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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Automated/Autonomous and Connected Vehicles****Nineteenth session**

Geneva, 25 June 2024

Items 4(g) and 6(b) of the provisional agenda

Automated/autonomous and connected vehicles:**UN Regulation No. 157****Advanced Driver Assistance Systems and UN Regulation No. 79:****UN Regulation No. 79 (Steering equipment)****Proposal for amendments to UN Regulation No. 79 (steering equipment) and to UN Regulation No. 157 (ALKS)****Submitted by the expert from the European Association of Automotive Suppliers (CLEPA) and from the International Organization of Motor Vehicle Manufacturers (OICA) ***

The text reproduced below was prepared by the expert from the European Association of Automotive Suppliers (CLEPA) and from the International Organization of Motor Vehicle Manufacturers (OICA) aimed at harmonizing the provisions in UN Regulations Nos. 79 and 157 with the wording in UN Regulation No. 152 (AEBS for M₁ and N₁) regarding the conditions for automatic re-instatement of system at the “initiation of each engine start / run cycle”. It is based on informal documents GRVA-18-05 and GRVA-18-06. 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 for amendments to UN Regulation No. 79

Paragraph 5.6.4.2.1., amend to read:

“5.6.4.2.1. The default status of the system shall be off at the initiation of each new engine start/~~run cycle~~ **(or run cycle, as relevant)**. This requirement does not apply when a new engine start/~~run cycle~~ **(or run cycle, as relevant)** is performed automatically, e.g. the operation of a stop/start system.”

Paragraph 5.6.4.8.3., amend to read:

“5.6.4.8.3. After each vehicle new engine start /~~run cycle~~ **(or run cycle, as relevant)**, other than when performed automatically, e.g. the operation of a stop/start systems), the ACSF of Category C function shall be prevented from performing a lane change manoeuvre until the system has detected, at least once, a moving object at a distance greater than the minimum distance S_{rear} declared by the manufacturer in paragraph 5.6.4.8.1. above.”

Annex 8, Paragraph 3.5.6.1., amend to read:

“3.5.6.1. The test vehicle shall be driven in a lane of a straight test track, which has at least two lanes in the same direction of travel, with road markings on each side of the lanes.

The vehicle speed shall be: $V_{\text{min}} + 10\text{km/h}$.

The ACSF of Category C shall be activated (standby mode) and another vehicle shall approach from the rear in order to enable the system as specified in paragraph 5.6.4.8.3. above.

The approaching vehicle shall then pass the vehicle under test entirely.

The rear sensor(s) shall be made blind, with means agreed between the vehicle manufacturer and the Technical Service, which shall be recorded in the test report. This operation may be carried out at standstill, provided no new engine start/~~run cycle~~ **(or run cycle, as relevant)** is performed.

The vehicle shall be driven to a speed of $V_{\text{min}} + 10\text{km/h}$, and a lane change procedure shall be initiated by the driver.”

Annex 8, Paragraph 3.5.7.1.1., amend to read:

“3.5.7.1.1. Following a new engine start /~~run cycle~~ **(or run cycle, as relevant)** performed by the driver, the test vehicle shall be driven in a lane of a straight test track, which has at least two lanes in the same direction of travel, with road markings on each side of the lanes.

The ACSF of Category C shall not be activated (off mode) and another vehicle shall approach from the rear and the approaching vehicle shall pass the vehicle entirely.

The direction indicator used to initiate a lane change procedure shall be activated by the driver for a period greater than 5 seconds.”

Annex 8, Paragraph 3.5.7.2.1., amend to read:

“3.5.7.2.1. Following a new engine start /~~run cycle~~ **(or run cycle, as relevant)** performed by the driver, the test vehicle shall be driven in a lane of a straight test track, which has at least two lanes in the same direction of travel, with road markings on each side of the lanes.

The ACSF of Category C shall be manually activated (standby mode).

A lane change procedure shall then be initiated by the driver.”

II. Proposal for amendments to UN Regulation No. 157

Paragraph 5.5.5., amend to read:

“5.5.5. Reactivation of the system after the end of any minimum risk manoeuvre shall only be possible after each new engine start/~~run cycle~~ **(or run cycle, as relevant)**.”

Paragraph 6.2.2., amend to read:

“6.2.2. The default status of the system shall be the off mode at the initiation of each new engine start/~~run cycle~~ **(or run cycle, as relevant)**. This requirement does not apply when a new engine start/~~run cycle~~ **(or run cycle, as relevant)** is performed automatically, e.g. by the operation of a stop/start system.”

III. Justification

1. At its thirteenth session, GRVA supported “Interpretation 1” described in the informal document GRVA-13-33 about the wording existing in UN Regulation No. 152 (AEBS for M₁ and N₁) to mandate automatic re-instatement of the AEBS at the “initiation of each engine start / run cycle”.
 2. This interpretation 1 clarifies that this wording (“each new engine start” or “new run cycle”), provide the choice to the manufacturer between two options.
 3. At its fourteenth session, GRVA adopted the wording “engine start (or run cycle, as relevant)”, properly reflecting the interpretation 1 agreed upon, and supported the view that this interpretation and its wording should be extended to the other relevant GRVA regulations.
 4. The present document proposes to extend the wording to the relevant paragraphs of UN Regulations Nos. 79 and 157, in a view to further harmonize the regulations under the purview of GRVA.
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