

REPORT NUMBER: 214-CAL-09-02

**SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION
INDICANT**

**HONDA MOTOR COMPANY
2009 HONDA FIT
5-DOOR HATCHBACK**

NHTSA NUMBER: C95308

**PREPARED BY:
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Test Date: November 13, 2008

FINAL REPORT


**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
MAIL CODE: NVS-220, WEST BUILDING 4TH FLOOR
1200 NEW JERSEY AVENUE, SE
WASHINGTON, DC 20590**

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Date: December 15, 2008

Technical Report Documentation Page

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16. Abstract A 55/28 km/h 90° Moving Deformable Barrier FMVSS 214 Indicant side impact was conducted on the subject 2009 Honda Fit 5-Door Hatchback to obtain new car assessment and research data indicant of FMVSS No. 214D performance. The test was conducted at the Calspan Corporation Transportation Sciences Center in Buffalo, New York, on November 13, 2008. The impact velocity of the Moving Deformable Barrier (MDB) was 61.6 km/h, and the ambient temperature at the struck side (driver side) of the vehicle was 22°C. The target vehicle's maximum post test static crush was 236 mm at level 2. The test vehicle's occupant performance is as follows: <table border="0" data-bbox="129 1176 1331 1417"> <thead> <tr> <th></th> <th align="center"><u>DRIVER</u></th> <th align="center"><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td align="center">40.1</td> <td align="center">47.8</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td align="center">48.8</td> <td align="center">51.0</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td align="center">44.6</td> <td align="center">72.1</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td align="center">47</td> <td align="center">62</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td align="center">59</td> <td align="center">67</td> </tr> <tr> <td>HIC</td> <td align="center">259.5</td> <td align="center">268.8</td> </tr> </tbody> </table> <p>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.</p>			<u>DRIVER</u>	<u>PASS.</u>	Left Upper Rib (LUR) Accel., g	40.1	47.8	Left Lower Rib (LLR) Accel., g	48.8	51.0	Lower Spine (T ₁₂) Accel., g	44.6	72.1	Thoracic Trauma Index (TTI)	47	62	Pelvis (PEV) Accel., g	59	67	HIC	259.5	268.8	14. Sponsoring Agency Code NVS-220	
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SECTION 1
PURPOSE AND TEST PROCEDURE

PURPOSE

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-07-D-00064. The purpose of this indicant test was to evaluate side impact protection in a 2009 Honda Fit 5-Door Hatchback when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-08, dated December 15, 2006).

SECTION 2

SUMMARY OF FMVSS 214 INDICANT SIDE IMPACT TEST

This Side Impact Protection Indicant Test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-08, dated December 15, 2006).

A model year 2009 Honda Fit 5-Door Hatchback 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 61.6 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 1355.0 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on November 13, 2008.

One (1) real-time motion picture camera and nine (9) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information are documented in the data sheets. Pre- and post-test photographs of the vehicle and Side Impact Dummies (SID/HIII's) can be found in Appendix A.

Two 50th percentile adult male SID/HIII's were placed in the driver (P1) and left rear passenger (P4) designated seating positions according to instructions specified in the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated July 1997. Each SID/HIII was instrumented in the following locations:

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

The test vehicle was instrumented with twenty-one (21) structural accelerometers and the MDB was instrumented with five (5) accelerometers.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 236 mm at level 2, 900 mm rearward of the left vertical impact point. The driver and passenger SID/HIII's, Serial Nos. 905 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	259.5	35.8	68.0	47	59
Passenger	268.8	30.9	62.0	62	67

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: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	Honda Motor Company	Driver Front Airbag	Yes
Model	Fit	Driver Side Curtain Airbag	Yes
Body Style	5-Door Hatchback	Driver Side Torso Airbag	Yes
NHTSA No.	C95308	Driver Pretensioners	Yes
VIN	JHMGE88299S013642	Driver Load Limiters	Yes
Color	Blue	Driver Power Seats	No
Engine Disp.(L)	1.5	Rear Pass. Side Curtain Airbag	Yes
Engine Cylinders	4	Rear Pass. Side Torso Airbag	No
Engine Placement	Lateral	Rear Pass. Pretensioners	No
Transmission Type	Automatic	Rear Pass. Load Limiters	No
Transmission Speeds	5	Rear Pass. Power Seats	NA
Final Drive	Front	Tilt Wheel	Yes
Air Conditioning	Yes	Anti-lock Brakes	Yes
Power Steering	Yes	Traction Control	No
Power Brakes	Yes	Power Windows	Yes
Delivery Date	11/5/2008	Power Door Locks	Yes
Odometer Reading (km)	18	Automatic Door Locks (ADL)	Yes
Dealer	Lia Honda Williamsville, NY 14221	Owner's Manual Details Instructions on Disabling ADLs	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Honda Motor Company	GVWR (kg)	1594
		GAWR Front (kg)	872
Date of Manufacture	09/08	GAWR Rear (kg)	735

VEHICLE CAPACITY DATA

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench		
Number Of Occupants	2	3		5
Capacity Wt. (VCW) (kg)				385.0
Cargo Wt. (RCLW) (kg)				44.8

DATA SHEET NO. 1 (continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			Fully Loaded (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	384.0	203.0		431.0	298.0		432.5	286.5	
Right	kg	359.0	206.0		298.0	274.0		370.5	265.5	
Ratio	%	64.5	35.5		56.0	44.0		59.3	40.7	
Totals	kg	743.0	409.0	1152.0	729.0	572.0	1301.0	803.0	552.0	1355.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1152.0
Weight of 2 P572M ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	44.8
Calculated Vehicle Target Weight (TVTW)	kg	1359.2

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

Weight of Ballast (including instrumentation package and cameras): 40.6 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	667	666	683	686
Fully Loaded	mm	647	656	637	649
As Tested	mm	653	656	641	649

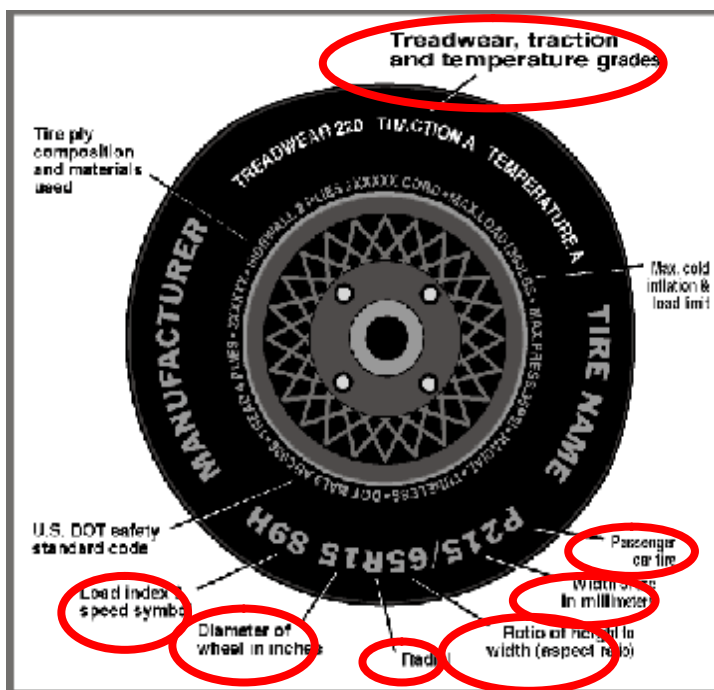
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2494
Target Impact Point Aft of Front Axle	mm	307
Actual Impact Point Aft of Front Axle	mm	314
As Tested CG (aft of front axle)	mm	1016.01

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	220	220
Recommended Tire Size	175/65R15 84S	175/65R15 84S
Tire Size on Vehicle	175/65R15	175/65R15
Tire Manufacturer	Dunlop	Dunlop
Tire Name	SP31	SP31
Tire Type	Passenger	Passenger
Tire Width (mm)	175	175
Ratio of Height to Width (aspect ratio)	65	65
Radial	Yes	Yes
Wheel Diameter	15	15
Load Index & Speed Symbol	84 S	84 S
Treadwear	320	320
Traction Grade	A	A
Temperature Grade	B	B

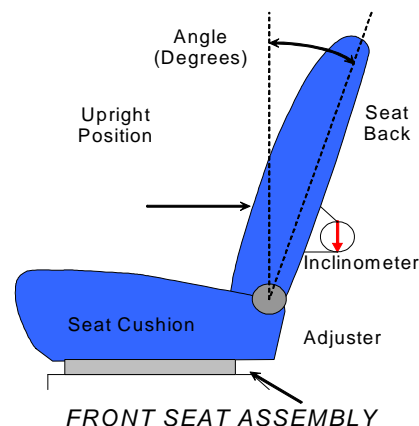
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle: 2009 Honda Fit	NHTSA No. C95308
Test Program: FMVSS 214 Indicant Side Impact	Test Date: November 13, 2008

NORMAL DESIGN RIDING POSITION

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

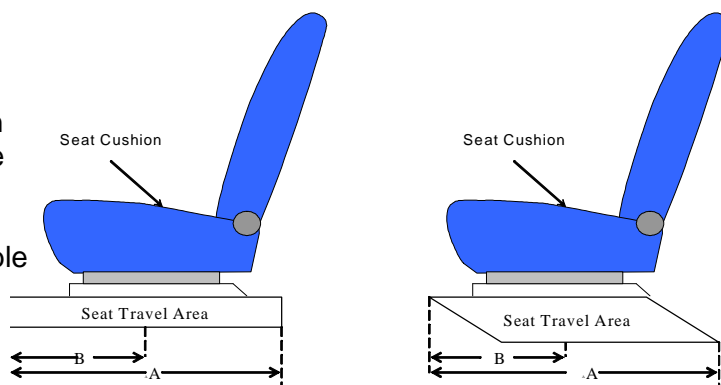


SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	Detent 4	Not Adjustable
Angle (deg. from forward-most locking position)	Not Applicable	Not Adjustable
Alternative Measurements to Verify Test Position	Head restraint post 8° back from vertical	Not Applicable

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)	240	Not Applicable
Test Position (B) (mm)	120	Not Applicable
Test Detent (forward-most detent defined as 0)	12	Not Applicable
Total Number of Detents (including 0)	24	Not Applicable

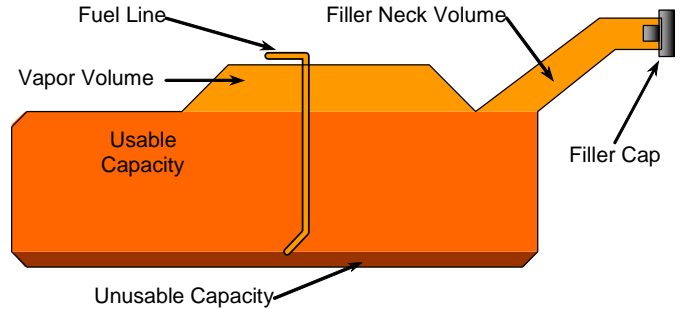
DATA SHEET NO. 3 (CONTINUED)

TEST VEHICLE INFORMATION

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008

FUEL SYSTEM INFORMATION

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



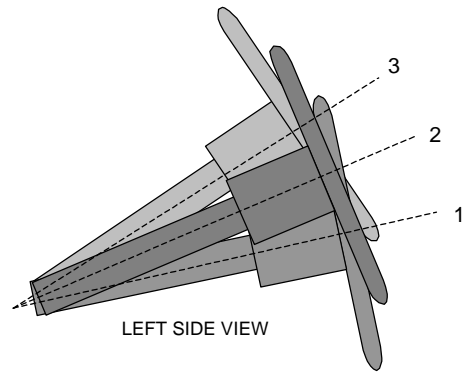
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	40.0
Usable Capacity of "Optional" Fuel Tank	-
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	37.2

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	22.2	Not Applicable
Geometric Center Position No. 2 *	15	25.0	Not Applicable
Uppermost Position No. 3	30	27.8	Not Applicable

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

Test Vehicle:	2009 Honda Fit	NHTSA No.	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008

MDB SPECIFICATIONS

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

MDB WEIGHTS

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

MDB SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.6
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.6
Impact angle with respect to impactor	°	88.5° to 91.5°	89.5

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

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	7 mm rearward
Vertical Offset	mm	+/-20	4 mm above

DATA SHEET NO. 5

POST TEST OBSERVATIONS

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID/HIII / 905	SID/HIII / 906
Head Contact	Side of Head – Side Curtain Airbag	Side of Head – Side Curtain Airbag
Upper Torso Contact	Side Torso Airbag	Upper Door
Lower Torso Contact	Side Torso Airbag	Door/Arm Rest
Left Knee Contact	Door/Arm Rest	Lower Door
Right Knee Contact	None	None

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

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

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	None
Windshield Damage	Minor cracks in the upper left portion of windshield
Window Damage	Left Front and Rear Windows Broke
Other Notable Effects	None

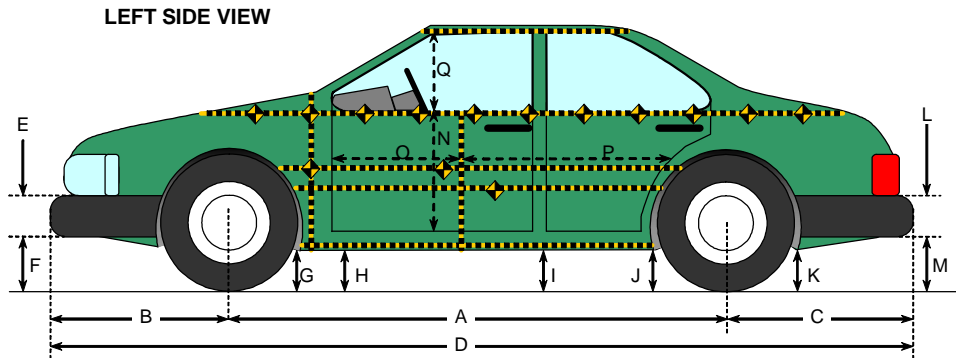
SUPPLEMENTAL RESTRAINT INFORMATION

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

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008



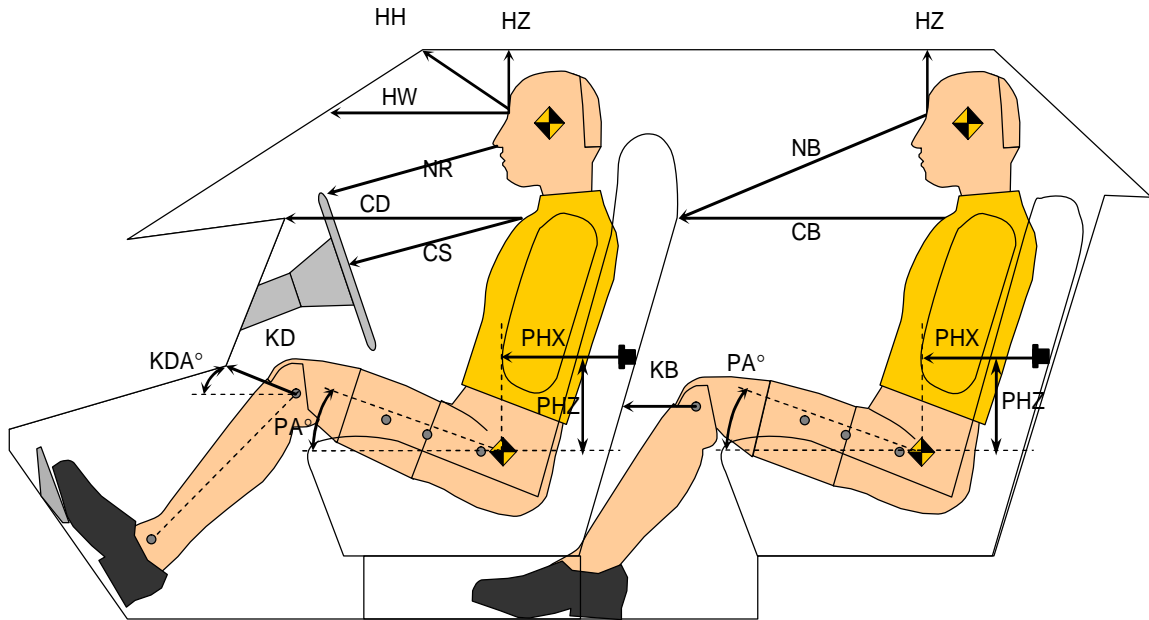
All Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2494	2494	2504	-10
B	Front Axle to FSOV	915	915	913	2
C	Rear Axle to RSOV	698	698	689	9
D	Total Length at Centerline	4107	4107	4106	1
E	Front Bumper Thickness	105	105	105	0
F	Front Bumper Bottom to Ground	405	402	407	-5
G	Sill Height at Front Wheel Well	187	163	179	-16
H	Sill Height at Front Door Leading Edge	192	168	209	-41
I	Sill Height at "B" Pillar	205	170	213	-43
J1	Sill Height at Rear Wheel Well	187	147	168	-21
J2	Pinch Weld Height at Rear Wheel Well	208	169	197	-28
K	Sill Height Aft of Rear Wheel Well	262	211	221	-10
L	Rear Bumper Thickness	135	135	135	0
M	Rear Bumper Bottom to Ground	392	343	352	-9
N	Sill Height to Window Bottom Sill	719	719	632	87
O	Front Door Leading Edge to Impact CL	737	737	719	18
P	Rear Door Trailing Edge to Impact CL	1076	1076	1041	35
Q	Front Window Opening	476	476	464	12
R	Right Side Length	3966	3966	3966	0
S	Left Side Length	3964	3964	3965	-1
T	Vehicle Width at "B" Post	1692	1692	1508	184

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Honda Fit	NHTSA No.:	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008

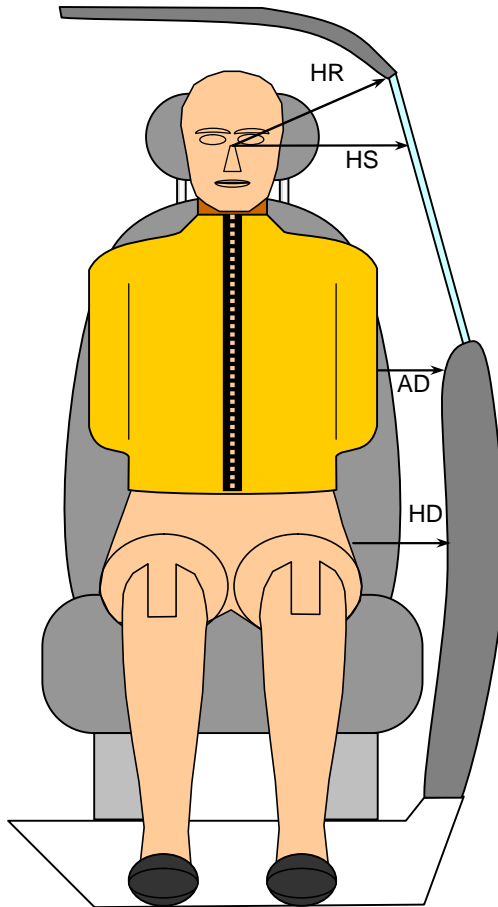


Driver Code	Pass. Code	Measurement Description	Driver S/N 905		Passenger S/N 906	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	364			
HW		Head to Windshield	661			
HZ	HZ	Head to Roof	205		193	
NR	NB	Nose to Rim/Nose to Seatback	445		580	
CD	CB	Chest to Dash or Seatback	602		507	
CS		Chest to Steering Wheel	313			
KDL	KBL	Left Knee to Dash or Seatback	145	22	220	22
KDR	KBR	Right Knee to Dash or Seatback	140	25	215	23
PA	PA	Pelvic Angle		24.8		24.3
PHX	PHX	H-Point to Striker (X-Axis)	235		200	
PHZ	PHZ	H-Point to Striker (Z-Axis)	132		289	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Honda Fit	NHTSA No.	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008



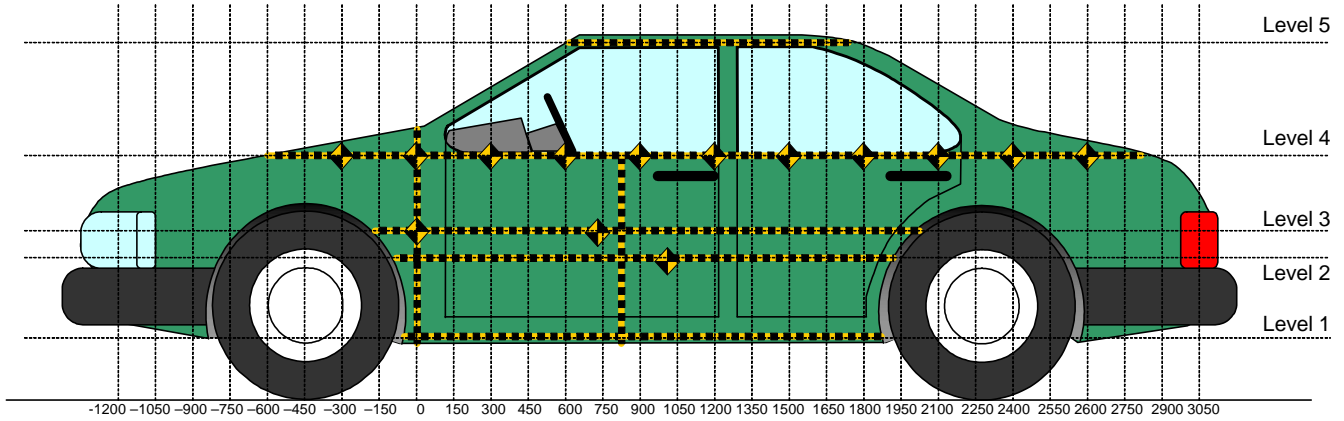
FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 905	Passenger S/N 906
HR	Head to Side Header	mm	213	190
HS	Head to Side Window	mm	320	295
AD ₁	Arm to Door (at upper rib level)	mm	101	89
AD ₂	Arm to Door (at lower rib level)	mm	106	90
HD	H-Point to Door	mm	153	157

DATA SHEET NO. 9

VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008



All Measurements Shown in mm

LEFT SIDE VIEW

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

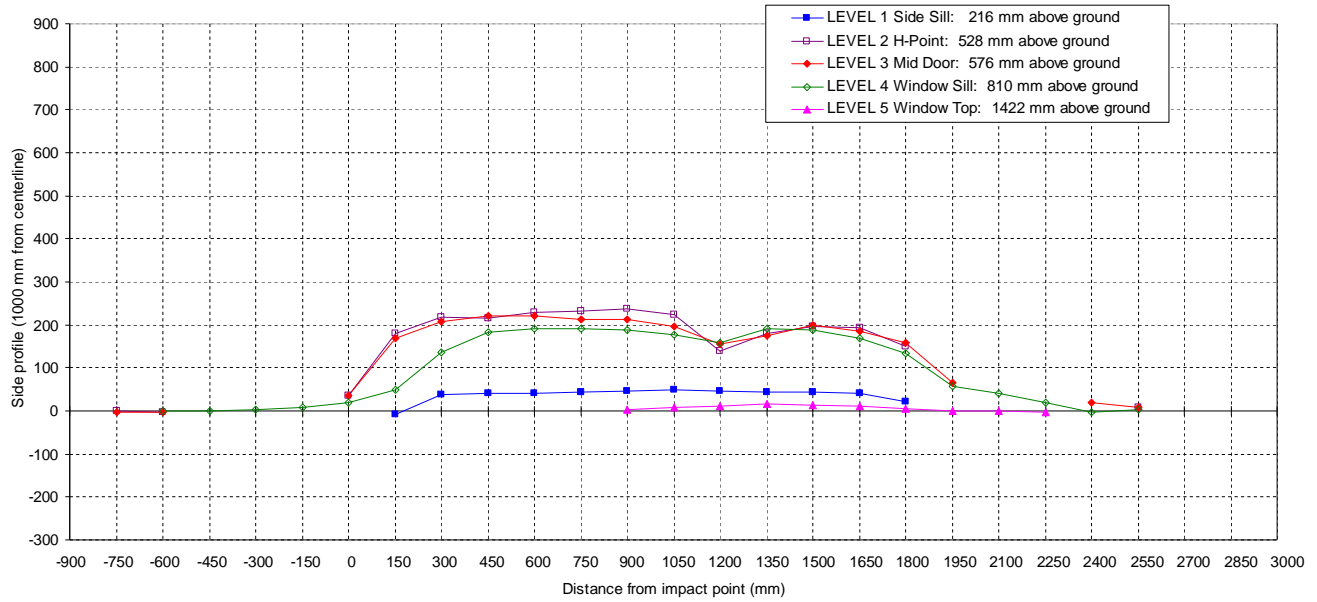
Level	Measurement Description	Maximum Exterior Static Crush	Height Above Ground	Distance From Impact
1	Sill Top	48	216	1050
2	Occupant H-Point	236	528	900
3	Mid Door	221	576	450
4	Window Sill	192	810	1350
5	Window	16	1422	1350
	Maximum Penetration	236		

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2009 Honda Fit
 Test Program: FMVSS 214 Indicant Side Impact

NHTSA No. C95308
 Test Date: November 13, 2008



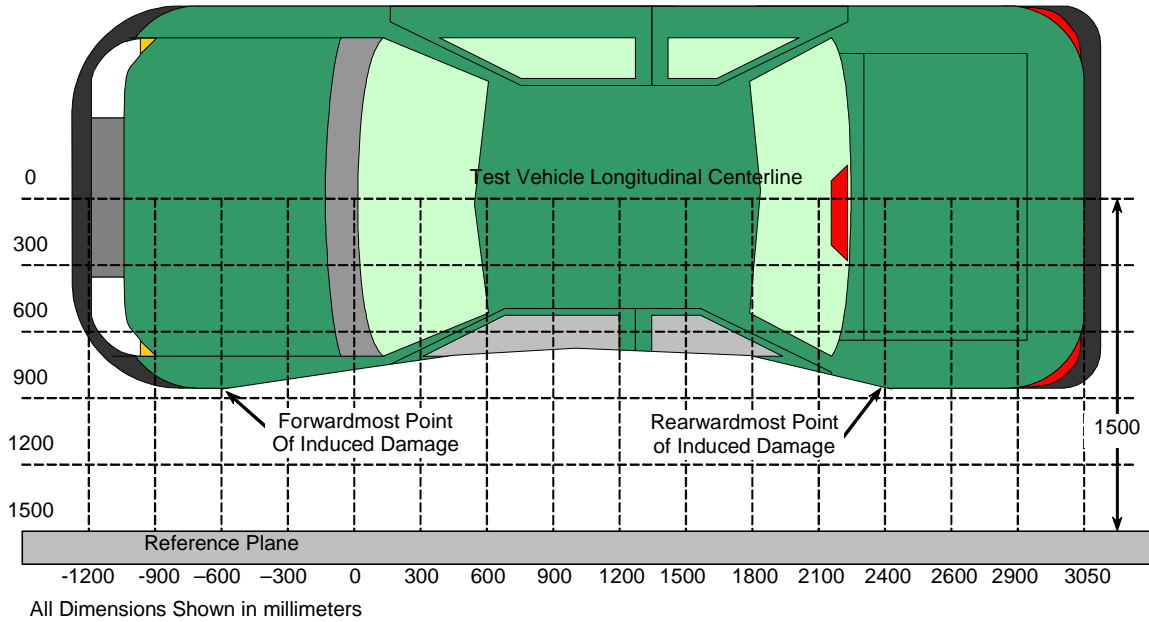
NOTE: All dimensions are in millimeters with a tolerance of ±3 mm

		DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																												
LEVEL	HEIGHT (mm)	-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000		
LEVEL 1 SIDE SILL	216	PRE	--	--	--	--	--	--	183	187	186	188	189	189	189	189	188	186	182	--	--	--	--	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	174	224	227	230	234	236	237	236	233	232	227	203	--	--	--	--	--	--	--	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9	37	41	42	45	47	48	47	44	44	41	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	528	PRE	--	185	158	--	--	--	151	157	160	161	161	159	157	156	155	156	156	156	155	--	--	--	--	--	185	--	--	--
		POST	--	184	155	--	--	--	186	338	379	377	391	390	393	381	295	336	352	350	306	--	--	--	--	--	192	--	--	--
		CRUSH	N/A	-1	-3	N/A	N/A	N/A	35	181	219	216	230	231	236	225	140	180	196	194	151	N/A	N/A	N/A	N/A	N/A	7	N/A	N/A	N/A
LEVEL 3 MID DOOR	576	PRE	--	196	163	--	--	--	152	157	158	159	158	156	154	153	152	153	153	154	154	151	--	--	--	156	188	--	--	--
		POST	--	194	160	--	--	--	188	325	364	380	378	369	367	349	307	327	351	340	312	217	--	--	--	175	197	--	--	--
		CRUSH	N/A	-2	-3	N/A	N/A	N/A	36	168	206	221	220	213	213	196	155	174	198	186	158	66	N/A	N/A	N/A	19	9	N/A	N/A	N/A
LEVEL 4 WINDOW SILL	810	PRE	--	--	247	225	207	196	187	182	176	172	169	165	156	154	162	164	167	171	175	181	188	199	218	252	--	--	--	
		POST	--	--	247	226	211	205	205	232	313	355	359	355	343	332	321	356	356	340	309	239	230	218	216	256	--	--	--	
		CRUSH	N/A	N/A	0	1	4	9	18	50	137	183	190	190	187	178	159	192	189	169	134	58	42	19	-2	4	N/A	N/A	N/A	
LEVEL 5 WINDOW TOP	1422	PRE	--	--	--	--	--	--	--	--	--	--	--	--	439	422	418	418	422	427	437	454	488	579	--	--	--	--		
		POST	--	--	--	--	--	--	--	--	--	--	--	--	442	429	430	434	436	438	442	455	487	577	--	--	--	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	7	12	16	14	11	5	1	-1	-2	N/A	N/A	N/A	N/A	

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle:	2009 Honda Fit	NHTSA No.:	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008



TOP VIEW

DAMAGE PROFILE DISTANCES

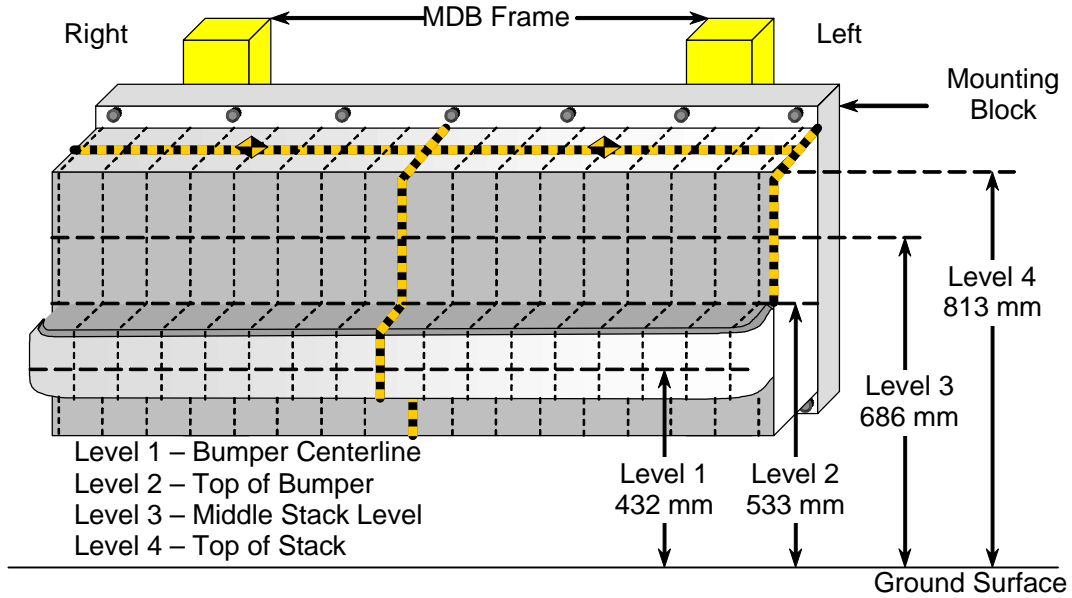
DPD	Distance from Target Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1 (LR)	2400	3	156	175	19
2	1890	3	152	255	103
3	1380	4	165	356	191
4	870	2	157	392	235
5	360	2	160	378	218
6 (LF)	-150	4	196	205	9

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

DATA SHEET NO. 12

DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle:	2009 Honda Fit	NHTSA No.	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008



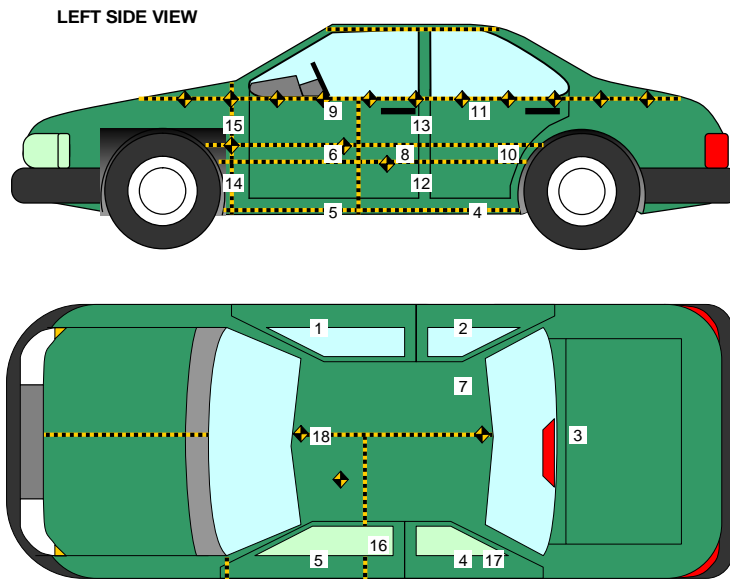
NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)							
			-800	-700	-600	-500	-400	-300	-200	-100	0	100	200	300	400	500	600	700	800
LEVEL 4 TOP STACK	811	PRE	411	412	412	412	412	412	412	413	413	413	413	413	413	413	413	412	
		POST	360	393	415	414	404	385	364	374	381	388	391	391	388	374	340	288	232
		CRUSH	51	19	-3	-2	8	27	49	39	32	25	22	22	25	39	73	125	180
LEVEL 3 MID LEVEL	682	PRE	411	411	412	412	412	412	412	412	413	412	412	412	412	412	412	412	
		POST	363	383	394	402	406	397	384	396	402	403	403	402	399	394	382	344	281
		CRUSH	48	28	18	10	6	15	28	16	11	9	9	10	13	18	30	68	131
LEVEL 2 TOP BUMPER	542	PRE	411	412	412	412	412	412	412	412	413	412	412	412	412	412	412	412	
		POST	336	346	356	365	365	369	367	370	368	368	364	364	361	360	357	351	340
		CRUSH	75	66	56	47	47	43	45	42	45	44	48	48	51	52	55	61	72
LEVEL 1 MID BUMPER	430	PRE	501	513	513	513	513	513	513	514	514	514	514	514	514	514	514	505	
		POST	348	369	386	401	409	408	410	410	410	410	409	407	405	404	399	378	354
		CRUSH	153	144	127	112	104	105	103	104	104	104	105	107	109	110	115	136	151

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Honda Fit	NHTSA No.:	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2458	645	285
2	Right Sill at Rear Seat	1495	645	272
3	Rear Floorpan Above Axle	926	-61	385
4	Left Sill at Rear Door	1505	-641	255
5	Left Sill at Front Door	2499	-643	264
6	Left Front Door C/L**	-	-	-
7	Rear Occupant Compartment	1499	348	165
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	1786	-635	296
13	Left Middle B-Post	1690	-649	910
14	Left Lower A-Post	2824	-619	473
15	Left Middle A-Post	2605	-670	874
16	Front Seat Track	1871	-503	322
17	Rear Seat Track or Structure	796	-509	472
18	Vehicle CG	2186	2	459

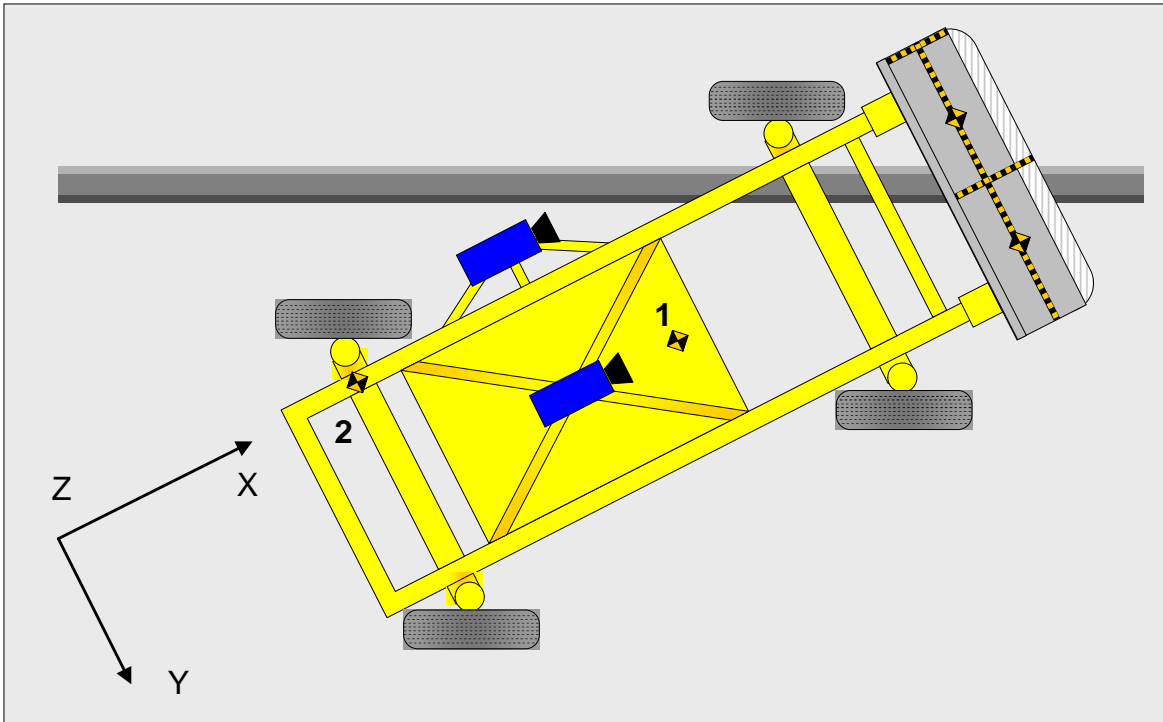
Reference Points X - Test Vehicle Rear Bumper (+ forward)
 Y - Test Vehicle Centerline (+ to right)
 Z - Ground Plane (+ down)

** Accelerometer was not requested by the COTR.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008



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

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

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

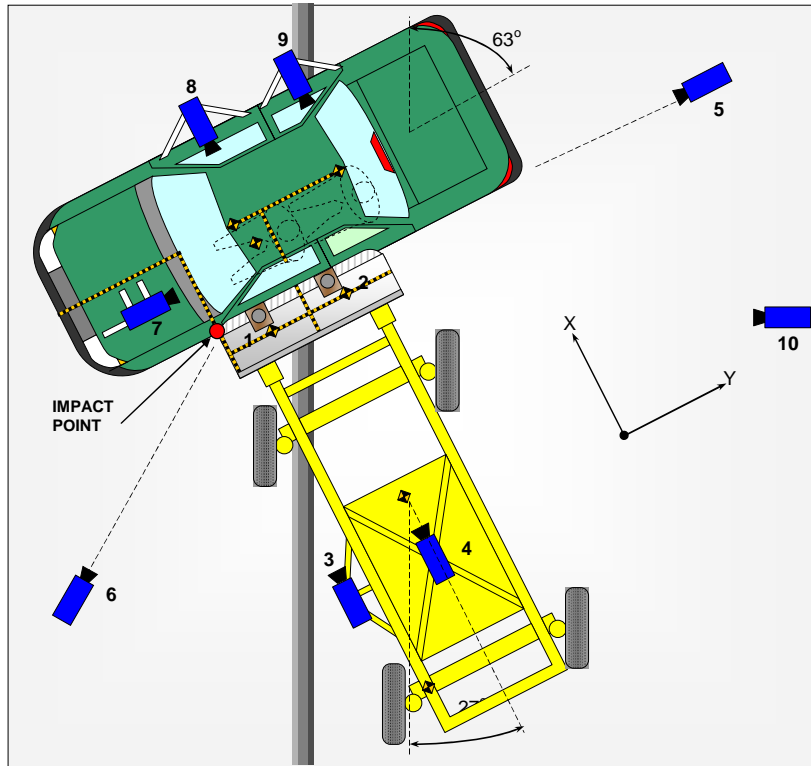
Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008

	Elements	Pre-Test (mm)
1	Total Length	4107
2	Total Width	1692
3	Bumper Top Height	513
4	Bumper Bottom Height	411
5	Longitudinal Member Top Height	496
6	Distance between Longitudinal Members	1085
7	Longitudinal Member Width	100
8	Engine Top Height	837
9	Engine Bottom Height	178
10	Engine and gearbox width	710
11	Front bumper-engine distance	546
12	Front shock absorber fixing height	909
13	Bonnet leading edge height	679
14	Front shock absorber fixing width	1265
15	Front bumper – front axle distance	915
16	Front axle – a pillar distance	438
17	A-pillar – B-pillar distance	1071
18	B-Pillar – rear axle distance	985
19	B-pillar – C-pillar distance	854
20	Roof sill bottom height	1347
21	Roof sill top height	1444
22	Floor sill bottom height	245
23	Floor sill top height	334

DATA SHEET NO. 16

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle:	2009 Honda Fit	NHTSA No.:	C95308
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	November 13, 2008



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Close-up	72	812	4880	-90	8	500
2	Overhead Overall	195	855	4880	-90	28	500
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	0	10230	951	-2	50	500
6	Left Side, Ground Level, Overall	-2273	-1425	969	-5	28	500
7	Vehicle Onboard Front SID/HIII, Front	425	-535	1255	-5	25	1000
8	Vehicle Onboard Front SID/HIII, Side	1565	795	1015	-6	12.5	1000
9	Vehicle Onboard Rear SID/HIII, Side	1585	1642	1255	-8	12.5	1000
10	Real Time Coverage						30

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

**DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA**

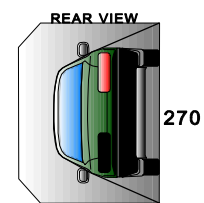
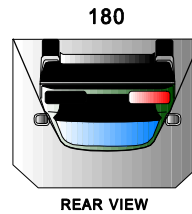
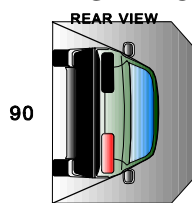
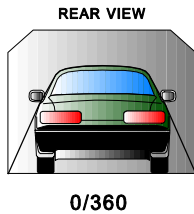
Test Vehicle: 2009 Honda Fit NHTSA No. C95308
 Test Program: FMVSS 214 Indicant Side Impact Test Date: November 13, 2008

FUEL SYSTEM INTEGRITY POST IMPACT DATA

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

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

STATIC ROLLOVER DATA



Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds
0° - 90°	1	15	5	6	15	7	15	6	15	7	15	7
90° - 180°	1	06	5	6	6	7	6	6	6	7	6	7
180°-270°	0	57	5	5	57	6	5	57	5	6	57	6
270°-360°	1	08	5	6	8	7	6	8	8	7	8	7

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-40	Post-Test Left Occupant Compartment View of Driver	A-23
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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 3/4 View



Figure A-12: Post-Test Left Rear 3/4 View



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



Figure A-15: Pre-Test Right Rear ¾ View



Figure A-16: Post-Test Right Rear ¾ View

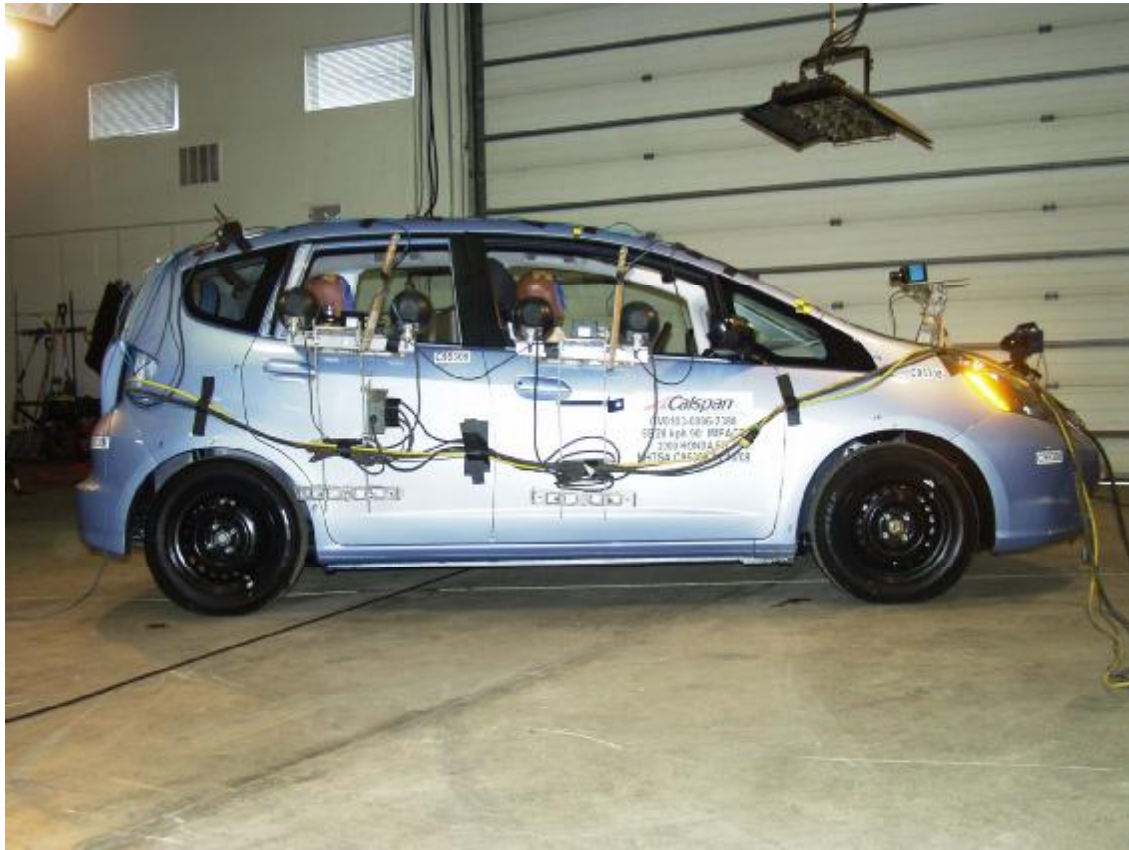


Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



Figure A-19: Pre-Test Right Front ¾ View



Figure A-20: Post-Test Right Front ¾ View



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



Figure A-51: Rollover 90 Degrees



Figure A-52: Rollover 180 Degrees



Figure A-53: Rollover 270 Degrees



Figure A-54: Rollover 360 Degrees



Figure A-55: Impact Photo

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

DATA CHANNEL FILTER CLASS SUMMARY

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

DATA CHANNEL TITLE KEY

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

TABLE OF DATA PLOTS

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

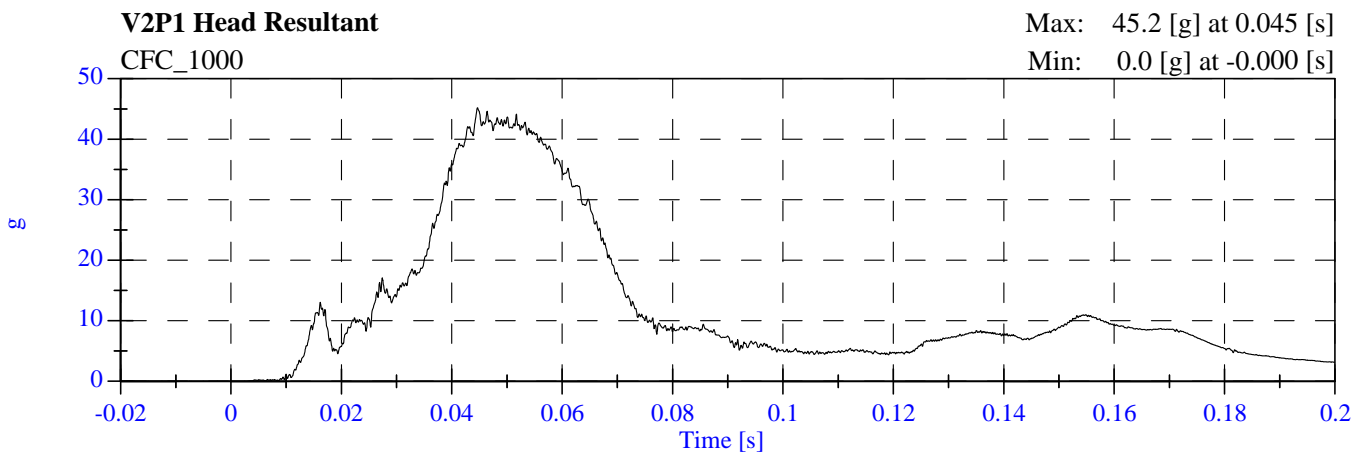
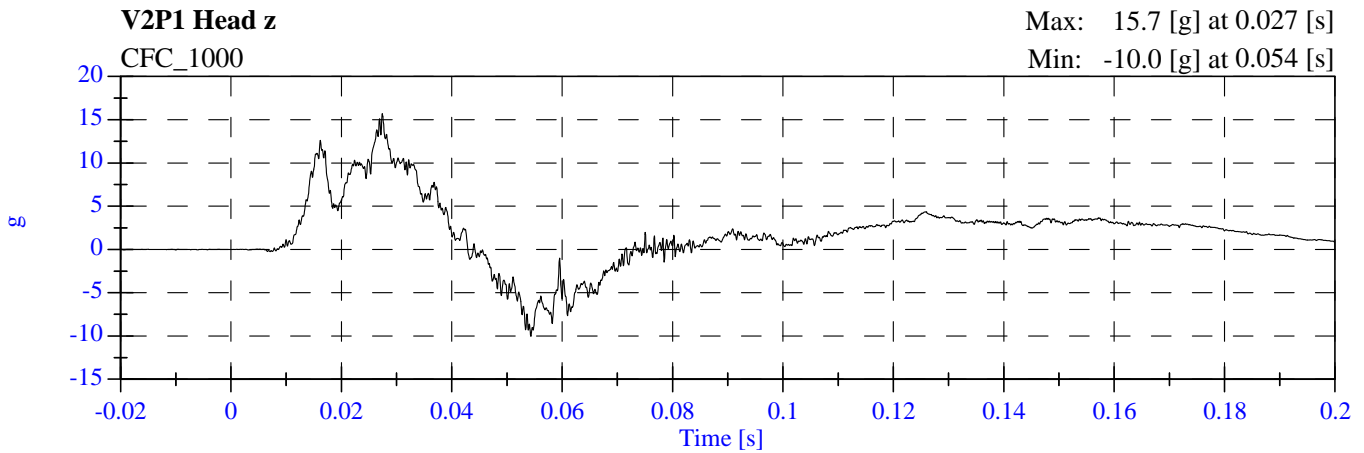
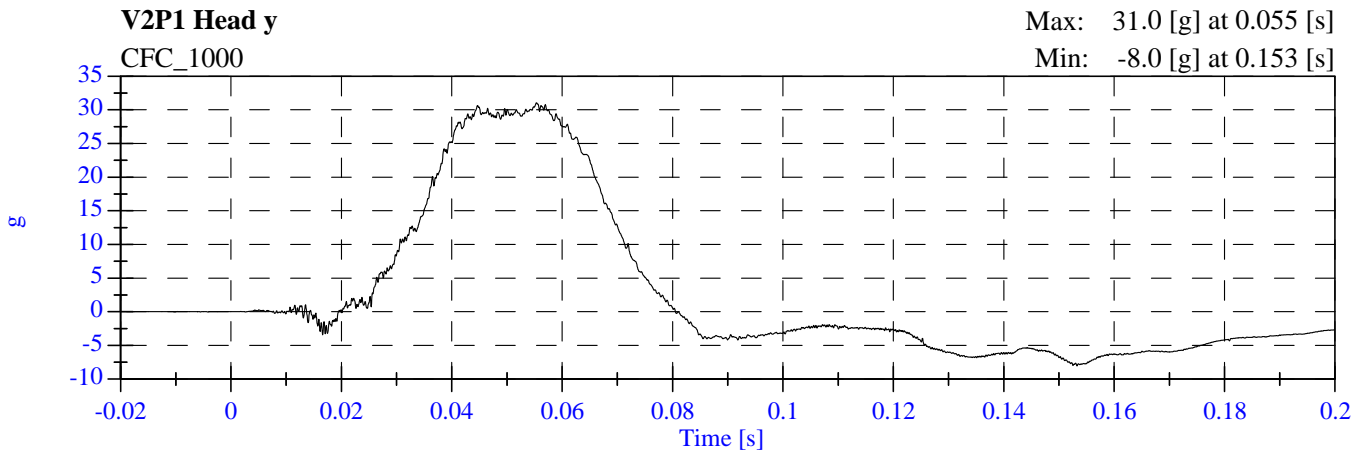
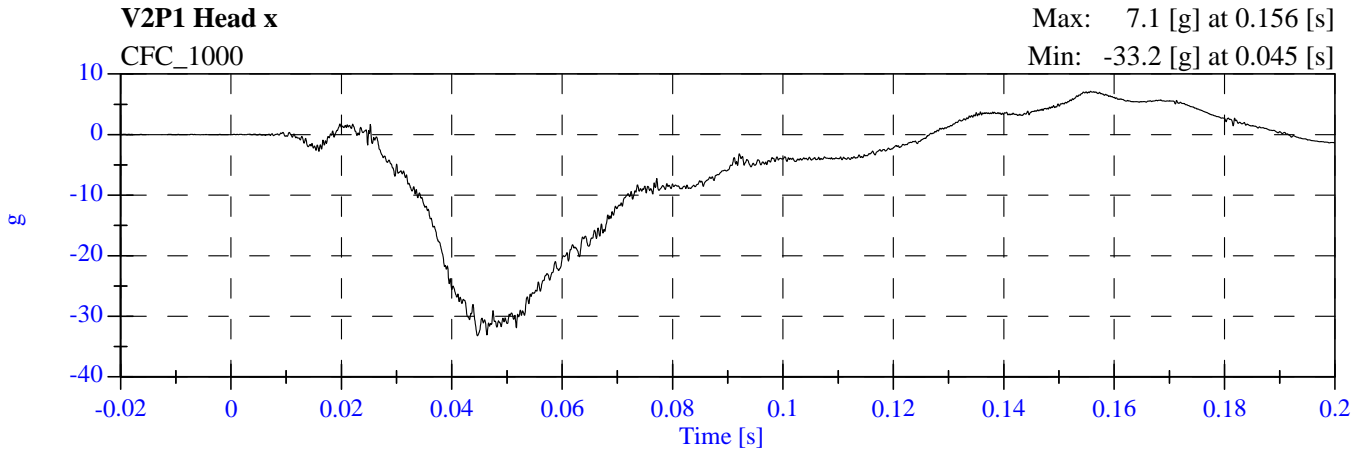
The following dummy, vehicle and load cell response data can be found in the research and development section of the NHTSA website at: www.nhtsa.dot.gov

V2P1 Head Ax	V2A1 Right Front Sill Ax
V2P1 Head Ay	V2A1 Right Front Sill Ay
V2P1 Head Az	V2A1 Right Front Sill Az
V2P1 Upper Neck Fx	V2A2 Right Rear Sill Ax
V2P1 Upper Neck Fy	V2A2 Right Rear Sill Ay
V2P1 Upper Neck Fz	V2A2 Right Rear Sill Az
V2P1 Upper Neck Mx	V2A3 Rear Floorpan Ax
V2P1 Upper Neck My	V2A3 Rear Floorpan Ay
V2P1 Upper Neck Mz	V2A3 Rear Floorpan Az
V2P1 Upper Rib Ay	V2A4 Left Rear Sill Ay
V2P1 Upper Rib Redundant Ay	V2A5 Left Front Sill Ay
V2P1 Lower Rib Ay	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	

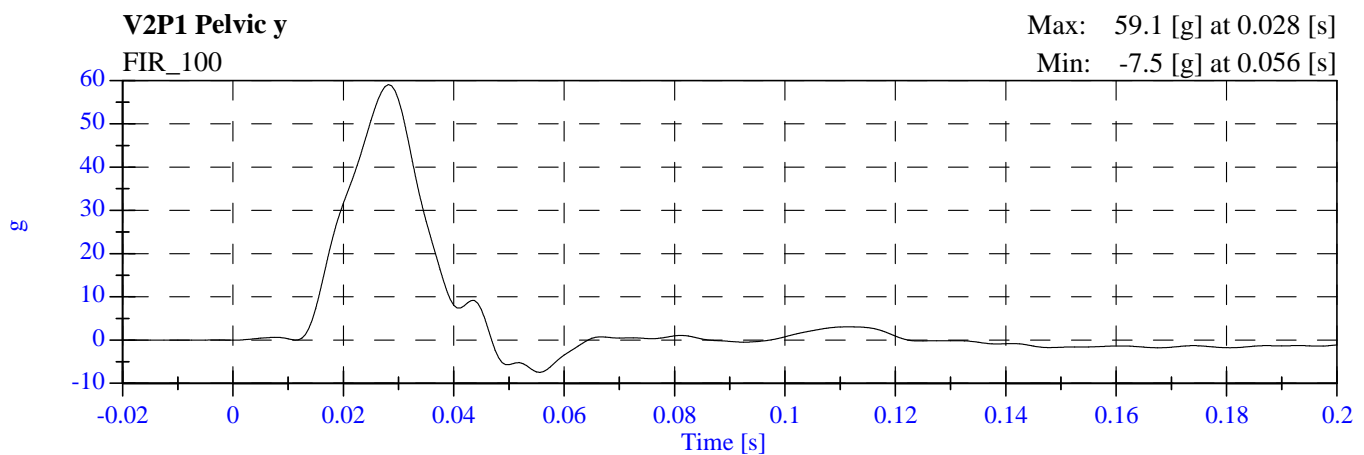
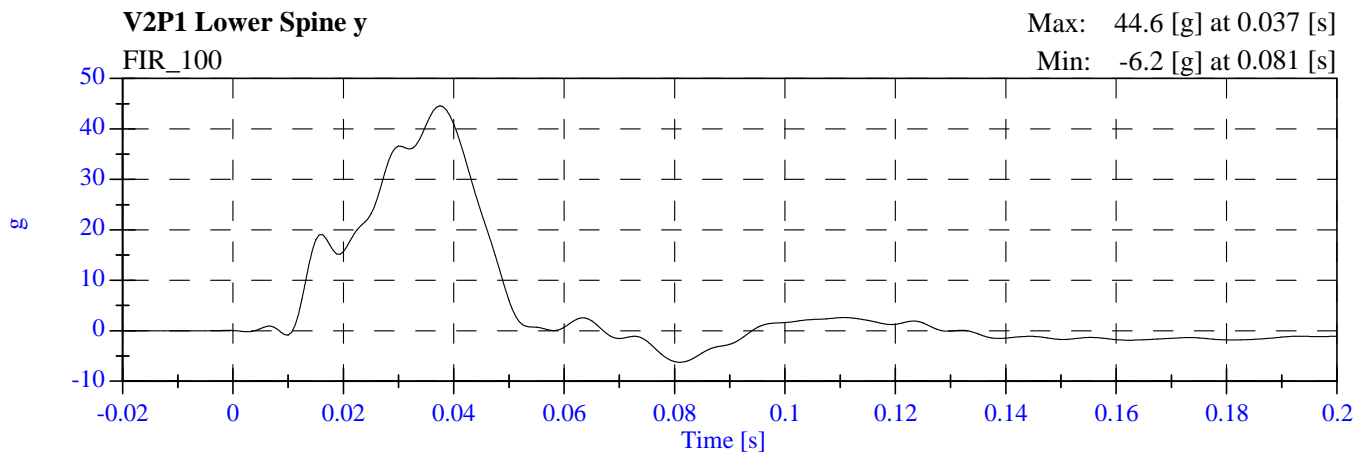
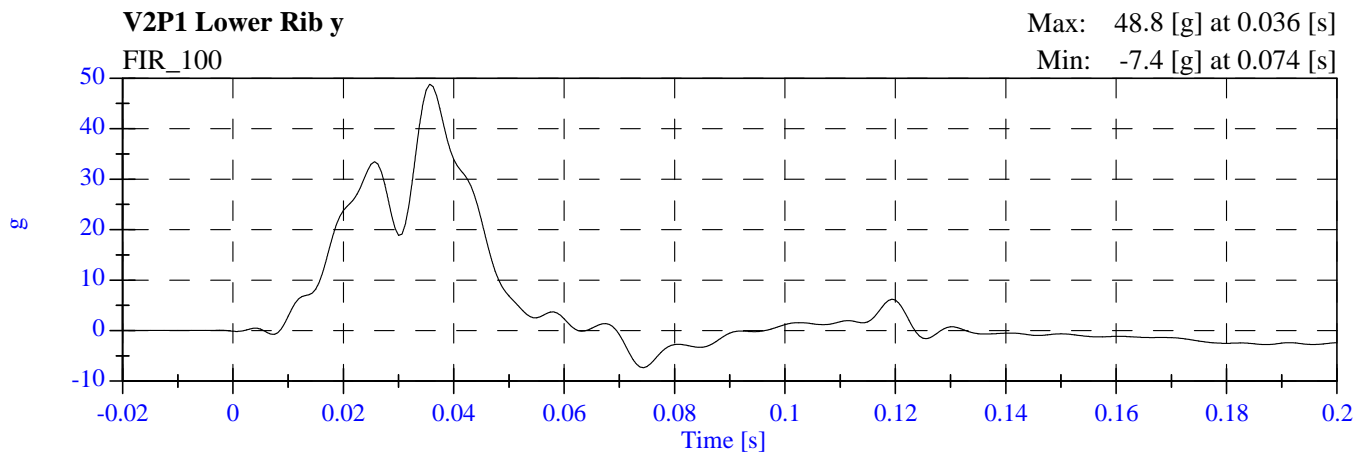
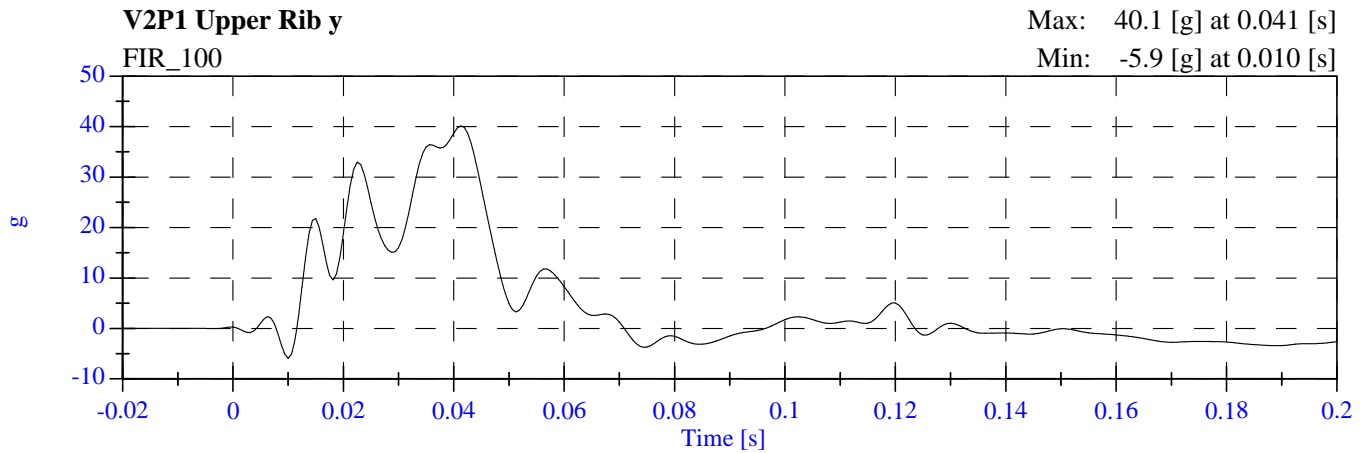
TEST NOTES

The following channel anomalies occurred:

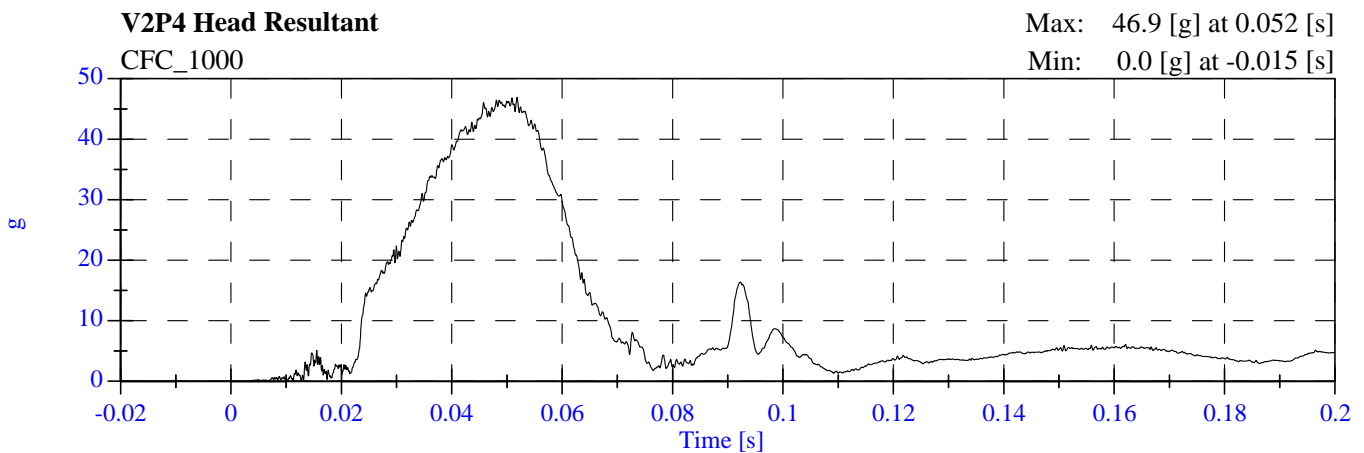
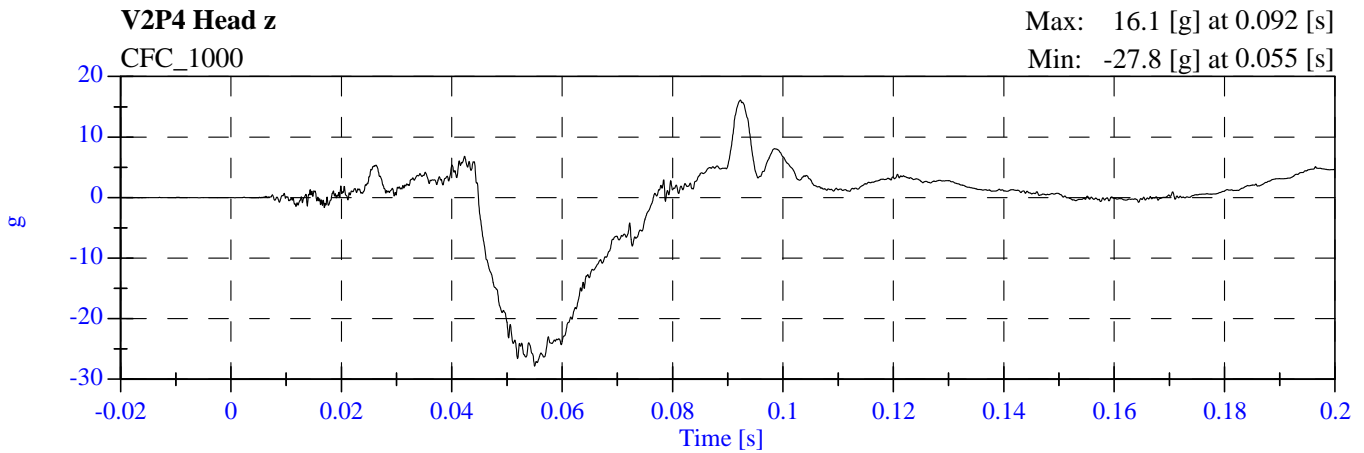
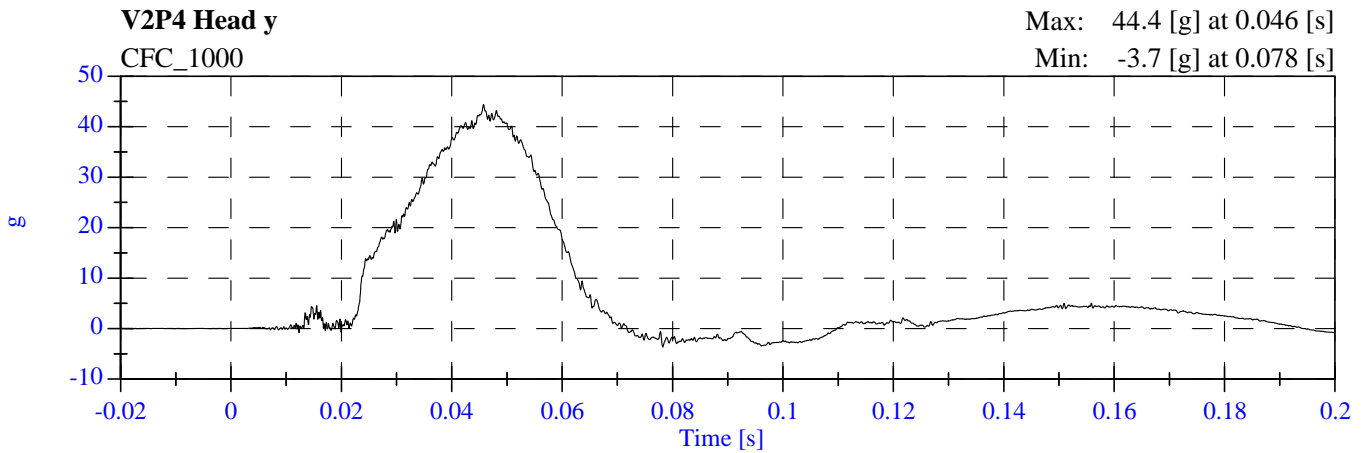
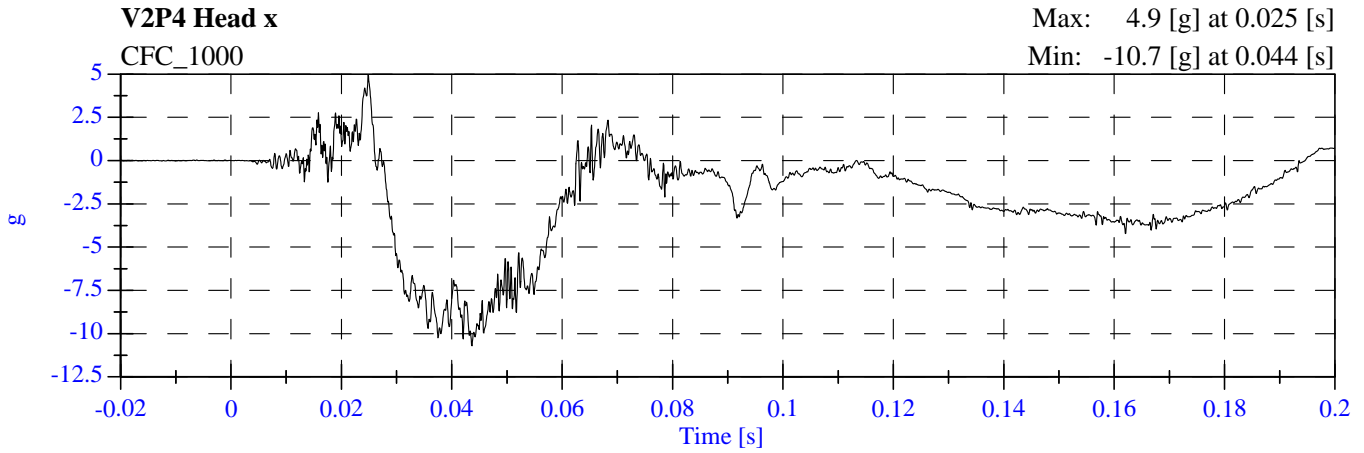
2009 NHTSA 214i Test 6 2009 Honda Fit C95308 - November 13, 2008



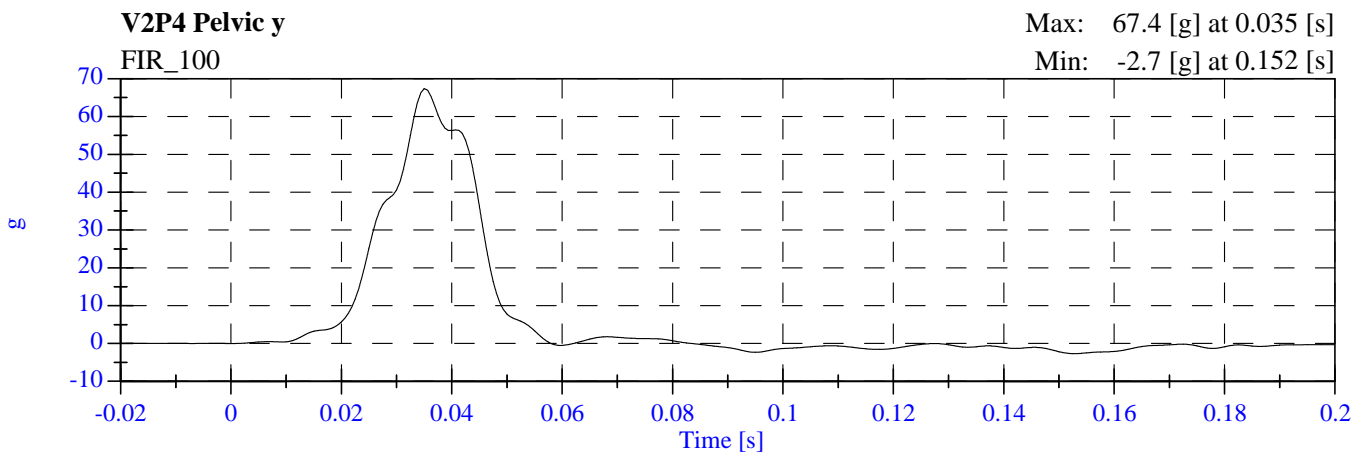
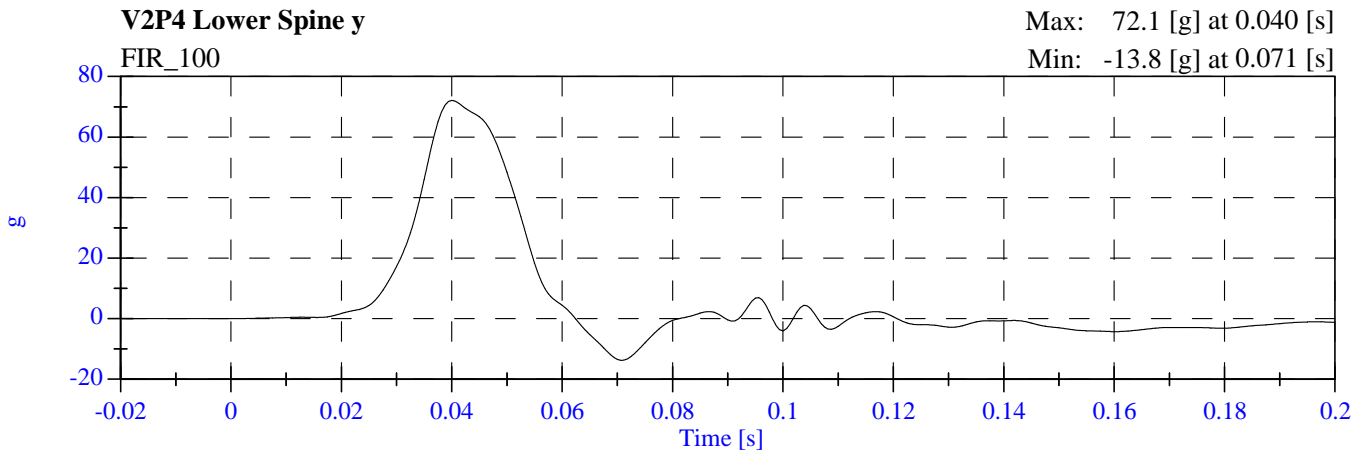
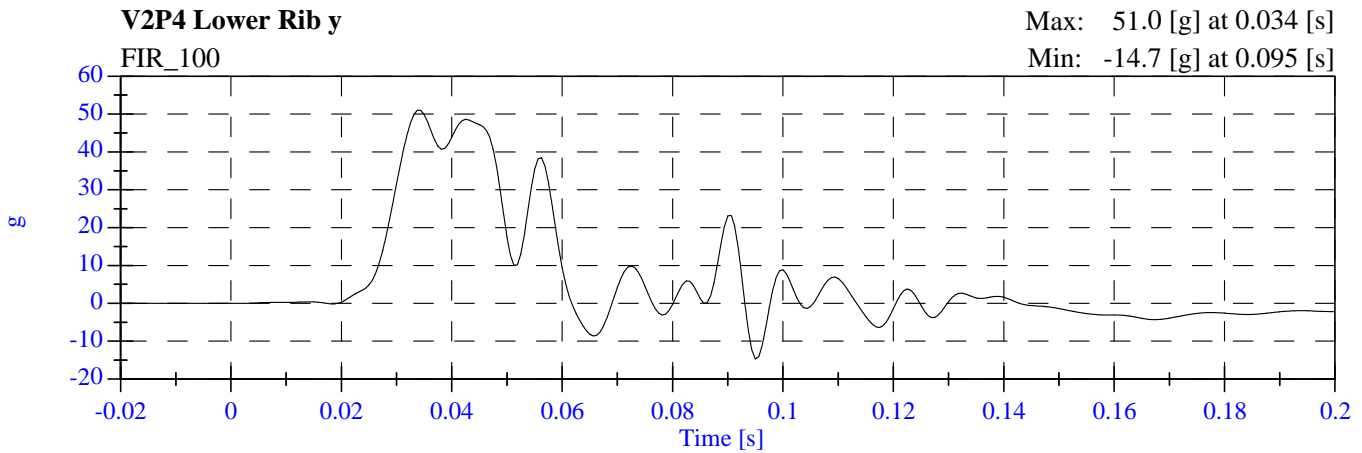
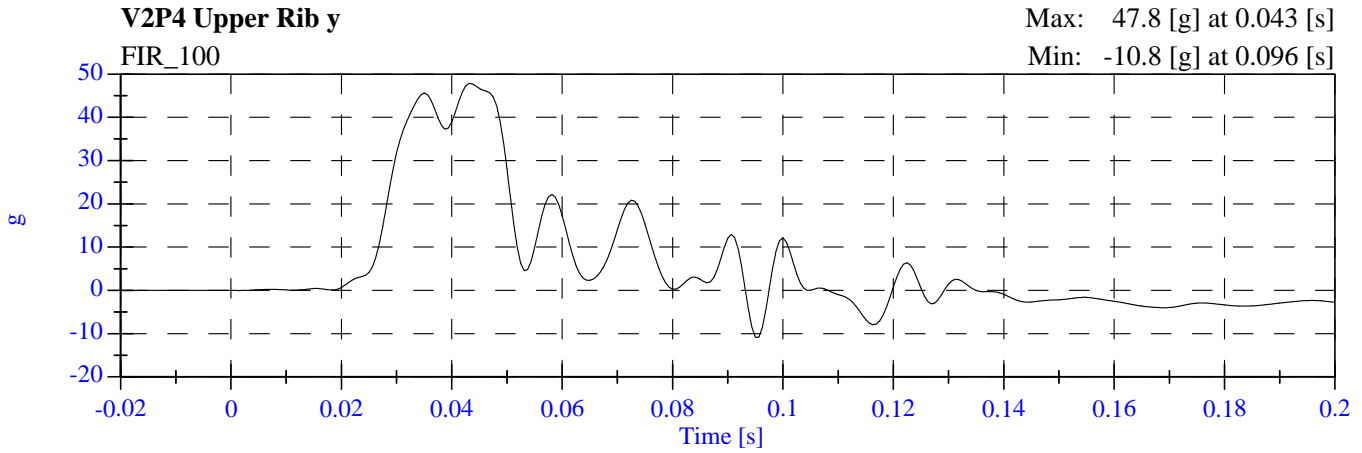
2009 NHTSA 214i Test 6 2009 Honda Fit C95308 - November 13, 2008



2009 NHTSA 214i Test 6 2009 Honda Fit C95308 - November 13, 2008



2009 NHTSA 214i Test 6 2009 Honda Fit C95308 - November 13, 2008



APPENDIX C
DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION
CONFIGURED FOR LEFT SIDE IMPACT

Date: 10/28/08; 11/3/08; 12/3/08

Sequential Test Number: 1

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 905		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	511	511	511	511
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	239	239	239	239
KV- Knee Pivot from Back Line (mm)	511 - 526	521	521	521	521
SW- Knee Pivot to Floor (mm)	490 - 505	493	493	493	493
HW- Hip Width (mm)	356 - 391	384	384	384	384
THORAX IMPACTS					
TEMPERATURE (• C)	18.9 - 25.5	21.7	21.7	21.1	21.7
RELATIVE HUMIDITY (%)	10 - 70	29	18	21	23
PROBE SPEED (m/s)	4.27 - 4.33	4.27	4.30	4.31	4.29
UPPER RIB (g's)	37 - 46	43.61	44.17	37.58	40.62
LOWER RIB (g's)	37 - 46	41.82	41.60	38.23	41.55
LOWER SPINE (g's)	15 - 22	21.40	21.59	18.54	20.59
PELVIS IMPACT					
TEMPERATURE (• C)	18.9 - 25.5	21.7	21.7	21.1	21.7
RELATIVE HUMIDITY (%)	10 - 70	29	18	20	18
PROBE SPEED (m/s)	4.27 - 4.33	4.29	4.31	4.31	4.31
PELVIS (g's)	40 - 60	47.51	43.20	51.37	50.36

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 905

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 10/28/08 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 10/24/08 Laboratory Technician: B. Swiecicki

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

905 Shock Impact Low (3.05 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

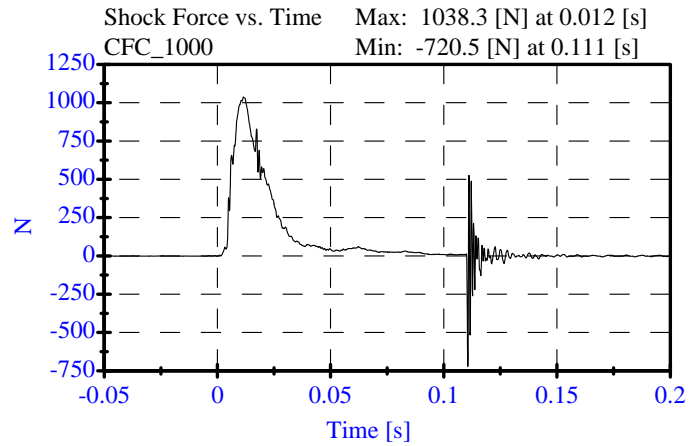
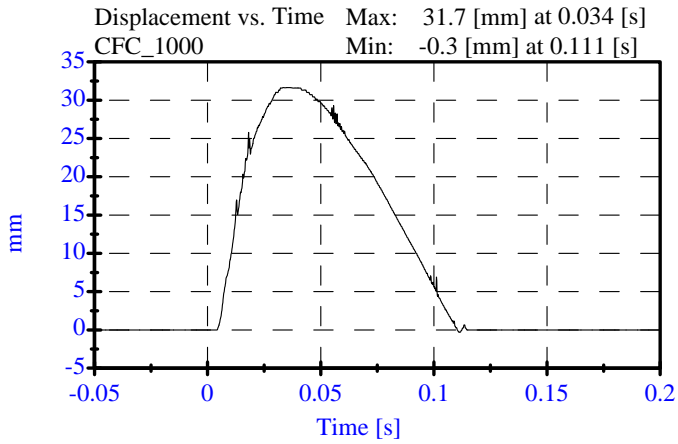
ATD Serial No: 905

Date: 08-13-08

Sequential Test Number: 1 File: 905SL 08-13-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Displacement:	30.00-35.00 mm	31.67 mm	Passed
Maximum Force:	836.00-1125.00 N	1038.31 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	905		
Damper Setting:	5		



905 Shock Impact Med (4.27 m/s)

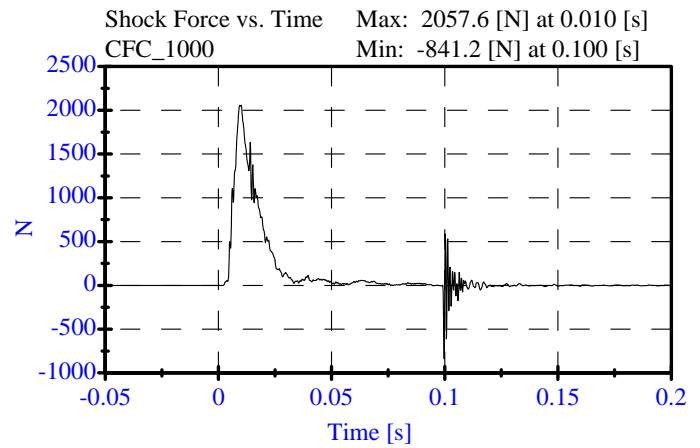
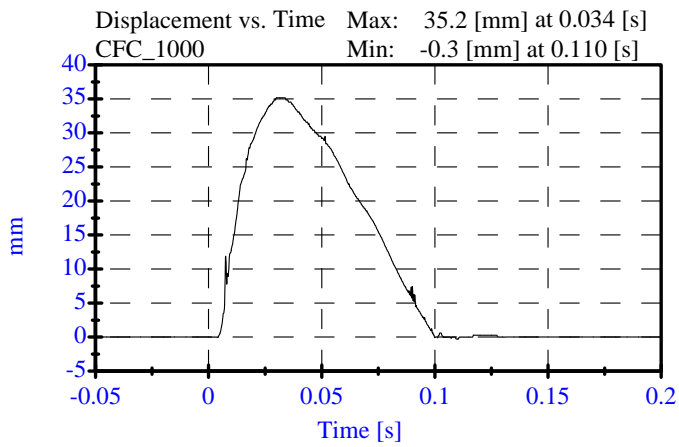
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 08-13-08

Sequential Test Number: 1 File: 905SM 08-13-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Displacement:	32.00-37.00 mm	35.17 mm	Passed
Maximum Force:	1730.00-2099.00 N	2057.58 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	905		
Damper Setting:	5		



905 Shock Impact High (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

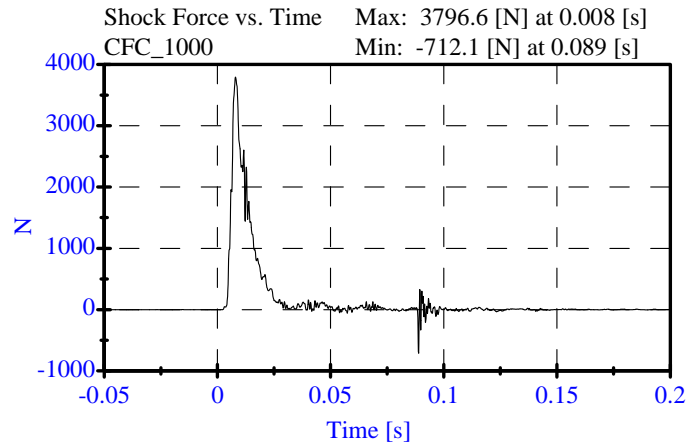
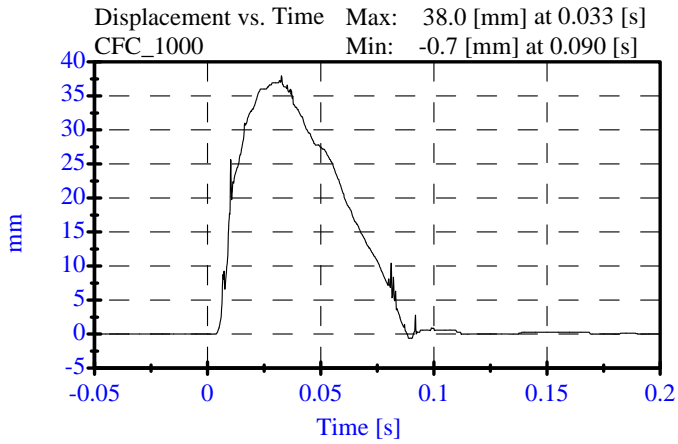
ATD Serial No: 905

Date: 08-13-08

Sequential Test Number: 1 File: 905SH 08-13-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	49.00 %	Passed
Displacement:	33.00-40.00 mm	37.99 mm	Passed
Maximum Force:	3741.00-4448.00 N	3796.60 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	905		
Damper Setting:	5		



Thorax Impact

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

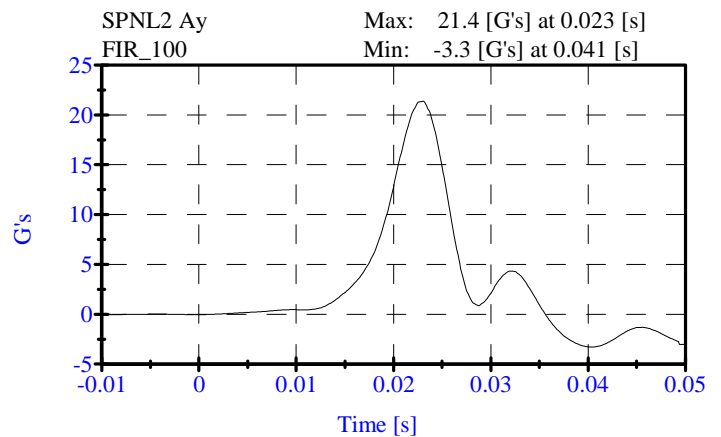
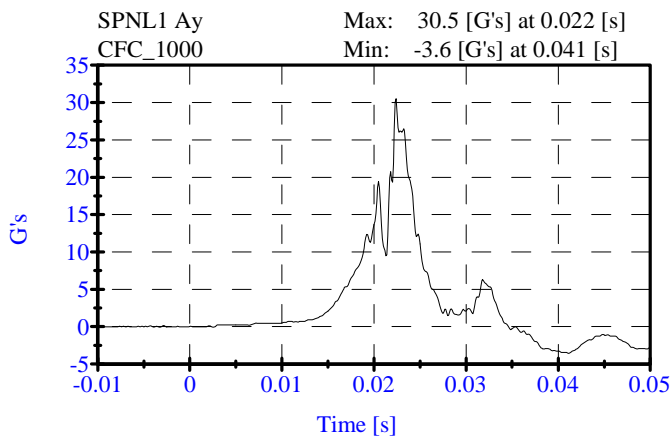
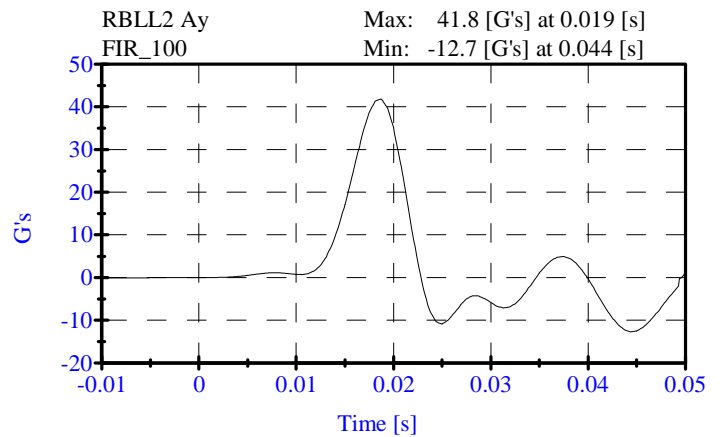
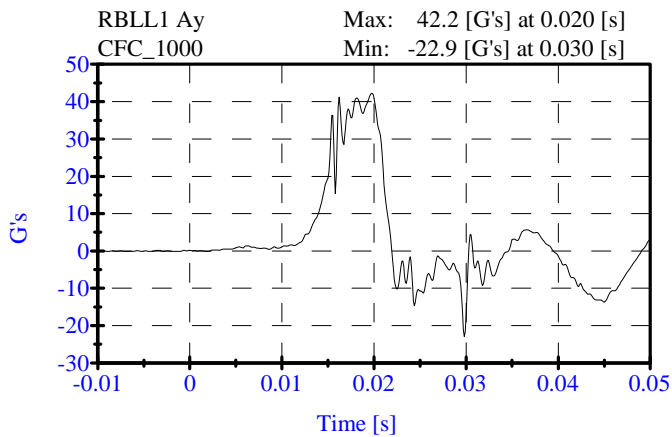
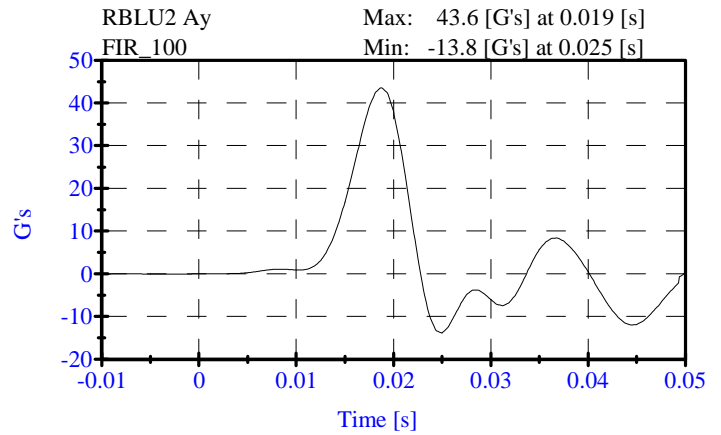
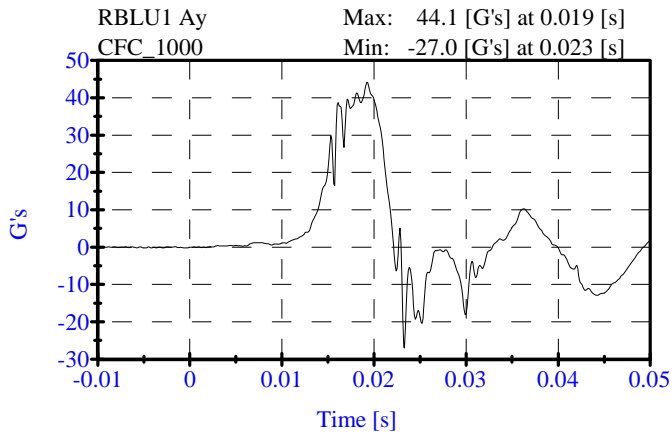
ATD Serial No: 905

Date: 10-27-08

Sequential Test Number: 1 File: 905T 10-27-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	29.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	43.61 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.82 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.40 G's	Passed



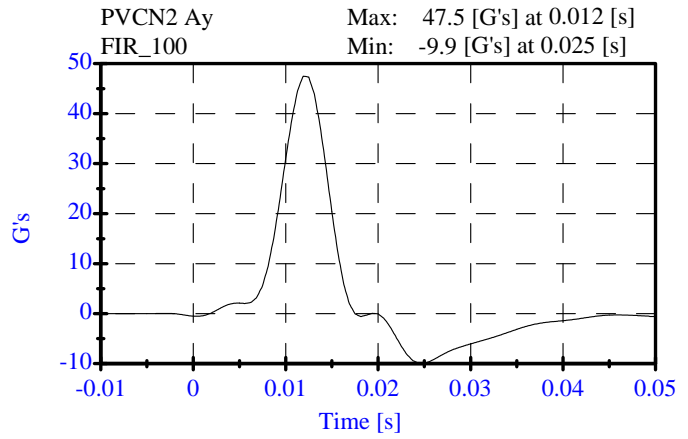
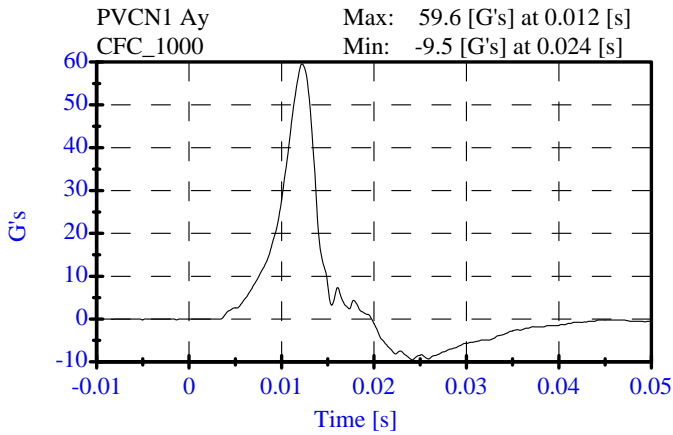
**Pelvis Impact
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 10-27-08

Sequential Test Number: 1 File: 905P 10-27-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	29.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	47.51 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.9 ms	Passed



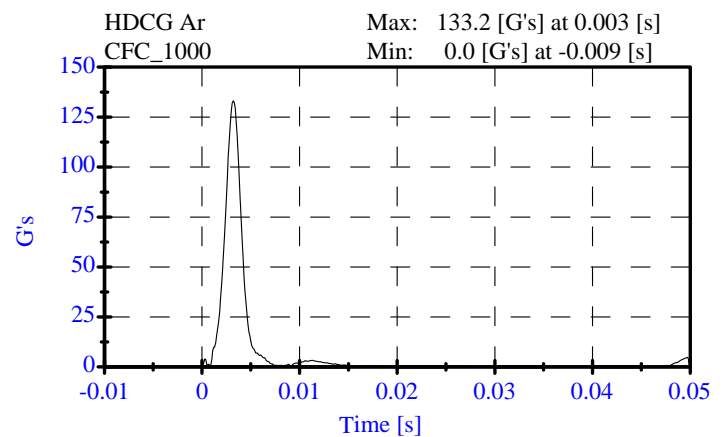
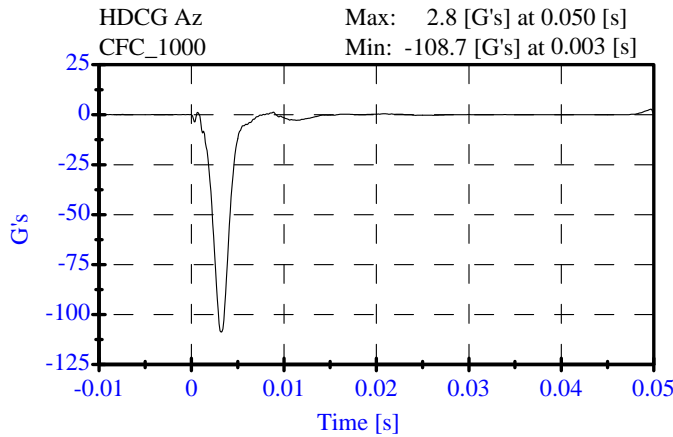
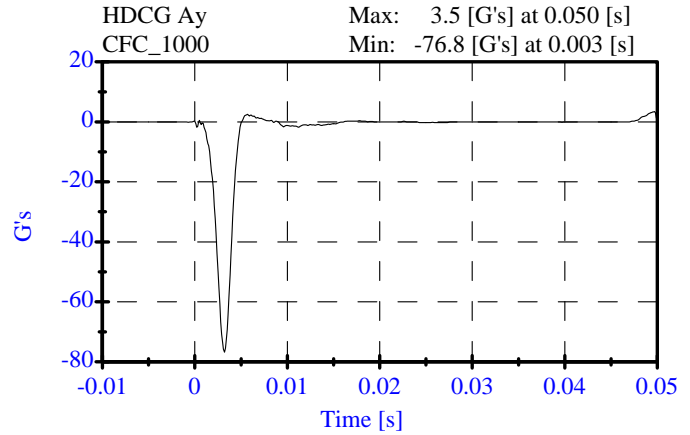
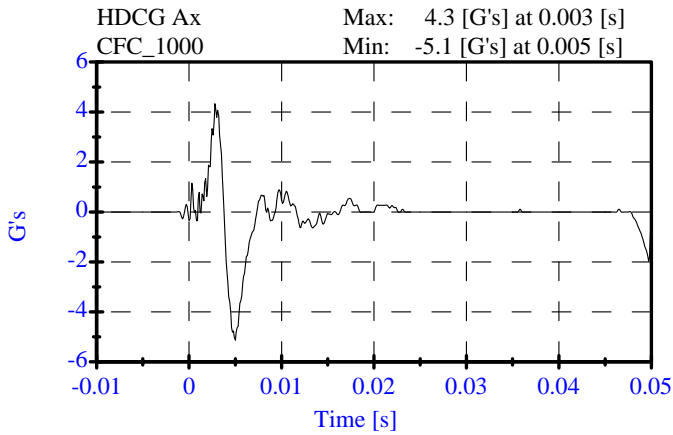
**Head Drop Test
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 10-23-08

Sequential Test Number: 1 File: 905H 10-23-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	25.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	133.16 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.33 Gs	Passed
Curve PerCent NonModal:	< 15%	4.45 %	Passed



**Neck Test
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 10-24-08

Sequential Test Number: 1 File: 905N 10-24-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	25.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.20 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.54 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.42 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.09 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	73.57 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.60 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	84.22 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	55.90 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	11.30 ms	Passed

**Neck Test
Pre-Test**

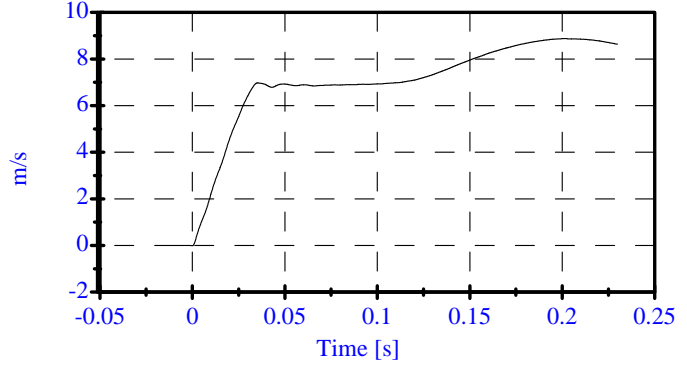
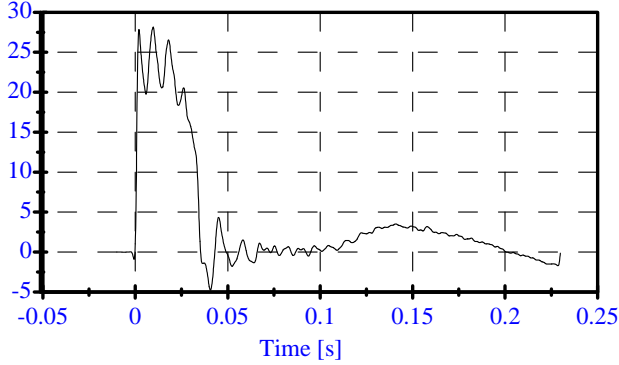
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 10-24-08

Sequential Test Number: 1 File: 905N 10-24-08
Laboratory Technician: B. Swiecicki

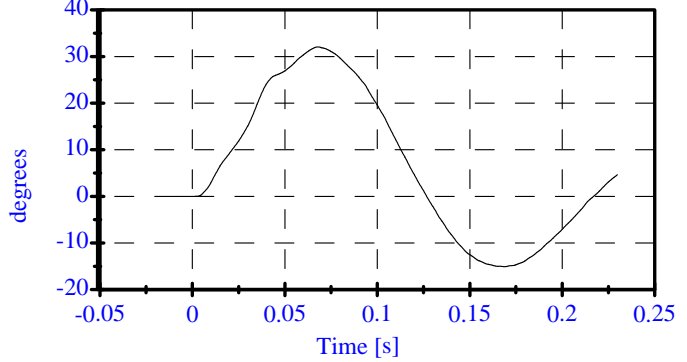
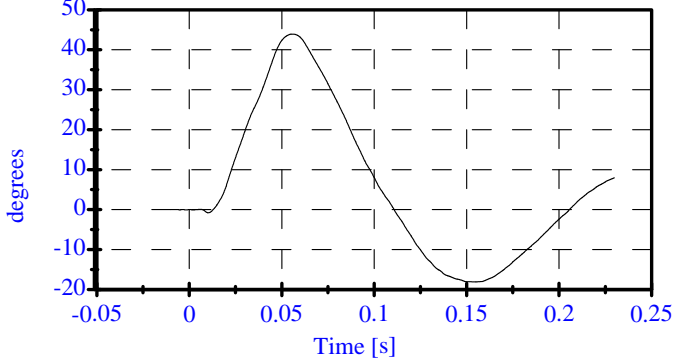
Pend Ax CFC_180 Max: 28.2 [] at 0.010 [s]
Min: -4.8 [] at 0.041 [s]

Pend Vx CFC_180 Max: 8.9 [m/s] at 0.201 [s]
Min: -0.0 [m/s] at -0.000 [s]



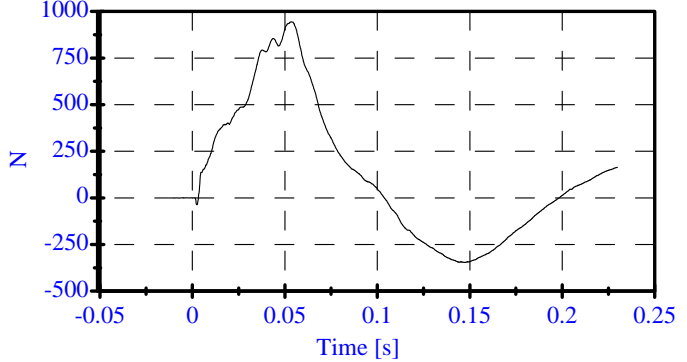
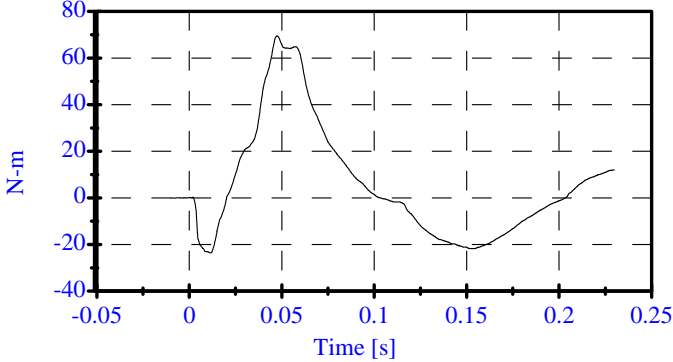
Head Rot CFC_180 Max: 43.9 [degrees] at 0.056 [s]
Min: -18.1 [degrees] at 0.154 [s]

Arm Rot CFC_180 Max: 32.1 [degrees] at 0.068 [s]
Min: -15.1 [degrees] at 0.169 [s]



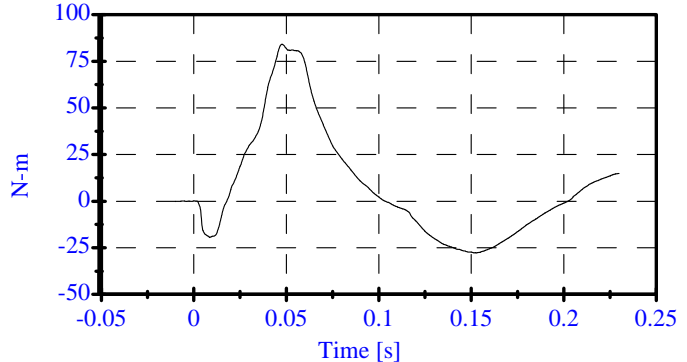
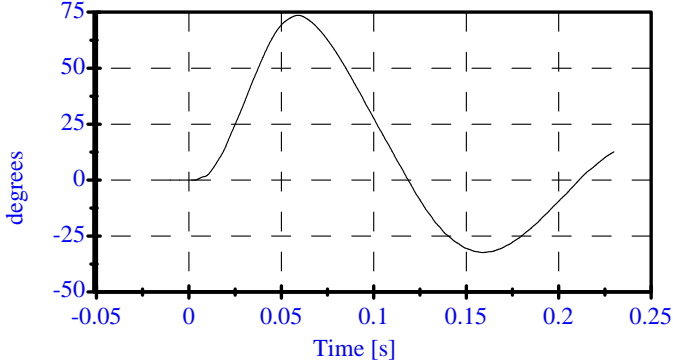
Neck Mx CFC_600 Max: 69.5 [N-m] at 0.048 [s]
Min: -23.6 [N-m] at 0.012 [s]

Neck Fy CFC_1000 Max: 944.3 [N] at 0.054 [s]
Min: -346.4 [N] at 0.147 [s]



Tot Rot CFC_180 Max: 73.6 [degrees] at 0.059 [s]
Min: -32.4 [degrees] at 0.159 [s]

MOCX Max: 84.2 [N-m] at 0.048 [s]
Min: -27.7 [N-m] at 0.153 [s]



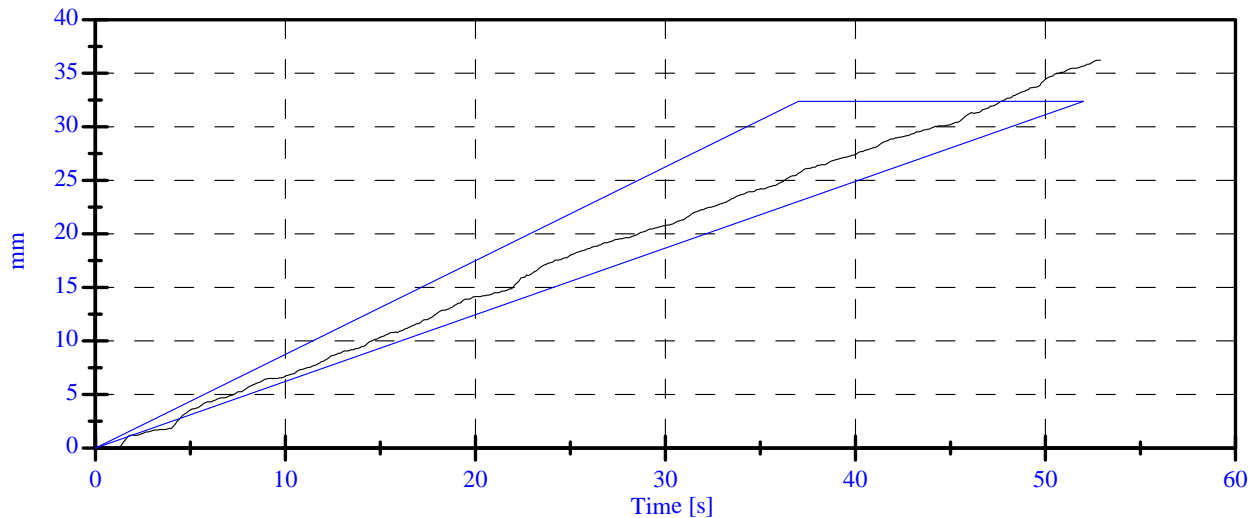
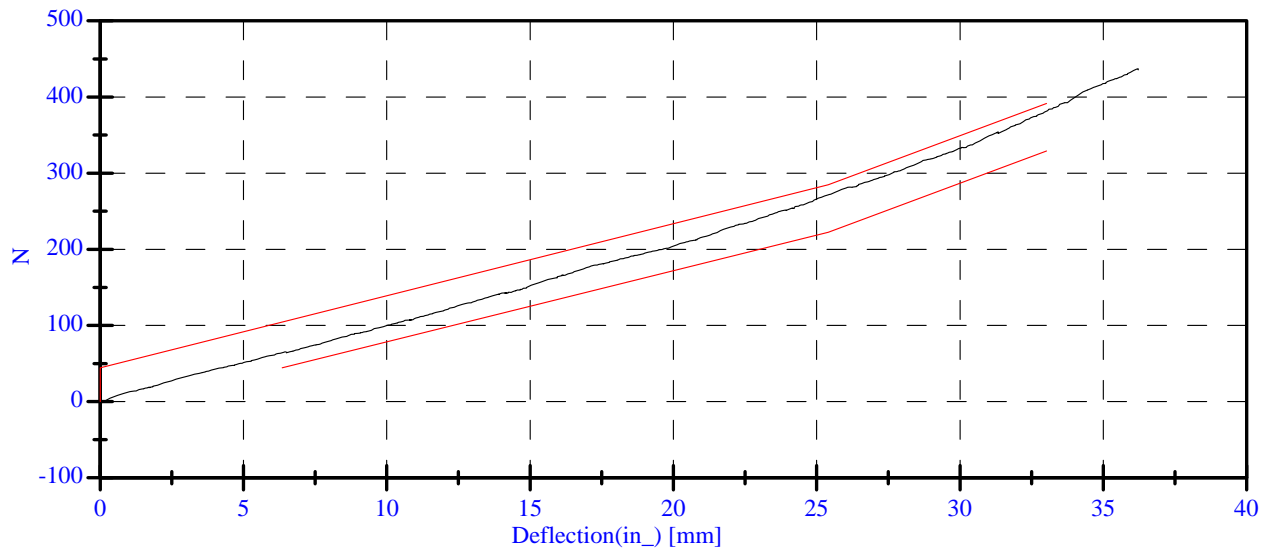
**Abdominal Compression Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 905
Date: 10-28-08

Sequential Test Number: 1 File: 905 Ab 10-28-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	129.75 N	Passed
Force at 19.05 mm :	162.98-220.99 N	195.10 N	Passed
Force at 25.40 mm :	221.97-280.02 N	271.39 N	Passed
Force at 33.02 mm :	324.99-391.00 N	382.00 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905

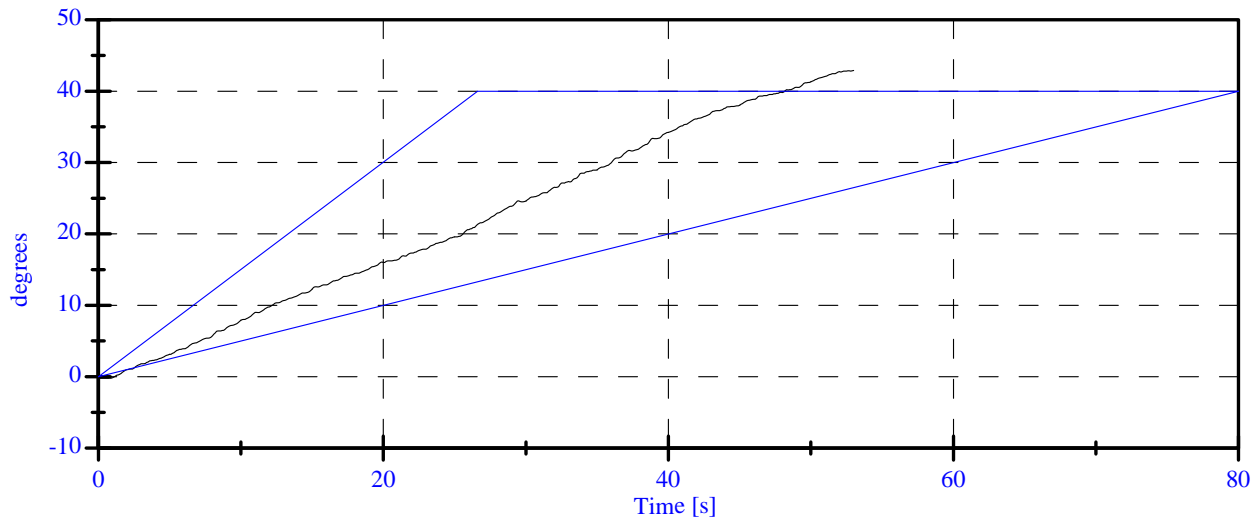
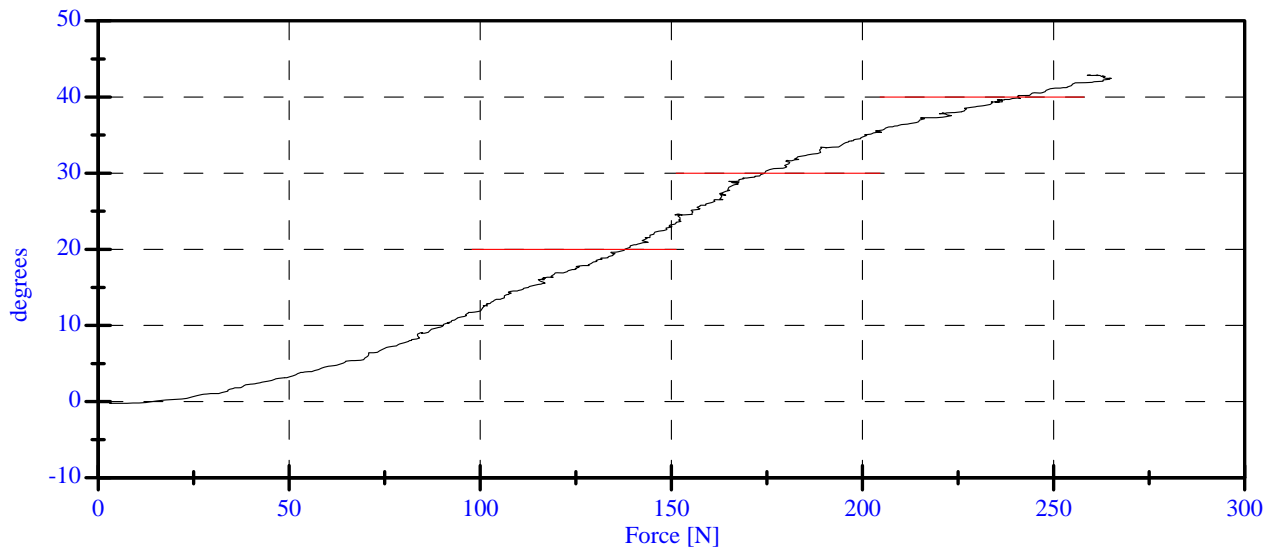
Date: 10-27-08

Sequential Test Number: 1 File: 905 Spine 10-27-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	29.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	13.58 N	Passed
Force at 20 Deg:	97.86-151.24 N	137.89 N	Passed
Force at 30 Deg:	151.24-204.62 N	174.45 N	Passed
Force at 40 Deg:	204.62-258.00 N	240.52 N	Passed
Return Angle	12 Deg Max	5.93 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
 Date: 10/24/08 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 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: 11/3/08 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 10/30/08 Laboratory Technician: B. Swiecicki

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

906 Shock Impact Test (3.05 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

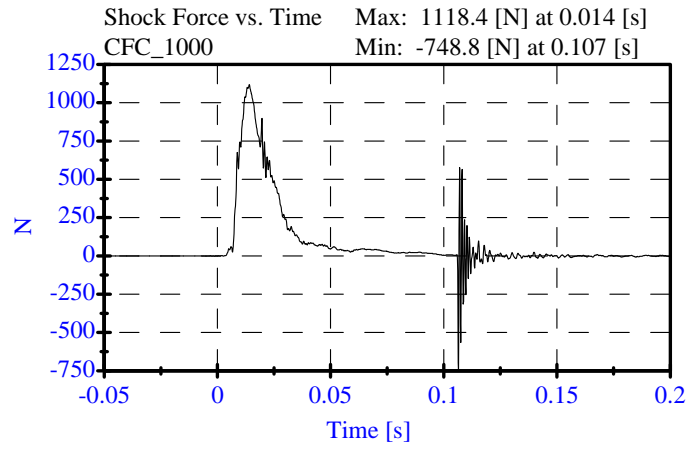
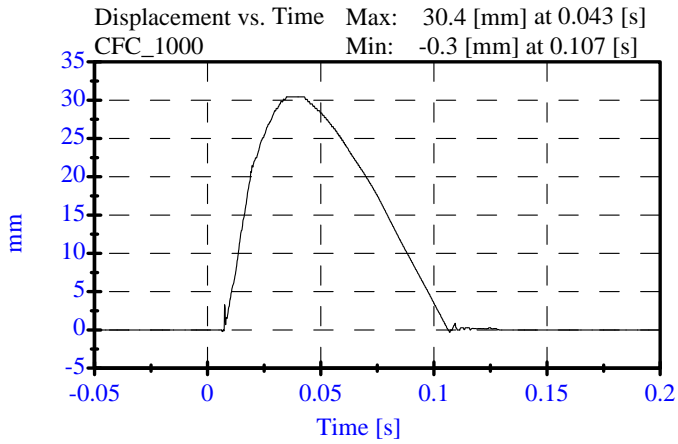
ATD Serial No: 906

Date: 08-13-08

Sequential Test Number: 1 File: 906SL 08-13-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	50.00 %	Passed
Displacement:	30.00-35.00 mm	30.44 mm	Passed
Maximum Force:	836.00-1125.00 N	1118.37 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	906		
Damper Setting:	5		



906 Shock Impact Med (4.27 m/s)

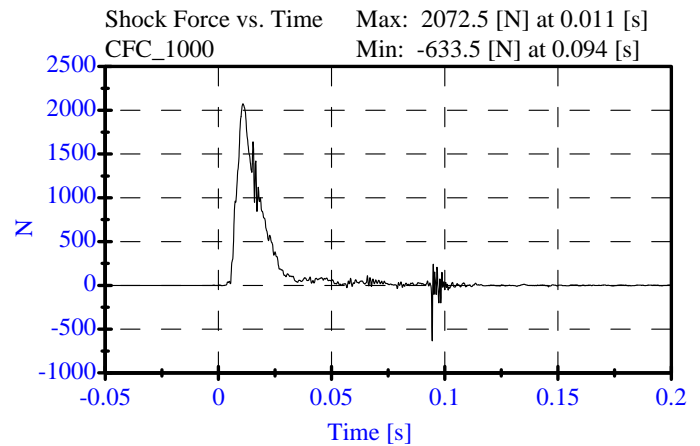
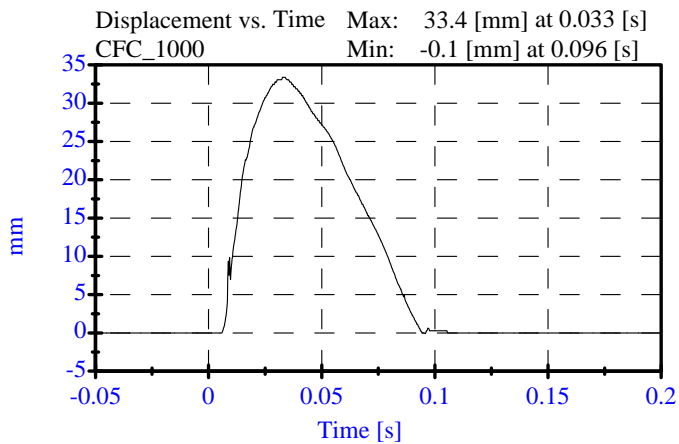
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 08-13-08

Sequential Test Number: 1 File: 906SM1 08-13-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	49.00 %	Passed
Displacement:	32.00-37.00 mm	33.40 mm	Passed
Maximum Force:	1730.00-2099.00 N	2072.48 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	906		
Damper Setting:	5		



906 Shock Impact High (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

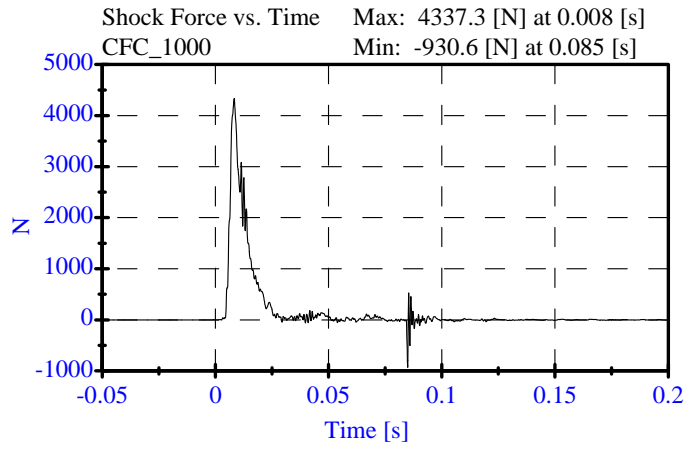
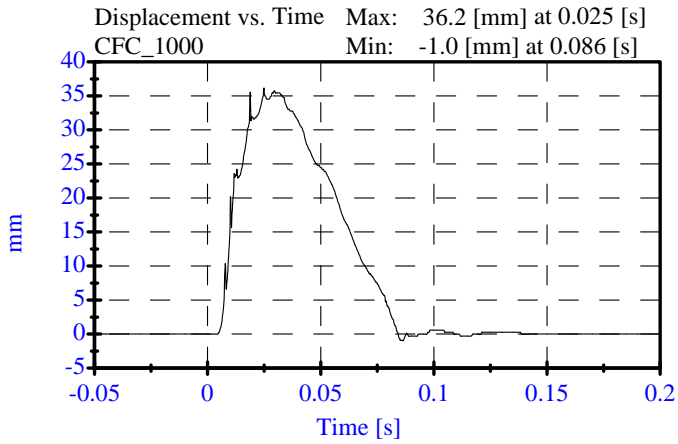
ATD Serial No: 906

Date: 08-13-08

Sequential Test Number: 1 File: 906SH 08-13-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	49.00 %	Passed
Displacement:	33.00-40.00 mm	36.20 mm	Passed
Maximum Force:	3741.00-4448.00 N	4337.31 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	906		
Damper Setting:	5		



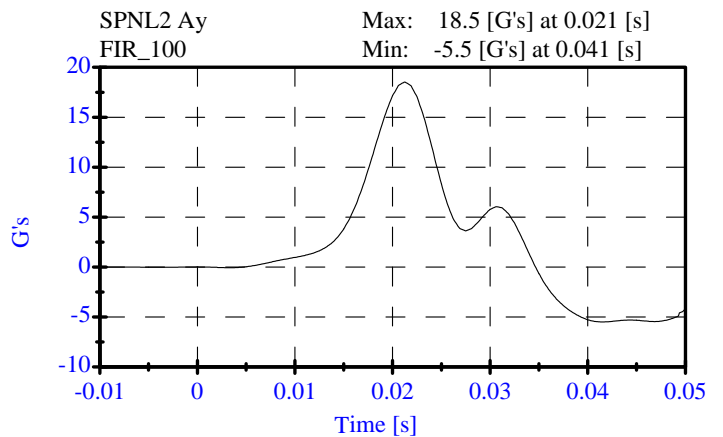
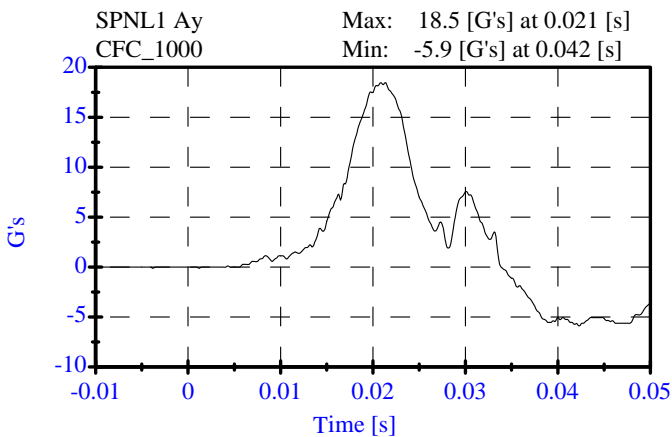
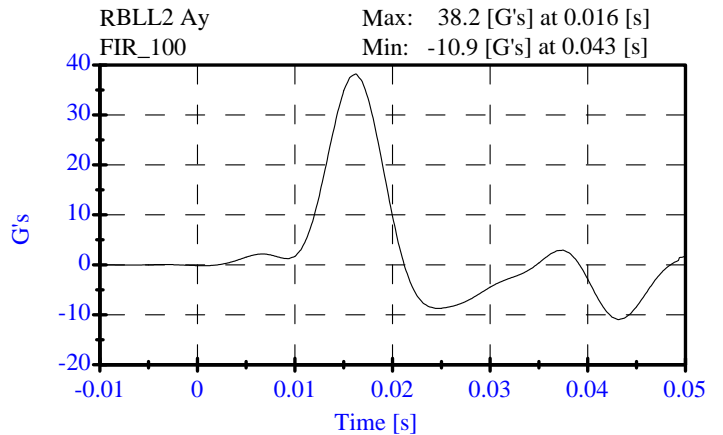
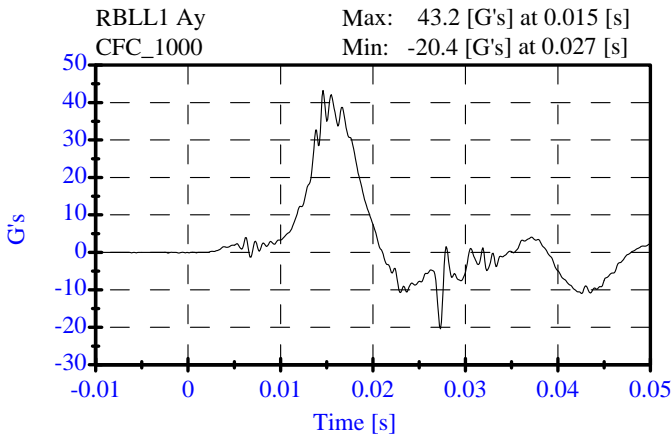
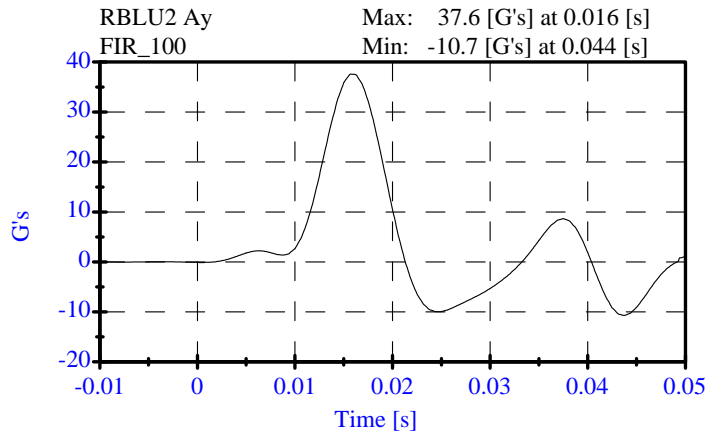
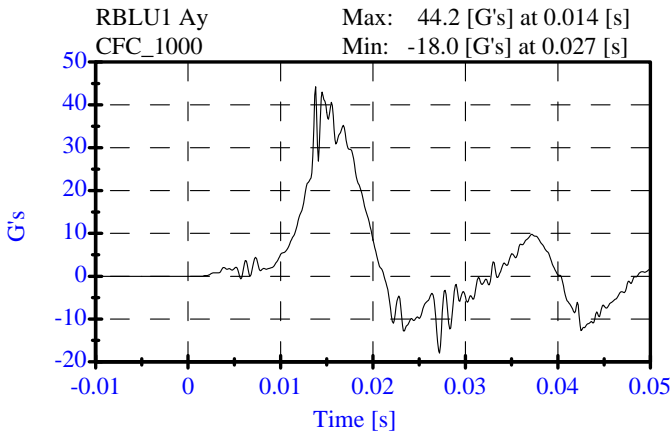
**Thorax Impact
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 10-31-08

Sequential Test Number: 1 File: 906T1 10-31-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	21.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	37.58 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	38.23 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.54 G's	Passed



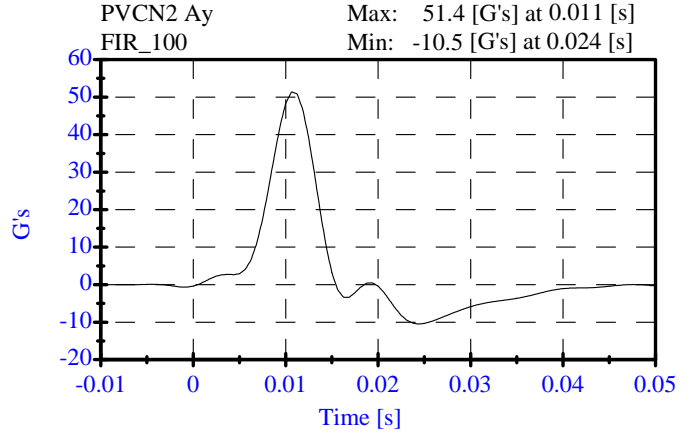
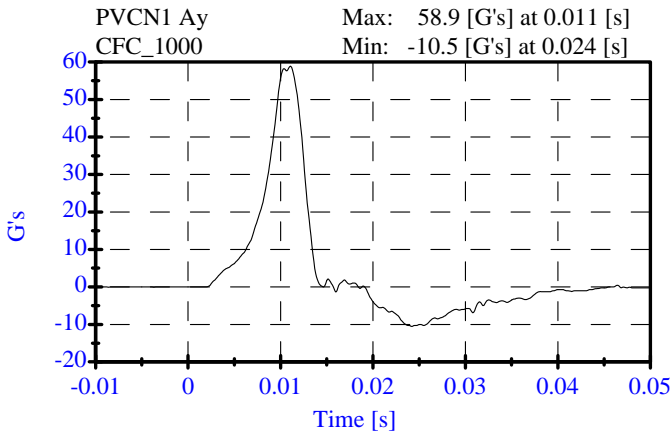
**Pelvis Impact
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 10-31-08

Sequential Test Number: 1 File: 906P 10-31-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	20.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	51.37 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.0 ms	Passed



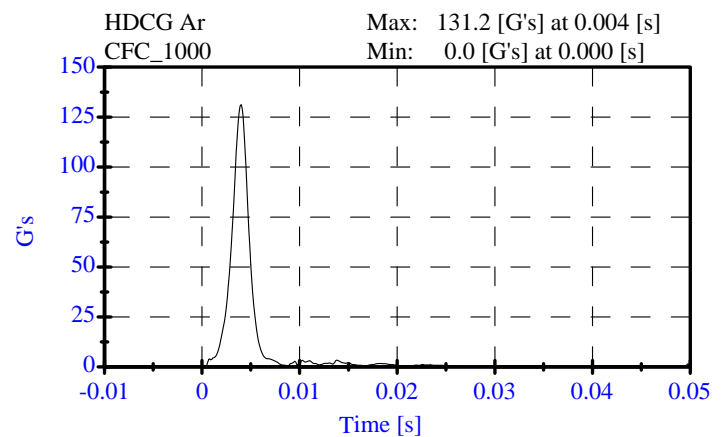
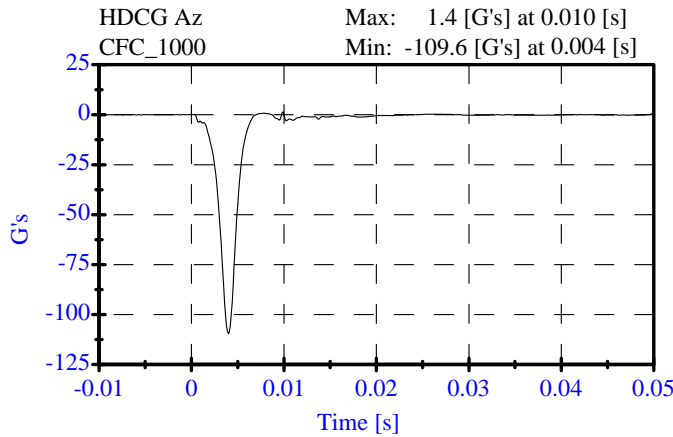
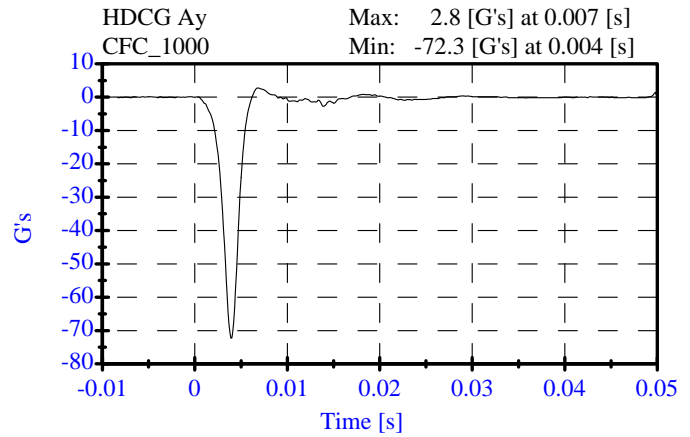
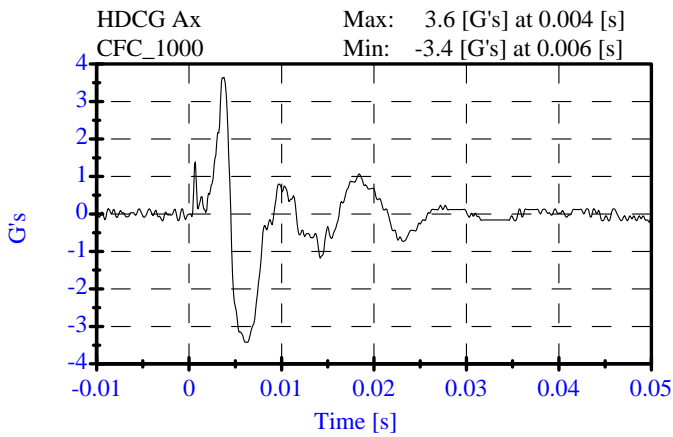
**Head Drop Test
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 10-30-08

Sequential Test Number: 1 File: 906H 10-30-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	20.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	131.23 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	3.65 Gs	Passed
Curve PerCent NonModal:	< 15%	2.62 %	Passed



**Neck Test
Pre-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 10-30-08

Sequential Test Number: 1 File: 906N 10-30-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	20.00 %	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	6.42 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.05 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	73.02 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	79.85 Nm	Passed
Occipital Moment Decay:	49.0-64.0 ms	58.60 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	11.90 ms	Passed

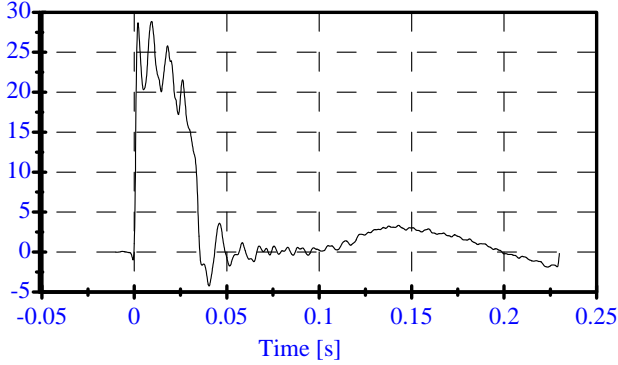
Neck Test
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

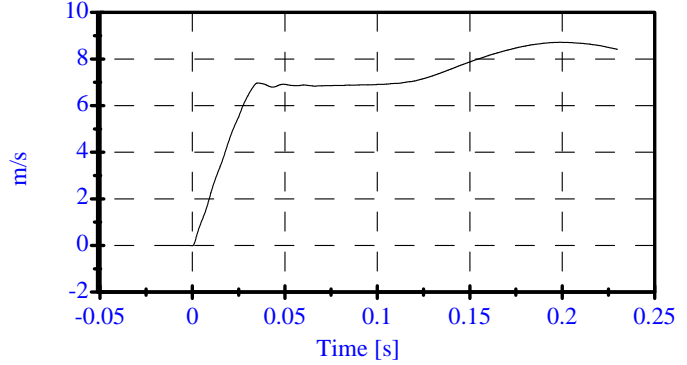
ATD Serial No: 906
Date: 10-30-08

Sequential Test Number: 1 File: 906N 10-30-08
Laboratory Technician: B. Swiecicki

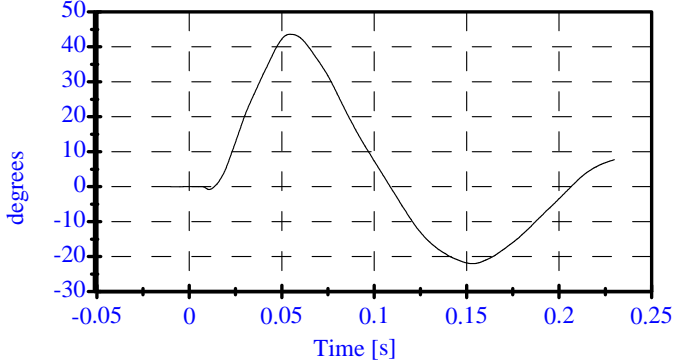
Pend Ax CFC_180 Max: 28.9 [] at 0.009 [s]
Min: -4.2 [] at 0.040 [s]



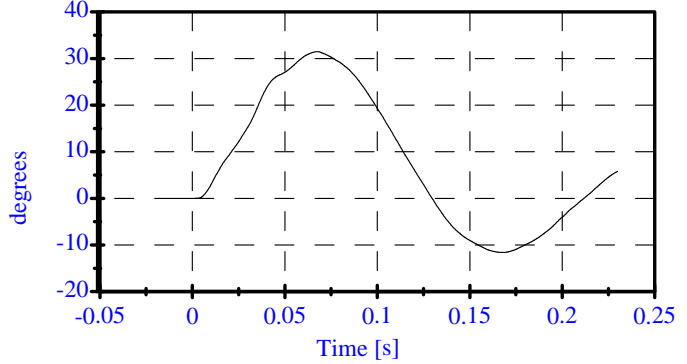
Pend Vx CFC_180 Max: 8.7 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



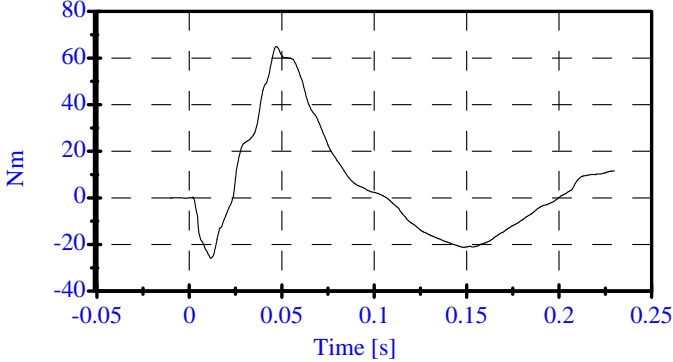
Head Rot CFC_180 Max: 43.6 [degrees] at 0.054 [s]
Min: -22.0 [degrees] at 0.154 [s]



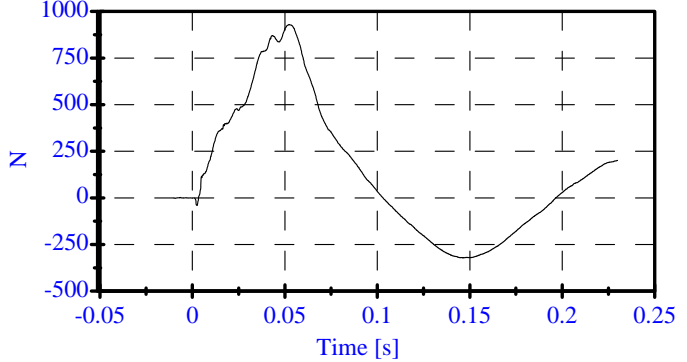
Arm Rot CFC_180 Max: 31.5 [degrees] at 0.068 [s]
Min: -11.6 [degrees] at 0.168 [s]



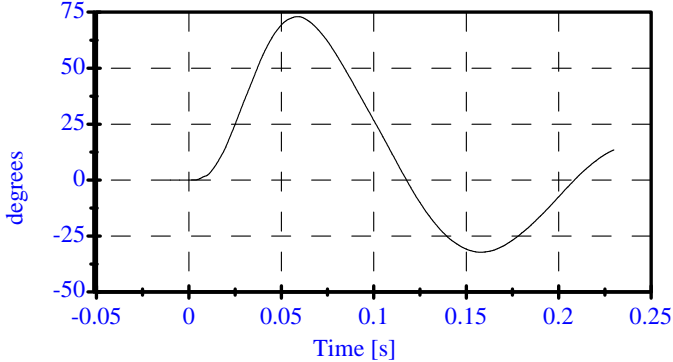
Neck Mx CFC_600 Max: 64.9 [Nm] at 0.047 [s]
Min: -25.9 [Nm] at 0.012 [s]



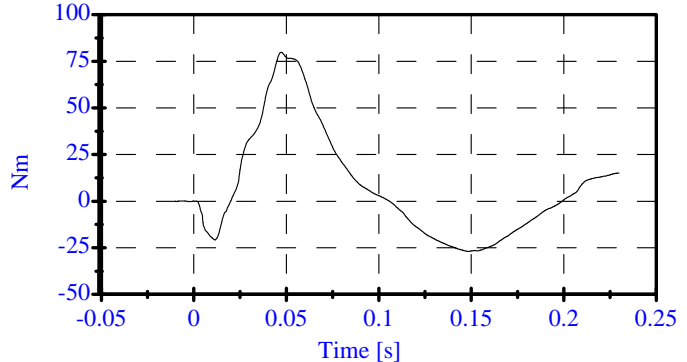
Neck Fy CFC_1000 Max: 929.5 [N] at 0.052 [s]
Min: -321.4 [N] at 0.147 [s]



Tot Rot CFC_180 Max: 73.0 [degrees] at 0.059 [s]
Min: -32.2 [degrees] at 0.158 [s]



MOCX Max: 79.8 [Nm] at 0.047 [s]
Min: -26.9 [Nm] at 0.149 [s]



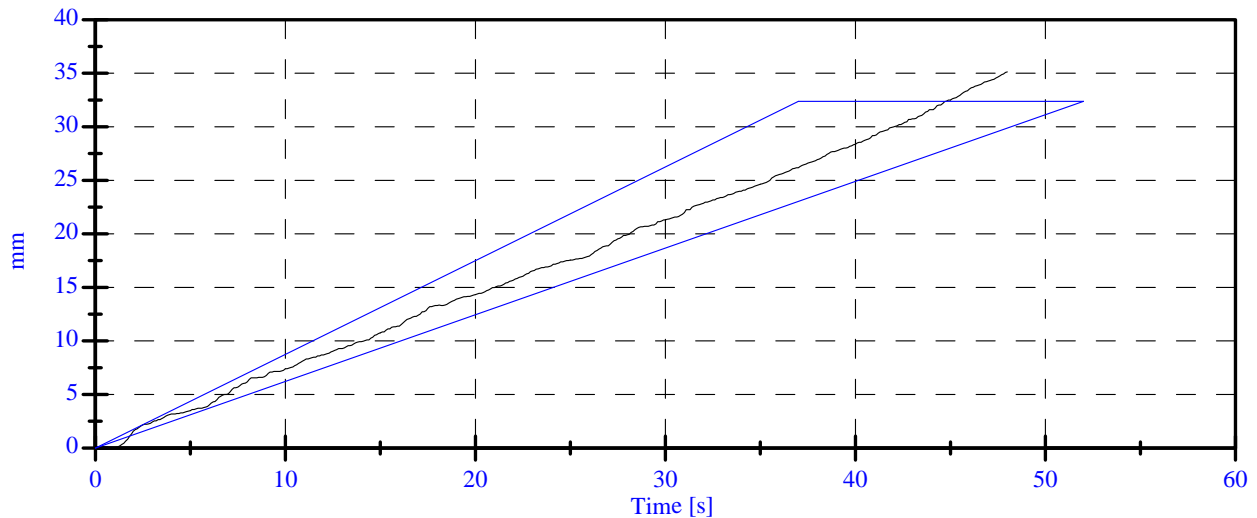
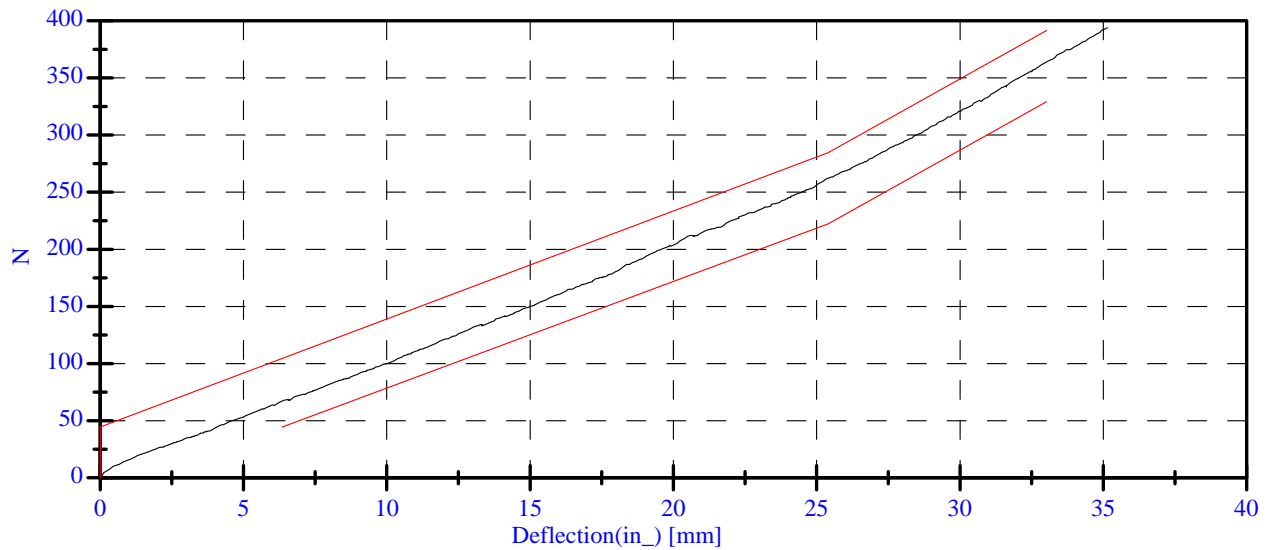
**Abdominal Compression Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 906
Date: 11-03-08

Sequential Test Number: 1 File: 906 Ab 11-03-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	132.31 N	Passed
Force at 19.05 mm :	162.98-220.99 N	194.00 N	Passed
Force at 25.40 mm :	221.97-280.02 N	262.63 N	Passed
Force at 33.02 mm :	324.99-391.00 N	363.01 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906

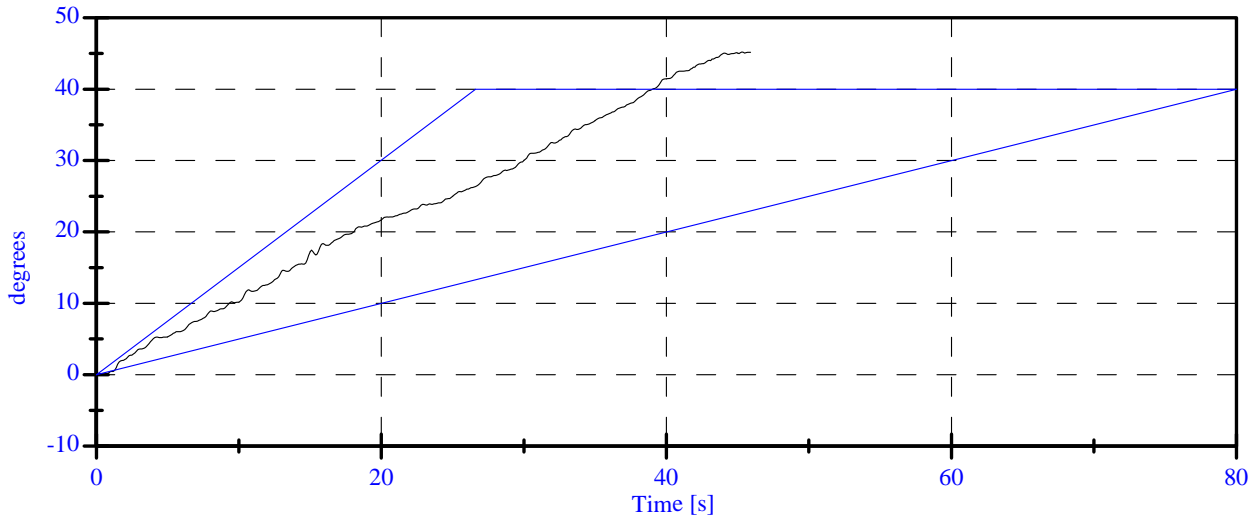
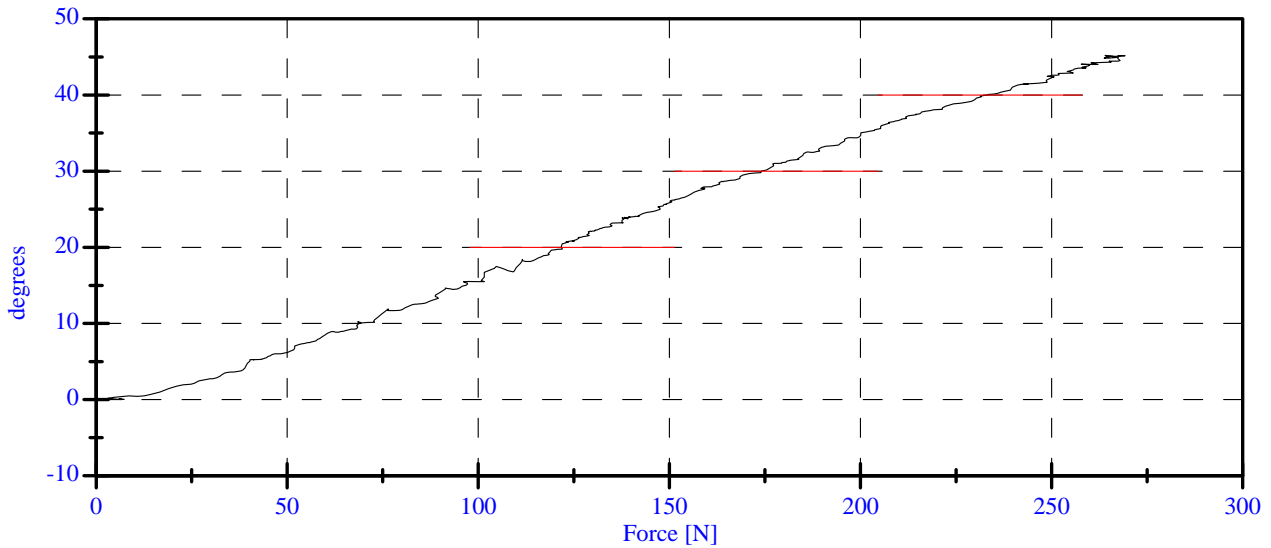
Date: 11-03-08

Sequential Test Number: 1 File: 906 Spine 11-03-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	6.53 N	Passed
Force at 20 Deg:	97.86-151.24 N	121.70 N	Passed
Force at 30 Deg:	151.24-204.62 N	174.19 N	Passed
Force at 40 Deg:	204.62-258.00 N	233.21 N	Passed
Return Angle	12 Deg Max	6.10 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: 10/30/08 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 905

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 12/3/08 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 12/2/08 Laboratory Technician: B. Swiecicki

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

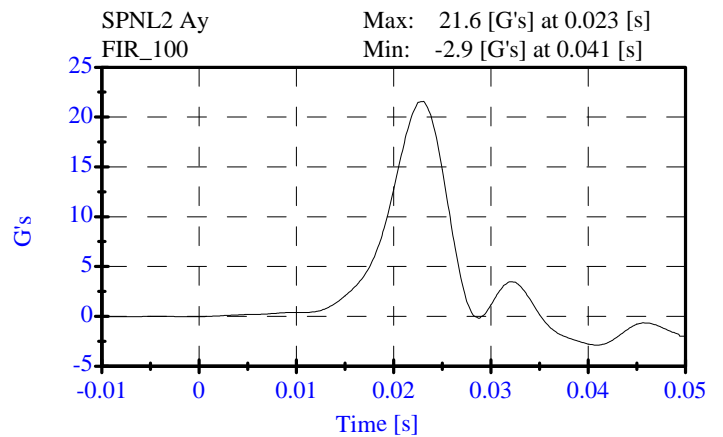
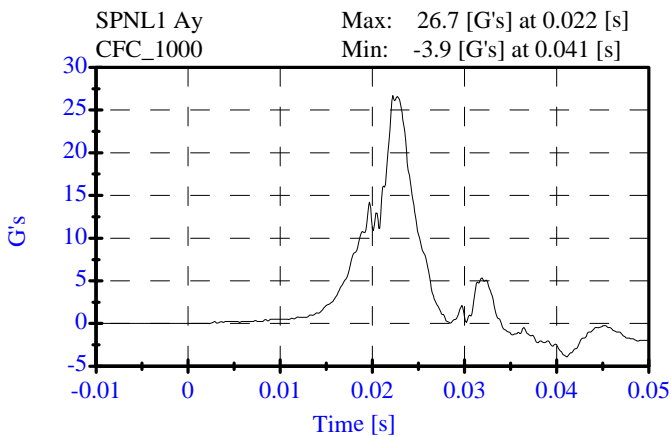
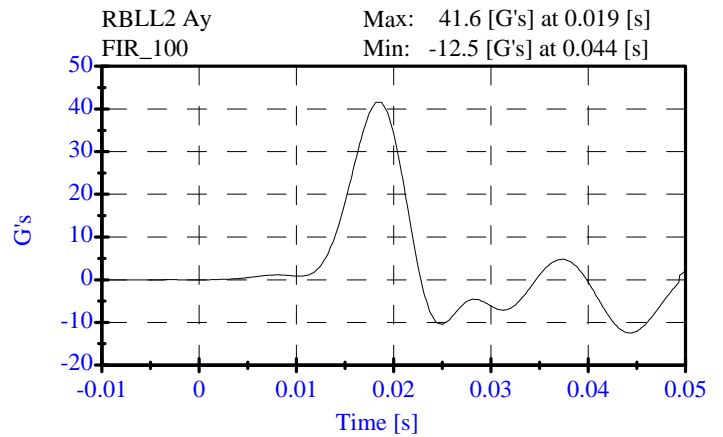
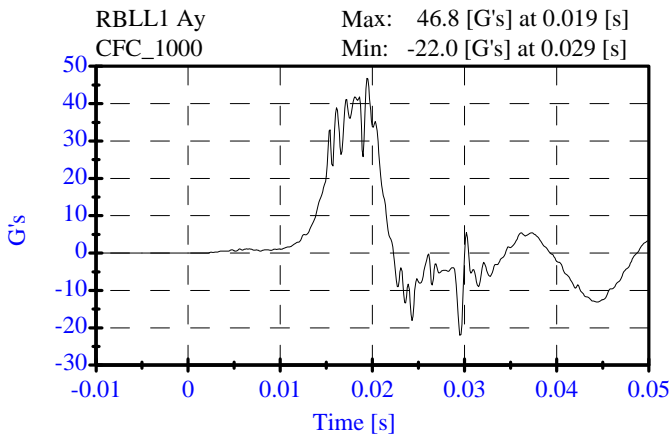
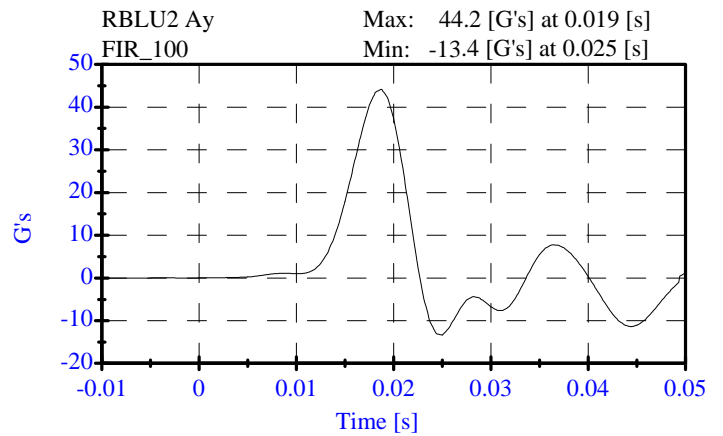
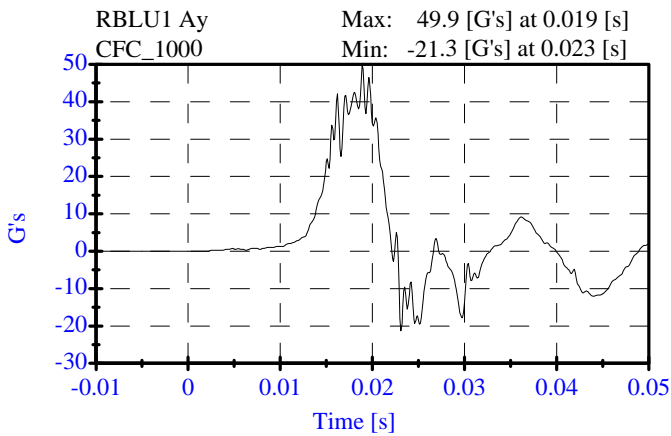
**Thorax Impact
Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 12-03-08

Sequential Test Number: 1 File: 905T 12-03-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	44.17 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.60 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.59 G's	Passed



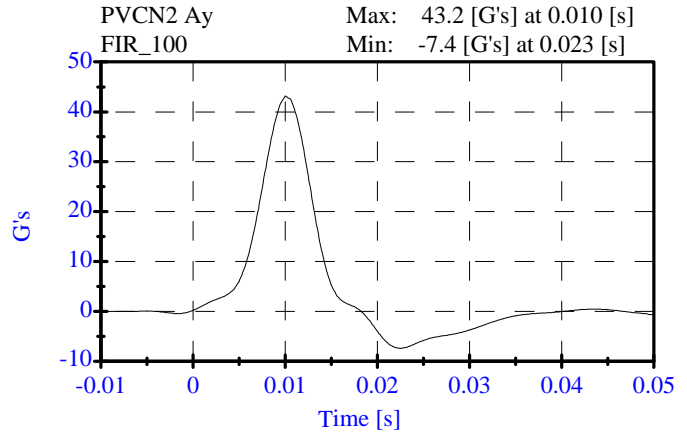
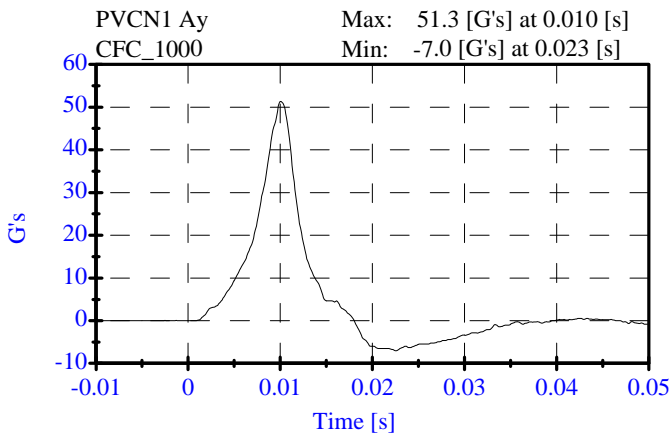
**Pelvis Impact Test
Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 12-03-08

Sequential Test Number: 1 File: 905P 12-03-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	43.20 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.1 ms	Passed



Head Drop Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

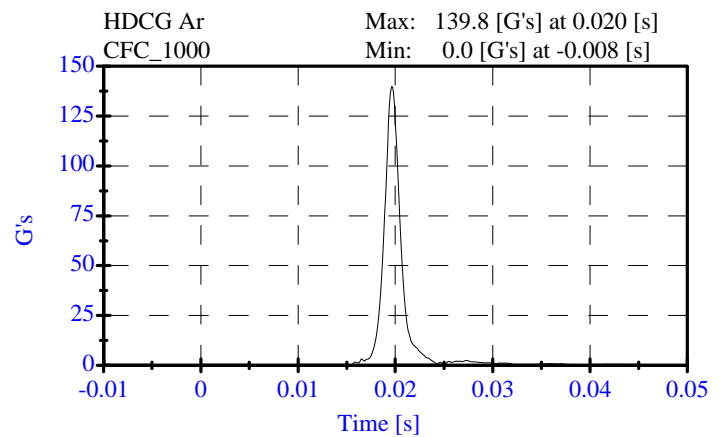
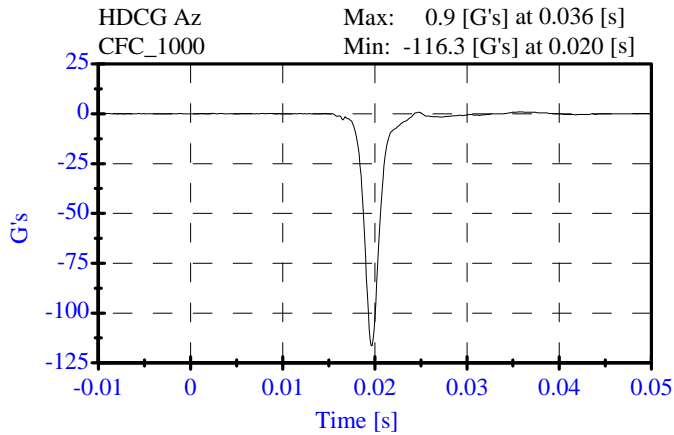
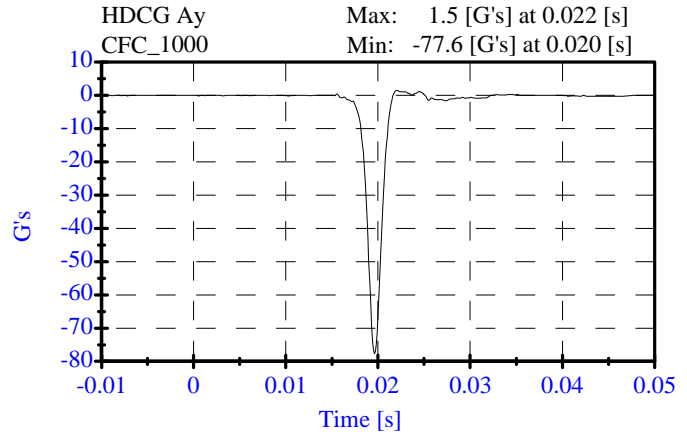
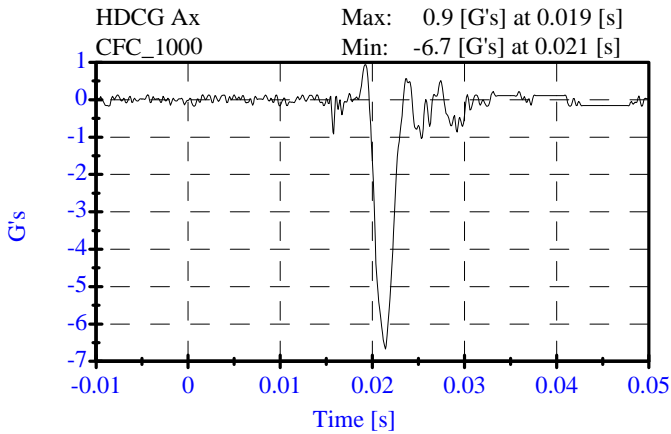
ATD Serial No: 905

Date: 12-01-08

Sequential Test Number: 1 File: 905H1 12-01-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	23.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	139.79 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.94 Gs	Passed
Curve PerCent NonModal:	< 15%	1.71 %	Passed



Neck Flexion Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905

Date: 12-02-08

Sequential Test Number: 1 File: 905N2 12-02-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	18.00 %	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	2.08 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.35 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.18 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.61 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	73.71 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.00 ms	Failed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	84.78 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	56.30 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	12.00 ms	Passed

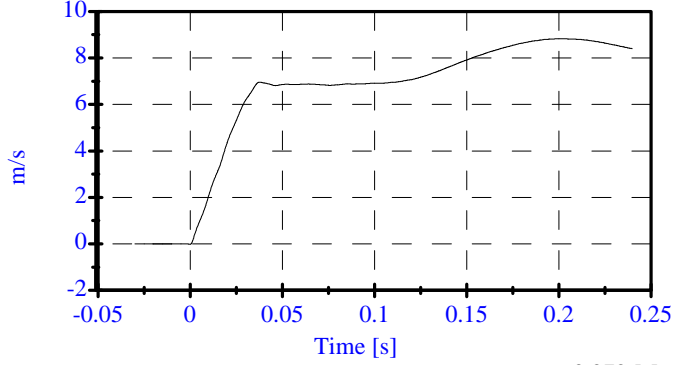
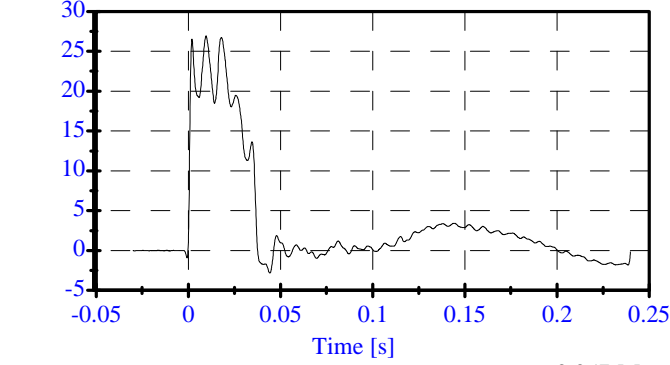
Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
 Date: 12-02-08

Sequential Test Number: 1 File: 905N2 12-02-08
 Laboratory Technician: B. Swiecicki

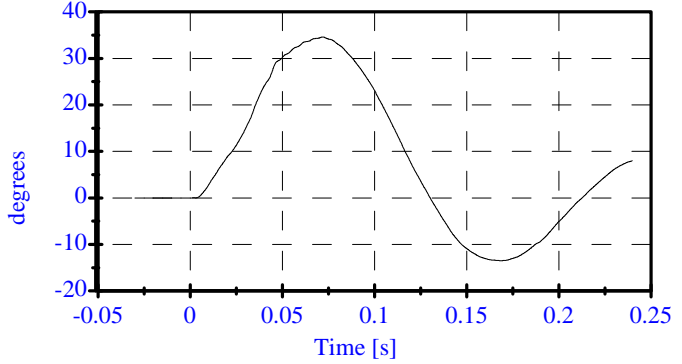
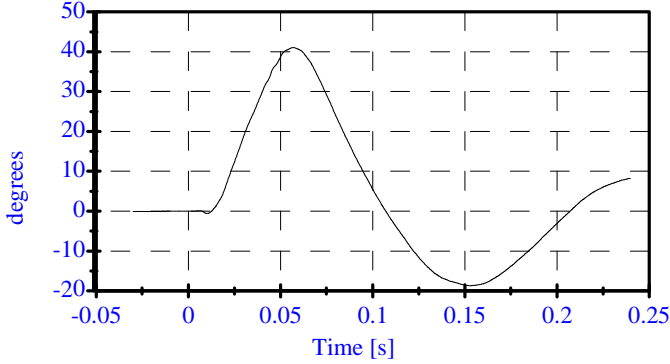
Pend Ax
 CFC_180
 Max: 27.0 [] at 0.010 [s]
 Min: -2.8 [] at 0.044 [s]

Pend Vx
 CFC_180
 Max: 8.8 [m/s] at 0.200 [s]
 Min: -0.0 [m/s] at -0.000 [s]



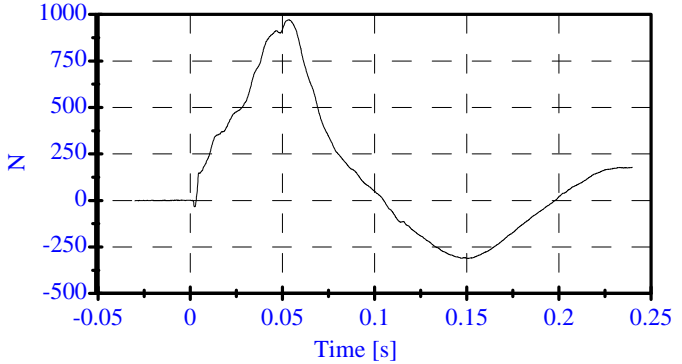
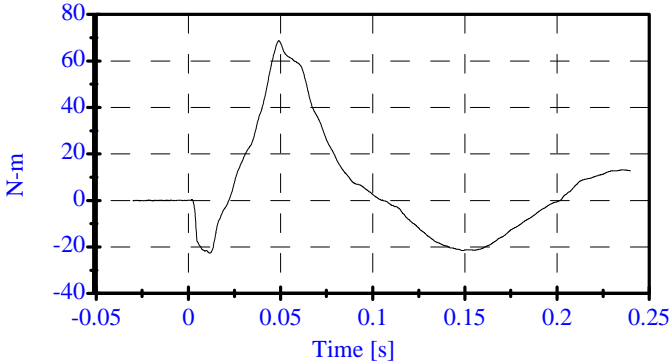
Head Rot
 CFC_180
 Max: 41.1 [degrees] at 0.057 [s]
 Min: -18.7 [degrees] at 0.153 [s]

Arm Rot
 CFC_180
 Max: 34.6 [degrees] at 0.072 [s]
 Min: -13.5 [degrees] at 0.169 [s]



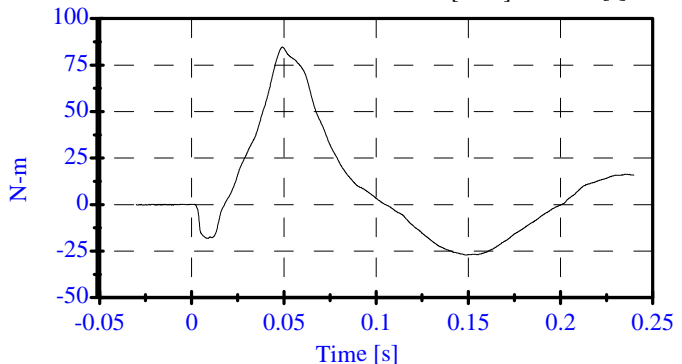
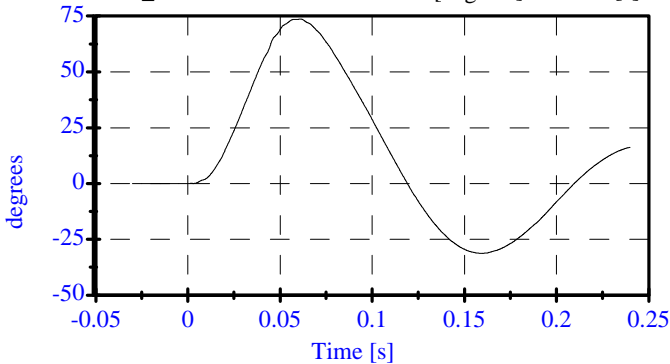
Neck Mx
 CFC_600
 Max: 68.8 [N-m] at 0.049 [s]
 Min: -22.6 [N-m] at 0.012 [s]

Neck Fy
 CFC_1000
 Max: 971.2 [N] at 0.053 [s]
 Min: -312.1 [N] at 0.151 [s]



Tot Rot
 CFC_180
 Max: 73.7 [degrees] at 0.061 [s]
 Min: -31.2 [degrees] at 0.159 [s]

MOCX
 Max: 84.8 [N-m] at 0.049 [s]
 Min: -27.0 [N-m] at 0.150 [s]



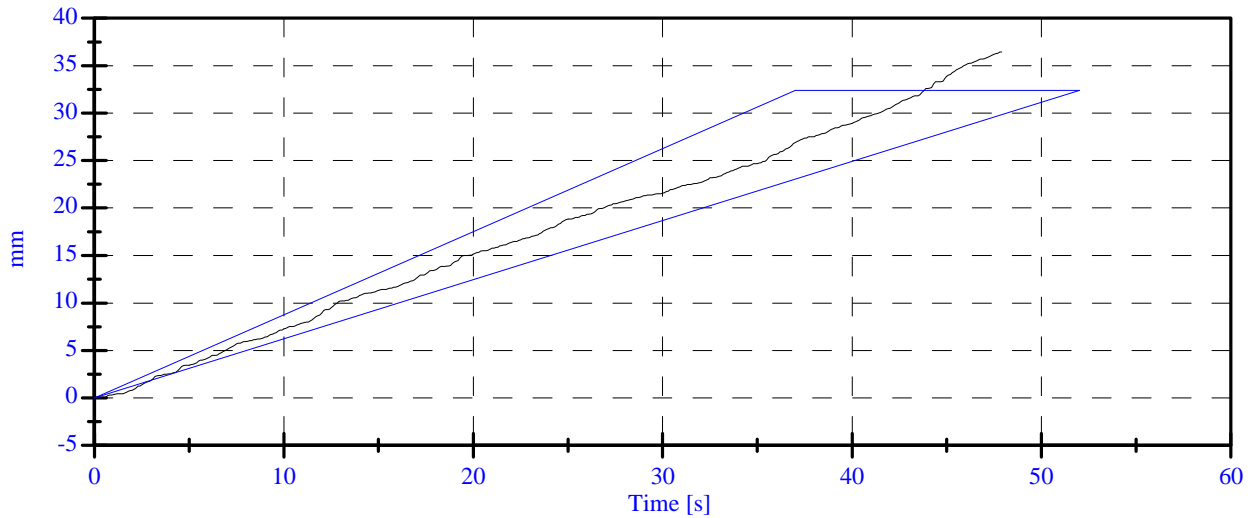
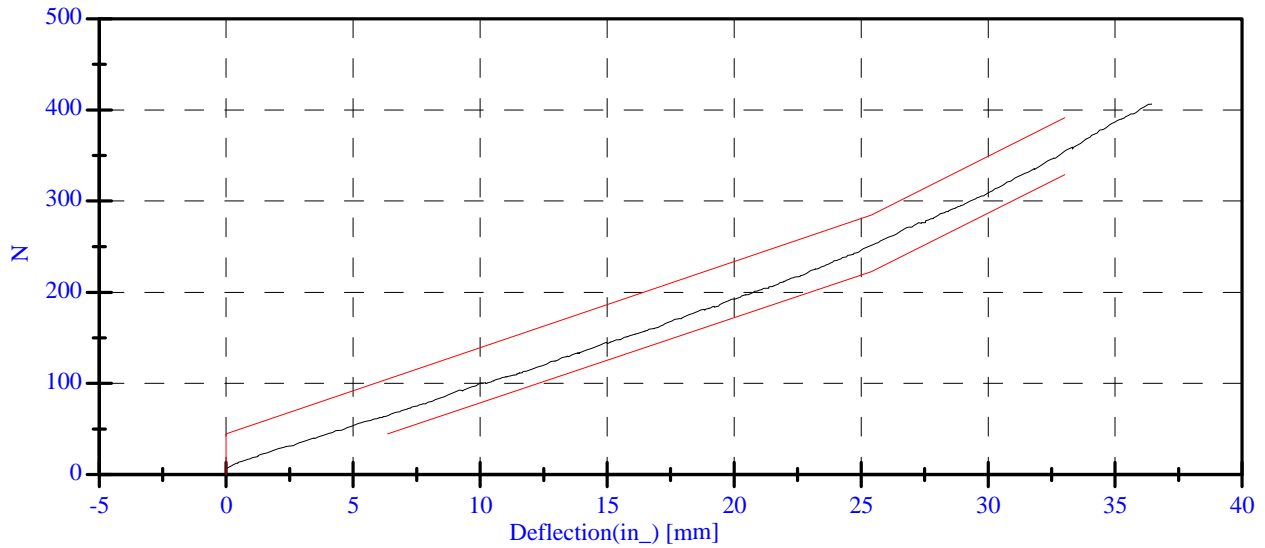
**Abdominal Compression Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 905
Date: 12-01-08

Sequential Test Number: 1 File: 905 Ab 12-01-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	23.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	124.64 N	Passed
Force at 19.05 mm :	162.98-220.99 N	182.68 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	355.71 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905

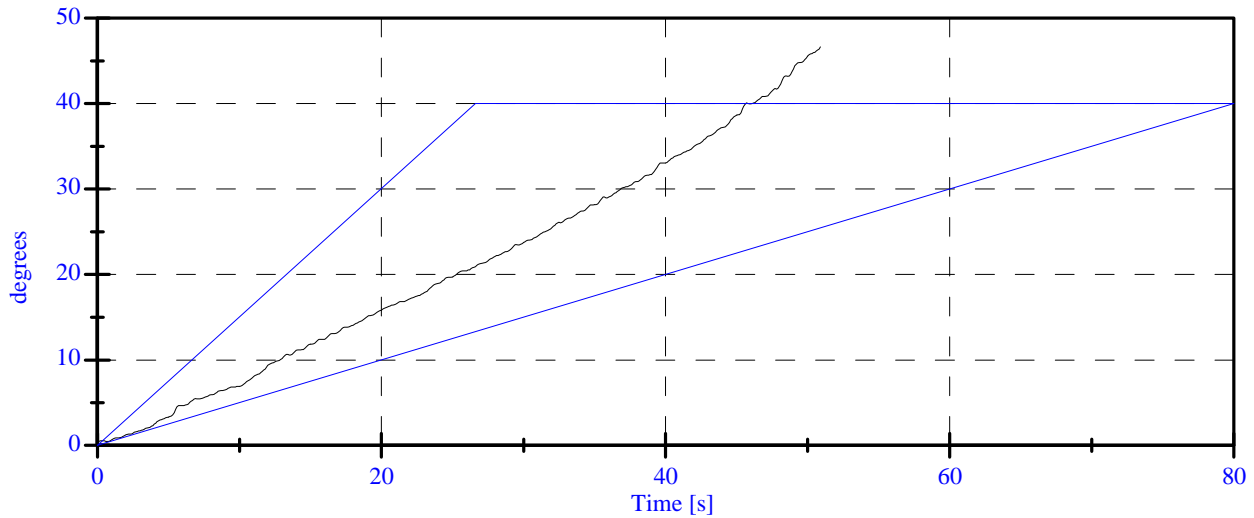
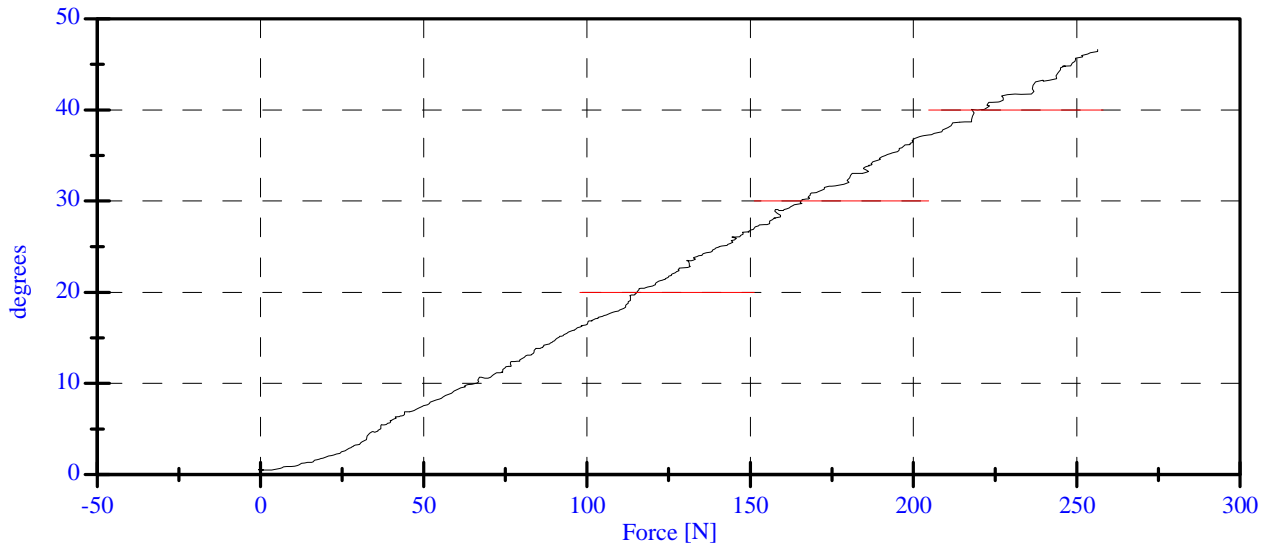
Date: 12-04-08

Sequential Test Number: 1 File: 905 Spine 12-04-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	23.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	0.78 N	Passed
Force at 20 Deg:	97.86-151.24 N	115.43 N	Passed
Force at 30 Deg:	151.24-204.62 N	165.31 N	Passed
Force at 40 Deg:	204.62-258.00 N	219.63 N	Passed
Return Angle	12 Deg Max	8.85 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
 Date: 12/1/08 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 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: 12/3/08 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 12/2/08 Laboratory Technician: B. Swiecicki

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

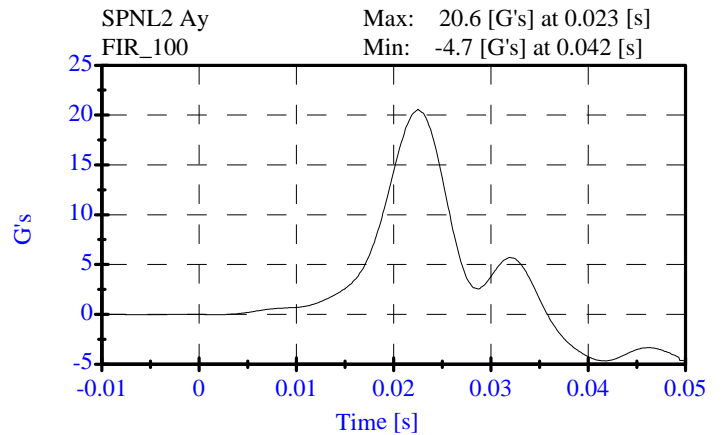
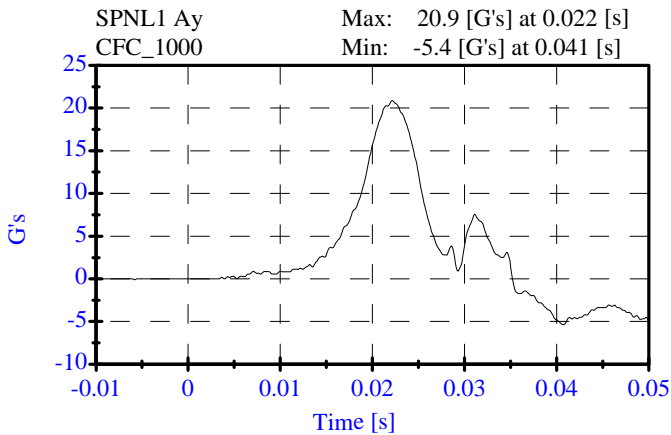
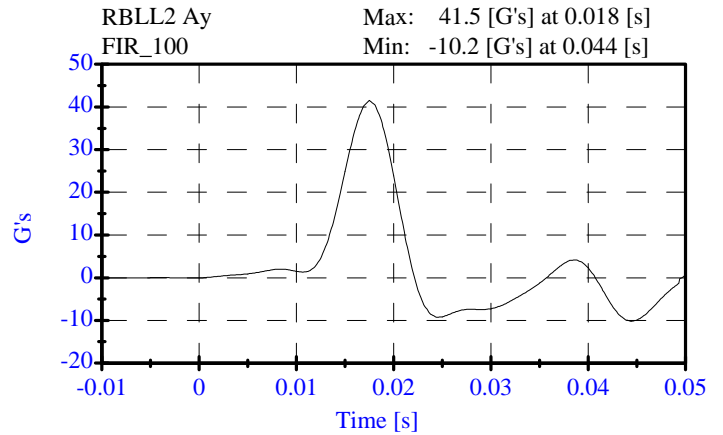
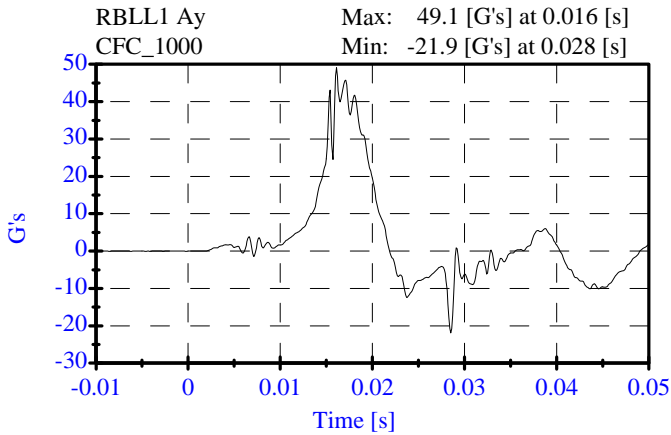
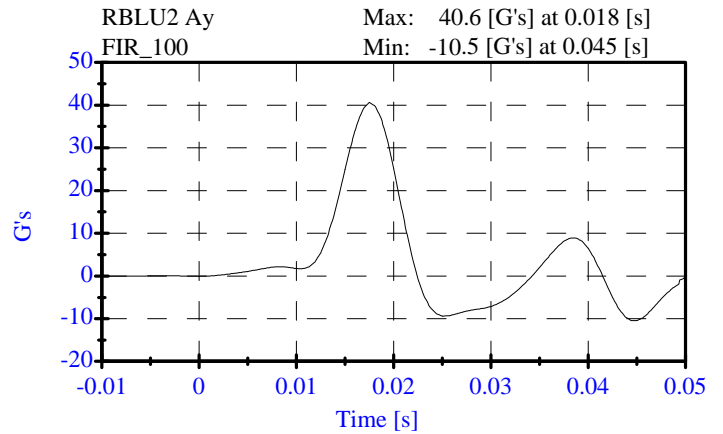
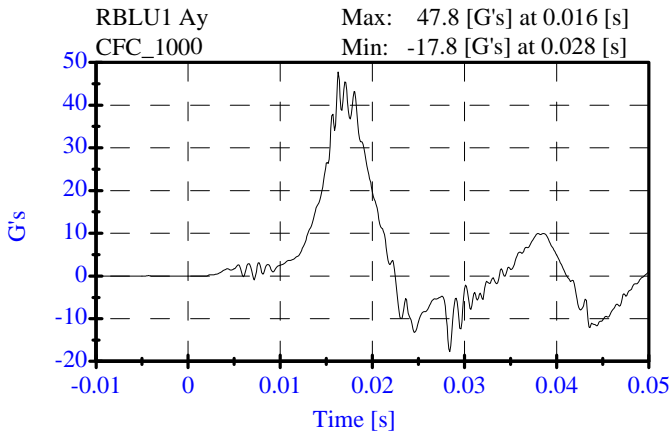
**Thorax Impact
Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 12-03-08

Sequential Test Number: 1 File: 906T 12-02-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	23.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.62 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.55 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.59 G's	Passed



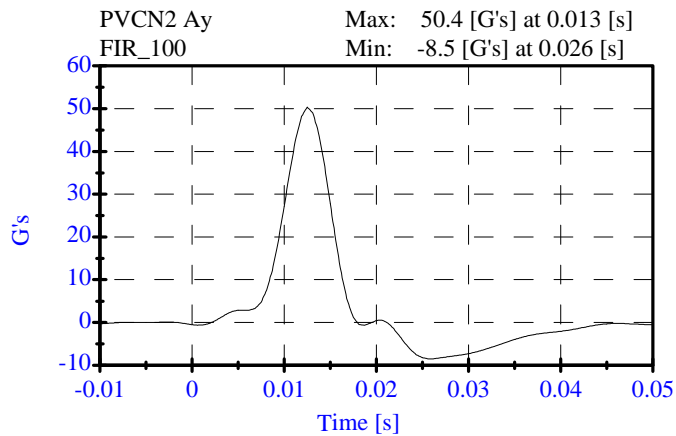
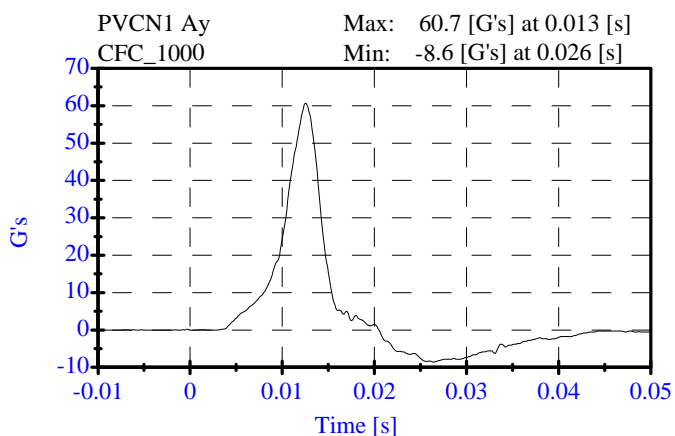
**Pelvis Impact Test
Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 12-03-08

Sequential Test Number: 1 File: 906P 12-02-08
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.36 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.1 ms	Passed

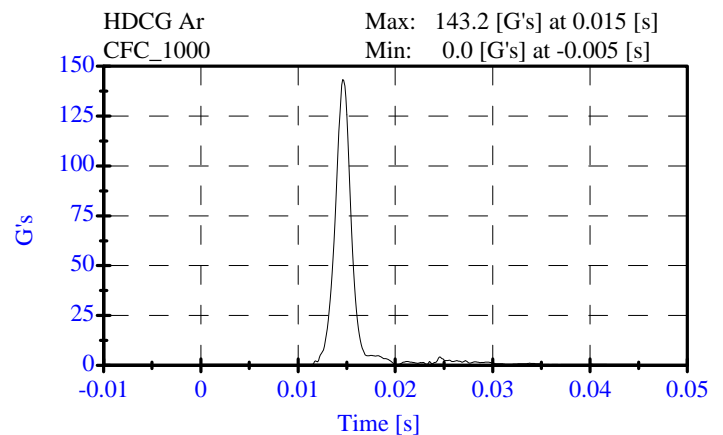
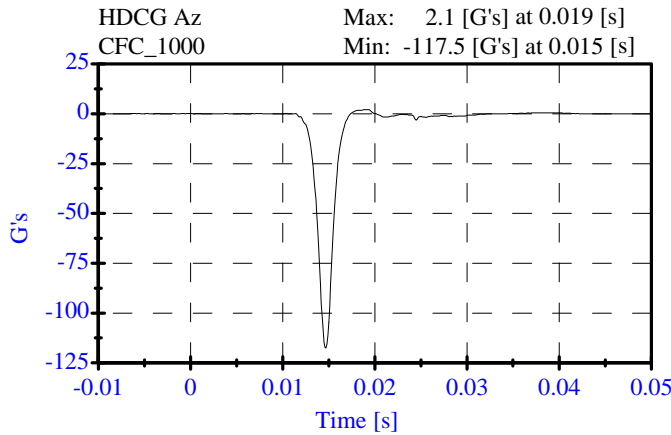
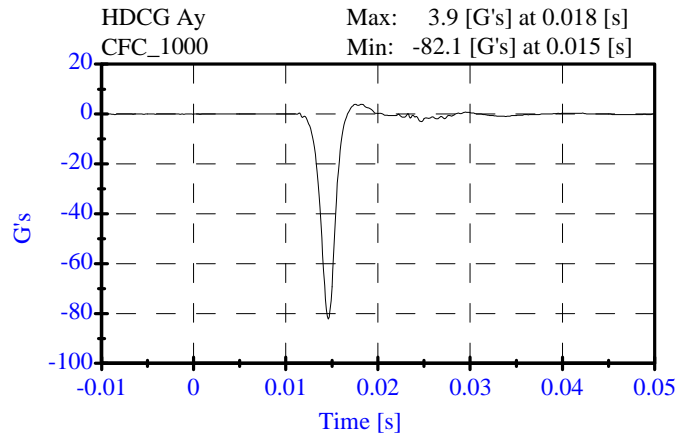
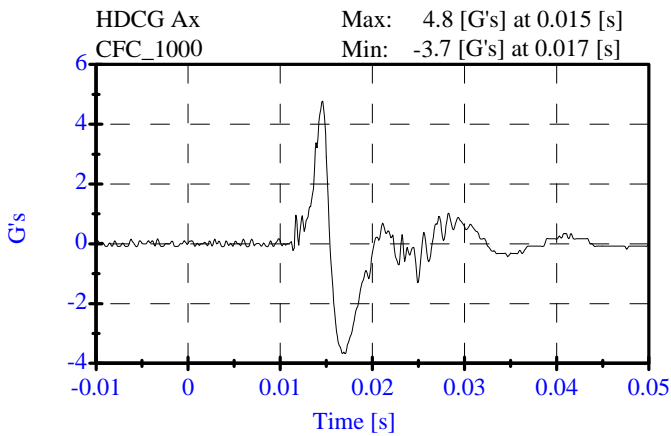


Head Drop Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
 Date: 12-02-08

Sequential Test Number: 1 File: 906H 12-02-08
 Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	143.22 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.77 Gs	Passed
Curve PerCent NonModal:	< 15%	3.53 %	Passed



Neck Flexion Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906

Date: 12-02-08

Sequential Test Number: 1 File: 906N 12-02-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	18.00 %	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	2.33 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.78 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.71 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.58 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	75.22 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.60 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 Nm	78.47 Nm	Passed
Occipital Moment Decay:	49.0-64.0 ms	60.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	11.30 ms	Passed

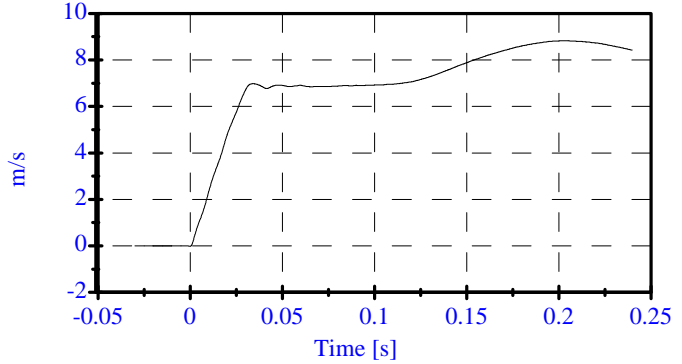
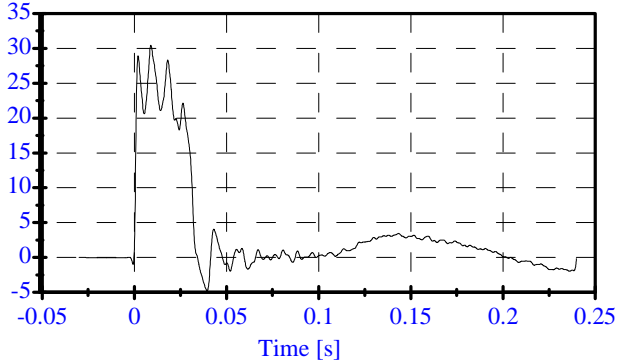
Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
 Date: 12-02-08

Sequential Test Number: 1 File: 906N 12-02-08
 Laboratory Technician: B. Swiecicki

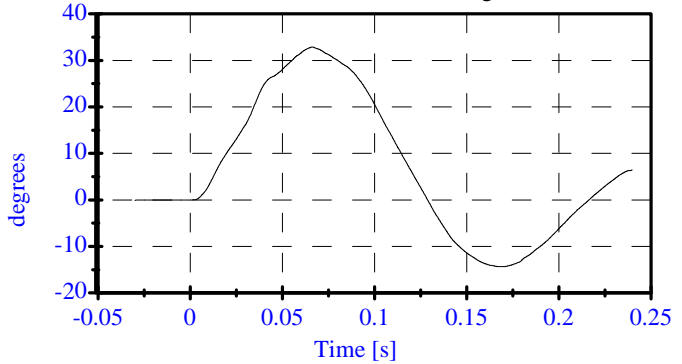
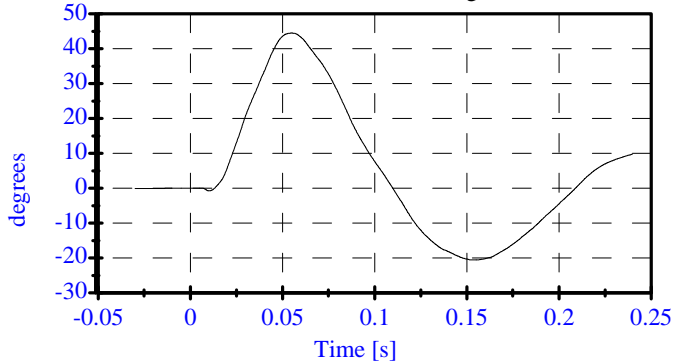
Pend Ax CFC_180 Max: 30.4 [] at 0.009 [s]
 Min: -4.8 [] at 0.039 [s]

Pend Vx CFC_180 Max: 8.8 [m/s] at 0.202 [s]
 Min: -0.0 [m/s] at -0.000 [s]



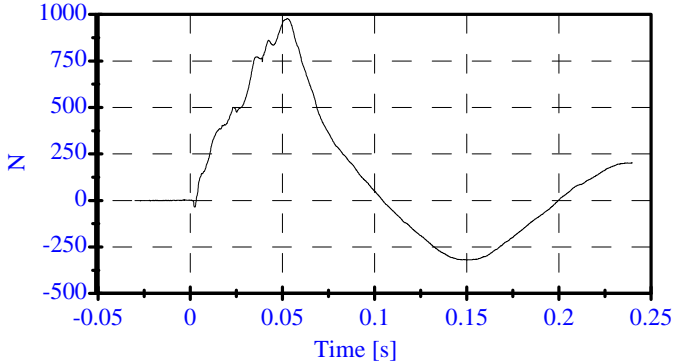
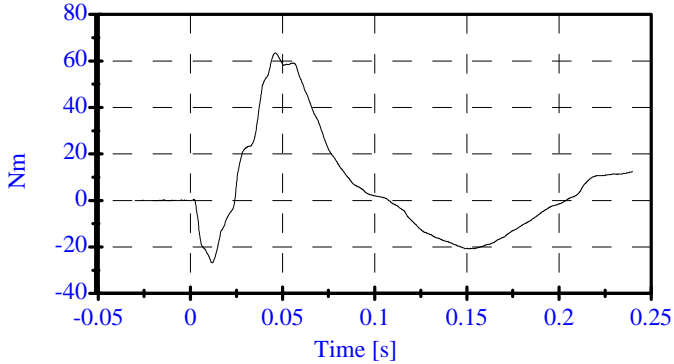
Head Rot CFC_180 Max: 44.5 [degrees] at 0.055 [s]
 Min: -20.6 [degrees] at 0.153 [s]

Arm Rot CFC_180 Max: 32.9 [degrees] at 0.066 [s]
 Min: -14.3 [degrees] at 0.169 [s]



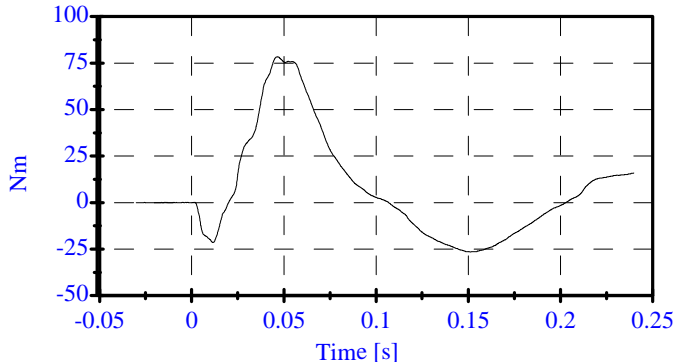
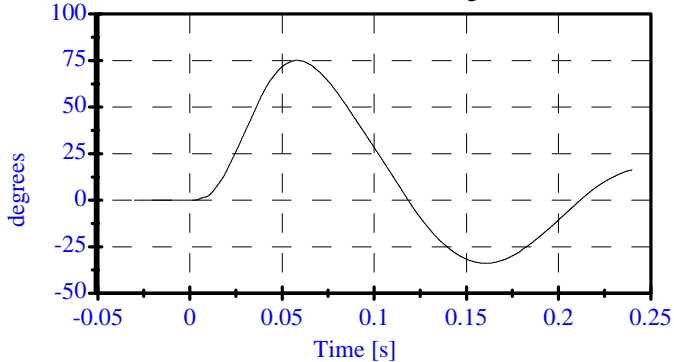
Neck Mx CFC_600 Max: 63.3 [Nm] at 0.046 [s]
 Min: -26.9 [Nm] at 0.012 [s]

Neck Fy CFC_1000 Max: 978.4 [N] at 0.053 [s]
 Min: -320.1 [N] at 0.150 [s]



Tot Rot CFC_180 Max: 75.2 [degrees] at 0.058 [s]
 Min: -33.9 [degrees] at 0.162 [s]

MOCX Max: 78.5 [Nm] at 0.046 [s]
 Min: -26.5 [Nm] at 0.151 [s]



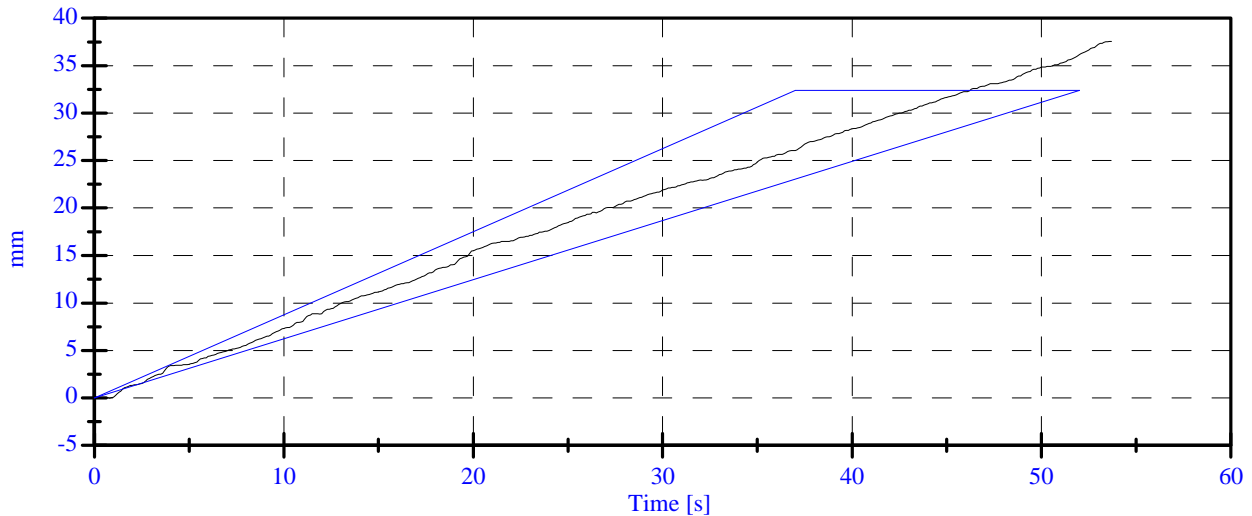
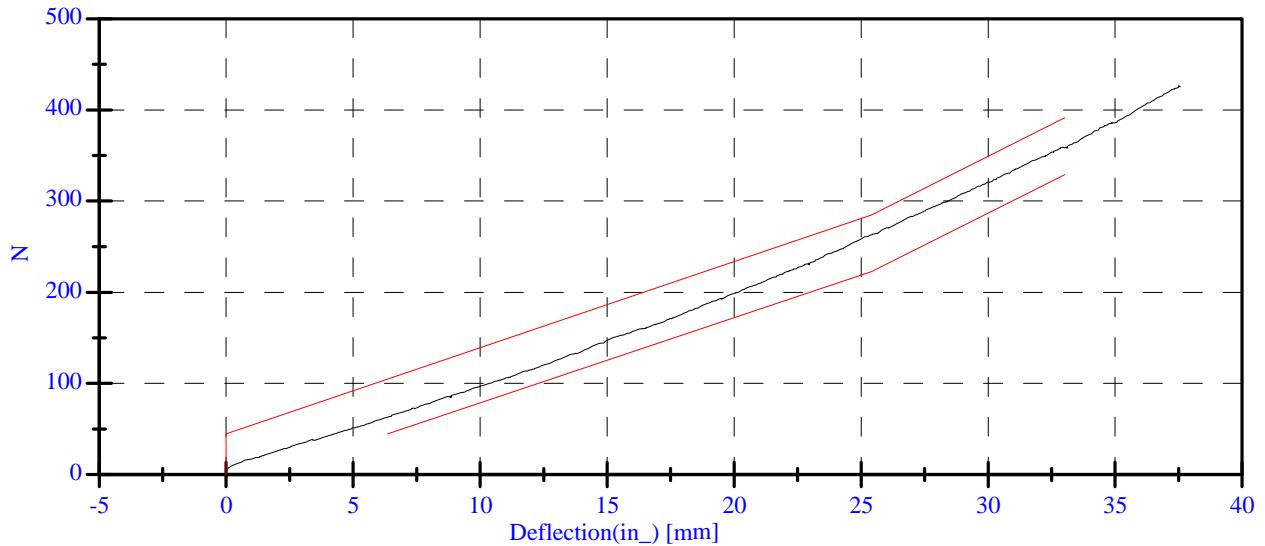
Abdominal Compression Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
 Date: 12-01-08

Sequential Test Number: 1 File: 906 Ab 12-01-08
 Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	23.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	125.01 N	Passed
Force at 19.05 mm :	162.98-220.99 N	188.53 N	Passed
Force at 25.40 mm :	221.97-280.02 N	262.99 N	Passed
Force at 33.02 mm :	324.99-391.00 N	358.63 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906

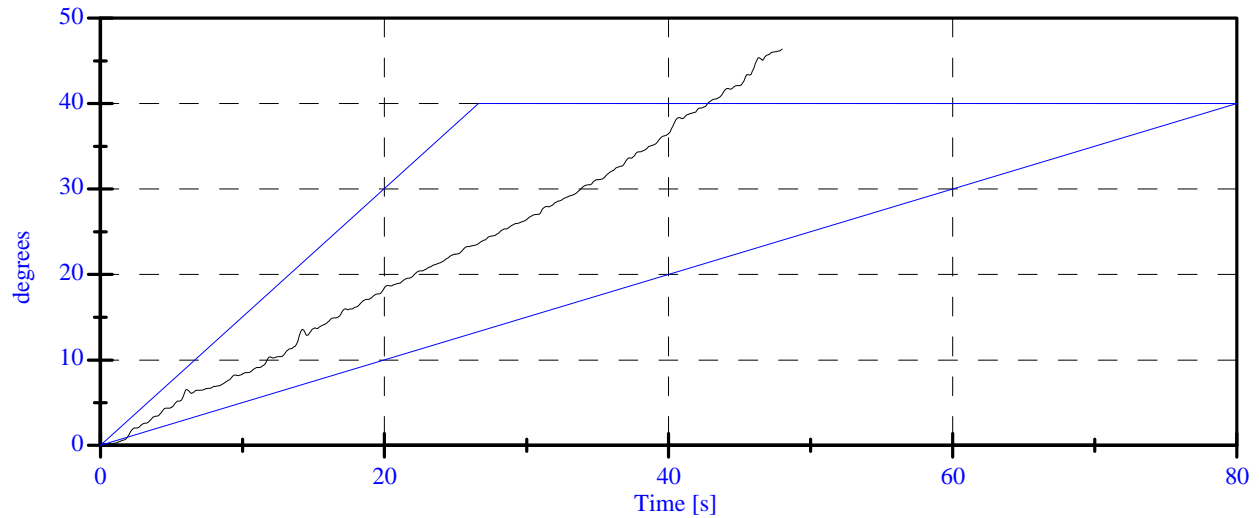
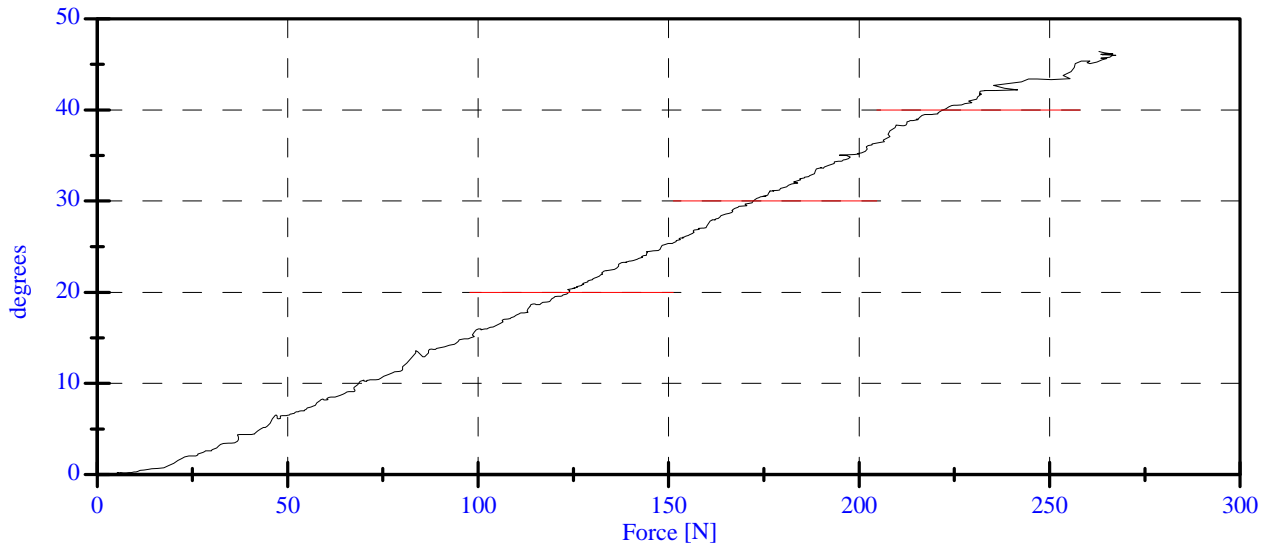
Date: 12-04-08

Sequential Test Number: 1 File: 906 Spine 12-04-08

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	22.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	5.48 N	Passed
Force at 20 Deg:	97.86-151.24 N	123.79 N	Passed
Force at 30 Deg:	151.24-204.62 N	172.10 N	Passed
Force at 40 Deg:	204.62-258.00 N	221.46 N	Passed
Return Angle	12 Deg Max	7.43 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

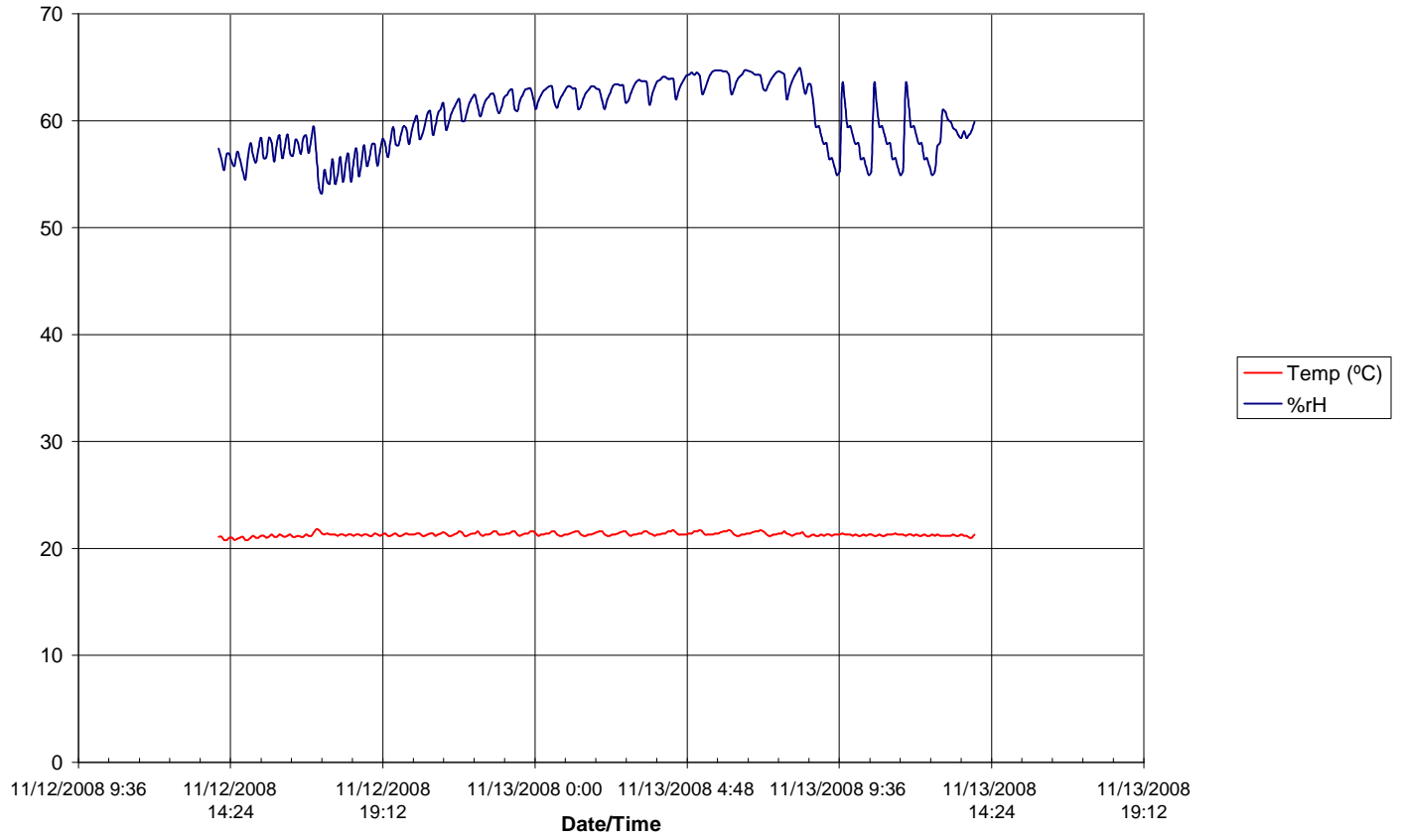
SID H3 Serial No.: 906 Sequential Test Number: 1
 Date: 12/1/08 Laboratory Technician: B. Swiecicki

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

REMARKS: None

TEMPERATURE TRACE

2009 Honda Fit C95308 Environmental Conditions



APPENDIX D
TEST EQUIPMENT AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID/HIII INSTRUMENTATION

	FRONT SID/HIII NO.: 905		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P58757	ENDEVCO	05-Sep-08
HEAD AY	AC-P58911	ENDEVCO	05-Sep-08
HEAD AZ	AC-P58887	ENDEVCO	05-Sep-08
HEAD AX REDUNDANT	AC-P58791	ENDEVCO	05-Sep-08
HEAD AY REDUNDANT	AC-P58888	ENDEVCO	05-Sep-08
HEAD AZ REDUNDANT	AC-P58904	ENDEVCO	05-Sep-08
UPPER NECK FX	LC-1647Fx	DENTON	03-Apr-08
UPPER NECK FY	LC-1647Fy	DENTON	03-Apr-08
UPPER NECK FZ	LC-1647Fz	DENTON	03-Apr-08
UPPER NECK MX	LC-1647Mx	DENTON	03-Apr-08
UPPER NECK MY	LC-1647My	DENTON	03-Apr-08
UPPER NECK MZ	LC-1647Mz	DENTON	03-Apr-08
UPPER RIB	AC-P59010	ENDEVCO	05-Sep-08
LOWER RIB	AC-P59017	ENDEVCO	08-Sep-08
LOWER SPINE	AC-P59019	ENDEVCO	08-Sep-08
PELVIS	AC-P58777	ENDEVCO	08-Sep-08
UPPER RIB REDUNDANT	AC-P58981	ENDEVCO	05-Sep-08
LOWER RIB REDUNDANT	AC-P58788	ENDEVCO	08-Sep-08
LOWER SPINE REDUNDANT	AC-P58979	ENDEVCO	08-Sep-08
PELVIS REDUNDANT	AC-P59018	ENDEVCO	08-Sep-08

	REAR SID/HIII NO.: 906		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P51958	ENDEVCO	05-Sep-08
HEAD AY	AC-J14687	ENDEVCO	05-Sep-08
HEAD AZ	AC-AJ7M2	ENDEVCO	05-Sep-08
HEAD AX REDUNDANT	AC-P58976	ENDEVCO	23-Oct-08
HEAD AY REDUNDANT	AC-J23759	ENDEVCO	05-Sep-08
HEAD AZ REDUNDANT	AC-J32099	ENDEVCO	05-Sep-08
UPPER NECK FX	LC-280Fx	DENTON	14-Apr-08
UPPER NECK FY	LC-280Fy	DENTON	14-Apr-08
UPPER NECK FZ	LC-280Fz	DENTON	14-Apr-08
UPPER NECK MX	LC-280Mx	DENTON	14-Apr-08
UPPER NECK MY	LC-280My	DENTON	14-Apr-08
UPPER NECK MZ	LC-280Mz	DENTON	14-Apr-08
UPPER RIB	AC-J32365	ENDEVCO	05-Sep-08
LOWER RIB	AC-J36648	ENDEVCO	05-Sep-08
LOWER SPINE	AC-AJ5P0	ENDEVCO	05-Sep-08
PELVIS	AC-J23805	ENDEVCO	05-Sep-08
UPPER RIB REDUNDANT	AC-J18742	ENDEVCO	05-Sep-08
LOWER RIB REDUNDANT	AC-J19338	ENDEVCO	08-Sep-08
LOWER SPINE REDUNDANT	AC-J19561	ENDEVCO	05-Sep-08
PELVIS REDUNDANT	AC-J27464	ENDEVCO	05-Sep-08

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-P38188	ENDEVCO	19-Jun-08
RIGHT FRONT SILL (Y)	AC-P39575	ENDEVCO	11-Jul-08
RIGHT FRONT SILL (Z)	AC-P15526	ENDEVCO	11-Jul-08
RIGHT REAR SILL (X)	AC-P35811	ENDEVCO	11-Jul-08
RIGHT REAR SILL (Y)	AC-P35789	ENDEVCO	11-Jul-08
RIGHT REAR SILL (Z)	AC-P35803	ENDEVCO	11-Jul-08
REAR FLOORPAN ABOVE AXLE (X)	AC-P23993	ENDEVCO	05-Sep-08
REAR FLOORPAN ABOVE AXLE (Y)	AC-P23164	ENDEVCO	05-Sep-08
REAR FLOORPAN ABOVE AXLE (Z)	AC-P23939	ENDEVCO	05-Sep-08
LEFT REAR SILL (Y)	AC-P19222	ENDEVCO	16-Jun-08
LEFT FRONT SILL (Y)	AC-J29805	ENDEVCO	06-Oct-08
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-P23960	ENDEVCO	30-Jun-08
LOWER LEFT B- PILLAR (Y)	AC-P17283	ENDEVCO	06-Aug-08
MIDDLE LEFT B-PILLAR (Y)	AC-P16866	ENDEVCO	04-Aug-08
LOWER LEFT A-PILLAR (Y)	AC-J31095	ENDEVCO	06-Oct-08
UPPER LEFT A-PILLAR (Y)	AC-P17285	ENDEVCO	06-Aug-08
FRONT SEAT TRACK (Y)	AC-J33376	ENDEVCO	01-Jun-08
REAR SEAT TRACK (Y)	AC-J32832	ENDEVCO	06-Jun-08
VEHICLE CG (X)	AC-P32455	ENDEVCO	05-Sep-08
VEHICLE CG (Y)	AC-P32464	ENDEVCO	05-Sep-08
VEHICLE CG (Z)	AC-P32139	ENDEVCO	05-Sep-08
MDB CG (X)	AC-C15007	ENDEVCO	05-Jun-08
MDB CG (Y)	AC-GE16	ENDEVCO	05-Jun-08
MDB CG (Z)	AC-C16499	ENDEVCO	05-Jun-08
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	05-Jun-08
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	05-Jun-08

REMARKS: None