Proposal for amendments to ECE/TRANS/WP.29/GRVA/2021/8

Proposal for a Supplement to the 02, the 03 and the 04 series of amendments to UN Regulation No. 79 (Steering equipment)

This document reflects the outcome of some discussions held after GRVA-10 and replaces docs GRVA-09-37 and GRVA-10-24 on this subject. The changes proposed to document ECE/TRANS/WP.29/GRVA/2021/8 are indicated in blue.

I. Proposal

“Paragraph 5.6.2.2.3., amend to read:

5.6.2.2.3. When the system reaches its boundary conditions set out in paragraph 5.6.2.3.1.1. of this Regulation (e.g. the specified maximum lateral acceleration $\alpha_{\text{max}}$) and both in the absence of any driver input to the steering control and when any front tyre of the vehicle starts to cross the lane marking, the system shall avoid sudden loss of steering support by continuing continue to provide assistance to the extent possible as outlined in the safety concept of the vehicle manufacturer and shall clearly inform the driver about this system status by an optical warning signal and additionally by an acoustic or haptic warning signal.

For vehicles … UN Regulation No. 130. ”

II. Justification

1. The intention of the proposed amendment is to clarify the existing text on continued support of an Automatically Commanded Steering Function of Category B1, if the boundary conditions are exceeded. It shall be clarified that under certain circumstances, e.g. when the vehicle has already drifted substantially out of the lane, the lane may no longer be recognized, a continuation of support may no longer be possible or reasonable.

2. The conditions under which circumstances the system shall continue to provide assistance and issue a warning, means when all of the three preconditions are met (reaching of boundary conditions, absence of driver input and start crossing lane markings), remain unchanged.

3. The proposed changes to ECE/TRANS/WP.29/GRVA/2021/08 reflect the latest discussions between industry and the experts of the United Kingdom. The revised proposal above adds the required clarification on what level of assistance can be expected when all three of the conditions of 5.6.2.2.3. are met.

4. The proposed wording is partly inspired from the EU General Safety Regulation (GSR) for Emergency Lane Keeping System (ELKS): “…Significant loss of steering support once overridden shall not happen suddenly…”