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Item 3(f) of the provisional agenda

REGULATIONS Nos. 13 AND 13-H (Braking)

Electric control transmission errors

Proposal for collective amendments to Regulations Nos. 13 and 13-H (Braking)

Submitted by the expert from the European Association of Automotive Suppliers (CLEPA)

The text reproduced below was prepared by the expert from CLEPA to insert a further amendment to Regulations Nos. 13 and 13-H regarding special requirements for the electric control transmission of the parking braking system. It is mainly based on a document without a symbol (informal document No. GRRF-61-04), distributed during the sixty-first GRRF session (see report ECE/TRANS/WP.29/GRRF/61, para. 8).

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

A.1. PROPOSAL FOR AMENDMENTS TO REGULATION No. 13

Paragraph 5.2.1.26.2.3., amend to read:

5.2.1.26.2.3. A break in the wiring within the electric transmission, or an electric 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 electric control transmission of the parking braking system, this yellow warning signal shall be signalled as soon as the break occurs. In addition, such an electric failure in the control or break in the wiring external to the electronic control unit(s) and excluding the energy supply shall be signalled to the driver by flashing the red warning signal specified in paragraph 5.2.1.29.1.1. as long as the ignition (start) switch is in the "on" (run) position including a period of not less than 10 seconds thereafter and the control is in the "ON" (activated) position.

However, if the parking braking system detects correct actuation of the parking brake, the flashing of the red warning signal may be suppressed and the non-flashing red warning signal for 'Parking Brake Applied' shall be used.

Where actuation of the parking brake is normally indicated by a separate red warning signal, satisfying all the requirements of 5.2.1.29.3., this signal shall be used to satisfy the above requirement for a red signal."

A.2. PROPOSAL FOR AMENDMENTS TO REGULATION No. 13-H

Paragraph 5.2.19.2.1., amend to read:

"5.2.19.2.1. 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 5.2.21.1.2. When caused by a break in the wiring within the electrical control transmission of the parking braking system, this yellow warning signal shall be signalled as soon as the break occurs. In addition, such an electrical failure in the control or break in the wiring external to the electronic control unit(s) and excluding the energy supply, shall be signalled to the driver by flashing the red warning signal specified in paragraph 5.2.21.1.1. as long as the ignition (start) switch is in the ON (run) position including a period of not less than 10 seconds thereafter and the control is in the ON (activated) position.

However, if the parking braking system detects correct actuation of the parking brake, the flashing of the red warning signal may be suppressed and the non-flashing red warning signal for 'Parking Brake Applied' shall be used.

Where actuation of the parking brake is normally indicated by a separate red warning signal ……."

B. JUSTIFICATION

These amendments to UNECE Regulations Nos. 13 and 13-H stem from the current system provisions which prevent a simple wiring or switch contact fault from disabling the Electronic Parking Braking system by using a more complex switch. This allows not only the detection of a single failure but also provides, through suitable electronic control unit logic, the ability to generate the required command input and to apply the parking brake despite the fault. These parking braking systems also detect correct actuation of the parking brake in order to switch off the actuation element(s) and receipt of the 'actuation complete' signal is used to switch on the red 'Parking Brake Applied' signal in circumstances where the flashing red signal would be operationally incorrect and misleading to the driver.

This strategy will be more effective than the current rule in that the driver will not be given a flashing warning when correct parking performance has been achieved. The yellow signal will continue to warn the driver that an electrical fault exists.

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