

## **Comments and amendments to GRVA-09-04 (Proposal to amend UN-Regulation No. 13 (Heavy vehicle braking))**

The modifications to the existing text of the Regulation per document GRVA-09-04 are marked in **bold** for new or in ~~strikethrough~~ for deleted characters. The changes compared to document GRVA-09-04 are marked in **red bold** for new or in ~~red strikethrough~~ for deleted characters.

### **Generals:**

- Industry can support the general principles of the proposal.
- This change to the technical requirements should be a series of amendment, with sufficient transitional provisions to be able to adapt our products.

## **I. Proposal**

*Paragraph 5.1.2.3., amend to read:*

### 5.1.2.3. Parking braking system

The parking braking system shall make it possible to hold the vehicle stationary on an up or down gradient even in the absence of the driver, the working parts being then held in the locked position by a purely mechanical device. The driver shall be able to achieve this braking action from his driving seat, subject, in the case of a trailer, to the provisions of paragraph 5.2.2.10. of this Regulation.

~~**If the vehicle is equipped with an electrical(ly) controlled parking braking system the parking brake shall be activated at least when the engine has stopped by turning the ignition (start) switch to the “off” position, for vehicle category N and M.**~~

~~**Additionally, for vehicles of category N, the parking brake shall be also activated, if the driver is deemed to leave the cabin without proper activation of the parking brake.**~~

~~**The purpose to leave the cabin may be confirmed, e.g. by opening of the door on driver side whilst the vehicle is stationary or by leaving the seat.**~~

~~**The automatic activation of the parking brake may be suppressed by the driver with a dedicated action (e.g. by pedal actuation or by a switch) or during maintenance operations.**~~

The trailer air brake and the parking braking system of the towing vehicle may be operated simultaneously provided that the driver is able to check, at any time, that the parking brake performance of the vehicle combination, obtained by the purely mechanical action of the parking braking system, is sufficient.

### 5.2.1.26. Special additional requirements for the electric transmission of the parking braking system

*Paragraph 5.2.1.26.4., amend to read:*

#### 5.2.1.26.4. After the ignition/start switch which controls the electrical energy for the braking equipment has been switched off and/or the key removed, **it shall**

~~remain possible to apply~~ the parking braking system **shall be automatically applied at least when the vehicle is detected to be stationary,** ~~whereas releasing shall be prevented.~~

**Additionally, for vehicles of category N, the parking brake shall be automatically applied once the driver is deemed to leave the driving seat (e.g. via a detection of door opening, unfastening of seat belt) at least when the vehicle is detected to be stationary].**

**However, the automatic application of the parking braking system may be suppressed by the driver (e.g. during maintenance operation, to avoid park brake freezing in winter conditions) with a dedicated action (e.g. by pedal actuation, a switch). In that case, it shall remain possible to apply the parking braking system, whereas releasing shall be prevented.**

*Annex 4, paragraph 2.3, amend to read:*

- 2.3. Parking braking system
- 2.3.1. The parking braking system shall, even if it is combined with one of the other braking systems, be capable of holding the laden vehicle stationary on an 18 per cent up or down-gradient.
- 2.3.2. On vehicles to which the coupling of a trailer is authorized, the parking braking system of the towing vehicle shall be capable of holding the combination of vehicles stationary on a 12 per cent up or down-gradient.
- 2.3.3. If the control is manual, the force applied to it shall not exceed 60 daN.
- 2.3.4. If it is a foot control, the force exerted on the control shall not exceed 70 daN.
- 2.3.5. A parking braking system which has to be actuated several times before it attains the prescribed performance is admissible.
- 2.3.6. To check compliance with the requirement specified in paragraph 5.2.1.2.4. of this Regulation, a Type-0 test shall be carried out with the engine disconnected at an initial test speed of 30 km/h. The mean fully developed deceleration on application of the control of the parking brake system and the deceleration immediately before the vehicle stops shall not be less than 1.5 m/s<sup>2</sup>. The test shall be carried out with the laden vehicle. The force exerted on the braking control device shall not exceed the specified values.
- 2.3.7. **To check the compliance with the requirements specified in paragraph ~~5.1.2.3~~ 5.2.1.26.4. of this Regulation, the automatic activation of the parking brake shall be checked by stopping the engine and/or by leaving the cabin against the declared activation criteria turning the ignition (start) switch to the “off” position and/or additionally, for vehicles of category N, by leaving the cabin, if the vehicle is equipped with a electrical(ly) controlled parking braking system.**

## II. Justification

1. Paragraph 5.1.2.3. is dedicated to general requirements. Detailed technical requirements dedicated to the electric transmission of the parking braking system should be part of paragraph 5.2.1.26. Additionally, an “electrically controlled parking braking system” is not defined in UN R13. Moving the requirements to section 5.2.1.26 would solve that issue.
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