REPORT NUMBER: 214-CAL-09-01

SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION
INDICANT

MITSUBISHI MOTORS NORTH AMERICA
2009 MITSUBISHI GALANT
4-DOOR SEDAN

NHTSA NUMBER: C95600

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

Test Date: August 29, 2009

FINAL REPORT

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

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-07-D-00064.

Prepared by:  Date: October 3, 2008

Vincent M. Paolini, Project Engineer

Reviewed by:  Date: October 3, 2008

David Travale, Program Manager
Transportation Sciences Center

Technical Report Documentation Page

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4. Title and Subtitle Final Report of FMVSS 214 Compliance Side Impact Testing 2009 Mistubishi Galant 4-Door Sedan NHTSA No.: C95600		*5. Report Date* August 29, 2009 *6. Performing Organization Code* CAL
7. Author(s) Vincent M. Paolini, Project Engineer		*8. Performing Organization Report No.* 8867-F214-01
9. Performing Organization Name and Address Calspan Corporation Transportation Sciences Center P.O. Box 400 Buffalo, New York 14225		*10. Work Unit No.* *11. Contract or Grant No.* DTNH22-07-D-00064
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15. *Supplementary Notes*

16. Abstract

A 55/28 kph 90^0 Impact Moving Deformable Barrier FMVSS 214 Indicant Side Impact Test was conducted on the subject 2009 Mistubishi Galant 4-Door to obtain new car assessment and research data indicant of FMVSS No. 214D performance. This test was conducted at the Calspan Corporation Crash Test Facility in Buffalo, New York, on August 29, 2009.The impact velocity of the Moving Deformable Barrier (MDB) was 62.15 km/h, and the ambient temperature at the struck side (driver side) of the vehicle was 22°C. The target vehicle's maximum post test static crush was231 mm at level 2. The test vehicle's occupant performance is as follows:

	DRIVER	PASS.
Left Upper Rib (LUR) Accel., g	36.4	47.7
Left Lower Rib (LLR) Accel., g	26.4	51.1
Lower Spine (T_{12}) Accel., g	37.4	50.3
Thoracic Trauma Index (TTI)	37	51
Pelvis (PEV) Accel., g	57	48
HIC	203.5	232.9

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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Form DOT F1700.7 (8-72)

TABLE OF CONTENTS

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 Mitsubishi Galant 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

A model year 2009 Mistubishi Galant 4-Door Sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.15 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 1743.5 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on August 29, 2009.

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

Two 50th percentile adult male SID/HIII's were placed in the driver (P1) and left rear passenger (P4) designated seating positions according to instructions specified in the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated 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 231 mm at level 2, 1050 mm rearward of the left vertical impact point. The driver and passenger SID/HIII's, Serial Nos. 905 and 906 respectively, were calibrated just prior to this test.

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

The occupant data is summarized below:

ATD position	HIC(36)	T_1	T_2	TTI (G's)	Peak Pelvis (G's)
Driver	203.5	42.0	70.2	37	57
Passenger	232.9	39.0	71.5	51	48

SUPPLEMENTAL RESTRAINT INFORMATION

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

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

V2P4 Head Ay Redundant - Questionable Data from 8 to 33 msec.

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	Mitsubishi Motors North America	Driver Front Airbag	Yes
Model	Galant	Driver Side Curtain Airbag	Yes
Body Style	4-Door Sedan	Driver Side Torso Airbag	Yes
NHTSA No.	C95600	Driver Pretensioners	Yes
VIN	4A3AB36F79E005947	Driver Load Limiters	Yes
Color	White	Driver Power Seats	Yes
Engine Disp.(L)	2.4	Rear Pass. Side Curtain Airbag	Yes
Engine Cylinders	4	Rear Pass. Side Torso Airbag	No
Engine Placement	Lateral	Rear Pass. Pretensioners	No
Transmission Type	Automatic	Rear Pass. Load Limiters	No
Transmission Speeds	4	Rear Pass. Power Seats	NA
Final Drive	Front	Tilt Wheel	Yes
Air Conditioning	Yes	Anti-lock Brakes	Yes
Power Steering	Yes	Traction Control	No
Power Brakes	Yes	Power Windows	Yes
Delivery Date	August 21, 2008	Power Door Locks	Yes
Odometer Reading (km)	64	Automatic Door Locks (ADL)	No
Dealer	Ray Laks Mitsubishi West Seneca, NY	Owner's Manual Details Instructions on Disabling ADLs	NA

DATA FROM CERTIFICATION LABEL

Manufactured By	Mitsubishi Motors North America	GVWR (kg)	1985
		GAWR Front (kg)	1060
Date of Manufacture	February 2008	GAWR Rear (kg)	940

VEHICLE CAPACITY DATA

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

DATA SHEET NO. 1 (continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			Fully Loaded (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	469	309		523	408		518.5	387.5	
Right	kg	461	313		457	372		473.0	364.5	
Ratio	%	59.9	40.1		55.7	44.3		56.9	43.1	
Totals	kg	930.0	622.0	1552.0	980.0	780.0	1760.0	991.5	752.0	1743.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1552.0
Weight of 2 P572E ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	34.8
Calculated Vehicle Target Weight (TVTW)	kg	1749.2

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

Weight of Ballast (including instrumentation package and cameras): 29.1 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	751	750	731	733
Fully Loaded	mm	736	745	703	715
As Tested	mm	738	745	704	715

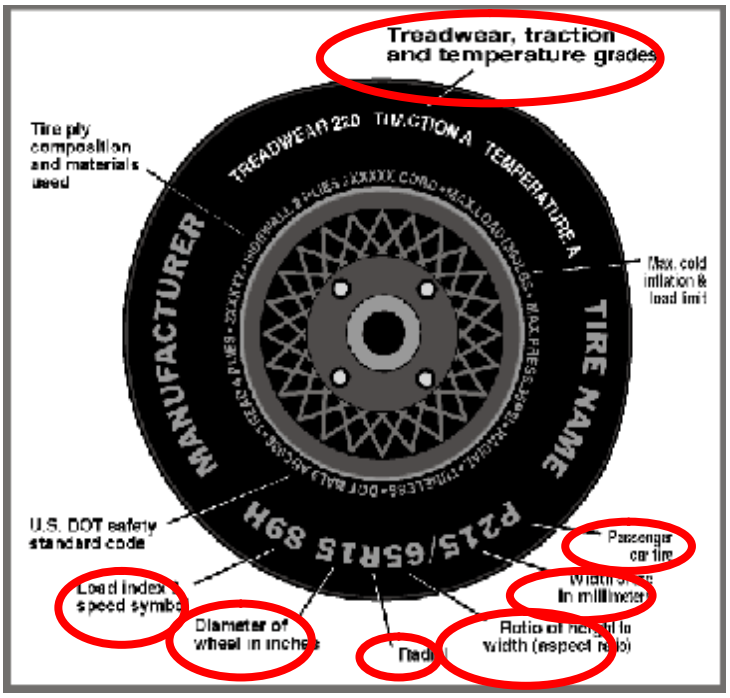
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2759
Target Impact Point Aft of Front Axle	mm	440
Actual Impact Point Aft of Front Axle	mm	444
As Tested CG (aft of front axle)	mm	1190

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	220	220
Recommended Tire Size	P215/55R17	P215/55R17
Tire Size on Vehicle	P215/55R17	P215/55R17
Tire Manufacturer	Goodyear	Goodyear
Tire Name	Eagle RS-A	Eagle RS-A
Tire Type	Passenger	Passenger
Tire Width (mm)	215	215
Ratio of Height to Width (aspect ratio)	55	55
Radial	Yes	Yes
Wheel Diameter	17	17
Load Index & Speed Symbol	93V	93V
Treadwear	260	260
Traction Grade	A	A
Temperature Grade	A	A

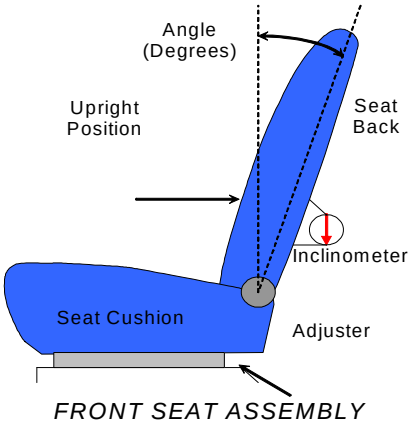
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

NORMAL DESIGN RIDING POSITION

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



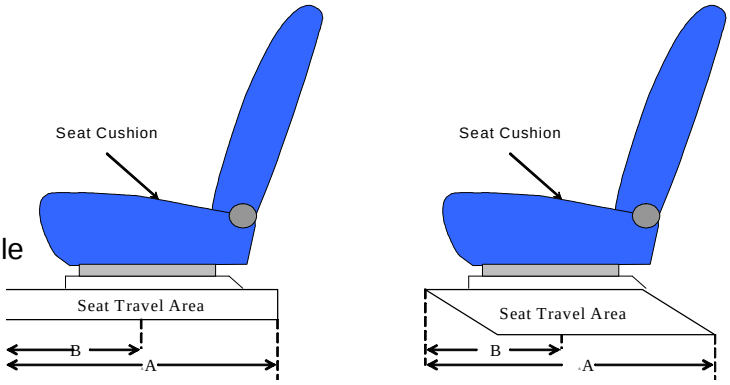
FRONT SEAT ASSEMBLY

SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	NA	NA
Angle (deg. from forward-most locking position)	26.7 degrees from forward most locking postion	NA
Alternative Measurements to Verify Test Position	13.1 degrees from head restraint post	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

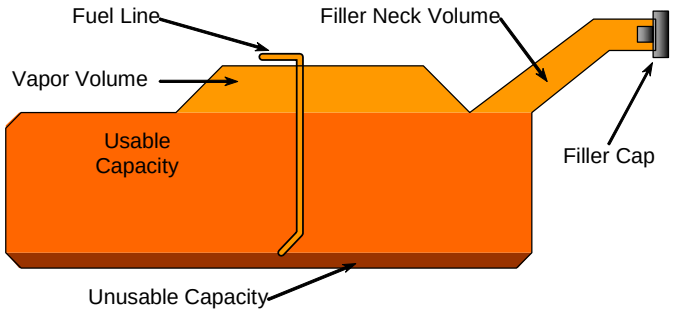
	Driver Seat	Rear Seat
Total Fore/Aft Travel (A) (mm)	246	NA
Test Position (B) (mm)	123	NA
Test Detent (forward-most detent defined as 0)	NA –Power Seat	NA
Total Number of Detents (including 0)	NA – Power Seat	NA

DATA SHEET NO. 3 (CONTINUED)
TEST VEHICLE INFORMATION

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

FUEL SYSTEM INFORMATION

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



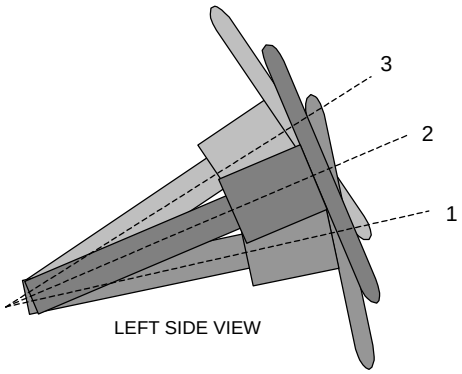
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	67.0
Usable Capacity of "Optional" Fuel Tank	--
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	62.3

STEERING COLUMN ADJUSTMENT

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



STEERING COLUMN ASSEMBLY

STEERING COLUMN POSITION

	Fore/Aft Position (mm)	Tilt (degrees)	Tilt (detent)
Lowermost Position No. 1	NA	17.8	NA
Geometric Center Position No. 2 *	NA	20.8	NA
Uppermost Position No. 3	NA	23.8	NA

* Test position

DATA SHEET NO. 4

MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

MDB SPECIFICATIONS

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

MDB WEIGHTS

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

MDB SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.15
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.15
Impact angle with respect to impactor	º	88.5º to 91.5º	89.5

POST TEST OBSERVATIONS

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	4 mm rearward
Vertical Offset	mm	+/-20	9 mm above

DATA SHEET NO. 5

POST TEST OBSERVATIONS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID/HIII / 905	SID/HIII / 906
Head Contact	Side Curtain Airbag	Side Curtain Airbag
Upper Torso Contact	Torso Airbag	Left Rear Door
Lower Torso Contact	Torso Airbag	Left Rear Door
Left Knee Contact	Armrest	Armrest
Right Knee Contact	Side of Left Knee	Side of Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

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

POST TEST STRUCTURAL OBSERVATIONS

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

SUPPLEMENTAL RESTRAINT INFORMATION

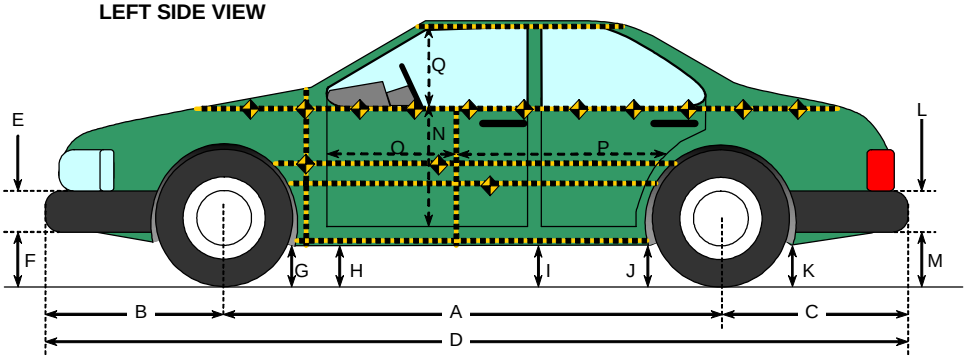
Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	NA	NA
Side Torso Airbag	Yes	Yes	NA	NA
Side Head/Torso Combination Airbag	NA	NA	NA	NA
Curtain Airbag	Yes	Yes	Yes	Yes

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

LEFT SIDE VIEW



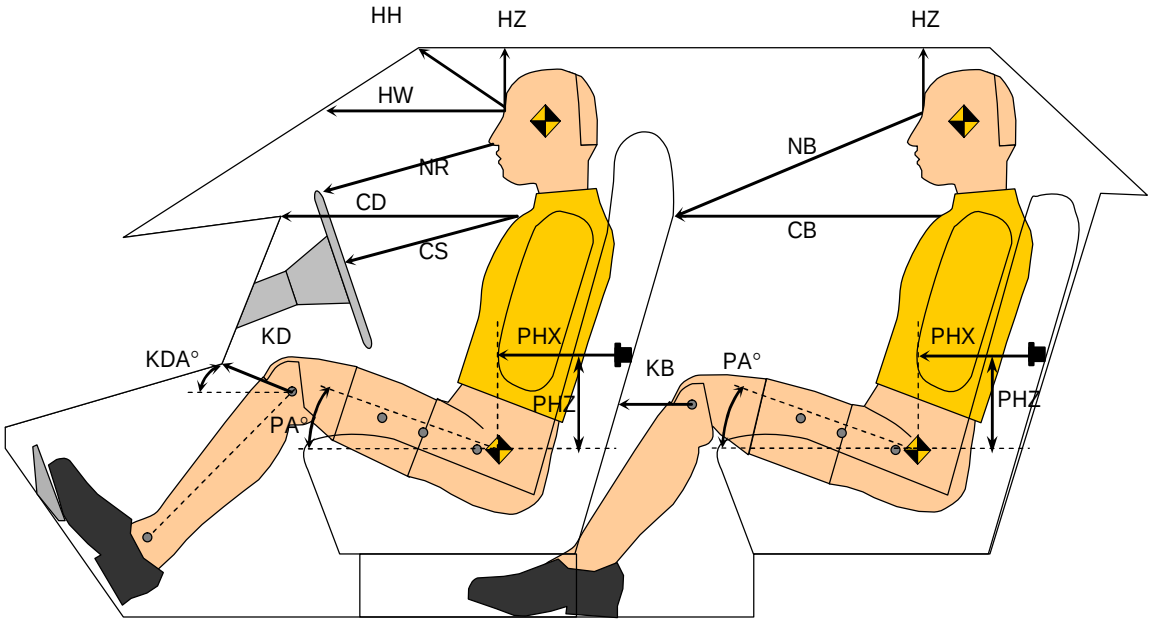
All Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2759	2759	2757	2
B	Front Axle to FSOV	992	992	991	1
C	Rear Axle to RSOV	1108	1108	1108	0
D	Total Length at Centerline	4859	4859	4856	3
E	Front Bumper Thickness	95	95	95	0
F	Front Bumper Bottom to Ground	420	415	427	-12
G	Sill Height at Front Wheel Well	188	172	178	-6
H	Sill Height at Front Door Leading Edge	201	184	187	-3
I	Sill Height at "B" Pillar	217	196	207	-11
J1	Sill Height at Rear Wheel Well	188	165	171	-6
J2	Pinch Weld Height at Rear Wheel Well	207	181	197	-16
K	Sill Height Aft of Rear Wheel Well	238	208	220	-12
L	Rear Bumper Thickness	265	265	265	0
M	Rear Bumper Bottom to Ground	432	402	412	-10
N	Sill Height to Window Bottom Sill	714	714	700	14
O	Front Door Leading Edge to Impact CL	772	772	743	29
P	Rear Door Trailing Edge to Impact CL	1204	1204	1174	30
Q	Front Window Opening	438	438	415	23
R	Right Side Length	4740	4740	4738	2
S	Left Side Length	4739	4739	4735	4
T	Vehicle Width at "B" Post	1836	1836	1615	221

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

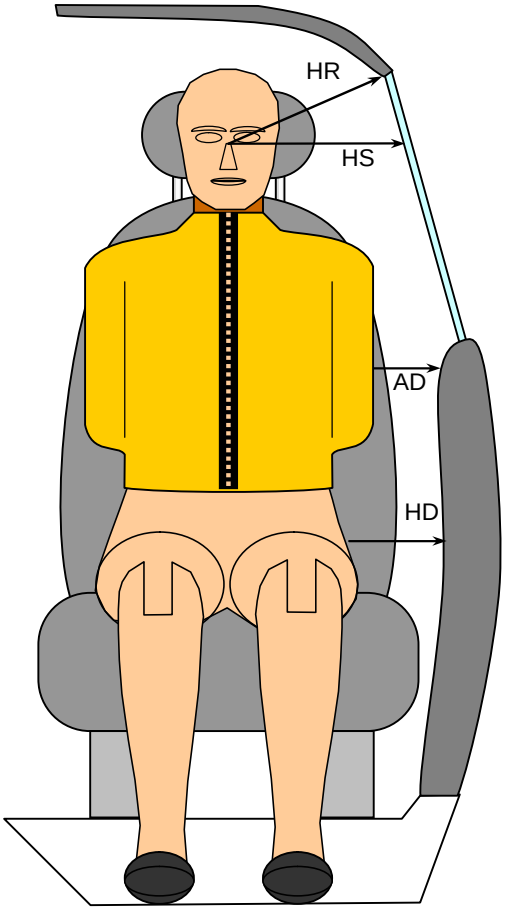


Driver Code	Pass. Code	Measurement Description	Driver S/N 905		Passenger S/N 906	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	351			
HW		Head to Windshield	687			
HZ	HZ	Head to Roof	192		155	
NR	NB	Nose to Rim/Nose to Seatback	451		632	
CD	CB	Chest to Dash or Seatback	582		556	
CS		Chest to Steering Wheel	334			
KDL	KBL	Left Knee to Dash or Seatback	221	30	255	22
KDR	KBR	Right Knee to Dash or Seatback	180	43	250	22
PA	PA	Pelvic Angle		25.0		23.6
PHX	PHX	H-Point to Striker (X-Axis)	219		292	
PHZ	PHZ	H-Point to Striker (Z-Axis)	165		332	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



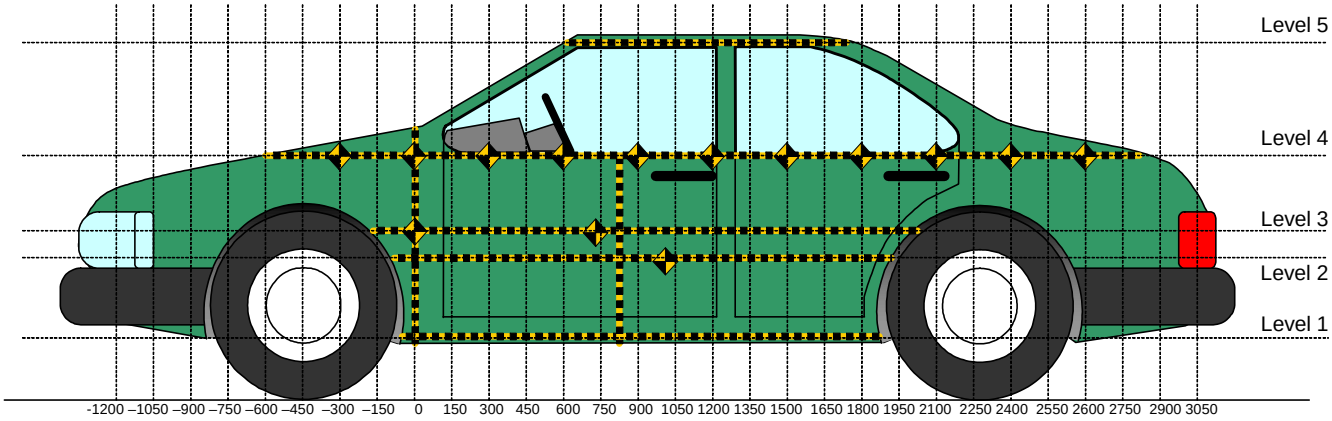
FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 905	Passenger S/N 906
HR	Head to Side Header	mm	205	167
HS	Head to Side Window	mm	331	331
AD_1	Arm to Door (at upper rib level)	mm	127	111
AD_2	Arm to Door (at lower rib level)	mm	111	116
HD	H-Point to Door	mm	156	179

DATA SHEET NO. 9

VEHICLE SIDE MEASUREMENTS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



All Measurements Shown in mm

LEFT SIDE VIEW

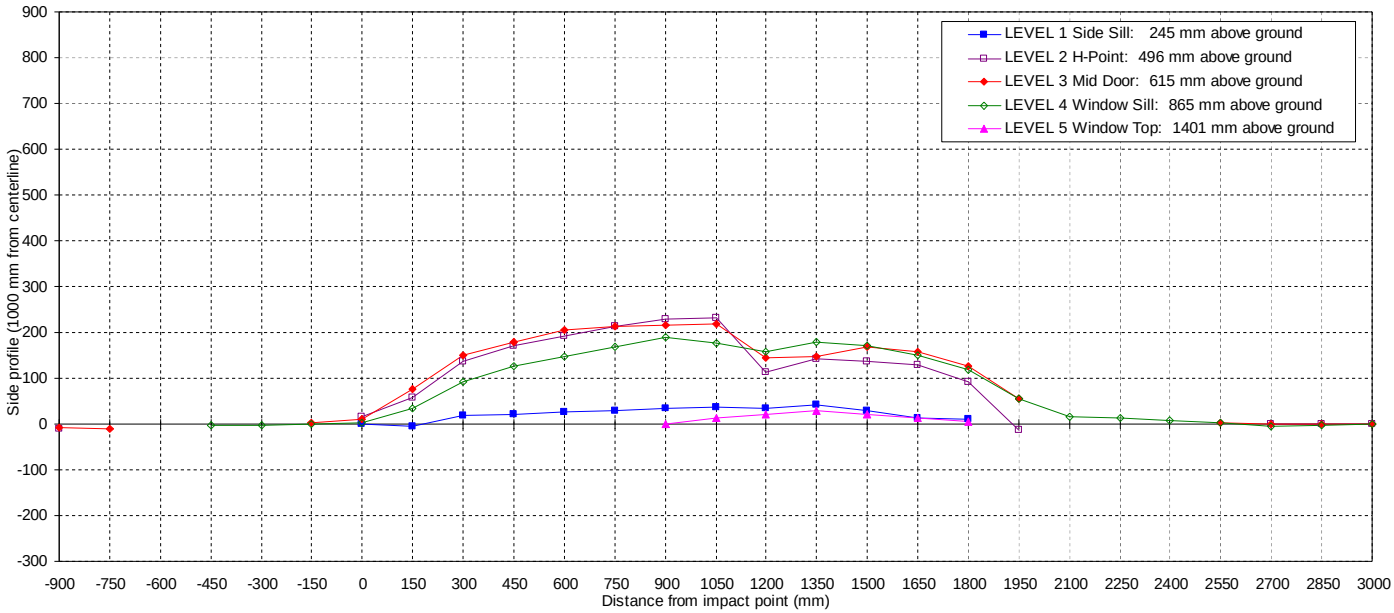
Measurements are taken with vehicle in the as tested condition.
Measurements along the vertical 750 mm.
All measurements below in mm.

Level	Measurement Description	Maximum Exterior Static Crush	Height Above Ground	Distance From Impact
1	Sill Top	43	245	1350
2	Occupant H-Point	231	496	1050
3	Mid Door	218	615	1050
4	Window Sill	189	865	900
5	Window	30	1401	1350
	Maximum Penetration	231		

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



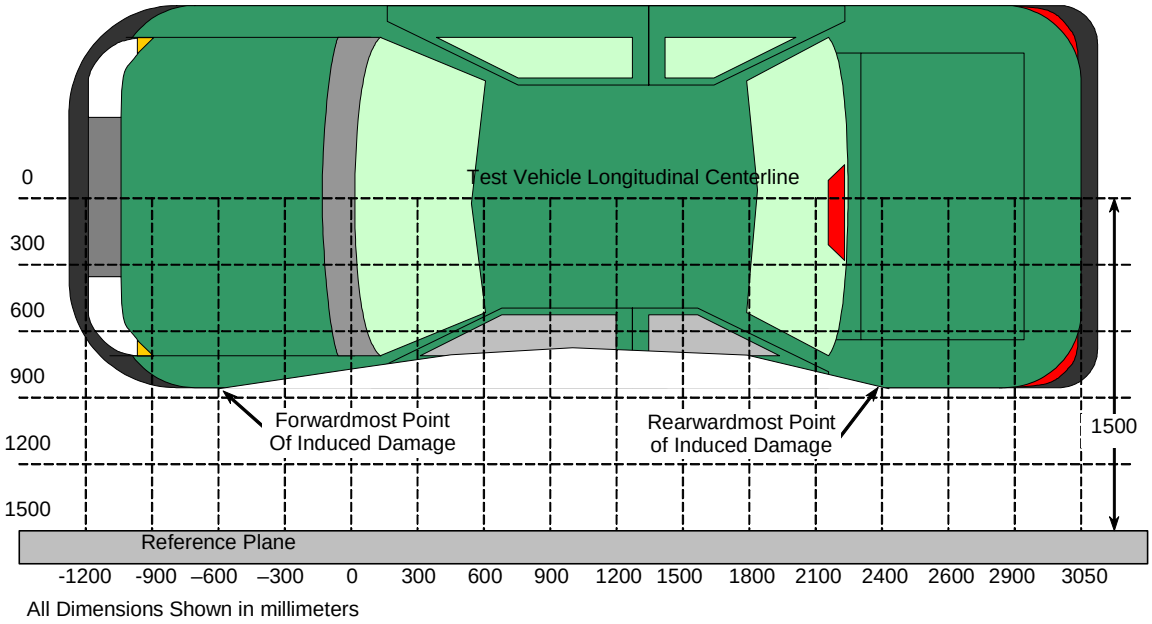
NOTE: All dimensions are in millimeters with a tolerance of ±3 mm

			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																										
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
LEVEL 1		PRE	--	--	--	--	–	--	130	153	155	154	153	153	153	153	153	153	154	155	143	--	--	--	--	--	--	--	--	–
SIDE	245	POST	--	--	--	--	–	--	130	148	173	175	179	182	187	189	187	196	182	168	153	--	--	--	--	--	--	--	--	–
SILL		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	0	-5	18	21	26	29	34	36	34	**43**	28	13	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2		PRE	120	--	--	--	–	--	89	87	86	86	86	86	87	88	88	89	90	93	95	96	--	--	--	--	99	128	149
H	496	POST	110	--	--	--	–	--	105	145	224	257	278	300	316	319	202	230	227	222	186	83	--	--	--	--	100	127	149
POINT		CRUSH	-10	N/A	N/A	N/A	N/A	N/A	16	58	138	171	192	214	229	**231**	114	141	137	129	91	-13	N/A	N/A	N/A	N/A	1	-1	0
LEVEL 3		PRE	126	97	--	--	–	80	79	81	80	79	79	79	79	80	80	81	83	84	86	84	--	--	--	80	95	114	136
MID	615	POST	117	86	--	--	–	83	89	158	230	259	284	293	296	298	224	229	252	242	212	140	--	--	--	82	96	115	135
DOOR		CRUSH	-9	-11	N/A	N/A	N/A	3	10	77	150	180	205	214	217	**218**	144	148	169	158	126	56	N/A	N/A	N/A	2	1	1	-1
LEVEL 4		PRE	--	--	--	163	143	134	130	127	124	120	117	115	114	132	110	110	109	109	110	110	107	106	111	121	137	157	184
WINDOW	865	POST	--	--	--	160	140	133	132	160	216	247	265	283	303	308	269	288	279	258	229	166	124	120	119	123	133	155	183
SILL		CRUSH	N/A	N/A	N/A	-3	-3	-1	2	33	92	127	148	168	**189**	176	159	178	170	149	119	56	17	14	8	2	-4	-2	-1
LEVEL 5		PRE	--	--	--	--	–	--	--	--	--	--	--	--	540	399	390	390	393	400	427	--	--	--	--	--	--	--	--	–
WINDOW	1401	POST	--	--	--	--	–	--	--	--	--	--	--	--	541	411	412	420	415	413	433	--	--	--	--	--	--	--	--	–
TOP		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	12	22	**30**	22	13	6	N/A	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 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



TOP VIEW

DAMAGE PROFILE DISTANCES

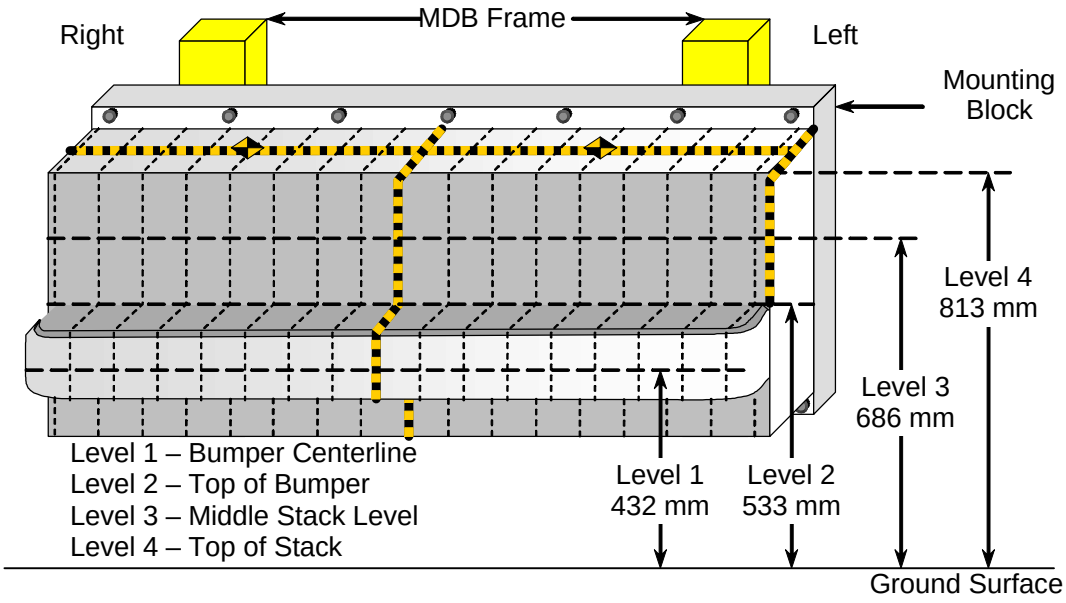
DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1 (LR)	2400	4	111	119	8
2	1890	3	85	169	84
3	1380	4	110	286	176
4	870	2	87	313	226
5	360	3	80	242	162
6 (LF)	-150	3	80	83	3

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 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



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

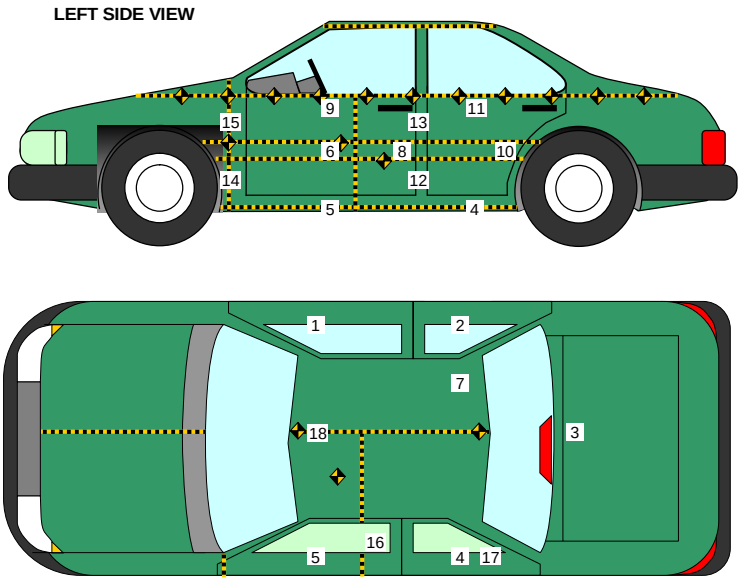
			DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)							
LEVEL	HEIGHT AT CL (mm)*		-800	-700	-600	-500	-400	-300	-200	-100	0	100	200	300	400	500	600	700	800
LEVEL 4		PRE	411	412	412	412	412	412	413	413	413	413	413	413	413	413	413	413	412
TOP	811	POST	313	344	367	379	379	359	336	346	369	370	370	372	359	353	333	308	264
STACK		CRUSH	98	68	45	33	33	53	77	67	44	43	43	41	54	60	80	105	148
LEVEL 3		PRE	411	411	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412
MID	682	POST	329	360	371	378	378	375	358	375	389	394	393	391	382	371	357	331	289
LEVEL		CRUSH	82	51	41	34	34	37	54	37	24	18	19	21	30	41	55	81	123
LEVEL 2		PRE	411	412	412	412	412	412	412	412	413	412	412	412	412	412	412	412	412
TOP	542	POST	312	322	325	337	338	334	329	335	337	337	340	334	330	329	323	313	285
BUMPER		CRUSH	99	90	87	75	74	78	83	77	76	75	72	78	82	83	89	99	127
LEVEL 1		PRE	501	513	513	513	513	513	513	514	514	514	514	514	514	514	514	514	505
MID	430	POST	315	337	352	353	350	343	348	353	359	363	361	360	358	356	347	326	278
BUMPER		CRUSH	186	176	161	160	163	170	165	161	155	151	153	154	156	158	167	188	227

LEVEL	HEIGHT AT CL (mm)*	MAX CRUSH
LEVEL 4		
TOP	811	148
STACK		
LEVEL 3		
MID	682	123
LEVEL		
LEVEL 2		
TOP	542	127
BUMPER		
LEVEL 1		
MID	430	227
BUMPER		

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2900	687	321
2	Right Sill at Rear Seat	2139	690	328
3	Rear Floorpan Above Axle	1252	-3	532
4	Left Sill at Rear Door	2119	-691	315
5	Left Sill at Front Door	2905	-659	294
6	Left Front Door C/L**	-	-	-
7	Rear Occupant Compartment	2217	423	205
8	Left Front Door Mid-Rear**	-	-	-
9	Left Front Door Upper C/L**	-	-	-
10	Left Rear Door Mid-Rear**	-	-	-
11	Left Rear Door Upper C/L**	-	-	-
12	Left Lower B-Post	2297	-688	349
13	Left Middle B-Post	2212	-691	850
14	Left Lower A-Post	3348	-649	410
15	Left Middle A-Post	3297	-697	970
16	Front Seat Track	2407	-578	312
17	Rear Seat Track or Structure	1085	-487	610
18	Vehicle CG	2679	33	416

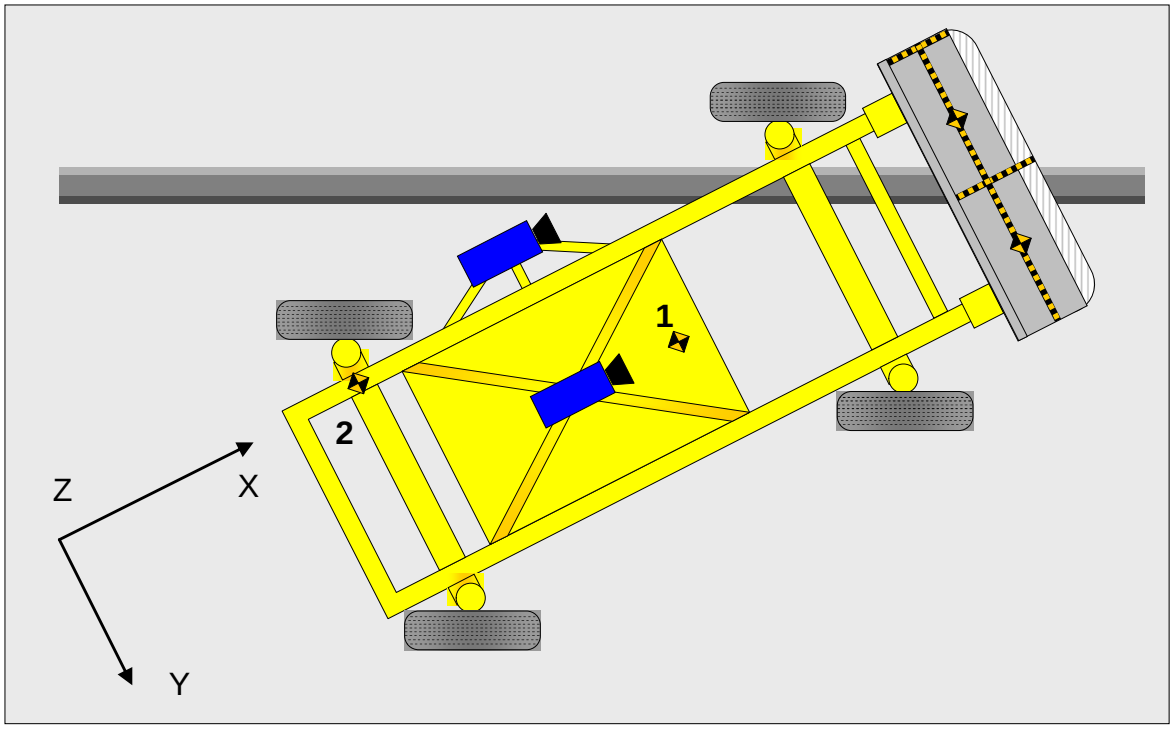
Reference Points X - Test Vehicle Rear Bumper (+ forward)
Y - Test Vehicle Centerline (+ to right)
Z - Ground Plane (+ down)

** Accelerometer was not requested by the COTR.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATIONS

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



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

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

DATA SHEET NO. 15

VEHICLE STRUCTURAL MEASUREMENTS

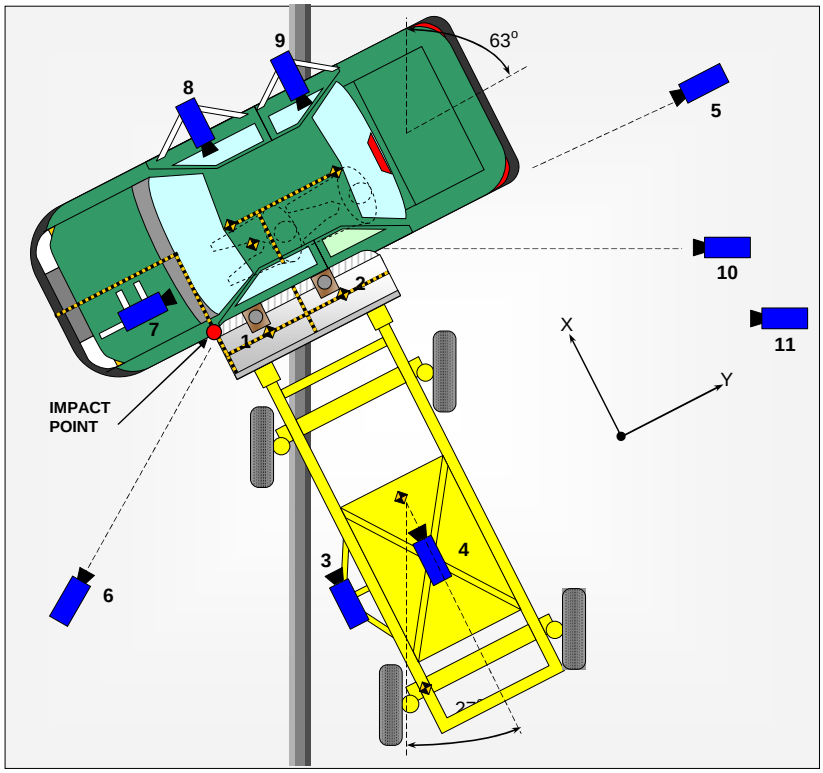
Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

	Elements	Pre-Test (mm)
1	Total Length	4859
2	Total Width	1836
3	Bumper Top Height	533
4	Bumper Bottom Height	423
5	Longitudinal Member Top Height	584
6	Distance between Longitudinal Members	1153
7	Longitudinal Member Width	121
8	Engine Top Height	805
9	Engine Bottom Height	220
10	Engine and gearbox width	471
11	Front bumper-engine distance	662
12	Front shock absorber fixing height	898
13	Bonnet leading edge height	718
14	Front shock absorber fixing width	1162
15	Front bumper – front axle distance	992
16	Front axle – a pillar distance	504
17	A-pillar – B-pillar distance	1158
18	B-Pillar – rear axle distance	1097
19	B-pillar – C-pillar distance	1005
20	Roof sill bottom height	1342
21	Roof sill top height	1432
22	Floor sill bottom height	275
23	Floor sill top height	378

DATA SHEET NO. 16

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	72	812	-4880	-90	8	500
2	Overhead Close-up	195	855	-4880	-90	28	1000
3	MDB Onboard, Impact Point Close-up	-1470	0	-847	0	13	500
4	MDB Onboard, Centerline of Impact	-1140	838	-1587	-17	7.5	500
5	Right Side, Ground Level, Overall	115	10725	985	-2	50	1000
6	Left Side, Ground Level, Overall	-2030	1700	935	-5	28	1000
7	Vehicle Onboard Front SID/HIII, Front	511	-556	1255	-11	25	1000
8	Vehicle Onboard Front SID/HIII, Side	-1662	804	1070	-11	12.5	1000
9	Vehicle Onboard Rear SID/HIII, Side	-1662	1771	1151	-11	12.5	1000
10	Secondary Impact Point	3060	4915	1010	-2	50	500
11	Real Time Coverage						30

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

DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA

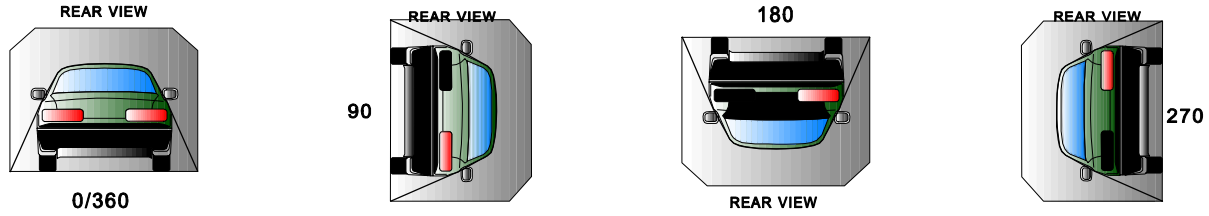
Test Vehicle:	2009 Mistubishi Galant	NHTSA No.	C95600
Test Program:	FMVSS 214 Indicant Side Impact	Test Date:	August 29, 2009

FUEL SYSTEM INTEGRITY POST IMPACT DATA

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

Spillage Location(s)	None

STATIC ROLLOVER DATA



Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0º - 90º	1	minutes	10	seconds	5	minutes	6	minutes	10	seconds	7	minutes
90º - 180º	1	minutes	04	seconds	5	minutes	6	minutes	4	seconds	7	minutes
180º-270º	0	minutes	58	seconds	5	minutes	5	minutes	58	seconds	6	minutes
270º-360º	1	minutes	09	seconds	5	minutes	6	minutes	9	seconds	7	minutes

Rollover Stage	Spillage (g)			
	First 5 min. from onset of rotation	6th min.	7th min.	8th 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

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

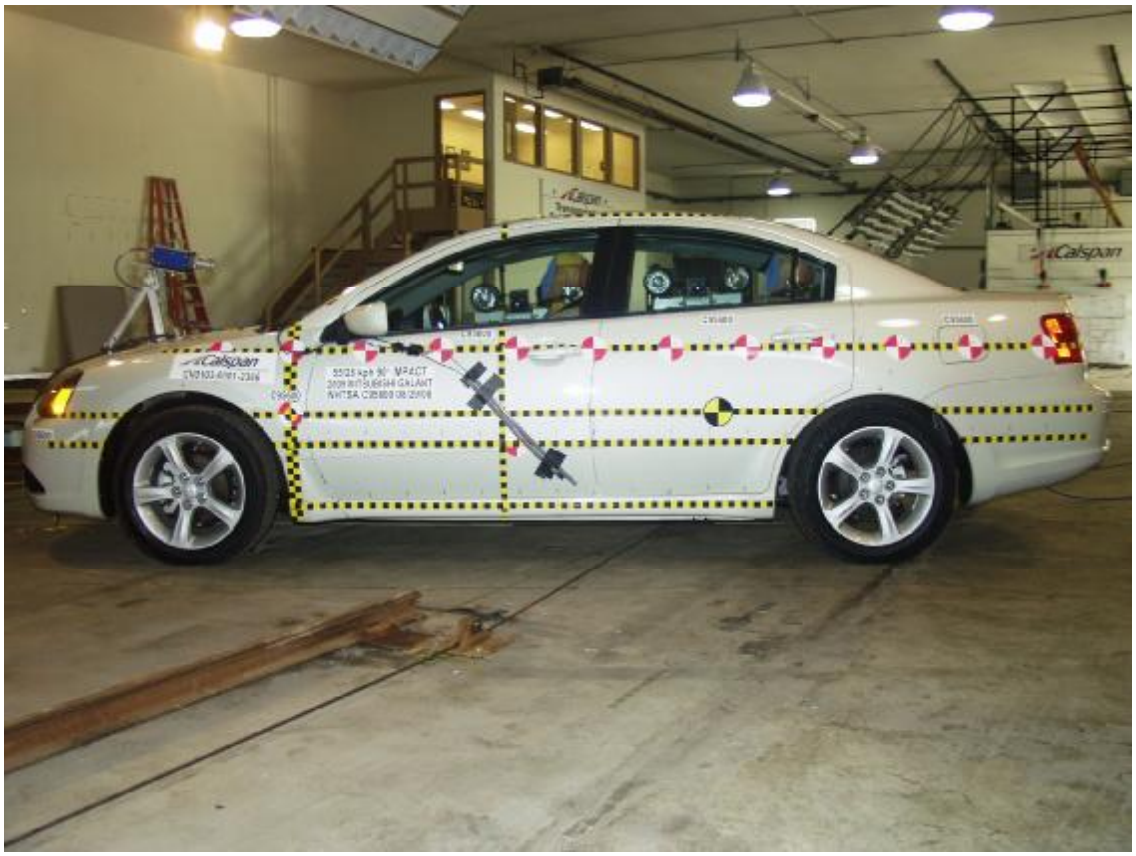


Figure A-9: Pre-Test Left Side View

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

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

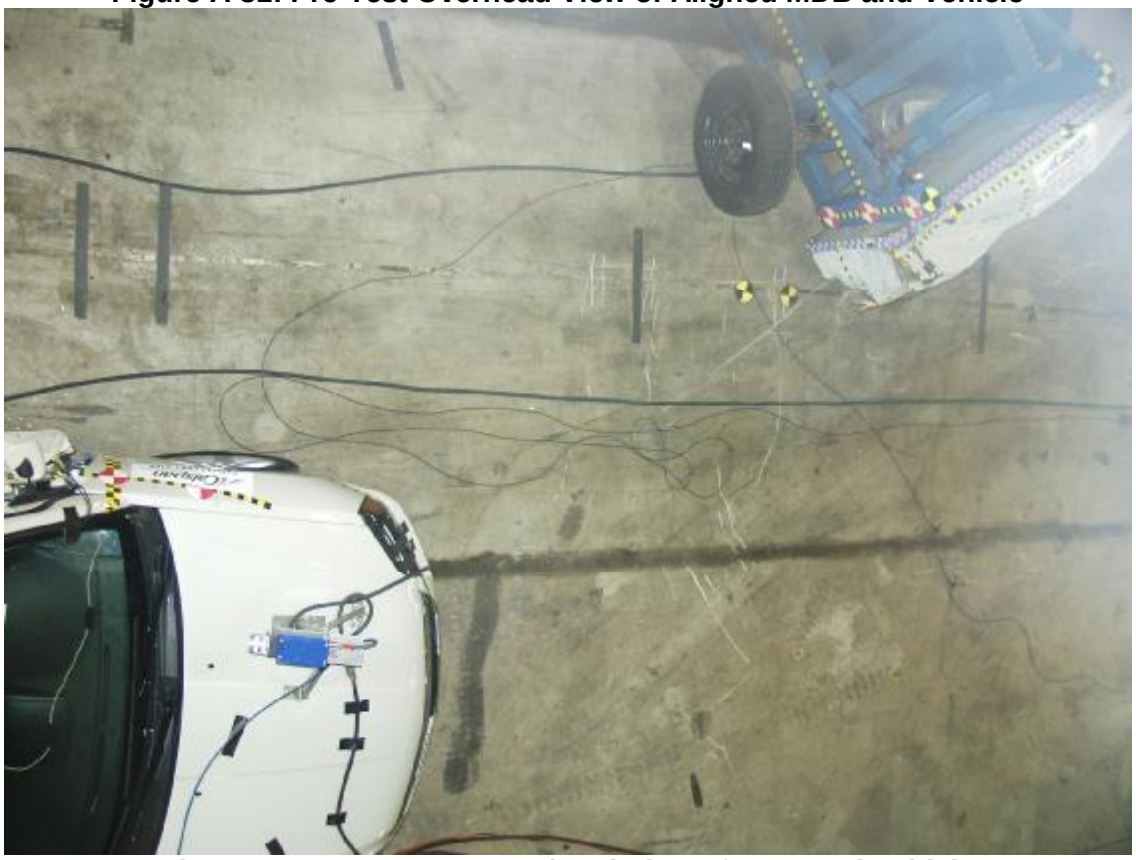


Figure A-32: Post-Test Overhead View of MDB and Vehicle

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

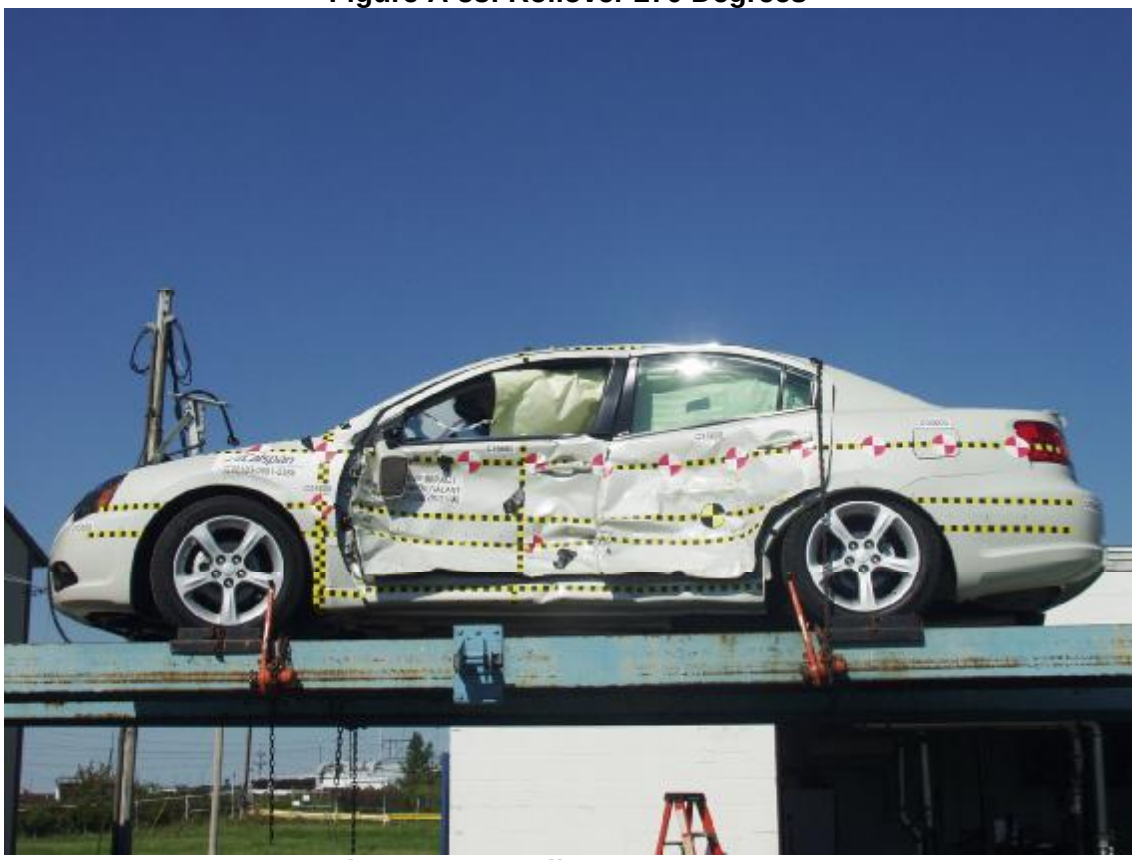


Figure A-54: Rollover 360 Degrees

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 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
V2P1 Head Ax Redundant
V2P1 Head Ay Redundant
V2P1 Head Az Redundant
V2P4 Head Ax
V2P4 Head Ay
V2P4 Head 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
V2P4 Head Ax Redundant
V2P4 Head Ay Redundant
V2P4 Head Az Redundant
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

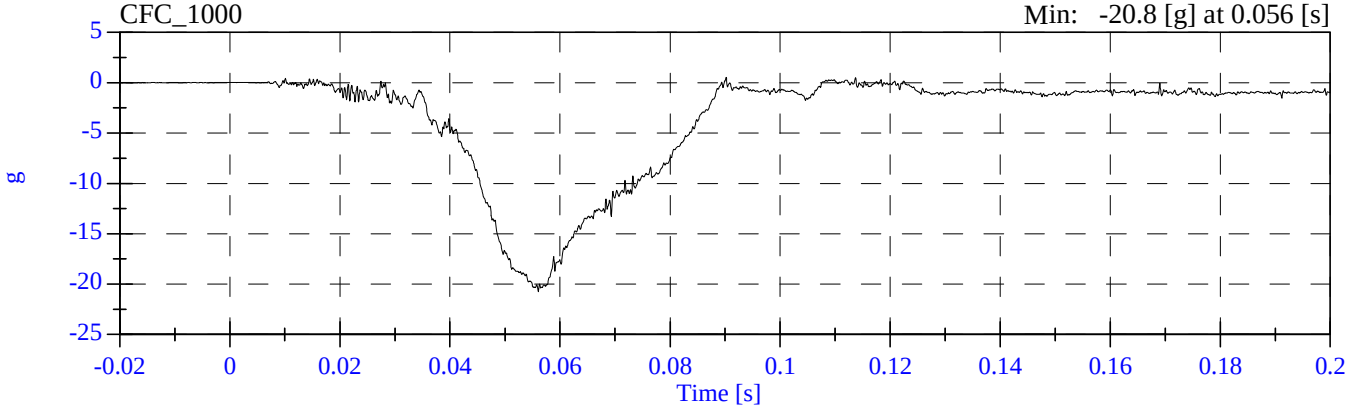
TEST NOTES

The following data anomalies occurred:

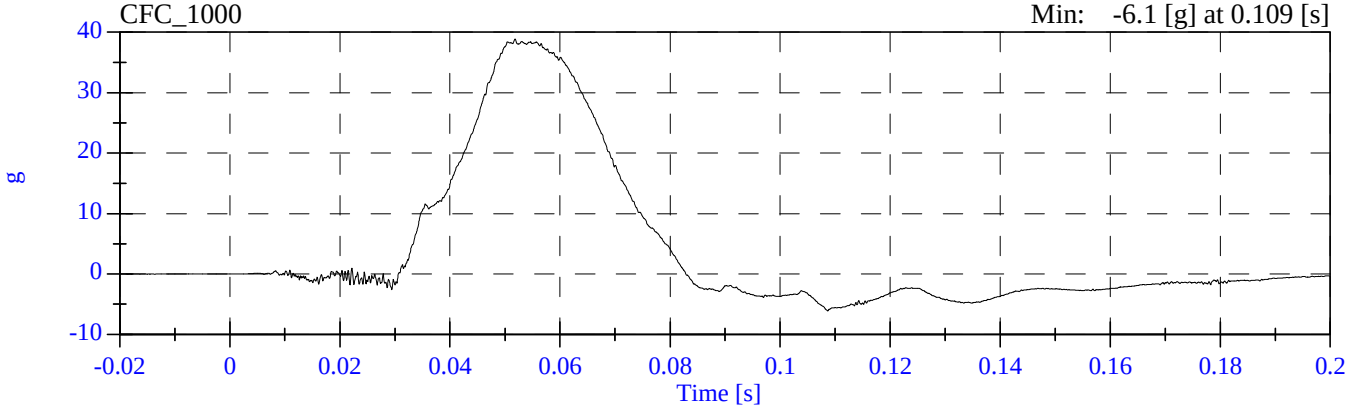
V2P4 Head Ay Redundant - Questionable Data from 8 to 33 msec.

2009 FMVSS 214I Test 1 2009 Mitsubishi Galant
C95600 - August 29, 2008

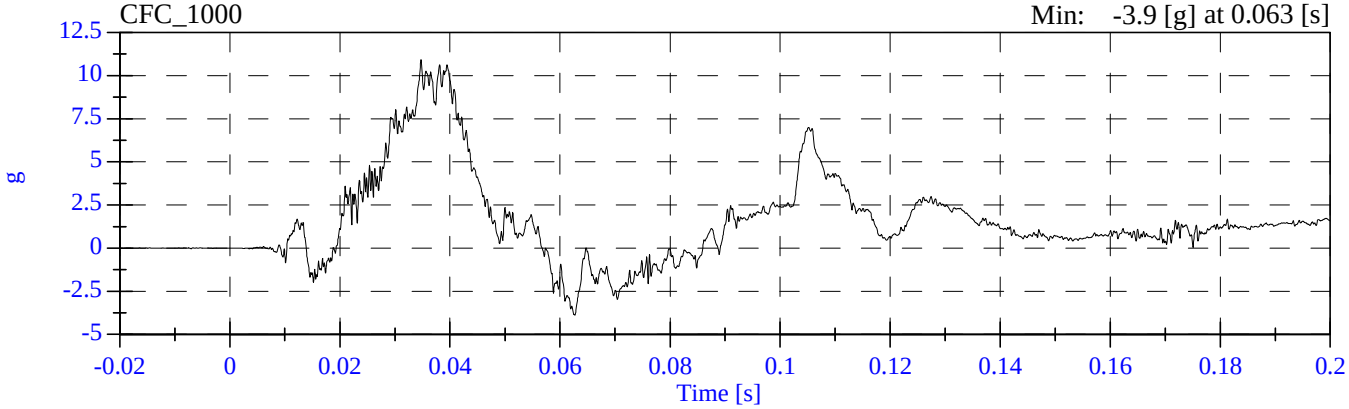
V2P1 Head x
CFC_1000
Max: 0.5 [g] at 0.090 [s]
Min: -20.8 [g] at 0.056 [s]



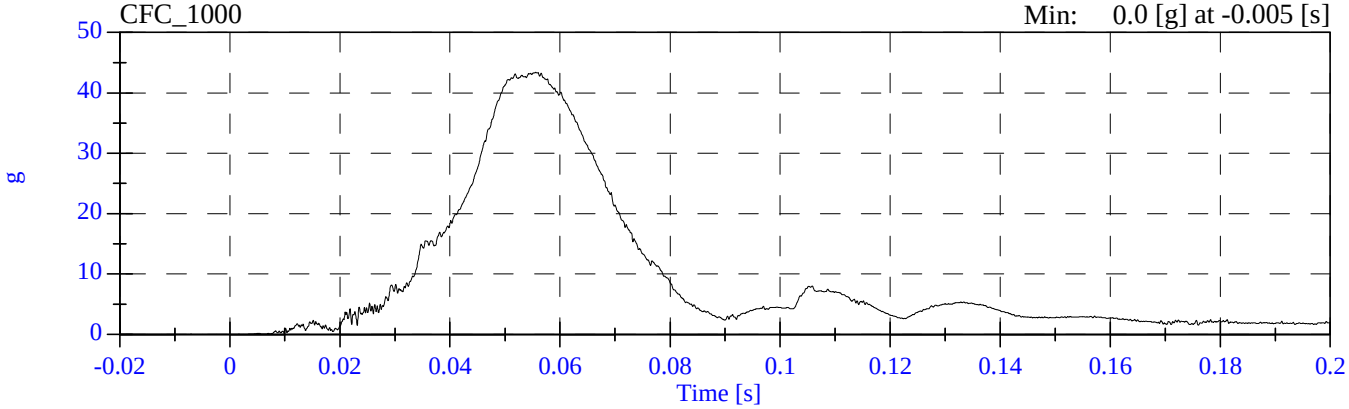
V2P1 Head y
CFC_1000
Max: 38.9 [g] at 0.052 [s]
Min: -6.1 [g] at 0.109 [s]



V2P1 Head z
CFC_1000
Max: 10.9 [g] at 0.035 [s]
Min: -3.9 [g] at 0.063 [s]

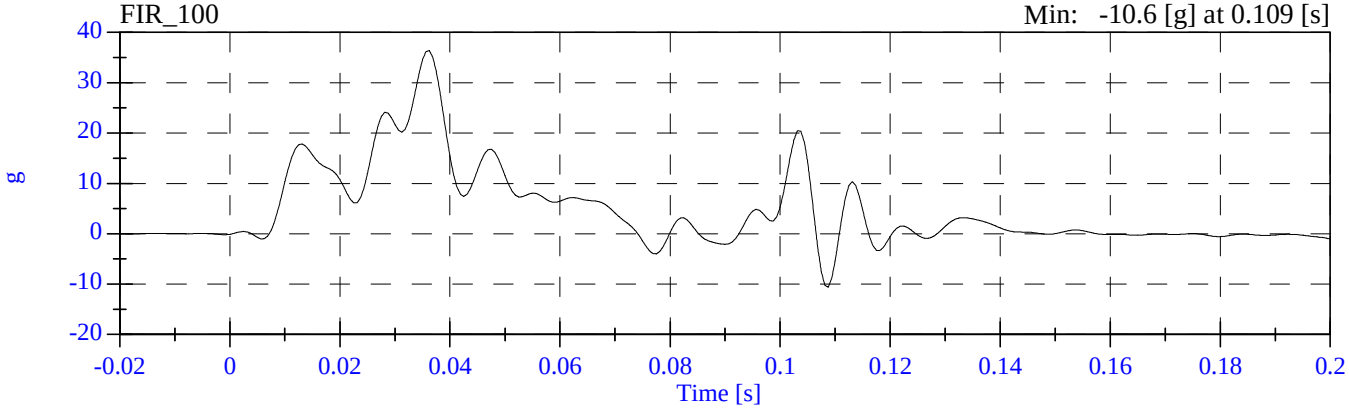


V2P1 Head Resultant
CFC_1000
Max: 43.4 [g] at 0.056 [s]
Min: 0.0 [g] at -0.005 [s]

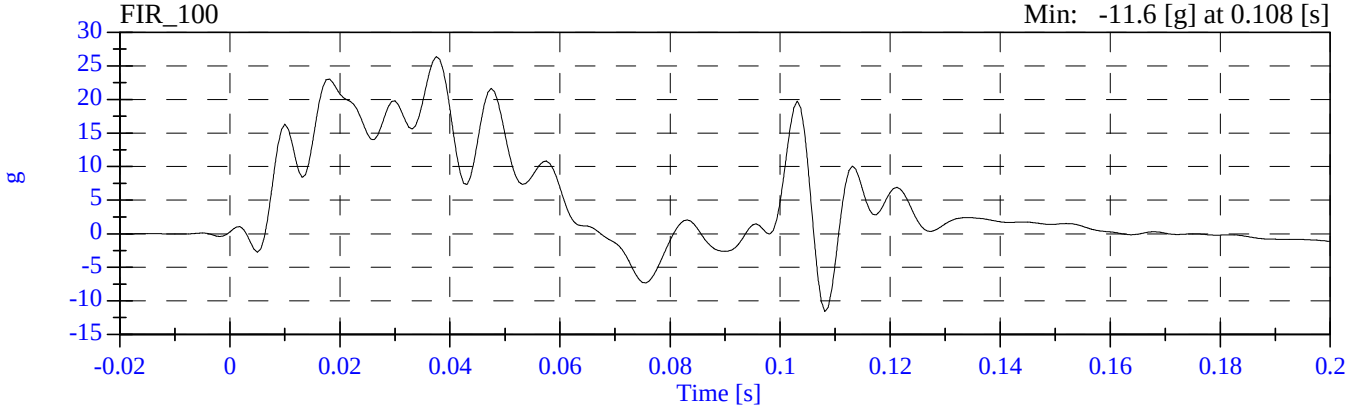


2009 FMVSS 214I Test 1 2009 Mitsubishi Galant
C95600 - August 29, 2008

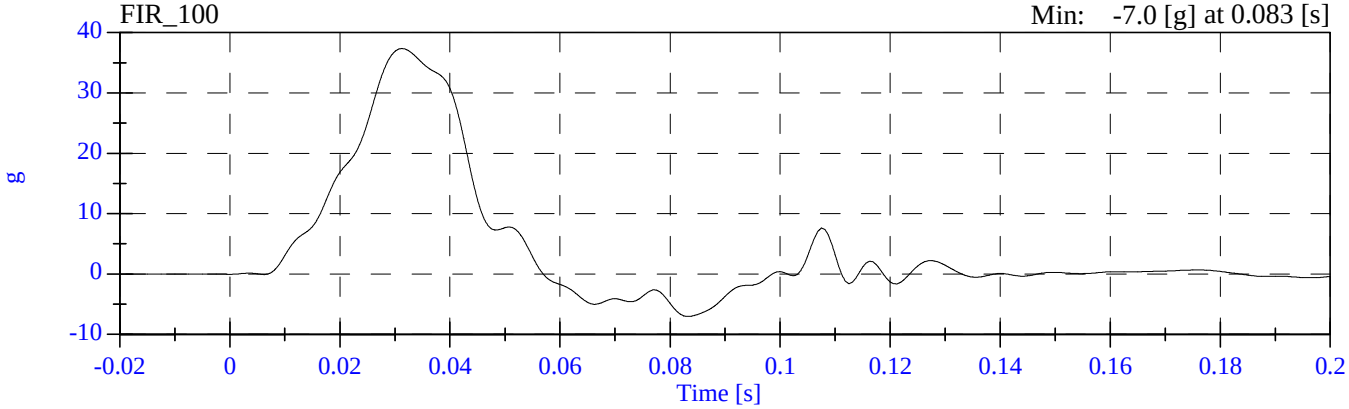
V2P1 Upper Rib y
FIR_100
Max: 36.4 [g] at 0.036 [s]
Min: -10.6 [g] at 0.109 [s]



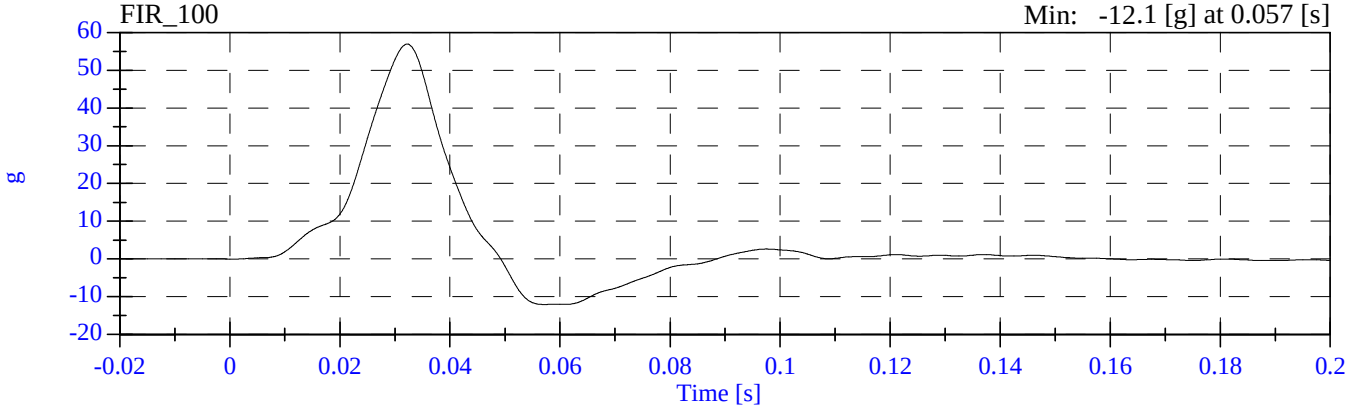
V2P1 Lower Rib y
FIR_100
Max: 26.4 [g] at 0.037 [s]
Min: -11.6 [g] at 0.108 [s]



V2P1 Lower Spine y
FIR_100
Max: 37.4 [g] at 0.031 [s]
Min: -7.0 [g] at 0.083 [s]

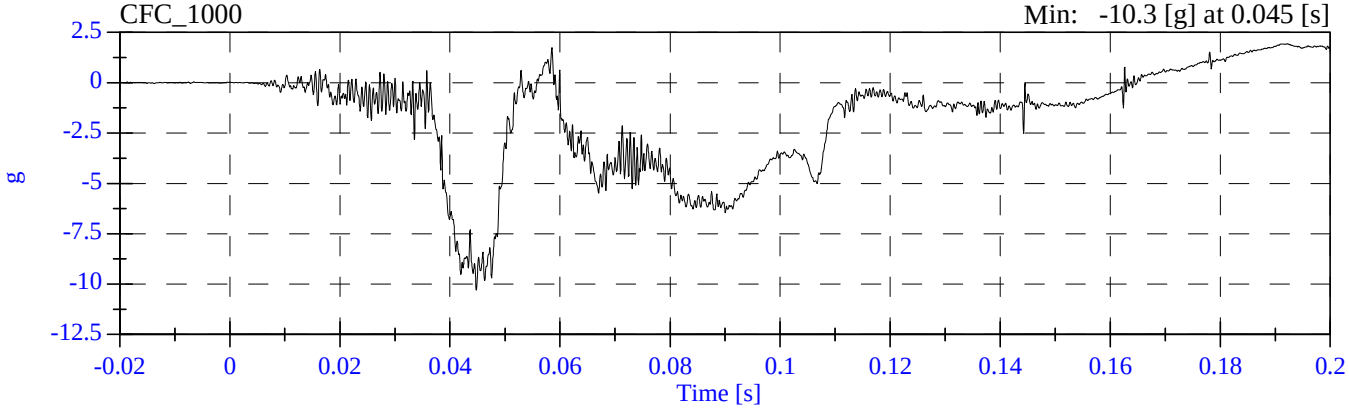


V2P1 Pelvic y
FIR_100
Max: 56.9 [g] at 0.032 [s]
Min: -12.1 [g] at 0.057 [s]

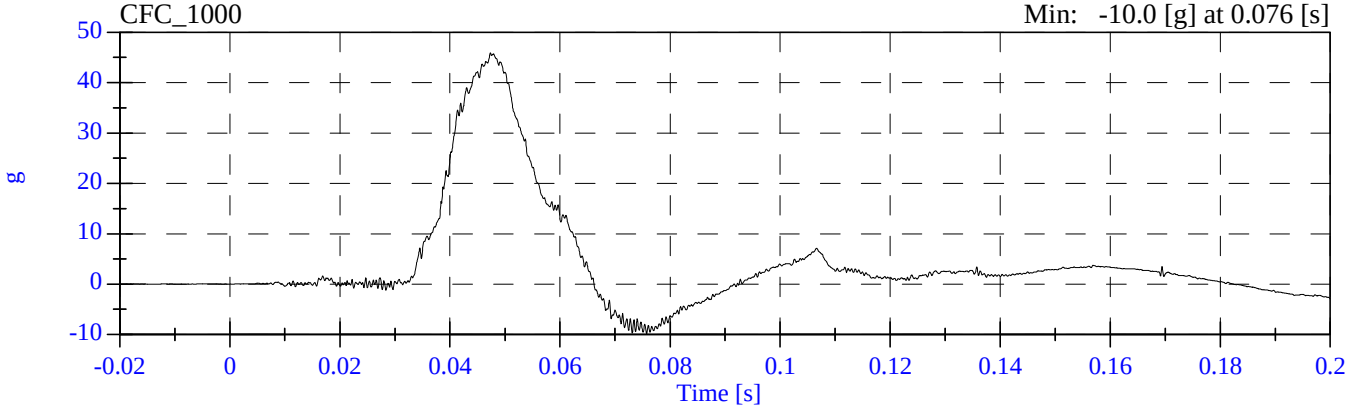


2009 FMVSS 214I Test 1 2009 Mitsubishi Galant
C95600 - August 29, 2008

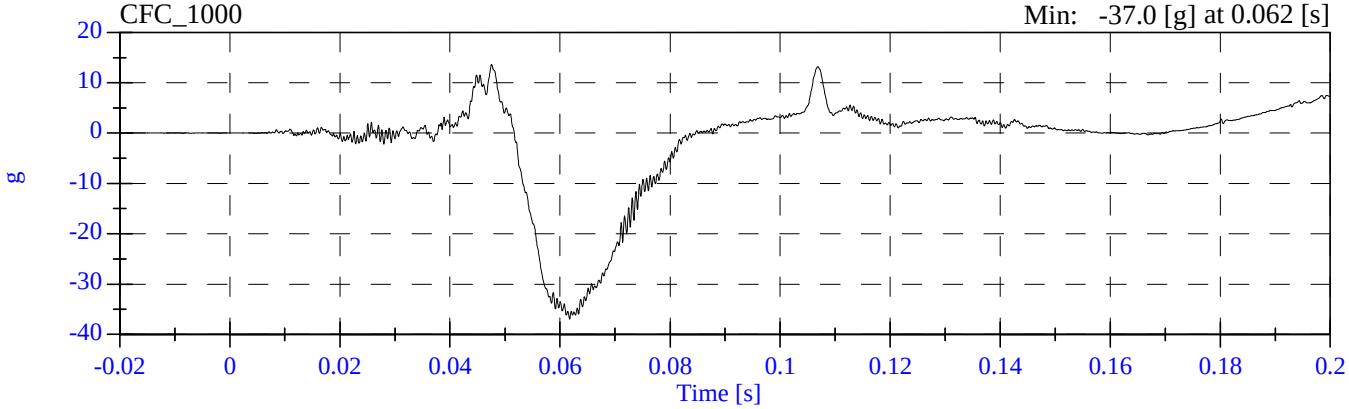
V2P4 Head x
CFC_1000
Max: 1.9 [g] at 0.192 [s]
Min: -10.3 [g] at 0.045 [s]



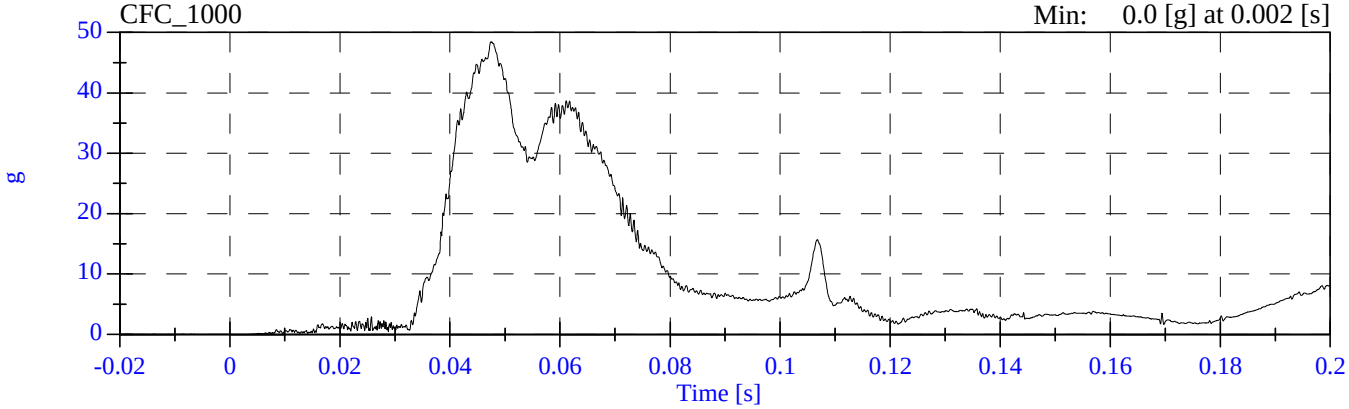
V2P4 Head y
CFC_1000
Max: 45.9 [g] at 0.047 [s]
Min: -10.0 [g] at 0.076 [s]



V2P4 Head z
CFC_1000
Max: 13.7 [g] at 0.048 [s]
Min: -37.0 [g] at 0.062 [s]

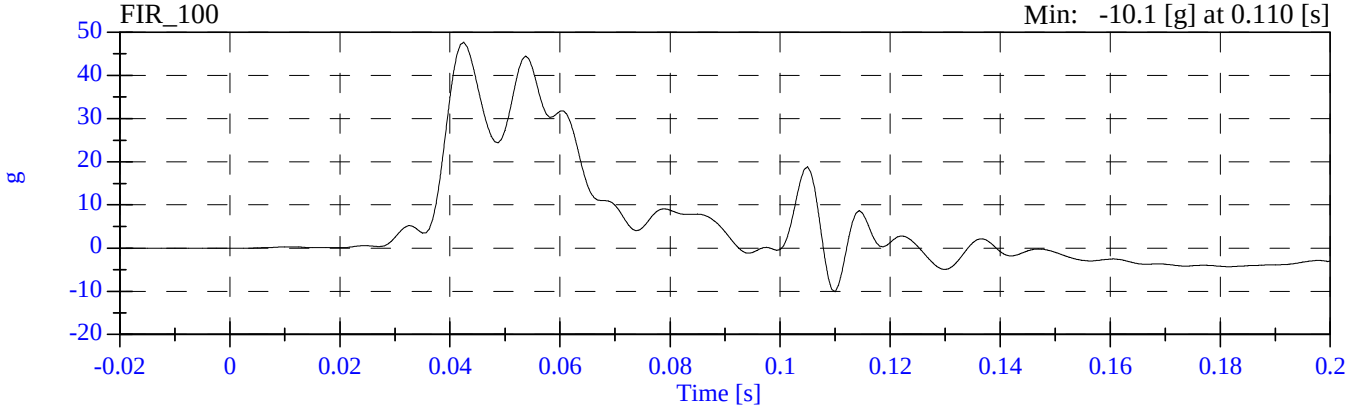


V2P4 Head Resultant
CFC_1000
Max: 48.5 [g] at 0.047 [s]
Min: 0.0 [g] at 0.002 [s]

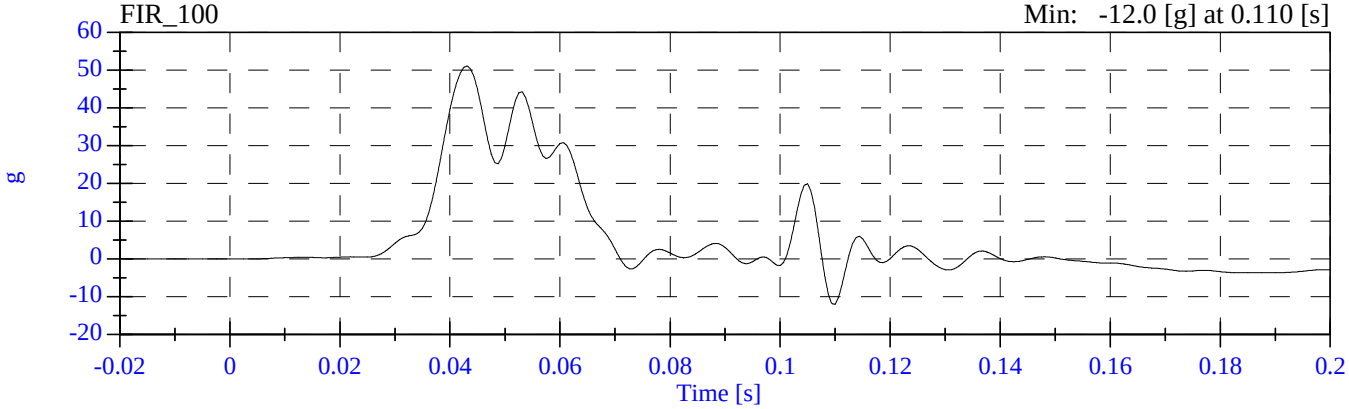


2009 FMVSS 214I Test 1 2009 Mitsubishi Galant
C95600 - August 29, 2008

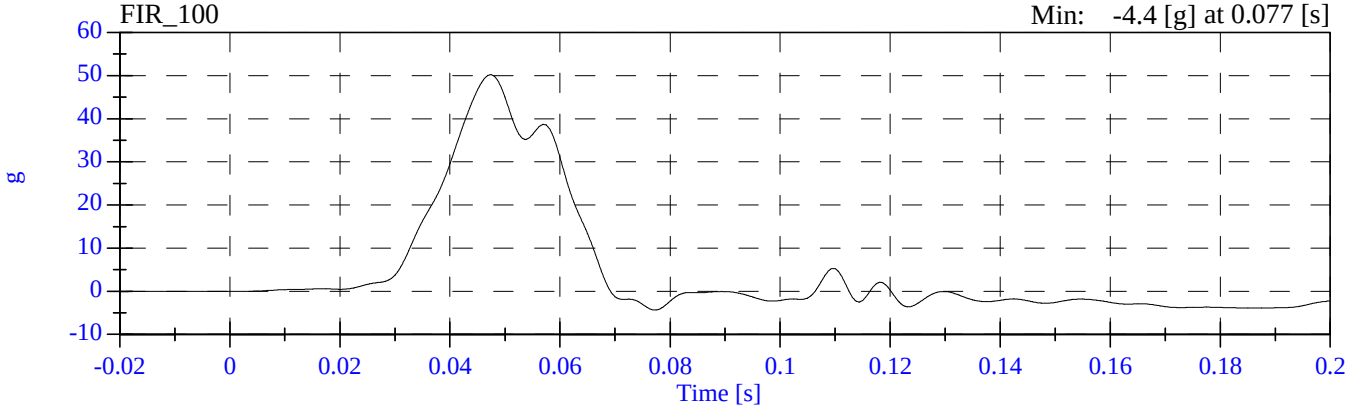
V2P4 Upper Rib y
FIR_100
Max: 47.7 [g] at 0.043 [s]
Min: -10.1 [g] at 0.110 [s]



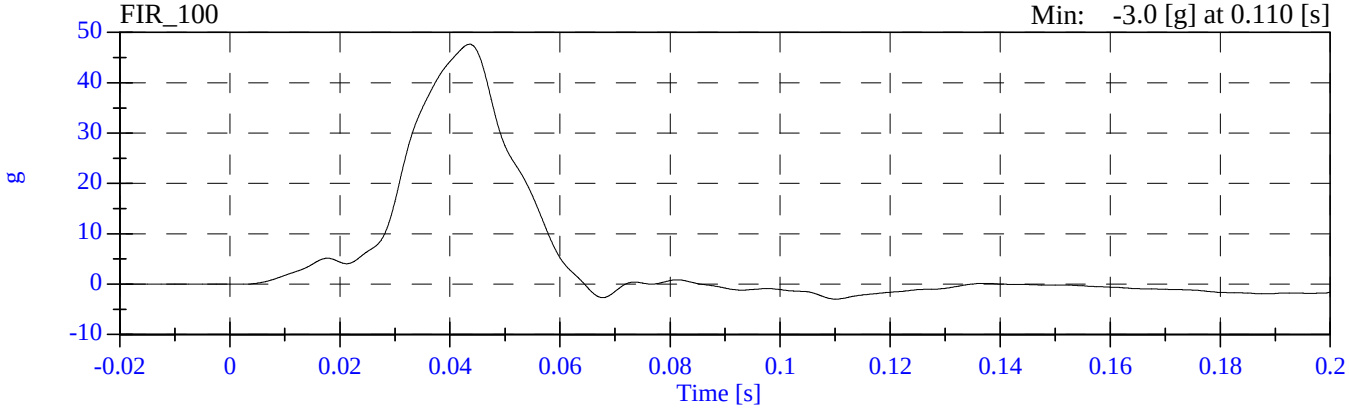
V2P4 Lower Rib y
FIR_100
Max: 51.1 [g] at 0.043 [s]
Min: -12.0 [g] at 0.110 [s]



V2P4 Lower Spine y
FIR_100
Max: 50.2 [g] at 0.047 [s]
Min: -4.4 [g] at 0.077 [s]



V2P4 Pelvic y
FIR_100
Max: 47.7 [g] at 0.044 [s]
Min: -3.0 [g] at 0.110 [s]



APPENDIX C

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: August 28, 2008; September 25, 2008 Sequential Test Number: 1
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 905		SID H3 NO.: 906	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	902	899	902	899
RH- Rib Height (mm)	501 - 521	513	511	510	510
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	239	239	239	239
KV- Knee Pivot from Back Line (mm)	511 - 526	521	521	518	521
SW- Knee Pivot to Floor (mm)	490 - 505	493	493	493	493
HW- Hip Width (mm)	356 - 391	381	384	386	384
THORAX IMPACTS					
TEMPERATURE (• C)	18.9 - 25.5	21.7	21.1	21.7	21.1
RELATIVE. HUMIDITY (%)	10 -70	48	36	45	36
PROBE SPEED (m/s)	4.27 - 4.33	4.31	4.31	4.32	4.32
UPPER RIB (g's)	37 - 46	44.21	44.42	37.94	41.30
LOWER RIB (g's)	37 - 46	40.63	42.89	37.01	39.20
LOWER SPINE (g's)	15 -22	16.67	21.88	20.61	21.45
PELVIS IMPACT					
TEMPERATURE (• C)	18.9 - 25.5	21.7	21.1	21.7	21.1
RELATIVE HUMIDITY (%)	10 - 70	44	36	44	36
PROBE SPEED (m/s)	4.27 - 4.33	4.30	4.32	4.30	4.30
PELVIS (g's)	40 -60	49.25	47.27	44.76	43.85

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 905

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 8/28/08 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 8/28/08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	902
RH- Rib Height (mm)	502 – 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	239
KH- Knee Pivot from Back Line (mm)	511 – 526	521
KV- Knee Pivot to Floor (mm)	490 – 505	493
HW- Hip Width (mm)	356 - 391	381

REMARKS: None

905 Shock Impact Low (3.05 m/s)

PRE TEST

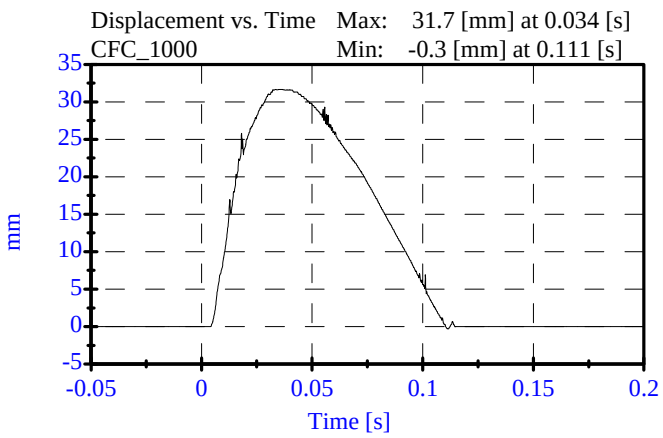
CONFIGURED FOR LEFT SIDE IMPACT

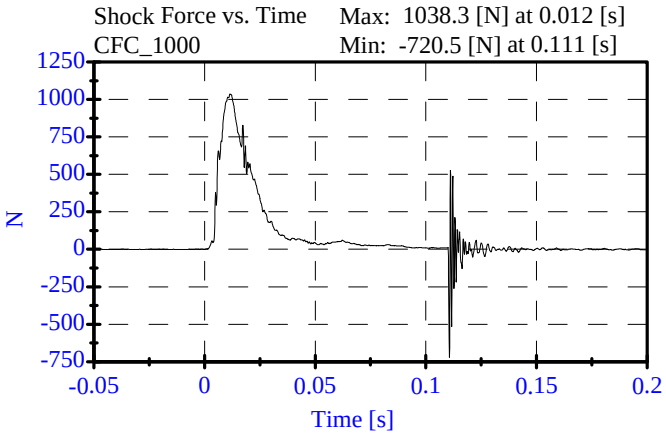
ATD Serial No: 905 Sequential Test Number: 1 File: 905SL 08-13-08

Date: 08-13-08 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 %	48.00 %	Passed
Displacement:	30.00-35.00 mm	31.67 mm	Passed
Maximum Force:	836.00-1125.00 N	1038.31 N	Passed

Impact Test Velocity: 3.05 m/s
Damper Identification: 905
Damper Setting: 5





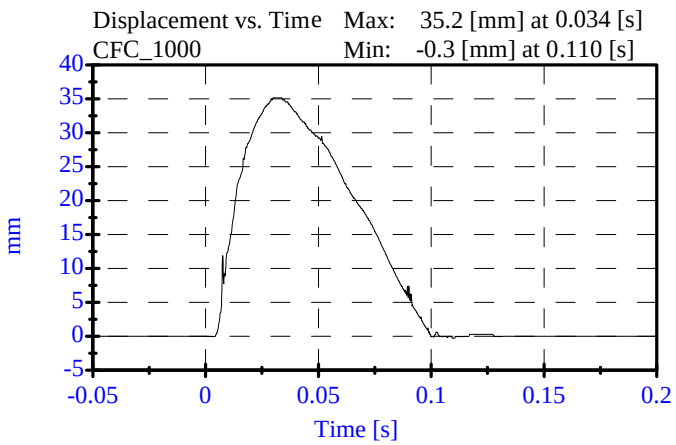
905 Shock Impact Med (4.27 m/s)
PRE TEST

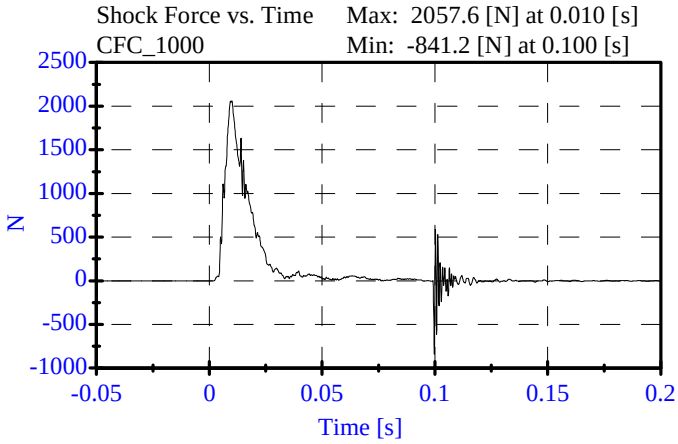
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905SM 08-13-08
Date: 08-13-08 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 %	48.00 %	Passed
Displacement:	32.00-37.00 mm	35.17 mm	Passed
Maximum Force:	1730.00-2099.00 N	2057.58 N	Passed

Impact Test Velocity: 4.27 m/s
Damper Identification: 905
Damper Setting: 5





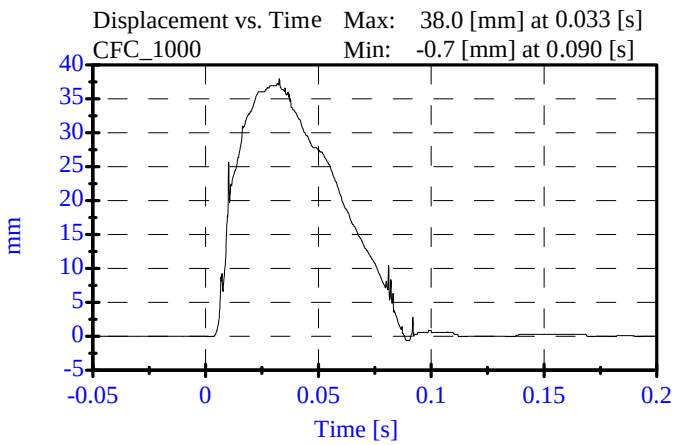
905 Shock Impact High (6.10 m/s)
PRE TEST

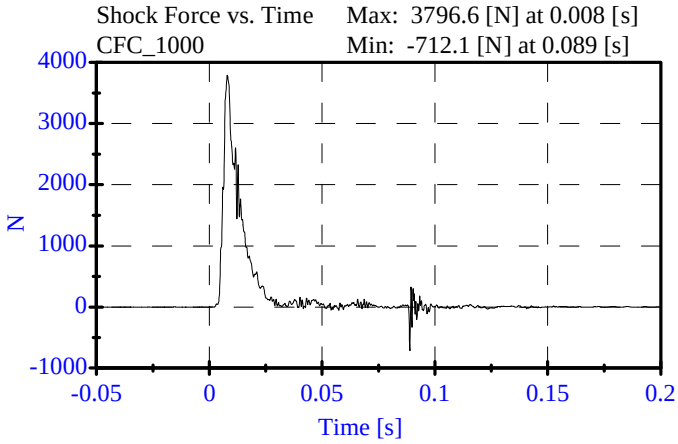
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905SH 08-13-08
Date: 08-13-08 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 %	49.00 %	Passed
Displacement:	33.00-40.00 mm	37.99 mm	Passed
Maximum Force:	3741.00-4448.00 N	3796.60 N	Passed

Impact Test Velocity: 6.10 m/s
Damper Identification: 905
Damper Setting: 5





Thorax Impact

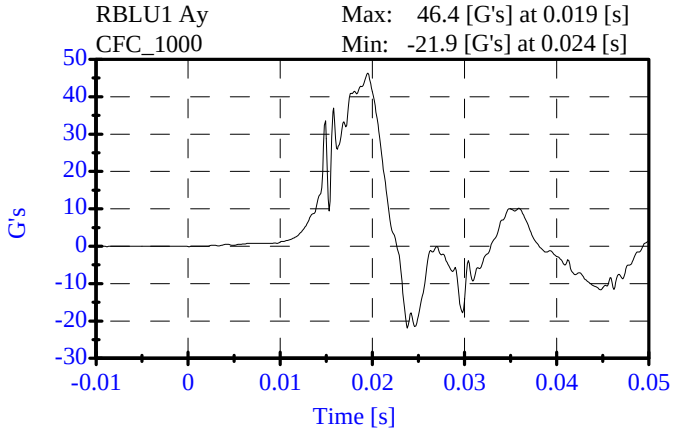
Pre-Test

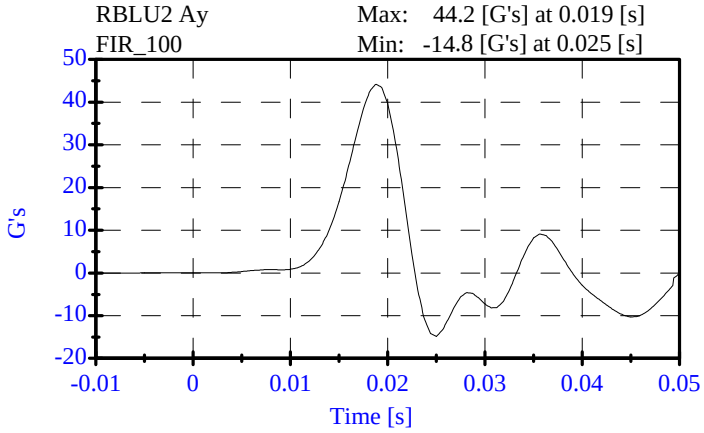
CONFIGURED FOR LEFT SIDE IMPACT

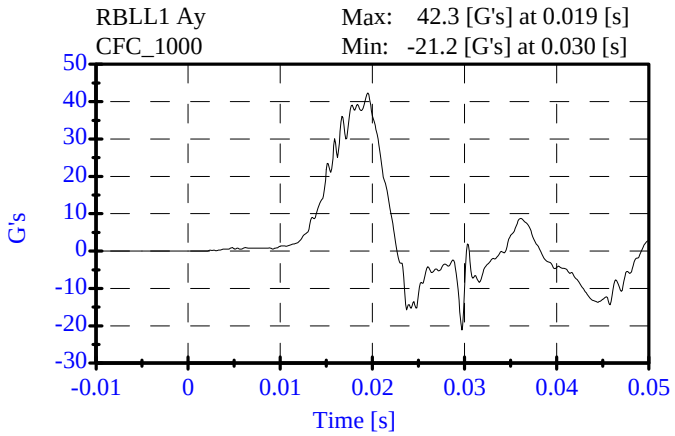
ATD Serial No: 905 Sequential Test Number: 1 File: 905T1 08-26-08

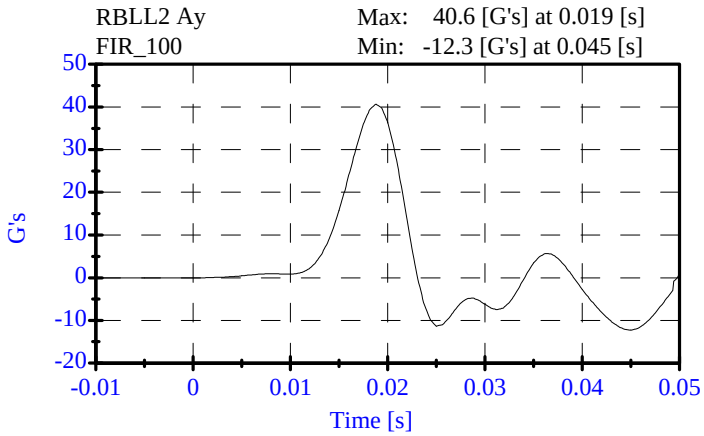
Date: 08-26-08 Laboratory Technician: B. Swiecicki

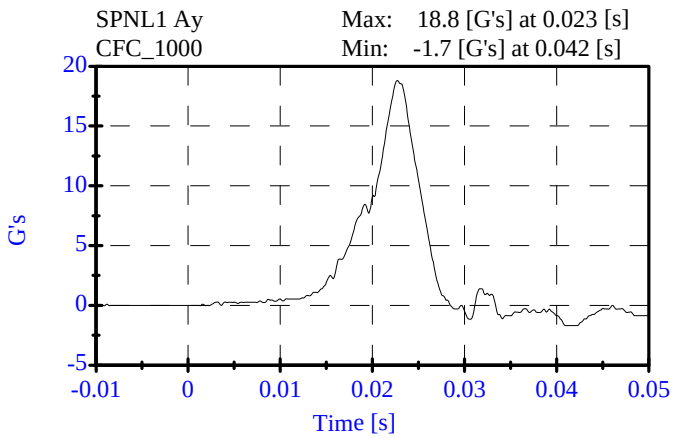
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	44.21 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	40.63 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	16.67 G's	Passed

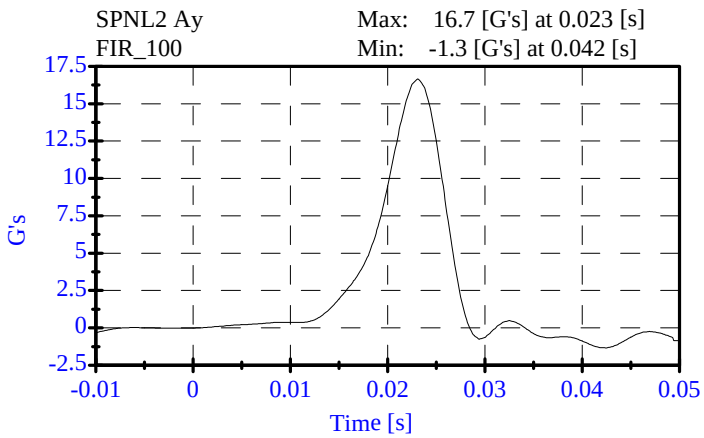












Pelvis Impact

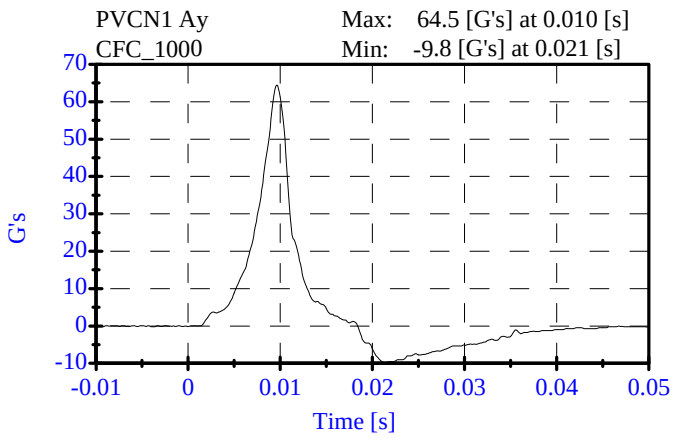
Pre-Test

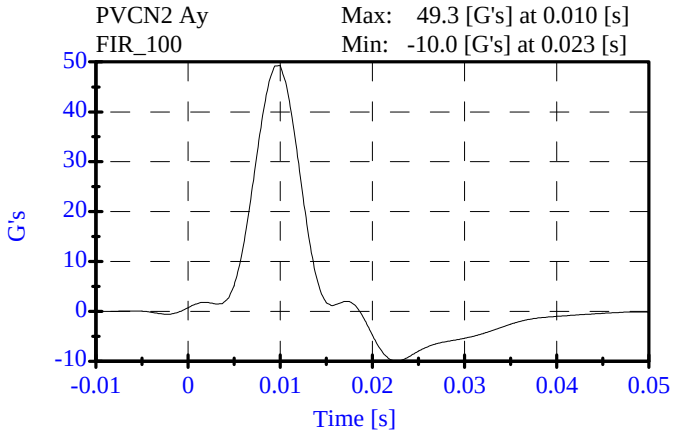
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905P1 08-26-08

Date: 08-26-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	49.25 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.1 ms	Passed





Head Drop Test

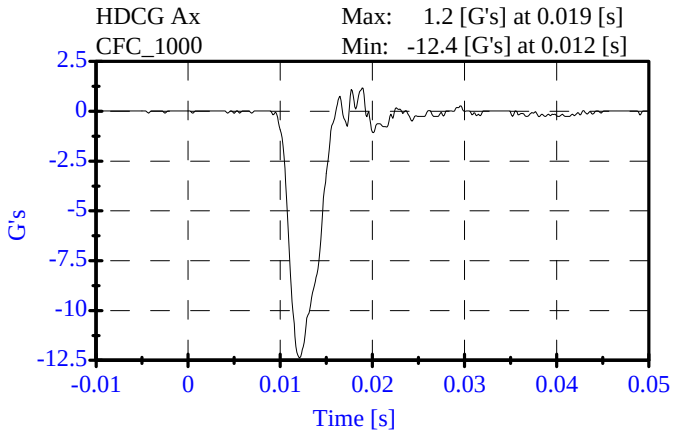
Pre-Test

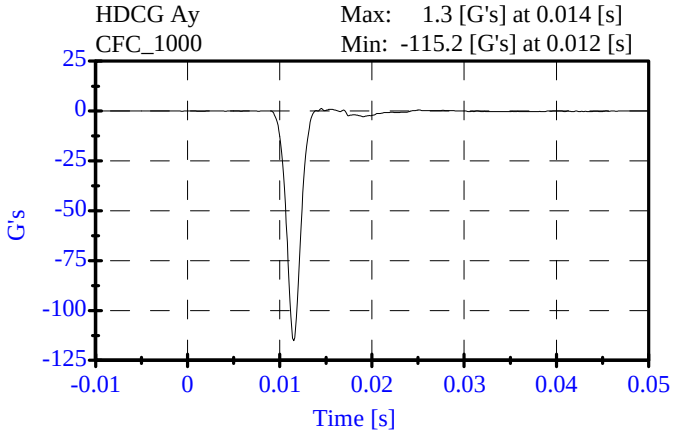
CONFIGURED FOR LEFT SIDE IMPACT

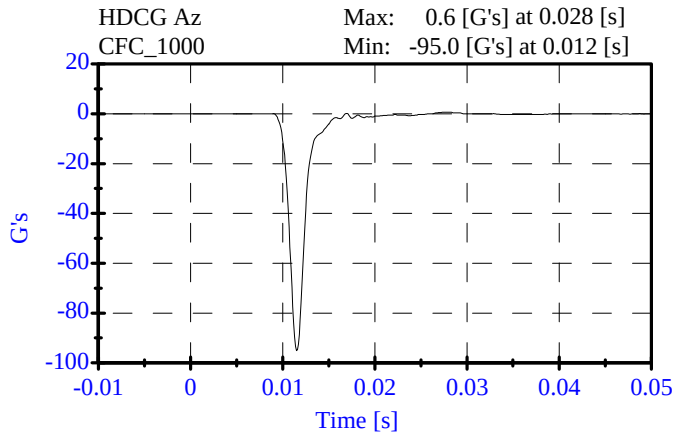
ATD Serial No: 905 Sequential Test Number: 1 File: 905H 08-11-08

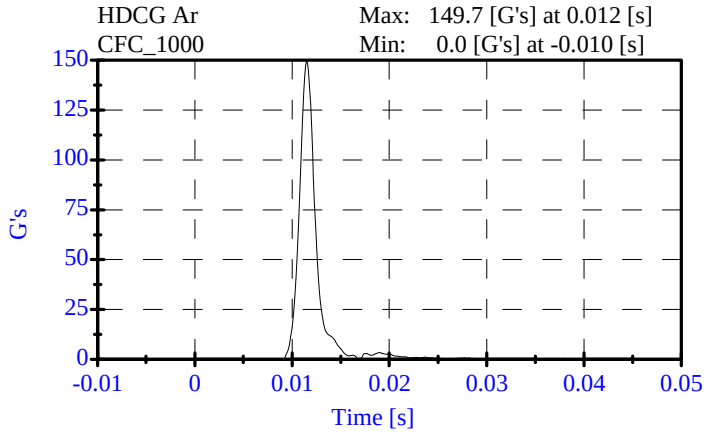
Date: 08-11-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	55.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	149.67 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	1.17 Gs	Passed
Curve PerCent NonModal:	< 15%	2.31 %	Passed









Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905N 08-04-08

Date: 08-05-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	56.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.99 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.15 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.47 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.35 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.15 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	69.73 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.60 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	86.79 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	9.30 ms	Passed

Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

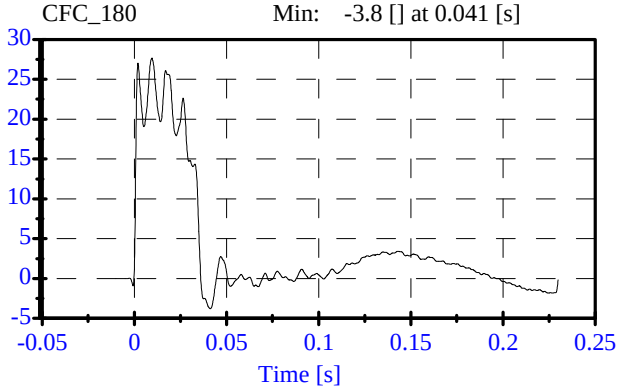
ATD Serial No: 905

Sequential Test Number: 1 File: 905N 08-04-08

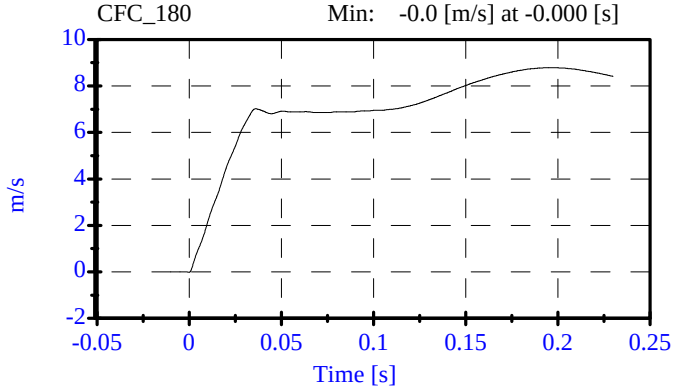
Date: 08-05-08

Laboratory Technician: B. Swiecicki

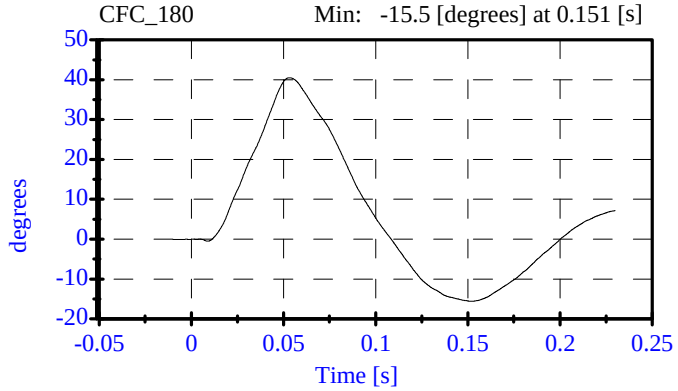
Pend Ax
CFC_180
Max: 27.7 [] at 0.010 [s]
Min: -3.8 [] at 0.041 [s]



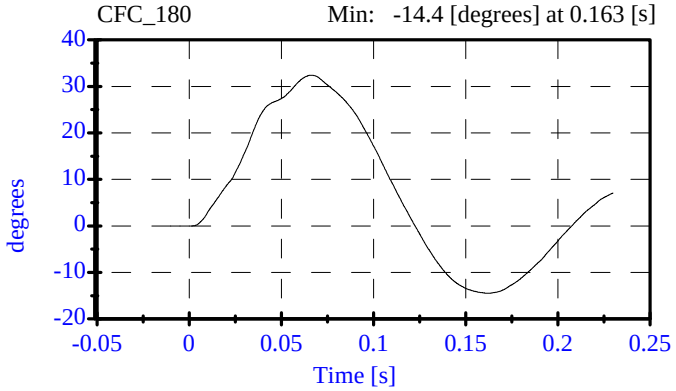
Pend Vx
CFC_180
Max: 8.8 [m/s] at 0.198 [s]
Min: -0.0 [m/s] at -0.000 [s]



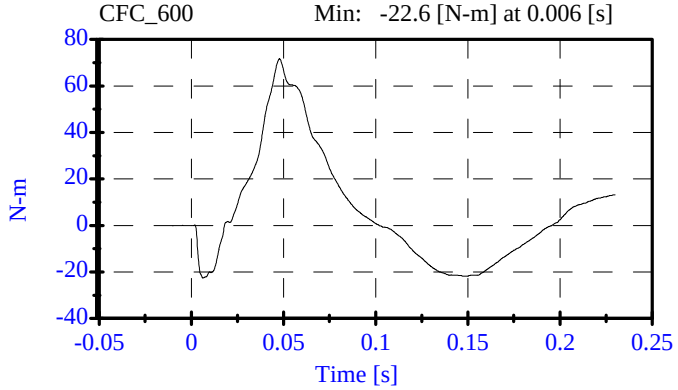
Head Rot
CFC_180
Max: 40.5 [degrees] at 0.053 [s]
Min: -15.5 [degrees] at 0.151 [s]



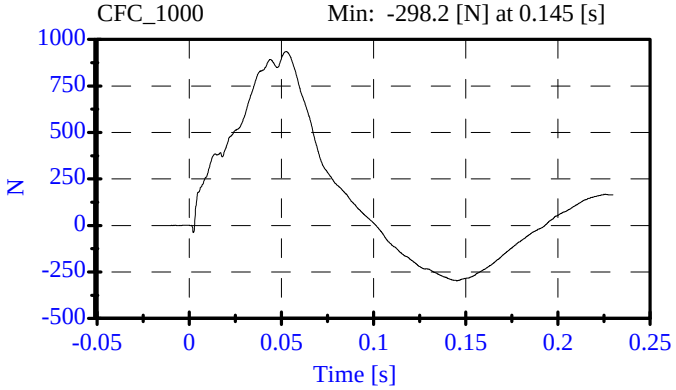
Arm Rot
CFC_180
Max: 32.4 [degrees] at 0.066 [s]
Min: -14.4 [degrees] at 0.163 [s]



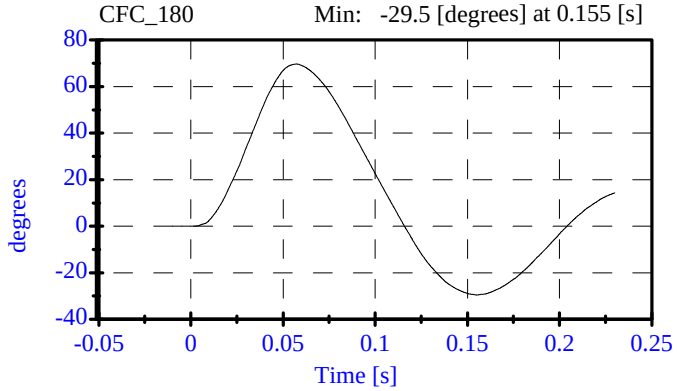
Neck Mx
CFC_600
Max: 71.7 [N-m] at 0.048 [s]
Min: -22.6 [N-m] at 0.006 [s]



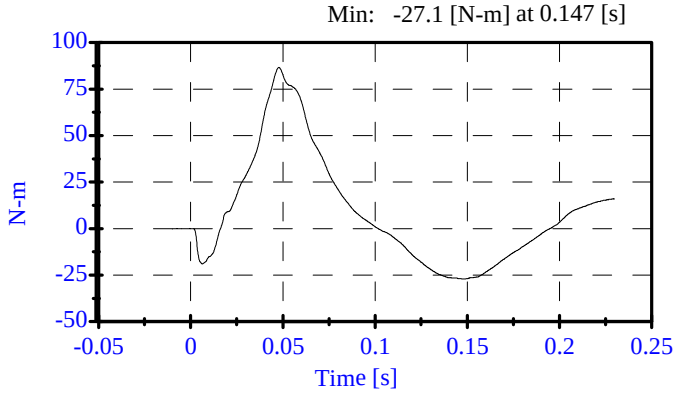
Neck Fy
CFC_1000
Max: 935.7 [N] at 0.053 [s]
Min: -298.2 [N] at 0.145 [s]



Tot Rot
CFC_180
Max: 69.7 [degrees] at 0.057 [s]
Min: -29.5 [degrees] at 0.155 [s]



MOCX
Max: 86.8 [N-m] at 0.048 [s]
Min: -27.1 [N-m] at 0.147 [s]



Abdominal Compression Test

Pre-Test

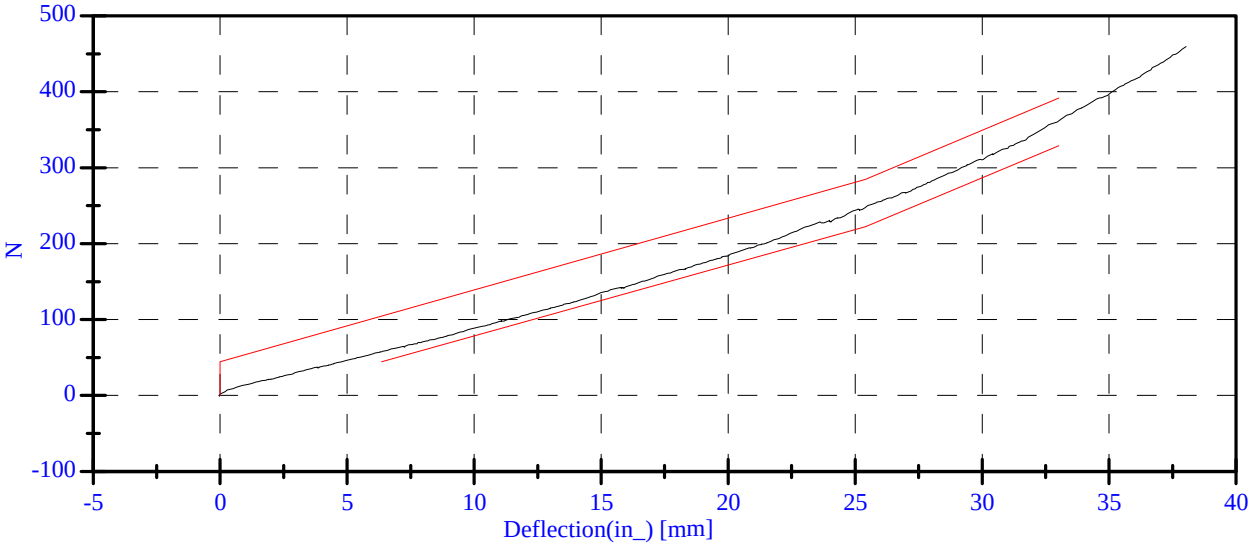
CONFIGURED FOR LEFT SIDE IMPACT

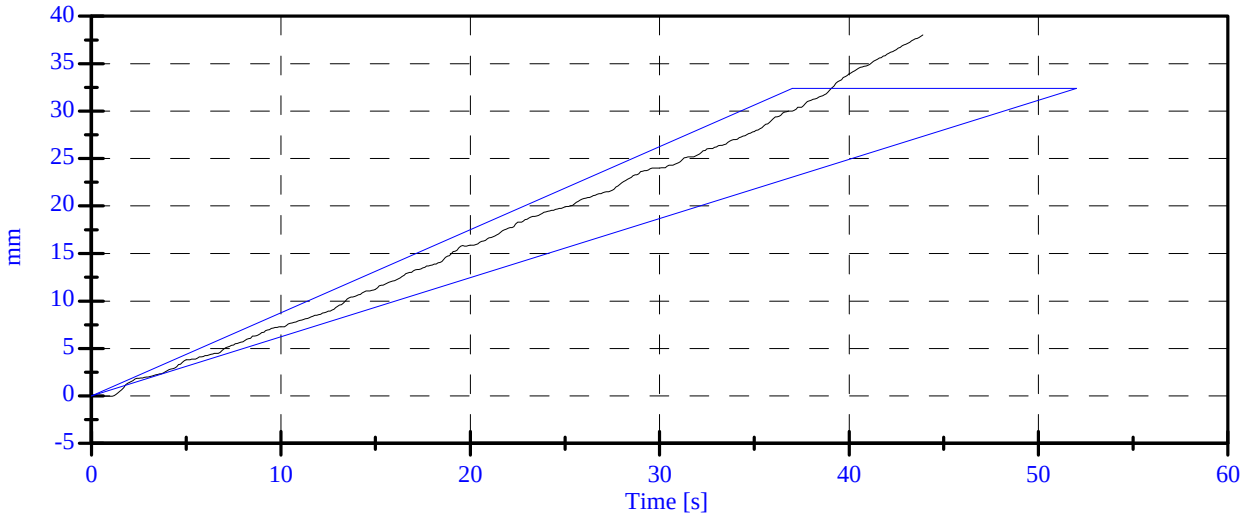
ATD Serial No: 905 Sequential Test Number: 1 File: 905 Ab 08-28-08

Date: 08-28-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	55.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	114.42 N	Passed
Force at 19.05 mm :	162.98-220.99 N	174.65 N	Passed
Force at 25.40 mm :	221.97-280.02 N	247.30 N	Passed
Force at 33.02 mm :	324.99-391.00 N	360.09 N	Passed

ABDOMINAL COMPRESSION TEST





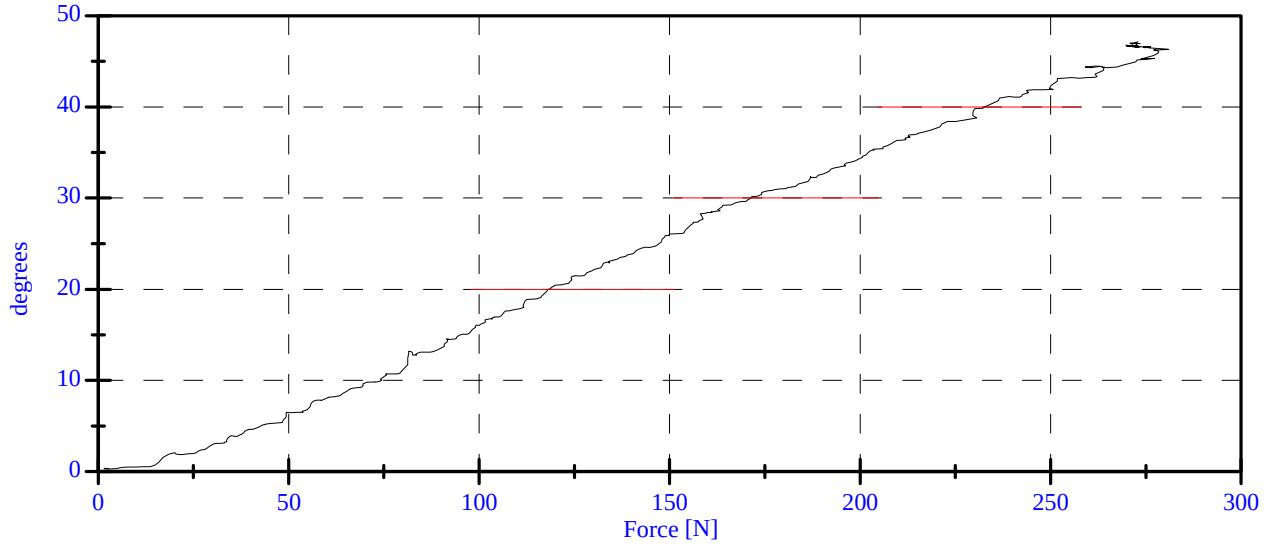
Lumbar Spine Test
Pre-Test

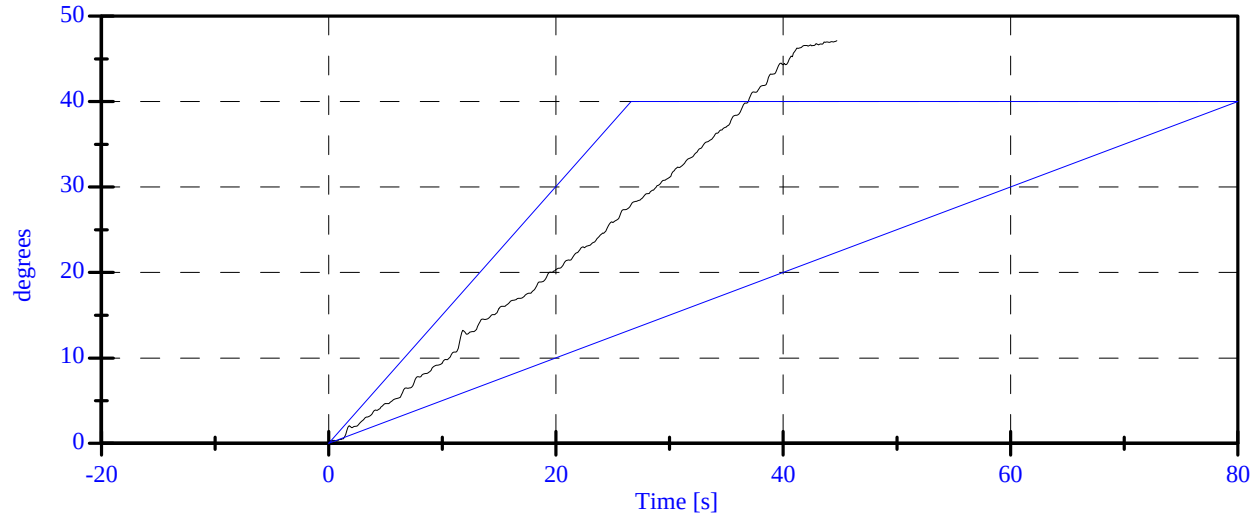
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905 Spine 08-27-08
Date: 08-27-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	46.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	1.83 N	Passed
Force at 20 Deg:	97.86-151.24 N	118.04 N	Passed
Force at 30 Deg	151.24-204.62 N	171.32 N	Passed
Force at 40 Deg	204.62-258.00 N	232.69 N	Passed
Return Angle	12 Deg Max	7.87 deg	Passed

LUMBAR SPINE FLEXION TEST





PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 8/12/08 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 906

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 8/28/08 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 8/28/08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	510
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	386

REMARKS: None

906 Shock Impact Test (3.05 m/s)

PRE TEST

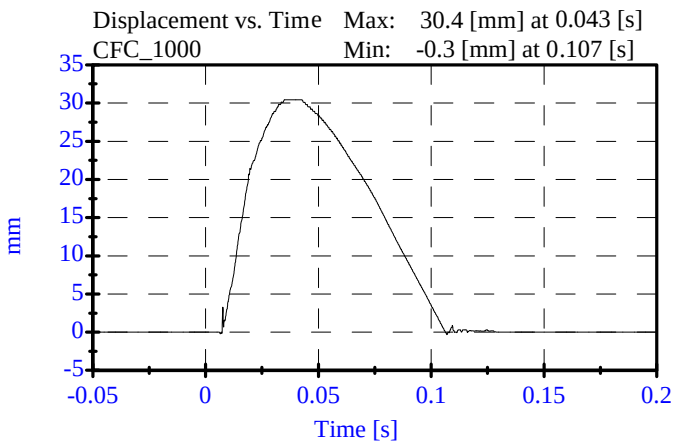
CONFIGURED FOR LEFT SIDE IMPACT

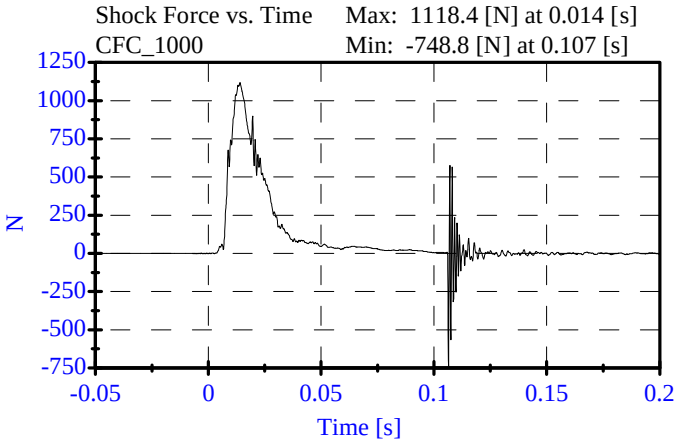
ATD Serial No: 906 Sequential Test Number: 1 File: 906SL 08-13-08

Date: 08-13-08 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 %	50.00 %	Passed
Displacement:	30.00-35.00 mm	30.44 mm	Passed
Maximum Force:	836.00-1125.00 N	1118.37 N	Passed

Impact Test Velocity: 3.05 m/s
Damper Identification: 906
Damper Setting: 5





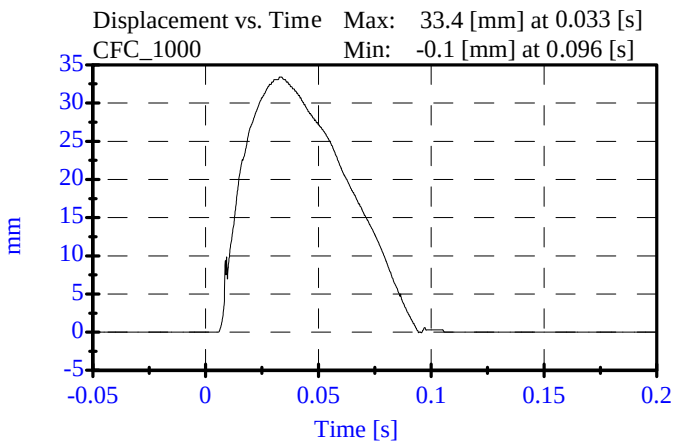
906 Shock Impact Med (4.27 m/s)
PRE TEST

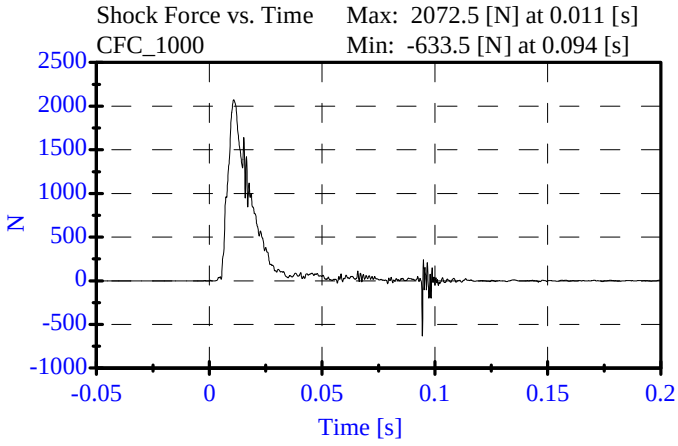
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906 Sequential Test Number: 1 File: 906SM1 08-13-08
Date: 08-13-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	49.00 %	Passed
Displacement:	32.00-37.00 mm	33.40 mm	Passed
Maximum Force:	1730.00-2099.00 N	2072.48 N	Passed

Impact Test Velocity: 4.27 m/s
Damper Identification: 906
Damper Setting: 5





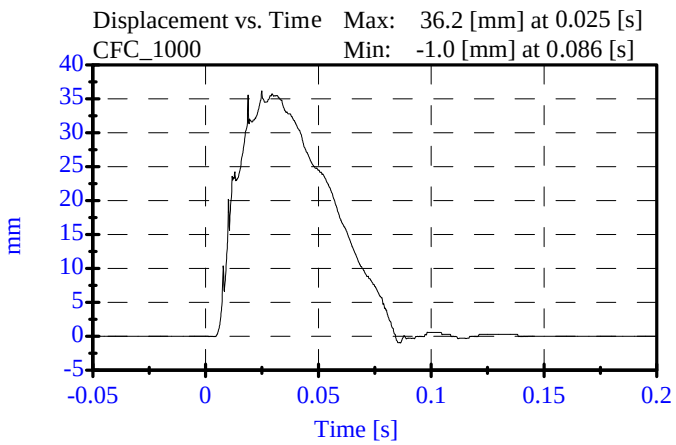
906 Shock Impact High (6.10 m/s)
PRE TEST

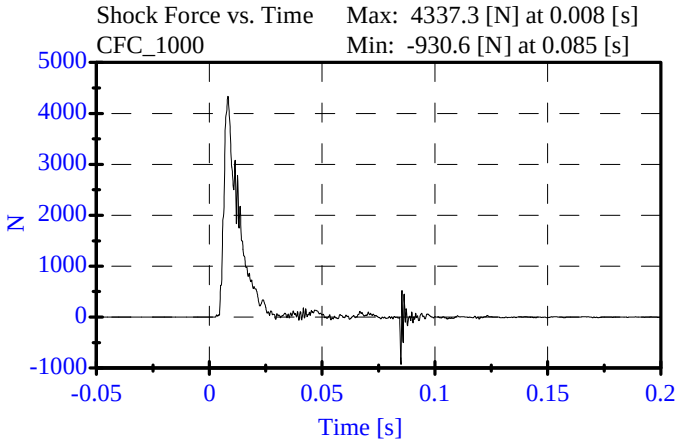
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906 Sequential Test Number: 1 File: 906SH 08-13-08
Date: 08-13-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	49.00 %	Passed
Displacement:	33.00-40.00 mm	36.20 mm	Passed
Maximum Force:	3741.00-4448.00 N	4337.31 N	Passed

Impact Test Velocity: 6.10 m/s
Damper Identification: 906
Damper Setting: 5





Thorax Impact

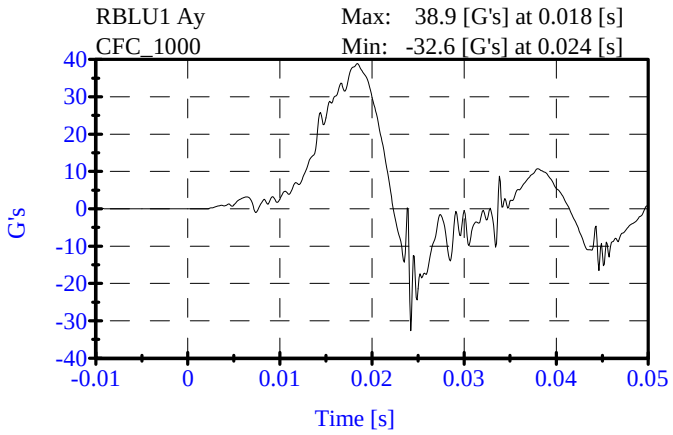
Pre-Test

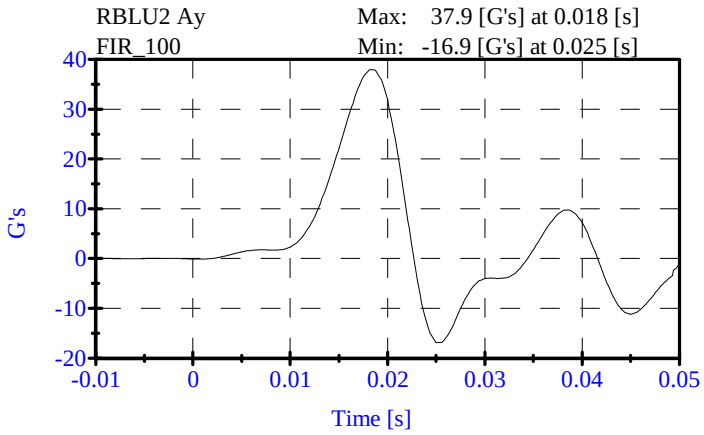
CONFIGURED FOR LEFT SIDE IMPACT

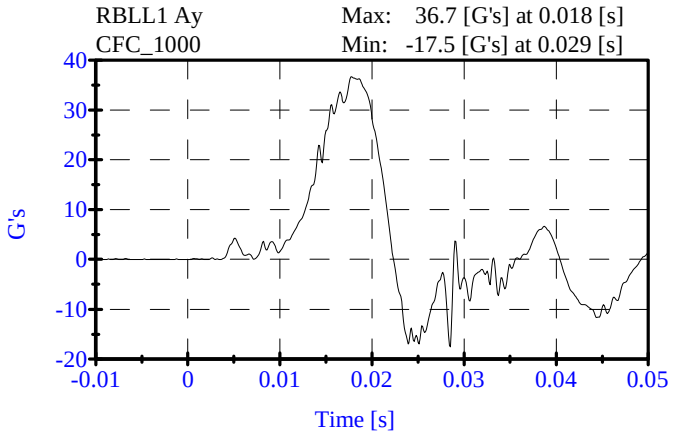
ATD Serial No: 906 | Sequential Test Number: 1 | File: 906T1 08-27-08

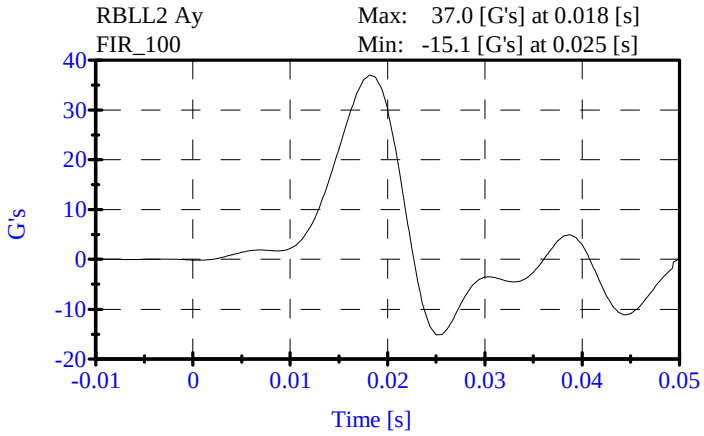
Date: 08-27-08 | Laboratory Technician: B. Swiecicki

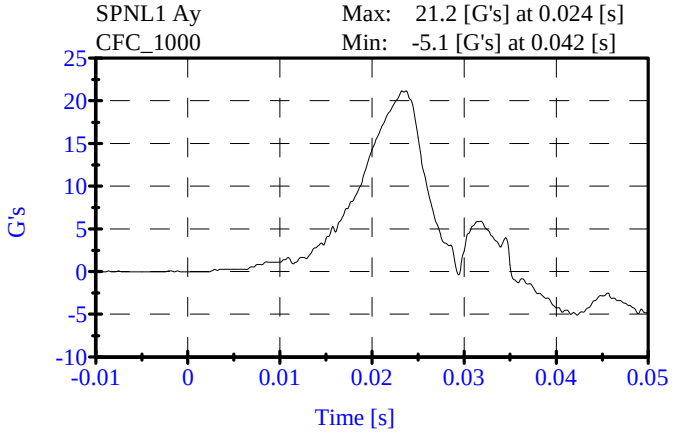
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	45.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	37.94 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.01 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.61 G's	Passed

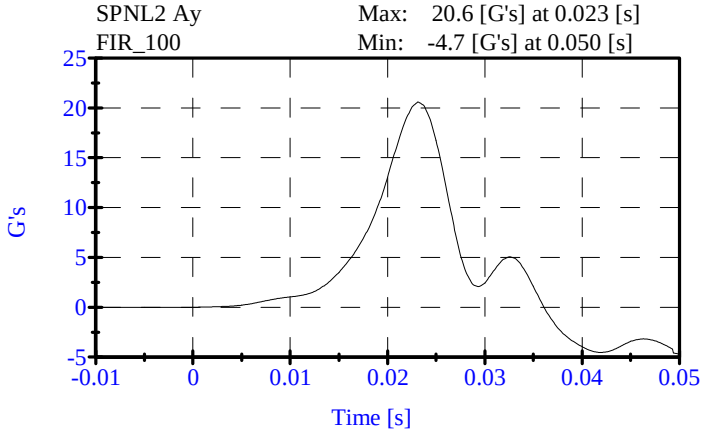












Pelvis Impact

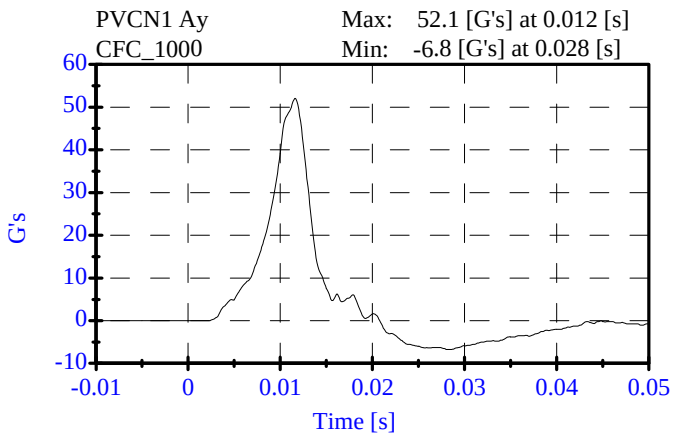
Pre-Test

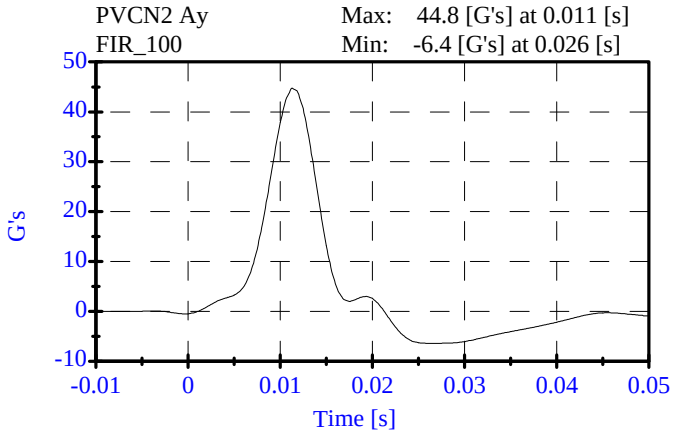
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906 Sequential Test Number: 1 File: 906P 08-27-08

Date: 08-27-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	44.76 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	6.1 ms	Passed





906H 08-11-08

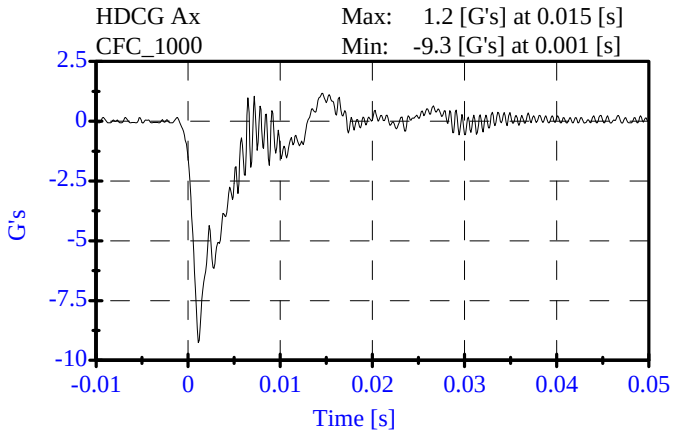
Pre-Test

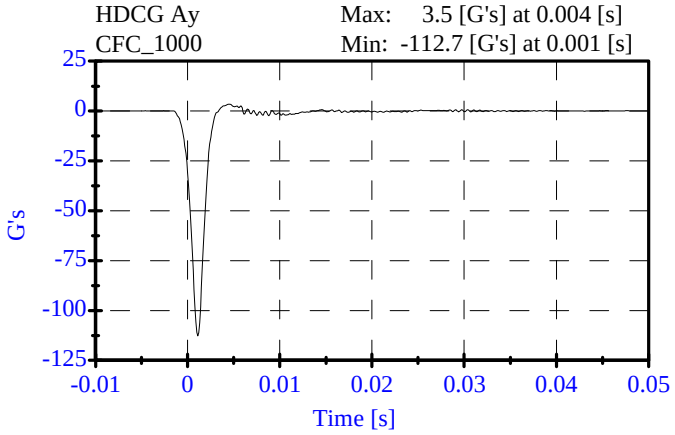
CONFIGURED FOR LEFT SIDE IMPACT

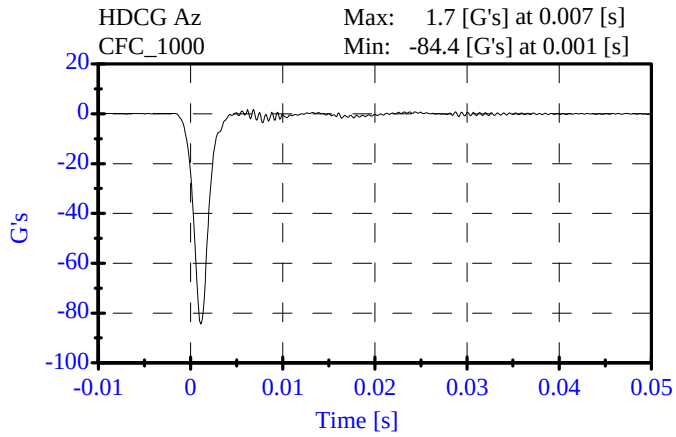
ATD Serial No: 906 Sequential Test Number: 1 File: 906H 08-11-08

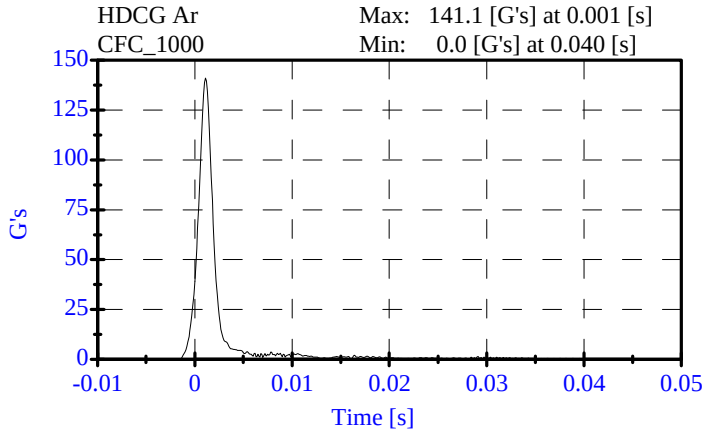
Date: 08-11-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.7 C	Passed
Lab Humidity:	10-70 %	59.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	141.10 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	1.16 Gs	Passed
Curve PerCent NonModal:	< 15%	2.73 %	Passed









Neck Test 906

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906 Sequential Test Number: 1 File: NONAME

Date: 08-05-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.7 C	Passed
Lab Humidity:	10-70 %	56.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.99 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.54 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.99 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.89 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	6.97 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	71.93 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.20 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 Nm	83.33 Nm	Passed
Occiptal Moment Decay:	49.0-64.0 ms	55.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	6.70 ms	Passed

Neck Test 906

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

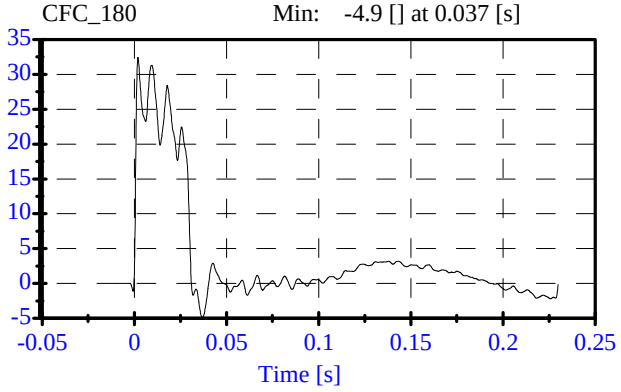
ATD Serial No: 906

Date: 08-05-08

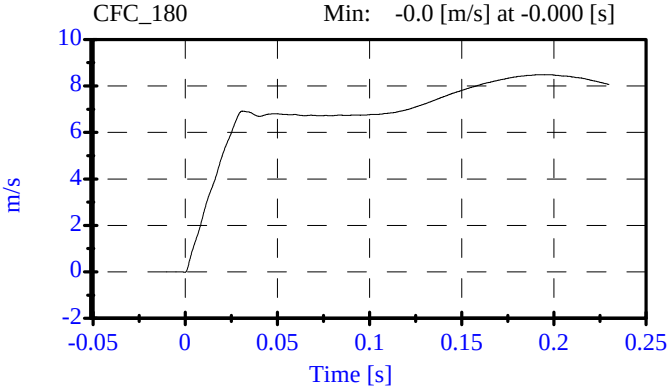
Sequential Test Number: 1 File: NONAME

Laboratory Technician: B. Swiecicki

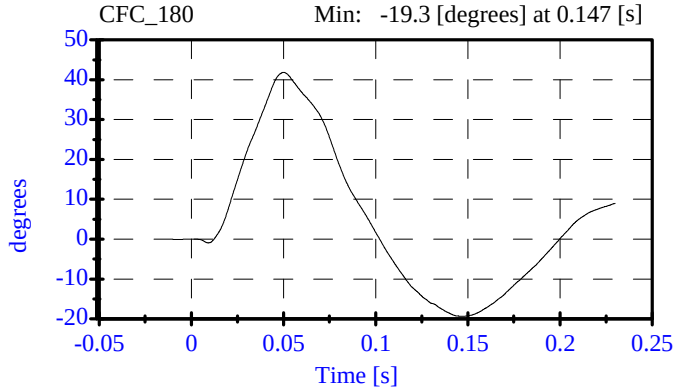
Pend Ax
CFC_180
Max: 32.4 [] at 0.002 [s]
Min: -4.9 [] at 0.037 [s]



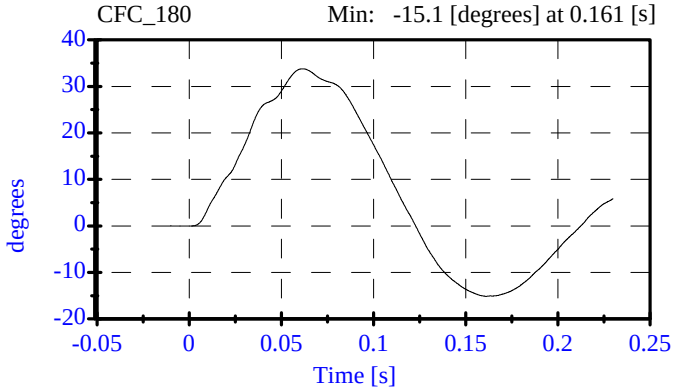
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.195 [s]
Min: -0.0 [m/s] at -0.000 [s]



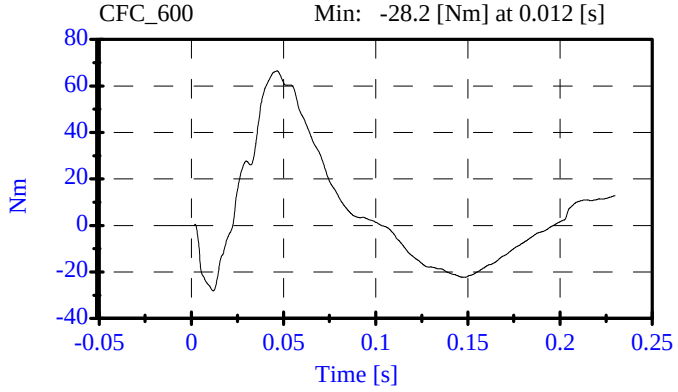
Head Rot
CFC_180
Max: 41.8 [degrees] at 0.050 [s]
Min: -19.3 [degrees] at 0.147 [s]



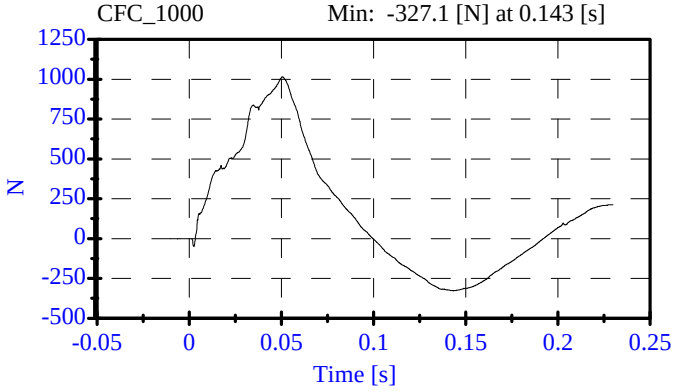
Arm Rot
CFC_180
Max: 33.8 [degrees] at 0.061 [s]
Min: -15.1 [degrees] at 0.161 [s]



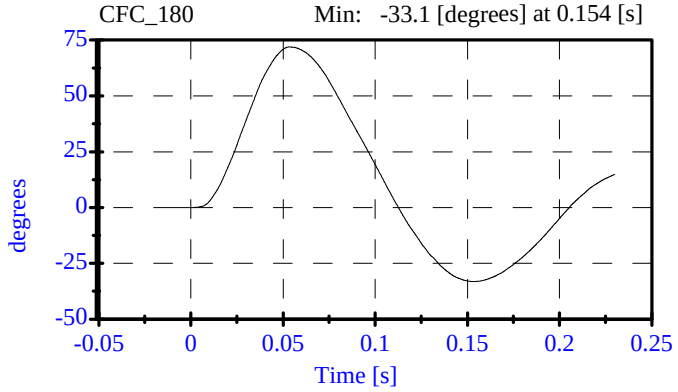
Neck Mx
CFC_600
Max: 66.5 [Nm] at 0.047 [s]
Min: -28.2 [Nm] at 0.012 [s]



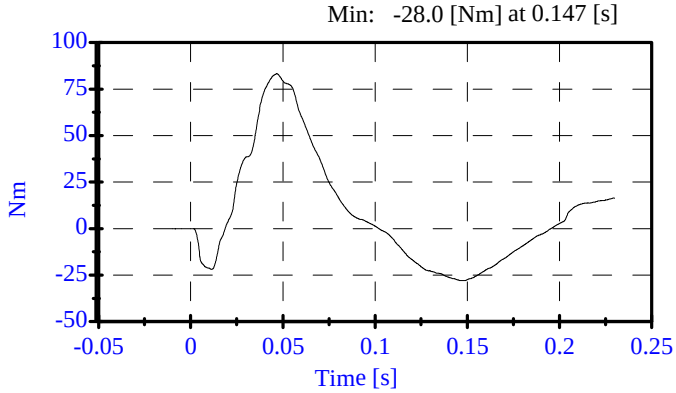
Neck Fy
CFC_1000
Max: 1015.8 [N] at 0.050 [s]
Min: -327.1 [N] at 0.143 [s]



Tot Rot
CFC_180
Max: 71.9 [degrees] at 0.053 [s]
Min: -33.1 [degrees] at 0.154 [s]



MOCX
Max: 83.3 [Nm] at 0.047 [s]
Min: -28.0 [Nm] at 0.147 [s]



Abdomen Compression Test

Pre-Test

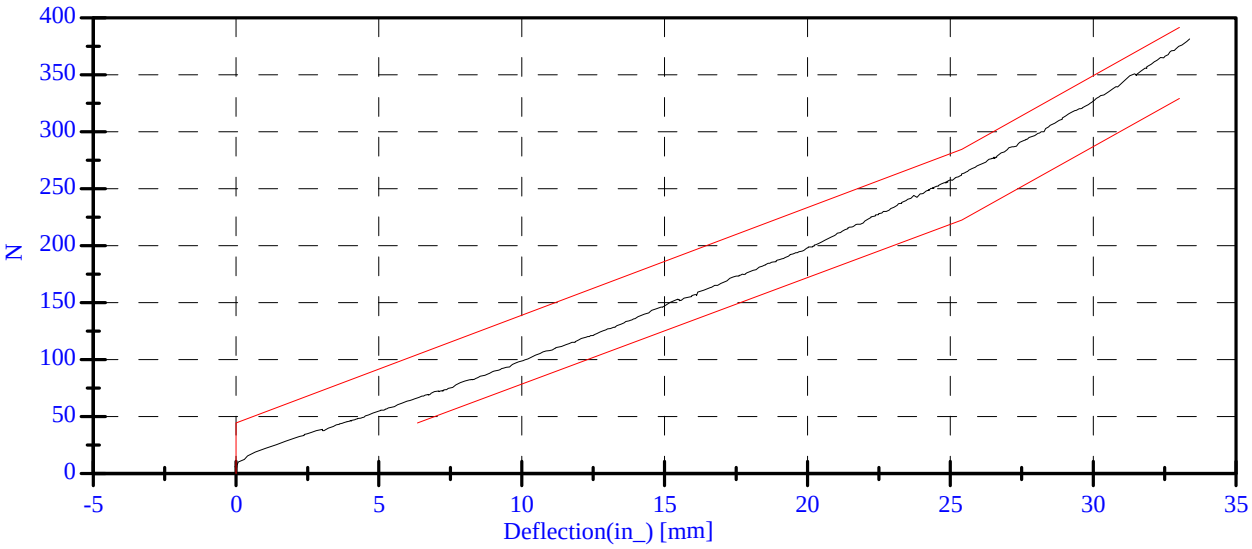
CONFIGURED FOR LEFT SIDE IMPACT

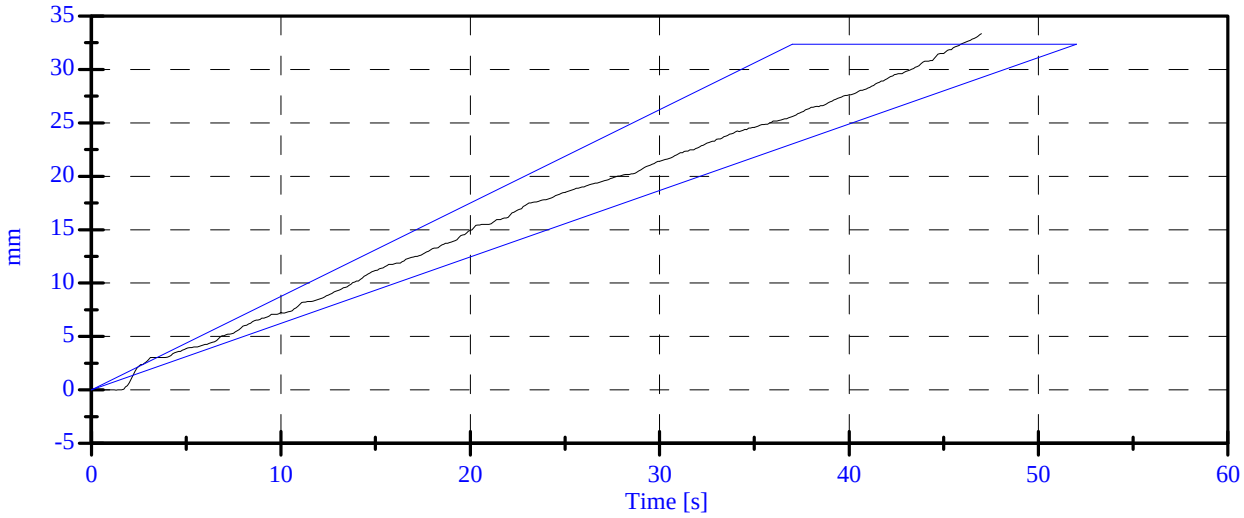
ATD Serial No: 906 Sequential Test Number: 1 File: NONAME

Date: 08-28-08 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	55.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	126.10 N	Passed
Force at 19.05 mm :	162.98-220.99 N	187.80 N	Passed
Force at 25.40 mm :	221.97-280.02 N	261.90 N	Passed
Force at 33.02 mm :	324.99-391.00 N	375.06 N	Passed

ABDOMINAL COMPRESSION TEST





Lumbar Spine Test
Pre-Test

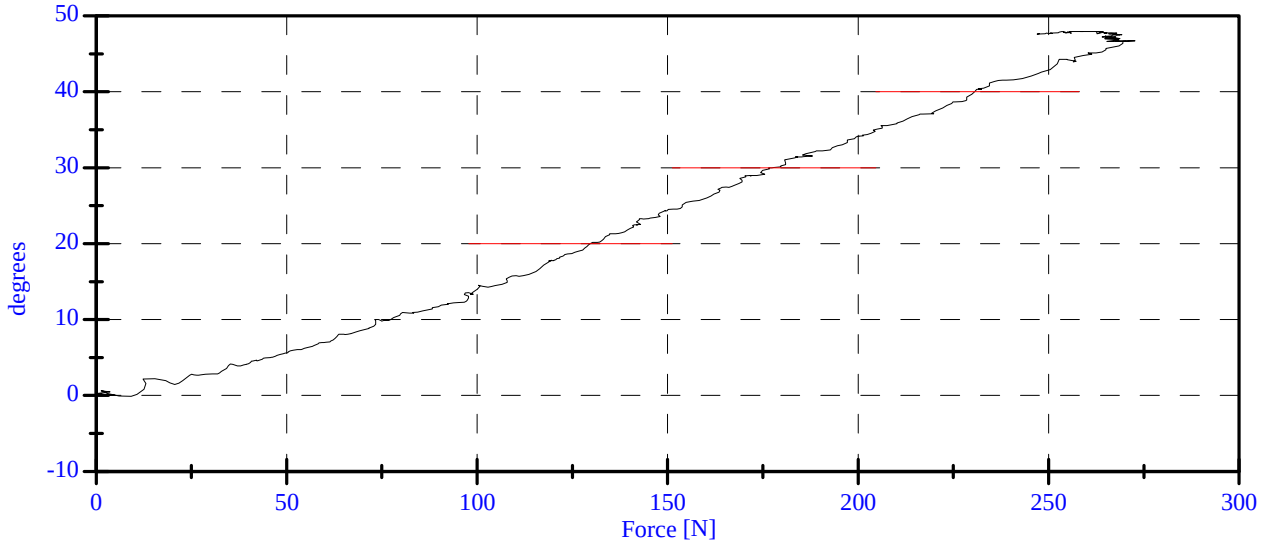
CONFIGURED FOR LEFT SIDE IMPACT

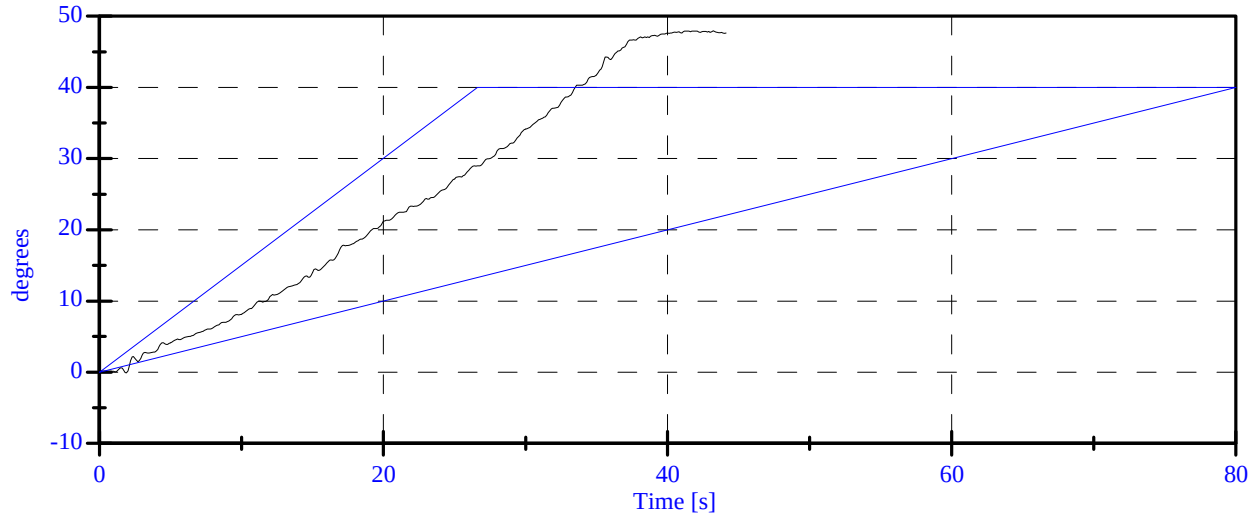
ATD Serial No: 906
Date: 8-27-08

Sequential Test Number: 1 File: NONAME
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 %	48.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	4.96 N	Passed
Force at 20 Deg:	97.86-151.24 N	129.79 N	Passed
Force at 30 Deg	151.24-204.62 N	176.54 N	Passed
Force at 40 Deg	204.62-258.00 N	230.60 N	Passed
Return Angle	12 Deg Max	7.74 deg	Passed

LUMBAR SPINE FLEXION TEST





PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 8/28/08 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 905

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: September 25, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: September 25, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

Thorax Impact

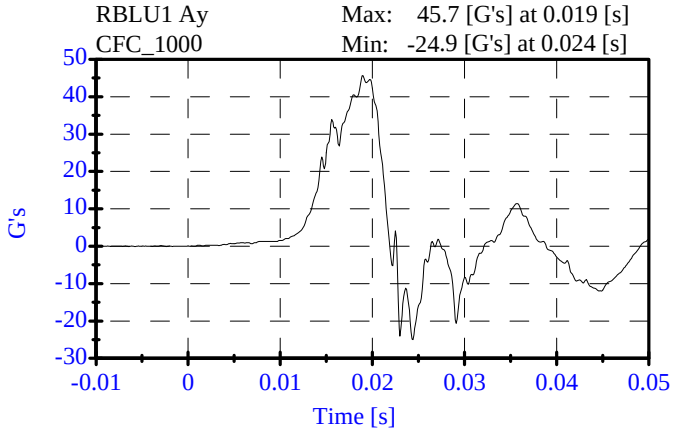
Post-Test

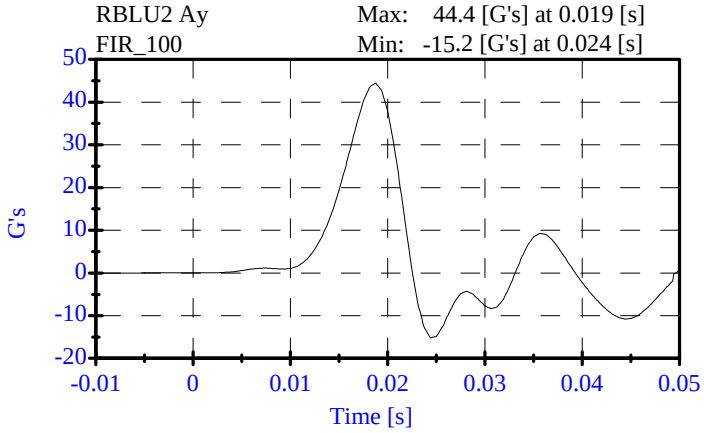
CONFIGURED FOR LEFT SIDE IMPACT

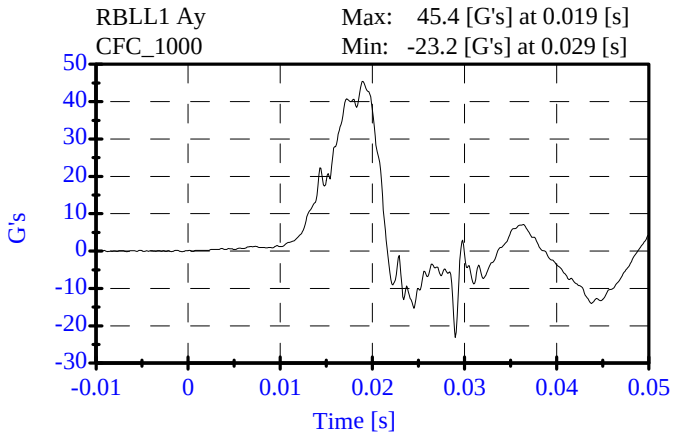
ATD Serial No: 905 Sequential Test Number: 1 File: 905T 09-25-08

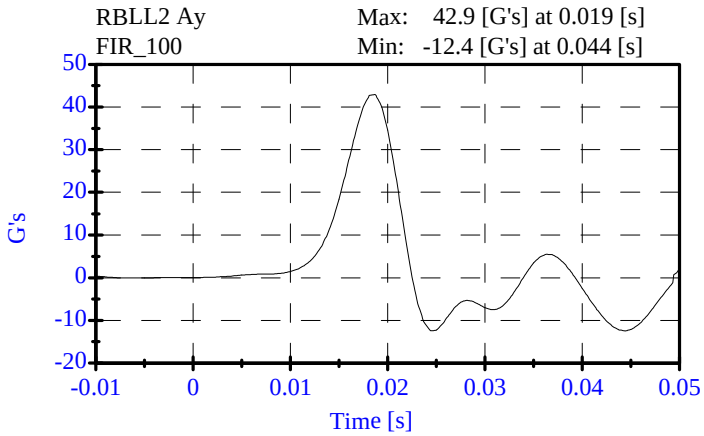
Date: 09-25-08 Laboratory Technician: B. Swiecicki

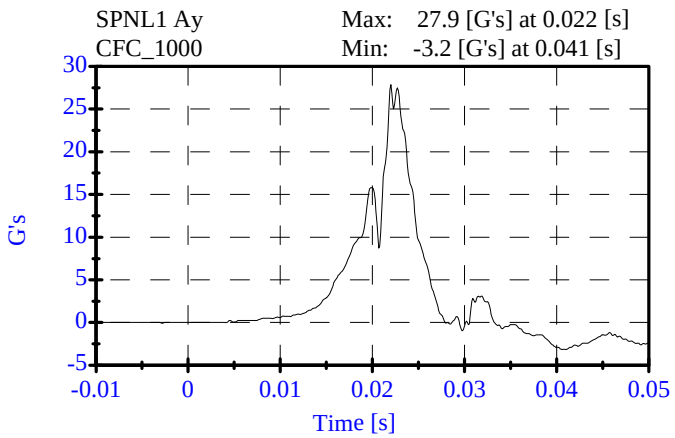
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	44.42 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	42.89 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.88 G's	Passed

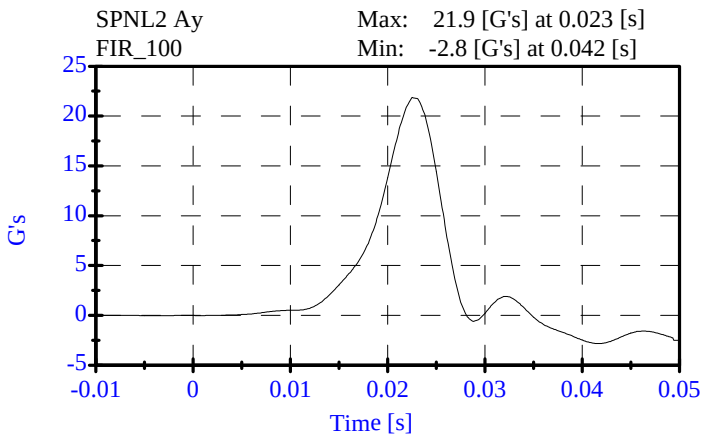












Pelvic Impact

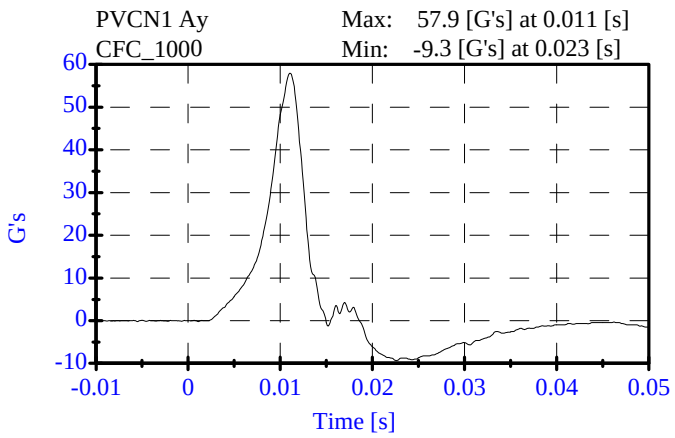
Post-Test

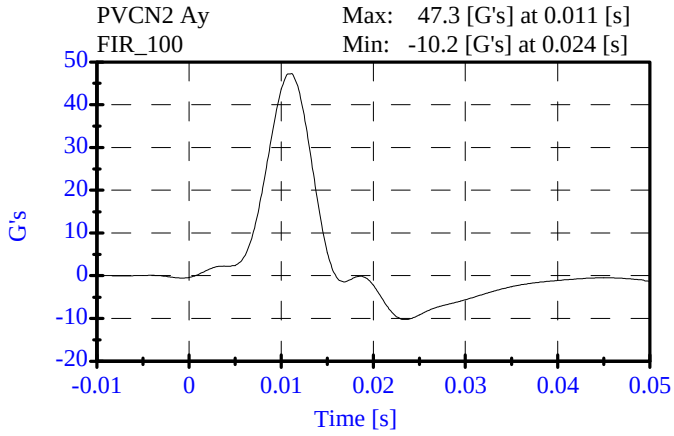
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905P 09-25-08

Date: 09-25-08 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 %	36.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	47.27 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.8 ms	Passed





Head Drop Test

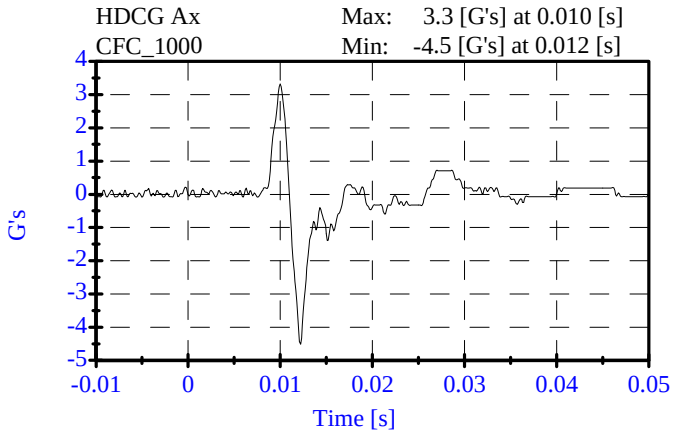
Post-Test

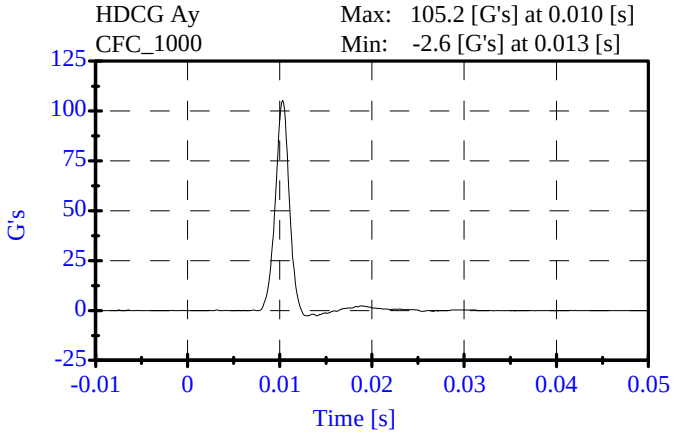
CONFIGURED FOR LEFT SIDE IMPACT

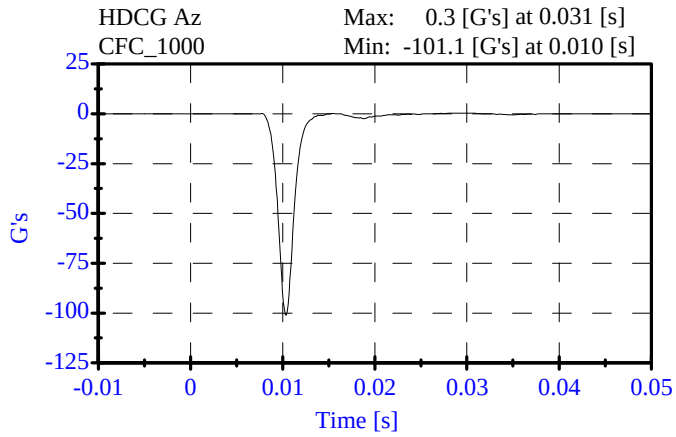
ATD Serial No: 905 Sequential Test Number: 1 File: 905H 09-23-08

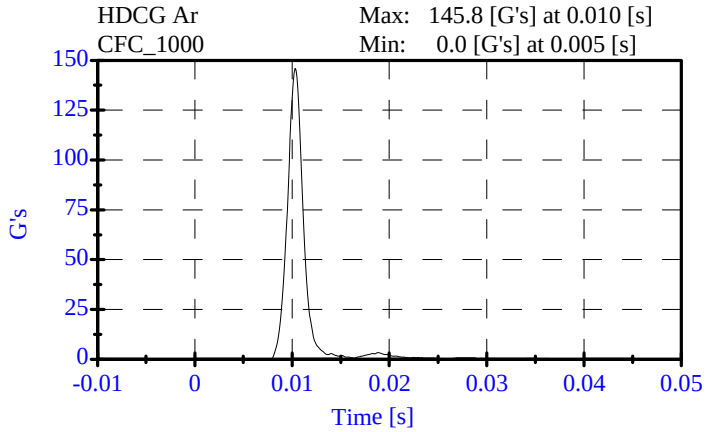
Date: 09-23-08 Laboratory Technician: B. Swiecicki

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	145.83 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	3.32 Gs	Passed
Curve PerCent NonModal:	< 15%	2.37 %	Passed









Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905N1 09-23-08

Date: 09-23-08 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	2.20 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.55 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.45 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.09 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	75.17 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	85.15 N-m	Passed
Occiptal Moment Decay:	49.0-64.0 ms	50.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	2.90 ms	Passed

Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

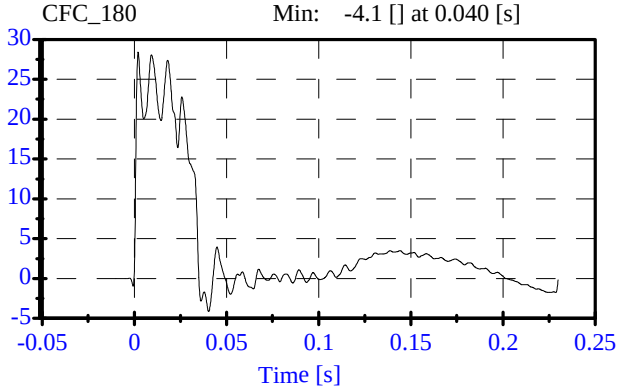
ATD Serial No: 905

Sequential Test Number: 1 File: 905N1 09-23-08

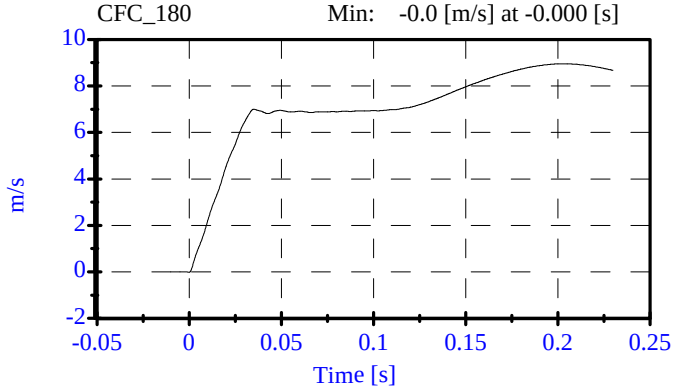
Date: 09-23-08

Laboratory Technician: B. Swiecicki

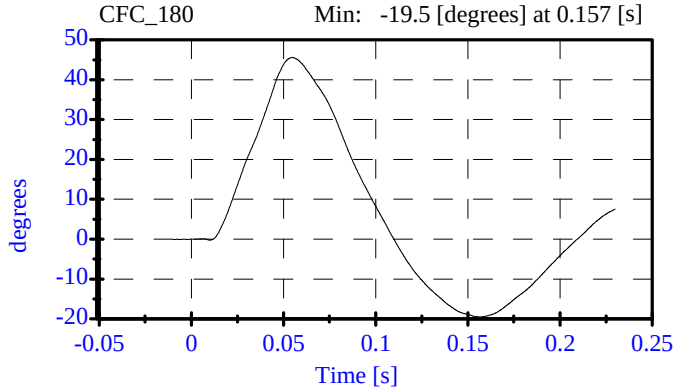
Pend Ax
CFC_180
Max: 28.4 [] at 0.002 [s]
Min: -4.1 [] at 0.040 [s]



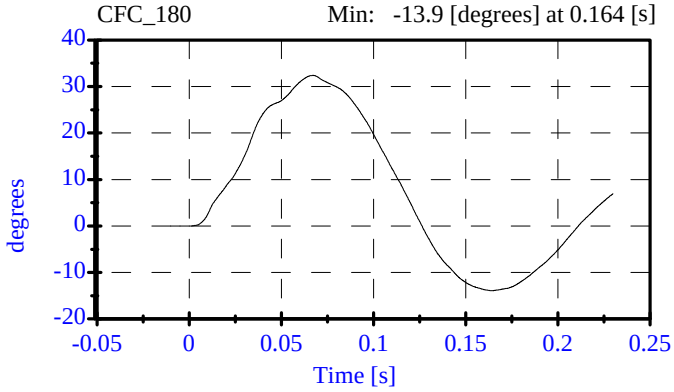
Pend Vx
CFC_180
Max: 9.0 [m/s] at 0.202 [s]
Min: -0.0 [m/s] at -0.000 [s]



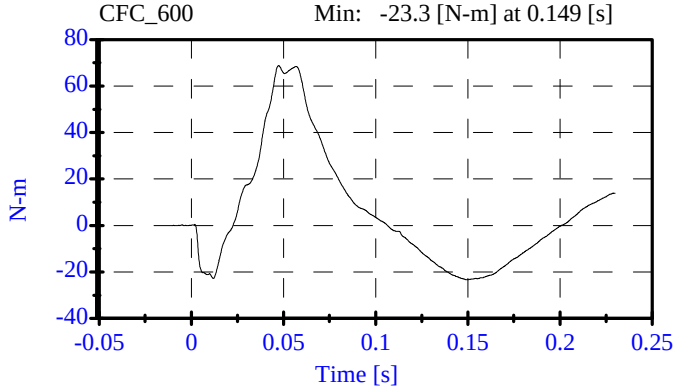
Head Rot
CFC_180
Max: 45.6 [degrees] at 0.055 [s]
Min: -19.5 [degrees] at 0.157 [s]



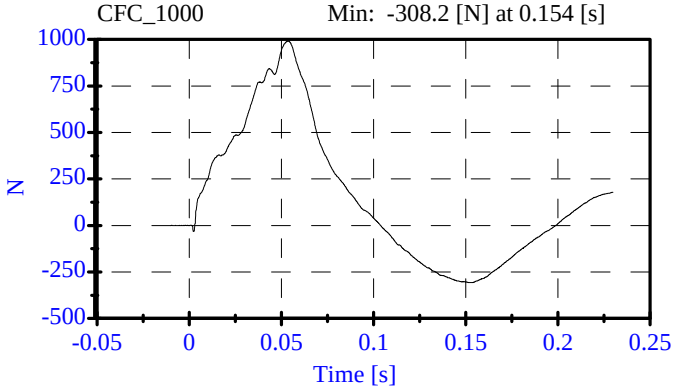
Arm Rot
CFC_180
Max: 32.4 [degrees] at 0.067 [s]
Min: -13.9 [degrees] at 0.164 [s]



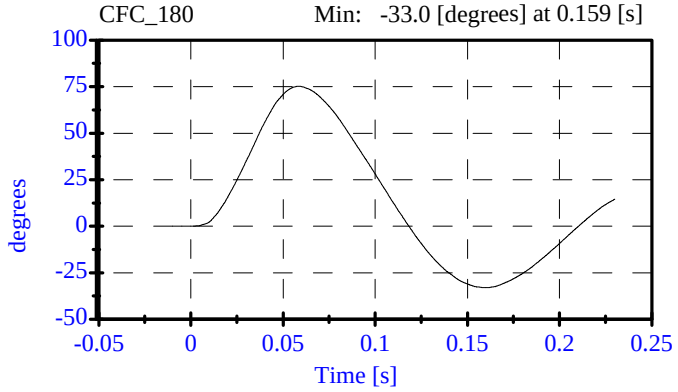
Neck Mx
CFC_600
Max: 68.8 [N-m] at 0.047 [s]
Min: -23.3 [N-m] at 0.149 [s]



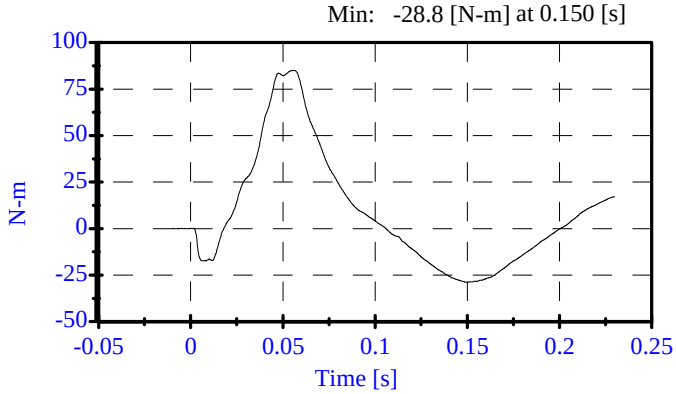
Neck Fy
CFC_1000
Max: 990.8 [N] at 0.054 [s]
Min: -308.2 [N] at 0.154 [s]



Tot Rot
CFC_180
Max: 75.2 [degrees] at 0.058 [s]
Min: -33.0 [degrees] at 0.159 [s]



MOCX
Max: 85.2 [N-m] at 0.055 [s]
Min: -28.8 [N-m] at 0.150 [s]



Abdomen Test

Post-Test

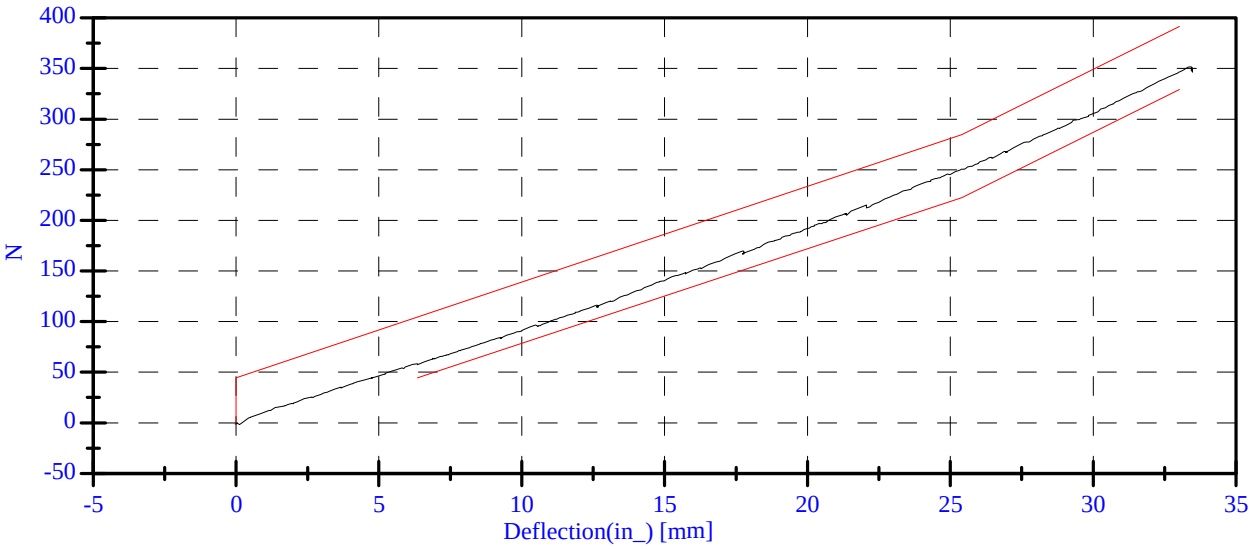
CONFIGURED FOR LEFT SIDE IMPACT

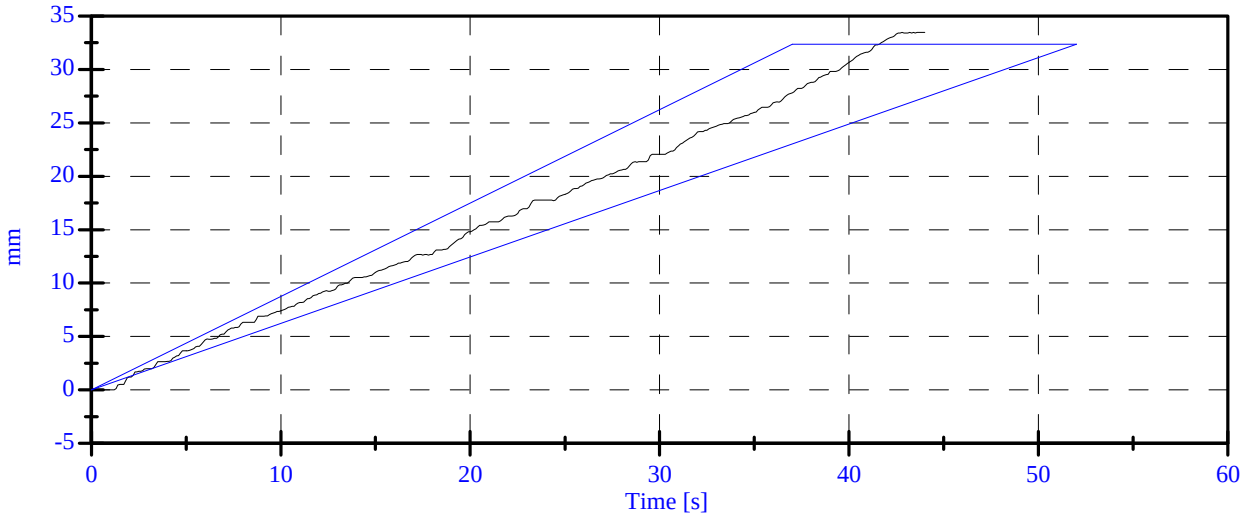
ATD Serial No: 905 Sequential Test Number: 1 File: 905AB 09-25-08

Date: 09-25-08 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 %	34.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	118.80 N	Passed
Force at 19.05 mm :	162.98-220.99 N	181.59 N	Passed
Force at 25.40 mm :	221.97-280.02 N	250.58 N	Passed
Force at 33.02 mm :	324.99-391.00 N	346.22 N	Passed

ABDOMINAL COMPRESSION TEST





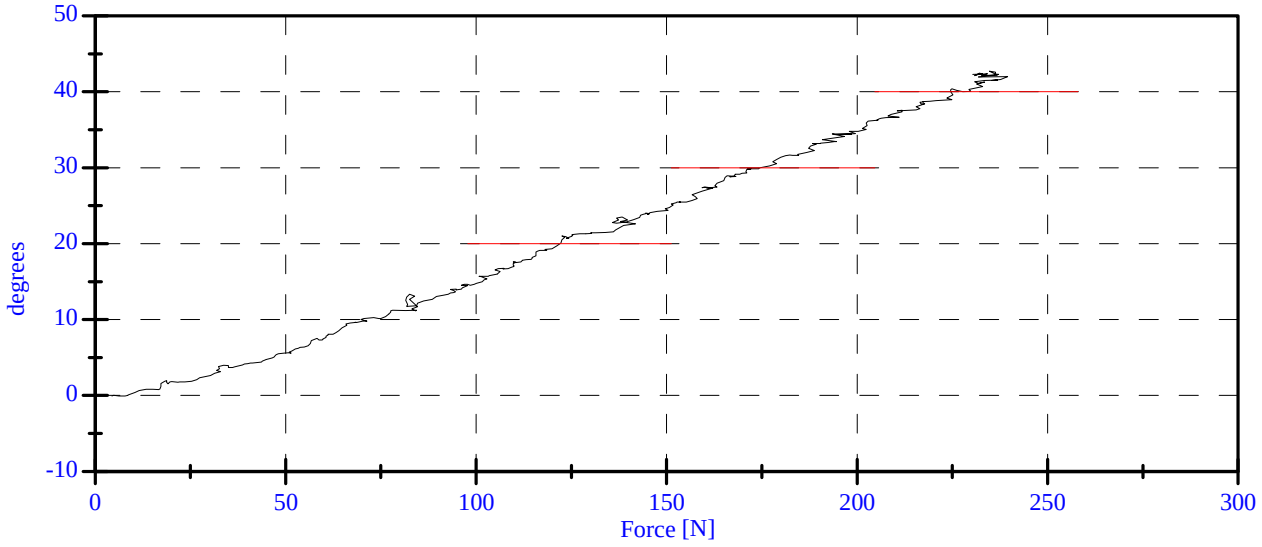
Spine Test
Post-Test

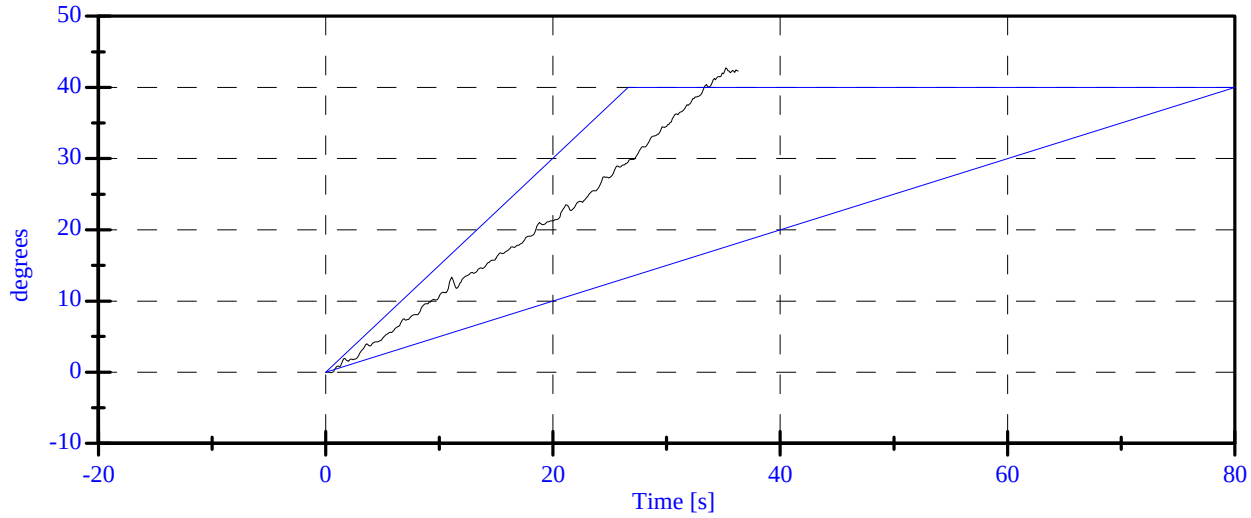
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 905 Sequential Test Number: 1 File: 905SP 09-25-08
Date: 09-25-08 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 %	36.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	4.70 N	Passed
Force at 20 Deg:	97.86-151.24 N	122.22 N	Passed
Force at 30 Deg	151.24-204.62 N	174.45 N	Passed
Force at 40 Deg	204.62-258.00 N	227.72 N	Passed
Return Angle	12 Deg Max	4.73 deg	Passed

LUMBAR SPINE FLEXION TEST





POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: September 25, 2008 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 906

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: September 25, 2008 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: September 25, 2008 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	510
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	384

REMARKS: None

Thorax

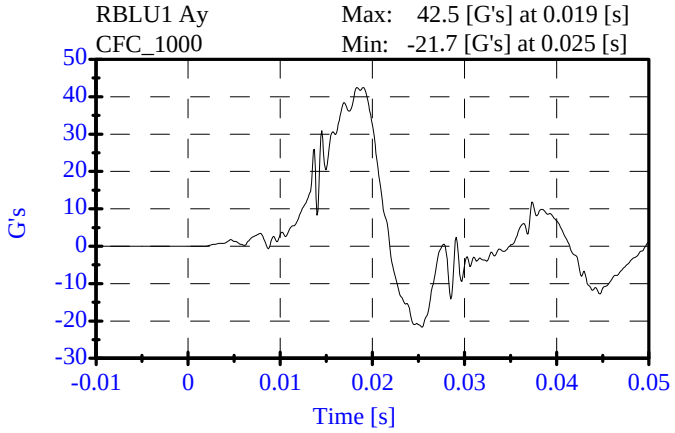
Post-Test

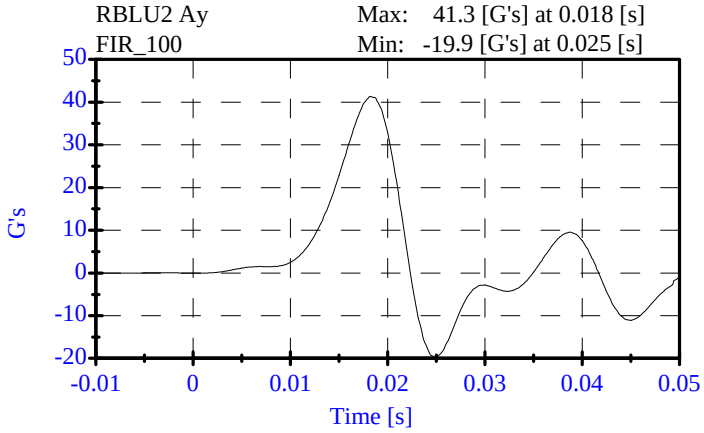
CONFIGURED FOR LEFT SIDE IMPACT

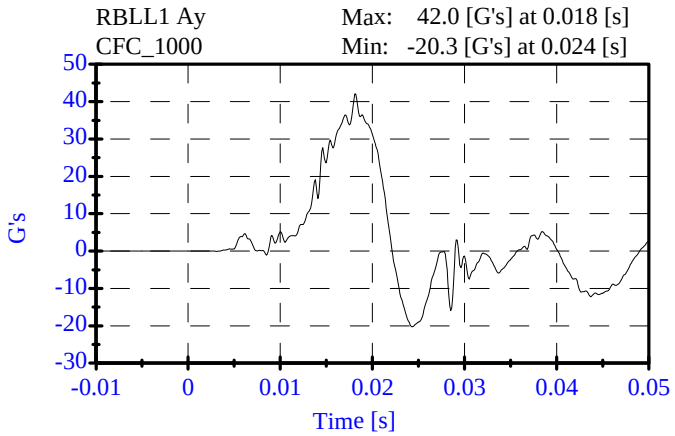
ATD Serial No: 906 Sequential Test Number: 1 File: 906T1 09-25-08

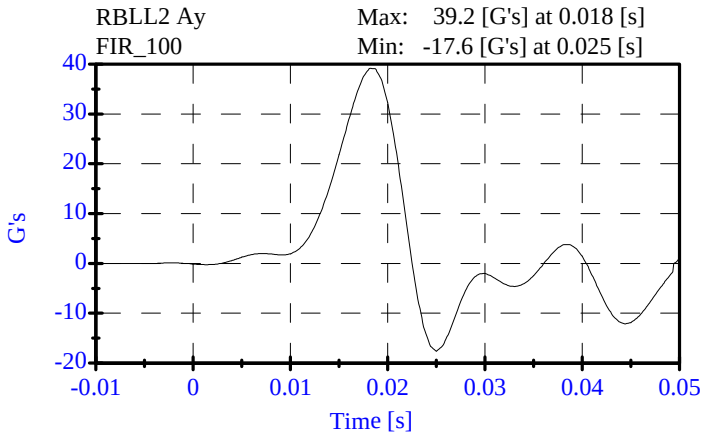
Date: 9-25-08 Laboratory Technician: B. Swiecicki

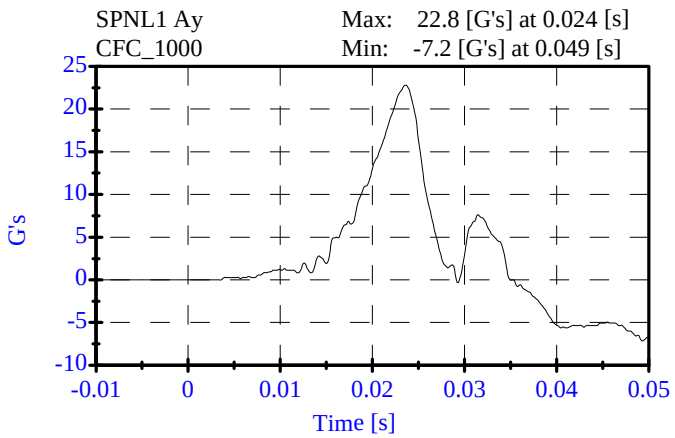
TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	41.30 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.20 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.45 G's	Passed

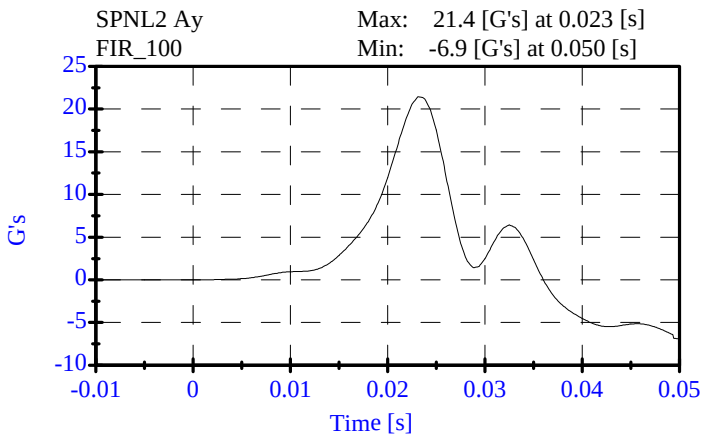












Pelvic Impact

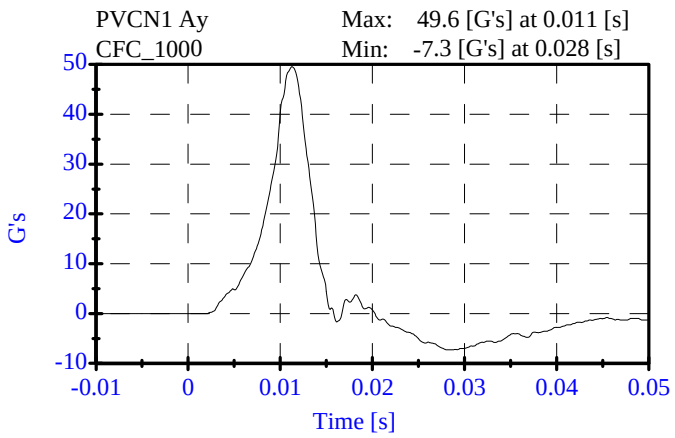
Post-Test

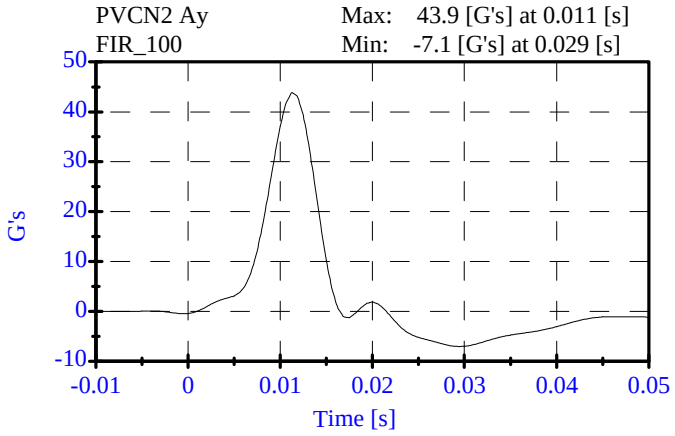
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906 Sequential Test Number: 1 File: 906P1 09-25-08

Date: 09-25-08 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 %	36.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	43.85 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.8 ms	Passed





Head Drop

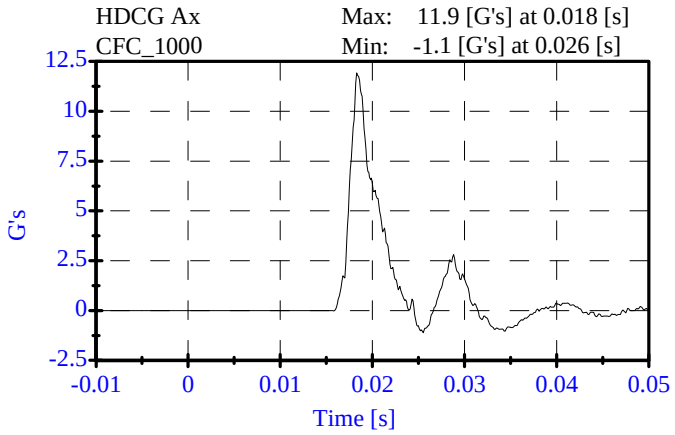
Post-Test

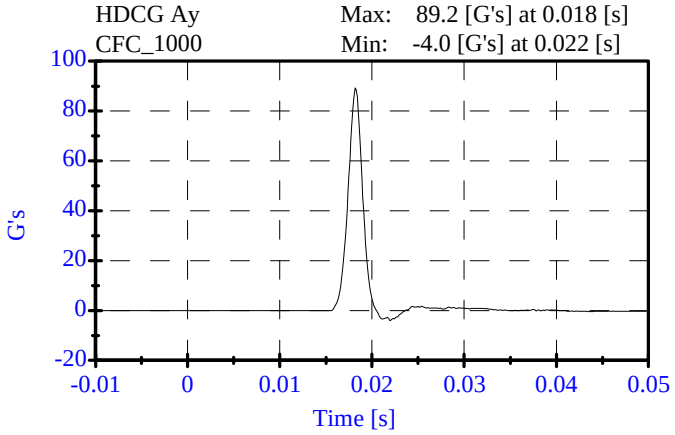
CONFIGURED FOR LEFT SIDE IMPACT

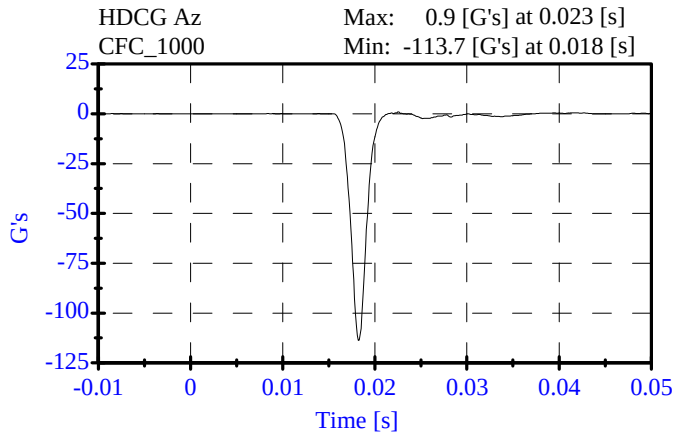
ATD Serial No: 906 Sequential Test Number: 1 File: 906H1 09-23-08

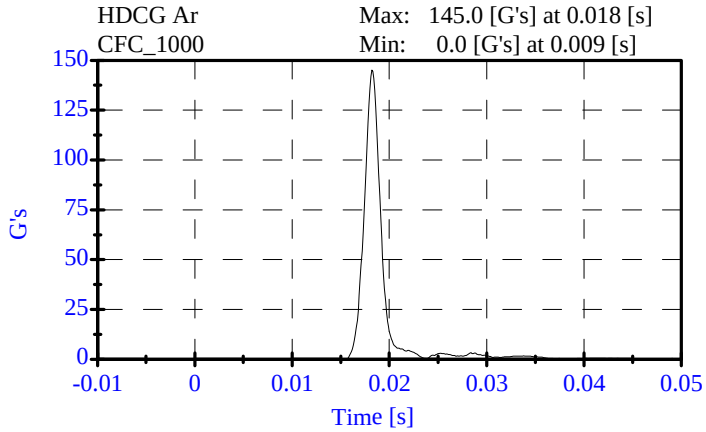
Date: 09-23-08 Laboratory Technician: B. Swiecicki

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	145.01 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	11.93 Gs	Passed
Curve PerCent NonModal:	< 15%	3.92 %	Passed









Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 906 Sequential Test Number: 1 File: 906N 09-23-08

Date: 09-23-08 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	6.98 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.41 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.81 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.72 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.03 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	73.08 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.70 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 Nm	78.47 Nm	Passed
Occiptal Moment Decay:	49.0-64.0 ms	57.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	7.80 ms	Passed

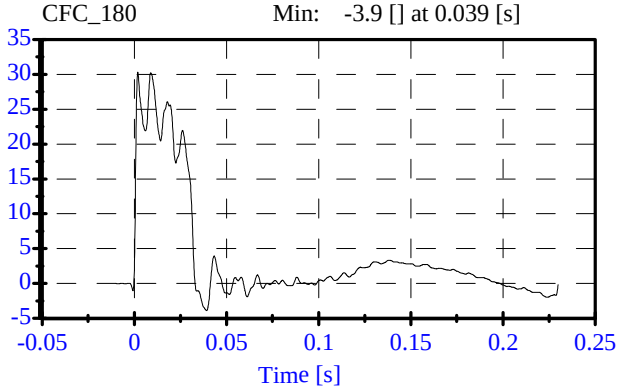
Neck Test
Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

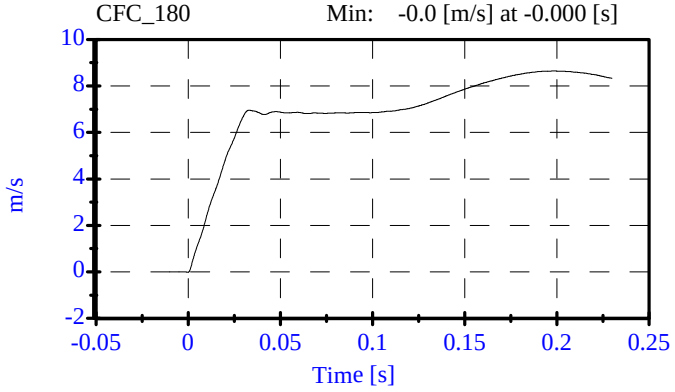
ATD Serial No: 906
Date: 09-23-08

Sequential Test Number: 1 File: 906N 09-23-08
Laboratory Technician: B. Swiecicki

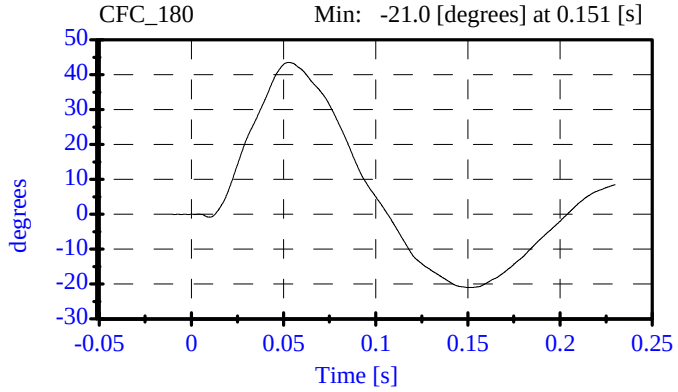
Pend Ax
CFC_180
Max: 30.3 [] at 0.002 [s]
Min: -3.9 [] at 0.039 [s]



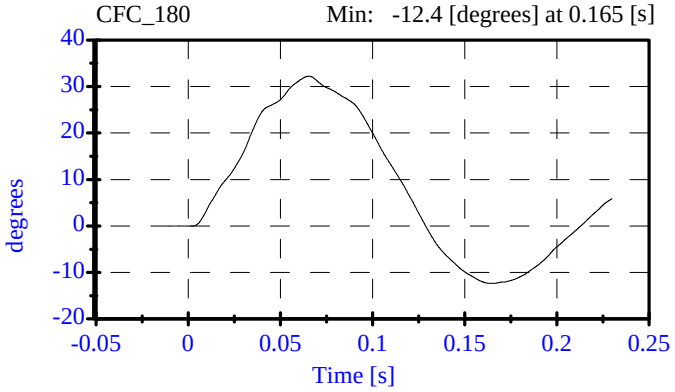
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



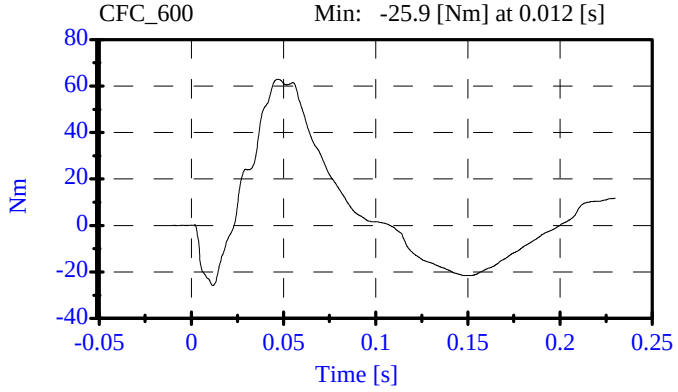
Head Rot
CFC_180
Max: 43.5 [degrees] at 0.053 [s]
Min: -21.0 [degrees] at 0.151 [s]



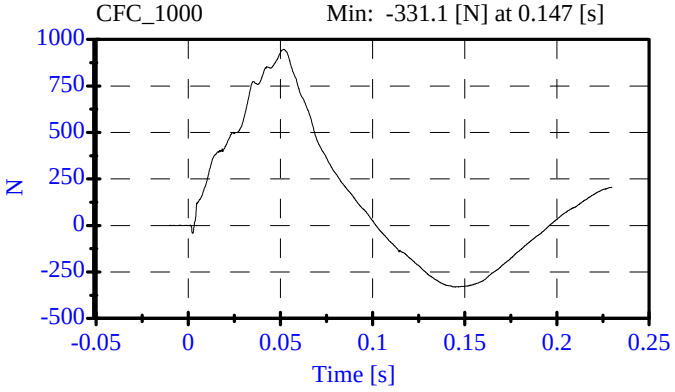
Arm Rot
CFC_180
Max: 32.2 [degrees] at 0.065 [s]
Min: -12.4 [degrees] at 0.165 [s]



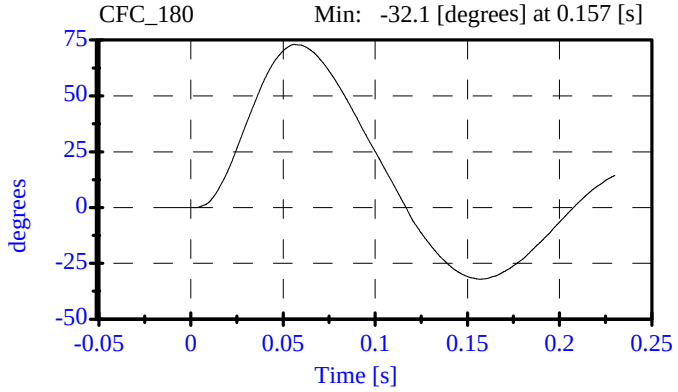
Neck Mx
CFC_600
Max: 62.9 [Nm] at 0.047 [s]
Min: -25.9 [Nm] at 0.012 [s]



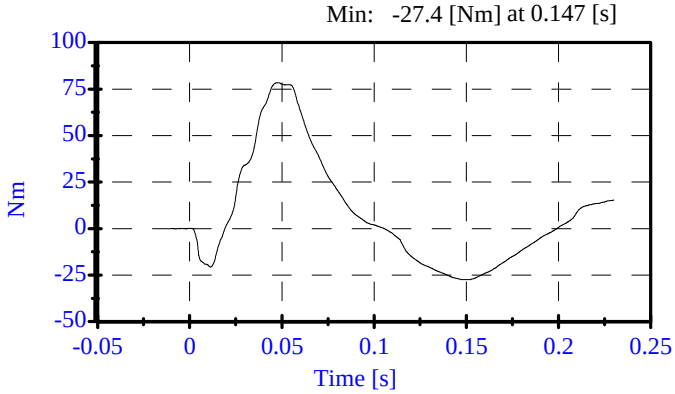
Neck Fy
CFC_1000
Max: 946.5 [N] at 0.052 [s]
Min: -331.1 [N] at 0.147 [s]



Tot Rot
CFC_180
Max: 73.1 [degrees] at 0.056 [s]
Min: -32.1 [degrees] at 0.157 [s]



MOCX
Max: 78.5 [Nm] at 0.048 [s]
Min: -27.4 [Nm] at 0.147 [s]



Abdomen Test

Post-Test

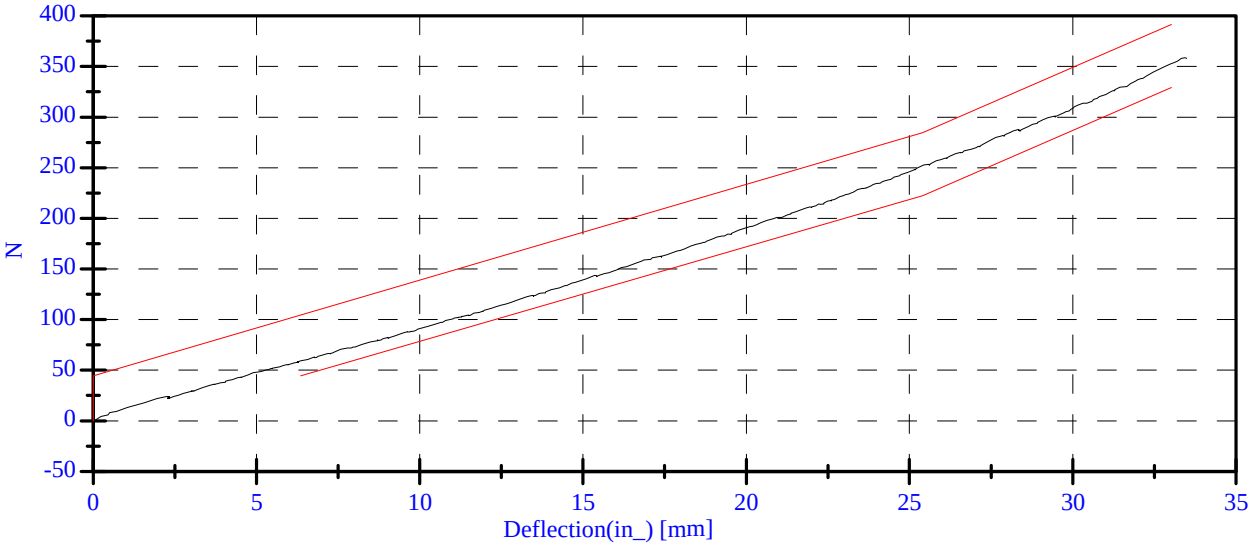
CONFIGURED FOR LEFT SIDE IMPACT

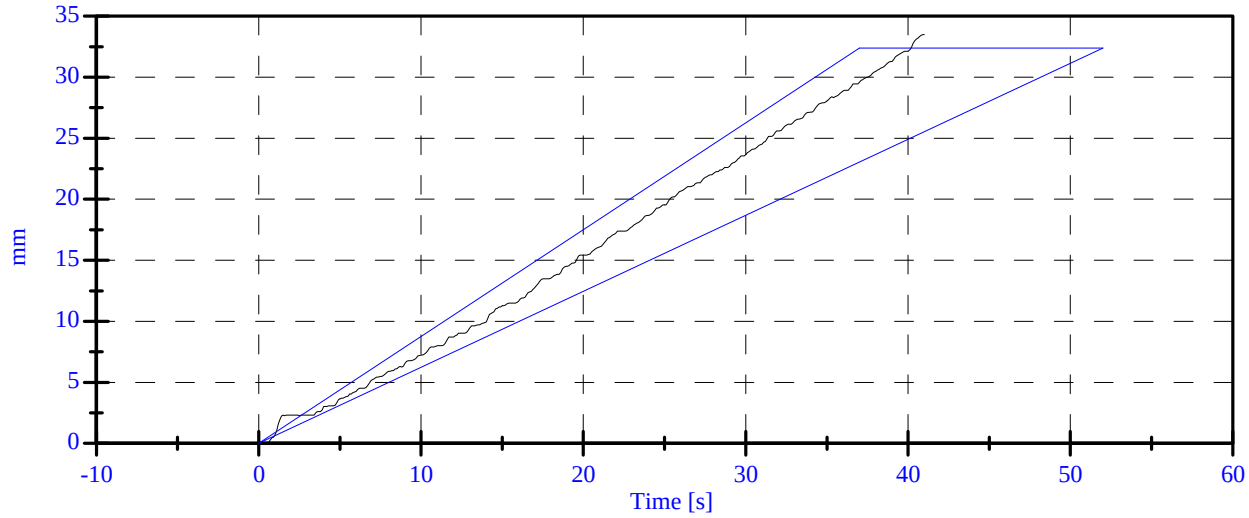
ATD Serial No: 906 Sequential Test Number: 1 File: 906AB 09-25-08

Date: 09-25-08 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 %	34.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	118.80 N	Passed
Force at 19.05 mm :	162.98-220.99 N	181.59 N	Passed
Force at 25.40 mm :	221.97-280.02 N	252.77 N	Passed
Force at 33.02 mm :	324.99-391.00 N	352.43 N	Passed

ABDOMINAL COMPRESSION TEST





Spine Test
Post-Test

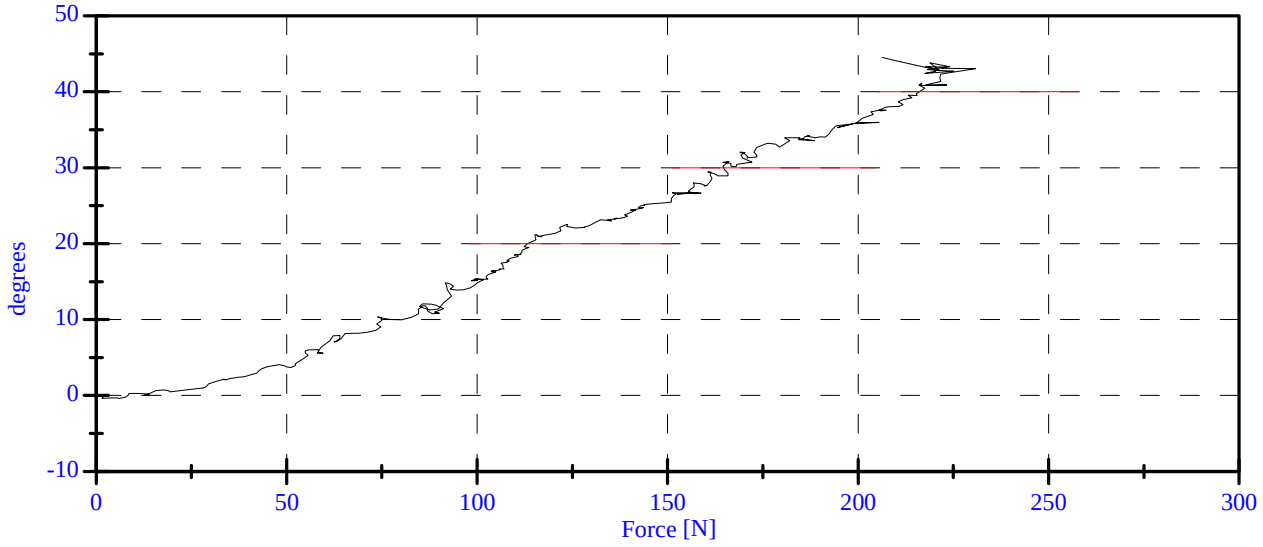
CONFIGURED FOR LEFT SIDE IMPACT

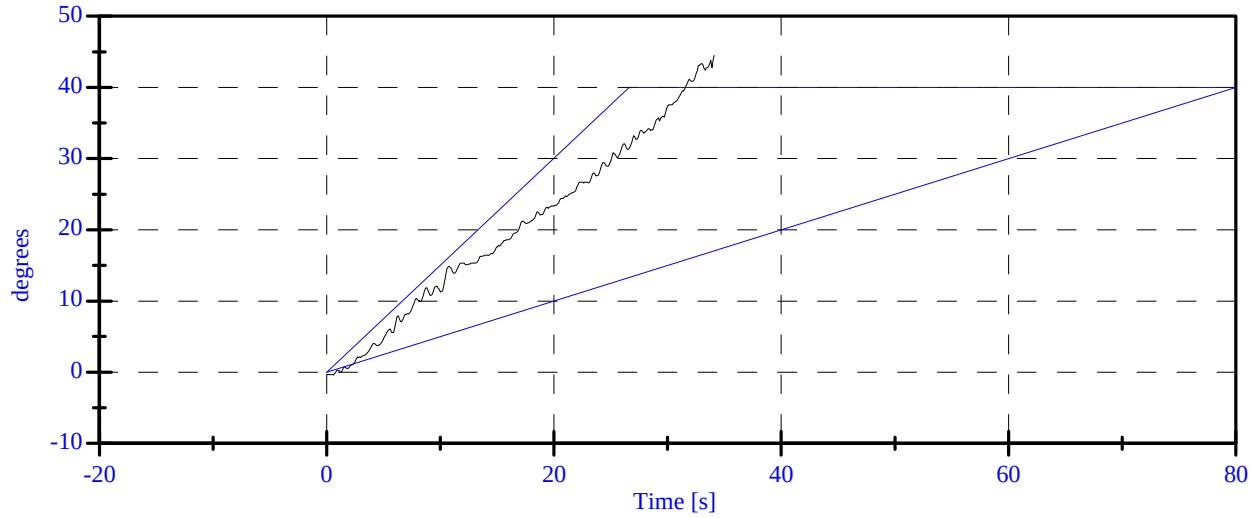
ATD Serial No: 906
Date: 09-25-08

Sequential Test Number: 1 File: 906SP 09-25-08
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 %	34.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	8.35 N	Passed
Force at 20 Deg:	97.86-151.24 N	113.34 N	Passed
Force at 30 Deg	151.24-204.62 N	167.92 N	Passed
Force at 40 Deg	204.62-258.00 N	216.49 N	Passed
Return Angle	12 Deg Max	5.62 deg	Passed

LUMBAR SPINE FLEXION TEST





POST TEST DUMMY INSPECTION LIST

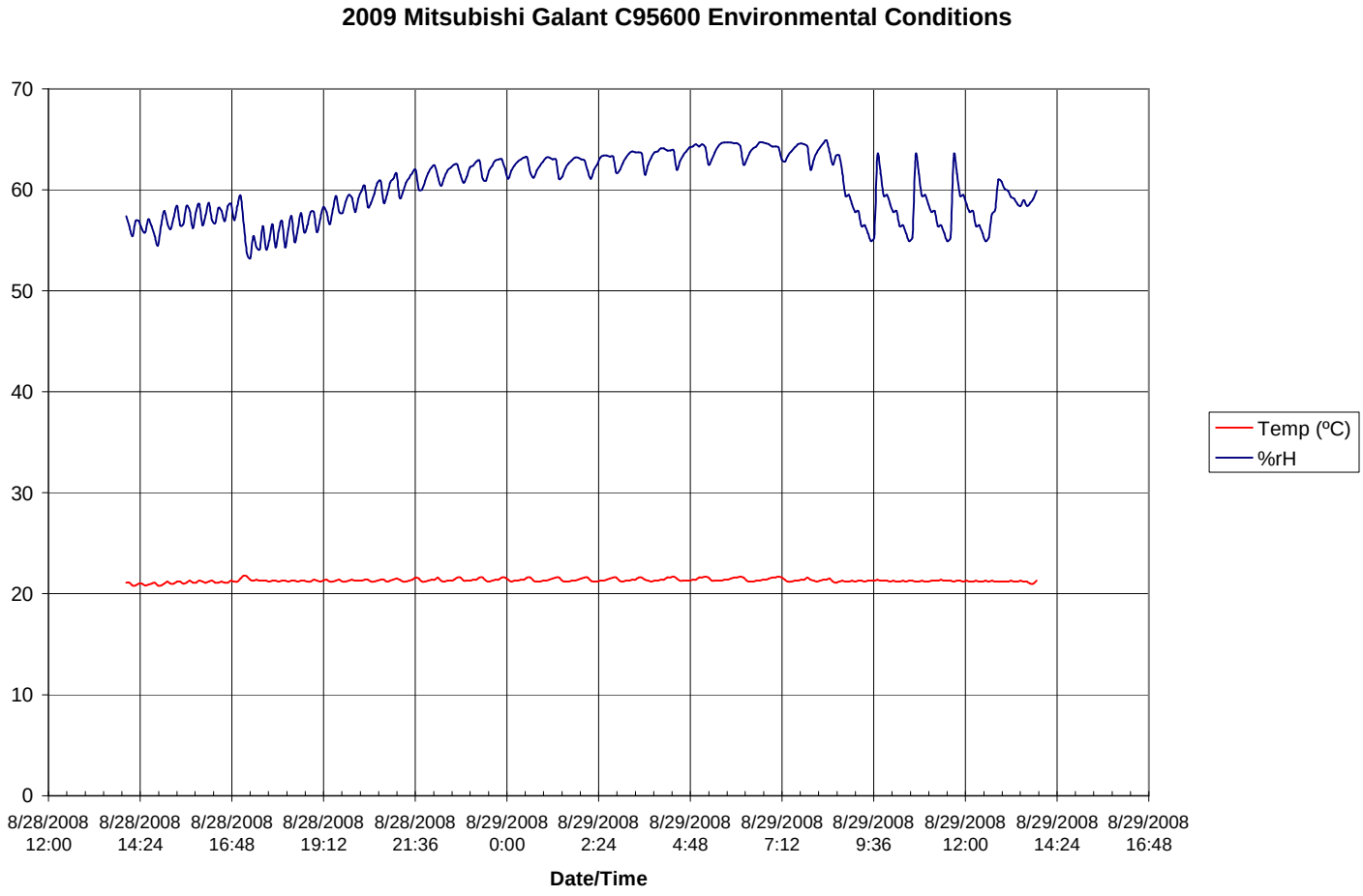
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: September 25, 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.: 905		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P58757	ENDEVCO	05-Mar-08
HEAD AY	AC-P58911	ENDEVCO	07-Mar-08
HEAD AZ	AC-P58887	ENDEVCO	05-Mar-08
HEAD AX REDUNDANT	AC-P58791	ENDEVCO	05-Mar-08
HEAD AY REDUNDANT	AC-P58888	ENDEVCO	05-Mar-08
HEAD AZ REDUNDANT	AC-P58904	ENDEVCO	05-Mar-08
UPPER NECK FX	LC-1647Fx	DENTON	03-Apr-08
UPPER NECK FY	LC-1647Fy	DENTON	03-Apr-08
UPPER NECK FZ	LC-1647Fz	DENTON	03-Apr-08
UPPER NECK MX	LC-1647Mx	DENTON	03-Apr-08
UPPER NECK MY	LC-1647My	DENTON	03-Apr-08
UPPER NECK MZ	LC-1647Mz	DENTON	03-Apr-08
UPPER RIB	AC-P59010	ENDEVCO	06-Mar-08
LOWER RIB	AC-P59017	ENDEVCO	06-Mar-08
LOWER SPINE	AC-P59023	ENDEVCO	06-Mar-08
PELVIS	AC-P58777	ENDEVCO	06-Mar-08
UPPER RIB REDUNDANT	AC-P58981	ENDEVCO	06-Mar-08
LOWER RIB REDUNDANT	AC-P58788	ENDEVCO	06-Mar-08
LOWER SPINE REDUNDANT	AC-P58976	ENDEVCO	06-Mar-08
PELVIS REDUNDANT	AC-P59018	ENDEVCO	06-Mar-08

	REAR SID/HIII NO.: 906		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P51958	ENDEVCO	02-Apr-08
HEAD AY	AC-J14687	ENDEVCO	01-Apr-08
HEAD AZ	AC-AJ7M2	ENDEVCO	02-Apr-08
HEAD AX REDUNDANT	AC-P51289	ENDEVCO	02-Apr-08
HEAD AY REDUNDANT	AC-J23759	ENDEVCO	02-Apr-08
HEAD AZ REDUNDANT	AC-AJ7M9	ENDEVCO	02-Apr-08
UPPER NECK FX	LC-280Fx	DENTON	14-Apr-08
UPPER NECK FY	LC-280Fy	DENTON	14-Apr-08
UPPER NECK FZ	LC-280Fz	DENTON	14-Apr-08
UPPER NECK MX	LC-280Mx	DENTON	14-Apr-08
UPPER NECK MY	LC-280My	DENTON	14-Apr-08
UPPER NECK MZ	LC-280Mz	DENTON	14-Apr-08
UPPER RIB	AC-J32365	ENDEVCO	02-Apr-08
LOWER RIB	AC-J36648	ENDEVCO	02-Apr-08
LOWER SPINE	AC-AJ5P0	ENDEVCO	02-Apr-08
PELVIS	AC-J23805	ENDEVCO	02-Apr-08
UPPER RIB REDUNDANT	AC-J18742	ENDEVCO	02-Apr-08
LOWER RIB REDUNDANT	AC-J35770	ENDEVCO	03-Apr-08
LOWER SPINE REDUNDANT	AC-J19561	ENDEVCO	02-Apr-08
PELVIS REDUNDANT	AC-J27464	ENDEVCO	02-Apr-08

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-P16656	ENDEVCO	11-Jul-08
RIGHT FRONT SILL (Y)	AC-P39575	ENDEVCO	11-Jul-08
RIGHT FRONT SILL (Z)	AC-P15526	ENDEVCO	11-Jul-08
RIGHT REAR SILL (X)	AC-P35811	ENDEVCO	11-Jul-08
RIGHT REAR SILL (Y)	AC-P35789	ENDEVCO	11-Jul-08
RIGHT REAR SILL (Z)	AC-P35803	ENDEVCO	11-Jul-08
REAR FLOORPAN ABOVE AXLE (X)	AC-P23993	ENDEVCO	01-Apr-08
REAR FLOORPAN ABOVE AXLE (Y)	AC-P23164	ENDEVCO	01-Apr-08
REAR FLOORPAN ABOVE AXLE (Z)	AC-P23939	ENDEVCO	01-Apr-08
LEFT REAR SILL (Y)	AC-P38188	ENDEVCO	19-Jun-08
LEFT FRONT SILL (Y)	AC-P21135	ENDEVCO	06-Aug-08
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-P23960	ENDEVCO	30-Jun-08
LOWER LEFT B- PILLAR (Y)	AC-P19343	ENDEVCO	11-Jul-08
MIDDLE LEFT B-PILLAR (Y)	AC-P19222	ENDEVCO	16-Jun-08
LOWER LEFT A-PILLAR (Y)	AC-P22639	ENDEVCO	07-Mar-08
UPPER LEFT A-PILLAR (Y)	AC-P18531	ENDEVCO	06-Aug-08
FRONT SEAT TRACK (Y)	AC-P21516	ENDEVCO	18-Jun-08
REAR SEAT TRACK (Y)	AC-P17283	ENDEVCO	06-Aug-08
VEHICLE CG (X)	AC-P32455	ENDEVCO	01-Apr-08
VEHICLE CG (Y)	AC-P32464	ENDEVCO	28-Mar-08
VEHICLE CG (Z)	AC-P32139	ENDEVCO	01-Apr-08
MDB CG (X)	AC-C15007	ENDEVCO	05-Jun-08
MDB CG (Y)	AC-GE16	ENDEVCO	05-Jun-08
MDB CG (Z)	AC-C16499	ENDEVCO	05-Jun-08
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	05-Jun-08
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	05-Jun-08

REMARKS: None