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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****Eightieth session**

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Item 2 of the provisional agenda

**Advanced Emergency Braking Systems (AEBS) and
Lane Departure Warning Systems (LDWS)****Proposal for an amendment to Regulation No. 130 (LDWS)****Submitted by the experts from the International Organization of
Automobile Manufacturers***

The text reproduced below was prepared by the experts of the International Organization of Automobile Manufacturers (OICA), inserting a new Introduction in the regulation, for drawing attention on the technical issues related to the installation of LDWS on some specific vehicles included in the scope of the regulation. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Content, amend to read:

"Contents

Introduction (for information)

1. Scope

..."

* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, 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.

Insert a new Introduction, to read (including new references to the existing Footnote 1):

"Introduction (for information)

The intention of this Regulation is to establish uniform provisions for lane departure warning systems (LDWS) fitted to motor vehicles of the categories M₂, M₃, N₂ and N₃¹ primarily used under highway conditions.

These vehicle categories will benefit from the fitment of a lane departure warning system, especially in the field of monotonous driving situations. The benefit of such system installation is to support a distracted or drowsy driver by warning if the vehicle is unintentionally leaving the lane.

While, in general, those vehicle categories will benefit from the fitment of a LDWS, there are subgroups 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, off-road vehicles¹, construction vehicles, special purpose vehicles, etc.). Regardless from the benefit, there are other subgroups where the installation of LDWS would be technically difficult (e.g. on vehicles equipped with split windshields, asymmetrical cabs, windshield of high thickness, front hood vehicles, vehicles with front mounted equipment, etc.).

As from sixty km/h, the system shall automatically detect unintentional drift of the vehicle out of its travel lane and warn the driver.

The system shall provide a warning, so that an inattentive driver is made aware of a critical situation.

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 to the extent that they encourage the driver to switch the system off."

II. Justification

1. Vehicle manufacturers are currently implementing LDWS on a large variety of models, e.g. to fulfil mandatory requirements in some Contracting Parties. This implementation work confirms the concerns which have been brought up for discussion during the AEBS/LDWS informal group activities and sheds light on a number of technical issues that occur when installing obstacle detection devices on some specific vehicles, in particular in case of huge technical diversity and where the vehicle environment can have a negative impact on system reliability and on its ability to operate.

2. For example:

(a) Due to the technical environment specific to off-road vehicles (steel bumpers, electric truck winches, windshield thickness, split windshields, asymmetrical cabs, front hood vehicles, etc.) robust and reliable sensor integration is not always possible.

(b) Robust sensor installation on special purpose vehicles is often not possible (snow plows, external devices, front mounted equipment, etc.).

(c) The environment conditions for construction vehicles may also negatively affect the sensors, in a similar way as for off road vehicles (dust, mud, humidity in off-road areas or on gravelled tracks, etc.).