

Modifications to ECE/TRANS/WP.29/GRSP/2025/23*

I. Proposal

Title, amend to read:

Uniform provisions concerning the approval of ~~passenger cars vehicles in the event of a frontal collision with focus on the~~ **with regard to restraint systems, and with regard to fuel system integrity and protection against electrical shock in the event of a frontal collision**

Paragraph 0., amend to read:

“0. Introduction to the 04 series of amendments to UN Regulation No. 137

0.1. For the 04 series of amendments:

0.1.1. Currently, under UN Regulation No. 137 in its 03 series of amendments ...

...

... this particular case.

0.2. For supplement 1 to the 04 series of amendments:

0.2.1. The Regulation is amended to account for vehicles of category X¹. Vehicles of category Y¹ are not in the scope of this Regulation.

0.2.2. The Regulation was originally drafted for vehicles with driver and manual driving controls. It is the intention of this amendment to keep the spirit of the regulation and to extend its application to vehicles without driver and without manual driving controls inside the vehicle. In the absence of driver/manual driving controls in the vehicle, provisions related to them shall not be taken into account if not already covered by this amendment.

0.2.3. In case of vehicles equipped with an Automated Driving System (ADS)¹ other than vehicles of categories X, in the manual driving mode no special provisions or exemptions apply. In a mode where an ADS feature is active the relevant ADS requirements apply.”

Paragraph 1., amend to read:

“1. Scope

This Regulation applies to vehicles of category M₁¹ with a maximum permissible mass not exceeding 3,500 kg and to vehicles of category N₁.

This regulation does not apply to vehicles of category Y.”

Paragraph 1., footnote 1, amend to read:

^{“1} As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.78, para. 2 - <https://unece.org/transport/vehicle-regulations/wp29/resolutions>”

Paragraph 2.4.2., amend to read:

“2.4.

(b)

The structure, dimensions, lines and materials of the part of the vehicle forward of the transverse plane through the "R" point of the driver's seat, ~~For vehicles of category X, the "R" point of the most forward outboard passenger seat shall be taken instead of the R-point of the driver's seat.”~~

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* Proposal for supplement 1 to the 04 series of amendments to UN Regulation No. 137 (Frontal impact with focus on restraint systems)

Paragraph 2.10., amend to read:

“2.10. “Passenger airbag” means an airbag assembly intended to protect occupant(s) in seats other than ~~a~~ driver's in the event of a frontal collision.”

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Paragraph 4.4.1 footnote 2, amend to read:

⁴² The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.78, Annex 3 - <https://unece.org/transport/vehicle-regulations/wp29/resolutions>”

Paragraph 5.2., amend to read:

5.2. Specifications for....

...

For vehicles of category X, the manufacturer shall propose the position of the dummy on the front seat, provided that both dummies, the Hybrid III fiftieth percentile male dummy and the Hybrid III fifth percentile female dummy, are used.”

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Paragraph 5.2.3.1., amend to read:

“5.2.3.1. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated by the driver ~~or by the ADS~~, this requirement shall be verified by using one of the following 2 test procedures, at the choice of the manufacturer:”

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Paragraph 5.2.4.2., amend to read:

“5.2.4.2. In the case of vehicles equipped with automatically activated door locking systems which are installed optionally and/or which can be de-activated by the driver ~~or by the ADS~~, this requirement shall be verified by using one of the following 2 test procedures, at the choice of the manufacturer:”

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Paragraph 6.1., amend to read:

“6.1. ~~For a vehicle fitted with airbag assemblies intended to protect the driver and occupants other than the driver, compliance with paragraphs 8.1.8. to 8.1.9. of UN Regulation No. 16 as amended by the 08 series of amendments, or with paragraphs 8.1.9. to 8.1.10. of UN Regulation No. 16 as amended by the 09 series of amendments or with paragraphs 5.1.9. to 5.1.10. of UN Regulation No. 173 original series, shall be demonstrated as from 1 September 2020 for new vehicle types. Before this date the relevant requirements of the preceding series of amendments apply.”~~

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Deleted: For a vehicle fitted with a passenger airbag intended to protect occupants other than the a driver, this information shall consist of the warning label described in paragraph 6.2. below

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Annex 3, paragraph 1.4.3.5.2., amend to read:

1.4.3.5.2. ~~In the case of vehicles equipped with an automatically activated door locking system that is installed optionally and/or which can be de-activated by the driver or by the ADS, one of the following two procedures shall be used at the choice of the manufacturer:~~

Annex 3, paragraph 1.4.3.5.2.2., amend to read:

“1.4.3.5.2.2. The side doors on the ~~driver one~~ side shall be unlocked and the system overridden for these doors; for the side doors on the ~~other vehicle passenger~~ side, the system may be activated in order to lock these doors automatically before the moment of impact. At the choice of the manufacturer, these doors shall be locked manually before the start of propulsion of the vehicle. ~~This test is deemed to be fulfilled, if the unlocked and locked doors are reversed.”~~

Annex 3, paragraph 1.4.3.11.1., amend to read:

1.4.3.11.1. ~~Position of front seats~~

Seats adjustable longitudinally shall be placed so that their "H" point, determined in accordance with the procedure set out in annex 6 is in the middle

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position of travel or in the nearest locking position thereto, and at the height position defined by the manufacturer (if independently adjustable for height).

In the case of a bench seat, the reference shall be to the "H" point of the driver's place. For vehicles of category X, the "H" point of the most forward passenger's place shall be taken instead of the H-point of the driver's place.

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Annex 3, paragraph 2.1.1., amend to read:

“2.1.1. A dummy corresponding to the specifications for Hybrid III fiftieth percentile male dummy meeting the specifications for its adjustment shall be installed in the driver seat in accordance with the conditions set out in Annex 5. A dummy corresponding to the specifications for Hybrid III fifth percentile female dummy¹ meeting the specifications for its adjustment shall be installed in the front passenger seat in accordance with the conditions set out in Annex 5. **For vehicles of category X, the manufacturer shall propose the position of the dummy on the front seat, provided that both dummies, the Hybrid III fiftieth percentile male dummy and the Hybrid III fifth percentile female dummy are used.**”

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Annex 5, new paragraph 1.2.3., amend to read:

“1.2.3. Outer passengers for vehicles of category X,

For vehicles of category X, the plane of symmetry of the dummies shall be vertical and parallel to the vehicle's longitudinal centreline using the Y-coordinate of the R-points as defined by the manufacturer. If the seating position is determined by the shape of the bench, such seat shall be regarded as a separate seat.”

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Annex 5, new paragraph under section 2., amend to read:

2. Installation of the HIII fiftieth percentile male dummy on the driver sea,

For vehicles of category X, the manufacturer shall define the position of the dummy on the corresponding front seat, provided that both dummies, the Hybrid III fiftieth percentile male dummy and the Hybrid III fifth percentile female dummy are used. The following installation is defined for the Hybrid III fiftieth percentile male dummy.

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2.1. ...”

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Annex 5, new paragraph 2.2.2. and 2.3.2., amend to read:

2.2.2. For vehicles of category X, the dummy's upper arms shall be in contact with the seat back and the sides of the torso.

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2.3.2. For vehicles of category X, the palms of the test dummy shall be in contact with outside of thigh. The little finger shall be in contact with the seat cushion.

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Annex 5, paragraphs 2.4.1. and 2.4.2., amend to read:

“2.4. Torso

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2.4.1. In vehicles equipped with bench seats, the upper torso of the driver test dummy shall rest against the seat back. The midsagittal plane of the driver dummy shall be vertical and parallel to the vehicle's longitudinal centreline, and pass through the centre of the steering wheel rim.

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For vehicles of category X, the midsagittal plane of the dummy shall be vertical and parallel to the vehicle's longitudinal centreline using the Y-coordinate of the R-point as defined by the manufacturer.

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2.4.2. In vehicles equipped with individual seats, the upper torso of the driver test dummy shall rest against the seat back. The midsagittal plane of the driver dummy shall be vertical and shall coincide with the longitudinal centreline of the individual seat.

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For vehicles of category X, the midsagittal plane of the dummy shall be vertical and shall coincide with the longitudinal centreline of the individual seat.”

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Annex 5, paragraphs 2.5. and 2.6., amend to read:

2.5. Legs

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The upper legs...

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For vehicles of category X, the upper legs of the test dummy shall rest against the seat cushion to the extent permitted by placement of the feet. The initial distance between the outboard knee clevis flange surfaces shall be 270 mm ± 10 mm. To the extent practicable, both legs of the test dummy shall be in vertical longitudinal planes. Final adjustment to accommodate placement of feet in accordance with paragraph 2.6. for various passenger compartment configurations is permitted.”

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Annex 5, new paragraph 2.6., amend to read:

2.6.2 **For vehicles of category X, the heels of both feet of the test dummy shall be placed as far forward as possible and shall rest on the floor pan. Both feet shall be positioned as flat as possible on the toe board. The longitudinal centreline of the feet shall be placed as parallel as possible to the longitudinal centreline of the vehicle.**

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Annex 5, new paragraph under section 3., amend to read:

3. Installation of the Hybrid III fifth percentile female dummy on the passenger seat.

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For vehicles of category X, the manufacturer shall define the position of the dummy on the corresponding front seat, provided that both dummies, the Hybrid III fiftieth percentile male dummy and the Hybrid III fifth percentile female dummy are used. The following installation is defined for the Hybrid III fifth percentile female dummy.

Annex 5, paragraph 3.4.1., amend to read:

3.4.1. In vehicles equipped with bench seats, the upper torso of the passenger test dummy shall rest against the seat back. The midsagittal plane of the passenger dummy shall be vertical and parallel to the vehicle's longitudinal centreline and the same distance from the vehicle's longitudinal centreline as the midsagittal plane of the driver dummy.

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For vehicles of category X, the midsagittal plane of the Hybrid III fifth percentile female dummy shall be vertical and parallel to the vehicle's longitudinal centreline and the same distance from the vehicle's longitudinal centreline as the midsagittal plane of the Hybrid III fiftieth percentile male dummy.

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II. Justification

See paragraph 0. in the proposal.