Economic and Social Council

Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Brakes and Running Gear

Eighty-first session
Geneva, 1-5 February 2016
Item 5(a) of the provisional agenda
Motorcycle braking – Regulation No. 78

Proposal for a supplement to Regulation No. 78 (Uniform provisions concerning the approval of vehicles of categories L1, L2, L3, L4 and L5 with regard to braking)

Submitted by the experts from the International Motorcycle Manufacturers Association *

The text reproduced below was prepared by the experts from the International Motorcycle Manufacturers Association (IMMA) in order to allow Emergency Stop Signal (ESS). The modifications to the existing text of the regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Insert paragraph 2.30., to read:

"**2.30.**   "*Emergency braking signal*" **means logic signal indicating emergency braking specified in paragraphs 5.1.15 to 5.1.15.2. of this regulation.**"

Insert paragraphs 5.1.15. to 5.1.15.2., to read:

"**5.1.15.**   **When a vehicle is equipped with the means to indicate emergency braking, activation and de-activation of the emergency braking signal shall only be**

---

*   In accordance with the programme of work of the Inland Transport Committee for 2014–2018 (ECE/TRANS/240, para. 105 and ECE/TRANS/2014/26, 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.

generated by the application of the service braking system when the following conditions are fulfilled:*

5.1.15.1.   The signal shall not be activated when the vehicle deceleration is below 6 m/s2 but it may be generated at any deceleration at or above this value, the actual value being defined by the vehicle manufacturer.

The signal shall be de-activated at the latest when the deceleration has fallen below 2.5 m/s^2.

5.1.15.2.   The following conditions may also be used:

(a)   The signal may be generated from a prediction of the vehicle deceleration resulting from the braking demand respecting the activation and de-activation thresholds defined in paragraph 5.1.15.1. above;

Or

(b)   The signal may be activated at a speed above 50 km/h when the antilock system is fully cycling (as defined in paragraph 9.1. of Annex 3) and deceleration is at least 2.5m/s^2. The deceleration may be generated from the prediction described in point (a). The signal shall be deactivated when the antilock system is no longer fully cycling.

Insert footnote at bottom of page, related to paragraph 5.1.15., to read:

---

*   At the time of type approval, compliance with this requirement shall be confirmed by the vehicle manufacturer.

II.   Justification

1.   The emergency braking signal is already available on the market for motor vehicles. As motorcycles are used in the same traffic conditions, the option should also be possible on motorcycles.

2.   The proposal has been prepared taking into account the provisions for Emergency Stop Signal, as existing in Regulation No. 13-H with modification necessary to account for differences between motor vehicles and motorcycles. The modification adds a minimum deceleration for activation with ABS cycling in paragraph 5.1.15.2.(b). This is consistent with deceleration based activation, which also requires a minimum of 2.5m/s^2 and recognizes that independent braking systems typical of motorcycles can have ABS fully cycling on one wheel with no braking on the other wheel.

3.   This amendment aligns the provisions of Regulation No. 78 to the proposed amendment of GTR No. 3.

4.   IMMA issued in parallel a proposal to GRE (ECE/TRANS/WP.29/GRE/2015/40) amending Regulation No. 53 (Installation of lighting and light-signalling devices for L_3 vehicles) introducing the option of equipping a vehicle with the emergency stop signal.