

29 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 157 – UN Regulation No. 158

Amendment 1

Supplement 1 to the original version of the Regulation – Date of entry into force:
22 June 2022

Uniform provisions concerning the approval of devices for reversing motion and motor vehicles with regard to the driver's awareness of vulnerable road users behind vehicles

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2021/103.



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).

Title, amend to read:

"UN Regulation on uniform provisions concerning the approval of devices and motor vehicles with regard to the driver's awareness of vulnerable road users behind vehicles when reversing"

Contents, amend to read:

"Regulation

1.	Scope
I.	Devices for means of rear visibility
2.	Definitions
...	
6.	Requirements
7.	Modification of the type of device for means of rear visibility and extension of approval
...	
11.	Names and addresses of Technical Services responsible for conducting approval tests, and of Type Approval Authorities
II.	Installation of means of rear visibility or detection.....
12.	Definitions
...	
22.	Names and addresses of Technical Services responsible for conducting approval tests, and of Type Approval Authorities

Annexes

1	Information document for type approval of a device for means of rear visibility.....
2	Information document for type approval of vehicle with respect to the installation of means of rear visibility or detection.....
3	Communication concerning the approval or refusal or extension or withdrawal of approval or production definitively discontinued of a type of device (Separate Technical Unit) for means of rear visibility, pursuant to Regulation No. 158
4	Communication concerning the approval or refusal or extension or withdrawal of approval or production definitively discontinued of a type of vehicle with regard to means of rear visibility or detection, pursuant to Regulation No. 158.....
	Appendix.....
5	Arrangement of approval mark for a device for means of rear visibility
...	
10	Test methods for detection systems

Introduction, amend to read:

"The purpose of this Regulation is to provide the provisions for means of rear visibility and detection that would improve the driver's awareness of vulnerable road users behind vehicles when reversing. UN Regulation No. 46. provides the provisions for indirect vision of motor vehicles. This Regulation expands driver's awareness behind vehicles when reversing. Therefore, some requirements of this Regulation may be satisfied by devices complying with UN Regulation No.46.

This Regulation cannot cover all the traffic conditions and infrastructure features in the type approval process; this Regulation recognises that the performances required in this Regulation cannot be achieved in all conditions (vehicle speed and condition, weather conditions, and traffic scenarios etc. may affect the system performances)."

Paragraphs 1.1. and 1.2., amend to read:

- "1.1. Approval of devices for means of rear visibility defined in Part I intended to be fitted to vehicles of category M and N.
- 1.2. Approval of vehicle installation of means of rear visibility or detection defined in Part II if fitted to vehicles of category M and N."

Paragraph 1.4., amend to read:

- "1.4. The following vehicles of category M and N shall be exempted from this Regulation:
- Vehicles where installation of means of rear visibility or detection is incompatible with their on-road use may be partly or fully exempted from this Regulation, subject to the decision of the Type Approval Authority."

Part I title, amend to read:

"Part I Devices for means of rear visibility"

Paragraph 2.1., amend to read:

- "2.1. *"Devices for means of rear visibility or detection"* means devices intended, when reversing, to give a clear view of the rear of the vehicle within the fields of vision defined in paragraph 15.2. or intended to detect objects in the field of detection defined in paragraph 15.3.
- These can be conventional mirrors, Rear-View Camera System, detection systems or other devices."

Paragraph 2.1.2., amend to read:

- "2.1.2. *"Devices for means of rear visibility"* means devices that present information of the fields of vision defined in paragraph 15.2."

Paragraph 2.1.2.3., amend to read:

- "2.1.2.3. *"Other devices for means of rear visibility"* means devices as defined in paragraph 2.1.2. above, where the field of vision is not obtained by means of a mirror or a Rear-View Camera System."

Paragraph 2.2., amend to read:

- "2.2. *"Type of device for means of rear visibility or detection"* means devices that do not differ on the following essential characteristics:
- (a) Design of the device inclusive, if pertinent, the attachment to the bodywork;
 - (b) In the case of mirrors, the shape, the dimensions and radius of curvature of the mirror's reflecting surface;
 - (c) In the case of Rear-View Camera System, the field of view, the magnification.
 - (d) In the case of detection systems, the sensor type, the information signal type."

Paragraphs 3.1. to 3.3., amend to read:

- "3.1. The application for approval of a type of device for means of rear visibility shall be submitted by the holder of the trade name or mark or by his duly accredited representative.
- 3.2. A model of information document is shown in Annex 1.
- 3.3. For each type of device for means of rear visibility the application shall be accompanied by three samples of the parts."

Paragraph 3.4. shall be deleted.

Paragraphs 4.1. and 4.2., amend to read:

- "4.1. The samples of devices for means of rear visibility submitted for approval shall bear the trade name or mark of the manufacturer; this marking shall be clearly legible and be indelible.
- 4.2. Every device for means of rear visibility shall possess, on at least one of the main components, a space large enough to accommodate the approval mark, which shall be legible; this space shall be shown on the drawings referred to in Annex 1. The approval mark shall also be legible when the device is mounted on the vehicle. Other components of the device shall bear a means of identification. In the case of limited space for the approval mark(s), other means of identification that link it to the approval mark shall be provided."

Paragraphs 5.1. to 5.4.1., amend to read:

- "5.1. If the samples submitted for approval meet the requirements of paragraph 6. of this Regulation, approval of the pertinent type of device for means of rear visibility shall be granted.
- 5.2. An approval number shall be assigned to each type approved. Its first two digits (at present 00) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another type of device for means of rear visibility.
- 5.3. Notice of approval or of refusal or of extension or withdrawal of approval or of production definitively discontinued of a type of device for means of rear visibility pursuant to this Regulation shall be communicated to the Parties to the Agreement which apply this Regulation by means of a form conforming to the model in Annex 3 to this Regulation.
- 5.4. There shall be affixed, on at least one of the main components, conspicuously and in the space referred to in paragraph 4.2. above, to every device for means of rear visibility, conforming to a type approved under this Regulation, in addition to the mark prescribed in paragraph 4.1. above, an international approval mark consisting of:
- 5.4.1. A circle surrounding the letter "E" followed by:
- (a) The distinguishing number of the country which has granted approval; and
 - (b) The number of this Regulation, followed by the letter "R", a dash and the approval number."

Paragraphs 6.2, 6.2.1. and 6.2.1.1. shall be deleted.

Paragraphs 7.1. to 7.1.1., amend to read:

- "7. Modification of the type of device for means of rear visibility and extension of approval
- 7.1. Every modification to an existing type of device for means of rear visibility including its connection to the bodywork shall be notified to the Type Approval Authority which approved the type of device for means of rear visibility. The Type Approval Authority shall then either:

- (a) Decide, in consultation with the manufacturer, that a new type-approval is to be granted; or
- (b) Apply the procedure contained in paragraph 7.1.1. (Revision) and, if applicable, the procedure contained in paragraph 7.1.2. (Extension).

7.1.1. Revision

When particulars recorded in the information folder have changed and the Type Approval Authority considers that the modifications made are unlikely to have an appreciable adverse effect and that in any case the device for means of rear visibility still complies with the requirements, the modification shall be designated a "revision".

In such a case, the Type Approval Authority shall issue the revised pages of the information folder as necessary, marking each revised page to show clearly the nature of the modification and the date of re-issue. A consolidated, updated version of the information folder, accompanied by a detailed description of the modification, shall be deemed to meet this requirement."

Paragraph 8.2., amend to read:

- "8.2. Every device for means of rear visibility approved under this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set out in paragraph 6. above."

Paragraph 9.1., amend to read:

- "9.1. The approval granted in respect of a type of device for means of rear visibility pursuant to this Regulation may be withdrawn if the requirement laid down in paragraph 8.1. above is not complied with or if the type of device for means of rear visibility did not satisfy the requirements prescribed in paragraph 8.2. above."

Paragraph 10., amend to read:

"10. Production definitively discontinued

If the holder of the approval completely ceases to manufacture a type of device for means of rear visibility approved in accordance with this Regulation, he shall so inform the Type Approval Authority which granted the approval. Upon receiving the relevant communication, the Authority shall inform thereof the other Parties to the Agreement applying this Regulation by means of a copy of the approval form bearing at the end, in large letters, the signed and dated annotation "PRODUCTION DISCONTINUED".

Part II title, amend to read:

"Part II Installation of means of rear visibility or detection "

Paragraph 12.3.1., amend to read:

- "12.3.1. Type of means of rear visibility or detection;"

Insert a new paragraph 12.9., to read:

- "12.9. "Type of means of rear visibility or detection " means rear visibility or detection means that do not differ on the following essential characteristics:
- (a) The type of devices of means of rear visibility or detection;
 - (b) The mean of rear visibility or detection;"

Paragraph 13.1., amend to read:

"13.1. The application for approval of a vehicle type with regard to the installation of means of rear visibility or detection shall be submitted by the vehicle manufacturer or by his duly accredited representative."

Paragraph 15.1., amend to read:

"15.1. General

For the purpose of this Regulation, the vehicle shall fulfil the following requirements:

During a backing event at least one means of rear visibility or detection shall be provided to the driver.

Means of rear visibility provide a close-proximity rear-view field of vision as defined in paragraph 15.2 below. Possible means are:

- (a) Direct vision,
- (b) Devices approved to UN Regulation No. 46,
- (c) Close Proximity Rear-view Mirror complying with this Regulation,
- (d) Rear-View Camera System complying with this Regulation.

Means of detection provide an information other than vision for field of detection as defined in paragraphs 15.3 below. Possible means are:

- (a) Detection System complying with this Regulation."

Insert a new paragraph 15.1.2., to read:

"15.1.2. The requirements in paragraph 15. shall not apply during a remote control manoeuvring and a remote controlled parking as defined in UN Regulation No. 79."

Paragraph 15.2.1.4., amend to read:

"15.2.1.4. Via a means of rear visibility (mirror or RVCS or other) complying with this Regulation; or"

Paragraph 15.2.3., amend to read:

"15.2.3. In the case of a combination of means of rear visibility or detection, each entire transverse row of test objects shall be seen by one of these means. The close-proximity rear-view field of vision shall be obtained from the minimum number of mirrors and monitors."

Paragraphs 15.4.1.1. to 15.4.1.4., amend to read:

"15.4.1.1. Devices for means of rear visibility or detection shall be so placed that the driver, when sitting on the driving seat in a normal driving position, has a clear view of the road to the rear, side(s) or front of the vehicle.

15.4.1.2. In the case of any vehicle, which is in chassis/cab form when the field of vision or detection is measured, the minimum and maximum body widths, heights and lengths shall be stated by the manufacturer and, if necessary, simulated by dummy headboards. All vehicles and devices for means of rear visibility or detection configurations taken into consideration during the tests shall be shown on the type-approval certificate for a vehicle with regard to the installation of devices for means of rear visibility or detection (see Annex 4). This includes information related to a range of device installation positions (in length, width and height).

15.4.1.3. Devices for means of rear visibility or detection shall not project beyond the external bodywork of the vehicle substantially more than is necessary to comply with the requirements concerning fields of vision or fields of detection.

15.4.1.4. Devices for means of rear visibility or detection shall be fitted in such a way that the devices do not move so as significantly to change the field of vision or

detection as measured or vibrate to an extent which would cause the driver to misinterpret the nature of the image perceived."

Paragraph 16.1.1.3., amend to read:

"16.1.1.3. Deactivation

The rear-view image shall remain visible during the backing event until either, the driver modifies the view, or the vehicle direction selector is no longer in the reverse position or the backing event is finished.

Modifying the view means to switch to any other camera views.

The view can be manually switched off when the vehicle is not moving rearward.

The system may be switched off when the vehicle detects a coupling by means of a coupling device."

Paragraph 16.1.2.1., amend to read:

"16.1.2.1. Response time

The rear-view image meeting the requirements described in 15.2. shall be provided within a maximum of 2.0 seconds after start of the backing event, when tested according to paragraphs 2. of Annex 9."

Insert a new paragraph 16.4., to read:

"16.4 The effectiveness of the RVCS shall not be adversely affected by magnetic or electrical fields. This shall be demonstrated by compliance with the technical requirements and transitional provisions of UN Regulation No. 10, 05 series of amendments or any later series of amendments."

Paragraph 17.1., amend to read:

"17.1. System activation

The system shall be activated when the backing event starts. If proper functioning cannot be effected, either the system shall automatically shut off or the driver shall be able to deactivate the system manually.

The detection system shall remain active as long as either the vehicle direction selector is in the reverse position or the backing event is not ended.

In case the vehicle can detect coupling with a coupling device, the system may be switched off."

Paragraph 17.2.2., amend to read:

"17.2.2. Audible information

When an object is detected in the rear horizontal area as described in paragraph 1.3. of Annex 10. while the reverse gear is selected/engaged, audible information in accordance with ISO 15006:2011 shall be given.

In presenting audible information, the distance to the target may be identified by two or more acoustic signals. These acoustic signals, differentiating distances and detection widths, may be indicated by changing the frequency of the intermittent sound. A faster intermittent sound or continuous sound shall be used as the distance becomes closer."

Paragraph 17.2.3., amend to read:

"17.2.3. Duration of signalling

Signalling for an object shall last as long as the object is detected and shall end when the object is no longer detected or when the system is deactivated.

To reduce the driver's discomfort, the audible signal can be automatically suspended temporarily after a certain time set by the manufacturer has elapsed,

provided that the system remains activated. If, while the audible signal is automatically suspended temporarily, the distance to the object becomes shorter, the audible signal shall be automatically resumed. If the distance to the object becomes longer, the audible signal may remain suspended."

Insert a new paragraph 17.4., to read:

"17.4 The effectiveness of the detection system shall not be adversely affected by magnetic or electrical fields. This shall be demonstrated by compliance with the technical requirements and transitional provisions of UN Regulation No. 10, 05 series of amendments or any later series of amendments."

Annex 1, amend to read:

"Annex 1

Information document for type approval of a device for means of rear visibility

The following information, if applicable, shall be supplied in triplicate and shall include a list of contents.

Any drawings shall be supplied in appropriate scale and in sufficient detail on size A4 paper or on a folder of A4 format.

Photographs, if any, shall show sufficient details.

1. Make (trade name of manufacturer):
2. Type and general commercial description(s):
3. Means of identification of the type, if indicated on the device:
4. Category of vehicle for which the device is intended:
5. Name and address of manufacturer:
6. Location and method of affixing of the approval mark for close-proximity rear-view mirrors:
- 6.1. Other mean of identification link to the approval mark for close-proximity rear-view mirrors:
7. Address(es) of assembly plant(s):
8. Mirrors (state for each mirror):
- 8.1. Variant
- 8.2. Drawing(s) for the identification of the mirror:
- 8.3. Details of the method of attachment: "

Annex 2, amend to read:

"Annex 2

Information document for type approval of vehicle with respect to the installation of means of rear visibility or detection

The following information, if applicable, shall be supplied in triplicate and include a list of contents.

Any drawings shall be supplied in appropriate scale and in sufficient detail on size A4 paper or on a folder of A4 format.

Photographs, if any, shall show sufficient details.

General

1. Make (trade name of manufacturer):.....
2. Type and general commercial description(s):
3. Means of identification of type, if marked on the vehicle:
4. Location of that marking:.....
5. Category of vehicle:
6. Name and address of manufacturer:.....
7. Address(es) of assembly plant(s):

General construction characteristics of the vehicle

8. Photograph(s) and/or drawing(s) of a representative vehicle:.....
9. Driving position: left/right¹
- 9.1. The vehicle is equipped to be driven in right-hand/left hand traffic¹
10. Range of vehicle dimensions (overall):.....
- 10.1 For chassis without bodywork
- 10.1.1. Width²:
- 10.1.1.1. Maximum permissible width:
- 10.1.1.2. Minimum permissible width:
- 10.1.2. Length:
- 10.1.2.1. Maximum permissible length:
- 10.1.2.2. Minimum permissible length:
- 10.1.3. Height:
- 10.1.3.1. Maximum permissible height:
- 10.1.3.2. Minimum permissible height:
- 10.2. For chassis with bodywork:
- 10.2.1. Width²

¹ Strike out what does not apply.

² "Overall width" of a vehicle means a dimension which is measured according to ISO standard 612-1978, term No. 6.2. In the case of vehicles of category other than M₁, in addition to the provisions of that standard, when measuring the vehicle width the following devices shall not be taken into account:

- (a) Customs sealing devices and their protection;
- (b) Devices for securing the tarpaulin and their protection;
- (c) Tyre failure tell-tale devices;
- (d) Protruding flexible parts of a spray-suppression system;
- (e) Lighting equipment;
- (f) For buses, access ramps in running order, lifting platforms and similar equipment in running order provided that they do not exceed 10 mm from the side of the vehicle and the corners of the ramps facing forwards or rearwards are rounded to a radius of not less than 5 mm; the edges shall be rounded to a radius of not less than 2.5 mm;
- (g) Devices for indirect vision;
- (h) Tyre-pressure indicators;
- (i) Retractable steps;
- (j) The deflected part of the tyre walls immediately above the point of contact with the ground.

- 10.2.2.Length
- 10.2.3.Height
- 11. Bodywork
 - 11.1. Means of rear visibility or detection Devices for indirect vision: Direct vision, Devices approved to UN Regulation No. 46, Close Proximity Rear-view Mirror complying with this Regulation, Rear-View Camera System complying with this Regulation, Detection System complying with this Regulation³.
 - 11.1.1. Direct vision,
 - 11.1.1.1. Drawing(s)/photograph(s) showing the direct vision relative to the vehicle structure:
 - 11.1.2. Devices approved to UN Regulation No. 46,
 - 11.1.2.1. Type approval number(s) of the device(s) approved according UN Regulation No. 46
 - 11.1.2.2. Class(es) of mirrors and devices for indirect vision (I, II, III, IV, V, VI)²
 - 11.1.2.3. Drawing(s) showing the position(s) of the device(s) relative to the vehicle structure:
 - 11.1.3. Close Proximity Rear-view Mirror complying with this Regulation,
 - 11.1.3.1. Drawing(s) showing the position(s) of the mirror relative to the vehicle structure:
 - 11.1.3.2. Details of the method(s) of attachment including that part of the vehicle structure to which it is attached:
 - 11.1.3.3. Optional equipment which may affect the rearward field of vision:
 - 11.1.3.4. A brief description of the electronic components (if any) of the adjustment device:
 - 11.1.4. Rear-View Camera System complying with this Regulation.
 - 11.1.4.1. Drawing(s)/photograph(s) showing the position(s) of the camera(s) relative to the vehicle structure:
 - 11.1.4.2. Drawing(s)/photograph(s) showing the arrangement of the monitor(s) including surrounding interior parts:
 - 11.1.4.3. Drawing(s)/photograph(s) showing the drivers view onto the monitor(s):
 - 11.1.4.4. Drawing(s)/photograph(s) showing the setup and monitor image of the required field of view:
 - 11.1.4.5. Details of the method(s) of attachment of the Rear-View Camera System including that part of the vehicle structure to which it is attached:
 - 11.1.4.6. Optional equipment which may affect the rearward field of vision:
 - 11.1.4.7. A brief description of the electronic components (if any) of the adjustment device:
 - 11.1.4.8. A technical specification and operator's manual of the Rear-View Camera System:
 - 11.1.5. Detection System complying with this Regulation.
 - 11.1.5.1. Drawing(s)/photograph(s) showing the position(s) of the sensor(s) relative to the vehicle structure:

³ Strike out what does not apply.

11.1.5.2. Information signal: audible, optical, haptics⁴.

11.1.5.3. A technical specification and operator's manual of the detection System: "

Annex 3, amend to read:

"Annex 3

Communication

(Maximum format: A4 (210 x 297 mm))



issued by:

Name of administration:

.....

- Concerning:²
- Approval granted
 - Approval extended
 - Approval refused
 - Approval withdrawn
 - Production definitively discontinued

of a type of device (Separate Technical Unit) for means of rear visibility pursuant to UN Regulation No. 158

Approval No. Extension No.

1. Trade name or mark of device:

...

16. The list of documents deposited with the Type Approval Authority which has granted approval is annexed to this communication and may be obtained on request."

Annex 4, amend to read:

"Annex 4

Communication

(Maximum format: A4 (210 x 297 mm))



issued by :

Name of administration:

.....

- Concerning:²
- Approval granted
 - Approval extended
 - Approval refused
 - Approval withdrawn

⁴ Strike out what does not apply.

¹ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulations).

² Strike out what does not apply.

Production definitively discontinued

of a type of vehicle with regard to the means of rear visibility or detection pursuant to UN Regulation No. 158

Approval number: Extension No.:

1. Make (trade name of manufacturer):

...

15. The index to the information package lodged with the Type Approval Authority, which may be obtained on request is attached."

Annex 4 – Appendix, amend to read:

"Annex IV - Appendix

Appendix to type approval communication form No. concerning the type approval of a vehicle with regard to the means of rear visibility or detection under UN Regulation No. 158.

1. Trade name or mark of means of rear visibility or detection and component type-approval number (if applicable):
2. Means of rear visibility or detection: Direct vision, Devices approved to UN Regulation No. 46, Close Proximity Rear-view Mirror complying with this Regulation, Rear-View Camera System complying with this Regulation, Detection System complying with this Regulation¹
3. Extension of type approval of the vehicle to cover the following means of rear visibility or detection
4. Data for identification of the R point of the driver's seating position:
5. Maximum and minimum bodywork width, length and height in respect of which the means of rear visibility or detection have been granted type-approval
6. The following documents, bearing the type approval number shown above, are annexed to this certificate (if applicable):
 - (a) Drawings showing the mounting(s) of the devices for means of rear visibility or detection
 - (b) Drawings and plans showing the mounting position(s) and characteristics of the part of the structure where the devices for means of rear visibility or detection are mounted.
 - (c) Drawings and plans showing the visual obstructions which affect the rear visibility, e.g. the interior fittings, glazing, etc.
7. Remarks: (e.g. valid for right hand/left hand traffic¹)"

¹ Strike out what does not apply.

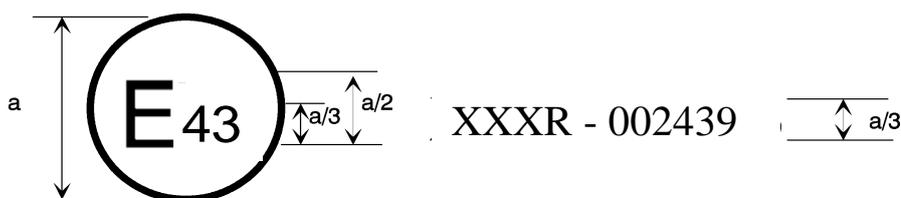
Annex 5, amend to read:

"Annex 5

Arrangement of approval mark of a device for means of rear visibility

(See paragraph 5.4. of the Regulation)

a = 5 mm min.



The above approval mark affixed to a device for means of rear visibility indicates that the device is a main Close-proximity rear-view device, which has been approved in Japan (E 43) pursuant to UN Regulation No. 158 and under approval number 002439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of UN Regulation No. 158 in its original form.

Note: The approval number and the additional symbol shall be placed close to the circle and either above or below the "E" or to the left or right of that letter. The digits of the approval number shall be on the same side of the "E" and point in the same direction. The additional symbol shall be directly opposite the approval number. The use of Roman numerals as approval numbers shall be avoided so as to prevent any confusion with other symbols."

Annex 9

Paragraph 1.3.3.2., amend to read:

"1.3.3.2. Vehicle load.

The vehicle is in running order as defined in the consolidated Resolution on the Construction of vehicles (R.E.3) (ECE/TRANS/WP.29/78/Rev.6, paragraph 2.2.5.4.), plus for M₁ and N₁ vehicles one front seat passenger (75 kg)."

Paragraph 2.1., amend to read:

" 2.1. Test conditions

- (a) The vehicle shall be left in a parked parking status until it is ensured that all electronic systems are de-activated; or for a minimum of 30 minutes.
- (b) It is permissible for the test person or equipment to be already situated within the vehicle.
- (c) Ensure the vehicle gear selector is not in reverse gear.
- (d) The test may start with opening the driver door. Once the door is opened, it shall be closed again."

Paragraph 3.2., amend to read:

" 3.2. Extract photographic data.

- (a) Using the photograph, measure the apparent length, of a 50 mm delineated section of the in-photo ruler, along the ruler's edge, closest to the rear-view image and at a point near the horizontal centre of the rear-view image.
- (b) Using the photograph, measure the horizontal width of the upper portion of each of the three test objects located at positions G, H, and I in Figure B.
- (c) Define the measured horizontal widths of the three test objects as dG, dH, and dI. "

Annex 10

Paragraph 1., amend to read:

" 1. Rear horizontal area detection

The detection systems shall fulfil the test as specified in paragraph 1.3.1. in this Annex. However, if the detection systems fulfil the test as specified in

paragraph 1.4. in this annex, the test as specified in paragraph 1.3.1. in this annex shall be considered to be satisfied."
