REPORT NUMBER: 214-CAL-08-05

SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION
INDICANT

New United Motor Manufacturing Inc
2009 Toyota Corolla
4-door Sedan

NHTSA NUMBER: C95100

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

Test Date: March 6, 2008

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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Technical Report Documentation Page

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15. *Supplementary Notes*		

16. Abstract

A 55/28 km/h 90° Moving Deformable Barrier FMVSS 214 Indicant side impact was conducted on the subject 2009 Toyota Corolla 4-door Sedan to obtain new car assessment and research data indicant of FMVSS No. 214D performance. The test was conducted at the Calspan Corporation Transportation Sciences Center in Buffalo, New York, on March 6, 2008. The impact velocity of the Moving Deformable Barrier (MDB) was 61.8 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 237 mm at level 2. The test vehicle's occupant performance is as follows:

	DRIVER	PASS.
Left Upper Rib (LUR) Accel., g	30.2	66.2
Left Lower Rib (LLR) Accel., g	36.2	67.7
Lower Spine (T_{12}) Accel., g	33.2	68.1
Thoracic Trauma Index (TTI)	35	68
Pelvis (PEV) Accel., g	56	67
HIC	190.1	287.3

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.

17. Key Words Compliance Testing Side Impact Protection FMVSS 214 Side Impact Dummy (SID)	*18. Distribution Statement* Copies of this report are available from: NHTSA Technical Information Services National Highway Traffic Safety Admin. 1200 New Jersey Avenue, SE Washington, DC 20590

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SECTION 1

PURPOSE AND TEST PROCEDURE

PURPOSE

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-07-D-00064. The purpose of this indicant test was to evaluate side impact protection in a 2009 Toyota Corolla 4-door Sedan when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-08, dated December 15, 2006).

SECTION 2

SUMMARY OF FMVSS 214 INDICANT SIDE IMPACT TEST

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

A model year 2009 Toyota Corolla 4-door Sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.8 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 1432.5 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on March 6, 2008.

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

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

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

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

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 237 mm at level 2, 1050 mm rearward of the left vertical impact point. The driver and passenger SID/HIII's, Serial Nos. 269 and 270 respectively, were calibrated just prior to this test.

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

The occupant data is summarized below:

ATD position	HIC(36)	T_1	T_2	TTI (G's)	Peak Pelvis (G's)
Driver	190.1	34.9	63.3	35	56
Passenger	287.3	38.9	64.0	68	67

SUPPLEMENTAL RESTRAINT INFORMATION

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

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

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	New United Motor Manufacturing Inc	Driver Front Airbag	Yes
Model	Corolla	Driver Side Curtain Airbag	Yes
Body Style	4-door Sedan	Driver Side Torso Airbag	Yes
NHTSA No.	C95100	Driver Pretensioners	Yes
VIN	1NXBU40E79Z001566	Driver Load Limiters	Yes
Color	Gold	Driver Power Seats	No
Engine Disp.(L)	1.8	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	No
Final Drive	Front	Tilt Wheel	Yes
Air Conditioning	Yes	Anti-lock Brakes	Yes
Power Steering	Yes	Traction Control	Yes
Power Brakes	Yes	Power Windows	Yes
Delivery Date	2/22/2008	Power Door Locks	Yes
Odometer Reading (km)	47	Automatic Door Locks (ADL)	Yes
Dealer	West Herr Toyota	Owner's Manual Details Instructions on Disabling ADLs	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	New United Motor Manufacturing, Inc.	GVWR (kg)	1742
		GAWR Front (kg)	948
Date of Manufacture	01/08	GAWR Rear (kg)	839

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)				370
Cargo Wt. (RCLW) (kg)				29.8

DATA SHEET NO. 1 (continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			Fully Loaded (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	384.0	242.0		450.0	323.0		433.5	320.0	
Right	kg	369.0	250.0		380.0	296.0		387.5	291.5	
Ratio	%	60.5	39.5		57.3	42.7		57.3	42.7	
Totals	kg	753.0	492.0	1245.0	830.0	619.0	1449.0	821.0	611.5	1432.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1245.0
Weight of 2 P572M ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	29.8
Calculated Vehicle Target Weight (TVTW)	kg	1437.2

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

Weight of Ballast (including instrumentation package and cameras): 25.1 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	696	696	726	728
Fully Loaded	mm	679	690	686	699
As Tested	mm	681	691	689	702

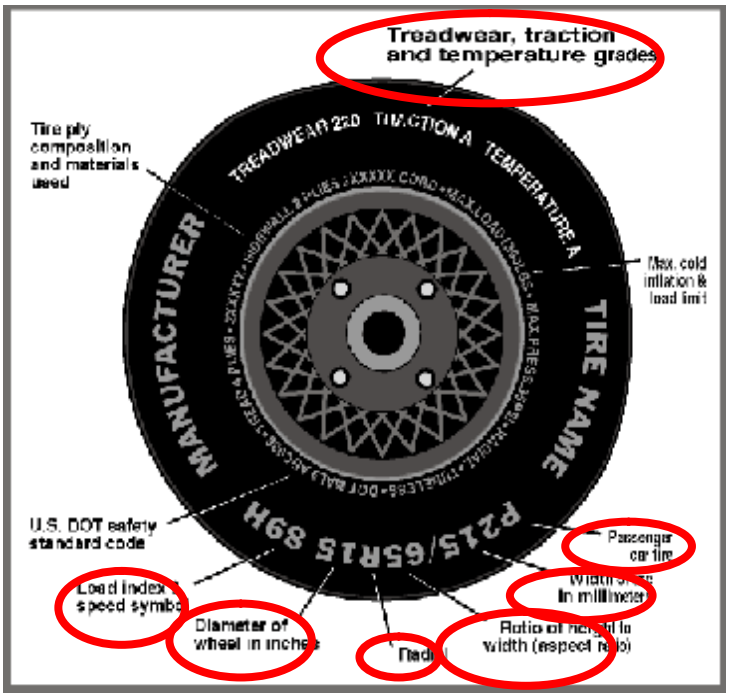
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2600
Target Impact Point Aft of Front Axle	mm	360
Actual Impact Point Aft of Front Axle	mm	360
As Tested CG (aft of front axle)	mm	1109.88

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	350	350
Cold / Test Pressure (kPa)	210	210
Recommended Tire Size	P195/65R15	P195/65R15
Tire Size on Vehicle	P195/65R15	P195/65R15
Tire Manufacturer	Goodyear	Goodyear
Tire Name	Eagle LS	Eagle LS
Tire Type	Passenger	Passenger
Tire Width (mm)	195	195
Ratio of Height to Width (aspect ratio)	65	65
Radial	Yes	Yes
Wheel Diameter	15	15
Load Index & Speed Symbol	89S	89S
Treadwear	400	400
Traction Grade	A	A
Temperature Grade	B	B

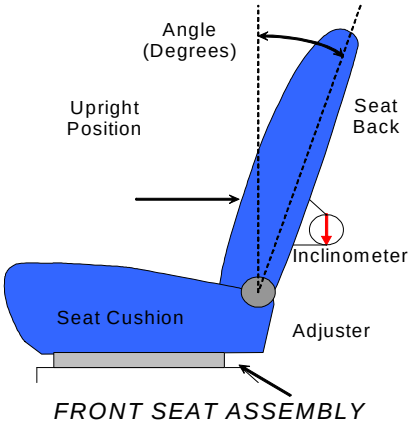
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

NORMAL DESIGN RIDING POSITION

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



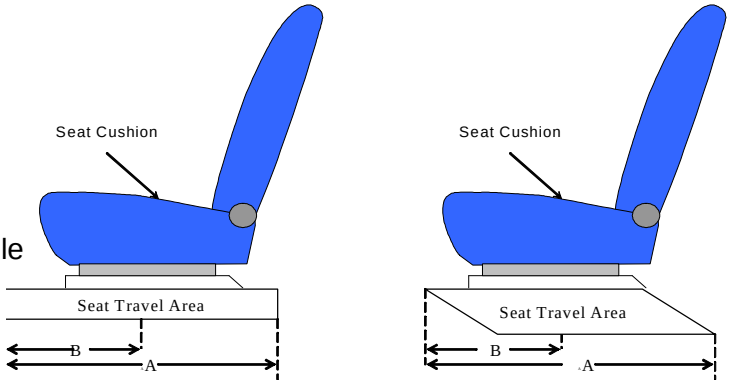
FRONT SEAT ASSEMBLY

SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	Detent 3	Not Adjustable
Angle (deg. from forward-most locking position)	NA	Not Adjustable
Alternative Measurements to Verify Test Position	Head restraint post 6° back from vertical	NA

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)	280	Fixed
Test Position (B) (mm)	140	Fixed
Test Detent (forward-most detent defined as 0)	9	NA
Total Number of Detents (including 0)	16	NA

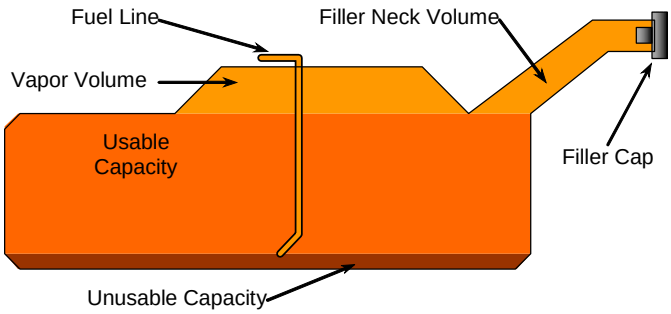
DATA SHEET NO. 3 (CONTINUED)

TEST VEHICLE INFORMATION

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

FUEL SYSTEM INFORMATION

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



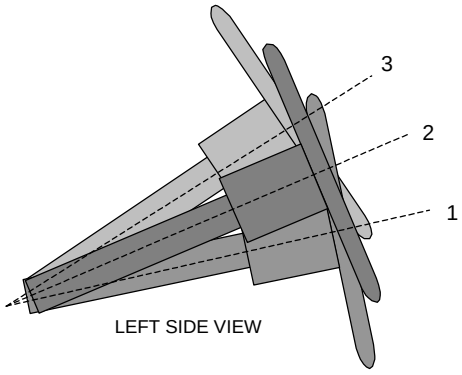
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	50
Usable Capacity of "Optional" Fuel Tank	-
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	46.2

STEERING COLUMN ADJUSTMENT

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



STEERING COLUMN ASSEMBLY

STEERING COLUMN POSITION

	Fore/Aft Position (mm)	Tilt (degrees)	Tilt (detent)
Lowermost Position No. 1	0	24.0º	NA
Geometric Center Position No. 2 *	30	25.5º	NA
Uppermost Position No. 3	60	27.0º	NA

DATA SHEET NO. 4

MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

MDB SPECIFICATIONS

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

MDB WEIGHTS

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

MDB SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.8
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.8
Impact angle with respect to impactor	º	88.5º to 91.5º	90.0

POST TEST OBSERVATIONS

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	0 mm
Vertical Offset	mm	+/-20	10 mm above

DATA SHEET NO. 5

POST TEST OBSERVATIONS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID/HIII / 269	SID/HIII / 270
Head Contact	Side of head to side curtain airbag	Side of head to side curtain airbag
Upper Torso Contact	Side torso airbag	Door trim panel
Lower Torso Contact	Side torso airbag/Door trim panel	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	Doors were unlocked	Doors were unlocked
Left Side Door Opening	Door remained closed and latched	Door remained closed and latched
Right Side Door Opening	Door remained closed and latched; Door opened without tools	Door remained closed and latched; Door opened without tools
Seat Movement	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	None
Windshield Damage	Cracked along A-Pillar
Window Damage	Left rear passenger window broke
Other Notable Effects	None

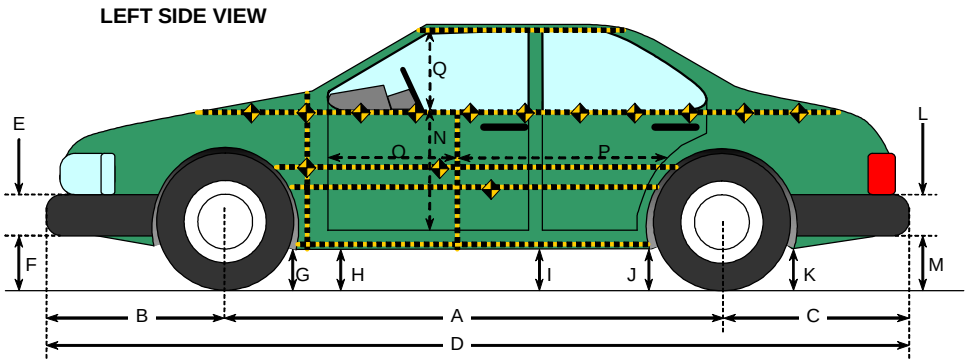
SUPPLEMENTAL RESTRAINT INFORMATION

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

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



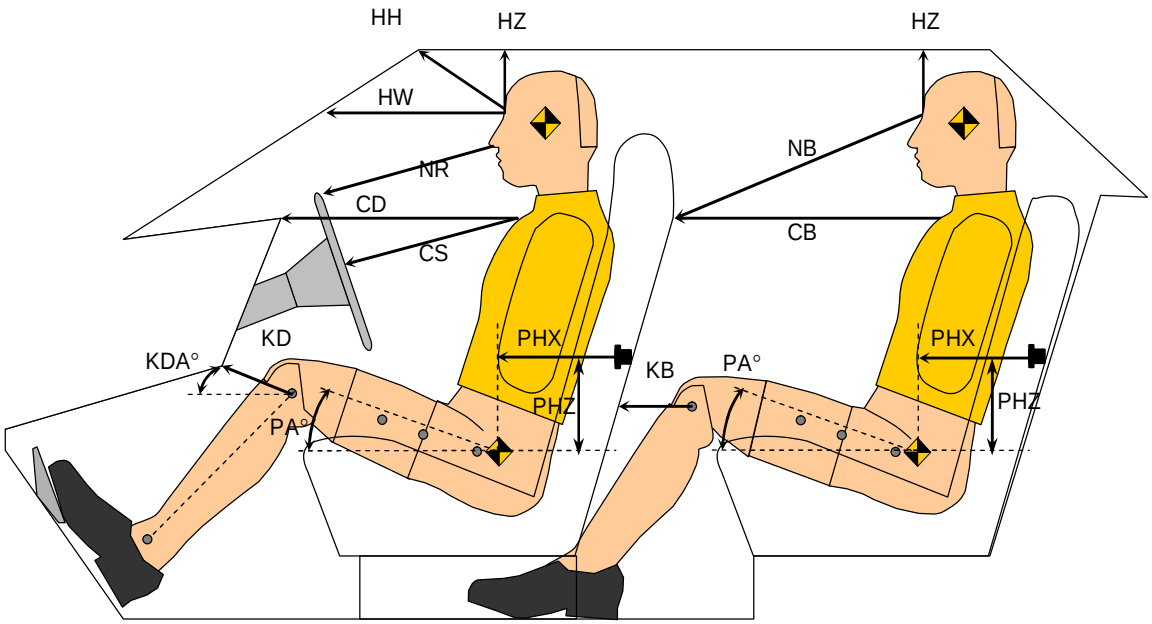
All Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2603	2600	2604	-4
B	Front Axle to FSOV	932	932	944	-12
C	Rear Axle to RSOV	1010	1010	997	13
D	Total Length at Centerline	4542	4542	4545	-3
E	Front Bumper Thickness	110	110	110	0
F	Front Bumper Bottom to Ground	389	386	388	-2
G	Sill Height at Front Wheel Well	195	175	208	-33
H	Sill Height at Front Door Leading Edge	197	177	208	-31
I	Sill Height at "B" Pillar	204	174	232	-58
J1	Sill Height at Rear Wheel Well	217	182	203	-21
J2	Pinch Weld Height at Rear Wheel Well	213	178	215	-37
K	Sill Height Aft of Rear Wheel Well	259	215	222	-7
L	Rear Bumper Thickness	190	190	190	0
M	Rear Bumper Bottom to Ground	422	382	383	-1
N	Sill Height to Window Bottom Sill	722	722	643	79
O	Front Door Leading Edge to Impact CL	788	788	772	16
P	Rear Door Trailing Edge to Impact CL	1120	1120	1071	49
Q	Front Window Opening	394	394	389	5
R	Right Side Length	4418	4418	4421	-3
S	Left Side Length	4416	4416	4419	-3
T	Vehicle Width at "B" Post	1763	1763	1577	186

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

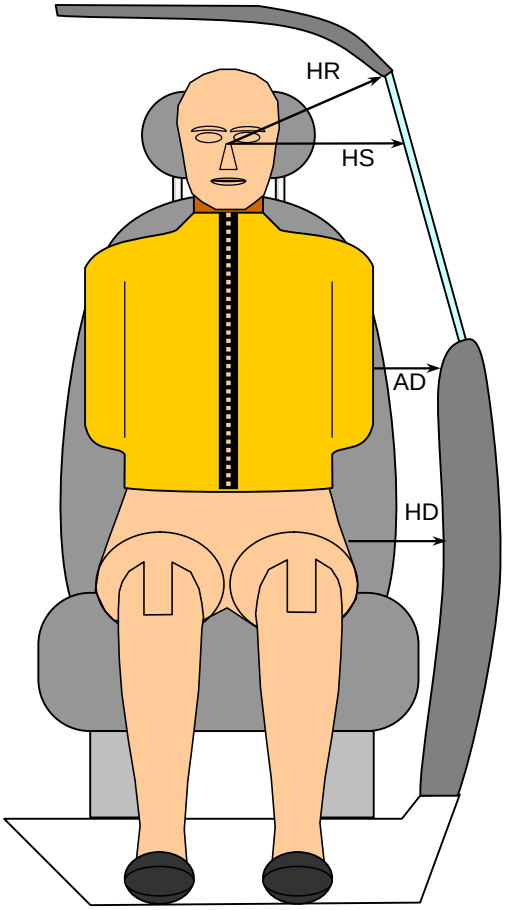


Driver Code	Pass. Code	Measurement Description	Driver S/N 269		Passenger S/N 270	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	357			
HW		Head to Windshield	699			
HZ	HZ	Head to Roof	164		141	
NR	NB	Nose to Rim/Nose to Seatback	379		645	
CD	CB	Chest to Dash or Seatback	492		556	
CS		Chest to Steering Wheel				
KDL	KBL	Left Knee to Dash or Seatback	126	14	219	29
KDR	KBR	Right Knee to Dash or Seatback	134	39	218	25
PA	PA	Pelvic Angle		24.5		23.8
PHX	PHX	H-Point to Striker (X-Axis)	216		297	
PHZ	PHZ	H-Point to Striker (Z-Axis)	242		306	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



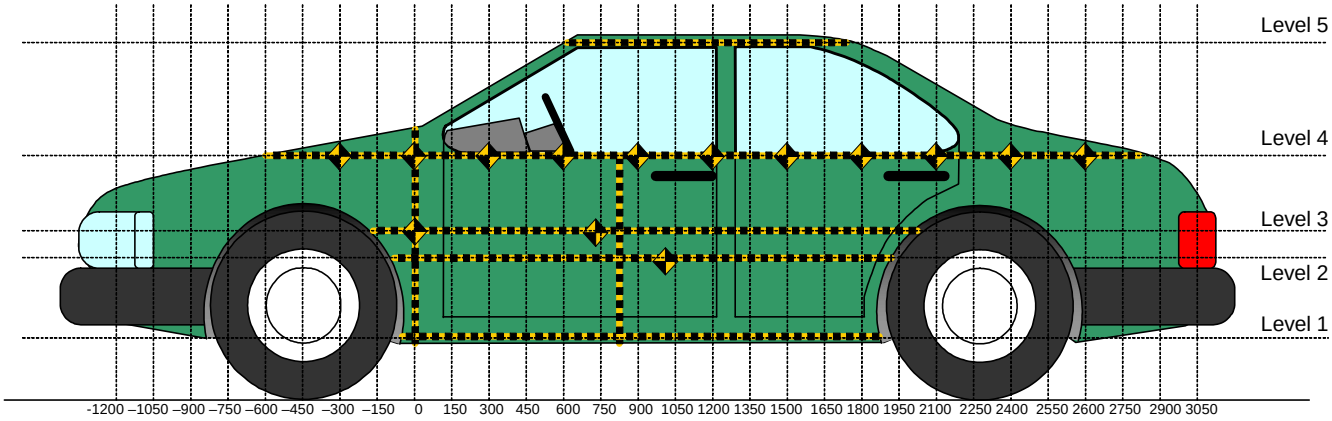
FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 269	Passenger S/N 270
HR	Head to Side Header	mm	198	199
HS	Head to Side Window	mm	293	228
AD_1	Arm to Door (at upper rib level)	mm	123	101
AD_2	Arm to Door (at lower rib level)	mm	148	122
HD	H-Point to Door	mm	161	157

DATA SHEET NO. 9

VEHICLE SIDE MEASUREMENTS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



All Measurements Shown in mm

LEFT SIDE VIEW

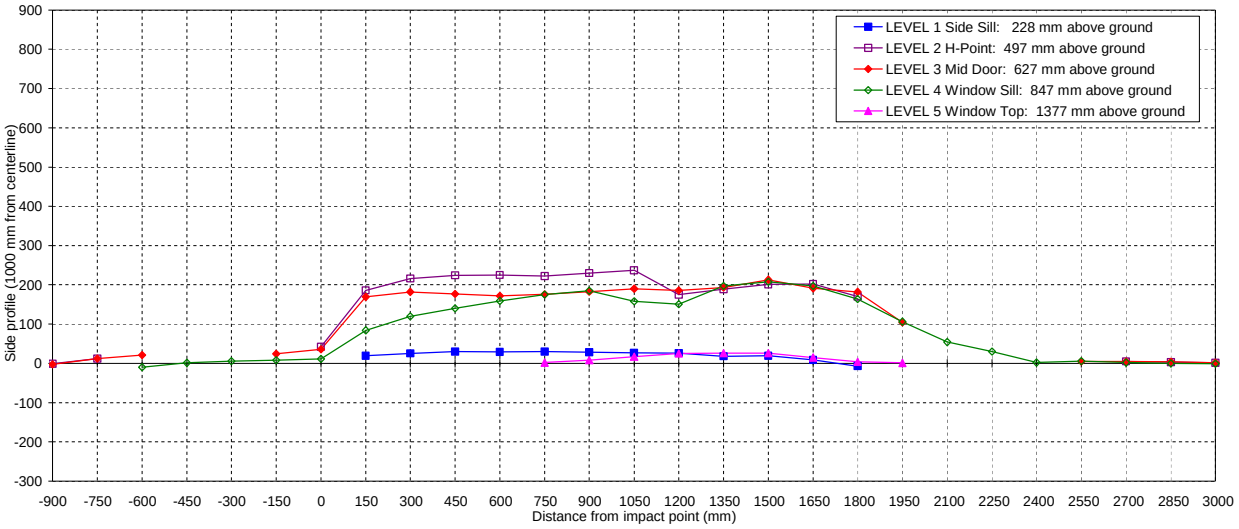
Measurements are taken with vehicle in the as tested condition.
Measurements along the vertical 750 mm.
All measurements below in mm.

Level	Measurement Description	Maximum Exterior Static Crush	Height Above Ground	Distance From Impact
1	Sill Top	30	228	450
2	Occupant H-Point	237	497	1050
3	Mid Door	213	627	1500
4	Window Sill	208	847	1500
5	Window	26	1377	1350
	Maximum Penetration	237		

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



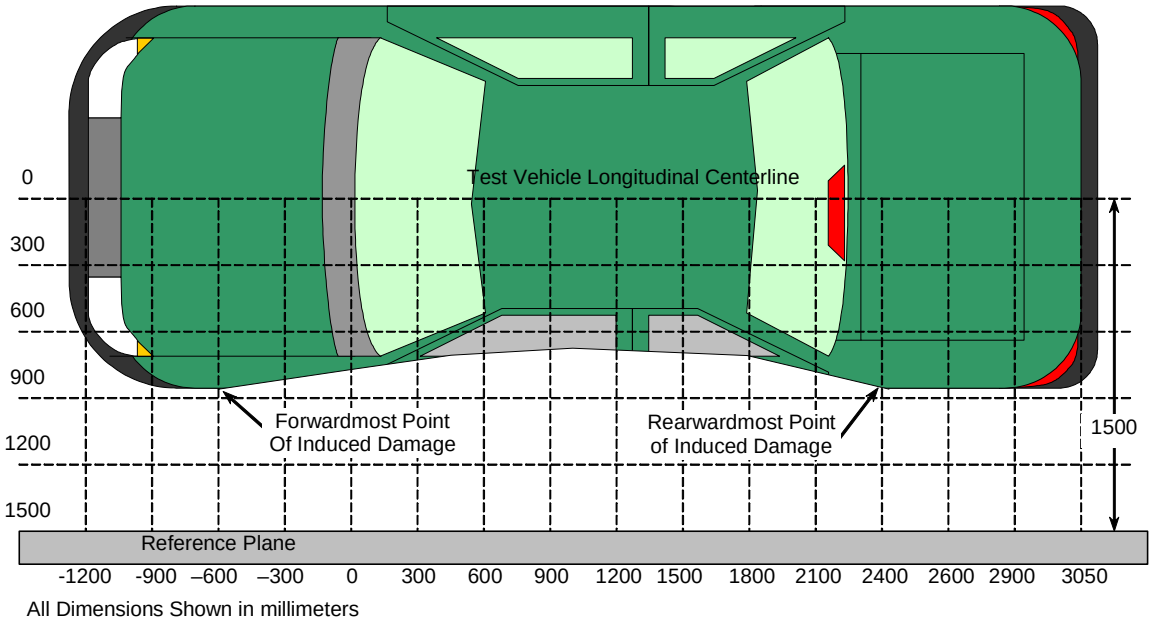
NOTE: All dimensions are in millimeters with a tolerance of ±3 mm

			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																										
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
LEVEL 1 SIDE SILL	228	PRE	--	--	--	--	--	--	--	161	166	165	164	161	160	159	159	159	158	158	158	--	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	--	180	191	195	193	191	188	186	185	177	177	167	151	--	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	25	30	29	30	28	27	26	18	19	9	-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	497	PRE	166	134	--	--	--	--	119	132	134	133	130	128	127	126	127	128	129	129	126	--	--	--	--	--	163	194	226
		POST	165	146	--	--	--	--	161	318	350	357	355	350	357	363	302	317	330	331	296	--	--	--	--	--	168	197	227
		CRUSH	-1	12	N/A	N/A	N/A	N/A	42	186	216	224	225	222	230	237	175	189	201	202	170	N/A	N/A	N/A	N/A	N/A	5	3	1
LEVEL 3 MID DOOR	627	PRE	189	146	119	--	--	115	122	130	130	127	123	121	119	118	118	119	119	121	121	118	--	--	--	138	165	189	217
		POST	186	158	140	--	--	139	158	299	312	304	295	297	302	308	304	312	332	312	303	222	--	--	--	143	170	193	218
		CRUSH	-3	12	21	N/A	N/A	24	36	169	182	177	172	176	183	190	186	193	213	191	182	104	N/A	N/A	N/A	5	5	4	1
LEVEL 4 WINDOW SILL	847	PRE	--	--	258	199	165	160	162	167	165	161	153	147	139	122	135	134	134	136	137	142	146	154	163	175	189	208	227
		POST	--	--	248	200	171	168	173	251	285	301	312	322	324	280	286	331	342	333	301	248	200	184	165	181	191	208	226
		CRUSH	N/A	N/A	-10	1	6	8	11	84	120	140	159	175	185	158	151	197	208	197	164	106	54	30	2	6	2	0	-1
LEVEL 5 WINDOW TOP	1377	PRE	--	--	--	--	--	--	--	--	--	--	--	446	421	414	412	413	416	421	434	533	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	--	--	--	--	--	448	429	431	437	439	442	436	438	534	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	8	17	25	26	26	15	4	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



TOP VIEW

DAMAGE PROFILE DISTANCES

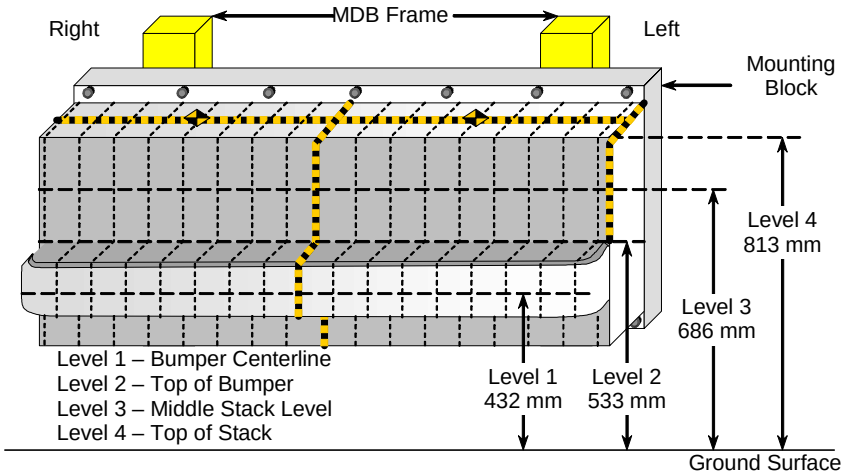
DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1 (LR)	2400	847	163	165	2
2	1830	627	120	287	167
3	1260	627	118	307	189
4	690	497	129	352	223
5	120	497	129	287	158
6 (LF)	-450	847	199	200	1

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:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



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

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)							
			-800	-700	-600	-500	-400	-300	-200	-100	0	100	200	300	400	500	600	700	800
LEVEL 4	-811	PRE	411	412	412	412	412	412	413	413	413	413	413	413	413	413	413	413	412
TOP		POST	360	394	409	405	394	370	344	344	377	398	391	383	374	364	352	335	306
STACK		CRUSH	51	18	3	7	18	42	69	69	36	15	22	30	39	49	61	78	106
LEVEL 3	-682	PRE	411	411	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412
MID		POST	359	376	380	387	390	379	352	365	390	403	404	401	401	396	387	376	331
LEVEL		CRUSH	52	35	32	25	22	33	60	47	23	9	8	11	11	16	25	36	81
LEVEL 2	-542	PRE	411	412	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412
TOP		POST	333	340	346	351	351	351	351	351	352	353	354	355	356	358	358	353	344
BUMPER		CRUSH	78	72	66	61	61	61	61	61	61	59	58	57	56	54	54	59	68
LEVEL 1	-430	PRE	501	513	513	513	513	513	513	514	514	514	514	514	514	514	514	514	505
MID		POST	345	365	383	393	396	393	397	401	403	406	407	408	410	411	410	394	363
BUMPER		CRUSH	156	148	130	120	117	120	116	113	111	108	107	106	104	103	104	120	142

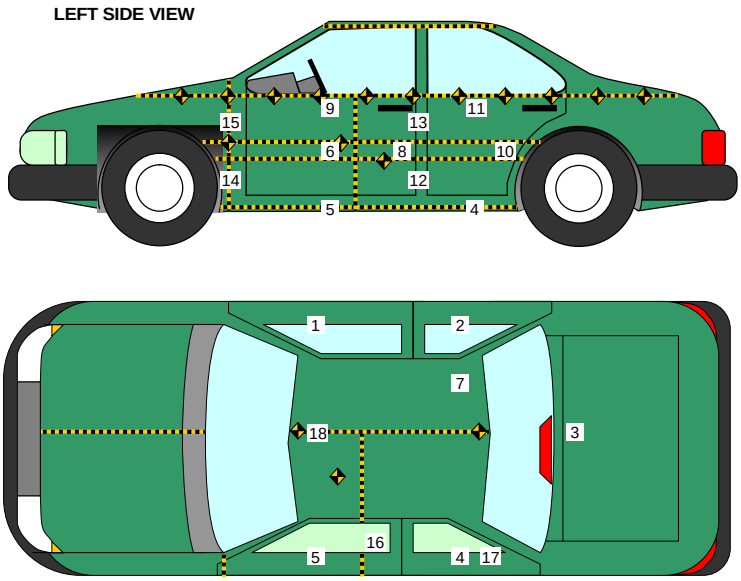
LEVEL	HEIGHT AT CL (mm)*	MAX CRUSH
LEVEL 4		
TOP	-811	106
STACK		
LEVEL 3		
MID	-682	81
LEVEL		
LEVEL 2		
TOP	-542	78
BUMPER		
LEVEL 1		
MID	-430	156
BUMPER		

*Heights measured above ground level.

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2825	656	-274
2	Right Sill at Rear Seat	2000	659	-270
3	Rear Floorpan Above Axle	1198	-2	-471
4	Left Sill at Rear Door	1991	-653	-254
5	Left Sill at Front Door	2912	-652	-262
6	Left Front Door C/L**	-	-	-
7	Rear Occupant Compartment	2134	344	-181
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	2124	-652	-395
13	Left Middle B-Post	2070	-663	-889
14	Left Lower A-Post	3197	-580	-441
15	Left Middle A-Post	3124	-632	-1015
16	Front Seat Track	2262	-546	-305
17	Rear Seat Track or Structure	1002	-564	-521
18	Vehicle CG	2514	18	-435

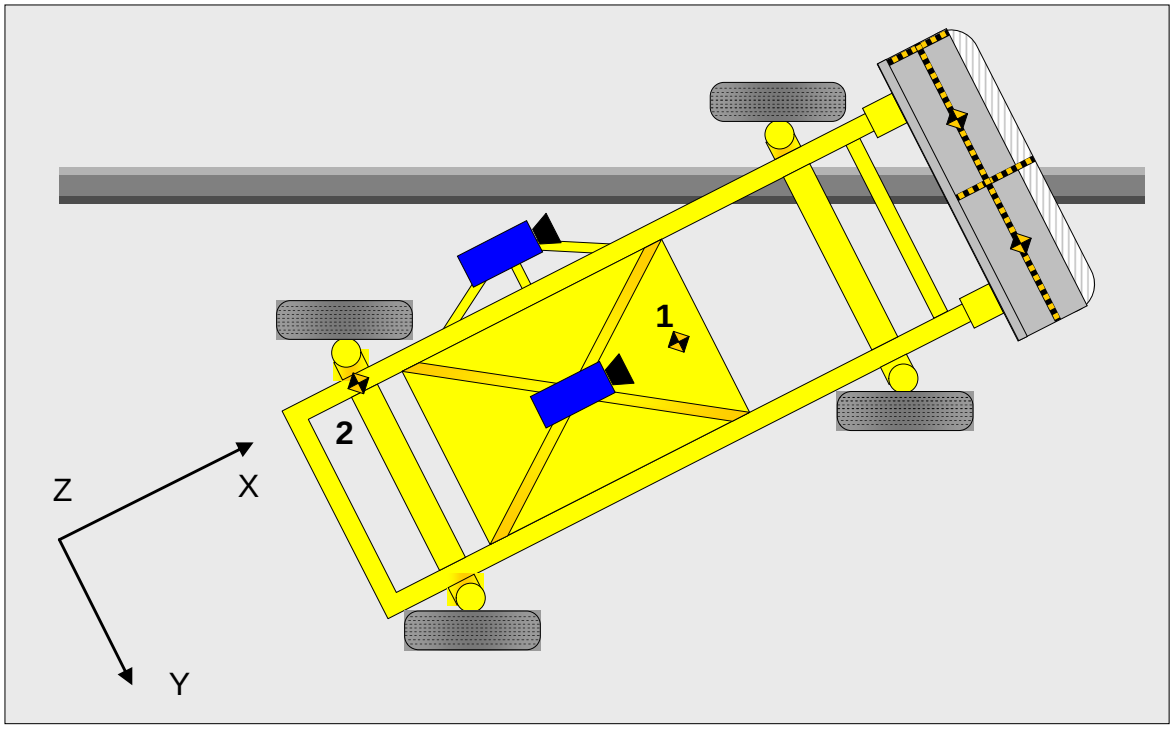
Reference Points X - Test Vehicle Rear Bumper (+ forward)
Y - Test Vehicle Centerline (+ to right)
Z - Ground Plane (+ down)

** Accelerometer was not requested by the COTR.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



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

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

DATA SHEET NO. 15

VEHICLE STRUCTURAL MEASUREMENTS

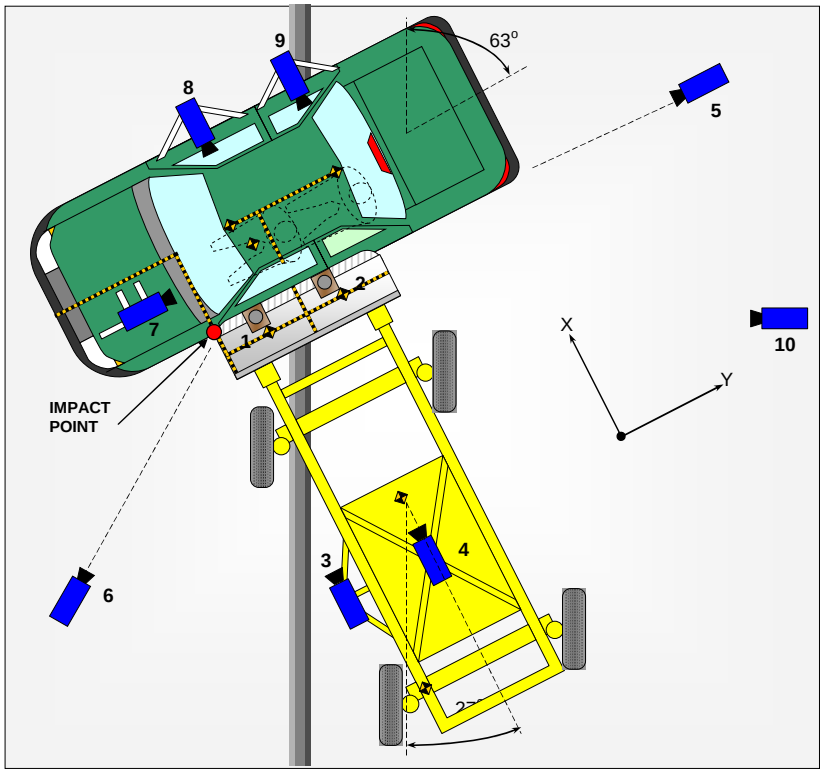
Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

	Elements	Pre-Test (mm)
1	Total Length	4542
2	Total Width	1763
3	Bumper Top Height	487
4	Bumper Bottom Height	384
5	Longitudinal Member Top Height	514
6	Distance between Longitudinal Members	1086
7	Longitudinal Member Width	82
8	Engine Top Height	856
9	Engine Bottom Height	214
10	Engine and gearbox width	681
11	Front bumper-engine distance	498
12	Front shock absorber fixing height	851
13	Bonnet leading edge height	774
14	Front shock absorber fixing width	1122
15	Front bumper – front axle distance	932
16	Front axle – a pillar distance	413
17	A-pillar – B-pillar distance	1075
18	B-Pillar – rear axle distance	1112
19	B-pillar – C-pillar distance	1041
20	Roof sill bottom height	1299
21	Roof sill top height	1393
22	Floor sill bottom height	241
23	Floor sill top height	331

DATA SHEET NO. 16

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Close-up	72	812	-4880	-90	8	500
2	Overhead Overall	195	855	-4880	-90	28	500
3	MDB Onboard, Impact Point Close-up	-1470	0	-847	0	13	500
4	MDB Onboard, Centerline of Impact	-1140	838	-1587	-17	7.5	500
5	Right Side, Ground Level, Overall	0	9995	-971	2.9	50	500
6	Left Side, Ground Level, Overall	-2541	-1885	-954	6.0	28	500
7	Vehicle Onboard Front SID/HIII, Front	459	-451	-1276	5.9	25	1000
8	Vehicle Onboard Front SID/HIII, Side	1603	812	-1042	3.8	12	1000
9	Vehicle Onboard Rear SID/HIII, Side	1585	1679	-1113	6.4	12	1000
10	Real Time Coverage						30

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

DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA

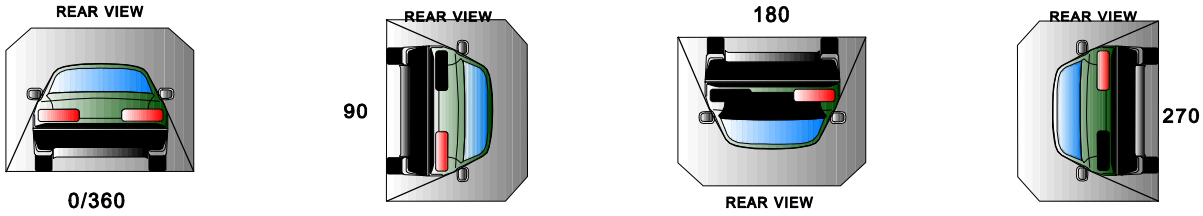
Test Vehicle:	2009 Toyota Corolla	NHTSA No.	C95100
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	March 6, 2008

FUEL SYSTEM INTEGRITY POST IMPACT DATA

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

Spillage Location(s)	None

STATIC ROLLOVER DATA



Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0º - 90º	1	minutes	15	seconds	5	minutes	6	minutes	15	seconds	7	minutes
90º - 180º	1	minutes	06	seconds	5	minutes	6	minutes	6	seconds	7	minutes
180º-270º	1	minutes	01	seconds	5	minutes	6	minutes	1	seconds	7	minutes
270º-360º	1	minutes	14	seconds	5	minutes	6	minutes	14	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)
0º - 90º	0	0	0	0
90º - 180º	0	0	0	0
180º-270º	0	0	0	0
270º-360º	0	0	0	0
FMVSS 301 Maximum Allowable (for each 90º stage)	142	28	28	28

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

APPENDIX A

PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

TABLE OF PHOTOGRAPHS (continued)

Figure A-1: As Received Left Front ¾ View

Figure A-2: As Received Right Rear ¾ View

Figure A-3: Vehicle Certification Label

Figure A-4: Vehicle Tire Placard Label

Figure A-5: Pre-Test Front View

PHOTOGRAPH IS NOT AVAILABLE

Figure A-6: Post-Test Front View

Figure A-7: Pre-Test Left Front ¾ View

Figure A-8: Post-Test Left Front ¾ View

Figure A-9: Pre-Test Left Side View

Figure A-10: Post-Test Left Side View

Figure A-11: Pre-Test Left Rear ¾ View

Figure A-12: Post-Test Left Rear ¾ View

Figure A-13: Pre-Test Rear View

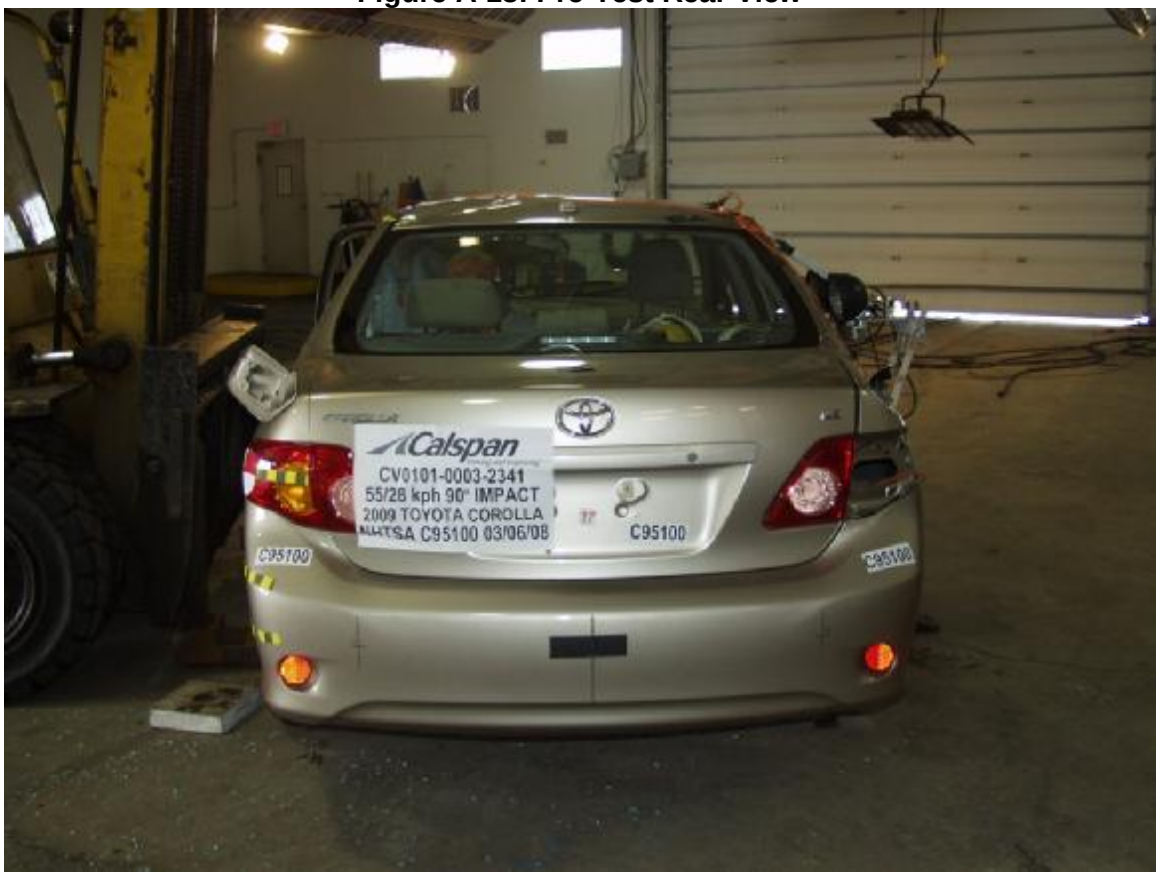


Figure A-14: Post-Test Rear View

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

PHOTOGRAPH IS NOT AVAILABLE

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

Figure A-17: Pre-Test Right Side View

Figure A-18: Post-Test Right Side View

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

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

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

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

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

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

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

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

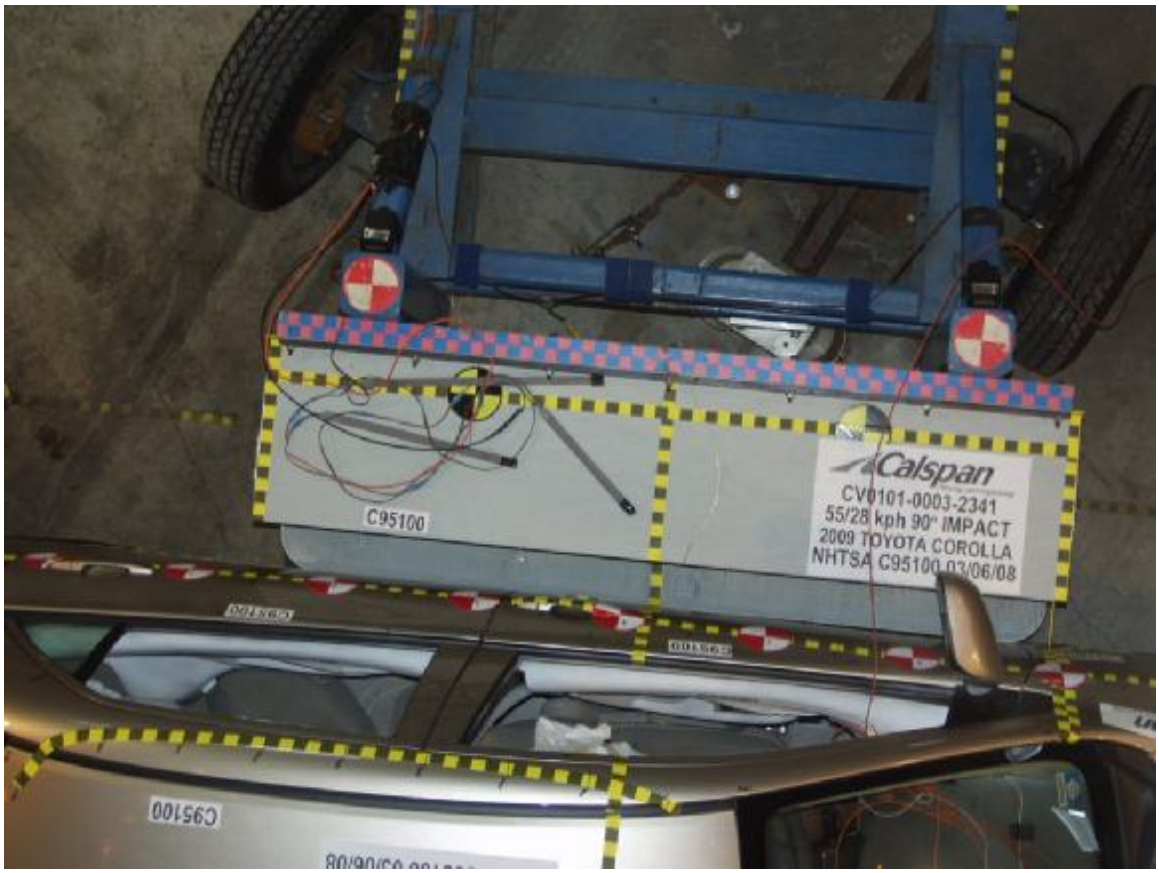


Figure A-27: Pre-Test Top View of MDB Impactor Face

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Figure A-50: Post-Test Left Rear ¾ View of Left Side Doors

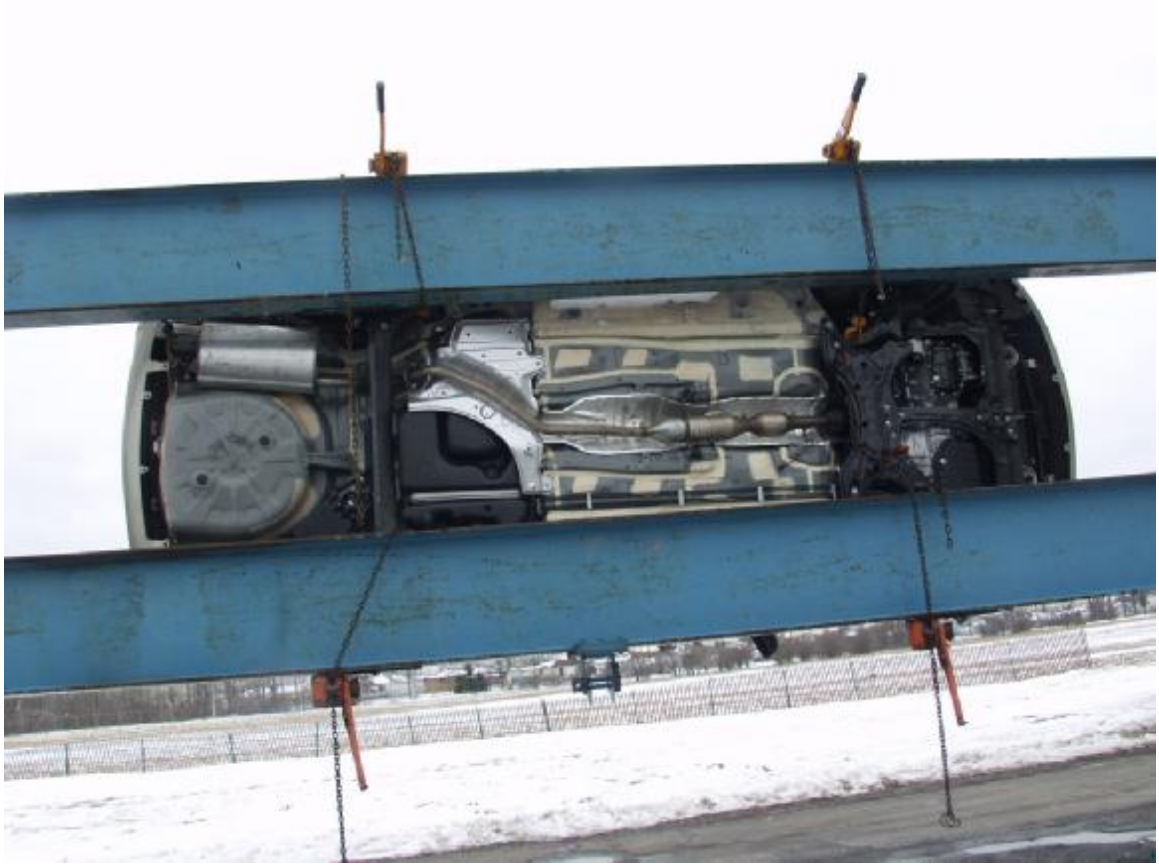


Figure A-51: Rollover 90 Degrees

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

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
V2P1 Head Ay
V2P1 Head Az
V2P1 Head Redundant Ax
V2P1 Head Redundant Ay
V2P1 Head Redundant Az
V2P1 Upper Neck Fx
V2P1 Upper Neck Fy
V2P1 Upper Neck Fz
V2P1 Upper Neck Mx
V2P1 Upper Neck My
V2P1 Upper Neck Mz
V2P1 Upper Rib Ay
V2P1 Upper Rib Redundant Ay
V2P1 Lower Rib Ay
V2P1 Lower Rib Redundant Ay
V2P1 Lower Spine Ay
V2P1 Lower Spine Redundant Ay
V2P1 Pelvic Ay
V2P1 Pelvic Redundant Ay
V2P4 Head Ax
V2P4 Head Ay
V2P4 Head Az
V2P4 Head Redundant Ax
V2P4 Head Redundant Ay
V2P4 Head Redundant Az
V2P4 Upper Neck Fx
V2P4 Upper Neck Fy
V2P4 Upper Neck Fz
V2P4 Upper Neck Mx
V2P4 Upper Neck My
V2P4 Upper Neck Mz
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

V2A1 Right Front Sill Ax
V2A1 Right Front Sill Ay
V2A1 Right Front Sill Az
V2A2 Right Rear Sill Ax
V2A2 Right Rear Sill Ay
V2A2 Right Rear Sill Az
V2A3 Rear Floorpan Ax
V2A3 Rear Floorpan Ay
V2A3 Rear Floorplan Az
V2A4 Left Rear Sill Ay
V2A5 Left Front Sill Ay
V2A7 Right Rear Compartment Ay
V2A12 Left Lower B Post Ay
V2A13 Left Mid B Post Ay
V2A14 Left Lower A Post Ay
V2A15 Left Mid A Post Ay
V2A16 Front Seat Track Ay
V2A17 Rear Seat Track Ay
V2A18 Target CG Ax
V2A18 Target CG Ay
V2A18 Target CG Az
V1 Moving Barrier CG Ax
V1 Moving Barrier CG Ay
V1 Moving Barrier CG Az
V1 Moving Barrier Left Rail Ax
V1 Moving Barrier Left Rail Ay

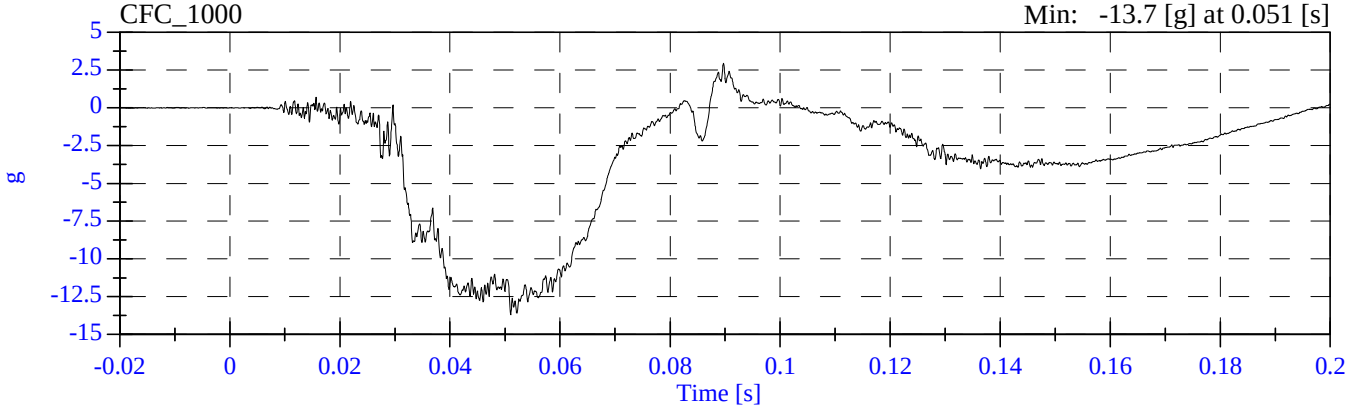
TEST NOTES

The following channel anomalies occurred:

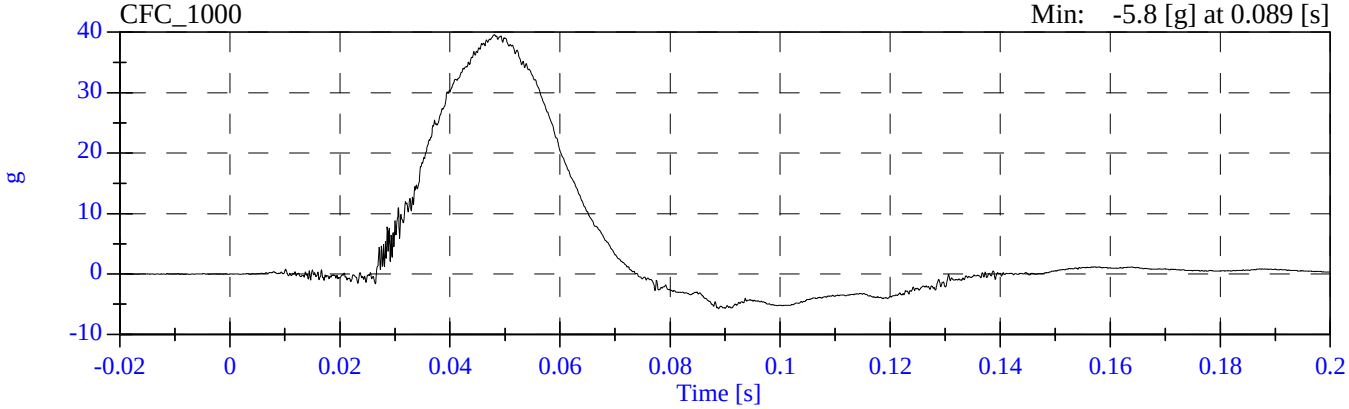
V2 A12 Left Lower B Post Y Questionable Data after 145 ms

2009 FVMSS 214 Test 3 2009 Toyota Corolla
C95100 - March 06, 2008

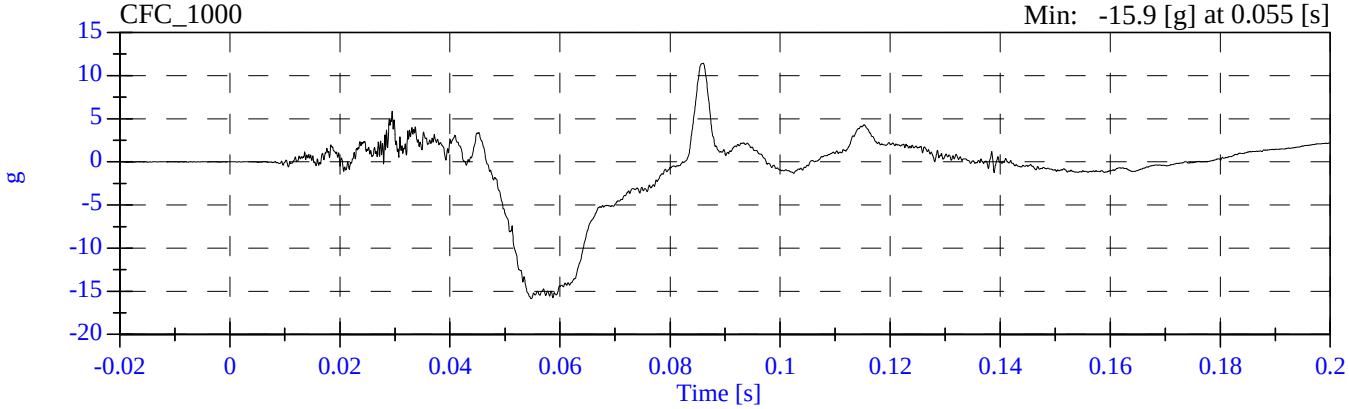
V2P1 Head x
CFC_1000
Max: 2.9 [g] at 0.090 [s]
Min: -13.7 [g] at 0.051 [s]



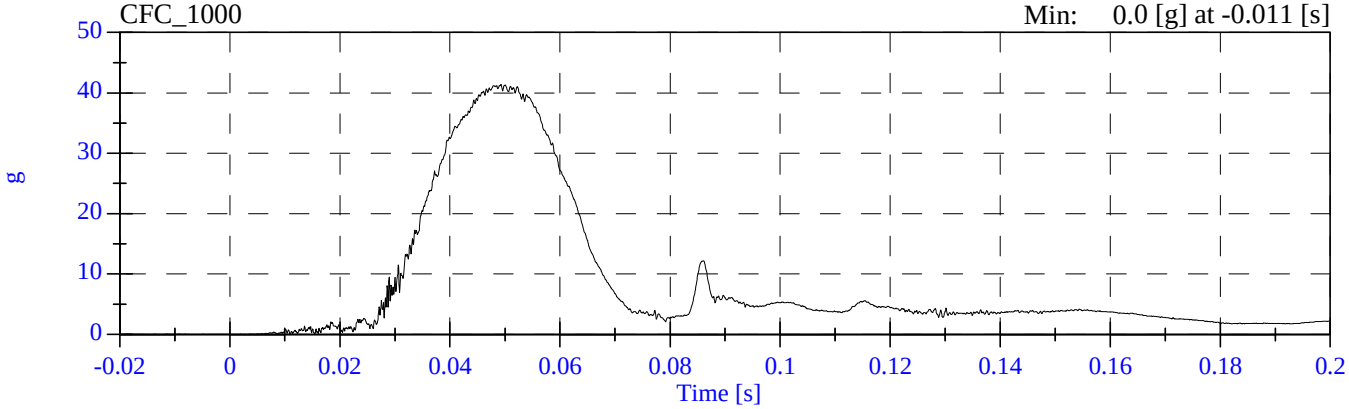
V2P1 Head y
CFC_1000
Max: 39.6 [g] at 0.048 [s]
Min: -5.8 [g] at 0.089 [s]



V2P1 Head z
CFC_1000
Max: 11.4 [g] at 0.086 [s]
Min: -15.9 [g] at 0.055 [s]

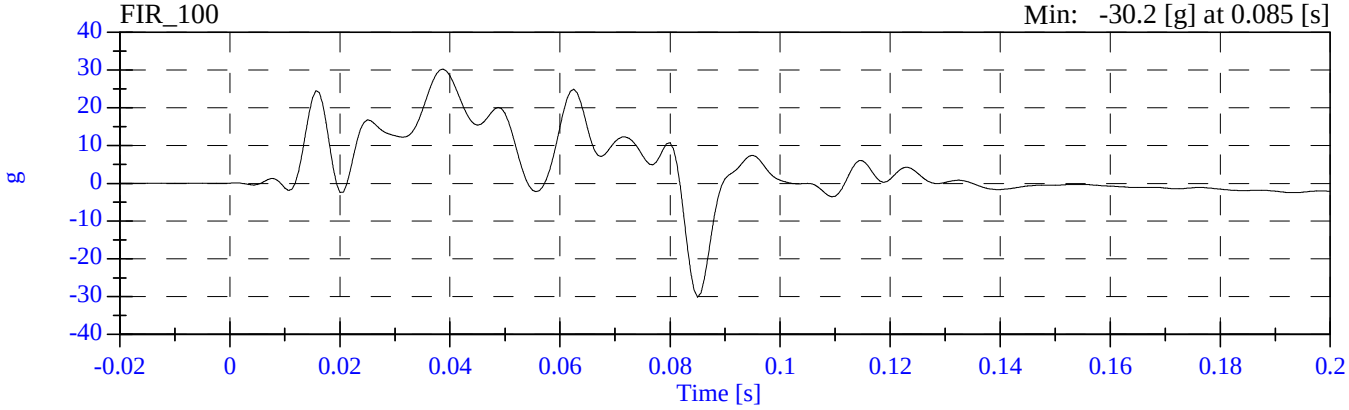


V2P1 Head Resultant
CFC_1000
Max: 41.4 [g] at 0.049 [s]
Min: 0.0 [g] at -0.011 [s]

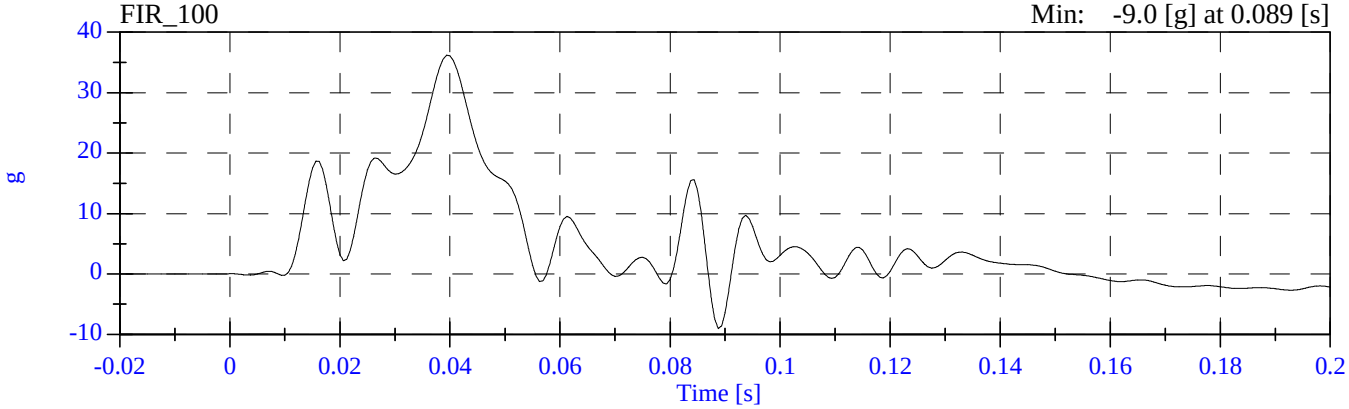


2009 FVMSS 214 Test 3 2009 Toyota Corolla
C95100 - March 06, 2008

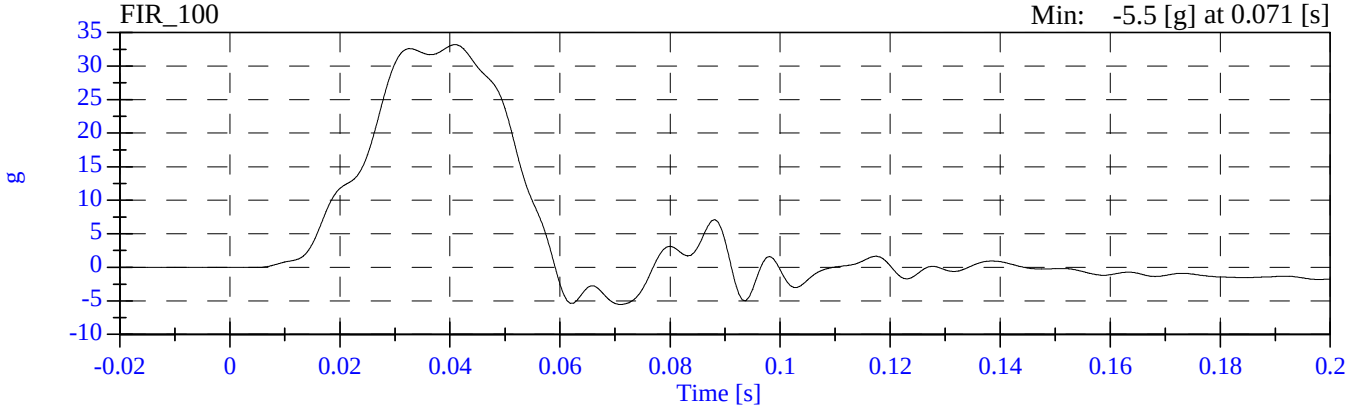
V2P1 Upper Rib y
FIR_100
Max: 30.3 [g] at 0.039 [s]
Min: -30.2 [g] at 0.085 [s]



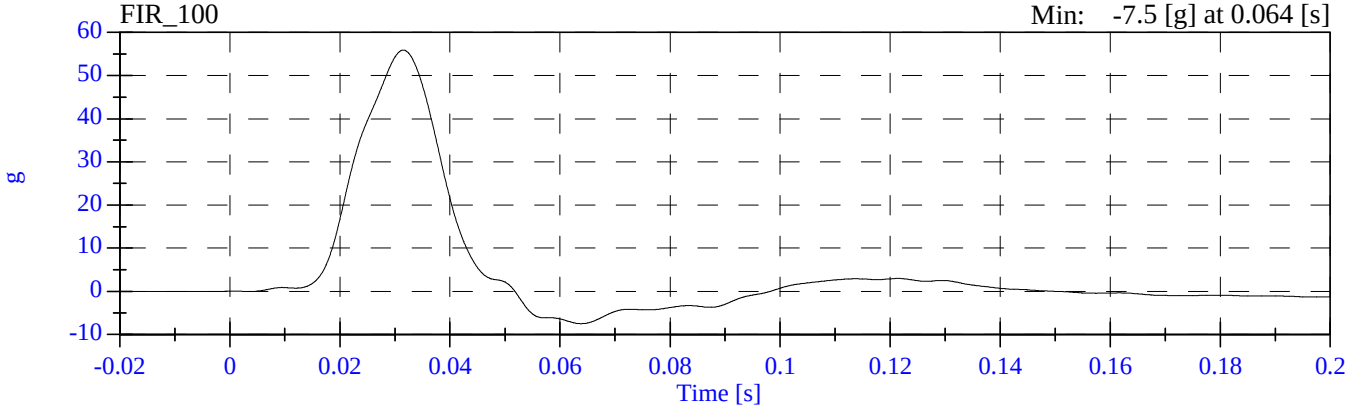
V2P1 Lower Rib y
FIR_100
Max: 36.2 [g] at 0.039 [s]
Min: -9.0 [g] at 0.089 [s]



V2P1 Lower Spine y
FIR_100
Max: 33.2 [g] at 0.041 [s]
Min: -5.5 [g] at 0.071 [s]

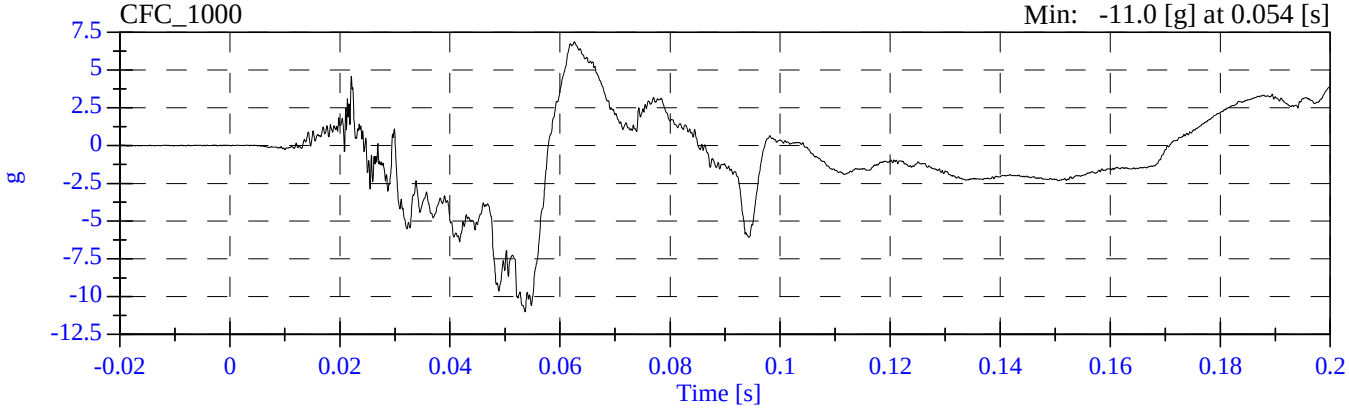


V2P1 Pelvic y
FIR_100
Max: 55.9 [g] at 0.031 [s]
Min: -7.5 [g] at 0.064 [s]

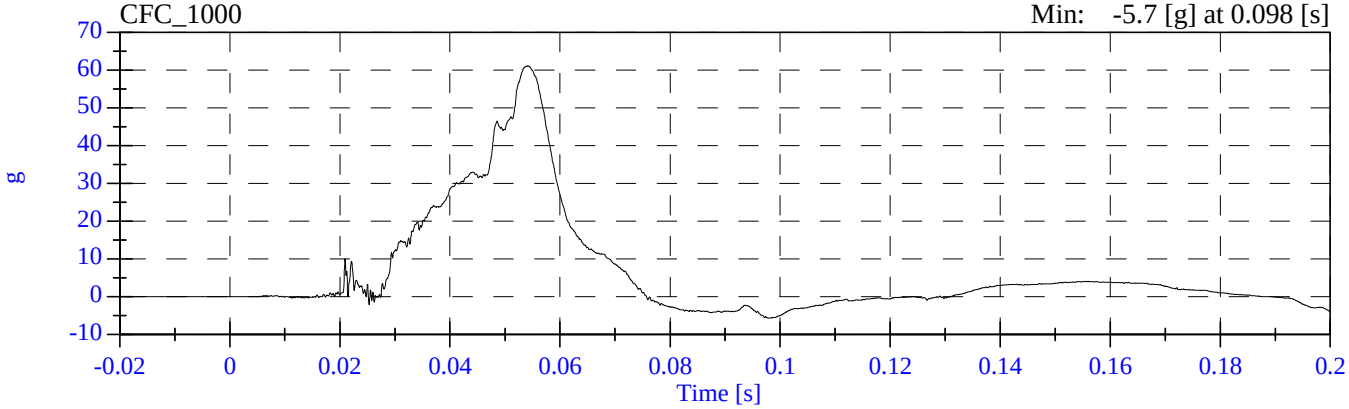


2009 FVMSS 214 Test 3 2009 Toyota Corolla
C95100 - March 06, 2008

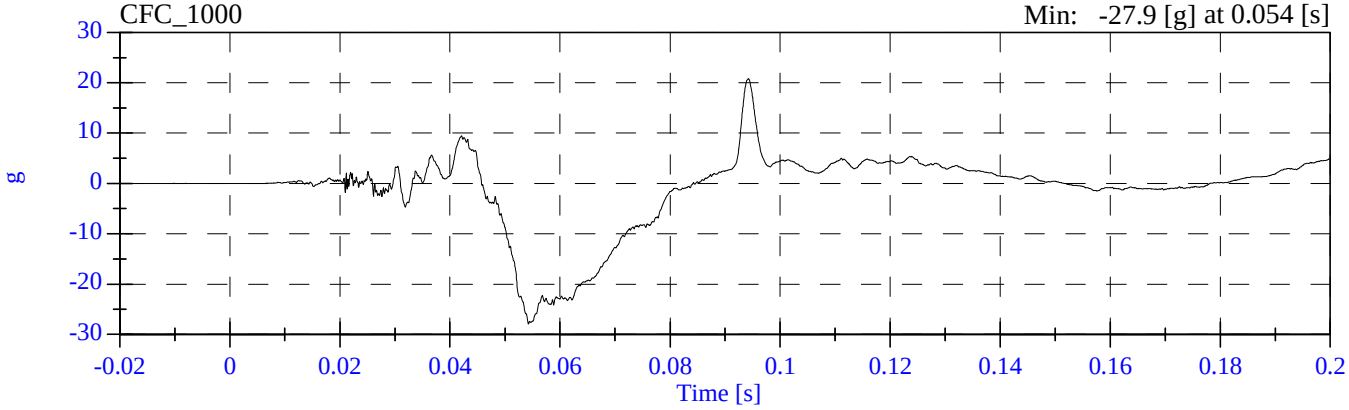
V2P4 Head x
CFC_1000
Max: 6.9 [g] at 0.063 [s]
Min: -11.0 [g] at 0.054 [s]



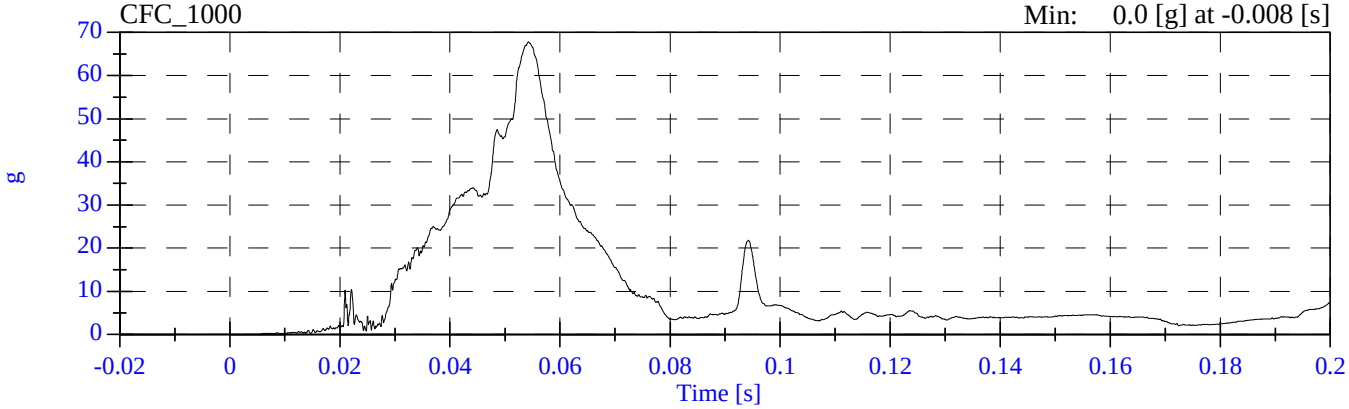
V2P4 Head y
CFC_1000
Max: 61.1 [g] at 0.054 [s]
Min: -5.7 [g] at 0.098 [s]



V2P4 Head z
CFC_1000
Max: 20.8 [g] at 0.094 [s]
Min: -27.9 [g] at 0.054 [s]

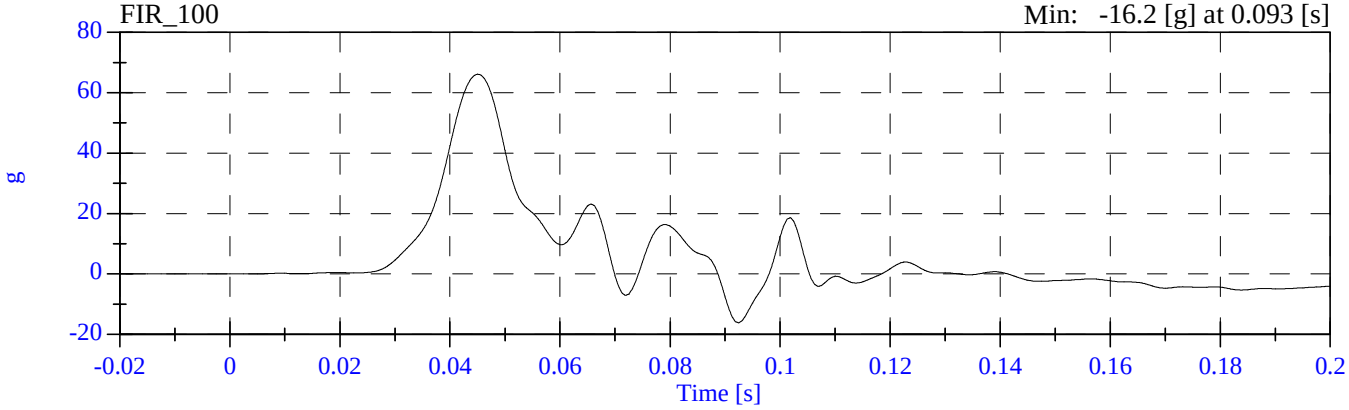


V2P4 Head Resultant
CFC_1000
Max: 67.9 [g] at 0.054 [s]
Min: 0.0 [g] at -0.008 [s]

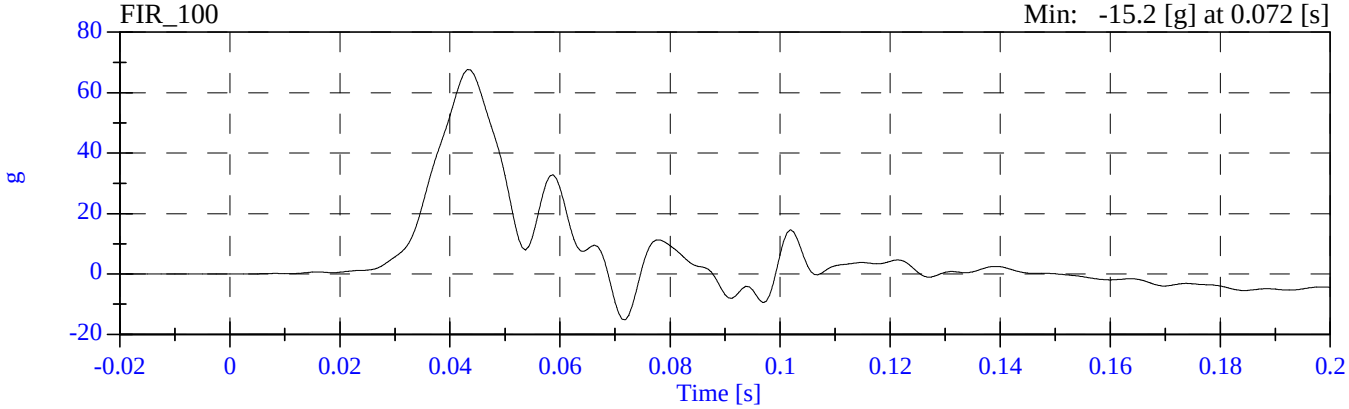


2009 FVMSS 214 Test 3 2009 Toyota Corolla
C95100 - March 06, 2008

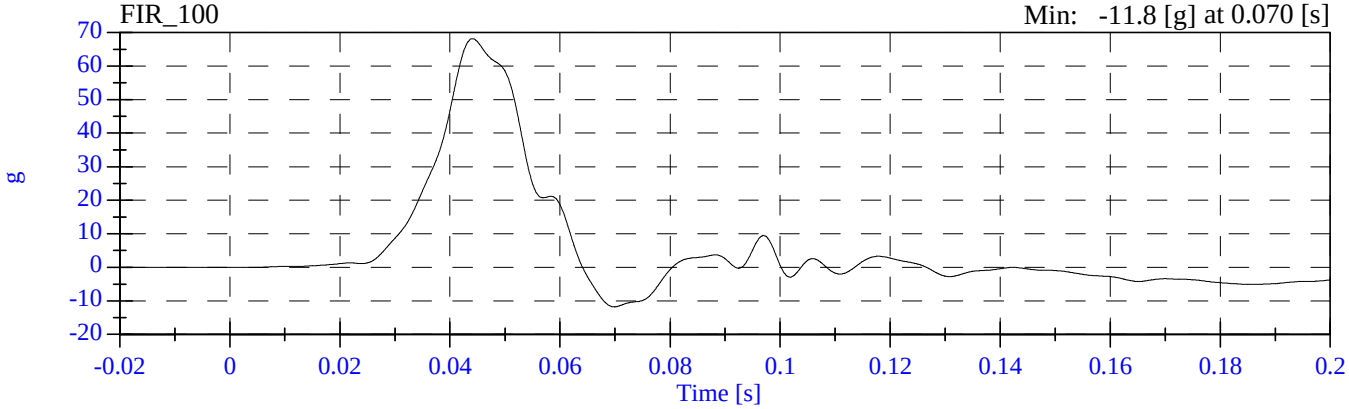
V2P4 Upper Rib y
FIR_100
Max: 66.2 [g] at 0.045 [s]
Min: -16.2 [g] at 0.093 [s]



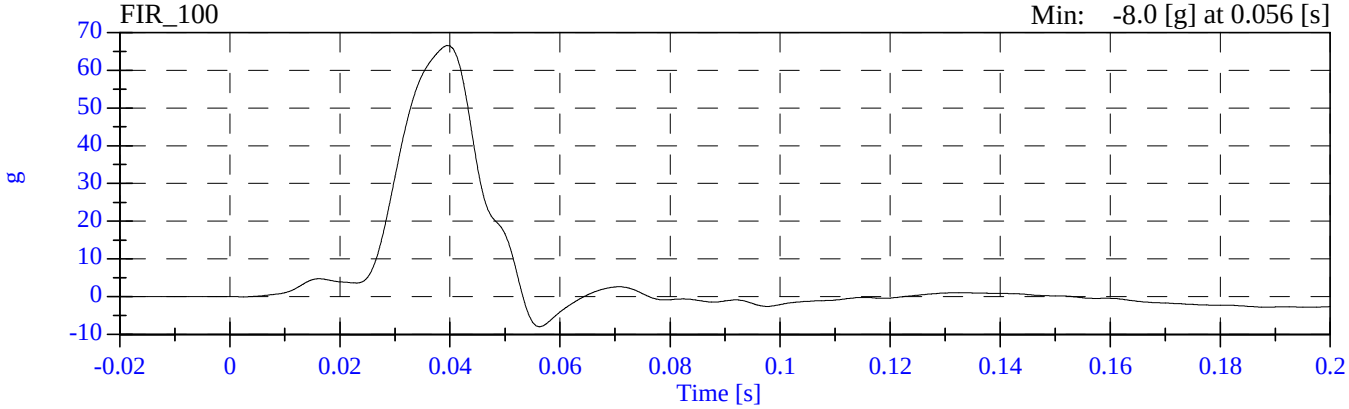
V2P4 Lower Rib y
FIR_100
Max: 67.7 [g] at 0.043 [s]
Min: -15.2 [g] at 0.072 [s]



V2P4 Lower Spine y
FIR_100
Max: 68.1 [g] at 0.044 [s]
Min: -11.8 [g] at 0.070 [s]



V2P4 Pelvic y
FIR_100
Max: 66.6 [g] at 0.039 [s]
Min: -8.0 [g] at 0.056 [s]



APPENDIX C

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: 1/18/08, 2/4/08; Sequential Test Number: 5, 1; 1,2
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 269		SID H3 NO.: 270	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	899	900	899	899
RH- Rib Height (mm)	501 - 521	508	507	505	506
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	234	234	234	233
KV- Knee Pivot from Back Line (mm)	511 - 526	516	517	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	495	494	495	494
HW- Hip Width (mm)	356 - 391	381	381	384	383
THORAX IMPACTS					
TEMPERATURE (• C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE. HUMIDITY (%)	10 -70	26	33	18	33
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.28	4.27	4.28
UPPER RIB (g's)	37 - 46	40.65	40.25	40.89	40.49
LOWER RIB (g's)	37 - 46	37.58	40.72	41.01	39.28
LOWER SPINE (g's)	15 -22	17.84	18.35	20.38	18.86
PELVIS IMPACT					
TEMPERATURE (• C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	26	33	18	33
PROBE SPEED (m/s)	4.27 - 4.33	4.27	4.27	4.29	4.28
PELVIS (g's)	40 -60	48.69	50.08	57.78	45.69

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 5
Date: January 18, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 5
Date: January 18, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	899
RH- Rib Height (mm)	502 – 520	508
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	234
KH- Knee Pivot from Back Line (mm)	511 – 526	516
KV- Knee Pivot to Floor (mm)	490 – 505	495
HW- Hip Width (mm)	356 - 391	381

REMARKS: None

Shock Low (3.05 m/s)

PRE TEST

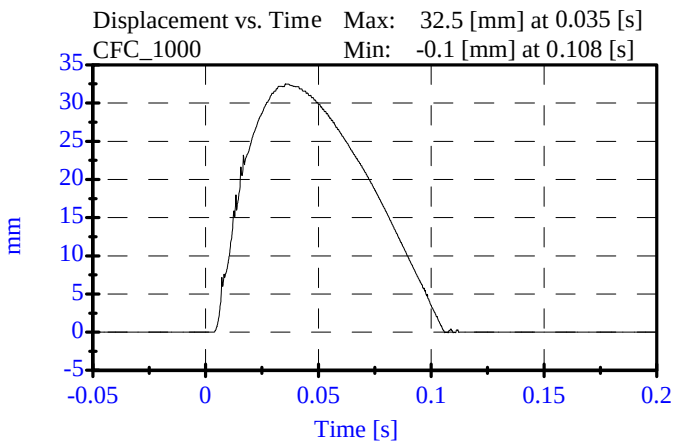
CONFIGURED FOR LEFT SIDE IMPACT

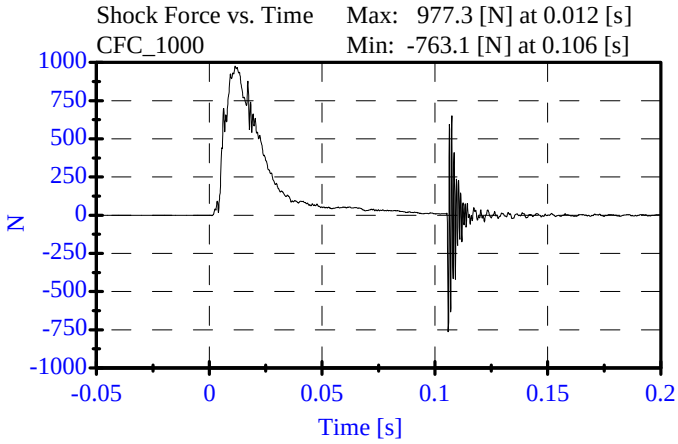
ATD Serial No: 269 Sequential Test Number: 1 File: 269-10 07-19-07

Date: July 19, 2007 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 %	31.00 %	Passed
Displacement:	30.00-35.00 mm	32.51 mm	Passed
Maximum Force:	836.00-1125.00 N	977.33 N	Passed

Impact Test Velocity: 3.05 m/s
Damper Identification: 269
Damper Setting: 5





Shock Med (4.27 m/s)

PRE TEST

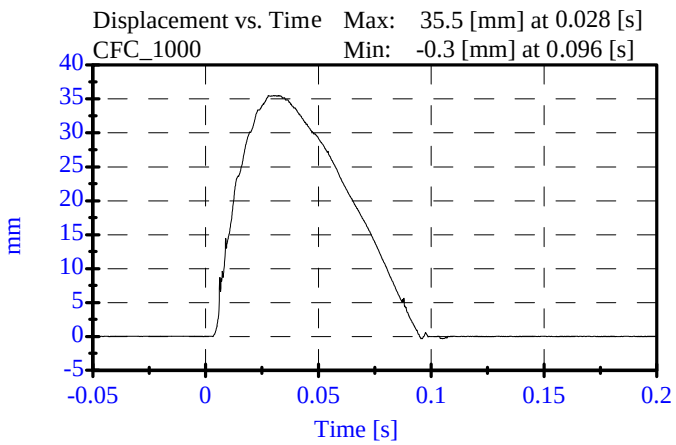
CONFIGURED FOR LEFT SIDE IMPACT

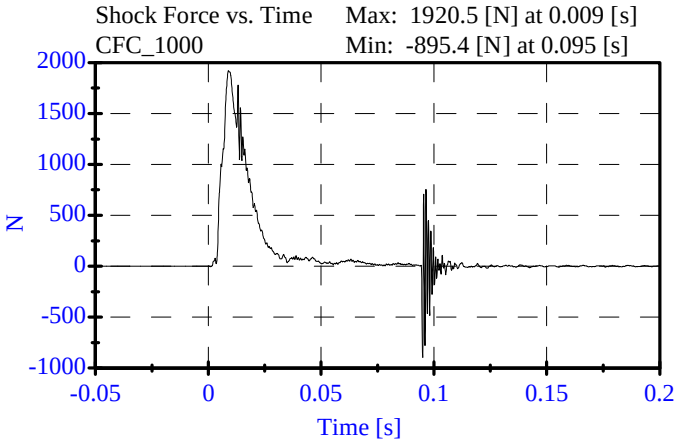
ATD Serial No: 269 Sequential Test Number: 1 File: 269-14 07-19-07

Date: July 19, 2007 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 %	31.00 %	Passed
Displacement:	32.00-37.00 mm	35.46 mm	Passed
Maximum Force:	1730.00-2099.00 N	1920.51 N	Passed

Impact Test Velocity: 4.27 m/s
Damper Identification: 269
Damper Setting: 5





Shock High (6.10 m/s)

PRE TEST

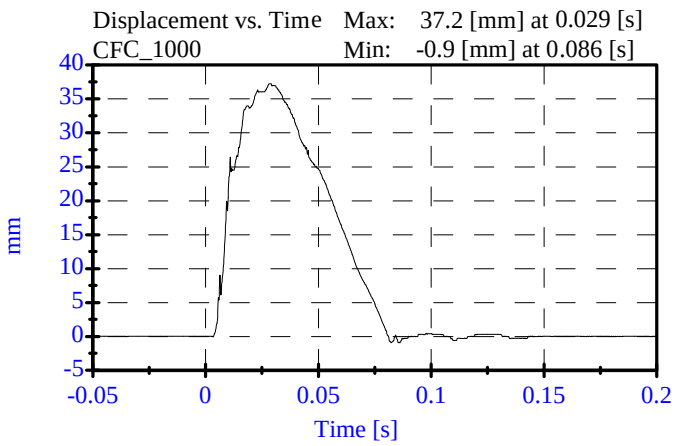
CONFIGURED FOR LEFT SIDE IMPACT

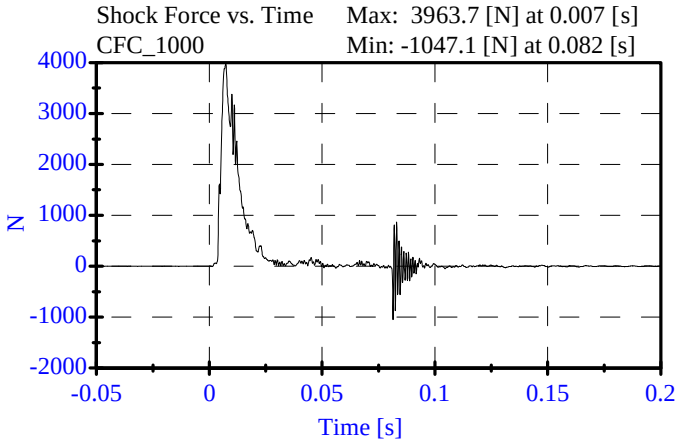
ATD Serial No: 269 Sequential Test Number: 1 File: 269-20 07-19-07

Date: July 19, 2007 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 %	31.00 %	Passed
Displacement:	33.00-40.00 mm	37.23 mm	Passed
Maximum Force:	3741.00-4448.00 N	3963.68 N	Passed

Impact Test Velocity: 6.10 m/s
Damper Identification: 269
Damper Setting: 5





Thorax Impact

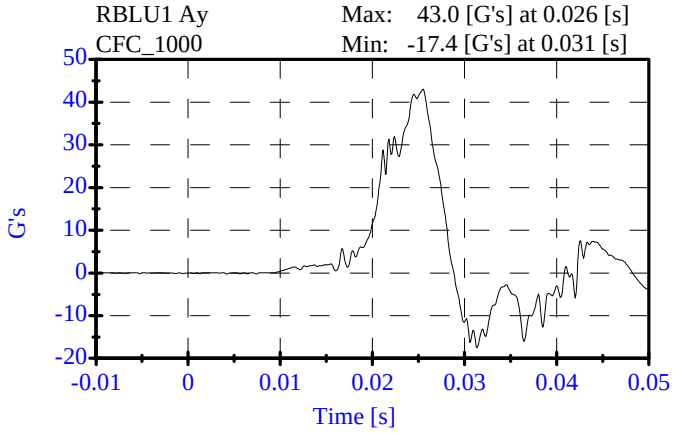
Pre-Test

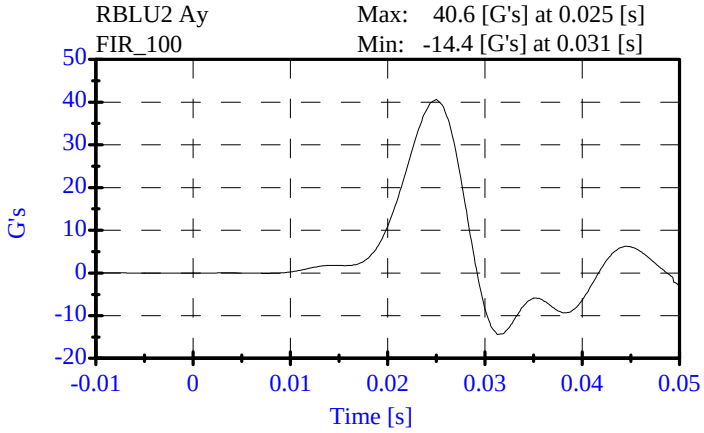
CONFIGURED FOR LEFT SIDE IMPACT

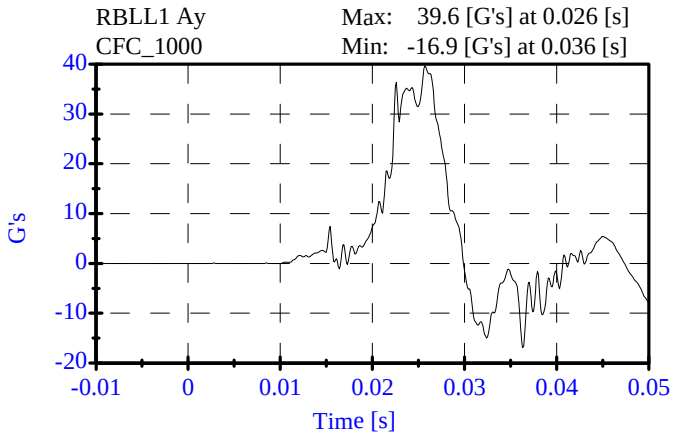
ATD Serial No: 269 Sequential Test Number: 1 File: 269T 01-14-08

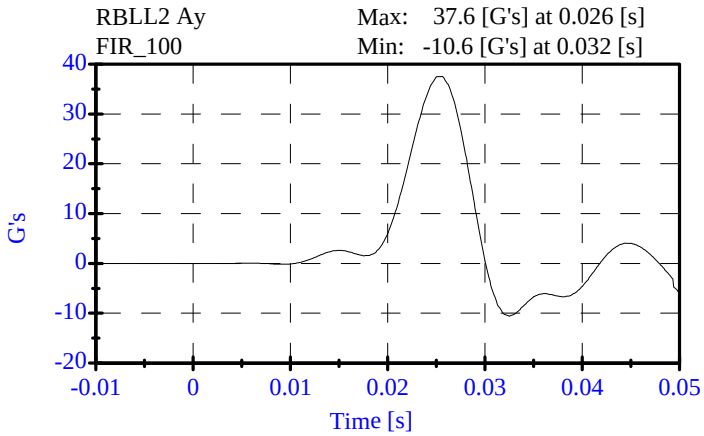
Date: January 14, 2008 Laboratory Technician: B. Swiecicki

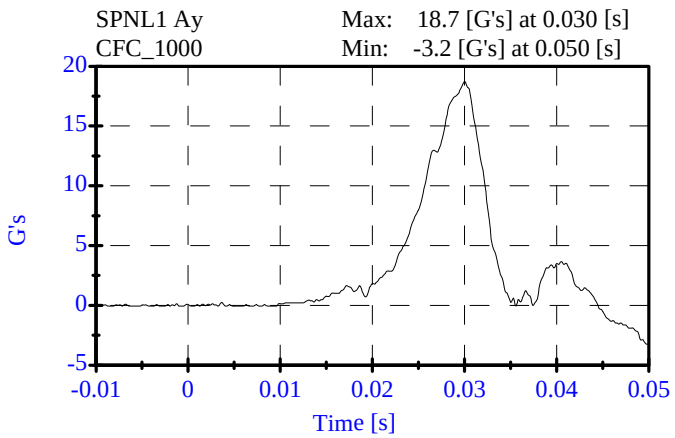
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	26.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.65 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.58 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.84 G's	Passed

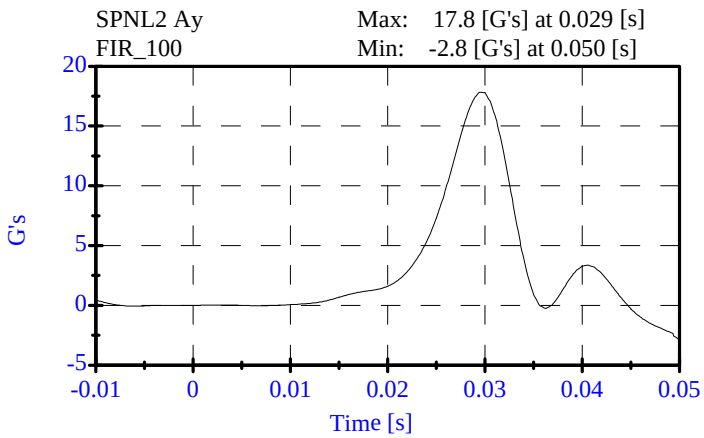












Pelvis Impact

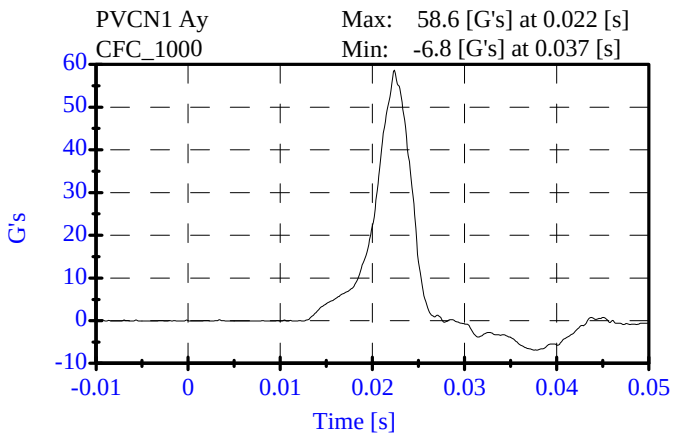
Pre-Test

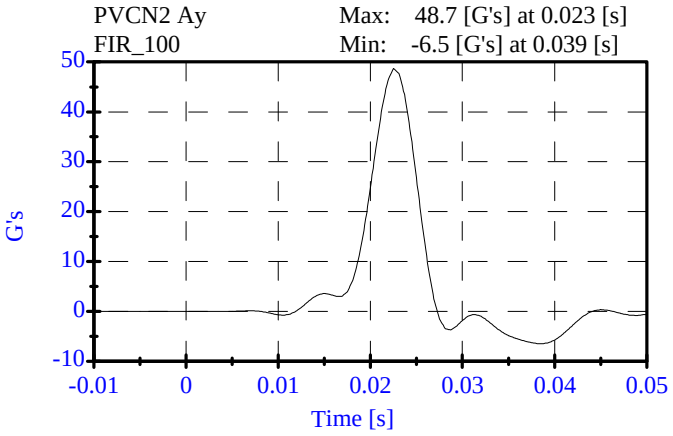
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269 Sequential Test Number: 1 File: 269P 01-14-08

Date: January 14, 2008 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 %	26.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	48.69 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.8 ms	Passed





Head Drop

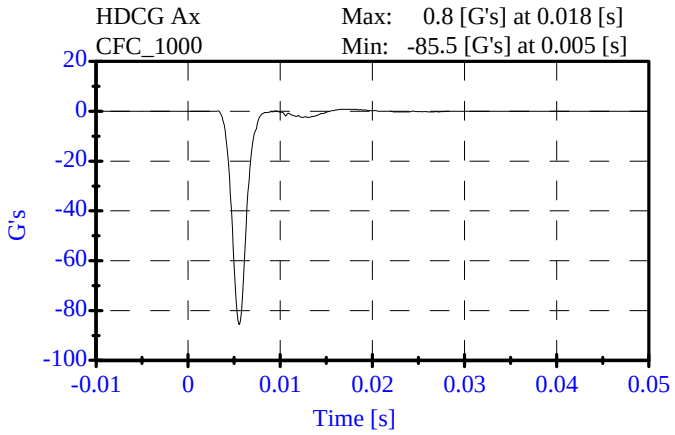
Pre-Test

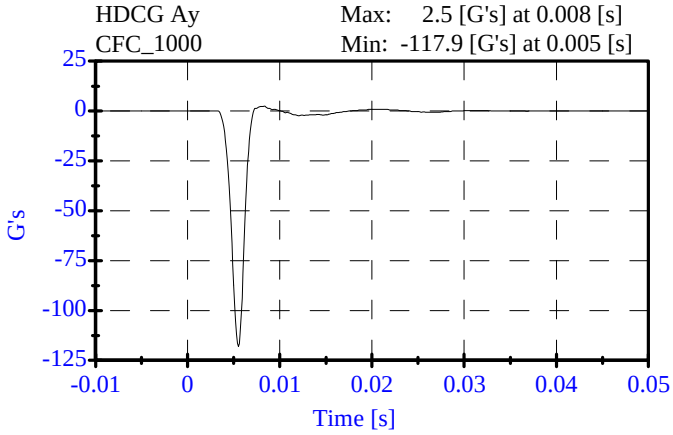
CONFIGURED FOR LEFT SIDE IMPACT

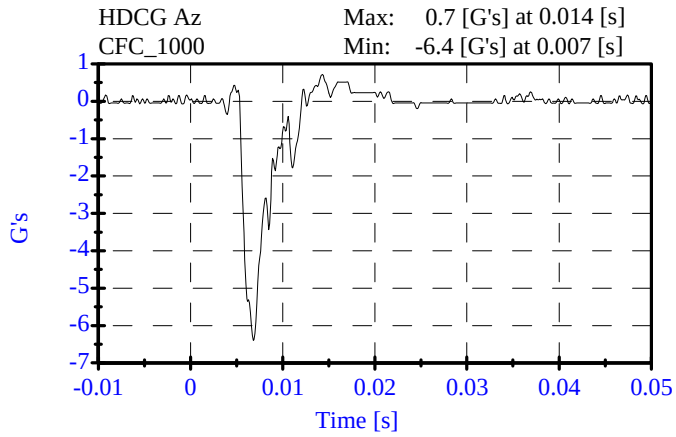
ATD Serial No: 269 Sequential Test Number: 1 File: 269H 01-11-08

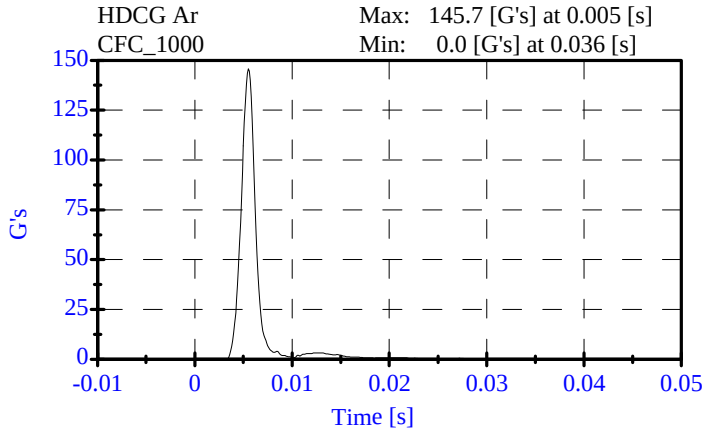
Date: January 11, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	145.70 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.81 Gs	Passed
Curve PerCent NonModal:	< 15%	2.76 %	Passed









Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269 Sequential Test Number: 1 File: 269N 01-14-08

Date: January 14, 2008 Laboratory Technician: B. Swiecicki

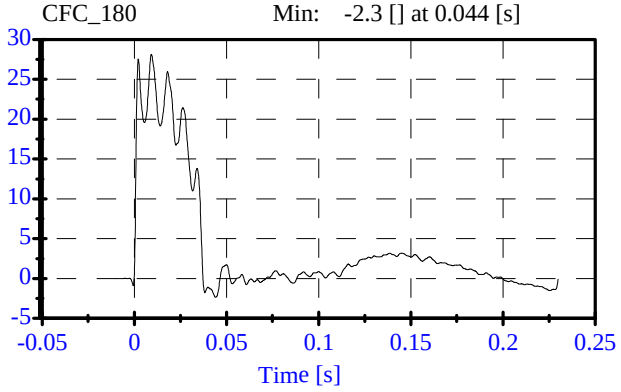
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	26.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.14 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.39 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.24 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.16 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	68.56 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.90 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	85.28 N-m	Passed
Occiptal Moment Decay:	49.0-64.0 ms	53.90 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	8.40 ms	Passed

Neck Test
Pre-Test

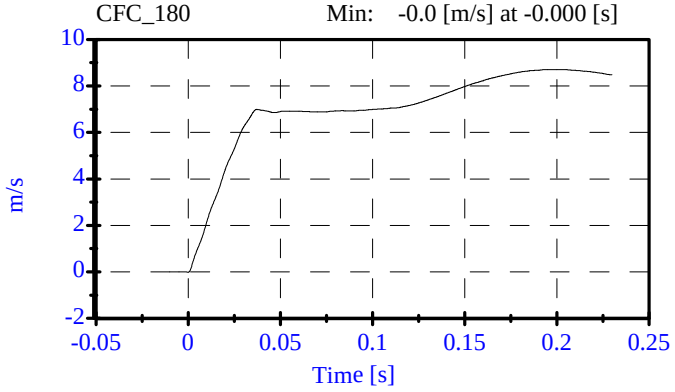
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Sequential Test Number: 1 File: 269N 01-14-08
Date: January 14, 2008
Laboratory Technician: B. Swiecicki

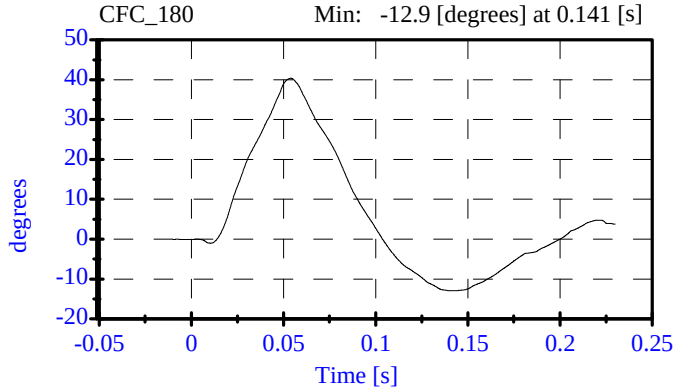
Pend Ax
CFC_180
Max: 28.1 [] at 0.009 [s]
Min: -2.3 [] at 0.044 [s]



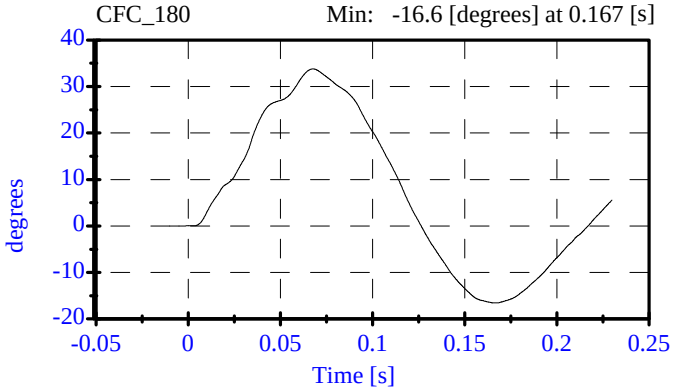
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.200 [s]
Min: -0.0 [m/s] at -0.000 [s]



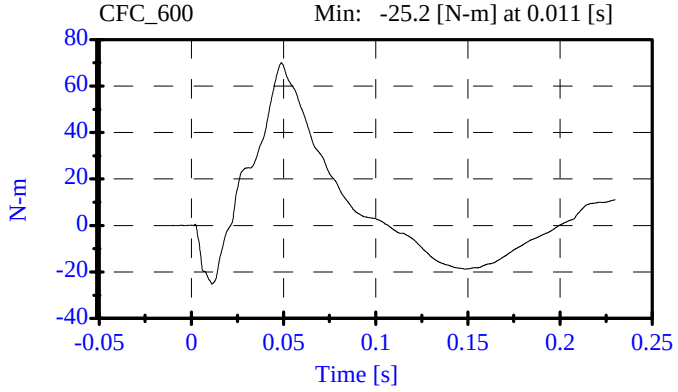
Head Rot
CFC_180
Max: 40.4 [degrees] at 0.054 [s]
Min: -12.9 [degrees] at 0.141 [s]



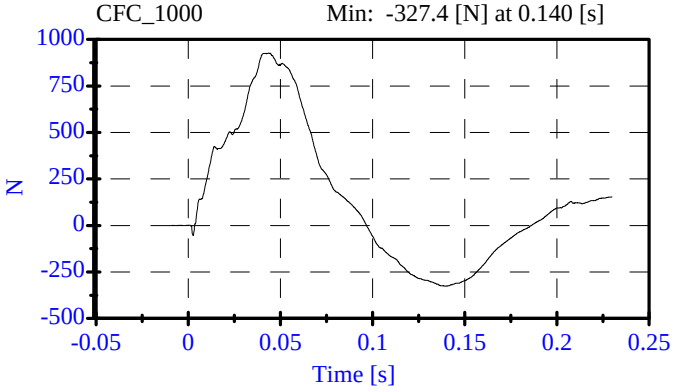
Arm Rot
CFC_180
Max: 33.8 [degrees] at 0.068 [s]
Min: -16.6 [degrees] at 0.167 [s]



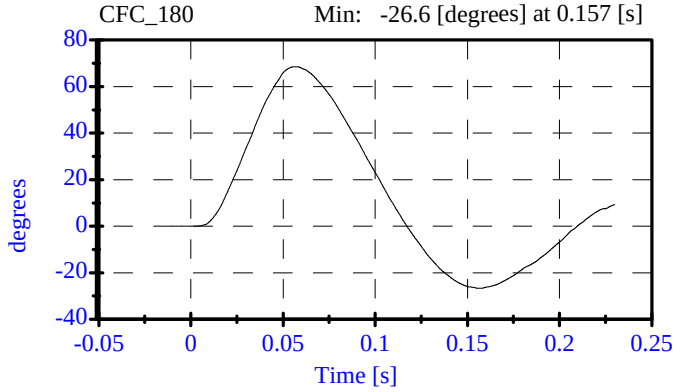
Neck Mx
CFC_600
Max: 69.9 [N-m] at 0.049 [s]
Min: -25.2 [N-m] at 0.011 [s]



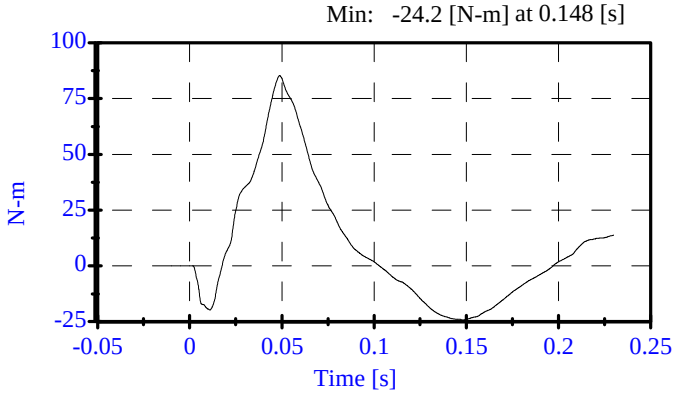
Neck Fy
CFC_1000
Max: 927.1 [N] at 0.044 [s]
Min: -327.4 [N] at 0.140 [s]



Tot Rot
CFC_180
Max: 68.6 [degrees] at 0.057 [s]
Min: -26.6 [degrees] at 0.157 [s]



MOCX
Max: 85.3 [N-m] at 0.049 [s]
Min: -24.2 [N-m] at 0.148 [s]



Abdomen Compression Test

Pre-Test

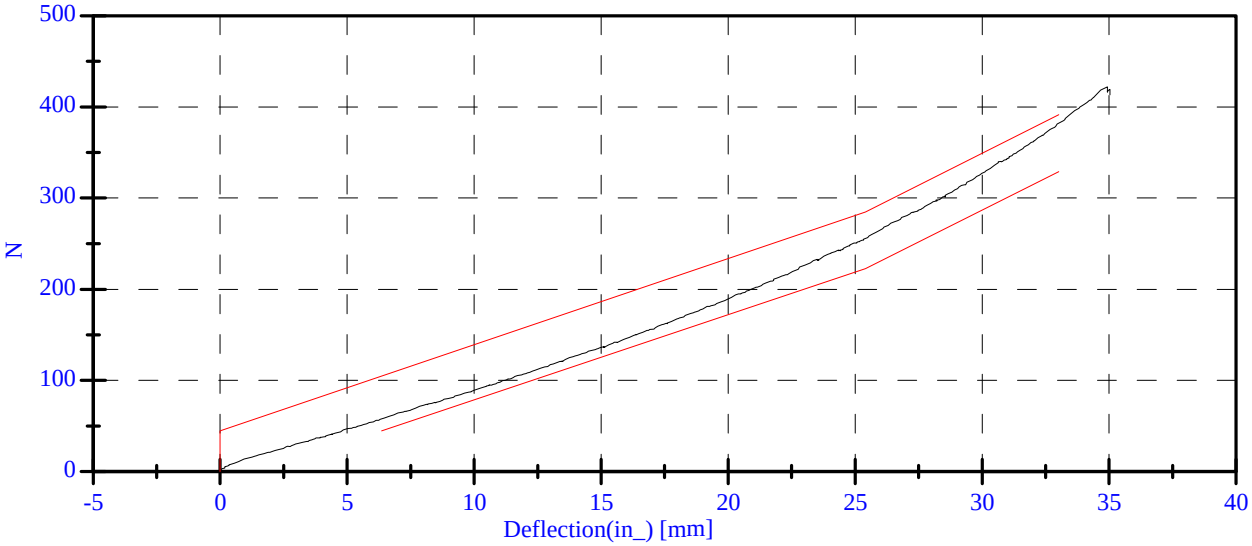
CONFIGURED FOR LEFT SIDE IMPACT

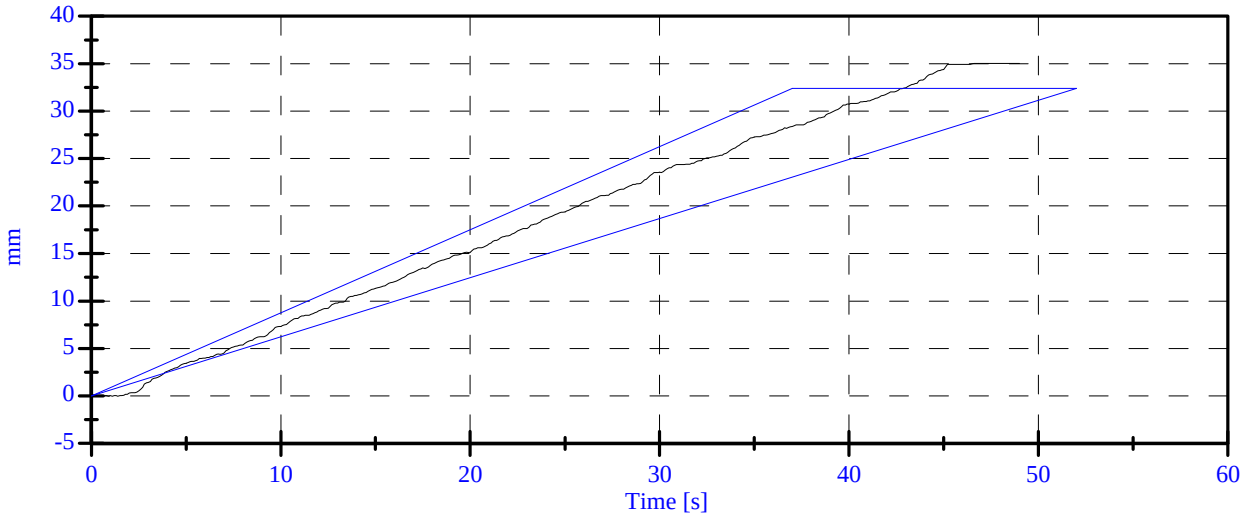
ATD Serial No: 269 Sequential Test Number: 1 File: 269 Ab 01-11-08

Date: January 11, 2008 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 %	30.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	116.16 N	Passed
Force at 19.05 mm :	162.98-220.99 N	178.51 N	Passed
Force at 25.40 mm :	221.97-280.02 N	253.90 N	Passed
Force at 33.02 mm :	324.99-391.00 N	381.50 N	Passed

ABDOMINAL COMPRESSION TEST





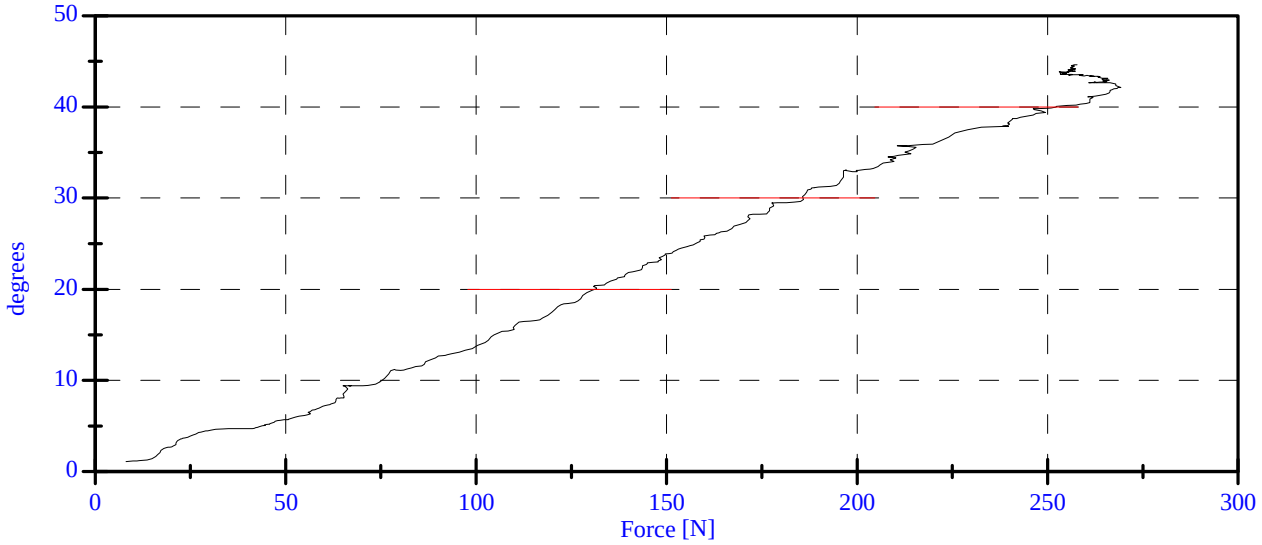
Lumbar Spine Test
Pre-Test

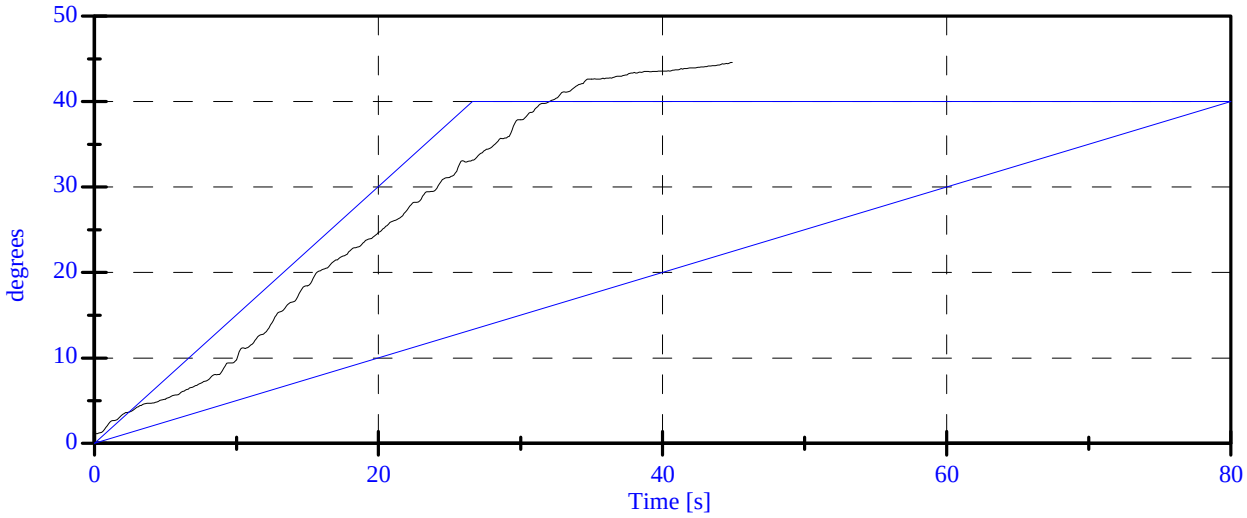
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Sequential Test Number: 1 File: 269 Spine 01-15-08
Date: January 15, 2008
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	26.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	8.09 N	Passed
Force at 20 Deg:	97.86-151.24 N	131.62 N	Passed
Force at 30 Deg	151.24-204.62 N	185.94 N	Passed
Force at 40 Deg	204.62-258.00 N	252.27 N	Passed
Return Angle	12 Deg Max	5.06 deg	Passed

LUMBAR SPINE FLEXION TEST





PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 5
Date: January 18, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: February 4, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: February 4, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

Shock Test Low (3.05 m/s)

PRE TEST

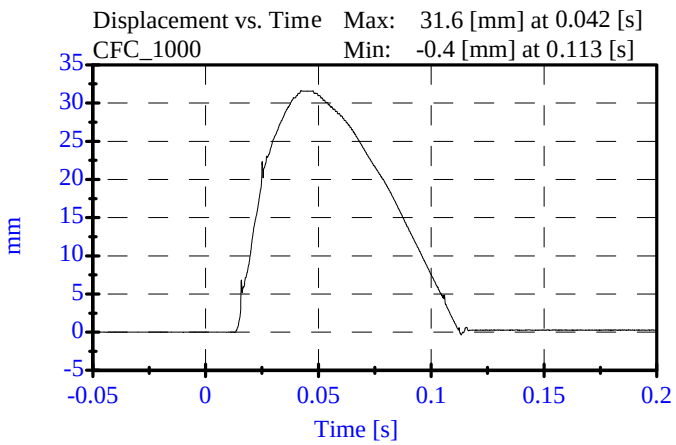
CONFIGURED FOR LEFT SIDE IMPACT

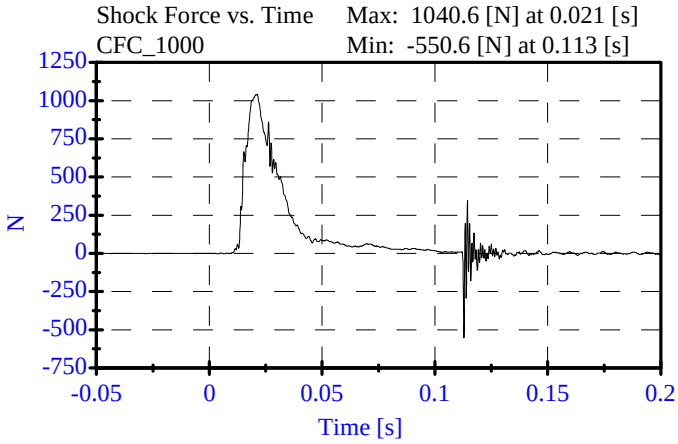
ATD Serial No: 270
Sequential Test Number: 1 File: 270 Shock Low 02-04-(

Date: February 4, 2008
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Displacement:	30.00-35.00 mm	31.63 mm	Passed
Maximum Force:	836.00-1125.00 N	1040.57 N	Passed

Impact Test Velocity: 3.05 m/s
Damper Identification: 270
Damper Setting: 5





Shock Test Medium (4.27 m/s)

PRE TEST

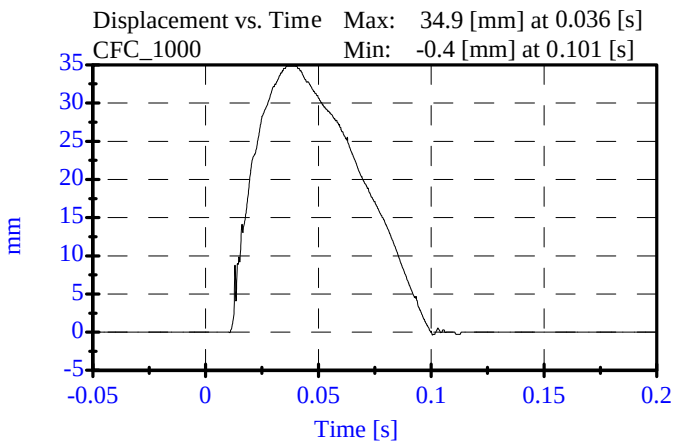
CONFIGURED FOR LEFT SIDE IMPACT

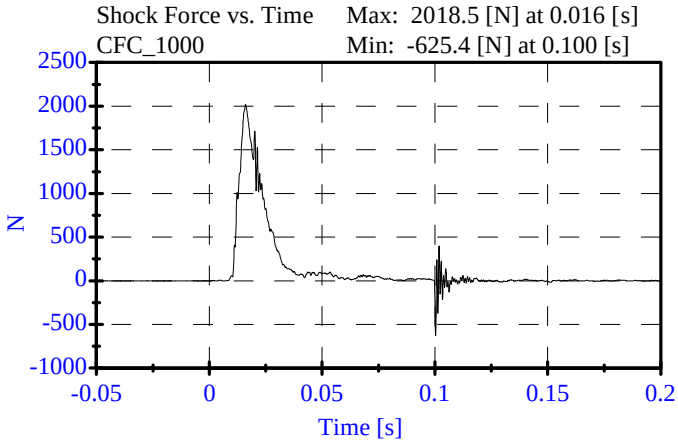
ATD Serial No: 270 Sequential Test Number: 1 File: 270 Shock Med 02-04-(

Date: February 4, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	19.00 %	Passed
Displacement:	32.00-37.00 mm	34.87 mm	Passed
Maximum Force:	1730.00-2099.00 N	2018.50 N	Passed

Impact Test Velocity: 4.27 m/s
Damper Identification: 270
Damper Setting: 5





Shock Test High (6.10 m/s)

PRE TEST

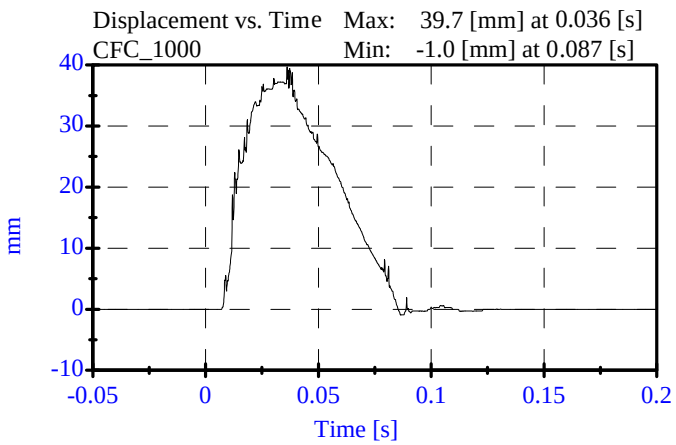
CONFIGURED FOR LEFT SIDE IMPACT

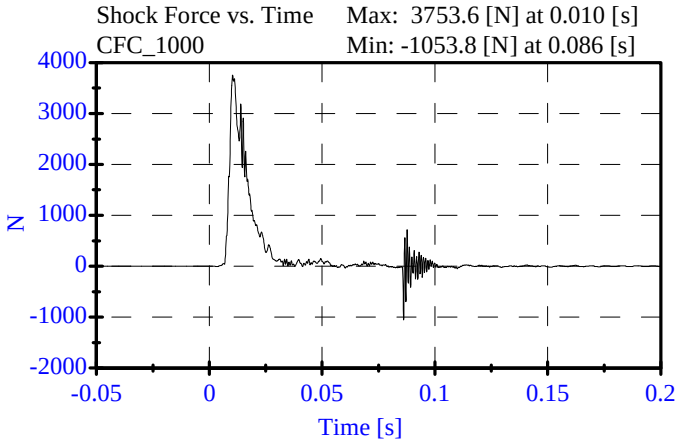
ATD Serial No: 270 Sequential Test Number: 1 File: 270 Shock High2 02-04

Date: February 4, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	19.00 %	Passed
Displacement:	33.00-40.00 mm	39.70 mm	Passed
Maximum Force:	3741.00-4448.00 N	3753.63 N	Passed

Impact Test Velocity: 6.10 m/s
Damper Identification: 270
Damper Setting: 5





Thorax Impact

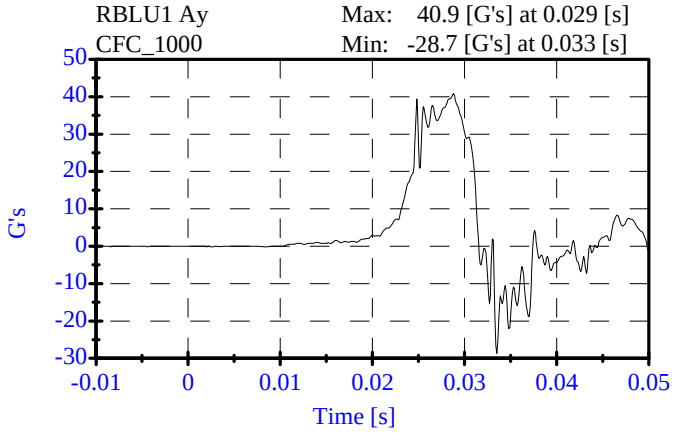
Pre-Test

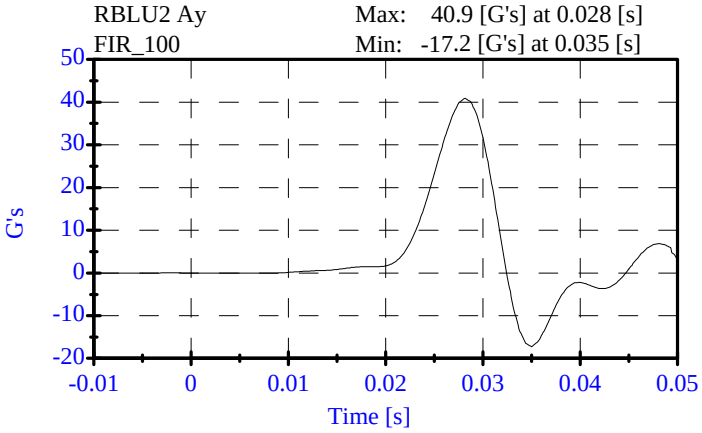
CONFIGURED FOR LEFT SIDE IMPACT

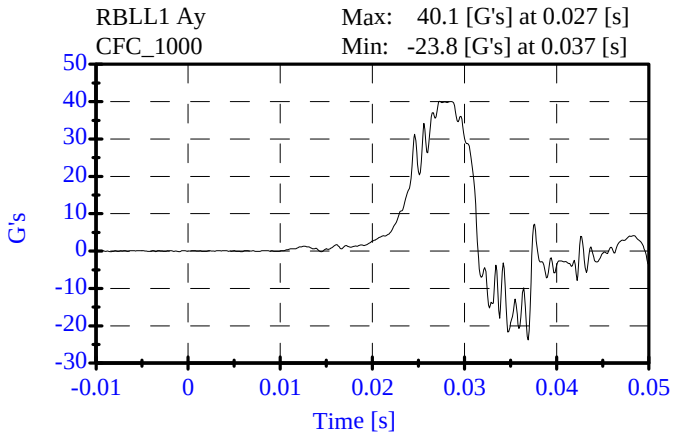
ATD Serial No: 270 Sequential Test Number: 1 File: 270T 01-28-08

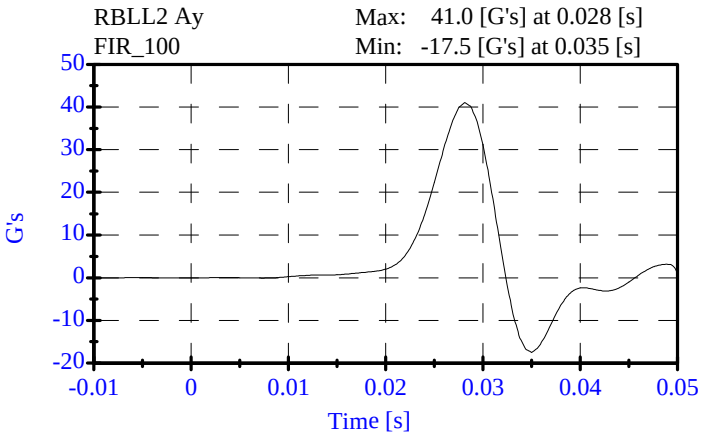
Date: January 28, 2008 Laboratory Technician: B. Swiecicki

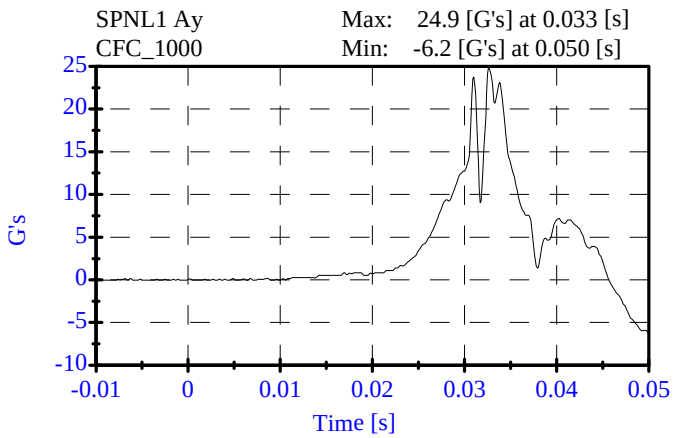
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.89 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.01 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.38 G's	Passed

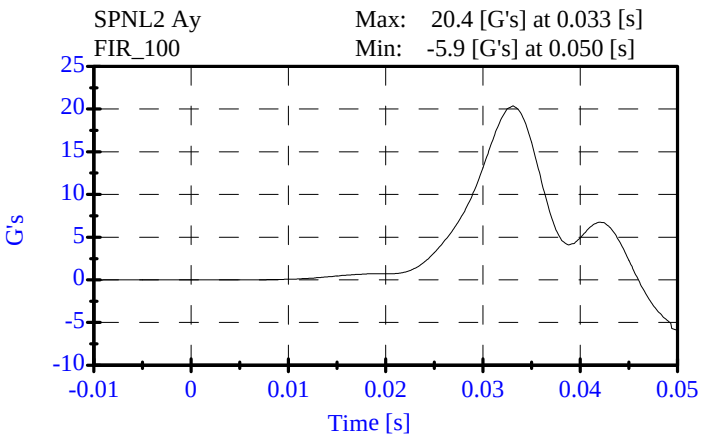












Pelvis Impact Test

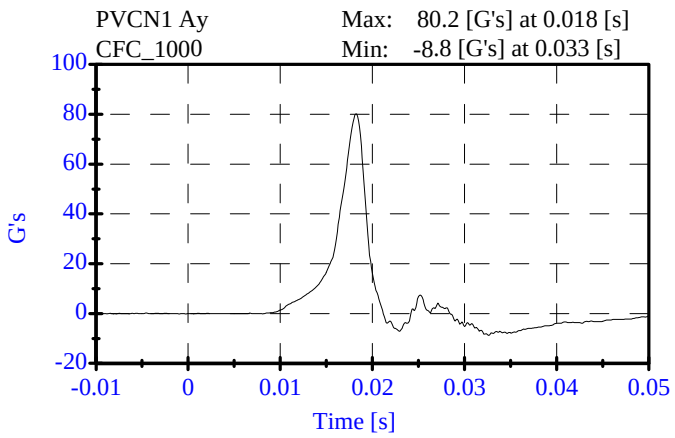
Pre-Test

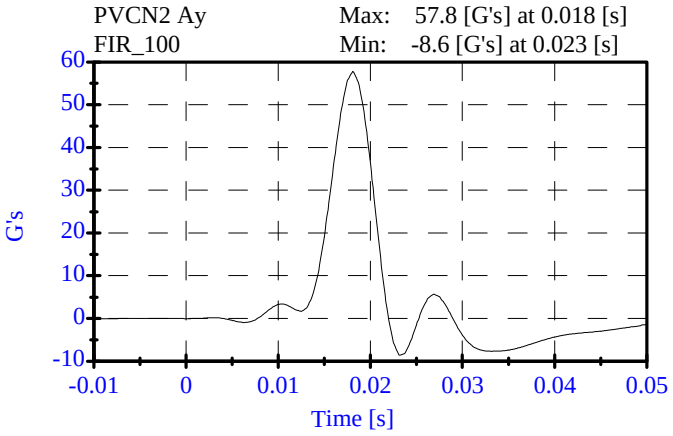
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270 Sequential Test Number: 1 File: 270P 01-28-08

Date: January 28, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	57.78 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.8 ms	Passed





Head Drop Test

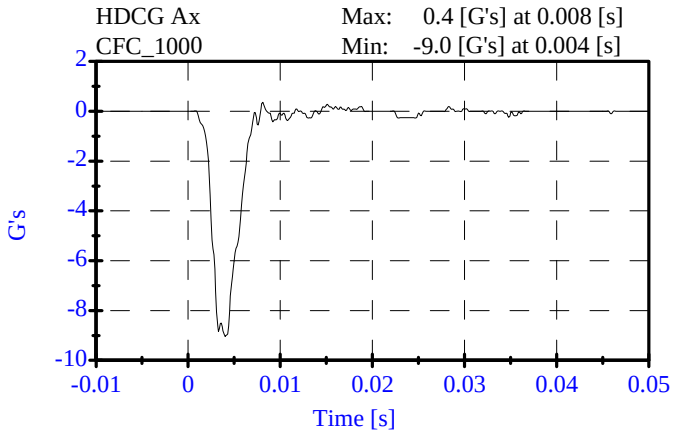
Pre-Test

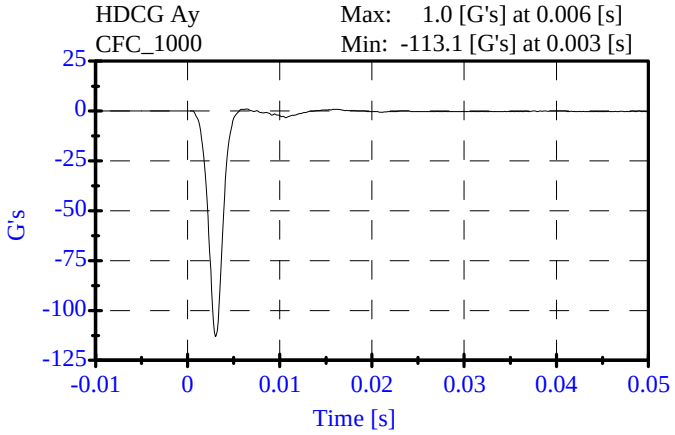
CONFIGURED FOR LEFT SIDE IMPACT

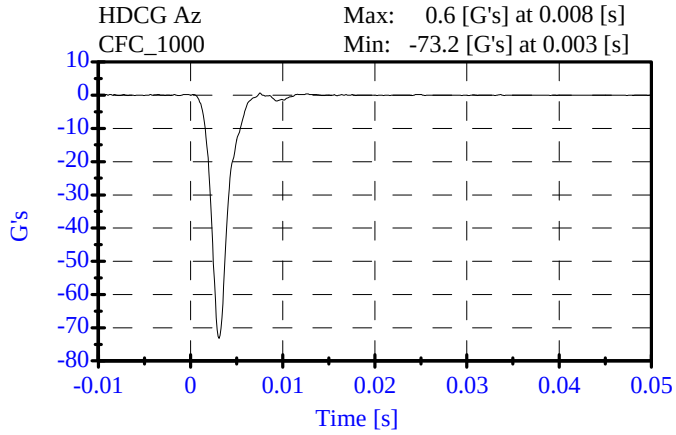
ATD Serial No: 270 Sequential Test Number: 1 File: 270H 01-25-08

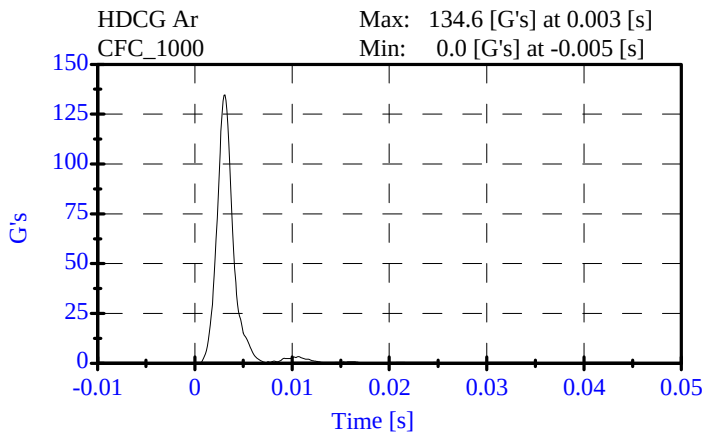
Date: January 25, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	134.65 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.36 Gs	Passed
Curve PerCent NonModal:	< 15%	2.50 %	Passed









Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270 Sequential Test Number: 1 File: 270N1 01-28-08

Date: January 28, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.05 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.17 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.02 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.02 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	67.01 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.10 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	87.38 N-m	Passed
Occiptal Moment Decay:	49.0-64.0 ms	52.20 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	9.10 ms	Passed

Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

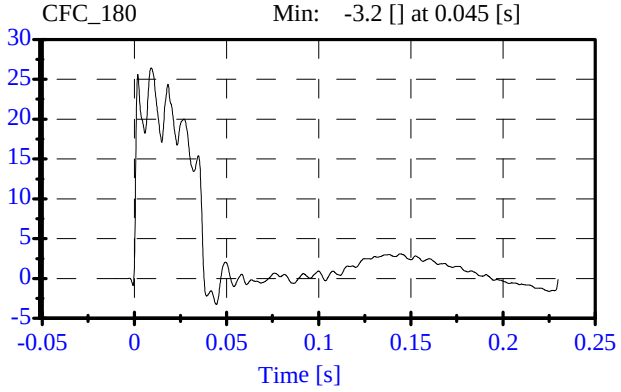
ATD Serial No: 270

Sequential Test Number: 1 File: 270N1 01-28-08

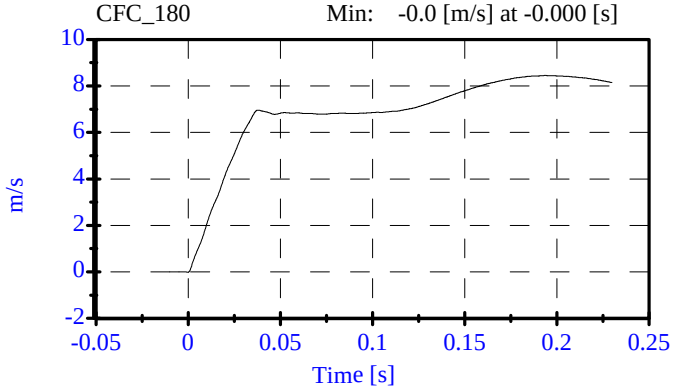
Date: January 28, 2008

Laboratory Technician: B. Swiecicki

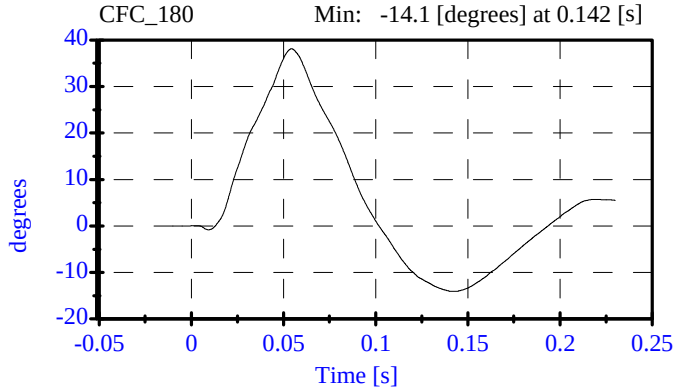
Pend Ax Max: 26.4 [] at 0.009 [s]
CFC_180 Min: -3.2 [] at 0.045 [s]



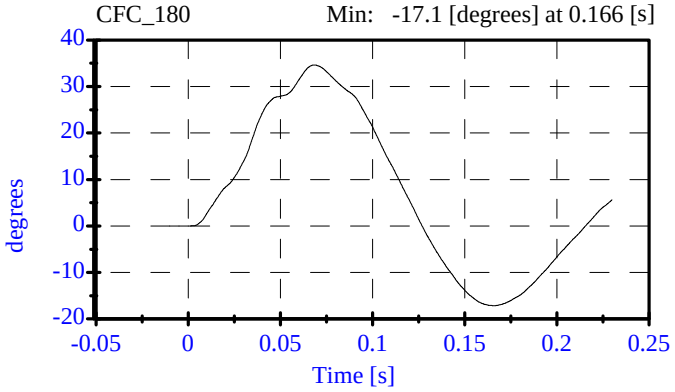
Pend Vx Max: 8.4 [m/s] at 0.194 [s]
CFC_180 Min: -0.0 [m/s] at -0.000 [s]



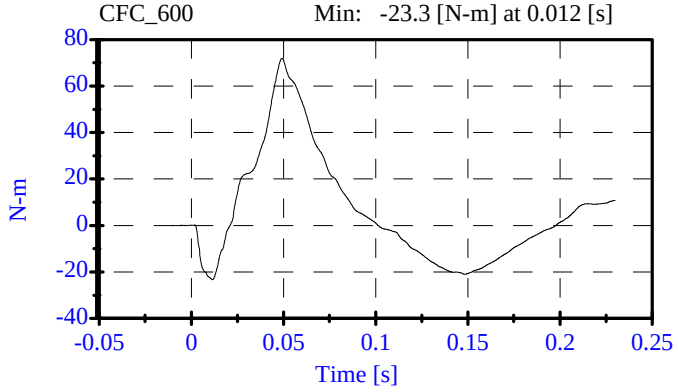
Head Rot Max: 38.1 [degrees] at 0.054 [s]
CFC_180 Min: -14.1 [degrees] at 0.142 [s]



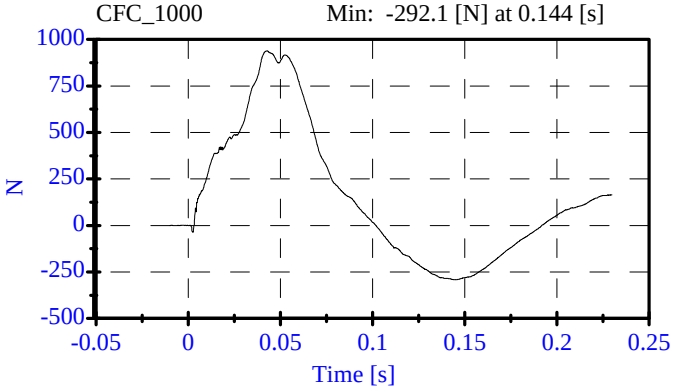
Arm Rot Max: 34.6 [degrees] at 0.069 [s]
CFC_180 Min: -17.1 [degrees] at 0.166 [s]



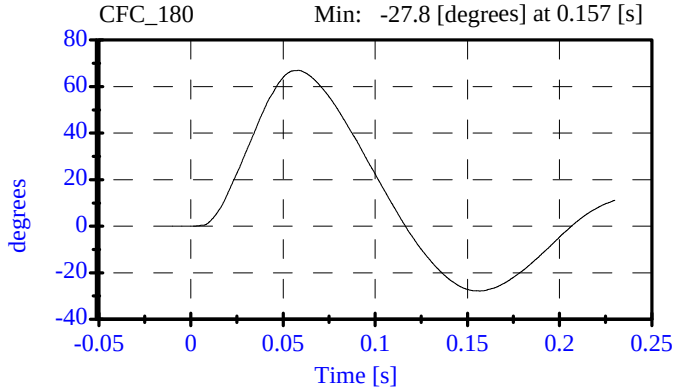
Neck Mx Max: 71.8 [N-m] at 0.049 [s]
CFC_600 Min: -23.3 [N-m] at 0.012 [s]



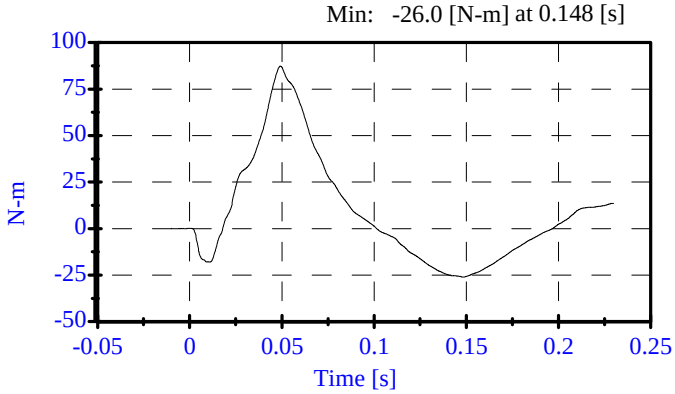
Neck Fy Max: 938.6 [N] at 0.043 [s]
CFC_1000 Min: -292.1 [N] at 0.144 [s]



Tot Rot Max: 67.0 [degrees] at 0.058 [s]
CFC_180 Min: -27.8 [degrees] at 0.157 [s]



MOCX Max: 87.4 [N-m] at 0.049 [s]
Min: -26.0 [N-m] at 0.148 [s]



Abdominal Compression Test

Pre-Test

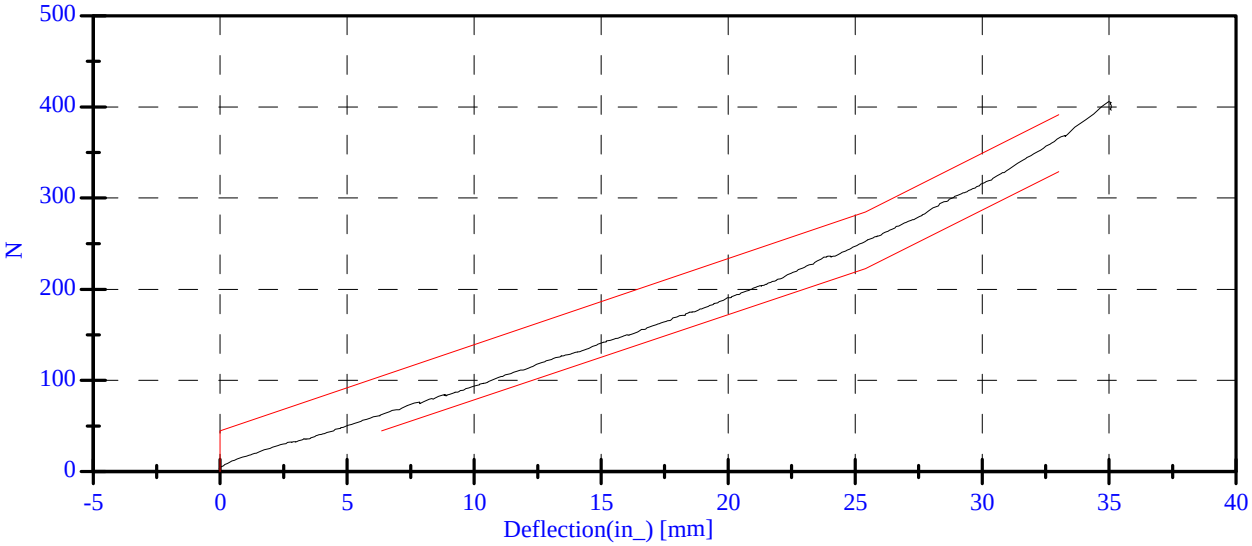
CONFIGURED FOR LEFT SIDE IMPACT

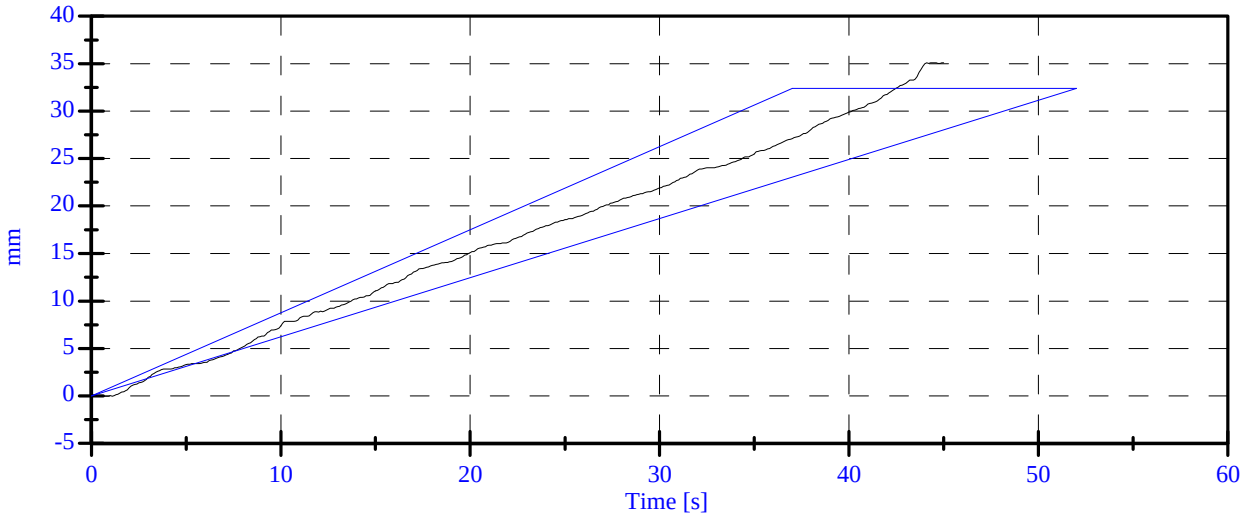
ATD Serial No: 270 Sequential Test Number: 1 File: 270 Ab 01-25-08

Date: January 25, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	123.05 N	Passed
Force at 19.05 mm :	162.98-220.99 N	178.87 N	Passed
Force at 25.40 mm :	221.97-280.02 N	252.09 N	Passed
Force at 33.02 mm :	324.99-391.00 N	364.82 N	Passed

ABDOMINAL COMPRESSION TEST





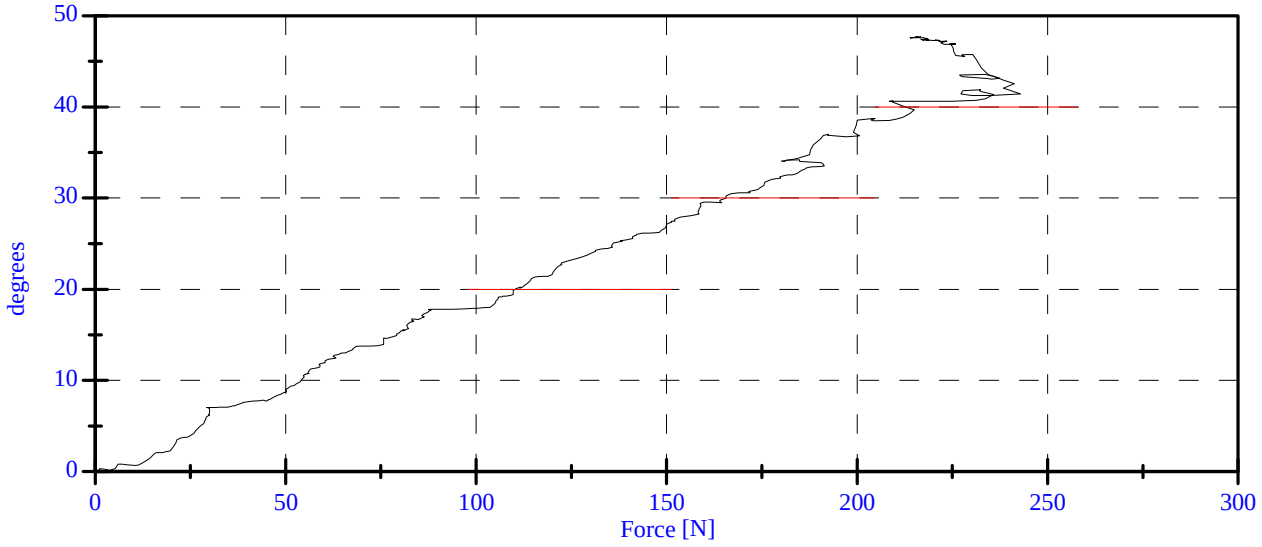
Lumbar Spine Test
Pre-Test

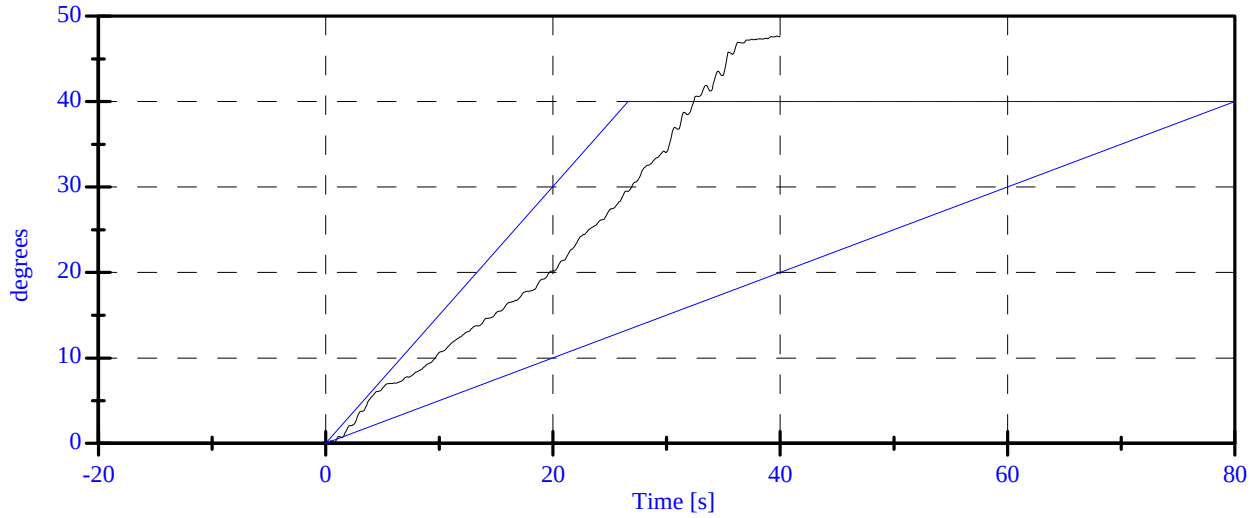
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Sequential Test Number: 1 File: 270 Spine 02-1-08
Date: February 01, 2008
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	18.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	2.35 N	Passed
Force at 20 Deg:	97.86-151.24 N	110.47 N	Passed
Force at 30 Deg	151.24-204.62 N	165.57 N	Passed
Force at 40 Deg	204.62-258.00 N	212.06 N	Passed
Return Angle	12 Deg Max	4.75 deg	Passed

LUMBAR SPINE FLEXION TEST





PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: February 4, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 12, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 12, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	900
RH- Rib Height (mm)	502 - 520	507
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	517
KV- Knee Pivot to Floor (mm)	490 - 505	494
HW- Hip Width (mm)	356 - 391	381

REMARKS: None

Thorax Impact

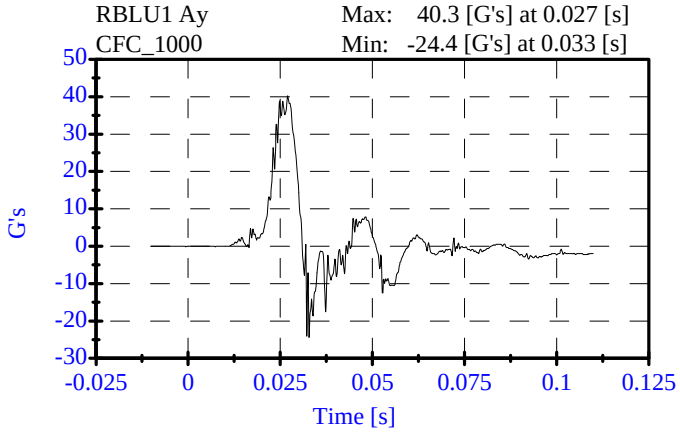
Post-Test

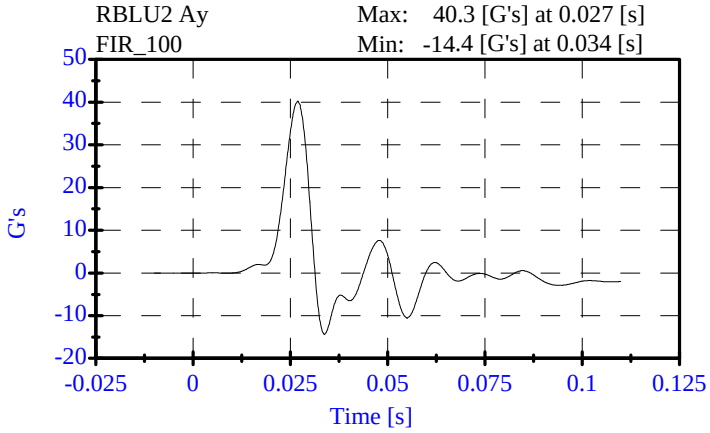
CONFIGURED FOR LEFT SIDE IMPACT

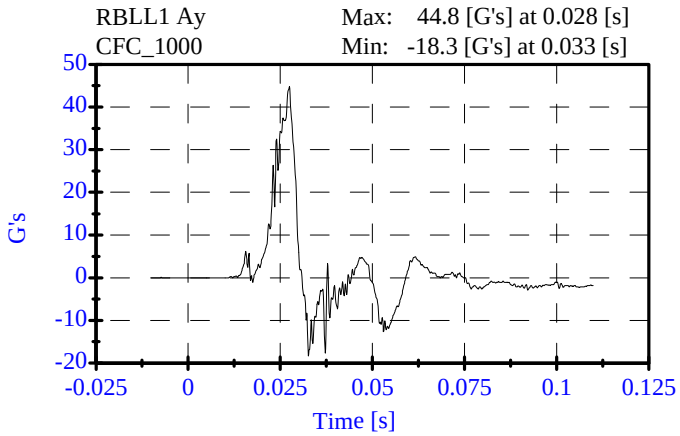
ATD Serial No: 269 Sequential Test Number: 1 File: 269T 03-10-08

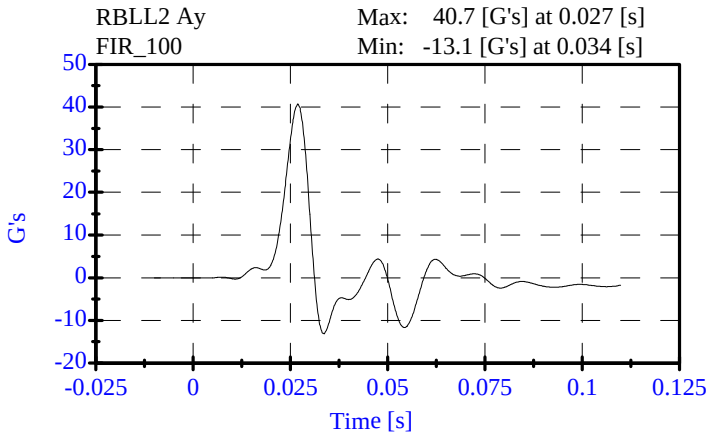
Date: 03-10-08 Laboratory Technician: B. Swiecicki

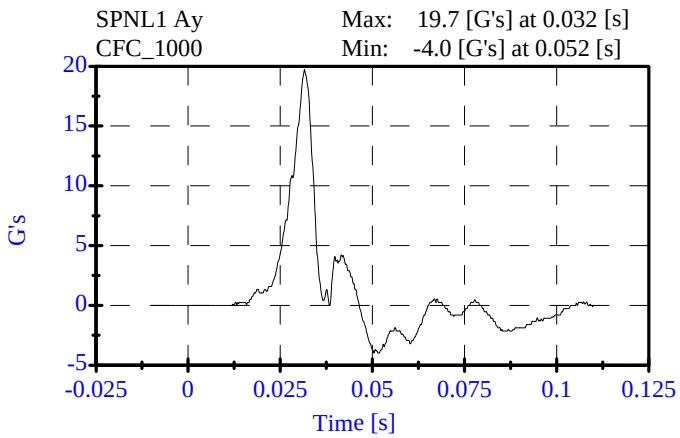
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.25 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	40.72 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.35 G's	Passed

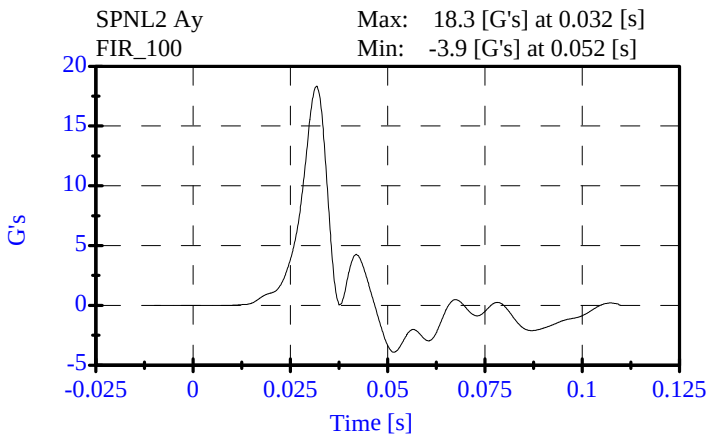












Pelvis Impact Test

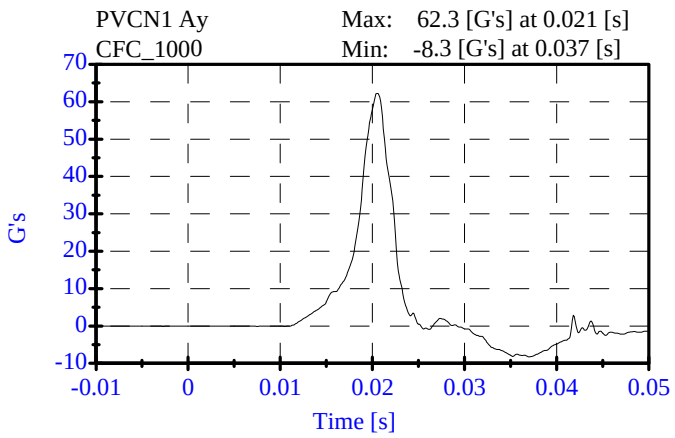
Post-Test

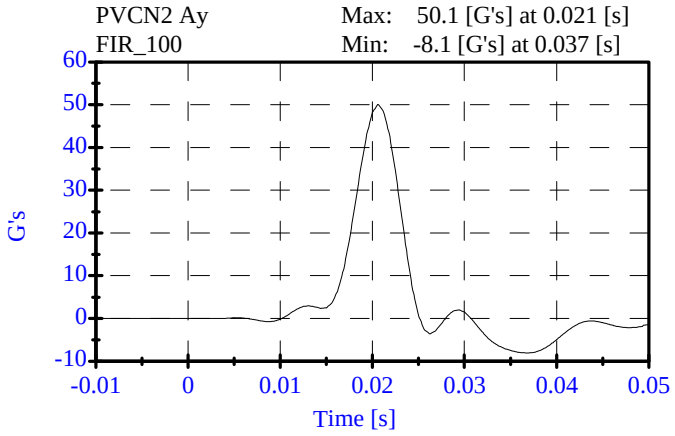
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269 Sequential Test Number: 1 File: 269P 03-10-08

Date: 03-10-08 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 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.08 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.8 ms	Passed





Head Drop Test

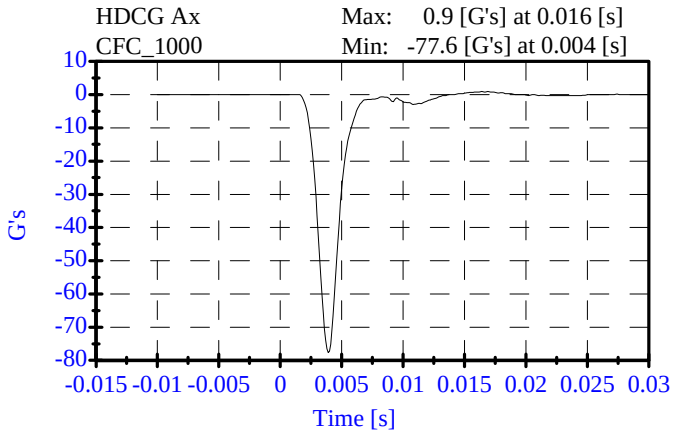
Post-Test

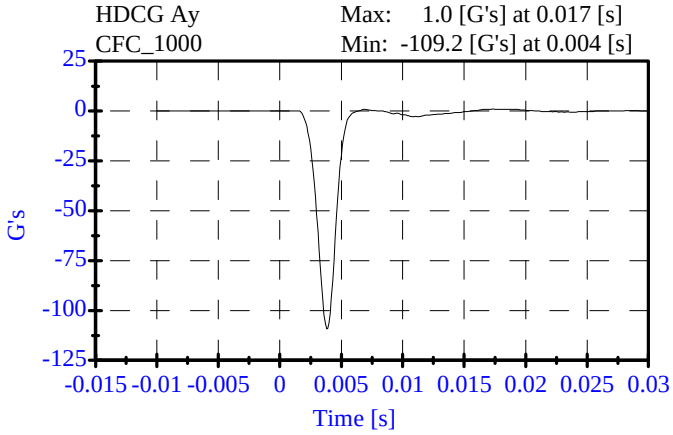
CONFIGURED FOR LEFT SIDE IMPACT

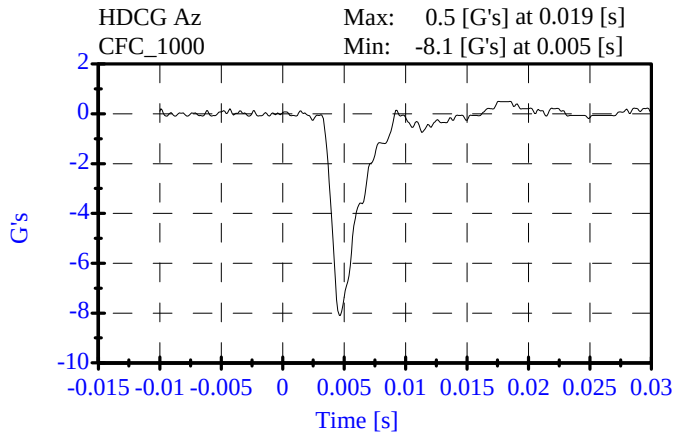
ATD Serial No: 269 Sequential Test Number: 1 File: 269H1 03-10-08

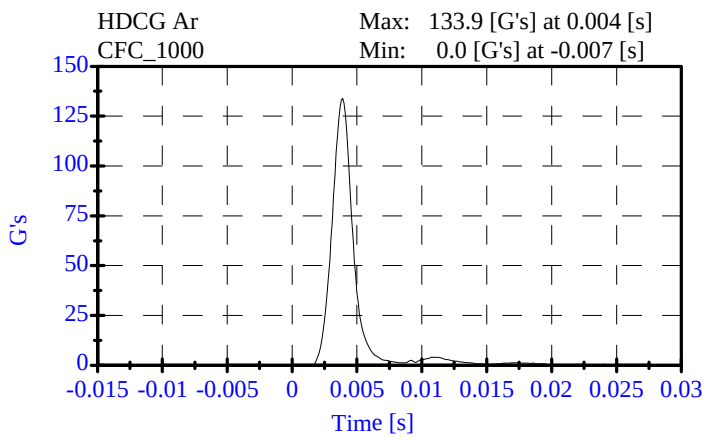
Date: 03-10-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	133.86 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	0.90 Gs	Passed
Curve PerCent NonModal:	< 15%	3.07 %	Passed









Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269 Sequential Test Number: 1 File: 269N1 03-11-08

Date: 03-11-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
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	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.40 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.82 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.66 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	70.03 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.10 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	76.03 N-m	Passed
Occiptal Moment Decay:	49.0-64.0 ms	58.60 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	10.00 ms	Passed

Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

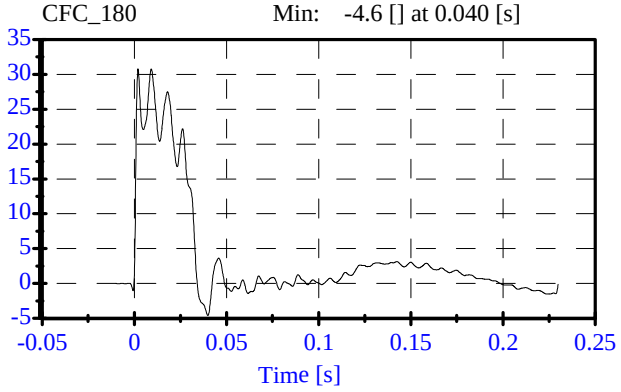
ATD Serial No: 269

Sequential Test Number: 1 File: 269N1 03-11-08

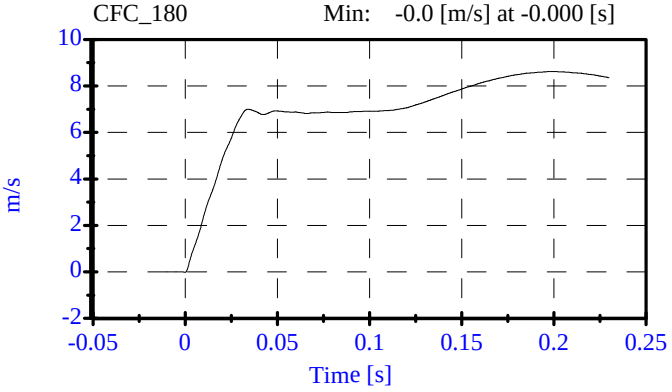
Date: 03-11-08

Laboratory Technician: B. Swiecicki

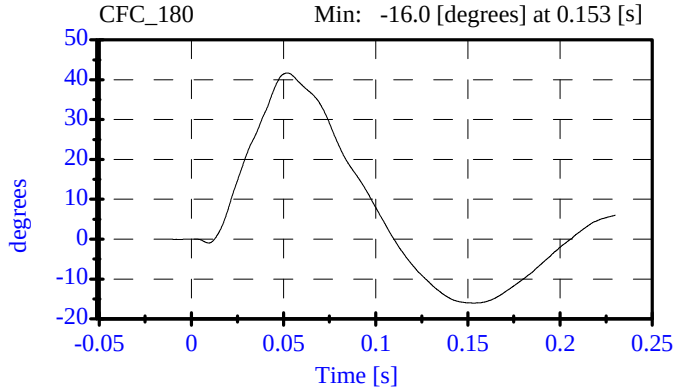
Pend Ax
CFC_180
Max: 30.8 [] at 0.009 [s]
Min: -4.6 [] at 0.040 [s]



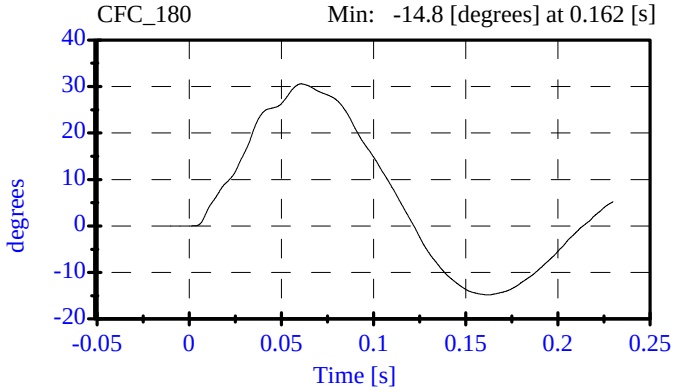
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



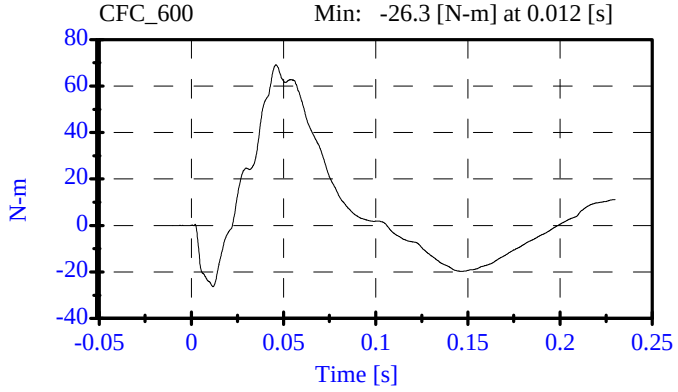
Head Rot
CFC_180
Max: 41.7 [degrees] at 0.052 [s]
Min: -16.0 [degrees] at 0.153 [s]



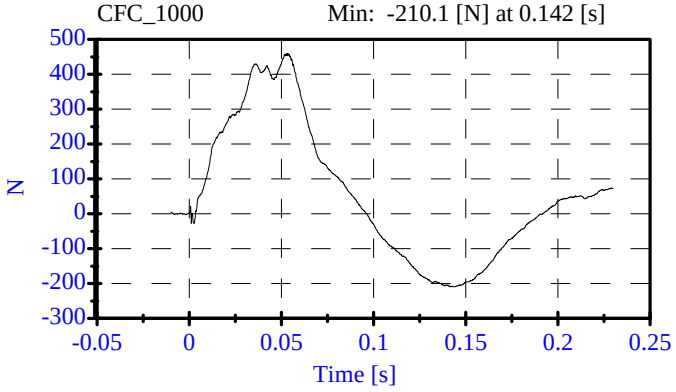
Arm Rot
CFC_180
Max: 30.6 [degrees] at 0.061 [s]
Min: -14.8 [degrees] at 0.162 [s]



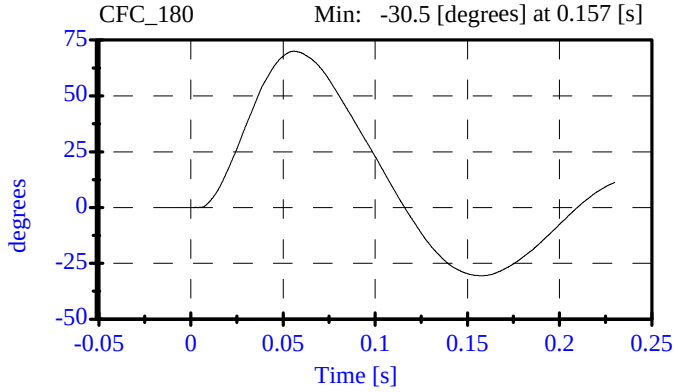
Neck Mx
CFC_600
Max: 69.2 [N-m] at 0.046 [s]
Min: -26.3 [N-m] at 0.012 [s]



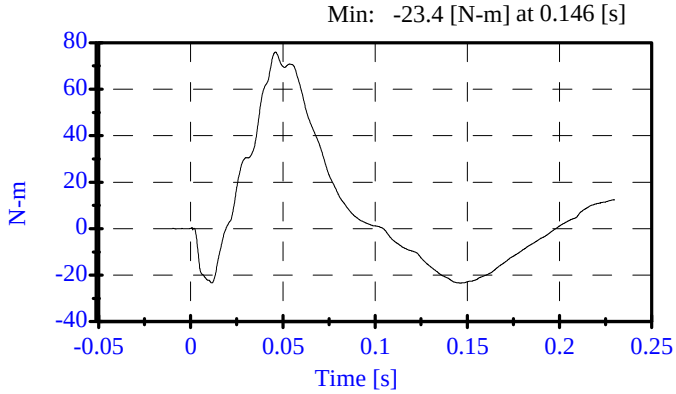
Neck Fy
CFC_1000
Max: 460.5 [N] at 0.053 [s]
Min: -210.1 [N] at 0.142 [s]



Tot Rot
CFC_180
Max: 70.0 [degrees] at 0.056 [s]
Min: -30.5 [degrees] at 0.157 [s]



MOCX
Max: 76.0 [N-m] at 0.046 [s]
Min: -23.4 [N-m] at 0.146 [s]



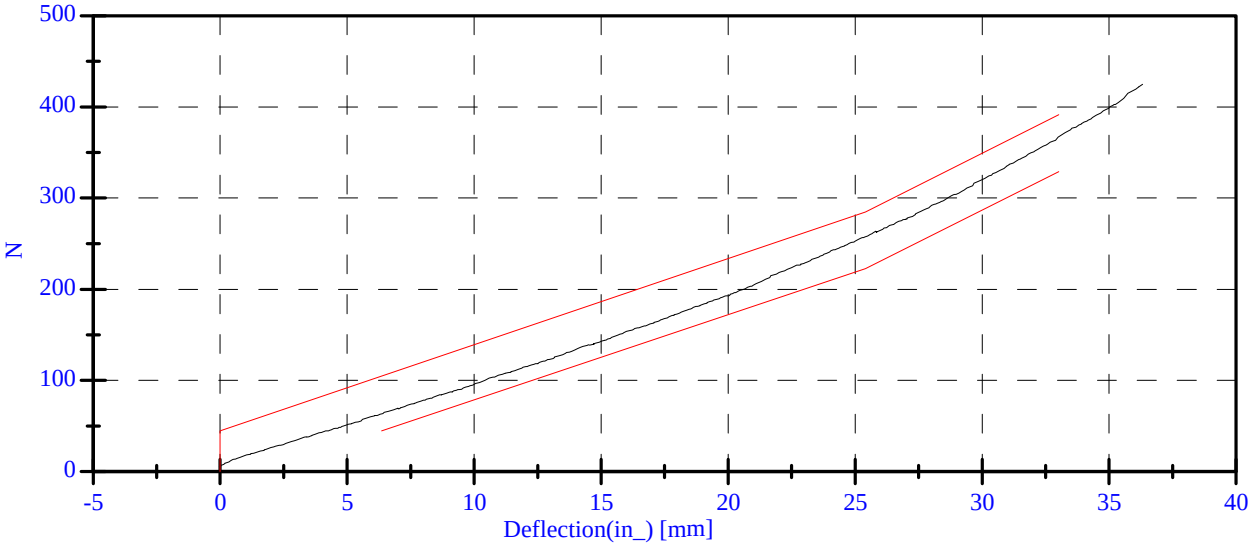
Abdominal Compression Test
Post-Test

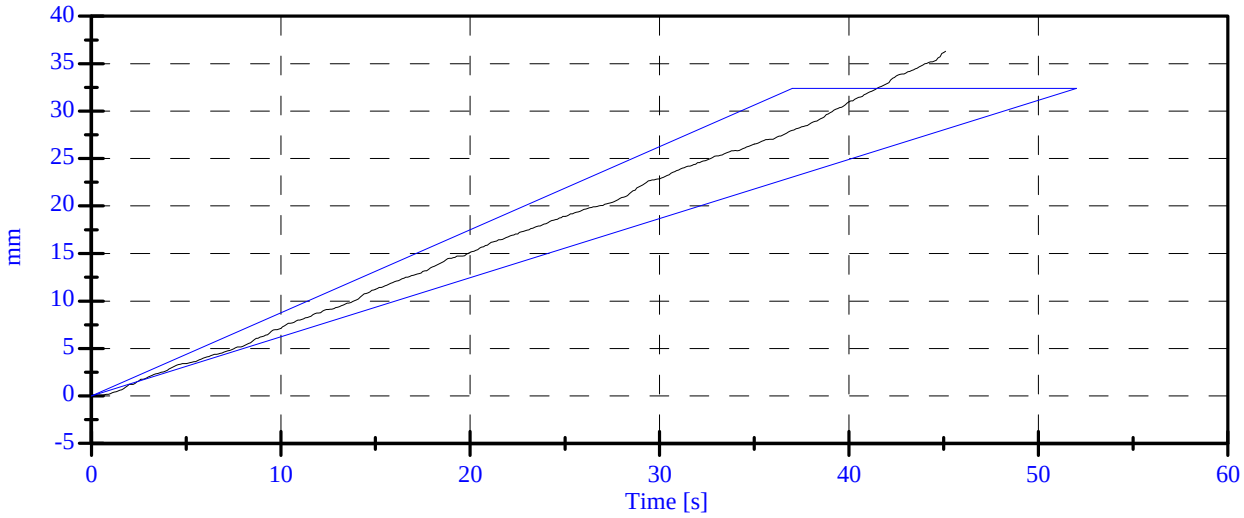
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269 Sequential Test Number: 1 File: 269 Ab 03-11-08
Date: 03-11-08 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 %	33.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	123.05 N	Passed
Force at 19.05 mm :	162.98-220.99 N	183.94 N	Passed
Force at 25.40 mm :	221.97-280.02 N	257.53 N	Passed
Force at 33.02 mm :	324.99-391.00 N	367.00 N	Passed

ABDOMINAL COMPRESSION TEST





Lumbar Spine Test
Post-Test

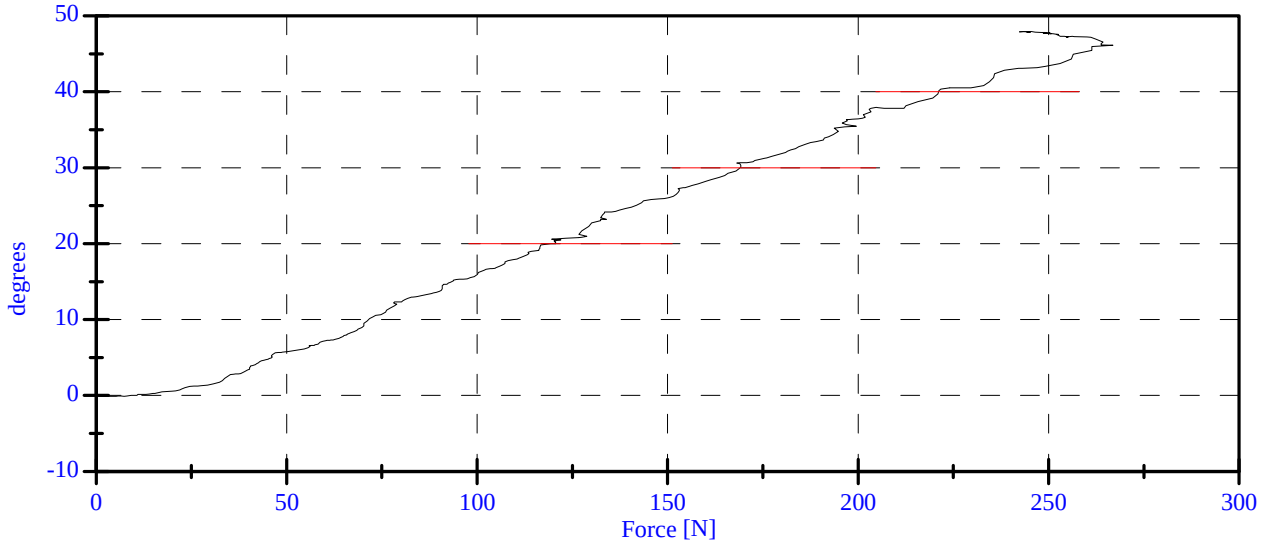
CONFIGURED FOR LEFT SIDE IMPACT

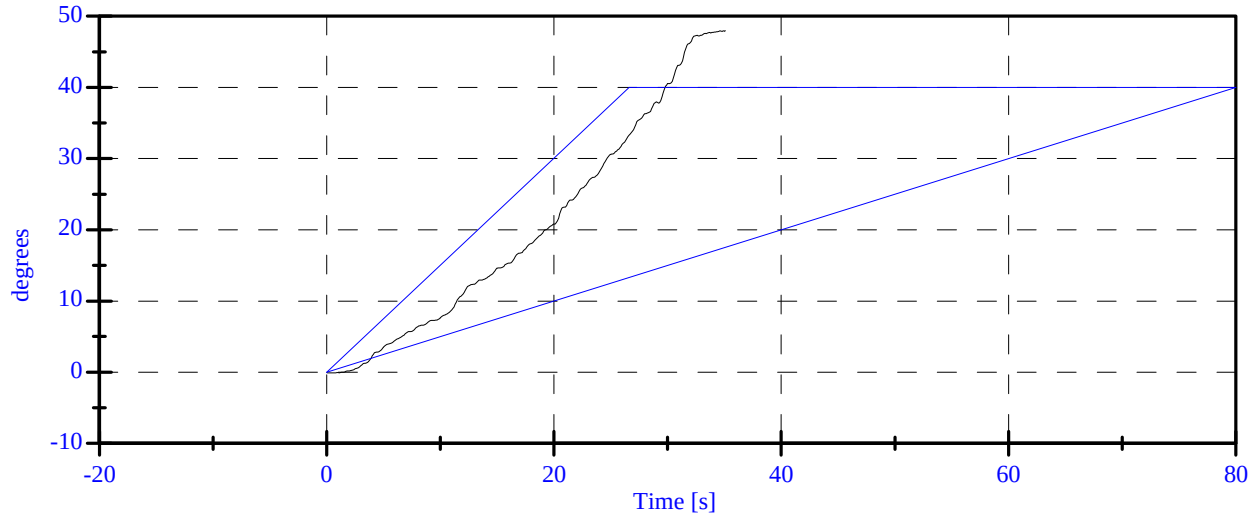
ATD Serial No: 269
Date: 03-11-08

Sequential Test Number: 1 File: 269 Spine 03-11-08
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 %	33.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	9.14 N	Passed
Force at 20 Deg:	97.86-151.24 N	119.35 N	Passed
Force at 30 Deg	151.24-204.62 N	169.23 N	Passed
Force at 40 Deg	204.62-258.00 N	221.20 N	Passed
Return Angle	12 Deg Max	5.37 deg	Passed

LUMBAR SPINE FLEXION TEST





POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 12, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 2
Date: March 12, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 2
Date: March 12, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	506
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	233
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	494
HW- Hip Width (mm)	356 - 391	383

REMARKS: None

Thorax Impact Test

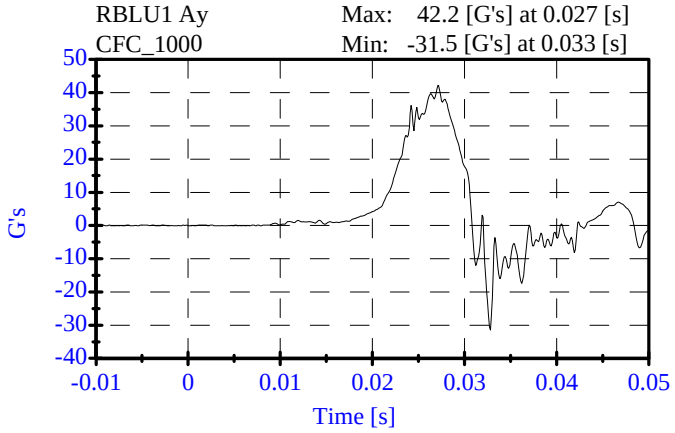
Post-Test

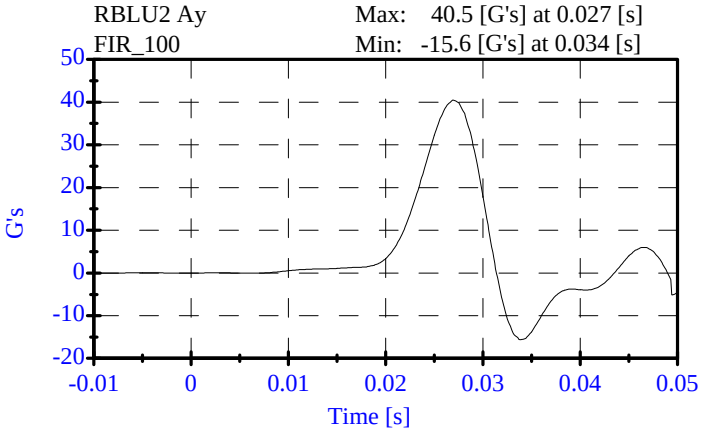
CONFIGURED FOR LEFT SIDE IMPACT

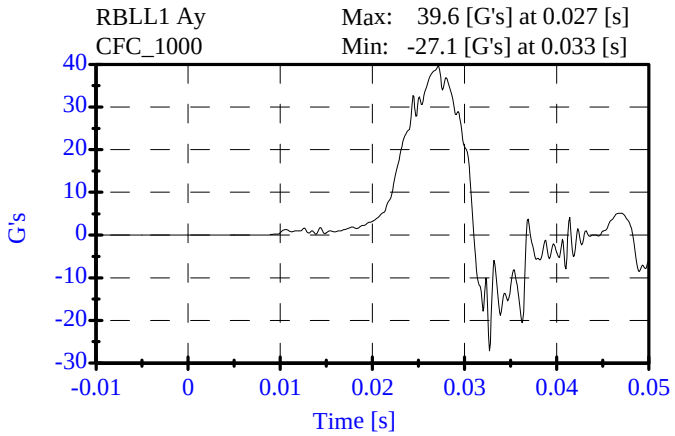
ATD Serial No: 270 Sequential Test Number: 1 File: 270T 03-10-08

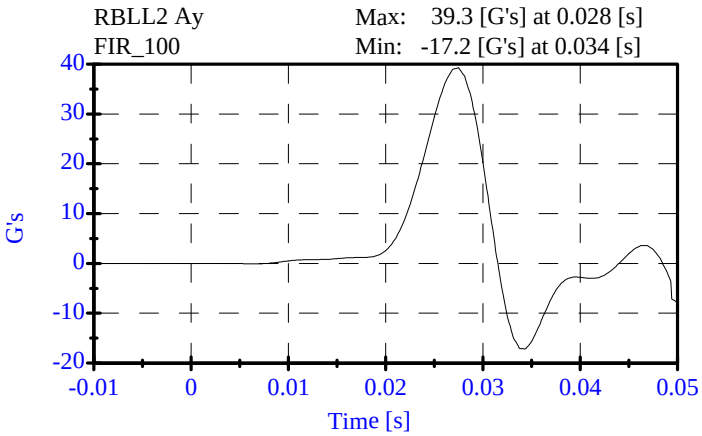
Date: 03-10-08 Laboratory Technician: B. Swiecicki

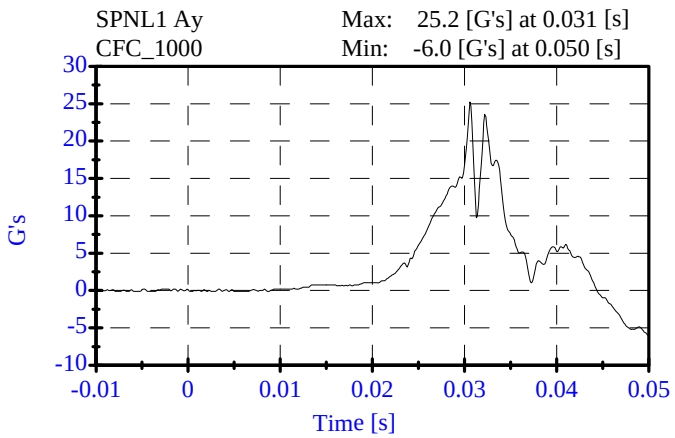
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.49 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.28 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.86 G's	Passed

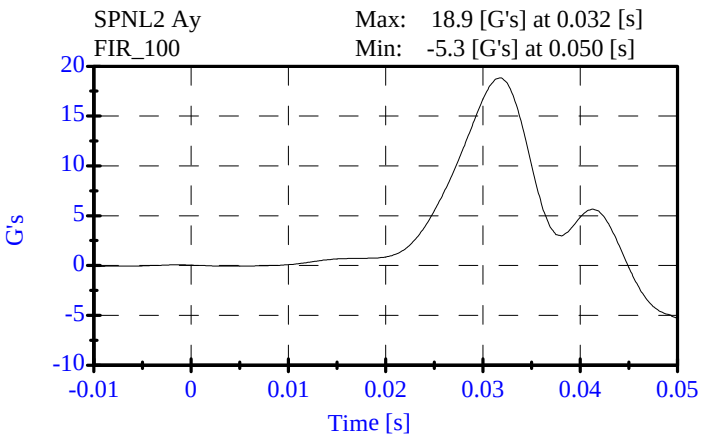












Pelvis Impact Test

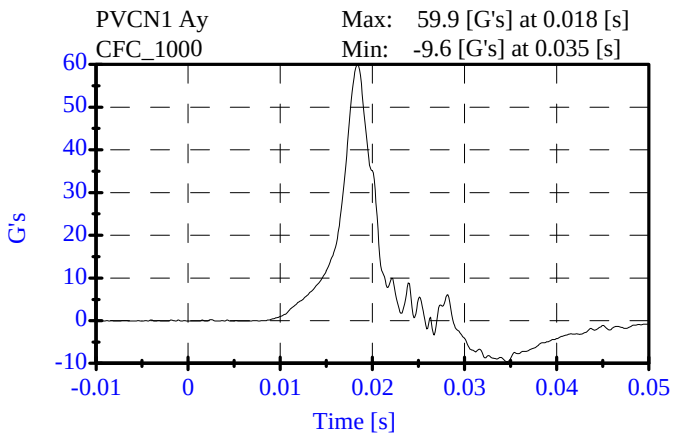
Post-Test

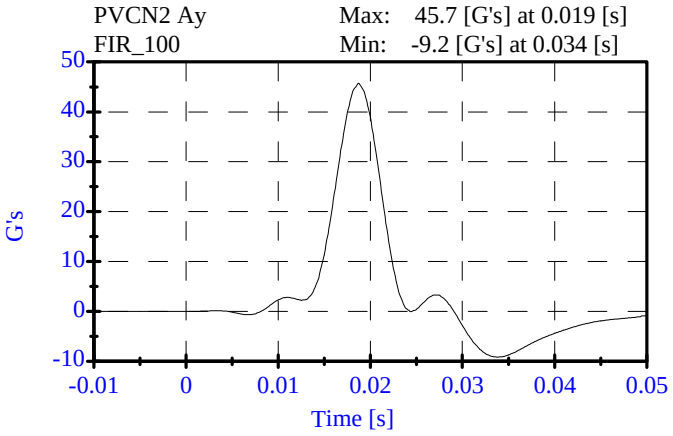
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270 Sequential Test Number: 1 File: 270P 03-10-08

Date: 03-10-08 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 %	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	45.69 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.7 ms	Passed





Head Drop Test

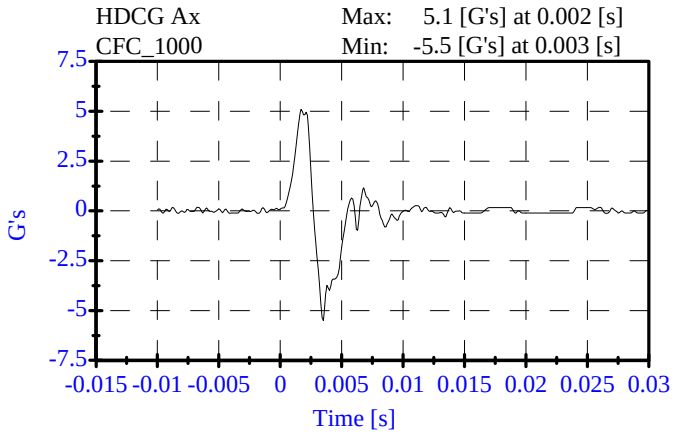
Post-Test

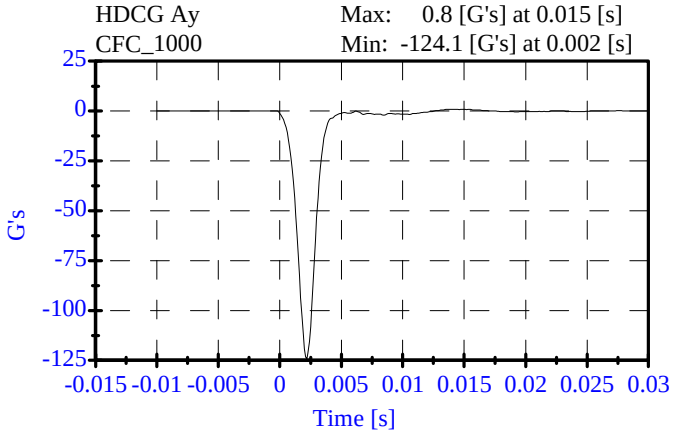
CONFIGURED FOR LEFT SIDE IMPACT

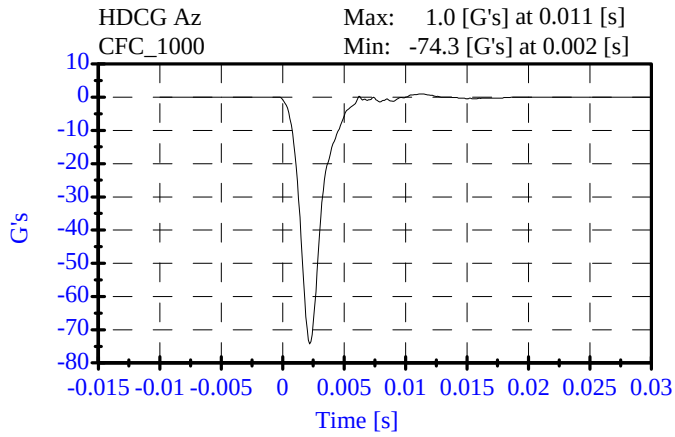
ATD Serial No: 270 Sequential Test Number: 1 File: 270H 03-10-08

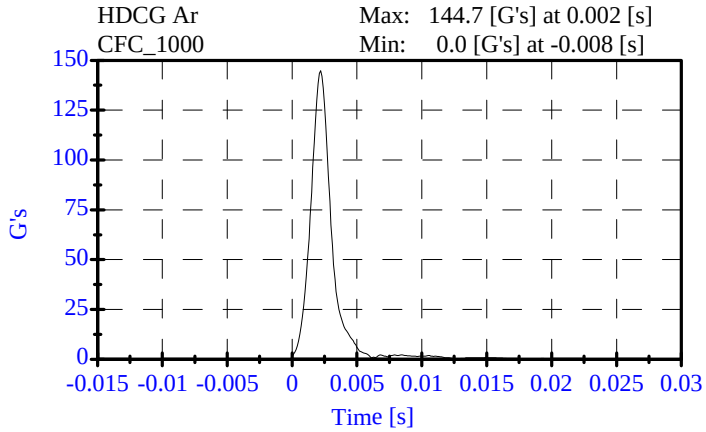
Date: 03-10-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	144.71 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	5.09 Gs	Passed
Curve PerCent NonModal:	< 15%	1.57 %	Passed









Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270 Sequential Test Number: 1 File: 270N 03-11-08

Date: 03-11-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
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	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.34 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.80 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.81 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	69.25 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.10 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	76.06 N-m	Passed
Occiptal Moment Decay:	49.0-64.0 ms	54.90 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	9.30 ms	Passed

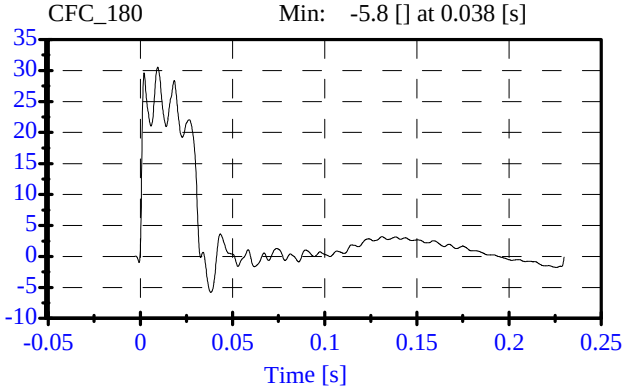
Neck Test
Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

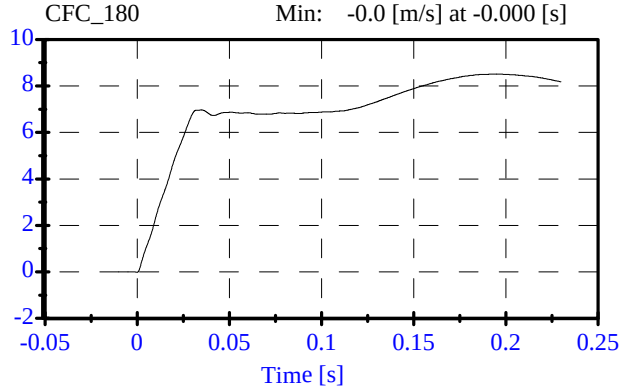
ATD Serial No: 270
Date: 03-11-08

Sequential Test Number: 1 File: 270N 03-11-08
Laboratory Technician: B. Swiecicki

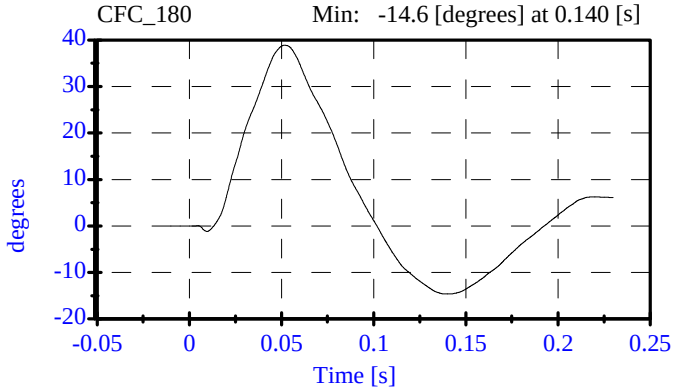
Pend Ax
CFC_180
Max: 30.5 [] at 0.009 [s]
Min: -5.8 [] at 0.038 [s]



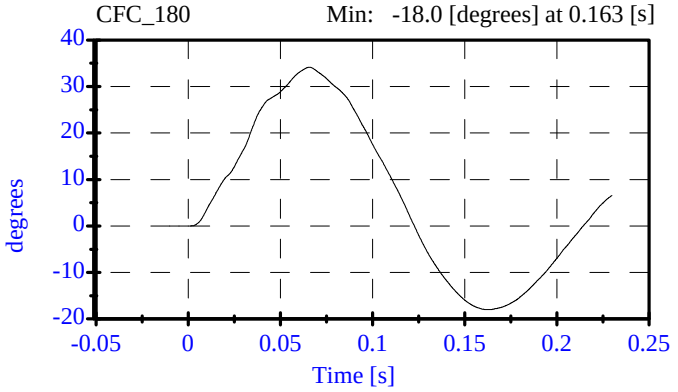
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.194 [s]
Min: -0.0 [m/s] at -0.000 [s]



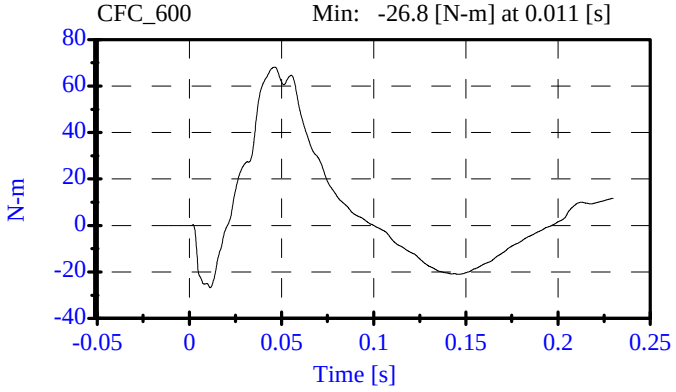
Head Rot
CFC_180
Max: 38.9 [degrees] at 0.052 [s]
Min: -14.6 [degrees] at 0.140 [s]



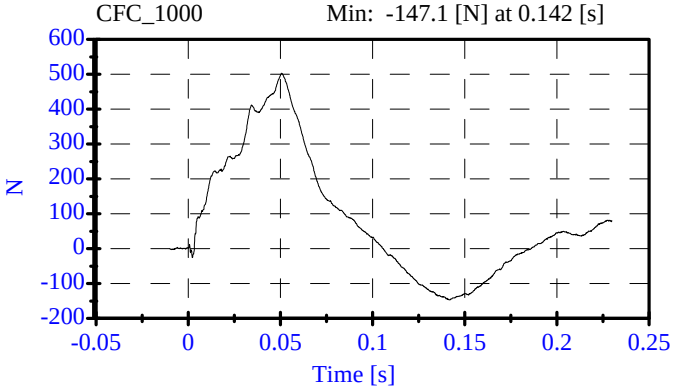
Arm Rot
CFC_180
Max: 34.1 [degrees] at 0.066 [s]
Min: -18.0 [degrees] at 0.163 [s]



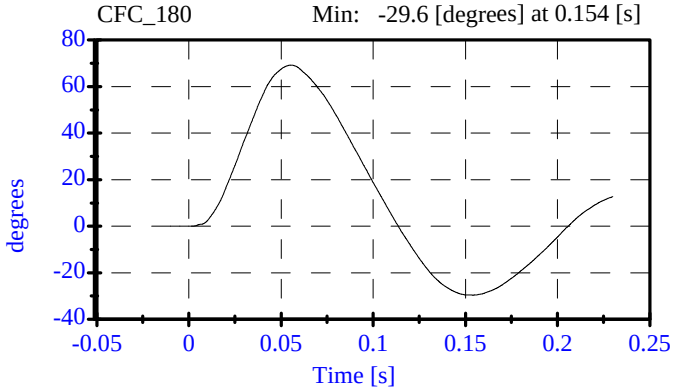
Neck Mx
CFC_600
Max: 68.2 [N-m] at 0.046 [s]
Min: -26.8 [N-m] at 0.011 [s]



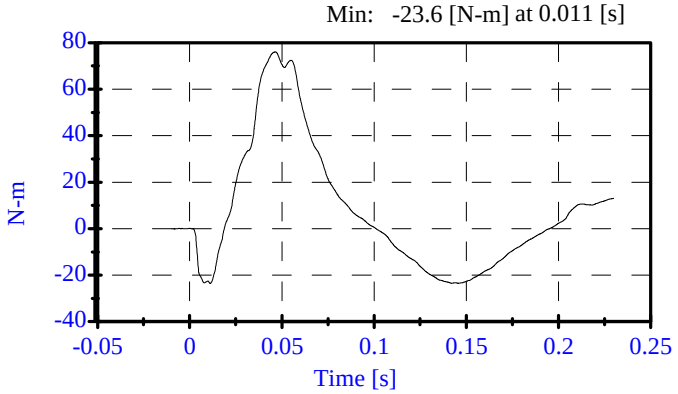
Neck Fy
CFC_1000
Max: 502.9 [N] at 0.051 [s]
Min: -147.1 [N] at 0.142 [s]



Tot Rot
CFC_180
Max: 69.2 [degrees] at 0.055 [s]
Min: -29.6 [degrees] at 0.154 [s]



MOCX
Max: 76.1 [N-m] at 0.046 [s]
Min: -23.6 [N-m] at 0.011 [s]



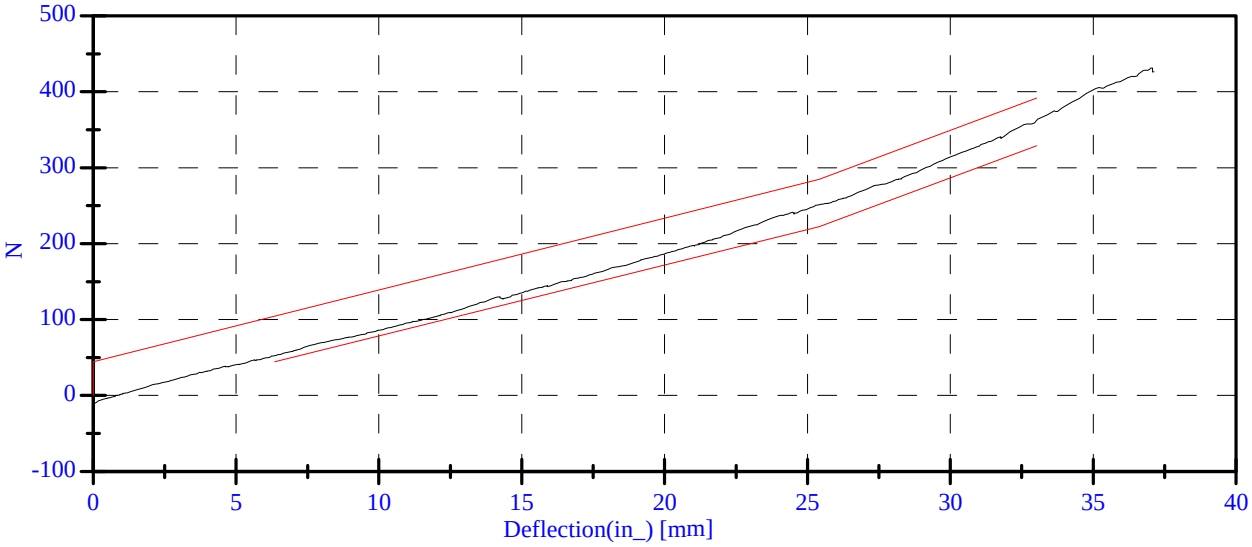
Abdominal Compression Test
Post-Test

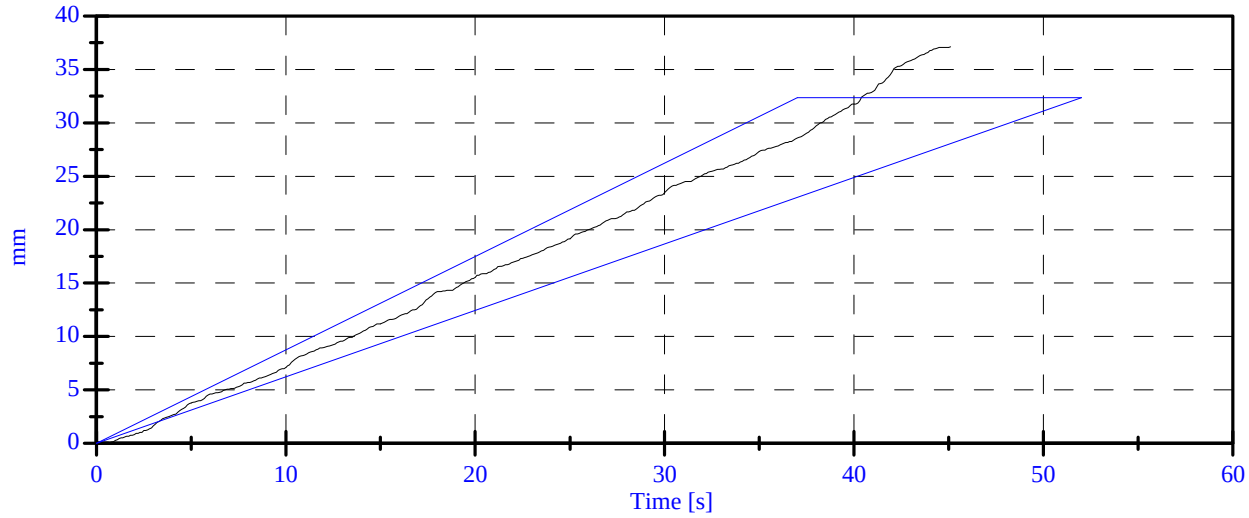
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270 Sequential Test Number: 1 File: 270 Ab 03-11-08
Date: 03-11-08 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 %	33.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	115.07 N	Passed
Force at 19.05 mm :	162.98-220.99 N	175.97 N	Passed
Force at 25.40 mm :	221.97-280.02 N	251.00 N	Passed
Force at 33.02 mm :	324.99-391.00 N	363.73 N	Passed

ABDOMINAL COMPRESSION TEST





Lumbar Spine Test
Post-Test

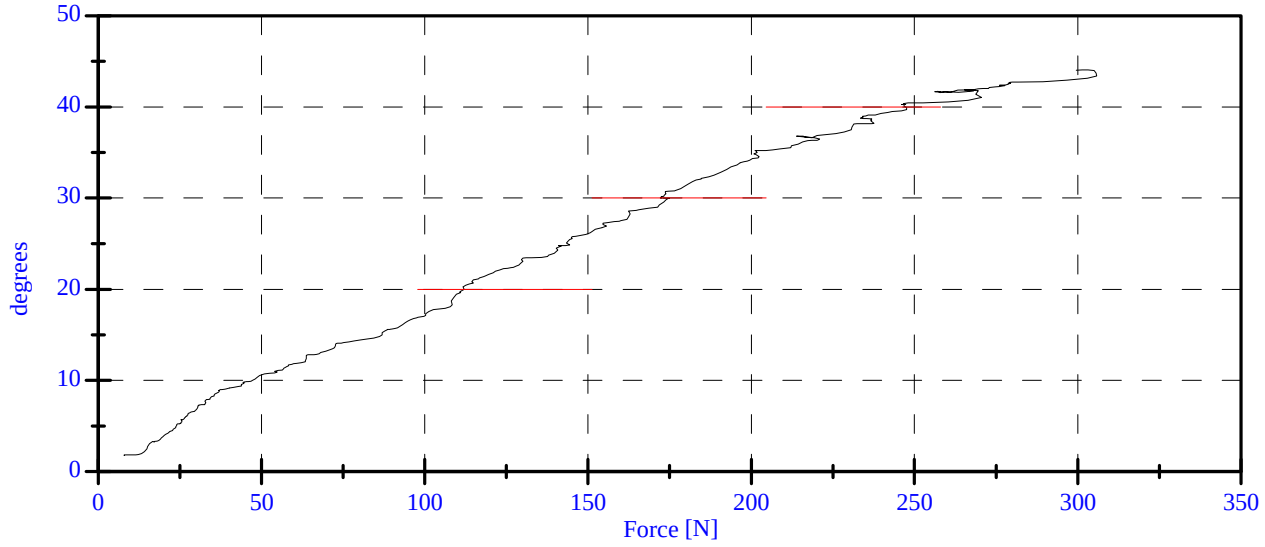
CONFIGURED FOR LEFT SIDE IMPACT

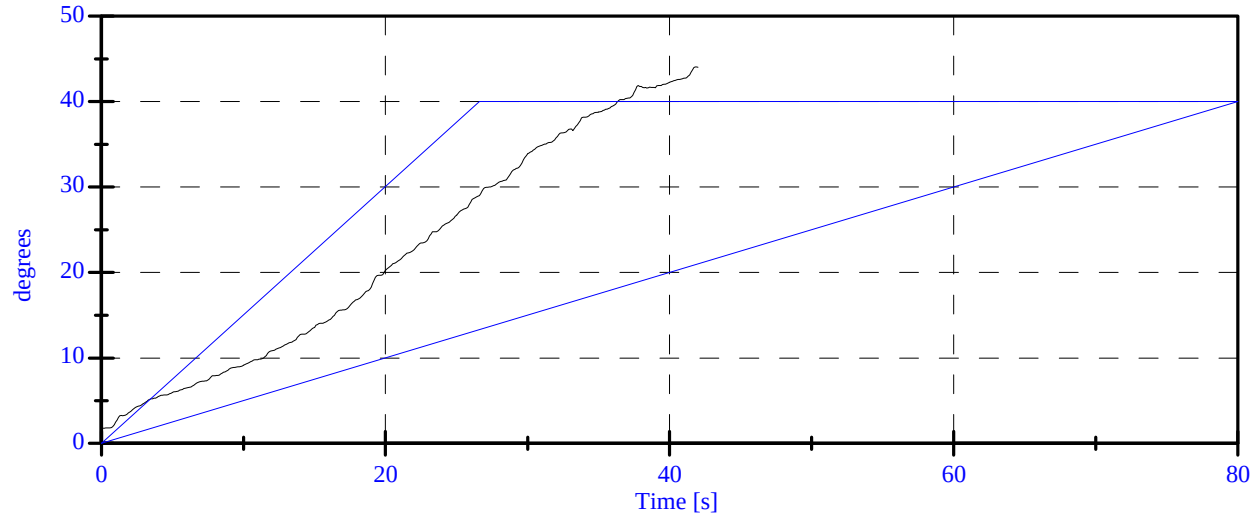
ATD Serial No: 270
Date: 03-10-08

Sequential Test Number: 1 File: 270 Spine 03-10-08
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 %	33.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	8.09 N	Passed
Force at 20 Deg:	97.86-151.24 N	112.03 N	Passed
Force at 30 Deg	151.24-204.62 N	174.97 N	Passed
Force at 40 Deg	204.62-258.00 N	247.57 N	Passed
Return Angle	12 Deg Max	5.29 deg	Passed

LUMBAR SPINE FLEXION TEST





POST TEST DUMMY INSPECTION LIST

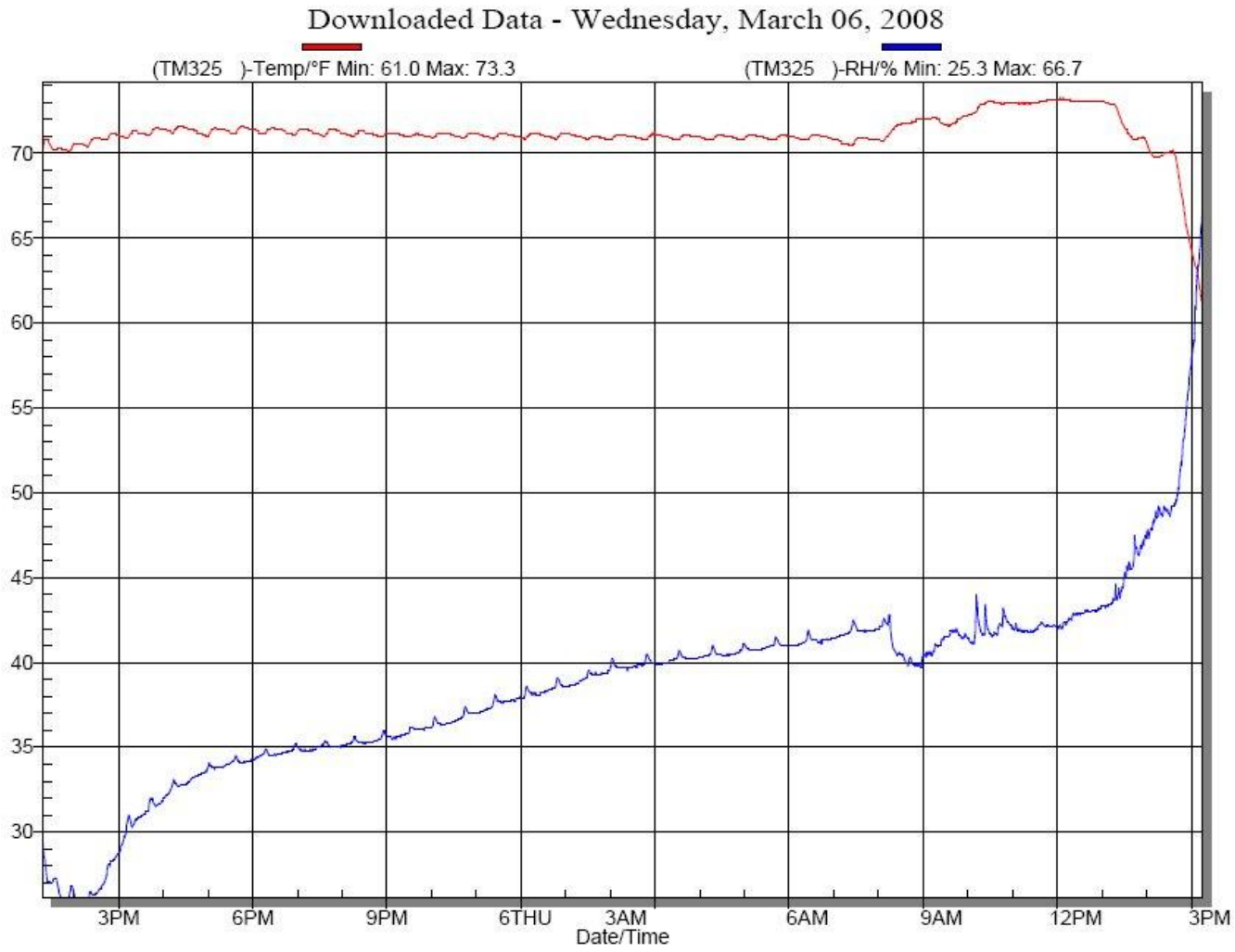
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 2
Date: March 12, 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



APPENDIX D

TEST EQUIPMENT AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID/HIII INSTRUMENTATION

	FRONT SID/HIII NO.: 269		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P35811	ENDEVCO	21-Jan-08
HEAD AY	AC-P35789	ENDEVCO	21-Jan-08
HEAD AZ	AC-P35803	ENDEVCO	21-Jan-08
UPPER NECK FX	LC-442Fx	DENTON	03-Jan-08
UPPER NECK FY	LC-442Fy	DENTON	03-Jan-08
UPPER NECK FZ	LC-442Fz	DENTON	03-Jan-08
UPPER NECK MX	LC-442Mx	DENTON	03-Jan-08
UPPER NECK MY	LC-442My	DENTON	03-Jan-08
UPPER NECK MZ	LC-442Mz	DENTON	03-Jan-08
UPPER RIB	AC-P32197	ENDEVCO	21-Jan-08
LOWER RIB	AC-P38896	ENDEVCO	21-Jan-08
LOWER SPINE	AC-P38188	ENDEVCO	21-Jan-08
PELVIS	AC-P38132	ENDEVCO	21-Jan-08
HEAD AX REDUNDANT	AC-P52409	ENDEVCO	17-Jan-08
HEAD AY REDUNDANT	AC-P52383	ENDEVCO	17-Jan-08
HEAD AZ REDUNDANT	AC-P52391	ENDEVCO	28-Jan-08
UPPER RIB REDUNDANT	AC-P39740	ENDEVCO	21-Jan-08
LOWER RIB REDUNDANT	AC-P35786	ENDEVCO	21-Jan-08
LOWER SPINE REDUNDANT	AC-P38216	ENDEVCO	21-Jan-08
PELVIS REDUNDANT	AC-P35757	ENDEVCO	21-Jan-08

	REAR SID/HIII NO.: 270		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P35812	ENDEVCO	11-Sep-07
HEAD AY	AC-P35761	ENDEVCO	09-Oct-07
HEAD AZ	AC-P19212	ENDEVCO	11-Sep-07
UPPER NECK FX	LC-1629Fx	DENTON	03-Jan-08
UPPER NECK FY	LC-1629Fy	DENTON	03-Jan-08
UPPER NECK FZ	LC-1629Fz	DENTON	03-Jan-08
UPPER NECK MX	LC-1629Mx	DENTON	03-Jan-08
UPPER NECK MY	LC-1629My	DENTON	03-Jan-08
UPPER NECK MZ	LC-1629Mz	DENTON	03-Jan-08
UPPER RIB	AC-P18558	ENDEVCO	11-Sep-07
LOWER RIB	AC-P18537	ENDEVCO	12-Oct-07
LOWER SPINE	AC-P18639	ENDEVCO	11-Sep-07
PELVIS	AC-P21171	ENDEVCO	11-Sep-07
HEAD AX REDUNDANT	AC-P18533	ENDEVCO	24-Jan-08
HEAD AY REDUNDANT	AC-P32453	ENDEVCO	24-Jan-08
HEAD AZ REDUNDANT	AC-P18531	ENDEVCO	24-Jan-08
UPPER RIB REDUNDANT	AC-P35818	ENDEVCO	11-Sep-07
LOWER RIB REDUNDANT	AC-P19222	ENDEVCO	12-Oct-07
LOWER SPINE REDUNDANT	AC-P16576	ENDEVCO	11-Sep-07
PELVIS REDUNDANT	AC-P22639	ENDEVCO	12-Oct-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-P18792	ENDEVCO	14-Nov-07
RIGHT FRONT SILL (Y)	AC-P17535	ENDEVCO	14-Nov-07
RIGHT FRONT SILL (Z)	AC-P23134	ENDEVCO	14-Nov-07
RIGHT REAR SILL (X)	AC-P23164	ENDEVCO	01-Feb-08
RIGHT REAR SILL (Y)	AC-P23939	ENDEVCO	01-Feb-08
RIGHT REAR SILL (Z)	AC-P23993	ENDEVCO	01-Feb-08
REAR FLOORPAN ABOVE AXLE (X)	AC-P17285	ENDEVCO	28-Jan-08
REAR FLOORPAN ABOVE AXLE (Y)	AC-P17283	ENDEVCO	28-Jan-08
REAR FLOORPAN ABOVE AXLE (Z)	AC-P14393	ENDEVCO	28-Jan-08
LEFT REAR SILL (Y)	AC-P18785	ENDEVCO	01-Feb-08
LEFT FRONT SILL (Y)	AC-P19359	ENDEVCO	28-Jan-08
LEFT FRONT DOOR CENTERLINE (Y)	-	-	-
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-P24145	ENDEVCO	08-Nov-07
MID REAR OF LEFT FRONT DOOR (Y)	-	-	-
LEFT FRONT DOOR UPPER C\L (Y)	-	-	-
MID REAR OF LEFT REAR DOOR (Y)	-	-	-
LEFT REAR DOOR UPPER C\L (Y)	-	-	-
LOWER LEFT B- PILLAR (Y)	AC-J41004	ENDEVCO	18-Jan-08
MIDDLE LEFT B-PILLAR (Y)	AC-J32832	ENDEVCO	06-Feb-08
LOWER LEFT A-PILLAR (Y)	AC-P23873	ENDEVCO	03-Mar-08
UPPER LEFT A-PILLAR (Y)	AC-P32221	ENDEVCO	03-Mar-08
FRONT SEAT TRACK (Y)	AC-P23926	ENDEVCO	01-Feb-08
REAR SEAT TRACK (Y)	AC-P19246	ENDEVCO	03-Mar-08
VEHICLE CG (X)	AC-P18524	ENDEVCO	01-Feb-08
VEHICLE CG (Y)	AC-P18518	ENDEVCO	01-Feb-08
VEHICLE CG (Z)	AC-P32295	ENDEVCO	01-Feb-08
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