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Item 8(c) of the provisional agenda
UN Regulations Nos. 13, 13-H, 139, 140 and UN GTR No. 8: Clarifications

Proposal for amendments to UN Regulation No. 13-H (Braking for M_1 and N_1 vehicles)

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The text reproduced below was prepared by the experts from the International Organization of Motor Vehicle Manufacturers (OICA) and from the European Association of Automotive Suppliers (CLEPA), addressing the type approval of a park lock device as an alternative to or in combination with the friction parking braking to hold the vehicle. It is based on ECE/TRANS/WP.29/GRVA/2024/39 amended by GRVA-20-07/Rev1. The modifications to the existing text of the Regulations are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2025 as outlined in proposed programme budget for 2025 (A/79/6 (Sect. 20), table 20.6), 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.

I. Proposal

Paragraph 5.1.4.3., amend to read:

"5.1.4.3. It shall be possible to generate maximum braking forces under static conditions on a rolling road or roller brake tester. **If any special information or procedures are needed, these shall be made freely available."**

Paragraph 5.2.10., amend to read:

"5.2.10. The service, secondary and parking braking systems shall act on braking surfaces connected to the wheels through components of adequate strength**.**

The parking braking system may use a park lock device as an alternative to or in combination with the means acting on the braking surfaces. This park lock device shall consist of components of an adequate strength and shall provide equal effectiveness compared to layouts purely acting on the braking surfaces to fulfil the requirements set out in Annex 3, paragraphs 2.3.1. and 2.3.2. of this Regulation. It shall be ensured that the vehicle does not move more than 150 mm after the activation of the parking braking system before the park lock device is fully engaged.

Where braking torque for a particular axle or axles is provided by both a friction braking system and an electrical regenerative braking system of category B, disconnection of the latter source is permitted, providing that the friction braking source remains permanently connected and able to provide the compensation referred to in paragraph 5.2.7.1.~~2.1.~~ above.

However, in the case of short disconnection transients, incomplete compensation is accepted, but within 1s, this compensation shall have attained at least 75 per cent of its final value.

Nevertheless, in all cases, the permanently connected friction braking source shall ensure that both the service and secondary braking systems continue to operate with the prescribed degree of effectiveness.

Disconnection of the braking surfaces **or of the park lock device, as relevant,** of the parking braking system shall be permitted only on condition that the disconnection is controlled by the driver from his driving seat or from a remote-control device, by a system incapable of being brought into action by a leak.

The remote-control device mentioned above shall be part of a system fulfilling the technical requirements of an ACSF of Category A as specified in the 02 series of amendments to UN Regulation No. 79 or later series of amendments**.**"

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 ~~clamping~~ **engagement** of the parking brake, the flashing of the red warning signal may be suppressed

and the non-flashing red signal shall be used to indicate "parking brake applied".

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. below, this signal shall be used to satisfy the above requirement for a red signal."

II. Justification

1. This amendment aims to enable the use of a park lock device as an alternative to a friction type parking braking system to fulfil the static requirements of UN Regulation No. 13-H for parking braking systems.

2. The following observations were raised after the nineteenth session of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA):

(a) Switzerland requested a requirement to ensure that the rollaway distance after activation the Park Lock Device is limited. Based on CFR 571-114 – Standard No. 114 (Theft protection and rollaway prevention) the required rollaway distance of 150 mm is proposed. In addition, the rollaway distance of 150 mm is in range of distance after applying the parking position via the automatic gear box;

(b) To satisfy the static requirements by paragraphs 2.3.1. and 2.3.2. of annex 4 of this regulation, the wording "… or in combination with …" is introduced to clarify a technical solution consisting of a friction type parking brake and a park lock device or a combination of both;

(c) As the combination of friction type and park lock device or a combination of both will keep the vehicle in a static position, the wording engagement seems more appropriate as clamping;

(d) To enable periodic technical inspections for a Park Lock Device, additional information is provided by manufacturer.