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World Forum for Harmonization of Vehicle Regulations**Working Party on Automated/Autonomous and Connected Vehicles****Twentieth session**

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Item 6(a) of the provisional agenda

Advanced Driver Assistance System and UN Regulation No. 79:**Advanced Driver Assistance Systems****Proposal for supplement to UN Regulation No. [171] (DCAS)****Submitted by the expert from the United Kingdom of Great Britain and Northern Ireland ***

The text reproduced below was prepared by the expert from the United Kingdom of Great Britain and Northern Ireland, regarding the conditions for automatic re-instatement of system at the “initiation of each engine start / run cycle”. It is based on informal document GRVA-19-41. The modifications to the existing text of the Regulations are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2024 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), 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 5.3.7.5.1.1.2., amend to read:

5.3.7.5.1.1.2. Upon first activation of the system ~~during a run cycle~~ **following an activation of the powertrain³**, the system shall provide information to the driver that the headway configuration is set to a value lower than 2 seconds, if that is the case.

Insert new footnote 3, to read:

“³ As defined in Mutual Resolution No. 2 (M.R.2) of the 1958 and the 1998 Agreements containing vehicle propulsion system definitions, see document ECE/TRANS/WP.29/1121.”

Renumber footnote 3 (former) as footnote 4.

Paragraph 5.5.3.1., amend to read:

5.5.3.1. The system shall be in ‘off’ mode at the initiation of each **initiation of the powertrain³** ~~new engine start (or run cycle, as relevant)~~, regardless of what mode the driver had previously selected.

This requirement does not apply when **the initiation of the powertrain³** ~~a new engine start (or run cycle, as relevant)~~ is performed automatically, e.g., the operation of a stop/start system.

Paragraph 5.5.4.2.8.1., amend to read:

5.5.4.2.8.1. The manufacturer shall implement strategies to disable activation of the system for the duration ~~of the start/run cycle~~ **powertrain³ is active** when the driver is detected to demonstrate prolonged insufficient engagement at least when this leads to more than one driver unavailability response initiations.

Annex 4,

Paragraph 4.2.2.1., amend to read:

“4.2.2.1. The tests shall be performed in a way that the outcome of the test is not affected by driver settings or driver input and any other influences not related to the manoeuvre under test. Therefore, the following conditions shall apply:

- (a) The system’s longitudinal control following distance shall be set to:
 - (i) the default distance, if the distance is reset to a specific value upon first activation of the system ~~in the run cycle~~ **following an activation of the powertrain**; or ...
- ...”

II. Justification

1. Mutual Resolution No.2 (M.R.2) was specifically created to establish uniform definitions for vehicle propulsion systems and created generic terms for components and aspects of propulsion systems that are independent of fuel type or technology used. It therefore gives the basis for establishing provisions that can be technology neutral. Continuing to refer to ‘engine’ or ‘run cycle’ is still implying a technology type and therefore may retain a level of ambiguity.

2. Using the definition of ‘powertrain’ from M.R.2 provides a generic term that sufficiently covers the aspect of a vehicle which needs to be referred to when considering the default state of systems following initialisation. Also using the term ‘powertrain’ simplifies the respective provisions. The M.R.2 definition of powertrain is as follows:

3. “Powertrain” means the total combination in a vehicle, of propulsion energy storage system(s), propulsion energy converter(s), the drivetrain(s), providing the mechanical energy at the wheels for the purpose of vehicle propulsion, plus peripheral devices.