

**FINAL REPORT NUMBER: SPNCAP-TRC-13-004**

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

**Chrysler Group LLC  
2013 Jeep Compass Sport FWD MPV  
NHTSA NUMBER: MD0308**

**PREPARED BY:  
Transportation Research Center Inc.  
10820 State Route 347  
P. O. Box B-67  
East Liberty, OH 43319**



**Report Date: January 16, 2013**

**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**

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Report Prepared By: ILO Project Operations Group

Report Approved By: 

Jeffery W. Sankey, Manager Project Operations

Approval Date: \_\_\_\_\_

FINAL REPORT ACCEPTANCE BY OCWS:

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

Date: \_\_\_\_\_

FINAL REPORT ACCEPTANCE BY OCWS:

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

Date: \_\_\_\_\_

Technical Report Documentation Page

1. Report No. SPNCAP-TRC-13-004	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 2013 Jeep Compass Sport FWD MPV, NHTSA No.: MD0308		5. Report Date January 16, 2013																									
		6. Performing Organization Code TRC Inc.																									
7. Author(s) Margaret Susan, Project Manager		8. Performing Organization Report No. 121023																									
9. Performing Organization Name and Address Transportation Research Center Inc. 10820 State Route 347 East Liberty, OH 43319		10. Work Unit No.																									
		11. Contract or Grant No. DTNH22-09-D-00125																									
12. Sponsoring Agency Name and Address 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, DC 20590		13. Type of Report and Period Covered Final Test Report October 23, 2012– November 6, 2012																									
		14. Sponsoring Agency Code  NVS-111																									
15. Supplemental Notes																											
16. Abstract A 32.2 km/h (20 mph), 75° oblique impact Side NCAP Test was conducted on the subject vehicle, a 2013 Jeep Compass Sport FWD MPV, 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. This test was conducted by Transportation Research Center Inc. in East Liberty, Ohio, on October 23, 2012. The impact velocity was 32.05 km/h, and the ambient temperature at the struck (left) side of the target vehicle at the time of impact was 21° C. The test vehicle's post-test maximum crush was 375 mm at Level 3. The test or target vehicle's performance is given below:																											
<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Unit</u></th> <th style="text-align: center;"><u>Threshold</u></th> <th style="text-align: center;"><u>Front SID-IIs</u></th> </tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC<sub>36</sub>):</td> <td style="text-align: center;">NA</td> <td style="text-align: center;">1000</td> <td style="text-align: center;"><u>548</u></td> </tr> <tr> <td>Resultant Lower Spine Acceleration:</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">82</td> <td style="text-align: center;"><u>73.4</u></td> </tr> <tr> <td>Total Pelvic Force: (sum of acetabular and iliac forces)</td> <td style="text-align: center;">N</td> <td style="text-align: center;">5525</td> <td style="text-align: center;"><u>4020.5</u></td> </tr> <tr> <td>Maximum Thoracic Rib Deflection</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">38</td> <td style="text-align: center;"><u>41.7</u></td> </tr> <tr> <td>Maximum Abdomen Rib Deflection</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">45</td> <td style="text-align: center;"><u>51.3</u></td> </tr> </tbody> </table>					<u>Unit</u>	<u>Threshold</u>	<u>Front SID-IIs</u>	Head Injury Criteria (HIC <sub>36</sub> ):	NA	1000	<u>548</u>	Resultant Lower Spine Acceleration:	g's	82	<u>73.4</u>	Total Pelvic Force: (sum of acetabular and iliac forces)	N	5525	<u>4020.5</u>	Maximum Thoracic Rib Deflection	mm	38	<u>41.7</u>	Maximum Abdomen Rib Deflection	mm	45	<u>51.3</u>
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The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.																											
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 Administration Technical Information Services Division, NPO-411 1200 New Jersey Ave, SE Washington, DC 20590 e-mail: <a href="mailto:tis@nhtsa.dot.gov">tis@nhtsa.dot.gov</a> FAX: 202-493-2833																									
19. Security Classification (of this report) Unclassified	20. Security Classification (of this page) Unclassified	21. Number of Pages 122	22. Price																								

## TABLE OF CONTENTS

<u>Section</u>		<u>Page No.</u>
1	Test Purpose and Procedure	1
2	Summary of Test Results	2
3	Occupant and Vehicle Information	4
<u>Data Sheet No.</u>		<u>Page No.</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	11
4	Dummy Lateral Clearance Dimensions	12
5	Camera and Instrumentation Data	13
6	Vehicle Accelerometer Data	14
7	Rigid Pole Load Cell Data	15
8	Post-Test Observations	16
9	Vehicle Profile Measurements	18
10	Vehicle Exterior Crush Measurements	19
11	FMVSS No. 301 Fuel Integrity Post-Impact Data	22
12	Dummy/Vehicle Temperature and Humidity Stabilization Data	23
<u>Appendix</u>		<u>Page No.</u>
A	Photographs	A-1
B	Vehicle and Dummy Response Data Plots	B-1
C	Dummy Configuration and Performance Verification Data	C-1
D	Test Equipment And Instrumentation Calibration Data	D-1

**SECTION 1**  
**TEST PURPOSE AND PROCEDURE**

**TEST PURPOSE AND PROCEDURE**

This side impact test was conducted as part of the MY13 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-09-D-00125. The purpose of this test is to generate comparative side impact performance in a 2013 Jeep Compass Sport FWD MPV manufactured by Chrysler Group LLC. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Side NCAP Pole Laboratory Test Procedure, dated September 2012.

**SECTION 2**  
**SUMMARY OF TEST RESULTS**

A rigid pole side impact test was conducted on a model year 2013 Jeep Compass Sport FWD MPV. The subject vehicle was towed into the rigid pole at an angle of 75° and a velocity of 32.05 km/h. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, OH, on October 23, 2012. Pre-test and post-test photographs of the test vehicle and the 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) dummy was instrumented accordingly: OCWS Side NCAP Pole Laboratory Test Procedure

- Head CG Triaxial Accelerometers
- Thorax Upper, Middle, and Lower Rib Displacement Potentiometers
- Abdomen Upper and Lower Rib Displacement Potentiometers
- Lower Spine (T12) 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.

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

Measurement Description	Driver ATD (SID-IIs)		
	Units	IARV	Result
Head Injury Criteria (HIC <sub>36</sub> )	NA	1000	548
Resultant Lower Spine Acceleration	G	82	73.4
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	4020.5
Maximum Thoracic Rib Deflection	mm	38*	41.7
Maximum Abdominal Rib Deflection	mm	45*	51.3

\* 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
Front Airbag	Yes	No		
Knee Airbag	No	NA		
Curtain	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes	Yes	No	NA
Seat Belt Load Limiter	No	No	No	NA
Other	None	NA	None	NA

### GENERAL COMMENTS

None

**SECTION 3**  
**OCCUPANT AND VEHICLE INFORMATION**

**DATA SHEET NO. 1**

**GENERAL TEST AND VEHICLE PARAMETER DATA**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV      NHTSA No.: MD0308  
 Test Program: SPNCAP Side Impact      Test Date: 10/23/12

**TEST VEHICLE INFORMATION AND OPTIONS**

NHTSA No.	MD0308
Model Year	2013
Make	Jeep
Model	Compass Sport
Body Style	MPV
VIN	1C4NJCBAxDD100356
Body Color	Gray Metallic
Delivery Date	9/27/2012
Odometer Reading (km/mi)	124 mi
Dealer	Frank Boucher Chrysler, Dodge
Transmission	Automatic CVT
Final Drive	Front
Type/No. Cylinders	Inline / 4
Engine Displacement (L)	2.0
Engine Placement	Transverse
Roof Rack	Yes
Sunroof/T-Top	No
Tinted Glass	Yes
Traction Control	Yes
Power Brakes	Yes
Front Disc	Yes
Rear Disc	No
Other	None

Anti-Lock Brakes	Yes
All-Wheel Drive	No
Power Steering	Yes
Driver Front Airbag	Yes
Driver Side Torso Airbag	No
Driver Side Head Airbag	No
Driver Curtain Airbag	Yes
Driver Knee Airbag	No
Driver Head/Torso Combo Airbag	No
Rear Pass. Front Airbag	No
Rear Pass. Side Torso Airbag	No
Rear Pass. Side Head Airbag	No
Rear Pass. Curtain Airbag	Yes
Rear Pass. Combo Airbag	No
Pretensioners	Yes
Load Limiters	No
Air Conditioning	Yes
AM/FM CD	Yes
Tilt Steering	Yes
Automatic Door Locks	Yes
Power Windows	Yes
Power Seats	No
Other	None

Does owner's manual provide instructions to turn off automatic door locks? Yes

**DATA FROM CERTIFICATION LABEL**

Manufactured By	Chrysler Group LLC
Date of Manufacture	7-12
Vehicle Type	MPV

GVWR (kg)	2012
GAWR Front (kg)	1080
GAWR Rear (kg)	1044

**VEHICLE SEATING AND WEIGHT CAPACITY DATA**

	Front	Rear	Third	Total
Designated Seating Capacity (DSC)	2	3		5
Vehicle Capacity Weight (VCW) (kg)				419.0
DSC x 68.04 kg				340.2
Rated Cargo and Luggage Weight (RCLW) (kg)				78.8

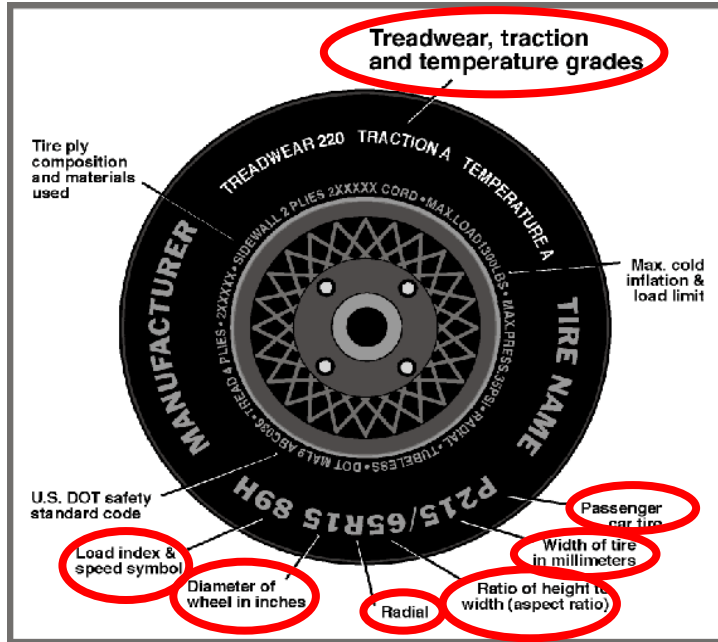
**VEHICLE SEAT TYPE**

Seating Location	Type of Seat Pan				Type of Seat Back		
	Bucket	Bench	Split Bench	Contoured	Fixed	Adjustable	
						W/ Lever	W/ Knob
Front Seat	Yes	No	No		No	Yes	No
Rear or Second Row Seat	No	No	Yes	No	Yes	No	No
Third Row Seat	NA	NA	NA	NA	NA	NA	NA

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

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12



**TIRE SIDEWALL INFORMATION**

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold Pressure (kPa)	300	300
Recommended Tire Size	P205/70R16	P205/70R16
Tire Size on Vehicle	P205/70R16	P205/70R16
Tire Manufacturer	Goodyear	Goodyear
Tire Model	Eagle L/S	Eagle L/S
Treadwear	400	400
Traction	A	A
Temperature Grades	A	A
Tire Plies Sidewall	2	2
Tire Plies Body	2	2
Load Index/Speed Symbol	96T	96T
Tire Material	Polyester and Steel	Polyester and Steel
DOT Safety Code Left	M60W CUER	M60W CUER
DOT Safety Code Right	M60W CUER	M60W CUER

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

Test Vehicle: 2013 Jeep Compass Sport FWD MPV NHTSA No.: MD0308  
 Test Program: SPNCAP Side Impact Test Date: 10/23/12

**TIRE PRESSURES**

	Units	LF	RF	LR	RR
As Delivered	kPa	240	240	240	240
Tire Placard	kPa	240	240	240	240
Owner's Manual	kPa	240	240	240	240
As Tested	kPa	240	240	240	240

**TEST VEHICLE AXLE WEIGHTS**

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	428.4	313.4		460.2	327.8		433.0	377.8	
Right	kg	425.2	270.4		471.6	296.6		434.2	331.6	
Ratio	%	59.4	40.6		59.9	40.1		55.0	45.0	
Totals	kg	853.6	583.8	1437.4	931.8	624.4	1556.2	867.2	709.4	1576.6

**TARGET TEST WEIGHT CALCULATION**

Measured Parameter	Units	Value	
Total As Delivered Weight (UVW)	kg	1437.4	(A)
Actual Weight of 1 P572V ATD (SID-IIs) Dummy Used	kg	49	(B)
Rated Cargo/Luggage Weight (RCLW)	kg	78.8	(C)
Calculated Vehicle Target Weight (TVTW)	kg	1565.2	(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 kg)?  YES  NO

**WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW**

Component Description	Weight (kg)
Ballast (if any)	0.0
Components removed: Rear seat back	17.6

**TEST VEHICLE ATTITUDES AND CG**

	Units	As Delivered	As Tested	Fully Loaded	Meets Requirement***
Driver Door Sill Angle (front-to-rear)*	Deg.	-0.4	-0.8	0.3	No
Front Passenger Sill Angle (front-to-rear)*	Deg.	-0.1	-0.4	0.4	No
Front Bumper-Line Angle (left-to-right)**	Deg.	-1.2	0.9	-1.1	Yes
Rear Bumper-Line Angle (left-to-right)**	Deg.	0.5	0.3	0.5	Yes
Vehicle CG (Aft of Front Axle)	mm	1068	1055	1183	
Vehicle CG (Left (+) / Right (-) from longitudinal Centerline)	mm	+24	+9	+22	

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

\*\*\* The "As Tested" vehicle attitude measurements must be equal to or between the "As Delivered" and "Fully Loaded" vehicle attitude measurements. Indicate "Yes" or "No" for "Meets Requirements".

**DATA SHEET NO. 2**

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

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12

**SEAT POSITIONING**

The driver seat, front center seat (if applicable), and right front passenger's seat should be set to the forward-most, mid-height, mid-angle position. The struck-side rear passenger's seat, rear center seat, and non-struck side rear passenger's seats should be set to the rear-most, lowest, mid-angle position.

**SCRL ANGLE RANGE**

Seat	SCRL(°)		
	Max.	Min.	Mid
Driver Seat	Fixed	NA	13.8
Front Passenger Seat	Fixed	NA	13.4
Front Center Seat*	NA	NA	NA
Struck Side Rear Seat	NA	NA	9.0
Non-Struck Side Rear Seat	NA	NA	8.7
Rear Center Seat*	NA	NA	4.9

\* If applicable.

**SEAT HEIGHT AND ANGLE**

Seat	As Tested SCRL Angle (Mid) (°)	As Tested SCRP Height (mm)	SCRP Height Position	SCRP Height (mm)		
				Rearmost	Mid-Fore/Aft	Forward-Most
Driver Seat	13.8	244	Max.	NA	NA	NA
			Mid	228	235	244
			Min.	NA	NA	NA
Front Passenger Seat	13.4	249	Max.	NA	NA	NA
			Mid	229	239	249
			Min.	NA	NA	NA
Front Center Seat*	NA	NA	Max.	NA	NA	NA
			Mid	NA	NA	NA
			Min.	NA	NA	NA
Struck Side Rear Seat	9.0	NA	Max.	NA	NA	NA
			Mid	NA	NA	NA
			Min.	NA	NA	NA
Non-Struck Side Rear Seat	8.7	NA	Max.	NA	NA	NA
			Mid	NA	NA	NA
			Min.	NA	NA	NA
Rear Center Seat*	4.9	NA	Max.	NA	NA	NA
			Mid	NA	NA	NA
			Min.	NA	NA	NA

\* If applicable.

**DATA SHEET NO. 2 (CONTINUED)**

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

Test Vehicle: 2013 Jeep Compass Sport FWD MPV

NHTSA No.: MD0308

Test Program: SPNCAP Side Impact

Test Date: 10/23/12

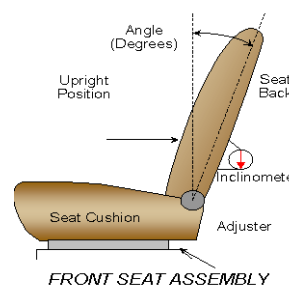
**SEAT FORE/AFT POSITION**

Seat	Total Fore/Aft Travel		Test Position from Forwardmost Position	
	mm	Detents*	mm	Detent*
Driver Seat	260	39	28	5
Front Passenger Seat	260	39	28	5
Front Center Seat*	NA	NA	NA	NA
Struck Side Rear Seat	Fixed	NA	NA	NA
Non-Struck Side Rear Seat	Fixed	NA	NA	NA
Rear Center Seat*	Fixed	NA	NA	NA

\* If applicable.

**SEAT BACK ANGLE ADJUSTMENT**

The driver's seat back is positioned such that the dummy's head is level. The front center and front passenger's seat backs are positioned in a similar manner as the driver's seat back. The struck-side rear passenger seat back is positioned in accordance with the information provided by the manufacturer on Form No. 1. For the 5<sup>th</sup> percentile female dummy in a Side NCAP MDB test. The rear center and non-struck side rear passenger's seat back is set to match the struck-side rear seat back.



Seat	Total Seat Back Angle Range		Test Position from Most Upright	
	Degrees	Detents*	Degrees	Detent*
Driver Seat w/ Seated Dummy	66.8	39	0.7 rwd	2
Front Passenger Seat	70.4	39	0.7 rwd	2
Front Center Seat*	NA	NA	NA	NA
Struck Side Rear Seat	21.5	NA	21.5	NA
Non-Struck Side Rear Seat	21.3	NA	21.3	NA
Rear Center Seat*	22.5	NA	22.5	NA

\* If applicable.

**SEAT BELT ANCHORAGE ADJUSTMENT**

Seat belt anchorages are adjusted with the information provided by the manufacturer on Form No. 1

	Total # of Positions	Placed in Position #
Driver Seat	4	0

**HEAD RESTRAINT ADJUSTMENT**

Head restraints are adjusted to the lowest and most full forward in-use position.

	Total # of Positions	Placed in Position #
Driver Seat	5	5

**DATA SHEET NO. 2 (CONTINUED)**

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

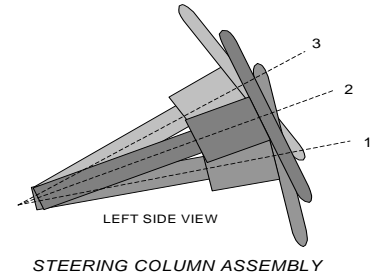
Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12

**STEERING COLUMN ADJUSTMENT**

Steering wheel and column adjustments are made so that the steering wheel geometric locus it describes when moved through its full range of motion.

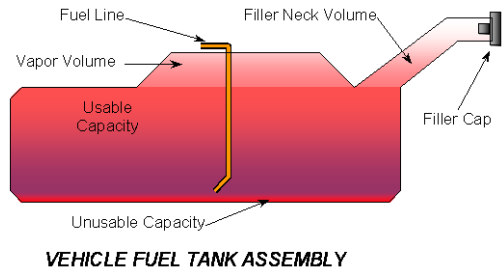
	Degrees	Fore/Aft Position, mm
Lowermost, Position No. 1	61.8	No feature
Geometric Center, Position No. 2	64.9	No feature
Uppermost, Position No. 3	68.0	No feature
Telescoping Steering Wheel Travel		No feature
Test Position	64.9	No feature



**FUEL PUMP**

Describe the fuel pump type, details about how it operates and the location of the fuel filler neck:

The fuel tank is located in front of the rear axle under the rear seat area. The fuel filler neck enters the left rear corner of the fuel tank. The fuel cap is located on the left rear quarter panel. The fuel lines run along the inside of the left frame rail.



**FUEL TANK CAPACITY**

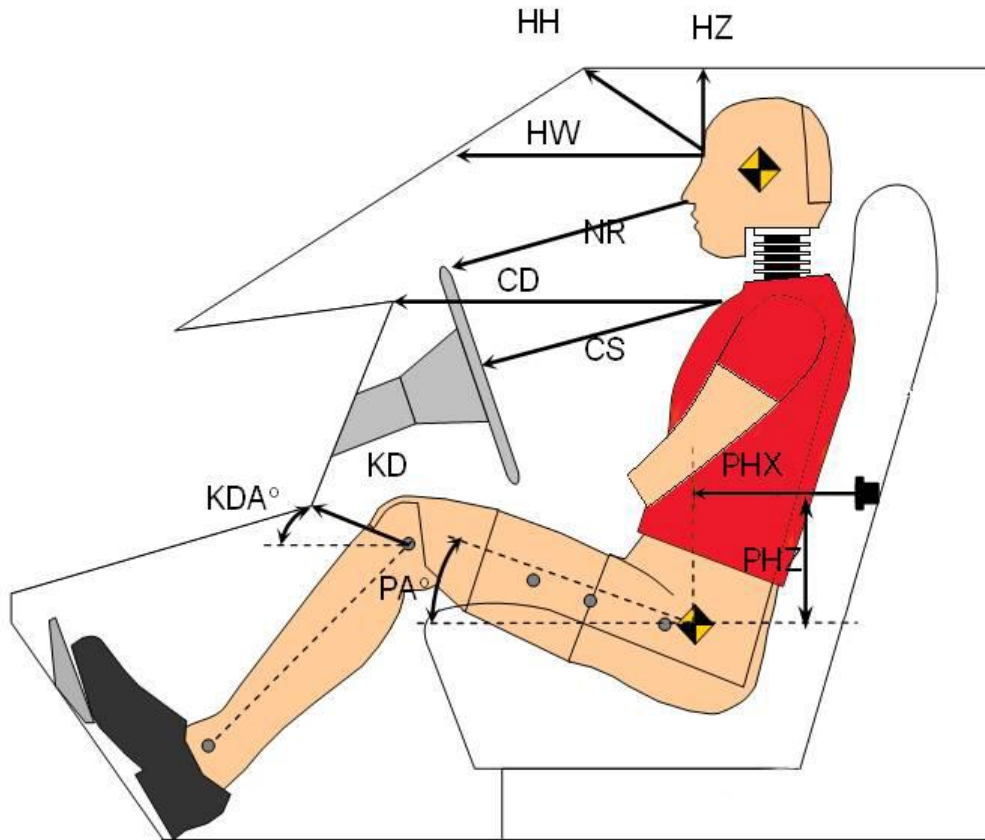
	Liters
Usable Capacity of "Standard Tank" (see Form No. 1)	51.5
Usable Capacity of "Optional" Tank (see Form No. 1)	NA
Usable Capacity of Standard Tank (see Owner's Manual)	51.5
Usable Capacity of Optional Tank (see Owner's Manual)	NA
93% of Usable Capacity	47.9
Actual Amount of Solvent Used in Test	47.7
1/3 of Usable Capacity	17.2

Is the Actual Amount of Solvent Used in the test equal to 93% +/- 1% of the Usable Capacity stated on Form No. 1?       YES       NO

**DATA SHEET NO. 3  
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12

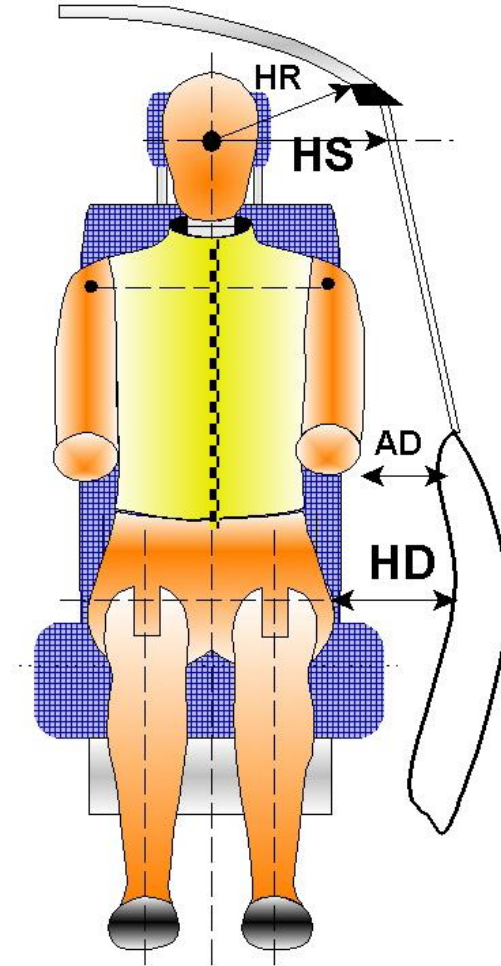


Code	Measurement Description	Driver	
		Length (mm)	Angle (°)
HH	Head to Header	348	
HW	Head to Windshield	667	
HZ	Head to Roof Liner	203	
NR	Nose to Rim	238	
CD	Chest to Dashboard	419	
CS	Chest to Steering Wheel	161	
KDL/KDLA°	Left Knee to Dash	67	52
KDR/KDRA°	Right Knee to Dash	115	42
PAX°	Pelvic Tilt Angle (X-axis)		20.8
PAY°	Pelvic Tilt Angle (Y-axis)		0.7
PHX	Hip Point to Striker (X-Axis)	324	
PHZ	Hip Point to Striker (Z-Axis)	120	

**DATA SHEET NO. 4**  
**DUMMY LATERAL CLEARANCE DIMENSIONS**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12

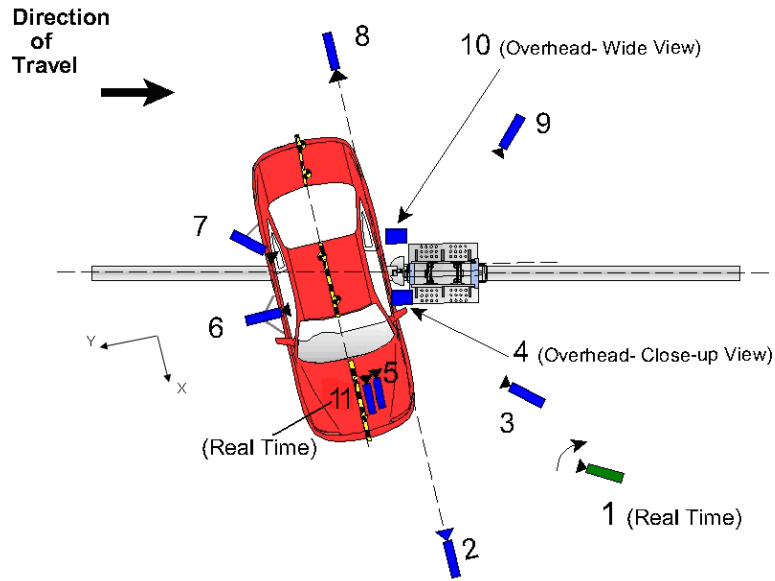


Code	Measurement Description	Length (mm)
HR	Head to Side Header	246
HS	Head to Side Window	378
AD	Arm to Door	151
HD	Hip Point to Door	153

**DATA SHEET NO. 5  
CAMERA AND INSTRUMENTATION DATA**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12



REFERENCE: (from point of impact for X and Y; from ground for Z)  
 + X = Forward of vehicle, + Y = Right of vehicle, + Z = Down

Camera No.	View	Coordinates (mm)			Lens Length (mm)	Operating Frame Rate (fps)
		X	Y	Z		
1	Real time (24-30 fps) pan view of impact				zoom	30
2	Front ground level – impact view	5687	-995	-1259	12.5	1000
3	Impact side 45° – forward pole view	3555	-1728	-1256	16	1000
4	Overhead Close-up view of impact	355	0	-5635	8.5	1000
5	Onboard – dummy front view				12.5	1000
6	Onboard – dummy side view				8.5	1000
7	Onboard – dummy rear oblique view				6	1000
8	Rear ground level – impact view	-4816	-1578	-1296	8.5	1000
9	Impact side 45° – rearward pole view	-4146	-1151	-1312	16	1000
10	Overhead wide view of impact	-75	0	-5631	25	1000
11	Real time dummy front view				Zoom	30

All measurements accurate to +/- 6 mm.

**NOTE:** Vehicle was at a 75° angle to the rigid pole.

If applicable, explain why camera(s) did not run: Not Applicable

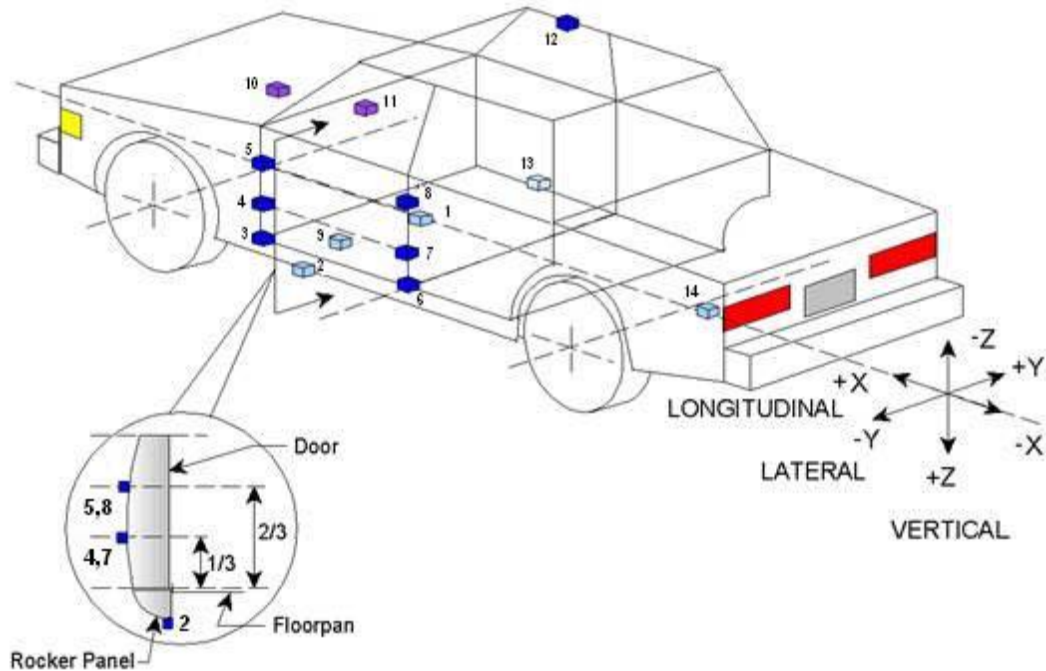
**INSTRUMENTATION**

	Number of Channels
Driver Dummy	19
Vehicle Structure	18
Pole Load Cells	8
<b>TOTAL</b>	<b>45</b>

**DATA SHEET NO. 6  
VEHICLE ACCELEROMETER DATA**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12



	Accelerometer/Sensor Location			
	ID	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	2337	0	-447
2	Left Floor Sill	2608	-650	-385
3	A-Pillar Sill	2902	-650	-380
4	A-Pillar Low	3027	-780	-635
5	A-Pillar Mid	3001	-780	-986
6	B-Pillar Sill	1890	-650	-377
7	B-Pillar Low	2022	-780	-698
8	B-Pillar Mid	1951	-780	-1015
9	Driver Seat Track	2046	-535	-468
10	Engine Top	3745	55	-875
11	Firewall	3560	0	-1039
12	Right Roof	2420	630	-1470
13	Right Floor Sill	2470	670	-375
14	Rear Floorpan	975	0	-572

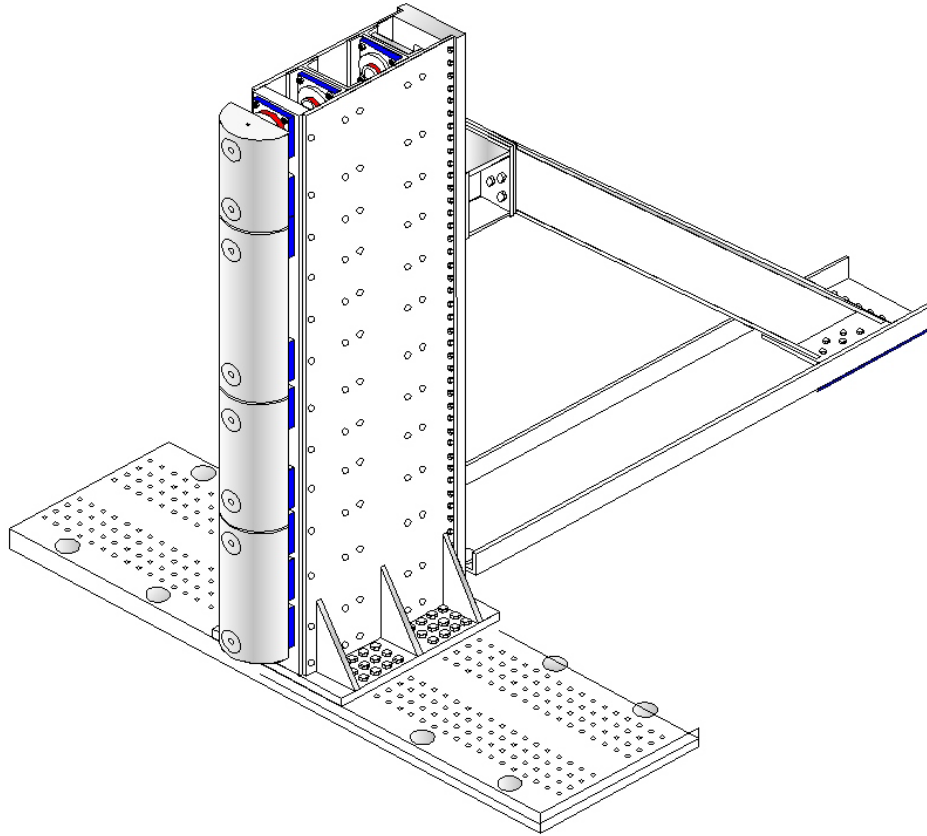
*Reference:* X - Test Vehicle Rear Bumper (+ forward)  
 Y - Test Vehicle Centerline (+ to right)  
 Z - Ground Plane (+ down)

**DATA SHEET NO. 7**  
**RIGID POLE LOAD CELL DATA**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
Test Date: 10/23/12

**FOIL 300K RIGID POLE**



Load Cell Locations	
ID	Height From Top of Carrier (mm)
1	87
2	468
3	648
4	978
5	1168
6	1651
7	1816
8	2057

**DATA SHEET NO. 8  
POST TEST OBSERVATIONS**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12

**TEST DUMMY INFORMATION AND CONTACT POINTS**

Dummy Body Part	Driver SID-IIs Dummy
Face	SCAB
Top of Head	SCAB
Left Side of Head	SCAB
Back of Head	SCAB
Left Shoulder	Door Panel
Upper Torso	Door Panel
Lower Torso	Door Panel
Left Hip	Door Panel
Left Knee	Door panel

**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 Systems 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)	NA	NA	NA	NA	NA

\* Indicate "Yes", "No", or "NA".

**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

\* Indicate "Yes", "No", or "NA".

**POST TEST STRUCTURAL OBSERVATIONS**

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Good
Sill Separation	None
Windshield Damage	Cracked
Side Window Damage	Shattered
Other Notable Effects	None

**DATA SHEET NO. 8 (CONTINUED)  
POST TEST OBSERVATIONS0**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
Test Date: 10/23/12

**SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION**

Restraint Type	Struck Side (Driver)		Struck Side Rear Passenger	
	Mounted	Deployed	Mounted	Deployed
Front Airbag	Yes	No		
Knee Airbag	No	NA		
Curtain	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes	Yes	No	NA
Seat Belt Load Limiter	No	NA	No	NA
Other	None	NA	None	NA

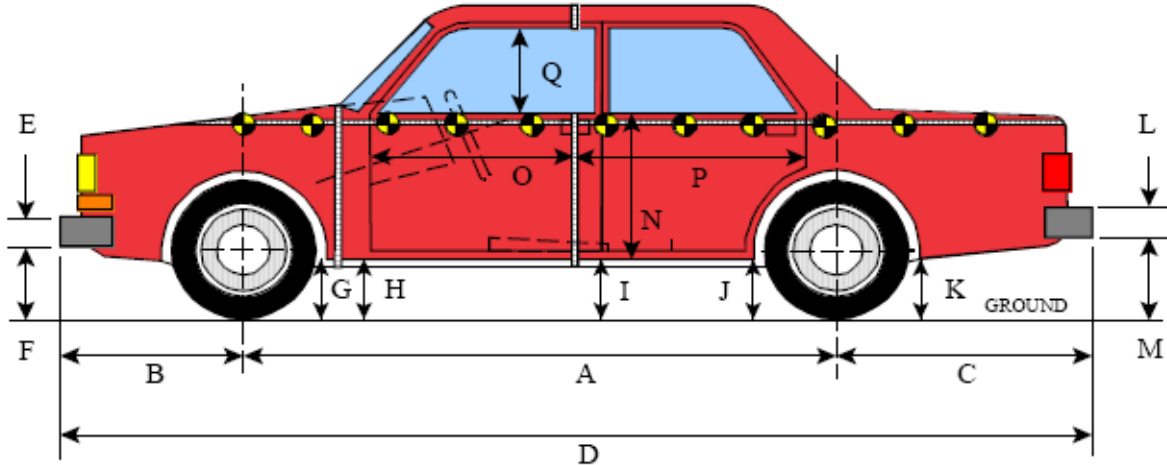
**VEHICLE SPEED, VEHICLE ANGLE AT IMPACT AND IMPACT POINT LOCATION DATA**

Measured Parameter	Units	Tolerance	Value
Vertical Impact Reference Line (Aft of Front Axle) (Intended Impact Point)	mm		1100
Actual Impact Point (Aft of Front Axle)	mm		1103
Horizontal Offset ( + forward / - rearward)	mm	+/- 38 of Intended Impact point	-3
Angle Between Vehicle's Longitudinal Centerline and Line of Motion	degrees	75 +/- 3	75
Trap No. 1 Velocity (Primary)	km/h	31.4 to 33.0	32.05
Trap No. 2 Velocity (Redundant)	km/h	31.4 to 33.0	32.08

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

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12



**LEFT SIDE VIEW**

All MEASUREMENTS IN (mm) WITH TOLERANCE OF  $\pm 3$ mm

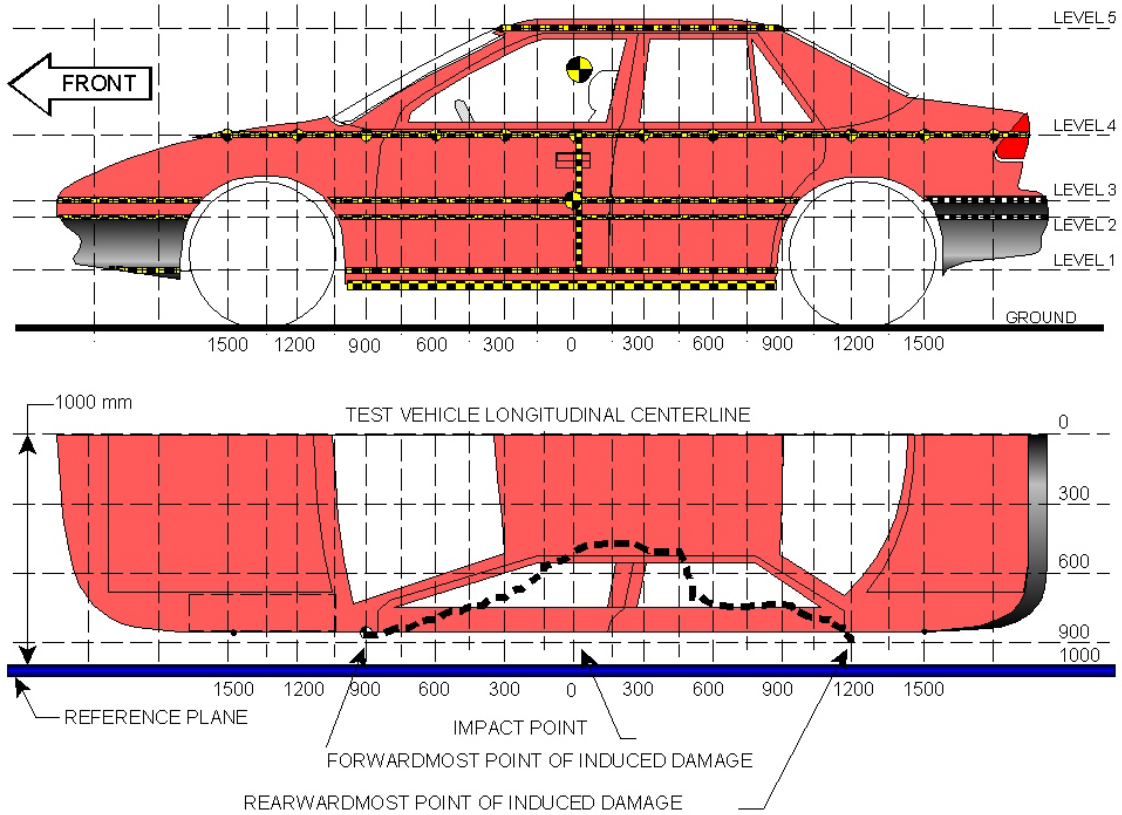
**VEHICLE PRE- AND POST-TEST MEASUREMENT INFORMATION**

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2630	2554	76
B	Front Axle to Front Surface of Vehicle	905	905	0
C	Rear Axle to Rear Surface of Vehicle	915	915	0
D	Total Length at Centerline	4450	4400	50
E	Front Bumper Thickness	80	80	0
F	Front Bumper Bottom to Ground	444	477	-33
G	Sill Height at Front Wheel Well	298	324	-26
H	Sill Height at Front Door Leading Edge	290	313	-23
I	Sill Height at B-Pillar	280	316	-36
J1	Sill Height at Rear Wheel Well	237	353	-116
J2	Pinch Weld Height at Rear Wheel Well	287	302	-15
K	Sill Height Aft of Rear Wheel Well	405	464	-59
L	Rear Bumper Thickness	135	135	0
M	Rear Bumper Bottom to Ground	530	587	-57
N	Sill Height to Bottom of Front Window Sill	778	795	-17
O	Front Door Leading Edge to Impact CL	622	530	92
P	Rear Door Trailing Edge to Impact CL	1322	1207	115
Q	Front Window Opening	416	404	12
R	Right Side Length	4295	4290	5
S	Left Side Length	4295	4212	83
T	Vehicle Width at "B" Pillars	1328	1211	117

**DATA SHEET NO. 10**  
**VEHICLE EXTERIOR CRUSH MEASUREMENTS**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12



NOTE: All measurements are in millimeters (mm)

**MAXIMUM EXTERIOR CRUSH MEASUREMENTS**

Level	Measurement Description	Height Above Ground	Maximum Exterior Static Crush	Distance from Impact
1	Sill Top	414	334	0
2	Occupant H-Point	689	373	0
3	Mid-Door	733	375	0
4	Window Sill	1017	346	0
5	Window Top	1566	171	150

**NOTE:** The above measurements should be taken along the vertical impact reference line. Vehicle measurements forward of the vertical impact reference line are negative.

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

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
 Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
 Test Date: 10/23/12

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-750	0	891	893	793	0	0	893	897	818	0	0	-2	-4	-25	0
-600	836	880	880	810	0	815	871	873	819	0	21	9	7	-9	0
-450	839	874	873	826	0	759	779	781	769	0	80	95	92	57	0
-300	842	876	876	836	0	685	690	690	685	0	157	186	186	151	0
-150	844	877	877	843	0	602	598	597	596	0	242	279	280	247	0
0	846	879	879	847	0	512	506	504	501	0	334	373	375	346	0
150	848	880	881	851	618	562	536	536	520	447	286	344	345	331	171
300	848	881	881	853	630	670	646	646	634	502	178	235	235	219	128
450	848	880	882	854	632	735	767	767	739	538	113	113	115	115	94
600	848	880	882	855	633	767	795	796	767	573	81	85	86	88	60
750	847	880	881	856	634	798	823	824	794	600	49	57	57	62	34
900	847	881	882	856	635	829	852	852	821	619	18	29	30	35	16
1050	844	894	897	865	633	859	894	895	854	629	-15	0	2	11	4
1200	0	896	904	876	630	0	922	929	889	630	0	-26	-25	-13	0
1350	0	0	0	877	626	0	0	0	883	628	0	0	0	-6	-2
1500	0	0	0	876	617	0	0	0	882	621	0	0	0	-6	-4
1650	0	0	0	872	598	0	0	0	878	603	0	0	0	-6	-5

**NOTE:** Pre-test measurements are taken when the vehicle is in the “As Tested” weight condition. Vehicle measurements forward of the vertical impact reference line are negative. The crush profile grid is established prior to the test based on an estimated impact point. The final distance from impact is determined after the final dummy positioning and the pole is aligned with the center of gravity of the dummy’s head.

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

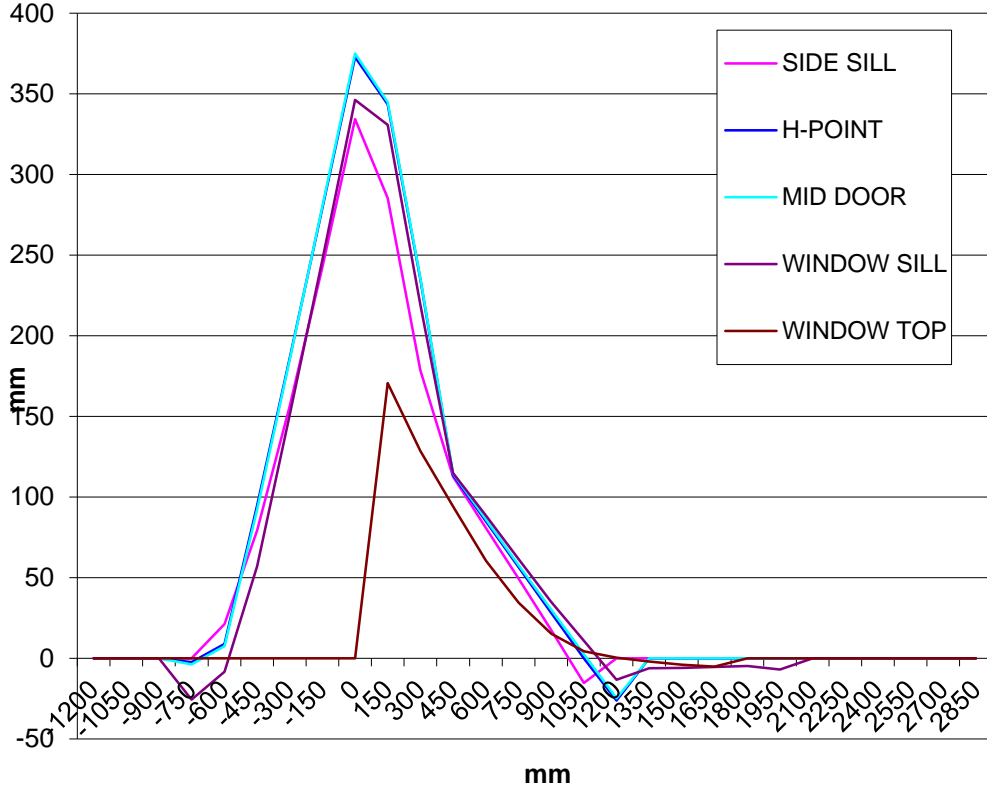
**VEHICLE EXTERIOR CRUSH MEASUREMENTS**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV

NHTSA No.: MD0308

Test Program: SPNCAP Side Impact

Test Date: 10/23/12



**DATA SHEET NO. 11**

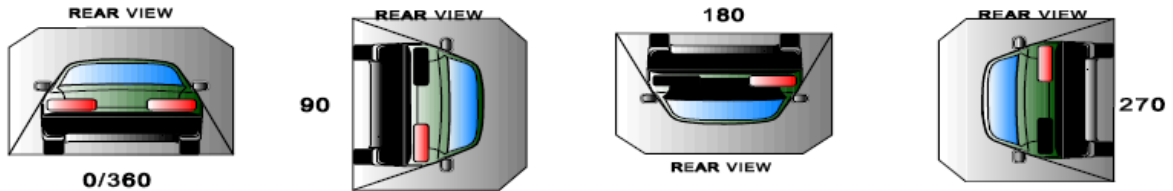
**FMVSS NO. 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV      NHTSA No.: MD0308  
 Test Program: SPNCAP Side Impact      Test Date: 10/23/12

Test Time: 13:09      Temperature: 21

- A. From impact until vehicle motion ceases: 0 oz.  
(Maximum allowable is 1 ounce)
- B. For the 5 minute period after motion ceases: 0  
(Maximum allowable is 5 ounces)
- C. For the following 25 minutes: 0  
(Maximum allowable is 1 ounce/minute)
- D. Spillage Details: None

**FMVSS 301 STATIC ROLLOVER DATA**



**ROLLOVER SOLVENT COLLECTION TIME TABLE IN SECONDS**

Test Phase	Rotation Time	Hold Time	Total Time
0 to 90	120	300	420
90 to 180	120	300	840
180 to 270	120	300	1260
270 to 360	120	300	1680

**FMVSS NO. 301 ROLLOVER SPILLAGE TABLE**

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

**ROLLOVER SOLVENT SPILLAGE LOCATION TABLE**

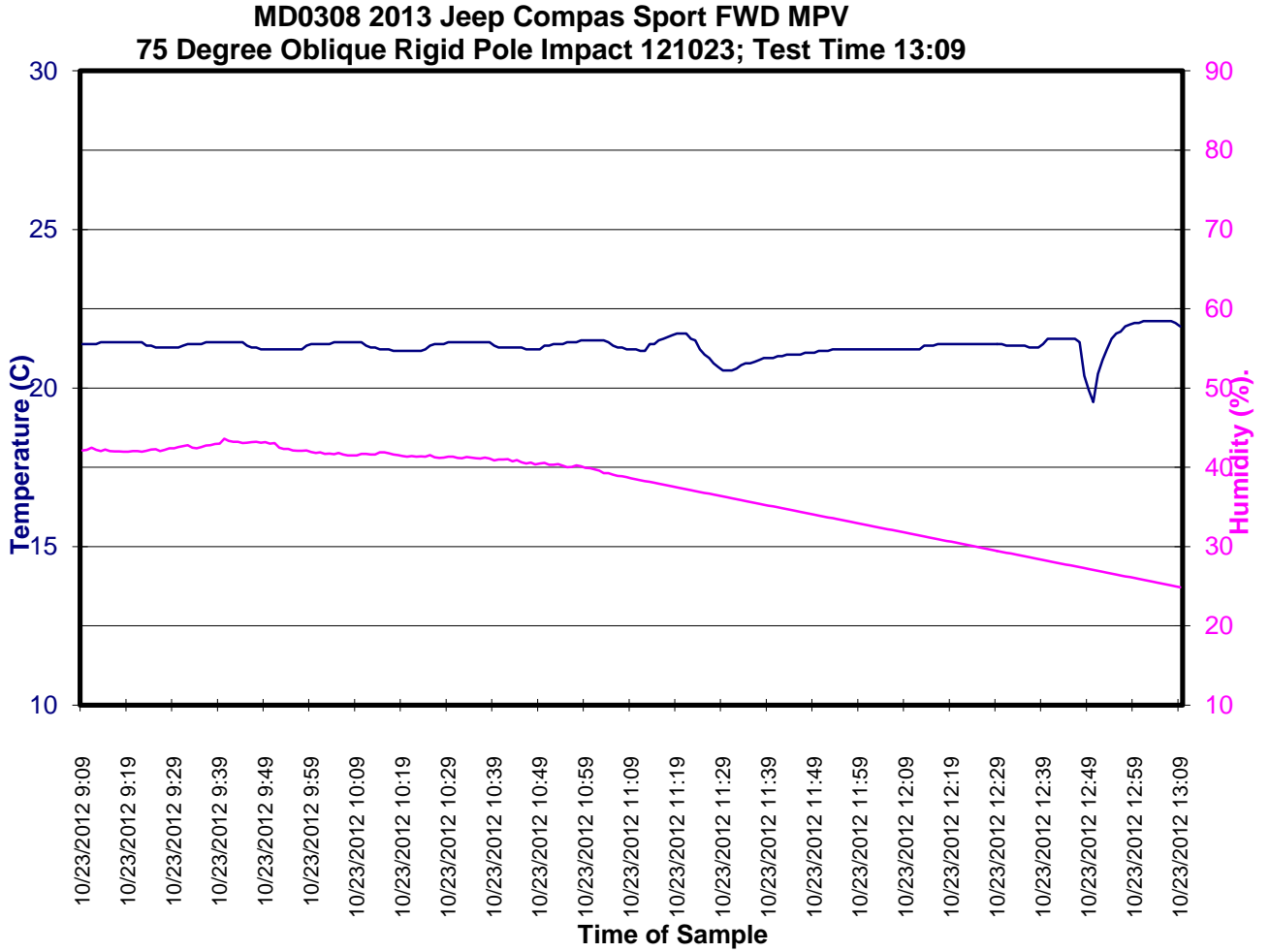
Test Phase	Spillage Location
0 to 90	None
90 to 180	None
180 to 270	None
270 to 360	None

**DATA SHEET NO. 12**

**DUMMY/VEHICLE TEMPERATURE AND HUMIDITY STABILIZATION DATA**

Test Vehicle: 2013 Jeep Compass Sport FWD MPV  
Test Program: SPNCAP Side Impact

NHTSA No.: MD0308  
Test Date: 10/23/12



**APPENDIX A  
PHOTOGRAPHS**

## TABLE OF PHOTOGRAPHS

<b>No.</b>	<b>Description</b>	<b>Page</b>
1	As Delivered Right Front 3/4 View of Test Vehicle	A-4
2	As Delivered Left Rear 3/4 View of Test Vehicle	A-4
3	Pre-Test Frontal View of Test Vehicle	A-5
4	Post-Test Frontal View of Test Vehicle	A-5
5	Pre-Test Left Front 3/4 View of Test Vehicle	A-6
6	Post-Test Left Front 3/4 View of Test Vehicle	A-6
7	Pre-Test Left Side View of Test Vehicle	A-7
8	Post-Test Left Side View of Test Vehicle	A-7
9	Pre-Test Left Rear 3/4 View of Test Vehicle	A-8
10	Post-Test Left Rear 3/4 View of Test Vehicle	A-8
11	Pre-Test Rear View of Test Vehicle	A-9
12	Post-Test Rear View of Test Vehicle	A-9
13	Pre-Test Right Side View of Test Vehicle	A-10
14	Post-Test Right Side View of Test Vehicle	A-10
15	Pre-Test Overhead View of Test Area	A-11
16	Post-Test Overhead View of Test Area	A-11
17	Pre-Test Left Side View of Pole Positioned Against Side of Vehicle	A-12
17a	Post-Test Left Side View of Pole Positioned Against Side of Vehicle	A-12
18	Pre-Test Right Side View of Pole Positioned Against Side of Vehicle	A-13
18a	Post-Test Right Side View of Pole Positioned Against Side of Vehicle	A-13
19	Pre-Test Close-Up View of Impact Point Target	A-14
20	Post-Test Close-Up View of Impact Point Target Showing Impact Location	A-14
21	Pre-Test Front Close-Up View of Dummy Head and Chest	A-15
22	Post-Test Front Close-Up View of Dummy	A-15
23	Pre-Test Left Side View of Dummy Showing Belt and Chalking	A-16
24	Pre-Test Left Side View of Dummy Shoulder and Door Top View	A-16
25	Post-Test Left Side View of Dummy Shoulder and Door Top View	A-17
26	Pre-Test Front View of Seat Back Prior to Dummy Positioning	A-17
27	Pre-Test Front View of Dummy Head and Shoulders in Relation to Head Restraint	A-18
28	Pre-Test Front View of Seat Pan Prior to Dummy Positioning	A-18
29	Pre-Test Overhead View of Dummy Thighs on Seat Pan	A-19
30	Pre-Test Left Side View of Dummy's Neck Showing Position of Adjustable Neck Bracket	A-19
31	Pre-Test Left Side View of Dummy's Head Showing Dummy's Head is Level	A-20
32	Pre-Test Placement of Dummy's Feet	A-20
33	Pre-Test View of Belt Anchorage for Dummy	A-21
34	Pre-Test Left Side View of Steering Wheel	A-21

## TABLE OF PHOTOGRAPHS (CONTINUED)

<b>No.</b>	<b>Description</b>	<b>Page</b>
35	Pre-Test View of Disengaged Parking Brake	A-22
36	Pre-Test View of Parking Brake	A-22
37	Pre-Test Close-Up Left Side View of Driver Seat Track	A-23
38	Pre-Test Close-Up Left Side View of Driver Seat Back	A-23
39	Pre-Test Close-Up View of Driver Seat Back or Head Restraint	A-24
40	Pre-Test Dummy and Door Clearance View	A-24
41	Post-Test Dummy and Door Clearance View	A-25
42	Pre-Test Right Side View of Dummy and Front Seat of Occupant Compartment	A-25
43	Post-Test Right Side View of Dummy and Front Seat of Occupant Compartment	A-26
44	Pre-Test Inner Driver Door Panel View	A-26
45	Post-Test Inner Driver Door Panel View Showing Dummy Contact Location	A-27
46	Post-Test Dummy Close-Up Head Contact with Vehicle View	A-27
47	Post-Test Dummy Close-Up Head Contact with Side Airbag View	A-28
48	Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View	A-28
49	Post-Test Dummy Close-Up Torso Contact with Side Airbag View	A-29
50	Post-Test Dummy Close-Up Pelvis Contact View	A-29
51	Post-Test Dummy Close-Up Pelvis Contact with Side Airbag View	A-30
52	Post-Test Dummy Close-Up Knee Contact with with Vehicle Interior View	A-30
53	Pre-Test View of Fuel Filler Cap or Fuel Filler Neck	A-31
54	Post-Test View of Fuel Filler Cap or Fuel Filler Neck	A-31
55	Close-Up View of Vehicle's Certification Label	A-32
56	Close-Up View of Vehicle's Tire Information Placard or Label	A-32
57	Pre-Test Pole Barrier Front View	A-33
58	Post-Test Pole Barrier Front View	A-33
59	Pre-Test Pole Barrier Side View	A-34
60	Pre-Test Pole Barrier Side View	A-34
61	Pre-Test Ballast View	A-35
62	Post-Test Primary and Redundant Speed Trap Read-Out	A-35
63	FMVSS No. 301 Static Rollover 0 Degrees	A-36
64	FMVSS No. 301 Static Rollover 90 Degrees	A-36
65	FMVSS No. 301 Static Rollover 180 Degrees	A-37
66	FMVSS No. 301 Static Rollover 270 Degrees	A-37
67	FMVSS No. 301 Static Rollover 360 Degrees	A-38
68	Impact Event	A-38
69	Monroney Label	A-39
70	Head Restraint Use and Adjustment Information from Vehicle Owner's Manual	A-39
71	Post-Test View of Shattered Vehicle Inner Door Panel	A-40



**001** As Delivered Right Front 3/4 View of Test Vehicle



**002** As Delivered Left Rear 3/4 View of Test Vehicle



**003** Pre-Test Frontal View of Test Vehicle



**004** Post-Test Frontal View of Test Vehicle



005 Pre-Test Left Front 3/4 View of Test Vehicle



006 Post-Test Left Front 3/4 View of Test Vehicle



**007** Pre-Test Left Side View of Test Vehicle



**008** Post-Test Left Side View of Test Vehicle



**009** Pre-Test Left Rear 3/4 View of Test Vehicle



**010** Post-Test Left Rear 3/4 View of Test Vehicle



011 Pre-Test Rear View of Test Vehicle



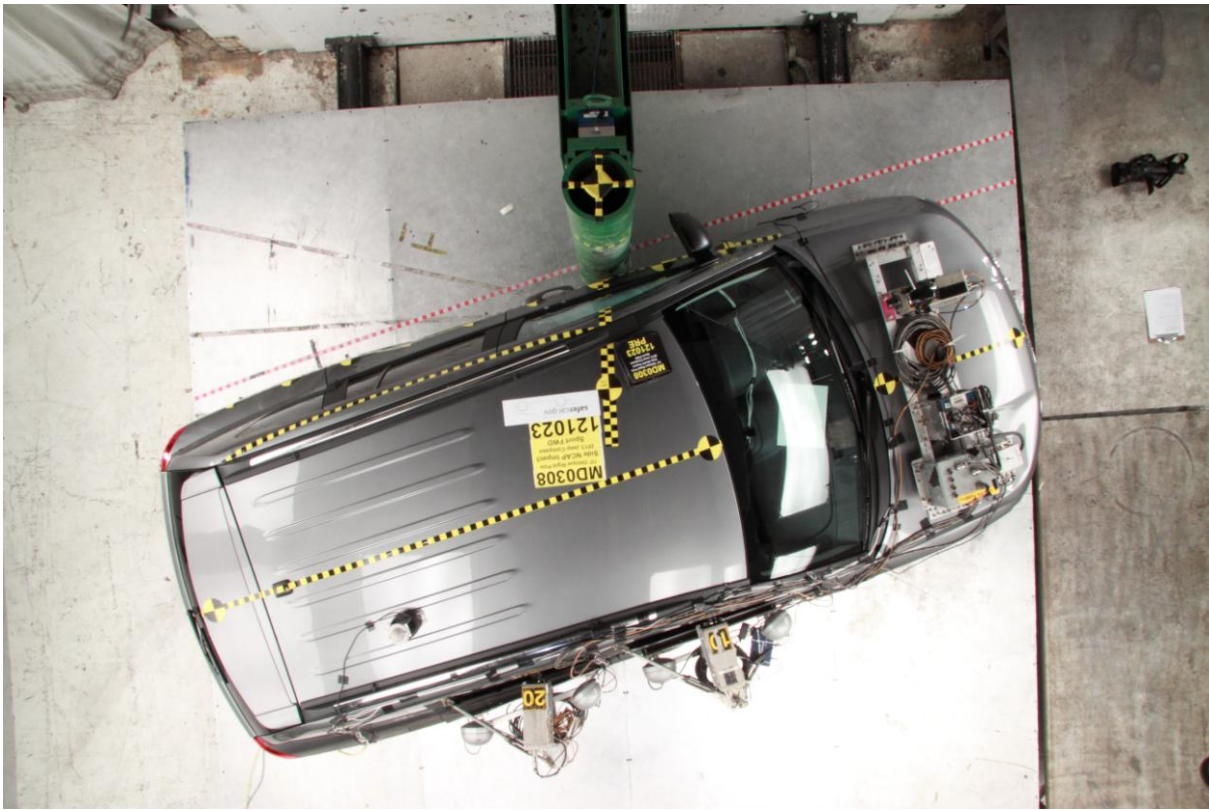
012 Post-Test Rear View of Test Vehicle



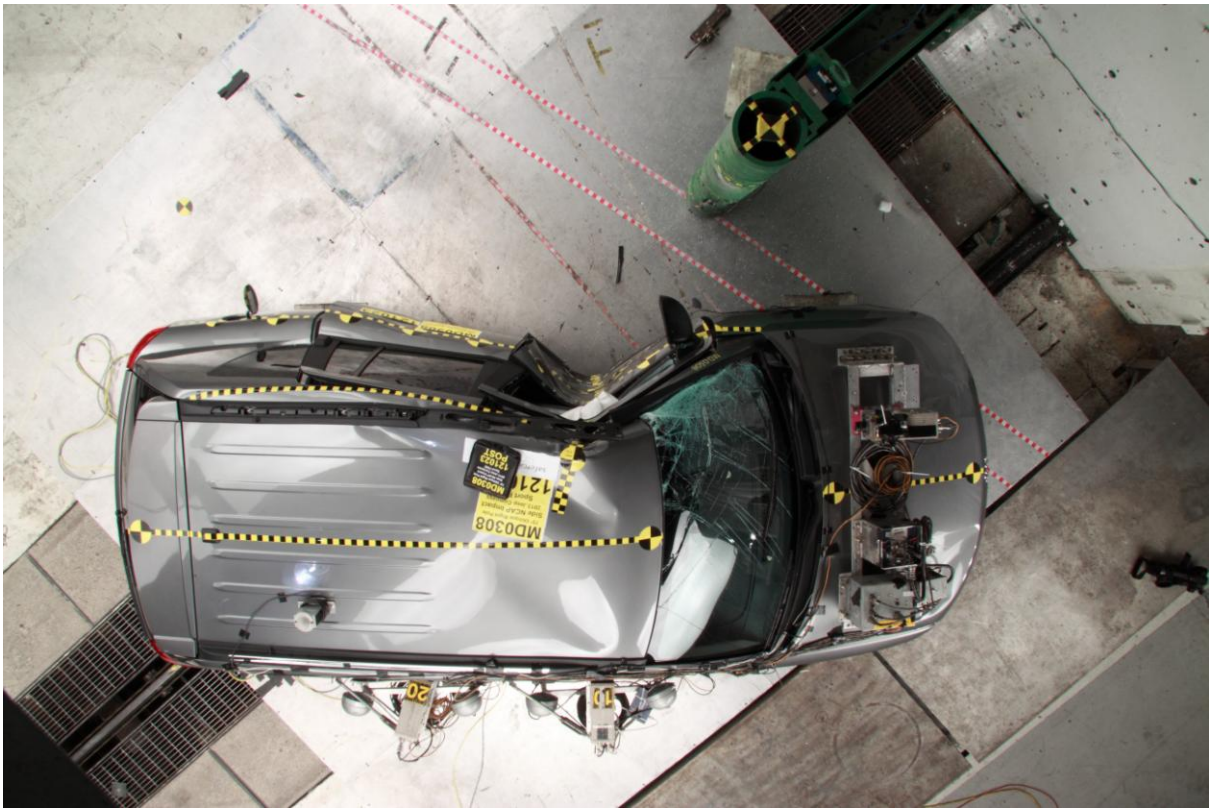
**013** Pre-Test Right Side View of Test Vehicle



**014** Post-Test Right Side View of Test Vehicle



**015** Pre-Test Overhead View of Test Area



**016** Post-Test Overhead View of Test Area



**017** Pre-Test Left Side View of Pole Positioned Against Side of Vehicle



**017a** Post-Test Left Side View of Pole Positioned Against Side of Vehicle



**018** Pre-Test Right Side View of Pole Positioned Against Side of Vehicle



**018a** Post-Test Right Side View of Pole Positioned Against Side of Vehicle



019 Pre-Test Close-Up View of Impact Point Target



020 Post-Test Close-Up View of Impact Point Target Showing Impact Location



**021** Pre-Test Front Close-Up View of Dummy Head and Chest



**022** Post-Test Front Close-Up View of Dummy



**023** Pre-Test Left Side View of Dummy Showing Belt and Chalking



**024** Pre-Test Left Side View of Dummy Shoulder and Door Top View



**025** Post-Test Left Side View of Dummy Shoulder and Door Top View



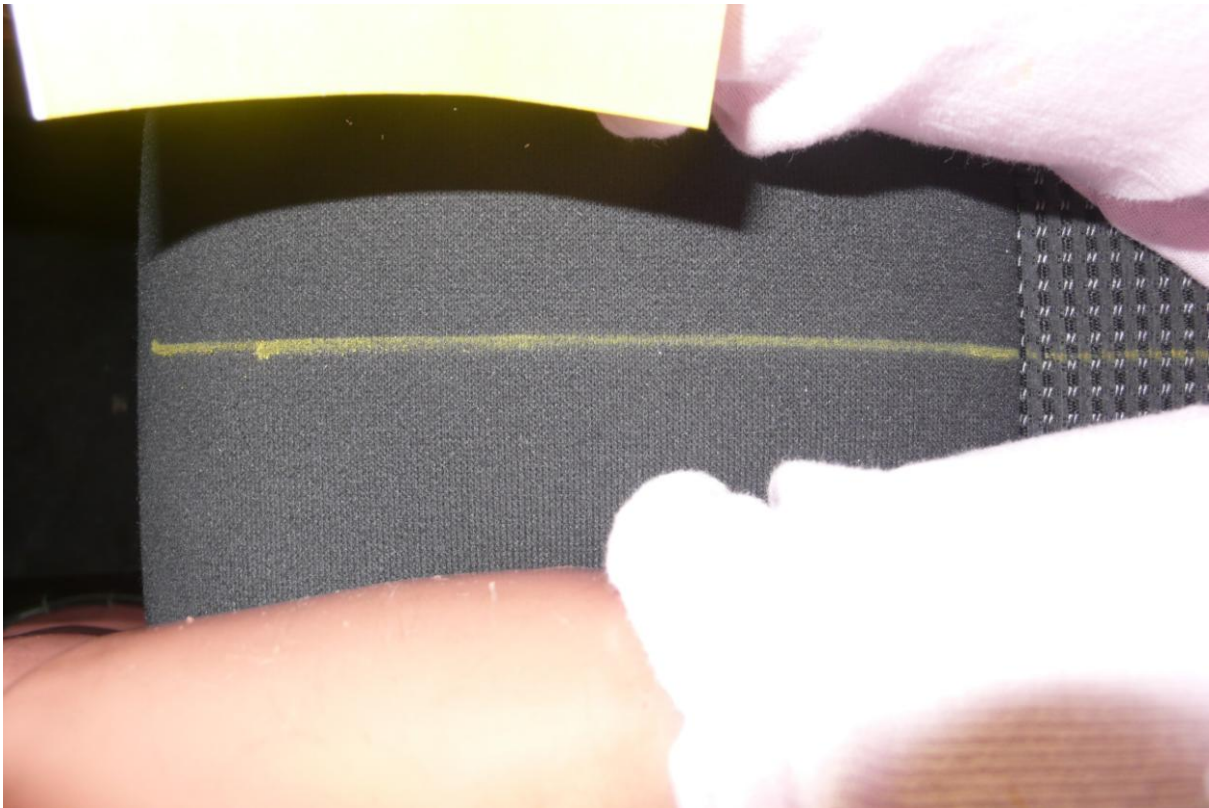
**026** Pre-Test Front View of Seat Back Prior to Dummy Positioning



**027** Pre-Test Front View of Dummy Head and Shoulders in Relation to Head Restraint



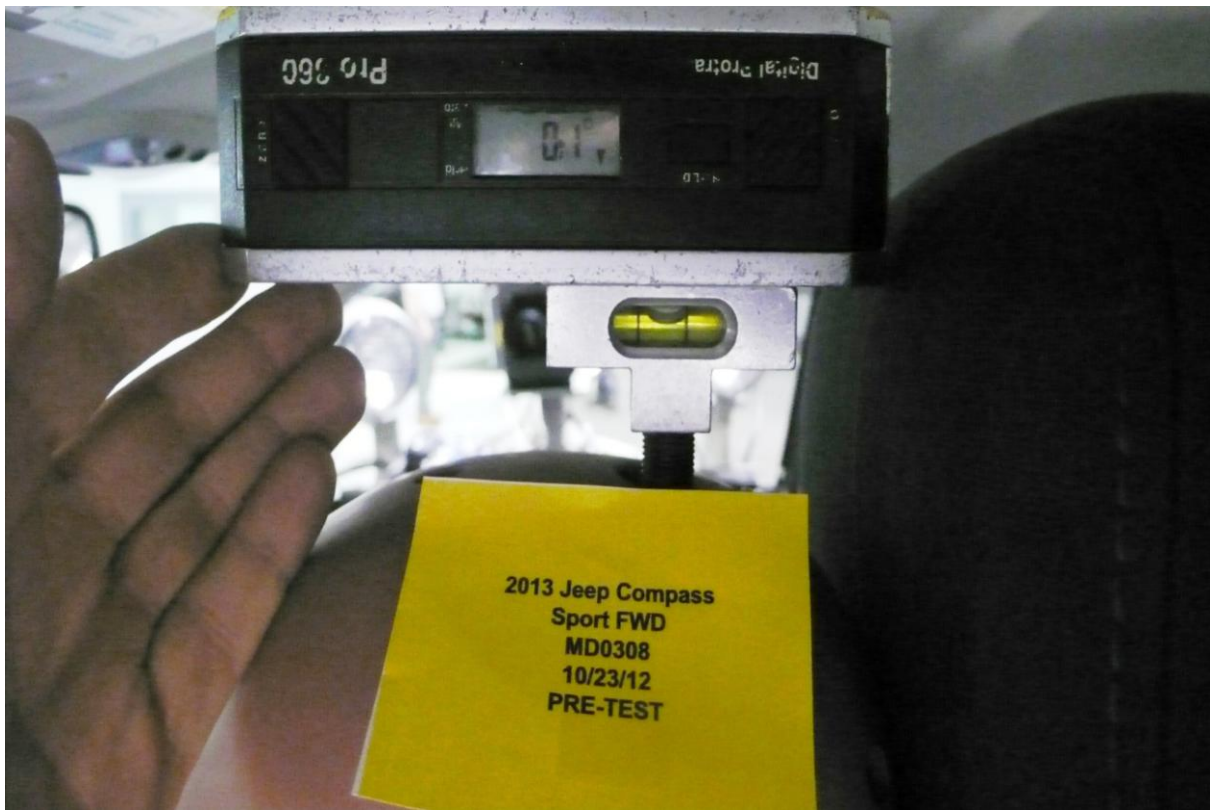
**028** Pre-Test Front View of Seat Pan Prior to Dummy Positioning



**029** Pre-Test Overhead View of Dummy Thighs on Seat Pan



**030** Pre-Test Left Side View of Dummy Neck Showing Position of Adjustable Neck Bracket



**031** Pre-Test Left Side View of Dummy Head Showing Dummy Head is Level



**032** Pre-Test Placement of Dummy Feet



**033** Pre-Test View of Belt Anchorage for Dummy



**034** Pre-Test Left Side View of Steering Wheel



**035** Pre-Test View of Disengaged Parking Brake



**036** Pre-Test View of Parking Brake



**037** Pre-Test Close-Up Left Side View of Driver Seat Track



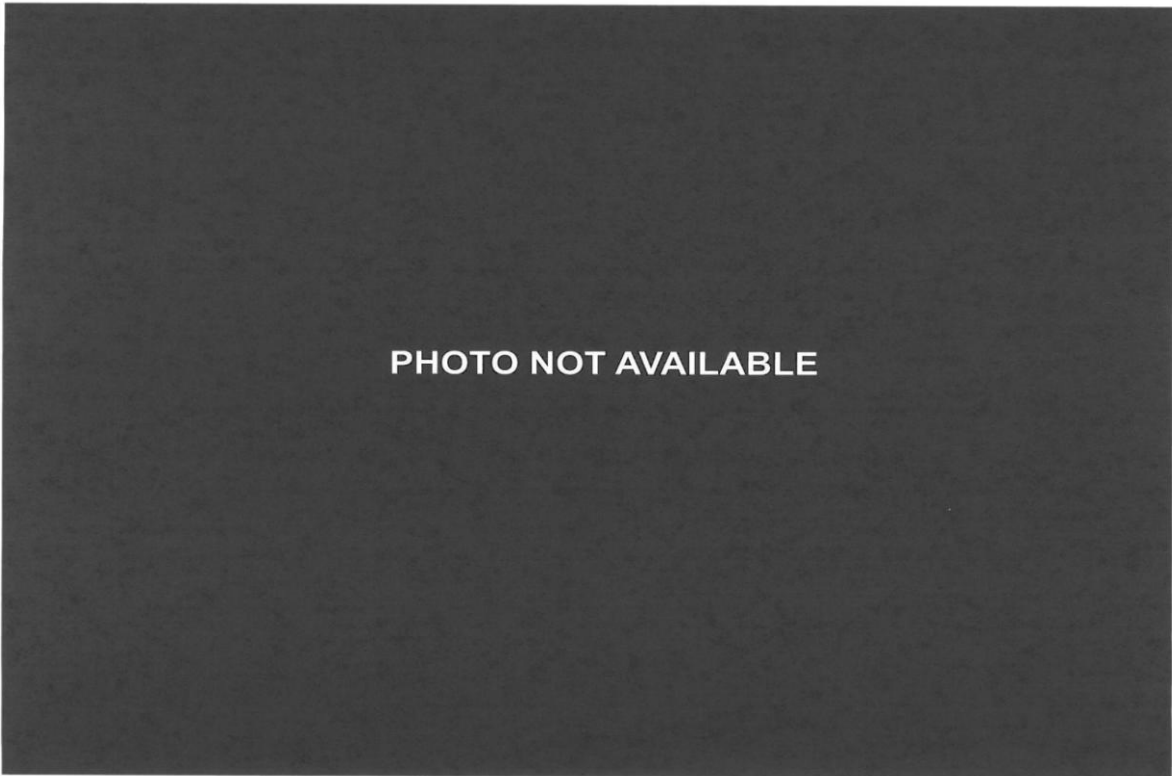
**038** Pre-Test Close-Up Left Side View of Driver Seat Back



**039** Pre-Test Close-Up View of Driver Seat Back or Head Restraint



**040** Pre-Test Dummy and Door Clearance View



**041** Post-Test Dummy and Door Clearance View



**042** Pre-Test Right Side View of Dummy and Front Seat of Occupant Compartment



**043** Post-Test Right Side View of Dummy and Front Seat of Occupant Compartment



**044** Pre-Test Inner Driver Door Panel View



**045** Post-Test Inner Driver Door Panel View Showing Dummy Contact Location



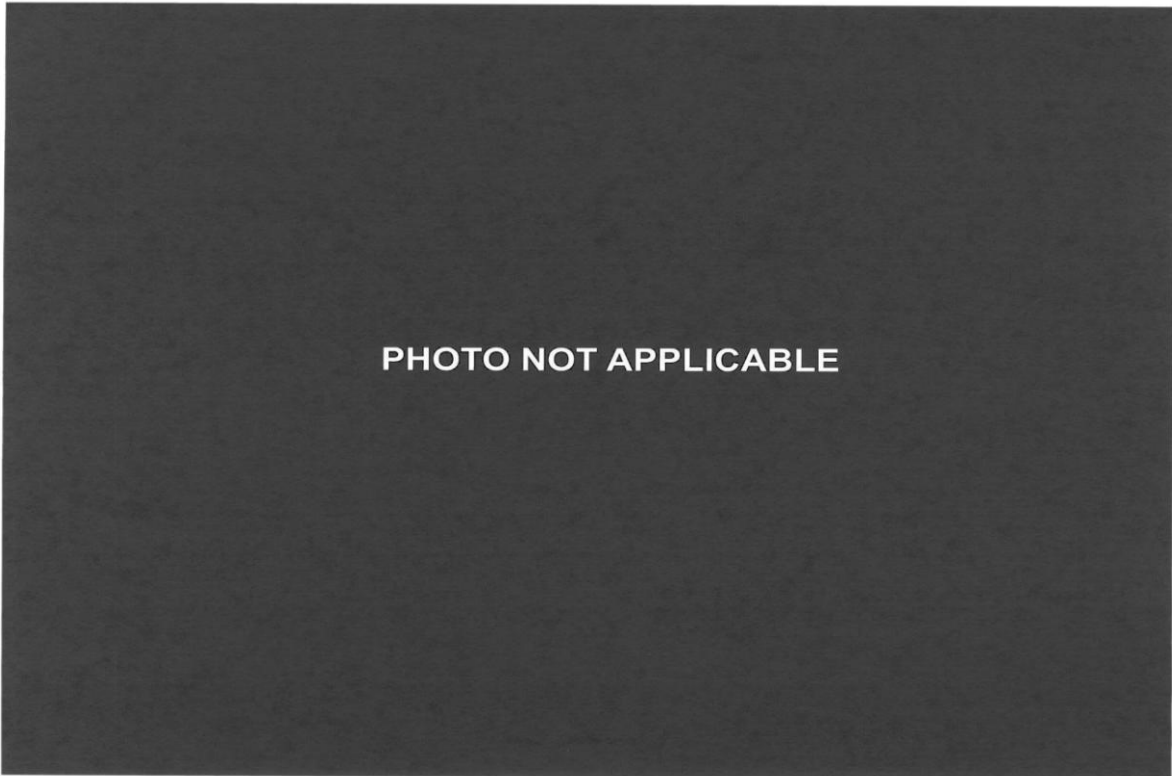
**046** Post-Test Dummy Close-Up Head Contact with Vehicle View



**047** Post-Test Dummy Close-Up Head Contact with Side Airbag View



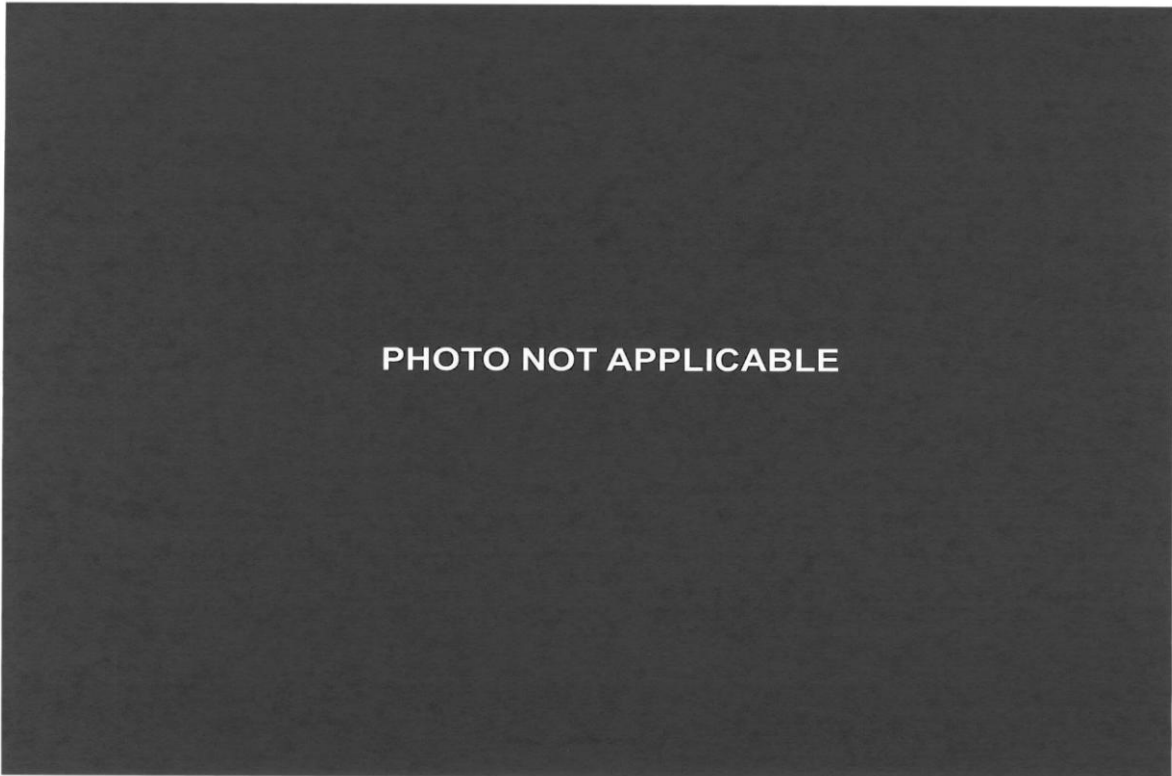
**048** Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View



**049** Post-Test Dummy Close-Up Torso Contact with Side Airbag View



**050** Post-Test Dummy Close-Up Pelvis Contact View



**051** Post-Test Dummy Close-Up Pelvis Contact with Side Airbag View



**052** Post-Test Dummy Close-Up Knee Contact with Vehicle Interior View



053 Pre-Test View of Fuel Filler Cap or Fuel Filler Neck



054 Post-Test View of Fuel Filler Cap or Fuel Filler Neck



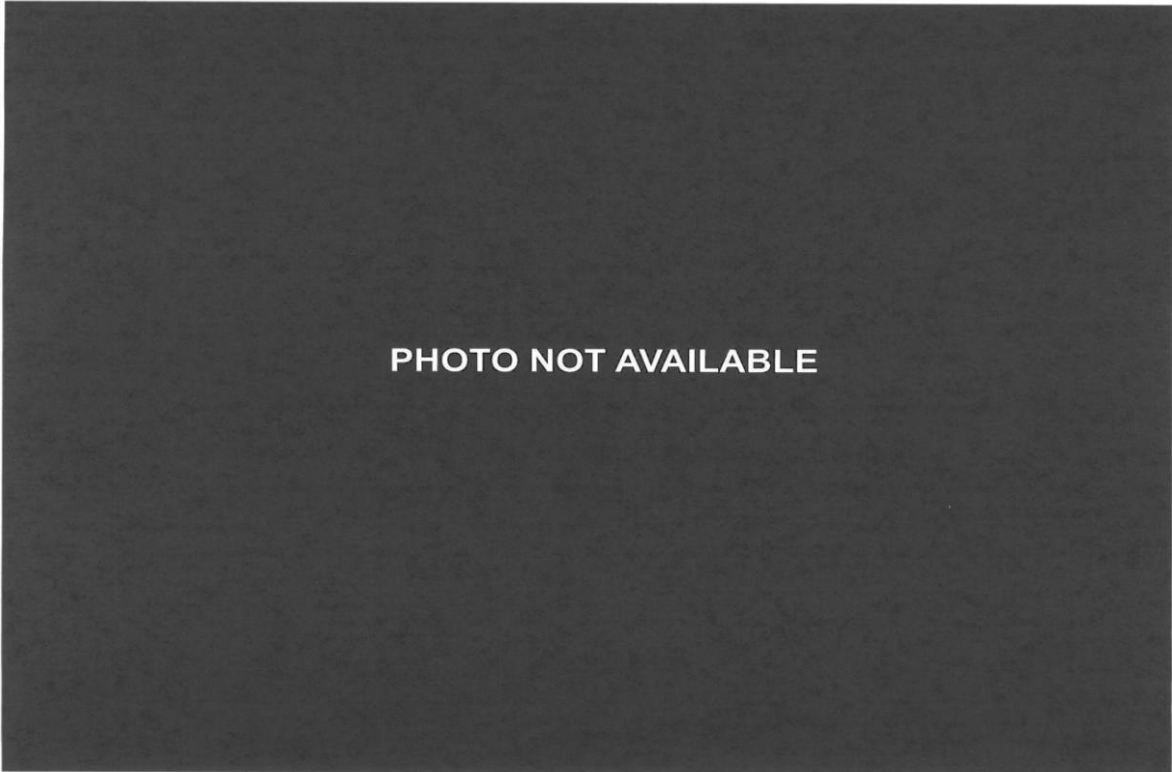
055 Close-Up View of Vehicle Certification Label



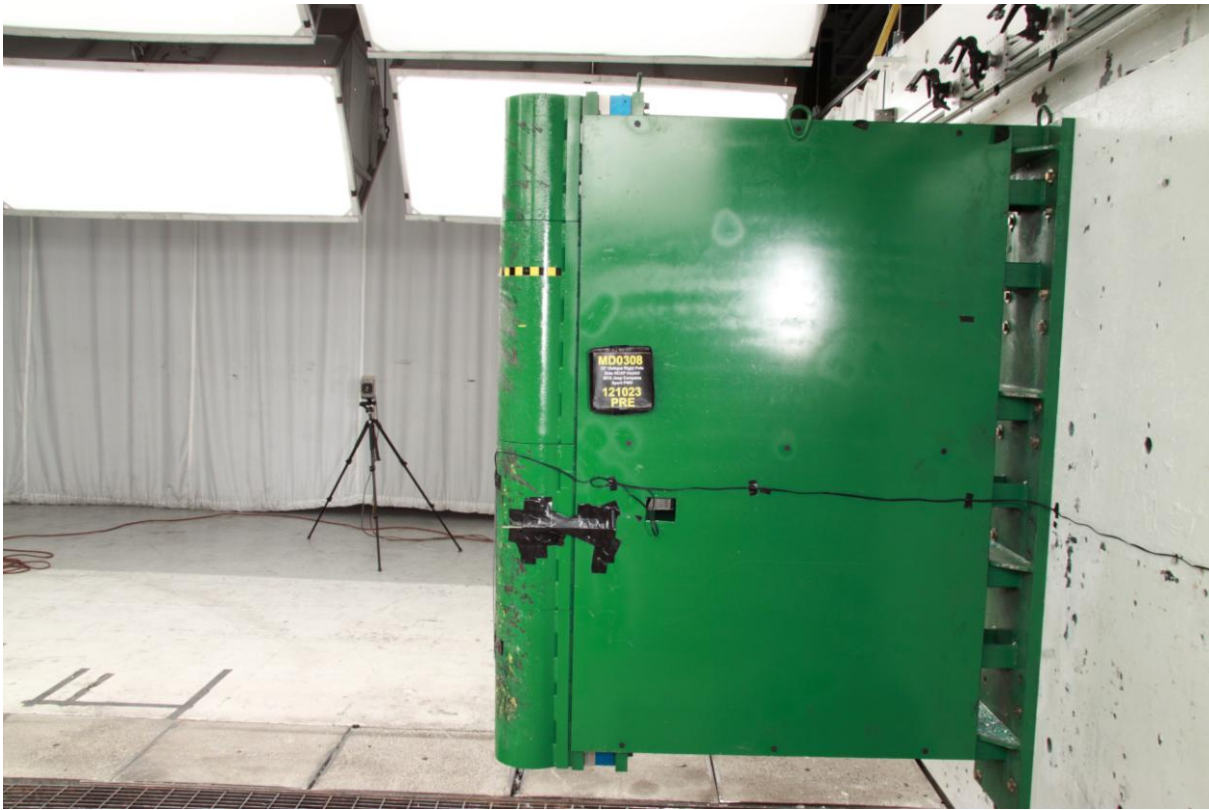
056 Close-Up View of Vehicle Tire Information Placard or Label



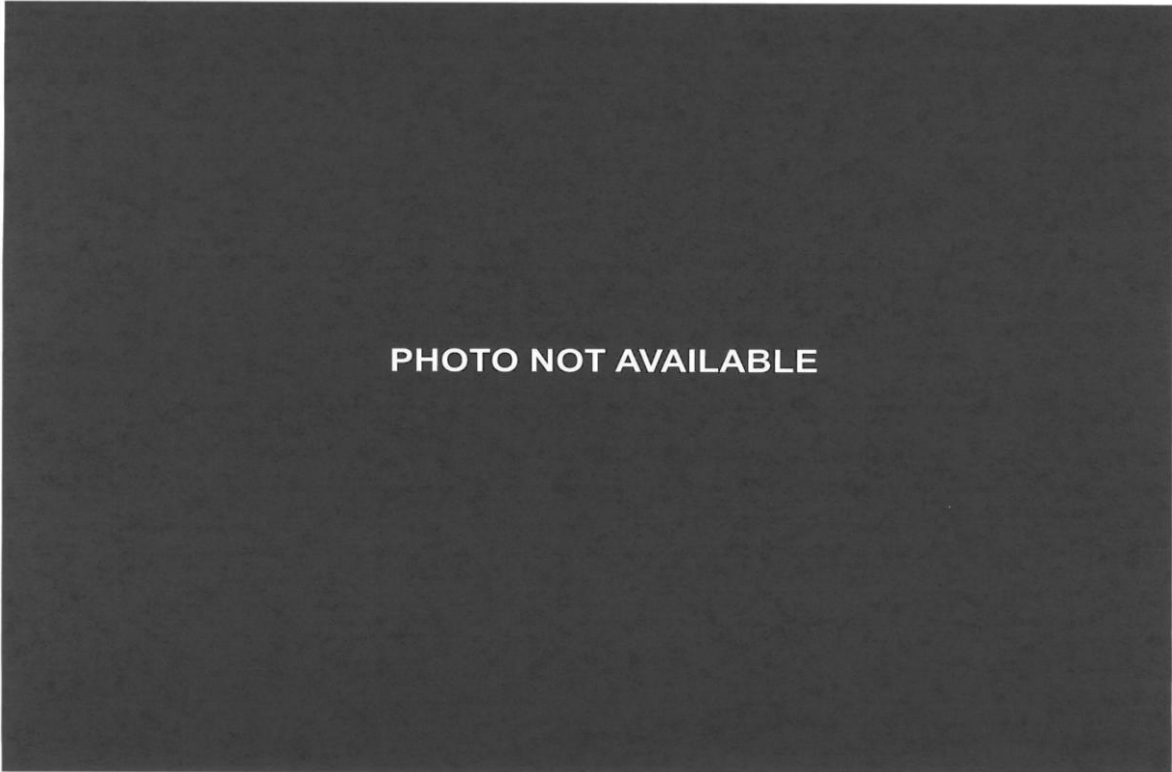
**057** Pre-Test Pole Barrier Front View



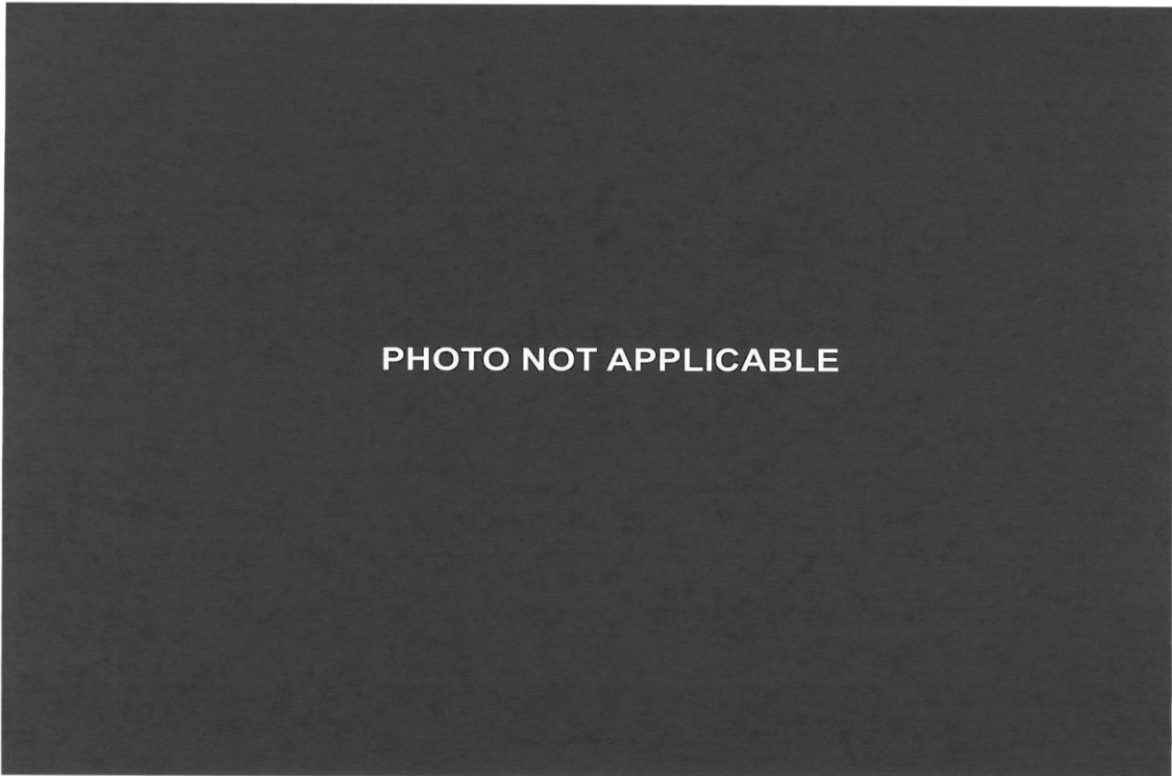
**058** Post-Test Pole Barrier Front View



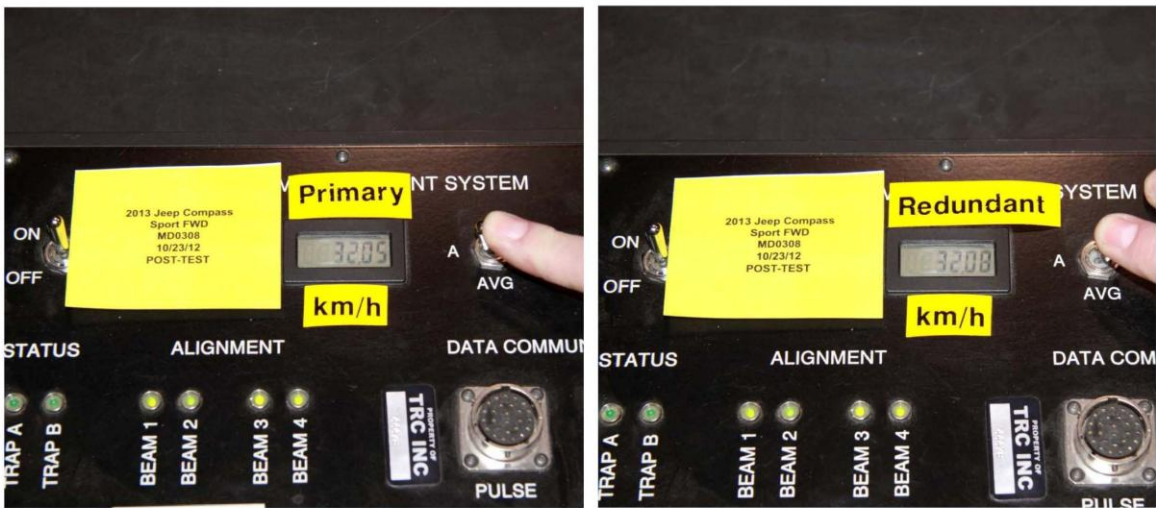
**059** Pre-Test Pole Barrier Side View



**060** Post-Test Pole Barrier Side View



061 Pre-Test Ballast View



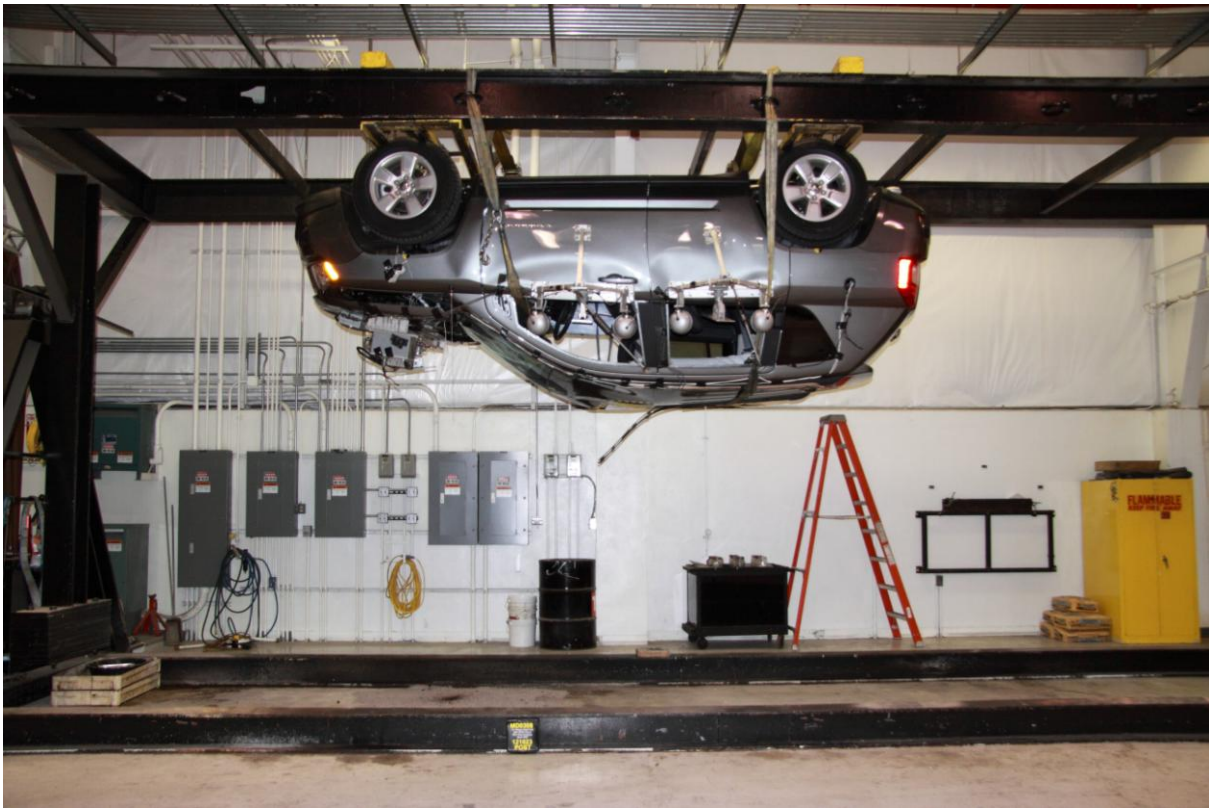
062 Post-Test Primary and Redundant Speed Trap Read-Out



**063** FMVSS No. 301 Static Rollover 0 Degrees



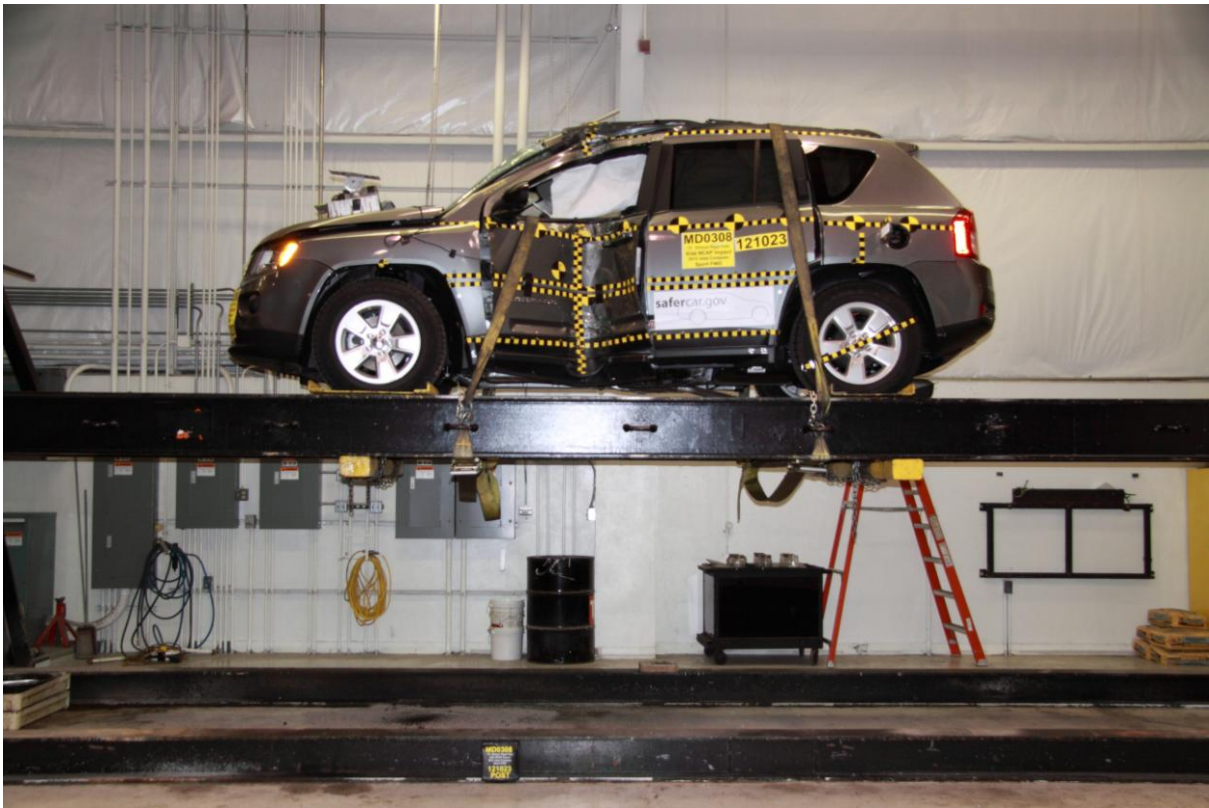
**064** FMVSS No. 301 Static Rollover 90 Degrees



**065** FMVSS No. 301 Static Rollover 180 Degrees



**066** FMVSS No. 301 Static Rollover 270 Degrees



**067** FMVSS No. 301 Static Rollover 360 Degrees



**068** Impact Event

# Jeep COMPASS SPORT FWD

2013 MODEL YEAR

COMPASS SPORT FWD  
GREY - 10035G

For more information visit: [www.jeep.com](http://www.jeep.com)  
or call 1-877-IAM-JEEP

Chrysler Group LLC

THIS VEHICLE IS MANUFACTURED TO MEET SPECIFIC UNITED STATES REQUIREMENTS. THIS VEHICLE IS NOT MANUFACTURED FOR SALE OR REGISTRATION OUTSIDE OF THE UNITED STATES.

MANUFACTURER'S SUGGESTED RETAIL PRICE OF THIS MODEL INCLUDING DEALER PREPARATION

Base Price: **\$19,395**

### Jeep COMPASS SPORT FWD

Exterior Color: Mineral Gray Metallic Clear Coat Exterior Paint  
Interior Color: Dark Sable Gray Interior Color  
Interior: Premium Cloth Bucket Seats  
Engine: 2.0 Liter I4 DOHC 16-Valve Dual VVT Engine  
Transmission: Continuously Variable Transaxle II

### STANDARD EQUIPMENT (UNLESS REPLACED BY OPTIONAL EQUIPMENT)

#### FUNCTIONAL SAFETY FEATURES

Advanced Multistage Front Airbags  
Supplemental Side-Curtain Front and Rear Airbags  
Active Head Restraints  
Front Passenger Seat Belt Alert  
Electronic Stability Control  
Electronic Roll Mitigation  
Speed Control  
Anti-Lock Front Disc / Rear Drum Brakes  
Brake Assist  
Hill Start Assist (not available with CVT II)  
Power Windows with Driver's One-Touch-Down Feature  
Speed Sensitive Power Locks  
Keyless Entry  
Illuminated Entry  
Sentry Key® Theft Deterrent System  
Rear Window Defroster  
Rear Window Wiper / Washer  
Rear Window Wiper / Washer

#### INTERIOR FEATURES

Air Conditioning  
Rear 60 / 40 Folding Seat  
Outside Temperature Display in Odometer  
Rearview Day / Night Mirror  
Uconnect® 130 AM/FM/CD/MP3  
Audio Jack Input for Mobile Devices  
4 Speakers  
12-Volt Auxiliary Power Outlet  
Map / Dome Reading Lamps  
Illuminated Cup Holders  
Tire Pressure Monitor with Warning Lamp  
Tilt Steering Column  
Passenger Assist Handles  
Interior Removable / Rechargeable Lamp  
Luxury Front and Rear Floor Mats  
Sliding Armrest  
Sliding Sun Vans with Mirrors

Full-Length Floor Console  
EXTERIOR FEATURES  
16-Inch x 8.5-Inch Aluminum Wheels  
P205/70R16 BSW All Season Tires  
Premium Fog Lamps  
Halogen Headlamps  
Power Heated Mirrors with Manual Fold-Away  
Solar Control Glass  
Deep Tint Sunscreen Glass  
Compact Spare Tire  
120-Amp Alternator  
Liftgate Door with Fixed Glass  
Bright Side Roof Rails

#### OPTIONAL EQUIPMENT

Customer Preferred Package 24A  
Continuously Variable Transaxle II \$1,100  
Tip Start  
AutoStick® Automatic Transmission  
Uconnect® Voice Command with Bluetooth®  
Auto-Dimming Rearview Mirror w/ Microphone  
Remote USB Port  
SiriusXM Satellite Radio w/ 1-Yr Radio Subscription  
For More Information, Call 888-538-7474

#### DESTINATION CHARGE

\$925

**TOTAL PRICE: \*\$21,895**

#### WARRANTY COVERAGE

5-year or 100,000-mile Powertrain Limited Warranty.  
3-year or 36,000-mile Basic Limited Warranty.  
Roadside assistance; certain restrictions apply.  
Ask Dealer for a copy of the limited warranties or see your owner's manual for details.

**5 YEAR / 100,000 MILE  
POWERTRAIN WARRANTY**

Assembly Plant: Part of Entry, BELVIDERE, ILLINOIS, U.S.A.

VIN 1C4NLCB0D0100356

LA000 0195

SALES  
FRANK RUCIVERA CHRYSLER, DODGE,  
RAM, PLYMOUTH, JEEP, RAM  
JANESVILLE, WI 53446-9643  
FRANK RUCIVERA CHRYSLER, DODGE,  
RAM, PLYMOUTH, JEEP, RAM  
JANESVILLE, WI 53446-9643  
THIS LABEL IS ADDED TO THE PRICE TO COVER THE LABEL. LABEL COST IS REPAID  
ON A 100% BASIS TO THE BUYER AT THE TIME OF PURCHASE.  
\*EXCEPT WHERE SHOWN, THESE ARE SUGGESTED MSRP AND DEALER SUGGESTED MSRP.  
\*\*INSTALLATION, TYPING AND ACCEPTANCE FEE'S ARE NOT INCLUDED IN THIS PRICE. DISCOUNT, IF ANY,  
IS BASED ON PRICE OF APPROVED EQUIPMENT.

## EPA DOT Fuel Economy and Environment Gasoline Vehicle

**Fuel Economy**

**24** MPG  
combined city/hwy

Small SUV 2WD range from 16 to 32 MPG.  
The best vehicle rates 112 MPG.

**22** MPG city  
**28** MPG highway

**4.2** gallons per 100 miles

**You Save \$600**  
in fuel costs  
over 5 years  
compared to the  
average new vehicle.

**Annual fuel cost \$2,200**

**Fuel Economy & Greenhouse Gas Rating (tailpipe only)**

**Smog Rating (tailpipe only)**

Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 23 MPG city, 31 MPG highway and 26 MPG combined. EPA's miles per gallon equivalent (MPGe) is miles per gallon gasoline equivalent. Vehicle emissions are a significant cause of climate change and smog.

**fuel economy.gov**  
Calculate personalized estimates and compare vehicles

## GOVERNMENT 5-STAR SAFETY RATINGS

**Overall Vehicle Safety Score**

Based on the combined ratings of frontal, side, and rollover. Shows ONLY the risk of injury in a frontal impact. \* Side-impact: compared to other vehicles of similar size and weight. \*\* ONLY to be compared to other vehicles of similar size and weight.

**Frontal Crash**

Driver: **Not Rated**  
Passenger: **Not Rated**

**Side Crash**

Front seat: **Not Rated**  
Rear seat: **Not Rated**

**Rollover**

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](http://www.safercar.gov) or 1-888-327-4236

\*\*\*

## PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE:  
U.S./CANADIAN PARTS CONTENT: 72 %  
NOTE: PARTS CONTENT DOES NOT INCLUDE FINAL ASSEMBLY, DISTRIBUTION, OR OTHER NON-PARTS COSTS.

FOR THIS VEHICLE:  
FINAL ASSEMBLY POINT:  
BELVIDERE, ILLINOIS, U.S.A.  
COUNTRY OF ORIGIN:  
ENGINE: UNITED STATES  
TRANSMISSION: MEXICO

## 069 Monroney Label

### Active Head Restraints — Front Seats

Active Head Restraints are passive, deployable components, and vehicles with this equipment cannot be readily identified by any markings, only through visual inspection of the head restraint. The head restraint will split in two halves, with the front half being soft foam and trim, the back half being decorative plastic. When AHRs deploy during a rear impact, the front half of the head restraint extends forward to minimize the gap between the back of the occupant's head and the AHR. This system is designed to help prevent or reduce the extent of injuries to the driver and front passenger in certain types of rear impacts. Refer to "Occupant Restraints" in "Things To Know Before Starting Your Vehicle" for further information.

To raise the head restraint, pull upward on the head restraint. To lower the head restraint, press the push button, located at the base of the head restraint, and push downward on the head restraint.



Push Button

For comfort the Active Head Restraints can be tilted forward and backward. To tilt the head restraint closer to the back of your head, pull forward on the bottom of the head restraint. Push rearward on the bottom of the head restraint to move the head restraint away from your head.



Active Head Restraint (Normal Position)



Active Head Restraint (Tilted Position)

- NOTE:**
- The head restraints should only be removed by qualified technicians, for service purposes only. If either of the head restraints require removal, see your authorized dealer.
  - In the event of deployment of an Active Head Restraint, refer to "Occupant Restraints/Resetting Active Head Restraints (AHR)" in "Things To Know Before Starting Your Vehicle" for further information.

- WARNING:**
- Do not place items over the top of the Active Head Restraint, such as coats, seat covers or portable DVD players. These items may interfere with the operation of the Active Head Restraint in the event of a collision and could result in serious injury or death.
  - Active Head Restraints may be deployed if they are struck by an object such as a hand, foot or loose cargo. To avoid accidental deployment of the Active Head Restraints, ensure that all cargo is secured. As loose cargo could contact the Active Head Restraint during sudden stops, failure to follow this warning could cause personal injury if the Active Head Restraint is deployed.

Parent topic: [Head Restraints](#)

Related information

*2012 Anniversary*

## 070 Head Restraint Use and Adjustment Information from Vehicle Owner Manual



071 Post-Test View of Shattered Vehicle Inner Door Panel

**APPENDIX B**  
**VEHICLE AND DUMMY RESPONSE DATA PLOTS**

## TABLE OF DATA PLOTS

No.	Description	Page
1	Driver Head Acceleration (X) Primary vs. Time	B-4
2	Driver Head Acceleration (Y) Primary vs. Time	B-4
3	Driver Head Acceleration (Z) Primary vs. Time	B-4
4	Driver Head Acceleration Resultant Primary vs. Time	B-4
5	Driver Lower Spine T12 Acceleration (X) vs. Time	B-5
6	Driver Lower Spine T12 Acceleration (Y) vs. Time	B-5
7	Driver Lower Spine T12 Acceleration (Z) vs. Time	B-5
8	Driver Lower Spine T12 Resultant Acceleration vs. Time	B-5
9	Driver Iliac Wing Force on Impact Side (Y) vs. Time	B-6
10	Driver Acetabulum Force on Impact Side (Y) vs. Time	B-6
11	Driver Total Pelvis Force on Impact Side (Y) vs. Time	B-6

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](http://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)

### **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 (Y)  
    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)

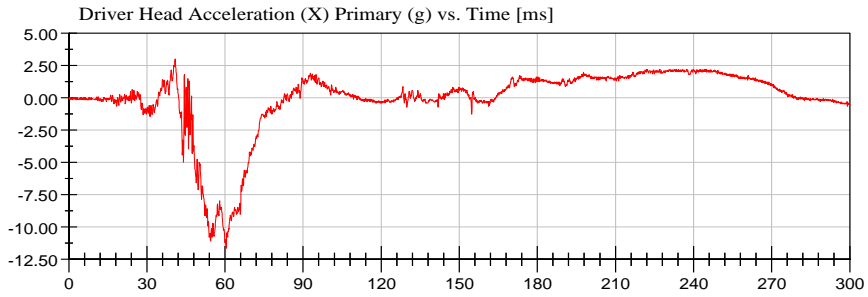
**NHTSA**

Position #1 SID IIs Dummy (33)

Test Date: 10/23/2012

Test Lab: CTF

Test Number: 121023 (MD0308)

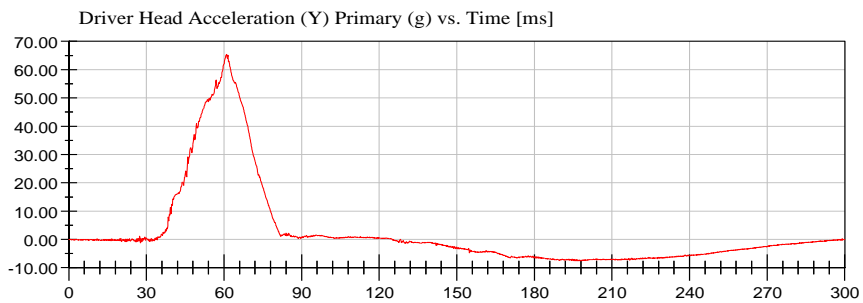


<Max>

3.02 g at 40.80 ms

<Min>

-11.64 g at 60.48 ms

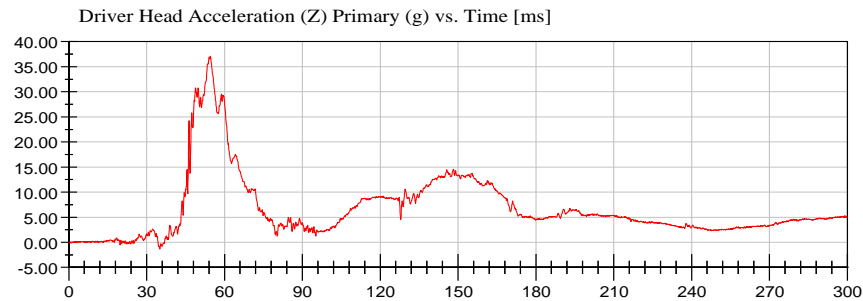


<Max>

65.40 g at 61.04 ms

<Min>

-7.69 g at 196.72 ms

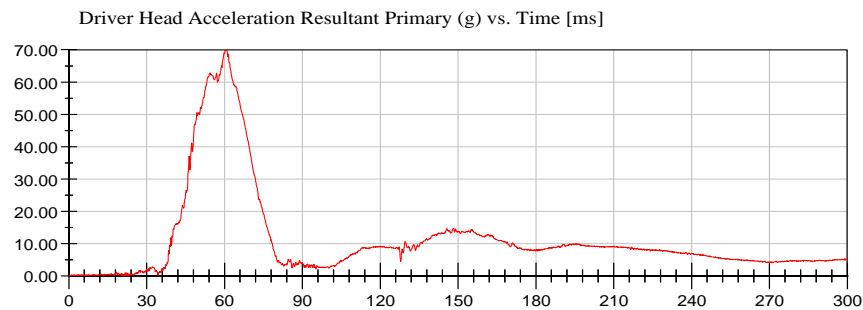


<Max>

37.12 g at 54.56 ms

<Min>

-1.35 g at 35.04 ms



<Max>

69.99 g at 60.96 ms

<Min>

0.08 g at 0.56 ms



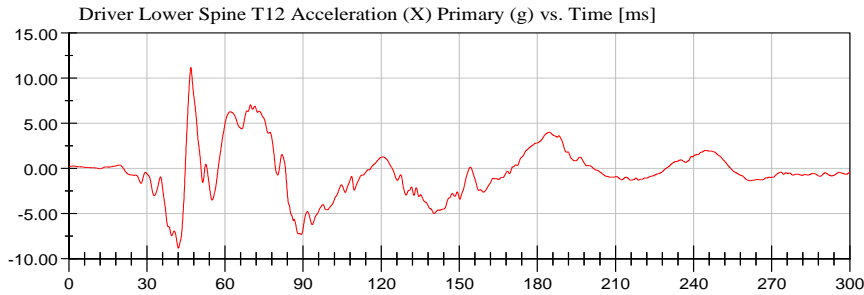
**NHTSA**

Position #1 SID IIs Dummy (33)

Test Date: 10/23/2012

Test Lab: CTF

Test Number: 121023 (MD0308)

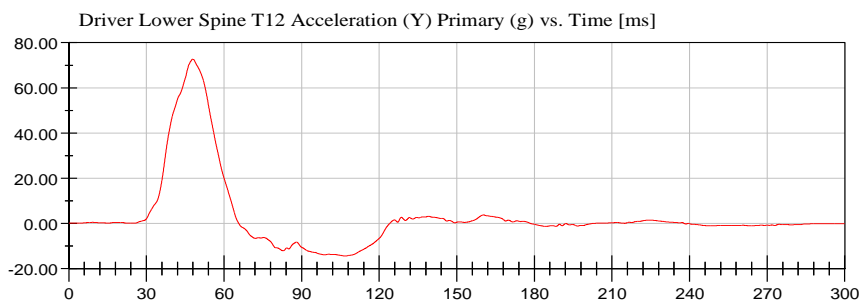


<Max>

11.19 g at 46.88 ms

<Min>

-8.83 g at 42.08 ms

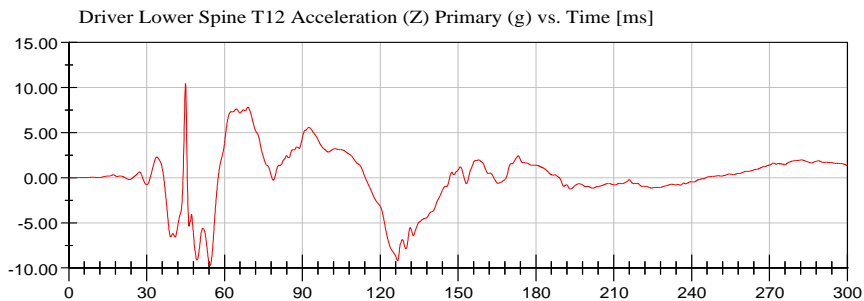


<Max>

72.66 g at 47.76 ms

<Min>

-14.54 g at 106.80 ms

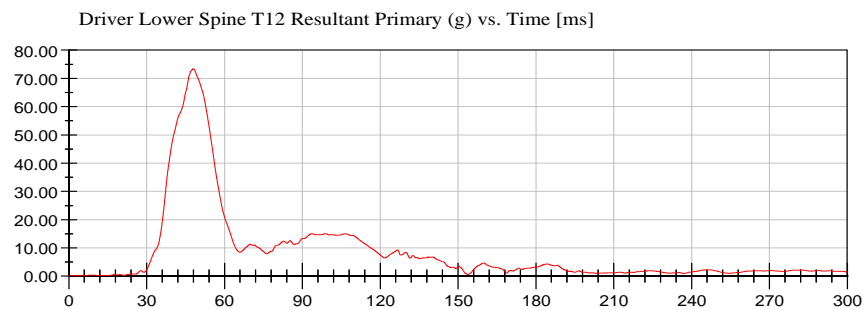


<Max>

10.42 g at 44.96 ms

<Min>

-9.73 g at 54.40 ms



<Max>

73.37 g at 47.76 ms

<Min>

0.19 g at 3.92 ms



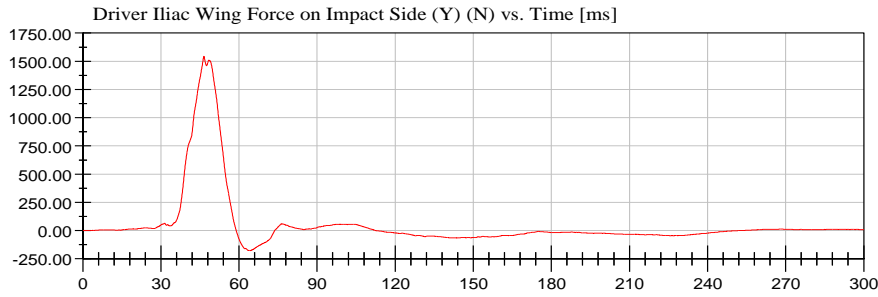
**NHTSA**

Position #1 SID IIs Dummy (33)

Test Date: 10/23/2012

Test Lab: CTF

Test Number: 121023 (MD0308)



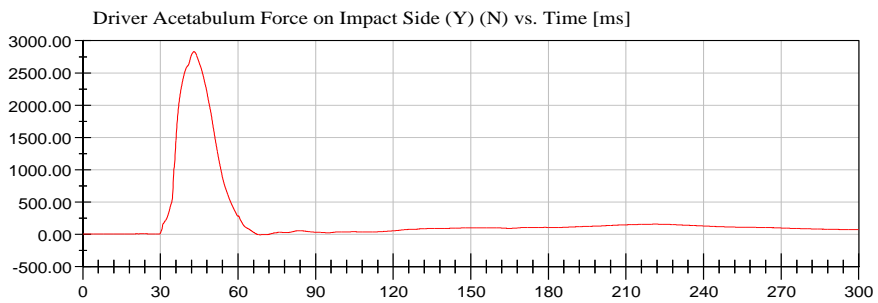
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1,542.27 N at 46.48 ms

<Min>

-177.38 N at 64.40 ms

CFC\_600



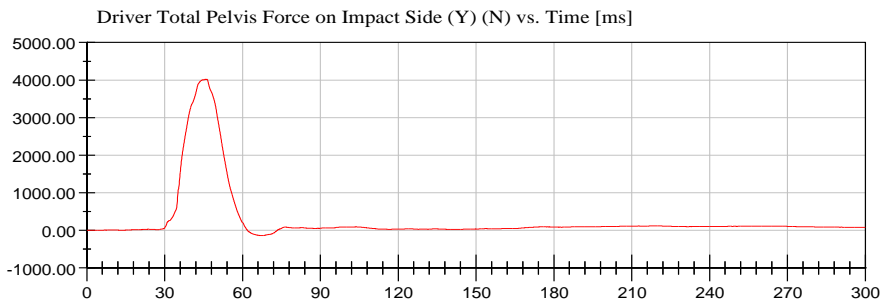
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2,831.65 N at 42.96 ms

<Min>

-9.79 N at 68.56 ms

CFC\_600



<Max>

4,020.51 N at 46.32 ms

<Min>

-139.46 N at 67.36 ms

CFC\_600



**APPENDIX C**  
**DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA**

**TABLE OF CALIBRATION MEASUREMENTS AND PLOTS  
SID-IIs (Driver) Dummy  
Description**

**Table 1.** External Measurements

**Table 2.** Head Drop Test

Resultant Head Acceleration (G's) vs. Time (ms)  
Head (X) Acceleration (G's) vs. Time (ms)  
Head (Y) Acceleration (G's) vs. Time (ms)  
Head (Z) Acceleration (G's) vs. Time (ms)

**Table 3.** Lateral Neck Pendulum Test

Pendulum Velocity (m/s) vs. Time (ms)  
Flexion Angle (°) vs. Time (ms)  
Moment About Occipital Condyle (Nm) vs. Time (ms)

**Table 4.** Shoulder Impact Test

Impactor Acceleration (G's) vs. Time (ms)  
Shoulder Displacement (mm) vs. Time (ms)  
Upper Spine Acceleration (G's) vs. Time (ms)

**Table 5.** Thorax (With Arm) Impact Test

Impactor Acceleration (G's) vs. Time (ms)  
Shoulder Displacement (mm) vs. Time (ms)  
Upper Rib Displacement (mm) vs. Time (ms)  
Middle Rib Displacement (mm) vs. Time (ms)  
Lower Rib Displacement (mm) vs. Time (ms)  
Upper Spine Acceleration (G's) vs. Time (ms)  
Lower Spine Acceleration (G's) vs. Time (ms)

**Table 6.** Thorax (Without Arm) Impact Test

Impactor Acceleration (G's) vs. Time (ms)  
Upper Rib Displacement (mm) vs. Time (ms)  
Middle Rib Displacement (mm) vs. Time (ms)  
Lower Rib Displacement (mm) vs. Time (ms)  
Upper Spine Acceleration (G's) vs. Time (ms)  
Lower Spine Acceleration (G's) vs. Time (ms)

**Table 7.** Abdomen Impact Test

Impactor Acceleration (G's) vs. Time (ms)  
Upper Abdominal Rib Displacement (mm) vs. Time (ms)  
Lower Abdominal Rib Displacement (mm) vs. Time (ms)  
Lower Spine Acceleration (G's) vs. Time (ms)

**Table 8.** Pelvis Plug Quasi-Static Test (Optional\*)

**Table 9.** Pelvis Acetabulum Impact Test

Impactor Acceleration (G's) vs. Time (ms)  
Pelvis (Y) Acceleration (G's) vs. Time (ms)  
Acetabulum Force (N) vs. Time (ms)

**Table 10.** Pelvis Iliac Impact Test

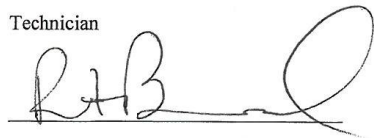
Impactor Acceleration (G's) vs. Time (ms)  
Pelvis (Y) Acceleration (G's) vs. Time (ms)  
Iliac Force (N) vs. Time (ms)

**Pre-Test Calibration Sheets**  
**Driver S/N 033**

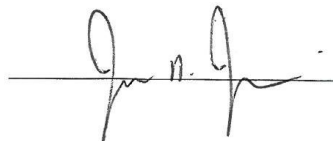
**Transportation Research Center Inc.**  
**SIDIIs Dummy - Level D**  
**External Dimensions**  
**Serial No. 033 Calibration No.14**  
**Date: 10/20/12**

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Sitting Height	772.0 - 788.0	780	Yes
B	Shoulder Pivot Height	437.0 - 453.0	444	Yes
C	H-Point Height	79.0 - 89.0	85	Yes
D	H-Point from Seat Back	141.0 - 151.0	145	Yes
E	Shoulder Pivot from Backline	97.0 - 107.0	101	Yes
F	Thigh Clearance	119.0 - 135.0	129	Yes
G	Head Breadth	140.0 - 148.0	145	Yes
H	Head Back from Backline	40.0 - 46.0	45	Yes
I	Head Depth	178.0 - 188.0	183	Yes
J	Head Circumference	541.0 - 551.0	543	Yes
K	Buttock to Knee Length	514.0 - 540.0	533	Yes
L	Popliteal Height	343.0 - 369.0	353	Yes
M	Knee Pivot to Floor Height	393.0 - 409.0	400	Yes
N	Buttock Popliteal Length	416.0 - 442.0	431	Yes
O	Chest Depth without Jacket	195.0 - 211.0	205	Yes
P	Foot Length (right)	216.0 - 232.0	220	Yes
P	Foot Length (left)	216.0 - 232.0	220	Yes
Q	Hip Breadth	313.0 - 323.0	316	Yes
R	Arm Length	249.0 - 259.0	253	Yes
S	Knee Joint to seat Back	478.0 - 493.0	483	Yes
V	Shoulder Width (only one arm installed)	341.0 - 357.0	350	Yes
W	Foot Width (right)	78.0 - 94.0	84	Yes
W	Foot Width (left)	78.0 - 94.0	84	Yes
Y	Chest Circumference with Jacket	851.0 - 881.0	870	Yes
Z	Waist Circumference	761.0 - 791.0	781	Yes

Technician



Approved



Revised 9/29/2005



# Transportation Research Center Inc.

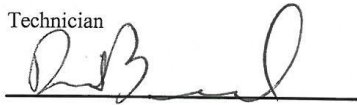
Left Lateral Head Drop  
SID II Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	36 %	Yes
Peak Head Resultant Acceleration	115 - 137 g	134.7 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	10.1 g	Yes
Is Head Resultant Acceleration Curve Unimodal within 15% of Peak?	Yes	Yes	Yes

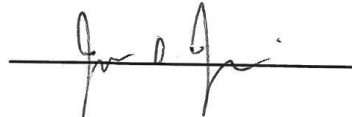
Test meets specifications.

Comments:

Technician



Approved



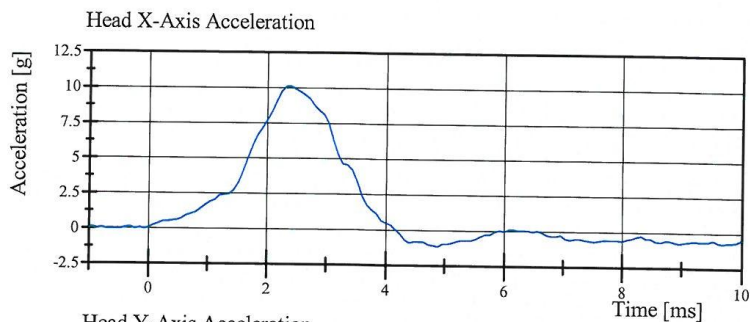
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 09:37:03 234

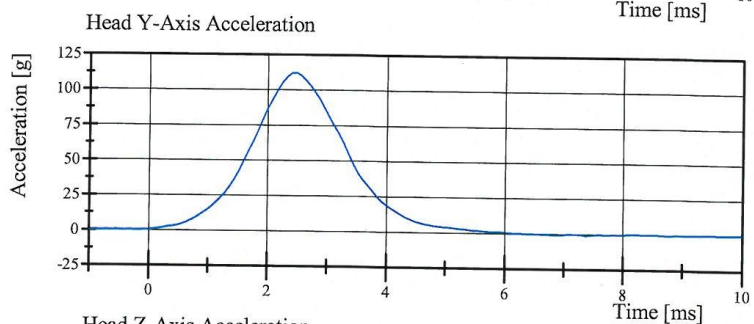


# Transportation Research Center Inc.

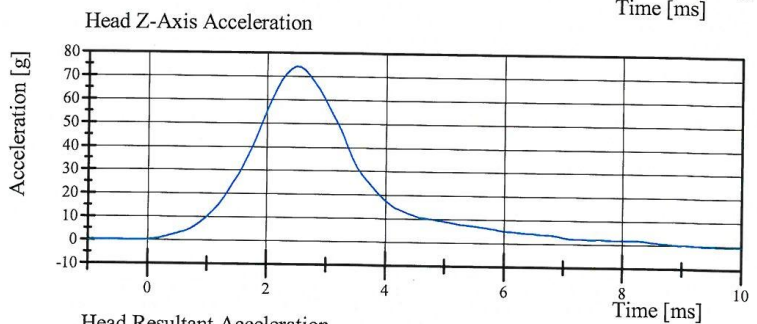
Left Lateral Head Drop  
SID II<sub>s</sub> Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012



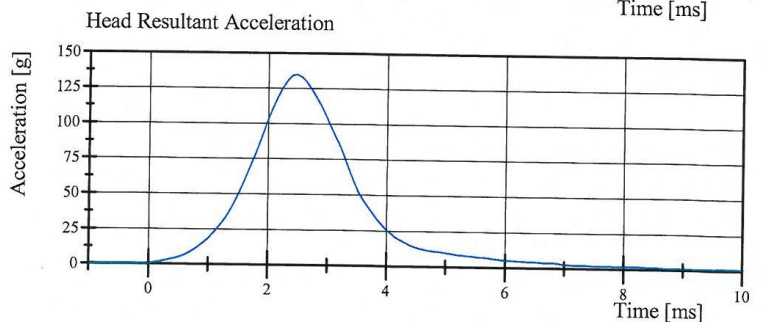
Filter Class: CFC\_1000  
Max: 10.1 gn at 2.3 ms  
Min: -1.2 gn at 4.9 ms



Filter Class: CFC\_1000  
Max: 112.1 gn at 2.5 ms  
Min: -0.9 gn at 7.4 ms



Filter Class: CFC\_1000  
Max: 74.1 gn at 2.5 ms  
Min: -0.6 gn at 9.8 ms



Filter Class: CFC\_1000  
Max: 134.7 gn at 2.5 ms  
Min: 0.0 gn at -0.8 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 09:37:10 234



# Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. 033 Certification No. 14-3

Test Date: 10/19/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.9 °C	Yes
Relative Humidity	10 - 70 %	36 %	Yes
Pendulum Velocity	(-5.51) - (-5.63) m/s	-5.580 m/s	Yes
Pendulum Integrated Velocity			
Change at 10 ms	2.20 - 2.80 m/s	2.606 m/s	Yes
Change at 15 ms	3.30 - 4.10 m/s	3.856 m/s	Yes
Change at 20 ms	4.40 - 5.40 m/s	5.217 m/s	Yes
Change at 25 ms	5.40 - 6.10 m/s	5.783 m/s	Yes
Change at 25 to 100 ms	5.50 - 6.20 m/s	5.793 m/s	Yes
Maximum Headform Flexion occurring between 50ms and 70ms.			
Peak	(-71) - (-81) deg	-71.1 deg	Yes
Time of Peak	50 - 70 ms	62.6 ms	Yes
Total Neck Occipital Condyles Moment	36 - 44 N·m	42.4 N·m	Yes
Total Neck Occipital Condyles Moment			
Decay Time to 0 N·m	102 - 126 ms	122.2 ms	Yes

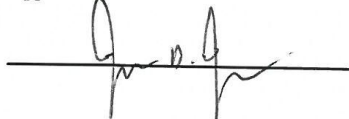
**Test meets specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 19:07:24 638

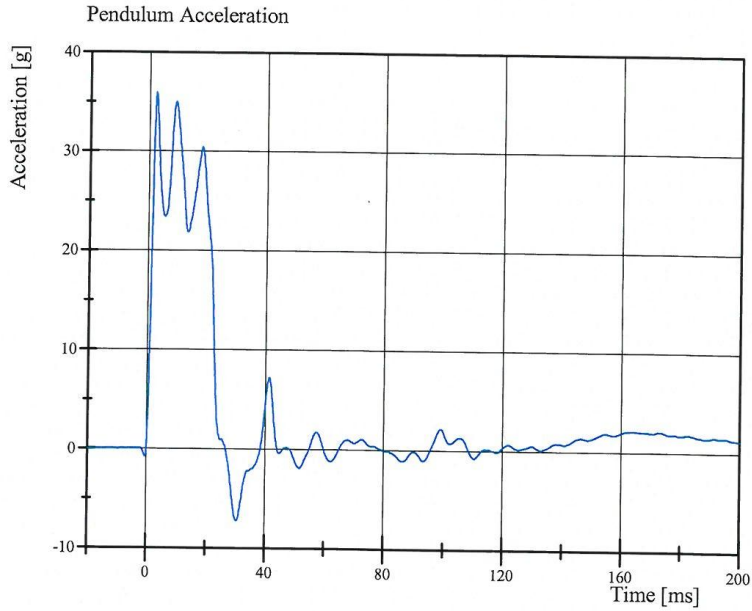


# Transportation Research Center Inc.

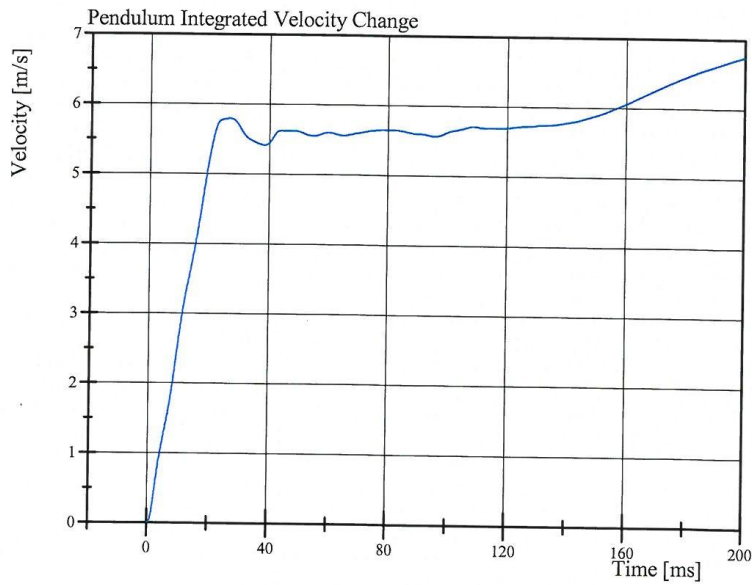
Left Lateral Neck

SID IIs Serial No. 033 Certification No. 14-3

Test Date: 10/19/2012



Filter Class: CFC\_180  
Max: 35.9 gn at 2.4 ms  
Min: -7.3 gn at 30.5 ms



Filter Class: CFC\_180  
Max: 6.7 m/s at 200.0 ms  
Min: 0.0 m/s at 0.0 ms

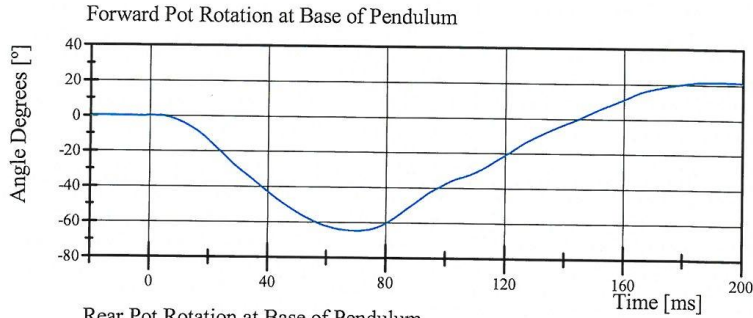
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 19:07:31 638

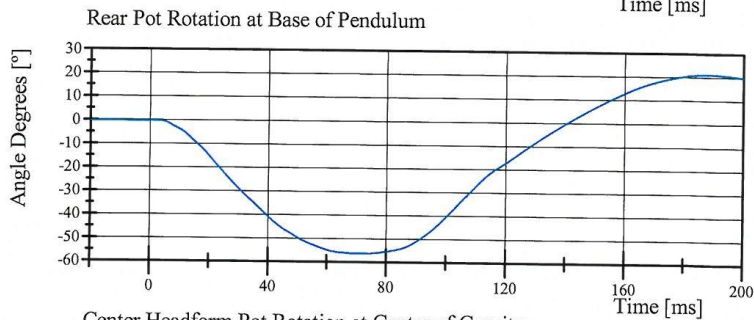


# Transportation Research Center Inc.

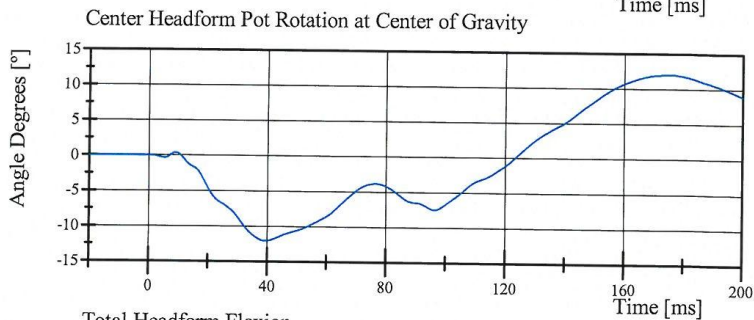
Left Lateral Neck  
SID IIs Serial No. 033 Certification No. 14-3  
Test Date: 10/19/2012



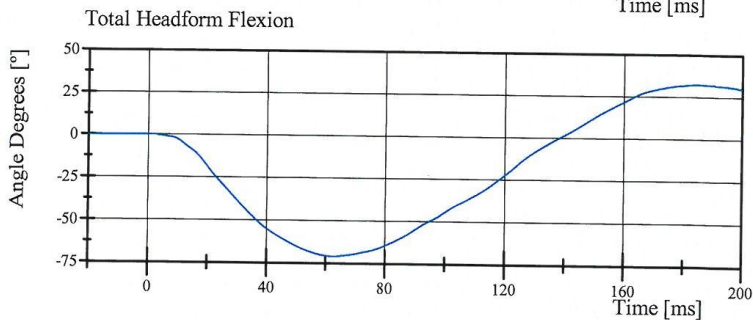
Filter Class: CFC\_60  
Max: 21.3 ° at 193.1 ms  
Min: -64.7 ° at 69.8 ms



Filter Class: CFC\_60  
Max: 21.2 ° at 187.7 ms  
Min: -56.4 ° at 72.7 ms



Filter Class: CFC\_60  
Max: 12.0 ° at 175.2 ms  
Min: -12.1 ° at 39.4 ms



Filter Class: CFC\_60  
Max: 32.3 ° at 185.0 ms  
Min: -71.1 ° at 62.6 ms

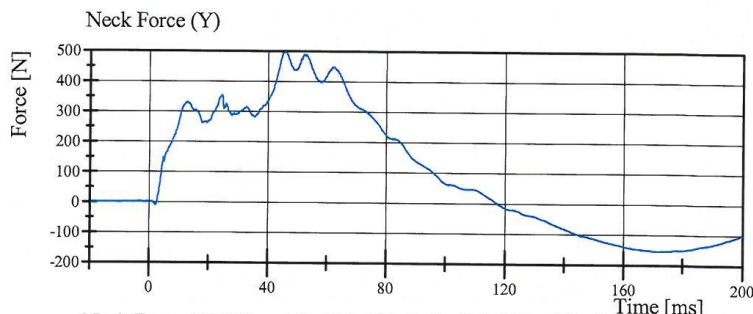
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 19:07:31 638

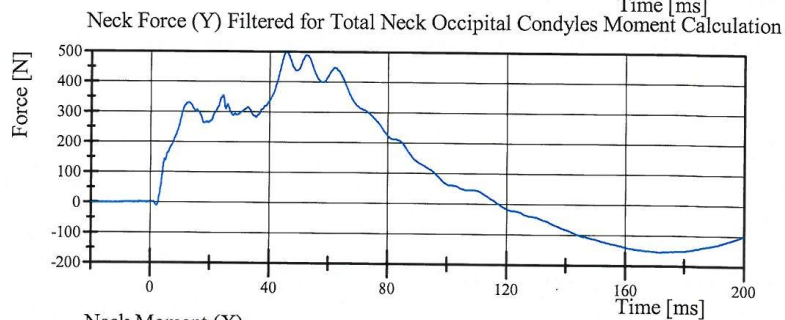


# Transportation Research Center Inc.

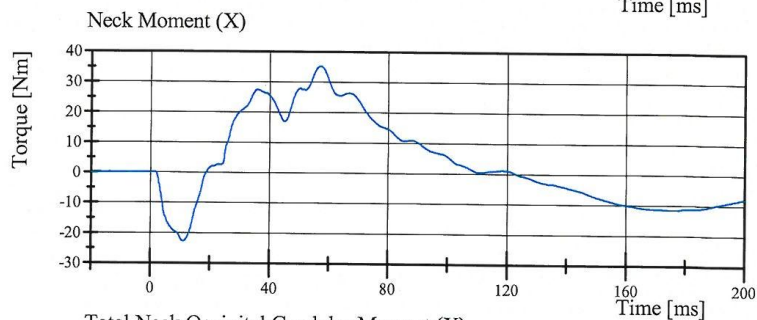
Left Lateral Neck  
SID IIs Serial No. 033 Certification No. 14-3  
Test Date: 10/19/2012



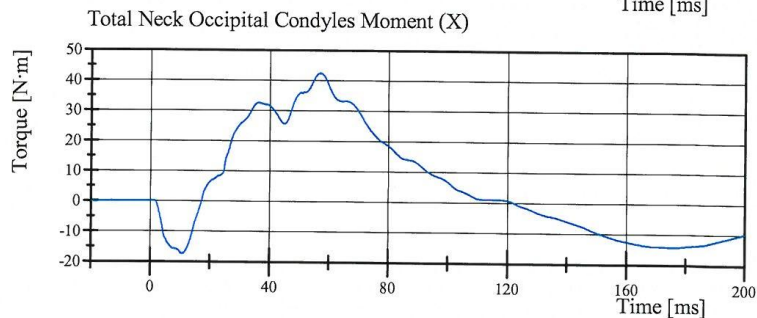
Filter Class: CFC\_1000  
Max: 498.8 N at 46.0 ms  
Min: -155.2 N at 171.4 ms



Filter Class: CFC\_600  
Max: 498.1 N at 46.0 ms  
Min: -154.8 N at 171.5 ms



Filter Class: CFC\_600  
Max: 35.3 Nm at 57.1 ms  
Min: -22.8 Nm at 11.2 ms



Filter Class: Without (Consta  
Max: 42.4 N·m at 57.0 ms  
Min: -17.4 N·m at 10.8 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 19:07:32 638



# Transportation Research Center Inc.

Left Lateral Shoulder  
SID IIs Serial No. 033 Certification No. 14-4  
Test Date: 10/22/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.8 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.34 m/s	Yes
Impactor Acceleration	(-13) - (-18) g	-16.4 g	Yes
Shoulder Displacement	28 - 37 mm	31.9 mm	Yes
Upper Spine Lateral Acceleration	17 - 22 g	19.2 g	Yes

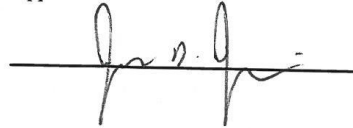
**Test meets specifications.**

**Comments:**

Technician



Approved



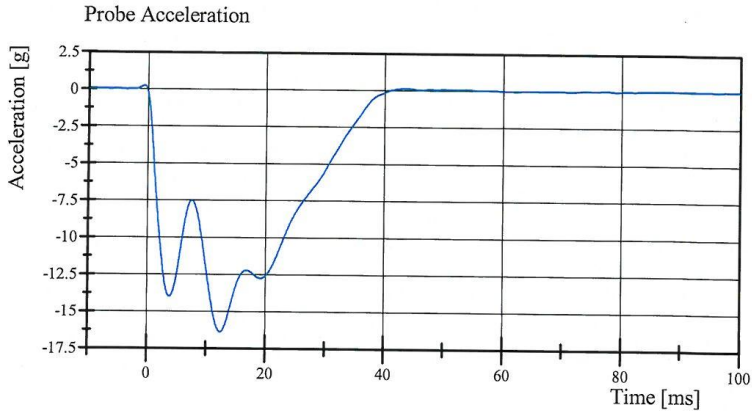
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.22.2012 14:46:15 820

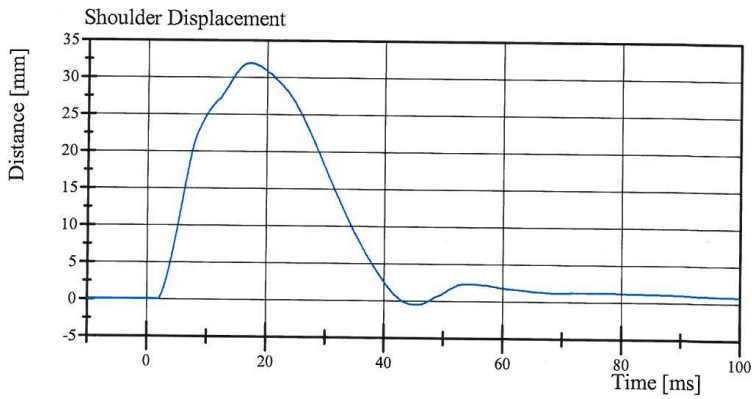


# Transportation Research Center Inc.

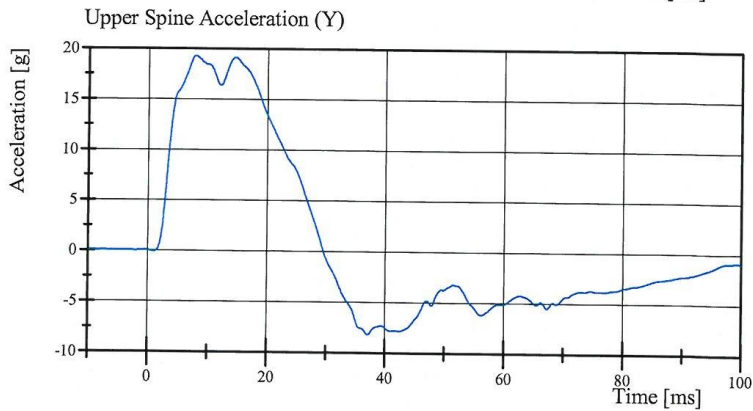
Left Lateral Shoulder  
SID IIs Serial No. 033 Certification No. 14-4  
Test Date: 10/22/2012



Filter Class: CFC\_180  
Max: 0.2 gn at -0.6 ms  
Min: -16.4 gn at 12.4 ms



Filter Class: CFC\_600  
Max: 31.9 mm at 17.2 ms  
Min: -0.5 mm at 45.4 ms



Filter Class: CFC\_180  
Max: 19.2 gn at 7.8 ms  
Min: -8.2 gn at 37.1 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.22.2012 14:46:22 820



# Transportation Research Center Inc.

Left Lateral Thorax with Arm  
SID IIs Serial No. 033 Certification No. 14-2  
Test Date: 10/22/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Impactor Velocity	6.60 - 6.80 m/s	6.724 m/s	Yes
Impactor Acceleration	(-30) - (-36) g	-34.9 g	Yes
Shoulder Displacement	31 - 40 mm	32.8 mm	Yes
Upper Thorax Rib Displacement	25 - 32 mm	27.3 mm	Yes
Center Thorax Rib Displacement	30 - 36 mm	33.4 mm	Yes
Lower Thorax Rib Displacement	32 - 38 mm	37.3 mm	Yes
Upper Spine Lateral Acceleration	34 - 43 g	38.6 g	Yes
Lower Spine Lateral Acceleration	29 - 37 g	33.7 g	Yes

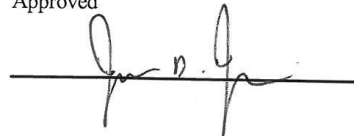
**Test meets specifications.**

**Comments:**

Technician



Approved



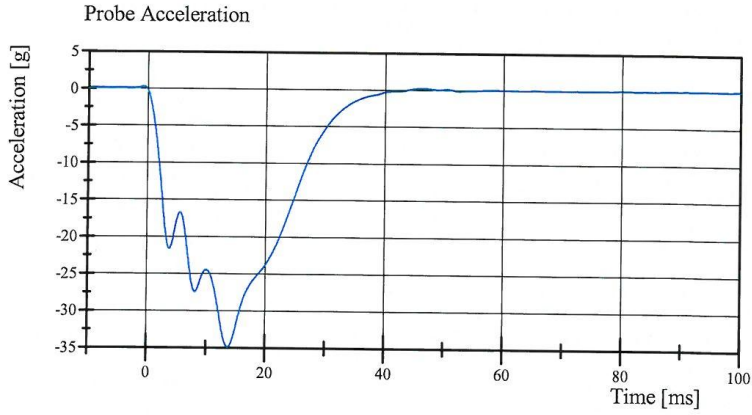
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.22.2012 15:36:52 585

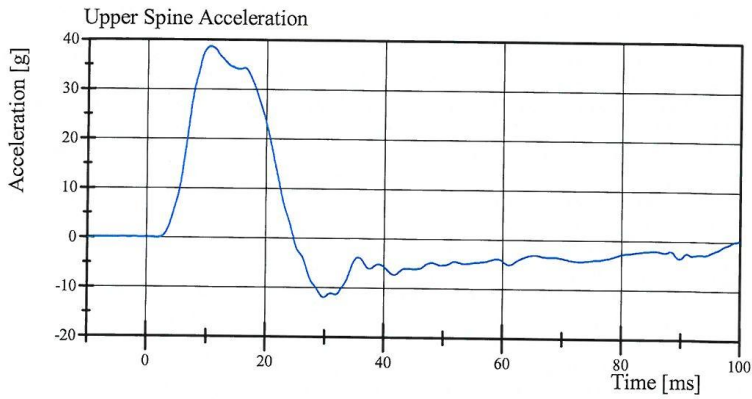


# Transportation Research Center Inc.

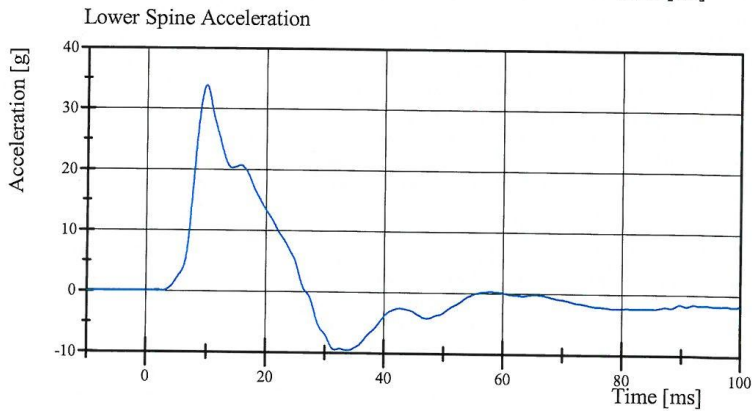
Left Lateral Thorax with Arm  
SID IIs Serial No. 033 Certification No. 14-2  
Test Date: 10/22/2012



Filter Class: CFC\_180  
Max: 0.2 gn at 46.1 ms  
Min: -34.9 gn at 13.7 ms



Filter Class: CFC\_180  
Max: 38.6 gn at 10.4 ms  
Min: -12.0 gn at 29.8 ms



Filter Class: CFC\_180  
Max: 33.7 gn at 9.8 ms  
Min: -9.6 gn at 33.8 ms

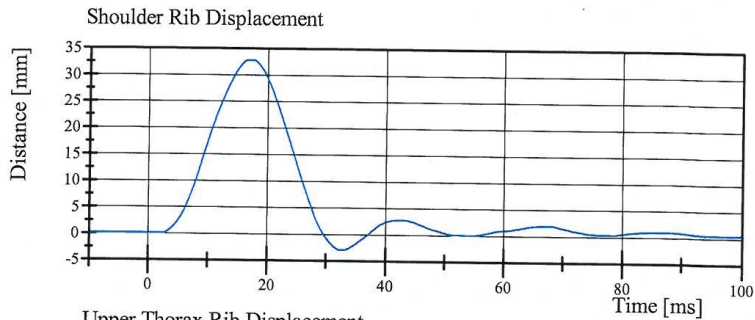
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.22.2012 15:37:00 585

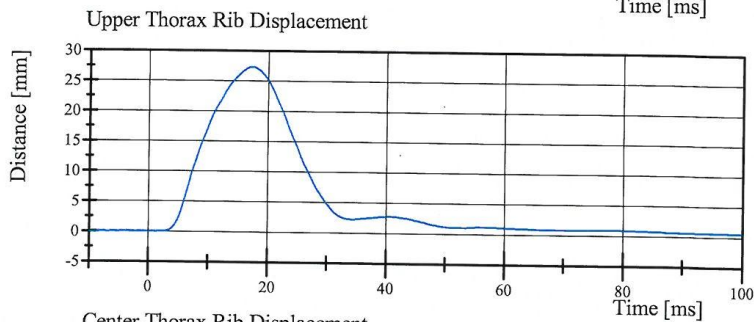


# Transportation Research Center Inc.

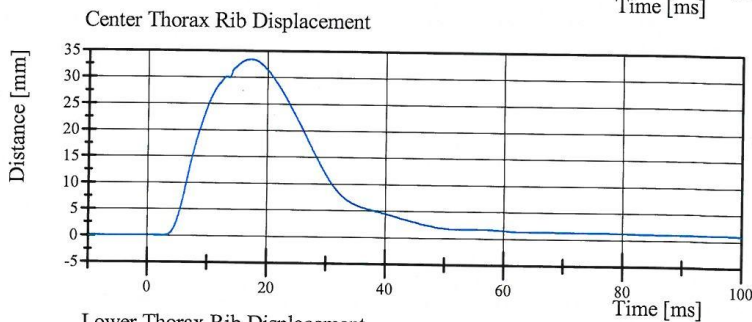
Left Lateral Thorax with Arm  
SID IIs Serial No. 033 Certification No. 14-2  
Test Date: 10/22/2012



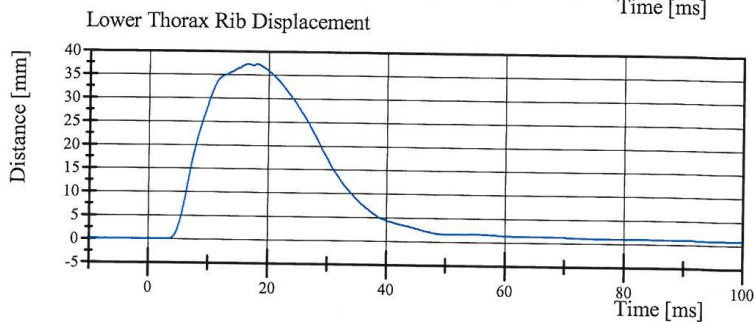
Filter Class: CFC\_600  
Max: 32.8 mm at 17.2 ms  
Min: -3.0 mm at 32.6 ms



Filter Class: CFC\_600  
Max: 27.3 mm at 17.3 ms  
Min: -0.0 mm at 0.2 ms



Filter Class: CFC\_600  
Max: 33.4 mm at 17.2 ms  
Min: -0.0 mm at 2.9 ms



Filter Class: CFC\_600  
Max: 37.3 mm at 18.0 ms  
Min: -0.0 mm at 3.5 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.22.2012 15:37:01 585



# Transportation Research Center Inc.

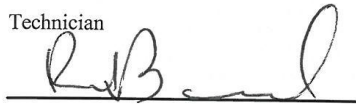
Left Lateral Thorax without Arm  
SID IIs Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.316 m/s	Yes
Impactor Acceleration	(-14) - (-18) g	-16.1 g	Yes
Upper Thorax Rib Displacement	32 - 40 mm	32.7 mm	Yes
Center Thorax Rib Displacement	39 - 45 mm	40.6 mm	Yes
Lower Thorax Rib Displacement	35 - 43 mm	39.7 mm	Yes
Upper Spine Lateral Acceleration	13 - 17 g	15.4 g	Yes
Lower Spine Lateral Acceleration	7 - 11 g	10.7 g	Yes

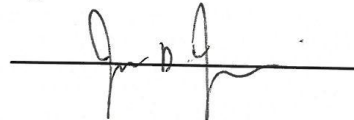
**Test meets specifications.**

**Comments:**

Technician



Approved



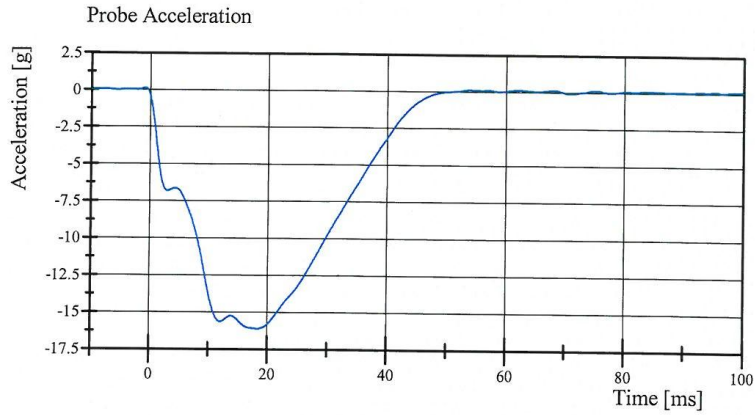
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 17:41:27 842

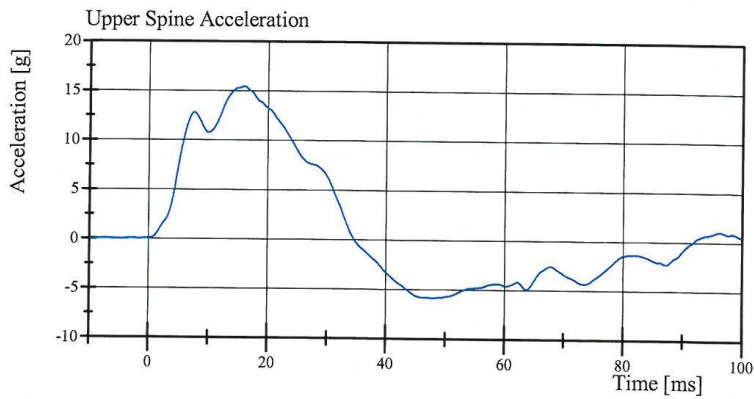


# Transportation Research Center Inc.

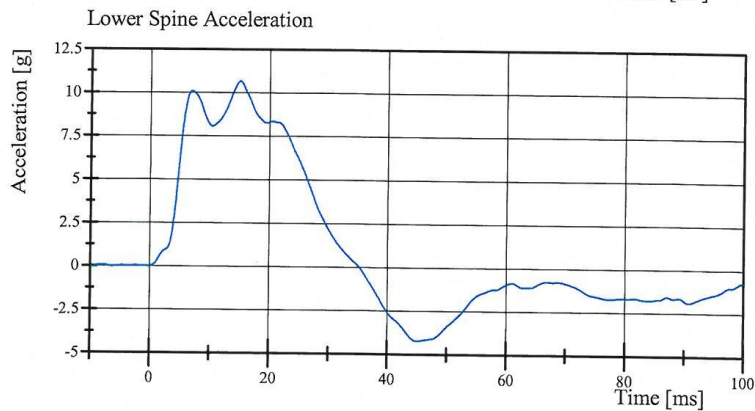
Left Lateral Thorax without Arm  
SID IIa Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012



Filter Class: CFC\_180  
Max: 0.1 gn at 62.2 ms  
Min: -16.1 gn at 18.2 ms



Filter Class: CFC\_180  
Max: 15.4 gn at 15.9 ms  
Min: -5.9 gn at 47.9 ms



Filter Class: CFC\_180  
Max: 10.7 gn at 15.0 ms  
Min: -4.2 gn at 45.1 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

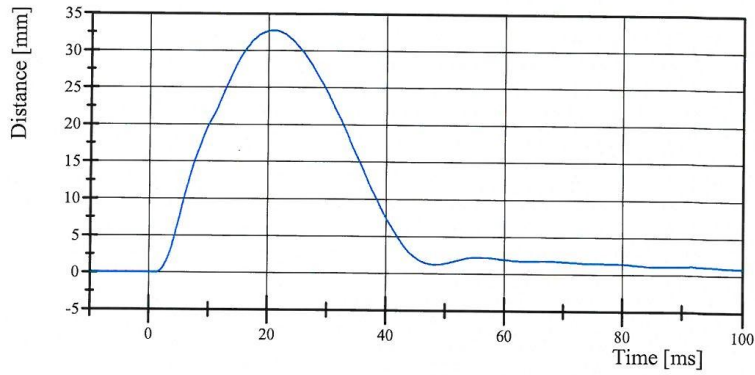
10.19.2012 17:41:35 842



# Transportation Research Center Inc.

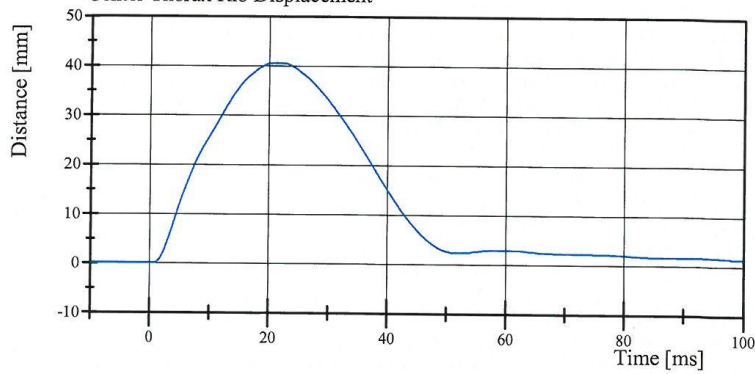
Left Lateral Thorax without Arm  
SID IIs Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012

### Upper Thorax Rib Displacement



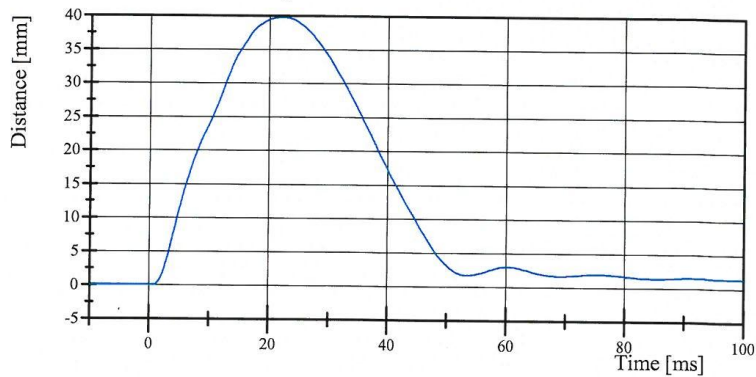
Filter Class: CFC\_600  
Max: 32.7 mm at 20.8 ms  
Min: -0.0 mm at 1.1 ms

### Center Thorax Rib Displacement



Filter Class: CFC\_600  
Max: 40.6 mm at 21.5 ms  
Min: -0.0 mm at 0.6 ms

### Lower Thorax Rib Displacement



Filter Class: CFC\_600  
Max: 39.7 mm at 22.2 ms  
Min: -0.0 mm at 0.6 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 17:41:36 842



# Transportation Research Center Inc.

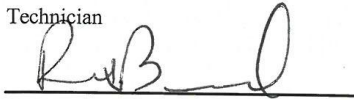
Left Lateral Abdomen  
SID IIs Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.9 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.33 m/s	Yes
Impactor Acceleration	(-12) - (-16) g	-13.6 g	Yes
Upper Abdominal Rib Displacement	36 - 47 mm	41.3 mm	Yes
Lower Abdominal Rib Displacement	33 - 44 mm	41.7 mm	Yes
Lower Spine Lateral Acceleration	9 - 14.0 g	10.87 g	Yes

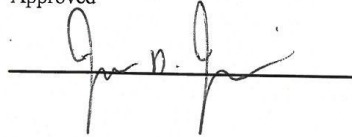
**Test meets specifications.**

**Comments:**

Technician



Approved



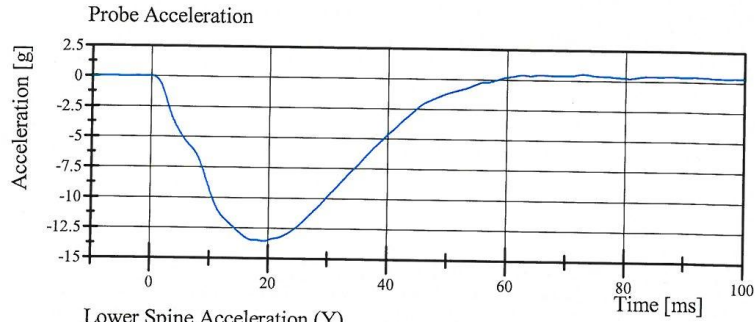
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 13:04:49 660

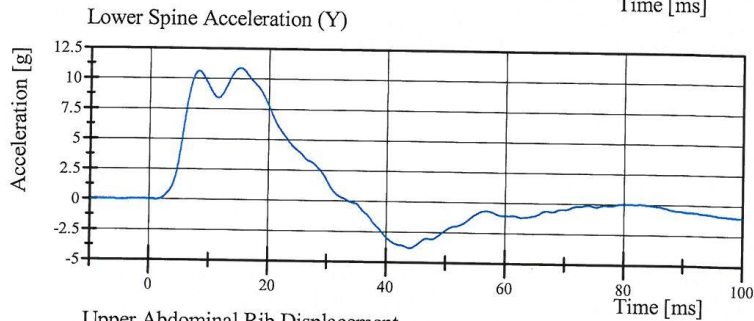


# Transportation Research Center Inc.

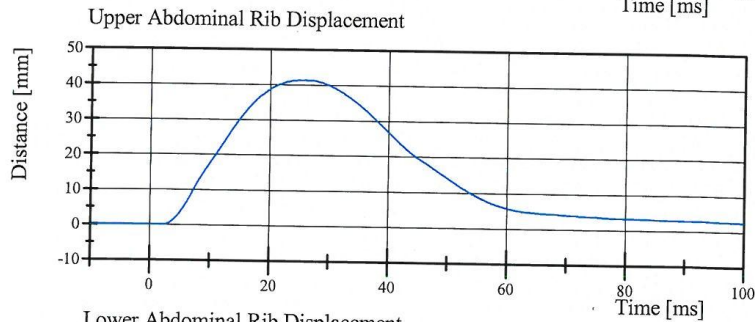
Left Lateral Abdomen  
SID IIs Serial No. 033 Certification No. 14-1  
Test Date: 10/19/2012



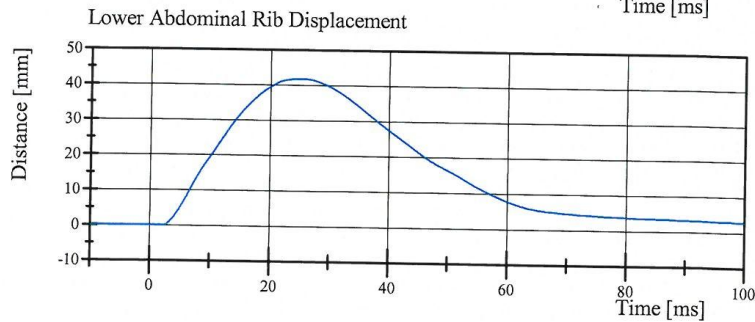
Filter Class: CFC\_180  
Max: 0.5 gn at 72.7 ms  
Min: -13.6 gn at 19.2 ms



Filter Class: CFC\_180  
Max: 10.9 gn at 15.1 ms  
Min: -3.8 gn at 43.9 ms



Filter Class: CFC\_600  
Max: 41.3 mm at 25.8 ms  
Min: -0.0 mm at 2.3 ms



Filter Class: CFC\_600  
Max: 41.7 mm at 24.6 ms  
Min: -0.0 mm at 2.5 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 13:04:56 660



# Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. 033 Certification No. 14-2

Test Date: 10/19/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Pendulum Velocity	6.6 - 6.8 m/s	6.66 m/s	Yes
Impactor Acceleration	(-38.0) - (-47.0) g	-44.02 g	Yes
Peak Pelvis Lateral Acceleration after 6ms	34 - 42 g	41.1 g	Yes
Acetabulum Force	3,600 - 4,300 N	3,672.2 N	Yes

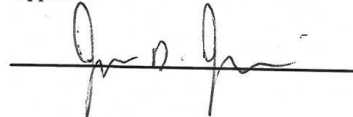
**Test meets specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 17:00:18 438

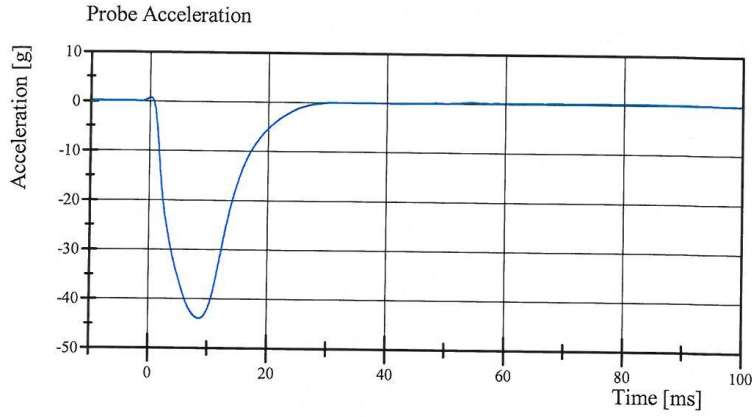


# Transportation Research Center Inc.

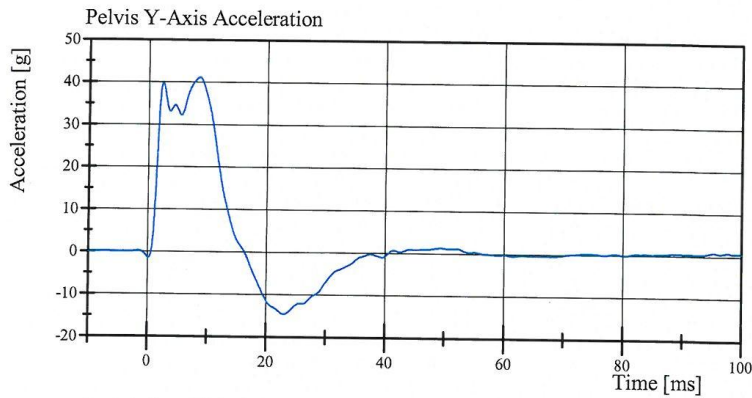
Left Lateral Pelvis

SID IIs Serial No. 033 Certification No. 14-2

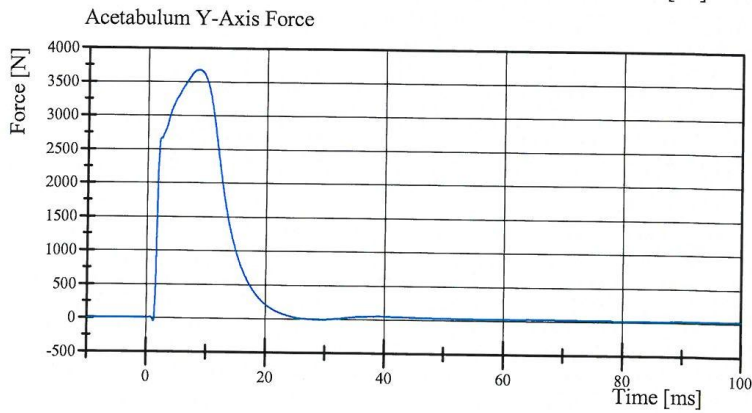
Test Date: 10/19/2012



Filter Class: CFC\_180  
Max: 0.6 gn at 0.2 ms  
Min: -44.0 gn at 8.6 ms



Filter Class: CFC\_180  
Max: 41.1 gn at 8.6 ms  
Min: -14.6 gn at 23.0 ms



Filter Class: CFC\_600  
Max: 3,672.2 N at 8.5 ms  
Min: -55.8 N at 1.2 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.19.2012 17:00:25 438



# Transportation Research Center Inc.

Left Lateral Iliac

SID IIs Serial No. 033 Certification No. 14-2

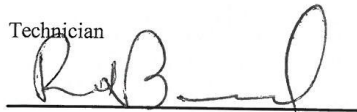
Test Date: 10/20/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Pendulum Velocity	4.2 - 4.4 m/s	4.40 m/s	Yes
Impactor Acceleration	(-36) - (-45) g	-40.5 g	Yes
Peak Pelvis Lateral Acceleration	28 - 39 g	30.2 g	Yes
Iliac Force	4,100 - 5,100 N	4,526.7 N	Yes

Test meets specifications.

Comments:

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.20.2012 07:22:37 641

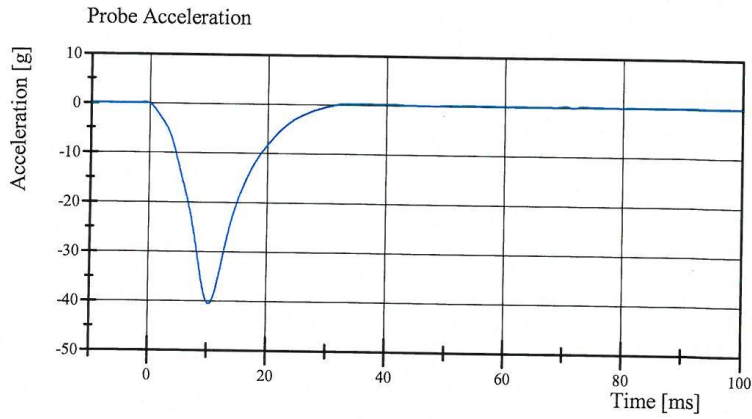


# Transportation Research Center Inc.

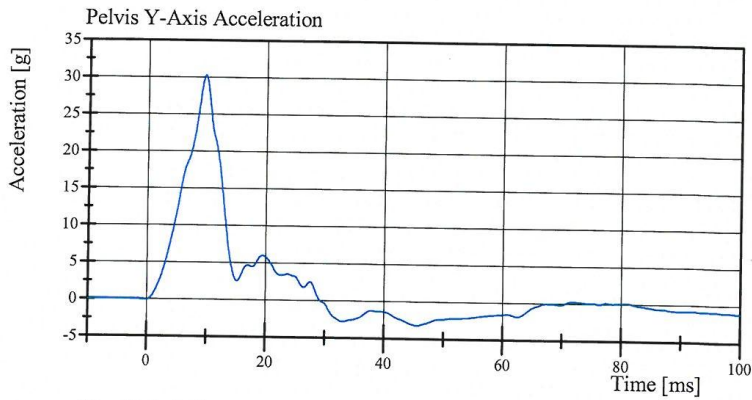
Left Lateral Iliac

SID IIs Serial No. 033 Certification No. 14-2

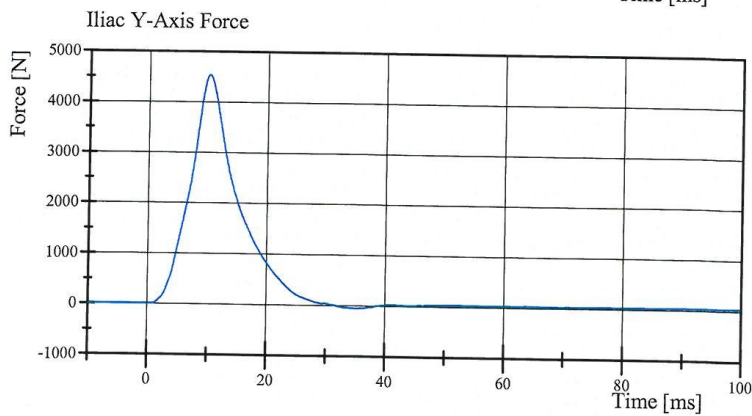
Test Date: 10/20/2012



Filter Class: CFC\_180  
Max: 0.2 gn at 36.7 ms  
Min: -40.5 gn at 10.3 ms



Filter Class: CFC\_180  
Max: 30.2 gn at 9.7 ms  
Min: -3.2 gn at 45.6 ms



Filter Class: CFC\_600  
Max: 4,526.7 N at 10.2 ms  
Min: -50.2 N at 35.0 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.20.2012 07:22:46 641



**Driver S/N 033**

**Post-Test Calibration Sheets**

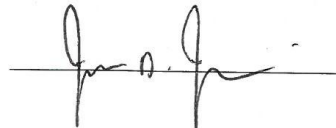
**Transportation Research Center Inc.**  
**SIDI's Dummy - Level D**  
**External Dimensions**  
**Serial No. 033 Calibration No.15**  
**Date: 10/23/12**

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Sitting Height	772.0 - 788.0	780	Yes
B	Shoulder Pivot Height	437.0 - 453.0	444	Yes
C	H-Point Height	79.0 - 89.0	85	Yes
D	H-Point from Seat Back	141.0 - 151.0	145	Yes
E	Shoulder Pivot from Backline	97.0 - 107.0	101	Yes
F	Thigh Clearance	119.0 - 135.0	130	Yes
G	Head Breadth	140.0 - 148.0	145	Yes
H	Head Back from Backline	40.0 - 46.0	45	Yes
I	Head Depth	178.0 - 188.0	183	Yes
J	Head Circumference	541.0 - 551.0	543	Yes
K	Buttock to Knee Length	514.0 - 540.0	533	Yes
L	Popliteal Height	343.0 - 369.0	353	Yes
M	Knee Pivot to Floor Height	393.0 - 409.0	400	Yes
N	Buttock Popliteal Length	416.0 - 442.0	431	Yes
O	Chest Depth without Jacket	195.0 - 211.0	205	Yes
P	Foot Length (right)	216.0 - 232.0	220	Yes
P	Foot Length (left)	216.0 - 232.0	220	Yes
Q	Hip Breadth	313.0 - 323.0	316	Yes
R	Arm Length	249.0 - 259.0	253	Yes
S	Knee Joint to seat Back	478.0 - 493.0	483	Yes
V	Shoulder Width (only one arm installed)	341.0 - 357.0	350	Yes
W	Foot Width (right)	78.0 - 94.0	84	Yes
W	Foot Width (left)	78.0 - 94.0	84	Yes
Y	Chest Circumference with Jacket	851.0 - 881.0	870	Yes
Z	Waist Circumference	761.0 - 791.0	781	Yes

Technician



Approved



Revised 9/29/2005



# Transportation Research Center Inc.

Left Lateral Head Drop  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Peak Head Resultant Acceleration	115 - 137 g	118.2 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	-2.0 g	Yes
Is Head Resultant Acceleration Curve Unimodal within 15% of Peak?	Yes	Yes	Yes

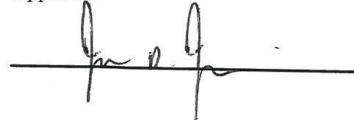
**Test meets specifications.**

**Comments:**

Technician



Approved



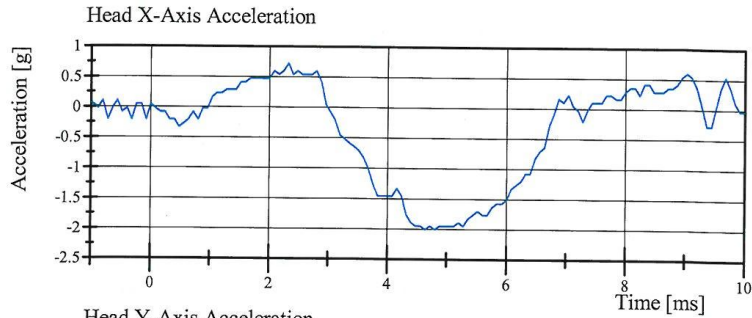
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:48:12 231

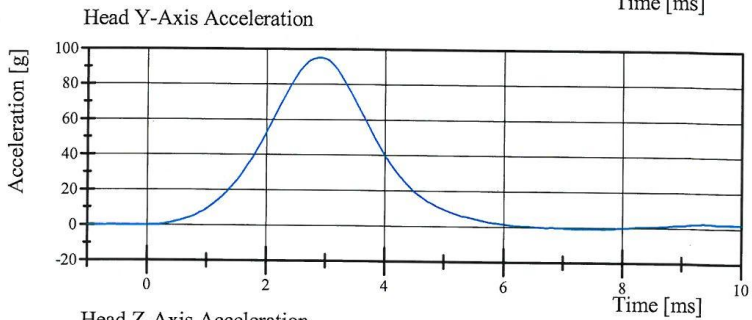


# Transportation Research Center Inc.

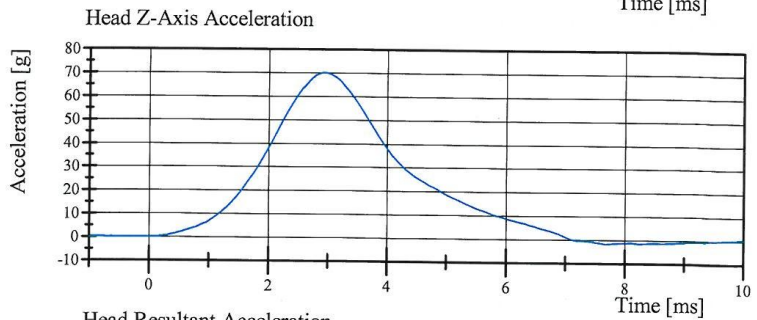
Left Lateral Head Drop  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012



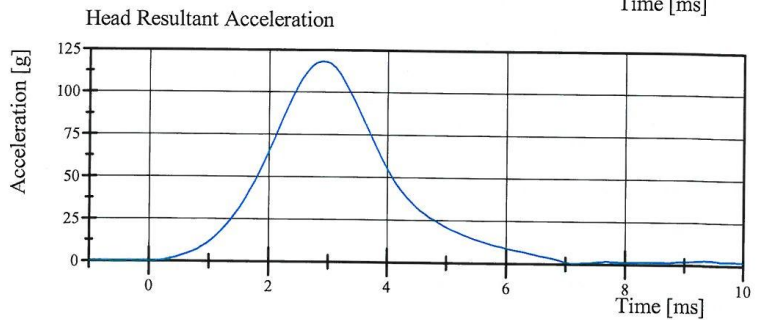
Filter Class: CFC\_1000  
Max: 0.7 gn at 2.3 ms  
Min: -2.0 gn at 4.6 ms



Filter Class: CFC\_1000  
Max: 95.3 gn at 2.9 ms  
Min: -0.6 gn at 7.7 ms



Filter Class: CFC\_1000  
Max: 70.2 gn at 3.0 ms  
Min: -1.8 gn at 7.7 ms



Filter Class: CFC\_1000  
Max: 118.2 gn at 2.9 ms  
Min: 0.0 gn at -0.4 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:48:21 231



## Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. 033 Certification No. 15-1

Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Pendulum Velocity	(-5.51) - (-5.63) m/s	-5.588 m/s	Yes
Pendulum Integrated Velocity			
Change at 10 ms	2.20 - 2.80 m/s	2.461 m/s	Yes
Change at 15 ms	3.30 - 4.10 m/s	3.709 m/s	Yes
Change at 20 ms	4.40 - 5.40 m/s	5.058 m/s	Yes
Change at 25 ms	5.40 - 6.10 m/s	5.772 m/s	Yes
Change at 25 to 100 ms	5.50 - 6.20 m/s	5.780 m/s	Yes
Maximum Headform Flexion occurring between 50ms and 70ms.			
Peak	(-71) - (-81) deg	-69.9 deg	No
Time of Peak	50 - 70 ms	61.4 ms	Yes
Total Neck Occipital Condyles Moment	36 - 44 N·m	43.4 N·m	Yes
Total Neck Occipital Condyles Moment			
Decay Time to 0 N·m	102 - 126 ms	118.6 ms	Yes

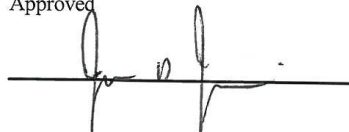
**Test does not meet specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 19:23:43 634

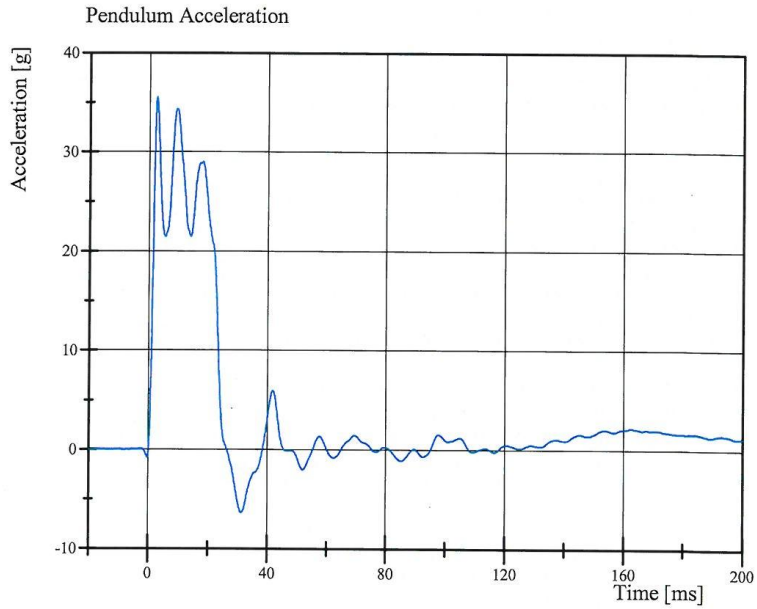


# Transportation Research Center Inc.

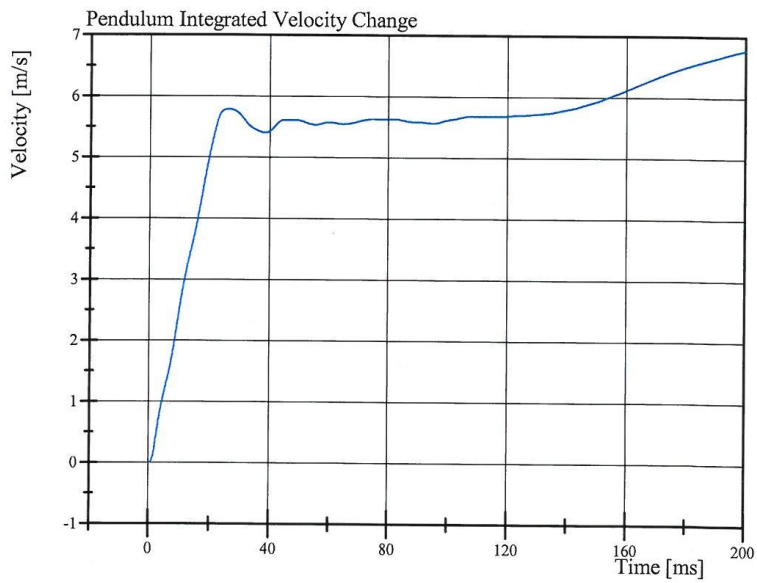
Left Lateral Neck

SID IIs Serial No. 033 Certification No. 15-1

Test Date: 10/23/2012



Filter Class: CFC\_180  
Max: 35.5 gn at 2.6 ms  
Min: -6.4 gn at 31.2 ms



Filter Class: CFC\_180  
Max: 6.8 m/s at 200.0 ms  
Min: -0.0 m/s at 0.2 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 19:24:07 634

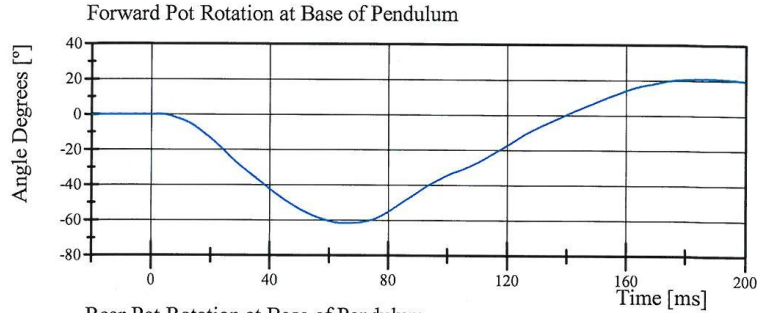


# Transportation Research Center Inc.

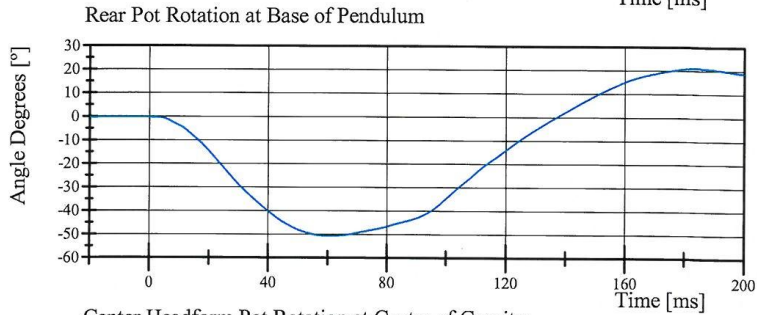
Left Lateral Neck

SID IIs Serial No. 033 Certification No. 15-1

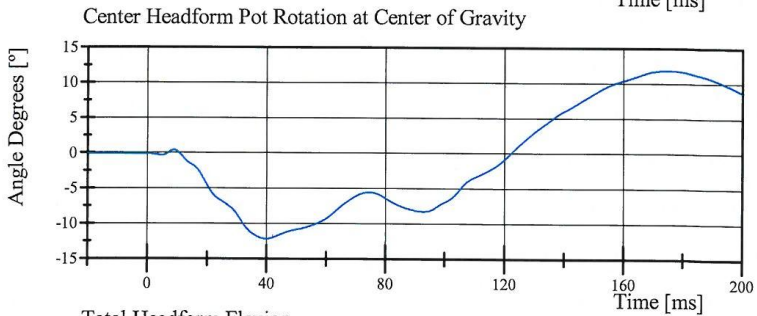
Test Date: 10/23/2012



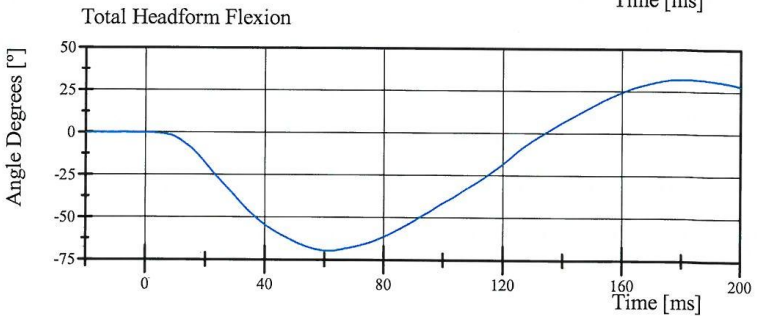
Filter Class: CFC\_60  
Max: 21.0 ° at 186.4 ms  
Min: -61.6 ° at 65.0 ms



Filter Class: CFC\_60  
Max: 21.1 ° at 183.4 ms  
Min: -50.7 ° at 60.7 ms



Filter Class: CFC\_60  
Max: 11.8 ° at 175.1 ms  
Min: -12.2 ° at 39.9 ms



Filter Class: CFC\_60  
Max: 32.2 ° at 182.6 ms  
Min: -69.9 ° at 61.4 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 19:24:08 634

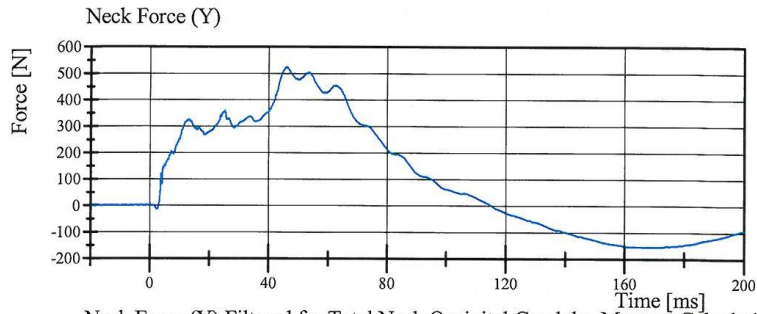


# Transportation Research Center Inc.

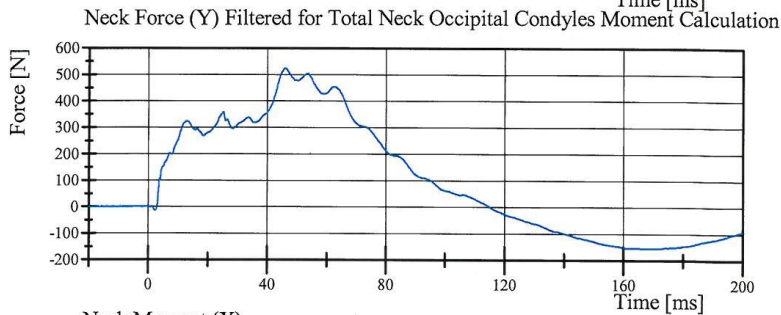
Left Lateral Neck

SID IIs Serial No. 033 Certification No. 15-1

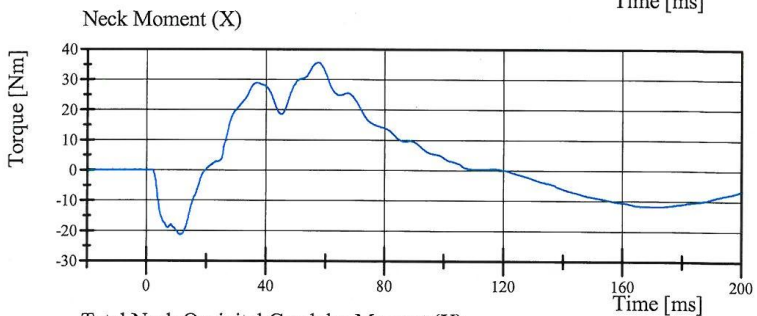
Test Date: 10/23/2012



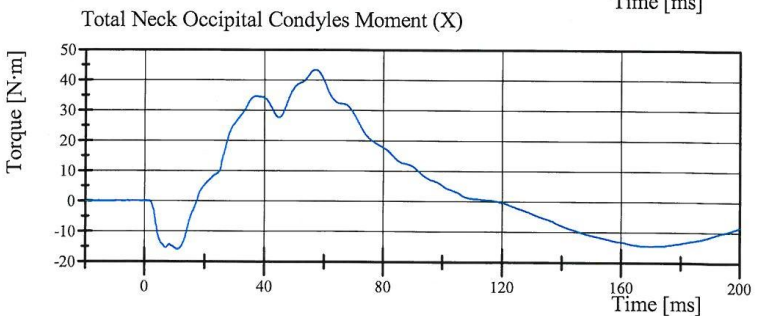
Filter Class: CFC\_1000  
Max: 524.4 N at 45.9 ms  
Min: -155.4 N at 168.5 ms



Filter Class: CFC\_600  
Max: 522.7 N at 45.9 ms  
Min: -155.1 N at 168.4 ms



Filter Class: CFC\_600  
Max: 35.6 Nm at 57.6 ms  
Min: -21.3 Nm at 11.4 ms



Filter Class: Without\_(Consta  
Max: 43.4 N·m at 57.3 ms  
Min: -16.0 N·m at 11.0 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 19:24:08 634



# Transportation Research Center Inc.

Left Lateral Shoulder  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	55 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.33 m/s	Yes
Impactor Acceleration	(-13) - (-18) g	-16.3 g	Yes
Shoulder Displacement	28 - 37 mm	31.9 mm	Yes
Upper Spine Lateral Acceleration	17 - 22 g	20.1 g	Yes

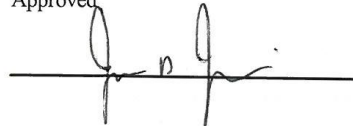
**Test meets specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 16:56:25 832

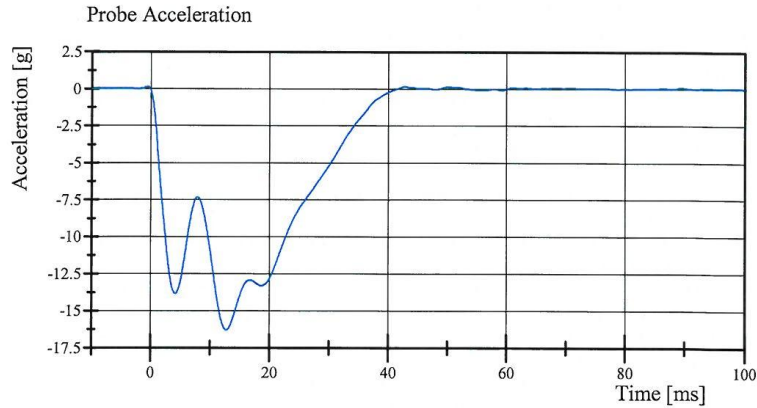


# Transportation Research Center Inc.

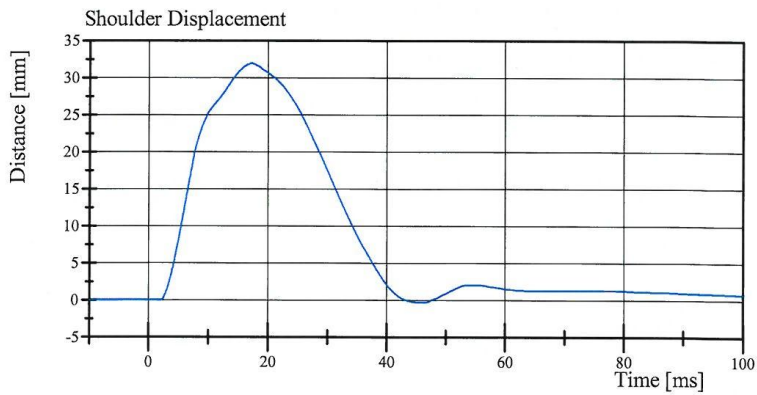
Left Lateral Shoulder

SID IIs Serial No. 033 Certification No. 15-1

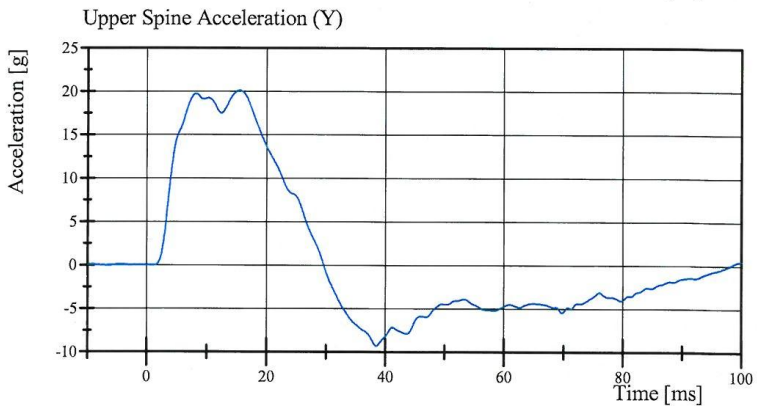
Test Date: 10/23/2012



Filter Class: CFC\_180  
Max: 0.1 gn at 42.8 ms  
Min: -16.3 gn at 12.7 ms



Filter Class: CFC\_600  
Max: 31.9 mm at 17.2 ms  
Min: -0.3 mm at 46.2 ms



Filter Class: CFC\_180  
Max: 20.1 gn at 15.4 ms  
Min: -9.3 gn at 38.5 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 16:56:32 832



## Transportation Research Center Inc.

Left Lateral Thorax with Arm  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	55 %	Yes
Impactor Velocity	6.60 - 6.80 m/s	6.722 m/s	Yes
Impactor Acceleration	(-30) - (-36) g	-32.8 g	Yes
Shoulder Displacement	31 - 40 mm	35.4 mm	Yes
Upper Thorax Rib Displacement	25 - 32 mm	28.2 mm	Yes
Center Thorax Rib Displacement	30 - 36 mm	32.4 mm	Yes
Lower Thorax Rib Displacement	32 - 38 mm	34.7 mm	Yes
Upper Spine Lateral Acceleration	34 - 43 g	37.8 g	Yes
Lower Spine Lateral Acceleration	29 - 37 g	34.3 g	Yes

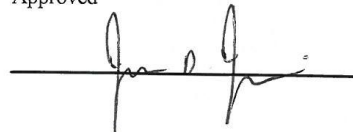
**Test meets specifications.**

**Comments:**

Technician



Approved



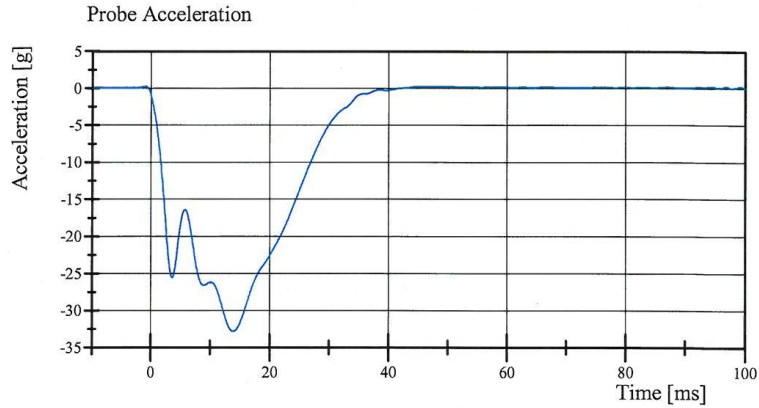
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 17:38:32 614

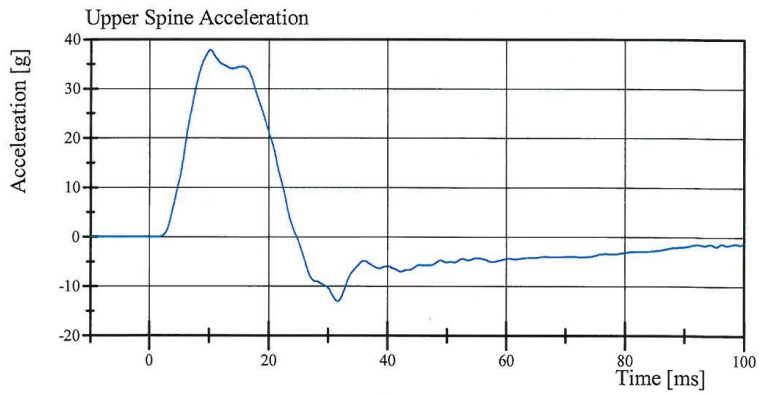


# Transportation Research Center Inc.

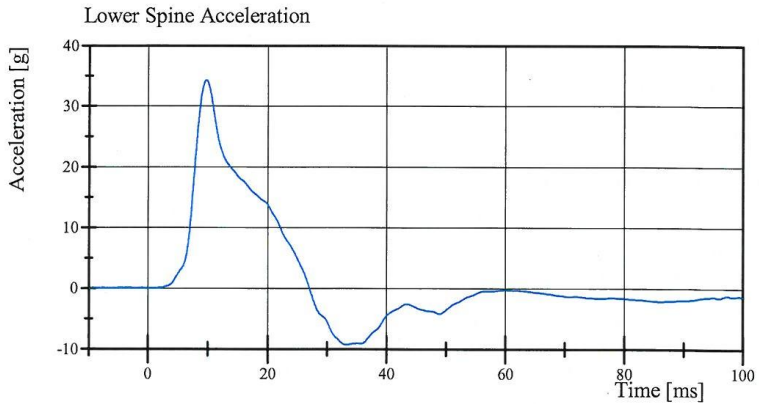
Left Lateral Thorax with Arm  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012



Filter Class: CFC\_180  
Max: 0.2 gn at 96.7 ms  
Min: -32.8 gn at 13.9 ms



Filter Class: CFC\_180  
Max: 37.8 gn at 10.2 ms  
Min: -13.0 gn at 31.7 ms



Filter Class: CFC\_180  
Max: 34.3 gn at 9.8 ms  
Min: -9.3 gn at 33.3 ms

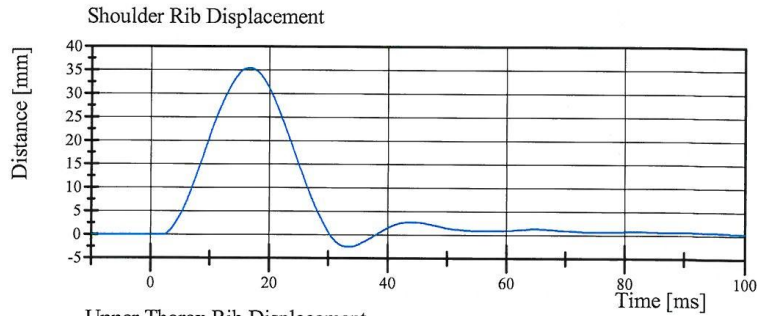
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 17:38:41 614

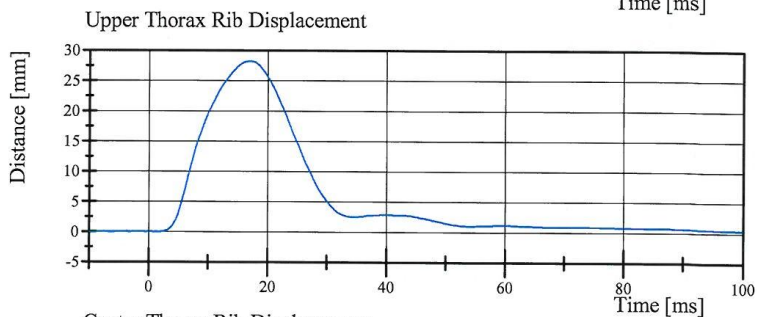


# Transportation Research Center Inc.

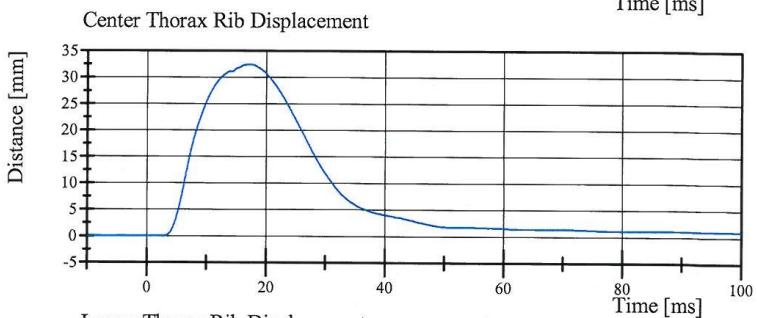
Left Lateral Thorax with Arm  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012



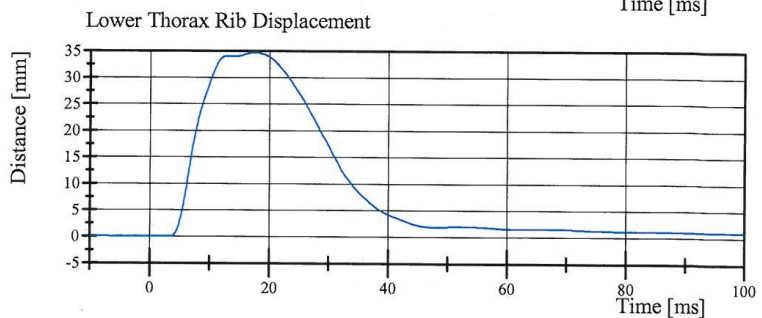
Filter Class: CFC\_600  
Max: 35.4 mm at 16.6 ms  
Min: -2.5 mm at 33.5 ms



Filter Class: CFC\_600  
Max: 28.2 mm at 17.0 ms  
Min: -0.0 mm at -6.0 ms



Filter Class: CFC\_600  
Max: 32.4 mm at 17.1 ms  
Min: -0.0 mm at 2.8 ms



Filter Class: CFC\_600  
Max: 34.7 mm at 17.4 ms  
Min: -0.0 mm at 3.5 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 17:38:41 614



# Transportation Research Center Inc.

Left Lateral Thorax without Arm  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.323 m/s	Yes
Impactor Acceleration	(-14) - (-18) g	-16.0 g	Yes
Upper Thorax Rib Displacement	32 - 40 mm	34.6 mm	Yes
Center Thorax Rib Displacement	39 - 45 mm	41.6 mm	Yes
Lower Thorax Rib Displacement	35 - 43 mm	39.7 mm	Yes
Upper Spine Lateral Acceleration	13 - 17 g	15.2 g	Yes
Lower Spine Lateral Acceleration	7 - 11 g	10.2 g	Yes

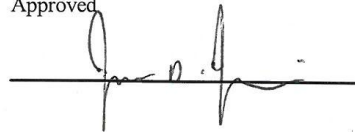
**Test meets specifications.**

**Comments:**

Technician



Approved



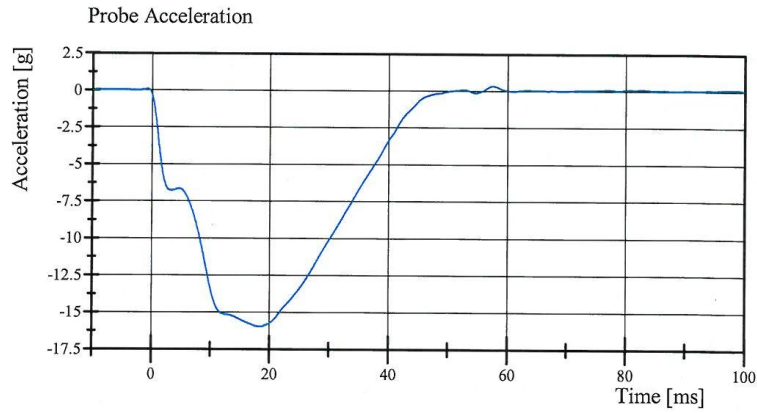
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:15:43 817

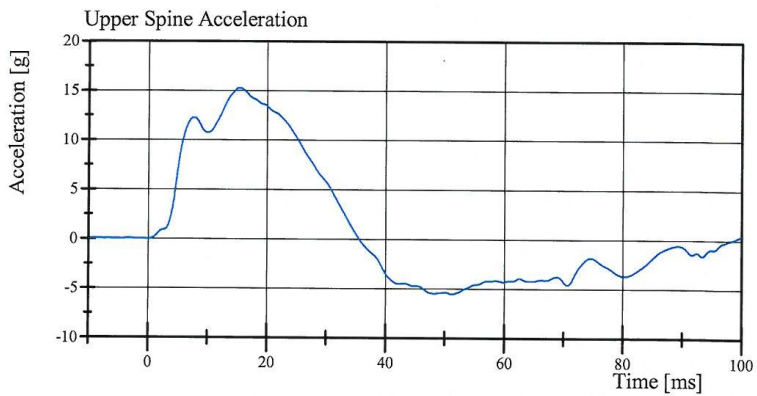


# Transportation Research Center Inc.

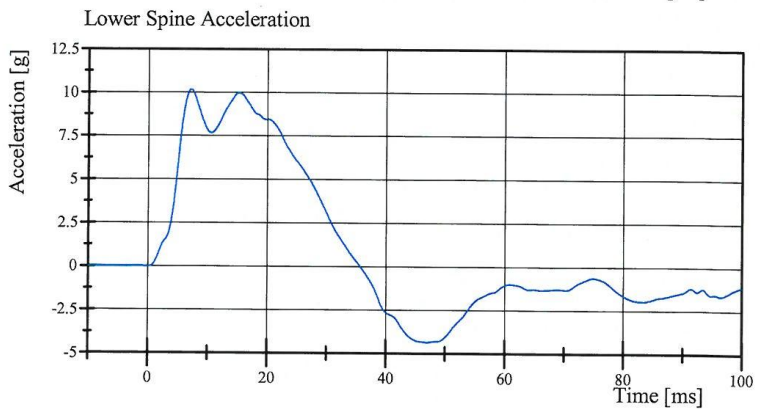
Left Lateral Thorax without Arm  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012



Filter Class: CFC\_180  
Max: 0.3 gn at 57.4 ms  
Min: -16.0 gn at 18.3 ms



Filter Class: CFC\_180  
Max: 15.2 gn at 15.4 ms  
Min: -5.5 gn at 51.2 ms



Filter Class: CFC\_180  
Max: 10.2 gn at 7.2 ms  
Min: -4.4 gn at 47.0 ms

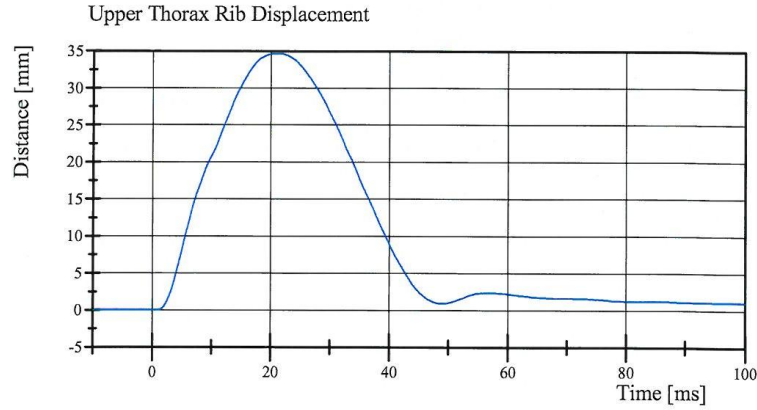
Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:15:51 817

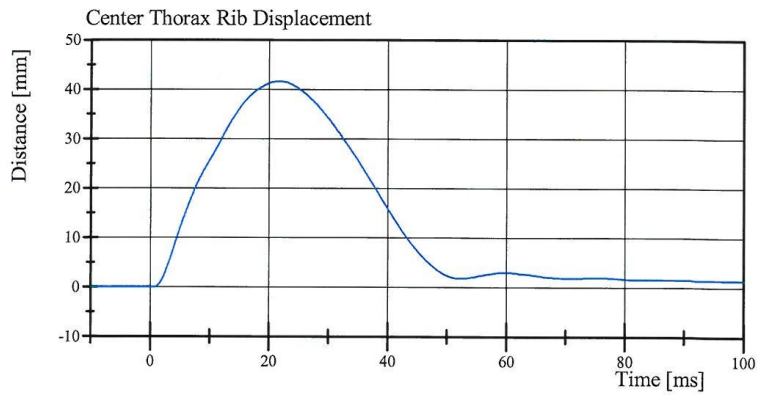


# Transportation Research Center Inc.

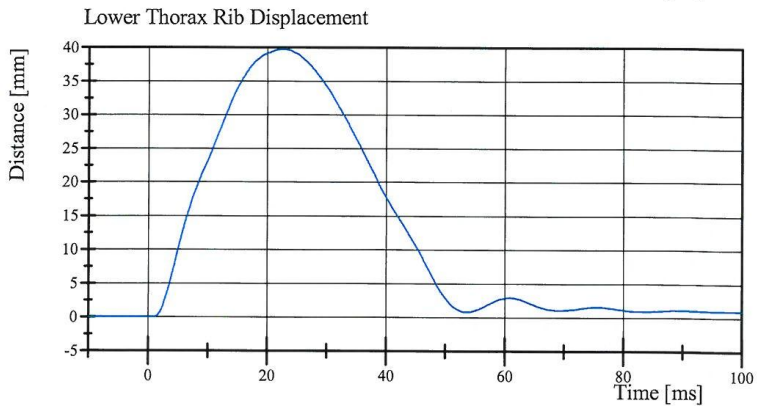
Left Lateral Thorax without Arm  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012



Filter Class: CFC\_600  
Max: 34.6 mm at 21.0 ms  
Min: -0.0 mm at -1.8 ms



Filter Class: CFC\_600  
Max: 41.6 mm at 21.8 ms  
Min: -0.0 mm at 0.6 ms



Filter Class: CFC\_600  
Max: 39.7 mm at 22.7 ms  
Min: -0.0 mm at 0.9 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:15:52 817



## Transportation Research Center Inc.

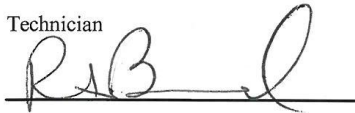
Left Lateral Abdomen  
SID IIs Serial No. 033 Certification No. 15-1  
Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.34 m/s	Yes
Impactor Acceleration	(-12) - (-16) g	-13.7 g	Yes
Upper Abdominal Rib Displacement	36 - 47 mm	41.9 mm	Yes
Lower Abdominal Rib Displacement	33 - 44 mm	40.9 mm	Yes
Lower Spine Lateral Acceleration	9 - 14.0 g	10.98 g	Yes

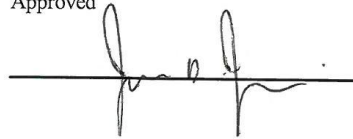
**Test meets specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 17:06:34 643

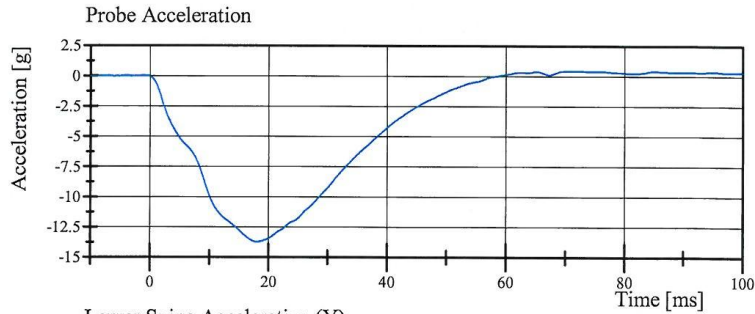


# Transportation Research Center Inc.

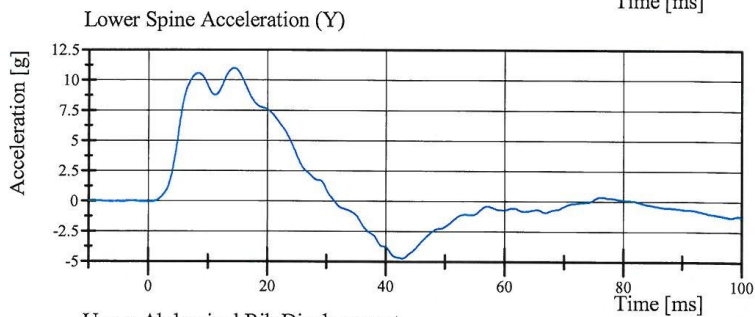
Left Lateral Abdomen

SID IIs Serial No. 033 Certification No. 15-1

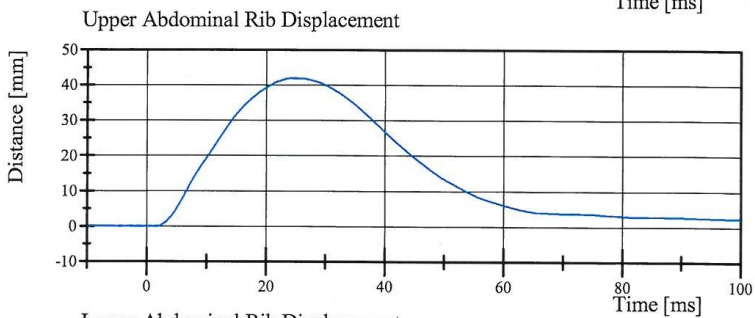
Test Date: 10/23/2012



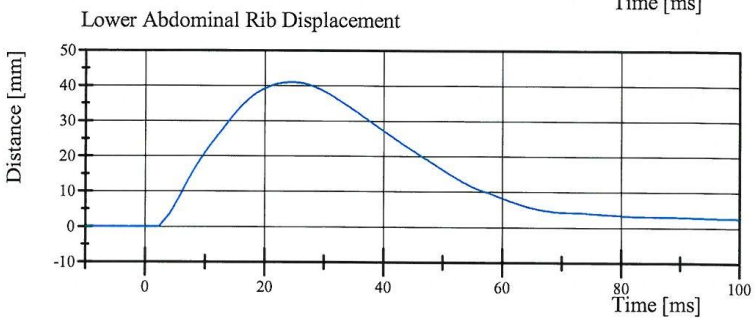
Filter Class: CFC\_180  
Max: 0.4 gn at 70.4 ms  
Min: -13.7 gn at 18.1 ms



Filter Class: CFC\_180  
Max: 11.0 gn at 14.4 ms  
Min: -4.7 gn at 42.8 ms



Filter Class: CFC\_600  
Max: 41.9 mm at 25.8 ms  
Min: -0.0 mm at 1.7 ms



Filter Class: CFC\_600  
Max: 40.9 mm at 24.4 ms  
Min: -0.0 mm at 2.0 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 17:06:44 643



# Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. 033 Certification No. 15-1

Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Pendulum Velocity	6.6 - 6.8 m/s	6.69 m/s	Yes
Impactor Acceleration	(-38.0) - (-47.0) g	-45.10 g	Yes
Peak Pelvis Lateral Acceleration after 6ms	34 - 42 g	42.1 g	No
Acetabulum Force	3,600 - 4,300 N	3,727.9 N	Yes

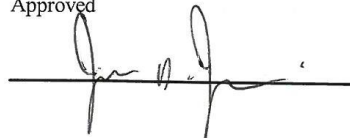
**Test does not meet specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:59:09 435

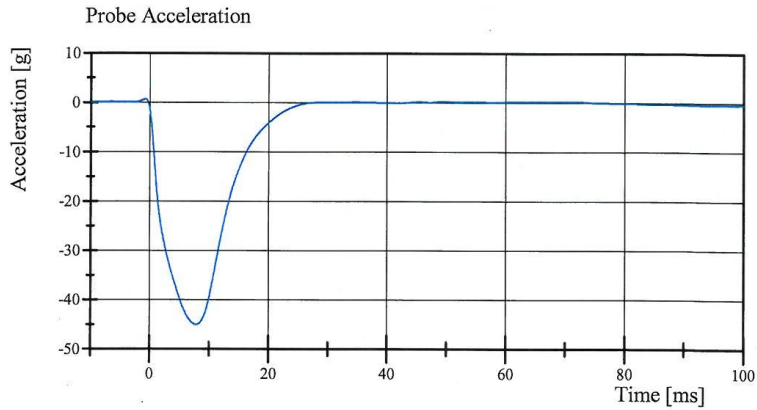


# Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. 033 Certification No. 15-1

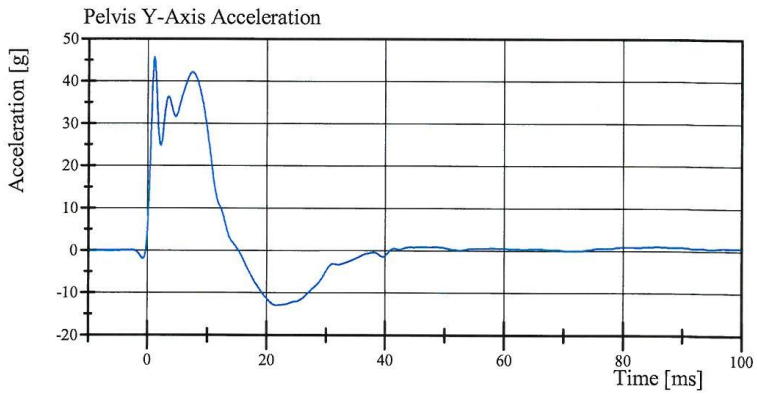
Test Date: 10/23/2012



Filter Class: CFC\_180

Max: 0.6 gn at -0.7 ms

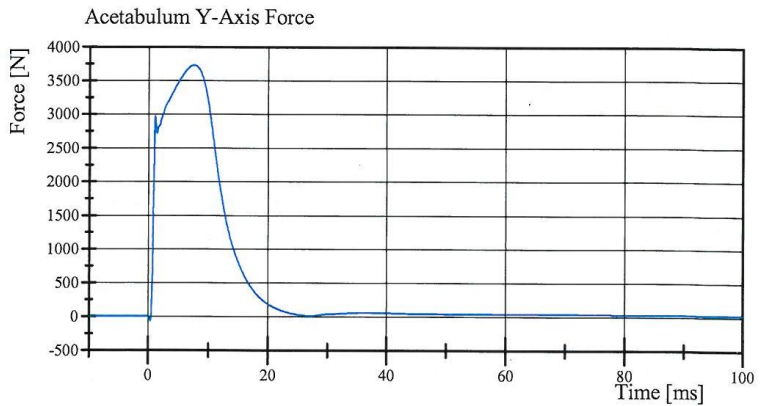
Min: -45.1 gn at 7.8 ms



Filter Class: CFC\_180

Max: 45.6 gn at 1.1 ms

Min: -13.0 gn at 21.6 ms



Filter Class: CFC\_600

Max: 3,727.9 N at 7.5 ms

Min: -65.1 N at 0.4 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 18:59:38 435



# Transportation Research Center Inc.

Left Lateral Iliac

SID IIs Serial No. 033 Certification No. 15-1

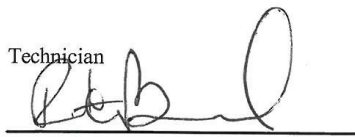
Test Date: 10/23/2012

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Pendulum Velocity	4.2 - 4.4 m/s	4.39 m/s	Yes
Impactor Acceleration	(-36) - (-45) g	-38.7 g	Yes
Peak Pelvis Lateral Acceleration	28 - 39 g	25.9 g	No
Iliac Force	4,100 - 5,100 N	4,179.8 N	Yes

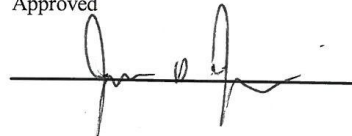
**Test does not meet specifications.**

**Comments:**

Technician



Approved



Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 16:40:32 634

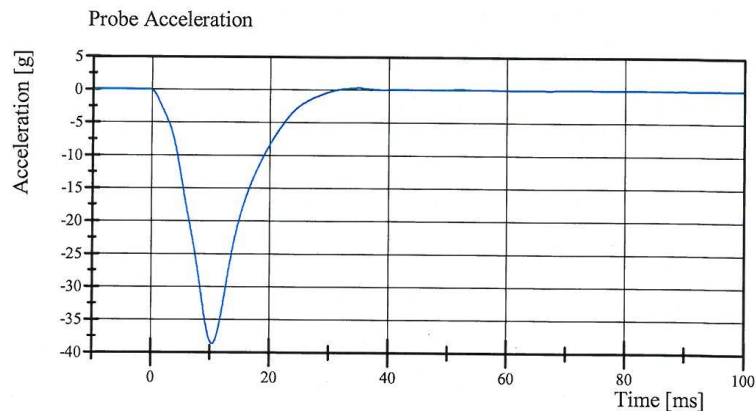


# Transportation Research Center Inc.

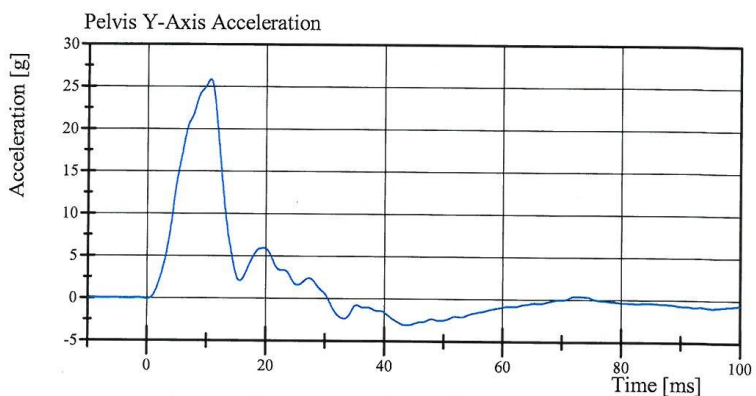
Left Lateral Iliac

SID IIs Serial No. 033 Certification No. 15-1

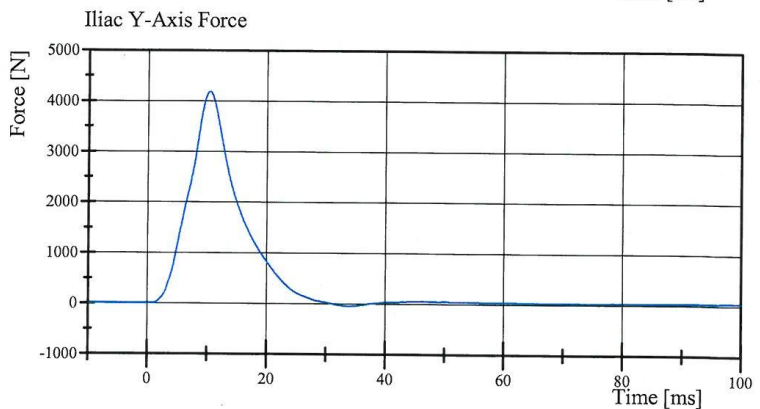
Test Date: 10/23/2012



Filter Class: CFC\_180  
Max: 0.3 gn at 35.0 ms  
Min: -38.7 gn at 10.4 ms



Filter Class: CFC\_180  
Max: 25.9 gn at 10.6 ms  
Min: -3.1 gn at 43.8 ms



Filter Class: CFC\_600  
Max: 4,179.8 N at 10.4 ms  
Min: -44.9 N at 33.9 ms

Specification Source: Procedures based on Final Rule effective 8/24/2009  
Polarity in accordance with SAE J211.

10.23.2012 16:40:44 634



**APPENDIX D**  
**TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA**

**TABLE 1 – Dummy Instrumentation (SID-IIs)**

			SID-IIs S/N033			
			Serial Number	Manufacturer	Calibration Date	
Head Accelerometers			X	J32214	Endevco	1-Oct-12
			Y	J27040	Endevco	1-Oct-12
			Z	AGAC4	Endevco	1-Oct-12
Displacement Potentiometers	Shoulder		Y	3621-798	Servo	16-Nov-11
	Thoracic Rib	Upper	Y	3621-592	Servo	16-Nov-11
		Middle	Y	3725-213	Servo	16-Nov-11
		Lower	Y	3621-714	Servo	16-Nov-11
	Abdominal Rib	Upper	Y	3621-918	Servo	16-Nov-11
		Lower	Y	3621-904	Servo	16-Nov-11
Lower Spine Accelerometers (T12)			X	00L13-F05	Entran	1-Oct-12
			Y	P63998	Endevco	1-Oct-12
			Z	04J04I20-A17	Entran	1-Oct-12
Acetabulum Load Cell			Y	235-FY	FTSS	2-Oct-12
Iliac Wing Load Cell			Y	113-FY	FTSS	2-Oct-12
Pelvis Plug (struck side)				36347	FTSS	23-Sep-10
Pelvis Plug (non-struck side)				48999	Humanetics	06-Dec-11

**TABLE 2 – Vehicle Instrumentation**

Vehicle Instrumentation		Serial Number	Manufacturer	Calibration Date
Vehicle Center of Gravity	X	P75590	Endevco	9-Oct-12
Vehicle Center of Gravity	Y	P76399	Endevco	17-Oct-12
Vehicle Center of Gravity	Z	P78112	Endevco	17-Oct-12
Left Floor Sill	Y	P76448	Endevco	9-Oct-12
A-Pillar Sill	Y	P75567	Endevco	13-Sep-12
A-Pillar Low	Y	P75244	Endevco	10-Oct-12
A-Pillar Mid	Y	P75242	Endevco	10-Oct-12
B-Pillar Sill	Y	P74084	Endevco	1-May-12
B-Pillar Low	Y	P74521	Endevco	17-Aug-12
B-Pillar Mid	Y	P74811	Endevco	27-Jun-12
Driver Seat	Y	P74431	Endevco	30-Apr-12
Engine Top	X	P76341	Endevco	10-Oct-12
Engine Top	Y	P75241	Endevco	10-Oct-12
Firewall	Y	P76093	Endevco	17-Oct-12
Right Roof	Y	P75993	Endevco	25-Jul-12
Right Floor Sill	Y	P75707	Endevco	9-Oct-12
Rear Floor Pan	X	P76397	Endevco	10-Oct-12
Rear Floor Pan	Y	P76254	Endevco	10-Oct-12

**TABLE 3 – Pole Instrumentation**

Pole Instrumentation	Serial Number	Manufacturer	Calibration Date
Load Cell 1	5764-77-FX	Denton	23-Jul-12
Load Cell 2	5764-89-FX	Denton	23-Jul-12
Load Cell 3	5763-77-FX	Denton	23-Jul-12
Load Cell 4	5763-89-FX	Denton	20-Jul-12
Load Cell 5	5763-88-FX	Denton	20-Jul-12
Load Cell 6	5763-92-FX	Denton	23-Jul-12
Load Cell 7	5763-90-FX	Denton	23-Jul-12
Load Cell 8	5763-78-FX	Denton	23-Jul-12