

19 September 2022

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)

Addendum 124 – UN Regulation No. 125

Revision 2 – Amendment 3

02 series of amendments – Date of entry into force: 22 June 2022

Uniform provisions concerning the approval of motor vehicles with regard to the forward field of vision of the motor vehicle driver

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2021/100



UNITED NATIONS

* 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).

Insert new paragraphs 2.19. and 2.20., to read:

- "2.19. Obstruction: means physical parts or interference in the field of vision reducing perception of light transmittance with the exception of stray light, e.g. reflection from vehicle interior, sunlight glare.
- 2.20. Field of Vision Assistant (FVA): means visual information displayed on the vehicle windscreen or other glazed surface to support the awareness of the driver."

Paragraph 5.1.3., amend to read:

- "5.1.3 Except as provided in paragraph 5.1.3.3., 5.1.3.4. or 5.1.3.5 below, other than the obstructions created by the "A" pillars, the fixed or movable vent or side window division bars, outside radio aerials, devices for indirect vision, covering the mandatory field of indirect vision, and windscreen wipers, there shall be no obstruction in the driver's 180° forward direct field of vision below a horizontal plane passing through V1, and above three planes through V2, one being perpendicular to the plane X-Z and declining forward 4° below the horizontal, and the other two being perpendicular to the plane Y-Z and declining 4° below the horizontal (see Annex 4, Appendix, Figure 4).

The following are not considered to be obstructions to the field of vision:

- (a) Embedded or printed "radio aerial" conductors, no wider than the following:
- (i) Embedded conductors: 0.5 mm,
 - (ii) Printed conductors: 1.0 mm. These "radio aerial" conductors shall not cross zone A5 However, three "radio aerial" conductors may cross zone A if their width does not exceed 0.5 mm.
- (b) Within zone A located "defrosting/demisting" normally in "zigzag" or sinusoidal form having the following dimensions:
- (i) Maximum visible width: 0.030 mm,
 - (ii) Maximum conductor density:
 - a. If the conductors are vertical: 8/cm,
 - b. If the conductors are horizontal: 5/cm."

Paragraph 5.1.3.4., amend to read:

- "5.1.3.4. An obstruction between a plane through V2, and declined at least 1° below the horizontal and a plane through V2 and declined 4° below the horizontal will be tolerated if the conical projection of this obstruction, starting from V2, on an area "S" as defined in paragraph 5.1.3.2.1. below does not exceed 20 per cent of this area."

Insert new paragraphs 5.1.3.5. to 5.1.3.6., to read:

- "5.1.3.5. The transparent field of vision as defined in paragraph 5.1.1. may be overlaid by information of a Field of Vision Assistant. The provisions of paragraph 5.1.3.5.1 to 5.1.3.5.5 and of paragraph 5.1.3.6 are applying to information from an FVA if overlaid in the transparent field of vision and outside of area S.

The information displayed by the FVA may be non-driving related, hence different to that listed in paragraph 5.1.3.5.1 and not submitted to the provisions of paragraph 5.1.3.5.1 to 5.1.3.5.5, as long as the parking gear/brake has not been released for the first time after the activation of the vehicle master control switch.

- 5.1.3.5.1. When the ignition is on or the vehicle master control switch is activated (whichever is applicable) the FVA information shall be driving related only and limited to:

- (a) Warning/Highlight hazardous traffic situation
- (b) Warning/Highlight vulnerable road users or other road users which may be overseen
- (c) Information to maintain the distances to surrounding road users
- (d) Information to find and maintain the correct driveway

Examples of the above Warning/Highlights/Information are given in Annex 5.

In the case the FVA displays information sourced external to the FVA subject to approval (e.g. external GNSS handheld device), this display shall respect the intended content (e.g. type, time, appearance, size, and colour) as described by the manufacturer in the Type Approval documentation. The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach.

- 5.1.3.5.2. The symbols and graphics shown by the FVA shall disappear when the underlying condition for their display does not exist anymore.
- 5.1.3.5.3. The FVA shall aim to minimize the masking of objects.
- 5.1.3.5.4. It shall be possible for the driver to adjust the light intensity of the FVA.
- 5.1.3.5.5. It shall be possible for the driver to switch off the FVA by a deliberate action consisting of at least one manual option with maximum of 2 consecutive steps. Intuitive action (e.g. double press, swipe and press) is considered as a single step.
- 5.1.3.6. The FVA shall be deactivated automatically in case of an electrically detectable failure of the FVA that affects the visual information as an identified risk considered in the safety approach."

Insert new paragraphs 6.2.1. and 6.2.2., to read:

- "6.2.1 The steering wheel, if adjustable, shall be placed in the normal position indicated by the manufacturer or, failing that, midway between the limits of its range(s) of adjustment
- 6.2.2. In the case the FVA position is adjustable, the FVA shall be placed in the normal position indicated by the manufacturer or, failing that, midway between the limits of the range of adjustment."

Insert new paragraphs 12.6. to 12.13., to read:

- "12.6. As from the official date of entry into force of the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 02 series of amendments.
- 12.7. As from 1 September 2023, Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the preceding series of amendments, first issued after 1 September 2023.
- 12.8. Until 1 September 2024 Contracting Parties applying this Regulation shall accept type approvals to the preceding series of amendments, first issued before 1 September 2023.
- 12.9. As from 1 September 2024, Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series of amendments to this Regulation.
- 12.10. Notwithstanding the transitional provisions above, Contracting Parties who start to apply this Regulation after the date of entry into force of the most recent series of amendments are not obliged to accept type approvals which were granted in accordance with any of the preceding series of amendments to this Regulation.

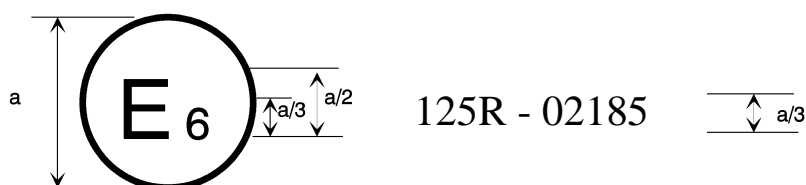
- 12.11. Notwithstanding paragraph 12.4, Contracting Parties applying this Regulation shall continue to accept type approvals issued according to the preceding series of amendments to this Regulation, for the vehicles/vehicle systems which are not affected by the changes introduced by the 02 series of amendments.
- 12.12. Contracting Parties applying this Regulation may grant type approvals according to any preceding series of amendments to this Regulation.
- 12.13. Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to any preceding series of amendments to this Regulation."

Annex 2, amend to read:

"Annex 2

Arrangements of approval marks

(see paragraphs 4.4. to 4.4.2. of this Regulation)



a = 8 mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in Belgium (E 6) with regard to the driver's forward field of vision pursuant to UN Regulation No. 125. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of UN Regulation No. 125 as amended by the 02 series of amendments."

Insert a new Annex 5 to read:

"Annex 5

Field of View Assistant

Examples for Warning / Highlight / Information as specified in paragraph 5.3.5.1.:

	Examples
Warning/Highlight hazardous traffic situation	<p>Abrupt braking situations</p> <p>Oncoming traffic in turning manoeuvres</p> <p>Oncoming traffic jam/vehicle break down</p> <p>Vehicles leaving the lane or entering the own driving path</p>
Warning/highlight vulnerable road users or other road users which may be overseen	<p>Pedestrians</p> <p>Cyclists</p> <p>Crossing road users</p> <p>Road users in blind spot or road users covered by other objects</p> <p>Animals</p>

	<i>Examples</i>
Information to maintain the distances to surrounding road user and infrastructure	Distance to vehicle in front Lane keep assist, lane change assist, speed limits changes
Information to find and maintain the correct driveway and to follow the road instructions	Navigation Information, symbols and arrows during automatic lane change (Directions, remaining distance to target, border crossings) Highlighting stop lines and pedestrian crosswalks

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