

13 September 2022

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## **Agreement**

### **Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations\***

(Revision 3, including the amendments which entered into force on 14 September 2017)

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#### **Addendum 78 – UN Regulation No. 79**

#### **Revision 4 - Amendment 7**

Supplement 6 to the 03 series of amendments – Date of entry into force: 22 June 2022

#### **Uniform provisions concerning the approval of vehicles with regard to steering equipment**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2021/137.



**UNITED NATIONS**

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\* Former titles of the Agreement:

Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958 (original version); Agreement concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, done at Geneva on 5 October 1995 (Revision 2).

Paragraph 2.4.8., amend to read:

"2.4.8. "Remote Controlled Parking (RCP)" means an ACSF of category A, actuated by the driver, providing parking or low speed manoeuvring. The actuation is made in close proximity to the vehicle."

Paragraph 2.4.9., amend to read:

"2.4.9. "Specified maximum RCP operating range (SRCP<sub>max</sub>)" means the maximum distance between the nearest point of the motor vehicle and the remote control device or alternatively the driver (for systems based on detection of driver position and movement), up to which ACSF is designed to operate."

Paragraph 5.1.6.2.3., amend to read:

"5.1.6.2.3. An automatic avoidance manoeuvre initiated by an ESF shall not lead the vehicle to leave the road, if applicable for the specified use case according to paragraph 5.1.6.2.10."

Insert a new paragraph 5.1.6.2.3.2., to read:

"5.1.6.2.3.2. In the absence of a lane marking on one or on both side(s) of the vehicle, a single ESF intervention is permitted, provided that it does not produce a lateral offset of the vehicle greater than 0.75 m in a direction where the lane marking is absent. The lateral offset during the automatic avoidance manoeuvre shall be determined using a fixed point on the front of the vehicle at the start and at the conclusion of the ESF intervention.

The lateral offset of 0.75 m may be exceeded by a system intervention if the vehicle speed during the whole intervention is below 20 km/h and the lateral offset rate generated by the system is limited to 2 m/s, calculated as an average for a time period of 1 s."

Paragraphs 5.6.1.2.1. and 5.6.1.2.2. (5.6.1.2. for reference only), amend to read:

"5.6.1.2. Additional provisions for RCP

5.6.1.2.1. The parking .... A direct influence on steering angle, value of acceleration and deceleration via the remote-control device or by the movement of the driver shall not be possible.

5.6.1.2.2. Either a continuous actuation of the remote-control device by the driver or alternatively (for systems based on detection of driver position and movement) a continuous movement of the driver in the same longitudinal direction as the vehicle, is required during the parking manoeuvre."

Paragraph 5.6.1.2.3., amend to read:

"5.6.1.2.3. For systems based on continuous actuation of the remote-control device, the vehicle shall stop immediately, if:

- (a) The continuous actuation is interrupted;
- (b) The distance between vehicle and remote-control device exceeds the specified maximum RCP operating range (S<sub>RCPmax</sub>); or
- (c) The signal between remote control and vehicle is lost.

For systems based on detection of driver position and movement, the vehicle shall stop immediately if:

- (a) The continuous movement of the driver is interrupted;
- (b) The distance between vehicle and remote-control device or driver exceeds the specified maximum RCP operating range (S<sub>RCPmax</sub>);
- (c) The detection of the driver is lost; or
- (d) There is a rapid increase in the movement speed of the driver."

*Insert a new paragraph 5.6.1.2.9., to read:*

"5.6.1.2.9. For RCP systems based on detection of driver position and movement, the deactivation referred to in paragraph 3.6.1.1.3. shall be through a simple and obvious action that will be recognised by the system."

*Insert a new paragraph 5.6.1.3.1.4., to read:*

"5.6.1.3.1.4. For RCP systems based on detection of driver position and movement the manufacturer shall demonstrate to the technical service during type approval how a person is identified as the driver, how this person is tracked and how the driver initiates and terminates control. This shall be subject to agreement of the technical service."

*Annex 8*

*Paragraph 3.3.4., amend to read:*

"3.3.4. Tests for systems able to operate in the absence of lane markings. In case any system works in absence of lane markings the corresponding tests from paragraphs 3.3.1. to 3.3.3. need to be repeated on a test track without lane markings.

These test requirements are fulfilled if,

- (a) An ESF intervention is started; and
- (b) The warnings specified in paragraph 5.1.6.2.6. of this Regulation are provided no later than the ESF intervention starts; and
- (c) The lateral offset during the manoeuvre is 0.75 m, as specified in paragraph 5.1.6.2.3.2., at maximum or if exceeded in case of an intervention below 20 km/h, the lateral offset rate does not exceed 2 m/s; and
- (d) The vehicle has not left the road due to the ESF intervention, if applicable for the specified use case."

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