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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Passive Safety****Sixty-sixth session**

Geneva, 10-13 December 2019

Item 12 of the provisional agenda

**UN Regulation No. 42 (Front and rear protection devices)**

**Proposal for Supplement 2 to original text of UN  
Regulation No. 42 (Front and rear protection devices)****Submitted by the expert from the Netherlands\***

The text reproduced below was prepared by the expert from the Netherlands to explain how to deal with advanced driver assist systems that affect braking and steering requirements. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

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\* 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 UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



## I. Proposal

Paragraph 6.1.5., amend to read:

"6.1.5. The vehicle's propulsion, suspension (including tyres), steering and braking systems shall remain in adjustment and shall operate in a normal manner.

**This requirement does not apply to sensors, cameras, radar devices, etc. being part of driver assist systems approved under UN Regulation No. 13-H, UN Regulation No. 13 and/or UN Regulation No. 79. They may become damaged, disoriented or broken due to an impact carried out according to Annex 3 as long as the basic braking and steering performance are still intact."**

## II. Justification

1. UN Regulation No. 42 originated long before advanced driver assist systems were introduced. The requirement in paragraph 6.1.5. states that the steering and braking systems shall remain in adjustment and shall operate in a normal manner. Damage, disorientation and breakage of sensors being part of driver assist systems is covered under the requirements of Annex 8 to UN Regulation No. 13-H, Annex 18 to UN Regulation No. 13 and Annex 6 to UN Regulation No. 79 which basically makes sure that any possible error in the system shall not lead to dangerous or unexpected behaviour of the vehicle.

2. Paragraph 6.1.5. is fulfilled as long as the basic functionality of braking systems and steering systems, like Anti-lock Braking System, Electronic Stability Control and, e.g. the alignment of the wheels are still guaranteed.

3. Failure of a sensor that would result in, e.g. the assisted parking mode not functioning anymore, and should therefore be excluded from the requirements under UN Regulation No. 42.

4. This subject has been discussed in the Type Approval Authority Meeting, held in Utrecht, the Netherlands in June 2018. General consensus was reached among the participants about this justification.

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