

REPORT NUMBER TR-P25062-01-NC

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**GENERAL MOTORS CORPORATION
2005 PONTIAC G6
4-DOOR SEDAN**

NHTSA NUMBER: G50104

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APRIL 12, 2005

FINAL REPORT

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16. Abstract A 55/28 km/h 90 deg. Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2005 Pontiac G6 4-Door Sedan in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedures for the generation of consumer information on vehicle side crash protection. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on April 12, 2005. The impact velocity of the Moving Deformable Barrier was 61.91 km/h (38.48 mph), and the outside ambient temperature at the struck (driver's) side of the vehicle was 25.0 deg. C. The target vehicle's maximum post-test static crush was 240 mm located at level 3. The test vehicle's occupant performance data is as follows: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 35%;">Measurement Description</th> <th style="width: 15%;">Driver SID/HIII</th> <th style="width: 15%;">Pass. SID/HIII</th> <th style="width: 35%;"></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td style="text-align: center;">50.1</td> <td style="text-align: center;">48.9</td> <td rowspan="5" style="background-color: #cccccc;"></td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">58.5</td> <td style="text-align: center;">49.3</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">52.9</td> <td style="text-align: center;">55.6</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">56.0</td> <td style="text-align: center;">52.0</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">54.0</td> <td style="text-align: center;">51.0</td> </tr> </tbody> </table>				Measurement Description	Driver SID/HIII	Pass. SID/HIII		Left Upper Rib (LUR) G's	50.1	48.9		Left Lower Rib (LLR) G's	58.5	49.3	Lower Spine (T ₁₂) G's	52.9	55.6	Thoracic Trauma Index (TTI) G's	56.0	52.0	Pelvis (PEV) G's	54.0	51.0
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17. Key Words New Car Assessment Program (NCAP) Side Impact Moving Deformable Barrier (MDB) Side Impact Dummy (SID/HIII)		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Admin. NHTSA Technical Reference Division 400 Seventh St., SW, Room 5108 Washington, DC 20590																					
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SECTION 1
PURPOSE AND TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2005 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-03-D-32005. The purpose of this test is to generate comparative side impact data on a 2005 Pontiac G6 4-Door Sedan manufactured by General Motors Corporation.

1.2 TEST PROCEDURE

The side impact test was conducted in accordance with the current National Highway Traffic Safety Administration (NHTSA), Office of Crashworthiness Standards (OCS), laboratory test procedure NCAP Side Impact Testing, dated November 2002. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2

SUMMARY OF SIDE IMPACT NCAP TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2005 Pontiac G6 4-Door Sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.91 km/h. The specified impact velocity range is from 61.14 to 62.75 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 1767 kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on April 12, 2005.

Three (3) real-time cameras and eleven (11) high-speed cameras were used to document the impact event. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID/HIIIs can be found in Appendix A. Two 50th percentile adult male Side Impact Dummies, Hybrid III (SID/HIIIs) were placed in the driver's and left rear passenger designated seating positions according to the test procedure. Each SID/HIII is instrumented with contact switches on the pelvis, thorax and six-axis neck load cells, and fourteen accelerometers 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)

SUPPLEMENTAL RESTRAINT INFORMATION

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

The test vehicle was instrumented with twenty-six (26) structural accelerometers and the MDB was instrumented with five (5) accelerometers and one (1) contact switch on the right bumper to compare left side to right side bumper impact timing. All data channels were recorded with the fully self contained on-board Data Acquisition System (DAS). The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The driver and passenger doors remained closed. On impact, the right front passenger front airbag deployed. The test vehicle sustained a maximum static crush of 240 mm at level 3, 900 mm rearward of the left vertical impact point. The driver SID/Hybrid III, Serial No. 274 and the passenger SID/Hybrid III, Serial No. 275 were calibrated prior to this test. The SID/Hybrid III injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	56.0	52.0
Peak Pelvic G's (PEV)	G's	54.0	51.0

Tests summaries and post-test observations are presented in Section 3. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID/HIIIs, vehicle, and MDB response data. Appendix C contains the SID/HIII Configuration and performance verification data. Appendix D contains the instrumentation data channel assignments.

SECTION 3
OCCUPANT AND VEHICLE INFORMATION SHEETS

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	$=(tf - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	G50104	Anti-Lock Brakes	Yes
Make	Pontiac	All Wheel Drive	No
Model	G6	Power Steering	Yes
Body Style	4-Door Sedan	Driver Front Airbag	Yes
Vin No.	1G2ZG548954167316	Driver Side Torso Airbag	Yes
Color	Gray	Driver Side Head Airbag	No
Delivery Date	4/6/2005	Driver Curtain Airbag	Yes
Odometer (miles)	118.0	Rear Pass. Airbag	No
Dealer	Rydell Automotive Group	Rear Pass. Side Airbag	No
Transmission	4-Speed Automatic	Rear Pass. Head Airbag	No
Final Drive	Front	Rear Pass. Curtain Airbag	Yes
Type/No. Cyl.	V6	Pre-Tensioners	Yes
Engine Disp. (L)	3.5	Load Limiters	Yes
Engine Placement	Transverse	Bucket Seats	Yes
Roof Rack	No	Air Cond.	Yes
Sunroof/T-Top	Yes	AM/FM Cassette	Yes
Tinted Glass	No	Tilt Steering	Yes
Traction Control	Yes	Automatic Door Locks	Yes
Power Brakes	Yes	Power Windows	Yes
Front Disc	Yes	Power Seats	No
Rear Disc	Yes	Other	

Does Owners Manual provide instructions to turn off automatics door locks.

No

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors Corporation	GVWR (kg)	2005
Date of Manufacture	02/05	GAWR Front (kg)	1092
		GAWR Rear (kg)	913

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Split Bench		
Number of Occupants	2	3		5
Capacity Weight (VCW) (kg)				404
Cargo Weight (RCLW) (kg)				64

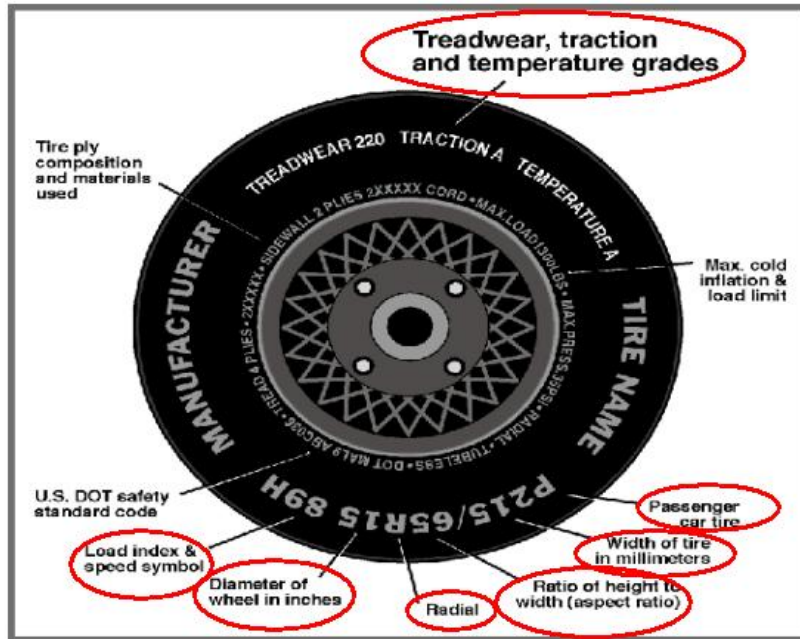
DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

Collect year, make, model, VIN, items circled in red, and tire manufacturer and tire name.



TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kpa)	250	250
Cold Pressure (kpa)	210	210
Recommended Tire Size	P215/60R16	P215/60R16
Tire Size on Vehicle	P215/60R16	P215/60R16
Tire Manufacturer	Uniroyal	Uniroyal
Treadwear	540	540
Traction	A	A
Temperature Grades	B	B
Tire Plies Sidewall	1 Polyester	1 Polyester
Tire Plies Body	1 Polyester + 2 Steel	1 Polyester + 2 Steel
Load Index/Speed Symbol	94 S	94 S
Tire Material	1 Polyester + 2 Steel + 2 Rubber	1 Polyester + 2 Steel + 2 Rubber
DOT Safety Code Right	APX8-BE5U-0605	APX8-BE5U-0605
DOT Safety Code Left	APX8-BE5U-0605	APX8-BE5U-0605

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	484	309		539	365	
Right	kg	473	282		527	336	
Ratio	%	61.9	38.2		60.3	39.7	
Totals	kg	957	591	1548	1066	701	1767

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1548
Weight of 2 P572 ATD's	kg	161
Rated Cargo/Luggage Wt. (RCLW)	kg	64
Calculated Vehicle Target Wt. (TVTW)	kg	1773

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	706	720	714	722	1092
As Tested	mm	696	715	693	698	1134
Fully Loaded	mm	694	713	677	692	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2858
Total Vehicle Length at Left Side	mm	3200
Total Vehicle Length at Centerline	mm	4797
Total Vehicle Length at Right Side	mm	3200
Weight of Ballast In Cargo Area	kg	29
Amount of Stoddard Solvent in Fuel Tank	Liters	57.34

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2858
Target Impact Point Aft of Front Axle	mm	489
Actual Impact Point Aft of Front Axle	mm	503

DATA SHEET NO. 1...(CONTINUED)

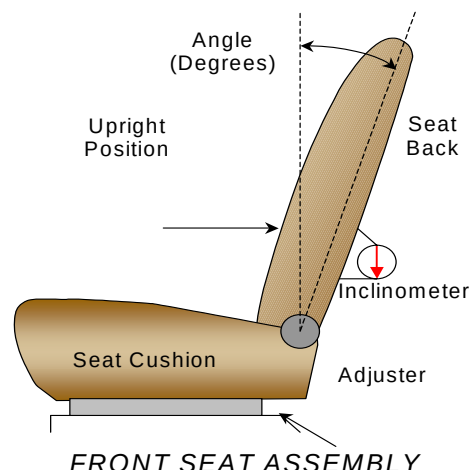
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

NOMINAL DESIGN RIDING POSITION

The driver and passenger seat backs are positioned to the manufacturers designated angle. The procedure is as follows: A special application tool with pointed probes is inserted through the fabric to make contact with the rigid portion of the lower seat frame assembly, approximately 13 inches above the pivot point of the seat back. An inclinometer is placed against the flat surface of the tool and the seat back angle is measured directly from the dial face.



SEAT BACK ANGLES

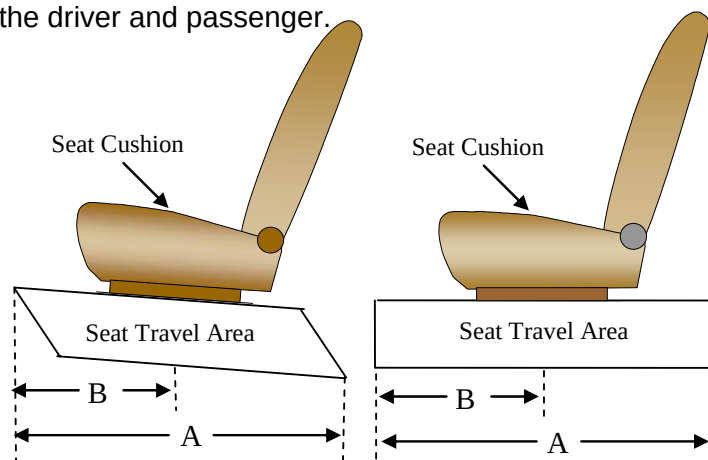
	Deg.
Driver w/seated Dummy	19.0
Rear Passenger w/seated Dummy	14.3

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 POSITIONING

	Total Fore/Aft Travel	Placed in Position #
Driver Seat	25 Detents	13th Detent
Rear Seat	1 Detent	1st Detent



SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position.

SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	5	3
Rear Seat	1	1

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

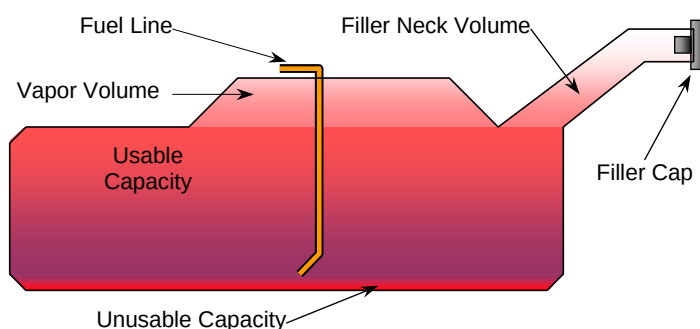
Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	61.70
Usable Capacity of "Optional" Tank	
Usable Capacity used for FMVSS 301	56.74 to 57.99
Actual Amount of Solvent used	57.34

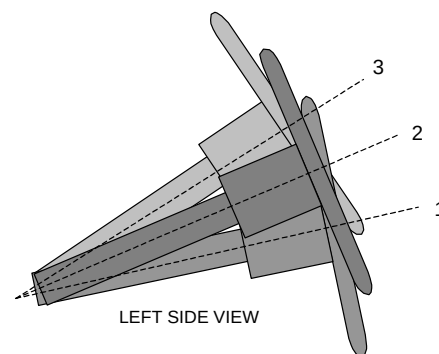
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the right rear fender.



VEHICLE FUEL TANK ASSEMBLY

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 POSITIONS

	Degrees	Fore/Aft Position (mm)
Lowermost Position No.1	19.1	0
Geometric Center Position No. 2	20.8	25
Uppermost Position No.3	23.2	50

DATA SHEET NO. 2**TEST VEHICLE SUMMARY OF RESULTS**Test Vehicle: 2005 Pontiac G6 4-Door SedanNHTSA No.: G50104Test Program: 55/28 km/h Side Impact NCAPTest Date: 4/12/05**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	484	309		539	365	
Right	kg	473	282		527	336	
Ratio	%	61.9	38.2	100%	60.3	39.7	100%
Totals	kg	957	591	1548	1066	701	1767

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	34	211
Level 2	Occupant H-Point	mm	223	506
Level 3	Mid Door	mm	240	596
Level 4	Window Sill	mm	230	912
Level 5	Window top	mm	10	1350
N/A	Maximum Penetration	mm	240	

INSTRUMENTATION

Driver SID/Hybrid III Accelerometers	20
Passenger SID/Hybrid III Accelerometers	20
Vehicle Structure Accelerometers	26
MDB Accelerometers	5
Total number of Contact Switches	5
Total	76

CAMERA COVERAGE

	Standard	Additional
High Speed, Vehicle On-Board	3	0
High Speed, Off-Board	5	1
High Speed, MDB On-Board	2	0
Real Time, Panning	1	2
Total	11	3

DATA SHEET NO. 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

MDB SPECIFICATIONS (mm)

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length including Honeycomb Face	4115
Wheel Base of Framework Carriage	2590
C.G. location aft of Front Axle	1127

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	384	308	
Right	kg	385	284	
Ratio	%	56.5	43.5	
Totals	kg	769	592	1361

SPEED AND IMPACT DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.91
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.86
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max. Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Left	243
B	Top of Bumper	533	800	Right	132
C	Mid Level	686	800	Left	108
D	Top of Stack	813	800	Left	122

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	1
High Speed Cameras	2

DATA SHEET NO. 4
POST-TEST OBSERVATIONS

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
Test Date: 4/12/05

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	P572F, SID/HIII NO. 274	P572F, SID/HIII NO. 275
Head Contact	Curtain Airbag	Curtain Airbag, C-Pillar
Upper Torso Contact	Side Airbag	Door Panel
Lower Torso Contact	Door Panel	Door Panel
Left Knee Contact	Door Panel	Door Panel
Right Knee Contact	Left Knee	Left Knee

POST-TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Doors Opening	Remained Latched/Inoperable	Remained Latched/Inoperable
Right Side Doors Opening	Remained Closed/Latch Operable	Remained Closed/Latch Operable
Seat Movement (mm)	0	0
Seat Back Failure	No	No

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Pillars pushed inward with no apparent failure
Sill Separation	No Apparent Visible Failure
Windshield Damage	None
Window Damage	Both Struck Side Windows Broke
Other Notable Effects	Left Rear Door Separation Near Top Sill

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01		Left Rear (Passenger) Occupant Location 04	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	No	No	
Side Airbag	Yes	Yes	No	
Head Airbag	No		No	
Curtain Airbag	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes		No	
Seat Belt Load Limiter	Yes		No	

* Right front passenger front airbag deployed.

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	14 (Right)
Vertical Offset	mm	+/- 20	2 (Above)

DATA SHEET NO. 5
SID/HIII INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

THORAX AND PELVIS PEAK ACCELERATIONS, PRIMARY (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	50.1	13.8	-9.8	136.9	48.9	33.1	-19.4	100.0
Lower Rib (LLR)	Y	G's	58.5	14.4	-8.8	136.9	49.3	33.1	-18.9	100.0
Lower Spine (T ₁₂)	Y	G's	52.9	29.4	-7.1	80.0	55.6	38.1	-14.6	67.5
Pelvis (PEV)	Y	G's	54.5	26.9	-10.6	70.0	51.2	36.9	-4.0	100.0

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, PRIMARY (FIR 100 Filtered)

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	58.462	52.899	56	55	49.298	55.568	52	51

THORAX AND PELVIS PEAK ACCELERATIONS, REDUNDANT (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	50.1	13.8	-9.0	136.9	49.4	33.8	-18.1	99.4
Lower Rib (LLR)	Y	G's	58.2	14.4	-8.2	136.9	50.1	33.1	-18.9	100.0
Lower Spine (T ₁₂)	Y	G's	53.5	29.4	-7.4	80.0	56.1	38.8	-14.6	66.9
Pelvis (PEV)	Y	G's	54.0	26.9	-10.9	70.0	51.0	36.9	-3.7	99.4

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, REDUNDANT (FIR 100 Filtered)

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	58.168	53.453	56	54	50.140	56.111	53	51

Positive Acceleration Polarities:

- Longitudinal (X) = Forward
- Lateral (Y) = Right
- Vertical (Z) = Down

DATA SHEET NO. 5...(CONTINUED)
SID/HIII INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

HEAD PRIMARY PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	9.8	186.0	-9.6	45.4	5.8	187.0	-17.4	59.3
Head CG	Y	G's	45.9	31.2	-6.6	136.4	74.6	48.9	-6.4	73.3
Head CG	Z	G's	13.3	140.8	-7.6	52.3	7.5	96.6	-27.5	56.3
Head CG Resultant	N/A	G's	45.9	31.2			76.1	48.9		

HEAD PRIMARY INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	198.7	24.0	49.7	35.9	428.3	43.0	60.8	56.4

HEAD REDUNDANT PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	9.1	188.6	-9.3	45.6	5.8	185.8	-17.4	59.3
Head CG	Y	G's	46.1	31.5	-6.6	136.4	74.4	48.9	-6.5	73.3
Head CG	Z	G's	13.3	140.9	-7.7	42.2	7.5	96.6	-27.3	56.2
Head CG Resultant	N/A	G's	46.2	31.6			75.8	48.9		

HEAD REDUNDANT INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	200.5	24.0	49.5	36.1	421.2	42.9	60.8	55.9

UPPER NECK PEAK FORCES AND MOMENTS

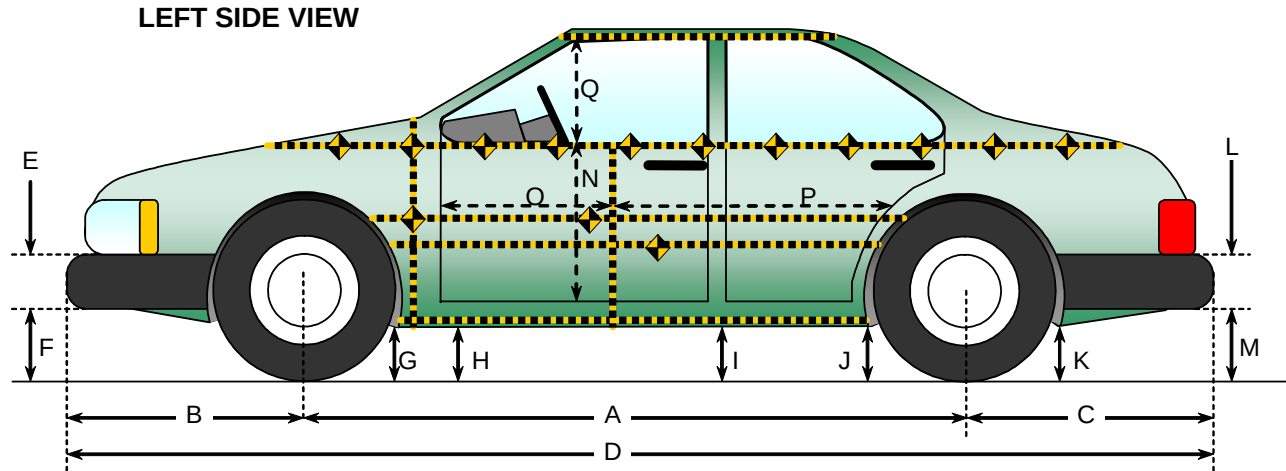
Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	261.2	186.0	-172.5	102.3	293.4	73.2	-142.9	46.2
Neck Force	Y	Newtons	114.2	88.7	-216.0	146.6	120.0	138.9	-513.5	68.5
Neck Force	Z	Newtons	561.1	141.0	-536.3	39.2	317.4	188.6	-1166.6	55.3
Neck Force Resultant	N/A	Newtons	597.6	141.0			1182.3	55.3		
Neck Moment	X	Nm	13.6	95.5	-41.2	34.3	15.0	99.2	-92.3	52.4
Neck Moment	Y	Nm	18.3	98.1	-23.3	46.3	20.1	88.7	-28.5	58.3
Neck Moment	Z	Nm	12.3	59.4	-5.5	109.4	12.1	94.8	-15.7	200.0
Neck Moment Resultant	N/A	Nm	43.6	34.0			95.3	52.5		

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



VEHICLE PRE AND POST-TEST MEASUREMENT INFORMATION

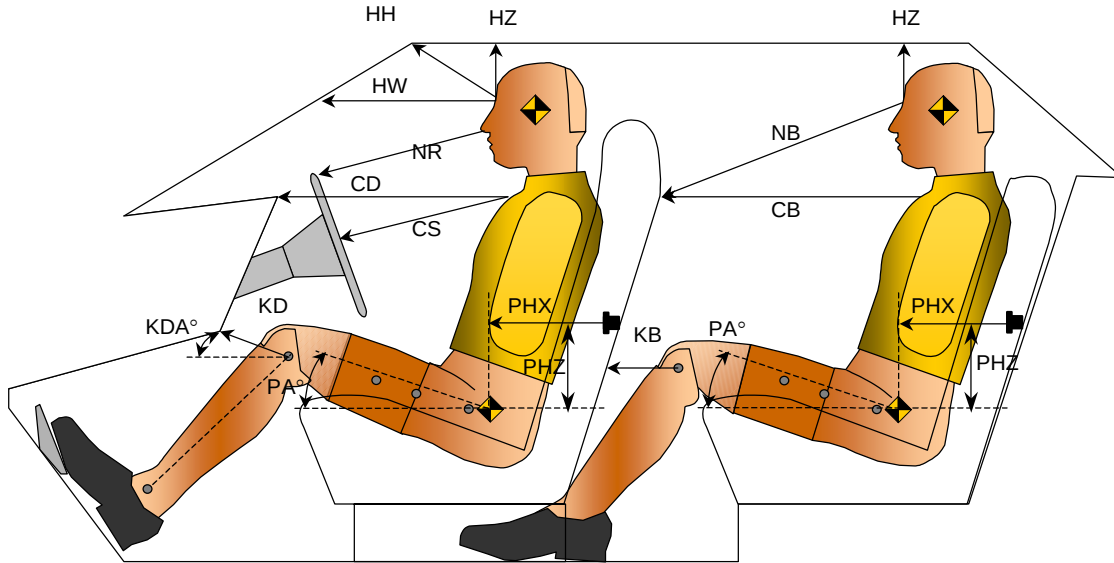
Code	Measurement Description	Pre-Test (mm)	Post-Test (mm)	Difference (mm)
A	Wheelbase	2858	2845	-13
B	Front Axle to FSOV	1012	1012	0
C	Rear Axle to RSOV	935	935	0
D	Total Length at Centerline	4797	4797	0
E	Front Bumper Thickness	404	410	6
F	Front Bumper Bottom to Ground	201	238	37
G	Sill Height at Front Wheel Well	180	191	11
H	Sill Height at Front Door Leading Edge	178	254	76
I	Sill Height at "B" Pillar	201	268	67
J1	Sill Height at Rear Wheel Well	179	244	65
J2	Pinch Weld Height at Rear Wheel Well	177	239	62
K	Sill Height aft of Rear Wheel Well	251	303	52
L	Rear Bumper Thickness	500	500	0
M	Rear Bumper Bottom to Ground	216	262	46
N	Sill Height to Window Bottom Sill	660	620	-40
O	Front Door Leading Edge to Impact CL	895	830	-65
P	Rear Door Trailing Edge to Impact CL	1374	1278	-96
Q	Front Window Opening	374	345	-29
R	Right Side Length	3200	3205	5
S	Left Side Length	3200	3170	-30
T	Vehicle Width at "B" Post	1786	1570	-216

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle	Length(mm)	Angle
HH		Head to Header	420	7.0		
HW		Head to Windshield	696	0.0		
HZ	HZ	Head to Roof	155		130	
NR	NB	Nose to Rim/Nose to Back of Seat	512	23.5	674	21.0
CD	CB	Chest to Dash/Back of Seat	572	10.5	570	2.5
CS		Chest to Steering Wheel	305	0.0		
KDL	KBL	Left Knee to Dash/Seat Back	185	13.3	223	0.0
KDR	KBR	Right Knee to Dash/Seat Back	225		270	
PA	PA	Pelvic Angle		20.0*		23.2
PHX	PHX	H-Point to Striker (X-Axis)	292	43	440	48.0
PHZ	PHZ	H-Point to Striker (Z-Axis)	185		305	

* Correct pelvic angle was unobtainable; dummy was positioned according to the H-point location.

DATA SHEET NO. 8

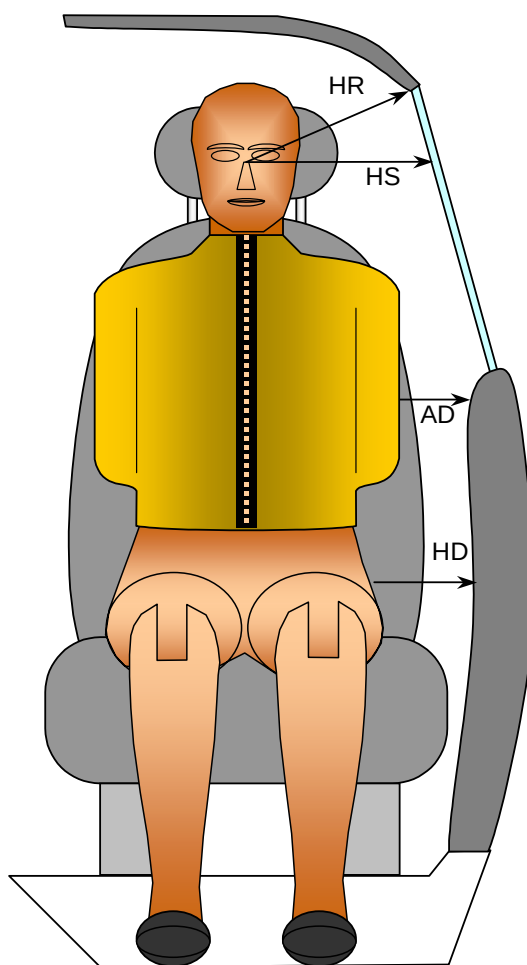
SID/HII LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05



FRONT VIEW OF DUMMY

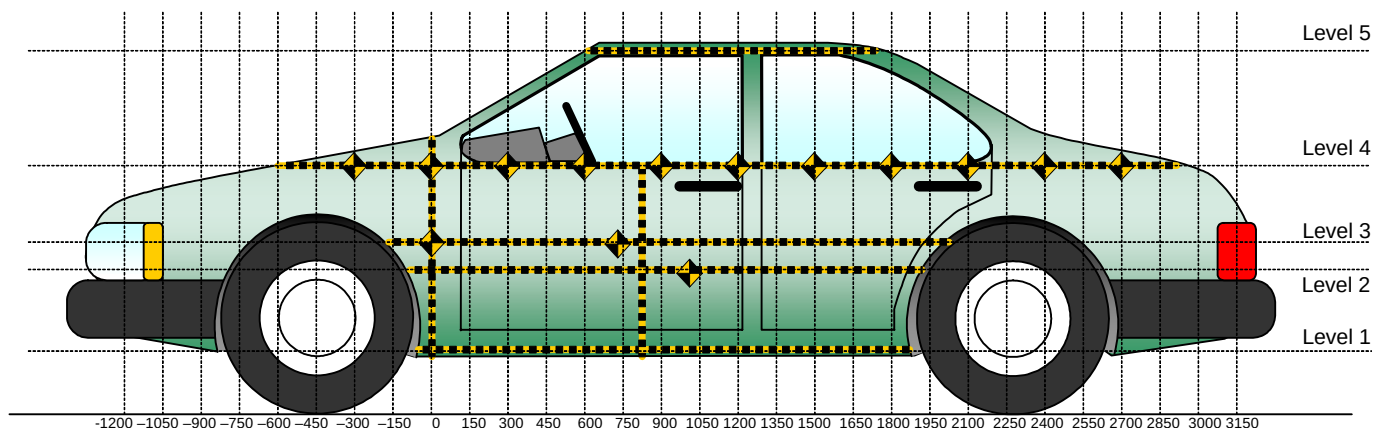
LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	228	268
HS	Head to Side Window	mm	290	340
AD	Arm to Door	mm	95	40
HD	H-Point to Door	mm	140	95

DATA SHEET NO. 9 **VEHICLE SIDE MEASUREMENTS**

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.
 Measurements taken 900 mm right of impact reference.
 All measurements below in mm.

Level	Measurement Description	Height Above Ground
1	Sill Top	211
2	Occupant H-Point	506
3	Mid Door	596
4	Window Sill	912
5	Window Top	1350

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

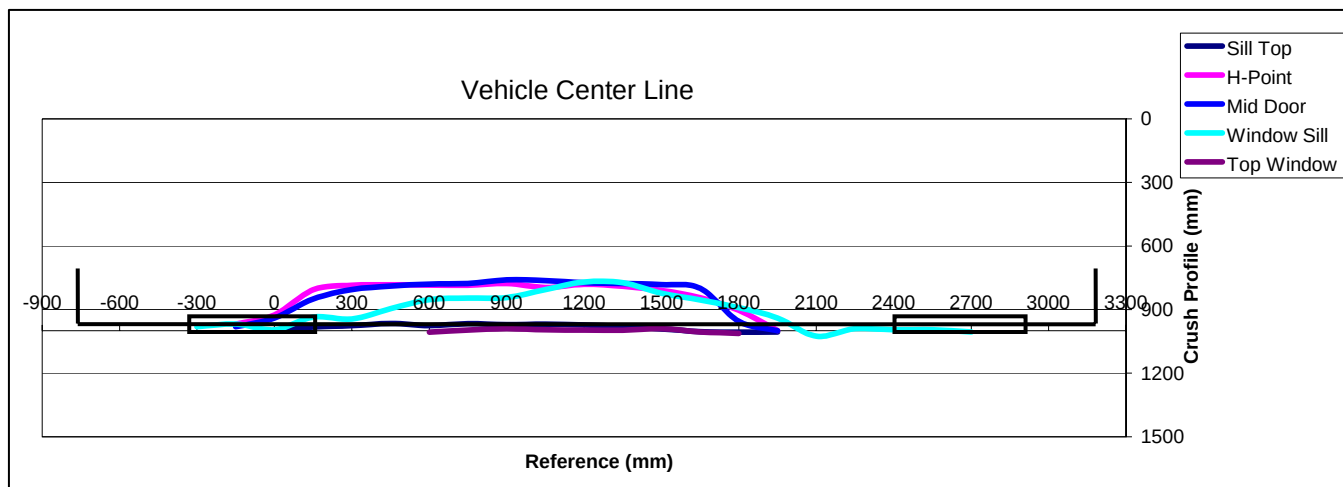
	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600															
-450															
-300				186					205					19	
-150		115	107	180			146	126	212			31	19	32	
0	171	122	111	176		173	196	171	180		2	74	60	4	
150	183	128	111	171		201	321	261	236		18	193	150	65	
300	187	129	111	176		212	344	306	232		25	215	195	56	
450	188	129	111	166		223	346	322	271		35	217	211	105	
600	196	128	113	164	411	220	344	333	311	401	24	216	220	147	-10
750	188	130	113	160	408	221	344	336	315	401	33	214	223	155	-7
900	193	131	116	158	410	222	354	356	315	413	29	223	240	157	3
1050	193	131	116	151	409	224	336	353	346	419	31	205	237	195	10
1200	193	134	118	151	409	221	353	345	381	413	28	219	227	230	4
1350	193	135	123	151	412	213	345	346	378	415	20	210	223	227	3
1500	193	136	121	156	412	202	326	339	333	414	9	190	218	177	2
1650	190	136	121	158	412	186	292	321	304	422	-4	156	200	146	10
1800	176	129	126	164	423	169	226	171	273	418	-7	97	45	109	-5
1950	156	112	111	171	438	151	111	126	231	426	-5	-1	15	60	-12
2100				171					146					-25	
2250				176					186					10	
2400				186					196					5	
2550				201					206					5	
2700				221					216					-5	
2850															
3000															

Measurements are taken from fixed reference 1000 mm from vehicle centerline.

DATA SHEET NO. 10...(CONTINUED)
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



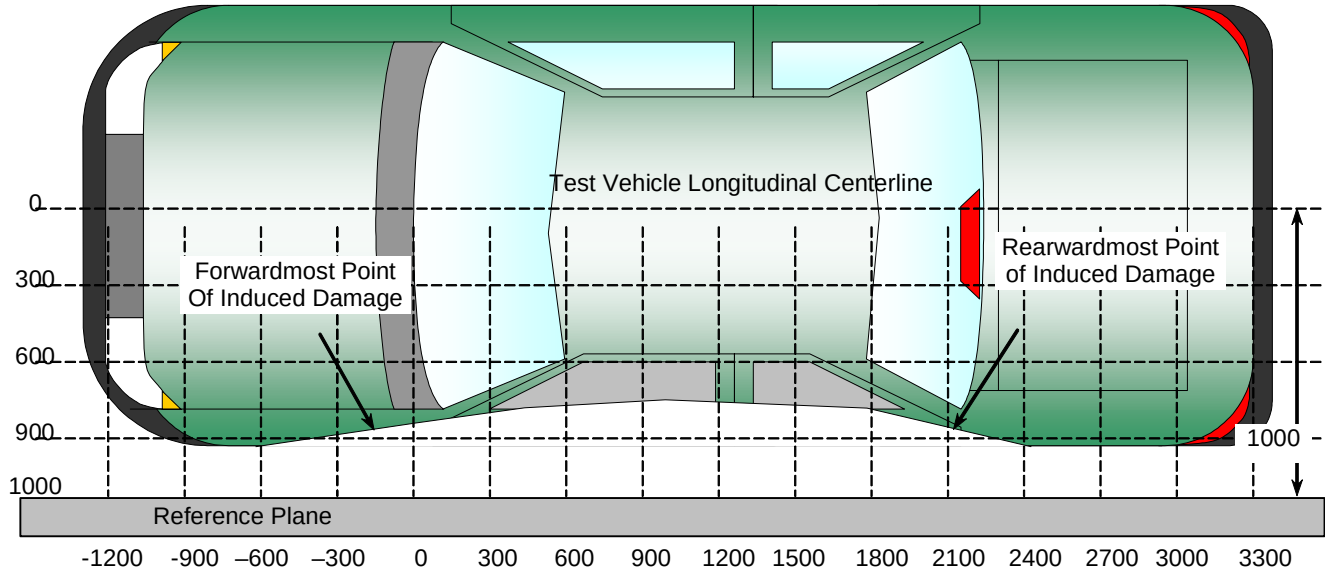
	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	34	223	240	230	10
Distance from Impact	mm	450	900	900	1200	1050

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



All Dimensions Shown in millimeters

TOP VIEW

DAMAGE PROFILE DISTANCES

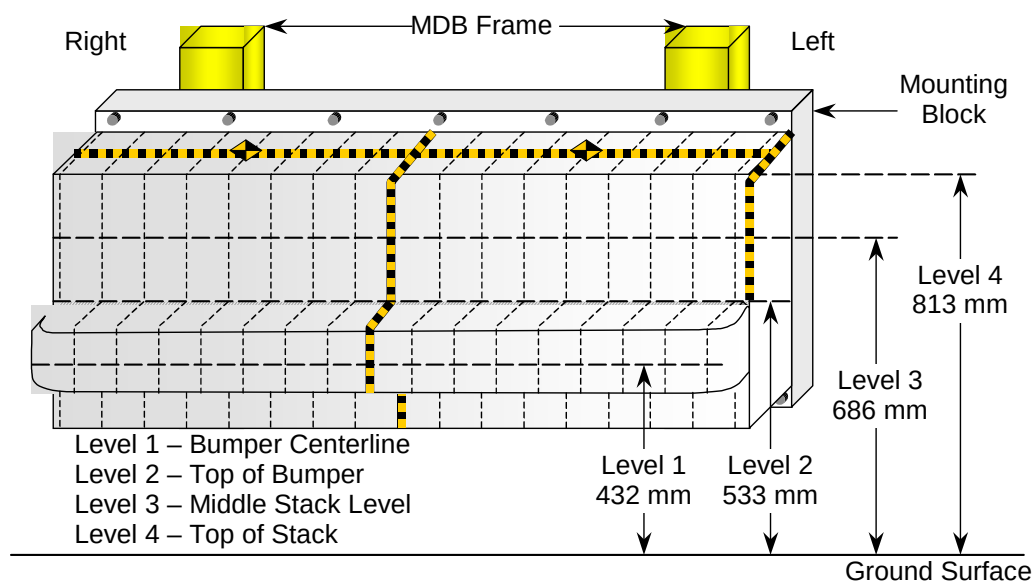
DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max. Static Crush (mm)
1	-150	4	180	212	32
2	300	2	129	344	215
3	750	3	113	336	223
4	1200	3	118	345	227
5	1650	3	121	321	200
6	2100	4	171	146	-25

DATA SHEET NO. 12

DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								C/L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	243	130	127	123	138	139	146	153	150	158	168	167	168	160	173	188	218
2	88	86	86	86	87	89	91	91	86	76	78	94	102	114	120	126	132
3	108	71	44	31	23	18	16	18	26	46	46	26	18	16	18	31	56
4	122	91	70	43	31	26	28	46	48	42	44	12	-3	-2	16	42	68

All Dimensions in mm

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

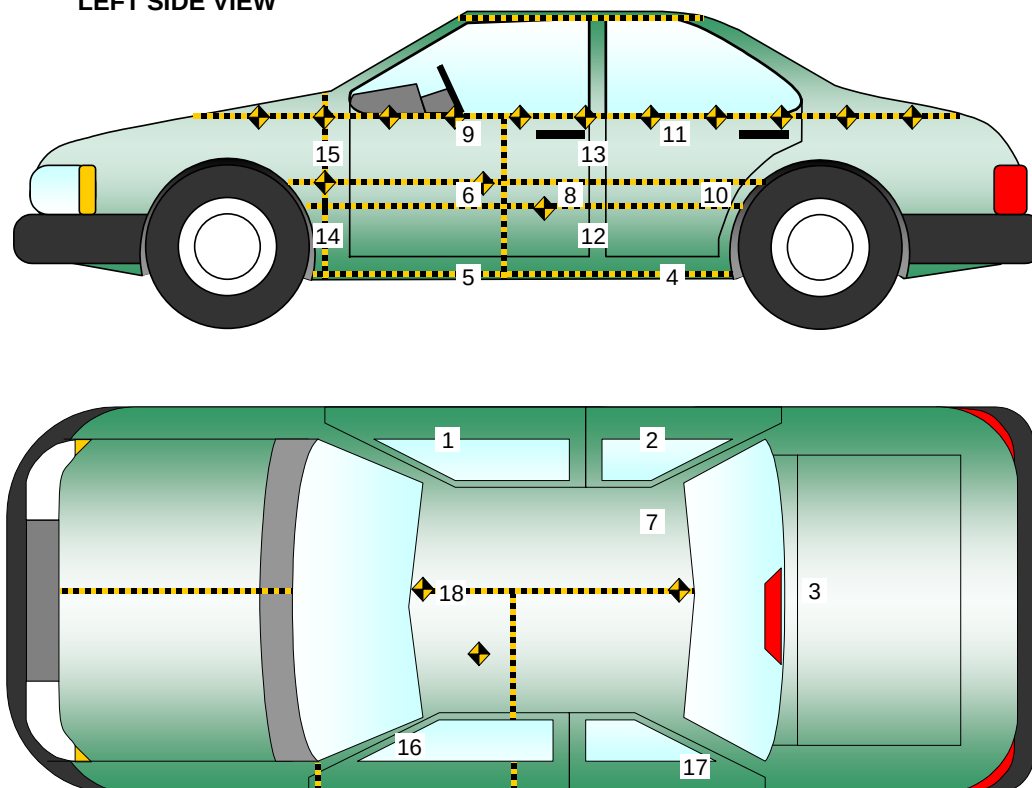
Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

LEFT SIDE VIEW



No.	Location
1	Right Sill at Front Seat
2	Right Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Sill at Rear Door
5	Left Sill at Front Door
6	Left Front Door Centerline
7	Right Rear Occupant Compartment
8	Left Front Door Mid-Rear
9	Left Front Door Upper Centerline

No.	Location
10	Left Rear Door Mid-Rear
11	Left Rear Door Upper Centerline
12	Left Lower B-Post
13	Left Middle B-Post
14	Left Lower A-Post
15	Left Middle A-Post
16	Front Seat Track
17	Rear Seat Track or Structure
18	Vehicle CG

DATA SHEET NO. 13...(CONTINUED)
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	Right Sill at Front Seat	2670	740	310	X	4.9	55.6	-7.5	10.1
					Y	24.3	8.2	-2.2	63.9
					Z	6.3	56.8	-6.0	13.3
					RES	25.1	8.4		
2	Right Sill at Rear Seat	1720	725	360	X	5.9	56.4	-5.1	10.0
					Y	20.1	29.8	-2.0	119.9
					Z	7.5	28.3	-7.9	16.0
					RES	21.2	29.7		
3	Rear Floorpan Above Axle	935	0	524	X	4.7	57.6	-8.3	18.5
					Y	24.3	22.0	-2.2	121.1
					Z	8.3	16.1	-6.5	56.2
					RES	25.4	22.0		
4	Left Sill at Rear Door	1900	-700	200	Y	26.1	6.9	-2.2	87.0
5	Left Sill at Front Door	2540	-700	200	Y	21.5	6.3	-3.2	65.5
6	Front Door Centerline	2800	-790	720	Y	165.5	5.7	-95.3	23.1
7	Rt. Rear Occ. Compartment	2220	440	210	Y	24.9	8.0	-2.0	77.9
8	Front Door Mid-Rear	2390	-790	780	Y	205.5	9.9	-43.3	23.1
9	Front Door Upper Centerline	2890	-790	760	Y	151.6	11.9	-90.9	20.3
10	Rear Door Mid-Rear	1400	-740	790	Y	107.2	5.1	-79.1	25.3
11	Rear Door Upper Centerline	1800	-740	730	Y	171.2	8.3	-135.1	25.5
12	B-Post Lower	2140	-725	450	Y	142.0	3.8	-31.3	23.3
13	B-Post Middle	2140	-725	790	Y	133.4	4.1	-31.1	27.2
14	A-Post Lower	3310	-790	510	Y	46.1	5.4	-13.5	19.3
15	A-Post Middle	3310	-790	700	Y	43.4	4.0	-10.6	56.5
16	Front Seat Track	2660	-140	290	Y	56.3	14.1	-13.7	21.7
17	Rear Seat Structure				Y				
18	Vehicle CG	3090	410	210	X	3.3	54.2	-6.1	10.1
					Y	21.1	8.1	-3.4	61.8
					Z	4.7	65.9	-5.4	7.9
					RES	22.1	8.2		

1.) Not installed

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05

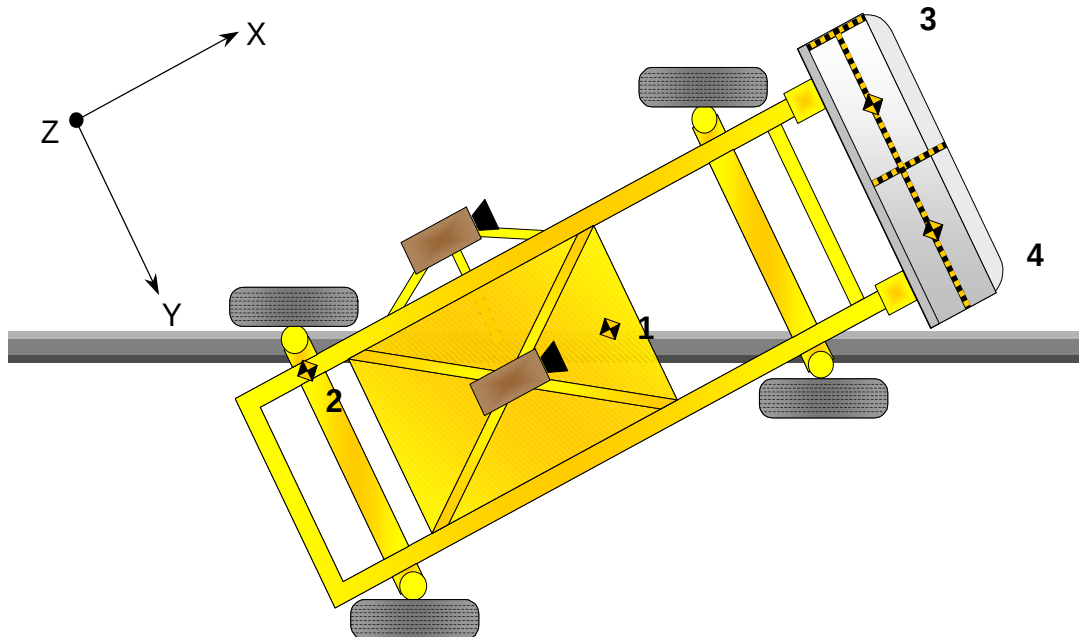
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1195	0	430	X	3.9	125.8	-20.9	40.0
					Y	4.2	154.1	-6.7	14.0
					Z	16.5	115.1	-19.1	124.6
					RES	22.0	37.7		
2	MDB Rear	-2642	-593	608	X	2.3	116.6	-21.6	33.9
					Y	2.8	80.7	-6.3	20.7

Reference Points X - MDB Front Axle Y - MDB Centerline Z - Ground Plane

MDB BUMPER CONTACT SWITCH DATA

Loc. No.	Contact Switch Location	Units	Peak and 50% Crossing Point			
			Max	Time	50%	Time
3	MDB Left Bumper (T=0)	% F.S.	100.0	0.0	50.0	0.0
4	MDB Right Bumper	% F.S.	99.9	26.6	50.0	0.5

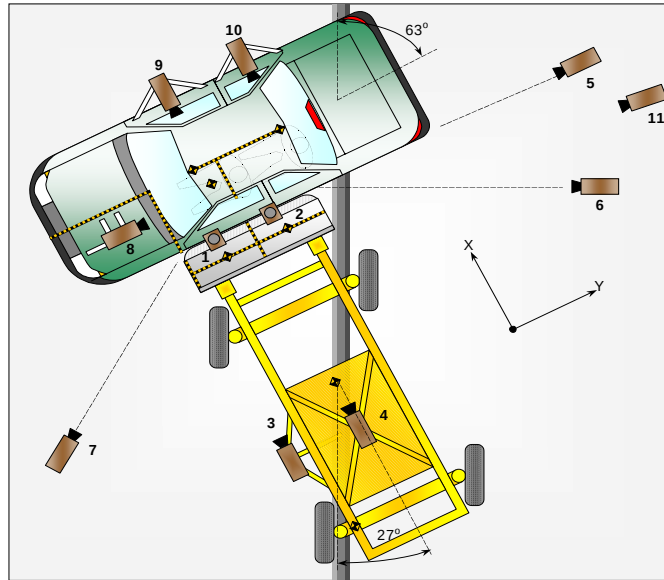


DATA SHEET NO. 15

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	1220	2286	-5486	-90	12	1000
2	Overhead Close Up	609	1676	-5486	-90	25	1000
3	Impact Point	-2134	0	-1143	-7	13	
4	Side Overall	-3912	838	-1829	-11	13	
5	Rear	228	15545	-1371	-1	35	1000
6	Left Rear	-7188	16459	-939	-1	85	
7	Left Front	-2666	-3550	-1473	-10	13	1000
8	Driver Front	385	-630	-1330	-20	24	1000
9	Driver Side	1805	610	-1040	-2	24	1000
10	Passenger Side	1785	1440	-1120	-2	24	1000
11	Real Time Digital	3658	22860	-1727	-5	N/A	30
12	Additional Real Time Digital	-7100	16459	-839	0	N/A	30
13	Additional Real Time Digital	-2600	-4700	-1473	-1	N/A	30
14	Additional Left Front	-2575	-3475	-1421	-7	85	1000

X = Barrier Face Y = Monorail Centerline Z = Ground NTM: No Timing Marks

DNR: Did Not Run

DATA SHEET NO. 16

FMVSS 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2005 Pontiac G6 4-Door Sedan NHTSA No.: G50104
Test Program: 55/28 km/h Side Impact NCAP Test Date: 4/12/05

Test Time: 12:37 PM Temperature: 25.0 Deg. C.

Stoddard Solvent Spillage Measurements

- A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)
- D. Spillage Details: No leakage occurred

DATA SHEET NO. 17

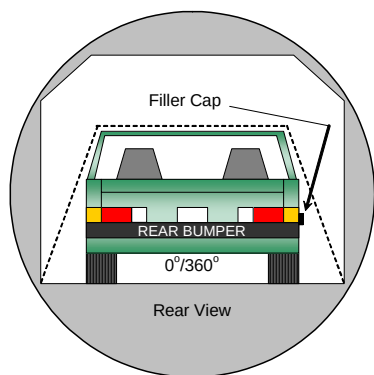
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2005 Pontiac G6 4-Door Sedan

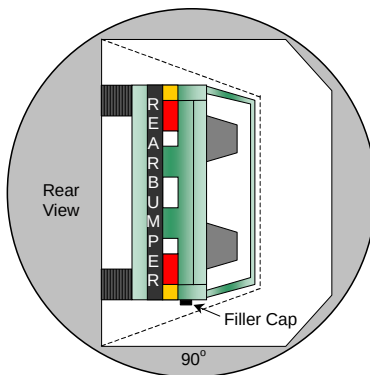
NHTSA No.: G50104

Test Program: 55/28 km/h Side Impact NCAP

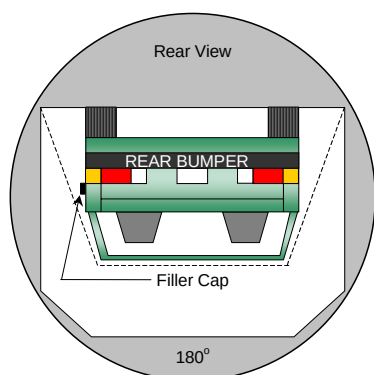
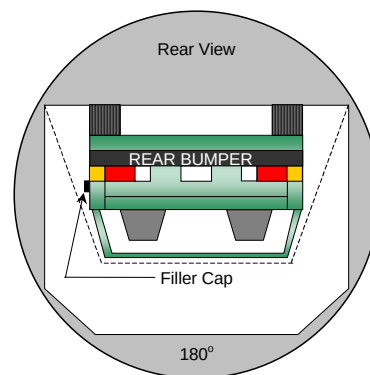
Test Date: 4/12/05



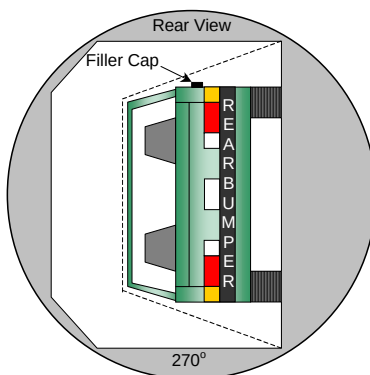
0° TO 90°



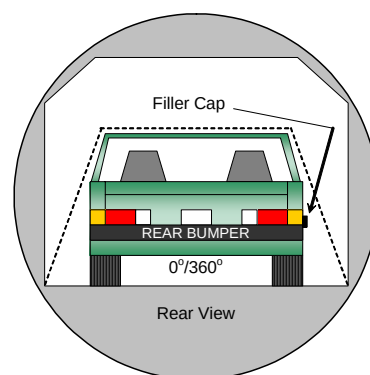
90° TO 180°



180° TO 270°



270° TO 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations.

No solvent leakage occurred during static rollover testing.

DATA SHEET NO. 17...(CONTINUED)
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G50104
 Test Date: 4/12/05

SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	84	300	384
90° to 180°	77	300	377
180° to 270°	78	300	378
270° to 360°	77	300	377

FMVSS 301 SPILLAGE TABLE REQUIREMENT (oz.)

First 5 Minutes	5.0
Sixth Minute	1.0
Seventh Minute	1.0
Eighth Minute	1.0

Test Phase	First 5 Minutes	Sixth Minute	Seventh Minute	Eighth Minute
0° to 90°	0	0	0	0
90° to 180°	0	0	0	0
180° to 270°	0	0	0	0
270° to 360°	0	0	0	0

SOLVENT SPILLAGE LOCATION TABLE

Test Phase	Spillage Location
0° to 90°	None
90° to 180°	None
180° to 270°	None
270° to 360°	None

APPENDIX A
PHOTOGRAPHS

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A-32	Post-Test Left Front Door	A-32
A-33	Pre-Test Left Rear Door	A-33
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A-57	Pre-Test Right Side View of Deformable Barrier	A-57
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A-65	Vehicle Impact	A-65



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



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



Figure A-3: Manufacturer's Label



TIRE AND LOADING INFORMATION

SEATING CAPACITY | TOTAL 5 | FRONT 2 | CENTER 0 | REAR 3

The combined weight of occupants and cargo should never exceed 404 kg or 891 lbs.

ORIGINAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
P215/60R16	FRONT	210 kPa, 30 PSI
P215/60R16	REAR	210 kPa, 30 PSI
T125/70R16	SPARE	420 kPa, 60 PSI

**SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION**

Figure A-4: Tire Placard



Figure A-5: Pre-Test Front View



Figure A-6: Post-Test Front View

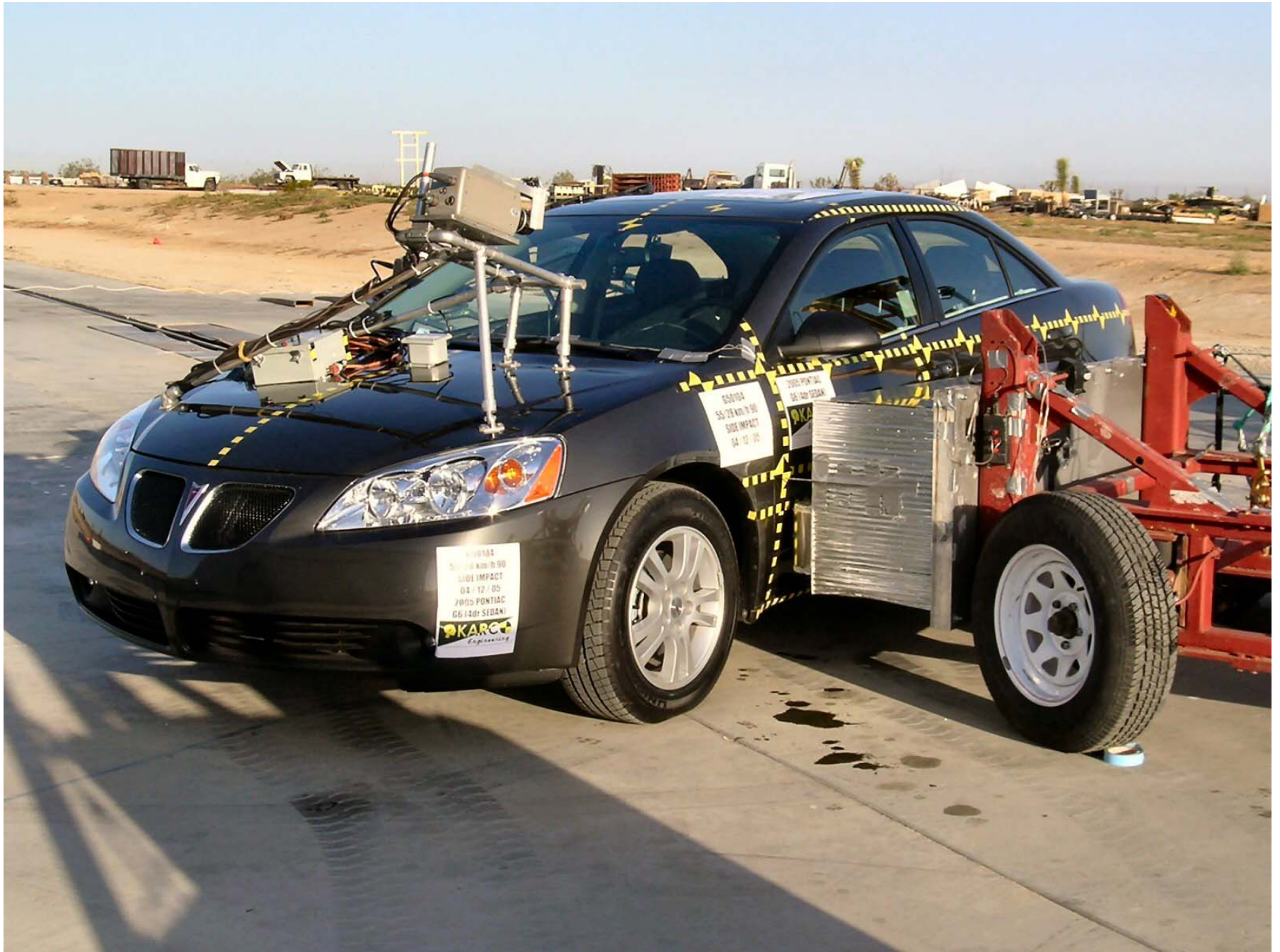


Figure A-7: Pre-Test Left Front 3/4 View



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



Figure A-9: Pre-Test Left Side View



Figure A-10: Post-Test Left Side View



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



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



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



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



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



Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



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



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



Figure A-21: Pre-Test Overhead View



Figure A-22: Post-Test Overhead View

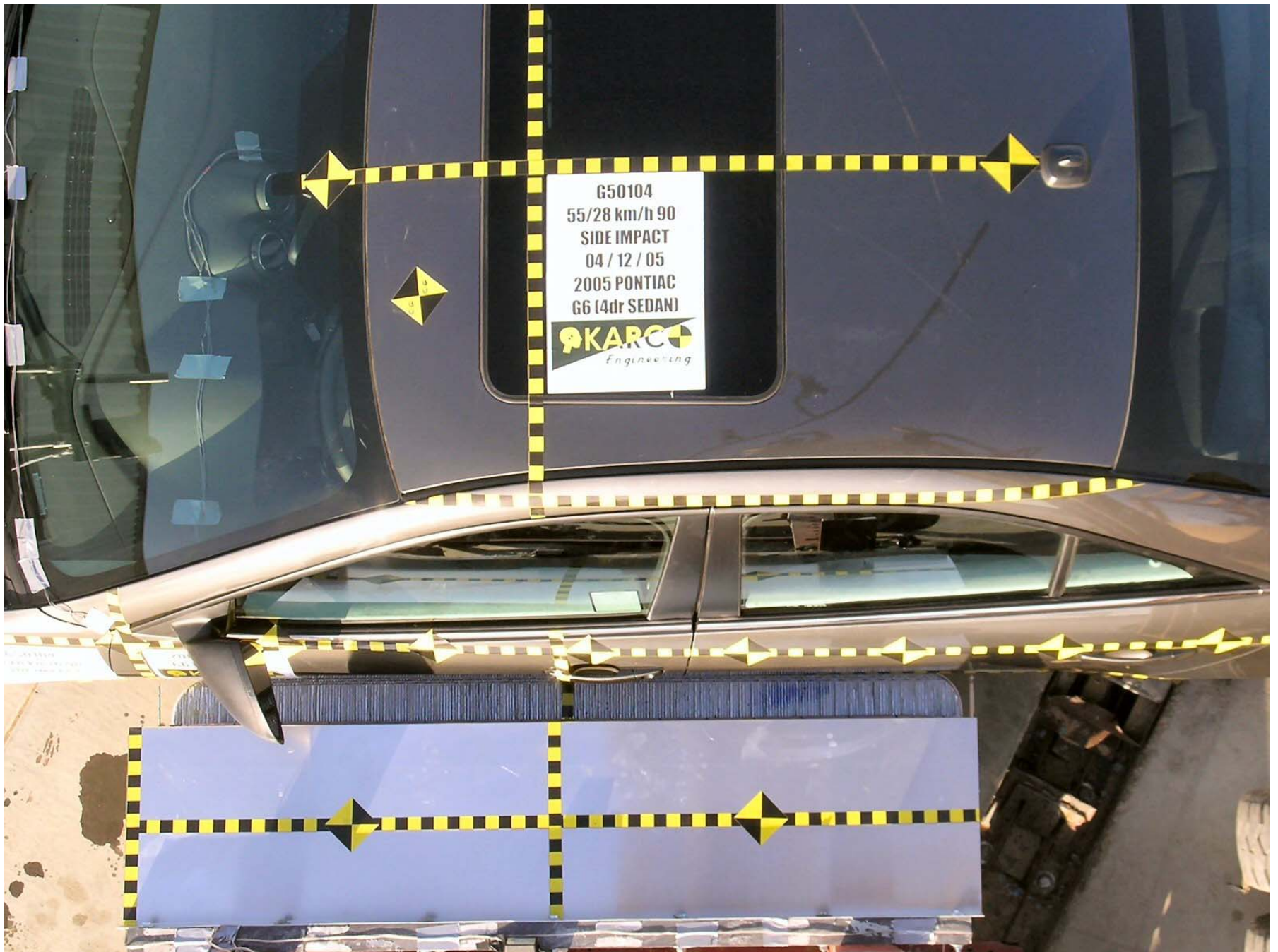


Figure A-23: Pre-Test Overhead Close-up View



Figure A-24: Post-Test Overhead Close-up View



Figure A-25: Pre-Test Left Impact Point



Figure A-26: Post-Test Left Impact Point



Figure A-27: Pre-Test Front $\frac{3}{4}$ View of Left Side Doors



Figure A-28: Post-Test Front $\frac{3}{4}$ View of Left Side Doors

**Photograph Not
Available**

Figure A-29: Pre-Test Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-30: Post-Test Rear $\frac{3}{4}$ View of Left Side Doors

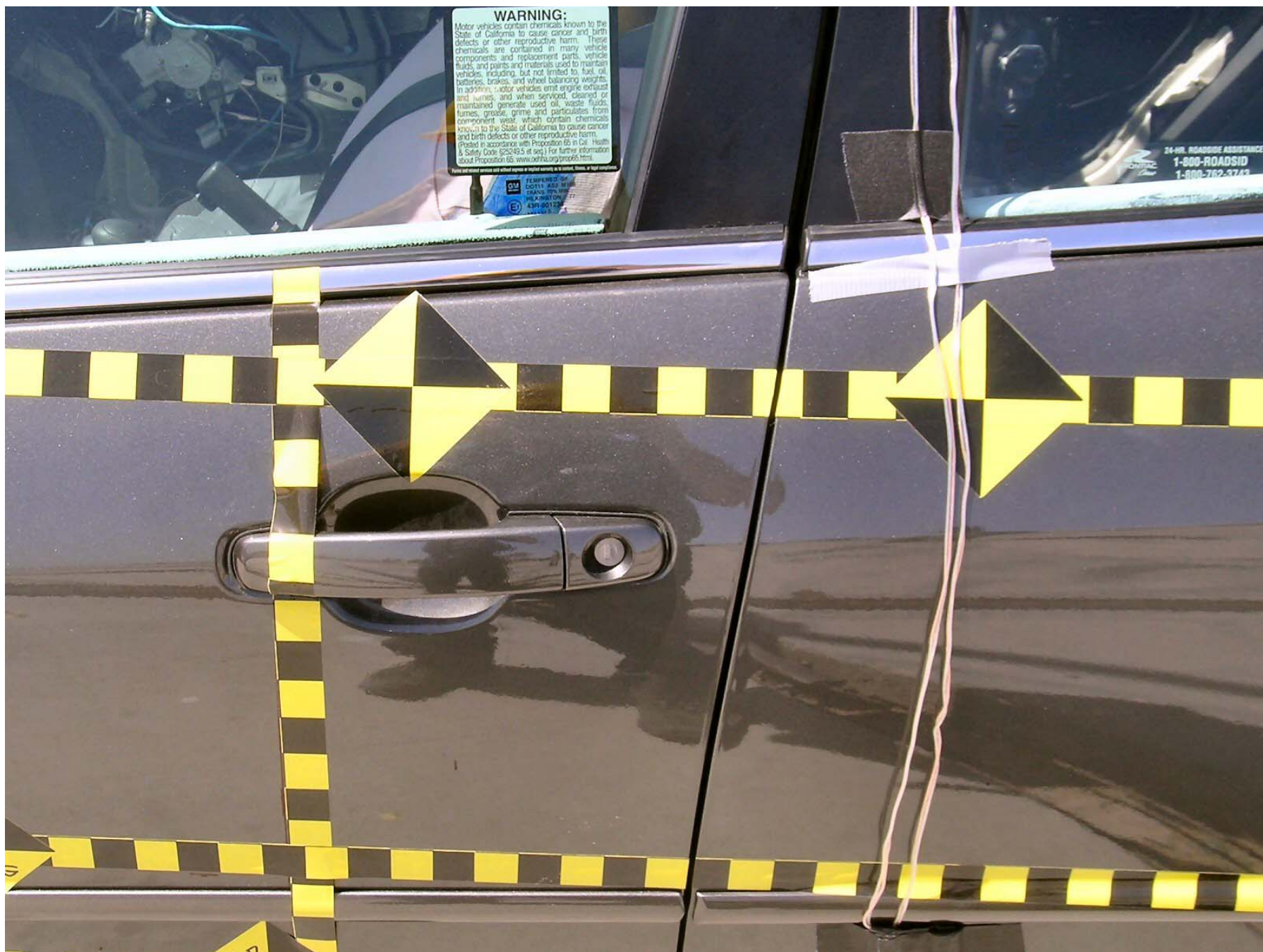


Figure A-31: Pre-Test Left Front Door



Figure A-32: Post-Test Left Front Door



Figure A-33: Pre-Test Left Rear Door



Figure A-34: Post-Test Left Rear Door



Figure A-35: Pre-Test Driver Dummy (Door Open)

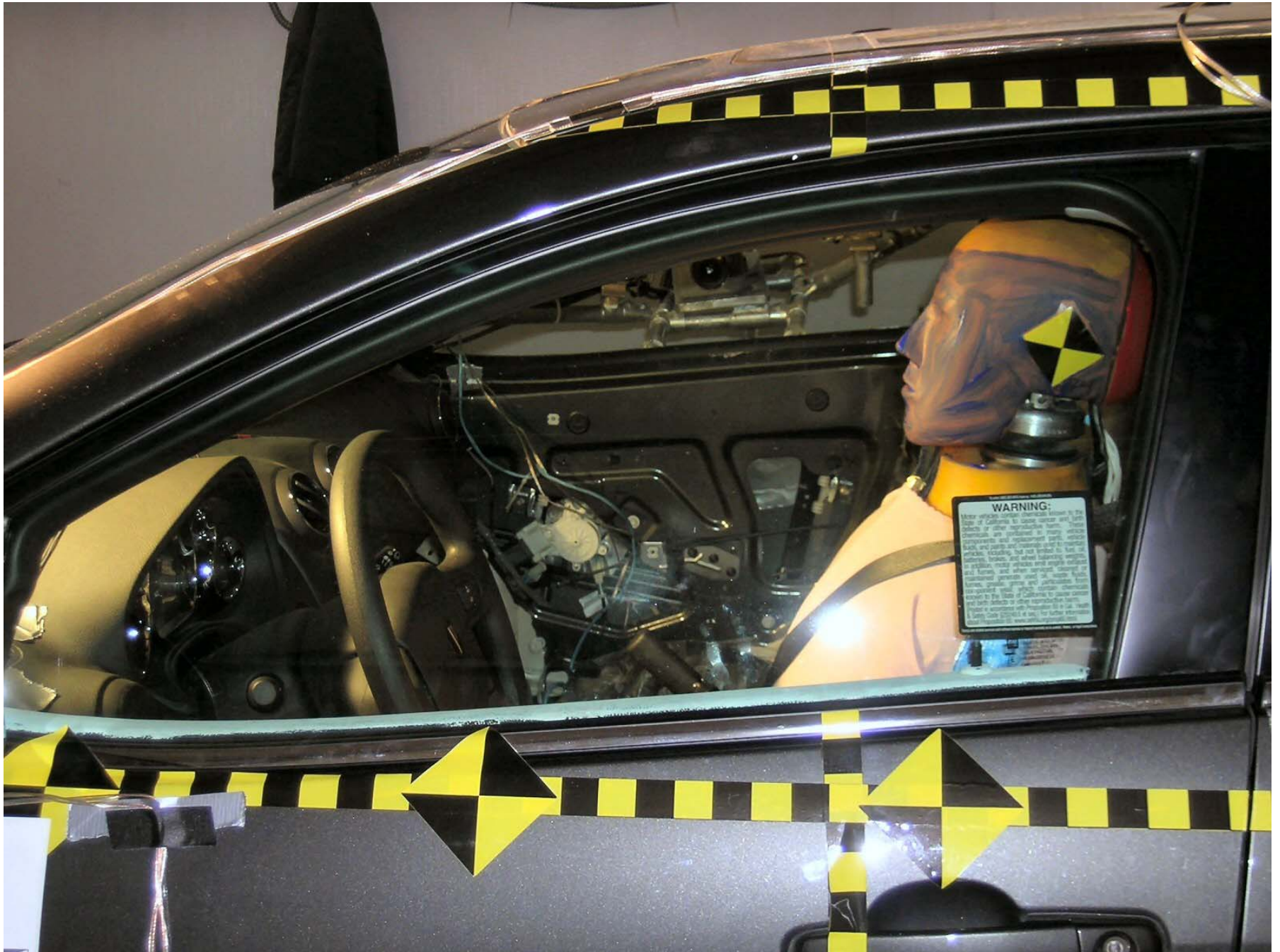


Figure A-36: Pre-Test Driver Dummy (Through Window)



Figure A-37: Post-Test Driver Dummy (Through Window)

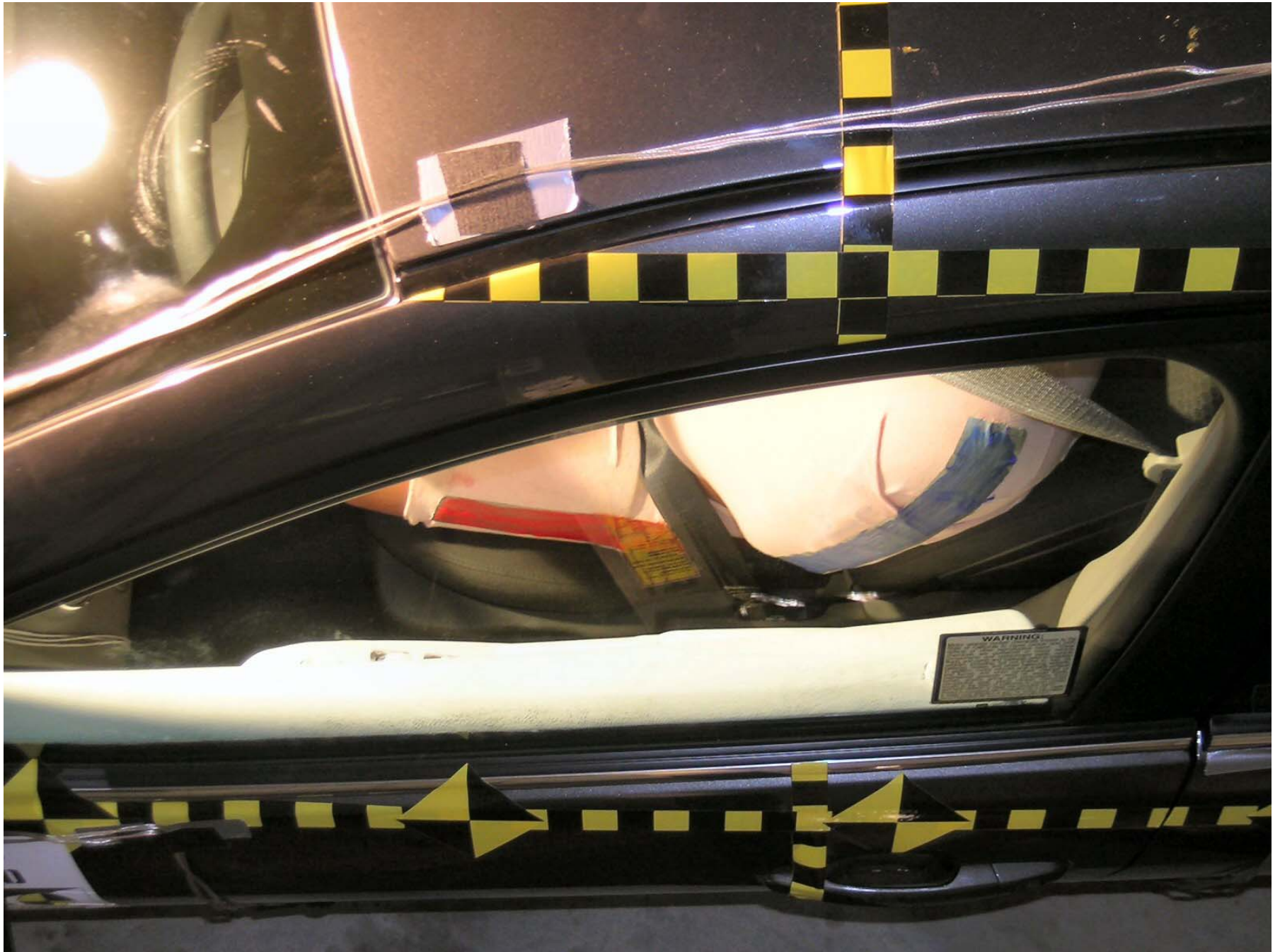


Figure A-38: Pre-Test Driver Dummy Clearance From Door



Figure A-39: Post-Test Driver Dummy Clearance From Door



Figure A-40: Pre-Test Driver Dummy Right Side View



Figure A-41: Post-Test Driver Dummy Right Side View



Figure A-42: Pre-Test Front Door Panel (Interior)



Figure A-43: Post-Test Front Door Panel (Interior)



Figure A-44: Pre-Test Passenger Dummy Left Side (Door Open)



Figure A-45: Pre-Test Passenger Dummy (Through Window)



Figure A-46: Post-Test Passenger Dummy (Through Window)



Figure A-47: Pre-Test Passenger Dummy Clearance From Door



Figure A-48: Post-Test Passenger Dummy Clearance From Door



Figure A-49: Pre-Test Passenger Dummy Right Side View



Figure A-50: Post-Test Passenger Dummy Right Side View



Figure A-51: Pre-Test Rear Door Panel (Interior)



Figure A-52: Post-Test Rear Door Panel (Interior)



Figure A-53: Pre-Test Front View of Deformable Barrier

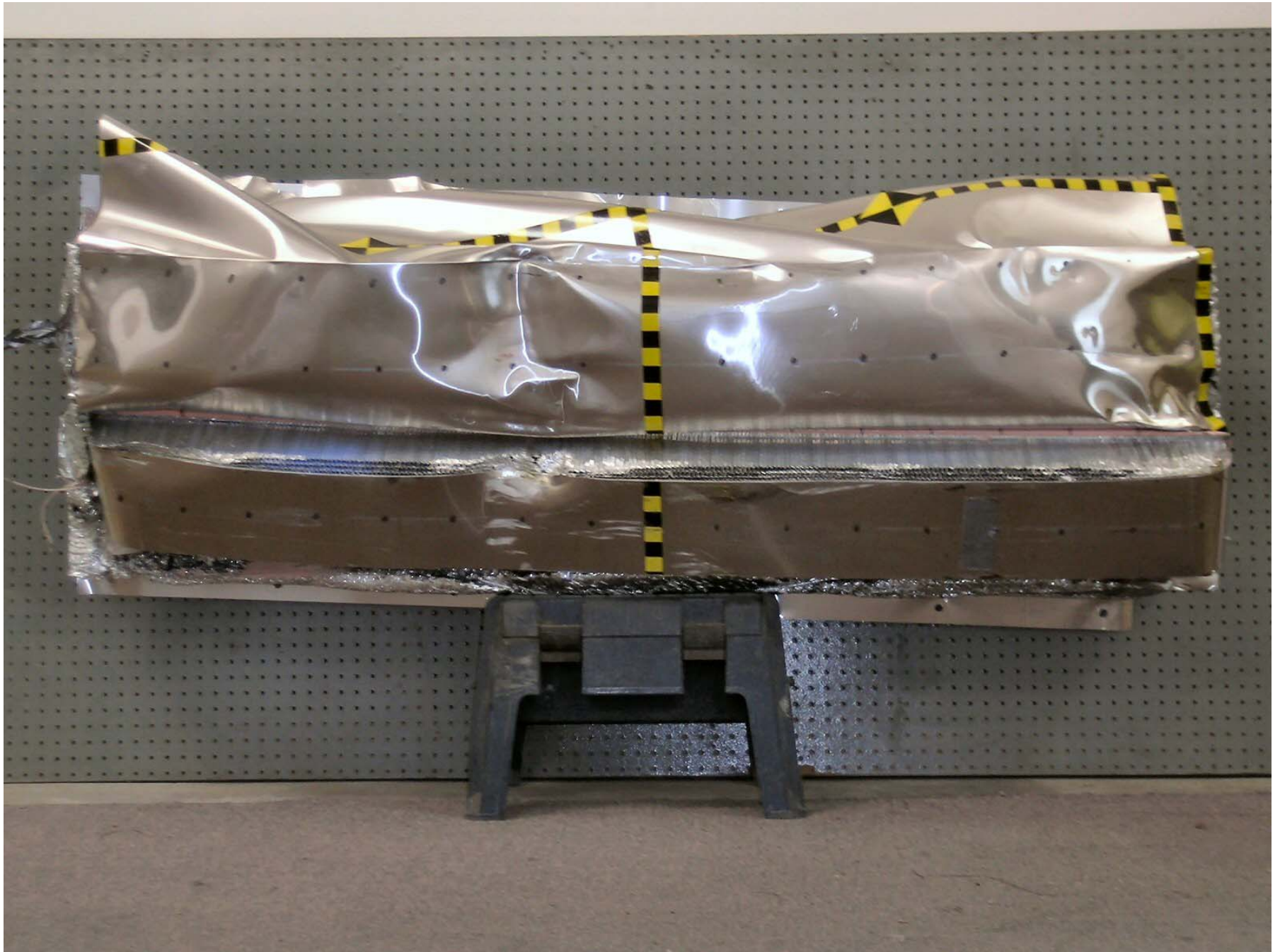


Figure A-54: Post-Test Front View of Deformable Barrier

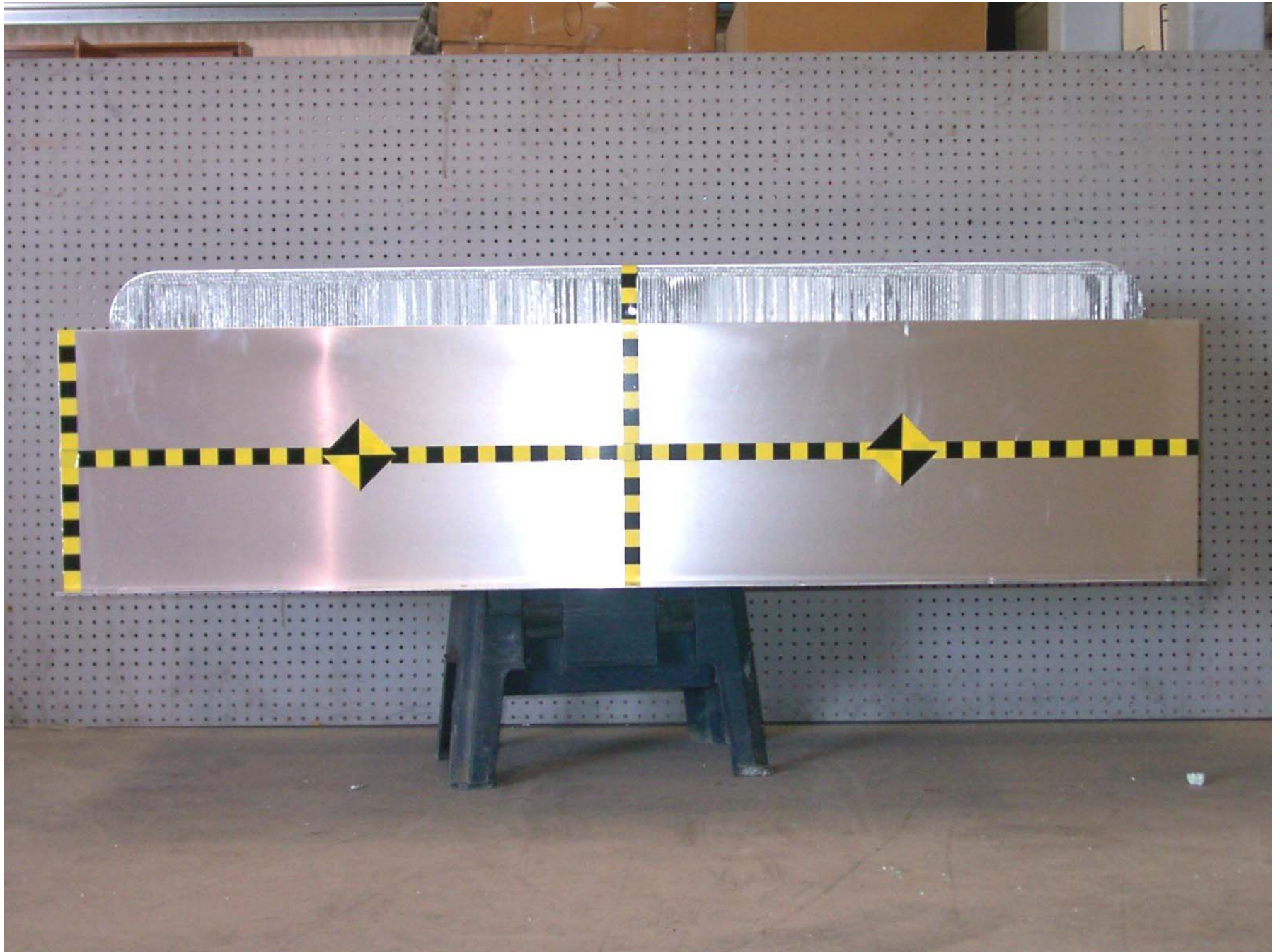


Figure A-55: Pre-Test Top View of Deformable Barrier



Figure A-56: Post-Test Top View of Deformable Barrier



Figure A-57: Pre-Test Right Side View of Deformable Barrier



Figure A-58: Post-Test Right Side View of Deformable Barrier



Figure A-59: Pre-Test Left Side View of Deformable Barrier



Figure A-60: Post-Test Left Side View of Deformable Barrier

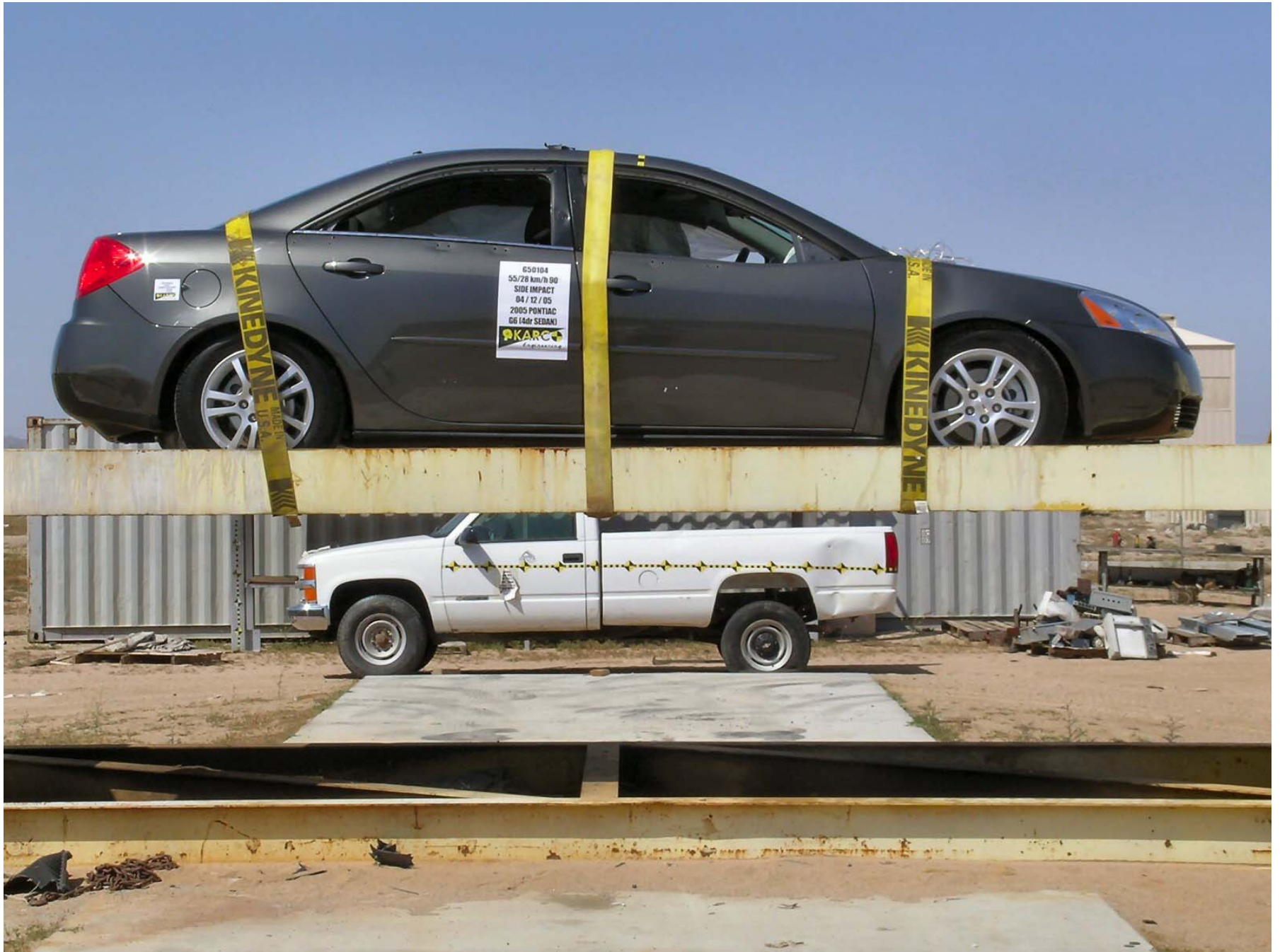


Figure A-61: Vehicle on Rollover Device (0°)



Figure A-62: Vehicle on Rollover Device (90°)



Figure A-63: Vehicle on Rollover Device (180°)

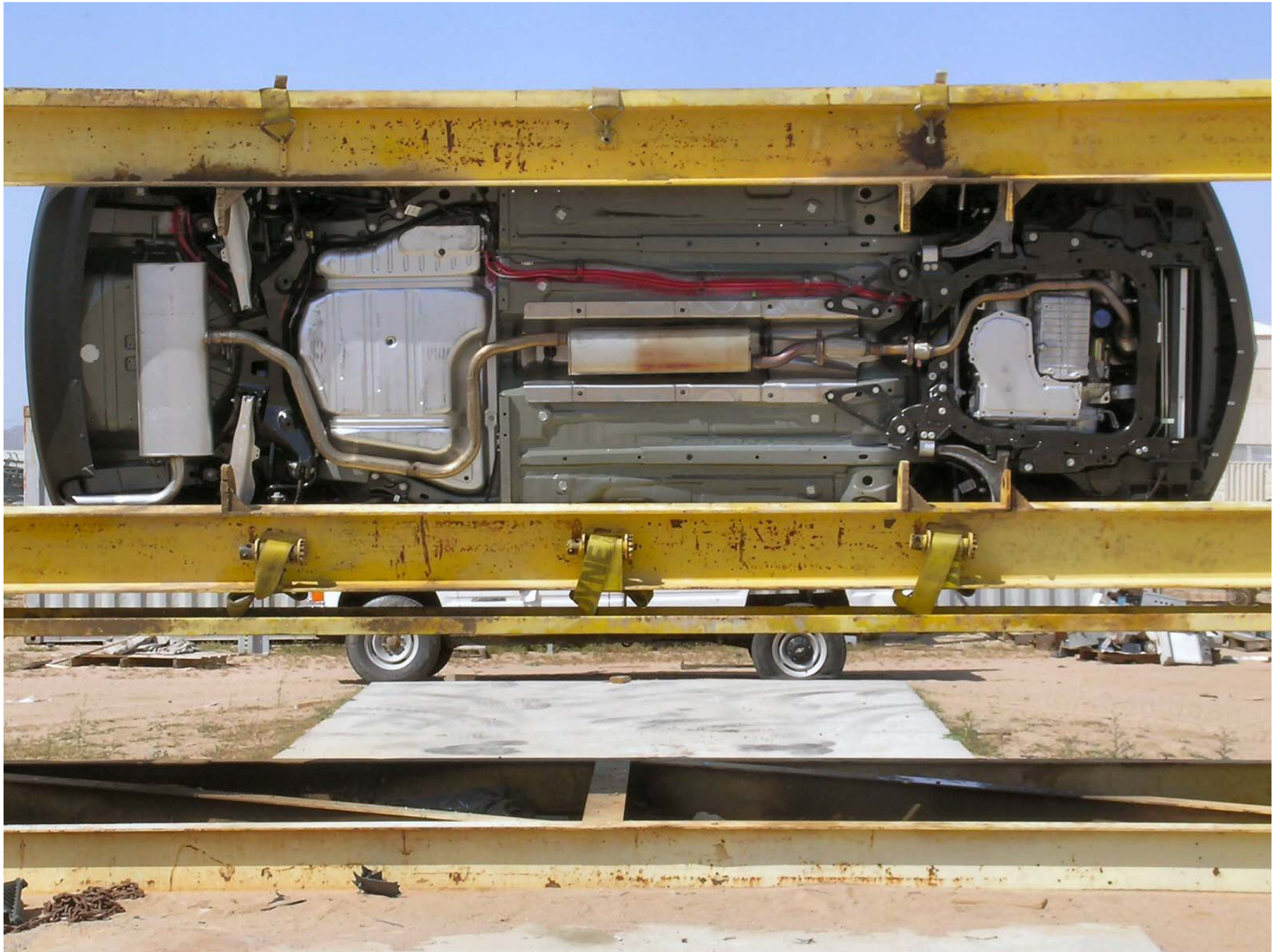


Figure A-64: Vehicle on Rollover Device (270°)



A-65

TR-P25062-01-NC

Figure A-65: Vehicle Impact

APPENDIX B

SID/HIII, VEHICLE AND MDB RESPONSE DATA

LIST OF DATA PLOTS

Data Plot	Page
B-1	Driver Head X Primary
	Driver Head Y Primary
	Driver Head Z Primary
	Driver Head Resultant Primary
B-2	Driver Head Primary X Velocity
	Driver Head Primary Y Velocity
	Driver Head Primary Z Velocity
B-3	Driver Head X Redundant
	Driver Head Y Redundant
	Driver Head Z Redundant
	Driver Head Resultant Redundant
B-4	Driver Head Redundant X Velocity
	Driver Head Redundant Y Velocity
	Driver Head Redundant Z Velocity
B-5	Driver Upper Neck Force X
	Driver Upper Neck Force Y
	Driver Upper Neck Force Z
	Driver Upper Neck Force Resultant
B-6	Driver Upper Neck Moment X
	Driver Upper Neck Moment Y
	Driver Upper Neck Moment Z
	Driver Upper Neck Moment Resultant
B-7	Driver Upper Rib Primary Y
	Driver Lower Rib Primary Y
	Driver Lower Spine Primary Y
	Driver Pelvis Primary Y
B-8	Driver Upper Rib Primary Y Velocity
	Driver Lower Rib Primary Y Velocity
	Driver Lower Spine Primary Y Velocity
	Driver Pelvis Primary Y Velocity
B-9	Driver Upper Rib Redundant Y
	Driver Lower Rib Redundant Y
	Driver Lower Spine Redundant Y
	Driver Pelvis Redundant Y

LIST OF DATA PLOTS...(CONTINUED)

Data Plot	Page
B-10	Driver Upper Rib Redundant Y Velocity
	Driver Lower Rib Redundant Y Velocity
	Driver Lower Spine Redundant Y Velocity
	Driver Pelvis Redundant Y Velocity
B-11	Driver Thorax Contact
	Driver Pelvis Contact
B-12	Passenger Head X Primary
	Passenger Head Y Primary
	Passenger Head Z Primary
	Passenger Head Resultant Primary
B-13	Passenger Head Primary X Velocity
	Passenger Head Primary Y Velocity
	Passenger Head Primary Z Velocity
B-14	Passenger Head X Redundant
	Passenger Head Y Redundant
	Passenger Head Z Redundant
	Passenger Head Resultant Redundant
B-15	Passenger Head Redundant X Velocity
	Passenger Head Redundant Y Velocity
	Passenger Head Redundant Z Velocity
B-16	Passenger Upper Neck Force X
	Passenger Upper Neck Force Y
	Passenger Upper Neck Force Z
	Passenger Upper Neck Force Resultant
B-17	Passenger Upper Neck Moment X
	Passenger Upper Neck Moment Y
	Passenger Upper Neck Moment Z
	Passenger Upper Neck Moment Resultant
B-18	Passenger Upper Rib Primary Y
	Passenger Lower Rib Primary Y
	Passenger Lower Spine Primary Y
	Passenger Pelvis Primary Y
B-19	Passenger Upper Rib Primary Y Velocity
	Passenger Lower Rib Primary Y Velocity
	Passenger Lower Spine Primary Y Velocity

LIST OF DATA PLOTS...(CONTINUED)

Data Plot	Page
B-20	Passenger Pelvis Primary Y Velocity B-19 Passenger Upper Rib Redundant Y B-20 Passenger Lower Rib Redundant Y B-20 Passenger Lower Spine Redundant Y B-20 Passenger Pelvis Redundant Y B-20
B-21	Passenger Upper Rib Redundant Y Velocity B-21 Passenger Lower Rib Redundant Y Velocity B-21 Passenger Lower Spine Redundant Y Velocity B-21 Passenger Pelvis Redundant Y Velocity B-21
B-22	Passenger Thorax Contact B-22 Passenger Pelvis Contact B-22
B-23	Vehicle Right Sill at Front Seat X B-23 Vehicle Right Sill at Front Seat Y B-23 Vehicle Right Sill at Front Seat Z B-23 Vehicle Right Sill Front Seat Resultant B-23
B-24	Vehicle Right Sill at Front Seat X Velocity B-24 Vehicle Right Sill at Front Seat Y Velocity B-24 Vehicle Right Sill at Front Seat Z Velocity B-24
B-25	Vehicle Right Sill at Rear Seat X B-25 Vehicle Right Sill at Rear Seat Y B-25 Vehicle Right Sill at Rear Seat Z B-25 Vehicle Right Sill Rear Seat Resultant B-25
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B-27	Vehicle Rear Floor Above Axle X B-27 Vehicle Rear Floor Above Axle Y B-27 Vehicle Rear Floor Above Axle Z B-27 Vehicle Rear Floor Above Axle Resultant B-27
B-28	Vehicle Rear Floor Above Axle X Velocity B-28 Vehicle Rear Floor Above Axle Y Velocity B-28 Vehicle Rear Floor Above Axle Z Velocity B-28
B-29	Vehicle Left Sill at Rear Door Y B-29 Vehicle Left Sill at Front Door Y B-29 Vehicle Left Sill at Rear Door Y Velocity B-29 Vehicle Left Sill at Front Door Y Velocity B-29

LIST OF DATA PLOTS...(CONTINUED)

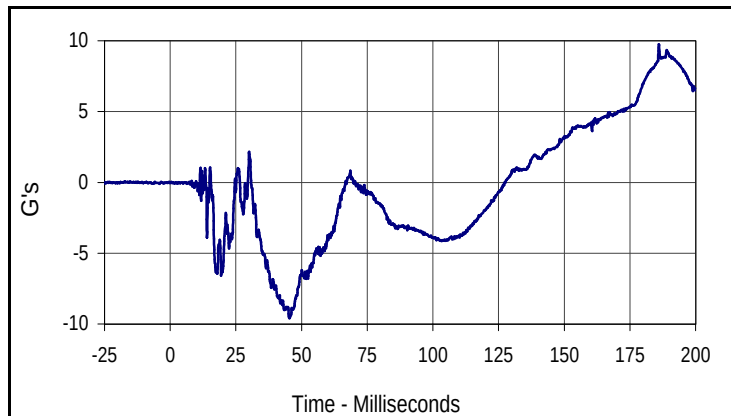
Data Plot	Page
B-30	Vehicle Left Front Door CL Y
	Vehicle Right Rear Occupant Compartment
	Vehicle Left Front Door Mid Rear Y
	Vehicle Left Front Door Upper CL Y
B-31	Vehicle Left Front Door CL Y Velocity
	Vehicle Right Rear Occupant Compartment Y Velocity
	Vehicle Left Front Door Mid Rear Y Velocity
	Vehicle Left Rear Door Upper CL Y Velocity
B-32	Vehicle Left Rear Door Mid Rear Y
	Vehicle Left Rear Door Upper CL Y
	Vehicle Left Rear Door Mid Rear Y Velocity
	Vehicle Left Rear Door Upper CL Y Velocity
B-33	Vehicle B-Post Lower Y
	Vehicle B-Post Middle Y
	Vehicle B-Post Lower Y Velocity
	Vehicle B-Post Middle Y Velocity
B-34	Vehicle A-Post Lower Y
	Vehicle A-Post Middle Y
	Vehicle A-Post Lower Y Velocity
	Vehicle A-Post Middle Y Velocity
B-35	Vehicle Left Front Seat Track
	Vehicle Rear Seat Structure
	Vehicle Left Front Seat Track Y Velocity
	Vehicle Rear Seat Structure Y Velocity
B-36	Vehicle CG X
	Vehicle CG Y
	Vehicle CG Z
	Vehicle CG Resultant
B-37	Vehicle CG X Velocity
	Vehicle CG Y Velocity
	Vehicle CG Z Velocity
B-38	Driver Upper Rib Primary Y
	Driver Lower Rib Primary Y
	Driver Lower Spine Primary Y
	Driver Pelvis Primary Y

LIST OF DATA PLOTS...(CONTINUED)

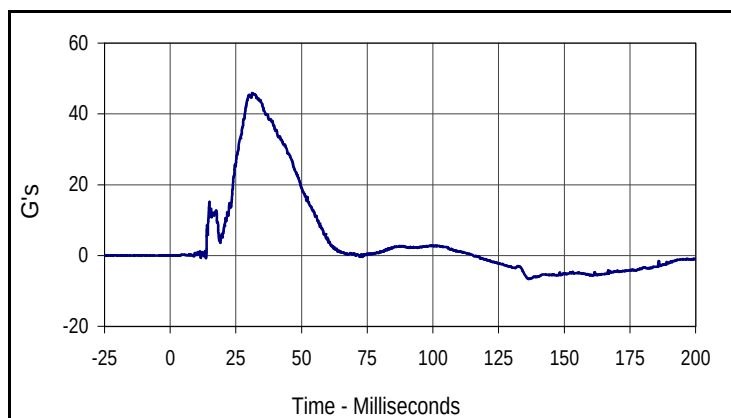
Data Plot	Page
B-39	Driver Upper Rib Redundant Y
	Driver Lower Rib Redundant Y
	Driver Lower Spine Redundant Y
	Driver Pelvis Redundant Y
B-40	Passenger Upper Rib Primary Y
	Passenger Lower Rib Primary Y
	Passenger Lower Spine Primary Y
	Passenger Pelvis Primary Y
B-41	Passenger Upper Rib Redundant Y
	Passenger Lower Rib Redundant Y
	Passenger Lower Spine Redundant Y
	Passenger Pelvis Redundant Y
B-42	MDB CG X
	MDB CG Y
	MDB CG Z
	MDB CG Resultant
B-43	MDB CG X Velocity
	MDB CG Y Velocity
	MDB CG Z Velocity
B-44	MDB Rear X
	MDB Rear Y
	MDB Rear X Velocity
	MDB Rear Y Velocity
B-45	MDB Right Bumper Contact

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

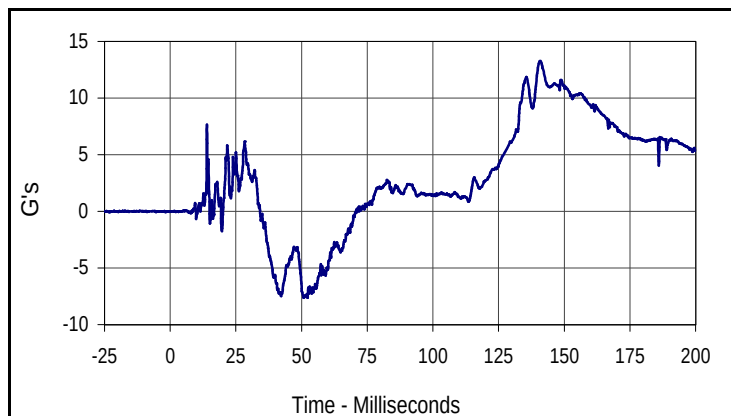
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 NHTSA No.: G50104



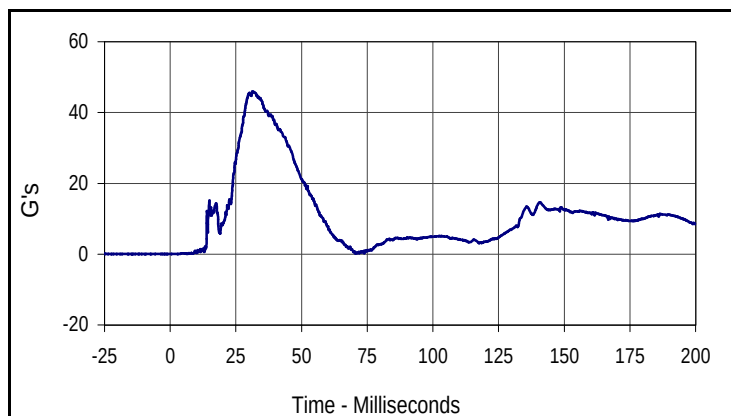
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Max	Time	Min	Time
9.8	186.0	-9.6	45.4



Curve Description			
Driver Head Y Primary			
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002	FIL	1000	G's
Max	Time	Min	Time
45.9	31.2	-6.6	136.4



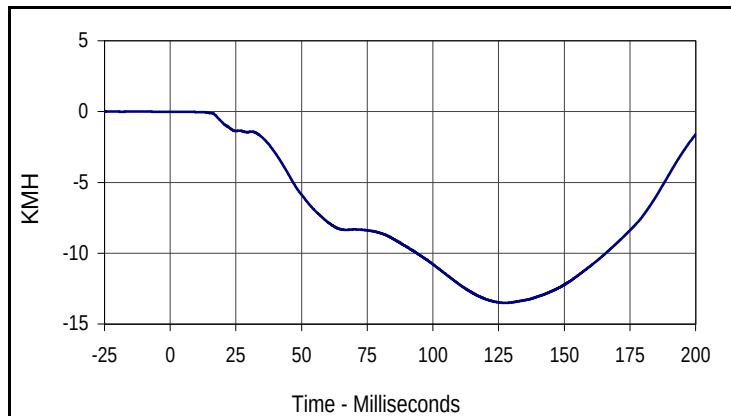
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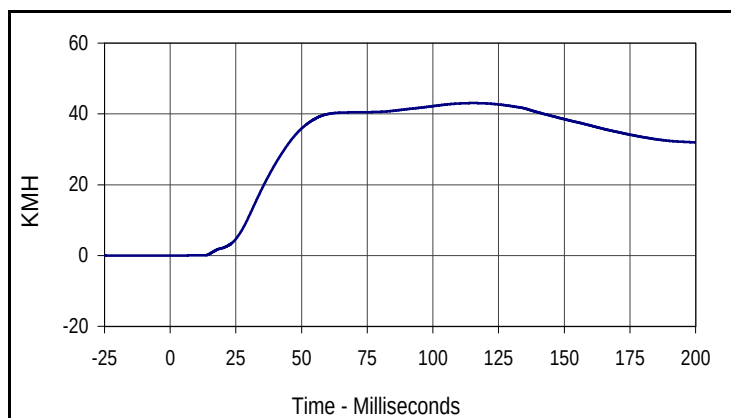
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Driver Head Resultant Primary			
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Max	Time	Min	Time
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Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

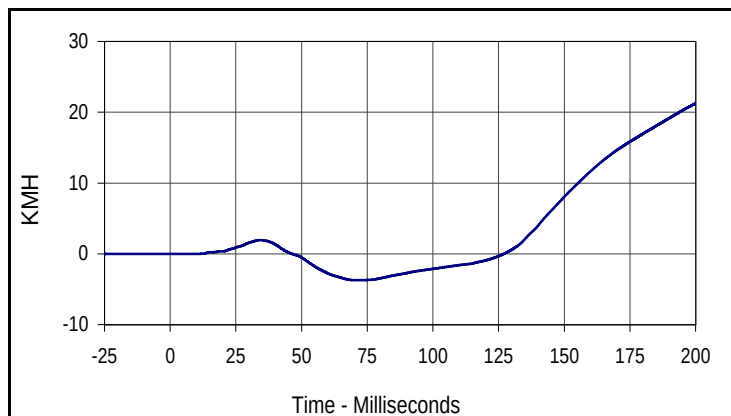
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Driver Head Primary X Velocity			
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Max	Time	Min	Time
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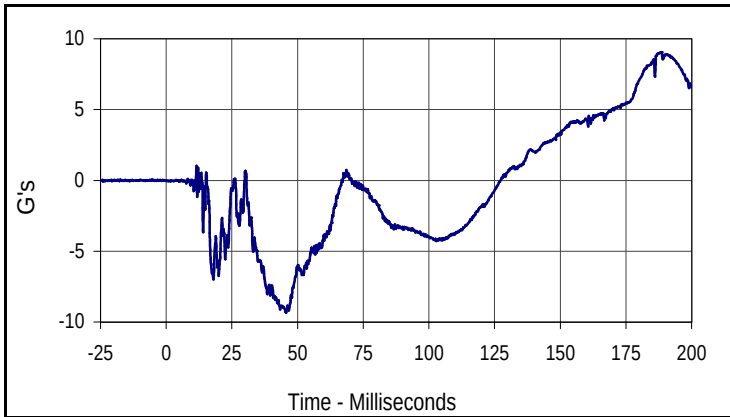
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Driver Head Primary Y Velocity			
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002	IN1	180	KMH
Max	Time	Min	Time
43.1	115.3	0.0	0.0



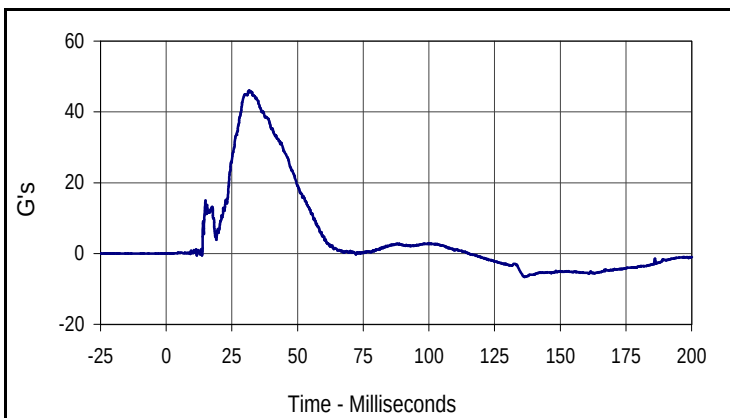
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Driver Head Primary Z Velocity			
CURNO	Type	SAE Class	Units
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Max	Time	Min	Time
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Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

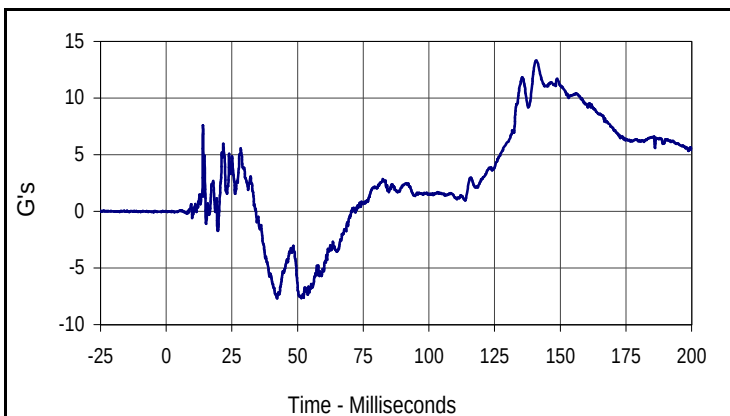
Test Date: 4/12/05
 NHTSA No.: G50104



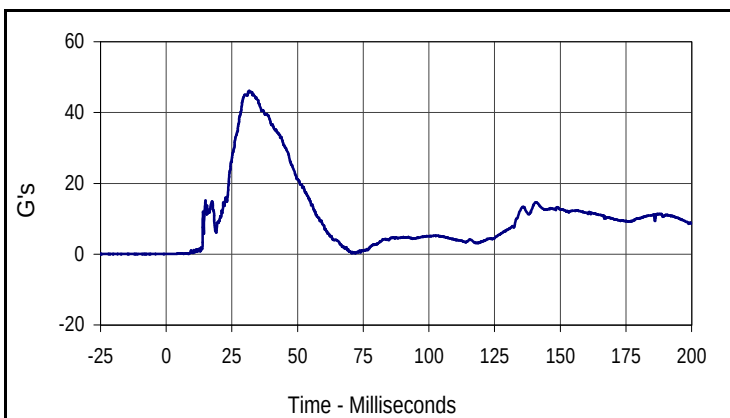
Curve Description			
Driver Head X Redundant			
CURNO	Type	SAE Class	Units
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Max	Time	Min	Time
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Curve Description			
Driver Head Y Redundant			
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Max	Time	Min	Time
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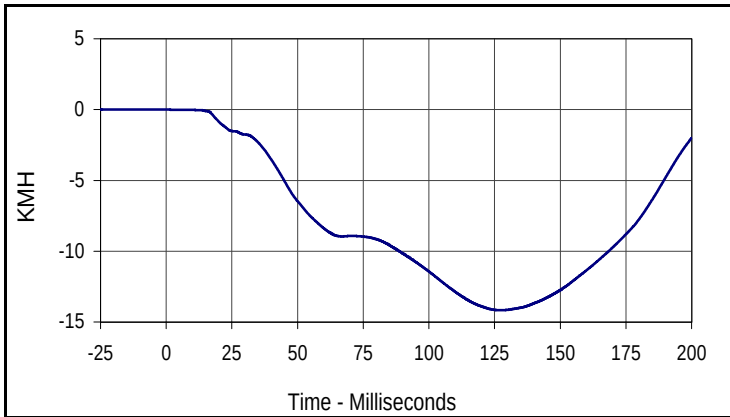
Curve Description			
Driver Head Z Redundant			
CURNO	Type	SAE Class	Units
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Max	Time	Min	Time
13.3	140.9	-7.7	42.2



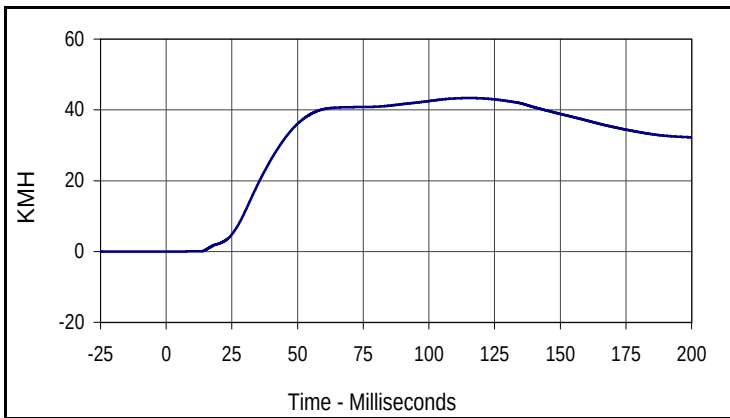
Curve Description			
Driver Head Resultant Redundant			
CURNO	Type	SAE Class	Units
004	RES	1000	G's
Max	Time	Min	Time
46.2	31.6	0.0	2.1

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

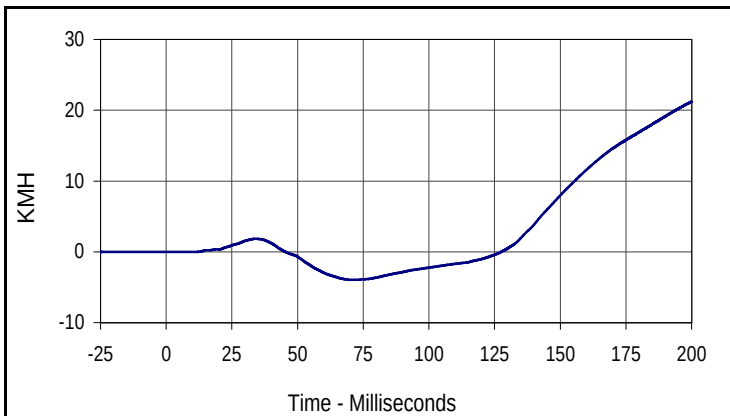
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 NHTSA No.: G50104



Curve Description			
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004	IN1	180	KMH
Max	Time	Min	Time
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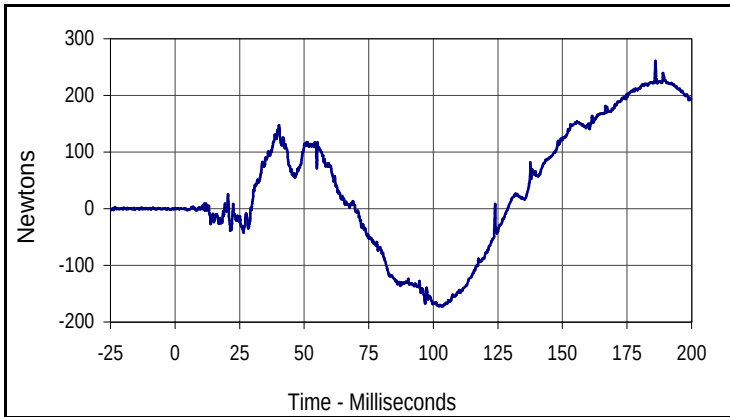
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Driver Head Redundant Y Velocity			
CURNO	Type	SAE Class	Units
005	IN1	180	KMH
Max	Time	Min	Time
43.4	115.1	0.0	0.0



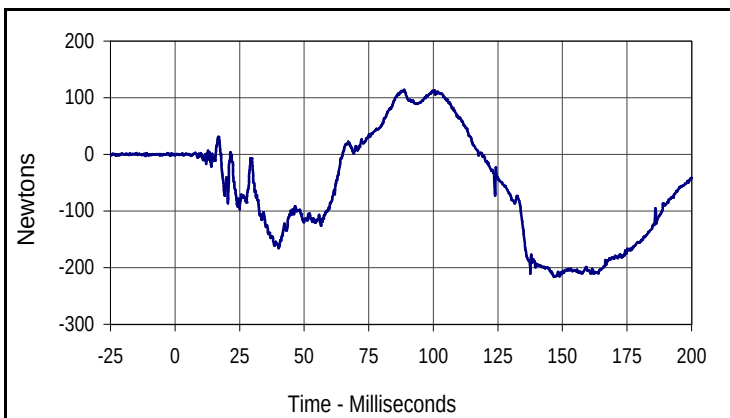
Curve Description			
Driver Head Redundant Z Velocity			
CURNO	Type	SAE Class	Units
006	IN1	180	KMH
Max	Time	Min	Time
21.2	200.0	-4.0	70.7

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

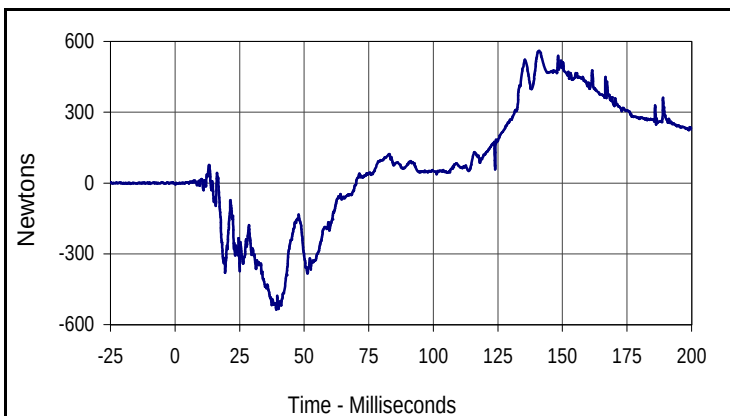
Test Date: 4/12/05
 NHTSA No.: G50104



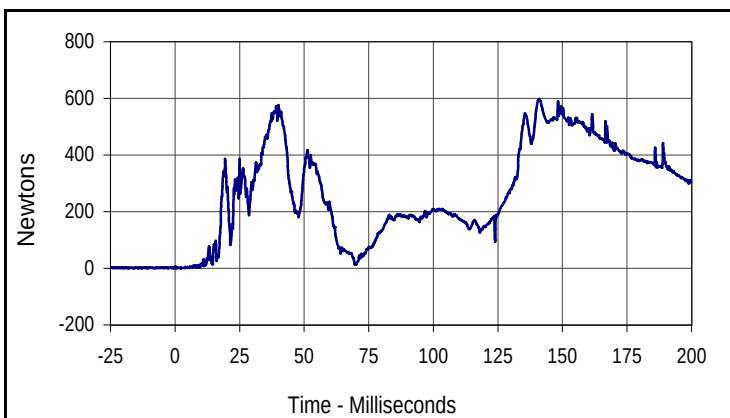
Curve Description			
Driver Upper Neck Force X			
CURNO	Type	SAE Class	Units
007	FIL	1000	Newtons
Max	Time	Min	Time
261.2	186.0	-172.5	102.3



Curve Description			
Driver Upper Neck Force Y			
CURNO	Type	SAE Class	Units
008	FIL	1000	Newtons
Max	Time	Min	Time
114.2	88.7	-216.0	146.6



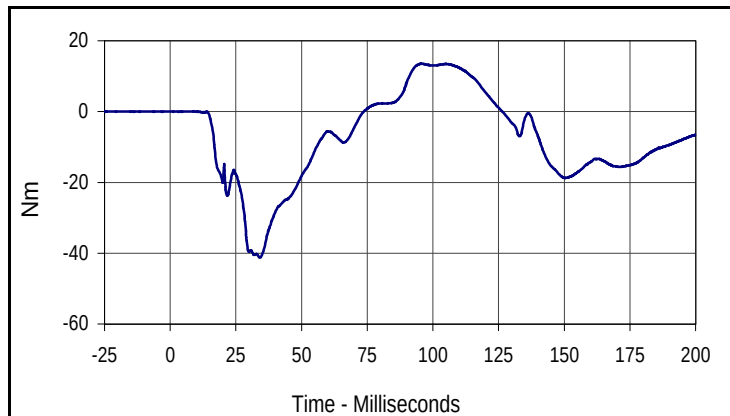
Curve Description			
Driver Upper Neck Force Z			
CURNO	Type	SAE Class	Units
009	FIL	1000	Newtons
Max	Time	Min	Time
561.1	141.0	-536.3	39.2



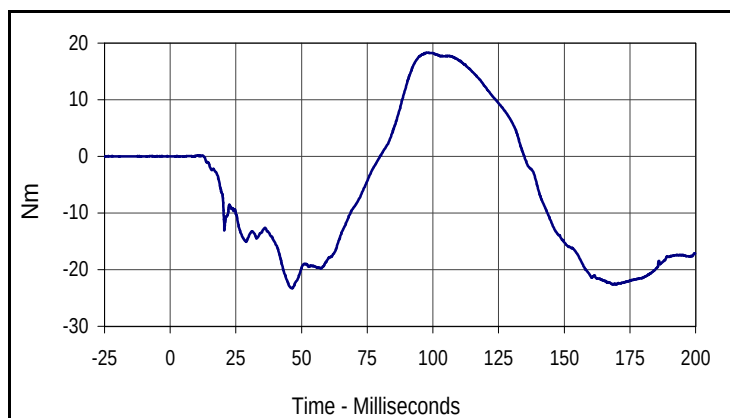
Curve Description			
Driver Upper Neck Force Resultant			
CURNO	Type	SAE Class	Units
007	RES	1000	Newtons
Max	Time	Min	Time
597.6	141.0	0.5	0.4

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

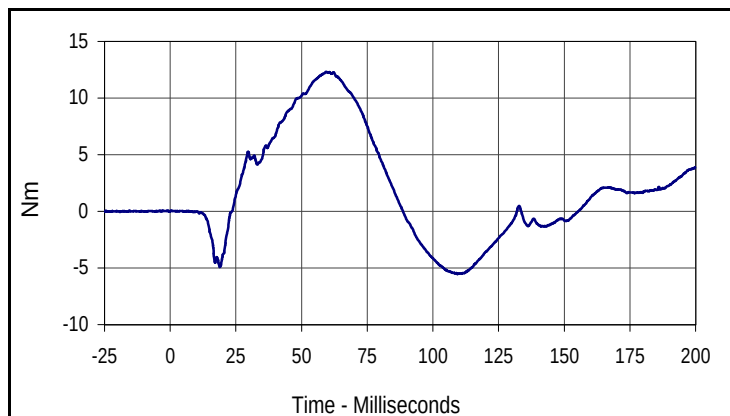
Test Date: 4/12/05
 NHTSA No.: G50104



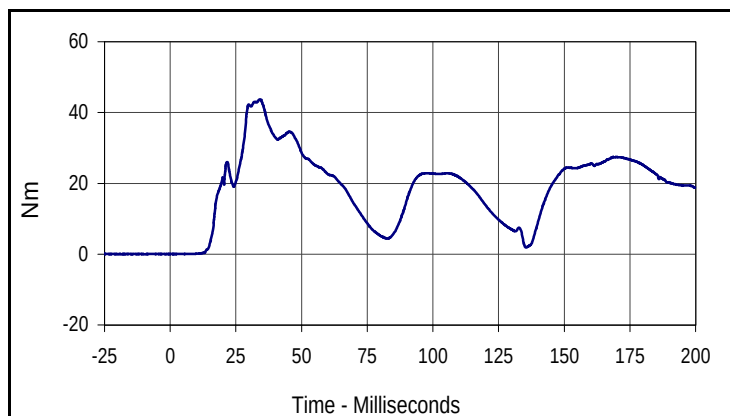
Curve Description			
Driver Upper Neck Moment X			
CURNO	Type	SAE Class	Units
010	FIL	600	Nm
Max	Time	Min	Time
13.6	95.5	-41.2	34.3



Curve Description			
Driver Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
011	FIL	600	Nm
Max	Time	Min	Time
18.3	98.1	-23.3	46.3



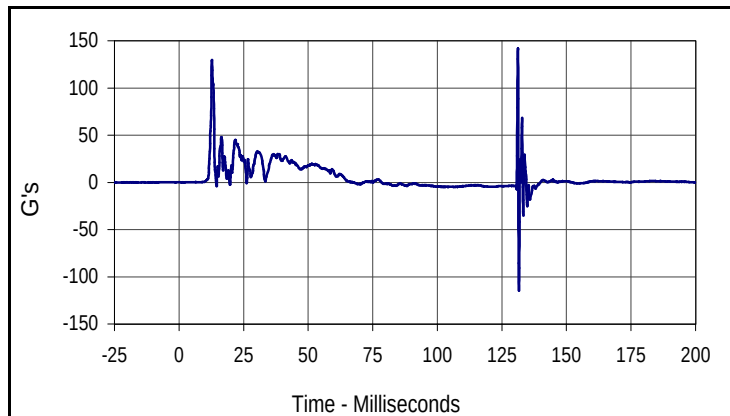
Curve Description			
Driver Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
012	FIL	600	Nm
Max	Time	Min	Time
12.3	59.4	-5.5	109.4



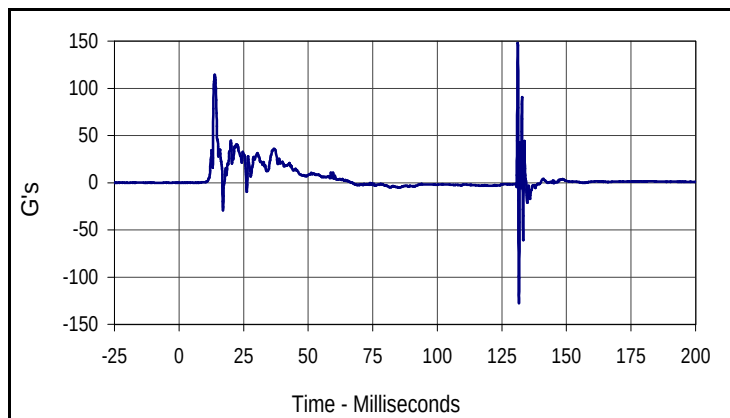
Curve Description			
Driver Upper Neck Moment Resultant			
CURNO	Type	SAE Class	Units
010	RES	600	Nm
Max	Time	Min	Time
43.6	34.0	0.0	2.3

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

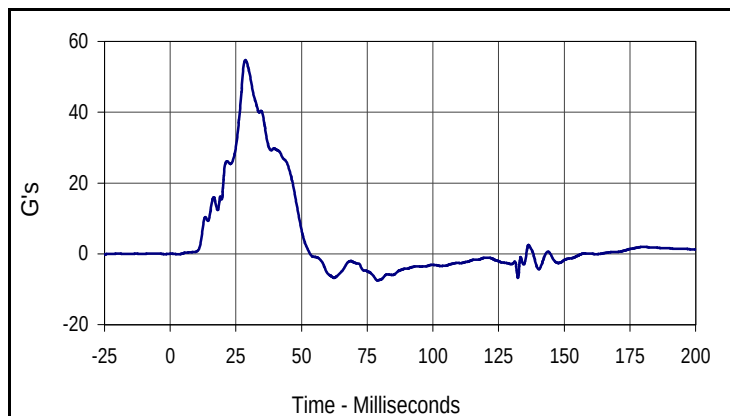
Test Date: 4/12/05
 NHTSA No.: G50104



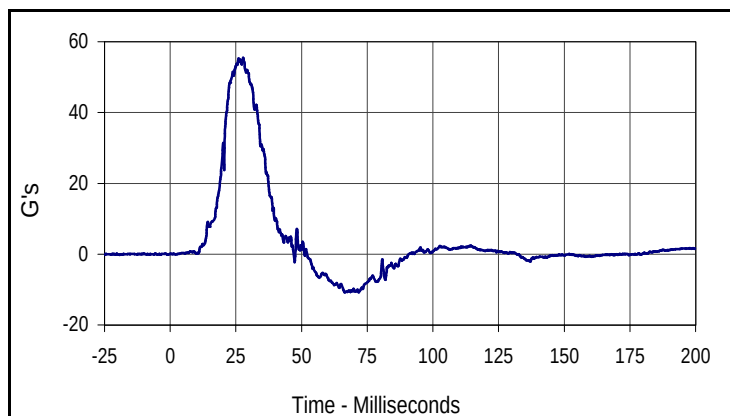
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
013	FIL	1000	G's
Max	Time	Min	Time
141.2	131.2	-114.7	131.6



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
014	FIL	1000	G's
Max	Time	Min	Time
147.6	131.1	-127.7	131.6



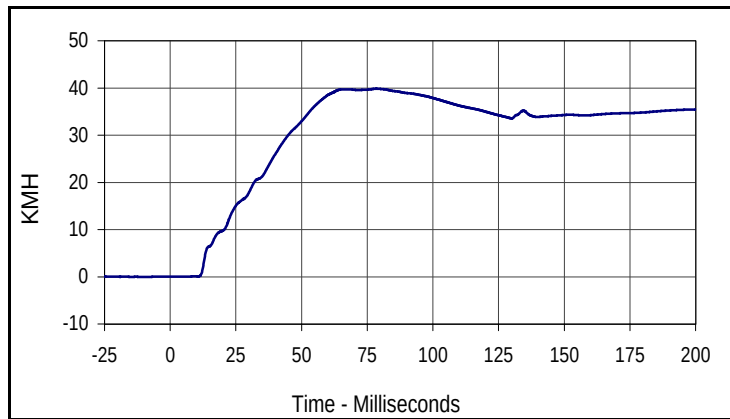
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
015	FIL	180	G's
Max	Time	Min	Time
54.7	28.6	-7.5	78.9



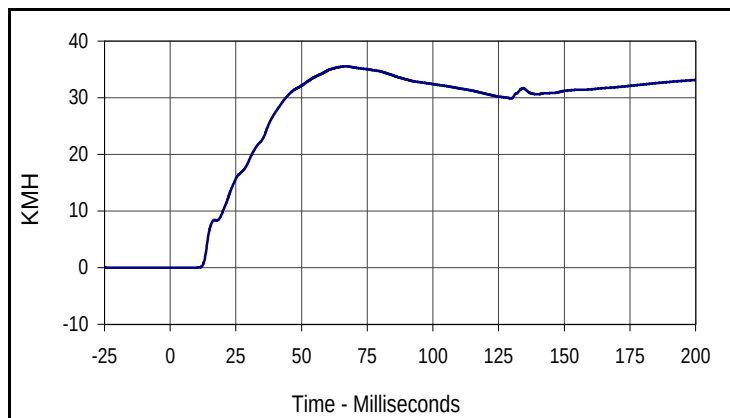
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
016	FIL	1000	G's
Max	Time	Min	Time
55.5	27.8	-10.8	66.6

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

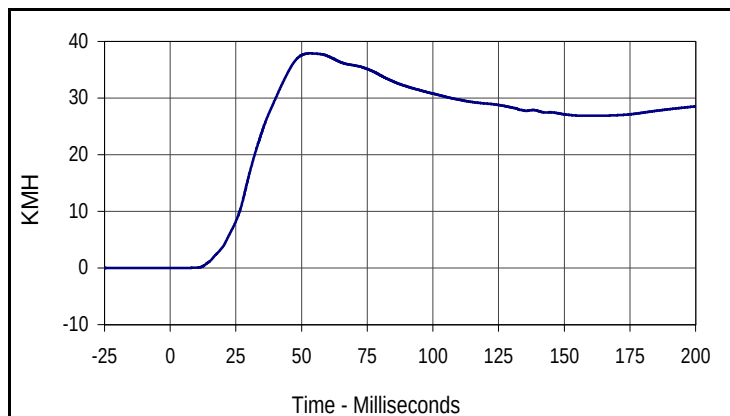
Test Date: 4/12/05
 NHTSA No.: G50104



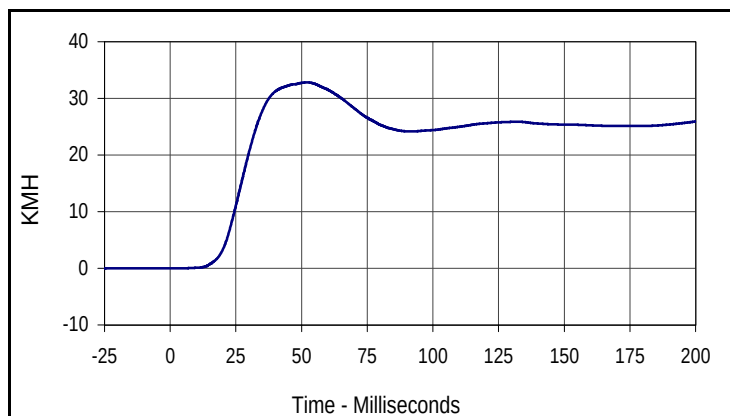
Curve Description			
Driver Upper Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
013	IN1	180	KMH
Max	Time	Min	Time
39.9	78.5	0.0	0.0



Curve Description			
Driver Lower Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
014	IN1	180	KMH
Max	Time	Min	Time
35.5	66.8	0.0	7.2



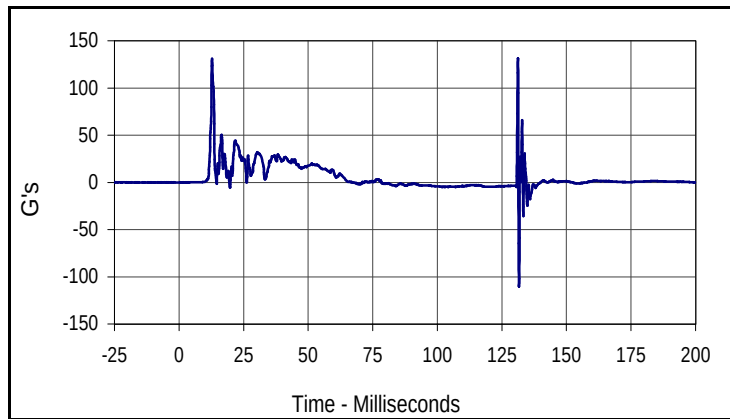
Curve Description			
Driver Lower Spine Primary Y Velocity			
CURNO	Type	SAE Class	Units
015	IN1	180	KMH
Max	Time	Min	Time
37.9	53.2	0.0	4.4



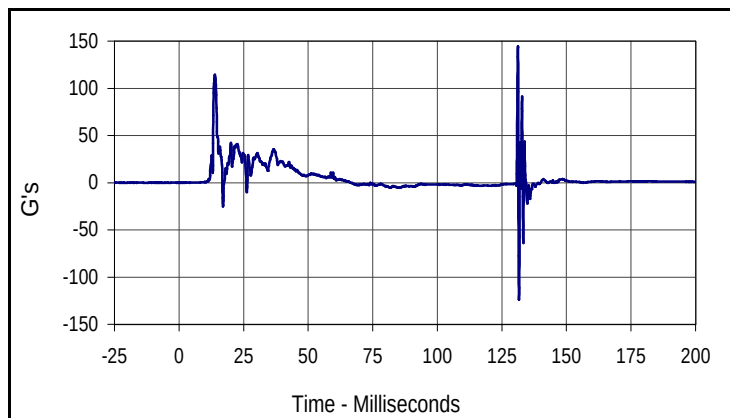
Curve Description			
Driver Pelvis Primary Y Velocity			
CURNO	Type	SAE Class	Units
016	IN1	180	KMH
Max	Time	Min	Time
32.8	52.1	0.0	0.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

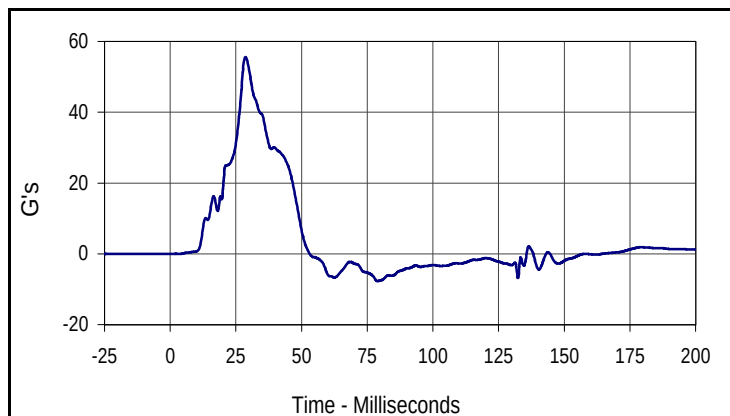
Test Date: 4/12/05
 NHTSA No.: G50104



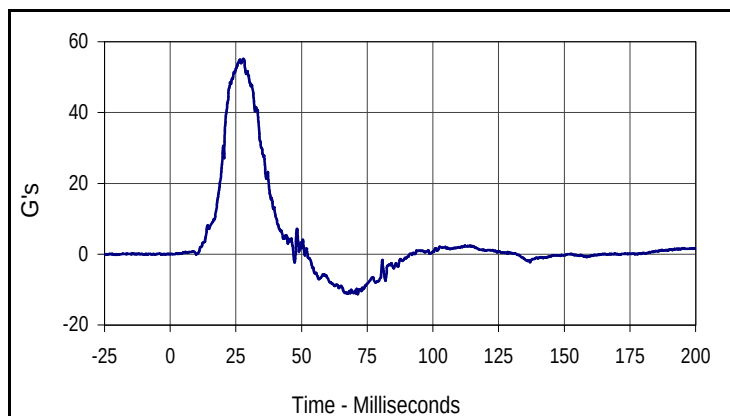
Curve Description			
Driver Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
017	FIL	1000	G's
Max	Time	Min	Time
131.0	131.2	-109.5	131.6



Curve Description			
Driver Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
018	FIL	1000	G's
Max	Time	Min	Time
143.5	131.2	-123.2	131.6



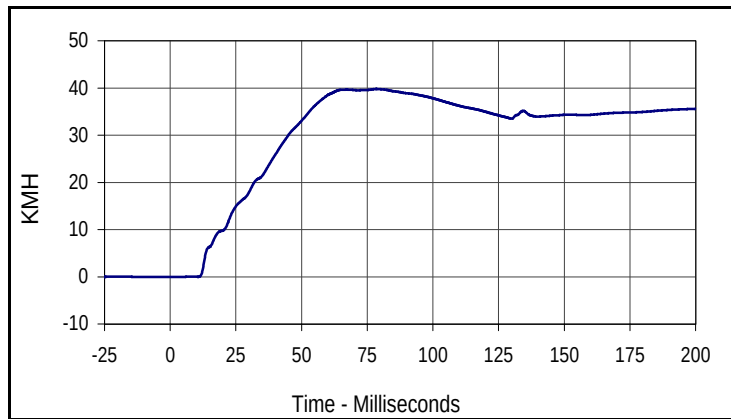
Curve Description			
Driver Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
019	FIL	180	G's
Max	Time	Min	Time
55.6	28.7	-7.7	78.9



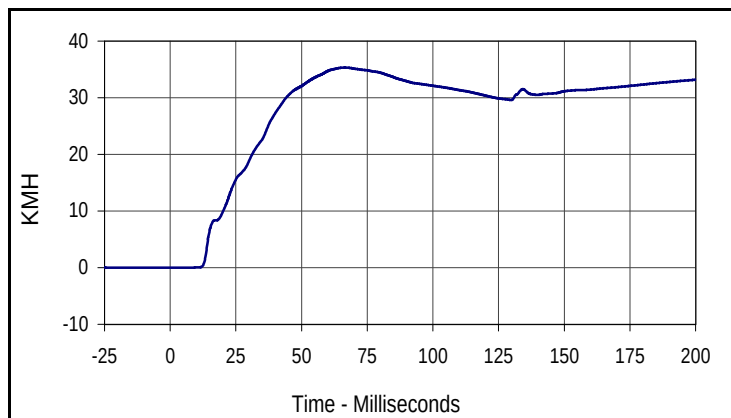
Curve Description			
Driver Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
020	FIL	1000	G's
Max	Time	Min	Time
55.2	27.8	-11.3	71.4

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

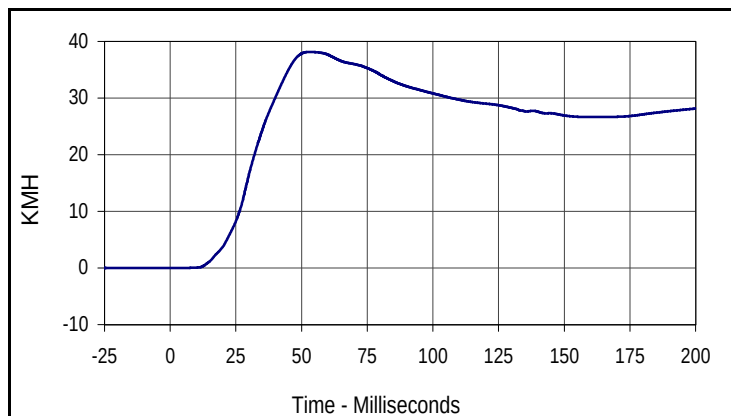
Test Date: 4/12/05
 NHTSA No.: G50104



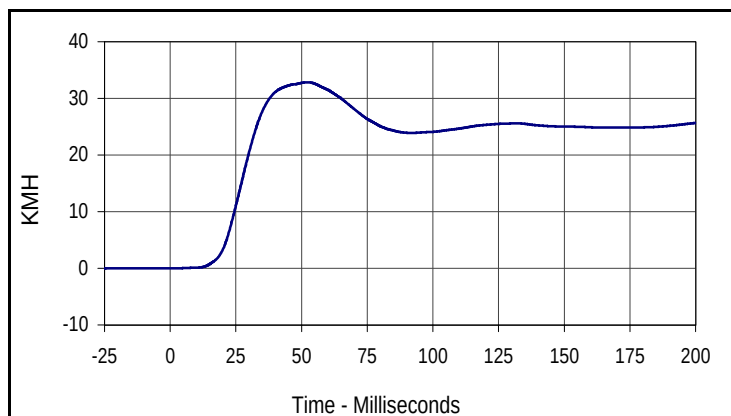
Curve Description			
Driver Upper Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
017	IN1	180	KMH
Max	Time	Min	Time
39.8	78.5	0.0	3.6



Curve Description			
Driver Lower Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
018	IN1	180	KMH
Max	Time	Min	Time
35.3	66.5	0.0	2.1



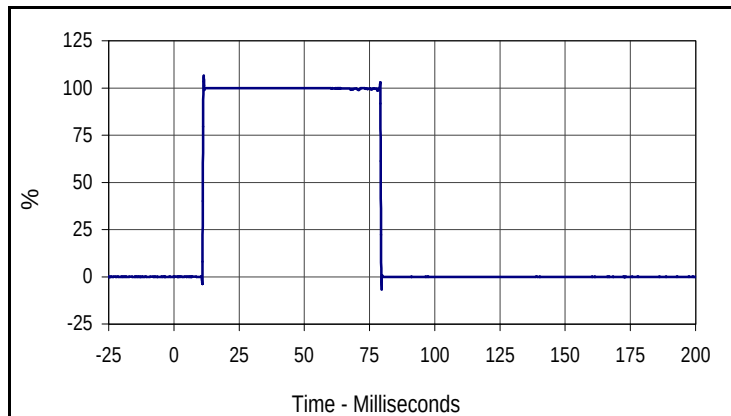
Curve Description			
Driver Lower Spine Redundant Y Velocity			
CURNO	Type	SAE Class	Units
019	IN1	180	KMH
Max	Time	Min	Time
38.2	53.1	0.0	0.0



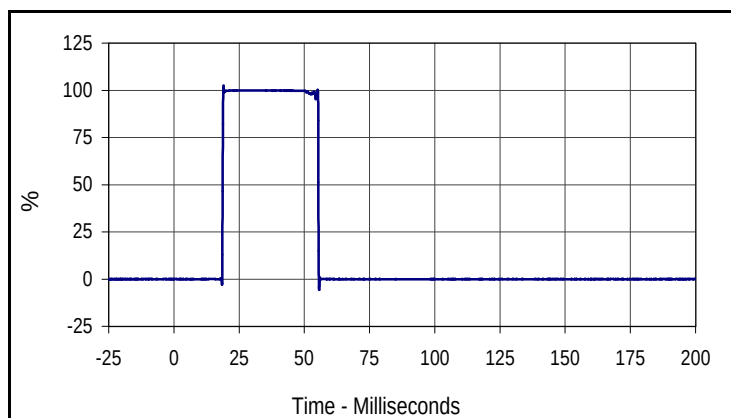
Curve Description			
Driver Pelvis Redundant Y Velocity			
CURNO	Type	SAE Class	Units
020	IN1	180	KMH
Max	Time	Min	Time
32.8	52.2	0.0	0.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05
 NHTSA No.: G50104



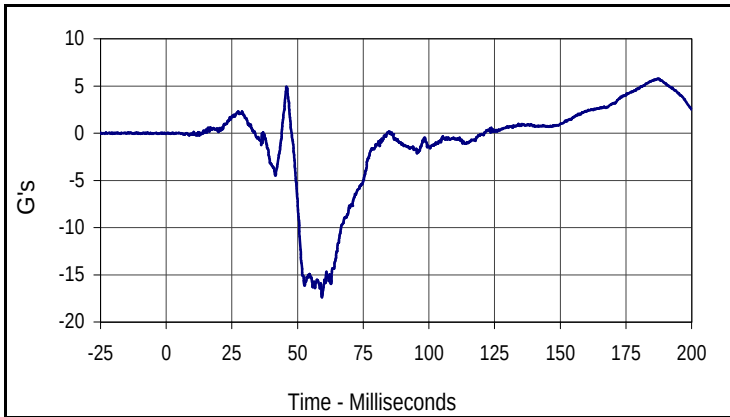
Curve Description			
Driver Thorax Contact			
CURNO	Type	SAE Class	Units
021	FIL	1000	%
Max	Time	Cross %	Time
106.5	11.4	50.0	11.2



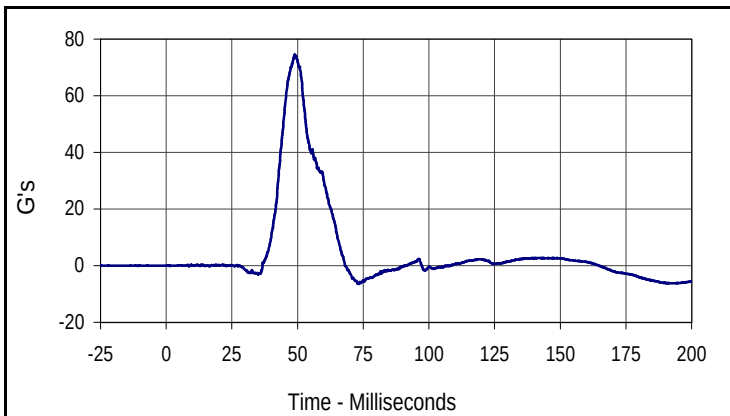
Curve Description			
Driver Pelvis Contact			
CURNO	Type	SAE Class	Units
022	FIL	1000	%
Max	Time	Cross %	Time
102.4	19.0	50.0	18.8

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

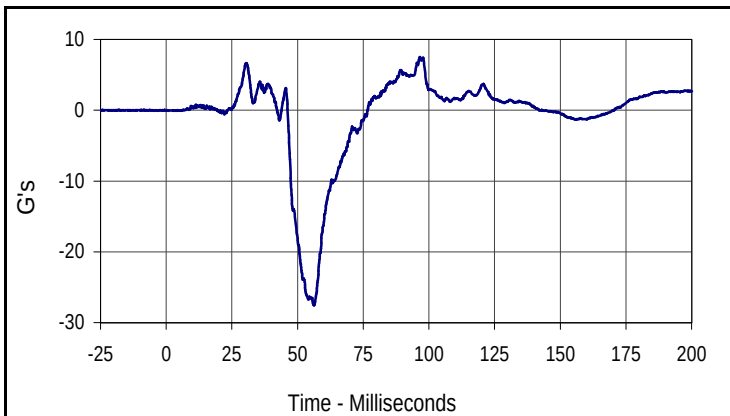
Test Date: 4/12/05
 NHTSA No.: G50104



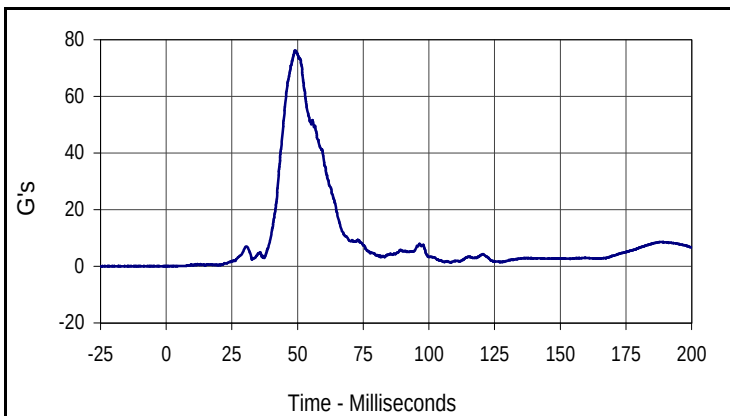
Curve Description			
Passenger Head X Primary			
CURNO	Type	SAE Class	Units
023	FIL	1000	G's
Max	Time	Min	Time
5.8	187.0	-17.4	59.3



Curve Description			
Passenger Head Y Primary			
CURNO	Type	SAE Class	Units
024	FIL	1000	G's
Max	Time	Min	Time
74.6	48.9	-6.4	73.3



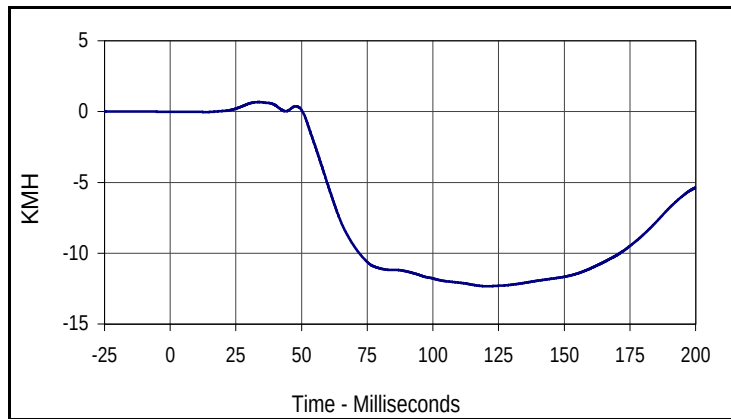
Curve Description			
Passenger Head Z Primary			
CURNO	Type	SAE Class	Units
025	FIL	1000	G's
Max	Time	Min	Time
7.5	96.6	-27.5	56.3



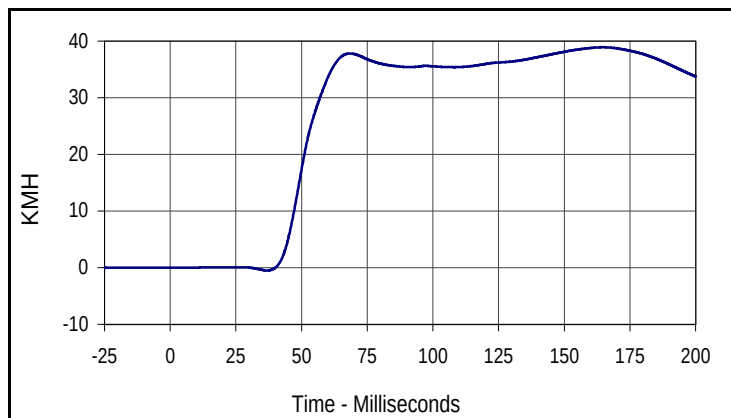
Curve Description			
Passenger Head Resultant Primary			
CURNO	Type	SAE Class	Units
023	RES	1000	G's
Max	Time	Min	Time
76.1	48.9	0.0	0.5

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

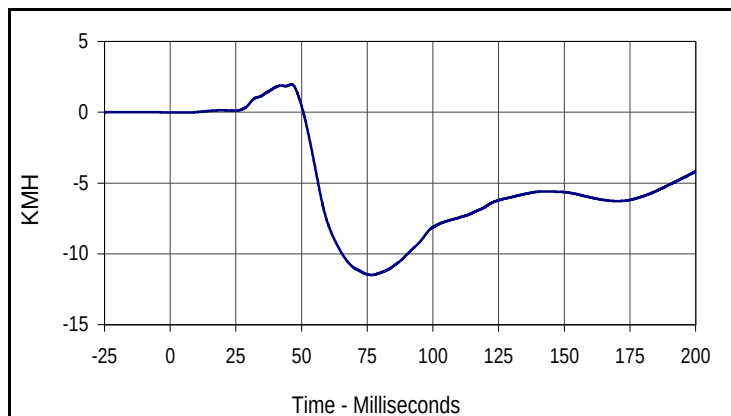
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Passenger Head Primary X Velocity			
CURNO	Type	SAE Class	Units
023	IN1	180	KMH
Max	Time	Min	Time
0.7	33.6	-12.3	121.1



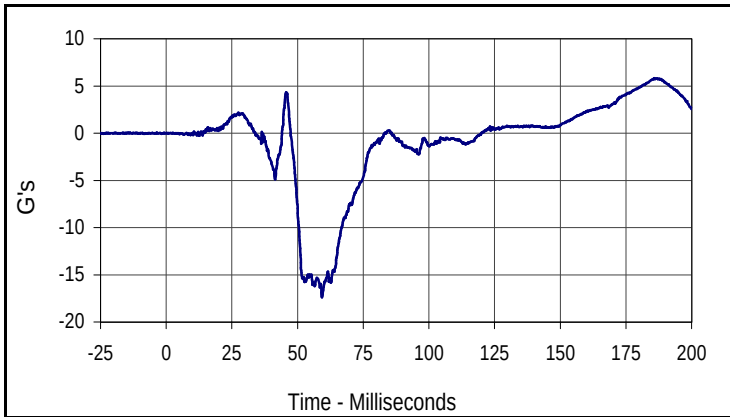
Curve Description			
Passenger Head Primary Y Velocity			
CURNO	Type	SAE Class	Units
024	IN1	180	KMH
Max	Time	Min	Time
38.9	164.8	-0.5	36.7



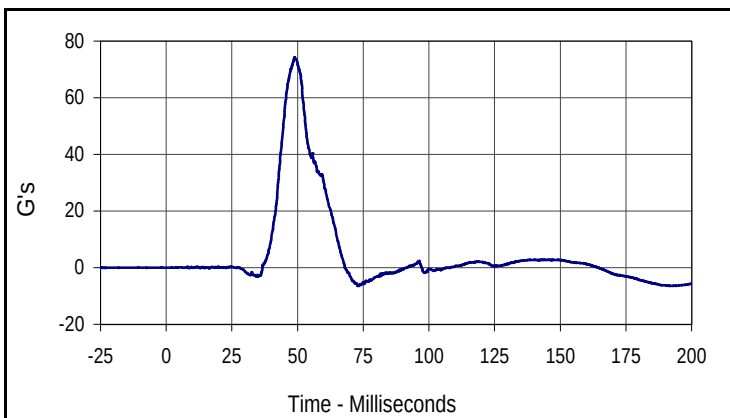
Curve Description			
Passenger Head Primary Z Velocity			
CURNO	Type	SAE Class	Units
025	IN1	180	KMH
Max	Time	Min	Time
2.0	46.2	-11.5	76.7

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

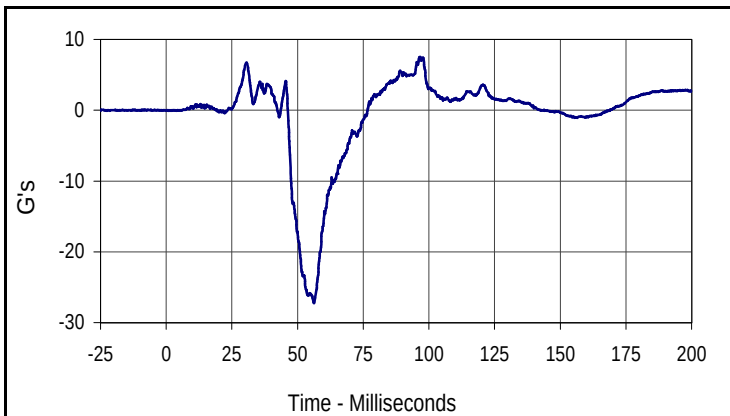
Test Date: 4/12/05
 NHTSA No.: G50104



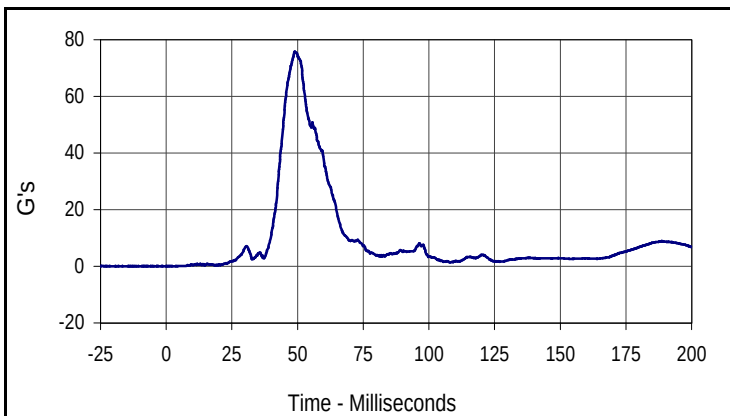
Curve Description			
Passenger Head X Redundant			
CURNO	Type	SAE Class	Units
026	FIL	1000	G's
Max	Time	Min	Time
5.8	185.8	-17.4	59.3



Curve Description			
Passenger Head Y Redundant			
CURNO	Type	SAE Class	Units
027	FIL	1000	G's
Max	Time	Min	Time
74.4	48.9	-6.5	73.3



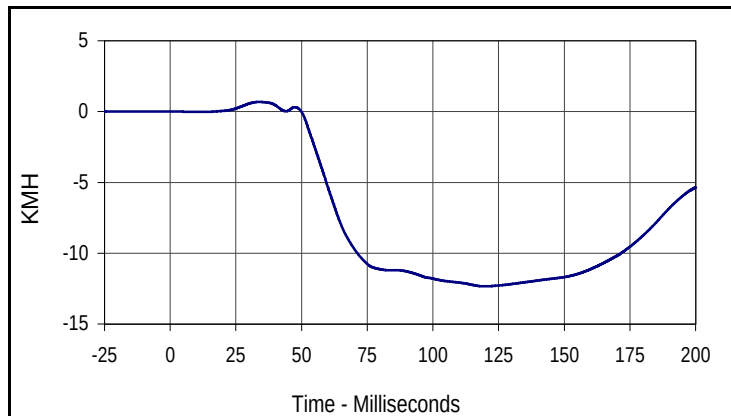
Curve Description			
Passenger Head Z Redundant			
CURNO	Type	SAE Class	Units
028	FIL	1000	G's
Max	Time	Min	Time
7.5	96.6	-27.3	56.2



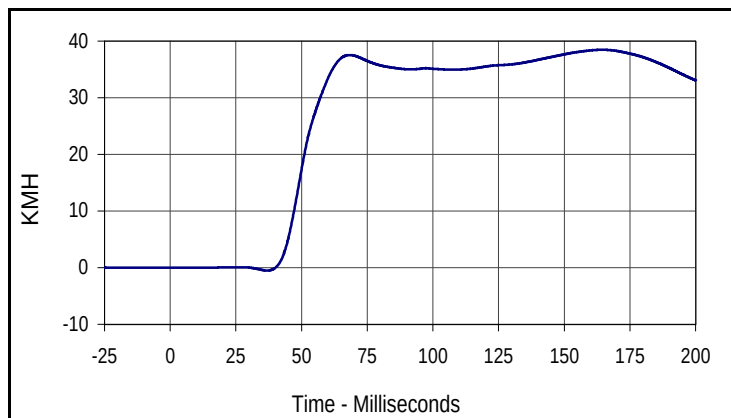
Curve Description			
Passenger Head Resultant Redundant			
CURNO	Type	SAE Class	Units
026	RES	1000	G's
Max	Time	Min	Time
75.8	48.9	0.0	2.4

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

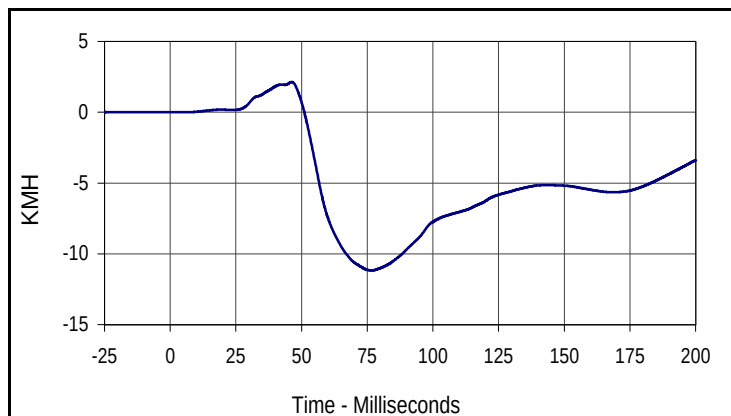
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Passenger Head Redundant X Velocity			
CURNO	Type	SAE Class	Units
026	IN1	180	KMH
Max	Time	Min	Time
0.7	33.8	-12.3	120.1



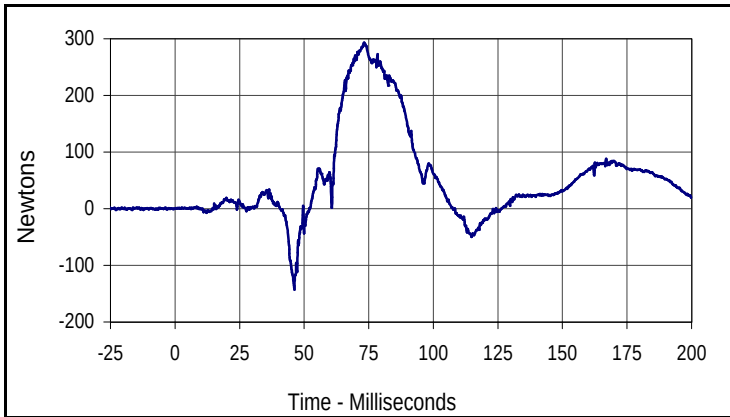
Curve Description			
Passenger Head Redundant Y Velocity			
CURNO	Type	SAE Class	Units
027	IN1	180	KMH
Max	Time	Min	Time
38.5	164.5	-0.5	36.7



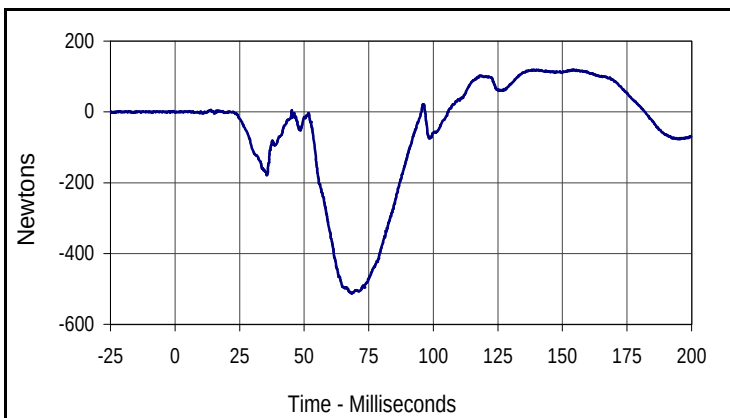
Curve Description			
Passenger Head Redundant Z Velocity			
CURNO	Type	SAE Class	Units
028	IN1	180	KMH
Max	Time	Min	Time
2.1	46.3	-11.2	76.6

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

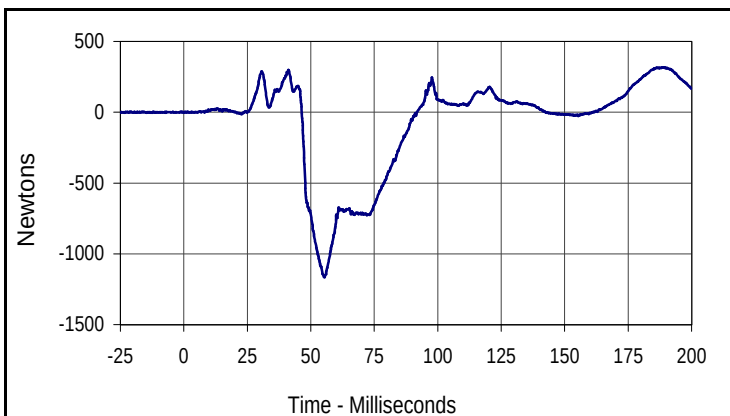
Test Date: 4/12/05
 NHTSA No.: G50104



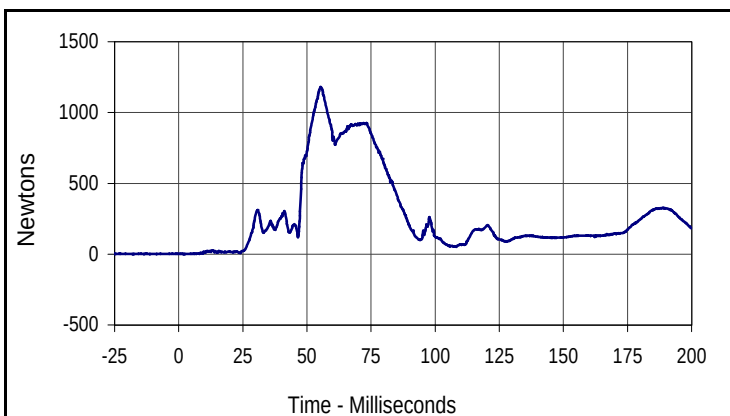
Curve Description			
Passenger Upper Neck Force X			
CURNO	Type	SAE Class	Units
029	FIL	1000	Newtons
Max	Time	Min	Time
293.4	73.2	-142.9	46.2



Curve Description			
Passenger Upper Neck Force Y			
CURNO	Type	SAE Class	Units
030	FIL	1000	Newtons
Max	Time	Min	Time
120.0	138.9	-513.5	68.5



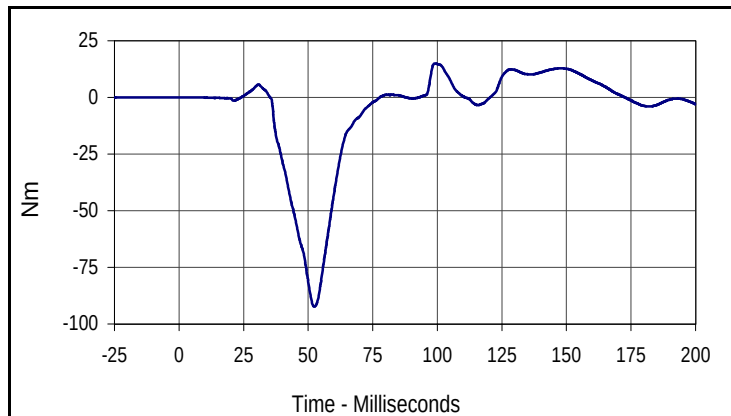
Curve Description			
Passenger Upper Neck Force Z			
CURNO	Type	SAE Class	Units
031	FIL	1000	Newtons
Max	Time	Min	Time
317.4	188.6	-1166.6	55.3



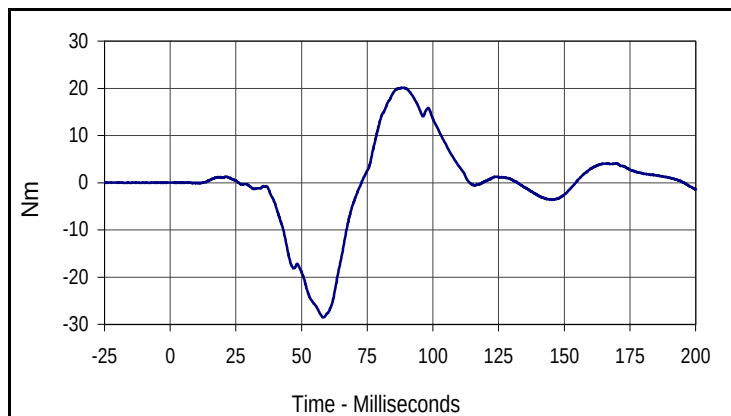
Curve Description			
Passenger Upper Neck Force Resultant			
CURNO	Type	SAE Class	Units
029	RES	1000	Newtons
Max	Time	Min	Time
1182.3	55.3	0.3	1.8

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

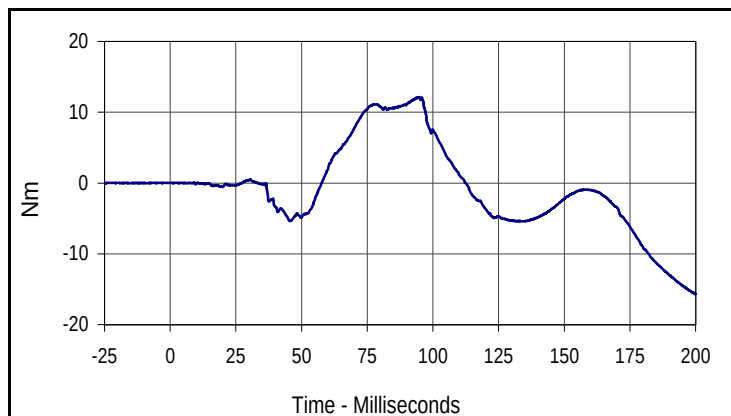
Test Date: 4/12/05
 NHTSA No.: G50104



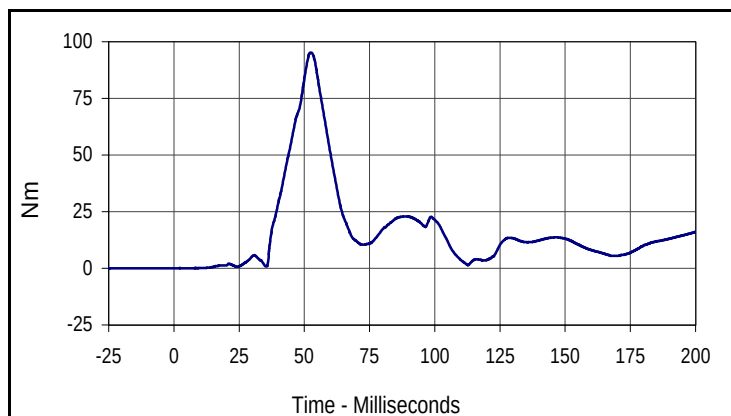
Curve Description			
Passenger Upper Neck Moment X			
CURNO	Type	SAE Class	Units
032	FIL	600	Nm
Max	Time	Min	Time
15.0	99.2	-92.3	52.4



Curve Description			
Passenger Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
033	FIL	600	Nm
Max	Time	Min	Time
20.1	88.7	-28.5	58.3



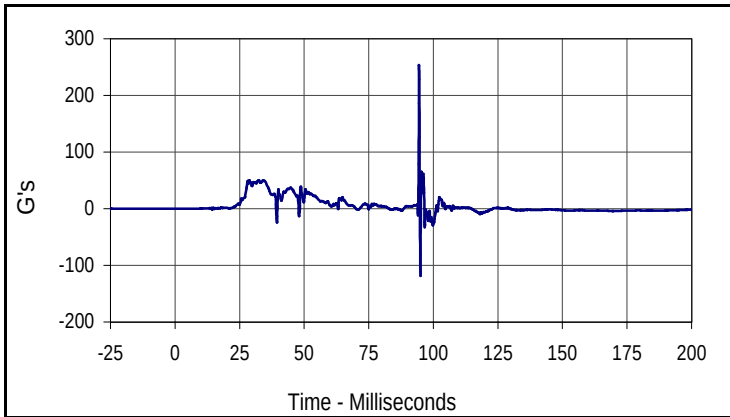
Curve Description			
Passenger Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
034	FIL	600	Nm
Max	Time	Min	Time
12.1	94.8	-15.7	200.0



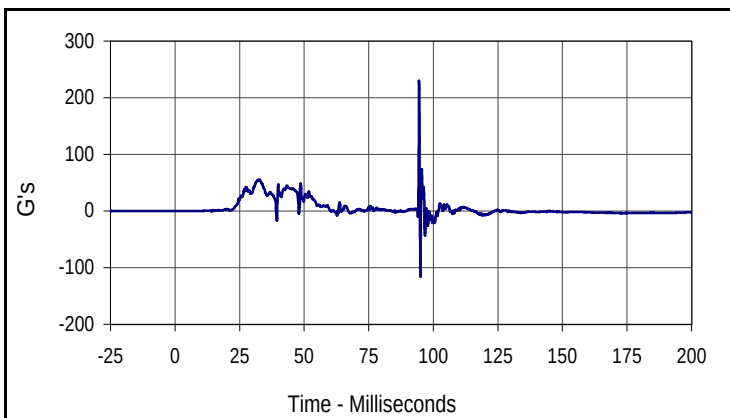
Curve Description			
Passenger Upper Neck Moment Resultant			
CURNO	Type	SAE Class	Units
032	RES	600	Nm
Max	Time	Min	Time
95.3	52.5	0.0	4.7

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

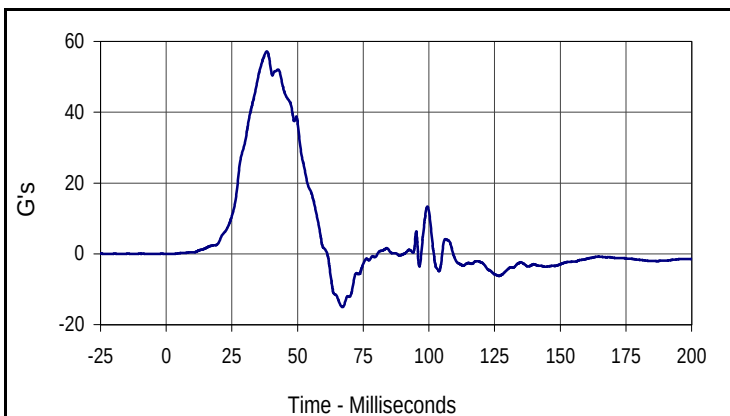
Test Date: 4/12/05
 NHTSA No.: G50104



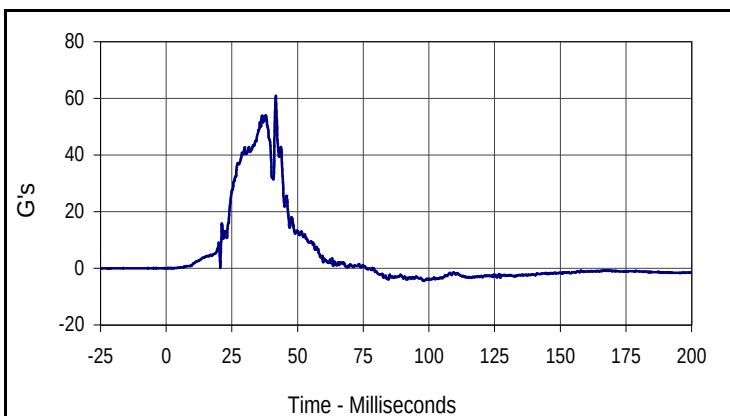
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
035	FIL	1000	G's
Max	Time	Min	Time
253.1	94.5	-118.6	95.0



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
036	FIL	1000	G's
Max	Time	Min	Time
229.1	94.5	-116.0	95.0



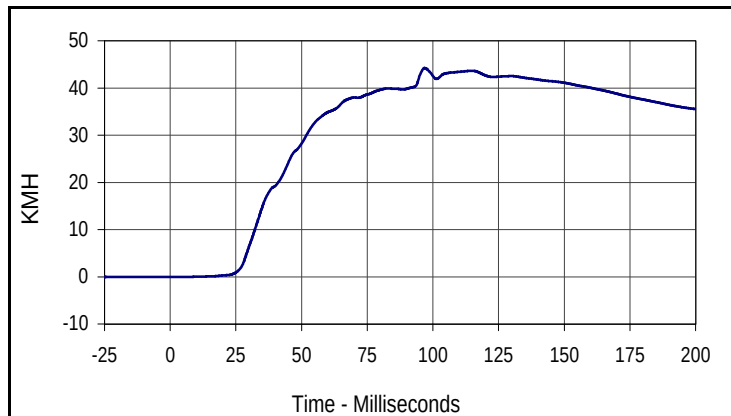
Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
037	FIL	180	G's
Max	Time	Min	Time
57.2	38.3	-15.0	67.1



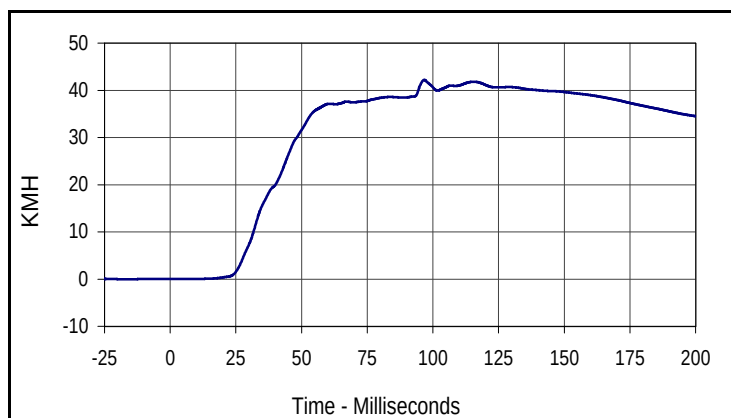
Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
038	FIL	1000	G's
Max	Time	Min	Time
60.9	41.7	-4.5	98.2

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

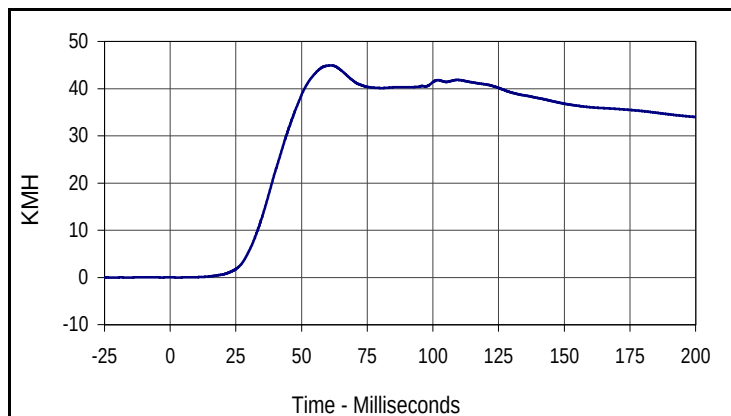
Test Date: 4/12/05
 NHTSA No.: G50104



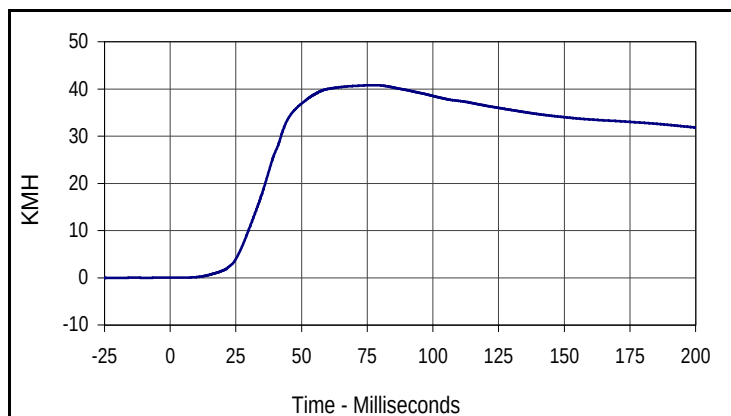
Curve Description			
Passenger Upper Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
035	IN1	180	KMH
Max	Time	Min	Time
44.2	96.8	0.0	1.7



Curve Description			
Passenger Lower Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
036	IN1	180	KMH
Max	Time	Min	Time
42.2	96.6	0.0	0.0



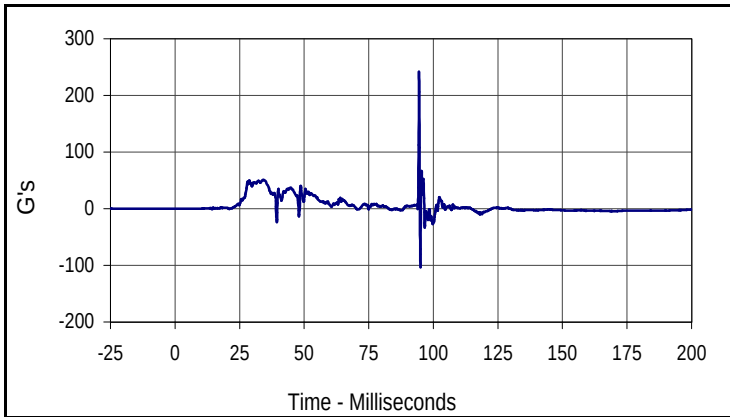
Curve Description			
Passenger Lower Spine Primary Y Velocity			
CURNO	Type	SAE Class	Units
037	IN1	180	KMH
Max	Time	Min	Time
44.9	61.3	0.0	3.4



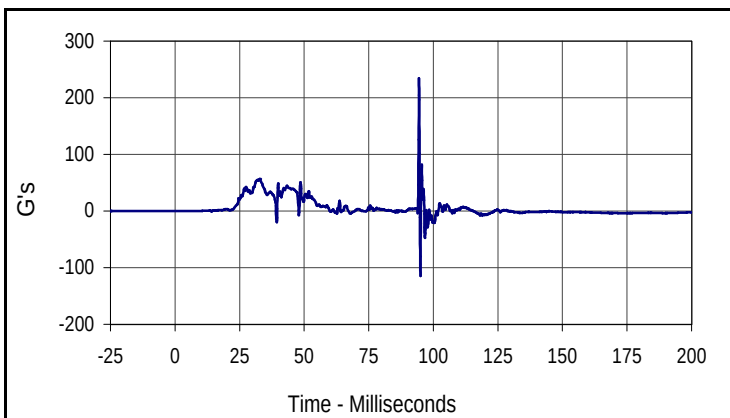
Curve Description			
Passenger Pelvis Primary Y Velocity			
CURNO	Type	SAE Class	Units
038	IN1	180	KMH
Max	Time	Min	Time
40.8	76.3	0.0	0.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

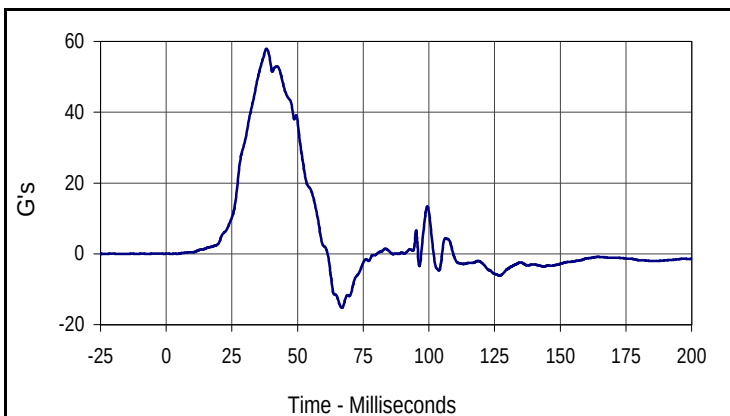
Test Date: 4/12/05
 NHTSA No.: G50104



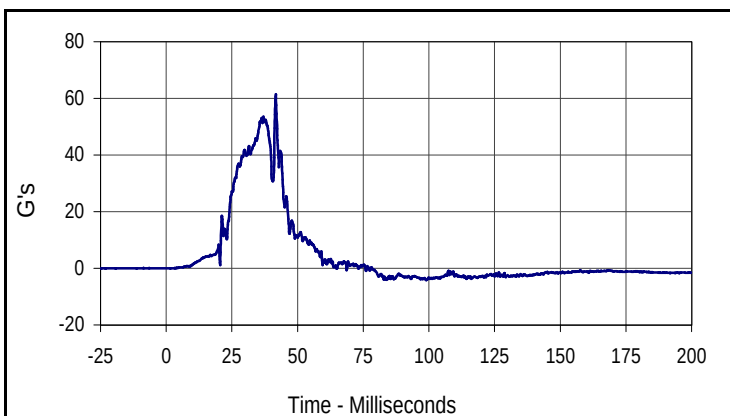
Curve Description			
Passenger Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
039	FIL	1000	G's
Max	Time	Min	Time
241.9	94.5	-103.3	95.0



Curve Description			
Passenger Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
040	FIL	1000	G's
Max	Time	Min	Time
234.7	94.5	-114.8	95.0



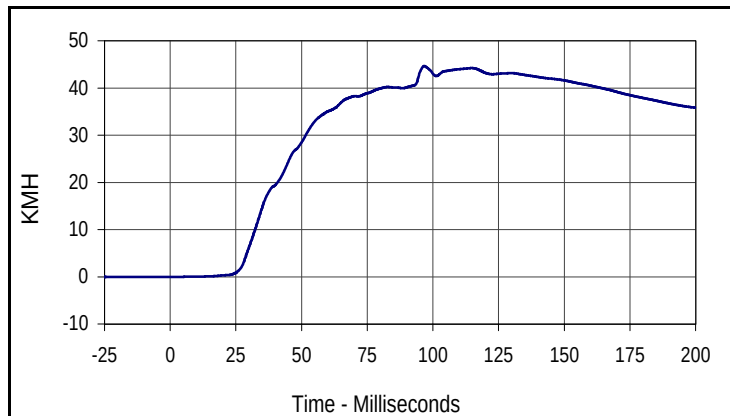
Curve Description			
Passenger Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
041	FIL	180	G's
Max	Time	Min	Time
57.9	38.1	-15.2	66.9



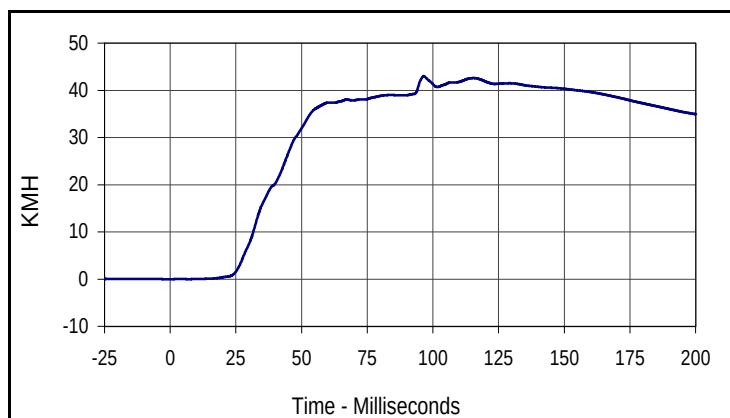
Curve Description			
Passenger Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
042	FIL	1000	G's
Max	Time	Min	Time
61.4	41.7	-4.2	99.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

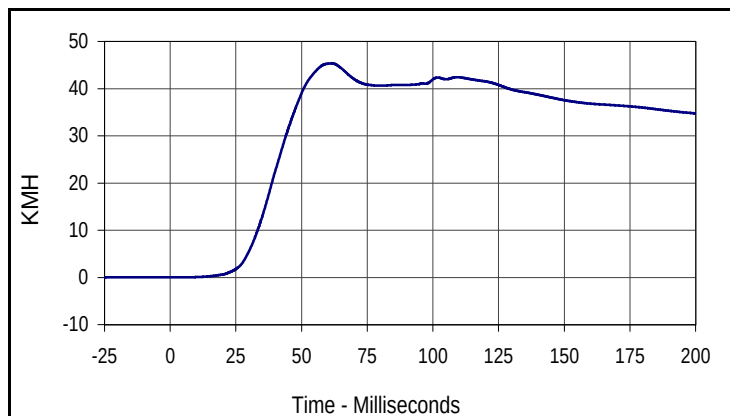
Test Date: 4/12/05
 NHTSA No.: G50104



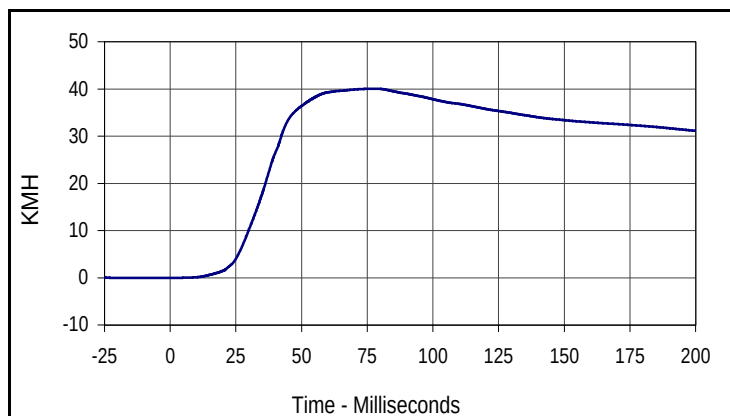
Curve Description			
Passenger Upper Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
039	IN1	180	KMH
Max	Time	Min	Time
44.7	96.7	0.0	0.0



Curve Description			
Passenger Lower Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
040	IN1	180	KMH
Max	Time	Min	Time
43.0	96.5	0.0	7.2



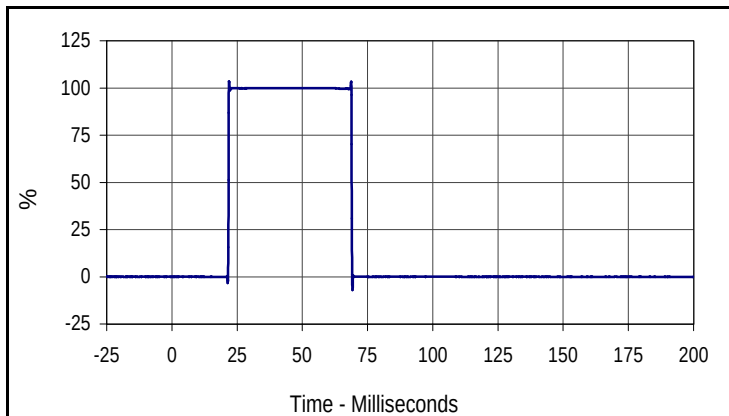
Curve Description			
Passenger Lower Spine Redundant Y Velocity			
CURNO	Type	SAE Class	Units
041	IN1	180	KMH
Max	Time	Min	Time
45.4	61.4	0.0	0.0



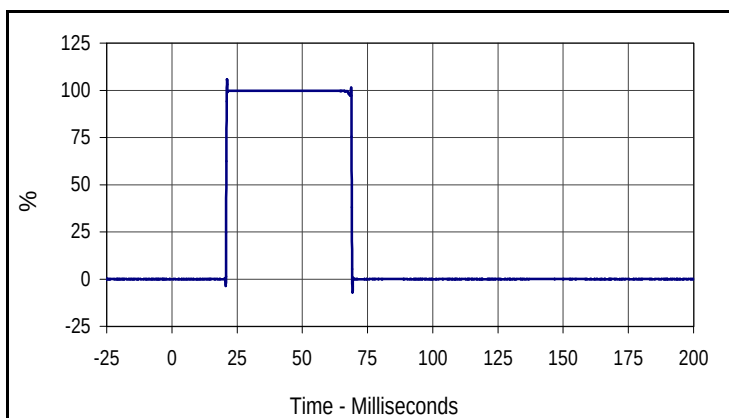
Curve Description			
Passenger Pelvis Redundant Y Velocity			
CURNO	Type	SAE Class	Units
042	IN1	180	KMH
Max	Time	Min	Time
40.1	77.1	0.0	2.8

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05
 NHTSA No.: G50104



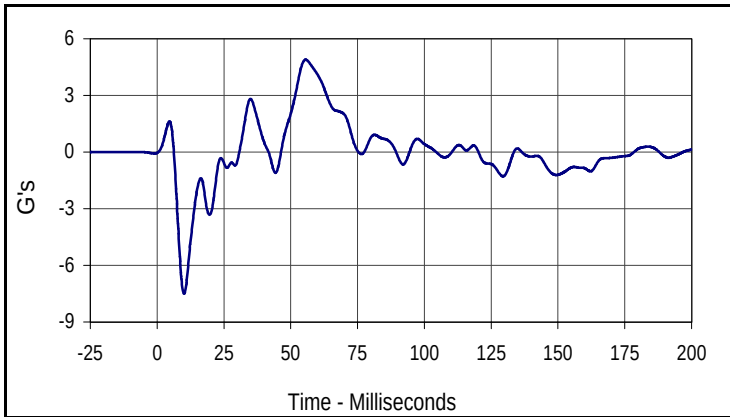
Curve Description			
Passenger Thorax Contact			
CURNO	Type	SAE Class	Units
043	FIL	1000	%
Max	Time	Cross %	Time
103.4	21.9	50.0	21.8



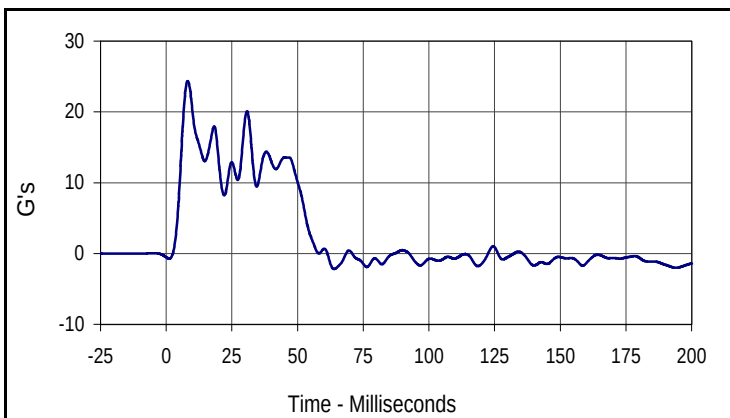
Curve Description			
Passenger Pelvis Contact			
CURNO	Type	SAE Class	Units
044	FIL	1000	%
Max	Time	Cross %	Time
105.5	21.1	50.0	20.9

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

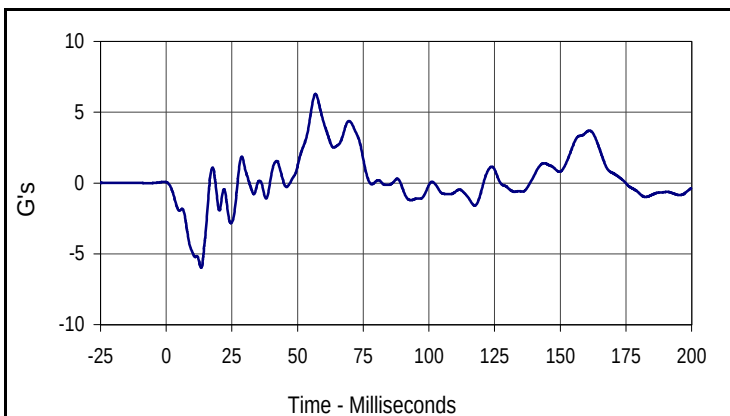
Test Date: 4/12/05
 NHTSA No.: G50104



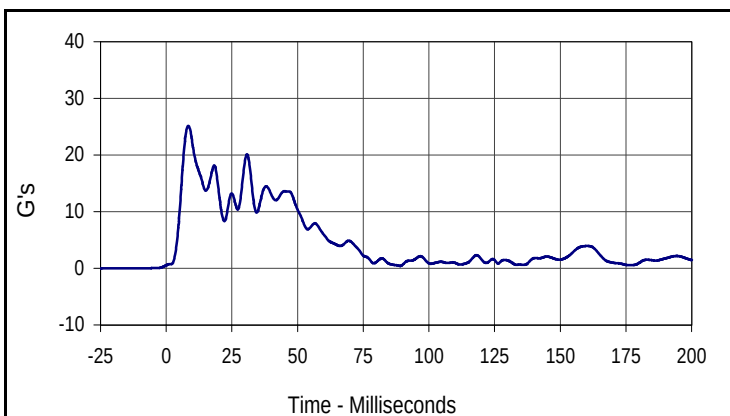
Curve Description			
Vehicle Right Sill at Front Seat X			
CURNO	Type	SAE Class	Units
045	FIL	60	G's
Max	Time	Min	Time
4.9	55.6	-7.5	10.1



Curve Description			
Vehicle Right Sill at Front Seat Y			
CURNO	Type	SAE Class	Units
046	FIL	60	G's
Max	Time	Min	Time
24.3	8.2	-2.2	63.9



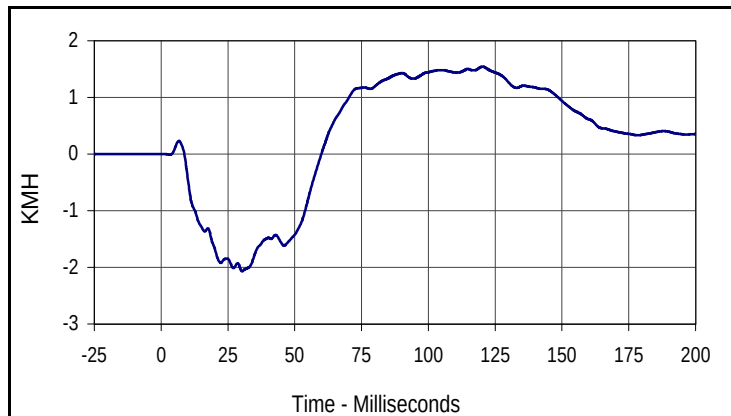
Curve Description			
Vehicle Right Sill at Front Seat Z			
CURNO	Type	SAE Class	Units
047	FIL	60	G's
Max	Time	Min	Time
6.3	56.8	-6.0	13.3



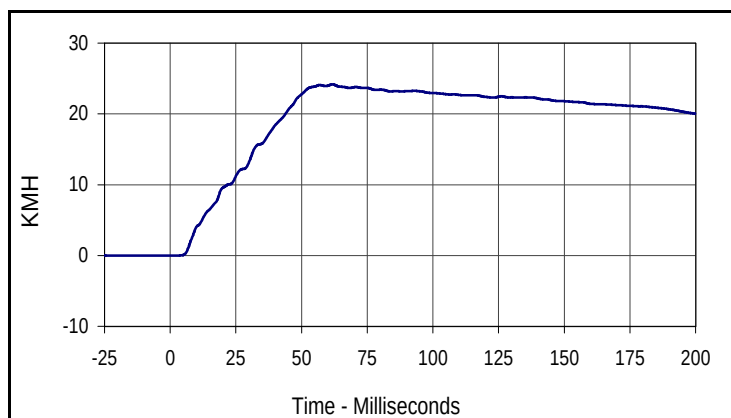
Curve Description			
Vehicle Right Sill Front Seat Resultant			
CURNO	Type	SAE Class	Units
045	RES	60	G's
Max	Time	Min	Time
25.1	8.4	0.4	89.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

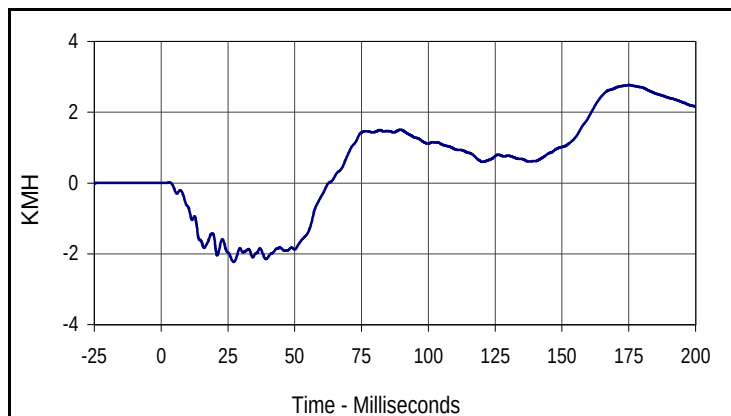
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Vehicle Right Sill at Front Seat X Velocity			
CURNO	Type	SAE Class	Units
045	IN1	180	KMH
Max	Time	Min	Time
1.5	120.3	-2.1	30.3



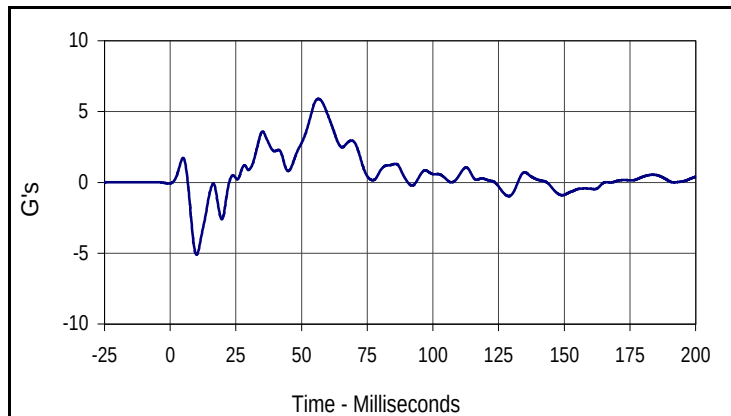
Curve Description			
Vehicle Right Sill at Front Seat Y Velocity			
CURNO	Type	SAE Class	Units
046	IN1	180	KMH
Max	Time	Min	Time
24.2	61.8	0.0	0.0



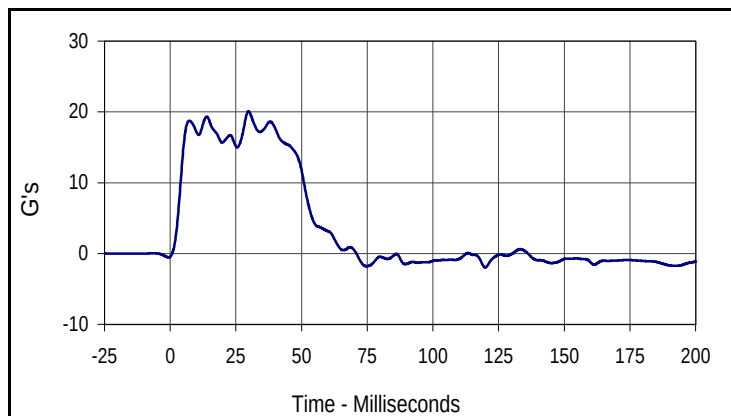
Curve Description			
Vehicle Right Sill at Front Seat Z Velocity			
CURNO	Type	SAE Class	Units
047	IN1	180	KMH
Max	Time	Min	Time
2.8	175.2	-2.2	27.2

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

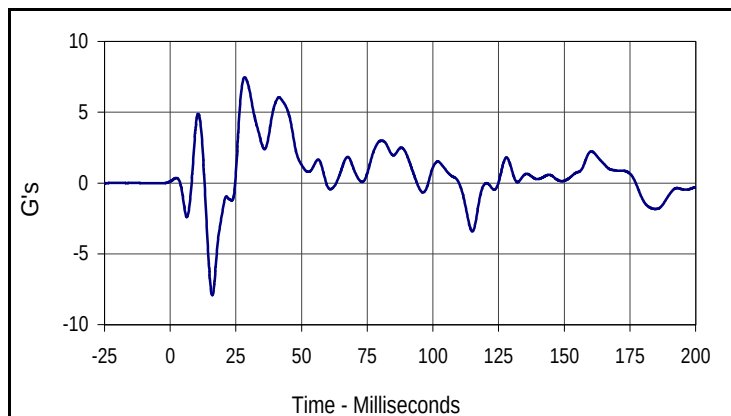
Test Date: 4/12/05
 NHTSA No.: G50104



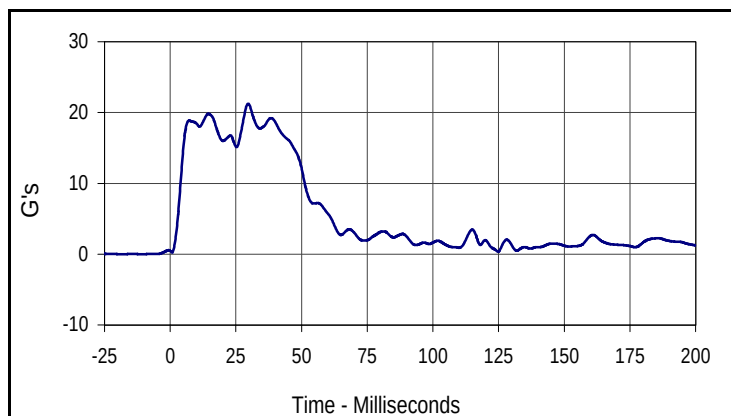
Curve Description			
Vehicle Right Sill at Rear Seat X			
CURNO	Type	SAE Class	Units
048	FIL	60	G's
Max	Time	Min	Time
5.9	56.4	-5.1	10.0



Curve Description			
Vehicle Right Sill at Rear Seat Y			
CURNO	Type	SAE Class	Units
049	FIL	60	G's
Max	Time	Min	Time
20.1	29.8	-2.0	119.9



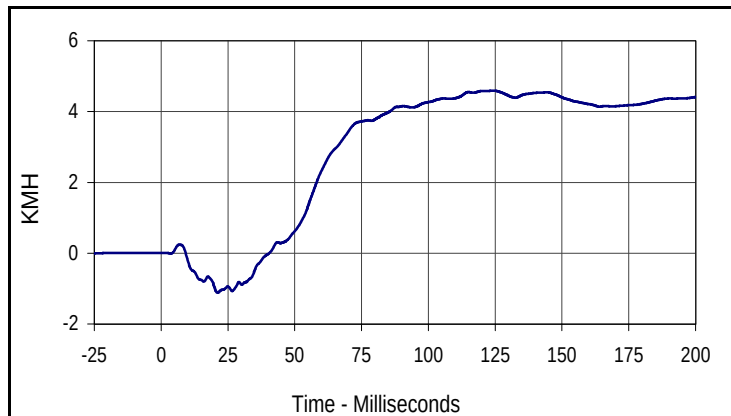
Curve Description			
Vehicle Right Sill at Rear Seat Z			
CURNO	Type	SAE Class	Units
050	FIL	60	G's
Max	Time	Min	Time
7.5	28.3	-7.9	16.0



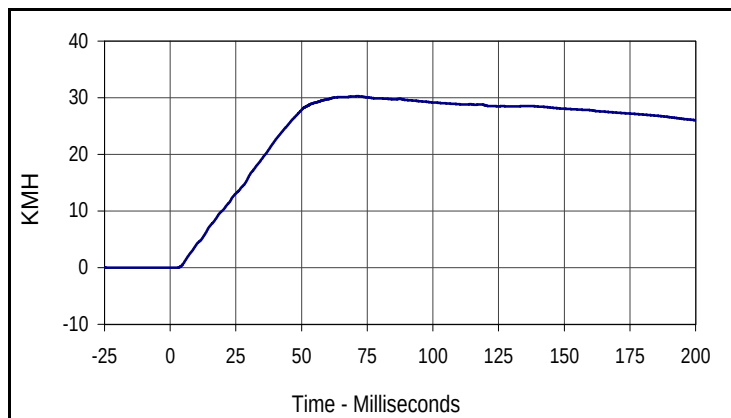
Curve Description			
Vehicle Right Sill Rear Seat Resultant			
CURNO	Type	SAE Class	Units
048	RES	60	G's
Max	Time	Min	Time
21.2	29.7	0.2	0.7

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

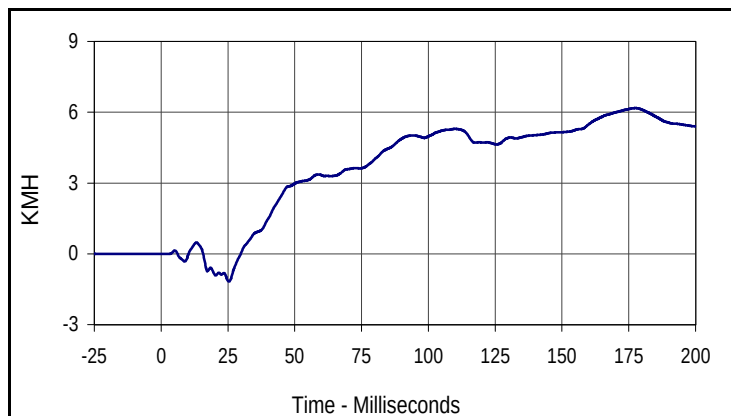
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Vehicle Right Sill at Rear Seat X Velocity			
CURNO	Type	SAE Class	Units
048	IN1	180	KMH
Max	Time	Min	Time
4.6	124.1	-1.1	21.0



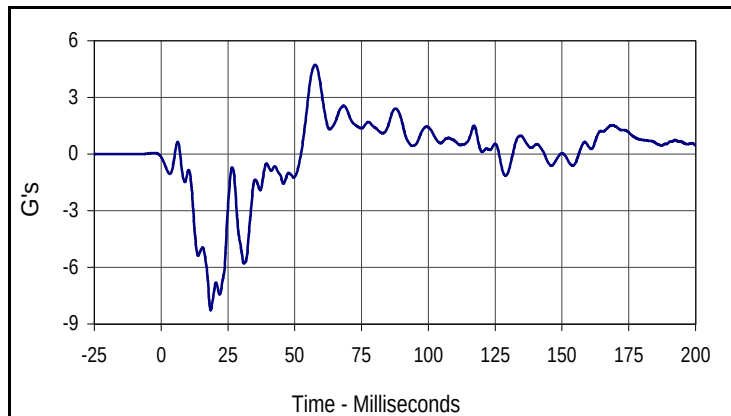
Curve Description			
Vehicle Right Sill at Rear Seat Y Velocity			
CURNO	Type	SAE Class	Units
049	IN1	180	KMH
Max	Time	Min	Time
30.3	71.3	0.0	0.0



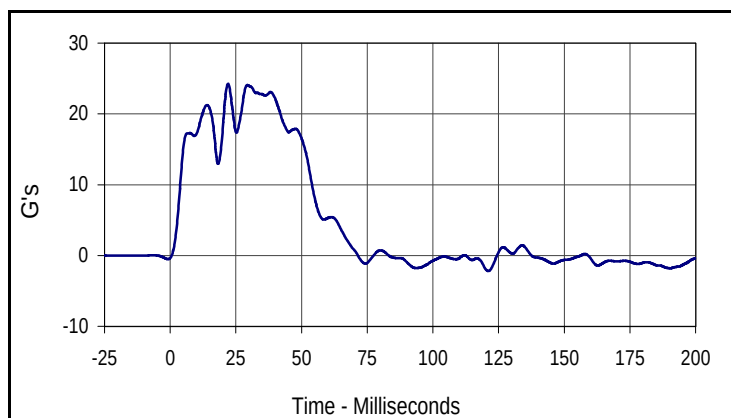
Curve Description			
Vehicle Right Sill at Rear Seat Z Velocity			
CURNO	Type	SAE Class	Units
050	IN1	180	KMH
Max	Time	Min	Time
6.2	177.6	-1.2	25.4

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

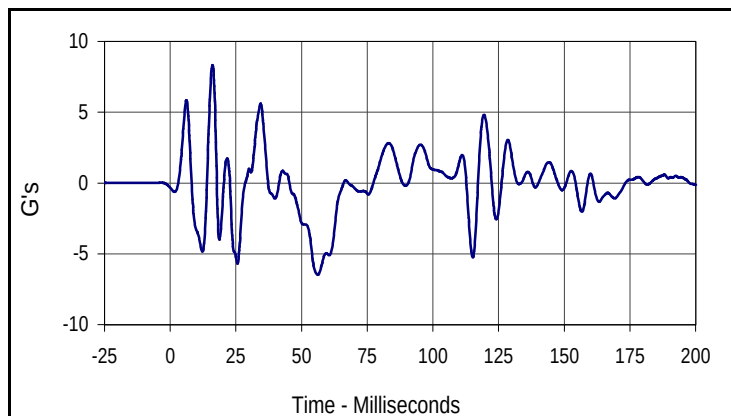
Test Date: 4/12/05
 NHTSA No.: G50104



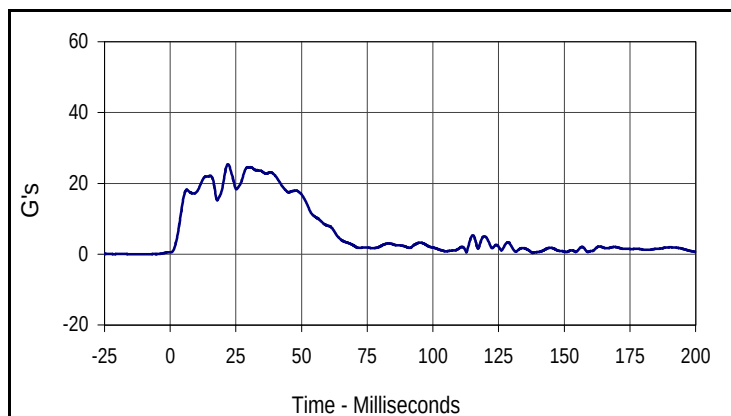
Curve Description			
Vehicle Rear Floor Above Axle X			
CURNO	Type	SAE Class	Units
051	FIL	60	G's
Max	Time	Min	Time
4.7	57.6	-8.3	18.5



Curve Description			
Vehicle Rear Floor Above Axle Y			
CURNO	Type	SAE Class	Units
052	FIL	60	G's
Max	Time	Min	Time
24.3	22.0	-2.2	121.1



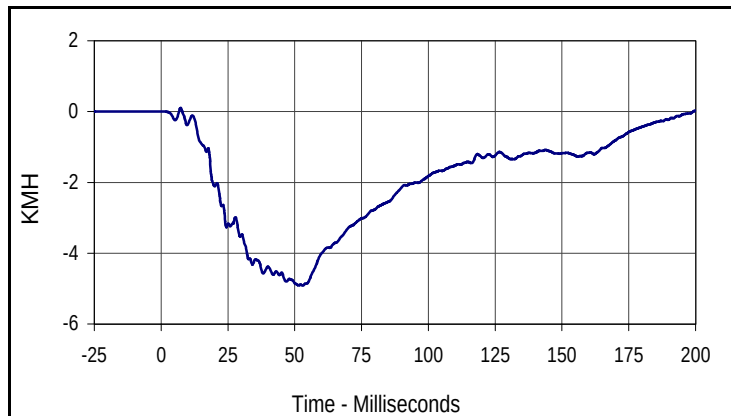
Curve Description			
Vehicle Rear Floor Above Axle Z			
CURNO	Type	SAE Class	Units
053	FIL	60	G's
Max	Time	Min	Time
8.3	16.1	-6.5	56.2



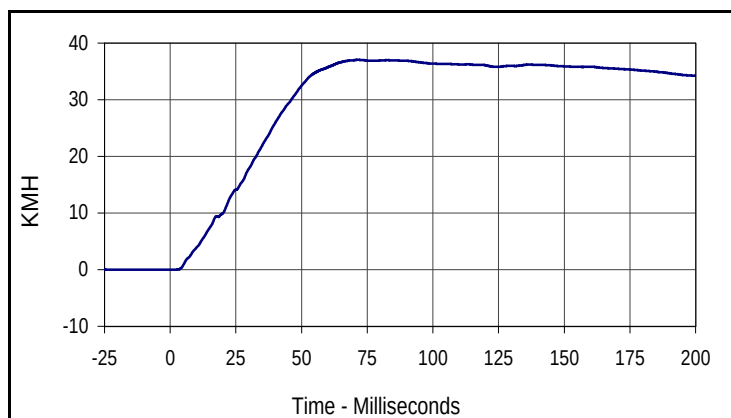
Curve Description			
Vehicle Rear Floor Above Axle Resultant			
CURNO	Type	SAE Class	Units
051	RES	60	G's
Max	Time	Min	Time
25.4	22.0	0.4	138.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

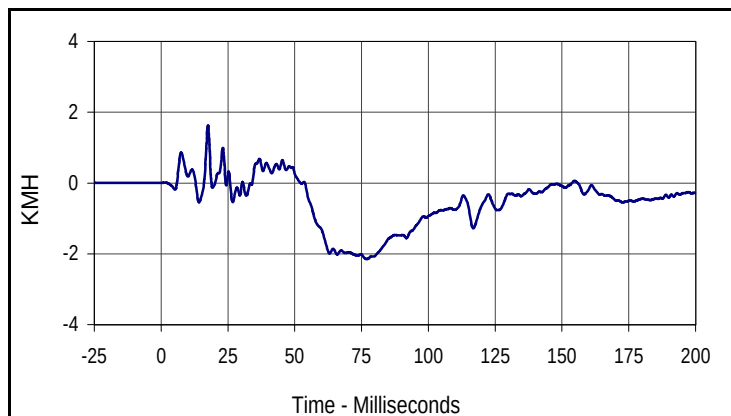
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Vehicle Rear Floor Above Axle X Velocity			
CURNO	Type	SAE Class	Units
051	FIL	180	KMH
Max	Time	Min	Time
0.1	7.3	-4.9	53.0



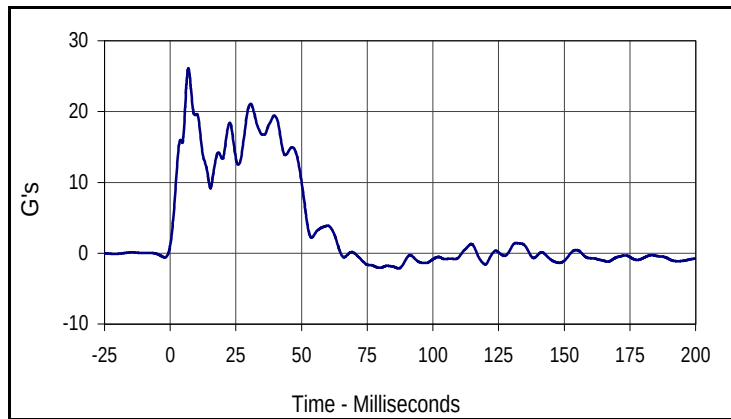
Curve Description			
Vehicle Rear Floor Above Axle Y Velocity			
CURNO	Type	SAE Class	Units
052	FIL	180	KMH
Max	Time	Min	Time
37.1	71.5	0.0	0.6



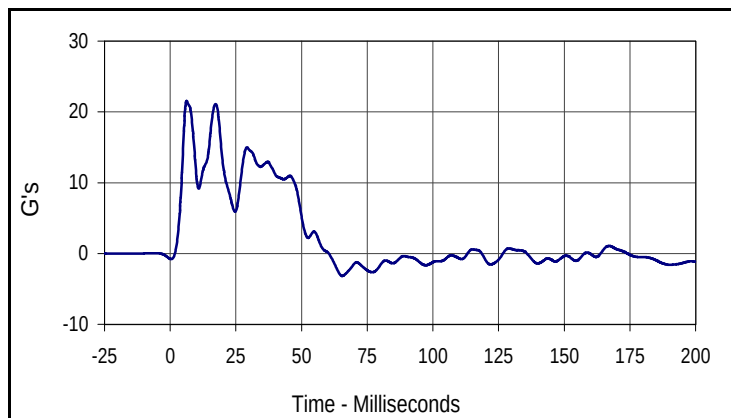
Curve Description			
Vehicle Rear Floor Above Axle Z Velocity			
CURNO	Type	SAE Class	Units
053	FIL	180	KMH
Max	Time	Min	Time
1.6	17.6	-2.1	77.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

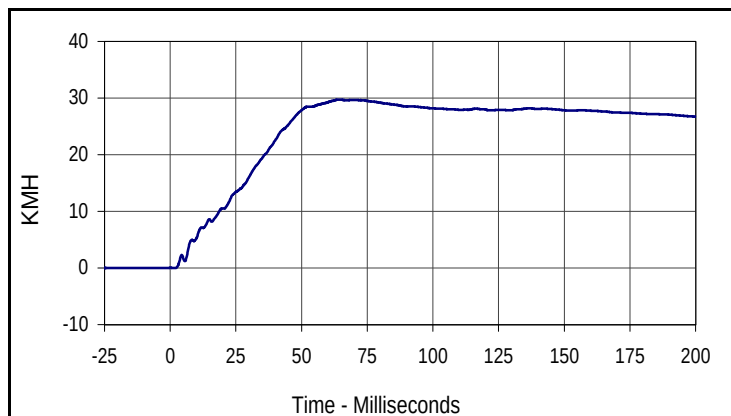
Test Date: 4/12/05
 NHTSA No.: G50104



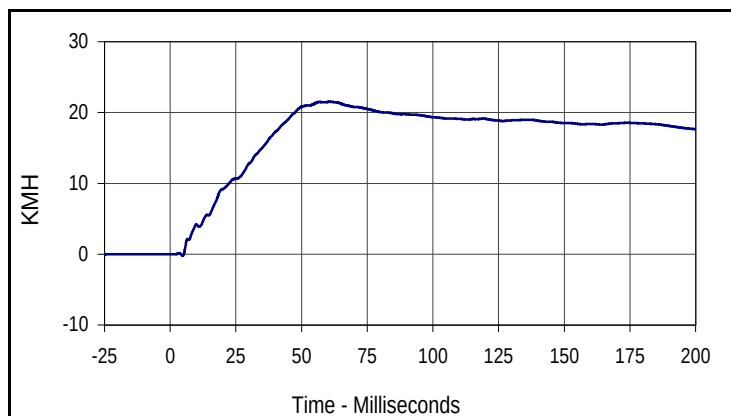
Curve Description			
Vehicle Left Sill at Rear Door Y			
CURNO	Type	SAE Class	Units
054	FIL	60	G's
Max	Time	Min	Time
26.1	6.9	-2.2	87.0



Curve Description			
Vehicle Left Sill at Front Door Y			
CURNO	Type	SAE Class	Units
055	FIL	60	G's
Max	Time	Min	Time
21.5	6.3	-3.2	65.5



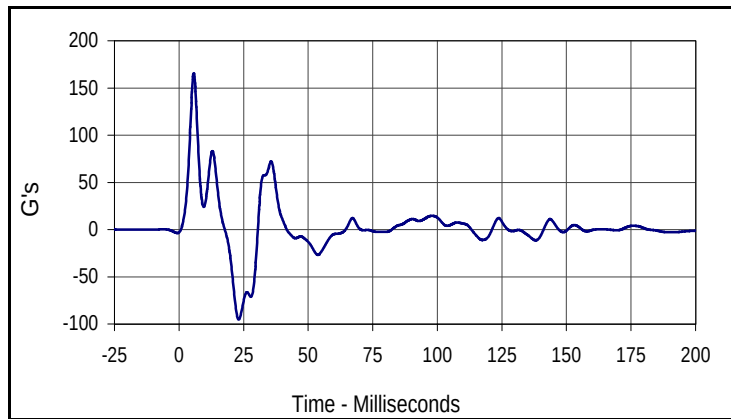
Curve Description			
Vehicle Left Sill at Rear Door Y Velocity			
CURNO	Type	SAE Class	Units
054	IN1	180	KMH
Max	Time	Min	Time
29.7	64.8	0.0	1.8



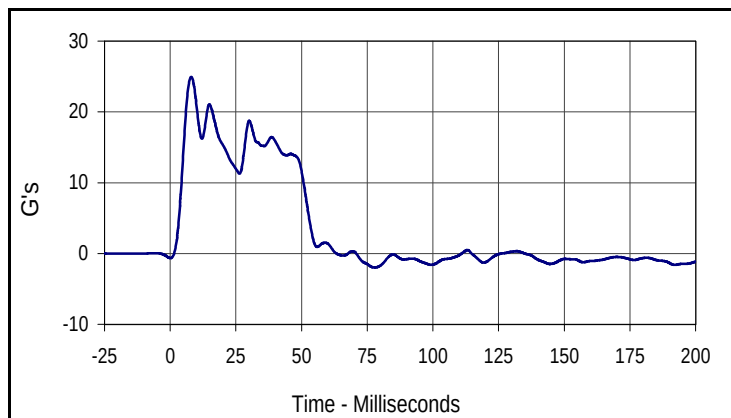
Curve Description			
Vehicle Left Sill at Front Door Y Velocity			
CURNO	Type	SAE Class	Units
055	IN1	180	KMH
Max	Time	Min	Time
21.5	60.7	-0.2	4.8

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

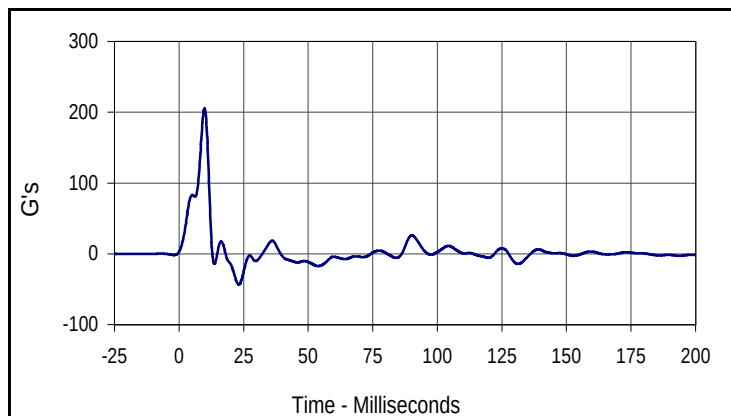
Test Date: 4/12/05
 NHTSA No.: G50104



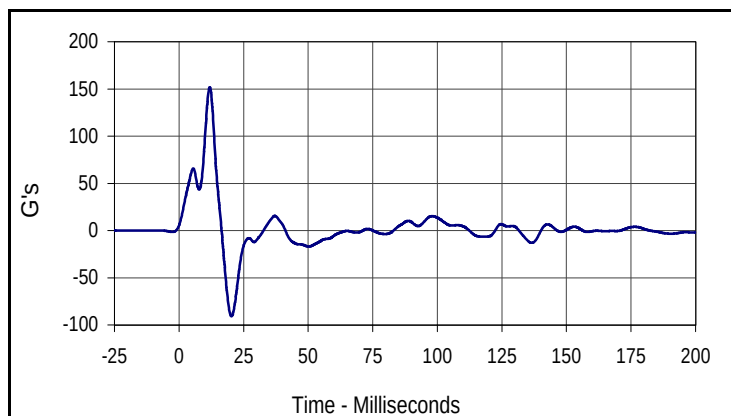
Curve Description			
Vehicle Left Front Door CL Y			
CURNO	Type	SAE Class	Units
056	FIL	60	G's
Max	Time	Min	Time
165.5	5.7	-95.3	23.1



Curve Description			
Vehicle Right Rear Occupant Compartment			
CURNO	Type	SAE Class	Units
057	FIL	60	G's
Max	Time	Min	Time
24.9	8.0	-2.0	77.9



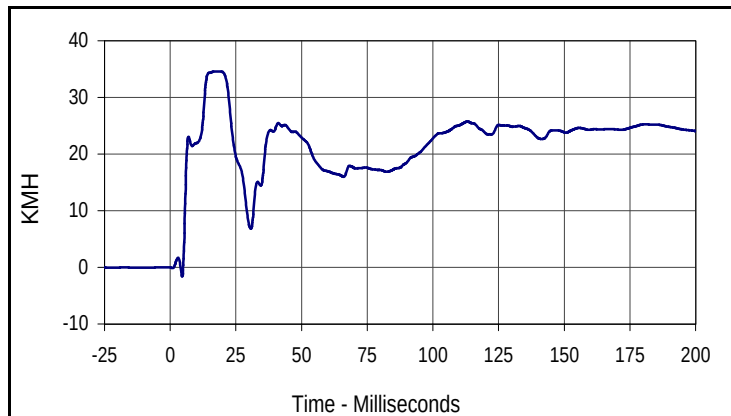
Curve Description			
Vehicle Left Front Door Mid Rear Y			
CURNO	Type	SAE Class	Units
058	FIL	60	G's
Max	Time	Min	Time
205.5	9.9	-43.3	23.1



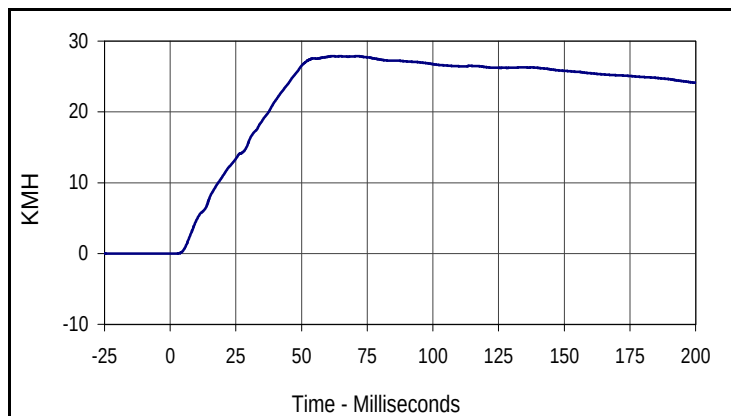
Curve Description			
Vehicle Left Front Door Upper CL Y			
CURNO	Type	SAE Class	Units
059	FIL	60	G's
Max	Time	Min	Time
151.6	11.9	-90.9	20.3

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

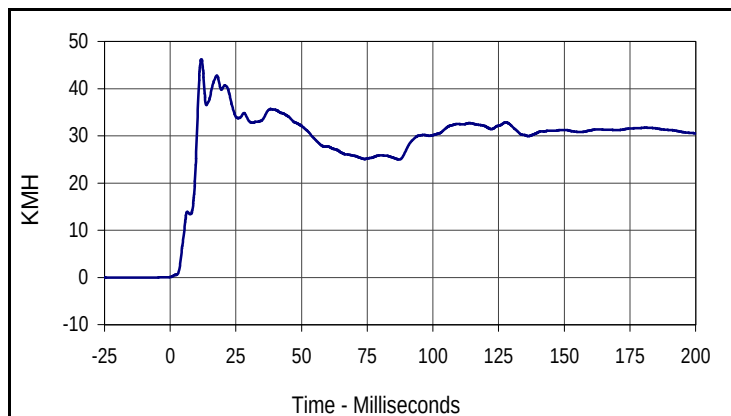
Test Date: 4/12/05
 NHTSA No.: G50104



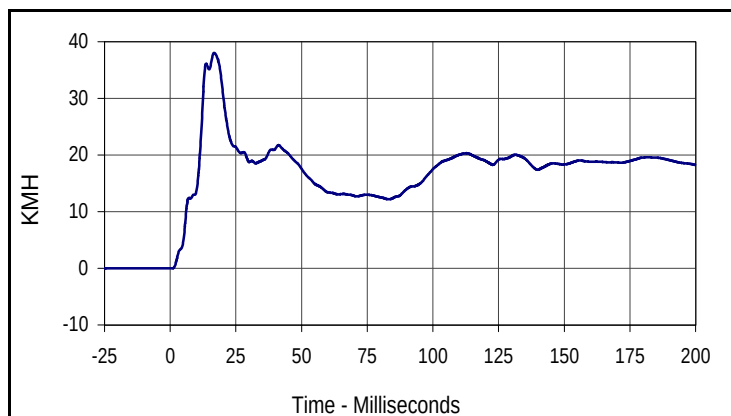
Curve Description			
Vehicle Left Front Door CL Y Velocity			
CURNO	Type	SAE Class	Units
056	IN1	180	KMH
Max	Time	Min	Time
34.6	17.3	-1.6	4.6



Curve Description			
Vehicle Right Rear Occupant Compartment Y Velocity			
CURNO	Type	SAE Class	Units
057	IN1	180	KMH
Max	Time	Min	Time
27.9	71.3	0.0	0.0



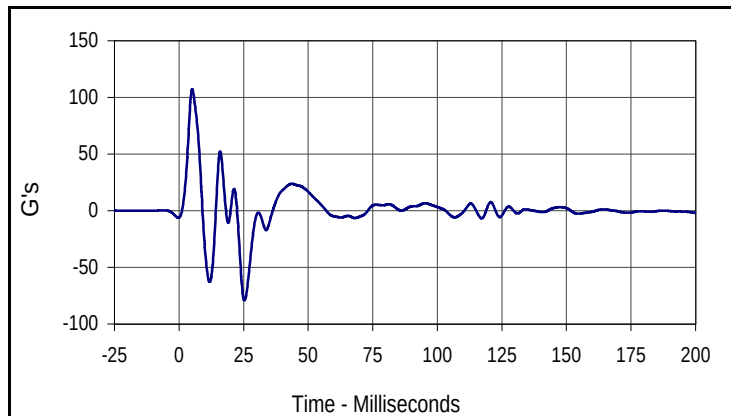
Curve Description			
Vehicle Left Front Door Mid Rear Y Velocity			
CURNO	Type	SAE Class	Units
058	IN1	180	KMH
Max	Time	Min	Time
46.2	11.8	0.1	0.0



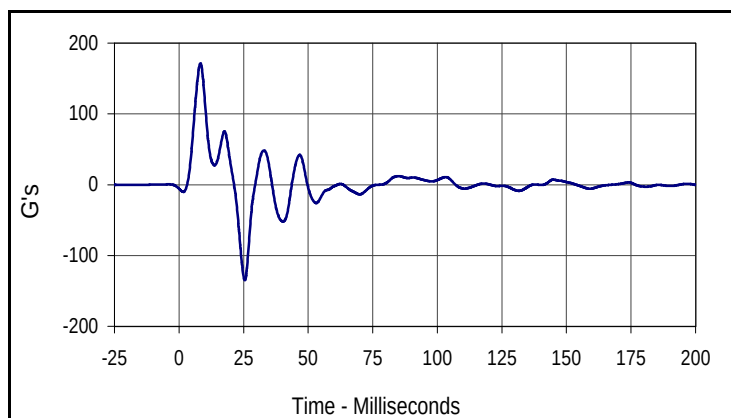
Curve Description			
Vehicle Left Front Door Upper CL Y Velocity			
CURNO	Type	SAE Class	Units
059	IN1	180	KMH
Max	Time	Min	Time
38.0	16.7	0.0	0.7

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

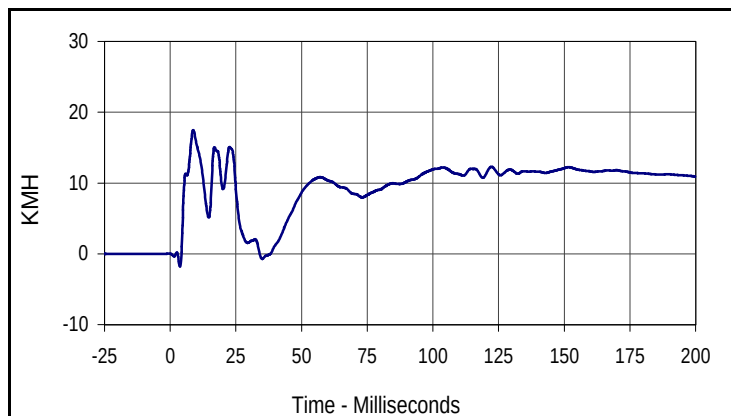
Test Date: 4/12/05
 NHTSA No.: G50104



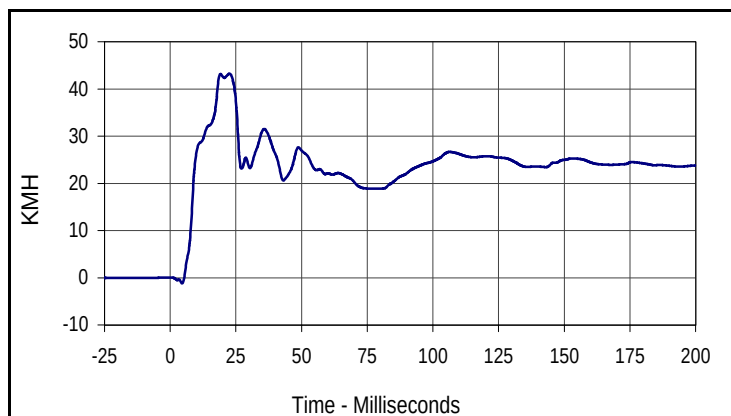
Curve Description			
Vehicle Left Rear Door Mid Rear Y			
CURNO	Type	SAE Class	Units
060	FIL	60	G's
Max	Time	Min	Time
107.2	5.1	-79.1	25.3



Curve Description			
Vehicle Left Rear Door Upper CL Y			
CURNO	Type	SAE Class	Units
061	FIL	60	G's
Max	Time	Min	Time
171.2	8.3	-135.1	25.5



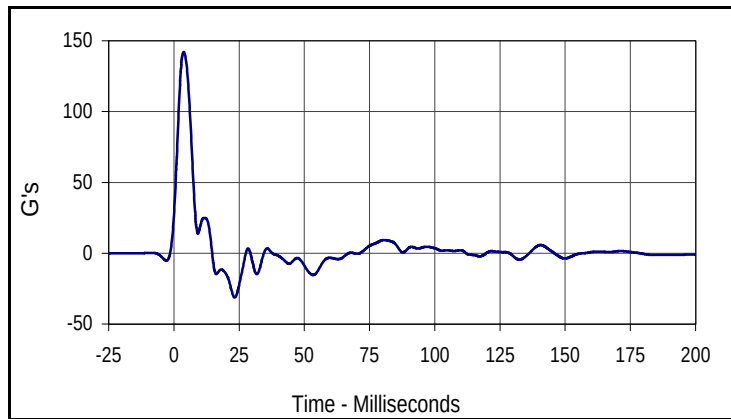
Curve Description			
Vehicle Left Rear Door Mid Rear Y Velocity			
CURNO	Type	SAE Class	Units
060	IN1	180	KMH
Max	Time	Min	Time
17.5	8.7	-1.8	3.7



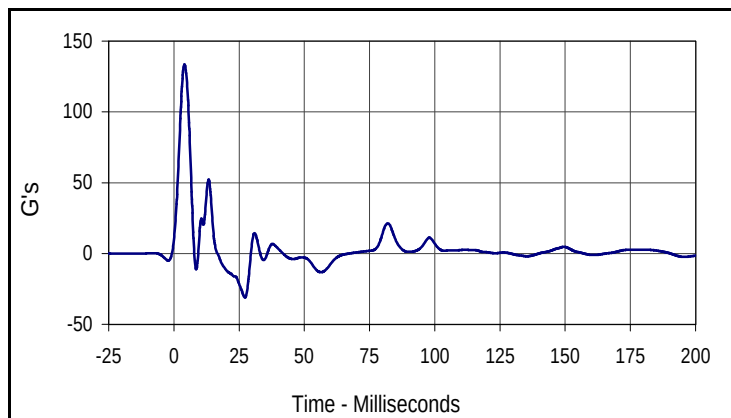
Curve Description			
Vehicle Left Rear Door Upper CL Y Velocity			
CURNO	Type	SAE Class	Units
061	IN1	180	KMH
Max	Time	Min	Time
43.2	22.6	-1.2	4.5

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

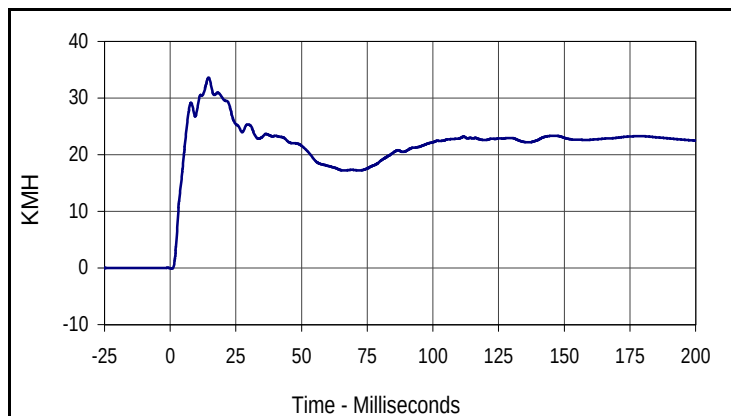
Test Date: 4/12/05
 NHTSA No.: G50104



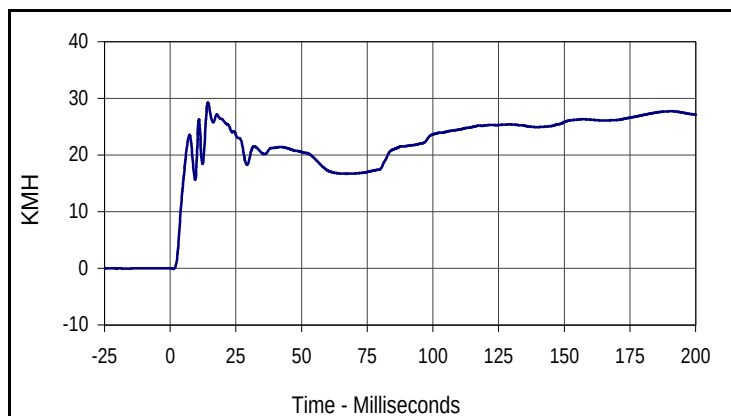
Curve Description			
Vehicle B-Post Lower Y			
CURNO	Type	SAE Class	Units
062	FIL	60	G's
Max	Time	Min	Time
142.0	3.8	-31.3	23.3



Curve Description			
Vehicle B-Post Middle Y			
CURNO	Type	SAE Class	Units
063	FIL	60	G's
Max	Time	Min	Time
133.4	4.1	-31.1	27.2



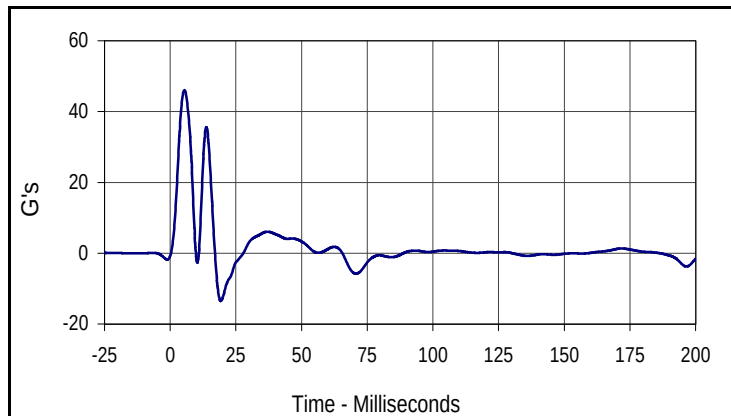
Curve Description			
Vehicle B-Post Lower Y Velocity			
CURNO	Type	SAE Class	Units
062	IN1	180	KMH
Max	Time	Min	Time
33.6	14.6	-0.1	0.6



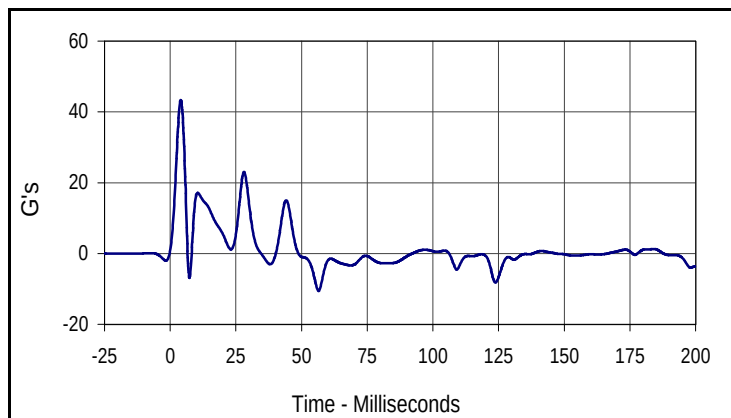
Curve Description			
Vehicle B-Post Middle Y Velocity			
CURNO	Type	SAE Class	Units
063	IN1	180	KMH
Max	Time	Min	Time
29.2	14.4	-0.1	1.3

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

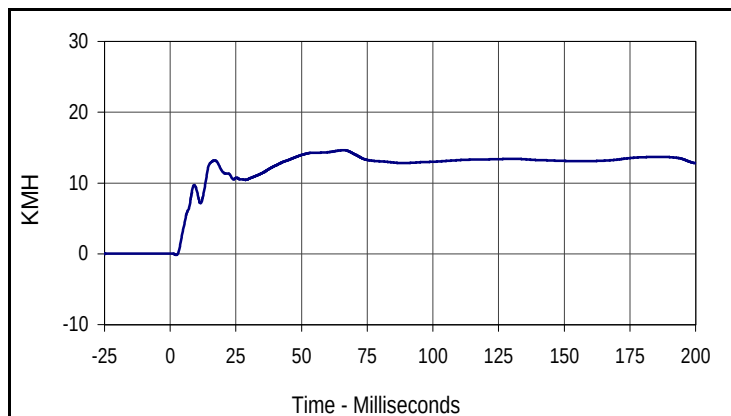
Test Date: 4/12/05
 NHTSA No.: G50104



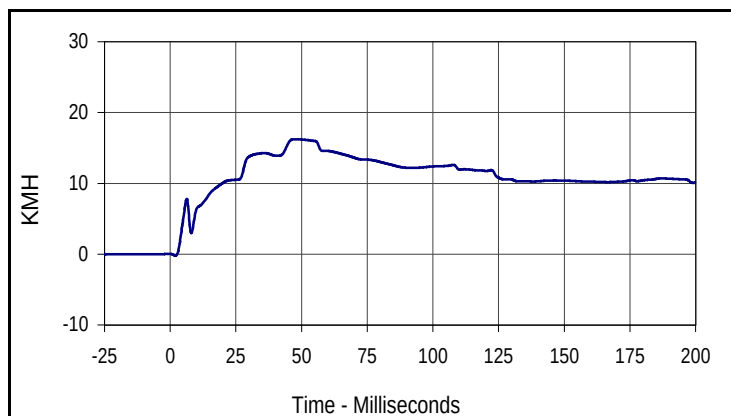
Curve Description			
Vehicle A-Post Lower Y			
CURNO	Type	SAE Class	Units
064	FIL	60	G's
Max	Time	Min	Time
46.1	5.4	-13.5	19.3



Curve Description			
Vehicle A-Post Middle Y			
CURNO	Type	SAE Class	Units
065	FIL	60	G's
Max	Time	Min	Time
43.4	4.0	-10.6	56.5



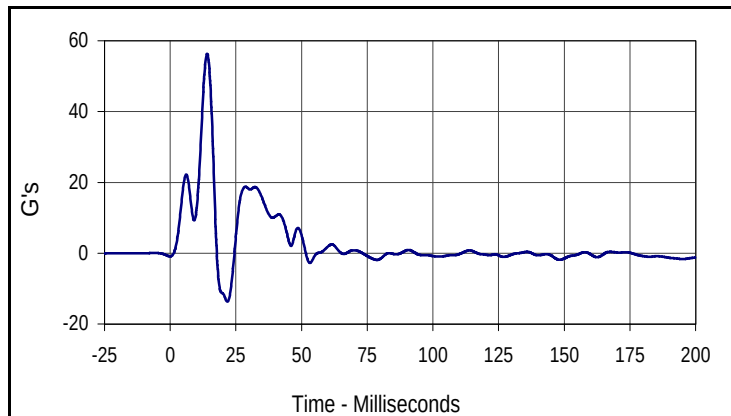
Curve Description			
Vehicle A-Post Lower Y Velocity			
CURNO	Type	SAE Class	Units
064	IN1	180	KMH
Max	Time	Min	Time
14.6	66.1	-0.2	2.3



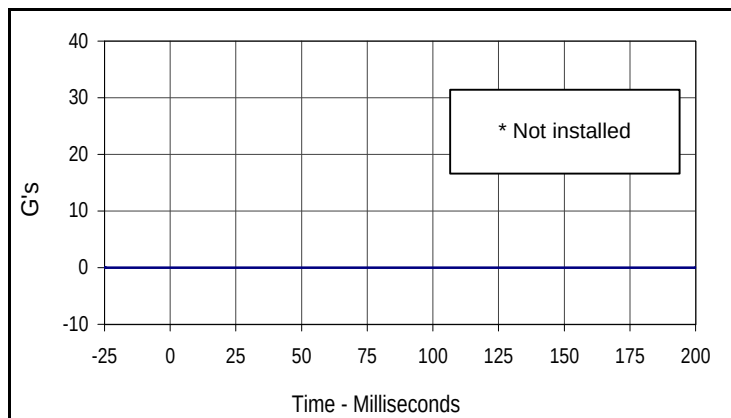
Curve Description			
Vehicle A-Post Middle Y Velocity			
CURNO	Type	SAE Class	Units
065	IN1	180	KMH
Max	Time	Min	Time
16.2	48.3	-0.2	2.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05
 NHTSA No.: G50104

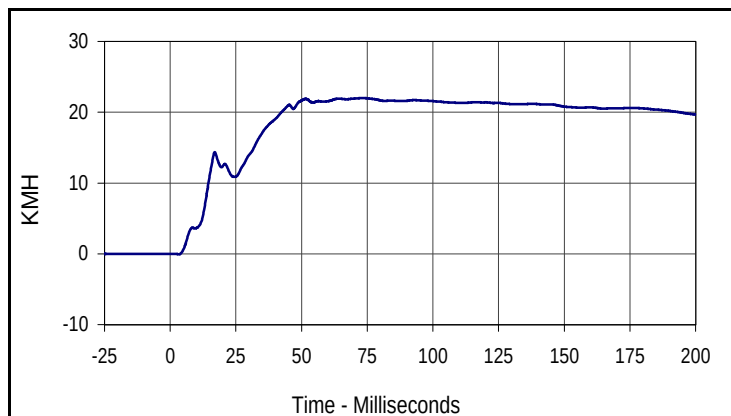


Curve Description			
Vehicle Left Front Seat Track			
CURNO	Type	SAE Class	Units
066	FIL	60	G's
Max	Time	Min	Time
56.3	14.1	-13.7	21.7

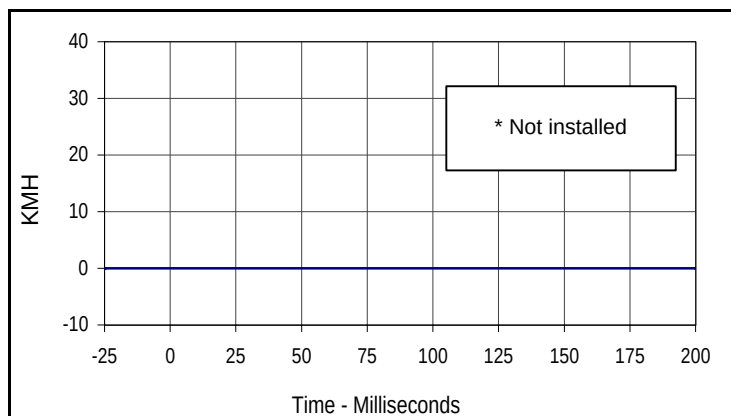


Curve Description			
Vehicle Rear Seat Structure			
CURNO	Type	SAE Class	Units
067	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not installed



Curve Description			
Vehicle Left Front Seat Track Y Velocity			
CURNO	Type	SAE Class	Units
066	IN1	180	KMH
Max	Time	Min	Time
22.0	73.4	0.0	3.3

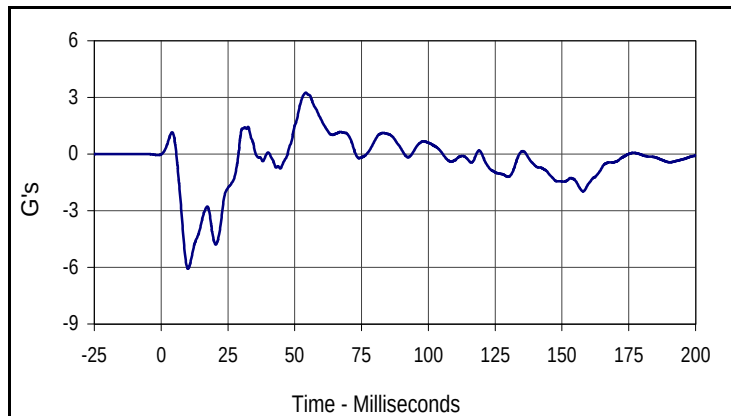


Curve Description			
Vehicle Rear Seat Structure Y Velocity			
CURNO	Type	SAE Class	Units
067	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

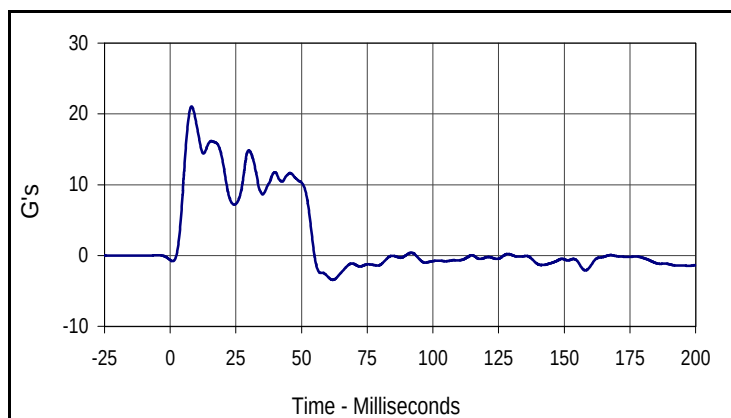
* Not installed

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

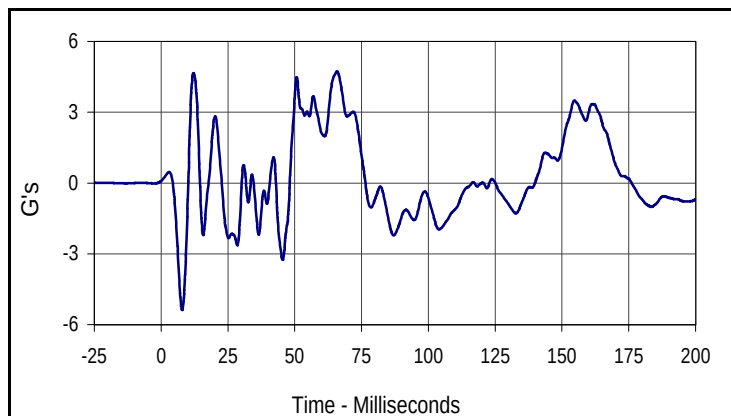
Test Date: 4/12/05
 NHTSA No.: G50104



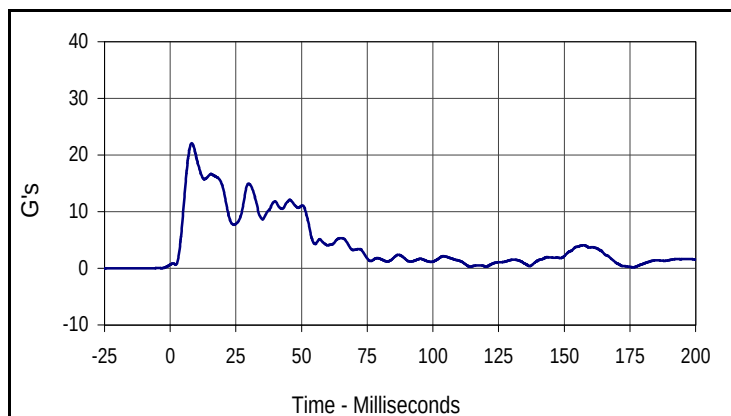
Curve Description			
Vehicle CG X			
CURNO	Type	SAE Class	Units
068	FIL	60	G's
Max	Time	Min	Time
3.3	54.2	-6.1	10.1



Curve Description			
Vehicle CG Y			
CURNO	Type	SAE Class	Units
069	FIL	60	G's
Max	Time	Min	Time
21.1	8.1	-3.4	61.8



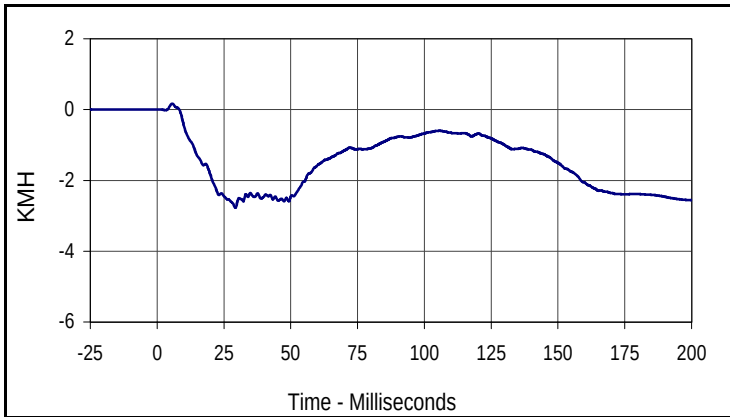
Curve Description			
Vehicle CG Z			
CURNO	Type	SAE Class	Units
070	FIL	60	G's
Max	Time	Min	Time
4.7	65.9	-5.4	7.9



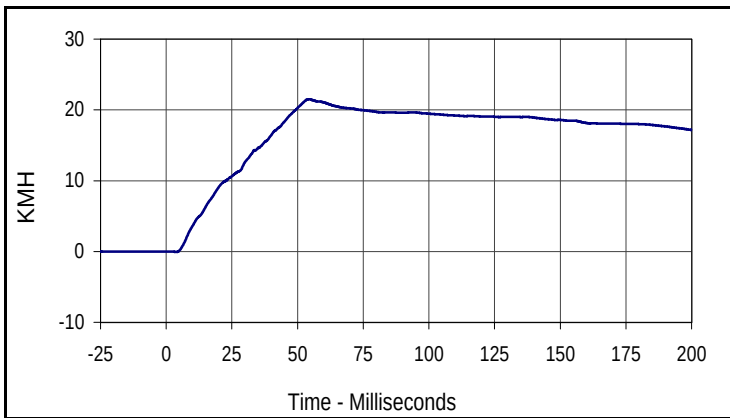
Curve Description			
Vehicle CG Resultant			
CURNO	Type	SAE Class	Units
068	RES	60	G's
Max	Time	Min	Time
22.1	8.2	0.2	176.1

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

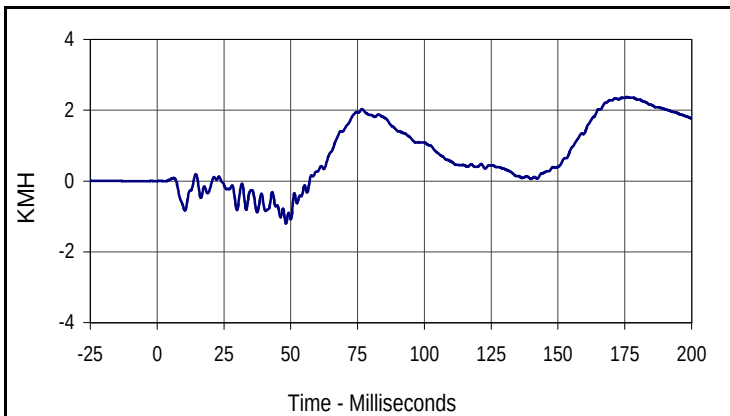
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
Vehicle CG X Velocity			
CURNO	Type	SAE Class	Units
068	IN1	180	KMH
Max	Time	Min	Time
0.2	5.6	-2.8	29.3



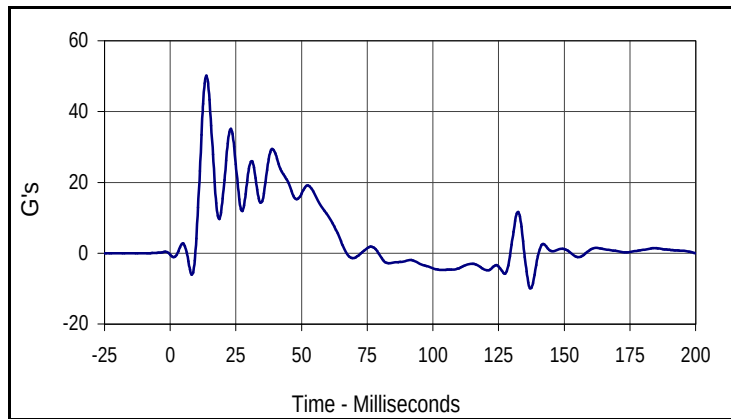
Curve Description			
Vehicle CG Y Velocity			
CURNO	Type	SAE Class	Units
069	IN1	180	KMH
Max	Time	Min	Time
21.5	54.5	-0.1	3.8



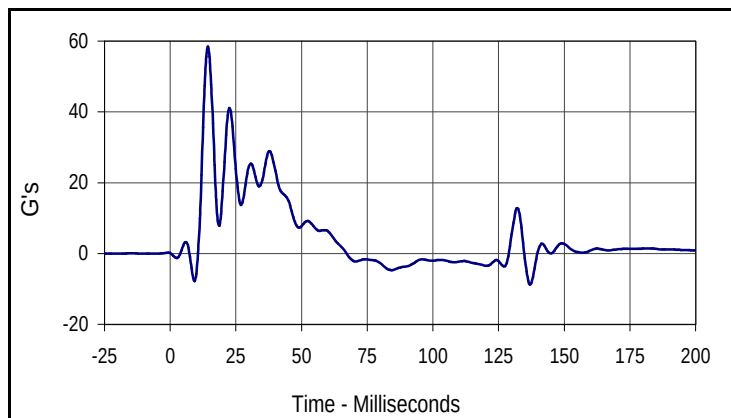
Curve Description			
Vehicle CG Z Velocity			
CURNO	Type	SAE Class	Units
070	IN1	180	KMH
Max	Time	Min	Time
2.4	175.9	-1.2	48.2

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

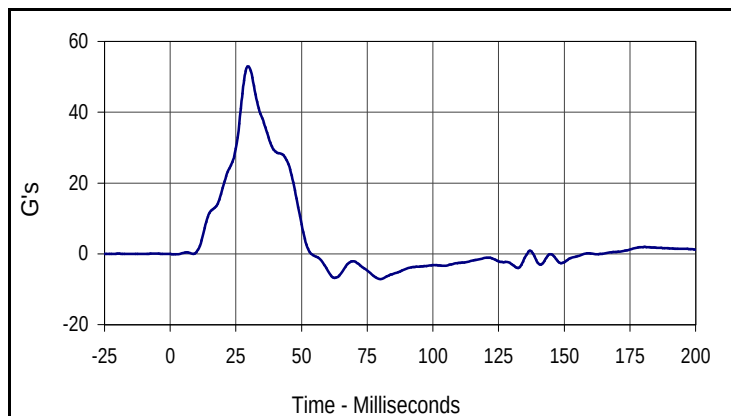
Test Date: 4/12/05
 NHTSA No.: G50104



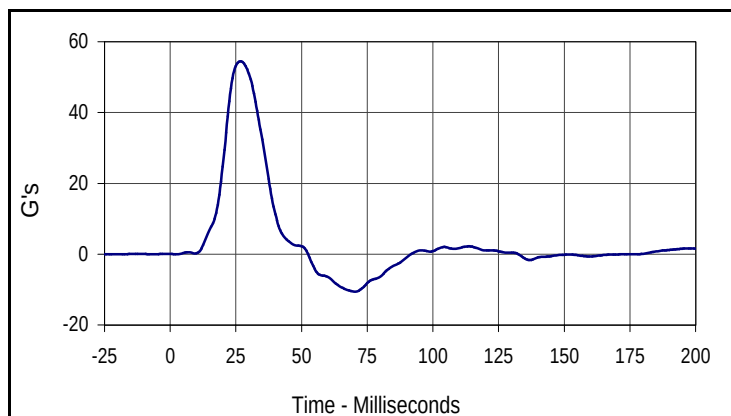
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
013	FIR	FIR100	G's
Max	Time	Min	Time
50.1	13.8	-9.8	136.9



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
014	FIR	FIR100	G's
Max	Time	Min	Time
58.5	14.4	-8.8	136.9



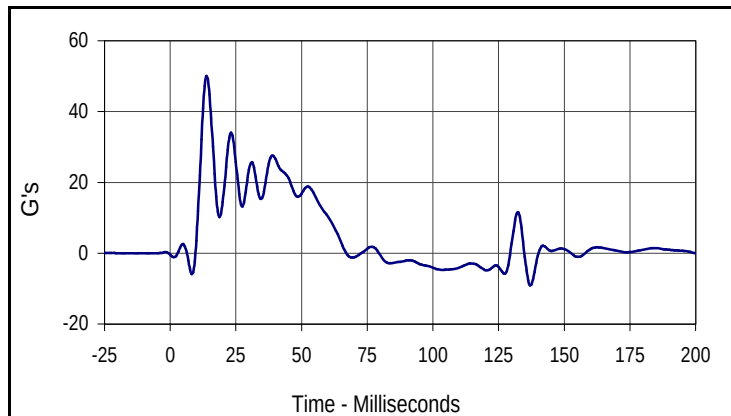
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
015	FIR	FIR100	G's
Max	Time	Min	Time
52.9	29.4	-7.1	80.0



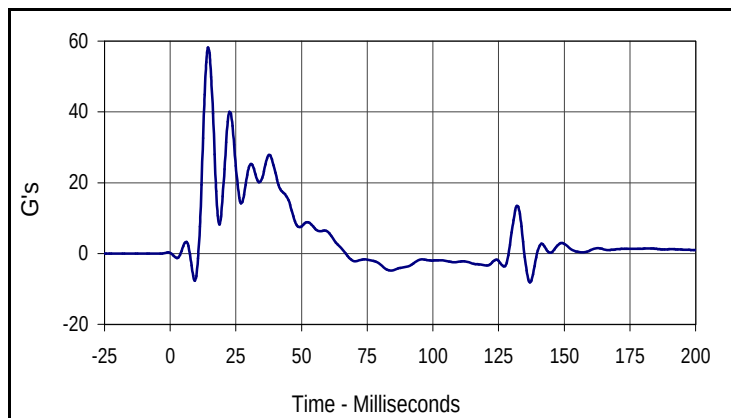
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
016	FIR	FIR100	G's
Max	Time	Min	Time
54.5	26.9	-10.6	70.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

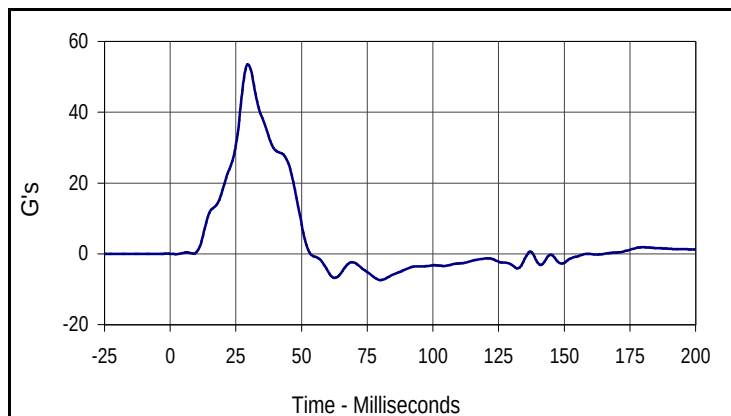
Test Date: 4/12/05
 NHTSA No.: G50104



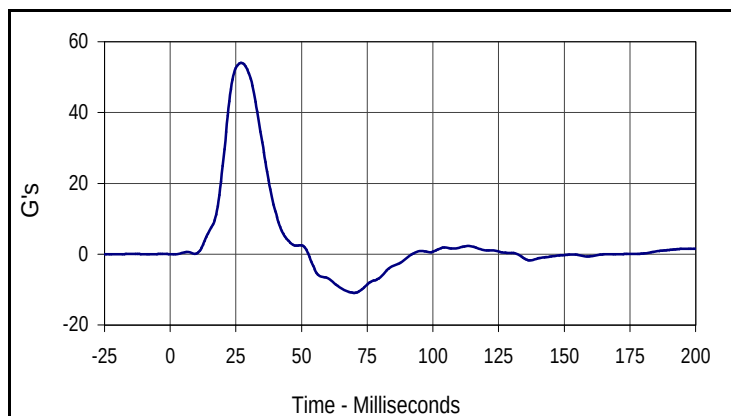
Curve Description			
Driver Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
017	FIR	FIR100	G's
Max	Time	Min	Time
50.1	13.8	-9.0	136.9



Curve Description			
Driver Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
018	FIR	FIR100	G's
Max	Time	Min	Time
58.2	14.4	-8.2	136.9



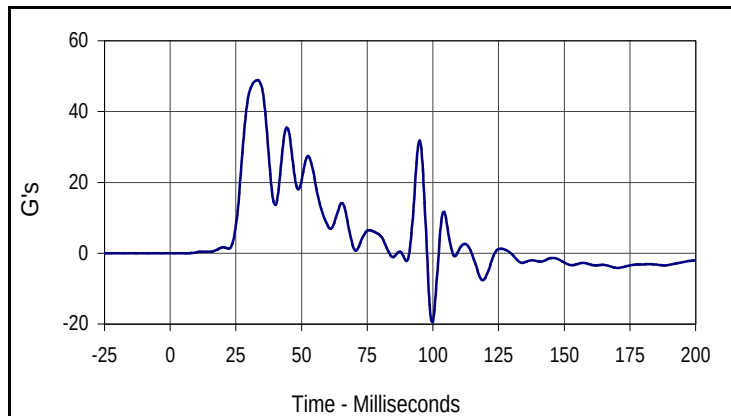
Curve Description			
Driver Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
019	FIR	FIR100	G's
Max	Time	Min	Time
53.5	29.4	-7.4	80.0



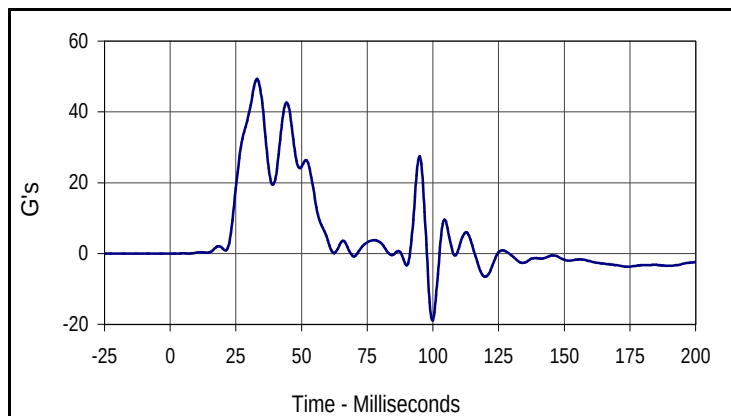
Curve Description			
Driver Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
020	FIR	FIR100	G's
Max	Time	Min	Time
54.0	26.9	-10.9	70.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

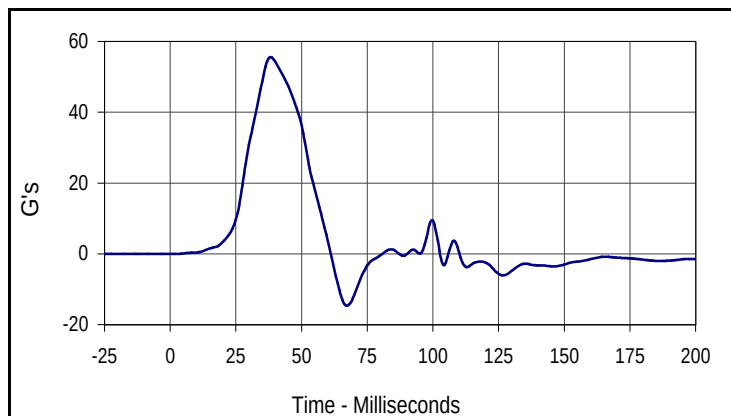
Test Date: 4/12/05
 NHTSA No.: G50104



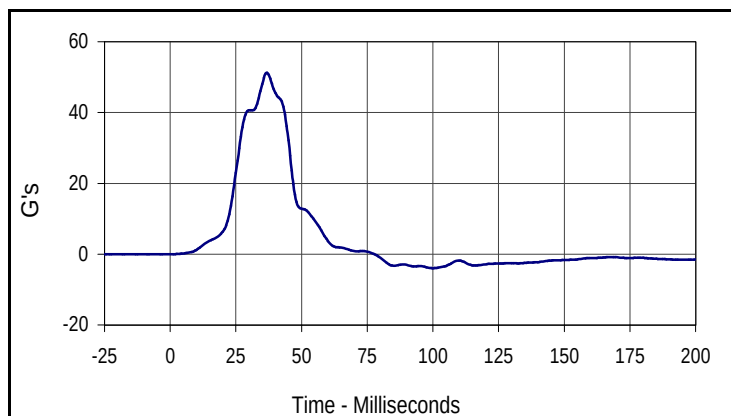
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
035	FIR	FIR100	G's
Max	Time	Min	Time
48.9	33.1	-19.4	100.0



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
036	FIR	FIR100	G's
Max	Time	Min	Time
49.3	33.1	-18.9	100.0



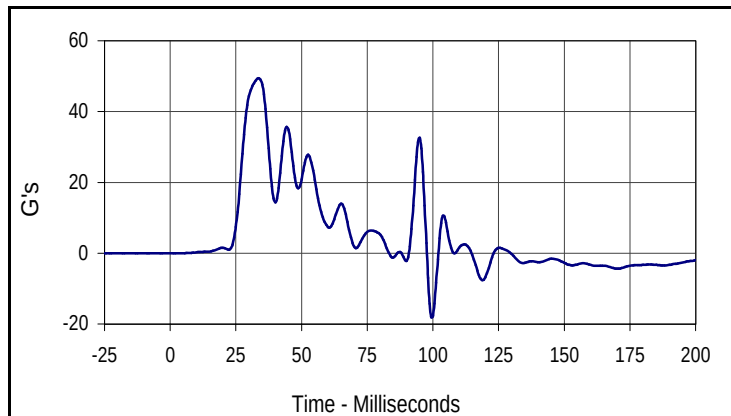
Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
037	FIR	FIR100	G's
Max	Time	Min	Time
55.6	38.1	-14.6	67.5



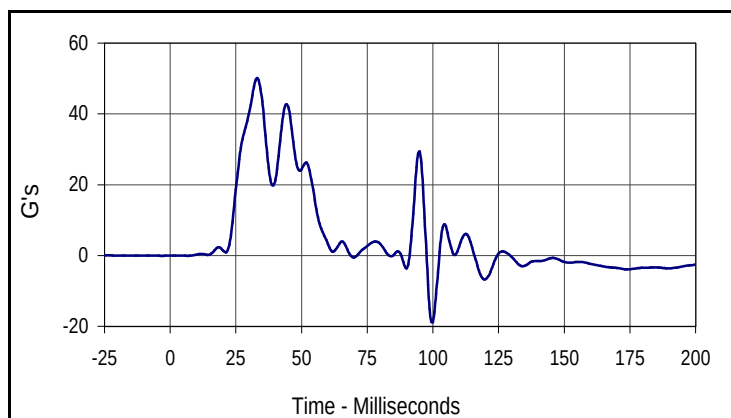
Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
038	FIR	FIR100	G's
Max	Time	Min	Time
51.2	36.9	-4.0	100.0

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

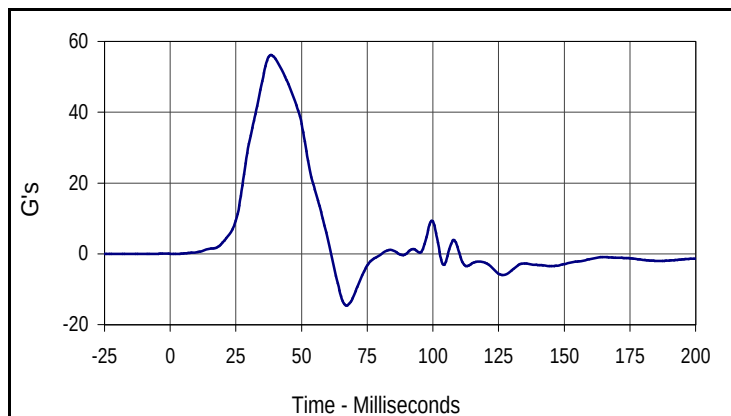
Test Date: 4/12/05
 NHTSA No.: G50104



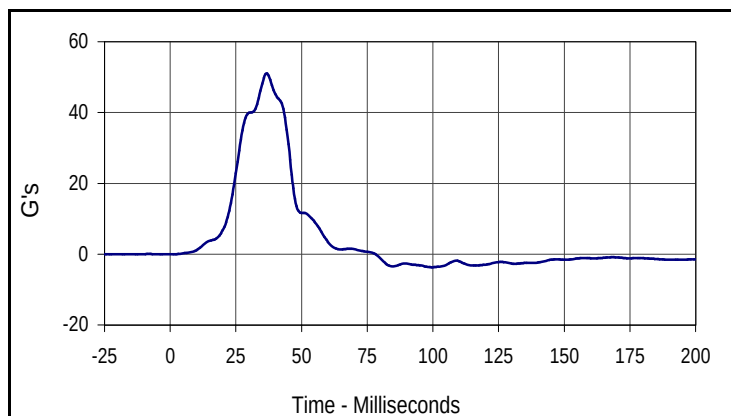
Curve Description			
Passenger Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
039	FIR	FIR100	G's
Max	Time	Min	Time
49.4	33.8	-18.1	99.4



Curve Description			
Passenger Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
040	FIR	FIR100	G's
Max	Time	Min	Time
50.1	33.1	-18.9	100.0



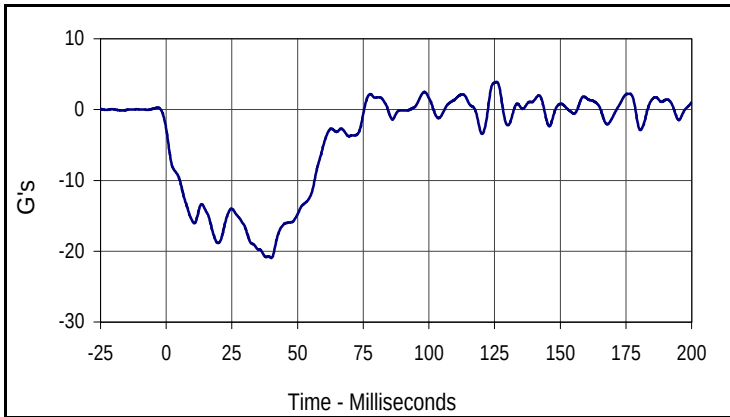
Curve Description			
Passenger Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
041	FIR	FIR100	G's
Max	Time	Min	Time
56.1	38.8	-14.6	66.9



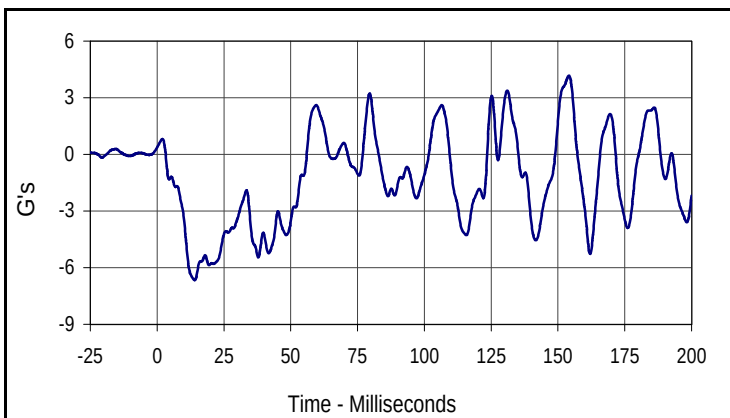
Curve Description			
Passenger Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
042	FIR	FIR100	G's
Max	Time	Min	Time
51.0	36.9	-3.7	99.4

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

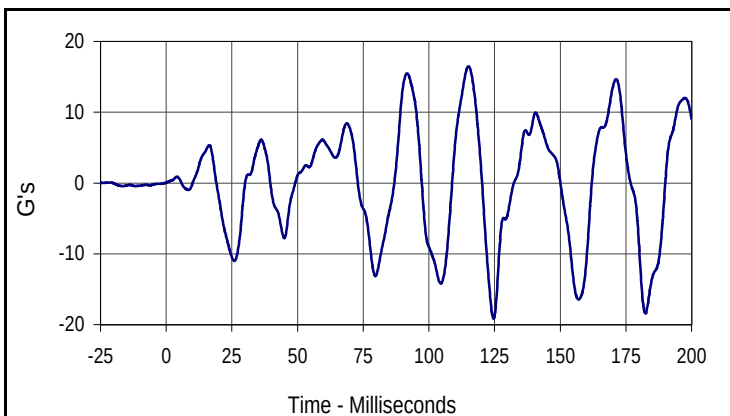
Test Date: 4/12/05
 NHTSA No.: G50104



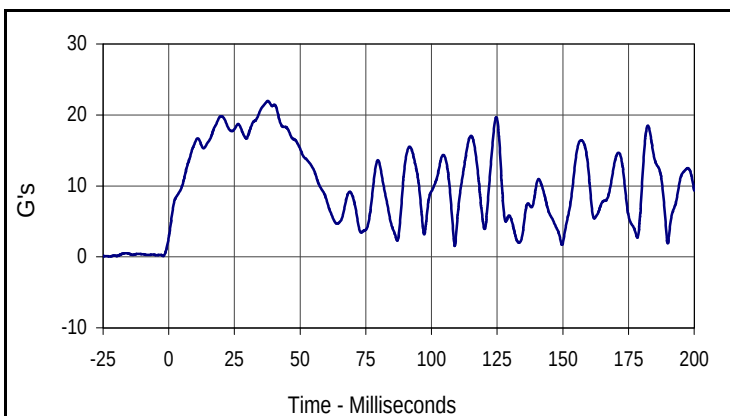
Curve Description			
MDB CG X			
CURNO	Type	SAE Class	Units
071	FIL	60	G's
Max	Time	Min	Time
3.9	125.8	-20.9	40.0



Curve Description			
MDB CG Y			
CURNO	Type	SAE Class	Units
072	FIL	60	G's
Max	Time	Min	Time
4.2	154.1	-6.7	14.0



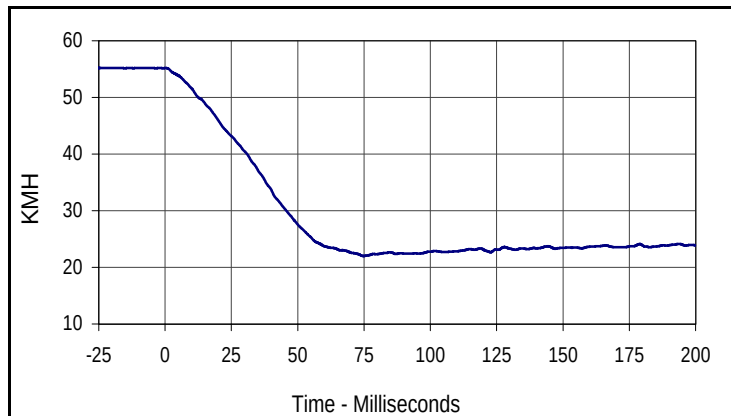
Curve Description			
MDB CG Z			
CURNO	Type	SAE Class	Units
073	FIL	60	G's
Max	Time	Min	Time
16.5	115.1	-19.1	124.6



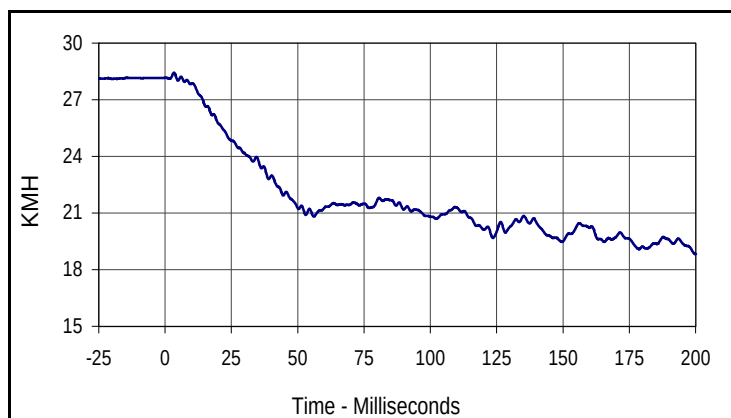
Curve Description			
MDB CG Resultant			
CURNO	Type	SAE Class	Units
071	RES	60	G's
Max	Time	Min	Time
22.0	37.7	1.5	108.9

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

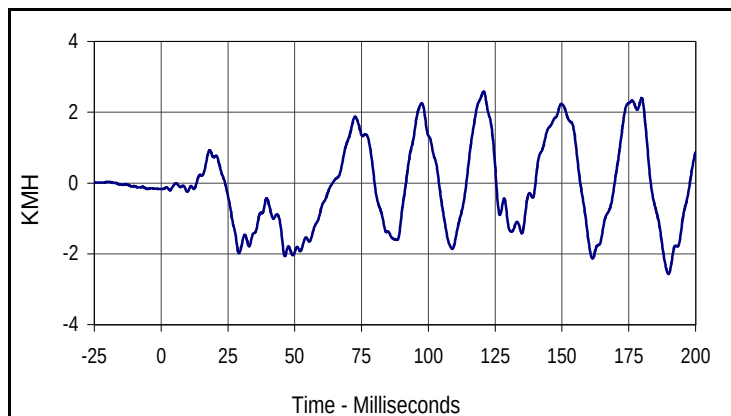
Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
MDB CG X Velocity			
CURNO	Type	SAE Class	Units
071	IN1	180	KMH
Max	Time	Min	Time
55.2	0.3	22.0	74.8



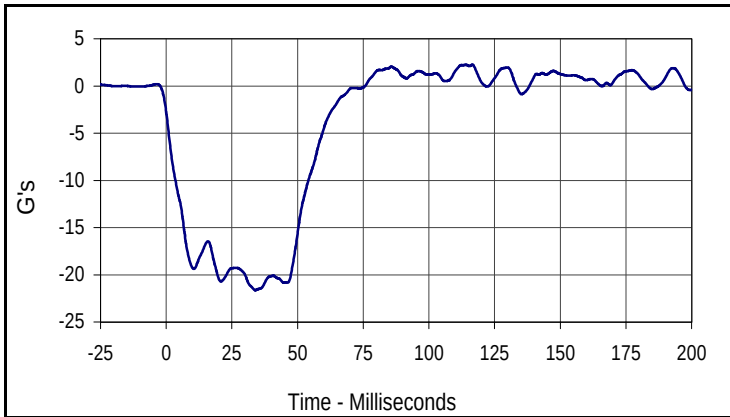
Curve Description			
MDB CG Y Velocity			
CURNO	Type	SAE Class	Units
072	IN1	180	KMH
Max	Time	Min	Time
28.4	3.4	18.8	200.0



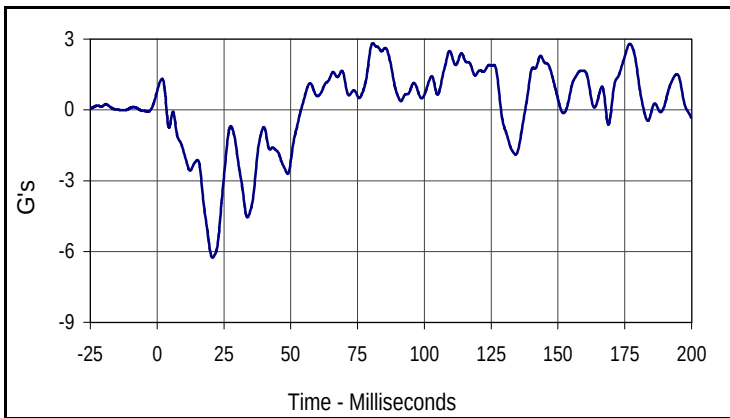
Curve Description			
MDB CG Z Velocity			
CURNO	Type	SAE Class	Units
073	IN1	180	KMH
Max	Time	Min	Time
2.6	120.7	-2.6	189.9

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

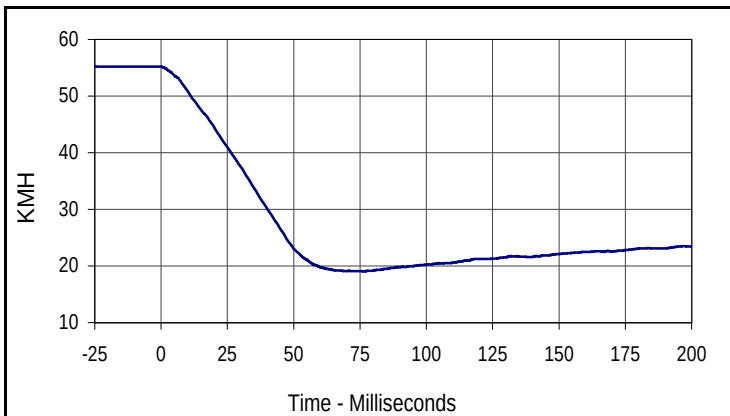
Test Date: 4/12/05
 NHTSA No.: G50104



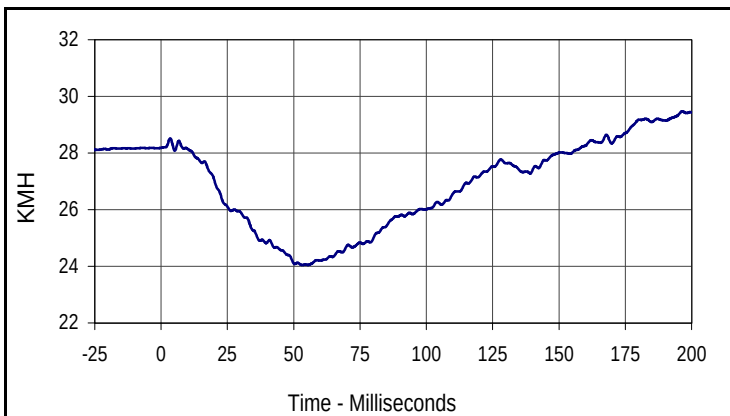
Curve Description			
MDB Rear X			
CURNO	Type	SAE Class	Units
074	FIL	60	G's
Max	Time	Min	Time
2.3	116.6	-21.6	33.9



Curve Description			
MDB Rear Y			
CURNO	Type	SAE Class	Units
075	FIL	60	G's
Max	Time	Min	Time
2.8	80.7	-6.3	20.7



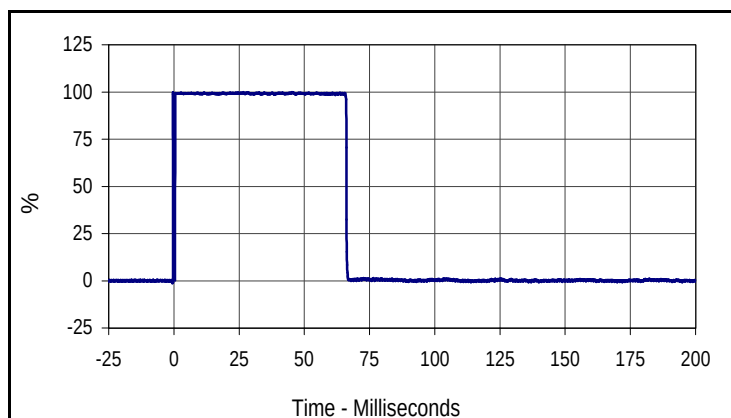
Curve Description			
MDB Rear X Velocity			
CURNO	Type	SAE Class	Units
074	IN1	180	KMH
Max	Time	Min	Time
55.2	0.0	19.0	76.5



Curve Description			
MDB Rear Y Velocity			
CURNO	Type	SAE Class	Units
075	IN1	180	KMH
Max	Time	Min	Time
29.5	196.5	24.0	53.2

Test Vehicle: 2005 Pontiac G6 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 4/12/05
 NHTSA No.: G50104



Curve Description			
MDB Right Bumper Contact			
CURNO	Type	SAE Class	Units
076	FIL	1000	%
Max	Time	Cross %	Time
99.9	26.6	50.0	0.5

APPENDIX C

SID/HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID / HIII External Measurements
ATD Serial No.: 274

Test Date: 4/10/05
Test I.D.: N/A



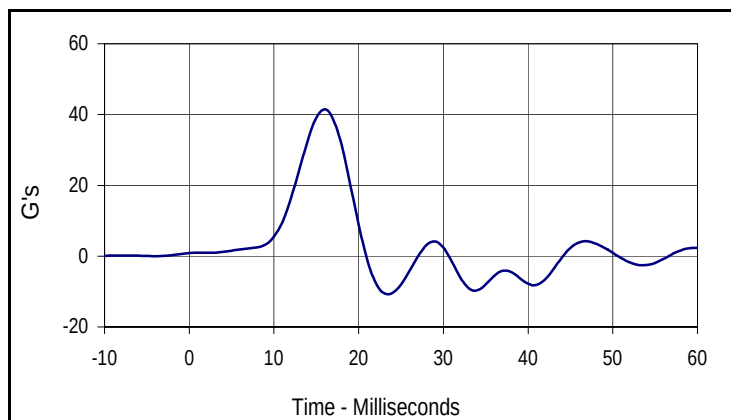
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	511	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	517	Pass
KV- Knee Pivot From Floor	mm	490 to 505	501	Pass
HW- Hip Width	mm	356 to 391	366	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 274

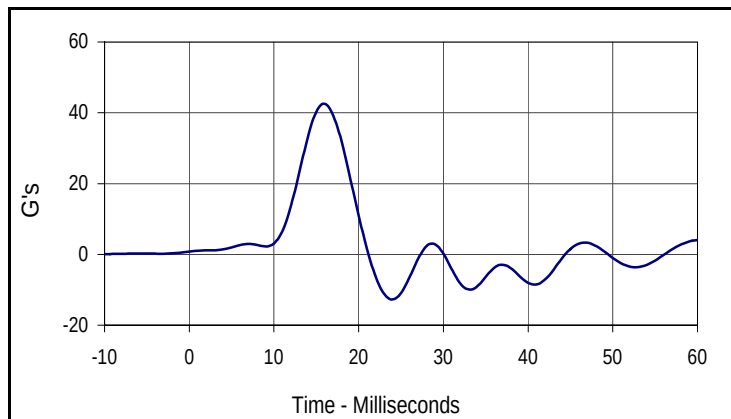
Test Date: 4/9/05
 Test I.D.: TH04A



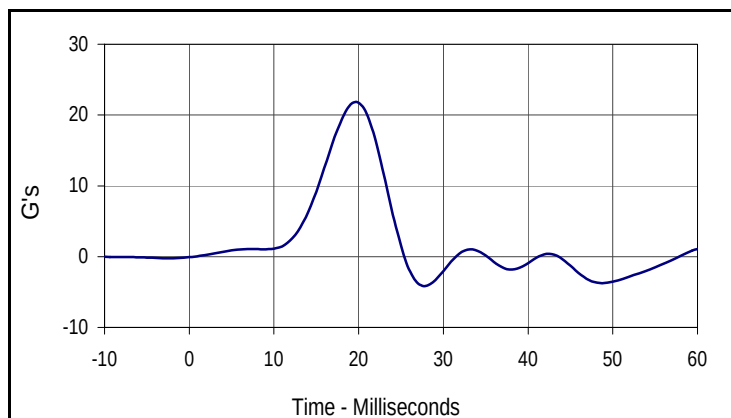
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	41.3	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	42.3	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	21.8	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
41.3	16.3	-10.6	23.8



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
42.3	15.6	-12.7	23.8



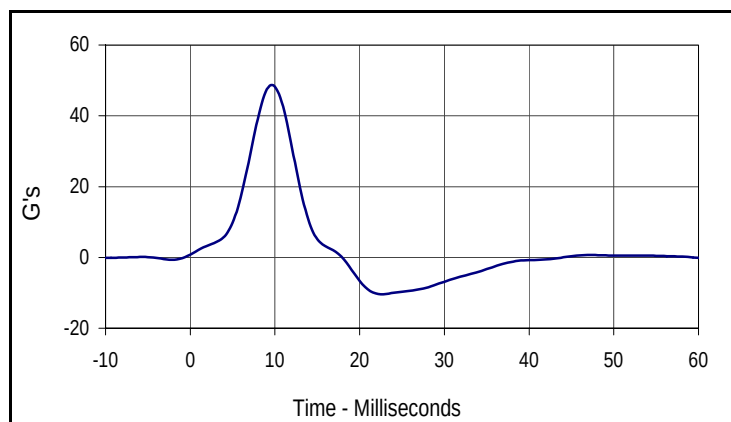
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
21.8	19.4	-4.1	27.5

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 274

Test Date: 4/9/05
 Test I.D.: PI04A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	48.5	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



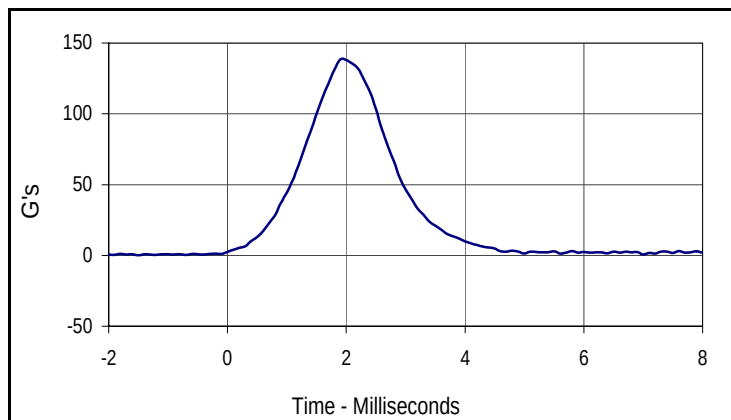
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
48.5	9.4	-10.4	22.5

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 274

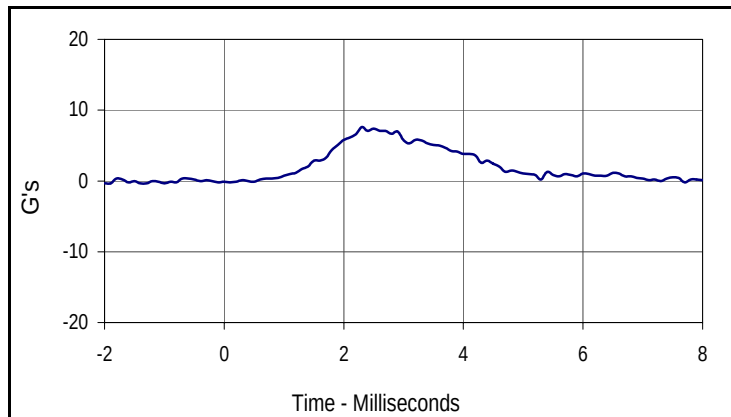
Test Date: 4/10/05
 Test I.D.: HD04A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	138.6	Pass
Peak Longitudinal Acceleration	G's	≤15.0	7.6	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.3	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
138.6	1.9	0.2	-1.5



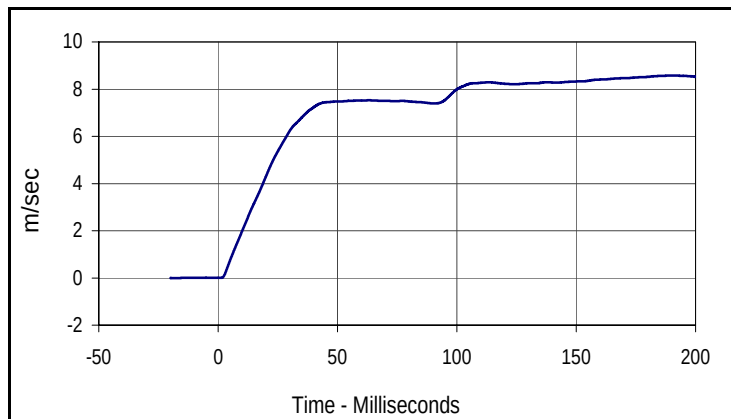
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
7.6	2.3	-0.3	-2.0

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 274

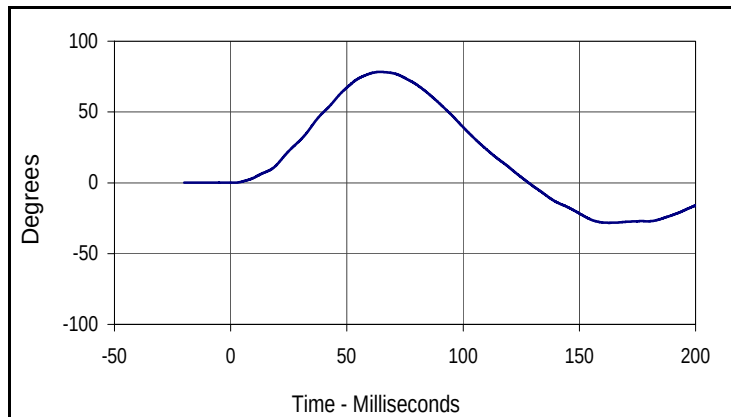
Test Date: 4/9/05
 Test I.D.: NB04A



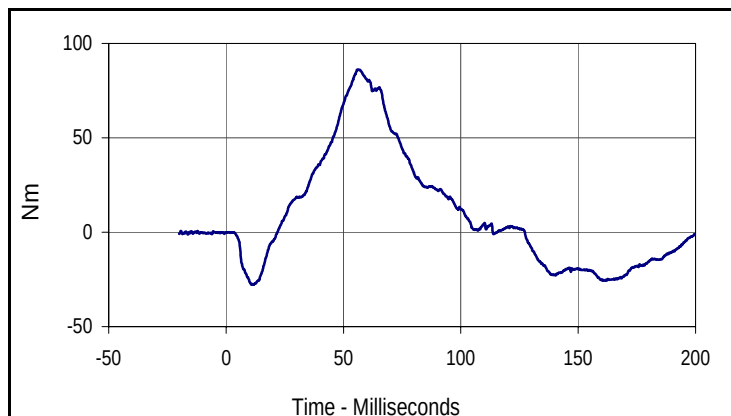
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	1.98	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.29	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.24	Pass
	40 to 70	m/sec	6.27 to 7.64	7.53	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	78.4	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	7.5	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	64.1	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	86.1	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	57.1	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.6	189.7	0.0	-16.6



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
78.4	64.1	-28.3	162.8



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
86.1	56.6	-27.8	11.6

Test Program: SID / HIII External Measurements
 ATD Serial No.: 275

Test Date: 4/10/05
 Test I.D.: N/A



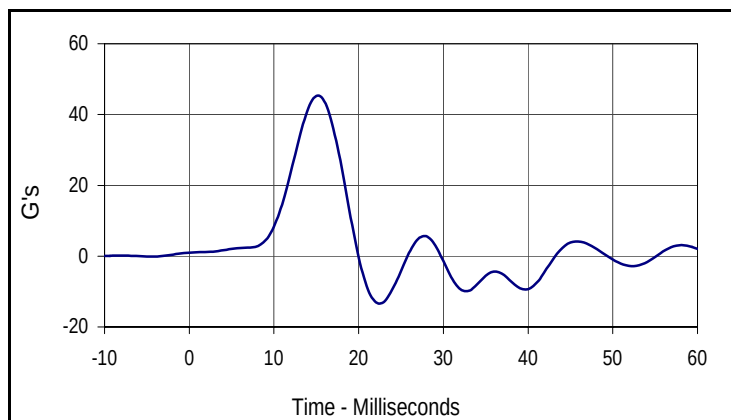
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	905	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	521	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	385	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 275

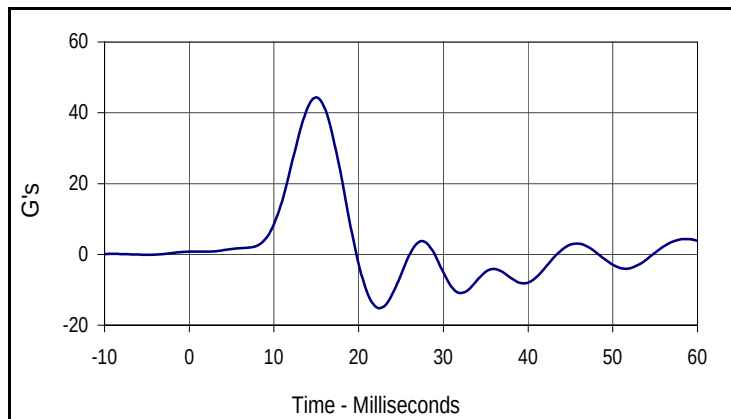
Test Date: 4/9/05
 Test I.D.: TH04B



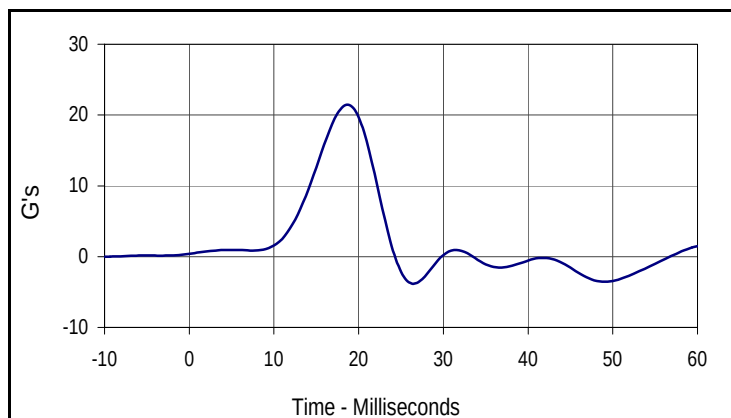
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.28	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	45.2	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	44.3	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	21.5	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
45.2	15.0	-13.4	22.5



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
44.3	15.0	-15.2	22.5



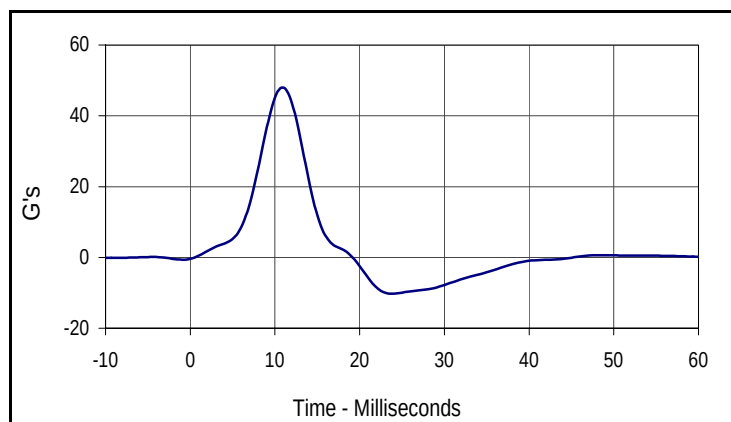
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
21.5	18.8	-3.8	26.3

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 275

Test Date: 4/9/05
 Test I.D.: PI04B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	47.8	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



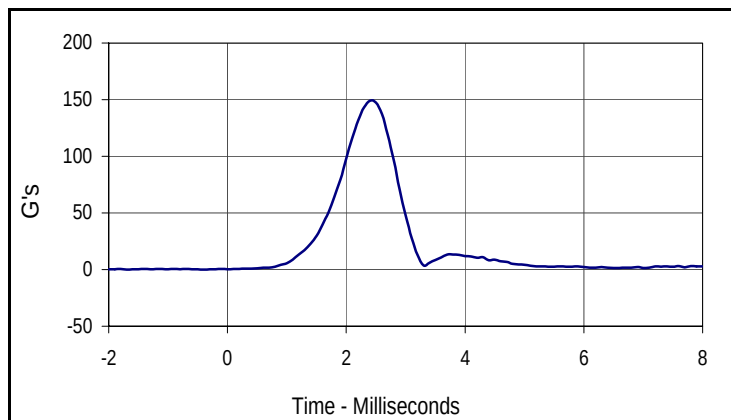
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
47.8	10.6	-10.2	23.8

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 275

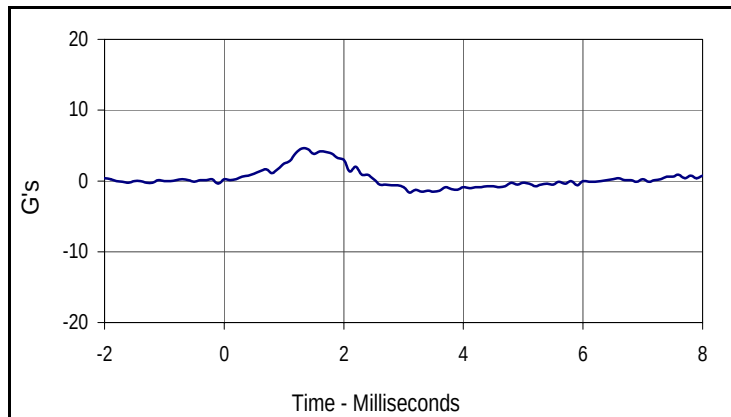
Test Date: 4/10/05
 Test I.D.: HD04B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	149.2	Pass
Peak Longitudinal Acceleration	G's	≤15.0	4.6	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.9	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
149.2	2.4	0.1	-1.7



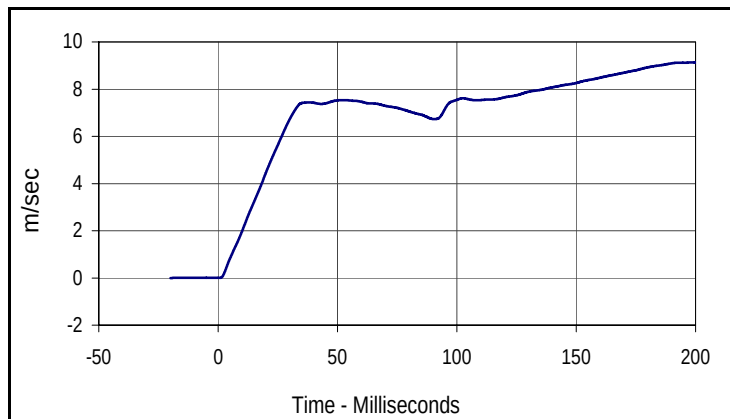
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
4.6	1.3	-1.6	3.1

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 275

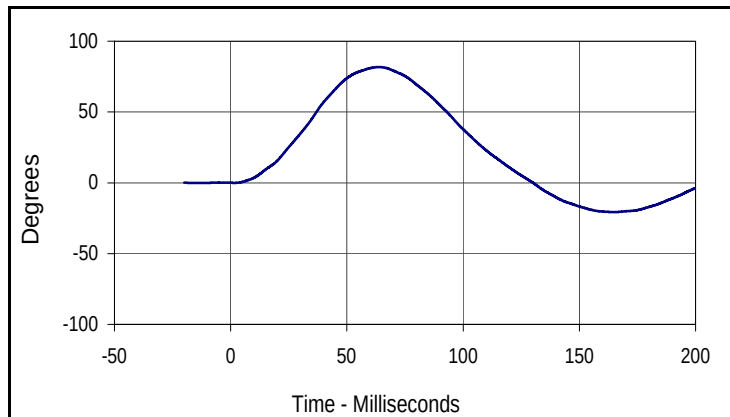
Test Date: 4/9/05
 Test I.D.: NB04B



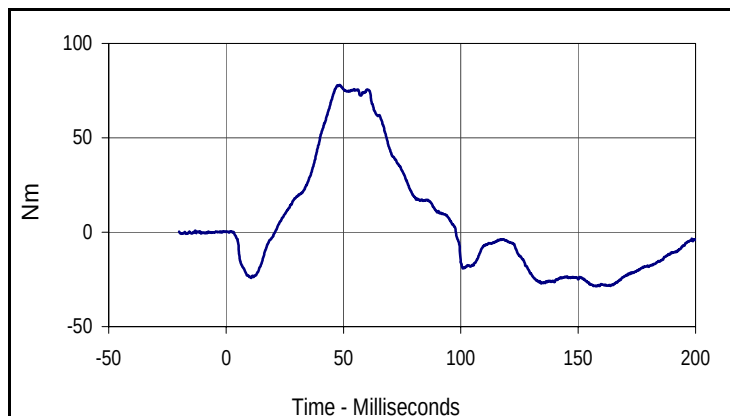
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	1.98	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.46	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.73	Pass
	40 to 70	m/sec	6.27 to 7.64	7.54	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	81.7	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	15.3	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	66.4	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	78.0	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	49.5	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.1	198.8	0.0	-19.6



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
81.7	63.7	-20.7	164.9



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
78.0	48.4	-28.7	157.6

APPENDIX C
POST-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID / HIII External Measurements
 ATD Serial No.: 274

Test Date: 4/12/05
 Test I.D.: N/A



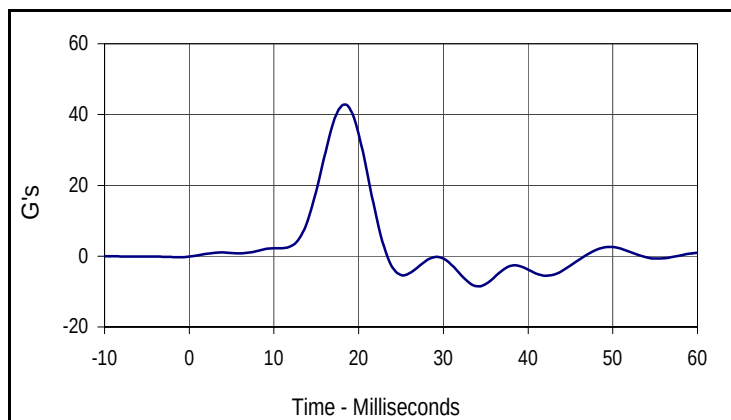
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	516	Pass
KV- Knee Pivot From Floor	mm	490 to 505	501	Pass
HW- Hip Width	mm	356 to 391	384	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 274

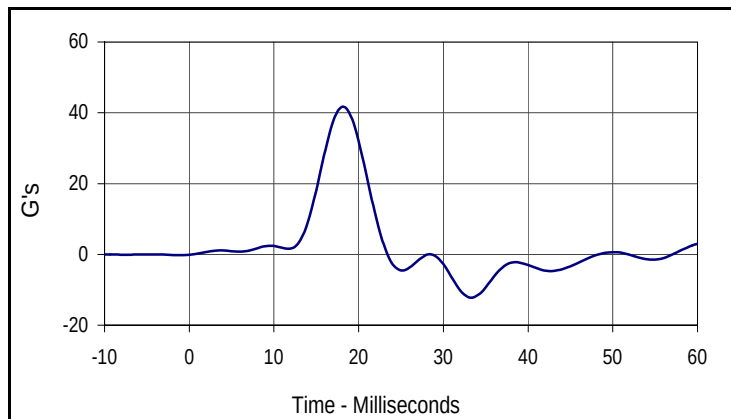
Test Date: 4/12/05
 Test I.D.: TH04C



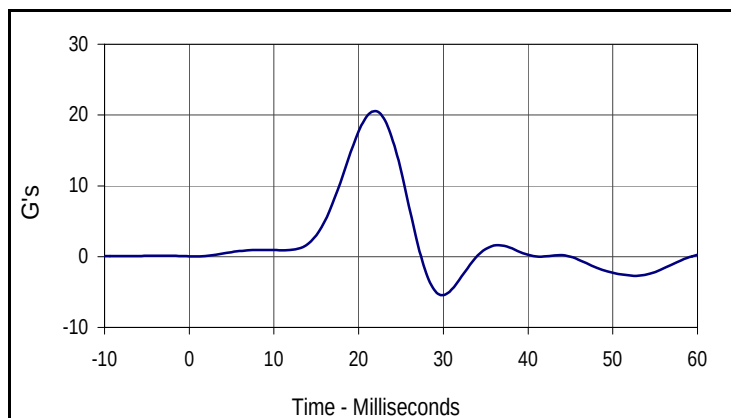
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.25	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.8	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	41.7	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.6	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
42.8	18.1	-8.5	34.4



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
41.7	18.1	-12.2	33.1



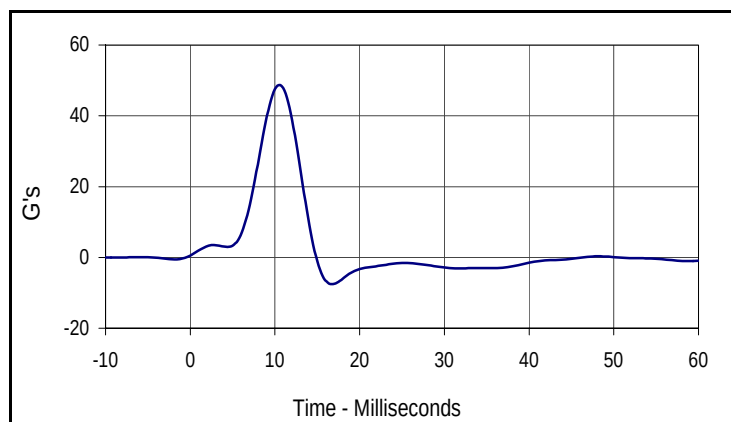
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.6	21.9	-5.4	30.0

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 274

Test Date: 4/12/05
 Test I.D.: PI04C



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	48.7	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



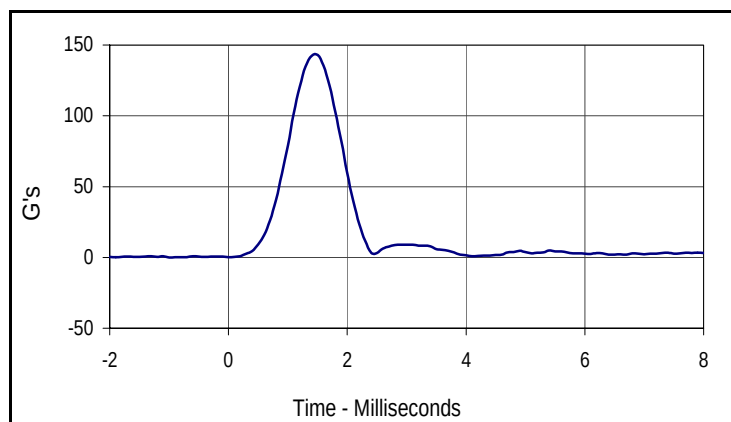
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
48.7	10.6	-7.5	16.9

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 274

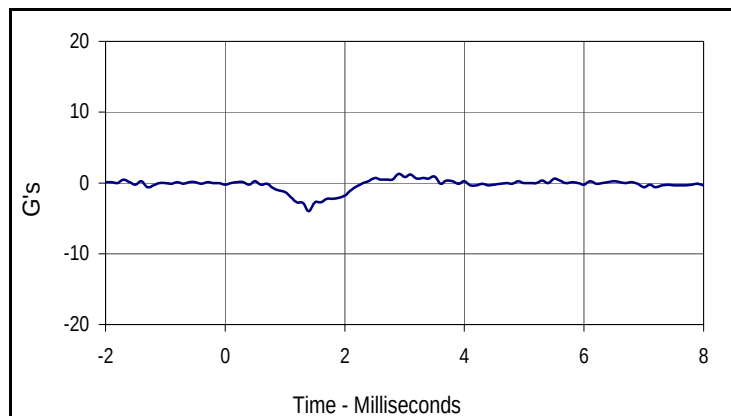
Test Date: 4/12/05
 Test I.D.: HD04C



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	143.0	Pass
Peak Longitudinal Acceleration	G's	≤15.0	4.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	3.5	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
143.0	1.5	0.0	-1.0



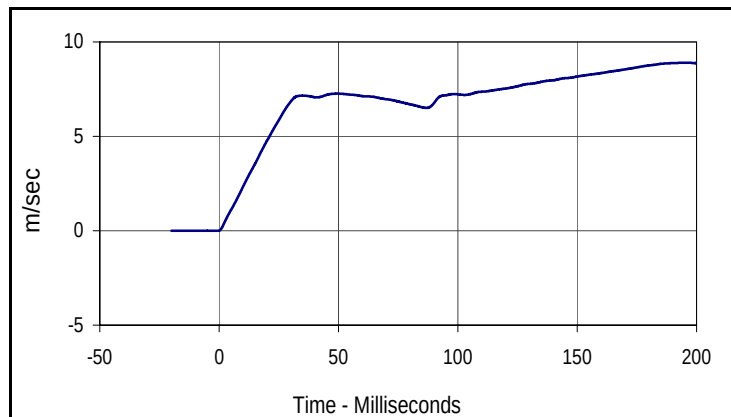
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
1.3	2.9	-4.0	1.4

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 274

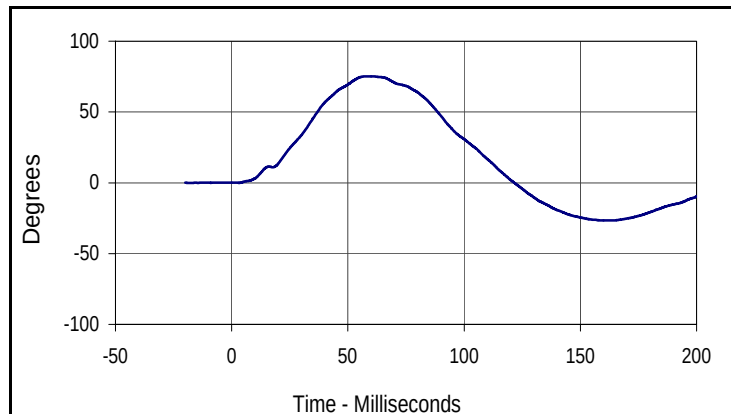
Test Date: 4/12/05
 Test I.D.: NB04C



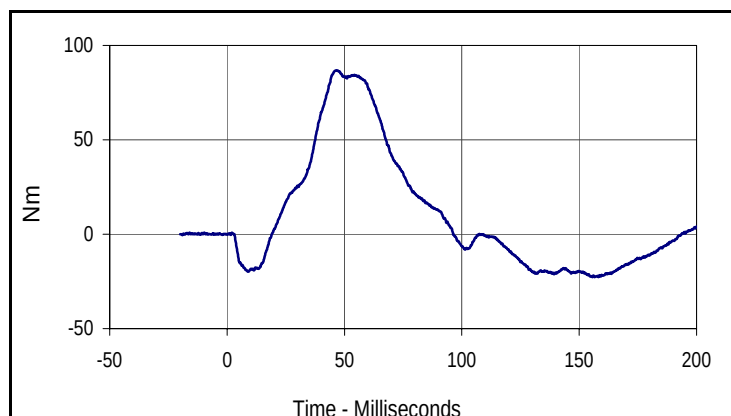
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	6.99	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.33	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.75	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.85	Pass
	40 to 70	m/sec	6.27 to 7.64	7.26	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	75.2	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	13.6	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	61.0	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	86.9	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	49.4	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.9	194.7	0.0	-0.6



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	180	Degrees
Max	Time	Min	Time
75.2	60.6	-26.6	159.0



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
86.9	47.0	-22.7	155.6

Test Program: SID / HIII External Measurements
 ATD Serial No.: 274

Test Date: 4/12/05
 Test I.D.: N/A



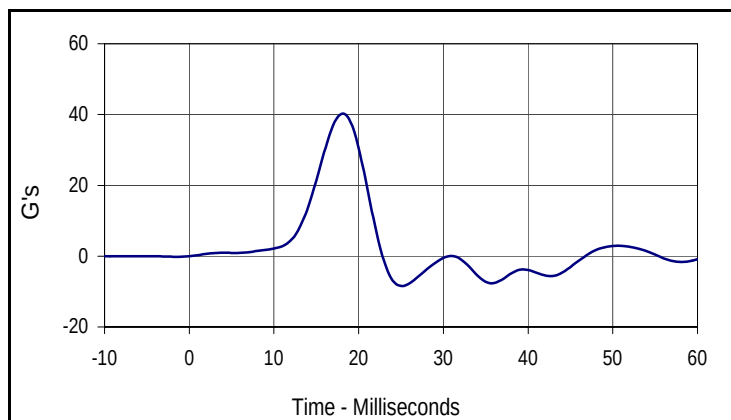
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	902	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	502	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 275

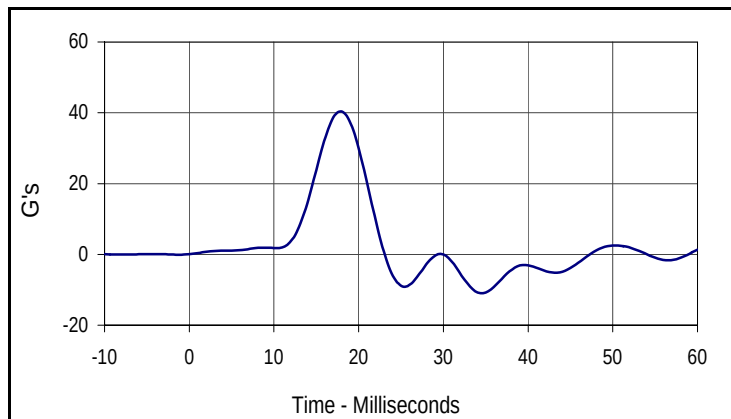
Test Date: 4/12/05
 Test I.D.: TH04D



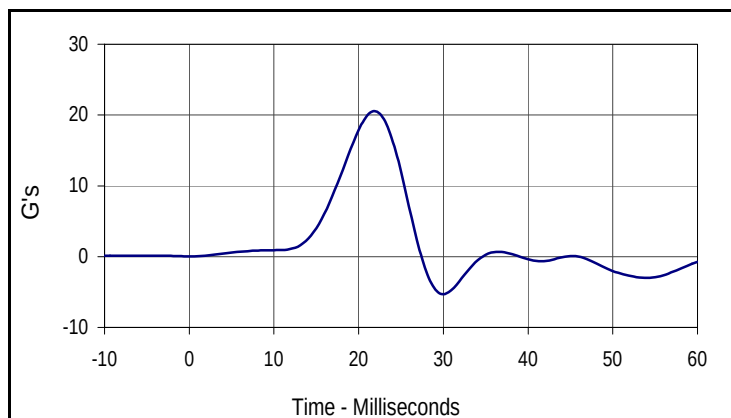
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	40.3	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	40.2	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.5	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
40.3	18.1	-8.5	25.0



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
40.2	18.1	-11.0	34.4



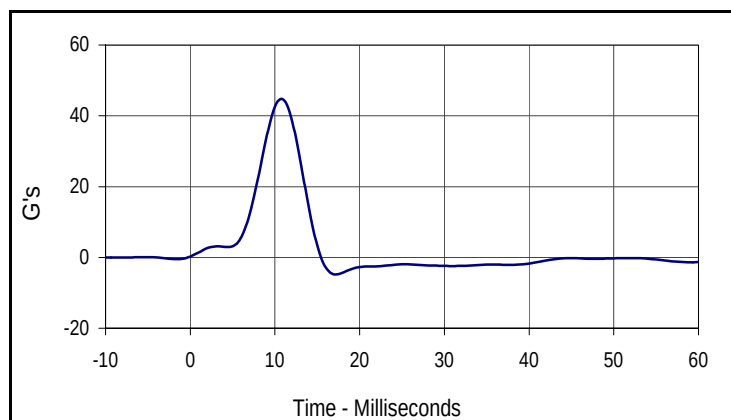
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.5	21.9	-5.3	30.0

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 275

Test Date: 4/12/05
 Test I.D.: PI04D



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	44.7	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	5.63	Pass
Overall Test Results				Pass



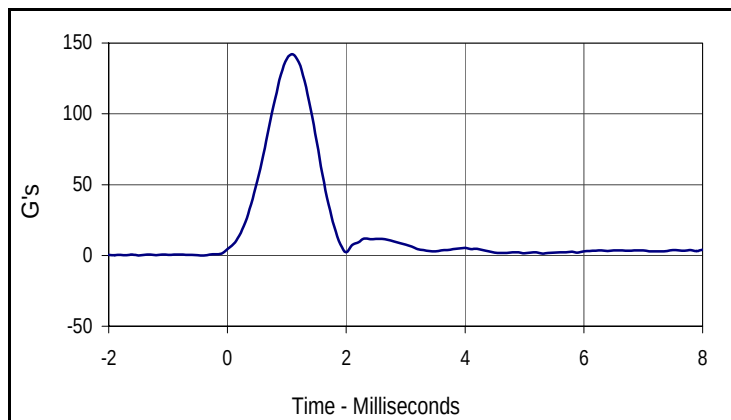
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
44.7	10.6	-4.7	17.5

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 275

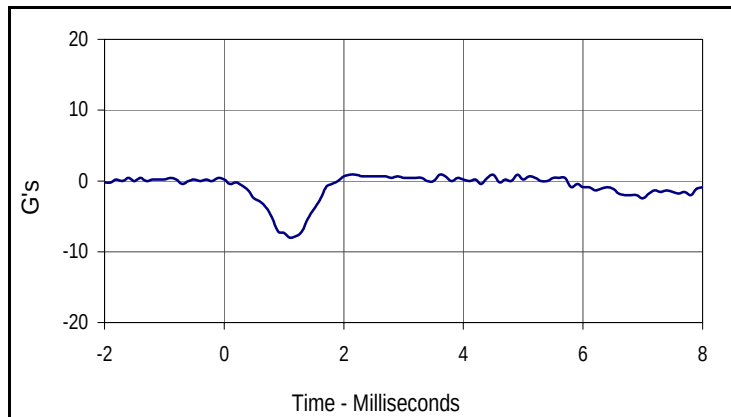
Test Date: 4/12/05
 Test I.D.: HD04D



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	142.1	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.5	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
142.1	1.1	0.0	-1.5



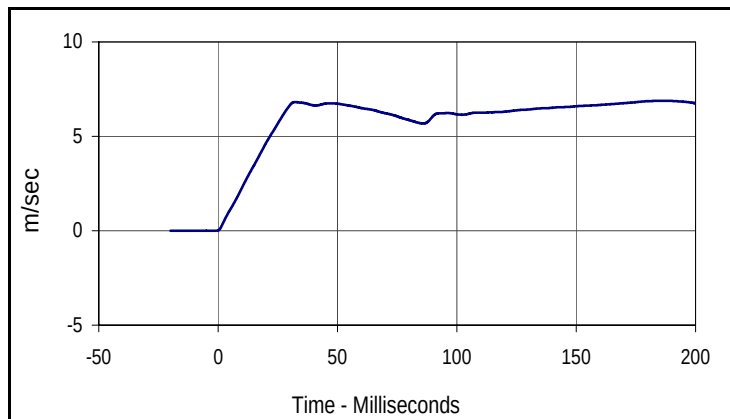
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.9	2.1	-8.0	1.1

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 275

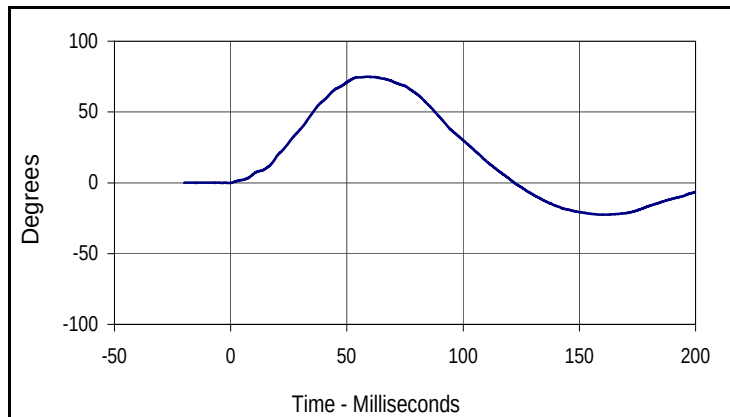
Test Date: 4/12/05
 Test I.D.: NB04D



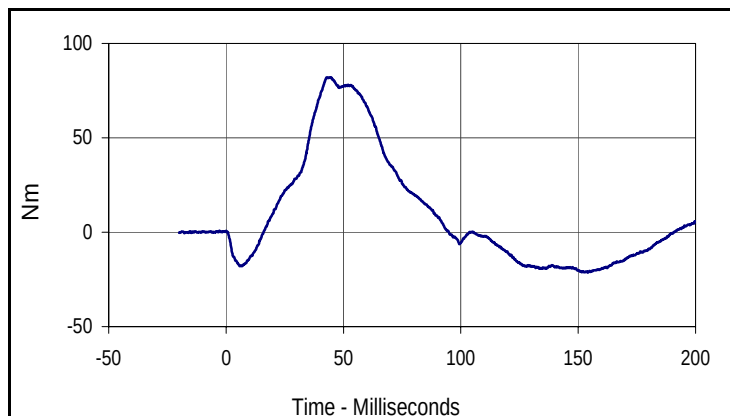
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	6.99	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.28	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.63	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.65	Pass
	40 to 70	m/sec	6.27 to 7.64	6.75	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	74.9	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	15.7	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	63.4	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	82.1	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	51.9	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
6.9	186.8	0.0	-0.7



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	180	Degrees
Max	Time	Min	Time
74.9	58.7	-22.5	159.4



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
82.1	43.0	-21.3	154.2

APPENDIX D

INSTRUMENTATION DATA CHANNEL ASSIGNMENTS

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver SID/HIII Serial Number 274
4/12/05
2005 Pontiac G6 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	Head CG	X	GPAC066X	Accel., Full Bridge	Entran	2000JF	G
2	Head CG	Y	GPAC067Y	Accel., Full Bridge	Entran	2000JF	G
3	Head CG	Z	GPAC068Z	Accel., Full Bridge	Entran	2000JF	G
4	Head CG, Redundant	X	GPAC069X	Accel., Full Bridge	Entran	2000JF	G
5	Head CG, Redundant	Y	GPAC070Y	Accel., Full Bridge	Entran	2000JF	G
6	Head CG, Redundant	Z	GPAC071Z	Accel., Full Bridge	Entran	2000JF	G
7	Neck Force	X	274_NFX	Load cell, six axis neck	R. A. Denton	1716A	N
8	Neck Force	Y	274_NFY	Load cell, six axis neck	R. A. Denton	1716A	N
9	Neck Force	Z	274_NFZ	Load cell, six axis neck	R. A. Denton	1716A	N
10	Neck Moment	X	274_NMX	Load cell, six axis neck	R. A. Denton	1716A	Nm
11	Neck Moment	Y	274_NMY	Load cell, six axis neck	R. A. Denton	1716A	Nm
12	Neck Moment	Z	274_NMZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
13	Upper Rib Primary	Y	KEAC070X	Accel.,1/2 bridge	Endevco	7264-2000X	G
14	Lower Rib, Primary	Y	KEAC071Y	Accel.,1/2 bridge	Endevco	7264-2000Y	G
15	Lower Spine, Primary	Y	KEAC072Z	Accel.,1/2 bridge	Endevco	7264-2000Z	G
16	Pelvis, Primary	Y	GPAC065X	Accel.,Full bridge	Endevco	7264A-2000	G
17	Upper Rib Redundant	Y	KEAC076X	Accel.,1/2 bridge	Endevco	7264-2000X	G
18	Lower Rib, Redundant	Y	KEAC077Y	Accel.,1/2 bridge	Endevco	7264-2000Y	G
19	Lower Spine, Redundant	Y	KEAC078Z	Accel.,1/2 bridge	Endevco	7264-2000Z	G
20	Pelvis, Redundant	Y	KEAC089X	Accel.,1/2 bridge	Endevco	7264-2000X	G
21	Thorax Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
22	Pelvis Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Passenger SID/HII Serial Number 275
4/12/05
2005 Pontiac G6 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
23	Head CG	X	GPAC072X	Accel., Full Bridge	Entran	2000JF	G
24	Head CG	Y	GPAC073Y	Accel., Full Bridge	Entran	2000JF	G
25	Head CG	Z	GPAC074Z	Accel., Full Bridge	Entran	2000JF	G
26	Head CG, Redundant	X	GPAC075X	Accel., Full Bridge	Entran	2000JF	G
27	Head CG, Redundant	Y	GPAC077Y	Accel., Full Bridge	Entran	2000JF	G
28	Head CG, Redundant	Z	GPAC078Z	Accel., Full Bridge	Entran	2000JF	G
29	Neck Force	X	275_NFX	Load cell, six axis neck	R. A. Denton	1716A	N
30	Neck Force	Y	275_NFY	Load cell, six axis neck	R. A. Denton	1716A	N
31	Neck Force	Z	275_NFZ	Load cell, six axis neck	R. A. Denton	1716A	N
32	Neck Moment	X	275_NMX	Load cell, six axis neck	R. A. Denton	1716A	Nm
33	Neck Moment	Y	275_NMY	Load cell, six axis neck	R. A. Denton	1716A	Nm
34	Neck Moment	Z	275_NMZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
35	Upper Rib Primary	Y	KEAC066X	Accel.,1/2 bridge	Endevco	7264-2000X	G
36	Lower Rib, Primary	Y	KEAC067Y	Accel.,1/2 bridge	Endevco	7264-2000Y	G
37	Lower Spine, Primary	Y	KEAC068Z	Accel.,1/2 bridge	Endevco	7264-2000Z	G
38	Pelvis, Primary	Y	KEAC079X	Accel.,1/2 bridge	Endevco	7264-2000X	G
39	Upper Rib Redundant	Y	KEAC073X	Accel.,1/2 bridge	Endevco	7264-2000X	G
40	Lower Rib, Redundant	Y	KEAC074Y	Accel.,1/2 bridge	Endevco	7264-2000Y	G
41	Lower Spine, Redundant	Y	KEAC075Z	Accel.,1/2 bridge	Endevco	7264-2000Z	G
42	Pelvis, Redundant	Y	KEAC081X	Accel.,1/2 bridge	Endevco	7264-2000X	G
43	Thorax Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
44	Pelvis Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers
4/12/05
2005 Pontiac G6 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
45	Right at Sill Front Seat	X	KETX1A	Accel., Triax	I.C. Sensor	3031-200	G
46	Right at Sill Front Seat	Y	KETX1B	Accel., Triax	I.C. Sensor	3031-200	G
47	Right at Sill Front Seat	Z	KETX1C	Accel., Triax	I.C. Sensor	3031-200	G
48	Right at Sill Rear Seat	X	KETX4A	Accel., Triax	I.C. Sensor	3031-500	G
49	Right at Sill Rear Seat	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-500	G
50	Right at Sill Rear Seat	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-500	G
51	Rear Floorpan Above Axle	X	KETX5A	Accel., Triax	I.C. Sensor	3031-500	G
52	Rear Floorpan Above Axle	Y	KETX5B	Accel., Triax	I.C. Sensor	3031-500	G
53	Rear Floorpan Above Axle	Z	KETX5C	Accel., Triax	I.C. Sensor	3031-500	G
54	Left Sill at Rear Door	Y	KEVA012	Accel., Vehicle block	I.C. Sensor	3031-500	G
55	Left Sill at Front Door	Y	KEVA010	Accel., Vehicle block	I.C. Sensor	3031-500	G
56	Left Front Door Centerline	Y	ICST004X	Accel., Triax	I.C. Sensor	3031-500	G
57	Rear Occupant Compartment	Y	KEVA013	Accel., Vehicle block	I.C. Sensor	3031-200	G
58	Left Front Door Mid-Rear	Y	ICST004Y	Accel., Triax	I.C. Sensor	3031-500	G
59	Left Front Door Upper Centerline	Y	ICST004Z	Accel., Triax	I.C. Sensor	3031-500	G
60	Rear Door Mid-Rear	Y	ICST005X	Accel., Triax	I.C. Sensor	3031-500	G
61	Rear Door Upper Centerline	Y	ICST005Y	Accel., Triax	I.C. Sensor	3031-500	G
62	B-Post Lower	Y	KEBX2A	Accel., Biax	I.C. Sensor	3031-500	G
63	B-Post Middle	Y	KEBX2B	Accel., Biax	I.C. Sensor	3031-500	G
64	A-Post Lower	Y	KEBX1A	Accel., Biax	I.C. Sensor	3031-500	G
65	A-Post Middle	Y	KEBX1B	Accel., Biax	I.C. Sensor	3031-500	G
66	Front Seat Track	Y	KEIC008Y	Single	I.C. Sensor	3031-500	G
67	Rear Seat Structure	Y	N/A	N/A	N/A	N/A	N/A
68	Vehicle CG	X	KETX4A	Accel., Triax	I.C. Sensor	3031-200	G
69	Vehicle CG	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-200	G
70	Vehicle CG	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-200	G

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Moving Deformable Barrier
4/12/05
2005 Pontiac G6 4-Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
71	MDB CG	X	MDASX	Accel., Triax	I.C. Sensor	3031-500	G
72	MDB CG	Y	MDASY	Accel., Triax	I.C. Sensor	3031-500	G
73	MDB CG	Z	MDASZ	Accel., Triax	I.C. Sensor	3031-500	G
74	MDB Rear Centerline	X	SLDBX	Accel., Triax	I.C. Sensor	3031-50	G
75	MDB Rear Centerline	Y	SLDBY	Accel., Triax	I.C. Sensor	3031-50	G
76	Right Bumper Contact	N/A	T0	Contact Switch	Tapeswitch	40 oz. Grey	%