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INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations


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AMENDMENTS TO OTHER REGULATIONS UNDER THE 1958 AGREEMENT

Regulation No. 46 (Devices for indirect vision)

Proposal for draft Corrigendum 1 to draft Supplement 1
to the 02 series of amendments to Regulation No. 46

Submitted by the expert from the Netherlands

The text reproduced below was prepared by the expert from the Netherlands proposing corrections to draft Supplement 1 to the 02 series of amendments to the Regulation (ECE/TRANS/WP.29/2006/101) concerning the determination of ocular points. It is based on informal document No. GRSG-91-5, distributed during the ninety-first session of the Working Party on General Safety Provisions (GRSG) (ECE/TRANS/WP.29/GRSG/70, para. 36). The modifications to ECE/TRANS/WP.29/2006/101, which is under consideration by the World Forum for Harmonization of Vehicle Regulations (WP.29), are marked in bold or strikethrough characters.

Note: This document is distributed to the Experts on General Safety Provisions only.
A. PROPOSAL

The list of contents, the Annexes, amend to read:

"... Annex 10 - Calculation of the detection distance .................................................................
Annex 11 - Determination of the ocular points for a seat with a fixed seat-back angle other than 25 degrees"

Paragraph 12.1., amend to read:

"... as defined in Annex 8. In the case of a seat with fixed a seat-back angle other than 25 degrees, the location of the ocular points shall be adjusted in accordance with the provisions of Annex 11 to this Regulation. The straight line ..."

The inserted new Annex 11, amend to read (the second table not changed):

"Annex 11

DETERMINATION OF THE OCULAR POINTS FOR A SEAT WITH A FIXED
SEAT-BACK ANGLE OTHER THAN 25 DEGREES

1. The position of the ocular points as defined in paragraph 12.1. of this Regulation in relation to the R point shall be adjusted as indicated in the table below by X and Z coordinates from the three-dimensional reference system. The table indicates the basic coordinates for a fixed seatback angle of 25 degrees. The three-dimensional reference system for the coordinates is as defined in Annex 8, Appendix 2 to this Regulation.

<table>
<thead>
<tr>
<th>Seat-back angle (in degrees)</th>
<th>Horizontal coordinates AX</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>68 mm</td>
</tr>
</tbody>
</table>

2. Further correction for fixed seat-back angles other than 25 degrees.

The table below indicates the further corrections, from the ocular position with a fixed seat-back angle of 25 degrees, to be made to the X and Z coordinates of the ocular points when the design seat-back angle is not 25 degrees.

..."

B. JUSTIFICATION

Document ECE/TRANS/WP.29/2006/101 is based on ECE/TRANS/WP.29/GRSG/2006/13, which was adopted by GRSG at its ninetieth session (ECE/TRANS/WP.29/GRSG/69, para. 29), and proposes to amend Regulation No. 46 on devices for indirect vision with regard to:
1) an adjustment of the driver's ocular points for seats with a fixed seat-back angle;
2) the introduction of the wide angle mirror for some vehicle categories.
The Netherlands have some doubts about the proposed amendments for the first subject.

In accordance with paragraph 12.1. as it is formulated now, the driver's ocular points have to be corrected as prescribed in the new Annex 11 for seats with a fixed seat-back angle only. This correction doesn't have to be applied in case of a seat with an adjustable seat-back angle. The proposed correction exists of two parts, being a general one of 68 mm as given in the first table of Annex 11 and another one depending on the angle of the seat-back.

This will lead to the odd situation that, where a manufacturer wants to use seats with a fixed seat-back angle and seats with an adjustable seat-back within one vehicle type, different ocular points have to be used. The Netherlands do not understand why this distinction in ocular points is needed. Such a different approach would neither be in line with the procedures for determining the V points in the draft Regulation on the forward field of vision of the driver (TRANS/WP.29/2005/82), where a correction of the V points has to be applied to all seats with a design seat-back angle other than 25 degrees irrespective of the kind of seat-back adjustment. The Netherlands believe that it is more logical to apply the correction as given in Annex 11 for all type of seats with a design torso angle other than 25°.

In addition, the driver's ocular points are clearly defined in paragraph 12.1. of Regulation No. 46 as being points 635 mm vertical above the R point. These ocular points are different points than the V points of the draft Regulation on the forward field of vision. In the Netherlands' opinion, the correction of 68 mm of the first table of proposal (ECE/TRANS/WP.29/2006/101) should not be applied at all in Regulation No. 46.

C. CONCLUSION

The Netherlands believe that the adjustment of the driver's ocular points should be applied to all types of seats with a design torso angle other than 25° and be limited to the values as given in the second table of Annex 11 (ECE/TRANS/WP.29/2006/101). Therefore, the proposal (ECE/TRANS/WP.29/2006/101) to be considered by WP.29 should be corrected as proposed above.