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Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on General Safety Provisions

Ninety-ninth session Geneva, 19–22 October 2010 Item 6 of the provisional agenda Regulation No. 43 (Safety glazing)

Proposal for amendments to Regulation No. 43

Submitted by the expert from France*

This amendment aims at introducing specific provisions for vehicles with the driver seated in the central driving position. The modifications to the current text of the Regulation are marked in bold for new and strikethrough for deleted characters.

^{*} In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, 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.

I. Proposal

Insert a new paragraph 2.26., to read:

"2.26. "Central driving position" is defined when Y co-ordinate of the R point is in Y0 position within + or - 60 mm.

Annex 18, paragraph 2.2., amend to read:

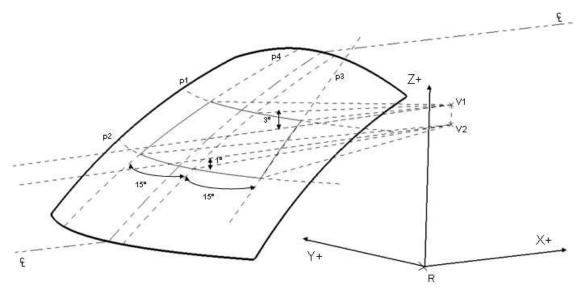
- "2.2. "Test area A" is the area of the outer surface of the windscreen bounded by the intersection of the following four planes (see figure 1a and 1b):
 - (a) a plane inclined upwards from the X axis at 3°, passing through V1, and parallel to the Y axis (plane 1);
 - (b) a plane inclined downwards from the X axis at 1°, passing through V2, and parallel to the Y axis (plane 2);
 - (c) a vertical plane passing through V1 and V2 and inclined at 13° to the left of the X axis in the case of left-hand drive vehicles and to the right of the X axis in the case of right-hand drive vehicles (plane 3);
 - (d) a vertical plane passing through V1 and V2 and inclined at 20° to the right of the X axis in the case of left-hand drive vehicles, to the left of the X axis in the case of right-hand drive vehicles (plane 4);
 - (e) In case of a single central driving position, two planes upwards and downwards as defined in paragraphs 2.2 (a) and (b) above and two vertical plane passing through V1 and V2 and inclined at 15° to the left of the X axis (plane 3) and 15° to the right of the X axis (plane 4) (see figure 1b)."

Figure 1, renumber as figure 1a

Insert a new figure 1b, to read:

"Figure 1b

Test area "A" (example of Central Driving Position)



CL: trace of the longitudinal median plane of the vehicle

Pi: trace of the relevant plane (see text)"

II. Justification

- 1. The current text of regulation does not take into account the case of vehicles equipped with a central driving position (within the longitudinal median plane of the vehicle). In that case, area A is outside area B if the text is not amended.
- 2. Firstly, this amendment gives a definition of a central driving position. Secondly, it proposes a method to draw the area A inside area B in the case of a single central driving position.

A. Definition of a central driving position:

- 3. The definition of a central position does not exist in the current Regulation No. 43. A possible definition of a central position is when Y co-ordinate of the R point is in Y0 position within + or 60 mm. This new definition was added in the definition section of the Regulation.
- 4. The value of 60 mm has been defined according to a benchmarking database of R co-ordinates from vehicles available on the current market to take into account the small dispersion between R point co ordinates. We used the standard deviation (for Y co-ordinate values) of this data base multiplied by a factor of 2.
- 5. For current vehicles, Y coordinate is usually between 350 and 430 mm. The central driving position (Y0 + or 60 mm) could not be confused with the right- hand drive or left hand drive position.

B. Method to draw area A inside area B

- 6. The aim of this amendment **is to include area A into area B.** It is proposed to draw an area A **with 15° to each side** (left and right). It means that area A will be larger to the left as the area A for a left-hand drive vehicle and smaller to the right. And this area is including into area B (symmetrical with 17°).
- 7. Using an other angle, for example 20°, will give in that case, an area A too large and outside the area B, with a possible risk to meet the A pillar,
- 8. This proposal allows leaving a room around area A, because area B is symmetrical with 17° and have the same situation as it is in the current ECE 43 for a left-hand drive vehicle or right-hand drive vehicle.

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