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World Forum for Harmonization of Vehicle Regulations (WP.29)

DRAFT SUPPLEMENT 6 TO REGULATION No. 43

(Safety-glazing)

Note: The text reproduced below was adopted by the Administrative Committee (AC.1) of the amended 1958 Agreement at its sixteenth session, following the recommendation by WP.29 at its one-hundred-and-twenty-second session. It is based on document TRANS/WP.29/2000/51, as amended (TRANS/WP.29/743, para. 152).

Insert new paragraphs 2.19. to 2.23., to read:

- "2.19. "Opaque obscuration" means any area of the glazing preventing light transmission.
- 2.20. "Shade band" means any area of the glazing with a reduced regular transmittance.
- 2.21. "Transparent area" means the whole glazing area, excluding any opaque obscuration and any shade band.
- 2.22. "Daylight opening" means the whole glazing area, excluding any opaque obscuration but including any shade band.
- 2.23. "Interlayer" means any material used to hold together the component layers of laminated glazing."

Annex 1, appendix 10, the left figure, interchange the letters "A" and "B".

Annex 3,

Paragraph 9.1.2.2., amend to read (footnote 8/ not modified):

- "9.1.2.2. For the windscreens of M₁ vehicles 8/, the test shall be carried out in test area B defined in annex 18 paragraph 2.3., excluding any opaque obscuration impinging on it.

For windscreens of other categories of vehicles, the test shall be carried out in the Zone I defined in paragraph 9.2.5.2.3. of this annex.

However, for agricultural and forestry tractors and for construction-site vehicles for which it is not possible to determine Zone I, the test shall be carried out in the Zone I' as defined in paragraph 9.2.5.3. of this annex."

Paragraph 9.2.6., the table, replace "B" in the column "Zone" by "B-reduced according to paragraph 2.4. of annex 18".

Paragraph 9.2.6.5., amend to read:

- "9.2.6.5. Slight deviations from the requirements may be allowed in the reduced test area B according to paragraph 2.4. of annex 18 provided they are localised and recorded in the report."

Paragraph 9.3.5., the table, replace "B" in the column "Zone" by "B-reduced according to paragraph 2.4. of annex 18".

Paragraph 9.3.5.5., amend to read:

- "9.3.5.5. Slight deviations from the requirements may be allowed in the reduced test area B according to paragraph 2.4. of annex 18 provided they are localised and recorded in the report."

Annex 18,

Paragraph 1.2., table 1, replace "X, Y, Z" by "a, b, c(d)"

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 1):
- (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 and to the left of the X axis in the case of right-hand drive vehicles (plane 4)."

Paragraph 2.3., amend to read:

- "2.3. "Test area B" is the area of the outer surface of the windscreen bounded by the intersection of the following four planes:
- (a) a plane inclined upwards from the X axis at 7°, passing through V₁, and parallel to the Y axis (plane 5);
 - (b) a plane inclined downwards from the X axis at 5°, passing through V₂, and parallel to the Y axis (plane 6);
 - (c) a vertical plane passing through V₁ and V₂ and inclined at 17° 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 7);
 - (d) a plane symmetrical with respect to plane 7 in relation to the longitudinal median plane of the vehicle (plane 8)."

Insert new paragraphs 2.4. and 2.5., (and its corresponding footnotes)to read:

- "2.4. The "reduced test area B" is test area B with the exclusion of the following areas 1/ (see figures 2 and 3).
- 2.4.1. the test area A defined under paragraph 2.2., extended according to paragraph 9.2.2.1. of annex 3;
- 2.4.2. at the discretion of the vehicle manufacturer, one of the two following paragraphs may apply:

1/ But taking into account the fact that the datum points as defined under paragraph 2.5. must be located in the transparent area.

- 2.4.2.1. any opaque obscuration bounded downwards by plane 1 and laterally by plane 4 and its symmetrical in relation to the longitudinal median plane of the vehicle (plane 4');
- 2.4.2.2. any opaque obscuration bounded downwards by plane 1, of maximum width 150 mm 2/, provided it is inscribed in an area of width 300 mm centred on the longitudinal median plane of the vehicle;
- 2.4.3. any opaque obscuration bounded by the intersection of the outer surface of the windscreen:
- (a) with a plane inclined downwards from the X axis at 4° , passing through V_2 , and parallel to the Y axis (plane 9);
 - (b) with plane 6;
 - (c) with planes 7 and 8 or the edge of the outer surface of the windscreen if the intersection of plane 6 with plane 7 (plane 6 with plane 8) doesn't cross the outer surface of the windscreen;
- 2.4.4. any opaque obscuration bounded by the intersection of the outer surface of the windscreen:
- (a) with a horizontal plane passing through V_1 (plane 10);
 - (b) with plane 3 3/
 - (c) with plane 7 4/ or the edge of the outer surface of the windscreen if the intersection of plane 6 with plane 7 (plane 6 with plane 8) doesn't cross the outer surface of the windscreen;
 - (d) with plane 9;
- 2.4.5. an area within 25 mm from the edge of the outer surface of the windscreen or from any opaque obscuration. This area shall not impinge on the extended test area A.
- 2.5. Definition of the datum points (see figure 3)
- The datum points are points situated at the intersection with the outer surface of the windscreen of lines radiating forward from the V points:
- 2.5.1. upper vertical datum point forward of V_1 and 7° above the horizontal (Pr1);
- 2.5.2. lower vertical datum point forward of V_2 and 5° below the horizontal (Pr2);

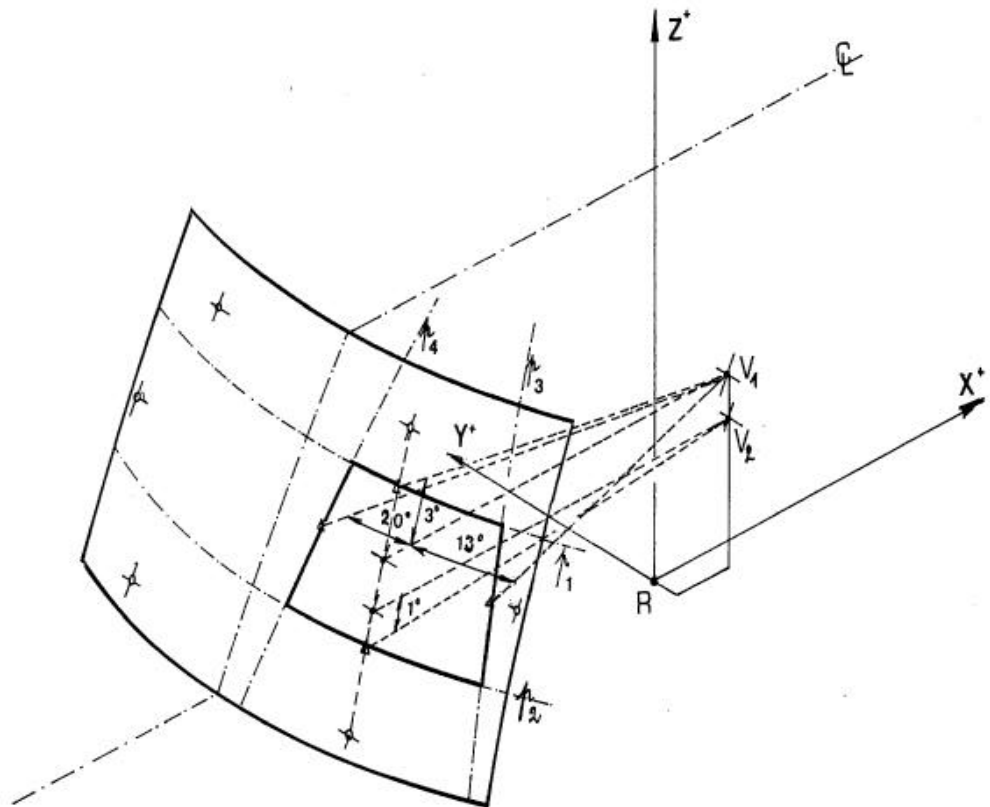
2/ Measured on the trace of plane 1 on the outer surface of the windscreen.

3/ For the other side of the windscreen, with a symmetrical plane with respect to plane 3 in relation to the longitudinal median plane of the vehicle.

4/ For the other side of the windscreen, with plane 8.

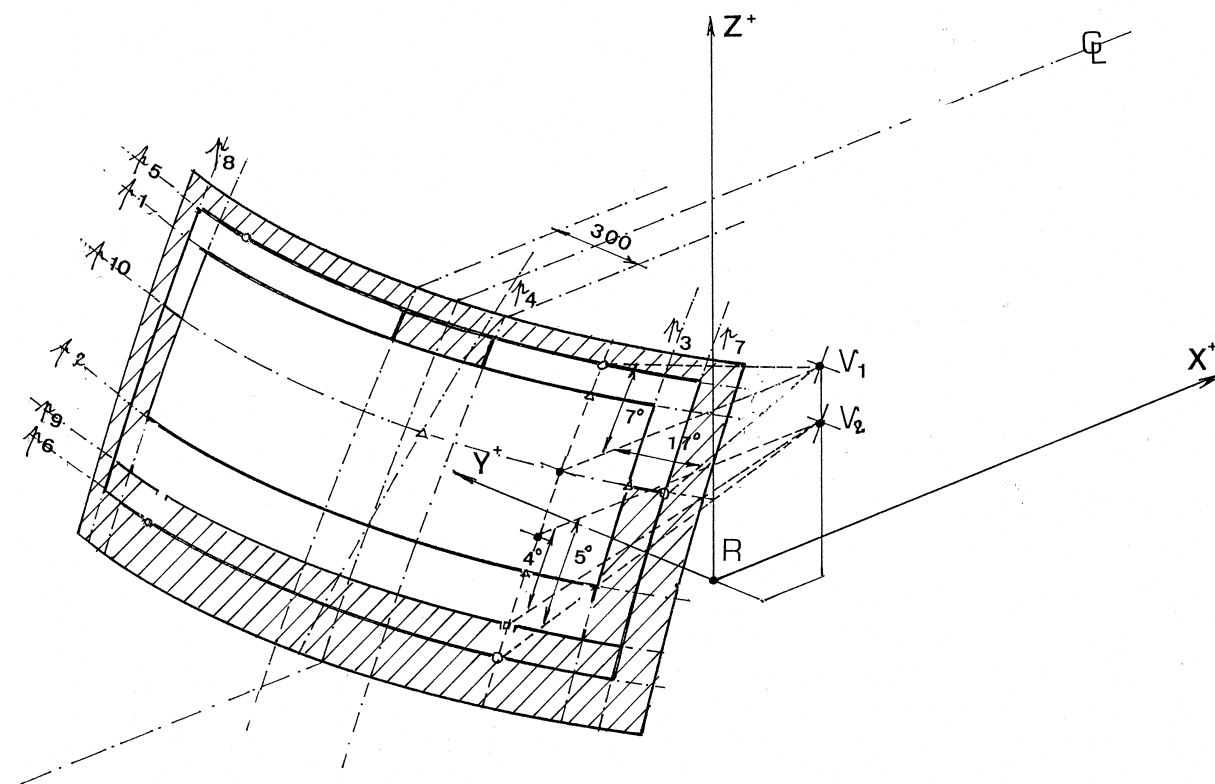
- 2.5.3. horizontal datum point forward of V1 and 17° to the left (Pr3);
- 2.5.4. three additional datum points symmetrical to the points defined under paragraphs 2.5.1. to 2.5.3. in relation to the longitudinal median plane of the vehicle (respectively Pr'1, Pr'2, Pr'3)."

Figures 1 to 3, amend to read:



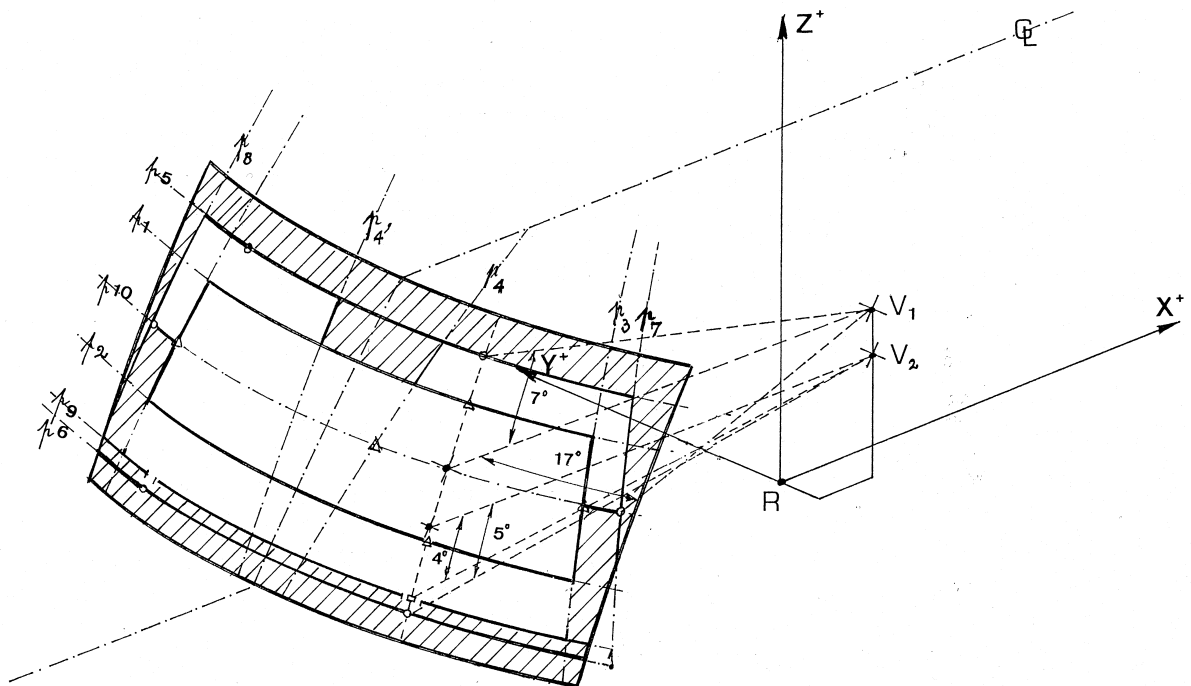
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|---|
| C_L : trace of the longitudinal median plane of the vehicle P_i : trace of the relevant plane (see text) |
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Figure 1: Test area "A" (example of a left-hand steering control vehicle)



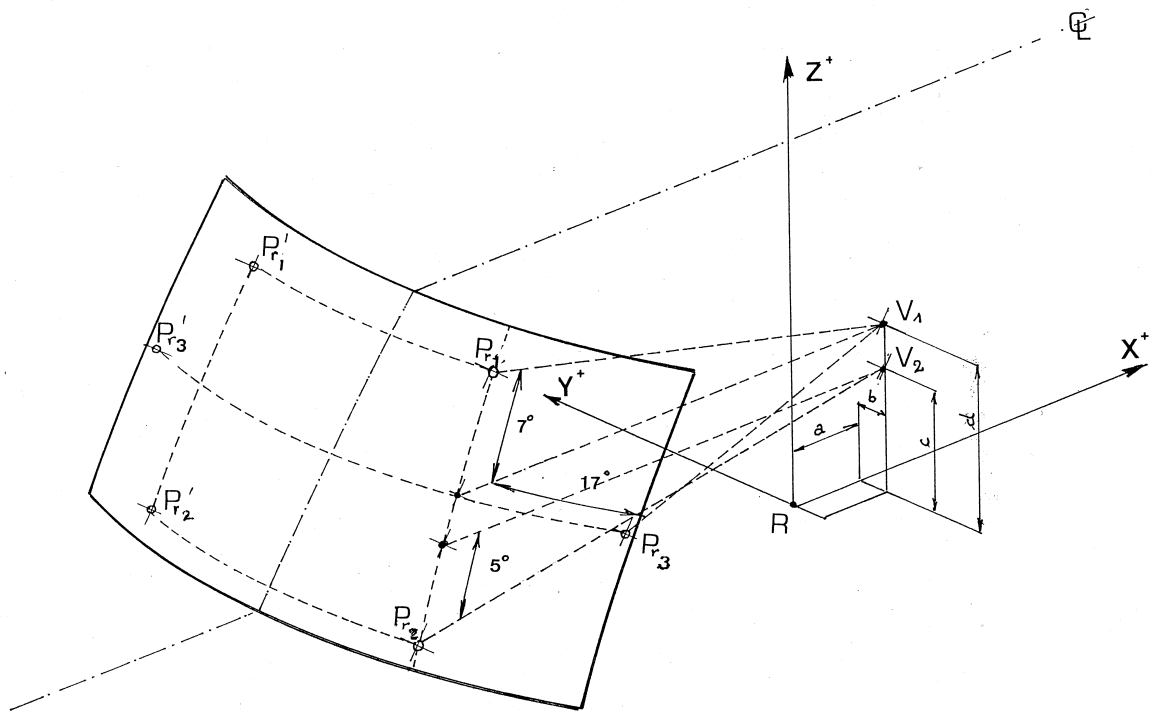
C_L : trace of the longitudinal
median plane of the vehicle
 P_i : trace of the relevant plane
(see text)

Figure 2a: Reduced test area "B" (example of a left-hand steering control vehicle) - upper obscuration area as defined in paragraph 2.4.2.2.



C_L : trace of the longitudinal
median plane of the vehicle
 P_i : trace of the relevant plane
(see text)

Figure 2b: Reduced test area "B" (example of a left-hand steering control vehicle) - upper obscuration area as defined in paragraph 2.4.2.1.



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| C_L : trace of the median plane of the vehicle P_{ri} : datum points a, b, c, d : co-ordinates of "V" points |
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Figure 3: Determination of the datum points (example of a left-hand steering control vehicle)"