

REPORT NUMBER TR-P26087-01-NC

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**GENERAL MOTORS CORPORATION
2006 CHEVROLET MONTE CARLO LS
2-DOOR COUPE**

NHTSA NUMBER: G60106

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MAY 16, 2006

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 2006 Chevrolet Monte Carlo LS 2-Door Coupe 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 laboratories in Adelanto, California, on May 16, 2006. The impact velocity of the Moving Deformable Barrier was 62.09 km/h, and the outside ambient temperature at the struck (driver's) side of the vehicle was 37.0 deg. C. The target vehicle's maximum post-test static crush was 426 mm located at level 3. The test vehicle's occupant performance data is as follows:																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <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;">80.0</td> <td style="text-align: center;">50.9</td> <td rowspan="5"></td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">74.3</td> <td style="text-align: center;">58.7</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">83.5</td> <td style="text-align: center;">67.6</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">82.0</td> <td style="text-align: center;">63.0</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">108.7</td> <td style="text-align: center;">73.8</td> </tr> </tbody> </table>				Measurement Description	Driver SID/HIII	Pass. SID/HIII		Left Upper Rib (LUR) G's	80.0	50.9		Left Lower Rib (LLR) G's	74.3	58.7	Lower Spine (T ₁₂) G's	83.5	67.6	Thoracic Trauma Index (TTI) G's	82.0	63.0	Pelvis (PEV) G's	108.7	73.8
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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' 2006 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 2006 Chevrolet Monte Carlo LS 2-Door Coupe 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 TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2006 Chevrolet Monte Carlo LS 2-Door Coupe was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.09 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 1781 kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on May 16, 2006.

Two (2) real-time cameras and eleven (11) high-speed video 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	Yes	Yes	No	
Curtain Airbag	No		No	

SECTION 2...(CONTINUED)

The test vehicle was instrumented with twenty-one (21) 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 during impact. The test vehicle sustained a maximum static crush of 426 mm at level 3, 1500 mm rearward of the left vertical impact point. The driver SID/Hybrid III, Serial No. 274 and the passenger SID/Hybrid III, Serial No. 271 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	82.0	63.0
Peak Pelvic G's (PEV)	G's	108.7	73.8

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 traces. Appendix C contains the SID Configuration and performance verification data.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION SHEETS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

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	$=(t_f - 32)/1.8$
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: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	G60106
Make	Chevrolet
Model	Monte Carlo LS
Body Style	2-Door Coupe
Vin No.	2G1WJ16KX69317569
Color	Silver
Delivery Date	4/27/2006
Odometer (Miles)	123
Dealer	Crest
Transmission	4-Speed Automatic
Final Drive	Front
Type/No. Cyl.	V6
Engine Disp. (L)	3.5
Engine Placement	Transverse
Roof Rack	No
Sunroof/T-Top	No
Tinted Glass	No
Traction Control	No
Power Brakes	Yes
Front Disc	Yes
Rear Disc	Yes

Anti-Lock Brakes	Yes
All Wheel Drive	No
Power Steering	Yes
Driver Front Airbag	Yes
Driver Side Torso Airbag	Yes
Driver Side Head Airbag	Yes
Driver Curtain/Airbag	No
Rear Pass. Airbag	No
Rear Pass. Side Airbag	No
Rear Pass. Head Airbag	No
Rear Pass. Curtain/Airbag	No
Pre-Tensioners	Yes
Load Limiters	Yes
Bucket Seats	Yes
Air Cond.	Yes
AM/FM Cassette	Yes
Tilt Steering	Yes
Automatic Door Locks	No
Power Windows	Yes
Power Seats	Yes
Other	None

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

No

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors Corporation
Date of Manufacture	Feb-06

GVWR (kg)	1978
GAWR Front (kg)	1090
GAWR Rear (kg)	888

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	None	
Number of Occupants	2	3		5
Capacity Weight (VCW) (kg)				416
Cargo Weight (RCLW) (kg)				76

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

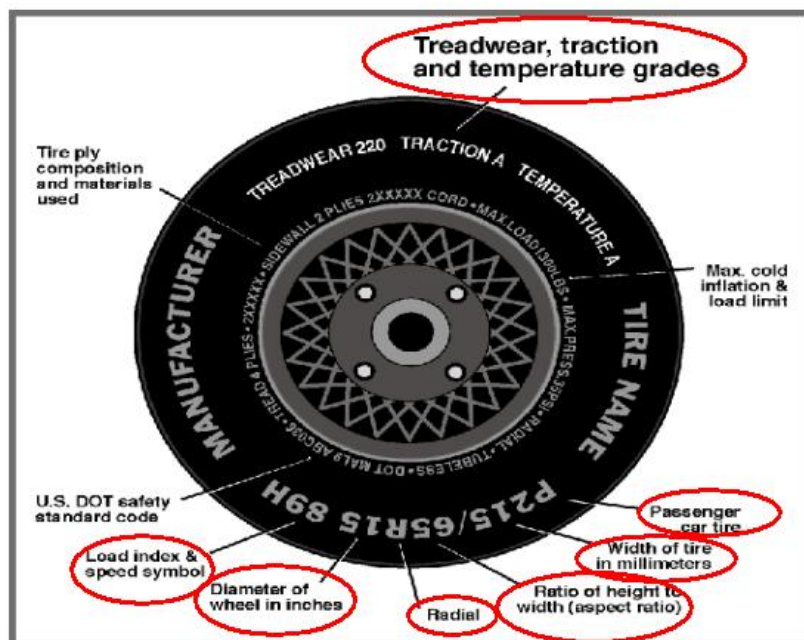
Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

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)	300	300
Cold Pressure (kpa)	210	210
Recommended Tire Size	P225/60R16	P225/60R16
Tire Size on Vehicle	P225/60R16	P225/60R16
Tire Manufacturer	Goodyear	Goodyear
Treadwear	400	400
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	97S	97S
Tire Material	Polyester + Steel	Polyester + Steel
DOT Safety Code Right	M6X0 E6DR	M6X0 E6DR
DOT Safety Code Left	M6X0 E6DR	M6X0 E6DR

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	479	279		539	354	
Right	kg	502	288		531	357	
Ratio	%	63.3	36.7		60.1	39.9	
Totals	kg	981	567	1548	1070	711	1781

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1548
Weight of 2 P572 ATD's	kg	162
Rated Cargo/Luggage Wt. (RCLW)	kg	76
Calculated Vehicle Target Wt. (TVTW)	kg	1786

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	755	748	755	751	1031
As Tested	mm	737	744	709	717	1121
Fully Loaded	mm	734	738	715	722	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2810
Total Vehicle Length at Left Side	mm	3315
Total Vehicle Length at Centerline	mm	4985
Total Vehicle Length at Right Side	mm	3315
Weight of Ballast In Cargo Area	kg	27
Amount of Stoddard Solvent in Fuel Tank	liters	59.85

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2810
Target Impact Point Aft of Front Axle	mm	465
Actual Impact Point Aft of Front Axle	mm	567

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe
 Test Program: 55/28 km/h Side Impact NCAP

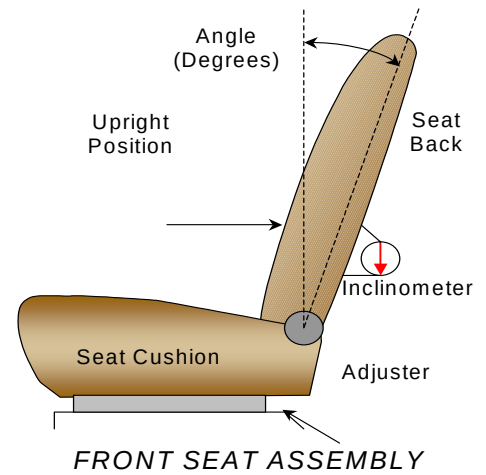
NHTSA No.: G60106
 Test Date: 5/16/06

SEAT BACK ANGLES

	Deg.
Driver Seat Back Angle	24.0
Rear Seat Back Angle	

NOMINAL DESIGN RIDING POSITION

The driver and passenger seat backs are positioned to the manufacturer's designated angle. The procedure is as follows: Seat back angle was measured at the headrest using a digital inclinometer.

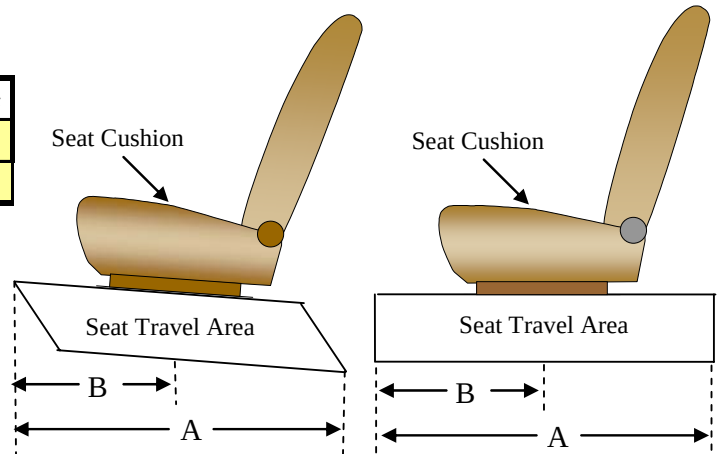


SEAT FORE/AFT POSITIONS

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

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position #
Driver Seat	240	120
Rear Seat	Fixed	Fixed



SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position

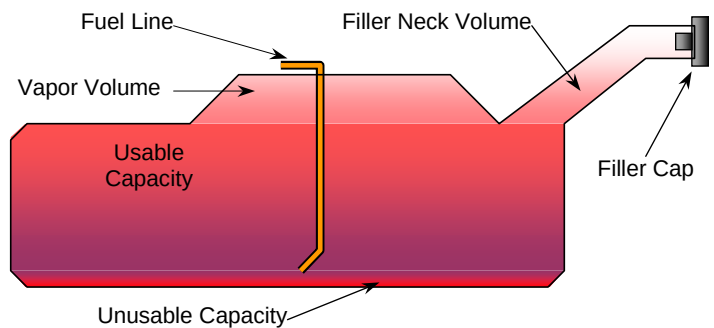
SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	Fixed	Fixed
Rear Seat	Fixed	Fixed

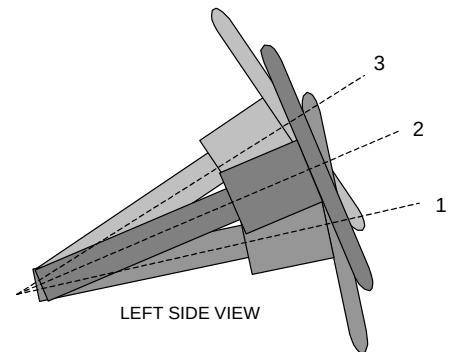
DATA SHEET NO. 1...(CONTINUED)**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door CoupeNHTSA No.: G60106Test Program: 55/28 km/h Side Impact NCAPTest Date: 5/16/06**FUEL TANK CAPACITY**

	Liters
Usable Capacity of "Standard Tank"	64.4
Usable Capacity of "Optional" Tank	
Usable Capacity used for FMVSS 301	59.2 to 60.48
Actual Amount of Solvent used	59.8

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 left 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	12.0	
Geometric center position No. 2	22.0	
Uppermost position No. 3	34.1	

DATA SHEET NO. 2**TEST VEHICLE SUMMARY OF RESULTS**Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door CoupeNHTSA No.: G60106Test Program: 55/28 km/h Side Impact NCAPTest Date: 5/16/06**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UWW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	479	279		539	354	
Right	kg	502	288		531	357	
Ratio	%	63.3	36.7		60.1	39.9	
Totals	kg	981	568	1548	1070	711	1781

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	91	190
Level 2	Occupant H-Point	mm	426	508
Level 3	Mid Door	mm	414	600
Level 4	Window Sill	mm	346	905
Level 5	Window top	mm	174	1340
N/A	Maximum Penetration	mm	426	

INSTRUMENTATION

Driver SID/Hybrid III Accelerometers	20
Passenger SID/Hybrid III Accelerometers	20
Vehicle Structure Accelerometers	21
MDB Accelerometers	5
Total No. of Contact Switches	5
Total	71

CAMERA COVERAGE

High Speed, Vehicle On-Board	3
High Speed, Off-Board	5
High Speed, MDB On-Board	3
Real Time, Panning	2
Total	13

DATA SHEET NO. 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door CoupeNHTSA No.: G60106Test Program: 55/28 km/h Side Impact NCAPTest Date: 5/16/06**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	62.09
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.05
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	635
B	Top of Bumper	533	800	Left	696
C	Mid Level	686	800	Left	704
D	Top of Stack	813	800	Left	754

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	1
High Speed Cameras	2

DATA SHEET NO. 4

POST-TEST OBSERVATIONS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/Hybrid III	Rear Seat SID/Hybrid III
Dummy Type / Serial No.	P572F, SID / No. 274	P572F, SID / No. 271
Head Contact	Side Airbag	Side Header
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 Door Opening	Door remained closed and latched, jammed	Door remained closed and latched, jammed
Right Side Door Opening	Remained closed and latched, operational	Remained closed and latched, operational
Seat Movement	None	None
Seat Back Failure	None	None

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No separation
Sill Separation	None
Windshield Damage	Windshield cracked
Window Damage	Front and rear passenger side and back windows broke
Other Notable Effects	None

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 Torso Airbag	Yes	Yes	No	
Head Airbag	Yes	Yes	No	
Curtain Airbag	No		No	
Seat Belt Pretensioner	Yes			
Seat Belt Load Limiter	Yes			

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	-2 (left)
Vertical Offset	mm	+/- 20	6 (above)

DATA SHEET NO. 5

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

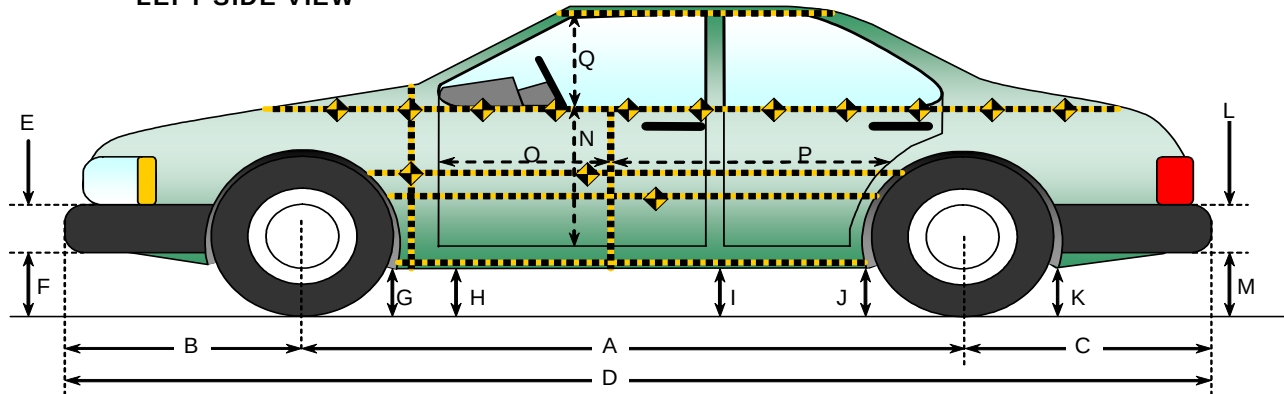
Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

LEFT SIDE VIEW



VEHICLE PRE AND POST TEST MEASUREMENT INFORMATION

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2810	2770	-40
B	Front Axle to FSOV	1090	1080	-10
C	Rear Axle to RSOV	1085	1105	20
D	Total Length at Centerline	4985	4995	10
E	Front Bumper Thickness	415	410	-5
F	Front Bumper Bottom to Ground	193	194	1
G	Sill Height at Front Wheel Well	191	192	1
H	Sill Height at Front Door Leading Edge	174	175	1
I	Sill Height at "B" Pillar	188	189	1
J1	Sill Height at Rear Wheel Well	172	173	1
J2	Pinch Weld Height at Rear Wheel Well	175	177	2
K	Sill Height aft of Rear Wheel Well	226	228	2
L	Rear Bumper Thickness	409	408	-1
M	Rear Bumper Bottom to Ground	276	275	-1
N	Sill Height to Window Bottom Sill	695	699	4
O	Front Door Leading Edge to Impact CL	950	990	40
P	Rear Door Trailing Edge to Impact CL			
Q	Front Window Opening	409	368	-41
R	Right Side Length	3315	3220	-95
S	Left Side Length	3315	3230	-85
T	Vehicle Width at "B" Post	1813	1470	-343

DATA SHEET NO. 6

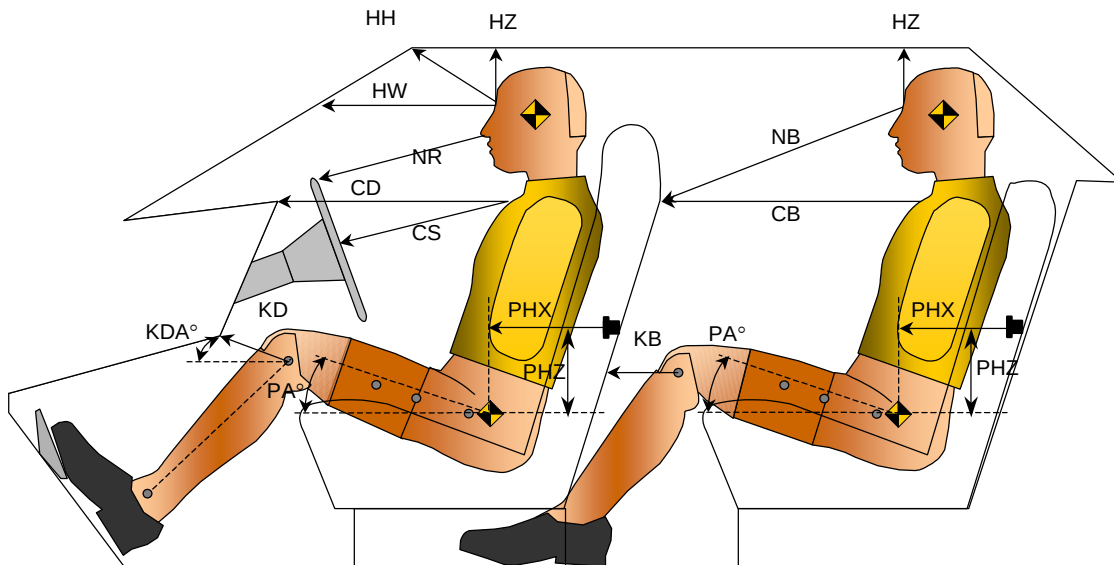
SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06



LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle	Length(mm)	Angle
HH		Head to Header	380	14.0		
HW		Head to Windshield	640			
HZ	HZ	Head to Roof	150	90.0	120	90.0
NR	NB	Nose to Rim/Nose to Seat Back	455	11.8	435	1.5
CD	CB	Chest to Dash or Seat Back	670	1.9	450	1.1
CS		Chest to Steering Wheel	300	3.5		
KDL	KBL	Left Knee to Dash or Seat Back	220	3.6	200	2.5
KDR	KBR	Right Knee to Dash or Seat Back	210		200	
PA	PA	Pelvic Angle		23.3		25.0
PHX	PHX	H-Point to Striker (X-Axis)	480		550	
PHZ	PHZ	H-Point to Striker (Z-Axis)	160		120	

DATA SHEET NO. 7

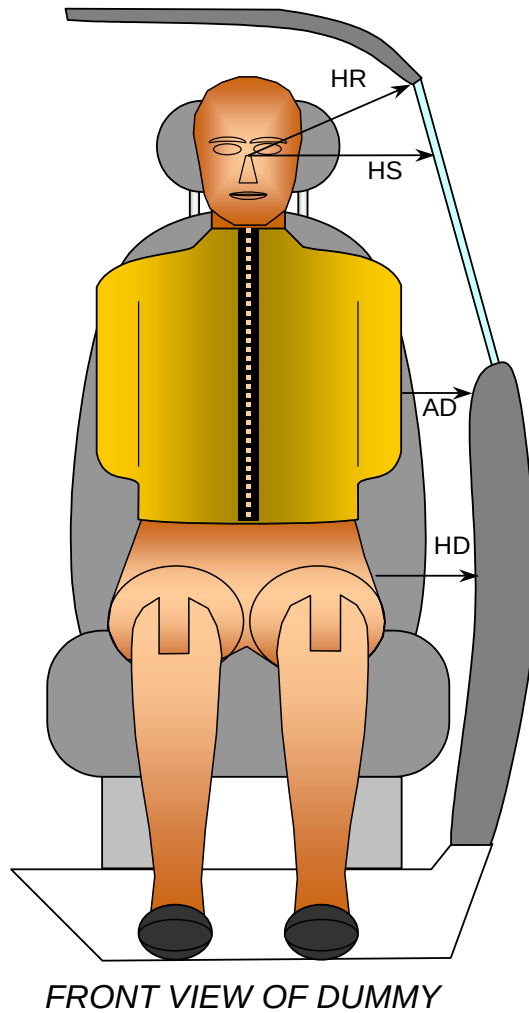
SID/IIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06



LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	250	180
HS	Head to Side Window	mm	340	310
AD	Arm to Door	mm	130	100
HD	H-Point to Door	mm	150	160

DATA SHEET NO. 8

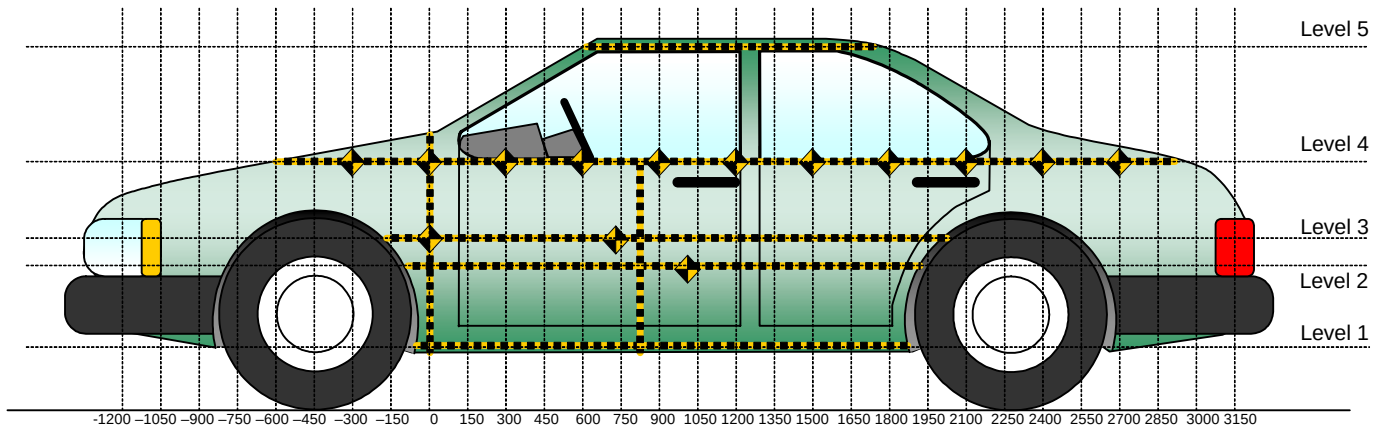
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06



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	190
2	Occupant H-Point	508
3	Mid Door	600
4	Window Sill	905
5	Window Top	1340

DATA SHEET NO. 9

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

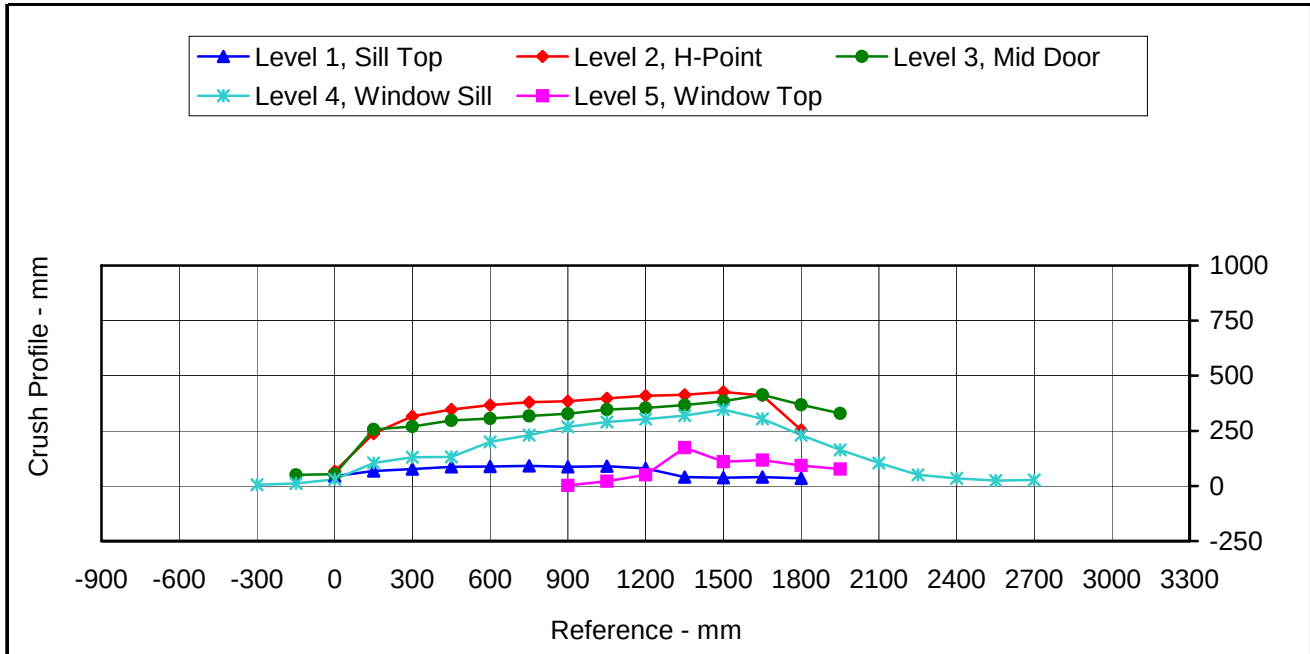
Test Date: 5/16/06

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600				701					702					1	
-450				691					691					0	
-300				672					677					5	
-150			581	671				631	683				50	12	
0	631	588	587	662		676	655	640	692		45	67	53	30	
150	633	595	590	661		701	833	846	765		68	238	256	104	
300	635	592	589	659		712	908	859	790		77	316	270	131	
450	633	593	589	659		720	939	887	791		87	346	298	132	
600	633	591	590	658		721	958	896	858		88	367	306	200	
750	633	591	589	657		724	971	907	887		91	380	318	230	
900	635	591	589	656	896	722	976	917	924	899	87	385	328	268	3
1050	632	591	586	652	896	722	989	932	942	917	90	398	346	290	21
1200	632	590	586	656	890	712	999	940	959	941	80	409	354	303	51
1350	631	587	584	657	891	672	1000	951	976	1065	41	413	367	319	174
1500	632	586	584	657	895	669	1012	968	1003	1005	37	426	384	346	110
1650	619	582	582	656	896	660	992	996	961	1013	41	410	414	305	117
1800	614	580	578	655	898	649	834	946	886	990	35	254	368	231	92
1950			571	655	897			900	819	973			329	164	76
2100				660					764					104	
2250				672					723					51	
2400				677					712					35	
2550				696					721					25	
2700				698					726					28	
2850				715					728					13	
3000				726					728					2	

DATA SHEET NO. 9...(CONTINUED)
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G60106
 Test Date: 5/16/06



	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	91	426	414	346	174
Distance from Impact	mm	750	1500	1650	1500	1350

DATA SHEET NO. 10

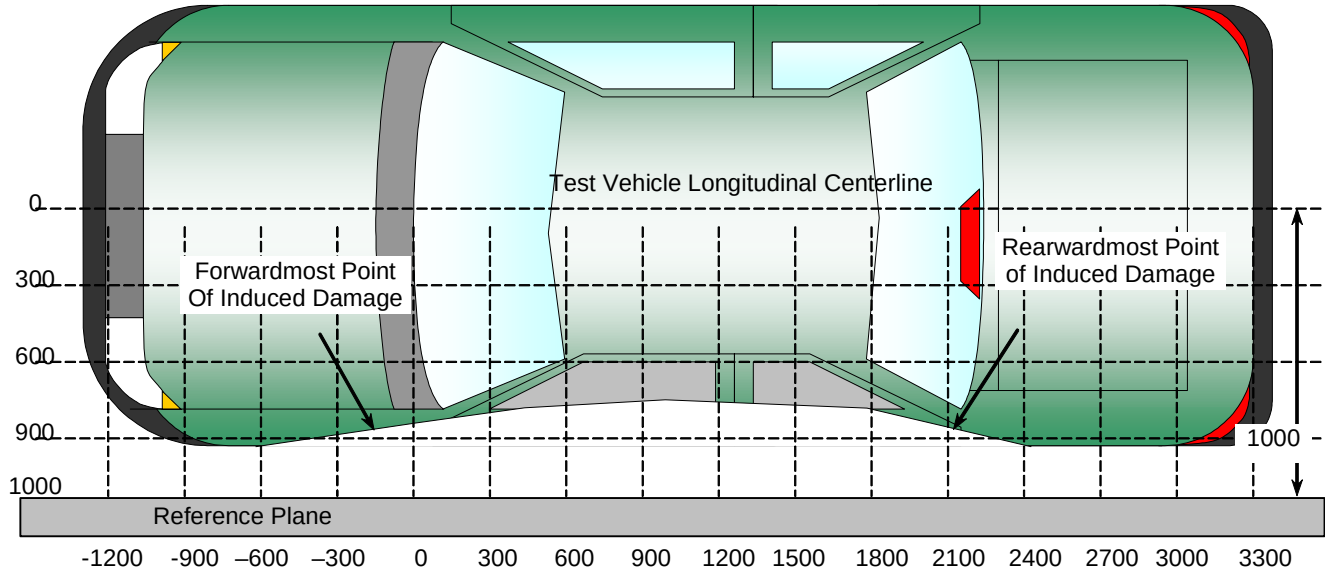
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06



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	-600	4	701	702	1
2	0	2	588	655	67
3	600	2	591	958	367
4	1200	2	590	999	409
5	1800	3	578	946	368
6	2400	4	677	712	35

DATA SHEET NO. 11

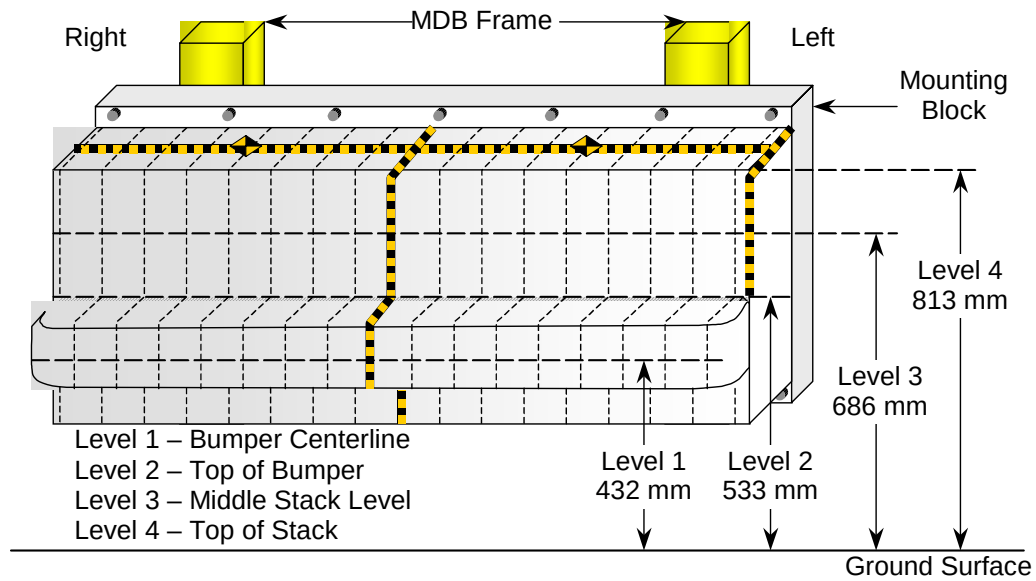
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06



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	635	619	599	593	590	589	589	591	593	590	583	576	573	575	581	595	603
2	696	676	662	656	655	655	655	654	652	653	653	654	654	655	659	660	673
3	704	664	646	636	632	630	630	627	629	626	626	626	627	634	640	661	702
4	754	712	672	643	634	630	627	623	620	615	613	612	616	613	610	626	691

All Dimensions in mm

DATA SHEET NO. 12

VEHICLE ACCELEROMETER LOCATIONS

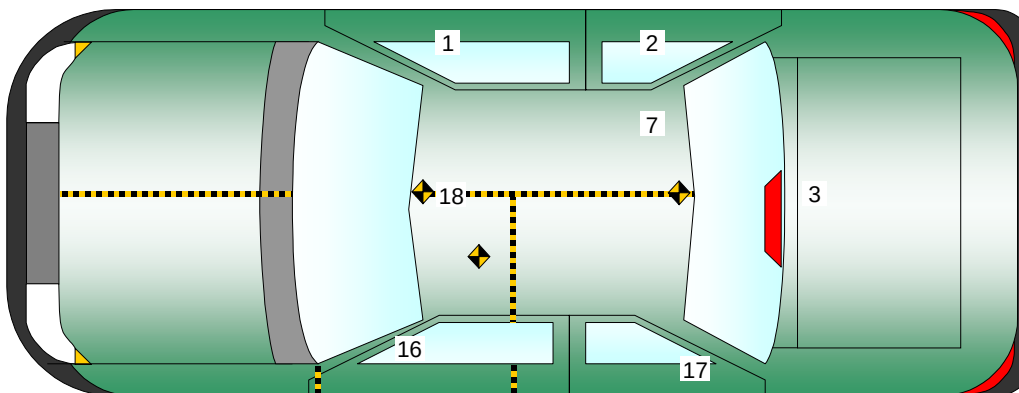
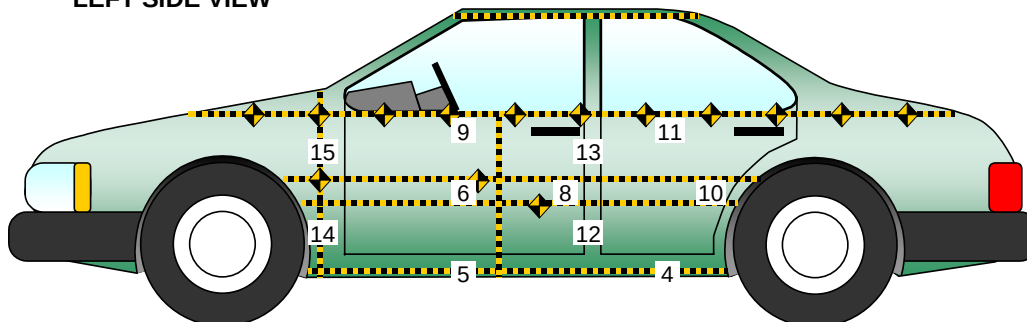
Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

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. 12...(CONTINUED)
VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2532	725	380
2	Right Sill at Rear Seat	1968	725	380
3	Rear Floorpan Above Axle	1085	0	545
4	Left Sill at Rear Door	1636	-730	173
5	Left Sill at Front Door	2475	-730	173
6	Front Door Centerline			
7	Rt. Rear Occ. Compartment	2148	422	234
8	Front Door Mid-Rear			
9	Front Door Upper Centerline			
10	Rear Door Mid-Rear			
11	Rear Door Upper Centerline			
12	B-Post Lower	1899	685	661
13	B-Post Middle	1899	685	820
14	A-Post Lower	3310	-750	540
15	A-Post Middle	3310	-750	745
16	Front Seat Track	2906	-545	380
17	Rear Seat Structure			
18	Vehicle CG	2700	200	234

Reference Planes: X=From Rear Surface of Vehicle, Y=Vehicle Centerline, Z=Ground Plane

1.) Not installed

DATA SHEET NO. 13
MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

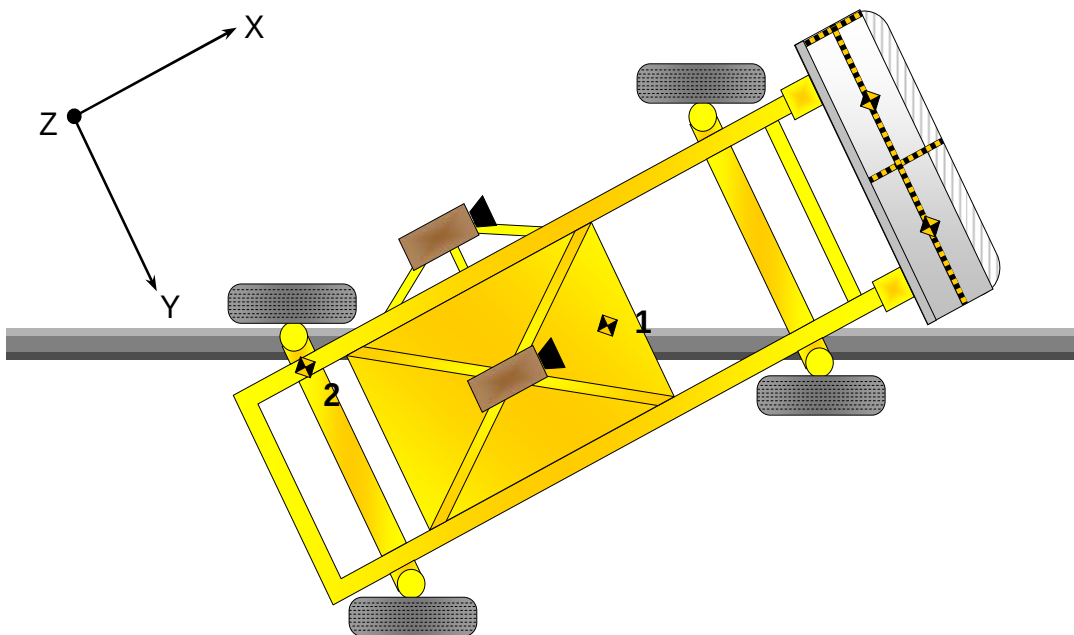
Test Program: 55/28 km/h Side Impact NCAP

Test Date: 5/16/06

MDB ACCELEROMETER LOCATIONS

Loc. No.	Accelerometer Locations	Measurements (mm)		
		X	Y	Z
1	MDB CG	-1195	0	430
2	MDB Rear	-2642	-593	608

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



DATA SHEET NO. 14

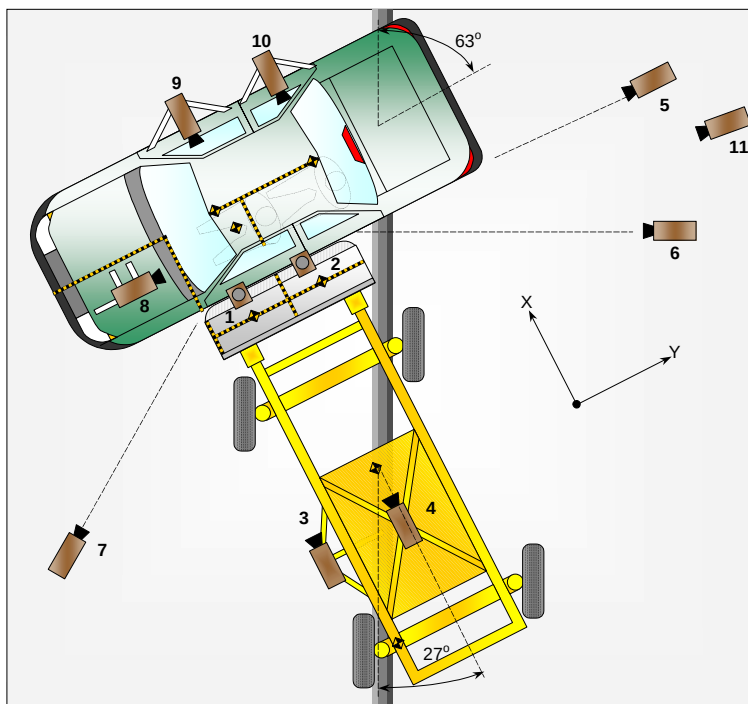
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06



No.	Camera View	Location			Angle (Deg.)	Lens (mm)	Speed (fps)
		X	Y	Z			
DOC	REAL TIME DIGITAL	-7198	16689	-1802	-2		30
1	OVERHEAD OVERALL	1225	2279	-5486	-90	14	1000
2	OVERHEAD CLOSE UP	610	2291	-5486	-90	ZOOM	1000
3	LEFT IMPACT POINT (MDB)	-2134	0	-1143	-7	25	1000
4	SIDE OVERALL (MDB)	-3912	838	-1829	-11	12	1000
5	REAR	0	14876	-1298	0	ZOOM	1000
6	LEFT REAR	-7100	16459	-839	0	ZOOM	1000
7	LEFT FRONT	-2686	3545	-1483	-4	24	1000
8	DRIVER FRONT (O.B.)	522	-256	-1349	-15	35	1000
9	DRIVER SIDE (O.B.)	1845	298	-1295	-2	20	1000
10	PASSENGER SIDE (O.B.)	1845	874	-1325	-2	20	1000
DOC	REAL TIME DIGITAL	-2690	3540	-1389	0		30
11	LEFT REAR (MDB)	-2137	1302	-939	-4	25	1000

All camera measurements were made relative to the point of impact.

DATA SHEET NO. 15

FMVSS 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe

NHTSA No.: G60106

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

Test Date: 5/16/06

Test Time: 11:37 PM

Temperature: 37.0 Deg. C.

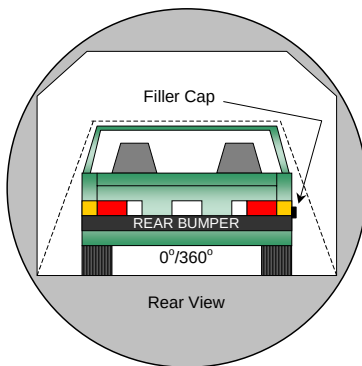
Stoddard Solvent Spillage Measurements

- 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

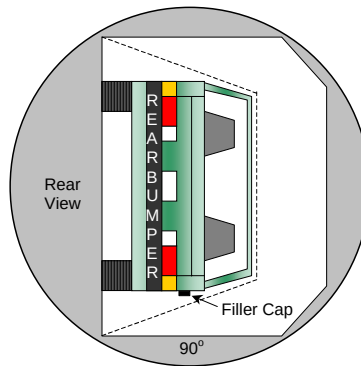
DATA SHEET NO. 16
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe
 Test Program: 55/28 km/h Side Impact NCAP

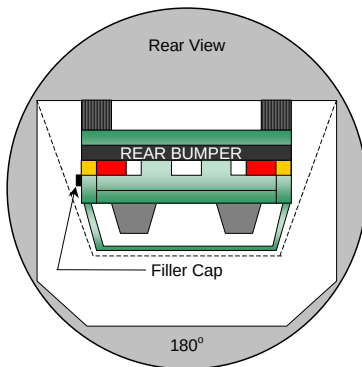
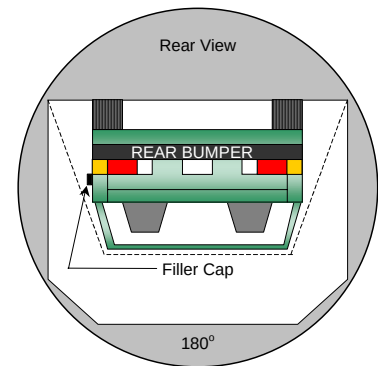
NHTSA No.: G60106
 Test Date: 5/16/06



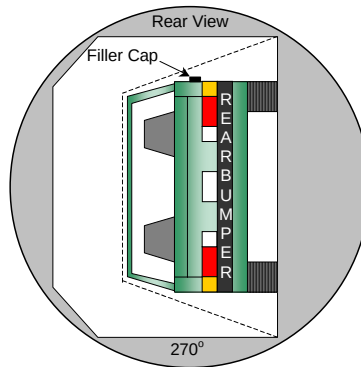
0° to 90°



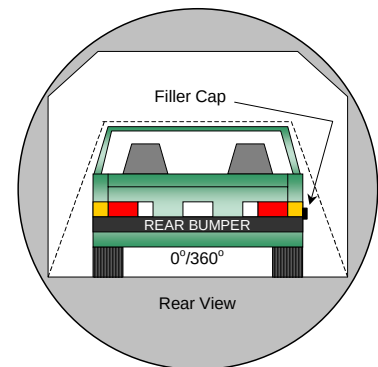
90° to 180°



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.

FMVSS 301 STATIC ROLLOVER DATA SHEETTest Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door CoupeNHTSA No.: G60106Test Program: 55/28 km/h Side Impact NCAPTest Date: 5/16/06**SOLVENT COLLECTION TIME TABLE IN SECONDS**

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	85	300	385
90° to 180°	80	300	380
180° to 270°	76	300	376
270° to 360°	79	300	379

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

LIST OF PHOTOGRAPHS

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



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



MFD BY GENERAL MOTORS OF CANADA LTD.

DATE
02/06

GVWR
1978 KG
4360 LB

GAWR FRT
1090 KG
2402 LB

GAWR RR
888 KG
1958 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR
VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN
EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

2G1WJ16KX69317569

TYPE: PASS CAR

Figure A-3: Manufacturer's Label



TIRE AND LOADING INFORMATION

SEATING CAPACITY | TOTAL 5 | FRONT 2 | REAR 3

The combined weight of occupants and cargo should never exceed 416 kg or 917 lbs.

TIRE	ORIGINAL SIZE		COLD TIRE PRESSURE
FRONT	P225/60R16	S	210 kPa, 30 PSI
REAR	P225/60R16	S	210 kPa, 30 PSI
SPARE	T125/70D16	M	420 kPa, 60 PSI

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

2G1WJ16KX69317569

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 $\frac{3}{4}$ View



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



Figure A-9: Pre-Test Left Side View



Figure A-10: Post-Test Left Side View



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



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



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



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



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



Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



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



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

**Photograph Not
Available**

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



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

**Photograph Not
Applicable**

Figure A-33: Pre-Test Left Rear Door

**Photograph Not
Applicable**

Figure A-34: Post-Test Left Rear Door



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

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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)

**Photograph Not
Applicable**

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

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



Figure A-46: Post-Test Passenger Dummy Left Side (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

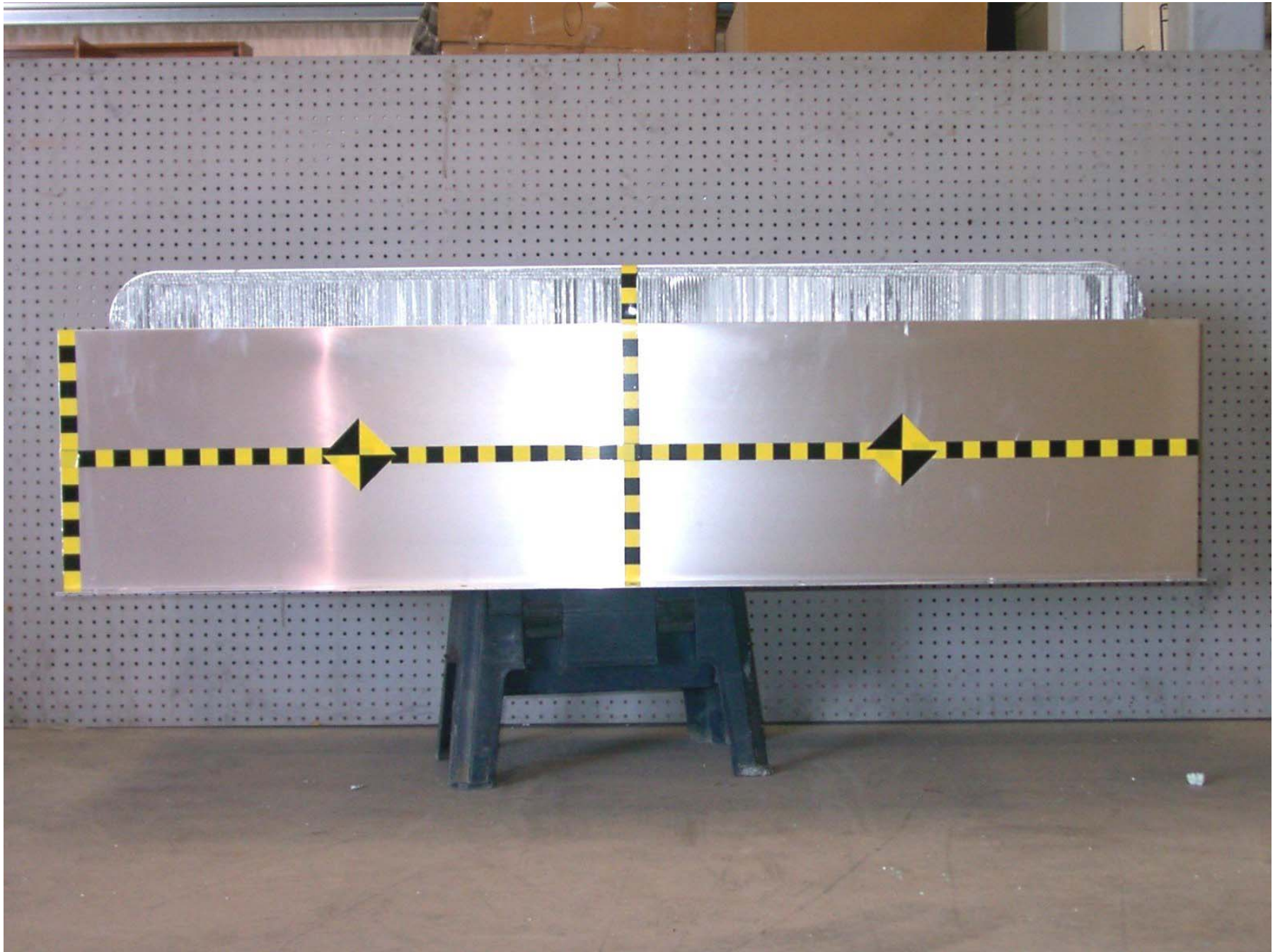


Figure A-55: Pre-Test Top View of Deformable Barrier



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°)

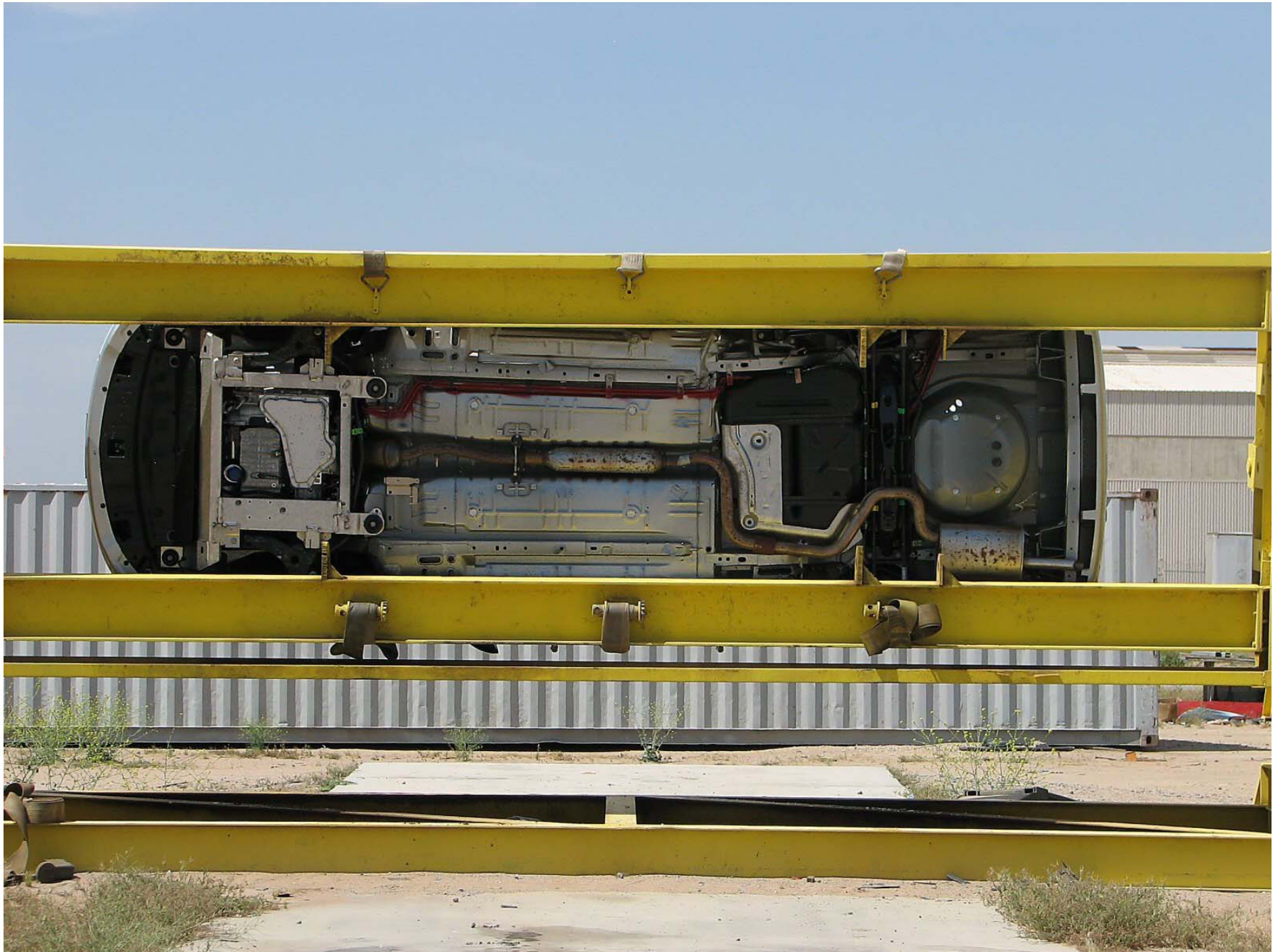


Figure A-64: Vehicle on Rollover Device (270°)



Figure A-65: Vehicle Impact

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

LIST OF DATA PLOTS

Data Plot		Page
B-1	Driver Upper Rib Primary Y	B-1
	Driver Lower Rib Primary Y	B-1
	Driver Lower Spine Primary Y	B-1
	Driver Pelvis Primary Y	B-1
B-2	Passenger Upper Rib Primary Y	B-2
	Passenger Lower Rib Primary Y	B-2
	Passenger Lower Spine Primary Y	B-2
	Passenger Pelvis Primary Y	B-2

The following additional data plots for this test can be obtained from the research and development section of the NHTSA website. The website can be found at www.NHTSA.dot.gov

LIST OF DATA PLOTS...(CONTINUED)

Driver Head X Primary
Driver Head Y Primary
Driver Head Z Primary
Driver Head Resultant Primary
Driver Head Primary X Velocity
Driver Head Primary Y Velocity
Driver Head Primary Z Velocity
Driver Head X Redundant
Driver Head Y Redundant
Driver Head Z Redundant
Driver Head Resultant Redundant
Driver Head Redundant X Velocity
Driver Head Redundant Y Velocity
Driver Head Redundant Z Velocity
Driver Upper Neck Force X
Driver Upper Neck Force Y
Driver Upper Neck Force Z
Driver Upper Neck Force Resultant
Driver Upper Neck Moment X
Driver Upper Neck Moment Y
Driver Upper Neck Moment Z
Driver Upper Neck Moment Resultant
Driver Upper Rib Primary Y Velocity
Driver Lower Rib Primary Y Velocity
Driver Lower Spine Primary Y Velocity
Driver Pelvis Primary Y Velocity
Driver Upper Rib Redundant Y
Driver Lower Rib Redundant Y
Driver Lower Spine Redundant Y
Driver Pelvis Redundant Y

LIST OF DATA PLOTS...(CONTINUED)

Driver Upper Rib Redundant Y Velocity
Driver Lower Rib Redundant Y Velocity
Driver Lower Spine Redundant Y Velocity
Driver Pelvis Redundant Y Velocity
Driver Thorax Contact
Driver Pelvis Contact
Passenger Head X Primary
Passenger Head Y Primary
Passenger Head Z Primary
Passenger Head Resultant Primary
Passenger Head Primary X Velocity
Passenger Head Primary Y Velocity
Passenger Head Primary Z Velocity
Passenger Head X Redundant
Passenger Head Y Redundant
Passenger Head Z Redundant
Passenger Head Resultant Redundant
Passenger Head Redundant X Velocity
Passenger Head Redundant Y Velocity
Passenger Head Redundant Z Velocity
Passenger Upper Neck Force X
Passenger Upper Neck Force Y
Passenger Upper Neck Force Z
Passenger Upper Neck Force Resultant
Passenger Upper Neck Moment X
Passenger Upper Neck Moment Y
Passenger Upper Neck Moment Z
Passenger Upper Neck Moment Resultant

LIST OF DATA PLOTS...(CONTINUED)

Passenger Upper Rib Primary Y Velocity
Passenger Lower Rib Primary Y Velocity
Passenger Lower Spine Primary Y Velocity
Passenger Pelvis Primary Y Velocity
Passenger Upper Rib Redundant Y
Passenger Lower Rib Redundant Y
Passenger Lower Spine Redundant Y
Passenger Pelvis Redundant Y
Passenger Upper Rib Redundant Y Velocity
Passenger Lower Rib Redundant Y Velocity
Passenger Lower Spine Redundant Y Velocity
Passenger Pelvis Redundant Y Velocity
Passenger Thorax Contact
Passenger Pelvis Contact
Vehicle Right Sill at Front Seat X
Vehicle Right Sill at Front Seat Y
Vehicle Right Sill at Front Seat Z
Vehicle Right Sill Front Seat Resultant
Vehicle Right Sill at Front Seat X Velocity
Vehicle Right Sill at Front Seat Y Velocity
Vehicle Right Sill at Front Seat Z Velocity
Vehicle Right Sill at Rear Seat X
Vehicle Right Sill at Rear Seat Y
Vehicle Right Sill at Rear Seat Z
Vehicle Right Sill Rear Seat Resultant
Vehicle Right Sill at Rear Seat X Velocity
Vehicle Right Sill at Rear Seat Y Velocity
Vehicle Right Sill at Rear Seat Z Velocity
Vehicle Rear Floor Above Axle X
Vehicle Rear Floor Above Axle Y
Vehicle Rear Floor Above Axle Z
Vehicle Rear Floor Above Axle Resultant
Vehicle Rear Floor Above Axle X Velocity
Vehicle Rear Floor Above Axle Y Velocity
Vehicle Rear Floor Above Axle Z Velocity

LIST OF DATA PLOTS...(CONTINUED)

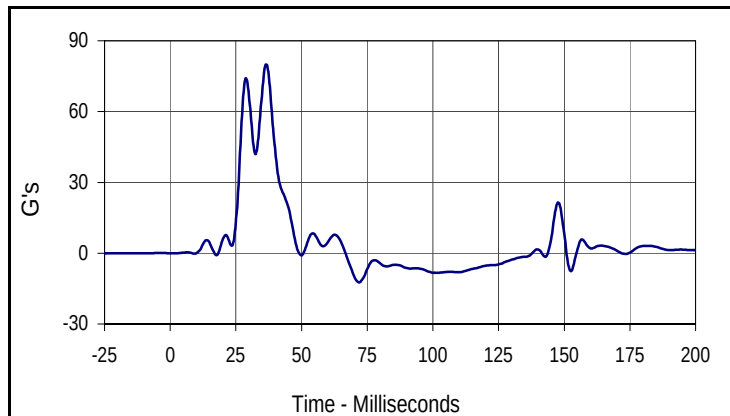
Vehicle Left Sill at Rear Door Y
Vehicle Left Sill at Front Door Y
Vehicle Left Sill at Rear Door Y Velocity
Vehicle Left Sill at Front Door Y Velocity
Vehicle Left Front Door C/L Y
Vehicle Right Rear Occupant Compartment
Vehicle Left Front Door Mid Rear Y
Vehicle Left Front Door Upper CL Y
Vehicle Left 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
Vehicle Left Rear Door Mid Rear Y
Vehicle Left Rear Door Upper C/L Y
Vehicle Left Rear Door Mid Rear Y Velocity
Vehicle Left Rear Door Upper CL Y Velocity
Vehicle B-Post Lower Y
Vehicle B-Post Middle Y
Vehicle B-Post Lower Y Velocity
Vehicle B-Post Middle Y Velocity
Vehicle A-Post Lower Y
Vehicle A-Post Middle Y
Vehicle A-Post Lower Y Velocity
Vehicle A-Post Middle Y Velocity
Vehicle Left Front Seat Track
Vehicle Rear Seat Structure
Vehicle Left Front Seat Track Y Velocity
Vehicle Rear Seat Structure Y Velocity
Vehicle CG X
Vehicle CG Y
Vehicle CG Z
Vehicle CG Resultant
Vehicle CG X Velocity
Vehicle CG Y Velocity
Vehicle CG Z Velocity

LIST OF DATA PLOTS...(CONTINUED)

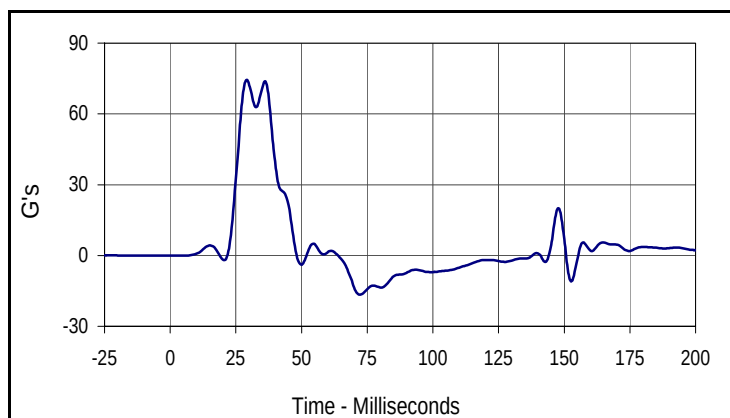
Driver Upper Rib Primary Y
Driver Lower Rib Primary Y
Driver Lower Spine Primary Y
Driver Pelvis Primary Y
Driver Upper Rib Redundant Y
Driver Lower Rib Redundant Y
Driver Lower Spine Redundant Y
Driver Pelvis Redundant Y
Passenger Upper Rib Primary Y
Passenger Lower Rib Primary Y
Passenger Lower Spine Primary Y
Passenger Pelvis Primary Y
Passenger Upper Rib Redundant Y
Passenger Lower Rib Redundant Y
Passenger Lower Spine Redundant Y
Passenger Pelvis Redundant Y
MDB CG X
MDB CG Y
MDB CG Z
MDB CG Resultant
MDB CG X Velocity
MDB CG Y Velocity
MDB CG Z Velocity
MDB Rear X
MDB Rear Y
MDB Rear X Velocity
MDB Rear Y Velocity
MDB Right Bumper Contact

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe
 Test Program: 55/28 km/h Side Impact NCAP

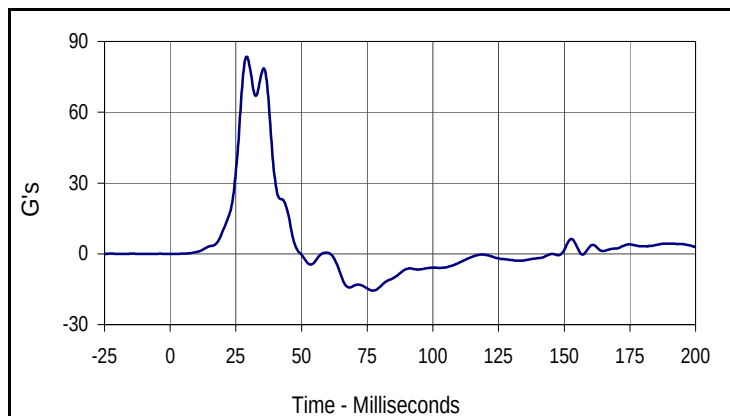
Test Date: 5/16/06
 NHTSA No.: G60106



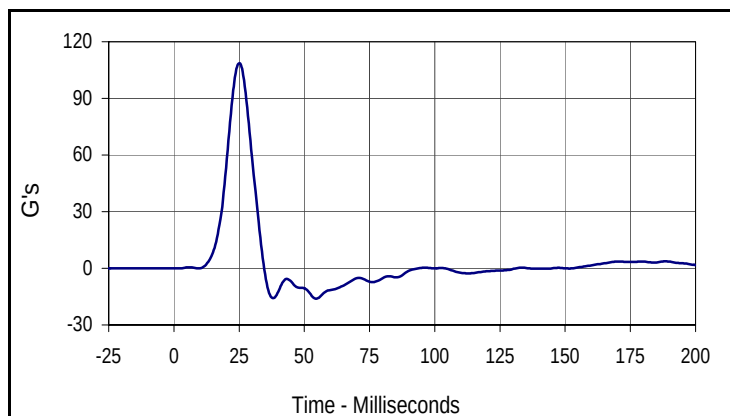
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
001	FIR	FIR100	G's
Max	Time	Min	Time
79.9	36.3	-12.3	71.9



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
002	FIR	FIR100	G's
Max	Time	Min	Time
74.3	29.4	-16.6	72.5



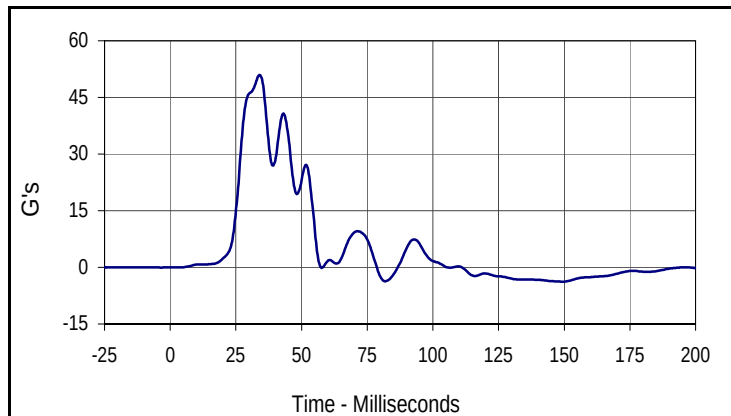
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
003	FIR	FIR100	G's
Max	Time	Min	Time
83.5	29.4	-15.6	76.9



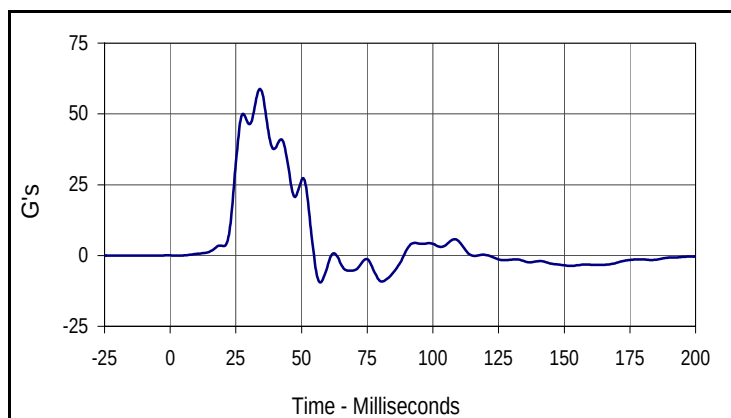
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
004	FIR	FIR100	G's
Max	Time	Min	Time
108.7	25.0	-16.1	54.4

Test Vehicle: 2006 Chevrolet Monte Carlo LS 2-Door Coupe
 Test Program: 55/28 km/h Side Impact NCAP

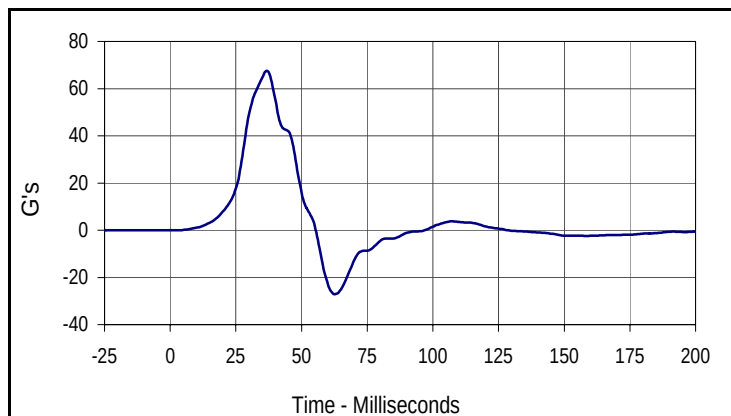
Test Date: 5/16/06
 NHTSA No.: G60106



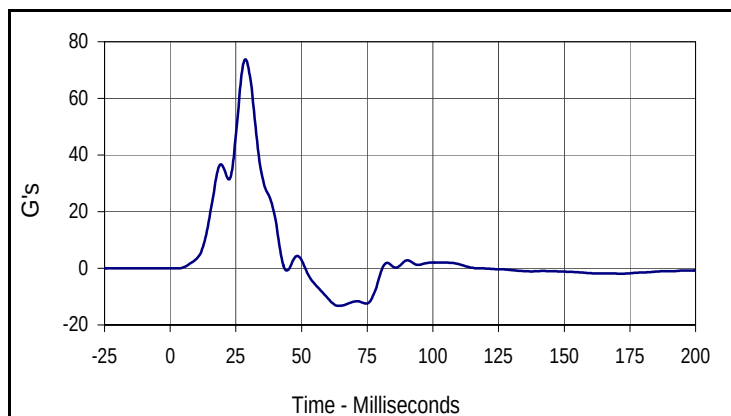
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
005	FIR	FIR100	G's
Max	Time	Min	Time
50.9	33.8	-3.8	149.4



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
006	FIR	FIR100	G's
Max	Time	Min	Time
58.7	34.4	-9.4	57.5



Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
007	FIR	FIR100	G's
Max	Time	Min	Time
67.6	36.9	-27.1	62.5



Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
008	FIR	FIR100	G's
Max	Time	Min	Time
73.8	28.8	-13.3	64.4

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: 5/15/06
 Test I.D.: N/A



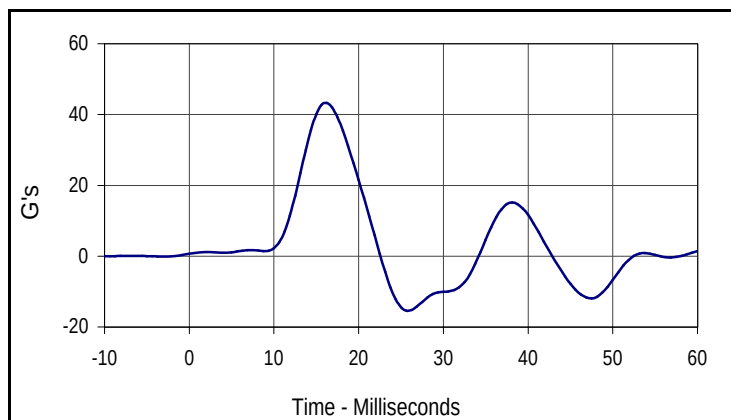
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	22.1	Pass
Laboratory Relative Humidity	%	10 to 70	35	Pass
SH- Seated Height	mm	889 to 909	903	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	505	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	497	Pass
HW- Hip Width	mm	356 to 391	368	Pass
Overall Test Results				Pass

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

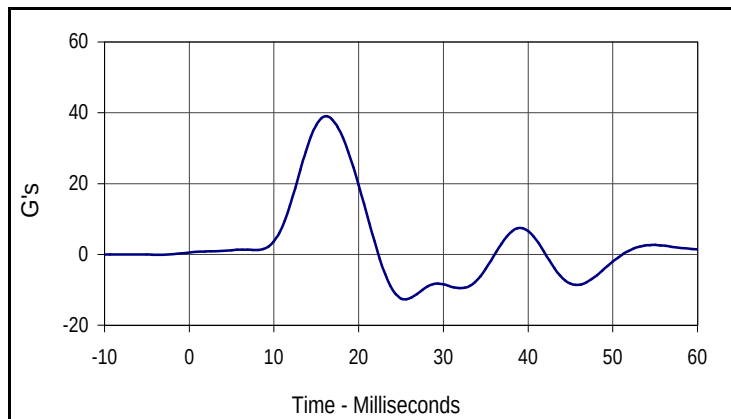
Test Date: 5/11/06
 Test I.D.: TH05A



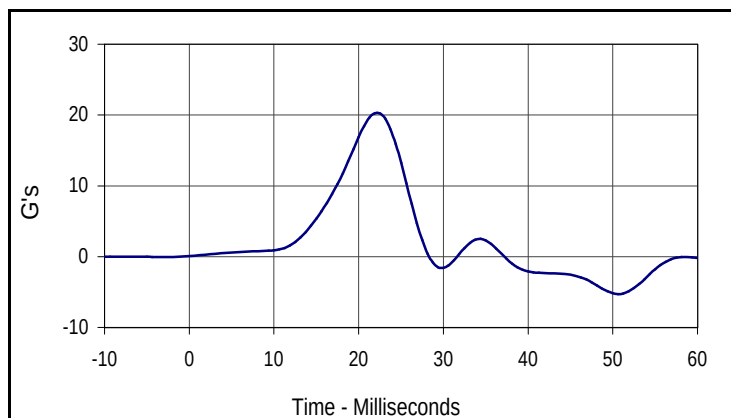
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	43.3	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	39.0	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.3	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
43.3	16.3	-15.4	25.6



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
39.0	16.3	-12.7	25.6



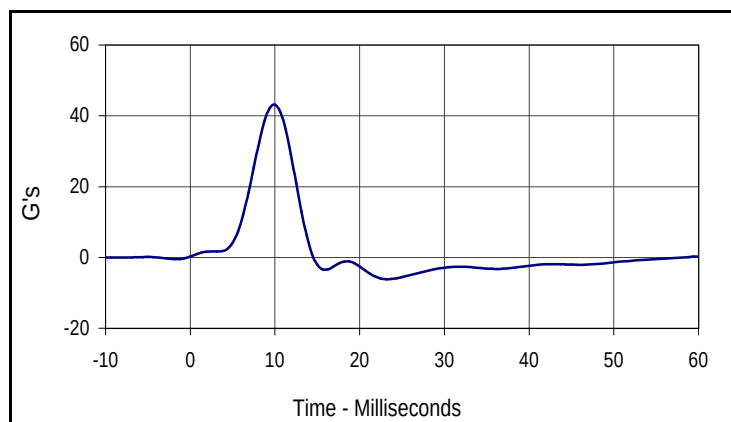
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.3	21.9	-5.3	50.6

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

Test Date: 5/10/06
 Test I.D.: PI05C



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	4.29	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	43.2	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	5.63	Pass
Overall Test Results				Pass



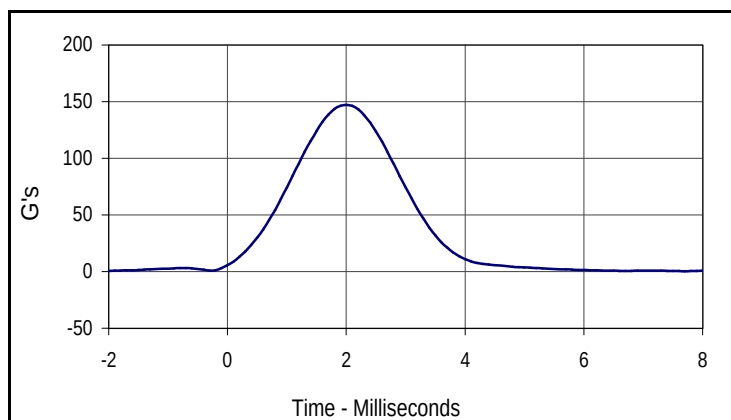
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
43.2	10.0	-6.2	23.1

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

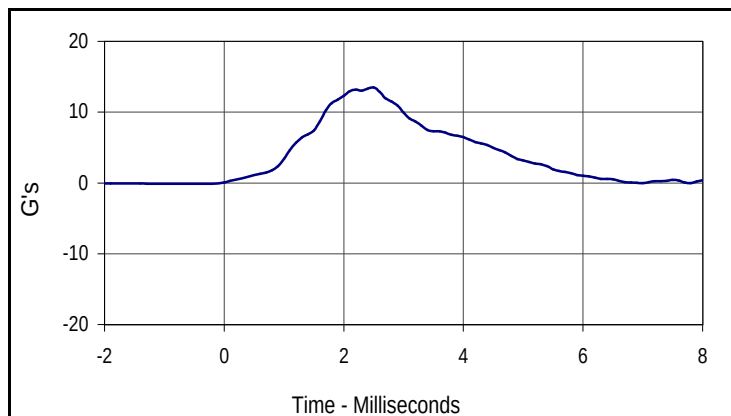
Test Date: 5/8/06
 Test I.D.: HD05C



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	147.3	Pass
Peak Longitudinal Acceleration	G's	≤15.0	13.5	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
147.3	2.0	0.7	-2.0



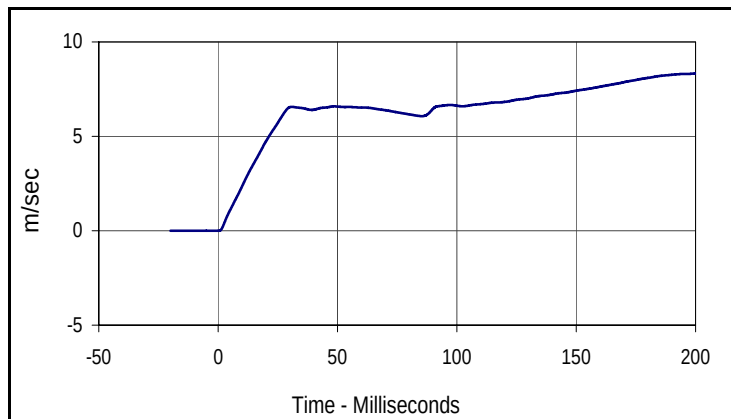
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
13.5	2.5	-0.1	-1.1

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

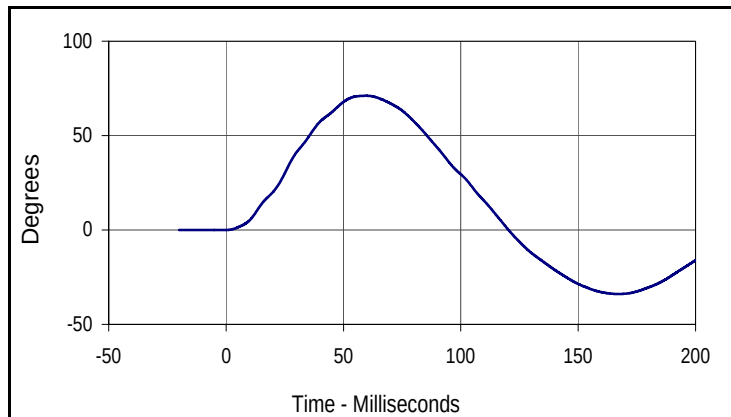
Test Date: 5/10/06
 Test I.D.: NB05A



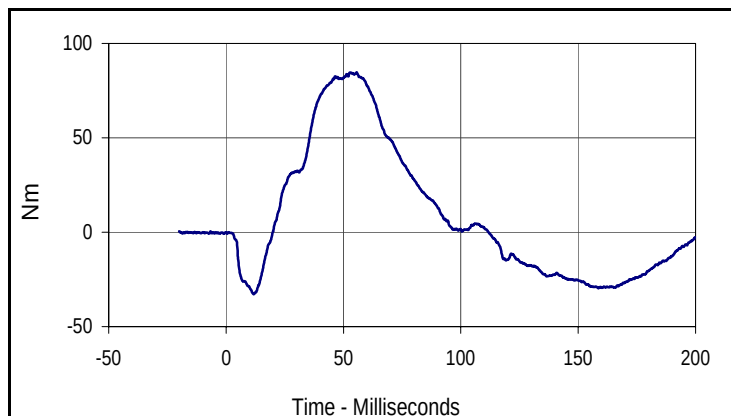
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.07	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.35	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.73	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.55	Pass
	40 to 70	m/sec	6.27 to 7.64	6.59	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	71.1	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	3.9	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	60.9	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	84.7	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	56.3	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.3	199.8	0.0	0.0



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
71.1	59.5	-33.9	167.1



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
84.7	55.6	-32.8	11.8

Test Program: SID / HIII External Measurements
 ATD Serial No.: 271

Test Date: 5/15/06
 Test I.D.: N/A



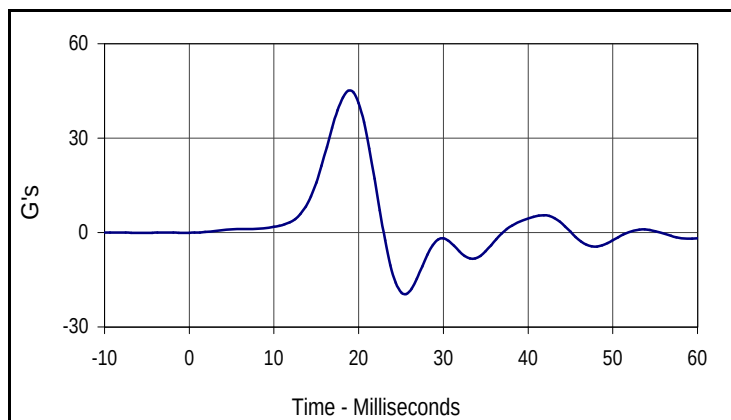
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	902	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	508	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	518	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	364	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 271

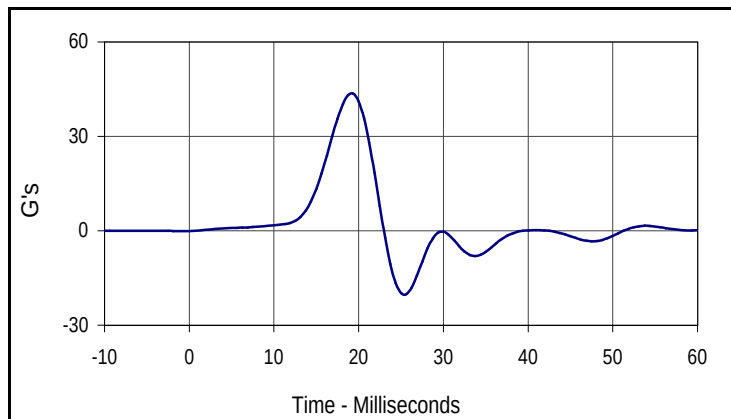
Test Date: 5/11/06
 Test I.D.: TH05C



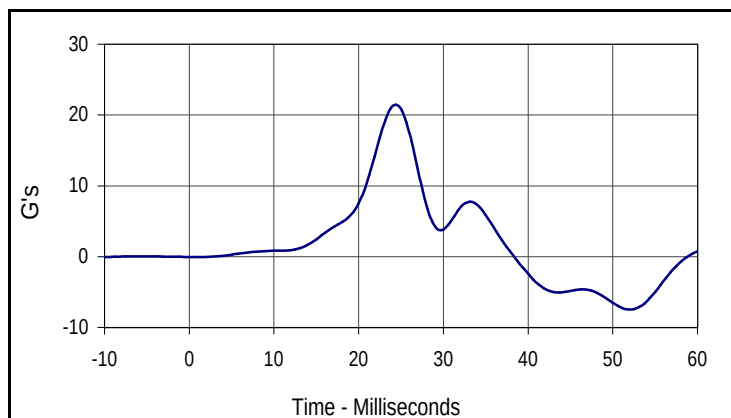
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	45.0	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	43.5	Pass
Thoracic 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
45.0	18.8	-19.5	25.6



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
43.5	19.4	-20.2	25.6



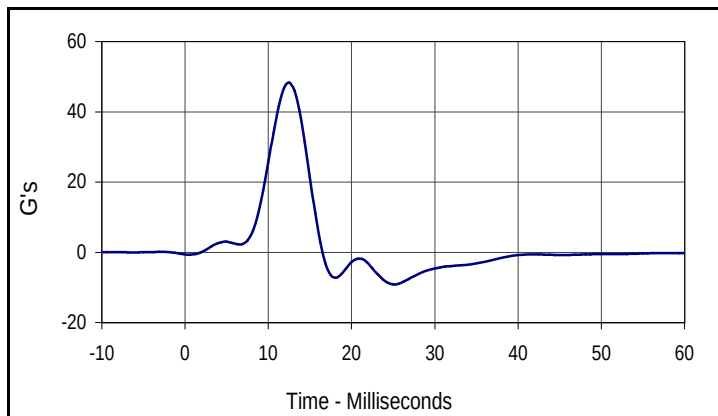
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
21.5	24.4	-7.5	51.9

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 271

Test Date: 5/11/06
 Test I.D.: PI05A



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	4.31	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	48.3	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results			Pass	



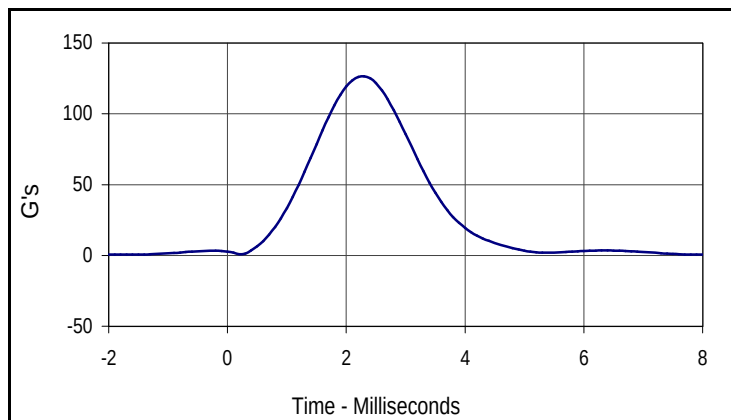
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
48.3	12.5	-9.1	25.0

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 271

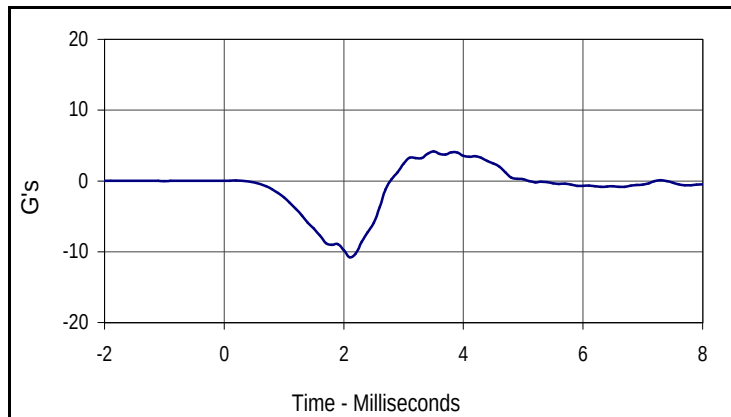
Test Date: 5/8/06
 Test I.D.: HD05A



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	126.6	Pass
Peak Longitudinal Acceleration	G's	≤15.0	10.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.7	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
126.6	2.3	0.5	-2.0



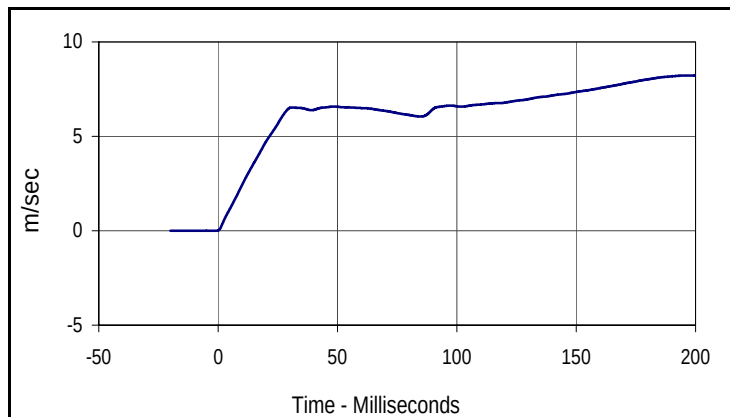
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
4.2	3.5	-10.8	2.1

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 271

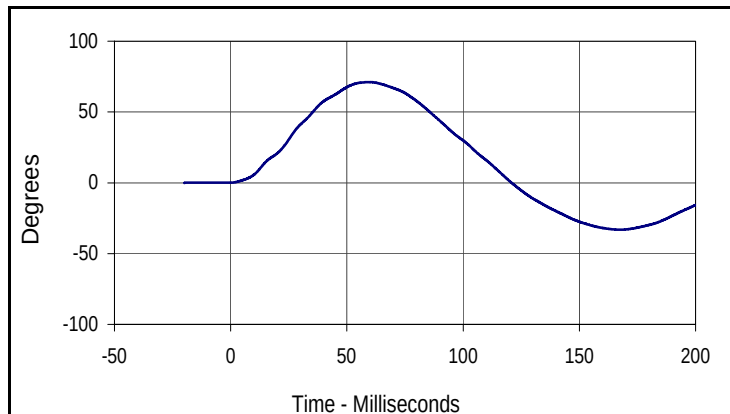
Test Date: 5/10/06
 Test I.D.: NB05B



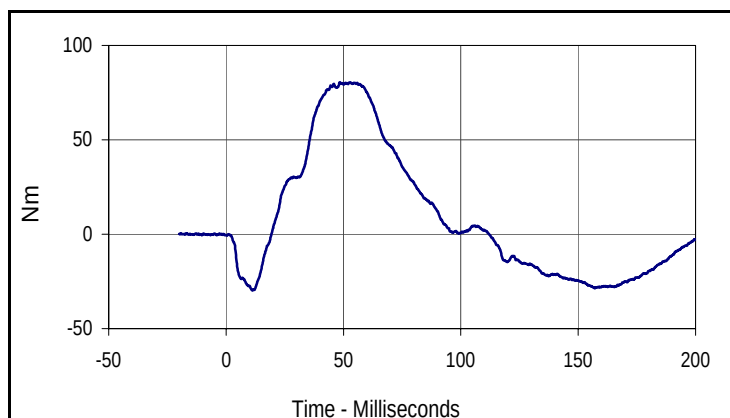
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.10	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.42	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.71	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.51	Pass
	40 to 70	m/sec	6.27 to 7.64	6.58	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	71.1	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	11.2	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	61.3	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	80.5	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	63.6	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.2	198.1	0.0	-0.7



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
71.1	59.6	-33.1	167.6



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
80.5	48.4	-29.8	11.3

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

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

Test Date: 5/19/06
 Test I.D.: N/A



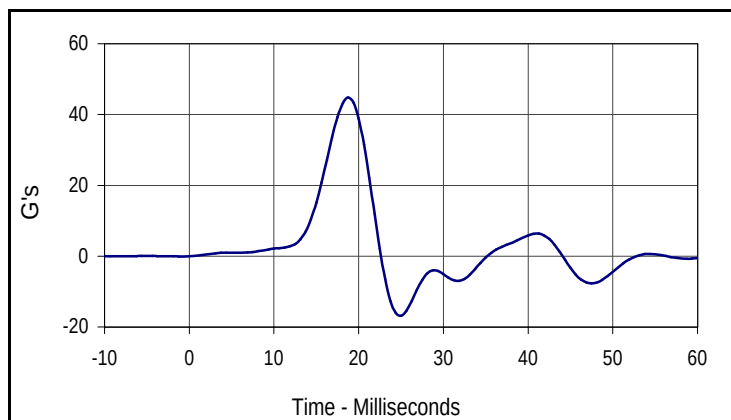
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	22.5	Pass
Laboratory Relative Humidity	%	10 to 70	35	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	509	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	517	Pass
KV- Knee Pivot From Floor	mm	490 to 505	492	Pass
HW- Hip Width	mm	356 to 391	362	Pass
Overall Test Results				Pass

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

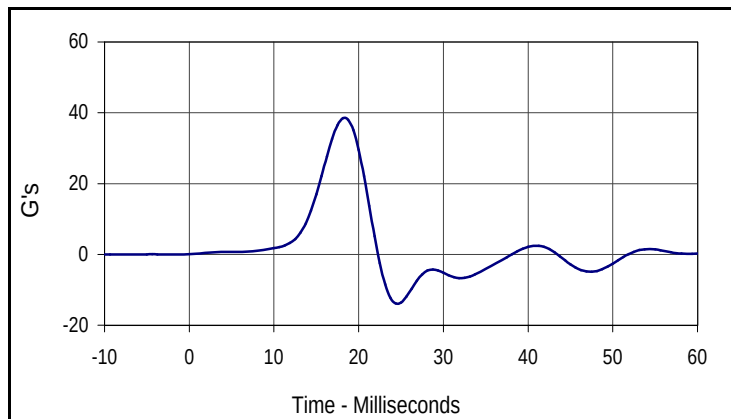
Test Date: 5/19/06
 Test I.D.: TH05B



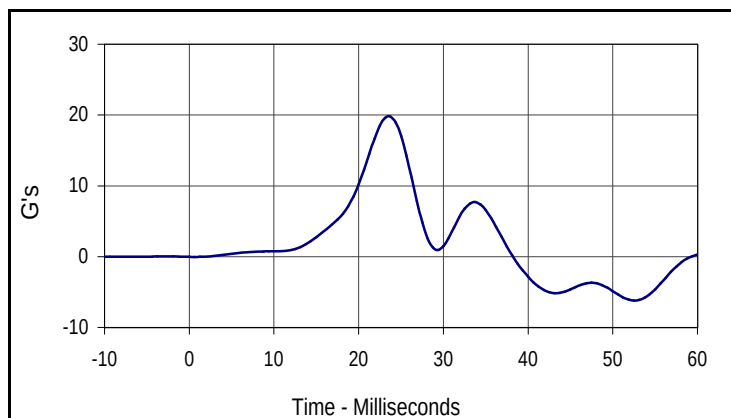
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.31	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	44.8	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	38.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.8	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
44.8	18.8	-16.8	25.0



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
38.5	18.1	-13.8	24.4



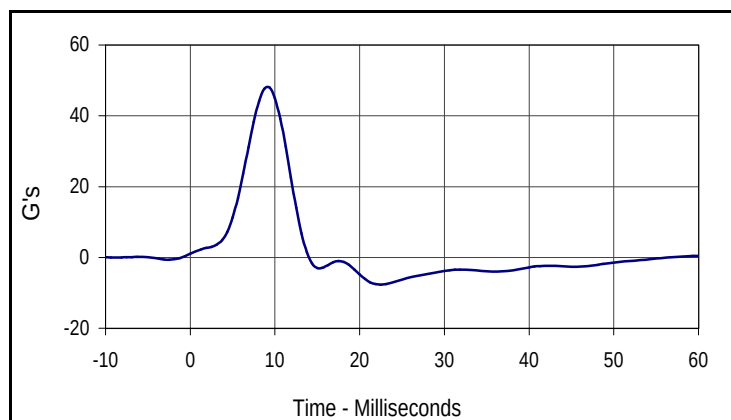
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
19.8	23.8	-6.2	52.5

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

Test Date: 5/18/06
 Test I.D.: PI05D



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	4.31	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	47.9	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



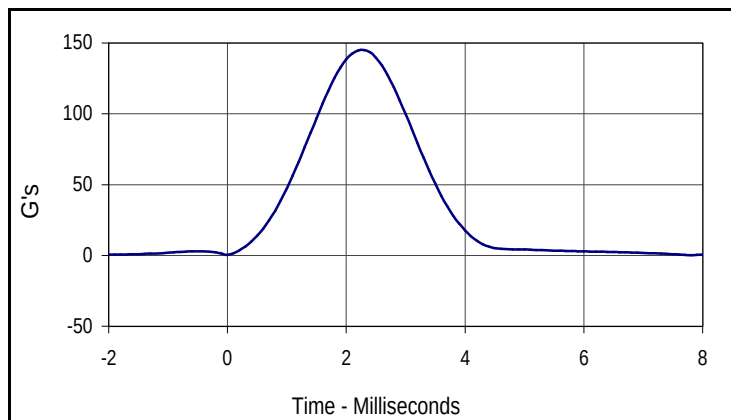
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
47.9	9.4	-7.7	22.5

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

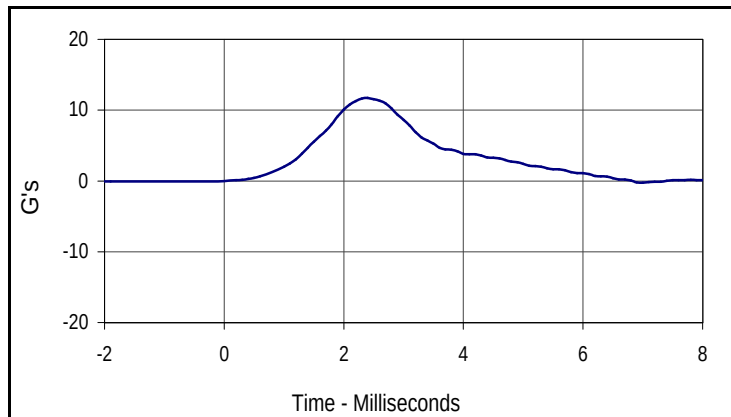
Test Date: 5/17/06
 Test I.D.: HD05D



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	145.1	Pass
Peak Longitudinal Acceleration	G's	≤15.0	11.8	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
145.1	2.3	0.5	0.0



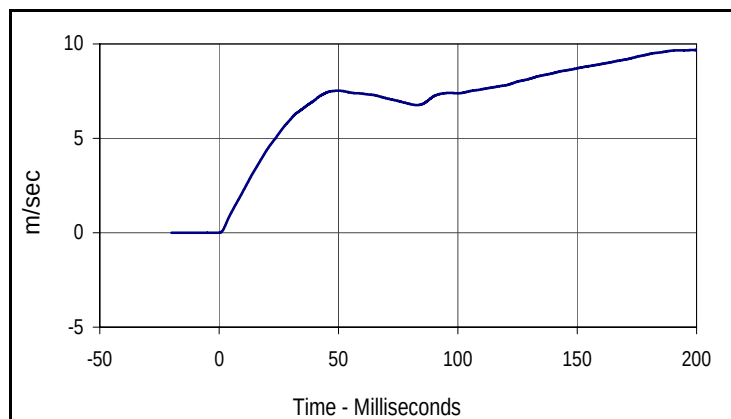
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
11.8	2.4	-0.1	-0.3

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

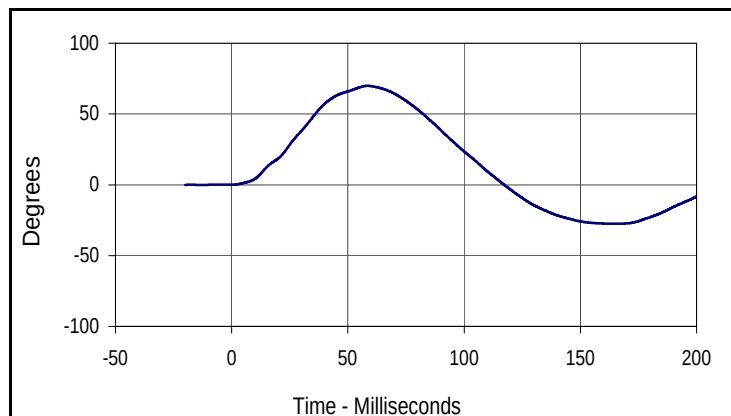
Test Date: 5/17/06
 Test I.D.: NB05D



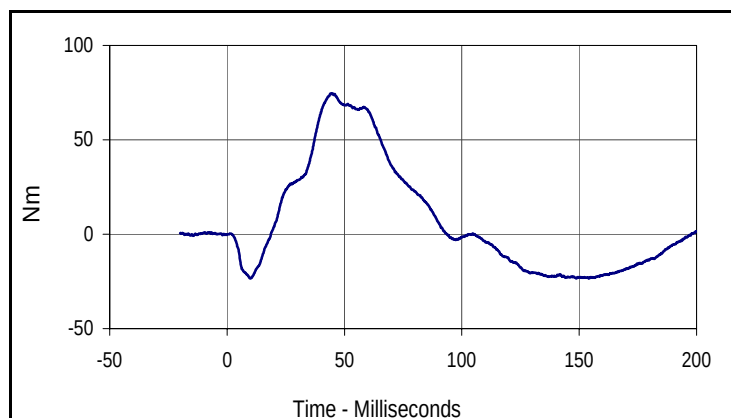
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.10	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.20	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.39	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.03	Pass
	40 to 70	m/sec	6.27 to 7.64	7.53	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	69.9	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	14.4	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	58.8	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	74.6	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	49.6	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.7	198.9	0.0	-0.4



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
69.9	58.5	-27.5	165.1



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
74.6	44.1	-23.5	154.1

Test Program: SID / HIII External Measurements
 ATD Serial No.: 271

Test Date: 5/19/06
 Test I.D.: N/A



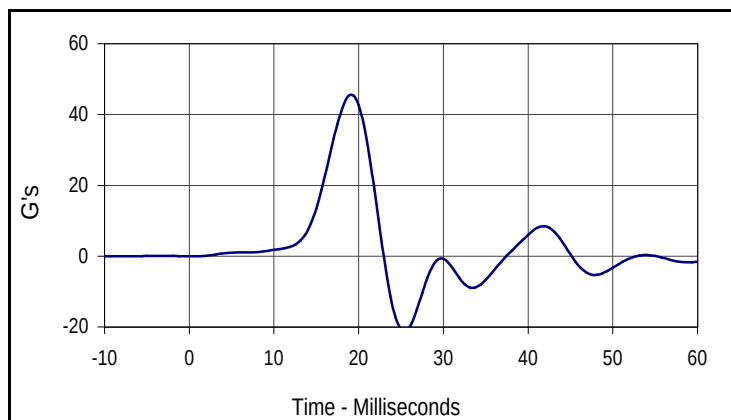
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	901	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	504	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	518	Pass
KV- Knee Pivot From Floor	mm	490 to 505	492	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 271

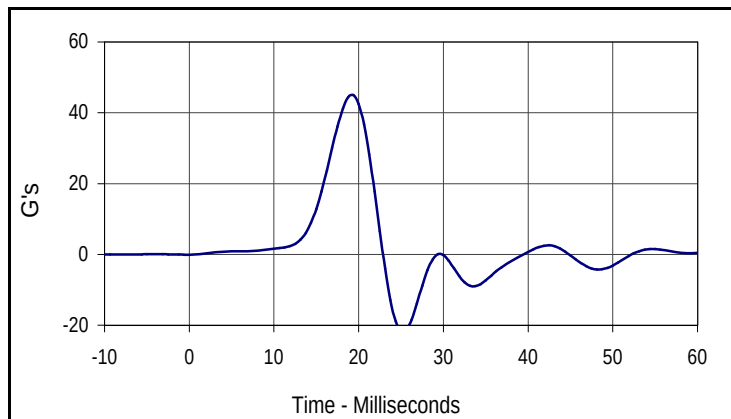
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 Test I.D.: TH05D



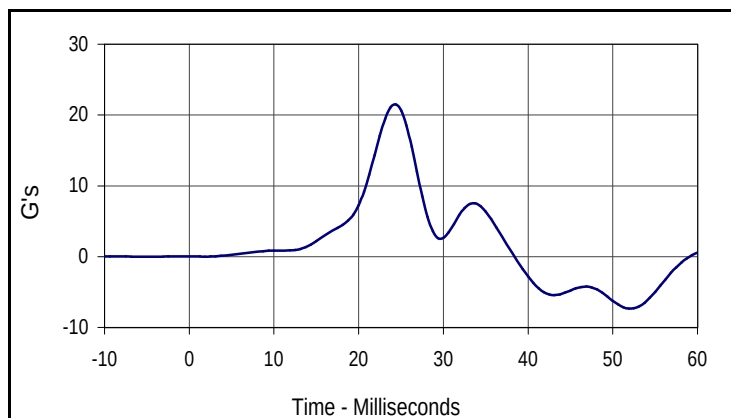
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	45.4	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	45.0	Pass
Thoracic 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
45.4	19.4	-21.1	25.6



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
45.0	19.4	-21.7	25.0



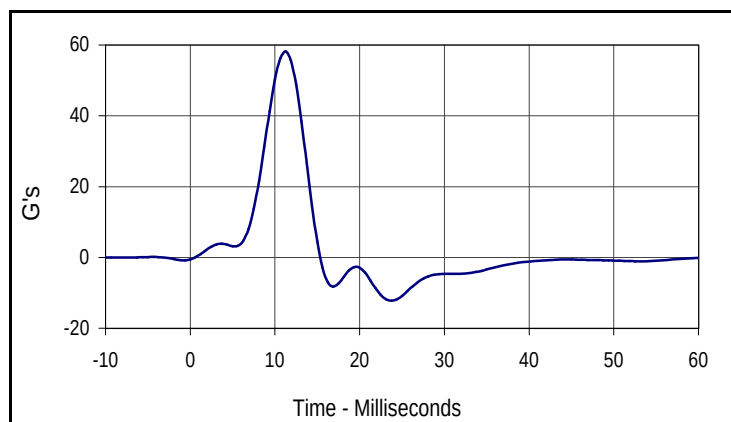
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
21.5	24.4	-7.4	51.9

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 271

Test Date: 5/18/06
 Test I.D.: PI05B



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	4.33	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	58.2	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



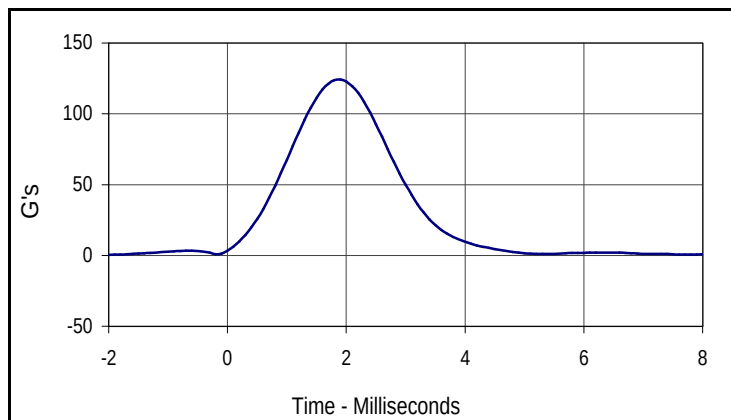
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
58.2	11.3	-12.3	23.8

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 271

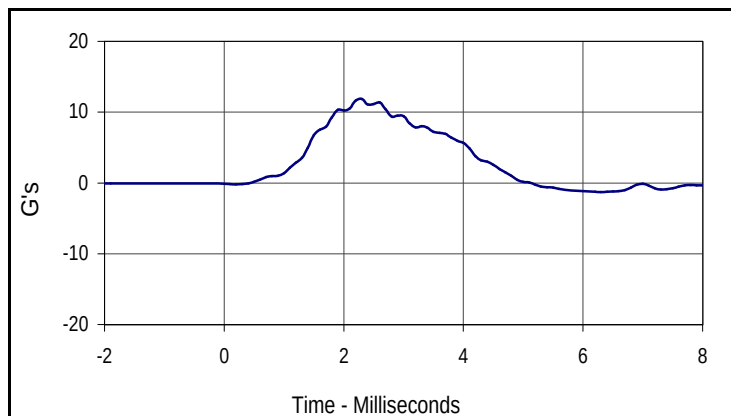
Test Date: 5/17/06
 Test I.D.: HD05F



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	124.3	Pass
Peak Longitudinal Acceleration	G's	≤15.0	11.9	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	1.6	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
124.3	1.9	0.4	-2.0



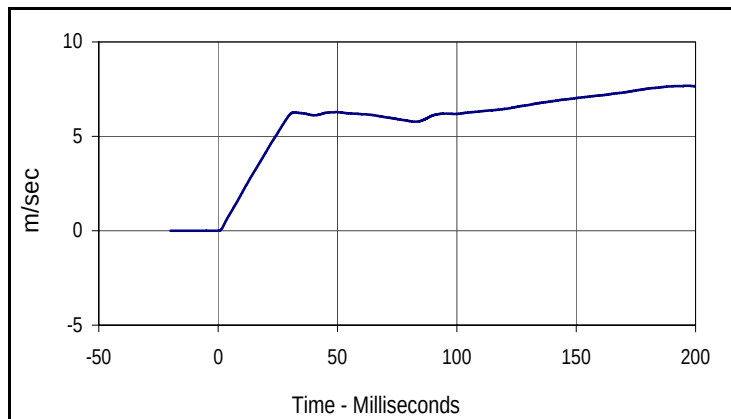
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
11.9	2.3	-1.2	6.0

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 271

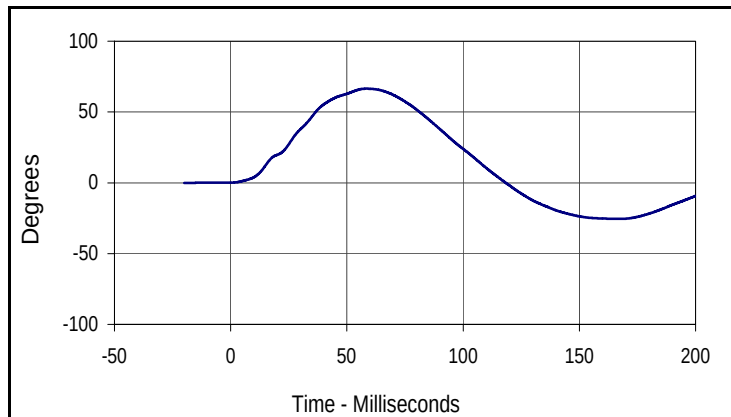
Test Date: 5/17/06
 Test I.D.: NB05C



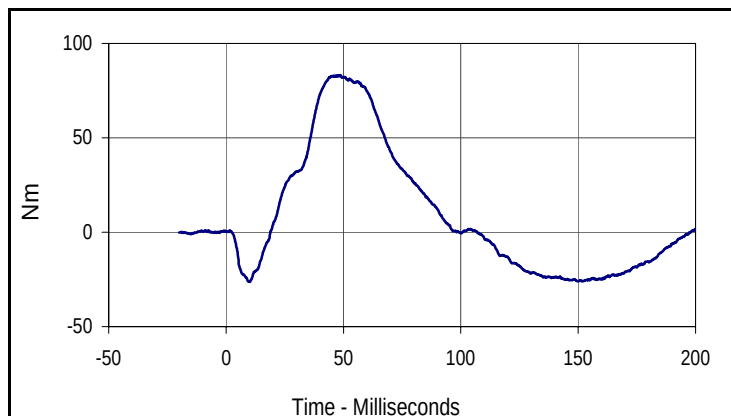
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.07	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.01	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.16	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.15	Pass
	40 to 70	m/sec	6.27 to 7.64	6.28	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	66.5	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	9.8	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	59.8	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	83.3	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	50.4	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
7.7	196.6	0.0	-0.1



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
66.5	58.5	-25.4	167.1



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
83.3	48.7	-26.2	10.1