

REPORT NUMBER: SNCAP-CAL-09-01

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**NISSAN MOTOR COMPANY
2009 NISSAN MAXIMA
4-DOOR SEDAN**

NHTSA NUMBER: M95203

**PREPARED BY:
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Test Date: July 18, 2008

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RULEMAKING
OFFICE OF CRASHWORTHINESS STANDARDS
MAIL CODE: NVS-111
1200 NEW JERSEY AVE 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-22005.

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Date: 8-13-08

Technical Report Documentation Page

1. Report No. SNCAP-CAL-09-01	2. Government Accession No.	3. Recipient's Catalog No.																						
4. Title and Subtitle Final Report of New Car Assessment Program 2009 Nissan Maxima 4-Door Sedan NHTSA No.: M95203		5. Report Date July 18, 2008																						
		6. Performing Organization Code CAL																						
7. Author(s) Vincent M. Paolini, Project Engineer		8. Performing Organization Report No. 8864-SNCAP-01																						
9. Performing Organization Name and Address Calspan Corporation Transportation Sciences Center P.O. Box 400 Buffalo, New York 14225		10. Work Unit No.																						
		11. Contract or Grant No. DTNH22-03-D-22005																						
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Rulemaking, Office of Crashworthiness Standards Mail Code: NVS-111 1200 New Jersey Ave., SE, Room W43-410 Washington, D.C. 20590		13. Type of Report and Period Covered: <i>Final Report</i> July 2008																						
		14. Sponsoring Agency Code NVS-111																						
15. Supplementary Notes																								
16. Abstract A 55/28 kph 90° Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2009 Nissan Maxima 4-Door Sedan in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. This test was conducted at the Calspan Corporation Crash Test Facility in Buffalo, New York, on July 18, 2008. The impact velocity of the Moving Deformable Barrier (MDB) was 62.22 km/h, and the ambient temperature at the struck side (driver side) of the vehicle was 22°C. The target vehicle's maximum post test static crush was 274 mm at level 2. 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;">47.3</td> <td style="text-align: center;">46.0</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td style="text-align: center;">33.9</td> <td style="text-align: center;">45.1</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td style="text-align: center;">40.4</td> <td style="text-align: center;">39.0</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td style="text-align: center;">44</td> <td style="text-align: center;">42</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td style="text-align: center;">59</td> <td style="text-align: center;">45</td> </tr> <tr> <td>HIC</td> <td style="text-align: center;">142.0</td> <td style="text-align: center;">632.1</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	47.3	46.0	Left Lower Rib (LLR) Accel., g	33.9	45.1	Lower Spine (T ₁₂) Accel., g	40.4	39.0	Thoracic Trauma Index (TTI)	44	42	Pelvis (PEV) Accel., g	59	45	HIC	142.0	632.1
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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 Class. (of this report) Unclassified	20. Security Class. (of this page) Unclassified	21. No. of Pages 121	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' 2007 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-03-D-22005. The purpose of this test was to evaluate side impact protection in a 2009 Nissan Maxima 4-Door Sedan manufactured by Nissan Motor Company. The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated July 1997.

SECTION 2

SUMMARY OF NCAP SIDE IMPACT TEST

A model year 2009 Nissan Maxima 4-Door Sedan 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 62.22 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 1842.0 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on July 18, 2008.

One (1) real-time motion picture camera and ten (10) 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/HIII's were placed in the driver (P1) and left rear passenger (P4) designated seating positions according to instructions specified in the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated July 1997. 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 twenty-one (21) structural accelerometers and the MDB was instrumented with five (5) accelerometers.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 274 mm at level 2, 1049 mm rearward of the left vertical impact point. The driver and passenger SID/HIII's, Serial Nos. 269 and 270 respectively, were calibrated just prior to this test.

Test data and observations are presented in this section of the report. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID/HIII's, vehicle, and MDB response data traces. Appendix C contains the SID/HIII's configuration and performance verification data. Appendix D contains the test equipment information.

The occupant data is summarized below:

ATD position	HIC(36)	T ₁	T ₂	TTI (G's)	Peak Pelvis (G's)
Driver	142.0	30.9	65.3	44	59
Passenger	632.1	41.9	51.1	42	45

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	NA	NA
Side Torso Airbag	N/A	N/A	NA	NA
Side Head/Torso Combination Airbag	NA	NA	NA	NA
Curtain Airbag	Yes	Yes	Yes	Yes

The test instrumentation data listed in Appendix B can be found on the NHTSA website:
www.nhtsa.dot.gov.

DATA SHEET NO. 1**GENERAL TEST AND VEHICLE PARAMETER DATA**

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	Nissan Motor Company	Driver Front Airbag	Yes
Model	Maxima	Driver Side Curtain Airbag	Yes
Body Style	4-Door Sedan	Driver Side Torso Airbag	Yes
NHTSA No.	M95203	Driver Pretensioners	Yes
VIN	1N4AA51E89C801270	Driver Load Limiters	Yes
Color	Silver	Driver Power Seats	Yes
Engine Disp.(L)	3.5	Rear Pass. Side Curtain Airbag	Yes
Engine Cylinders	6	Rear Pass. Side Torso Airbag	No
Engine Placement	Lateral	Rear Pass. Pretensioners	No
Transmission Type	Automatic	Rear Pass. Load Limiters	No
Transmission Speeds	5	Rear Pass. Power Seats	NA
Final Drive	Front	Tilt Wheel	Yes
Air Conditioning	Yes	Anti-lock Brakes	Yes
Power Steering	Yes	Traction Control	Yes
Power Brakes	Yes	Power Windows	Yes
Delivery Date	7/1/08	Power Door Locks	Yes
Odometer Reading (km)	93	Automatic Door Locks (ADL)	Yes
Dealer	Autoplace Nissan	Owner's Manual Details Instructions on Disabling ADLs	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Nissan Motor Company	GVWR (kg)	2131
Date of Manufacture	6/08	GAWR Front (kg)	1140
		GAWR Rear (kg)	1000

VEHICLE CAPACITY DATA

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench		
Number Of Occupants	2	3		5
Capacity Wt. (VCW) (kg)				408.0
Cargo Wt. (RCLW) (kg)				67.8

DATA SHEET NO. 1 (continued)**GENERAL TEST AND VEHICLE PARAMETER DATA**

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			Fully Loaded (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	491.5	327.5		532.0	435.0		542.5	409.0	
Right	kg	507.5	291.5		504.0	372.5		524.5	366.0	
Ratio	%	61.7	38.3		56.2	43.8		57.9	42.1	
Totals	kg	999.0	619.0	1618.0	1036.0	807.5	1843.5	1067.0	775.0	1842.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1618.0
Weight of 2 P572E ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	67.8
Calculated Vehicle Target Weight (TVTW)	kg	1848.2

* Actual As Tested Weight (ATW) will be TVTW -4.5/-9.1 kg

Weight of Ballast (including instrumentation package and cameras): 61.6 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	723	726	744	739
Fully Loaded	mm	703	719	702	705
As Tested	mm	710	715	704	706

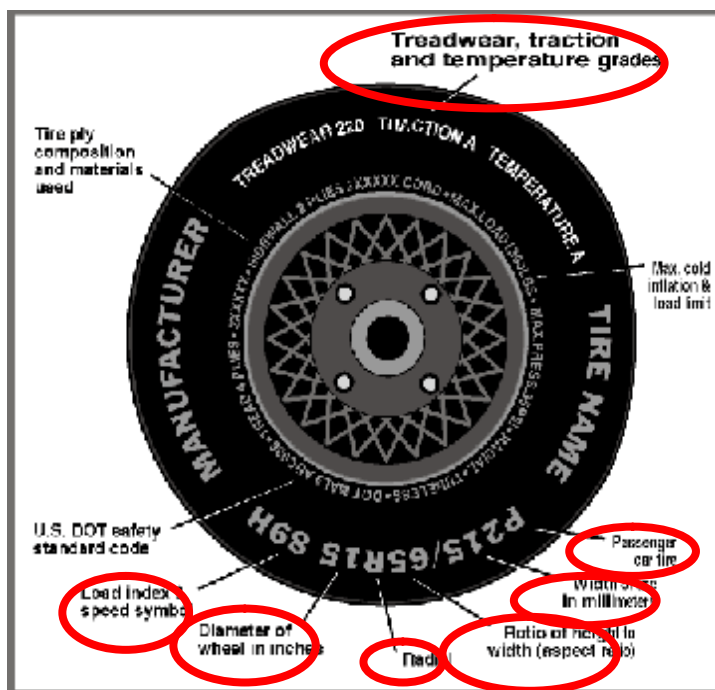
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2775
Target Impact Point Aft of Front Axle	mm	448
Actual Impact Point Aft of Front Axle	mm	447
As Tested CG (aft of front axle)	mm	1168

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	230	230
Recommended Tire Size	230	230
Tire Size on Vehicle	P245/45R18	P245/45R18
Tire Manufacturer	Goodyear	Goodyear
Tire Name	Eagle RS-A	Eagle RS-A
Tire Type	Passenger	Passenger
Tire Width (mm)	245	245
Ratio of Height to Width (aspect ratio)	45	45
Radial	Yes	Yes
Wheel Diameter	18	18
Load Index & Speed Symbol	96V	96V
Treadwear	260	260
Traction Grade	A	A
Temperature Grade	A	A

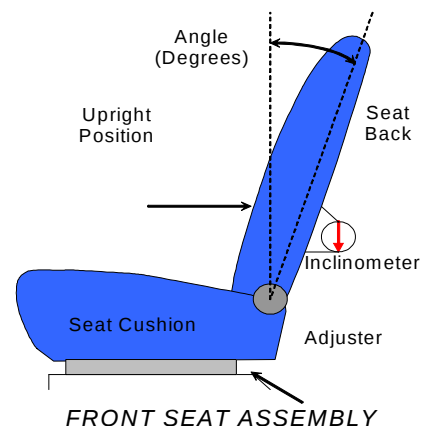
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

NORMAL DESIGN RIDING POSITION

The driver and passenger seat back is positioned to the manufacturer's designated angle.

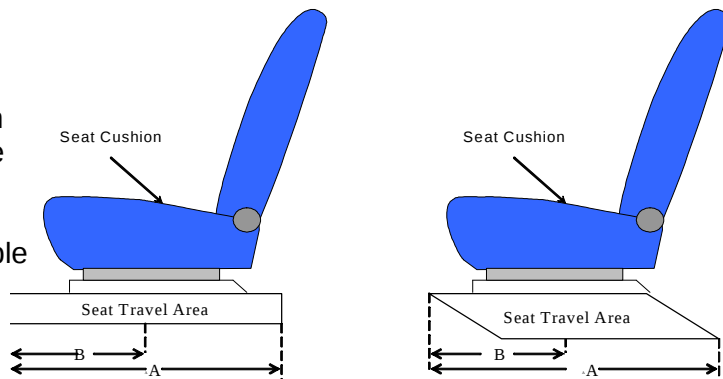


SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	Power recline (N/A)	Fixed
Angle (deg. from forward-most locking position)	14 degrees	N/A
Alternative Measurements to Verify Test Position	11.3 degrees from head restraint post (14 degrees from forward most position)	N/A

SEAT FORE/AFT POSITIONS

The total seat travel was measured from forward most position to rearmost position irrespective of vertical seat height in those positions. The seat was set at the longitudinal mid position with vertical adjustment at the lowest position obtainable for both the driver and passenger.



SEAT FORE/AFT POSITION

	Driver Seat	Rear Seat
Total Fore/Aft Travel (A) (mm)	310	Fixed
Test Position (B) (mm)	155	N/A
Test Detent (forward-most detent defined as 0)	Power seat (N/A)	N/A
Total Number of Detents (including 0)	Power seat (N/A)	N/A

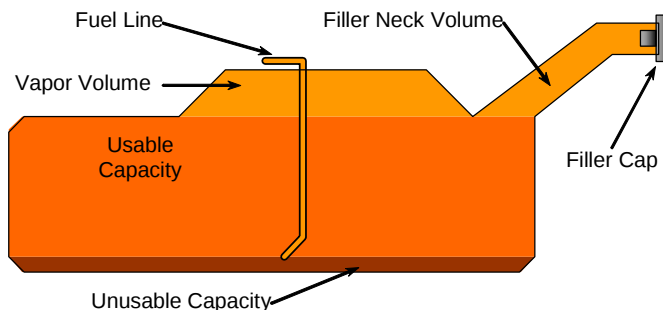
DATA SHEET NO. 3 (CONTINUED)

TEST VEHICLE INFORMATION

Test Vehicle: 2009 Nissan Maxima	NHTSA No. M95203
Test Program: NCAP Side Impact	Test Date: July 18, 2008

FUEL SYSTEM INFORMATION

The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear seat.



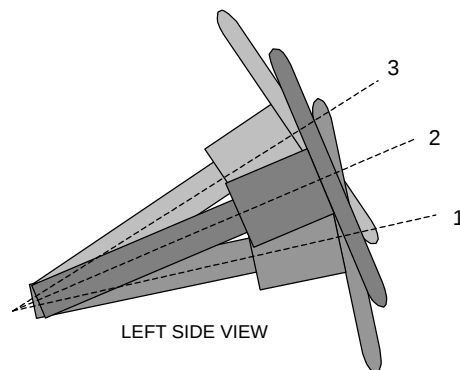
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	71.9
Usable Capacity of "Optional" Fuel Tank	--
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	66.9

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

STEERING COLUMN POSITION

	Fore/Aft Position (mm)	Tilt (degrees)	Tilt (detent)
Lowermost Position No. 1	0	---	5
Geometric Center Position No. 2 *	20	22.1	3
Uppermost Position No. 3	40	31.1	0

* Test position (Per manufacturer recommended nominal position)

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

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

MDB SPECIFICATIONS

Measurement Description	Length (mm)
Overall Width of Framework Carriage	1250
Overall Length Including Honeycomb Face	4120
Wheel base of Framework Carriage	2590
Tread of Framework Carriage (front & rear)	1875
C.G. Location aft of Front Axle	1104

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	409.5	281.5	
Right	kg	372.5	299.0	
Ratio	%	57.4	42.6	
Totals	kg	782.0	580.5	1362.5

MDB SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.22
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.22
Impact angle with respect to impactor	°	88.5° to 91.5°	89.1

POST TEST OBSERVATIONS**MDB LEFT EDGE IMPACT POINT DATA**

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	1 mm forward
Vertical Offset	mm	+/-20	3 mm above

DATA SHEET NO. 5
POST TEST OBSERVATIONS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID/HIII / 269	SID/HIII / 270
Head Contact	Side Curtain Airbag	Side Curtain Airbag / Left Rear Side Roof Header
Upper Torso Contact	Torso Airbag	Left Rear Door
Lower Torso Contact	Torso Airbag	Left Rear Door
Left Knee Contact	Armrest	Armrest
Right Knee Contact	Side of Left Knee	Side of Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Locked/Unlocked Doors	Unlocked	Unlocked
Left Side Door Opening	Closed, latched and inoperable without tools	Closed, latched and inoperable without tools
Right Side Door Opening	Closed, latched and operable without tools	Closed, latched and operable without tools
Seat Movement	None	N/A
Seat Back Failure	None	N/A

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	The B- and C-Pillars were pushed inboard during the event
Sill Separation	No visible tears or separations
Windshield Damage	Minor stress cracks along A-pillar
Window Damage	Left rear window shattered; Left Front window intact
Other Notable Effects	None

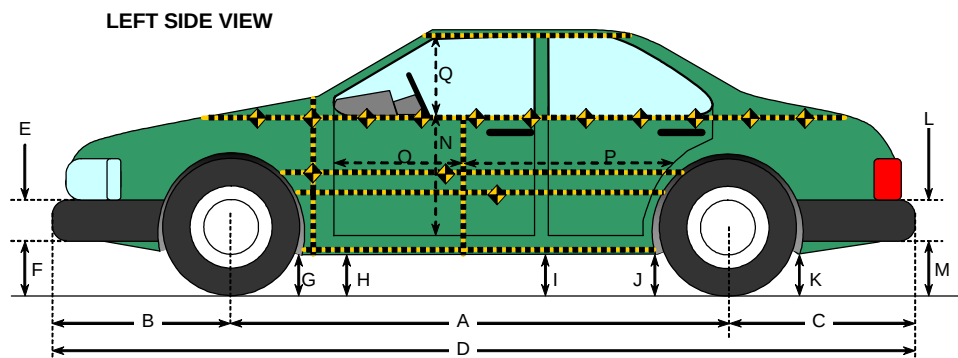
SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	NA	NA
Side Torso Airbag	Yes	Yes	NA	NA
Side Head/Torso Combination Airbag	NA	NA	NA	NA
Curtain Airbag	Yes	Yes	Yes	Yes

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



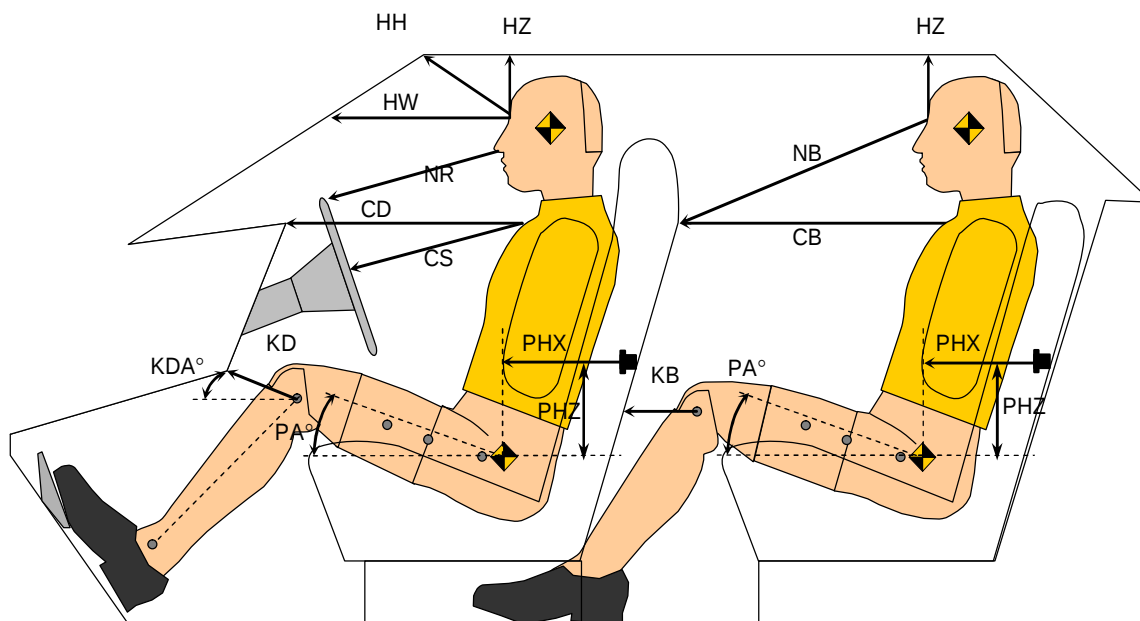
All Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2775	2775	2745	30
B	Front Axle to FSOV	966	966	980	-14
C	Rear Axle to RSOV	1100	1100	1110	-10
D	Total Length at Centerline	4841	4841	4835	6
E	Front Bumper Thickness	275	275	275	0
F	Front Bumper Bottom to Ground	226	226	231	-5
G	Sill Height at Front Wheel Well	169	153	157	-4
H	Sill Height at Front Door Leading Edge	185	169	171	-2
I	Sill Height at "B" Pillar	209	182	197	-15
J1	Sill Height at Rear Wheel Well	212	178	223	-45
J2	Pinch Weld Height at Rear Wheel Well	214	179	206	-27
K	Sill Height Aft of Rear Wheel Well	234	190	200	-10
L	Rear Bumper Thickness	333	333	333	0
M	Rear Bumper Bottom to Ground	311	272	260	12
N	Sill Height to Window Bottom Sill	700	700	609	91
O	Front Door Leading Edge to Impact CL	2759	2759	771	1988
P	Rear Door Trailing Edge to Impact CL	1352	1352	1259	93
Q	Front Window Opening	443	443	437	6
R	Right Side Length	4757	4757	4753	4
S	Left Side Length	4758	4758	4734	24
T	Vehicle Width at "B" Post	1808	1808	1584	224

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

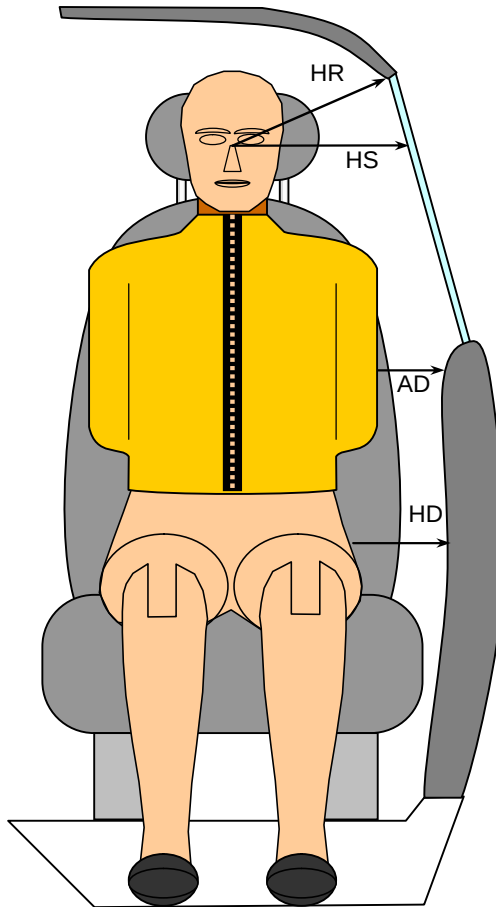


Driver Code	Pass. Code	Measurement Description	Driver S/N 269		Passenger S/N 270	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	378			
HW		Head to Windshield	694			
HZ	HZ	Head to Roof	165		121	
NR	NB	Nose to Rim/Nose to Seatback	403		662	
CD	CB	Chest to Dash or Seatback	536		596	
CS		Chest to Steering Wheel	281			
KDL	KBL	Left Knee to Dash or Seatback	216	35	295	11
KDR	KBR	Right Knee to Dash or Seatback	216	35	295	11
PA	PA	Pelvic Angle		23.9		23.2
PHX	PHX	H-Point to Striker (X-Axis)	212		162	
PHZ	PHZ	H-Point to Striker (Z-Axis)	170		231	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

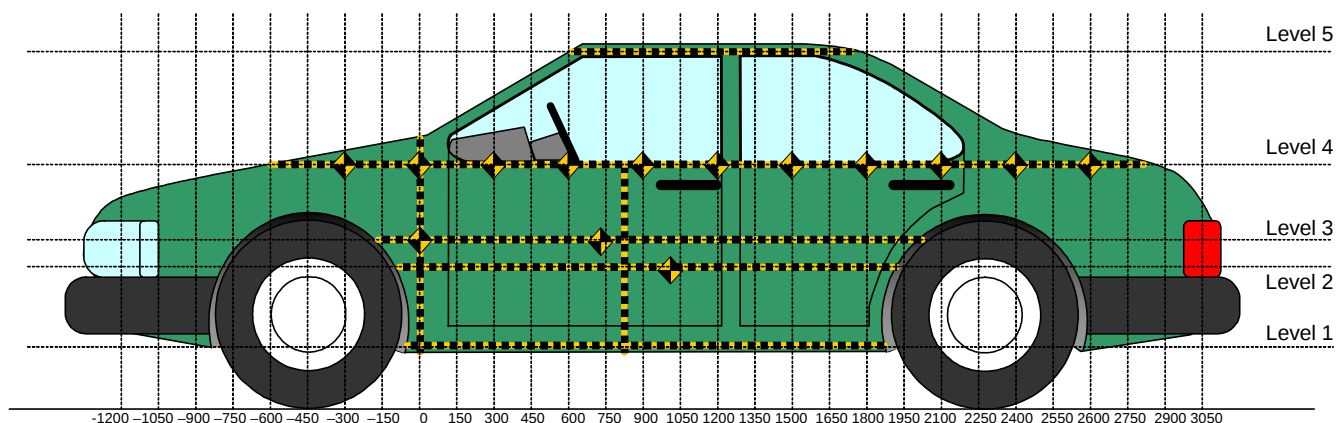


FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 269	Passenger S/N 270
HR	Head to Side Header	mm	191	293
HS	Head to Side Window	mm	342	334
AD ₁	Arm to Door (at upper rib level)	mm	102	122
AD ₂	Arm to Door (at lower rib level)	mm	143	121
HD	H-Point to Door	mm	158	162

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.
Measurements along the vertical 750 mm.
All measurements below in mm.

Level	Measurement Description	Maximum Exterior Static Crush	Height Above Ground	Distance From Impact
1	Sill Top	7	229	0
2	Occupant H-Point	274	476	1050
3	Mid Door	269	617	600
4	Window Sill	242	909	1650
5	Window	55	1363	1800
	Maximum Penetration	274		

DATA SHEET NO. 10

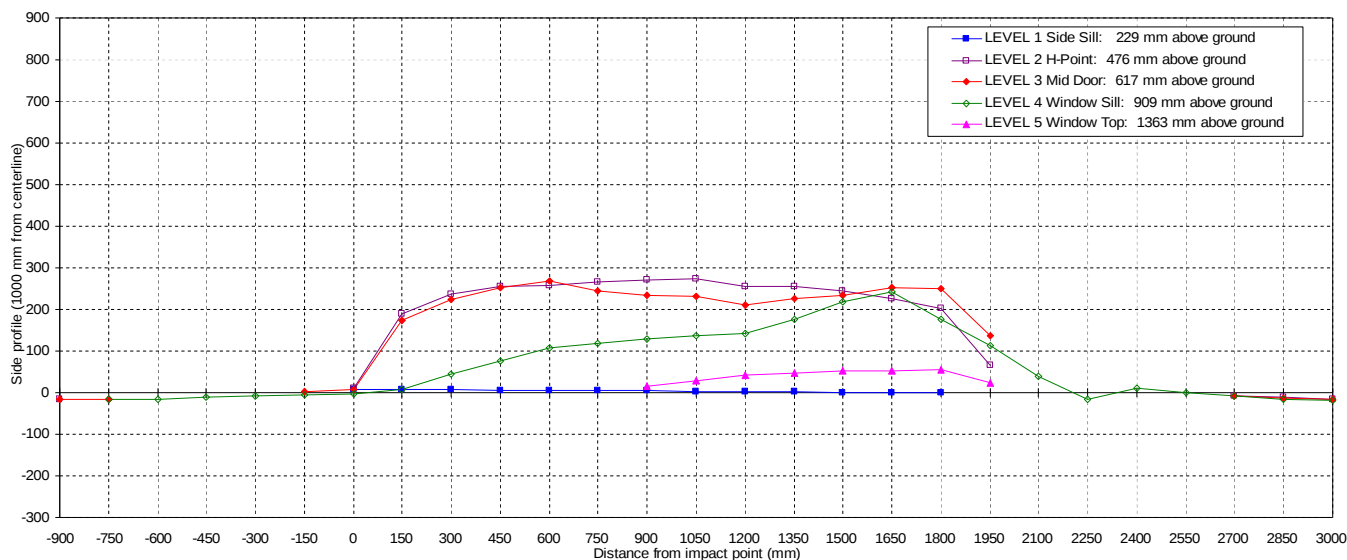
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2009 Nissan Maxima

NHTSA No. M95203

Test Program: NCAP Side Impact

Test Date: July 18, 2008



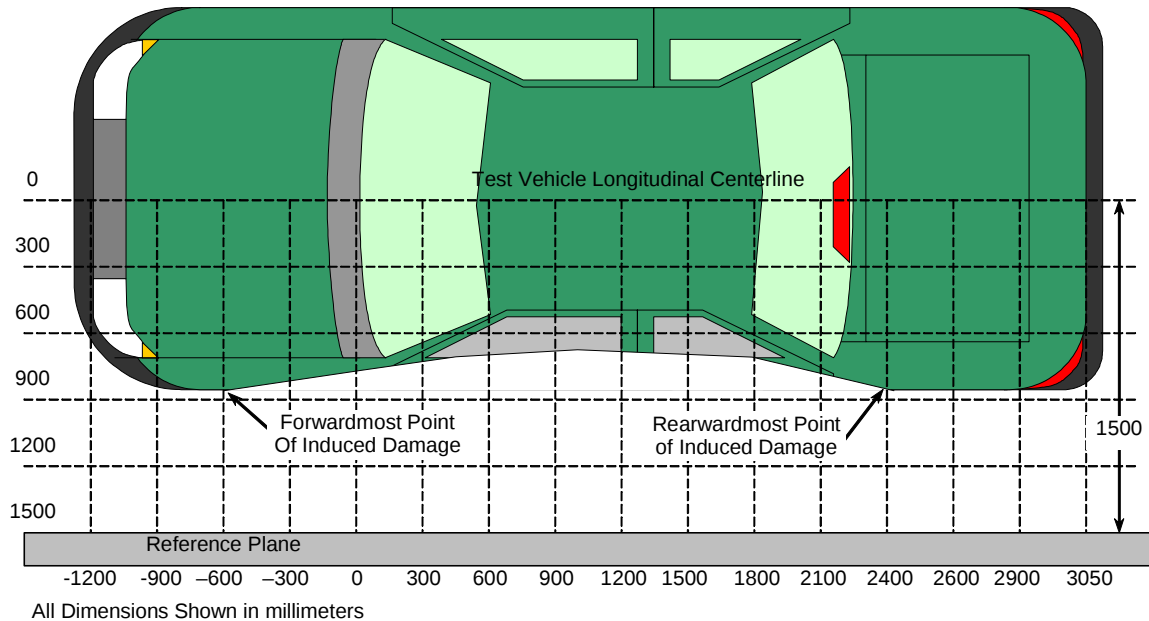
NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																												
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000		
LEVEL 1	229	PRE	--	--	--	--	--	--	102	114	124	123	122	122	121	121	121	122	122	121	114	--	--	--	--	--	--	--	--	--	
SIDE		POST	--	--	--	--	--	--	109	121	131	129	128	127	125	124	124	125	123	122	115	--	--	--	--	--	--	--	--		
SILL		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	7	7	7	6	6	5	4	3	3	3	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LEVEL 2	476	PRE	94	--	--	--	--	--	80	95	97	96	95	94	94	94	95	97	98	99	89	77	--	--	--	--	86	108	144		
H		POST	77	--	--	--	--	--	90	285	333	352	354	360	364	368	349	352	344	326	291	142	--	--	--	--	77	97	129		
POINT		CRUSH	-17	N/A	N/A	N/A	N/A	N/A	10	190	236	256	259	266	270	274	254	255	246	227	202	65	N/A	N/A	N/A	N/A	N/A	-9	-11	-15	
LEVEL 3	617	PRE	105	76	--	--	--	69	80	95	96	95	93	93	93	93	93	95	96	98	90	72	--	--	--	--	81	110	149		
MID		POST	88	60	--	--	--	72	87	270	320	348	362	338	328	325	303	321	331	350	340	210	--	--	--	--	73	98	133		
DOOR		CRUSH	-17	-16	N/A	N/A	N/A	3	7	175	224	253	269	245	235	232	210	226	235	252	250	138	N/A	N/A	N/A	N/A	N/A	-8	-12	-16	
LEVEL 4	909	PRE	--	330	253	195	172	162	159	164	170	170	167	163	160	156	154	152	147	137	123	113	106	102	107	117	134	161	202		
WINDOW		POST	--	314	237	184	164	156	157	172	214	246	274	281	289	294	296	328	365	379	299	225	145	85	118	118	127	146	184		
SILL		CRUSH	N/A	-16	-16	-11	-8	-6	-2	8	44	76	107	118	129	138	142	176	218	242	176	112	39	-17	11	1	-7	-15	-18		
LEVEL 5	1363	PRE	--	--	--	--	--	--	--	--	--	--	--	--	407	405	406	410	412	418	426	451	--	--	--	--	--	--	--		
WINDOW		POST	--	--	--	--	--	--	--	--	--	--	--	--	423	434	447	457	465	471	481	476	--	--	--	--	--	--	--		
TOP		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16	29	41	47	53	53	55	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



TOP VIEW

DAMAGE PROFILE DISTANCES

DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1 (LR)	2399	909	107	118	11
2	1909	617	77	245	168
3	1419	476	97	348	251
4	930	476	94	365	271
5	440	476	96	351	255
6 (LF)	-50	617	76	82	6

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

DATA SHEET NO. 12

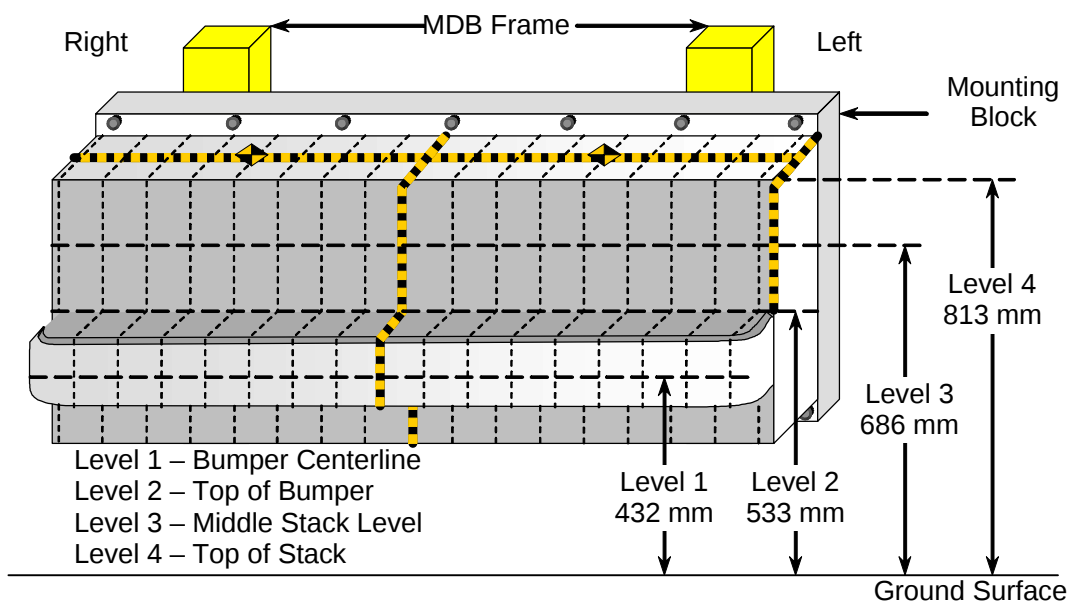
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2009 Nissan Maxima

NHTSA No. M95203

Test Program: NCAP Side Impact

Test Date: July 18, 2008



NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

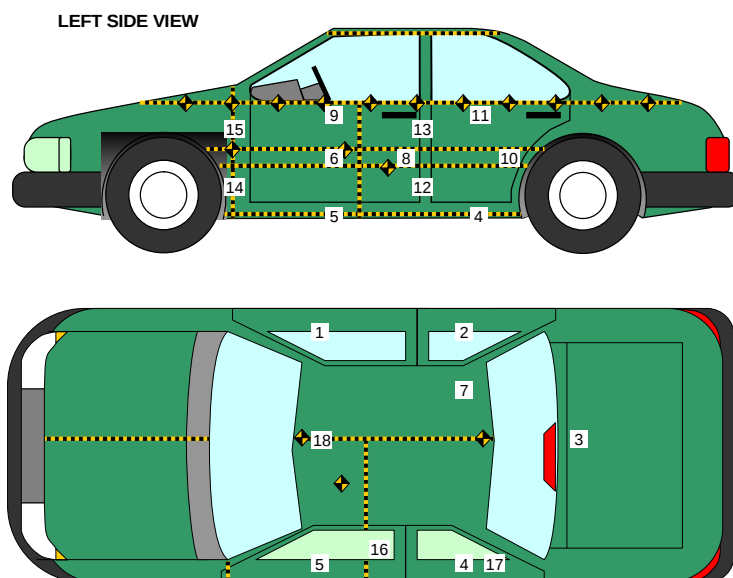
			NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm																
			DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)							
LEVEL	HEIGHT AT CL (mm)*		-800	-700	-600	-500	-400	-300	-200	-100	0	100	200	300	400	500	600	700	800
LEVEL 4 TOP STACK	811	PRE	411	412	412	412	412	412	413	413	413	413	413	413	413	413	413	413	412
		POST	368	426	423	416	400	373	359	373	386	394	394	387	379	365	346	327	290
		CRUSH	43	-14	-11	-4	12	39	54	40	27	19	19	26	34	48	67	86	122
LEVEL 3 MID LEVEL	682	PRE	411	411	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412
		POST	386	413	409	403	393	366	356	373	391	403	409	409	406	400	391	374	339
		CRUSH	25	-2	3	9	19	46	56	39	22	9	3	3	6	12	21	38	73
LEVEL 2 TOP BUMPER	542	PRE	411	412	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412
		POST	335	341	348	357	364	364	358	363	367	369	369	368	366	363	357	345	335
		CRUSH	76	71	64	55	48	48	54	49	46	43	43	44	46	49	55	67	77
LEVEL 1 MID BUMPER	430	PRE	501	513	513	513	513	513	513	514	514	514	514	514	514	514	514	514	505
		POST	376	340	362	380	383	382	388	394	404	414	419	422	425	426	422	408	377
		CRUSH	125	173	151	133	130	131	125	120	110	100	95	92	89	88	92	106	128

LEVEL	HEIGHT AT CL (mm)*	MAX CRUSH
LEVEL 4 TOP STACK	811	122
LEVEL 3 MID LEVEL	682	73
LEVEL 2 TOP BUMPER	542	77
LEVEL 1 MID BUMPER	430	173

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	3075	692	265
2	Right Sill at Rear Seat	1997	689	251
3	Rear Floorpan Above Axle	1176	2	475
4	Left Sill at Rear Door	2007	-692	238
5	Left Sill at Front Door	3125	-691	272
6	Left Front Door C/L **	-	-	-
7	Rear Occupant Compartment	2092	368	187
8	Left Front Door Mid-Rear**	-	-	-
9	Left Front Door Upper C/L **	-	-	-
10	Left Rear Door Mid-Rear**	-	-	-
11	Left Rear Door Upper C/L **	-	-	-
12	Left Lower B-Post	2246	-720	526
13	Left Middle B-Post	2255	-723	766
14	Left Lower A-Post	3315	-731	335
15	Left Middle A-Post	3290	-649	987
16	Front Seat Track	2843	-602	306
17	Rear Seat Track or Structure	2358	-594	247
18	Vehicle CG	2630	-19	496

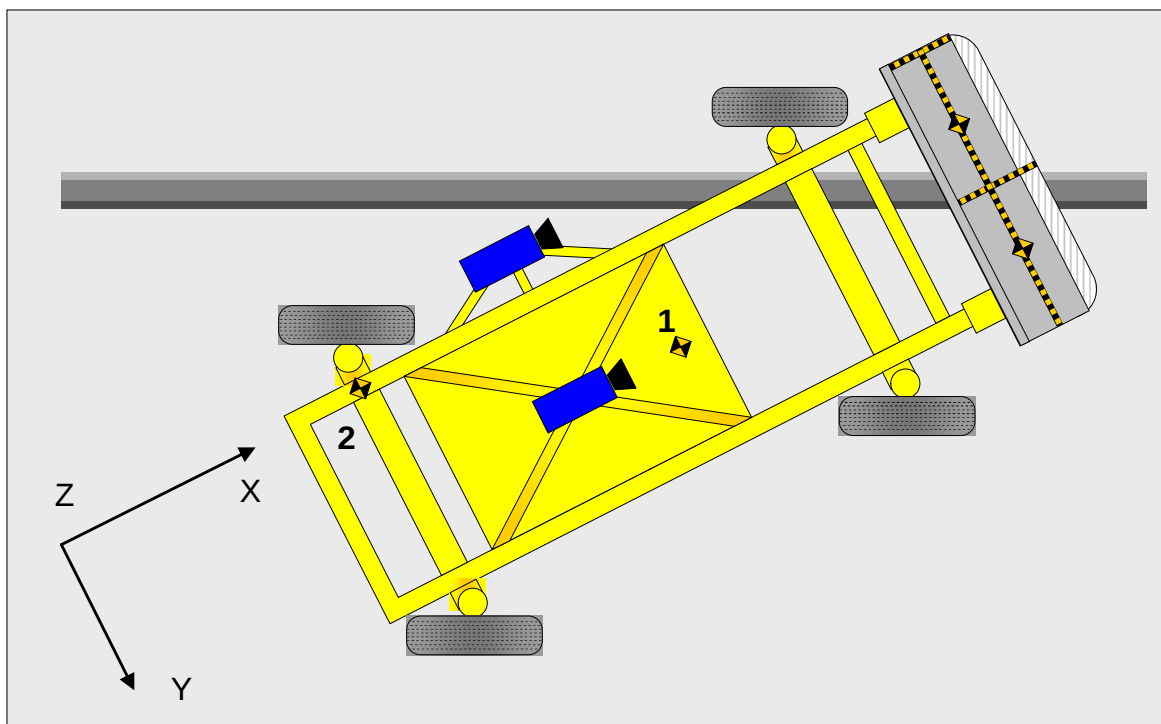
Reference Points X - Test Vehicle Rear Bumper (+ forward)
 Y - Test Vehicle Centerline (+ to right)
 Z - Ground Plane (+ down)

** Accelerometer was not requested by the COTR.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	MDB CG	1859	0	-330
2	MDB Rear	386	-660	-660

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

DATA SHEET NO. 15**VEHICLE STRUCTURAL MEASUREMENTS**

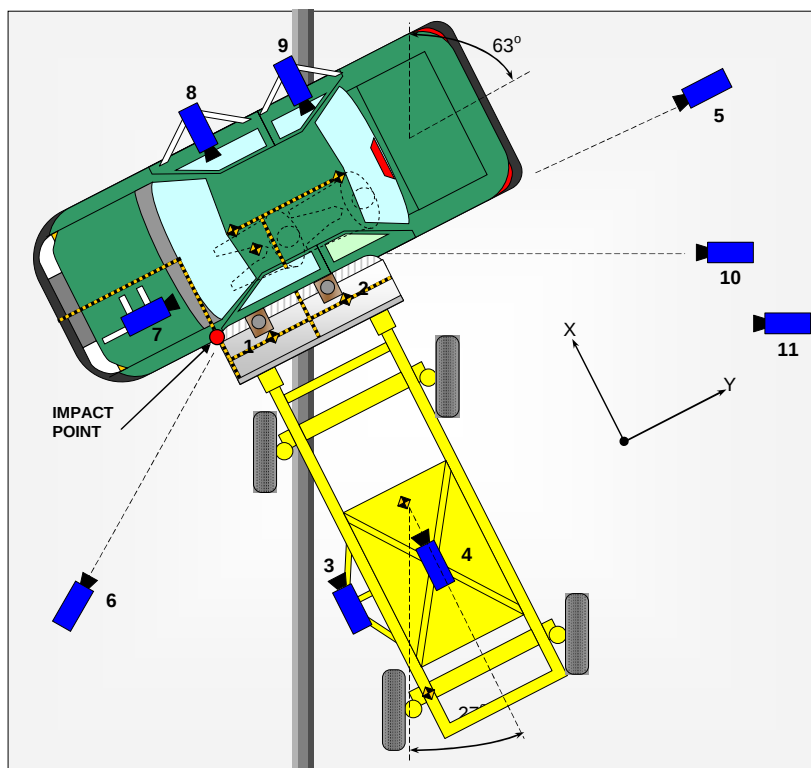
Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

	Elements	Pre-Test (mm)
1	Total Length	4841
2	Total Width	1808
3	Bumper Top Height	494
4	Bumper Bottom Height	226
5	Longitudinal Member Top Height	195
6	Distance between Longitudinal Members	789
7	Longitudinal Member Width	797
8	Engine Top Height	704
9	Engine Bottom Height	190
10	Engine and gearbox width	456
11	Front bumper-engine distance	4841
12	Front shock absorber fixing height	860
13	Bonnet leading edge height	602
14	Front shock absorber fixing width	1163
15	Front bumper – front axle distance	966
16	Front axle – a pillar distance	584
17	A-pillar – B-pillar distance	1113
18	B-Pillar – rear axle distance	1078
19	B-pillar – C-pillar distance	1156
20	Roof sill bottom height	1350
21	Roof sill top height	1393
22	Floor sill bottom height	193
23	Floor sill top height	259

DATA SHEET NO. 16

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	72	812	-4880	-90	8	500
2	Overhead Close-up	195	855	-4880	-90	28	1000
3	MDB Onboard, Impact Point Close-up	-1470	0	-847	0	13	500
4	MDB Onboard, Centerline of Impact	-1140	838	-1587	-17	7.5	500
5	Right Side, Ground Level, Overall	340	10220	982	-3	50	1000
6	Left Side, Ground Level, Overall	-1825	-1670	905	-4	28	1000
7	Vehicle Onboard Front SID/HIII, Front	510	-445	1250	-12	25	1000
8	Vehicle Onboard Front SID/HIII, Side	1540	865	1045	-5	12.5	1000
9	Vehicle Onboard Rear SID/HIII, Side	1455	1765	1085	-6	12.5	1000
10	Secondary Impact Point	-4910	2878	910	-1	25	500
11	Real Time Coverage						30

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

DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA

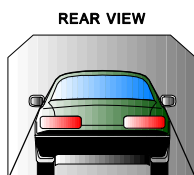
Test Vehicle:	2009 Nissan Maxima	NHTSA No.	M95203
Test Program:	NCAP Side Impact	Test Date:	July 18, 2008

FUEL SYSTEM INTEGRITY POST IMPACT DATA

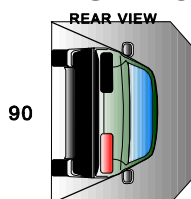
Time Interval	FMVSS 301 Maximum Allowable Spillage	Spillage (g)
Impact Until Motion Ceases	28 g	0
First Five Minutes Following Impact	142 g	0
Next 25 Minutes	28 g / 1 minute	0

Spillage Location(s)	None
----------------------	------

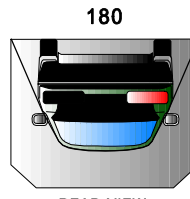
STATIC ROLLOVER DATA



0/360

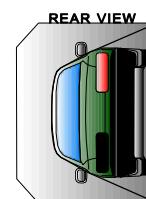


90



180

REAR VIEW



270

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	10	seconds	5	minutes	6	minutes	10	seconds	7	minutes
90° - 180°	1	minutes	05	seconds	5	minutes	6	minutes	5	seconds	7	minutes
180°-270°	0	minutes	57	seconds	5	minutes	5	minutes	57	seconds	6	minutes
270°-360°	1	minutes	28	seconds	5	minutes	6	minutes	28	seconds	7	minutes

Rollover Stage	Spillage (g)			
	First 5 min. from onset of rotation	6 th min.	7 th min.	8 th min. (if required)
0° - 90°	0	0	0	0
90° - 180°	0	0	0	0
180°-270°	0	0	0	0
270°-360°	0	0	0	0
FMVSS 301 Maximum Allowable (for each 90° stage)	142	28	28	28

Rollover Stage	Spillage Location(s)
0° - 90°	None
90° - 180°	None
180°-270°	None
270°-360°	None

APPENDIX A
PHOTOGRAPHS

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Figure A-1: As Received Left Front $\frac{3}{4}$ View



Figure A-2: As Received Right Rear $\frac{3}{4}$ View



Figure A-3: Vehicle Certification Label



Figure A-4: Vehicle Tire Placard Label



Figure A-5: Pre-Test Front View

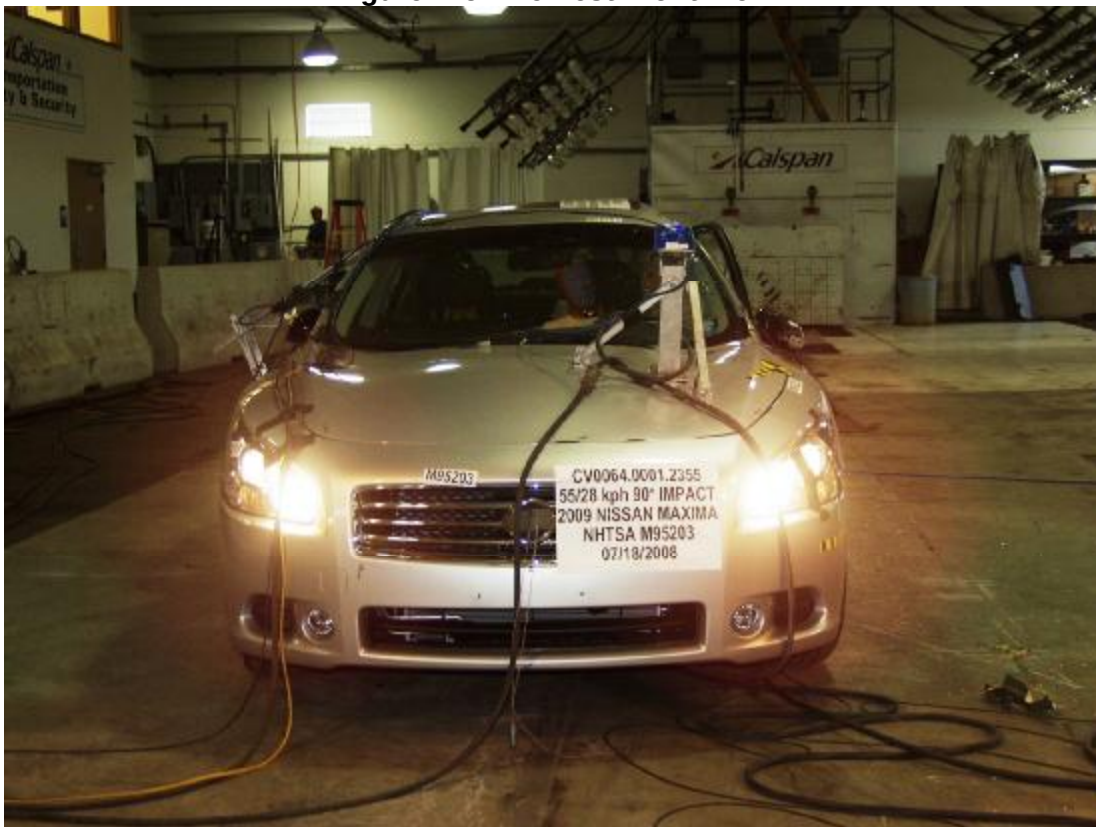


Figure A-6: Post-Test Front View



Figure A-7: Pre-Test Left Front $\frac{3}{4}$ View



Figure A-8: Post-Test Left Front $\frac{3}{4}$ View



Figure A-9: Pre-Test Left Side View



Figure A-10: Post-Test Left Side View



Figure A-11: Pre-Test Left Rear $\frac{3}{4}$ View



Figure A-12: Post-Test Left Rear $\frac{3}{4}$ View



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



Figure A-15: Pre-Test Right Rear $\frac{3}{4}$ View



Figure A-16: Post-Test Right Rear $\frac{3}{4}$ View



Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



Figure A-19: Pre-Test Right Front $\frac{3}{4}$ View



Figure A-20: Post-Test Right Front $\frac{3}{4}$ View



Figure A-21: Pre-Test Frontal View of MDB Impactor Face



Figure A-22: Post-Test Frontal View of MDB Impactor Face



Figure A-23: Pre-Test Left Side View of MDB Impactor Face



Figure A-24: Post-Test Left Side View of MDB Impactor Face



Figure A-25: Pre-Test Right Side View of MDB Impactor Face



Figure A-26: Post-Test Right Side View of MDB Impactor Face



Figure A-27: Pre-Test Top View of MDB Impactor Face



Figure A-28: Post-Test Top View of MDB Impactor Face



Figure A-29: Pre-Test Left Side View of Aligned MDB and Vehicle



Figure A-30: Pre-Test Right Side View of Aligned MDB and Vehicle



Figure A-31: Pre-Test Overhead View of Aligned MDB and Vehicle



Figure A-32: Post-Test Overhead View of MDB and Vehicle



Figure A-33: Pre-Test Close-Up View of Impact Point Target

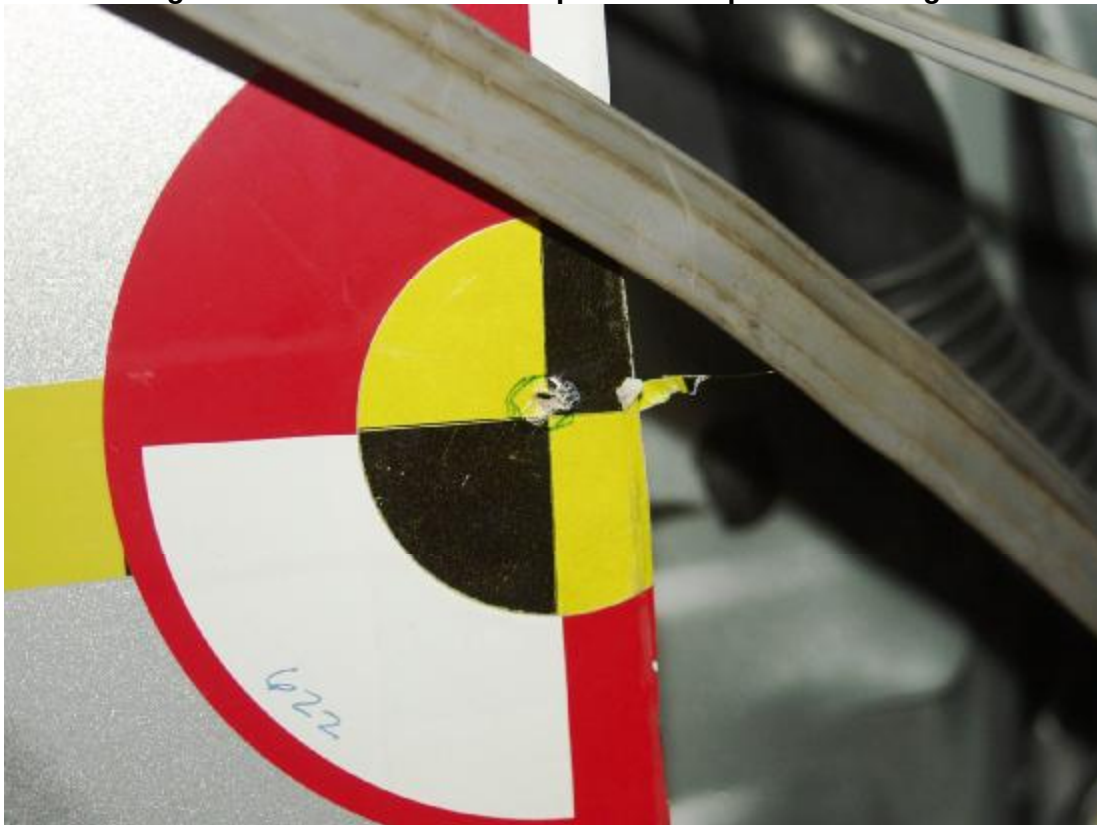


Figure A-34: Post-Test Close-Up View of Impact Point Target



Figure A-35: Pre-Test Right Occupant Compartment View of Driver



Figure A-36: Post-Test Right Occupant Compartment View of Driver

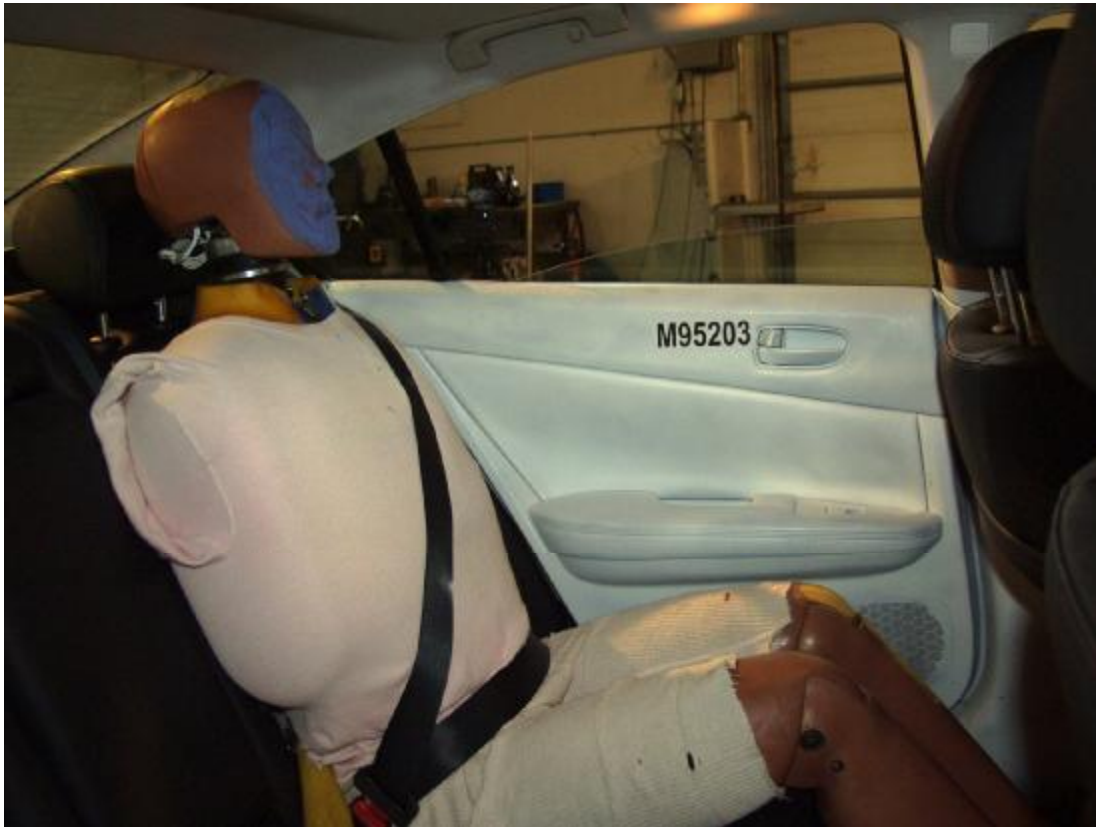


Figure A-37: Pre-Test Right Occupant Compartment View of Passenger



Figure A-38: Post-Test Right Occupant Compartment View of Passenger



Figure A-39: Pre-Test Left Occupant Compartment View of Driver



Figure A-40: Post-Test Left Occupant Compartment View of Driver



Figure A-41: Pre-Test Left Occupant Compartment View of Passenger



Figure A-42: Post-Test Left Occupant Compartment View of Passenger



Figure A-43: Pre-Test Left Front Interior Trim



Figure A-44: Post-Test Left Front Interior Trim



Figure A-45: Pre-Test Left Rear Interior Trim



Figure A-46: Post-Test Left Rear Interior Trim



Figure A-47: Pre-Test Left Front $\frac{3}{4}$ View of Left Side Doors



Figure A-48: Post-Test Left Front $\frac{3}{4}$ View of Left Side Doors



Figure A-49: Pre-Test Left Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-50: Post-Test Left Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-51: Rollover 90 Degrees



Figure A-52: Rollover 180 Degrees



Figure A-53: Rollover 270 Degrees



Figure A-54: Rollover 360 Degrees



Figure A-55: Impact Photo

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA
(SAE sign convention)

DATA CHANNEL FILTER CLASS SUMMARY

Data Type	SAE Filter Class
Dummy Head Accelerations	CFC 1000
Rib Accelerations	FIR 100
Spine Accelerations	FIR 100
Pelvis Accelerations	FIR 100

DATA CHANNEL TITLE KEY

Prefix	Suffix
V1 = Vehicle 1 (Moving Barrier)	Ax = Acceleration, X-direction
V2 = Vehicle 2 (Test Vehicle)	Ay = Acceleration, Y-direction
P1 = Left Front Seating Position (Driver)	Az = Acceleration, Z-direction
P4 = Left Second Row Seating Position (Passenger)	Fx = Force, X-direction
A1-A18 = Accelerometer Location Number	Fy = Force, Y-direction
	Fz = Force, Z-direction
	Mx = Moment about X
	My = Moment about Y
	Mz = Moment about Z

TABLE OF DATA PLOTS

PLOT	PLOT NAME[UNITS, CHANNEL FILTER CLASS]	PAGE
1	V2P1 Head Ax [g, CFC_1000]	B-5
2	V2P1 Head Ay [g, CFC_1000]	B-5
3	V2P1 Head Az [g, CFC_1000]	B-5
4	V2P1 Head Ar [g, CFC_1000]	B-5
5	V1P1 Upper Rib Ay [g, FIR_100]	B-6
6	V1P1 Lower Rib Ay [g, FIR_100]	B-6
7	V1P1 Lower Spine Ay [g, FIR_100]	B-6
8	V1P1 Pelvic Ay [g, FIR_100]	B-6
9	V2P4 Head Ax [g, CFC_1000]	B-7
10	V2P4 Head Ay [g, CFC_1000]	B-7
11	V2P4 Head Az [g, CFC_1000]	B-7
12	V2P4 Head Ar [g, CFC_1000]	B-7
13	V1P4 Upper Rib Ay [g, FIR_100]	B-8
14	V1P4 Lower Rib Ay [g, FIR_100]	B-8
15	V1P4 Lower Spine Ay [g, FIR_100]	B-8
16	V1P4 Pelvic Ay [g, FIR_100]	B-8

The following dummy, vehicle and load cell response data can be found in the research and development section of the NHTSA website at: www.nhtsa.dot.gov

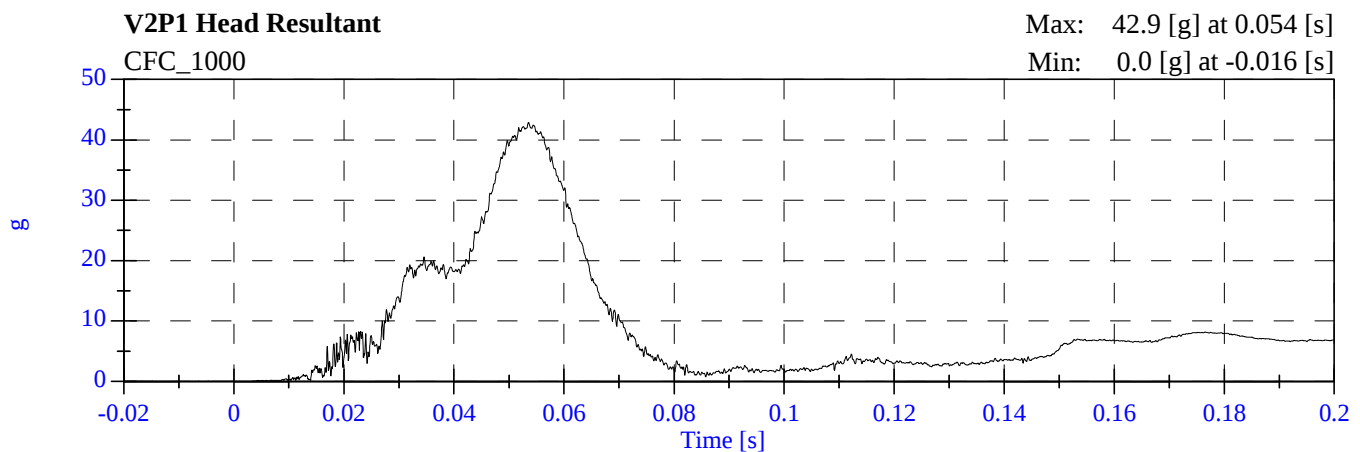
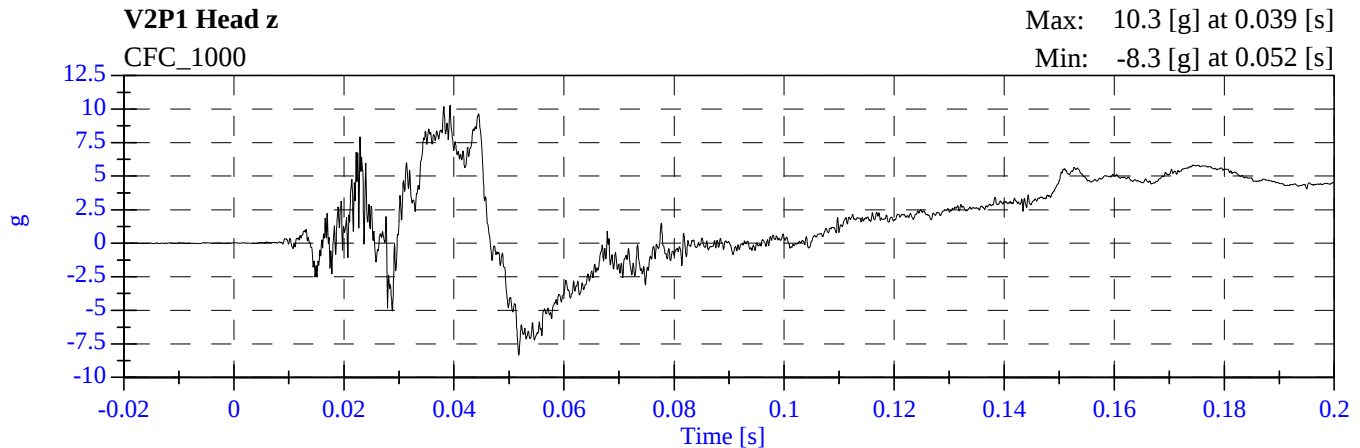
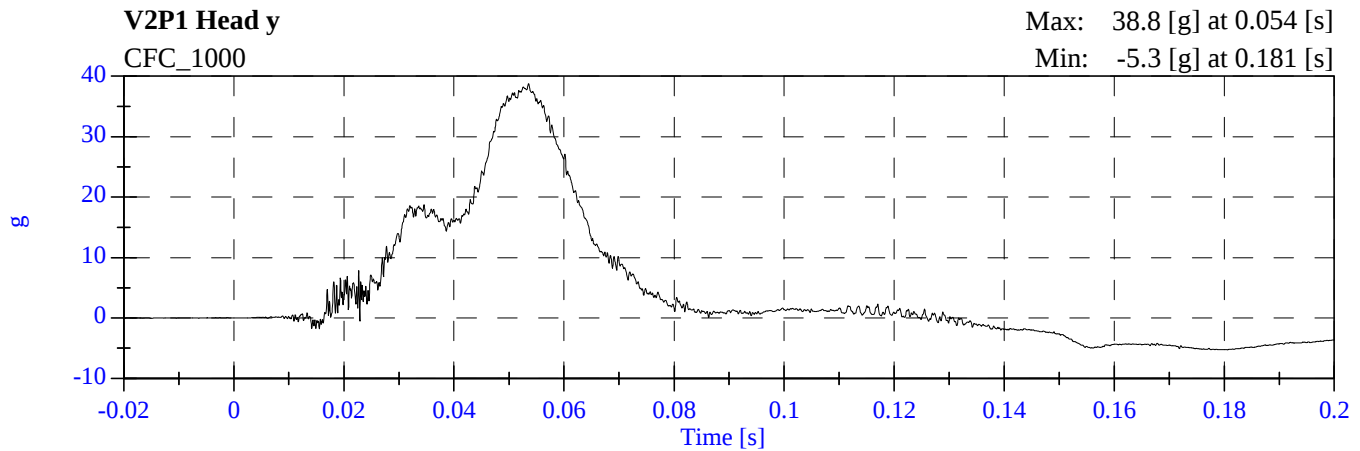
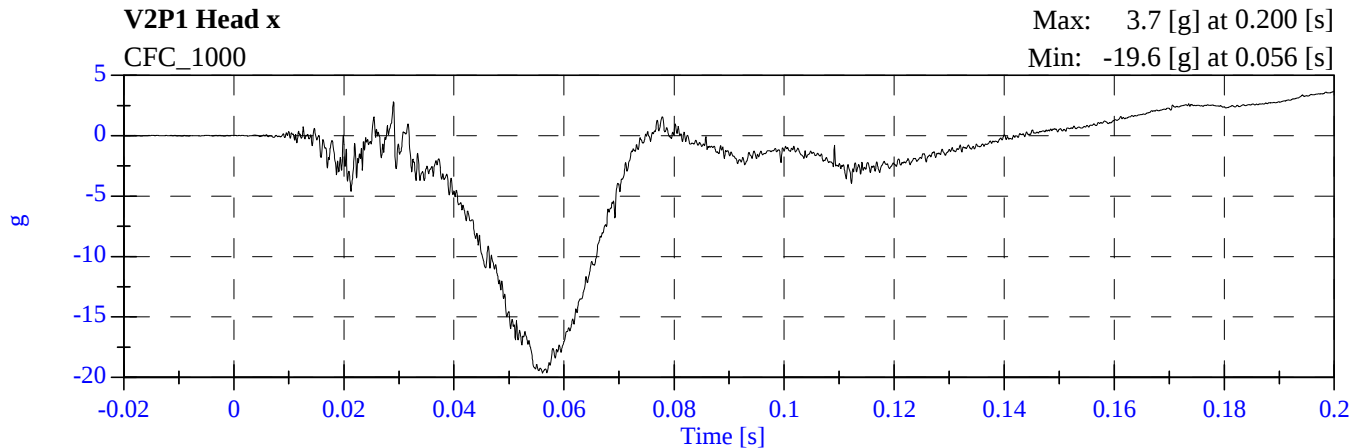
V2P1 Head Ax	V2A1 Right Front Sill Ax
V2P1 Head Ay	V2A1 Right Front Sill Ay
V2P1 Head Az	V2A1 Right Front Sill Az
V2P1 Upper Neck Fx	V2A2 Right Rear Sill Ax
V2P1 Upper Neck Fy	V2A2 Right Rear Sill Ay
V2P1 Upper Neck Fz	V2A2 Right Rear Sill Az
V2P1 Upper Neck Mx	V2A3 Rear Floorpan Ax
V2P1 Upper Neck My	V2A3 Rear Floorpan Ay
V2P1 Upper Neck Mz	V2A3 Rear Floorpan Az
V2P1 Upper Rib Ay	V2A4 Left Rear Sill Ay
V2P1 Upper Rib Redundant Ay	V2A5 Left Front Sill Ay
V2P1 Lower Rib Ay	V2A6 Left Front Door C/L Ay
V2P1 Lower Rib Redundant Ay	V2A7 Right Rear Compartment Ay
V2P1 Lower Spine Ay	V2A8 Left Front Door Midrear Ay
V2P1 Lower Spine Redundant Ay	V2A9 Left Front Door Upper C/L Ay
V2P1 Pelvic Ay	V2A10 Left Rear Door Midrear Ay
V2P1 Pelvic Redundant Ay	V2A11 Left Rear Door Upper C/L Ay
V2P4 Head Ax	V2A12 Left Lower B Post Ay
V2P4 Head Ay	V2A13 Left Mid B Post Ay
V2P4 Head Az	V2A14 Left Lower A Post Ay
V2P4 Upper Neck Fx	V2A15 Left Mid A Post Ay
V2P4 Upper Neck Fy	V2A16 Front Seat Track Ay
V2P4 Upper Neck Fz	V2A17 Rear Seat Track Ay
V2P4 Upper Neck Mx	V2A18 Target CG Ax
V2P4 Upper Neck My	V2A18 Target CG Ay
V2P4 Upper Neck Mz	V2A18 Target CG Az
V2P4 Upper Rib Ay	V1 Moving Barrier CG Ax
V2P4 Upper Rib Redundant Ay	V1 Moving Barrier CG Ay
V2P4 Lower Rib Ay	V1 Moving Barrier CG Az
V2P4 Lower Rib Redundant Ay	V1 Moving Barrier Left Rail Ax
V2P4 Lower Spine Ay	V1 Moving Barrier Left Rail Ay
V2P4 Lower Spine Redundant Ay	
V2P4 Pelvic Ay	
V2P4 Pelvic Redundant Ay	

TEST NOTES

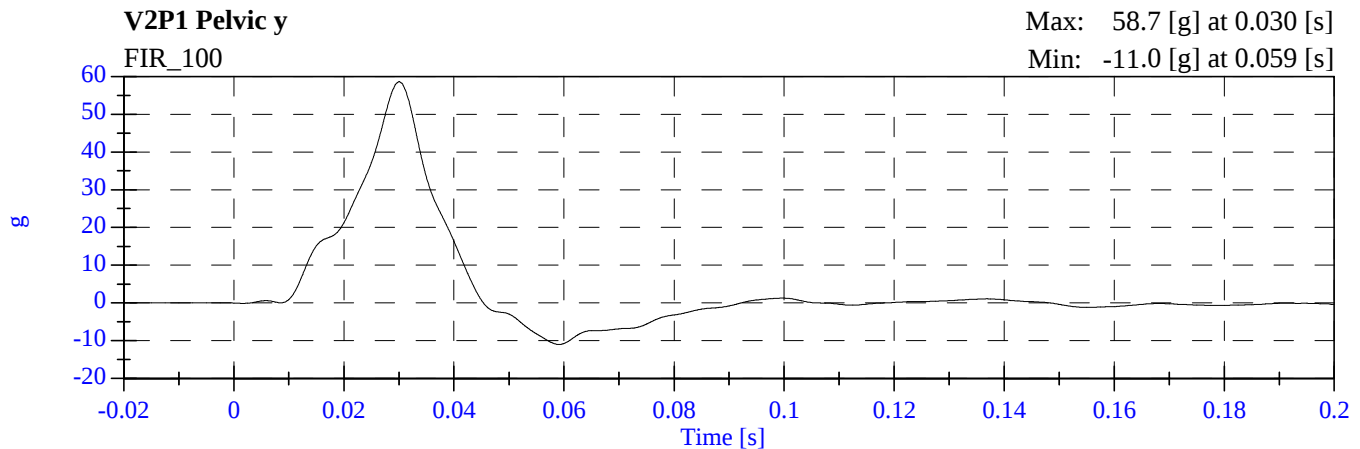
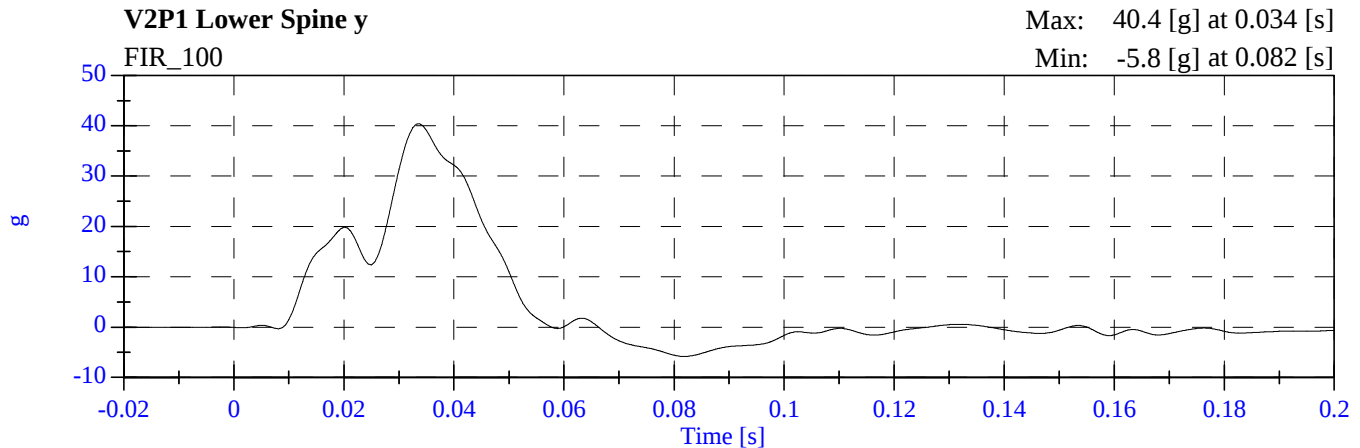
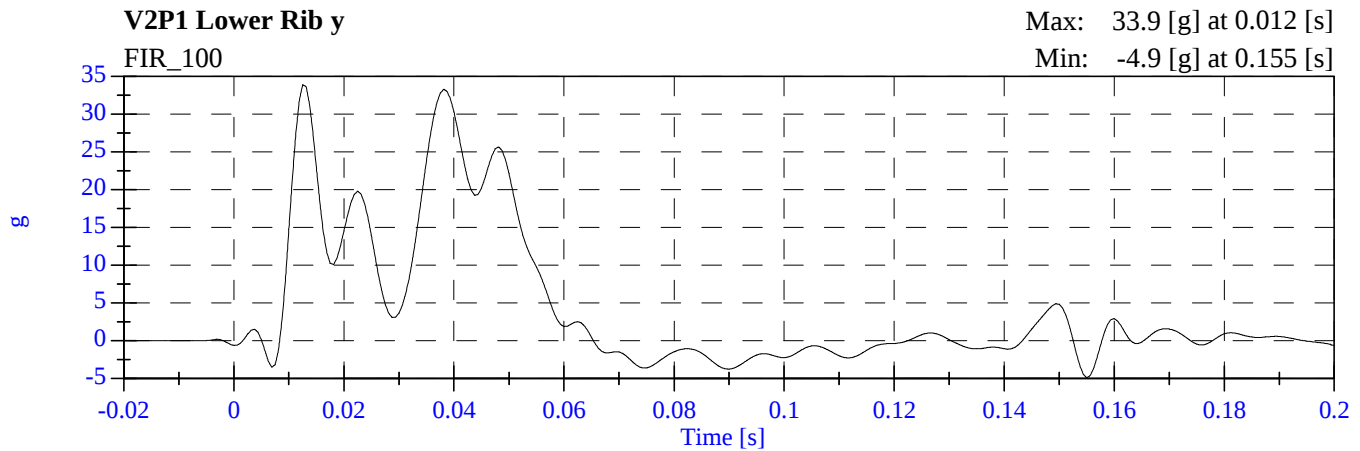
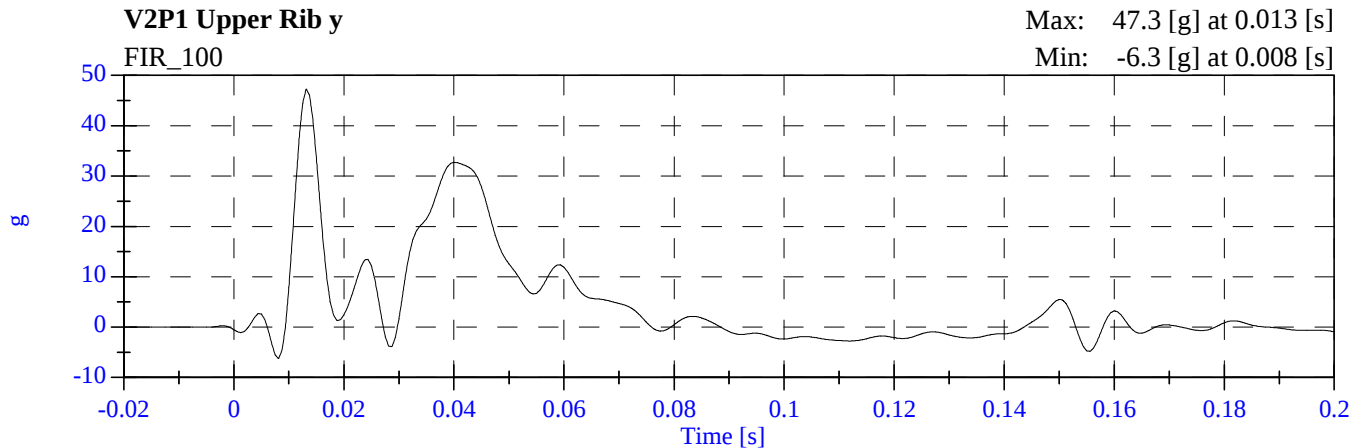
The following data anomalies occurred:

V2P4 Upper Neck Fx	Data noise
V2P4 Upper Neck Fy	Data Noise
V2P4 Upper Neck Fz	Data Noise
V2P4 Upper Neck Mz	Channel saturated 58-77 msec

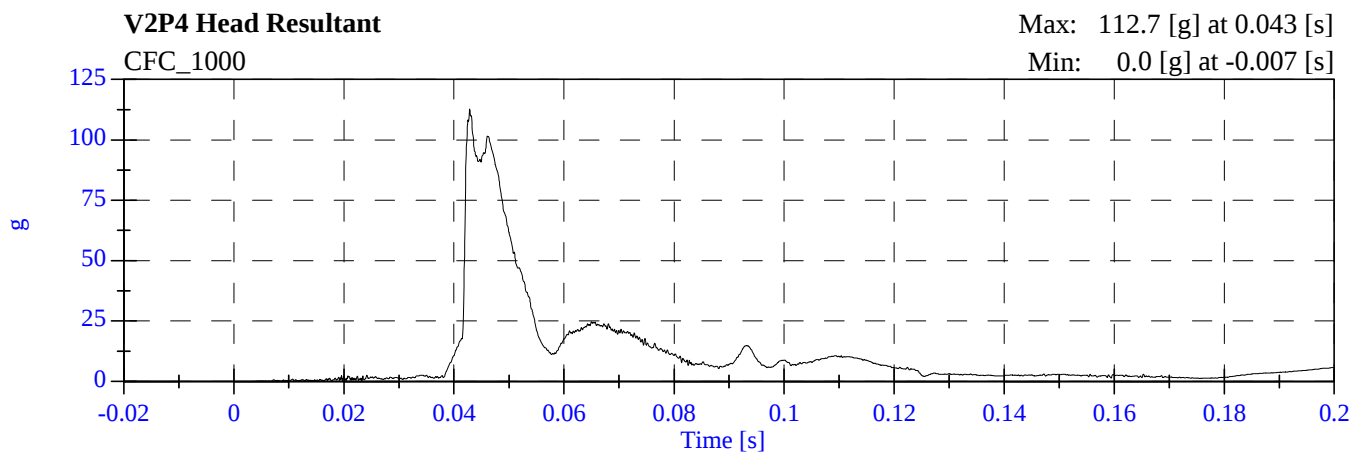
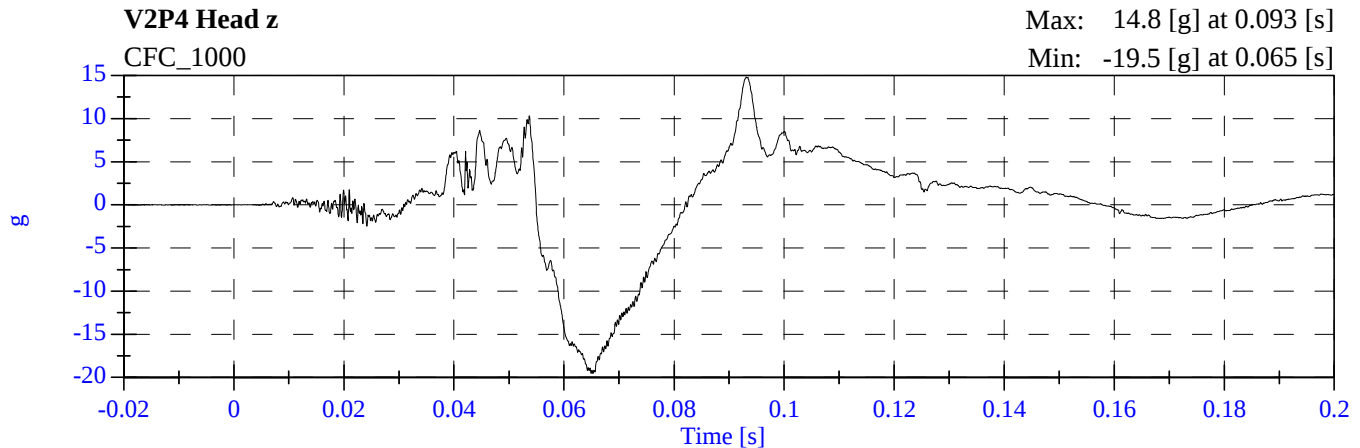
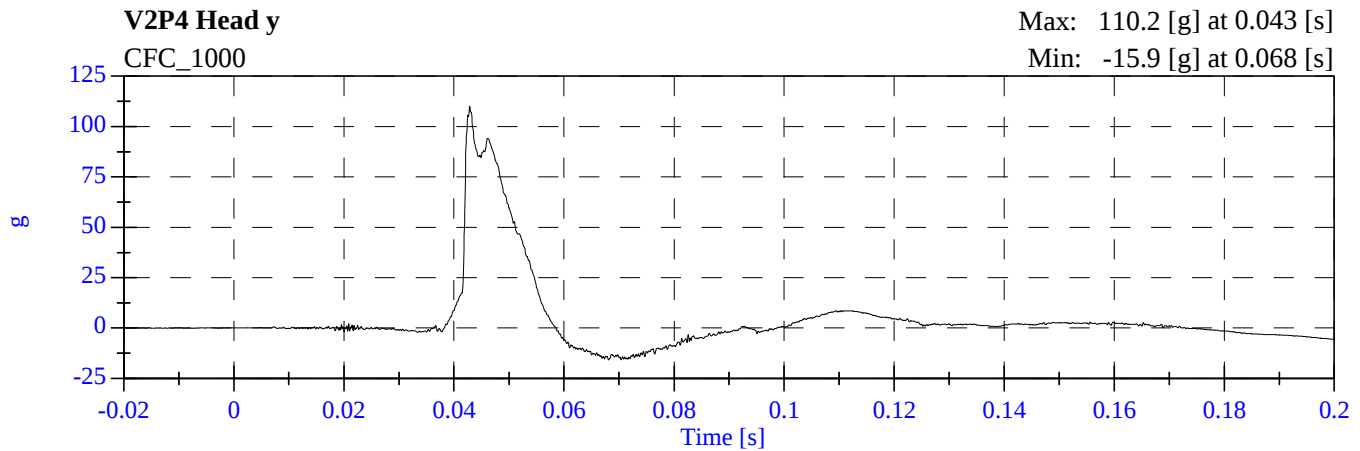
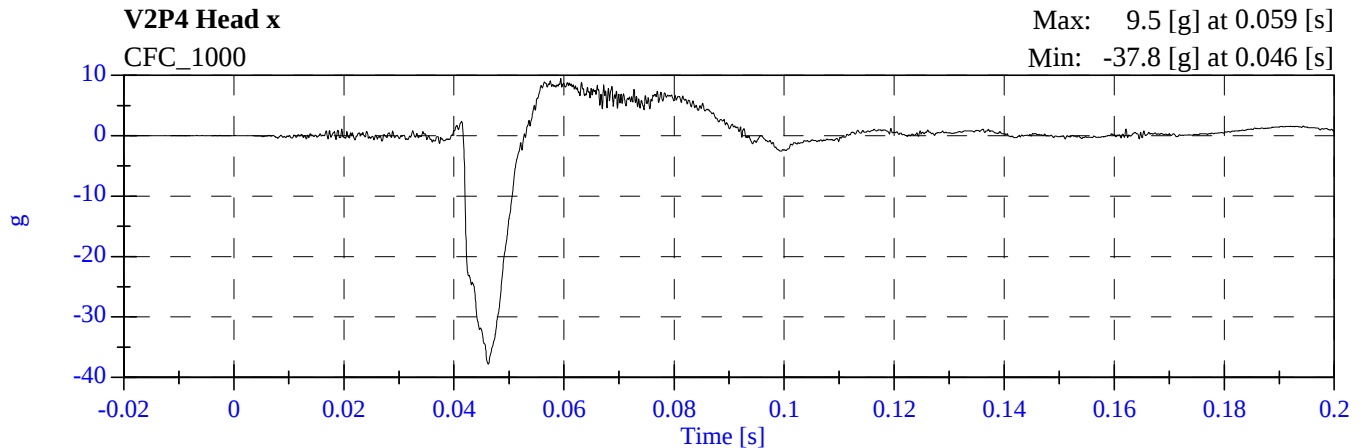
2009 SNCAP Test 1 2009 Nissan Maxima M95203 - July 18, 2008



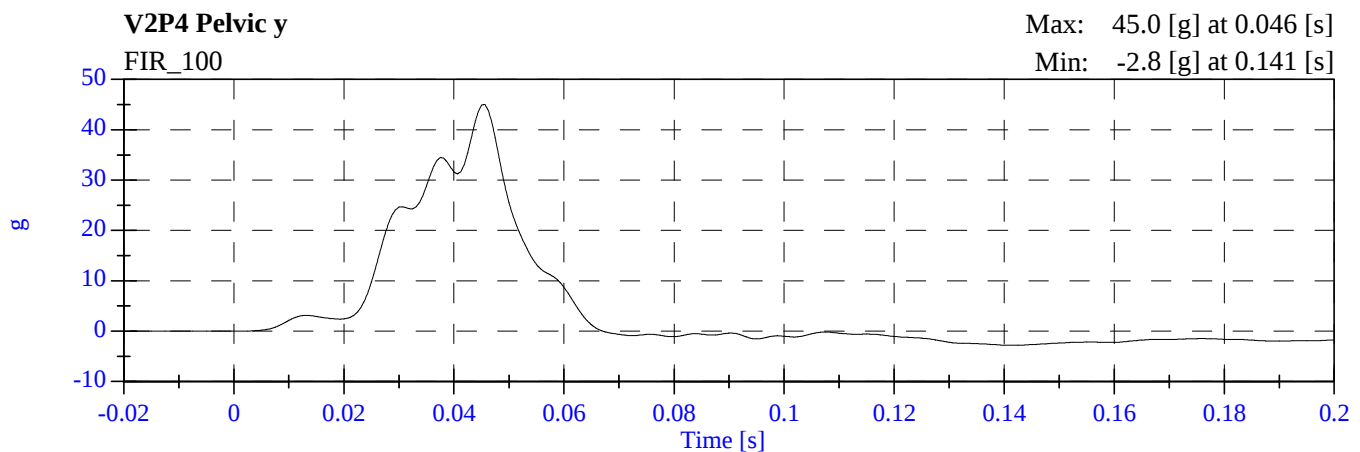
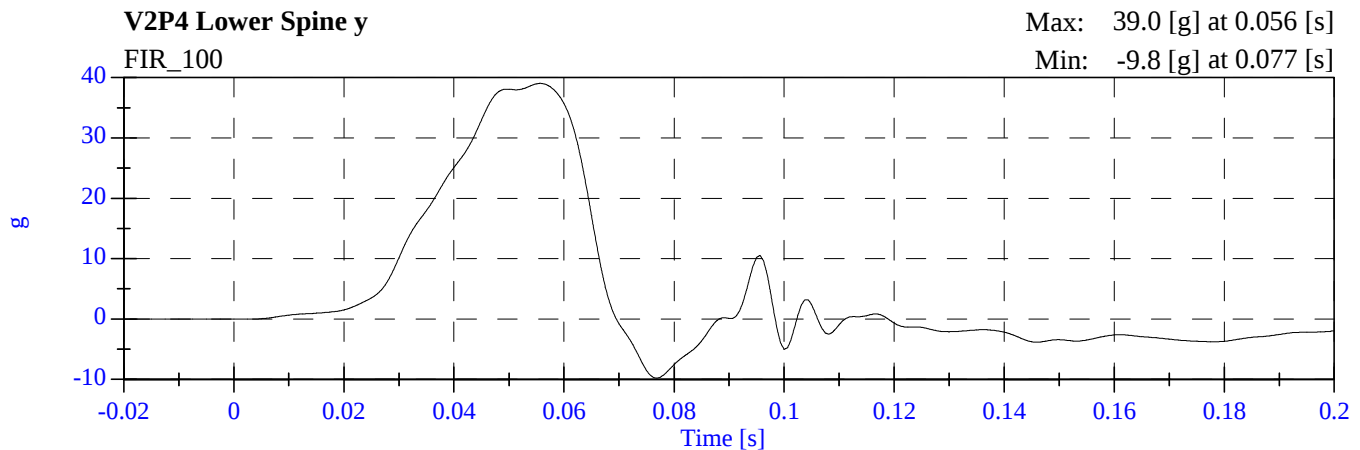
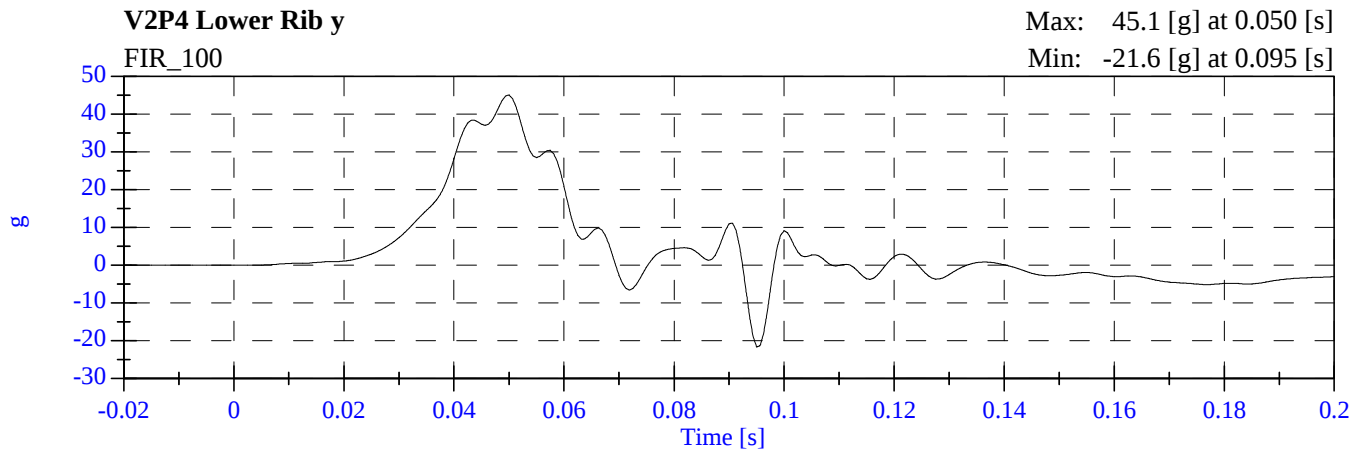
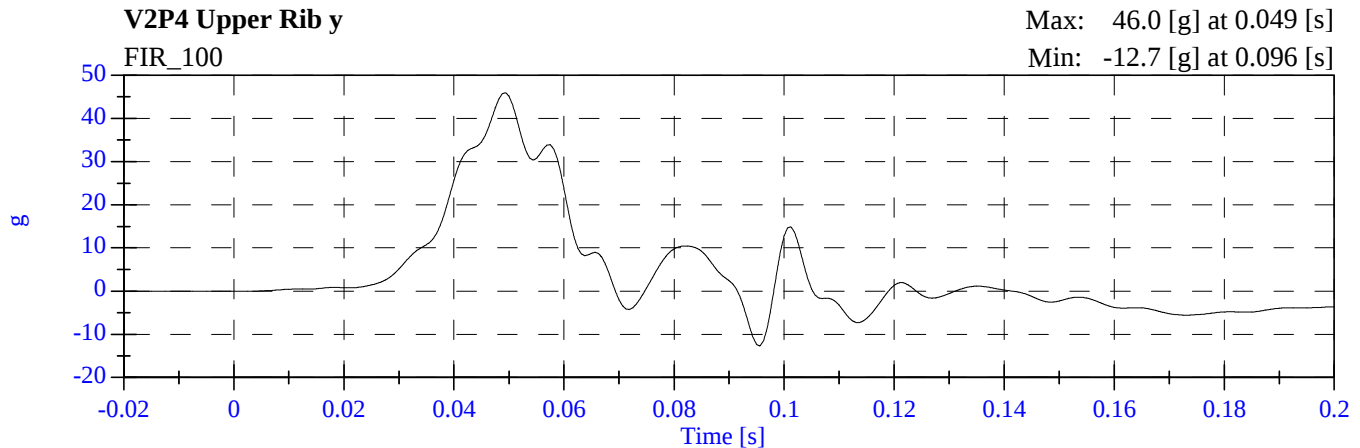
2009 SNCAP Test 1 2009 Nissan Maxima M95203 - July 18, 2008



2009 SNCAP Test 1 2009 Nissan Maxima M95203 - July 18, 2008



2009 SNCAP Test 1 2009 Nissan Maxima M95203 - July 18, 2008



APPENDIX C

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: June 25, 2008; July 25, 2008

Sequential Test Number:

1

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 269		SID H3 NO.: 270	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	899	899	899	899
RH- Rib Height (mm)	501 - 521	505	505	505	505
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	234	234	234	234
KV- Knee Pivot from Back Line (mm)	511 - 526	516	516	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	495	495	495	495
HW- Hip Width (mm)	356 - 391	381	381	384	384
THORAX IMPACTS					
TEMPERATURE (• C)	18.9 - 25.5	21.7	21.7	21.7	21.7
RELATIVE HUMIDITY (%)	10 - 70	51	63	50	63
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.30	4.31	4.31
UPPER RIB (g's)	37 - 46	38.01	40.75	42.93	40.08
LOWER RIB (g's)	37 - 46	38.12	37.79	39.27	39.41
LOWER SPINE (g's)	15 - 22	17.07	18.20	20.32	20.62
PELVIS IMPACT					
TEMPERATURE (• C)	18.9 - 25.5	21.7	21.7	21.7	21.7
RELATIVE HUMIDITY (%)	10 - 70	51	63	51	63
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.30	4.30	4.29
PELVIS (g's)	40 - 60	46.15	52.68	43.11	49.17

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269	Sequential Test Number: 1
Date: June 25, 2008	Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: June 25, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	899
RH- Rib Height (mm)	502 – 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	234
KH- Knee Pivot from Back Line (mm)	511 – 526	516
KV- Knee Pivot to Floor (mm)	490 – 505	495
HW- Hip Width (mm)	356 - 391	381

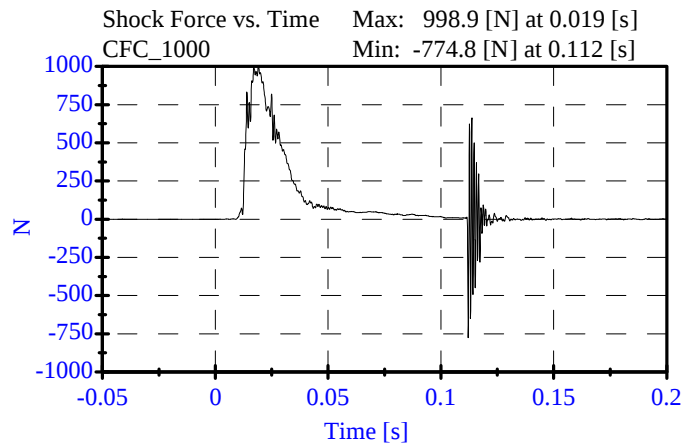
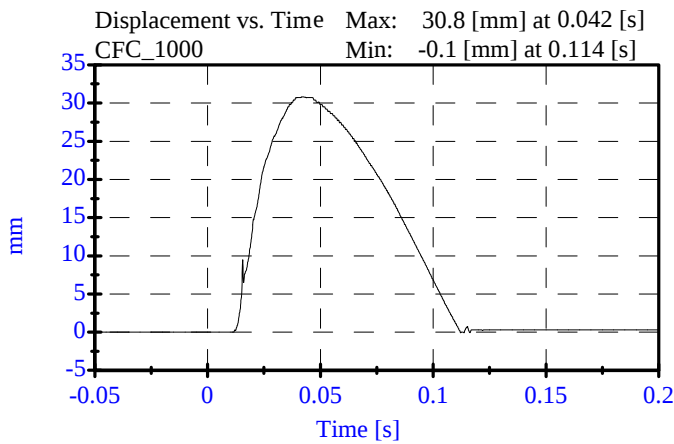
REMARKS: None

Shock Test (3.05 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 06-25-08

Sequential Test Number: 1 File: 269 Shock10 06-25-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	55.00 %	Passed
Displacement:	30.00-35.00 mm	30.82 mm	Passed
Maximum Force:	836.00-1125.00 N	998.86 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	269		
Damper Setting:	5		

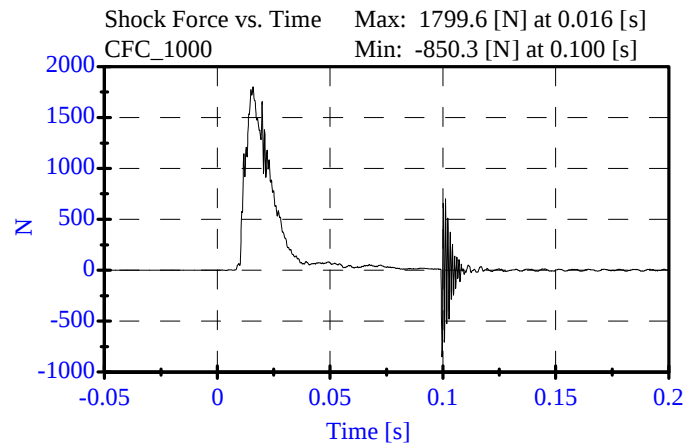
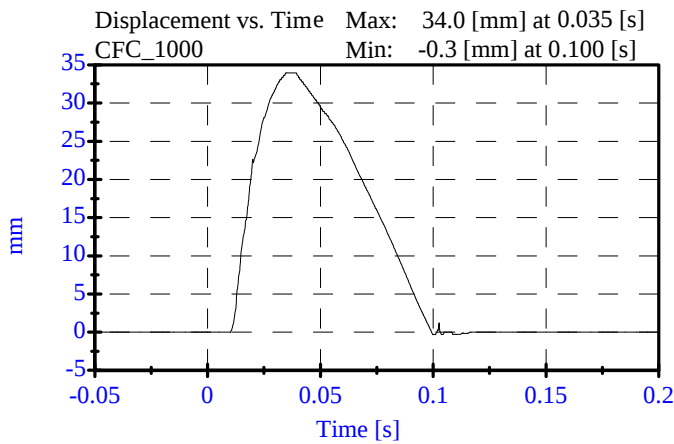


Shock Test (4.27 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 06-25-08

Sequential Test Number: 1 File: 269 Shock14 06-25-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	55.00 %	Passed
Displacement:	32.00-37.00 mm	33.97 mm	Passed
Maximum Force:	1730.00-2099.00 N	1799.59 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	269		
Damper Setting:	5		

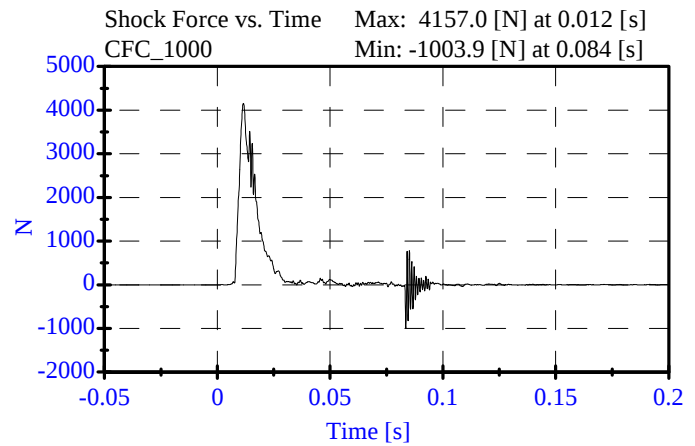
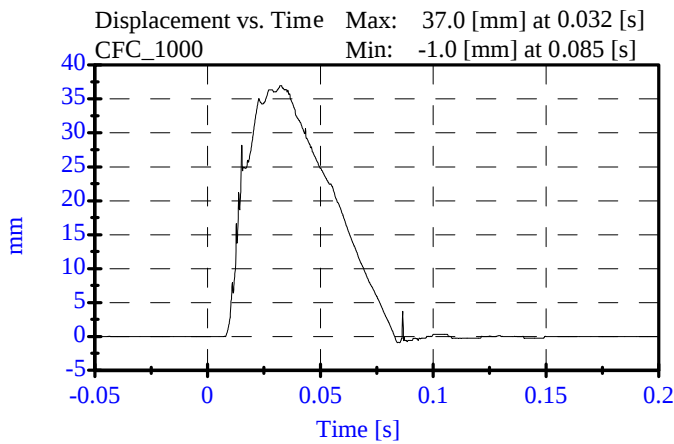


Shock Test (6.10 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 06-25-08

Sequential Test Number: 1 File: 269 Shock20 06-25-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	55.00 %	Passed
Displacement:	33.00-40.00 mm	36.96 mm	Passed
Maximum Force:	3741.00-4448.00 N	4156.98 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	269		
Damper Setting:	5		

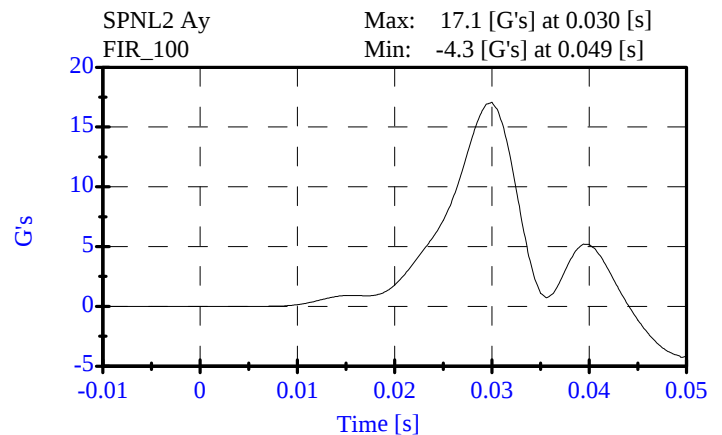
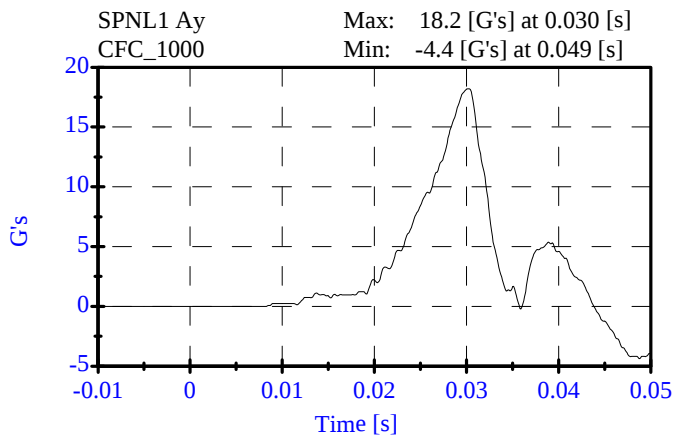
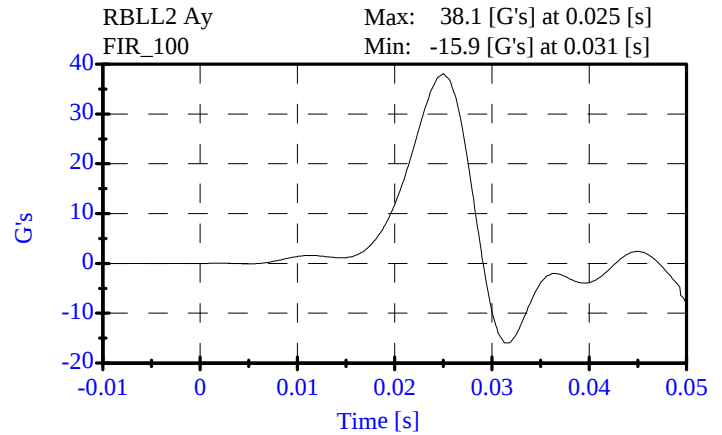
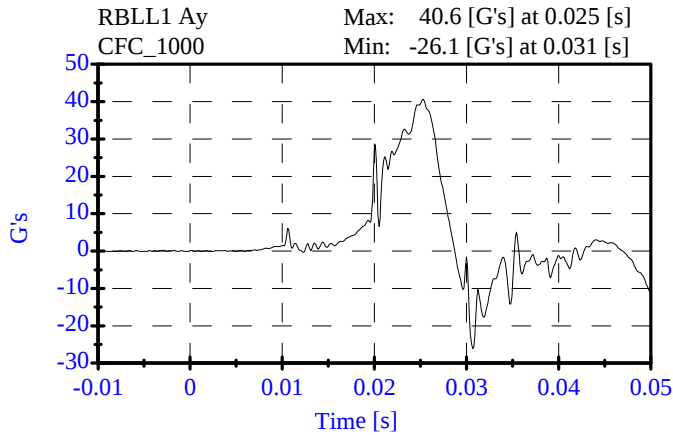
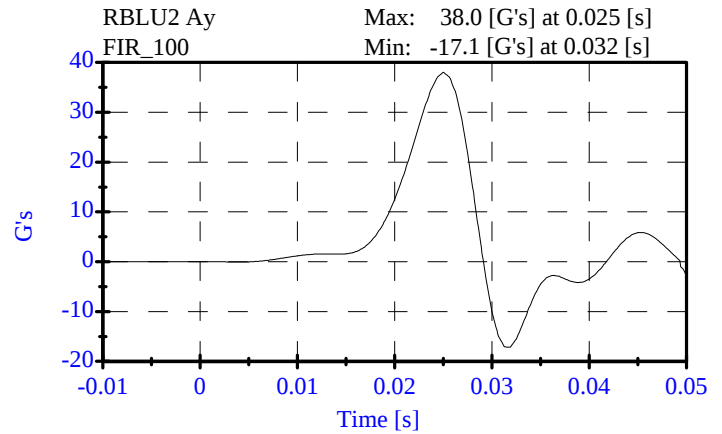
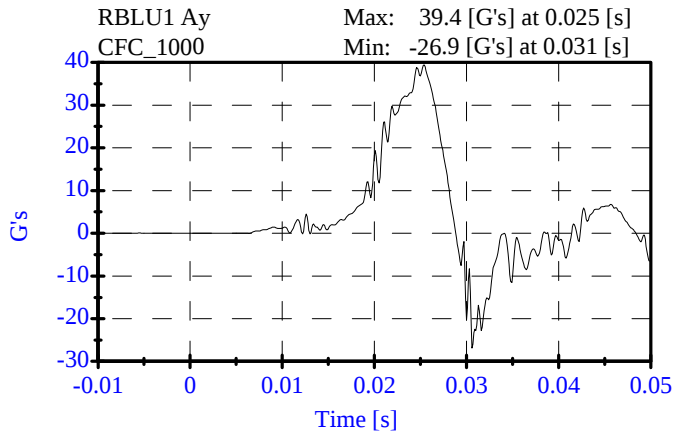


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-15-08

Sequential Test Number: 1 File: 269T 07-15-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	51.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	38.01 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	38.12 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.07 G's	Passed



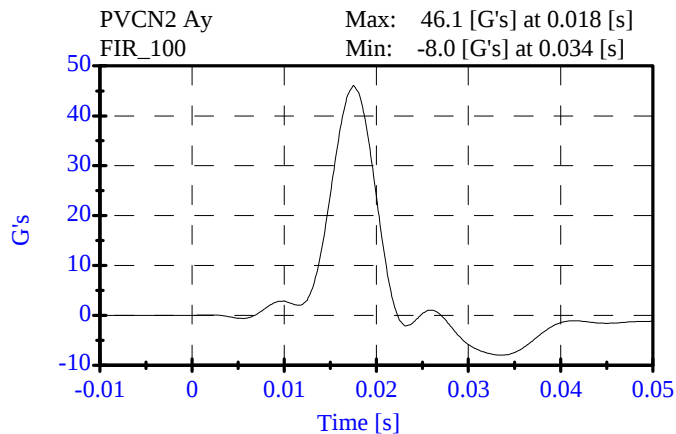
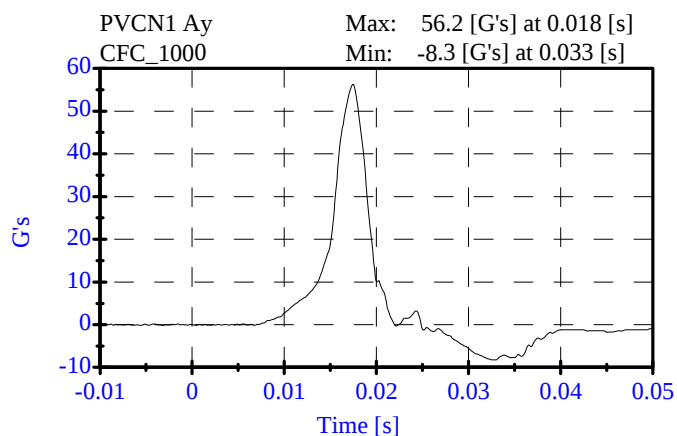
Pelvis Impact
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-15-08

Sequential Test Number: 1 File: 269P 07-15-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	51.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	46.15 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.6 ms	Passed



Head Drop Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

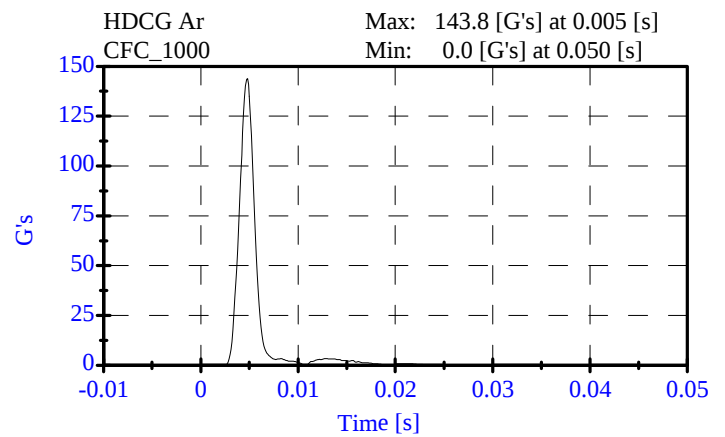
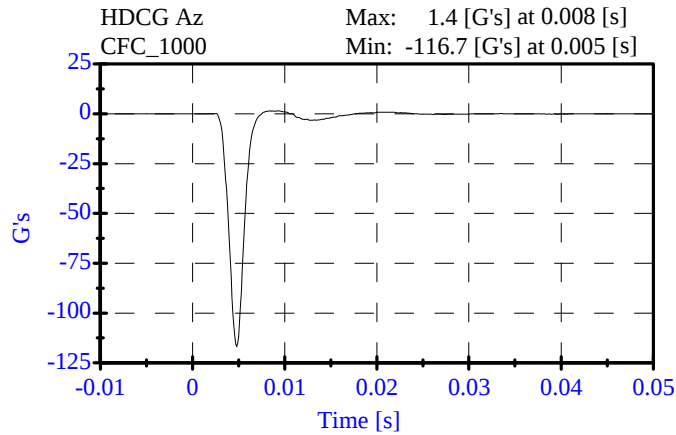
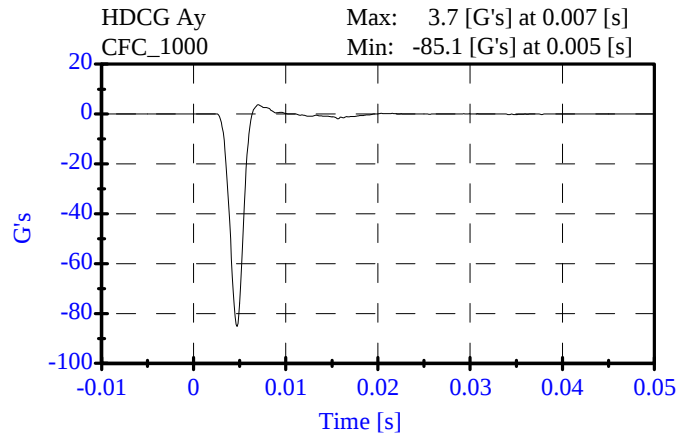
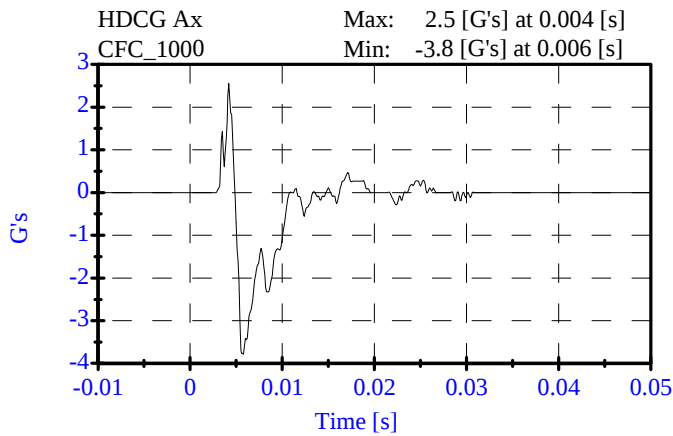
ATD Serial No: 269

Date: 07-14-08

Sequential Test Number: 1 File: 269H 07-14-08

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	51.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	143.79 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	2.55 Gs	Passed
Curve PerCent NonModal:	< 15%	2.38 %	Passed



Neck Test**Pre-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 269

Date: 07-14-08

Sequential Test Number: 1 File: 269N 07-15-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	53.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.20 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.57 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.55 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.05 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	72.80 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.60 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	82.13 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	56.80 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	11.00 ms	Passed

Neck Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

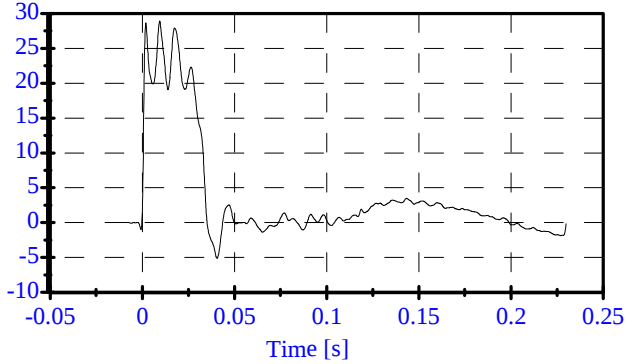
ATD Serial No: 269

Date: 07-14-08

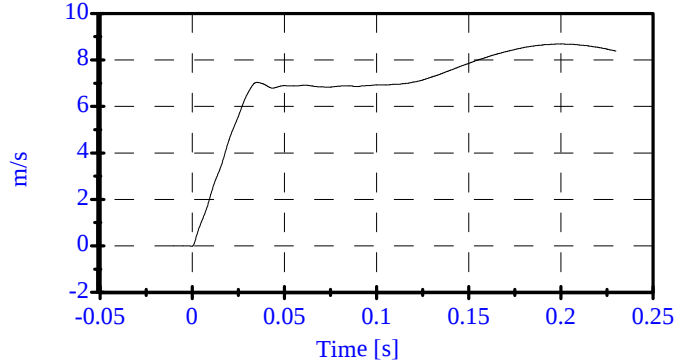
Sequential Test Number: 1 File: 269N 07-15-08

Laboratory Technician: B. Swiecicki

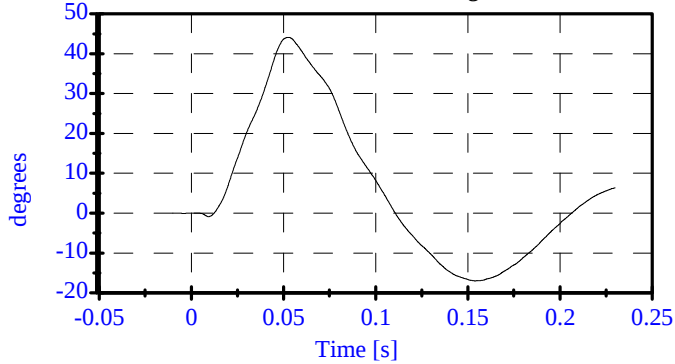
Pend Ax
CFC_180
Max: 28.9 [] at 0.009 [s]
Min: -5.1 [] at 0.041 [s]



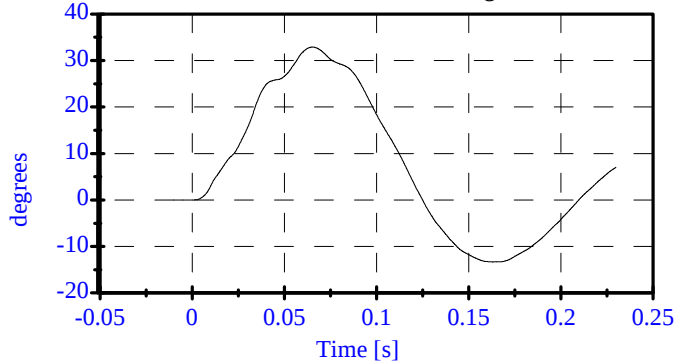
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



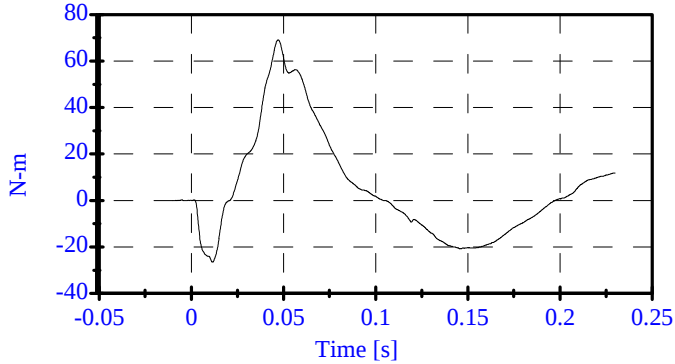
Head Rot
CFC_180
Max: 44.1 [degrees] at 0.053 [s]
Min: -17.0 [degrees] at 0.154 [s]



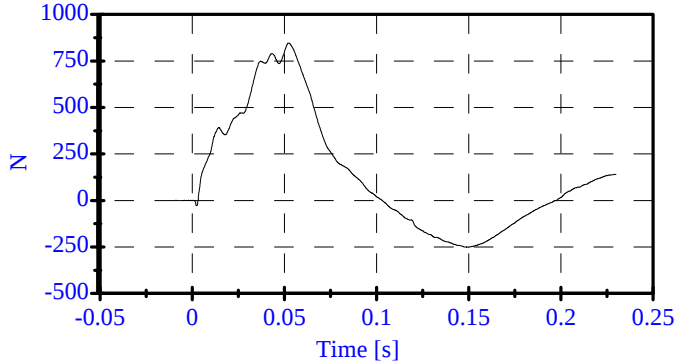
Arm Rot
CFC_180
Max: 32.9 [degrees] at 0.065 [s]
Min: -13.3 [degrees] at 0.163 [s]



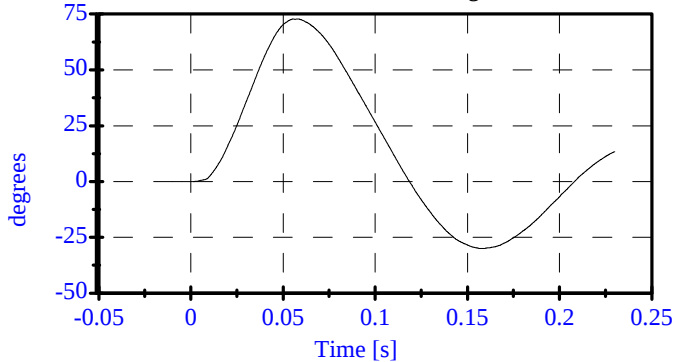
Neck Mx
CFC_600
Max: 69.0 [N-m] at 0.047 [s]
Min: -26.5 [N-m] at 0.012 [s]



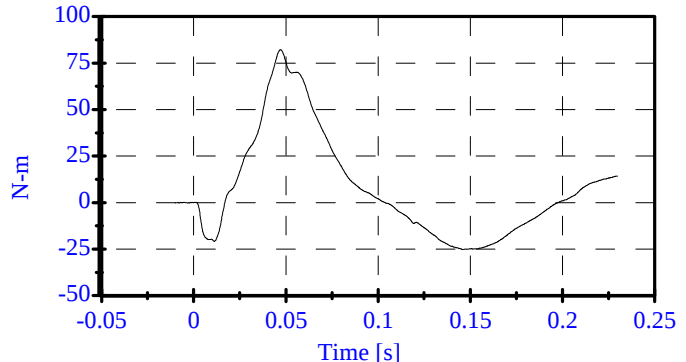
Neck Fy
CFC_1000
Max: 846.2 [N] at 0.053 [s]
Min: -251.9 [N] at 0.150 [s]



Tot Rot
CFC_180
Max: 72.8 [degrees] at 0.058 [s]
Min: -30.0 [degrees] at 0.158 [s]



MOCX
Max: 82.1 [N-m] at 0.047 [s]
Min: -25.2 [N-m] at 0.146 [s]



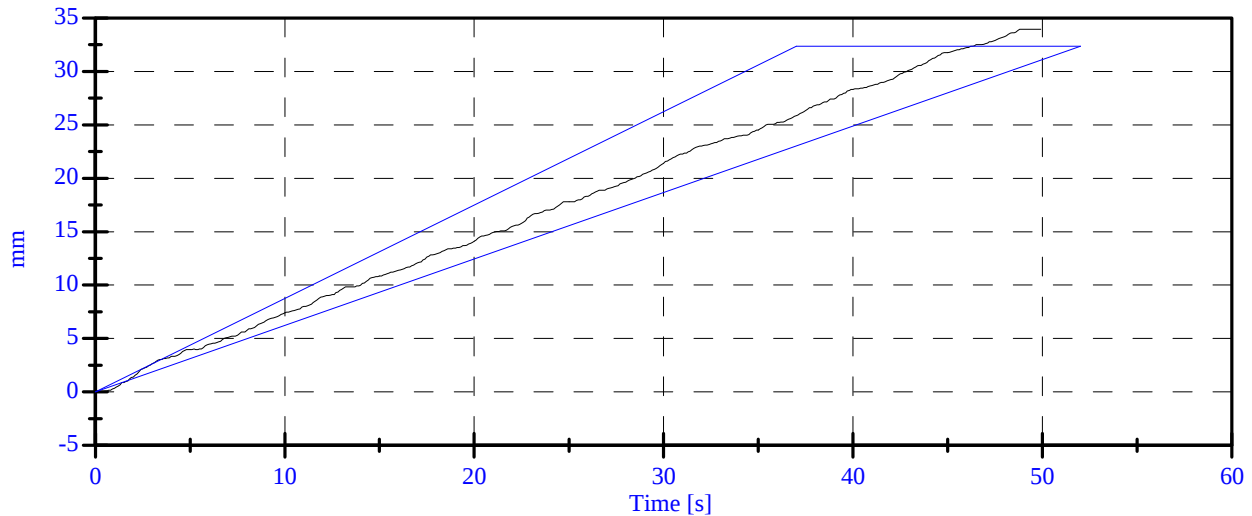
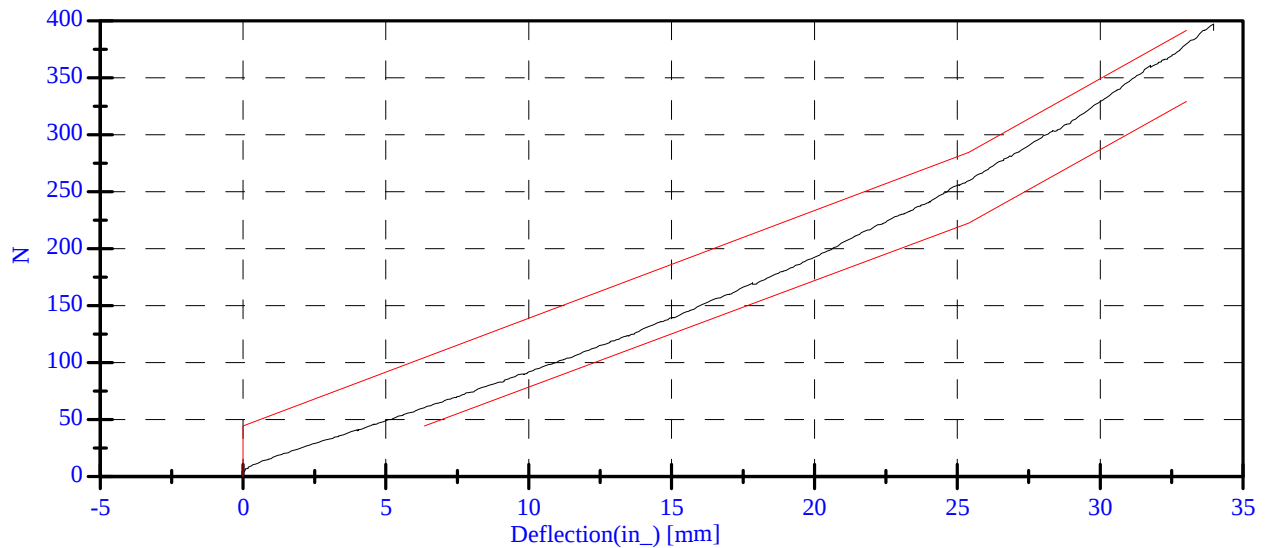
Abdominal Compression Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-16-08

Sequential Test Number: 1 File: 269 Ab 07-16-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	56.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	119.17 N	Passed
Force at 19.05 mm :	162.98-220.99 N	181.59 N	Passed
Force at 25.40 mm :	221.97-280.02 N	260.07 N	Passed
Force at 33.02 mm :	324.99-391.00 N	379.08 N	Passed

ABDOMINAL COMPRESSION TEST



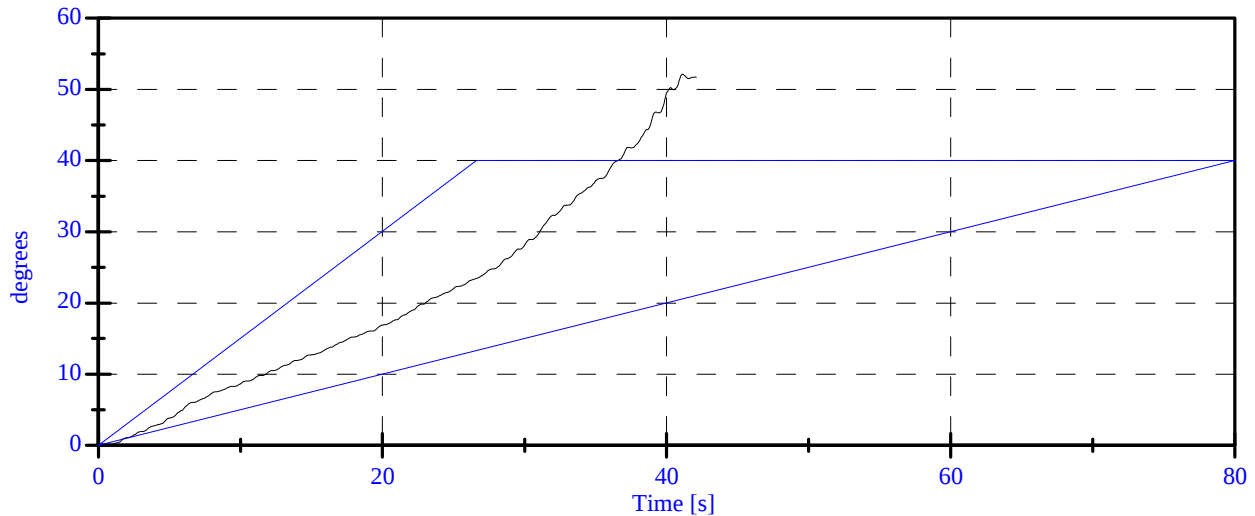
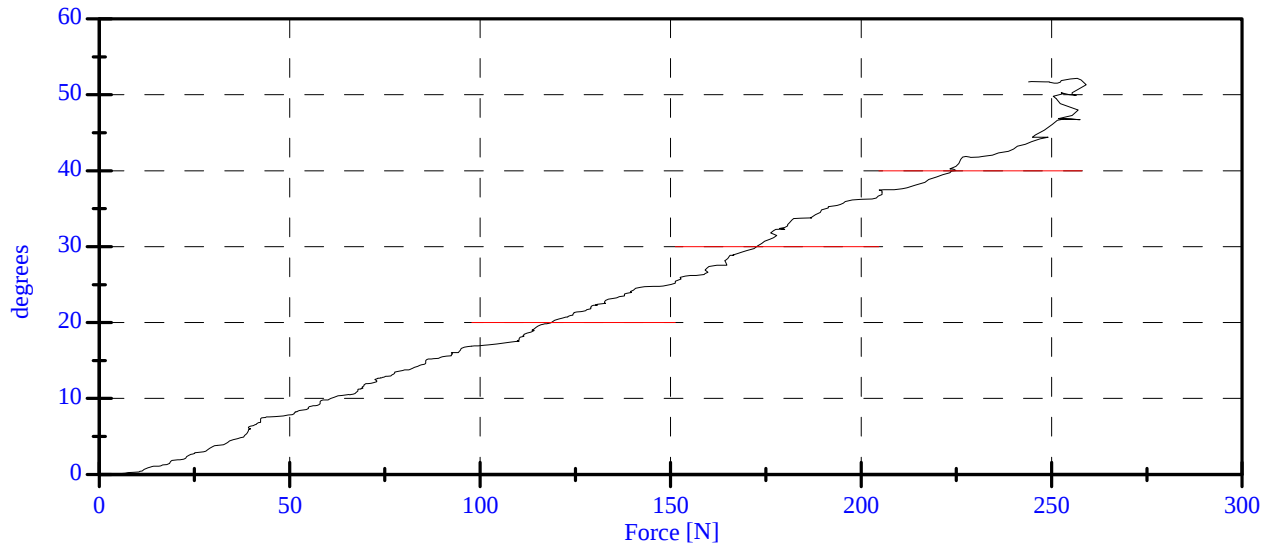
Lumbar Spine Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-15-08

Sequential Test Number: 1 File: 269 Spine 07-15-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	51.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	0.14 N	Passed
Force at 20 Deg:	97.86-151.24 N	118.56 N	Passed
Force at 30 Deg	151.24-204.62 N	172.88 N	Passed
Force at 40 Deg	204.62-258.00 N	224.85 N	Passed
Return Angle	12 Deg Max	8.00 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
 Date: June 23, 2008 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270	Sequential Test Number: 1
Date: June 25, 2008	Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: June 25, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	384

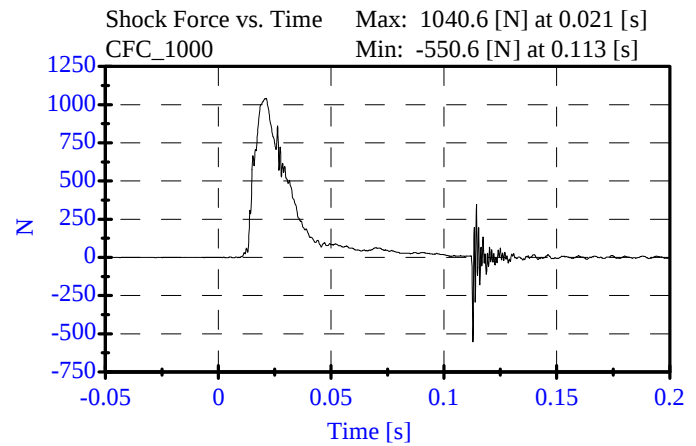
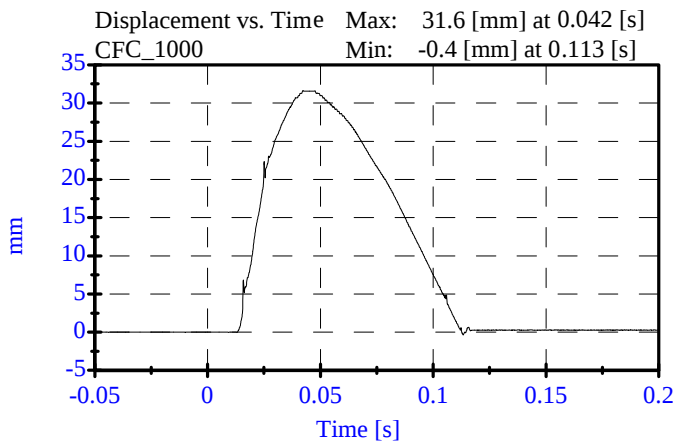
REMARKS: None

Shock Test Low (3.05 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-04-08

Sequential Test Number: 1 File: 270 Shock Low 02-04-(
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Displacement:	30.00-35.00 mm	31.63 mm	Passed
Maximum Force:	836.00-1125.00 N	1040.57 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	270		
Damper Setting:	5		



Shock Test Medium (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

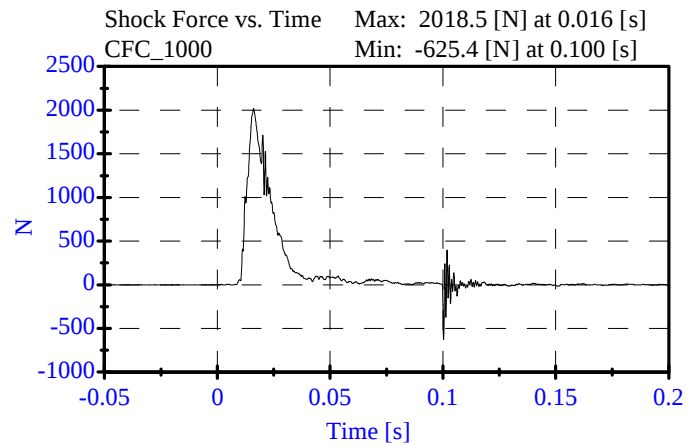
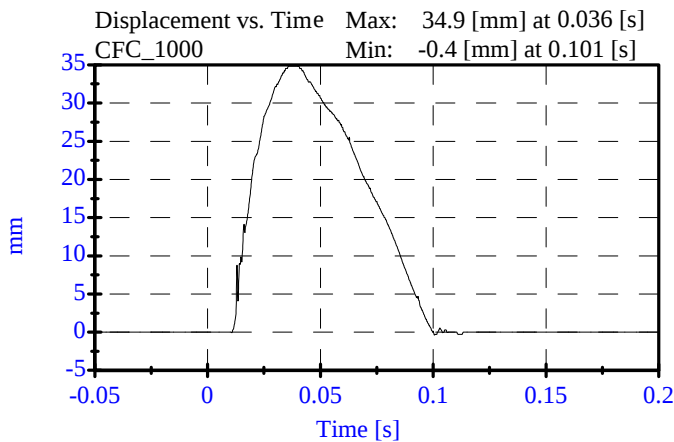
ATD Serial No: 270

Date: 02-04-08

Sequential Test Number: 1 File: 270 Shock Med 02-04-(

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	19.00 %	Passed
Displacement:	32.00-37.00 mm	34.87 mm	Passed
Maximum Force:	1730.00-2099.00 N	2018.50 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	270		
Damper Setting:	5		

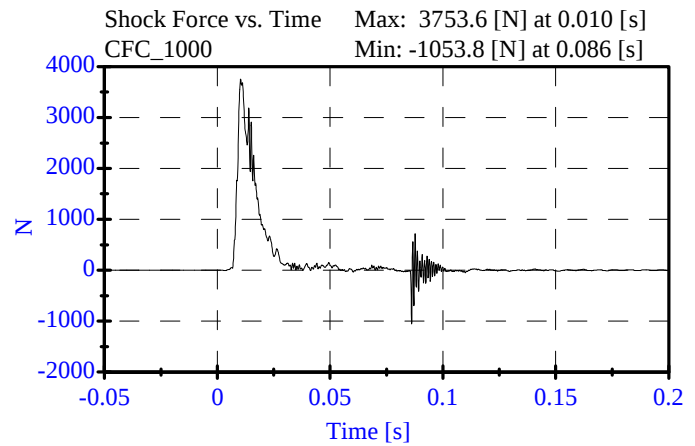
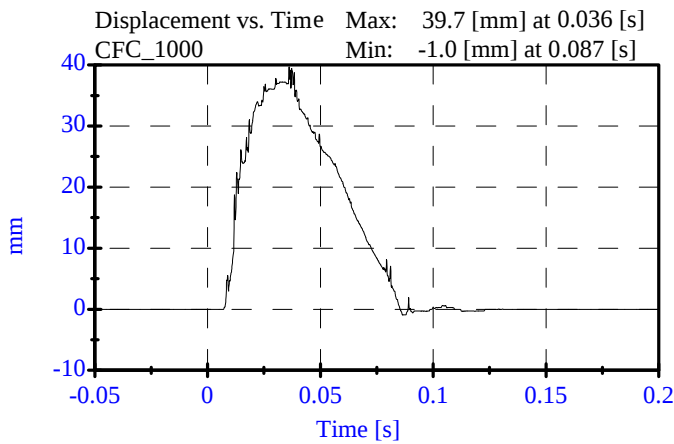


Shock Test High (6.10 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-04-08

Sequential Test Number: 1 File: 270 Shock High2 02-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	19.00 %	Passed
Displacement:	33.00-40.00 mm	39.70 mm	Passed
Maximum Force:	3741.00-4448.00 N	3753.63 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	270		
Damper Setting:	5		

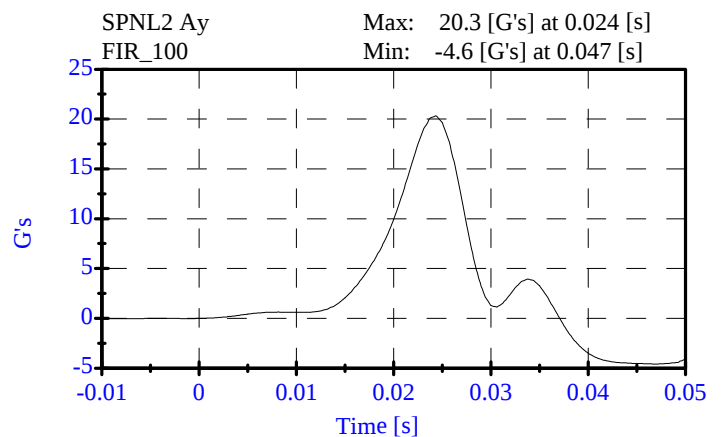
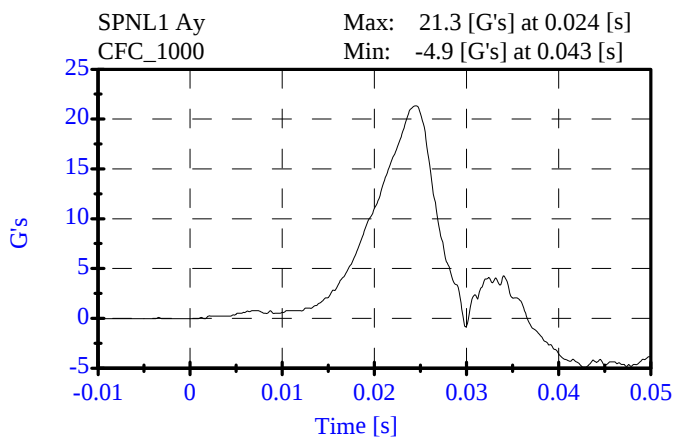
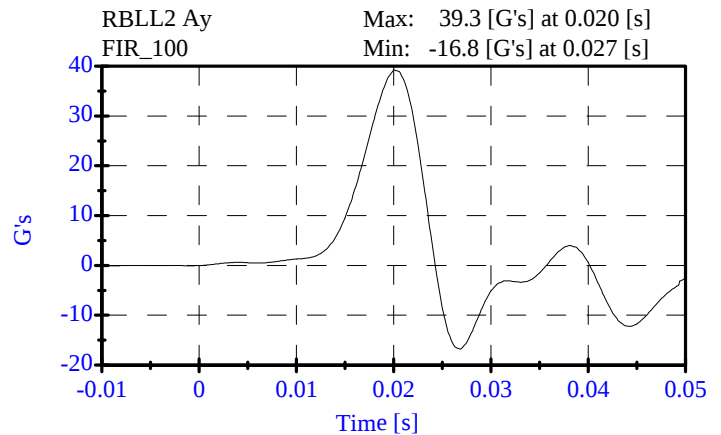
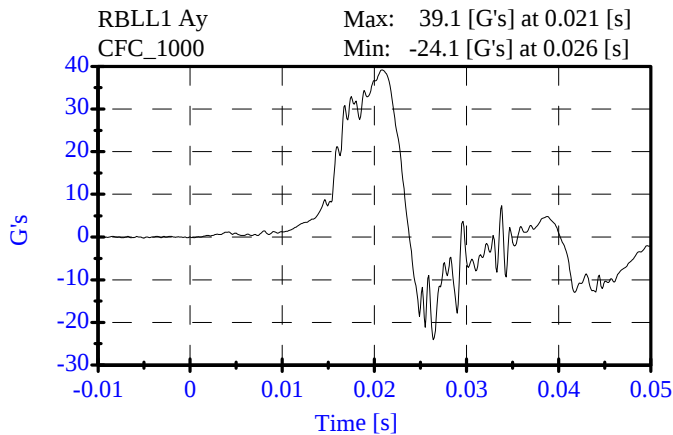
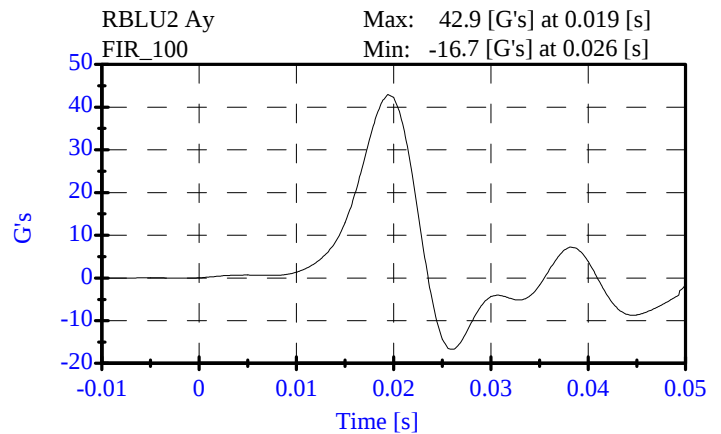
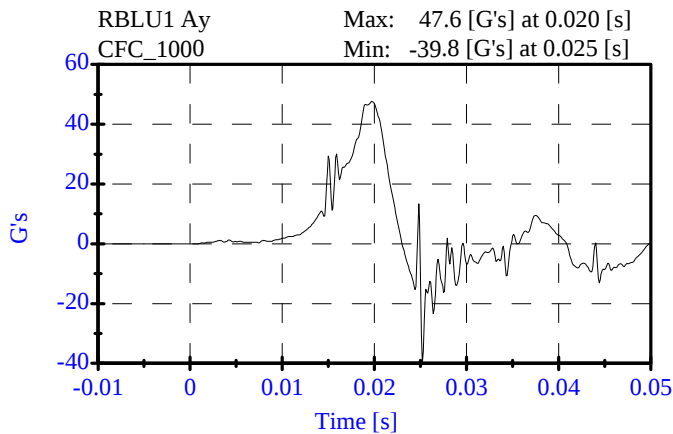


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-15-08

Sequential Test Number: 1 File: 270T 07-15-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	50.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	42.93 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.27 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.32 G's	Passed



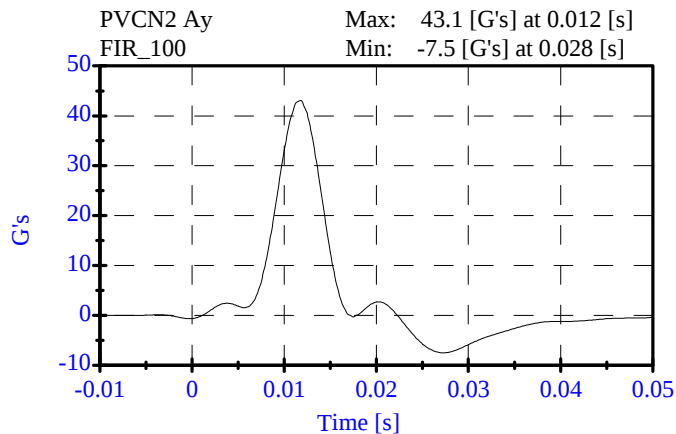
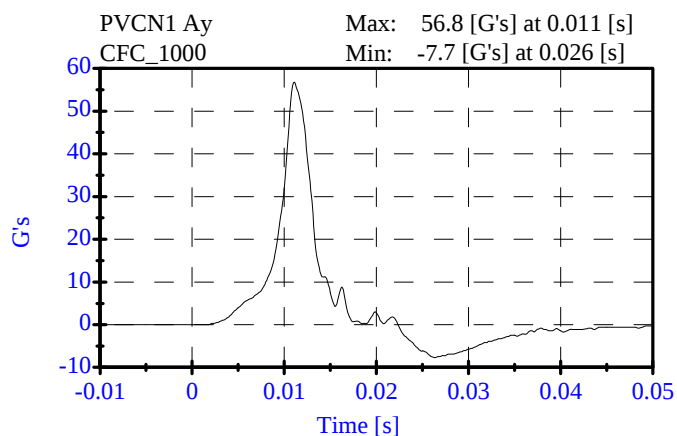
Pelvis Impact **Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-15-08

Sequential Test Number: 1 File: 270P 07-15-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	51.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	43.11 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.5 ms	Passed



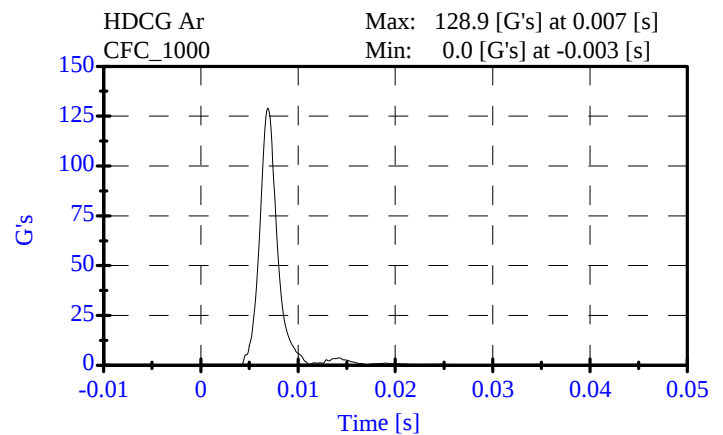
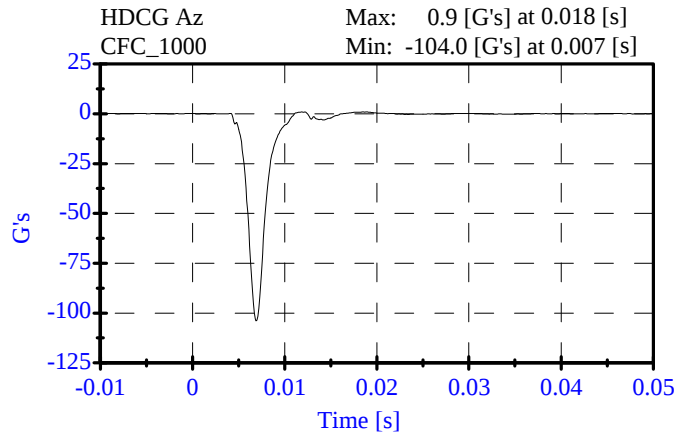
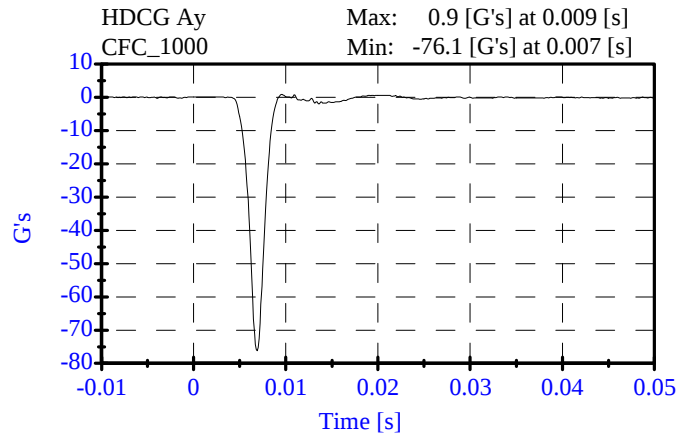
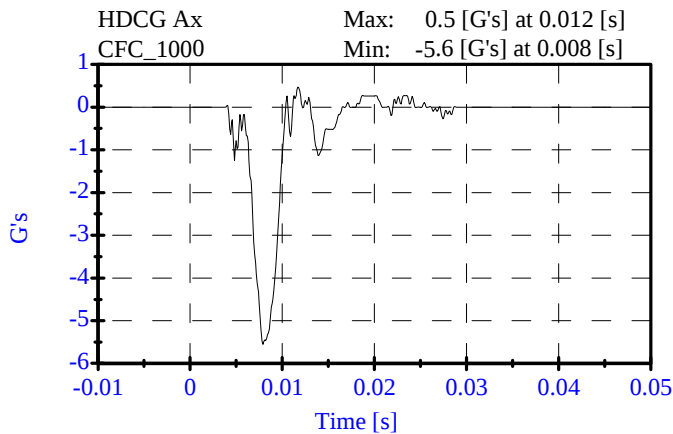
Head Drop Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-14-08

Sequential Test Number: 1 File: 270H 07-14-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	52.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	128.92 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.47 Gs	Passed
Curve PerCent NonModal:	< 15%	2.87 %	Passed



Neck Test**Pre-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 270

Date: 07-15-08

Sequential Test Number: 1 File: 270N1 07-15-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	53.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.99 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.12 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.34 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.19 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.03 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	71.10 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	83.48 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	54.80 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	8.90 ms	Passed

Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

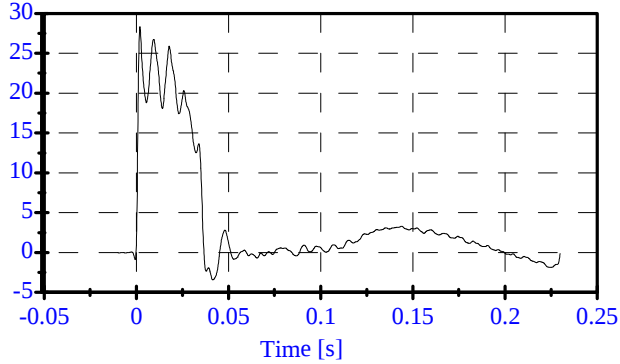
ATD Serial No: 270

Date: 07-15-08

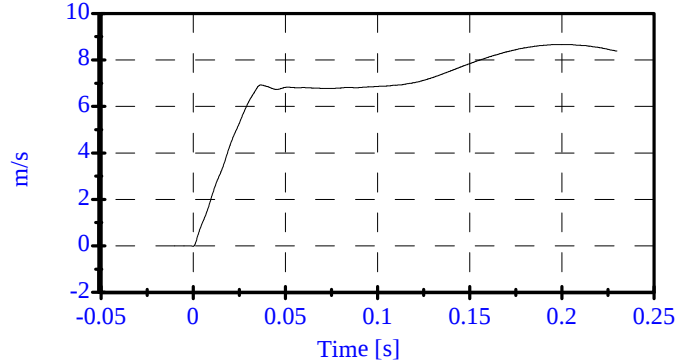
Sequential Test Number: 1 File: 270N1 07-15-08

Laboratory Technician: B. Swiecicki

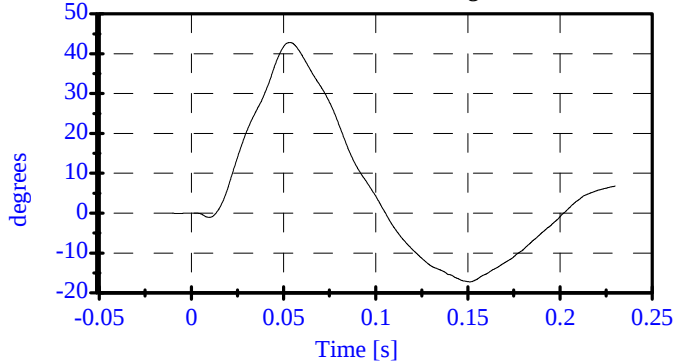
Pend Ax
CFC_180
Max: 28.3 [] at 0.002 [s]
Min: -3.4 [] at 0.042 [s]



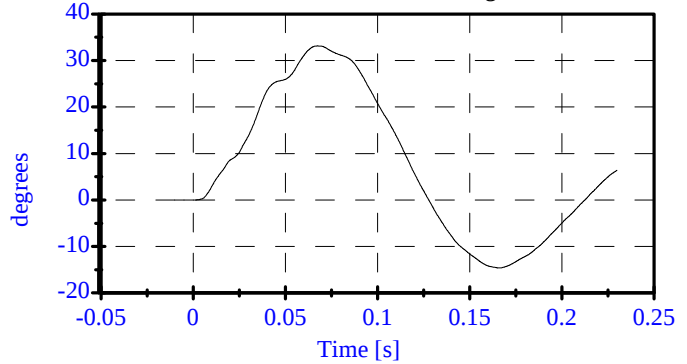
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.200 [s]
Min: -0.0 [m/s] at -0.000 [s]



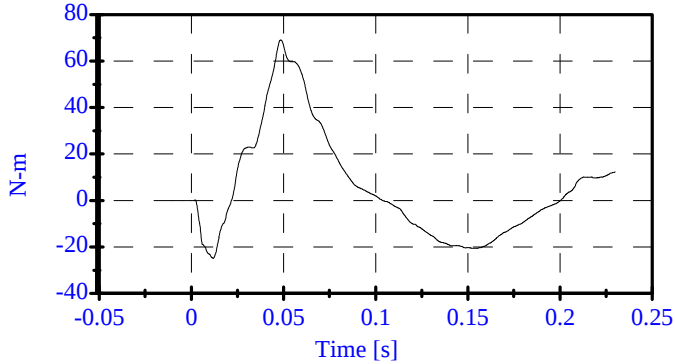
Head Rot
CFC_180
Max: 42.8 [degrees] at 0.054 [s]
Min: -17.2 [degrees] at 0.151 [s]



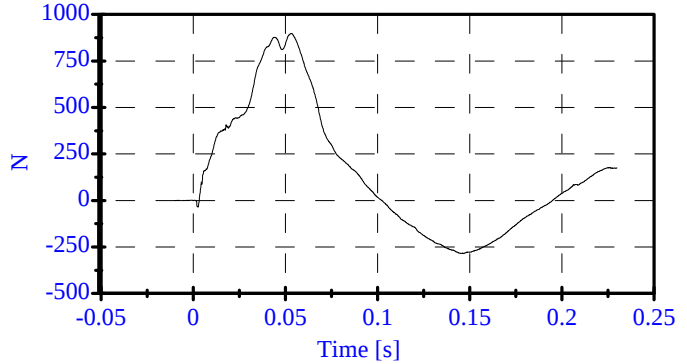
Arm Rot
CFC_180
Max: 33.1 [degrees] at 0.067 [s]
Min: -14.6 [degrees] at 0.166 [s]



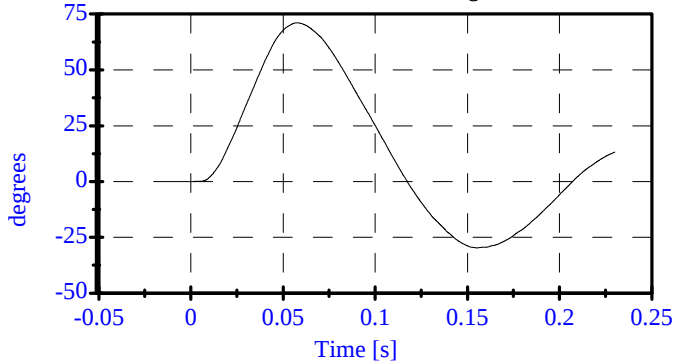
Neck Mx
CFC_600
Max: 69.0 [N-m] at 0.049 [s]
Min: -25.0 [N-m] at 0.012 [s]



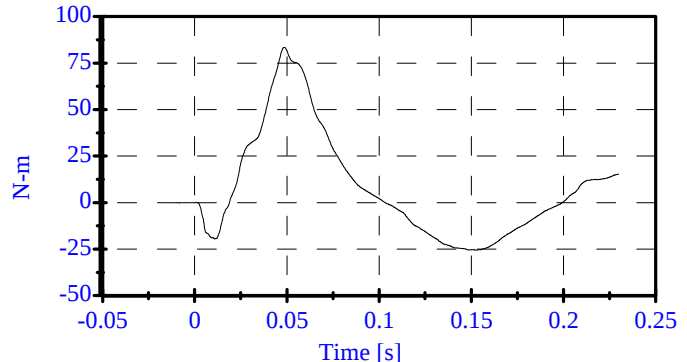
Neck Fy
CFC_1000
Max: 897.7 [N] at 0.053 [s]
Min: -284.0 [N] at 0.145 [s]



Tot Rot
CFC_180
Max: 71.1 [degrees] at 0.057 [s]
Min: -29.6 [degrees] at 0.155 [s]



MOCX
Max: 83.5 [N-m] at 0.049 [s]
Min: -25.5 [N-m] at 0.152 [s]



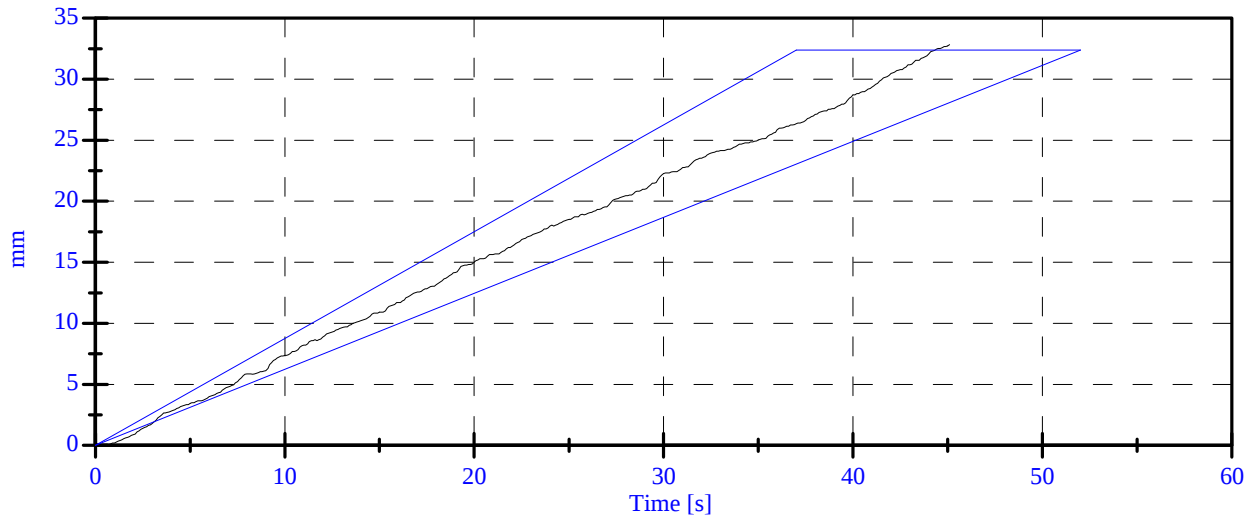
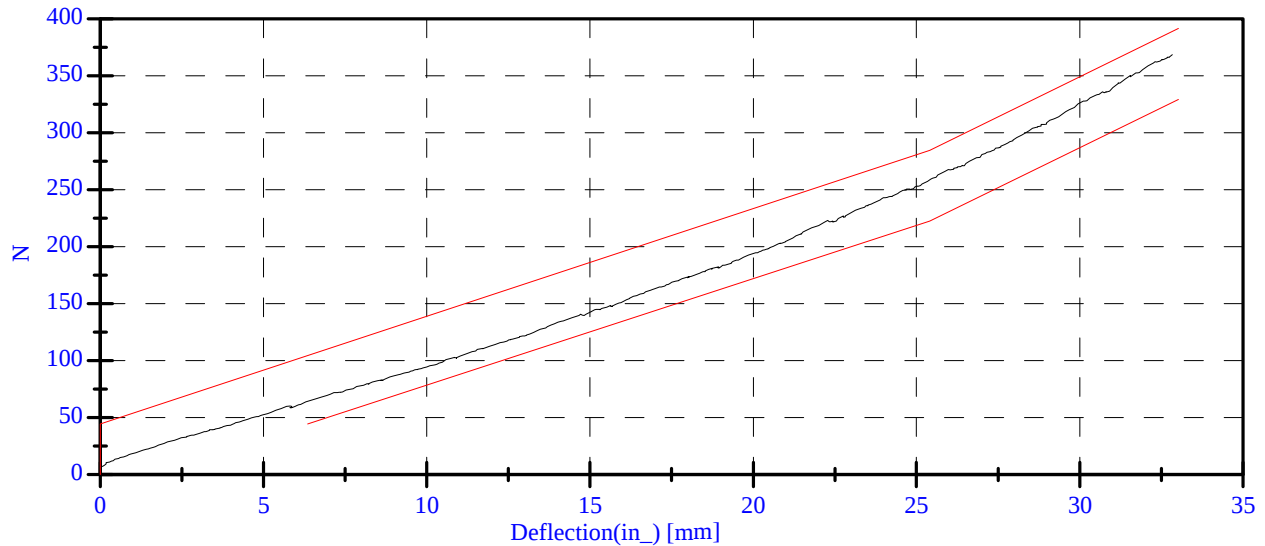
Abdominal Compression Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-16-08

Sequential Test Number: 1 File: 270 Ab 07-16-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	56.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	121.72 N	Passed
Force at 19.05 mm :	162.98-220.99 N	183.78 N	Passed
Force at 25.40 mm :	221.97-280.02 N	259.34 N	Passed
Force at 33.02 mm :	324.99-391.00 N	368.49 N	Passed

ABDOMINAL COMPRESSION TEST



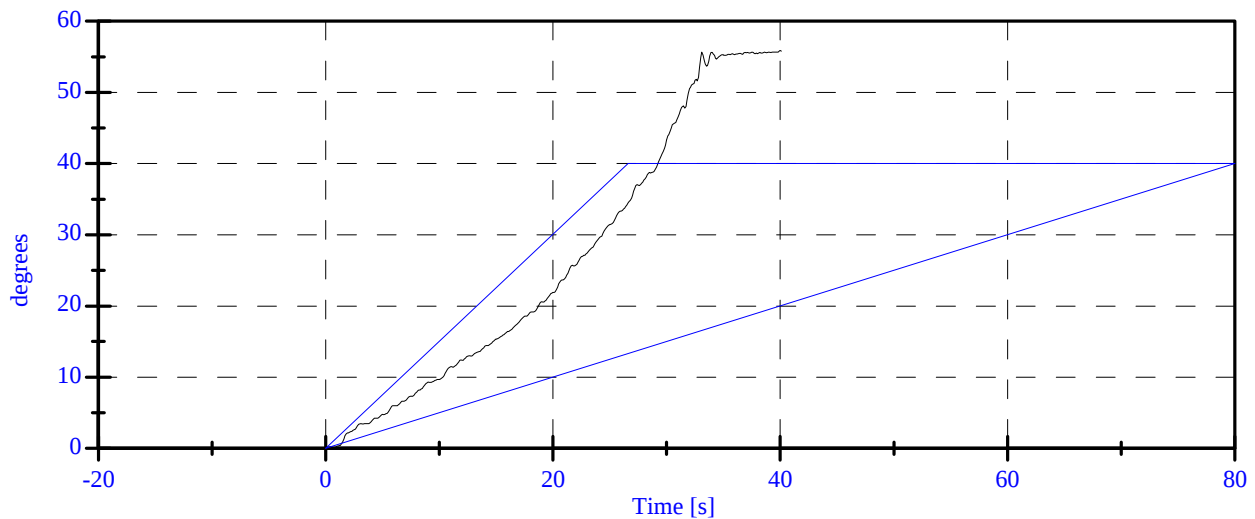
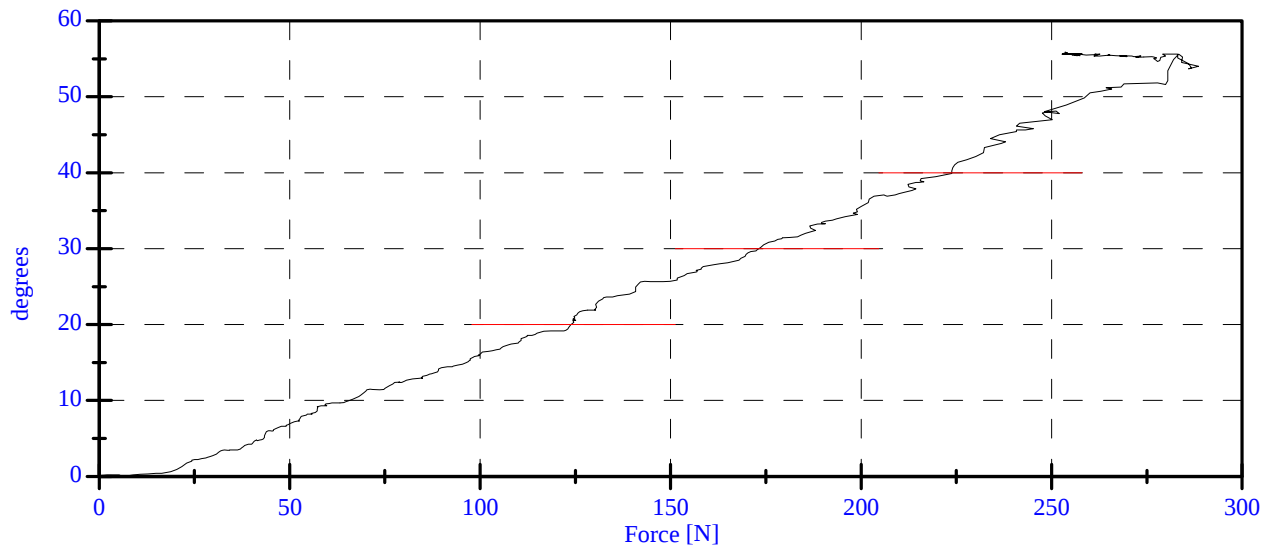
Lumbar Spine Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-16-08

Sequential Test Number: 1 File: 270 Spine 07-16-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	56.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	2.87 N	Passed
Force at 20 Deg:	97.86-151.24 N	123.79 N	Passed
Force at 30 Deg:	151.24-204.62 N	173.67 N	Passed
Force at 40 Deg:	204.62-258.00 N	223.81 N	Passed
Return Angle	12 Deg Max	7.03 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
 Date: June 23, 2008 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: July 25, 2008 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269	Sequential Test Number: 1
Date: July 25, 2008	Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	516
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	381

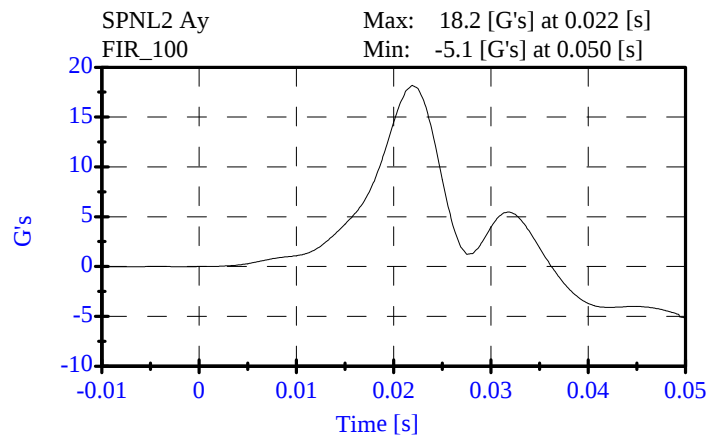
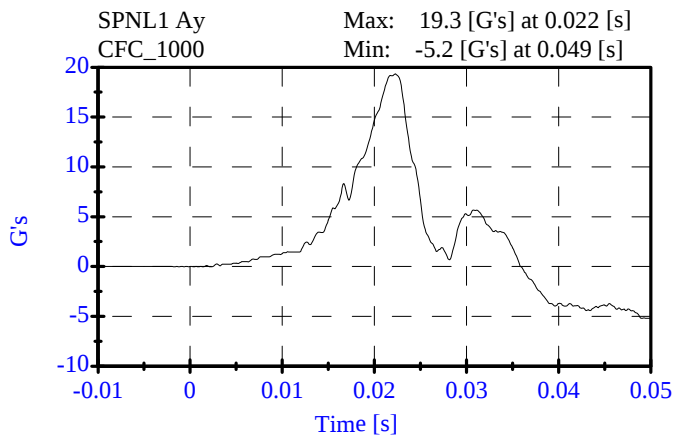
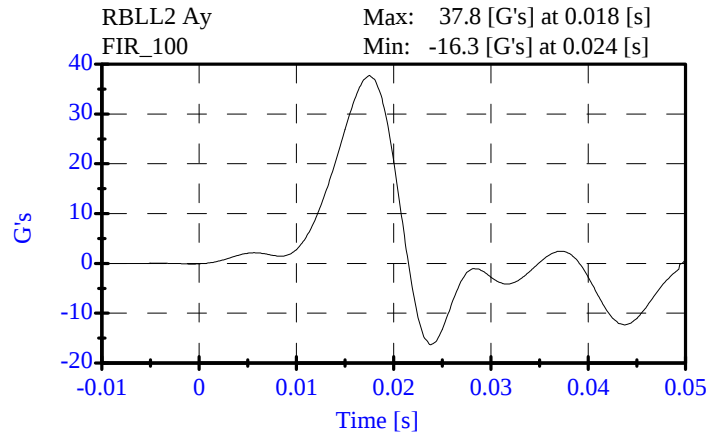
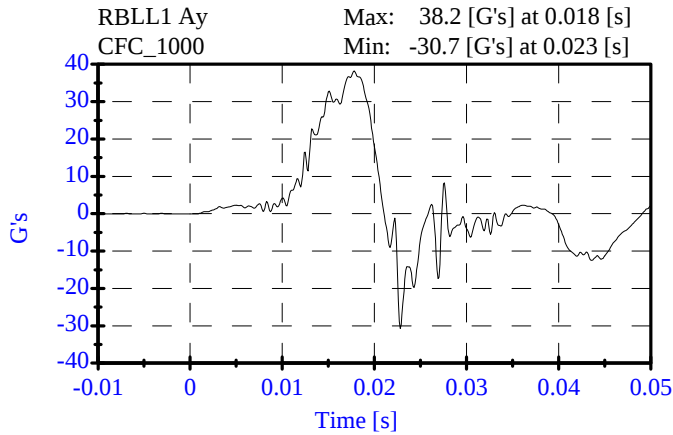
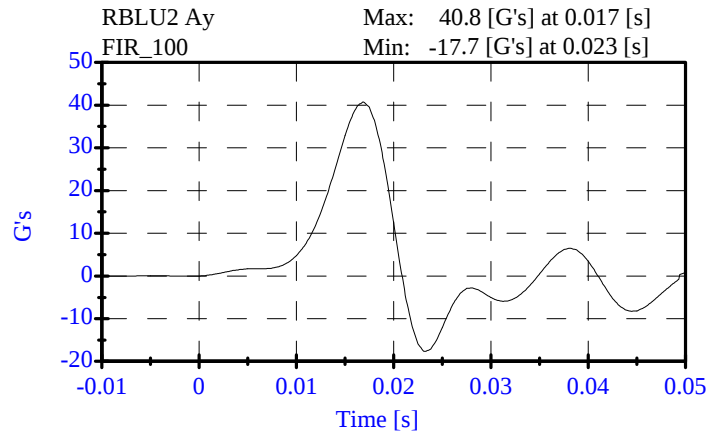
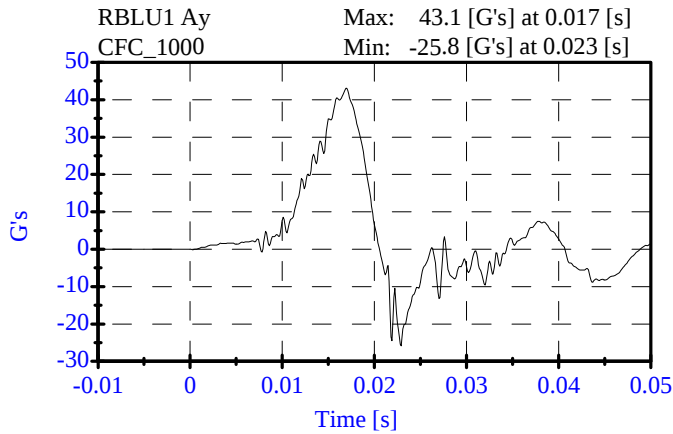
REMARKS: None

Thorax Impact Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-25-08

Sequential Test Number: 1 File: 269T1 07-25-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	63.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.75 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.79 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.20 G's	Passed

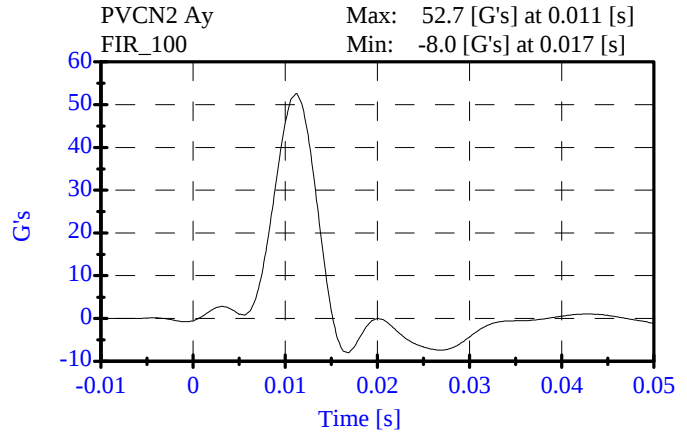
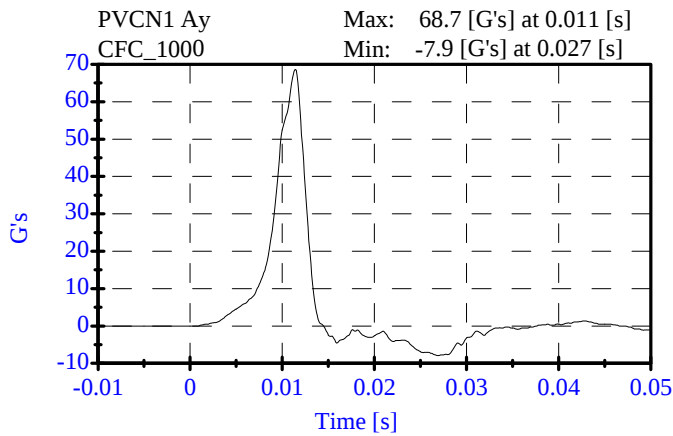


Pelvic Impact Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-25-08

Sequential Test Number: 1 File: 269P1 07-25-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	63.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	52.68 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.6 ms	Passed



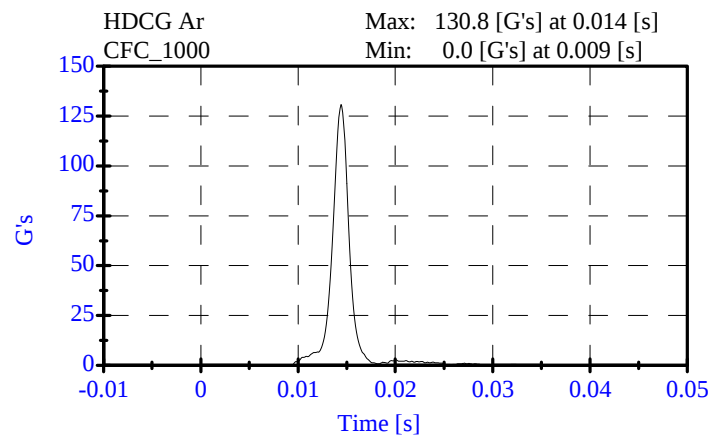
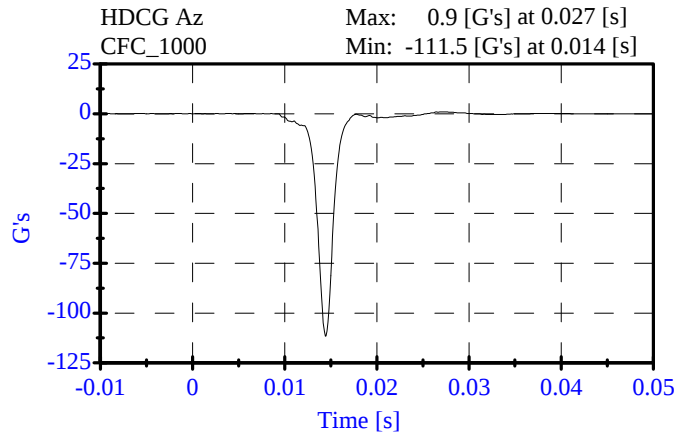
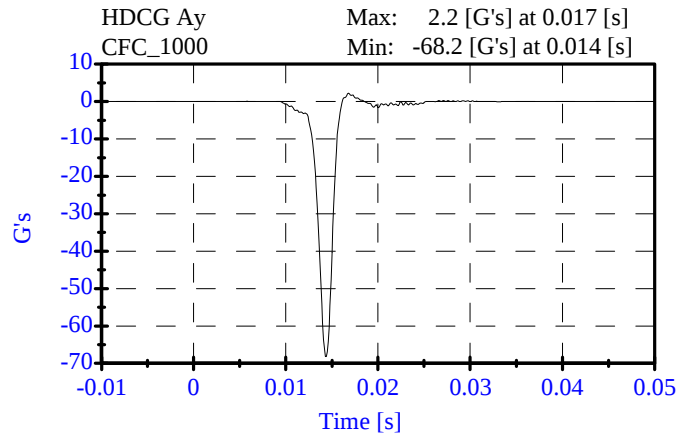
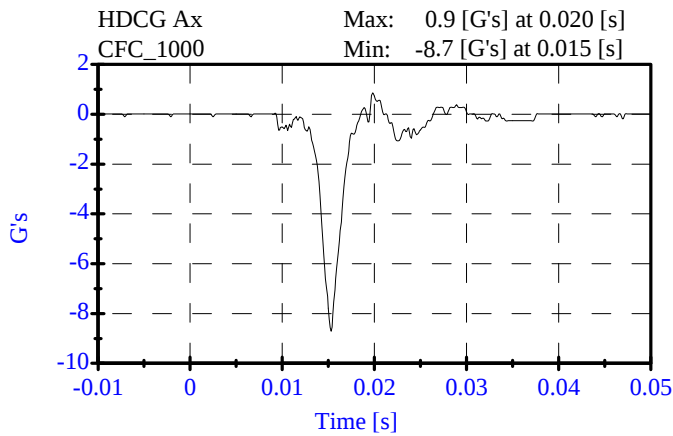
Head Drop **Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-23-08

Sequential Test Number: 1 File: 269H 07-23-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	69.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	130.82 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.85 Gs	Passed
Curve PerCent NonModal:	< 15%	2.10 %	Passed



Neck Flexion Test**Post-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 269

Date: 07-24-08

Sequential Test Number: 1 File: 269N 07-24-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	65.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.16 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.33 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.03 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.62 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	68.65 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	62.30 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	77.68 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	52.80 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	6.70 ms	Passed

Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

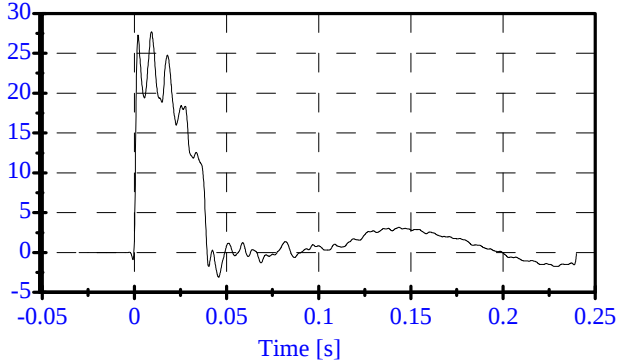
ATD Serial No: 269

Date: 07-24-08

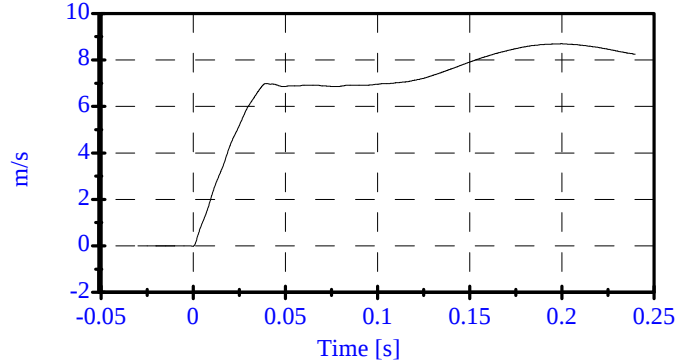
Sequential Test Number: 1 File: 269N 07-24-08

Laboratory Technician: B. Swiecicki

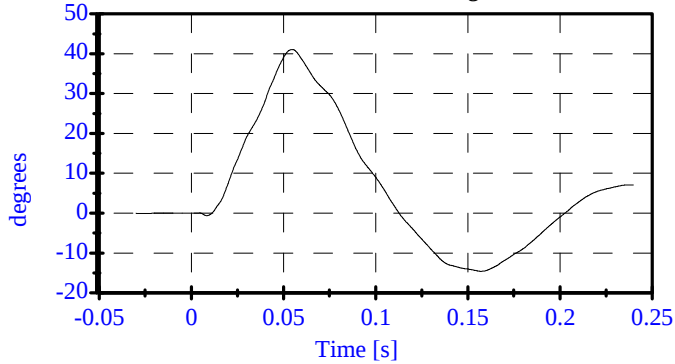
Pend Ax
CFC_180
Max: 27.7 [] at 0.009 [s]
Min: -3.1 [] at 0.046 [s]



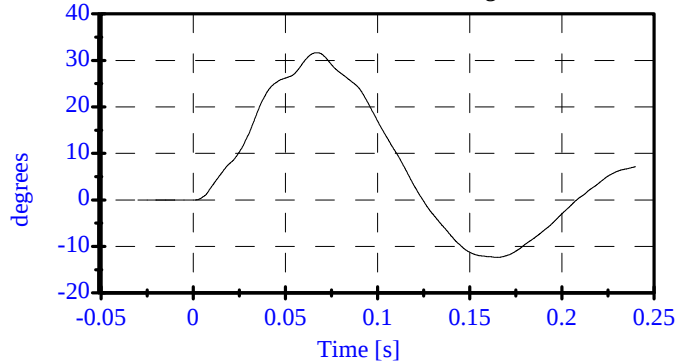
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.200 [s]
Min: -0.0 [m/s] at -0.000 [s]



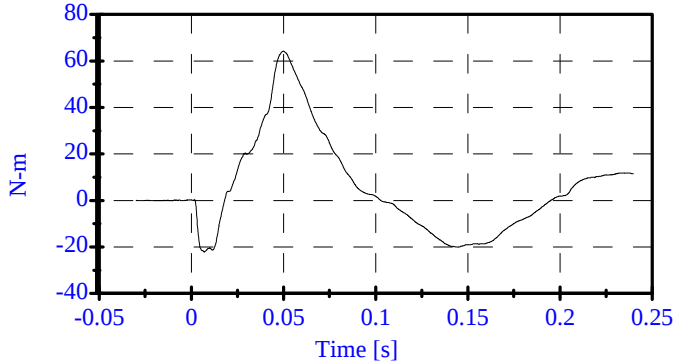
Head Rot
CFC_180
Max: 41.1 [degrees] at 0.055 [s]
Min: -14.6 [degrees] at 0.157 [s]



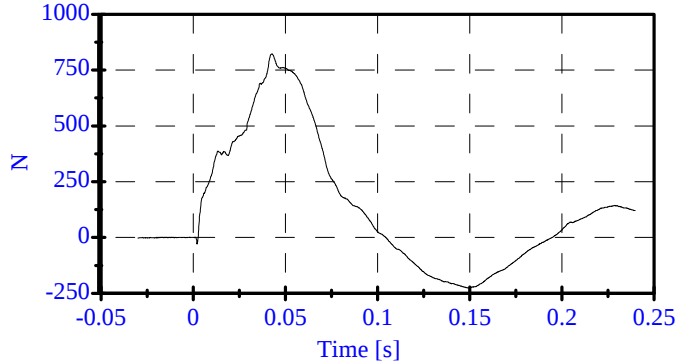
Arm Rot
CFC_180
Max: 31.7 [degrees] at 0.067 [s]
Min: -12.3 [degrees] at 0.165 [s]



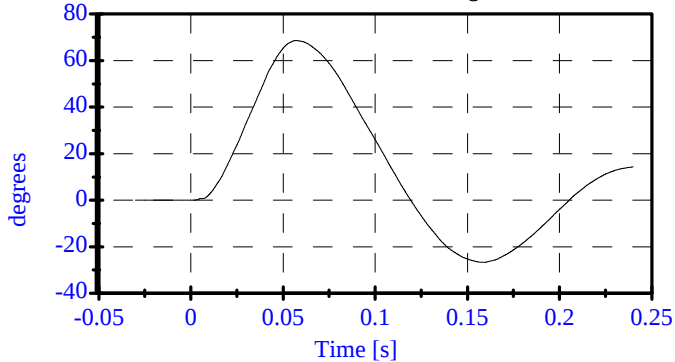
Neck Mx
CFC_600
Max: 64.2 [N-m] at 0.050 [s]
Min: -22.2 [N-m] at 0.007 [s]



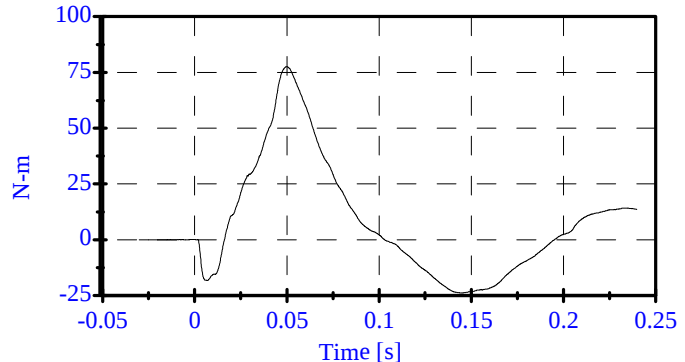
Neck Fy
CFC_1000
Max: 823.3 [N] at 0.043 [s]
Min: -225.8 [N] at 0.149 [s]



Tot Rot
CFC_180
Max: 68.6 [degrees] at 0.057 [s]
Min: -26.7 [degrees] at 0.158 [s]



MOCX
Max: 77.7 [N-m] at 0.050 [s]
Min: -23.8 [N-m] at 0.146 [s]



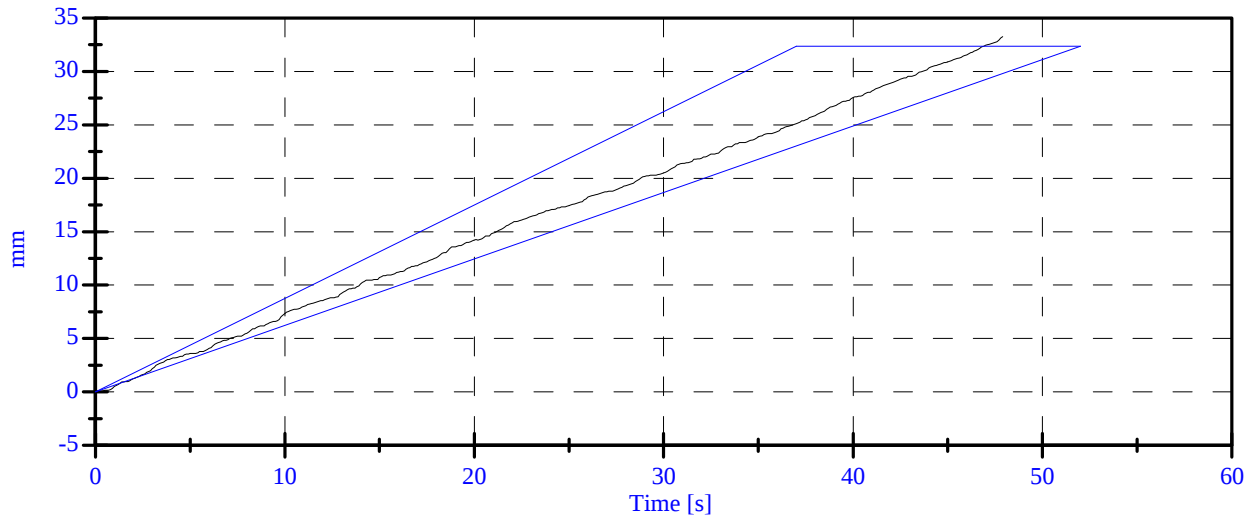
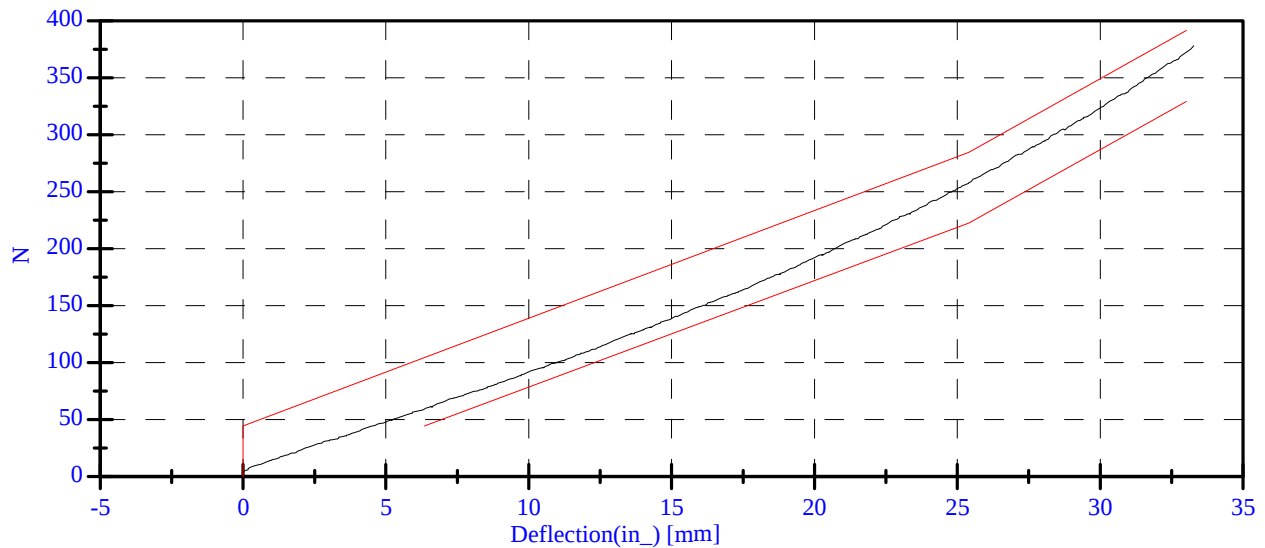
Abdominal Compression Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 07-24-08

Sequential Test Number: 1 File: 269 Ab 07-24-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	65.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	119.53 N	Passed
Force at 19.05 mm :	162.98-220.99 N	180.49 N	Passed
Force at 25.40 mm :	221.97-280.02 N	257.15 N	Passed
Force at 33.02 mm :	324.99-391.00 N	371.41 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269

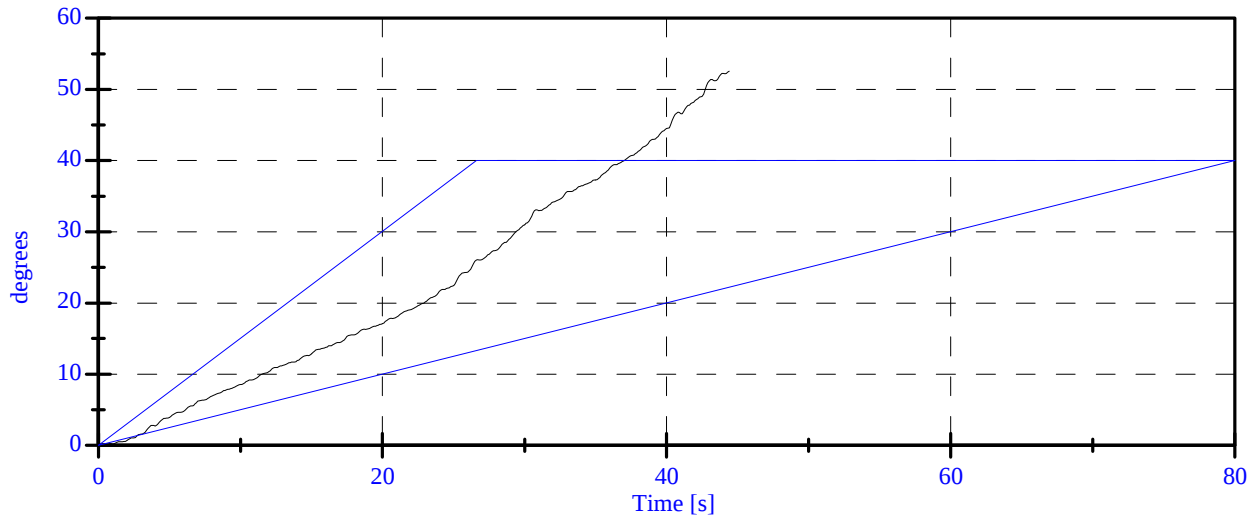
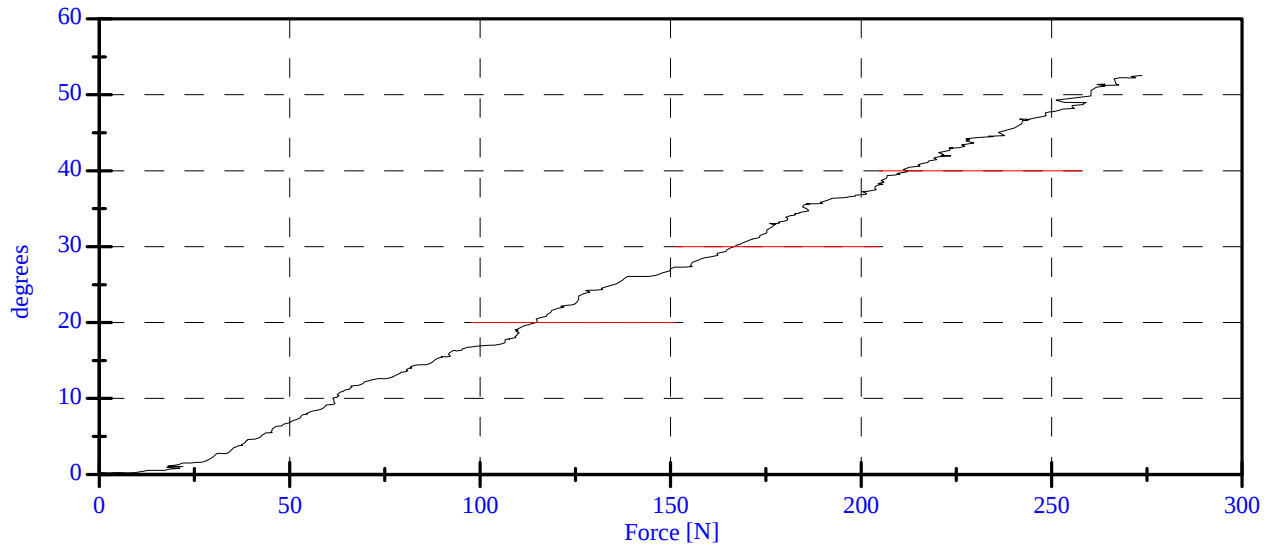
Date: 07-25-08

Sequential Test Number: 1 File: 269 Spine 07-25-08

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	63.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	2.35 N	Passed
Force at 20 Deg:	97.86-151.24 N	114.64 N	Passed
Force at 30 Deg:	151.24-204.62 N	167.14 N	Passed
Force at 40 Deg:	204.62-258.00 N	212.06 N	Passed
Return Angle	12 Deg Max	7.56 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
 Date: July 23, 2008 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: July 25, 2008 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: July 25, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	384

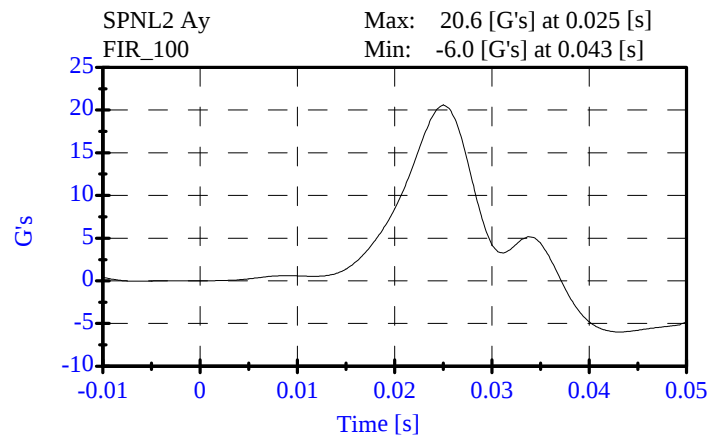
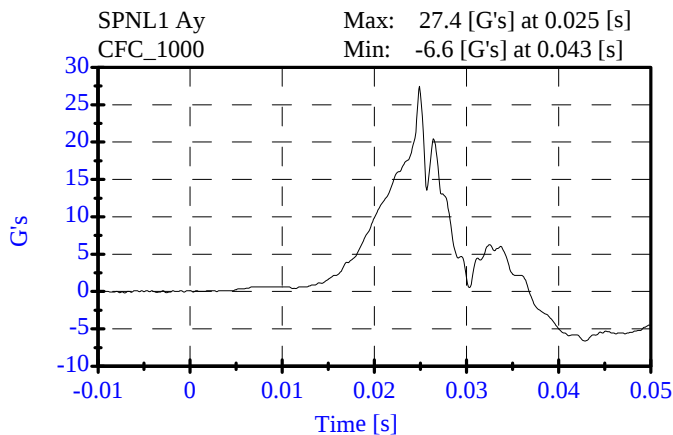
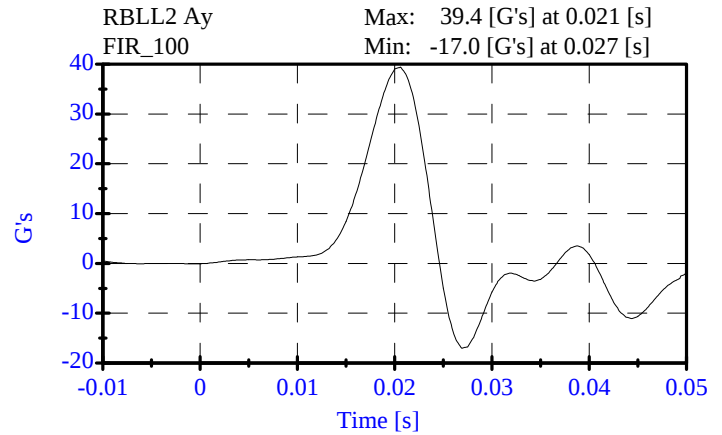
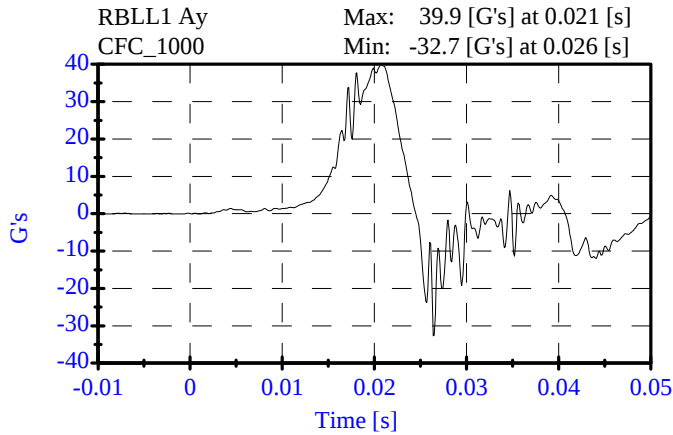
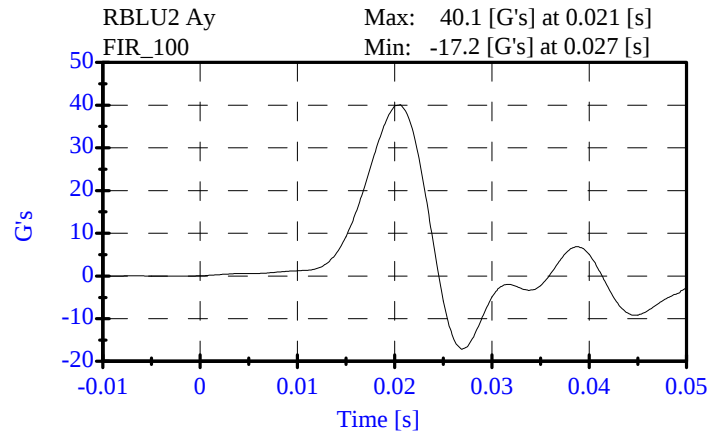
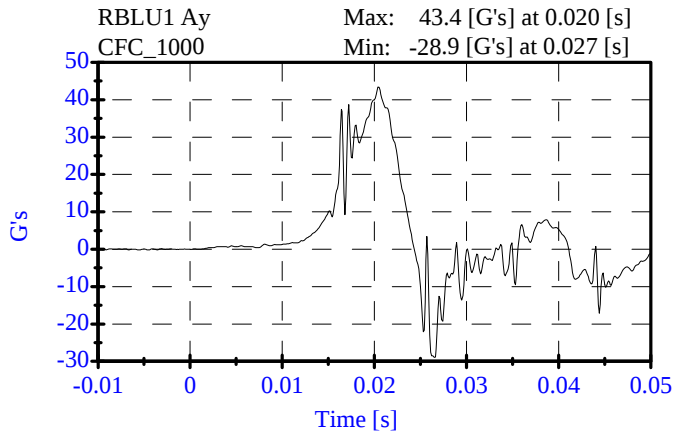
REMARKS: None

Thorax Impact
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-25-08

Sequential Test Number: 1 File: 270T 07-25-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	63.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.08 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.41 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.62 G's	Passed



Pelvic Impact

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

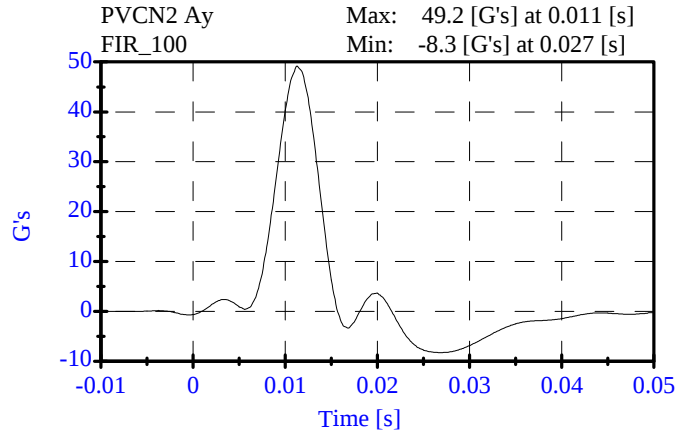
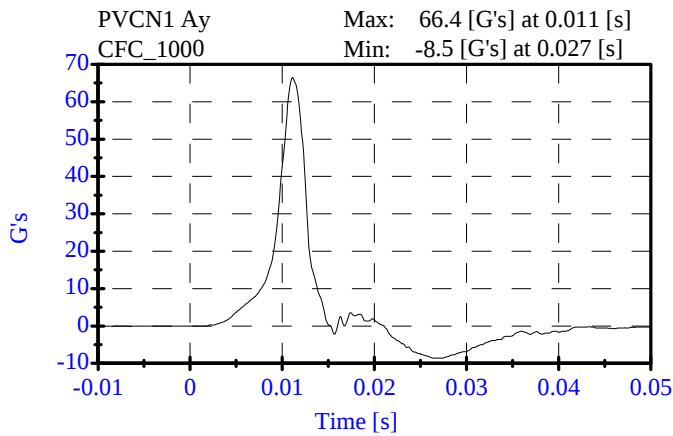
ATD Serial No: 270

Date: 07-25-08

Sequential Test Number: 1 File: 270P 07-25-08

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	63.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	49.17 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.5 ms	Passed



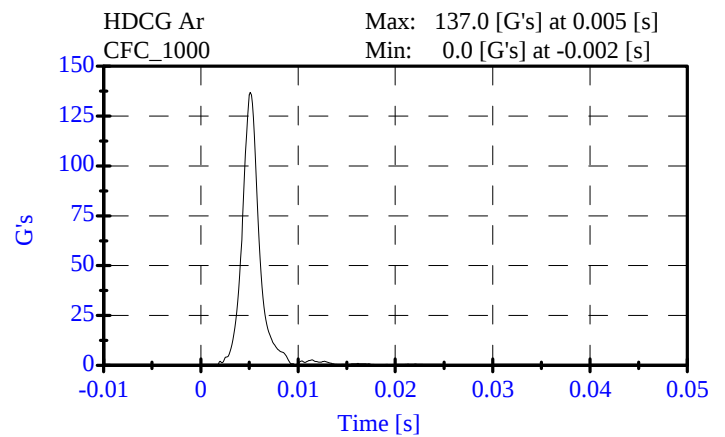
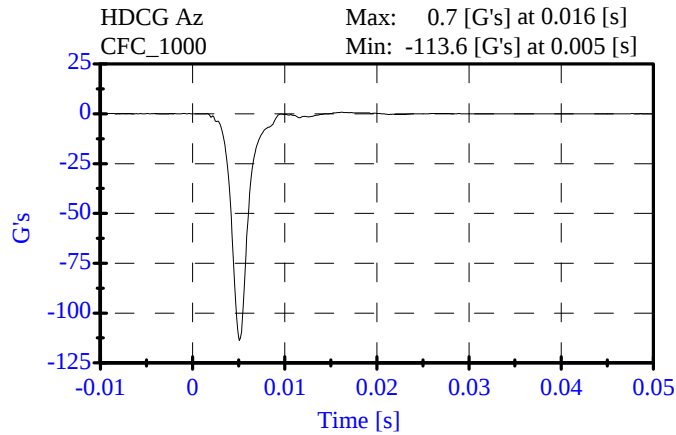
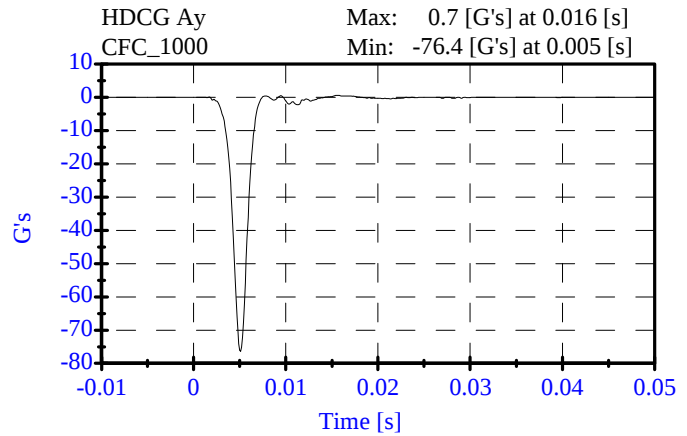
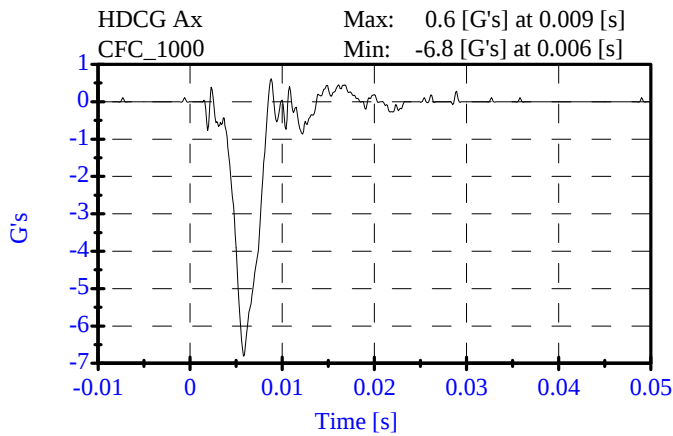
Head Drop **Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-23-08

Sequential Test Number: 1 File: 270H2 07-23-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	68.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	136.98 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.61 Gs	Passed
Curve PerCent NonModal:	< 15%	2.01 %	Passed



Neck Flexion Test**Post-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 270

Date: 07-24-08

Sequential Test Number: 1 File: 270N 07-24-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	65.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.17 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.42 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.23 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.63 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	69.34 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.40 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	85.19 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	52.90 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	7.50 ms	Passed

Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

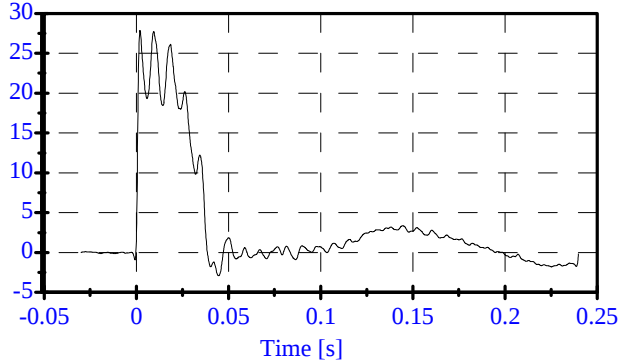
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Date: 07-24-08

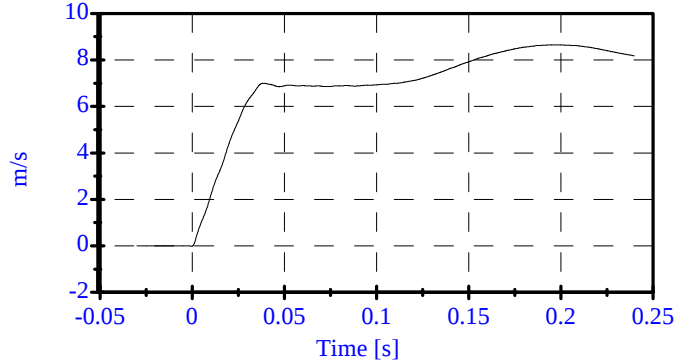
Sequential Test Number: 1 File: 270N 07-24-08

Laboratory Technician: B. Swiecicki

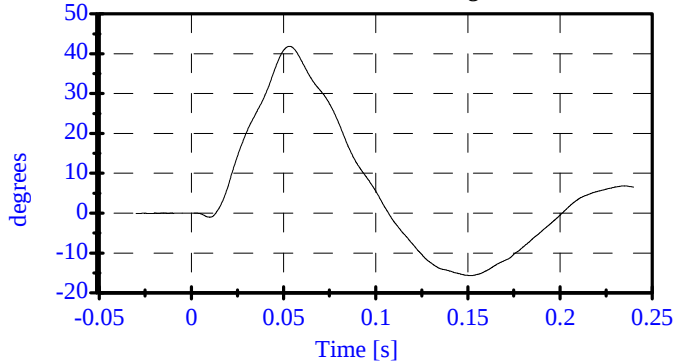
Pend Ax
CFC_180
Max: 27.9 [] at 0.002 [s]
Min: -2.9 [] at 0.045 [s]



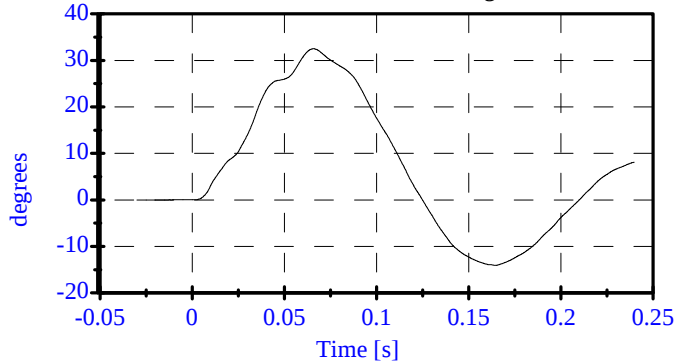
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



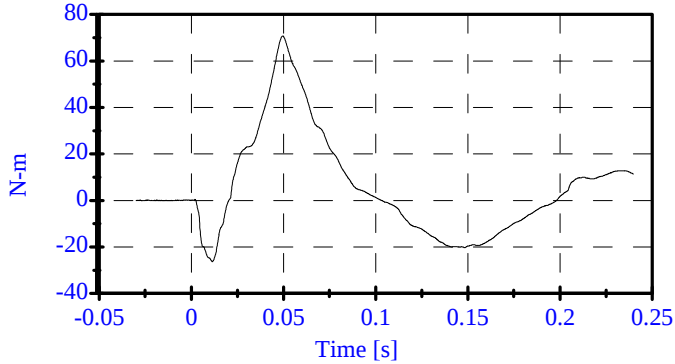
Head Rot
CFC_180
Max: 41.9 [degrees] at 0.053 [s]
Min: -15.6 [degrees] at 0.152 [s]



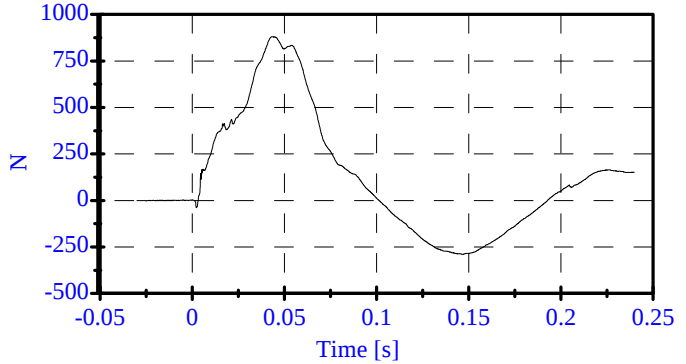
Arm Rot
CFC_180
Max: 32.5 [degrees] at 0.066 [s]
Min: -14.0 [degrees] at 0.165 [s]



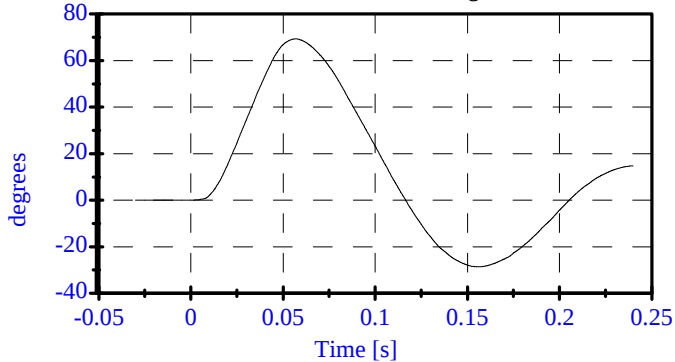
Neck Mx
CFC_600
Max: 70.7 [N-m] at 0.050 [s]
Min: -26.4 [N-m] at 0.011 [s]



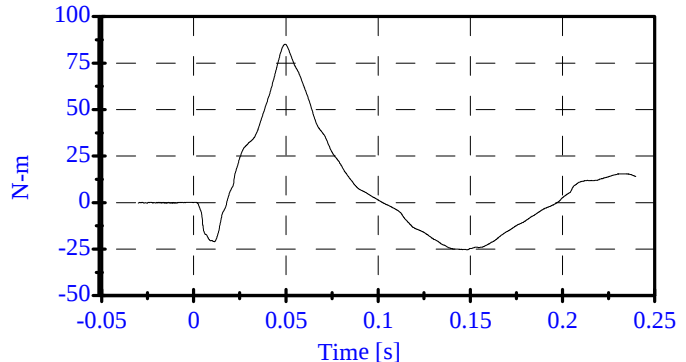
Neck Fy
CFC_1000
Max: 880.6 [N] at 0.045 [s]
Min: -289.5 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 69.3 [degrees] at 0.057 [s]
Min: -28.6 [degrees] at 0.157 [s]



MOCX
Max: 85.2 [N-m] at 0.050 [s]
Min: -25.3 [N-m] at 0.148 [s]



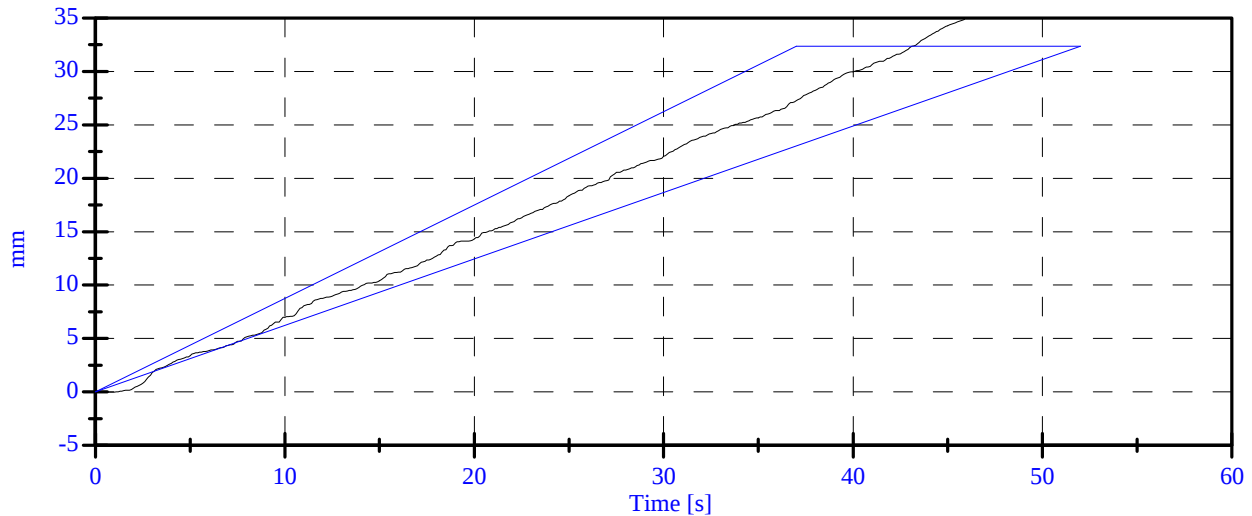
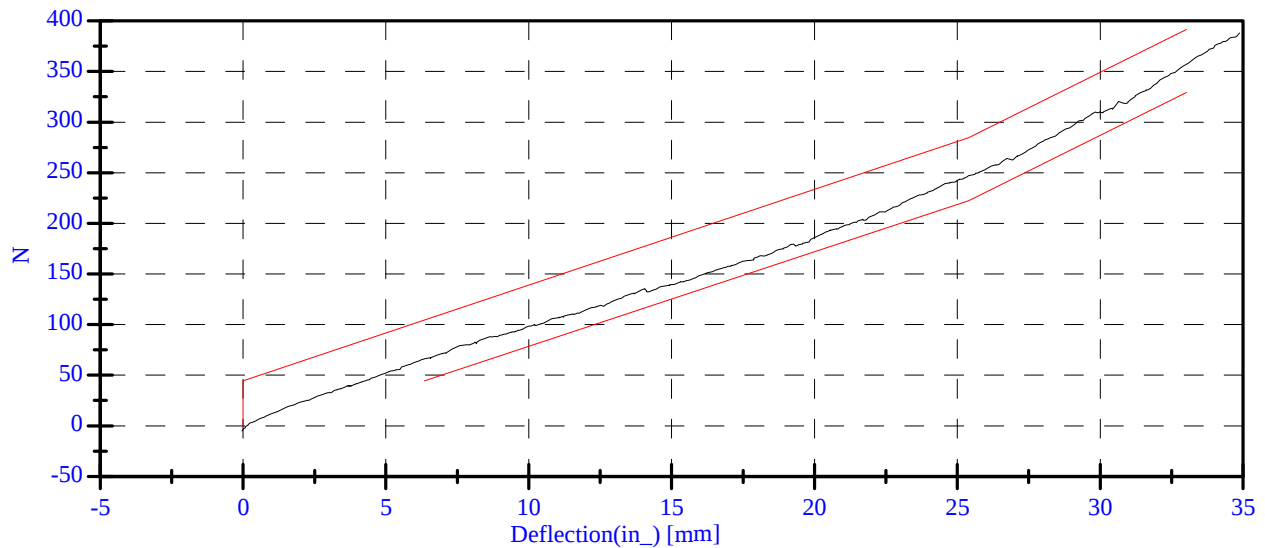
Abdominal Compression Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 07-24-08

Sequential Test Number: 1 File: 270 Ab 07-24-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	64.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	122.45 N	Passed
Force at 19.05 mm :	162.98-220.99 N	176.84 N	Passed
Force at 25.40 mm :	221.97-280.02 N	246.93 N	Passed
Force at 33.02 mm :	324.99-391.00 N	356.81 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270

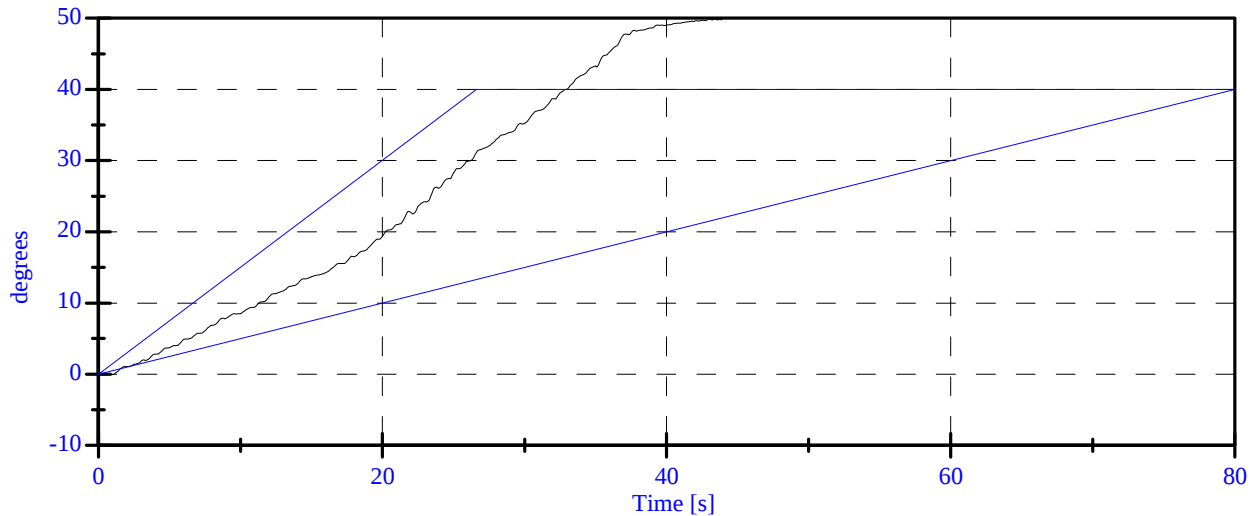
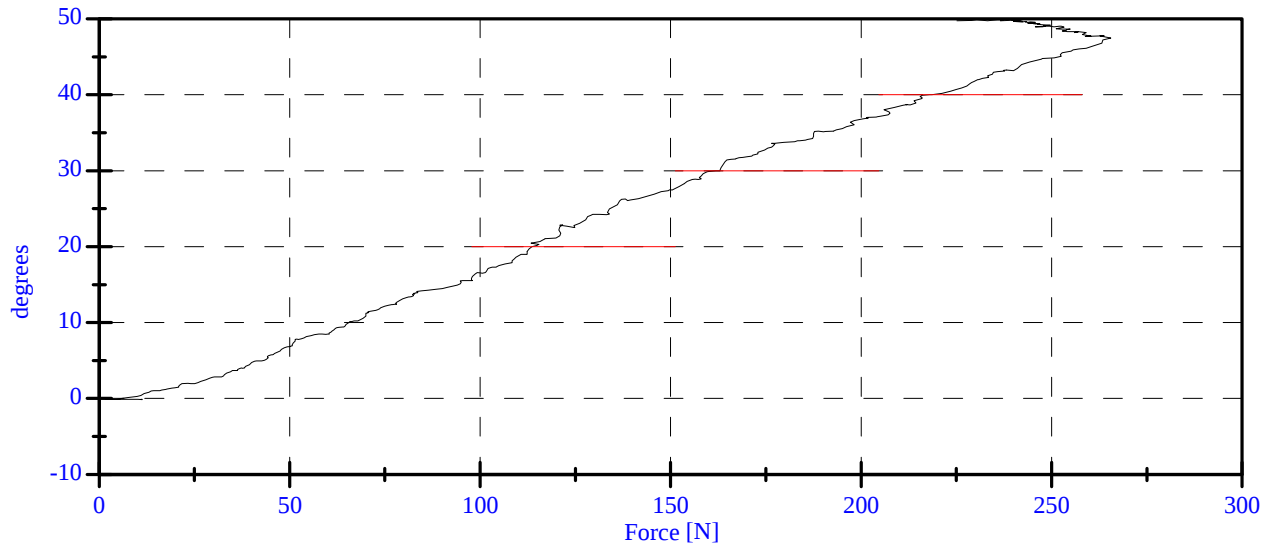
Date: 07-24-08

Sequential Test Number: 1 File: 270 Spine 07-24-08

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	65.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	6.00 N	Passed
Force at 20 Deg:	97.86-151.24 N	113.60 N	Passed
Force at 30 Deg	151.24-204.62 N	161.91 N	Passed
Force at 40 Deg	204.62-258.00 N	218.06 N	Passed
Return Angle	12 Deg Max	7.65 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

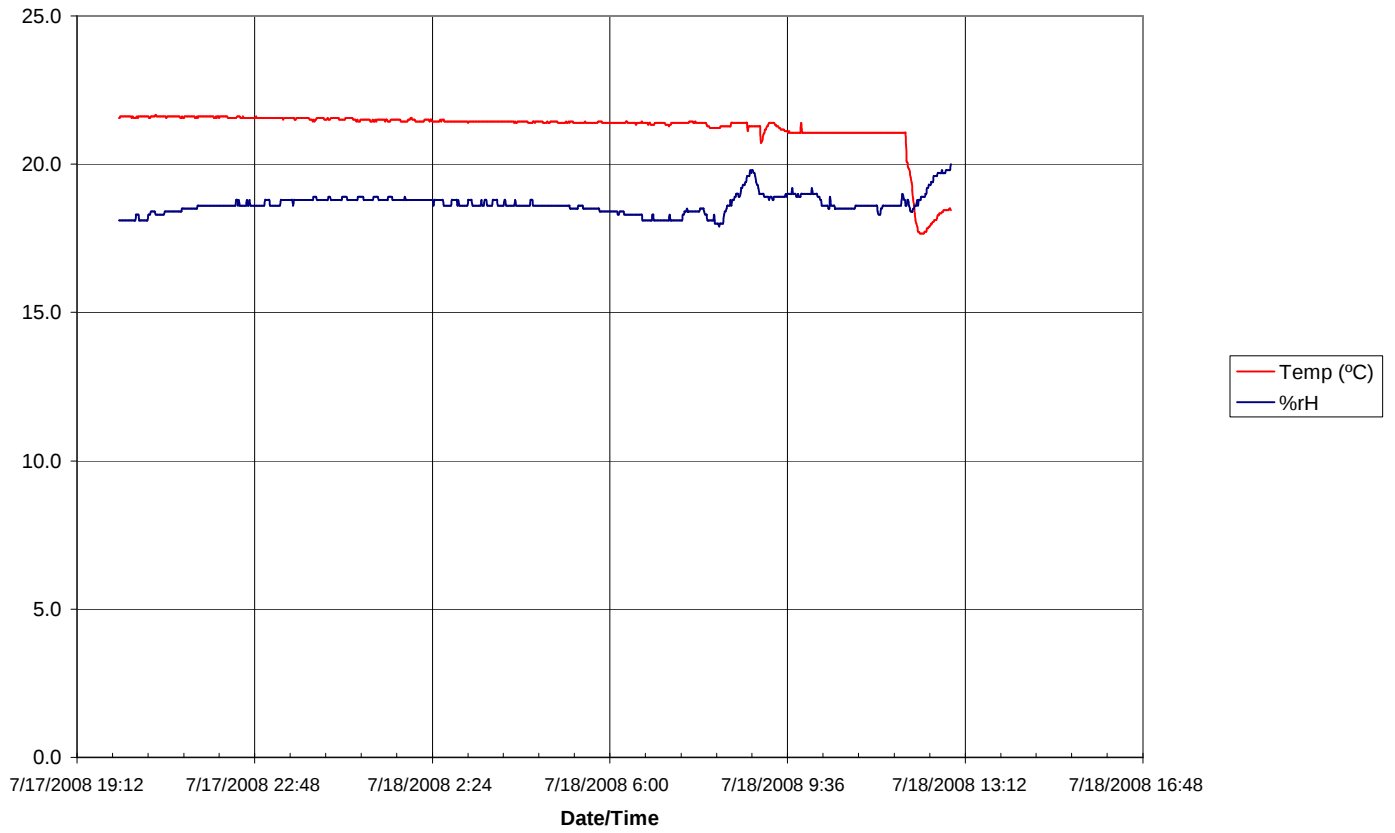
SID H3 Serial No.: 270 Sequential Test Number: 1
 Date: July 23, 2008 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

TEMPERATURE TRACE

2009 Nissan Maxima Environmental Conditions



APPENDIX D

TEST EQUIPMENT AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID/HIII INSTRUMENTATION

	FRONT SID/HIII NO.: 269		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P52088	ENDEVCO	18-Feb-08
HEAD AY	AC-P52095	ENDEVCO	18-Feb-08
HEAD AZ	AC-P58986	ENDEVCO	07-Mar-08
HEAD AX REDUNDANT	AC-P58908	ENDEVCO	22-Feb-08
HEAD AY REDUNDANT	AC-P59021	ENDEVCO	10-Mar-08
HEAD AZ REDUNDANT	AC-P58794	ENDEVCO	07-Mar-08
UPPER NECK FX	LC-810Fx	DENTON	08-Nov-07
UPPER NECK FY	LC-810Fy	DENTON	08-Nov-07
UPPER NECK FZ	LC-810Fz	DENTON	08-Nov-07
UPPER NECK MX	LC-810Mx	DENTON	08-Nov-07
UPPER NECK MY	LC-810My	DENTON	08-Nov-07
UPPER NECK MZ	LC-810Mz	DENTON	08-Nov-07
UPPER RIB	AC-P49467	ENDEVCO	22-Feb-08
LOWER RIB	AC-P51734	ENDEVCO	22-Feb-08
LOWER SPINE	AC-P51689	ENDEVCO	22-Feb-08
PELVIS	AC-P58762	ENDEVCO	31-Jan-08
UPPER RIB REDUNDANT	AC-P51713	ENDEVCO	22-Feb-08
LOWER RIB REDUNDANT	AC-P59020	ENDEVCO	22-Feb-08
LOWER SPINE REDUNDANT	AC-P58776	ENDEVCO	18-Feb-08
PELVIS REDUNDANT	AC-P58905	ENDEVCO	22-Feb-08

	REAR SID/HIII NO.: 270		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P58998	ENDEVCO	07-Mar-08
HEAD AY	AC-P58909	ENDEVCO	07-Mar-08
HEAD AZ	AC-P51279	ENDEVCO	01-Apr-08
HEAD AX REDUNDANT	AC-P58780	ENDEVCO	06-Mar-08
HEAD AY REDUNDANT	AC-P58997	ENDEVCO	07-Mar-08
HEAD AZ REDUNDANT	AC-P58912	ENDEVCO	07-Mar-08
UPPER NECK FX	LC-498Fx	DENTON	03-Apr-08
UPPER NECK FY	LC-498Fy	DENTON	03-Apr-08
UPPER NECK FZ	LC-498Fz	DENTON	03-Apr-08
UPPER NECK MX	LC-498Mx	DENTON	03-Apr-08
UPPER NECK MY	LC-498My	DENTON	03-Apr-08
UPPER NECK MZ	LC-498Mz	DENTON	03-Apr-08
UPPER RIB	AC-P51969	ENDEVCO	01-Apr-08
LOWER RIB	AC-P51959	ENDEVCO	01-Apr-08
LOWER SPINE	AC-P51970	ENDEVCO	01-Apr-08
PELVIS	AC-P51946	ENDEVCO	04-Apr-08
UPPER RIB REDUNDANT	AC-P51948	ENDEVCO	01-Apr-08
LOWER RIB REDUNDANT	AC-P51238	ENDEVCO	01-Apr-08
LOWER SPINE REDUNDANT	AC-P51965	ENDEVCO	01-Apr-08
PELVIS REDUNDANT	AC-P51945	ENDEVCO	01-Apr-08

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-P35811	ENDEVCO	11-Jul-08
RIGHT FRONT SILL (Y)	AC-P35789	ENDEVCO	11-Jul-08
RIGHT FRONT SILL (Z)	AC-P35803	ENDEVCO	11-Jul-08
RIGHT REAR SILL (X)	AC-P16656	ENDEVCO	11-Jul-08
RIGHT REAR SILL (Y)	AC-P39575	ENDEVCO	11-Jul-08
RIGHT REAR SILL (Z)	AC-P15526	ENDEVCO	11-Jul-08
REAR FLOORPAN ABOVE AXLE (X)	AC-P23993	ENDEVCO	01-Feb-08
REAR FLOORPAN ABOVE AXLE (Y)	AC-P23164	ENDEVCO	01-Feb-08
REAR FLOORPAN ABOVE AXLE (Z)	AC-P23939	ENDEVCO	01-Feb-08
LEFT REAR SILL (Y)	AC-P35818	ENDEVCO	16-Jun-08
LEFT FRONT SILL (Y)	AC-J25745	ENDEVCO	07-Feb-08
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-P24145	ENDEVCO	11-Apr-08
LOWER LEFT B- PILLAR (Y)	AC-P35757	ENDEVCO	19-Jun-08
MIDDLE LEFT B-PILLAR (Y)	AC-P35786	ENDEVCO	16-Jun-08
LOWER LEFT A-PILLAR (Y)	AC-P23156	ENDEVCO	16-Jun-08
UPPER LEFT A-PILLAR (Y)	AC-P39740	ENDEVCO	16-Jun-08
FRONT SEAT TRACK (Y)	AC-P16761	ENDEVCO	18-Jun-08
REAR SEAT TRACK (Y)	AC-P23788	ENDEVCO	30-Jun-08
VEHICLE CG (X)	AC-P32455	ENDEVCO	01-Feb-08
VEHICLE CG (Y)	AC-P32464	ENDEVCO	28-Feb-08
VEHICLE CG (Z)	AC-P32139	ENDEVCO	01-Feb-08
MDB CG (X)	AC-C15007	ENDEVCO	05-Jun-08
MDB CG (Y)	AC-GE16	ENDEVCO	05-Jun-08
MDB CG (Z)	AC-C16499	ENDEVCO	05-Jun-08
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	05-Jun-08
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	05-Jun-08

REMARKS: None