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## Economic Commission for Europe

### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

#### 189th session

Geneva, 7-9 March 2023

Item 4.7.2 of the provisional agenda

#### 1958 Agreement:

Consideration of draft amendments to existing

UN Regulations submitted by GRVA

## Proposal for a Supplement 2 to the 05 series of amendments to UN Regulation No. 78 (Motorcycle braking)

### Submitted by the Working Party on Automated/Autonomous and Connected Vehicles\*

The text reproduced below was adopted by the Working Party on Automated/Autonomous and Connected Vehicles (GRVA) at its fourteenth session (see ECE/TRANS/WP.29/GRVA/14, para. 109). It is based on ECE/TRANS/WP.29/GRVA/2022/26. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration at their March 2023 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2023 (A/77/6 (Sect.20), para 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.



Insert a new paragraph 2.34., to read:

"2.34. "Automatically commanded braking" means a function within a complex electronic control system where actuation of the braking system(s) or brakes of certain axles is made for the purpose of generating vehicle retardation with or without a direct action of the driver, resulting from the automatic evaluation of on-board initiated information."

Paragraph 5.1.17.2., amend to read:

"5.1.17.2. In addition, in case of vehicles equipped with automatically commanded braking and/or electric regenerative braking systems, which produces a retarding force (e.g. upon release of the accelerator control), the braking signal shall be generated also according to the following provisions <sup>4</sup>:

<i>Vehicle deceleration by automatically commanded braking and/or regenerative braking</i>	<i>Signal generation</i>
$\leq 1.3 \text{ m/s}^2$	The signal may be generated
$> 1.3 \text{ m/s}^2$	The signal shall be generated

An appropriate measure (e.g. switch-of-hysteresis, averaging, time delay) shall be implemented in order to avoid fast changes of the signal resulting in flickering of the stop lamps."

Paragraph 5.1.17.3., amend to read:

"5.1.17.3. Once generated, the signal shall be kept as long as a deceleration demand by the automatically commanded braking and/or electric regenerative braking persists. However, the signal may be suppressed at standstill or when the deceleration demand falls below  $1.3 \text{ m/s}^2$  or that value which generated the signal, whichever is lower.

The signal shall not be generated when retardation is solely produced by the natural braking effect of the engine, air-/rolling resistance and/or road slope."

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