

REPORT NUMBER: OPT-SNCAP-CAL-10-1

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**FORD MOTOR COMPANY
2010 LINCOLN MKT
4-DOOR SUV**

NHTSA NUMBER: FA0202

**PREPARED BY:
CALSPAN CORPORATION
P.O. BOX 400
BUFFALO, NEW YORK 14225**



Test Date: December 15, 2009

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RULEMAKING
OFFICE OF CRASHWORTHINESS STANDARDS
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Prepared by: 
Vincent M. Paolini, Project Engineer

Date: 1/12/2010

Reviewed by: 
David Travale, Program Manager
Transportation Sciences Center

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Technical Report Documentation Page

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16. Abstract A 55/28 kph 90° Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2010 Lincoln MKT 4-Door SUV 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 December 15, 2009. The impact velocity of the Moving Deformable Barrier (MDB) was 62.1 km/h, and the ambient temperature at the struck side (driver side) of the vehicle was 21.7°C. The target vehicle's maximum post test static crush was 315 mm at level 3. The test vehicle's occupant performance is as follows: <table style="margin-left: auto; margin-right: auto; border: none;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>DRIVER</u></th> <th style="text-align: center;"><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td style="text-align: center;">27.54</td> <td style="text-align: center;">32.42</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td style="text-align: center;">27.75</td> <td style="text-align: center;">39.01</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td style="text-align: center;">34.31</td> <td style="text-align: center;">51.24</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td style="text-align: center;">31</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td style="text-align: center;">44</td> <td style="text-align: center;">63</td> </tr> <tr> <td>HIC</td> <td style="text-align: center;">73.6</td> <td style="text-align: center;">79.6</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	27.54	32.42	Left Lower Rib (LLR) Accel., g	27.75	39.01	Lower Spine (T ₁₂) Accel., g	34.31	51.24	Thoracic Trauma Index (TTI)	31	45	Pelvis (PEV) Accel., g	44	63	HIC	73.6	79.6
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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																						
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SECTION 1

PURPOSE AND TEST PROCEDURE

PURPOSE

This side impact test was conducted as part of the FY' 2010 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-09-D-00126. The purpose of this test was to evaluate side impact protection in a 2010 Lincoln MKT 4-Door SUV manufactured by Ford Motor Company. The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated November 2002.

SECTION 2

SUMMARY OF NCAP SIDE IMPACT TEST

A model year 2010 Lincoln MKT 4-Door SUV 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 62.1 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 2416.5 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on December 15, 2009.

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 November 2002. Each SID/HIII was instrumented in the following locations:

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

The test vehicle was instrumented with 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 315 mm at level 3, 1350 mm rearward of the left vertical impact point. The driver and passenger SID/HIII's, Serial Nos. 269 and 906 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	73.6	43.1	72.8	31	44
Passenger	79.6	42.3	78.3	45	63

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

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:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	Ford Motor Company	Driver Front Airbag	Yes
Model	MKT	Driver Side Curtain Airbag	Yes
Body Style	4-Door SUV	Driver Side Torso Airbag	Yes
NHTSA No.	FA0202	Driver Pretensioners	Yes
VIN	2LMHJ5FR5ABJ06740	Driver Load Limiters	Yes
Color	White	Driver Power Seats	Yes
Engine Disp.(L)	3.7	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	6	Rear Pass. Power Seats	No
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	12/7/09	Power Door Locks	Yes
Odometer Reading (km)	340	Automatic Door Locks (ADL)	Yes
Dealer	Towne Lincoln-Mercury	Owner's Manual Details Instructions on Disabling ADLs	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Company	GVWR (kg)	2735
Date of Manufacture	8/09	GAWR Front (kg)	1320
		GAWR Rear (kg)	1429

VEHICLE CAPACITY DATA

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bucket		
Number Of Occupants	2	4		6
Capacity Wt. (VCW) (kg)				526.0
Cargo Wt. (RCLW) (kg)				117.8

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

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

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	596.0	484.0		642.0	617.0		653.0	601.5	
Right	kg	578.0	486.0		579.0	590.0		590.0	572.0	
Ratio	%	54.8	45.2		50.3	49.7		51.4	48.6	
Totals	kg	1174.0	970.0	2144.0	1221.0	1207.0	2428.0	1243.0	1173.5	2416.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	2144.0
Weight of 2 P572E ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	117.8
Calculated Vehicle Target Weight (TVTW)	kg	2424.2

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

Weight of Ballast (including instrumentation package and cameras): 110.1 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	798	800	821	828
Fully Loaded	mm	787	795	788	801
As Tested	mm	787	795	796	803

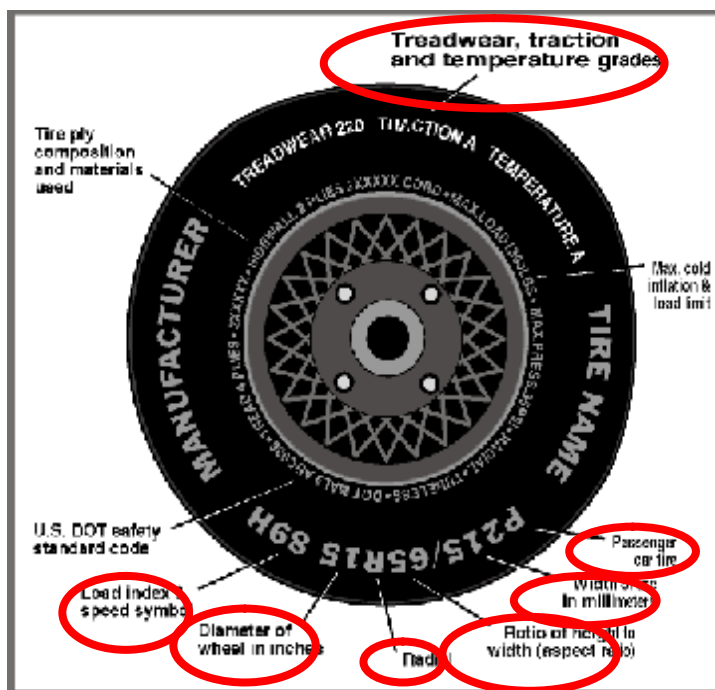
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2996
Target Impact Point Aft of Front Axle	mm	508
Actual Impact Point Aft of Front Axle	mm	508
As Tested CG (aft of front axle)	mm	1455

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	240	240
Recommended Tire Size	P235/55R19	P235/55R19
Tire Size on Vehicle	P235/55R19 101H	P235/55R19 101H
Tire Manufacturer	Hankook	Hankook
Tire Name	Optimo H725	Optimo H725
Tire Type	Passenger	Passenger
Tire Width (mm)	235	235
Ratio of Height to Width (aspect ratio)	55	55
Radial	Yes	Yes
Wheel Diameter	19	19
Load Index & Speed Symbol	101H	101H
Treadwear	600	600
Traction Grade	A	A
Temperature Grade	A	A

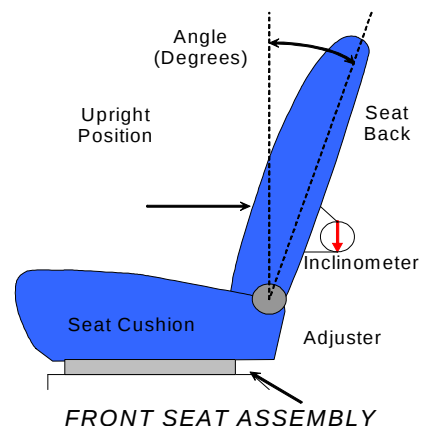
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

NORMAL DESIGN RIDING POSITION

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

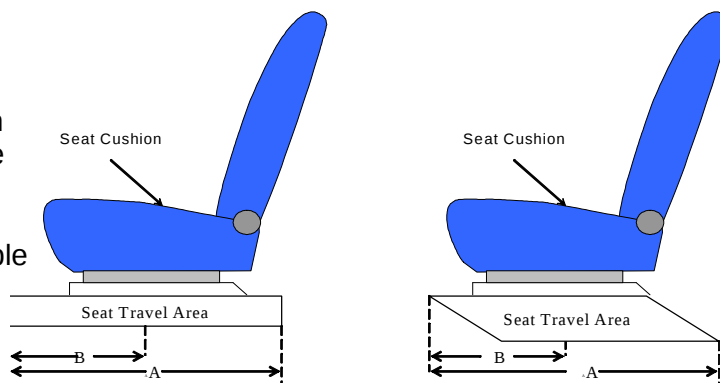


SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	Not Applicable (Power)	0
Angle (deg. from forward-most locking position)	19.7 deg.	17.7 deg.
Alternative Measurements to Verify Test Position	Measure 16.7 degrees from head restraint post	None

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)	322	102
Test Position (B) (mm)	161	53
Test Detent (forward-most detent defined as 0)	Not Applicable (Power)	12
Total Number of Detents (including 0)	Not Applicable (Power)	23

DATA SHEET NO. 3 (CONTINUED)

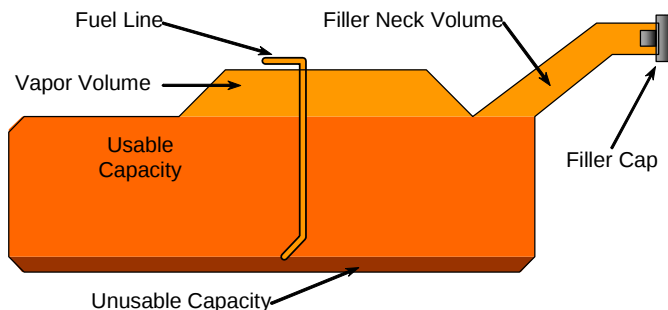
TEST VEHICLE INFORMATION

Test Vehicle: 2010 Lincoln MKT
 Test Program: NCAP Side Impact

NHTSA No. FA0202
 Test Date: December 15, 2009

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.



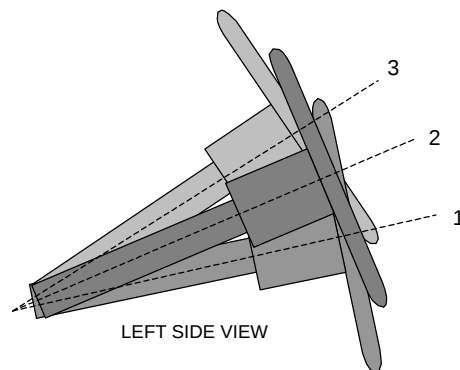
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	70.4
Usable Capacity of "Optional" Fuel Tank	N/A
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	65.5

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	23.4	N/A (Power)
Geometric Center Position No. 2 *	20	25.9	N/A (Power)
Uppermost Position No. 3	40	28.4	N/A (Power)

* Test position

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

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

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	62.1
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	*
Impact angle with respect to impactor	°	88.5° to 91.5°	90.3

* Redundant speed readout did not function properly

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

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	0 mm
Vertical Offset	mm	+/-20	4 mm above

DATA SHEET NO. 5
POST TEST OBSERVATIONS

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID/HIII / 269	SID/HIII / 906
Head Contact	Side of Head – Side Curtain Airbag	Side of Head – Side Curtain Airbag
Upper Torso Contact	Seat Torso Airbag	Rear Left Door
Lower Torso Contact	Seat Torso Airbag	Rear Left Door - Armrest
Left Knee Contact	No Contact	Rear Left Door
Right Knee Contact	No Contact	No Contact

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

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

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	None
Windshield Damage	None
Window Damage	Left Front Window had cracks but remained intact; Left Rear Window had no damage
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

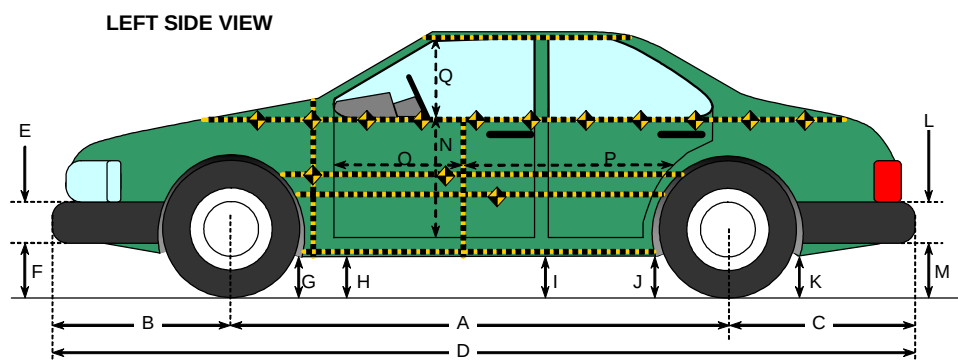
VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2010 Lincoln MKT

NHTSA No. FA0202

Test Program: NCAP Side Impact

Test Date: December 15, 2009



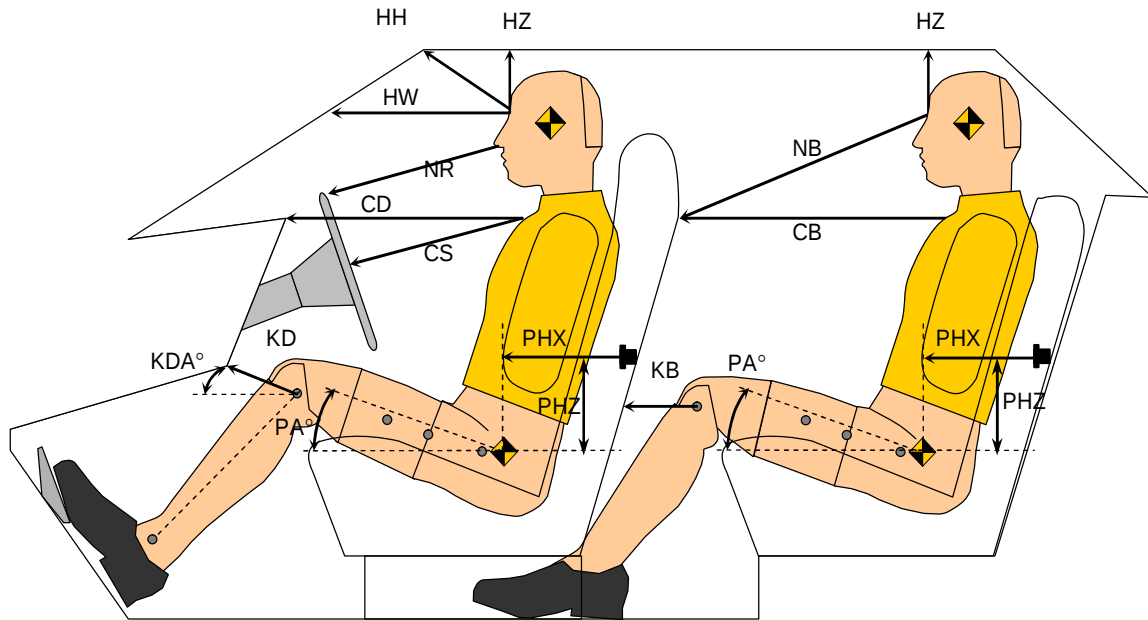
All Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2996	2996	2988	8
B	Front Axle to FSOV	1046	1046	1046	0
C	Rear Axle to RSOV	1234	1234	1242	-8
D	Total Length at Centerline	5276	5276	5276	0
E	Front Bumper Thickness	160	160	160	0
F	Front Bumper Bottom to Ground	437	437	430	7
G	Sill Height at Front Wheel Well	237	224	221	3
H	Sill Height at Front Door Leading Edge	246	233	231	2
I	Sill Height at "B" Pillar	250	227	235	-8
J1	Sill Height at Rear Wheel Well	236	206	221	-15
J2	Pinch Weld Height at Rear Wheel Well	263	232	238	-6
K	Sill Height Aft of Rear Wheel Well	264	227	232	-5
L	Rear Bumper Thickness	300	300	300	0
M	Rear Bumper Bottom to Ground	347	307	307	0
N	Sill Height to Window Bottom Sill	706	706	635	71
O	Front Door Leading Edge to Impact CL	824	824	790	34
P	Rear Door Trailing Edge to Impact CL	1423	1423	1341	82
Q	Front Window Opening	464	464	485	-21
R	Right Side Length	5099	5099	5101	-2
S	Left Side Length	5098	5098	5089	9
T	Vehicle Width at "B" Post	1925	1925	1697	228

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

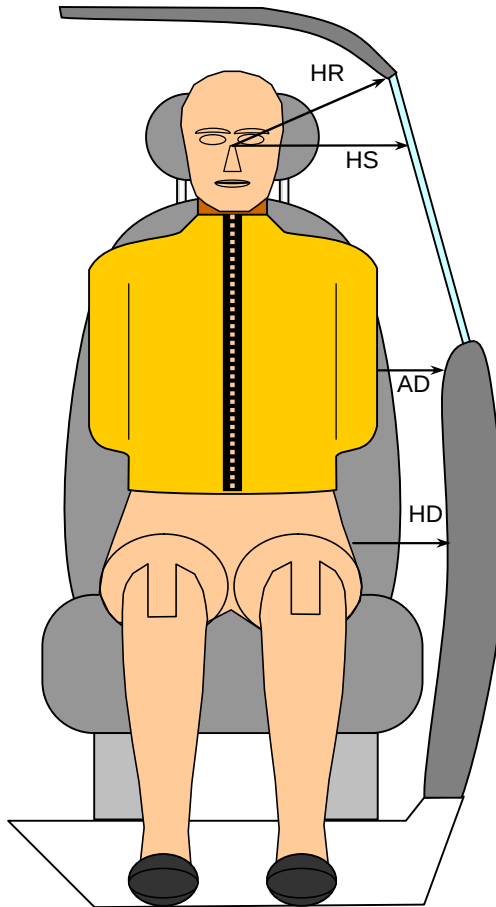


Driver Code	Pass. Code	Measurement Description	Driver S/N 269		Passenger S/N 906	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	378			
HW		Head to Windshield	718			
HZ	HZ	Head to Roof	184		180	
NR	NB	Nose to Rim/Nose to Seatback	437		688	
CD	CB	Chest to Dash or Seatback	539		588	
CS		Chest to Steering Wheel	291			
KDL	KBL	Left Knee to Dash or Seatback	115	28	285	21
KDR	KBR	Right Knee to Dash or Seatback	95	31	290	21
PA	PA	Pelvic Angle		24.5		23.4
PHX	PHX	H-Point to Striker (X-Axis)	263		318	
PHZ	PHZ	H-Point to Striker (Z-Axis)	168		179	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009



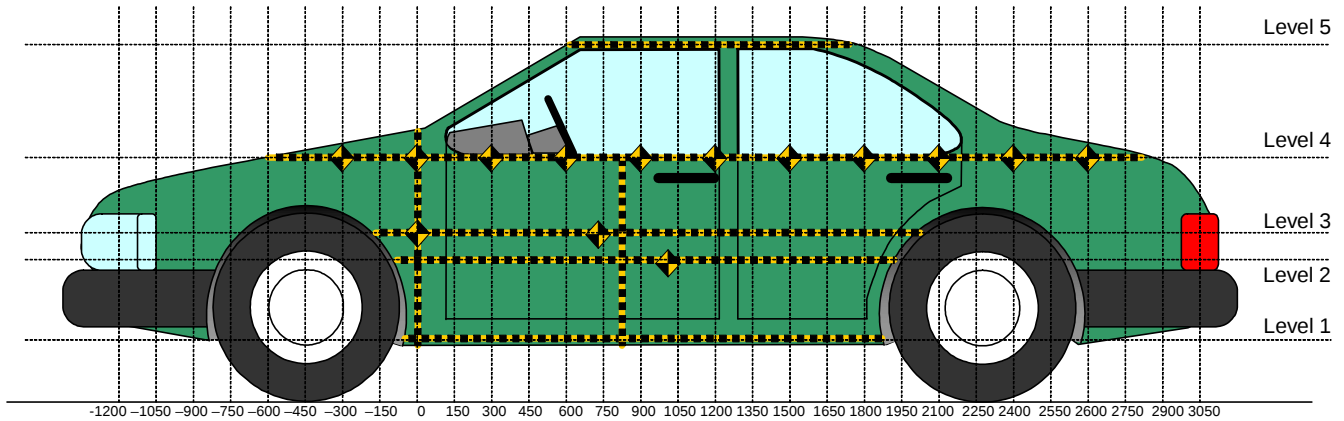
FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 269	Passenger S/N 906
HR	Head to Side Header	mm	242	203
HS	Head to Side Window	mm	375	323
AD ₁	Arm to Door (at upper rib level)	mm	135	110
AD ₂	Arm to Door (at lower rib level)	mm	128	151
HD	H-Point to Door	mm	165	137

DATA SHEET NO. 9

VEHICLE SIDE MEASUREMENTS

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009



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	185	335	1200
2	Occupant H-Point	272	622	1650
3	Mid Door	315	763	1350
4	Window Sill	170	992	1350
5	Window	11	1566	1200
	Maximum Penetration	315		

DATA SHEET NO. 10

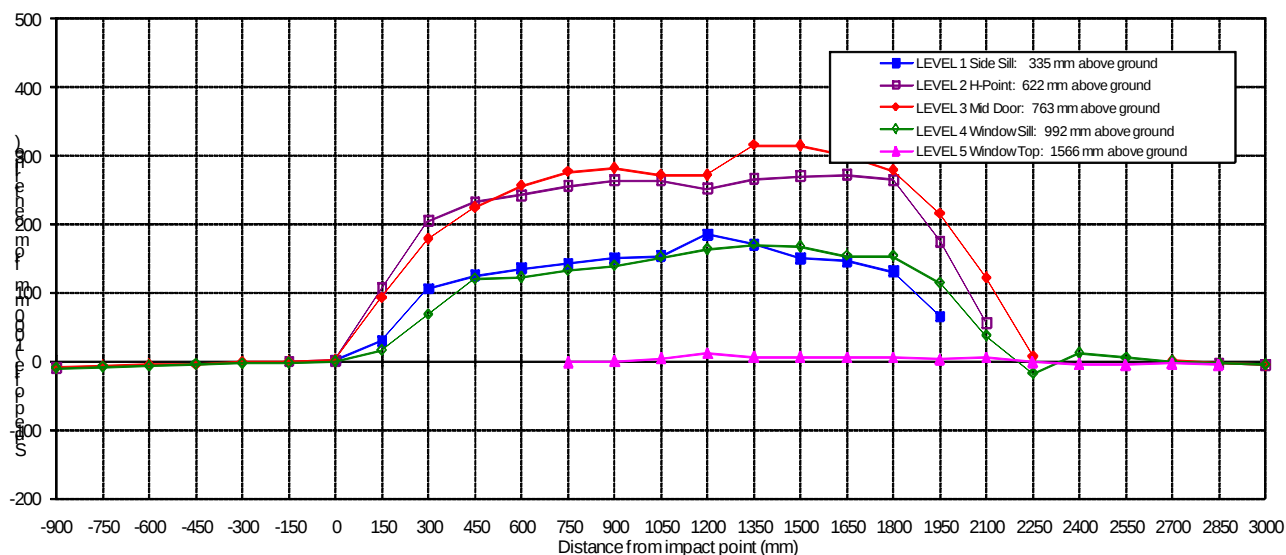
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2010 Lincoln MKT

NHTSA No. FA0202

Test Program: NCAP Side Impact

Test Date: December 15, 2009



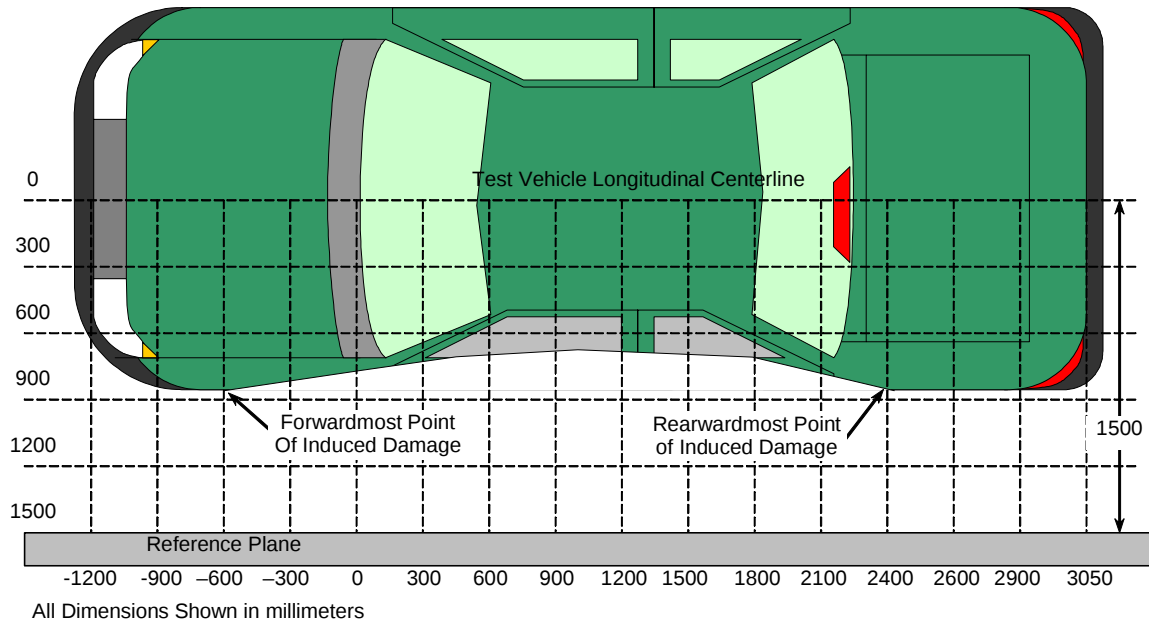
NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

		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	335	PRE	--	--	--	--	--	--	61	69	65	60	57	54	52	50	48	49	53	56	60	70	--	--	--	--	--	--	--
SIDE		POST	--	--	--	--	--	--	63	99	171	185	192	196	202	204	233	220	203	202	191	135	--	--	--	--	--	--	
SILL		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	2	30	106	125	135	142	150	154	185	171	150	146	131	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2	622	PRE	63	--	--	--	--	40	49	56	52	50	48	46	46	46	48	48	50	52	55	53	35	--	--	--	--	51	79
H		POST	54	--	--	--	--	40	50	163	257	282	290	302	310	310	300	314	320	324	320	228	91	--	--	--	--	48	74
POINT		CRUSH	-9	N/A	N/A	N/A	N/A	0	1	107	205	232	242	256	264	264	252	266	270	272	265	175	56	N/A	N/A	N/A	N/A	-3	-5
LEVEL 3	763	PRE	89	53	44	42	41	51	56	57	53	50	47	45	44	43	44	44	46	48	50	52	46	34	--	--	44	64	86
MID		POST	80	47	40	38	40	51	58	150	231	274	303	321	325	314	315	359	360	349	328	267	168	41	--	--	45	61	81
DOOR		CRUSH	-9	-6	-4	-4	-1	0	2	93	178	224	256	276	281	271	271	315	314	301	278	215	122	7	N/A	N/A	1	-3	-5
LEVEL 4	992	PRE	268	222	189	154	129	113	101	90	82	77	72	69	65	63	62	63	63	65	67	69	60	76	81	86	91	99	110
WINDOW		POST	258	214	182	150	126	111	101	106	150	197	194	201	204	215	225	233	230	219	220	183	97	58	93	91	91	96	105
SILL		CRUSH	-10	-8	-7	-4	-3	-2	0	16	68	120	122	132	139	152	163	170	167	154	153	114	37	-18	12	5	0	-3	-5
LEVEL 5	1566	PRE	--	--	--	--	--	--	--	--	--	--	--	468	354	347	346	346	347	349	352	356	361	368	376	386	412	459	--
WINDOW		POST	--	--	--	--	--	--	--	--	--	--	--	467	354	351	357	352	353		357	359	366	367	372	381	409	454	--
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	-1	0	4	11	6	6	0	5	3	5	-1	-4	-5	-3	-5

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009



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)	2250	5	368	367	-1
2	1800	3	50	328	278
3	1350	3	44	359	315
4	900	3	44	325	281
5	450	2	50	282	232
6 (LF)	0	1	61	63	2

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

DATA SHEET NO. 12

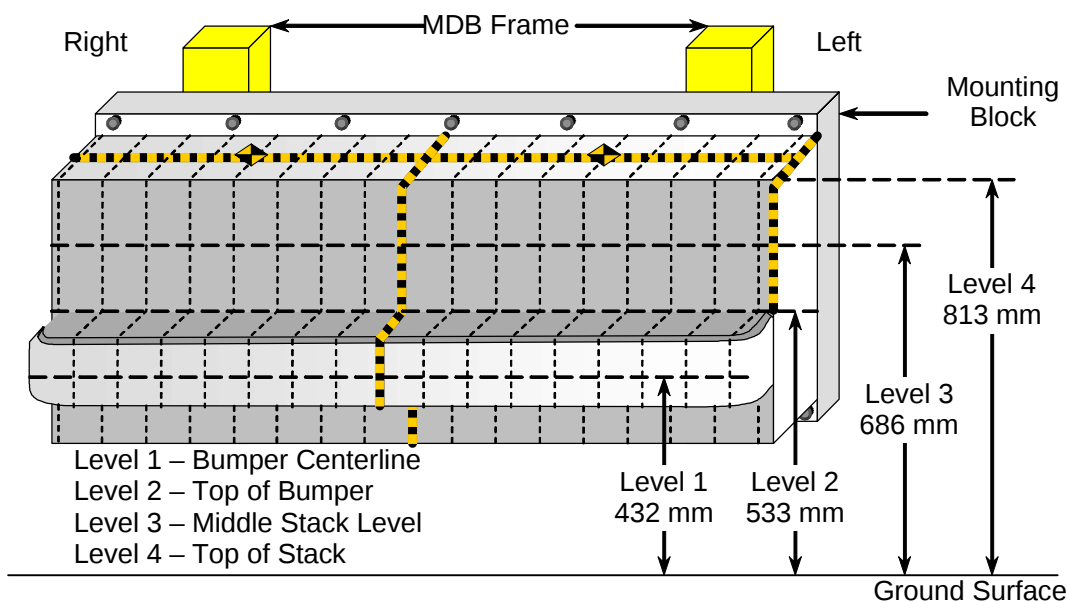
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2010 Lincoln MKT

NHTSA No. FA0202

Test Program: NCAP Side Impact

Test Date: December 15, 2009



			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		PRE	411	412	412	412	412	412	413	413	413	413	413	413	413	413	413	413	412							
TOP	811	POST	330	360	380	394	395	392	365	369	370	381	381	374	376	369	354	319	278							
STACK		CRUSH	81	52	32	18	17	20	48	44	43	32	32	39	37	44	59	94	134							
LEVEL 3		PRE	411	411	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412							
MID	682	POST	348	366	371	376	382	383	379	375	382	398	399	400	399	392	377	352	317							
LEVEL		CRUSH	63	45	41	36	30	29	33	37	31	14	13	12	13	20	35	60	95							
LEVEL 2		PRE	411	412	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412							
TOP	542	POST	277	286	297	306	310	312	310	303	309	316	323	328	331	336	337	337	320							
BUMPER		CRUSH	134	126	115	106	102	100	102	109	104	96	89	84	81	76	75	75	92							
LEVEL 1		PRE	501	513	513	513	513	513	513	514	514	514	514	514	514	514	514	514	505							
MID	430	POST	251	268	288	298	302	306	311	316	320	324	328	332	337	341	343	333	306							
BUMPER		CRUSH	250	245	225	215	211	207	202	198	194	190	186	182	177	173	171	181	199							
*Heights measured above ground level.																										

*Heights measured above ground level.

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

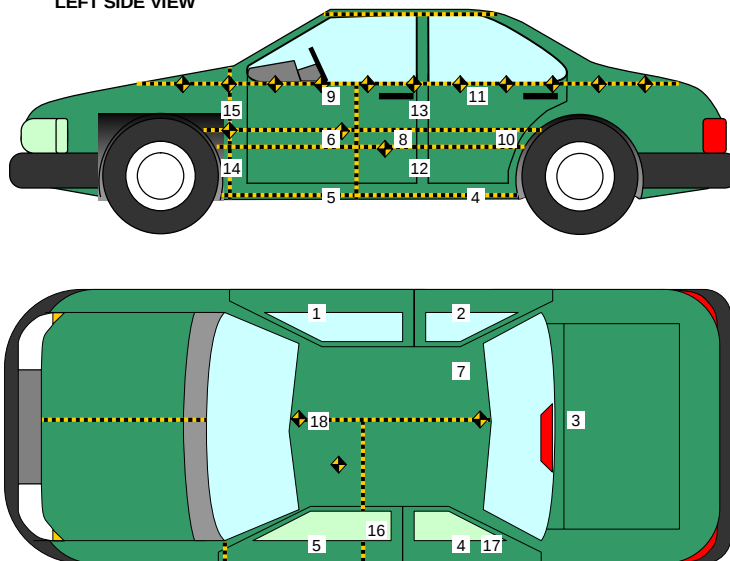
Test Vehicle: 2010 Lincoln MKT

NHTSA No. FA0202

Test Program: NCAP Side Impact

Test Date: December 15, 2009

LEFT SIDE VIEW



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	3369	649	337
2	Right Sill at Rear Seat	2399	687	356
3	Rear Floorpan Above Axle	1017	18	427
4	Left Sill at Rear Door	2407	-678	348
5	Left Sill at Front Door	3397	-638	309
6	Left Front Door C/L**	-	-	-
7	Rear Occupant Compartment	2438	414	248
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	2610	-694	445
13	Left Middle B-Post	2583	-694	907
14	Left Lower A-Post	3620	-656	551
15	Left Middle A-Post	3587	-674	1106
16	Front Seat Track	2740	-639	433
17	Rear Seat Track or Structure	1741	-684	519
18	Vehicle CG	2950	8	653

Reference Points X - Test Vehicle Rear Bumper (+ forward)

Y - Test Vehicle Centerline (+ to right)

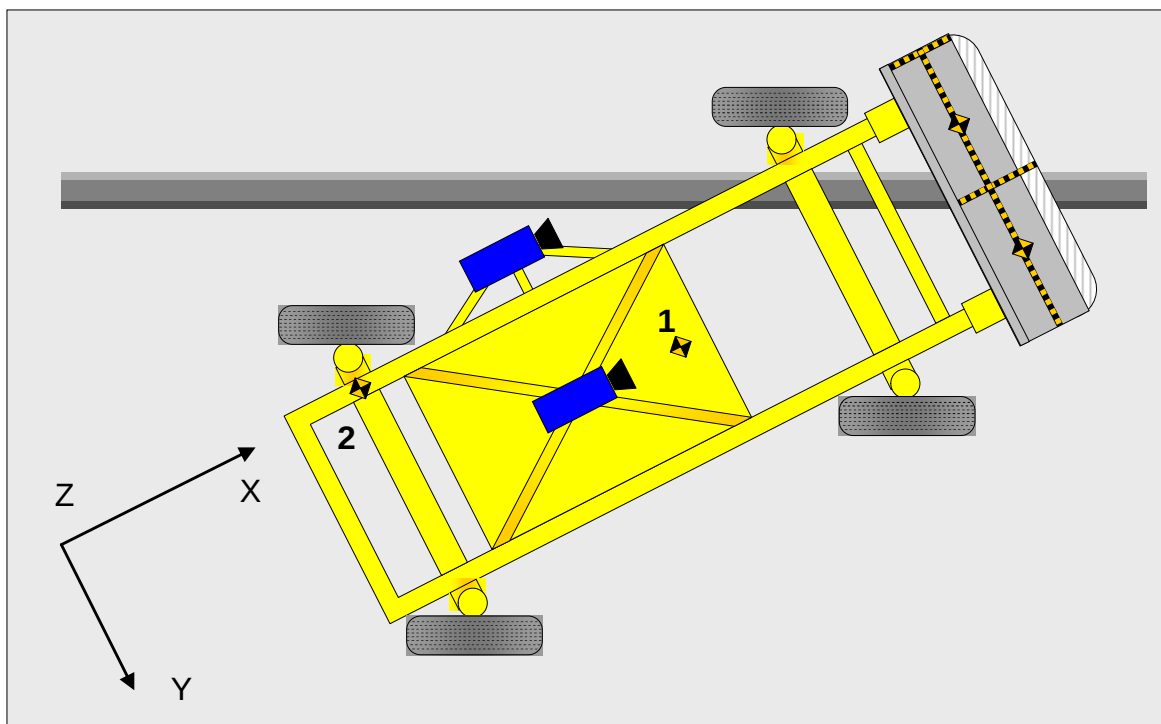
Z - Ground Plane (+ down)

** Accelerometer was not requested by the COTR.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATIONS

Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009



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:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

	Elements	Pre-Test (mm)
1	Total Length	5276
2	Total Width	1925
3	Bumper Top Height	592
4	Bumper Bottom Height	454
5	Longitudinal Member Top Height	600
6	Distance between Longitudinal Members	1218
7	Longitudinal Member Width	105
8	Engine Top Height	961
9	Engine Bottom Height	194
10	Engine and gearbox width	563
11	Front bumper-engine distance	336
12	Front shock absorber fixing height	909
13	Bonnet leading edge height	798
14	Front shock absorber fixing width	1264
15	Front bumper – front axle distance	1046
16	Front axle – a pillar distance	529
17	A-pillar – B-pillar distance	1134
18	B-Pillar – rear axle distance	2567
19	B-pillar – C-pillar distance	1096
20	Roof sill bottom height	1476
21	Roof sill top height	1610
22	Floor sill bottom height	317
23	Floor sill top height	428

DATA SHEET NO. 16

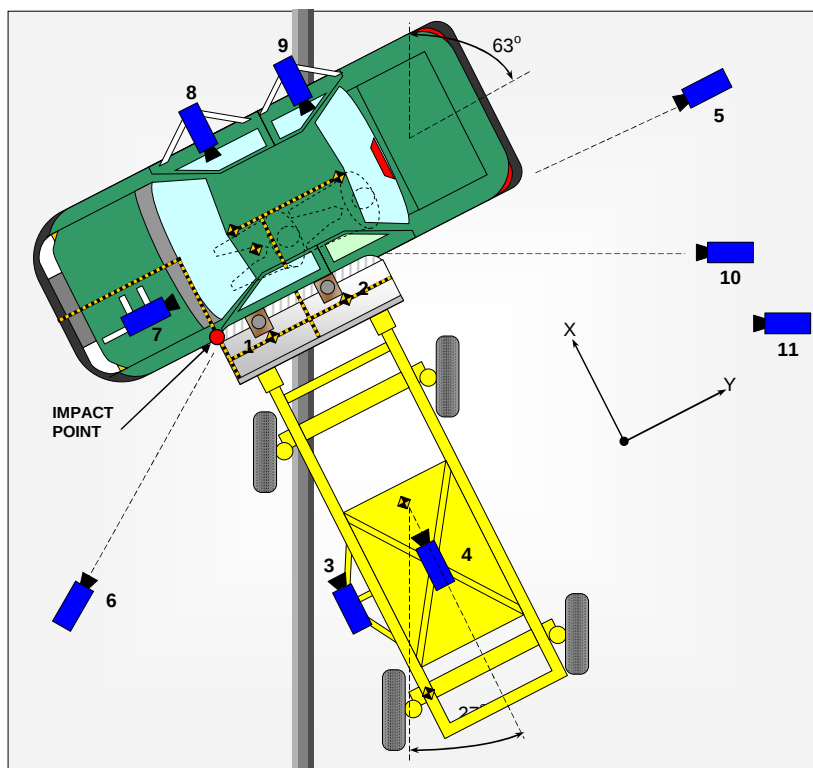
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2010 Lincoln MKT

NHTSA No. FA0202

Test Program: NCAP Side Impact

Test Date: December 15, 2009



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	72	812	-4880	-90	8	1000
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	180	11100	955	-2	50	1000
6	Left Side, Ground Level, Overall	-2490	-1970	930	-3	28	1000
7	Vehicle Onboard Front SID/HIII, Front	495	-575	1420	-6	25	500
8	Vehicle Onboard Front SID/HIII, Side	1675	770	1220	-8	12.5	500
9	Vehicle Onboard Rear SID/HIII, Side	1675	1830	1260	-9	12.5	500
10	Secondary Impact Point	-5090	2040	985	1	50	1000
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**

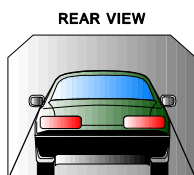
Test Vehicle:	2010 Lincoln MKT	NHTSA No.	FA0202
Test Program:	NCAP Side Impact	Test Date:	December 15, 2009

FUEL SYSTEM INTEGRITY POST IMPACT DATA

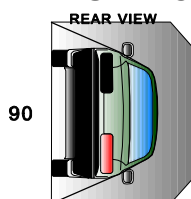
Time Interval	FMVSS 301 Maximum Allowable Spillage	Spillage (g)
Impact Until Motion Ceases	28 g	0
First Five Minutes Following Impact	142 g	0
Next 25 Minutes	28 g / 1 minute	0

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

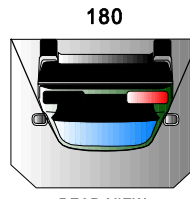
STATIC ROLLOVER DATA



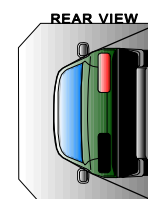
0/360



90



180



270

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	08	seconds	5	minutes	6	minutes	8	seconds	7	minutes
90° - 180°	1	minutes	03	seconds	5	minutes	6	minutes	3	seconds	7	minutes
180°-270°	1	minutes	02	seconds	5	minutes	6	minutes	2	seconds	7	minutes
270°-360°	1	minutes	10	seconds	5	minutes	6	minutes	10	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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A-47	Pre-Test Left Front $\frac{3}{4}$ View of Left Side Doors	A-27
A-48	Post-Test Left Front $\frac{3}{4}$ View of Left Side Doors	A-27
A-49	Pre-Test Left Rear $\frac{3}{4}$ View of Left Side Doors	A-28
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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

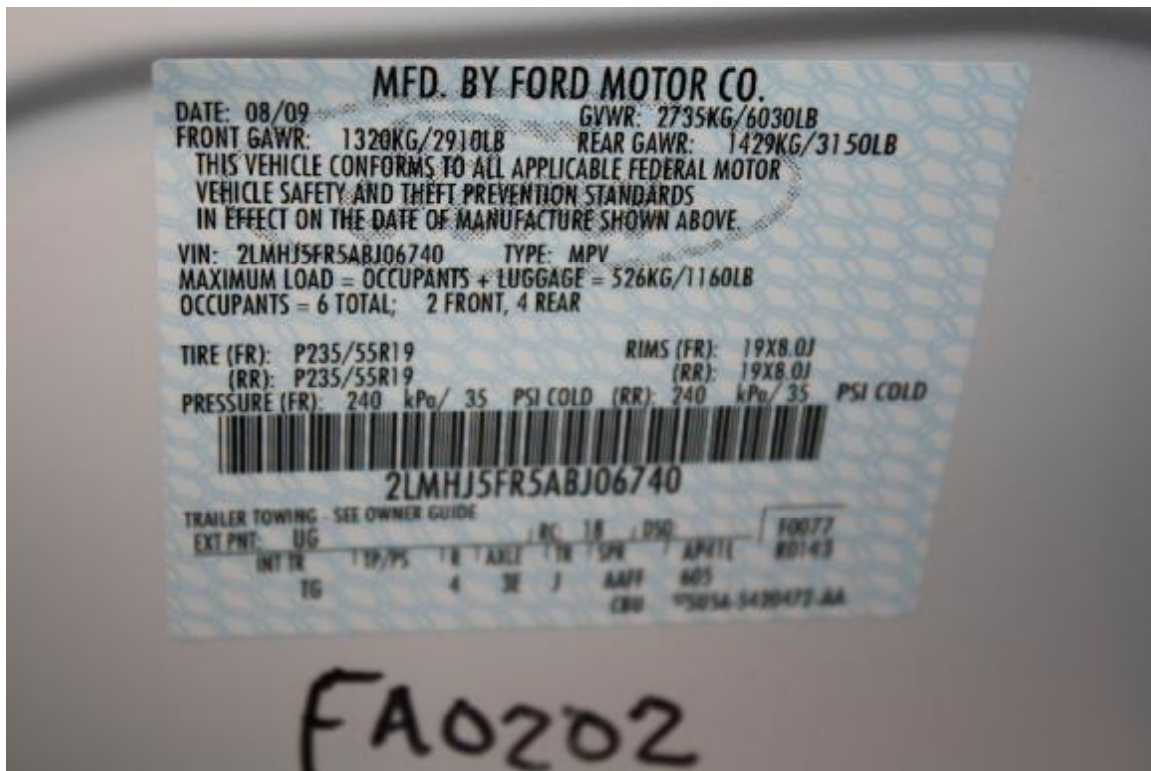


Figure A-3: Vehicle Certification Label

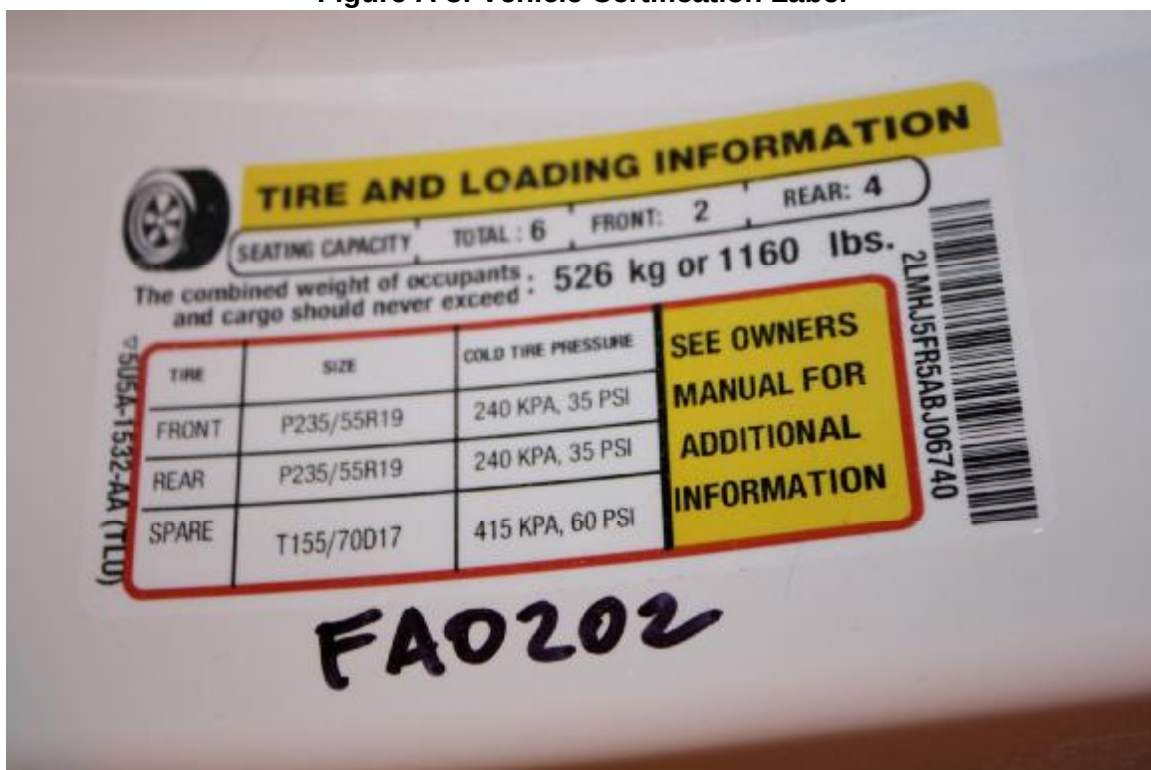


Figure A-4: Vehicle Tire Placard Label



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

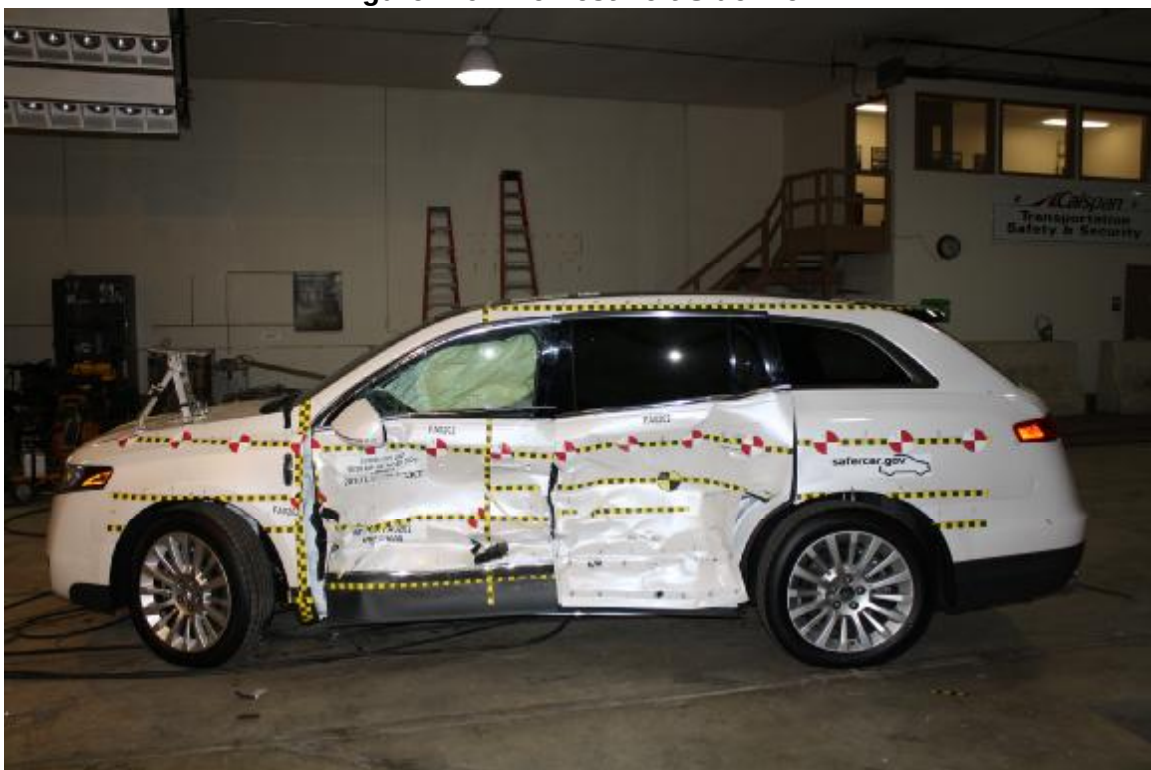


Figure A-10: Post-Test Left Side View



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

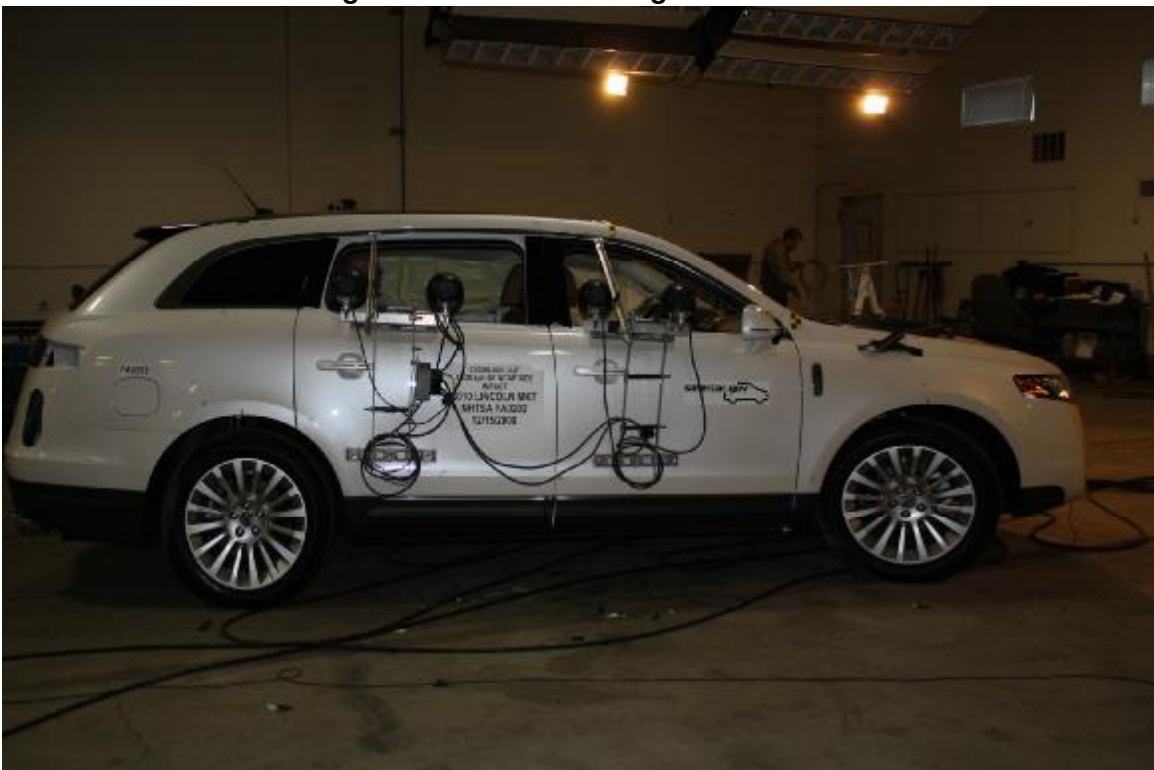


Figure A-18: Post-Test Right Side View



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

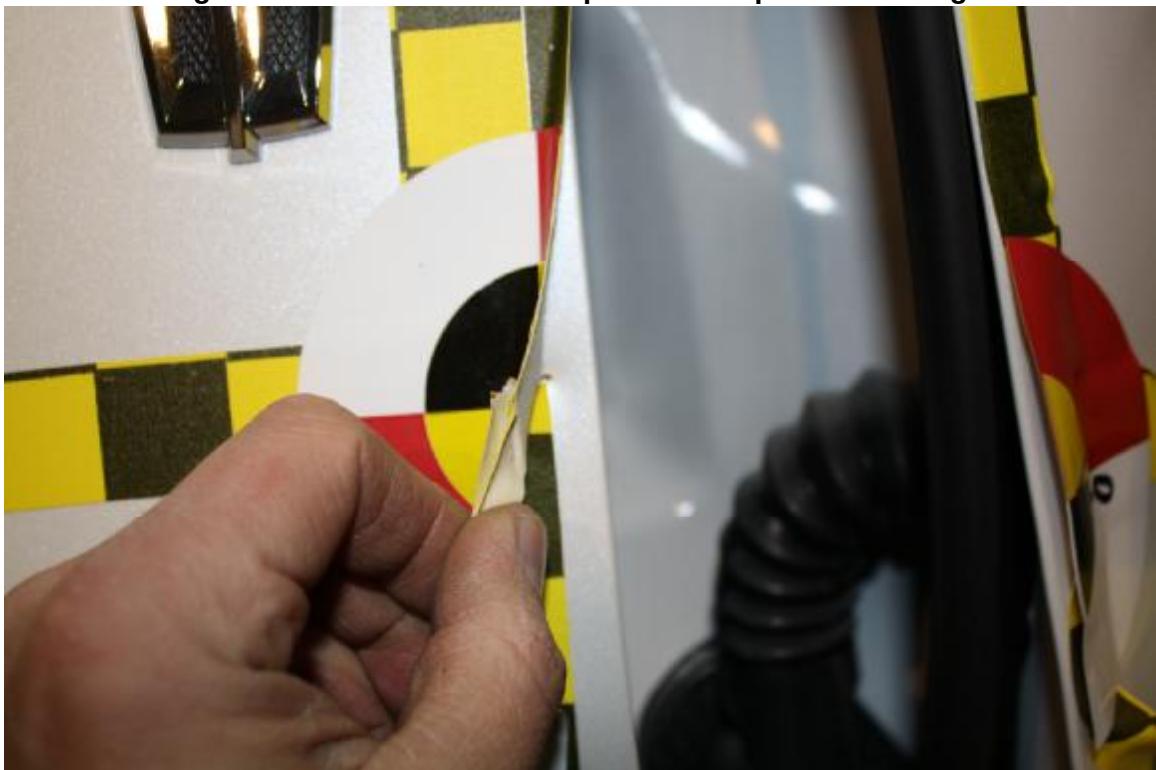


Figure A-34: Post-Test Close-Up View of Impact Point Target



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 ¾ View of Left Side Doors



Figure A-48: Post-Test Left Front ¾ 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

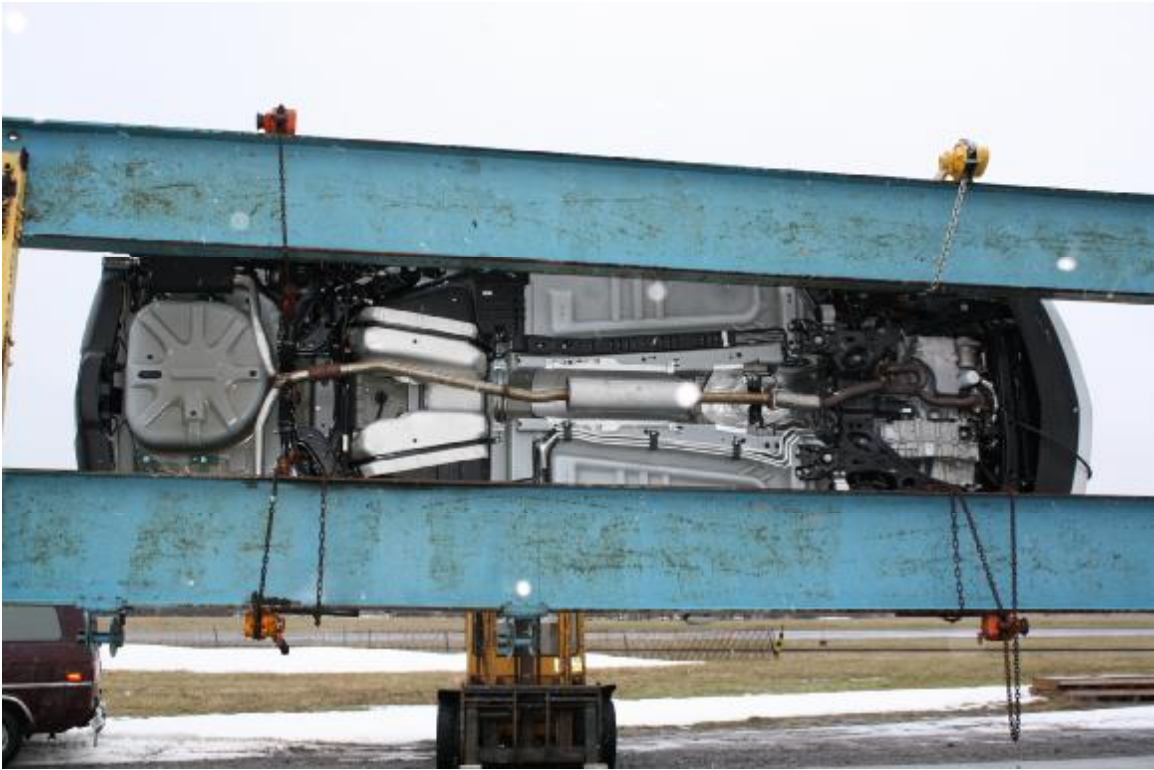


Figure A-53: Rollover 270 Degrees



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	V2A7 Right Rear Compartment Ay
V2P1 Lower Rib Redundant Ay	V2A12 Left Lower B Post Ay
V2P1 Lower Spine Ay	V2A13 Left Mid B Post Ay
V2P1 Lower Spine Redundant Ay	V2A14 Left Lower A Post Ay
V2P1 Pelvic Ay	V2A15 Left Mid A Post Ay
V2P1 Pelvic Redundant Ay	V2A16 Front Seat Track Ay
V2P4 Head Ax	V2A17 Rear Seat Track Ay
V2P4 Head Ay	V2A18 Target CG Ax
V2P4 Head Az	V2A18 Target CG Ay
V2P4 Upper Neck Fx	V2A18 Target CG Az
V2P4 Upper Neck Fy	V1 Moving Barrier CG Ax
V2P4 Upper Neck Fz	V1 Moving Barrier CG Ay
V2P4 Upper Neck Mx	V1 Moving Barrier CG Az
V2P4 Upper Neck My	V1 Moving Barrier Left Rail Ax
V2P4 Upper Neck Mz	V1 Moving Barrier Left Rail Ay
V2P4 Upper Rib Ay	
V2P4 Upper Rib Redundant Ay	
V2P4 Lower Rib Ay	
V2P4 Lower Rib Redundant Ay	
V2P4 Lower Spine Ay	
V2P4 Lower Spine Redundant Ay	
V2P4 Pelvic Ay	
V2P4 Pelvic Redundant Ay	

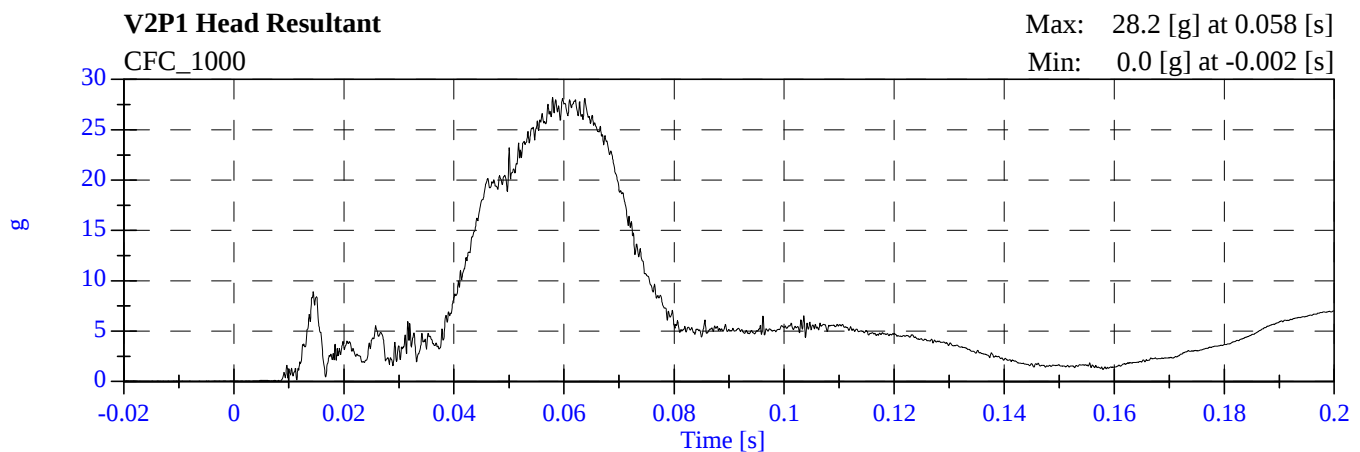
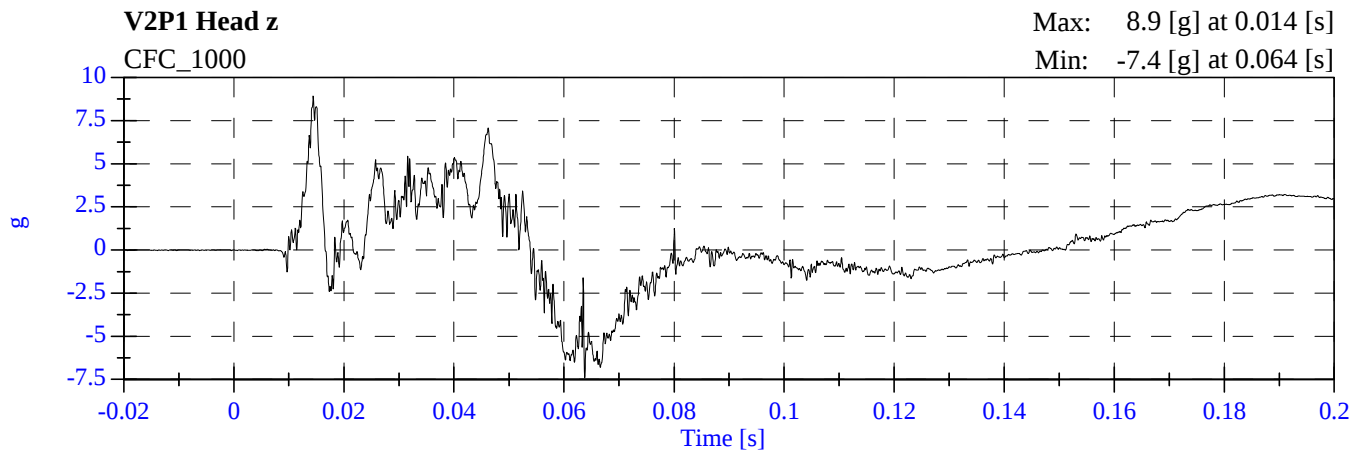
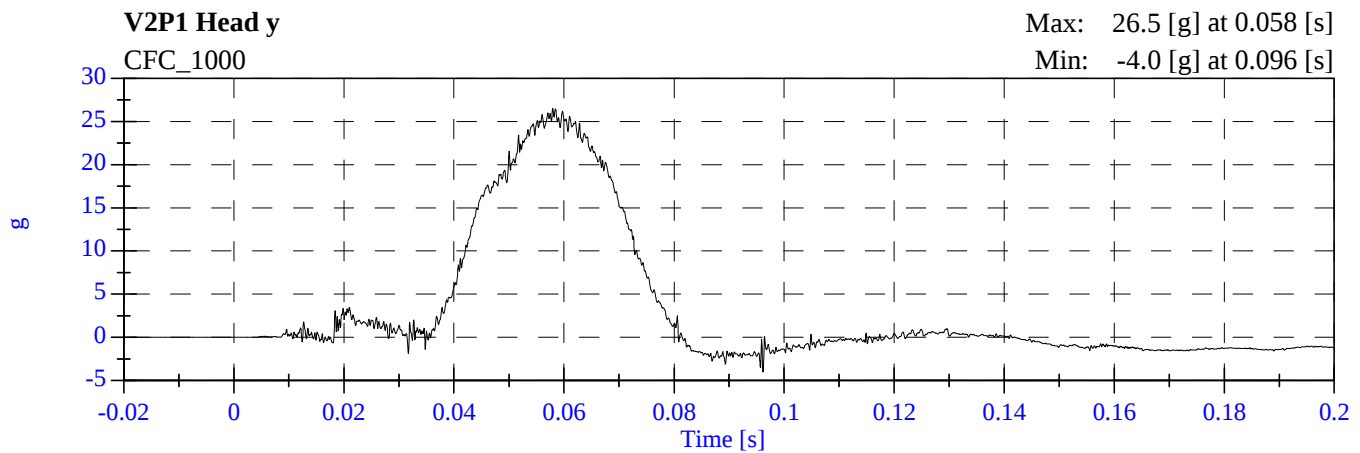
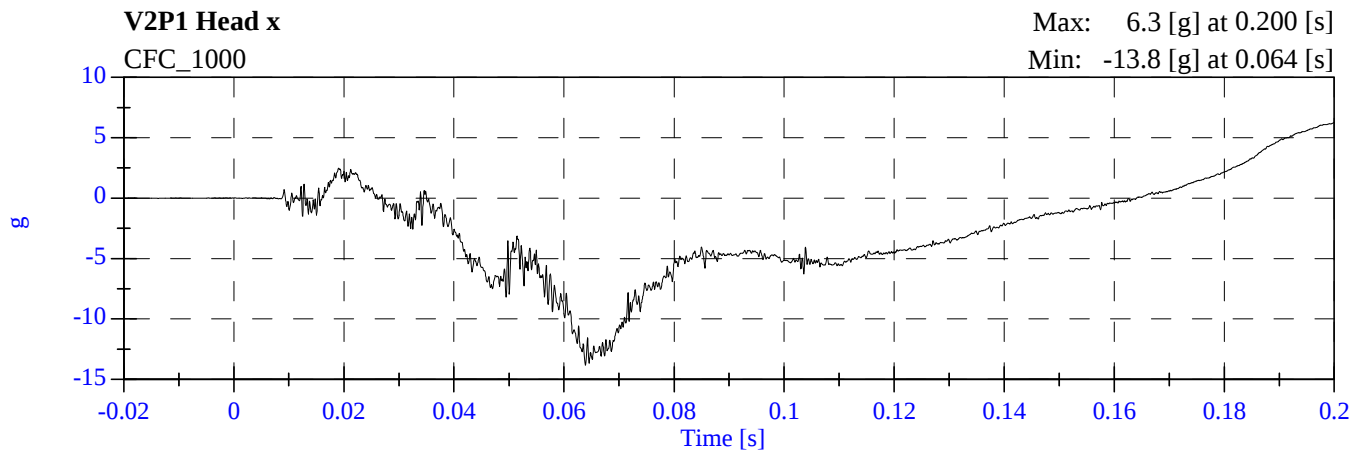
TEST NOTES

The following data anomalies occurred:

V2P4 Head Rx	Questionable Data after 25 msec
V2 A1 Right Front Sill X	Questionable Data – Sensor did not measure accurately
V2 A1 Right Front Sill Y	Questionable Data – Sensor did not measure accurately
V2 A1 Right Front Sill Z	Questionable Data – Sensor did not measure accurately

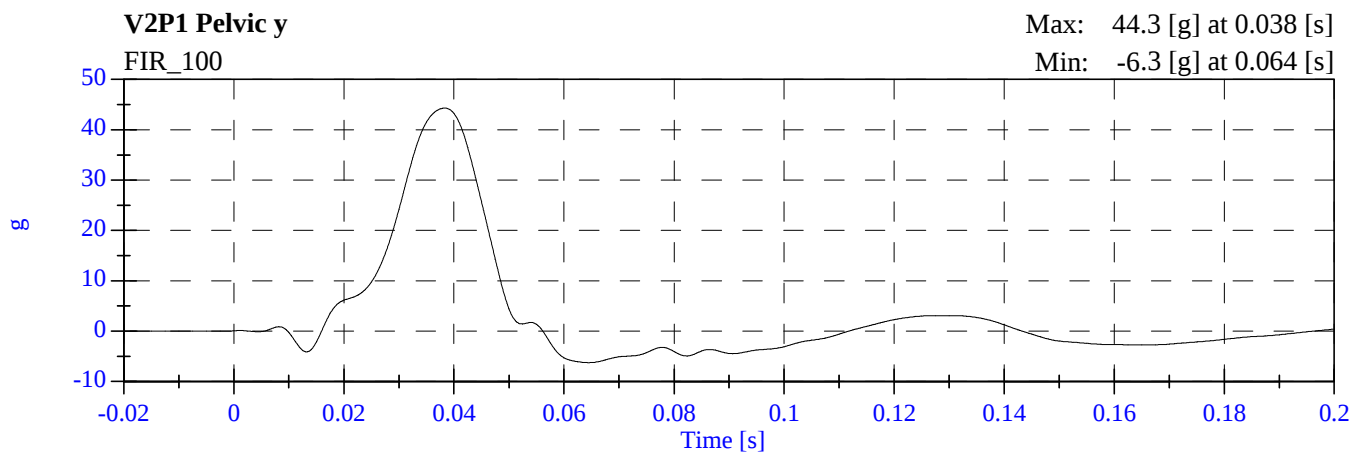
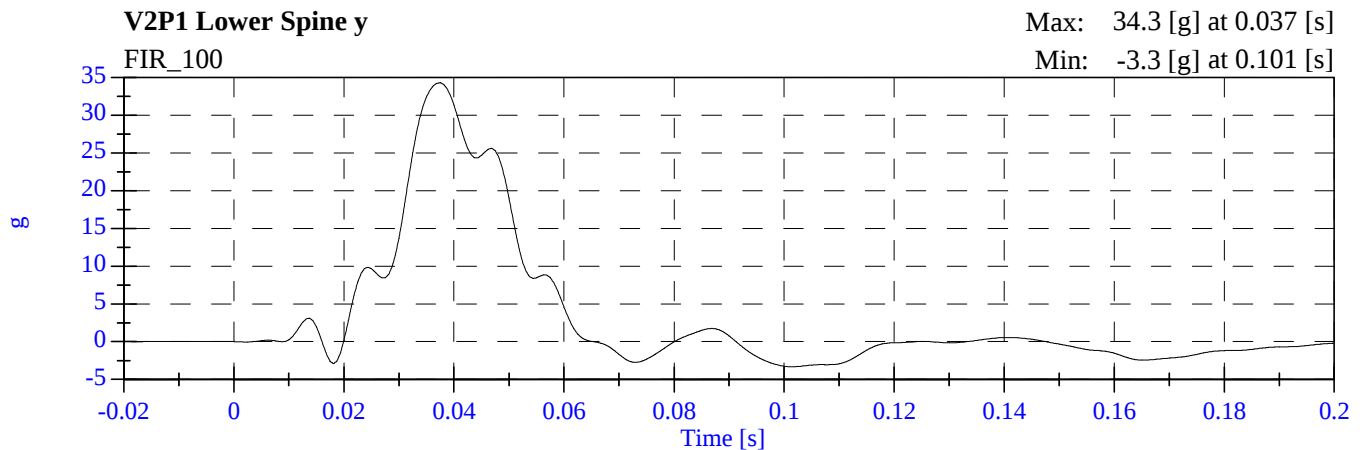
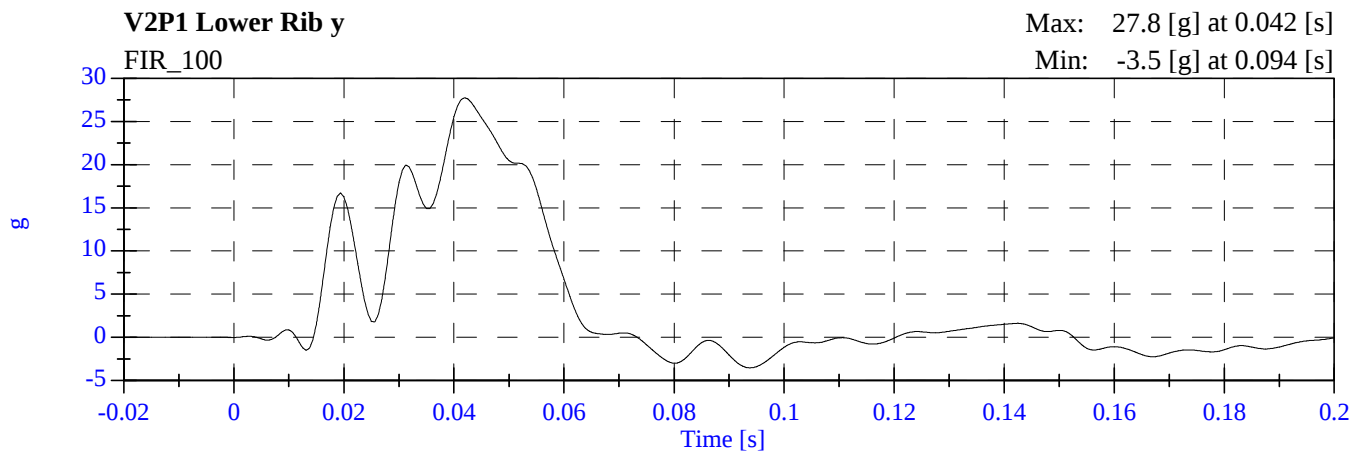
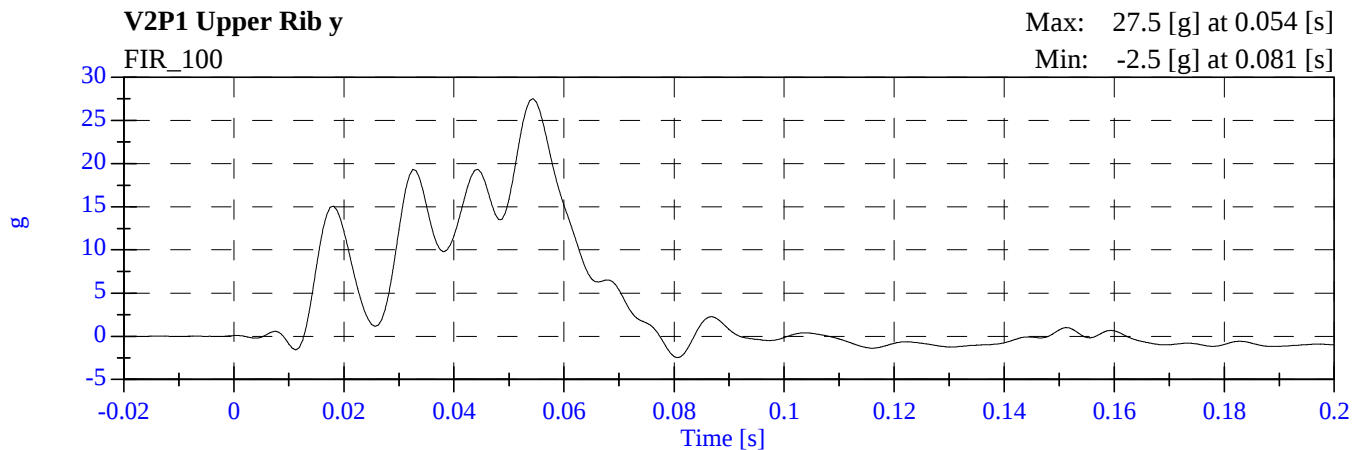
Side NCAP - 2010 Lincoln MKT

FA0202 - December 15, 2009



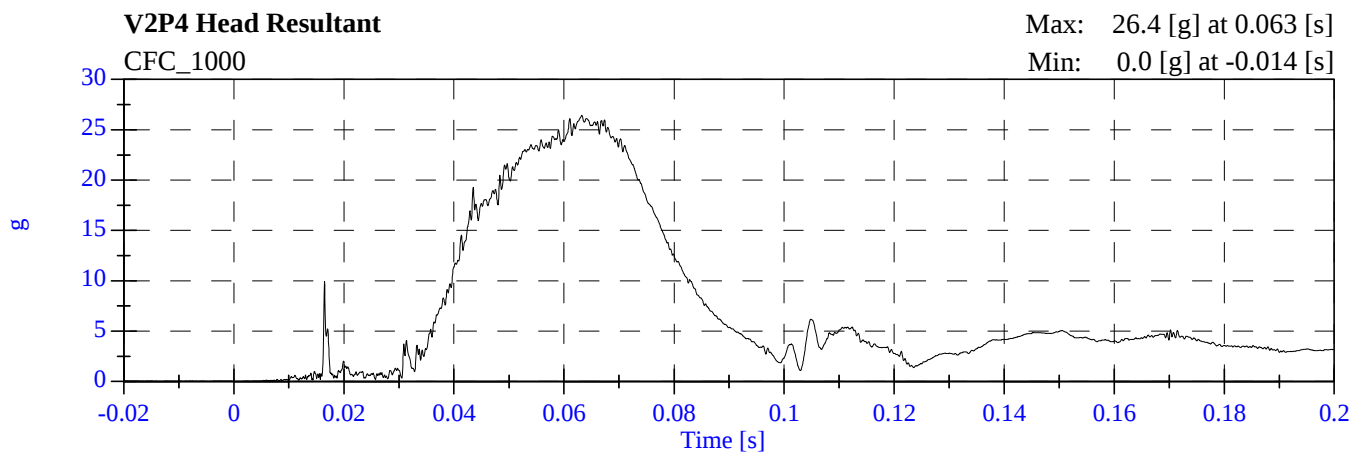
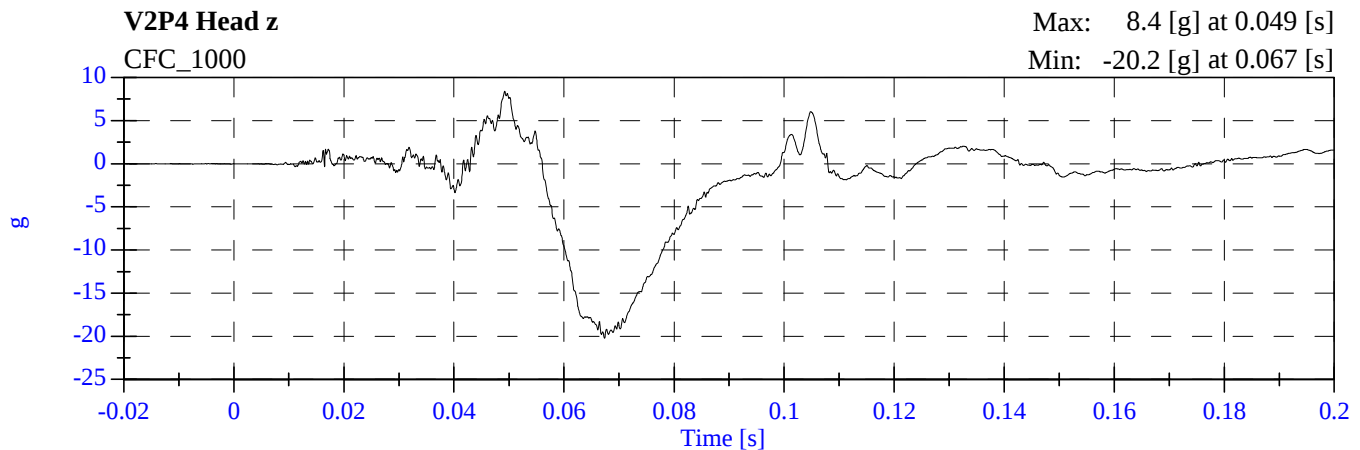
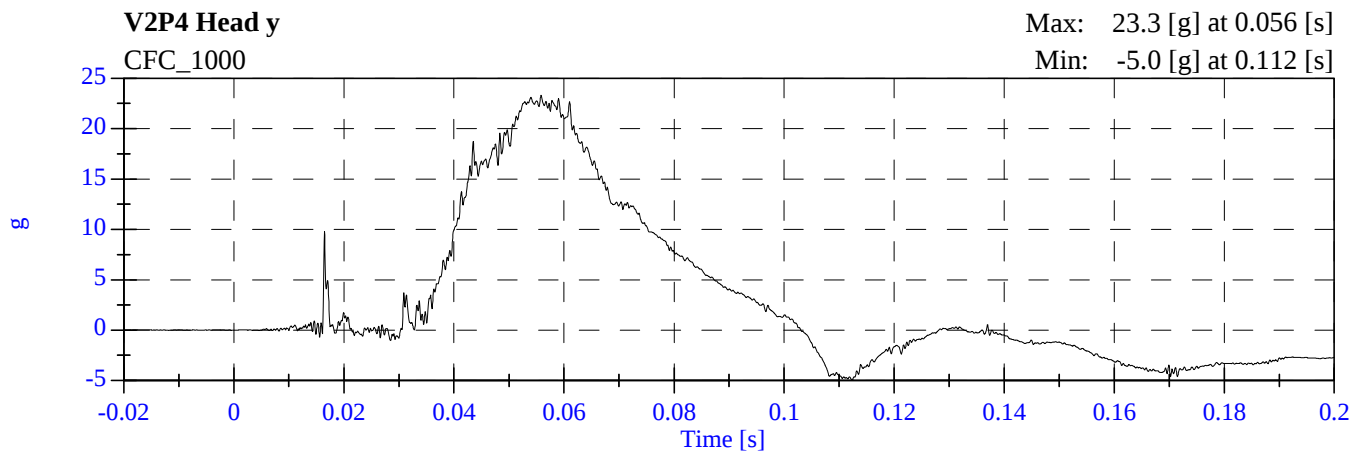
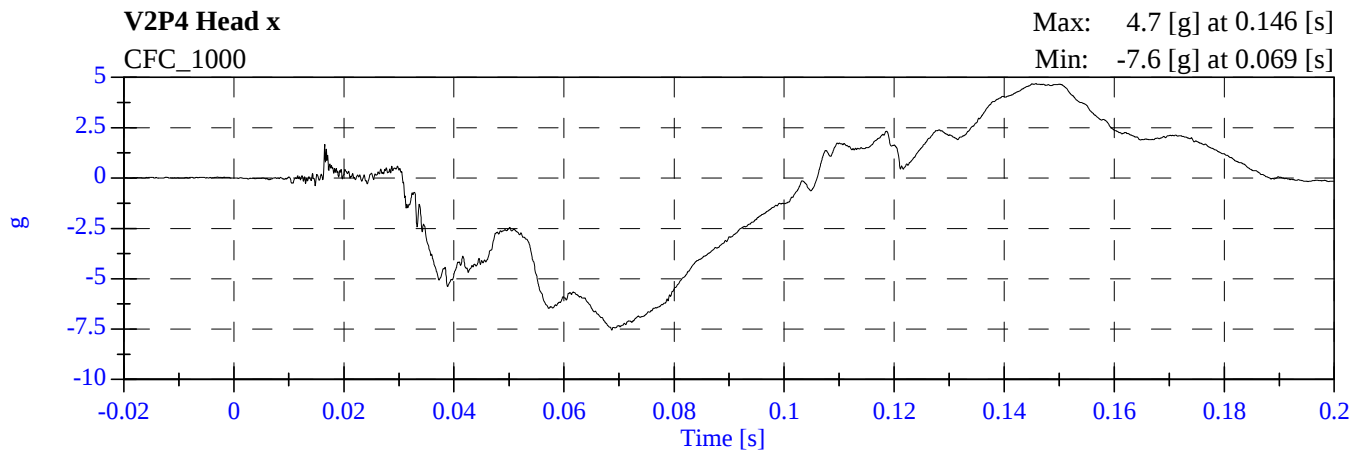
Side NCAP - 2010 Lincoln MKT

FA0202 - December 15, 2009



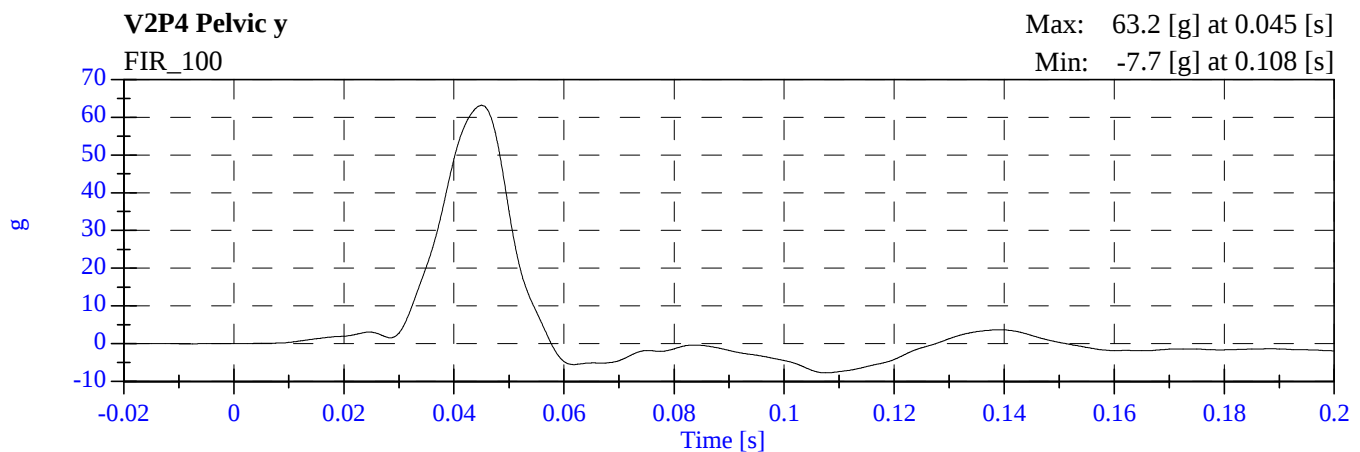
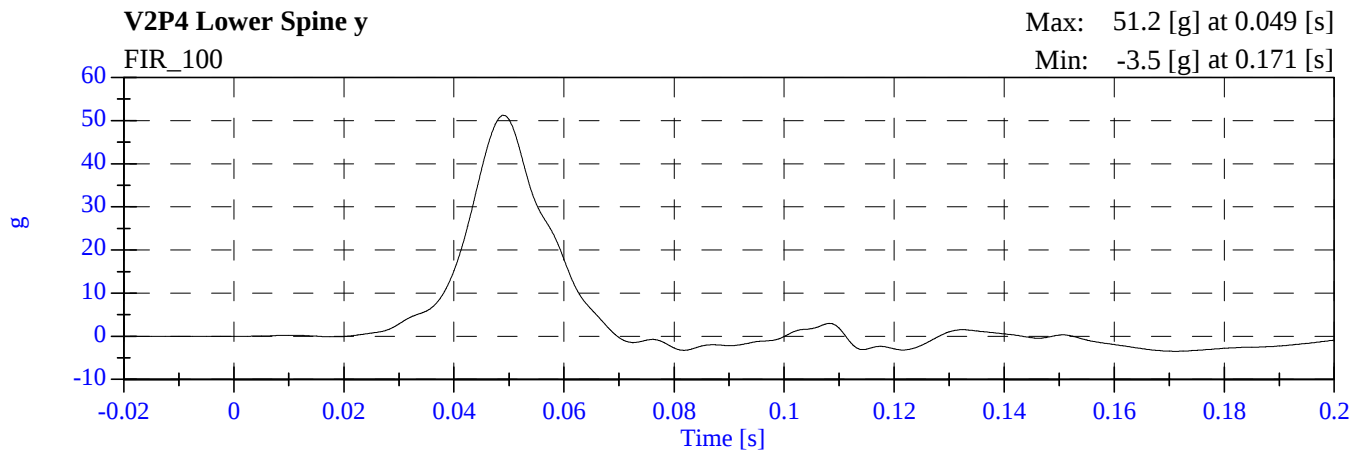
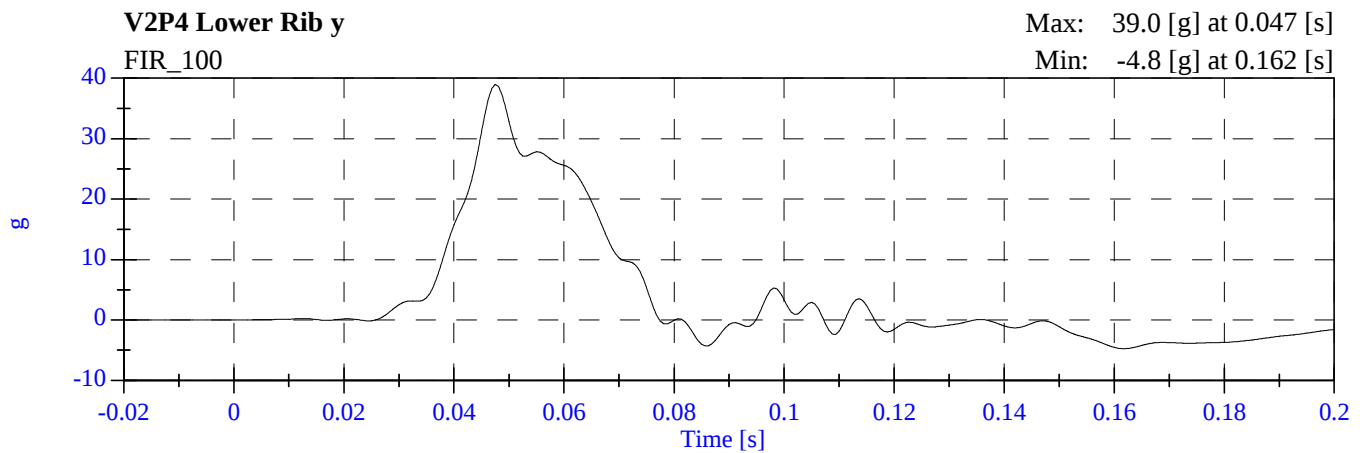
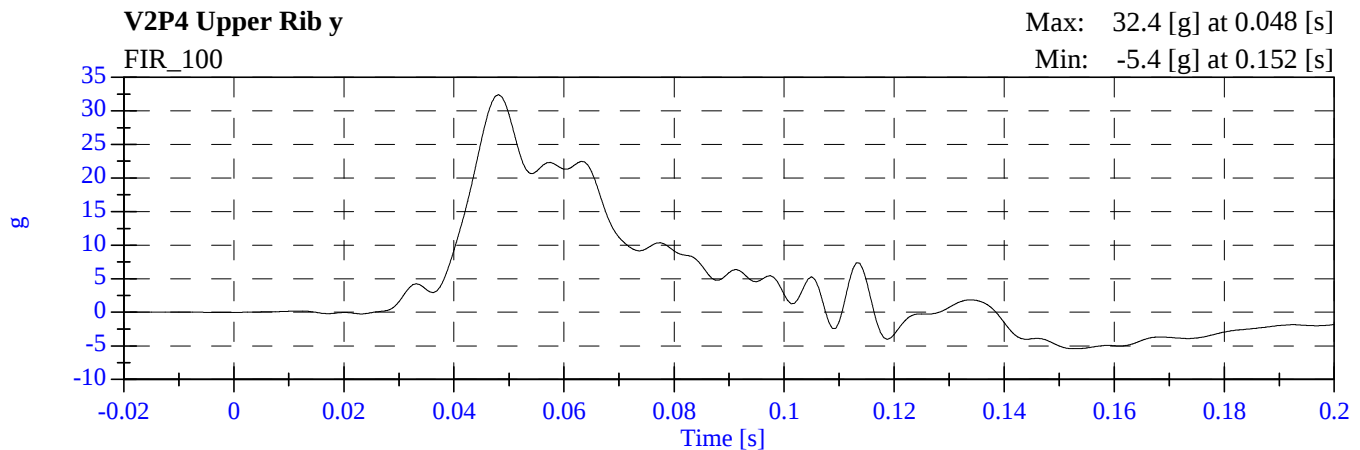
Side NCAP - 2010 Lincoln MKT

FA0202 - December 15, 2009



Side NCAP - 2010 Lincoln MKT

FA0202 - December 15, 2009



APPENDIX C
DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: 11/20/09; 1/11/10 Sequential Test Number: 1
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 269		SID H3 NO.: 906	
		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	511	511
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	234	233	239	238
KV- Knee Pivot from Back Line (mm)	511 - 526	516	515	521	520
SW- Knee Pivot to Floor (mm)	490 - 505	495	496	493	492
HW- Hip Width (mm)	356 - 391	381	382	384	383
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.7	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	40	38	42	35
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.28	4.28	4.28
UPPER RIB (g's)	37 - 46	42.25	42.97	43.23	43.44
LOWER RIB (g's)	37 - 46	39.65	42.05	41.68	42.06
LOWER SPINE (g's)	15 - 22	18.31	18.97	21.07	20.59
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.7	21.1
RELATIVE HUMIDITY (%)	10 - 70	41	39	44	38
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.29	4.28	4.28
PELVIS (g's)	40 - 60	50.02	48.80	52.99	52.61

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: 11/20/09	Laboratory Technician: A. Rudniski

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: 11/20/09 Laboratory Technician: A. Rudniski

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

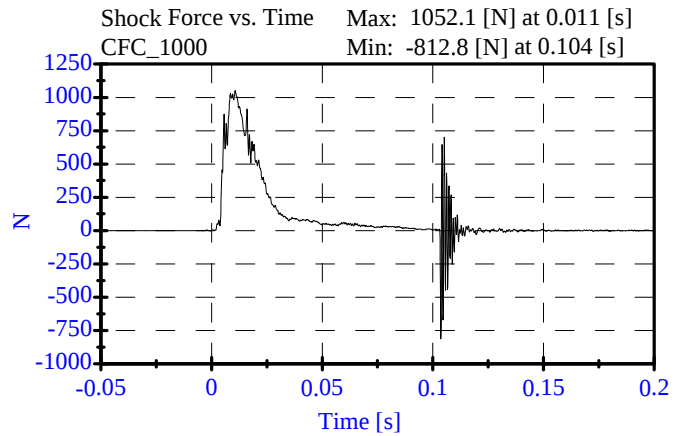
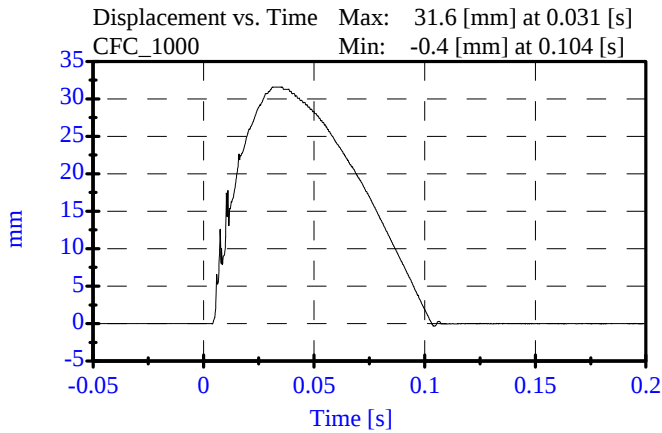
REMARKS: None

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

ATD Serial No: 269
Date: 04-06-09

Sequential Test Number: 1 File: 269SL 04-06-09
Laboratory Technician: A. Rudniski

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Displacement:	30.00-35.00 mm	31.59 mm	Passed
Maximum Force:	836.00-1125.00 N	1052.06 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	269		
Damper Setting:	5		



Shock Test Medium (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

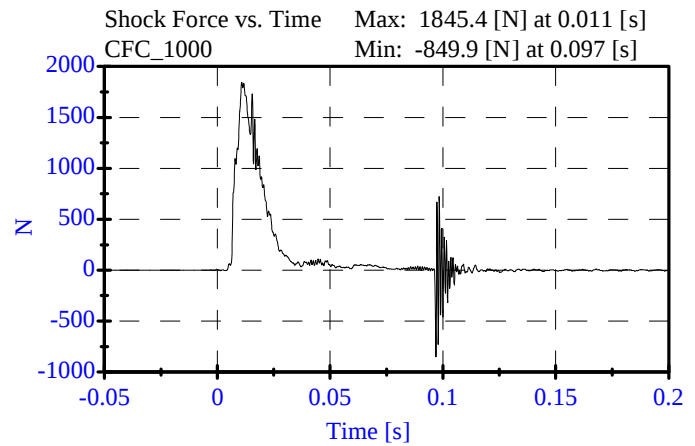
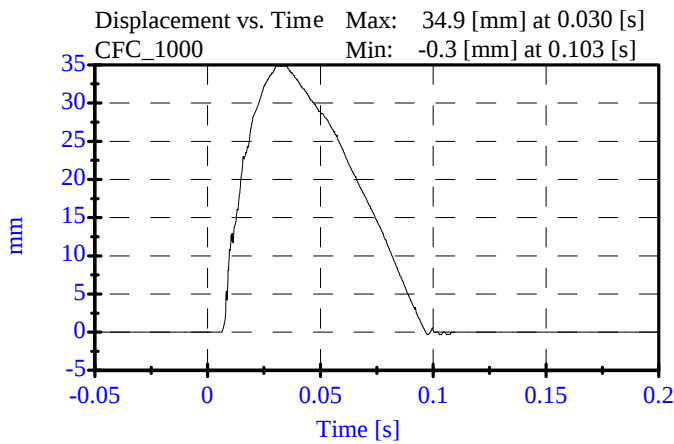
ATD Serial No: 269

Date: 04-06-09

Sequential Test Number: 1 File: 269SM 04-06-09

Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Displacement:	32.00-37.00 mm	34.85 mm	Passed
Maximum Force:	1730.00-2099.00 N	1845.37 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	269		
Damper Setting:	5		

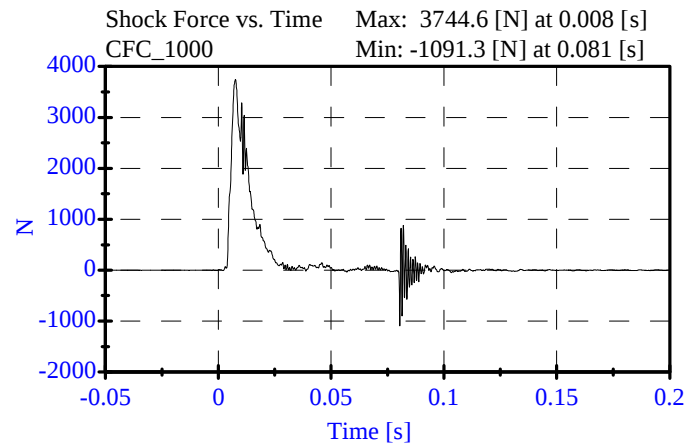
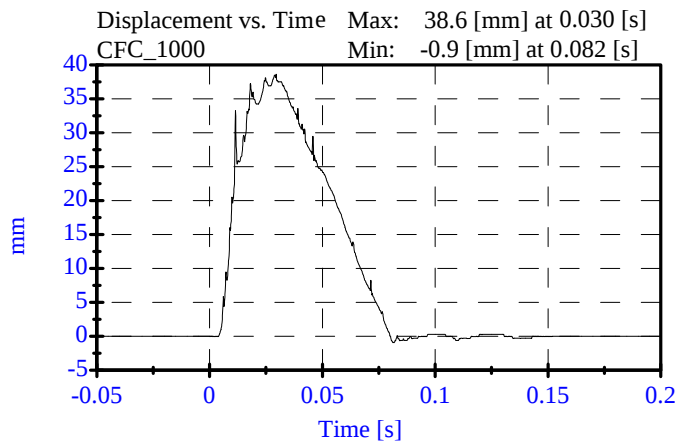


Shock Test High (6.10 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 04-06-09

Sequential Test Number: 1 File: 269SH 04-06-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Displacement:	33.00-40.00 mm	38.65 mm	Passed
Maximum Force:	3741.00-4448.00 N	3744.61 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	269		
Damper Setting:	5		

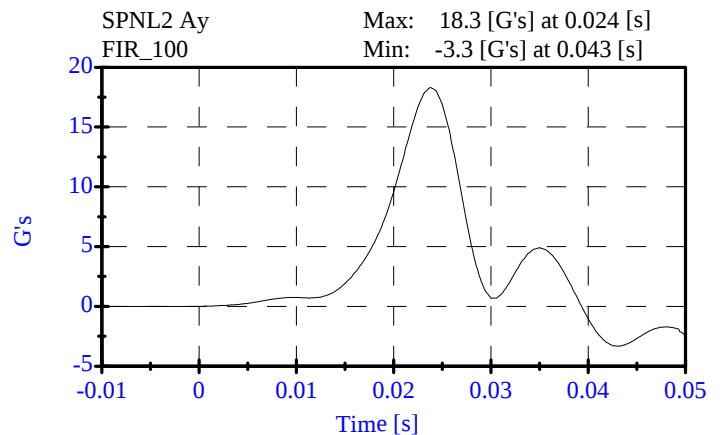
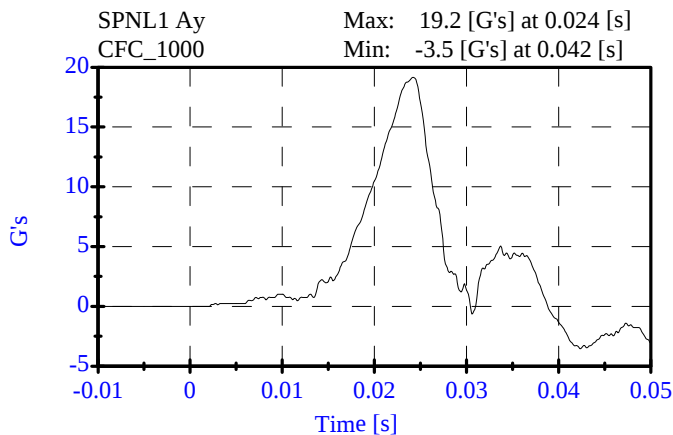
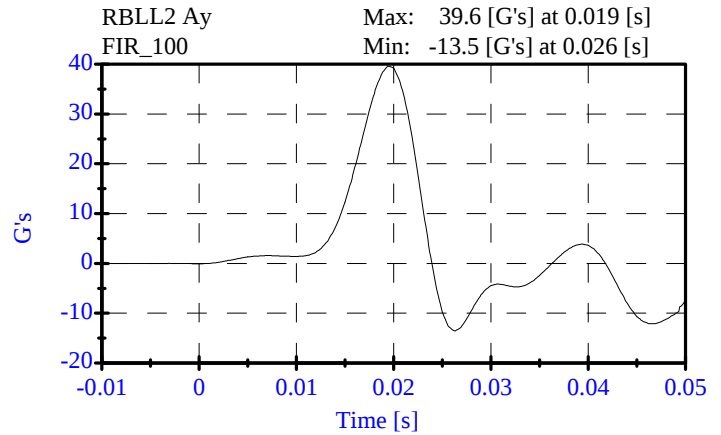
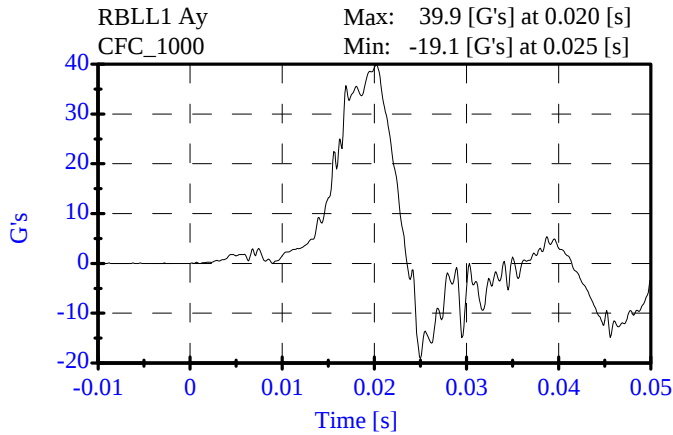
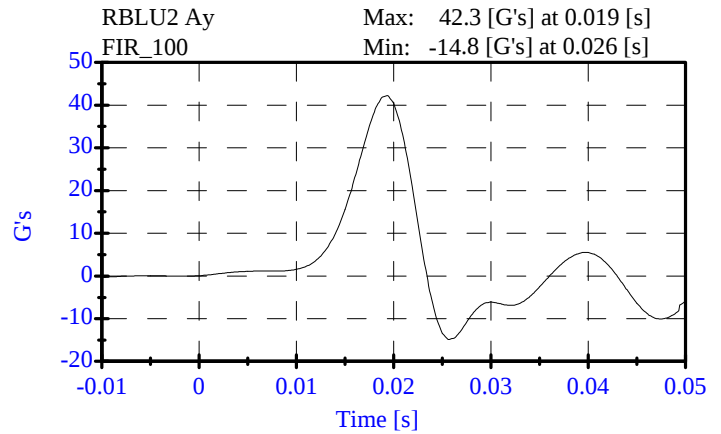
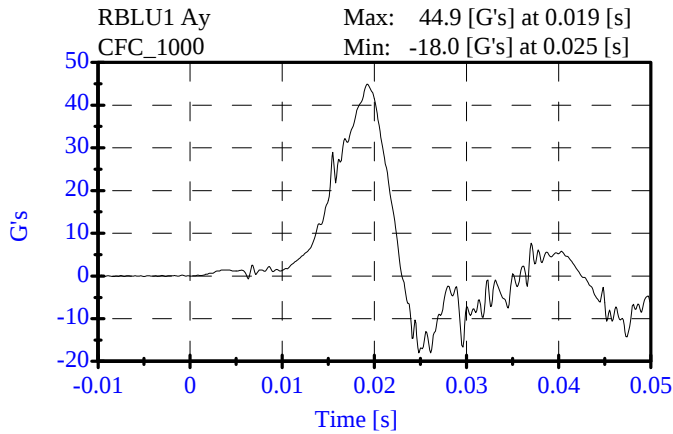


Thorax Impact Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 11-20-09

Sequential Test Number: 1 File: 269T2 11-20-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	42.25 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.65 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.31 G's	Passed

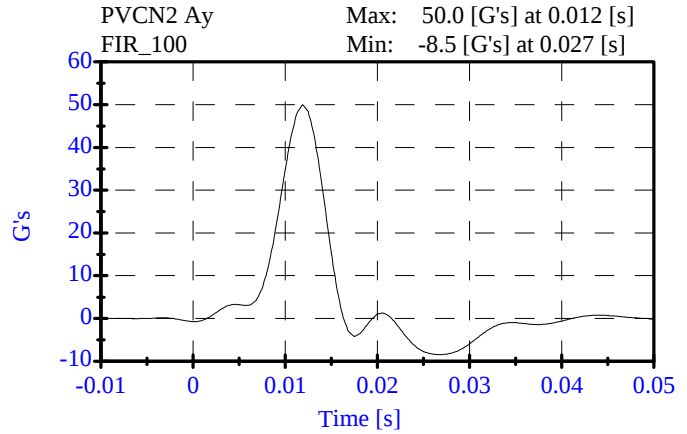
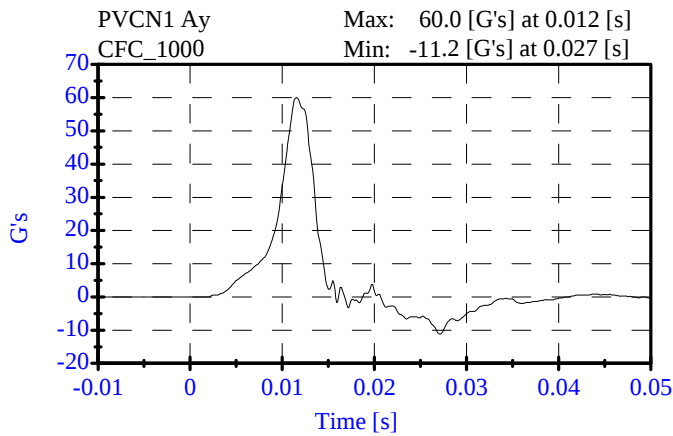


Pelvic Impact Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 11-20-09

Sequential Test Number: 1 File: 269P 11-20-09
Laboratory Technician: A. Rudniski

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	41.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.02 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.8 ms	Passed



Head Drop Test

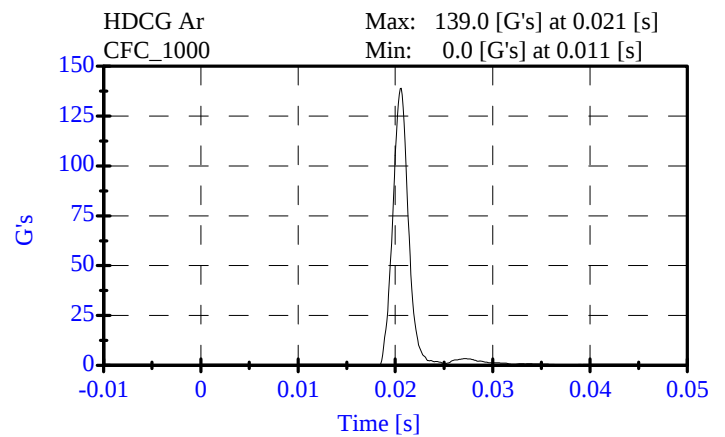
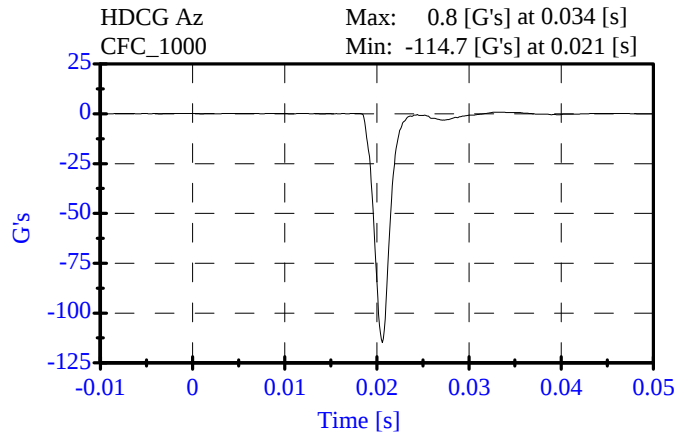
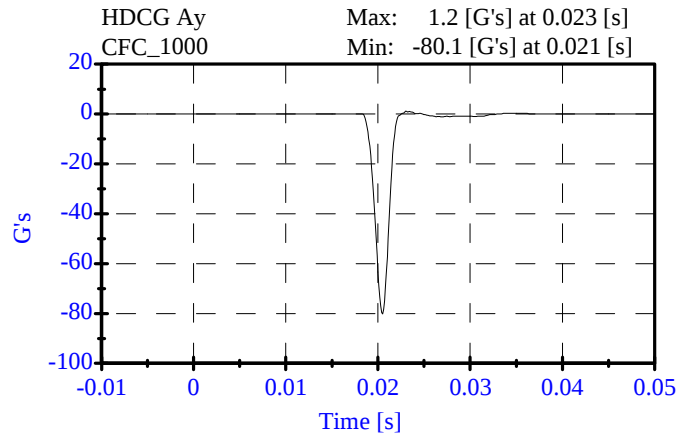
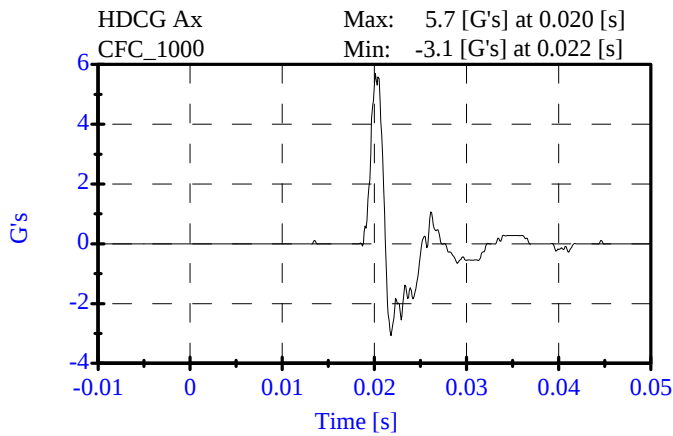
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 11-19-09

Sequential Test Number: 1 File: 269H3 11-19-09
Laboratory Technician: A.Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	50.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	138.98 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	5.70 Gs	Passed
Curve PerCent NonModal:	< 15%	2.43 %	Passed



Neck Flexion Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 11-20-09

Sequential Test Number: 1 File: 269N 11-20-09
Laboratory Technician: A. Rudnski

<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 %	40.00 %	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	2.25 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.53 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.45 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.55 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	66.41 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	61.80 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	75.38 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	59.10 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	11.10 ms	Passed

Neck Flexion Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

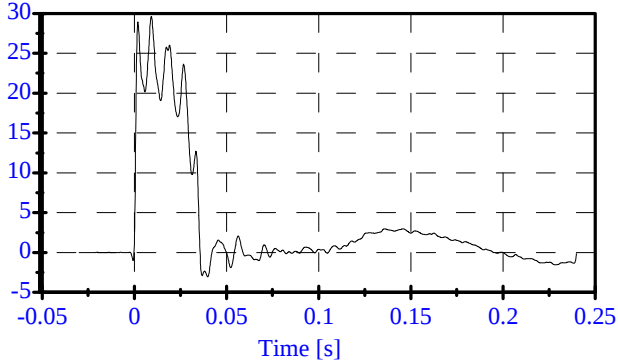
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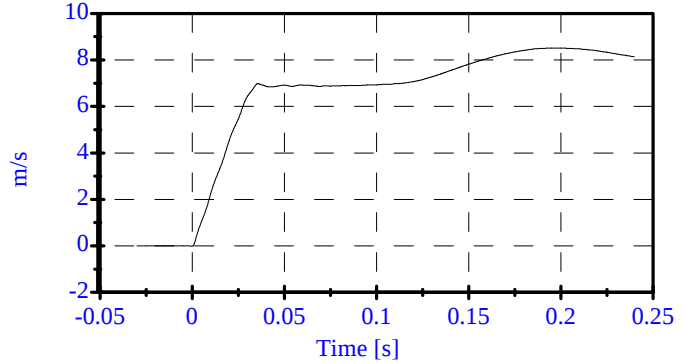
Sequential Test Number: 1 File: 269N 11-20-09

Laboratory Technician: A. Rudniski

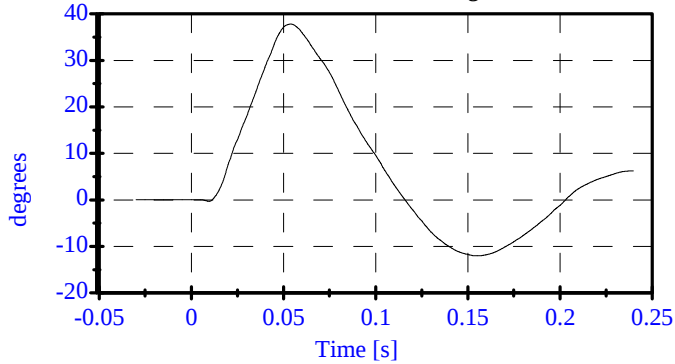
Pend Ax
CFC_180
Max: 29.6 [] at 0.009 [s]
Min: -3.0 [] at 0.040 [s]



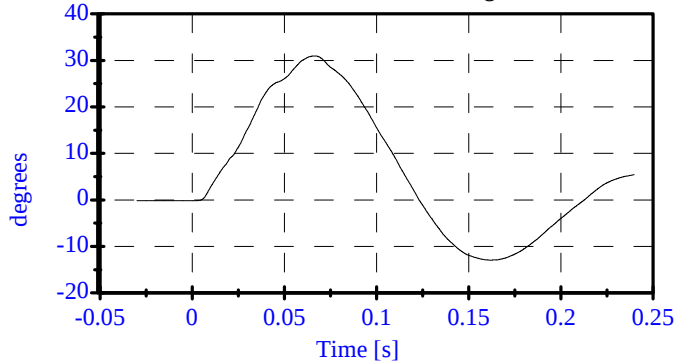
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.195 [s]
Min: -0.0 [m/s] at -0.000 [s]



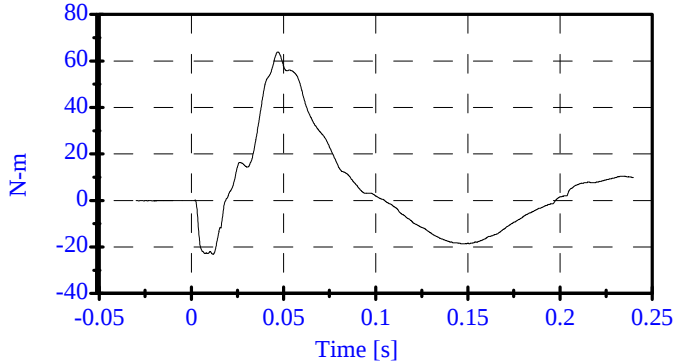
Head Rot
CFC_180
Max: 37.8 [degrees] at 0.054 [s]
Min: -12.0 [degrees] at 0.156 [s]



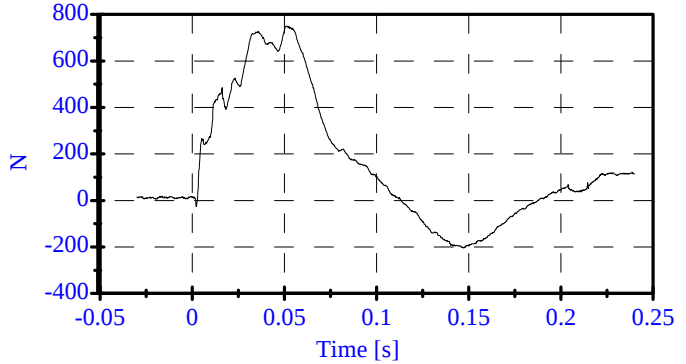
Arm Rot
CFC_180
Max: 31.0 [degrees] at 0.067 [s]
Min: -12.9 [degrees] at 0.162 [s]



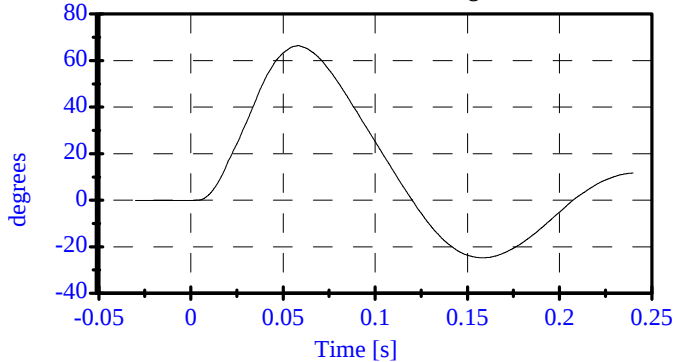
Neck Mx
CFC_600
Max: 63.9 [N-m] at 0.047 [s]
Min: -23.2 [N-m] at 0.012 [s]



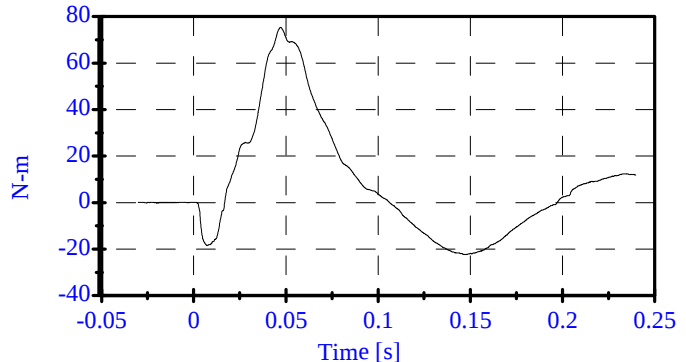
Neck Fy
CFC_1000
Max: 749.4 [N] at 0.051 [s]
Min: -204.5 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 66.4 [degrees] at 0.058 [s]
Min: -24.7 [degrees] at 0.158 [s]



MOCX
Max: 75.4 [N-m] at 0.047 [s]
Min: -22.3 [N-m] at 0.147 [s]



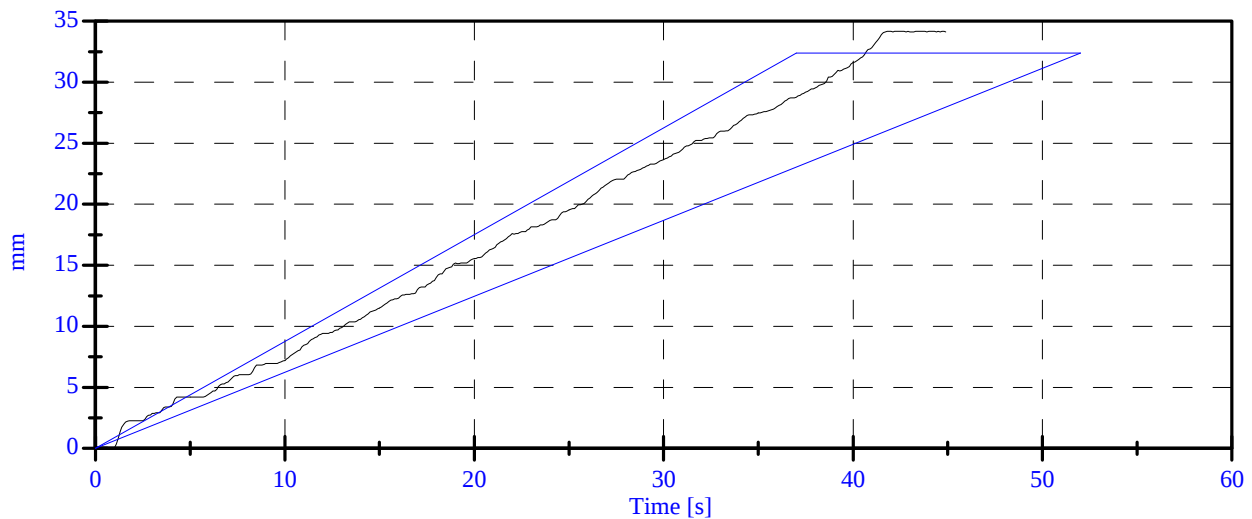
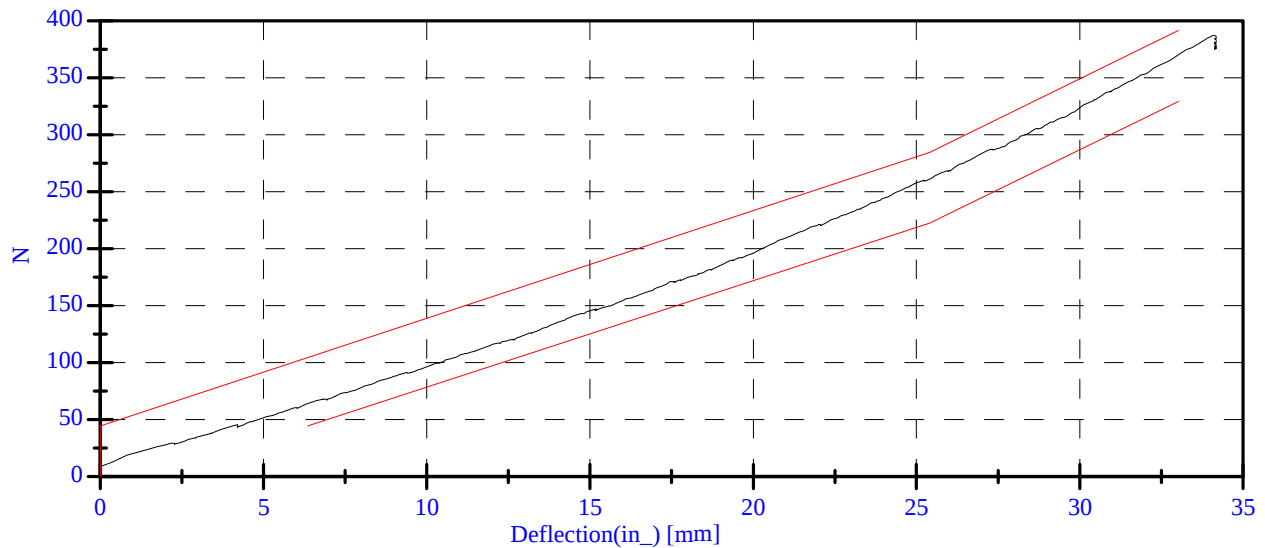
Abdominal Compression Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 11-20-09

Sequential Test Number: 1 File: 269AB 11-20-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	124.28 N	Passed
Force at 19.05 mm :	162.98-220.99 N	186.34 N	Passed
Force at 25.40 mm :	221.97-280.02 N	260.80 N	Passed
Force at 33.02 mm :	324.99-391.00 N	370.68 N	Passed

ABDOMINAL COMPRESSION TEST



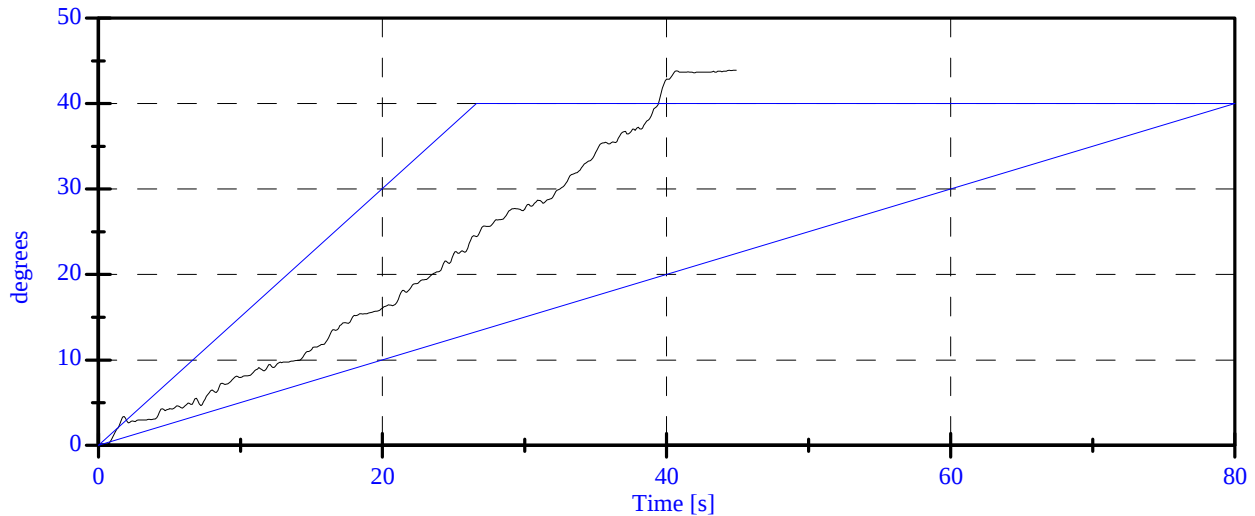
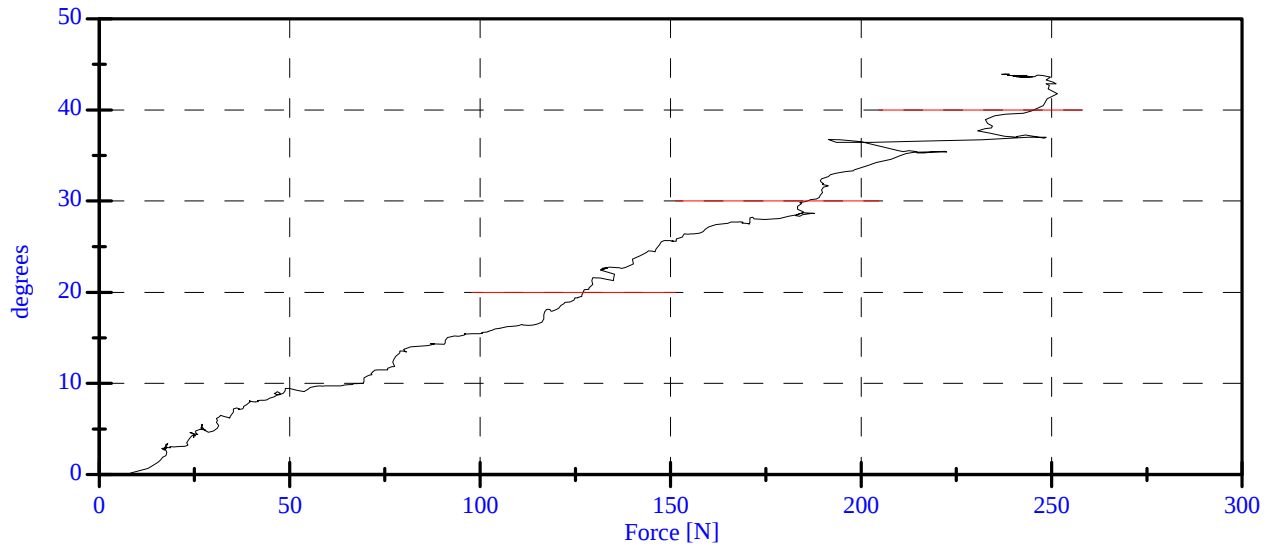
Lumbar flexion Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 11-20-09

Sequential Test Number: 1 File: 269SP 11-20-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	1.83 N	Passed
Force at 20 Deg:	97.86-151.24 N	126.92 N	Passed
Force at 30 Deg:	151.24-204.62 N	185.94 N	Passed
Force at 40 Deg:	204.62-258.00 N	244.70 N	Passed
Return Angle	12 Deg Max	7.83 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: 11/19/09 Laboratory Technician: A. Rudniski

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.: 906

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906	Sequential Test Number: 1
Date: 11/20/09	Laboratory Technician: A. Rudniski

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.: 906 Sequential Test Number: 1
Date: 11/20/09 Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	384

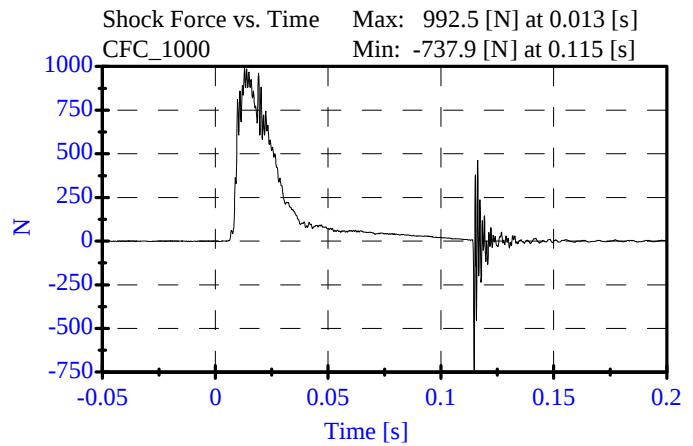
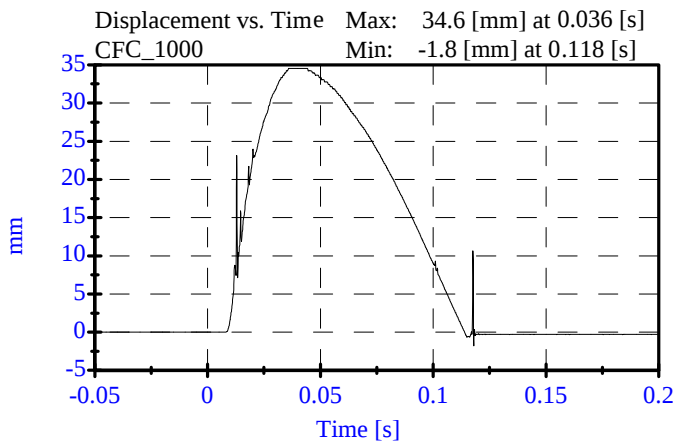
REMARKS: None

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

ATD Serial No: 906
Date: 06-10-09

Sequential Test Number: 1 File: 906SL1 06-10-09
Laboratory Technician: A. Rudniski

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Displacement:	30.00-35.00 mm	34.55 mm	Passed
Maximum Force:	836.00-1125.00 N	992.49 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	906		
Damper Setting:	5		



Shock Test Medium (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

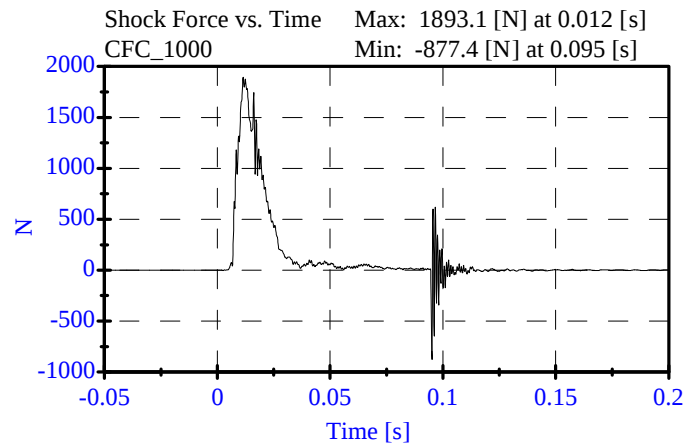
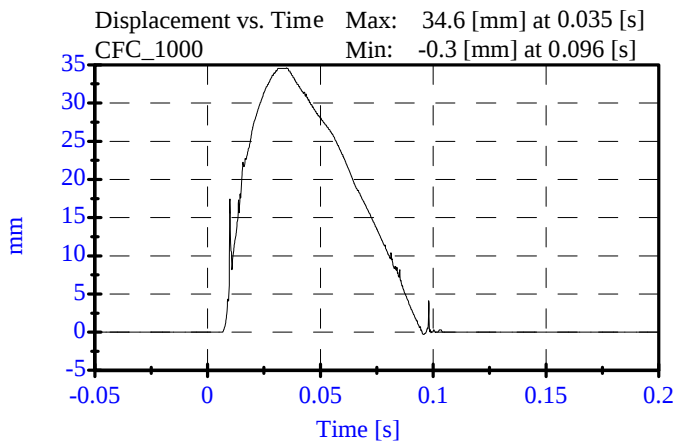
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Date: 06-10-09

Sequential Test Number: 1 File: 906SM1 06-10-09

Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Displacement:	32.00-37.00 mm	34.59 mm	Passed
Maximum Force:	1730.00-2099.00 N	1893.14 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	906		
Damper Setting:	5		

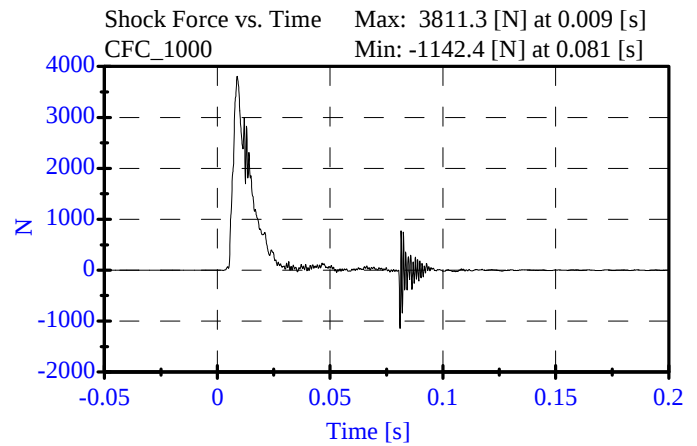
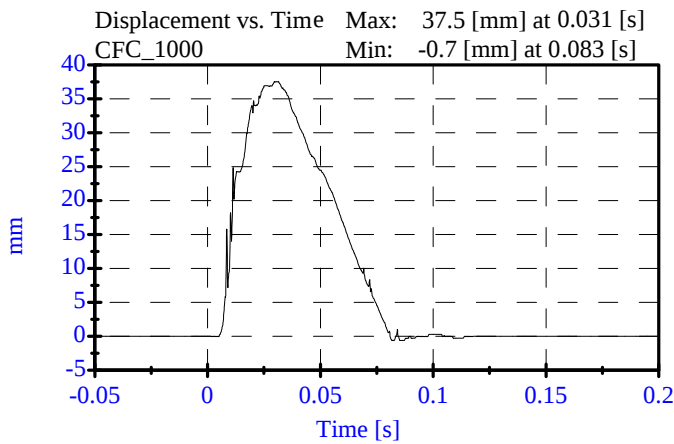


Shock Test High (6.10 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 06-10-09

Sequential Test Number: 1 File: 906SH 06-10-09
Laboratory Technician: A. Rudniski

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	22.2 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Displacement:	33.00-40.00 mm	37.53 mm	Passed
Maximum Force:	3741.00-4448.00 N	3811.26 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	906		
Damper Setting:	5		

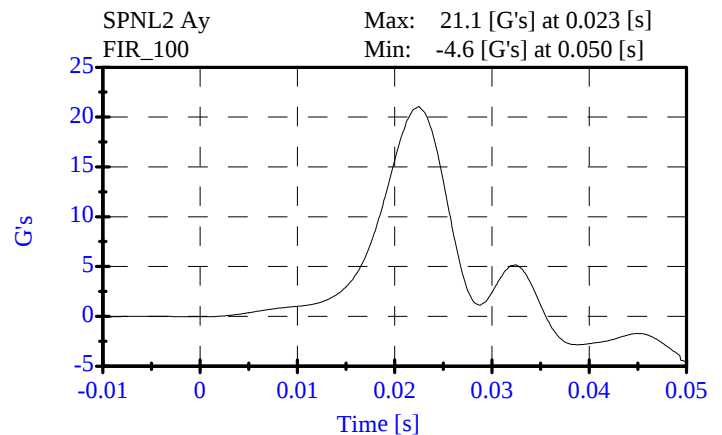
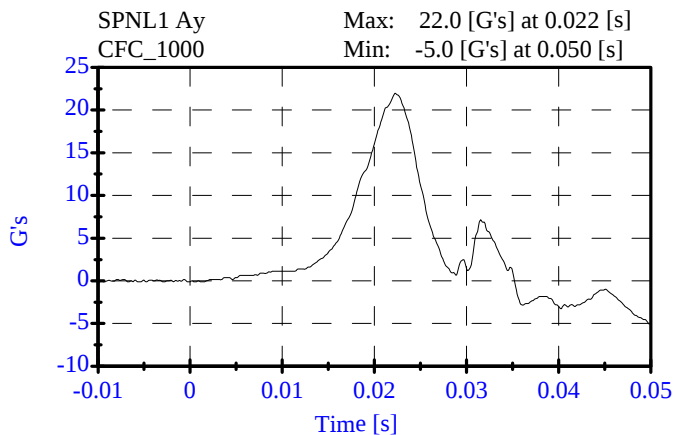
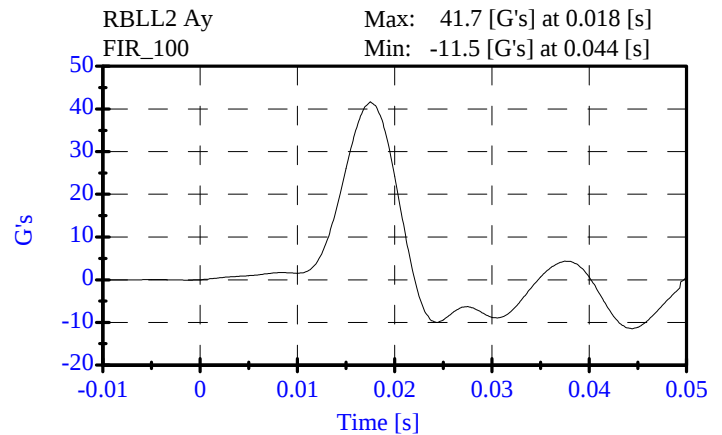
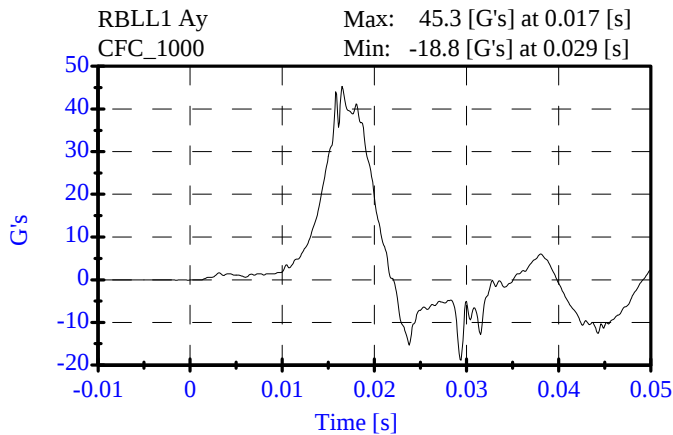
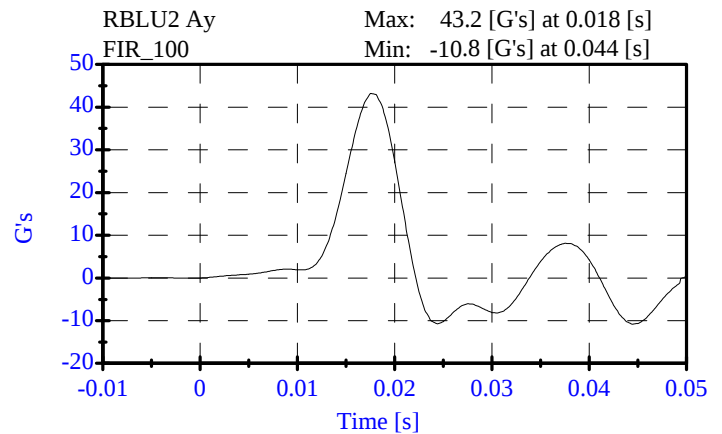
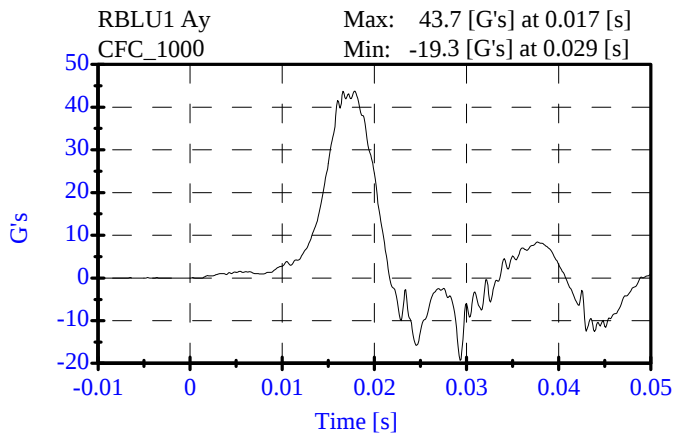


Thorax Impact Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 11-20-09

Sequential Test Number: 1 File: 906T 11-20-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	42.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	43.23 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.68 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.07 G's	Passed

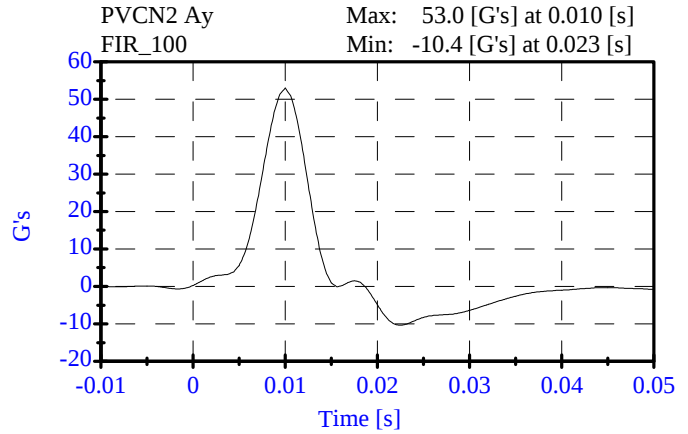
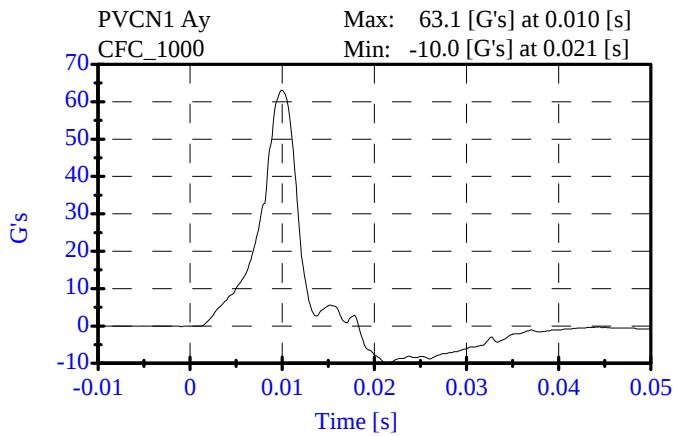


Pelvic Impact Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 11-20-09

Sequential Test Number: 1 File: 906P 11-20-09
Laboratory Technician: A. Rudniski

<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 %	44.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	52.99 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.2 ms	Passed

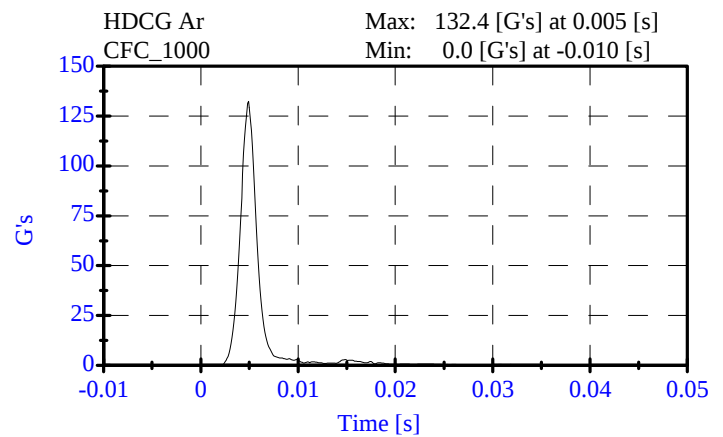
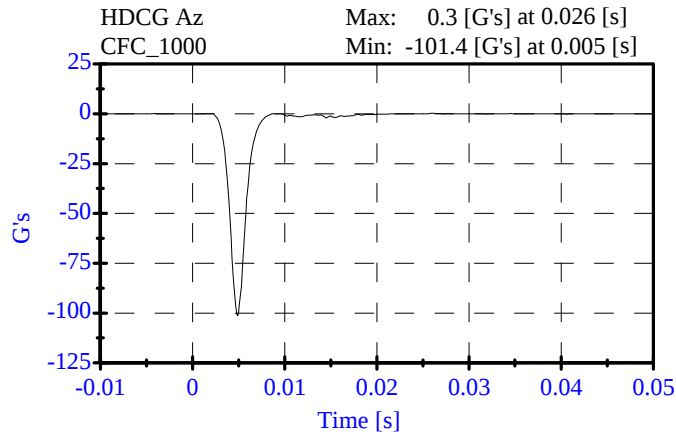
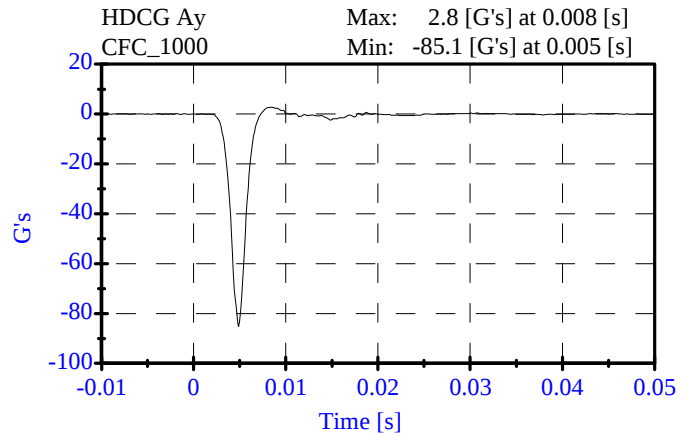
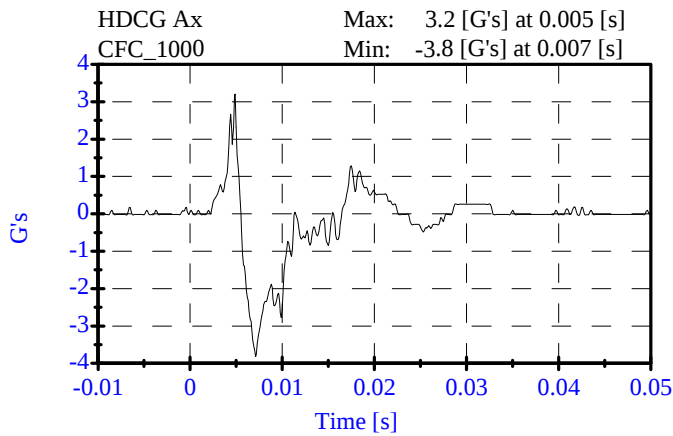


Head Drop Test **Pre-Test** **CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 906
Date: 11-19-09

Sequential Test Number: 1 File: 906SH 11-16-09
Laboratory Technician: A.Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	50.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	132.38 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	3.20 Gs	Passed
Curve PerCent NonModal:	< 15%	2.77 %	Passed



Neck Flexion Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 11-20-09

Sequential Test Number: 1 File: 906N 11-20-09
Laboratory Technician: A. Rudnski

<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 %	42.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.01 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.27 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.55 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.33 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.54 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	68.05 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	76.28 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	53.80 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	8.40 ms	Passed

Neck Flexion Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

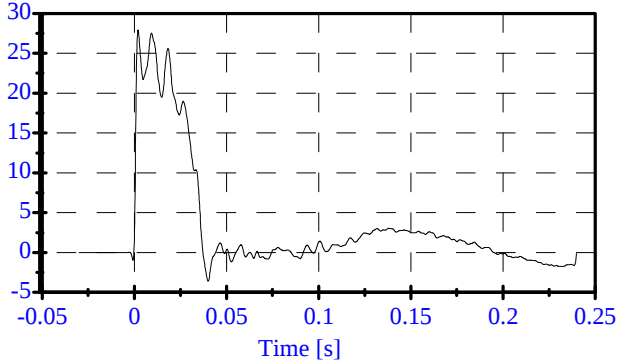
ATD Serial No: 906

Date: 11-20-09

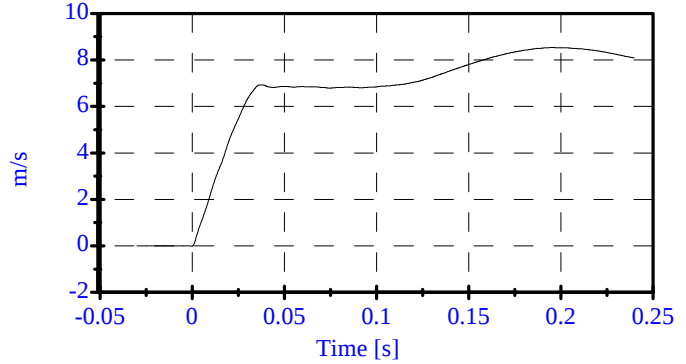
Sequential Test Number: 1 File: 906N 11-20-09

Laboratory Technician: A. Rudniski

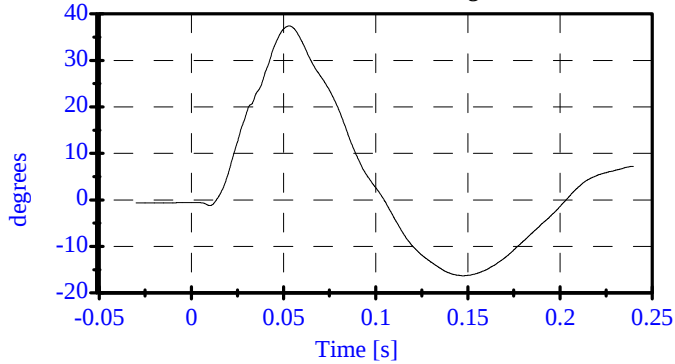
Pend Ax
CFC_180
Max: 28.0 [] at 0.002 [s]
Min: -3.6 [] at 0.040 [s]



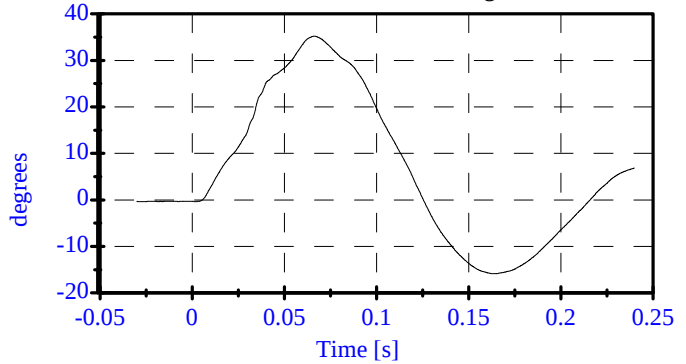
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.195 [s]
Min: -0.0 [m/s] at -0.000 [s]



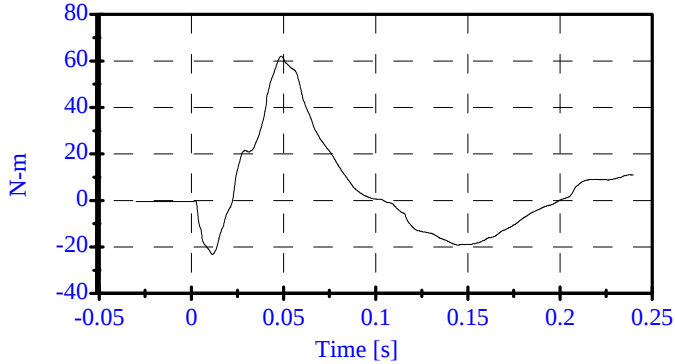
Head Rot
CFC_180
Max: 37.4 [degrees] at 0.053 [s]
Min: -16.3 [degrees] at 0.147 [s]



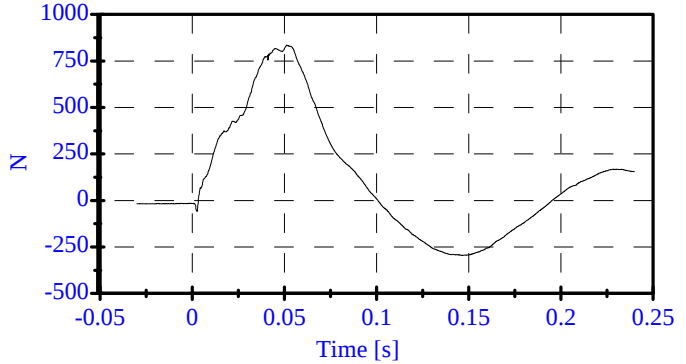
Arm Rot
CFC_180
Max: 35.2 [degrees] at 0.066 [s]
Min: -15.8 [degrees] at 0.164 [s]



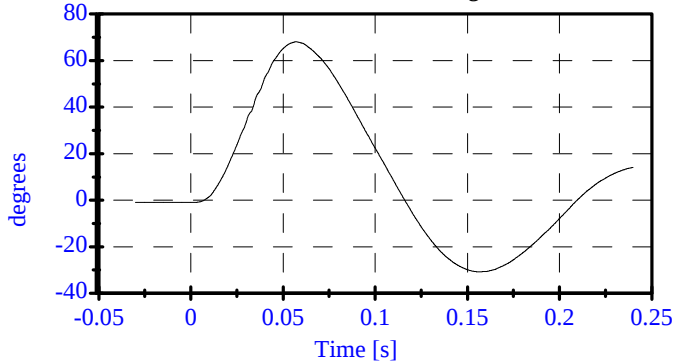
Neck Mx
CFC_600
Max: 62.0 [N-m] at 0.049 [s]
Min: -23.3 [N-m] at 0.012 [s]



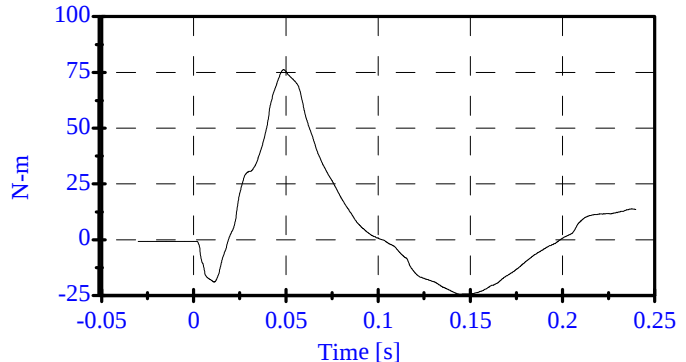
Neck Fy
CFC_1000
Max: 834.4 [N] at 0.051 [s]
Min: -296.7 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 68.0 [degrees] at 0.057 [s]
Min: -30.8 [degrees] at 0.156 [s]



MOCX
Max: 76.3 [N-m] at 0.049 [s]
Min: -24.5 [N-m] at 0.145 [s]



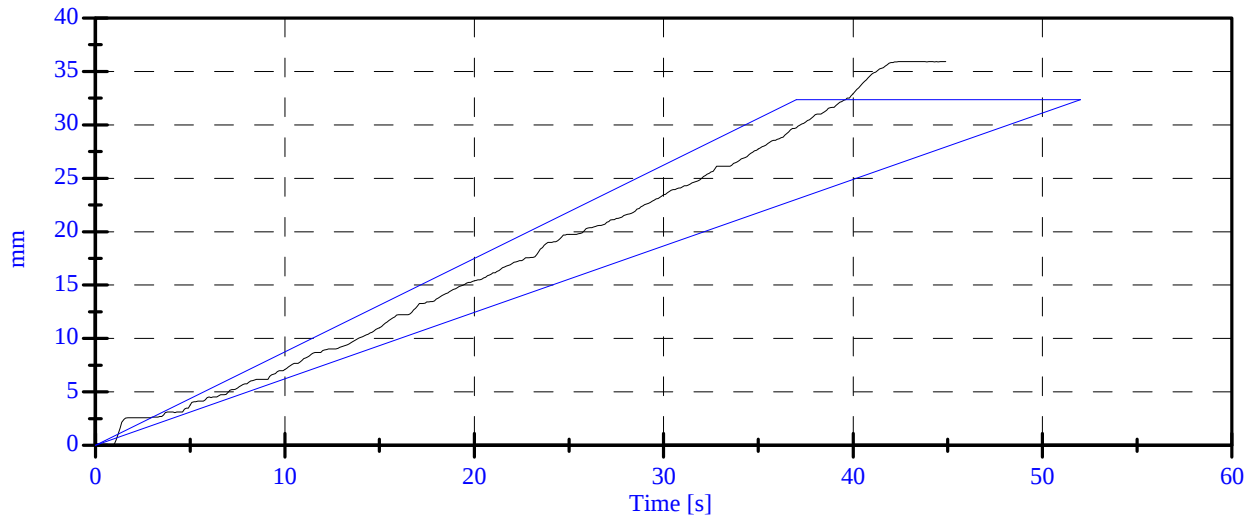
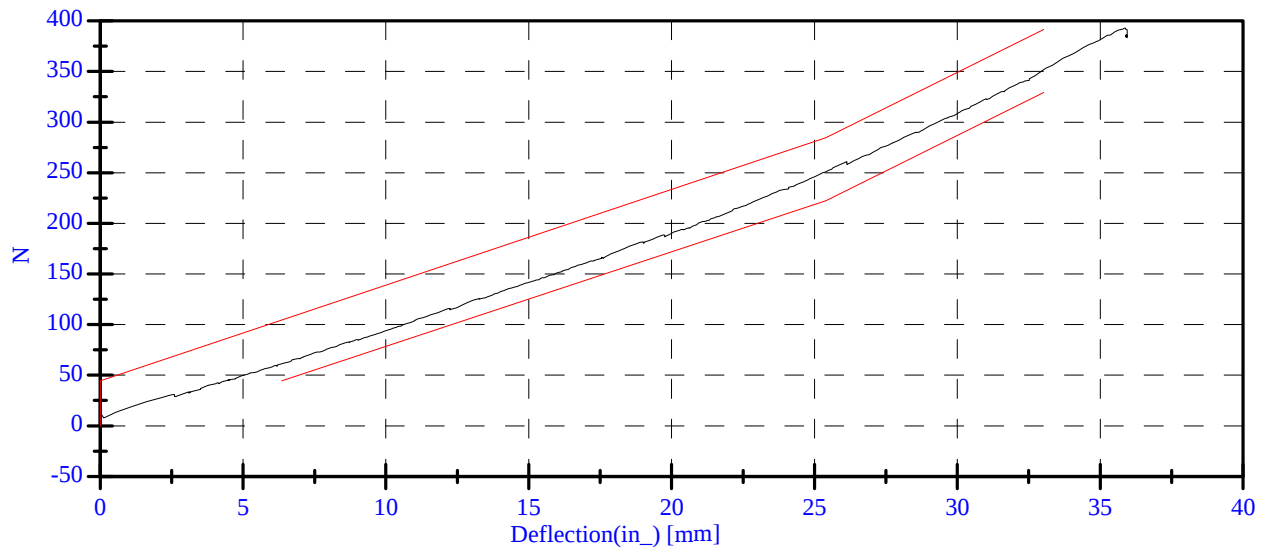
Abdominal Compression Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 11-20-09

Sequential Test Number: 1 File: 906AB 11-20-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	124.28 N	Passed
Force at 19.05 mm :	162.98-220.99 N	180.86 N	Passed
Force at 25.40 mm :	221.97-280.02 N	250.95 N	Passed
Force at 33.02 mm :	324.99-391.00 N	353.16 N	Passed

ABDOMINAL COMPRESSION TEST



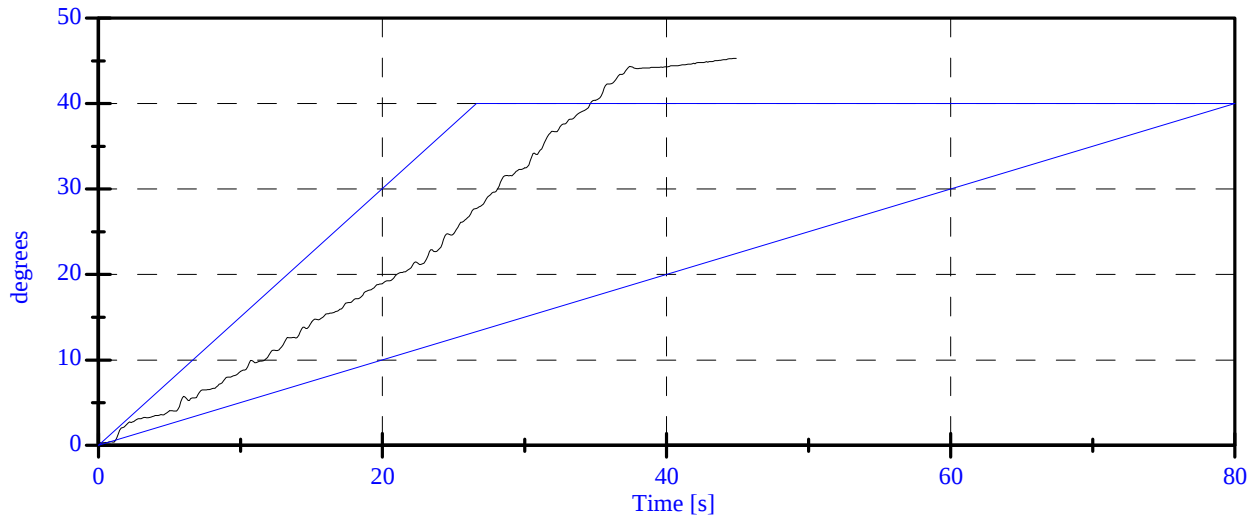
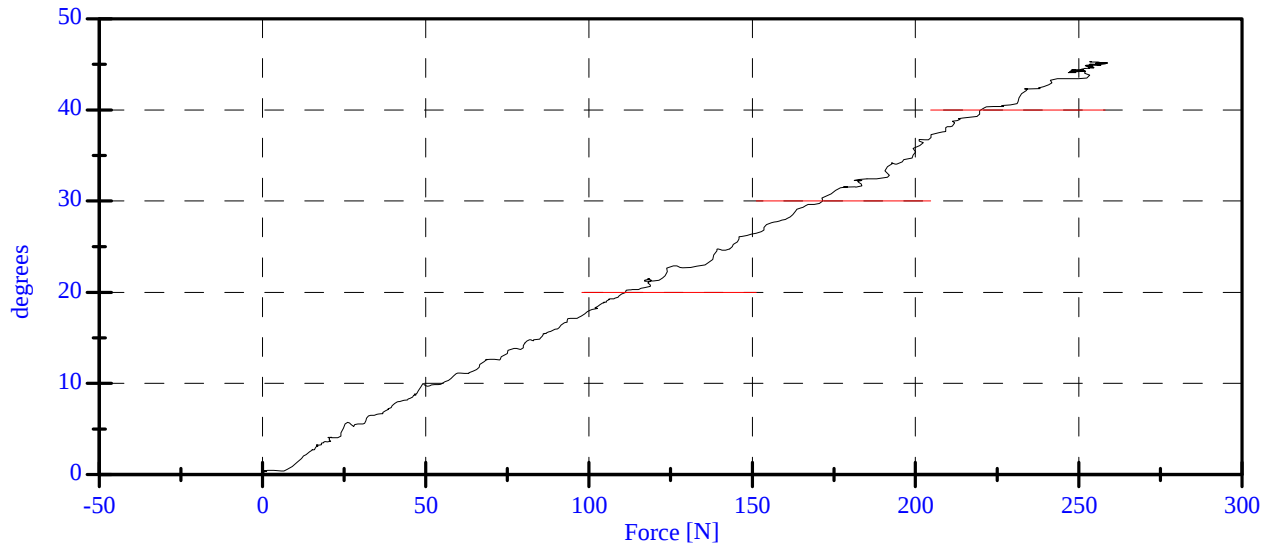
Lumbar Flexion Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 11-20-09

Sequential Test Number: 1 File: 906SP 11-20-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	0.26 N	Passed
Force at 20 Deg:	97.86-151.24 N	111.25 N	Passed
Force at 30 Deg	151.24-204.62 N	171.58 N	Passed
Force at 40 Deg	204.62-258.00 N	219.63 N	Passed
Return Angle	12 Deg Max	9.42 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
 Date: 11/19/09 Laboratory Technician: A. Rudniski

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: 1/11/10	Laboratory Technician: A. Rudniski

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: 1/11/10 Laboratory Technician: A. Rudniski

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	233
KH- Knee Pivot from Back Line (mm)	511 - 526	515
KV- Knee Pivot to Floor (mm)	490 - 505	496
HW- Hip Width (mm)	356 - 391	382

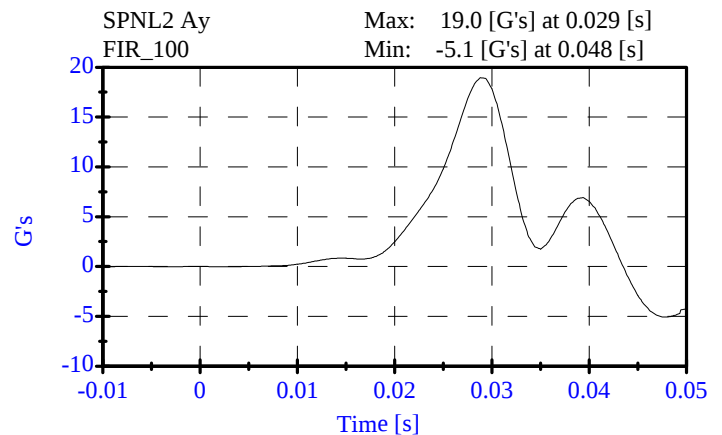
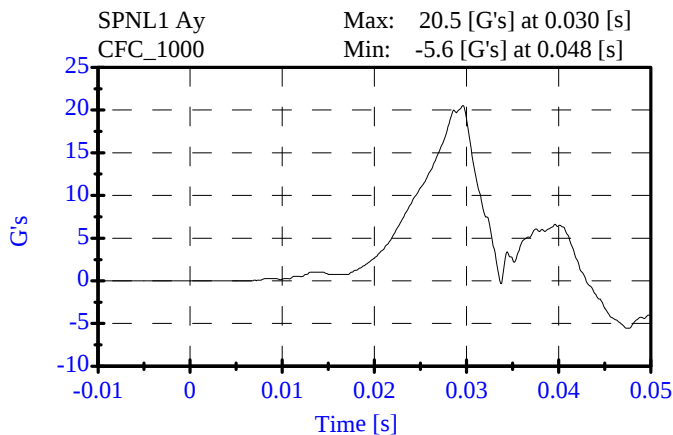
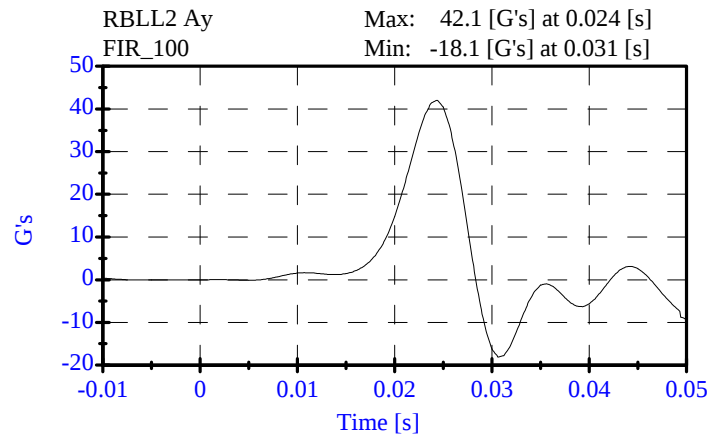
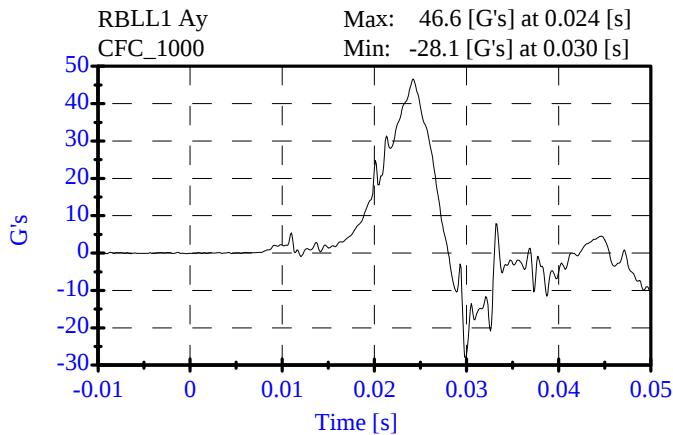
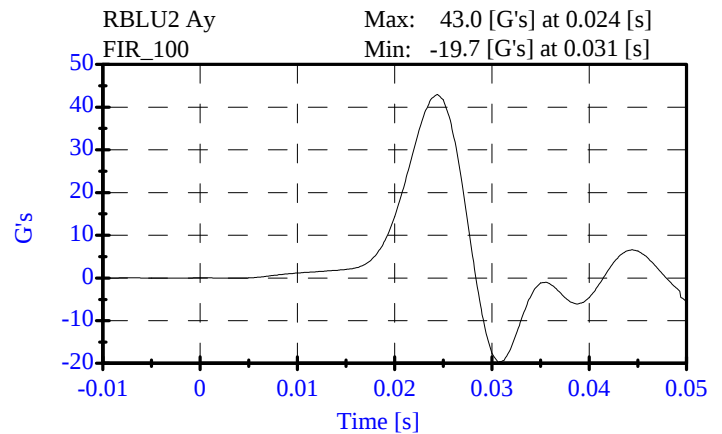
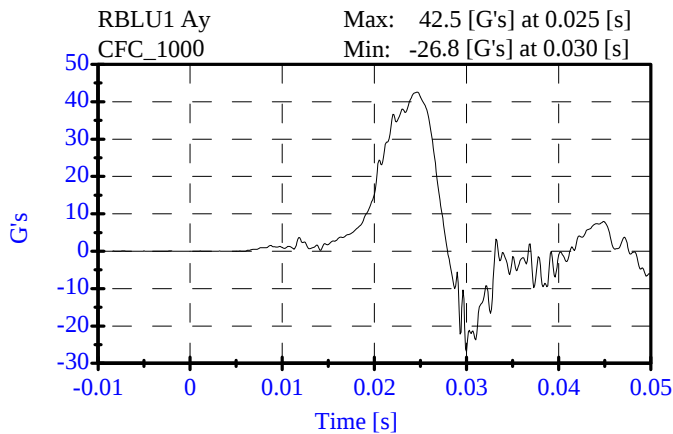
REMARKS: None

Thorax Impact Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 01-08-10

Sequential Test Number: 1 File: 269T 01-7-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	38.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	42.97 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	42.05 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.97 G's	Passed



Pelvic Impact Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

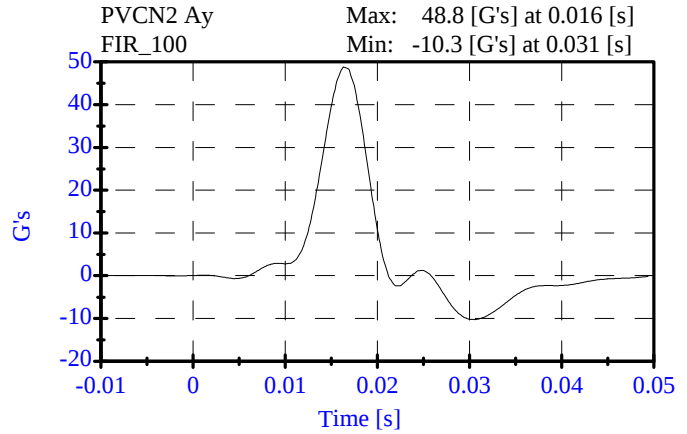
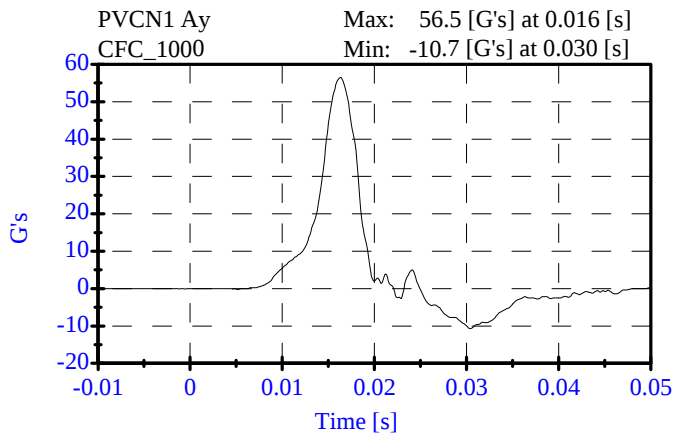
ATD Serial No: 269

Date: 01-08-10

Sequential Test Number: 1 File: 269P 01-8-09

Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	39.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	48.80 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.9 ms	Passed

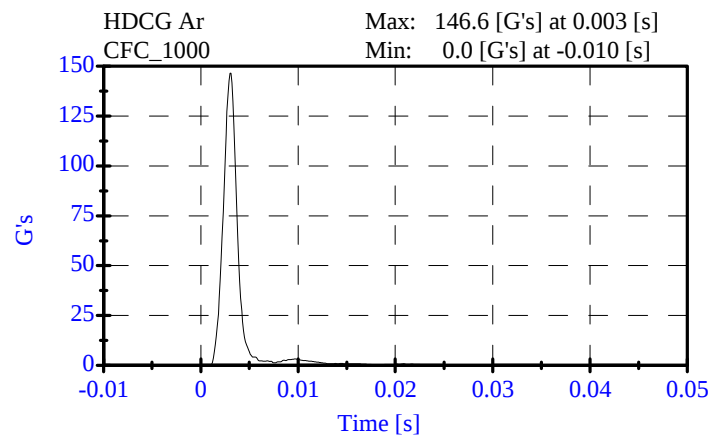
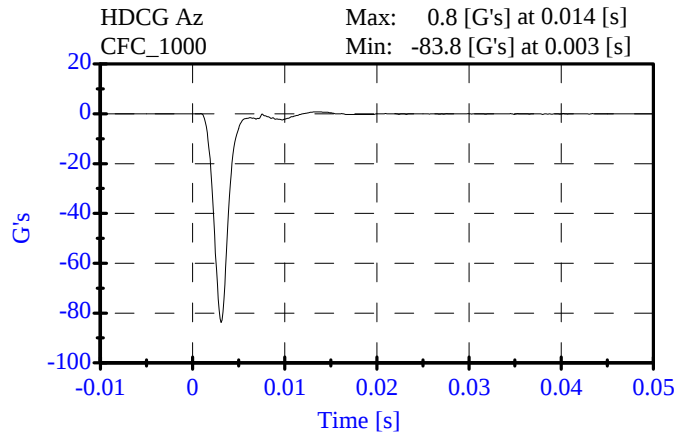
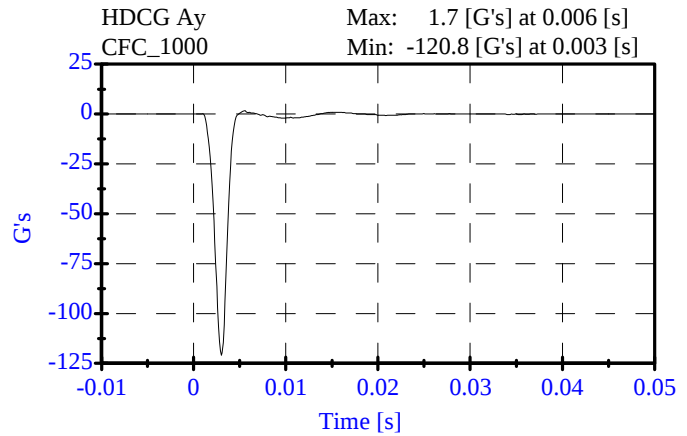
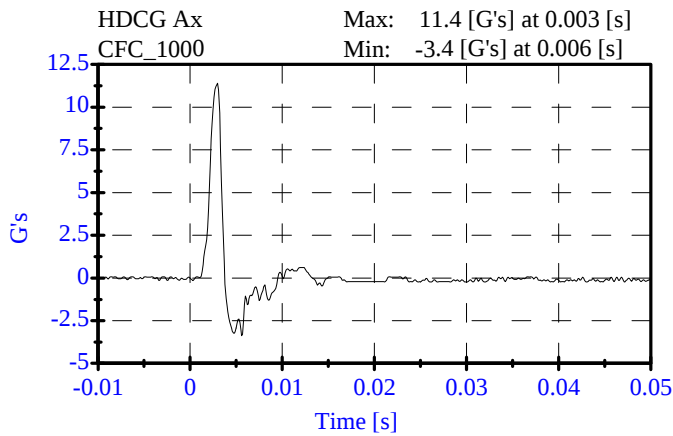


Head Drop Test **Post-Test** **CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 269
Date: 1-5-2010

Sequential Test Number: 1 File: 269H 01-5-09
Laboratory Technician: A.Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	26.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	146.57 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	11.40 Gs	Passed
Curve PerCent NonModal:	< 15%	2.93 %	Passed



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

ATD Serial No: 269

Sequential Test Number: 1 File: 269N 01-7-09

Date: 01-07-10

Laboratory Technician: A. Rudnski

<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 %	35.00 %	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	2.25 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.55 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.27 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.60 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	65.87 Deg	Failed
Rotation Angle Decay:	58.0-67.0 ms	60.40 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	90.67 N-m	Failed
Occipital Moment Decay:	49.0-64.0 ms	51.60 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	9.40 ms	Passed

Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

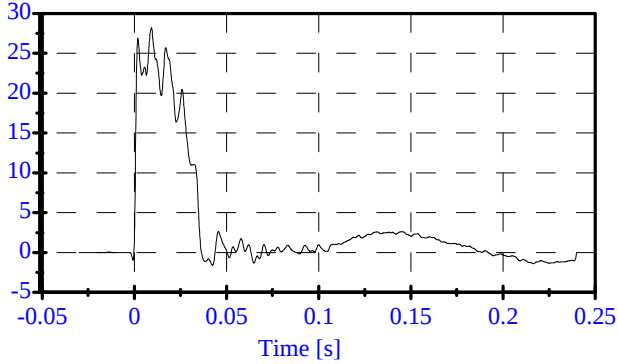
ATD Serial No: 269

Date: 01-07-10

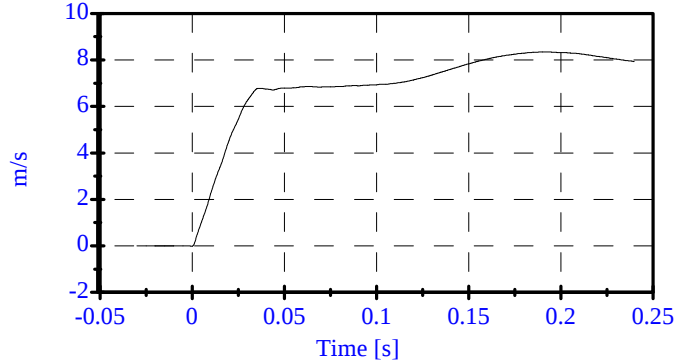
Sequential Test Number: 1 File: 269N 01-7-09

Laboratory Technician: A. Rudniski

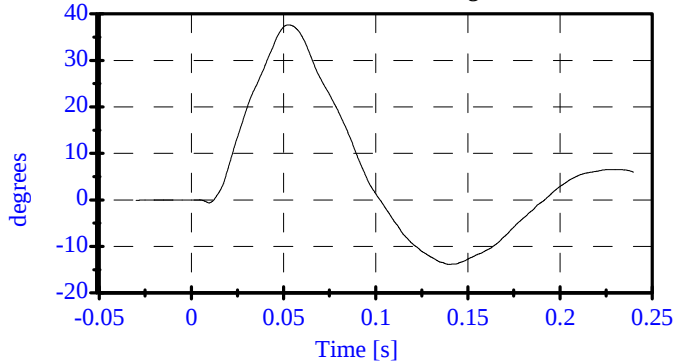
Pend Ax
CFC_180
Max: 28.2 [] at 0.009 [s]
Min: -1.6 [] at 0.042 [s]



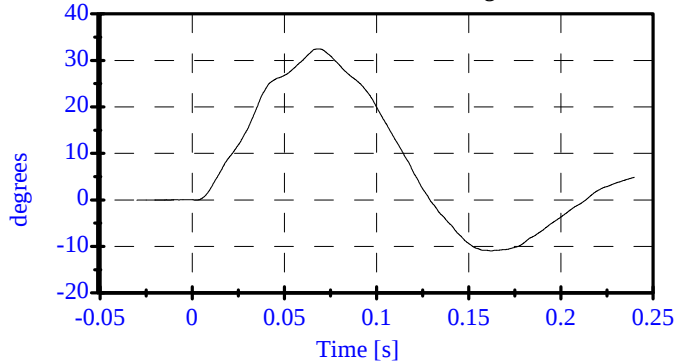
Pend Vx
CFC_180
Max: 8.3 [m/s] at 0.192 [s]
Min: -0.0 [m/s] at -0.000 [s]



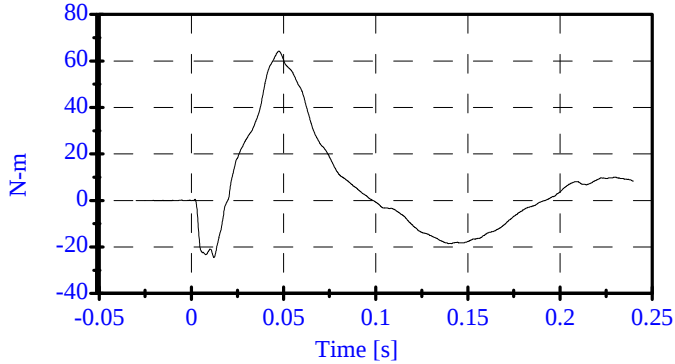
Head Rot
CFC_180
Max: 37.7 [degrees] at 0.053 [s]
Min: -13.9 [degrees] at 0.140 [s]



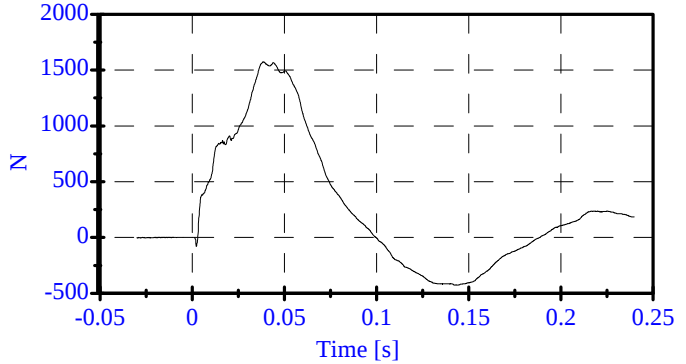
Arm Rot
CFC_180
Max: 32.5 [degrees] at 0.069 [s]
Min: -10.9 [degrees] at 0.162 [s]



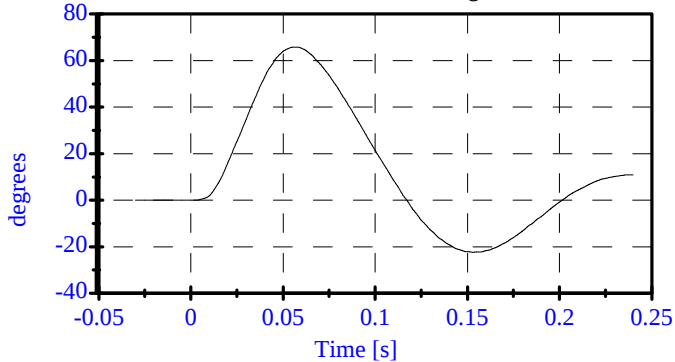
Neck Mx
CFC_600
Max: 64.3 [N-m] at 0.048 [s]
Min: -24.5 [N-m] at 0.012 [s]



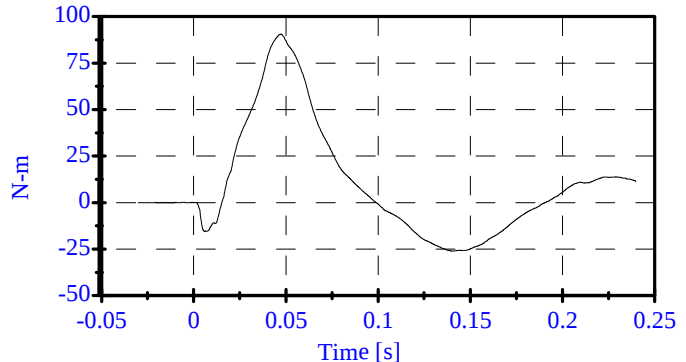
Neck Fy
CFC_1000
Max: 1575.5 [N] at 0.038 [s]
Min: -426.7 [N] at 0.144 [s]



Tot Rot
CFC_180
Max: 65.9 [degrees] at 0.057 [s]
Min: -22.4 [degrees] at 0.153 [s]



MOCX
Max: 90.7 [N-m] at 0.047 [s]
Min: -26.0 [N-m] at 0.141 [s]



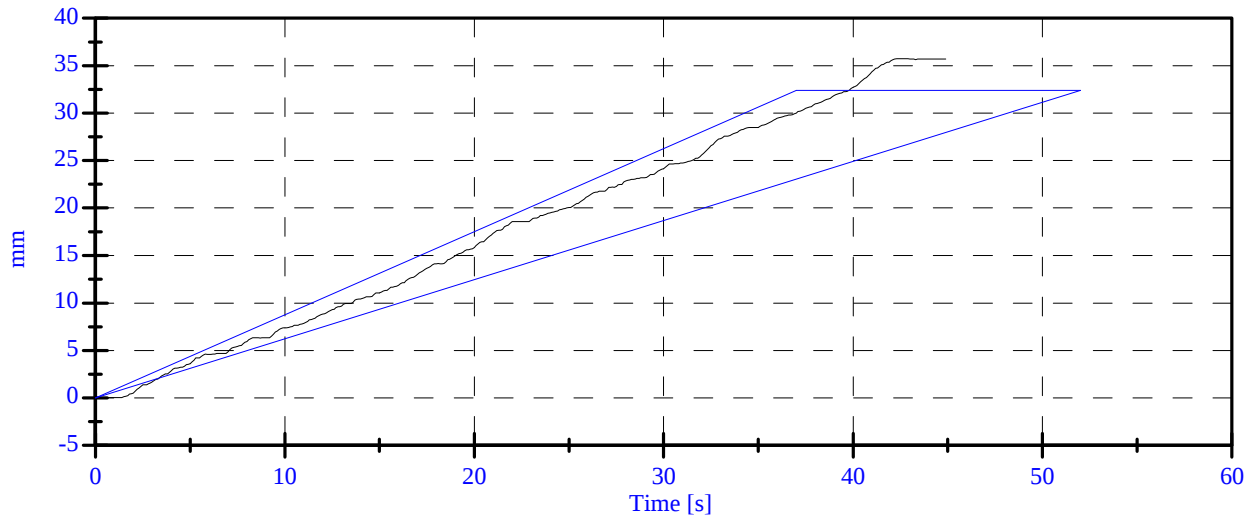
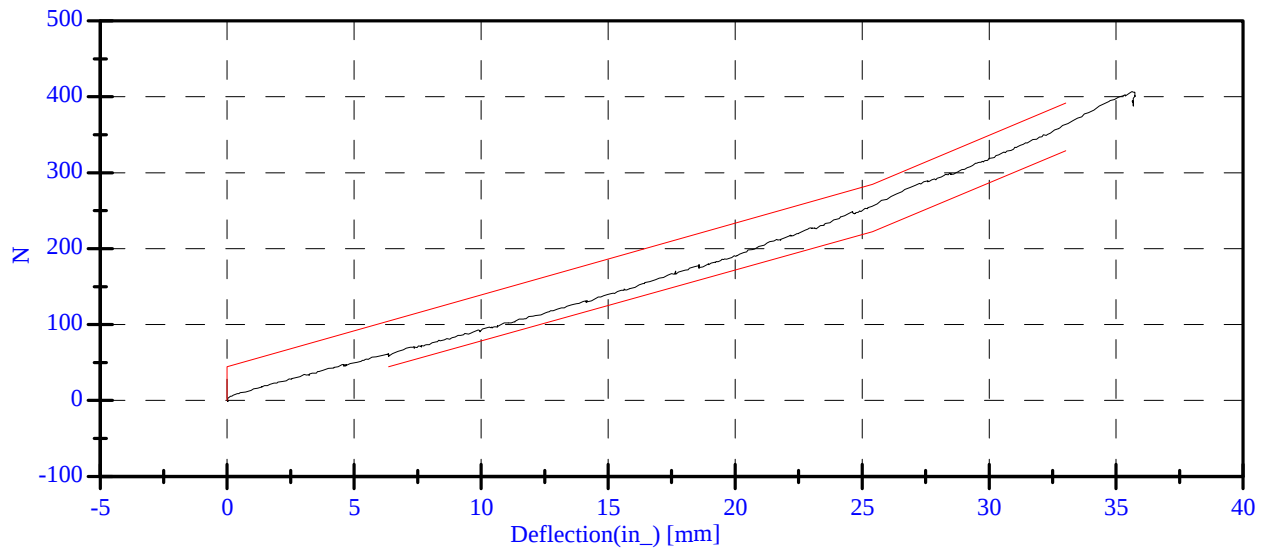
Abdominal Compression Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 01-11-10

Sequential Test Number: 1 File: 269AB 01-11-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	38.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	120.26 N	Passed
Force at 19.05 mm :	162.98-220.99 N	181.22 N	Passed
Force at 25.40 mm :	221.97-280.02 N	255.69 N	Passed
Force at 33.02 mm :	324.99-391.00 N	364.84 N	Passed

ABDOMINAL COMPRESSION TEST



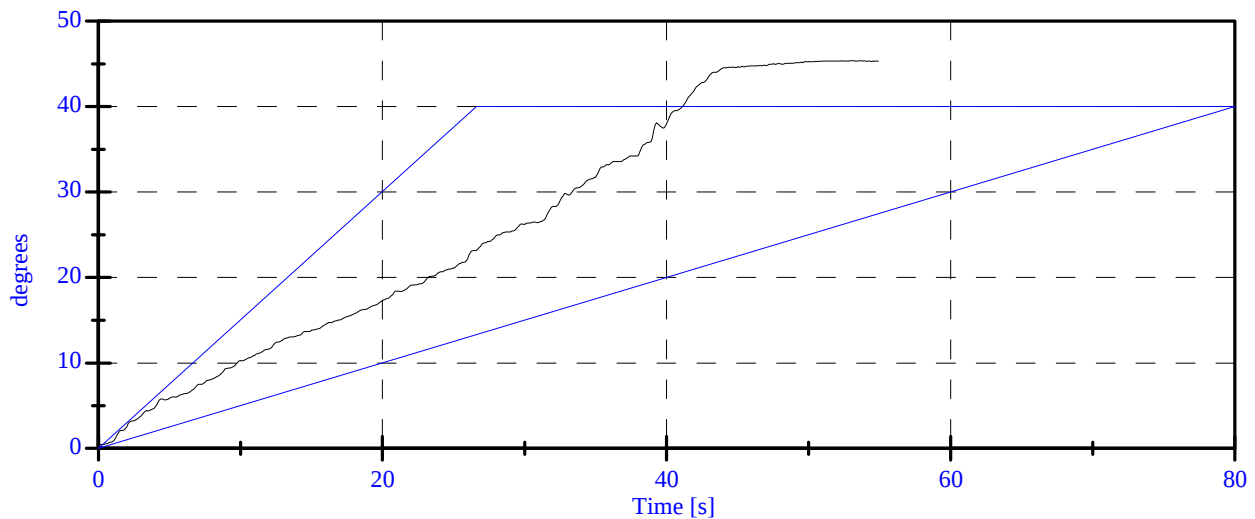
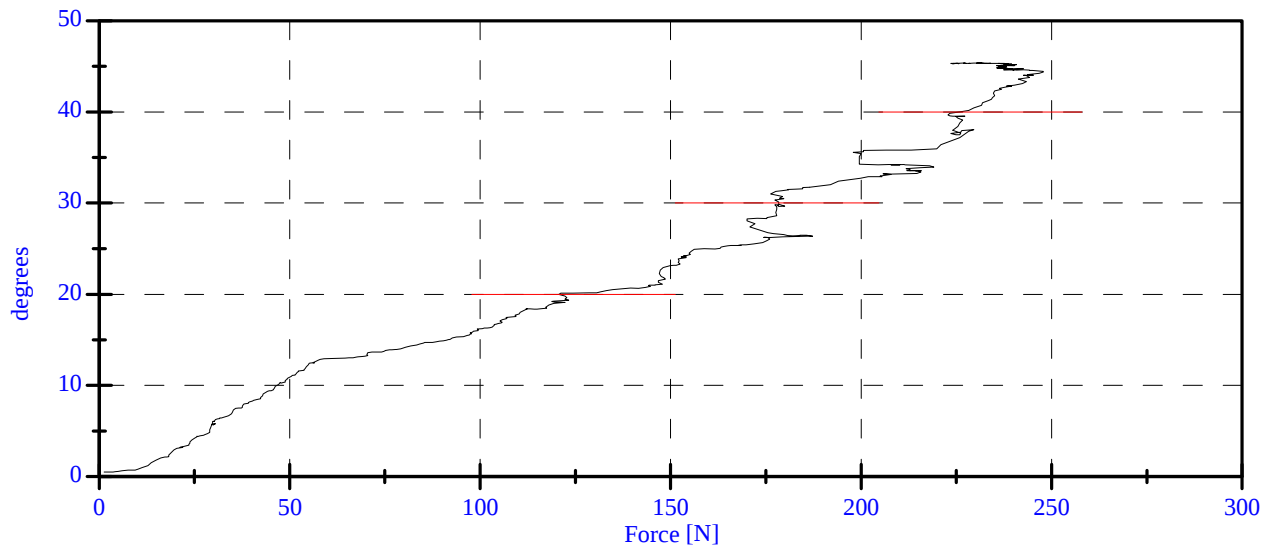
Lumbar Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 01-11-10

Sequential Test Number: 1 File: 269SP 01-11-09
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	39.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	1.30 N	Passed
Force at 20 Deg:	97.86-151.24 N	120.65 N	Passed
Force at 30 Deg:	151.24-204.62 N	178.37 N	Passed
Force at 40 Deg:	204.62-258.00 N	225.64 N	Passed
Return Angle	12 Deg Max	9.24 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: 1/5/10 Laboratory Technician: A. Rudniski

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.: 906

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 1/11/10 Laboratory Technician: A. Rudniski

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.: 906 Sequential Test Number: 1
Date: 1/8/10 Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	238
KH- Knee Pivot from Back Line (mm)	511 - 526	520
KV- Knee Pivot to Floor (mm)	490 - 505	492
HW- Hip Width (mm)	356 - 391	383

REMARKS: None

Thorax Impact Test

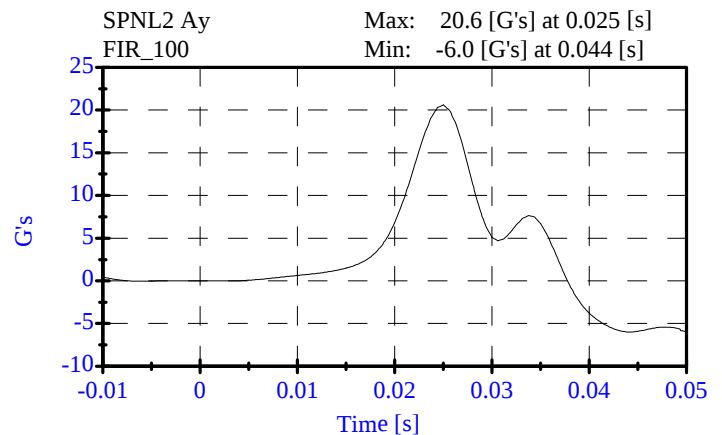
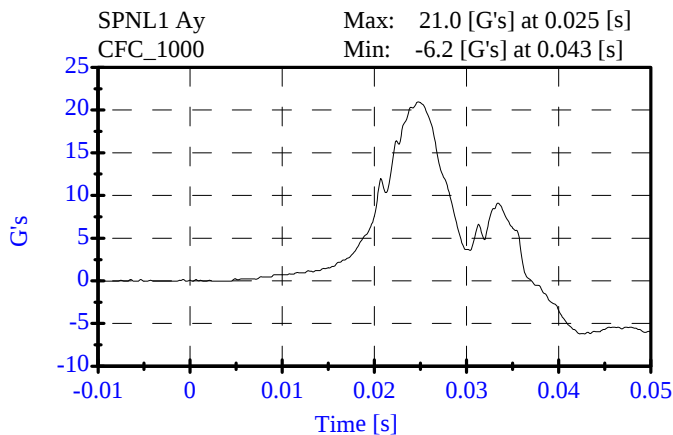
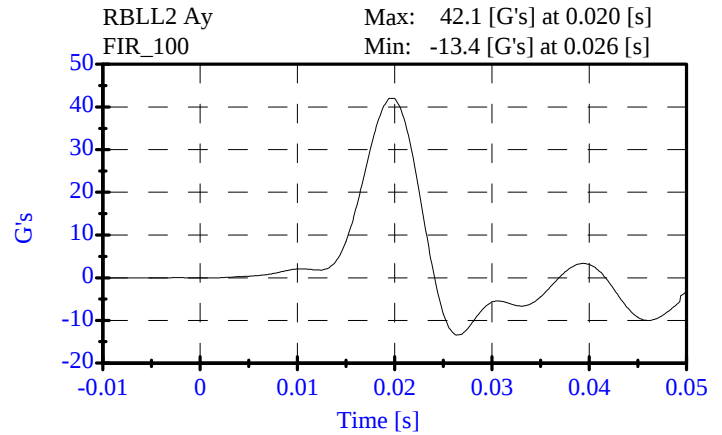
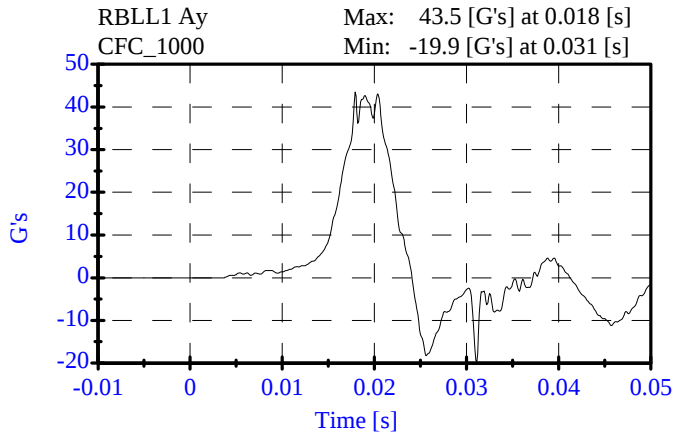
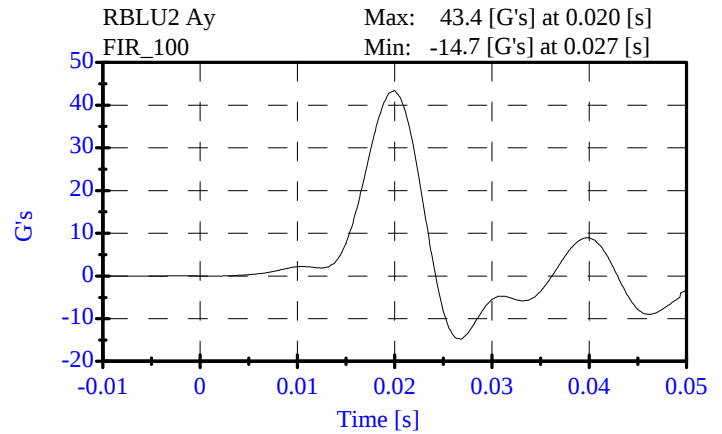
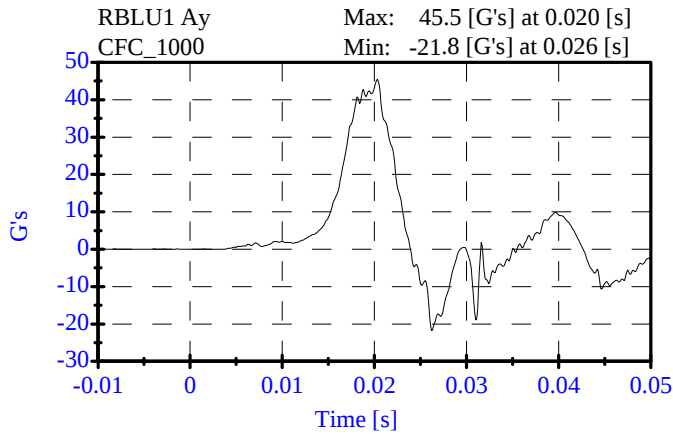
Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 01-08-10

Sequential Test Number: 1 File: 906T 01-08-10
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	43.44 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	42.06 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.59 G's	Passed



Pelvic Impact Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

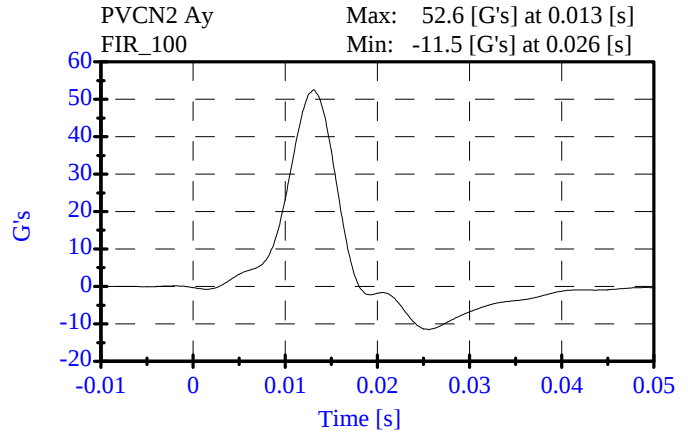
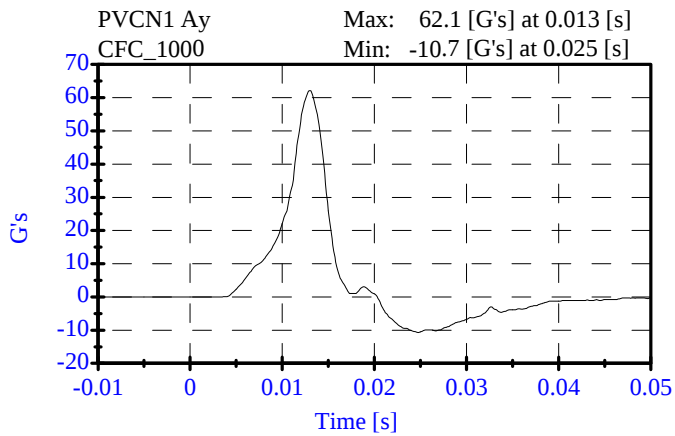
ATD Serial No: 906

Date: 01-08-10

Sequential Test Number: 1 File: 906P 01-08-10

Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	38.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	52.61 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.4 ms	Passed



Head Drop Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

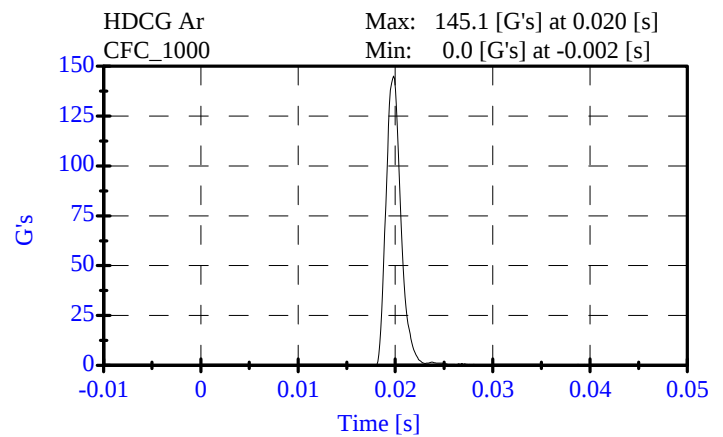
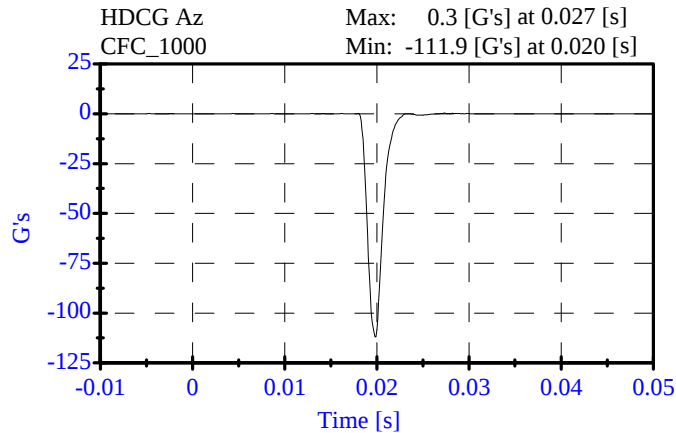
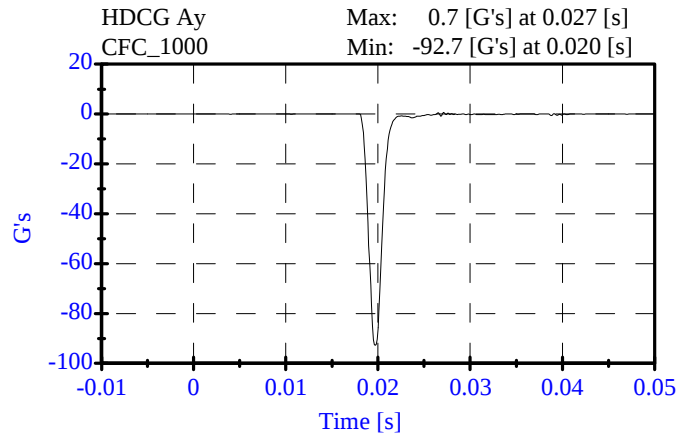
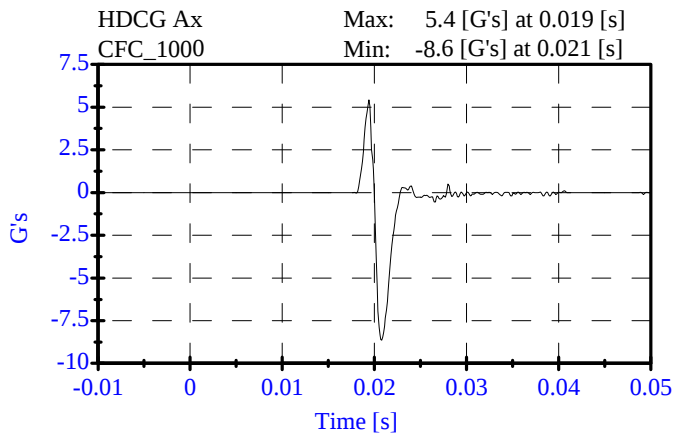
ATD Serial No: 906

Date: 01-07-10

Sequential Test Number: 1 File: 906H2 01-07-10

Laboratory Technician: A.Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	145.06 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	5.42 Gs	Passed
Curve PerCent NonModal:	< 15%	1.05 %	Passed



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

ATD Serial No: 906

Date: 01-08-10

Sequential Test Number: 1 File: 906N 01-08-10

Laboratory Technician: A. Rudnski

<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 %	36.00 %	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	2.48 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.93 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.85 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.49 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	70.14 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.50 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 Nm	88.28 Nm	Failed
Occipital Moment Decay:	49.0-64.0 ms	52.00 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	7.00 ms	Passed

Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

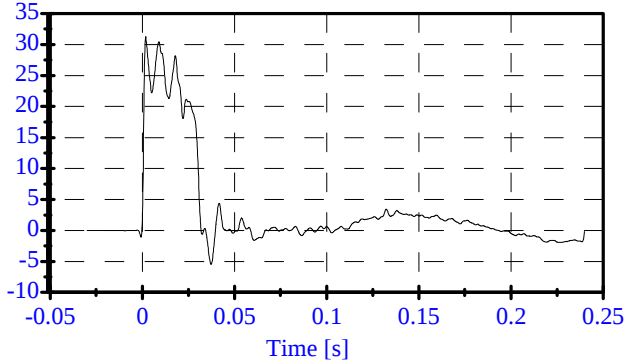
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Date: 01-08-10

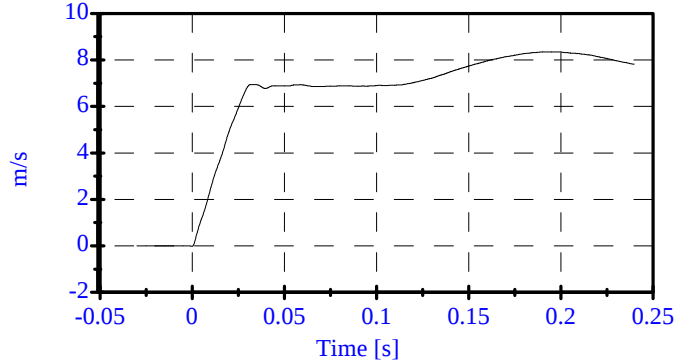
Sequential Test Number: 1 File: 906N 01-08-10

Laboratory Technician: A. Rudniski

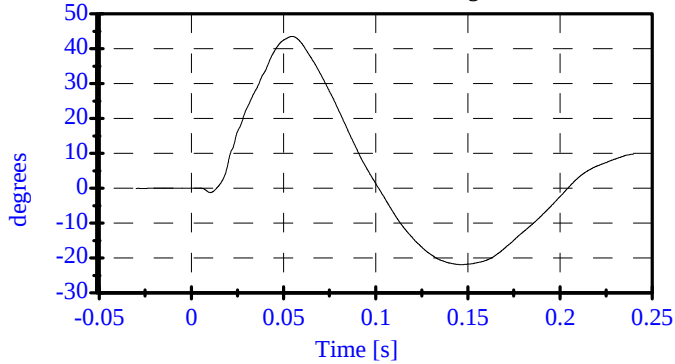
Pend Ax
CFC_180
Max: 31.3 [] at 0.002 [s]
Min: -5.5 [] at 0.037 [s]



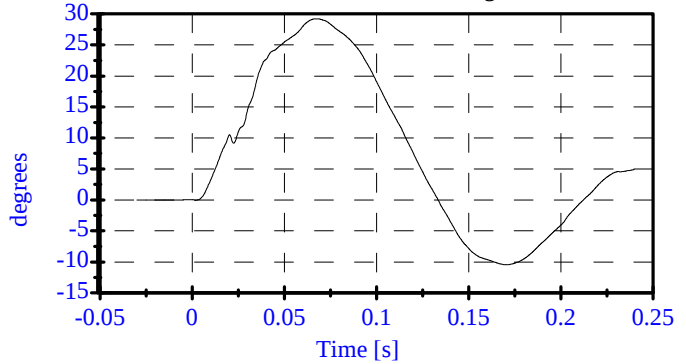
Pend Vx
CFC_180
Max: 8.3 [m/s] at 0.193 [s]
Min: -0.0 [m/s] at -0.000 [s]



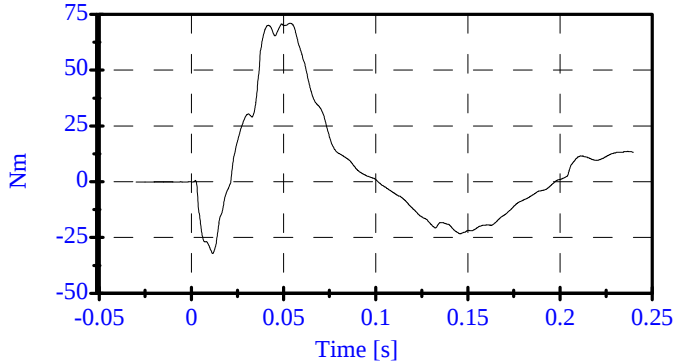
Head Rot
CFC_180
Max: 43.6 [degrees] at 0.055 [s]
Min: -21.8 [degrees] at 0.147 [s]



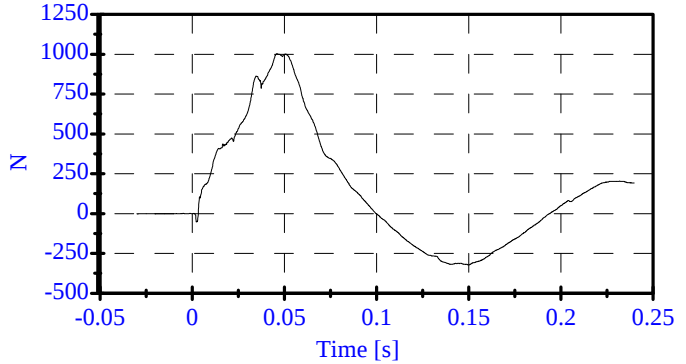
Arm Rot
CFC_180
Max: 29.2 [degrees] at 0.067 [s]
Min: -10.4 [degrees] at 0.170 [s]



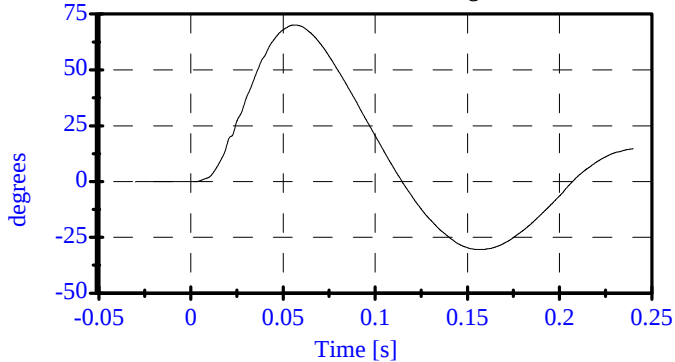
Neck Mx
CFC_600
Max: 71.0 [Nm] at 0.053 [s]
Min: -32.1 [Nm] at 0.012 [s]



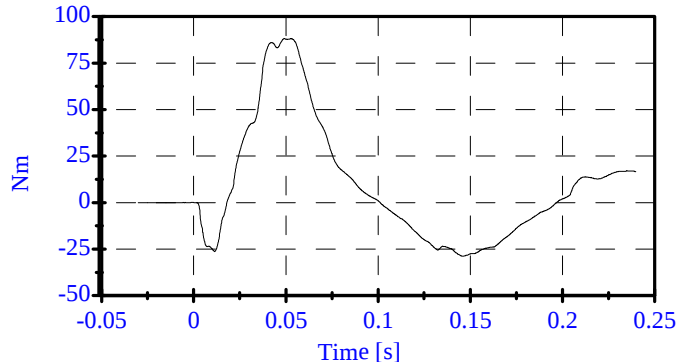
Neck Fy
CFC_1000
Max: 1003.1 [N] at 0.046 [s]
Min: -320.5 [N] at 0.150 [s]



Tot Rot
CFC_180
Max: 70.1 [degrees] at 0.056 [s]
Min: -30.4 [degrees] at 0.157 [s]



MOCX
Max: 88.3 [Nm] at 0.049 [s]
Min: -28.8 [Nm] at 0.146 [s]



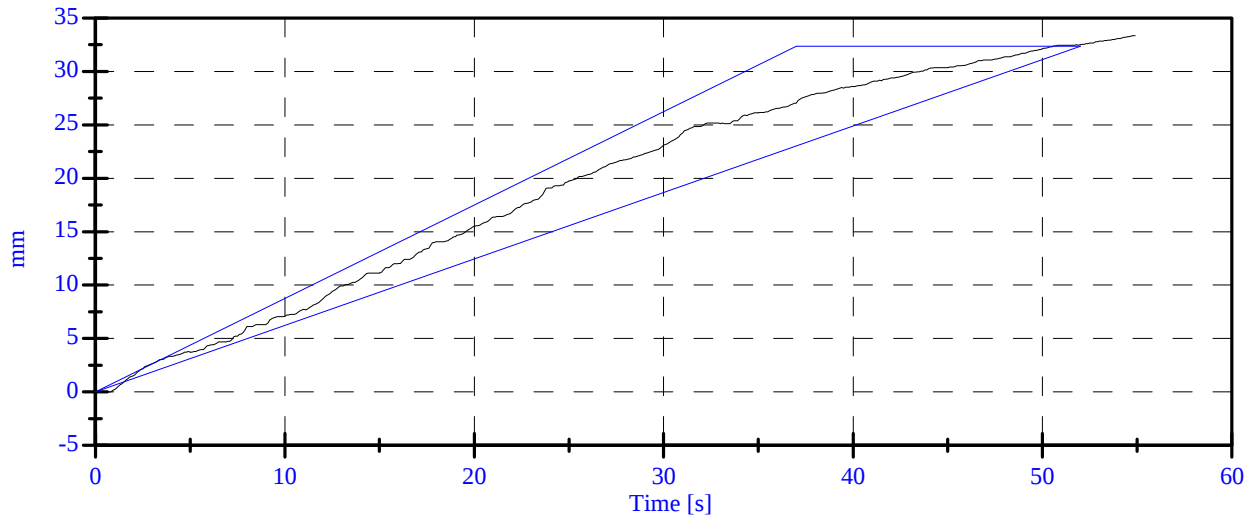
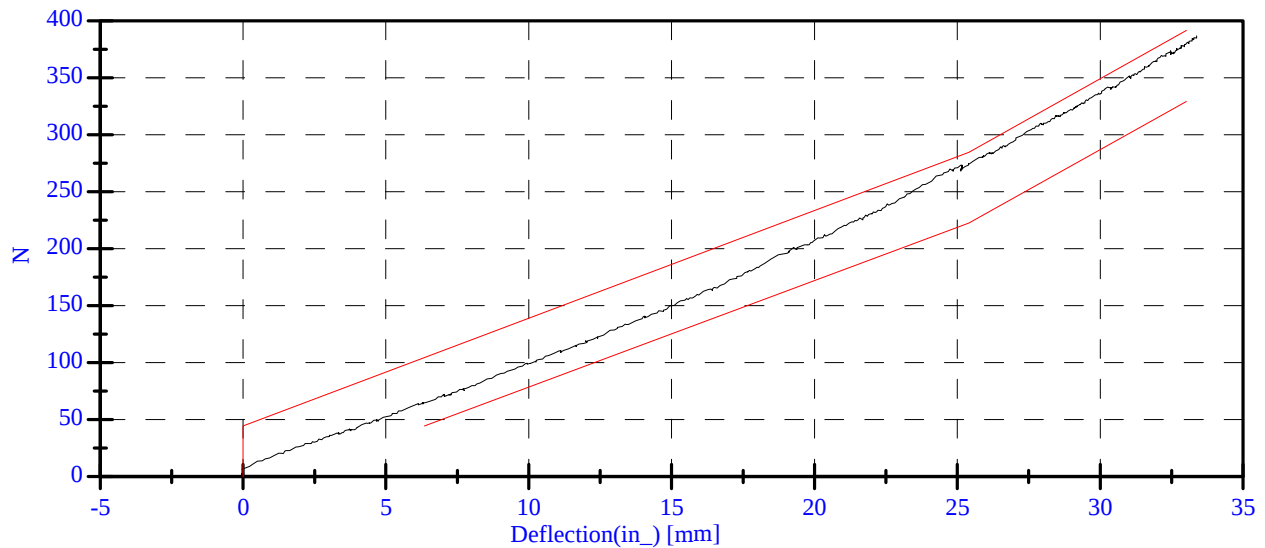
Abdominal Compression Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 01-11-10

Sequential Test Number: 1 File: 906AB 01-11-10
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	37.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	128.66 N	Passed
Force at 19.05 mm :	162.98-220.99 N	196.19 N	Passed
Force at 25.40 mm :	221.97-280.02 N	273.21 N	Passed
Force at 33.02 mm :	324.99-391.00 N	379.08 N	Passed

ABDOMINAL COMPRESSION TEST



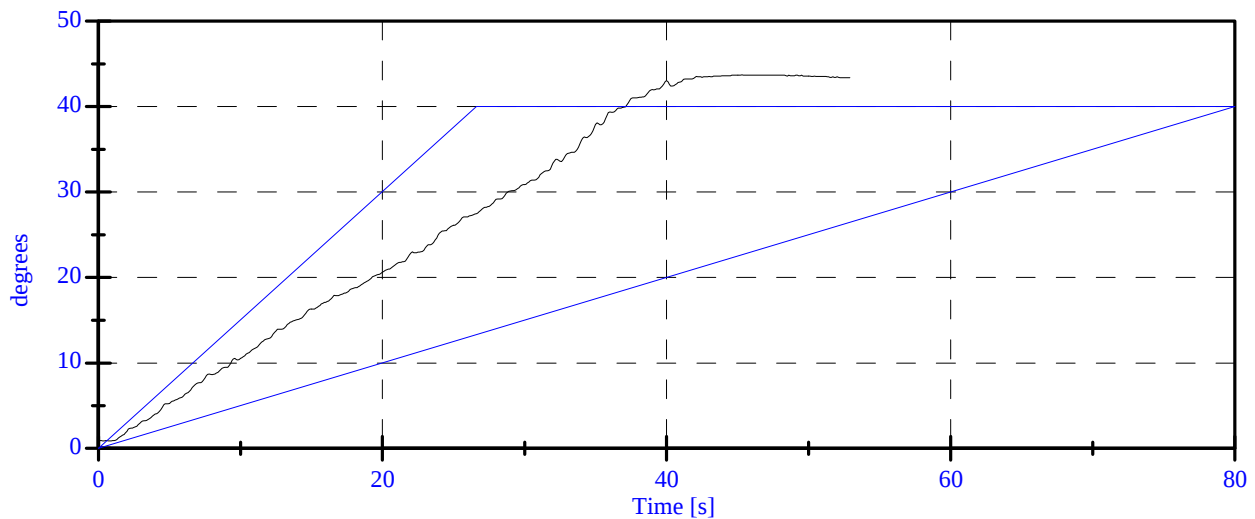
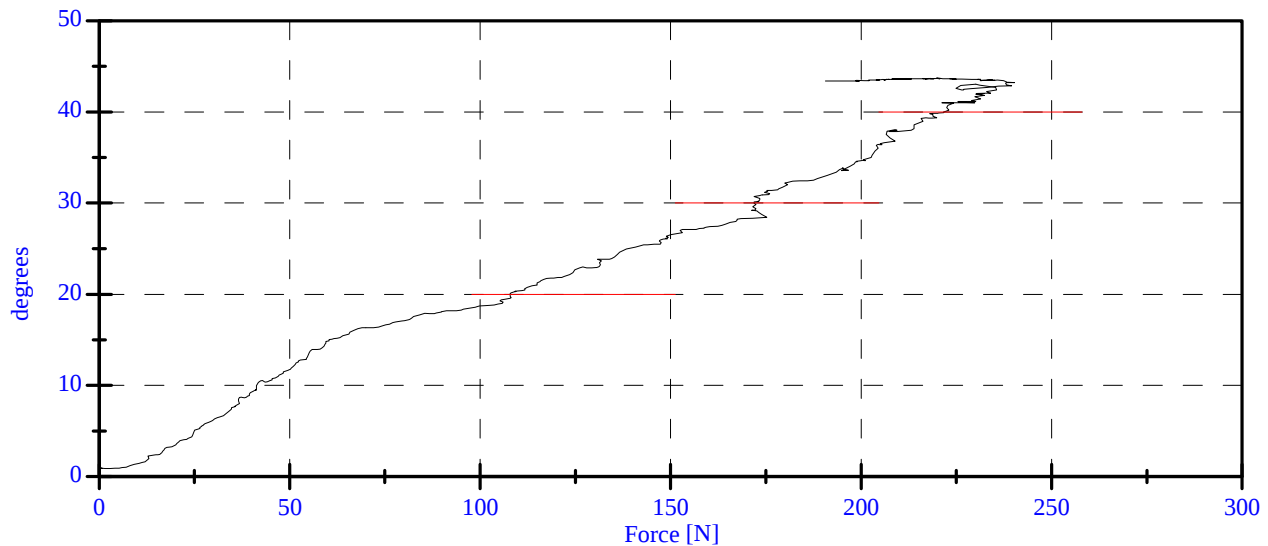
Lumbar Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 01-11-10

Sequential Test Number: 1 File: 906SP 01-11-10
Laboratory Technician: A. Rudniski

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	39.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	0.52 N	Passed
Force at 20 Deg:	97.86-151.24 N	107.85 N	Passed
Force at 30 Deg	151.24-204.62 N	171.84 N	Passed
Force at 40 Deg	204.62-258.00 N	221.72 N	Passed
Return Angle	12 Deg Max	9.95 deg	Passed

LUMBAR SPINE FLEXION TEST



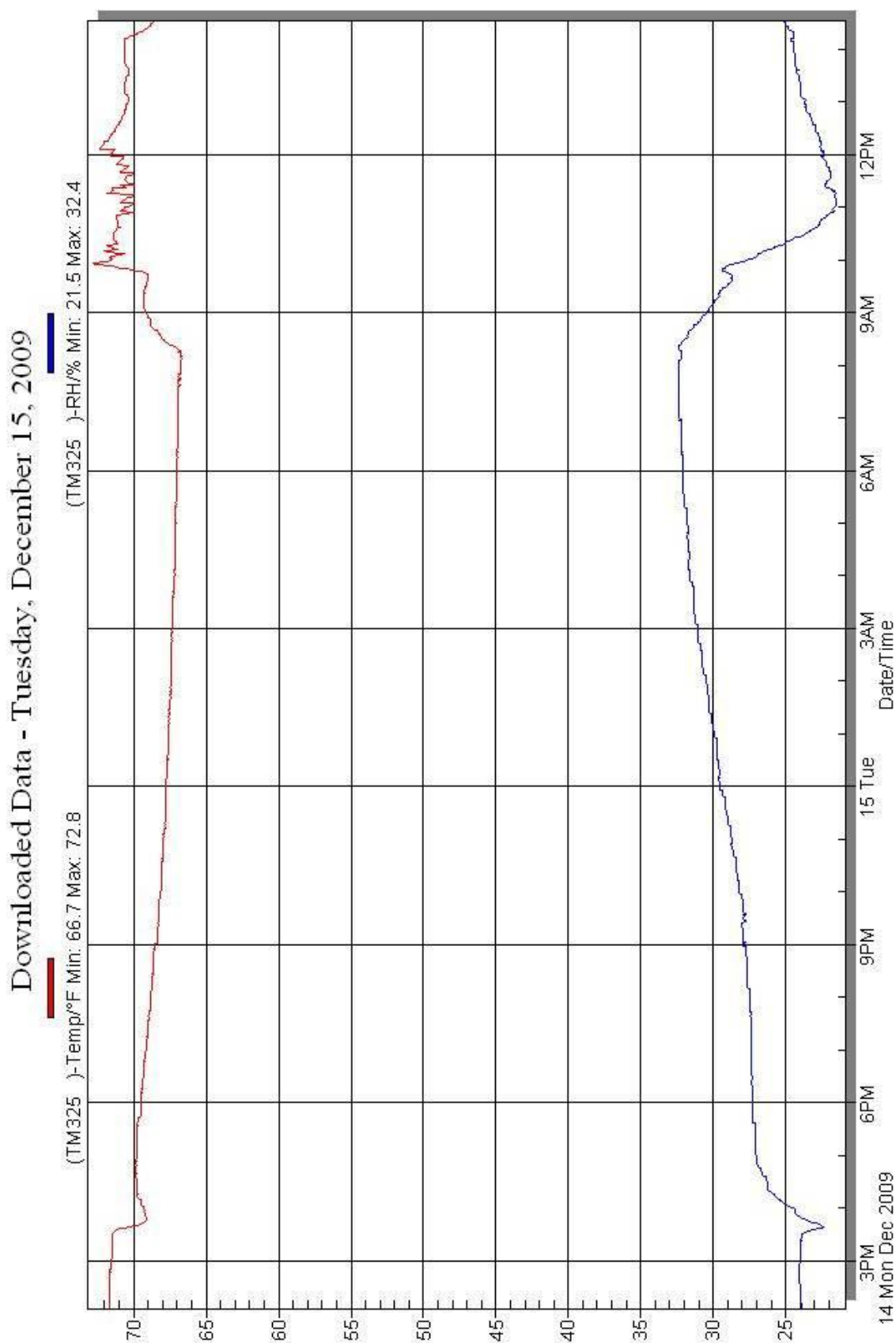
POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
 Date: 1/11/10 Laboratory Technician: A. Rudniski

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



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	27-Jul-09
HEAD AY	AC-P52095	ENDEVCO	27-Jul-09
HEAD AZ	AC-P58986	ENDEVCO	27-Jul-09
HEAD AX (Redundant)	AC-P58908	ENDEVCO	27-Jul-09
HEAD AY (Redundant)	AC-P59021	ENDEVCO	27-Jul-09
HEAD AZ (Redundant)	AC-P58794	ENDEVCO	27-Jul-09
UPPER NECK FX	LC-810Fx	DENTON	08-Dec-09
UPPER NECK FY	LC-810Fy	DENTON	08-Dec-09
UPPER NECK FZ	LC-810Fz	DENTON	08-Dec-09
UPPER NECK MX	LC-810Mx	DENTON	08-Dec-09
UPPER NECK MY	LC-810My	DENTON	08-Dec-09
UPPER NECK MZ	LC-810Mz	DENTON	08-Dec-09
UPPER RIB	AC-P49192	ENDEVCO	27-Jul-09
LOWER RIB	AC-P51734	ENDEVCO	27-Jul-09
LOWER SPINE	AC-P51689	ENDEVCO	27-Jul-09
PELVIS	AC-P58762	ENDEVCO	27-Jul-09
UPPER RIB REDUNDANT	AC-P51713	ENDEVCO	27-Jul-09
LOWER RIB REDUNDANT	AC-P59020	ENDEVCO	27-Jul-09
LOWER SPINE REDUNDANT	AC-P58776	ENDEVCO	27-Jul-09
PELVIS REDUNDANT	AC-P58905	ENDEVCO	27-Jul-09

	REAR SID/HIII NO.: 906		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-J24876	ENDEVCO	23-Sep-09
HEAD AY	AC-J14687	ENDEVCO	18-Sep-09
HEAD AZ	AC-AJ7M2	ENDEVCO	18-Sep-09
HEAD AX (Redundant)	AC-P51698	ENDEVCO	18-Sep-09
HEAD AY (Redundant)	AC-J23759	ENDEVCO	18-Sep-09
HEAD AZ (Redundant)	AC-J32099	ENDEVCO	18-Sep-09
UPPER NECK FX	LC-280Fx	DENTON	28-May-09
UPPER NECK FY	LC-280Fy	DENTON	28-May-09
UPPER NECK FZ	LC-280Fz	DENTON	28-May-09
UPPER NECK MX	LC-280Mx	DENTON	28-May-09
UPPER NECK MY	LC-280My	DENTON	28-May-09
UPPER NECK MZ	LC-280Mz	DENTON	28-May-09
UPPER RIB	AC-J32365	ENDEVCO	23-Sep-09
LOWER RIB	AC-J36648	ENDEVCO	23-Sep-09
LOWER SPINE	AC-AJ5P0	ENDEVCO	23-Sep-09
PELVIS	AC-J23805	ENDEVCO	23-Sep-09
UPPER RIB REDUNDANT	AC-J18742	ENDEVCO	23-Sep-09
LOWER RIB REDUNDANT	AC-J19338	ENDEVCO	23-Sep-09
LOWER SPINE REDUNDANT	AC-J19561	ENDEVCO	23-Sep-09
PELVIS REDUNDANT	AC-J27464	ENDEVCO	23-Sep-09

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-P17283	ENDEVCO	25-Sep-09
RIGHT FRONT SILL (Y)	AC-P23939	ENDEVCO	25-Sep-09
RIGHT FRONT SILL (Z)	AC-P23993	ENDEVCO	25-Sep-09
RIGHT REAR SILL (X)	AC-P35811	ENDEVCO	25-Sep-09
RIGHT REAR SILL (Y)	AC-P35789	ENDEVCO	25-Sep-09
RIGHT REAR SILL (Z)	AC-P35803	ENDEVCO	25-Sep-09
REAR FLOORPAN ABOVE AXLE (X)	AC-P23885	ENDEVCO	04-Nov-09
REAR FLOORPAN ABOVE AXLE (Y)	AC-P16671	ENDEVCO	25-Sep-09
REAR FLOORPAN ABOVE AXLE (Z)	AC-P32288	ENDEVCO	25-Sep-09
LEFT REAR SILL (Y)	AC-P16286	ENDEVCO	09-Nov-09
LEFT FRONT SILL (Y)	AC-P35788	ENDEVCO	25-Sep-09
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-P16862	ENDEVCO	25-Sep-09
LOWER LEFT B- PILLAR (Y)	AC-P26269	ENDEVCO	25-Sep-09
MIDDLE LEFT B-PILLAR (Y)	AC-P16576	ENDEVCO	04-Nov-09
LOWER LEFT A-PILLAR (Y)	AC-P13329	ENDEVCO	29-Jul-09
UPPER LEFT A-PILLAR (Y)	AC-P23926	ENDEVCO	25-Sep-09
FRONT SEAT TRACK (Y)	AC-P23960	ENDEVCO	25-Sep-09
REAR SEAT TRACK (Y)	AC-P19359	ENDEVCO	04-Nov-09
VEHICLE CG (X)	AC-P35757	ENDEVCO	25-Sep-09
VEHICLE CG (Y)	AC-P21399	ENDEVCO	25-Sep-09
VEHICLE CG (Z)	AC-P23899	ENDEVCO	25-Sep-09
MDB CG (X)	AC-C16680	ENDEVCO	09-Nov-09
MDB CG (Y)	AC-C14948	ENDEVCO	09-Nov-09
MDB CG (Z)	AC-CP30	ENDEVCO	09-Nov-09
MDB REAR FRAME MEMBER (X)	AC-C15007	ENDEVCO	09-Nov-09
MDB REAR FRAME MEMBER (Y)	AC-C16499	ENDEVCO	09-Nov-09

REMARKS:

V2P4 Head Rx

V2 A1 Right Front Sill X

V2 A1 Right Front Sill Y

V2 A1 Right Front Sill Z

Questionable Data after 25 msec

Questionable Data – Sensor did not measure accurately

Questionable Data – Sensor did not measure accurately

Questionable Data – Sensor did not measure accurately