

REPORT NUMBER: SPNCAP-KAR-13-060

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

**NISSAN MOTOR CO., LTD.
2014 NISSAN VERSA NOTE S 5-DOOR HATCHBACK**

NHTSA No: M20145204

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



AUGUST 30, 2013

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF CRASHWORTHINESS STANDARDS
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15. Supplementary Notes																														
16. Abstract A 32.2 km/h (20 mph) 75 deg. oblique impact Side NCAP Test was conducted on the subject 2014 Nissan Versa Note S 5-door hatchback 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 16, 2013. The impact velocity was 32.49 km/h and the outside ambient temperature at the struck (driver's) side of the vehicle was 37.2 deg. C. The target vehicle's maximum post-test static crush was 428 mm located at level 3. The test vehicle's occupant performance data is as follows: <table border="1"> <thead> <tr> <th rowspan="2">Measurement Description</th> <th colspan="3">Driver ATD (ES-2re)</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>195.2</td> </tr> <tr> <td>Resultant Lower Spine Acceleration</td> <td>g</td> <td>82</td> <td>34</td> </tr> <tr> <td>Total Pelvic Force (Sum of Acetabular and Iliac Forces)</td> <td>N</td> <td>5525</td> <td>2851</td> </tr> <tr> <td>Maximum Thoracic Rib Deflection</td> <td>mm</td> <td>38</td> <td>18</td> </tr> <tr> <td>Maximum Abdominal Rib Deflection</td> <td>mm</td> <td>45</td> <td>23</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches. The opposite doors did not open during the side impact event.				Measurement Description	Driver ATD (ES-2re)			Units	Threshold	Result	Head Injury Criteria (HIC ₃₆)		1000	195.2	Resultant Lower Spine Acceleration	g	82	34	Total Pelvic Force (Sum of Acetabular and Iliac Forces)	N	5525	2851	Maximum Thoracic Rib Deflection	mm	38	18	Maximum Abdominal Rib Deflection	mm	45	23
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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 Information Services Division, NPO-411 1200 New Jersey Ave, SE Washington, DC 20590 e-mail: tis@nhtsa.dot.gov FAX: 202-493-2833																												
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SECTION 1

TEST PURPOSE AND PROCEDURE

This side impact test is part of the MY 2014 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract number DTNH22-09-D-00122. The purpose of this test is to generate comparative side impact performance in a 2014 Nissan Versa Note S 5-door hatchback. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Laboratory Test Procedure dated September 2012.

SECTION 2

SUMMARY OF TEST RESULTS

A rigid pole side impact test was conducted on a 2014 Nissan Versa Note S 5-door hatchback. The subject vehicle was towed into the rigid pole at an angle of 74.8° and a velocity of 32.49 km/h. The test was conducted by KARCO Engineering, LLC. in Adelanto, California on August 16, 2013. Pre- 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 September 2012. Camera locations and other pertinent camera information are included in this report.

The Part 572V (SID-IIs) was instrumented accordingly:

- Primary and Redundant Head CG tri-axial accelerometers
- Thorax upper, middle and lower rib displacement potentiometers
- Abdomen upper and lower rib displacement potentiometers
- Lower spine (12) tri-axial 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. Appendix D contains the test equipment and instrumentation calibration data.

Injury readings for the SID-IIs dummy were recorded as follows:

Measurement Description	Units	Passenger ATD (SID-IIs)	
		IARV	Result
Head Injury Criteria (HIC ₃₆)		1000	195.2
Lower Spine (T12) Resultant Acceleration	g	82	34
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	2851
Maximum Thoracic Rib Deflection	mm	38*	18
Maximum Abdominal Rib Deflection	mm	45*	23

*Proposed IARV

Supplemental restraint information is given below:

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

GENERAL COMMENTS

Both the front and rear doors on the struck side of the vehicle remained closed and latched. There was no separation at the hinges or latches. Both doors on the non-struck side remained closed and latched. There were no ATD values that exceeded limits.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION / DATA SHEETS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

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	29.574
Pressure	Tire Pressures	lbf/in ²	kPa	6.895
Temperature	General Use	°F	°C	$=(T_f - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf-ft	N•m	1.355

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA Number	M20145204
Model Year	2014
Make	Nissan
Model	Versa Note S
Body Style	5-Door Hatchback
VIN	3N1CE2CP9EL360917
Body Color	Morning Sky Blue
Odometer Reading (km / mi)	21 / 13
Engine Displacement (L)	1.6
Type / No. of Cylinders	Inline 4
Engine Placement	Transverse
Transmission Type	Manual
Transmission Speeds	5
Overdrive	Yes
Final Drive	Front
Roof Rack	No
Sunroof / T-Top	No
Running Boards	No
Tilt Steering Wheel	Yes
Power Seats	No
Anti-Lock Brakes (ABS)	Yes

Traction Control System (TCS)	Yes
Auto-Leveling System	No
Automatic Door Locks	No
Power Window Auto-Reverse	No
Other Optional Feature	No
Driver Front Airbag	Yes
Driver Curtain Airbag	Yes
Driver Head/Torso Airbag	No
Driver Torso Airbag	No
Driver Torso/Pelvis Airbag	Yes
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. Torso/Pelvis Airbag	No
Rear Pass. Pelvis Airbag	No
Driver Seat Belt Pretensioner	Yes
Rear Pass. Seat Belt Pretensioner	No
Driver Load Limiter	Yes
Rear Pass. Load Limiter	Yes
Other Safety Restraint	No

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-13
Vehicle Type	Passenger Car

GVWR (kg)	1574
GAWR Front (kg)	847
GAWR Rear (kg)	755

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total	
Designated Seating Capacity	2	3		5	
Capacity Weight (VCW) (kg)				385.0	A
DSC x 68.04 (kg)				340.2	B
Cargo Weight (RCLW) (kg)				44.8	A-B

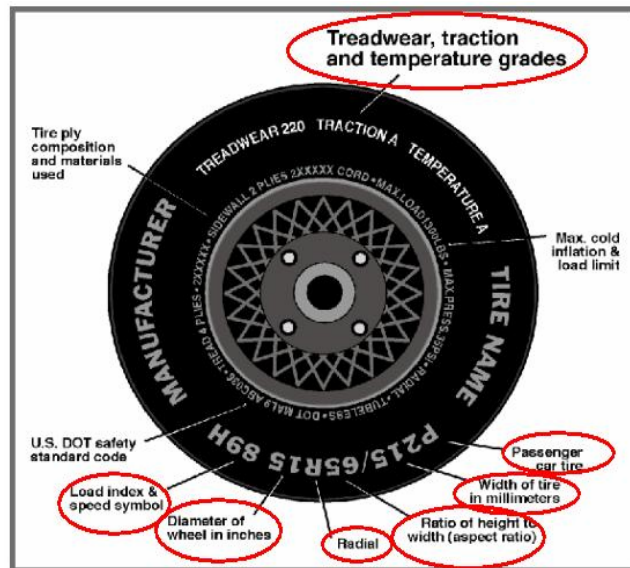
VEHICLE SEAT TYPE

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 PARAMETER DATA

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13



VEHICLE TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kPa)	300	300
Cold Pressure (kPa)	250	250
Recommended Tire Size	P185/65R15	P185/65R15
Tire Size on Vehicle	P185/65R15	P185/65R15
Tire Manufacturer	Continental	Continental
Tire Model	ContiPro Contact	ContriPro Contact
Treadwear	500	500
Traction	AA	AA
Temperature Grades	A	A
Tire Plies Sidewall	1 Polyester	1 Polyester
Tire Plies Body	1 Polyester, 2 Steel, 1 Polyamide	1 Polyester, 2 Steel, 1 Polyamide
Load Index / Speed Symbol	86H	86H
Tire Material	Polyester, Steel, Polyamide	Polyester, Steel, Polyamide
DOT Safety Code Left	P5FP 3YP 2013	P5FP 3YP 2013
DOT Safety Code Right	P5FP 3YP 2013	P5FP 3YP 2013

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

TIRE PRESSURES

	Units	LF	RF	LR	RR
As Delivered	kPa	255	250	255	255
Tire Placard	kPa	250	250	250	250
Owner's Manual	kPa	250	250	250	250
As Tested	kPa	250	250	250	250

TEST VEHICLE AXLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	338.0	227.0		357.5	266.5		351.0	270.0	
Right	kg	306.0	216.5		312.0	240.0		312.5	246.5	
Ratio	%	59.2%	40.8%	100.0%	56.9%	43.1%	100.0%	56.2%	43.8%	100.0%
Total	kg	644.0	443.5	1087.5	669.5	506.5	1176.0	663.5	516.5	1180.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value	
Total Delivered Weight (UVW)	kg	1087.5	A
Actual Weight of 1 P572 O ATD Used	kg	49.0	B
Rated Cargo/Luggage Wt (RCLW)	kg	44.8	C
Calculated Vehicle Target Wt (TVTW)	kg	1181.3	A+B+C

Does the measured As Tested Vehicle Weight lie within the required weight range (i.e.

Calculated Test Vehicle Target Weight -4.5 kg to -9.0 kg)? ☒ Yes ☐ No

TEST VEHICLE ATTITUDE AND CG

Measurement Description	Units	As Delivered	As Tested	Fully Loaded	Meets Requirement***
Driver Door Sill Angle (front-to-rear)*	°	-0.5	-0.3	0.0	Yes
Front Passenger Sill Angle (front-to-rear)*	°	-0.4	-0.3	-0.2	Yes
Front Bumper-Line Angle (left-to-right)**	°	-0.2	-0.2	0.0	Yes
Rear Bumper-Line Angle (left-to-right)**	°	-0.4	-0.2	-0.2	Yes
Vehicle CG (Aft of Front Axle)	mm	1060	1120	1138	
Vehicle CG (Left (+)/Right (-) from Longitudinal Centerline)	mm	29	45	39	

*ND=Nose Down (-), NU=Nose Up (+) **LD=Left Down (-), LU=Left Up (+)

***The "As Tested" vehicle attitude angle measurements must be within "As Delivered" and the "Fully Loaded" vehicle attitude measurements at each location. Indicate "Yes" or "No" for "Meets Requirement"

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW

Component Description	Weight (kg)
Non-Struck Side Windows	6.0
Spare Tire and Tools	14.0
Non-Struck Side Speakers	1.0
Non-Struck Side Door Panels	5.0
Non-Struck Side Tail Light	1.0
Ballast / Equipment Added	59.2

DATA SHEET NO. 2**SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEM DATA**

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

SEAT POSITIONING

The driver's seat is set to the forward most position where the ATD will not contact any interior panels at the mid-height and mid-angle position. The front center seat (if applicable) and right front passenger's seat should be set in a similar manner as the driver's seat. The struck side rear passenger's seat, rear center seat, and non-struck side rear passenger's seats should be set to the rearmost, lowest, mid-angle position.

SCRL ANGLE RANGE

Seat	SCRL (°)		
	Max	Min	Mid
Driver Seat	Fixed	Fixed	Fixed
Front Passenger Seat	Fixed	Fixed	Fixed
Front Center Seat			
Struck Side Rear Seat	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Fixed

SEAT HEIGHT AND ANGLE

Seat	As Tested SCRL Angle	As Tested SCRP Height	SCRP Height Position	SCRP Height (mm)		
				Rearmost	Mid Fore/Aft	Forwardmost
Driver Seat	Fixed	560	Max	540	550	560
			Mid	540	550	560
			Min	540	550	560
Front Passenger Seat	Fixed	557	Max	537	547	557
			Mid	537	547	557
			Min	537	547	557
Front Center Seat			Max			
			Mid			
			Min			
Struck Side Rear Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed

DATA SHEET NO. 2 ... (CONTINUED)

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

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

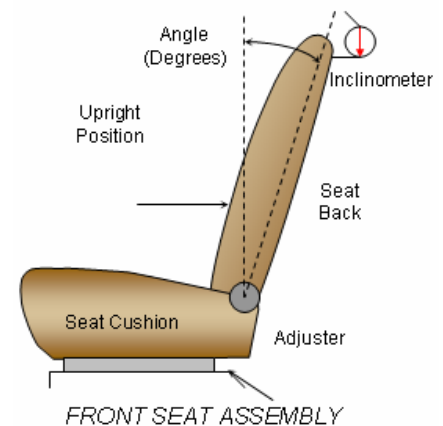
Test Date: 08/16/13

SEAT FORE/AFT POSITION

Seat	Total Fore/Aft Travel		Test Position From Forwardmost Position	
	mm	Detents	mm	Detent
Driver Seat	240	25	0	0
Front Passenger Seat	240	25	0	0
Front Center Seat				
Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Fixed	Fixed

SEAT BACK ADJUSTMENT

The driver's seat back is positioned such that the dummy's head is level. The right front passenger seat back is set to the same angle as the driver's seat. Seat back angle is measured at the headrest post using a digital inclinometer.



Seat	Total Seat Back Angle Range		Test Position from Most Upright	
	Degrees	Detents	Degree	Detent
Driver Seat w/Seated Dummy	58.0	30	8.8	3
Front Passenger Seat	57.0	30	9.1	3
Front Center Seat				
Struck Side Rear Seat w/Seated Dummy	Fixed	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Fixed	Fixed

DATA SHEET NO. 2 ... (CONTINUED)

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

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

SEAT BELT ANCHORAGE ADJUSTMENT

Seat belt anchorages are adjusted in accordance with the information provided by the manufacturer on Form No. 1. The positions are marked H, M1, ... , L from top to bottom.

	Total No. of Positions	Placed in Position
Driver Seat	4	H

HEAD RESTRAINT ADJUSTMENT

The driver's head restraint is adjusted to the lowest and most full forward in-use position.

	Total No. of Positions	Placed in Position
Driver Seat	7	Full Down

DATA SHEET NO. 2 ... (CONTINUED)

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

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

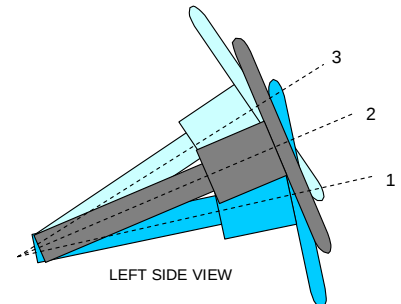
NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the center of the geometric locus it describes when it moves through its full range of motion.

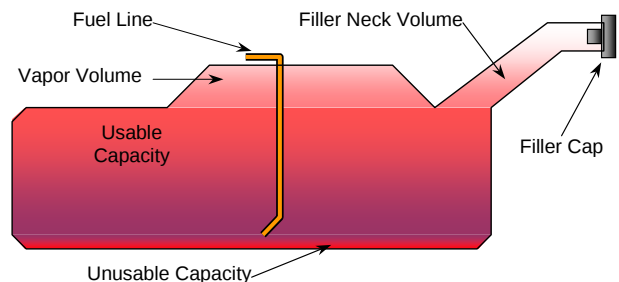


STEERING COLUMN ASSEMBLY

	Degrees	Fore-Aft Position (mm)
Lowermost - Position 1	24.7	Fixed
Geometric Center - Position 2	26.9	Fixed
Uppermost - Position 3	29.1	Fixed
Telescoping Steering Wheel Travel		
Test Position	26.9	Fixed

FUEL PUMP

The vehicle is equipped with an electric fuel pump. The fuel pump will pump fuel for 1.0 second after the ignition is switched to the "ON" position and while the engine is running.



VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

Description	Liters
Usable Capacity of "Standard Tank" (see Form No. 1)	40.88
Usable Capacity of "Optional Tank" (see Form No. 1)	
Usable Capacity of "Standard Tank" (see Owner's Manual)	40.88
Usable Capacity of "Optional Tank" (see Owner's Manual)	
93% of Usable Capacity	38.02
Actual amount of Solvent Used in Test	38.02
1/3 of Usable Capacity	13.63

Is the Actual Amount of Solvent Used in the test equal to 93% $\pm$ 1% of the Usable Capacity stated in the Form No. 1? ☒ Yes ☐ No

DATA SHEET NO. 3

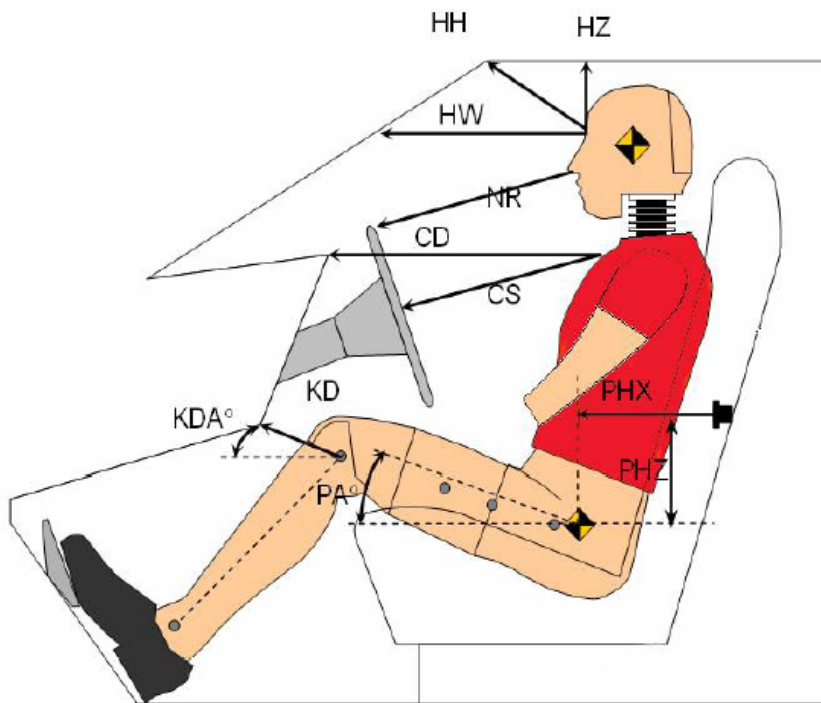
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13



DUMMY LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Description	Driver	
		Length (mm)	Angle (°)
HH	Head to Header	270	
HW	Head to Windshield	669	
HZ	Head to Roof	205	
NR	Nose to Rim	246	
CD	Chest to Dash	419	
CS	Chest to Steering Wheel	173	
KD(L)/KDA(L)°	Left Knee to Dash	94	39.6
KD(R)/KDA(R)°	Right Knee to Dash	85	38.8
PAX°	Pelvic Tilt Angle (x-axis)		20.8
PAY°	Pelvic Tilt Angle (y-axis)		0.1
PHX	Hip Point to Striker (x-axis)	385	
PHZ	Hip Point to Striker (z-axis)	94	

DATA SHEET NO. 4

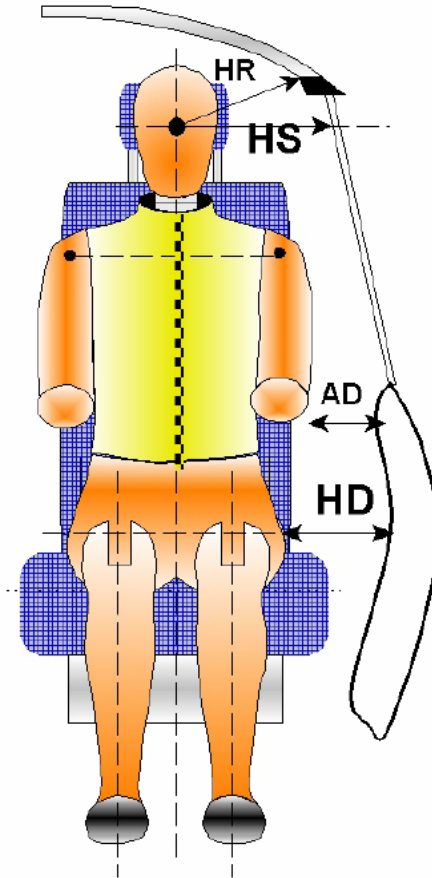
DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13



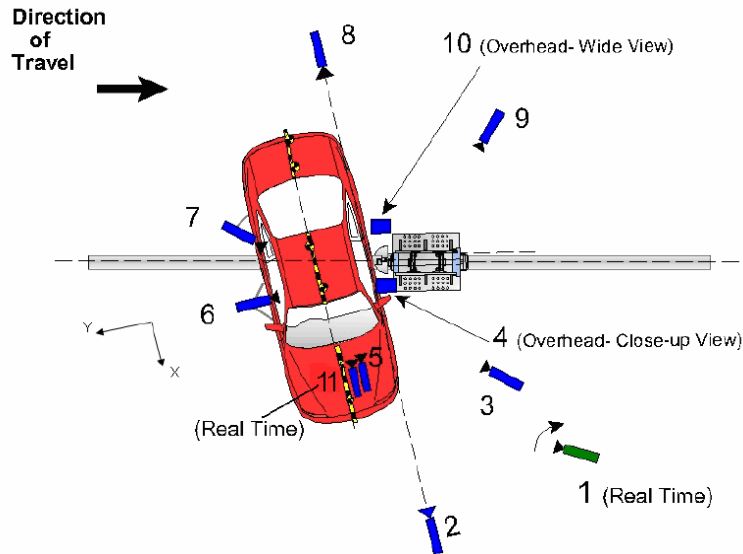
DUMMY LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver
HR	Head to Side Header	mm	277
HS	Head to Side Window	mm	364
AD	Arm to Door	mm	137
HD	H-Point to Door	mm	145

DATA SHEET NO. 5

CAMERA AND INSTRUMENTATION DATA

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13



CAMERA LOCATIONS AND DATA

Camera No.	View	Coordinates (m)			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	0.90	1.26	-1.36	24	1000
6	On-Board - Dummy Side View	-0.27	2.39	-1.10	14	1000
7	On-Board - Dummy Rear Oblique View	-1.16	2.39	-1.18	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	0.90	1.37	-1.39		30

Reference from Point of Impact for X and Y; from Ground for Z):

+X = Forward of Vehicle, +Y = Right of Vehicle, +Z = Down

*All measurements accurate to ± 6 mm

INSTRUMENTATION

Driver Dummy Channels	16
Vehicle Structure Accelerometers	15
Pole Load Cells	8
Total	39

DATA SHEET NO. 6

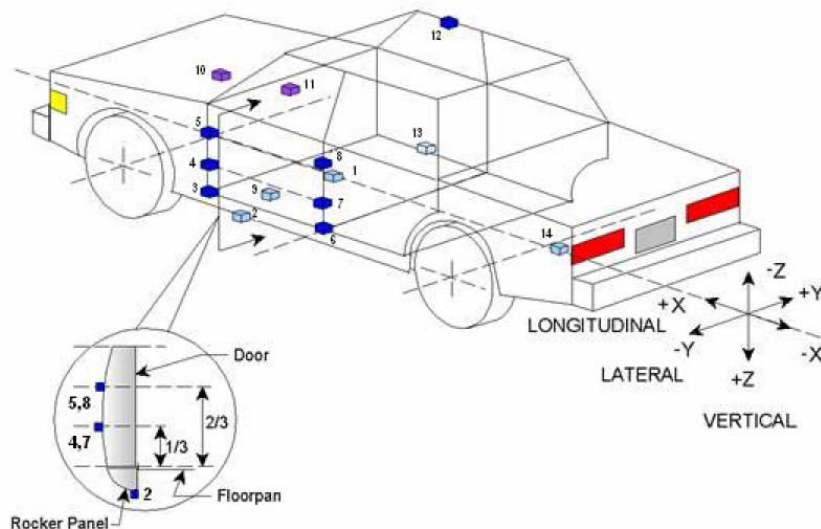
TEST VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13



VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

Loc. No.	Sensor Description	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	1601	0	-331
2	Left Floor Sill	2694	-680	-192
3	A-Pillar Sill	2814	-755	-397
4	A-Pillar Low	2814	-755	-558
5	A-Pillar Mid	2814	-755	-715
6	B-Pillar Sill			
7	B-Pillar Low			
8	B-Pillar Mid			
9	Driver Seat Track	2256	-527	-384
10	Engine Top	3500	375	-776
11	Firewall	3140	394	-864
12	Right Roof	1887	469	-1504
13	Right Floor Sill	1676	646	-347
14	Rear Floorpan	748	60	-476

Reference: X – Rear surface of vehicle (+ forward)
Y – Vehicle centerline (+ to right)
Z – Ground plane (+ down)

DATA SHEET NO. 7

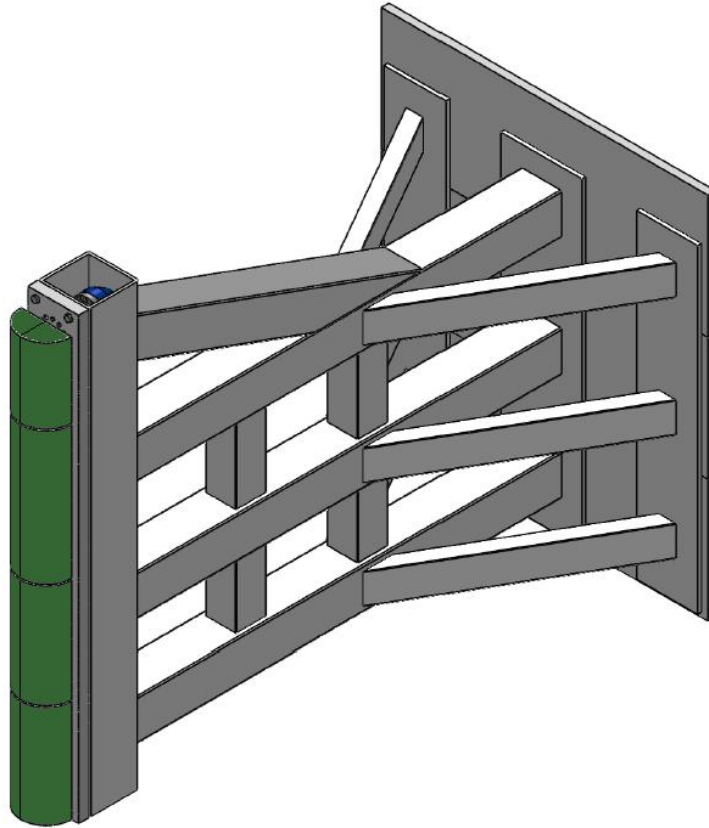
RIGID POLE LOAD CELL DATA

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13



RIGID POLE LOAD CELL LOCATIONS

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: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13**TEST DUMMY INFORMATION AND CONTACT POINTS**

Dummy Body Part	Driver SID-IIs Dummy
Face	Curtain Airbag
Top of Head	Curtain Airbag
Left Side of Head	Curtain Airbag, Headrest
Back of Head	Curtain Airbag, Headrest
Left Shoulder	Seat, Torso/Pelvis Airbag
Upper Torso	Seat, Torso/Pelvis Airbag
Lower Torso	Seat, Torso/Pelvis Airbag
Left Hip	Seat, Torso/Pelvis Airbag
Left Knee	Door Panel, Right Knee

POST-TEST DOOR PERFORMANCE

Description	Struck Side		Non-Struck Side		Rear Hatch/Other Door
	Front	Rear	Front	Rear	
Remained Closed and Operational	No	No	Yes	Yes	Yes
Total Separation from Vehicle at Hinges or Latches	No	No	No	No	No
Latch or Hinge System Pulled Out of Their Anchorages	No	No	No	No	No
Disengaged from Latched Position	No	No	No	No	No
Latch Separated from Striker	No	No	No	No	No
Jammed Shut	Yes	Yes	No	No	No
If Door Opened at Striker, Record Width of Opening at Striker (mm)	n/a	n/a	n/a	n/a	n/a

POST-TEST SEAT PERFORMANCE

Description	Struck Side		Non-Struck Side	
	Front	Rear	Front	Rear
Seat Movement Along Seat Track	No	No	No	No
Seat Disengagement from Floor Pan	No	No	No	No
Seat Back Movement from Initial Position	No	No	No	No
Seat Back Collapse	No	No	No	No

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	No Separation
Windshield Damage	Broken
Side Window Damage	Left Front Window Broken
Other Notable Effects	None

DATA SHEET NO. 8 ... (CONTINUED)**POST-TEST OBSERVATIONS**Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13**SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION**

Restraint Type	Struck Side Driver		Struck Side Rear Passenger	
	Mounted	Deployed	Mounted	Deployed
Frontal Airbag	Yes	No	No	
Knee Airbag	No		No	
Side Airbag 1 (Curtain)	Yes	Yes	Yes	Yes
Side Airbag 2 (Torso/Pelvis)	Yes	Yes	No	
Seat Belt Pretensioner	Yes	Yes	No	
Seat Belt Load Limiter	Yes	Yes	No	
Other	No		No	

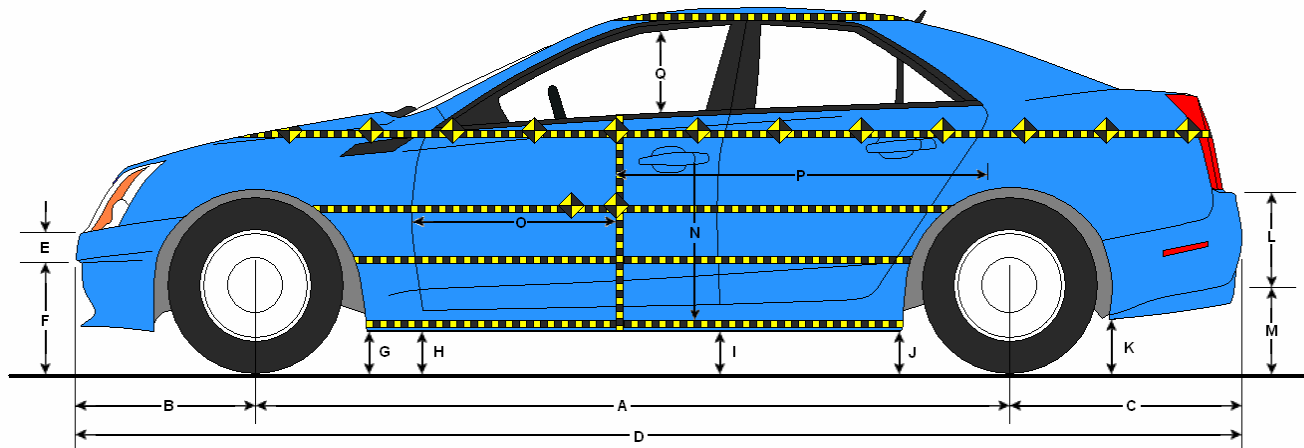
IMPACT POINT LOCATION DATA

Measured Parameter	Units	Tolerance	Value
Vertical Impact Reference Line (Aft of Front Axle)(Intended Impact Point)	mm		1032
Actual Impact Point (Aft of Front Axle)	mm		1051
Horizontal Offset (+ forward / - rearward)	mm	± 38 of Intended Impact Point	-19
Angle Between Vehicle's Longitudinal Centerline and Line of Forward Motion	°	75 ± 3	74.8
Trap No. 1 Velocity (Primary)	km/h	31.4 to 33.0	32.49
Trap No. 2 Velocity (Redundant)	km/h	31.4 to 33.0	32.54

DATA SHEET NO. 9

TEST VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13



LEFT SIDE VIEW

VEHICLE PRE- AND POST-TEST MEASUREMENT INFORMATION

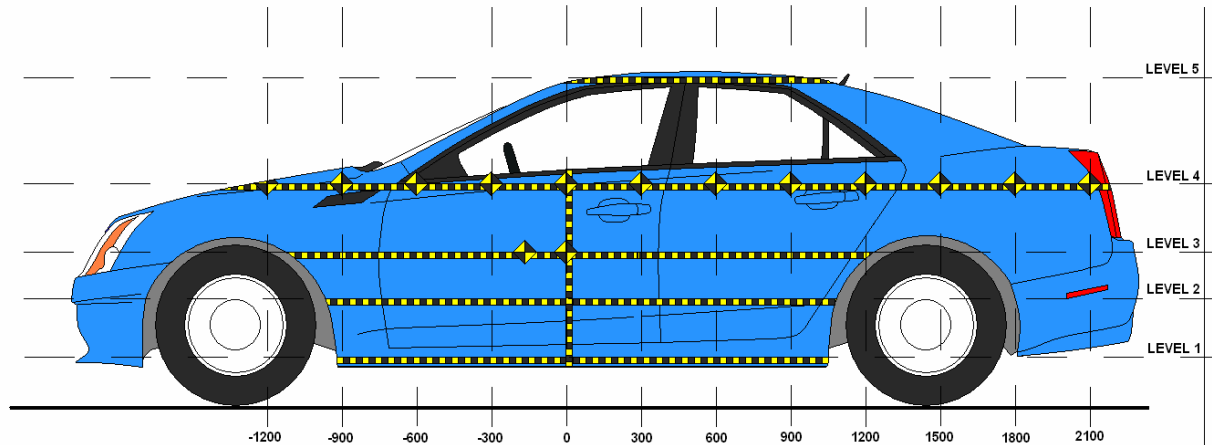
Code	Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2600	2525	-75
B	Front Axle to FSOV	827	842	15
C	Rear Axle to RSOV	713	734	21
D	Total Length at Centerline	4134	4101	-33
E	Front Bumper Thickness	135	134	-1
F	Front Bumper Bottom to Ground	400	419	19
G	Sill Height at Front Wheel Well	216	232	16
H	Sill Height at Front Door Leading Edge	208	227	19
I	Sill Height at B-Pillar	228	247	19
J1	Sill Height at Rear Wheel Well	225	267	42
J2	Pinch Weld Height at Rear Wheel Well	172	211	39
K	Sill Height Aft of Rear Wheel Well	288	332	44
L	Rear Bumper Thickness	163	161	-2
M	Rear Bumper Bottom to Ground	417	459	42
N	Sill Height to Bottom of Front Window Sill	641	648	7
O	Front Door Leading Edge to Impact CL	337	508	171
P	Rear Door Trailing Edge to Impact CL	1711	1336	-375
Q	Front Window Opening	487	497	10
R	Right Side Length	2999	3011	12
S	Left Side Length	2997	2890	-107
T	Vehicle Width at B-Pillar	1695	1590	-105

All measurements in mm with tolerance of ± 3 mm

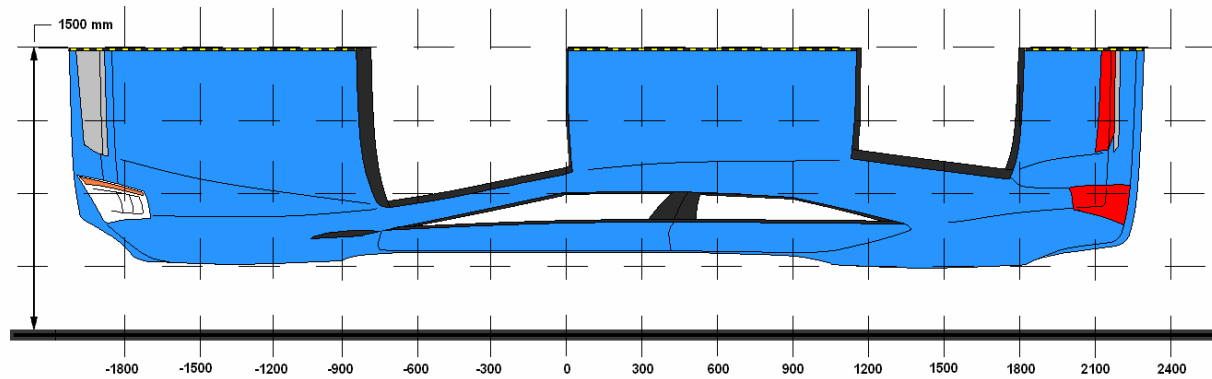
DATA SHEET NO. 10

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13



LEFT SIDE VIEW



OVERHEAD VIEW

MAXIMUM EXTERIOR CRUSH MEASUREMENTS

Level	Description	Height Above Ground (mm)	Maximum Exterior Static Crush	Distance from Impact
1	Sill Top	261	358	0
2	Occupant H-Point	586	425	0
3	Mid-Door	644	428	0
4	Window Sill	871	405	0
5	Window Top	1449	224	150

DATA SHEET NO. 10 ... (CONTINUED)

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13

EXTERIOR CRUSH MEASUREMENTS AT EACH LEVEL

	Pre-Test (mm)					Post-Test (mm)					Difference (mm)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900				730					773					43	
-750		650	650	723			702	705	785			52	55	62	
-600	692	651	653	716		740	723	727	795		48	72	74	79	
-450	702	652	652	708		829	812	816	846		127	160	164	138	
-300	708	653	651	700		902	903	905	915		194	250	254	215	
-150	709	652	652	692		971	987	993	996		262	335	341	304	
0	707	651	651	683		1065	1076	1079	1088		358	425	428	405	
150	706	650	651	677	925	1047	1063	1067	1076	1149	341	413	416	399	224
300	706	650	651	657	900	955	958	961	955	1082	249	308	310	298	182
450	706	651	652	673	898	900	849	849	865	1041	194	198	197	192	143
600	707	653	654	669	899	855	791	792	808	998	148	138	138	139	99
750	708	655	656	672	902	816	766	768	787	983	108	111	112	115	81
900	705	657	658	679	908	779	742	745	771	977	74	85	87	92	69
1050	696	659	659	688	920	749	716	721	754	979	53	57	62	66	59
1200	691	654	656	694	945	717	687	691	735	990	26	33	35	41	45
1350		654	652	702	990		690	662	719	1033		36	10	17	43
1500			653	714				685	746				32	32	
1650				729					756					27	
1800				751					774					23	
1950															
2100															
2250															
2400															
2550															
2700															
2850															

DATA SHEET NO. 10 ... (CONTINUED)

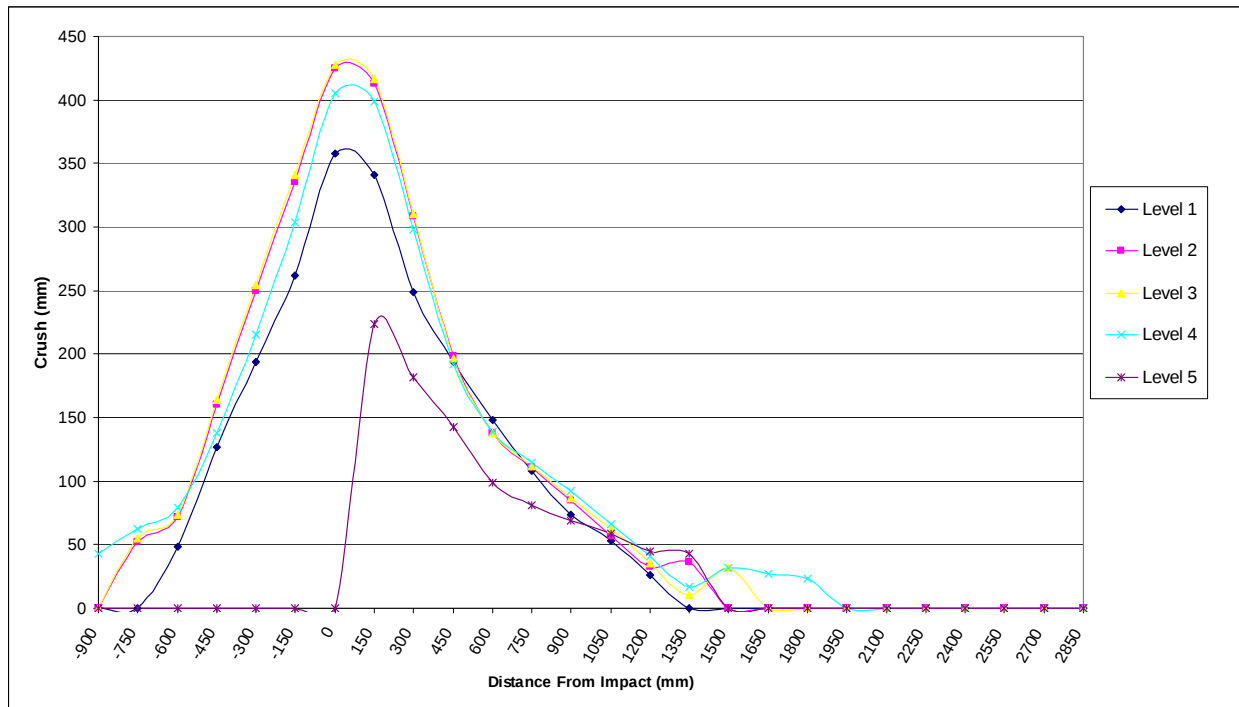
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13

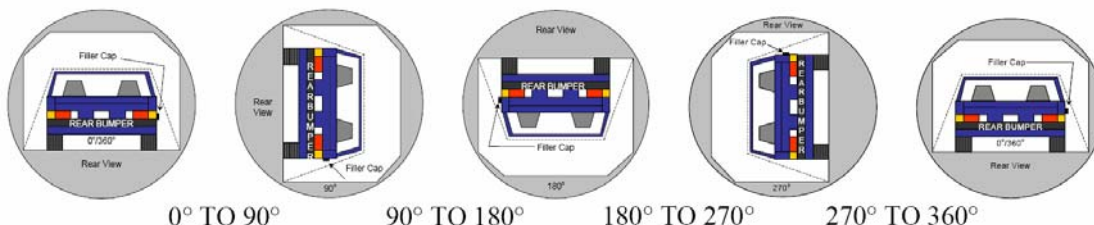


DATA SHEET NO. 11

FMVSS NO. 301 STATIC ROLLOVER RESULTS

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback NHTSA No. M20145204
 Test Program: NCAP Side Pole Impact Test Test Date: 08/16/13
 Temperature at Time of Impact: 37.2°C Test Time: 11:42 AM

- A. From impact until vehicle motion ceases: N/A oz.
 (Maximum allowable = 1 oz.)
- B. For the 5 minute period after motion ceases: N/A oz.
 (Maximum allowable = 5 oz.)
- C. For the following 25 minutes: N/A oz.
 (Maximum allowable = 1 oz./minute)
- D. Spillage Details: There was no Stoddard solvent spillage.



SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° To 90°	84	300	384
90° To 180°	83	300	383
180° To 270°	79	300	379
270° To 360°	80	300	380

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°	
90° To 180°	
180° To 270°	
270° To 360°	

DATA SHEET NO. 12

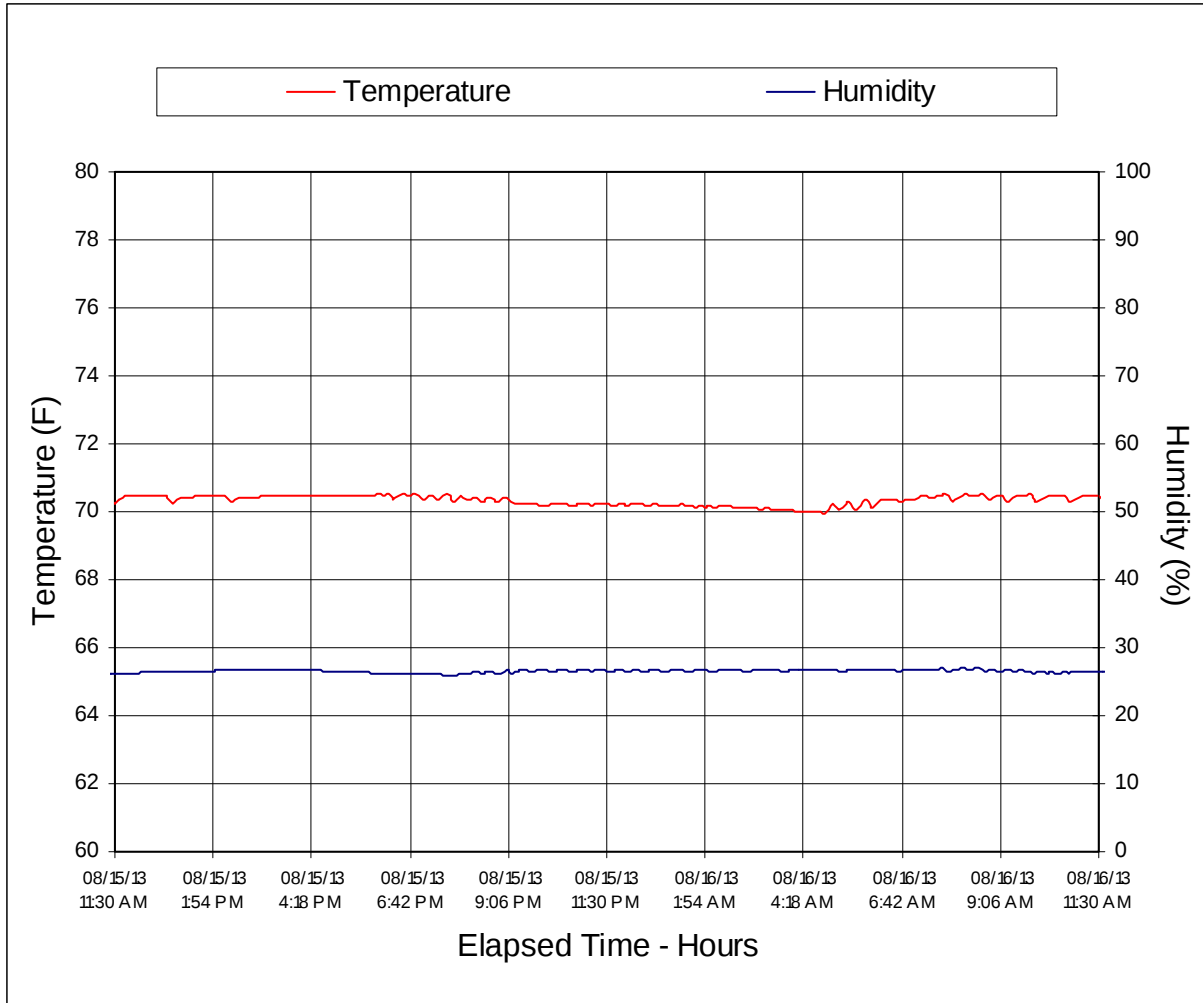
DUMMY/VEHICLE TEMPERATURE AND HUMIDITY STABILIZATION

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback

NHTSA No. M20145204

Test Program: NCAP Side Pole Impact Test

Test Date: 08/16/13



APPENDIX A
PHOTOGRAPHS

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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. Post-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

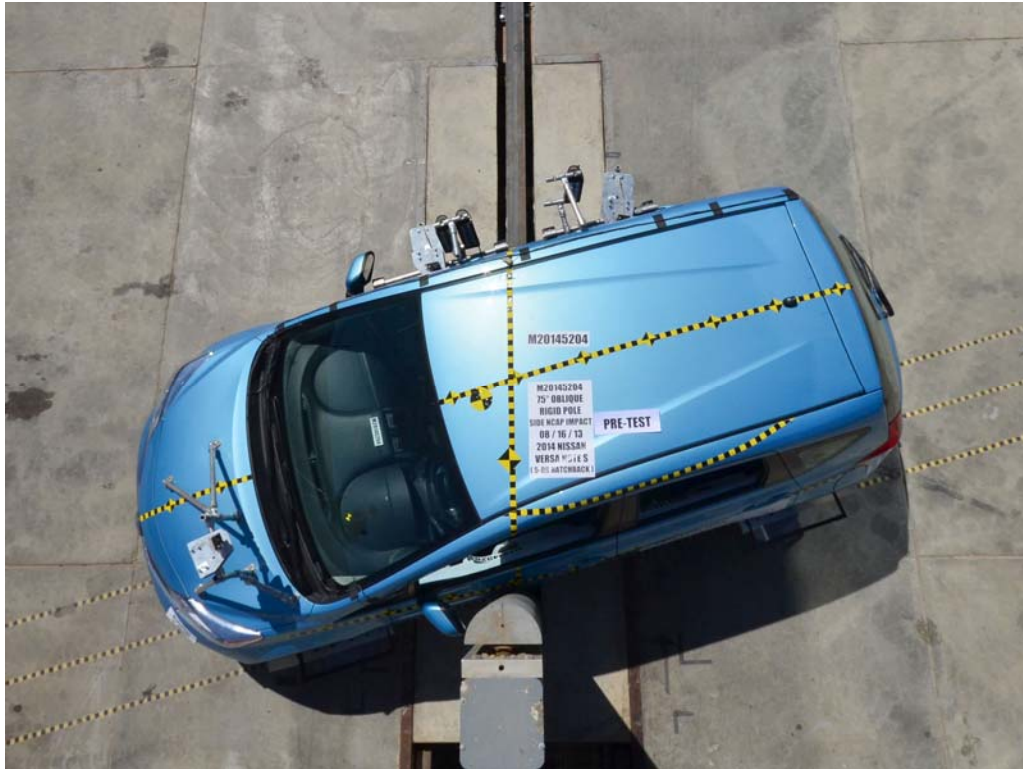


FIGURE 15. Pre-Test Overhead View of Test Area

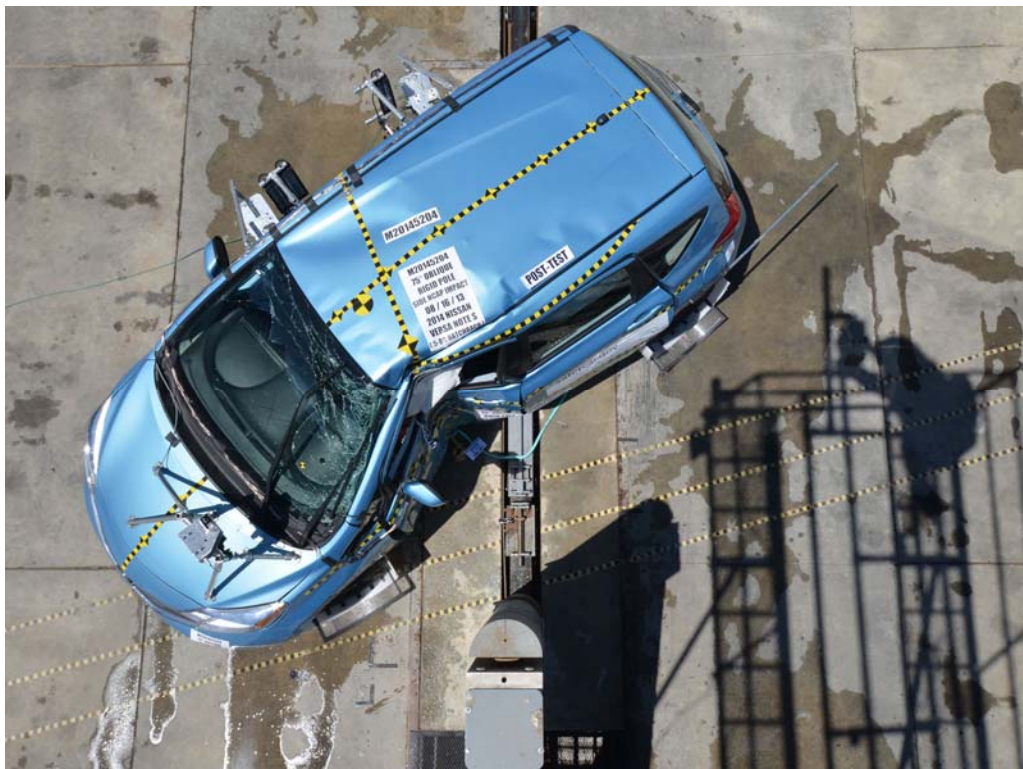


FIGURE 16. Post-Test Overhead View of Test Area



FIGURE 17. Pre-Test Left Side View of Pole
Positioned Against Side of Vehicle



FIGURE 18. Pre-Test Right Side View of Pole
Positioned Against Side of Vehicle



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 Head and Chest



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



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



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 Left Side View of Dummy's Neck
Showing Position of Adjustable Neck Bracket



FIGURE 31. Pre-Test Left Side View of Dummy's Head Showing Head is Level



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

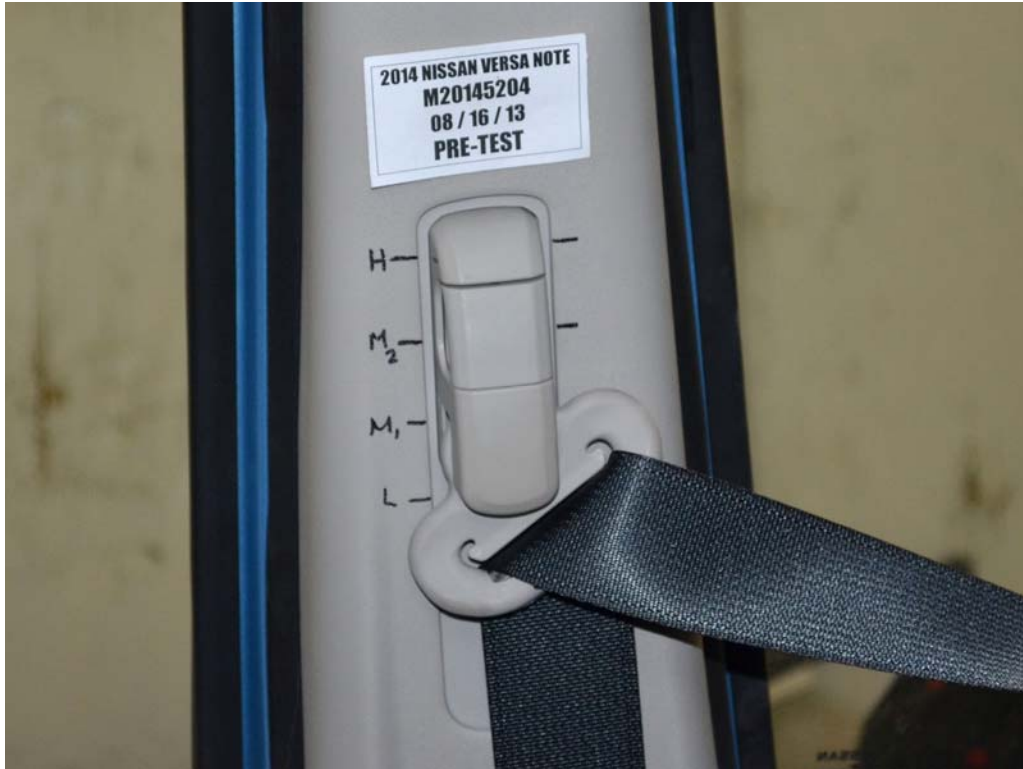


FIGURE 33. Pre-Test View of Belt Anchorage for Dummy

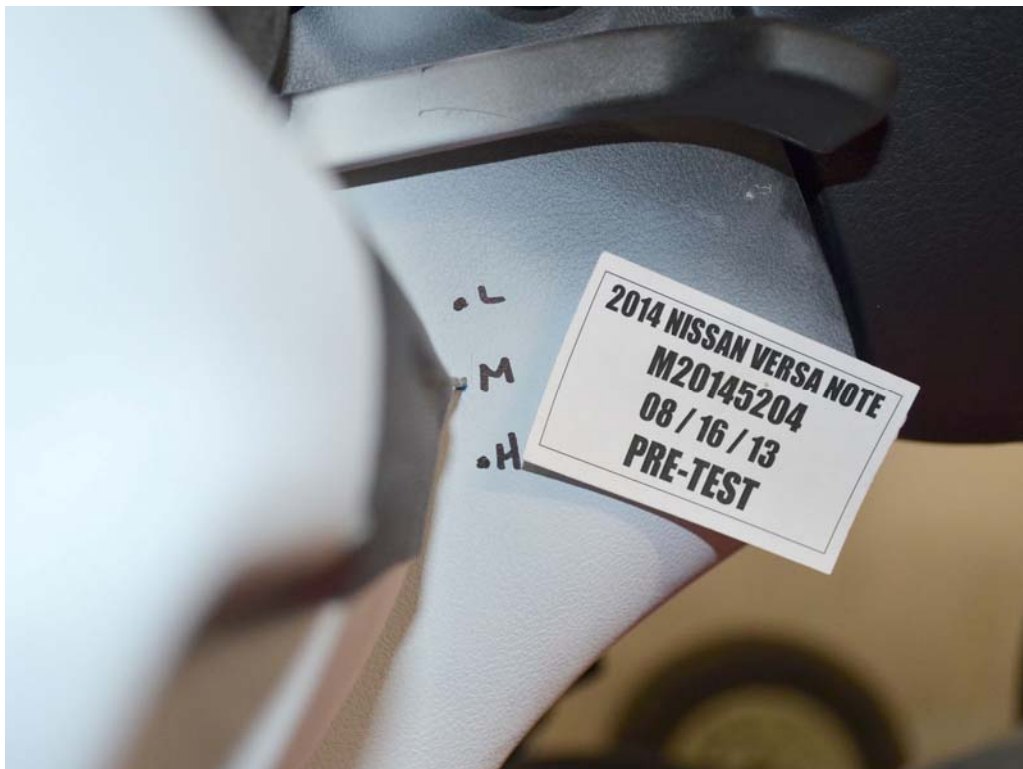


FIGURE 34. Pre-Test Left Side View of Steering Wheel



FIGURE 35. View of Disengaged Parking Brake

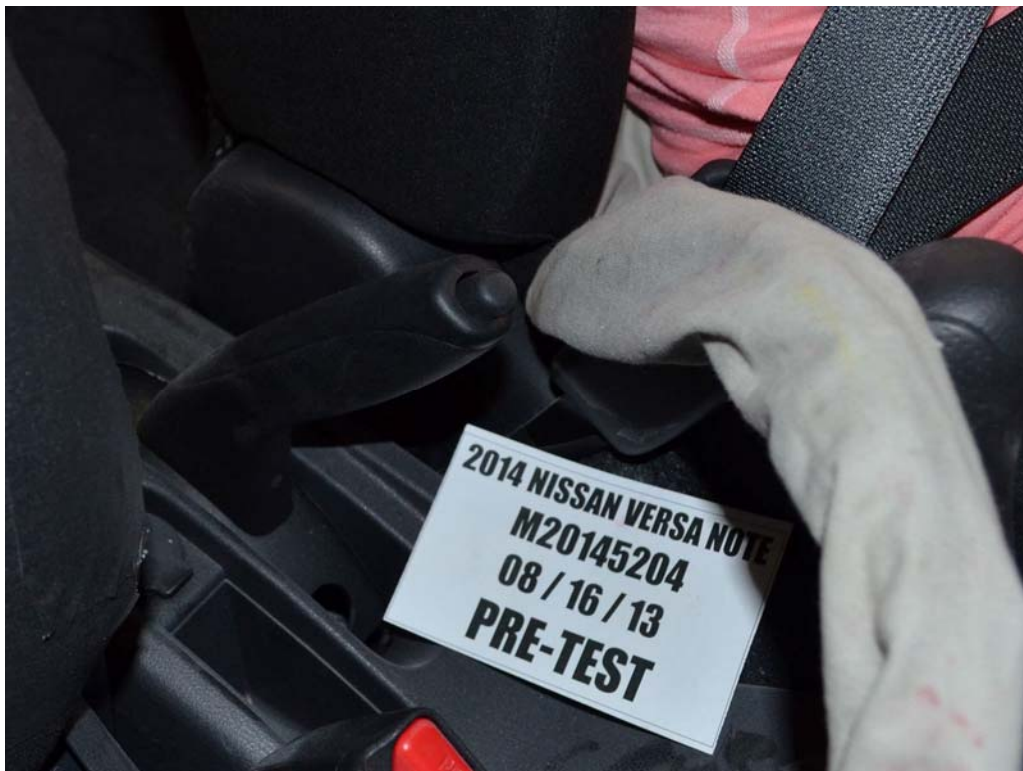


FIGURE 36. Pre-Test View of Parking Brake



FIGURE 37. Pre-Test Close-Up Left Side View of Driver Seat Track

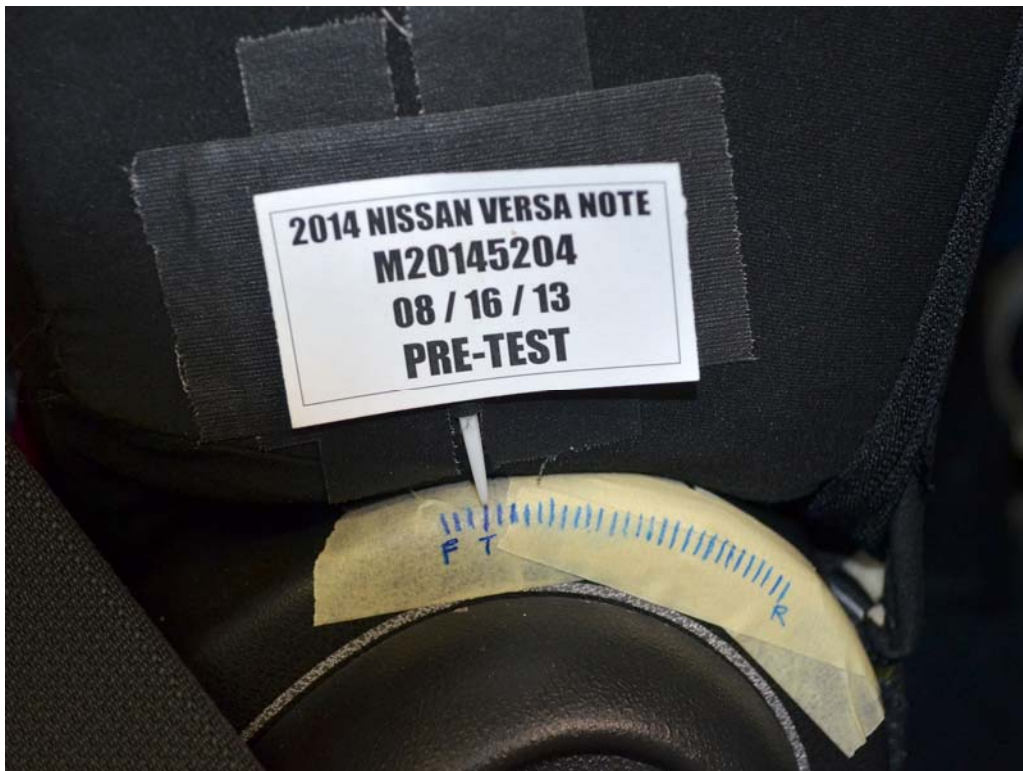


FIGURE 38. Pre-Test Close-Up Left Side View of Driver Seat Back



FIGURE 39. Pre-Test Close-Up View of Driver Seat Back or Head Restraint



FIGURE 40. Pre-Test Dummy and Door Clearance View



FIGURE 41. Post-Test Dummy and Door Clearance View



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



FIGURE 43. Post-Test Right Side View of Dummy and Front Seat of Occupant Compartment

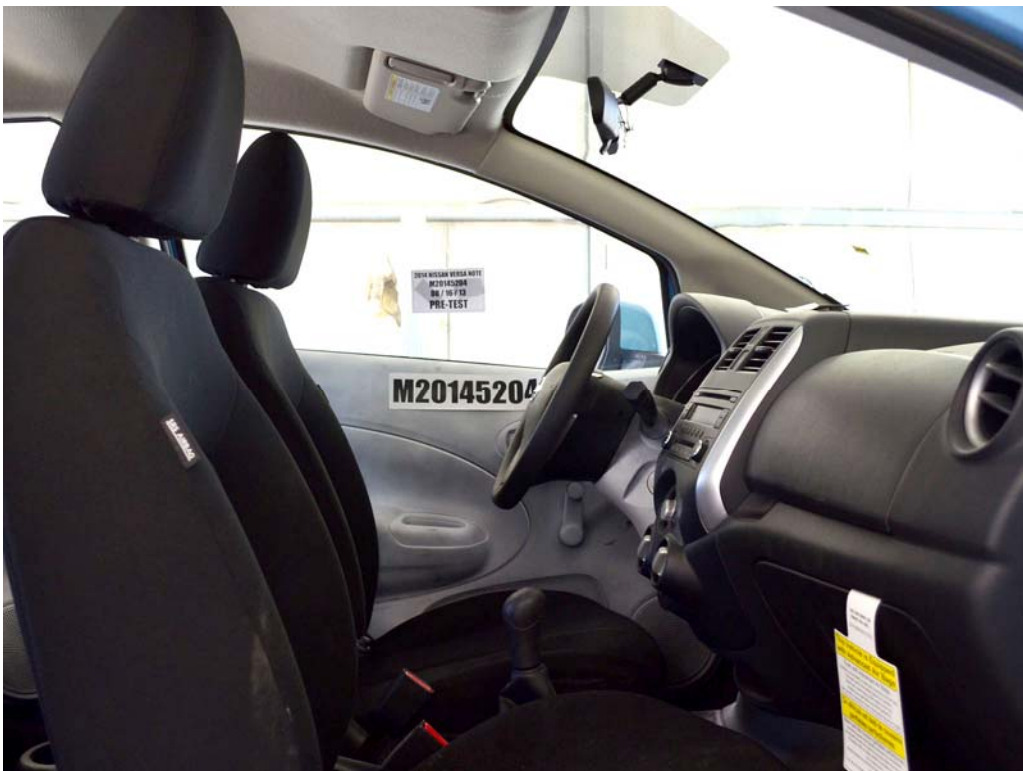


FIGURE 44. Pre-Test Inner Door Panel View



FIGURE 45. Post-Test Inner Door Panel View
Showing Dummy Contact Locations

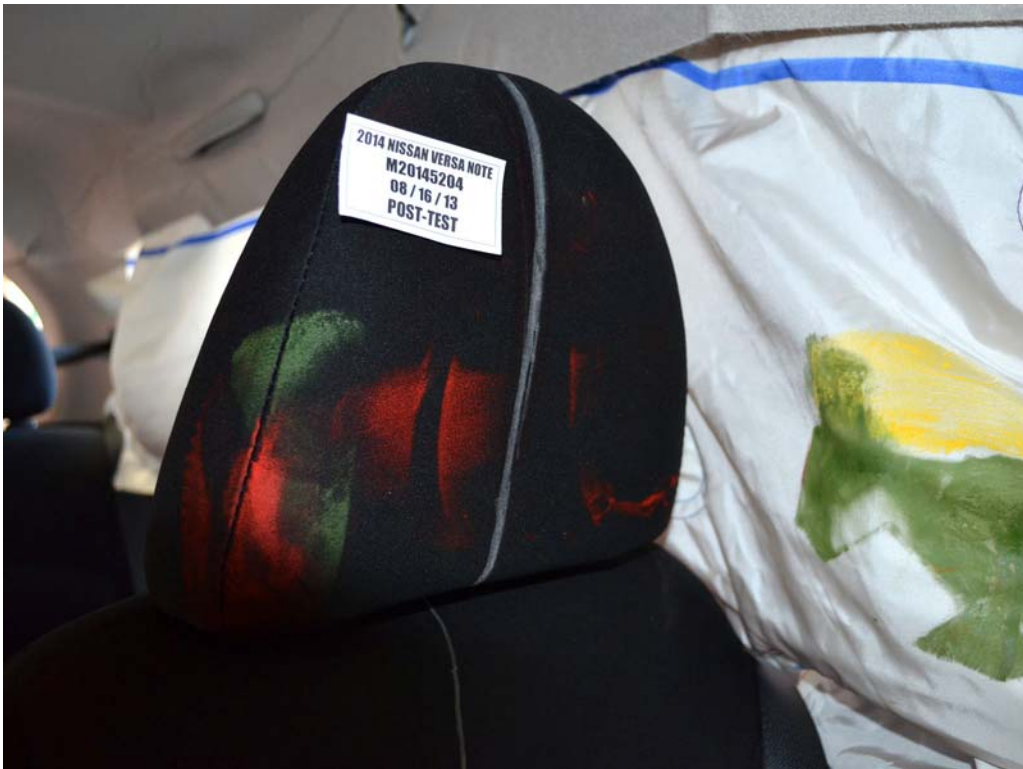


FIGURE 46. Post-Test Dummy Close-Up Head Contact with Vehicle Interior View

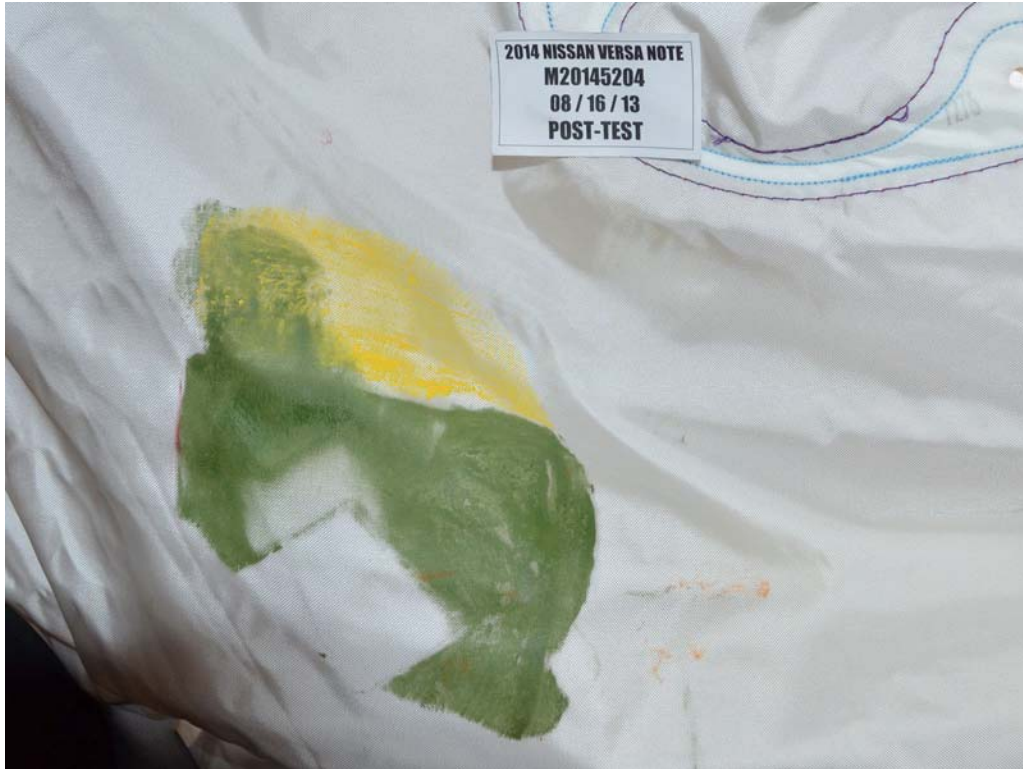


FIGURE 47. Post-Test Dummy Close-Up Head Contact With Side Airbag View



FIGURE 48. Post-Test Dummy Close-Up Torso Contact With Vehicle Interior View



FIGURE 49. Post-Test Dummy Close-Up Torso Contact With Side Airbag View



FIGURE 50. Post-Test Dummy Close-Up Pelvis Contact With Vehicle Interior View



FIGURE 51. Post-Test Dummy Close-Up Pelvis Contact With Side Airbag View



FIGURE 52. Post-Test Dummy Close-Up Knee Contact with Vehicle Interior View



FIGURE 53. Pre-Test View of Fuel Filler Cap or Fuel Filler Neck



FIGURE 54. Post-Test View of Fuel Filler Cap or Fuel Filler Neck

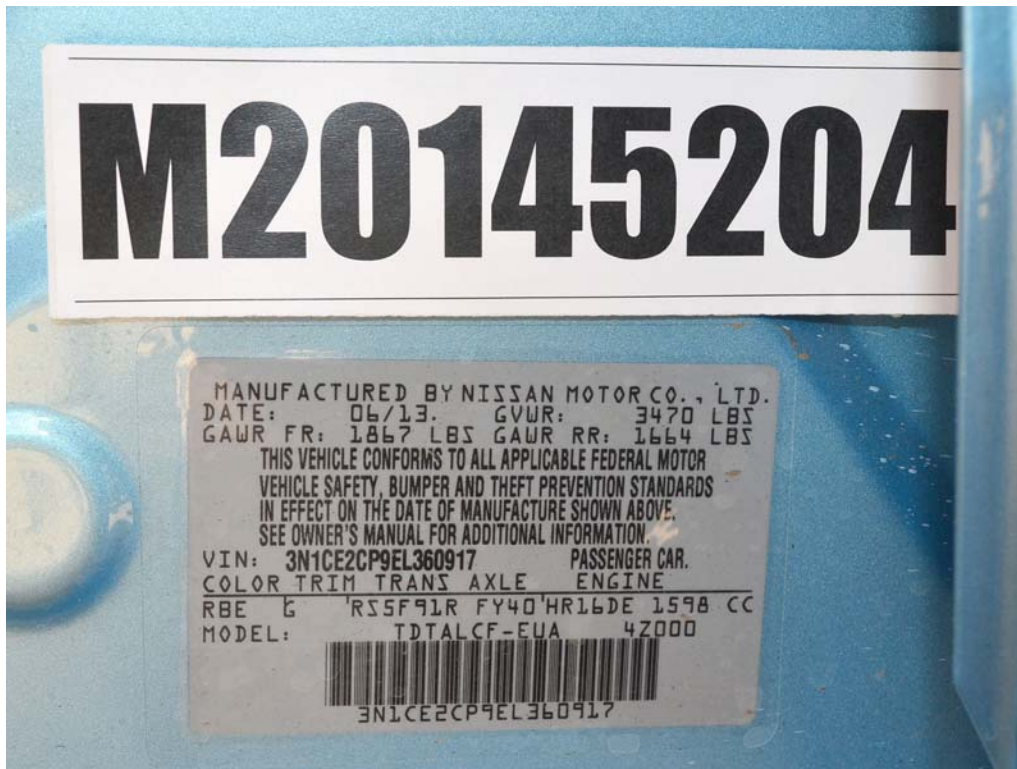


FIGURE 55. Close-Up View of Vehicle's Certification Label

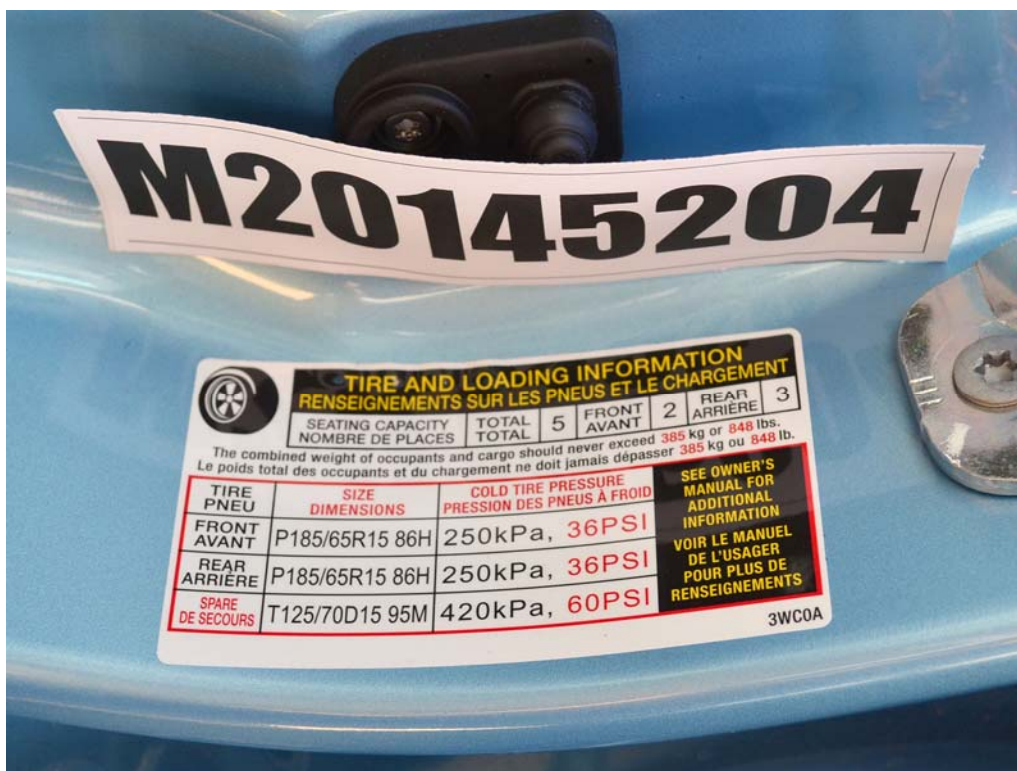


FIGURE 56. Close-Up View of Vehicle's Tire Information Placard or Label



FIGURE 57. Pre-Test Pole Barrier Front View



FIGURE 58. Post-Test Pole Barrier Front View



FIGURE 59. Pre-Test Pole Barrier Side View



FIGURE 60. Post-Test Pole Barrier Side View



FIGURE 61. Pre-Test Ballast View



FIGURE 62. Post-Test Primary and Redundant Speed Trap Read-Out

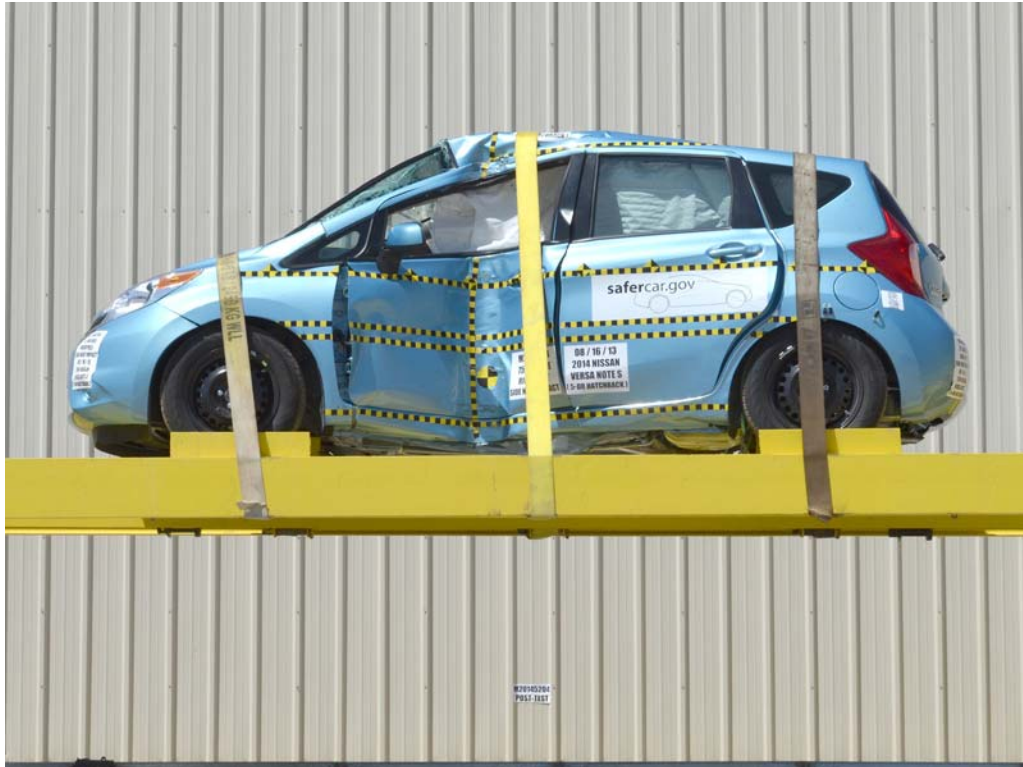


FIGURE 63. FMVSS No. 301 Static Rollover 0 Degrees



FIGURE 64. FMVSS No. 301 Static Rollover 90 Degrees



FIGURE 65. FMVSS No. 301 Static Rollover 180 Degrees



FIGURE 66. FMVSS No. 301 Static Rollover 270 Degrees

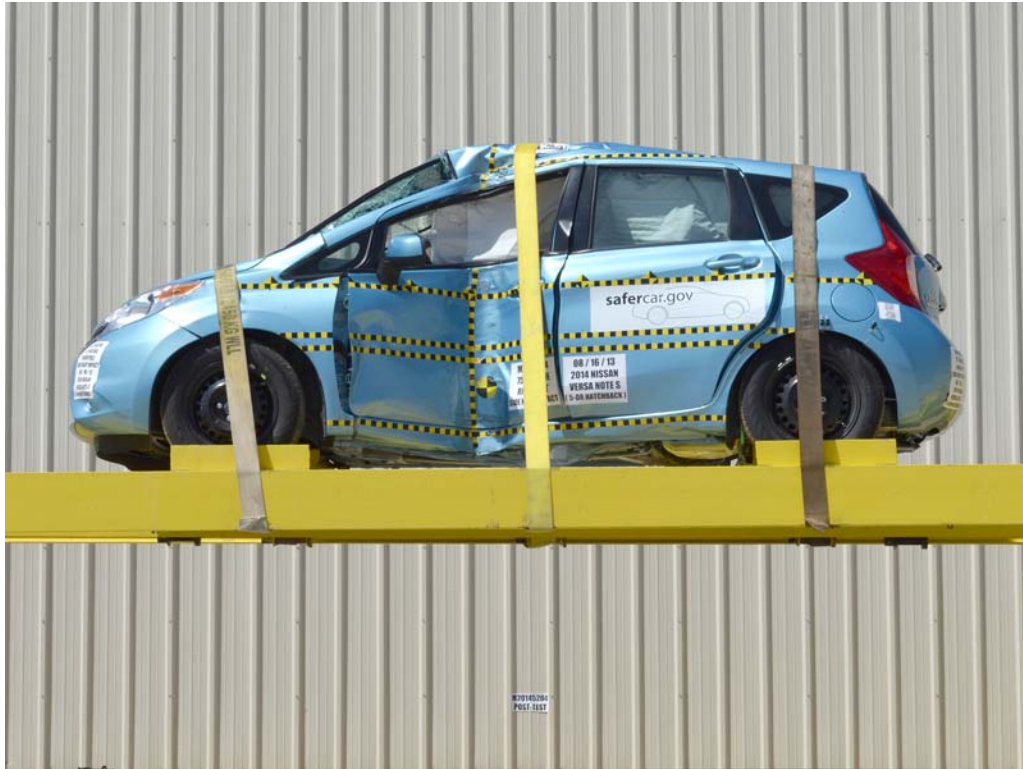


FIGURE 67. FMVSS No. 301 Static Rollover 360 Degrees



FIGURE 68. Impact Event

2014 VERSA NOTE S

Scan QR code for general model information & options

AMERICA'S BEST SELLING ENTRY HATCH*

Standard Equipment Included at No Extra Charge

MECHANICAL & PERFORMANCE
1.6-Liter DOHC 16-Valve 4-Cylinder Engine
5-Speed Manual Transmission
Front and Rear Stabilizer Bars
Power-Assisted Ventilated Front Disc / Rear Drum Brakes
15" Steel Wheels w/ Full Wheel Covers

SAFETY & SECURITY
Driver and Front Passenger, Side Impact and Curtain Air Bags
Lower Anchors and Tethers for Children (LATCH)
Anti-Lock Braking System (ABS)
Traction Control System (TCS)
Vehicle Dynamic Control (VDC)
Electronic Brake Force Distribution (EBD) and Brake Assist
Tire Pressure Monitoring System (TPMS)

COMFORT & CONVENIENCE
4-Way Adjustable Front Seats
AM/FM/CD/aux-In Audio System

EXTERIOR
Chrome-Accented Multi-Reflector Halogen Headlights
Chrome-Accented Front Grille

*According to Polk U.S. New Vehicle Registrations. For the entry level segment, hatch only, Jan. 1-December 2012.

Manufacturer's Suggested Retail Base Price: \$13,990.00

Options Included by Manufacturer: *Model 11*

DESTINATION CHARGES: 790.00

Total: \$14,780.00

Fuel Economy and Environment

Fuel Economy 30 MPG combined city/hwy, 27 city, 36 highway, 3.3 gallons per 100 miles

You Save \$2,750 in fuel costs over 5 years compared to the average new vehicle.

Annual fuel Cost \$1,750

Fuel Economy & Greenhouse Gas Rating (Smog Rating below only)

Smog Rating 8 (Scale 1-10, 10 is best)

fuel economy.gov Calculate personalized estimates and compare vehicles

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score To Be Rated
Based on the combined ratings of frontal, side and rollover. Should ONLY be compared to other vehicles of similar size and weight.

Frontal Crash To Be Rated
Based on the risk of injury in a frontal impact. Should ONLY be compared to other vehicles of similar size and weight.

Driver Passenger To Be Rated

Side Crash To Be Rated
Based on the risk of injury in a side impact.

Front seat Rear seat To Be Rated

Rollover To Be Rated
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 1-888-327-4236

This Vehicle qualifies for Nissan's **Security+Plus Vehicle Protection Plan**
The only service agreement backed by Nissan! Ask your dealer for details, or call 1-800-NISSAN-1 for more information

DELIVERY

VEHICLE COLORS:
EXT: MONROVSKY BLUE
INT: CHARCOAL

FINAL ASSEMBLY POINT:
AGUAS/ABV/MEX

TRANSPORT METHOD:
TRUCK

DEALER:
NISSAN OF DUBUQUE
600 CENTURY DR
DUBUQUE IA 52002

VIN: 3N1CE2CP6L30917
EPA: 30 STATE EMISSIONS
MDL: 11454-30917 RBE-G
OPT: C-03

FIGURE 69. Monroney Label

HEAD RESTRAINTS

WARNING

Head restraints supplement the other vehicle safety systems. They may provide additional protection against injury in certain rear end collisions. Adjust the head restraints properly, as specified in this section. Check the adjustment after someone else uses the seat. Do not use the head restraint if it has been removed. If the head restraint was removed, reseat 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.

Center armrest (if so equipped)
Pull the armrest down until it is horizontal.

The illustration shows the seating positions equipped with head restraints. The front seat head restraints are adjustable. The rear head restraints are removable.

▲ Indicates the seating position is equipped with a head restraint.
+ Indicates the seating position is not equipped with a head-restraint or removable headrest.

Safety—Seats, seat belts and supplemental restraint system 1-5

Components

- Head restraint
- Adjustment notches
- Lock knob
- Stake

Adjustment (if so equipped)

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 stake with the holes in the seat. Make sure the head restraint is facing the correct direction. The stake with the adjustment notches (2) must be installed in the hole with the lock knob (3).
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.

Safety—Seats, seat belts and supplemental restraint system 1-7

FIGURE 70. Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

APPENDIX B
DUMMY RESPONSE DATA

TABLE OF DATA PLOTS

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

Vehicle Instrumentation Data

Vehicle Center of Gravity Acceleration (X)
Vehicle Center of Gravity Acceleration (Y)
Vehicle Center of Gravity Acceleration (Z)
Left Floor Sill Acceleration (Y)
Left A-Pillar Sill Acceleration (Y)
Left Lower A-Pillar Acceleration (Y)
Left Mid A-Pillar Acceleration (Y)

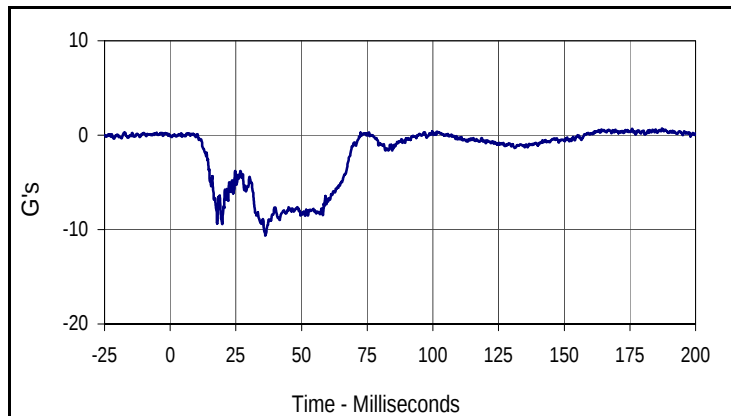
Left B-Pillar Sill Acceleration
Left Lower B-Pillar Acceleration (Y)
Left Mid B-Pillar Acceleration (Y)
Driver Seat Track at Dummy Hip Point Acceleration (Y)
Engine Top Acceleration (X)
Engine Top Acceleration (Y)
Firewall Center Acceleration (Y)
Right Roof at Vertical Impact Reference Line Acceleration (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)

Pole Instrumentation Data

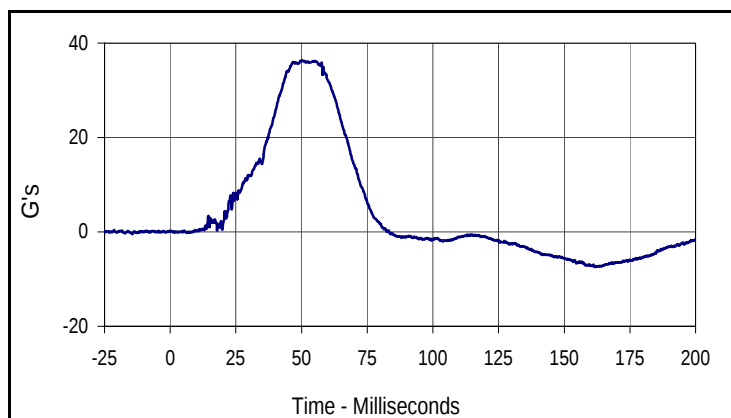
Load Cell Pole Barrier #1 Force (Y)
Load Cell Pole Barrier #2 Force (Y)
Load Cell Pole Barrier #3 Force (Y)
Load Cell Pole Barrier #4 Force (Y)
Load Cell Pole Barrier #5 Force (Y)
Load Cell Pole Barrier #6 Force (Y)
Load Cell Pole Barrier #7 Force (Y)
Load Cell Pole Barrier #8 Force (Y)

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test

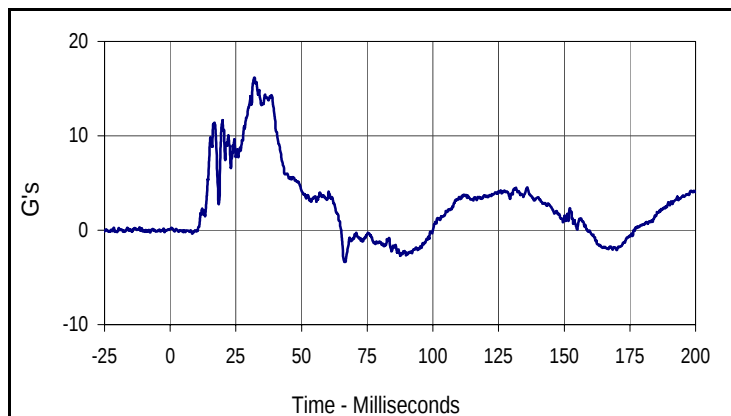
Test Date: 8/16/13
 NHTSA No.: M20145204



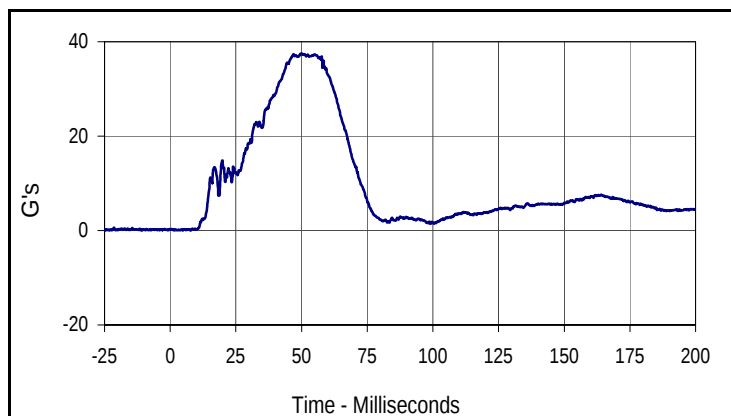
Curve Description			
Driver Head Acceleration X Primary			
Plot No.	Type	SAE Class	Units
001	FIL	1000	G's
Max	Time	Min	Time
0.7	187.2	-10.6	36.2



Curve Description			
Driver Head Acceleration Y Primary			
Plot No.	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
36.3	49.9	-7.4	161.9



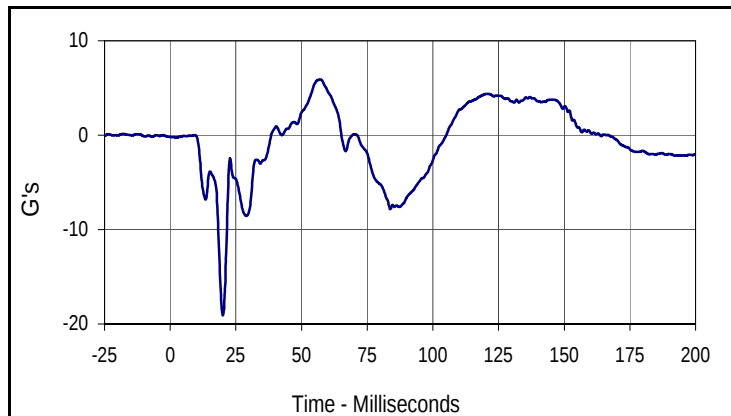
Curve Description			
Driver Head Acceleration Z Primary			
Plot No.	Type	SAE Class	Units
003	FIL	1000	G's
Max	Time	Min	Time
16.2	32.0	-3.4	66.6



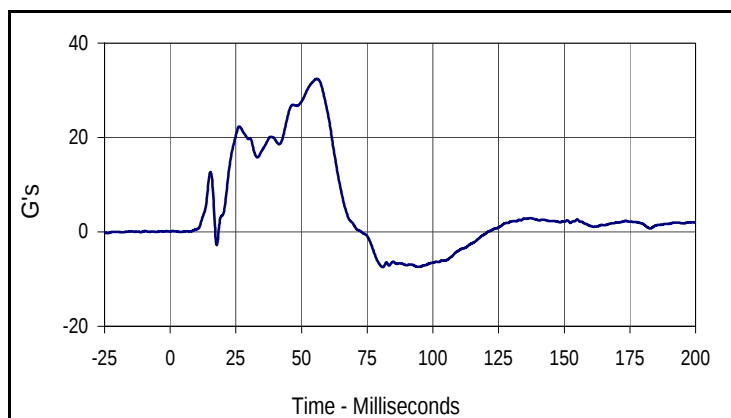
Curve Description			
Driver Head Acceleration Primary Res.			
Plot No.	Type	SAE Class	Units
004	RES	1000	G's
Max	Time	Min	Time
37.5	49.9	0.0	7.8

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test

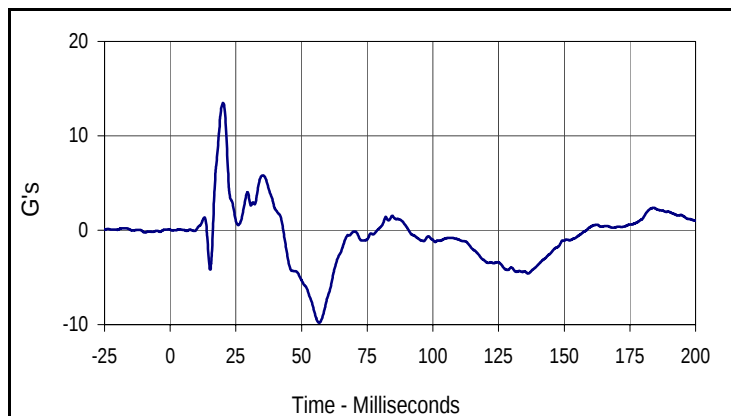
Test Date: 8/16/13
 NHTSA No.: M20145204



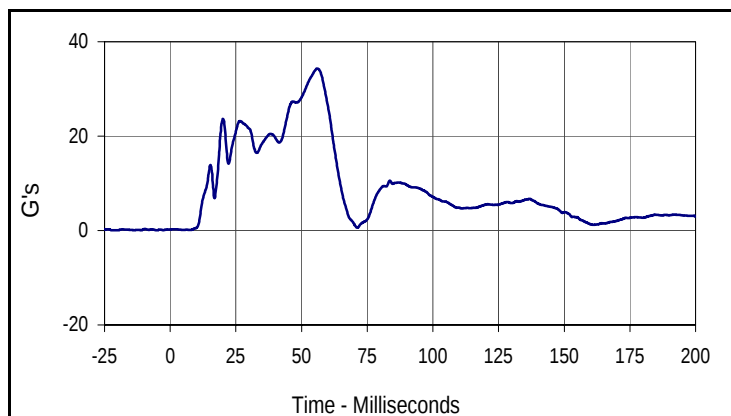
Curve Description			
Driver Lower Spine T12 Acceleration X			
Plot No.	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
5.9	57.3	-19.1	20.0



Curve Description			
Driver Lower Spine T12 Acceleration Y			
Plot No.	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
32.4	55.8	-7.5	80.9



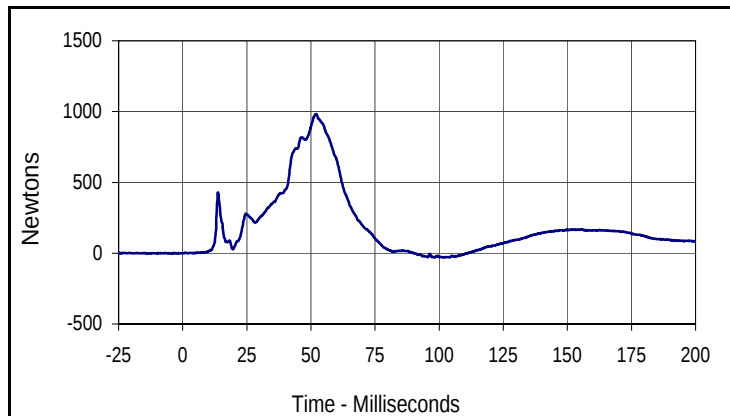
Curve Description			
Driver Lower Spine T12 Acceleration Z			
Plot No.	Type	SAE Class	Units
007	FIL	180	G's
Max	Time	Min	Time
13.5	20.1	-9.8	56.7



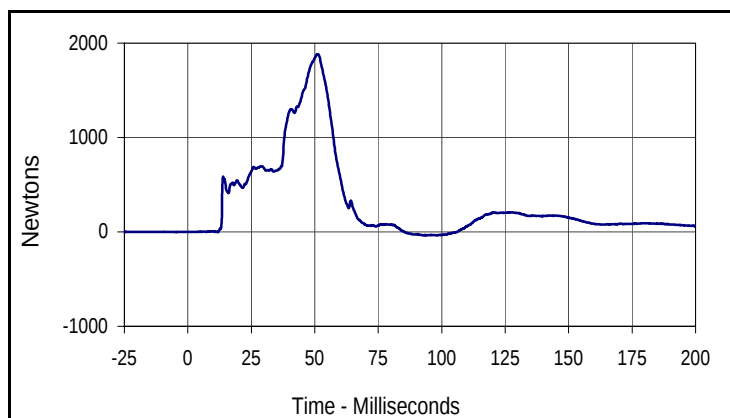
Curve Description			
Driver Lower Spine T12 Acceleration Res.			
Plot No.	Type	SAE Class	Units
008	RES	180	G's
Max	Time	Min	Time
34.3	56.1	0.1	5.0

Test Vehicle: 2014 Nissan Versa Note S 5-Door Hatchback
 Test Program: 32 km/h (20 mph) Side Impact NCAP 75° Rigid Pole Test

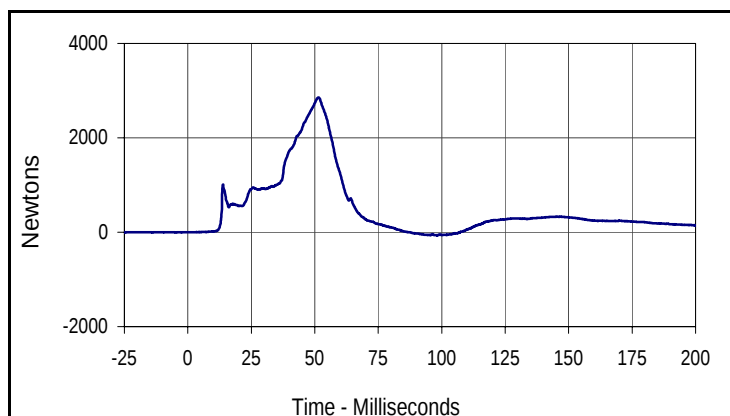
Test Date: 8/16/13
 NHTSA No.: M20145204



Curve Description			
Driver Iliac Wing Force on Impact Side Y			
Plot No.	Type	SAE Class	Units
009	FIL	600	Newtons
Max	Time	Min	Time
981.7	52.1	-30.2	101.7



Curve Description			
Driver Acetabulum Force on Impact Side Y			
Plot No.	Type	SAE Class	Units
010	FIL	600	Newtons
Max	Time	Min	Time
1881.7	51.2	-38.5	92.9



Curve Description			
Driver Total Pelvic Force on Impact Side Y			
Plot No.	Type	SAE Class	Units
011	SUM	600	Newtons
Max	Time	Min	Time
2851.4	51.5	-65.0	98.2

APPENDIX C
DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

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

Test Program: SID IIs External Measurements
 ATD Serial No.: 299

Test Date: 7/29/13
 Test I.D.: N/A



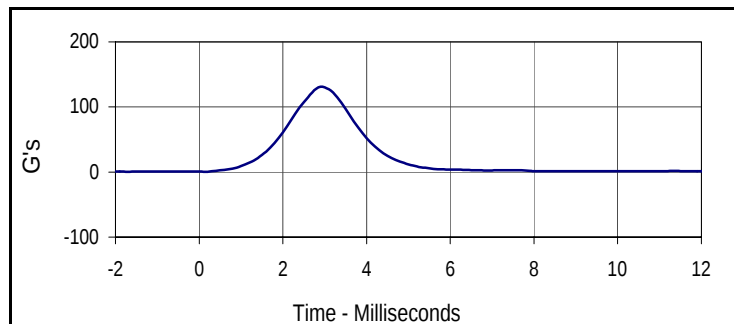
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.3	Pass
Laboratory Relative Humidity		%	10 to 70	38	Pass
A	Sitting Height	mm	772 - 788	780	Pass
B	Shoulder Pivot Height	mm	437 - 453	445	Pass
C	H-Point Height	mm	79 - 89	85	Pass
D	H-Point from Seatback	mm	141 - 151	145	Pass
E	Shoulder Pivot from Backline	mm	97 - 107	102	Pass
F	Thigh Clearance	mm	119 - 135	125	Pass
G	Head Breadth	mm	140 - 148	145	Pass
H	Head Back from Backline	mm	40 - 46	44	Pass
I	Head Depth	mm	178 - 188	184	Pass
J	Head Circumference	mm	541 - 551	545	Pass
K	Buttock to Knee Length	mm	514 - 540	527	Pass
L	Popliteal Height	mm	343 - 369	352	Pass
M	Knee Pivot to Floor Height	mm	392 - 409	401	Pass
N	Buttock Popliteal Length	mm	416 - 442	432	Pass
O	Chest Depth w/o Jacket	mm	195 - 211	202	Pass
P	Foot Length	mm	216 - 232	221	Pass
Q	Hip Breadth with Pelvic Plug	mm	313 - 323	315	Pass
R	Arm Length	mm	249 - 259	252	Pass
S	Knee Joint to Seatback	mm	477 - 493	481	Pass
V	Shoulder Width	mm	341 - 357	352	Pass
W	Foot Width	mm	78 - 94	86	Pass
Y	Chest Circumference with Jacket	mm	851 - 881	872	Pass
Z	Waist Circumference	mm	760 - 791	774	Pass
Overall Test Results					Pass

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

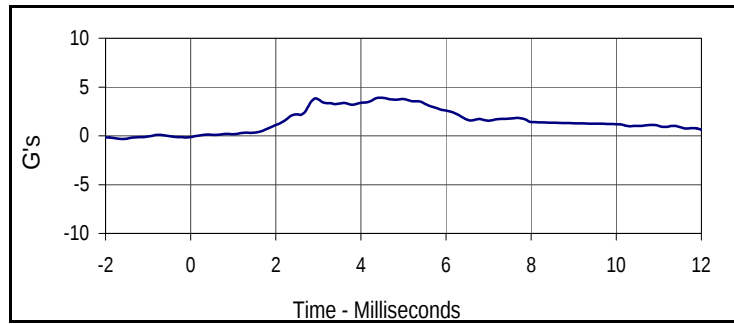
Test Date: 7/29/13
 Test I.D.: 299HD062



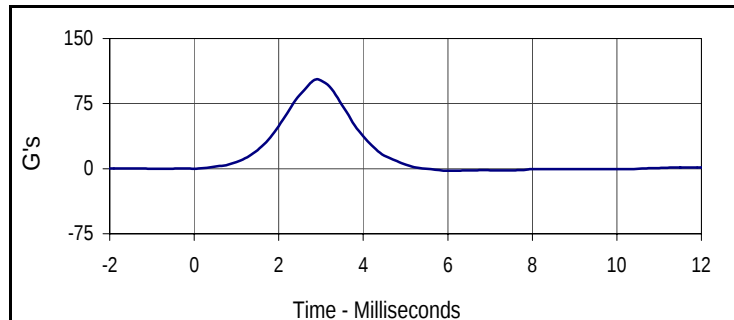
Tested Parameter		Units	Specification	Result	Pass/Fail
Head Assembly Soak Time		Minutes	≥240	275	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.4	Pass
	Min	°C		21.0	Pass
Humidity During Soak	Max	%	10.0 to 70.0	38.3	Pass
	Min	%		36.6	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	37.3	Pass
Peak Head Resultant Acceleration		G's	115 to 137	131.0	Pass
Peak Head X Acceleration		G's	<15	3.9	Pass
Is Acceleration Unimodal?		Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse		%	<15	2.1	Pass
Overall Test Results				Pass	



Curve Description			
Head Resultant			
Plot No.	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
131.0	2.9	0.5	0.2



Curve Description			
Head X			
Plot No.	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
3.9	4.5	-0.3	-1.6



Curve Description			
Head Y			
Plot No.	Type	SAE Class	Units
003	FIL	1000	G's
Max	Time	Min	Time
103.1	2.9	-2.4	6.0



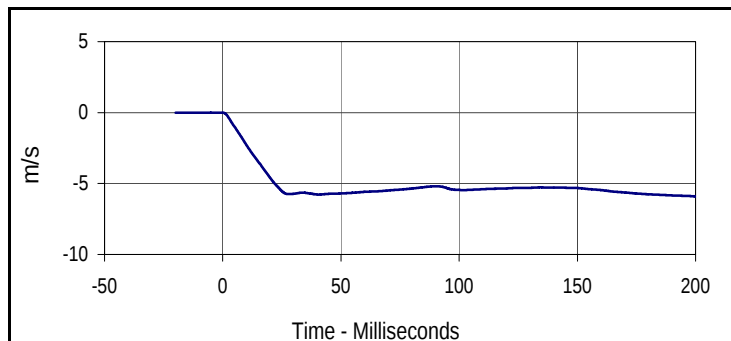
Curve Description			
Head Z			
Plot No.	Type	SAE Class	Units
004	FIL	1000	G's
Max	Time	Min	Time
81.0	3.0	-0.8	10.6

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

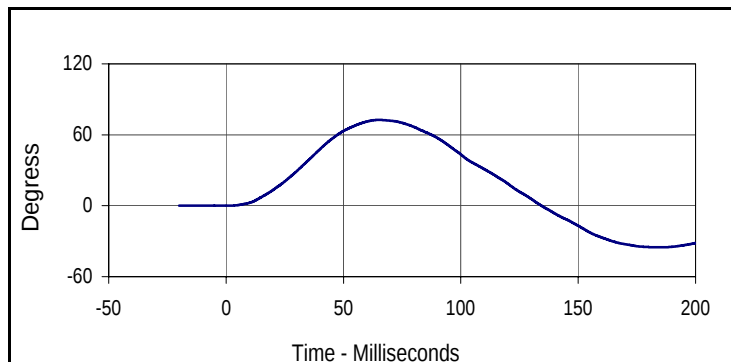
Test Date: 7/29/13
 Test I.D.: 299NB062



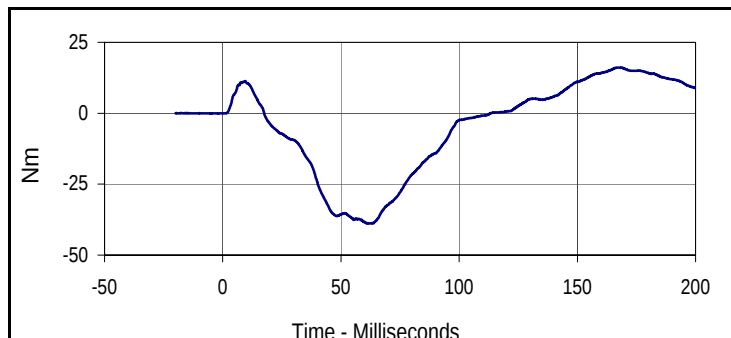
Tested Parameter	Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time	Minutes	≥240	340	Pass
Temperature During Soak	Max	20.6 to 22.2	21.4	Pass
	Min		21.0	Pass
Humidity During Soak	Max	10.0 to 70.0	38.3	Pass
	Min		36.6	Pass
Laboratory Temperature During Test	°C	20.6 to 22.2	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	37.4	Pass
Pendulum Velocity	m/s	5.51 to 5.63	5.57	Pass
Pendulum Deceleration	10 msec	-2.20 to -2.80	-2.28	Pass
	15 msec	-3.30 to -4.10	-3.45	Pass
	20 msec	-4.40 to -5.40	-4.58	Pass
	25 msec	-5.40 to -6.10	-5.53	Pass
	25-100 msec	-5.50 to -6.20	-5.77	Pass
D-Plane Rotation	Max	71 to 81	72.6	Pass
	Time	50 to 70	65.2	Pass
Peak Occipital Condyle Moment	Nm	-36 to -44	-38.9	Pass
Decaying Moment Time to Cross 0 Nm	msec	102 to 126	113.3	Pass
Overall Test Results			Pass	



Curve Description			
Pendulum Velocity			
Plot No.	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
0.0	-20.0	-5.9	200.0



Curve Description			
Maximum Translation Rotation			
Plot No.	Type	SAE Class	Units
002	FIL	60	Degress
Max	Time	Min	Time
72.6	65.2	-35.2	184.1



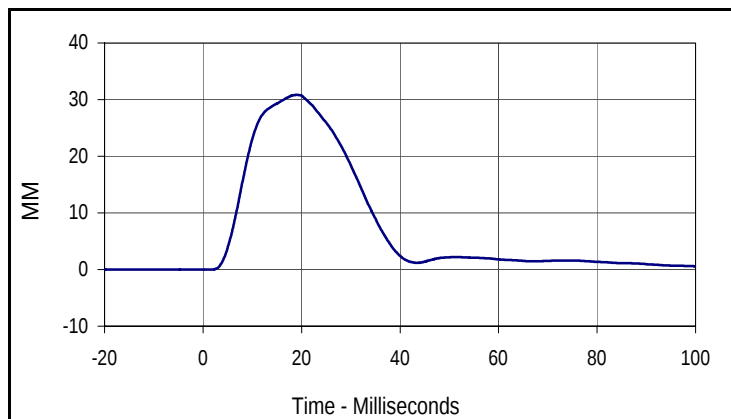
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
16.1	167.2	-38.9	62.5

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

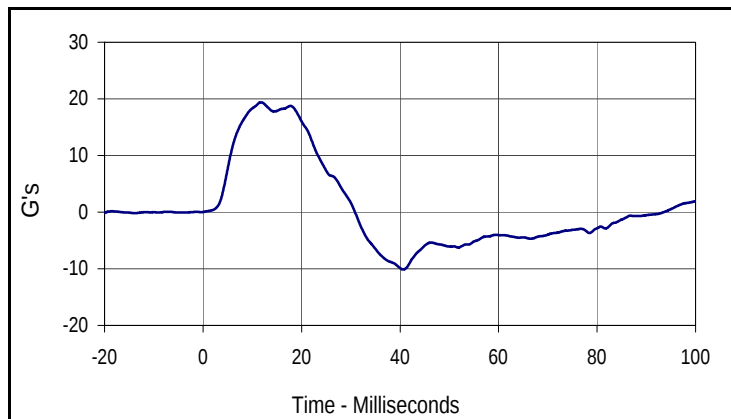
Test Date: 7/29/13
 Test I.D.: 299SH062



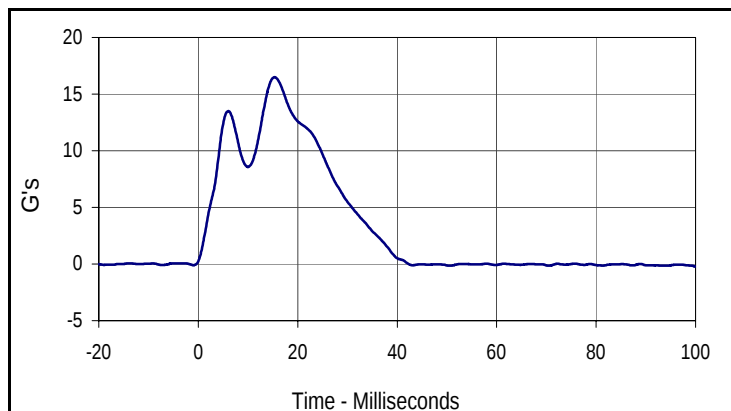
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥180	415	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.4	Pass
	Min	°C		21.0	Pass
Humidity During Soak	Max	%	10.0 to 70.0	38.3	Pass
	Min	%		36.6	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.3	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	37.4	Pass
Impactor Velocity		m/s	4.20 to 4.40	4.31	Pass
Peak Shoulder Deflection		mm	28 to 37	30.8	Pass
Peak Lateral Spine Acceleration Y		G's	17 to 22	19.4	Pass
Peak Impactor Acceleration		G's	13 to 18	16.5	Pass
Overall Test Results				Pass	



Curve Description			
Shoulder Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
30.8	19.1	0.0	-0.5



Curve Description			
Upper Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
19.4	11.8	-10.1	40.7



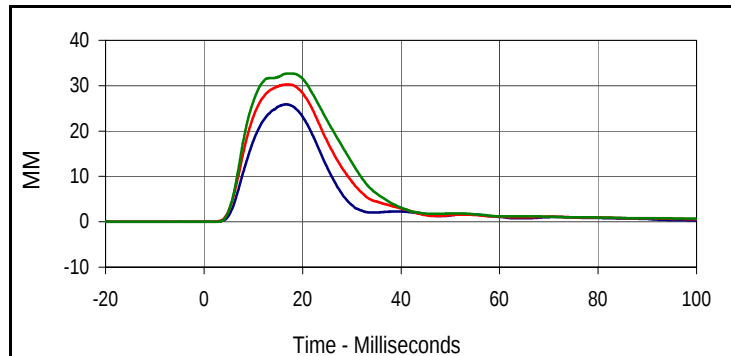
Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
16.5	15.4	-0.2	99.9

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

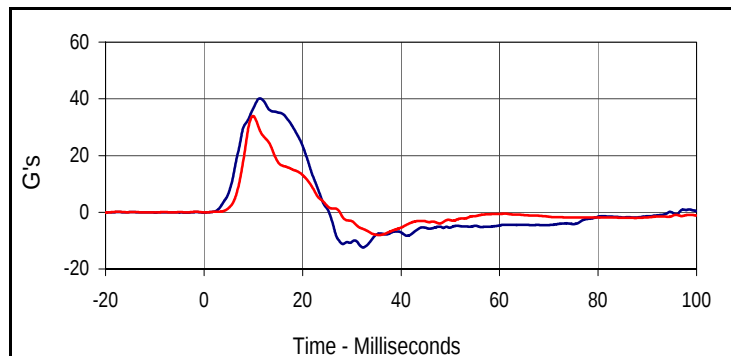
Test Date: 7/29/13
 Test I.D.: 299TWA062



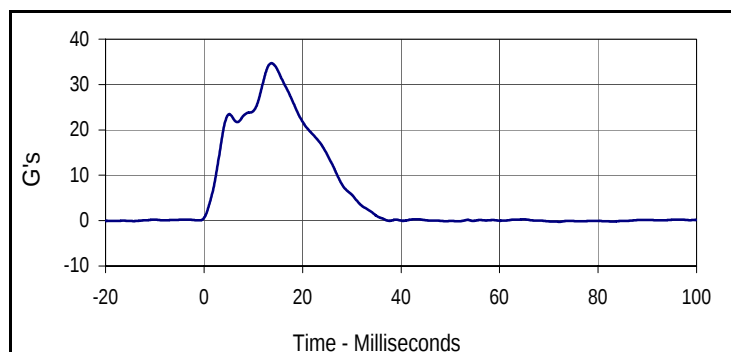
Tested Parameter	Units	Specification	Result	Pass/Fail
Dummy Soak Time	Minutes	≥180	465	Pass
Temperature During Soak	Max	20.6 to 22.2	21.4	Pass
	Min		21.0	Pass
Humidity During Soak	Max	10.0 to 70.0	38.3	Pass
	Min		36.6	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.3	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	37.4	Pass
Impactor Velocity	m/s	6.6 to 6.8	6.71	Pass
Peak Shoulder Deflection	mm	31 to 40	33.8	Pass
Peak Upper Thorax Rib Deflection	mm	25 to 32	25.9	Pass
Peak Middle Thorax Rib Deflection	mm	30 to 36	30.3	Pass
Peak Lower Thorax Rib Deflection	mm	32 to 38	32.7	Pass
Peak Upper Spine Y Acceleration	G's	34 to 43	40.2	Pass
Peak Lower Spine Y Acceleration	G's	29 to 37	34.0	Pass
Peak Impactor Acceleration	G's	30 to 36	34.7	Pass
Overall Test Results			Pass	



Curve Description			
Upper Thorax Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
25.9	16.7	0.0	-18.4
Middle Thorax Deflection			
Max	Time	Min	Time
30.3	17.0	0.0	-16.1
Lower Thorax Deflection			
Max	Time	Min	Time
32.7	17.2	0.0	-14.6



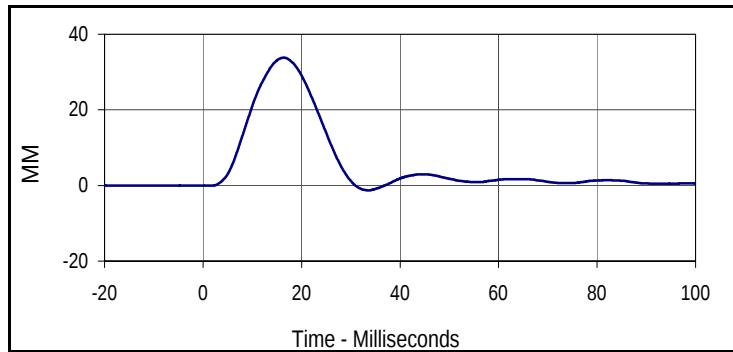
Curve Description			
Upper Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
40.2	11.3	-12.4	32.3
Lower Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
34.0	9.9	-8.0	35.6



Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
34.7	13.7	-0.2	72.2

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

Test Date: 7/29/13
 Test I.D.: 299TWA062



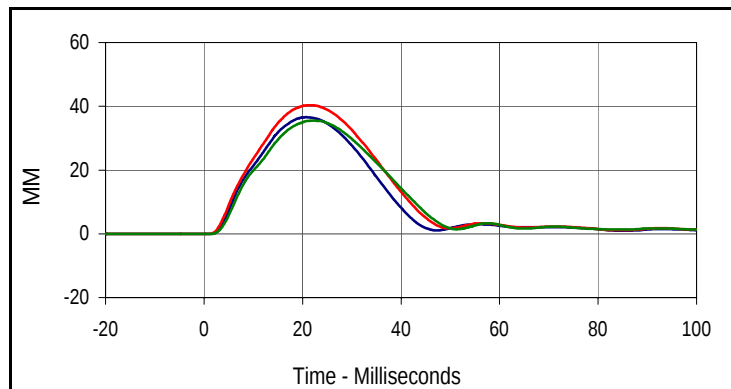
Curve Description			
Shoulder Deflection			
Plot No.	Type	SAE Class	Units
007	FIL	600	MM
Max	Time	Min	Time
33.8	16.4	-1.3	33.5

Test Program: SID IIs Thorax without Arm Impact Test
 ATD Serial No.: 299

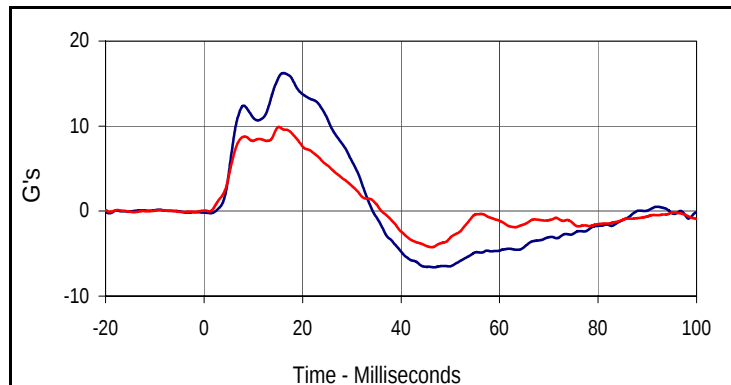
Test Date: 7/29/13
 Test I.D.: 299TWOA062



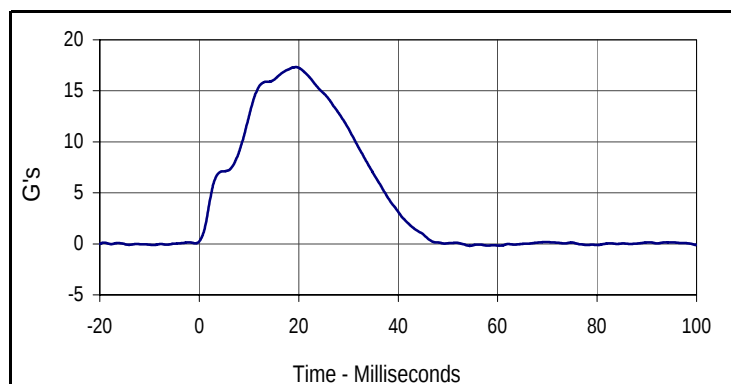
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥180	520	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.4	Pass
	Min	°C		21.0	Pass
Humidity During Soak	Max	%	10.0 to 70.0	38.3	Pass
	Min	%		36.6	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	37.4	Pass
Impactor Velocity		m/s	4.2 to 4.4	4.31	Pass
Peak Upper Thorax Rib Deflection		mm	32 to 40	36.6	Pass
Peak Middle Thorax Rib Deflection		mm	39 to 45	40.3	Pass
Peak Lower Thorax Rib Deflection		mm	35 to 43	35.5	Pass
Peak Upper Spine Y Acceleration		G's	13 to 17	16.2	Pass
Peak Lower Spine Y Acceleration		G's	7 to 11	9.9	Pass
Peak Impactor Acceleration		G's	14 to 18	17.3	Pass
Overall Test Results				Pass	



Curve Description			
Upper Thorax Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
36.6	20.7	0.0	-8.6
Middle Thorax Deflection			
Max	Time	Min	Time
40.3	21.2	0.0	-12.8
Lower Thorax Deflection			
Max	Time	Min	Time
35.5	22.3	0.0	-5.7



Curve Description			
Upper Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
16.2	16.1	-6.6	46.7
Lower Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
9.9	15.2	-4.2	46.2



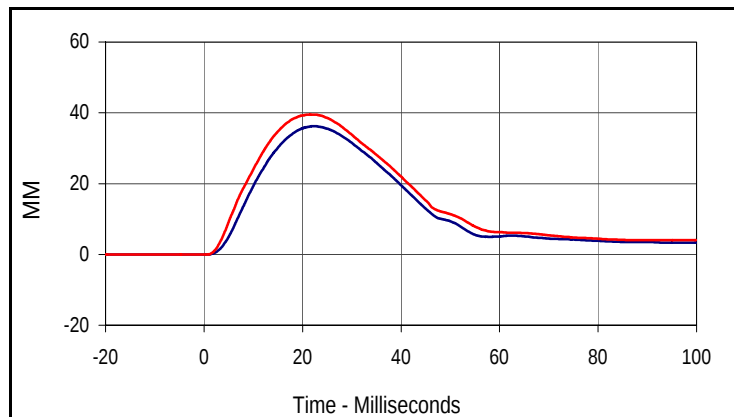
Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
17.3	19.5	-0.2	54.4

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

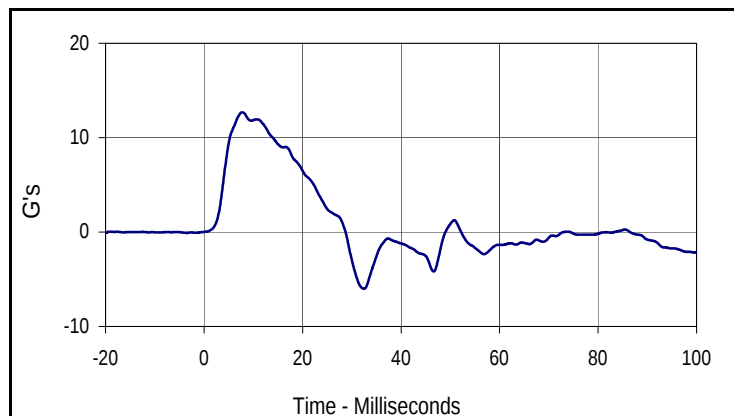
Test Date: 7/29/13
 Test I.D.: 299ABD062



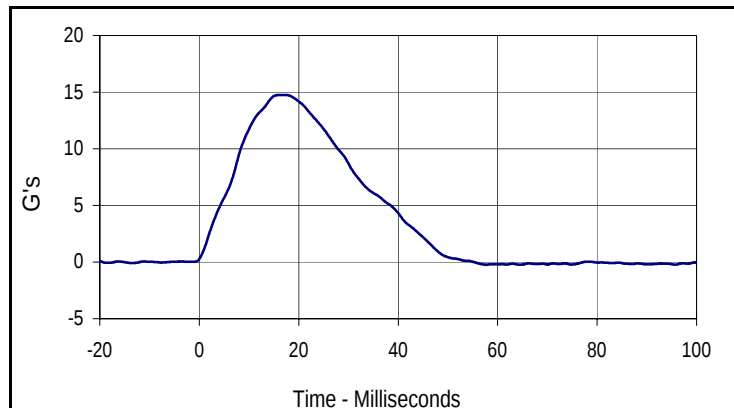
Tested Parameter	Units	Specification	Result	Pass/Fail
Dummy Soak Time	Minutes	≥180	580	Pass
Temperature During Soak	Max °C	20.6 to 22.2	21.4	Pass
	Min °C		21.0	Pass
Humidity During Soak	Max %	10.0 to 70.0	38.3	Pass
	Min %		36.6	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	37.4	Pass
Impactor Velocity	m/s	4.2 to 4.4	4.34	Pass
Peak Upper Abdominal Rib Deflection	mm	36 to 47	36.2	Pass
Peak Lower Abdominal Rib Deflection	mm	33 to 44	39.5	Pass
Peak Lower Spine Y Acceleration	G's	9 to 14	12.7	Pass
Peak Impactor Acceleration	G's	12 to 16	14.8	Pass
Overall Test Results			Pass	



Curve Description			
Upper Abdominal Rib Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
36.2	22.5	0.0	-11.3
Curve Description			
Lower Abdominal Rib Deflection			
Plot No.	Type	SAE Class	Units
002	FIL	600	MM
Max	Time	Min	Time
39.5	21.6	0.0	-0.3

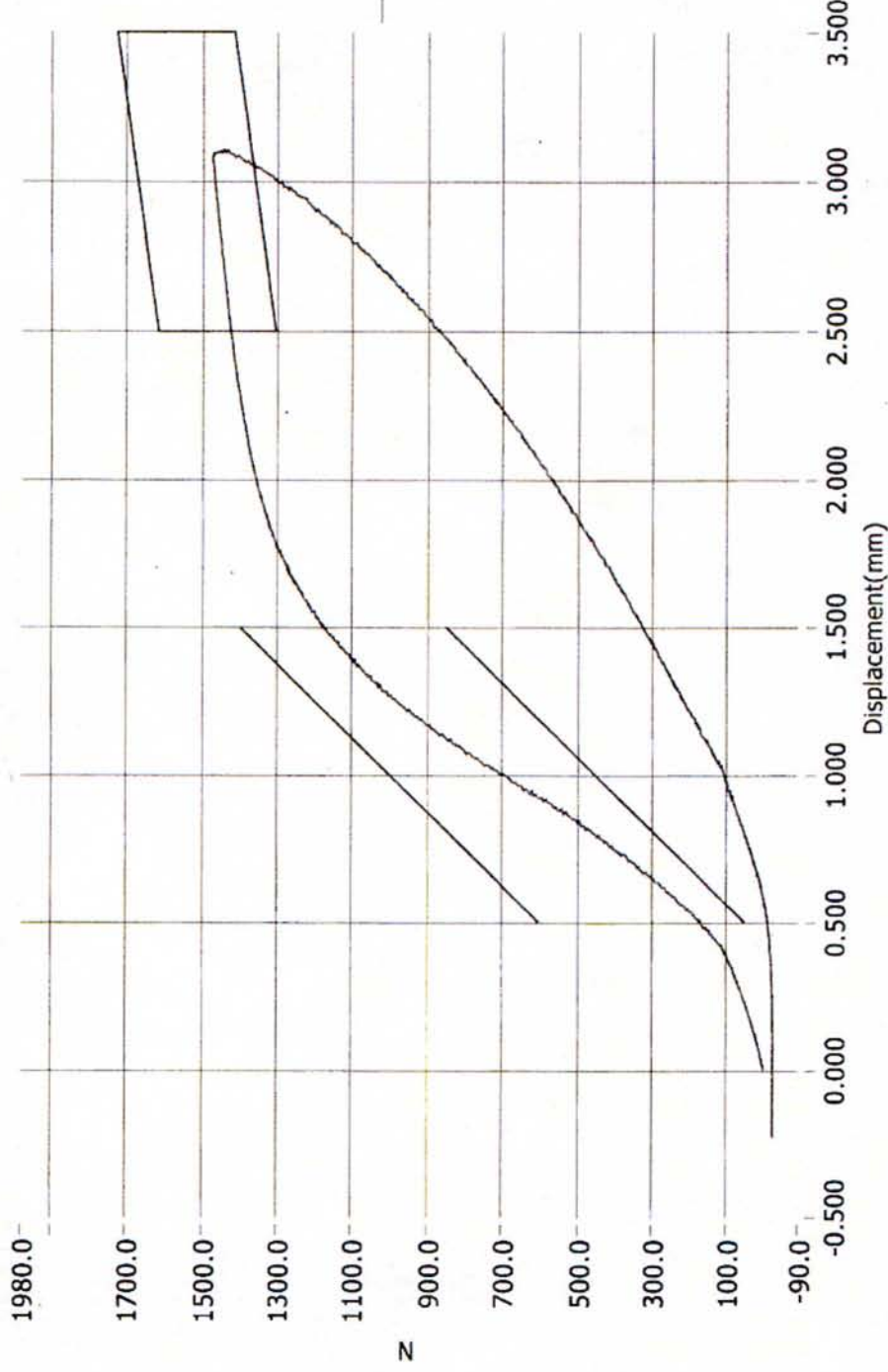


Curve Description			
Lower Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
12.7	7.8	-6.0	32.4



Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
14.8	17.3	-0.2	57.7

Resultant Data - SIDIIs Plug Compression



ATD Calibration Lab

Test ID	Part Serial Number	Test Date	Test Time
	49023	12/7/2011	1:16 AM
Cert ID	ATD Serial Number	ATD Type	
	N/A	SIDIIs	

M20145204 PRE TEST

Current Date : 12/7/2011

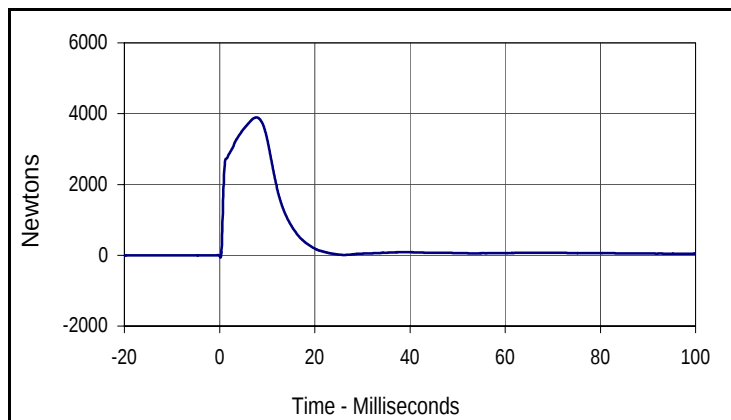
Current Time : 01:17:07

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

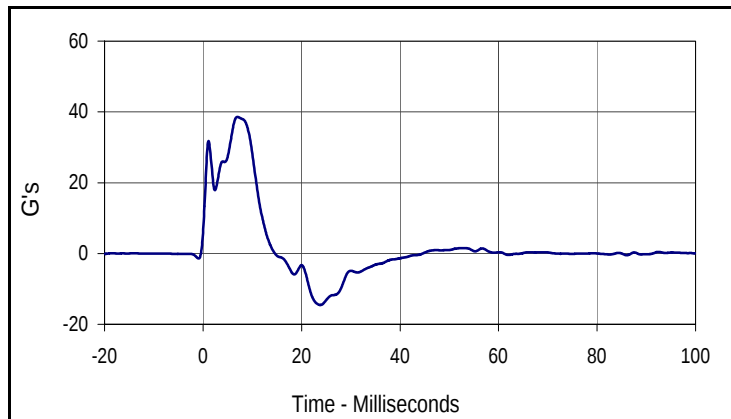
Test Date: 7/29/13
 Test I.D.: 299ACET062



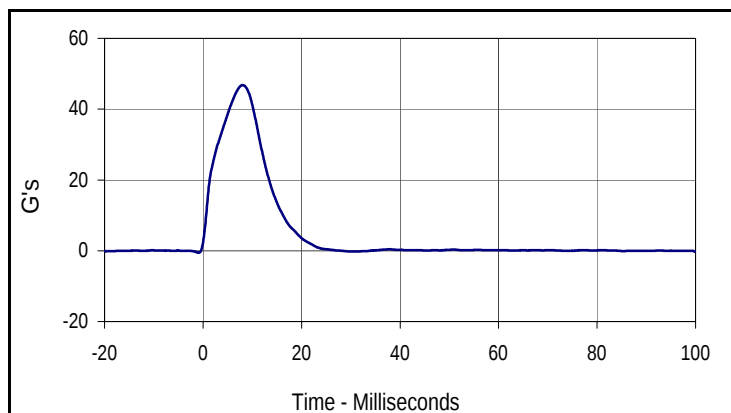
Tested Parameter	Units	Specification	Result	Pass/Fail
Dummy Soak Time	Minutes	≥180	655	Pass
Temperature During Soak	Max	20.6 to 22.2	21.4	Pass
	Min		21.0	Pass
Humidity During Soak	Max	10.0 to 70.0	38.3	Pass
	Min		36.6	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	37.4	Pass
Impactor Velocity	m/s	6.6 to 6.8	6.67	Pass
Peak Acetabulum Force Y	Newtons	3600 to 4300	3893.9	Pass
Peak Pelvis Y Acceleration After 6 msec.	G's	34 to 42	38.6	Pass
Peak Impactor Acceleration	G's	38 to 47	46.8	Pass
Overall Test Results			Pass	



Curve Description			
Pelvis Acetabulum Force			
Plot No.	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
3893.9	7.7	-62.9	0.2



Curve Description			
Pelvis Y Acceleration			
Plot No.	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
38.6	7.0	-14.5	23.8



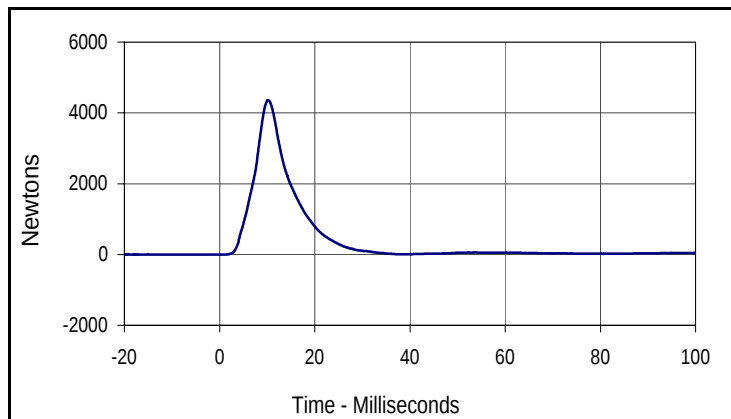
Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
46.8	8.0	-0.6	-0.9

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

Test Date: 7/29/13
 Test I.D.: 299PL062



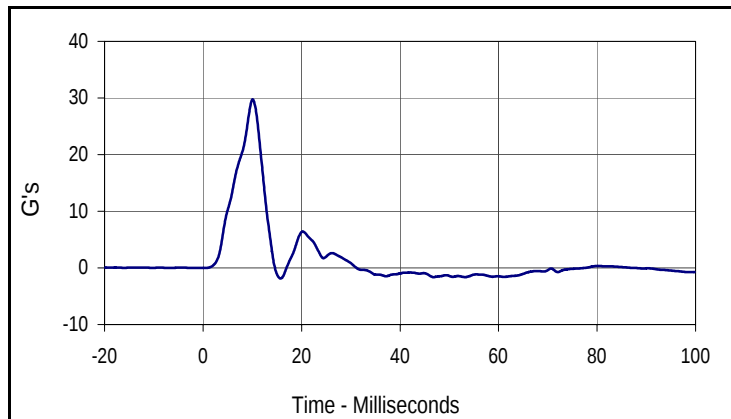
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥180	720	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.4	Pass
	Min	°C		21.0	Pass
Humidity During Soak	Max	%	10.0 to 70.0	38.3	Pass
	Min	%		36.6	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	37.4	Pass
Impactor Velocity		m/s	4.2 to 4.4	4.32	Pass
Peak Iliac Force		Newtons	4100 to 5100	4359.5	Pass
Peak Pelvis Y Acceleration		G's	28 to 39	29.7	Pass
Peak Impactor Acceleration		G's	36 to 45	40.4	Pass
Overall Test Results				Pass	



Curve Description

Pelvis Iliac Force

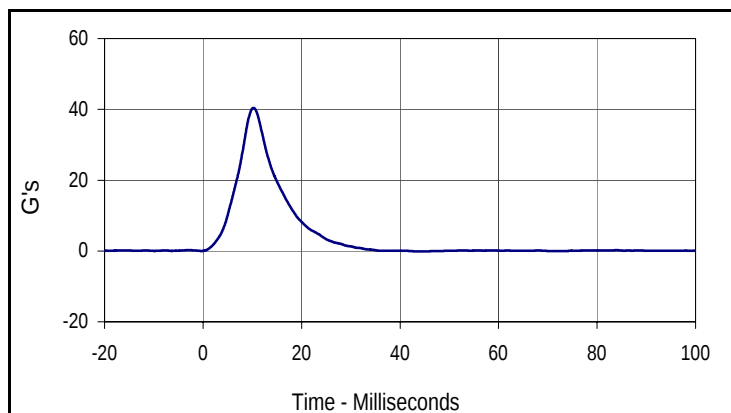
Plot No.	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
4359.5	10.2	-1.4	-13.4



Curve Description

Pelvis Y Acceleration

Plot No.	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
29.7	10.1	-1.9	15.7



Curve Description

Impactor Acceleration

Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
40.4	10.2	-0.1	45.1

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

Test Program: SID IIs External Measurements
 ATD Serial No.: 299

Test Date: 8/22/13
 Test I.D.: N/A



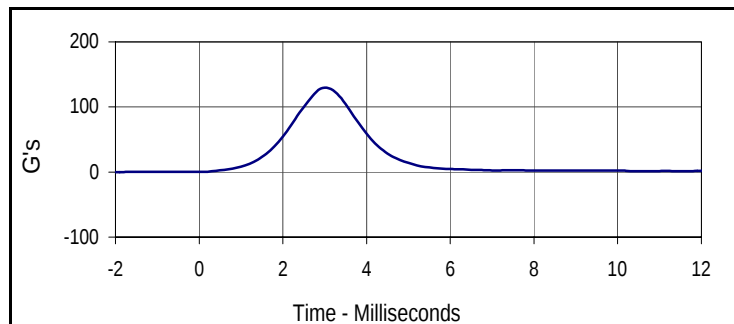
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.4	Pass
Laboratory Relative Humidity		%	10 to 70	39	Pass
A	Sitting Height	mm	772 - 788	780	Pass
B	Shoulder Pivot Height	mm	437 - 453	445	Pass
C	H-Point Height	mm	79 - 89	85	Pass
D	H-Point from Seatback	mm	141 - 151	145	Pass
E	Shoulder Pivot from Backline	mm	97 - 107	102	Pass
F	Thigh Clearance	mm	119 - 135	125	Pass
G	Head Breadth	mm	140 - 148	145	Pass
H	Head Back from Backline	mm	40 - 46	44	Pass
I	Head Depth	mm	178 - 188	184	Pass
J	Head Circumference	mm	541 - 551	545	Pass
K	Buttock to Knee Length	mm	514 - 540	527	Pass
L	Popliteal Height	mm	343 - 369	352	Pass
M	Knee Pivot to Floor Height	mm	392 - 409	401	Pass
N	Buttock Popliteal Length	mm	416 - 442	432	Pass
O	Chest Depth w/o Jacket	mm	195 - 211	202	Pass
P	Foot Length	mm	216 - 232	221	Pass
Q	Hip Breadth with Pelvic Plug	mm	313 - 323	315	Pass
R	Arm Length	mm	249 - 259	252	Pass
S	Knee Joint to Seatback	mm	477 - 493	481	Pass
V	Shoulder Width	mm	341 - 357	352	Pass
W	Foot Width	mm	78 - 94	86	Pass
Y	Chest Circumference with Jacket	mm	851 - 881	872	Pass
Z	Waist Circumference	mm	760 - 791	774	Pass
Overall Test Results					Pass

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

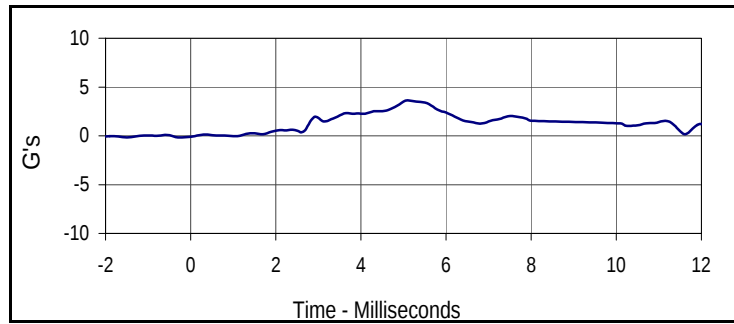
Test Date: 8/22/13
 Test I.D.: 299HD063



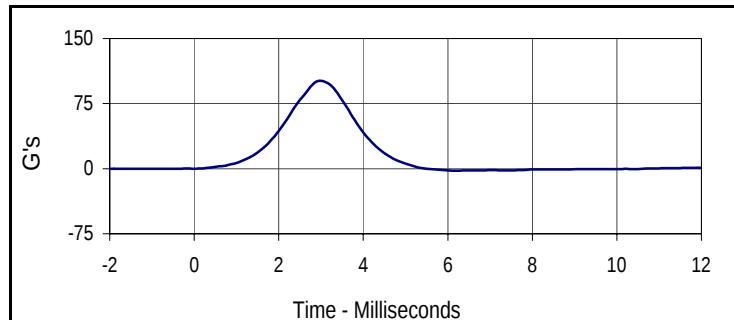
Tested Parameter		Units	Specification	Result	Pass/Fail
Head Assembly Soak Time		Minutes	≥240	365	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.5	Pass
	Min	°C		21.2	Pass
Humidity During Soak	Max	%	10.0 to 70.0	39.3	Pass
	Min	%		37.7	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	38.6	Pass
Peak Head Resultant Acceleration		G's	115 to 137	129.7	Pass
Peak Head X Acceleration		G's	<15	3.6	Pass
Is Acceleration Unimodal?		Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse		%	<15	2.2	Pass
Overall Test Results				Pass	



Curve Description			
Head Resultant			
Plot No.	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
129.7	3.0	0.0	-1.9



Curve Description			
Head X			
Plot No.	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
3.6	5.1	-0.2	-0.2



Curve Description			
Head Y			
Plot No.	Type	SAE Class	Units
003	FIL	1000	G's
Max	Time	Min	Time
101.2	3.0	-2.3	6.2



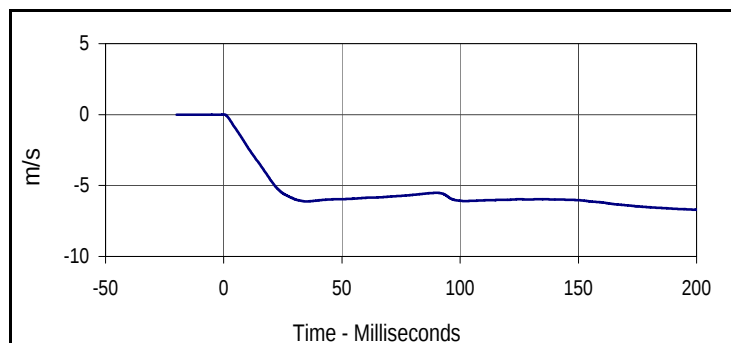
Curve Description			
Head Z			
Plot No.	Type	SAE Class	Units
004	FIL	1000	G's
Max	Time	Min	Time
81.2	3.1	-0.4	11.2

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

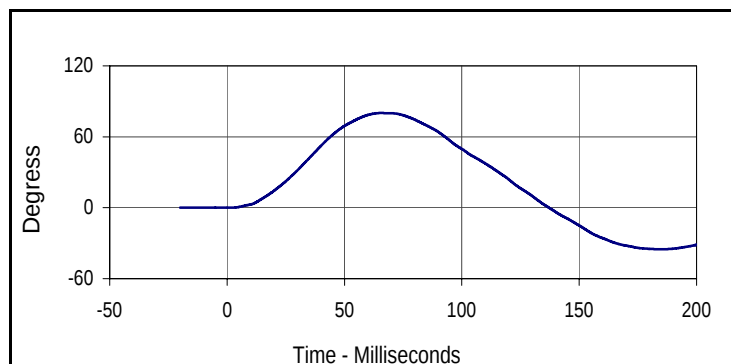
Test Date: 8/22/13
 Test I.D.: 299NB063



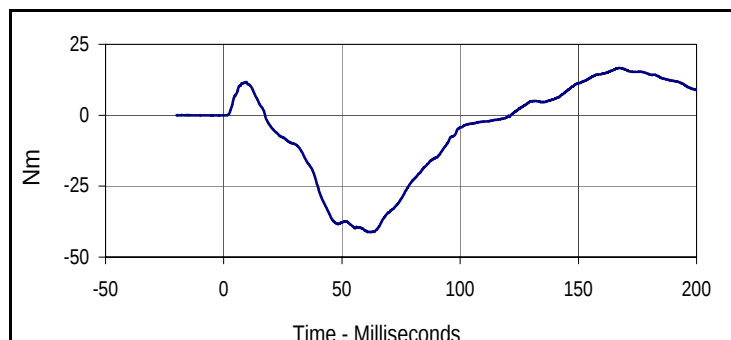
Tested Parameter	Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time	Minutes	≥240	430	Pass
Temperature During Soak	Max	20.6 to 22.2	21.5	Pass
	Min		21.2	Pass
Humidity During Soak	Max	10.0 to 70.0	39.3	Pass
	Min		37.7	Pass
Laboratory Temperature During Test	°C	20.6 to 22.2	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	38.6	Pass
Pendulum Velocity	m/s	5.51 to 5.63	5.60	Pass
Pendulum Deceleration	10 msec	-2.20 to -2.80	-2.26	Pass
	15 msec	-3.30 to -4.10	-3.44	Pass
	20 msec	-4.40 to -5.40	-4.65	Pass
	25 msec	-5.40 to -6.10	-5.55	Pass
	25-100 msec	-5.50 to -6.20	-6.12	Pass
D-Plane Rotation	Max	71 to 81	80.1	Pass
	Time	50 to 70	65.6	Pass
Peak Occipital Condyle Moment	Nm	-36 to -44	-41.2	Pass
Decaying Moment Time to Cross 0 Nm	msec	102 to 126	121.5	Pass
Overall Test Results			Pass	



Curve Description			
Pendulum Velocity			
Plot No.	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			
Plot No.	Type	SAE Class	Units
002	FIL	60	Degress
Max	Time	Min	Time
80.1	65.6	-35.1	184.8



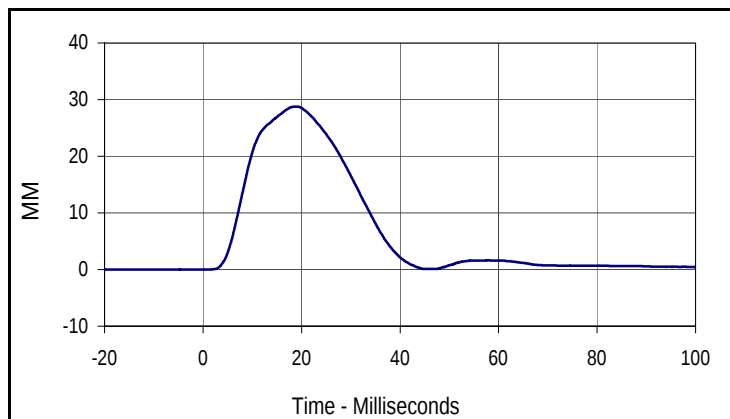
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
16.6	167.2	-41.2	62.5

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

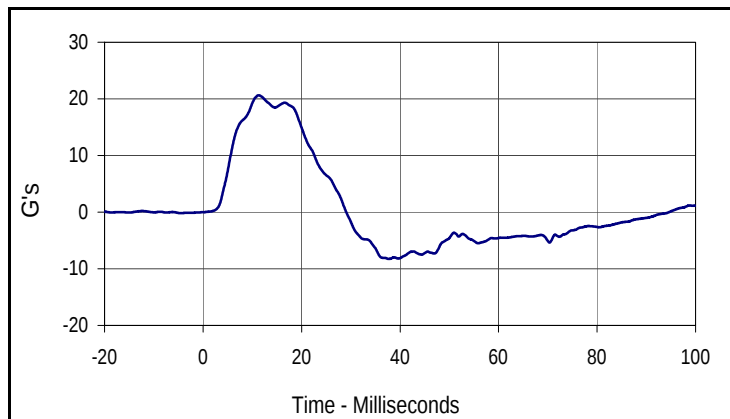
Test Date: 8/22/13
 Test I.D.: 299SH063



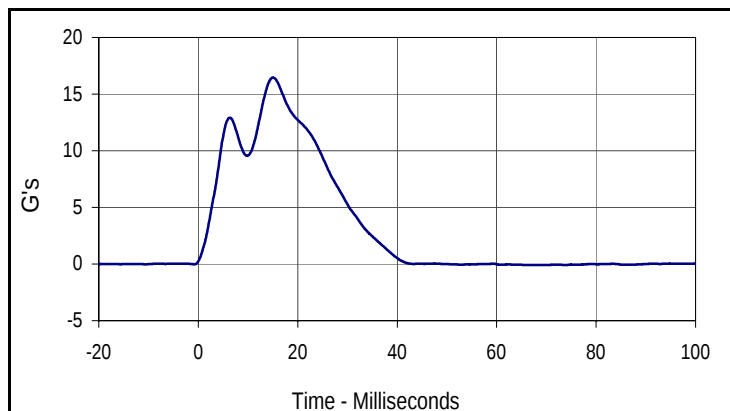
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥180	505	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.5	Pass
	Min	°C		21.2	Pass
Humidity During Soak	Max	%	10.0 to 70.0	39.3	Pass
	Min	%		37.7	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	38.6	Pass
Impactor Velocity		m/s	4.20 to 4.40	4.32	Pass
Peak Shoulder Deflection		mm	28 to 37	28.8	Pass
Peak Lateral Spine Acceleration Y		G's	17 to 22	20.6	Pass
Peak Impactor Acceleration		G's	13 to 18	16.5	Pass
Overall Test Results				Pass	



Curve Description			
Shoulder Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
28.8	18.6	0.0	-19.2



Curve Description			
Upper Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
20.6	11.3	-8.3	37.8



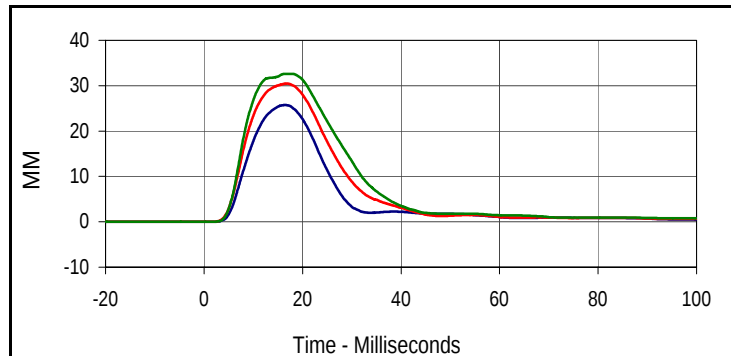
Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
16.5	15.0	-0.1	66.3

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

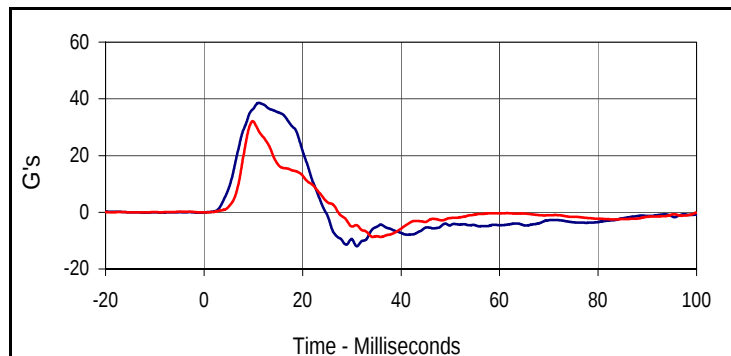
Test Date: 8/22/13
 Test I.D.: 299TWA063



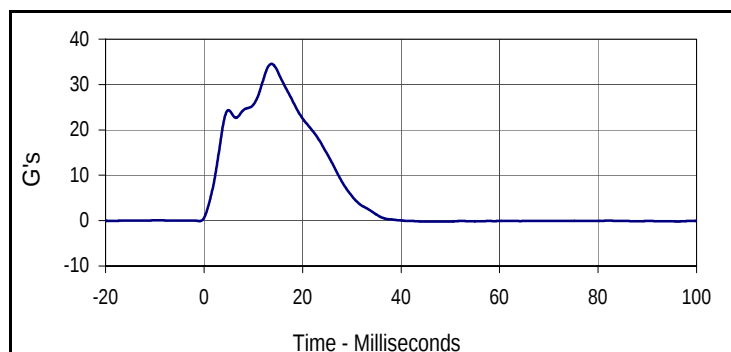
Tested Parameter	Units	Specification	Result	Pass/Fail
Dummy Soak Time	Minutes	≥180	555	Pass
Temperature During Soak	Max	20.6 to 22.2	21.5	Pass
	Min		21.2	Pass
Humidity During Soak	Max	10.0 to 70.0	39.3	Pass
	Min		37.7	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	38.6	Pass
Impactor Velocity	m/s	6.6 to 6.8	6.71	Pass
Peak Shoulder Deflection	mm	31 to 40	33.1	Pass
Peak Upper Thorax Rib Deflection	mm	25 to 32	25.8	Pass
Peak Middle Thorax Rib Deflection	mm	30 to 36	30.5	Pass
Peak Lower Thorax Rib Deflection	mm	32 to 38	32.6	Pass
Peak Upper Spine Y Acceleration	G's	34 to 43	38.6	Pass
Peak Lower Spine Y Acceleration	G's	29 to 37	32.1	Pass
Peak Impactor Acceleration	G's	30 to 36	34.6	Pass
Overall Test Results			Pass	



Curve Description			
Upper Thorax Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
25.8	16.5	0.0	-1.3
Middle Thorax Deflection			
Max	Time	Min	Time
30.5	16.8	0.0	1.2
Lower Thorax Deflection			
Max	Time	Min	Time
32.6	16.5	0.0	-6.0



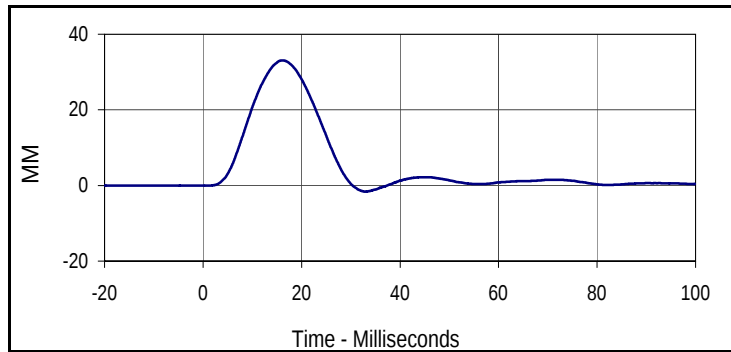
Curve Description			
Upper Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
38.6	11.1	-12.0	31.0
Lower Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
32.1	9.9	-8.7	35.9



Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
34.6	13.7	-0.2	45.0

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

Test Date: 8/22/13
 Test I.D.: 299TWA063



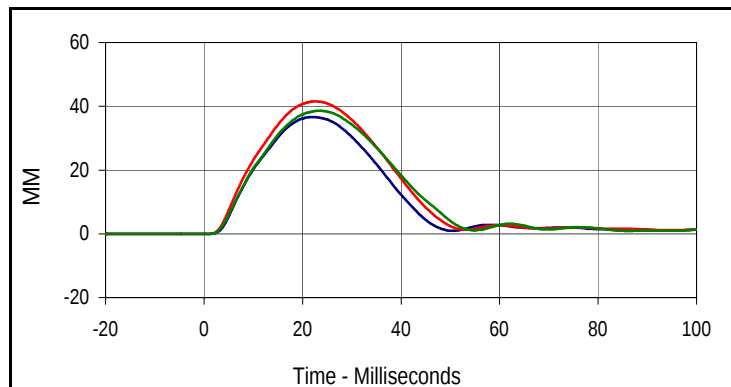
Curve Description			
Shoulder Deflection			
Plot No.	Type	SAE Class	Units
007	FIL	600	MM
Max	Time	Min	Time
33.1	16.2	-1.6	32.9

Test Program: SID IIs Thorax without Arm Impact Test
 ATD Serial No.: 299

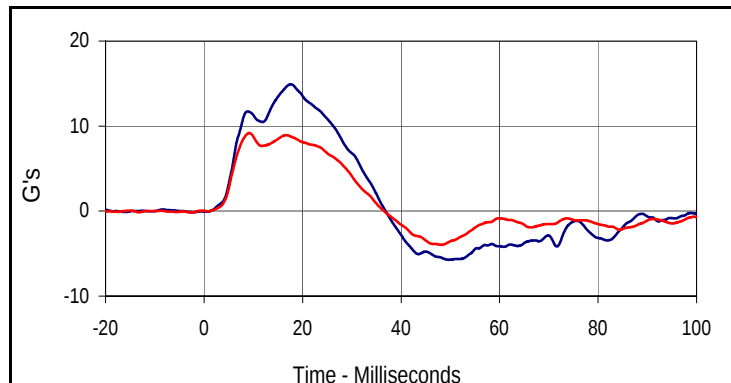
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 Test I.D.: 299TWOA063



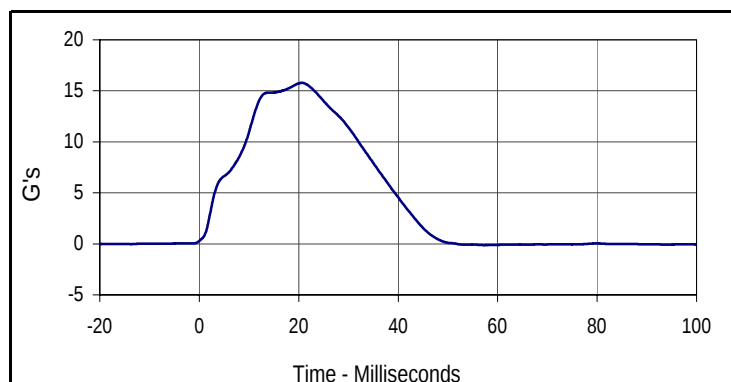
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥180	610	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.5	Pass
	Min	°C		21.2	Pass
Humidity During Soak	Max	%	10.0 to 70.0	39.3	Pass
	Min	%		37.7	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	38.8	Pass
Impactor Velocity		m/s	4.2 to 4.4	4.36	Pass
Peak Upper Thorax Rib Deflection		mm	32 to 40	36.6	Pass
Peak Middle Thorax Rib Deflection		mm	39 to 45	41.5	Pass
Peak Lower Thorax Rib Deflection		mm	35 to 43	38.6	Pass
Peak Upper Spine Y Acceleration		G's	13 to 17	14.9	Pass
Peak Lower Spine Y Acceleration		G's	7 to 11	9.2	Pass
Peak Impactor Acceleration		G's	14 to 18	15.8	Pass
Overall Test Results				Pass	



Curve Description			
Upper Thorax Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
36.6	22.2	0.0	-19.5
Middle Thorax Deflection			
Max	Time	Min	Time
41.5	22.6	0.0	-15.3
Lower Thorax Deflection			
Max	Time	Min	Time
38.6	23.4	0.0	-11.9



Curve Description			
Upper Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
14.9	17.6	-5.7	49.7
Lower Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
9.2	9.2	-4.0	48.2



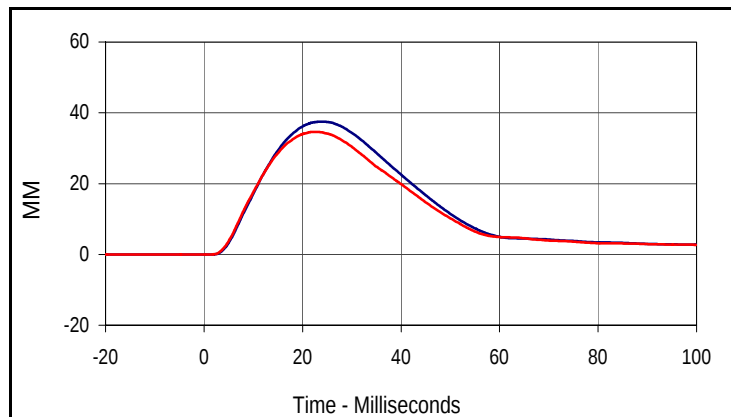
Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
15.8	20.6	-0.1	57.2

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

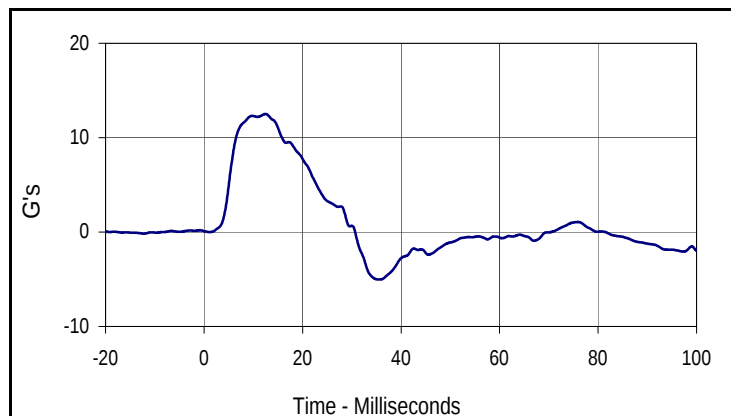
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 Test I.D.: 299ABD063



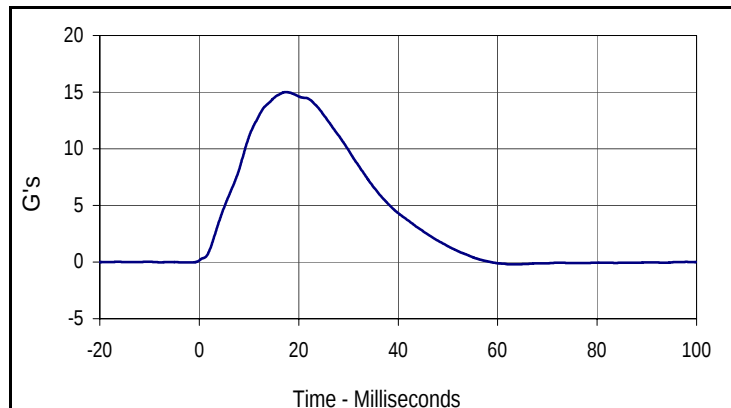
Tested Parameter	Units	Specification	Result	Pass/Fail
Dummy Soak Time	Minutes	≥180	670	Pass
Temperature During Soak	Max °C	20.6 to 22.2	21.5	Pass
	Min °C		21.2	Pass
Humidity During Soak	Max %	10.0 to 70.0	39.3	Pass
	Min %		37.7	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	38.6	Pass
Impactor Velocity	m/s	4.2 to 4.4	4.31	Pass
Peak Upper Abdominal Rib Deflection	mm	36 to 47	37.5	Pass
Peak Lower Abdominal Rib Deflection	mm	33 to 44	34.6	Pass
Peak Lower Spine Y Acceleration	G's	9 to 14	12.5	Pass
Peak Impactor Acceleration	G's	12 to 16	15.0	Pass
Overall Test Results			Pass	



Curve Description			
Upper Abdominal Rib Deflection			
Plot No.	Type	SAE Class	Units
001	FIL	600	MM
Max	Time	Min	Time
37.5	23.9	0.0	-3.6
Curve Description			
Lower Abdominal Rib Deflection			
Plot No.	Type	SAE Class	Units
002	FIL	600	MM
Max	Time	Min	Time
34.6	22.0	0.0	-2.8

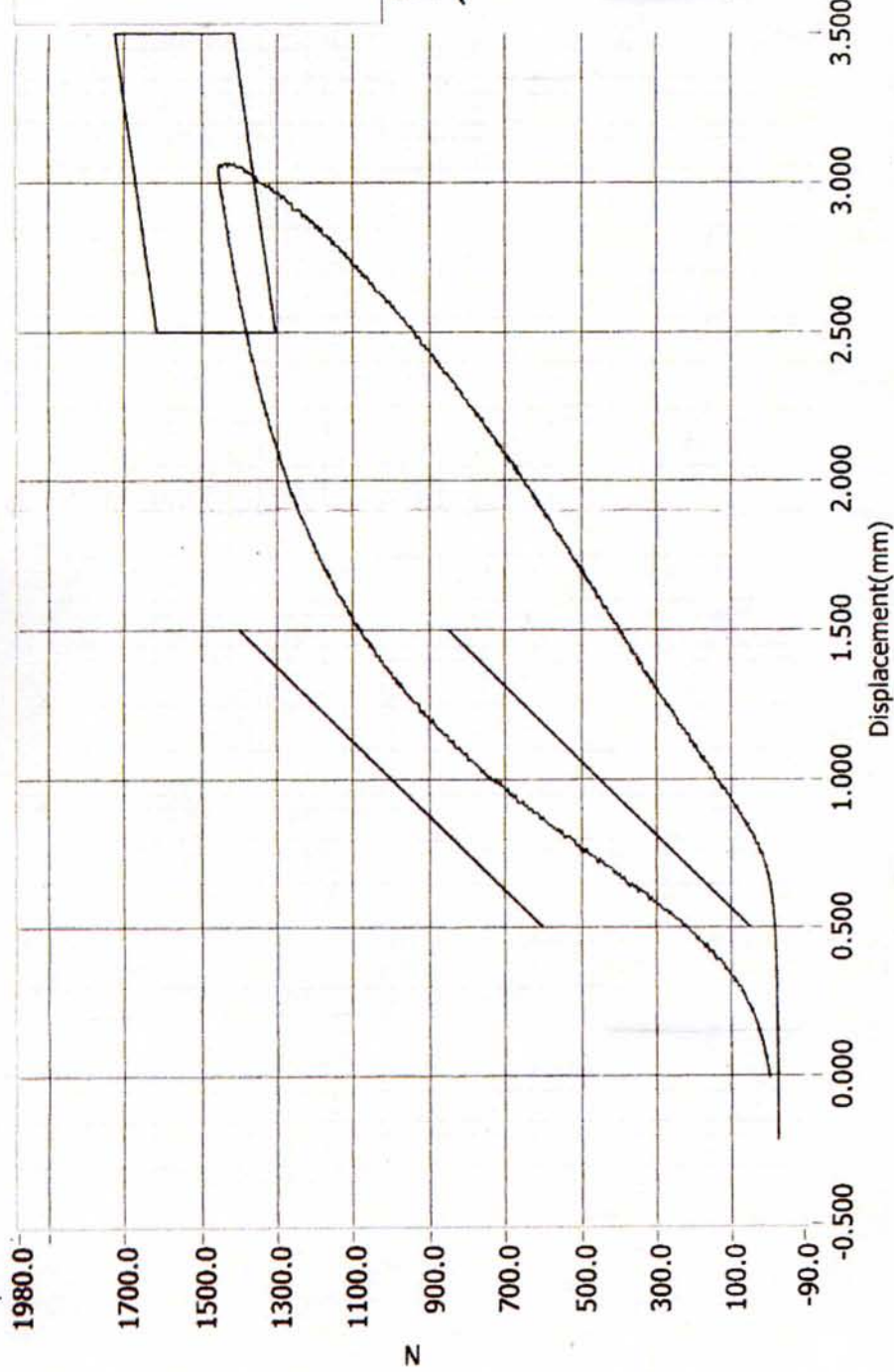


Curve Description			
Lower Spine Y Acceleration			
Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
12.5	12.5	-5.0	35.8



Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	G's
Max	Time	Min	Time
15.0	17.4	-0.2	62.7

Resultant Data - SIDIIs Plug Compression



1452N

ATD Calibration Lab

Test ID	Part Serial Number	Test Date	Test Time
	63059	1/19/2013	1:46 AM
Cert ID	ATD Serial Number	ATD Type	
	N/A	SIDIIs	

M20145204 POST TEST

Current Date : 1/19/2013

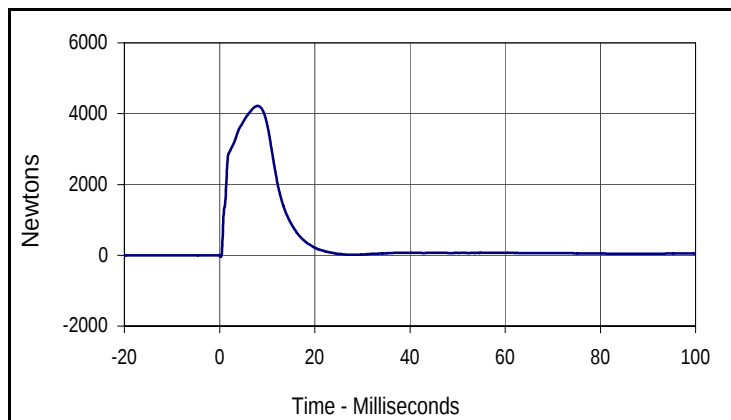
Current Time : 01:46:57

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

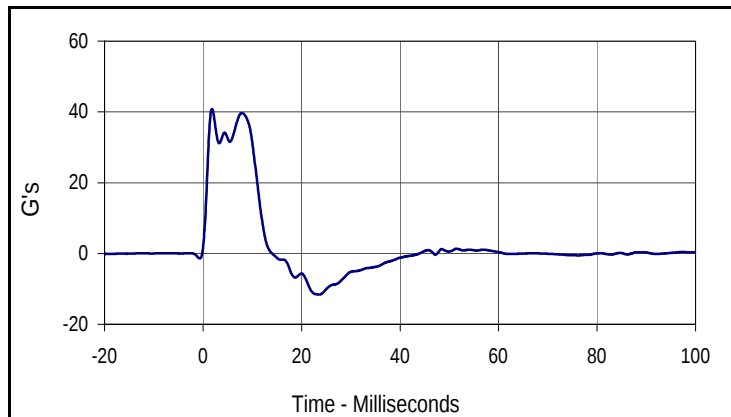
Test Date: 8/22/13
 Test I.D.: 299ACET063



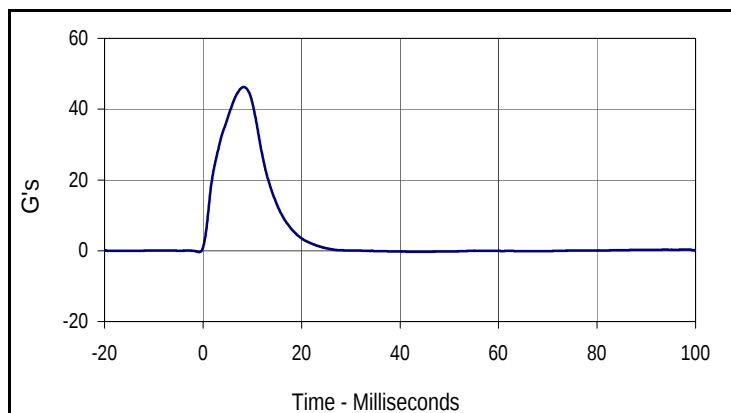
Tested Parameter	Units	Specification	Result	Pass/Fail
Dummy Soak Time	Minutes	≥180	745	Pass
Temperature During Soak	Max	20.6 to 22.2	21.5	Pass
	Min		21.2	Pass
Humidity During Soak	Max	10.0 to 70.0	39.3	Pass
	Min		37.7	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	38.7	Pass
Impactor Velocity	m/s	6.6 to 6.8	6.69	Pass
Peak Acetabulum Force Y	Newtons	3600 to 4300	4219.7	Pass
Peak Pelvis Y Acceleration After 6 msec.	G's	34 to 42	39.7	Pass
Peak Impactor Acceleration	G's	38 to 47	46.2	Pass
Overall Test Results			Pass	



Curve Description			
Pelvis Acetabulum Force			
Plot No.	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
4219.7	8.0	-46.6	0.3



Curve Description			
Pelvis Y Acceleration			
Plot No.	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
40.9	1.8	-11.6	23.6



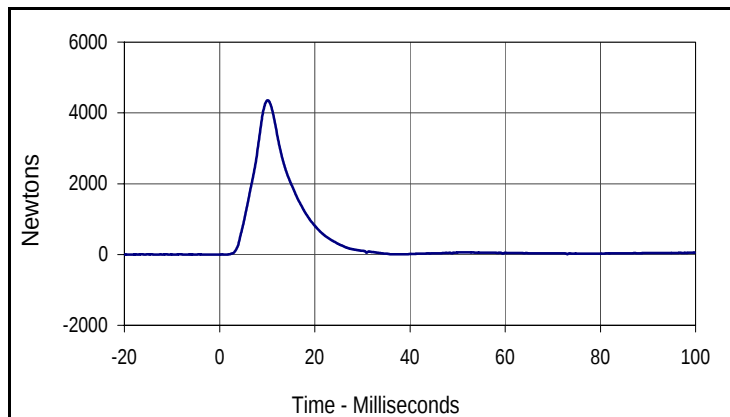
Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
46.2	8.3	-0.4	-0.8

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

Test Date: 8/22/13
 Test I.D.: 299PL063



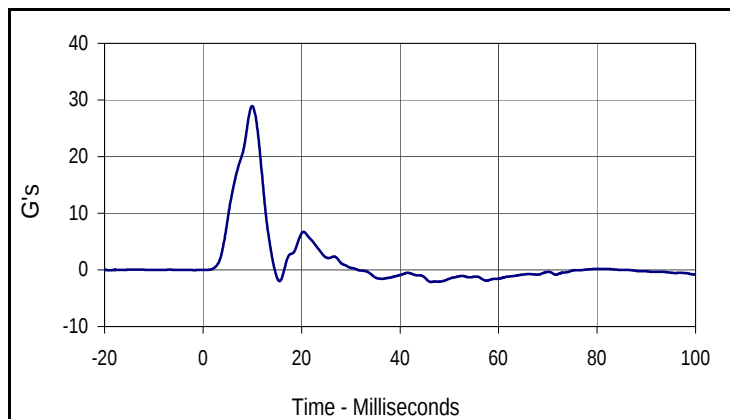
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥180	810	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.5	Pass
	Min	°C		21.2	Pass
Humidity During Soak	Max	%	10.0 to 70.0	39.3	Pass
	Min	%		37.7	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	38.7	Pass
Impactor Velocity		m/s	4.2 to 4.4	4.32	Pass
Peak Iliac Force		Newtons	4100 to 5100	4356.9	Pass
Peak Pelvis Y Acceleration		G's	28 to 39	28.9	Pass
Peak Impactor Acceleration		G's	36 to 45	39.4	Pass
Overall Test Results				Pass	



Curve Description

Pelvis Iliac Force

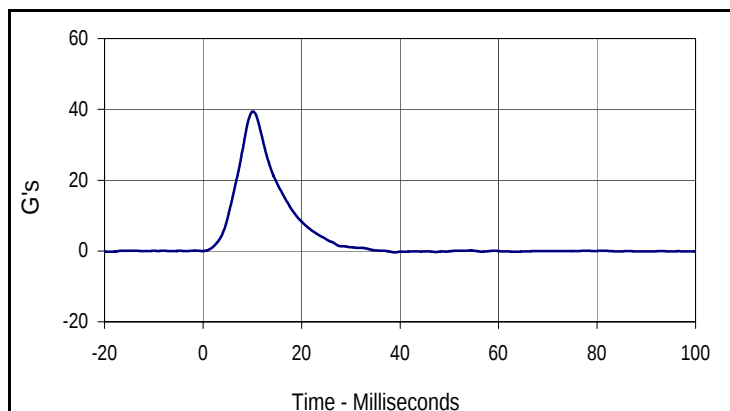
Plot No.	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
4356.9	10.1	-2.0	-19.7



Curve Description

Pelvis Y Acceleration

Plot No.	Type	SAE Class	Units
002	FIL	180	G's
Max	Time	Min	Time
28.9	10.0	-2.1	46.3



Curve Description

Impactor Acceleration

Plot No.	Type	SAE Class	Units
003	FIL	180	G's
Max	Time	Min	Time
39.4	10.1	-0.4	38.9

APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA

TABLE 1 – Dummy Instrumentation (SID-IIs)

				SID-IIs S/N 299		
				Serial Number	Manufacturer	Calibration
Head Accelerometers			X	P51926	Endevco	4/30/13
			Y	P51929	Endevco	4/30/13
			Z	P51934	Endevco	4/30/13
Displacement Potentiometers	Shoulder		Y	1074	FTSS	5/2/13
	Thoracic Rib	Upper	Y	1143	FTSS	5/2/13
		Middle	Y	1160	FTSS	5/2/13
		Lower	Y	1213	FTSS	5/2/13
	Abdominal Rib	Upper	Y	1218	FTSS	5/2/13
		Lower	Y	1234	FTSS	5/2/13
Lower Spine Accelerometers (T12)			X	P63999	Endevco	4/30/13
			Y	P58872	Endevco	4/30/13
			Z	P58795	Endevco	5/1/13
Acetabulum Load Cell			Y	272	Denton	4/19/13
Iliac Wing Load Cell			Y	284	Denton	4/19/13
Pelvis Plug (Struck Side)				49026	FTSS	12/7/11
Pelvis Plug (Non-Struck Side)				48896	FTSS	12/5/11

TABLE 2 – Vehicle Instrumentation

Vehicle Instrumentation		Serial Number	Manufacturer	Calibration Date
Vehicle Center of Gravity	X	Keva202x	ICSensor	7/2/13
Vehicle Center of Gravity	Y	Keva202y	ICSensor	7/1/13
Vehicle Center of Gravity	Z	Keva202z	ICSensor	7/2/13
Left Floor Sill	Y	13496	Endevco	4/18/13
A-Pillar Sill	Y	13481	Endevco	6/17/13
A-Pillar Low	Y	13707	Endevco	6/18/13
A-Pillar Mid	Y	12891	Endevco	7/1/13
B-Pillar Sill	Y	N/A	N/A	N/A
B-Pillar Low	Y	N/A	N/A	N/A
B-Pillar Mid	Y	N/A	N/A	N/A
Driver Seat	Y	13486	Endevco	6/26/13
Engine Top	X	13316	Endevco	6/25/13
Engine Top	Y	13331	Endevco	6/26/13
Firewall	Y	13748	Endevco	4/17/13
Right Roof	Y	13478	Endevco	7/1/13
Right Floor Sill	Y	13490	Endevco	4/17/13
Rear Floorpan	X	13717	Endevco	6/17/13
Rear Floorpan	Y	13469	Endevco	6/19/13

TABLE 3 – Pole Instrumentation

	Serial Number	Manufacturer	Calibration Date
Load Cell 1	131822A	Interface	9/17/12
Load Cell 2	132304A	Interface	9/17/12
Load Cell 3	19477	Interface	9/18/12
Load Cell 4	19325	Interface	9/18/12
Load Cell 5	131827A	Interface	9/18/12
Load Cell 6	132302A	Interface	9/18/12
Load Cell 7	19267	Interface	9/19/12
Load Cell 8	19321	Interface	9/19/12