

Update on Chest and Abdomen Injury Criteria Task Force

50th Meeting GRSP Informal Group
on CRS

Introduction

- A task force on chest and abdomen injury criteria for Q dummies started in April 2013
- Members of the task force are: ADAC, BAST, BMW, Britax Römer, Dorel, EC/TRL, Humanetics, IFSTTAR, INSIA, LAB, MH Hanover, PDB, TU Berlin, UTAC, VFSB, VTI
- Objective of the task force is to deliver scientific based recommendations for GRSP and EEVC w.r.t. performance criteria for the chest and abdomen of Q dummies
- No global funding for the group available

Achievements

- Analysis of belt slippage behaviour
- Development and implementation of additional upper chest deflection sensor for Q3 and Q6 (available at 4 labs)
 - Q10 already with upper sensor and smaller dummies not expected to be used with boosters

Achievements

- Analysis of abdominal loading behaviour in Q3, Q6 and Q10
- Agreement on additional equipment to improve abdomen loading behaviour
- Agreement on APTS sensors
- Definition of reconstruction test programme for injury risk curve development

Current Status

- Three reconstruction tests with 4 Q dummies completed
- Two additional tests already scheduled
- Reconstruction programme delayed due to Sensor development phase that was originally not expected

Current Status

	CHEST					ABDOMEN					Legend
	Q1	Q1,5	Q3	Q6	Q10	Q1	Q1,5	Q3	Q6	Q10	
0				0037	0214			0010	0022	0214	
			0225	0249	2032			0225	0028	0293	
				2041	0305			0225	0177	0305	
				2061					1207		
				2109						0293	
1	0022		0010	0022	0037				0249	0037	
			0225	0028	0249					2041	
					2041						
2				0293	0010	0022		1119	1079	0214	
										0249	
3			1079	0177	0214			1079		0010	
			1081	1079	0293					1207	
			1119		0391					2032	
			2032		0305					0305	
4+			1207		1207			2032		0391	
				2003				1081	0037		
				2043							

Current Status

- For reliable development of injury risk curve at minimum 10 reconstruction cases with AIS 0 – 2 and 10 cases with AIS 3+ injuries are needed
- Up to now there
 - 3 cases for chest (2 AIS 0-2; 1 AIS 3+)
 - 4 cases for abdomen (3 AIS 0 – 2; 1 AIS 3+)
- Based on the current progress and the commitment of the partners the task force will likely fail to complete the programme by the end of 2015

Current Status

- Additional support urgently needed
 - Funding
 - Testing