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## Booster Cushion Stature Range Definition

## Proposal of an evaluation method

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## Tentative booster thickness

- According to the table given by document referenced CRS-46-03e (head position), there is some tentative booster thickness.
- In order to avoid a design restriction, Dorel propose the following method to determine the head position.


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## Head position limit

- When installed on booster cushion, the top child head position in the size range claimed by the CRS manufacturer must be positioned bellow top head position given by HIII 95th male.
- The lower head position in the size range must be positioned above the top head position given by HIII $5^{\text {th }}$ female


HIII 5th female


HIII 95th male

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## Proposition of a measuring device

Adaptation of the existing measuring device including a Q6 head, keeping the same head angle between measuring device \& dummy


Q6 in sitting position


Adapting measuring device with Q6 head

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## Proposition

- Measure the head position from declared stature and check if are between 770 - [885] mm limit from Cr.
- Adaptation of the measuring device (Annex of R129)



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## Test Methodology

- Place the adapting measuring device in the booster.
- Position the top head position of the test device to the minimum declare stature and measure top head position from Cr.
- Position the top head position of the test device to the maximum declare stature and measure top head position from Cr.
- Example : for a 125 cm to 150 mm stature declare and according to the table given in annex 18 :
- The sitting height is 63 cm for stature of 125 cm ( $5^{\text {th }}$ )
- The sitting height is 81.1 cm for stature of 150 cm ( $95^{\text {th }}$ )


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## Example for stature of 125 cm

- The top head position is placed at a sitting height of 63 cm



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## Example for stature of 150 cm

- The top head position is placed at a sitting height of 81.1 cm



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Thanks for attention.

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