

REPORT NUMBER: SNCAP-CAL-07-12

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**FORD MOTOR CO.
2008 FORD FOCUS
FOUR DOOR SEDAN**

NHTSA NUMBER: M80210

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



Test Date: December 13, 2007

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RULEMAKING
OFFICE OF CRASHWORTHINESS STANDARDS
MAIL CODE: NVS-111
1200 NEW JERSEY AVE SE, ROOM W43-410
WASHINGTON, D.C. 20590**

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-03-D-22005.

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared by: _____
Vincent Paolini, Project Engineer

Date: _____

Reviewed by: _____
David J. Travale, Program Manager
Transportation Sciences Center

Date: _____

Technical Report Documentation Page

1. Report No. SNCAP-CAL-07-12	2. Government Accession No.	3. Recipient's Catalog No.																						
4. Title and Subtitle Final Report of New Car Assessment Program 2008 Ford Focus four door sedan NHTSA No.: M80210		5. Report Date December 13, 2007																						
		6. Performing Organization Code CAL																						
7. Author(s) Vincent Paolini, Project Engineer		8. Performing Organization Report No. 8765-SNCAP-29																						
9. Performing Organization Name and Address Calspan Corporation Transportation Sciences Center P.O. Box 400 Buffalo, New York 14225		10. Work Unit No.																						
		11. Contract or Grant No. DTNH22-03-D-22005																						
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Rulemaking, Office of Crashworthiness Standards Mail Code: NVS-111 1200 New Jersey Ave., SE, Room W43-410 Washington, D.C. 20590		13. Type of Report and Period Covered: <i>Final Report</i> December 2007																						
		14. Sponsoring Agency Code NVS-111																						
15. Supplementary Notes																								
16. Abstract A 55/28 kph 90° Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2008 Ford Focus four door sedan in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. This test was conducted at the Calspan Corporation Crash Test Facility in Buffalo, New York, on December 13, 2007. The impact velocity of the Moving Deformable Barrier (MDB) was 61.5 km/h, and the ambient temperature at the struck side (driver side) of the vehicle was 21°C. The target vehicle's maximum post test static crush was 288 mm at level 2. The test vehicle's occupant performance is as follows: <table style="margin-left: auto; margin-right: auto; border: none;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>DRIVER</u></th> <th style="text-align: center;"><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td style="text-align: center;">42.04</td> <td style="text-align: center;">55.0</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td style="text-align: center;">41.4</td> <td style="text-align: center;">62.1</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td style="text-align: center;">55.7</td> <td style="text-align: center;">62.9</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td style="text-align: center;">49</td> <td style="text-align: center;">62</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td style="text-align: center;">79</td> <td style="text-align: center;">68</td> </tr> <tr> <td>HIC</td> <td style="text-align: center;">243.3</td> <td style="text-align: center;">721.6</td> </tr> </tbody> </table> The doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.					<u>DRIVER</u>	<u>PASS.</u>	Left Upper Rib (LUR) Accel., g	42.04	55.0	Left Lower Rib (LLR) Accel., g	41.4	62.1	Lower Spine (T ₁₂) Accel., g	55.7	62.9	Thoracic Trauma Index (TTI)	49	62	Pelvis (PEV) Accel., g	79	68	HIC	243.3	721.6
	<u>DRIVER</u>	<u>PASS.</u>																						
Left Upper Rib (LUR) Accel., g	42.04	55.0																						
Left Lower Rib (LLR) Accel., g	41.4	62.1																						
Lower Spine (T ₁₂) Accel., g	55.7	62.9																						
Thoracic Trauma Index (TTI)	49	62																						
Pelvis (PEV) Accel., g	79	68																						
HIC	243.3	721.6																						
17. Key Words New Car Assessment Program (NCAP) Side Impact Side Impact Hybrid III Dummy (SID/HIII) Occupant Side Impact Protection		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Adm. Technical Ref. Division, 1200 New Jersey Ave. SE Washington, D.C. 20590																						
19. Security Class. (of this report) Unclassified	20. Security Class. (of this page) Unclassified	21. No. of Pages 121	22. Price																					

Form DOT F1700.7 (8-72)

TABLE OF CONTENTS

<u>Section</u>		<u>Page No.</u>
1	Purpose and Test Procedure	1-1
2	Summary of NCAP Side Impact Test	2-1
<u>Data Sheet No.</u>		<u>Page No.</u>
1	General Test and Vehicle Parameter Data	2-3
2	Test Vehicle Tire Information	2-5
3	Test Vehicle Information	2-6
4	Moving Deformable Barrier (MDB) Summary of Results	2-8
5	Post Test Observations	2-9
6	Vehicle Pre-Test and Post Test Measurements	2-10
7	SID/HIII Longitudinal Clearance Dimensions	2-11
8	SID/HIII Lateral Clearance Dimensions	2-12
9	Vehicle Side Measurements	2-13
10	Vehicle Exterior Crush Profiles	2-14
11	Vehicle Damage Profile Distances	2-15
12	Deformable Barrier Honeycomb Face Static Crush	2-16
13	Vehicle Accelerometer Locations	2-17
14	MDB Accelerometer Locations	2-18
15	Vehicle Structural Measurements	2-19
16	High Speed Camera Locations and Data	2-20
17	Summary of FMVSS 301 Data	2-21
<u>Appendix</u>		<u>Page No</u>
A	Photographs	A-1
B	SID/HIII, Vehicle and MDB Response Data	B-1
C	SID/HIII Configuration and Performance Verification Data	C-1
D	Test Equipment and Calibration Information	D-1

SECTION 1

PURPOSE AND TEST PROCEDURE

PURPOSE

This side impact test was conducted as part of the FY' 2007 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-03-D-22005. The purpose of this test was to evaluate side impact protection in a 2008 Ford Focus four door sedan manufactured by Ford Motor Co. The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated July 1997.

SECTION 2

SUMMARY OF NCAP SIDE IMPACT TEST

A model year 2008 Ford Focus four door sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.5 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 1407.0 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on December 13, 2007.

One (1) real-time motion picture camera and ten (10) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information are documented in the data sheets. Pre- and post-test photographs of the vehicle and Side Impact Dummies (SID/HIIs) can be found in Appendix A.

Two 50th percentile adult male SID/HII'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/HII 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 288 mm at level 2, 900 mm rearward of the left vertical impact point. The driver and passenger SID/HII'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/HII's, vehicle, and MDB response data traces. Appendix C contains the SID/HII'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	243.3	32.7	58.6	49	79
Passenger	721.6	46.5	59.2	62	68

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:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	Ford Motor Co.	Driver Front Airbag	Yes
Model	Focus	Driver Side Curtain Airbag	Yes
Body Style	four door sedan	Driver Side Torso Airbag	Yes
NHTSA No.	M80210	Driver Pretensioners	Yes
VIN	1FAHP34N88W11972	Driver Load Limiters	Yes
Color	Black	Driver Power Seats	No
Engine Disp.(L)	2.0	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	4	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	No
Delivery Date	12/3/2007	Power Door Locks	No
Odometer Reading (km)	87	Automatic Door Locks (ADL)	No
Dealer	West Herr Ford, Inc.	Owner's Manual Details Instructions on Disabling ADLs	NA

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Co.	GVWR (kg)	1685
Date of Manufacture	10/07	GAWR Front (kg)	896
		GAWR Rear (kg)	796

VEHICLE CAPACITY DATA

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Split Bench		
Number Of Occupants	2	3		5
Capacity Wt. (VCW) (kg)				375.0
Cargo Wt. (RCLW) (kg)				34.8

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

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

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	375.0	235.0		419.0	329.0		413.5	318.5	
Right	kg	370.0	236.0		378.0	290.0		379.5	295.5	
Ratio	%	61.3	38.7		56.3	43.7		56.4	43.6	
Totals	kg	745.0	471.0	1216.0	797.0	619.0	1416.0	793.0	614.0	1407.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1216.0
Weight of 2 P572E ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	34.8
Calculated Vehicle Target Weight (TVTW)	kg	1413.2

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

Weight of Ballast (including instrumentation package and cameras): 28.6 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	677	696	678	696
Fully Loaded	mm	654	658	668	673
As Tested	mm	655	658	675	674

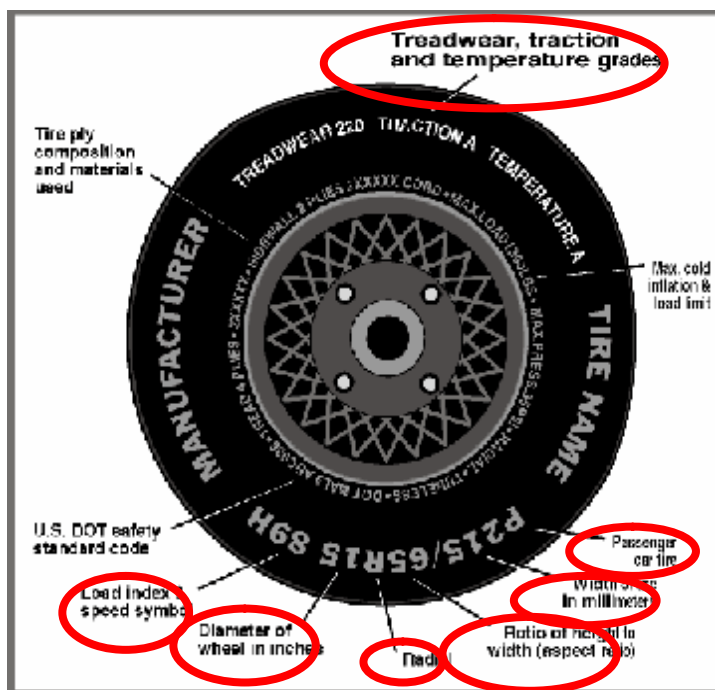
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2614
Target Impact Point Aft of Front Axle	mm	367
Actual Impact Point Aft of Front Axle	mm	5
As Tested CG (aft of front axle)	mm	1141

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	220	220
Recommended Tire Size	195/60R15	195/60R15
Tire Size on Vehicle	195/60R15	195/60R15
Tire Manufacturer	Hankook	Hankook
Tire Name	Optimo H725	Optimo H725
Tire Type	P	P
Tire Width (mm)	195	195
Ratio of Height to Width (aspect ratio)	60	60
Radial	Yes	Yes
Wheel Diameter	15	15
Load Index & Speed Symbol	87T	87T
Treadwear	620	620
Traction Grade	B	B
Temperature Grade	B	B

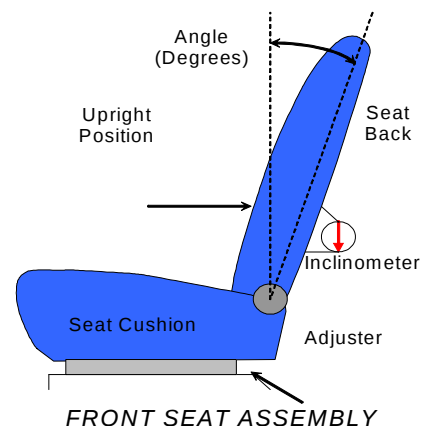
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

NORMAL DESIGN RIDING POSITION

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

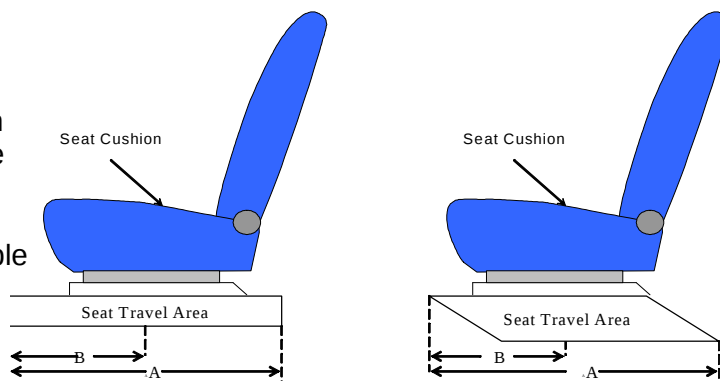


SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	N/A	N/A
Angle (deg. from forward-most locking position)	16.7	Fixed
Alternative Measurements to Verify Test Position	21.87° torso	N/A

SEAT FORE/AFT POSITIONS

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



SEAT FORE/AFT POSITION

	Driver Seat	Rear Seat
Total Fore/Aft Travel (A) (mm)	224	Fixed
Test Position (B) (mm)	112	Fixed
Test Detent (forward-most detent defined as 0)	N/A	N/A
Total Number of Detents (including 0)	N/A	N/A

DATA SHEET NO. 3 (CONTINUED)

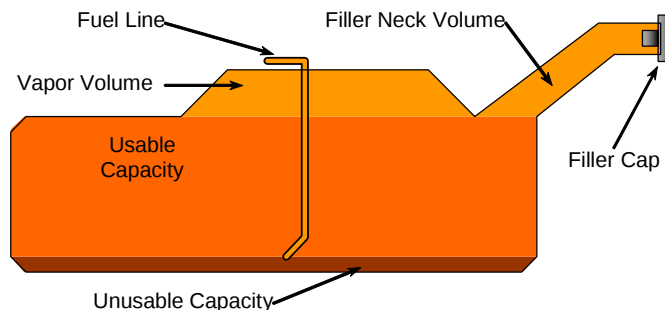
TEST VEHICLE INFORMATION

Test Vehicle: 2008 Ford Focus
 Test Program: NCAP Side Impact

NHTSA No. M80210
 Test Date: December 13, 2007

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.



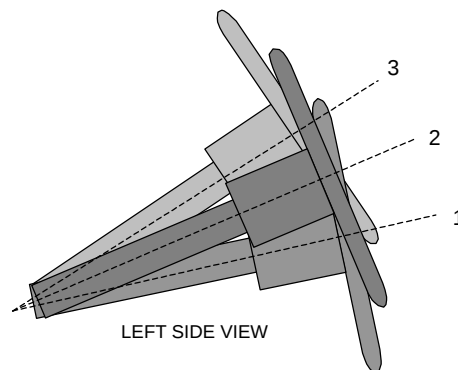
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	49.2
Usable Capacity of "Optional" Fuel Tank	N/A
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	16.3 (1/3)

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	N/A	20.6	N/A
Geometric Center Position No. 2 *	N/A	23.3	N/A
Uppermost Position No. 3	N/A	26.0	N/A

* Test position

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

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

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	61.5 km/h
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.5km/h
Impact angle with respect to impactor	°	88.5° to 91.5°	89.92°

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

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	5 mm forward
Vertical Offset	mm	+/-20	10 mm above

DATA SHEET NO. 5
POST TEST OBSERVATIONS

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

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 Curtain Airbag	Side curtain airbag and side header/ C-pillar intersection
Upper Torso Contact	Side Torso Airbag	Door Trim Panel
Lower Torso Contact	Side Torso Airbag	Door Trim Panel
Left Knee Contact	Door Trim Panel	Door Trim Panel
Right Knee Contact	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Locked/Unlocked Doors	Unlocked	Unlocked
Left Side Door Opening	Closed, latched and inoperable	Closed, latched and inoperable
Right Side Door Opening	Closed, latched and operable without tools	Closed, latched and operable without tools
Seat Movement	The driver's seat cushion was moved inboard during the event.	The passenger's seat cushion was moved inboard during the event.
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	A- and B-pillars were crushed inboard, no visible tears or separations
Sill Separation	No visible tears or separations
Windshield Damage	None
Window Damage	The side glass was shattered during the event
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

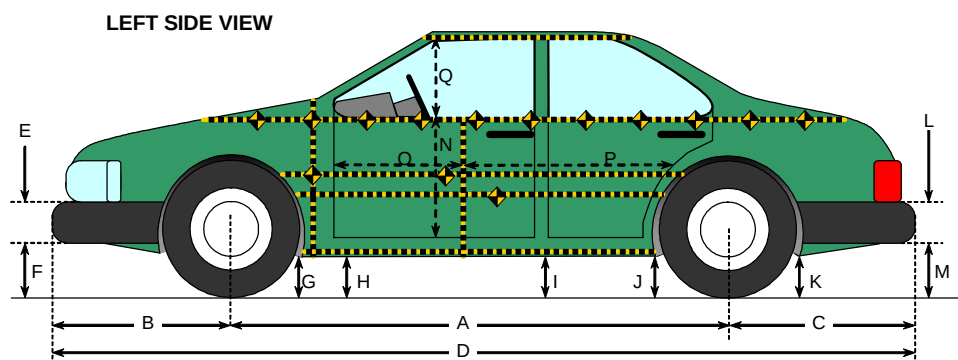
VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007



All Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2613	2614	2591	23
B	Front Axle to FSOV	889	889	897	-8
C	Rear Axle to RSOV	943	943	949	-6
D	Total Length at Centerline	4446	4446	4437	9
E	Front Bumper Thickness	180	180	180	0
F	Front Bumper Bottom to Ground	400	390	414	-24
G	Sill Height at Front Wheel Well	204	179	182	-3
H	Sill Height at Front Door Leading Edge	205	180	197	-17
I	Sill Height at "B" Pillar	213	184	262	-78
J1	Sill Height at Rear Wheel Well	191	159	182	-23
J2	Pinch Weld Height at Rear Wheel Well	222	189	218	-29
K	Sill Height Aft of Rear Wheel Well	266	228	250	-22
L	Rear Bumper Thickness	315	315	310	5
M	Rear Bumper Bottom to Ground	411	377	377	0
N	Sill Height to Window Bottom Sill	702	702	650	52
O	Front Door Leading Edge to Impact CL	745	745	737	8
P	Rear Door Trailing Edge to Impact CL	1138	1138	1073	65
Q	Front Window Opening	431	431	411	20
R	Right Side Length	4375	4375	4374	1
S	Left Side Length	4374	4374	4345	29
T	Vehicle Width at "B" Post	1681	1681	1419	262

DATA SHEET NO. 7

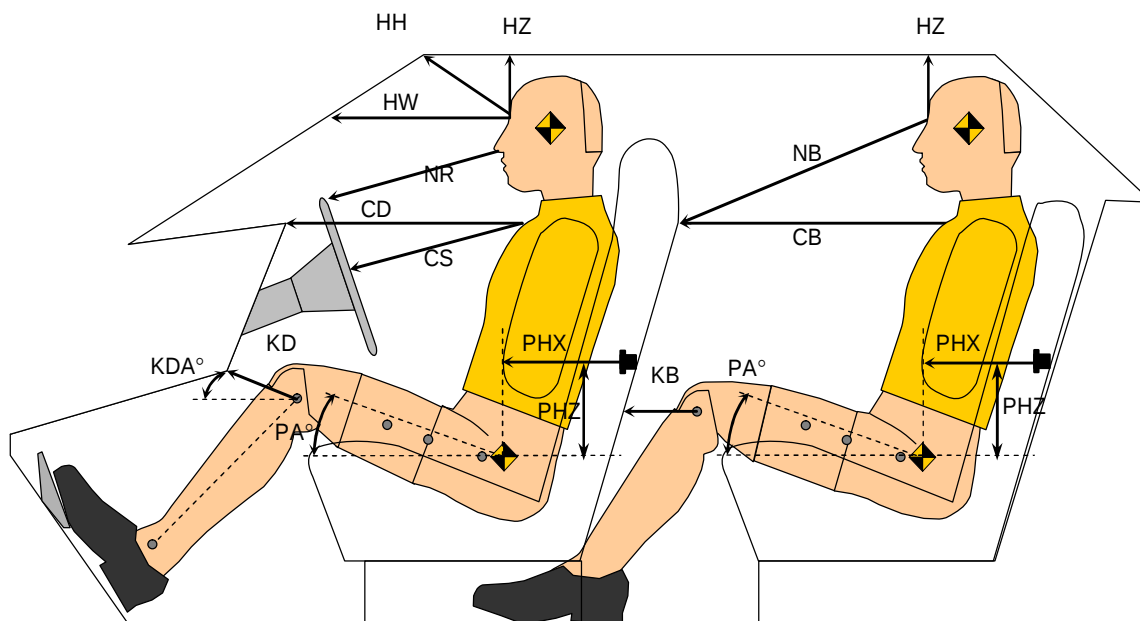
SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007

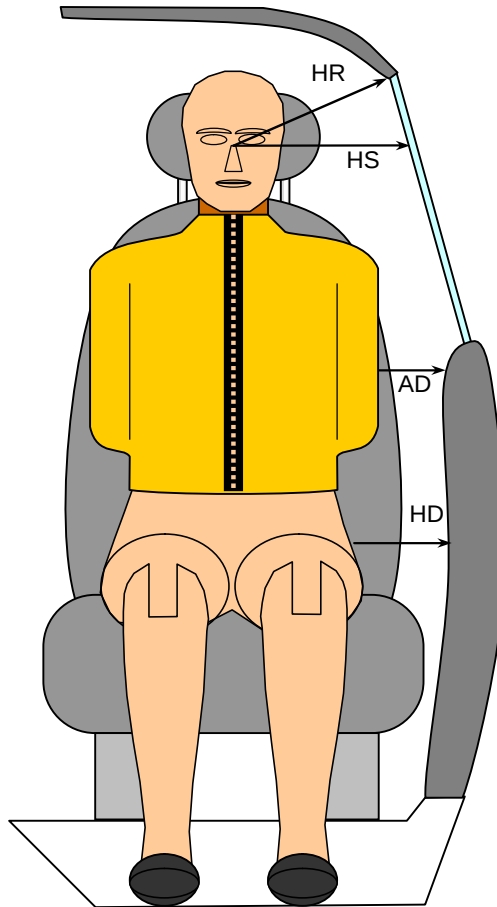


Driver Code	Pass. Code	Measurement Description	Driver S/N 905		Passenger S/N 906	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	400			
HW		Head to Windshield	649			
HZ	HZ	Head to Roof	172		163	
NR	NB	Nose to Rim/Nose to Seatback	471		572	
CD	CB	Chest to Dash or Seatback	564		501	
CS		Chest to Steering Wheel	332			
KDL	KBL	Left Knee to Dash or Seatback	130	40	145	24
KDR	KBR	Right Knee to Dash or Seatback	145	38	140	29
PA	PA	Pelvic Angle		24.9		24.1
PHX	PHX	H-Point to Striker (X-Axis)	166		235	
PHZ	PHZ	H-Point to Striker (Z-Axis)	111		293	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

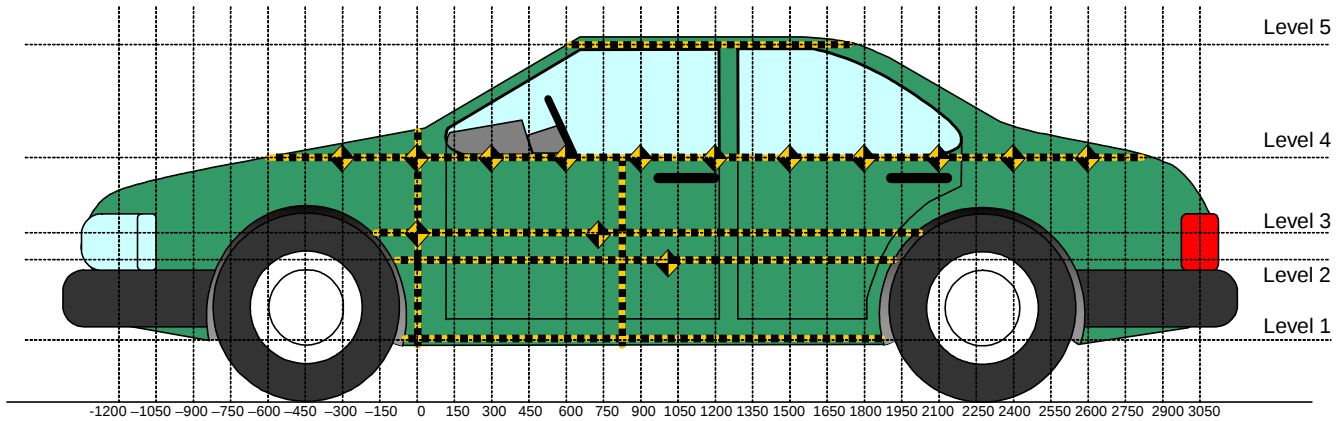


FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 905	Passenger S/N 906
HR	Head to Side Header	mm	162	185
HS	Head to Side Window	mm	309	339
AD ₁	Arm to Door (at upper rib level)	mm	116	143
AD ₂	Arm to Door (at lower rib level)	mm	100	134
HD	H-Point to Door	mm	131	151

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007



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.

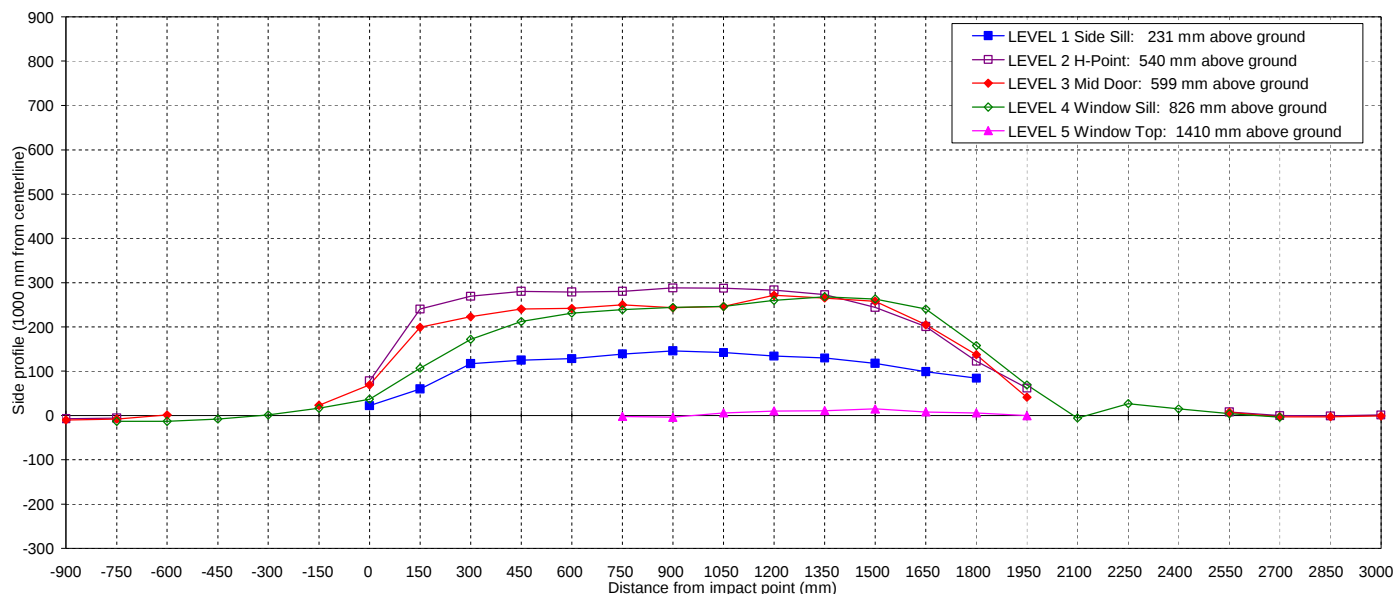
Level	Measurement Description	Maximum Exterior Static Crush	Height Above Ground	Distance From Impact
1	Sill Top	146	231	900
2	Occupant H-Point	288	540	900
3	Mid Door	271	599	1200
4	Window Sill	268	826	1350
5	Window	15	1410	1500
	Maximum Penetration	288		

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2008 Ford Focus
 Test Program: NCAP Side Impact

NHTSA No. M80210
 Test Date: December 13, 2007



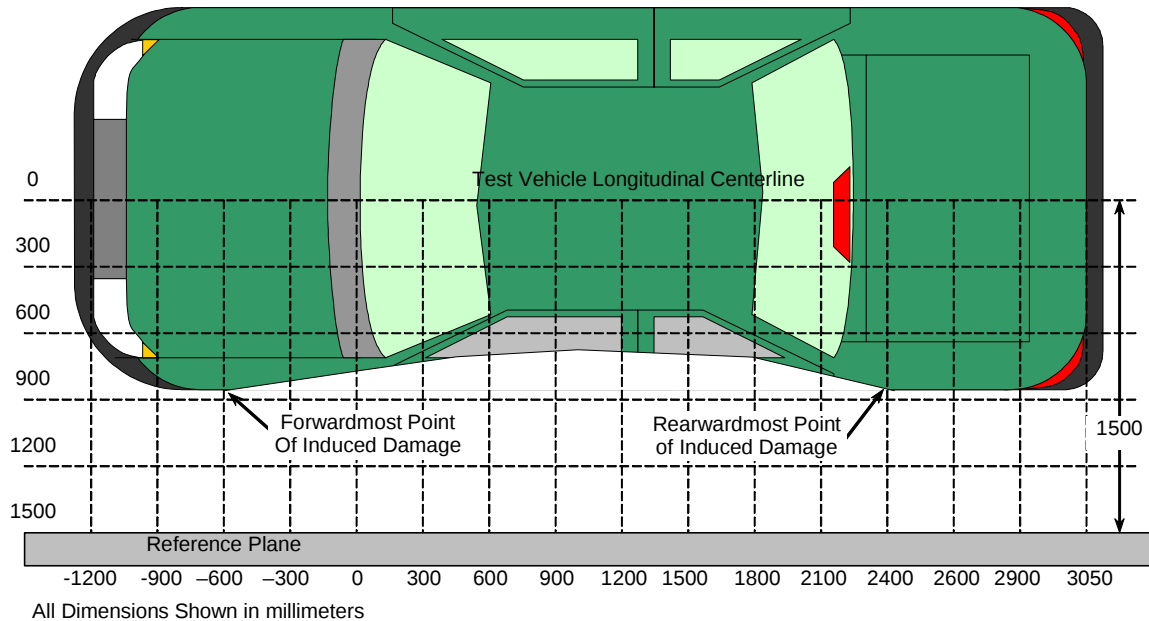
NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

			NOTE: All dimensions are in millimeters with a tolerance of ±3 mm																											
			DISTANCE 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	231	PRE	--	--	--	--	--	--	189	189	189	190	194	197	196	199	201	205	211	214	194	--	--	--	--	--	--	--	--	
		POST	--	--	--	--	--	--	211	249	306	315	322	336	342	341	335	335	329	313	278	--	--	--	--	--	--	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	22	60	117	125	128	139	146	142	134	130	118	99	84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LEVEL 2 H POINT	540	PRE	230	185	--	--	--	--	149	161	159	158	156	155	154	155	155	156	158	160	157	137	--	--	--	152	195	222	248	
		POST	223	179	--	--	--	--	227	401	428	438	435	435	442	442	438	429	402	361	280	199	--	--	--	160	195	221	249	
		CRUSH	-7	-6	N/A	N/A	N/A	N/A	78	240	269	280	279	280	288	287	283	273	244	201	123	62	N/A	N/A	N/A	8	0	-1	1	
LEVEL 3 MID DOOR	599	PRE	240	196	156	--	--	144	150	161	158	156	155	154	153	152	153	154	156	158	156	137	--	--	--	152	196	220	245	
		POST	230	188	157	--	--	167	219	360	381	396	397	404	396	398	424	419	414	363	293	178	--	--	--	159	193	217	244	
		CRUSH	-10	-8	1	N/A	N/A	23	69	199	223	240	242	250	243	246	271	265	258	205	137	41	N/A	N/A	N/A	7	-3	-3	-1	
LEVEL 4 WINDOW SILL	826	PRE	--	340	247	227	209	195	186	180	174	168	164	161	164	158	158	163	165	167	168	170	173	177	185	196	207	--	--	
		POST	--	327	234	219	210	211	223	287	346	380	395	400	408	404	418	431	428	407	326	239	167	204	200	200	203	--	--	
		CRUSH	N/A	-13	-13	-8	1	16	37	107	172	212	231	239	244	246	260	268	263	240	158	69	-6	27	15	4	-4	N/A	N/A	
LEVEL 5 WINDOW TOP	1410	PRE	--	--	--	--	--	--	--	--	--	--	--	755	519	451	446	446	446	458	480	648	--	--	--	--	--	--	--	
		POST	--	--	--	--	--	--	--	--	--	--	--	--	753	515	457	456	457	461	466	486	648	--	--	--	--	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2	-4	6	10	11	15	8	6	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007



TOP VIEW

DAMAGE PROFILE DISTANCES

DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1 (LR)	2100	826	173	167	-6
2	1620	826	167	411	244
3	1140	540	155	440	285
4	660	540	156	435	279
5	180	540	161	406	245
6 (LF)	-300	826	209	210	1

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

DATA SHEET NO. 12

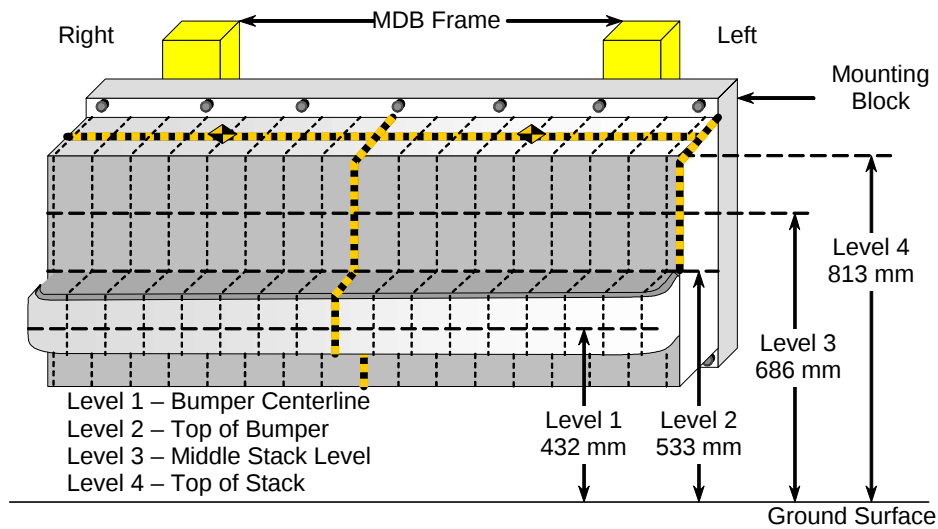
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007



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

			NOTE: All dimensions are in millimeters with a tolerance of ±0.5mm												DISTANCE LEFT OF CENTER (mm)							
LEVEL	HEIGHT AT CL (mm)*		-800	-700	-600	-500	-400	-300	-200	-100	0	100	200	300	400	500	600	700	800			
LEVEL 4 TOP STACK	-811	PRE	411	412	412	412	412	412	413	413	413	413	413	413	413	413	413	413	412			
		POST	368	403	413	413	407	398	391	394	395	394	397	396	390	373	341	307	254			
		CRUSH	43	9	-1	-1	5	14	22	19	18	19	16	17	23	40	72	106	158			
LEVEL 3 MID LEVEL	-682	PRE	411	411	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412			
		POST	381	405	410	409	408	402	394	401	407	407	407	406	404	400	385	342	289			
		CRUSH	30	6	2	3	4	10	18	11	6	5	5	6	8	12	27	70	123			
LEVEL 2 TOP BUMPER	-542	PRE	411	412	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412			
		POST	332	346	356	361	364	365	366	369	373	374	375	376	377	373	362	352	337			
		CRUSH	79	66	56	51	48	47	46	43	40	38	37	36	35	39	50	60	75			
LEVEL 1 MID BUMPER	-430	PRE	501	513	513	513	513	513	513	514	514	514	514	514	514	514	514	514	505			
		POST	378	412	432	440	441	436	439	443	449	451	452	453	453	449	437	408	378			
		CRUSH	123	101	81	73	72	77	74	71	65	63	62	61	61	65	77	106	127			

*Heights measured above ground level.

LEVEL	HEIGHT AT CL (mm)*	MAX CRUSH
LEVEL 4 TOP STACK	-811	158
LEVEL 3 MID LEVEL	-682	123
LEVEL 2 TOP BUMPER	-542	79
LEVEL 1 MID BUMPER	-430	127

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

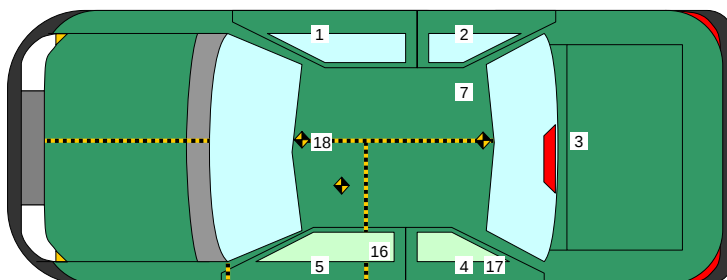
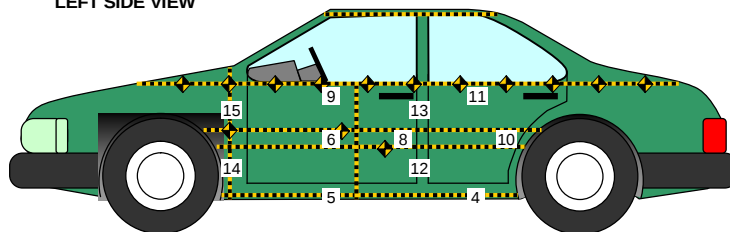
Test Vehicle: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007

LEFT SIDE VIEW



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2930	633	-292
2	Right Sill at Rear Seat	1968	641	-265
3	Rear Floorpan Above Axle	1162	-5	-467
4	Left Sill at Rear Door	1991	-641	-242
5	Left Sill at Front Door	2982	-628	-262
6	Left Front Door C/L **	-	-	-
7	Rear Occupant Compartment	1973	378	-205
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	2052	-656	-346
13	Left Middle B-Post	2017	-652	-606
14	Left Lower A-Post	2981	-640	-343
15	Left Middle A-Post	2968	-620	-993
16	Front Seat Track	2186	-573	-257
17	Rear Seat Track or Structure	1912	-635	-233
18	Vehicle CG	2431	25	-446

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

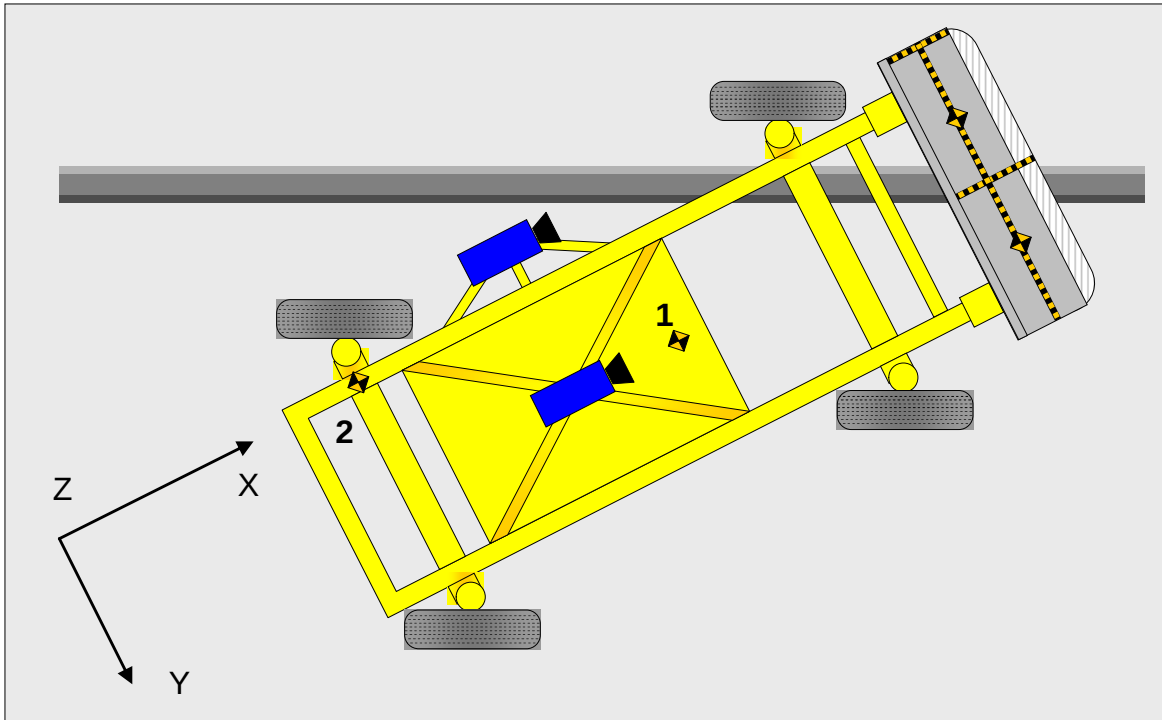
MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007



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: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007

	Elements	Pre-Test (mm)
1	Total Length	4446
2	Total Width	1681
3	Bumper Top Height	577
4	Bumper Bottom Height	388
5	Longitudinal Member Top Height	533
6	Distance between Longitudinal Members	1045
7	Longitudinal Member Width	56
8	Engine Top Height	856
9	Engine Bottom Height	799
10	Engine and gearbox width	623
11	Front bumper-engine distance	408
12	Front shock absorber fixing height	856
13	Bonnet leading edge height	724
14	Front shock absorber fixing width	1085
15	Front bumper – front axle distance	889
16	Front axle – a pillar distance	1064
17	A-pillar – B-pillar distance	1024
18	B-Pillar – rear axle distance	1096
19	B-pillar – C-pillar distance	973
20	Roof sill bottom height	1403
21	Roof sill top height	1438
22	Floor sill bottom height	202
23	Floor sill top height	281

DATA SHEET NO. 16

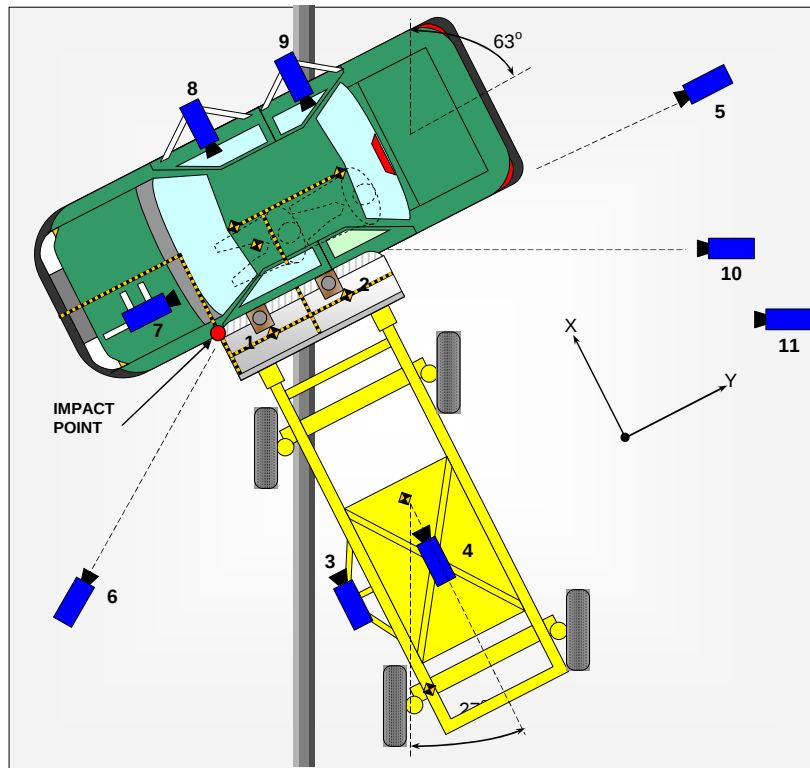
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2008 Ford Focus

NHTSA No. M80210

Test Program: NCAP Side Impact

Test Date: December 13, 2007



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	72	812	-4880	-90	8	500
2	Overhead Close-up	195	855	-4880	-90	28	1000
3	MDB Onboard, Impact Point Close-up	-1470	0	-847	0	13	500
4	MDB Onboard, Centerline of Impact	-1140	838	-1587	-17	7.5	500
5	Right Side, Ground Level, Overall	0	10010	-905	-1.8	50	1000
6	Left Side, Ground Level, Overall	-2385	-1845	-935	-5.7	28	1000
7	Vehicle Onboard Front SID/HIII, Front	515	-495	-1270	-7.3	25	1000
8	Vehicle Onboard Front SID/HIII, Side	1665	820	-1030	-4.2	12.5	1000
9	Vehicle Onboard Rear SID/HIII, Side	1615	1660	-1065	-8.7	12.5	1000
10	Secondary Impact Point	-5365	3390	980	-1.5	25	500
11	Real Time Coverage						30

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

DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA

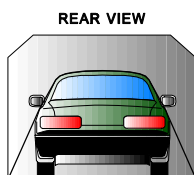
Test Vehicle:	2008 Ford Focus	NHTSA No.	M80210
Test Program:	NCAP Side Impact	Test Date:	December 13, 2007

FUEL SYSTEM INTEGRITY POST IMPACT DATA

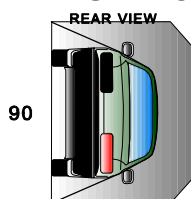
Time Interval	FMVSS 301 Maximum Allowable Spillage	Spillage (g)
Impact Until Motion Ceases	28 g	0
First Five Minutes Following Impact	142 g	0
Next 25 Minutes	28 g / 1 minute	0

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

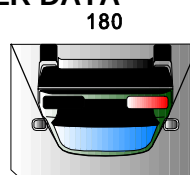
STATIC ROLLOVER DATA



0/360

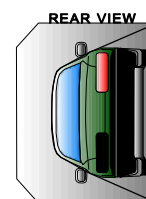


90



REAR VIEW

180



270

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	14	seconds	5	minutes	6	minutes	14	seconds	7	minutes
90° - 180°	1	minutes	02	seconds	5	minutes	6	minutes	2	seconds	7	minutes
180°-270°	1	minutes	01	seconds	5	minutes	6	minutes	1	seconds	7	minutes
270°-360°	1	minutes	07	seconds	5	minutes	6	minutes	7	seconds	7	minutes

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

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

APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

FIGURE	TITLE	PAGE
A-1	As Received Left Front $\frac{3}{4}$ View	A-4
A-2	As Received Right Rear $\frac{3}{4}$ View	A-4
A-3	Vehicle Certification Label	A-5
A-4	Vehicle Tire Placard Label	A-5
A-5	Pre-Test Front View	A-6
A-6	Post-Test Front View	A-6
A-7	Pre-Test Left Front $\frac{3}{4}$ View	A-7
A-8	Post-Test Left Front $\frac{3}{4}$ View	A-7
A-9	Pre-Test Left Side View	A-8
A-10	Post-Test Left Side View	A-8
A-11	Pre-Test Left Rear $\frac{3}{4}$ View	A-9
A-12	Post-Test Left Rear $\frac{3}{4}$ View	A-9
A-13	Pre-Test Rear View	A-10
A-14	Post-Test Rear View	A-10
A-15	Pre-Test Right Rear $\frac{3}{4}$ View	A-11
A-16	Post-Test Right Rear $\frac{3}{4}$ View	A-11
A-17	Pre-Test Right Side View	A-12
A-18	Post-Test Right Side View	A-12
A-19	Pre-Test Right Front $\frac{3}{4}$ View	A-13
A-20	Post-Test Right Front $\frac{3}{4}$ View	A-13
A-21	Pre-Test Frontal View of MDB Impactor Face	A-14
A-22	Post-Test Frontal View of MDB Impactor Face	A-14
A-23	Pre-Test Left Side View of MDB Impactor Face	A-15
A-24	Post-Test Left Side View of MDB Impactor Face	A-15
A-25	Pre-Test Right Side View of MDB Impactor Face	A-16
A-26	Post-Test Right Side View of MDB Impactor Face	A-16
A-27	Pre-Test Top View of MDB Impactor Face	A-17
A-28	Post-Test Top View of MDB Impactor Face	A-17
A-29	Pre-Test Left Side View of Aligned MDB and Vehicle	A-18
A-30	Pre-Test Right Side View of Aligned MDB and Vehicle	A-18
A-31	Pre-Test Overhead View of Aligned MDB and Vehicle	A-19
A-32	Post-Test Overhead View of MDB and Vehicle	A-19
A-33	Pre-Test Close-Up View of Impact Point Target	A-20
A-34	Post-Test Close-Up View of Impact Point Target	A-20

TABLE OF PHOTOGRAPHS (continued)

FIGURE	TITLE	PAGE
A-35	Pre-Test Right Occupant Compartment View of Driver	A-21
A-36	Post-Test Right Occupant Compartment View of Driver	A-21
A-37	Pre-Test Right Occupant Compartment View of Passenger	A-22
A-38	Post-Test Right Occupant Compartment View of Passenger	A-22
A-39	Pre-Test Left Occupant Compartment View of Driver	A-23
A-40	Post-Test Left Occupant Compartment View of Driver	A-23
A-41	Pre-Test Left Occupant Compartment View of Passenger	A-24
A-42	Post-Test Left Occupant Compartment View of Passenger	A-24
A-43	Pre-Test Left Front Interior Trim	A-25
A-44	Post-Test Left Front Interior Trim	A-25
A-45	Pre-Test Left Rear Interior Trim	A-26
A-46	Post-Test Left Rear Interior Trim	A-26
A-47	Pre-Test Left Front $\frac{3}{4}$ View of Left Side Doors	A-27
A-48	Post-Test Left Front $\frac{3}{4}$ View of Left Side Doors	A-27
A-49	Pre-Test Left Rear $\frac{3}{4}$ View of Left Side Doors	A-28
A-50	Post-Test Left Rear $\frac{3}{4}$ View of Left Side Doors	A-28
A-51	Rollover 90 Degrees	A-29
A-52	Rollover 180 Degrees	A-29
A-53	Rollover 270 Degrees	A-30
A-54	Rollover 360 Degrees	A-30
A-55	Impact Photo	A-31



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



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



Figure A-3: Vehicle Certification Label

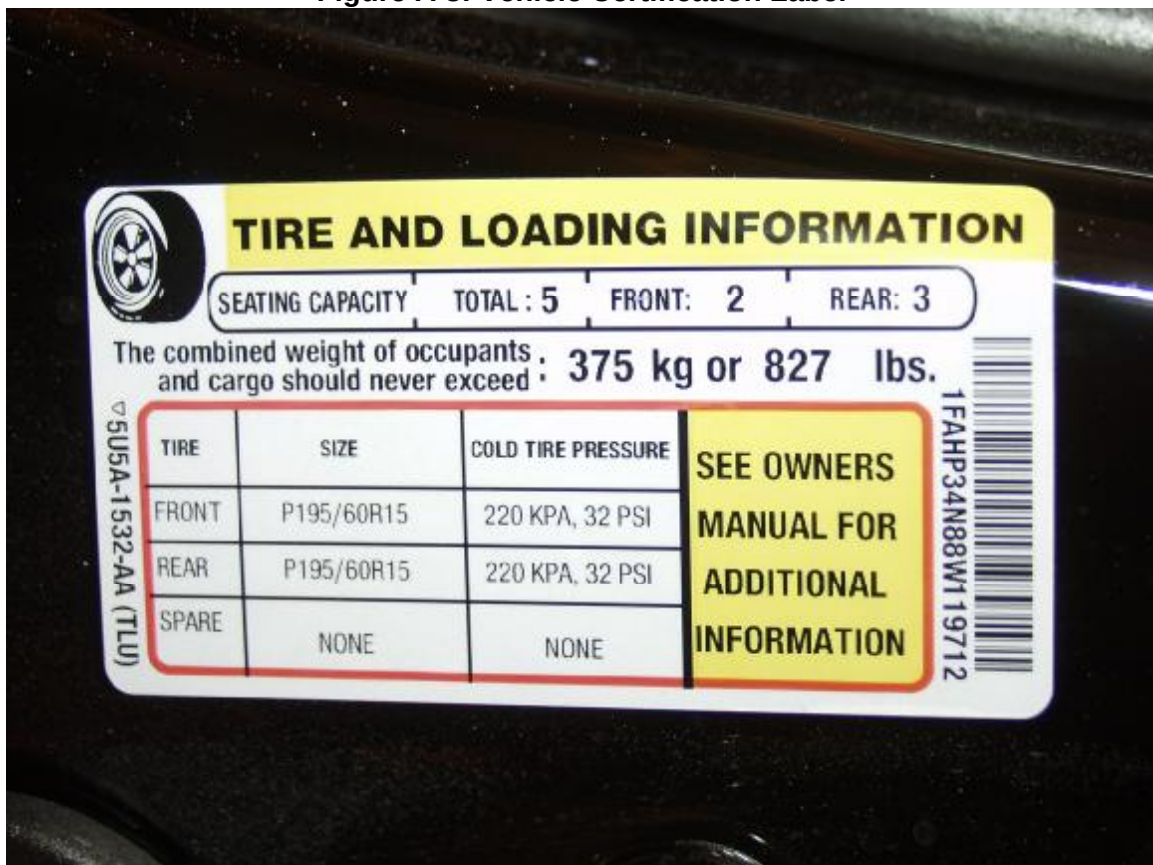


Figure A-4: Vehicle Tire Placard Label



Figure A-5: Pre-Test Front View



Figure A-6: Post-Test Front View



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



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



Figure A-9: Pre-Test Left Side View



Figure A-10: Post-Test Left Side View



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



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



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



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



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



Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



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



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



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



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



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



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



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



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



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



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



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



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



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

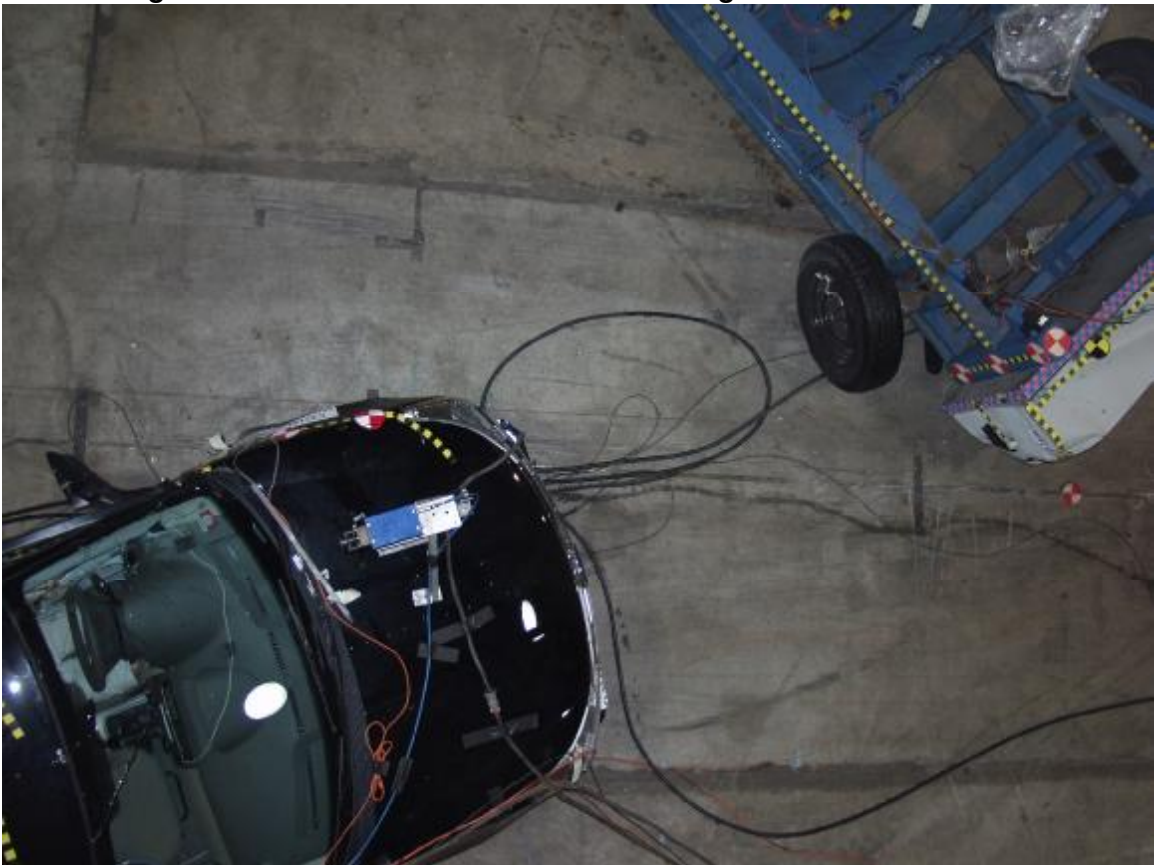


Figure A-32: Post-Test Overhead View of MDB and Vehicle



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



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



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



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



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



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



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



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



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



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



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



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



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



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



Figure A-47: Pre-Test Left Front ¾ View of Left Side Doors



Figure A-48: Post-Test Left Front ¾ View of Left Side Doors



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



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



Figure A-51: Rollover 90 Degrees



Figure A-52: Rollover 180 Degrees



Figure A-53: Rollover 270 Degrees



Figure A-54: Rollover 360 Degrees



Figure A-55: Impact Photo

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

DATA CHANNEL FILTER CLASS SUMMARY

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

DATA CHANNEL TITLE KEY

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

TABLE OF DATA PLOTS

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

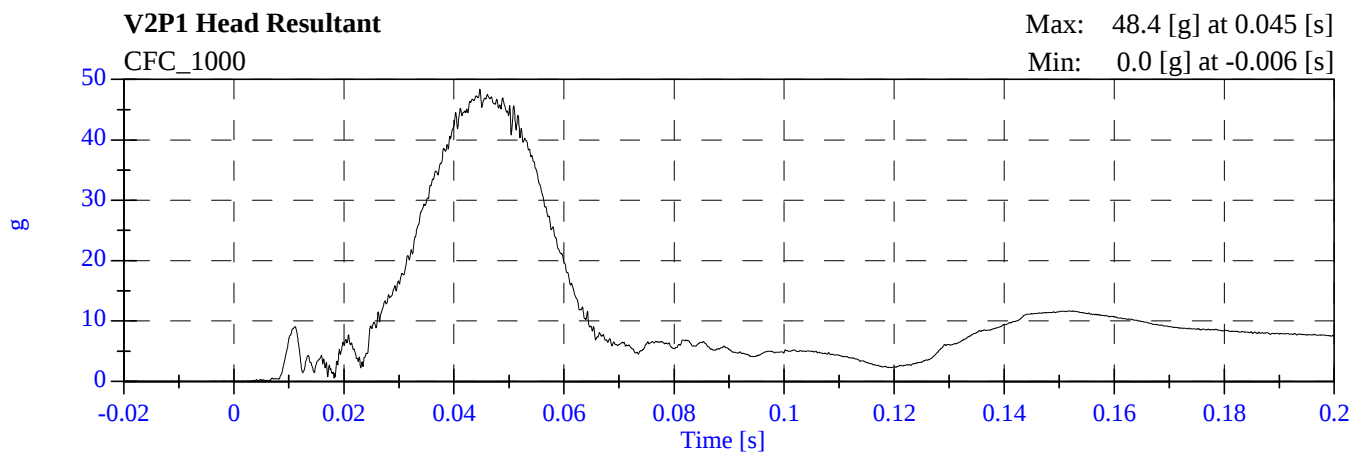
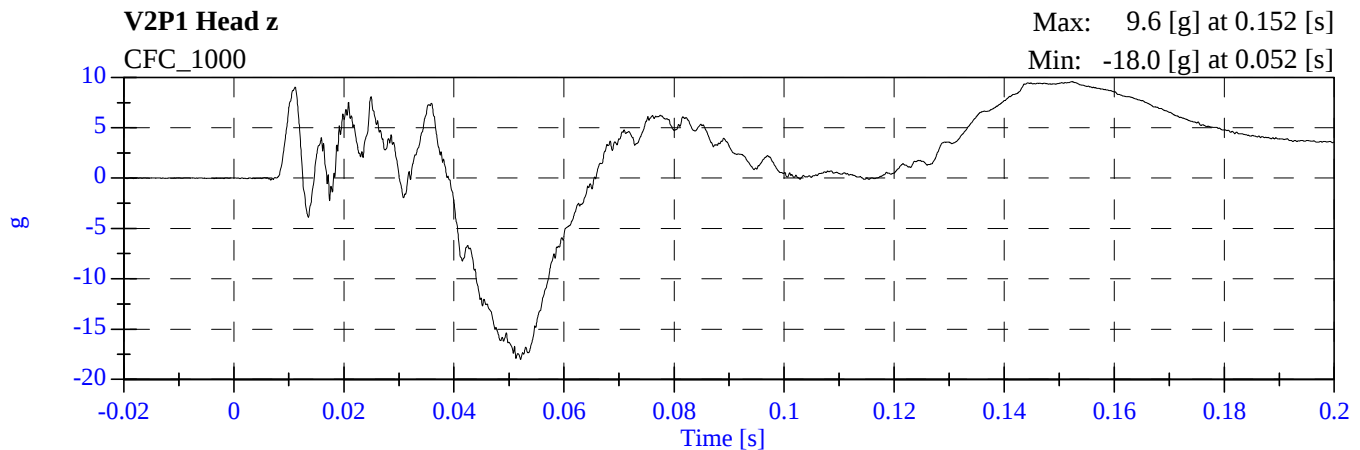
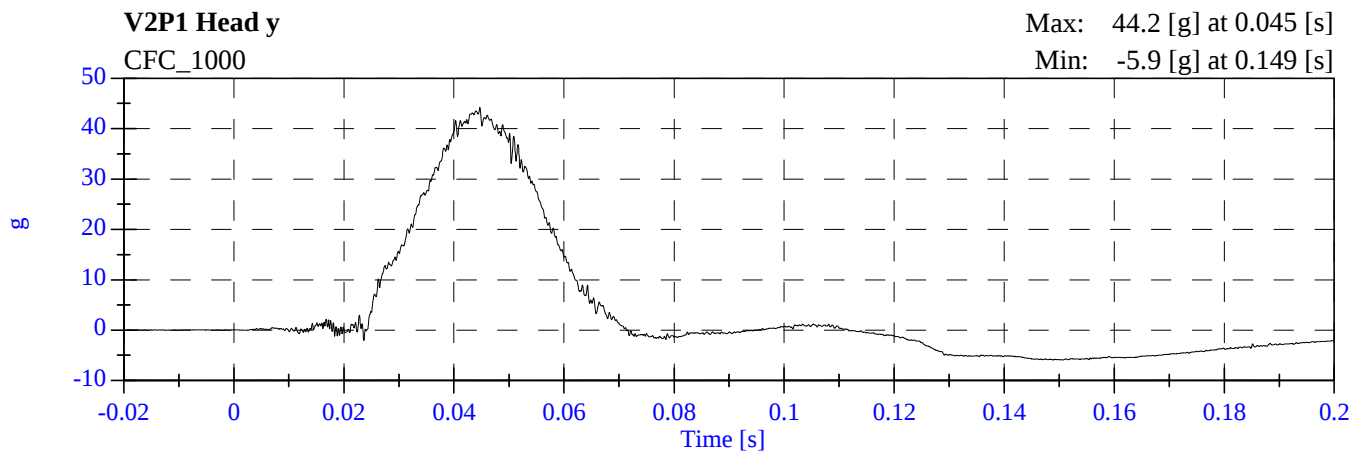
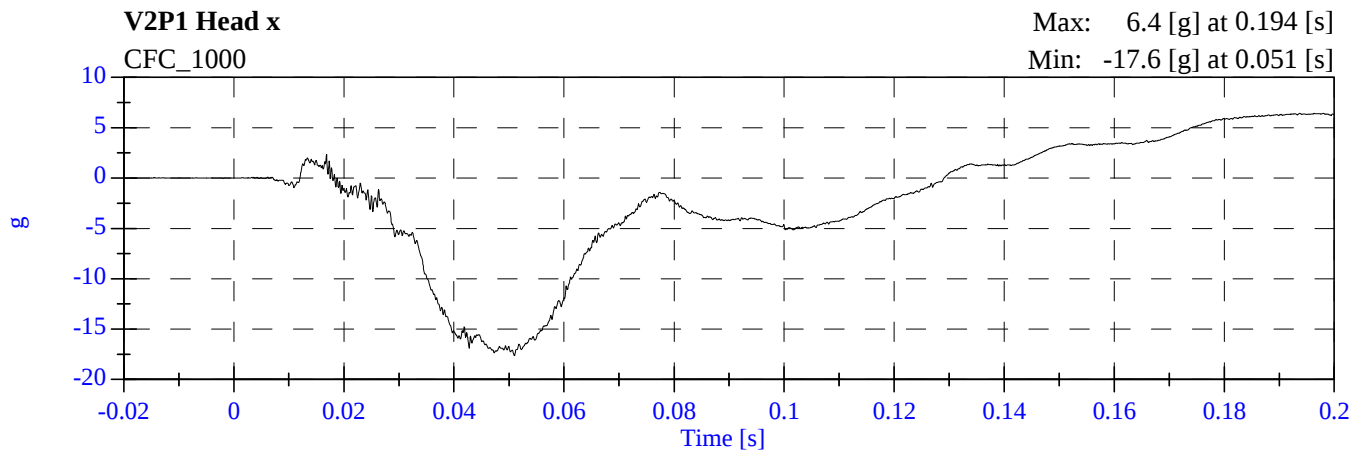
The following dummy, vehicle and load cell response data can be found in the research and development section of the NHTSA website at: www.nhtsa.dot.gov

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

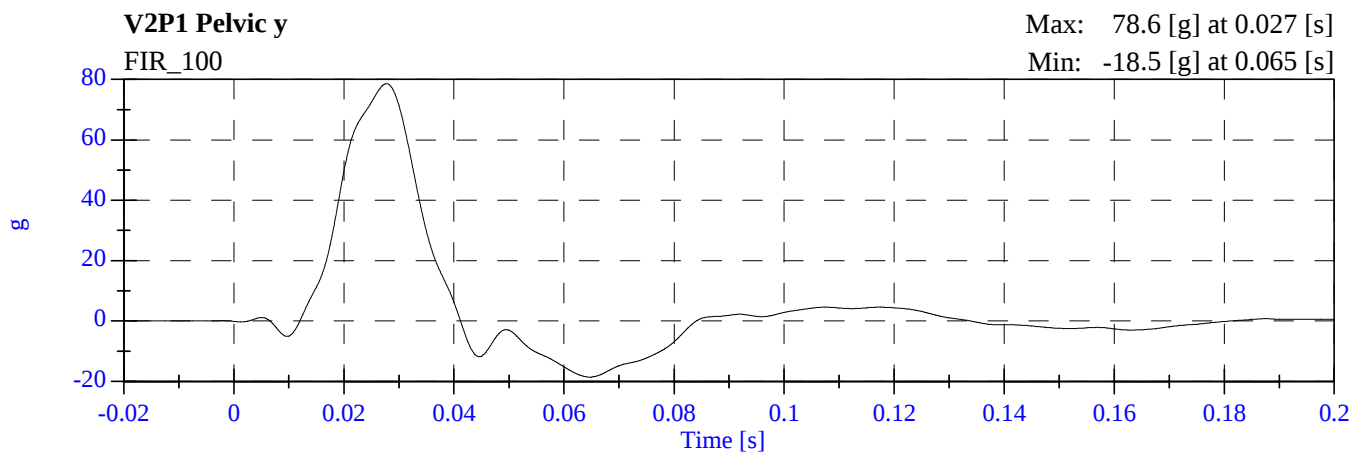
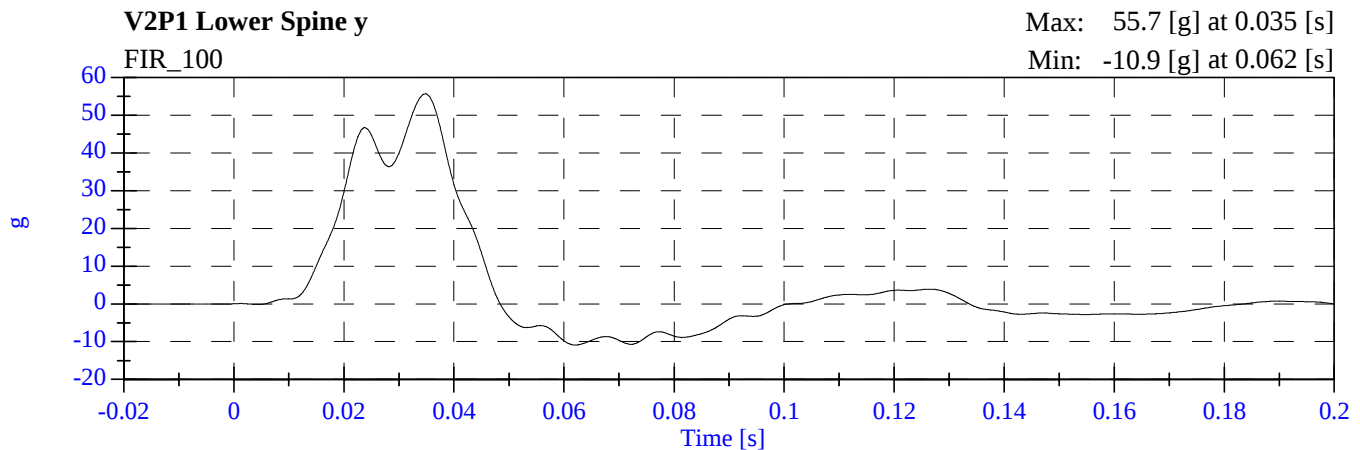
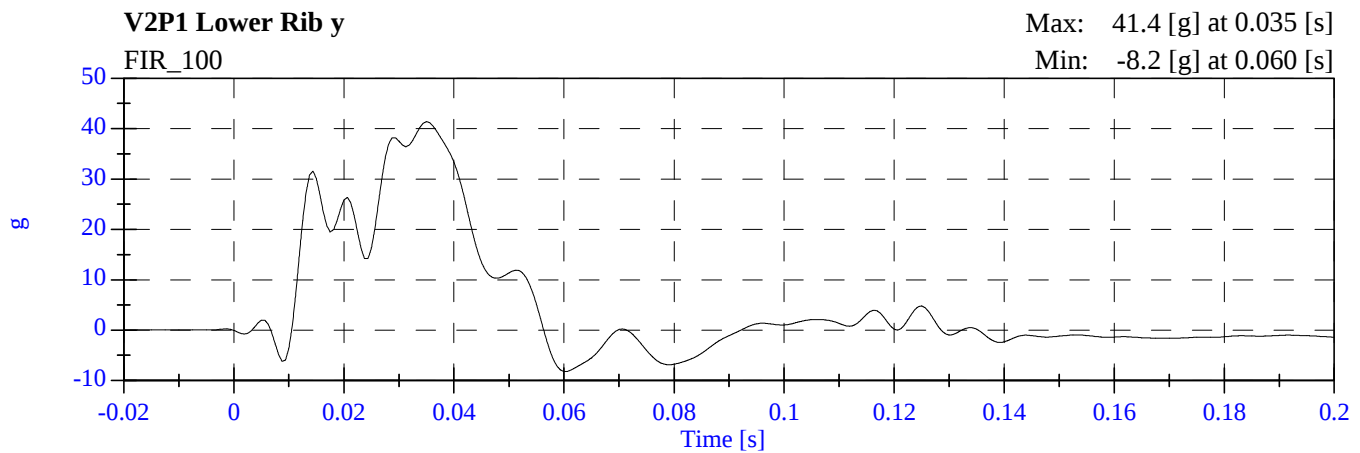
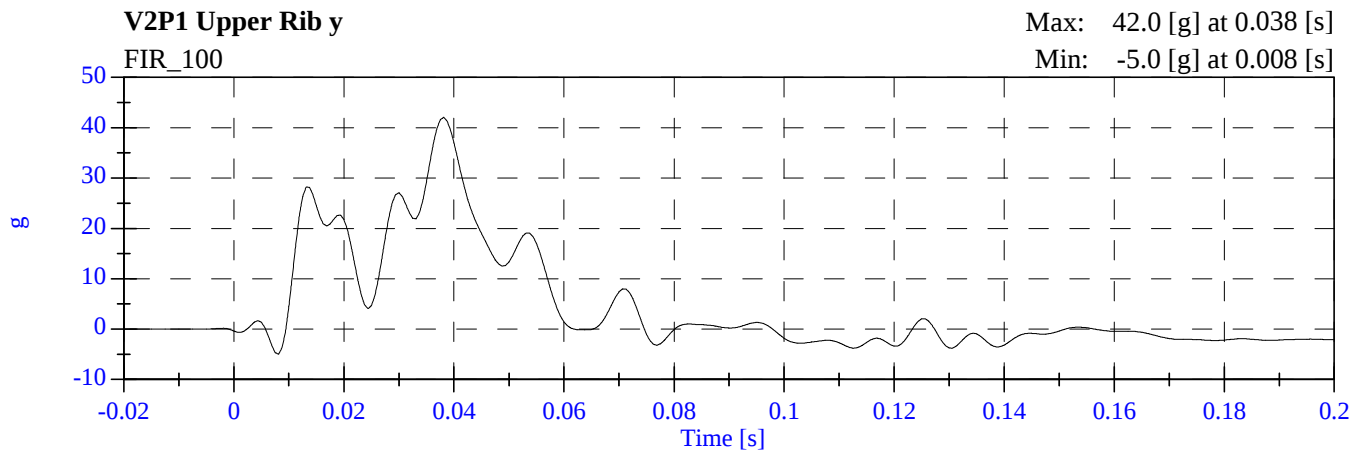
TEST NOTES

No data anomalies occurred:

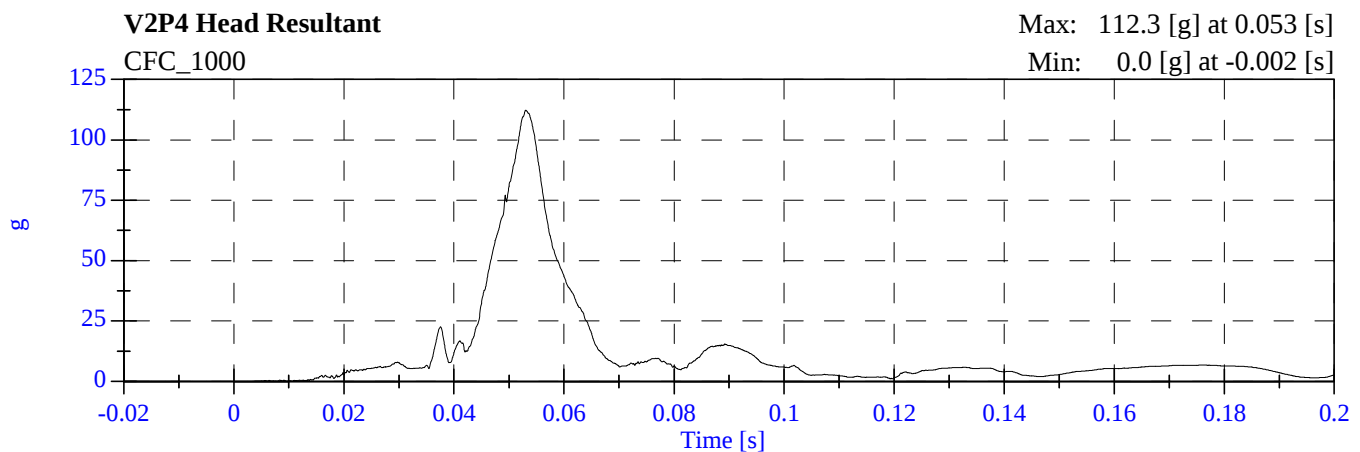
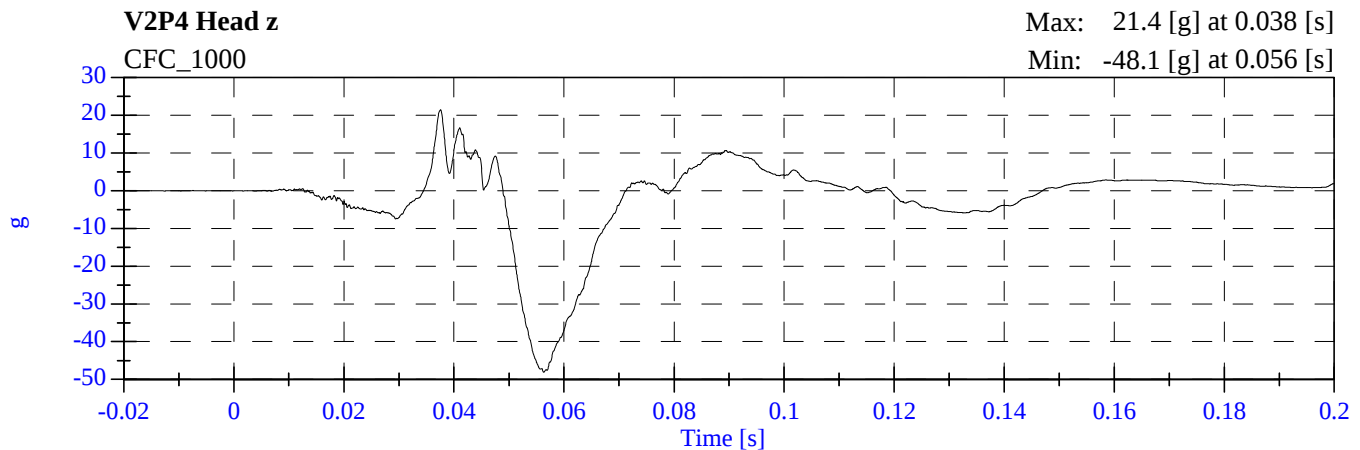
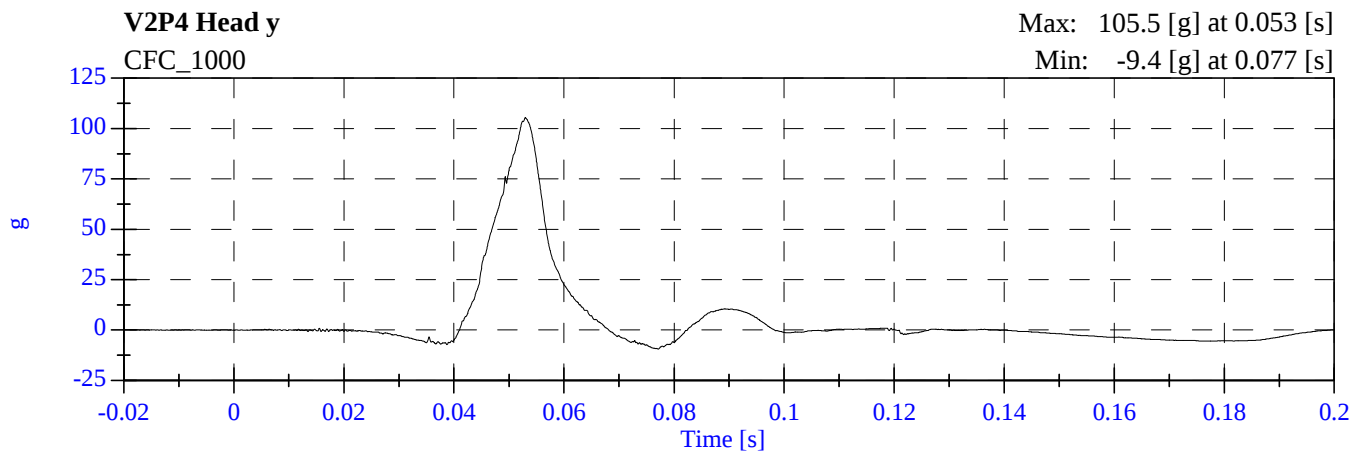
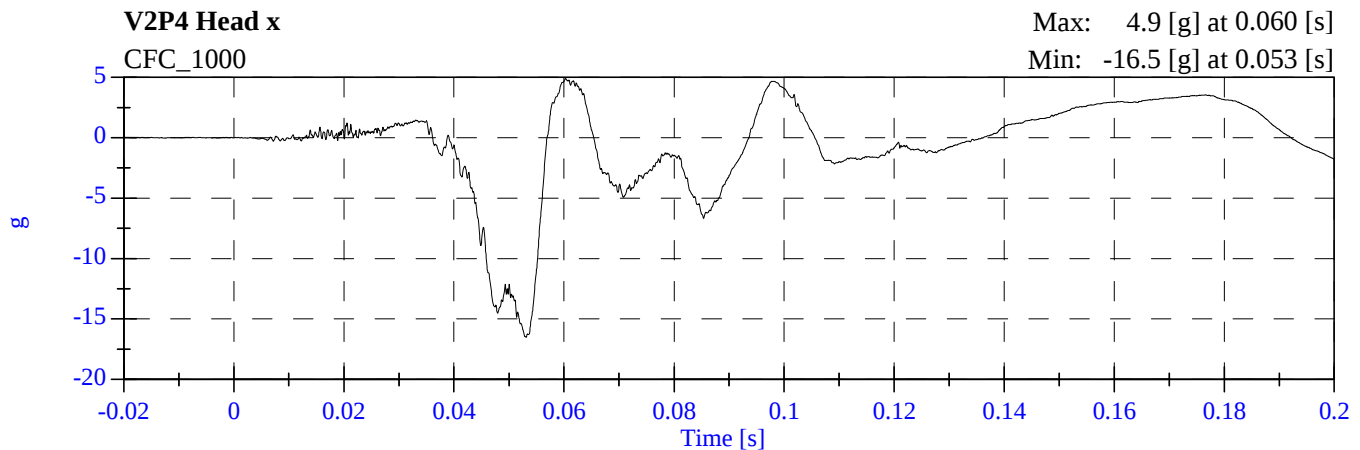
2008 SNCAP Test 2008 Ford Focus
M80210 - December 13, 2007



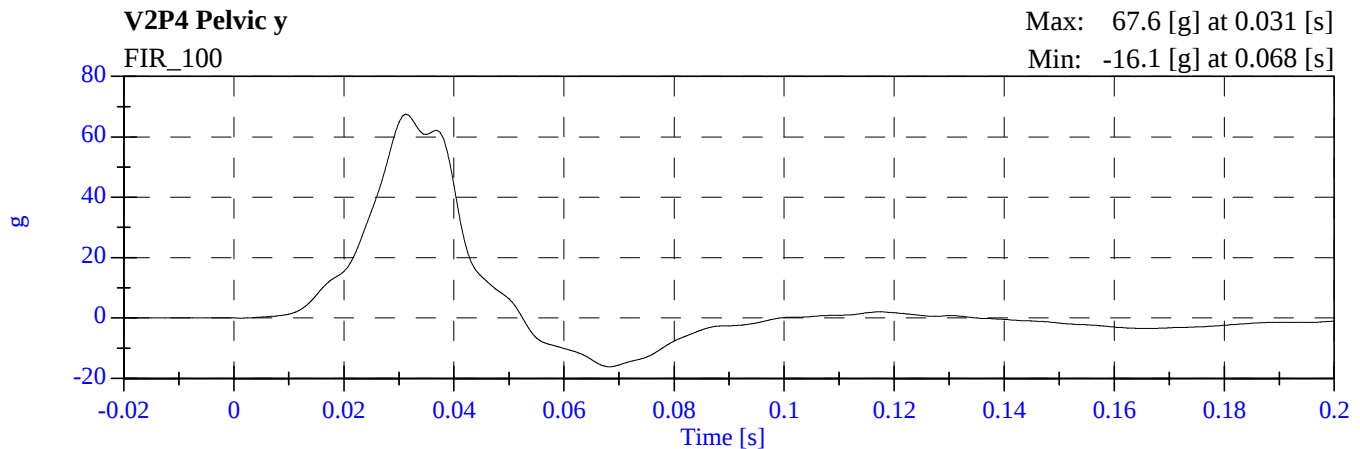
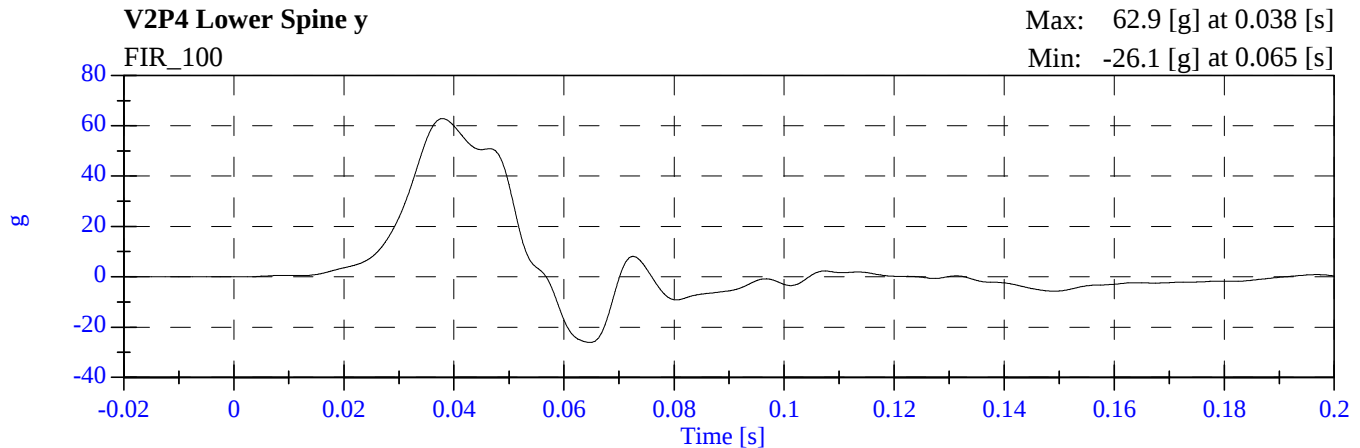
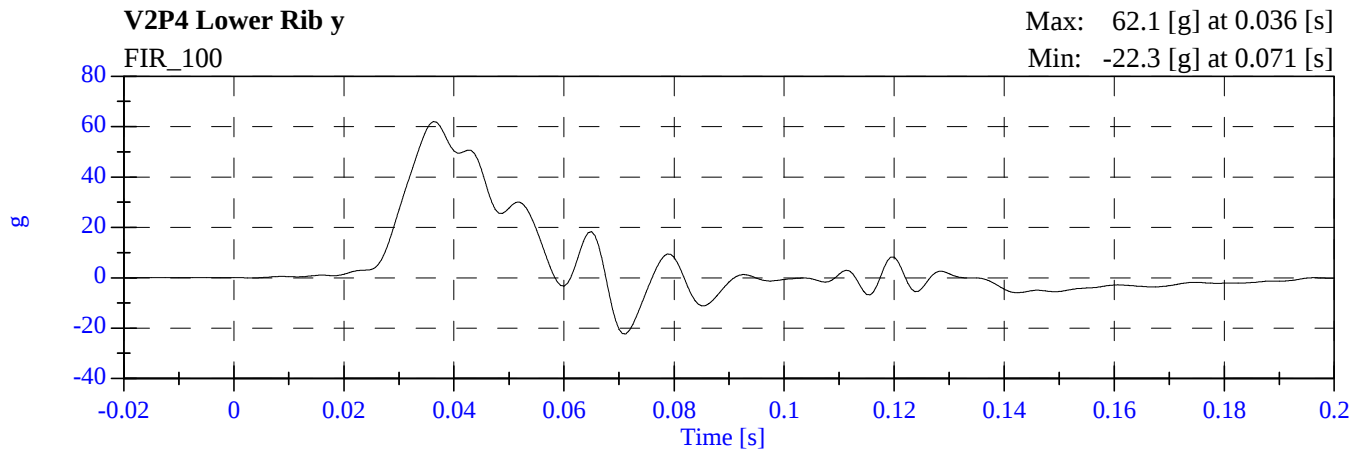
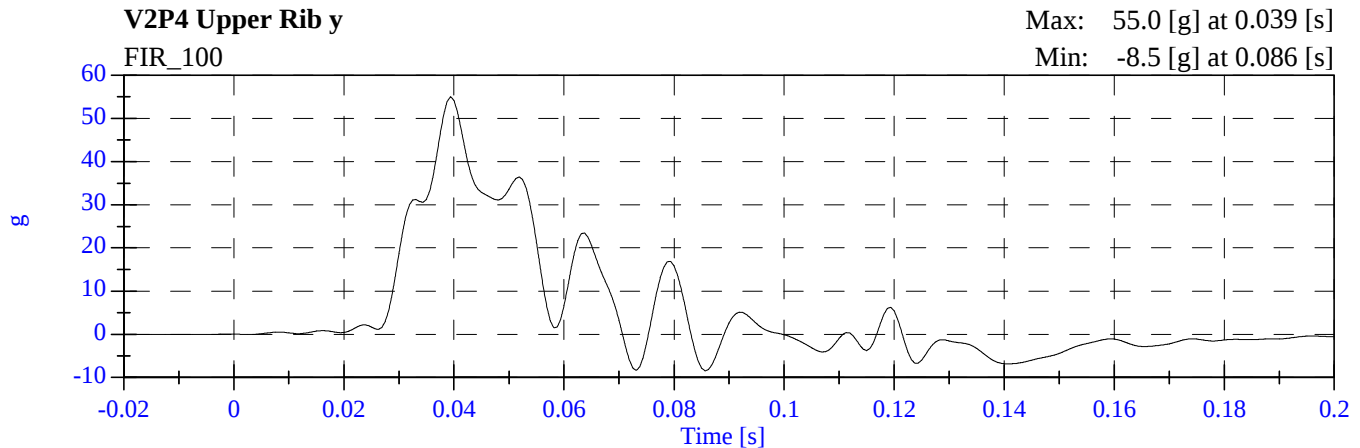
2008 SNCAP Test 2008 Ford Focus
M80210 - December 13, 2007



2008 SNCAP Test 2008 Ford Focus **M80210 - December 13, 2007**



2008 SNCAP Test 2008 Ford Focus
M80210 - December 13, 2007



APPENDIX C

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: 09/28/2007; 01/08/2008

Sequential Test Number:

2;3

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	902	902	902	902
RH- Rib Height (mm)	501 - 521	513	513	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	381	381	386	386
THORAX IMPACTS					
TEMPERATURE (• C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.00	47.00	35.00	13.00
PROBE SPEED (m/s)	4.27 - 4.33	4.32	4.28	4.33	4.28
UPPER RIB (g's)	37 - 46	44.81	38.76	37.60	39.40
LOWER RIB (g's)	37 - 46	43.48	38.22	37.55	37.63
LOWER SPINE (g's)	15 - 22	21.77	19.90	20.47	21.28
PELVIS IMPACT					
TEMPERATURE (• C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.00	33.00	33.00	33.00
PROBE SPEED (m/s)	4.27 - 4.33	4.32	4.28	4.31	4.29
PELVIS (g's)	40 - 60	40.44	42.40	45.96	41.86

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: 2
Date: September 28, 2007 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: 2
Date: September 28, 2007 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	902
RH- Rib Height (mm)	502 – 520	513
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	381

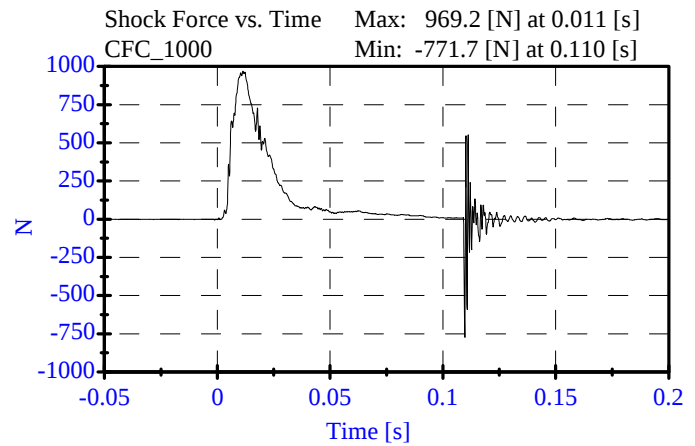
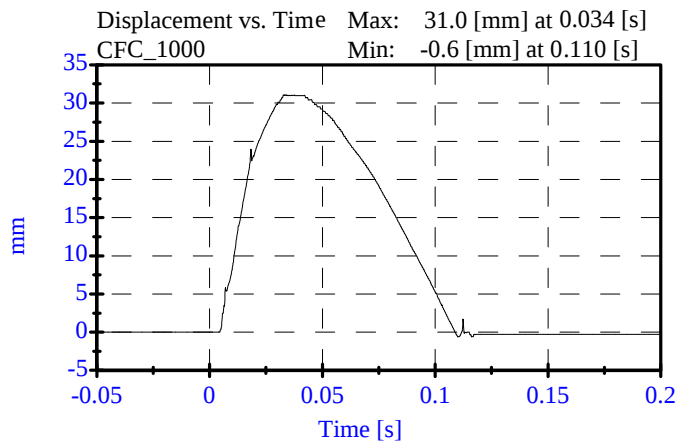
REMARKS: None

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

ATD Serial No: 905
Date: 08-01-07

Sequential Test Number: 1 File: 905SL 08-1-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Displacement:	30.00-35.00 mm	31.05 mm	Passed
Maximum Force:	836.00-1125.00 N	969.22 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	905		
Damper Setting:	5		

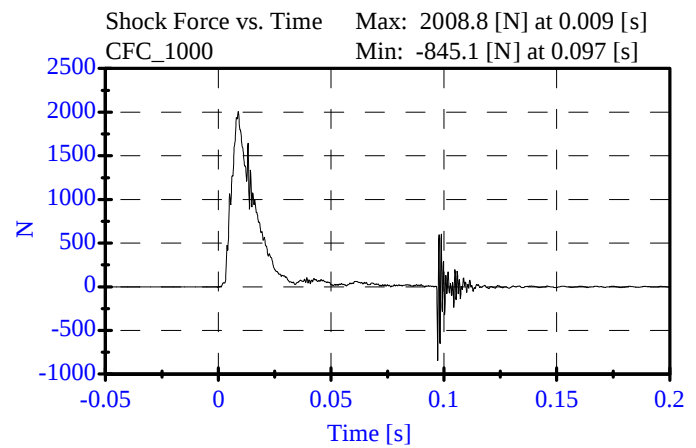
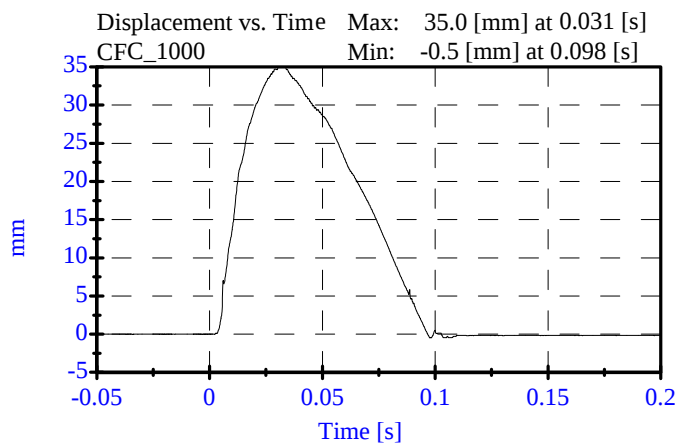


Shock Impact Med (4.27 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 08-01-07

Sequential Test Number: 1 File: 905SM 08-1-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Displacement:	32.00-37.00 mm	34.98 mm	Passed
Maximum Force:	1730.00-2099.00 N	2008.82 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	905		
Damper Setting:	5		



Shock Impact High (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

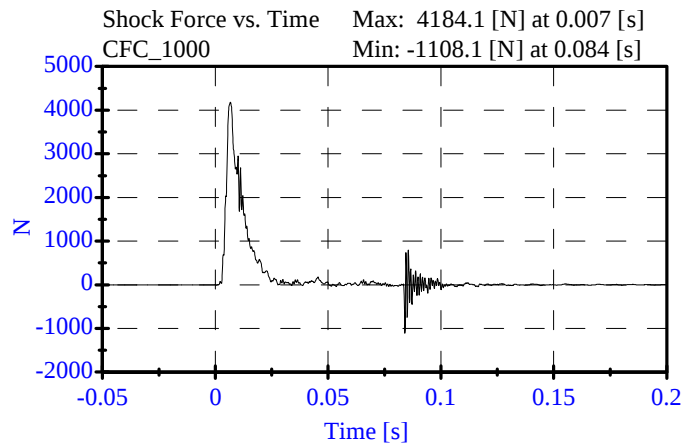
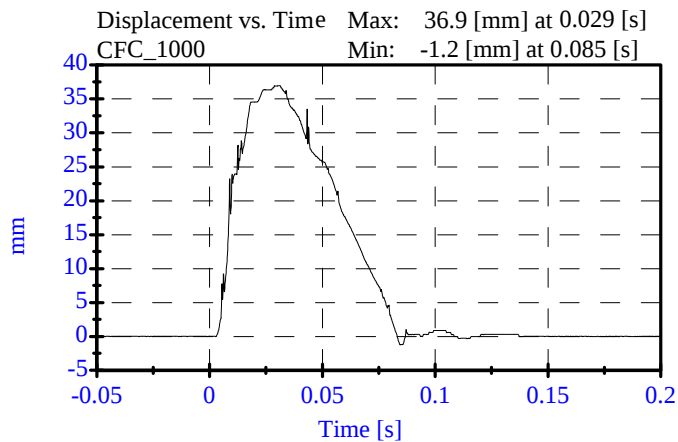
ATD Serial No: 905

Date: 08-01-07

Sequential Test Number: 1 File: 905SH 08-1-07

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Displacement:	33.00-40.00 mm	36.94 mm	Passed
Maximum Force:	3741.00-4448.00 N	4184.07 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	905		
Damper Setting:	5		

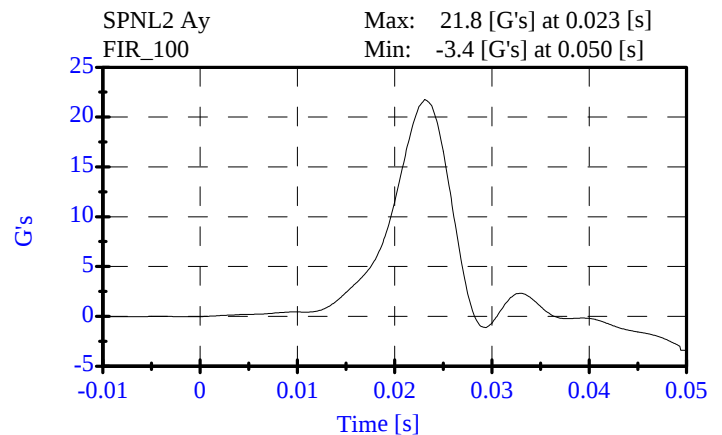
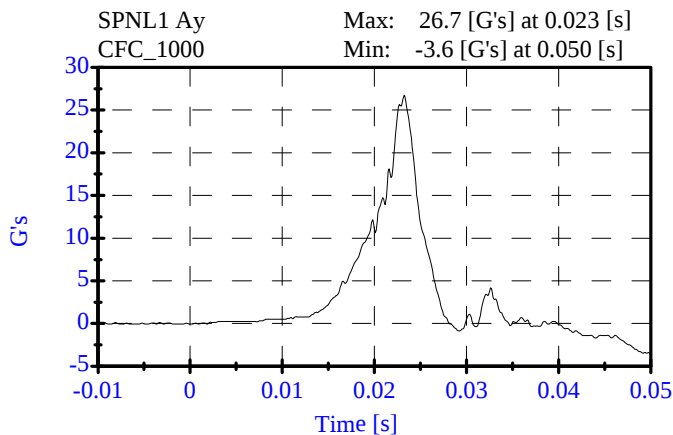
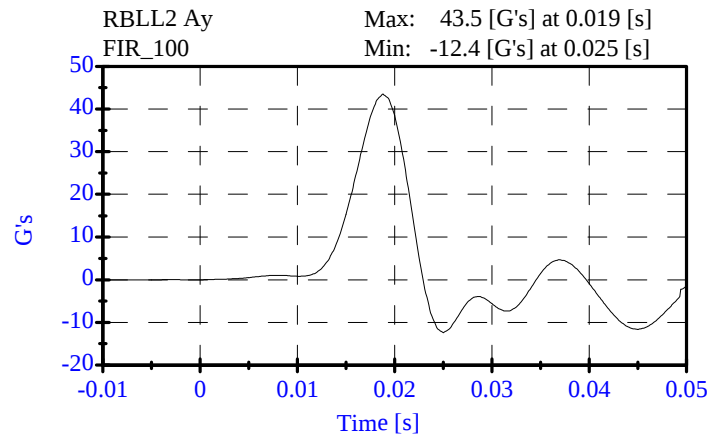
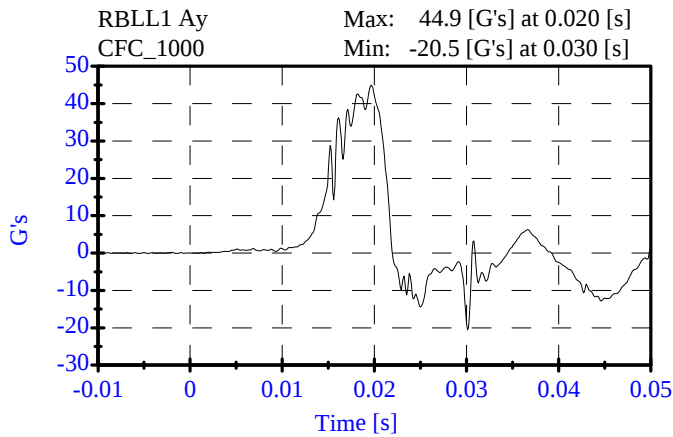
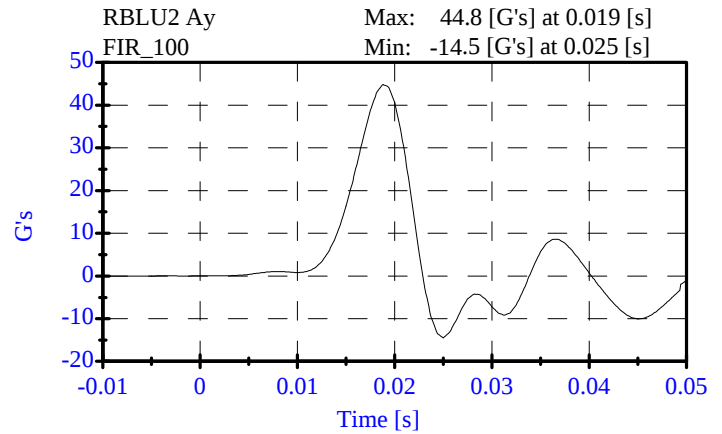
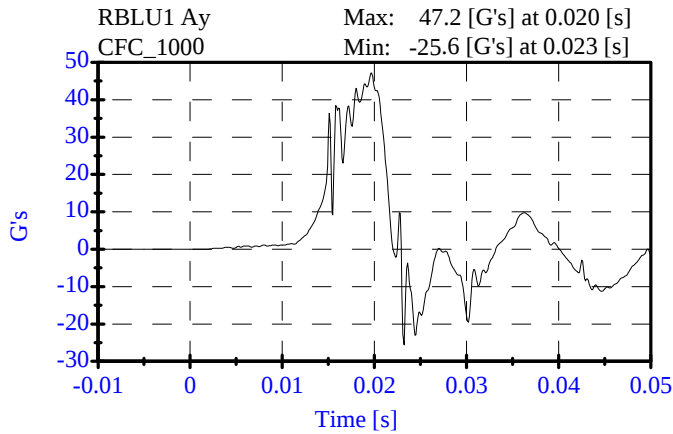


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 09-27-07

Sequential Test Number: 1 File: 905T 09-27-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	44.81 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	43.48 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.77 G's	Passed

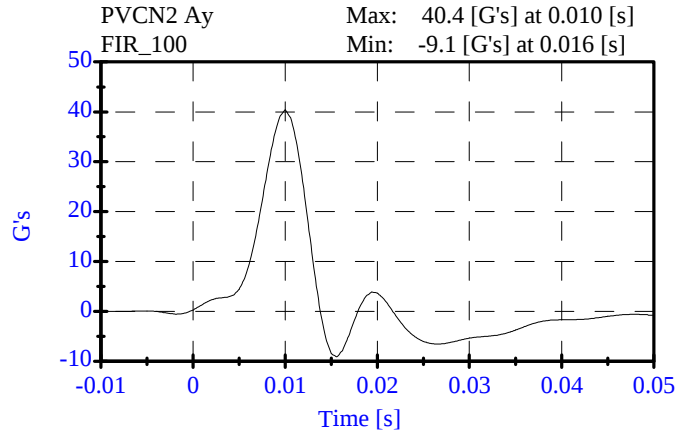
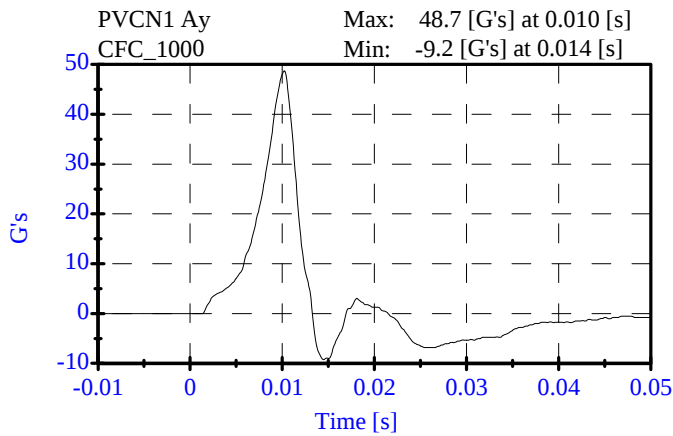


Pelvic Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 09-27-07

Sequential Test Number: 1 File: 905P 09-27-07
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 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	40.44 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.0 ms	Passed

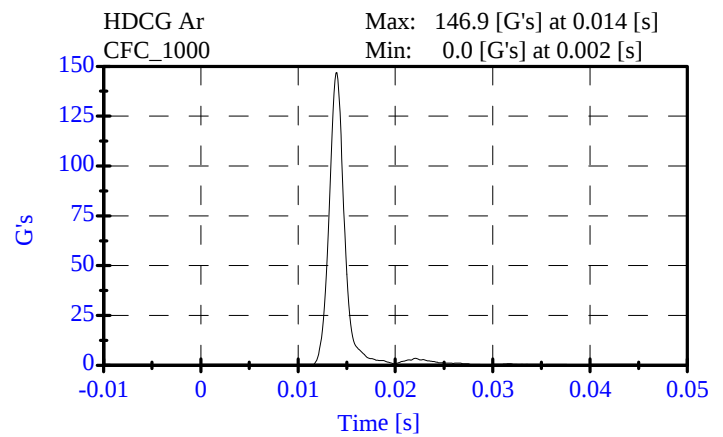
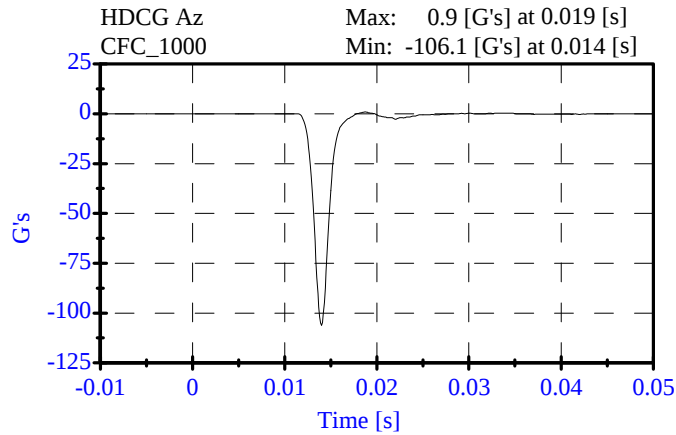
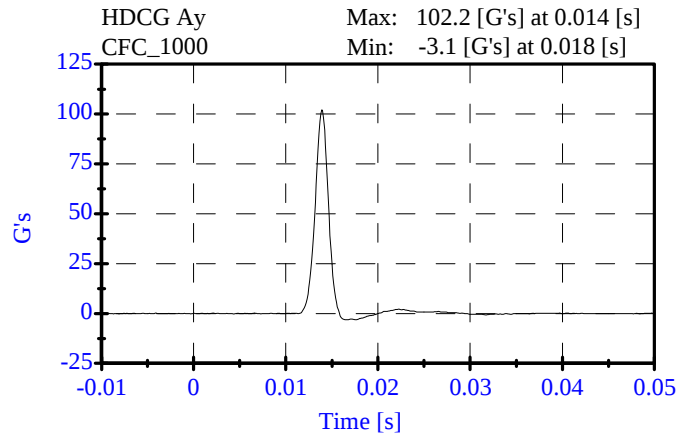
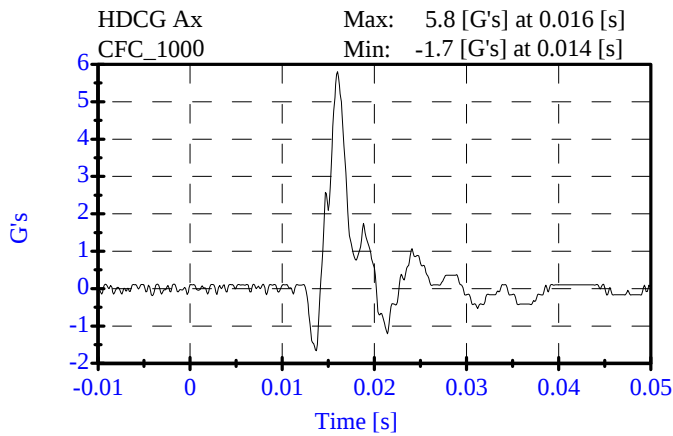


Head Drop **Pre-Test** **CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 905
Date: 09-25-07

Sequential Test Number: 1 File: 905H 09-25-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	146.86 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	5.80 Gs	Passed
Curve PerCent NonModal:	< 15%	2.40 %	Passed



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

ATD Serial No: 905

Date: 09-25-07

Sequential Test Number: 1 File: 905N 09-25-07

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 %	37.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.99 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	1.96 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.14 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.10 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	6.97 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	71.31 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	84.98 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	57.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	10.00 ms	Passed

Neck Test Pre-Test CONFIGURED FOR LEFT SIDE IMPACT

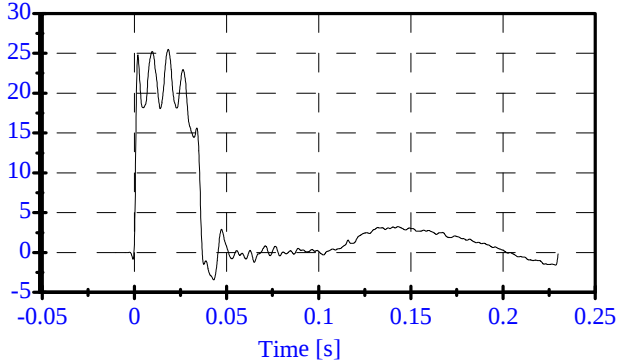
ATD Serial No: 905

Date: 09-25-07

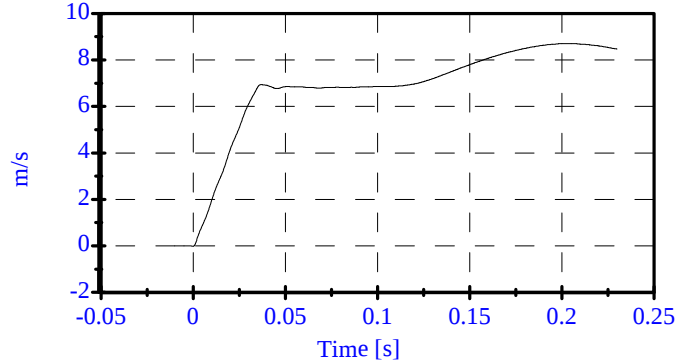
Sequential Test Number: 1 File: 905N 09-25-07

Laboratory Technician: B. Swiecicki

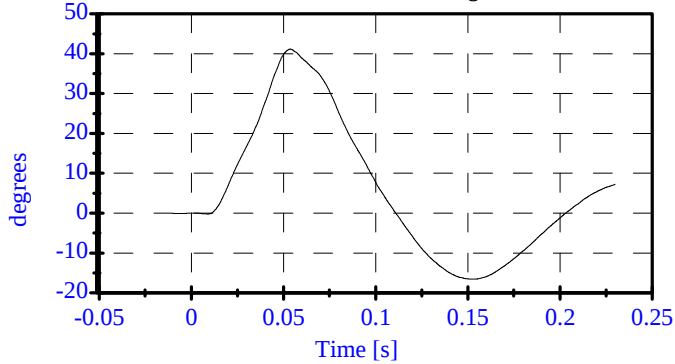
Pend Ax
CFC_180
Max: 25.5 [] at 0.018 [s]
Min: -3.4 [] at 0.043 [s]



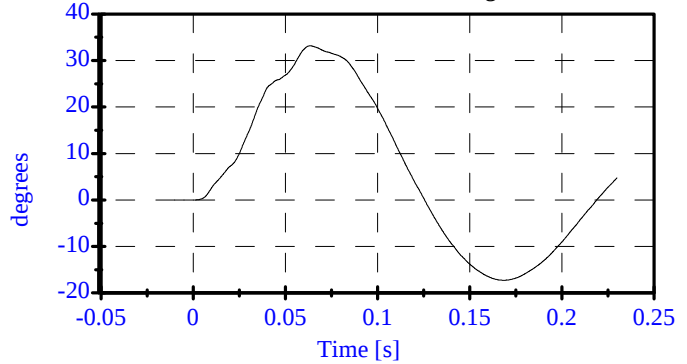
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.202 [s]
Min: -0.0 [m/s] at -0.000 [s]



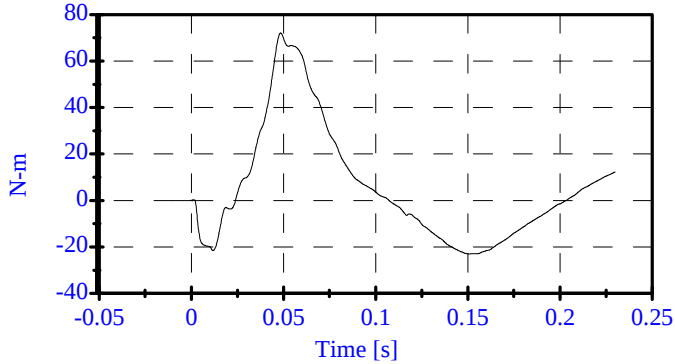
Head Rot
CFC_180
Max: 41.2 [degrees] at 0.054 [s]
Min: -16.5 [degrees] at 0.154 [s]



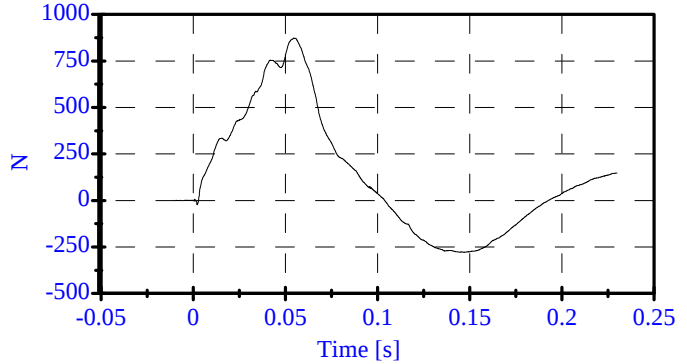
Arm Rot
CFC_180
Max: 33.2 [degrees] at 0.063 [s]
Min: -17.3 [degrees] at 0.168 [s]



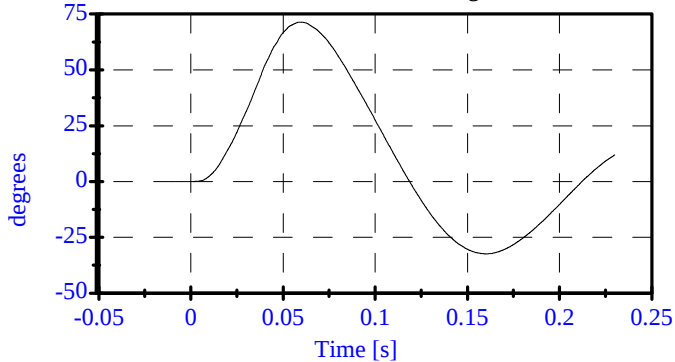
Neck Mx
CFC_600
Max: 72.1 [N-m] at 0.049 [s]
Min: -23.1 [N-m] at 0.151 [s]



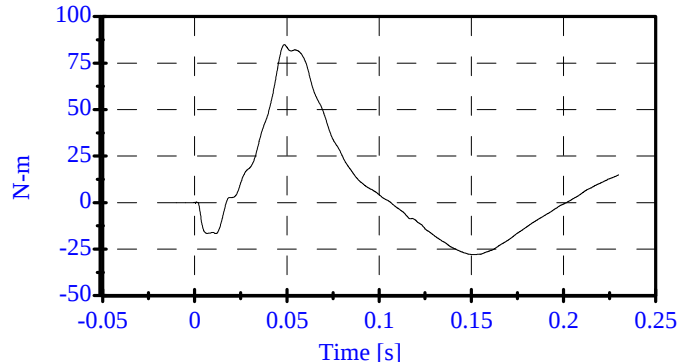
Neck Fy
CFC_1000
Max: 872.9 [N] at 0.054 [s]
Min: -279.6 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 71.3 [degrees] at 0.059 [s]
Min: -32.4 [degrees] at 0.160 [s]



MOCX
Max: 85.0 [N-m] at 0.049 [s]
Min: -28.0 [N-m] at 0.151 [s]



Abdomen Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905

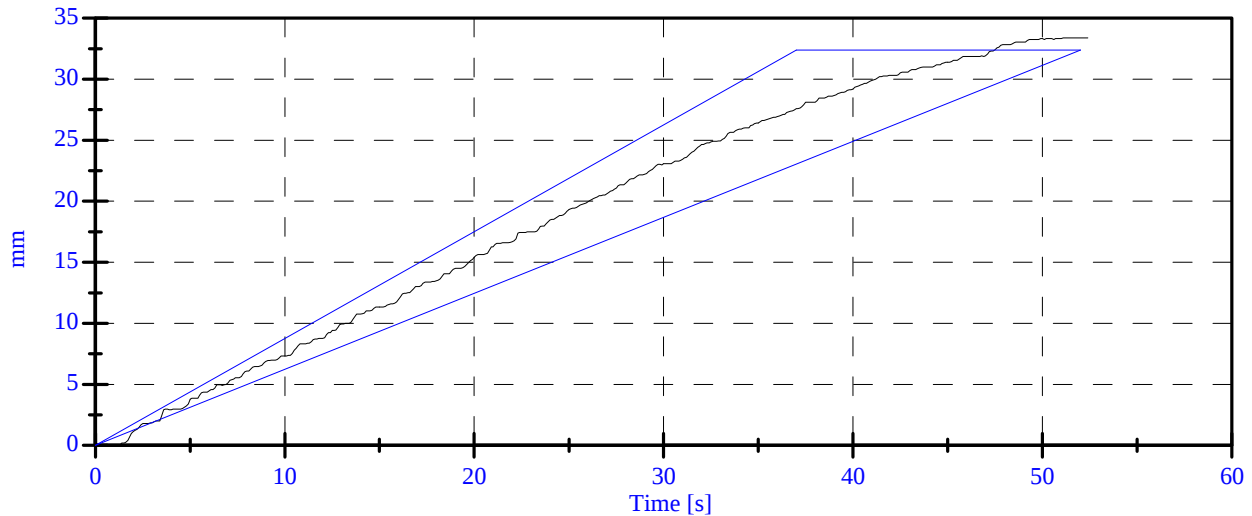
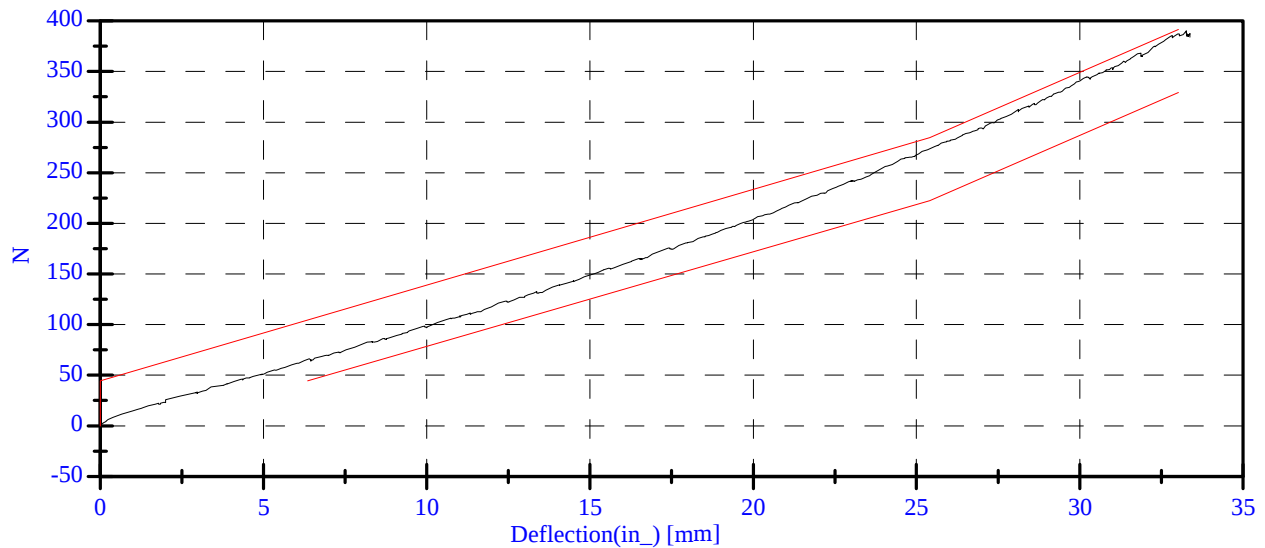
Date: 09-28-07

Sequential Test Number: 1 File: 905AB 09-28-07

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	127.03 N	Passed
Force at 19.05 mm :	162.98-220.99 N	193.01 N	Passed
Force at 25.40 mm :	221.97-280.02 N	272.75 N	Passed
Force at 33.02 mm :	324.99-391.00 N	386.93 N	Passed

ABDOMINAL COMPRESSION TEST



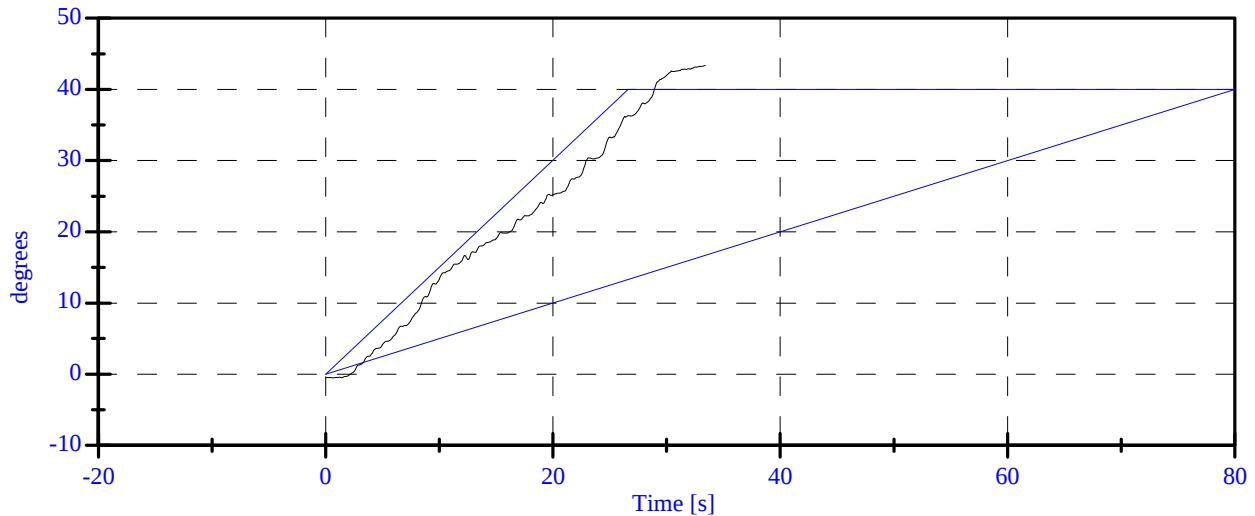
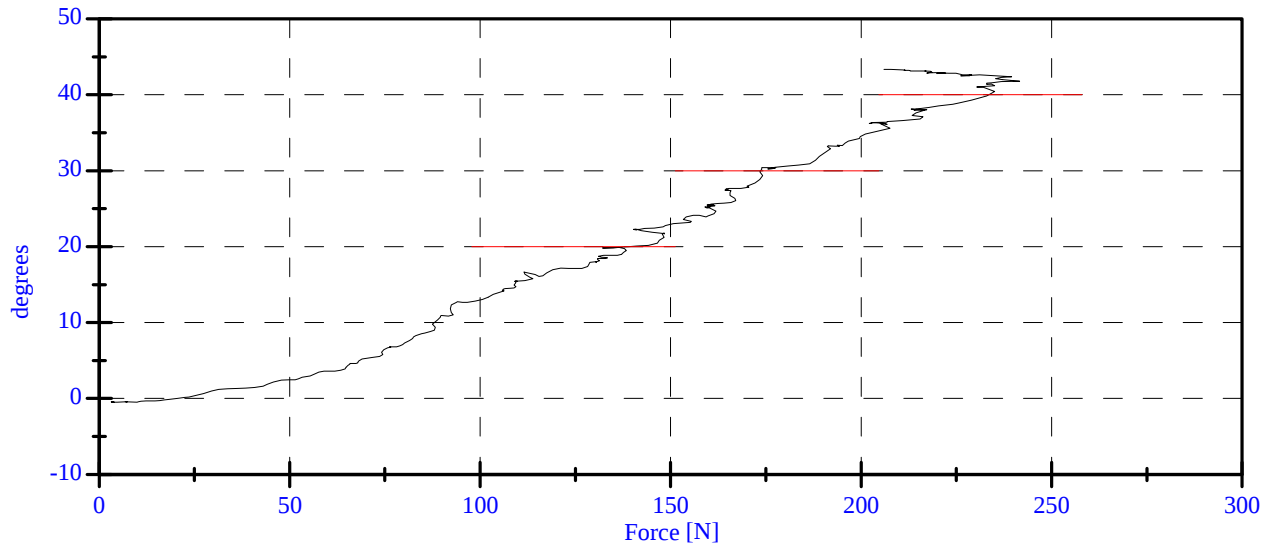
**Lumbar Spine
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 905
Date: 09-27-07

Sequential Test Number: 1 File: 905sp 09-27-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	20.63 N	Passed
Force at 20 Deg:	97.86-151.24 N	138.93 N	Passed
Force at 30 Deg:	151.24-204.62 N	173.40 N	Passed
Force at 40 Deg:	204.62-258.00 N	232.95 N	Passed
Return Angle	12 Deg Max	9.11 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 2
 Date: September 28, 2007 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: 2
Date: September 28, 2007 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: 2
Date: September 28, 2007 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
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	386

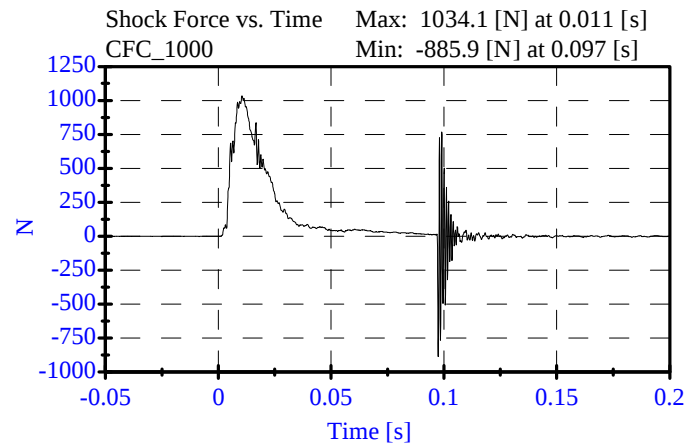
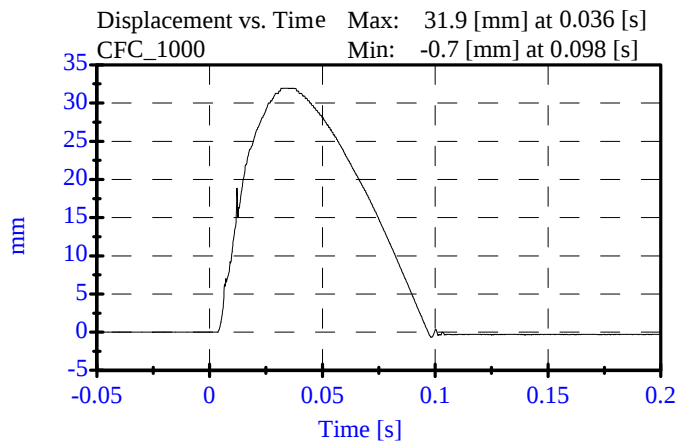
REMARKS: None

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

ATD Serial No: 906
Date: 08-01-07

Sequential Test Number: 1 File: 906SL 08-1-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Displacement:	30.00-35.00 mm	31.95 mm	Passed
Maximum Force:	836.00-1125.00 N	1034.07 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	906		
Damper Setting:	5		

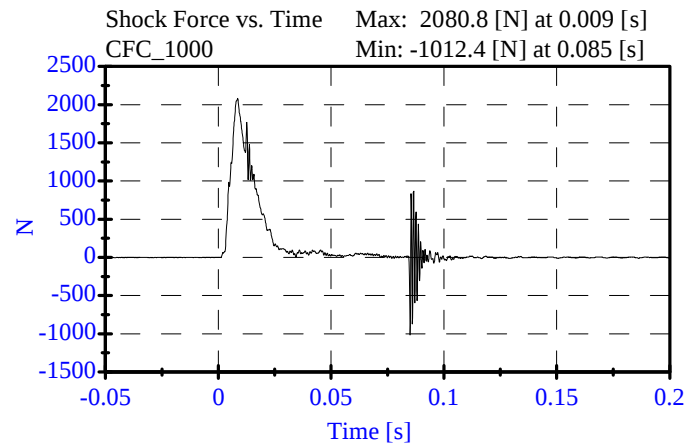
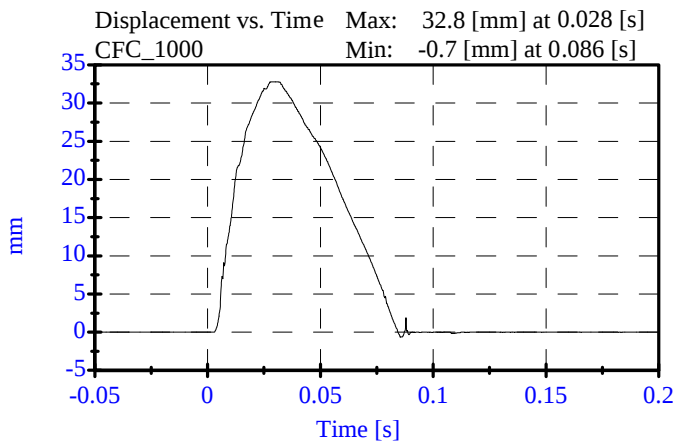


Shock Impact Med (4.27 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 08-01-07

Sequential Test Number: 1 File: 906SM 08-1-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Displacement:	32.00-37.00 mm	32.78 mm	Passed
Maximum Force:	1730.00-2099.00 N	2080.78 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	906		
Damper Setting:	5		

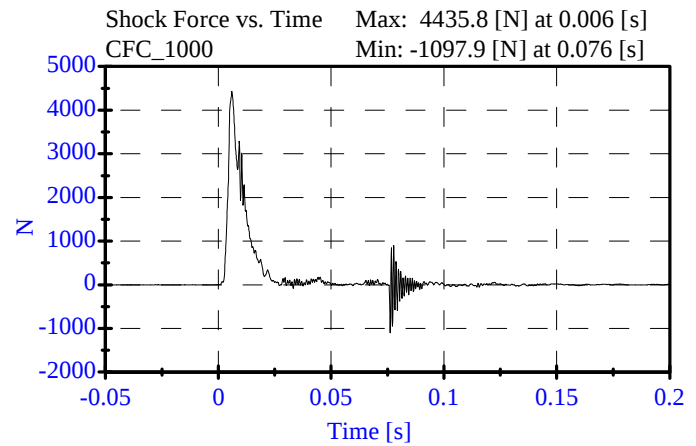
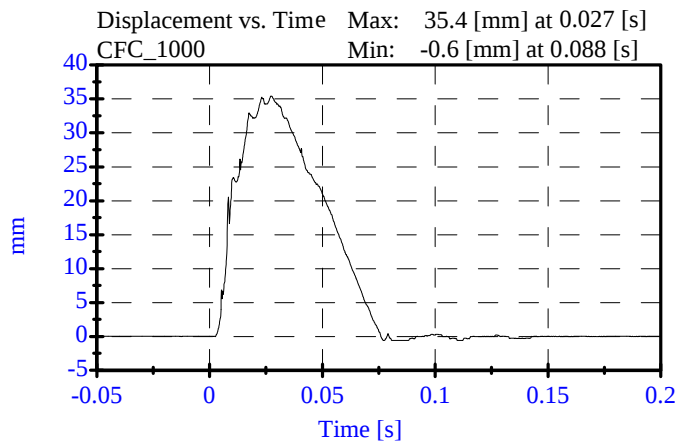


Shock Impact high (6.10 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 08-01-07

Sequential Test Number: 1 File: 906SH 08-1-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Displacement:	33.00-40.00 mm	35.42 mm	Passed
Maximum Force:	3741.00-4448.00 N	4435.77 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	906		
Damper Setting:	5		

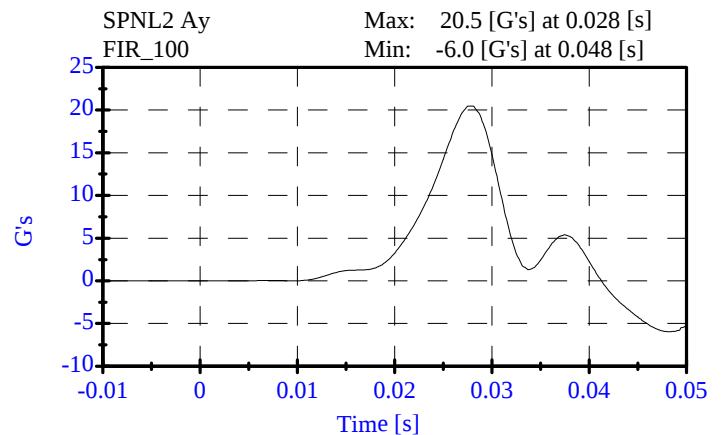
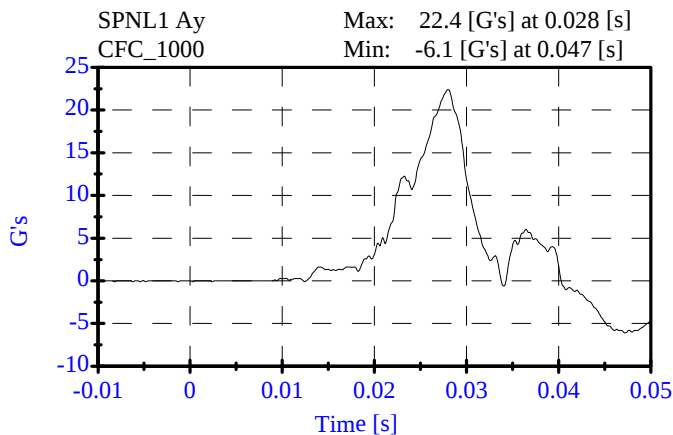
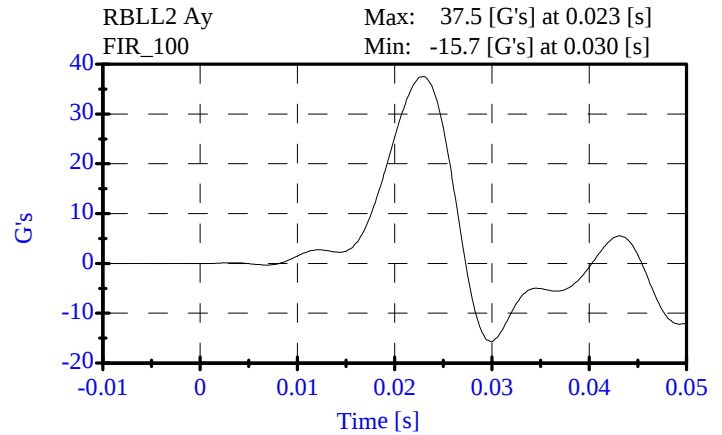
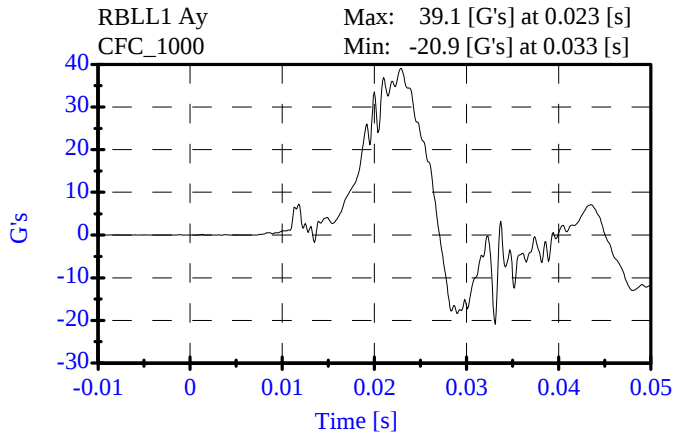
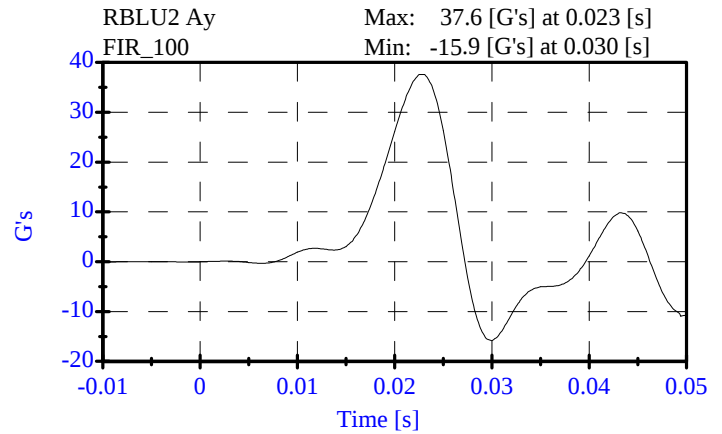
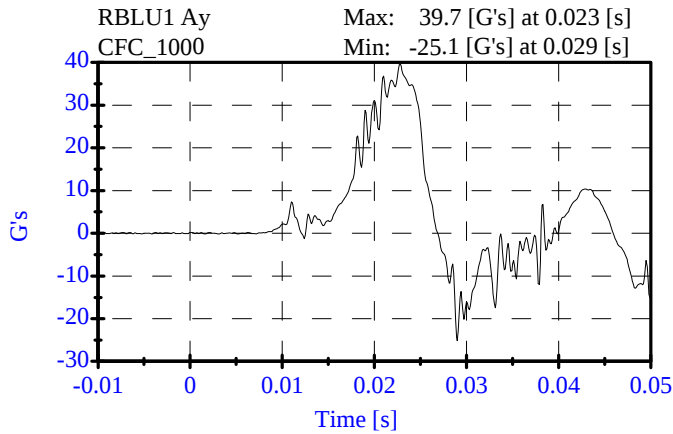


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 09-25-07

Sequential Test Number: 1 File: 906T2 09-25-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.33 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	37.60 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.55 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.47 G's	Passed



Pelvic Impact

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

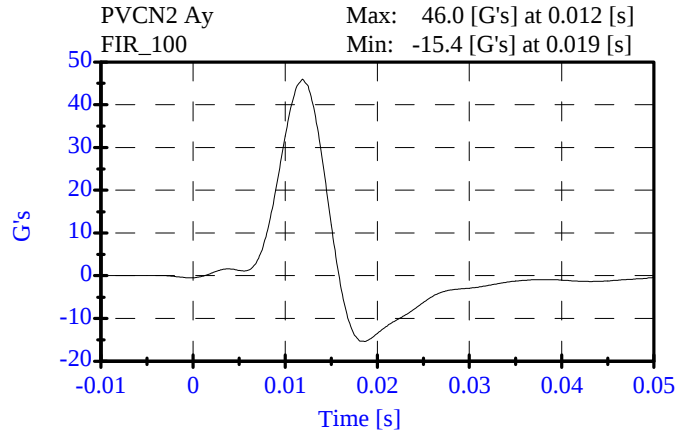
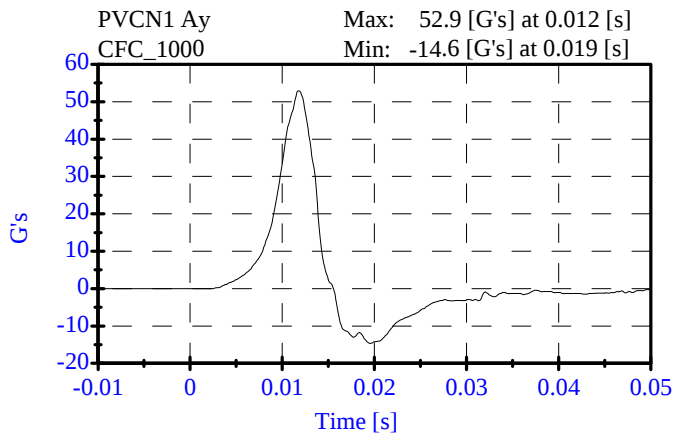
ATD Serial No: 906

Date: 09-27-07

Sequential Test Number: 1 File: 906P 09-27-07

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	45.96 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.5 ms	Passed



Head Drop

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

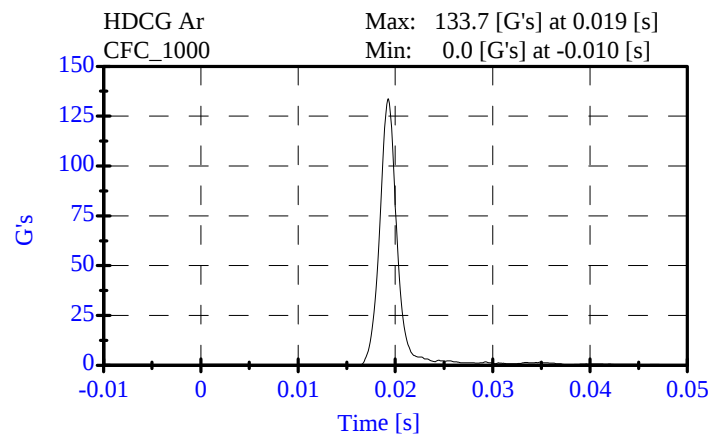
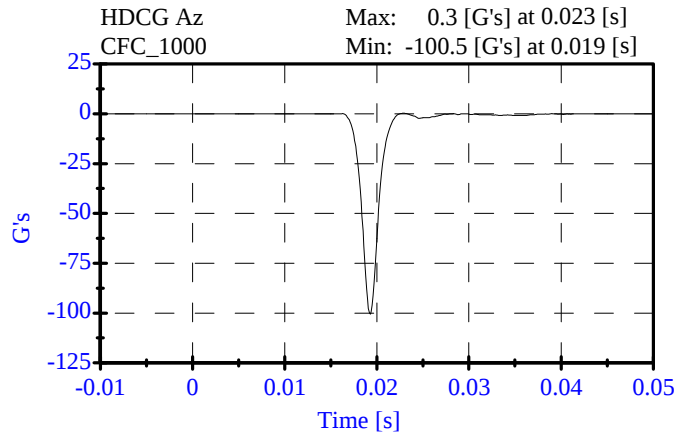
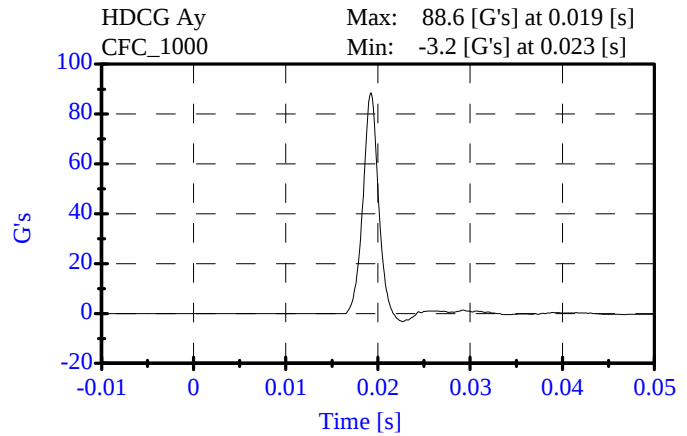
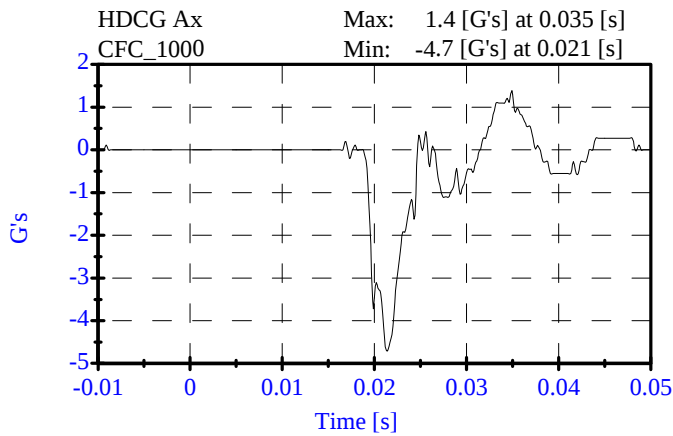
ATD Serial No: 906

Date: 09-25-07

Sequential Test Number: 1 File: 906H2 09-25-07

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	133.71 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	1.39 Gs	Passed
Curve PerCent NonModal:	< 15%	2.42 %	Passed



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

ATD Serial No: 906

Date: 09-25-07

Sequential Test Number: 1 File: 906N 09-25-07

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 %	37.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.92 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.01 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.23 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.29 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.59 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	70.55 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	84.36 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	58.20 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	9.20 ms	Passed

Neck Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

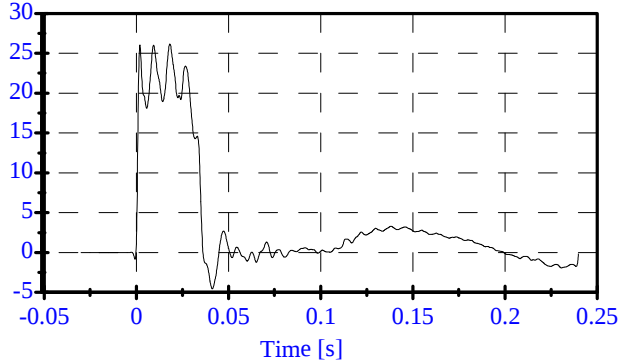
ATD Serial No: 906

Date: 09-25-07

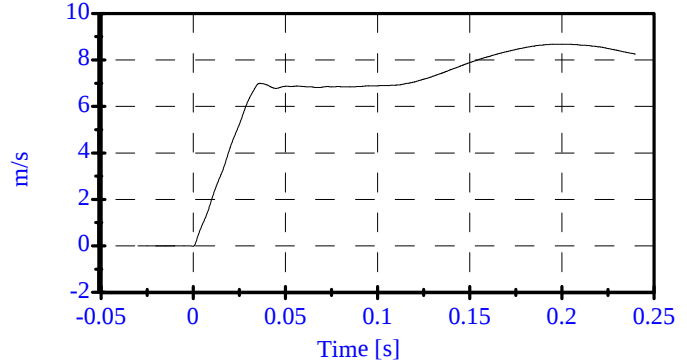
Sequential Test Number: 1 File: 906N 09-25-07

Laboratory Technician: B. Swiecicki

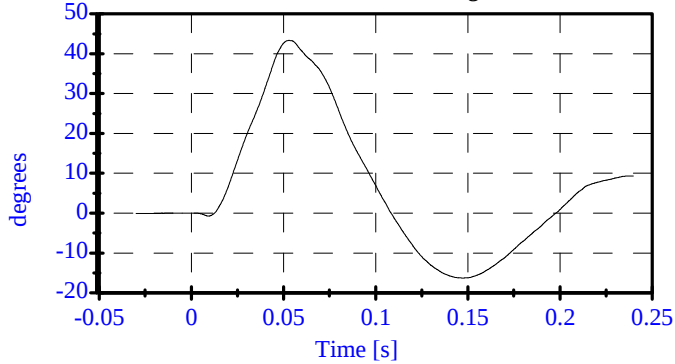
Pend Ax
CFC_180
Max: 26.2 [] at 0.018 [s]
Min: -4.5 [] at 0.041 [s]



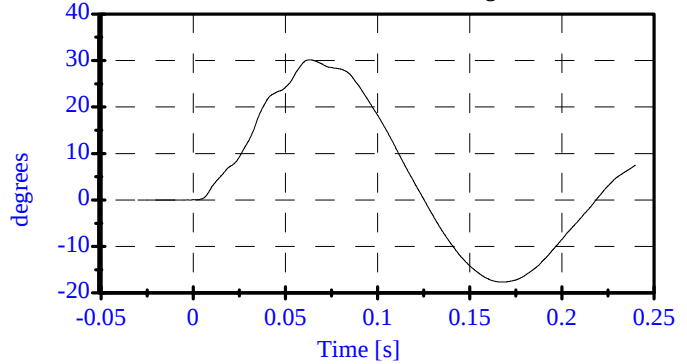
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



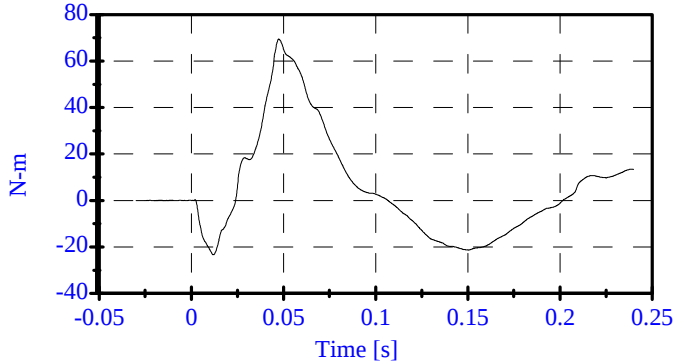
Head Rot
CFC_180
Max: 43.4 [degrees] at 0.053 [s]
Min: -16.3 [degrees] at 0.147 [s]



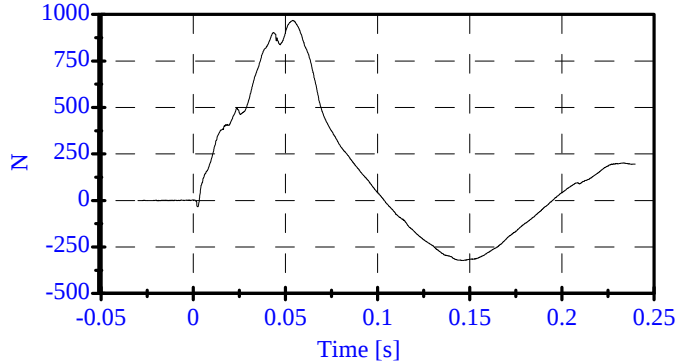
Arm Rot
CFC_180
Max: 30.1 [degrees] at 0.063 [s]
Min: -17.7 [degrees] at 0.168 [s]



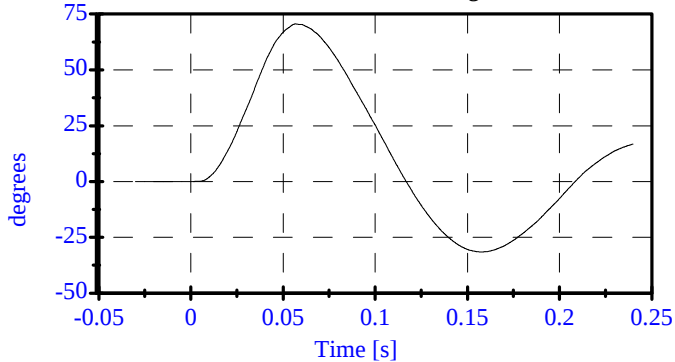
Neck Mx
CFC_600
Max: 69.4 [N-m] at 0.047 [s]
Min: -23.3 [N-m] at 0.012 [s]



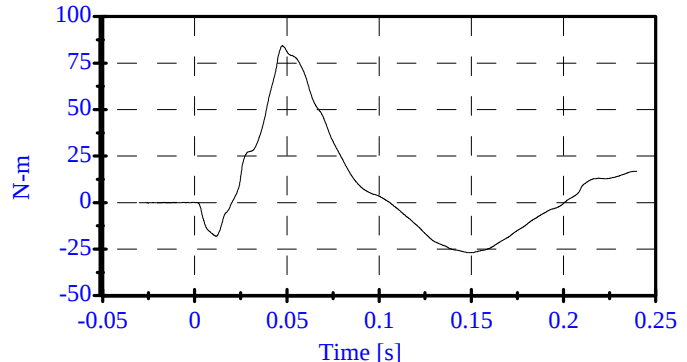
Neck Fy
CFC_1000
Max: 967.7 [N] at 0.054 [s]
Min: -322.8 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 70.5 [degrees] at 0.057 [s]
Min: -31.5 [degrees] at 0.158 [s]



MOCX
Max: 84.4 [N-m] at 0.048 [s]
Min: -27.0 [N-m] at 0.150 [s]



Abdomen Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906

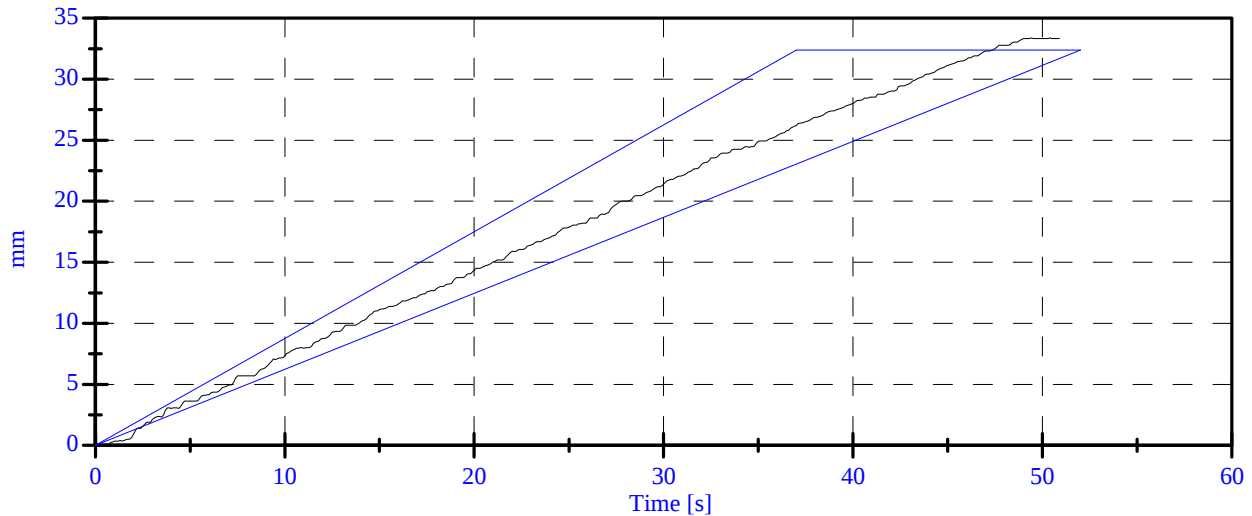
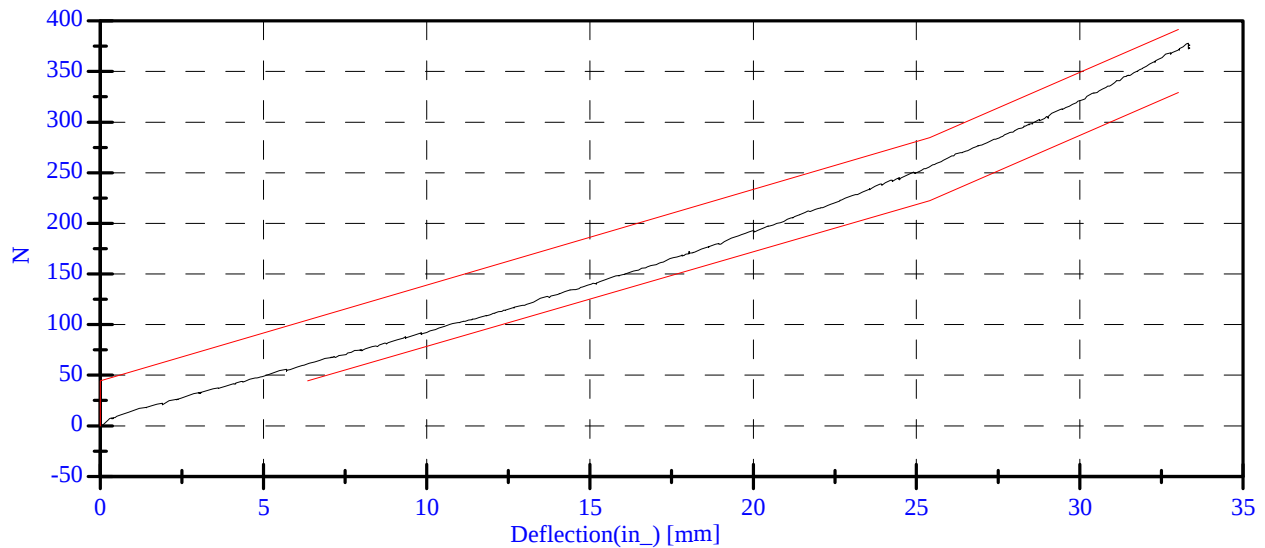
Date: 09-28-07

Sequential Test Number: 1 File: 906AB 09-28-07

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	119.06 N	Passed
Force at 19.05 mm :	162.98-220.99 N	179.59 N	Passed
Force at 25.40 mm :	221.97-280.02 N	255.71 N	Passed
Force at 33.02 mm :	324.99-391.00 N	370.98 N	Passed

ABDOMINAL COMPRESSION TEST



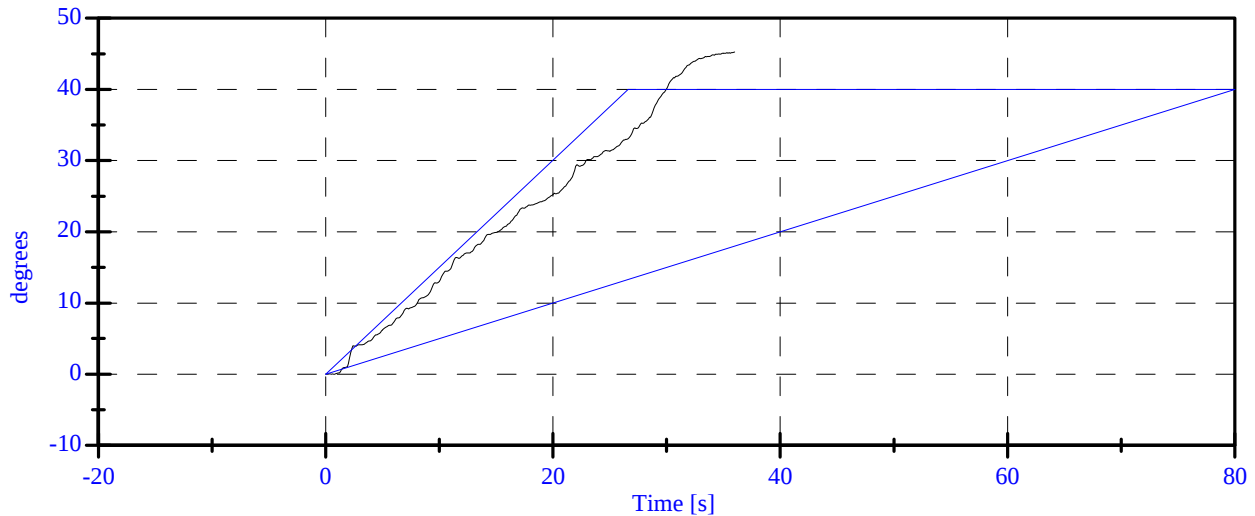
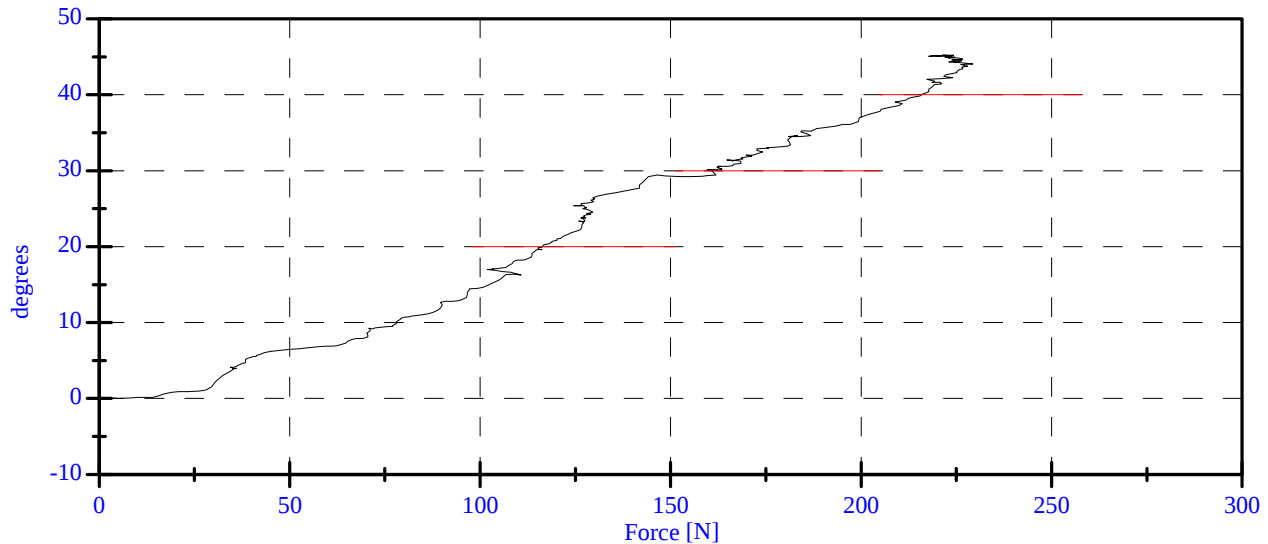
**Lumbar Spine
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 906
Date: 09-27-07

Sequential Test Number: 1 File: 906sp 09-27-07
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	3.92 N	Passed
Force at 20 Deg:	97.86-151.24 N	116.47 N	Passed
Force at 30 Deg	151.24-204.62 N	160.87 N	Passed
Force at 40 Deg	204.62-258.00 N	215.71 N	Passed
Return Angle	12 Deg Max	3.42 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 2
 Date: September 28, 2007 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: 3
Date: January 8, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 3
Date: January 8, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
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	381

REMARKS: None

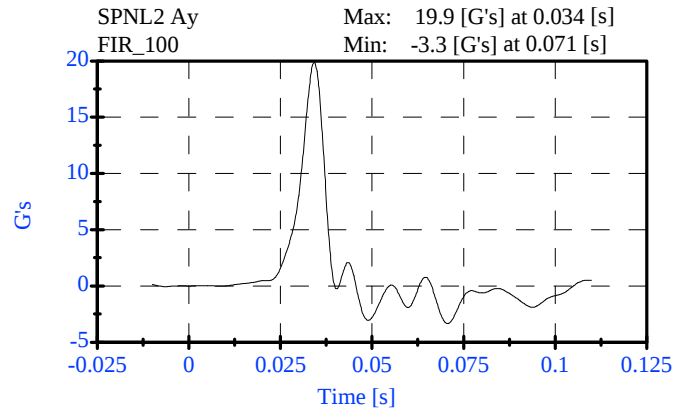
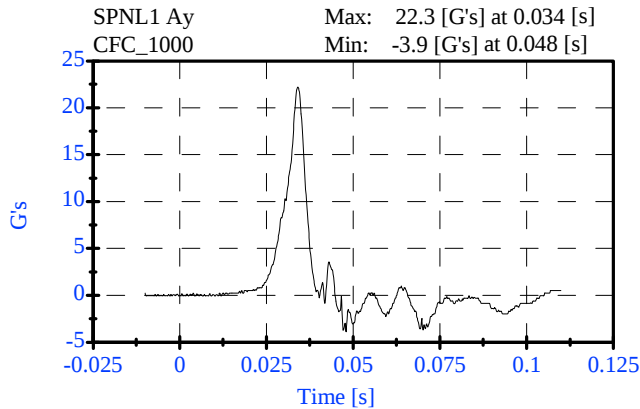
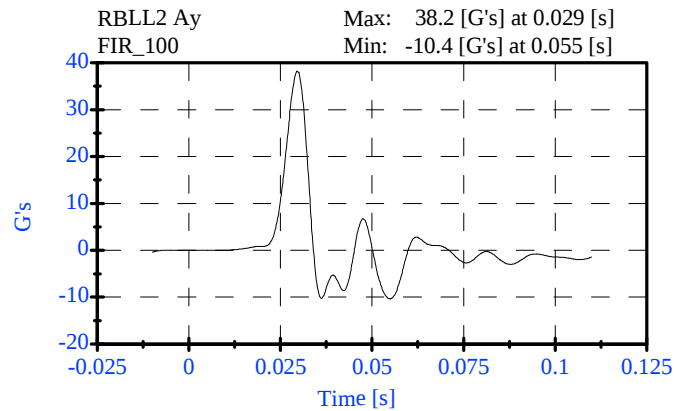
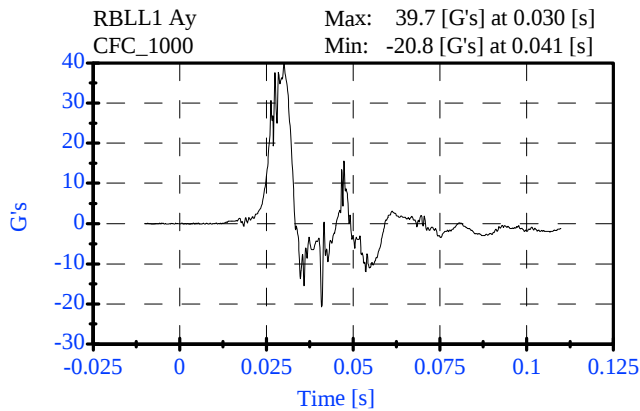
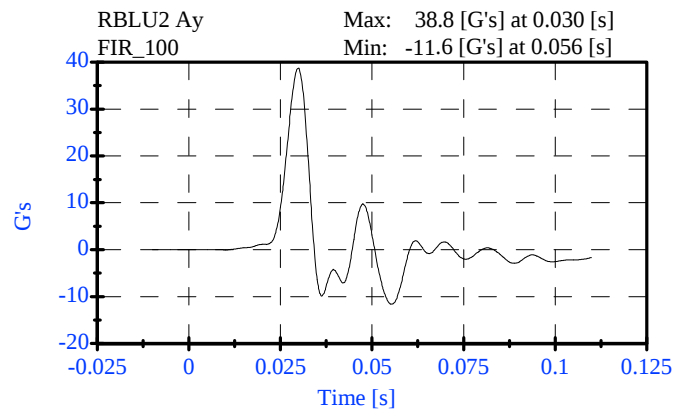
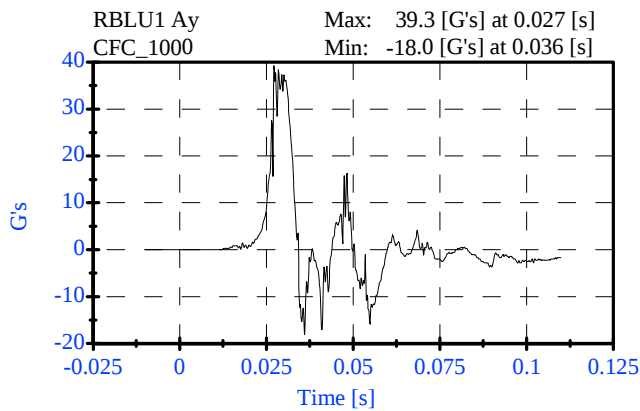
**Thorax Side Impact
Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: January 7, 2008

Sequential Test Number: 1 File: 905T3 1-7-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	47.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	38.76 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	38.22 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	19.90 G's	Passed



Pelvis Impact Left Side

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

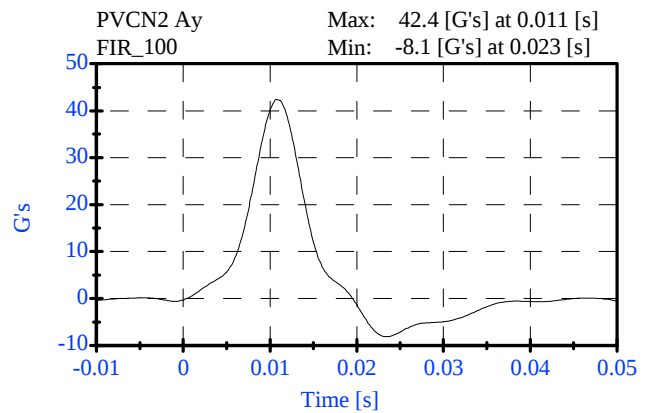
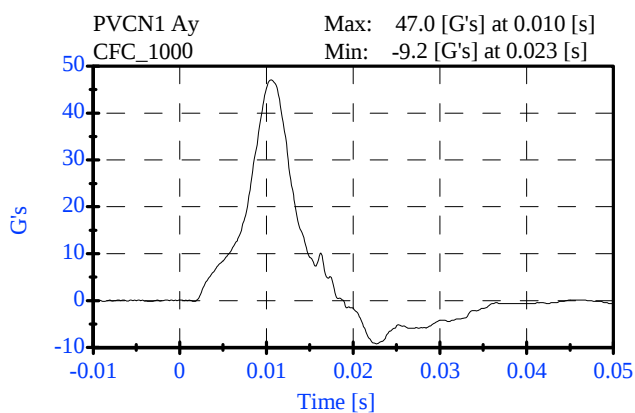
ATD Serial No: 905

Date: December 27, 2007

Sequential Test Number: 1 File: 905P 12-27-07

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	42.40 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.4 ms	Passed



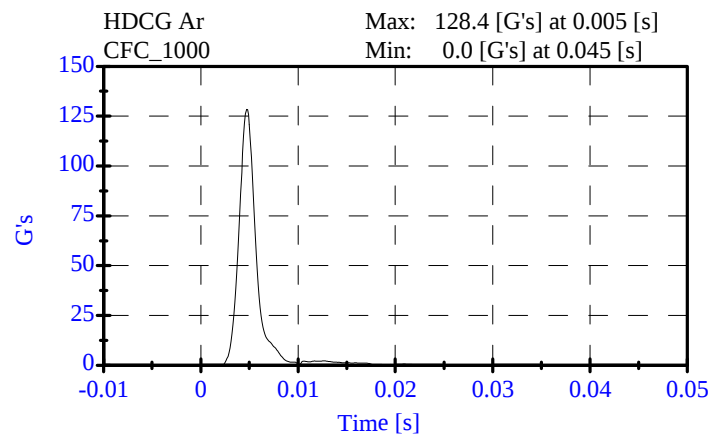
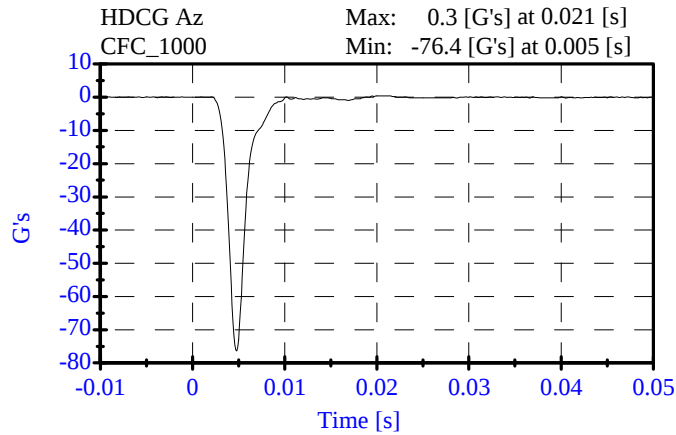
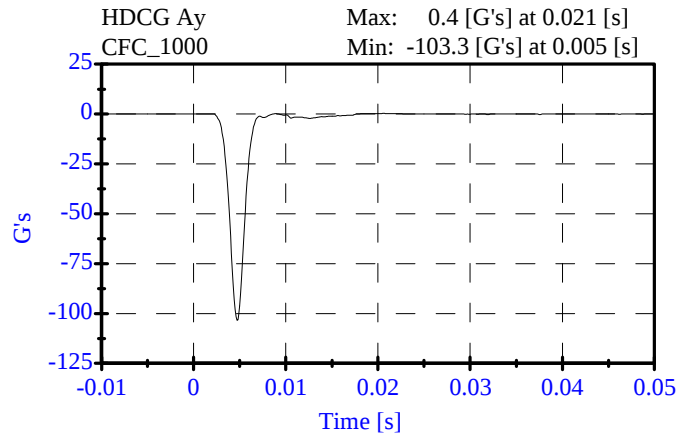
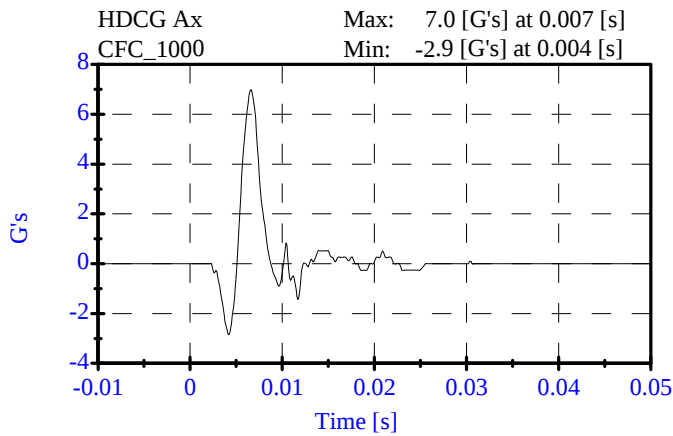
Head Drop Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 1-10-08

Sequential Test Number: 1 File: 905H2 1-10-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	32.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	128.36 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	6.99 Gs	Passed
Curve PerCent NonModal:	< 15%	1.79 %	Passed



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

ATD Serial No: 905

Sequential Test Number: 1 File: 905N8 12-20-07

Date: 12-20-07

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 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.93 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.09 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.26 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.88 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	6.98 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	70.34 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.40 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	86.51 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	51.00 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	6.40 ms	Passed

Neck test
Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

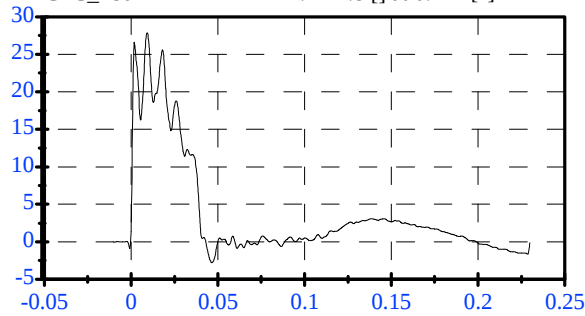
ATD Serial No: 905

Date: 12-20-07

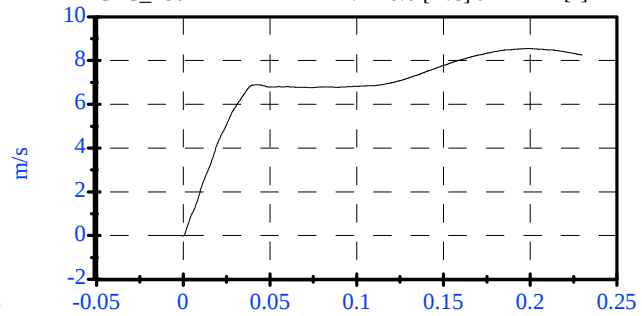
Sequential Test Number: 1 File: 905N8 12-20-07

Laboratory Technician: B. Swiecicki

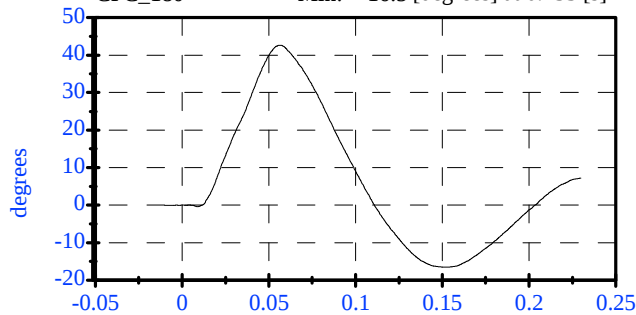
Pend Ax
CFC_180
Max: 27.9 [] at 0.009 [s]
Min: -2.8 [] at 0.047 [s]



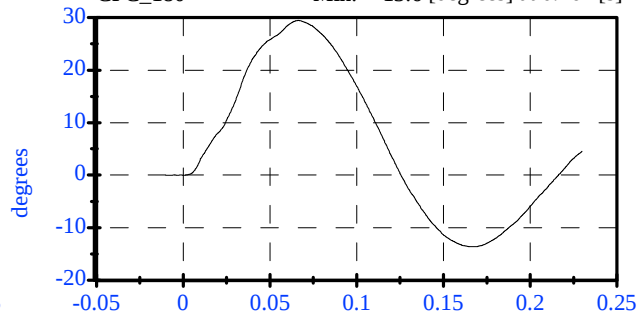
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



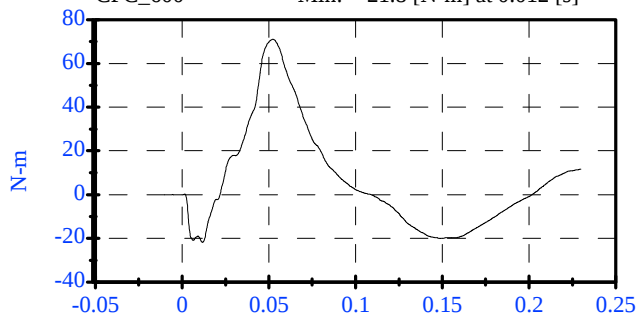
Head Rot
CFC_180
Max: 42.7 [degrees] at 0.056 [s]
Min: -16.5 [degrees] at 0.153 [s]



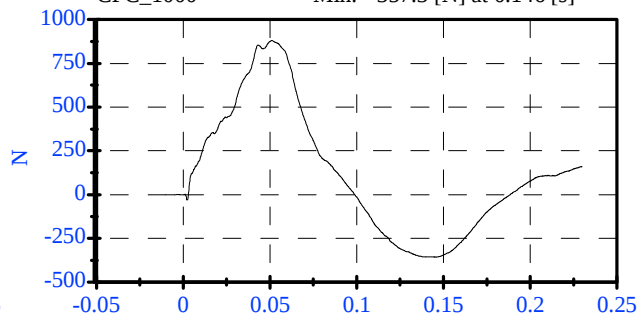
Arm Rot
CFC_180
Max: 29.4 [degrees] at 0.066 [s]
Min: -13.6 [degrees] at 0.167 [s]



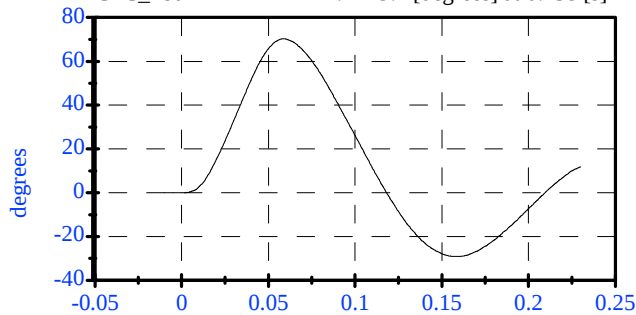
Neck Mx
CFC_600
Max: 71.0 [N-m] at 0.053 [s]
Min: -21.8 [N-m] at 0.012 [s]



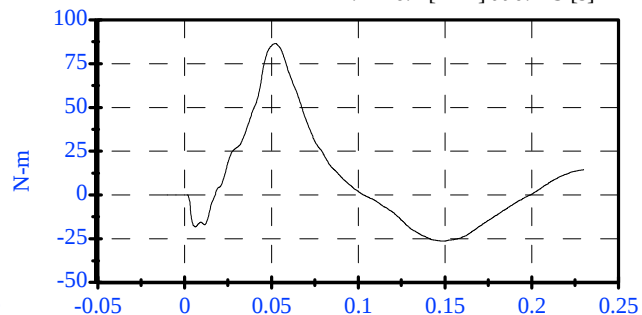
Neck Fy
CFC_1000
Max: 880.6 [N] at 0.051 [s]
Min: -357.3 [N] at 0.146 [s]



Tot Rot
CFC_180
Max: 70.3 [degrees] at 0.059 [s]
Min: -29.2 [degrees] at 0.158 [s]



MOCX
Max: 86.5 [N-m] at 0.052 [s]
Min: -26.4 [N-m] at 0.149 [s]



Abdomen Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905

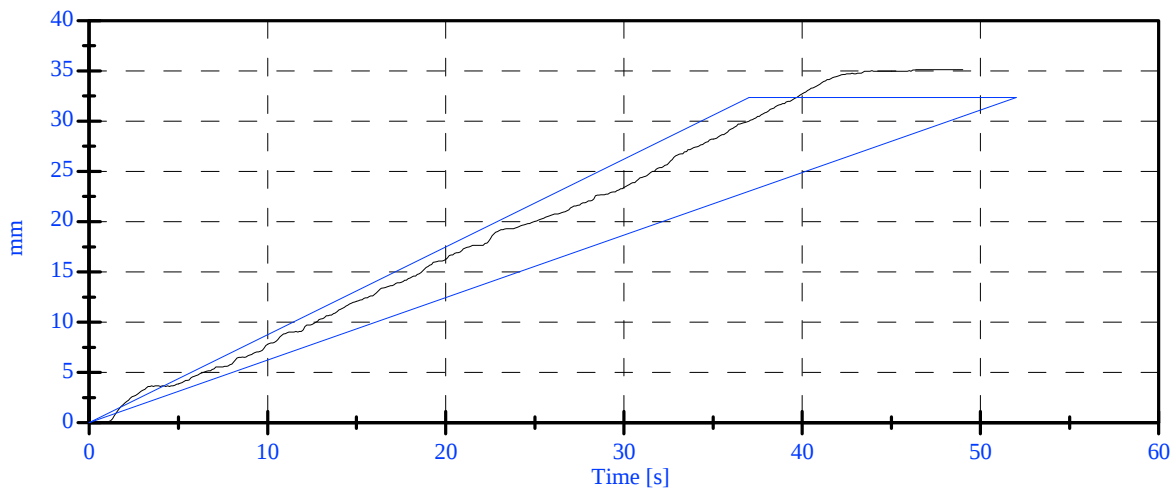
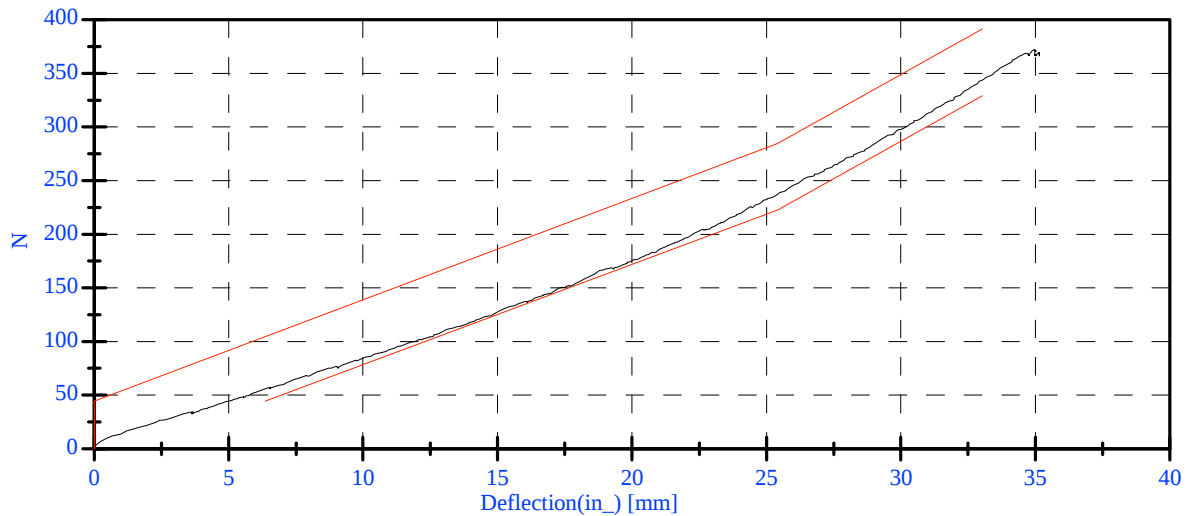
Date: 01-09-08

Sequential Test Number: 1 File: 905 Ab2 1-9-08

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	109.27 N	Passed
Force at 19.05 mm :	162.98-220.99 N	167.63 N	Passed
Force at 25.40 mm :	221.97-280.02 N	236.87 N	Passed
Force at 33.02 mm :	324.99-391.00 N	344.16 N	Passed

ABDOMINAL COMPRESSION TEST



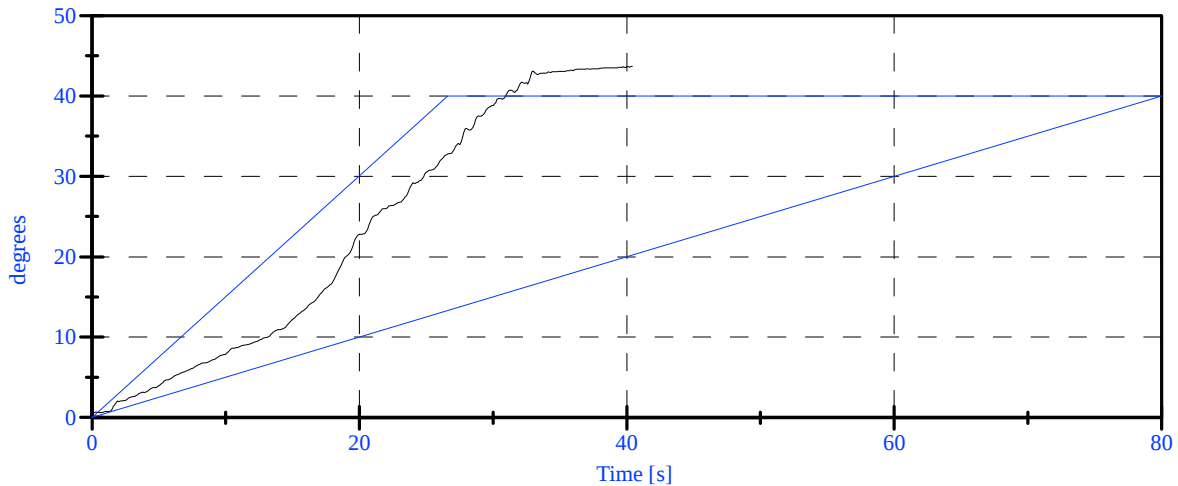
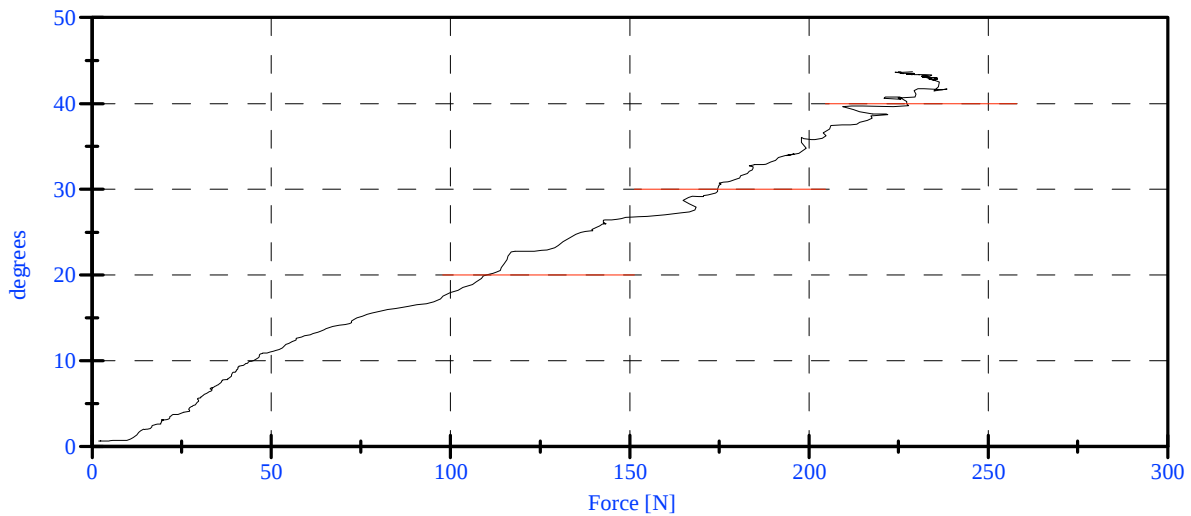
Lumbar Spine Flexion Test
POST TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905
Date: 12-28-07

Sequential Test Number: 1 File: 905 Spine 12-28-07
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 %	33.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	1.83 N	Passed
Force at 20 Deg:	97.86-151.24 N	110.73 N	Passed
Force at 30 Deg	151.24-204.62 N	174.45 N	Passed
Force at 40 Deg	204.62-258.00 N	227.20 N	Passed
Return Angle	12 Deg Max	11.73 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 3
 Date: January 8, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 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: 3
Date: January 8, 2008	Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 3
Date: January 8, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
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	386

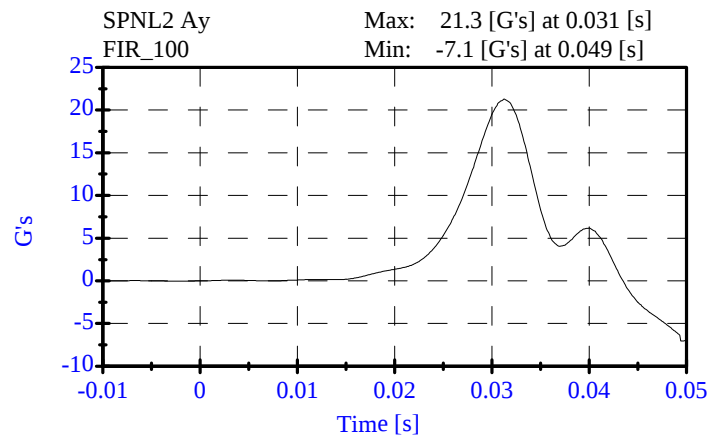
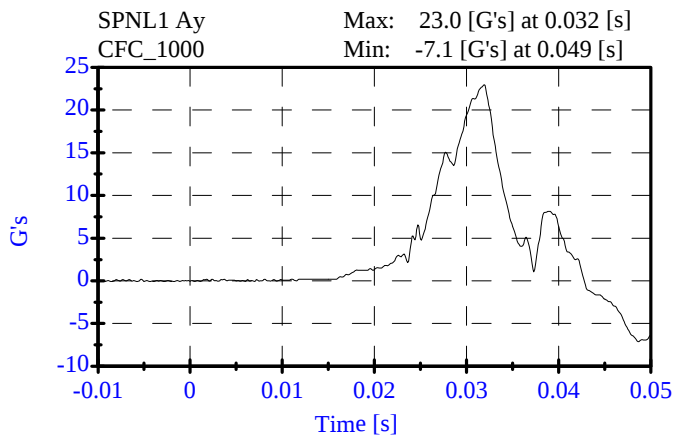
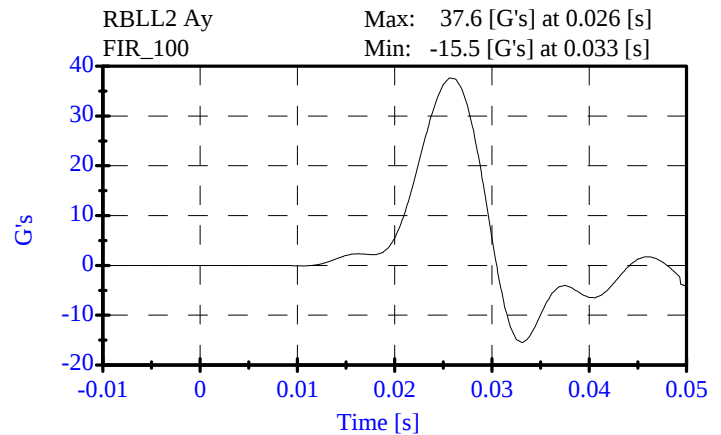
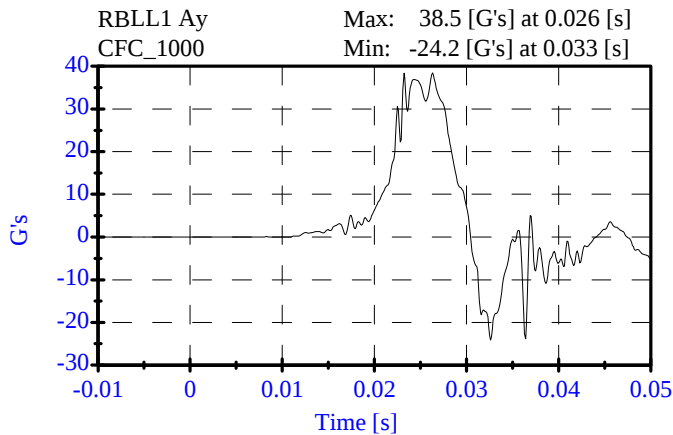
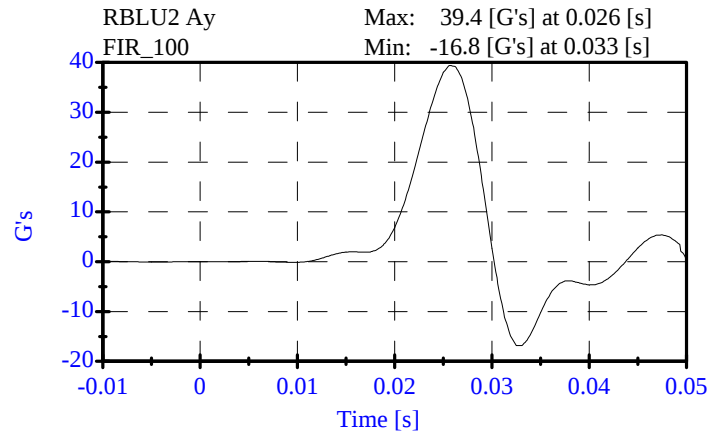
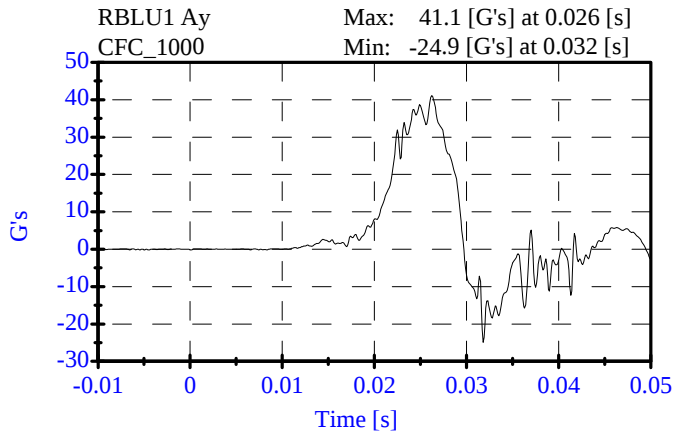
REMARKS: None

Thorax Impact
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: December 3, 2007

Sequential Test Number: 1 File: 906T5 1-3-08
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	13.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	39.40 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.63 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.28 G's	Passed



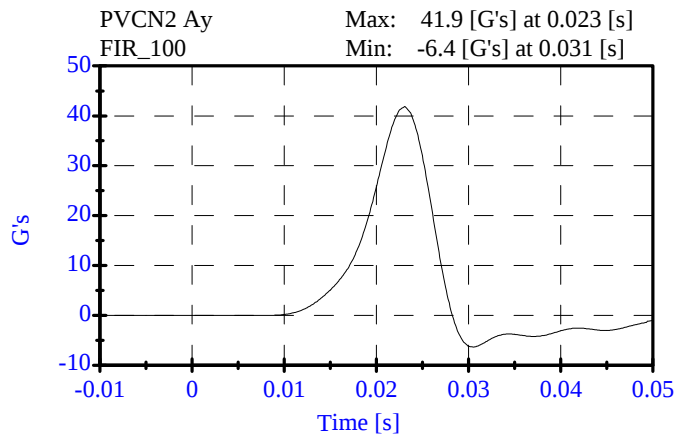
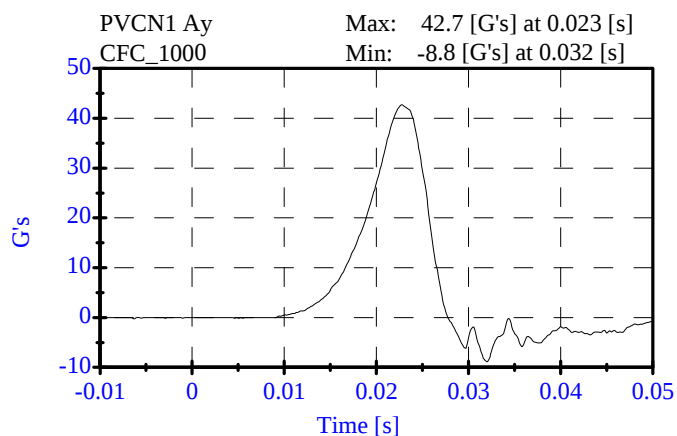
Pelvis Impact Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: December 26, 2007

Sequential Test Number: 1 File: 906P5 12-26-07
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 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	41.86 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.9 ms	Passed



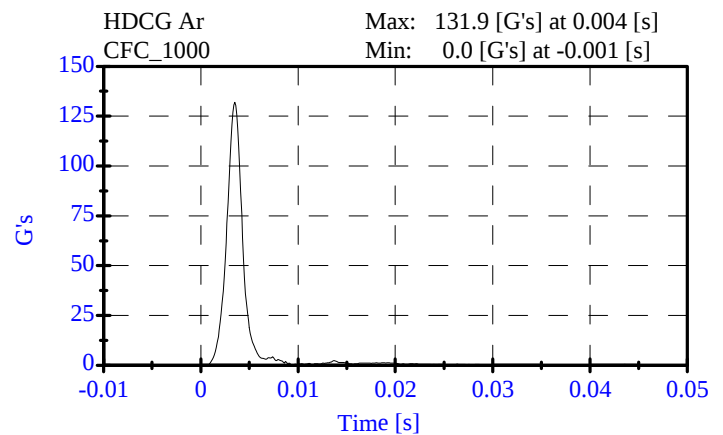
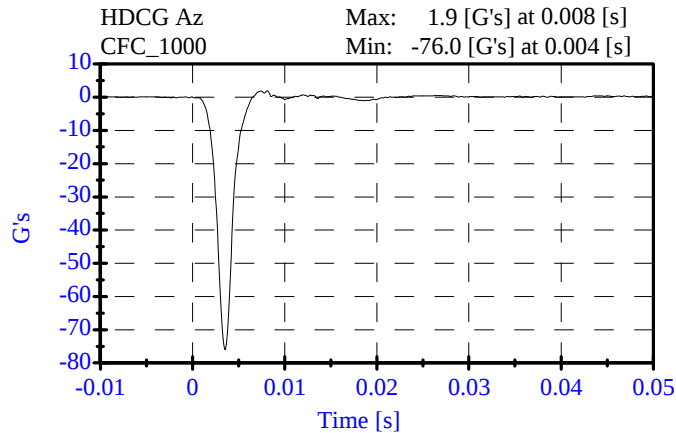
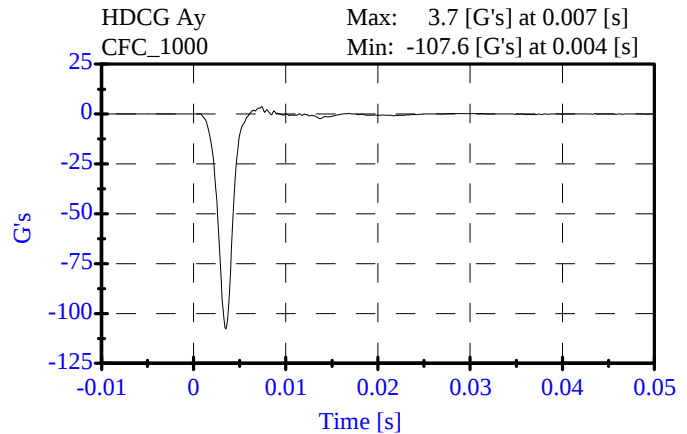
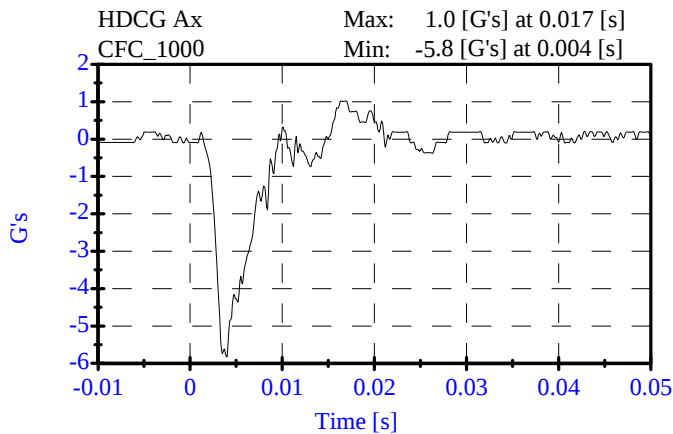
Head Drop **Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 1-10-08

Sequential Test Number: 1 File: 906H 1-10-08
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 %	29.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	131.91 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	1.03 Gs	Passed
Curve PerCent NonModal:	< 15%	3.27 %	Passed



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

ATD Serial No: 906
Date: December 20, 2007

Sequential Test Number: 1 File: 906N 12-20-07
Laboratory Technician: B. Swiecicki

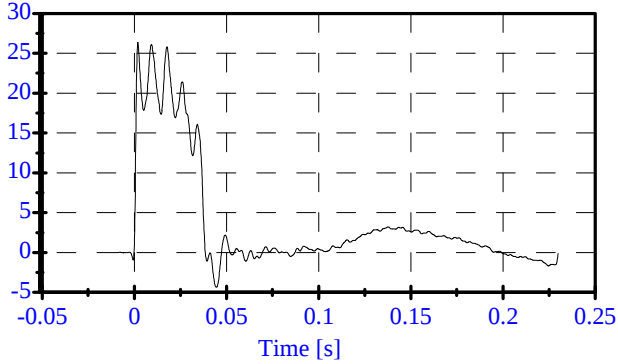
<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.99 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.02 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.15 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.98 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.06 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	69.53 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.30 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	84.66 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	54.10 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	8.00 ms	Passed

Neck Flexion Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

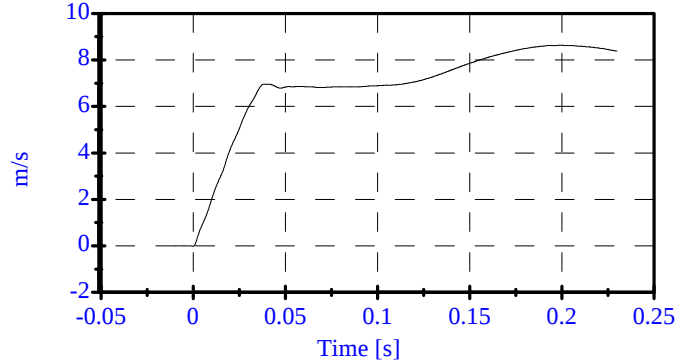
ATD Serial No: 906
Date: December 20, 2007

Sequential Test Number: 1 File: 906N 12-20-07
Laboratory Technician: B. Swiecicki

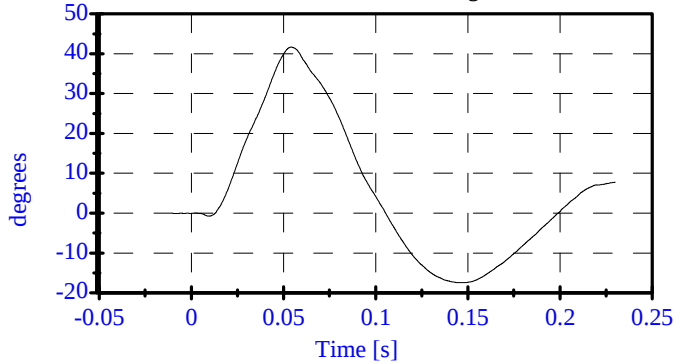
Pend Ax
CFC_180
Max: 26.4 [] at 0.002 [s]
Min: -4.3 [] at 0.045 [s]



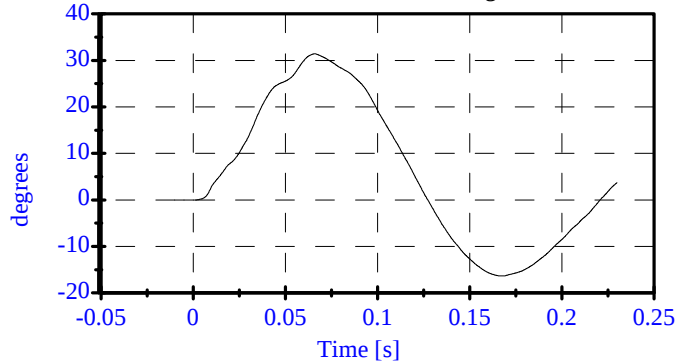
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



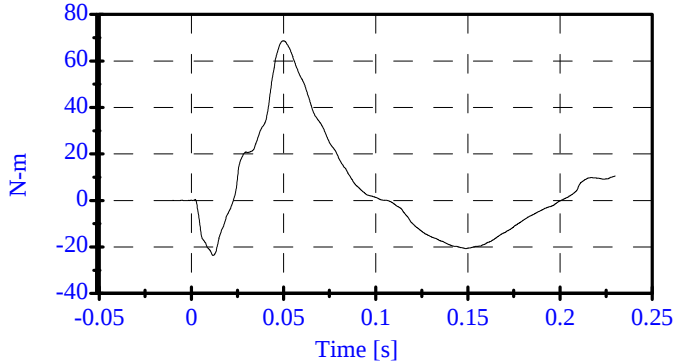
Head Rot
CFC_180
Max: 41.7 [degrees] at 0.054 [s]
Min: -17.4 [degrees] at 0.146 [s]



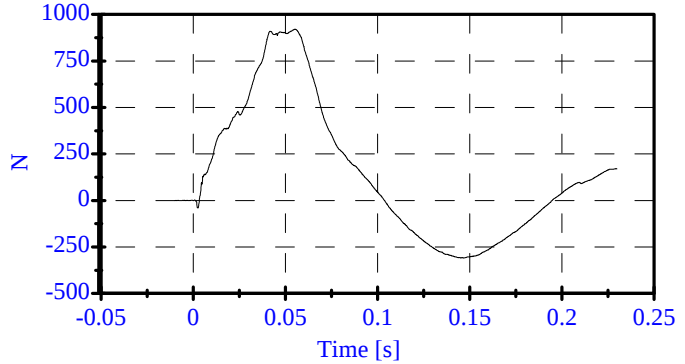
Arm Rot
CFC_180
Max: 31.4 [degrees] at 0.066 [s]
Min: -16.3 [degrees] at 0.168 [s]



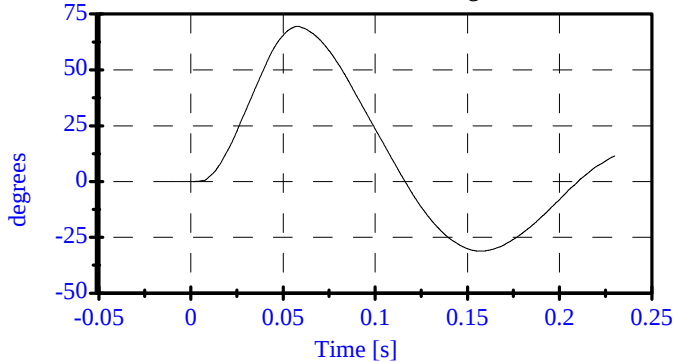
Neck Mx
CFC_600
Max: 68.7 [N-m] at 0.050 [s]
Min: -23.6 [N-m] at 0.012 [s]



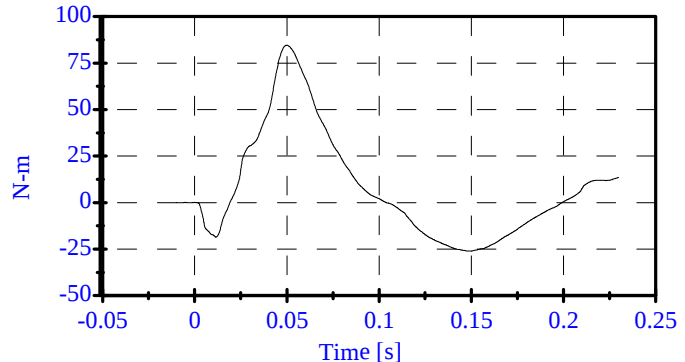
Neck Fy
CFC_1000
Max: 920.8 [N] at 0.055 [s]
Min: -309.5 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 69.5 [degrees] at 0.058 [s]
Min: -31.1 [degrees] at 0.157 [s]



MOCX
Max: 84.7 [N-m] at 0.050 [s]
Min: -26.1 [N-m] at 0.149 [s]



Abdomen Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906

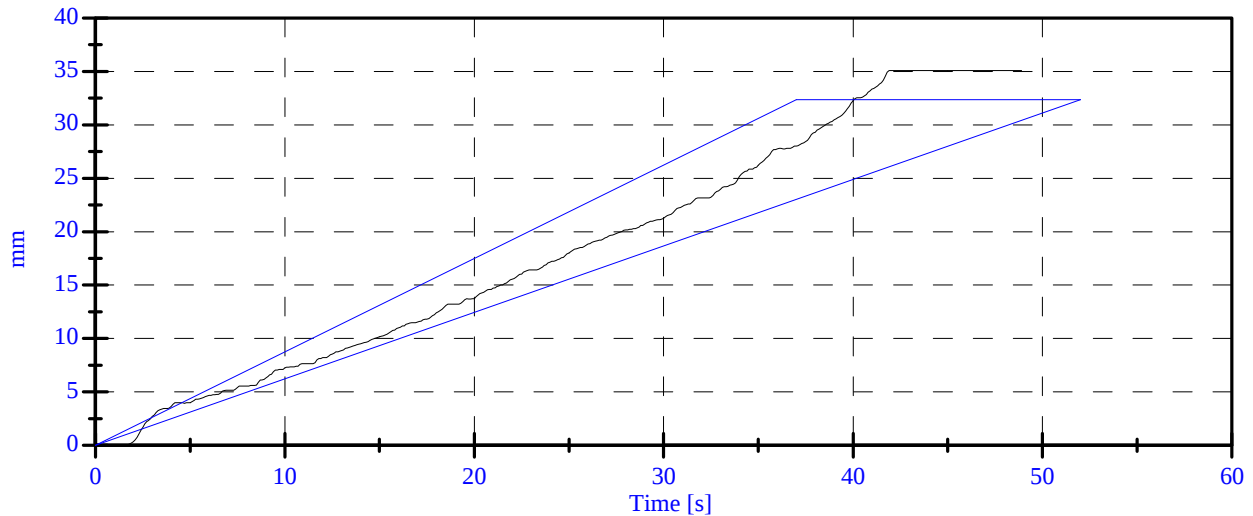
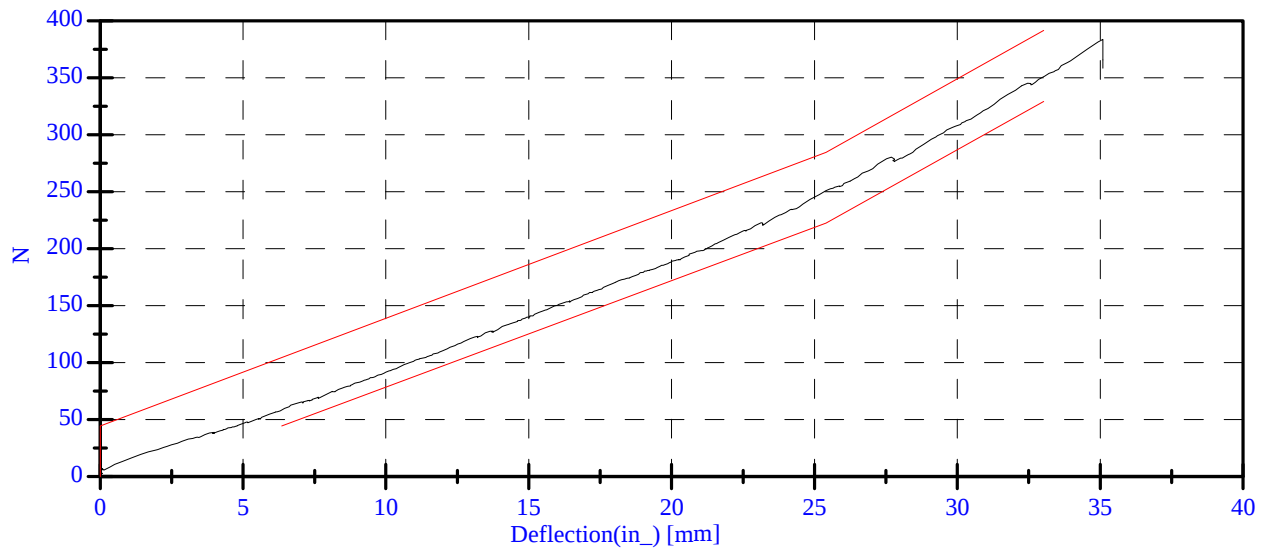
Date: 1-09-08

Sequential Test Number: 1 File: 906 Ab 1-9-08

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	32.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	120.87 N	Passed
Force at 19.05 mm :	162.98-220.99 N	180.32 N	Passed
Force at 25.40 mm :	221.97-280.02 N	250.64 N	Passed
Force at 33.02 mm :	324.99-391.00 N	351.41 N	Passed

ABDOMINAL COMPRESSION TEST



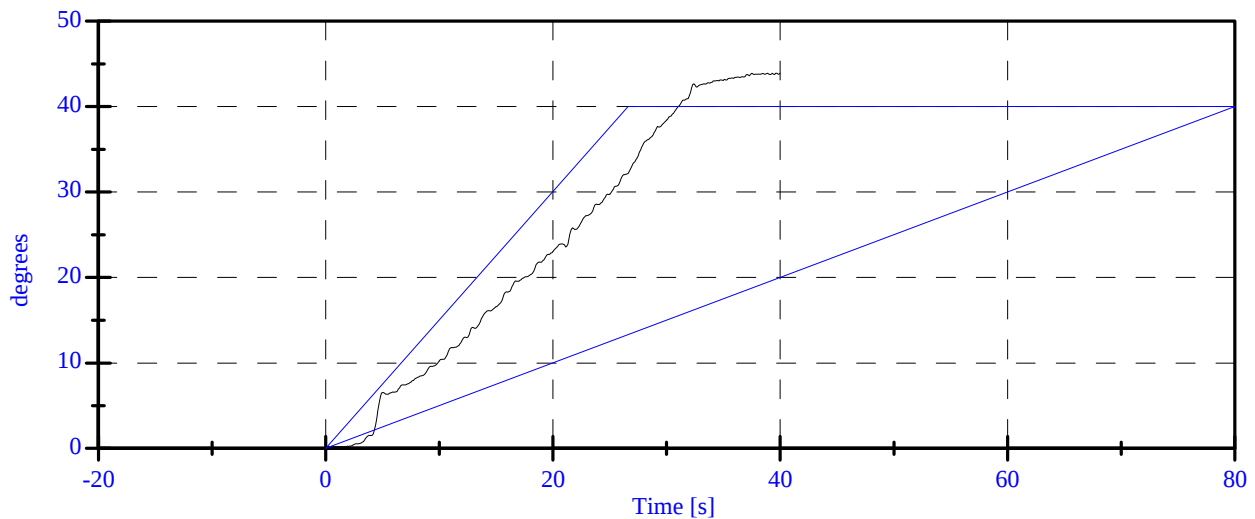
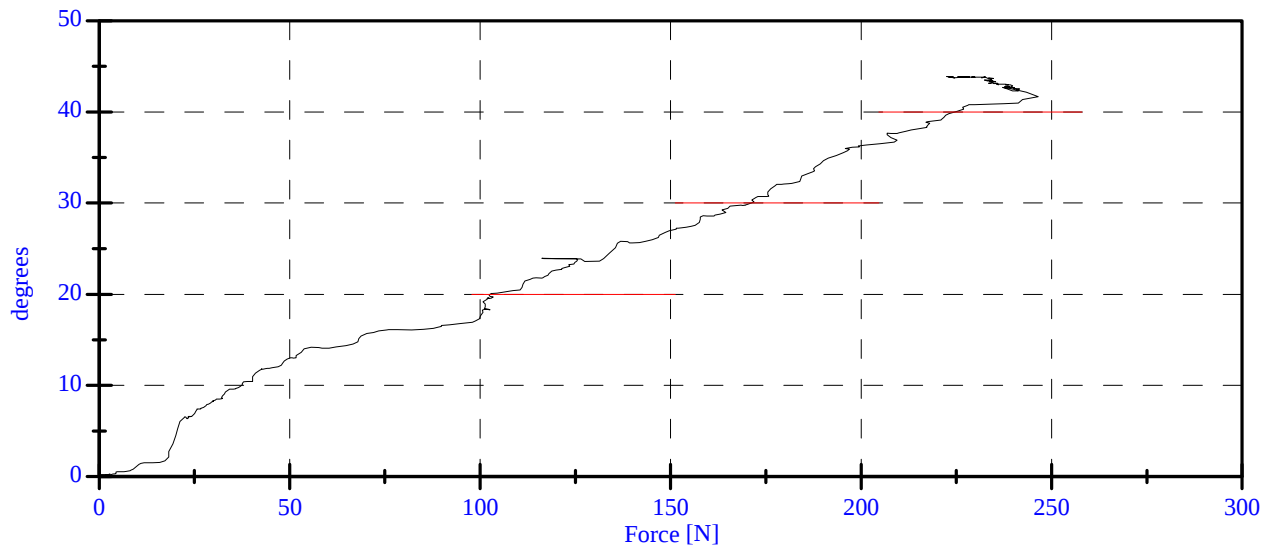
Lumbar Spine Flexion test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906
Date: 12-28-07

Sequential Test Number: 1 File: 906 Spine 12-28-07
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 %	33.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	0.26 N	Passed
Force at 20 Deg:	97.86-151.24 N	102.89 N	Passed
Force at 30 Deg:	151.24-204.62 N	170.27 N	Passed
Force at 40 Deg:	204.62-258.00 N	224.59 N	Passed
Return Angle	12 Deg Max	10.35 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 3
 Date: January 8, 2008 Laboratory Technician: B. Swiecicki

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

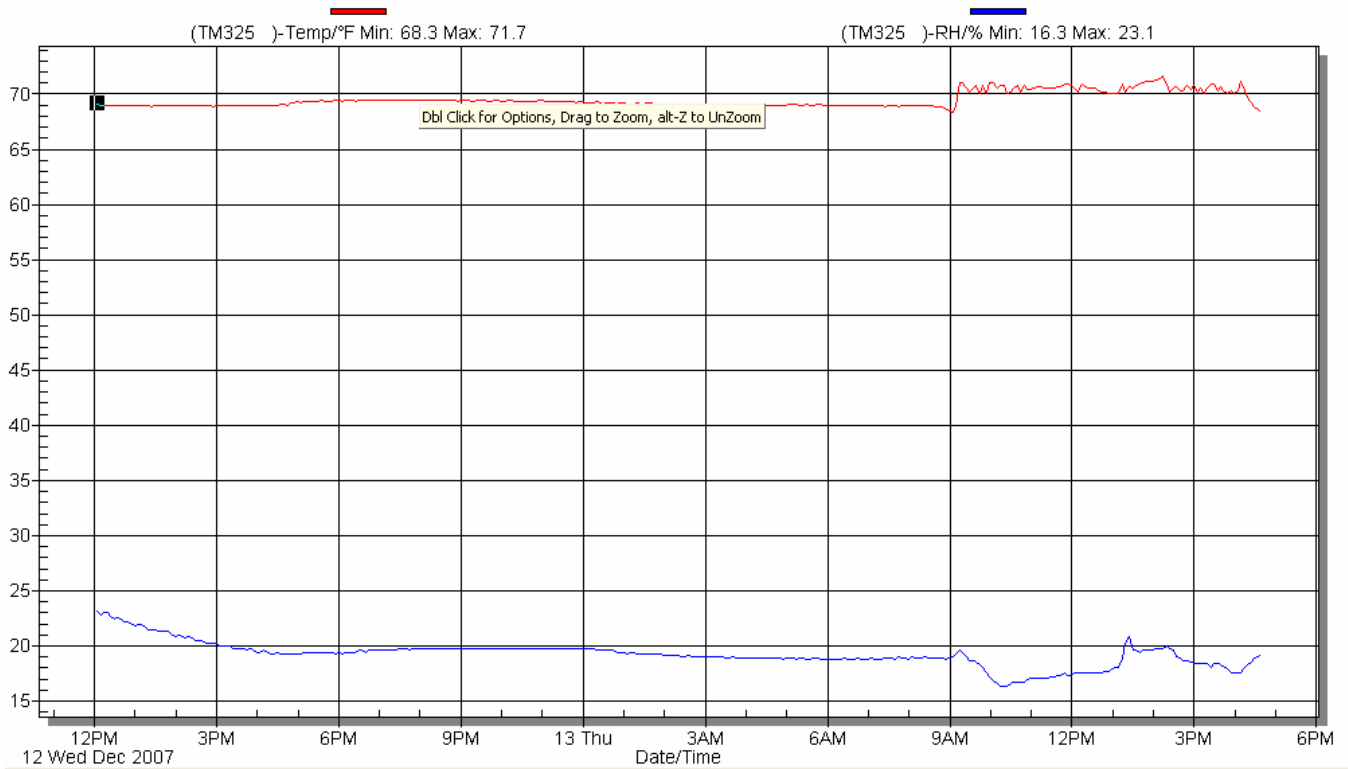
REMARKS: None

TEMPERATURE TRACE

12/12/2007 19:58, 71.5

2008 Ford Focus Side Impact NCAP M80210

December 13, 2007



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-P21373	ENDEVCO	13-Jul-07
HEAD AY	AC-P23128	ENDEVCO	13-Jul-07
HEAD AZ	AC-P21297	ENDEVCO	13-Jul-07
UPPER NECK FX	AC-1626Fx	DENTON	13-Jul-07
UPPER NECK FY	LC-1626Fy	DENTON	13-Jul-07
UPPER NECK FZ	LC-1626Fz	DENTON	13-Jul-07
UPPER NECK MX	LC-1626Mx	DENTON	13-Jul-07
UPPER NECK MY	LC-1626My	DENTON	13-Jul-07
UPPER NECK MZ	LC-1626Mz	DENTON	13-Jul-07
UPPER RIB	AC-P15736	ENDEVCO	13-Jul-07
LOWER RIB	AC-P16289	ENDEVCO	13-Jul-07
LOWER SPINE	AC-P16761	ENDEVCO	13-Jul-07
PELVIS	AC-P35804	ENDEVCO	13-Jul-07
UPPER RIB REDUNDANT	AC-P16593	ENDEVCO	13-Jul-07
LOWER RIB REDUNDANT	AC-P23142	ENDEVCO	13-Jul-07
LOWER SPINE REDUNDANT	AC-P21516	ENDEVCO	13-Jul-07
PELVIS REDUNDANT	AC-P32221	ENDEVCO	13-Jul-07

	REAR SID/HIII NO.: 906		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P35764	ENDEVCO	12-Jul-07
HEAD AY	AC-P39736	ENDEVCO	12-Jul-07
HEAD AZ	AC-P39729	ENDEVCO	12-Jul-07
UPPER NECK FX	LC-798Fx	DENTON	12-Jul-07
UPPER NECK FY	LC-798Fy	DENTON	12-Jul-07
UPPER NECK FZ	LC-798Fz	DENTON	12-Jul-07
UPPER NECK MX	LC-798Mx	DENTON	12-Jul-07
UPPER NECK MY	LC-798My	DENTON	12-Jul-07
UPPER NECK MZ	LC-798Mz	DENTON	12-Jul-07
UPPER RIB	AC-P39575	ENDEVCO	12-Jul-07
LOWER RIB	AC-P16866	ENDEVCO	12-Jul-07
LOWER SPINE	AC-P16645	ENDEVCO	12-Jul-07
PELVIS	AC-P23139	ENDEVCO	12-Jul-07
UPPER RIB REDUNDANT	AC-P15526	ENDEVCO	12-Jul-07
LOWER RIB REDUNDANT	AC-P16656	ENDEVCO	12-Jul-07
LOWER SPINE REDUNDANT	AC-P19343	ENDEVCO	12-Jul-07
PELVIS REDUNDANT	AC-P17539	ENDEVCO	12-Jul-07

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-P23164	ENDEVCO	11-Jul-07
RIGHT FRONT SILL (Y)	AC-P23939	ENDEVCO	9-Aug-07
RIGHT FRONT SILL (Z)	AC-P23993	ENDEVCO	9-Aug-07
RIGHT REAR SILL (X)	AC-P16625	ENDEVCO	9-Aug-07
RIGHT REAR SILL (Y)	AC-J32838	ENDEVCO	9-Aug-07
RIGHT REAR SILL (Z)	AC-P19216	ENDEVCO	10-Aug-07
REAR FLOORPAN ABOVE AXLE (X)	AC-P23134	ENDEVCO	14-Nov-07
REAR FLOORPAN ABOVE AXLE (Y)	AC-P18792	ENDEVCO	14-Nov-07
REAR FLOORPAN ABOVE AXLE (Z)	AC-P17535	ENDEVCO	14-Nov-07
LEFT REAR SILL (Y)	AC-P18948	ENDEVCO	9-Aug-07
LEFT FRONT SILL (Y)	AC-P22943	ENDEVCO	11-Jul-07
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-P24145	ENDEVCO	8-Nov-07
LOWER LEFT B- PILLAR (Y)	AC-P18743	ENDEVCO	10-Aug-07
MIDDLE LEFT B-PILLAR (Y)	AC-J33071	ENDEVCO	10-Aug-07
LOWER LEFT A-PILLAR (Y)	AC-P23926	ENDEVCO	9-Aug-07
UPPER LEFT A-PILLAR (Y)	AC-P32197	ENDEVCO	6-Aug-07
FRONT SEAT TRACK (Y)	AC-P16823	ENDEVCO	26-Nov-07
REAR SEAT TRACK (Y)	AC-P16863	ENDEVCO	7-Aug-07
VEHICLE CG (X)	AC-P32455	ENDEVCO	7-Aug-07
VEHICLE CG (Y)	AC-P32464	ENDEVCO	6-Aug-07
VEHICLE CG (Z)	AC-P32139	ENDEVCO	7-Aug-07
MDB CG (X)	AC-C15007	ENDEVCO	12-Sep-07
MDB CG (Y)	AC-C16416	ENDEVCO	12-Sep-07
MDB CG (Z)	AC-C16499	ENDEVCO	12-Sep-07
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	12-Sep-07
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	12-Sep-07

REMARKS: None