

REPORT NUMBER: SPNCAP-KAR-11-011

**NEW CAR ASSESSMENT PROGRAM (NCAP)
SIDE IMPACT POLE TEST**

**NISSAN MOTOR CO., LTD.
2011 NISSAN VERSA 4-DOOR SEDAN**

NHTSA No: MB5215

**PREPARED BY:
KARCO ENGINEERING, LLC.
9270 HOLLY ROAD
ADELANTO, CA 92301**



SEPTEMBER 1, 2010

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF CRASHWORTHINESS STANDARDS
MAIL CODE: NVS-111
1200 NEW JERSEY AVE, SE, ROOM W43-410
WASHINGTON, D.C. 20590**

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared By: 
Mr. Kelsey A. Chiu, Engineering Department Supervisor
KARCO Engineering, LLC.

Reviewed By: 
Ms. Angie Valenzuela, Quality Assurance Manager
KARCO Engineering, LLC.

Approved By: 
Mr. Frank D. Richardson, Program Manager
KARCO Engineering, LLC.

Approval Date: September 1, 2010

FINAL REPORT ACCEPTANCE BY OCWS:


Division Chief, New Car Assessment Program
NHTSA, Office of Crashworthiness Standards

Date: _____


COTR, New Car Assessment Program
NHTSA, Office of Crashworthiness Standards

Date: _____

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. SPNCAP-KAR-11-011		2. Government Accession No.		3. Recipient's Catalog No.																				
4. Title and Subtitle Final Report of New Car Assessment Program Side Impact Pole Testing of a 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215				5. Report Date September 1, 2010																				
				6. Performing Organization Code KAR																				
7. Authors Mr. Kelsey A. Chiu, Engineering Department Supervisor, KARCO Mr. Frank D. Richardson, Program Manager, KARCO				8. Performing Organization Report No. TR-P30032-04-NC																				
9. Performing Organization Name and Address KARCO Engineering, LLC. 9270 Holly Rd. Adelanto, CA, 92301				10. Work Unit No.																				
				11. Contract or Grant No. DTNH22-09-D-00122																				
12. Sponsoring Agency Name and Address U. S. Department of Transportation National Highway Traffic Safety Administration Office of Crashworthiness Standards (NVS-111) 1200 New Jersey Ave., SE, Room W43-410 Washington, D.C 20590				13. Type of Report and Period Covered Final Test Report, August 2010																				
				14. Sponsoring Agency Code NVS-111																				
15. Supplementary Notes																								
16. Abstract A 32.2 km/h (20 mph) 75° oblique impact Side NCAP test was conducted on the subject 2011 Nissan Versa 4-Door Sedan in accordance with the specifications of the Office of Crashworthiness Standards Side NCAP Pole Laboratory Test Procedure for the generation of consumer information on vehicle side pole crash protection. The test was conducted at the KARCO Engineering, LLC. facility in Adelanto, California on August 18, 2010. The impact velocity was 32.6 km/h and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 36.7° C. The test vehicle's post-test maximum crush was 480 mm at level 3. The test vehicle's performance was as follows: <table border="1"> <thead> <tr> <th rowspan="2">Measurement Description</th> <th colspan="3">Passenger ATD</th> </tr> <tr> <th>Units</th> <th>Threshold</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₃₆)</td> <td></td> <td>1000</td> <td>289.8</td> </tr> <tr> <td>Resultant Lower Spine Acceleration</td> <td>G</td> <td>82</td> <td>49</td> </tr> <tr> <td>Combined Acetabulum and Iliac Pelvic Force</td> <td>N</td> <td>5525</td> <td>5194</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the vehicle at the hinges or latches. The opposite side doors did not open during the impact event.						Measurement Description	Passenger ATD			Units	Threshold	Result	Head Injury Criteria (HIC ₃₆)		1000	289.8	Resultant Lower Spine Acceleration	G	82	49	Combined Acetabulum and Iliac Pelvic Force	N	5525	5194
Measurement Description	Passenger ATD																							
	Units	Threshold	Result																					
Head Injury Criteria (HIC ₃₆)		1000	289.8																					
Resultant Lower Spine Acceleration	G	82	49																					
Combined Acetabulum and Iliac Pelvic Force	N	5525	5194																					
17. Key Words New Car Assessment Program (NCAP) Side Impact Pole Part 572V SID-IIs				18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Admin. Technical Reference Division 1200 New Jersey Ave., SE Washington, DC 20590																				
19. Security Classification of this report UNCLASSIFIED		20. Security Classification of this page UNCLASSIFIED		21. No. of Pages 87	22. Price																			

TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
1	Test Purpose and Procedure	1
2	Summary of Test Results	2
3	Occupant and Vehicle Information	4
<u>Data Sheet</u>		<u>Page</u>
1	General Test and Vehicle Parameter Data	5
2	Seat, Seat Belt, Steering Wheel Adjustment and Fuel Systems Data	8
3	Dummy Longitudinal Clearance Dimensions	10
4	Dummy Lateral Clearance Dimensions	11
5	Camera and Instrumentation Data	12
6	Vehicle Accelerometer Data	13
7	Rigid Pole Load Cell Data	14
8	Post-Test Observations	15
9	Vehicle Profile Measurements	16
10	Vehicle Exterior Crush Measurements	17
11	FMVSS No. 301 Fuel System Integrity Post-Impact Data	20
12	Dummy/Vehicle Temperature Stabilization	21
<u>Appendix</u>		<u>Page</u>
A	Photographs	A
B	Vehicle and Dummy Response Data Plots	B
C	Dummy Configuration and Performance Verification Data	C

SECTION 1

TEST PURPOSE AND PROCEDURE

This side impact test is part of the MY 2011 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-09-D-00122. The purpose of this test is to generate comparative side impact performance in a 2011 Nissan Versa 4-Door Sedan. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Side NCAP Pole Laboratory Test Procedure, dated January 25, 2010.

SECTION 2

SUMMARY OF TEST RESULTS

A rigid pole side impact test was conducted on a 2011 Nissan Versa 4-Door Sedan. The subject vehicle was towed into the rigid pole at an angle of 75° and a velocity of 32.6 km/h. The test was conducted by KARCO Engineering, LLC. in Adelanto, California, on August 18, 2010. Pre-test and post-test photographs of the test vehicle and side impact dummy (SID-IIs) are included in Appendix A of this report.

One Part 572V (SID-IIs) dummy was placed in the driver designated seating position according to instructions specified in the OCWS Side NCAP Pole Laboratory Test Procedure, dated January 25, 2010. Camera location and other pertinent camera information are included in this report.

The Part 572V (SID-IIs) dummy was instrumented as follows:

- Head CG Triaxial Accelerometers
- Thorax Upper, Middle, and Lower Rib Displacement Potentiometers
- Abdomen Upper and Lower Rib Displacement Potentiometers
- Lower Spine Triaxial Accelerometers
- Iliac Load Cell
- Acetabulum Load Cell

Appendix B contains the vehicle and dummy response data. Dummy configuration and performance verification data can be found in Appendix C of this report.

The following table summarizes the results of the test:

Dummy	HIC (36ms)	Resultant Lower Spine Acceleration	Pelvic Force (N)	
SID-IIs 5th Percentile Adult Female	290	49	Iliac Wing	2367
			Acetabulur	2928
			Sum	5194

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 1		Left Rear (Passenger) Occupant Location 4	
	Mounted	Deployed	Mounted	Deployed
Frontal Airbag	Yes	Yes	No	
Knee Airbag	No		No	
Side Airbag 1 (Torso)	Yes	Yes	No	
Side Airbag 2 (Curtain)	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes	No	No	
Seat Belt Load Limiter	Yes	No	No	
Other				

GENERAL COMMENTS

Both of the struck side doors of the test vehicle remained closed and latched and were jammed shut after the impact. There was no separation at the hinges or the latches. The non-struck side doors remained closed and latched. There were no driver injury values that exceeded their limits. There was no FMVSS 301 Stoddard solvent spillage as a result of the impact.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole Test Date: 08/18/10

CONVERSION FACTORS

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	miles/hr	km/hr	1.609344
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

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMATER DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole Test Date: 08/18/10

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA Number	MB5215
Model Year	2011
Make	Nissan
Model	Versa
Body Style	4-Door Sedan
VIN	3N1CC1AP5BL372075
Body Color	Brilliant Silver
Delivery Date	7/19/2010
Odometer Reading (km / mi)	109 / 68
Dealer	Empire Nissan
Transmission	4-Speed Automatic
Final Drive	Front
Type / No. of Cylinders	Inline 4
Engine Displacement (L)	1.6
Engine Placement	Transverse
Roof Rack	No
Sunroof / T-Top	No
Tinted Glass	No
Traction Control	No
Power Brakes	Yes
Front Disc	Yes
Rear Disc	No

Anti-Lock Brakes	Yes
All Wheel Drive	No
Power Steering	Yes
Driver Front Airbag	Yes
Driver Curtain Airbag	Yes
Driver Head/Torso Airbag	No
Driver Torso Airbag	Yes
Driver Torso/Pelvis Airbag	No
Driver Pelvis Airbag	No
Driver Knee Airbag	No
Rear Pass. Curtain Airbag	Yes
Rear Pass. Head/Torso Airbag	No
Rear Pass. Torso Airbag	No
Rear Pass. Toso/Pelvis Airbag	No
Rear Pass. Pelvis Airbag	No
Pretensioners	Yes
Load Limiters	Yes
Automatic Door Locks	No
Bucket Seats	Yes
Tilt Steering	Yes
Other	
Other	

Does Owner's Manual provide instructions to turn off automatic door locks?

N/A

DATA FROM CERTIFICATION LABEL

Manufactured By	Nissan Motor Co., Ltd.
Date of Manufacture	Jun-10

GVWR (kg)	1656
GAWR Front (kg)	850
GAWR Rear (kg)	814

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total	
Designated Seating Capacity	2	3		5	
Capacity Weight (VCW) (kg)				390.0	A
DSC x 68.04 (kg)				340.2	B
Cargo Weight (RCLW) (kg)				49.8	A-B

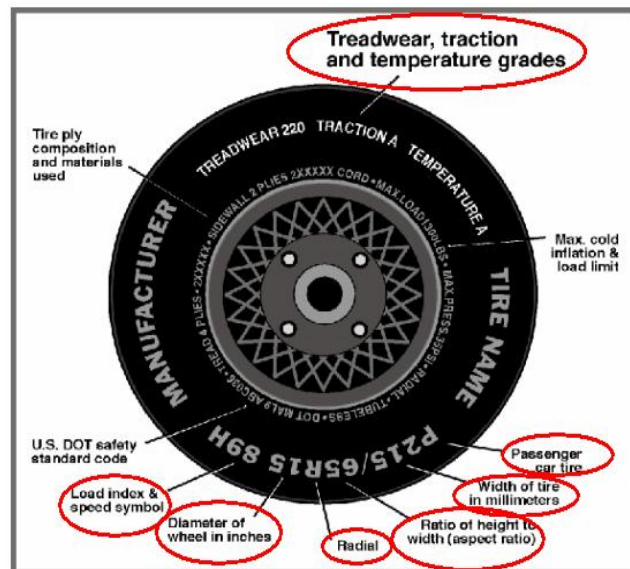
VEHICLE SEAT TYPE

Seating Location	Type of Seat Pan				Type of Seat Back		
	Bucket	Bench	Split Bench	Contoured	Fixed	Adjustable	
						w/ Lever	w/ Knob
Front Seat	Yes					Yes	
Rear or Second Row Seat		Yes			Yes		
Third Row Seat							

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMATER DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole Test Date: 08/18/10



Measured Parameter	Front	Rear
Max. Tire Pressure (kpa)	275	275
Cold Pressure (kpa)	230	230
Recommended Tire Size	P185/65/R14	P185/65/R14
Tire Size on Vehicle	P185/65/R14	P185/65/R14
Tire Model	B381	B381
Tire Manufacturer	Bridgestone	Bridgestone
Treadwear	260	260
Traction	A	A
Temperature Grades	B	B
Tire Plies Sidewall	1	1
Tire Plies Body	3	3
Load Index/Speed Symbol	85T	85T
Tire Material	Polyester, Steel	Polyester, Steel
DOT Safety Code Right	V67J P3R	V67J P3R
DOT Safety Code Left	V67J P3R	V67J P3R

DATA SHEET NO. 1 ... (CONTINUED)**GENERAL TEST AND VEHICLE PARAMATER DATA**

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole Test Date: 08/18/10

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	358.0	247.0		371.5	276.5		372.0	284.5	
Right	kg	334.0	227.0		343.0	265.5		336.0	265.0	
Ratio	%	59.3%	40.7%	100.0%	56.9%	43.1%	100.0%	56.3%	43.7%	100.0%
Total	kg	692.0	474.0	1166.0	714.5	542.0	1256.5	708.0	549.5	1257.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value	
Total Delivered Weight (UVW)	kg	1166.0	A
Actual Weight of 1 P572V ATD Used	kg	49.0	B
Rated Cargo/Luggage Wt (RCLW)	kg	49.8	C
Calculated Vehicle Target Wt (TVTW)	kg	1264.8	A+B+C

TEST VEHICLE ATTITUDES

Condition	Units	As Delivered	As Tested	Fully Loaded
Driver Door Sill Angle (front-to-rear)	Deg	-0.5	-0.2	-0.2
Front Passenger Sill Angle (front-to-rear)	Deg	-0.5	0.0	0.0
Front Bumper Angle (left-to-right)	Deg	0.0	0.0	0.2
Rear Bumper Angle (left-to-right)	Deg	-0.2	-0.3	-0.3
Vehicle CG (Aft of Front Axle)	mm	1058	1123	1137
Vehicle CG (Left (+) / Right (-) from Longitudinal Centerline)	mm	26	25	35

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Weight of Ballast in Cargo Area	kg	46.5
Weight of Vehicle Components Removed	kg	28.0

Vehicle components removed to make Target Vehicle Test Weight:

Right Side Door Panels (6.0 kg), Spare Tire and Tools (15.0 kg), Trunk Carpeting (4.0 kg)
 Right Rear Corner Window (1.5 kg), Hub Caps (1.5 kg)

TEST VEHICLE IMPACT POINT DATA

Measurement Description	Units	Value
Vertical Impact Reference Line (Aft of Front Axle)	mm	1020
Actual Impact Point (Aft of Front Axle)	mm	1007
Impact Point Difference (- forward/+ rearward)	mm	-13

DATA SHEET NO. 2

SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEMS DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

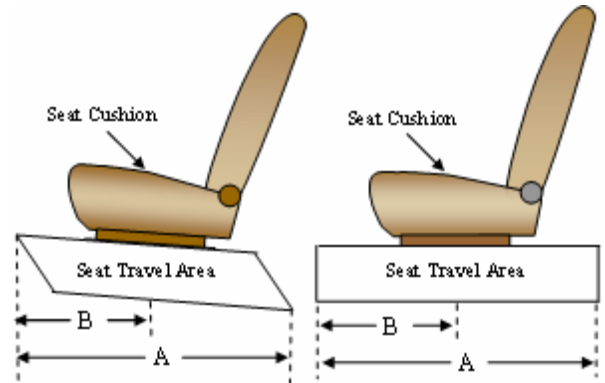
NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole

Test Date: 08/18/10

SEAT FORE / AFT POSITIONS

The total seat travel is measured from the forward most possible position to the rearmost possible position with the seat set at mid angle and lowest height. The driver's seat is set to the forward most position where the ATD will not contact any interior panels at the mid angle and mid height positions.

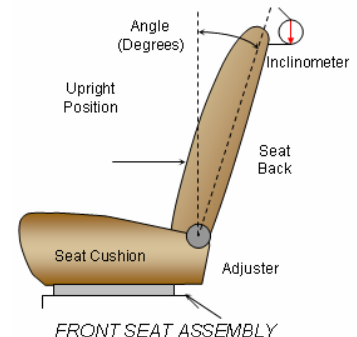


SEAT FORE/AFT POSITIONING

Seating Position	Total Fore-Aft Travel	Placed in Position	Cushion Range	Placed in Position
Driver Seat	240 mm	0 mm	Fixed	Fixed
Front Passenger Seat	237 mm	0 mm	Fixed	Fixed
Rear Seat - Struck Side	Fixed	Fixed	Fixed	Fixed
Rear Seat - Non-Struck Side	Fixed	Fixed	Fixed	Fixed

SEAT BACK ANGLE POSITION

The procedure for the driver is as follows: the seat back is set to level the driver ATD's (SID-IIs) head transverse instrumentation platform; seat back angle is measured at the headrest post using a digital inclinometer.



SEAT BACK ANGLE

Seating Position	Degrees	Detent
Driver Seat Back Angle w/Seated Dummy	1.3	
Front Passenger Seat Back Angle	1.3	
Struck Side Rear Seat Back Angle	Fixed	Fixed
Non-Struck Side Rear Seat Back Angle	Fixed	Fixed

SEAT BELT UPPER ANCHORAGE

The seat belt upper anchorage is positioned to the manufacturer's design position for a 5th percentile adult female ATD. Position number one (1) is the uppermost position.

SEAT BELT UPPER ANCHORAGE POSITIONING

Seating Position	Total No. of Positions	Placed in Position
Driver Seat	4	1

DATA SHEET NO. 2 ... (CONTINUED)

SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEMS DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

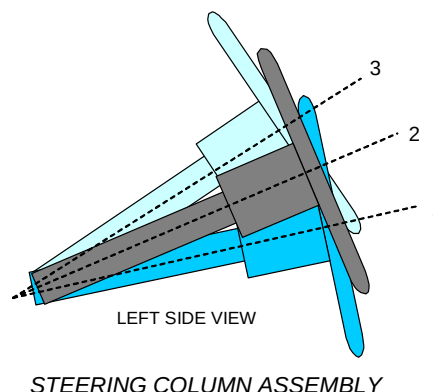
NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole

Test Date: 08/18/10

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. A digital inclinometer is used to measure a plate placed across the rim of the steering wheel for angle. The steering column did not telescope.

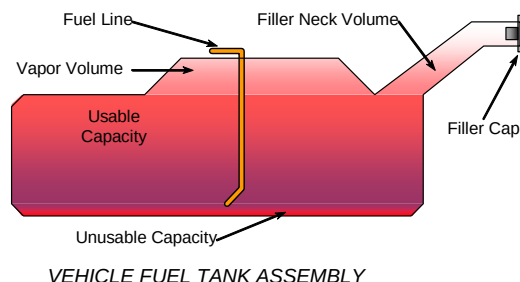


STEERING COLUMN POSITIONING

	Angle (°)	Fore-Aft Position (mm)
Lowermost Position, No. 1	25.3	
Geometric Center Position, No. 2	27.5	
Uppermost Position, No. 3	29.6	
Steering Wheel Travel	4.3	
Test Position	27.5	

FUEL PUMP

The test vehicle is equipped with an electric fuel pump. The fuel pump will pump fuel for one second after the ignition is switched to the "ON" position, while the engine is running, and for 1.5 seconds after the engine stops running. The fuel filler door is located on the right rear fender. The standard fuel tank occupies the area under the rear seat.



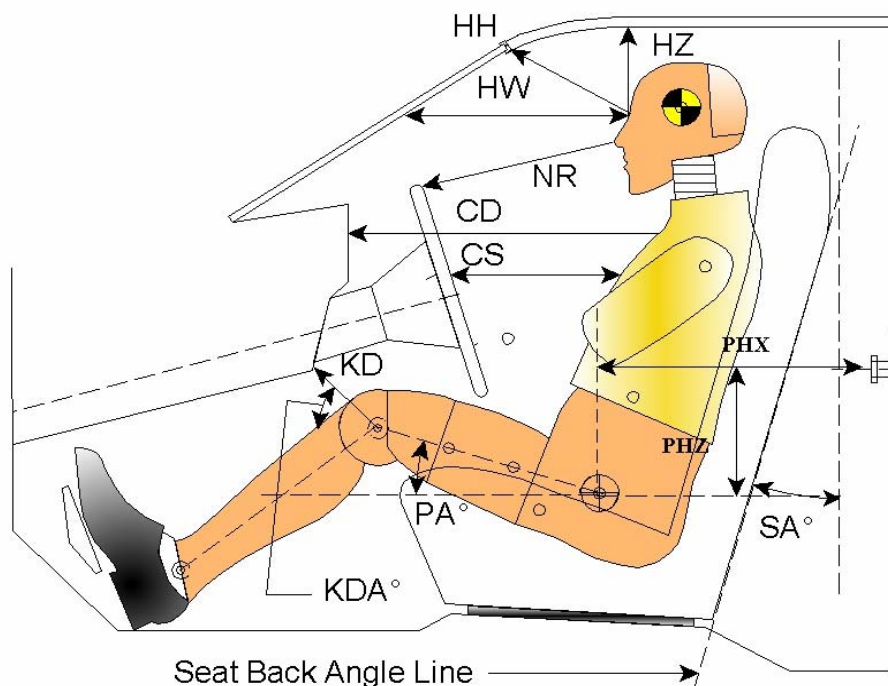
FUEL CAPACITY DATA

Description	Liters
Usable Capacity of "Standard Tank"	44.97
Usable Capacity of "Optional Tank"	
Usable Capacity of Standard Tank as Specified In Owner's Manual	
Usable Capacity of Optional Tank as Specified in Owner's Manual	
92 - 94% of Usable Capacity	41.37 to 42.27
Actual Amount of Stoddard Solvent Used	41.83
1/3 of Usable Capacity	14.99

DATA SHEET NO. 3

DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test Date: 08/18/10



DUMMY LONGITUDINAL CLEARANCE DIMENSIONS (S/N: 307)

Driver Code	Description	Driver	
		Length (mm)	Angle (°)
HH	Head to Header	271	47.5
HW	Head to Windshield	616	
HZ	Head to Roof	202	
NR	Nose to Rim	242	16.7
CD	Chest to Dash	397	9.0
CS	Chest to Steering Wheel	191	14.8
KDL / KDAL°	Left Knee to Dash	106	31.9
KDR / KDAR°	Right Knee to Dash	104	26.9
PA°	Pelvic Angle		18.1
PHX	H-Point to Striker (x-direction)	391	
PHZ	H-Point to Striker (z-direction)	92	
SA°	Seat Back Angle		1.3

DATA SHEET NO. 4

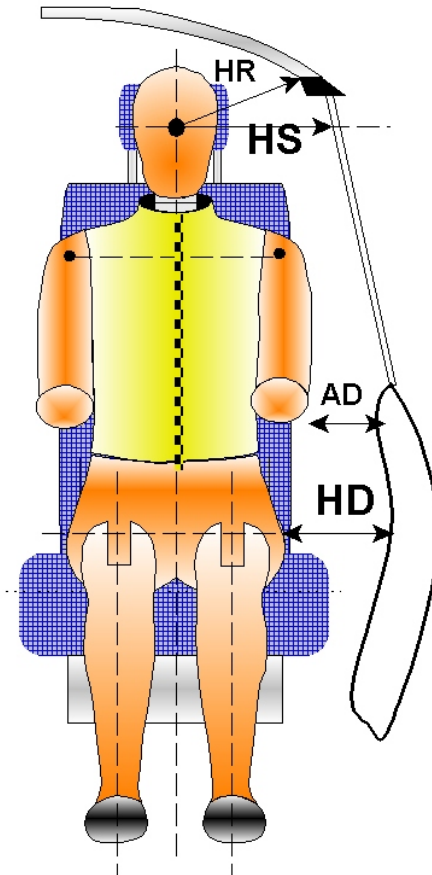
DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole

Test Date: 08/18/10



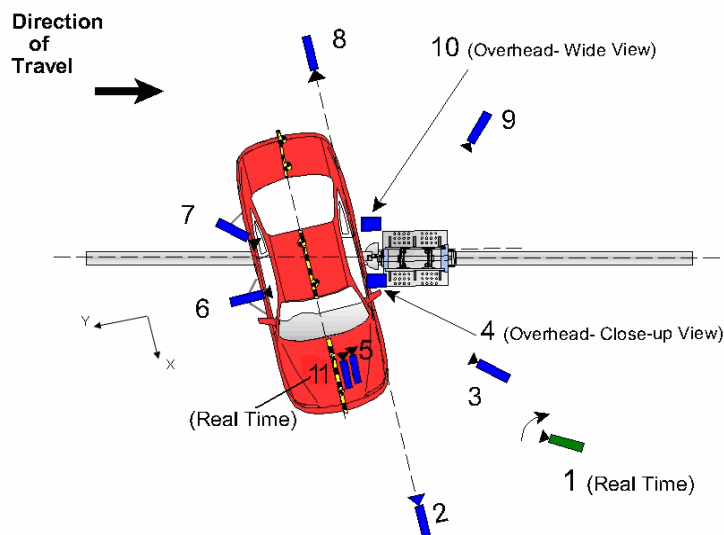
DUMMY LATERAL CLEARANCE DIMENSIONS (S/N: 307)

Code	Measurement Description	Units	Driver
HR	Head to Side Header	mm	315
HS	Head to Side Window	mm	363
AD	Arm to Door	mm	129
HD	H-Point to Door	mm	197

DATA SHEET NO. 5

CAMERA AND INSTRUMENTATION DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test Date: 08/18/10



Camera No.	View	Coordinates (mm)			Lens (mm)	Film Speed (fps)
		X*	Y*	Z*		
1	Real Time Pan View of Impact	8.89	46.57	-3.04		30
2	Front Ground Level - Impact View	8.34	-0.05	-0.93	24	1000
3	Impact Side 45° - Forward Pole View	4.10	-2.15	-1.15	8.5	1000
4	Overhead Close-Up View of Impact	0.00	0.00	-5.79	12.5	1000
5	On-Board - Dummy Front View	1.30	0.45	-1.22	35	400
6	On-Board - Dummy Side View	-0.13	1.49	-1.09	14	1000
7	On-Board - Dummy Rear Oblique View	-1.17	1.47	-1.12	20	1000
8	Rear Ground Level - Impact View	-6.12	-6.23	-0.96	24	1000
9	Impact Side 45° - Rearward Pole View	-8.02	0.04	-1.01	35	1000
10	Overhead Wide View of Impact	-0.06	0.22	-5.79	14	1000
11	Real Time Dummy Front View	1.29	0.45	-1.22		30

Reference: +X = Forward of Vehicle
 +Y = Right of Vehicle
 +Z = Down

* All Measurements accurate to ± 6 mm

NOTE: Vehicle was at a 15° angle to the rigid pole

INSTRUMENTATION

	Number of Channels
Driver Dummy	16
Vehicle Structure	21
Pole Load Cells	8
Contact Switches	3
Airbag Timing Sensor	2
Total No. of Data Channels	50

DATA SHEET NO. 6

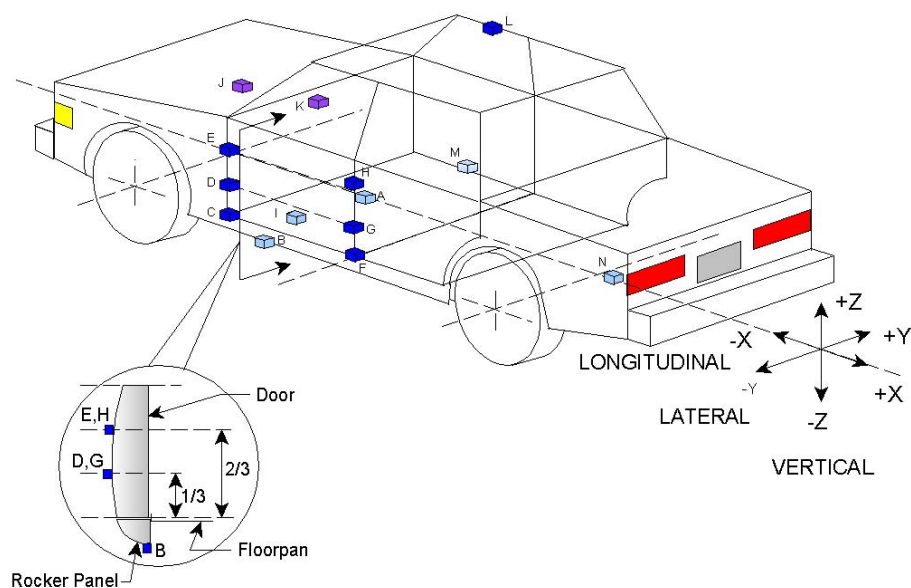
VEHICLE ACCELEROMETER DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole

Test Date: 08/18/10



	Sensor Description	Coordinates (mm)		
		X	Y	Z
A	Vehicle CG Accelerometer	1940	0	380
	Vehicle CG ARS	1940	0	380
B	Left Floor Sill	2690	510	185
C	A-Pillar Sill	3130	300	340
D	A-Pillar Lower	3130	300	550
E	A-Pillar Mid	3130	300	720
F	B-Pillar Sill	2030	670	350
G	B-Pillar Lower	2030	670	565
H	B-Pillar Mid	2030	670	780
I	Driver Seat	75	540	330
J	Engine Top	3780	-200	860
K	Firewall	3590	-85	840
L	Right Roof Sill	2150	-510	1470
M	Right Floor Sill	2095	-670	320
N	Rear Floorpan	970	380	425

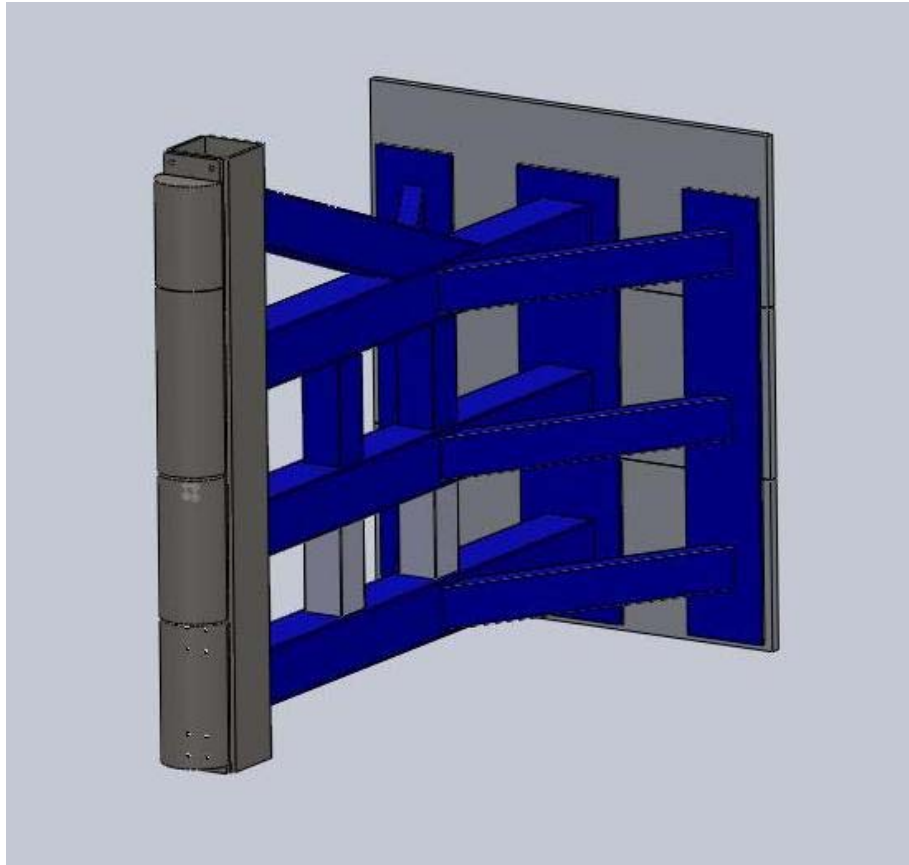
DATA SHEET NO. 7
RIGID POLE LOAD CELL DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole

Test Date: 08/18/10



ID	Units	Height From Ground
1	mm	87
2	mm	468
3	mm	648
4	mm	978
5	mm	1168
6	mm	1651
7	mm	1816
8	mm	2057

DATA SHEET NO. 8
POST-TEST OBSERVATIONS

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole Test Date: 08/18/10

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Driver Dummy
Dummy Type/Serial No.	P572V (SID-IIs) / Serial No. 299
Head Contact	Curtain Airbag, Seatback, Front Airbag, Passenger Seat
Upper Torso Contact	Side Airbag, Door Panel, Front Airbag
Lower Torso Contact	Door Panel
Left Knee Contact	None
Right Knee Contact	None

POST-TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Jammed shut	Jammed shut
Right Side Door Opening	Remained closed and operational	Remained closed and operational
Seat Movement	None	None
Seatback Failure	No	No

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No separation occurred
Sill Separation	No separation occurred
Windshield Damage	Broken
Window Damage	Left front window broken
Other Notable Effects	None

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 1		Left Rear (Passenger) Occupant Location 4	
	Installed	Deployed	Installed	Deployed
Frontal Airbag	Yes	Yes	No	
Knee Airbag	No		No	
Side Airbag 1 (Torso)	Yes	Yes	No	
Side Airbag 2 (Curtain)	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes	No	No	
Seat Belt Load Limiter	Yes	No	No	
Other				

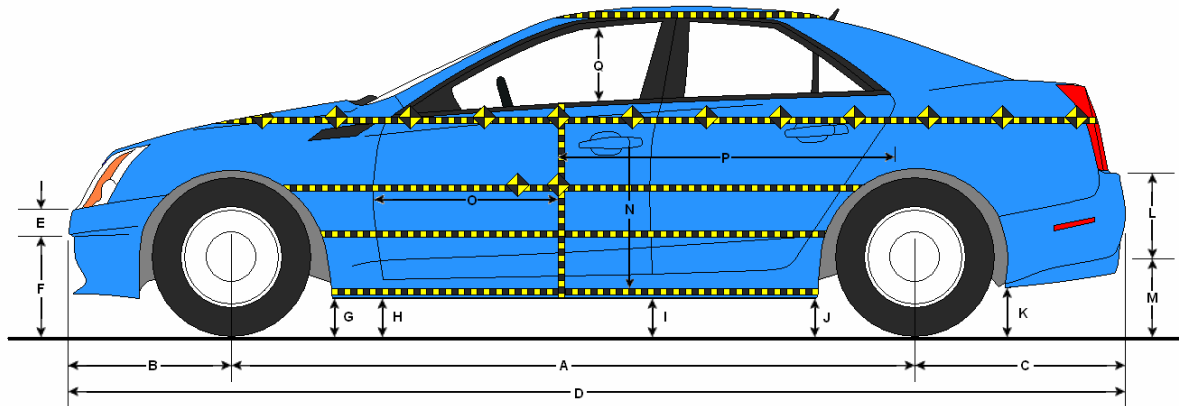
VEHICLE SPEED AND IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset From Vertical Reference Line	mm	+/- 38	-13 (Left)
Trap No. 1 Velocity (Primary)	km/h	30.4 to 32.0	32.6
Trap No. 2 Velocity (Redundant)	km/h	30.4 to 32.0	32.6

DATA SHEET NO. 9

VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole Test Date: 08/18/10



LEFT SIDE VIEW

Code	Description	Pre-Test	Post-Test	Difference
A	Vehicle Wheelbase	2603	2522	-81
B	Front Axle to FSOV	894	900	6
C	Rear Axle to RSOV	977	998	21
D1	Total Vehicle Length at Left Side	3041	2923	-118
D2	Total Vehicle Length at Centerline	4469	4421	-48
D3	Total Vehicle Length at Right Side	3044	3058	14
E	Front Bumper Thickness	94	93	-1
F	Front Bumper Bottom to Ground	428	479	51
G	Sill Height at Front Wheel Well	183	203	20
H	Sill Height at Front Door Leading Edge	175	199	24
I	Sill Height at B-Pillar	188	252	64
J1	Sill Height at Rear Wheel Well	181	250	69
J2	Pinch Weld Height at Rear Wheel Well	162	206	44
K	Sill Aft of Rear Wheel Well	280	354	74
L	Rear Bumper Thickness	169	168	-1
M	Rear Bumper Bottom to Ground	436	497	61
N	Sill Height to Window Bottom Sill	642	656	14
O	Front Door Leading Edge to Impact CL	603	466	-137
P	Rear Door Trailing Edge to Impact CL	1507	1392	-115
Q	Front Window Opening	451	476	25
R	Right Side Length	3044	3058	14
S	Left Side Length	3041	2923	-118
T	Vehicle Width at B-Pillar	1692	1562	-130

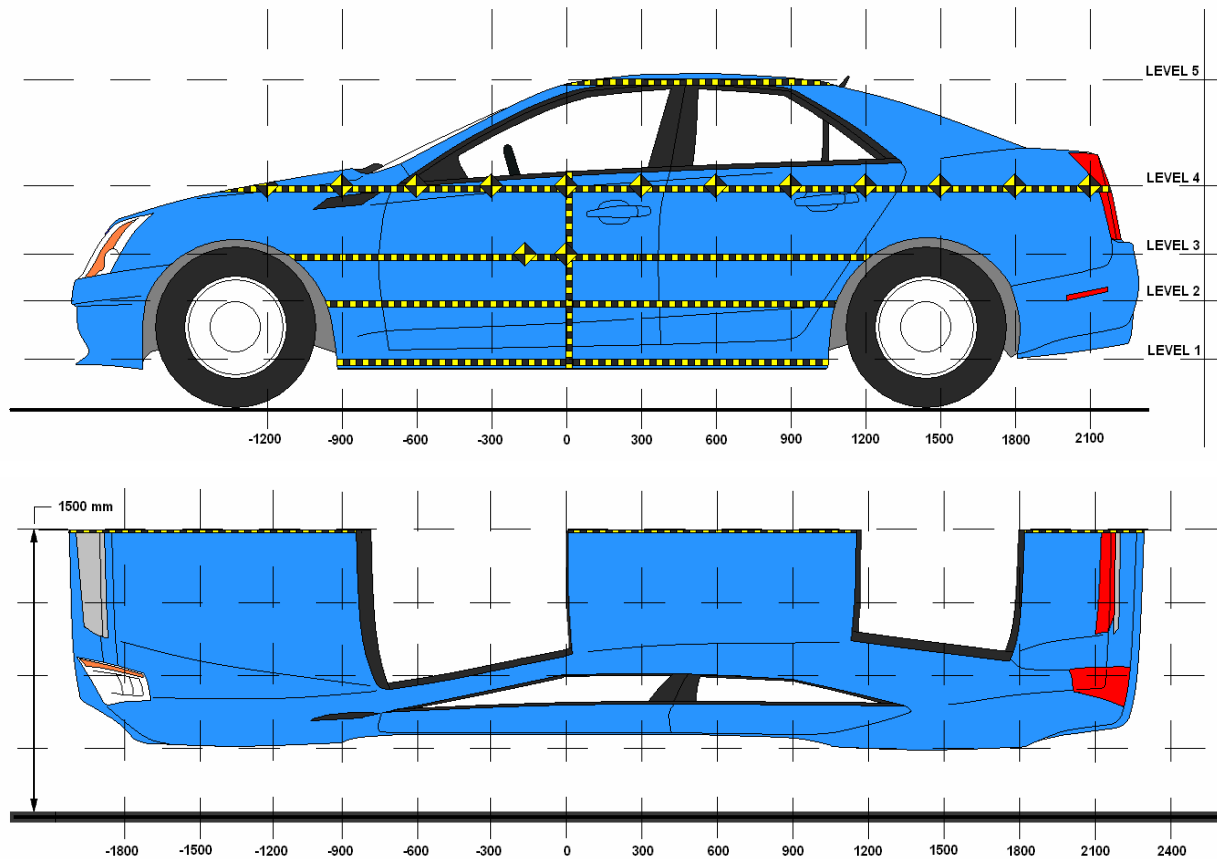
All measurements in mm with tolerance of $\pm 3\text{mm}$

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test Date: 08/18/10



NOTE: All measurements are in millimeters (mm)

Level	Description	Height Above Ground (mm)
1	Sill Top Height	229
2	Occupant H-Point Height	587
3	Mid-Door Height	623
4	Window Sill Height	918
5	Window Top Height	1458

DATA SHEET NO. 10 ... (CONTINUED)

VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole

Test Date: 08/18/10

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900				771					841					70	
-750		651	651	754			736	739	833			85	88	79	
-600	680	659	658	746		792	764	761	837		112	105	103	91	
-450	694	659	658	741		862	851	853	883		168	192	195	142	
-300	699	658	658	723		941	954	954	960		242	296	296	237	
-150	701	658	657	716		1037	1049	1046	1049		336	391	389	333	
0	701	658	657	711		1126	1136	1137	1135		425	478	480	424	
150	702	658	657	706	928	1074	1090	1095	1107	1186	372	432	438	401	258
300	703	659	658	704	915	975	980	981	1000	1126	272	321	323	296	211
450	703	659	659	703	909	905	882	882	902	1075	202	223	223	199	166
600	704	661	660	703	910	855	828	828	865	1037	151	167	168	162	127
750	704	662	662	705	913	814	798	799	838	1012	110	136	137	133	99
900	704	664	664	706	918	777	771	773	814	1000	73	107	109	108	82
1050	698	667	667	708	925	741	746	748	793	995	43	79	81	85	70
1200	687	669	670	711	938	704	720	723	770	1000	17	51	53	59	62
1350		663	664	714	967		703	707	749	1014		40	43	35	47
1500				721					766					45	
1650				728					765					37	
1800				736					764					28	
1950				747					766					19	
2100				762					769					7	
2250															
2400															
2550															
2700															
2850															

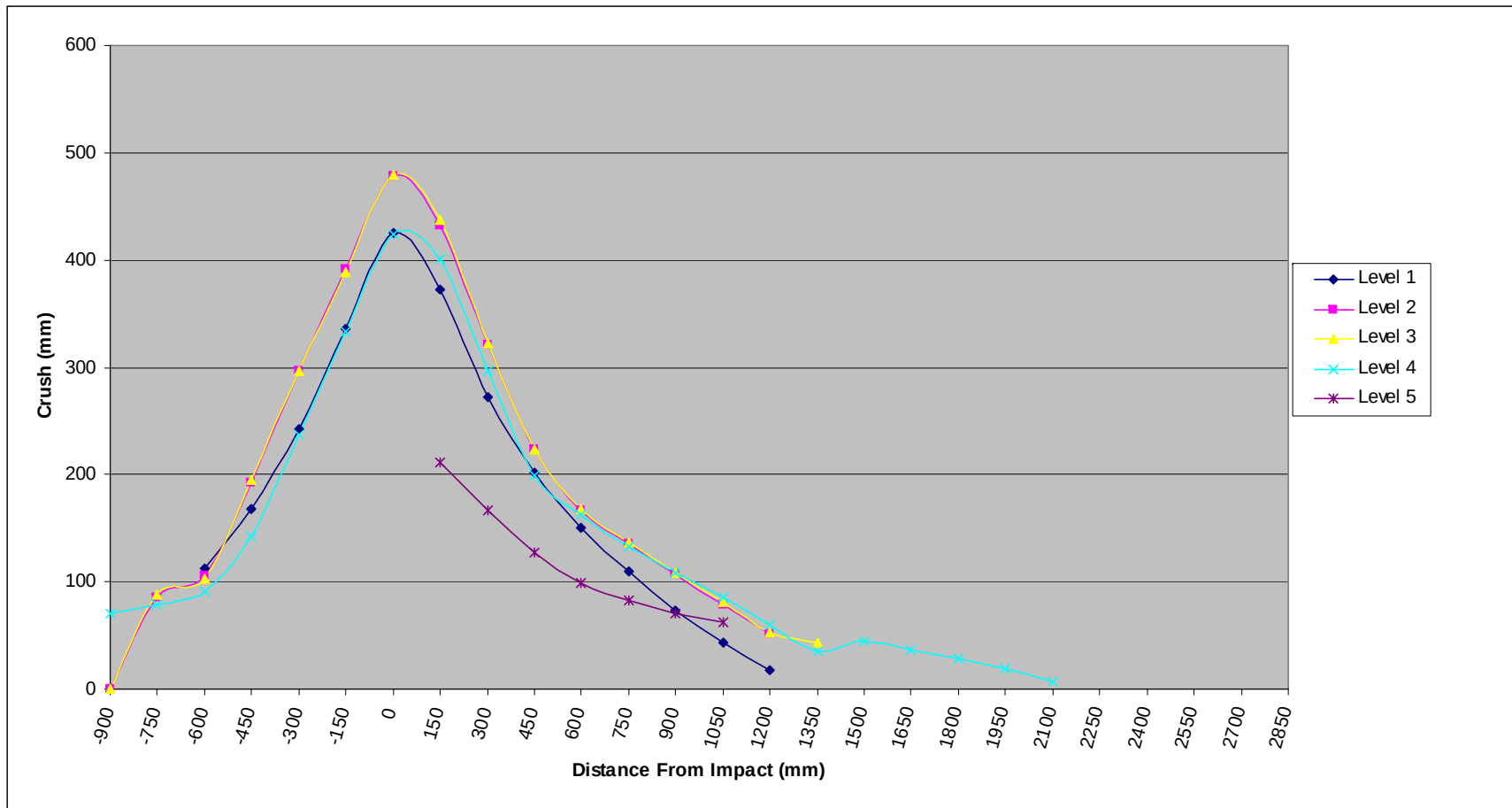
MAXIMUM CRUSH DATA

	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	425	478	180	424	258
Distance From Impact	mm	0	0	0	0	150

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

Test Vehicle: 2011 Nissan Versa 4-Door Sedan
Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole

NHTSA No. MB5215
Test Date: 08/18/10



DATA SHEET NO. 11

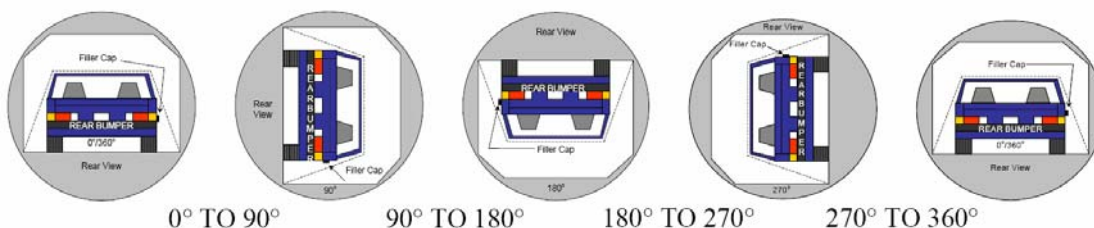
FMVSS NO. 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2011 Nissan Versa 4-Door Sedan NHTSA No. MB5215
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test Date: 08/18/10

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 36.7° C Test Time: 12:22 PM

- A. From impact until vehicle motion ceases: 0 oz.
 (Maximum allowable = 1 oz.)
- B. For the 5 minute period after motion ceases: 0 oz.
 (Maximum allowable = 5 oz.)
- C. For the following 25 minutes: 0 oz.
 (Maximum allowable = 1 oz./minute)
- D. Spillage Details: No spillage occurred



SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° To 90°	84	300	384
90° To 180°	8	300	308
180° To 270°	81	300	381
270° To 360°	93	300	393

FMVSS 301 SPILLAGE TABLE

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

DATA SHEET NO. 12

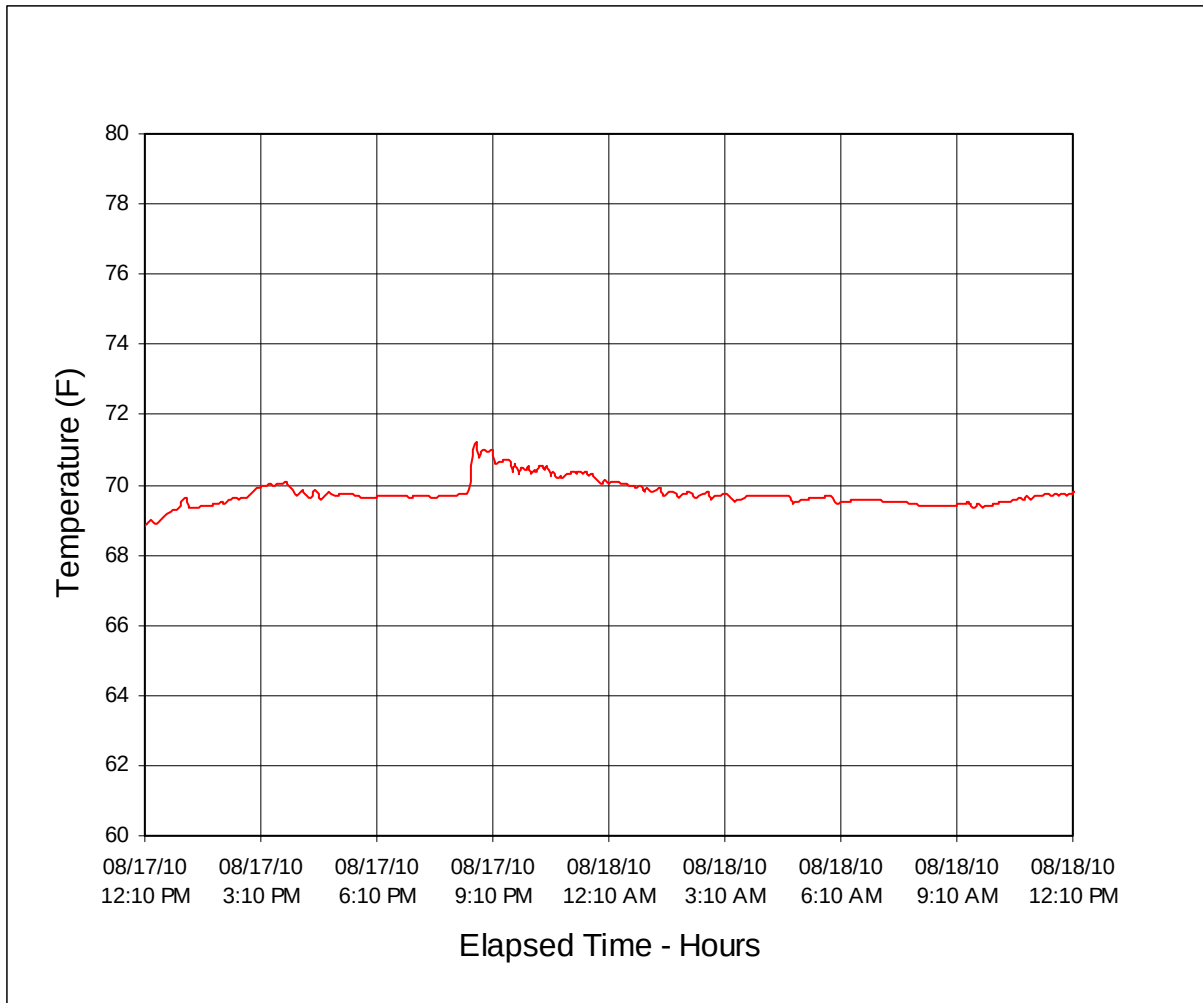
DUMMY/VEHICLE TEMPERATURE STABILIZATION

Test Vehicle: 2011 Nissan Versa 4-Door Sedan

NHTSA No. MB5215

Test Program: 32 km/h (20 mph) Side Impact NCAP 75°Rigid Pole

Test Date: 08/18/10



APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

Figure		Page
1	As Delivered Right Front $\frac{3}{4}$ View of Test Vehicle	A-1
2	As Delivered Left Rear $\frac{3}{4}$ View of Test Vehicle	A-1
3	Pre-Test Frontal View of Test Vehicle	A-2
4	Post-Test Frontal View of Test Vehicle	A-2
5	Pre-Test Left Front $\frac{3}{4}$ View of Test Vehicle	A-3
6	Post-Test Left Front $\frac{3}{4}$ View of Test Vehicle	A-3
7	Pre-Test Left Side View of Test Vehicle	A-4
8	Post-Test Left Side View of Test Vehicle	A-4
9	Pre-Test Left Rear $\frac{3}{4}$ View of Test Vehicle	A-5
10	Post-Test Left Rear $\frac{3}{4}$ View of Test Vehicle	A-5
11	Pre-Test Rear View of Test Vehicle	A-6
12	Post-Test Rear View of Test Vehicle	A-6
13	Pre-Test Right Side View of Test Vehicle	A-7
14	Post-Test Right Side View of Test Vehicle	A-7
15	Pre-Test Overhead View of Test Vehicle and Pole	A-8
16	Post-Test Overhead View of Test Vehicle and Pole	A-8
17	Pre-Test Left Side View of Pole Positioned Against Side of Vehicle at Ideal Impact Point	A-9
18	Pre-Test Right Side View of Pole Positioned Against Side of Vehicle at Ideal Impact Point	A-9
19	Pre-Test Close-Up View of Impact Point Target	A-10
20	Pre-Test Close-Up View of Impact Point Target Showing Impact Location	A-10
21	Pre-Test Front Close-Up View of Dummy (Through Front Window)	A-11
22	Post-Test Front Close-Up View of Dummy (Through Front Window)	A-11
23	Pre-Test Left Side View of Dummy Showing Belt, Chalking, and Contact Switches	A-12
24	Pre-Test Left Side View of Dummy Shoulder and Door Top View	A-12
25	Post-Test Left Side View of Dummy Shoulder and Door Top View	A-13
26	Pre-Test Frontal View of Seat Back (Including Head Restraint) Prior to Dummy Positioning	A-13
27	Pre-Test Frontal View of Dummy Head and Shoulders in Relation to Head Restraint	A-14
28	Pre-Test Frontal View of Seat Pan Prior to Dummy Positioning	A-14
29	Pre-Test Overhead View of Dummy Thighs on Seat Pan	A-15
30	Pre-Test View of Dummy's Neck Showing Position of Adjustable Neck Bracket	A-15
31	Pre-Test View of Dummy's Head Showing Dummy's Head is	A-16
32	Pre-Test Placement of Dummy's Feet	A-16
33	Pre-Test View of Belt Anchorage for Dummy to Show Position	A-17
34	Pre-Test Left Side View of Steering Wheel to Show Position	A-17
35	Pre-Test View of Parking Brake	A-18

TABLE OF PHOTOGRAPHS ... (CONTINUED)

Figure		Page
36	Pre-Test Close-Up Left Side View of Driver Seat Track Showing Test Position	A-18
37	Pre-Test Close-Up Left Side View of Driver Seat Back Showing Test Position	A-19
38	Pre-Test Close-Up View of Driver Seat Back or Head Restraint Showing Seat Back Test Position	A-19
39	Pre-Test Dummy and Door Clearance View	A-20
40	Post-Test Dummy and Door Clearance View	A-20
41	Pre-Test Right Side View of Dummy and Front Seat Occupant Compartment	A-21
42	Post-Test Right Side View of Dummy and Front Seat Occupant Compartment	A-21
43	Pre-Test Inner Door Panel View	A-22
44	Post-Test Inner Door Panel View Showing Dummy Contact Locations	A-22
45	Post-Test Dummy Close-Up Head Contact with Vehicle View	A-23
46	Post-Test Dummy Close-Up Head Contact with Side Airbag View	A-23
47	Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View	A-24
48	Post-Test Dummy Close-Up Torso Contact with Side Airbag View	A-24
49	Post-Test Dummy Close-Up Pelvis Contact Vehicle Interior View	A-25
50	Post-Test Dummy Close-Up Pelvis Contact with Side Airbag View	A-25
51	Pre-Test View of Fuel Filler Cap or Fuel Filler Neck	A-26
52	Post-Test View of Fuel Filler Cap or Fuel Filler Neck	A-26
53	Close-Up View of Vehicle's Certification Label	A-27
54	Close-Up View of Vehicle's Tire Information Placard or Label	A-27
55	Pre-Test Pole Barrier Front View	A-28
56	Post-Test Pole Barrier Front View	A-28
57	Pre-Test Pole Barrier Side View	A-29
58	Post-Test Pole Barrier Side View	A-29
59	Pre-Test Ballast View	A-30
60	Post-Test Primary and Redundant Speed Trap Read-Out	A-30
61	FMVSS No. 301/305 Rollover 0 Degrees	A-31
62	FMVSS No. 301/305 Rollover 90 Degrees	A-31
63	FMVSS No. 301/305 Rollover 180 Degrees	A-32
64	FMVSS No. 301/305 Rollover 270 Degrees	A-32
65	FMVSS No. 301/305 Rollover 360 Degrees	A-33
66	Impact Event (Impact Side)	A-33
67	Monroney Label	A-34
68	Head Restraint Use and Adjustment Information from Vehicle Owner's Manual	A-34



FIGURE 1. As Delivered Right Front $\frac{3}{4}$ View of Test Vehicle



FIGURE 2. As Delivered Left Rear $\frac{3}{4}$ View of Test Vehicle



FIGURE 3. Pre-Test Frontal View of Test Vehicle



FIGURE 4. Post-Test Frontal View of Test Vehicle



FIGURE 5. Pre-Test Left Front $\frac{3}{4}$ View of Test Vehicle



FIGURE 6. Post-Test Left Front $\frac{3}{4}$ View of Test Vehicle



FIGURE 7. Pre-Test Left Side View of Test Vehicle



FIGURE 8. Post-Test Left Side View of Test Vehicle



FIGURE 9. Pre-Test Left Rear $\frac{3}{4}$ View of Test Vehicle



FIGURE 10. Pre-Test Left Rear $\frac{3}{4}$ View of Test Vehicle



FIGURE 11. Pre-Test Rear View of Test Vehicle



FIGURE 12. Post-Test Rear View of Test Vehicle



FIGURE 13. Pre-Test Right Side View of Test Vehicle



FIGURE 14. Post-Test Right Side View of Test Vehicle

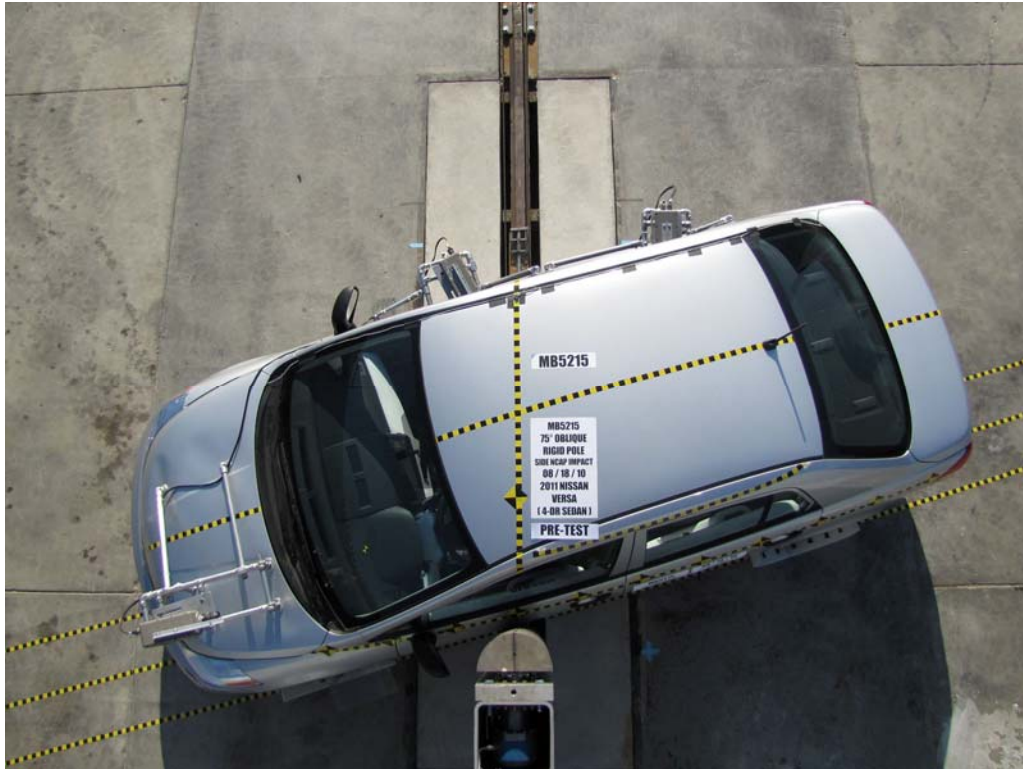


FIGURE 15. Pre-Test Overhead View of Test Vehicle and Pole

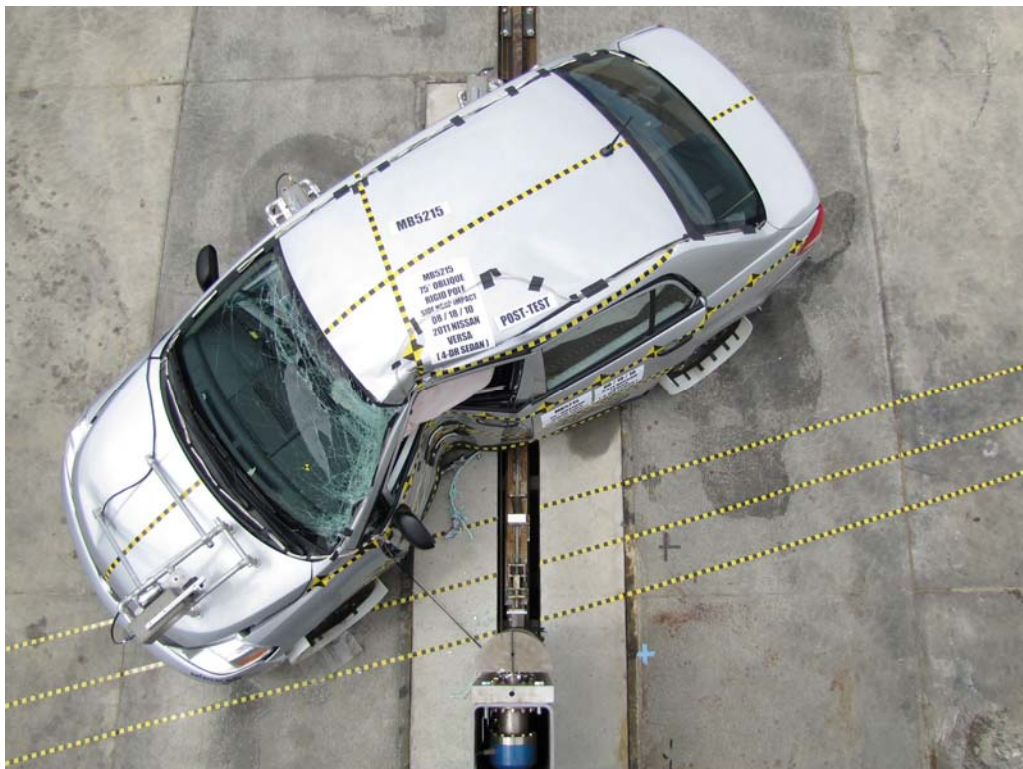


FIGURE 16. Post-Test Overhead View of Test Vehicle and Pole



FIGURE 17. Pre-Test Left Side View of Pole
Positioned Against Side of Vehicle at Ideal Impact Point



FIGURE 18. Pre-Test Right Side View of Pole
Positioned Against Side of Vehicle at Ideal Impact Point



FIGURE 19. Pre-Test Close-Up View of Impact Point Target

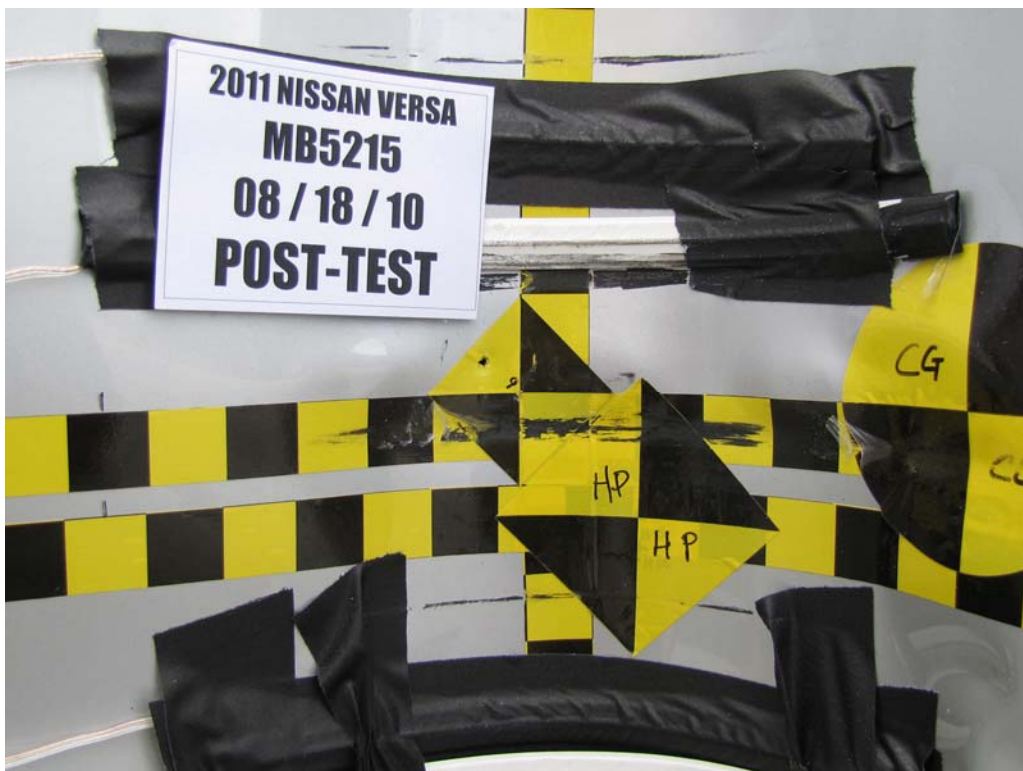


FIGURE 20. Post-Test Close-Up View of Impact Point Target Showing Impact Location



FIGURE 21. Pre-Test Front Close-Up View of Dummy



FIGURE 22. Post-Test Front Close-Up View of Dummy



FIGURE 23. Pre-Test Left Side View of Dummy Showing Belt, Chalking, and Contact Switches



FIGURE 24. Pre-Test Left Side View of Dummy Shoulder and Door Top View



FIGURE 25. Post-Test Left Side View of Dummy Shoulder and Door Top View



FIGURE 26. Pre-Test Frontal View of Seat Back Prior to Dummy Positioning



FIGURE 27. Pre-Test Frontal View of Dummy Head and Shoulders
in Relation to Head Restraint



FIGURE 28. Pre-Test Frontal View of Seat Pan Prior to Dummy Positioning



FIGURE 29. Pre-Test Overhead View of Dummy Thighs on Seat Pan

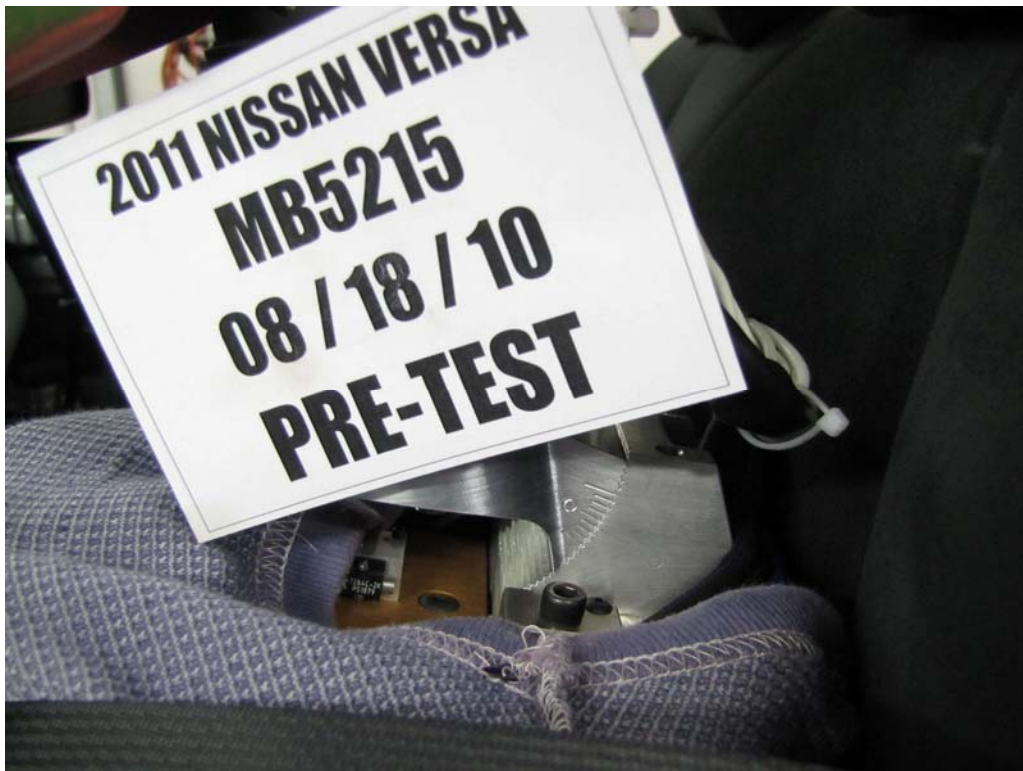


FIGURE 30. Pre-Test View of Dummy's Neck Showing Position of Adjustable Neck Bracket



FIGURE 31. Pre-Test View of Dummy's Head Showing Dummy's Head Is Level



FIGURE 32. Pre-Test Placement of Dummy's Feet



FIGURE 33. Pre-Test View of Belt Anchorage for Dummy to Show Position



FIGURE 34. Pre-Test Left Side View of Steering Wheel to Show Position



FIGURE 35. Pre-Test View of Parking Brake



FIGURE 36. Pre-Test Close-Up Left Side View of Driver Seat Track Showing Test Position



FIGURE 37. Pre-Test Close-Up Left Side View of Driver Seat Back Showing Test Position



FIGURE 38. Pre-Test Close-Up View of Driver Seat Back or Head Restraint Showing Seat Back Test Position



FIGURE 39. Pre-Test Driver Dummy and Door Clearance



FIGURE 40. Post-Test Driver Dummy and Door Clearance



FIGURE 41. Pre-Test Right Side View of Dummy and Front Seat Occupant Compartment



FIGURE 42. Post-Test Right Side View of Dummy and Front Seat Occupant Compartment



FIGURE 43. Pre-Test Inner Door Panel View



FIGURE 44. Post-Test Inner Door Panel View Showing Dummy Contact Locations



FIGURE 45. Post-Test Dummy Close-Up Head Contact with Vehicle Interior View

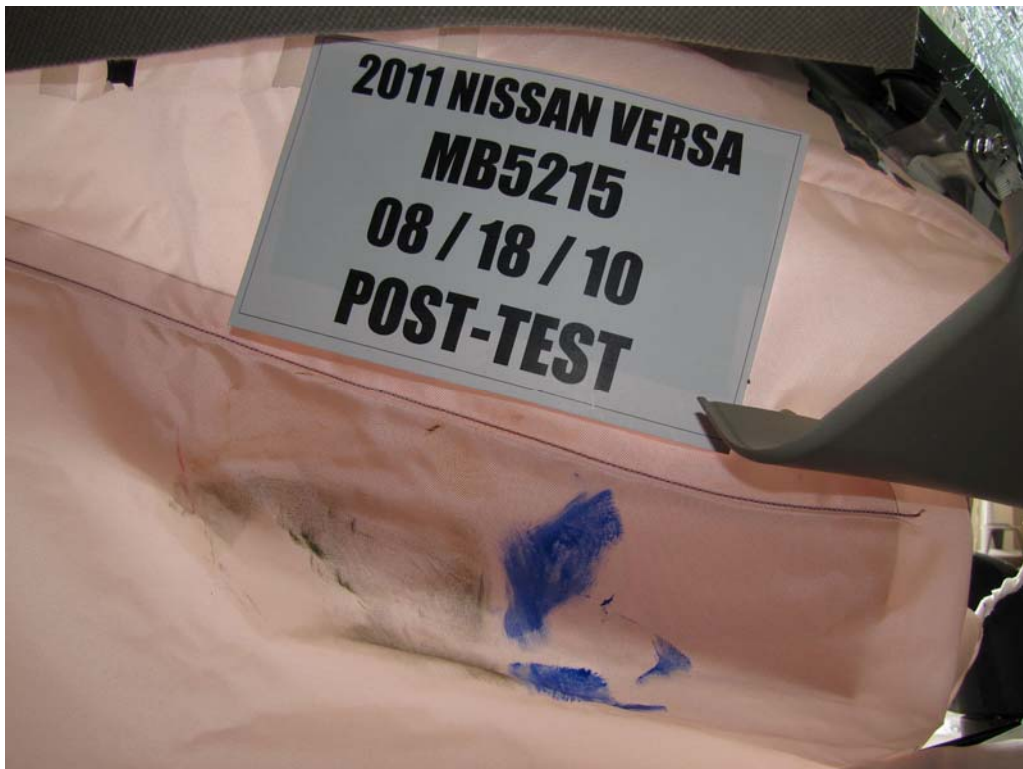


FIGURE 46. Post-Test Dummy Close-Up Head Contact with Side Airbag View



FIGURE 47. Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View

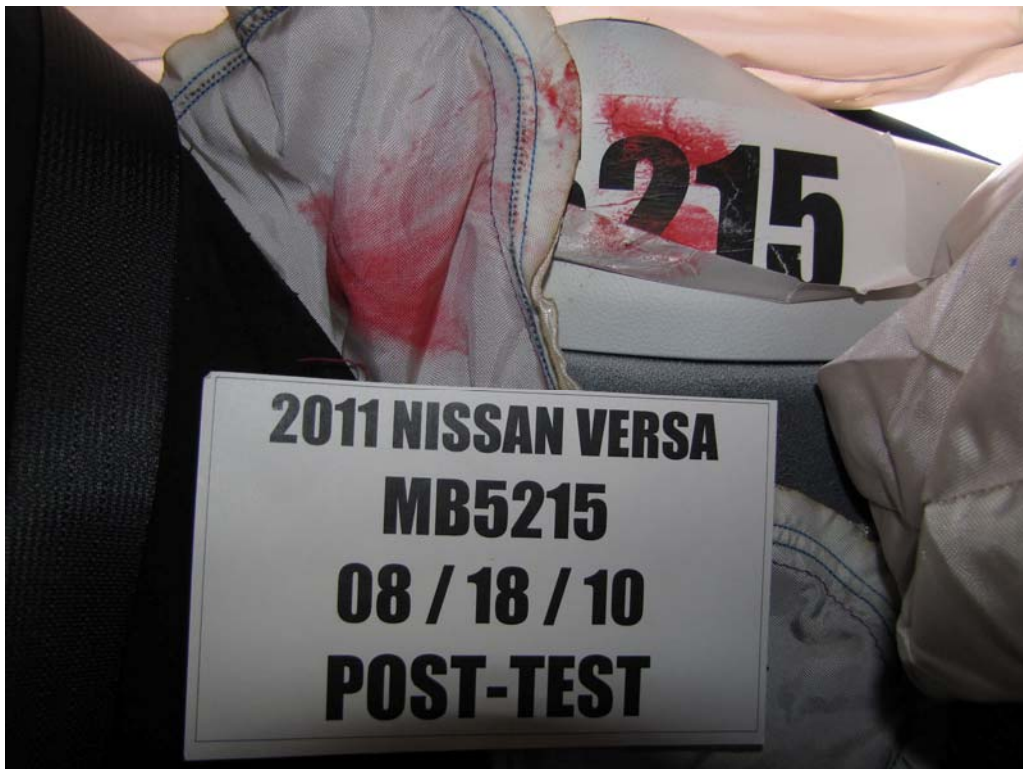


FIGURE 48. Post-Test Dummy Close-Up Torso Contact with Side Airbag View



FIGURE 49. Post-Test Dummy Close-Up Pelvis Contact with Vehicle Interior View



FIGURE 50. Post-Test Dummy Close-Up Pelvis Contact with Side Airbag View



FIGURE 51. Pre-Test View of Fuel Filler Cap



FIGURE 52. Post-Test View of Fuel Filler Cap

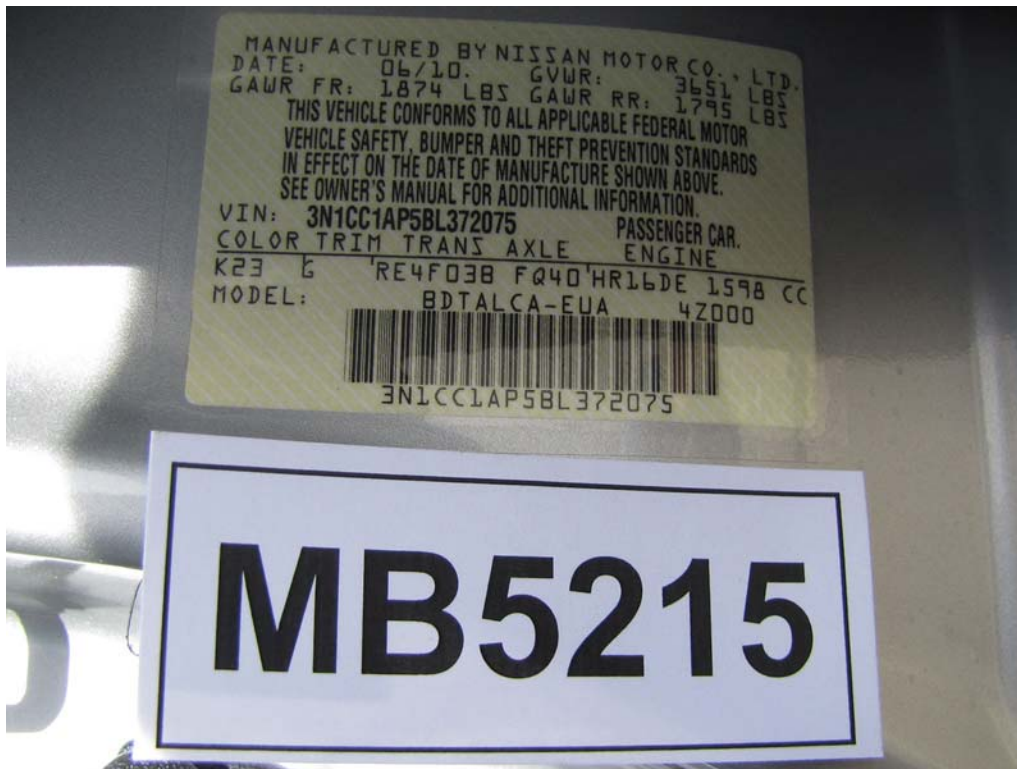


FIGURE 53. Close-Up View of Vehicle's Certification Label



FIGURE 54. Close-Up View of Vehicle's Tire Information Placard



FIGURE 55. Pre-Test Pole Barrier Front View

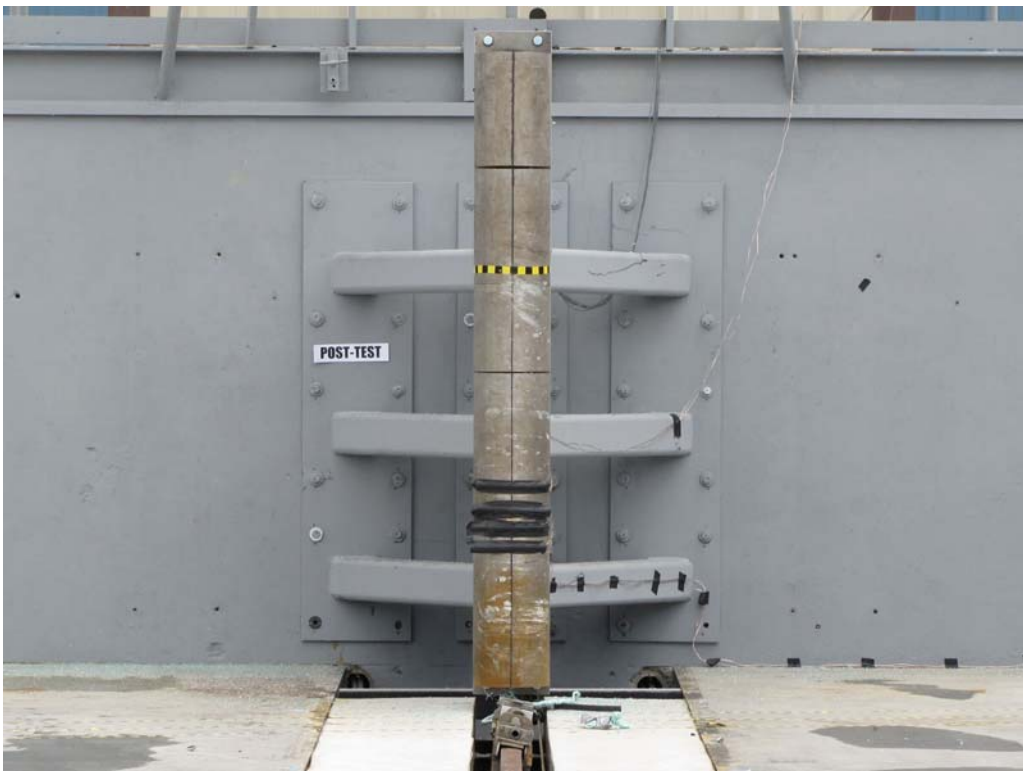


FIGURE 56. Post-Test Pole Barrier Front View



FIGURE 57. Pre-Test Pole Barrier Side View



FIGURE 58. Post-Test Pole Barrier Side View



FIGURE 59. Pre-Test Ballast View



FIGURE 60. Post-Test Primary and Redundant Speed Trap Read-Out



FIGURE 61. FMVSS No. 301-305 Rollover 0°

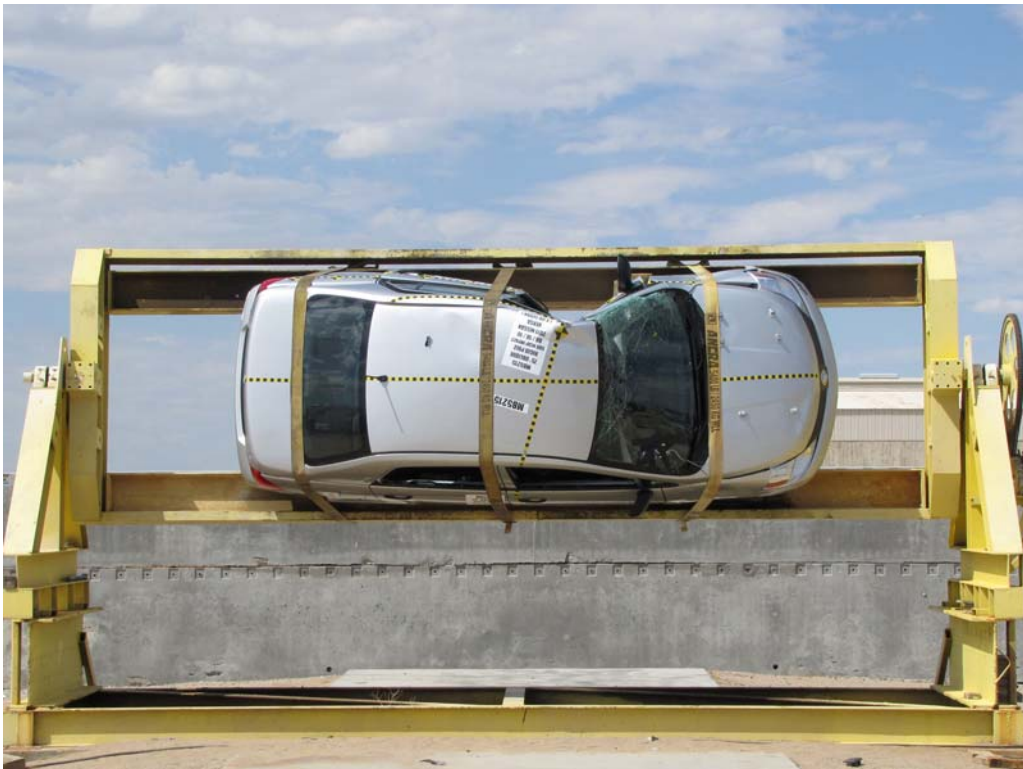


FIGURE 62. FMVSS No. 301-305 Rollover 90°



FIGURE 63. FMVSS No. 301-305 Rollover 180°



FIGURE 64. FMVSS No. 301-305 Rollover 270°



FIGURE 65. FMVSS No. 301-305 Rollover 360°



FIGURE 66. Impact Event

2011 VERSA 1.6 SEDAN

When Life is Big, You Need Generous Accommodations

Standard Equipment Included at No Extra Charge

MECHANICAL & PERFORMANCE
 1.6L DOHC 4-Cylinder Engine
 157 Horsespower & 111 lb-ft. of Torque
 4-Speed Automatic Transmission
 Ultra Low Emissions Vehicle (ULEV) Rating
 Independent Dual Front Suspension
 Torsion Beam Rear Suspension w/ Integrated Stabilizer Bar
 Front Stabilizer Bar
 Power-Control Shock Absorbers
 Power-Assisted Variovalve
 Front Disc/Rear Drum Brakes
 Electric Power-Assisted Steering
 14" Steel Wheels w/ Full Wheel Covers
 160MPH/114-Mph-Speed-Timer

SAFETY & SECURITY
 Nissan Advanced Air Bag System (AABS)
 Front Seat Mounted
 Side Impact Supplemental Air Bags
 Head Mounted Curtain
 Side Impact Supplemental Air Bags
 Anti-Lock Braking System (ABS)
 Front Seat Active Head Restraints
 Front Seat Belts w/ Pretensioners
 Load Limiters, & Adjustable Upper Anchors
 3-Point Seat Belts (All Seating Positions)
 Padded Driver Seat Belt Warning Chime/Light
 Lower Anchors and Tethers for Children (LATCH)
 Child Safety Rear Door Locks
 Energy-Absorbing Steering Column
 Pipe-Style Steel Side Door Guard Beams
 Zone Body Construction
 with Front and Rear Crumple Zones
 Tire Pressure Monitoring System (TPMS)
 Emergency Inside Trunk Release
 Central High Mounted Stop Light
 Nissan Vehicle Immobilizer System

*0066 MILES
PUMP*

COMFORT & CONVENIENCE
 Air Conditioning w/ Cabin Monitor
 4-Way Adjustable Driver's Seat
 Cloth Seat & Door Trim
 4 Speakers With Audio Pre-Amp
 78 Steering Columns
 Variable Intermittent Windshield Wipers
 Rear Window Defogger w/ Timer
 Front Door Map Pockets
 Dual Front & Rear Cup Holders
 Front & Rear Passenger Assist Grips
 Day/Night Reversing Mirror
 12-Volt Power Outlet
 Remote Fuel Filler Door Release

EXTERIOR FEATURES
 Black Manual Folding & Opening Side View Mirrors
 Black Door Handles
 Multi-Reflector Halogen Headlights
 Black Decklid Spoiler
 Black Front Grill
 Front Roof Antenna
 Energy-Absorbing Body Color
 Front & Rear Fenders

Manufacturer's Suggested Retail Base Price: \$12,240.00

Options Included by Manufacturer:
 FIVE-PIECE FLOORTRUNK MAT SET 165.00

Destination Charge: 750.00

Total* \$13,145.00

EPA Fuel Economy Estimates

CITY MPG	Estimated Annual Fuel Cost	HIGHWAY MPG
25	\$1,392	33

Expected range for most drivers: 20 to 30 MPG

Based on 15,000 miles at \$2.60 per gallon

Combined Fuel Economy
 This Vehicle: **28**
 12 to 30 MILEAGE CARS

Your actual mileage will vary depending on how you drive and maintain your vehicle.

See the FREE Fuel Economy Guide at dealers or www.fueleconomy.gov

GOVERNMENT SAFETY RATINGS

Frontal Crash	Driver Passenger	Not Rated
Not Rated	Not Rated	Not Rated

Star ratings based on the risk of injury in a frontal impact. Frontal ratings should ONLY be compared to other vehicles of similar size and weight.

Side Crash	Front seat	Not Rated
Not Rated	Not Rated	Not Rated

Star ratings based on the risk of injury in a side impact.

Rollover	Not Rated
Not Rated	Not Rated

Star ratings based on the risk of rollover in a single vehicle crash.

Star ratings range from 1 to 5 stars (★ ★ ★ ★ ★), with 5 being the highest. Source: National Highway Traffic Safety Administration (NHTSA).
www.safercar.gov or 1-888-327-4238

DELIVERY

VEHICLE COLORS:
 EX1: BRILLIANT SILVER
 INT: CHARCOAL

FINAL ASSEMBLY POINT:
 AGUAS/ABV/MEX

TRANSPORT METHOD:
 TRUCK

DEALER:
 ENRIE NISSAN, INC.
 1377 KETTERING LOOP
 ONTARIO CA 91761

VIN: 3N1CC1AP5BL372075
EMS: 50 STATE EMISSIONS
MDL: 1111-572075 K23-G
OPT: A-C03,93

20100618031249R1102C

FIGURE 67. Monroney Label

HEAD RESTRAINTS (Hatchback model and front seats of Sedan model)

WARNING
 Head restraints supplement the other vehicle safety systems. They may provide additional protection against injury in certain rear and side collisions. Adjust the head restraints properly, as specified in this section. Check the adjustment after someone else uses the seat. Do not attach anything to the head restraint or remove the head restraint. Do not use the seat if the head restraint has been removed. If the head restraint was removed, removed and properly adjust the head restraint before an occupant uses the seating position. Failure to follow these instructions can reduce the effectiveness of the head restraints. This may increase the risk of serious injury or death in a collision.

The illustration shows the seating positions equipped with head restraints. All of the head restraints are adjustable.

▲ Indicates the seating position is equipped with a head restraint. For sedan models only, the rear outboard seating positions are headrests. See "Adjustable headrests".

▲ Indicates the seating position is not equipped with a head restraint or adjustable headrest.

Components

1. Head restraint
2. Adjustment notches
3. Lock knob
4. Straps

Adjustment

Adjust the head restraint so the center is level with the center of the seat occupant's ears.

To raise the head restraint, pull it up.

To lower, push and hold the lock knob and push the head restraint down.

Removal

Use the following procedure to remove the adjustable head restraints.

1. Pull the head restraint up to the highest position.
2. Push and hold the lock knob.
3. Remove the head restraint from the seat.
4. Store the head restraint properly so it is not loose in the vehicle.
5. Reinstall and properly adjust the head restraint before an occupant uses the seating position.

Install

1. Align the head restraint stalks with the holes in the seat. Make sure the head restraint is facing the correct direction. The side with the adjustment notches (U) must be installed in the hole with the lock knob (O).
2. Push and hold the lock knob and push the head restraint down.
3. Properly adjust the head restraint before an occupant uses the seating position.

Front-seat Active Head Restraints

The Active Head Restraint moves forward utilizing the force that the seatback retracts from the occupant in a rear-end collision. The movement of the head restraint helps support the occupant's head by reducing the backward movement and helping absorb some of the forces that may lead to whiplash-type injuries.

Active Head Restraints are effective for collisions at the minimum speeds in which it is used that whiplash injury occurs most.

Active Head Restraints operate only in certain rear-end collisions. After the collision, the head restraints return to their original position.

FIGURE 68. Driver Head Restraint Use and Adjustment Information from

APPENDIX B
VEHICLE AND DUMMY RESPONSE DATA PLOTS

TABLE OF DATA PLOTS

Plot		Page
1	Driver Head Acceleration (X) Primary	B-1
2	Driver Head Acceleration (Y) Primary	B-1
3	Driver Head Acceleration(Z) Primary	B-1
4	Driver Head Resultant Primary	B-1
5	Driver Lower Spine T12 Acceleration (X)	B-2
6	Driver Lower Spine T12 Acceleration (Y)	B-2
7	Driver Lower Spine T12 Acceleration (Z)	B-2
8	Driver Lower Spine Y12 Resultant Acceleration	B-2
9	Driver Iliac Wing Force on Impact Side (Y)	B-3
10	Driver Acetabulum Force on Impact Side (Y)	B-3
11	Driver Total Pelvis Force on Impact Side (Y)	B-3

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

Additional Driver Dummy Instrumentation Data

Driver Head Acceleration (X) Redundant
 Driver Head Acceleration (Y) Redundant
 Driver Head Acceleration (Z) Redundant
 Driver Upper Thorax Rib Deflection (Y)
 Driver Middle Thorax Rib Deflection (Y)
 Driver Lower Thorax Rib Deflection (Y)
 Driver Upper Abdomen Rib Deflection (Y)
 Driver Lower Abdomen Rib Deflection (Y)
 Driver Shoulder Contact Switch
 Driver Torso Contact Switch
 Driver Pelvis Contact Switch
 Center of Gravity Acceleration (X)
 Vehicle Center of Gravity Acceleration (Y)
 Vehicle Center of Gravity Acceleration (Z)
 Vehicle Center of Gravity Angular Rate About X (Roll)
 Vehicle Center of Gravity Angular Rate About Y (Pitch)
 Vehicle Center of Gravity Angular Rate About Z (Yaw)

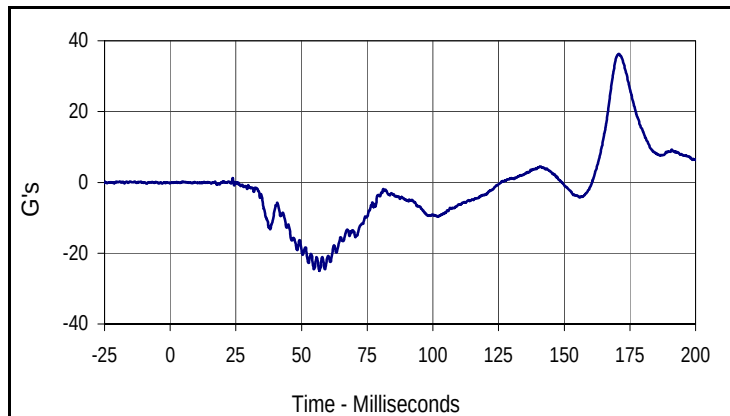
Left Floor Sill Acceleration (Y)
Left A-Pillar Sill Acceleration (Y)
Left Lower A-Pillar Acceleration (Y)
Left Mid A-Pillar Acceleration (Y)
Left B-Pillar Sill Acceleration (Y)
Left Lower B-Pillar Acceleration (Y)
Left Mid B-Pillar Acceleration (Y)
Driver Seat Track at Dummy H-Point Acceleration (Y)
Engine Top Acceleration (X)
Engine Top Acceleration (Y)
Firewall Center Acceleration (Y)
Right Roof at Vertical Impact Reference Line Acceleration (Y)
Right Sill at Vertical Impact Reference Line Acceleration (Y)
Rear Floorpan Behind Rear Axle at Centerline Acceleration (X)
Rear Floorpan Behind Rear Axle at Centerline Acceleration (Y)
Driver Side Airbag Timing
Driver Side Curtain Airbag Timing

Pole Instrumentation Data

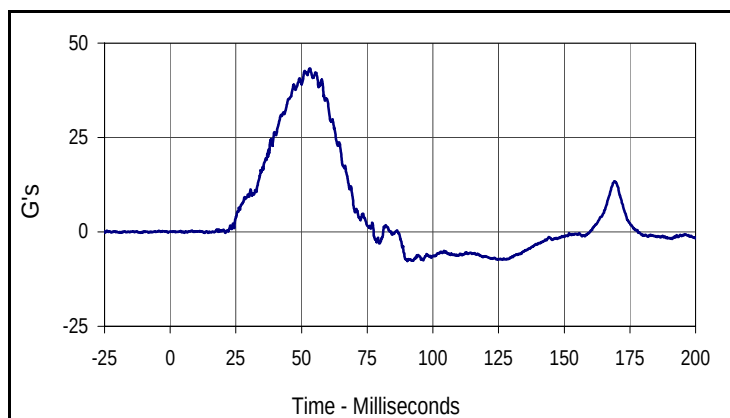
Load Cell Pole Barrier #1 Force (Y)
Load Cell Pole Barrier #2 Force (Y)
Load Cell Pole Barrier #3 Force (Y)
Load Cell Pole Barrier #4 Force (Y)
Load Cell Pole Barrier #5 Force (Y)
Load Cell Pole Barrier #6 Force (Y)
Load Cell Pole Barrier #7 Force (Y)
Load Cell Pole Barrier #8 Force (Y)

Test Vehicle: 2011 Nissan Versa 4-Door Sedan
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test

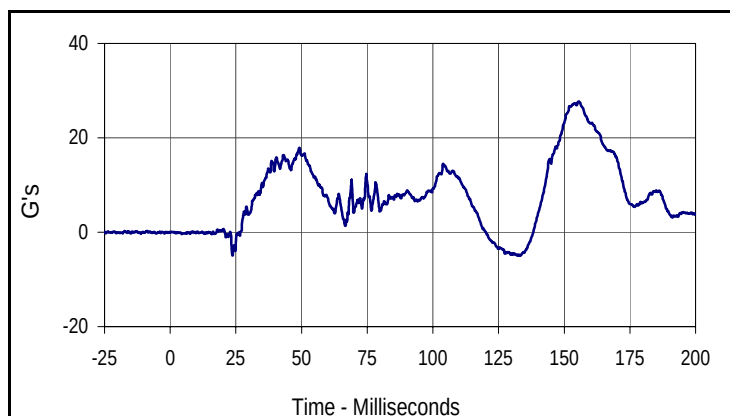
Test Date: 8/18/10
 NHTSA No.: MB5215



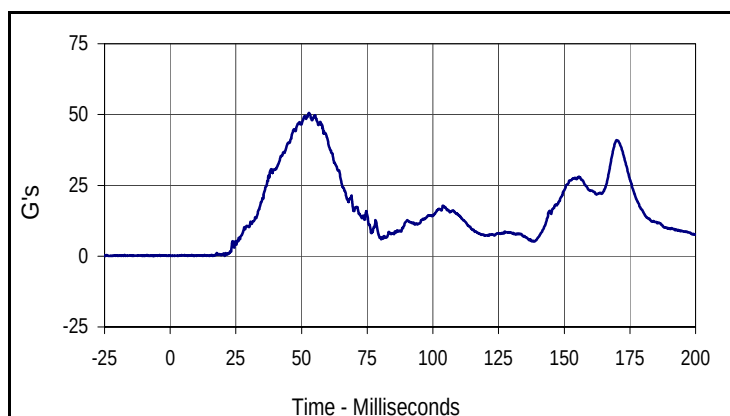
Curve Description			
Driver Head Acceleration X Primary			
CURNO	Type	SAE Class	Units
001	FIL	1000	G's
Max	Time	Min	Time
36.3	170.7	-25.0	56.8



Curve Description			
Driver Head Acceleration Y Primary			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
43.3	53.2	-7.7	90.3



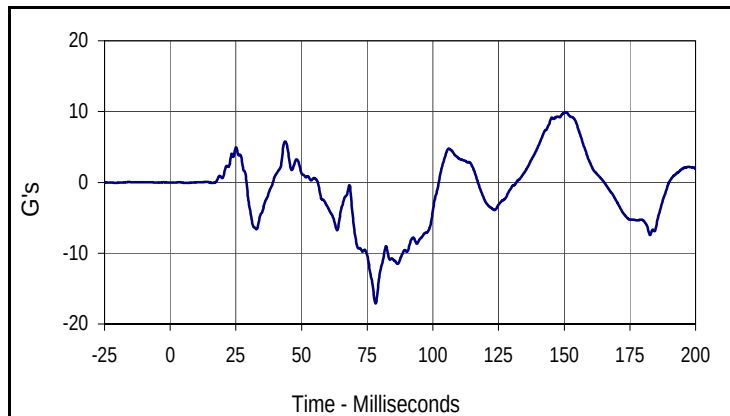
Curve Description			
Driver Head Acceleration Z Primary			
CURNO	Type	SAE Class	Units
003	FIL	1000	G's
Max	Time	Min	Time
27.7	155.5	-5.0	132.9



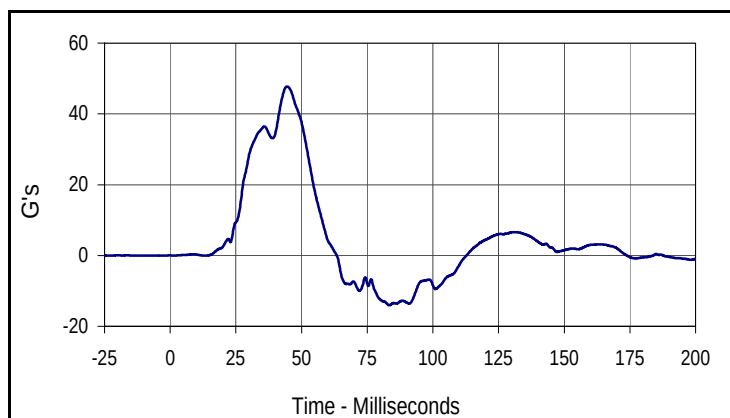
Curve Description			
Driver Head Acceleration Primary Res.			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
50.6	52.8	0.0	6.7

Test Vehicle: 2011 Nissan Versa 4-Door Sedan
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test

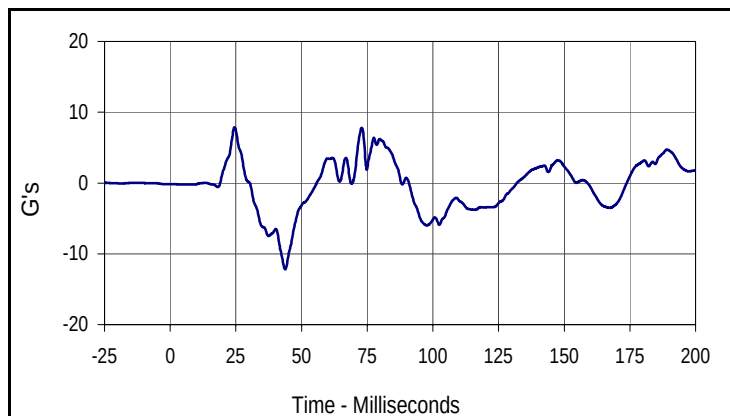
Test Date: 8/18/10
 NHTSA No.: MB5215



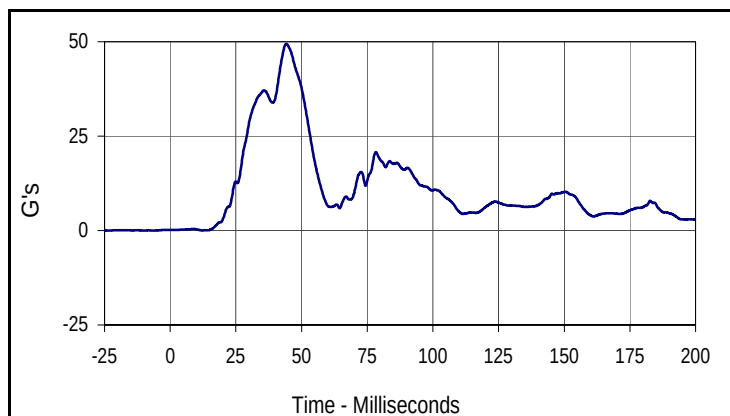
Curve Description			
Driver Lower Spine T12 Acceleration X			
CURNO	Type	SAE Class	Units
012	FIL	180	G's
Max	Time	Min	Time
9.9	150.7	-17.1	78.2



Curve Description			
Driver Lower Spine T12 Acceleration Y			
CURNO	Type	SAE Class	Units
013	FIL	180	G's
Max	Time	Min	Time
47.7	44.5	-14.1	83.4



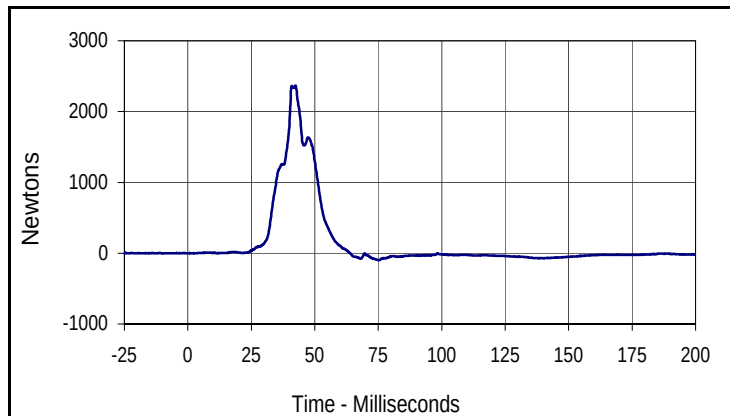
Curve Description			
Driver Lower Spine T12 Acceleration Z			
CURNO	Type	SAE Class	Units
014	FIL	180	G's
Max	Time	Min	Time
7.9	24.5	-12.2	43.8



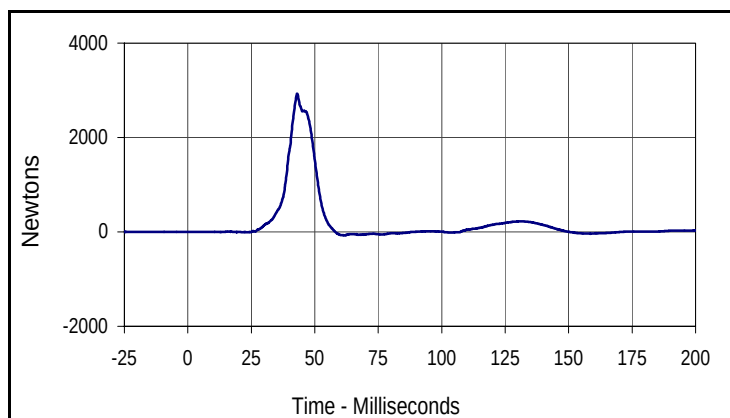
Curve Description			
Driver Lower Spine T12 Acceleration Res.			
CURNO	Type	SAE Class	Units
012	RES	180	G's
Max	Time	Min	Time
49.4	44.2	0.0	12.2

Test Vehicle: 2011 Nissan Versa 4-Door Sedan
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test

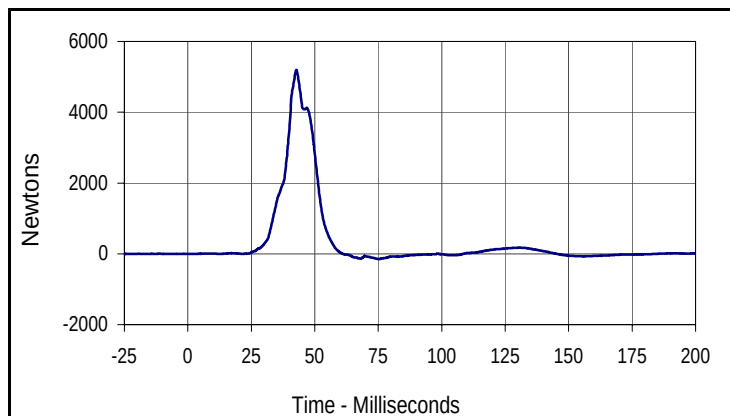
Test Date: 8/18/10
 NHTSA No.: MB5215



Curve Description			
Driver Iliac Wing Force on Impact Side Y			
CURNO	Type	SAE Class	Units
015	FIL	600	Newtons
Max	Time	Min	Time
2367.4	42.4	-96.5	75.5



Curve Description			
Driver Acetabulum Force on Impact Side Y			
CURNO	Type	SAE Class	Units
016	FIL	600	Newtons
Max	Time	Min	Time
2928.3	43.1	-73.1	61.6



Curve Description			
Driver Total Pelvic Force on Impact Side Y			
CURNO	Type	SAE Class	Units
015	SUM	600	Newtons
Max	Time	Min	Time
5194.0	42.8	-150.3	75.6

APPENDIX C
DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

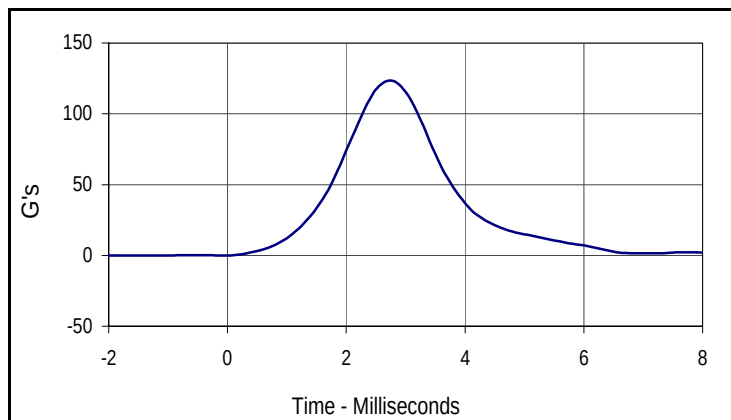
APPENDIX C
PRE-TEST / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID IIs Lateral Head Drop Calibration
 ATD Serial No.: 299

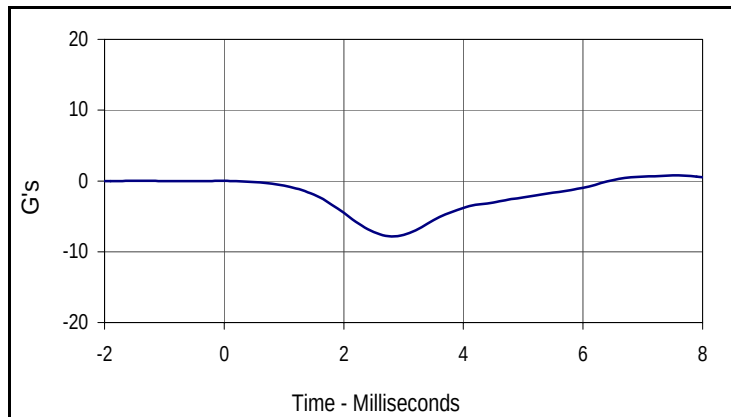
Test Date: 8/11/10
 Test I.D.: HD08B



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
Peak Resultant Acceleration	G's	115 to 137	123.4	Pass
Peak Longitudinal Acceleration	G's	≤15	7.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	12.1	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
123.4	2.7	0.0	-1.3



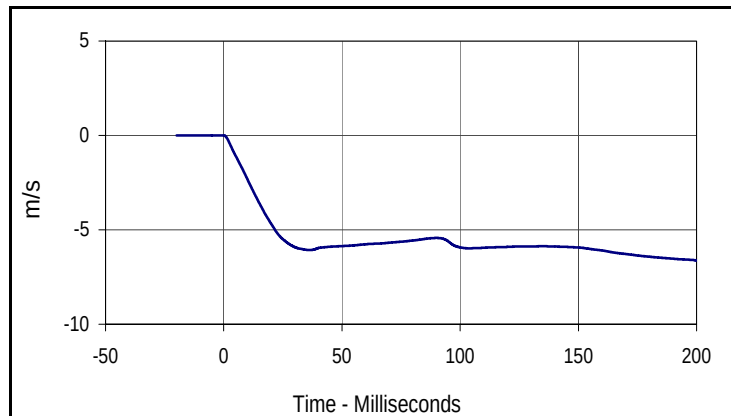
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.0	-1.5	-7.8	2.8

Test Program: SID IIs Neck Calibration
 ATD Serial No.: 299

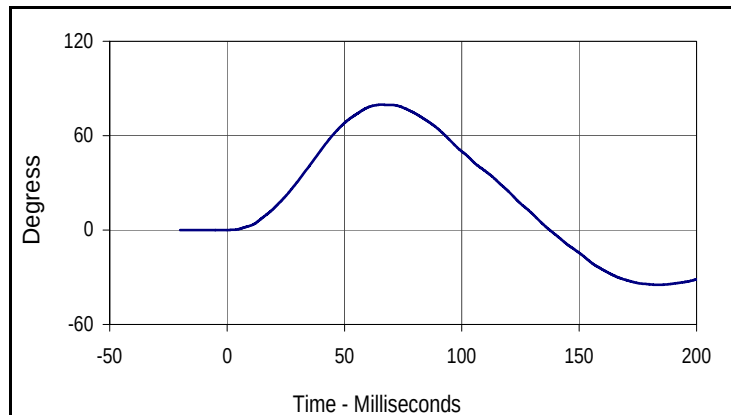
Test Date: 8/11/10
 Test I.D.: NB08b



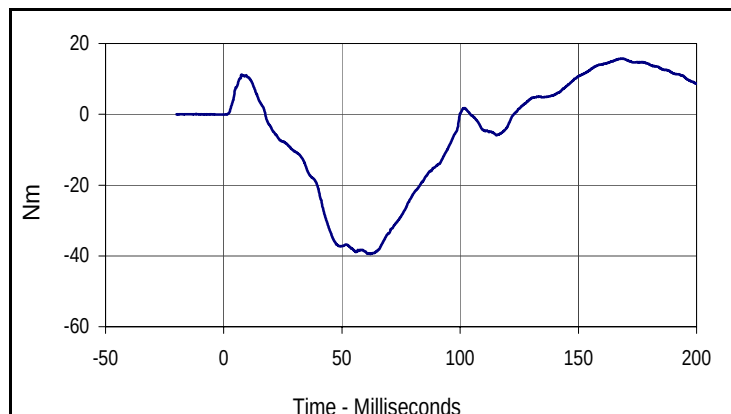
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.51 to 5.63	5.54	Pass
Pendulum Deceleration	10 msec	m/s	-2.20 to -2.80	-2.3	Pass
	15 msec	m/s	-3.30 to -4.10	-3.6	Pass
	20 msec	m/s	-4.40 to -5.40	-4.7	Pass
	25 msec	m/s	-5.40 to -6.10	-5.5	Pass
	25-100 msec	m/s	-5.50 to -6.20	-6.1	Pass
Translation-Rotation	Max	Degrees	71.0 to 81.0	79.7	Pass
	Time	msec	50.0 to 70.0	65.7	Pass
Peak Occipital Condyle Moment		Nm	-36.0 to -44.0	-39.5	Pass
Decaying Moment Time to Cross 0 Nm		msec	102.0 to 126.0	122.7	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
0.0	-0.5	-6.6	200.0



Curve Description			
Maximum Translation Rotation			
CURNO	Type	SAE Class	Units
002	FIL	60	Degress
Max	Time	Min	Time
79.7	65.7	-34.8	183.4



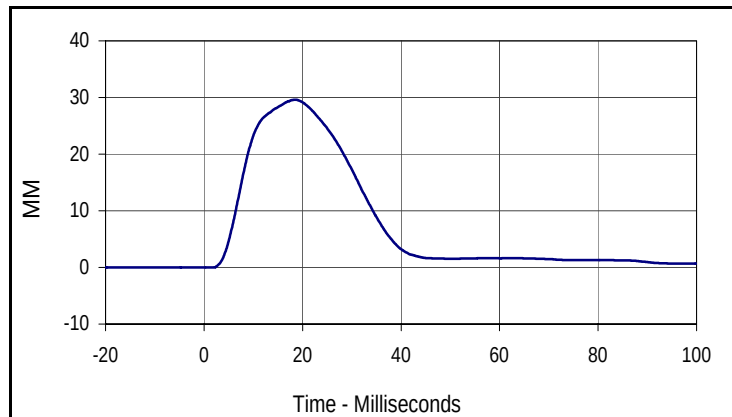
Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
15.7	168.5	-39.5	62.0

Test Program: SID IIs Shoulder Calibration
 ATD Serial No.: 299

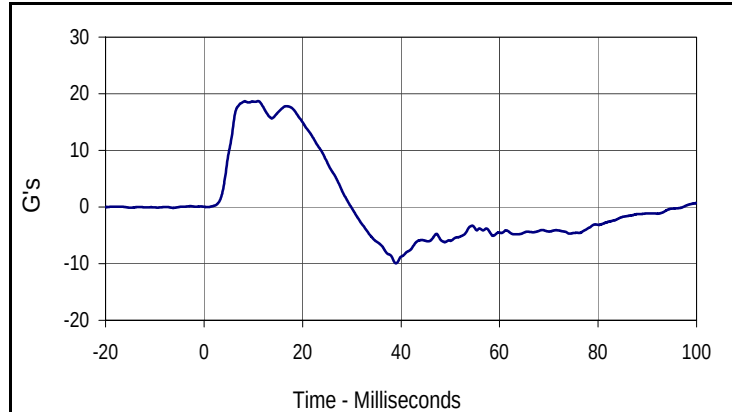
Test Date: 8/11/10
 Test I.D.: SH08B



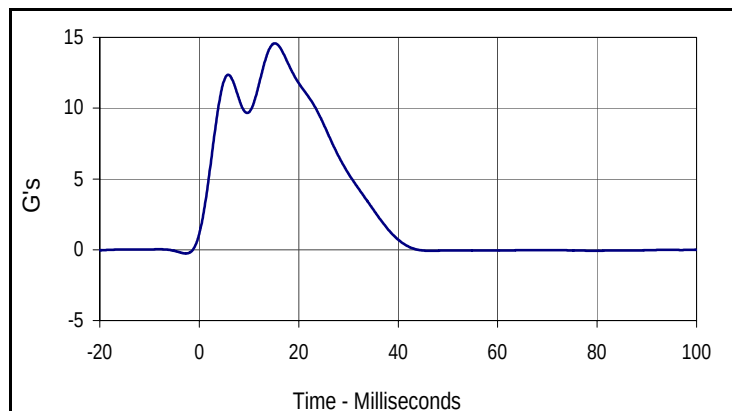
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.20 to 4.40	4.21	Pass
Shoulder Deflection	MM	28 to 37	29.6	Pass
Peak Upper Spine Y Acceleration	G's	17 to 22	18.7	Pass
Peak Impactor Acceleration	G's	13 to 18	14.6	Pass
Overall Test Results			Pass	



Curve Description			
Shoulder Acceleration			
CURNO	Type	SAE Class	Units
001	FIL	180	MM
Max	Time	Min	Time
29.6	18.6	0.0	1.0



Curve Description			
Upper Spine Y Acceleration			
CURNO	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
18.7	11.0	-9.9	39.0



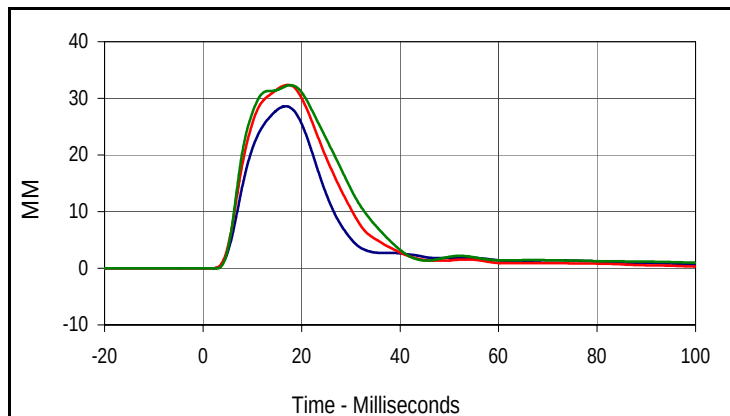
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
14.6	15.2	-0.3	-2.7

Test Program: SID IIs Thorax with Arm Calibration
 ATD Serial No.: 299

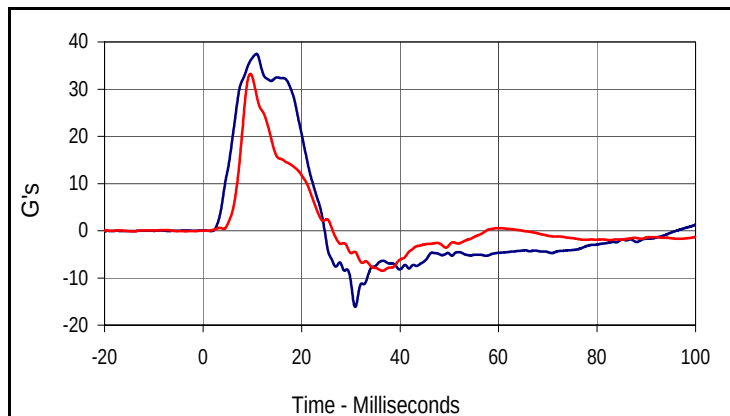
Test Date: 8/11/10
 Test I.D.: TH08B



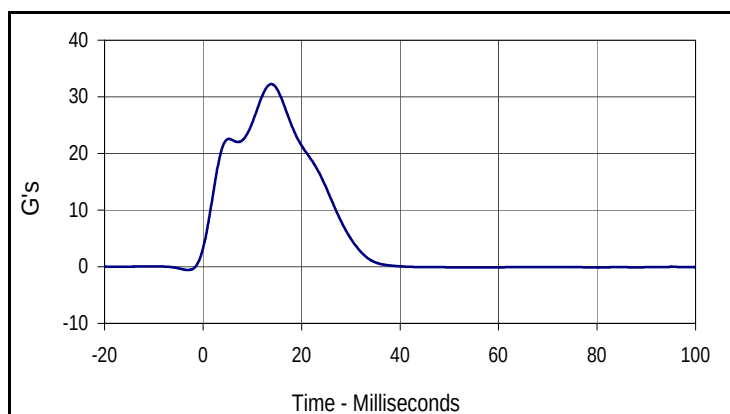
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	6.60 to 6.80	6.62	Pass
Shoulder Deflection	MM	31 to 40	36.1	Pass
Upper Thorax Rib Deflection	MM	25 to 32	28.6	Pass
Middle Thorax Rib Deflection	MM	30 to 36	32.4	Pass
Lower Thorax Rib Deflection	MM	32 to 38	32.3	Pass
Peak Upper Spine Y Acceleration	G's	34 to 43	37.5	Pass
Peak Lower Spine Y Acceleration	G's	29 to 37	33.3	Pass
Peak Impactor Acceleration After 5 msec.	G's	30 to 36	32.3	Pass
Overall Test Results			Pass	



Curve Description			
Upper Thorax Deflection			
CURNO	Type	SAE Class	Units
001	FIL	180	MM
Max	Time	Min	Time
28.6	16.8	0.0	1.5
Middle Thorax Deflection			
Max	Time	Min	Time
32.4	17.3	0.0	1.9
Lower Thorax Deflection			
Max	Time	Min	Time
32.3	17.7	-0.1	2.6



Curve Description			
Upper Spine Y Acceleration			
CURNO	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
37.5	10.9	-16.2	30.9
Lower Spine Y Acceleration			
CURNO	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
33.3	9.6	-8.5	36.4



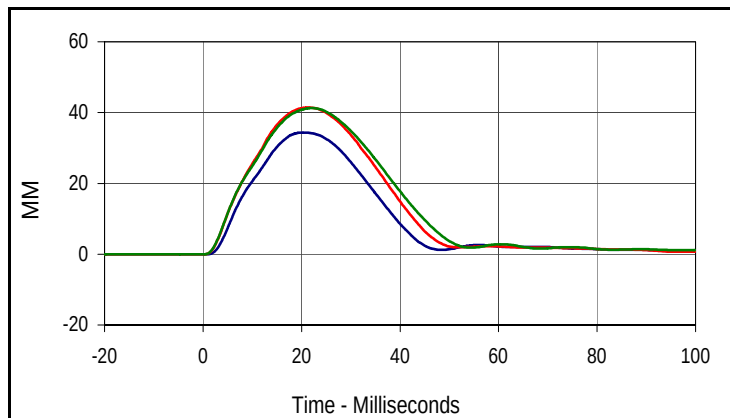
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
32.3	13.9	-0.6	-3.0

Test Program: SID IIs Thorax w/o Arm Calibration
 ATD Serial No.: 299

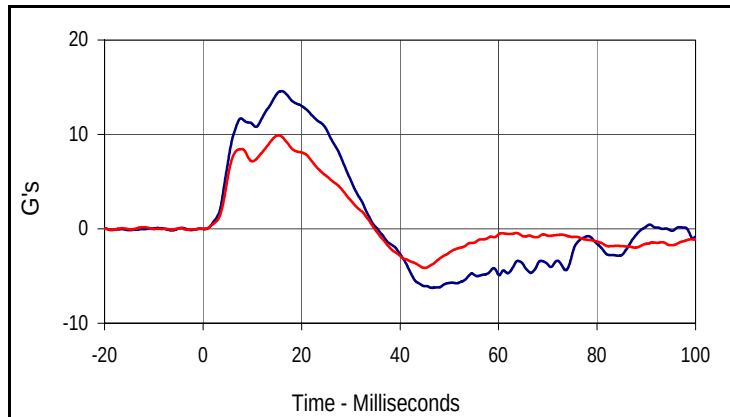
Test Date: 8/11/10
 Test I.D.: TOA8B



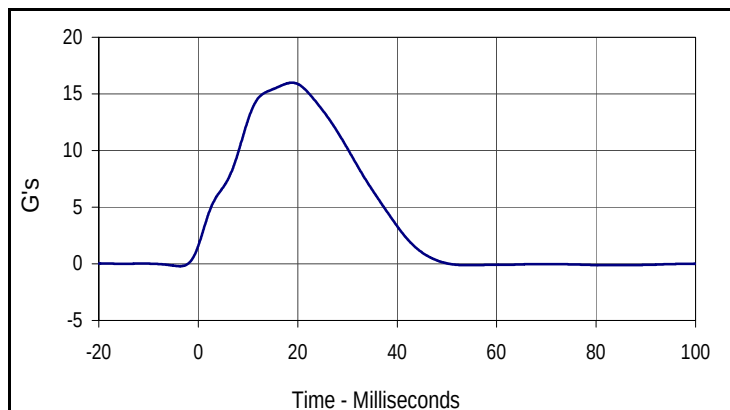
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.20 to 4.40	4.26	Pass
Upper Thorax Rib Deflection	MM	32 to 40	34.3	Pass
Middle Thorax Rib Deflection	MM	39 to 45	41.4	Pass
Lower Thorax Rib Deflection	MM	35 to 43	41.3	Pass
Peak Upper Spine Y Acceleration	G's	13 to 17	14.6	Pass
Peak Lower Spine Y Acceleration	G's	7 to 11	9.9	Pass
Peak Impactor Acceleration	G's	14 to 18	16.0	Pass
Overall Test Results			Pass	



Curve Description			
Upper Thorax Deflection			
CURNO	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
34.3	20.5	0.0	-0.1
Middle Thorax Deflection			
Max	Time	Min	Time
41.4	21.4	0.0	-4.1
Lower Thorax Deflection			
Max	Time	Min	Time
41.3	22.0	0.0	0.2



Curve Description			
Upper Spine Y Acceleration			
CURNO	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
14.6	15.9	-6.3	46.5
Lower Spine Y Acceleration			
CURNO	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
9.9	15.3	-4.2	45.0



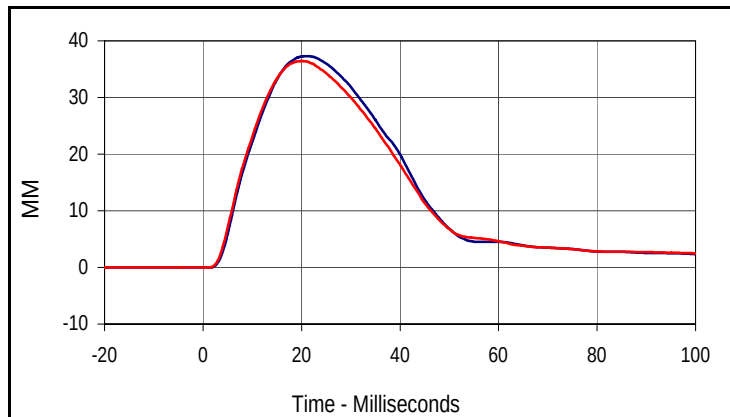
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
16.0	18.8	-0.2	-3.7

Test Program: SID IIs Abdomen Calibration
 ATD Serial No.: 299

Test Date: 8/11/10
 Test I.D.: ABD08B

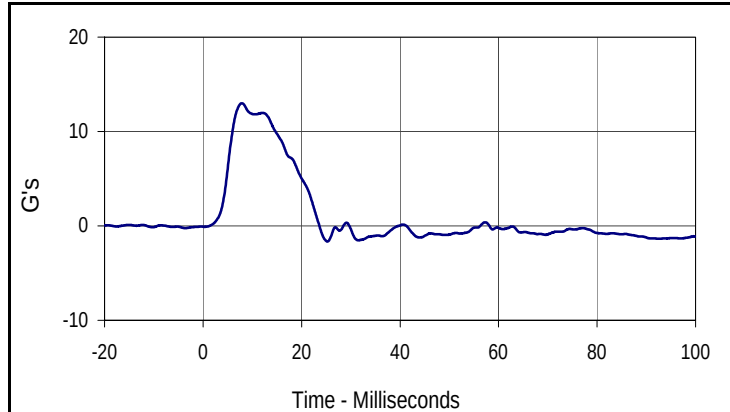


Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.20 to 4.40	4.21	Pass
Upper Abdominal Rib Deflection	MM	36 to 47	37.3	Pass
Lower Abdominal Rib Deflection	MM	33 to 44	36.4	Pass
Peak Lower Spine Y Acceleration	G's	9 to 14	13.0	Pass
Peak Impactor Acceleration	G's	12 to 16	12.6	Pass
Overall Test Results			Pass	

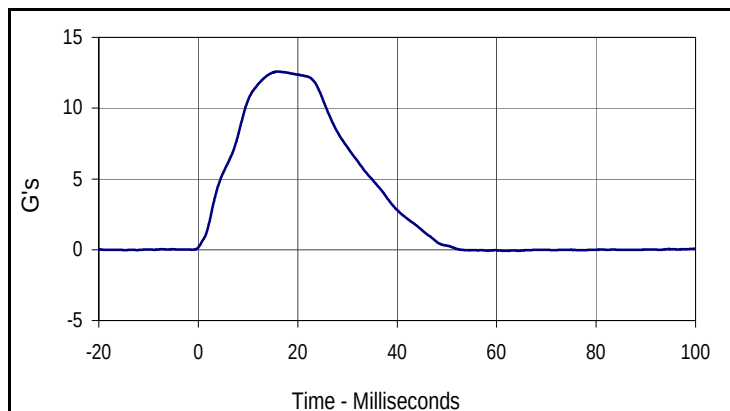


Curve Description			
Upper Abdominal Rib Deflection			
CURNO	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
37.3	21.3	0.0	-11.8

Curve Description			
Lower Abdominal Rib Deflection			
CURNO	Type	SAE Class	Units
002	FIL	600	MM
Max	Time	Min	Time
36.4	20.1	0.0	-17.5



Curve Description			
Lower Spine Y Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
13.0	7.9	-1.6	25.2



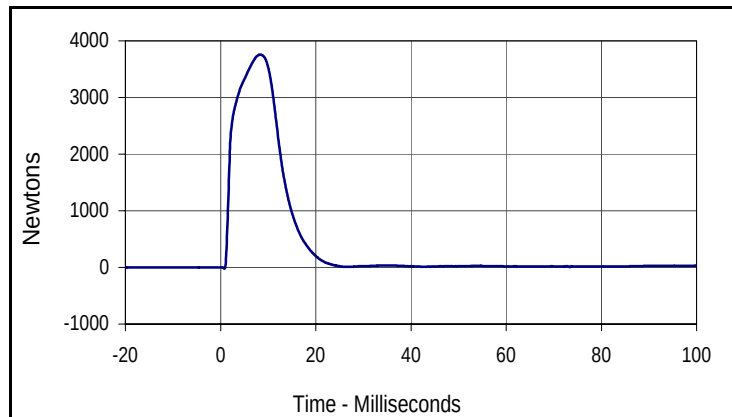
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
12.6	16.0	-0.1	62.0

Test Program: SID IIs Pelvis Acetabulum Calibration
 ATD Serial No.: 299

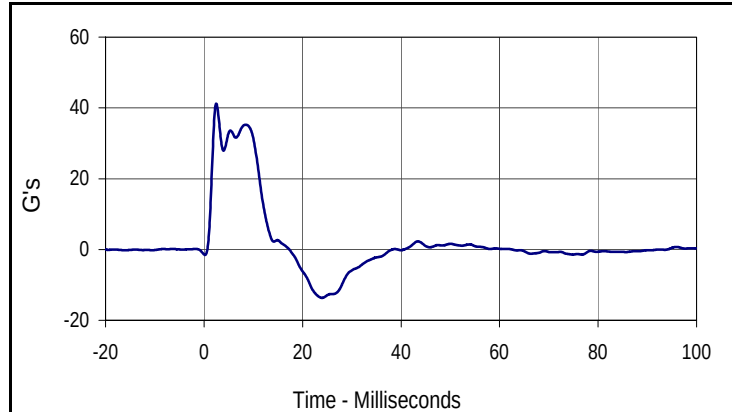
Test Date: 8/11/10
 Test I.D.: PA08B



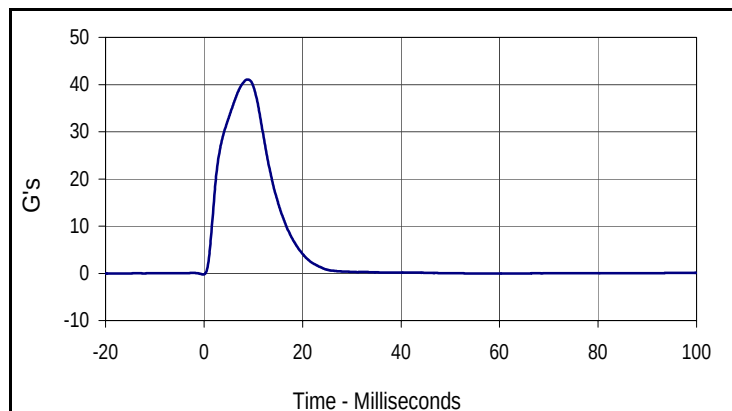
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	6.60 to 6.80	6.64	Pass
Peak Acetabulum Force	Newtons	3600 to 4300	3757.2	Pass
Peak Pelvis Y Acceleration After 6 msec.	G's	34 to 42	35.2	Pass
Peak Impactor Acceleration	G's	38 to 47	41.1	Pass
Overall Test Results			Pass	



Curve Description			
Pelvis Acetabulum Force			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
3757.2	8.4	-20.1	0.8



Curve Description			
Pelvis Y Acceleration			
CURNO	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
41.2	2.5	-13.7	24.0



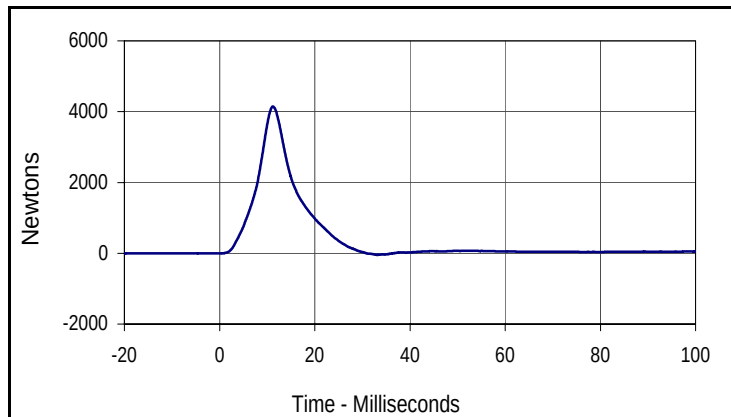
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
41.1	8.8	-0.3	-0.2

Test Program: SID IIs Pelvis Iliac Calibration
 ATD Serial No.: 299

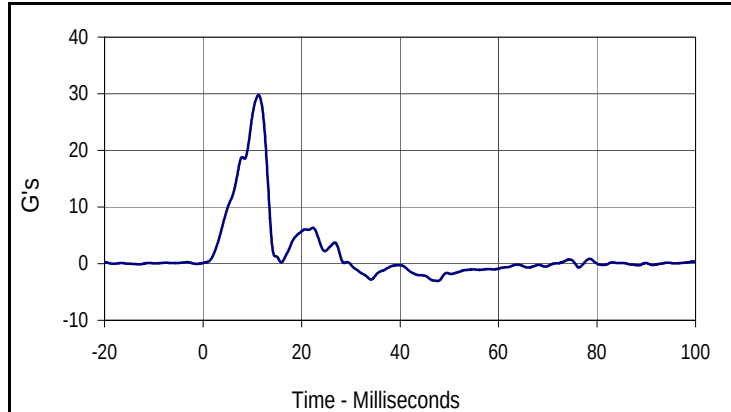
Test Date: 8/11/10
 Test I.D.: PL08B



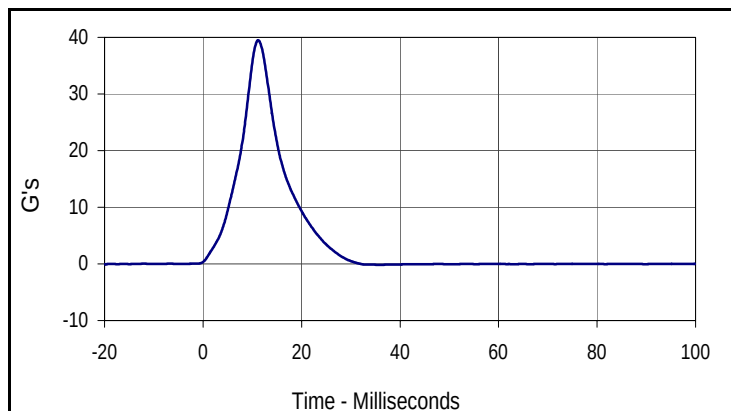
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.2 to 4.4	4.26	Pass
Peak Iliac Force	Newtons	4100 to 5100	4143.8	Pass
Peak Pelvis Y Acceleration	G's	28 to 39	29.8	Pass
Peak Impactor Acceleration	G's	36 to 45	39.5	Pass
Overall Test Results			Pass	



Curve Description			
Pelvis Iliac Force			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
4143.8	11.2	-47.5	33.2



Curve Description			
Pelvis Y Acceleration			
CURNO	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
29.8	11.3	-3.1	47.6



Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
39.5	11.2	-0.2	35.9

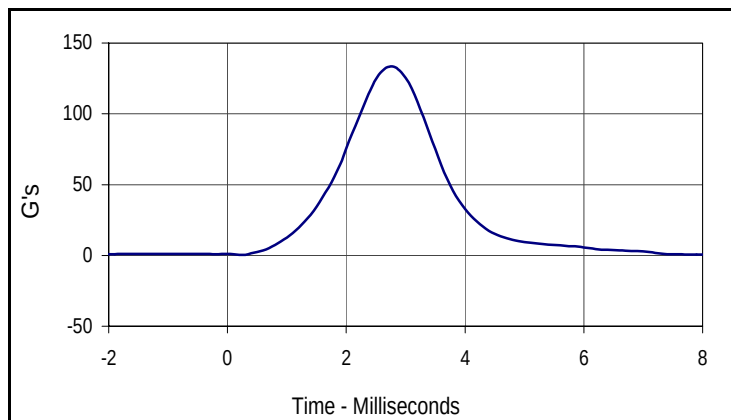
APPENDIX C
POST-TEST / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID IIs Lateral Head Drop Calibration
 ATD Serial No.: 299

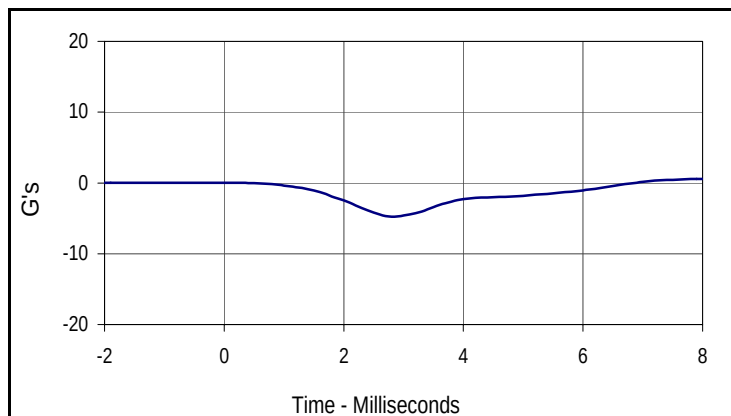
Test Date: 8/21/10
 Test I.D.: HDP08C



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
Peak Resultant Acceleration	G's	115 to 137	133.3	Pass
Peak Longitudinal Acceleration	G's	≤15	4.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	7.1	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
133.3	2.8	0.4	0.2



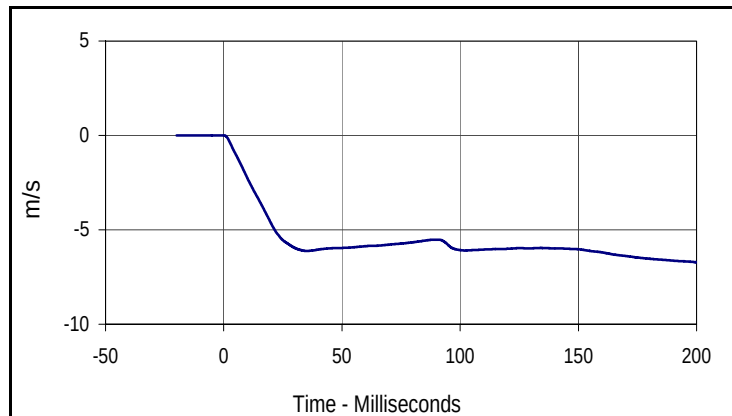
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.0	-1.5	-4.8	2.8

Test Program: SID IIs Neck Calibration
 ATD Serial No.: 299

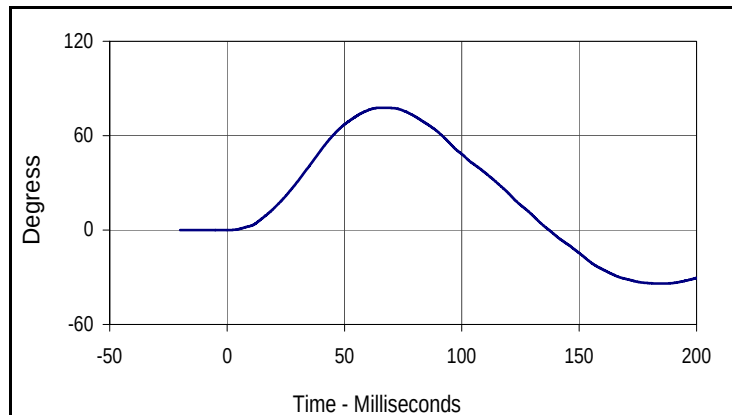
Test Date: 8/21/10
 Test I.D.: NBP08C



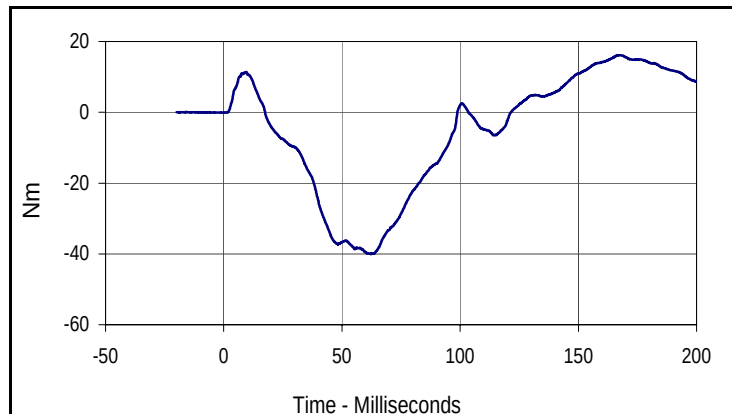
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.51 to 5.63	5.58	Pass
Pendulum Deceleration	10 msec	m/s	-2.20 to -2.80	-2.3	Pass
	15 msec	m/s	-3.30 to -4.10	-3.4	Pass
	20 msec	m/s	-4.40 to -5.40	-4.7	Pass
	25 msec	m/s	-5.40 to -6.10	-5.5	Pass
	25-100 msec	m/s	-5.50 to -6.20	-6.1	Pass
Translation-Rotation	Max	Degrees	71.0 to 81.0	77.8	Pass
	Time	msec	50.0 to 70.0	65.6	Pass
Peak Occipital Condyle Moment		Nm	-36.0 to -44.0	-40.0	Pass
Decaying Moment Time to Cross 0 Nm		msec	102.0 to 126.0	121.5	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
0.0	-0.2	-6.7	200.0



Curve Description			
Maximum Translation Rotation			
CURNO	Type	SAE Class	Units
002	FIL	60	Degress
Max	Time	Min	Time
77.8	65.6	-34.1	184.8



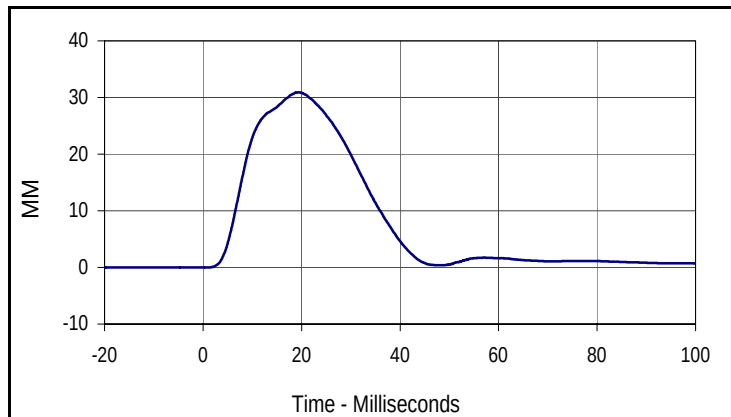
Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
16.1	167.2	-40.0	62.5

Test Program: SID IIs Shoulder Calibration
 ATD Serial No.: 299

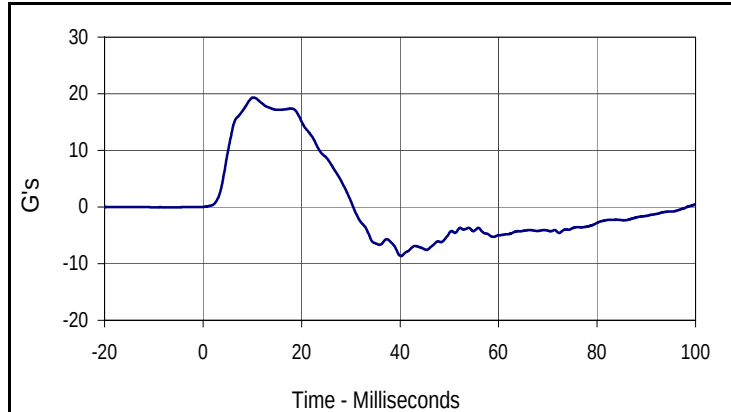
Test Date: 8/21/10
 Test I.D.: SHP08C



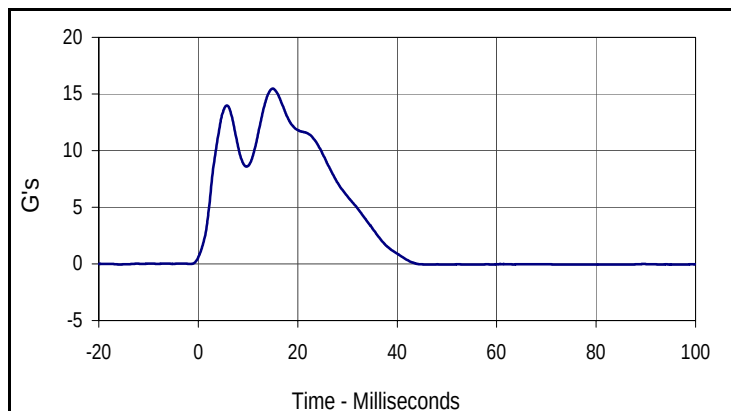
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.20 to 4.40	4.21	Pass
Shoulder Deflection	MM	28 to 37	30.9	Pass
Peak Upper Spine Y Acceleration	G's	17 to 22	19.3	Pass
Peak Impactor Acceleration	G's	13 to 18	15.5	Pass
Overall Test Results			Pass	



Curve Description			
Shoulder Deflection			
CURNO	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
30.9	19.4	0.0	-19.6



Curve Description			
Upper Spine Y Acceleration			
CURNO	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
19.3	10.2	-8.7	40.2



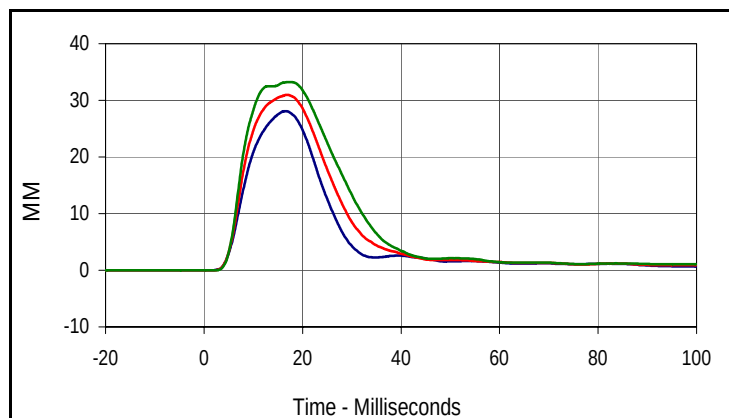
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
15.5	15.0	-0.1	50.8

Test Program: SID IIs Thorax with Arm Calibration
 ATD Serial No.: 299

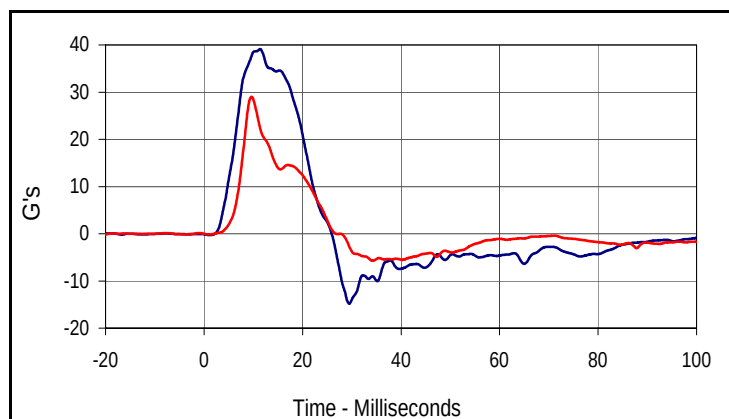
Test Date: 8/21/10
 Test I.D.: THP08C



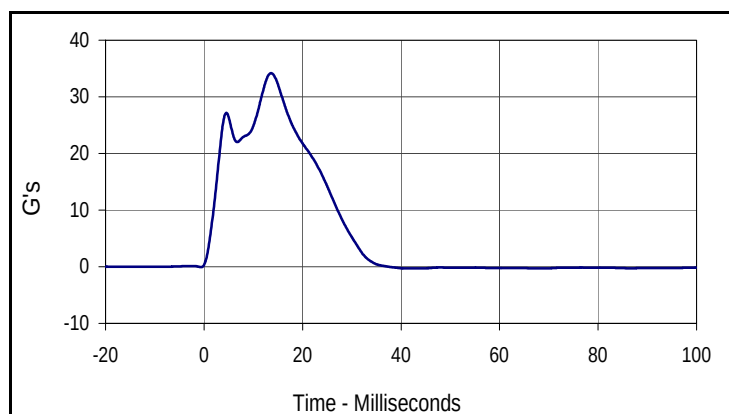
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	6.60 to 6.80	6.78	Pass
Shoulder Deflection	MM	31 to 40	36.5	Pass
Upper Thorax Rib Deflection	MM	25 to 32	28.1	Pass
Middle Thorax Rib Deflection	MM	30 to 36	31.0	Pass
Lower Thorax Rib Deflection	MM	32 to 38	33.2	Pass
Peak Upper Spine Y Acceleration	G's	34 to 43	39.1	Pass
Peak Lower Spine Y Acceleration	G's	29 to 37	29.0	Pass
Peak Impactor Acceleration After 5 msec.	G's	30 to 36	34.2	Pass
Overall Test Results			Pass	



Curve Description			
Upper Thorax Deflection			
CURNO	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
28.1	16.5	0.0	-8.8
Middle Thorax Deflection			
Max	Time	Min	Time
31.0	16.9	0.0	-15.7
Lower Thorax Deflection			
Max	Time	Min	Time
33.2	17.2	0.0	-10.7



Curve Description			
Upper Spine Y Acceleration			
CURNO	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
39.1	11.4	-14.8	29.5
Lower Spine Y Acceleration			
CURNO	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
29.0	9.6	-5.7	34.2



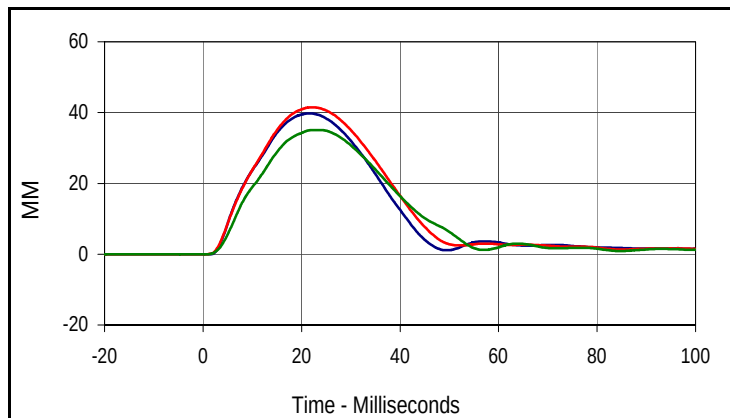
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
34.2	13.6	-0.3	40.8

Test Program: SID IIs Thorax w/o Arm Calibration
 ATD Serial No.: 299

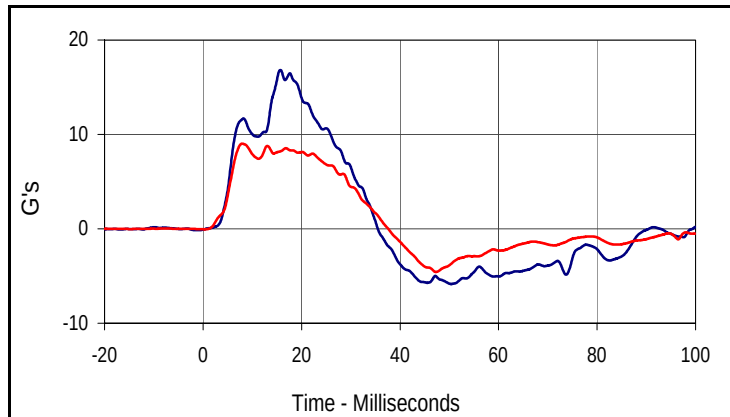
Test Date: 8/21/10
 Test I.D.: TOAP8C



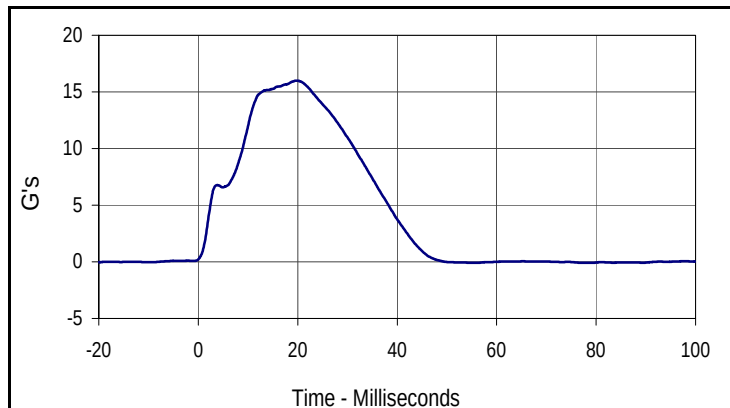
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.20 to 4.40	4.27	Pass
Upper Thorax Rib Deflection	MM	32 to 40	39.8	Pass
Middle Thorax Rib Deflection	MM	39 to 45	41.5	Pass
Lower Thorax Rib Deflection	MM	35 to 43	35.1	Pass
Peak Upper Spine Y Acceleration	G's	13 to 17	16.8	Pass
Peak Lower Spine Y Acceleration	G's	7 to 11	9.0	Pass
Peak Impactor Acceleration	G's	14 to 18	16.0	Pass
Overall Test Results			Pass	



Curve Description			
Upper Thorax Deflection			
CURNO	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
39.8	21.5	0.0	-19.5
Middle Thorax Deflection			
Max	Time	Min	Time
41.5	22.1	0.0	-10.0
Lower Thorax Deflection			
Max	Time	Min	Time
35.1	22.6	0.0	-9.3



Curve Description			
Upper Spine Y Acceleration			
CURNO	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
16.8	15.7	-5.9	50.3
Lower Spine Y Acceleration			
CURNO	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
9.0	8.0	-4.6	47.3



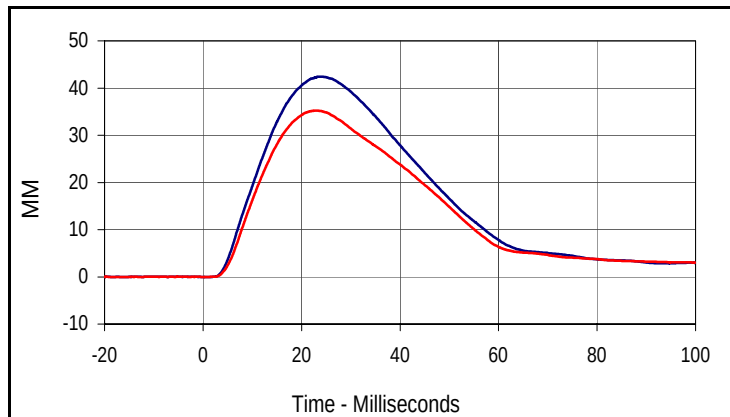
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
16.0	19.8	-0.1	78.3

Test Program: SID IIs Abdomen Calibration
 ATD Serial No.: 299

Test Date: 8/21/10
 Test I.D.: ABDP08C

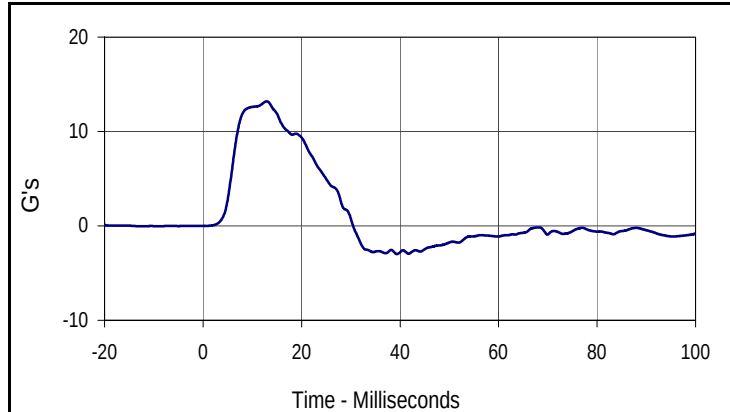


Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.20 to 4.40	4.22	Pass
Upper Abdominal Rib Deflection	MM	36 to 47	42.4	Pass
Lower Abdominal Rib Deflection	MM	33 to 44	35.2	Pass
Peak Lower Spine Y Acceleration	G's	9 to 14	13.2	Pass
Peak Impactor Acceleration	G's	12 to 16	15.5	Pass
Overall Test Results			Pass	

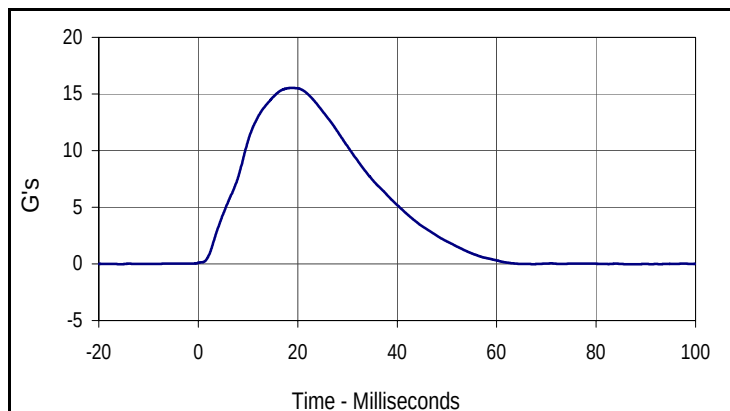


Curve Description			
Upper Abdominal Rib Deflection			
CURNO	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
42.4	23.8	0.0	-15.9

Curve Description			
Lower Abdominal Rib Deflection			
CURNO	Type	SAE Class	Units
002	FIL	600	MM
Max	Time	Min	Time
35.2	23.1	0.0	-17.3



Curve Description			
Lower Spine Y Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
13.2	12.9	-3.0	39.4



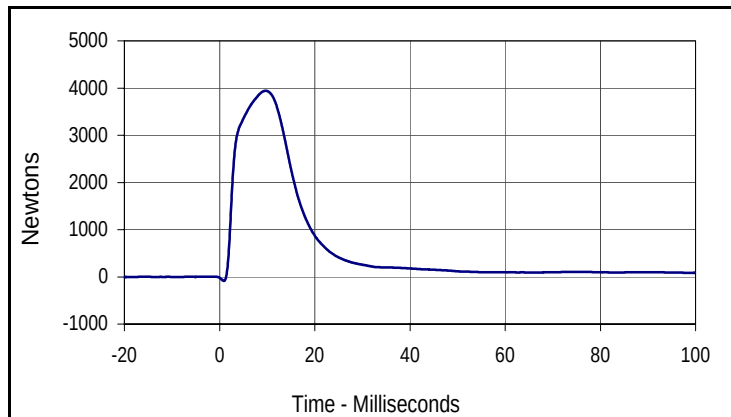
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
15.5	18.7	0.0	88.0

Test Program: SID IIs Pelvis Acetabulum Calibration
 ATD Serial No.: 299

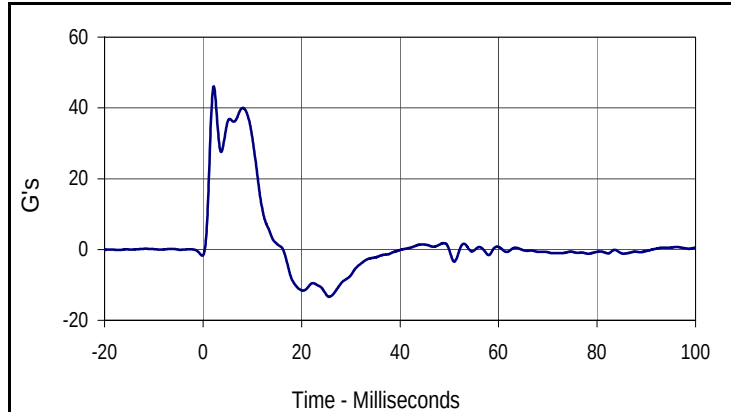
Test Date: 8/21/10
 Test I.D.: PA08C



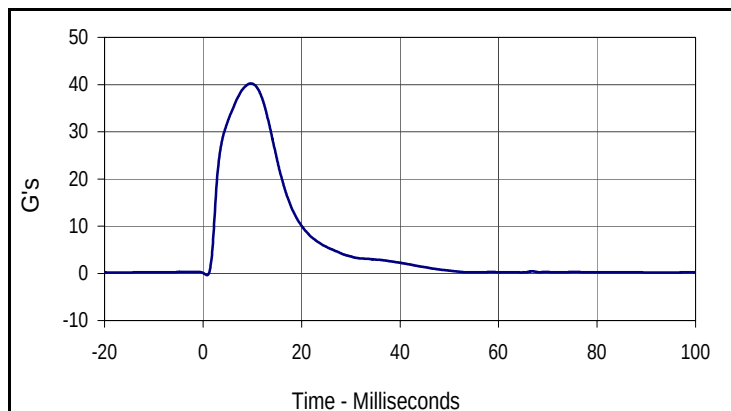
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	6.60 to 6.80	6.76	Pass
Peak Acetabulum Force	Newtons	3600 to 4300	3941.5	Pass
Peak Pelvis Y Acceleration After 6 msec.	G's	34 to 42	40.0	Pass
Peak Impactor Acceleration	G's	38 to 47	40.2	Pass
Overall Test Results			Pass	



Curve Description			
Pelvis Acetabulum Force			
CURNO	Type	SAE Class	Units
001	FIL	180	Newtons
Max	Time	Min	Time
3941.5	9.7	-85.5	0.9



Curve Description			
Pelvis Y Acceleration			
CURNO	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
46.1	2.2	-13.4	25.6



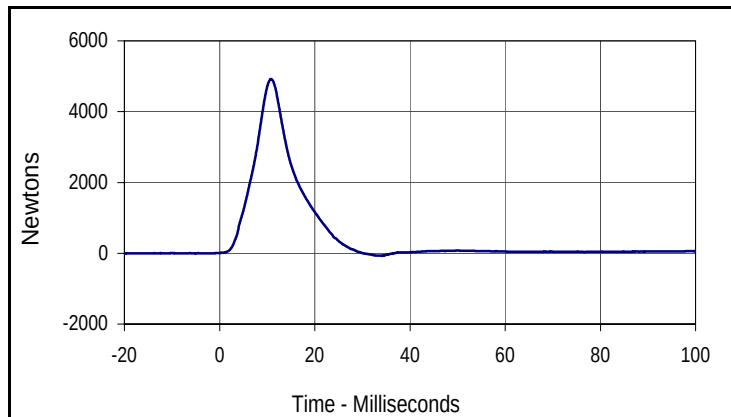
Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
40.2	9.7	-0.4	0.8

Test Program: SID IIs Pelvis Iliac Calibration
 ATD Serial No.: 299

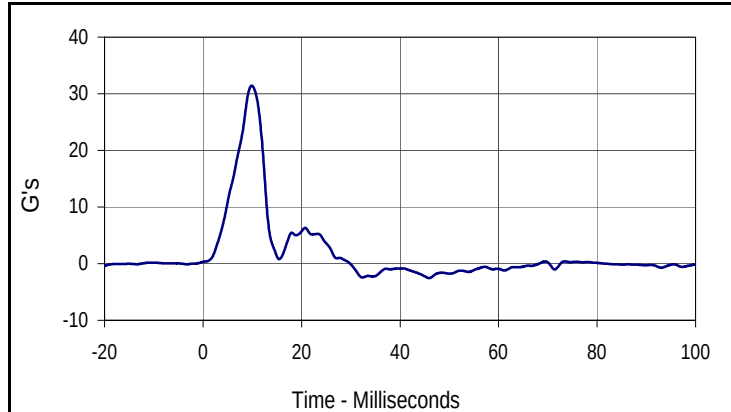
Test Date: 8/21/10
 Test I.D.: PL08C



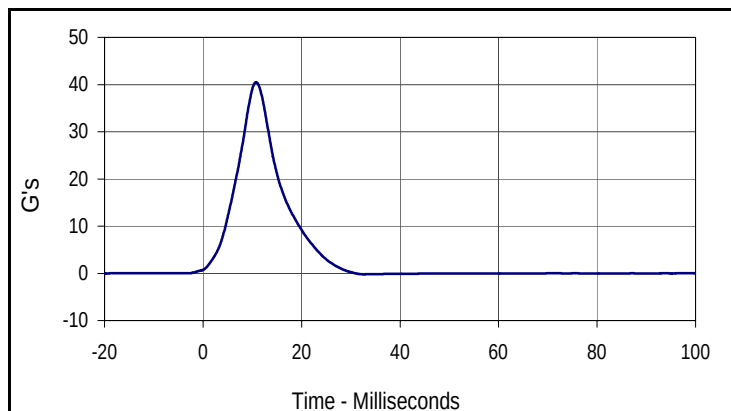
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity	m/s	4.2 to 4.4	4.36	Pass
Peak Iliac Force	Newtons	4100 to 5100	4922.0	Pass
Peak Pelvis Y Acceleration	G's	28 to 39	31.4	Pass
Peak Impactor Acceleration	G's	36 to 45	40.5	Pass
Overall Test Results			Pass	



Curve Description			
Pelvis Iliac Force			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
4922.0	10.8	-70.1	34.1



Curve Description			
Pelvis Y Acceleration			
CURNO	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
31.4	9.9	-2.6	45.9



Curve Description			
Impactor Acceleration			
CURNO	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
40.5	10.8	-0.2	32.6