

REPORT NUMBER: NCAPSIDE-MGA-2008-001

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**DAIMLERCHRYSLER CORPORATION
2008 CHRYSLER SEBRING CONVERTIBLE
NHTSA NUMBER: M80302**

**PREPARED BY:
MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105**



Test Date: August 29, 2007

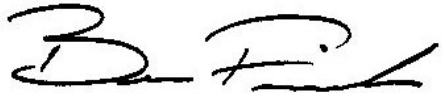
Report Date: October 2, 2007

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RULEMAKING
OFFICE OF CRASHWORTHINESS STANDARDS
1200 NEW JERSEY AVENUE, SE, ROOM W43-410
WASHINGTON, D.C. 20590**

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-03-D-12005.

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Date: 10/02/07

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Date: 10/02/07

Technical Report Documentation Page

1. Report No. NCAPSIDE-MGA-2008-001	2. Government Accession No.	3. Recipient's Catalog No.																						
4. Title and Subtitle Final Report of New Car Assessment Program Side Impact Testing of 2008 Chrysler Sebring Convertible NHTSA No.: M80302		5. Report Date October 2, 2007																						
		6. Performing Organization Code MGA																						
7. Author(s) Ben Fischer, Project Engineer		8. Performing Organization Report No. NCAPSIDE-MGA-2008-001																						
9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105		10. Work Unit No.																						
		11. Contract or Grant No. DTNH22-03-D-12005																						
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Rulemaking, Office of Crashworthiness Standards 1200 New Jersey Ave, SE, Room W43-410, NVS-111 Washington, D.C. 20590		13. Type of Report and Period Covered: <i>Final Report</i> 8/29/07 to 10/02/07																						
		14. Sponsoring Agency Code NVS-111																						
15. Supplementary Notes																								
16. Abstract A 55/28 km/h 90° Moving Deformable Barrier NCAP side impact was conducted on the subject 2008 Chrysler Sebring Convertible to obtain new car assessment and research data indicant of FMVSS No. 214D performance. The test was conducted at MGA Research Corporation, in Burlington, Wisconsin, on August 29, 2007. The impact velocity of the Moving Deformable Barrier (MDB) was 62.0 km/h, and the ambient temperature at the struck side (drivers) of the vehicle was 21°C. The target vehicle's maximum post test static crush was 177 mm at level 3. The test vehicle's occupant performance is as follows: <table style="margin-left: auto; margin-right: auto; border: none;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>DRIVER</u></th> <th style="text-align: center;"><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td style="text-align: center;">40.8</td> <td style="text-align: center;">51.0</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td style="text-align: center;">41.9</td> <td style="text-align: center;">44.6</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td style="text-align: center;">65.9</td> <td style="text-align: center;">56.5</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td style="text-align: center;">54</td> <td style="text-align: center;">54</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td style="text-align: center;">45.5</td> <td style="text-align: center;">41.2</td> </tr> <tr> <td>HIC</td> <td style="text-align: center;">123</td> <td style="text-align: center;">690</td> </tr> </tbody> </table> The doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.					<u>DRIVER</u>	<u>PASS.</u>	Left Upper Rib (LUR) Accel., g	40.8	51.0	Left Lower Rib (LLR) Accel., g	41.9	44.6	Lower Spine (T ₁₂) Accel., g	65.9	56.5	Thoracic Trauma Index (TTI)	54	54	Pelvis (PEV) Accel., g	45.5	41.2	HIC	123	690
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17. Key Words New Car Assessment Program (NCAP) Side Impact Side Impact Hybrid III Dummy (SID/HIII) Occupant Side Impact Protection		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Adm. Technical Ref. Division, 1200 New Jersey Ave, SE Washington, D.C. 20590																						
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 172	22. Price																					

Form DOT F1700.7 (8-72)

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SECTION 1

PURPOSE AND TEST PROCEDURE

PURPOSE

This side impact test was conducted as part of the FY' 2008 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-03-D-12005. The purpose of this test was to evaluate side impact protection in a 2008 Chrysler Sebring Convertible manufactured by DaimlerChrysler Corporation.

TEST PROCEDURE

The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated November 2002 and the corresponding MGA Research Corporation Test Procedure MGA-NHTSA5. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

MGA does not endorse or certify products. The manufacturer's name appears solely for identification purposes.

SECTION 2

SUMMARY OF NCAP SIDE IMPACT TEST

A model year 2008 Chrysler Sebring Convertible was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.0 km/h. The specified impact velocity range is from 61.1 to 62.7 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 1921.4 kg and the test weight of the MDB was 1360.8 kg. The test was conducted at MGA Research Corporation in Burlington, Wisconsin, on August 29, 2007.

One (1) real-time motion picture camera and nine (9) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information are documented in the data sheets. Pre- and post-test photographs of the vehicle and Side Impact Dummies (SID/HIIIs) can be found in Appendix A. Two 50th percentile adult male SID/HIIIs were placed in the driver and left rear passenger designated seating positions according to instructions specified in the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated November 2002. Each SID/HIII was instrumented in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y and Z axes primary and redundant)
- Upper Neck load cell (Fx, Fy, Fz, Mx, My, Mz)

The test vehicle was instrumented with nineteen (19) structural accelerometers and the MDB was instrumented with five (5) accelerometers and two (2) contact switches on the bumper to compare left side to right side bumper impact timing. All data channels were recorded with a fully self contained on-board DTS TDAS Pro Data Acquisition System. The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 177 mm at level 3, 1050 mm rearward of the vertical impact point. The driver and passenger SID/HIIIs, Serial Nos. 271 and 904 respectively, were calibrated just prior to this test.

Appendix A contains the still photograph prints. Appendix B contains the SID/HIII response data traces. Appendix C contains the dummy calibration data. Appendix D contains the child dummy data.

The occupant data is summarized below:

ATD position	HIC	T ¹	T ²	TTI (G's)	Peak Pelvis (G's)
Driver	123	46.2	82.2	54	45.5
Passenger	690	50.5	64.2	54	41.2

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Information	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	No	
Side Torso Airbag	Yes	Yes	No	
Curtain Airbag	No		No	

The test data can be found on the NHTSA website at www.nhtsa.dot.gov.

TEST NOTES

There was no valid data collected for:

Driver Lower Rib Y Redundant after 50 msec.

Left Lower B-Post Y

DATA SHEET NO. 1**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2008 Chrysler Sebring ConvertibleNHTSA No. M80302Test Program: NCAP Side ImpactTest Date: 8/29/2007**TEST VEHICLE INFORMATION**

Make	Chrysler
Model	Sebring
Body Style	Convertible
NHTSA No.	M80302
VIN	1C3LC45K38N677505
Color	Bright Silver Metallic
Delivery Date	8/16/2007
Odometer Reading (mile)	129
Dealer	Frank Boucher
Transmission	Automatic Overdrive
Final Drive	Front
Number of Cylinders	4
Engine Displacement (L)	2.4
Engine Placement	Lateral
Automatic Door Locks (ADL)	Yes
Owner's Manual Details Instructions on Disabling ADLs	No

TEST VEHICLE OPTIONS

Driver Front Airbag	Yes
Driver Side Curtain Airbag	No
Driver Side Torso Airbag	Yes
Rear Passenger Side Curtain Airbag	No
Rear Passenger Side Torso Airbag	No
Power Steering	Yes
Power Door Locks	Yes
Tilt Wheel	Yes
Anti-lock Brakes	Yes
Traction Control	No
All Wheel Drive	No
Power Seats	Yes
Pretensioners	Yes
Load Limiters	Yes
Bucket Seats	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	DaimlerChrysler Corporation
Date of Manufacture	6-07

GVWR (kg)	2178
GAWR Front (kg)	1180
GAWR Rear (kg)	1007

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench		
Number Of Occupants	2	2		4
Capacity Wt. (VCW) (kg)				324
Cargo Wt. (RCLW) (kg)				52

DATA SHEET NO. 1 (continued)**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2008 Chrysler Sebring ConvertibleNHTSA No. M80302Test Program: NCAP Side ImpactTest Date: 8/29/2007**TEST VEHICLE WEIGHTS**

	Units	As Delivered (UVW) (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	476.3	396.0		529.4	477.6	
Right	kg	474.0	368.3		487.6	426.8	
Ratio	%	55.4	44.6		52.9	47.1	
Totals	kg	950.3	764.3	1714.6	1017.0	904.4	1921.4

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1714.6
Weight of 2 P572M ATDs	kg	161.5
Rated Cargo/Luggage Weight (RCLW)	kg	52
Calculated Vehicle Target Weight (TVTW)	kg	1928.1

* Actual As Tested Weight (ATW) will be TVTW -5/-10 kg

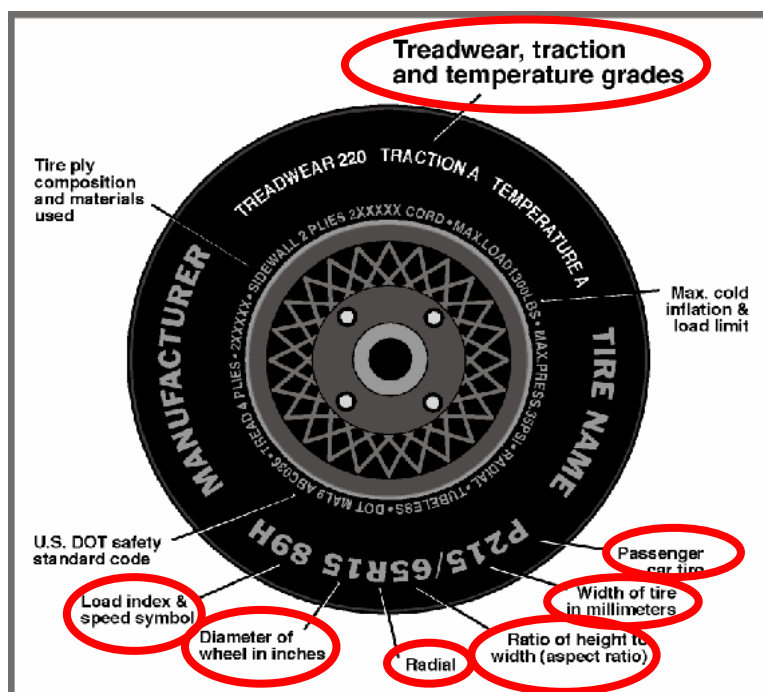
Weight of Ballast in Cargo Area: None**TEST VEHICLE ATTITUDES AND CG**

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	745	748	740	752	1234
As Tested	mm	734	743	717	730	1303
Fully Loaded	mm	732	742	708	729	

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2768
Target Impact Point Aft of Front Axle	mm	444
Actual Impact Point Aft of Front Axle	mm	433

TEST VEHICLE TIRE INFORMATION



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	275	275
Cold / Test Pressure (kPa)	220	220
Recommended Tire Size	P215/60R17	P215/60R17
Tire Size on Vehicle	P215/60R17	P215/60R17
Tire Manufacturer	Bridgestone	Bridgestone
Tire Name	Turanza EL400	Turanza EL400
Tire Type	Passenger	Passenger
Tire Width (mm)	215	215
Ratio of Height to Width (aspect ratio)	60	60
Radial	R	R
Wheel Diameter	17	17
Load Index & Speed Symbol	95T	95T
Treadwear	400	400
Traction Grade	B	B
Temperature Grade	B	B

DATA SHEET NO. 3 **TEST VEHICLE INFORMATION**

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

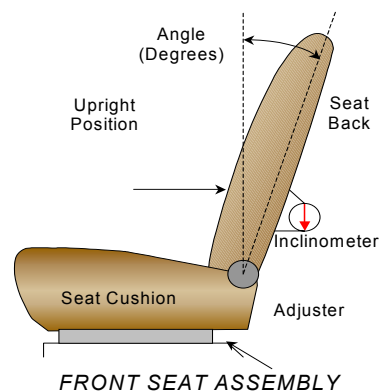
NHTSA No. M80302
 Test Date: 8/29/2007

NORMAL DESIGN RIDING POSITION

The driver and passenger seat back is positioned to the manufacturer's designated angle. The procedure is as follows:
 Set back angle to 22 degrees. This is 11.8 degrees from vertical as measure on the headrest posts. Passenger seat back is fixed.

Driver seat back angle: 11.6° at headrest post

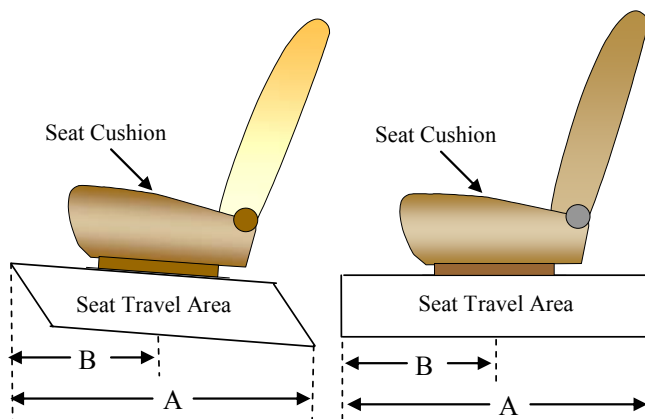
Passenger seat back is fixed.



SEAT FORE/AFT POSITIONS

SEAT FORE/AFT POSITIONS

	Total Fore/Aft Travel	Placed in position #
Driver Seat	230 mm	115 mm
Rear Seat	Fixed	Fixed



DATA SHEET NO. 3 (CONTINUED)

TEST VEHICLE INFORMATION

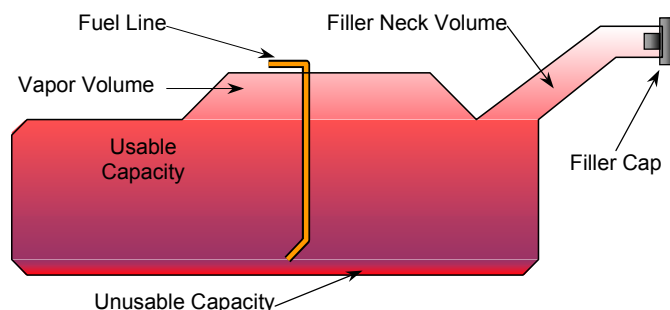
Test Vehicle: 2008 Chrysler Sebring Convertible
Test Program: NCAP Side Impact

NHTSA No. M80302
Test Date: 8/29/2007

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	64.0
Usable Capacity of "Optional" Tank	
92-94% of Usable Capacity	58.8 – 60.1
Actual Amount of Solvent used	58.8
1/3 of Usable Capacity	21.3

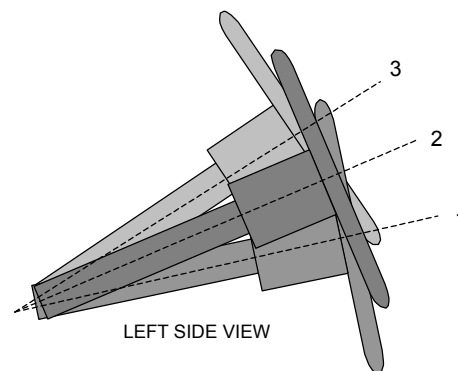
The test vehicle is equipped with an electric fuel pump. Key on (1st click) will prime the pump and pressurize the system. TIPM (control module) will shut off pump upon receiving an air bag deployment signal.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed on the plate and the angle is measured.



STEERING COLUMN ASSEMBLY

	Fore/Aft (mm)	Degrees
Lowermost position No. 1	46	68.2
Geometric center position No. 2	23	71.1
Uppermost position No. 3	0	74.0

DATA SHEET NO. 4
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007

MDB SPECIFICATIONS

Measurement Description	Length (mm)
Overall Width of Framework Carriage	1252
Overall Length Including Honeycomb Face	4115
Wheel base of Framework Carriage	2588
C.G. Location aft of Front Axle	1101

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	473.5	219.5	
Right	kg	308.3	359.5	
Ratio	%	57.5	42.5	
Totals	kg	781.8	579.0	1360.8

SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.0
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.0
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.7

POST TEST OBSERVATIONS
MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	11 forward
Vertical Offset	mm	+/-20	6 up

DATA SHEET NO. 5**POST TEST OBSERVATIONS**Test Vehicle: 2008 Chrysler Sebring ConvertibleNHTSA No. M80302Test Program: NCAP Side ImpactTest Date: 8/29/2007**TEST DUMMY INFORMATION AND CONTACT POINTS**

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID HIII / 271	SID HIII / 904
Head Contact	Side Airbag	Side Header, RR Seat Back
Upper Torso Contact	Side Airbag	Door Panel
Lower Torso Contact	Door Panel	Door Panel
Left Knee Contact	Door Panel	Door Panel
Right Knee Contact	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Locked/Unlocked Doors	Doors were unlocked	Doors were unlocked
Left Side Door Opening	Door remained closed and latched	Door remained closed and latched
Right Side Door Opening	Door remained closed and latched; Door opened without tools	Door remained closed and latched; Door opened without tools
Seat Movement	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	None
Windshield Damage	None
Window Damage	Left front and left rear windows broke
Other Notable Effects	None

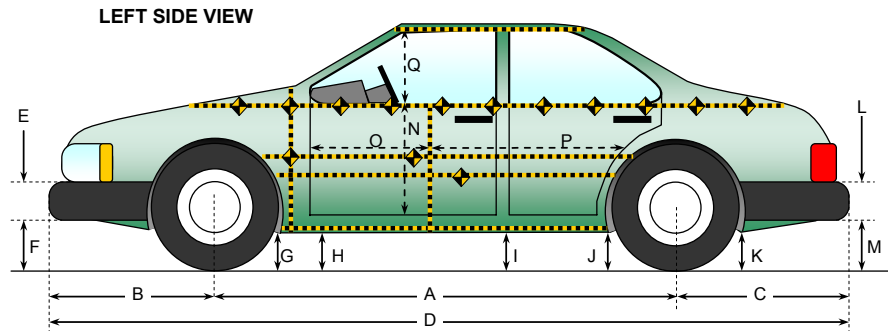
SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Occupant Location 01		Occupant Location 04	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	No	No	
Side Torso Airbag	Yes	Yes	No	
Curtain Airbag	No		No	

DATA SHEET NO. 6
VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



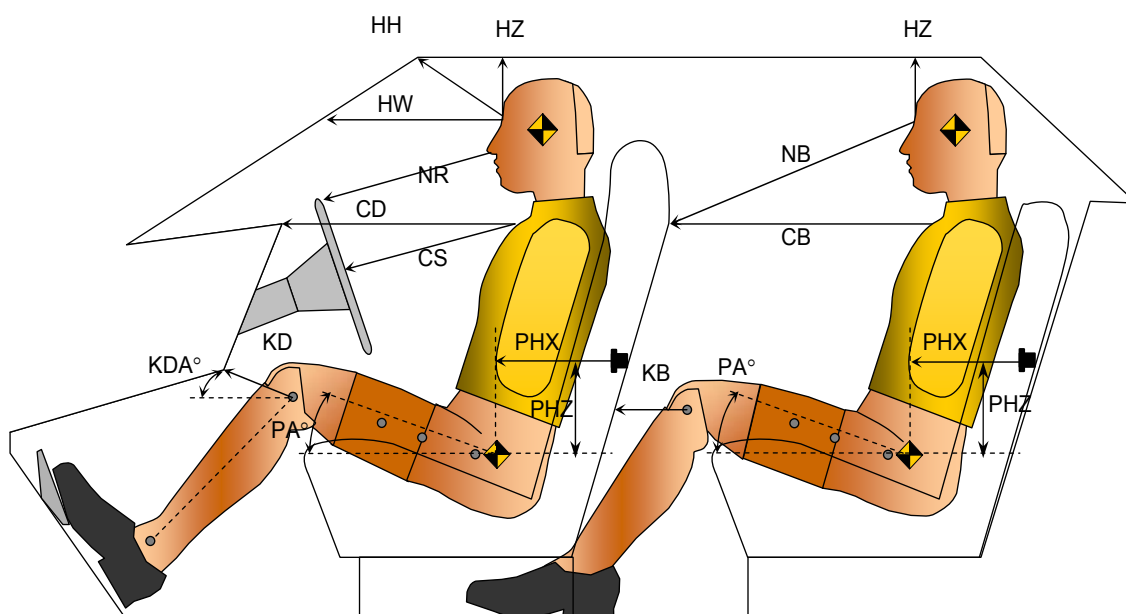
All Measurements in mm

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2768	2762	6
B	Front Axle to FSOV	963	1008	-45
C	Rear Axle to RSOV	1130	1148	-18
D	Total Length at Centerline	4875	4918	-43
E	Front Bumper Thickness	140	140	0
F	Front Bumper Bottom to Ground	221	228	-7
G	Sill Height at Front Wheel Well	165	617	-452
H	Sill Height at Front Door Leading Edge	163	613	-450
I	Sill Height at "B" Pillar	171	168	3
J1	Sill Height at Rear Wheel Well	160	163	-3
J2	Pinch Weld Height at Rear Wheel Well	159	165	-6
K	Sill Height Aft of Rear Wheel Well	222	224	-2
L	Rear Bumper Thickness	238	238	0
M	Rear Bumper Bottom to Ground	287	303	-16
N	Sill Height to Window Bottom Sill	733	605	128
O	Front Door Leading Edge to Impact CL	795	859	-64
P	Rear Door Trailing Edge to Impact CL	575	561	14
Q	Front Window Opening	385	421	-36
R	Right Side Length	4179	4178	1
S	Left Side Length	4180	4157	23
T	Vehicle Width at "B" Post	1814	1724	90

DATA SHEET NO. 7
SID/HII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



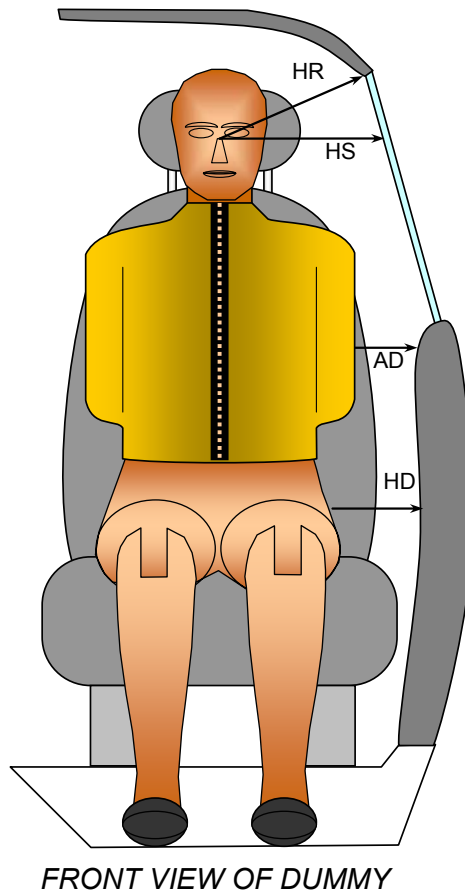
Driver Code	Pass. Code	Measurement Description	Driver S/N 271		Passenger S/N 904	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	397			
HW		Head to Windshield	665			
HZ	HZ	Head to Roof	140		128	
NR	NB	Nose to Rim/Nose to Seatback	404		507	
CD	CB	Chest to Dash or Seatback	523		464	
CS		Chest to Steering Wheel	331			
KDL	KBL	Left Knee to Dash or Seatback	189	27.6	146	25.3
KDR	KBR	Right Knee to Dash or Seatback	176	35.6	162	22.8
PA	PA	Pelvic Angle		23.5		23.2
PHX	PHX	H-Point to Striker (X-Axis)	513		546*	
PHZ	PHZ	H-Point to Striker (Z-Axis)	141		32	

* To Driver Striker

DATA SHEET NO. 8
SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007

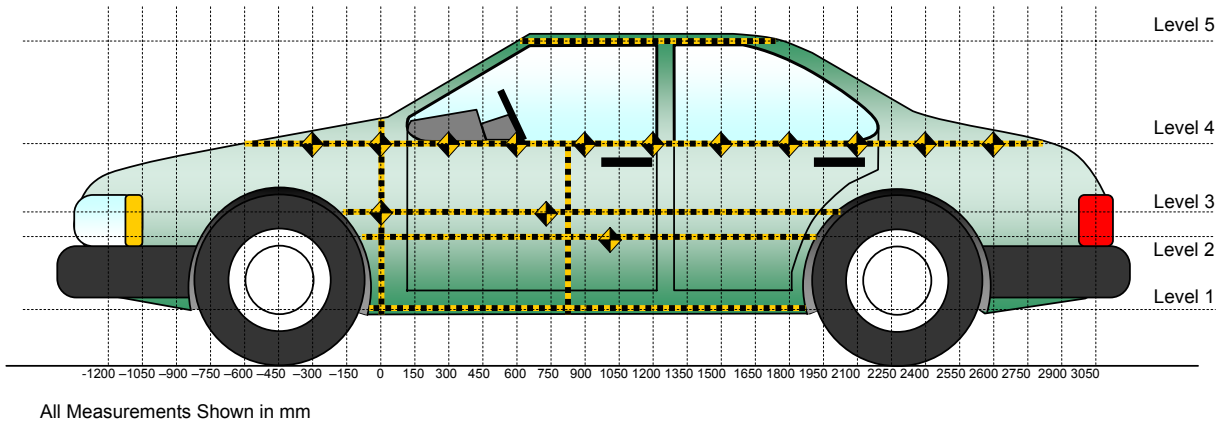


Code	Measurement Description	Units	Driver S/N 271	Passenger S/N 904
HR	Head to Side Header	mm	147	204
HS	Head to Side Window	mm	308	204
AD	Arm to Door	mm	111	32
HD	H-Point to Door	mm	147	141

DATA SHEET NO. 9 **VEHICLE SIDE MEASUREMENTS**

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.
 Measurements along the vertical 800 mm.
 All measurements below in mm.

Level	Measurement Description	Maximum Exterior Static Crush	Distance From Impact	Height Above Ground
5	Window	-13	900	1414
4	Window Sill	34	600	993
3	Mid Door	177	1050	645
2	Occupant H-Point	174	600	564
1	Sill Top	16	1050	255
	Maximum Penetration	177		

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-750				285					268					-17	
-600				275					259					-16	
-450				268					251					-17	
-300				263					261					-2	
-150				259					271					12	
0	215	182	184	257		213	187	186	261		-2	5	2	4	
150	233	198	197	253		241	268	262	252		8	70	65	-1	
300	233	199	196	253		245	341	323	260		12	142	127	7	
450	231	198	194	250		245	361	351	270		14	163	157	20	
600	231	198	193	252	476	246	372	359	286	462	15	174	166	34	-14
750	231	196	193	255	483	246	368	364	264	465	15	172	171	9	-18
900	232	195	192	258	491	247	362	364	244	478	15	167	172	-14	-13
1050	231	195	191	264	496	247	362	368	229	479	16	167	177	-35	-17
1200	233	194	191	271	497	247	350	354	219	478	14	156	163	-52	-19
1350	234	195	191	277	498	249	310	324	206	478	15	115	133	-71	-20
1500	238	197	193	284	506	251	276	309	323	489	13	79	116	39	-17
1650	241	198	195	294	523	247	279	299	315	494	6	81	104	21	-29
1800	233	197	195	301	541	236	281	289	305	505	3	84	94	4	-36
1950		187	188	311	548		198	225	295	507		11	37	-16	-41
2100			183	321	575			181	281	535			-2	-40	-40
2250				329					293					-36	
2400				334					296					-38	
2550				341					301					-40	
2700				348					309					-39	
2850				358					319					-39	
3000				371					330					-41	
3150				401					361					-40	

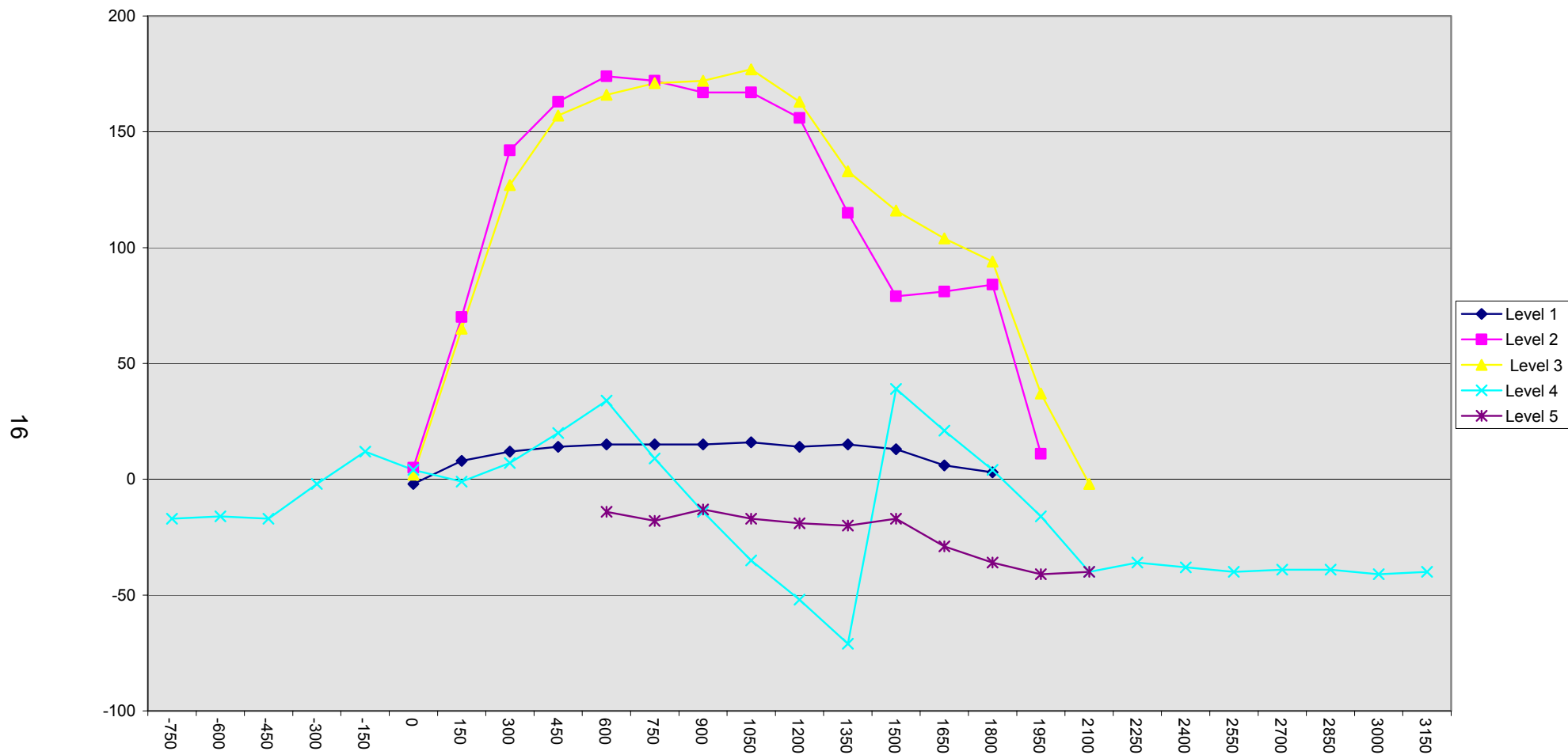
Reference plane is parallel to test vehicle longitudinal centerline.

Given dimensions = Reference plane to car body

DATA SHEET NO. 10... (continued)
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2008 Chrysler Sebring Convertible
Test Program: NCAP Side Impact

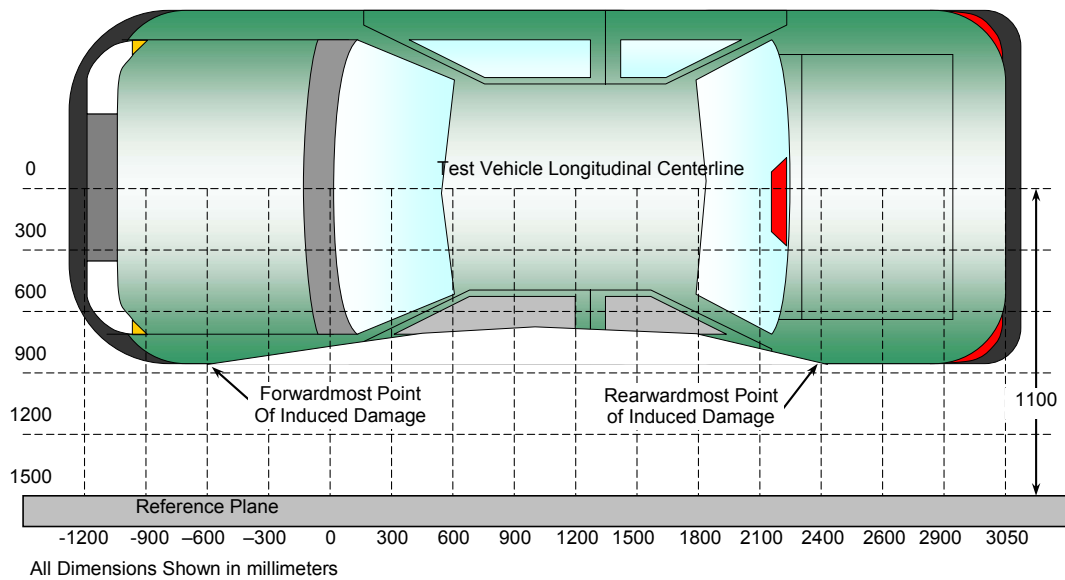
NHTSA No. M80302
Test Date: 8/29/2007



DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



TOP VIEW

DAMAGE PROFILE DISTANCES

DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	1800	4	301	305	4
2	1468	3	192	334	142
3	1142	3	191	369	178
4	816	2	196	380	184
5	481	2	198	371	173
6	150	4	253	252	-1

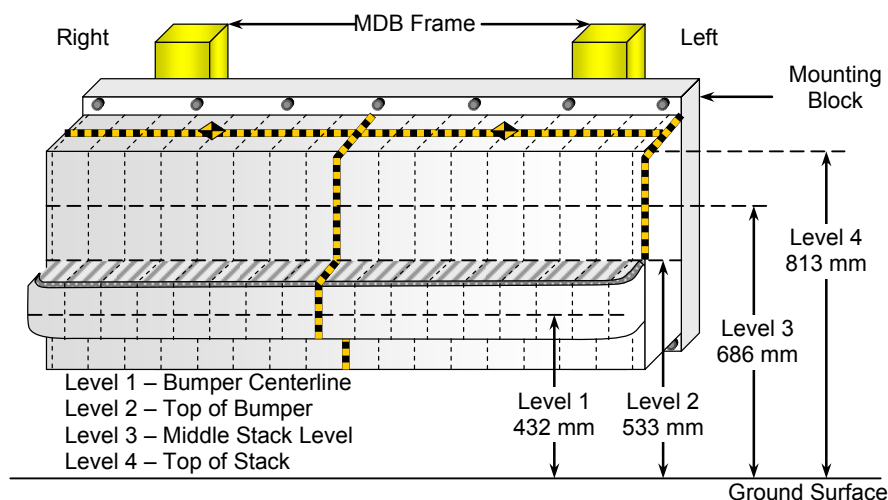
Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body.

DATA SHEET NO. 12

DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



DEFORMABLE BARRIER STATIC CRUSH

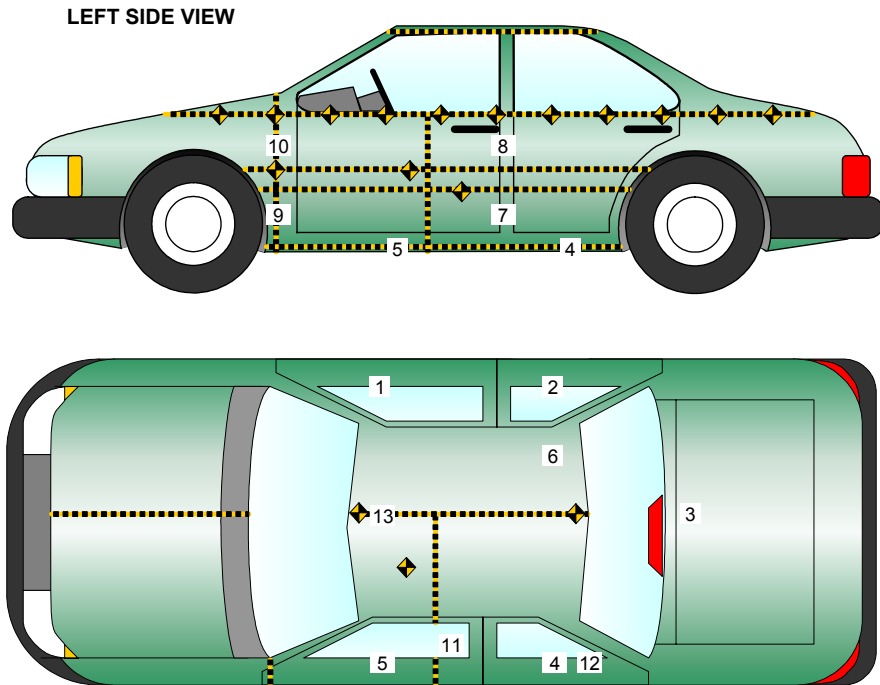
Stack Level	Distance Right of Center								C _L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	366	383	399	395	356	298	272	258	246	250	248	248	242	250	259	278	303
2	258	279	306	321	261	233	216	199	196	197	195	193	191	191	198	212	219
3	240	230	210	218	211	160	144	135	129	126	123	122	128	140	161	191	232
4	254	208	184	176	187	156	145	147	145	148	151	151	149	167	191	225	240

All Dimensions in mm

DATA SHEET NO. 13
VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



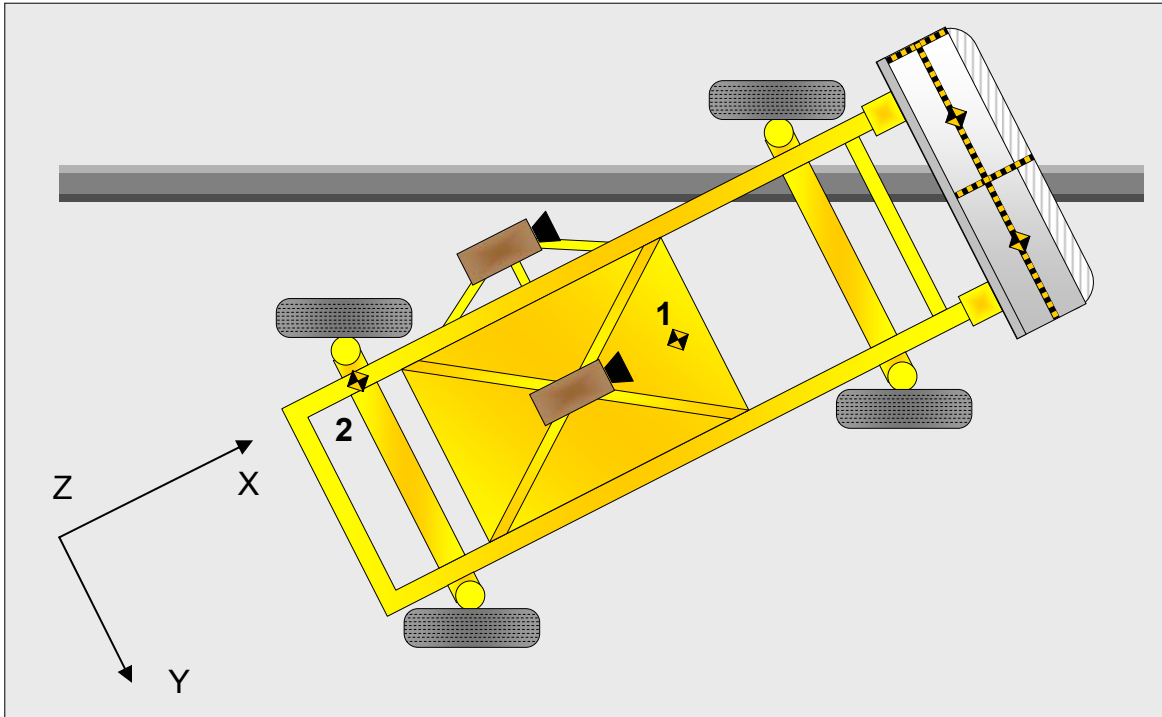
Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2541	748	212
2	Right Sill at Rear Seat	1609	742	224
3	Rear Floorpan Above Axle	1043	0	523
4	Left Sill at Rear Door	1594	-742	209
5	Left Sill at Front Door	2575	-748	205
6	Rear Occupant Compartment	1994	372	347
7	Left Lower B-Post	2089	-742	482
8	Left Middle B-Post			
9	Left Lower A-Post	3277	-654	388
10	Left Middle A-Post	3249	-788	968
11	Front Seat Track	2259	-607	319
12	Rear Seat Track or Structure			
13	Vehicle CG	2723	0	280

Reference Points X - Test Vehicle Rear Bumper (+ forward)
 Y - Test Vehicle Centerline (+ to right)
 Z - Ground Plane (+ down)

DATA SHEET NO. 14
MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	MDB CG	-1092	0	-483
2	MDB Rear	-2591	-625	-622

Reference Points X - MDB Front Axle (+ forward)
 Y - MDB Centerline (+ to right)
 Z - Ground Plane (+ down)

DATA SHEET NO. 15
VEHICLE STRUCTURAL MEASUREMENTS

Test Vehicle: 2008 Chrysler Sebring Convertible
Test Program: NCAP Side Impact

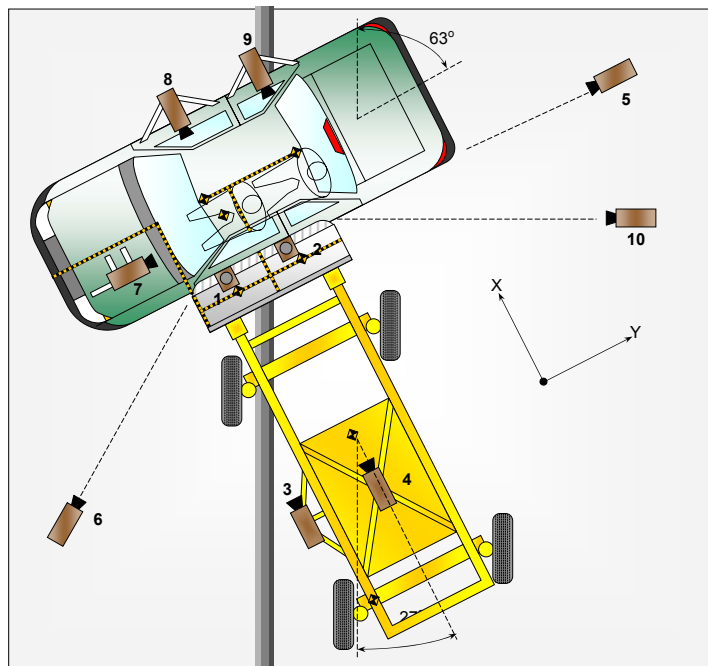
NHTSA No. M80302
Test Date: 8/29/2007

	Elements	Pre-Test (mm)
1	Total Length	4875
2	Total Width	1814
3	Bumper Top Height	507
4	Bumper Bottom Height	402
5	Longitudinal Member Top Height	574
6	Distance between Longitudinal Members	913
7	Longitudinal Member Width	84
8	Engine Top Height	825
9	Engine Bottom Height	207
10	Engine and gearbox width	873
11	Front bumper-engine distance	534
12	Front shock absorber fixing height	912
13	Bonnet leading edge height	805
14	Front shock absorber fixing width	1121
15	Front bumper – front axle distance	1006
16	Front axle – a pillar distance	548
17	A-pillar – B-pillar distance	1246
18	B-Pillar – rear axle distance	976
19	B-pillar – C-pillar distance	510
20	Roof sill bottom height	1337
21	Roof sill top height	1391
22	Floor sill bottom height	179
23	Floor sill top height	292

DATA SHEET NO. 16
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007



No.	Camera View	Location (mm)			Lens (mm)	Film Speed (fps)
		X	Y	Z		
1	Overhead Close-up	100	0	5050	50	1000
2	Overhead Overall	-340	0	5050	14	1000
3	MDB Onboard, Impact Point Close-up				50	1000
4	MDB Onboard, Centerline of Impact				16	1000
5	Right Side, Ground Level, Overall	-1050	5040	1250	24	1000
6	Left Side, Ground Level, Overall	932	-5250	1192	24	1000
7	Vehicle Onboard Front SID/HIII, Front				12.5	1000
8	Vehicle Onboard Front SID/HIII, Side				8	1000
9	Vehicle Onboard Rear SID/HIII, Side				8	1000
10	Real Time Coverage				13	24

Reference Points X - Impact Line
 Y - MDB Left Edge Impact Point
 Z - Ground Plane

DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA

Test Vehicle: 2008 Chrysler Sebring Convertible
 Test Program: NCAP Side Impact

NHTSA No. M80302
 Test Date: 8/29/2007

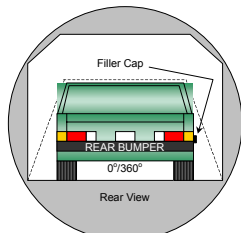
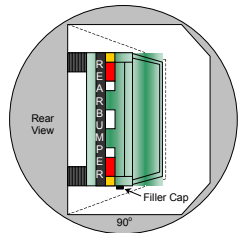
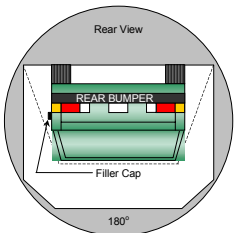
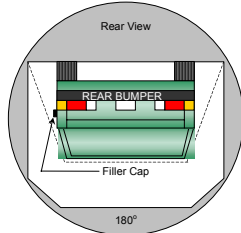
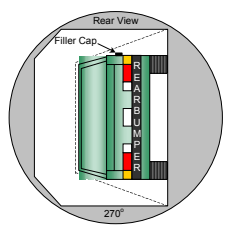
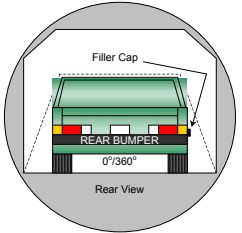
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 21° C Test Time: 11:58 am

Stoddard Solvent Spillage Measurements

- A. From impact until vehicle motion ceases: 0 oz.
 (Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: None
 (Maximum allowable = 5 ounces)
- C. For the following 25 minutes: None
 (Maximum allowable = 1 oz./minute)
- D. Spillage Details: None

FMVSS 301 STATIC ROLLOVER DATA

			1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds. 2. The position hold time at each position is 300 seconds (minimum). 3. Details of Stoddard Solvent spillage locations: None
0° to 90° 90° to 180°			
			
180° to 270° 270° to 360°			

Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage Collection Time (min)	Spillage (oz.)
0° to 90°	120	300	First 5	0
90° to 180°	115	300	First 5	0
180° to 270°	115	300	First 5	0
270° to 360°	118	300	First 5	0

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PHOTOGRAPHS

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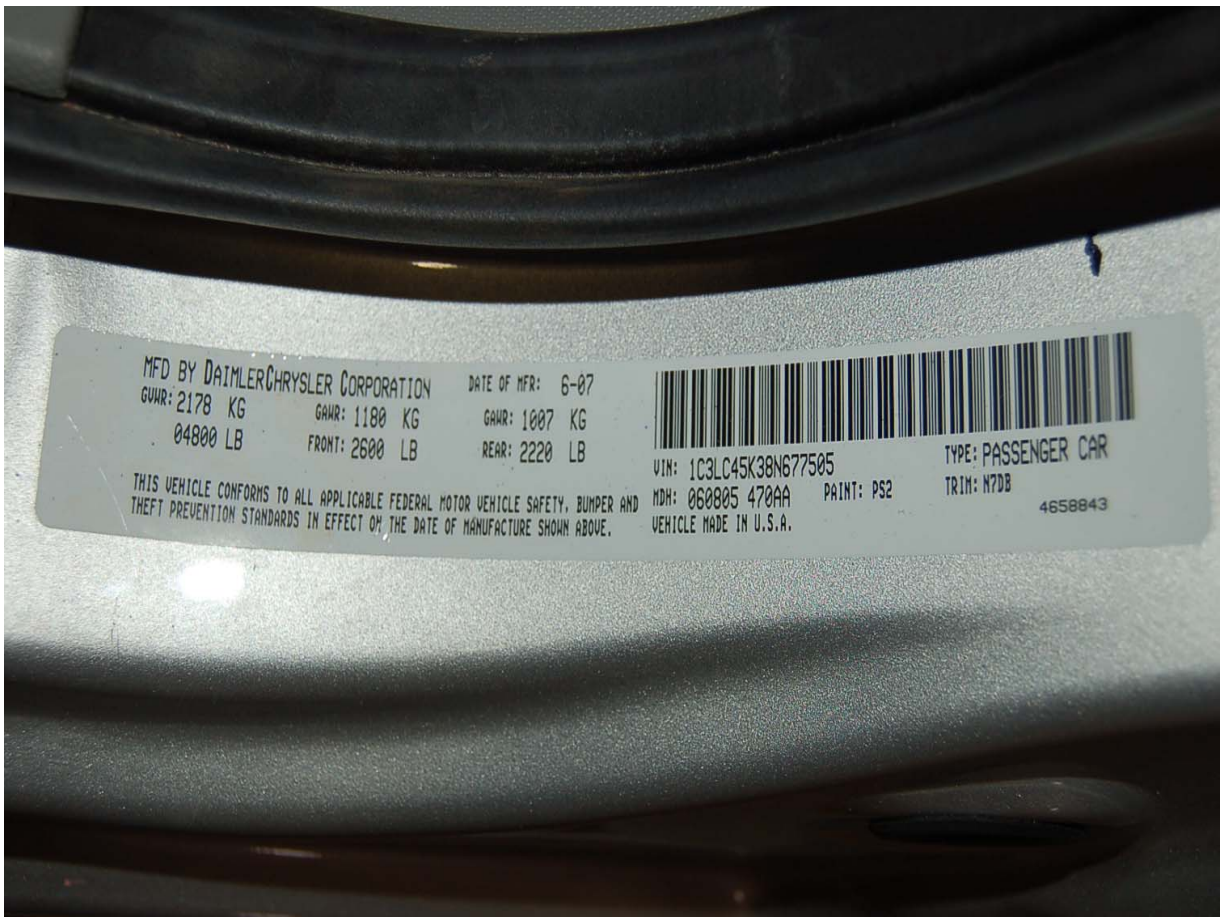
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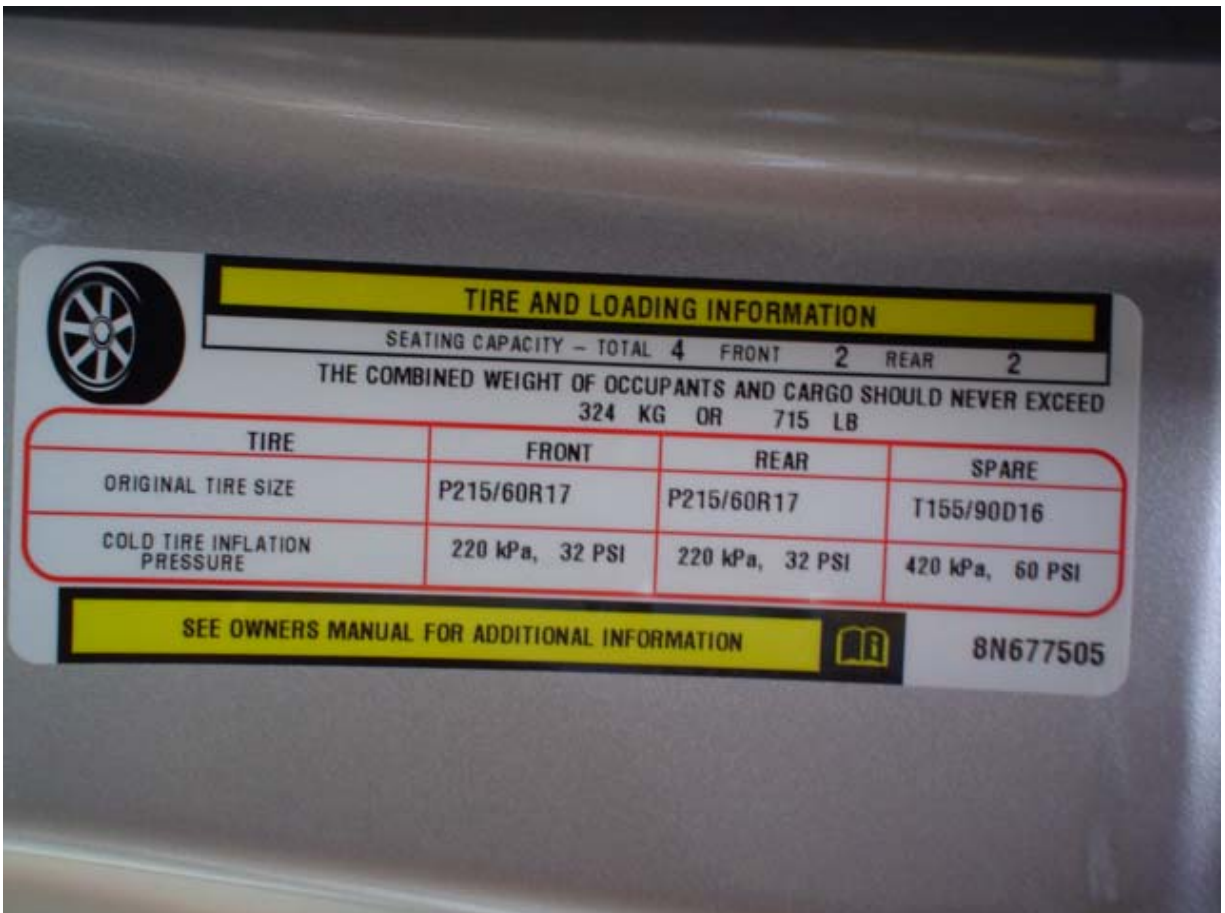
Left Front $\frac{3}{4}$ View, As Received



Right Rear $\frac{3}{4}$ View, As Received



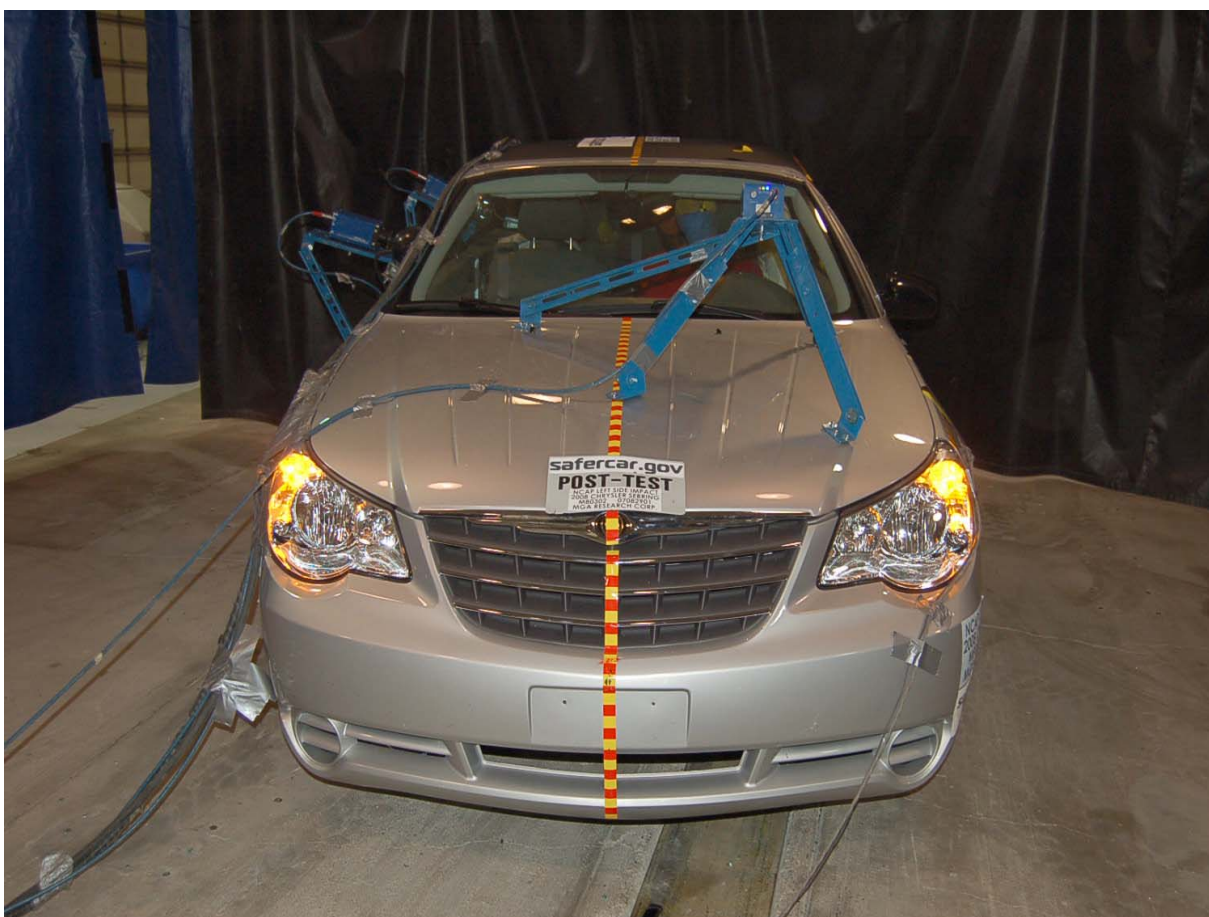
Manufacturer's Label



Tire Placard



Pre-Test Front View



Post-Test Front View



Pre-Test Left Front $\frac{3}{4}$ View



Post-Test Left Front $\frac{3}{4}$ View



Pre-Test Left Side View



Post-Test Left Side View



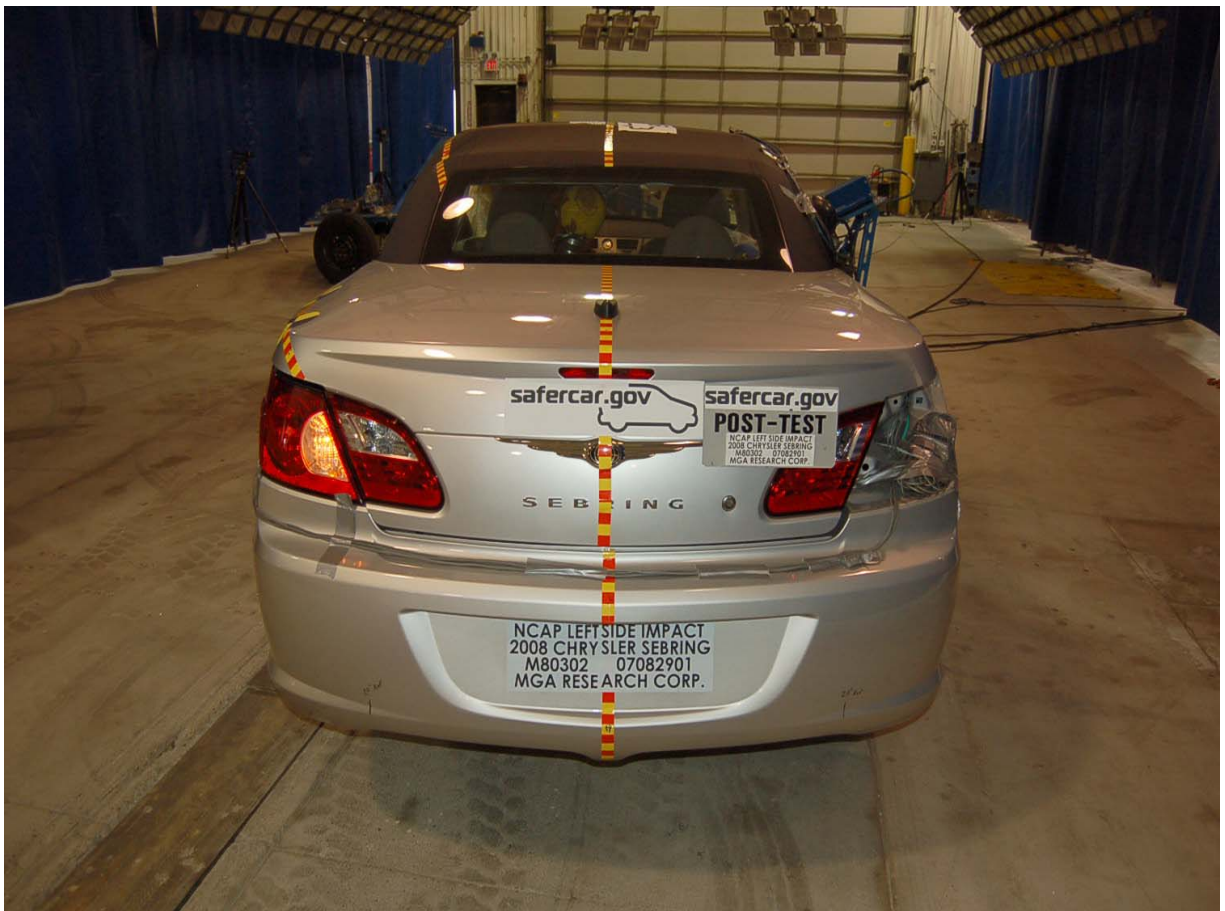
Pre-Test Left Rear $\frac{3}{4}$ View



Post-Test Left Rear $\frac{3}{4}$ View



Pre-Test Rear View



Post-Test Rear View



Post-Test Right Rear $\frac{3}{4}$ View



Pre-Test Right Side View



Post-Test Right Side View



Pre-Test Right Front $\frac{3}{4}$ View



Post-Test Right Front $\frac{3}{4}$ View



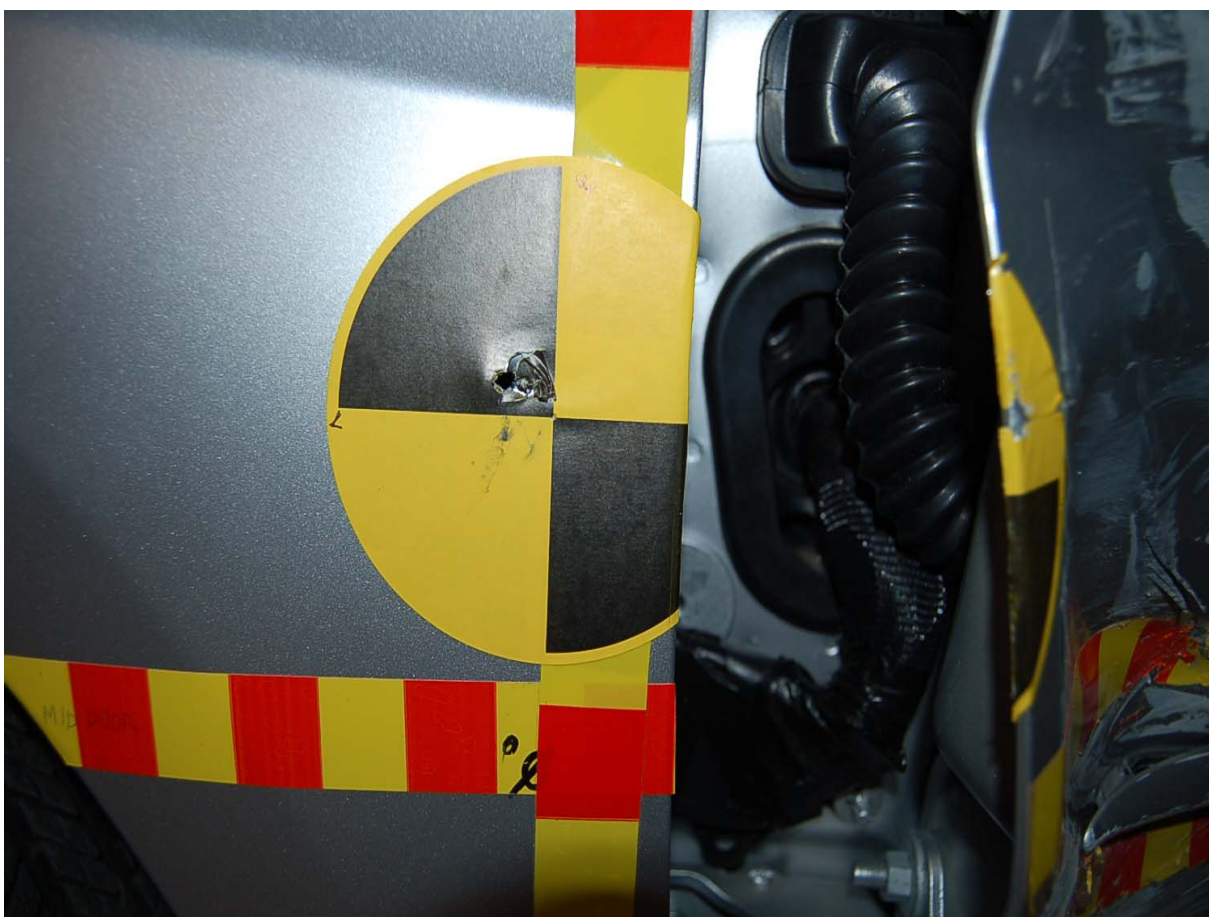
Pre-Test Overhead View



Post-Test Overhead View



Pre-Test Left Impact Point



Post-Test Left Impact Point



Pre-Test Front $\frac{3}{4}$ View of Left Side Doors



Post-Test Front $\frac{3}{4}$ View of Left Side Doors



Pre-Test Rear $\frac{3}{4}$ View of Left Side Doors



Post-Test Rear $\frac{3}{4}$ View of Left Side Doors



Pre-Test Left Side Impact Close-up



Post-Test Left Side Impact Close-up



Pre-Test Driver Dummy (Door Open)



Pre-Test Driver Dummy Clearance From Door



Post-Test Driver Dummy Clearance From Door



Pre-Test Driver Dummy (Through Window)



Post-Test Driver Dummy (Through Window)



Pre-Test Driver Dummy Right Side View



Post-Test Driver Dummy Right Side View



Pre-Test Passenger Dummy Clearance From Door



Post-Test Passenger Dummy Clearance From Door



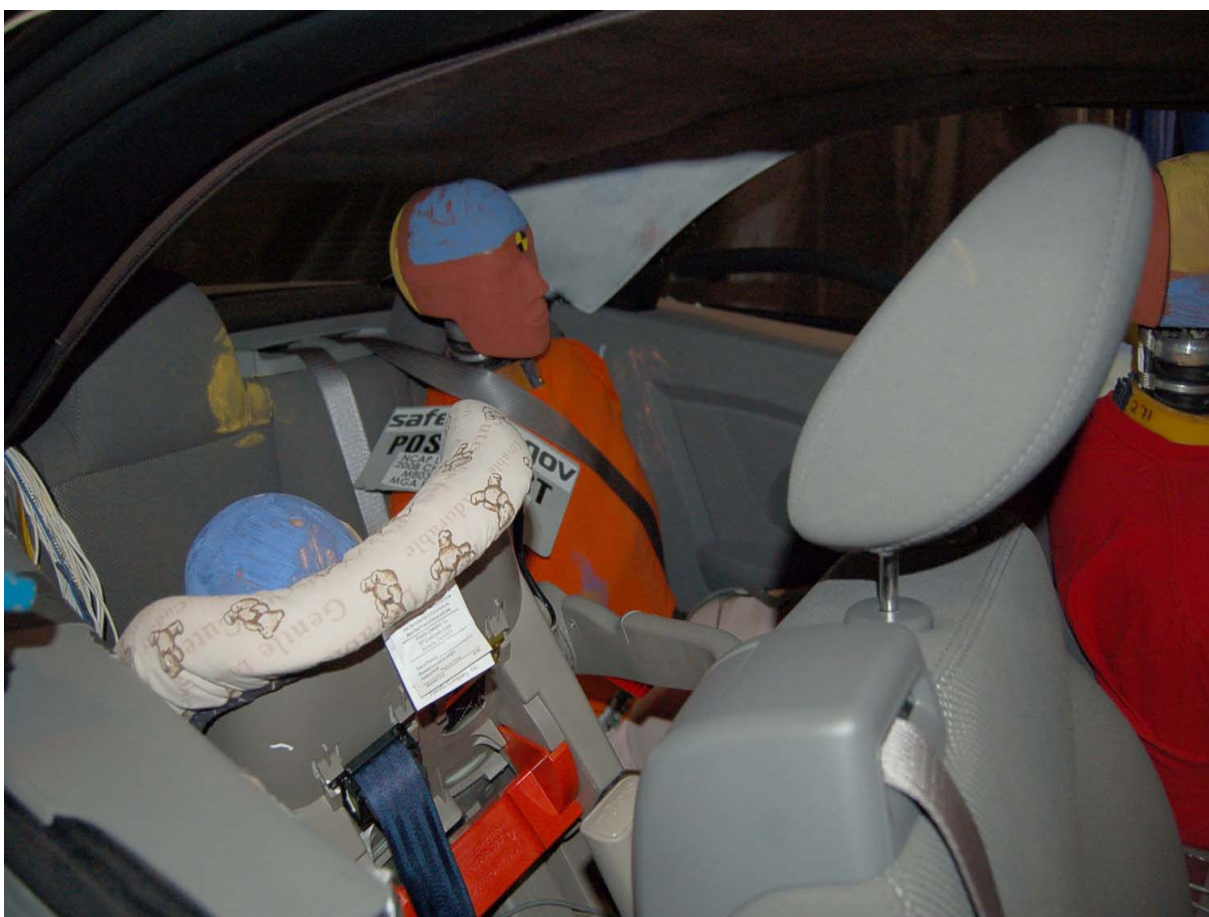
Pre-Test Passenger Dummy (Through Window)



Post-Test Passenger Dummy (Through Window)



Pre-Test Passenger Dummy Right Side View



Post-Test Passenger Dummy Right Side View



Pre-Test Front View of Deformable Barrier



Post-Test Front View of Deformable Barrier



Pre-Test Top View of Deformable Barrier



Post-Test Top View of Deformable Barrier



Pre-Test Right Side View of Deformable Barrier



Post-Test Right Side View of Deformable Barrier



Pre-Test Left Side View of Deformable Barrier



Post-Test Left Side View of Deformable Barrier



Vehicle on Rollover Device (90 Degrees)



Vehicle on Rollover Device (180 Degrees)



Vehicle on Rollover Device (270 Degrees)



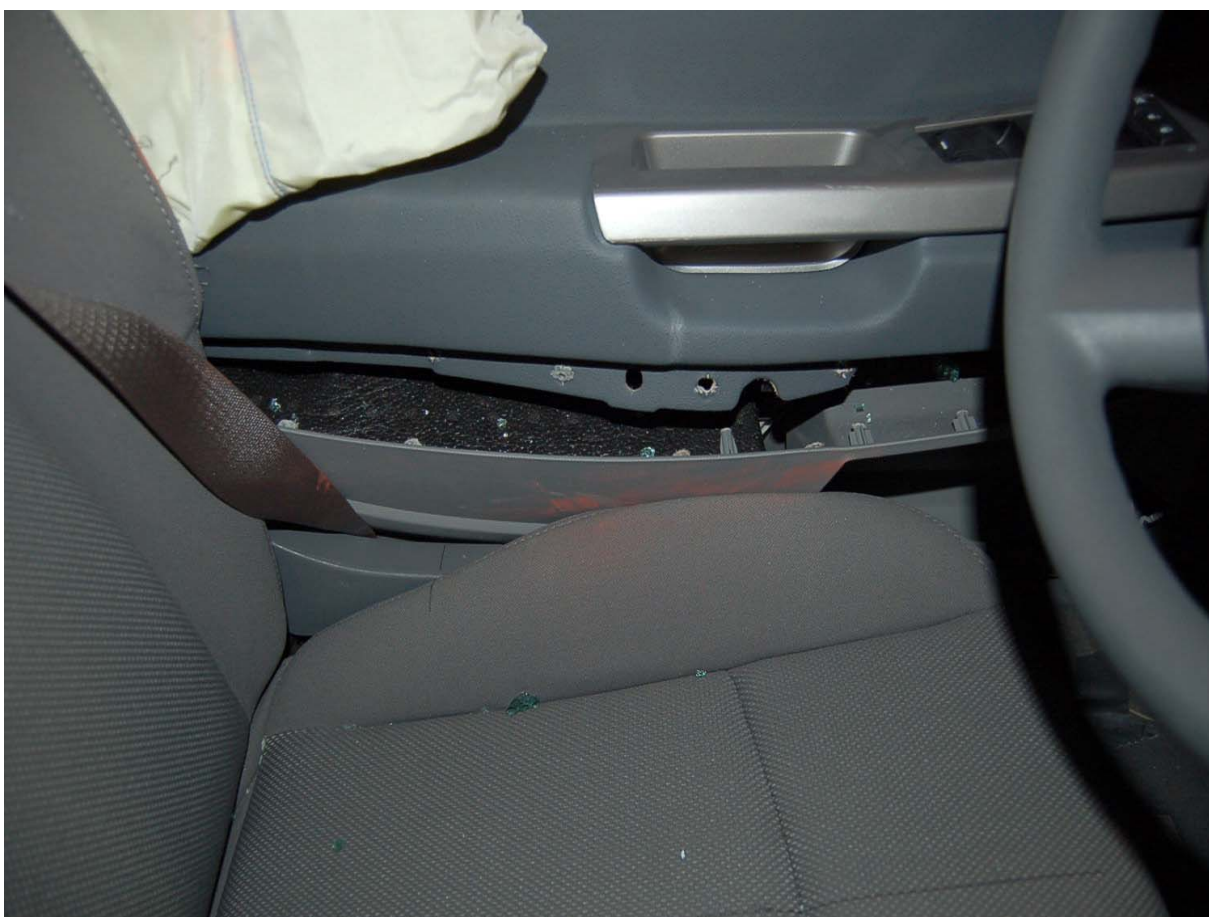
Vehicle on Rollover Device (360 Degrees)



Vehicle Impact



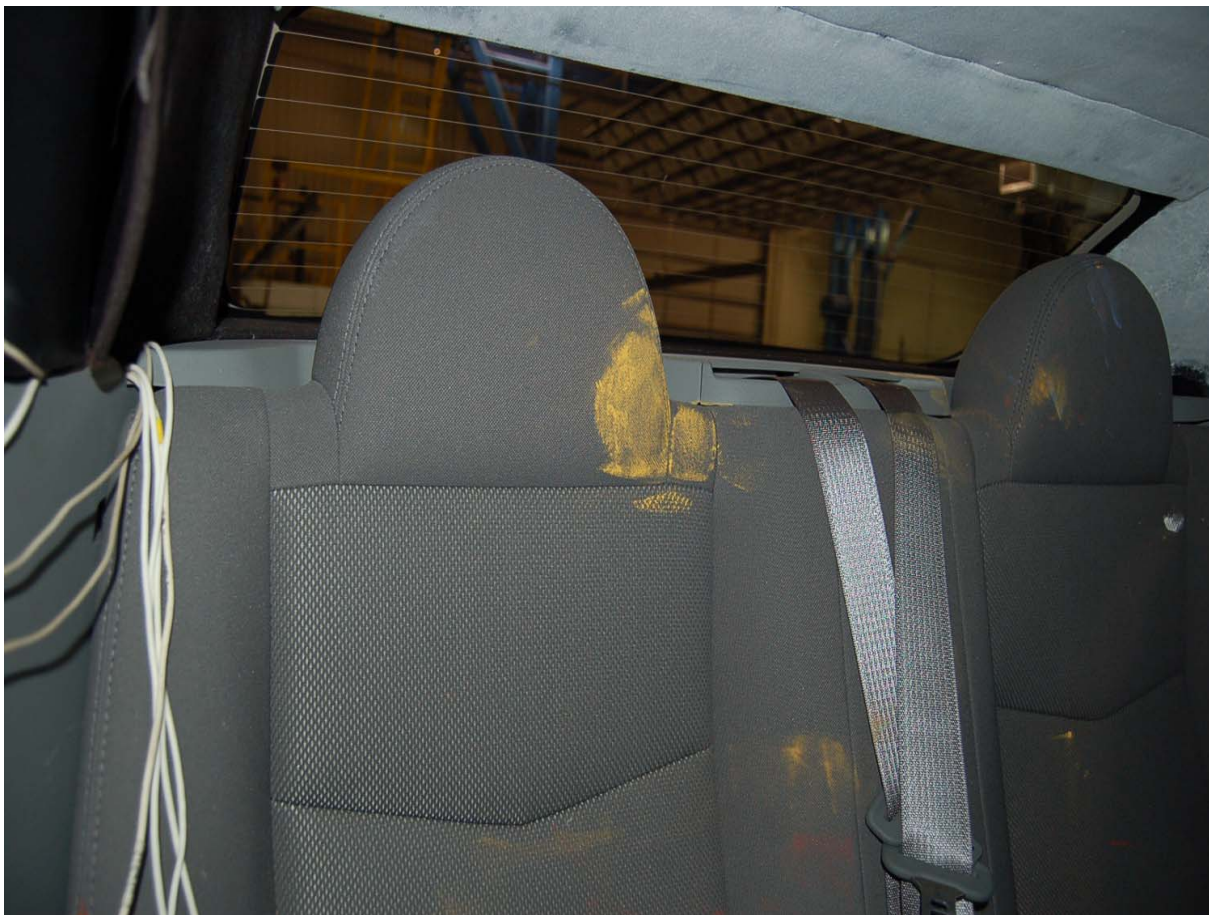
Post-Test Driver Dummy Head Contact



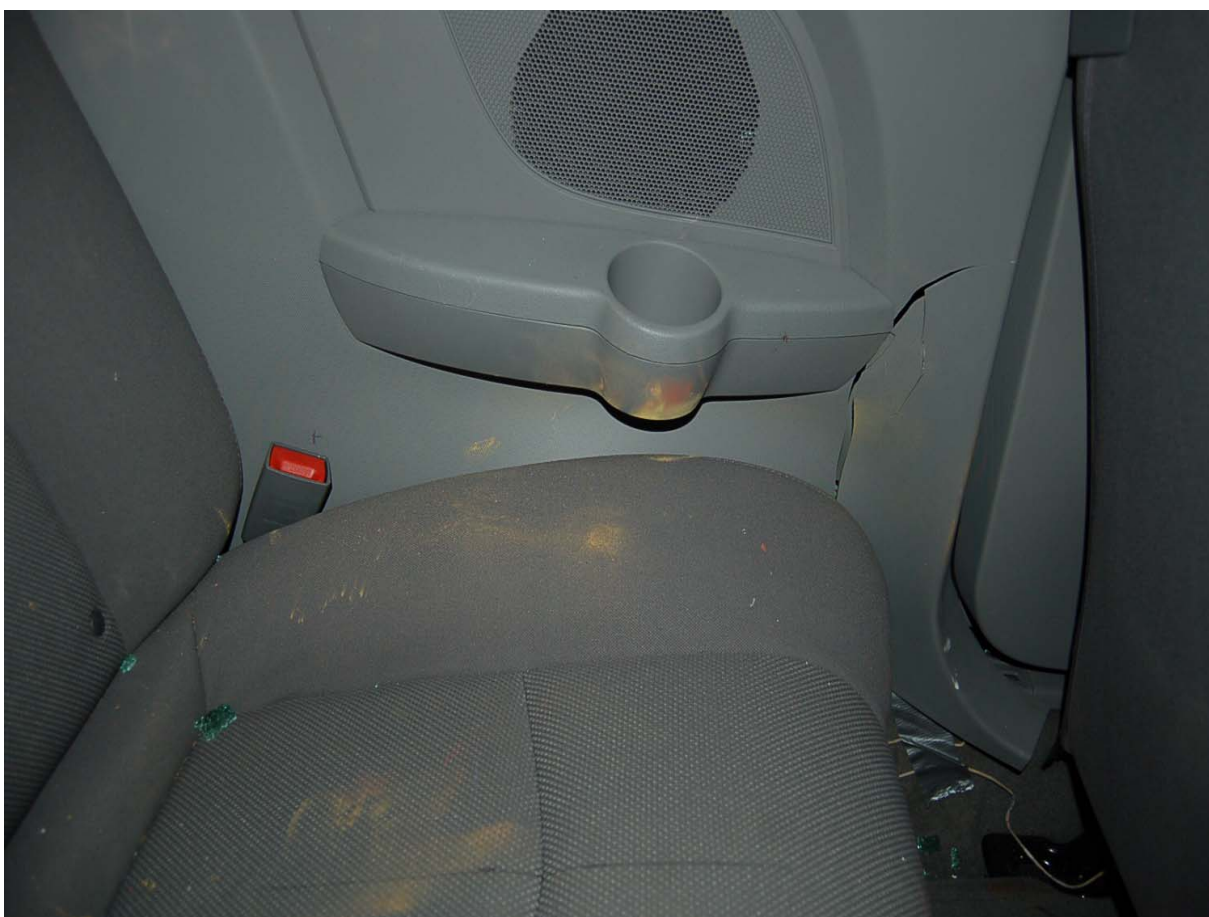
Post-Test Driver Dummy Torso Contact



Post-Test Driver Dummy Contact



Post-Test Passenger Dummy Head Contact



Post-Test Passenger Dummy Torso Contact



Post-Test Passenger Dummy Contact

APPENDIX B
SID/HIII RESPONSE DATA TRACES

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The following dummy and vehicle response data can be found in the R&D section of the NHTSA website at www.nhtsa.dot.gov

Driver Head X Primary

Driver Head Y Primary

Driver Head Z Primary

Driver Head X Redundant

Driver Head Y Redundant

Driver Head Z Redundant

Driver Upper Neck Force X

Driver Upper Neck Force Y

Driver Upper Neck Force Z

Driver Upper Neck Moment X

Driver Upper Neck Moment Y
Driver Upper Neck Moment Z
Driver Upper Rib Redundant Y
Driver Lower Rib Redundant Y
Driver Lower Spine Redundant Y
Driver Pelvis Redundant Y
Driver Thorax Contact
Driver Pelvis Contact
Passenger Head X Primary
Passenger Head Y Primary
Passenger Head Z Primary
Passenger Head X Redundant
Passenger Head Y Redundant
Passenger Head Z Redundant
Passenger Upper Neck Force X
Passenger Upper Neck Force Y
Passenger Upper Neck Force Z
Passenger Upper Neck Moment X
Passenger Upper Neck Moment Y
Passenger Upper Neck Moment Z
Passenger Upper Rib Redundant Y
Passenger Lower Rib Redundant Y
Passenger Lower Spine Redundant Y
Passenger Pelvis Redundant Y
Passenger Thorax Contact
Passenger Pelvis Contact
Vehicle Right Sill at Front Seat X
Vehicle Right Sill at Front Seat Y
Vehicle Right Sill at Front Seat Z
Vehicle Right Sill at Rear Seat X
Vehicle Right Sill at Rear Seat Y
Vehicle Right Sill at Rear Seat Z

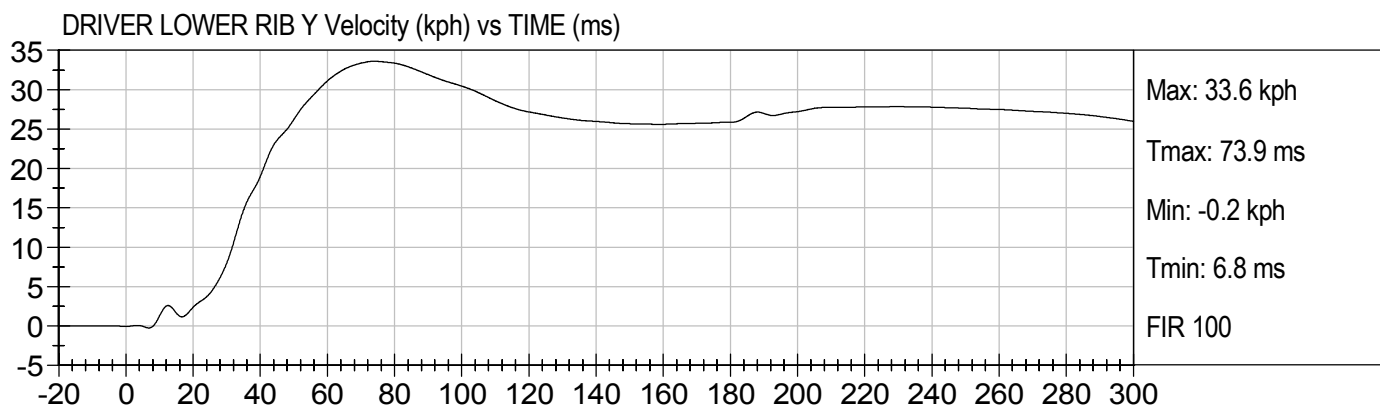
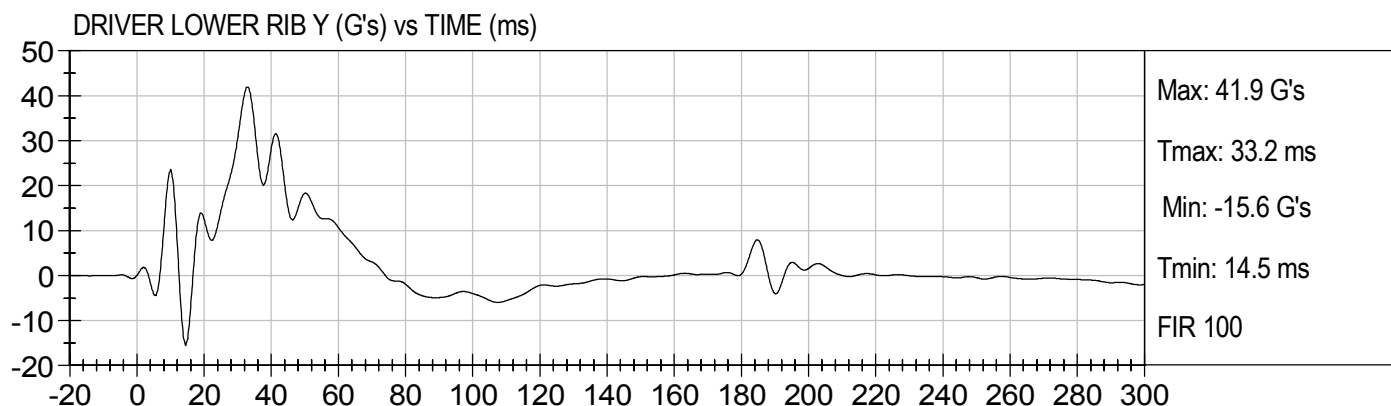
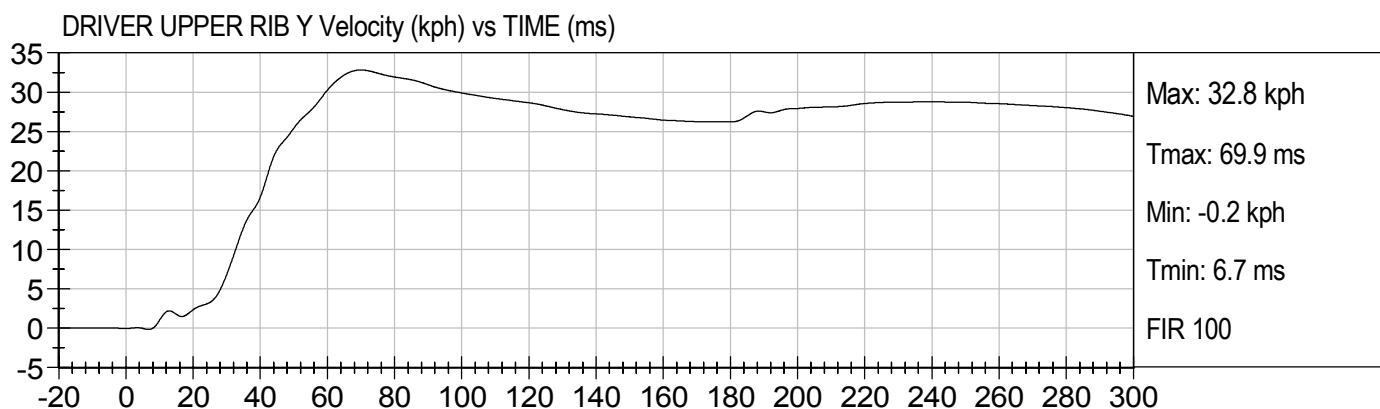
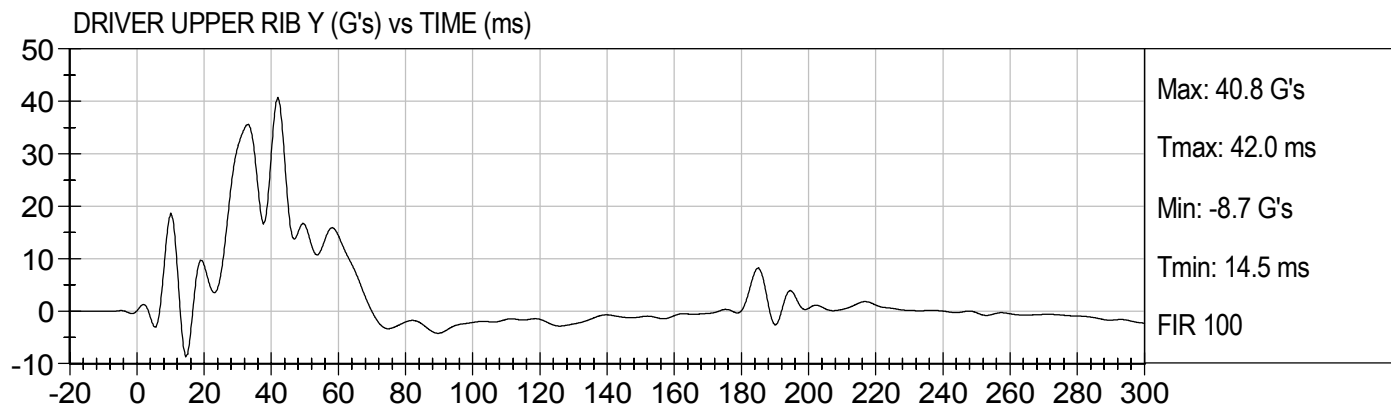
Vehicle Rear Floor Above Axle X
Vehicle Rear Floor Above Axle Y
Vehicle Rear Floor Above Axle Z
Vehicle Left Sill at Rear Door Y
Vehicle Left Sill at Front Door Y
Vehicle Right Rear Occupant Compartment
Vehicle B-Post Lower Y
Vehicle B-Post Middle Y
Vehicle A-Post Lower Y
Vehicle A-Post Middle Y
Vehicle Left Front Seat Track
Vehicle Left Rear Seat Track
Vehicle CG X
Vehicle CG Y
Vehicle CG Z
MDB CG X
MDB CG Y
MDB CG Z
MDB Rear X
MDB Rear Y
MDB Left Bumper Contact
MDB Right Bumper Contact



NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)

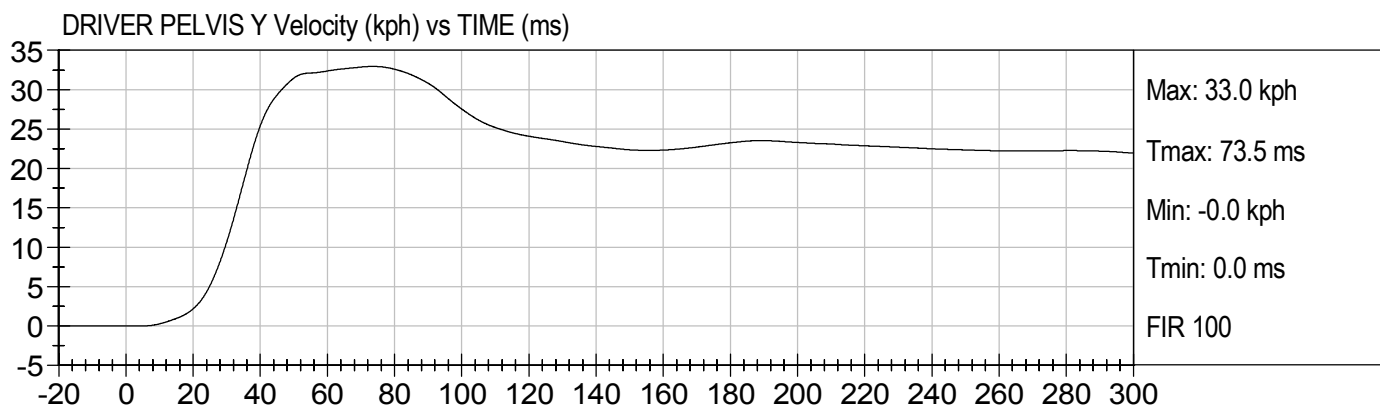
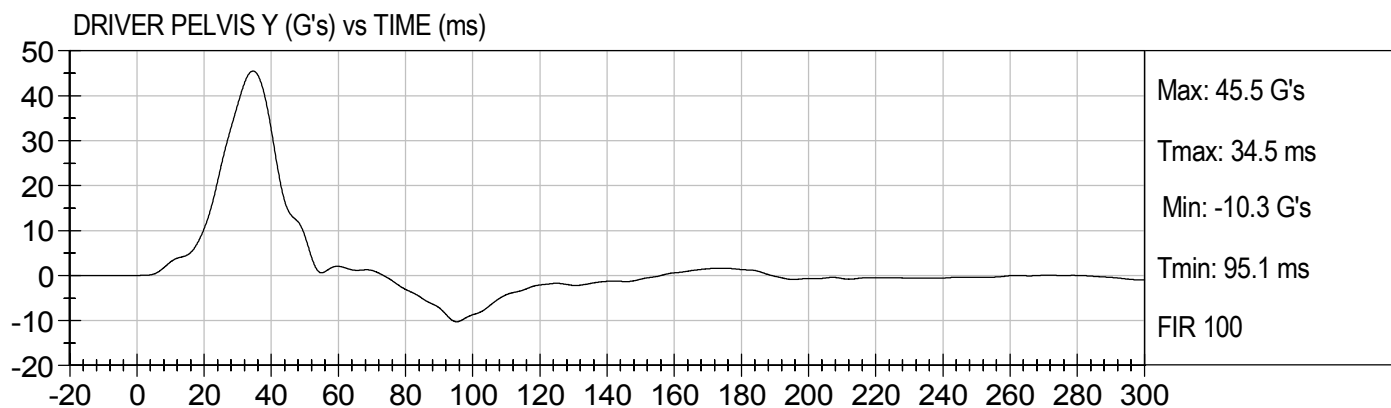
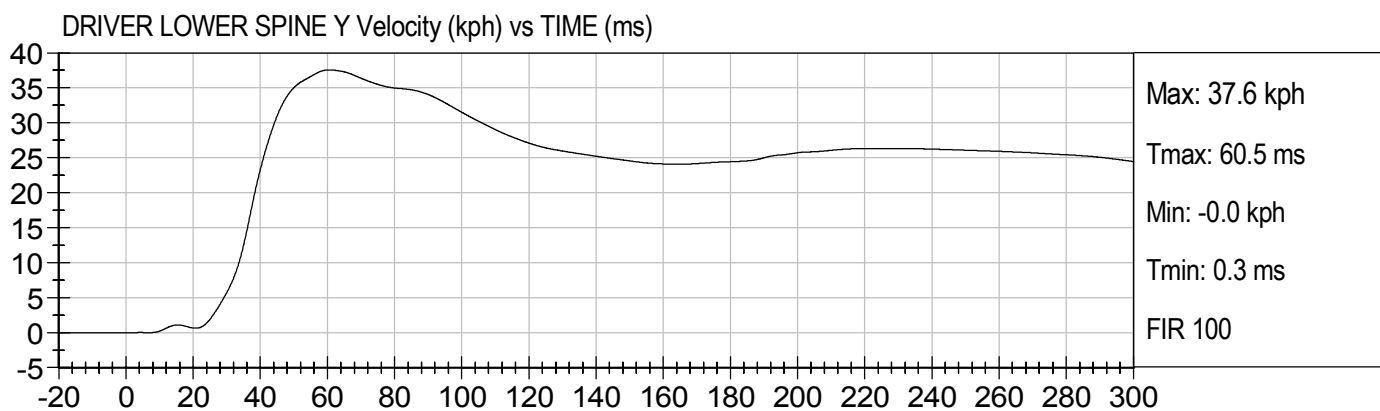
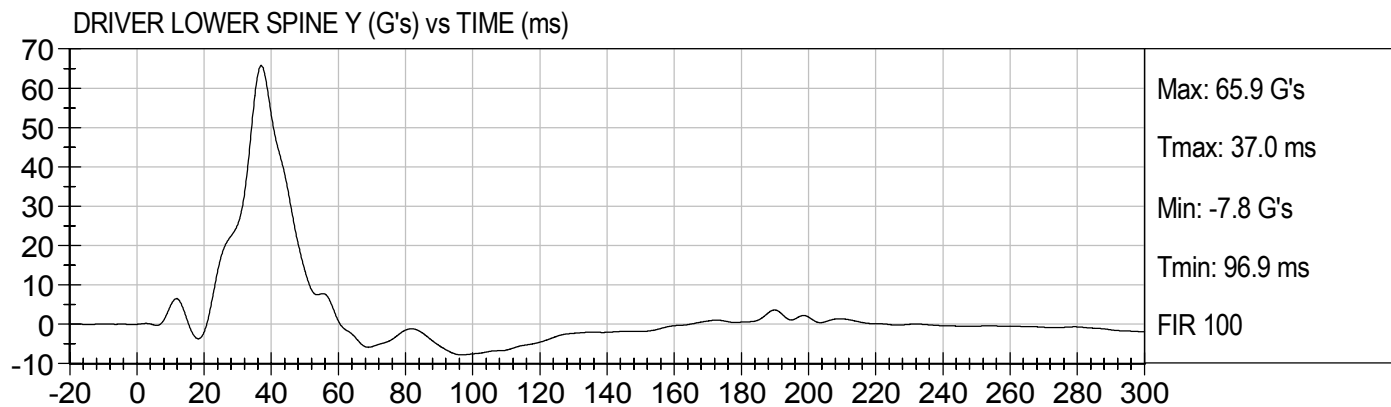




NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)

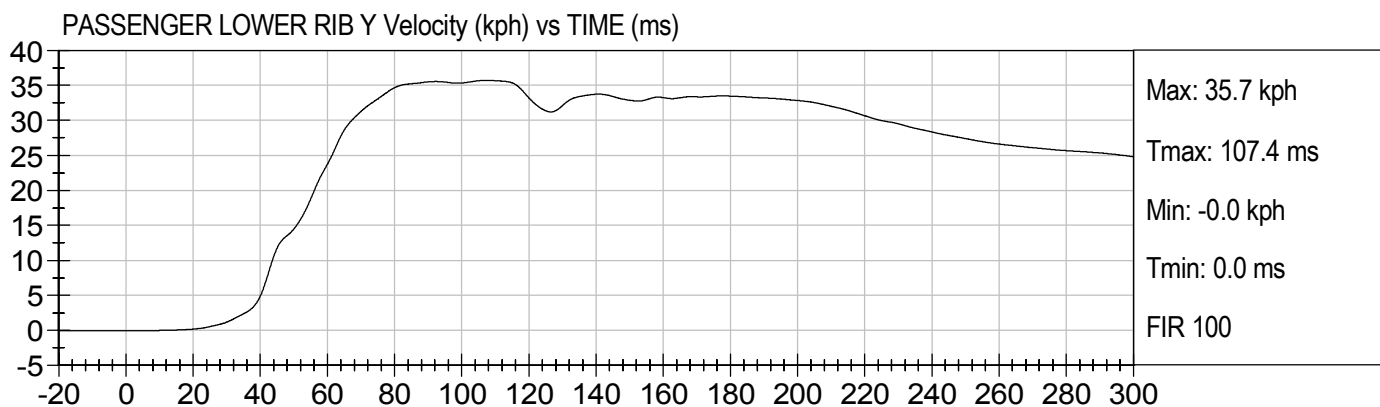
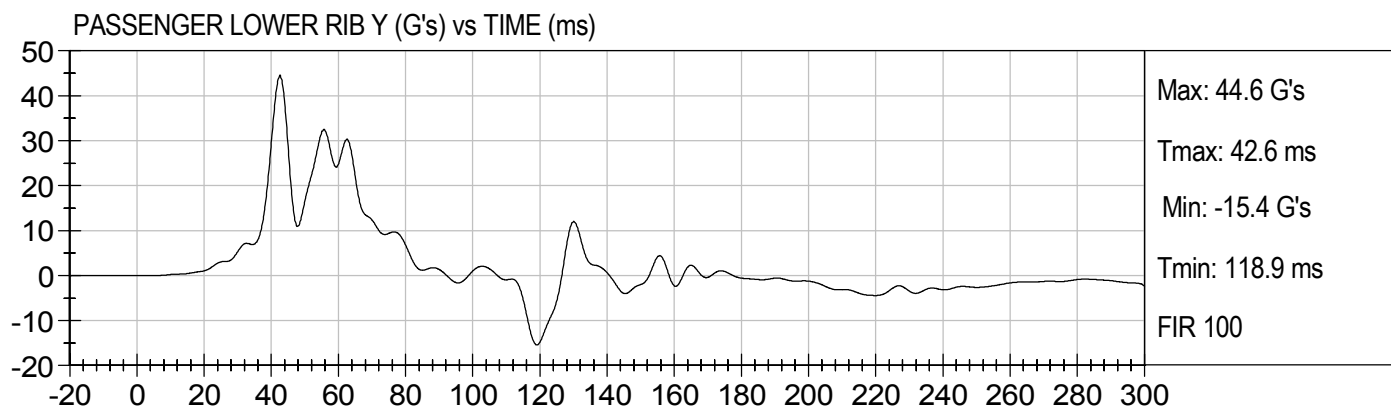
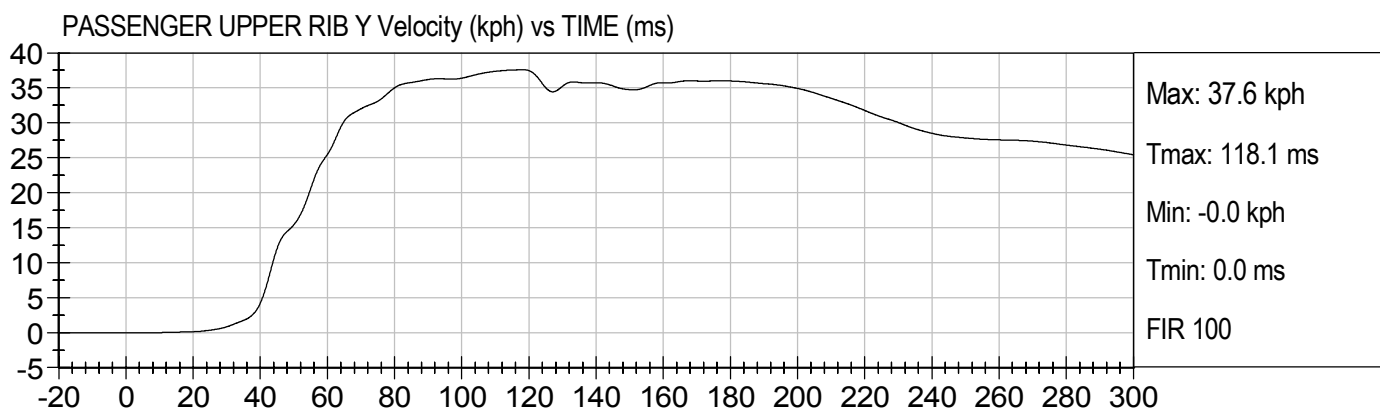
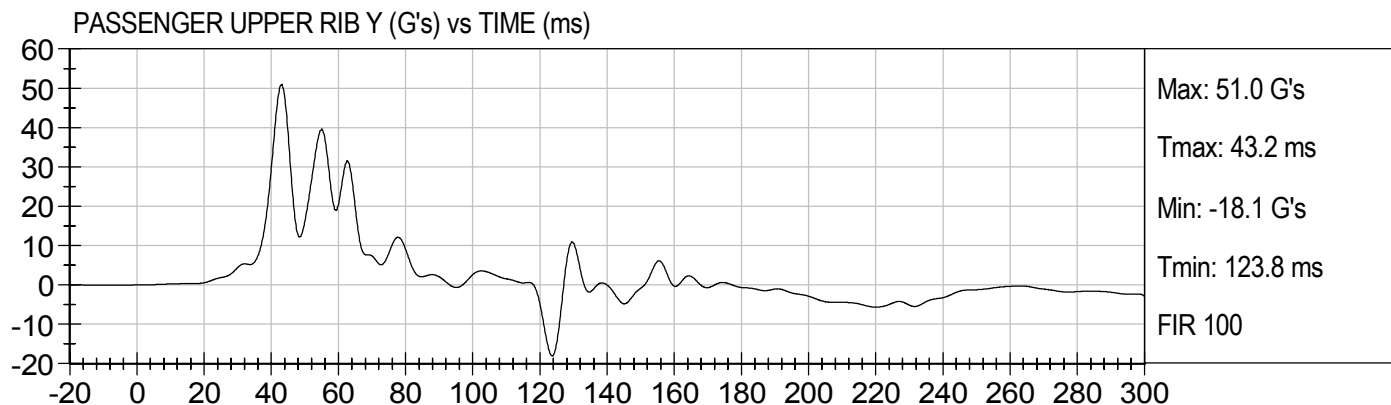




NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)

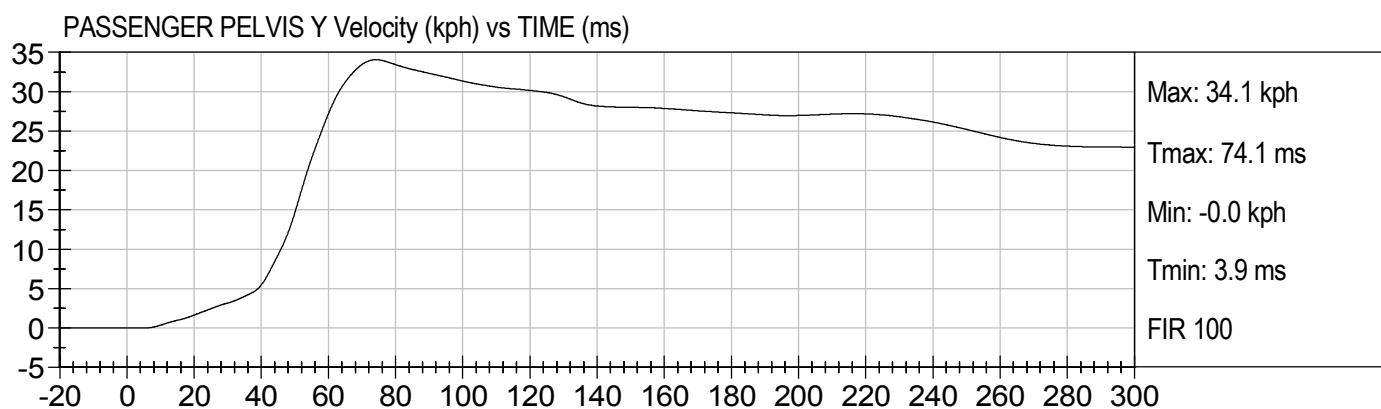
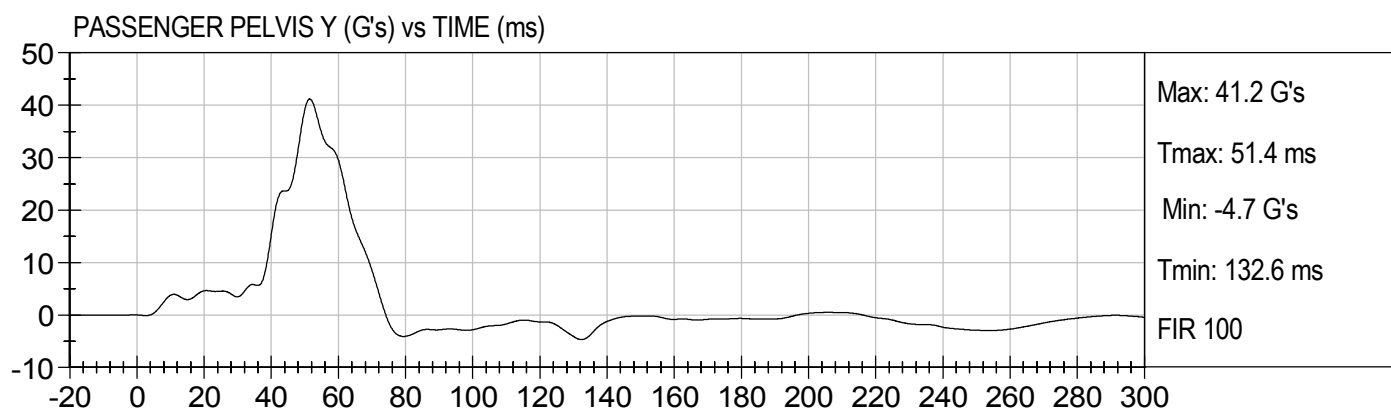
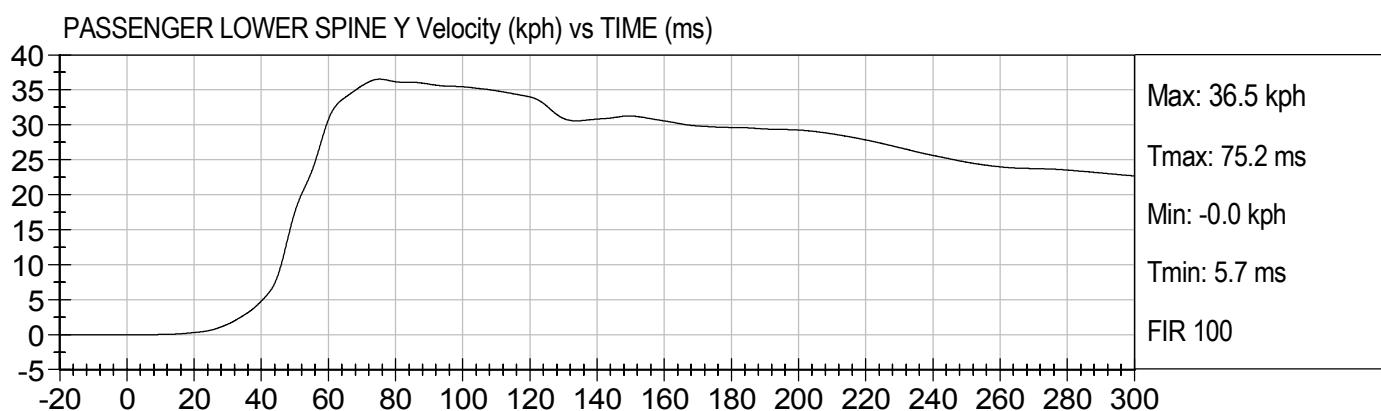
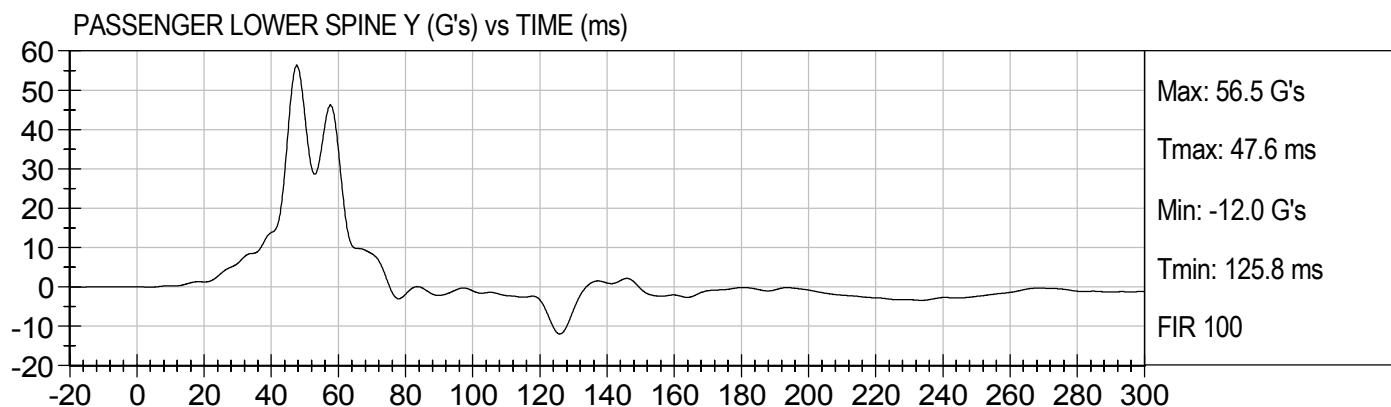




NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)



APPENDIX C
DUMMY CALIBRATION DATA

CERTIFICATION DATA

Dummy Serial Number: 271

Calibration Test Results Summary

Dummy Serial Number: 271

Pre-Test Calibration

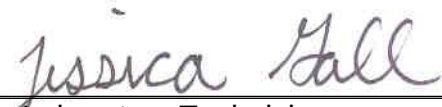
External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all pendulum test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SID Calibration Data Sheet
Side Impact Dummy
External Measurements

ATD Serial No: 271

Test I.D: D07145

Tested Parameter	Units	Specification	Result	Pass/Fail
SH - Seated Height	mm	889 - 909	905	Pass
RH - Rib Height	mm	501 - 521	502	Pass
HP - Hip Pivot Height	mm	99 ref.	99	Pass
RD - Rib from Back Line	mm	229 - 241	239	Pass
KV - Knee Pivot to Back Line	mm	511 - 526	526	Pass
SW - Knee Pivot to Floor	mm	490 - 505	497	Pass
HW - Hip Width	mm	356 - 391	371	Pass
Overall Test Results			Pass	


Laboratory Technician


Approved By

5/23/2007
Test Date

SID/HIII Calibration Data Sheet
Side Impact Dummy
Head Drop Calibration (Lateral)

ATD Serial No: 271

Test I.D: D071451

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	20.7	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Peak Resultant Acceleration	G's	120 to 150	140	Pass
Is Resultant Curve Unimodal?	Yes/No	15% of peak	Yes	Pass
Peak Longitudnal Acceleration	G's	+/- 15	-14.1	Pass
Overall Test Results				Pass

Jessica Gall
Laboratory Technician

5/23/07
Test Date

David Winkelbauer
Approved By



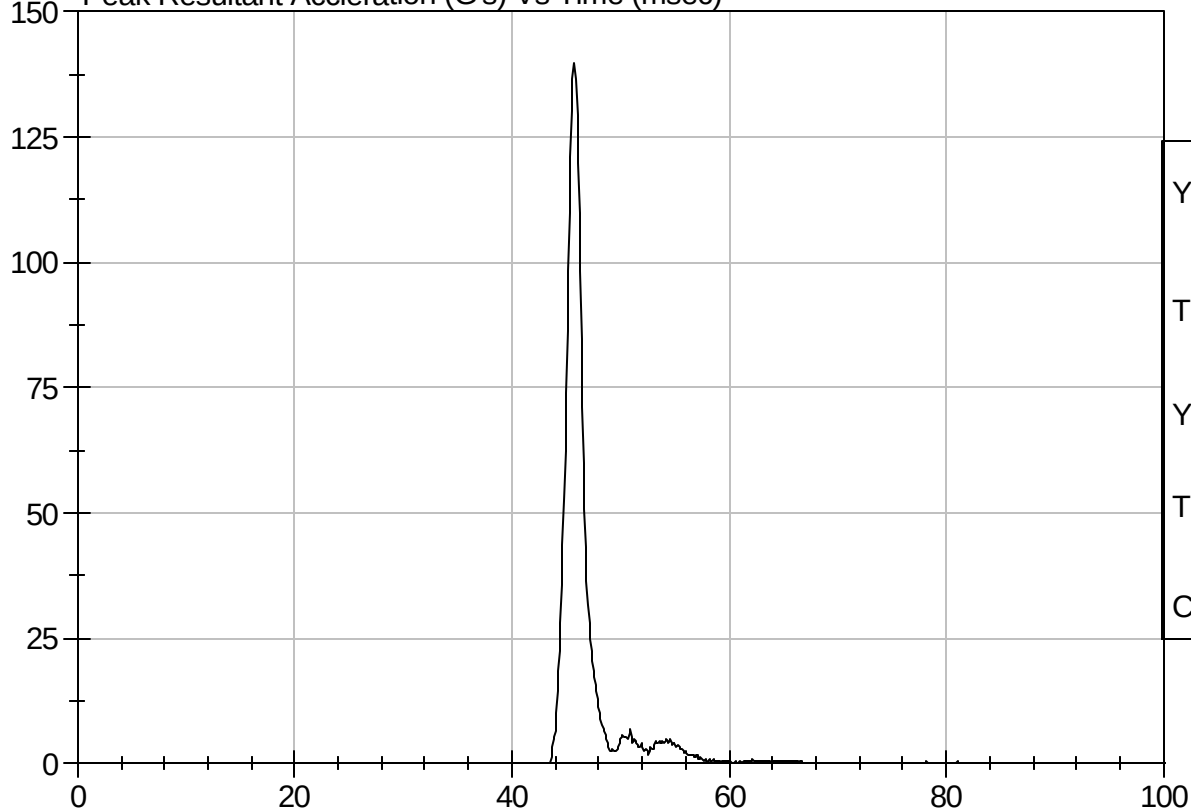
Test Description: Head Drop

Test Date: 5/23/07

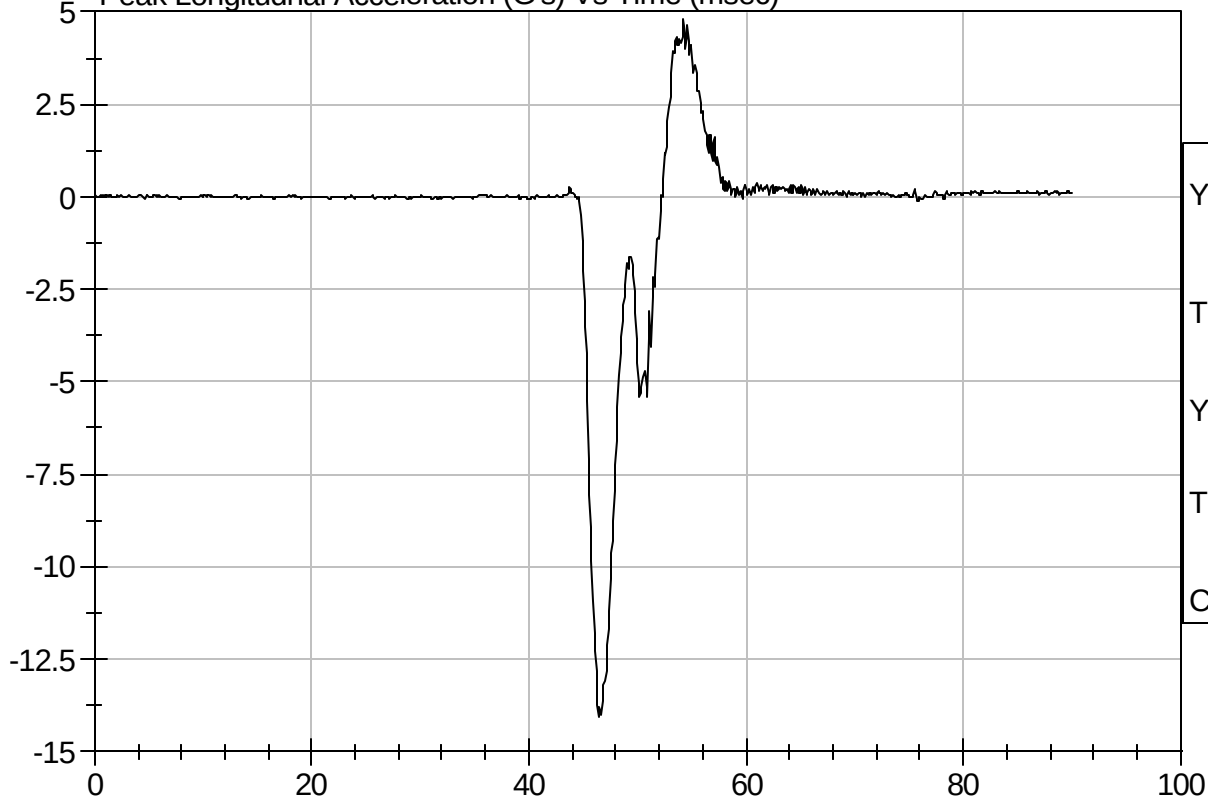
Component: D071451

Speed: 0 ft/s, 0 m/s

Peak Resultant Acceleration (G's) Vs Time (msec)



Peak Longitudinal Acceleration (G's) Vs Time (msec)

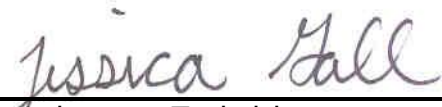


SID/HIII Calibration Data Sheet
Side Impact Dummy
Thorax Impact Test

ATD Serial No: 271

Test I.D: D071452

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.4	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.22 - 4.31	4.23	Pass
Upper Rib	G's	37 - 46	46	Pass
Lower Rib	G's	37 - 46	44	Pass
Lower Spine	G's	15 - 22	20	Pass
Overall Test Results				Pass


Laboratory Technician

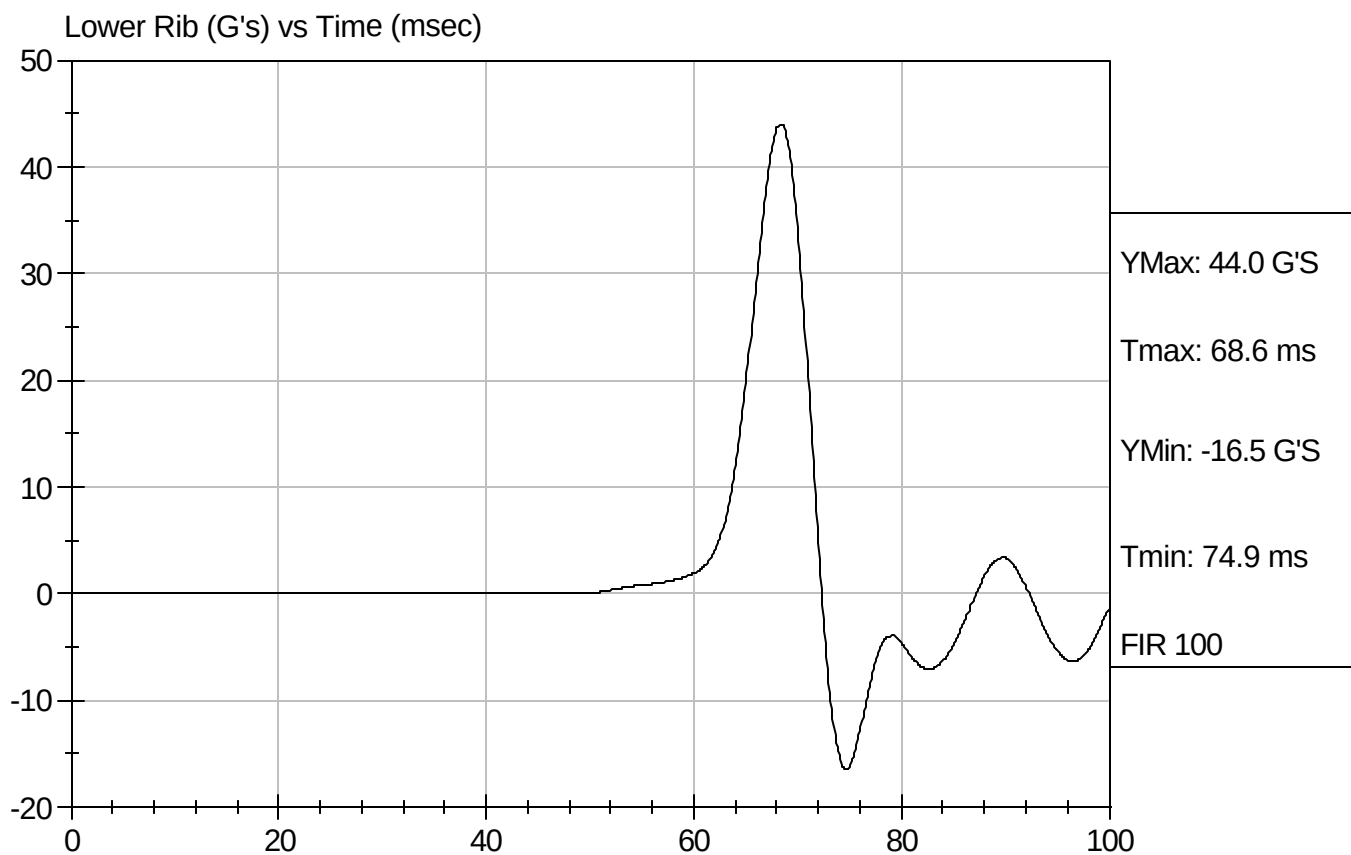
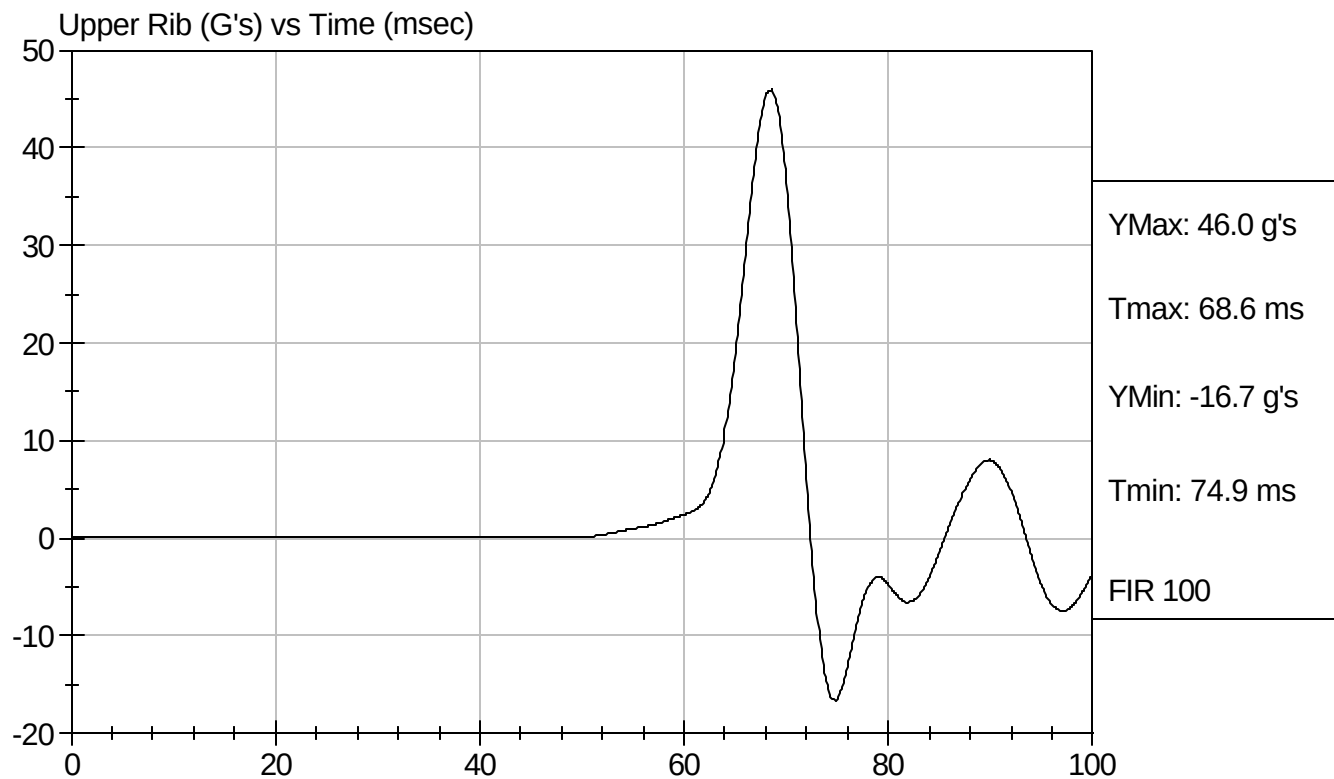
5/23/07
Test Date


Approved By



Test Desc: Thorax Impact
Component ID: D071452

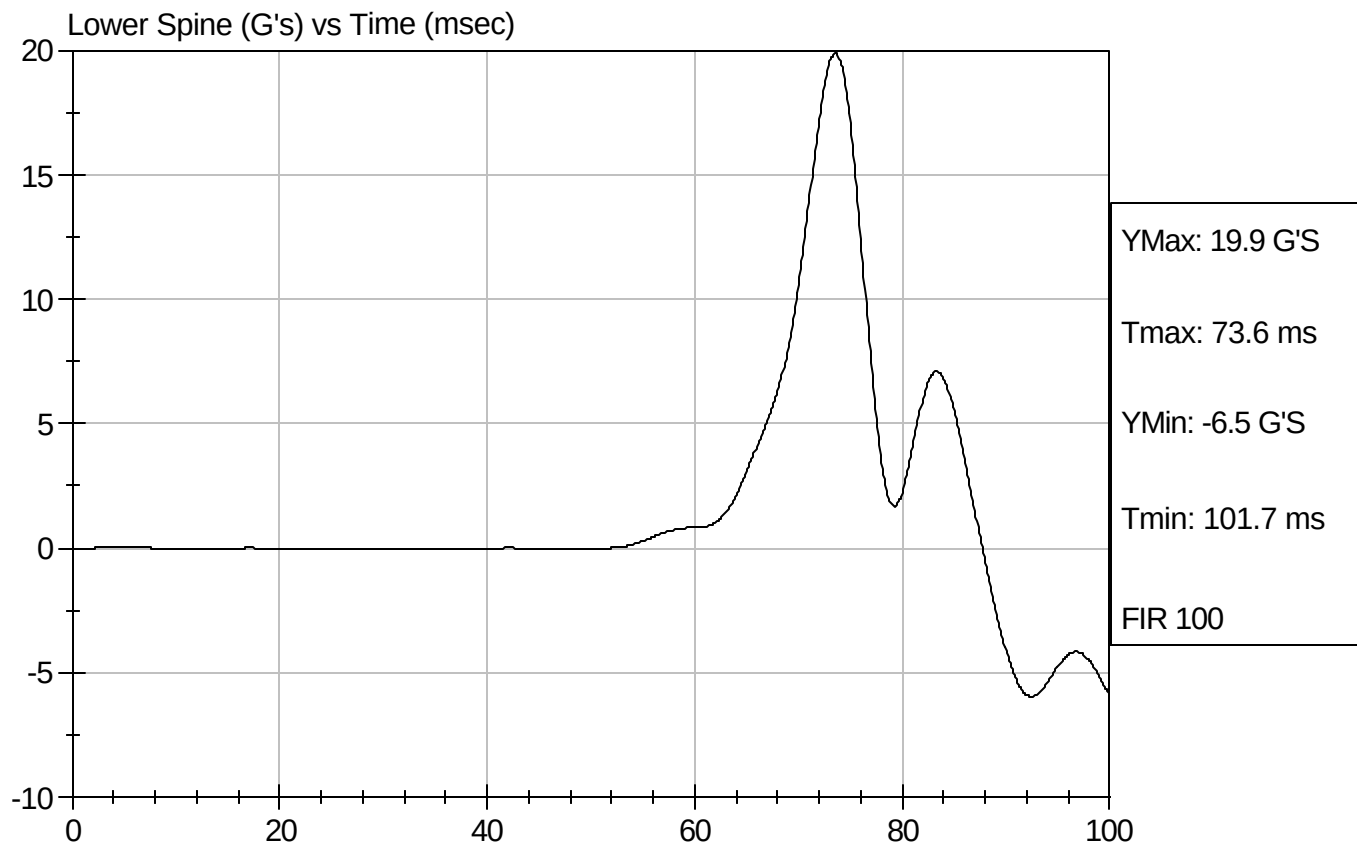
Test Date: 5/23/07
Speed: 13.89 ft/sec, 4.23 m/sec





Test Desc: Thorax Impact
Component ID: D071452

Test Date: 5/23/07
Speed: 13.89 ft/sec, 4.23 m/sec



SID/HIII Calibration Data Sheet
Side Impact Dummy
Pelvis Impact Test

ATD Serial No: 271

Test I.D: D071453

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	21.4	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.27 - 4.33	4.32	Pass
Pelvis Acceleration	G's	40 - 60	45	Pass
Overall Test Results			Pass	

Jessica Gall
Laboratory Technician

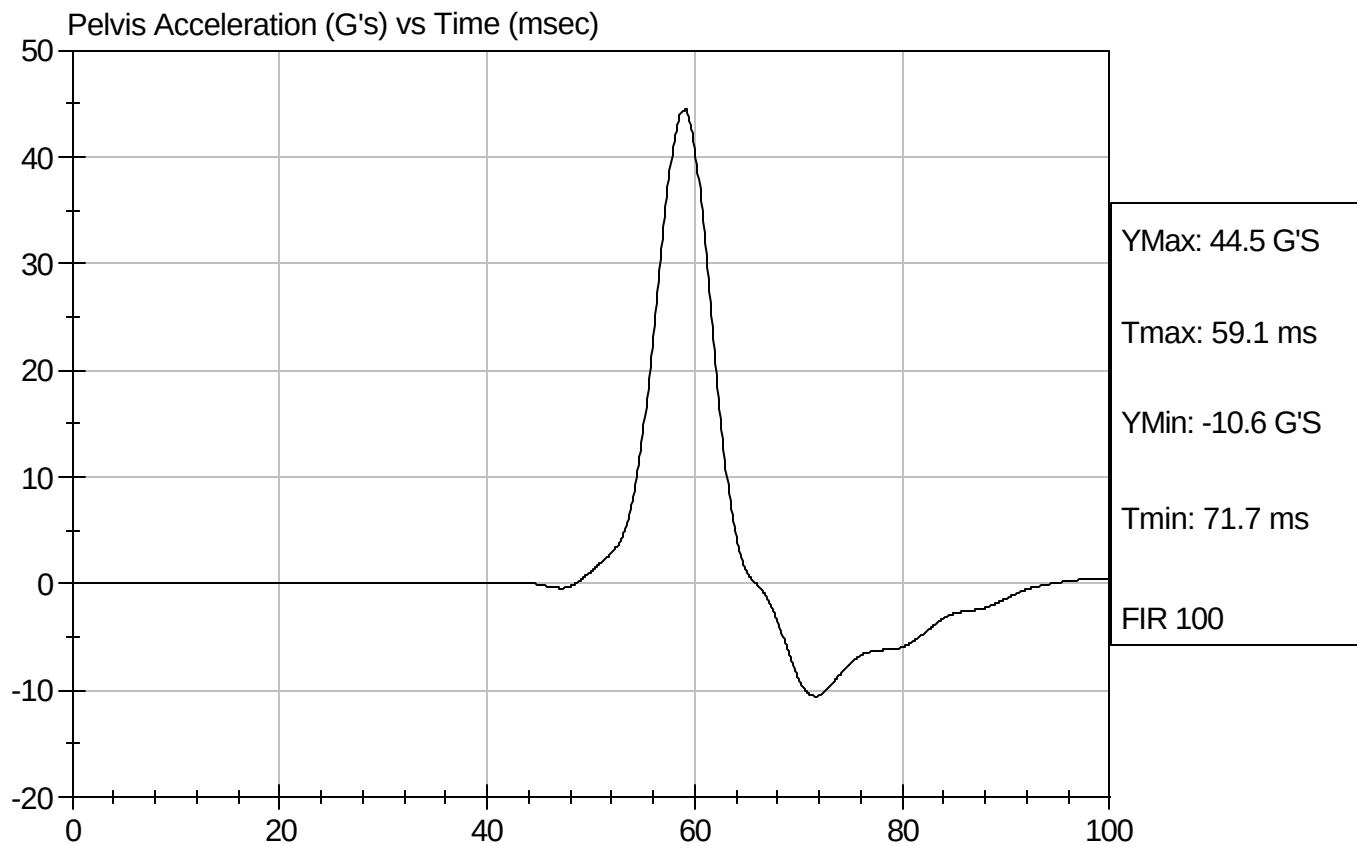
5/23/07
Test Date

David Winkelbauer
Approved By



Test Desc: Pelvis Impact
Component ID: D071453

Test Date: 5/23/07
Speed: 14.18 ft/sec, 4.32 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Abdominal Compression Calibration (Pre-Load = 10 lbs)

ATD Serial No: 271

Test I.D.: D071454

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Force At 12.7 mm	N	104 -162	147	Pass
Force At 19 mm	N	163 - 222	208	Pass
Force At 25.4 mm	N	222 - 280	279	Pass
Force At 33 mm	N	325 - 391	385	Pass
Overall Test Results				Pass

Jessica Hall
Laboratory Technician

5/23/07
Test Date

David Winkelbauer
Approved By

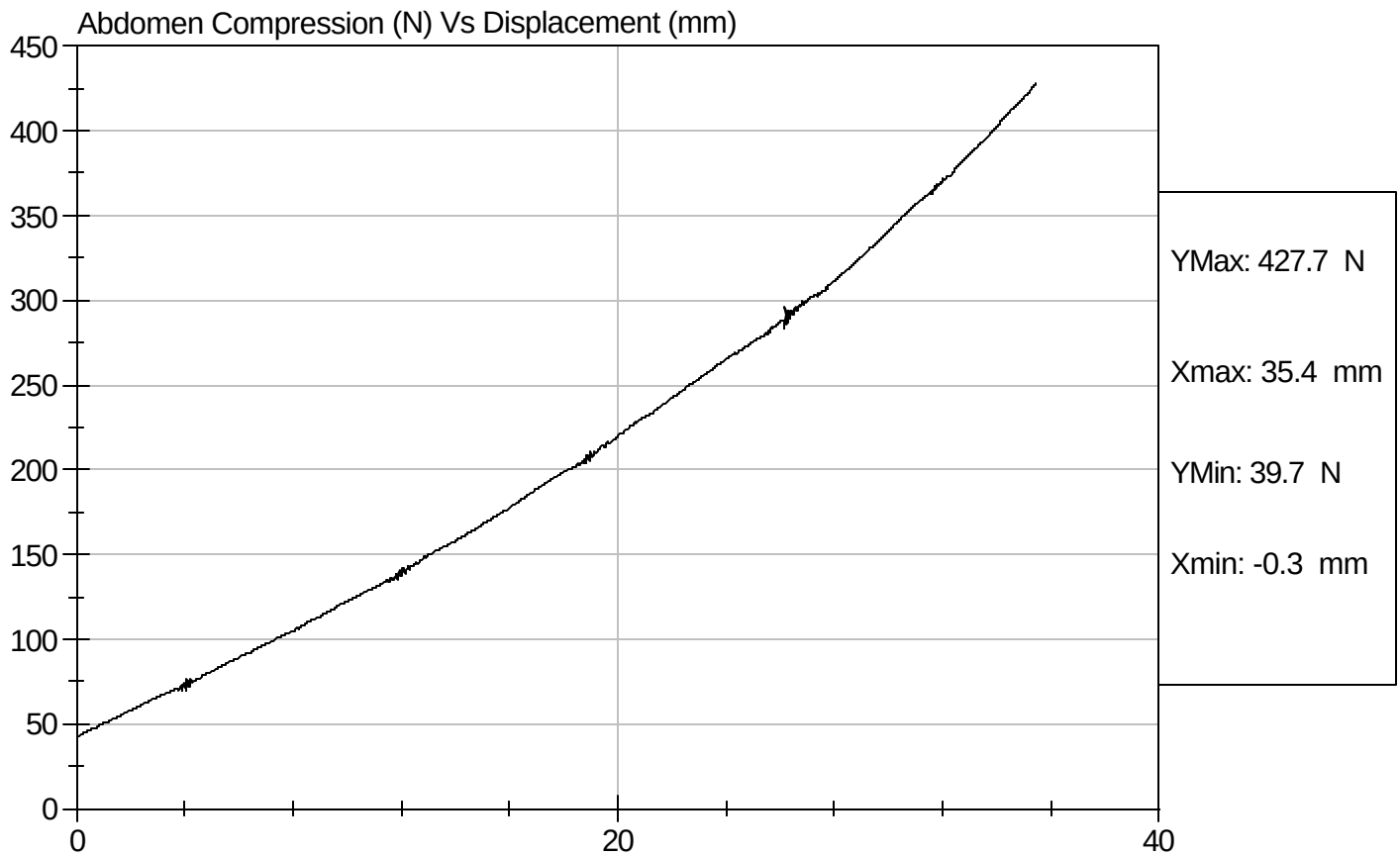


Test Description: Abdomen Compression

Test Date: 5/23/07

Component: D071454

Speed: 0 ft/sec, 0 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Lumbar Flexion Calibration

ATD Serial No: 271

Test I.D: D071455

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	46	Pass
Force At 0 deg	N	0 - 26.7	0	Pass
Force At 20 deg	N	97.9 - 151.2	132.1	Pass
Force At 30 deg	N	151.2 - 204.6	192.9	Pass
Force At 40 deg	N	204.6 - 258.0	248.5	Pass
Return Angle	Deg	12 Maximum	4	Pass
Overall Test Results			Pass	

Jessica Hall
Laboratory Technician

5/23/07
Test Date

David Winkelbauer
Approved By

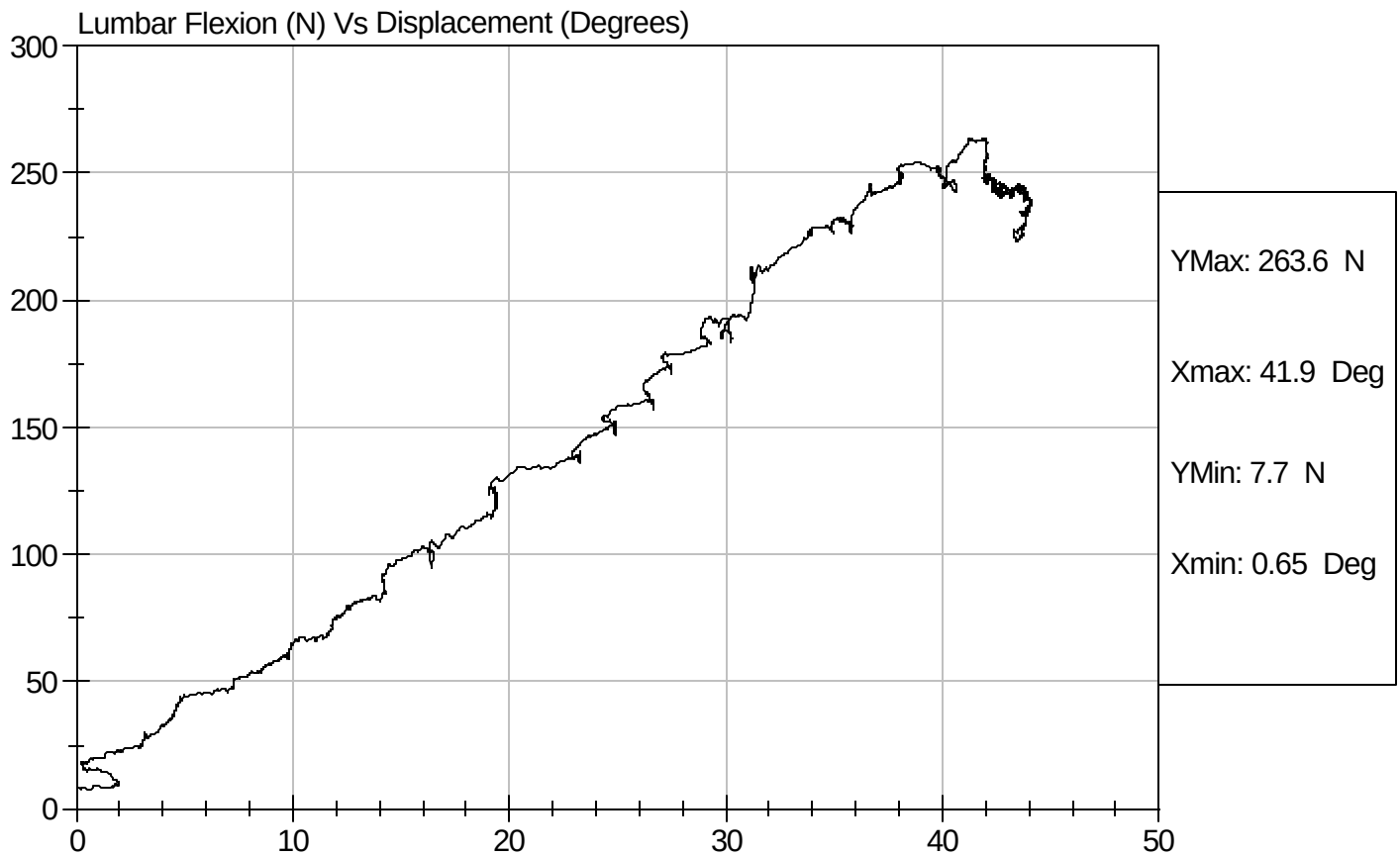


Test Description: Lumbar Flexion

Test Date: 5/23/07

Component: D071455

Speed: 0 ft/sec, 0 m/sec

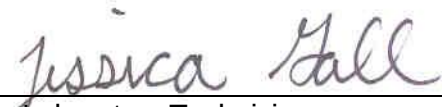


SID/HIII Calibration Data Sheet
Side Impact Dummy (SID)
Neck Pendulum Test

ATD Serial No: 271

Test I.D: D071459

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		deg C	20.6 to 22.2	21.2	Pass
Laboratory Relative Humidity		%	10 to 70	46	Pass
Impact Velocity		m/s	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 msec	m/s	1.96 to 2.55	2.39	Pass
	20 msec	m/s	4.12 to 5.10	4.58	Pass
	30 msec	m/s	5.73 to 7.01	6.30	Pass
	40 to 70 msec	m/s	6.27 to 7.64	6.81	Pass
Midsagittal Plane Max Rotation		deg	66 to 82	74	Pass
Head Rotation Peak to Zero - Decay Time		msec	58 to 67	62	Pass
Max. Mx at Occipital Condyles		Nm	73 to 88	75	Pass
Mx Peak To Zero - Decay Time		msec	49 to 64	56	Pass
Mx Peak to Max. Head Rotation		msec	2 to 16	10	Pass


 Laboratory Technician

5/23/07

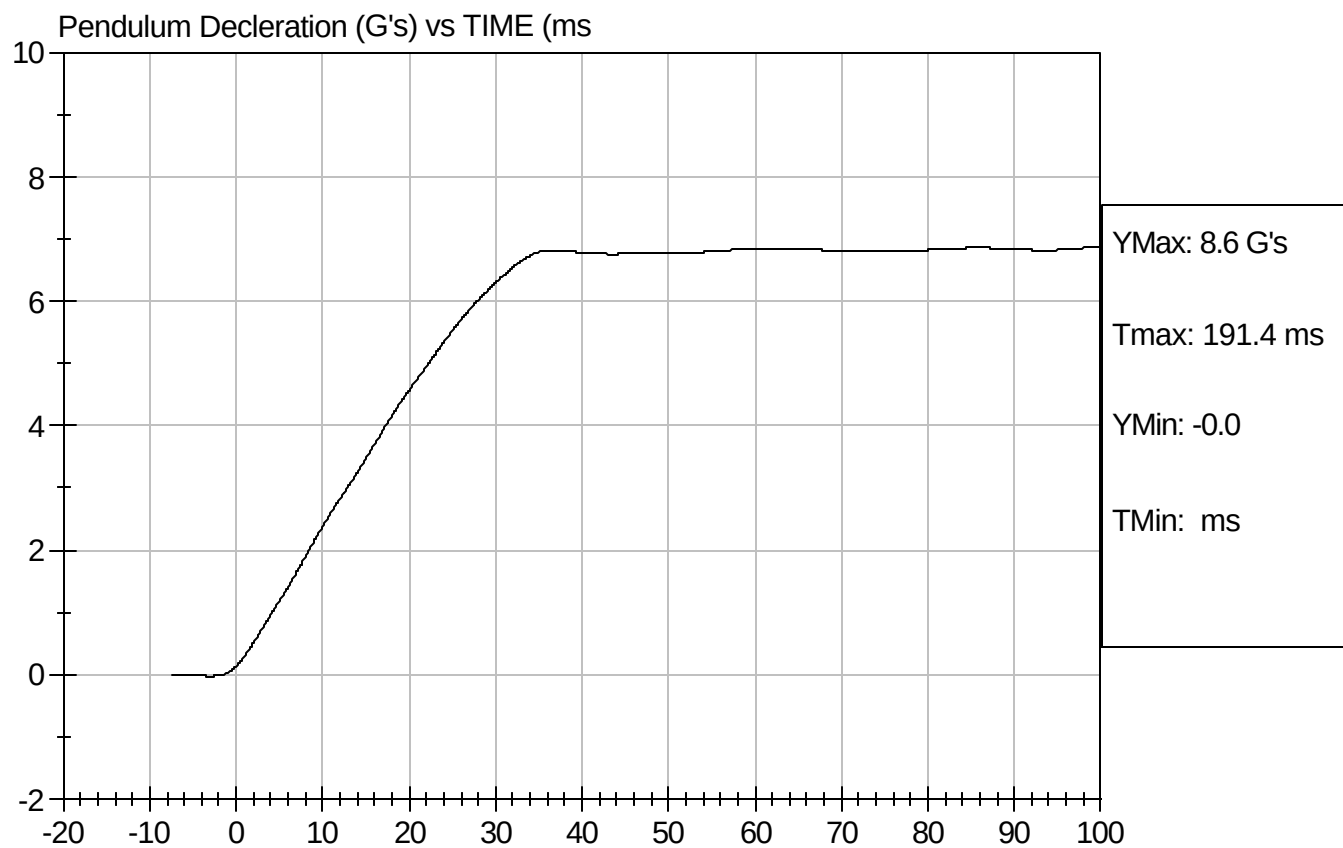
Test Date


 Approved By



Test Desc: Neck Bending
Component ID: D071459

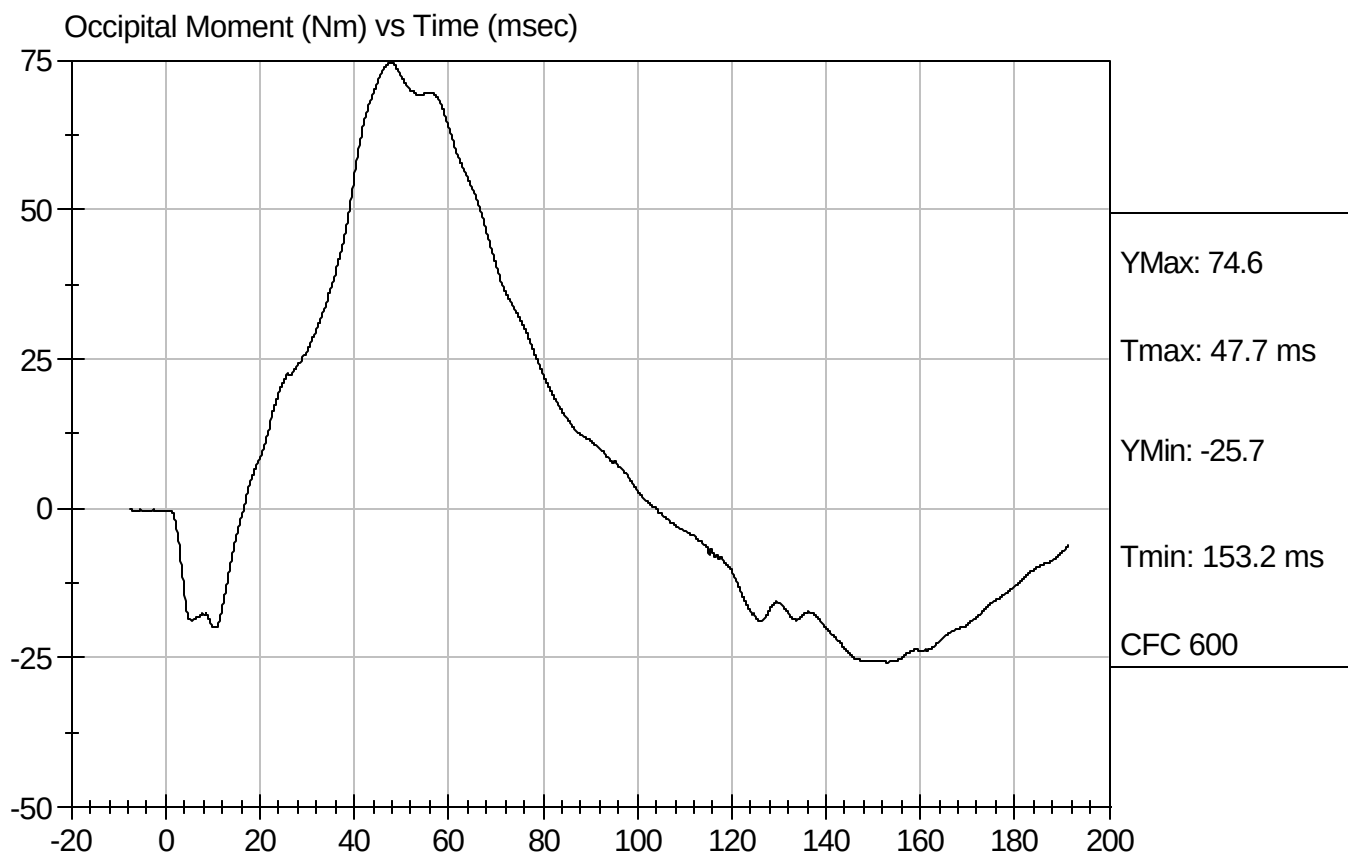
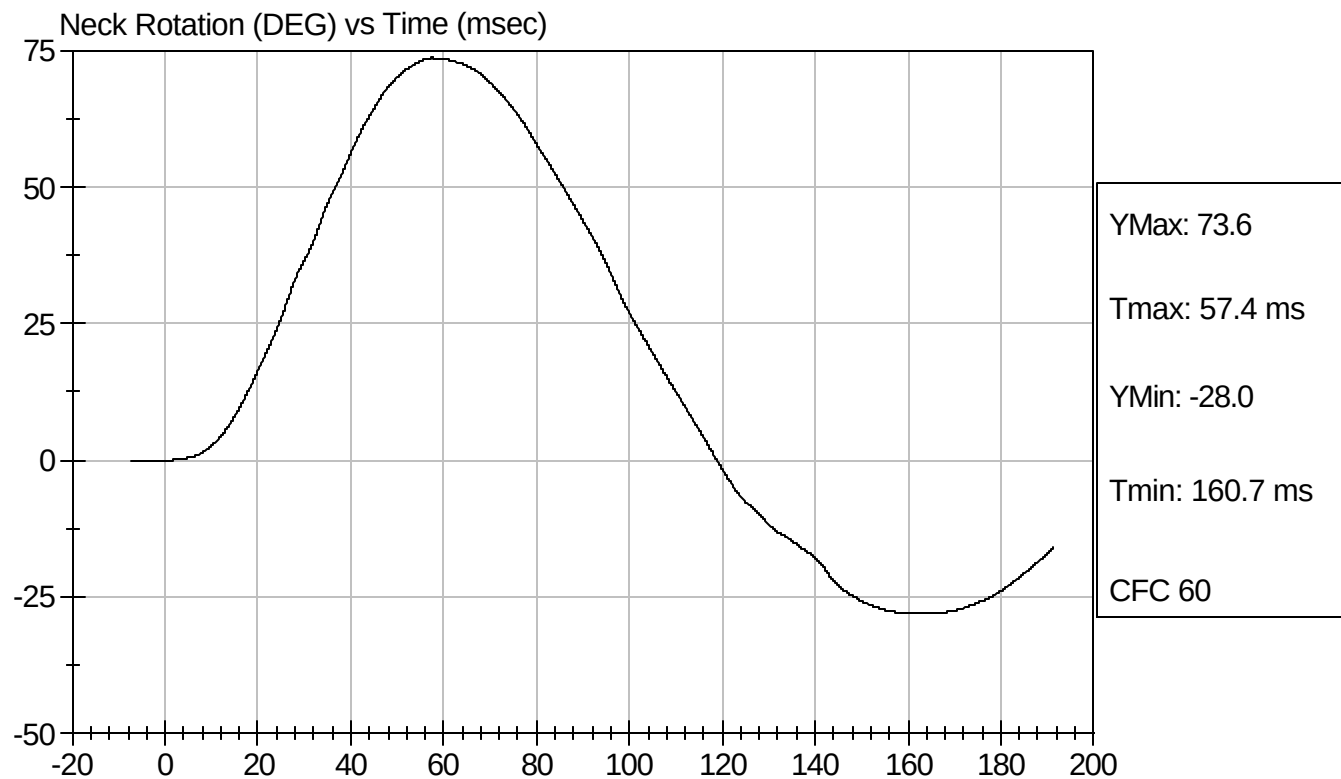
Test Date: 5/23/07
Speed: 23.15 ft/sec, 7.06 m/sec





Test Desc: Neck Bending
Component ID: D071459

Test Date: 5/23/07
Speed: 23.15 ft/sec, 7.06 m/sec



Calibration Test Results Summary

Dummy Serial Number: 271

Post-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all pendulum test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SID/HIII Calibration Data Sheet
Side Impact Dummy
Head Drop Calibration (Lateral)

ATD Serial No: 271

Test I.D: D072631

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	21.0	Pass
Laboratory Relative Humidity	%	10 to 70	47	Pass
Peak Resultant Acceleration	G's	120 to 150	143	Pass
Is Resultant Curve Unimodal?	Yes/No	15% of peak	Yes	Pass
Peak Longitudnal Acceleration	G's	+/- 15	-6.1	Pass
Overall Test Results				Pass

Jessica Hall
Laboratory Technician

8/28/07
Test Date

David Winkelbauer
Approved By



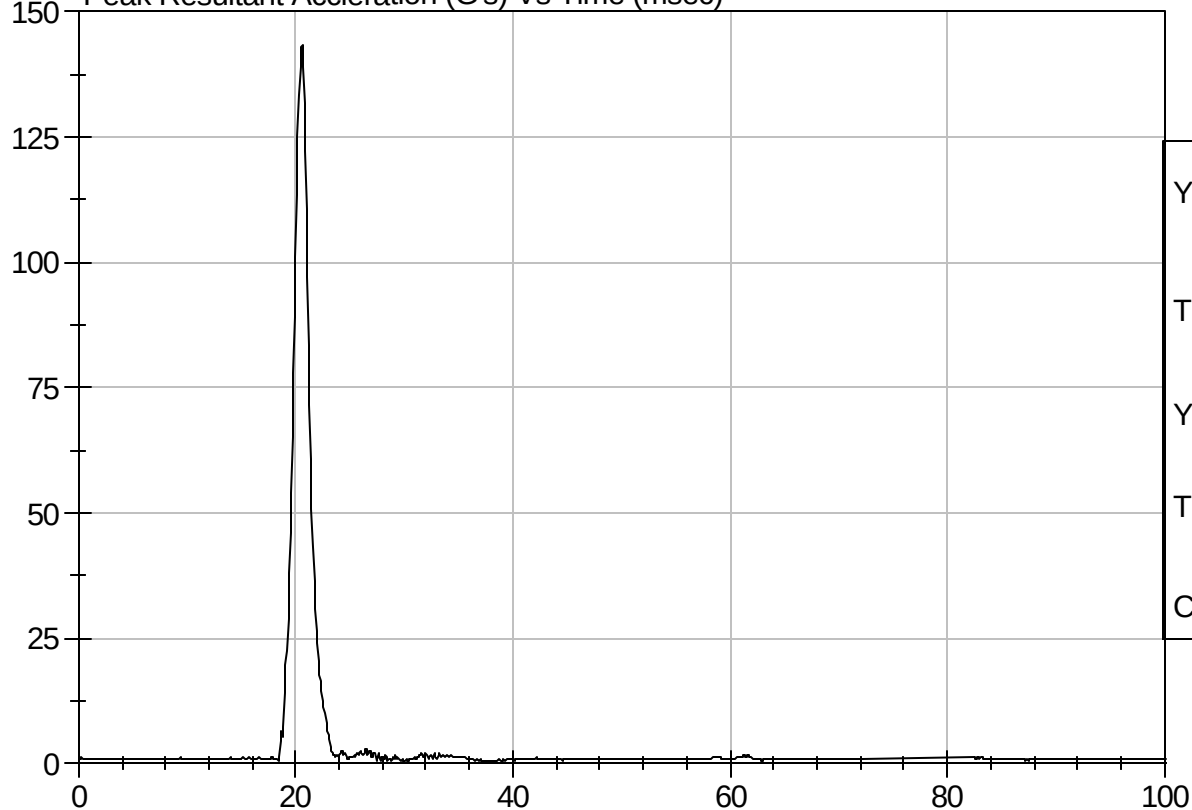
Test Description: Head Drop

Test Date: 8/28/07

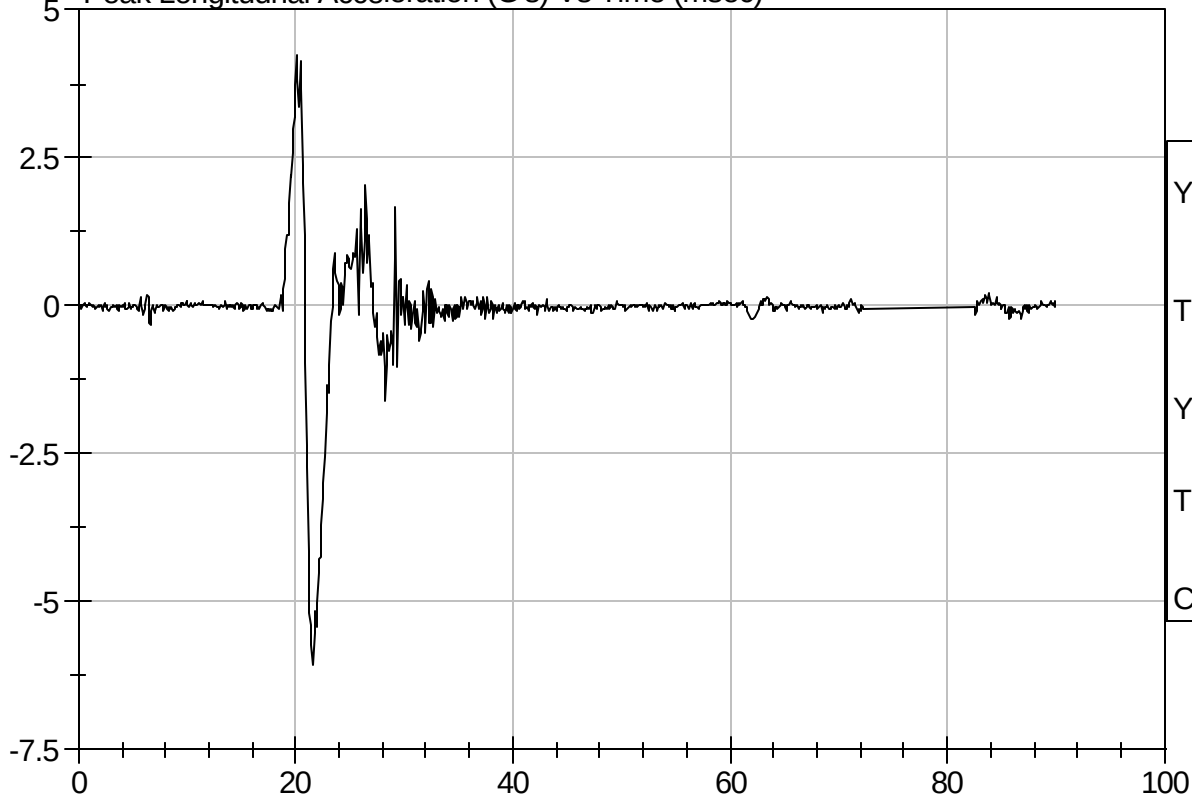
Component: D072631

Speed: 0 ft/s, 0 m/s

Peak Resultant Acceleration (G's) Vs Time (msec)



Peak Longitudinal Acceleration (G's) Vs Time (msec)

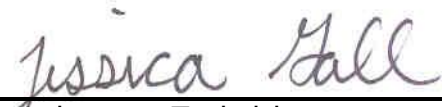


SID/HIII Calibration Data Sheet
Side Impact Dummy
Thorax Impact Test

ATD Serial No: 271

Test I.D: D072632

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.0	Pass
Laboratory Relative Humidity	%	10 to 70	47	Pass
Probe Velocity	m/s	4.22 - 4.31	4.30	Pass
Upper Rib	G's	37 - 46	45	Pass
Lower Rib	G's	37 - 46	42	Pass
Lower Spine	G's	15 - 22	19	Pass
Overall Test Results				Pass


Laboratory Technician

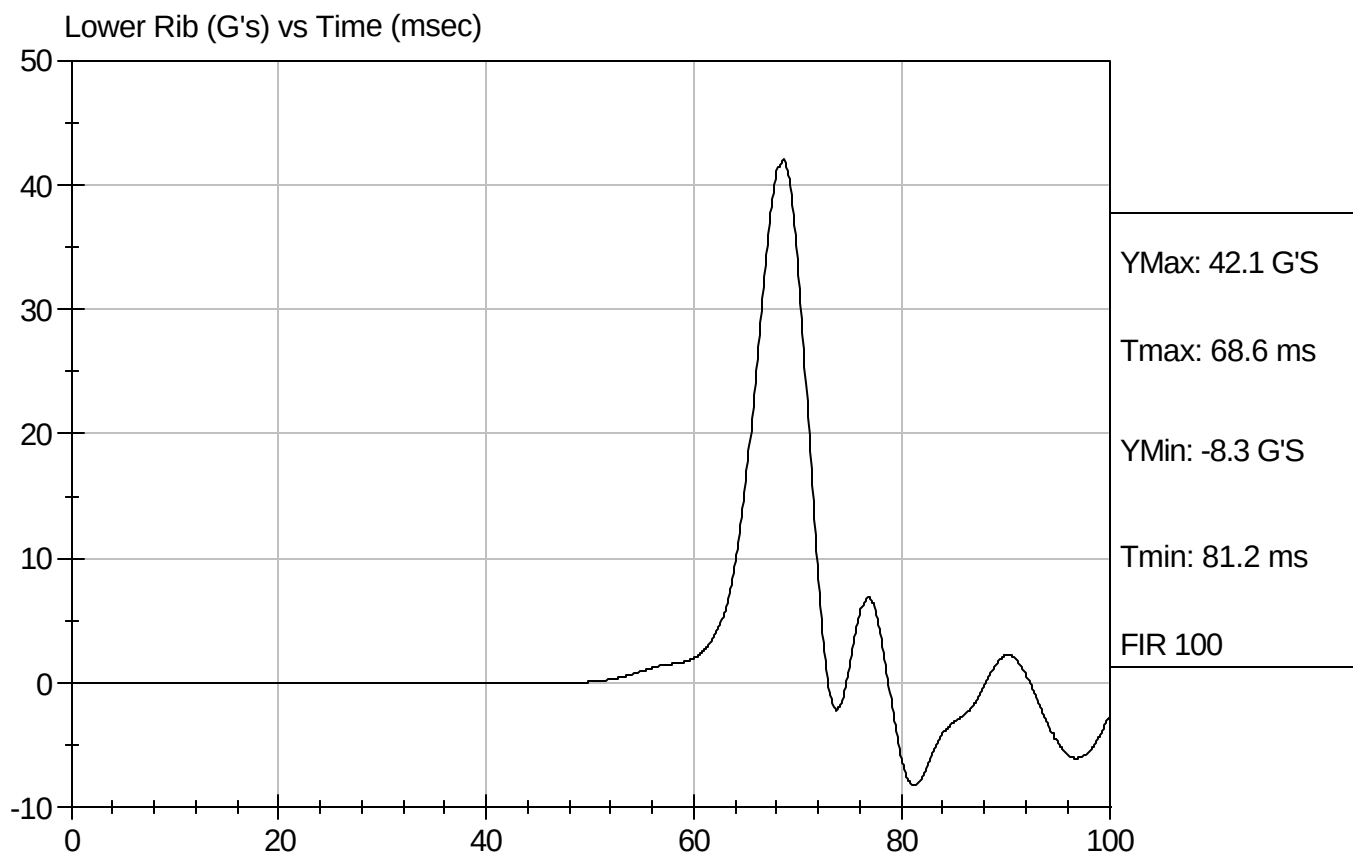
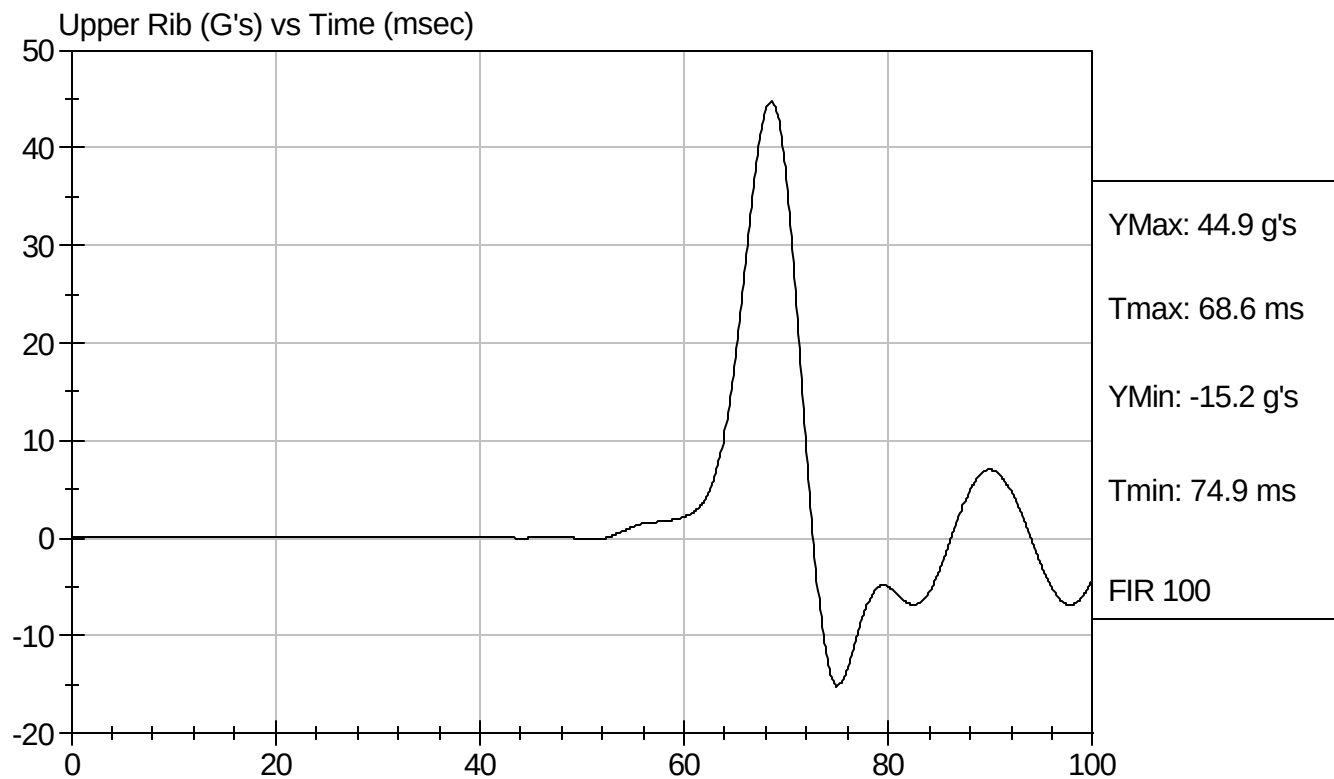

Approved By

8/29/07
Test Date



Test Desc: Thorax Impact
Component ID: D072632

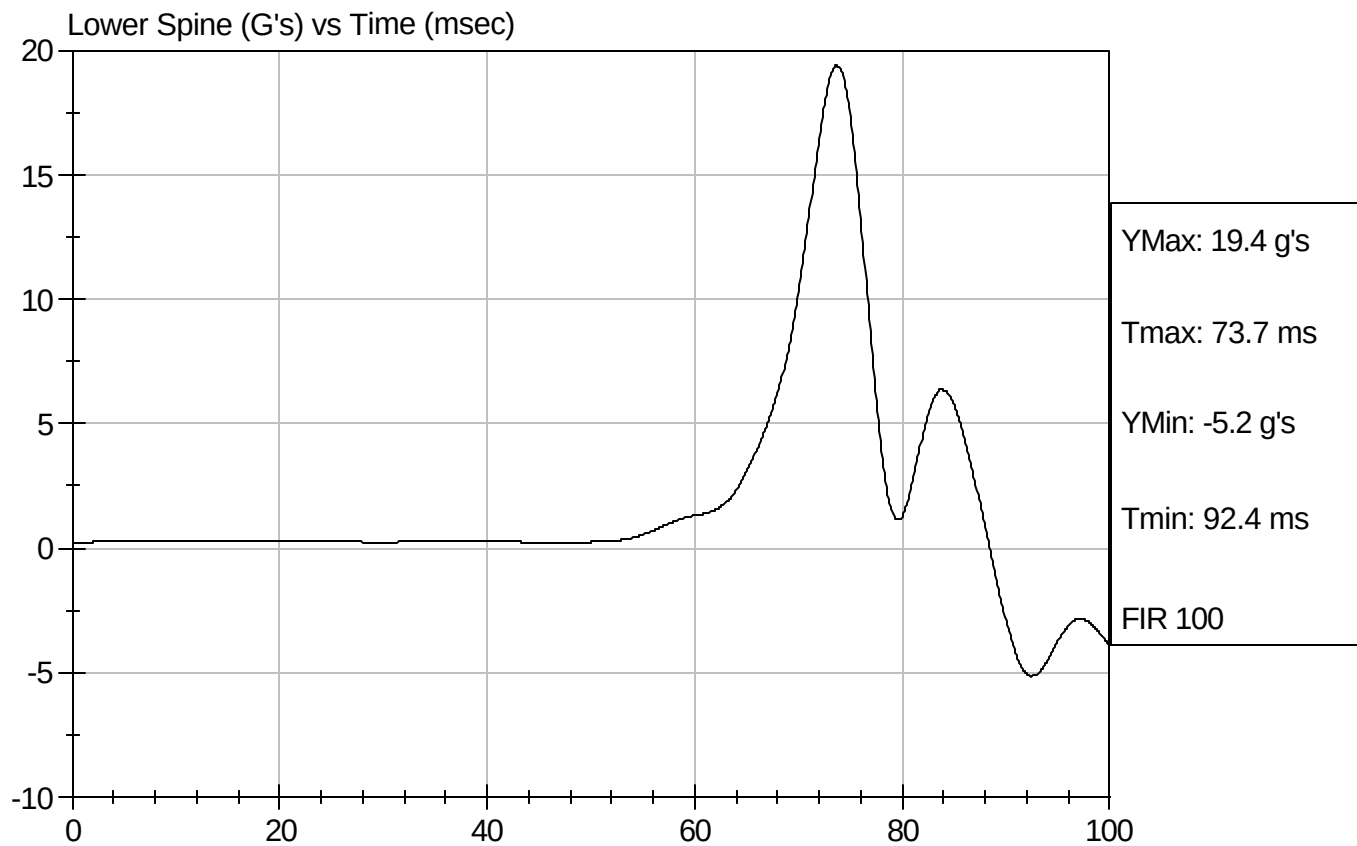
Test Date: 8/29/07
Speed: 14.12 ft/sec, 4.30 m/sec





Test Desc: Thorax Impact
Component ID: D072632

Test Date: 8/29/07
Speed: 14.12 ft/sec, 4.30 m/sec



SID/HIII Calibration Data Sheet
Side Impact Dummy
Pelvis Impact Test

ATD Serial No: 271

Test I.D: D072633

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	46	Pass
Probe Velocity	m/s	4.27 - 4.33	4.30	Pass
Pelvis Acceleration	G's	40 - 60	41	Pass
Overall Test Results			Pass	

Jessica Hall
Laboratory Technician

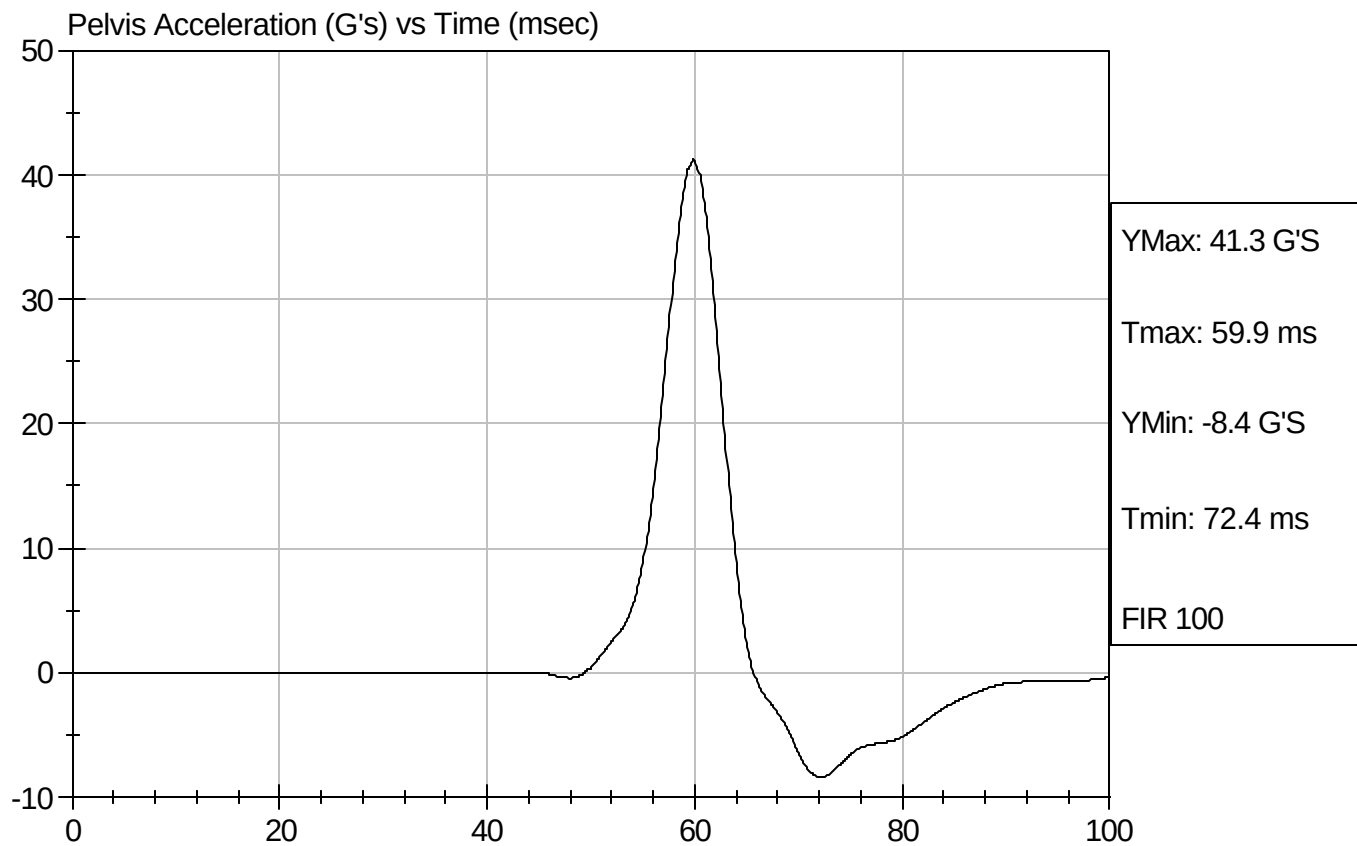
8/29/07
Test Date

David Winkelbauer
Approved By



Test Desc: Pelvis Impact
Component ID: D072633

Test Date: 8/29/07
Speed: 14.1 ft/sec, 4.30 m/sec



SID/HIII Calibration Data Sheet
Side Impact Dummy
Abdominal Compression Calibration (Pre-Load = 10 lbs)

ATD Serial No: 271

Test I.D: D072634

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.0	Pass
Laboratory Relative Humidity	%	10 to 70	47	Pass
Force At 12.7 mm	N	104 -162	143	Pass
Force At 19 mm	N	163 - 222	196	Pass
Force At 25.4 mm	N	222 - 280	260	Pass
Force At 33 mm	N	325 - 391	347	Pass
Overall Test Results				Pass

Jessica Hall
Laboratory Technician

8/29/07
Test Date

David Winkelbauer
Approved By

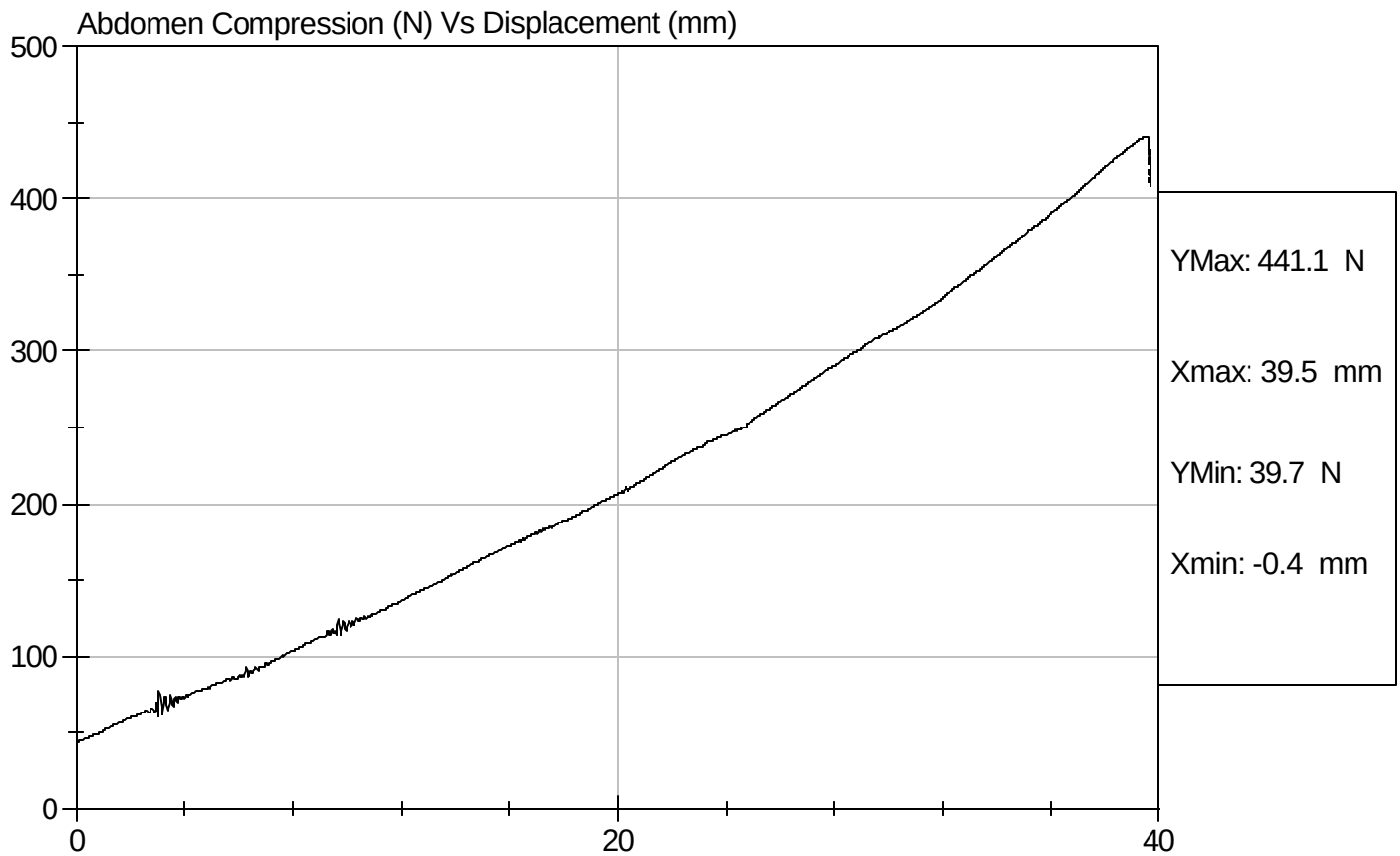


Test Description: Abdomen Compression

Test Date: 8/29/07

Component: D072634

Speed: 0 ft/sec, 0 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Lumbar Flexion Calibration

ATD Serial No: 271

Test I.D: D072635

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	46	Pass
Force At 0 deg	N	0 - 26.7	0	Pass
Force At 20 deg	N	97.9 - 151.2	140.3	Pass
Force At 30 deg	N	151.2 - 204.6	201.5	Pass
Force At 40 deg	N	204.6 - 258.0	243.5	Pass
Return Angle	Deg	12 Maximum	5	Pass
Overall Test Results			Pass	

Jessica Hall
Laboratory Technician

8/29/07
Test Date

David Winkelbauer
Approved By

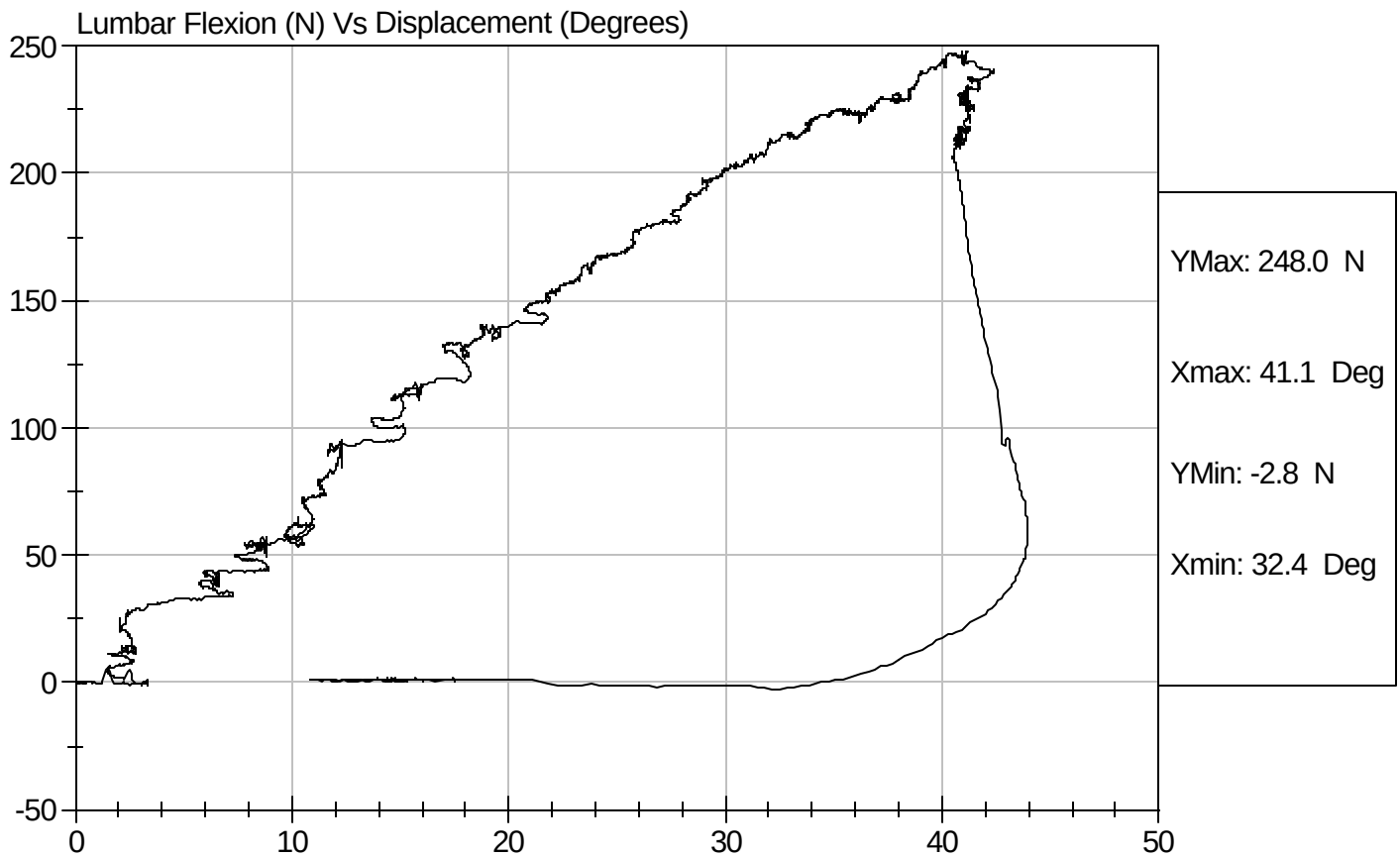


Test Description: Lumbar Flexion

Test Date: 8/29/07

Component: D072635

Speed: 0 ft/sec, 0 m/sec

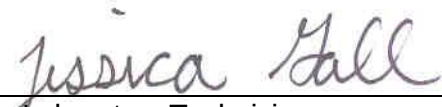


SID/HIII Calibration Data Sheet
Side Impact Dummy (SID)
Neck Pendulum Test

ATD Serial No: 271

Test I.D: D072639

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		deg C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	46	Pass
Impact Velocity		m/s	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 msec	m/s	1.96 to 2.55	2.23	Pass
	20 msec	m/s	4.12 to 5.10	4.55	Pass
	30 msec	m/s	5.73 to 7.01	6.38	Pass
	40 to 70 msec	m/s	6.27 to 7.64	6.81	Pass
Midsagittal Plane Max Rotation		deg	66 to 82	76	Pass
Head Rotation Peak to Zero - Decay Time		msec	58 to 67	61	Pass
Max. Mx at Occipital Condyles		Nm	73 to 88	75	Pass
Mx Peak To Zero - Decay Time		msec	49 to 64	51	Pass
Mx Peak to Max. Head Rotation		msec	2 to 16	2	Pass


 Laboratory Technician

8/29/07

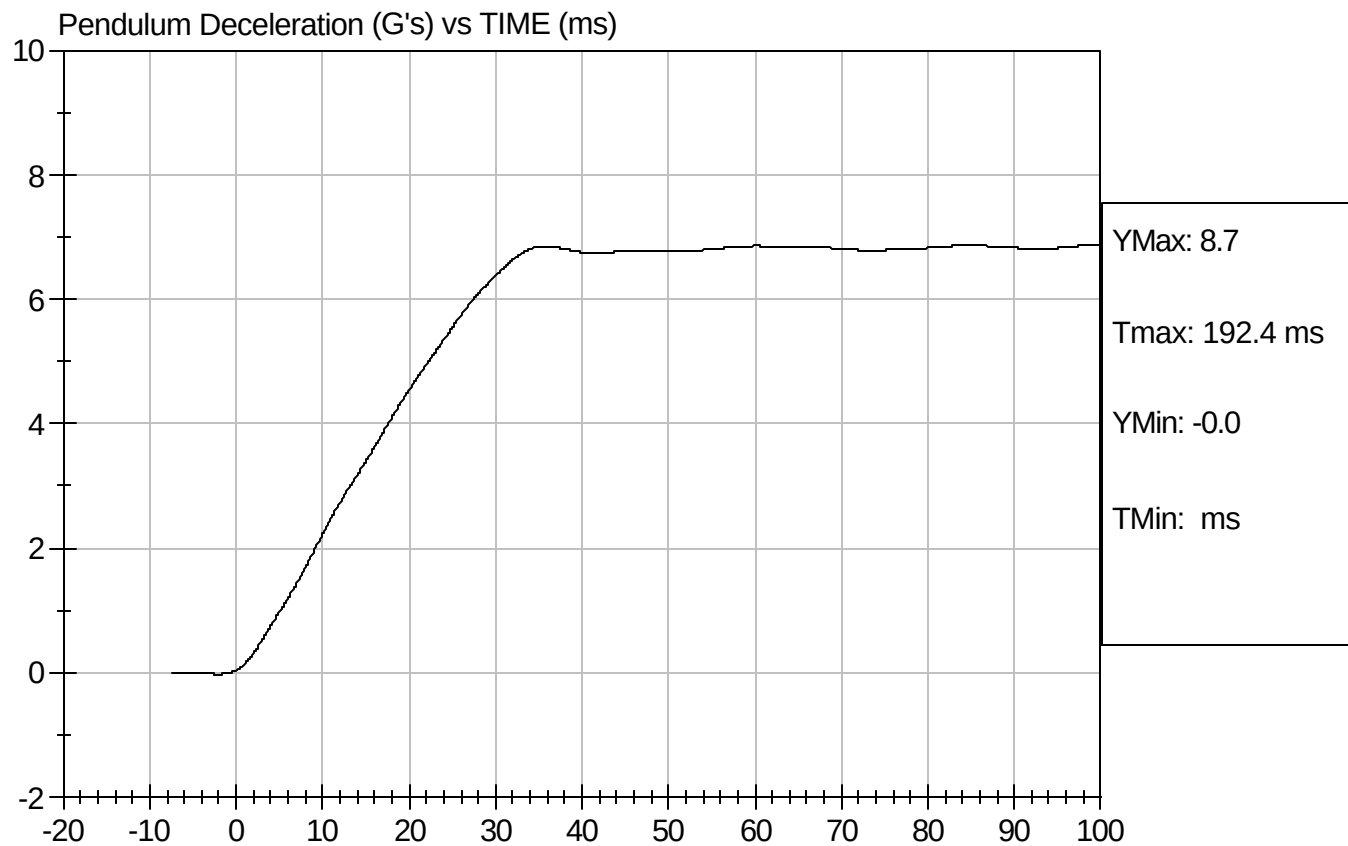
Test Date


 Approved By



Test Desc: Neck Bending
Component ID: D072639

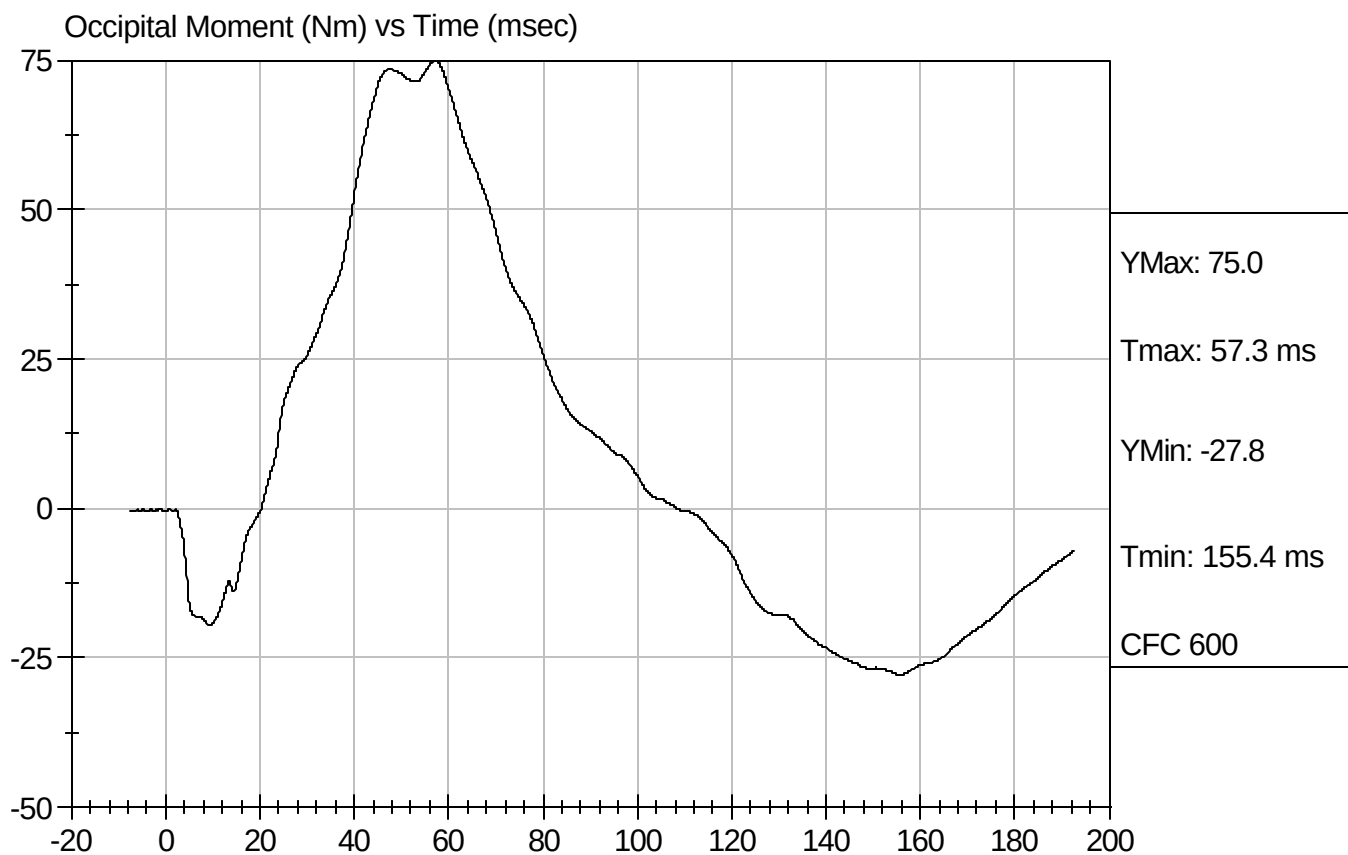
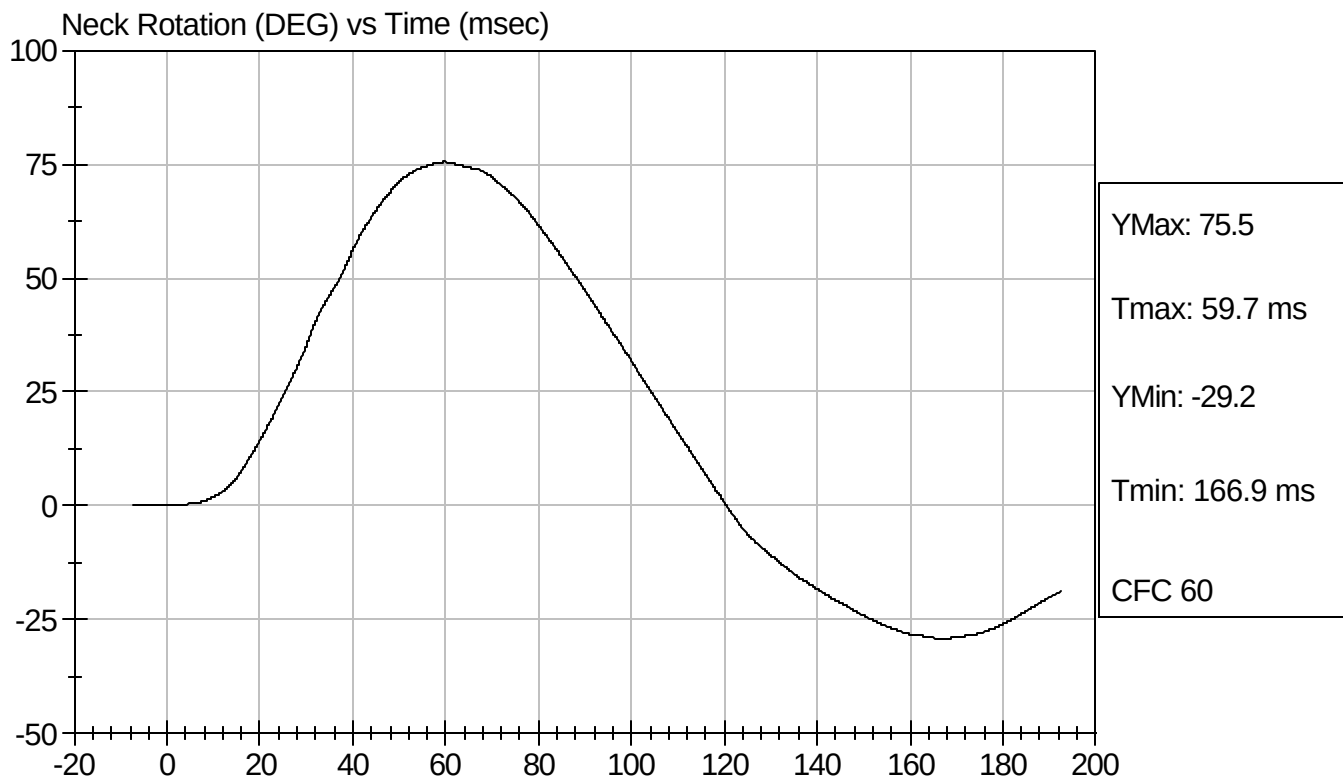
Test Date: 8/29/07
Speed: 23.15 ft/sec, 7.06 m/sec





Test Desc: Neck Bending
Component ID: D072639

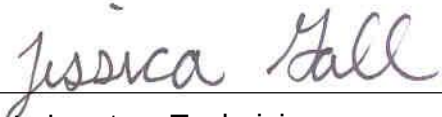
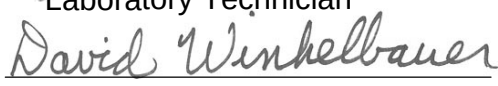
Test Date: 8/29/07
Speed: 23.15 ft/sec, 7.06 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Inspection Checklist

ATD Serial No: 271

Test Part	Items Checked	Result
Skin	Visual inspection	Pass
Head	Visual, ballast, accelerometer mount	Pass
Neck	Visual	Pass
Spine Box	Visual, ballast, accelerometer mount	Pass
Rib Cage	Visual, measure	Pass
Sternum	Visual	Pass
Lumbar Spine	Visual	Pass
Abdomen	Visual	Pass
Pelvis	Visual, palpate, accelerometer mount	Pass
Upper Legs	Visual	Pass
Knees	Visual	Pass
Lower Legs	Visual, range of motion	Pass
Ankles	Visual, range of motion	Pass
Feet	Visual, range of motion	Pass
Joints	1 to 2 g range	Pass
Other		Pass


Laboratory Technician

Approved By

8/29/2007

Test Date

CERTIFICATION DATA

Dummy Serial Number: 904

Calibration Test Results Summary

Dummy Serial Number: 904

Pre-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all pendulum test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SID Calibration Data Sheet
Side Impact Dummy
External Measurements

ATD Serial No: 904

Test I.D: D07146

Tested Parameter	Units	Specification	Result	Pass/Fail
SH - Seated Height	mm	889 - 909	906	Pass
RH - Rib Height	mm	501 - 521	508	Pass
HP - Hip Pivot Height	mm	99 ref.	99	Pass
RD - Rib from Back Line	mm	229 - 241	240	Pass
KV - Knee Pivot to Back Line	mm	511 - 526	523	Pass
SW - Knee Pivot to Floor	mm	490 - 505	496	Pass
HW - Hip Width	mm	356 - 391	360	Pass
Overall Test Results			Pass	

Jessica Hall
Laboratory Technician

David Winkelbauer
Approved By

5/23/2007

Test Date

SID/HIII Calibration Data Sheet
Side Impact Dummy
Head Drop Calibration (Lateral)

ATD Serial No: 904

Test I.D: D071461

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	20.7	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Peak Resultant Acceleration	G's	120 to 150	148	Pass
Is Resultant Curve Unimodal?	Yes/No	15% of peak	Yes	Pass
Peak Longitudnal Acceleration	G's	+/- 15	-9.3	Pass
Overall Test Results				Pass

Jessica Gall
Laboratory Technician

5/23/07
Test Date

David Winkelbauer
Approved By



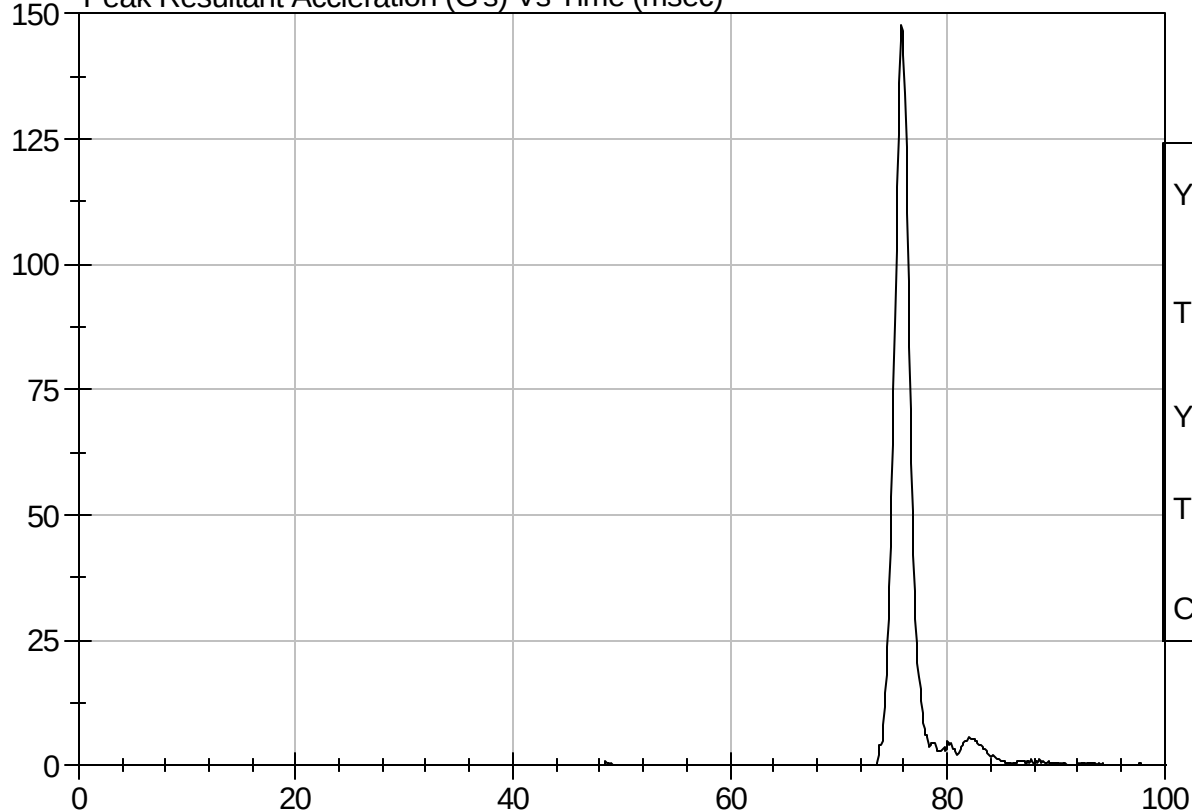
Test Description: Head Drop

Test Date: 5/23/07

Component: D071461

Speed: 0 ft/s, 0 m/s

Peak Resultant Acceleration (G's) Vs Time (msec)



YMax: 147.8 G

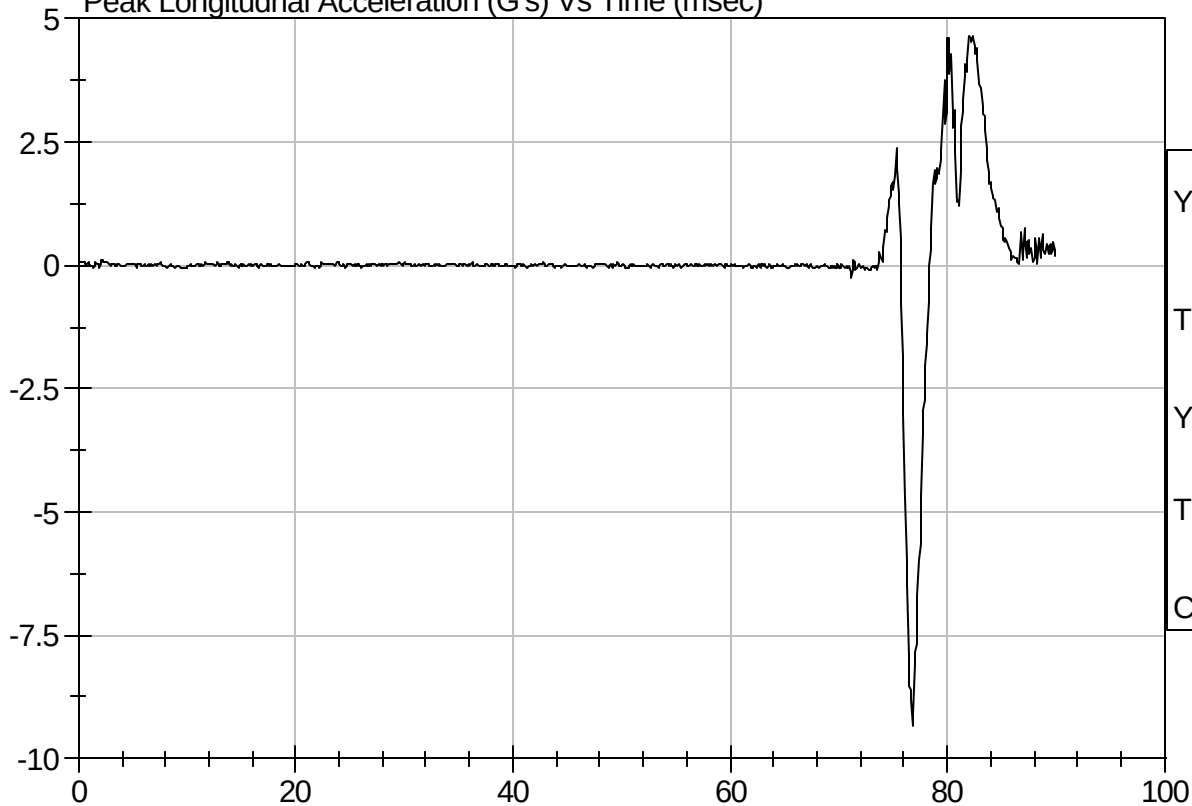
Tmax: 75.8 ms

YMin: 0.0 G

Tmin: 4.2 ms

CFC 1000

Peak Longitudinal Acceleration (G's) Vs Time (msec)



YMax: 4.7 G

Tmax: 82.0 ms

YMin: -9.3 G

Tmin: 76.8 ms

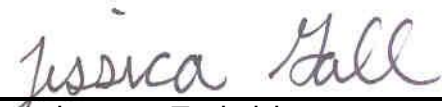
CFC 1000

SID/HIII Calibration Data Sheet
Side Impact Dummy
Thorax Impact Test

ATD Serial No: 904

Test I.D: D071462

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.4	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.22 - 4.31	4.23	Pass
Upper Rib	G's	37 - 46	40	Pass
Lower Rib	G's	37 - 46	40	Pass
Lower Spine	G's	15 - 22	21	Pass
Overall Test Results				Pass


Laboratory Technician

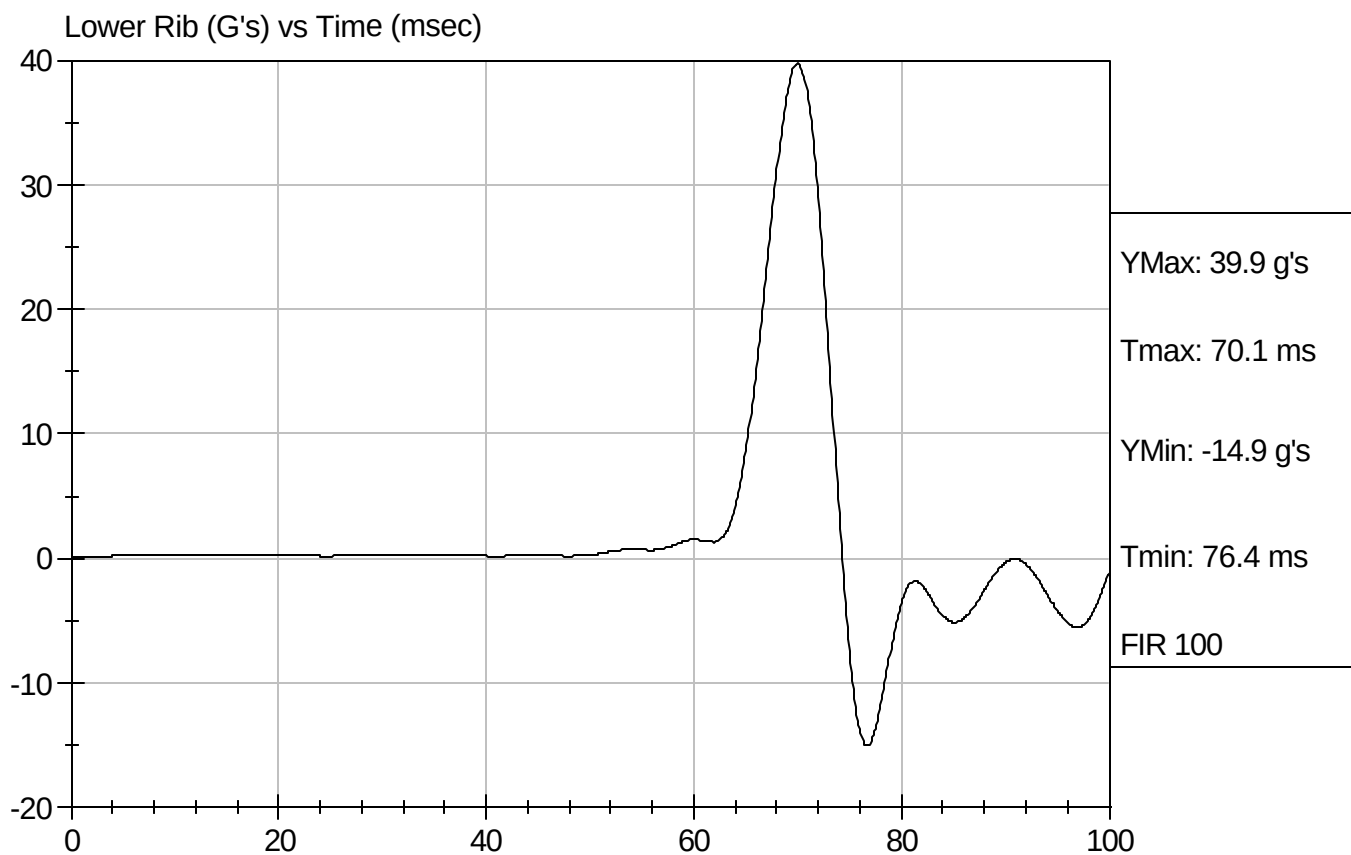
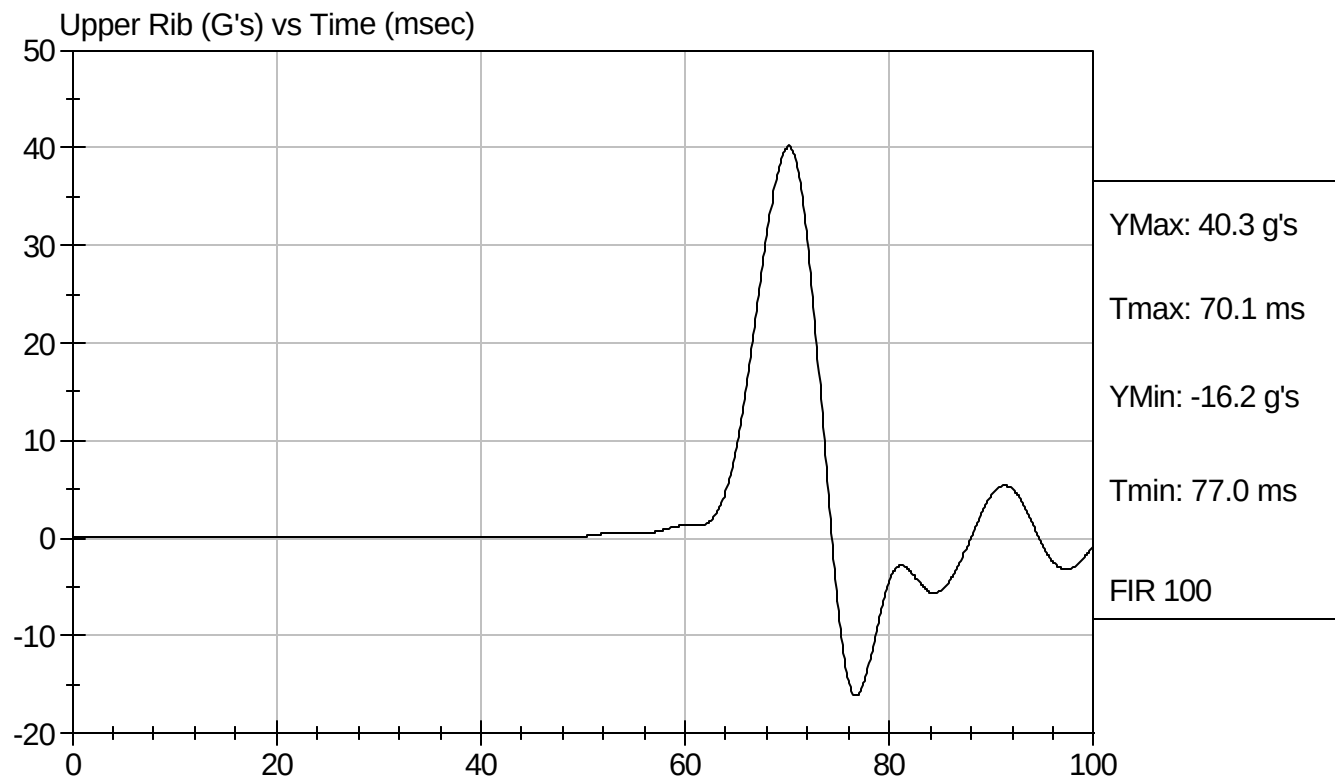
5/23/07
Test Date


Approved By



Test Desc: Thorax Impact
Component ID: D071462

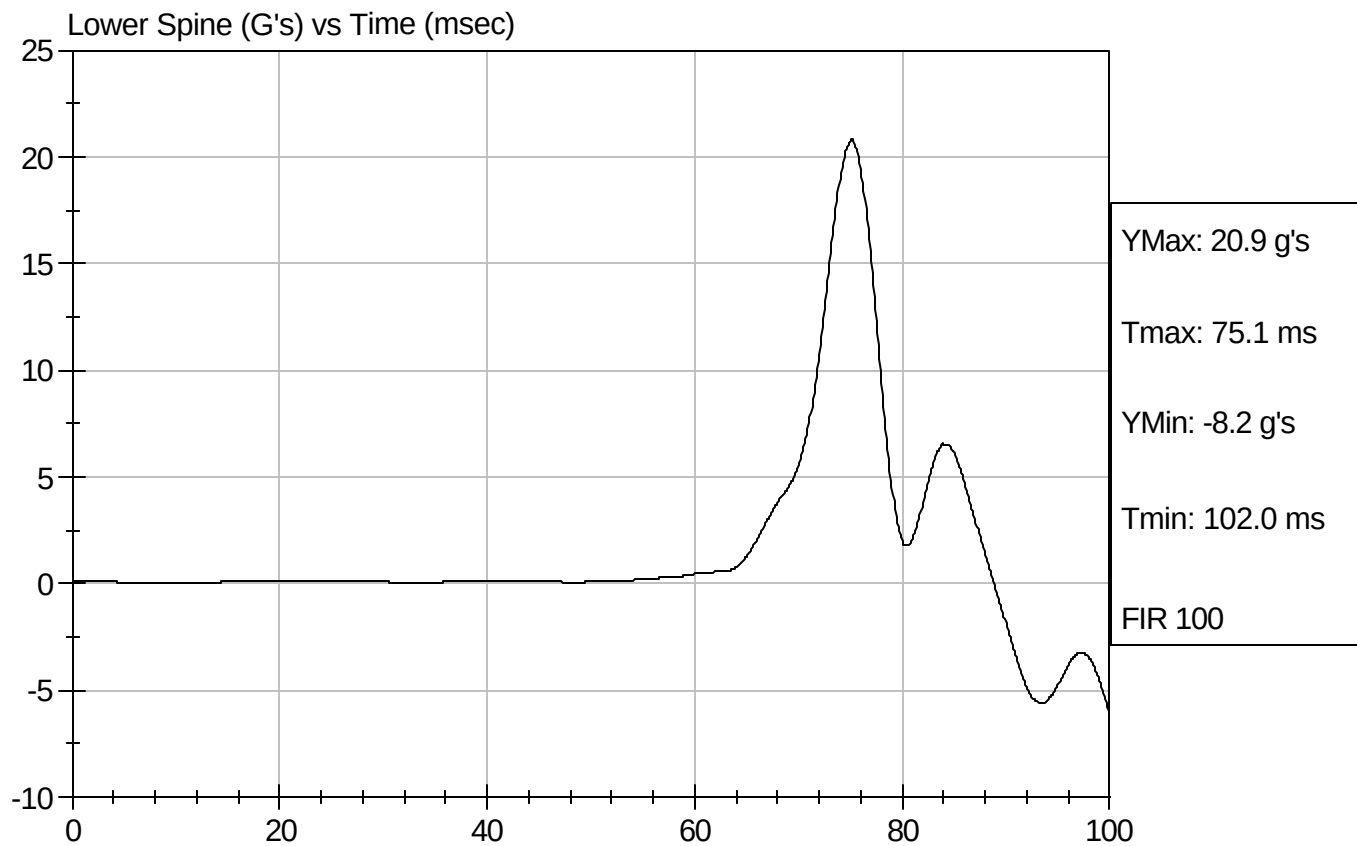
Test Date: 5/23/07
Speed: 13.89 ft/sec, 4.23 m/sec





Test Desc: Thorax Impact
Component ID: D071462

Test Date: 5/23/07
Speed: 13.89 ft/sec, 4.23 m/sec



SID/HIII Calibration Data Sheet
Side Impact Dummy
Pelvis Impact Test

ATD Serial No: 904

Test I.D: D071463

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	21.4	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.27 - 4.33	4.32	Pass
Pelvis Acceleration	G's	40 - 60	43	Pass
Overall Test Results			Pass	

Jessica Gall
Laboratory Technician

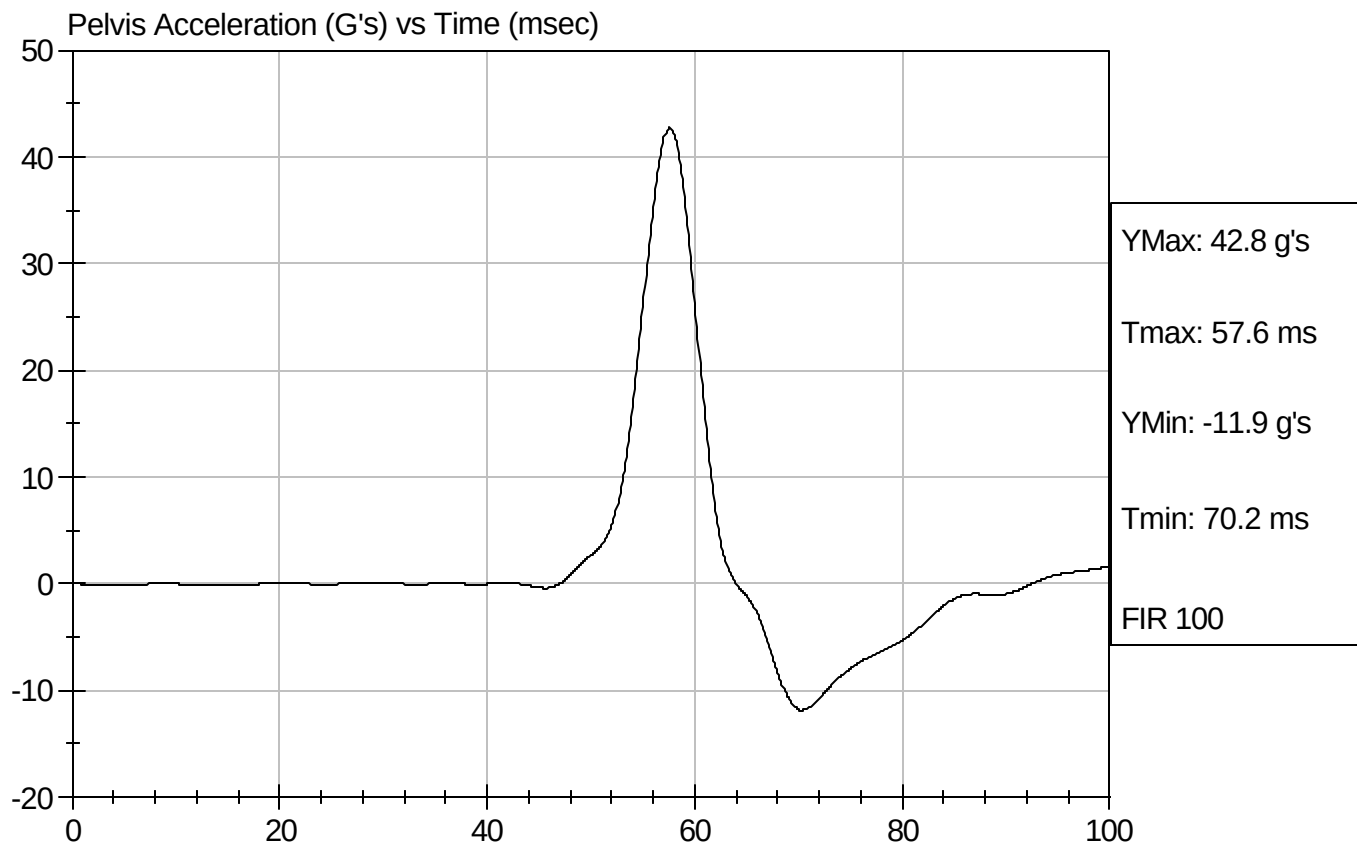
5/23/07
Test Date

David Winkelbauer
Approved By



Test Desc: Pelvis Impact
Component ID: D071463

Test Date: 5/23/07
Speed: 14.184 ft/sec, 4.32 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Abdominal Compression Calibration (Pre-Load = 10 lbs)

ATD Serial No: 904

Test I.D: D071464

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Force At 12.7 mm	N	104 -162	137	Pass
Force At 19 mm	N	163 - 222	192	Pass
Force At 25.4 mm	N	222 - 280	263	Pass
Force At 33 mm	N	325 - 391	368	Pass
Overall Test Results				Pass

Jessica Hall
Laboratory Technician

5/23/07
Test Date

David Winkelbauer
Approved By

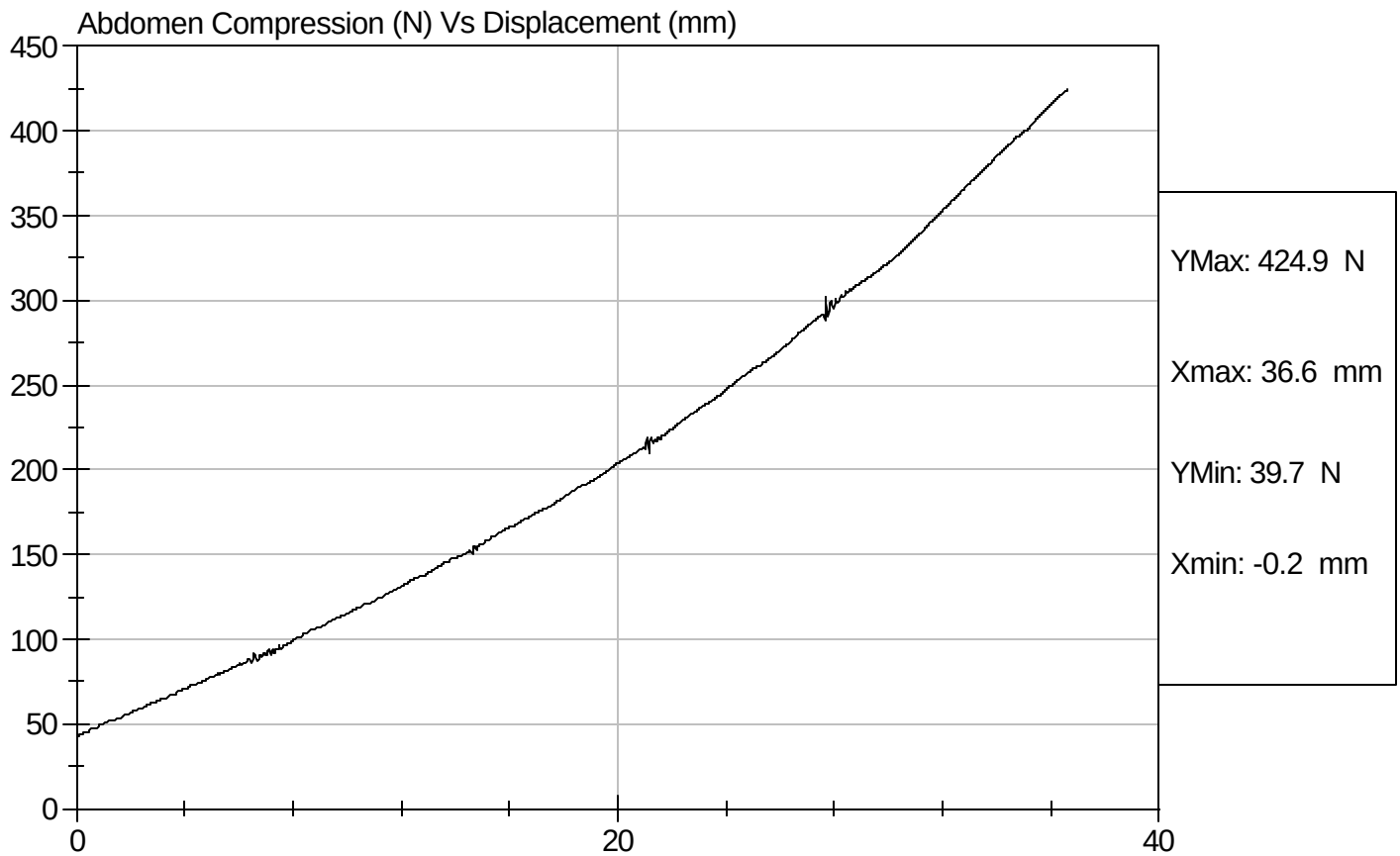


Test Description: Abdomen Compression

Test Date: 5/23/07

Component: D071464

Speed: 0 ft/sec, 0 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Lumbar Flexion Calibration

ATD Serial No: 904

Test I.D: D071465

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Force At 0 deg	N	0 - 26.7	0	Pass
Force At 20 deg	N	97.9 - 151.2	138.2	Pass
Force At 30 deg	N	151.2 - 204.6	188.5	Pass
Force At 40 deg	N	204.6 - 258.0	230.0	Pass
Return Angle	Deg	12 Maximum	4	Pass
Overall Test Results			Pass	

Jessica Hall
Laboratory Technician

5/23/07
Test Date

David Winkelbauer
Approved By

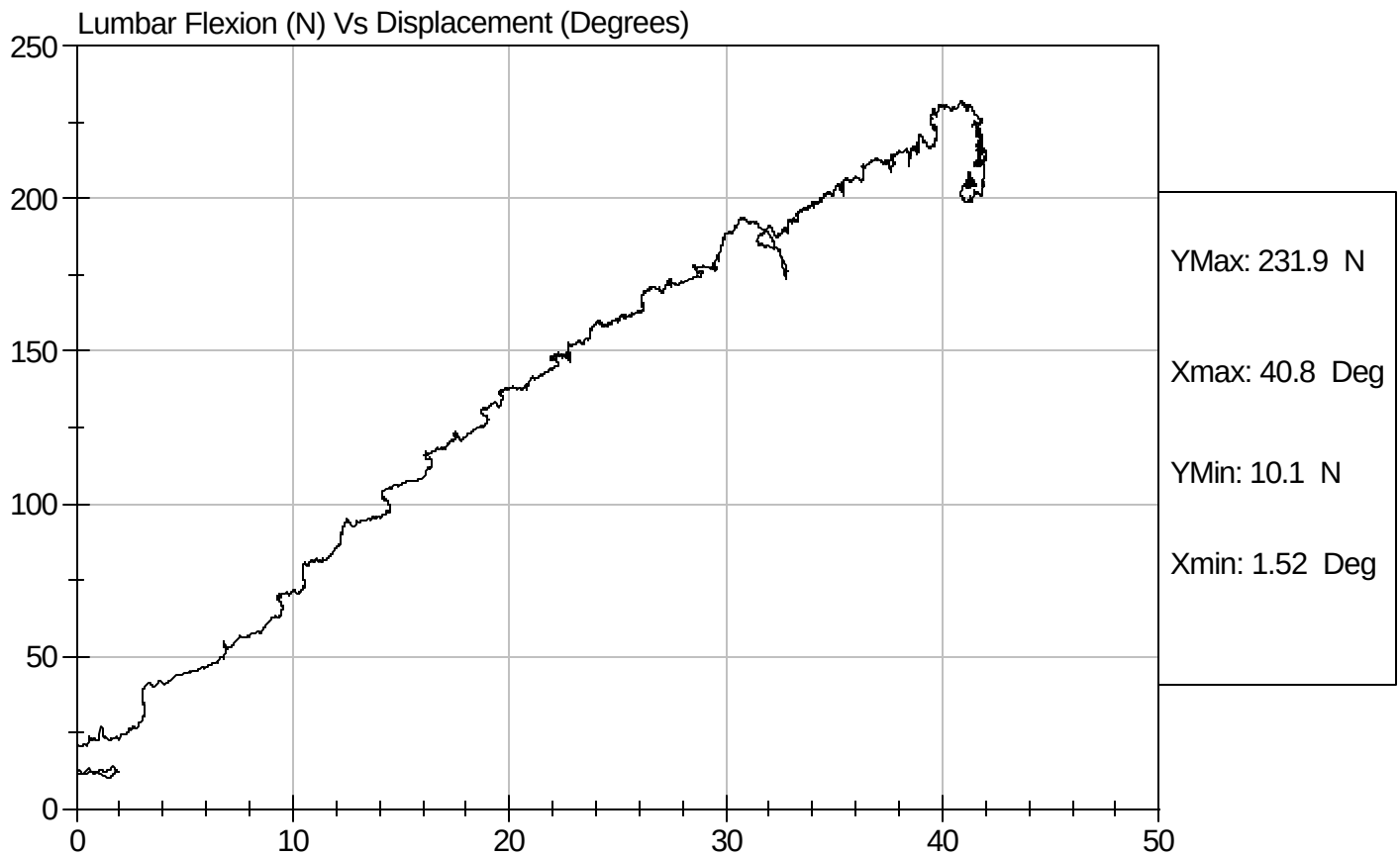


Test Description: Lumbar Flexion

Test Date: 5/23/07

Component: D071465

Speed: 0 ft/sec, 0 m/sec

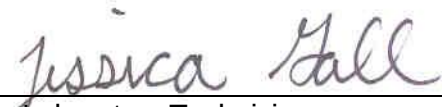


SID/HIII Calibration Data Sheet
Side Impact Dummy (SID)
Neck Pendulum Test

ATD Serial No: 904

Test I.D: D071469

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		deg C	20.6 to 22.2	21.3	Pass
Laboratory Relative Humidity		%	10 to 70	45	Pass
Impact Velocity		m/s	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 msec	m/s	1.96 to 2.55	2.27	Pass
	20 msec	m/s	4.12 to 5.10	4.62	Pass
	30 msec	m/s	5.73 to 7.01	6.42	Pass
	40 to 70 msec	m/s	6.27 to 7.64	6.77	Pass
Midsagittal Plane Max Rotation		deg	66 to 82	73	Pass
Head Rotation Peak to Zero - Decay Time		msec	58 to 67	59	Pass
Max. Mx at Occipital Condyles		Nm	73 to 88	74	Pass
Mx Peak To Zero - Decay Time		msec	49 to 64	59	Pass
Mx Peak to Max. Head Rotation		msec	2 to 16	13	Pass


 Laboratory Technician

5/23/07

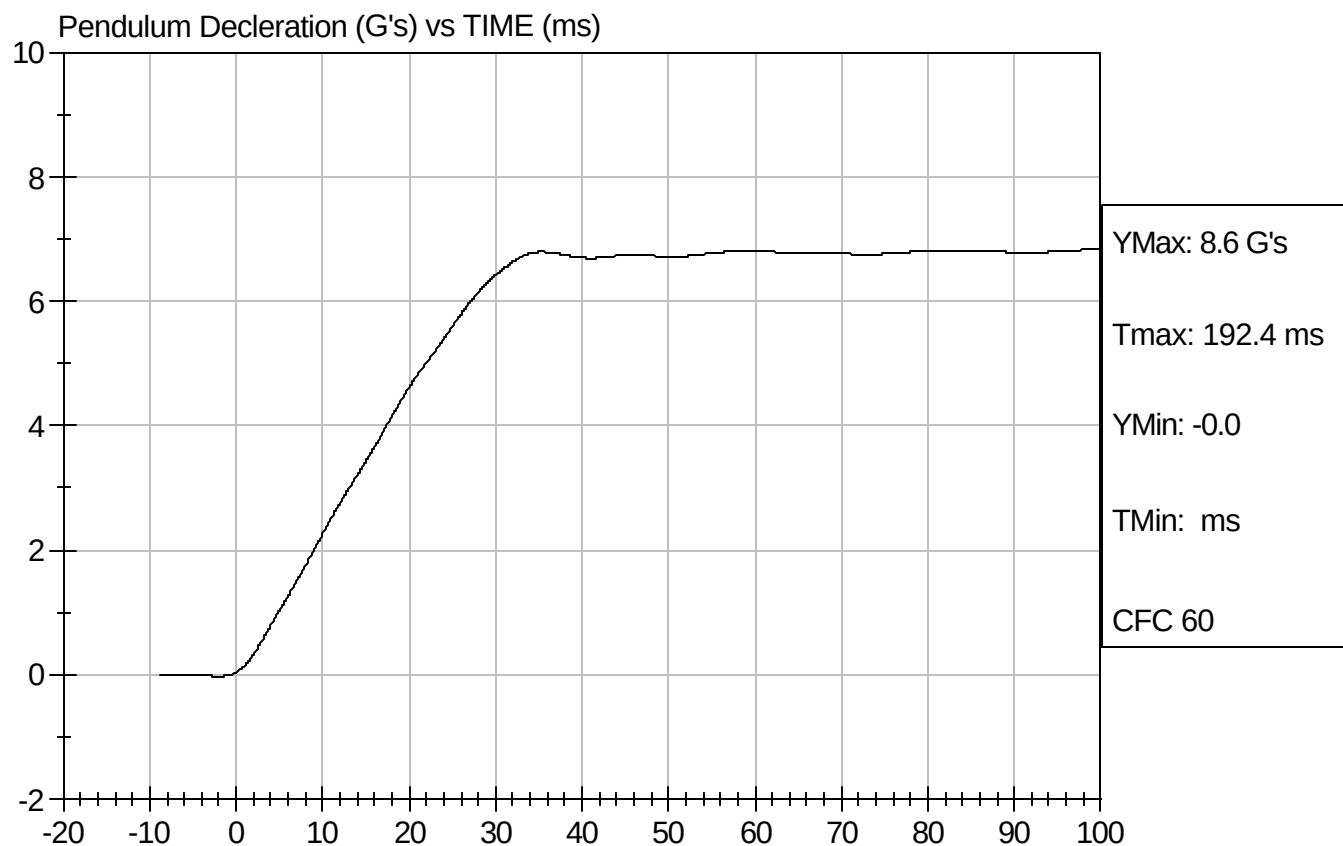
Test Date


 Approved By



Test Desc: Neck Bending
Component ID: D071469

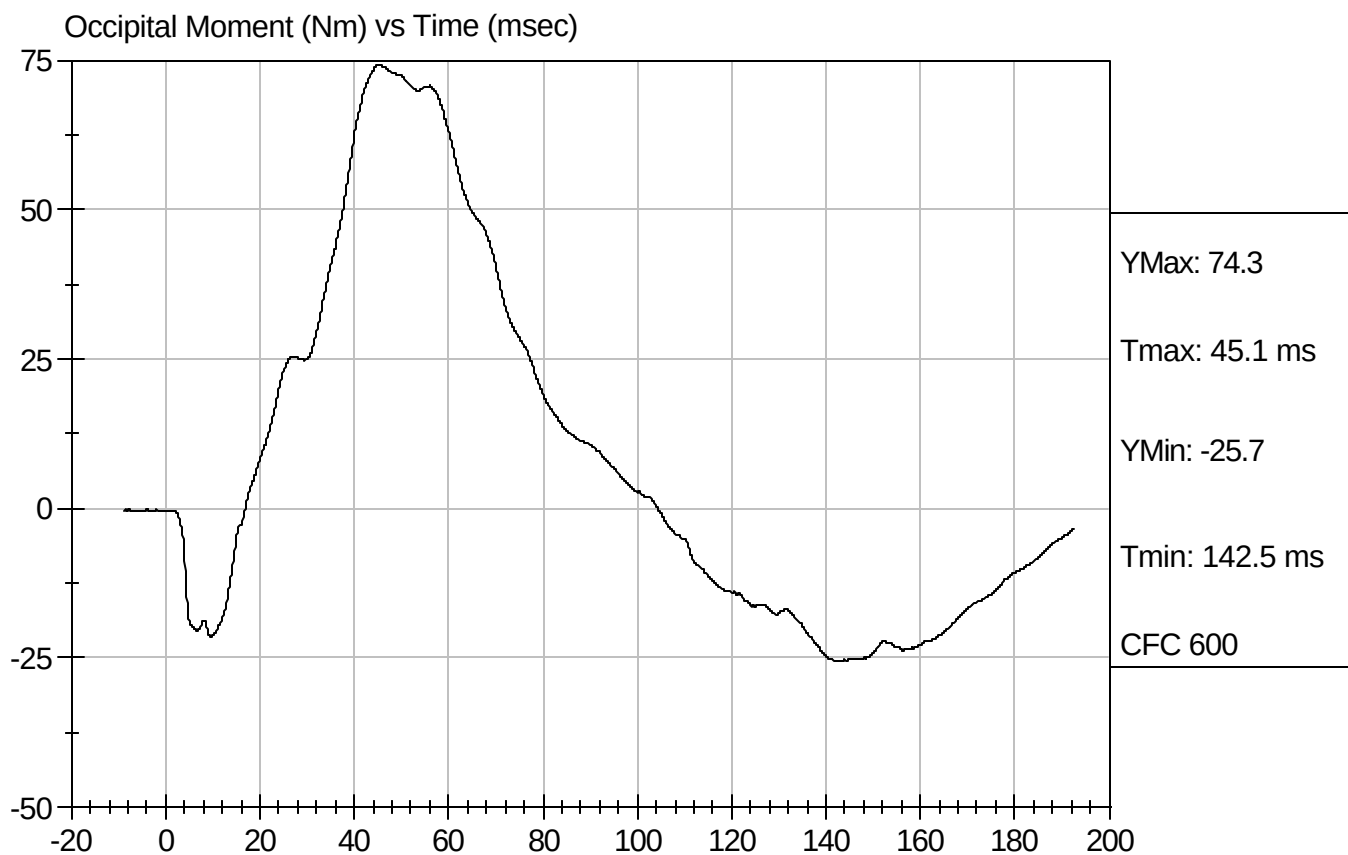
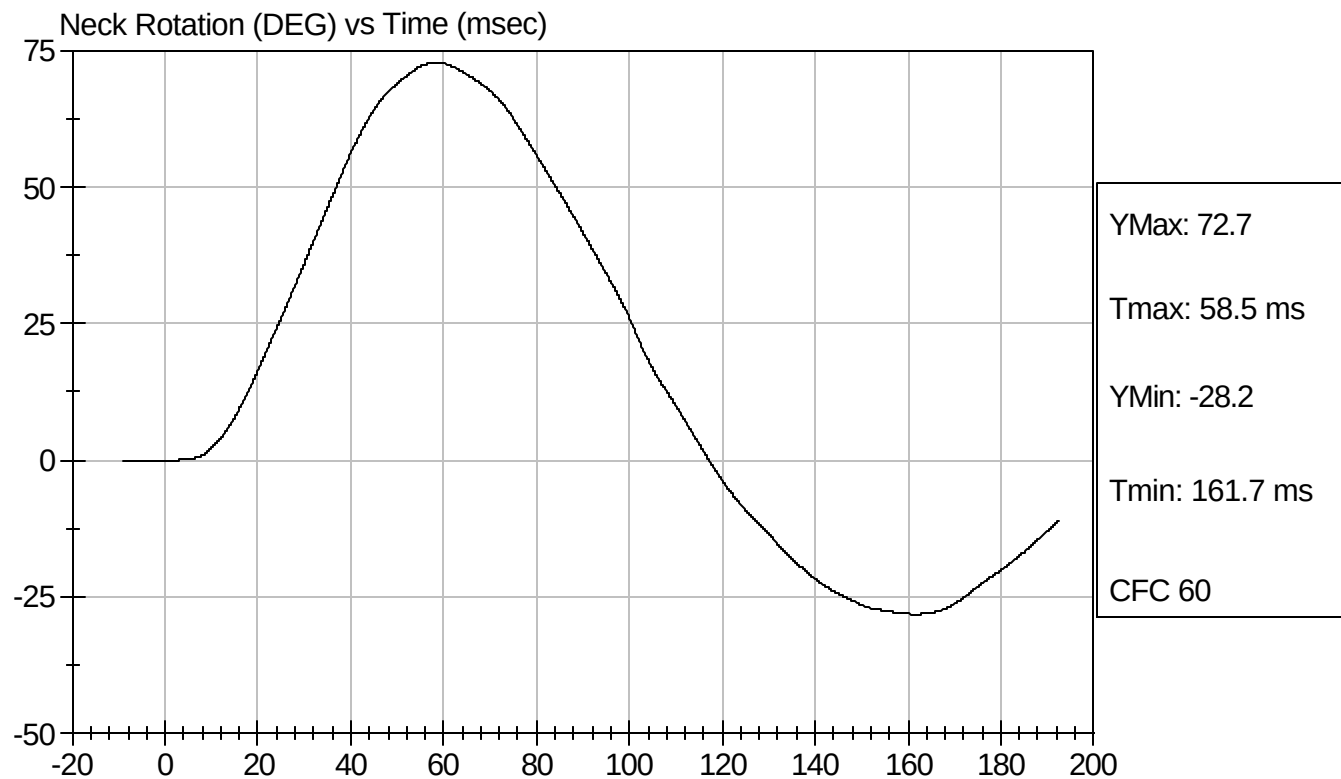
Test Date: 5/23/07
Speed: 23.15 ft/sec, 7.06 m/sec





Test Desc: Neck Bending
Component ID: D071469

Test Date: 5/23/07
Speed: 23.15 ft/sec, 7.06 m/sec



Calibration Test Results Summary

Dummy Serial Number: 904

Post-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all pendulum test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SID/HIII Calibration Data Sheet
Side Impact Dummy
Head Drop Calibration (Lateral)

ATD Serial No: 904

Test I.D: D072641

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	21.0	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Peak Resultant Acceleration	G's	120 to 150	136	Pass
Is Resultant Curve Unimodal?	Yes/No	15% of peak	Yes	Pass
Peak Longitudnal Acceleration	G's	+/- 15	-8.2	Pass
Overall Test Results				Pass

Jessica Hall
Laboratory Technician

8/29/07
Test Date

David Winkelbauer
Approved By



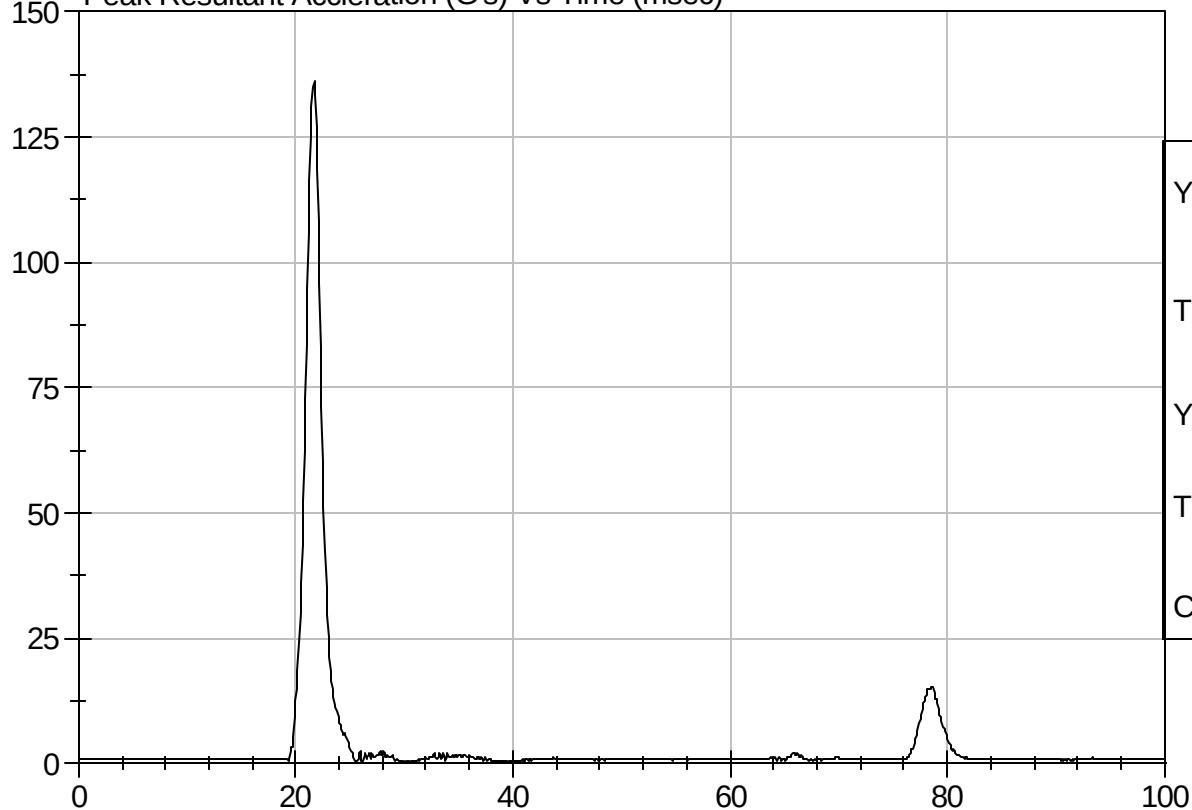
Test Description: Head Drop

Test Date: 8/29/07

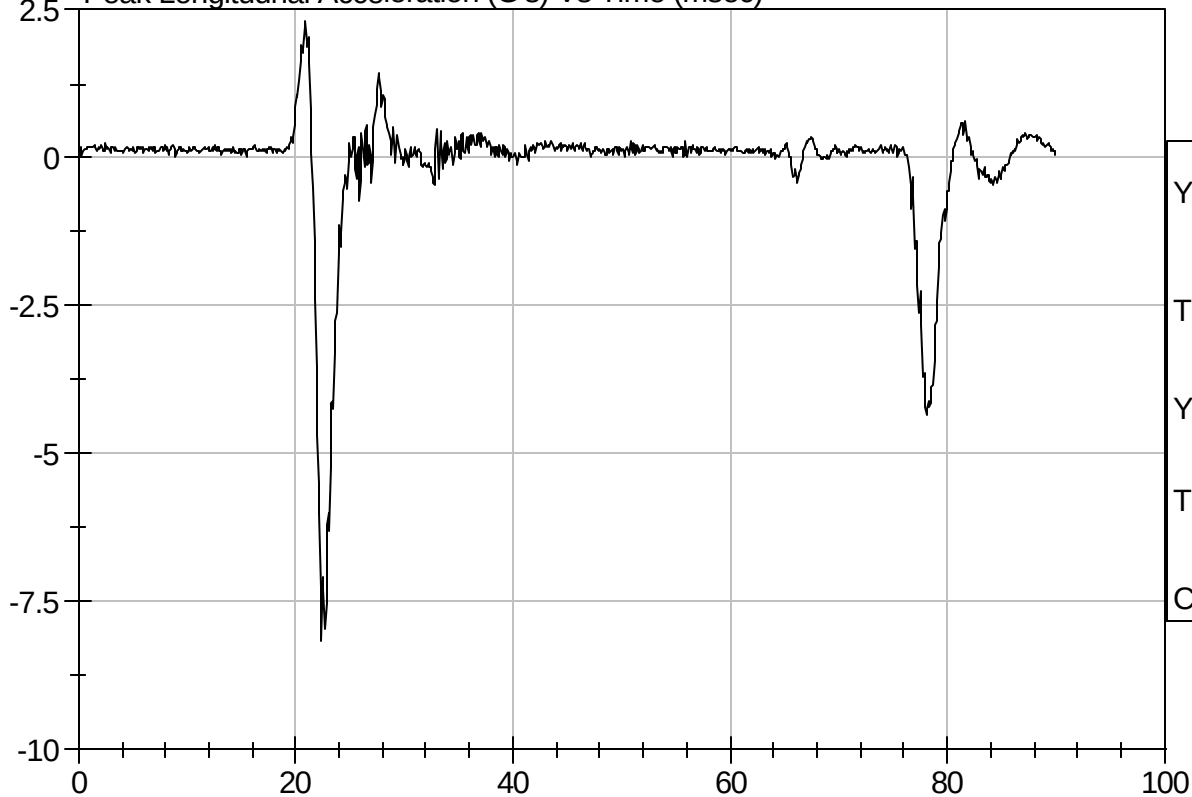
Component: D072641

Speed: 0 ft/s, 0 m/s

Peak Resultant Acceleration (G's) Vs Time (msec)



Peak Longitudinal Acceleration (G's) Vs Time (msec)

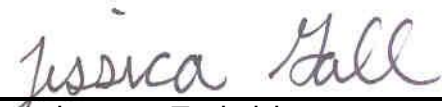


SID/HIII Calibration Data Sheet
Side Impact Dummy
Thorax Impact Test

ATD Serial No: 904

Test I.D: D072642

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	46	Pass
Probe Velocity	m/s	4.22 - 4.31	4.23	Pass
Upper Rib	G's	37 - 46	39	Pass
Lower Rib	G's	37 - 46	37	Pass
Lower Spine	G's	15 - 22	22	Pass
Overall Test Results				Pass


Laboratory Technician

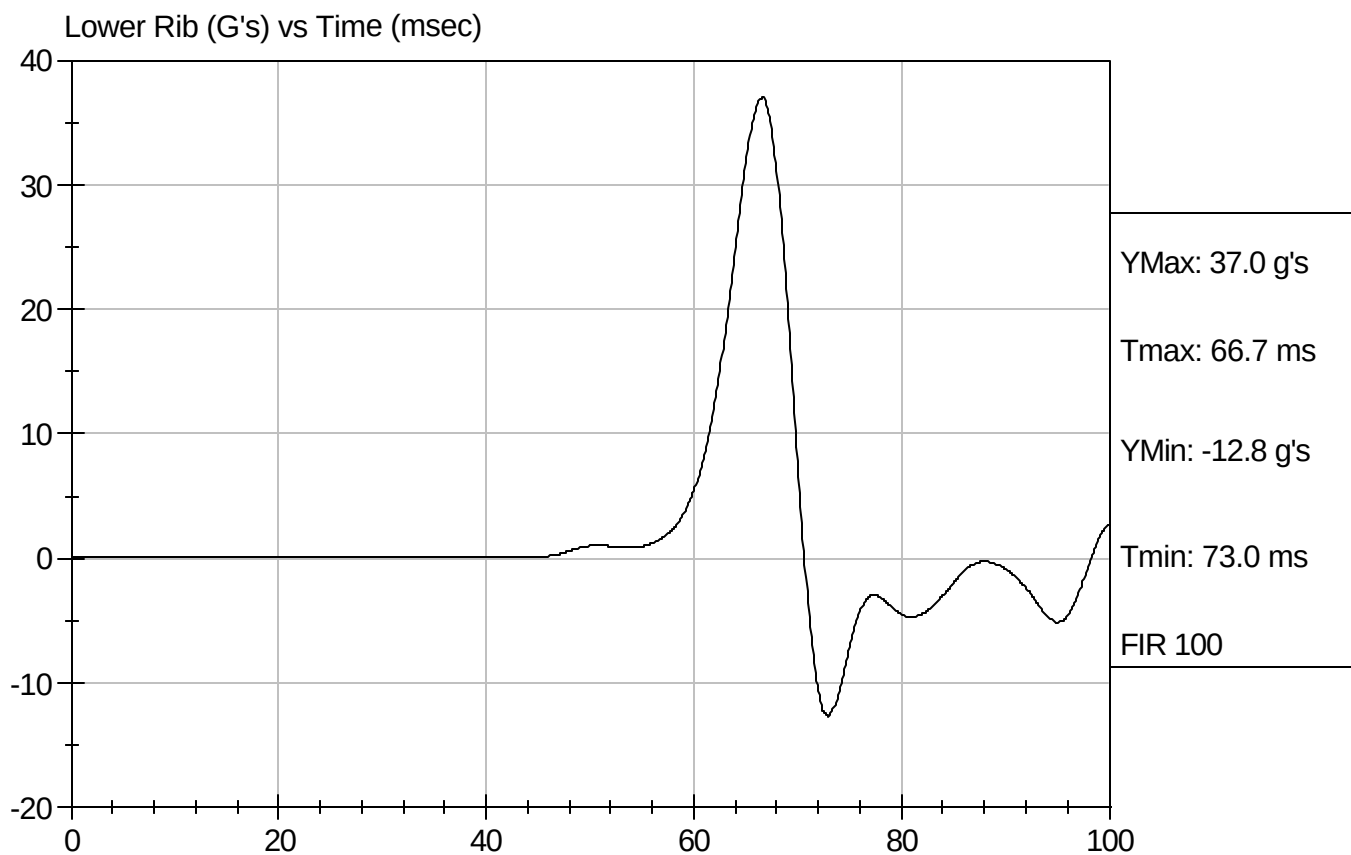
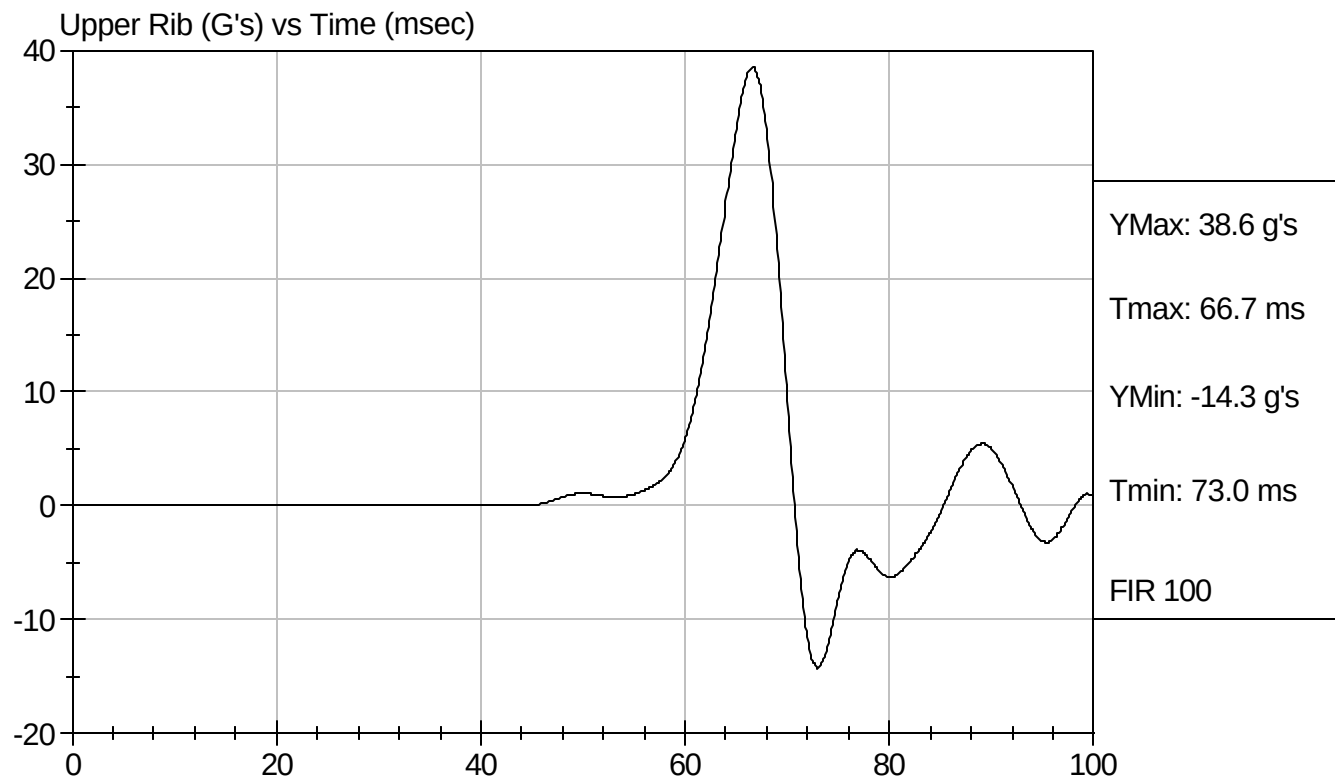
8/29/07
Test Date


Approved By



Test Desc: Thorax Impact
Component ID: D072642

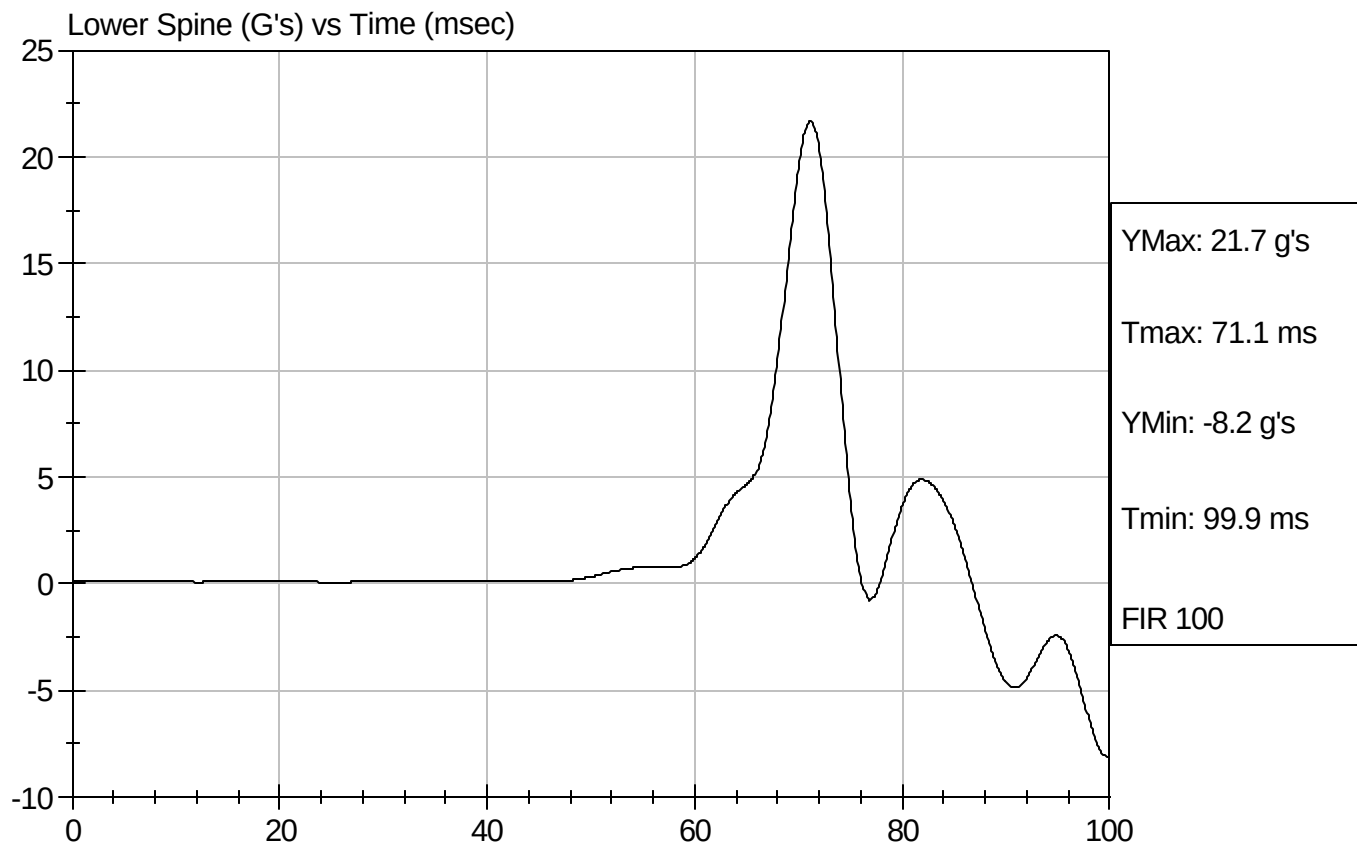
Test Date: 8/29/07
Speed: 13.88 ft/sec, 4.23 m/sec





Test Desc: Thorax Impact
Component ID: D072642

Test Date: 8/29/07
Speed: 13.88 ft/sec, 4.23 m/sec



SID/HIII Calibration Data Sheet
Side Impact Dummy
Pelvis Impact Test

ATD Serial No: 904

Test I.D: D072643

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	46	Pass
Probe Velocity	m/s	4.27 - 4.33	4.30	Pass
Pelvis Acceleration	G's	40 - 60	43	Pass
Overall Test Results			Pass	

Jessica Hall
Laboratory Technician

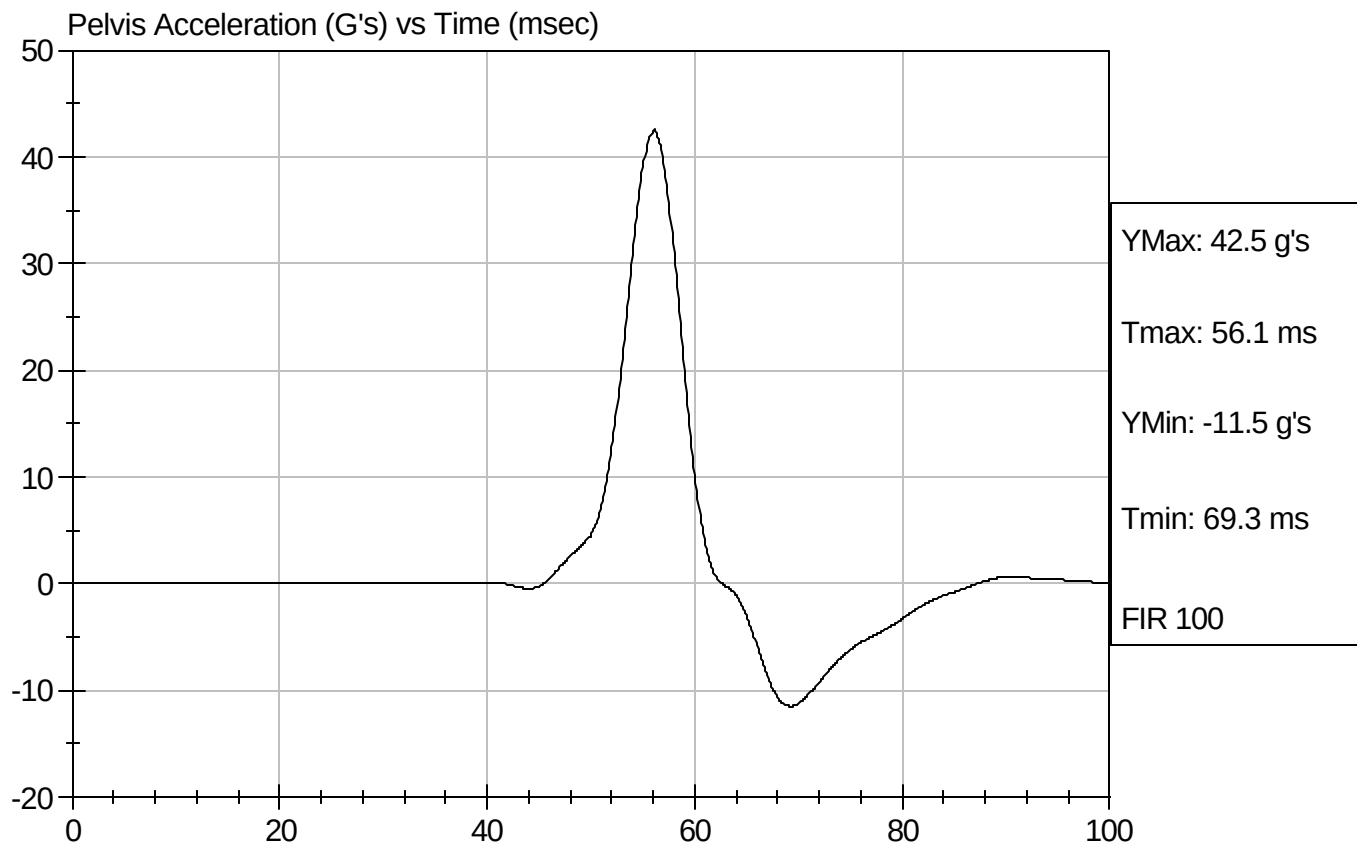
8/29/07
Test Date

David Winkelbauer
Approved By



Test Desc: Pelvis Impact
Component ID: D072643

Test Date: 8/29/07
Speed: 14.12 ft/sec, 4.30 m/sec



SID/HIII Calibration Data Sheet
Side Impact Dummy
Abdominal Compression Calibration (Pre-Load = 10 lbs)

ATD Serial No: 904

Test I.D: D072644

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	20.6	Pass
Laboratory Relative Humidity	%	10 to 70	37	Pass
Force At 12.7 mm	N	104 -162	135	Pass
Force At 19 mm	N	163 - 222	186	Pass
Force At 25.4 mm	N	222 - 280	250	Pass
Force At 33 mm	N	325 - 391	333	Pass
Overall Test Results				Pass

Jessica Hall
Laboratory Technician

8/29/07
Test Date

David Winkelbauer
Approved By



Test Description: Abdomen Compression

Test Date: 8/29/07

Component: D072644

Speed: 0 ft/sec, 0 m/sec

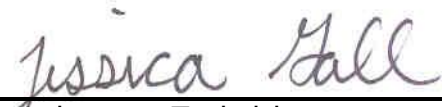


SID Calibration Data Sheet
Side Impact Dummy
Lumbar Flexion Calibration

ATD Serial No: 904

Test I.D: D072645

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 - 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	46	Pass
Force At 0 deg	N	0 - 26.7	0	Pass
Force At 20 deg	N	97.9 - 151.2	132.5	Pass
Force At 30 deg	N	151.2 - 204.6	198.3	Pass
Force At 40 deg	N	204.6 - 258.0	256.6	Pass
Return Angle	Deg	12 Maximum	7	Pass
Overall Test Results			Pass	


Laboratory Technician


Approved By

8/29/07
Test Date

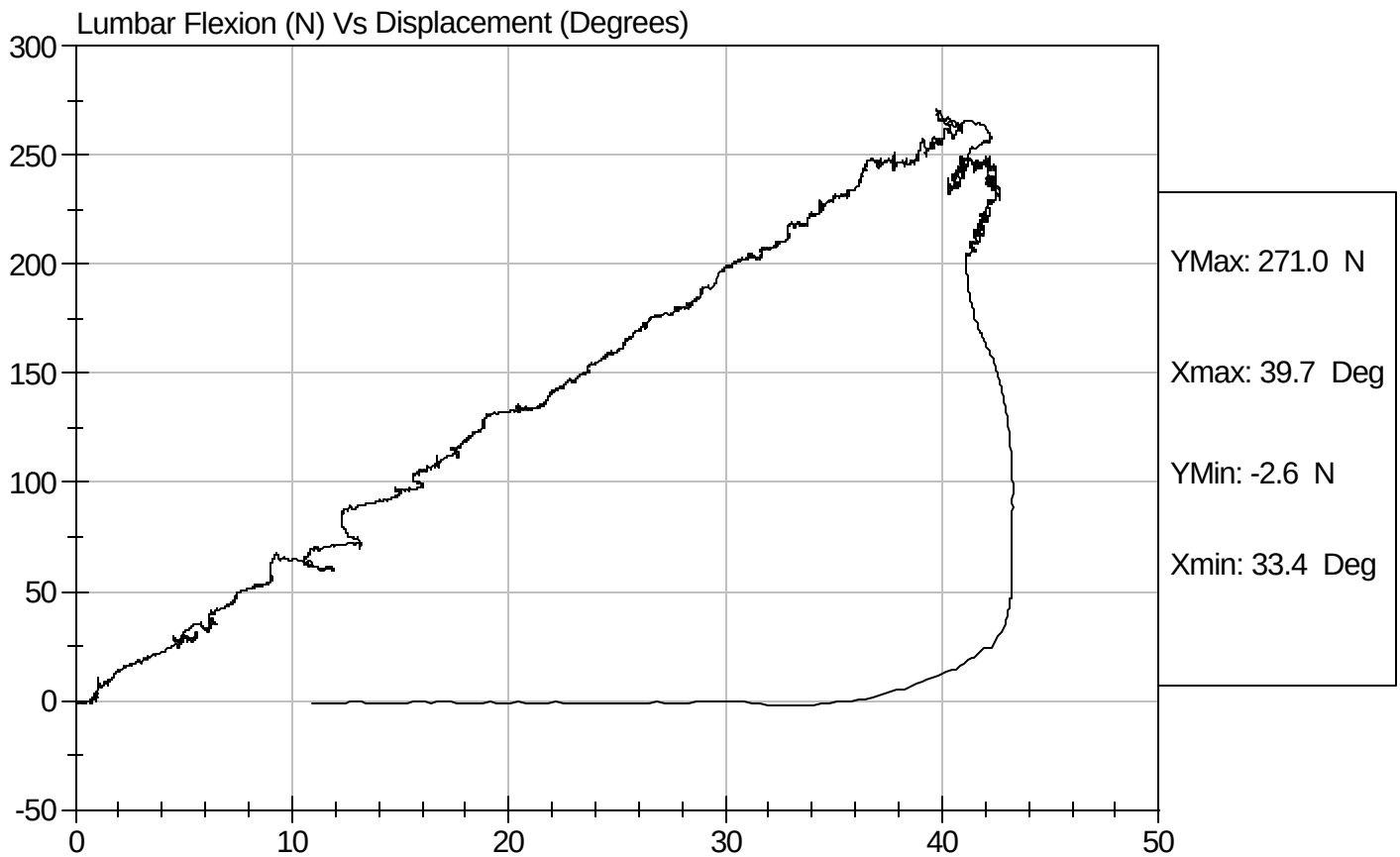


Test Description: Lumbar Flexion

Test Date: 8/29/07

Component: D072645

Speed: 0 ft/sec, 0 m/sec

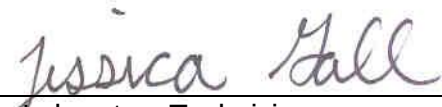


SID/HIII Calibration Data Sheet
Side Impact Dummy (SID)
Neck Pendulum Test

ATD Serial No: 904

Test I.D: D072649

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		deg C	20.6 to 22.2	21.0	Pass
Laboratory Relative Humidity		%	10 to 70	44	Pass
Impact Velocity		m/s	6.89 to 7.13	7.05	Pass
Pendulum Deceleration	10 msec	m/s	1.96 to 2.55	2.19	Pass
	20 msec	m/s	4.12 to 5.10	4.42	Pass
	30 msec	m/s	5.73 to 7.01	6.14	Pass
	40 to 70 msec	m/s	6.27 to 7.64	6.80	Pass
Midsagittal Plane Max Rotation		deg	66 to 82	72	Pass
Head Rotation Peak to Zero - Decay Time		msec	58 to 67	58	Pass
Max. Mx at Occipital Condyles		Nm	73 to 88	76	Pass
Mx Peak To Zero - Decay Time		msec	49 to 64	61	Pass
Mx Peak to Max. Head Rotation		msec	2 to 16	13	Pass


 Laboratory Technician

8/29/07

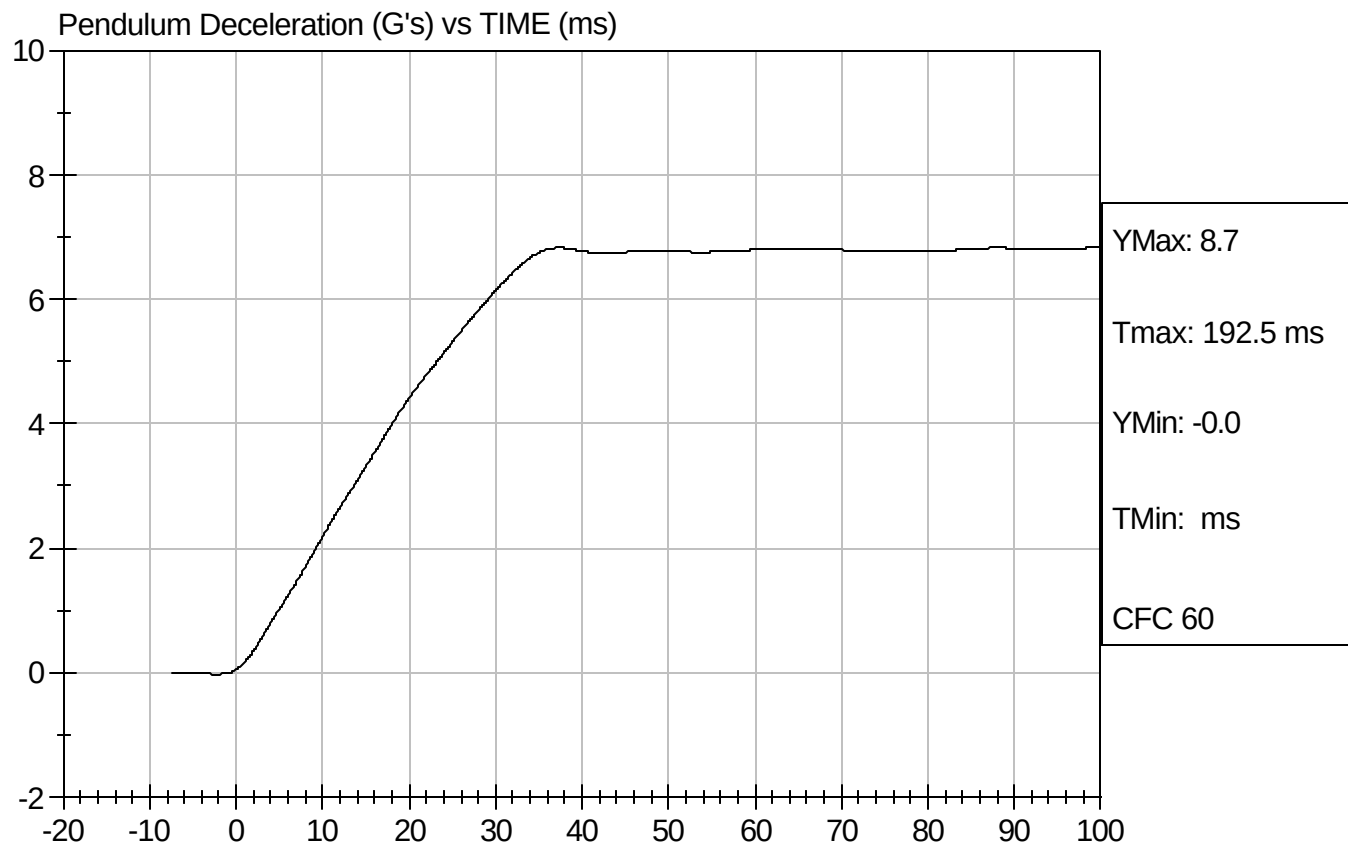
Test Date


 Approved By



Test Desc: Neck Bending
Component ID: D072649

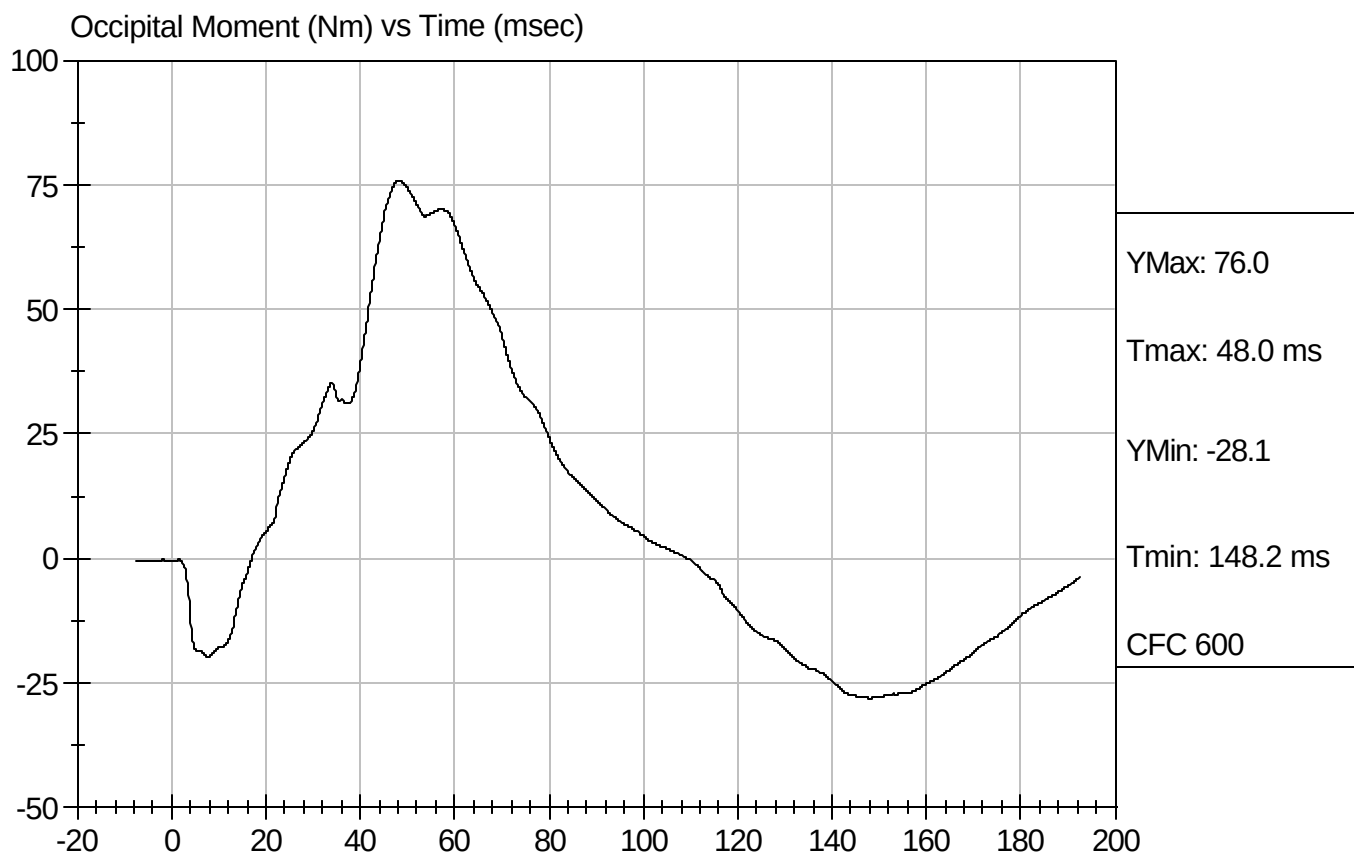
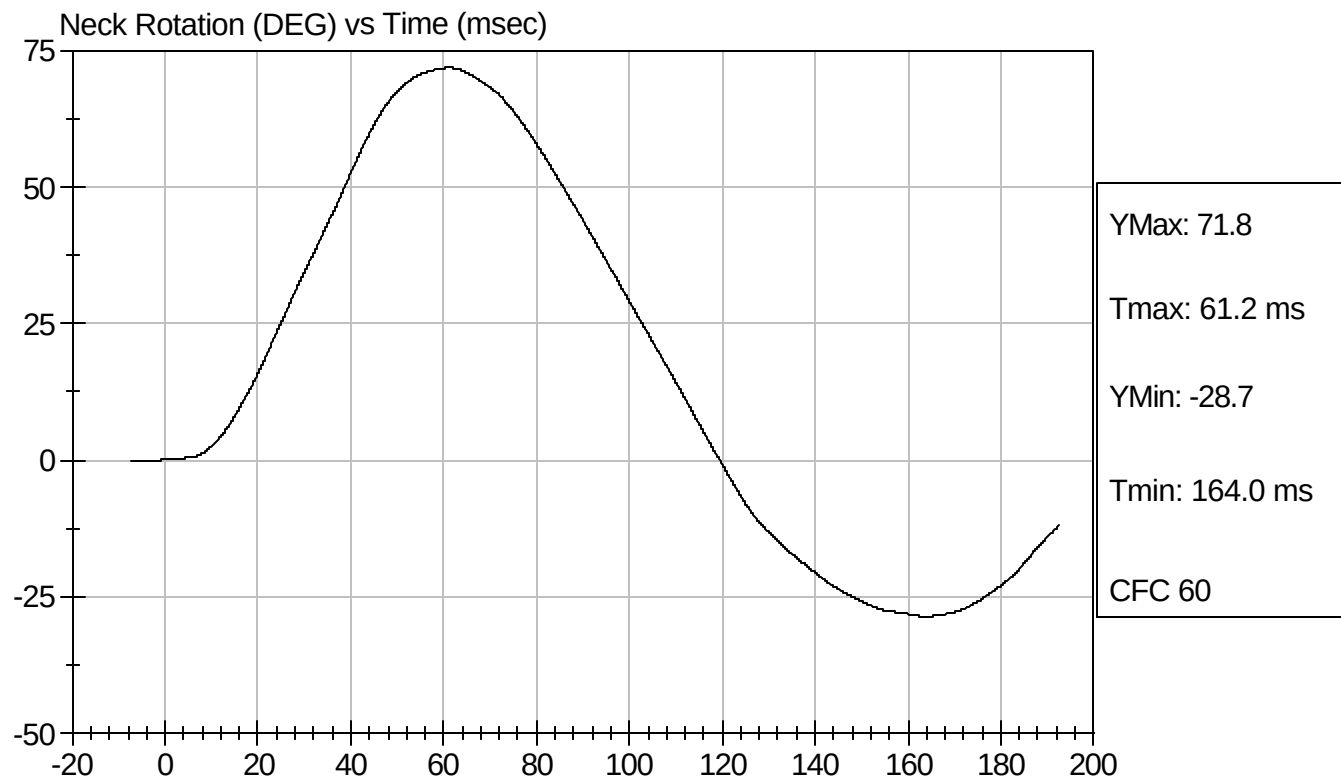
Test Date: 8/29/07
Speed: 23.14 ft/sec, 7.05 m/sec





Test Desc: Neck Bending
Component ID: D072649

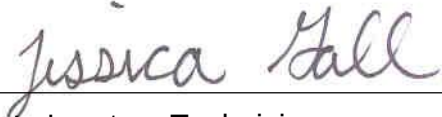
Test Date: 8/29/07
Speed: 23.14 ft/sec, 7.05 m/sec



SID Calibration Data Sheet
Side Impact Dummy
Inspection Checklist

ATD Serial No: 904

Test Part	Items Checked	Result
Skin	Visual inspection	Pass
Head	Visual, ballast, accelerometer mount	Pass
Neck	Visual	Pass
Spine Box	Visual, ballast, accelerometer mount	Pass
Rib Cage	Visual, measure	Pass
Sternum	Visual	Pass
Lumbar Spine	Visual	Pass
Abdomen	Visual	Pass
Pelvis	Visual, palpate, accelerometer mount	Pass
Upper Legs	Visual	Pass
Knees	Visual	Pass
Lower Legs	Visual, range of motion	Pass
Ankles	Visual, range of motion	Pass
Feet	Visual, range of motion	Pass
Joints	1 to 2 g range	Pass
Other		Pass


Laboratory Technician

Approved By

8/29/2007
Test Date

APPENDIX D
CHILD DUMMY DATA

SUMMARY OF TEST

Measurement Description	Units	Threshold	P3 ATD
Head Injury Criteria (HIC36)	N/A	N/A	201
Head Injury Criteria (HIC15)	N/A	390	201
Max. Thorax Accel. (3msec Clip)	G's	50	30

The child dummy was instrumented with head, chest, and upper six axial neck force and moment sensors.

The right rear (Position 3) child dummy (S/N 093) was calibrated previous to this test. Child dummy certification information can be found in this Appendix.

Position 3 was rear facing and used the vehicle LATCH attachment.

TEST VEHICLE WEIGHTS

	Units	As Tested (ATW) (Axle)		
		Front	Rear	Total
Left	kg	529.4	477.6	
Right	kg	487.6	426.8	
Ratio	%	52.9	47.1	
Totals	kg	1017.0	904.4	1921.4

As tested weight of vehicle includes two ATDs, one CRABI with CRS, cargo, equipment and instrumentation.

TEST NOTES

The child seat became unattached from its base during impact.

TEST DUMMY INFORMATION

Description	Position 3 CRS
Dummy Type / Serial No.	12 month old CRABI / 093
Number of Data Channels	12
Restraint System	Evenflo Discovery (Rear Facing)

POST TEST SEAT DATA

Location	Seat Movement (mm)	Seat Back Failure
P1 (Left Front)	0	None
P2 (Right Front)	0	None
P3 (Right Rear)	0	None
P4 (Left Rear)	0	None

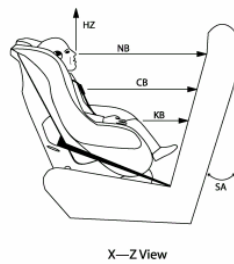
VISIBLE DUMMY CONTACT POINTS

Description	Position 3 CRS
Head Contact	Head to LR Passenger
Upper Torso Contact	None
Lower Torso Contact	None
Left Foot Contact	Foot to vehicle rear seat
Right Foot Contact	Foot to vehicle rear seat

CHILD DUMMY POSITIONING IN VEHICLE

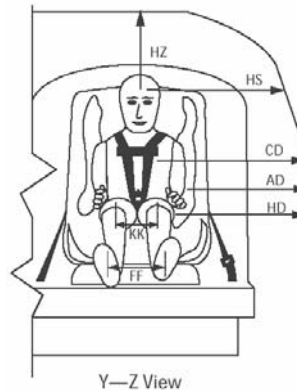
Child Restraint System (Position 3)	Evenflo Discovery (Rear Facing)
NHTSA No.	M80302

Dummy Measurements for Rear-facing CRS Passengers



X—Z View

HZ	-	Head to Roof
NB	-	Nose to Front of Back Seat
CB	-	Chest to Front of Back Seat
KB	-	Knee to Front of Back Seat
SA	-	Seat Back Angle



Y—Z View

X—Z View

HZ	-	Head to Roof
HS	-	Head to Side Window
CD	-	Chest to Door
AD	-	Arm to Door
HD	-	H-Point to Door
KK	-	Knee to Knee
FF	-	Foot to Foot
NB	-	Nose to Front Seat Back
CB	-	Chest to Front Seat Back
KB	-	Knee to Front Seat Back
TB	-	Toe to Front Seat Back
SA	-	Seat Back Angle

Measurement	Pre-Test (mm)	Post-Test (mm)
	P3 CRS (093)	P3 CRS (093)
SA (deg)	8.0	
HS	455	230
CD	340	215
AD	225	95
HD	245	160
HZ	400	223
NB	470	400
CB	358	345
KK	105	103
FF	105	78
KB - LEFT	175	204
KB - RIGHT	175	205
TB - LEFT	43	48
TB - RIGHT	41	30

All dimensions in mm (unless noted)
P3 – Right Rear Passenger (Rear Facing)

CRS PERFORMANCE DATA

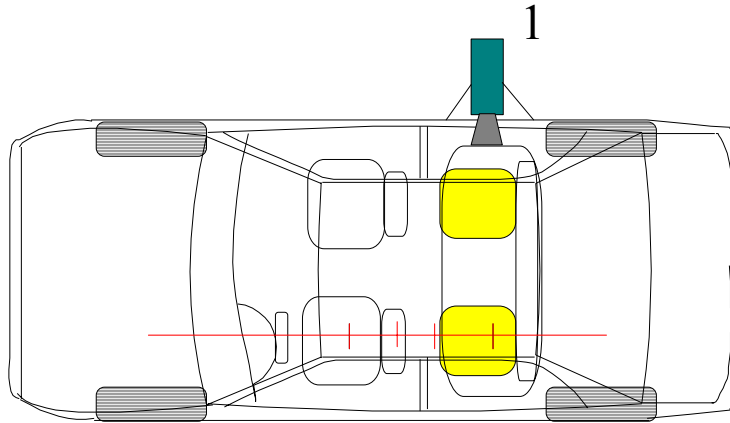
Child Restraint System (Position 3)	Evenflo Discovery (Rear Facing)
NHTSA No.	M80302

POSITION 3 CRS POST-TEST INSPECTION

Location	Damage	Remarks
Upper Tether Strap		
Upper Tether Buckle		
Upper Tether Hook		
Vehicle Upper Tether Anchor	None	
Lower Anchor Strap	None	
Lower Anchor Buckle		
Lower Anchor Hooks	None	
Vehicle Lower CRS Anchors	None	
Harness Connections	None	3 Point
Cracks on CRS	None	
Fabric Tears on CRS	None	
Vehicle Seat Structure	None	
Vehicle Seat Fabric Tears	None	
Child Dummy	None	CRABI 12 Month Old

CRS CAMERA DATA

Child Restraint System (Position 3)	Evenflo Discovery (Rear Facing)
NHTSA No.	M80302



No.	Camera View	Location (mm) *			Angle (deg)	Lens (mm)	Speed (fps)
		X	Y	Z			
1	Vehicle Onboard Rear SID/HIII, Side					8	1000

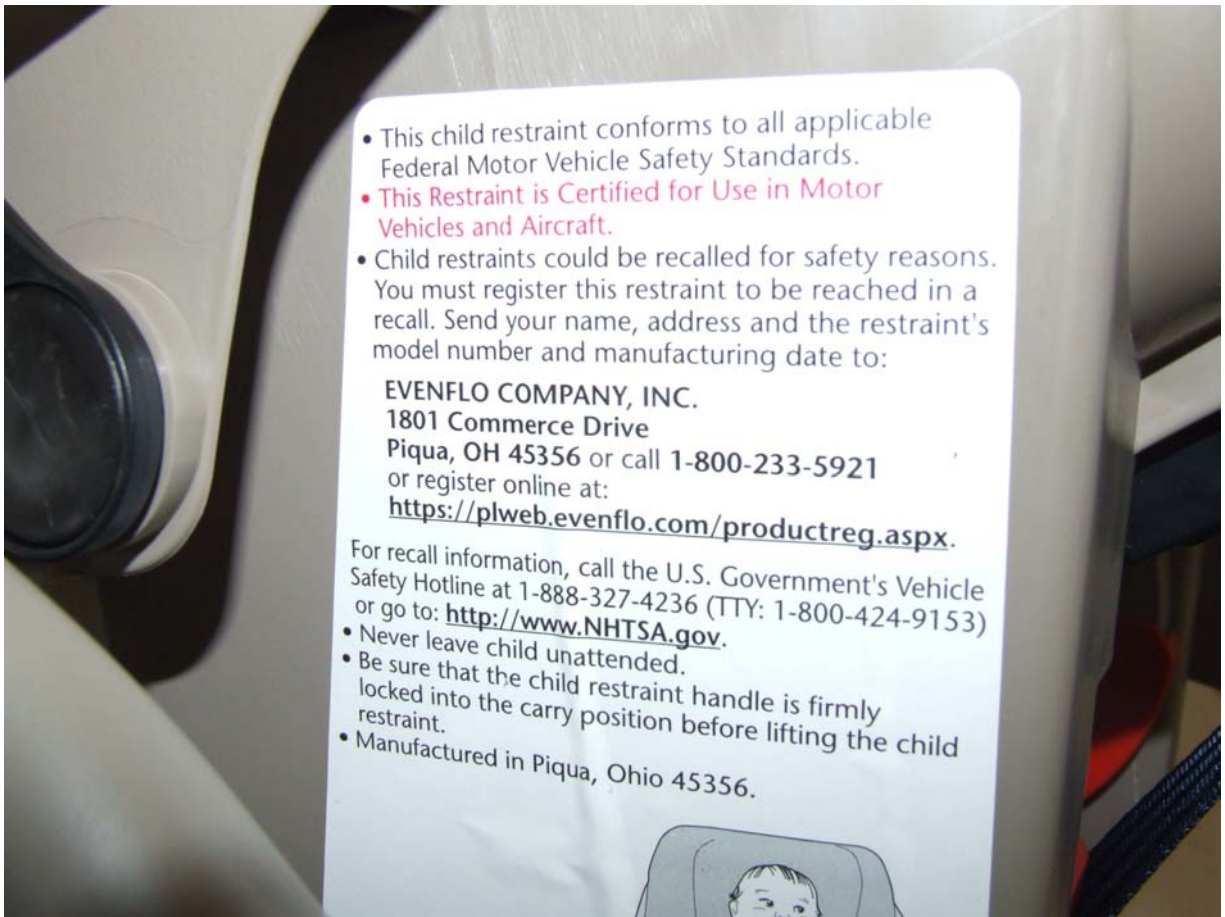
*COORDINATES:

- +X = film plane rearward of barrier
- +Y = film plane to right of monorail centerline
- +Z = film plane above ground level

PHOTOGRAPHS

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Close-up View of Position 3 CRS Label



Pre-Test Front View of Position 3 CRS



Post-Test Front View of Position 3 CRS



Pre-Test Rear View of Position 3 CRS



Post-Test Rear View of Position 3 CRS



Pre-Test Left Side View of Position 3 CRS



Post-Test Left Side View of Position 3 CRS



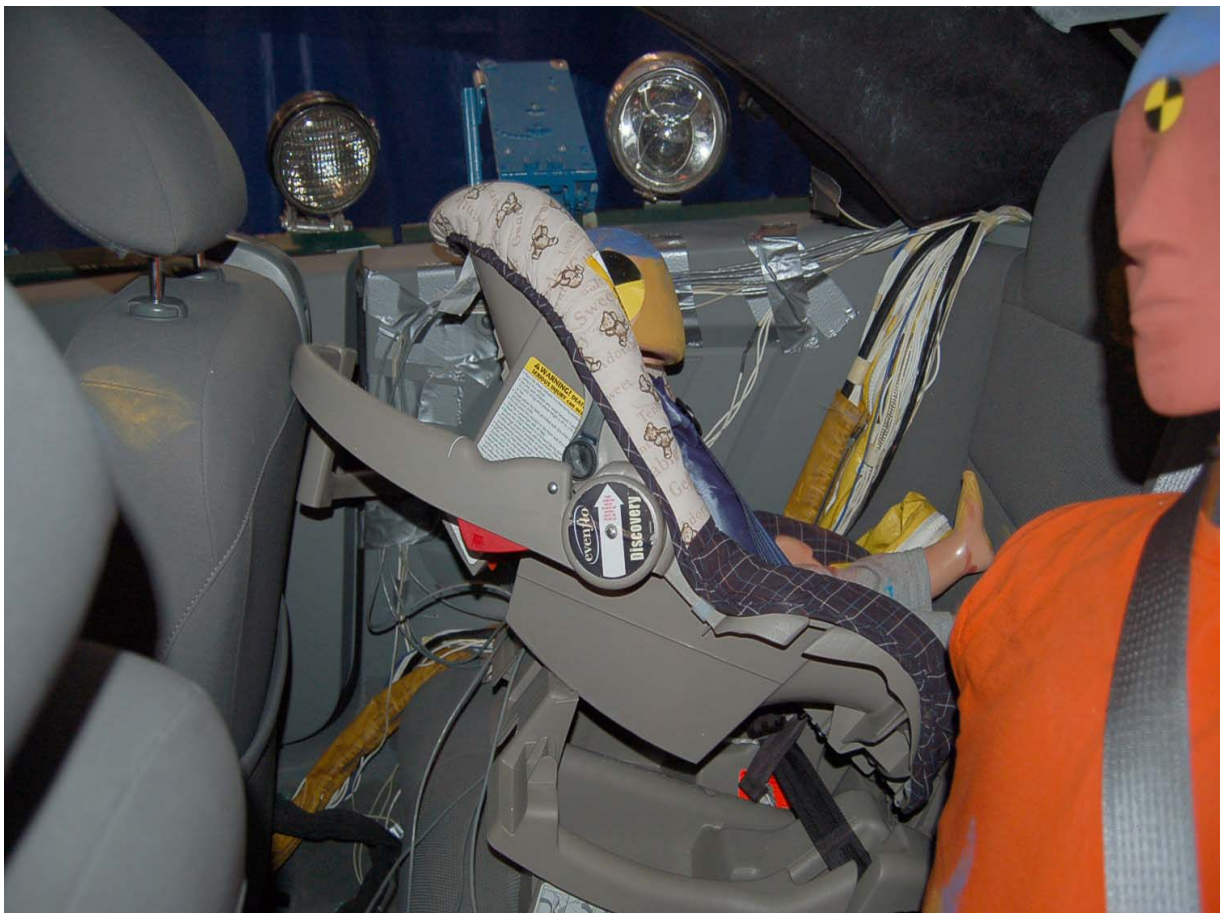
Pre-Test Right Side View of Position 3 CRS



Post-Test Right Side View of Position 3 CRS



Pre-Test Position 3 Left Side View



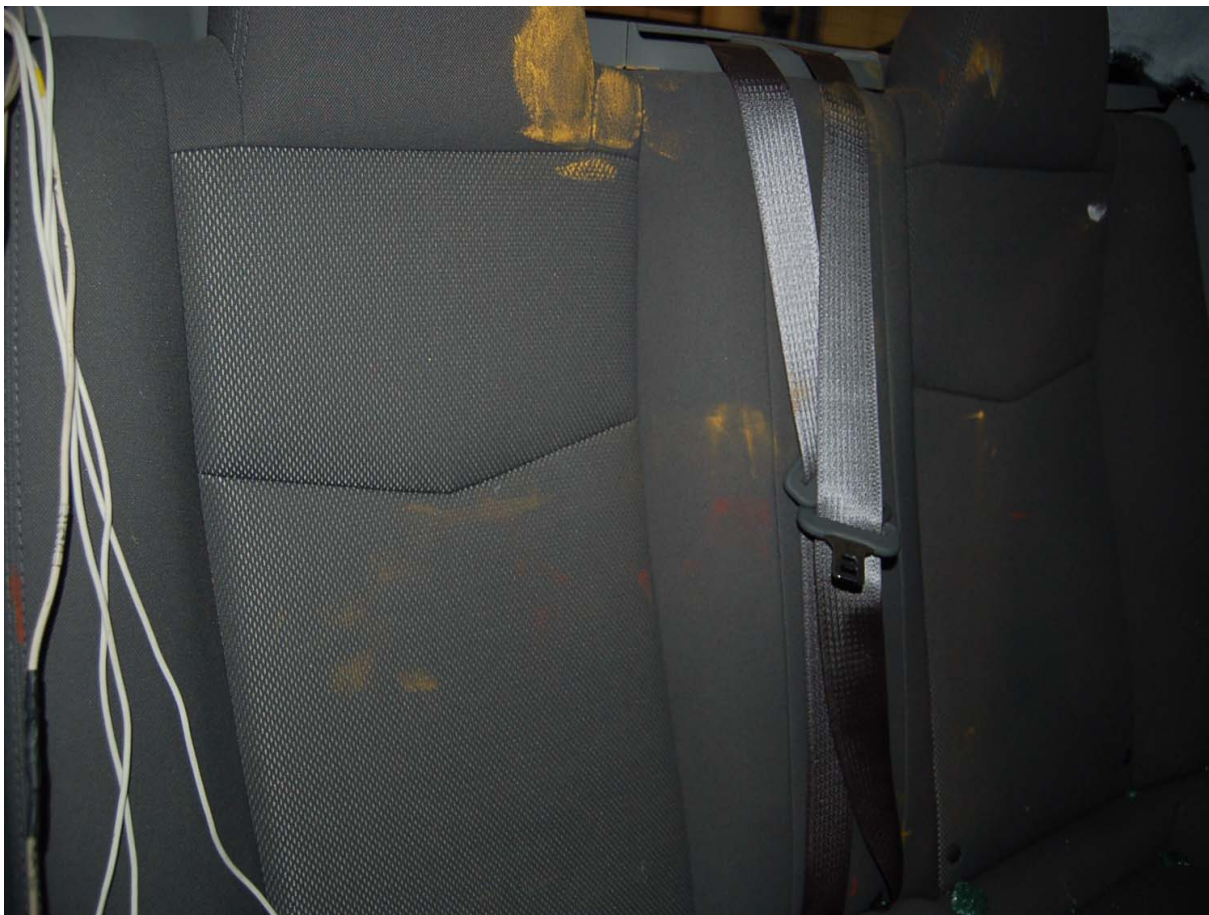
Post-Test Position 3 Left Side View



Pre-Test Position 3 Right Side View



Post-Test Position 3 Right Side View



Post-Test Position 3 Feet Contact



Post-Test CRS Base View #1



Post-Test CRS Base View #2

CHILD DUMMY RESPONSE DATA TRACES

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The following response data can be found in the R&D section of the NHTSA website at www.nhtsa.dot.gov

RRP Child Seat X Acceleration vs. Time

RRP Child Seat Y Acceleration vs. Time

RRP Child Seat Z Acceleration vs. Time

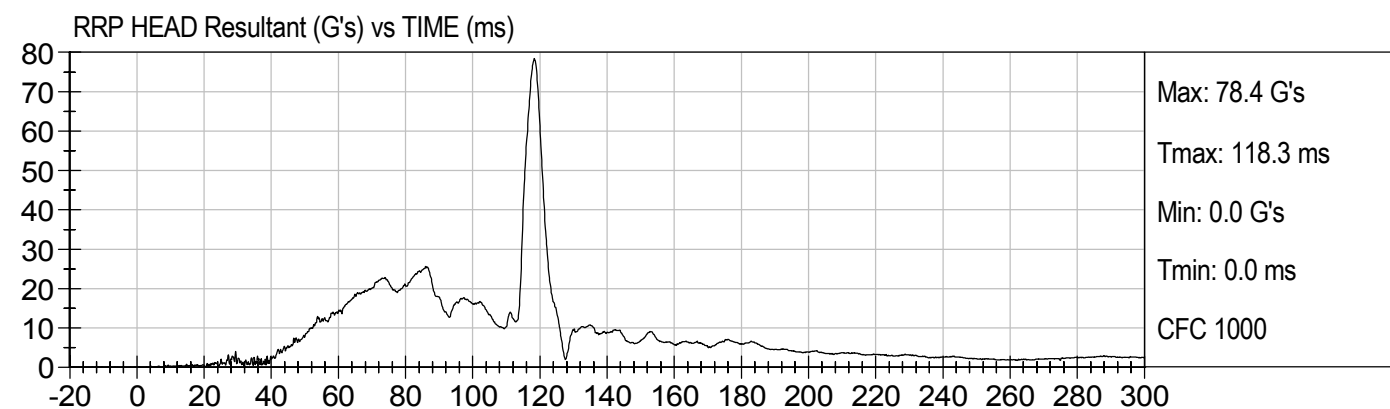
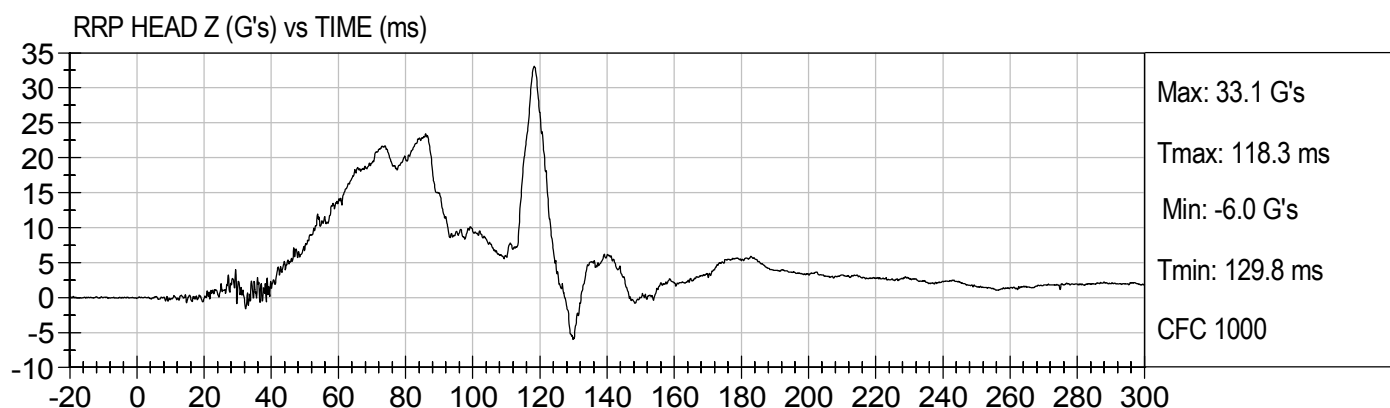
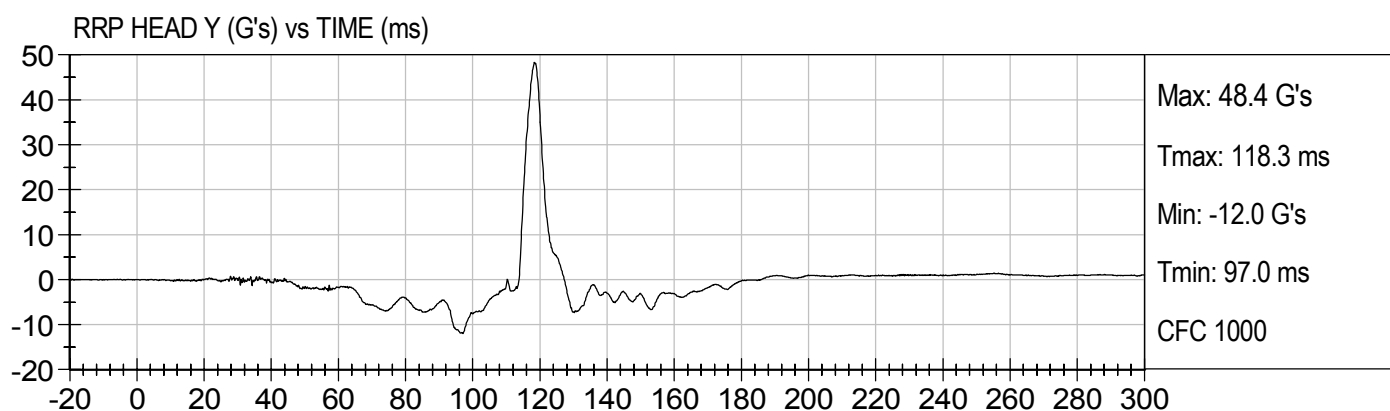
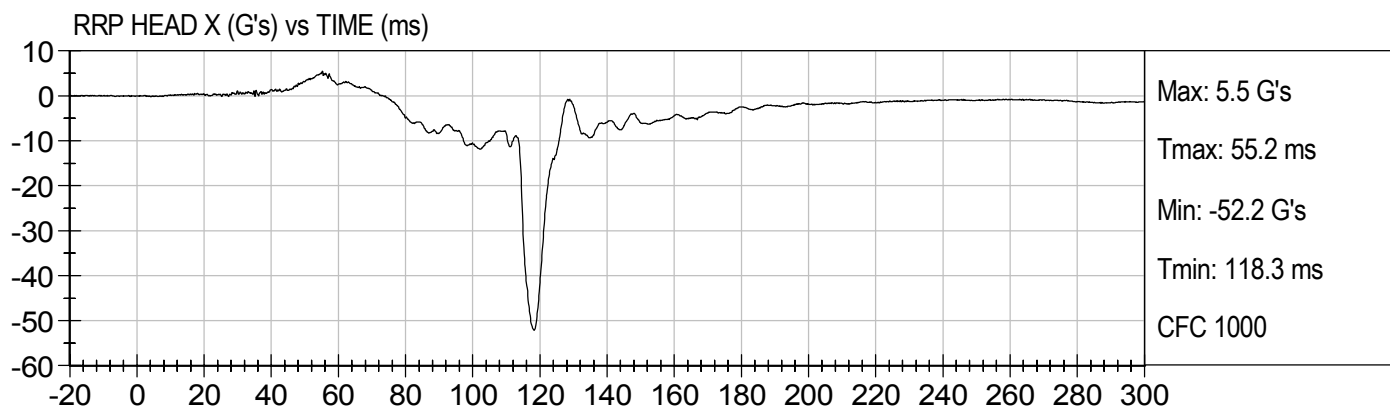
RRP Child Seat Resultant Acceleration vs. Time



NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)

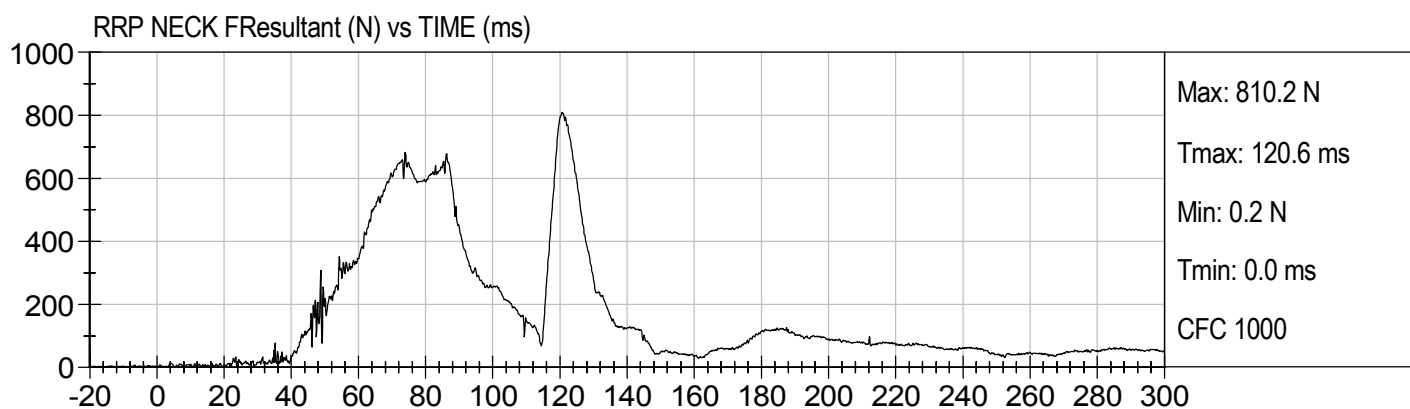
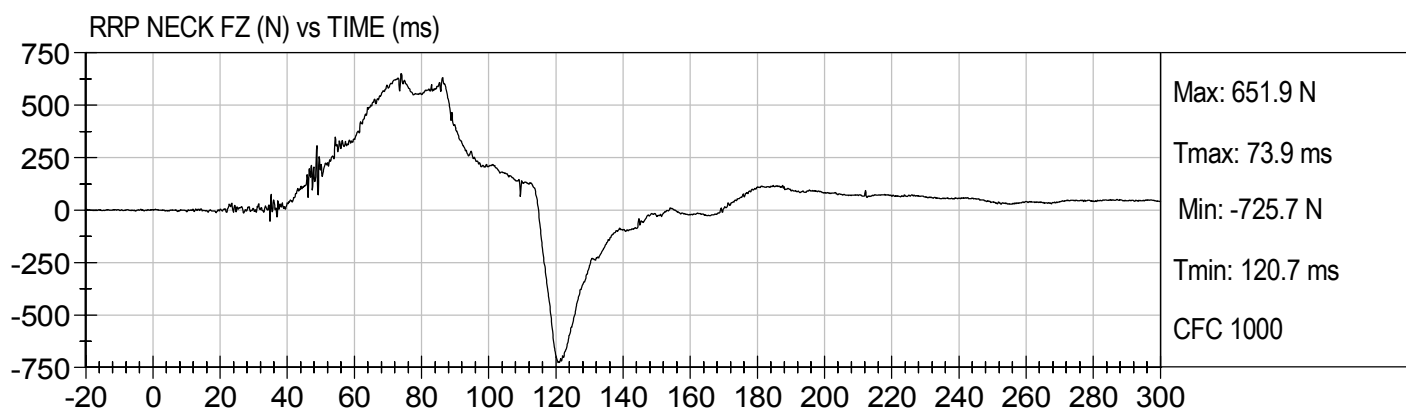
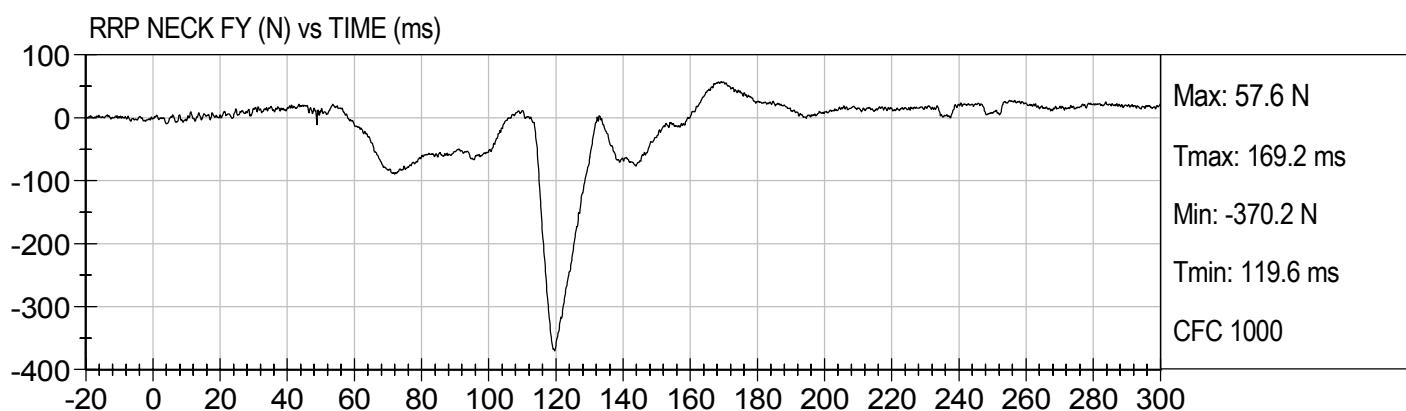
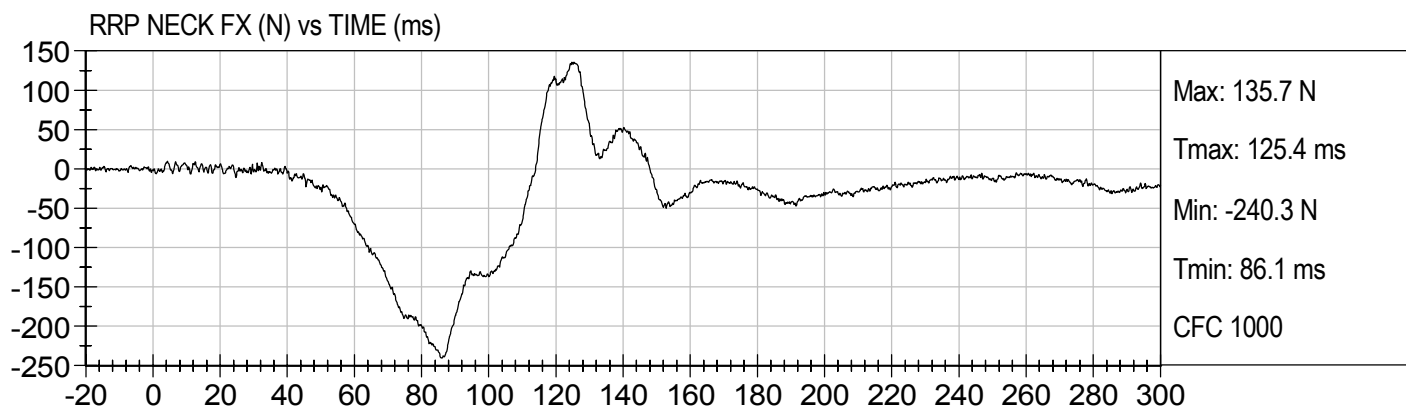




NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)



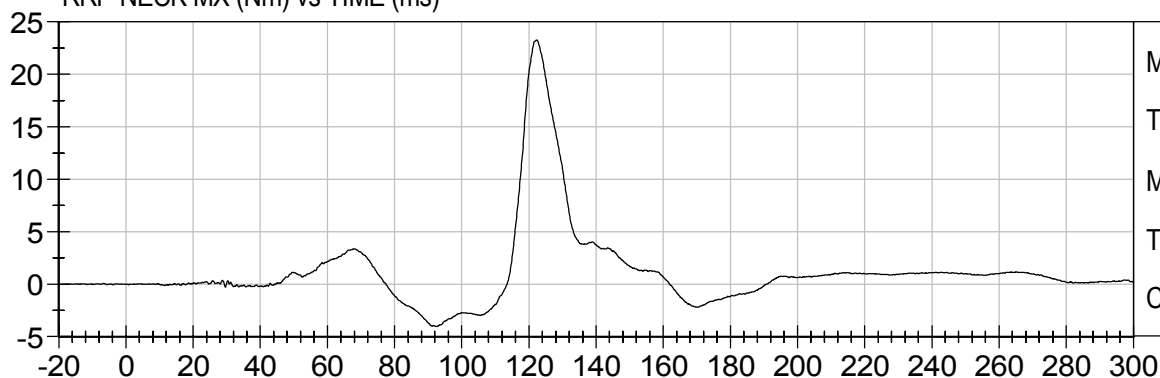


NCAP 38.5MPH LEFT SIDE

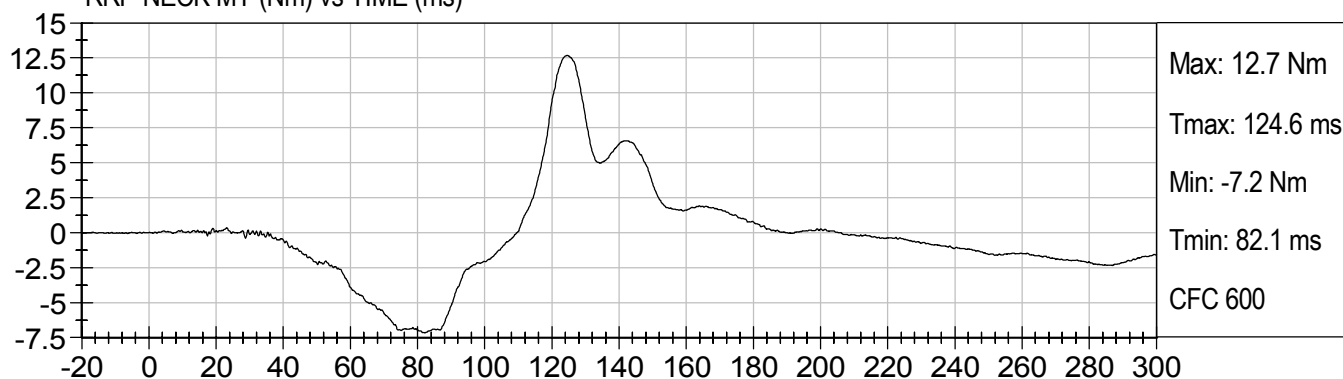
2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)

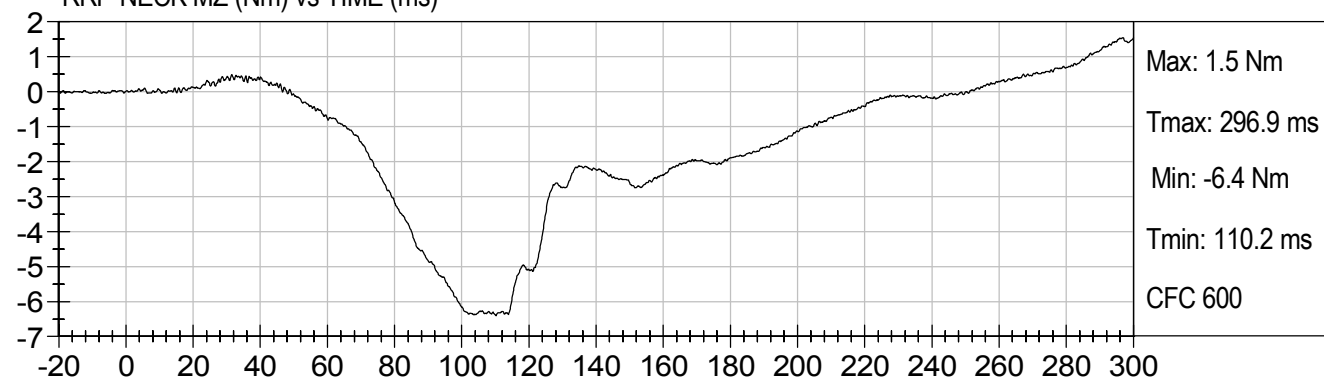
RRP NECK MX (Nm) vs TIME (ms)



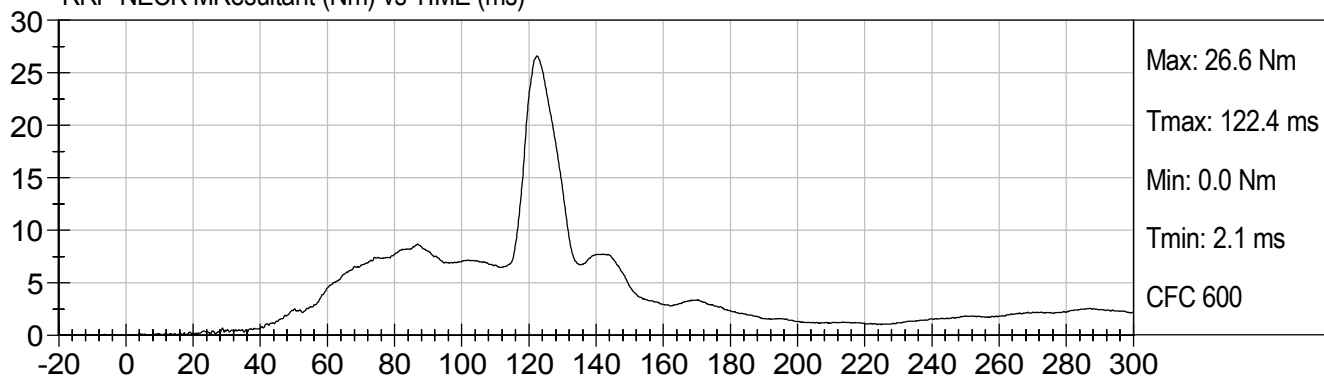
RRP NECK MY (Nm) vs TIME (ms)



RRP NECK MZ (Nm) vs TIME (ms)



RRP NECK MResultant (Nm) vs TIME (ms)

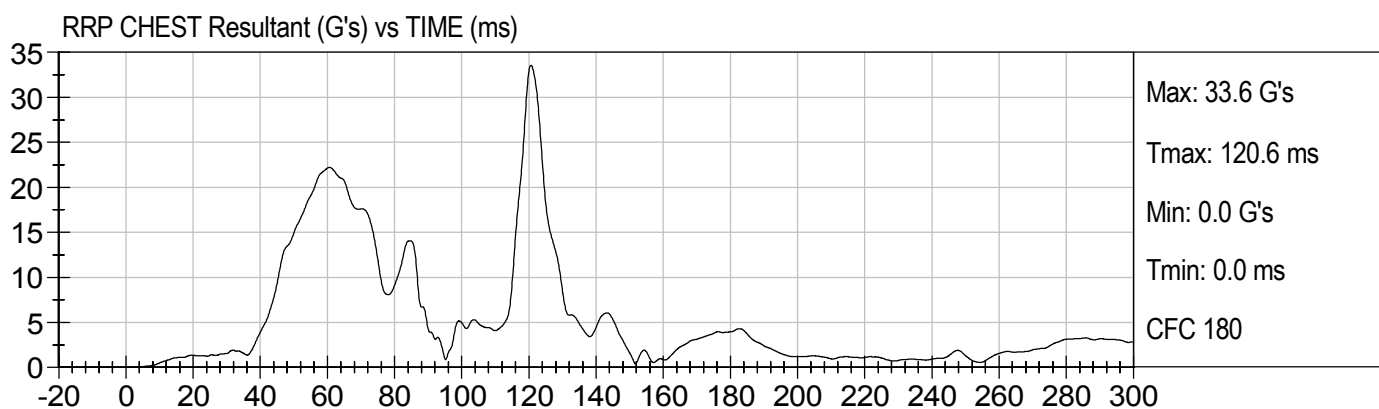
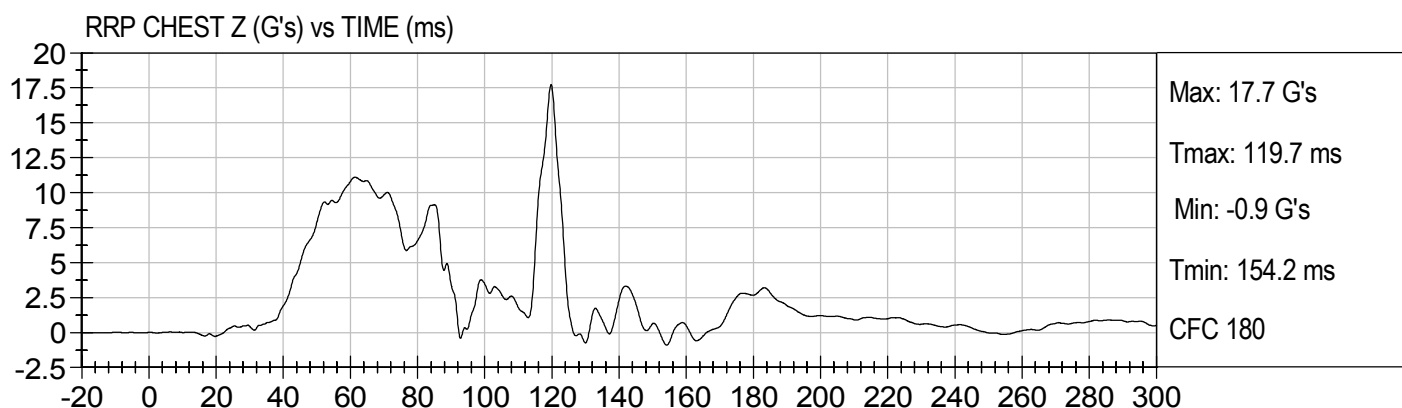
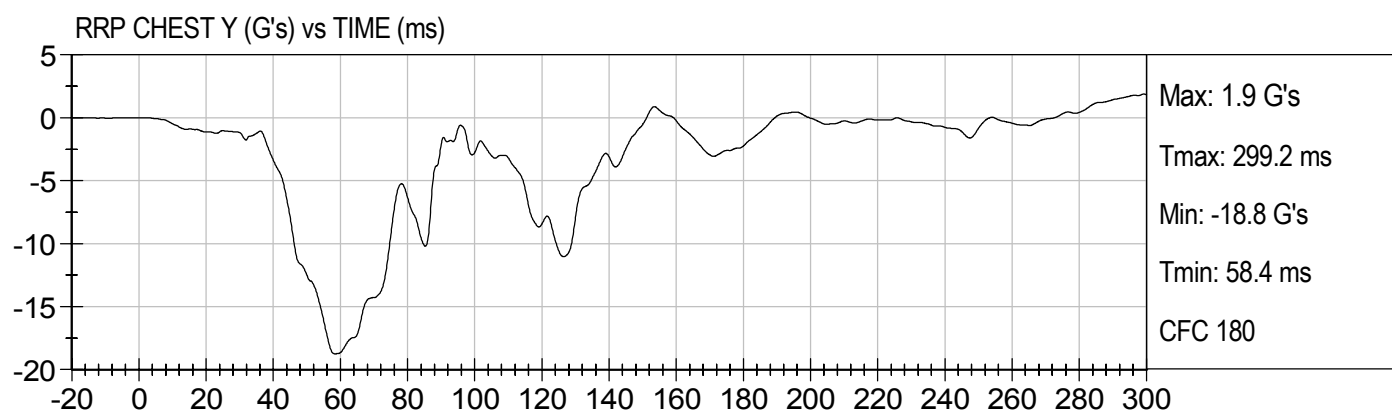
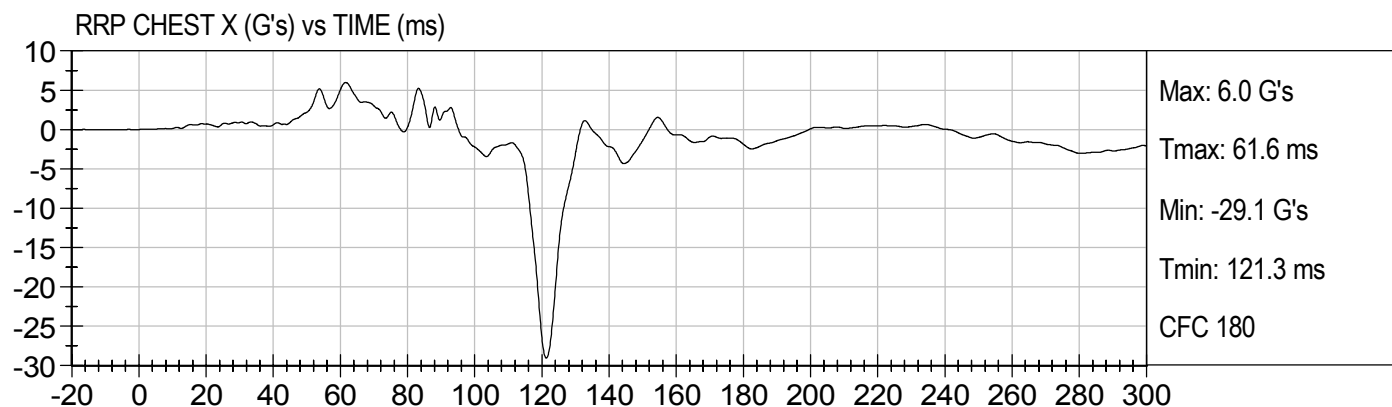




NCAP 38.5MPH LEFT SIDE

2008 CHRYSLER SEBRING CONVERTIBLE

Test Date: 08/29/2007
M80302 Speed: 38.5 mph (62.0 km/h)



CHILD DUMMY CALIBRATION INFORMATION

MGA RESEARCH CORPORATION
FRONT HEAD DROP TEST
CRABI 12 MONTH

ATD Serial No: 093

Test ID: D072541

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.6	20.8	Pass
Laboratory Relative Humidity	%	10 to 70	47	Pass
Peak Resultant Acceleration	G's	100 to 120	110	Pass
Peak Lateral Acceleration	G's	+/- 15	-3	Pass
Unimodal	N/A	within 17% of peak	Yes	Pass
Overall Test Results				Pass


Laboratory Technician

8/23/07

Test Date

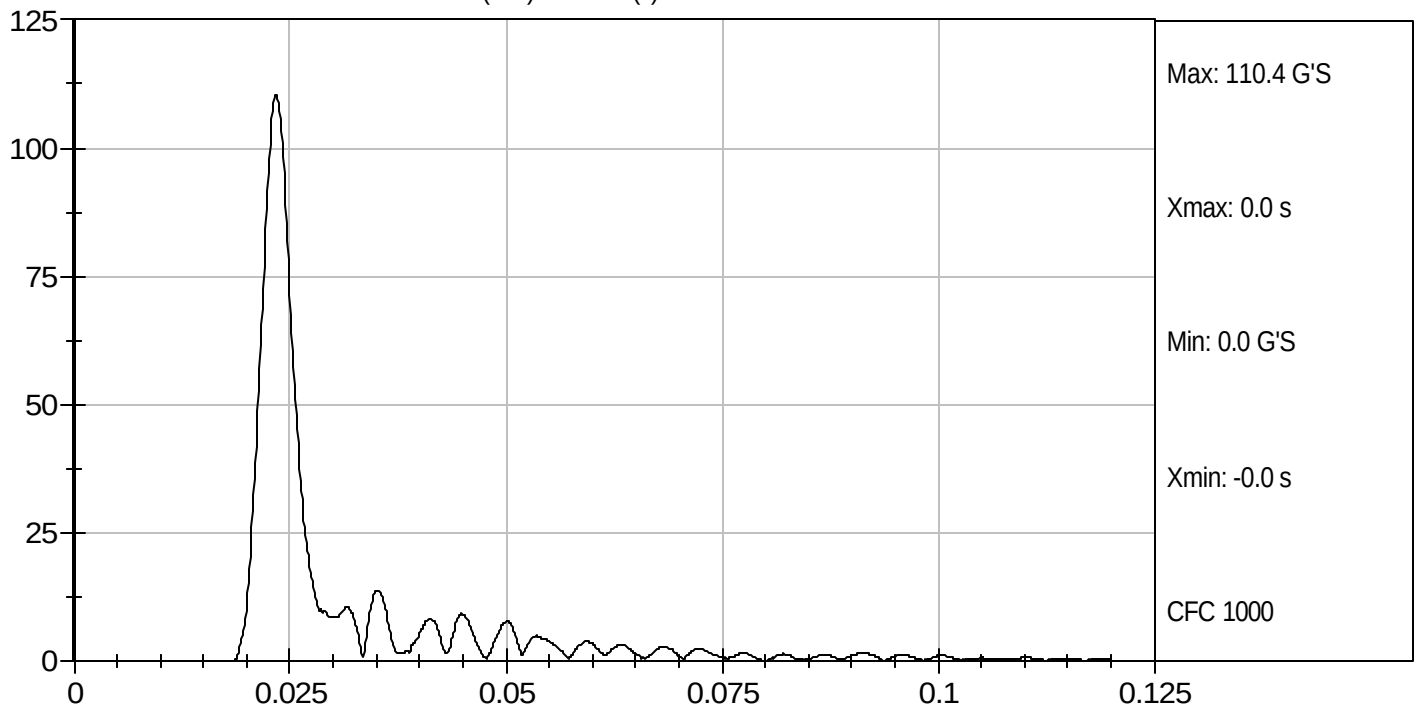

Approved By



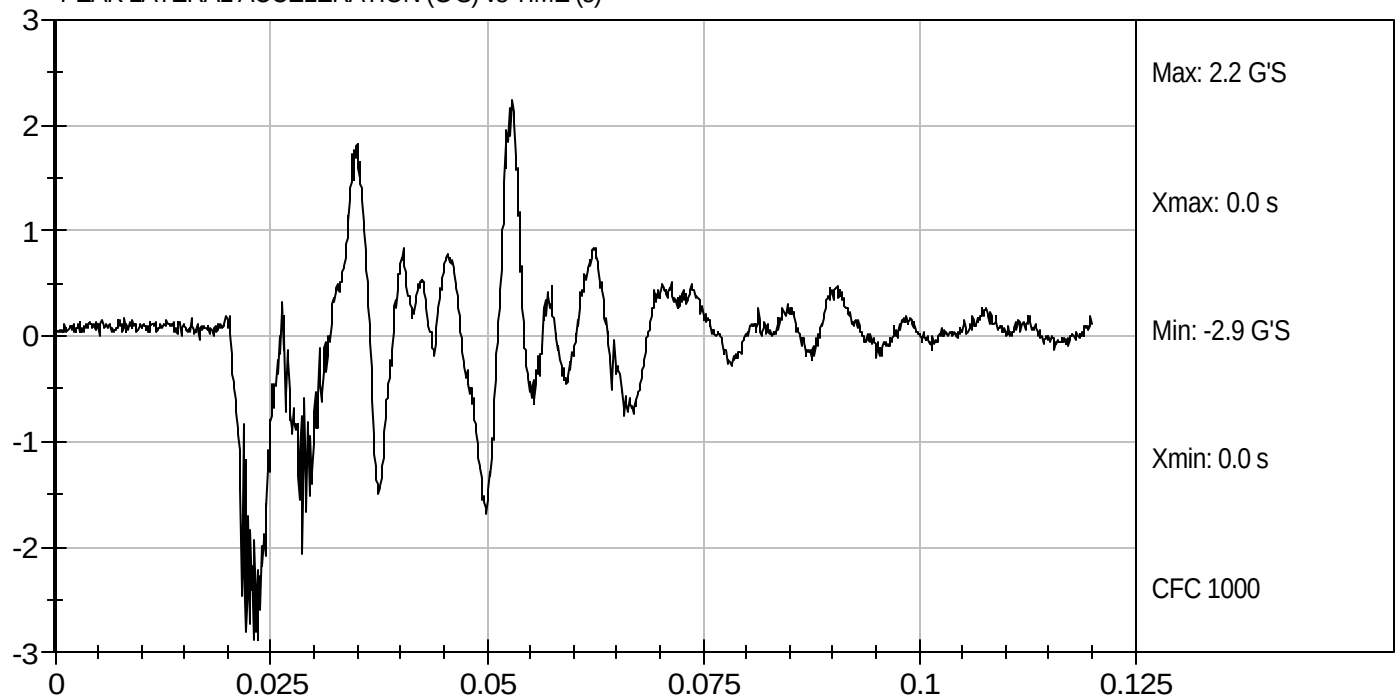
Test Desc: Head Drop
Component ID: D072541

Test Date: 8/23/07
Velocity: 0 ft/s, 0 m/s

PEAK RESULTANT ACCELERATION (G'S) vs TIME (s)



PEAK LATERAL ACCELERATION (G'S) vs TIME (s)



MGA RESEARCH CORPORATION
NECK FLEXION TEST
CRABI 12 MONTH

ATD Serial No: 093

Test I.D: D072542

Tested Parameter		Units	Specification	Result	Pass/Fail
Temperature		deg C	20.6 to 22.2	20.8	Pass
Humidity		%	10 to 70	46	Pass
Impact Velocity		m/s	5.1 to 5.3	5.2	Pass
Pendulum Deceleration	10 msec	m/s	1.6 to 2.3	1.9	Pass
	20 msec	m/s	3.4 to 4.2	3.6	Pass
	25 msec	m/s	4.3 to 5.2	4.4	Pass
D Plane Rotation		deg	75.0 to 86.0	83.1	Pass
Moment About Occipital Condyle		Nm	36.0 to 45.0	40.2	Pass
Positive Moment - Time Curve Decay to 5 Nm		msec	60 to 80	74	Pass
Overall Test Results				Pass	



Laboratory Technician

8/23/07

Test Date



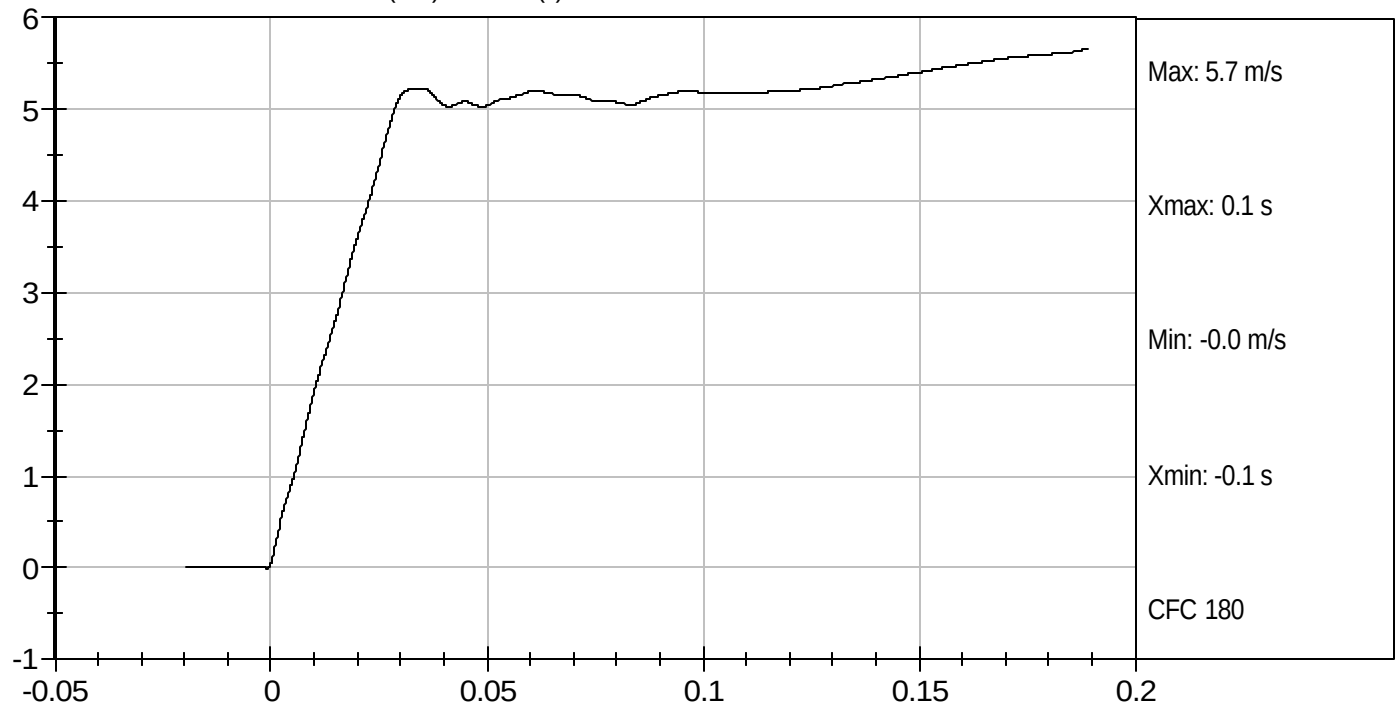
Approved By



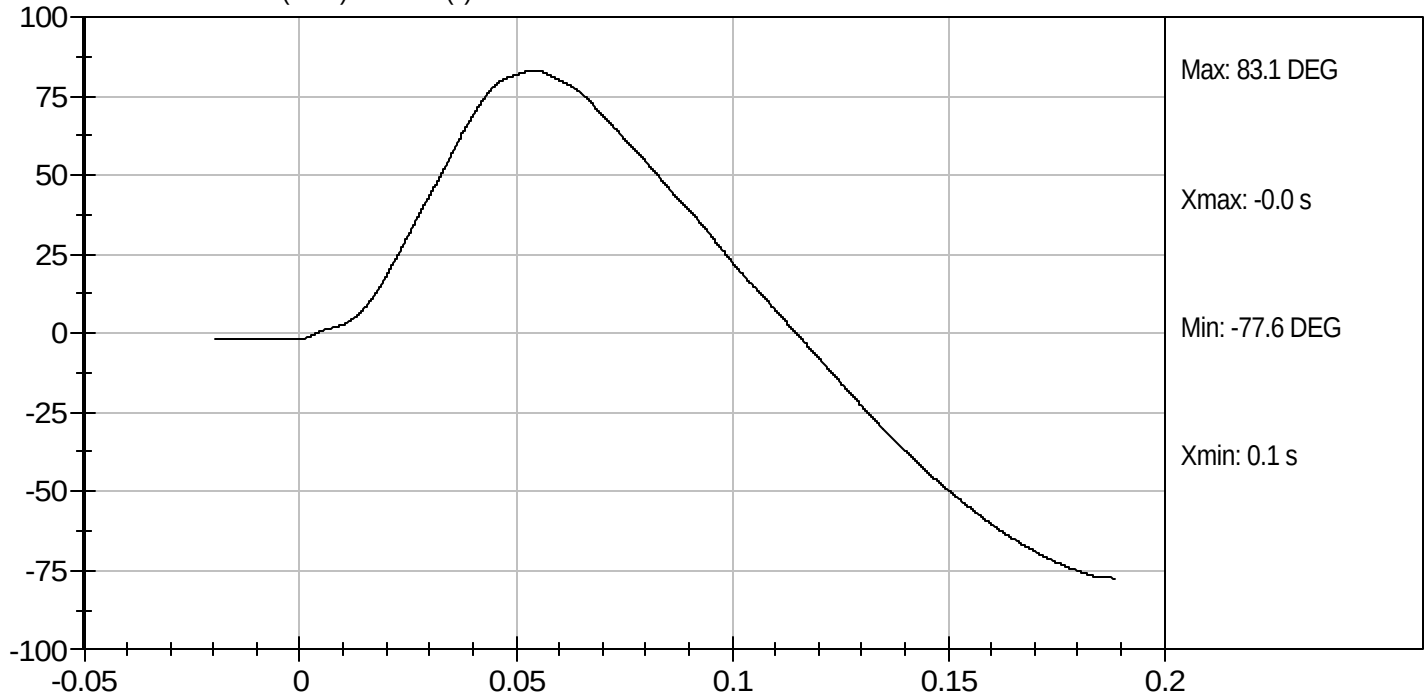
Test Desc: Neck Flexion
Component ID: D072542

Test Date: 8/23/07
Velocity: 17.006 ft/s, 5.2 m/s

PENDULUM DECELERATION (m/s) vs TIME (s)



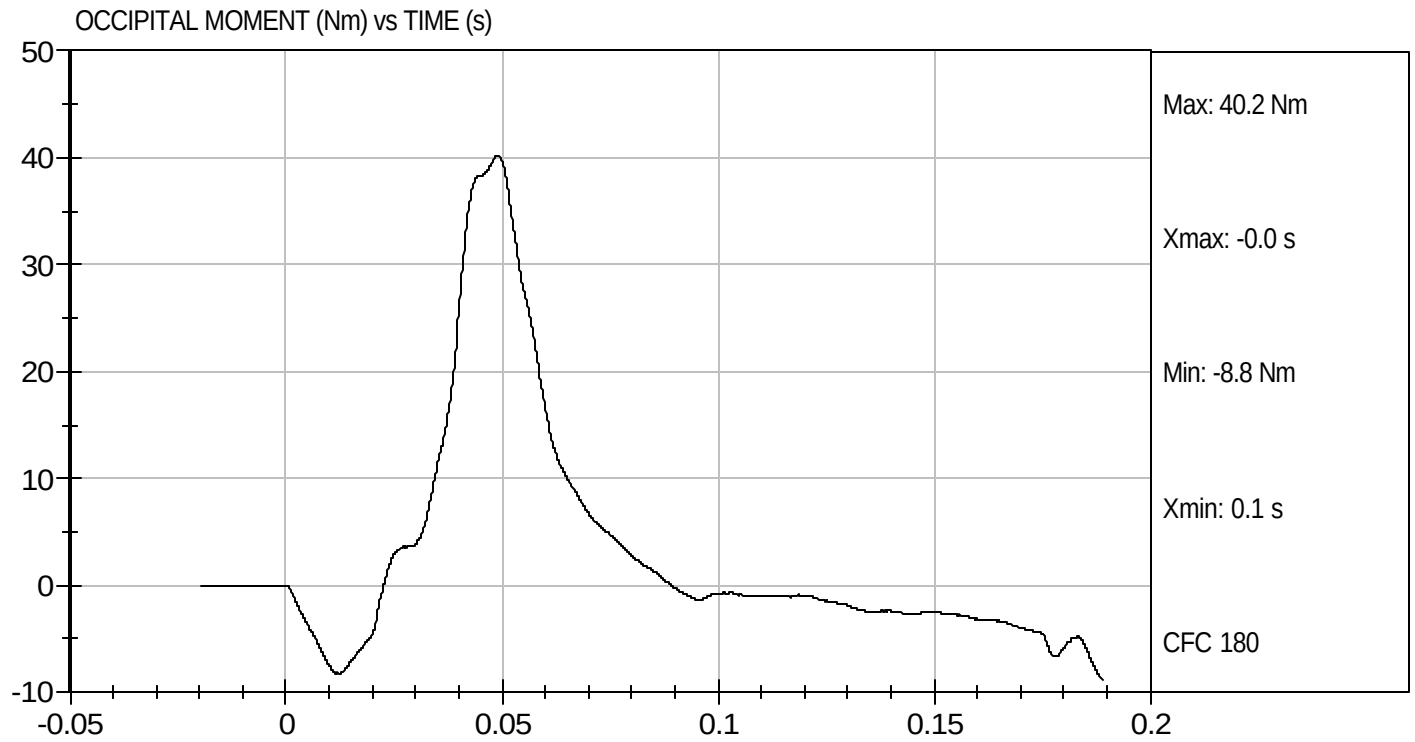
FLEXION ANGLE (DEG) vs TIME (s)





Test Desc: Neck Flexion
Component ID: D072542

Test Date: 8/23/07
Velocity: 17.006 ft/s, 5.2 m/s



MGA RESEARCH CORPORATION
NECK EXTENSION TEST
CRABI 12 MONTH

ATD Serial No: 093

Test I.D: D072543

Tested Parameter		Units	Specification	Result	Pass/Fail
Temperature		deg C	20.6 to 22.2	20.8	Pass
Humidity		%	10 to 70	46	Pass
Pendulum Speed		m/s	2.4 to 2.6	2.5	Pass
Pendulum Deceleration	6 msec	m/s	0.8 to 1.2	1.0	Pass
	10 msec	m/s	1.5 to 2.1	2.0	Pass
	14 msec	m/s	2.2 to 2.9	2.3	Pass
D Plane Rotation		deg	80.0 to 92.0	80.3	Pass
Moment About Occipital Condyle		Nm	-23.0 to -12.0	-19.1	Pass
Negative Moment - Time Curve Decay to -5 Nm		msec	76 to 90	77	Pass
Overall Test Results					Pass


 Laboratory Technician

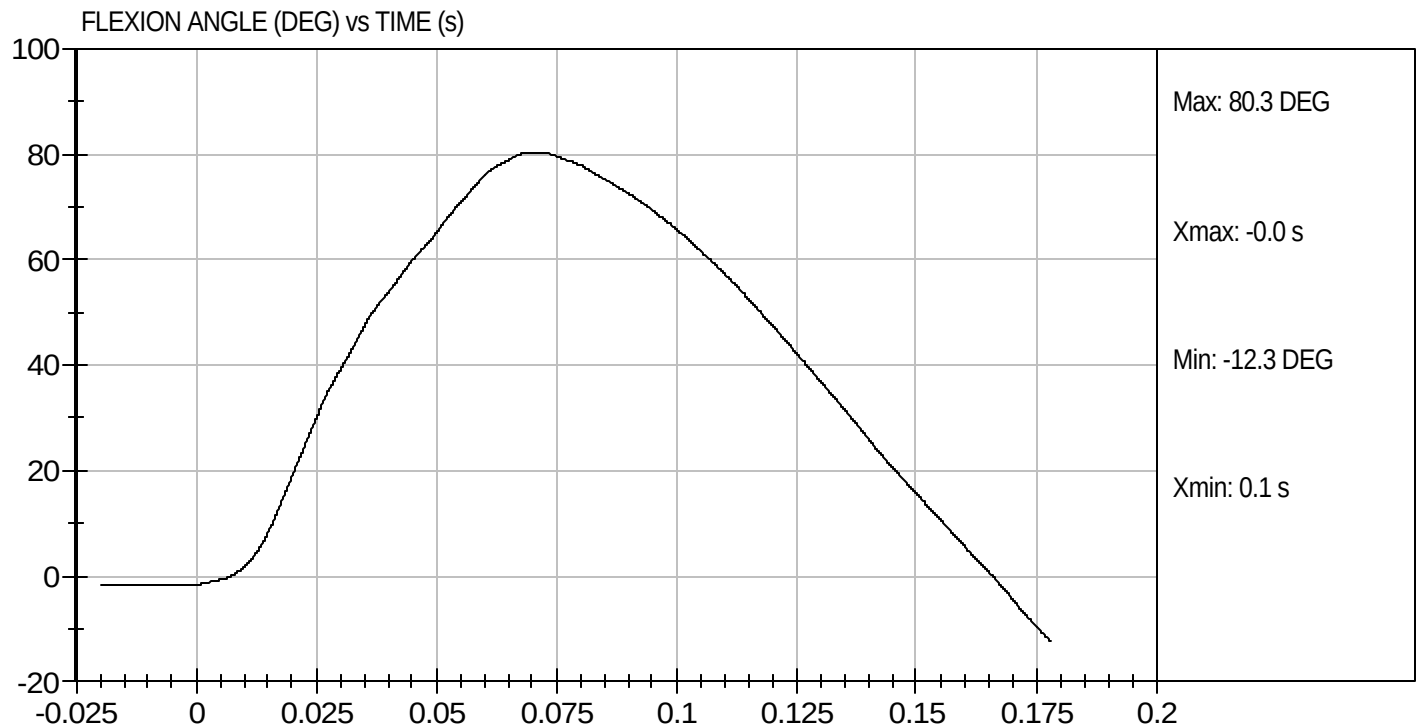
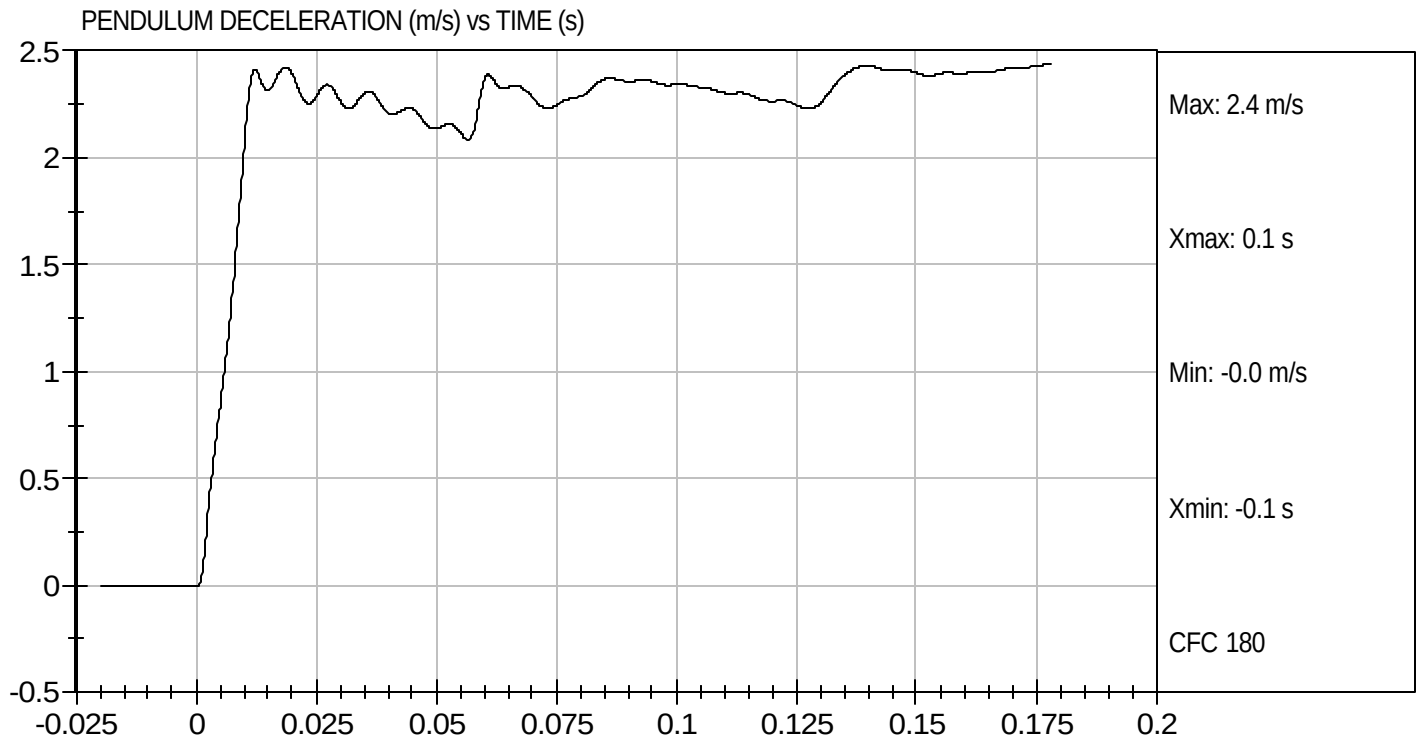
8/23/07
 Test Date


 Approved By



Test Desc: Neck Extension
Component ID: D072543

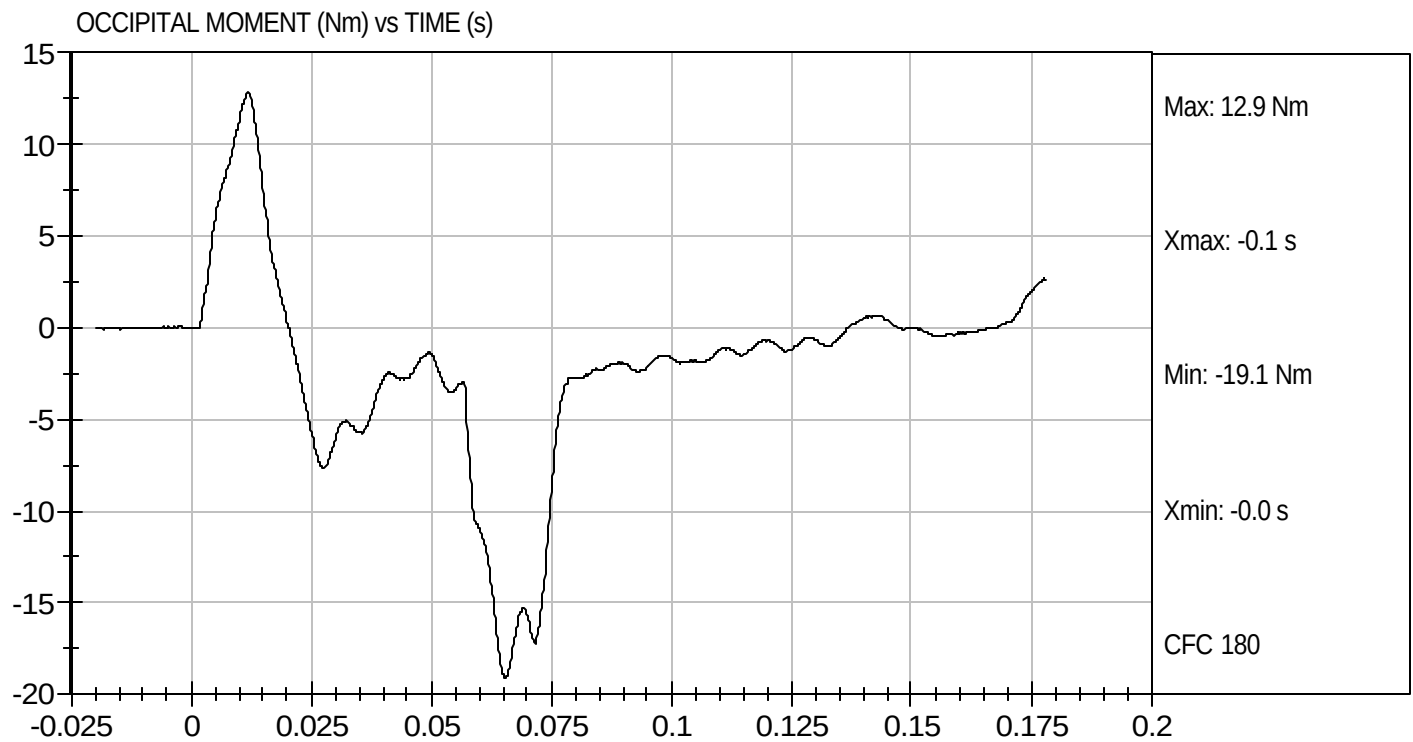
Test Date: 8/23/07
Velocity: 8.33 ft/s, 2.5 m/s





Test Desc: Neck Extension
Component ID: D072543

Test Date: 8/23/07
Velocity: 8.33 ft/s, 2.5 m/s



MGA RESEARCH CORPORATION
THORAX IMPACT TEST
CRABI 12 MONTH

ATD Serial No: 093

Test I.D: D072544

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	20.6 to 22.2	20.6	Pass
Laboratory Relative Humidity	%	10 to 70	43	Pass
Probe Speed	m/sec	4.9 to 5.1	5.03	Pass
Probe Force	kN	1.51 to 1.80	1.55	Pass
Overall Test Results				Pass


Laboratory Technician

8/23/07

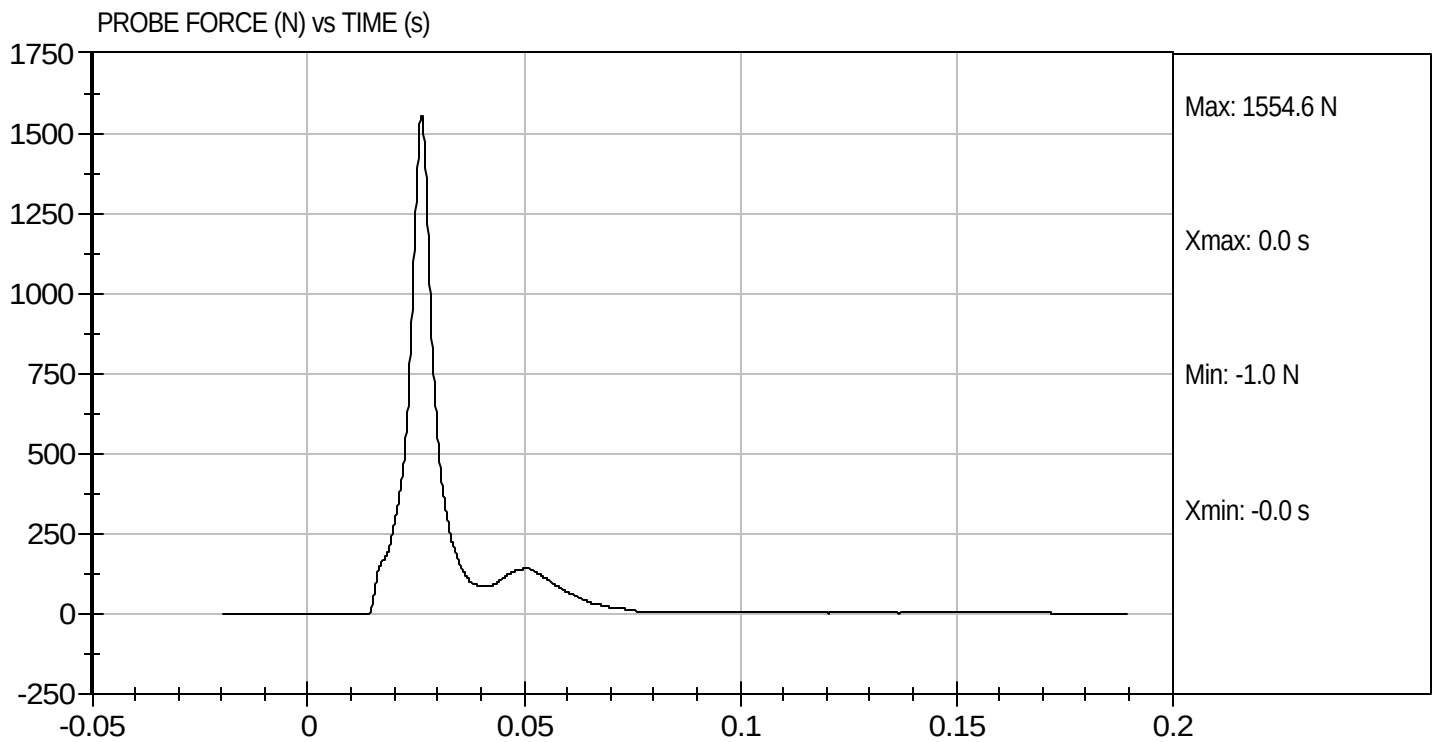
Test Date


Approved By



Test Desc: Thorax Impact
Component ID: D072544

Test Date: 8/23/07
Velocity: 16.5 ft/s, 5.03 m/s

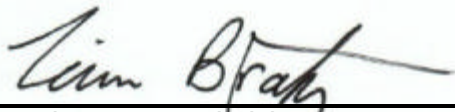


MGA RESEARCH CORPORATION
REAR HEAD DROP TEST
CRABI 12 MONTH

ATD Serial No: 093

Test ID: D072545

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	18.9 to 25.6	20.8	Pass
Laboratory Relative Humidity	%	10 to 70	47	Pass
Peak Resultant Acceleration	G's	55 to 71	69	Pass
Peak Lateral Acceleration	G's	+/- 15	3	Pass
Unimodal	N/A	within 17% of peak	Yes	Pass
Overall Test Results				Pass


Laboratory Technician


Approved By

8/23/07
Test Date



Test Desc: Head Drop
Component ID: D072545

Test Date: 8/23/07
Velocity: 0 ft/s, 0 m/s

