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agenda item 5.)

PROPOSAL FOR DRAFT AMENDMENT TO REGULATION No. 79
(Steering equipment))

Transmitted by the Experts from the United Kingdom and the
European Association of Automobile Suppliers (CLEPA)

Note: The text reproduced below was prepared by the experts from the United Kingdom and CLEPA in order to amend document TRANS/WP.29/GRRF/2002/5/Rev.1 to which it refers. This document supersedes and replaces Informal Document No. 24 of the fifty-third session and certain amendments reproduced in annex 4 to the report of the fifty-third session (TRANS/WP.29/GRRF/53).

Note: This document is distributed to the Experts on Brakes and Running Gear only.

Paragraph 0., subparagraph b), amend to read:

- "b) by allowing the approval of systems where the driver remains at all times in primary control of the vehicle but may be helped by the steering system being influenced by signals initiated on board the vehicle. These systems are defined as "Advanced Driver Assistance Steering Systems" (ADASS) and may incorporate an "Automatically Commanded Steering Function", for example, using passive infrastructure devices to assist the driver in keeping the vehicle on an ideal path (Lane Guidance, Lane Keeping or Heading Control), to assist the driver in manoeuvring the vehicle at low speed in confined spaces or to assist the driver in coming to rest at a pre-determined point (Bus Stop Guidance). Advanced Driver Assistance Steering Systems may also incorporate a "Corrective Steering Function" that, for example, warns the driver of any deviation from the chosen lane (Lane Departure Warning), corrects the steering angle to prevent departure from the chosen lane (Lane Departure Avoidance) or corrects the steering angle of one or more wheels to improve the vehicle's dynamic behaviour or stability.

In the case of both an automatically commanded steering function and a corrective steering function, the driver can, at all times, choose to override the function by deliberate action."

Paragraph 2.3.4., amend to read:

" of the vehicle. It comprises one or both of the following functions."

Paragraph 2.3.4.1., amend to read:

- "2.3.4.1. "Automatically commanded steering function" means the function within a complex electronic control system where actuation of the steering system may result from automatic evaluation of signals initiated on-board the vehicle, possibly in conjunction with passive infrastructure devices, to generate continuous control action in order to assist the driver in following a particular path or in low speed manoeuvring."

Paragraph 2.3.4.2., amend to read:

- "2.3.4.2. "Corrective steering function" means the discontinuous control function within a complex electronic control system whereby, for a limited duration, changes to the steering angle of one or more wheels may result from the automatic evaluation of signals initiated on-board the vehicle, in order to maintain the basic desired path of the vehicle or to influence the vehicle dynamic behaviour.

Systems that do not themselves positively actuate the steering system but that, possibly in conjunction with passive infrastructure devices, simply warn the driver of a deviation from the ideal path of the vehicle or of an unseen hazard, by means of a tactile warning transmitted through the steering control, are also considered to be corrective steering."

Paragraph 5.2.6., amend to read:

"5.2.6. Systems that incorporate an automatically commanded steering function may only be approved in accordance with this Regulation where they are intended to function in urban traffic situations or in low speed manoeuvring or parking. It shall only be possible to operate such a function up to a maximum vehicle speed of [50] km/h.

Whenever the automatically commanded steering function becomes operational this shall be indicated to the driver and the control action shall be automatically disabled if the vehicle speed exceeds the speed limit given above or if the signals to be evaluated are no longer being received. This termination of control shall produce a short but distinctive driver warning by an acoustic signal or by imposing a tactile warning signal on the steering control.

Automatically commanded steering functions that are designed to operate at above [50] km/h may only be approved on a national basis.

The automatically commanded steering function shall not cause any deterioration in the performance of the basic steering system and in all cases shall be designed such that the driver can, at any time, override or reject the function.

In the case of systems that incorporate a corrective steering function, that function shall not cause any deterioration in the performance of the basic steering system. The corrective steering function shall be designed such that the driver may, at any time, override the function."

Note by the secretariat: The reinsertion of old paragraph 1.4., as well as the renumbering of former paragraphs 1.4. and 1.5. as indicated in annex 4 to the report of the fifty-third session (TRANS/WP.29/GRRF/53) remain.
