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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****163rd session**

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Item 4.6.4 of the provisional agenda

**1958 Agreement – Consideration of draft amendments
to existing Regulations submitted by GRSP****Proposal for Supplement 1 to Regulation No. 127 (Pedestrian
safety)****Submitted by the Working Party on Passive Safety ***

The text reproduced below was adopted by the Working Party on Passive Safety (GRPE) at its fifty-fourth session (ECE/TRANS/WP.29/GRSP/54, para. 28). It is based on GRSP-54-09-Rev. 1 as reproduced in Annex V to the report. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee AC.1 for consideration.

* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

GE.14-21552



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Paragraph 2.1., amend to read:

- "2.1. "Adult headform test area" ... The area is bounded:
- (a) In the front, by a Wrap Around Distance (WAD) of 1,700 or a line 82.5 mm rearward of the bonnet leading edge reference line, whichever is most rearward at a given lateral position;
 - (b) At the rear, by a WAD 2,100 or a line 82.5 mm forward of the bonnet rear reference line, whichever is most forward at a given lateral position; and
 - (c) At each side, by a line 82.5 mm inside the side reference line.
- The distance of 82.5 mm is to be set with a flexible tape held tautly along the outer surface of the vehicle."

Insert a new paragraph 2.9., to read:

- "2.9. "Bonnet top test area" is composed of the child headform test area and the adult headform test area as defined in paragraphs 2.14. and 2.1. respectively."

Paragraphs 2.9. and 2.10.(former), renumber as paragraphs 2.10 and 2.11.

Paragraph 2.11. (former), renumber as paragraph 2.12. and amend to read:

- "2.12. "Bumper test area" ... intersecting points 66 mm inside the defined corners of the bumper. This distance is to be set with a flexible tape held tautly along the outer surface of the vehicle."

Paragraph 2.12.(former), renumber as paragraph 2.13.

Paragraph 2.13. (former), renumber as paragraph 2.14. and amend to read:

- "2.14. "Child headform test area" ... The area is bounded:
- (a) In the front, by a WAD 1,000 or a line 82.5 mm rearward of the bonnet leading edge reference line, whichever is most rearward at a given lateral position;
 - (b) At the rear, by a WAD 1,700 or a line 82.5 mm forward of the bonnet rear reference line, whichever is most forward at a given lateral position; and
 - (c) At each side, by a line 82.5 mm inside the side reference line.
- The distance of 82.5 mm is to be set with a flexible tape held tautly along the outer surface of the vehicle."

Paragraphs 2.14. to 2.21, renumber as paragraphs 2.15. to 2.22.

Paragraph 2.22. (former), shall be deleted.

Figure 7, shall be deleted.

Figure 8 (former), renumber as Figure 7.

Insert new paragraphs 2.26. to 2.26.2. and new figures 8A and 8B, to read:

- "2.26. "Measuring point"
- The measuring point may also be referred to as "test point" or "impact point". In all cases, the result of the test shall be attributed to this point, independent of where first contact occurs.
- 2.26.1. "Measuring point" for the headform test means a point on the vehicle's outer surface selected for assessment. The measuring point is where the headform's

profile contacts the vehicle's outer surface cross section in a vertical longitudinal plane through the centre of gravity of the headform (see Figure 8A).

- 2.26.2. "Measuring point" for the lower legform to bumper test and the upper legform to bumper test is located in the vertical longitudinal plane through the central axis of the impactor (see Figure 8B).

Figure 8A
Measuring point in the vertical longitudinal plane through the center of the headform impactor (see paragraph 2.26.1.)²

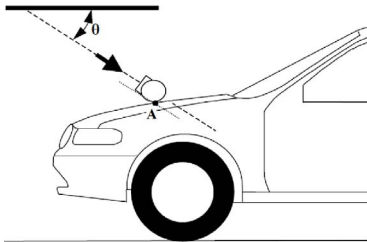
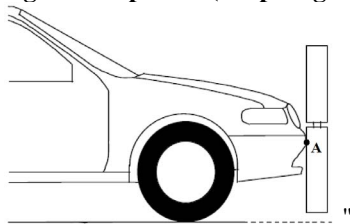


Figure 8B
Measuring point in the vertical longitudinal plane through the central axis of the legform impactor (see paragraph 2.26.2.)



Paragraphs 2.26 to 2.28., renumber as paragraphs 2.27. to 2.29.

Paragraph 2.29. (former), shall be deleted.

Paragraph 5.2.1., amend to read:

- "5.2.1. Child and Adult Headform Tests:
When tested ... thirds of the bonnet top test area. ..."

Annex 5,

Paragraph 1.4., amend to read:

- "1.4. The selected measuring points shall be ... area as defined in paragraph 2.12."

Paragraph 1.5., amend to read:

- "1.5. A minimum ... The selected measuring points shall be a minimum of 132 mm apart horizontally, and a ..."

Paragraph 1.10., amend to read:

- "1.10. For the lower legform testing, a horizontal and vertical impact tolerance of ± 10 mm shall apply. The test laboratory may verify at a sufficient number of

² Remark: due to the spatial geometry of the bonnet top, the first contact may not occur in the same vertical longitudinal or transverse plane which contains measuring point A.

measuring points that this condition can be met and the tests are thus being conducted with the necessary accuracy."

Paragraph 2.4., amend to read:

"2.4. The selected measuring points shall be ... paragraph 2.12."

Paragraph 2.5., amend to read:

"2.5. A minimum ... The selected measuring points shall be a minimum of 132 mm apart horizontally, and a ..."

Paragraph 2.6., amend to read:

"2.6. The direction ... is $\pm 2^\circ$.

At the time of first contact the impactor centre line shall be vertically midway between the upper bumper reference line and the lower bumper reference line with a ± 10 mm tolerance and the impactor vertical centre line shall be positioned laterally with the selected impact location with a tolerance of ± 10 mm. The test laboratory may verify at a sufficient number of measuring points that this condition can be met and the tests are thus being conducted with the necessary accuracy."

Paragraph 3.3.1., amend to read:

"3.3.1. The acceleration ... The measuring point on the front structure of ..."

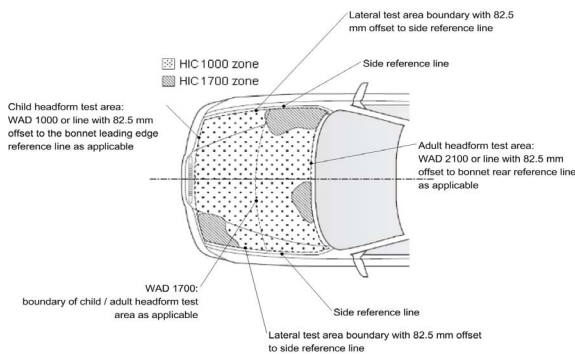
Paragraph 3.4.1., amend to read:

"3.4.1. The manufacturer ... top test area where the HIC ..."

Annex 5, Figure 3, amend to read:

"Figure 3

Example of marking of HIC1000 zone and HIC1700 zone



Paragraphs 3.4.2. to 3.4.4., amend to read:

"3.4.2. Marking of the "bonnet top test area" as well as "HIC1000 zone" and ...

3.4.3. The areas ... by the measuring point.

3.4.4. The calculation of the surface of the bonnet top test area as ..."

Paragraph 3.5., amend to read:

"3.5. Measuring points – Particular specifications

... if a number of measuring points have been selected ...remaining is too small to select another measuring point while maintaining the minimum spacing between points, then less ..."

Paragraphs 4.3. to 4.5., amend to read:

- "4.3. The selected measuring points for the child/small adult headform impactor shall be a minimum of 165 mm apart and within the child headform test area as defined in paragraph 2.14.
These minimum ... vehicle.
- 4.4. No measuring point shall be .. outside the test area.
- 4.5. For the child headform testing, a longitudinal and transversal impact tolerance of ± 10 mm shall apply. This tolerance is measured along the surface of the bonnet. The test laboratory may verify at a sufficient number of measuring points that this condition can be met and the tests are thus being conducted with the necessary accuracy."

Paragraphs 5.3. to 5.5., amend to read:

- "5.3. The selected measuring points on the bonnet for the adult headform impactor shall be a minimum of 165 mm apart and within the adult headform test area as defined in paragraph 2.1.
These minimum ... vehicle.
- 5.4. No measuring point shall be ... outside the test area.
- 5.5. For the adult headform testing, a longitudinal and transversal impact tolerance of ± 10 mm shall apply. This tolerance is measured along the surface of the bonnet. The test laboratory may verify at a sufficient number of measuring points that this condition can be met and the tests are thus being conducted with the necessary accuracy."

Annex 6, replace "calibration" with "certification" throughout the text of the Annex.
