



Pole Side Impact Test on European Berline

6th Meeting – GRSP Informal Group on Pole Side Impact
Munich, 20 June 2012

- Comparison of 29 km/h perpendicular and 32 km/h pole side impact tests with WorldSID 50th percentile adult male ATD.
- Vehicles have separate head curtain and seat mounted thorax side impact
- We reported criteria measured during EuroNCAP pole test (even if dummy used is different)

Vehicle deformation

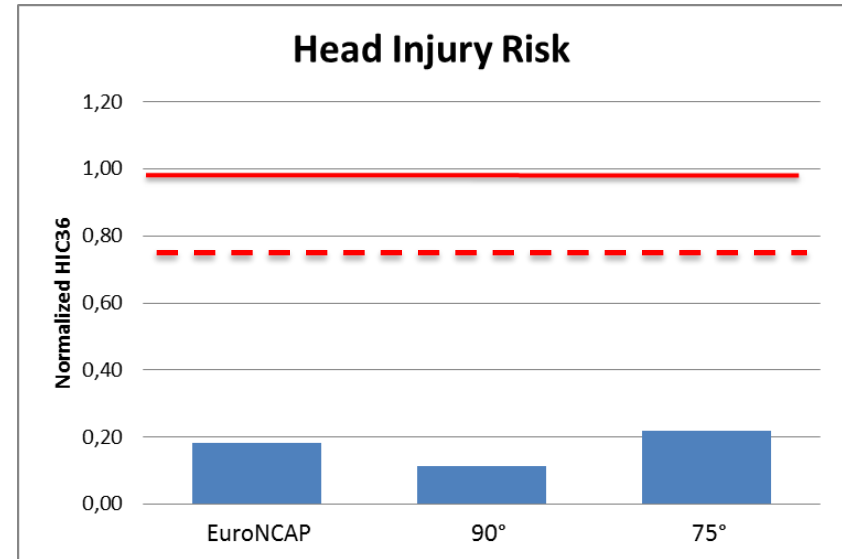


1st test - 90°

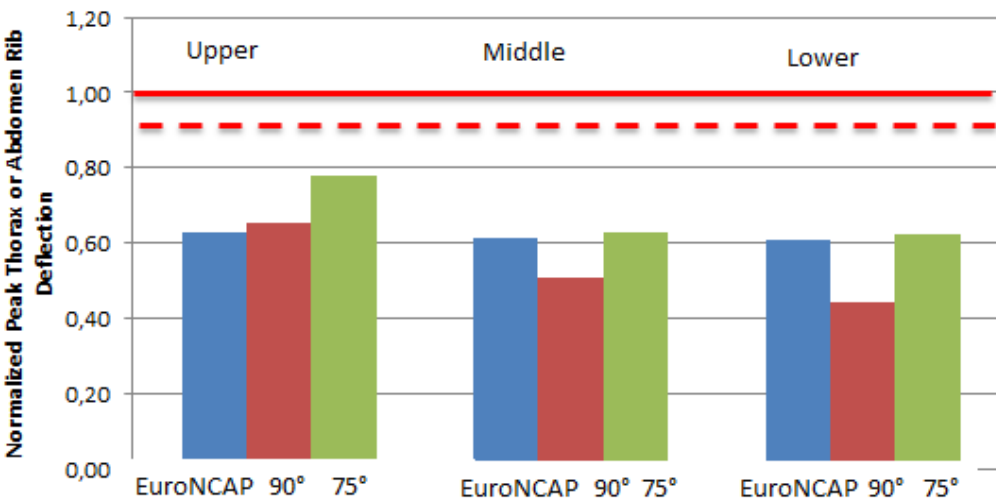


2nd test - 75°

Pt	X	Y	Z		X	Y	Z
1	-20,20	-107,92	25,96	22,56	-34,13	-85,36	24,05
2	-11,08	-173,42	20,35	23,68	-25,34	-149,74	17,57
3	-0,56	-241,20	14,81	27,50	-15,59	-213,70	12,18
4	13,64	-319,28	8,73	-7,59	7,45	-326,87	14,07
5	33,19	-274,78	6,63	-92,46	36,26	-367,24	0,77
6	55,45	-181,71	8,74	-78,66	65,65	-260,37	-5,77
7	73,75	-94,83	9,05	66,51	88,92	-161,35	-12,16
8	87,00	-31,86	5,40	-45,38	117,02	-77,24	-23,01
				90°	75°		
				Delta 90°/75°			
	X	Y	Z		X	Y	Z
9	-31,96	-97,60	28,34	24,30	-43,60	-73,30	25,84
10	-20,91	-165,69	21,68	24,34	-33,11	-141,85	19,31
11	-10,31	-233,45	14,95	23,24	-21,82	-210,21	12,38
12	17,93	-344,32	6,94	-1,96	14,99	-346,28	10,57
13	37,25	-302,32	6,71	-90,92	44,74	-393,24	0,19
14	58,09	-210,66	6,00	-96,26	62,85	-306,92	-5,00
15	79,35	-115,67	7,15	-99,12	83,08	-214,79	-10,17
16	95,25	-31,12	6,28	-82,20	105,69	-113,32	-14,56
				90°	75°		
				Delta 90°/75°			
	X	Y	Z		X	Y	Z
17	-27,10	-89,30	28,94	28,74	-38,83	-60,56	27,64
18	-14,90	-160,87	23,98	19,58	-23,15	-141,29	21,04
19	-5,04	-224,54	17,47	7,36	-8,49	-217,19	14,41
20	20,53	-324,63	8,78	-2,44	25,63	-327,07	10,98
21	41,92	-284,80	6,68	-94,45	52,01	-379,25	0,05
22	72,92	-176,50	9,51	-104,00	78,10	-280,50	-3,50
23	88,60	-96,75	7,33	-98,49	95,92	-195,24	-8,43
24	96,66	-33,35	4,51	-79,20	111,67	-112,55	-14,56
				90°	75°		
				Delta 90°/75°			
	X	Y	Z		X	Y	Z
25	-44,40	-34,23	35,44	11,78	-63,43	-22,45	45,51
26	-30,50	-113,48	33,20	22,44	-59,61	-91,04	42,24
27	-8,28	-206,95	23,58	14,50	-23,37	-192,45	32,43
28	21,39	-315,65	10,50	-14,18	35,26	-329,83	14,94
29	43,88	-281,67	6,87	-97,54	62,51	-379,21	4,04
30	80,43	-166,77	4,72	-106,48	87,07	-273,25	1,61
31	92,50	-92,47	6,06	-91,52	107,00	-183,99	-5,77
32	99,02	-28,85	5,42	-67,53	122,24	-96,39	-13,49

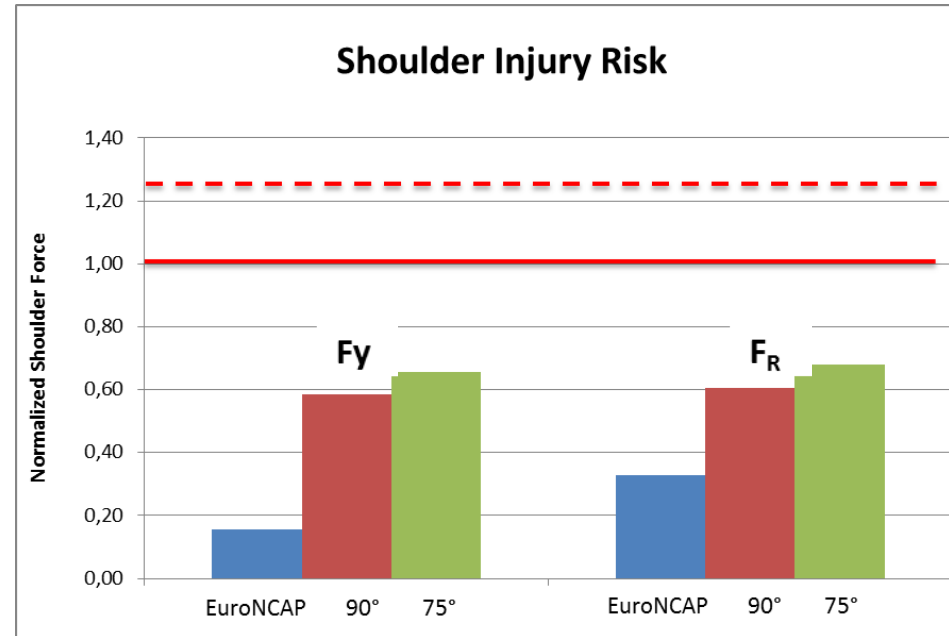


Thorax Injury Risk



- 50% AIS 3+ Head Injury Risk
- - - 30% AIS 3+ Head Injury Risk

NB: WorldSID is equipped with 1D IRTRACC



- 50% AIS 2+ Shoulder Injury Risk
- - - 95% AIS 2+ Shoulder Injury Risk

Remark : for pelvis we have the Same level of injury risk for 90° and 75° tests