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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****Twelfth session**

Geneva, 24-28 January 2022

Item 8(a) of the provisional agenda

**UN Regulations Nos. 13, 13-H, 139, 140 and UN GTR No. 8:****Electronic Stability Control****Proposal to amend ECE/TRANS/WP.29/GRVA/2020/34****Submitted by the experts from Canada\***

The text below reflects the amendment proposal from the expert from Canada, aimed to amend ECE/TRANS/WP.29/GRVA/2020/34 and informal document GRVA-09-36 made during the eleventh session of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA). Informal document GRVA-09-36 was prepared by the expert from the Republic of Korea, proposing to amendments to UN GTR No. 8 (Electronic Stability Control (ESC)). This proposal was based on the working document ECE/TRANS/WP.29/GRVA/2020/34 and informal document GRVA-07-64. The modifications, originally in GRVA-09-36, to the existing text of the UN Global Technical Regulation are marked in bold for new, and strikethrough for deleted characters. The amendments proposed by the expert from Canada are underlined.

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\* In accordance with the programme of work of the Inland Transport Committee for 2022 as outlined in proposed programme budget for 2022 (A/76/6 (Sect.20), para 20.76), 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., amend to read:

“5. Performance Requirements.

During each test performed under the test conditions of paragraph 6. and the test procedure of paragraph 7.9., the vehicle with the ESC system engaged shall satisfy the directional stability criteria of paragraphs 5.1. and 5.2., and it shall satisfy the responsiveness criterion of paragraph 5.3. during each of those tests conducted with a commanded steering wheel angle of 5A or greater (but limited as per paragraph 7.9.4.), where A is the steering wheel angle computed in paragraph 7.6.1.

**Notwithstanding the above, the responsiveness criterion is deemed to be satisfied also for systems where the maximum operable steering wheel angle defined in paragraph 7.9.4. and the lateral displacement prescribed in paragraph 5.3. are achieved at a commanded steering wheel angle less than 5A.”**

Paragraph 7.9.4., amend to read:

“7.9.4. The steering amplitude of the final run in each series is the greater of 6.5 A or 270 degrees, provided the calculated magnitude of 6.5 A is less than or equal to 300 degrees. If any 0.5 A increment, up to 6.5 A, is greater than 300 degrees, the steering amplitude of the final run shall be 300 degrees.

**If the above calculated steering amplitude of the final run is greater than the maximum operable steering wheel angle determined by design of the steering system, the nominal final angle amplitude for the series test shall be greater than 98 per cent of the maximum operable angle. However if the automated steering machine fails to complete Sine with Dwell Test due to the mechanical limit of steering equipment during the final angle amplitude for the series test, the final angle amplitude for the series test may be greater than 98 per cent of the maximum operable angle.”**

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