex 7, Part B (Vacuum braking systems):*

*Paragraph 1.2.1., amend to read:*

"1.2.1. The energy storage devices (energy reservoirs) of power-driven vehicles shall be such that it is still possible to achieve the performance prescribed for the secondary braking system:

1.2.1.1. After eight full-stroke actuations of the service braking system control where the energy source is a vacuum pump; and

1.2.1.2. After four full-stroke actuations of the service brake control where the energy source is the engine."

*Paragraph 1.2.2.3., amend to read:*

"1.2.2.3. In the case of a power-driven vehicle authorized to tow a trailer, the supply line shall be stopped and an energy storage device of 0.5 litre capacity shall be connected to the control line. After the test referred to in paragraph 1.2.1. above, at the additional actuation of the service braking system control, the vacuum level provided at the control line shall not have fallen below a level equivalent to one-half of the figure obtained at the first brake application. "

*Paragraph 1.3.1., amend to read:*

"1.3.1. The energy storage devices (energy reservoirs) with which trailers are equipped shall be such that after a test comprising four full-stroke actuations of the trailer's service braking system, at its additional (fifth) actuation the vacuum level provided at the user points shall not have fallen below a level equivalent to one-half of the value obtained at the first brake application."