



Research of Belt Guide Device

JASIC



Background

- A test was conducted to check the performance of a belt guide device, which had been supposedly prohibited by UN R44 but somehow has been certified under the same UNR and put on the market.
- The test was conducted by the method prescribed in UN R129.



Dummy Behavior



Belt Penetration





Criteria of UN R44



Annex 8 – Appendix 3

Description of the 18 months manikin

- 5.3. Indication of abdominal penetration
 - 5.3.1. The occurrence or absence of abdominal penetration shall be assessed using high speed photography.

Comparison of Other CRS A



Comparison of Belt Penetration



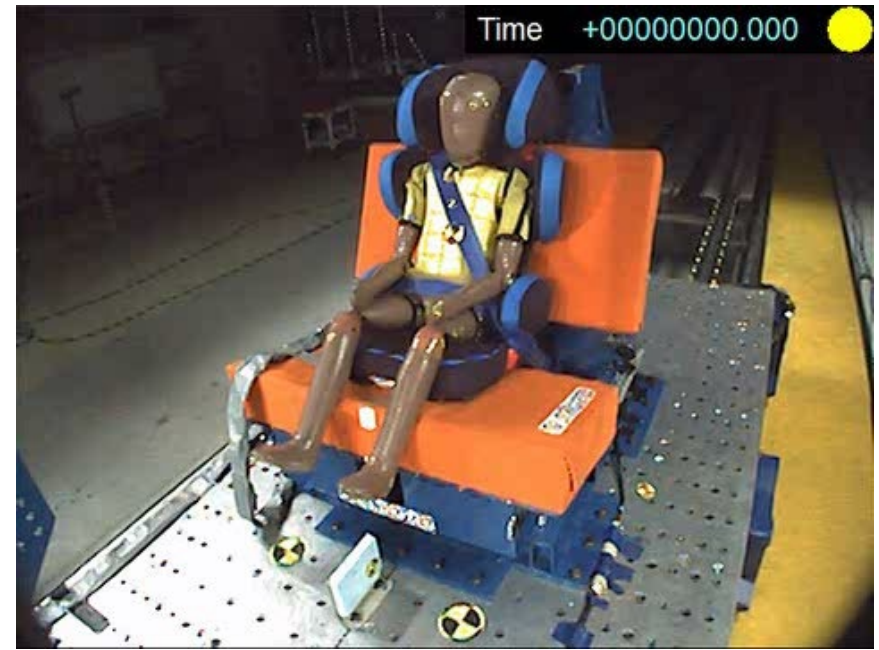
Comparison of Other CRS A



Comparison of Belt Penetration



Comparison of Other CRS B



Comparison of Belt Penetration



Comparison of Other CRS B



Comparison of Belt Penetration





Injury Measures

	Belt guide device	UN R129 Criteria
Chest max. Acc.(3ms) (G)	35	55
Chest Def. (mm)	23	–
Abdominal Press. R(kPa)	0.63	1.0
Abdominal Press. L(kPa)	0.70	1.0
Neck Upr Force(N)	1658	Monitoring only
Neck Upr Moment(Nm)	43	Monitoring only

- ✓ The abdominal pressure was found rather high, but satisfied the requirements of the regulation.