Booster Envelope modification proposals

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18/03/2014
Lap belt Guide Area

Analysis of JAMA Proposal
ISO N1042

JAMA modifications
Lap belt Guide

- Dimensions
Lap belt Guide

- Dimensions
Lap belt Guide

JAMA prop. and 135P95
• No enough space for the 135 P95 hip breadth
• JAMA Lateral recess very important compare to F2X
Current situation with N1042

- The booster CRF must accept the installation of a 135 P95 Child
- The current fixture doesn’t leave enough space (hip width) in order to integrate lap belt guides in the CRS
• Assumptions
  – Keep the current recess up to extreme possible position given by R16 gabarit concerning the lap belt load bearing point.
  – Enlarge the recess above the 150 mm radius which defines the maximum position of buckle
Lap belt guide

- Using available space up to 440 mm width
Lap belt guide

- More space available to implement belt guides with 135 P95
Lap belt guide

- More space available to implement belt guides with 135 P95
Side Wing

Modification of side panel for better side protection

Material removal for better compatibility with armrest (partly JAMA requirement)
Backrest thickness

+10 mm for better side protection (CLEPA requirement)
Modification of top surface

- JAMA requirement in top area
Modification of top surface

- 25 mm compared to N1042 (JAMA requirement to decrease this area)

- This modification is acceptable for 135 cm if Q10 is not used for lateral impact
Summary

Top

N 1042

New proposal
Summary

N 1042

New proposal

Side (armrest area)
Summary

Top

N 1042
New proposal
Evolution of booster envelope are proposed:

- Belt guide better integration for CRS
- Side protection
- Upper part cut: Modification possible if Q10 is not side protected by CRS
- Armrest area cut
Next Step

• Check possibility to modify side back for better side airbag deployment.
  – Find a compromise between side impact protection and volume available for the side airbag

• Check possibility to modify armrest area (Opel request)
  – Definition of the interference with Zafira

• Circulate last CAD version after approval from CLEPA members (target 21st March)