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## **Economic Commission for Europe**

Inland Transport Committee

#### World Forum for Harmonization of Vehicle Regulations

Working Party on Automated/Autonomous and Connected Vehicles

Twenty-second session Geneva, 24 June 2025 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 Regulations Nos. 13 and 13-H on park lock device approval**

#### Submitted by the experts from the European Association of Automotive Suppliers and the International Organization of Motor Vehicle Manufacturers\*

The text reproduced below was prepared by the experts of European Association of Automotive Suppliers (CLEPA) and the International Organization of Motor Vehicle Manufacturers (OICA), 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/2025/13 amended by GRVA-20-06/Rev.1 and ECE/TRANS/WP.29/GRVA/2025/14 amended by GRVA-20-07/Rev.1. The modifications to the existing text of UN Regulations Nos. 13 and 13-H are marked in bold for new and strikethrough for deleted characters.

<sup>\*</sup> 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 for amendments to UN Regulation No. 13

Paragraph 5.2.1.10., amend to read:

"5.2.1.10. 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 addition with to the means acting on the braking surfaces for the purpose of fulfilling the static parking brake requirements as defined in Annex 4, paragraph 2.3.1 and 2.3.2. 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 4, paragraphs 2.3.1. and 2.3.2. of this Regulation.

When the vehicle is held stationary by the use of the service brake, it shall be ensured that after the full activation of the parking braking control the braked wheels do not move by more than [150] mm following the release of the service brake. This shall be ensured up to a slope as defined in Annex 4, paragraph 2.3.1. and 2.3.2. as applicable.

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."

Insert a new paragraph 5.2.1.26.5., to read:

"5.2.1.26.5. When the parking braking system, containing a park lock device, has at standstill detected a request to apply the parking braking system, a red warning signal shall flash until the park lock device is in a locked position, unless the parking braking system is preventing further movement of the braked wheels.

Where actuation of the parking brake lock device 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."

#### II. Proposal for amendments to UN Regulation No. 13-H

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 addition with to the means acting on the braking surfaces for the purpose of fulfilling the static parking brake requirements as defined in Annex 3, paragraph 2.3.1. and 2.3.2. 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.

When the vehicle is held stationary by the use of the service brake, it shall be ensured that after the full activation of the parking braking control the braked wheels do not move by more than [150] mm following the release of the service brake. This shall be ensured up to a slope as defined in Annex 3, paragraph 2.3.1. and 2.3.2. as applicable.

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."

Insert a new paragraph 5.2.19.5., to read:

"5.2.19.5. When the parking braking system, containing a park lock device, has at standstill detected a request to apply the parking braking system, a red warning signal shall flash until the park lock device is in a locked position, unless the parking braking system is preventing further movement of the braked wheels.

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

#### **III.** Justification

Justifications are provided in informal document GRVA-21-10/Rev.1