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AMENDMENT 2
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**Impact test procedures for road
vehicles — Seating and positioning
procedures for anthropomorphic test
devices — Procedure for the WorldSID
50th percentile male side-impact
dummy in front outboard seating
positions**

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ISO 17949:2013/Amd 2:2018
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*Procédures d'essai de choc pour véhicules routiers — Procédures
d'installation et de positionnement des dispositifs d'essais
anthropomorphes — Procédure pour le mannequin WorldSID, 50ème
percentile homme, de choc latéral pour positions de conducteur et
passager avant droit*

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 36, *Safety and impact testing*.

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5.3

Replace 5.3 with the following:

5.3 Procedure for the test seat placement

5.3.1 Positioning of the test seat

The control which provides the largest range for an adjustment should be considered as the primarily control for that adjustment.

- 1) Use the seat control that primarily moves the seat vertically to adjust the rearmost seat reference point defined in 5.2 (a) to the uppermost vertical location.
- 2) Use the seat control that primarily moves the seat fore-aft to adjust the rearmost seat reference point defined in 5.2 (a) to the rearmost location.
- 3) Determine and record the range of angles of the seat cushion pitch referring to the line defined in 5.2 (a) and using only the control(s) that primarily adjust(s) the cushion pitch, set cushion pitch as close as possible to the mid-angle.
- 4) Use the seat control that primarily moves the seat vertically to adjust the rearmost seat reference point defined in 5.2 (a) to the lowest vertical location. Verify that you are still at the rearmost seat track location. Record the X position.
- 5) Use the seat control that primarily moves the seat fore-aft to adjust the rearmost seat reference point defined in 5.2 (a) to the forward most location. Record the X position.
- 6) Measure and mark an X position 20 mm rearward of the midpoint (MP + 20 mm).
- 7) Use the seat control that primarily moves the seat fore-aft to adjust the rearmost seat reference point defined in 5.2 (a) to the X position marked in step 6 (−0/+2 mm) or, if not possible, to the first X possible position rearward the marked position in step 6. If the seat cannot be placed at exactly 20 mm rearward of the midpoint, select next closest available rearward setting.

NOTE For some vehicles, step 7 could change the cushion pitch as established in step 3; this is acceptable.

- 8) Record the test seat position [for example, recording the position of the rearmost reference point defined in 5.2 (a)].

5.3.2 WS50 H-point determination

- 1) Using only the controls that move the seat fore-aft, return the test seat to the rearmost position to facilitate placement of the SAE H-point manikin.
- 2) Place the SAE H-point manikin in the seat and position the seat to the test position recorded [see 5.3.1(8)].

- 3) Follow the procedure as described in SAE J 826 except that the length of the lower leg and thigh segments of the SAE H-point manikin shall be adjusted to the 50th percentile (418 mm) and 10th percentile (408 mm) positions, respectively.
- 4) Set the seat back angle to the angle specified by the manufacturer. If the seat back design angle is not specified by the manufacturer, set the seat back angle to 23° ($\pm 1^\circ$) or as close to 23° as possible (as measured by the SAE H-point manikin).
- 5) Record the H-point X, Y, and Z coordinates.

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