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## **ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on Brakes and Running Gear

Sixty-sixth session Geneva, 15-17 September 2009 Item 3(a) of the provisional agenda

REGULATIONS Nos. 13 AND 13-H (Braking)

Emergency Stop Signal (ESS)

Proposal for amendments to Regulation No. 13

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) in order to clarify in which conditions the Emergency Stop Signal (ESS) shall not be activated. It is based on informal document GRRF-65-11, not amended. The modifications to the existing text of the Regulation are marked in bold and strikethrough characters.

<sup>\*/</sup> In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

## A. PROPOSAL

Paragraph 5.2.1.31. to 5.2.1.31.2., amend to read:

- "5.2.1.31. When a vehicle is equipped with the means to indicate emergency braking, activation and de-activation of the emergency braking signal shall meet the specifications below may only be generated by the application of the service braking system when the following conditions are fulfilled:
- 5.2.1.31.1. The signal shall be activated by the application of the service braking system as follows The signal shall not be activated when the vehicle deceleration is below the values defined in the following table but it may be generated at any deceleration at or above those values, the actual value being defined by the vehicle manufacturer:

	The signal shall not be activated below
$N_1$	$6 \text{ m/s}^2$
$M_2$ , $M_3$ , $N_2$ and $N_3$	$4 \text{ m/s}^2$

The signal shall be de-activated for all vehicles at the latest when the deceleration has fallen below 2.5 m/s<sup>2</sup>.

- 5.2.1.31.2. The following conditions may also be used:
  - (a) The signal may be activated by the application of the service braking system in such a manner that it would produce, in an unladen condition and engine disconnected, under the test conditions of Type 0 as described in Annex 4, a deceleration as follows:

The signal may be generated from a prediction of the vehicle deceleration resulting from the braking demand respecting the activation and deactivation thresholds defined in paragraph 5.2.1.31.1 above.

	Shall not be activated below
$N_1$	6 m/s <sup>2</sup>
$M_2$ , $M_3$ , $N_2$ and $N_3$	$4 \text{ m/s}^2$

The signal shall be de-activated for all vehicles at the latest when the deceleration has fallen below 2.5 m/s<sup>2</sup>.

or

(b) The signal may be activated when the service braking system is applied at a speed above 50 km/h and when the antilock system is fully cycling (as defined in paragraph 2. of Annex 13).

The signal shall be de-activated when the antilock system is no longer fully cycling."

## B. JUSTIFICATION

GRRF at its sixty-fifth session agreed to postpone to the sixty-sixth session the consideration of informal document GRRF-65-11. This latter document is now made available to the experts, as a joint CLEPA/OICA proposal to clarify the provisions about the generation of the Emergency Stop Signal (ESS).

The original intention of the proposal by the informal group on ESS was to ensure that the ESS would not be activated at decelerations below 6 m/s<sup>2</sup>. However, the current wording of the text in Regulation No. 13 could lead to misinterpretation. It could be understood that the ESS must be activated as from a deceleration value of 6 m/s<sup>2</sup>.

This was not the intention of the informal group. The experts were well aware at that time that there was no safety issue with those provisions. Defining a precise value would indeed imply to define tolerances and an accurate test method. In addition, optional equipment naturally implies a discrepancy in the fleet as the vehicles not equipped with such a system will not activate a (non-existing) signal, while the equipped vehicles will.

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