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DRAFT SUPPLEMENT 1 TO REGULATION No. 13-H

(Harmonized braking)

Note: The text reproduced below was adopted by the Administrative Committee (AC.1) of the amended 1958 Agreement at its fourteenth session, following the recommendation by WP.29 at its one-hundred-and-twentieth session. It is based on document TRANS/WP.29/2000/32, not amended (TRANS/WP.29/703, para. 157).

Insert a new paragraph 5.2.2.5., to read:

"5.2.2.5. Without prejudice to the requirements of paragraph 5.1.2.3. of this Regulation, the service braking system and the parking braking system may use common components in their transmission(s), provided that in the event of a failure in any part of the transmission(s) the requirements for secondary braking are still ensured;"

Paragraph 5.2.2.5. (former), renumber as paragraph 5.2.2.6. and amend to read:

"... and the components referred to in paragraph 5.2.2.10 below, or of any other failure ... "

Paragraphs 5.2.2.6. and 5.2.2.7. (former), renumber as paragraphs 5.2.2.7. and 5.2.2.8.

Insert a new paragraph 5.2.2.9., to read:

"5.2.2.9. If the service braking force and transmission depend exclusively on the use of an energy reserve, one energy reserve for the transmission is deemed to be sufficient, provided that the prescribed secondary braking is ensured by the action of the driver's muscular energy acting on the service brake control and the requirements of paragraph 5.2.5. are met."

Paragraph 5.2.2.8. (former), renumber as paragraph 5.2.2.10.

Paragraph 5.2.13., amend to read:

" ... of Standard ISO 9128-1987 and the appropriate DOT marking (e.g. DOT 3). The symbol and the marking must be affixed ... "

Paragraph 5.2.19.2., amend to read:

"5.2.19.2. In the case of a break in the wiring within the electric control transmission external to the electronic control unit(s) 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. 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 5.2.19.2.1., amend to read:

"5.2.19.2.1. A break in the wiring within the electric transmission, or a 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 electric control transmission of the parking braking system, this yellow warning signal shall be signalled as soon as the break occurs.

In addition, such a 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. Where actuation of the parking brake is normally indicated by a separate red warning signal, satisfying all the requirements of paragraph 5.2.21.2., this signal shall be used to satisfy the above requirement for a red signal."

Paragraph 5.2.19.3., amend to read:

"5.2.19.3. Auxiliary equipment may be supplied with energy from the electric transmission of the parking braking system provided that the supply of energy is sufficient to allow the actuation of the parking braking system in addition to the vehicle electrical load under non-fault conditions. In addition, where the energy reserve is also used by the service braking system, the requirements of paragraph 5.2.20.6. shall apply."

Paragraph 5.2.20.1., amend to read:

"5.2.20.1. With the parking brake released, the service braking system shall be able to generate a static total braking force at least equivalent to that required by the prescribed Type-0 test, even when the ignition/start switch has been switched off and/or the key has been removed. It should be understood that sufficient energy is available in the energy transmission of the service braking system;"

Paragraph 5.2.20.2., amend to read:

"5.2.20.2. In the case of a single temporary failure (< 40 ms) within the electric control transmission, excluding its energy supply, (e.g. non-transmitted signal or data error) there shall be no distinguishable effect on the service braking performance."

Paragraph 5.2.20.3., amend to read:

"5.2.20.3. A failure within the electric control transmission 4/, not including its energy reserve, that affects the function and performance of systems addressed in this Regulation shall be indicated to the driver by the red or yellow warning signal specified in paragraphs 5.2.21.1.1. and 5.2.21.1.2., respectively, as appropriate. "

Paragraph 5.2.20.6., amend to read:

"5.2.20.6. If auxiliary equipment is supplied with energy from the same reserve as the electric control transmission, it shall be ensured that, with the engine running at a speed not greater than 80 per cent of the maximum power speed, the supply of energy is sufficient to fulfil the prescribed deceleration values by either provision of an energy supply which is able to prevent discharge of this reserve when all auxiliary equipment is functioning or by automatically switching off pre-selected parts of the auxiliary equipment at a voltage above the critical level referred to in paragraph 5.2.20.5. of this Regulation such that further discharge of this reserve is prevented. Compliance may be demonstrated by calculation or by a practical test. This paragraph does not apply to vehicles where the prescribed deceleration values can be reached without the use of electrical energy."

Paragraph 5.2.21., amend to read:

"5.2.21. The general requirements for optical warning signals whose function is to indicate to the driver certain specified failures (or defects) within the braking equipment of the motor vehicle, are set out in the following sub-paragraphs. Other than as described in paragraph 5.2.21.5. below, these signals shall be used exclusively for the purposes prescribed by this Regulation."

Paragraph 5.2.21.1.1., amend to read:

"5.2.21.1.1. a red warning signal, indicating failures defined elsewhere in this Regulation within the vehicle braking equipment which preclude achievement of the prescribed service braking performance and/or which preclude the functioning of at least one of two independent service braking circuits;"

Paragraph 5.2.21.3., amend to read:

- "5.2.21.3. Except where stated otherwise:
- 5.2.21.3.1. a specified failure or defect shall be signalled to the driver by the above-mentioned warning signal(s) not later than on actuation of the relevant braking control;
- 5.2.21.3.2. the warning signal(s) shall remain displayed as long as the failure/defect persists and the ignition (start) switch is in the "on" (run) position; and
- 5.2.21.3.3. the warning signal shall be constant (not flashing)."

Insert new paragraphs 5.2.21.5. to 5.2.21.5.3., to read:

- "5.2.21.5. Non specified failures (or defects), or other information concerning the brakes and/or running gear of the power-driven vehicle, may be indicated by the yellow signal specified in paragraph 5.2.21.1.2. above, provided that all the following conditions are fulfilled:
- 5.2.21.5.1. the vehicle is stationary;
- 5.2.21.5.2. after the braking equipment is first energised and the signal has indicated that, following the procedures detailed in paragraph 5.2.21.4. above, no specified failures (or defects) have been identified; and
- 5.2.21.5.3. non-specified faults or other information shall be indicated only by the flashing of the warning signal. However, the warning signal shall be extinguished by the time when the vehicle first exceeds 10 km/h."
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