



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.29/GRRF/2006/3
21 November 2005

Original: ENGLISH
ENGLISH AND FRENCH ONLY

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Brakes and Running Gear (GRRF)
(Fifty-ninth session, 30 January – 3 February 2006,
agenda item 1.1.)

PROPOSAL FOR AMENDMENTS TO REGULATION No. 13

(Braking)

Transmitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany in order to insert an amendment to the Regulation regarding special requirements for the electric transmission of the parking brake system.

The modifications to the current text of the Regulation are marked in **bold** characters or marked as strikethrough.

Note: This document is distributed only to the Experts on Brakes and Running Gear.

A. PROPOSAL

Insert a new paragraph 5.2.1.26.2., to read:

"5.2.1.26.2. The following requirements shall be fulfilled in the event of an electrical failure as specified:"

Paragraph 5.2.1.26.2. (former), renumber as paragraph 5.2.1.26.2.1. and amend to read:

"5.2.1.26.2.1. Vehicles of categories of M and N, excluding M₁ and N₁:

In the case of **an electrical failure in the control** or a break in the wiring within the electric control transmission external to the electronic control unit(s), excluding the energy supply, ~~or a failure in the control~~, it shall remain possible to apply the parking braking system from the driver's seat and thereby be capable of holding the laden vehicle stationary on an 8 per cent up or down gradient. Alternatively, in this case, an automatic actuation of the parking brake is allowed when the vehicle is stationary, provided that the above performance is achieved and, once applied, the parking brake remains engaged independently of the status of the ignition (start) switch. In this alternative, the parking brake shall be automatically released as soon as the driver starts to set the vehicle in motion again. ~~In the case of vehicles of categories M₁ and N₁, the engine/manual transmission or the automatic transmission (park position) may be used to achieve or assist in achieving the above performance.~~ It shall also be possible to release the parking braking system, if necessary by the use of tools and/or an auxiliary device carried/fitted on the vehicle."

Insert a new paragraph 5.2.1.26.2.2., to read (similar to the former paragraph 5.2.1.26.2.):

"5.2.1.26.2.2. Vehicles of categories M₁ and N₁:

In the case of **an electrical failure in the control** or a break in the wiring within the electric control transmission ~~external to the electronic control unit(s)~~ **between the control and the (first) ECU directly connected with it**, and excluding the energy supply, ~~or a failure in the control~~, it shall remain possible to apply the parking braking system from the driver's seat and thereby be capable of holding the laden vehicle stationary on an 8 per cent up or down gradient. Alternatively, in this case, an automatic actuation of the parking brake is allowed when the vehicle is stationary, provided that the above performance is achieved and, once applied, the parking brake remains engaged independently of the status of the ignition (start) switch. In this alternative, the parking brake shall be automatically released as soon as the driver starts to set the vehicle in motion again. ~~In the case of vehicles of categories M₁ and N₁,~~ ~~the engine/manual transmission or the automatic transmission (park position) may be used to achieve or assist in achieving the above performance.~~ ~~It shall also be possible to release the parking braking system, if necessary by the use of tools and/or an auxiliary device carried/fitted on the vehicle.~~

Paragraph 5.2.1.26.2.1. (former), renumber as paragraph 5.2.1.26.2.3. and amend to read:

"5.2.1.26.2.3. A break in the wiring within the electrical transmission, or **an electrical** failure in the control of the parking braking system shall be signalled to the driver by the yellow warning signal specified in paragraph 5.2.1.29.1.2. When caused by a break in the wiring within the electrical control transmission parking braking system, this yellow warning signal shall be signalled as soon as soon as the break occurs. In addition, such **an electrical** failure in the control or break in the wiring"

B. JUSTIFICATION

In order that a small defect in the wiring of the control device would not render the electrical parking braking system totally ineffective, a certain degree of effectiveness is and was always required in the case of an electrical failure in the control device or a break in the wiring within the electric control transmission. In the past, in various German and international braking committees, many discussions took place with regard to the "special requirements for the electric transmission of the parking braking system". In light of these discussions, Germany is of the opinion, that it is justified to make certain allowances for passenger cars and to distinguish between light vehicles (e.g. passenger cars) and heavy vehicles.

Light vehicles (Vehicles of categories M₁ and N₁):

According to the new proposed paragraph 5.2.26.2.2 a certain degree of effectiveness is now only required in the event of an electrical failure in the control or a break in the wiring up to the (first) electronic control unit. This requirement makes sure that a very small failure (e.g. corrosion within a switch or a sticking switch of minor quality) does not lead to the loss of the whole parking brake system which usually incorporates many other safety features.

In the event of other electrical transmission failures (where a lesser probability of occurrence is assumed), it is usually possible for the driver to park the light vehicle in an appropriate location using, for example, natural engine braking or a front wheel against a roadside curb (Defects covered by this paragraph will always be indicated clearly to the driver according to the current paragraph 5.2.1.26.2.1 - in this proposal re-numbered as the new paragraph 5.2.1.26.2.3). Under the above assumptions, it seems to be justified to dispense with the requirement for an alternative method for the release of the parking brake.

Heavy vehicles (Vehicles of categories M and N excluding M₁ and N₁):

The loss of the parking braking function of a heavy vehicle is much more critical than of a light vehicle. In addition, these heavy vehicles incorporate also dangerous goods vehicles and buses. Therefore, the existing text has been retained – with minor editorial clarifications.

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