

28 October 2016

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## **Agreement**

### **Concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions\***

(Revision 2, including the amendments which entered into force on 16 October 1995)

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#### **Addendum 130 – Regulation No. 131**

#### **Revision 1 - Amendment 1**

Supplement 2 to the 01 series of amendments – Date of entry into force: 8 October 2016

#### **Uniform provisions concerning the approval of motor vehicles with regard to the Advanced Emergency Braking Systems (AEBS)**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2016/7.



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\* Former title of the Agreement: Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

*Introduction of the Regulation*, amend to read (including the addition of new references to the existing Footnote 1):

## **"Introduction**

The intention of this Regulation is to establish uniform provisions for Advanced Emergency Braking Systems (AEBS) fitted to motor vehicles of the categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub> and N<sub>3</sub><sup>1</sup> primarily used under monotonous highway driving conditions.

While, in general, those vehicle categories will benefit from the fitment of an AEBS, there are sub-groups where the benefit is rather uncertain because they are primarily used in other conditions than highway conditions (e.g. buses with standing passengers i.e. Classes I, II and A<sup>1</sup>, category G vehicles<sup>1</sup>, construction vehicles, etc.). Regardless from the benefit, there are other sub-groups where the installation of AEBS would be technically difficult or not feasible (e.g. position of the sensor on vehicles of category G<sup>1</sup>, construction vehicles mainly used in off-road areas and gravel tracks, special purpose vehicles and vehicles with front mounted equipment, etc.). In some cases there may be a possibility of false emergency braking events because of vehicle design constraints.

In addition, systems intended for vehicles not equipped with a pneumatic rear-axle suspension require the integration of advanced sensor technology to take into account the variation of the pitch angle of the vehicle.

The system shall automatically detect a potential forward collision, provide the driver with a warning and activate the vehicle braking system to decelerate the vehicle with the purpose of avoiding or mitigating the severity of a collision in the event that the driver does not respond to the warning.

The system shall only operate in driving situations where braking will avoid or mitigate the severity of an accident, and shall take no action in normal driving situations.

In the case of a failure in the system, the safe operation of the vehicle shall not be endangered.

The system shall provide as a minimum an acoustic or haptic warning, which may also be a sharp deceleration, so that an inattentive driver is made aware of a critical situation.

During any action taken by the system (the warning and emergency braking phases), the driver can, at any time through a conscious action, e.g. by a steering action or an accelerator kick-down, take control and override the system.

The Regulation cannot include all the traffic conditions and infrastructure features in the type-approval process. Actual conditions and features in the real world should not result in false warnings or false braking to the extent that they encourage the driver to switch the system off."

*Paragraph 5.1.2.*, amend to read:

"5.1.2. The effectiveness of AEBS shall not be adversely affected by magnetic or electrical fields. This shall be demonstrated by fulfilling the technical requirements and respecting the transitional provisions of Regulation No. 10 by applying:

- (a) The 03 series of amendments for vehicles without a coupling system for charging the Rechargeable Electric Energy Storage System (traction batteries);
- (b) The 04 series of amendments for vehicles with a coupling system for charging the Rechargeable Electric Energy Storage System (traction batteries)."