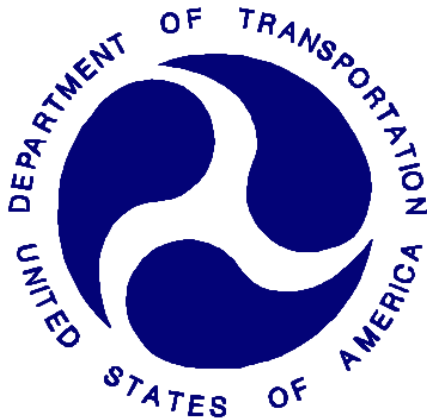


NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST

SUZUKI MOTOR COMPANY
2004 SUZUKI AERIO GX
4 DOOR SEDAN

NHTSA NUMBER: M40513

Prepared By:
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1/20/04

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF CRASHWORTHINESS STANDARDS
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Date: January 22, 2004

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Date of Acceptance

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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 2004 Suzuki Aerio GX 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 laboratories in Adelanto, California, on January 20, 2004. The impact velocity of the Moving Deformable Barrier was 61.35 km/h, and the outside ambient temperature at the struck (driver's) side of the vehicle was 11.1 deg. C. The target vehicle's maximum post test static crush was 309 mm located at level 2. The test vehicle's occupant performance data is as follows:			
Measurement Description	Driver SID/HIII	Pass. SID/HIII	
Left Upper Rib (LUR) G's	42.6	51.9	
Left Lower Rib (LLR) G's	53.2	65.0	
Lower Spine (T ₁₂) G's	51.9	59.4	
Thoracic Trauma Index (TTI) G's	53.0	62.0	
Pelvis (PEV) G's	66.0	86.0	
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TABLE OF CONTENTS

Section		Page
1	Purpose and Test Procedure	1
2	Summary of Side Impact Test	2
3	Occupant and Vehicle Information Sheets	4

Data Sheet No.		Page
1	General Test and Vehicle Parameter Data	5
2	Test Vehicle Summary of Results	10
3	Moving Deformable Barrier (MDB) Summary of Results	11
4	Post Test Observations	12
5	SID/HIII Injury Criteria and Sensor Data	13
6	Vehicle Pre-Test and Post-Test Measurements	15
7	SID/HIII Longitudinal Clearance Dimensions	16
8	SID/HIII Lateral Clearance Dimensions	17
9	Vehicle Side Measurements	18
10	Vehicle Exterior Crush Profiles	19
11	Vehicle Damage Profile Distances	21
12	Deformable Barrier Honeycomb Face Static Crush	22
13	Vehicle Accelerometer Locations and Data Summary	23
14	MDB Accelerometer Location and Data Summary	25
15	High Speed Camera Locations and Data	26
16	FMVSS 301 Fuel System Integrity Post Impact Data	27
17	FMVSS 301 Static Rollover Data Sheet	28

Appendix		
A	Photographs	A
B	SID/HIII, Vehicle and MDB Response Data	B
C	SID/HIII Configuration and Performance Verification Data	C
D	Test Equipment List and Calibration Information	D

SECTION 1

PURPOSE AND TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2004 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 2004 Suzuki Aerio 4 Door Sedan manufactured by Suzuki Motor Company.

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 and the corresponding KARCO Engineering Test Procedure KTP-214D, dated November 18, 1998. 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 2004 Suzuki Aerio 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 61.35 km/h. The specified impact velocity range is from 61.1 to 62.7 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 1460kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on January 20, 2004.

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front Driver		Left Rear (Passenger)	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	Not Deployed	No	N/A
Side Torso Airbag	No	N/A	No	N/A
Head Airbag	No	N/A	No	N/A
Curtain Airbag	No	N/A	No	N/A

One (1) real-time motion picture camera and 11 (Eleven) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information 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 Dummy's, 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)

The test vehicle was instrumented with twenty-five (25) 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.

SECTION 2.....(CONTINUED)

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 309 mm at level 2, 1500mm 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 just prior to this test. The SID/Hybrid III injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	53.0	62.0
Peak Pelvic G's (PEV)	G's	66.0	86.0

Tests summaries and post-test observations are presented in Section 3. The vehicle, camera, and occupant measurements are presented in Section 4. 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. Appendix D contains the test equipment information.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION SHEETS

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

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: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	M40513	Anti-Lock Brakes	No
Make	Suzuki	All Wheel Drive	No
Model	Aerio GX	Power Steering	Yes
Body Style	4-Door	Driver Front Airbag	Yes
Vin No.	JS2RA61S645200631	Driver Side Torso Airbag	No
Color	Silver	Driver Side Head Airbag	No
Delivery Date	11/26/2003	Driver Curtain Airbag	No
Odometer	59.0	Rear Pass. Airbag	No
Dealer	Shaver Auto Center	Rear Pass. Side Airbag	No
Transmission	5 Speed Manual	Rear Pass. Head Airbag	No
Final Drive	Front	Rear Pass. Curtain Airbag	No
Type/No. Cyl.	In-Line 4	Pre-Tensioners	No
Engine Disp. (L)	2.3	Load Limiters	No
Engine Placement	Transverse	Bucket Seats	Yes
Roof Rack	No	Air Cond.	Yes
Sunroof/T-Top	No	AM/Fm Cassette	Yes
Tinted Glass	Yes	Tilt Steering	Yes
Traction Control	No	Power Door Locks	Yes
Power Brakes	Yes	Power Windows	Yes
Front Disc	Yes	Power Seats	No
Rear Disc	No	Other	None

Does Owners Manual provide instructions for turning off automatic door locks.

Yes

Doors Locked Doors Unlocked Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Suzuki Motor Company	GVWR (kg)	1690
Date of Manufacture	06/03	GAWR Front (kg)	870
		GAWR Rear (kg)	880

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bucket	None	
Number of Occupants	2	3	None	5
Capacity Weight (VCW) (kg)				440
Cargo Weight (RCLW) (kg)				99

DATA SHEET NO. 1.....(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

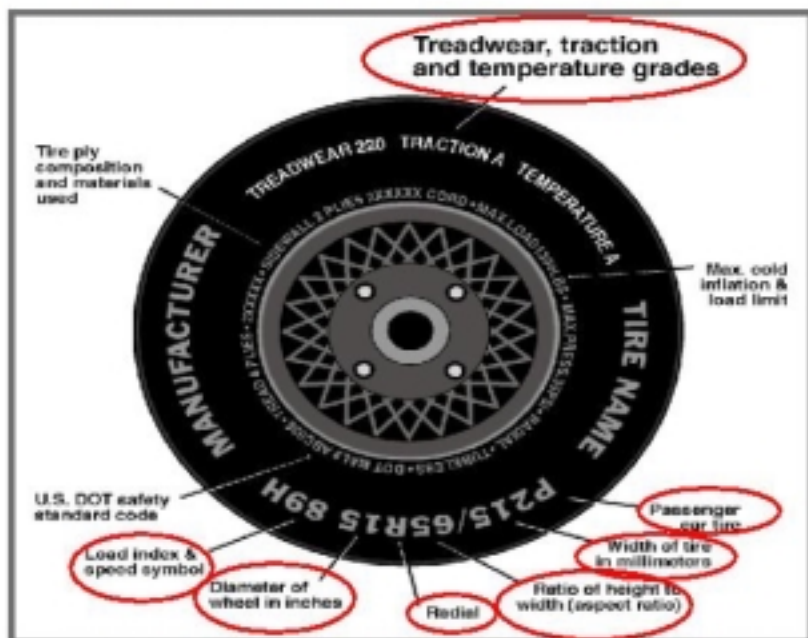
Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

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



TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kpg)	308	308
Cold Pressure (kpg)	210	210
Recommended Tire Size	P195/55R15	P195/55R15
Tire Size on Vehicle	P195/55R15	P195/55R15
Tire Manufacturer	Yokohama	Yokohama
Treadwear	200	200
Traction	B	B
Temperature Grades	A	A
Tire Plies Sidewall	2	2
Tire Plies Body	2	2
Load Index/Speed Symbol	84V	84V
Tire Material	Polyester/Steel	Polyester/Steel
DOT Safety Code Right	FD8N NPF2303	FD8N NPF2303
DOT Safety Code Left	FD8N NPF2303	FD8N NPF2303

DATA SHEET NO. 1.....(continued)**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2004 Suzuki Aerio GX 4 Door SedanNHTSA No.: M40513Test Program: 55/28 km/h 90 Deg. Side Impact NCAPTest Date: 1/20/04**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UWV)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	362	245		403	342	
Right	kg	362	237		396	319	
Ratio	%	60.0	40.0		54.7	45.3	
Totals	kg	724	482	1206	799	661	1460

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UWV)	kg	1206
Weight of 2 P572 ATD's	kg	161
Rated Cargo/Luggage Wt. (RCLW)	kg	99
Calculated Vehicle Target Wt. (TVTW)	kg	1466

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	647	647	631	630	992
As Tested	mm	638	646	584	589	1124
Fully Loaded	mm	634	647	575	584	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2482
Total Vehicle Length at Left Side	mm	4270
Total Vehicle Length at Centerline	mm	4347
Total Vehicle Length at Right Side	mm	4270
Weight of Ballast In Cargo Area	kg	50
Amount of Stoddard Solvent in Fuel Tank	Liters	46.4
1/3 of Usable Capacity	Liters	16.7

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2482
Target Impact Point Aft of Front Axle	mm	301
Actual Impact Point Aft of Front Axle	mm	291

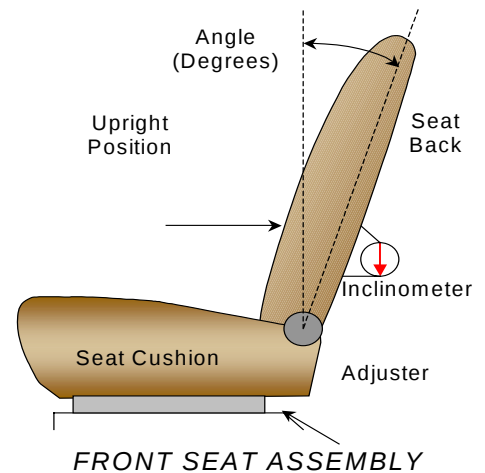
DATA SHEET NO. 1.....(continued)**GENERAL TEST AND VEHICLE PARAMETER DATA**

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

NHTSA No.: M40513
Test Date: 1/20/04

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 Seat Back Angle	23.0
Rear Seat Back Angle	23.0

SEAT FORE/AFT POSITIONS

The Drivers seat is adjustable. The fore/aft position is set to the middle.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position #
Driver Seat	13	7
Rear Seat	13	7

SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position.

SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	3	2
Rear Seat	3	2

DATA SHEET NO. 1.....(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

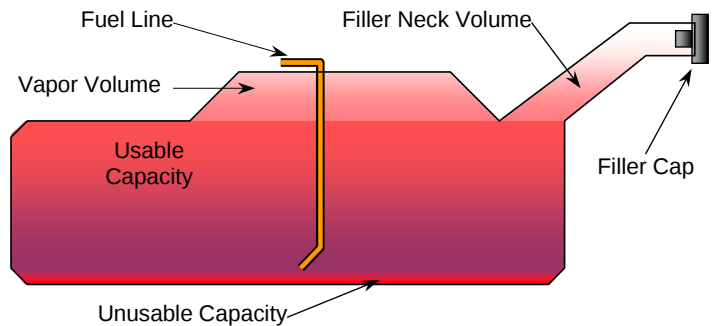
Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

NHTSA No.: M40513
 Test Date: 1/20/04

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	49.97
Usable Capacity of "Optional" Tank	N/A
Usable Capacity used for FMVSS 301	45.97 to 46.97
Actual Amount of Solvent used	46.45
1/3 of Usable Capacity	16.66

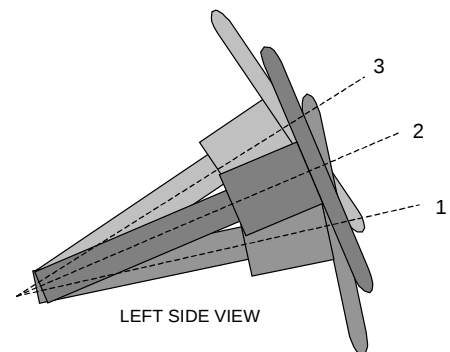
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.



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
Lowermost position No. 1	22.0
Geometric center position No. 2	23.8
Uppermost position No. 3	25.6

DATA SHEET NO. 2**TEST VEHICLE SUMMARY OF RESULTS**Test Vehicle: 2004 Suzuki Aerio GX 4 Door SedanNHTSA No.: M40513Test Program: 55/28 km/h 90 Deg. Side Impact NCAPTest Date: 1/20/04**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	362	245		403	342	
Right	kg	362	237		396	319	
Ratio	%	60.0	40.0		54.7	45.3	
Totals	kg	724	482	1206	799	661	1460

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	79	235
Level 2	Occupant H-Point	mm	309	560
Level 3	Mid Door	mm	298	603
Level 4	Window Sill	mm	244	916
Level 5	Window top	mm	152	1430
N/A	Maximum Penetration	mm	309	

INSTRUMENTATION

Driver SID/Hybrid III Accelerometers	20
Passenger SID/Hybrd III Accelerometers	20
Vehicle Sturcture Accelerometers	25
MDB Accelerometers	5
Total	70

CAMERA COVERAGE

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

DATA SHEET NO. 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**Test Vehicle: 2004 Suzuki Aerio GX 4 Door SedanNHTSA No.: M40513Test Program: 55/28 km/h 90 Deg. Side Impact NCAPTest Date: 1/20/04**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	61.35
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.37
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	210
B	Top of Bumper	533	800	Left	122
C	Mid Level	686	800	Left	152
D	Top of Stack	813	800	Left	189

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	11

DATA SHEET NO. 4
POST TEST OBSERVATIONS

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

NHTSA No.: M40513
Test Date: 1/20/04

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	P572F, SID / No. 274	P572F, SID / No. 275
Head Contact	Window/ B-pillar	C-pillar
Upper Torso Contact	Door Panel	Door Panel
Lower Torso Contact	Door Panel	Door Panel
Left Knee Contact	Door Panel/ Right Knee	Door Panel/ Right Knee
Right Knee Contact	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Remained closed/latched, inoperable	Remained closed/latched, inoperable
Right Side Door Opening	Remained closed/latched, operable	Remained closed/latched, operable
Seat Movement	None	None
Seat Back Failure	None	None

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	Glazing cracks on struck side only
Window Damage	Both struck side windows broke
Other Notable Effects	No other significant items to note

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	Not Deployed	No	N/A
Side Airbag	No	N/A	No	N/A
Head Airbag	No	N/A	No	N/A
Curtain Airbag	No	N/A	No	N/A
Seat Belt Pretensioner	No	N/A	No	N/A
Seat Belt Load Limiter	No	N/A	No	N/A

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	-6
Vertical Offset	mm	+/- 20	10

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

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

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

Test Date: 1/20/04

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	42.6	25.0	-13.2	69.4	51.9	41.9	-10.4	101.9
Lower Rib (LLR)	Y	G's	53.2	36.3	-13.7	68.8	65.0	40.0	-10.9	101.9
Lower Spine (T ₁₂)	Y	G's	51.9	28.8	-7.5	75.0	59.4	37.5	-14.2	66.9
Pelvis (PEV)	Y	G's	66.4	25.0	-14.6	55.0	85.6	31.9	-16.5	70.0

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	53.235	51.859	53	66	64.982	59.408	62	86

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	42.6	25.0	-12.8	68.8	52.1	41.9	-9.1	101.9
Lower Rib (LLR)	Y	G's	53.2	36.3	-13.3	68.1	64.4	40.6	-11.9	101.9
Lower Spine (T ₁₂)	Y	G's	51.8	28.8	-7.7	75.6	59.6	37.5	-14.3	66.9
Pelvis (PEV)	Y	G's	66.7	25.0	-15.5	55.0	85.9	31.9	-16.3	68.1

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	53.205	51.833	53	67	64.392	59.592	62	86

Positive Acceleration Polarities:

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

DATA SHEET NO. 5...(continued)
SID/HII INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

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

Test Date: 1/20/04

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	32.0	38.7	-31.5	51.3	6.7	57.5	-25.4	46.4
Head CG	Y	G's	55.6	36.9	-9.4	55.8	102.5	48.9	-21.5	66.6
Head CG	Z	G's	32.7	55.6	-3.7	40.7	31.3	37.1	-42.9	60.0
Head CG Resultant	N/A	G's	64.0	36.9			105.0	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	286.5	36.3	66.5	38.9	609.2	44.7	53.6	85.5

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	32.0	38.6	-31.6	51.4	6.5	57.8	-25.2	46.4
Head CG	Y	G's	55.5	36.7	-9.4	55.5	102.2	48.9	-21.5	66.9
Head CG	Z	G's	32.5	55.5	-4.7	40.6	31.3	37.1	-43.0	60.0
Head CG Resultant	N/A	G's	64.2	36.7			104.7	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	287.4	36.2	66.7	38.8	602.5	44.7	53.6	85.2

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	64.4	33.5	-951.0	50.9	537.1	58.5	-129.6	37.2
Neck Force	Y	Newtons	360.7	46.1	-240.0	37.7	10.5	16.0	-1497.4	53.2
Neck Force	Z	Newtons	1100.8	55.7	-44.1	19.4	1365.1	37.3	-1433.4	61.9
Neck Force Resultant	N/A	Newtons	1412.9	51.2			1841.6	52.3		
Neck Moment	X	N•m	29.5	53.8	-48.3	36.1	9.2	132.3	-82.7	61.6
Neck Moment	Y	N•m	54.5	69.7	-56.4	50.4	32.9	57.1	-12.8	69.9
Neck Moment	Z	N•m	47.0	63.9	-6.9	112.1	5.7	34.8	-20.0	59.9
Neck Moment Resultant	N/A	N•m	71.1	69.9			85.9	60.8		

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

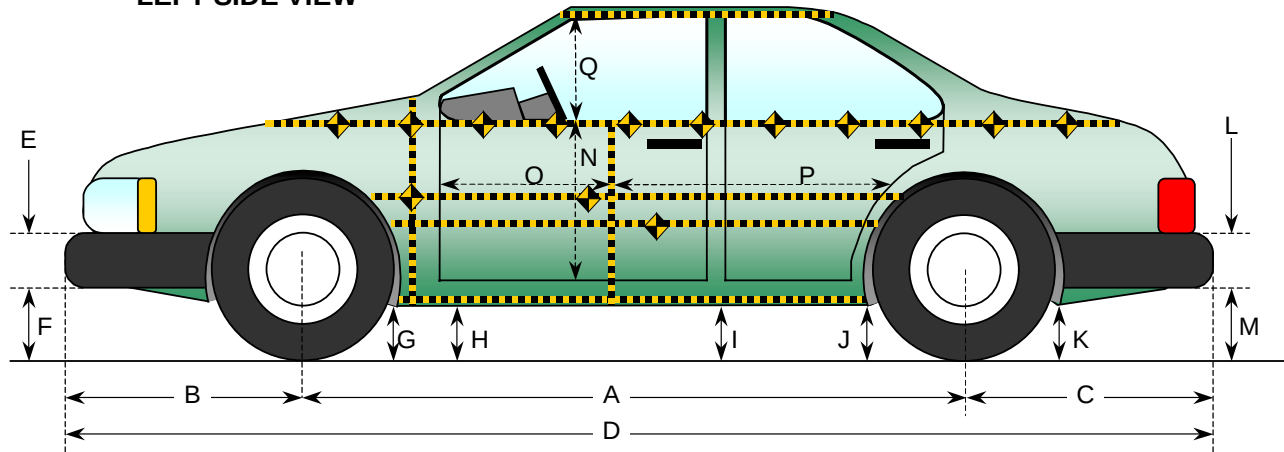
Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

LEFT SIDE VIEW



VEHICLE PRE AND POST TEST MEASUREMENT INFORMATION

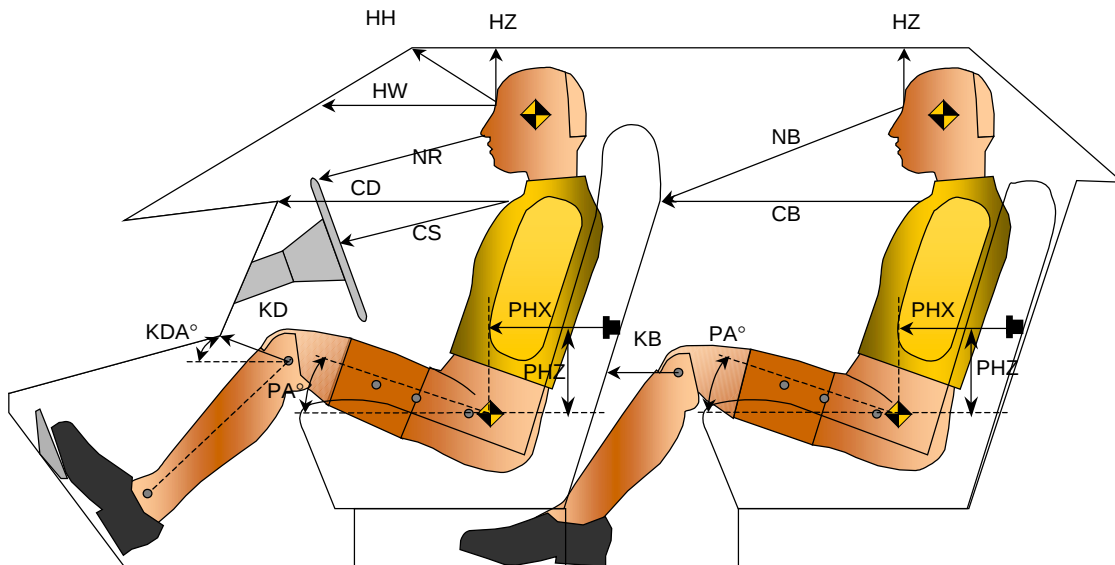
Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2482	2480	-2
B	Front Axle to FSOV	866	865	-1
C	Rear Axle to RSOV	995	981	-14
D	Total Length at Centerline	4347	4328	-19
E	Front Bumper Thickness	434	434	0
F	Front Bumper Bottom to Ground	182	194	12
G	Sill Height at Front Wheel Well	146	165	19
H	Sill Height at Front Door Leading Edge	160	184	24
I	Sill Height at "B" Pillar	156	241	85
J1	Sill Height at Rear Wheel Well	160	186	26
J2	Pinch Weld Height at Rear Wheel Well	141	241	100
K	Sill Height aft of Rear Wheel Well	181	229	48
L	Rear Bumper Thickness	418	418	0
M	Rear Bumper Bottom to Ground	225	303	78
N	Sill Height to Window Bottom Sill	701	611	-90
O	Front Door Leading Edge to Impact CL	720	715	-5
P	Rear Door Trailing Edge to Impact CL	1285	1110	-175
Q	Front Window Opening	402	360	-42
R	Right Side Length	4270	4285	15
S	Left Side Length	4270	4220	-50
T	Vehicle Width at "B" Post	1715	1460	-255

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

NHTSA No.: M40513
 Test Date: 1/20/04



LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle	Length(mm)	Angle
HH		Head to Header	470	14		
HW		Head to Windshield	710			
HZ	HZ	Head to Roof	225		155	90
NR	NB	Nose to Rim/Nose to Seatback	505	16	583	22
CD	CB	Chest to Dash or Seatback	690	8	505	4
CS		Chest to Steering Wheel	300			
KDL	KBL	Left Knee to Dash or Seatback	165	9	155	16
KDR	KBR	Right Knee to Dash or Seatback	155		170	
PA	PA	Pelvic Angle		24		24
PHX	PHX	H-Point to Striker (X-Axis)	221		316	
PHZ	PHZ	H-Point to Striker (Z-Axis)	89		188	

DATA SHEET NO. 8

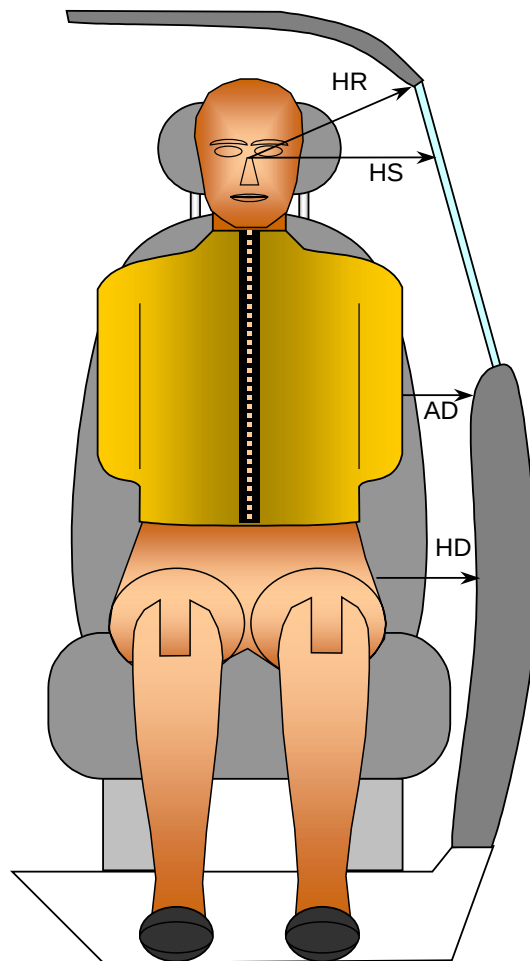
SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04



FRONT VIEW OF DUMMY

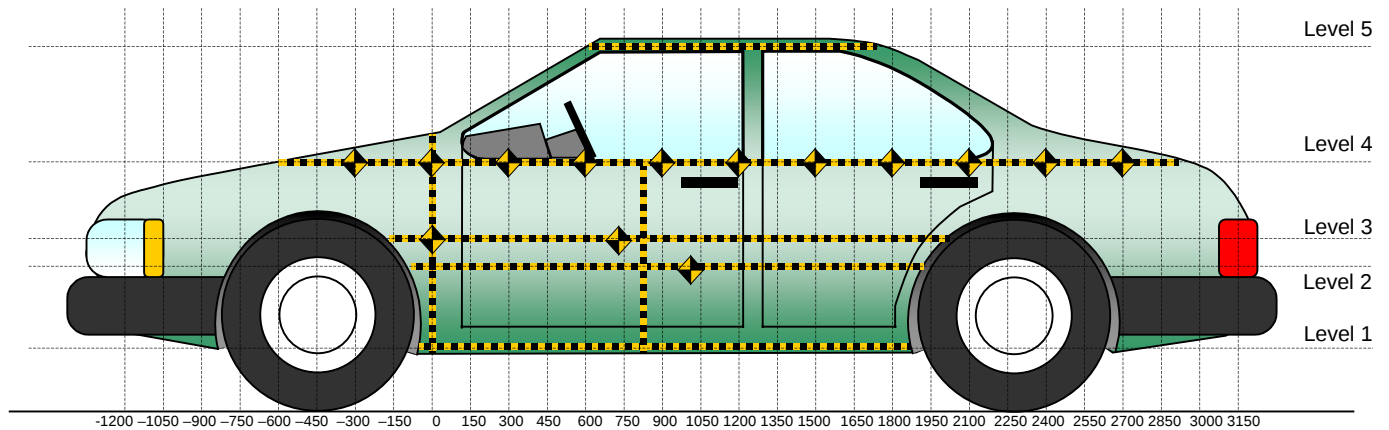
LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	232	210
HS	Head to Side Window	mm	310	307
AD	Arm to Door	mm	95	55
HD	H-Point to Door	mm	85	88

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

NHTSA No.: M40513
 Test Date: 1/20/04



All Measurements Shown in mm

LEFT SIDE VIEW

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

Level	Measurement Description	Height Above Ground
1	Sill Top	235
2	Occupant H-Point	560
3	Mid Door	603
4	Window Sill	916
5	Window Top	1430

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

	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				756					791					35	
-150			650	739				719	771				69	32	
0		654	662	726			734	747	749			80	85	23	
150	690	669	667	724		708	741	839	761		18	72	172	37	
300	690	672	669	716		715	876	879	783		25	204	210	67	
450	696	672	668	714		722	889	894	829		26	217	226	115	
600	697	670	666	712		727	906	886	873		30	236	220	161	
750	697	669	664	711		729	930	906	898		32	261	242	187	
900	697	668	664	711	936	736	940	910	902	989	39	272	246	191	53
1050	696	668	664	710	924	741	955	928	904	1000	45	287	264	194	76
1200	694	668	664	711	924	746	958	954	934	1019	52	290	290	223	95
1350	693	669	666	711	924	750	976	954	948	1038	57	307	288	237	114
1500	689	670	666	712	924	754	979	956	956	1053	65	309	290	244	129
1650	684	669	666	714	923	759	966	964	923	1075	75	297	298	209	152
1800	682	666	665	716	926	761	933	912	859	1013	79	267	247	143	87
1950		651	665	721	936		788	746	786	1000		137	81	65	64
2100			654	727	962			720	723	996			66	-4	34
2250			654	733	964			700	758	996			46	25	32
2400			674	737	968			693	762	1009			19	25	41
2550															
2700															
2850															
3000															

Measurements are taken from fixed reference 1500mm from vehicle CL.

DATA SHEET NO. 10.....(CONTINUED)

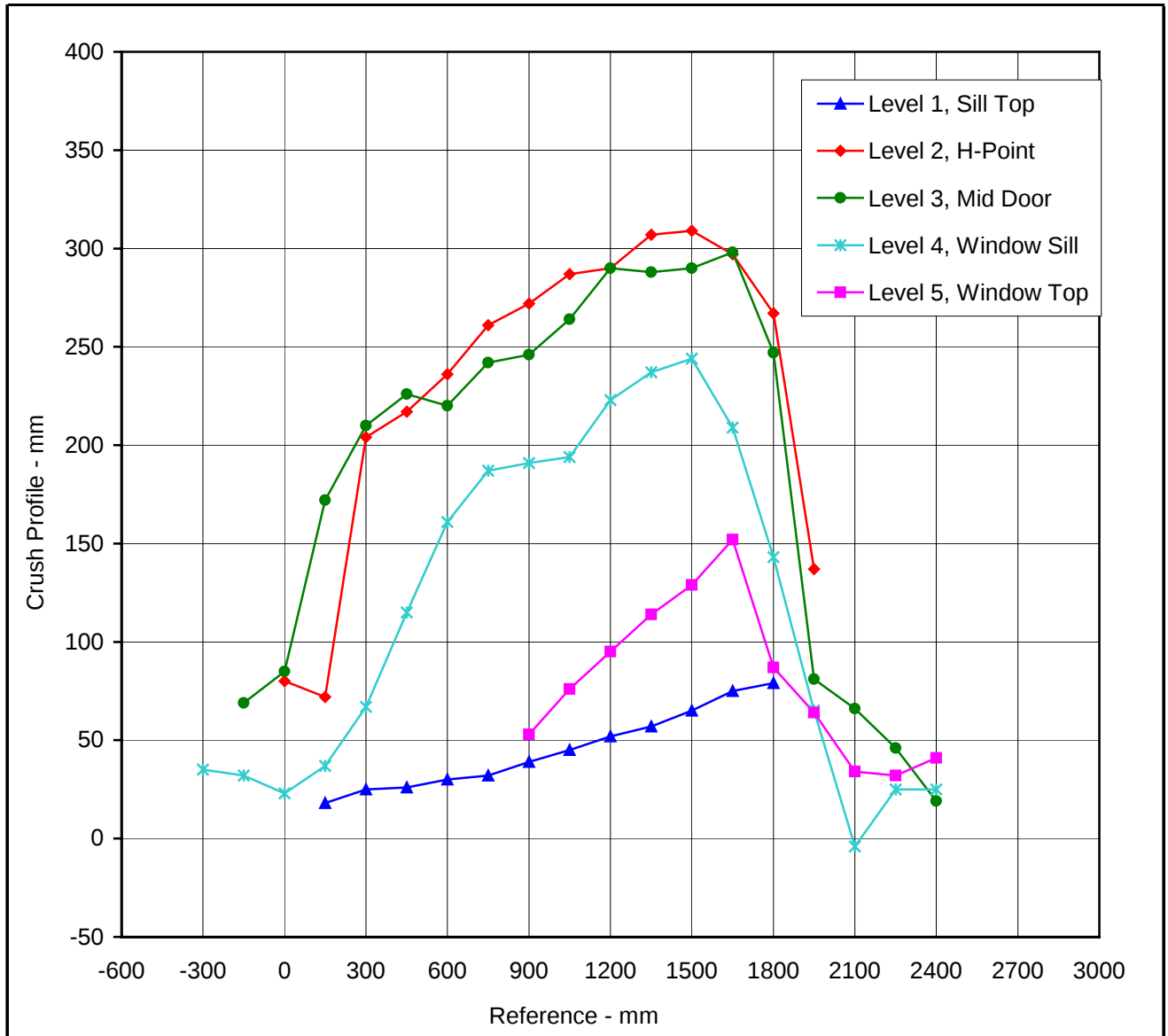
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04



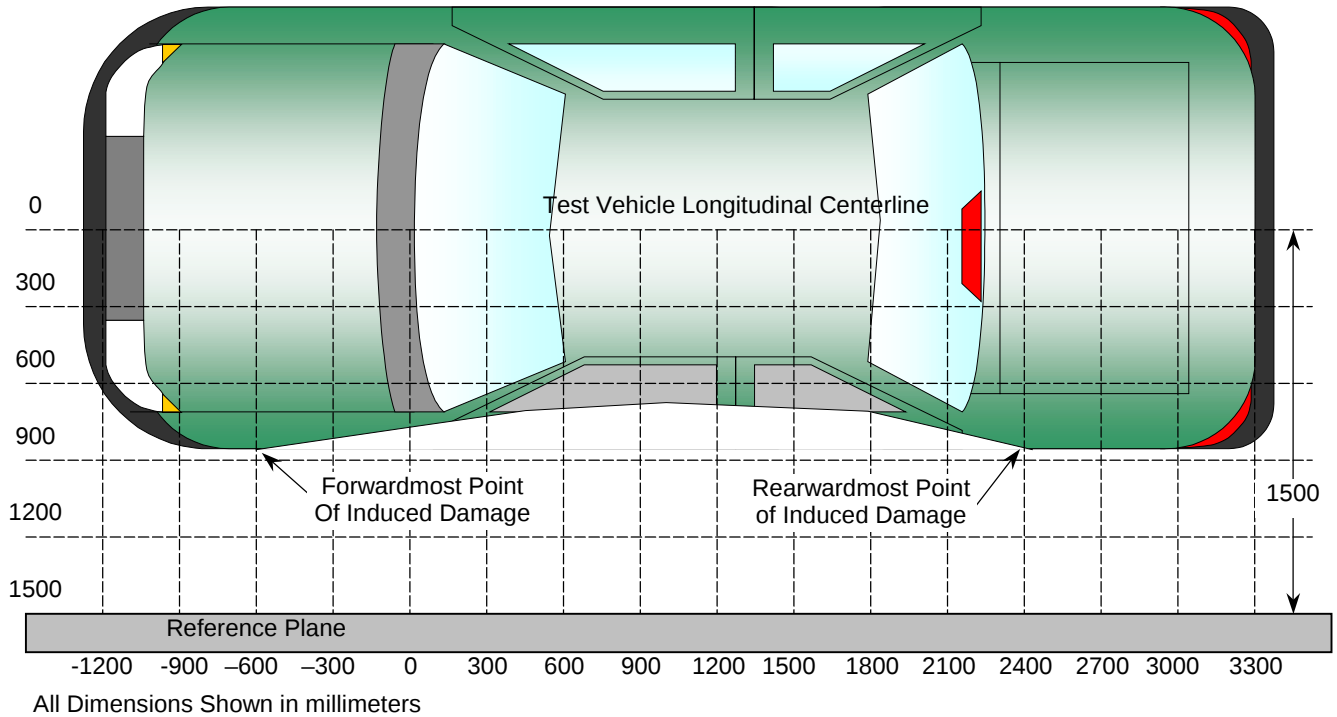
	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	79	309	298	244	152
Distance from Impact	mm	1800	1500	1650	1500	1650

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

NHTSA No.: M40513
 Test Date: 1/20/04



TOP VIEW

DAMAGE PROFILE DISTANCES

DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max. Static Crush (mm)
1	-300	4	756	791	35
2	300	3	669	879	210
3	900	2	668	940	272
4	1500	2	670	979	309
5	1950	2	651	788	137
6	2400	5	968	1009	41

DATA SHEET NO. 12

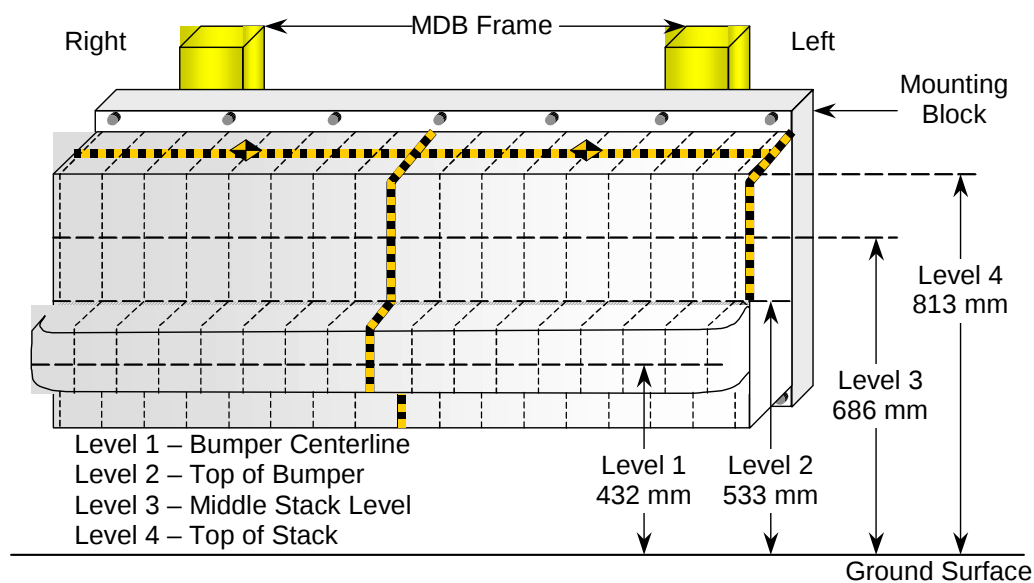
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04



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	115	92	92	96	102	111	112	112	109	109	115	121	128	134	153	188	210
2	44	41	42	46	53	56	54	57	57	61	66	73	76	82	91	108	122
3	18	-3	-2	1	11	32	37	23	18	20	21	23	29	40	68	111	152
4	50	5	-11	-9	1	34	39	32	21	26	26	28	37	-23	21	161	189

All Dimensions in mm

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

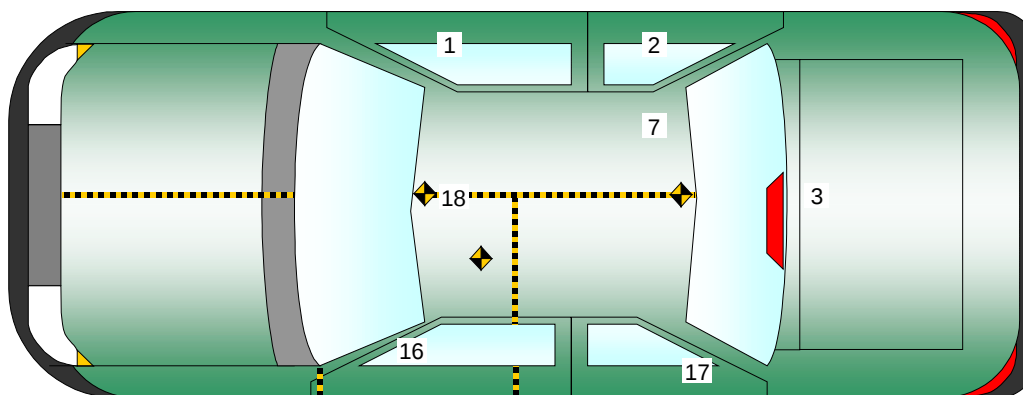
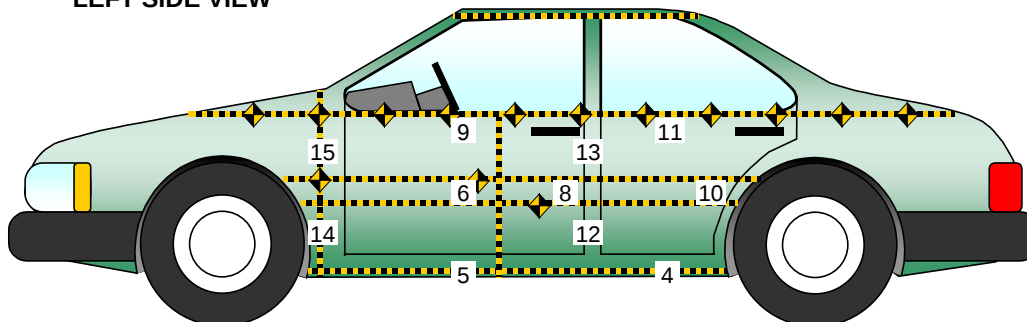
Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

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
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

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

Test Date: 1/20/04

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	2750	620	180	X	3.3	59.0	-6.0	8.7
					Y	27.7	13.5	-2.1	128.2
					Z	5.8	10.1	-10.2	6.6
					RES	29.1	13.5		
2	Right Sill at Rear Seat	1710	520	290	X	4.0	58.7	-5.8	8.7
					Y	23.5	5.4	-2.1	127.9
					Z	3.7	24.2	-5.0	14.1
					RES	23.6	5.4		
3	Rear Floorpan Above Axle	840	0	296	X	3.9	59.5	-11.1	33.5
					Y	24.5	27.8	-2.3	95.7
					Z	15.4	34.4	-15.5	17.8
					RES	27.3	26.7		
4	Left Sill at Rear Door	1670	-650	145	Y	25.1	17.2	-3.6	121.9
5	Left Sill at Front Door	2350	-650	150	Y	23.8	39.3	-3.5	121.3
6	Front Door Centerline	2750	-730	640	Y	145.5	10.7	-144.0	20.3
7	Rt. Rear Occ. Compartment	1890	430	176	Y	26.9	5.5	-2.4	127.0
8	Front Door Mid-Rear	2300	-730	570	Y	262.4	8.4	-121.6	21.2
9	Front Door Upper Centerline	2500	-730	720	Y	182.4	8.3	-142.8	20.7
10	Rear Door Mid-Rear	1300	-720	900	Y	99.0	17.4	-45.3	23.2
11	Rear Door Upper Centerline	1400	-920	750	Y	0.0	0.0	0.0	0.0
12	B-Post Lower	1980	-695	450	Y	238.3	3.7	-88.2	13.1
13	B-Post Middle	1980	-695	650	Y	156.3	4.1	-56.5	13.4
14	A-Post Lower	3100	-810	420	Y	0.0	0.0	0.0	0.0
15	A-Post Middle	3100	-800	750	Y	58.0	10.9	-14.4	16.2
16	Front Seat Track	2500	-570	300	Y	39.2	4.0	-5.7	7.6
17	Rear Seat Structure				Y				
18	Vehicle CG	3000	190	200	X	2.9	58.4	-7.9	7.9
					Y	22.1	13.0	-2.4	119.2
					Z	5.5	6.7	-6.9	12.1
					RES	23.3	12.9		

1.) Not installed

2.) Channel failed, no data

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

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

Test Date: 1/20/04

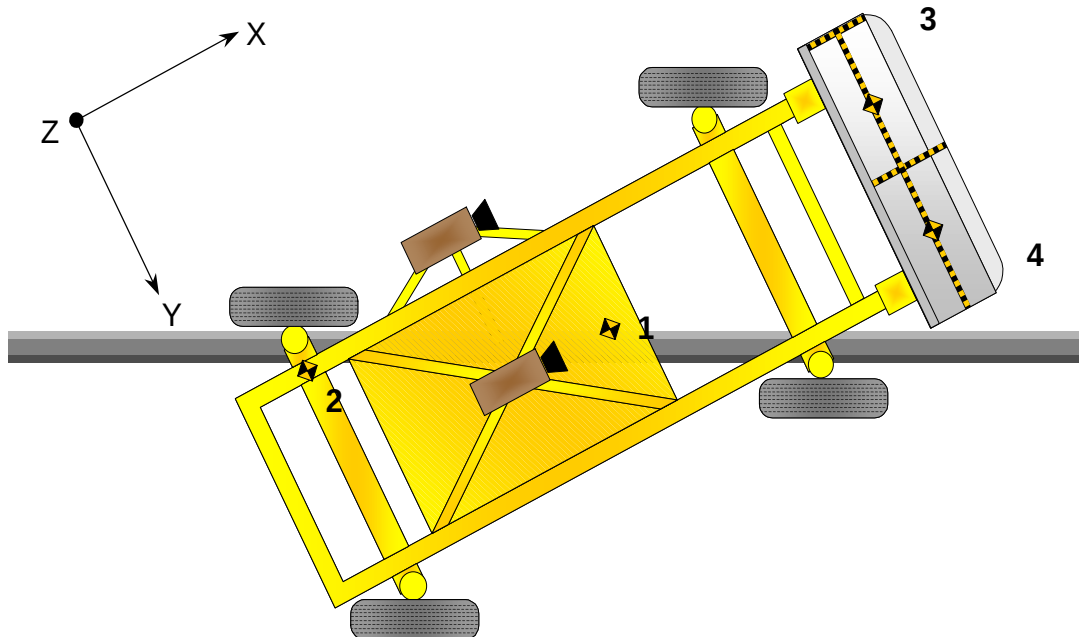
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

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	3.2	150.3	-20.7	37.3
					Y	2.6	103.6	-9.2	28.6
					Z	12.8	114.9	-12.0	103.2
					RES	22.8	35.1		
2	MDB Rear	-2642	-593	608	X	2.2	109.5	-22.6	32.4
					Y	2.4	144.7	-6.4	25.9

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	44.2	50.0	0.9



DATA SHEET NO. 15

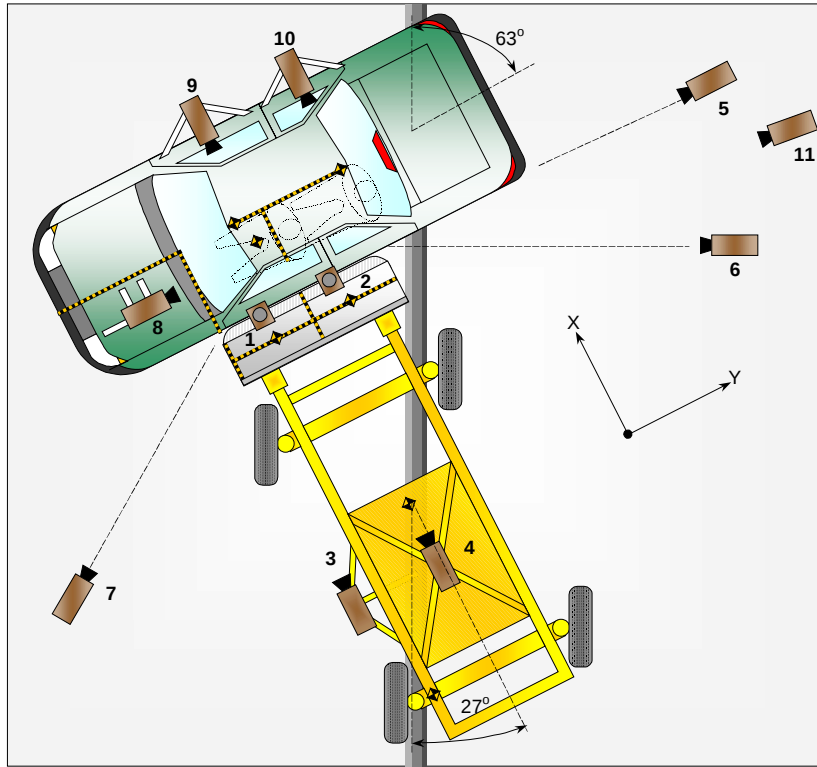
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Real Time	22860	3658	1727	5	17-70	24
2	Overhead Overall	2438	609	5486	90	8	910
3	Overhead Close-Up	1676	-1067	5486	90	35	1000
4	Impact Point	0	-2134	1143	7	13	1100
5	Side Overall	838	-3912	1829	11	13	660
6	Rear	15545	228	1371	1	35-80	1020
7	Left Rear	16459	-7188	939	1	80	950
7B	Left Front	-4775	-2666	1473	7	13	1000
8	Left Front	-5080	-3531	1524	8	17	NTM
9	Driver Front	-432	483	1395	8	19	1010
10	Driver Side	762	1219	990	5	6	1020

.DATA SHEET NO. 16

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan NHTSA No.: M40513
Test Program: 55/28 km/h 90 Deg. Side Impact NCAP Test Date: 1/20/04

Test Time: 3:41 PM Temperature: 11.1 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

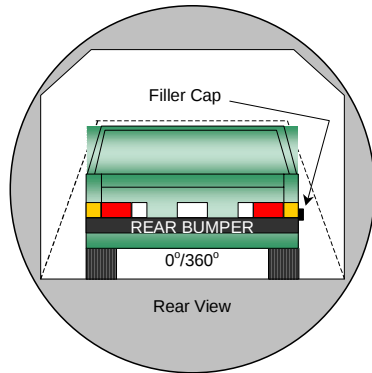
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan

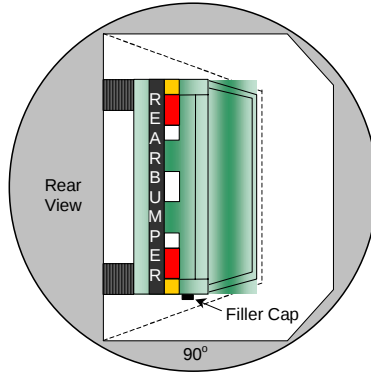
NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

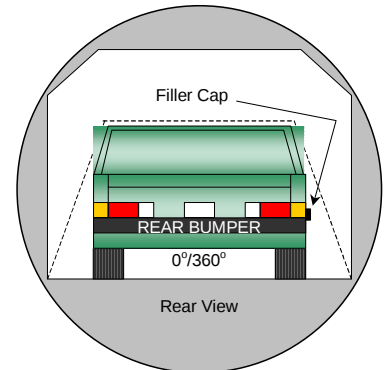
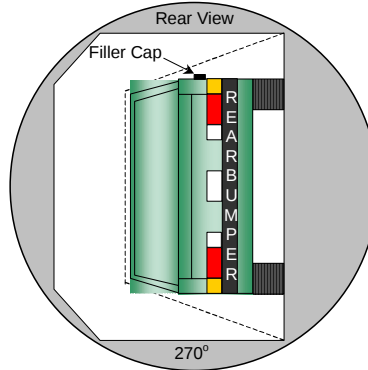
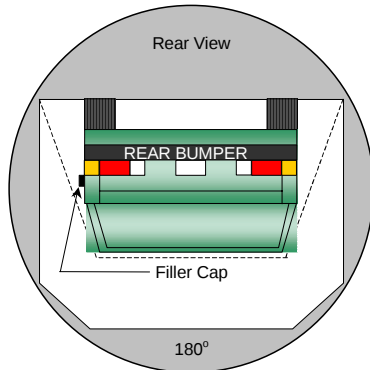
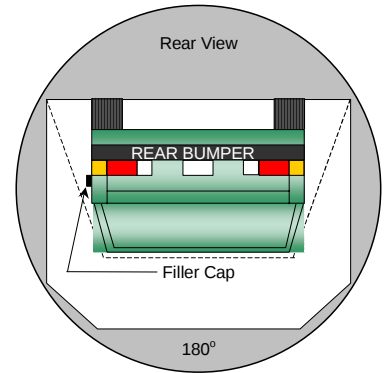
Test Date: 1/20/04



0° TO 90°



90° TO 180°



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: 2004 Suzuki Aerio GX 4 Door Sedan

NHTSA No.: M40513

Test Program: 55/28 km/h 90 Deg. Side Impact NCAP

Test Date: 1/20/04

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°	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

Figure		Page
A-1	Left Front as Received	A-1
A-2	Right Rear as Received	A-2
A-3	Vehicle Certification Label	A-3
A-4	Vehicle Tire Label	A-4
A-5	Front View, Pre-test	A-5
A-6	Front View, Post-Test	A-6
A-7	Left Front $\frac{3}{4}$ View, Pre-Test	A-7
A-8	Left Front $\frac{3}{4}$ View, Post -Test	A-8
A-9	Left (Impacted) Side View, Pre-Test	A-9
A-10	Left (Impacted) Side View, Post-Test	A-10
A-11	Left Rear $\frac{3}{4}$ View, Pre-Test	A-11
A-12	Left Rear $\frac{3}{4}$ View, Post Test	A-12
A-13	Rear View, Pre-Test	A-13
A-14	Rear View, Post-Test	A-14
A-15	Right Rear $\frac{3}{4}$ View, Pre-Test	A-15
A-16	Right Rear $\frac{3}{4}$ View, Post-Test	A-16
A-17	Right Side View, Pre-Test	A-17
A-18	Right Side View, Post-Test	A-18
A-19	Right Front $\frac{3}{4}$ View, Pre-Test	A-19
A-20	Right Front $\frac{3}{4}$ View, Post-Test	A-20
A-21	Overhead Overall View, Pre-Test	A-21
A-22	Overhead Overall View, Post-Test	A-22
A-23	Overhead Close-up View, Pre-Test	A-23
A-24	Overhead Close-up View, Post-Test	A-24
A-25	Impact Point Target Set-up, Pre-Test	A-25
A-26	Impact Point Target, Post-Test	A-26
A-27	Front $\frac{3}{4}$ View of Left Side Doors, Pre-Test	A-27
A-28	Front $\frac{3}{4}$ View of Left Side Doors, Post-Test	A-28
A-29	Rear $\frac{3}{4}$ View of Left Side Doors, Pre-Test	A-29
A-30	Rear $\frac{3}{4}$ View of Left Side Doors, Post-Test	A-30
A-31	Left Front Door Closed, Pre-Test	A-31
A-32	Left Front Door Closed, Post-Test	A-32
A-33	Left Rear Door Closed, Pre-Test	A-33

LIST OF PHOTOGRAPHS, ...(Continued)

<u>Figure</u>		<u>Page</u>
A-34	Left Rear Door Closed, Post-Test	A-34
A-35	Driver Dummy Left Side with Door Open, Pre-Test	A-35
A-36	Driver Dummy Left Side, Pre-Test	A-36
A-37	Driver Dummy Left Side, Post-Test	A-37
A-38	Driver Dummy Clearance, Pre-Test	A-38
A-39	Driver Dummy Clearance, Post-Test	A-39
A-40	Driver Dummy Inside View, Pre-Test	A-40
A-41	Driver Dummy Inside View, Post-Test	A-41
A-42	Driver Door Inside View, Pre-Test	A-42
A-43	Driver Dummy Contact Points Inside View, Post-Test	A-43
A-44	Driver Dummy Left Side with Door Open, Pre-Test	A-44
A-45	Passenger Dummy Left Side, Pre-Test	A-45
A-46	Passenger Dummy Left Side, Post-Test	A-46
A-47	Passenger Dummy Clearance, Pre-Test	A-47
A-48	Passenger Dummy Clearance, Post-Test	A-48
A-49	Passenger Dummy Inside View, Pre-Test	A-49
A-50	Passenger Dummy Inside View, Post-Test	A-50
A-51	Passenger Door Inside View, Pre-Test	A-51
A-52	Passenger Dummy Contact Points Inside View, Post-Test	A-52
A-53	Front View of Deformable Barrier, Pre-Test	A-53
A-54	Front View of Deformable Barrier, Post-Test	A-54
A-55	Top View of Deformable Barrier, Pre-Test	A-55
A-56	Top View of Deformable Barrier, Post-Test	A-56
A-57	Right Side View of Deformable Barrier, Pre-Test	A-57
A-58	Right Side View of Deformable Barrier, Post-Test	A-58
A-59	Left Side View of Deformable Barrier, Pre-Test	A-59
A-60	Left Side View of Deformable Barrier, Post-Test	A-60
A-61	Vehicle on Rollover Device, 0° View	A-61
A-62	Vehicle on Rollover Device, 90° View	A-62
A-63	Vehicle on Rollover Device, 180° View	A-63
A-64	Vehicle on Rollover Device, 270° View	A-64
A-65	Vehicle During Impact	A-65



Figure A-1: Left Front, as Received



Figure A-2: Right Rear, as Received

MFD BY SUZUKI MOTOR CORPORATION JAPAN

DATE	GVWR	GAWR FRT	GAWR RR
06 / 03	3726LB	1918LB	1940LB
	1690Kg	870Kg	880Kg

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

JS2RA61S645200631

PASS CAR

2.3L 2WD US

Figure A-3: Vehicle Certification Label



TIRE AND LOADING INFORMATION

SEATING CAPACITY, TOTAL 5, FRONT 2, REAR 3

The combined weight of occupants and cargo should never exceed 440 kg or 968 lbs.

ORIGINAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
P195/55R15	FRONT	210 kPa, 30 PSI
	REAR	210 kPa, 30 PSI
COMPACT SPARE TIRE	COLD TIRE INFLATION PRESSURE	
T125/70D15	420 kPa, 60 PSI	

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

79161-59J2

Figure A-4: Vehicle Tire Label



Figure A-5: Front View, Pre-Test

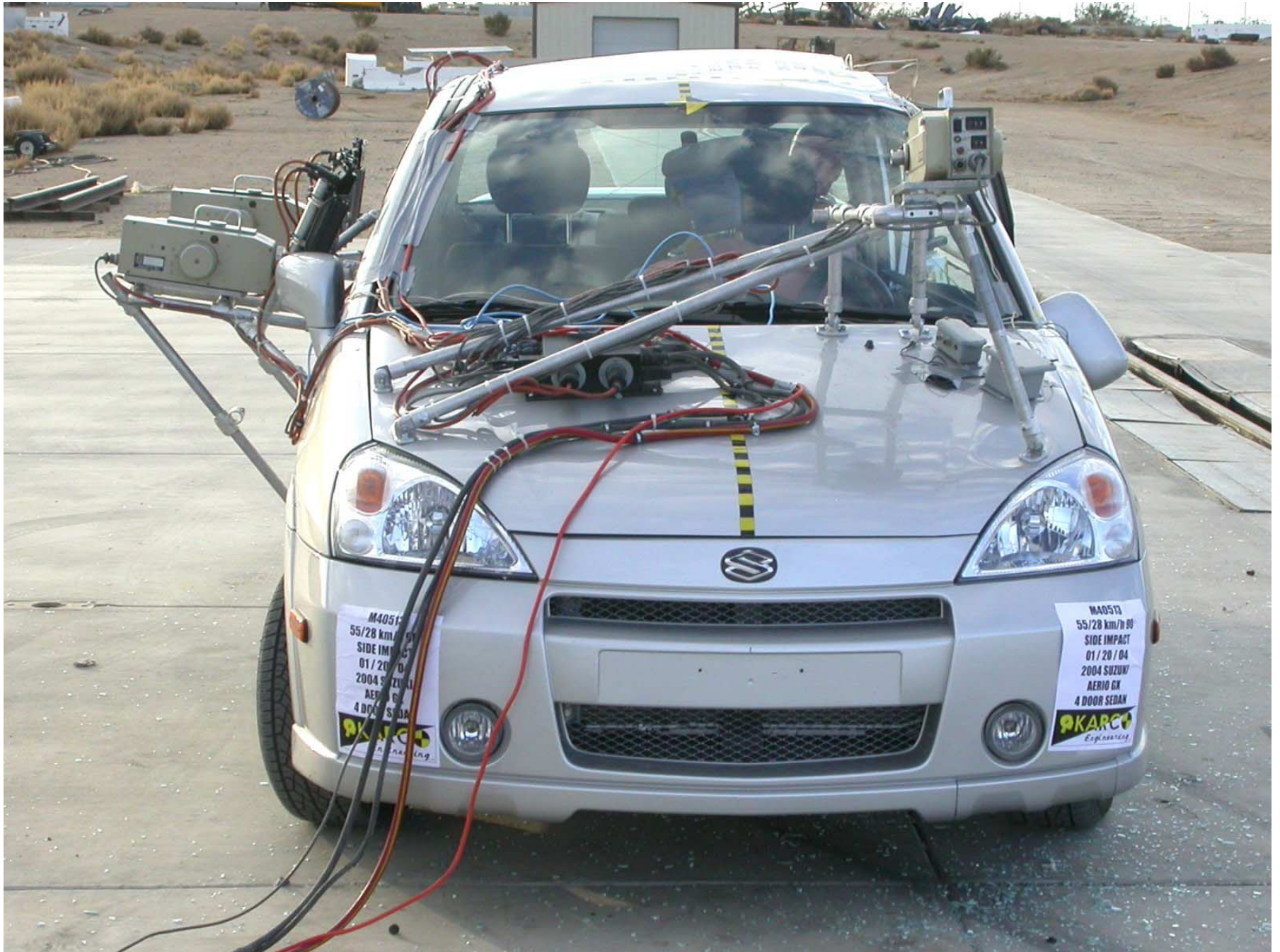


Figure A-6: Front View, Post-Test



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



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



Figure A-9: Left (Impacted) Side View, Pre-Test



Figure A-10: Left (Impacted) Side View, Post-Test



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



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



Figure A-13: Rear View, Pre-Test



Figure A-14: Rear View, Post-Test



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



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



Figure A-17: Right Side View, Pre-Test



Figure A-18: Right Side View, Post-Test



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



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

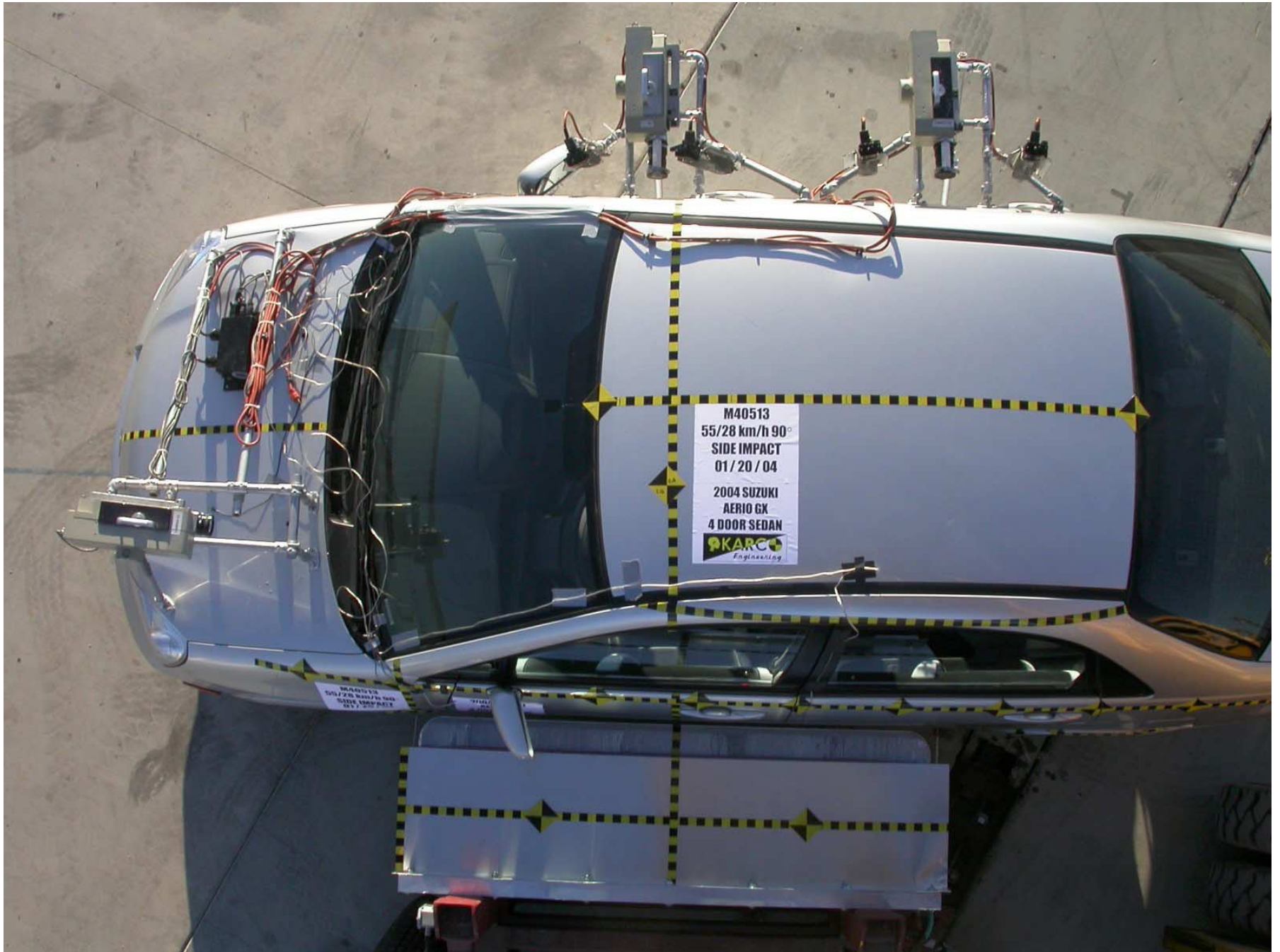


Figure A-21: Overhead Overall View, Pre-Test



Figure A-22: Overhead Overall View, Post-Test

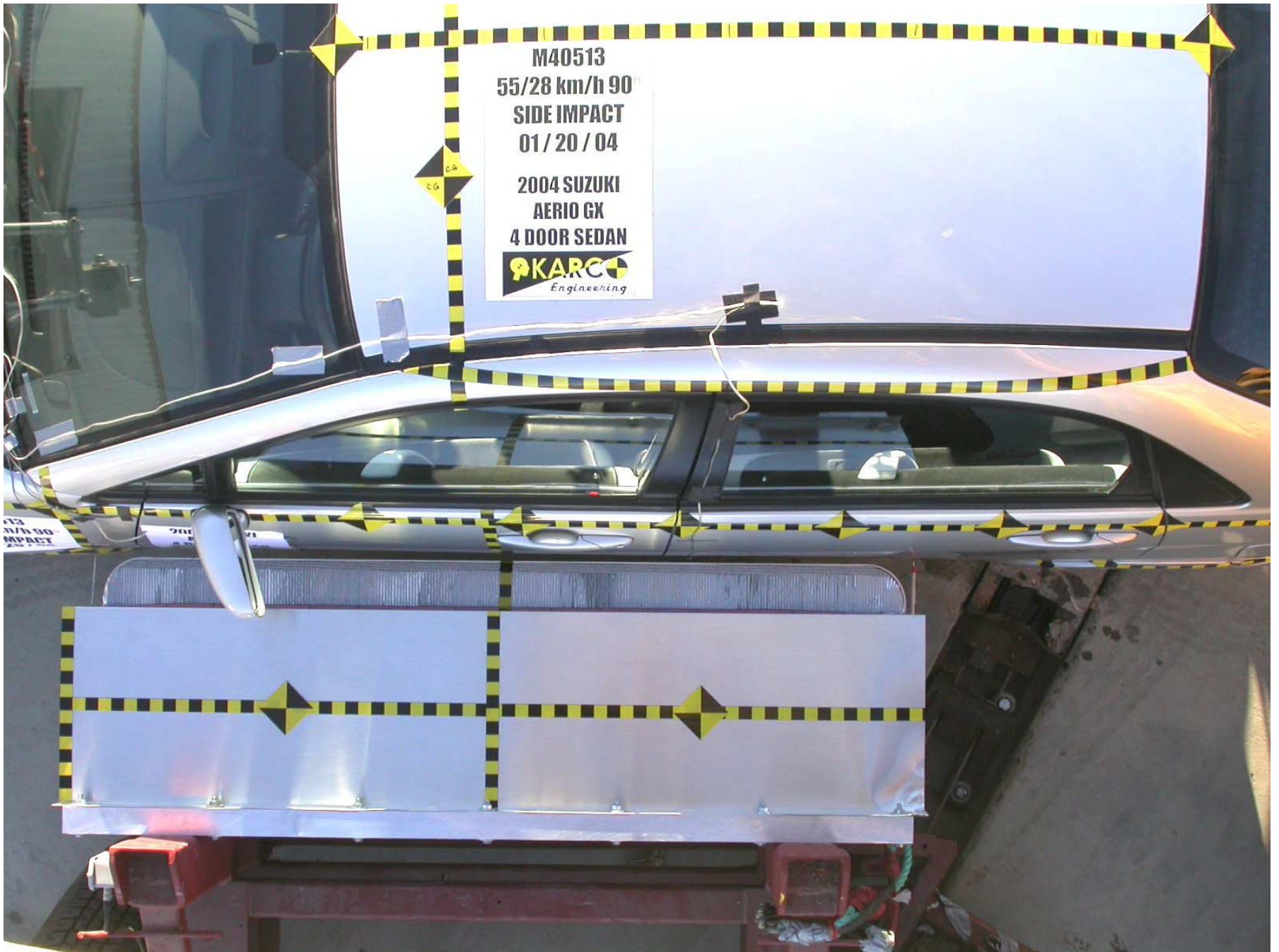


Figure A-23: Overhead Close-up View, Pre-Test



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



Figure A-25: Impact Point Target Set-up, Pre-Test



Figure A-26: Impact Point Target, Post-Test



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



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



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



Figure A-30: Rear ¾ View of Left Side Doors, Post-Test



Figure A-31: Left Front Door Closed, Pre-Test



Figure A-32: Left Front Door Closed, Post-Test



Figure A-33: Left Rear Door Closed, Pre-Test



Figure A-34: Left Rear Door Closed, Post-Test



Figure A-35: Driver Dummy Left Side with Door Open, Pre-Test



Figure A-36: Driver Dummy Left Side, Pre-test



Figure A-37: Driver Dummy Left Side, Post-Test



Figure A-38: Driver Dummy Clearance, Pre-Test



Figure A-39: Driver Dummy Clearance, Post-Test



Figure A-40: Driver Dummy Inside View, Pre-Test



Figure A-41: Driver Dummy Inside View, Post-Test



Figure A-42: Driver Door Inside View, Pre-Test



Figure A-43: Driver Dummy Contact Points Inside View, Post-Test



Figure A-44: Passenger Dummy Left Side with Door Open, Pre-Test



Figure A-45: Passenger Dummy Left Side, Pre-Test



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



Figure A-47: Passenger Dummy Clearance, Pre-Test



Figure A-48: Passenger Dummy Clearance, Post-Test



Figure A-49: Passenger Dummy Inside View, Pre-Test



Figure A-50: Passenger Dummy Inside View, Post-Test



Figure A-51: Passenger Door Inside View, Pre-Test



Figure A-52: Passenger Dummy Contact Points Inside View, Post-Test



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



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

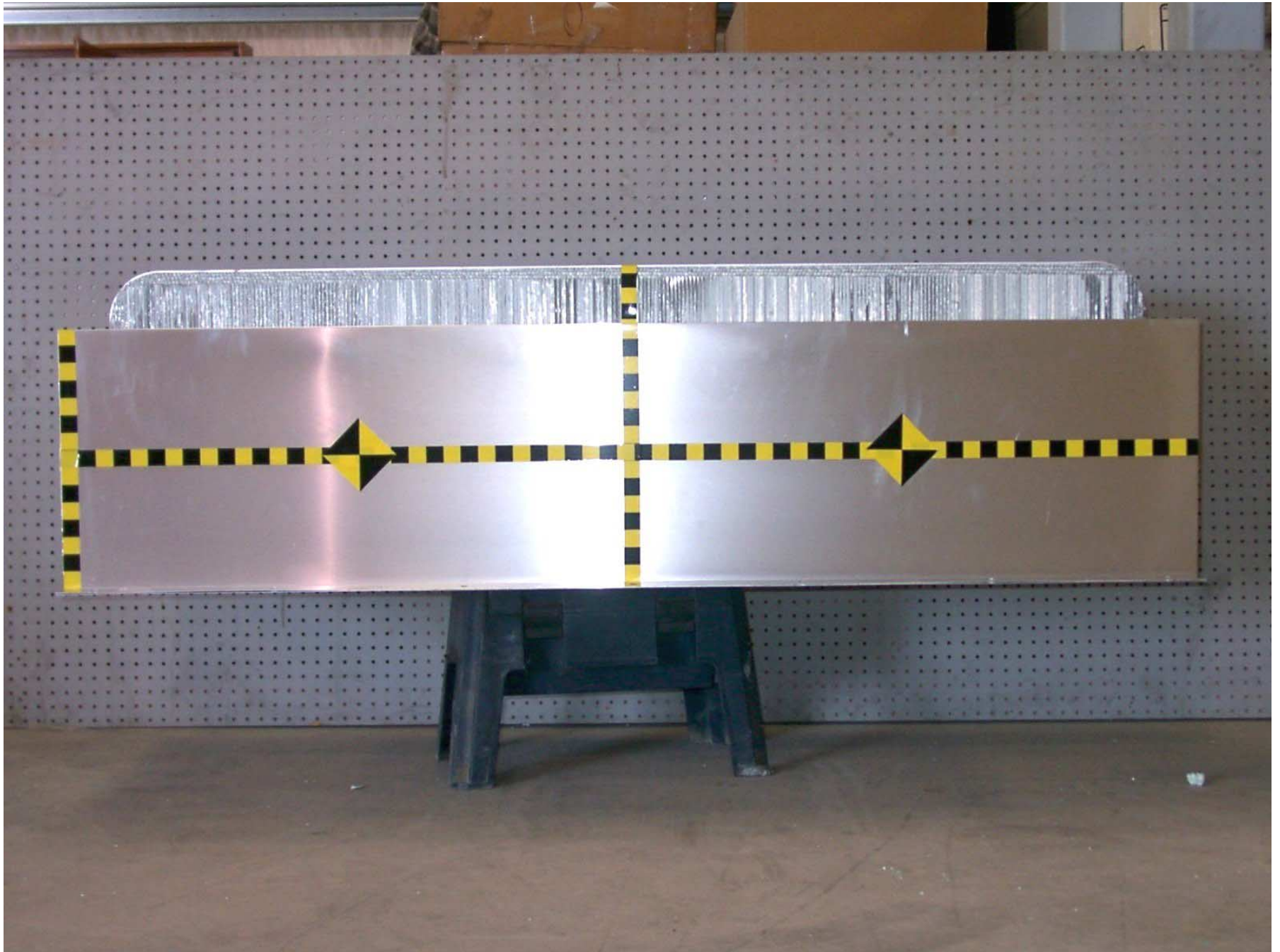


Figure A-55: Top View of Deformable Barrier, Pre-Test



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



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



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



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



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



Figure A-61: Vehicle on Rollover Device, 0° View

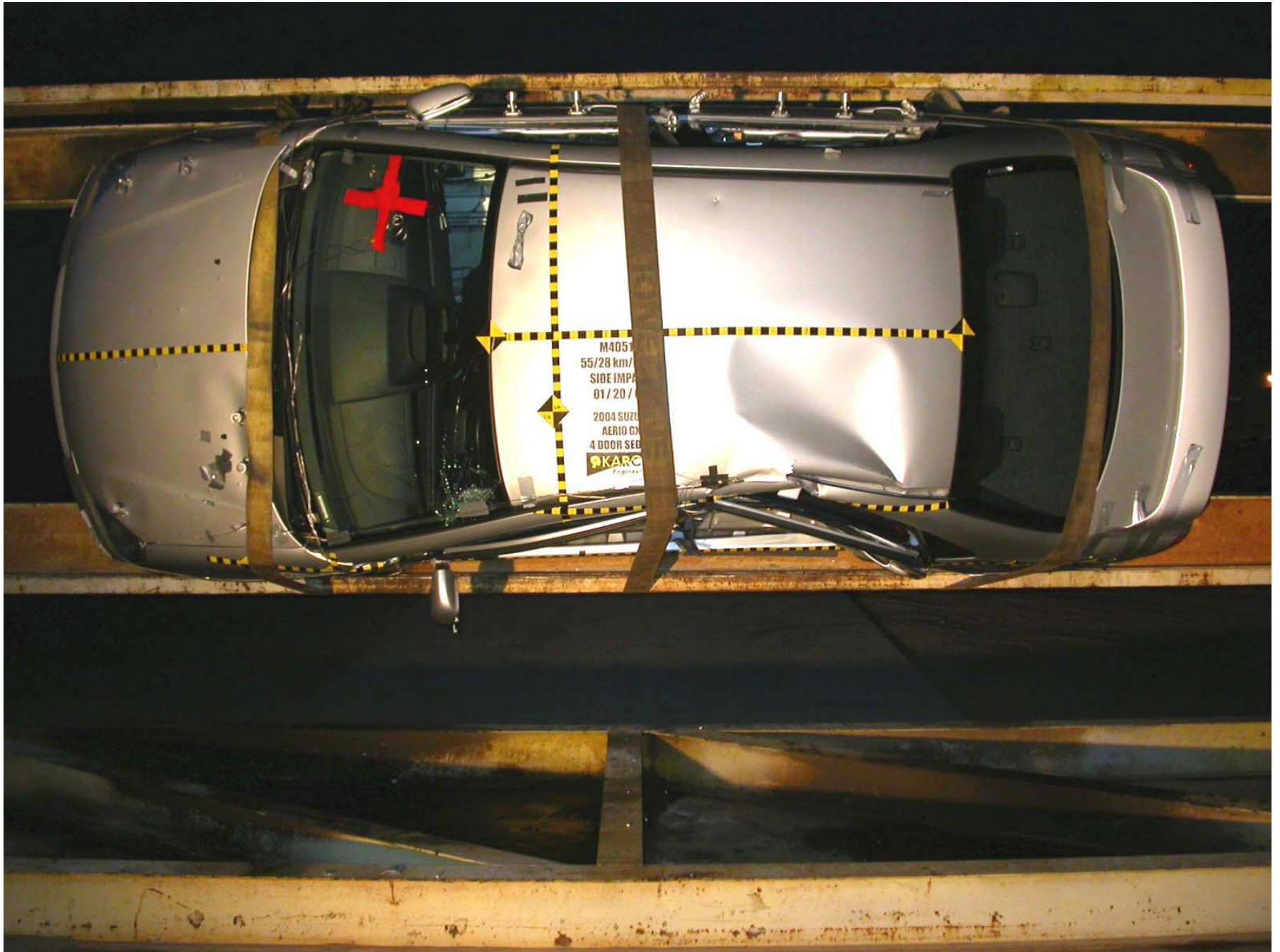


Figure A-62: Vehicle on Rollover Device, 90° View

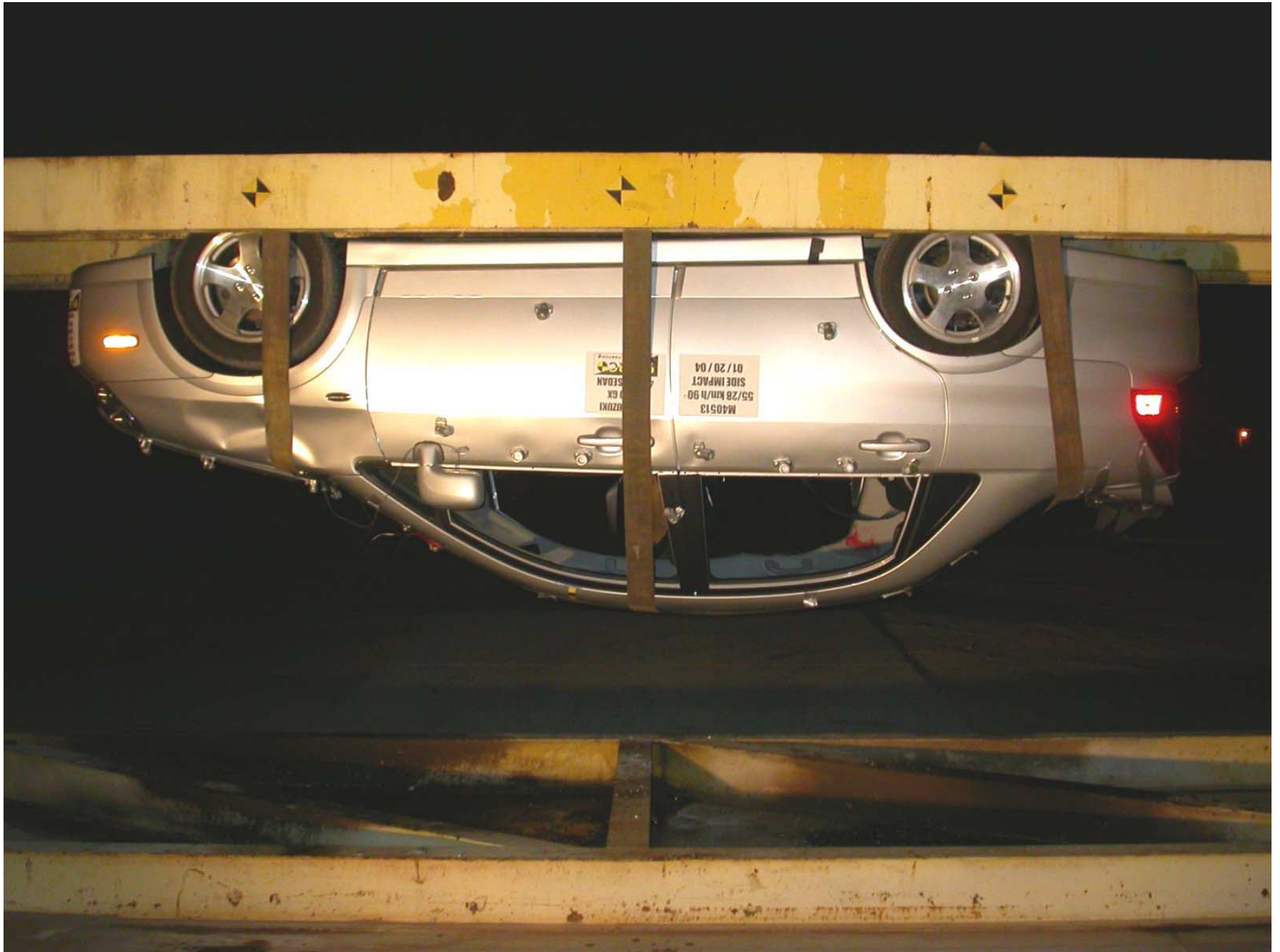


Figure A-63: Vehicle on Rollover Device, 180° View

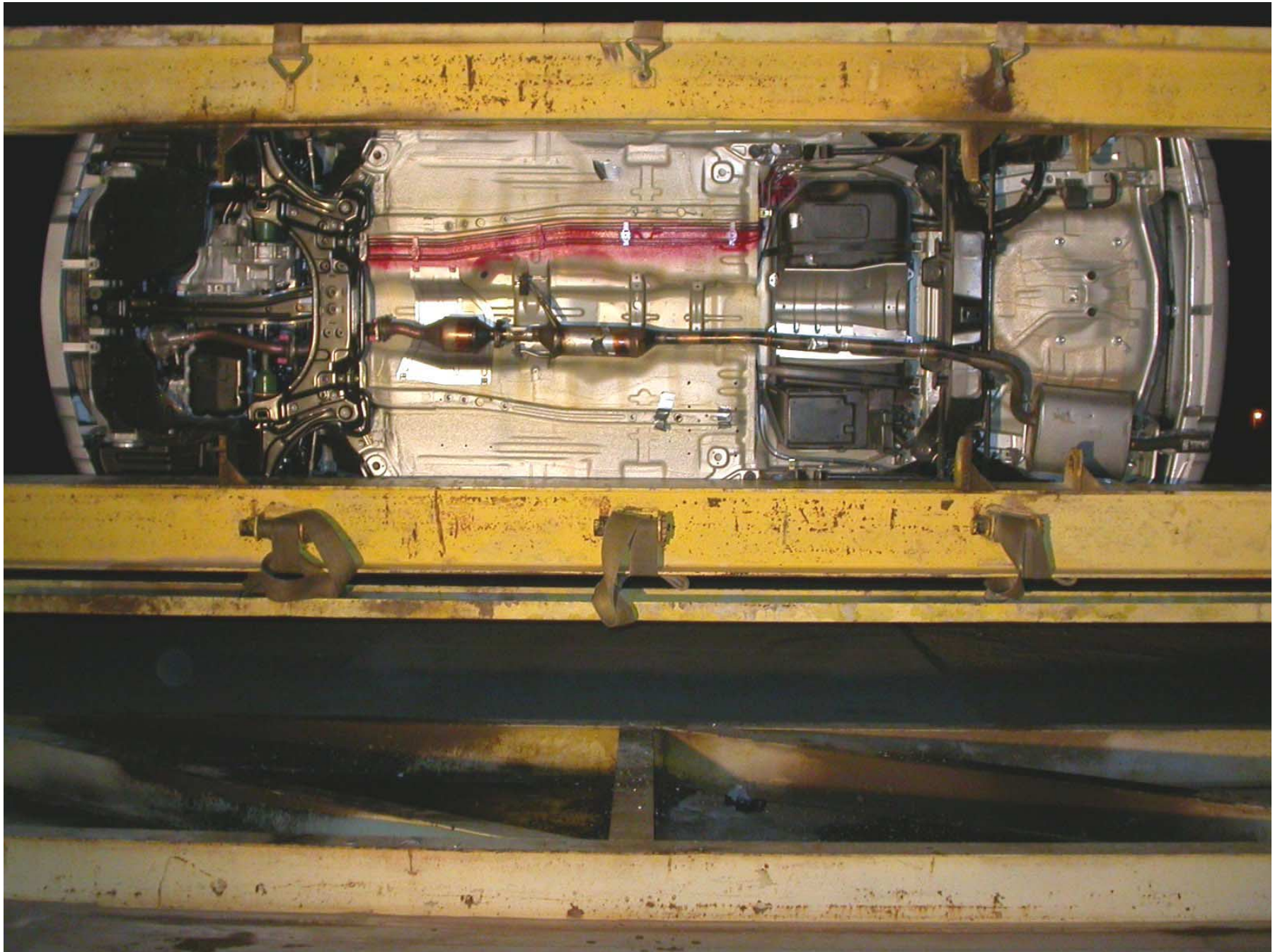


Figure A-64: Vehicle on Rollover Device, 270° View



Figure A-65: Vehicle During Impact

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

LIST OF DATA PLOTS

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

LIST OF DATA PLOTS...(Continued)

<u>Data Plot</u>	<u>Page</u>
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

LIST OF DATA PLOTS...(Continued)

<u>Data Plot</u>	<u>Page</u>
B-19	Passenger Upper Rib Primary Y Velocity
	Passenger Lower Rib Primary Y Velocity
	Passenger Lower Spine Primary Y Velocity
	Passenger Pelvis Primary Y Velocity
B-20	Passenger Upper Rib Redundant Y
	Passenger Lower Rib Redundant Y
	Passenger Lower Spine Redundant Y
	Passenger Pelvis Redundant Y
B-21	Passenger Upper Rib Redundant Y Velocity
	Passenger Lower Rib Redundant Y Velocity
	Passenger Lower Spine Redundant Y Velocity
	Passenger Pelvis Redundant Y Velocity
B-22	Passenger Thorax Contact
	Passenger Pelvis Contact
B-23	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
B-24	Vehicle Right Sill at Front Seat X Velocity
	Vehicle Right Sill at Front Seat Y Velocity
	Vehicle Right Sill at Front Seat Z Velocity
B-25	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
B-26	Vehicle Right Sill at Rear Seat X Velocity
	Vehicle Right Sill at Rear Seat Y Velocity
	Vehicle Right Sill at Rear Seat Z Velocity
B-27	Vehicle Rear Floor Above Axle X
	Vehicle Rear Floor Above Axle Y
	Vehicle Rear Floor Above Axle Z
	Vehicle Rear Floor Above Axle Resultant
B-28	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)

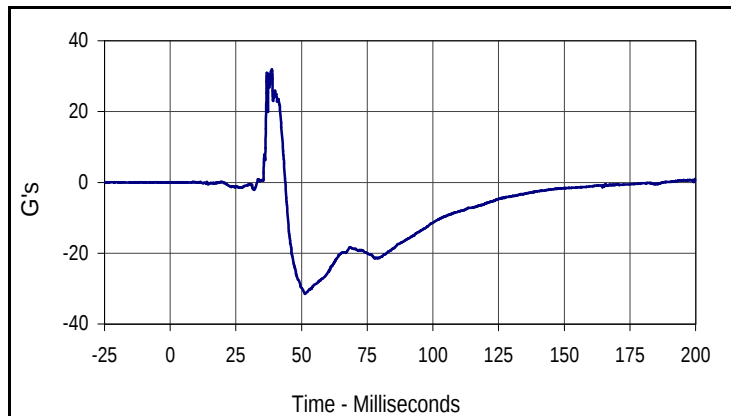
<u>Data Plot</u>	<u>Page</u>
B-29	Vehicle Left Sill at Rear Door Y
	Vehicle Left Sill at Front Door Y
	Vehicle Left Sill at Rear Door Y Velocity
	Vehicle Left Sill at Front Door Y Velocity
B-30	Vehicle Left Front Door C/L Y
	Vehicle Right Rear Occupant Compartment
	Vehicle Left Front Door Mid Rear Y
	Vehicle Left Front Door Upper CL Y
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 C/L 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

LIST OF DATA PLOTS...(Continued)

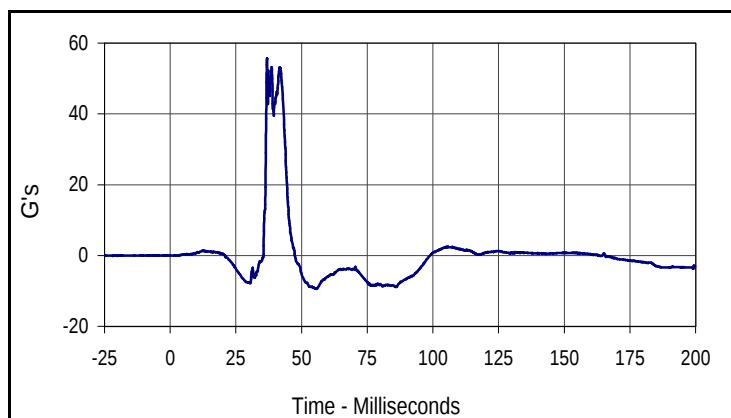
<u>Data Plot</u>	<u>Page</u>
B-38	Driver Upper Rib Primary Y
	Driver Lower Rib Primary Y
	Driver Lower Spine Primary Y
	Driver Pelvis Primary Y
B-39	Driver Upper Rib Redundant Y
	Driver Lower Rib Redundant Y
	Driver Lower Spine Redundant Y
	Driver Pelvis Redundant Y
B-40	Passenger Upper Rib Primary Y
	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 Z
	MDB Rear Y Velocity
B-45	MDB Right Bumper Contact

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

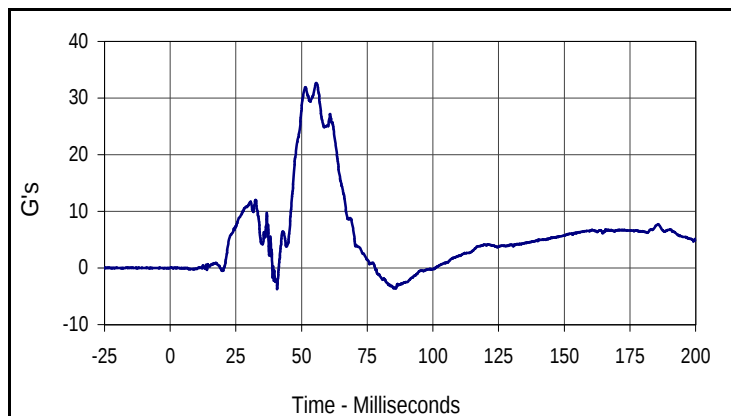
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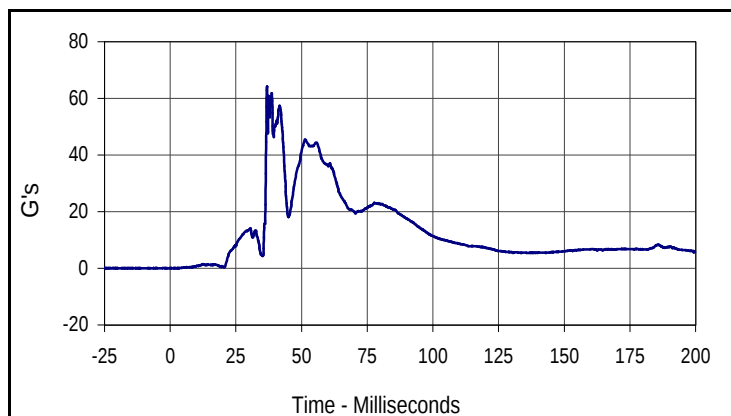
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Max	Time	Min	Time
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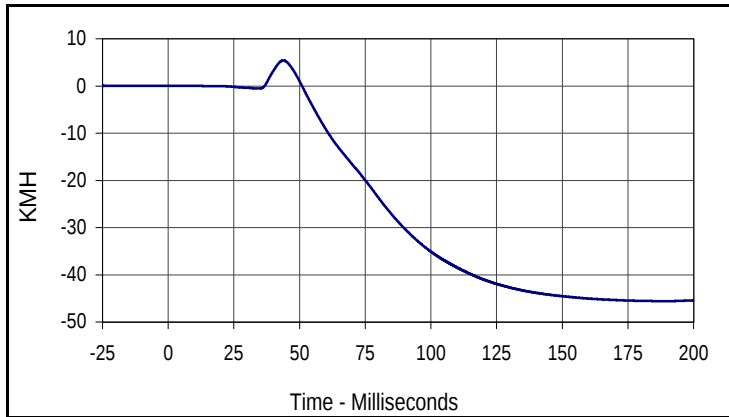
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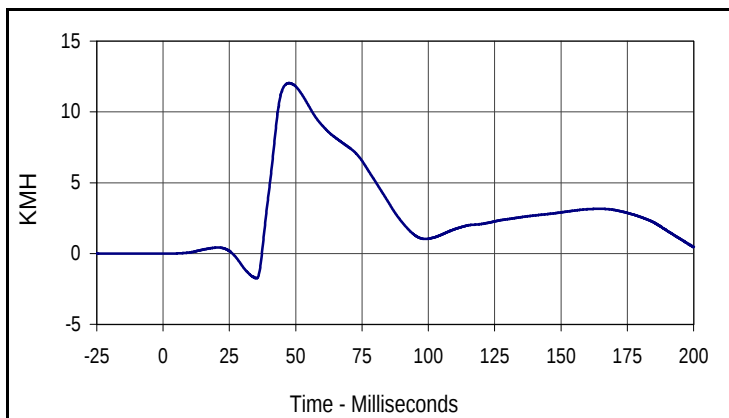
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Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

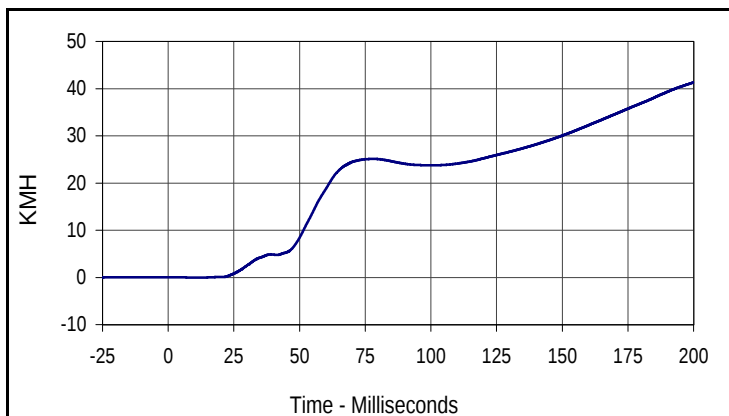
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 NHTSA No.: M40513



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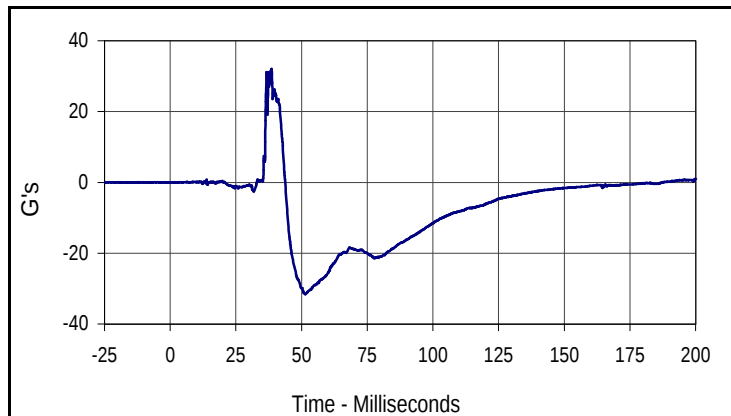
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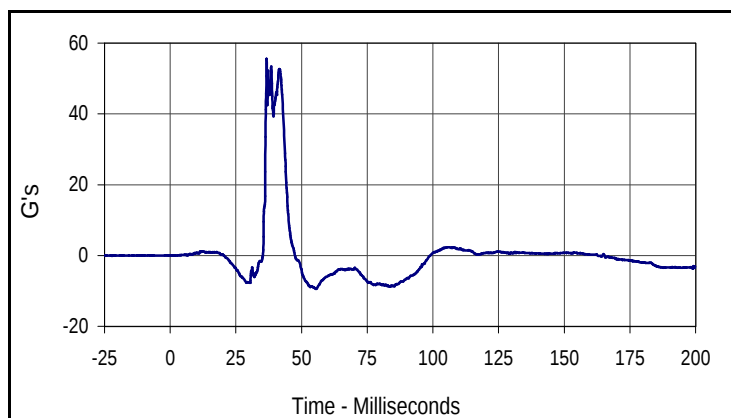
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Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

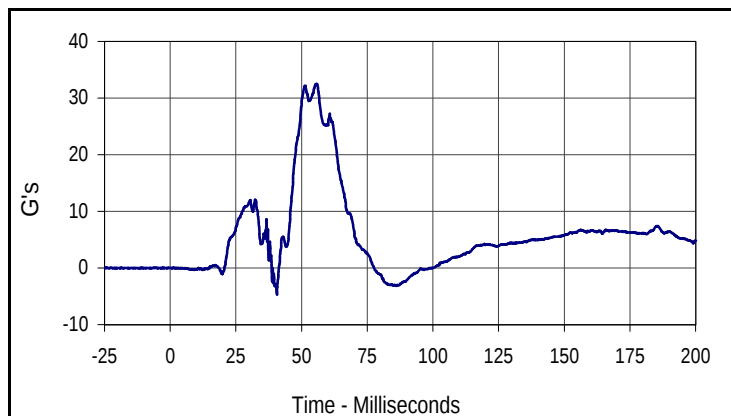
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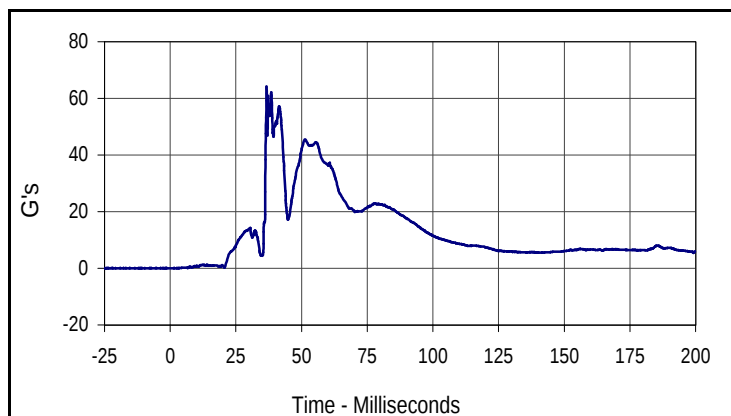
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Curve Description			
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Max	Time	Min	Time
55.5	36.7	-9.4	55.5



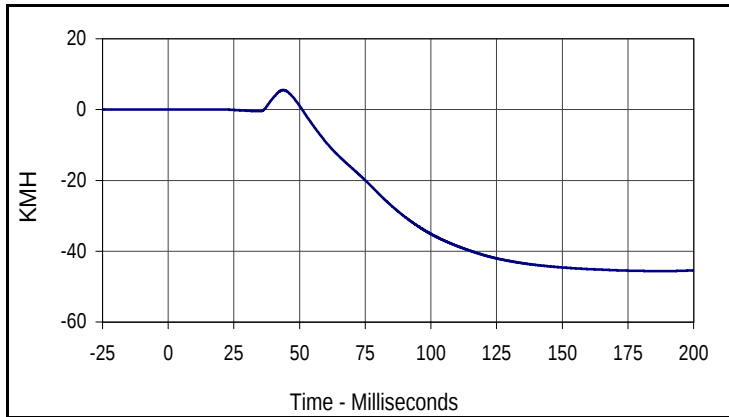
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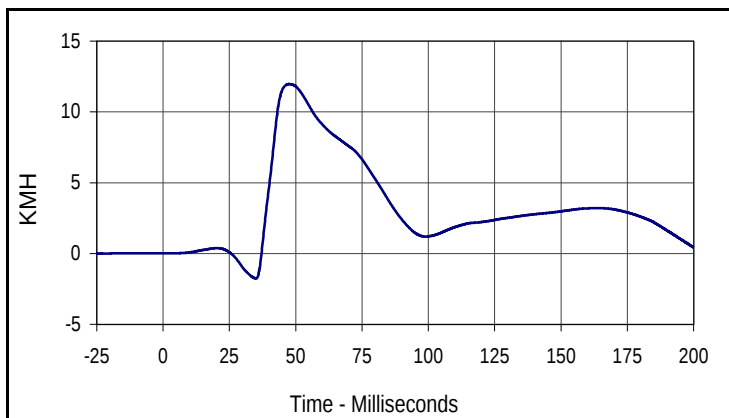
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Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

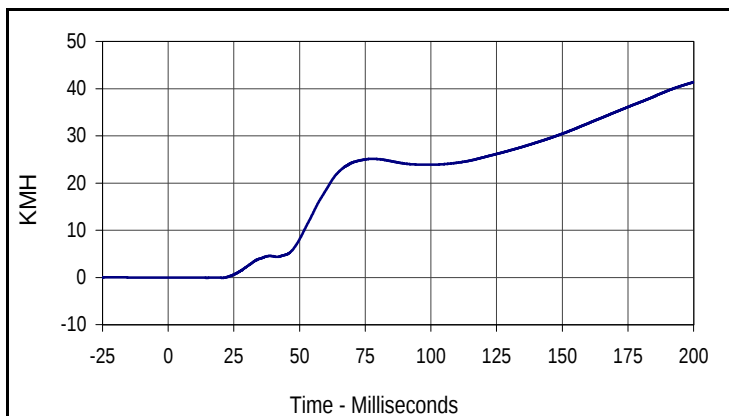
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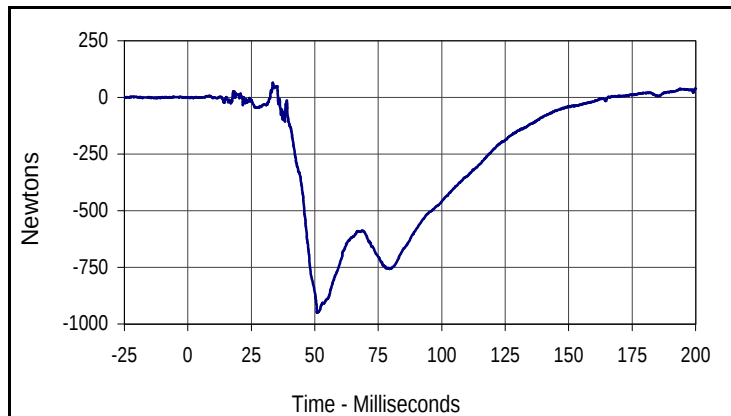
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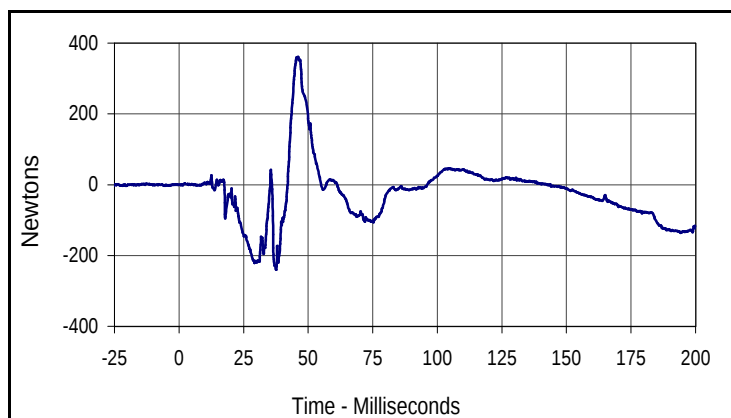
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Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

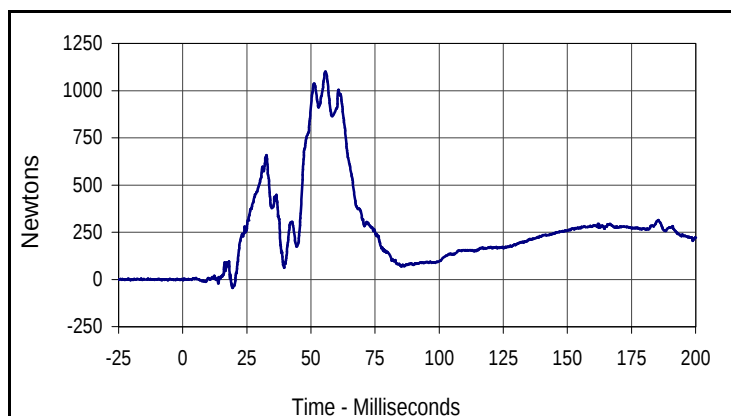
Test Date: 1/20/04
 NHTSA No.: M40513



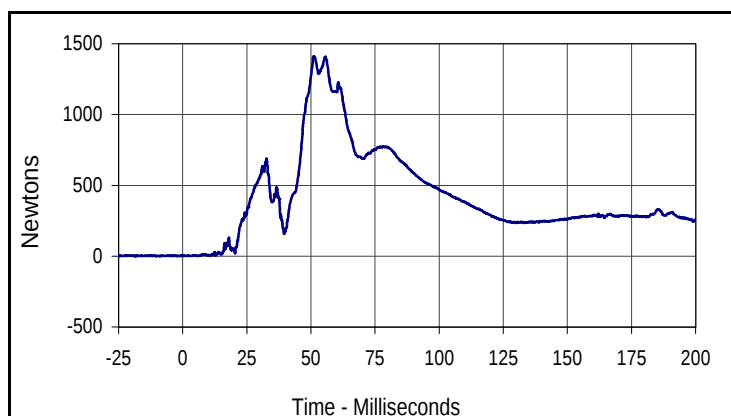
Curve Description			
Driver Upper Neck Force X			
CURNO	Type	SAE Class	Units
007	FIL	1000	Newtons
Max	Time	Min	Time
64.4	33.5	-951.0	50.9



Curve Description			
Driver Upper Neck Force Y			
CURNO	Type	SAE Class	Units
008	FIL	1000	Newtons
Max	Time	Min	Time
360.7	46.1	-240.0	37.7



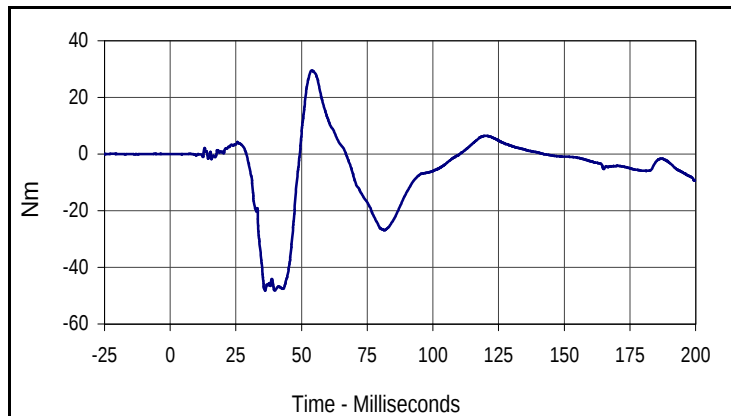
Curve Description			
Driver Upper Neck Force Z			
CURNO	Type	SAE Class	Units
009	FIL	1000	Newtons
Max	Time	Min	Time
1100.8	55.7	-44.1	19.4



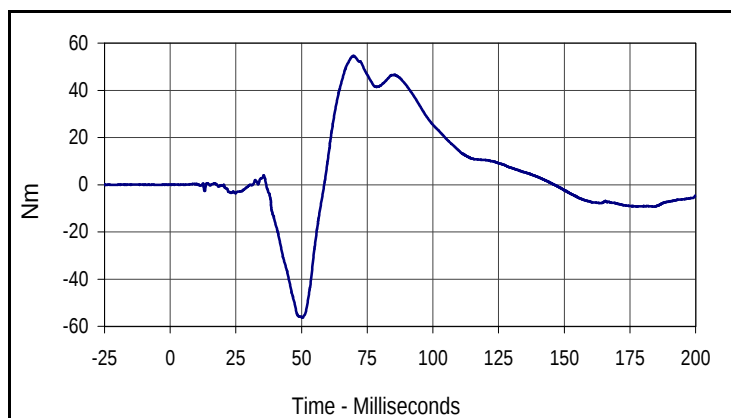
Curve Description			
Driver Upper Neck Force Resultant			
CURNO	Type	SAE Class	Units
007	RES	1000	Newtons
Max	Time	Min	Time
1412.9	51.2	0.8	6.2

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

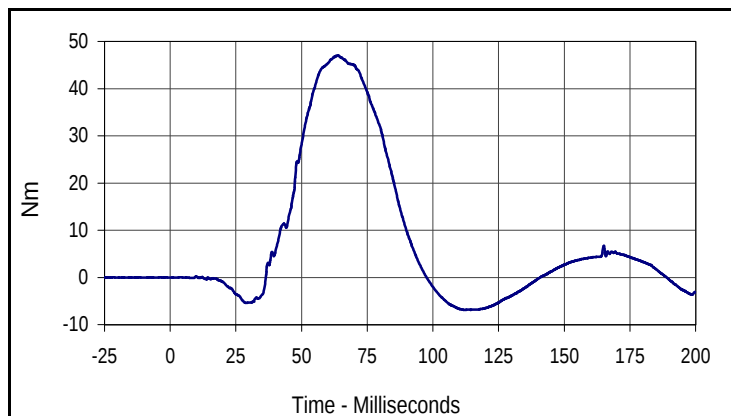
Test Date: 1/20/04
 NHTSA No.: M40513



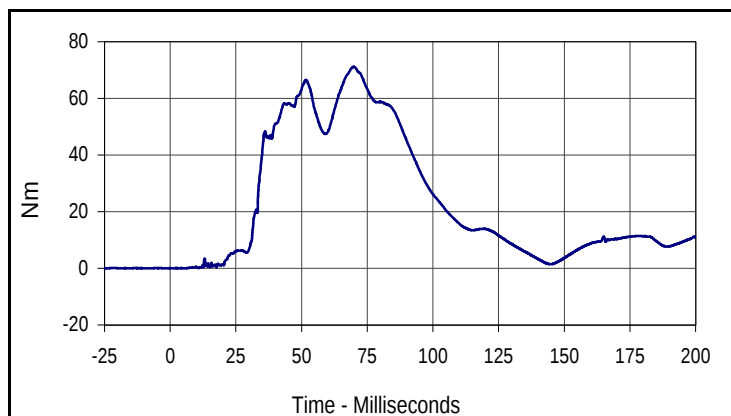
Curve Description			
Driver Upper Neck Moment X			
CURNO	Type	SAE Class	Units
010	FIL	600	Nm
Max	Time	Min	Time
29.5	53.8	-48.3	36.1



Curve Description			
Driver Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
011	FIL	600	Nm
Max	Time	Min	Time
54.5	69.7	-56.4	50.4



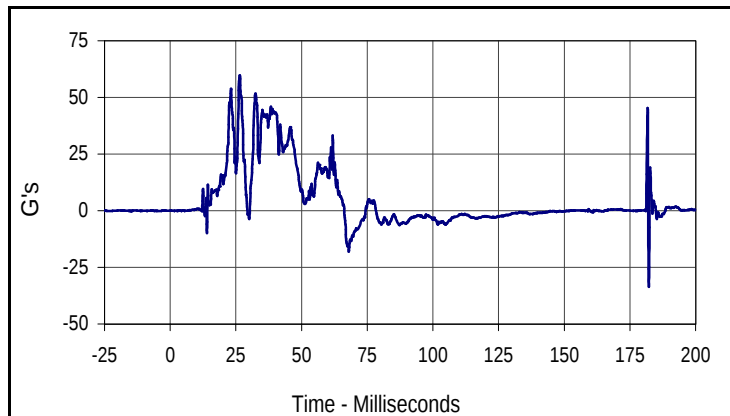
Curve Description			
Driver Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
012	FIL	600	Nm
Max	Time	Min	Time
47.0	63.9	-6.9	112.1



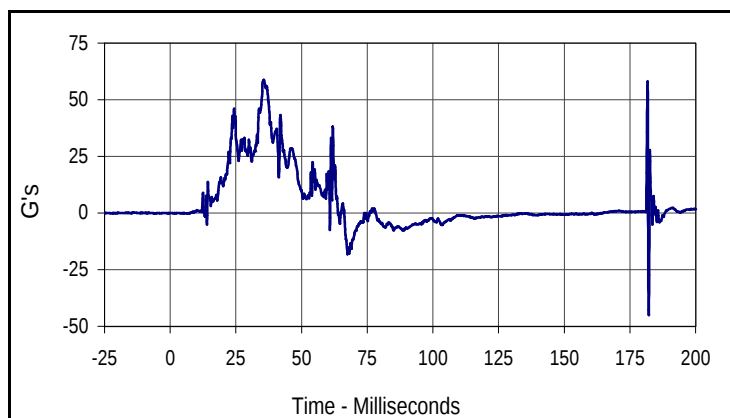
Curve Description			
Driver Upper Neck Moment Resultant			
CURNO	Type	SAE Class	Units
010	RES	600	Nm
Max	Time	Min	Time
71.1	69.9	0.0	3.3

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

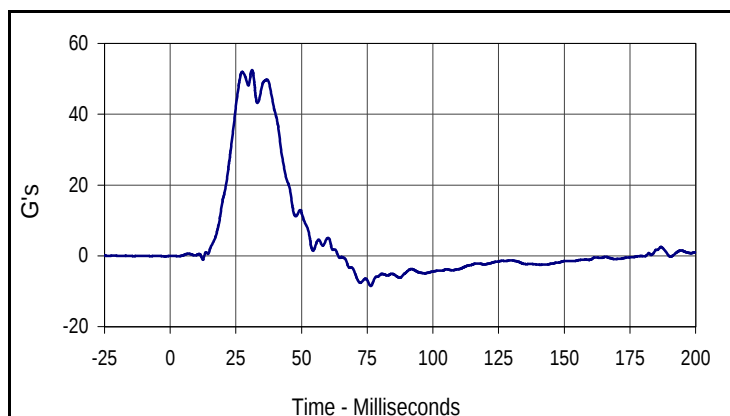
Test Date: 1/20/04
 NHTSA No.: M40513



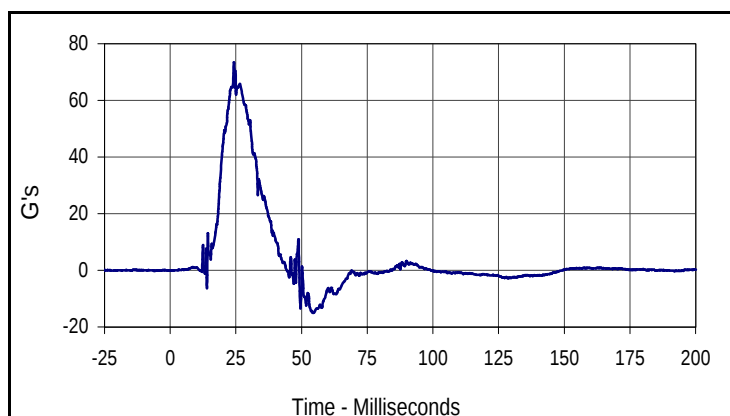
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
013	FIL	1000	G's
Max	Time	Min	Time
59.7	26.5	-33.6	182.2



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
014	FIL	1000	G's
Max	Time	Min	Time
58.8	35.7	-45.0	182.2



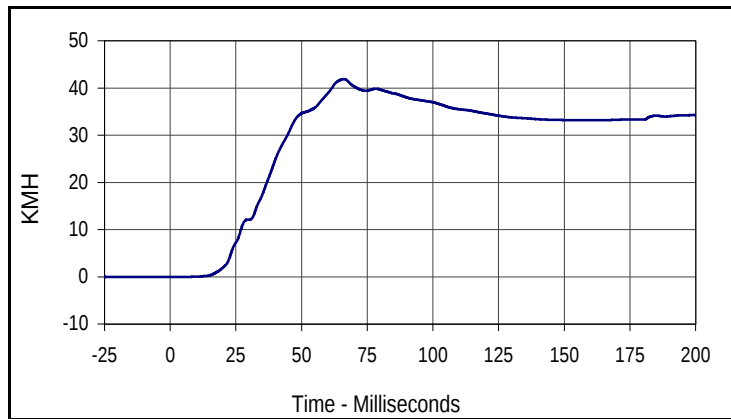
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
015	FIL	180	G's
Max	Time	Min	Time
52.5	31.2	-8.5	76.3



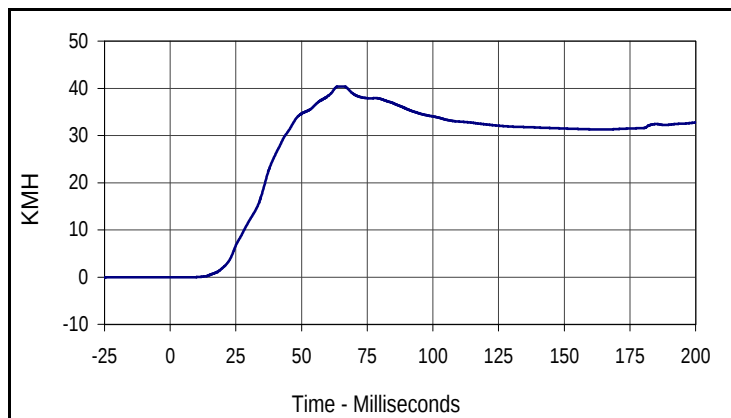
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
016	FIL	1000	G's
Max	Time	Min	Time
73.4	24.2	-15.0	54.7

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

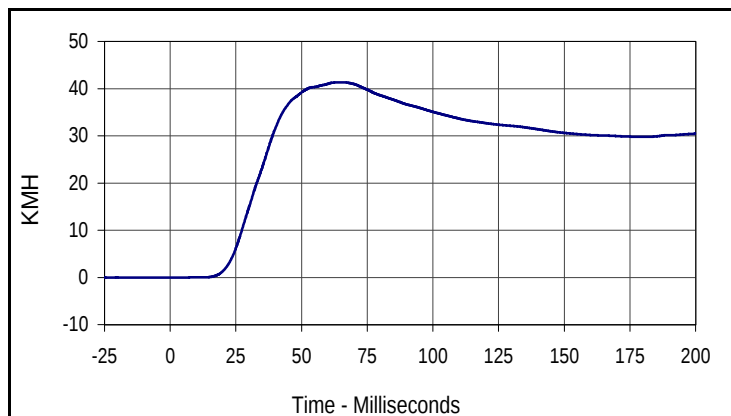
Test Date: 1/20/04
 NHTSA No.: M40513



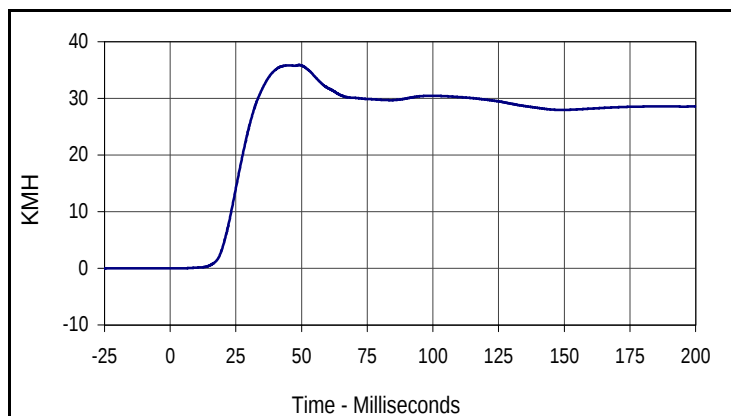
Curve Description			
Driver Upper Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
013	IN1	180	KMH
Max	Time	Min	Time
41.9	66.1	0.0	2.8



Curve Description			
Driver Lower Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
014	IN1	180	KMH
Max	Time	Min	Time
40.4	66.0	0.0	7.6



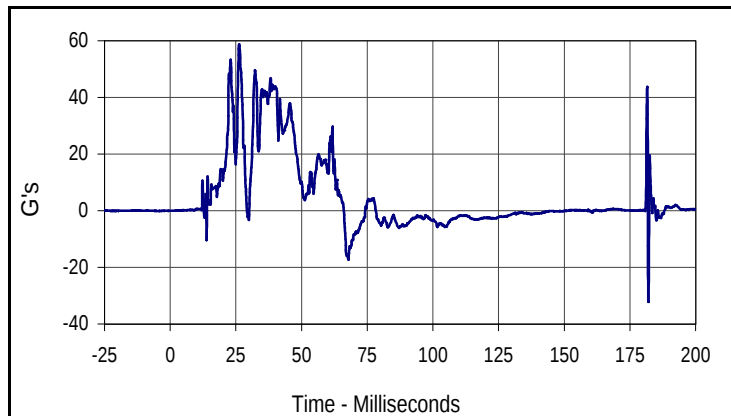
Curve Description			
Driver Lower Spine Primary Y Velocity			
CURNO	Type	SAE Class	Units
015	IN1	180	KMH
Max	Time	Min	Time
41.4	64.0	0.0	4.3



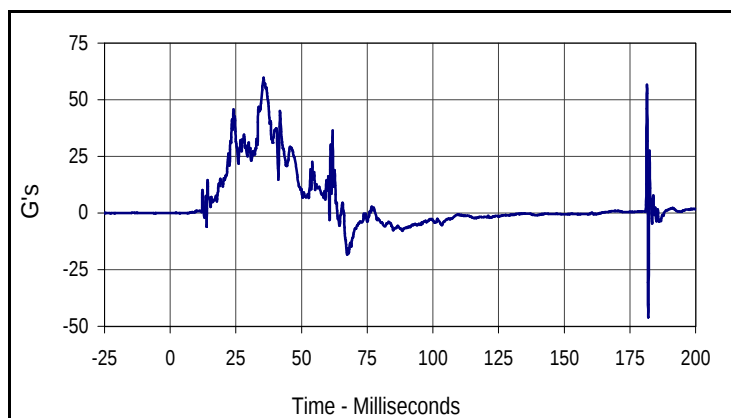
Curve Description			
Driver Pelvis Primary Y Velocity			
CURNO	Type	SAE Class	Units
016	IN1	180	KMH
Max	Time	Min	Time
35.9	49.1	0.0	2.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

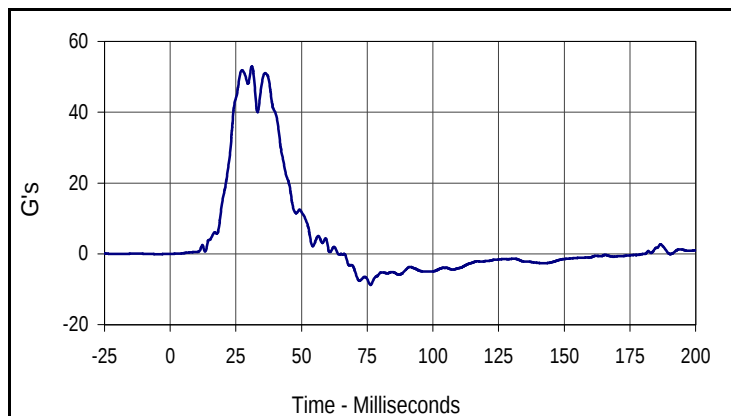
Test Date: 1/20/04
 NHTSA No.: M40513



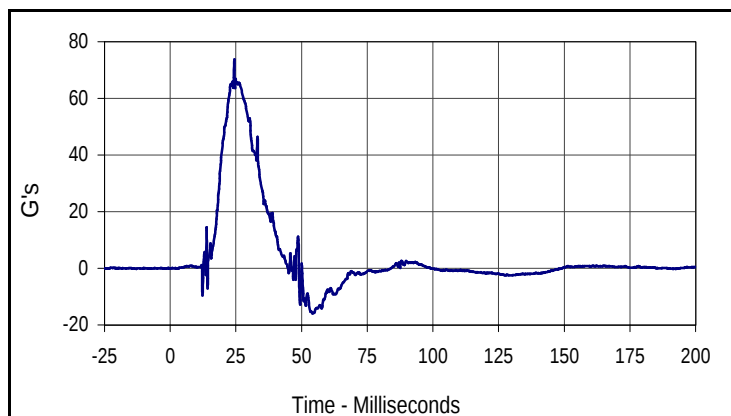
Curve Description			
Driver Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
017	FIL	1000	G's
Max	Time	Min	Time
58.8	26.3	-32.0	182.1



Curve Description			
Driver Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
018	FIL	1000	G's
Max	Time	Min	Time
59.7	35.6	-45.9	182.0



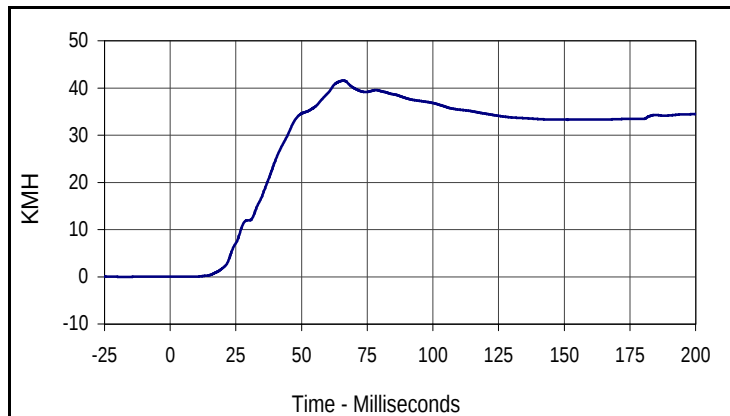
Curve Description			
Driver Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
019	FIL	180	G's
Max	Time	Min	Time
52.9	31.1	-8.8	76.3



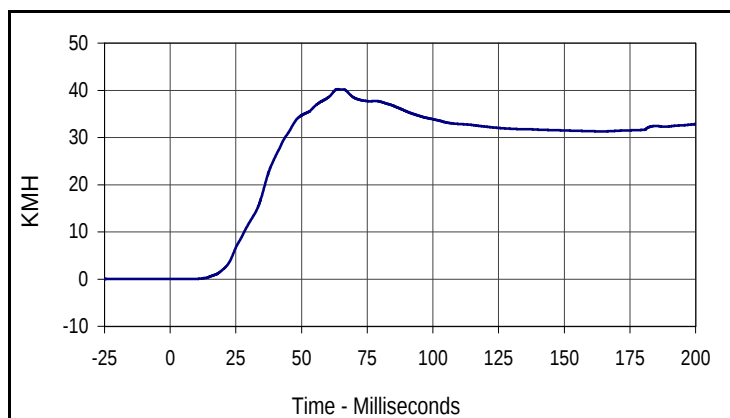
Curve Description			
Driver Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
020	FIL	1000	G's
Max	Time	Min	Time
73.8	24.4	-16.0	54.1

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

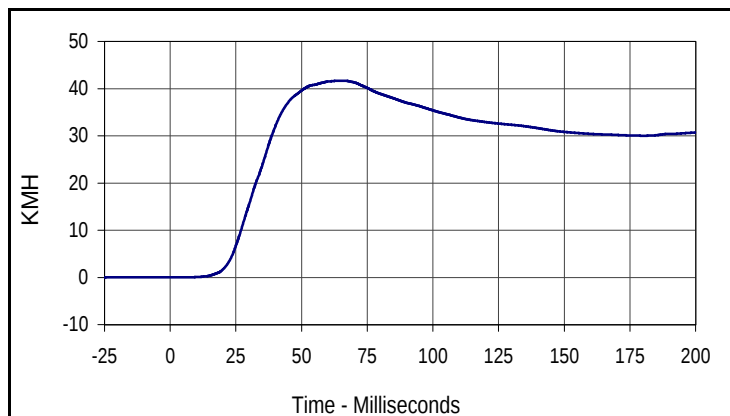
Test Date: 1/20/04
 NHTSA No.: M40513



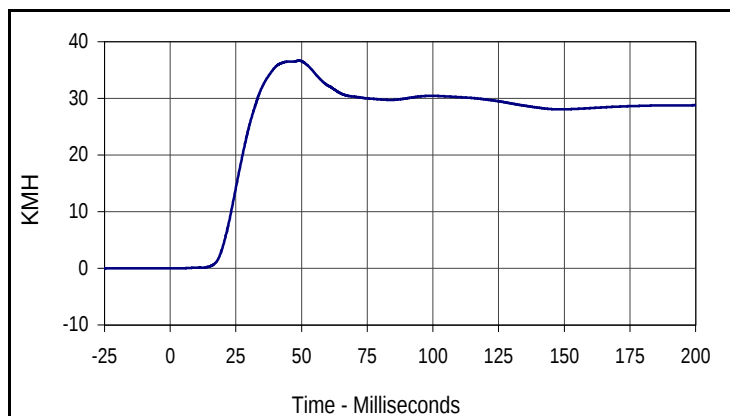
Curve Description			
Driver Upper Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
017	IN1	180	KMH
Max	Time	Min	Time
41.6	65.9	0.0	1.0



Curve Description			
Driver Lower Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
018	IN1	180	KMH
Max	Time	Min	Time
40.2	63.7	0.0	0.0



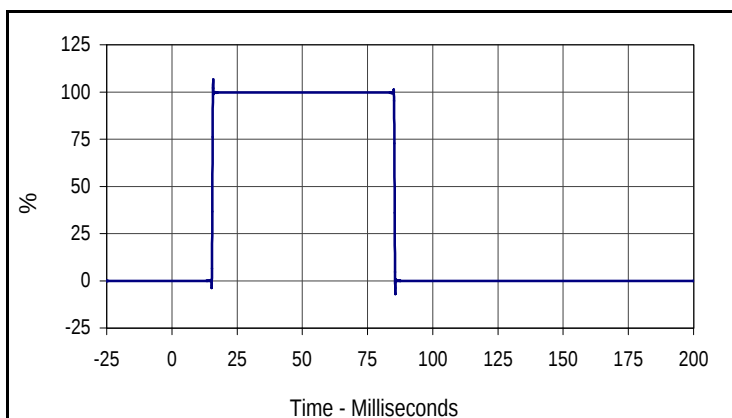
Curve Description			
Driver Lower Spine Redundant Y Velocity			
CURNO	Type	SAE Class	Units
019	IN1	180	KMH
Max	Time	Min	Time
41.7	63.9	0.0	0.8



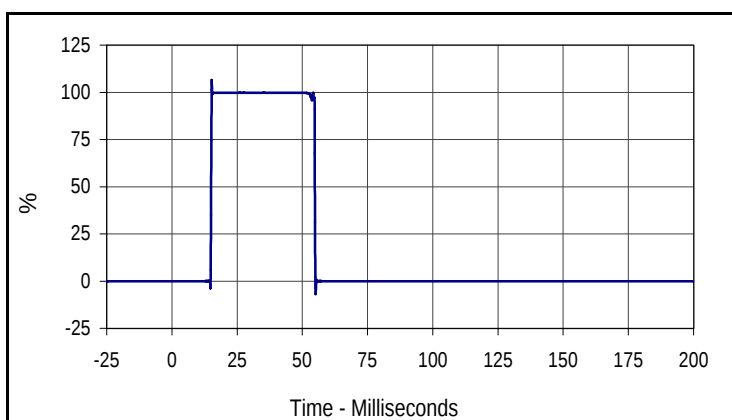
Curve Description			
Driver Pelvis Redundant Y Velocity			
CURNO	Type	SAE Class	Units
020	IN1	180	KMH
Max	Time	Min	Time
36.7	49.0	0.0	2.8

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/20/04
 NHTSA No.: M40513



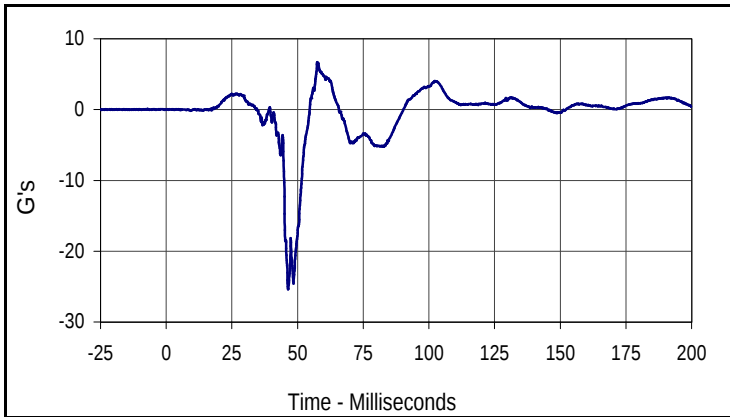
Curve Description			
Driver Thorax Contact			
CURNO	Type	SAE Class	Units
021	FIL	1000	%
Max	Time	Cross %	Time
106.7	15.8	50.0	15.2



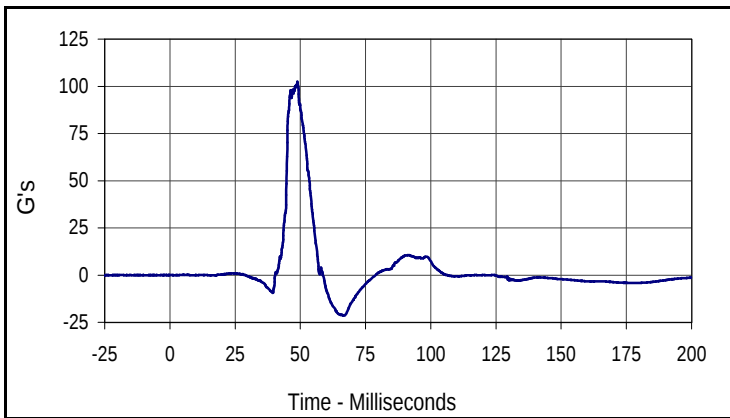
Curve Description			
Driver Pelvis Contact			
CURNO	Type	SAE Class	Units
022	FIL	1000	%
Max	Time	Cross %	Time
106.5	15.3	50.0	14.7

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

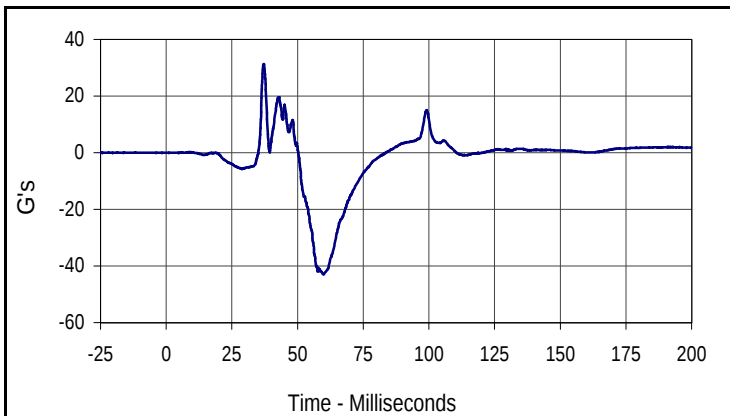
Test Date: 1/20/04
 NHTSA No.: M40513



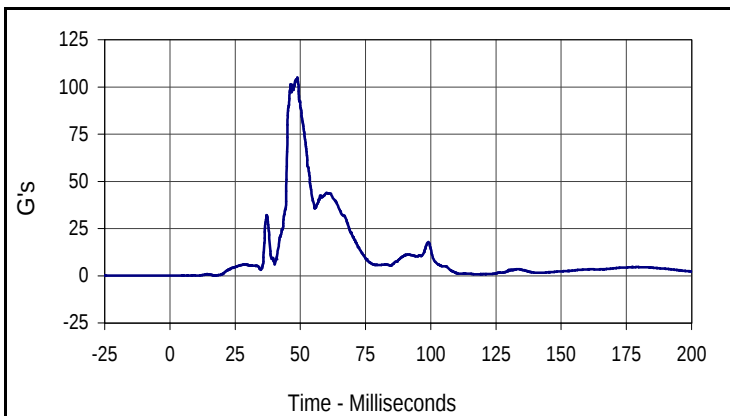
Curve Description			
Passenger Head X Primary			
CURNO	Type	SAE Class	Units
023	FIL	1000	G's
Max	Time	Min	Time
6.7	57.5	-25.4	46.4



Curve Description			
Passenger Head Y Primary			
CURNO	Type	SAE Class	Units
024	FIL	1000	G's
Max	Time	Min	Time
102.5	48.9	-21.5	66.6



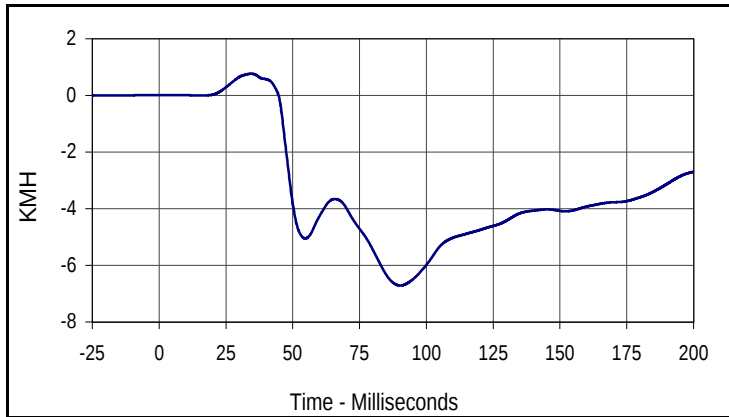
Curve Description			
Passenger Head Z Primary			
CURNO	Type	SAE Class	Units
025	FIL	1000	G's
Max	Time	Min	Time
31.3	37.1	-42.9	60.0



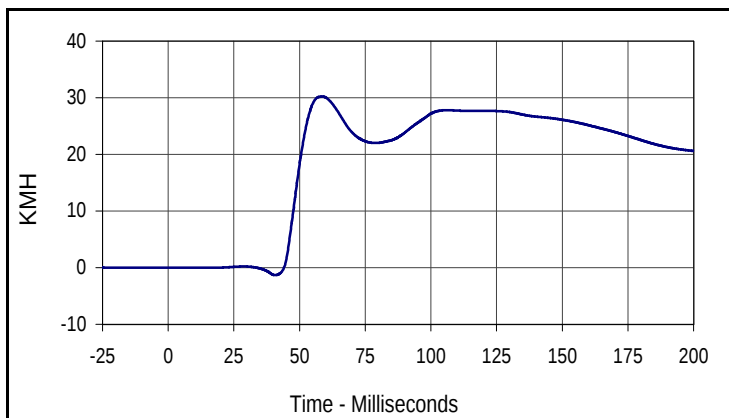
Curve Description			
Passenger Head Resultant Primary			
CURNO	Type	SAE Class	Units
023	RES	1000	G's
Max	Time	Min	Time
105.0	48.9	0.0	1.8

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

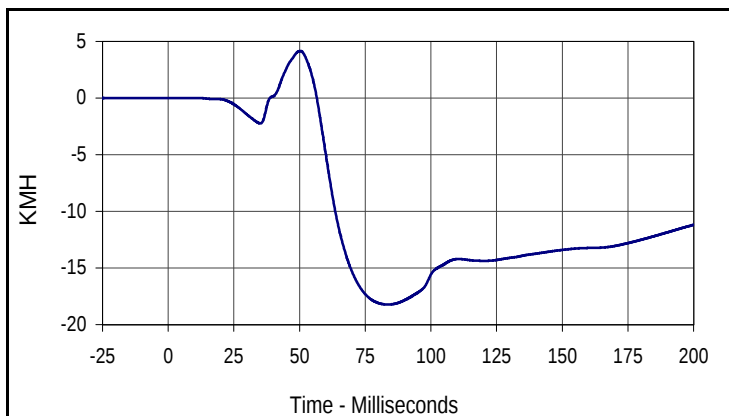
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
Passenger Head Primary X Velocity			
CURNO	Type	SAE Class	Units
023	IN1	180	KMH
Max	Time	Min	Time
0.8	34.5	-6.7	90.3



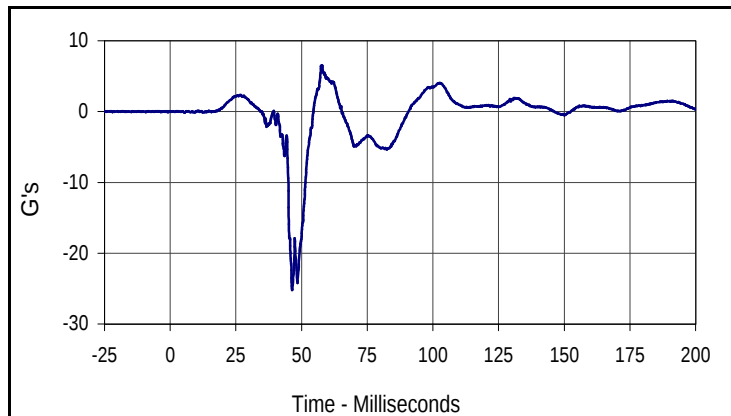
Curve Description			
Passenger Head Primary Y Velocity			
CURNO	Type	SAE Class	Units
024	IN1	180	KMH
Max	Time	Min	Time
30.2	58.6	-1.3	40.7



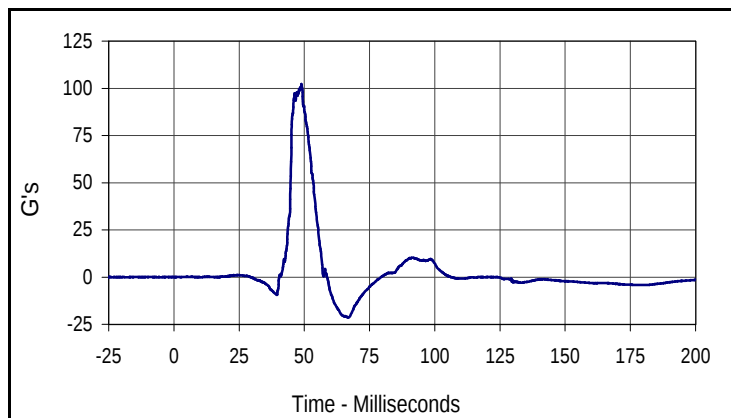
Curve Description			
Passenger Head Primary Z Velocity			
CURNO	Type	SAE Class	Units
025	IN1	180	KMH
Max	Time	Min	Time
4.1	50.2	-18.2	83.6

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

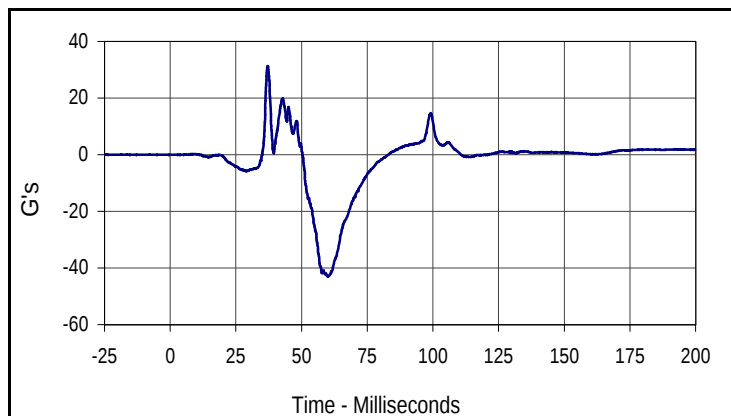
Test Date: 1/20/04
 NHTSA No.: M40513



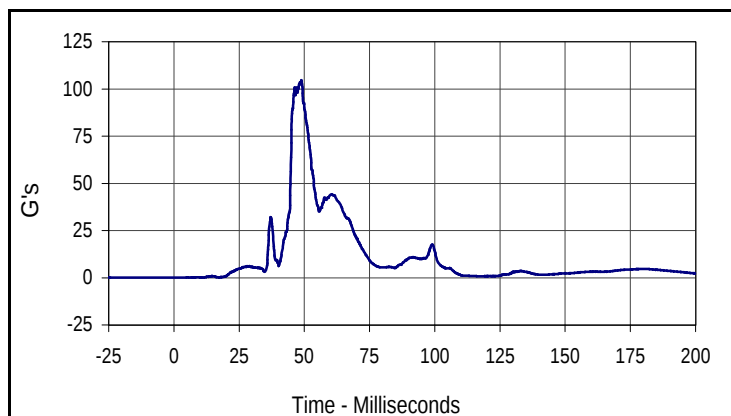
Curve Description			
Passenger Head X Redundant			
CURNO	Type	SAE Class	Units
026	FIL	1000	G's
Max	Time	Min	Time
6.5	57.8	-25.2	46.4



Curve Description			
Passenger Head Y Redundant			
CURNO	Type	SAE Class	Units
027	FIL	1000	G's
Max	Time	Min	Time
102.2	48.9	-21.5	66.9



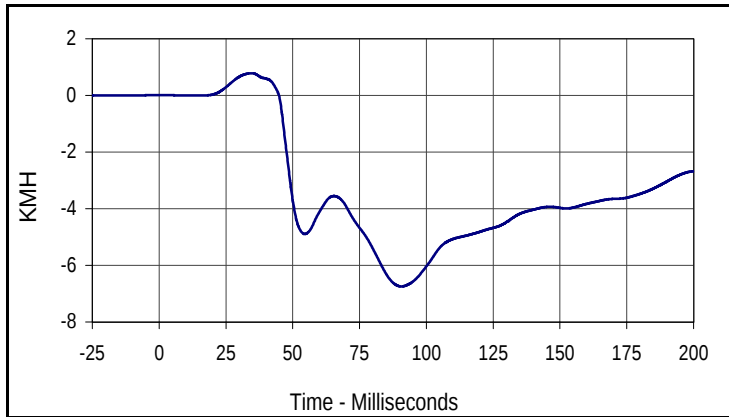
Curve Description			
Passenger Head Z Redundant			
CURNO	Type	SAE Class	Units
028	FIL	1000	G's
Max	Time	Min	Time
31.3	37.1	-43.0	60.0



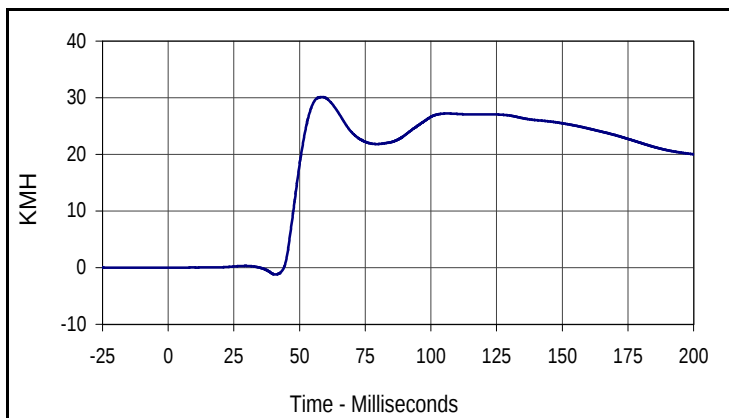
Curve Description			
Passenger Head Resultant Redundant			
CURNO	Type	SAE Class	Units
026	RES	1000	G's
Max	Time	Min	Time
104.7	48.9	0.0	0.5

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

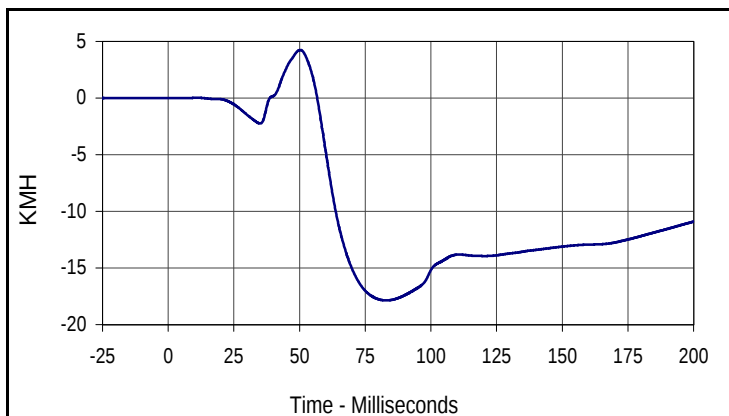
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
Passenger Head Redundant X Velocity			
CURNO	Type	SAE Class	Units
026	IN1	180	KMH
Max	Time	Min	Time
0.8	34.6	-6.7	90.7



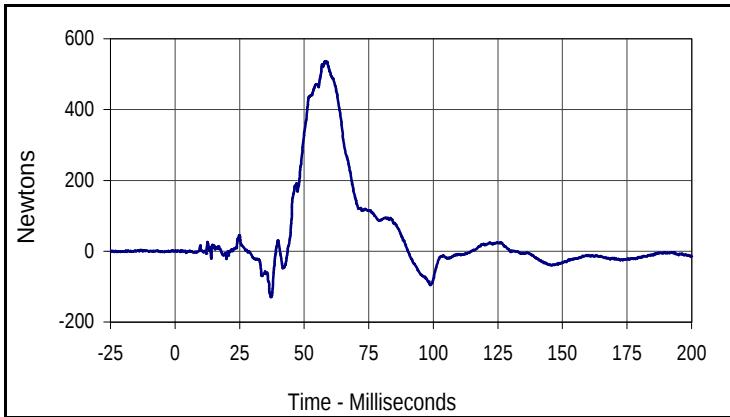
Curve Description			
Passenger Head Redundant Y Velocity			
CURNO	Type	SAE Class	Units
027	IN1	180	KMH
Max	Time	Min	Time
30.1	58.7	-1.2	40.7



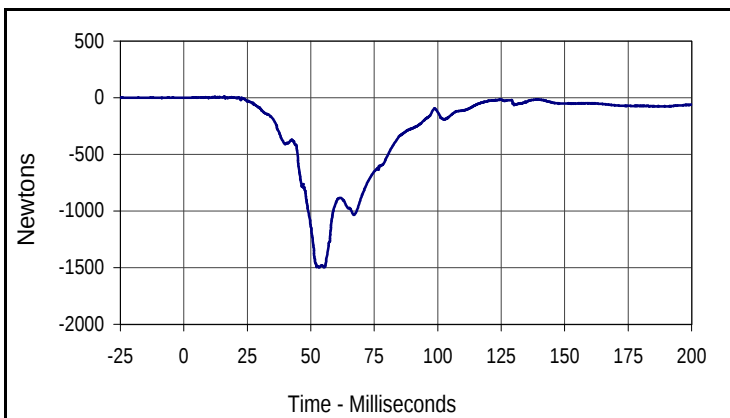
Curve Description			
Passenger Head Redundant Z Velocity			
CURNO	Type	SAE Class	Units
028	IN1	180	KMH
Max	Time	Min	Time
4.2	50.3	-17.9	83.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

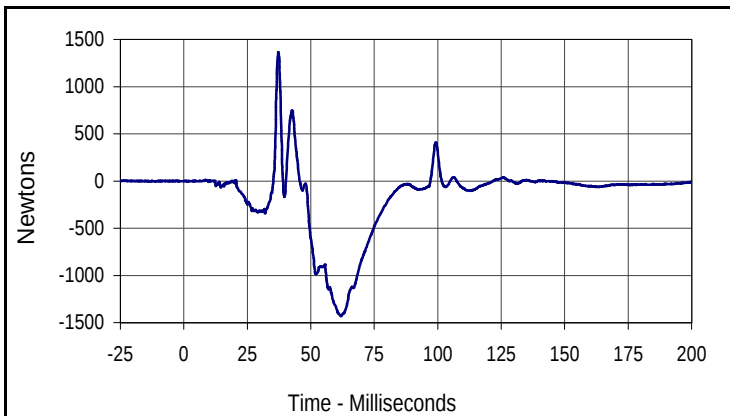
Test Date: 1/20/04
 NHTSA No.: M40513



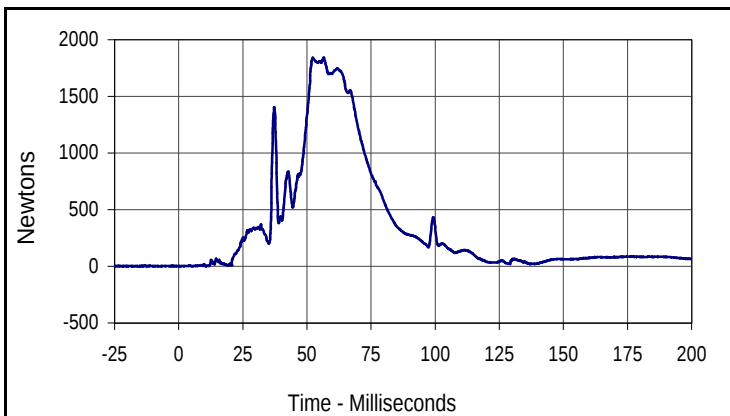
Curve Description			
Passenger Upper Neck Force X			
CURNO	Type	SAE Class	Units
029	FIL	1000	Newtons
Max	Time	Min	Time
537.1	58.5	-129.6	37.2



Curve Description			
Passenger Upper Neck Force Y			
CURNO	Type	SAE Class	Units
030	FIL	1000	Newtons
Max	Time	Min	Time
10.5	16.0	-1497.4	53.2



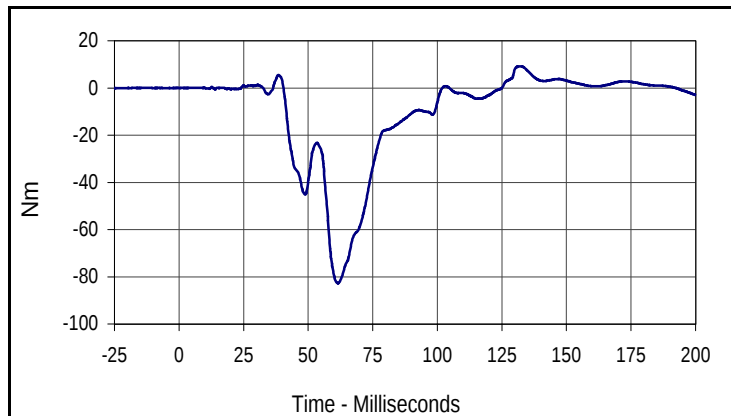
Curve Description			
Passenger Upper Neck Force Z			
CURNO	Type	SAE Class	Units
031	FIL	1000	Newtons
Max	Time	Min	Time
1365.1	37.3	-1433.4	61.9



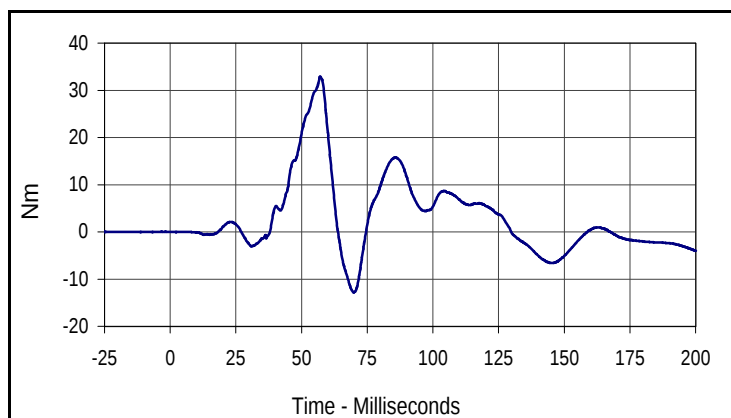
Curve Description			
Passenger Upper Neck Force Resultant			
CURNO	Type	SAE Class	Units
029	RES	1000	Newtons
Max	Time	Min	Time
1841.6	52.3	0.4	5.4

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

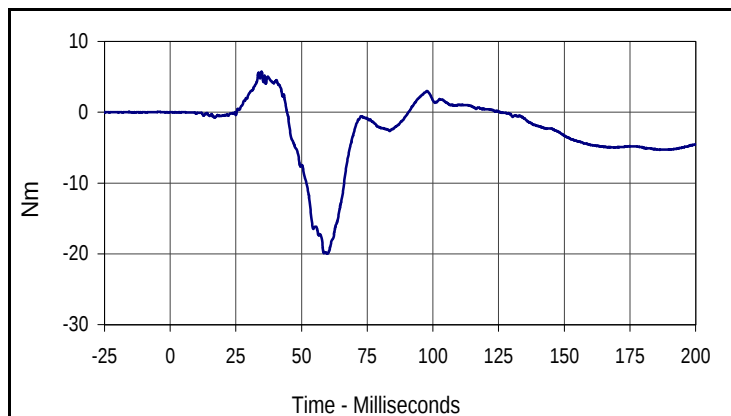
Test Date: 1/20/04
 NHTSA No.: M40513



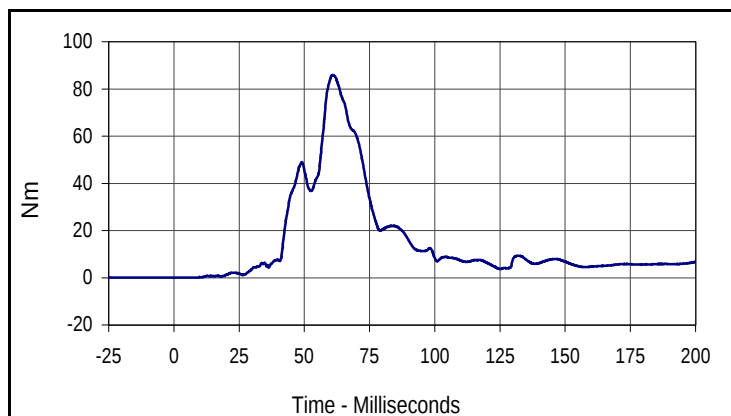
Curve Description			
Passenger Upper Neck Moment X			
CURNO	Type	SAE Class	Units
032	FIL	600	Nm
Max	Time	Min	Time
9.2	132.3	-82.7	61.6



Curve Description			
Passenger Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
033	FIL	600	Nm
Max	Time	Min	Time
32.9	57.1	-12.8	69.9



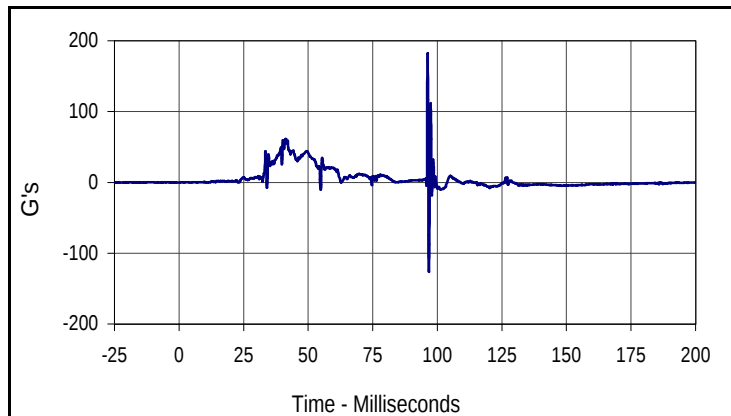
Curve Description			
Passenger Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
034	FIL	600	Nm
Max	Time	Min	Time
5.7	34.8	-20.0	59.9



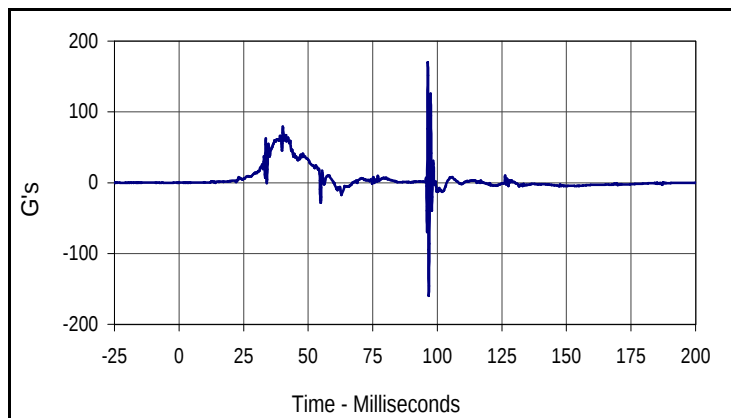
Curve Description			
Passenger Upper Neck Moment Resultant			
CURNO	Type	SAE Class	Units
032	RES	600	Nm
Max	Time	Min	Time
85.9	60.8	0.0	1.7

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

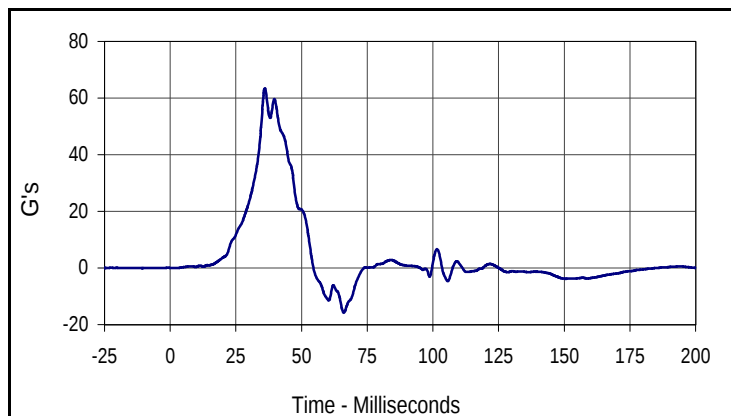
Test Date: 1/20/04
 NHTSA No.: M40513



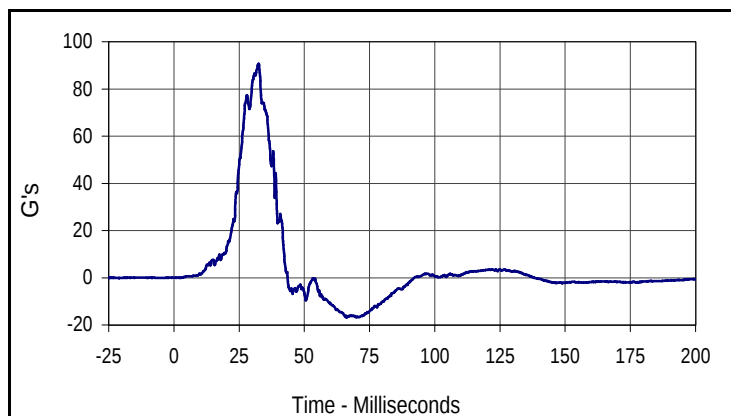
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
035	FIL	1000	G's
Max	Time	Min	Time
181.6	96.3	-126.3	96.8



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
036	FIL	1000	G's
Max	Time	Min	Time
169.1	96.3	-158.7	96.7



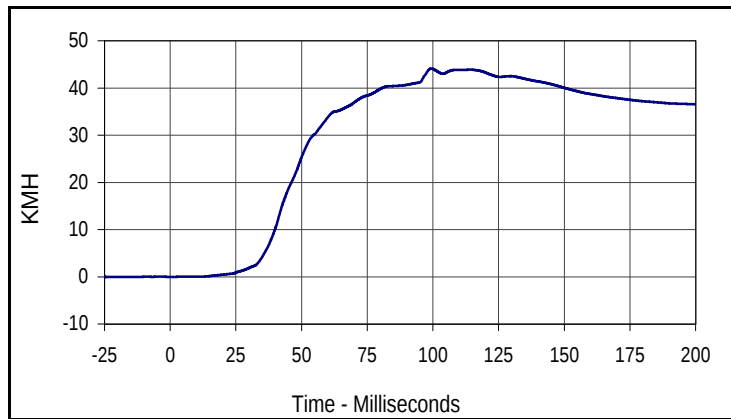
Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
037	FIL	180	G's
Max	Time	Min	Time
63.4	36.0	-15.8	66.1



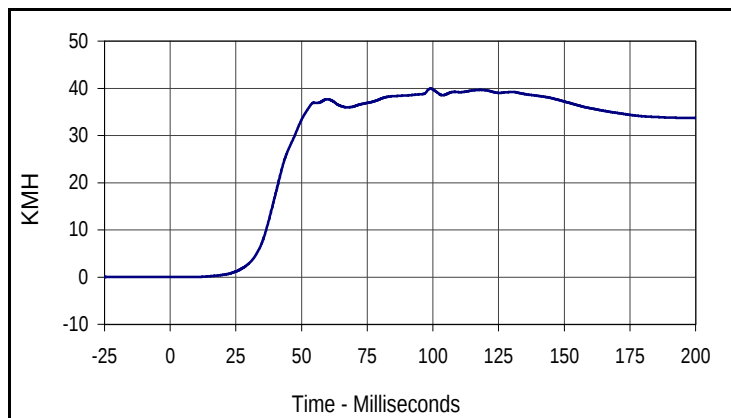
Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
038	FIL	1000	G's
Max	Time	Min	Time
90.6	32.4	-16.9	66.3

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

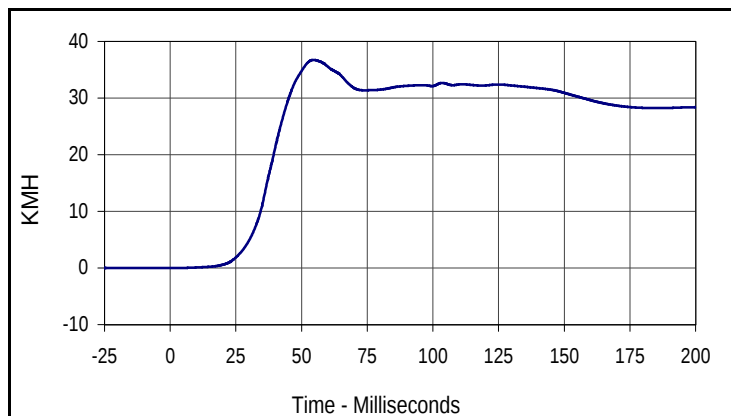
Test Date: 1/20/04
 NHTSA No.: M40513



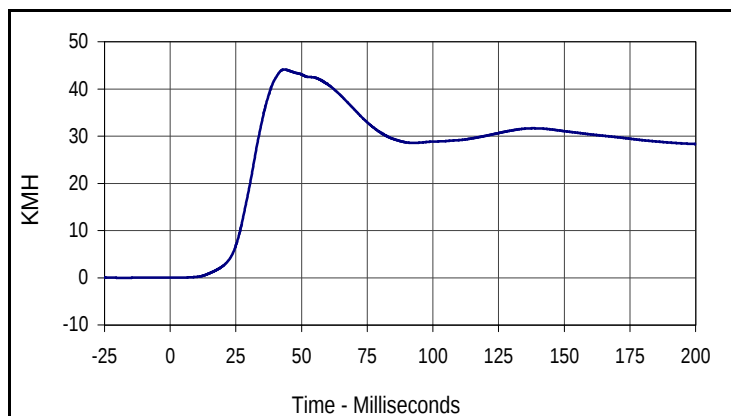
Curve Description			
Passenger Upper Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
035	IN1	180	KMH
Max	Time	Min	Time
44.1	99.4	0.0	0.4



Curve Description			
Passenger Lower Rib Primary Y Velocity			
CURNO	Type	SAE Class	Units
036	IN1	180	KMH
Max	Time	Min	Time
39.9	99.1	0.0	0.0



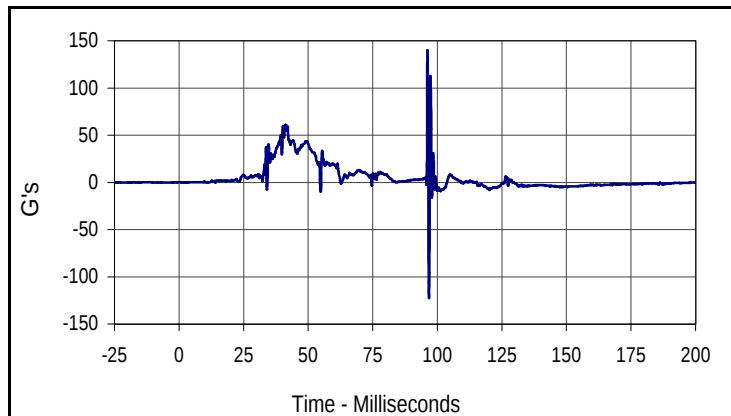
Curve Description			
Passenger Lower Spine Primary Y Velocity			
CURNO	Type	SAE Class	Units
037	IN1	180	KMH
Max	Time	Min	Time
36.7	54.5	0.0	3.2



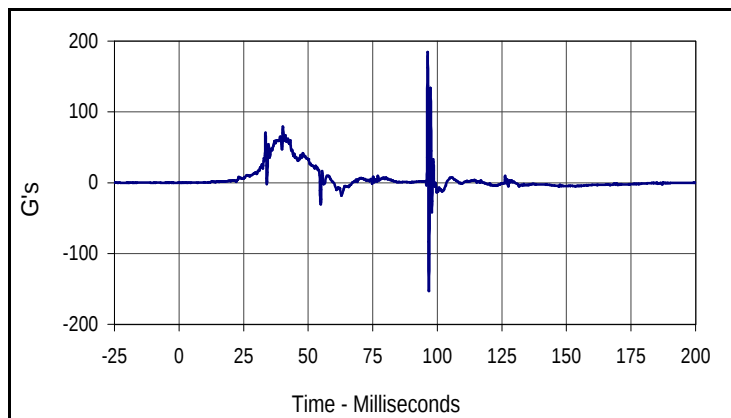
Curve Description			
Passenger Pelvis Primary Y Velocity			
CURNO	Type	SAE Class	Units
038	IN1	180	KMH
Max	Time	Min	Time
44.1	43.5	0.0	0.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

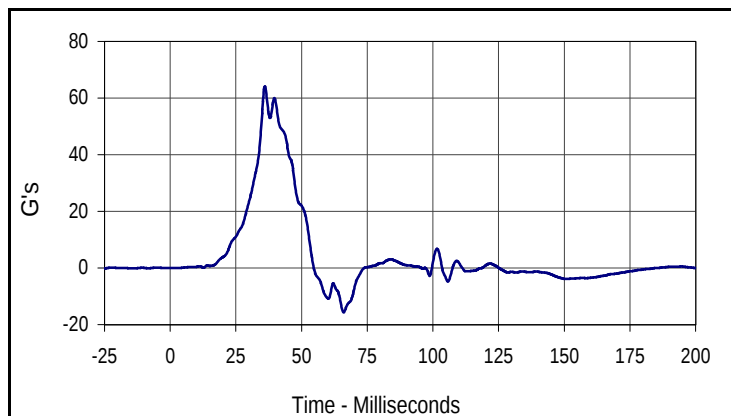
Test Date: 1/20/04
 NHTSA No.: M40513



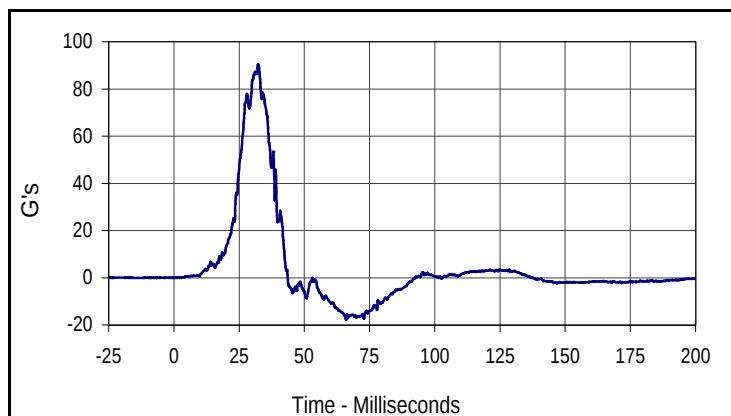
Curve Description			
Passenger Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
039	FIL	1000	G's
Max	Time	Min	Time
139.4	96.2	-122.4	96.8



Curve Description			
Passenger Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
040	FIL	1000	G's
Max	Time	Min	Time
184.3	96.3	-153.1	96.8



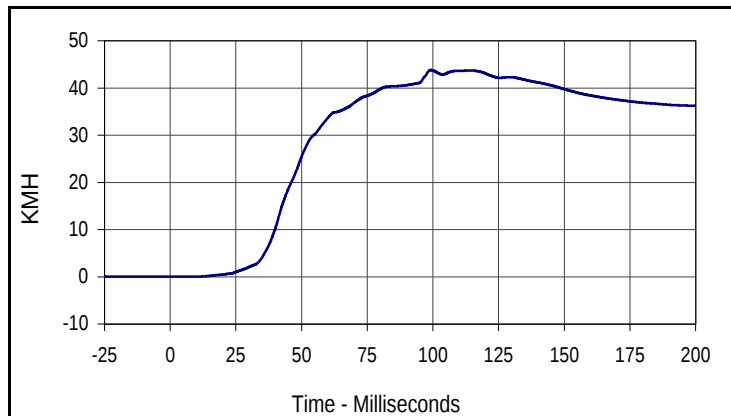
Curve Description			
Passenger Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
041	FIL	180	G's
Max	Time	Min	Time
64.1	36.0	-15.7	66.0



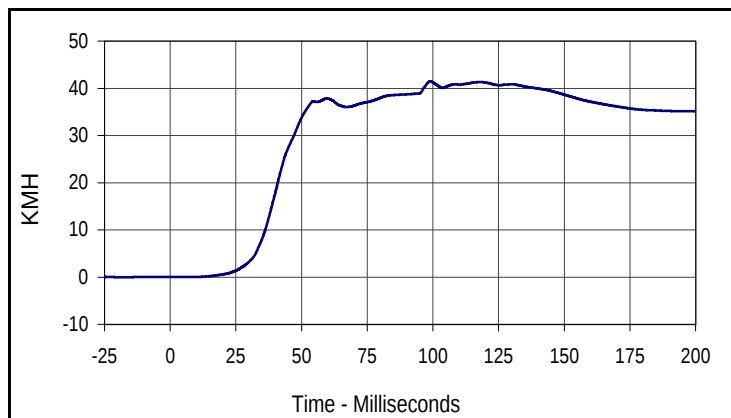
Curve Description			
Passenger Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
042	FIL	1000	G's
Max	Time	Min	Time
90.4	32.3	-17.9	66.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

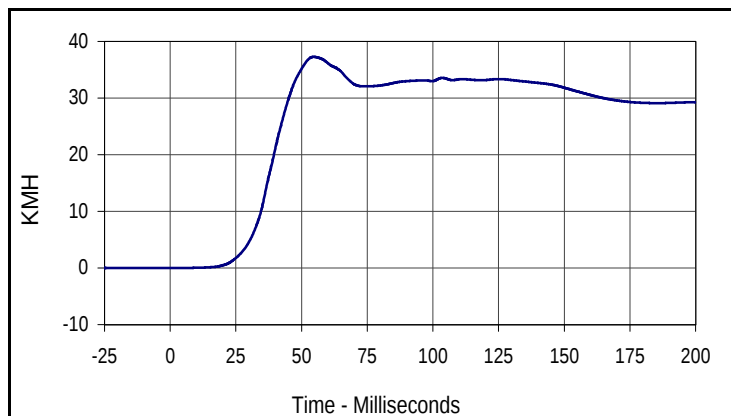
Test Date: 1/20/04
 NHTSA No.: M40513



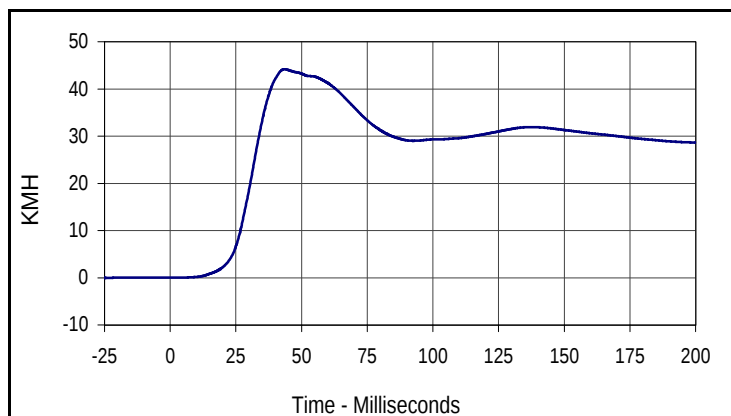
Curve Description			
Passenger Upper Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
039	IN1	180	KMH
Max	Time	Min	Time
43.8	99.3	0.0	0.0



Curve Description			
Passenger Lower Rib Redundant Y Velocity			
CURNO	Type	SAE Class	Units
040	IN1	180	KMH
Max	Time	Min	Time
41.5	99.1	0.0	2.1



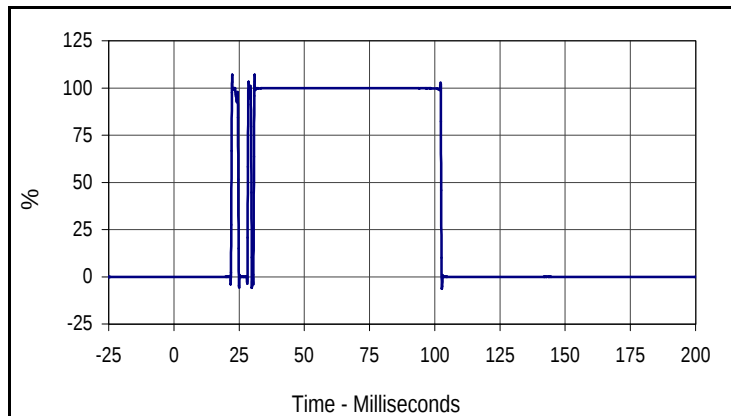
Curve Description			
Passenger Lower Spine Redundant Y Velocity			
CURNO	Type	SAE Class	Units
041	IN1	180	KMH
Max	Time	Min	Time
37.3	54.7	0.0	4.0



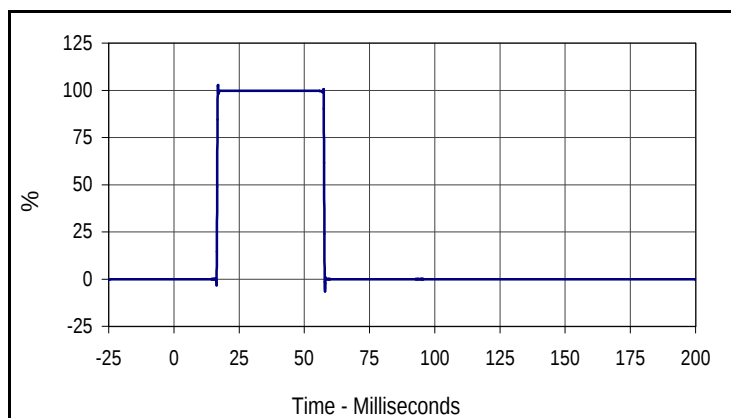
Curve Description			
Passenger Pelvis Redundant Y Velocity			
CURNO	Type	SAE Class	Units
042	IN1	180	KMH
Max	Time	Min	Time
44.2	43.6	0.0	0.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/20/04
 NHTSA No.: M40513



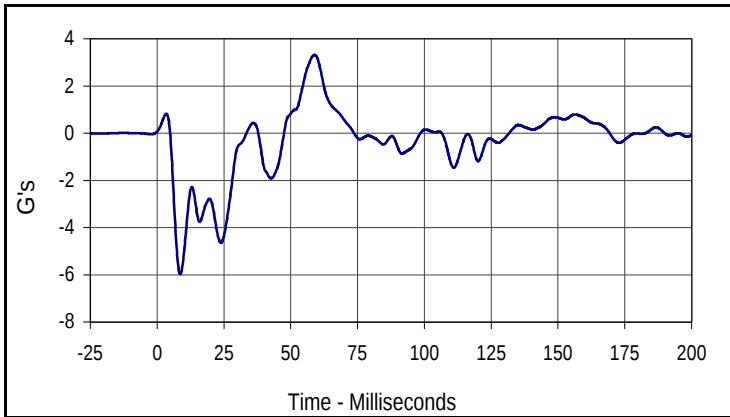
Curve Description			
Passenger Thorax Contact			
CURNO	Type	SAE Class	Units
043	FIL	1000	%
Max	Time	Cross %	Time
106.9	22.3	50.0	28.0



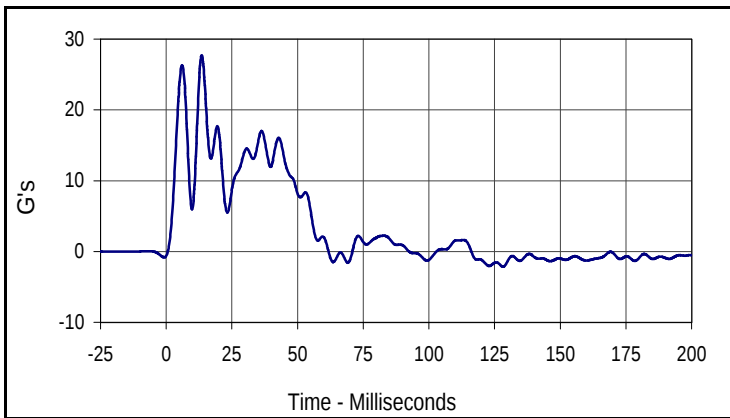
Curve Description			
Passenger Pelvis Contact			
CURNO	Type	SAE Class	Units
044	FIL	1000	%
Max	Time	Cross %	Time
102.9	16.9	50.0	16.3

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

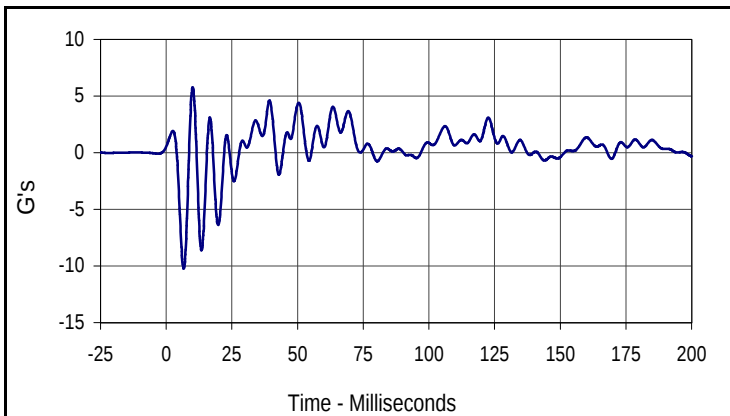
Test Date: 1/20/04
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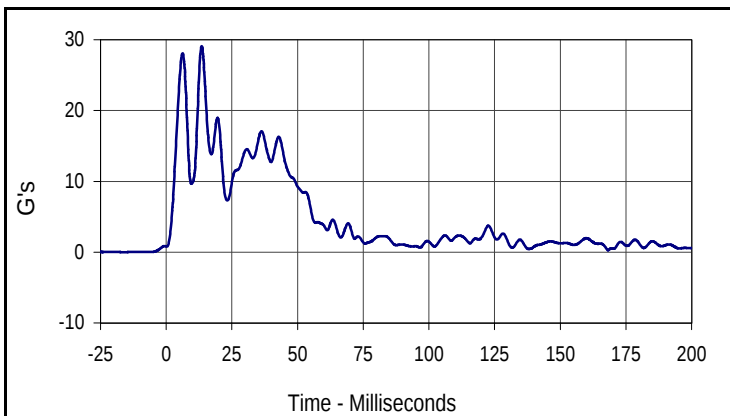
Curve Description			
Vehicle Right Sill at Front Seat X			
CURNO	Type	SAE Class	Units
045	FIL	60	G's
Max	Time	Min	Time
3.3	59.0	-6.0	8.7



Curve Description			
Vehicle Right Sill at Front Seat Y			
CURNO	Type	SAE Class	Units
046	FIL	60	G's
Max	Time	Min	Time
27.7	13.5	-2.1	128.2



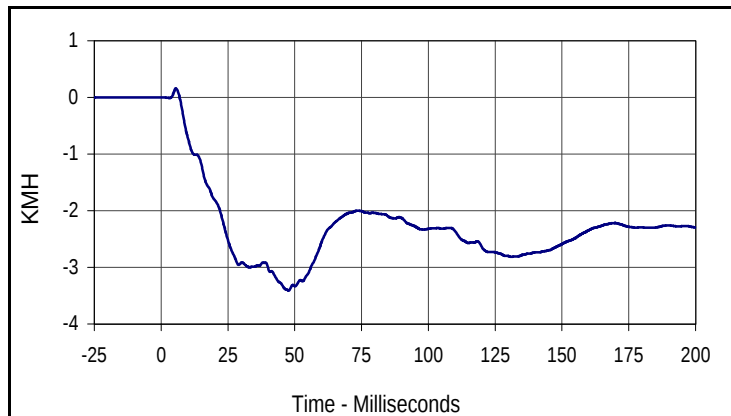
Curve Description			
Vehicle Right Sill at Front Seat Z			
CURNO	Type	SAE Class	Units
047	FIL	60	G's
Max	Time	Min	Time
5.8	10.1	-10.2	6.6



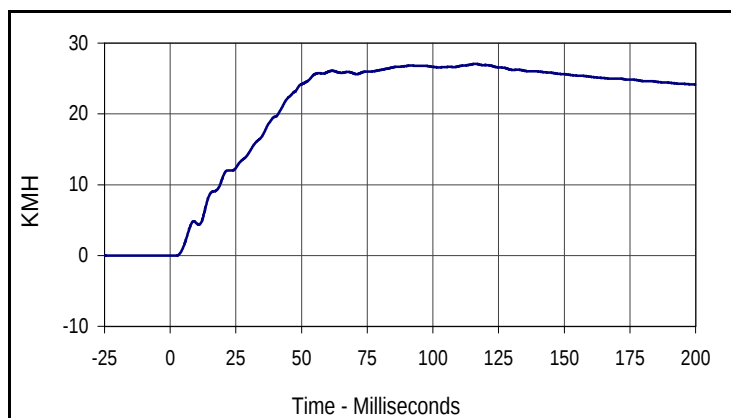
Curve Description			
Vehicle Right Sill Front Seat Resultant			
CURNO	Type	SAE Class	Units
045	RES	60	G's
Max	Time	Min	Time
29.1	13.5	0.3	168.2

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

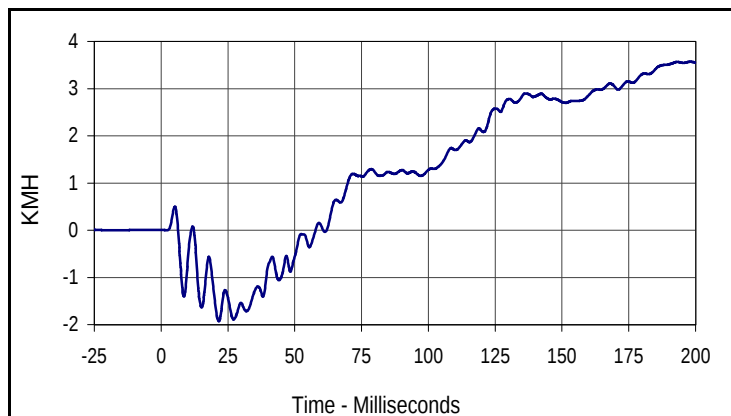
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
Vehicle Right Sill at Front Seat X Velocity			
CURNO	Type	SAE Class	Units
045	IN1	180	KMH
Max	Time	Min	Time
0.2	5.5	-3.4	47.7



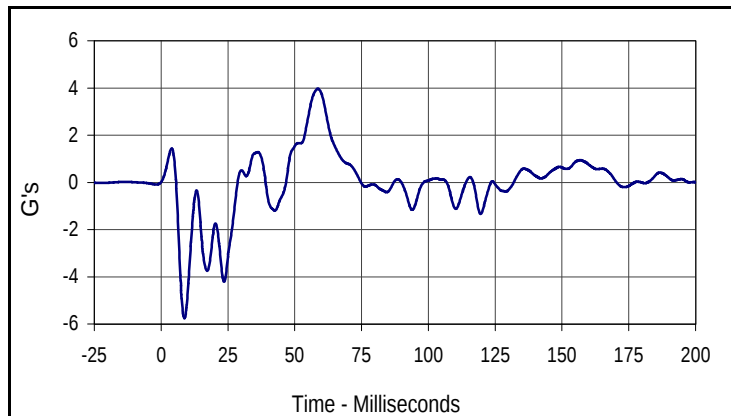
Curve Description			
Vehicle Right Sill at Front Seat Y Velocity			
CURNO	Type	SAE Class	Units
046	IN1	180	KMH
Max	Time	Min	Time
27.1	116.1	0.0	2.2



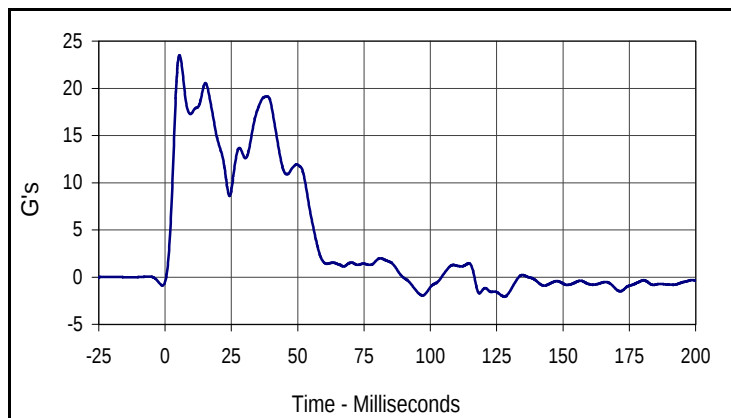
Curve Description			
Vehicle Right Sill at Front Seat Z Velocity			
CURNO	Type	SAE Class	Units
047	IN1	180	KMH
Max	Time	Min	Time
3.6	198.0	-1.9	21.6

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

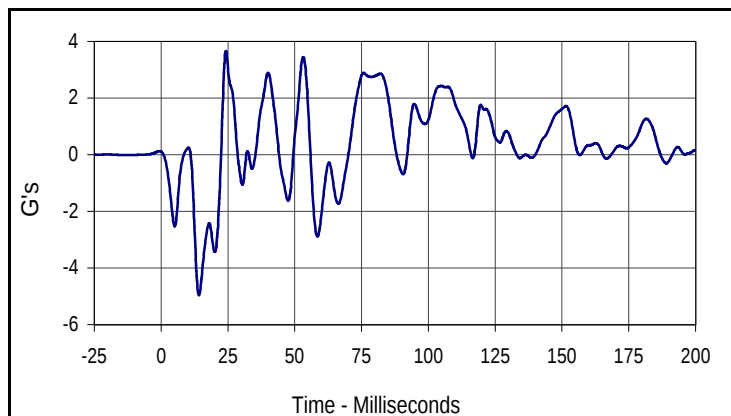
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 NHTSA No.: M40513



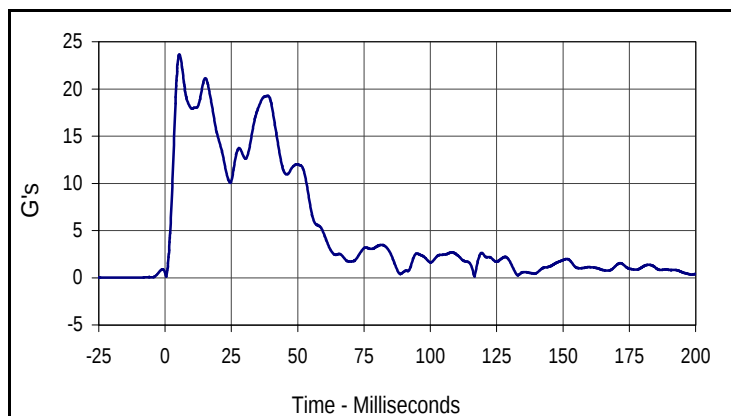
Curve Description			
Vehicle Right Sill at Rear Seat X			
CURNO	Type	SAE Class	Units
048	FIL	60	G's
Max	Time	Min	Time
4.0	58.7	-5.8	8.7



Curve Description			
Vehicle Right Sill at Rear Seat Y			
CURNO	Type	SAE Class	Units
049	FIL	60	G's
Max	Time	Min	Time
23.5	5.4	-2.1	127.9



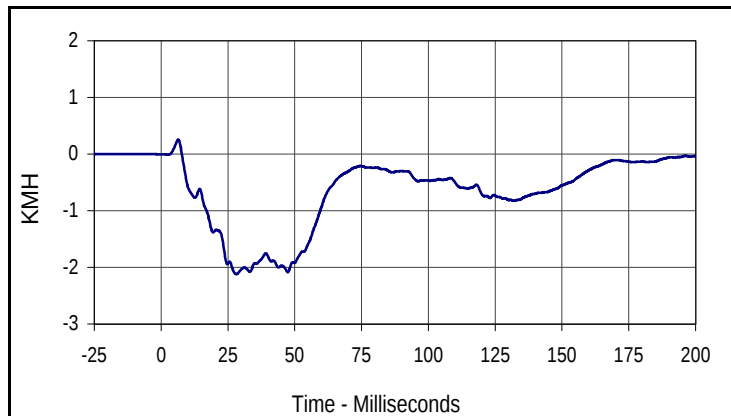
Curve Description			
Vehicle Right Sill at Rear Seat Z			
CURNO	Type	SAE Class	Units
050	FIL	60	G's
Max	Time	Min	Time
3.7	24.2	-5.0	14.1



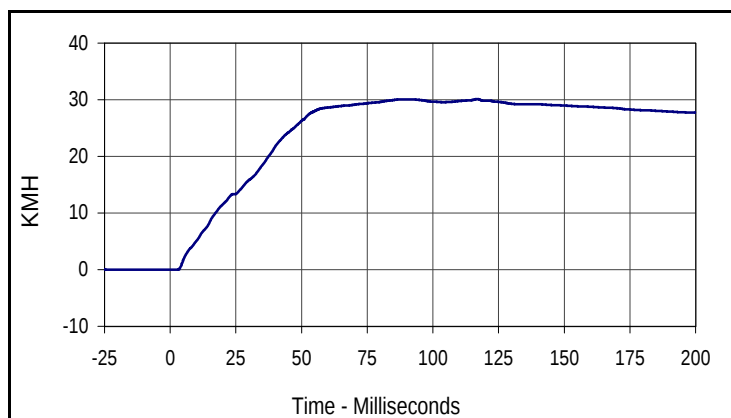
Curve Description			
Vehicle Right Sill Rear Seat Resultant			
CURNO	Type	SAE Class	Units
048	RES	60	G's
Max	Time	Min	Time
23.6	5.4	0.1	0.4

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

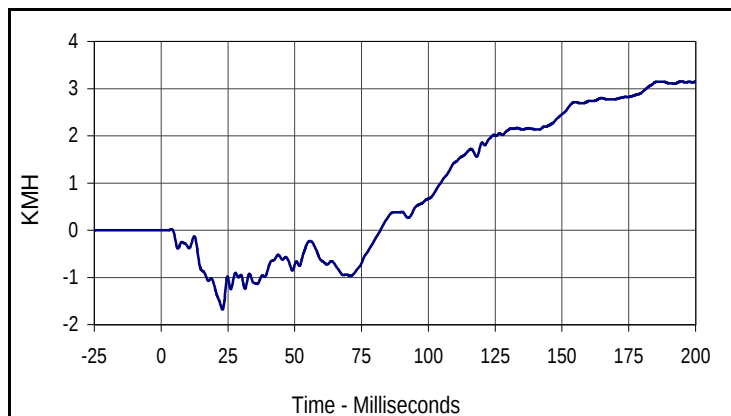
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
Vehicle Right Sill at Rear Seat X Velocity			
CURNO	Type	SAE Class	Units
048	IN1	180	KMH
Max	Time	Min	Time
0.3	6.4	-2.1	28.1



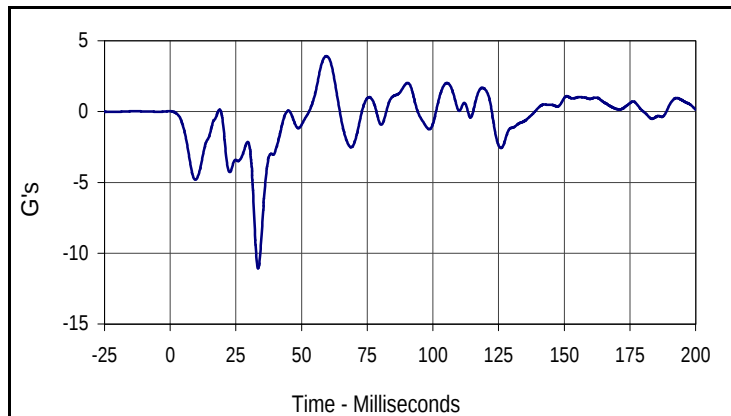
Curve Description			
Vehicle Right Sill at Rear Seat Y Velocity			
CURNO	Type	SAE Class	Units
049	IN1	180	KMH
Max	Time	Min	Time
30.1	116.9	0.0	2.5



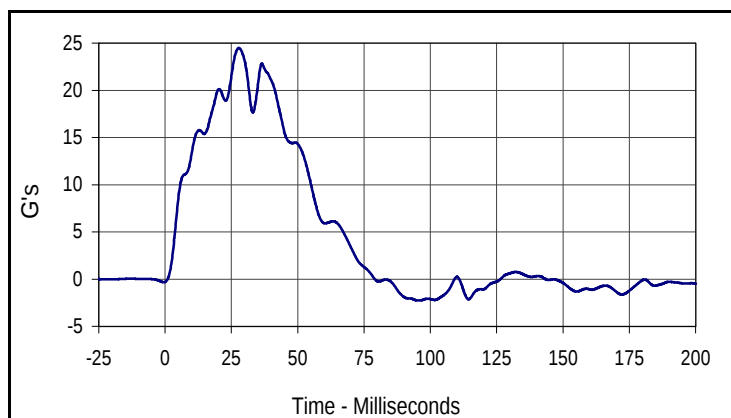
Curve Description			
Vehicle Right Sill at Rear Seat Z Velocity			
CURNO	Type	SAE Class	Units
050	IN1	180	KMH
Max	Time	Min	Time
3.2	194.6	-1.7	23.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

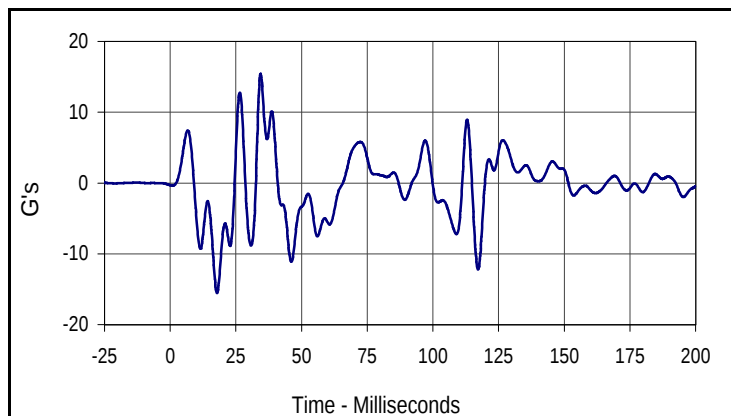
Test Date: 1/20/04
 NHTSA No.: M40513



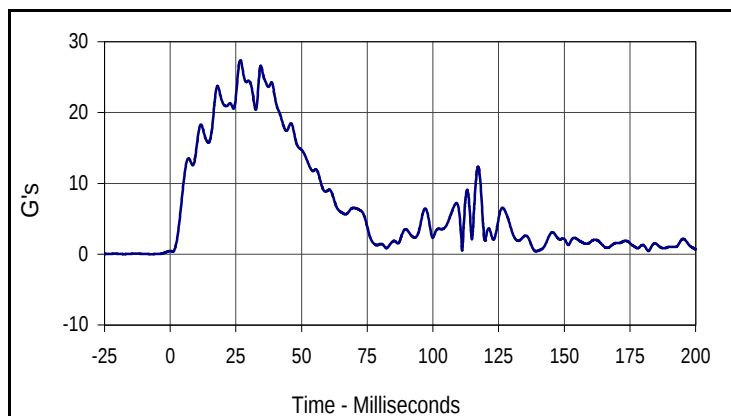
Curve Description			
Vehicle Rear Floor Above Axle X			
CURNO	Type	SAE Class	Units
051	FIL	60	G's
Max	Time	Min	Time
3.9	59.5	-11.1	33.5



Curve Description			
Vehicle Rear Floor Above Axle Y			
CURNO	Type	SAE Class	Units
052	FIL	60	G's
Max	Time	Min	Time
24.5	27.8	-2.3	95.7



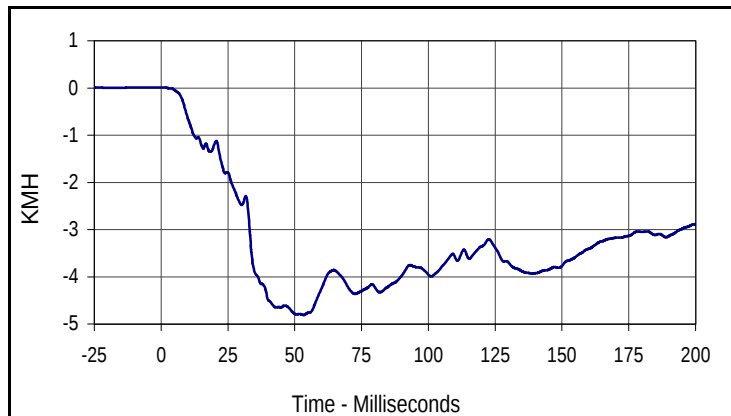
Curve Description			
Vehicle Rear Floor Above Axle Z			
CURNO	Type	SAE Class	Units
053	FIL	60	G's
Max	Time	Min	Time
15.4	34.4	-15.5	17.8



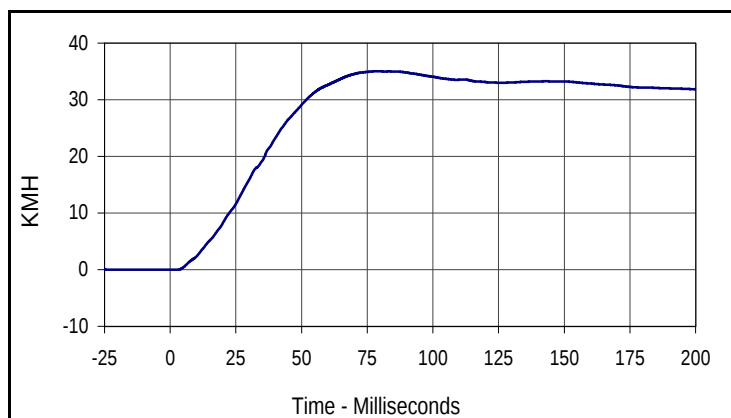
Curve Description			
Vehicle Rear Floor Above Axle Resultant			
CURNO	Type	SAE Class	Units
051	RES	60	G's
Max	Time	Min	Time
27.3	26.7	0.4	1.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

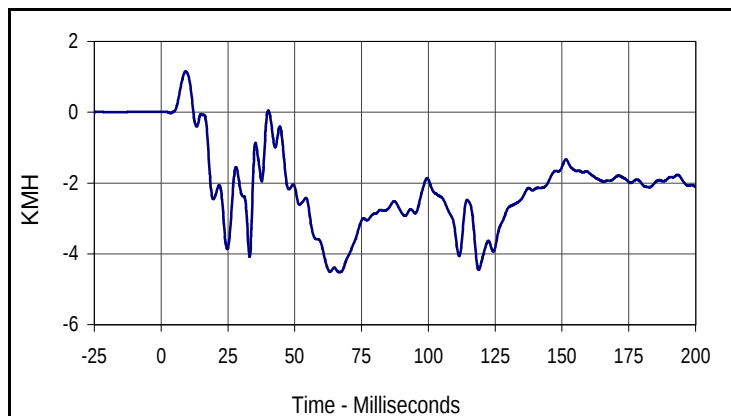
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
Vehicle Rear Floor Above Axle X Velocity			
CURNO	Type	SAE Class	Units
051	FIL	180	KMH
Max	Time	Min	Time
0.0	1.3	-4.8	53.3



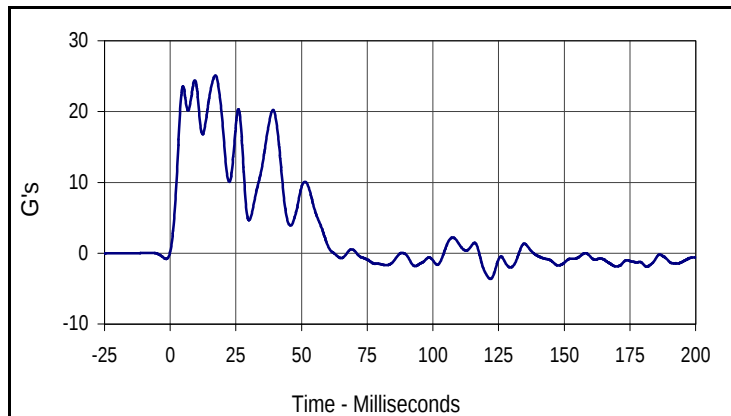
Curve Description			
Vehicle Rear Floor Above Axle Y Velocity			
CURNO	Type	SAE Class	Units
052	FIL	180	KMH
Max	Time	Min	Time
35.0	78.6	0.0	2.8



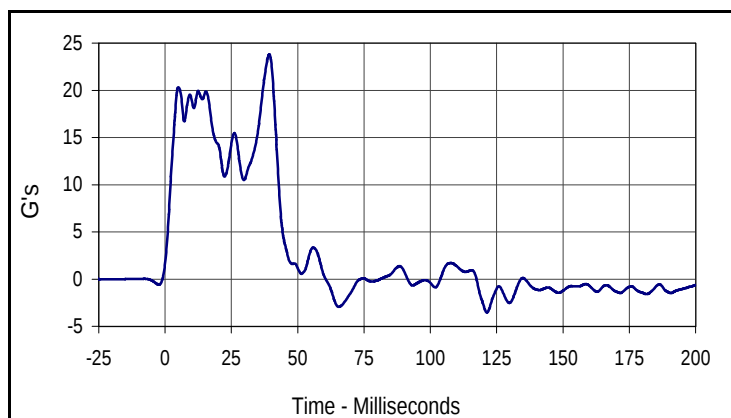
Curve Description			
Vehicle Rear Floor Above Axle Z Velocity			
CURNO	Type	SAE Class	Units
053	FIL	180	KMH
Max	Time	Min	Time
1.2	9.2	-4.5	66.7

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

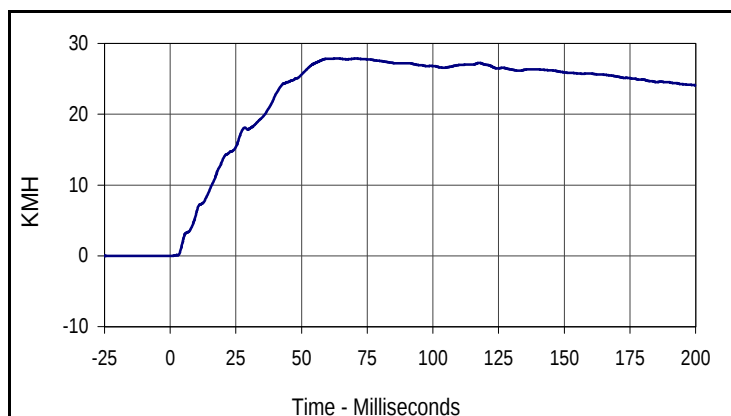
Test Date: 1/20/04
 NHTSA No.: M40513



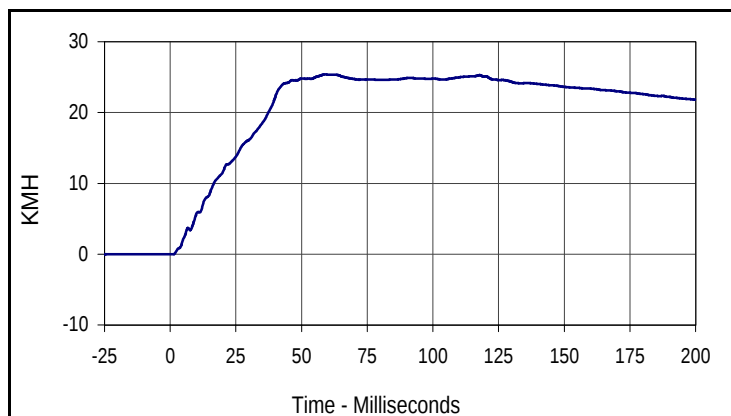
Curve Description			
Vehicle Left Sill at Rear Door Y			
CURNO	Type	SAE Class	Units
054	FIL	60	G's
Max	Time	Min	Time
25.1	17.2	-3.6	121.9



Curve Description			
Vehicle Left Sill at Front Door Y			
CURNO	Type	SAE Class	Units
055	FIL	60	G's
Max	Time	Min	Time
23.8	39.3	-3.5	121.3



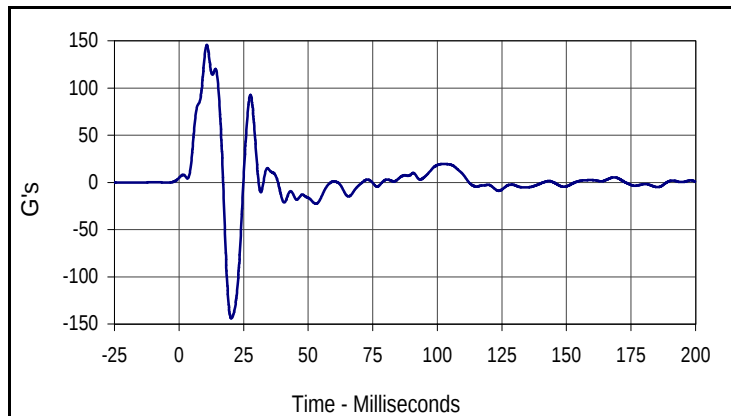
Curve Description			
Vehicle Left Sill at Rear Door Y Velocity			
CURNO	Type	SAE Class	Units
054	IN1	180	KMH
Max	Time	Min	Time
27.9	63.4	0.0	0.5



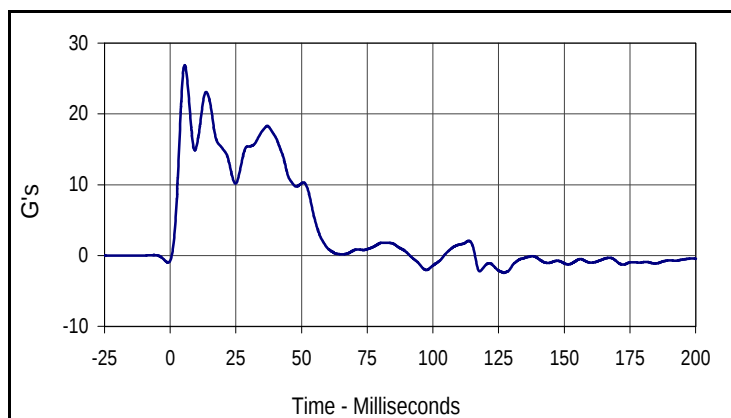
Curve Description			
Vehicle Left Sill at Front Door Y Velocity			
CURNO	Type	SAE Class	Units
055	IN1	180	KMH
Max	Time	Min	Time
25.4	59.0	0.0	0.9

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

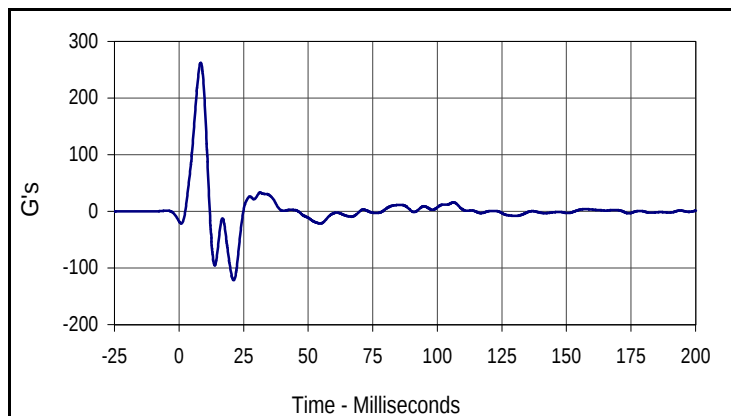
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 NHTSA No.: M40513



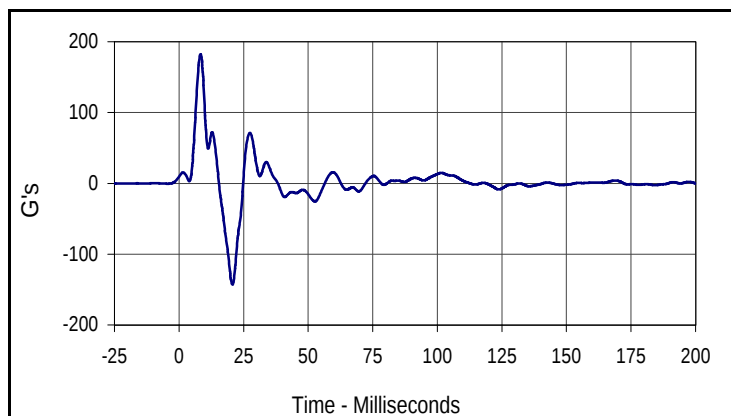
Curve Description			
Vehicle Left Front Door CL Y			
CURNO	Type	SAE Class	Units
056	FIL	60	G's
Max	Time	Min	Time
145.5	10.7	-144.0	20.3



Curve Description			
Vehicle Right Rear Occupant Compartment			
CURNO	Type	SAE Class	Units
057	FIL	60	G's
Max	Time	Min	Time
26.9	5.5	-2.4	127.0



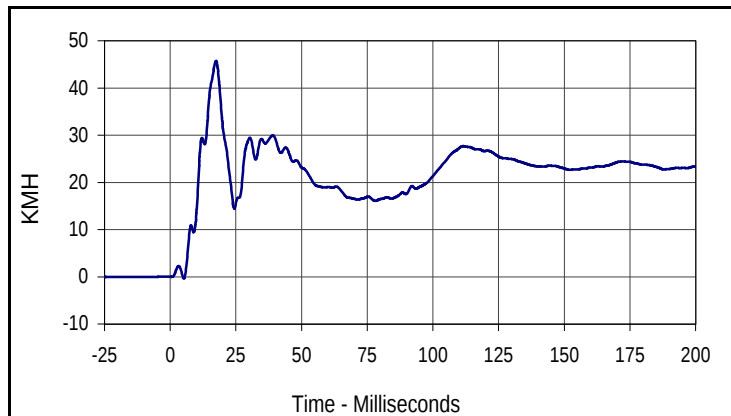
Curve Description			
Vehicle Left Front Door Mid Rear Y			
CURNO	Type	SAE Class	Units
058	FIL	60	G's
Max	Time	Min	Time
262.4	8.4	-121.6	21.2



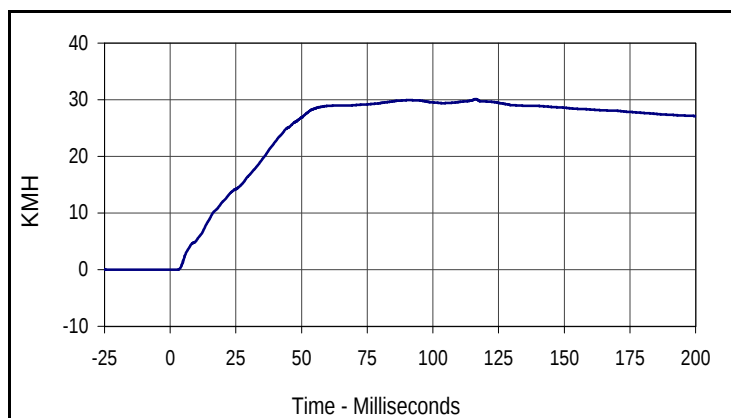
Curve Description			
Vehicle Left Front Door Upper CL Y			
CURNO	Type	SAE Class	Units
059	FIL	60	G's
Max	Time	Min	Time
182.4	8.3	-142.8	20.7

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

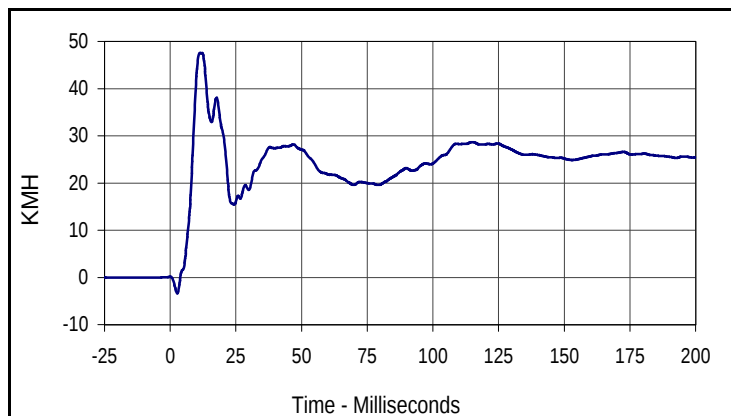
Test Date: 1/20/04
 NHTSA No.: M40513



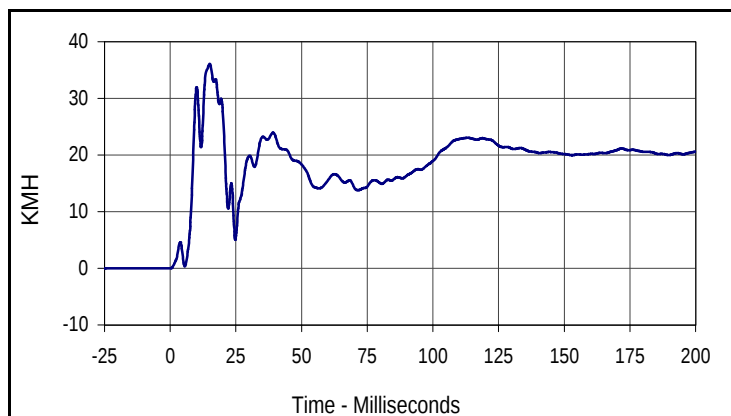
Curve Description			
Vehicle Left Front Door CL Y Velocity			
CURNO	Type	SAE Class	Units
056	IN1	180	KMH
Max	Time	Min	Time
45.7	17.4	-0.4	5.2



Curve Description			
Vehicle Right Rear Occupant Compartment Y Velocity			
CURNO	Type	SAE Class	Units
057	IN1	180	KMH
Max	Time	Min	Time
30.1	116.3	0.0	2.6



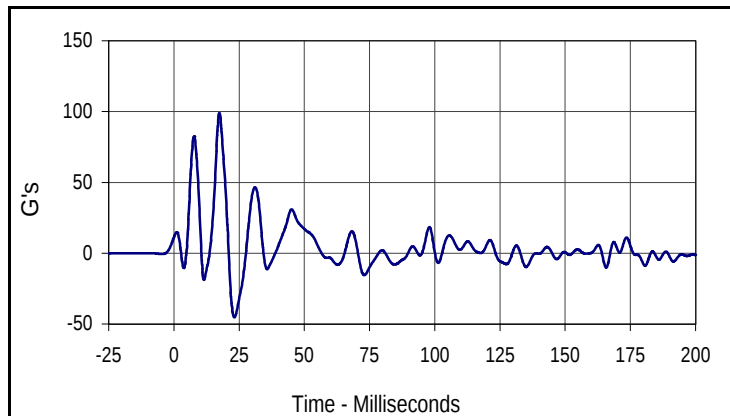
Curve Description			
Vehicle Left Front Door Mid Rear Y Velocity			
CURNO	Type	SAE Class	Units
058	IN1	180	KMH
Max	Time	Min	Time
47.5	11.3	-3.4	2.7



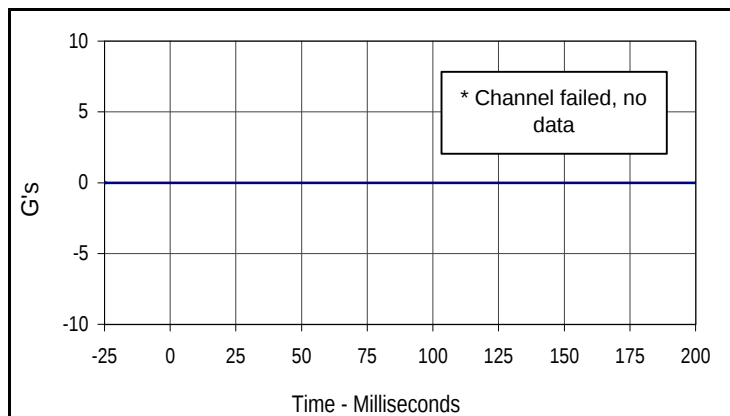
Curve Description			
Vehicle Left Front Door Upper CL Y Velocity			
CURNO	Type	SAE Class	Units
059	IN1	180	KMH
Max	Time	Min	Time
36.1	15.0	0.0	0.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/20/04
 NHTSA No.: M40513

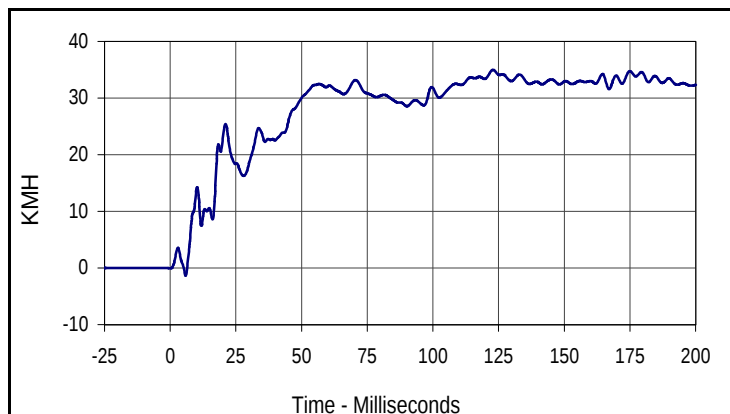


Curve Description			
Vehicle Left Rear Door Mid Rear Y			
CURNO	Type	SAE Class	Units
060	FIL	60	G's
Max	Time	Min	Time
99.0	17.4	-45.3	23.2

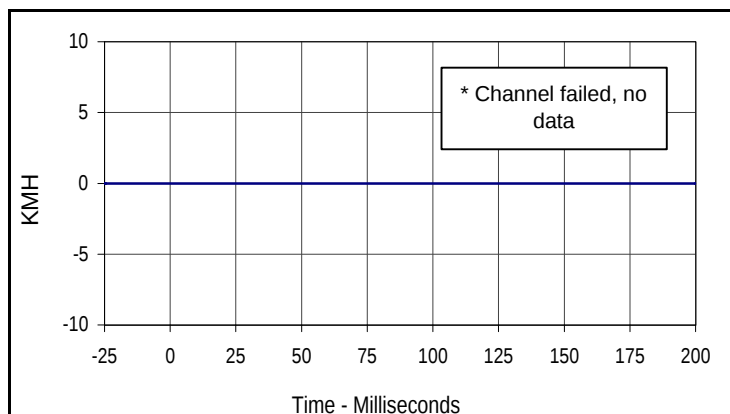


Curve Description			
Vehicle Left Rear Door Upper CL Y			
CURNO	Type	SAE Class	Units
061	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Channel failed, no data



Curve Description			
Vehicle Left Rear Door Mid Rear Y Velocity			
CURNO	Type	SAE Class	Units
060	IN1	180	KMH
Max	Time	Min	Time
35.0	122.9	-1.4	5.9

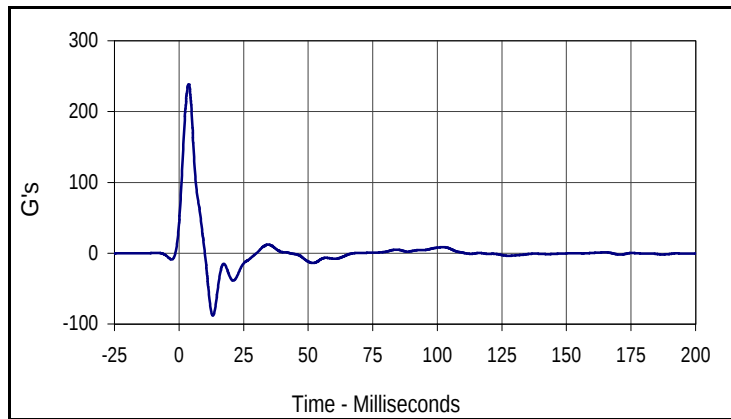


Curve Description			
Vehicle Left Rear Door Upper CL Y Velocity			
CURNO	Type	SAE Class	Units
061	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

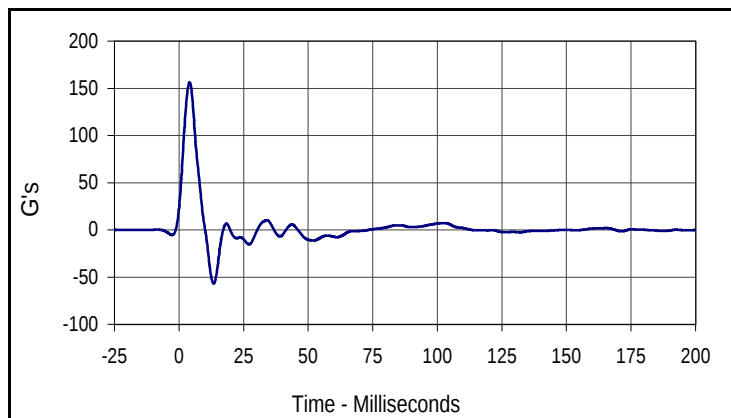
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Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

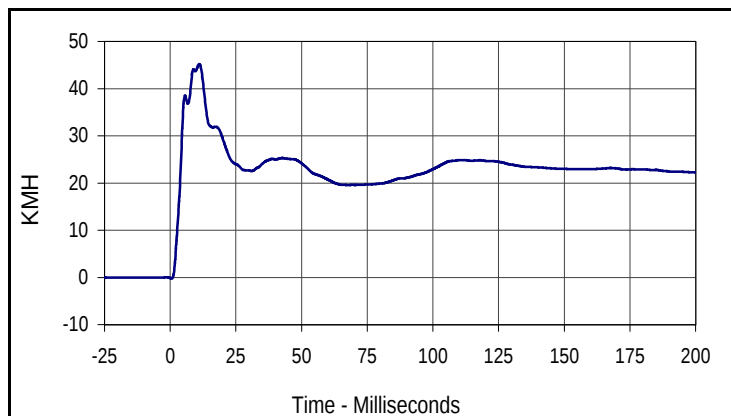
Test Date: 1/20/04
 NHTSA No.: M40513



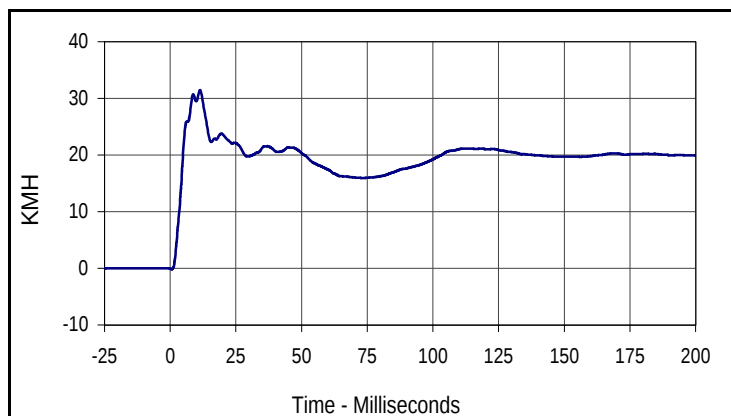
Curve Description			
Vehicle B-Post Lower Y			
CURNO	Type	SAE Class	Units
062	FIL	60	G's
Max	Time	Min	Time
238.3	3.7	-88.2	13.1



Curve Description			
Vehicle B-Post Middle Y			
CURNO	Type	SAE Class	Units
063	FIL	60	G's
Max	Time	Min	Time
156.3	4.1	-56.5	13.4



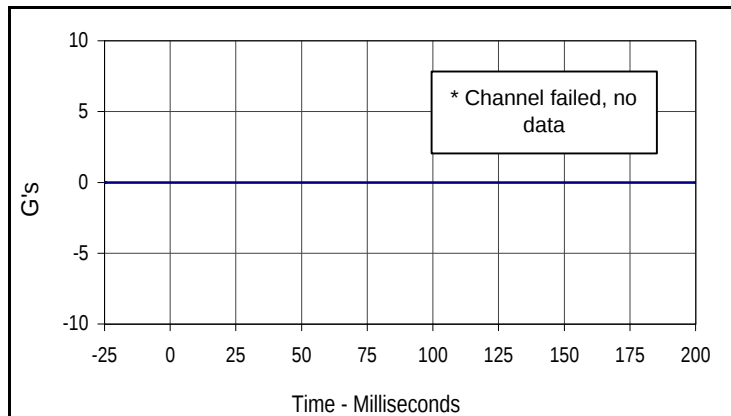
Curve Description			
Vehicle B-Post Lower Y Velocity			
CURNO	Type	SAE Class	Units
062	IN1	180	KMH
Max	Time	Min	Time
45.2	11.0	-0.2	0.5



Curve Description			
Vehicle B-Post Middle Y Velocity			
CURNO	Type	SAE Class	Units
063	IN1	180	KMH
Max	Time	Min	Time
31.4	11.3	-0.1	0.6

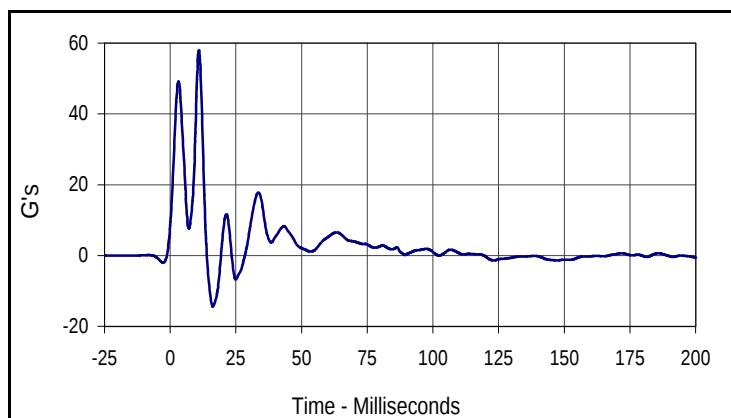
Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/20/04
 NHTSA No.: M40513

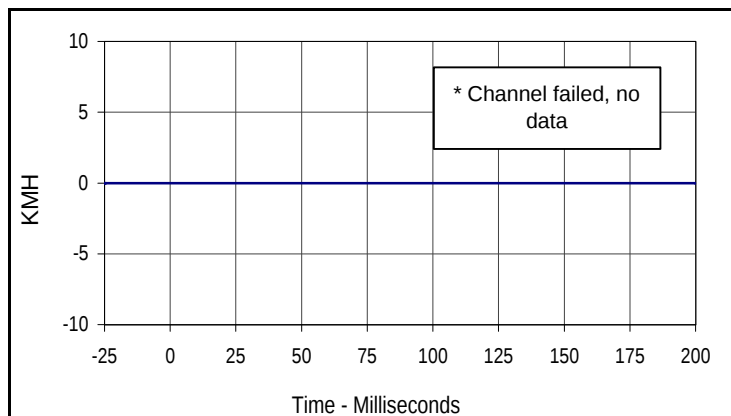


Curve Description			
Vehicle A-Post Lower Y			
CURNO	Type	SAE Class	Units
064	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Channel failed, no data

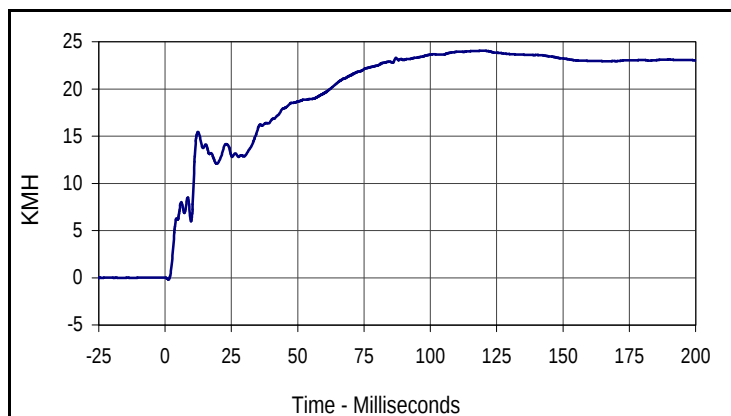


Curve Description			
Vehicle A-Post Middle Y			
CURNO	Type	SAE Class	Units
065	FIL	60	G's
Max	Time	Min	Time
58.0	10.9	-14.4	16.2



Curve Description			
Vehicle A-Post Lower Y Velocity			
CURNO	Type	SAE Class	Units
064	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

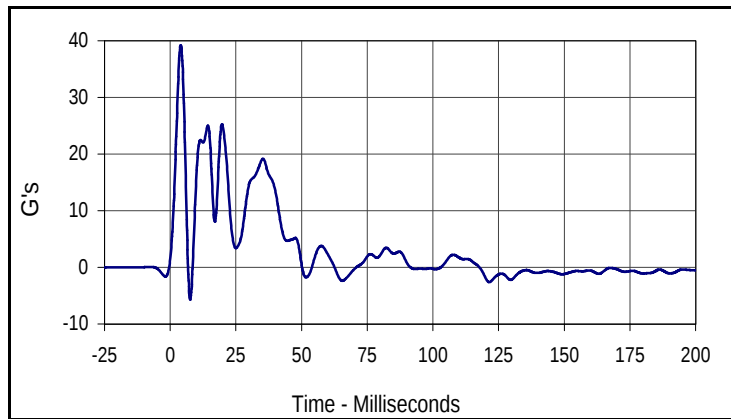
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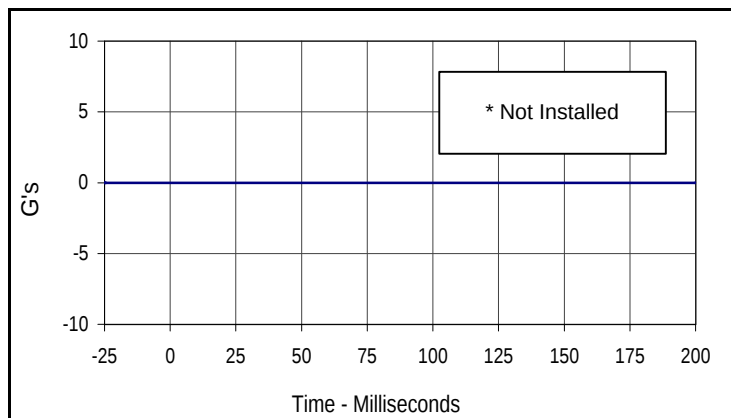
Curve Description			
Vehicle A-Post Middle Y Velocity			
CURNO	Type	SAE Class	Units
065	IN1	180	KMH
Max	Time	Min	Time
24.0	120.3	-0.2	1.3

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/20/04
 NHTSA No.: M40513

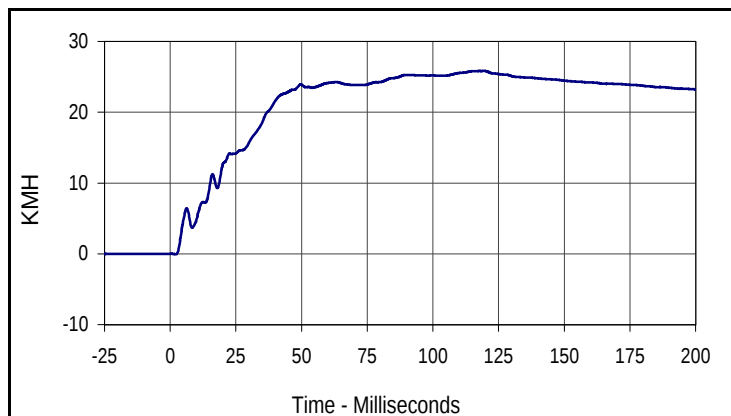


Curve Description			
Vehicle Left Front Seat Track			
CURNO	Type	SAE Class	Units
066	FIL	60	G's
Max	Time	Min	Time
39.2	4.0	-5.7	7.6

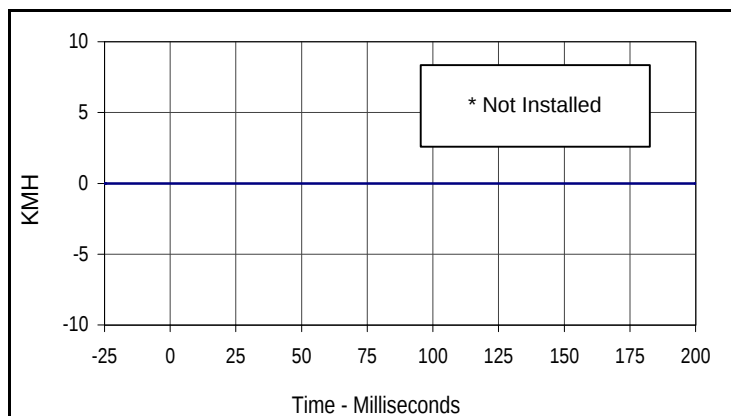


Curve Description			
Vehicle Rear Seat Structure			
CURNO	Type	SAE Class	Units
067	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed



Curve Description			
Vehicle Left Front Seat Track Y Velocity			
CURNO	Type	SAE Class	Units
066	IN1	180	KMH
Max	Time	Min	Time
25.8	119.5	-0.1	2.1

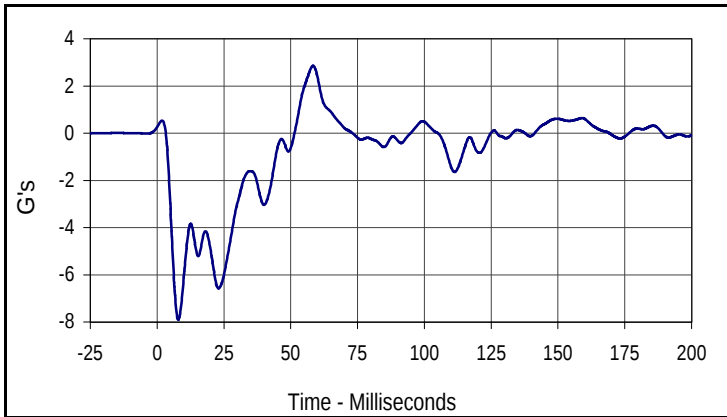


Curve Description			
Vehicle Rear Seat Structure Y Velocity			
CURNO	Type	SAE Class	Units
067	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

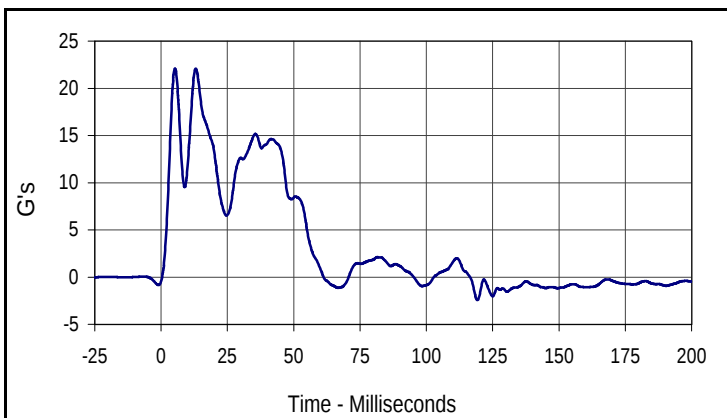
* Not Installed

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

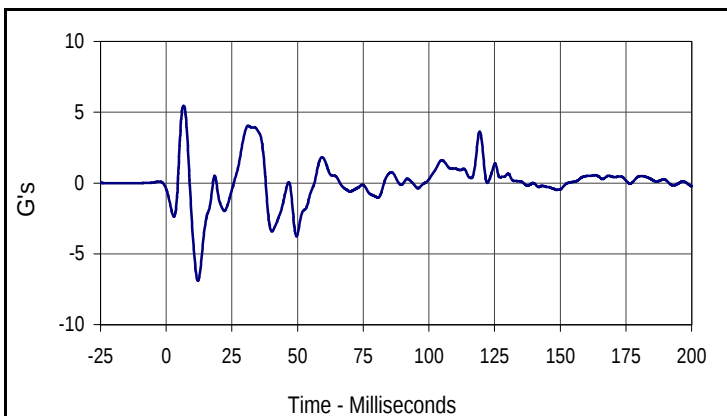
Test Date: 1/20/04
 NHTSA No.: M40513



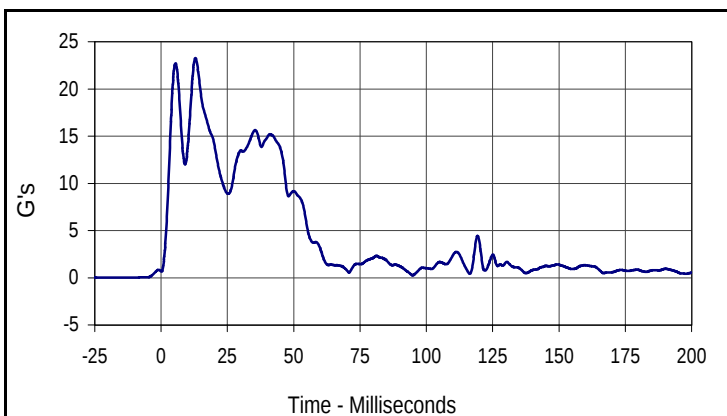
Curve Description			
Vehicle CG X			
CURNO	Type	SAE Class	Units
068	FIL	60	G's
Max	Time	Min	Time
2.9	58.4	-7.9	7.9



Curve Description			
Vehicle CG Y			
CURNO	Type	SAE Class	Units
069	FIL	60	G's
Max	Time	Min	Time
22.1	13.0	-2.4	119.2



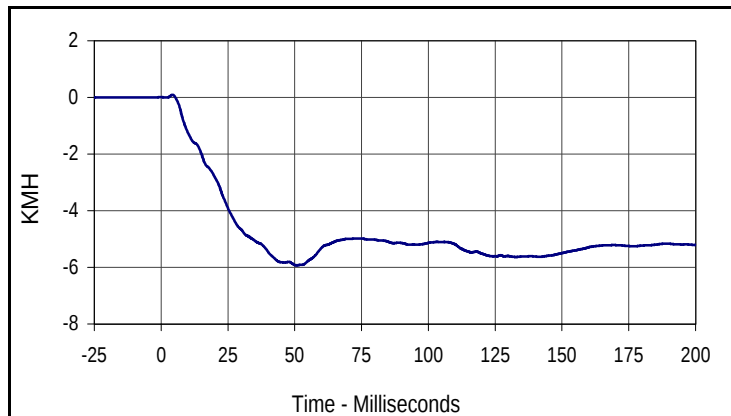
Curve Description			
Vehicle CG Z			
CURNO	Type	SAE Class	Units
070	FIL	60	G's
Max	Time	Min	Time
5.5	6.7	-6.9	12.1



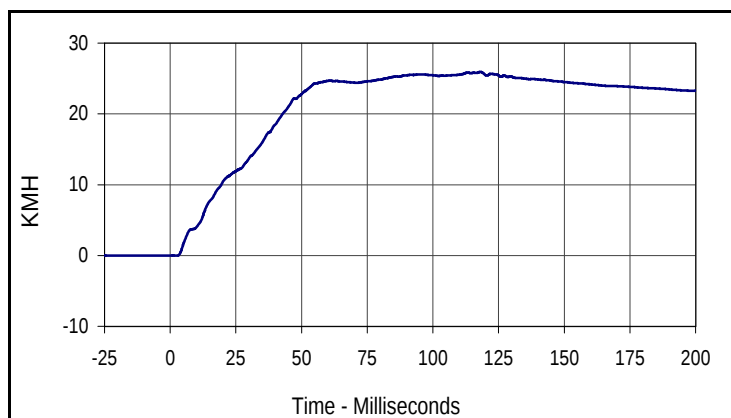
Curve Description			
Vehicle CG Resultant			
CURNO	Type	SAE Class	Units
068	RES	60	G's
Max	Time	Min	Time
23.3	12.9	0.3	94.8

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

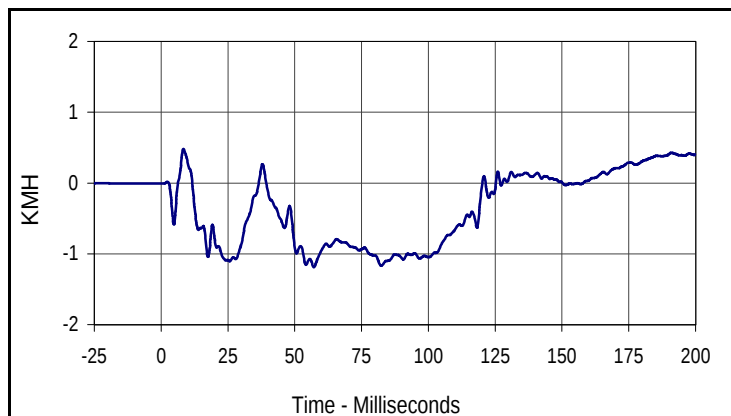
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
Vehicle CG X Velocity			
CURNO	Type	SAE Class	Units
068	IN1	180	KMH
Max	Time	Min	Time
0.1	4.3	-5.9	50.8



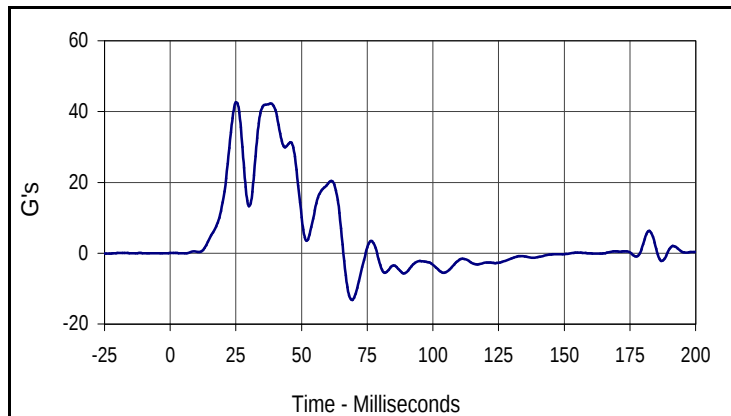
Curve Description			
Vehicle CG Y Velocity			
CURNO	Type	SAE Class	Units
069	IN1	180	KMH
Max	Time	Min	Time
25.9	118.1	0.0	2.6



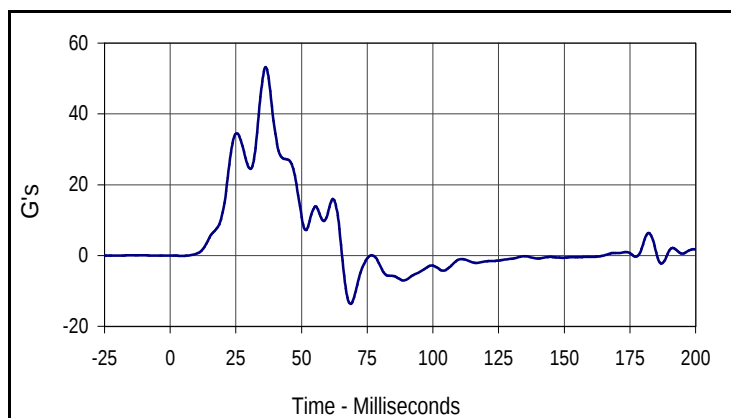
Curve Description			
Vehicle CG Z Velocity			
CURNO	Type	SAE Class	Units
070	IN1	180	KMH
Max	Time	Min	Time
0.5	8.3	-1.2	57.2

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

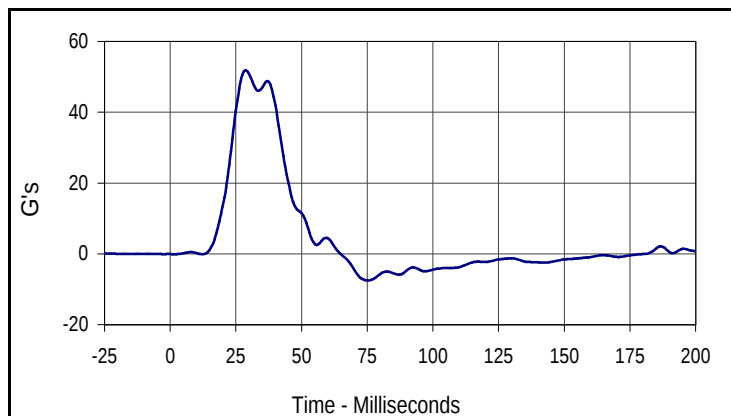
Test Date: 1/20/04
 NHTSA No.: M40513



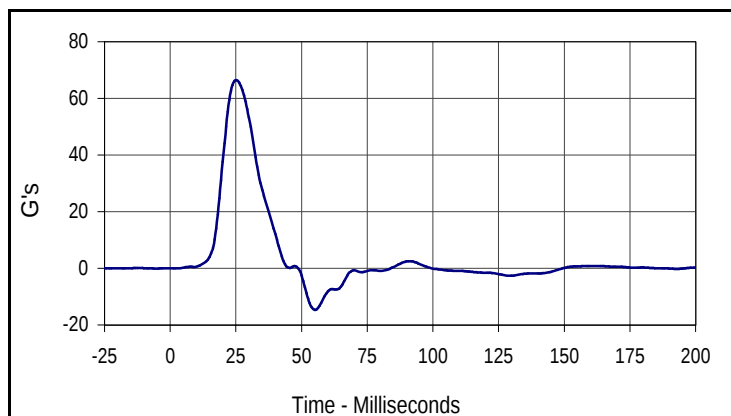
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
013	FIR	FIR100	G's
Max	Time	Min	Time
42.6	25.0	-13.2	69.4



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
014	FIR	FIR100	G's
Max	Time	Min	Time
53.2	36.3	-13.7	68.8



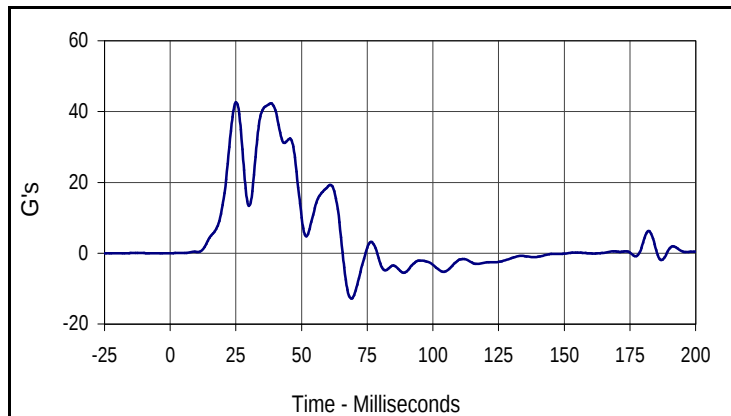
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
015	FIR	FIR100	G's
Max	Time	Min	Time
51.9	28.8	-7.5	75.0



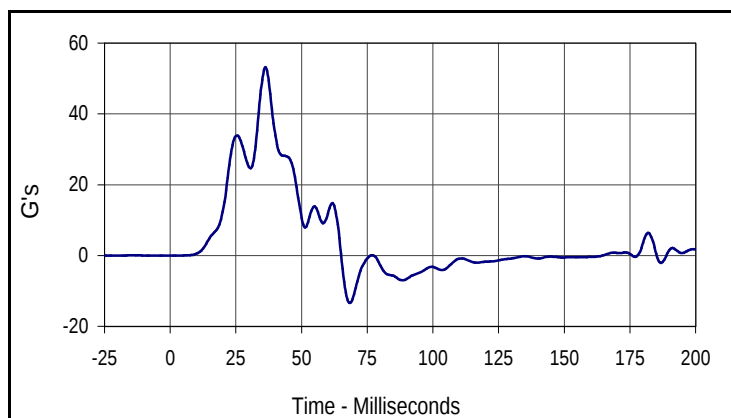
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
016	FIR	FIR100	G's
Max	Time	Min	Time
66.4	25.0	-14.6	55.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

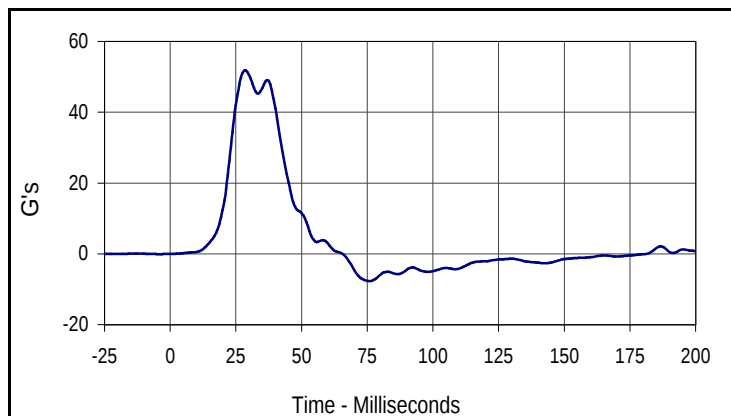
Test Date: 1/20/04
 NHTSA No.: M40513



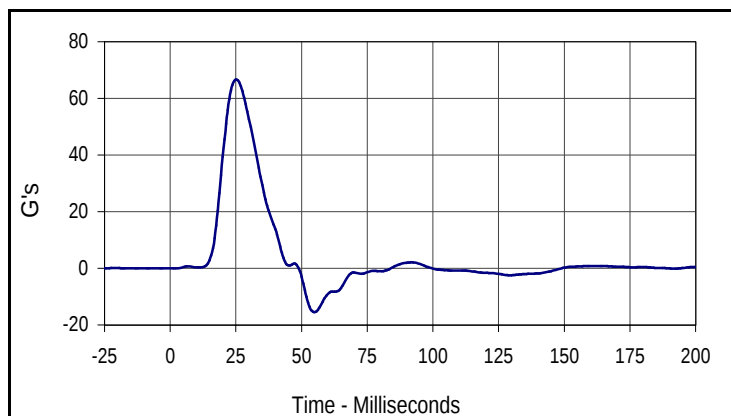
Curve Description			
Driver Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
017	FIR	FIR100	G's
Max	Time	Min	Time
42.6	25.0	-12.8	68.8



Curve Description			
Driver Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
018	FIR	FIR100	G's
Max	Time	Min	Time
53.2	36.3	-13.3	68.1



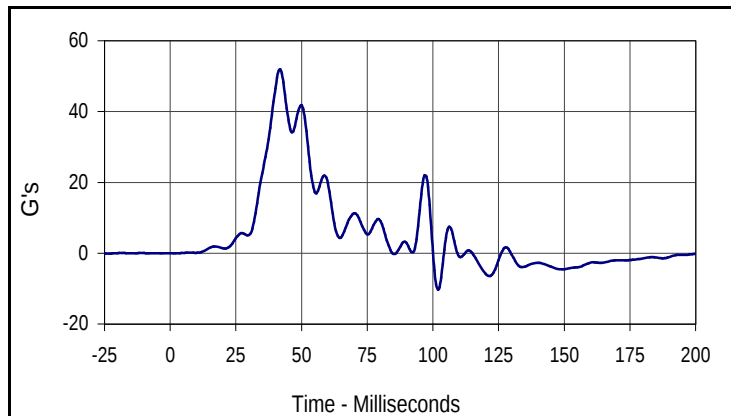
Curve Description			
Driver Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
019	FIR	FIR100	G's
Max	Time	Min	Time
51.8	28.8	-7.7	75.6



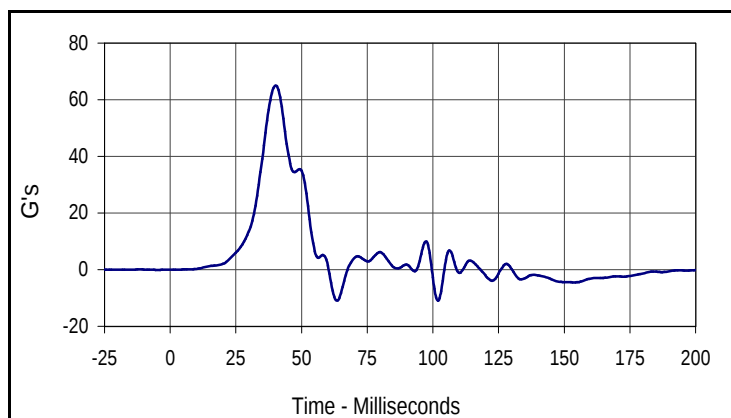
Curve Description			
Driver Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
020	FIR	FIR100	G's
Max	Time	Min	Time
66.7	25.0	-15.5	55.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

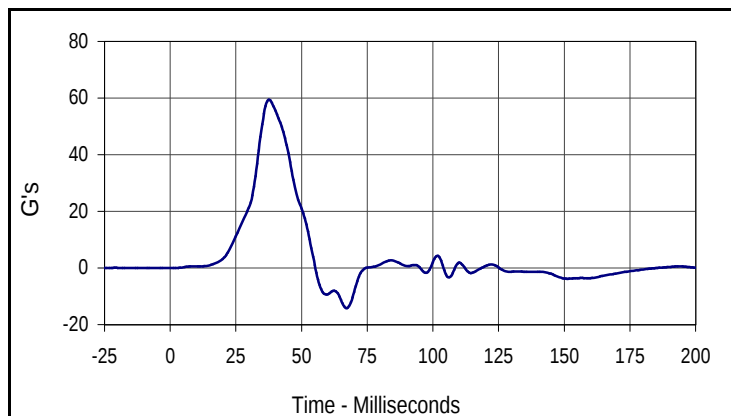
Test Date: 1/20/04
 NHTSA No.: M40513



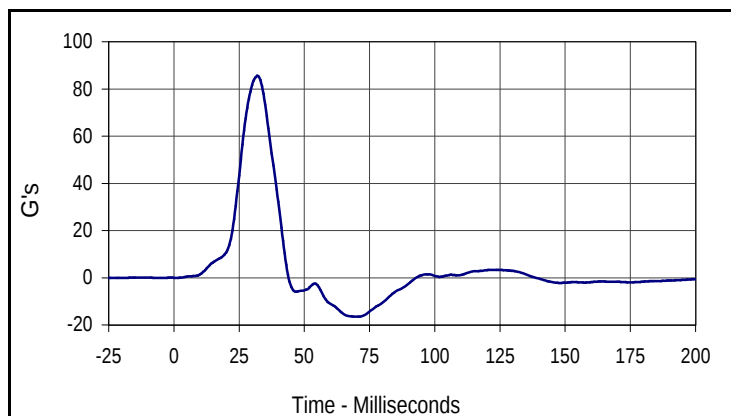
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
035	FIR	FIR100	G's
Max	Time	Min	Time
51.9	41.9	-10.4	101.9



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
036	FIR	FIR100	G's
Max	Time	Min	Time
65.0	40.0	-10.9	101.9



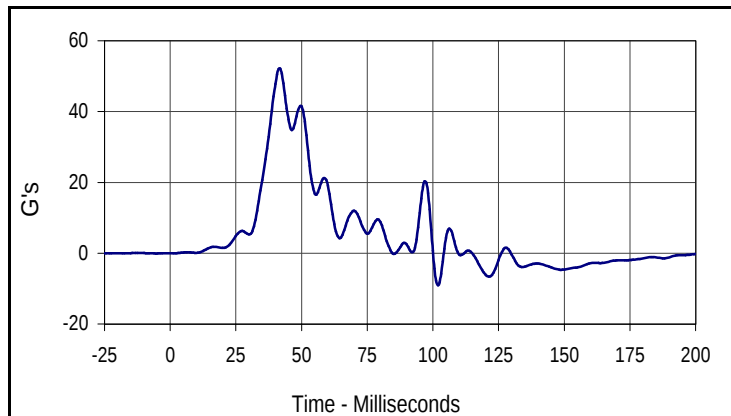
Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
037	FIR	FIR100	G's
Max	Time	Min	Time
59.4	37.5	-14.2	66.9



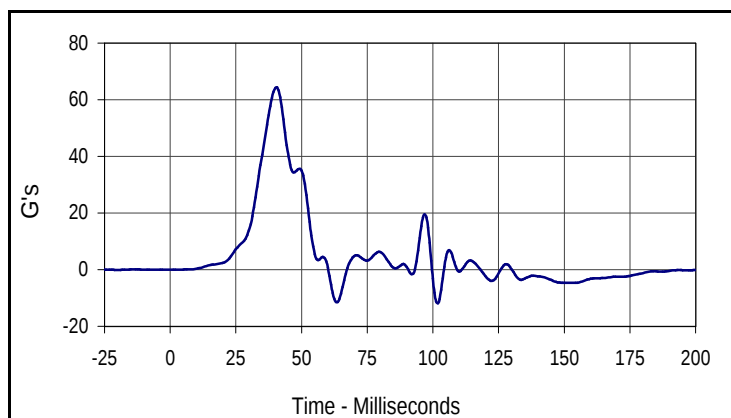
Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
038	FIR	FIR100	G's
Max	Time	Min	Time
85.6	31.9	-16.5	70.0

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

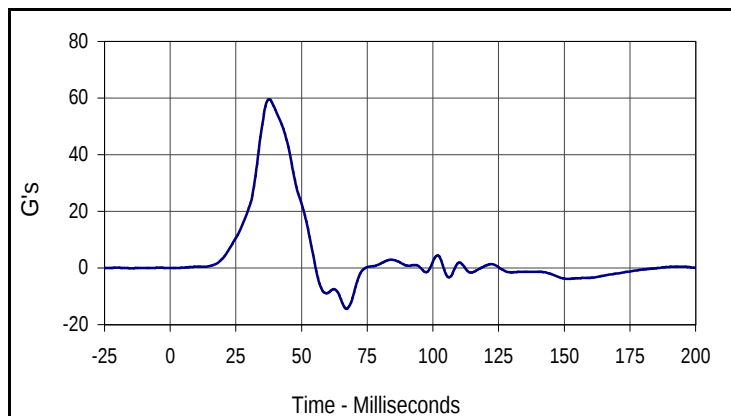
Test Date: 1/20/04
 NHTSA No.: M40513



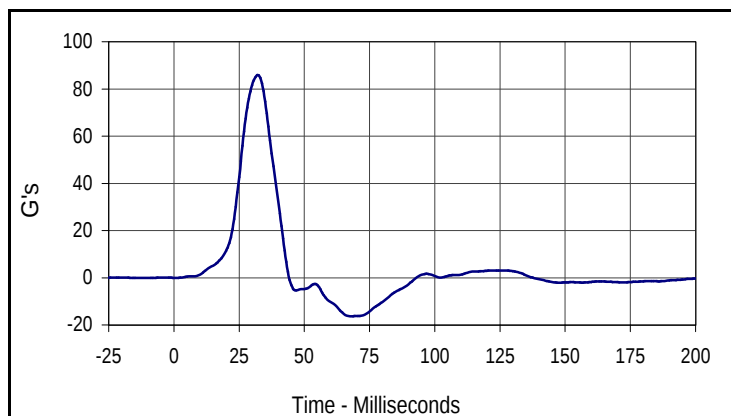
Curve Description			
Passenger Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
039	FIR	FIR100	G's
Max	Time	Min	Time
52.1	41.9	-9.1	101.9



Curve Description			
Passenger Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
040	FIR	FIR100	G's
Max	Time	Min	Time
64.4	40.6	-11.9	101.9



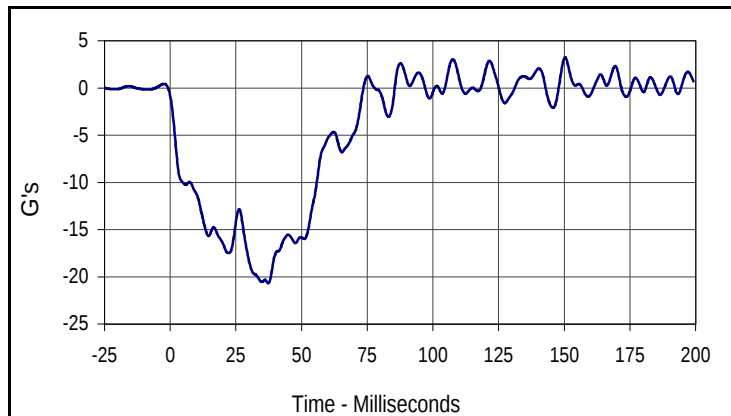
Curve Description			
Passenger Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
041	FIR	FIR100	G's
Max	Time	Min	Time
59.6	37.5	-14.3	66.9



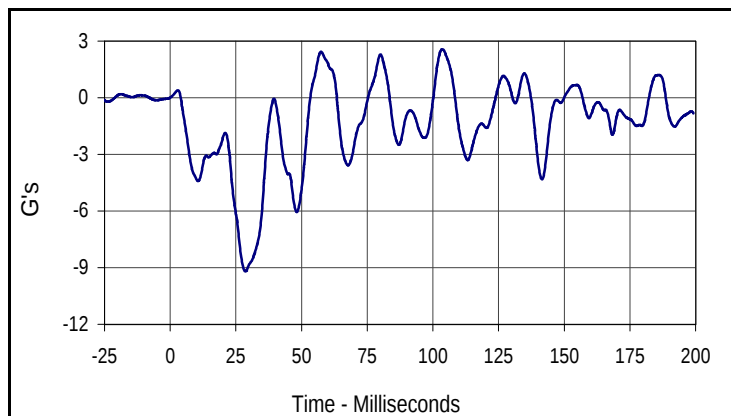
Curve Description			
Passenger Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
042	FIR	FIR100	G's
Max	Time	Min	Time
85.9	31.9	-16.3	68.1

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

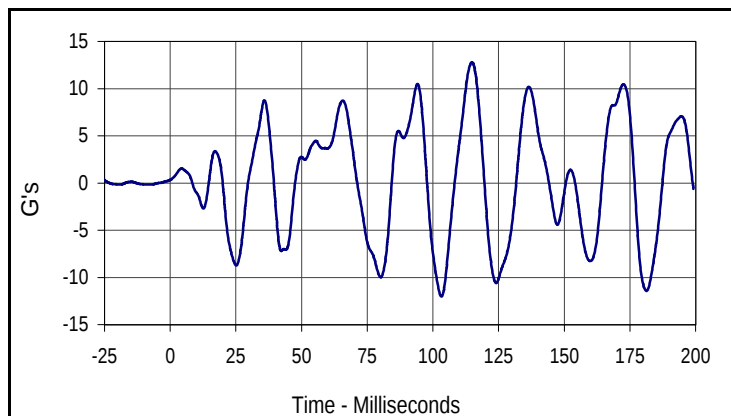
Test Date: 1/20/04
 NHTSA No.: M40513



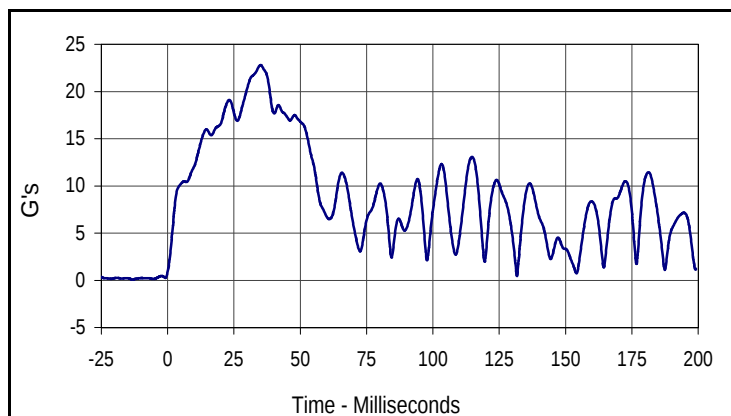
Curve Description			
MDB CG X			
CURNO	Type	SAE Class	Units
071	FIL	60	G's
Max	Time	Min	Time
3.2	150.3	-20.7	37.3



Curve Description			
MDB CG Y			
CURNO	Type	SAE Class	Units
072	FIL	60	G's
Max	Time	Min	Time
2.6	103.6	-9.2	28.6



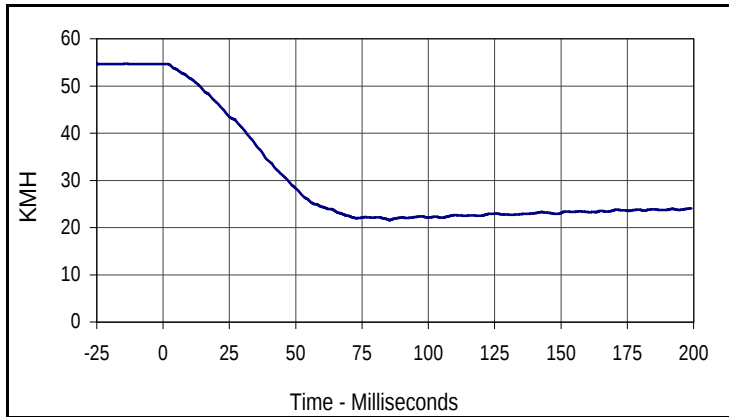
Curve Description			
MDB CG Z			
CURNO	Type	SAE Class	Units
073	FIL	60	G's
Max	Time	Min	Time
12.8	114.9	-12.0	103.2



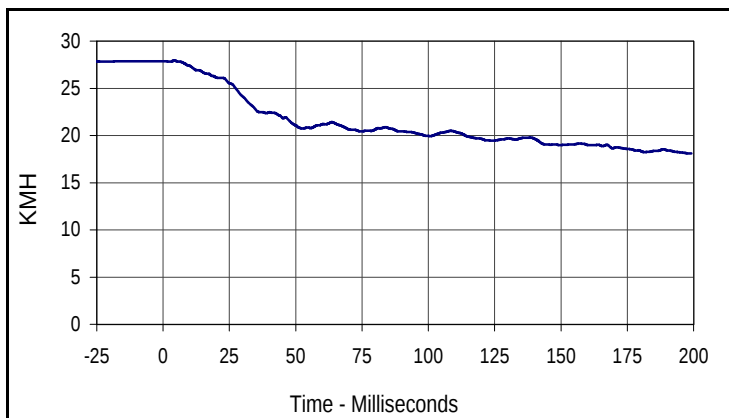
Curve Description			
MDB CG Resultant			
CURNO	Type	SAE Class	Units
071	RES	60	G's
Max	Time	Min	Time
22.8	35.1	0.5	131.7

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

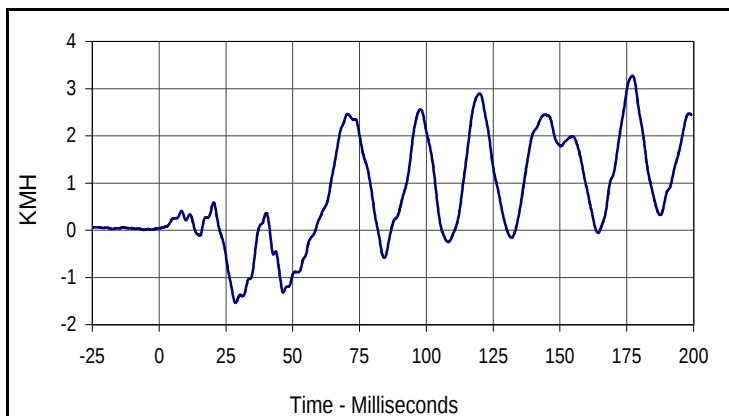
Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
MDB CG X Velocity			
CURNO	Type	SAE Class	Units
071	IN1	180	KMH
Max	Time	Min	Time
54.7	1.3	21.6	85.4



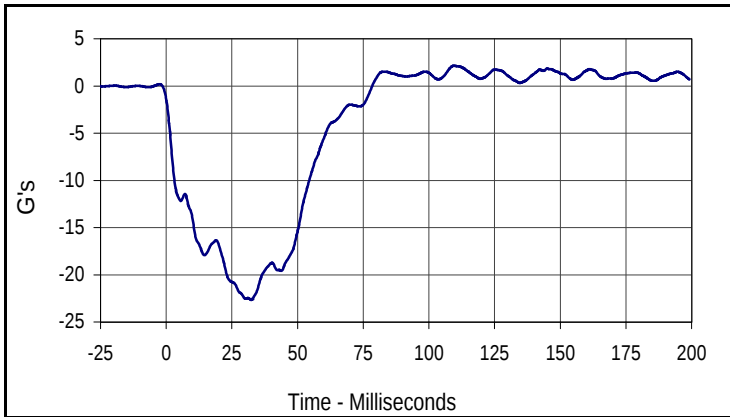
Curve Description			
MDB CG Y Velocity			
CURNO	Type	SAE Class	Units
072	IN1	180	KMH
Max	Time	Min	Time
28.0	4.2	18.2	181.5



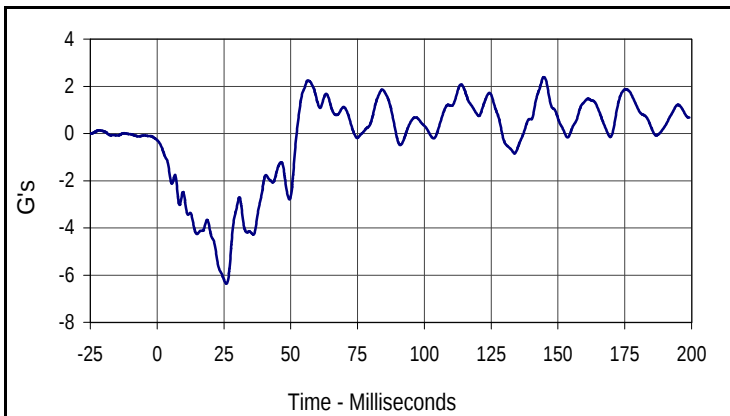
Curve Description			
MDB CG Z Velocity			
CURNO	Type	SAE Class	Units
073	IN1	180	KMH
Max	Time	Min	Time
3.3	177.1	-1.5	28.6

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

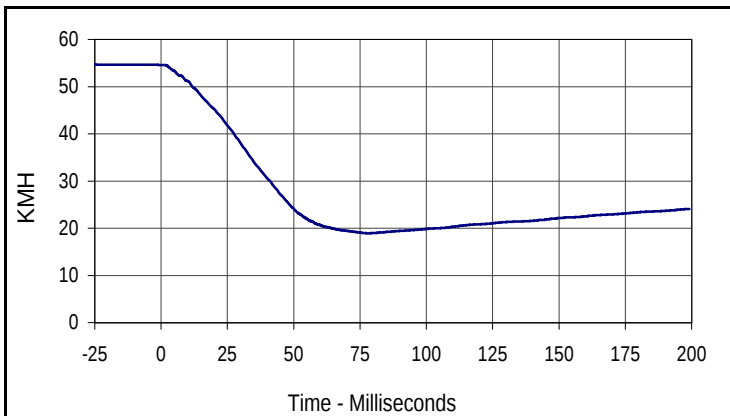
Test Date: 1/20/04
 NHTSA No.: M40513



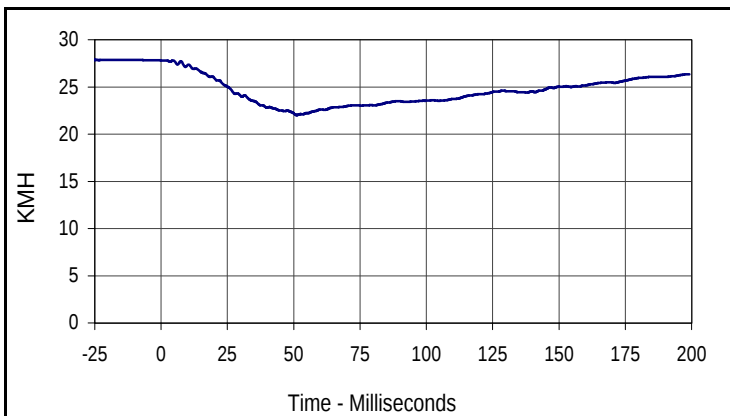
Curve Description			
MDB Rear X			
CURNO	Type	SAE Class	Units
074	FIL	60	G's
Max	Time	Min	Time
2.2	109.5	-22.6	32.4



Curve Description			
MDB Rear Y			
CURNO	Type	SAE Class	Units
075	FIL	60	G's
Max	Time	Min	Time
2.4	144.7	-6.4	25.9



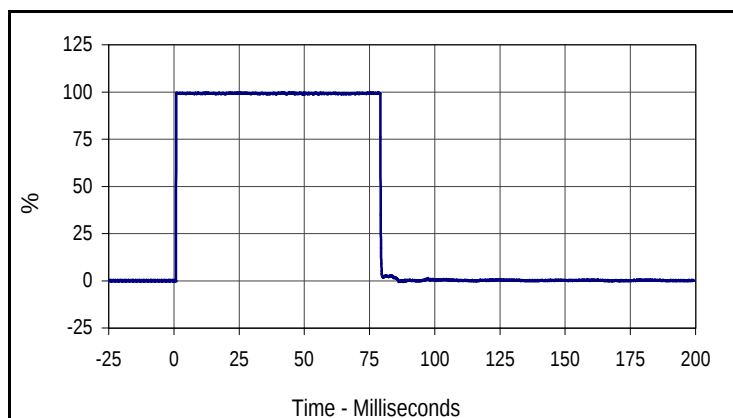
Curve Description			
MDB Rear X Velocity			
CURNO	Type	SAE Class	Units
074	IN1	180	KMH
Max	Time	Min	Time
54.6	0.7	18.9	78.3



Curve Description			
MDB Rear Y Velocity			
CURNO	Type	SAE Class	Units
075	IN1	180	KMH
Max	Time	Min	Time
27.8	0.0	22.0	51.1

Test Vehicle: 2004 Suzuki Aerio GX 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/20/04
 NHTSA No.: M40513



Curve Description			
MDB Right Bumper Contact			
CURNO	Type	SAE Class	Units
076	FIL	1000	%
Max	Time	Cross %	Time
99.9	44.2	50.0	0.9

APPENDIX C
SID/HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

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



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

External Measurements

ATD Serial No.: 274

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	895	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	495	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

C-1

TR-P24003-01-NC

Laboratory Technician

January 15, 2004

Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 274

Test I.D.: TH03A

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	4.23	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	43.3	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	43.2	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.3	Pass
Overall Test Results				Pass

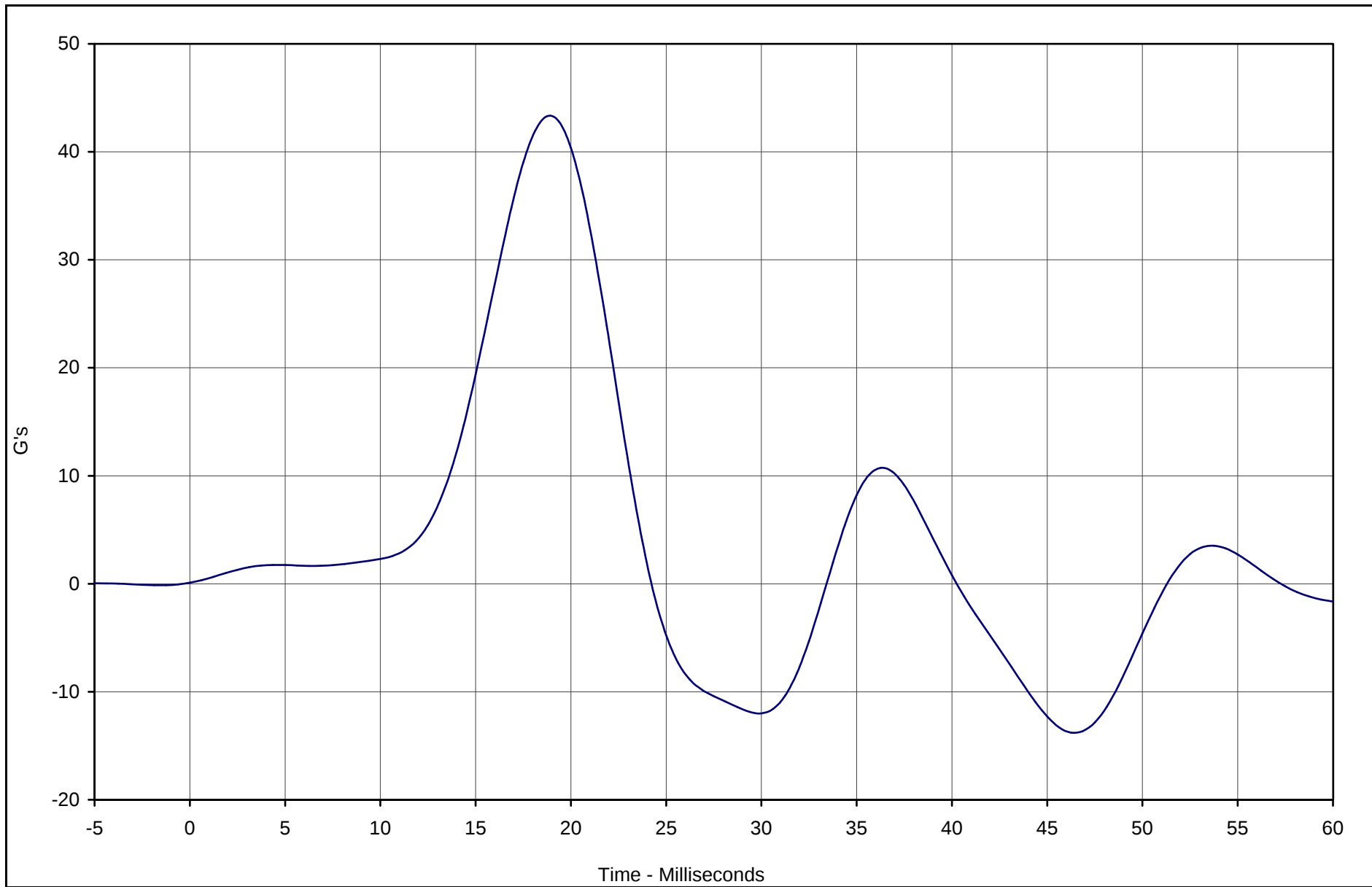
C-2

TR-P23004-01-NC

Laboratory Technician

January 15, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	43.3	18.8	-13.8	46.3	FIR100

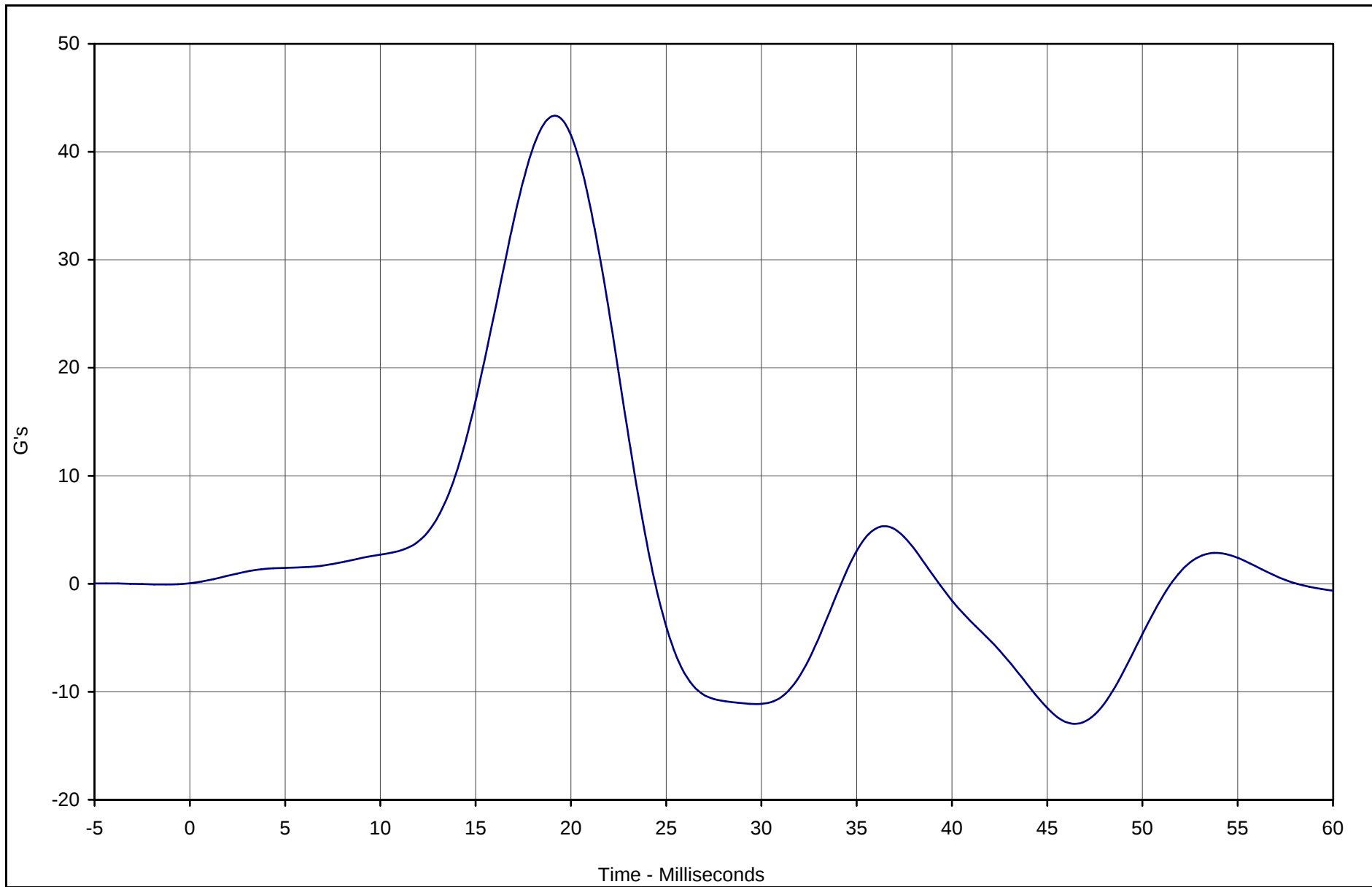


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 1/15/04

Test I.D.: TH03A



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	43.2	19.4	-12.9	46.3	FIR100

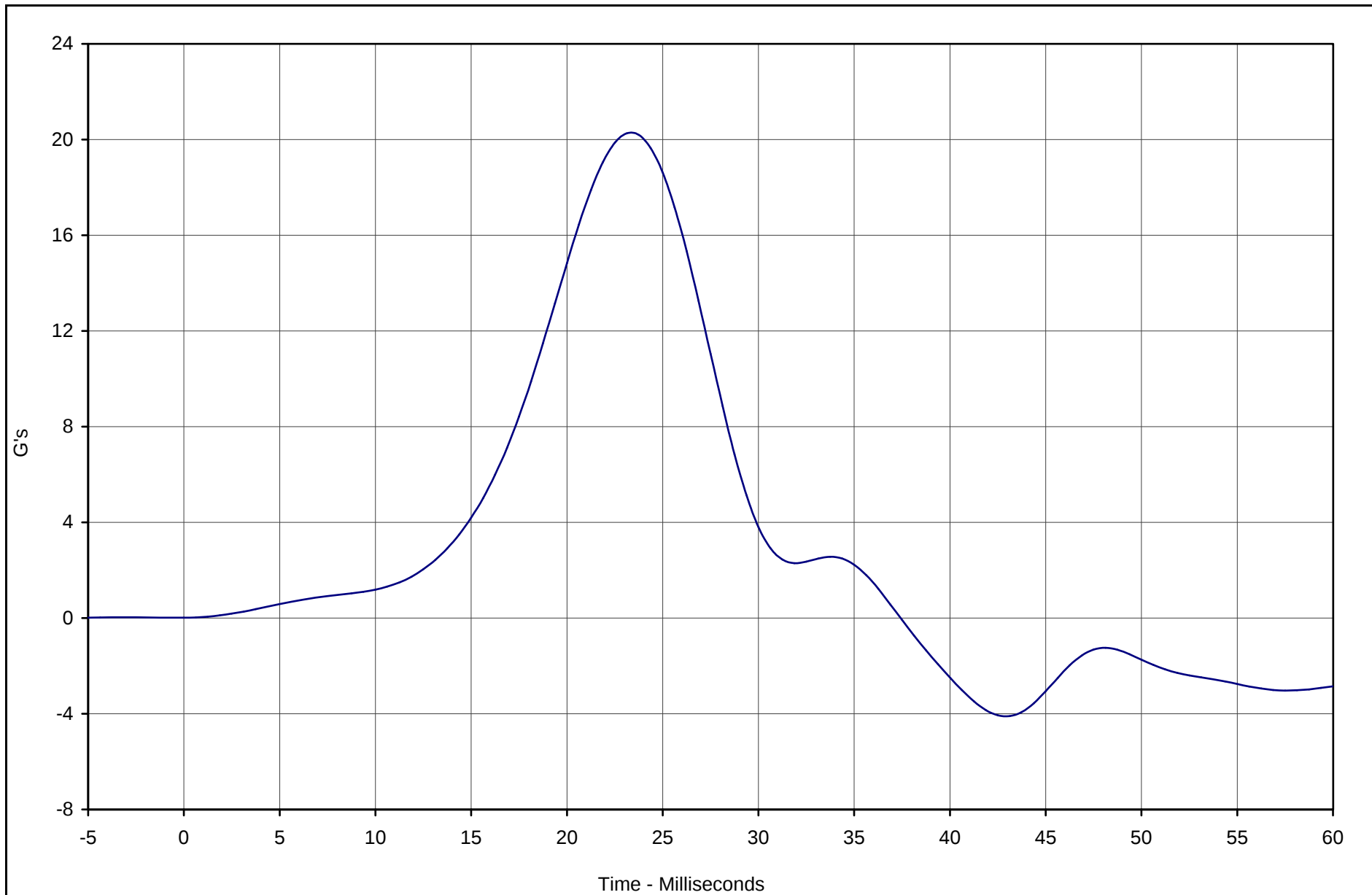


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 1/15/04

Test I.D.: TH03A



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	20.3	23.1	-4.1	43.1	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 1/15/04

Test I.D.: TH03A



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 274

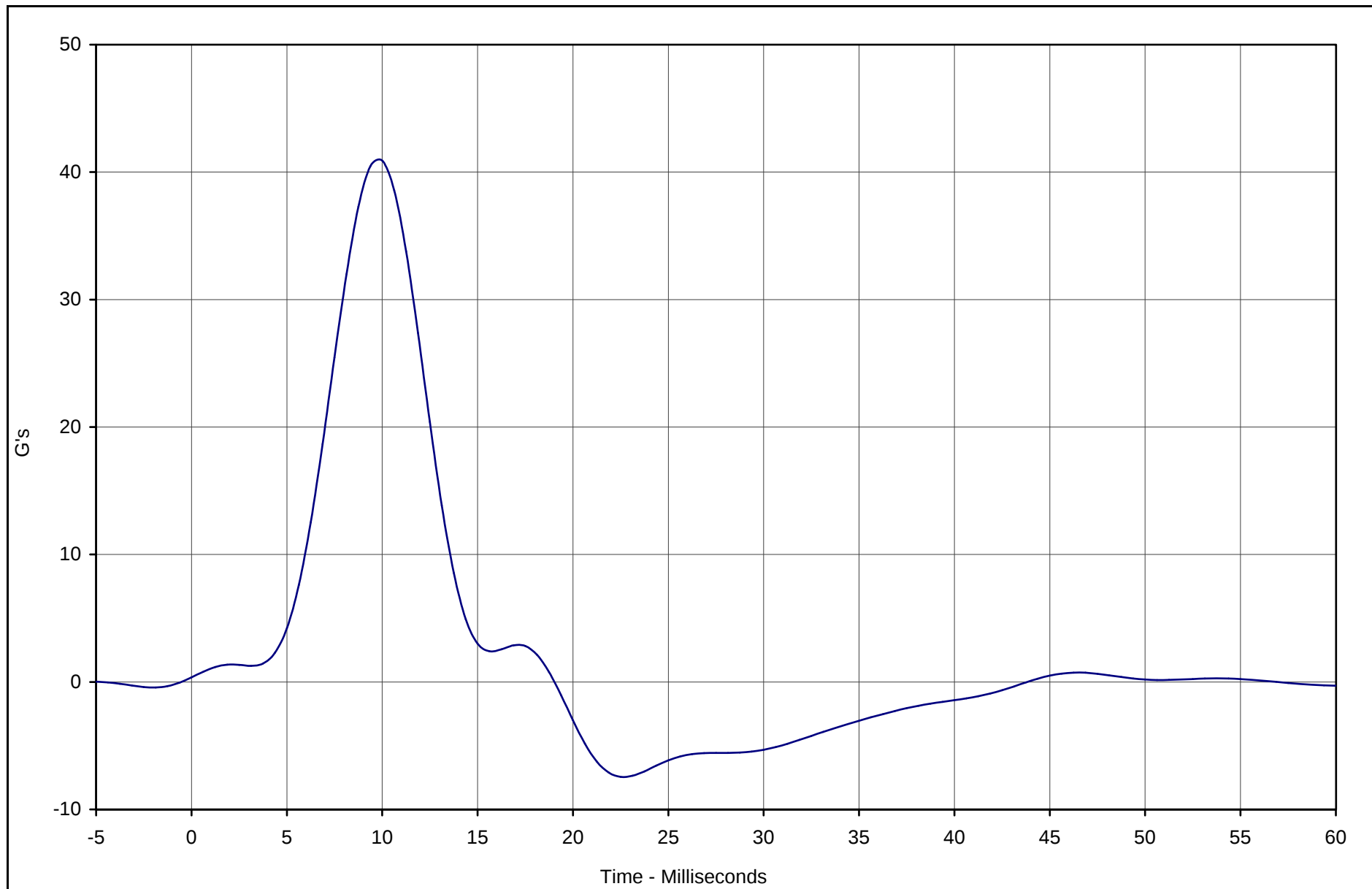
Test I.D.: PL03A

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
Peak Pelvis Acceleration	G's	40.0 to 60.0	40.9	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	5.6	Pass
Overall Test Results				Pass

Laboratory Technician

January 16, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	40.9	10.0	-7.4	22.5	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 274

Test Date: 1/16/04

Test I.D.: PL03A



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Head Drop Lateral Impact Test

ATD Serial No.: 274

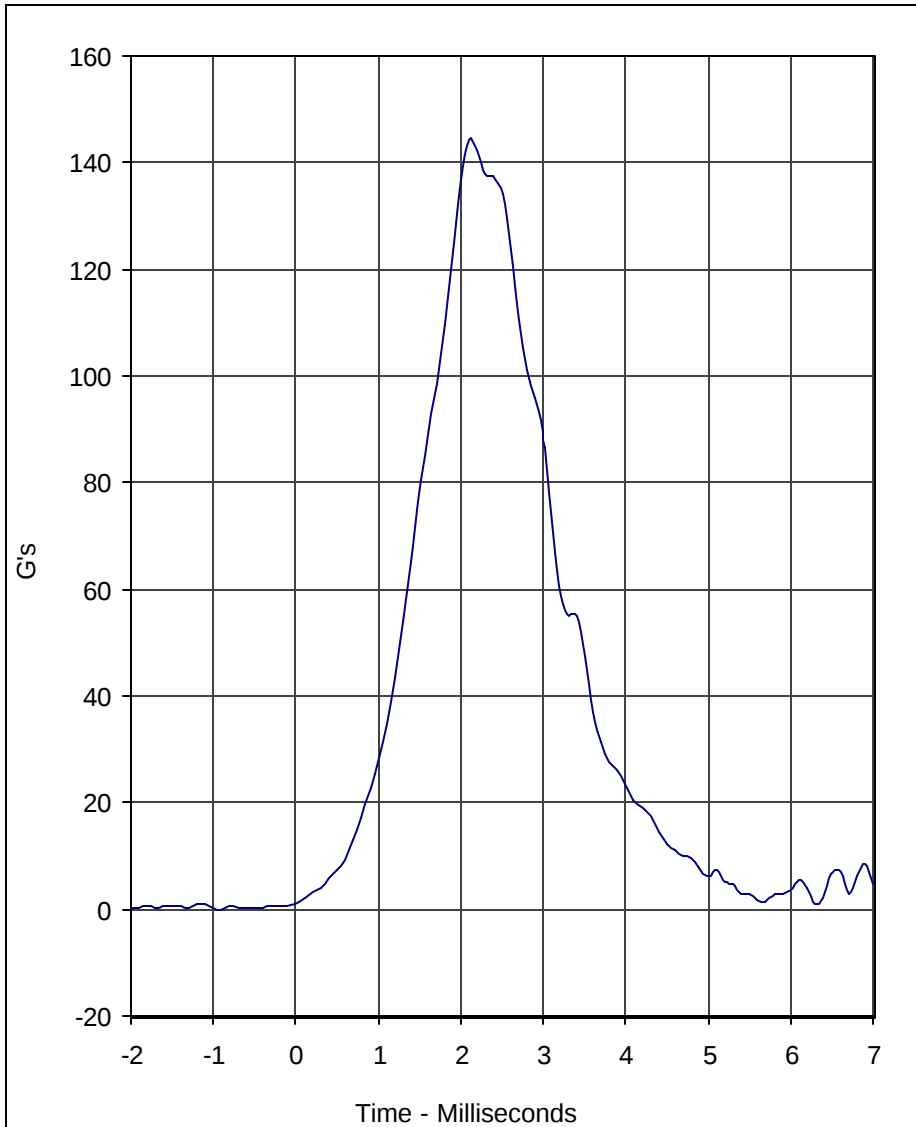
Test I.D.: HD03A

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	144.1	Pass
Peak Longitudinal Acceleration	G's	≤15.0	6.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	5.9	Pass
Overall Test Results				Pass

Laboratory Technician

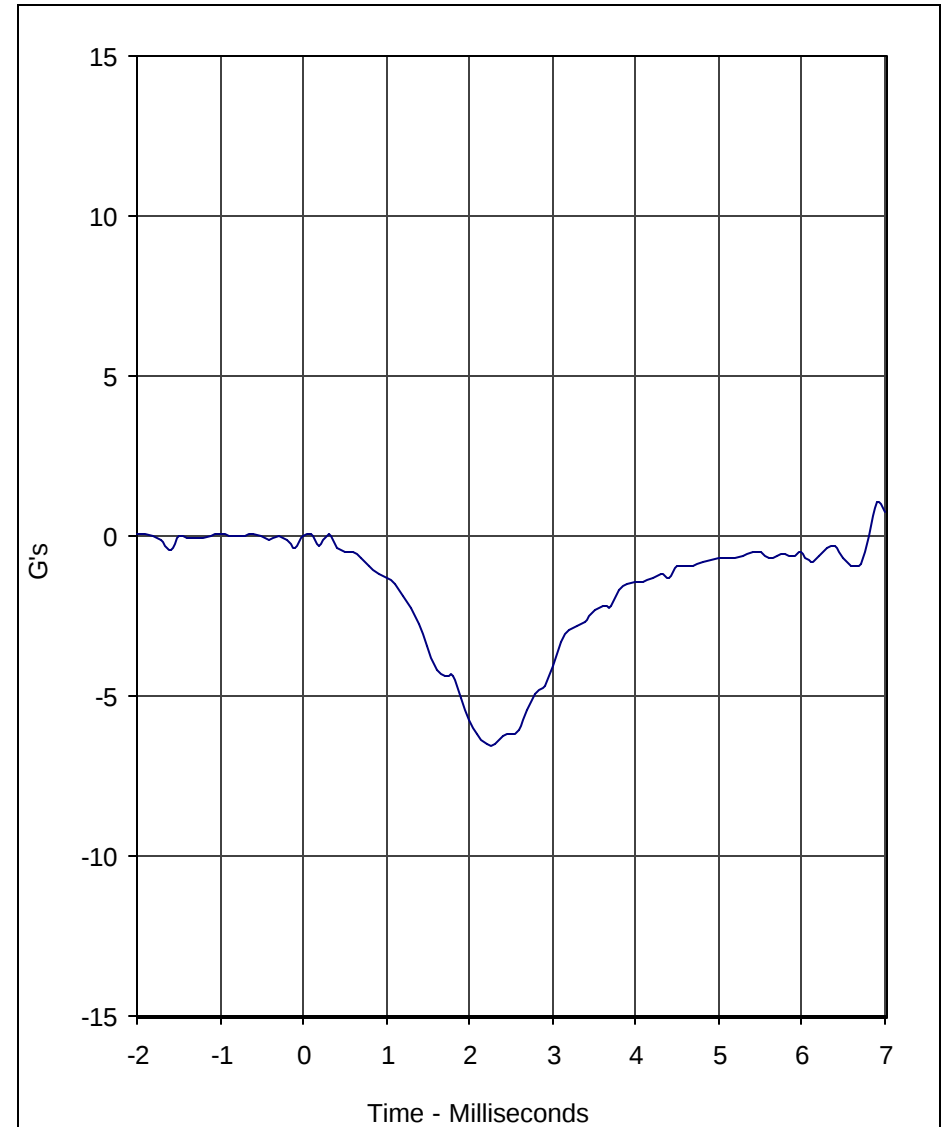
January 16, 2004

Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES
Units	Max	Time	Min	Time	SAE Class
G's	144.1	2.1	0.0	-0.9	1000

Test Program: SID / HIII Head Drop Lateral Impact Test
 Test Date: 1/16/04



Curve Description				CURNO	Type
Head X				002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	1.1	6.9	-6.5	2.2	1000

A.T.D. Serial No.: 274
 Test I.D.: HD03A





Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Neck Pendulum Lateral Test

ATD Serial No.: 274

Test I.D.: NB03A

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/s	6.89 to 7.13	7.10	Pass
Pendulum Deceleration	10	Msec.	1.96 to 2.55	1.97	Pass
	20	Msec.	4.12 to 5.10	4.13	Pass
	30	Msec.	5.73 to 7.01	5.96	Pass
	40 to 70	Msec.	6.27 to 7.64	7.60	Pass
Maximum "D" Plane Rotation		Degrees	66.0 to 82.0	71.2	Pass
Maximum "D" Plane Rotation Time After Peak Moment		Msec.	2.0 to 15.0	6.3	Pass
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle		Msec.	58.0 to 67.0	59.4	Pass
Calculated Moment About Occipital Condyle		N•m	73.0 to 88.0	82.5	Pass
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m		Msec.	49.0 to 64.0	54.0	Pass
Overall Test Results					Pass

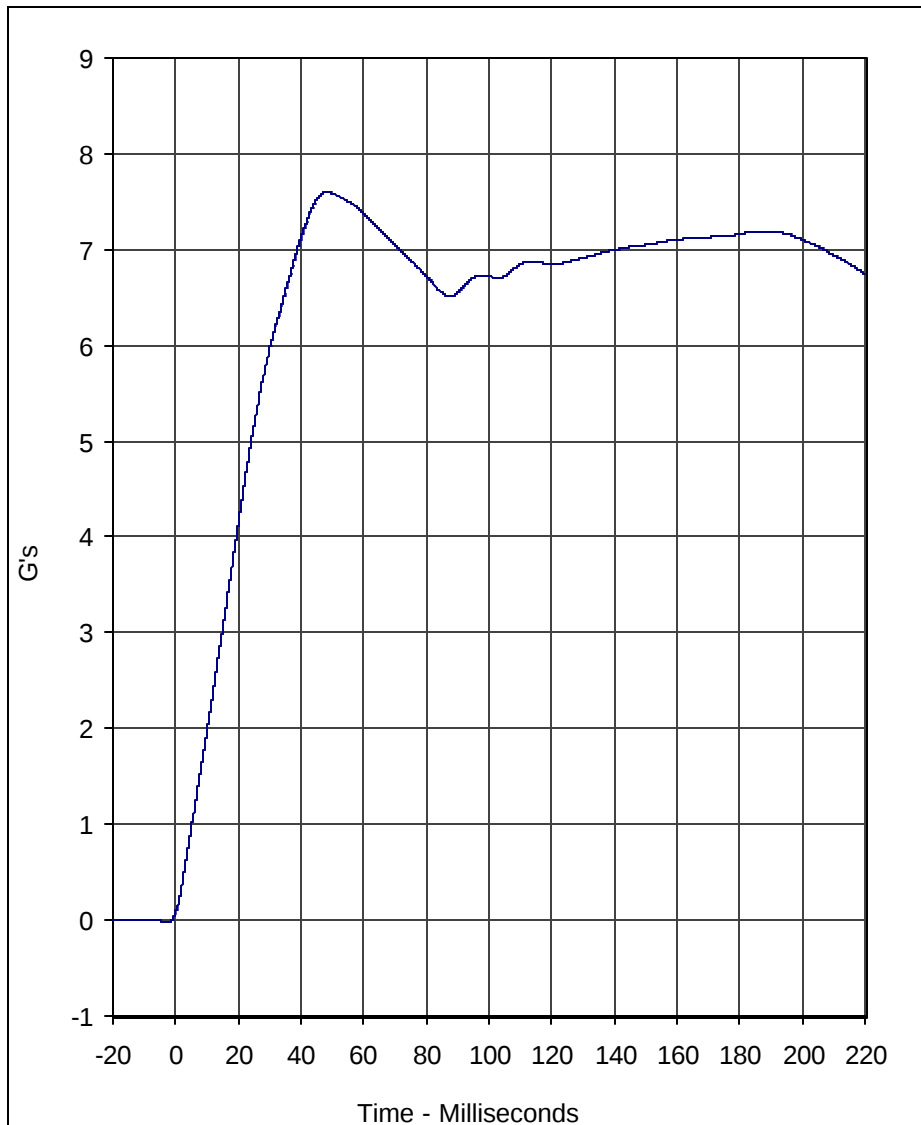
Laboratory Technician

January 15, 2004

Test Date

C-10

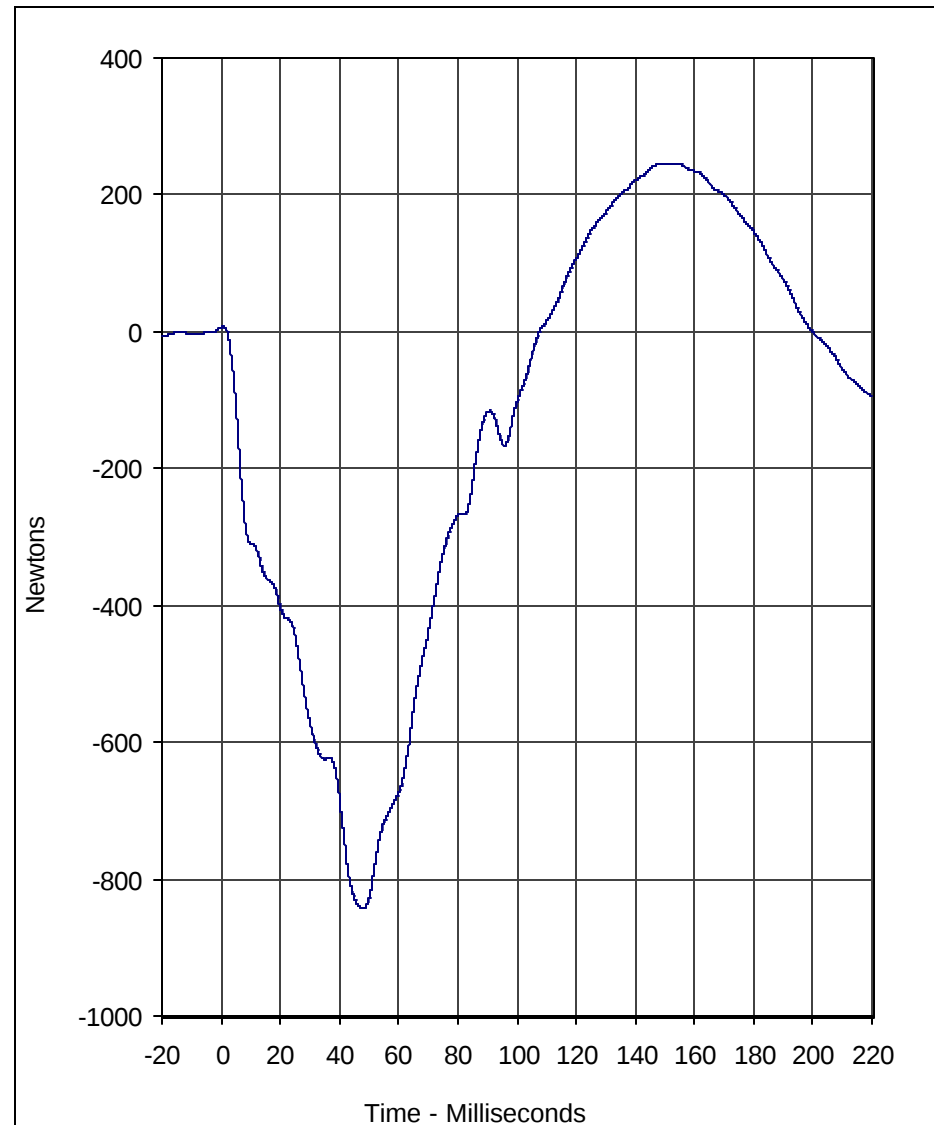
TR-P24003-01-NC



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
G's	7.6	48.2	0.0	-2.7	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/15/04

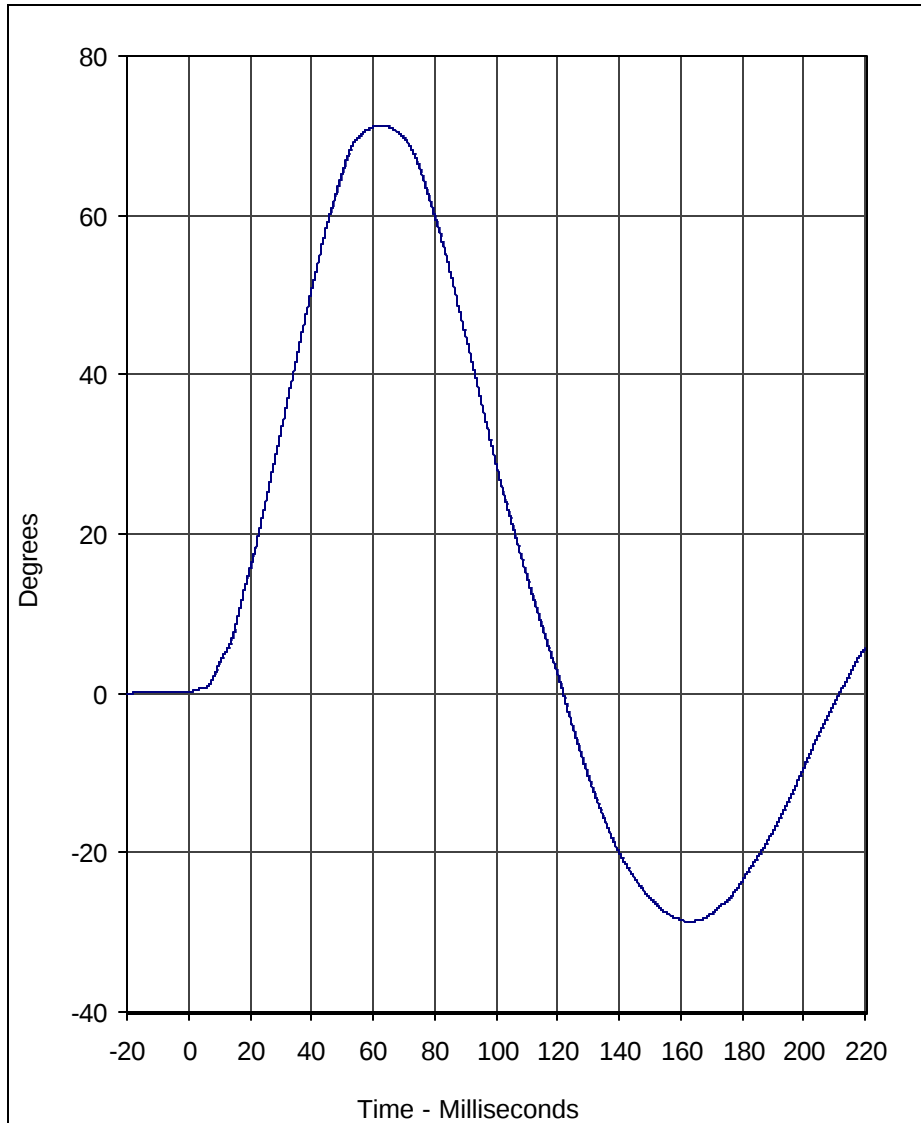


Curve Description				CURNO	Type
Neck Force Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	246.4	153.4	-842.2	48.0	60

A.T.D. Serial No.: 274

Test I.D.: NB03A

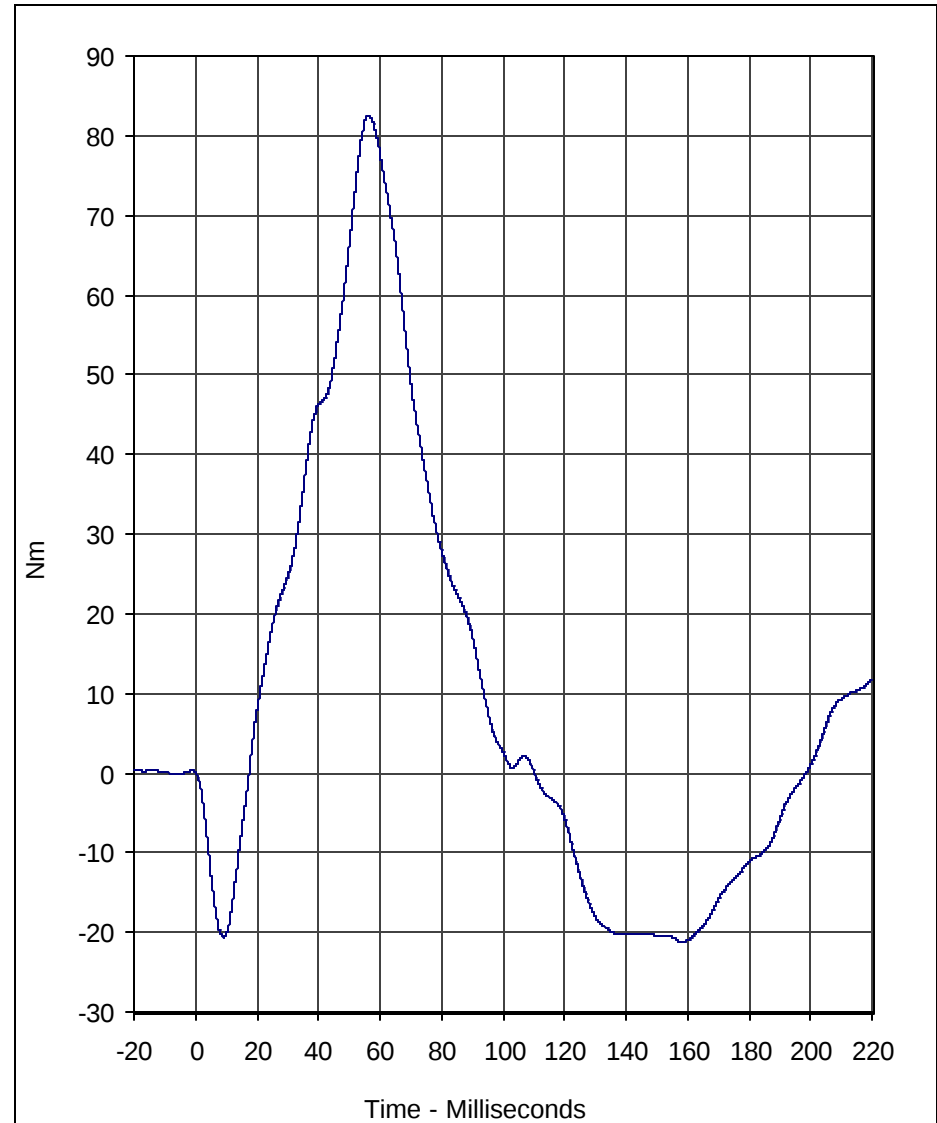




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	71.2	62.6	-28.7	163.0	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/15/04



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	82.5	56.3	-21.2	158.5	60

A.T.D. Serial No.: 274

Test I.D.: NB03A





Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

External Measurements

ATD Serial No.: 275

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	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	522	Pass
KV- Knee Pivot From Floor	mm	490 to 505	501	Pass
HW- Hip Width	mm	356 to 391	379	Pass
Overall Test Results				Pass

Laboratory Technician

January 15, 2004

Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 275

Test I.D.: TH03B

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	4.22	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.0	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	42.4	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	21.3	Pass
Overall Test Results				Pass

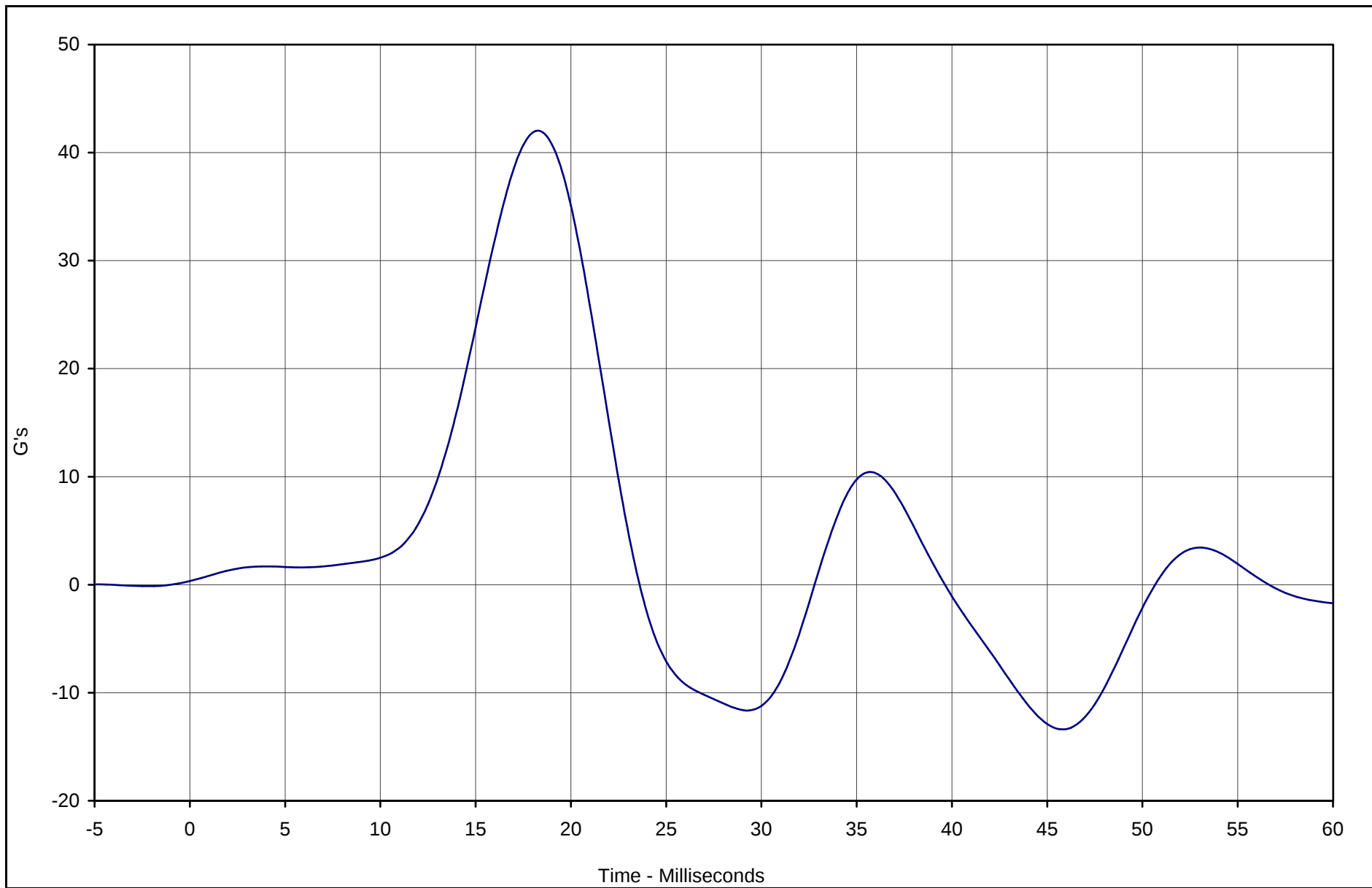
C-14

TR-P23004-01-NC

Laboratory Technician

January 15, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	42.0	18.1	-13.4	45.6	FIR100

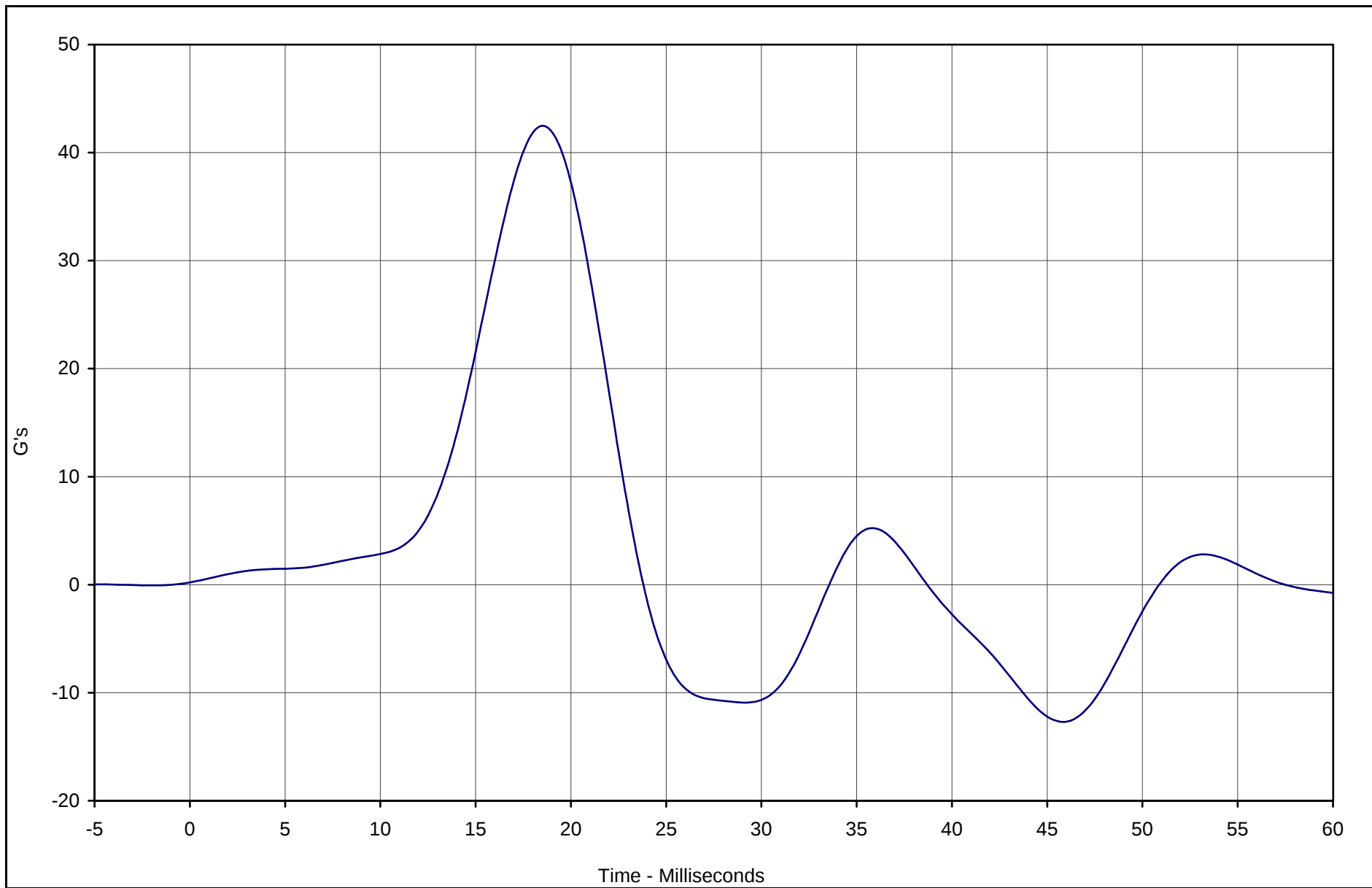


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 1/15/04

Test I.D.: TH03B



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	42.4	18.8	-12.7	45.6	FIR100

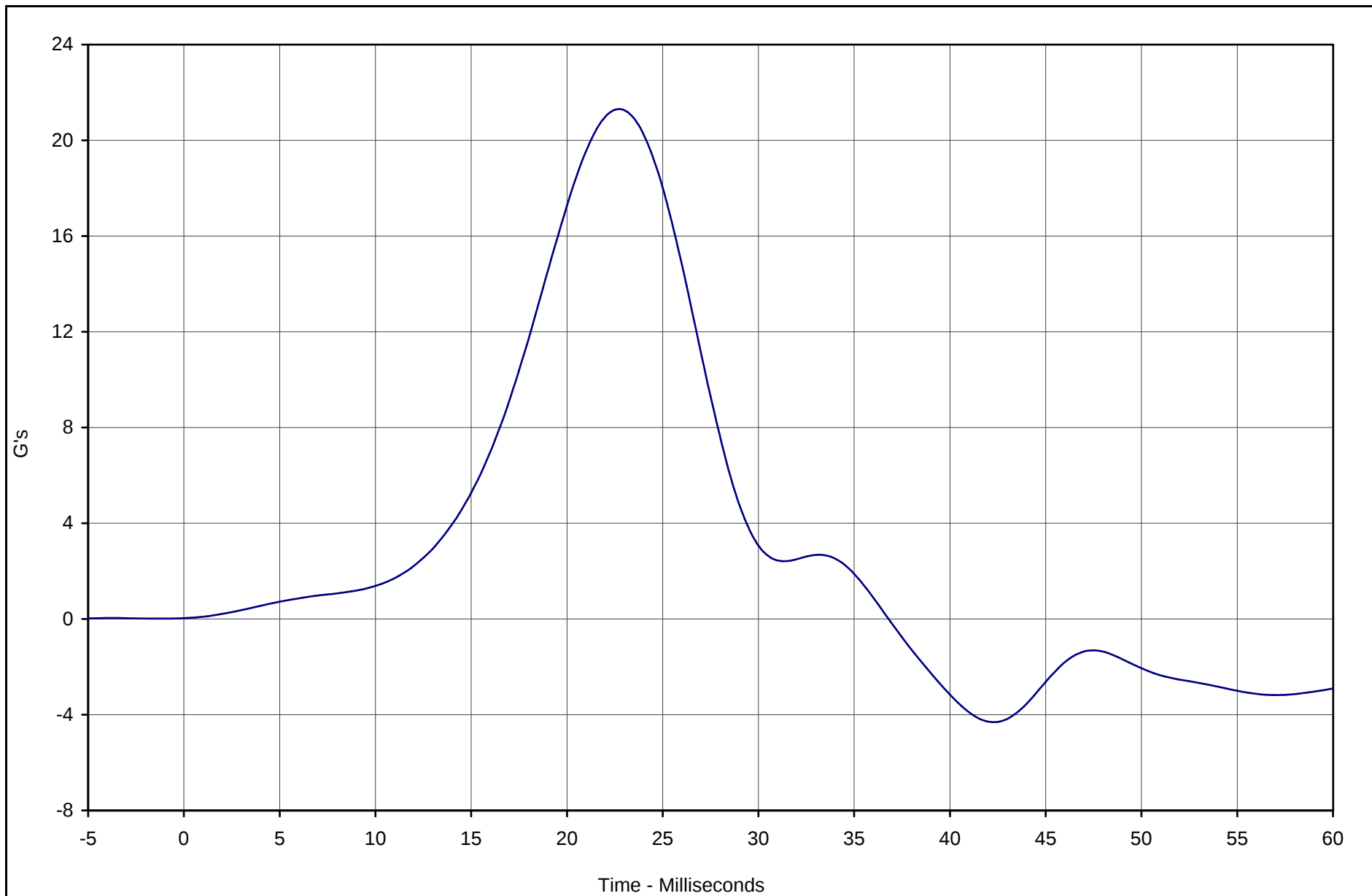


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 1/15/04

Test I.D.: TH03B



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	21.3	22.5	-4.3	42.5	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 1/15/04

Test I.D.: TH03B



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 275

Test I.D.: PL03B

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
Peak Pelvis Acceleration	G's	40.0 to 60.0	45.1	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.8	Pass
Overall Test Results				Pass

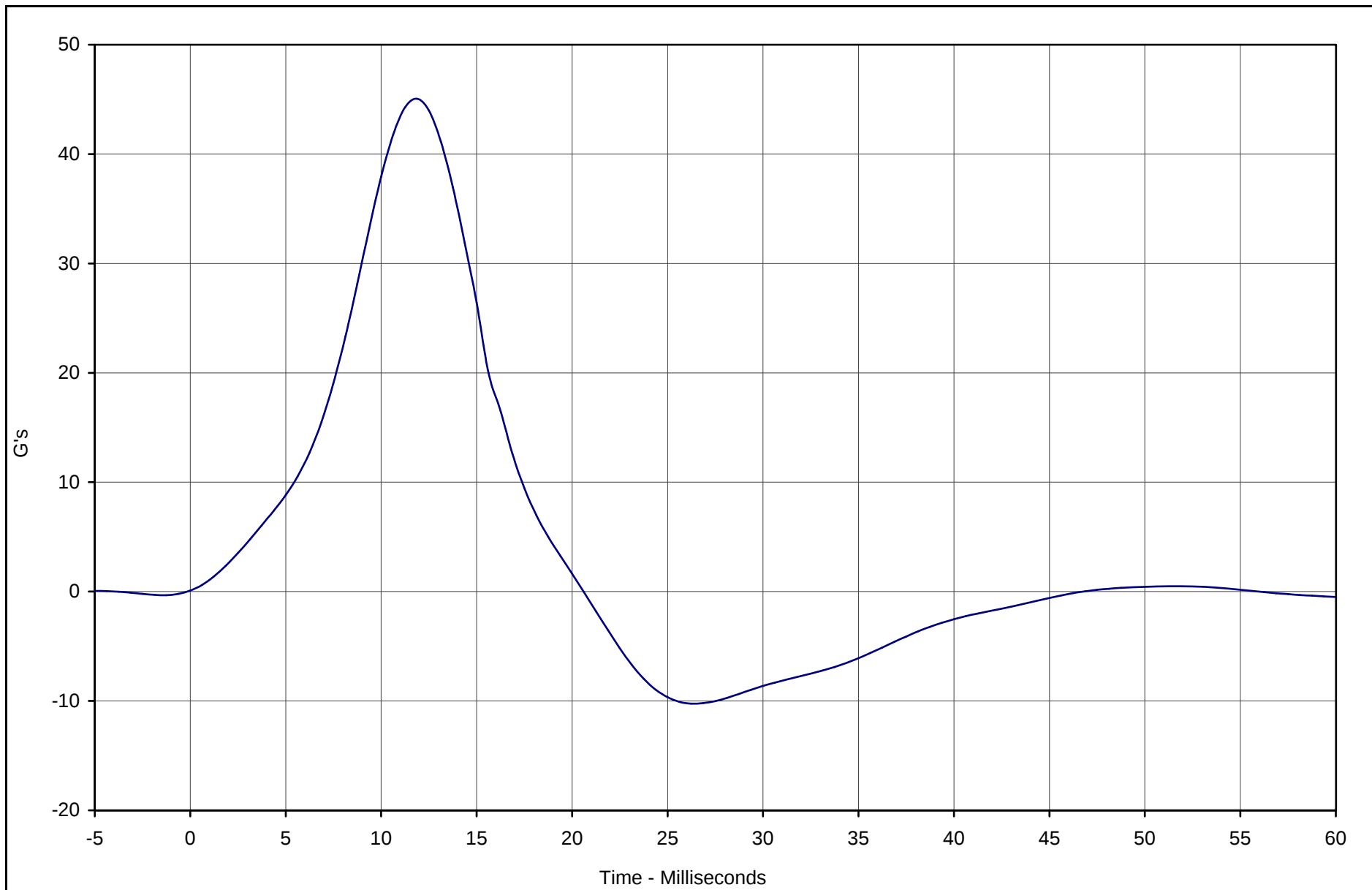
C-18

TR-P24003-01-NC

Laboratory Technician

January 16, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	45.1	11.9	-10.2	26.3	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 275

Test Date: 1/16/04

Test I.D.: PL03B



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Head Drop Lateral Impact Test

ATD Serial No.: 275

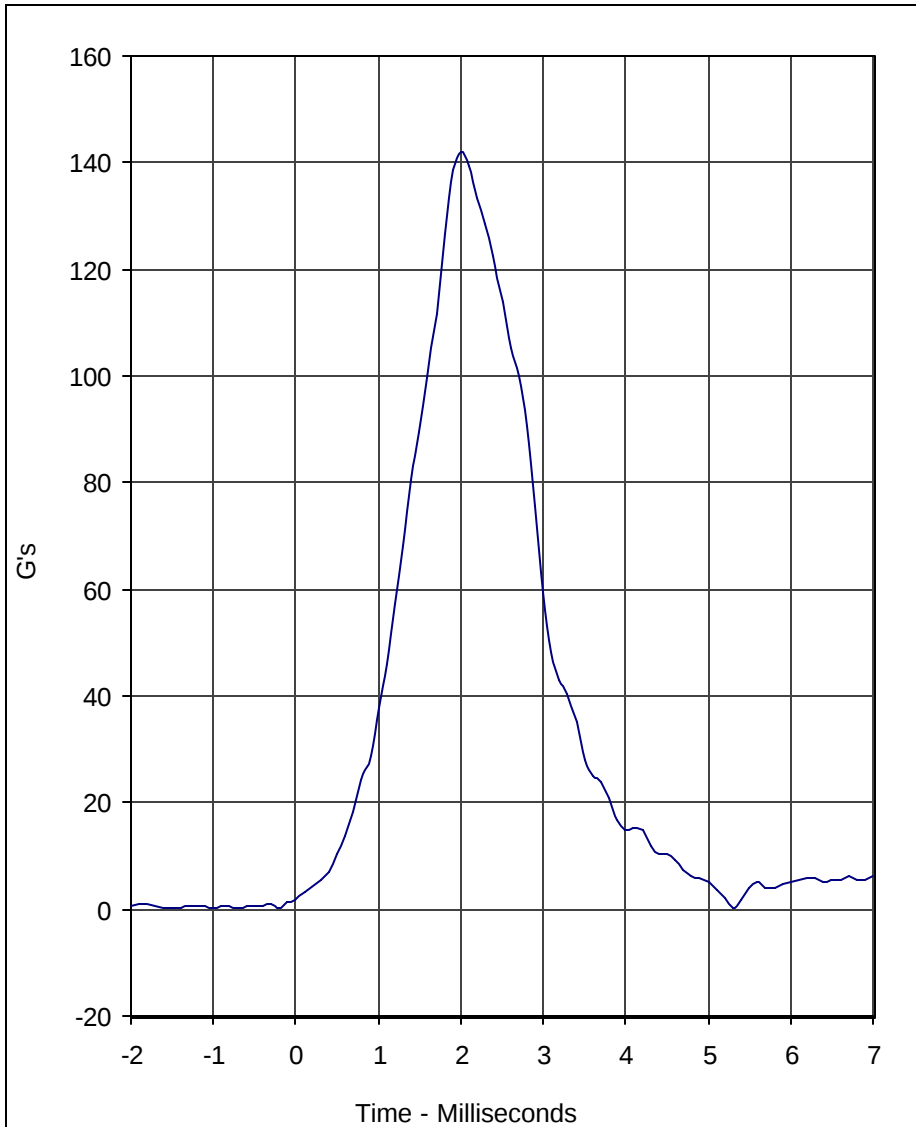
Test I.D.: HD03B

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	141.9	Pass
Peak Longitudinal Acceleration	G's	≤15.0	14.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	4.3	Pass
Overall Test Results				Pass

Laboratory Technician

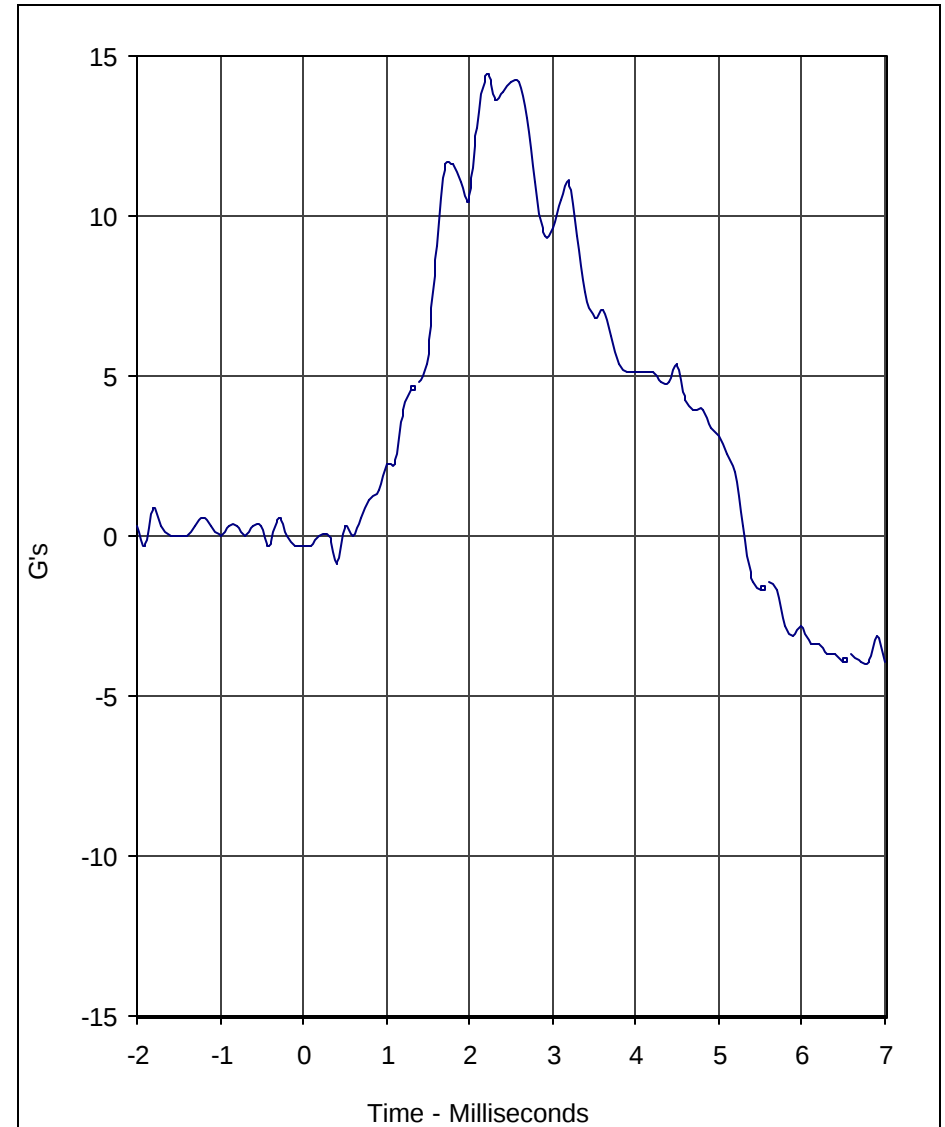
January 16, 2004

Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES

Units	Max	Time	Min	Time	SAE Class
G's	141.9	2.0	0.3	-1.4	1000



Curve Description				CURNO	Type
Head X				002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	14.5	2.2	-4.0	6.5	1000

Test Program: SID / HIII Head Drop Lateral Impact Test

Test Date: 1/16/04

A.T.D. Serial No.: 275

Test I.D.: HD03B





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Neck Pendulum Lateral Test

ATD Serial No.: 275

Test I.D.: NB03B

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/s	6.89 to 7.13	6.95	Pass
Pendulum Deceleration	10	Msec.	1.96 to 2.55	1.98	Pass
	20	Msec.	4.12 to 5.10	4.26	Pass
	30	Msec.	5.73 to 7.01	6.26	Pass
	40 to 70	Msec.	6.27 to 7.64	7.49	Pass
Maximum "D" Plane Rotation		Degrees	66.0 to 82.0	75.6	Pass
Maximum "D" Plane Rotation Time After Peak Moment		Msec.	2.0 to 15.0	14.5	Pass
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle		Msec.	58.0 to 67.0	58.4	Pass
Calculated Moment About Occipital Condyle		N•m	73.0 to 88.0	82.9	Pass
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m		Msec.	49.0 to 64.0	49.8	Pass
Overall Test Results					Pass

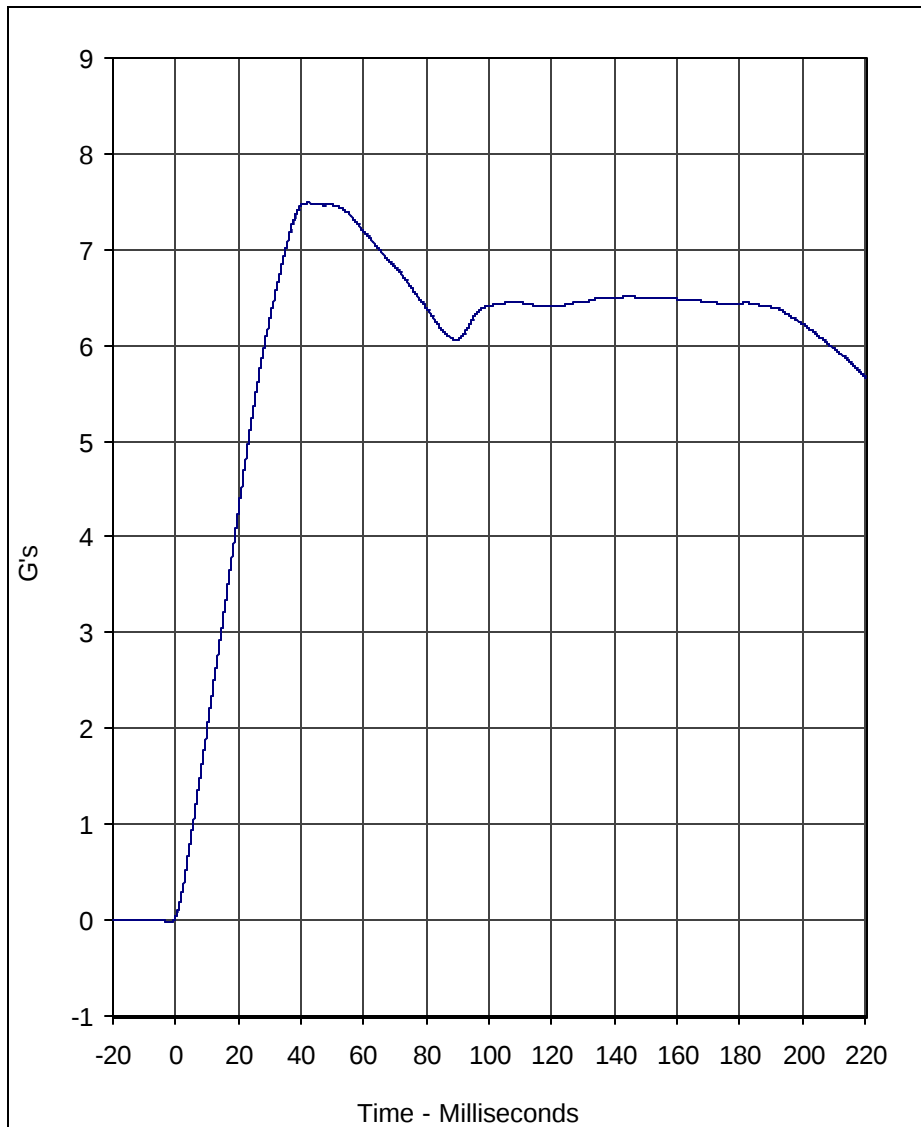
Laboratory Technician

January 15, 2004

Test Date

C-22

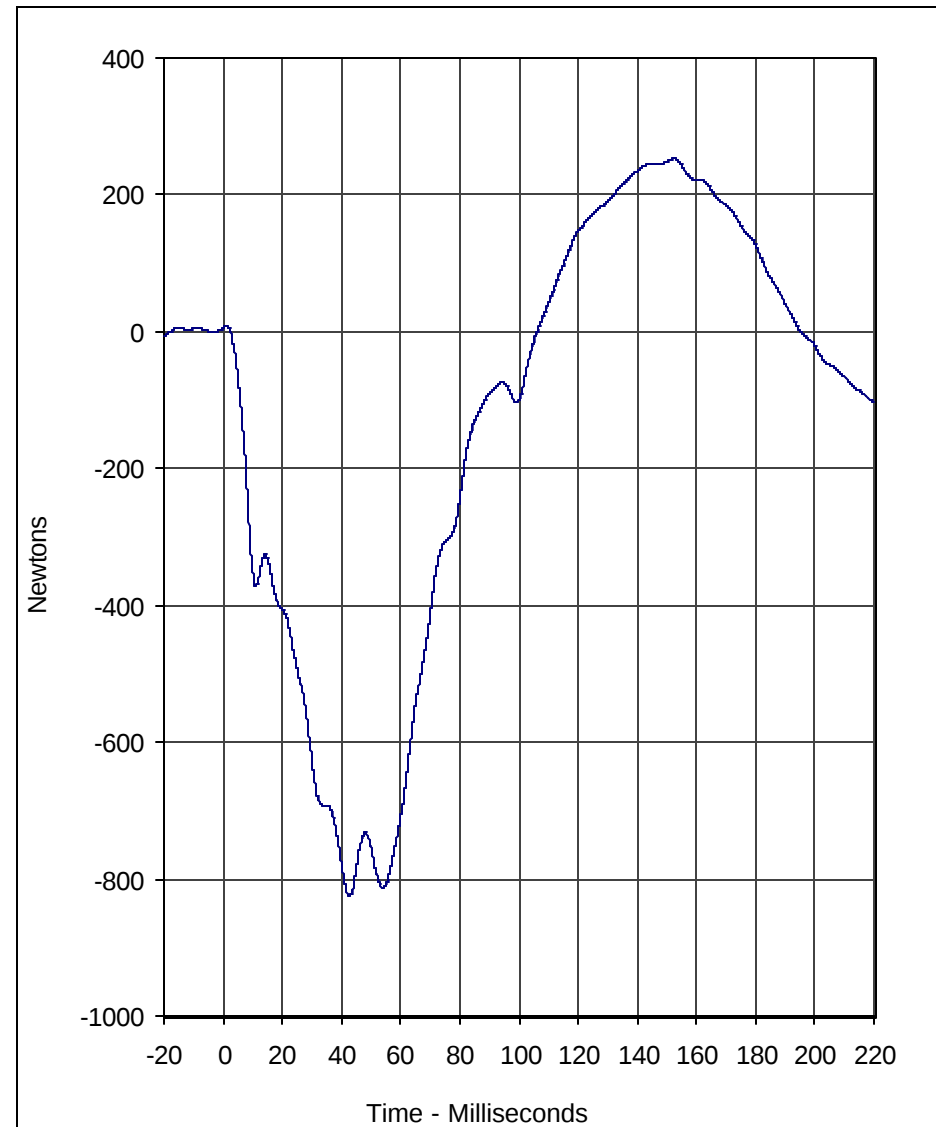
TR-P24003-01-NC



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
G's	7.5	42.3	0.0	-2.1	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/15/04

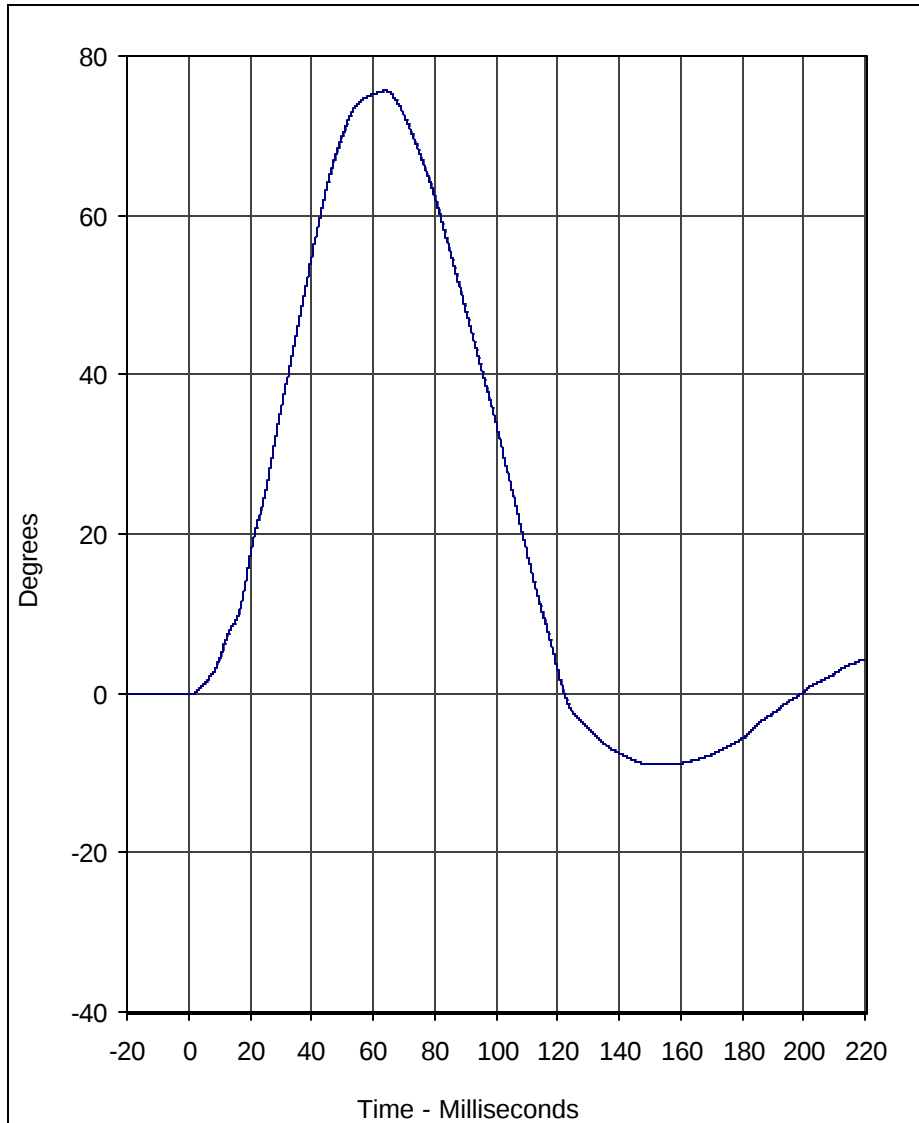


Curve Description				CURNO	Type
Neck Force Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	253.1	152.4	-825.6	42.7	60

A.T.D. Serial No.: 275

Test I.D.: NB03B

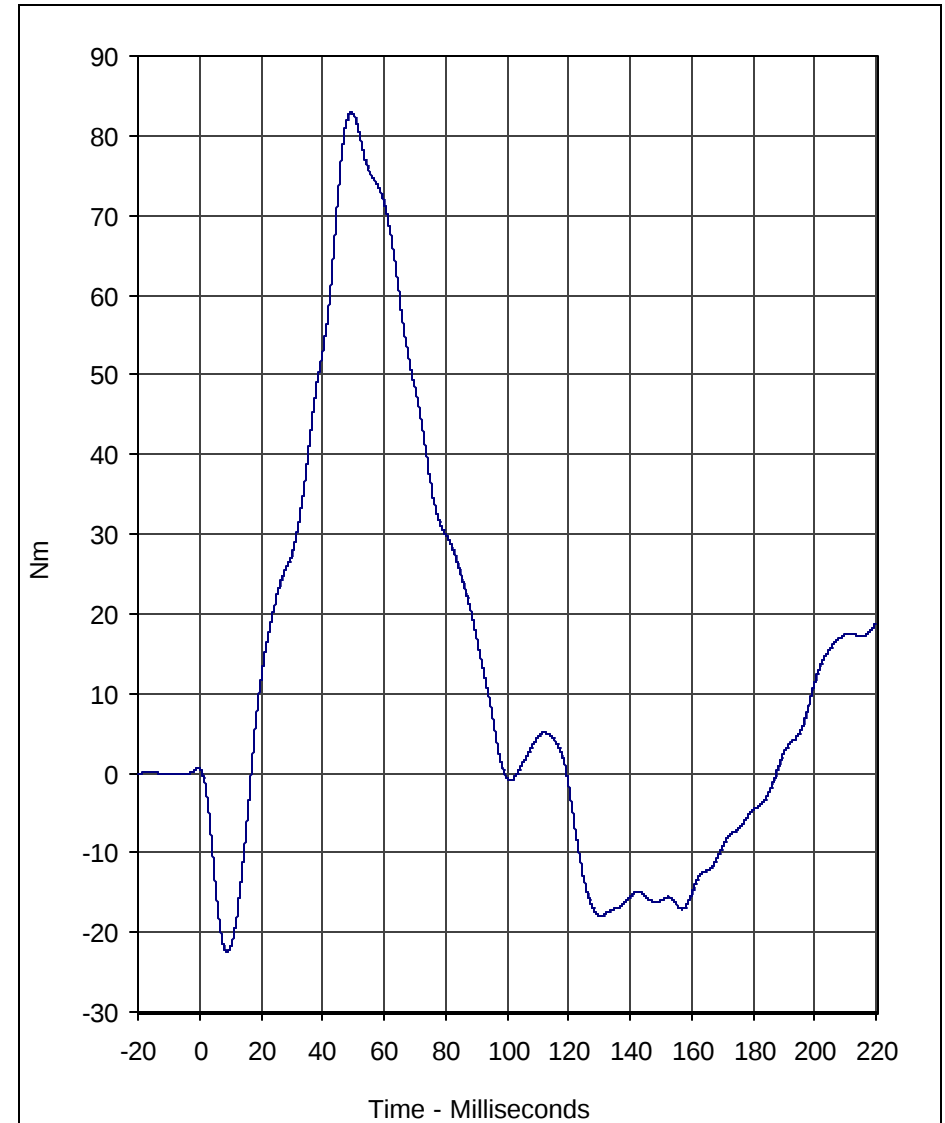




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	75.6	63.9	-8.8	157.6	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/15/04



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	82.9	49.4	-22.5	9.0	60

A.T.D. Serial No.: 275

Test I.D.: NB03B



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



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

External Measurements

ATD Serial No.: 274

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	516	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	521	Pass
KV- Knee Pivot From Floor	mm	490 to 505	501	Pass
HW- Hip Width	mm	356 to 391	387	Pass
Overall Test Results				Pass

C-25

TR-P24003-01-NC

Laboratory Technician

January 23, 2004

Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 274

Test I.D.: TH03D

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	43.3	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	42.4	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.8	Pass
Overall Test Results				Pass

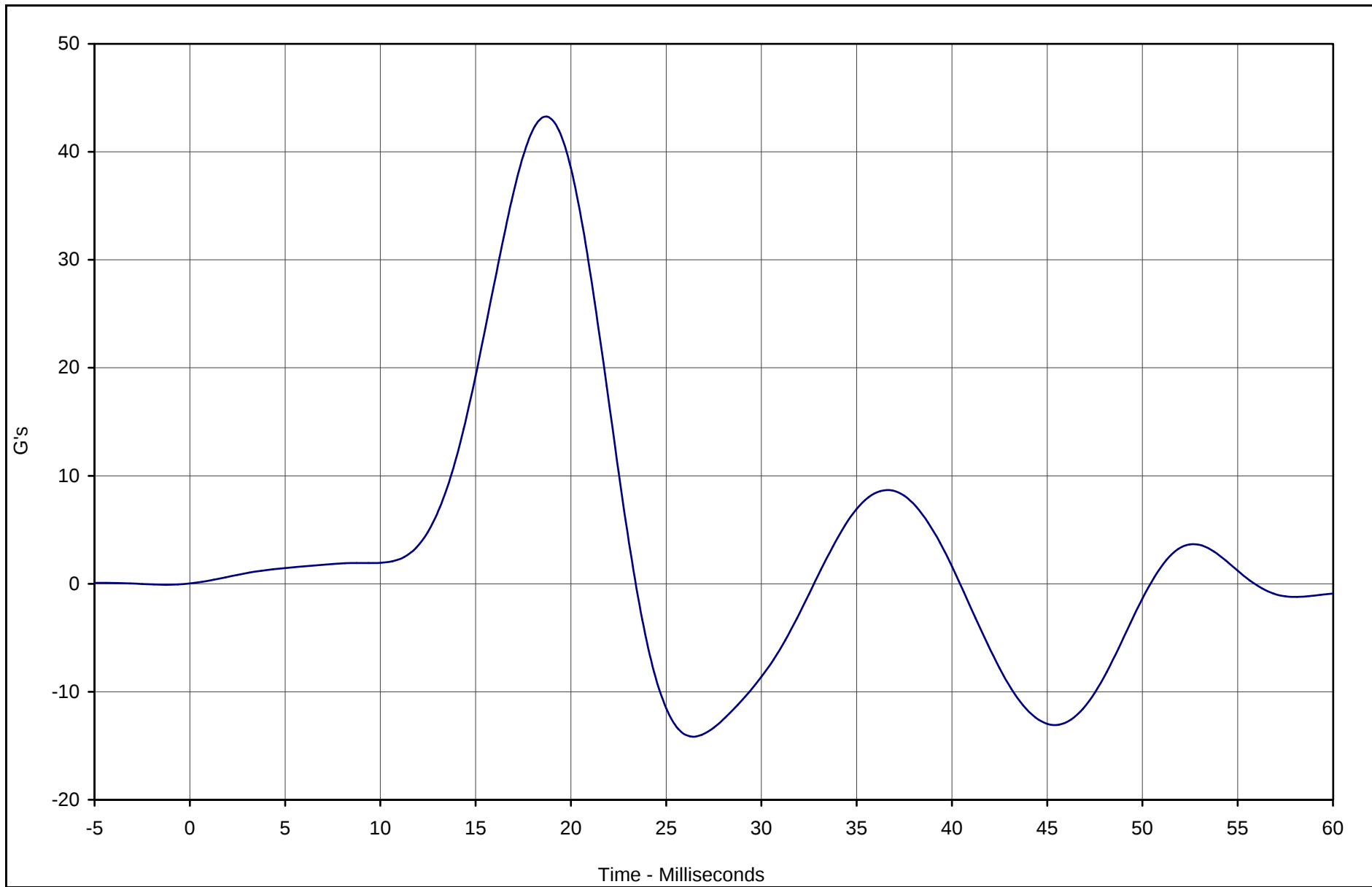
C-26

TR-P23004-01-NC

Laboratory Technician

January 22, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	43.3	18.8	-14.1	26.3	FIR100

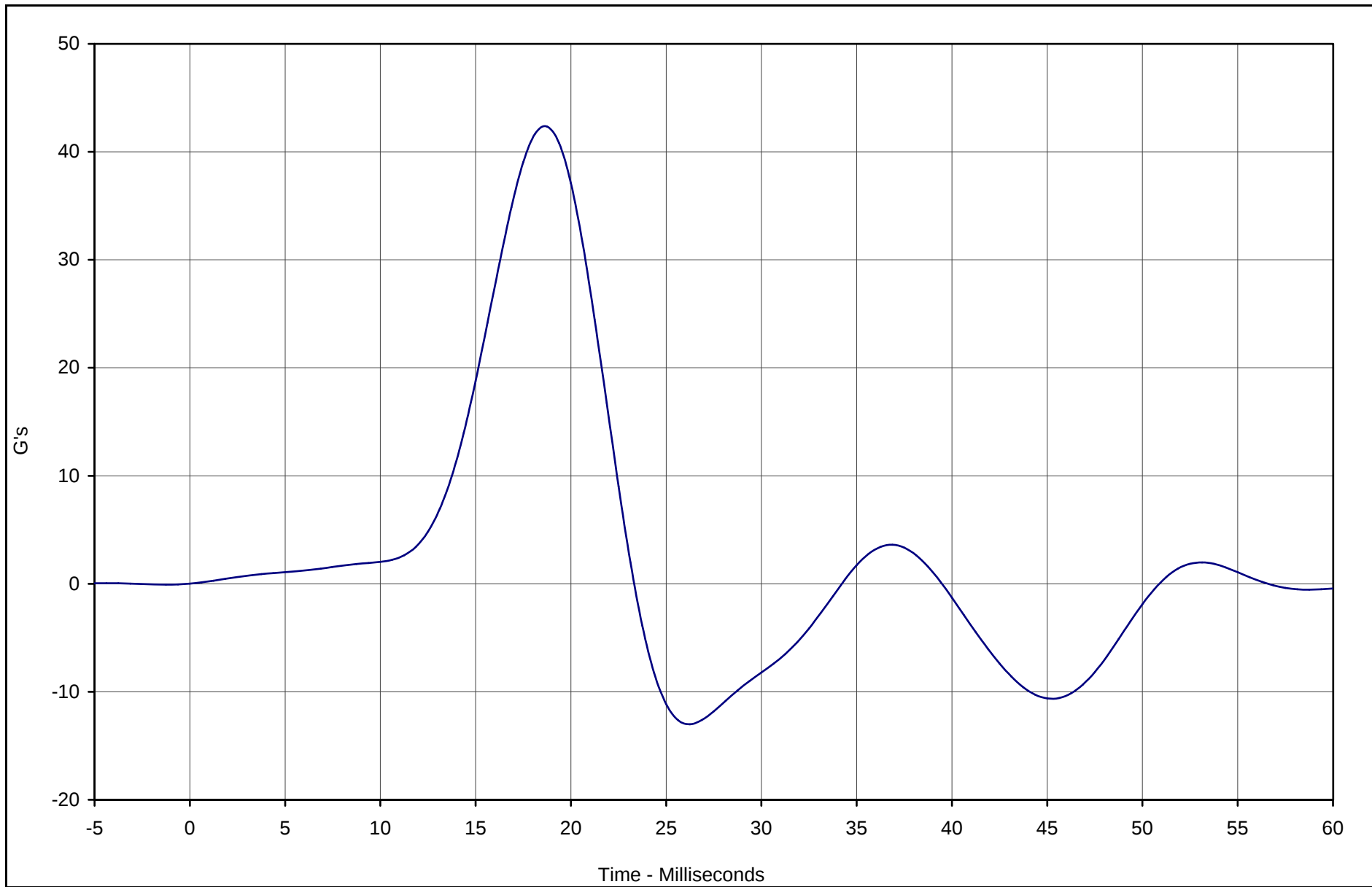


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 1/22/04

Test I.D.: TH03D



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	42.4	18.8	-13.0	26.3	FIR100

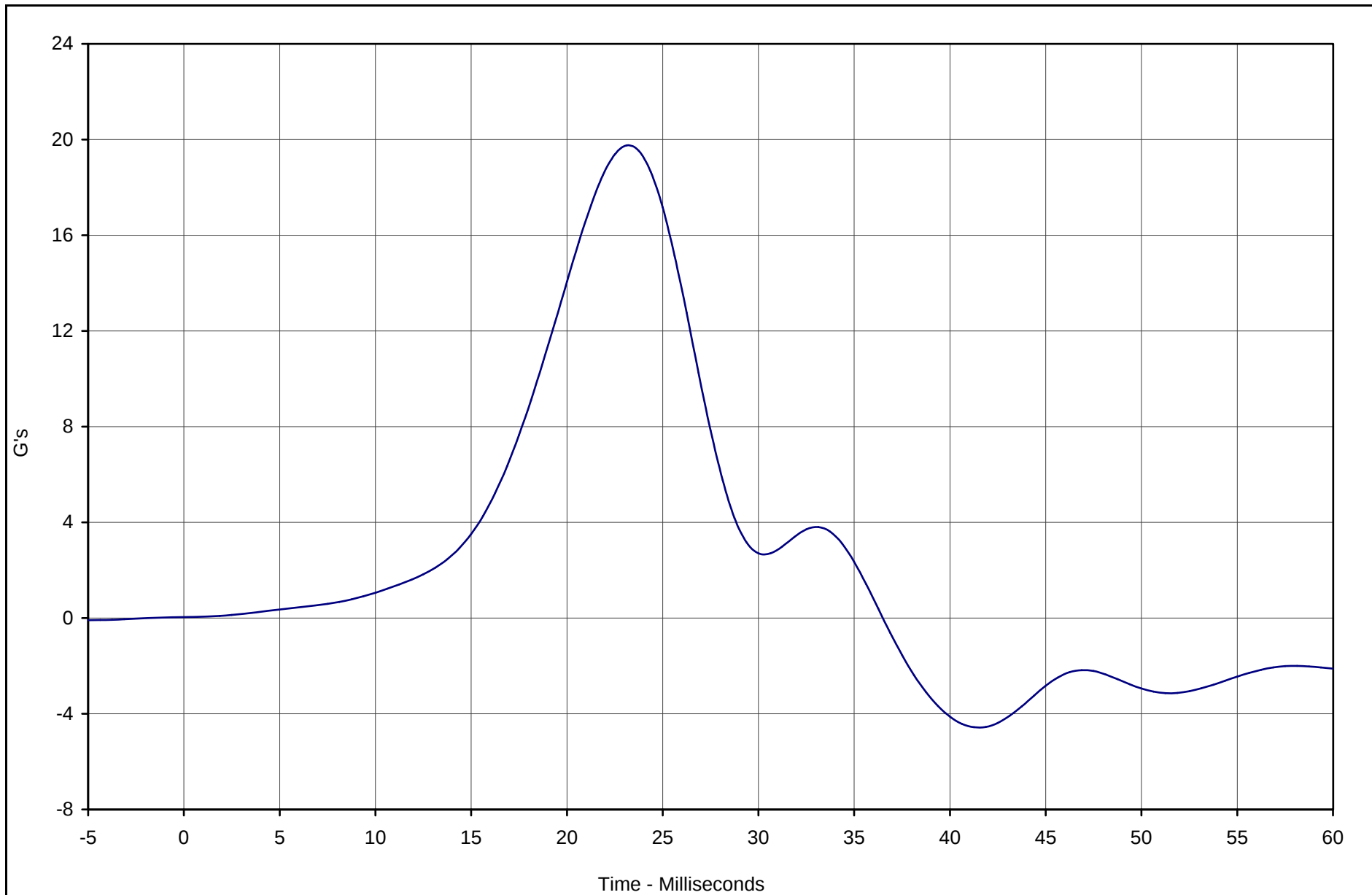


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 1/22/04

Test I.D.: TH03D



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	19.8	23.1	-4.6	41.3	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 1/22/04

Test I.D.: TH03D



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 274

Test I.D.: PL03C

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
Peak Pelvis Acceleration	G's	40.0 to 60.0	43.3	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	7.0	Pass
Overall Test Results				Pass

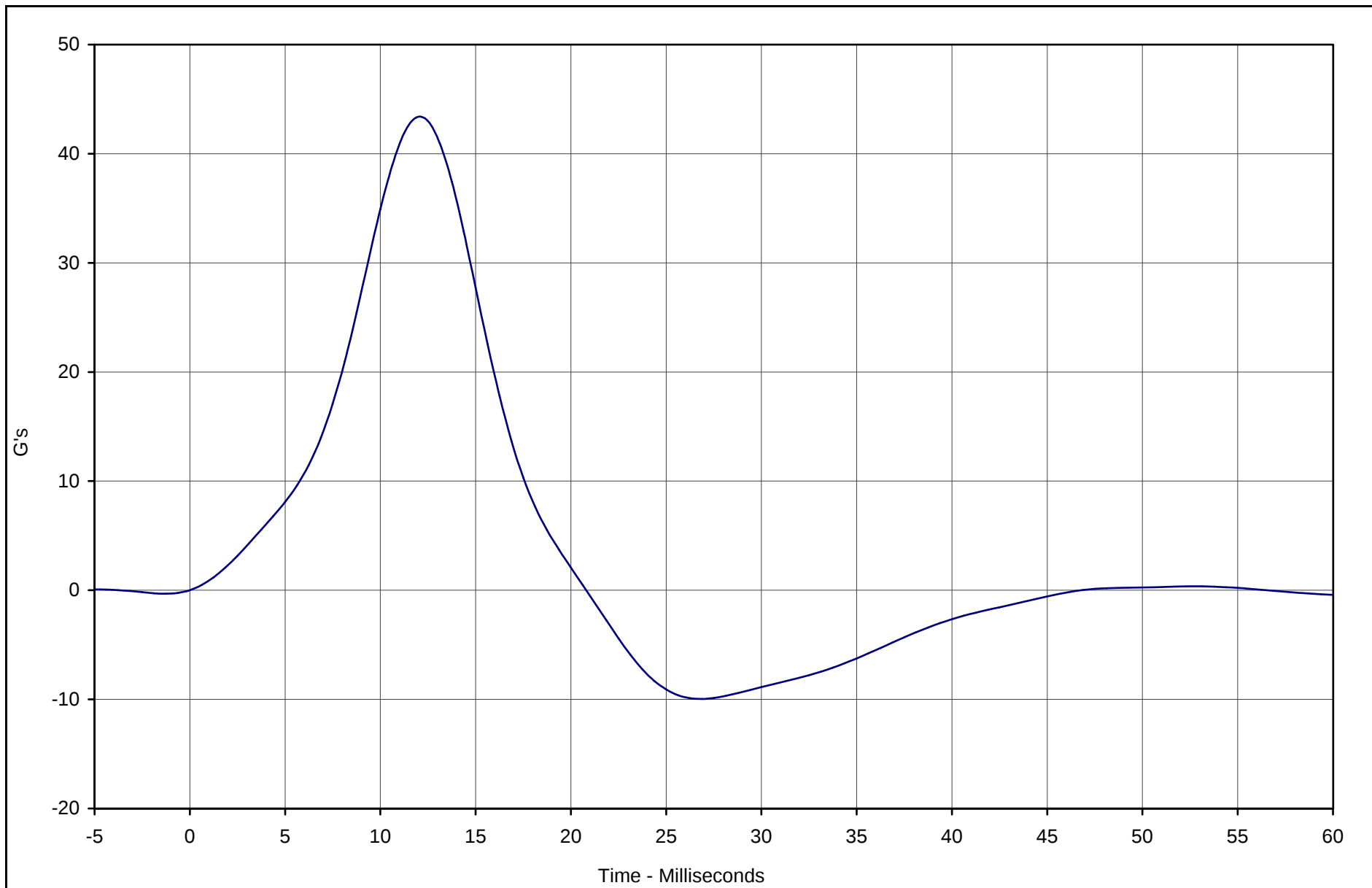
C-30

TR-P24003-01-NC

Laboratory Technician

January 23, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	43.3	11.9	-10.0	26.9	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 274

Test Date: 1/23/04

Test I.D.: PL03C



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Head Drop Lateral Impact Test

ATD Serial No.: 274

Test I.D.: HD03C

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	144.0	Pass
Peak Longitudinal Acceleration	G's	≤15.0	5.4	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	2.7	Pass
Overall Test Results				Pass

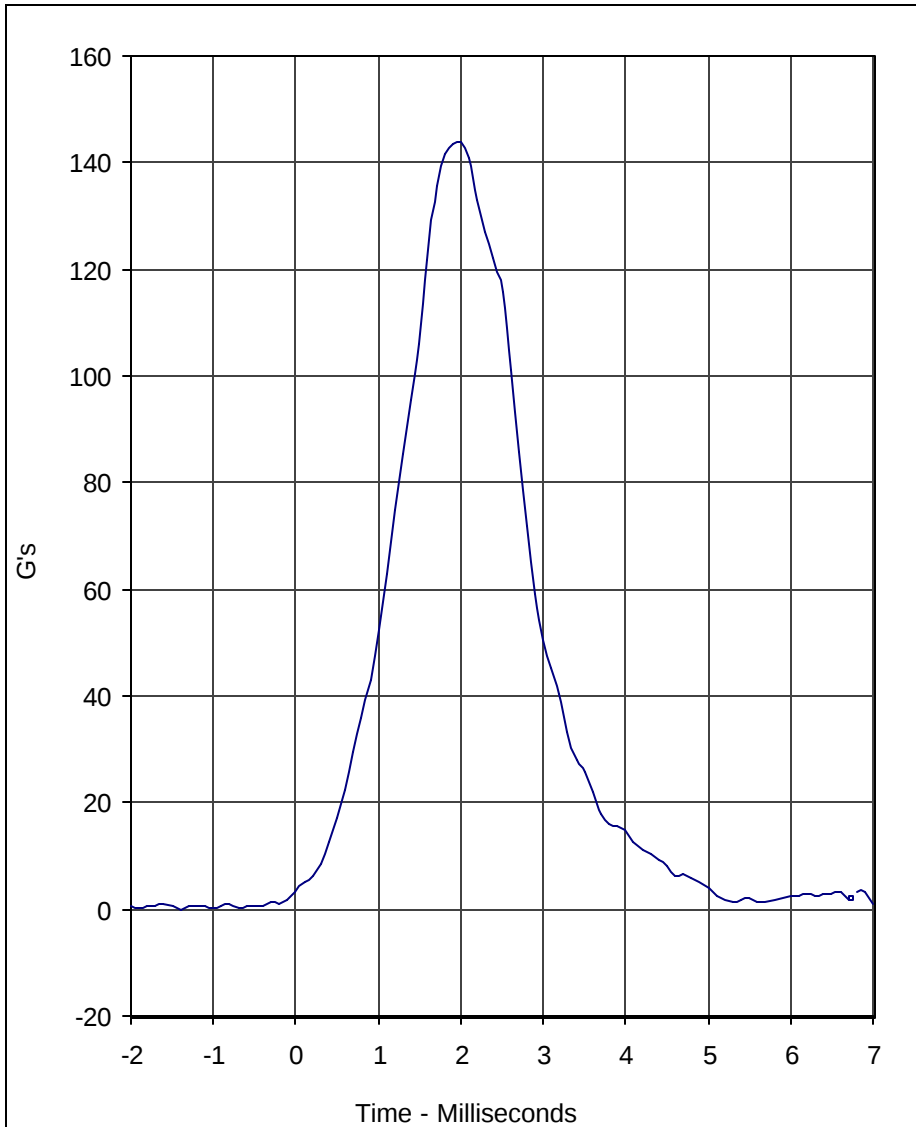
C-32

TR-P24003-01-NC

Laboratory Technician

January 23, 2004

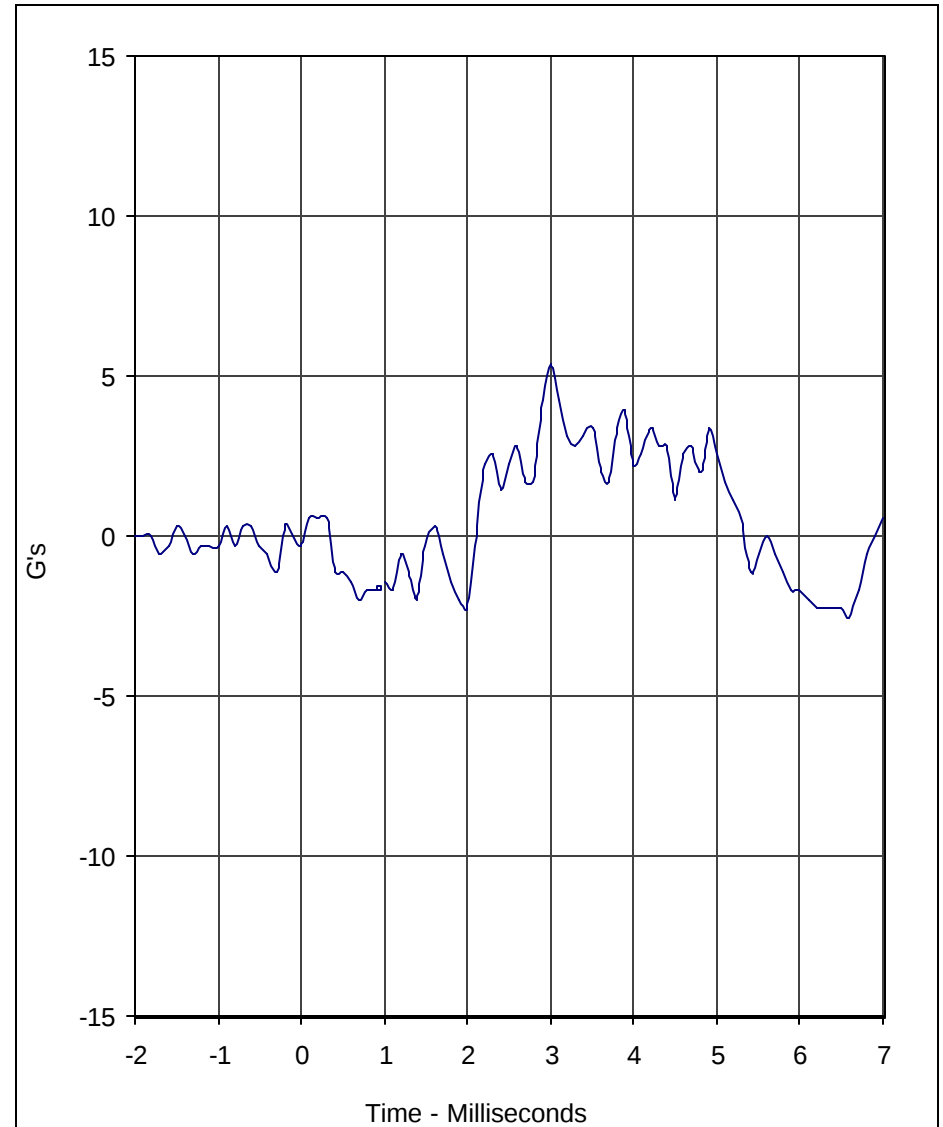
Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES
Units	Max	Time	Min	Time	SAE Class
G's	144.0	2.0	0.0	-1.4	1000

Test Program: SID / HIII Head Drop Lateral Impact Test

Test Date: 1/23/04



Curve Description				CURNO	Type
Head X				002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	5.4	3.0	-2.5	6.6	1000

A.T.D. Serial No.: 274

Test I.D.: HD03C





Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Neck Pendulum Lateral Test

ATD Serial No.: 274

Test I.D.: NB03C

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/s	6.89 to 7.13	7.01	Pass
Pendulum Deceleration	10	Msec.	1.96 to 2.55	2.01	Pass
	20	Msec.	4.12 to 5.10	4.28	Pass
	30	Msec.	5.73 to 7.01	6.37	Pass
	40 to 70	Msec.	6.27 to 7.64	7.43	Pass
Maximum "D" Plane Rotation		Degrees	66.0 to 82.0	74.1	Pass
Maximum "D" Plane Rotation Time After Peak Moment		Msec.	2.0 to 15.0	14.1	Pass
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle		Msec.	58.0 to 67.0	62.8	Pass
Calculated Moment About Occipital Condyle		N•m	73.0 to 88.0	86.6	Pass
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m		Msec.	49.0 to 64.0	50.3	Pass
Overall Test Results					Pass

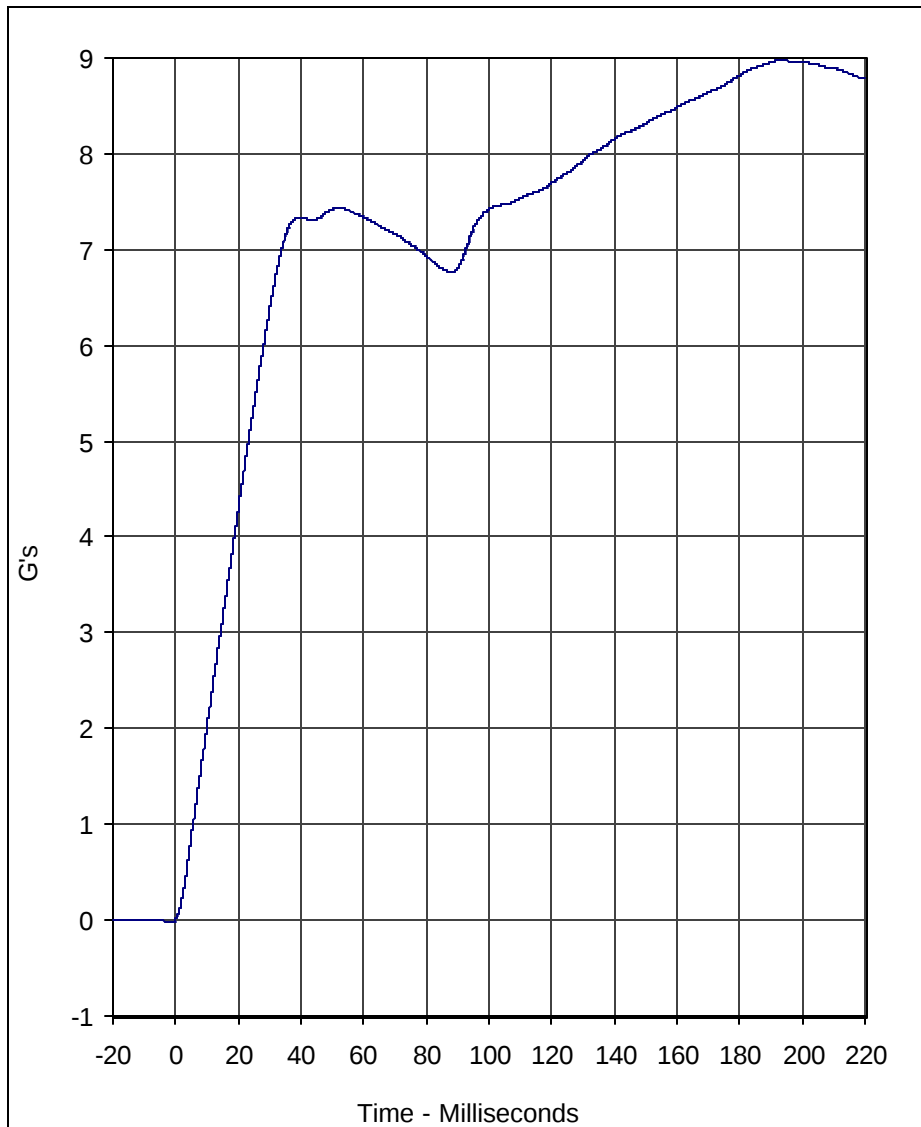
Laboratory Technician

January 23, 2004

Test Date

C-34

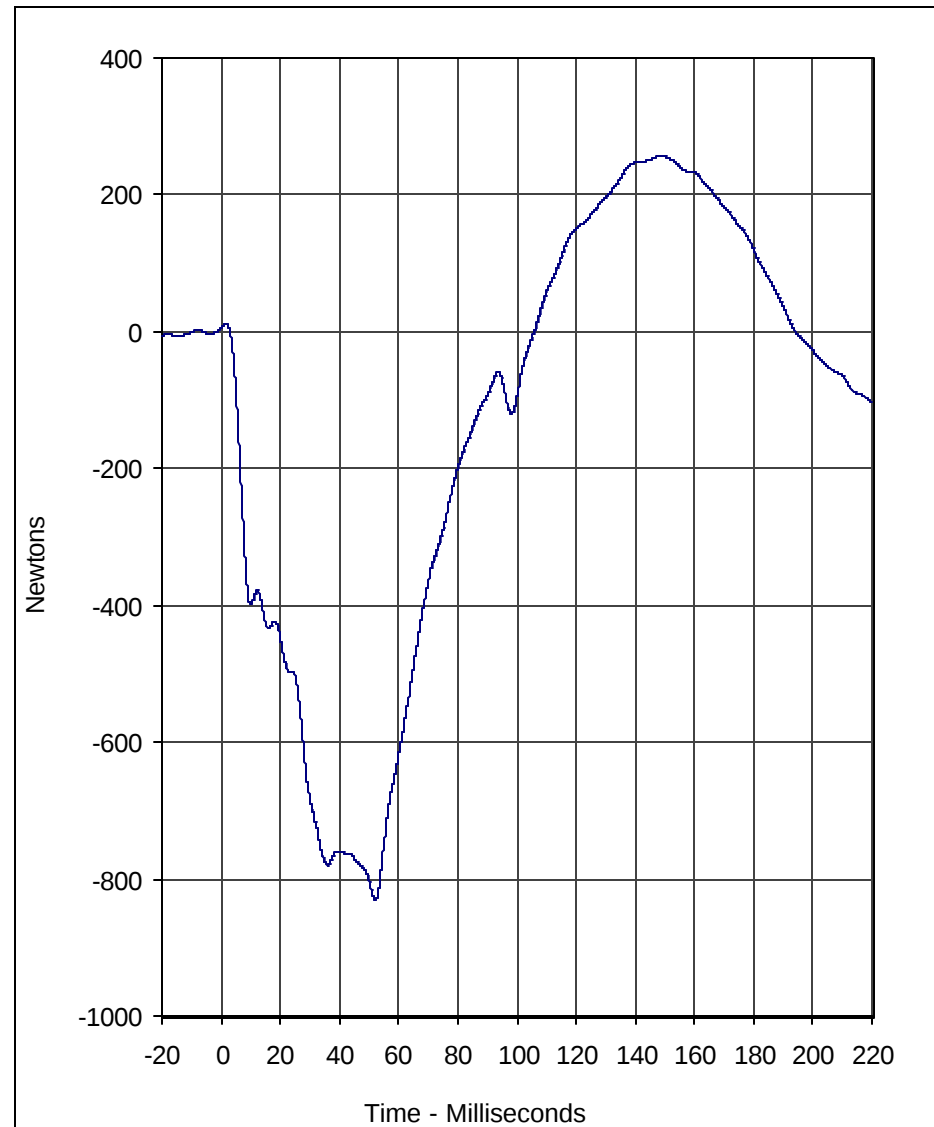
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Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
G's	9.0	192.8	0.0	-1.5	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/23/04

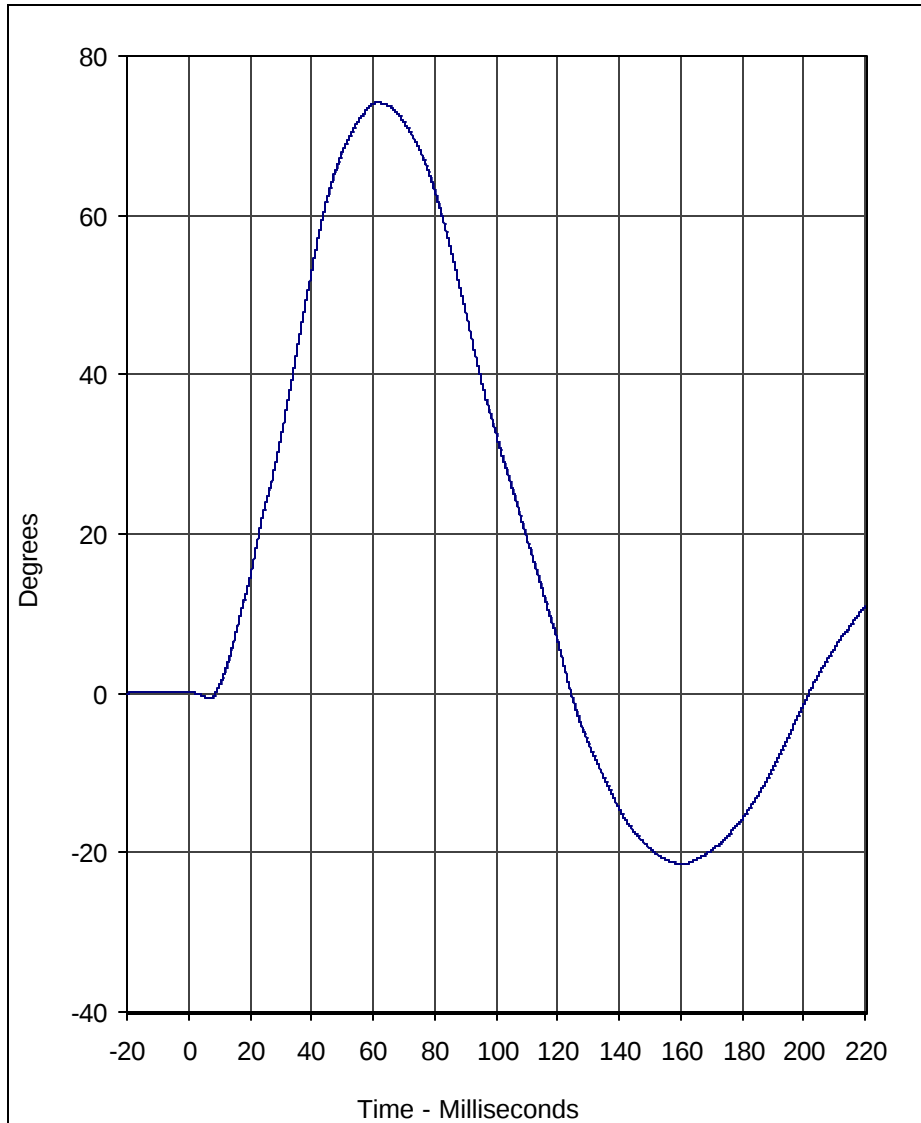


Curve Description				CURNO	Type
Neck Force Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	256.0	148.6	-831.2	52.1	60

A.T.D. Serial No.: 274

Test I.D.: NB03C

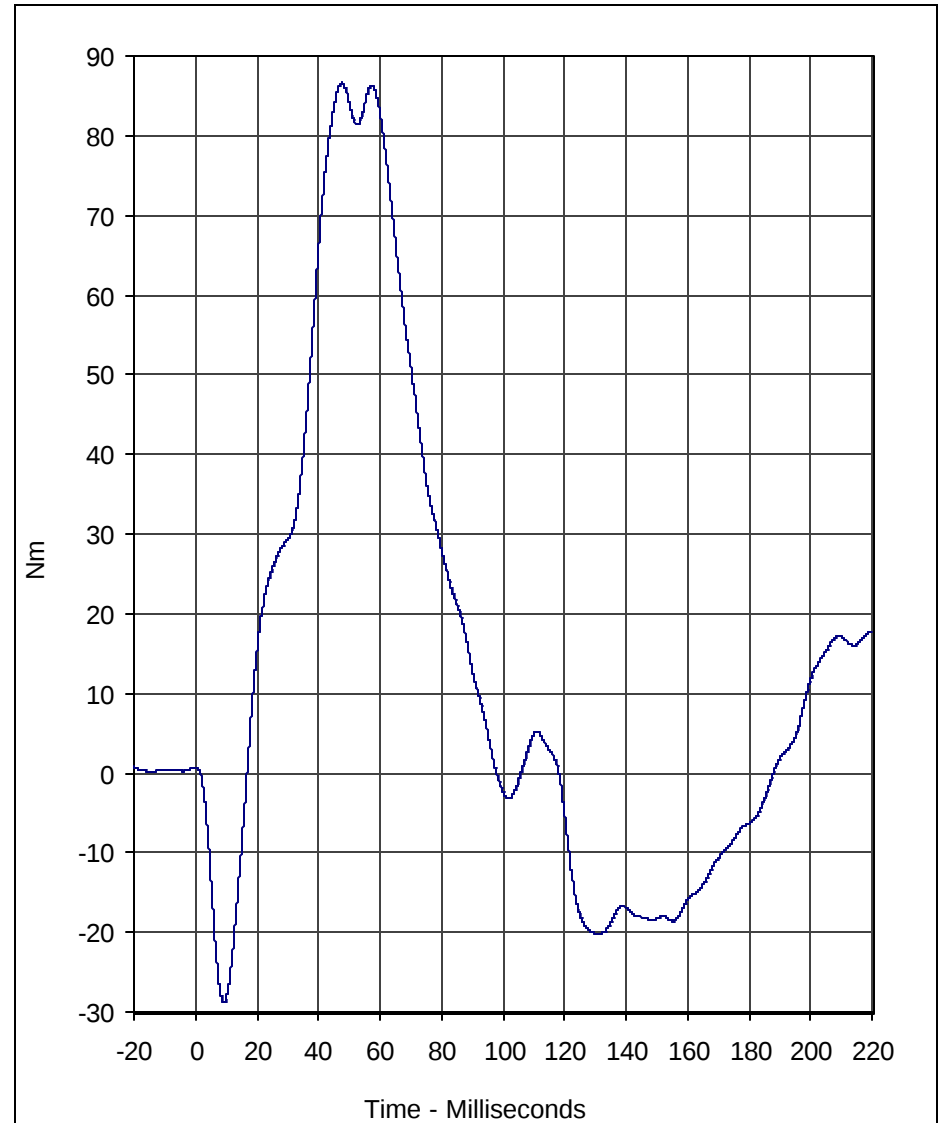




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	74.1	61.7	-21.5	160.7	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/23/04



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	86.6	47.6	-28.8	9.3	60

A.T.D. Serial No.: 274

Test I.D.: NB03C





Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

External Measurements

ATD Serial No.: 275

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	903	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	513	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	518	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	382	Pass
Overall Test Results				Pass

C-37

TR-P24003-01-NC

Laboratory Technician

January 23, 2004

Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 275

Test I.D.: TH03C

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	41.7	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	44.0	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.5	Pass
Overall Test Results				Pass

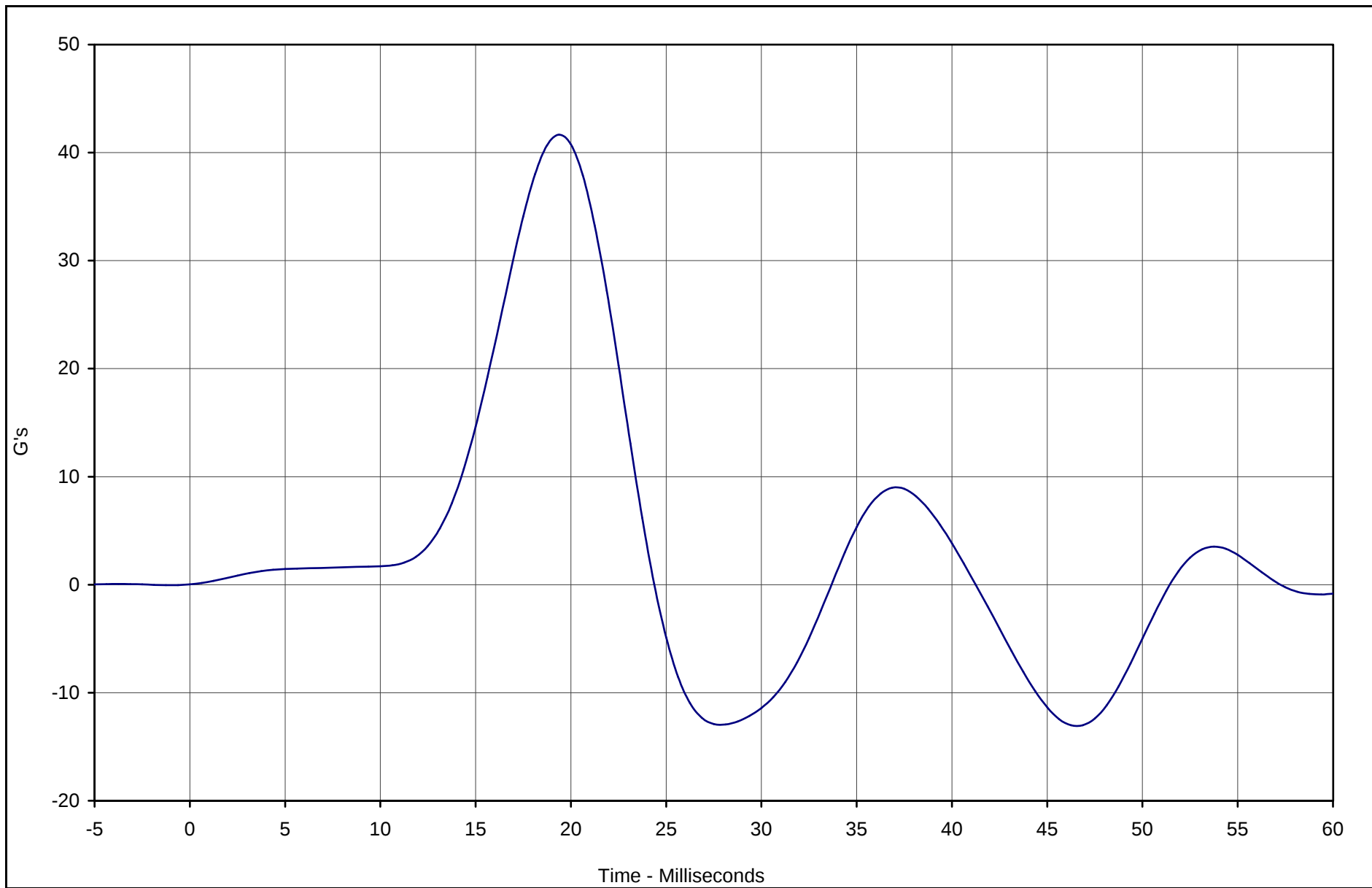
C-38

TR-P23004-01-NC

Laboratory Technician

January 22, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	41.7	19.4	-13.0	46.3	FIR100

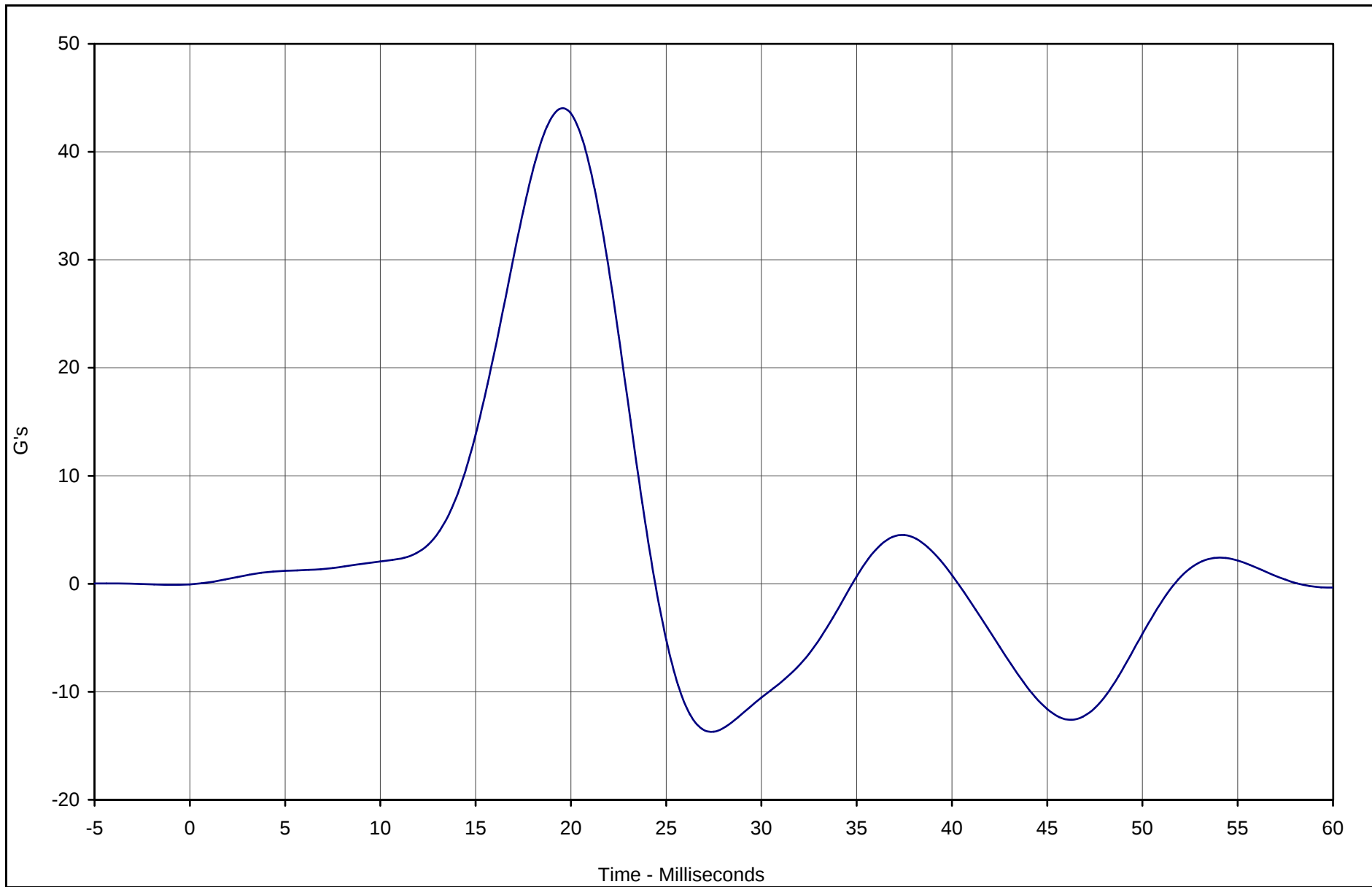


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 1/22/04

Test I.D.: TH03C



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	44.0	19.4	-13.7	27.5	FIR100

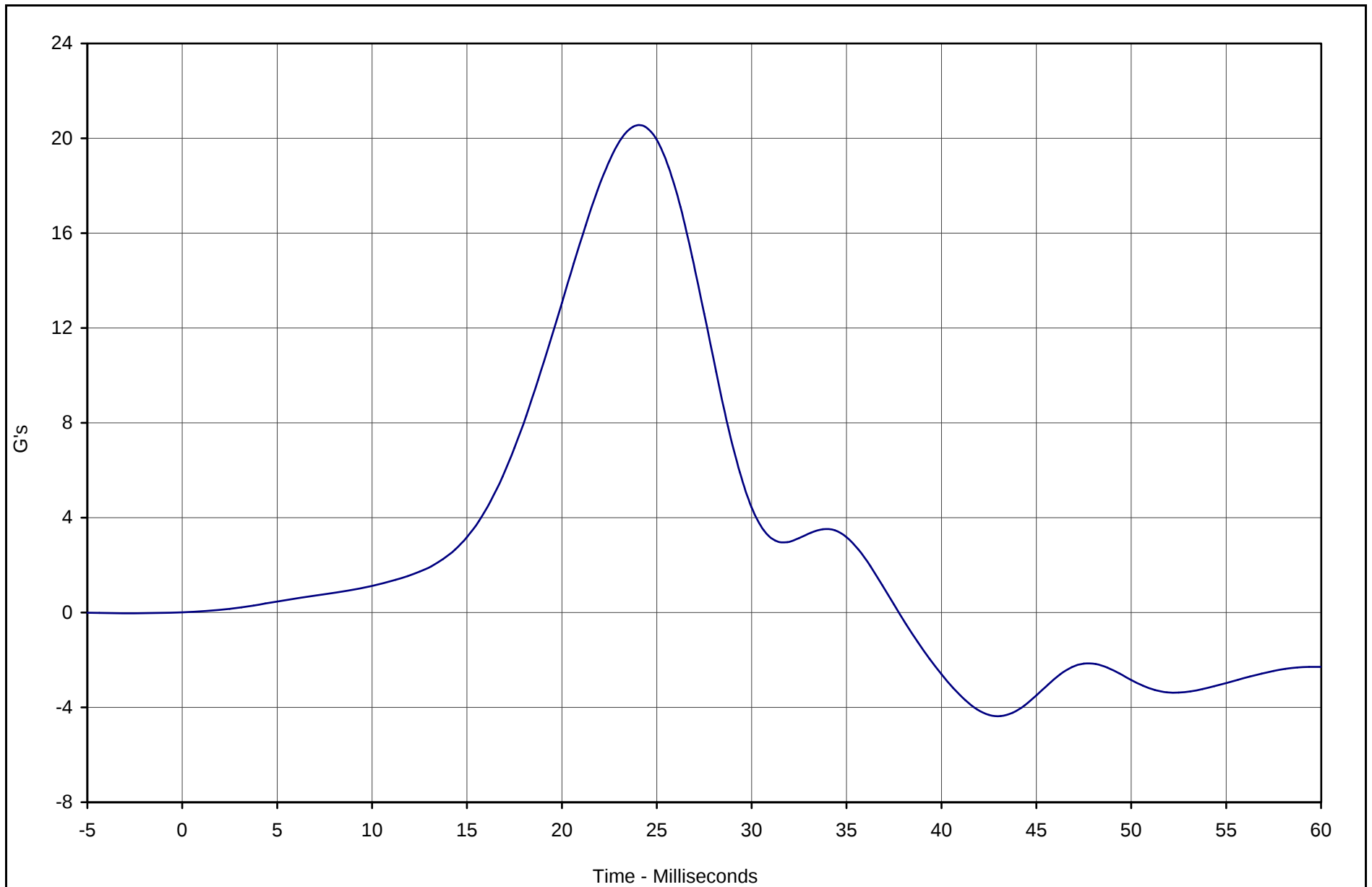


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 1/22/04

Test I.D.: TH03C



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	20.5	24.4	-4.4	43.1	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 1/22/04

Test I.D.: TH03C



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 275

Test I.D.: PL03D

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
Peak Pelvis Acceleration	G's	40.0 to 60.0	44.0	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.9	Pass
Overall Test Results				Pass

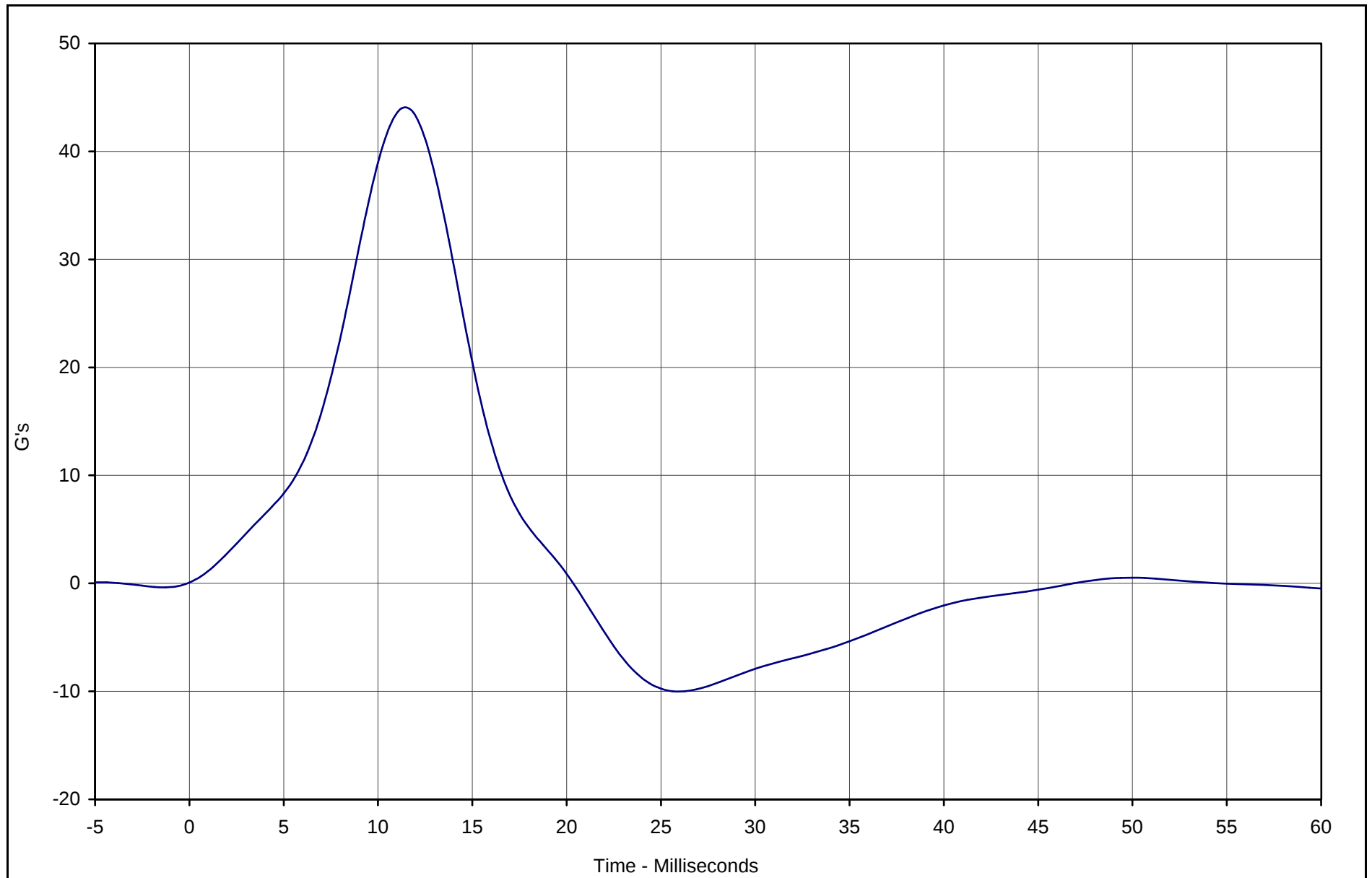
C-42

TR-P24003-01-NC

Laboratory Technician

January 23, 2004

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	44.0	11.3	-10.0	26.3	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 275

Test Date: 1/23/04

Test I.D.: PL03D



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Head Drop Lateral Impact Test

ATD Serial No.: 275

Test I.D.: HD03D

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	140.9	Pass
Peak Longitudinal Acceleration	G's	≤15.0	9.1	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	3.8	Pass
Overall Test Results				Pass

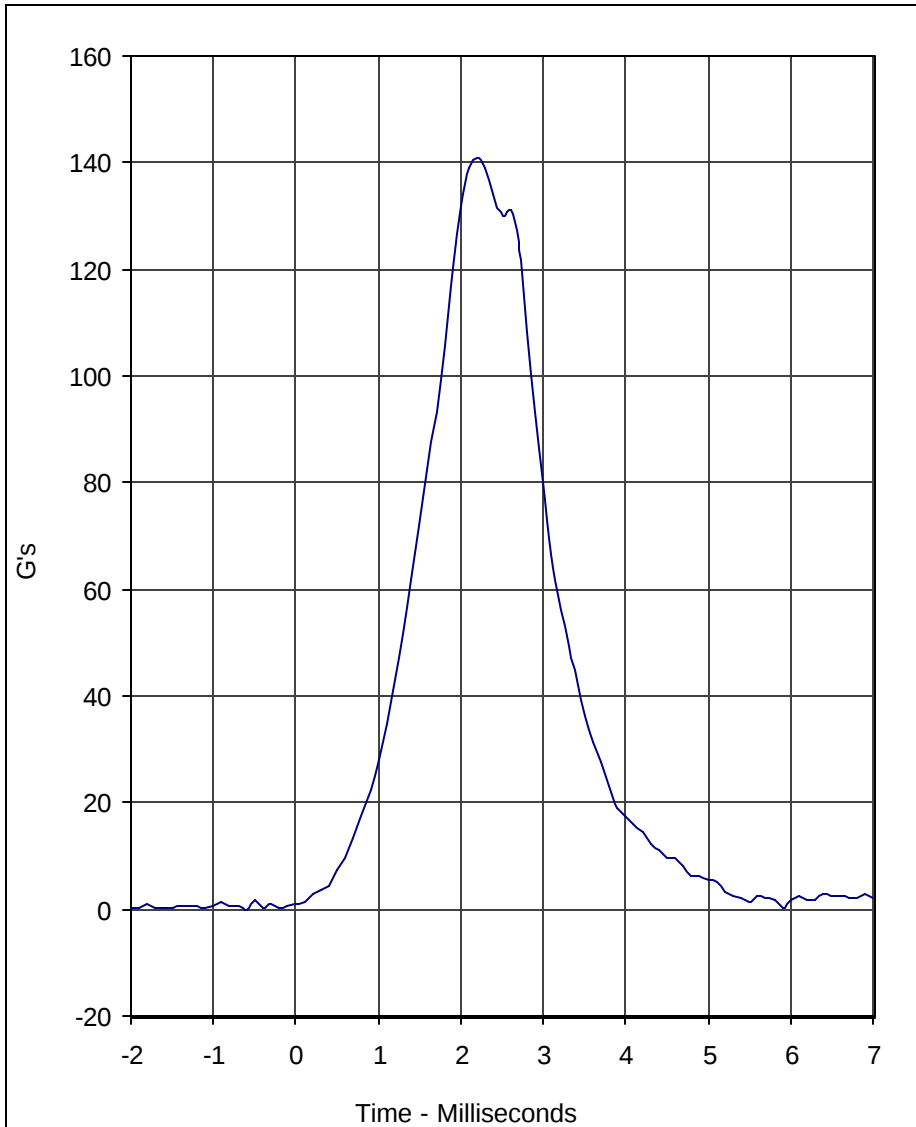
C-44

TR-P24003-01-NC

Laboratory Technician

January 23, 2004

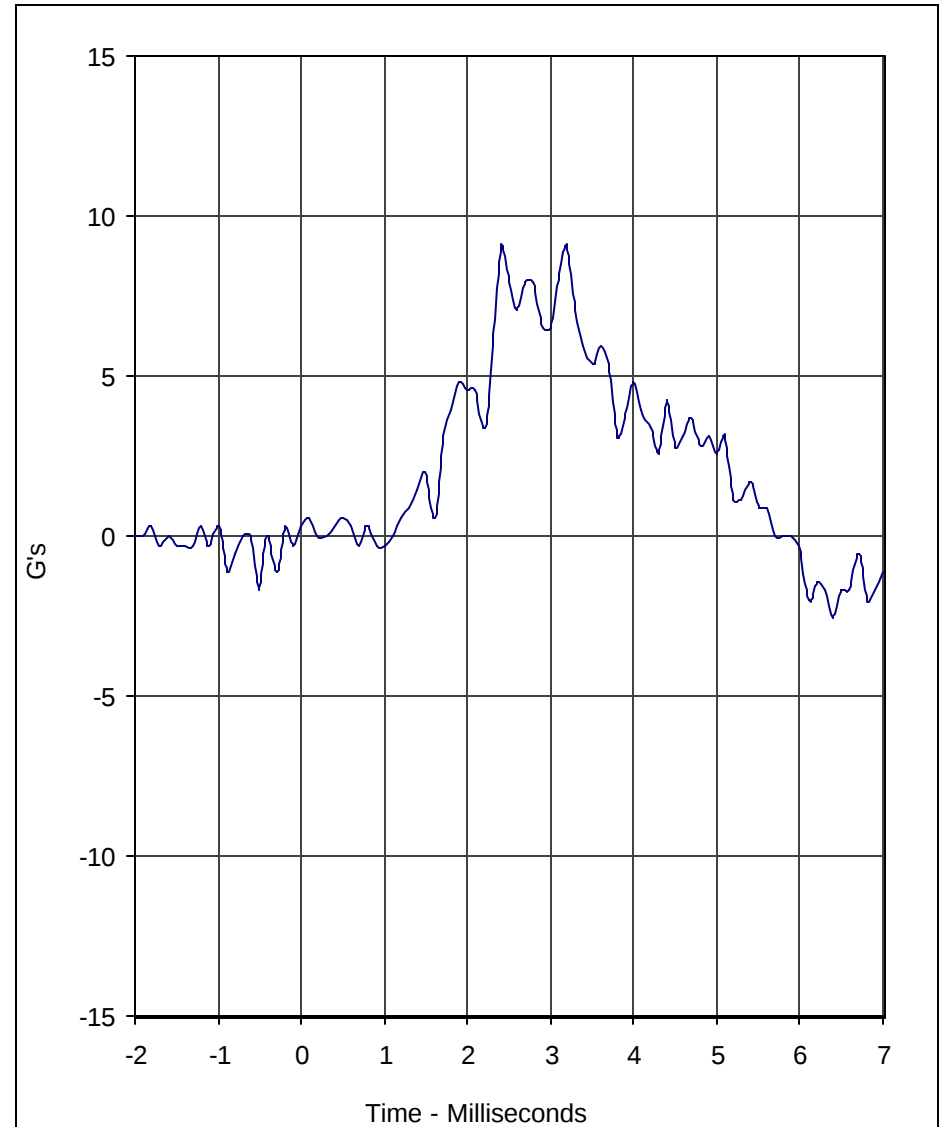
Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES
Units	Max	Time	Min	Time	SAE Class
G's	140.9	2.2	0.0	-0.6	1000

Test Program: SID / HIII Head Drop Lateral Impact Test

Test Date: 1/23/04



Curve Description				CURNO	Type
Head X				002	FIL
Units	Max	Time	Min	Time	SAE Class
G's	9.1	2.4	-2.6	6.4	1000

A.T.D. Serial No.: 275

Test I.D.: HD03D





Calibration Data Sheet **Side Impact Hybrid Dummy (SID/HIII)** **Neck Pendulum Lateral Test**

ATD Serial No.: 275

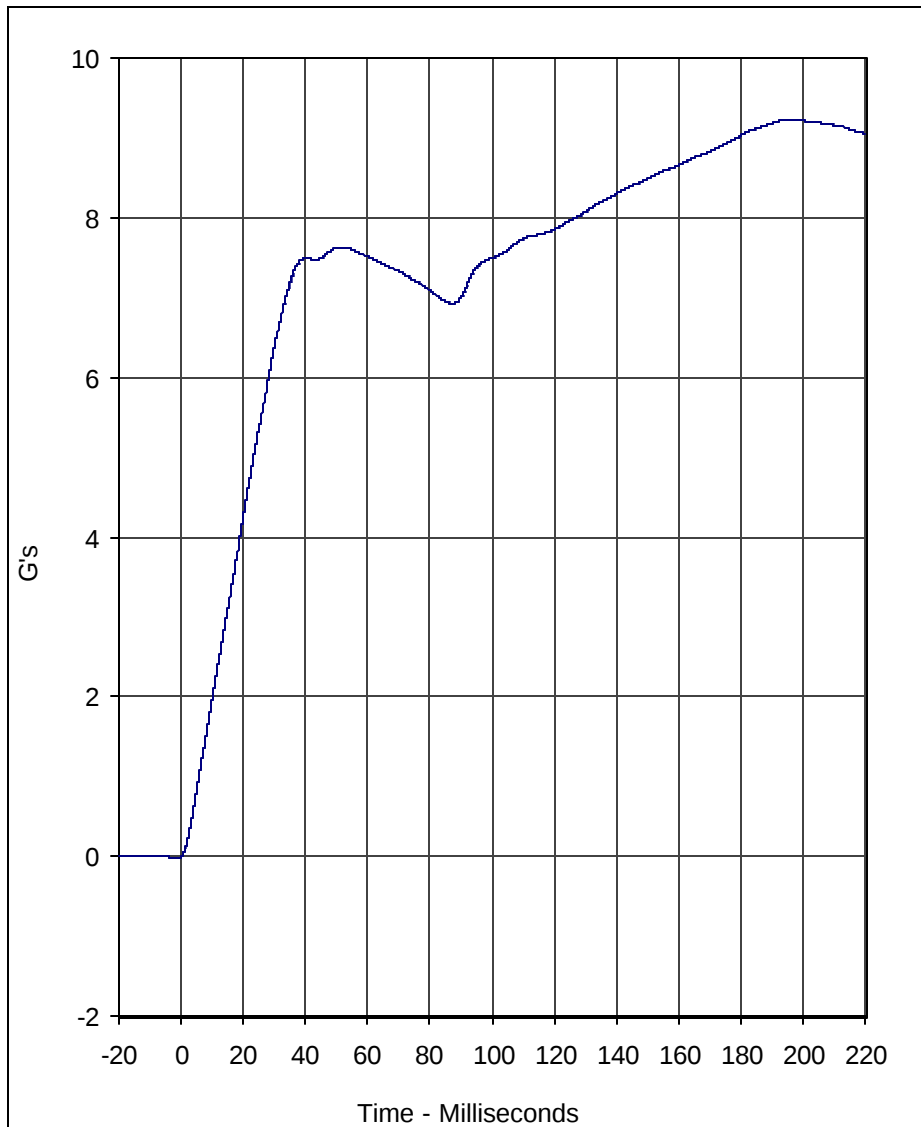
Test I.D.: NB03D

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/s	6.89 to 7.13	6.95	Pass
Pendulum Deceleration	10	Msec.	1.96 to 2.55	1.96	Pass
	20	Msec.	4.12 to 5.10	4.24	Pass
	30	Msec.	5.73 to 7.01	6.38	Pass
	40 to 70	Msec.	6.27 to 7.64	7.63	Pass
Maximum "D" Plane Rotation		Degrees	66.0 to 82.0	71.9	Pass
Maximum "D" Plane Rotation Time After Peak Moment		Msec.	2.0 to 15.0	4.7	Pass
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle		Msec.	58.0 to 67.0	58.7	Pass
Calculated Moment About Occipital Condyle		N•m	73.0 to 88.0	83.1	Pass
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m		Msec.	49.0 to 64.0	61.3	Pass
Overall Test Results					Pass

 Laboratory Technician

 January 23, 2004

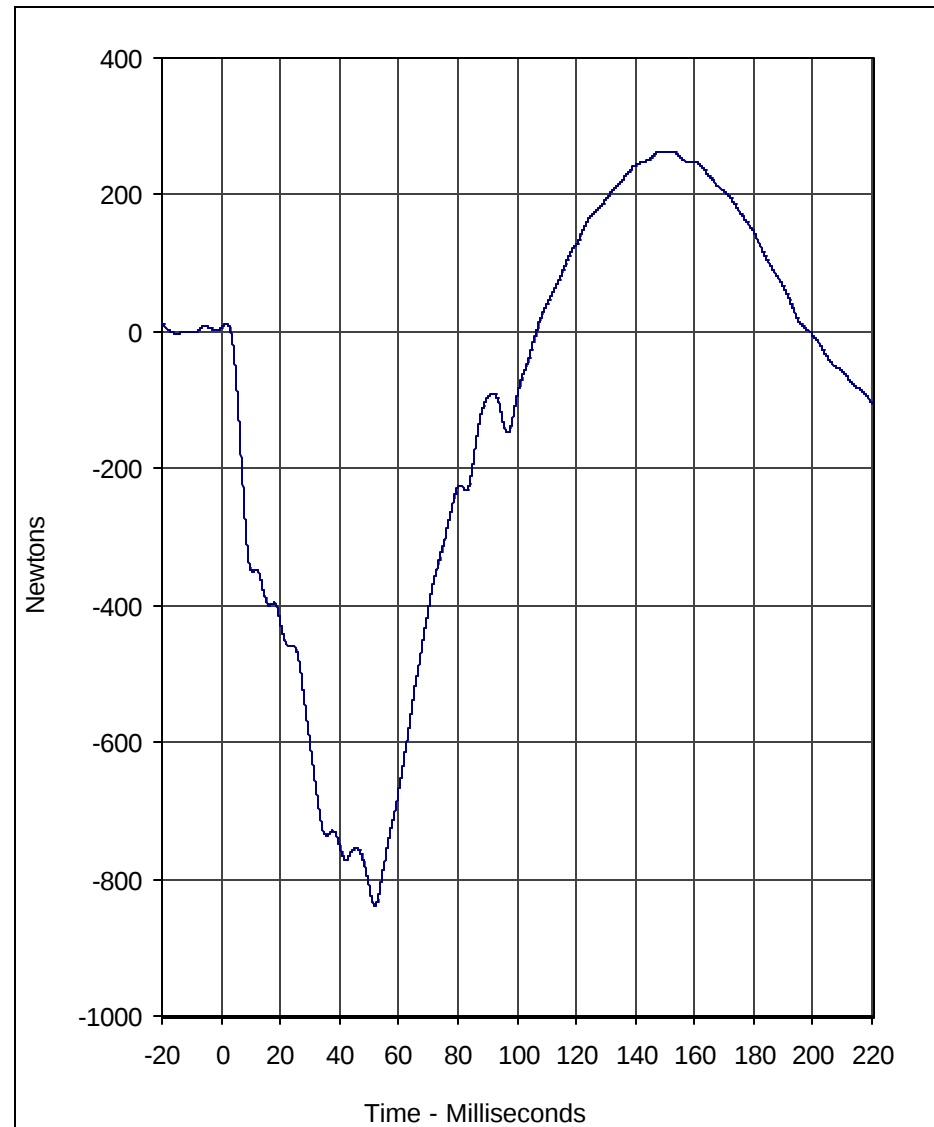
 Test Date



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
G's	9.2	197.2	0.0	-1.4	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/23/04

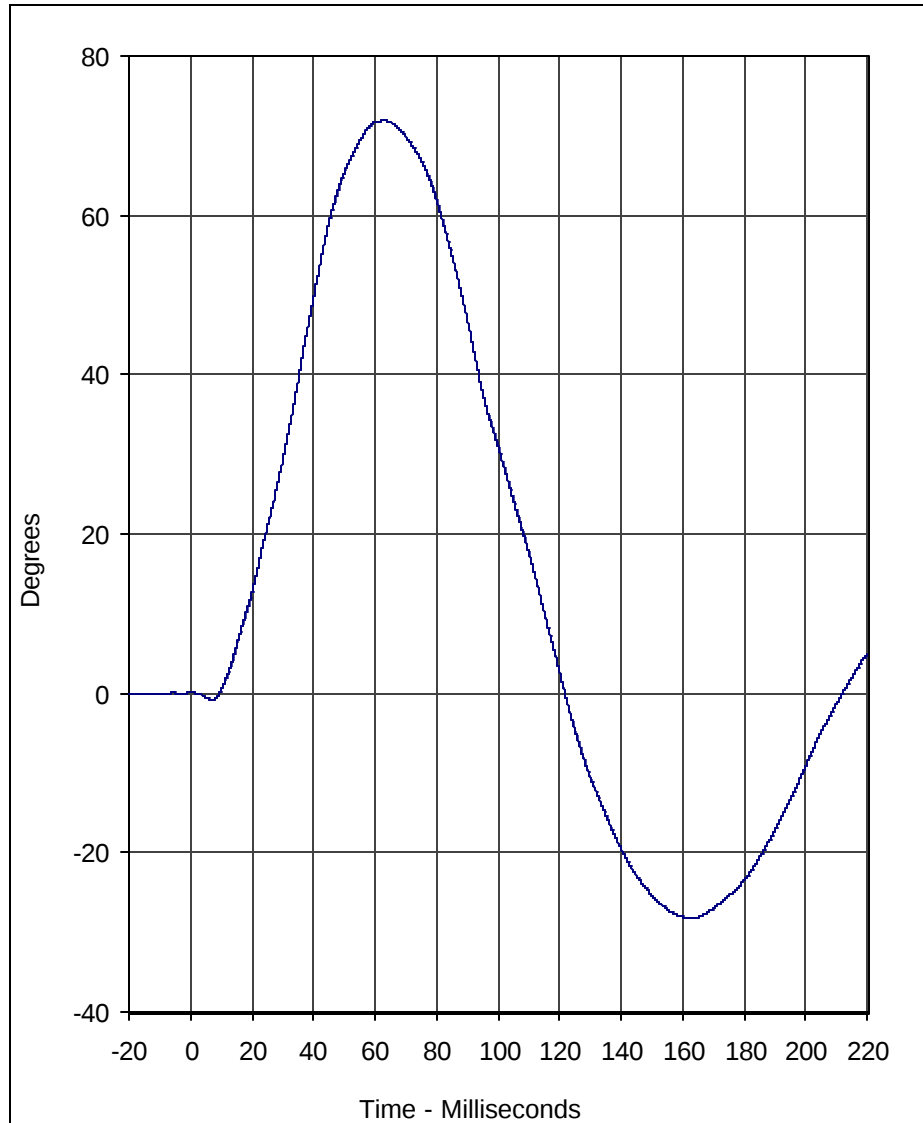


Curve Description				CURNO	Type
Neck Force Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	263.0	151.9	-839.0	52.0	60

A.T.D. Serial No.: 275

Test I.D.: NB03D

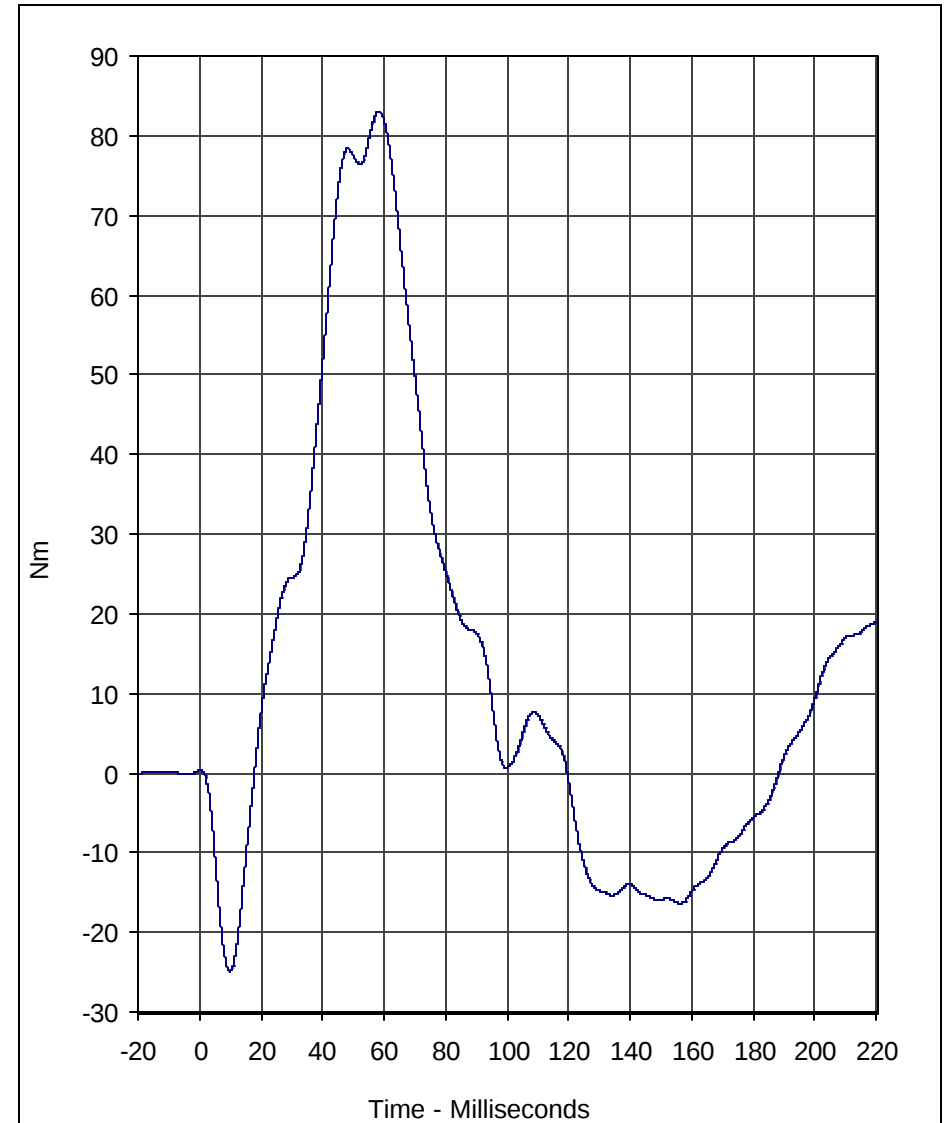




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	71.9	63.1	-28.2	163.2	60

Test Program: SID / HIII Neck Pendulum Lateral Test

Test Date: 1/23/04



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	83.1	58.4	-24.9	9.9	60

A.T.D. Serial No.: 275

Test I.D.: NB03D



APPENDIX D
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver SID/HIII Serial Number 274
1/20/04
2004 Suzuki Aerio GX 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/HIII Serial Number 275
1/20/04
2004 Suzuki Aerio GX 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
1/20/04
2004 Suzuki Aerio GX 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	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
69	Vehicle CG	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
70	Vehicle CG	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Moving Deformable Barrier
1/20/04
2004 Suzuki Aerio GX 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	%