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Item 3(d) of the provisional agenda

Regulations Nos. 13 and 13-H (Braking) - Clarifications**Proposal for draft amendments to Regulation No 13-H
(Brakes of M₁ and N₁ vehicles)****Submitted by the experts from the European Association of Automotive
Suppliers and from the International Organization of Motor Vehicle
Manufacturers ***

The text reproduced below was prepared by the experts from the European Association of Automotive Suppliers (CLEPA) and from the International Organization of Motor Vehicle Manufacturers (OICA) to clarify the levels of braking performance that are reasonable in the different positions of the ignition key. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

I. Proposal

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.~~ **When the ignition/start switch has been switched off and/or the key has been removed, at least the Type-0 test performance of paragraph 2.2.2 of Annex 3 shall be met.** It should be understood that sufficient energy is available in the energy transmission of the service braking system."

II. Justification

1. The current wording of paragraph 5.2.20.1 may be misinterpreted. This proposal intends to clarify which levels of braking performance are reasonable in the different positions of the ignition key.

2. The current paragraph in principle requires the prescribed service braking performance, even in the case when the ignition is switched off and/or the key has been removed.

3. After ignition off (i.e. engine stopped), common braking systems can still deliver service braking performance, however for a limited time, until vacuum or electricity has been depleted.

That is why it is mentioned that "It should be understood that sufficient energy is available in the energy transmission of the service braking system."

4. Braking systems with electric control transmission can only produce full service braking performance as long as the system is energized. After ignition off, such systems shut down to avoid the battery depletion.

5. The practical need of this paragraph was to prescribe a suitable braking performance which would allow a driver, who releases the parking brake of a car parked on a slope, to prevent rollaway even when ignition has been turned off. In such a situation no braking from high speed is required. Secondary braking performance is fully sufficient.

6. So there is no realistic real world scenario where full service braking performance is needed with the ignition off. The paragraph therefore is amended accordingly.