

REPORT NUMBER: SPNCAP-MCW-14-013

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

**MINITUBISHI MOTORS CORPORATION
2014 MITSUBISHI OUTLANDER 5-DOOR MPV
NHTSA NUMBER: M20145601**

**PREPARED BY:
MEDICAL COLLEGE OF WISCONSIN
5000 WEST NATIONAL AVENUE
RESEARCH 151
MILWAUKEE, WISCONSIN 53295**



TEST DATE: 30 JANUARY 2014

REPORT DATE: 03 MARCH 2014

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**

Test Vehicle: 2014 Mitsubishi Outlander 5-Door MPV
Test Program: SPNCAP

NHTSA Number: M20145601
Test Date: January 30, 2014

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof.

If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement.

Prepared by: Manu Mayan

Date: April 30, 2014

Reviewed by: Brand Stemper

Date: April 30, 2014

FINAL REPORT ACCEPTANCE BY OCWS:

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

Date: _____

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

Date: _____

Technical Report Documentation Page

1. Report No. SPNCAP-MCW-14-013		2. Government Accession No.		3. Recipient's Catalog No.																									
4. Title and Subtitle Final Report of New Car Assessment Program Side Impact Pole Testing of a 2014 Mitsubishi Outlander 5-Door MPV NHTSA No. M20145601				5. Report Date March 03, 2014																									
				6. Performing Organization Code MCW																									
7. Author(s) Brian Stemper, Project Manager Mark Meyer, Project Engineer				8. Performing Organization Report No. MCW-14-013																									
9. Performing Organization Name and Address Medical College of Wisconsin 5000 W. National Ave. Milwaukee, WI 53295				10. Work Unit No.																									
				11. Contract or Grant No. DTNH22-09-D-00123																									
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Office of Crashworthiness Standards, NVS-111 1200 New Jersey Ave, SE Washington, D.C. 20590				13. Type of Report and Period Covered: January 30 to March 03																									
				14. Sponsoring Agency Code NVS-111																									
15. Supplementary Notes																													
16. Abstract A 32.20 km/h (20 mph), 75° oblique Side NCAP Test was conducted on the subject 2014 Mitsubishi Outlander 5-Door 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. The test was conducted at the Medical College of Wisconsin (MCW) in Milwaukee, Wisconsin on 30 January 2014. The impact velocity was 31.78 km/h, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21 °C. The test vehicle's post-test maximum static crush was 444 mm at level 3. The test vehicle's occupant performance is as follows: <table border="1"> <thead> <tr> <th></th> <th>Units</th> <th>Driver ATD (SID-IIs) Threshold</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₃₆)</td> <td>N/a</td> <td>1000</td> <td>407</td> </tr> <tr> <td>Resultant Lower Spine Acceleration</td> <td>G's</td> <td>82</td> <td>42</td> </tr> <tr> <td>Total Pelvic Force (Acetabular & Pelvic)</td> <td>NWT</td> <td>5525</td> <td>3656</td> </tr> <tr> <td>Maximum Thoracic Rib Deflection</td> <td>mm</td> <td>38</td> <td>26</td> </tr> <tr> <td>Maximum Abdomen Rib Deflection</td> <td>mm</td> <td>45</td> <td>25</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.							Units	Driver ATD (SID-IIs) Threshold	Result	Head Injury Criteria (HIC ₃₆)	N/a	1000	407	Resultant Lower Spine Acceleration	G's	82	42	Total Pelvic Force (Acetabular & Pelvic)	NWT	5525	3656	Maximum Thoracic Rib Deflection	mm	38	26	Maximum Abdomen Rib Deflection	mm	45	25
	Units	Driver ATD (SID-IIs) Threshold	Result																										
Head Injury Criteria (HIC ₃₆)	N/a	1000	407																										
Resultant Lower Spine Acceleration	G's	82	42																										
Total Pelvic Force (Acetabular & Pelvic)	NWT	5525	3656																										
Maximum Thoracic Rib Deflection	mm	38	26																										
Maximum Abdomen Rib Deflection	mm	45	25																										
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: tis@nhtsa.dot.gov FAX: 202-493-2833																										
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 106	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	3
 <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	10
3	Dummy Longitudinal Clearance Dimensions	14
4	Dummy Lateral Clearance Dimensions	15
5	Camera and Instrumentation Data	16
6	Vehicle Accelerometer Data	18
7	Rigid Pole Load Cell Data	19
8	Post-Test Observations	20
9	Vehicle Profile Measurements	22
10	Vehicle Exterior Crush Measurements	23
11	FMVSS No. 301 Static Rollover Results	26
12	Dummy/Vehicle Temperature and Humidity Stabilization Data	28
 <u>Appendix</u>		
A	Photographs	A
B	Vehicle and Dummy Response Data Plots	B
C	Dummy Configuration and Performance Verification Data	C
D	Test Equipment and Instrumentation Calibration Data	D

Test Vehicle: 2014 Mitsubishi Outlander 5-Door MPV
Test Program: SPNCAP

NHTSA Number: M20145601
Test Date: January 30, 2014

SECTION 1

TEST PURPOSE AND PROCEDURE

This side impact test is part of the MY 2014 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-09-D-00123. The purpose of this test is to generate comparative side impact performance in a 2014 Mitsubishi Outlander 5-Door MPV. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Side NCAP Pole Laboratory Test Procedure, dated September 2013.

SECTION 2

SUMMARY OF TEST RESULTS

A rigid pole side impact test was conducted on a 2014 Mitsubishi Outlander 5-Door MPV. The subject vehicle was towed into the rigid pole at an angle of 75° and a velocity of 31.78 km/h. The test was conducted at the Medical College of Wisconsin, in Milwaukee, Wisconsin, on 30 January 2014. Pre-test and post-test photographs of the test vehicle and side impact dummy (SID-IIs) are included in APPENDIX A of this report.

One (1) 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 2013. Camera locations and other pertinent camera information are included in this report.

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

- Primary and Redundant 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. APPENDIX D contains the test equipment and instrumentation calibration data.

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

OCCUPANT SUMMARY			
Head Injury Criteria (HIC ₃₆)	Driver ATD (SID-IIs)		
	Units	IARV	Result
Head Injury Criteria (HIC ₃₆)	N/a	1000	407
Lower Spine Acceleration	G	82	42
Total Pelvic Force (Sum of Acetabular and Iliac Forces)	N	5525	3656
Maximum Thoracic Rib Deflection	mm	38*	26
Maximum Abdominal Rib Deflection	mm	45*	25

Head Injury Criterion (HIC) is the standardized calculation using resultant head acceleration to assess head injury. Generally, a higher HIC represents an increase in the likelihood of a serious head injury. HIC₃₆ specifies a time 'window' of 36 milliseconds over which the integral is calculated. T1 and T2 represent the time of the lower and upper bounds of the window in which the HIC is calculated.

The resultant lower spine acceleration is the single equivalent of the X, Y, and Z accelerations.

The sum of the pelvic forces is used to assess the likelihood of injury to the pelvis during a side impact crash. Higher pelvic forces correspond to an increase in the likelihood of sustaining a severe pelvis injury.

*Proposed IARV

Supplemental restraint information is given below:

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION		
Restraint Type	Left Front (Driver) Occupant Location 01	
	Mounted	Deployed
Frontal Airbag	Yes	No
Knee Airbag	Yes	No
Side Curtain Airbag	Yes	Yes
Side Torso/Abdomen/Pelvis Airbag	Yes	Yes
Seat Belt Pretensioner	Yes	Yes
Seat Belt Load Limiter	Yes	N/a
Other	No	N/a

These test data and report can be found in detail on the NHTSA website at www.nhtsa.dot.gov.

A brief summary of the crash test can be located at www.safercar.gov

TEST NOTES

**DATA SHEET NO. 1
 GENERAL TEST AND VEHICLE PARAMETER DATA**

VEHICLE INFORMATION	
NHTSA No.	M20145601
Model Year	2014
Make	Mitsubishi
Model	Outlander
Body Style	5-Door MPV
VIN	JA4AD2A38EZ008034
Body Color	Mercury Grey
Odometer Reading (km/mi)	139 mi.
Engine Displacement (L)	2.4
Type/No. of Cylinders	4
Engine Placement	Lateral
Transmission Type	Automatic
Transmission Speeds	5
Overdrive	Yes
Final Drive	FWD
Roof Rack	No
Sunroof/T-Top	No
Running Boards	No
Tilt Steering Wheel	Yes
Power Seats	No
Anti-Lock Brakes (ABS)	Yes

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

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

N/a

DATA FROM CERTIFICATION LABEL			
Manufactured By	Mitsubishi Motors Corporation	GVWR (kg)	2175
Date of Manufacture	June 2013	GAWR Front(kg)	1150
Vehicle Type	MPV	GAWR Rear (kg)	1250

VEHICLE SEATING AND WEIGHT CAPACITY DATA				
	Front	Rear	Third	Total
Designated Seating Capacity (DSC)	2	5	0	7
Capacity Weight (VCW) kg				524.8
DSC X 68.04 kg				476.3
Rated Cargo Weight (RCLW)				48.5

(A)

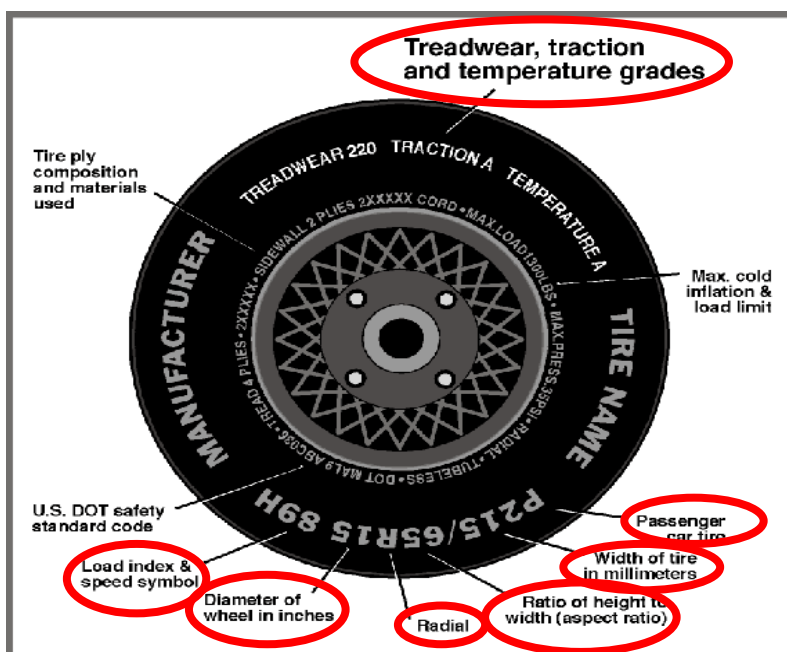
(B)

(A-B)

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

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	X					X	
Rear or Second Row Seat			X			X	
Third Row Seat			X	X		X	

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



VEHICLE TIRE INFORMATION		
Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold Pressure (kPa)	240	240
Recommended Tire Size	P215/70R16	P215/70R16
Tire Size on Vehicle	P215/70R16	P215/70R16
Tire Manufacturer	Yokohama	Yokohama
Tire Model	Geolander Go33	Geolander Go33
Treadwear	200	200
Traction	B	B
Temperature Grades	A	A
Tire Plies Sidewall	2	2
Tire Plies Body	5	5
Load Index/Speed Symbol	99H	99H
Tire Material	Nylon, Polyester, Steel	Nylon, Polyester, Steel
DOT Safety Code Left	FDYV M45213-24	FDYV M45213-24
DOT Safety Code Right	FDYV M45213-24	FDYV M45213-24

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

TIRE PRESSURES					
	Units	LF	RF	LR	RR
As Delivered	kpa	234.4	227.5	234.4	227.5
Tire Placard	kpa	241.3	241.3	241.3	241.3
Owner's Manual	kpa	241.3	241.3	241.3	241.3
As Tested	kpa	241.3	241.3	241.3	241.3

TEST VEHICLE AXLE WEIGHTS										
	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	430.0	323.4		438.6	368.8		450.4	362.0	
Right	kg	413.7	313.0		411.9	346.5		418.2	342.5	
Ratio	%	57.0	43.0		54.3	45.7		55.2	44.8	
Totals	kg	843.7	636.4	1480.1	850.5	715.3	1566.3	868.6	704.5	1573.1

TARGET TEST WEIGHT CALCULATION			
	Units		
Total Delivered Weight (UVW)	kg	1480.1	(A)
Actual Weight of 1 P572 ATDs (SID-IIs) Used	kg	44.5	(B)
Rated Cargo/Luggage Weight (RCLW)	kg	48.5	(C)
Calculated Target Vehicle Test Weight (TVTW)	kg	1573.1	(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

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

TEST VEHICLE ATTITUDES AND CG					
	Units	As Delivered	As Tested	Fully Loaded	Meets Requirement
Driver Door Sill Angle (Front to Rear)	Deg.	-0.3	-0.2	-0.2	Yes
Front Pass. Door Sill Angle (Front to Rear)	Deg.	-0.1	-0.1	-0.1	Yes
Front Bumper Angle (Left to Right)	Deg.	-0.2	-0.2	-0.2	Yes
Rear Bumper Angle (Left to Right)	Deg.	0	0.1	0	Yes
Vehicle CG (Aft of Front Axle)	mm	1148	1219	1196	
Vehicle CG Left (+) / Right (-) from Long. Centerline)	mm	16	27	29	

WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW	
Ballast	Weight (kg)
(4) Head-Rests, (3) Floor Mats, Jack & Tools, Spare Tire, Non-Impacted Side Tail-Light, Muffler, Spare Tire & Hanger, Plastic Trim	34.0

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

SCRL ANGLE RANGE			
	SCRL (°)		
	Max	Min	Mid
Driver Seat**	2.9°	0°	1.5°
Front Passenger Seat**	0°	0°	0°
Front Center Seat			
Struck Side Rear Seat	0°	0°	0°
Non-Struck Side Rear Seat	0°	0°	0°
Rear Center Seat			

**Seat pan non-adjustable

SCRL ANGLE RANGE						
Seat	As Tested SCRL Angle (Mid) (°)	As Tested SCR Height (mm)	SCR Height Position	SCR Height (mm)		
				Rearmost	Mid-Fore/Aft	Forward- Most
Driver's Seat	N/a	N/a	Max	N/a	N/a	N/a
	1.5	19.1	Mid	27.1	23.1	19.1
	N/a	N/a	Min	N/a	N/a	N/a
Front Passenger Seat	N/a	Fixed	Max	N/a	N/a	N/a
	0	22.8	Mid	31.1	27.5	22.8
	N/a	Fixed	Min	N/a	N/a	N/a
Front Center Seat*			Max			
			Mid			
			Min			
Struck Side Rear Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
	0	-5.89	Mid	-5.89	-5.05	-3.23
	Fixed	Fixed	Min	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
	0	-5.51	Mid	-5.51	-4.52	-2.71
	Fixed	Fixed	Min	Fixed	Fixed	Fixed
Rear Center Seat*			Max			
			Mid			
			Min			

*If applicable

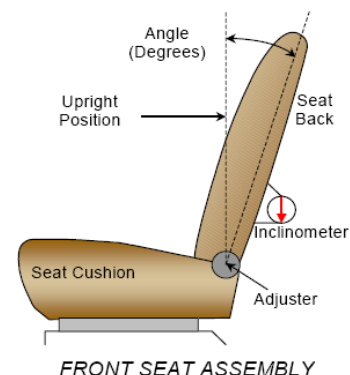
DATA SHEET NO. 2
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT, AND FUEL SYSTEM DATA (CONTINUED)

SEAT FORE/AFT TRAVEL				
Seat	Total Fore/Aft Travel		Test Position from Forward-most Position*	
	mm	Detents	mm	Detents
Driver Seat	220	23	0	22
Front Passenger Seat	220	23	0	22
Front Center Seat*				
Struck Side Rear Seat	250	26	250	25
Non-Struck Side Rear Seat	250	26	250	25
Rear Center Seat*				

*Zero being the full-forward position

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 5th 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 BACK ANGLE ADJUSTMENT				
Seat	Total Seat Back Angle Range		Test Position from Most Upright	
	Degrees	Detents	Degrees	Detents
Driver Seat w/ Seated Dummy	78.2°	41	9.6°	0
Front Passenger Seat	66.0°	34	9.0°	0
Front Center Seat*				
Struck Side Rear Seat	16.3°	9	10.9°	0
Non-Struck Side Rear Seat	16.5°	9	11.0°	0
Rear Center Seat*				

DATA SHEET NO. 2
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT, AND FUEL SYSTEM DATA (CONTINUED)

Seat Belt Anchorage Adjustment

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

SEAT BELT ANCHORAGE ADJUSTMENT (D-RING)		
	Total No. of Positions	Placement
Driver Seat	4	H

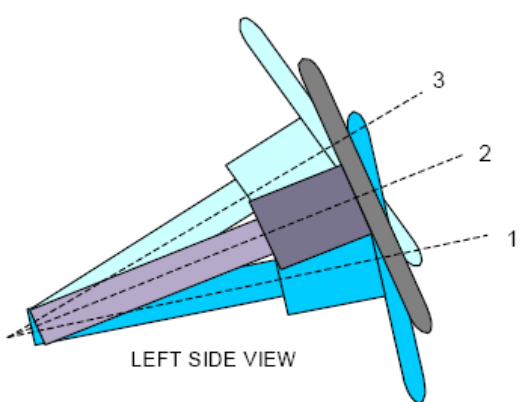
Head Restraint Adjustment

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

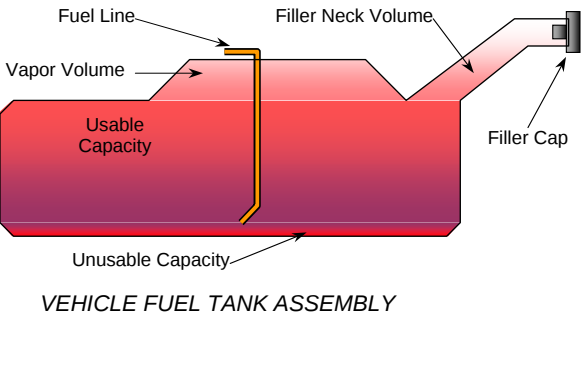
HEAD RESTRAINT ADJUSTMENT		
	Total No. of Positions	Placement
Driver Seat	4	Lowest Position

Steering Column Adjustment

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

STEERING COLUMN ADJUSTMENT			
	Degrees	Fore/Aft Position (mm)	 LEFT SIDE VIEW STEERING COLUMN ASSEMBLY
Lowermost, Pos. No. 1	61.4°	19	
Geometric Center, Pos. No. 2	63.5°	19	
Uppermost, Pos. No. 3	65.6°	19	
Telescoping Steering Wheel Travel	63.5	38	
Test Position	63.5°	19	

DATA SHEET NO. 2
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT, AND FUEL SYSTEM DATA (CONTINUED)

FUEL TANK CAPACITY DATA			
Description	Units	Value	
Usable Capacity of Standard Equipment Fuel Tank	L	62.8	
Usable Capacity of Optional Equipment Fuel Tank	L	N/a	
Usable Capacity of Standard Tank as Specified in Owner's Manual	L	62.8	
Usable Capacity of Optional Tank as Specified in Owner's Manual	L	N/a	
Amount of Stoddard Added for Test	L	58.4	
% Usable Capacity (92%-94%)	%	93.0	
1/3 of Usable Capacity			20.9

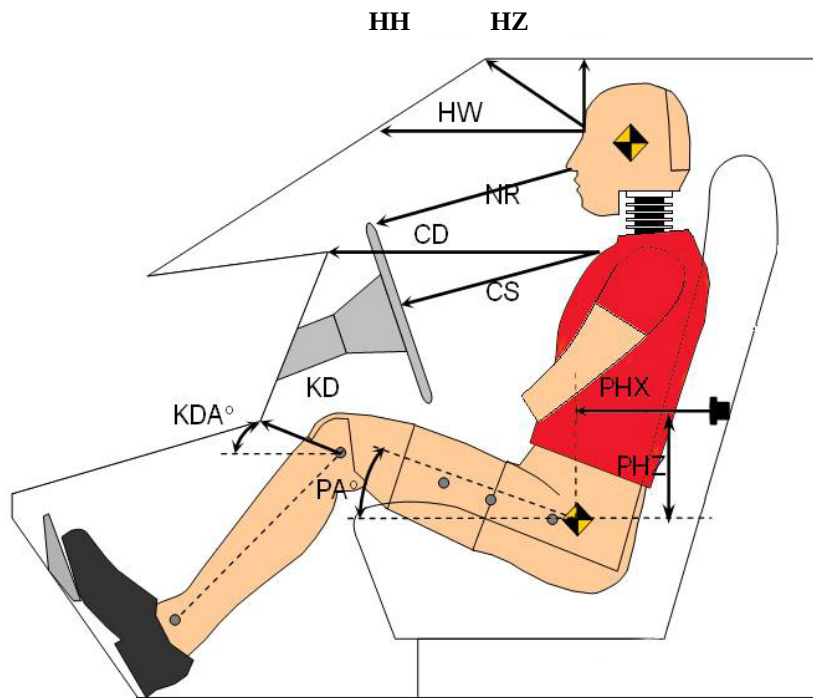
Fuel Pump

The vehicle is equipped with an electronic fuel pump. Key is "ON" position. The fuel pump is on the left side.

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

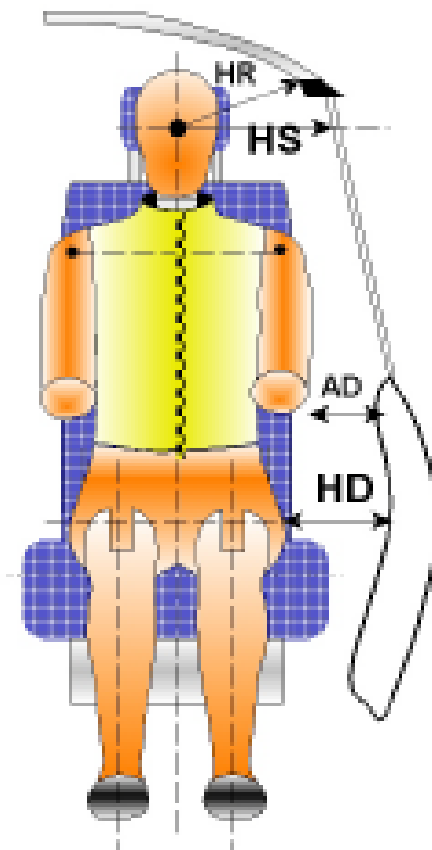
Yes

DATA SHEET NO. 3
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS



Code	Measurement Description	Driver	
		Length (mm)	Angle (°)
HH	Head to Header	255	
HW	Head to Windshield	598	
HZ	Head to Roof Liner	224	
NR	Nose to Rim	291	
CD	Chest to Dashboard	418	
CS	Chest to Steering Wheel	187	
KDL	Left Knee to Dash	152	
KDAL	Left Knee to Dash		23.3°
KDR	Right Knee to Dash	116	
KDAR	Right Knee to Dash		21.2°
PAX	Pelvic Tilt Angle (X-Axis)		0.0°
PAY	Pelvic Tilt Angle (Y-Axis)		20.5°
PHX	H-Point to Striker (X-Axis)	365.4	
PHZ	H-Point to Striker (Z-Axis)	109.5	

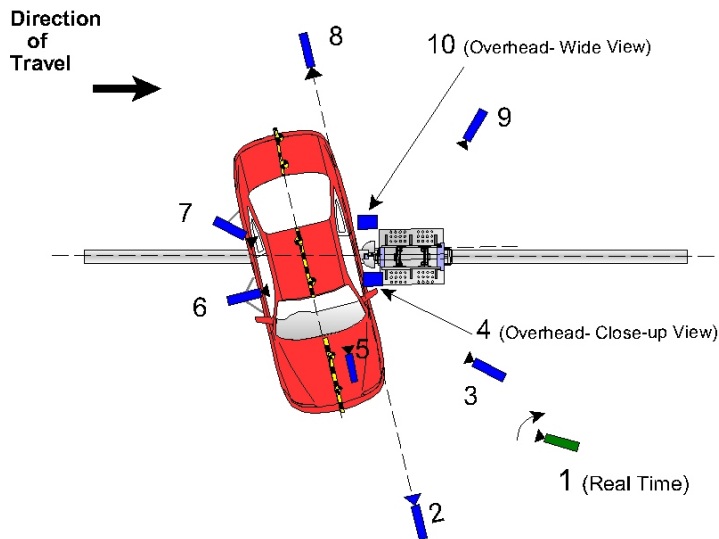
DATA SHEET NO. 4
DUMMY LATERAL CLEARANCE DIMENSIONS



DUMMY LATERAL CLEARANCE DIMENSIONS		
Code	Measurement Description	Length (mm)
HR	Head to Side Header	281
HS	Head to Side Window	414
AD	Arm to Door	229
HD	Hip Point to Door	201

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

Camera Locations



	View	Coordinates †			Lens Length mm	Operating Frame Rate fps
		X	Y	Z		
		mm	mm	mm		
1	Rear Time (24 – 30 fps) Pan View of Impact				N/a	30
2	Front ground Level – Impact View	12608	-931	-622	50	1000
3	Impact Side 45° - Forward View of Pole	9428	-2948	-422	25	1000
4	Overhead Close – Up View of Impact	2701	-911	-4624	75	1000
5	Onboard – Dummy Front View				12.5	1000
6	Onboard – Dummy Side View				12.5	1000
7	Onboard – Dummy Rear Oblique View				12.5	1000
8	Rear Ground Level – Impact View	-6177	-855	-537	25	1000
9	Impact Side 45° - Rearward Pole View	-5323	-6577	-435	35	1000
10	Overhead Wide – View Impact	2385	-281	-4504	12.5	1000
11	Real – Time (24 – 30 fps) Dummy Front View				N/a	30

Origin

X

Y

Z

Impact Point

Impact Point

Impact Point

Orientation

X

Y

Z

+(X) Forward

+(Y) Right

+(Z) Down

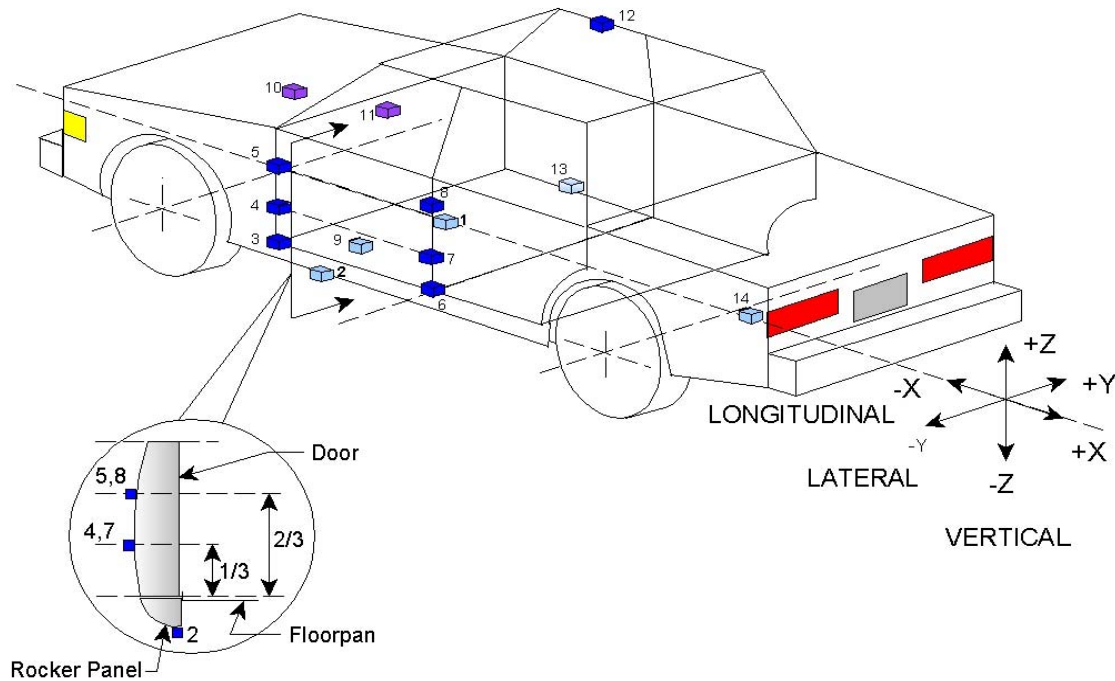
**All measurements accurate to +/- 6 mm*

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

DATA SHEET NO. 5
CAMERA AND INSTRUMENTATION DATA (CONTINUED)

INSTRUMENTATION	
	Number of channels
Driver Dummy	16
Vehicle Structure	18
Pole Load Cells	8
Total No. of Data Channels	42

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



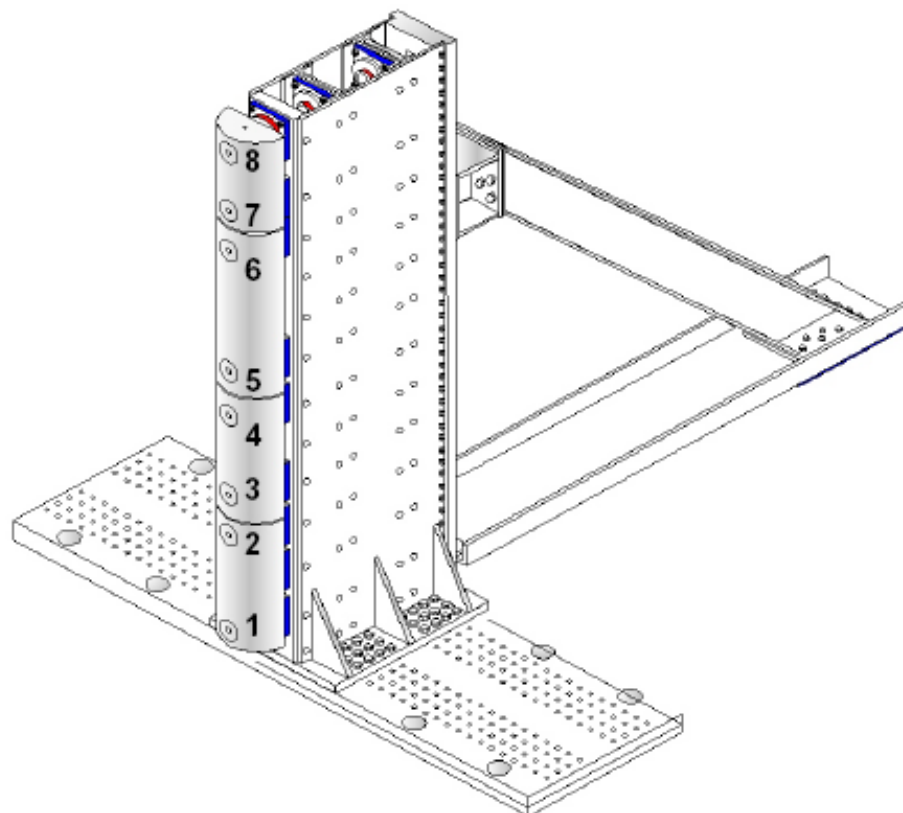
ACCELEROMETER/SENSOR LOCATION				
Loc. no.	ID	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	2661.4	59.4	228.0
2	Left Floor Sill	2897.5	-704.5	432.2
3	A-Pillar Sill	3195.7	-705.2	434.3
4	A-Pillar Low	3172.4	-811.7	86.9
5	A-Pillar Mid	3168.5	-810.5	-102.4
6	B-Pillar Sill	2020.7	-705.0	416.7
7	B-Pillar Low	2113.9	-805.5	10.4
8	B-Pillar Mid	2085.9	-806.1	-208.5
9	Driver Seat Track	2408.7	-574.9	237.9
10	Engine Top	3869.6	333.2	-169.1
11	Firewall	3437.3	150.2	-54.7
12	Right Roof	2184.0	553.1	-926.5
13	Right Floor Sill	2133.6	710.5	413.0
14	Rear Floorpan	1111.6	-8.64	118.9

Origin
X Test Vehicle Rear Bumper
Y Test Vehicle Centerline
Z Ground Plane

Orientation
X + Forward
Y + Right
Z + Down

DATA SHEET NO. 7
RIGID POLE LOAD CELL DATA

FOIL 300K RIGID POLE



LOAD CELL LOCATIONS	
ID	Height From Ground (mm)
1	77
2	477
3	632
4	969
5	1167
6	1638
7	1808
8	2030

*Measured From Top of Platform

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

TEST DUMMY INFORMATION AND CONTACT POINTS	
Dummy Body Part	Driver SID-II's Dummy
Face	To Side Curtain Airbag
Top of Head	To Side Curtain Airbag
Left Side of Head	To Side Curtain Airbag
Back of Head	To Side Curtain Airbag
Left Shoulder	Along Seat Back Wing Into Side Torso/Abdomen/Pelvis Airbag
Upper Torso	Along Seat Back Wing Into To Side Torso/Abdomen/Pelvis Airbag
Lower Torso	Along Seat Back Wing Into To Side Torso/Abdomen/Pelvis Airbag
Left Hip	Along Seat Back Wing Into To Side Torso/Abdomen/Pelvis Airbag
Left Knee	To Interior 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)	N/a	N/a	N/a	N/a	N/a

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

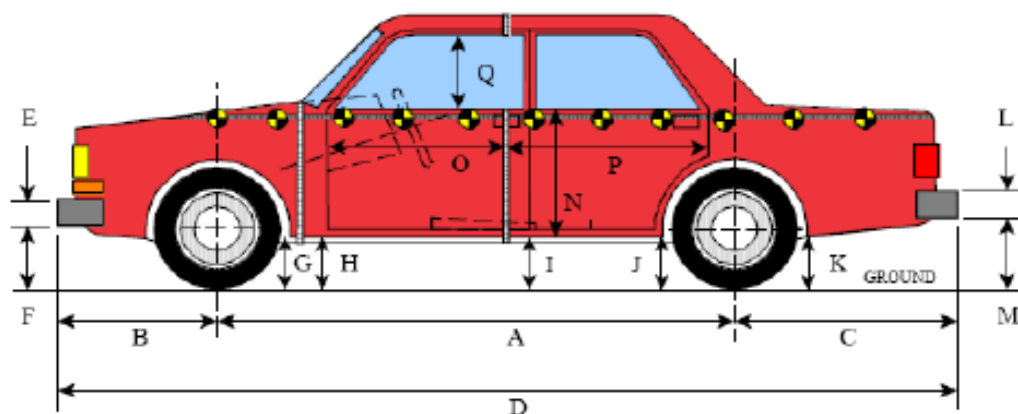
**DATA SHEET NO. 8
 POST TEST OBSERVATIONS (CONTINUED)**

POST TEST STRUCTURAL OBSERVATIONS	
Critical Areas of Performance	Observations/Conclusions
Pillar Performance	No Separation
Sill Separation	No Separation
Windshield Damage	Heavy Cracking Along Entire Windshield
Window Damage	Front Window Shattered at Impact
Other Notable Effects	None Noted

SUPPLEMENTAL RESTRAINT INFORMATION				
Restraint Type	Struck Side Driver		Struck Side Rear Passenger	
	Mounted	Deployed	Mounted	Deployed
Frontal Airbag	Yes	No		
Knee Airbag	Yes	No		
Side Curtain Airbag	Yes	Yes	Yes	Yes
Side Torso/Abdomen/Pelvis Airbag	Yes	Yes	No	N/a
Seat Belt Pretensioner	Yes	Yes	Yes	N/a
Seat Belt Load Limiter	Yes	N/a	No	N/a
Other	No	N/a	No	N/a

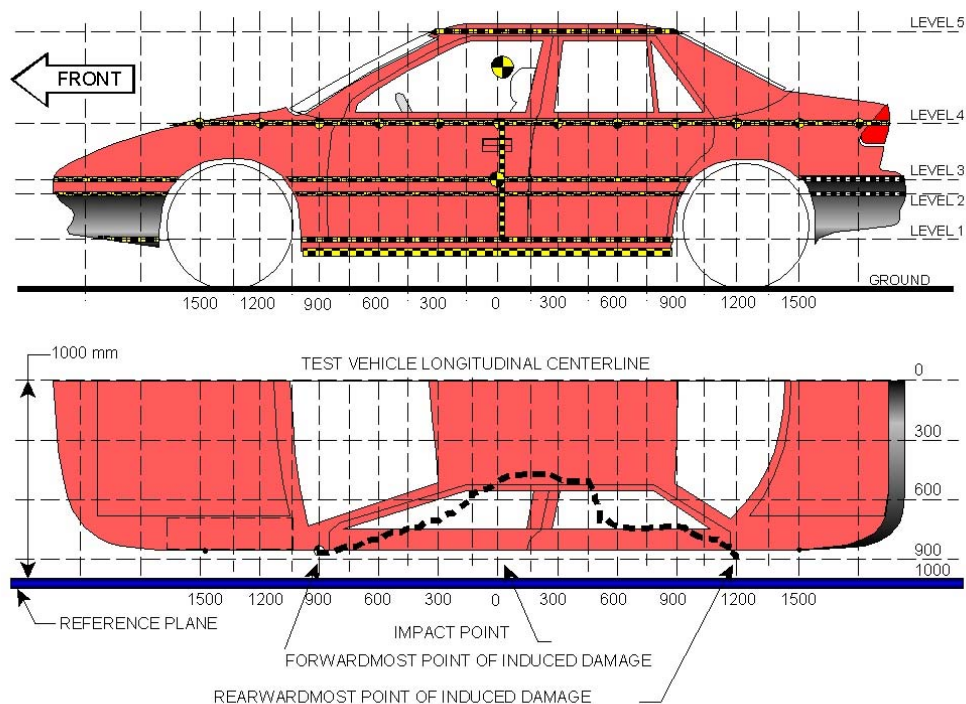
IMPACT SPEED			
Measured Parameter	Units	Tolerance	Value
Vertical Impact Reference Line (Aft of Front Axle) (Intended Impact Point)	mm		1091
Actual Impact Point (Aft of Front Axle)	mm		1094
Horizontal Offset (+ forward / - rear)	mm	+/- 38 of Intended Impact Point	-3
Angle Between Vehicle's Longitudinal Centerline and Line of Forward Motion	degrees	75 +/- 3	75.0
Trap No. 1 Velocity (Primary)	km/h	31.4 to 33.0	31.78
Trap No. 2 Velocity (Redundant)	km/h	31.4 to 33.0	31.73

DATA SHEET NO. 9
VEHICLE PROFILE MEASUREMENTS



VEHICLE PRE- AND POST- TEST MEASUREMENT INFORMATION				
Code	Description	Pre Test	Post Test	Difference
		mm	mm	mm
A	Wheelbase	2670	2590	-80
B	Front Axle to FSOV	665	660	-5
C	Rear Axle to RSOV	935	935	0
D	Total Length at Centerline	4661	4624	-37
E	Front Bumper Thickness	123	123	0
F	Front Bumper Bottom to Ground	344	373	29
G	Sill Height at Front Wheel Well	264	244	-20
H	Sill Height at Front Door Leading Edge	266	238	-28
I	Sill Height at B-Pillar	290	289	-1
J1	Sill Height at Rear Wheel Well	257	277	20
J2	Pinch Weld Height at Rear Wheel Well	291	349	58
K	Sill Height Aft of Rear Wheel Well	447	463	16
L	Rear Bumper Thickness	264	264	0
M	Rear Bumper Bottom to Ground	411	388	-23
N	Sill Height to Window Bottom Sill	802	795	-7
O	Front Door Leading Edge to Impact C/L	1098	864	-232
P	Rear Door Trailing Edge to Impact C/L	942	940	-2
Q	Front Window Opening	445	420	-25
R	Right Side Length	4270	4299	29
S	Left Side Length	4270	4185	85
T	Vehicle Width at B-Pillar	1770	1636	-134

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH MEASUREMENTS



NOTE: All measurements are in millimeters (mm)

MAXIMUM EXTERIOR CRUSH MEASUREMENTS				
Level	Measurement Description	Height Above Ground (mm)	Maximum Exterior Static Crush (mm)	Distance from Impact (mm)
1	Sill Top	340	384	0
2	Occupant Hip Point	701	430	0
3	Mid-Door	728	444	150
4	Window Sill	1078	403	150
5	Window Top	1579	231	0

Note: All vehicle measurements taken at the vertical impact reference line.

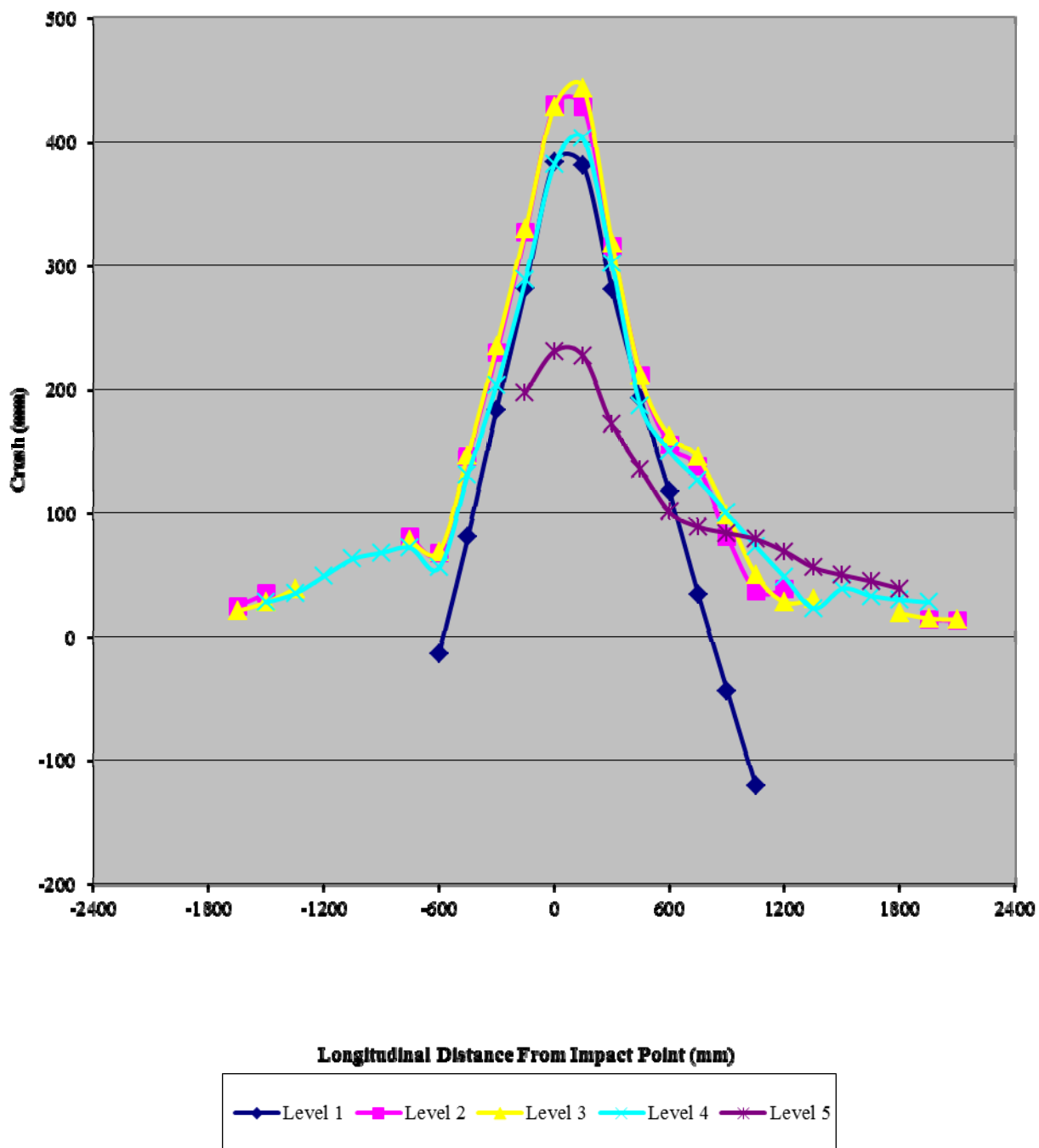
DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH MEASUREMENTS
(CONTINUED)

Note: All dimensions are in millimeters with a tolerance of ± 3 mm

TEST VEHICLE STATIC CRUSH																
Level		1			2			3			4			5		
		340			701			728			1078			1579		
		Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush
DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT	-1800															
	-1650				305	330	25	309	330	21						
	-1500				272	307	35	279	307	28	432	460	28			
	-1350							257	296	39	406	441	35			
	-1200										385	434	49			
	-1050										370	433	63			
	-900										360	428	68			
	-750				256	337	81	256	334	78	353	425	72			
	-600	287	273	-14	266	334	68	267	336	69	348	404	56			
	-450	292	373	81	277	422	145	277	423	146	342	472	130			
	-300	294	477	183	280	510	230	279	514	235	337	540	203			
	-150	296	578	282	279	606	327	276	606	330	330	619	289	539	736	197
	0	297	681	384	277	707	430	275	704	429	324	706	382	533	764	231
	150	299	680	381	277	706	429	275	719	444	317	720	403	528	755	227
	300	298	579	281	278	594	316	275	594	319	312	614	302	525	697	172
	450	300	493	193	279	490	211	276	487	211	310	497	187	525	660	135
	600	303	420	117	282	437	155	279	441	162	307	457	150	528	629	101
	750	305	339	34	285	422	137	283	428	145	304	430	126	532	621	89
	900	304	260	-44	285	366	81	283	382	99	302	402	100	532	616	84
	1050	298	177	-121	279	316	37	277	327	50	304	377	73	537	616	79
	1200				264	303	39	265	293	28	309	357	48	544	613	69
	1350							263	294	31	315	338	23	554	610	56
	1500										320	359	39	562	612	50
	1650										327	360	33	570	615	45
	1800							260	279	19	333	363	30	581	620	39
	1950				273	287	14	274	289	15	342	370	28			
	2100				304	317	13	304	318	14						
	2250															
	2400															
	2550															
	2700															
	2850															
	3000															

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

Static Crush

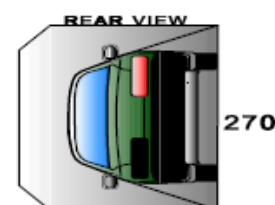
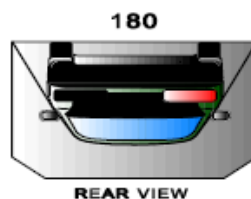
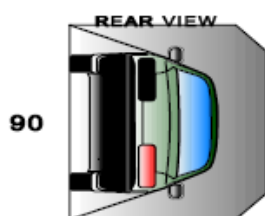


DATA SHEET NO. 11
FMVSS 301 STATIC ROLLOVER RESULTS

Temperature at Time of Impact: 21° C Test Time: 2:10 pm

STODDARD SOLVENT SPILLAGE MEASUREMENTS				
Period	Description	Maximum Allowable Spillage	Spillage	
			Amount	Location
A	From Impact Until Vehicle Motion Ceases	1 oz	0	N/a
B	5 Minutes After Vehicle Motion Ceases	5 oz	0	N/a
C	Next 25 Minutes	1 oz/minute	0	N/a
D				

FMVSS 301 STATIC ROLLOVER DATA



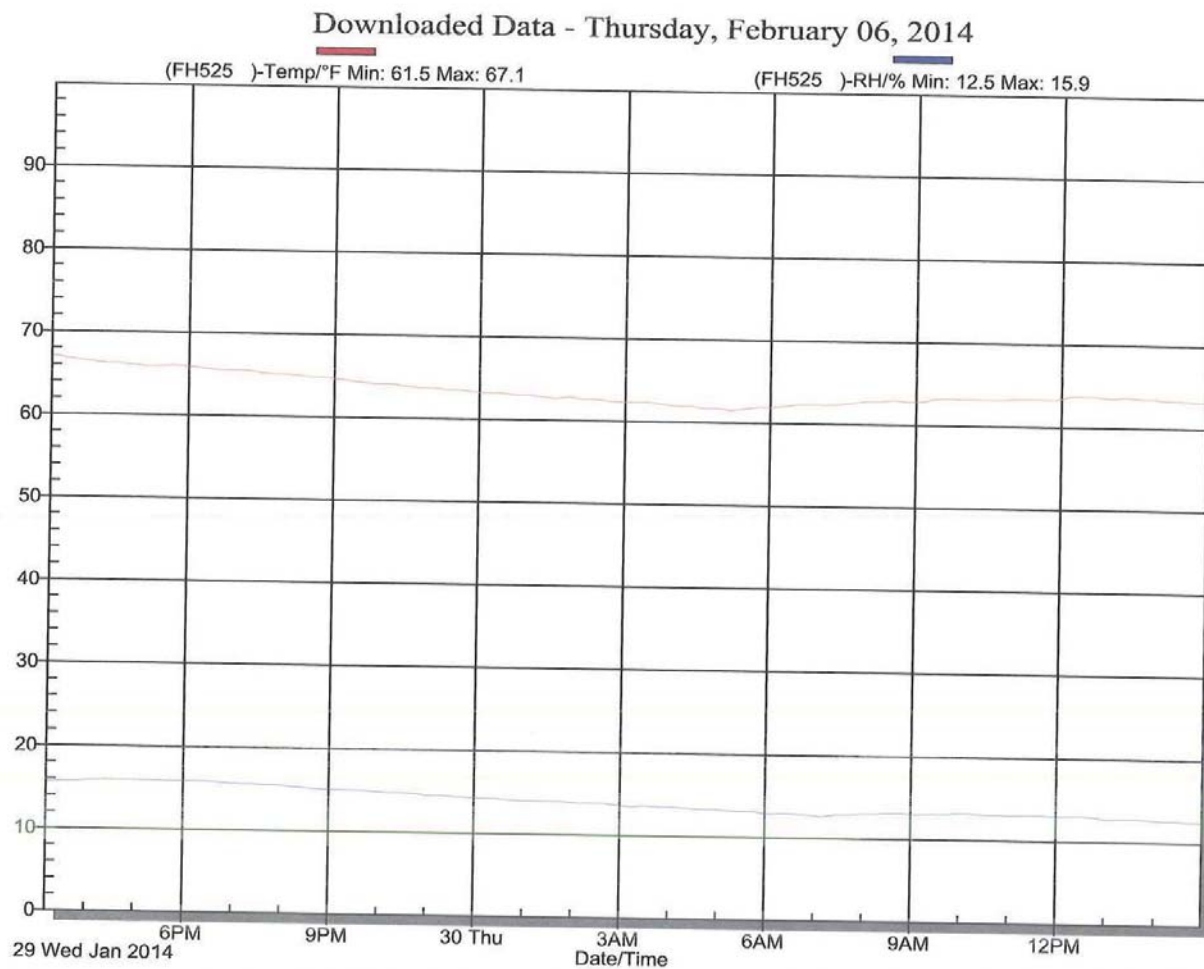
ROLLOVER SOLVENT COLLECTION TIME TABLE			
Test phase	Rotation Time (sec.)	Hold Time (sec.)	Total Time (sec.)
0° to 90°	65	300	365
90° to 180°	67	300	367
180° to 270°	66	300	366
270° to 360°	64	300	364

DATA SHEET NO. 11
FMVSS 301 STATIC ROLLOVER RESULTS (CONTINUED)

FMVSS No. 301 Rollover Spillage Table				
	First Five Minutes (oz)	Sixth Minute (oz)	Seventh Minute (oz)	Eighth Minute (oz)
0° to 90°	0	0	0	N/a
90° to 180°	0	0	0	N/a
180° to 270°	0	0	0	N/a
270° to 360°	0	0	0	N/a

Spillage Location	
0° to 90°	N/a
90° to 180°	N/a
180° to 270°	N/a
270° to 360°	N/a

DATA SHEET NO. 12
DUMMY/VEHICLE TEMPERATURE STABILIZATION DATA



Test Vehicle: 2014 Mitsubishi Outlander 5-Door MPV
Test Program: SPNCAP

NHTSA Number: M20145601
Test Date: January 30, 2014

APPENDIX A PHOTOGRAPHS

LIST OF PHOTOGRAPHS

Figure	Photograph Description	Page
001	As Delivered Right Front 3/4 View of Test Vehicle	A-4
002	As Delivered Left Rear 3/4 View of Test Vehicle	A-4
003	Pre-Test Frontal View of Test Vehicle	A-5
004	Post-Test Frontal View of Test Vehicle	A-5
005	Pre-Test Left Front 3/4 View of Test Vehicle	A-6
006	Post-Test Left Front 3/4 View of Test Vehicle	A-6
007	Pre-Test Left Side View of Test Vehicle	A-7
008	Post-Test Left Side View of Test Vehicle	A-7
009	Pre-Test Left Rear 3/4 View of Test Vehicle	A-8
010	Post-Test Left Rear 3/4 View of Test Vehicle	A-8
011	Pre-Test Rear View of Test Vehicle	A-9
012	Post-Test Rear View of Test Vehicle	A-9
013	Pre-Test Right Side View of Test Vehicle	A-10
014	Post-Test Right Side View of Test Vehicle	A-10
015	Pre-Test Overhead View of Test Area	A-11
016	Post-Test Overhead View of Test Area	A-11
017	Pre-Test Left Side View of Pole Positioned Against Side of Vehicle	A-12
018	Pre-Test Right Side View of Pole Positioned Against Side of Vehicle	A-12
019	Pre-Test Close-Up View of Impact Point Target	A-13
020	Post-Test Close-Up View of Impact Point Target Showing Impact Location	A-13
021	Pre-Test Front Close-Up View of Dummy Head and Chest	A-14
022	Post-Test Front Close-Up View of Dummy	A-14
023	Pre-Test Left Side View of Dummy Showing Belt and Chalking	A-15
024	Pre-Test Left Side View of Dummy Shoulder and Driver Door Top View	A-15
025	Post-Test Left Side View of Dummy Shoulder and Door Top View	A-16
026	Pre-Test Frontal View of Seat Back Prior to Dummy Positioning	A-16
027	Pre-Test Frontal View of Dummy Head and Shoulders in Relation to Head Restraint	A-17
028	Pre-Test Frontal View of Seat Pan Prior to Dummy Positioning	A-17
029	Pre-Test Overhead View of Dummy Thighs on Seat Pan	A-18
030	Pre-Test View of Dummy's Neck Showing Position of Adjustable Neck Bracket	A-18
031	Pre-Test View of Dummy's Head Showing Dummy's Head is Level	A-19
032	Pre-Test Placement of Dummy's Feet	A-19
033	Pre-Test View of Belt Anchorage for Dummy	A-20
034	Pre-Test Left Side View of Steering Wheel	A-20
035	Pre-Test View of Disengaged Parking Brake	A-21
036	Pre-Test View of Parking Brake	A-21
037	Pre - Test Close-Up Left Side View of Driver Seat Track	A-22
038	Pre-Test Close-Up Left Side View of Driver Seat Back	A-22
039	Pre-Test Close-Up View of Driver Seat Back or Head Restraint	A-23
040	Post-Test Dummy and Door Clearance View	A-23
041	Post-Test Dummy and Door Clearance View	A-24
042	Pre-Test Right Side View of Dummy and Front Seat Occupant Compartment	A-24
043	Post-Test Right Side View of Dummy and Front Seat Occupant Compartment	A-25
044	Pre-Test Inner Driver Door Panel View	A-25
045	Post-Test Inner Door Panel View Showing Dummy Contact Locations	A-26
046	Post-Test Dummy Close-Up Head Contact with Vehicle Interior View	A-26
047	Post-Test Dummy Close-Up Head Contact with Side Airbag View	A-27
048	Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View	A-27

LIST OF PHOTOGRAPHS (CONTINUED)

Figure	Photograph Description	Page
049	Post-Test Dummy Close-Up Torso Contact with Side Airbag View	A-28
050	Post-Test Dummy Close-Up Pelvis Contact with Vehicle Interior View	A-28
051	Post-Test Dummy Close-Up Pelvis Contact with Side Airbag View	A-29
052	Post-Test Dummy Close-Up Knee Contact with Vehicle Interior View	A-29
053	Pre-Test View of Fuel Filler Cap or Fuel Filler Neck	A-30
054	Post-Test View of Fuel Filler Cap or Fuel Filler Neck	A-30
055	Close-up View of Vehicle's Certification Label	A-31
056	Close-up View of Vehicle's Tire Information Placard or Label	A-31
057	Pre-Test Pole Barrier Front View	A-32
058	Post-Test Pole Barrier Front View	A-32
059	Pre-Test Pole Barrier Side View	A-33
060	Post-Test Pole Barrier Side View	A-33
061	Pre-Test Ballast View	A-34
062	Post-Test Primary and Redundant Speed Trap Read-Out	A-34
063	FMVSS No. 301/305 Rollover 0°	A-35
064	FMVSS No. 301/305 Rollover 90°	A-35
065	FMVSS No. 301/305 Rollover 180°	A-36
066	FMVSS No. 301/305 Rollover 270°	A-36
067	FMVSS No. 301/305 Rollover 360°	A-37
068	Impact Event	A-37
069	Monroney label	A-38
070	Head Restraint Use and Adjustment Information from Vehicle Owner's Manual	A-38



Figure 001: As Delivered Right Front 3-4 View of Test Vehicle



Figure 002: As Delivered Left Rear 3-4 View of Test Vehicle



Figure 003: Pre-Test Frontal View of Test Vehicle

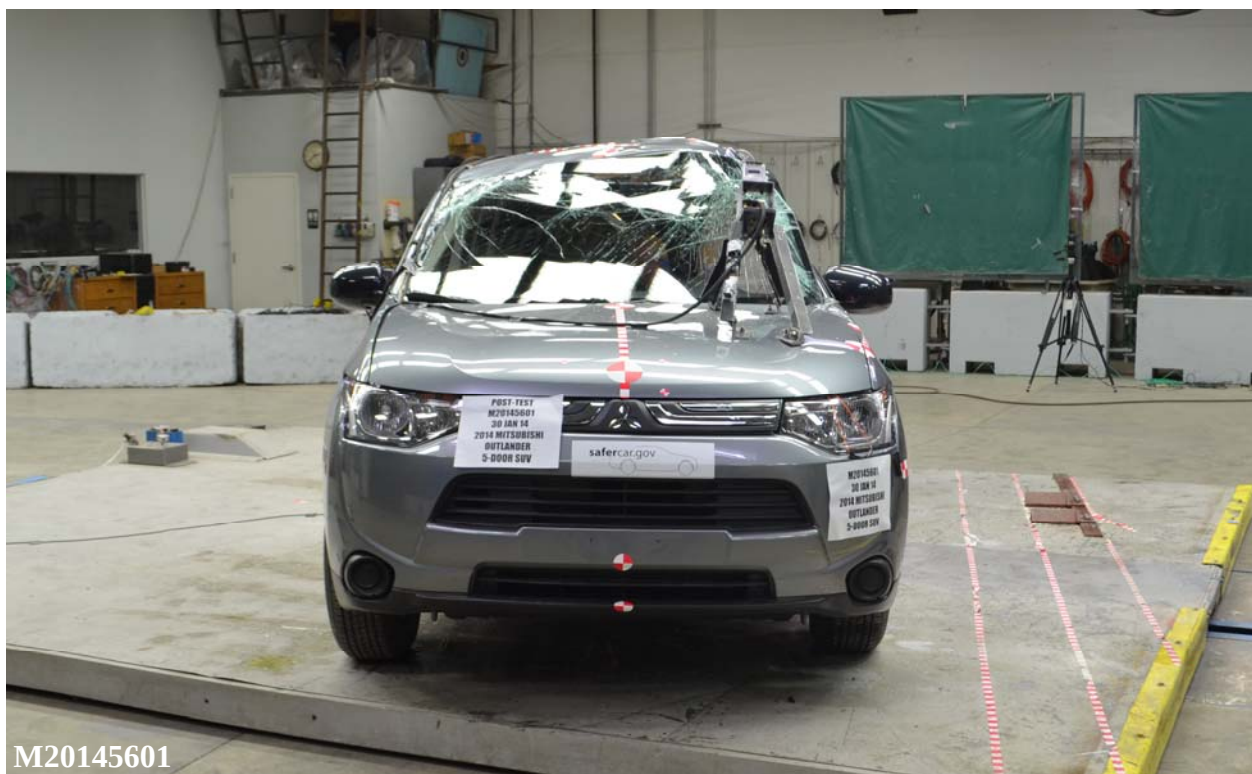


Figure 004: Post-Test Frontal View of Test Vehicle



Figure 005: Pre-Test Left Front 3-4 View of Test Vehicle



Figure 006: Post-Test Left Front 3-4 View of Test Vehicle



Figure 007: Pre-Test Left Side View of Test Vehicle



Figure 008: Post-Test Left Side View of Test Vehicle



Figure 009: Pre-Test Left Rear 3-4 View of Test Vehicle



Figure 010: Post-Test Left Rear 3-4 View of Test Vehicle



Figure 011: Pre-Test Rear View of Test Vehicle



Figure 012: Post-Test Rear View of Test Vehicle



Figure 013: Pre-Test Right Side View of Test Vehicle



Figure 014: Post-Test Right Side View of Test Vehicle



Figure 015: Pre-Test Overhead View of Test Area

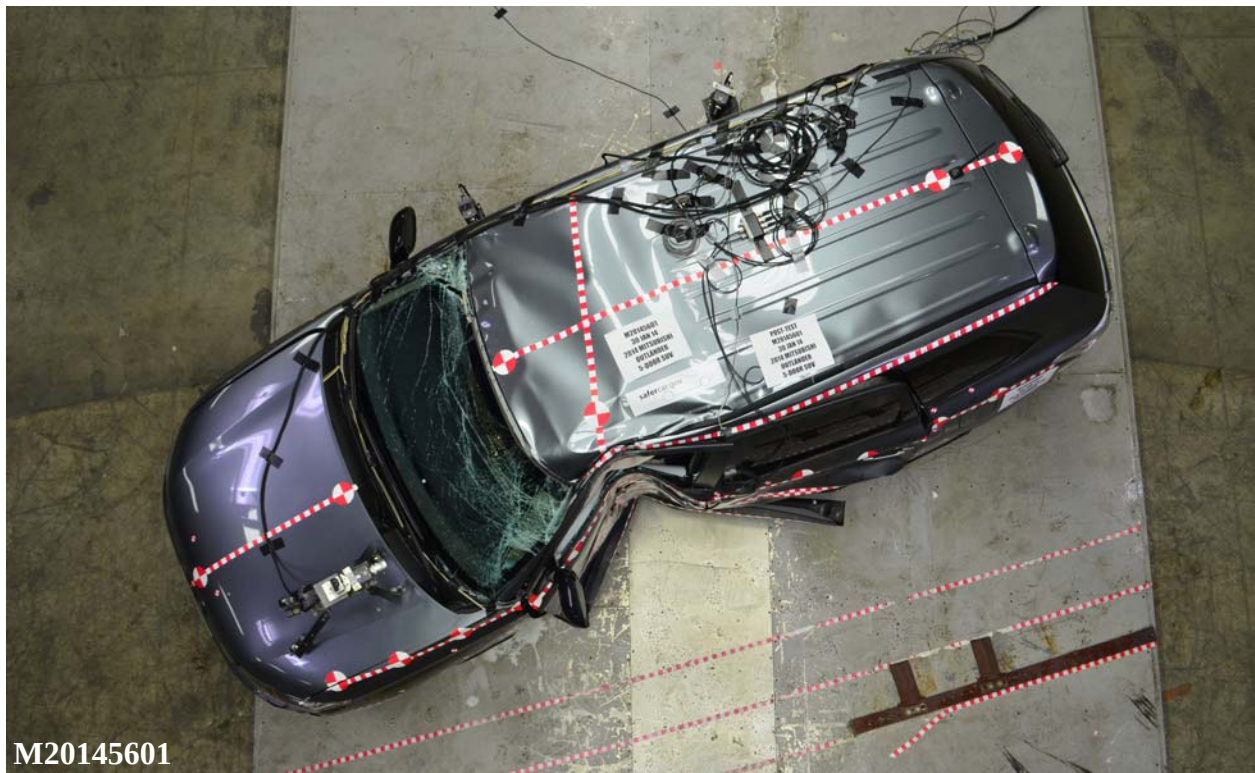


Figure 016: Post-Test Overhead View of Test Area



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



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



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



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

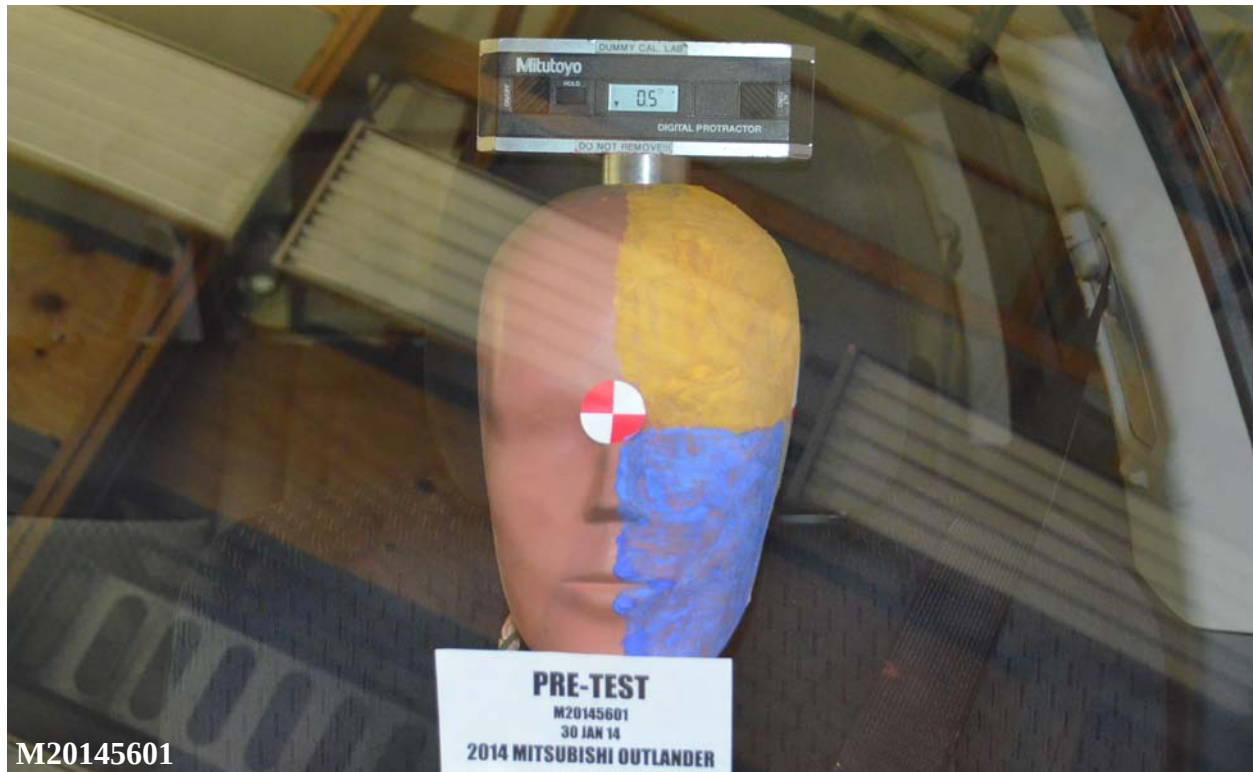


Figure 021: Pre-Test Front Close-Up View of Dummy Head and Chest



Figure 022: Post-Test Front Close-Up View of Dummy



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



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

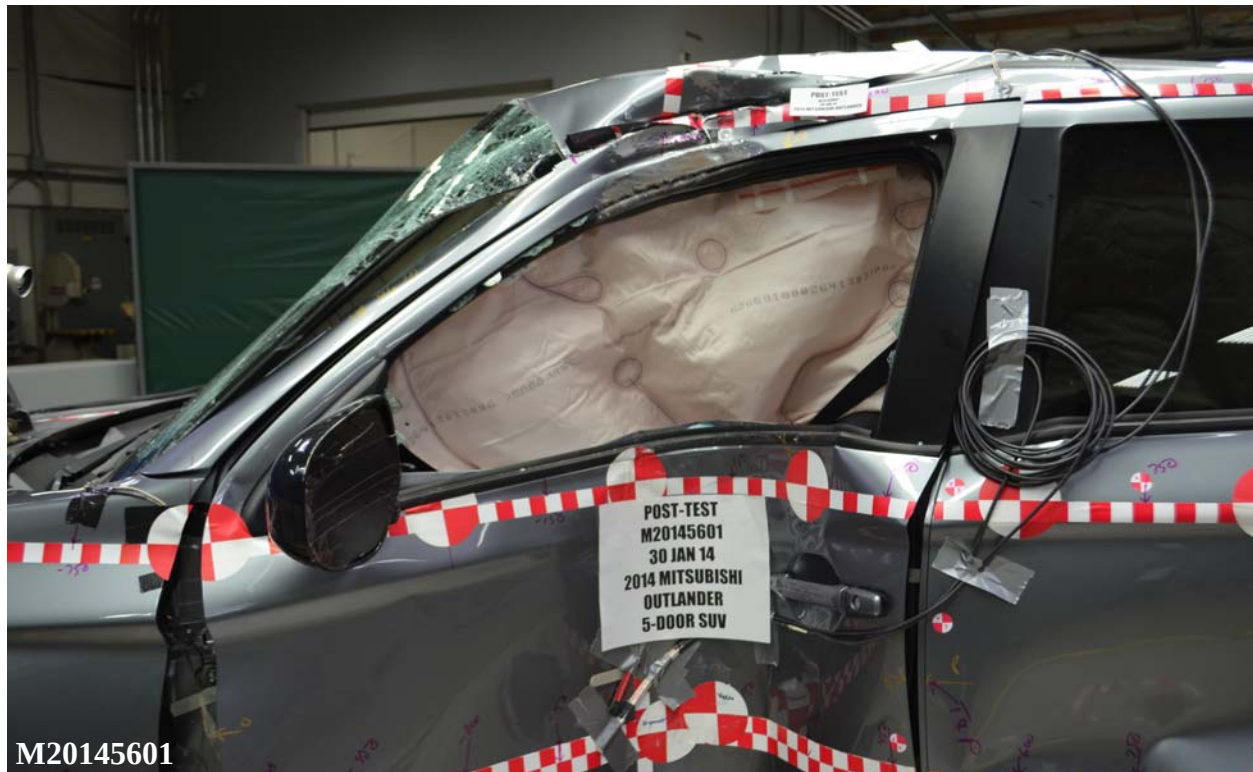


Figure 025: Post-Test Left Side View of Dummy Shoulder and Door Top View



Figure 026: Pre-Test Frontal View of Seat Back Prior to Dummy Positioning



Figure 027: Pre-Test Frontal Close-Up View of Dummy Head and Shoulders in Relation to Head Restraint

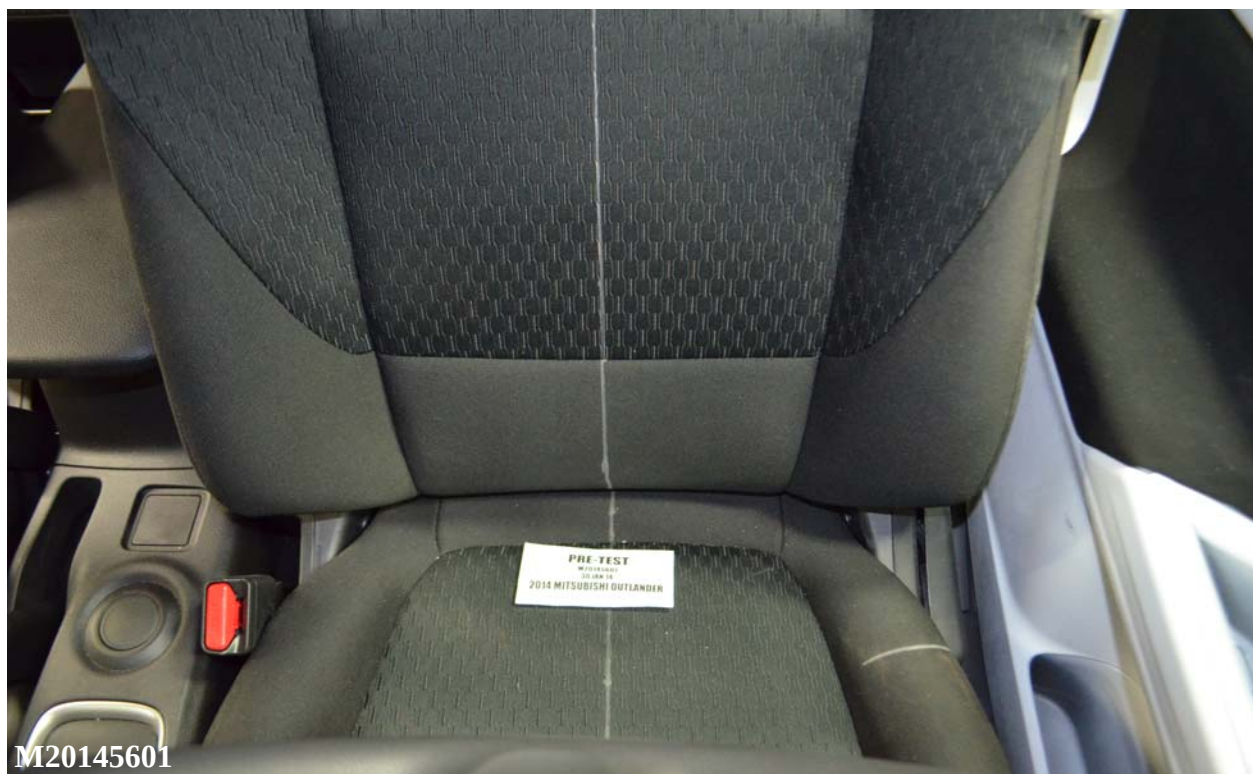


Figure 028: Pre-Test Frontal View of Seat Pan Prior to Dummy Positioning



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



Figure 030: Pre-Test Left Side View of Dummy's Neck Showing Position of Adjustable Neck Bracket



Figure 031: Pre-Test Left Side View of Dummy's Head Showing Dummy's Head is Level



Figure 032: Pre-Test Placement of Dummy's Feet

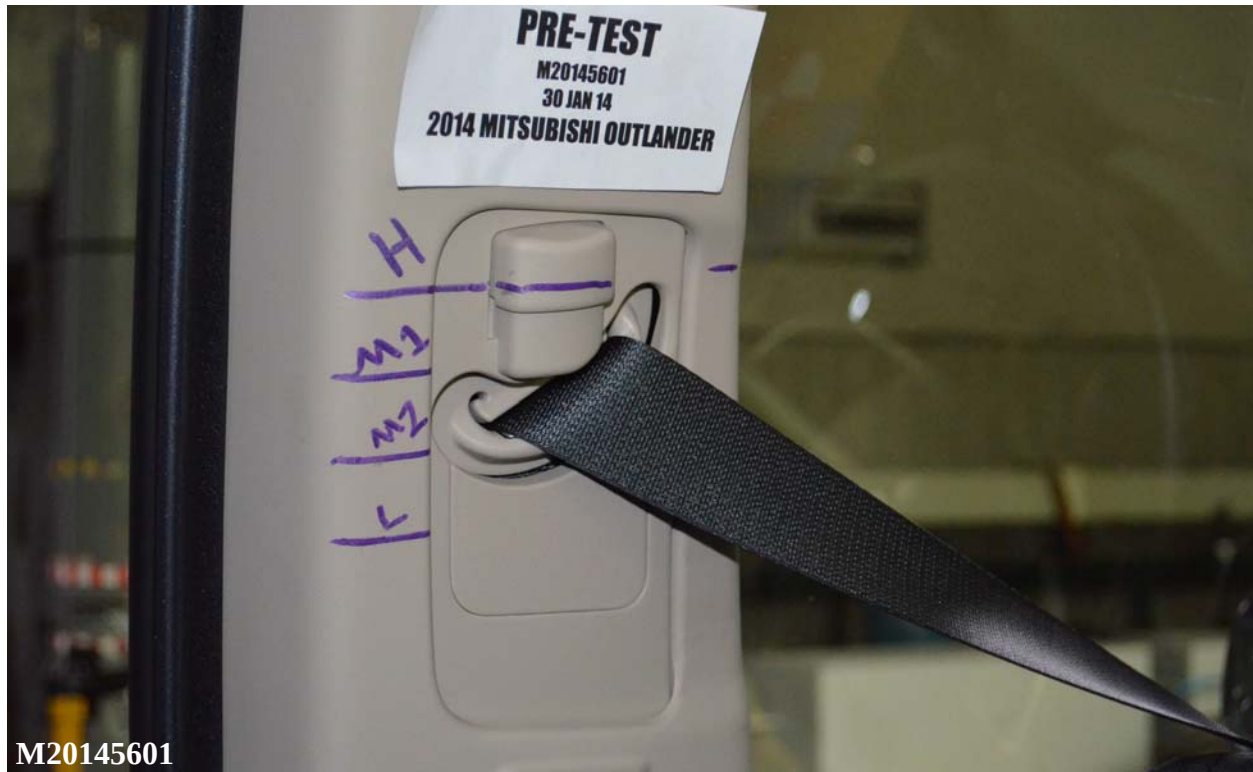


Figure 033: Pre-Test View of Belt Anchorage for Dummy



Figure 034: Pre-Test Left Side View of Steering Wheel



Figure 035: Pre-Test View of Disengaged Parking Brake



Figure 036: Pre-Test View of Parking Brake



Figure 037: Pre-Test Close-Up Left Side View of Drive Seat Track



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



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



Figure 040: Pre-Test Dummy and Door Clearance View



Figure 041: Post-Test Dummy and Door Clearance View

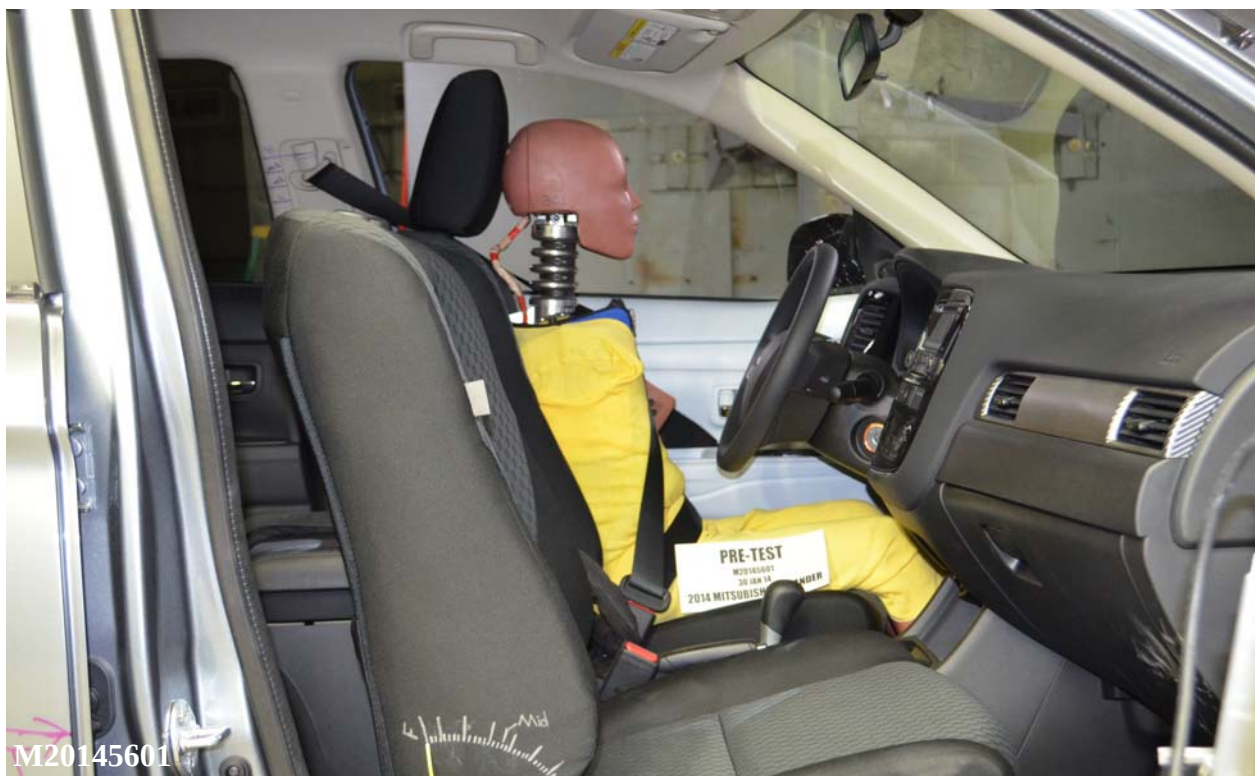


Figure 042: Pre-Test Right Side View of Dummy and Front Seat of Occupant Compartment



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



Figure 044: Pre-Test Inner Door Panel View



Figure 045: Post-Test Inner Door Panel View Showing Dummy Contact Locations

Not Applicable

M20145601

Figure 046 Post-Test Dummy Close-Up Head Contact with Vehicle Interior View - N/a



Figure 047: Post-Test Dummy Close-Up Head Contact with Side Air bag View



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



Figure 049: Post-Test Dummy Close-Up Torso Contact with Side Air bag View

Not Applicable

M20145601

Figure 050: Post-Test Dummy Close-Up Pelvis Contact with Vehicle Interior View - N/a



Figure 051: Post-Test Dummy Close-Up Pelvis Contact with Side Air bag View



Figure 052: Post-Test Dummy Close-Up Contact with Vehicle Interior View

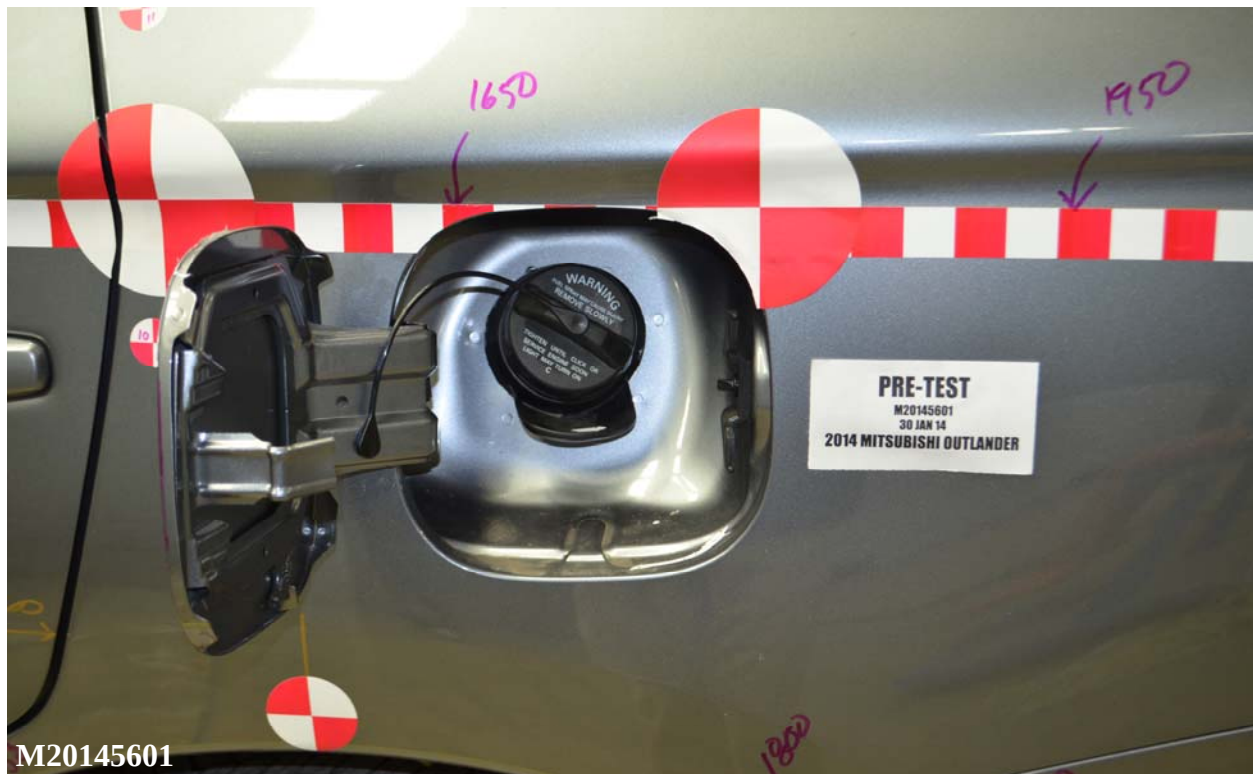


Figure 053: Pre-Test View of Fuel Filler Cap or Fuel Filler Neck

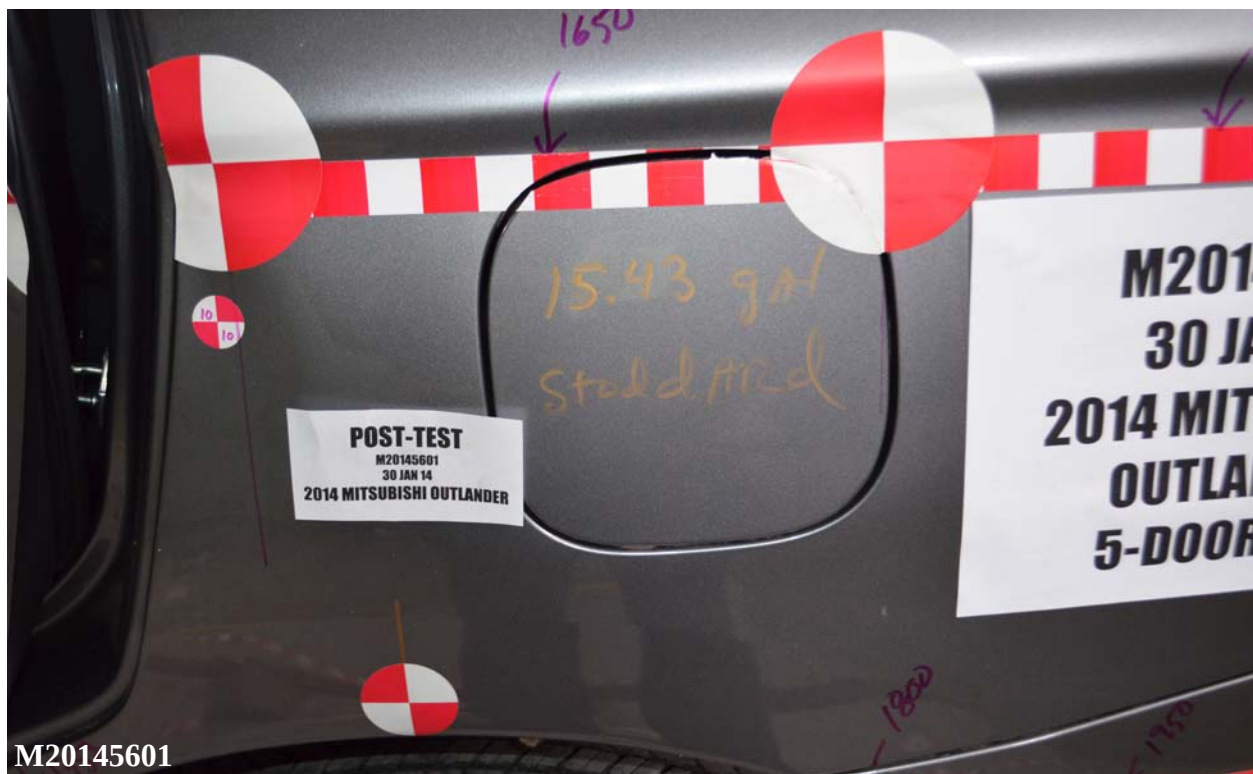


Figure 054: Post-Test View of Fuel Filler Cap or Fuel Filler Neck



M20145601

Figure 055: Close-Up View of Vehicle's Certification Label



M20145601

Figure 056: Close-Up View of Vehicle's Tire Information Placard or Label



Figure 057: Pre-Test Pole Barrier Front View



Figure 058: Post-Test Pole Barrier Front View



Figure 059: Pre-Test Pole Barrier Side View



Figure 060: Post-Test Pole Barrier Side View



Figure 061: Pre-Test Ballast View



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

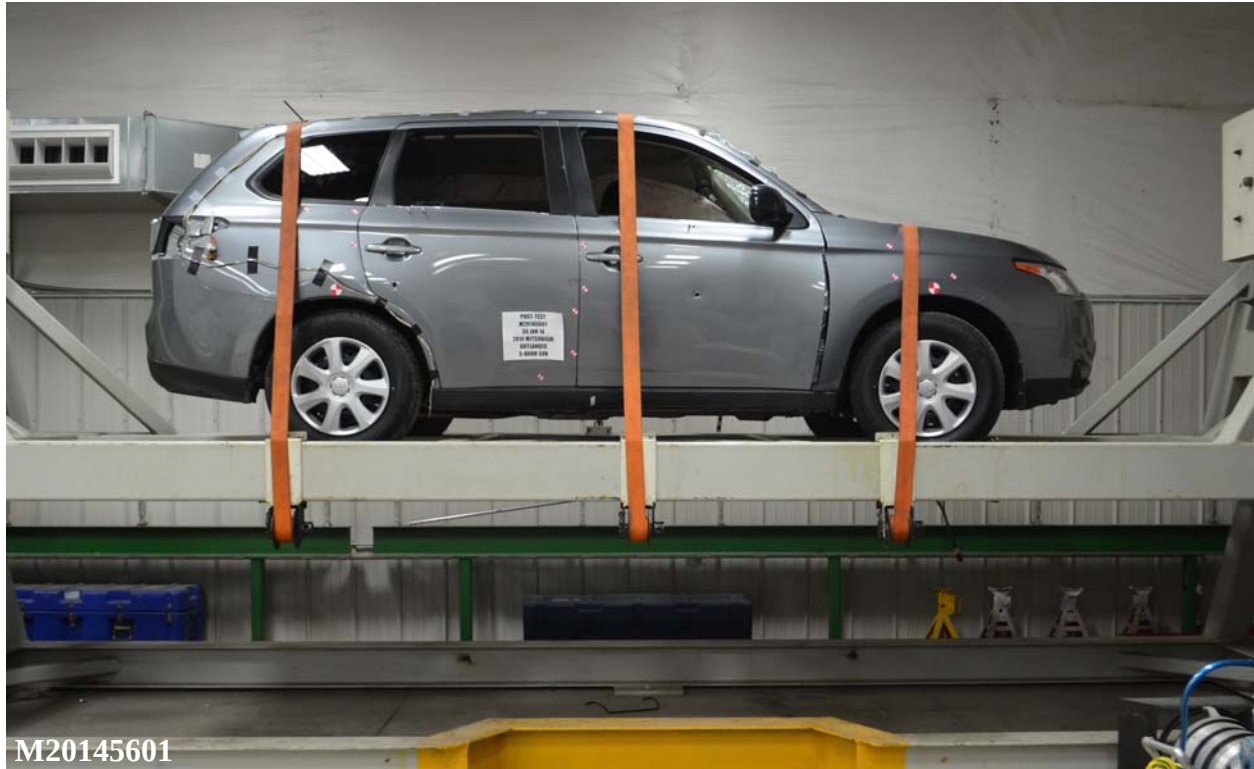


Figure 063: FMVSS No. 301 Static Rollover 0 Degrees



Figure 064: FMVSS No. 301 Static Rollover 90 Degrees



Figure 065: FMVSS No. 301 Static Rollover 180 Degrees



Figure 066: FMVSS No. 301 Static Rollover 270 Degrees

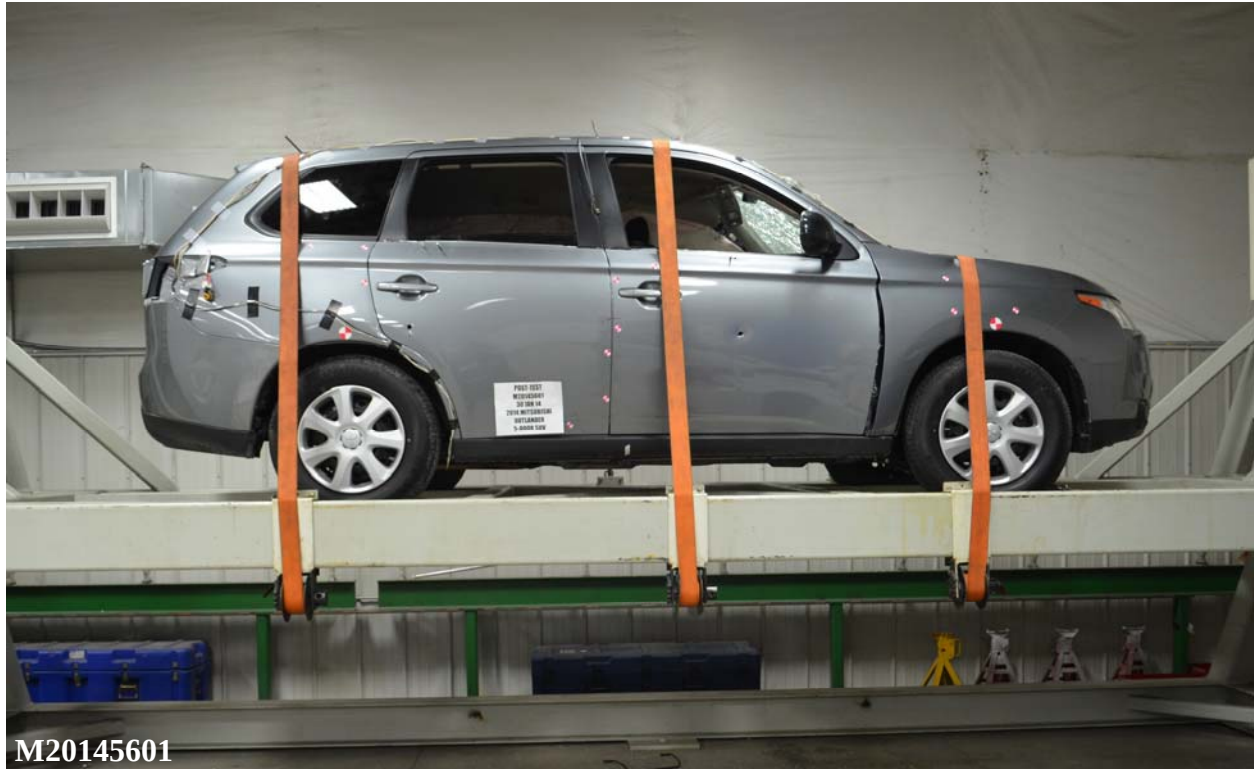


Figure 067: FMVSS No. 301 Static Rollover 360 Degrees



Figure 068: Impact Event



2014 OUTLANDER 2.4 ES 2WD
4-DOOR SUV
MERCURY GRAY / BLACK

2.4L 2000 cc I4 MIVEC
CONTINUOUSLY VARIABLE TRANSMISSION
50-STATE EMISSIONS STANDARD

MECHANICAL FEATURES

- ELECTRIC POWER STEERING
- CONTINUOUSLY VARIABLE TRANSMISSION

EXTERIOR FEATURES

- HALOGEN HEADLIGHTS
- AUTO-OFF HEADLIGHTS
- REAR COMBINATION TAIL LIGHTS
- COLOR-KEYED FRONT AND REAR BUMPER
- COLOR-KEYED OUTER DOOR HANDLES
- ROOF CARRIER PLUG-IN ACCOMMODATION
- FRONT GRILLE WITH CHROME ACCENTS
- HEATED SIDE-VIEW MIRRORS
- FRONT WINDSHIELD VARIABLE INTERMITTENT WIPERS
- REAR WINDOW INTERMITTENT WIPER
- REAR PRIVACY GLASS
- 16-INCH STEEL WHEELS WITH WHEEL COVERS

INTERIOR FEATURES

- DUAL-VISOR VANITY MIRRORS
- FRONT MAP LIGHTS
- CENTER DOME AND REAR CARGO LIGHTS
- 7-PASSENGER SEATING
- 60/40 SPLIT FOLD-DOWN REAR SEATS
- 50/50 3RD-ROW FLAT FOLD FEATURE
- AUTOMATIC CLIMATE CONTROL
- TILT / TELESCOPIC STEERING WHEEL
- GLOSS BLACK INSTRUMENT PANEL
- SOFT-TOUCH INTERIOR PANELS
- FLOOR MATS

CONVENIENCE FEATURES

- 160-WATT AM/FM/CD/MP3 AUDIO SYSTEM
- STEERING WHEEL MOUNTED CRUISE AND AUDIO CONTROLS
- REMOTE KEYLESS ENTRY
- ECO MODE SWITCH
- POWER DOOR LOCKS AND SIDE-VIEW MIRRORS
- 12-VOLT ACCESSORY OUTLETS (2)
- FLOOR CENTER CONSOLE BOX WITH ANTI-REAR AND CUP HOLDERS (2)
- REAR CENTER ARMREST W/ CUPHOLDERS
- 3RD-ROW CUPHOLDER AND STORAGE
- UNDERFLOOR CARGO AREA STORAGE

SAFETY & SECURITY FEATURES

- HILL START ASSIST (HSA)
- ANTI-LOCK BRAKING SYSTEM (ABS)
- 4G (IVE) STABILITY CONTROL (ASC)
- TRACTION CONTROL LOGIC (TCL)
- TIRE PRESSURE MONITORING SYSTEM
- SIDE CURTAIN AIRBAGS
- FRONT SEAT-MOUNTED SIDE AIRBAGS
- DRIVER'S KNEE AIRBAG
- ADVANCED DUAL-STAGE FRONT AIRBAGS
- 110-THEFT SECURITY ALARM SYSTEM
- KICK BODY CONSTRUCTION

Optional Equipment
FULL TANK OF GAS

INCLUDED

MSRP: \$22,995.00
Total Optional Equipment: \$0.00
Subtotal: \$22,995.00
Destination/Handling: \$825.00
Total MSRP: \$23,820.00

EPA DOT Fuel Economy and Environment

Fuel Economy

27 MPG combined city/hwy
25 city
31 highway
3.7 gallons per 100 miles

You Save \$1,750
in fuel costs over 5 years compared to the average new vehicle.

Annual fuel Cost \$1,950

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

1 7 10 Best

This vehicle emits 325 grams CO₂ per mile. The best emits 0 grams per mile (tailpipe only). Producing and distributing fuel also create emissions. Learn more at fuelconomy.gov

10-year 100,000-mile LIMITED POWERTRAIN WARRANTY

10"/100,000" 7"/100,000" 5"/60,000" 5"/UNLIMITED"

GOVERNMENT 5-STAR SAFETY RATINGS

This vehicle has not been rated by the government for overall vehicle score, frontal crash, side crash, or rollover risk.

Source: National Highway Traffic Safety Administration (NHTSA). www.safercar.gov or 1-888-327-4236

Parts Content Information

For vehicles in this carline:
U.S./Canadian Major Sources of Parts Content: 0% Foreign Parts Content: JAPAN 96%

For this vehicle:
Final Assembly Plant: OKAZAKI, JAPAN
Country of Origin: JAPAN
Engine: JAPAN
Transmission: JAPAN

Note: Parts content does not include final assembly, distribution, or other non-parts costs.

Ship To: (DBA) CLIFF WALL MITSUBISHI
1988 E. MASON STREET
GREEN BAY, WI 54302

Sold To: (Same unless indicated)

Method of Transport: RAIL
Parts/Port of Entry: TACOMA, WA

VIN: JAAAD2A38EZ008034
Route Code: RJ0

M20145601 Visit us at www.mitsubishicars.com

Figure 069: Monroney Label

Third row seat (Seating 7 passengers)

Third row seat (Seating 7 passengers)

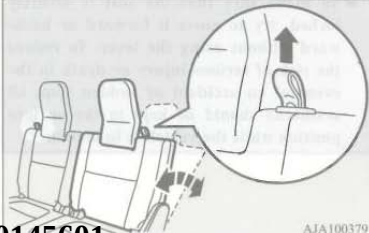
N00419501073

WARNING

4 The third row seats are intended for use by no more than two belted occupants, each of which does not exceed 160 cm (63 inches) in height. Exceeding these limitations can result in an increased risk of personal injury or death in the event of an accident.

To adjust the seatback

Pull up the strap and adjust the seatback by hand to the desired position, and release the strap.



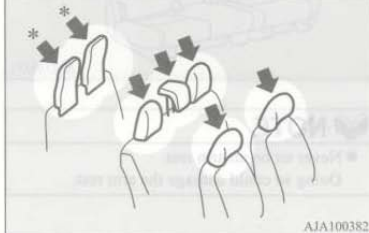
AJA100379

Head restraints

N00404301594

Head restraints can reduce the risk of a whiplash injury if your vehicle is hit from the rear. The head restraints are equipped in the illustrated position.

To maximize the effectiveness of the head restraints, adjust the seatback to the upright position, and the head restraint to the proper position. Sit back against the seatback with your head close to the head restraint.



AJA100382

*: Seating 7 passengers

WARNING

- Driving without the head restraints in place can cause you and your passengers serious injury or death in an accident. To reduce the risk of injury in an accident, always make sure the head restraints are installed and properly positioned when the seat is occupied.
- In order to minimize the risk of a neck injury due to a rear impact, the seatback must be adjusted to the upright position and the head restraint must be adjusted to the proper position before vehicle operation. The driver should never adjust the seat while the vehicle is in motion.
- Never place a cushion or similar device on the seatback. This can adversely affect head restraint performance by increasing the distance between your head and the restraint.

M20145601

Figure 070: Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

Test Vehicle: 2014 Mitsubishi Outlander 5-Door MPV
Test Program: SPNCAP

NHTSA Number: M20145601
Test Date: January 30, 2014

APPENDIX B
ATD AND VEHICLE RESPONSE DATA

The following plots are provided in the test report

Data Plot	Description	Page
1	Driver Head Acceleration (X) Redundant vs. Time	B-4
2	Driver Head Acceleration (Y) Primary vs. Time	B-5
3	Driver Head Acceleration (Z) Primary vs. Time	B-6
4	Driver Head Resultant Acceleration Primary vs. Time	B-7
5	Driver Lower Spine T ₁₂ Acceleration (X) vs. Time	B-8
6	Driver Lower Spine T ₁₂ Acceleration (Y) vs. Time	B-9
7	Driver Lower Spine T ₁₂ Acceleration (Z) vs. Time	B-10
8	Driver Lower Spine T ₁₂ Resultant Acceleration vs. Time	B-11
9	Driver Illiac Wing Force (Y) on Impact Side vs. Time	B-12
10	Driver Acetabulum Force (Y) on Impact Side vs. Time	B-13
11	Driver Total Pelvis Force (Y) on Impact Side vs. Time	B-14

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

Additional Driver Dummy Instrumentation Data

Driver Head Acceleration (X) Primary
Driver Head Acceleration (Y) Redundant
Driver Head Acceleration (Z) Redundant
Driver Upper Thorax Rib Deflection (Y)
Driver Middle Thorax Rib Deflection (Y)
Driver Lower Thorax Rib Deflection (Y)
Driver Upper abdomen rib deflection (Y)
Driver Lower abdomen rib deflection (Y)
Driver Shoulder Contact Switch
Driver Pelvis Contact Switch

Vehicle Instrumentation Data

Vehicle Center of Gravity Acceleration (X)
Vehicle Center of Gravity Acceleration (Y)
Vehicle Center of Gravity Acceleration (Z)
Vehicle Center of Gravity Angular Rate About X (Roll)
Vehicle Center of Gravity Angular Rate About Y (Pitch)
Vehicle Center of Gravity Angular Rate About Z (Yaw)
Left Floor Sill Acceleration (Y)
Left A-Pillar Sill Acceleration (Y)
Left Lower A-Pillar Acceleration (Y)
Left Middle A-Pillar Acceleration (Y)
Left B-Pillar Sill Acceleration (Y)
Left Lower B-Pillar Acceleration (Y)
Left Middle B-Pillar Acceleration (Y)
Driver Seat Track at Dummy H-Point Acceleration (Y)
Engine Top Acceleration (X)
Engine Top Acceleration (Y)
Firewall Center Acceleration (Y)
Right Roof at Vertical Impact Reference Line Acceleration (Y)
Right Sill at Vertical Impact Reference Line Acceleration (Y)
Rear Floorpan Behind Rear Axle at Centerline Acceleration (X)
Rear Floorpan Behind Rear Axle at Centerline Acceleration (Y)

Pole Instrumentation Data

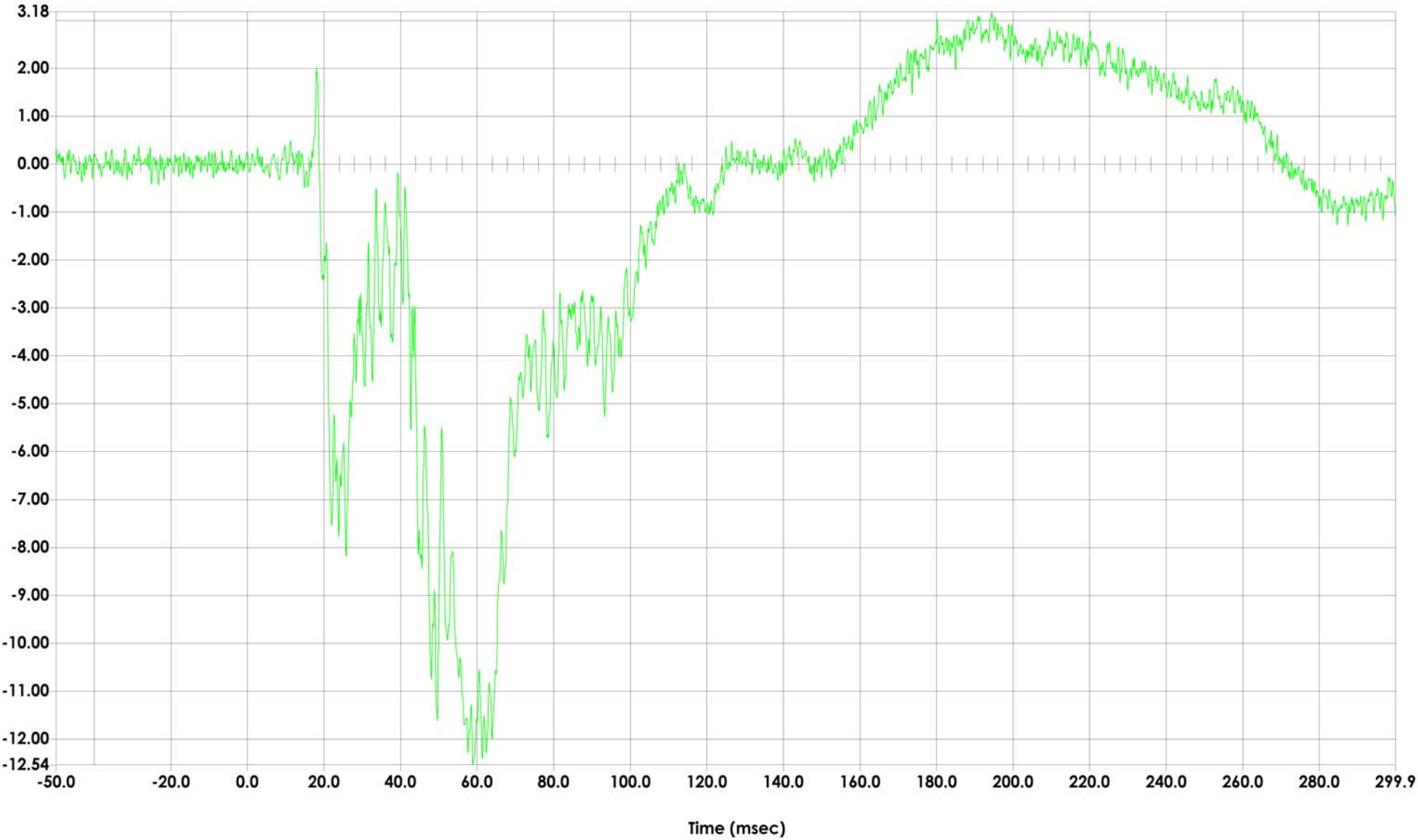
Load Cell Pole Barrier #1 Force (Y)
Load Cell Pole Barrier #2 Force (Y)
Load Cell Pole Barrier #3 Force (Y)
Load Cell Pole Barrier #4 Force (Y)
Load Cell Pole Barrier #5 Force (Y)
Load Cell Pole Barrier #6 Force (Y)
Load Cell Pole Barrier #7 Force (Y)
Load Cell Pole Barrier #8 Force (Y)

Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC1000
Plot number	001
Units	G'S

Max	3.18	G'S
	194.40	msec
Min	-12.54	G'S
	58.88	msec



Head Acceleration (X) Primary vs. Time

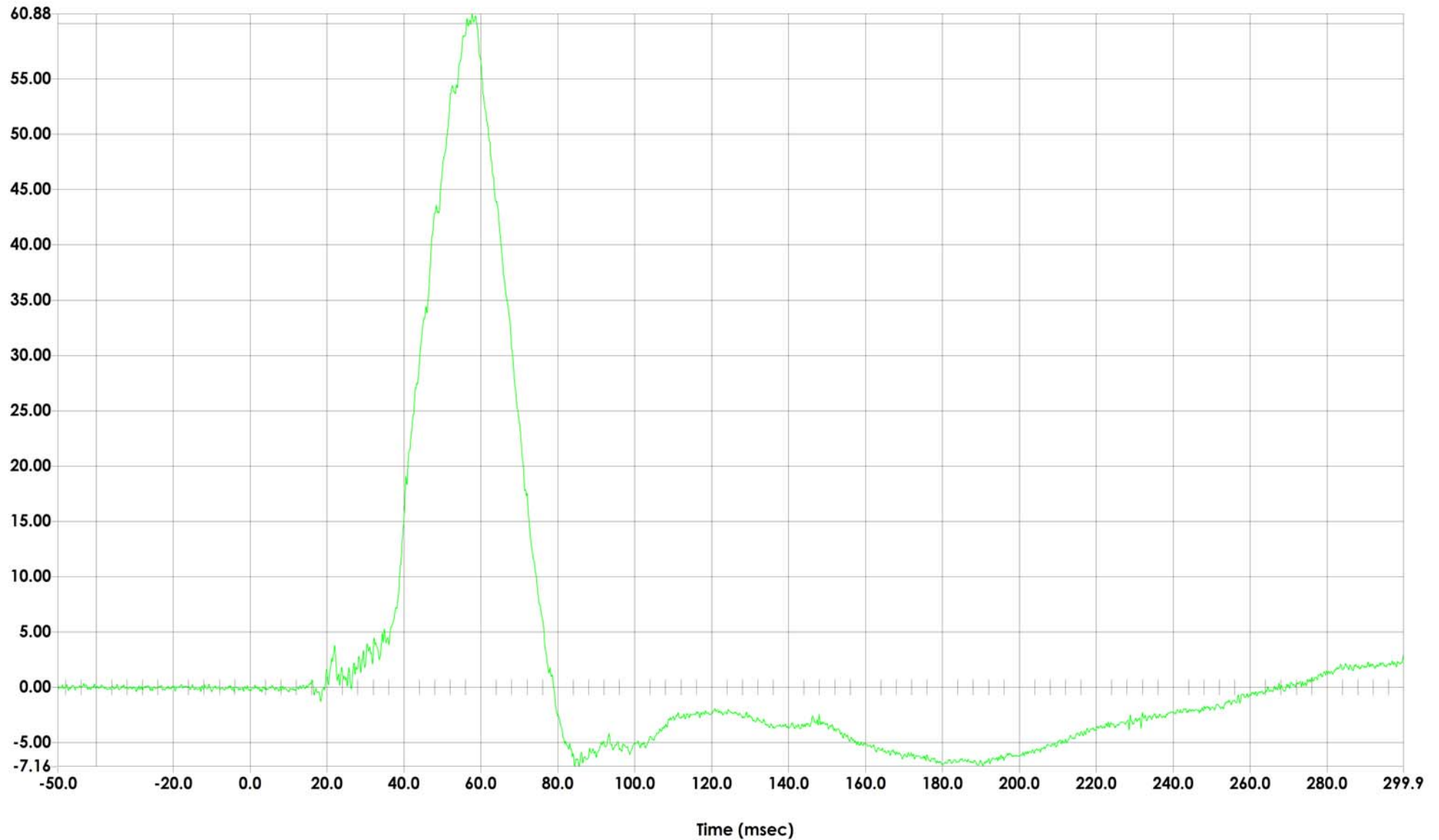


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC1000
Plot number	002
Units	G'S

Max	60.88	G'S
	57.68	msec
Min	-7.16	G'S
	84.40	msec



Head Acceleration (Y) Primary vs. Time

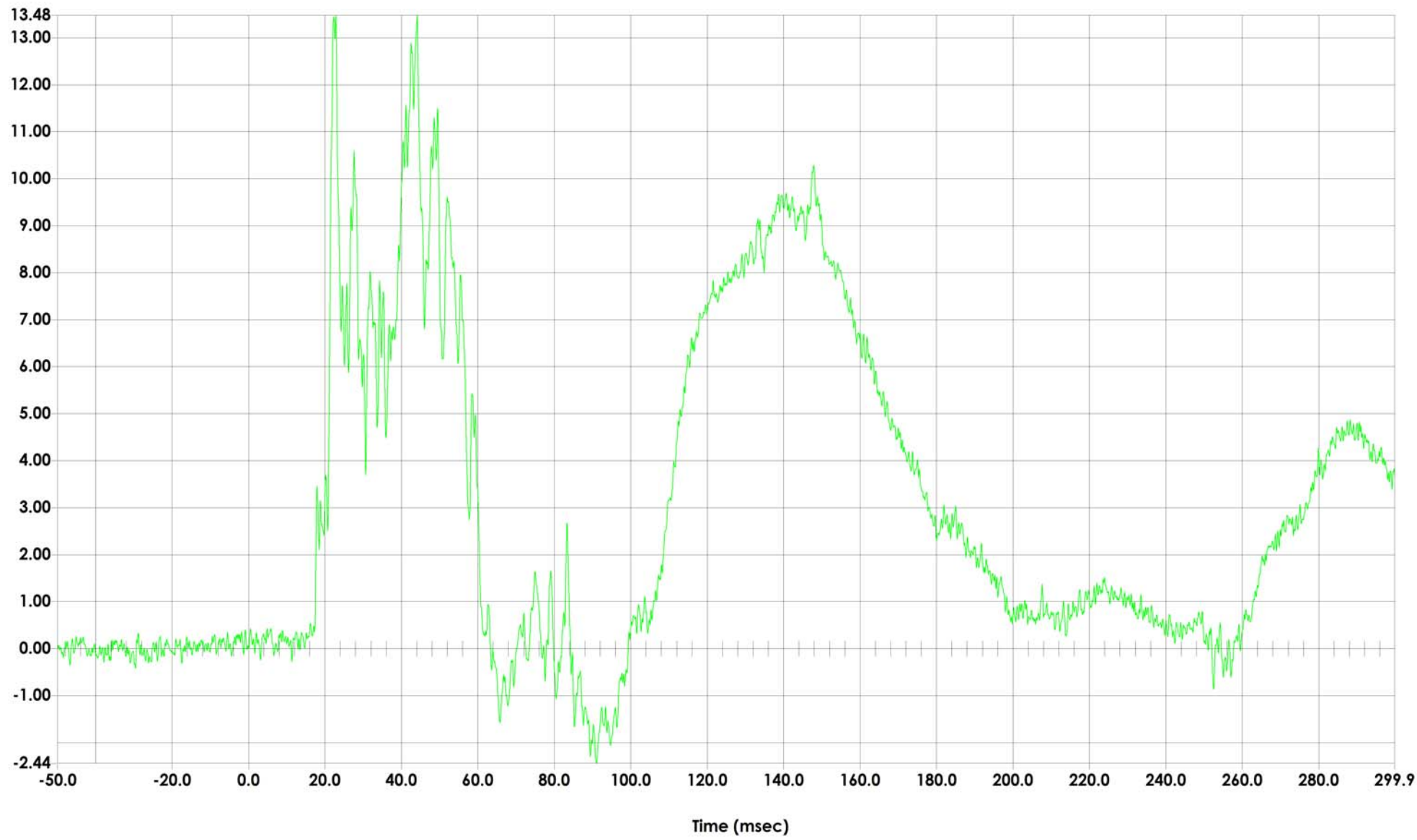


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC1000
Plot number	003
Units	G'S

Max	13.48	G'S
	44.08	msec
Min	-2.44	G'S
	91.04	msec



Head Acceleration (Z) Primary vs. Time

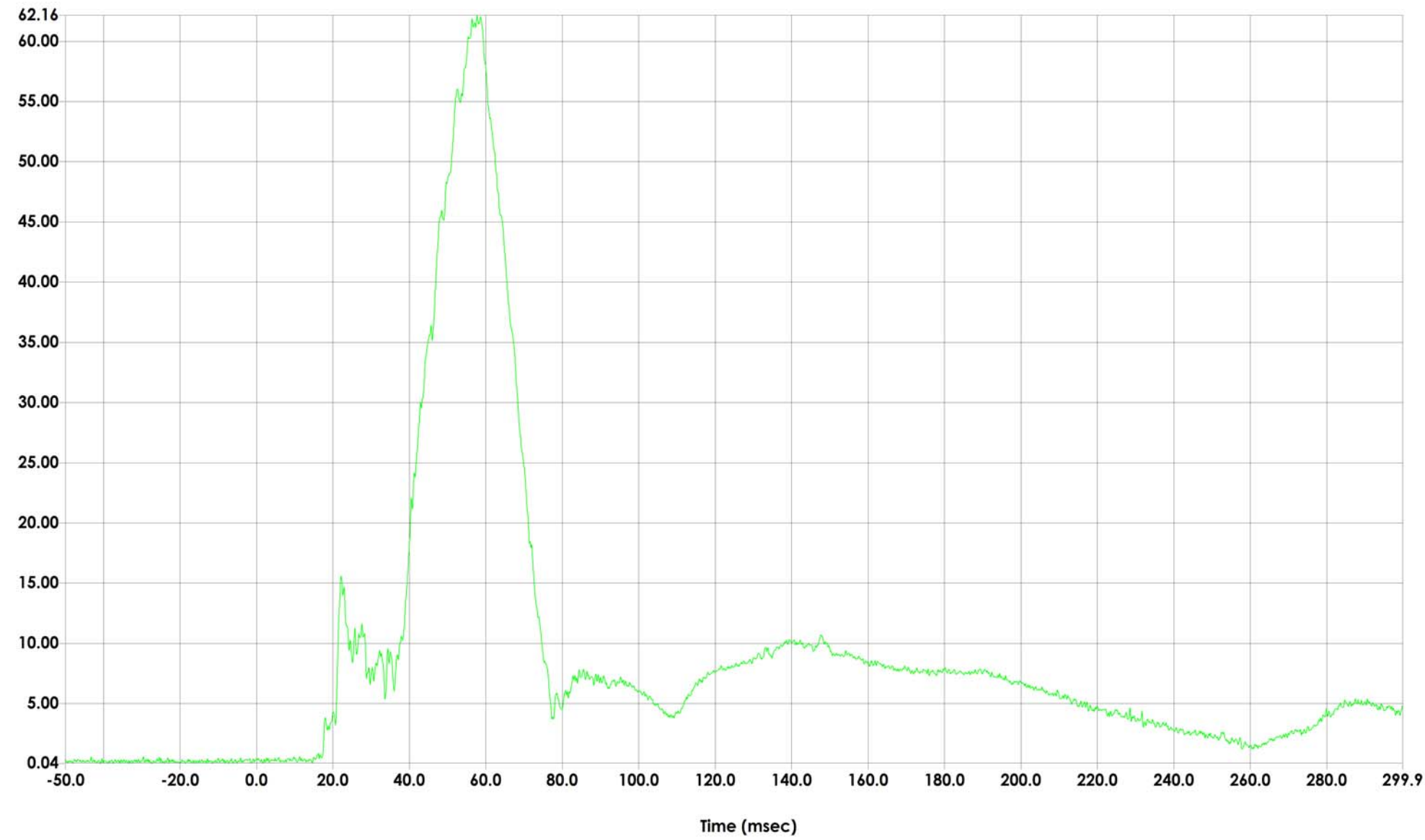


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC1000
Plot number	043
Units	G'S

Max	62.16	G'S
	57.68	msec
Min	0.04	G'S
	-39.04	msec



Driver Head Resultant Acceleration Primary vs. Time



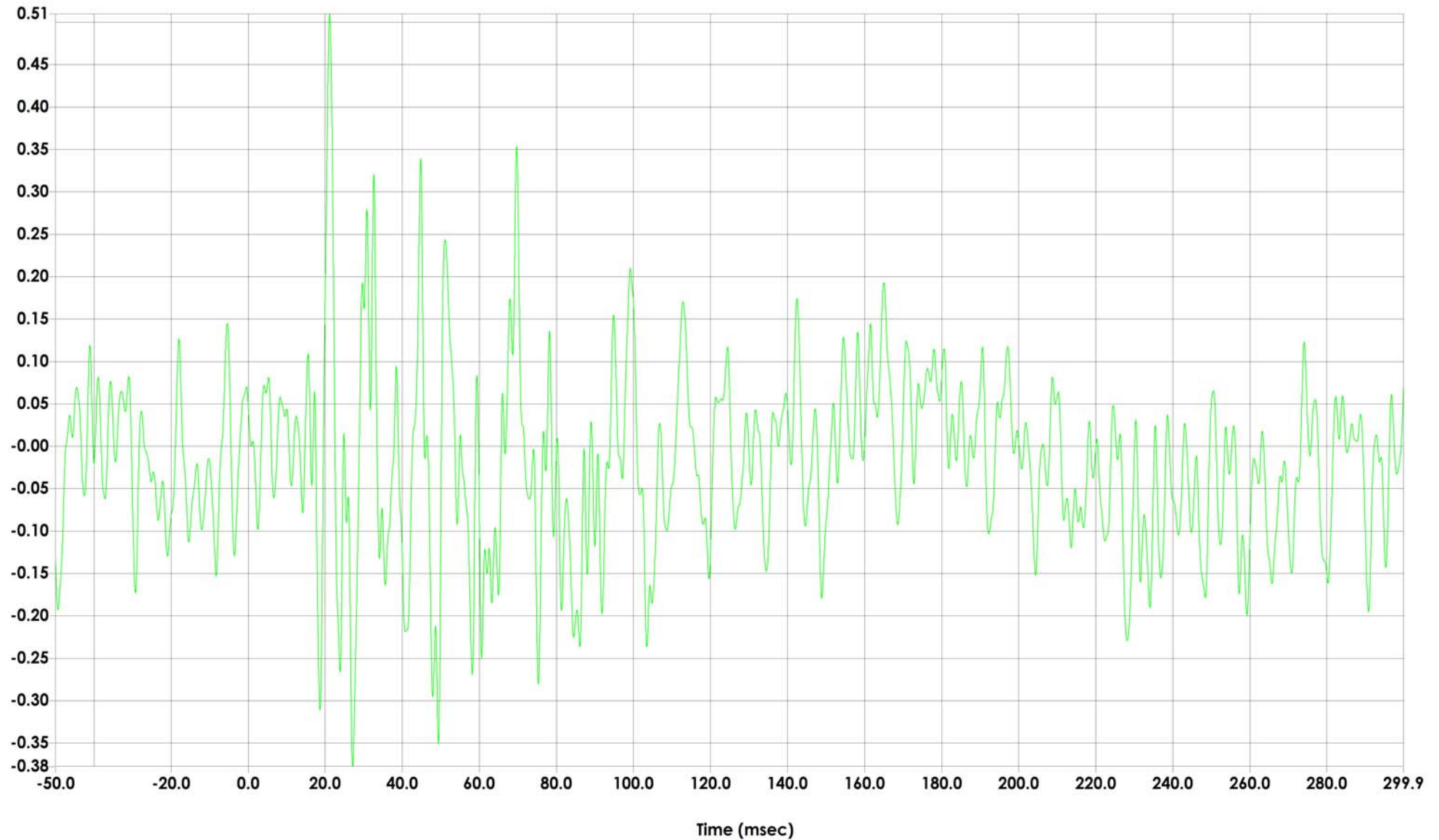
Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC180
Plot number	012
Units	G'S

Max	0.51	G'S
	21.12	msec
Min	-0.38	G'S
	27.12	msec



Questionable Data

Lower Spine T12 Acceleration (X) vs. Time

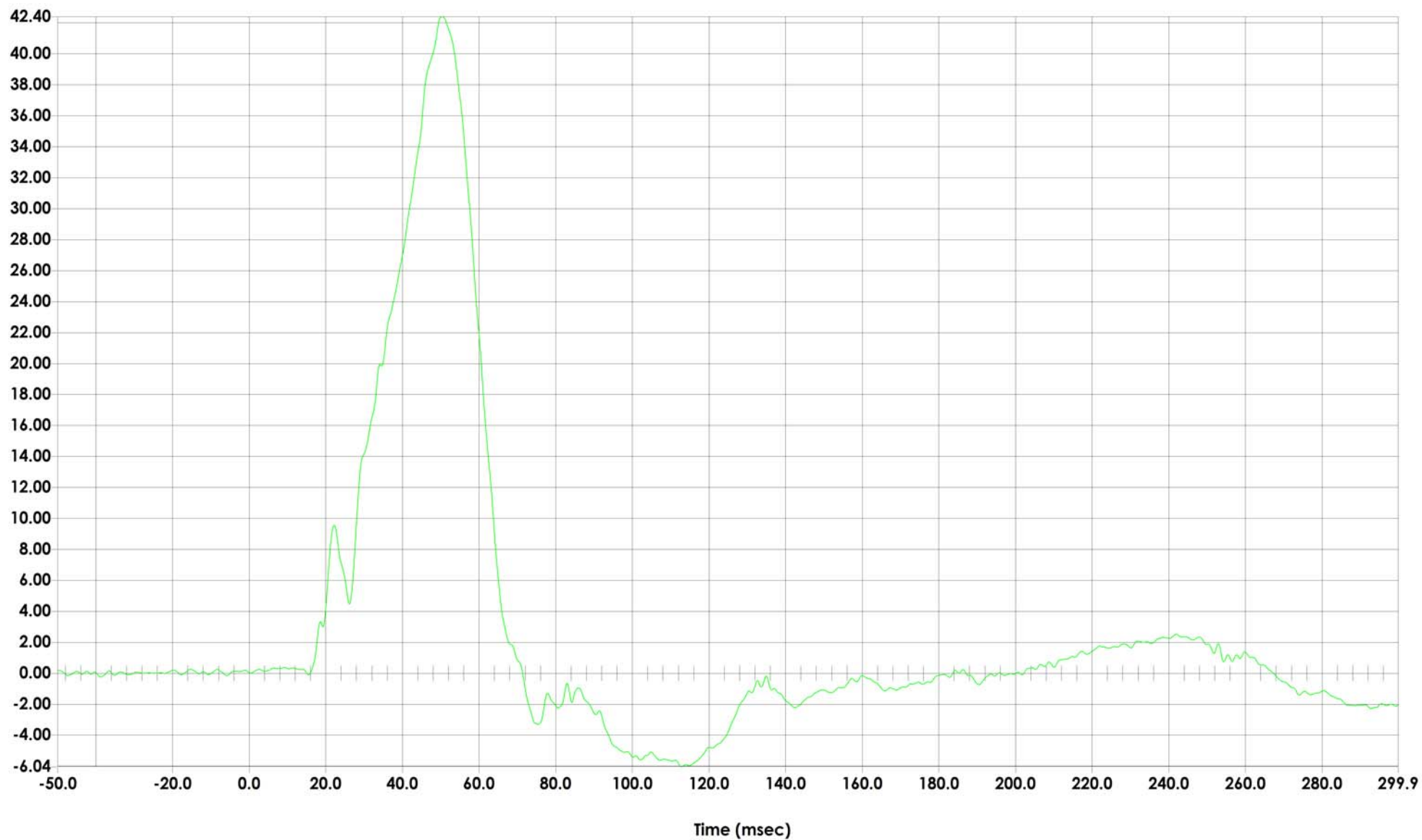


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC180
Plot number	013
Units	G'S

Max	42.40	G'S
	50.40	msec
Min	-6.04	G'S
	112.72	msec



Lower Spine T12 Acceleration (Y) vs. Time

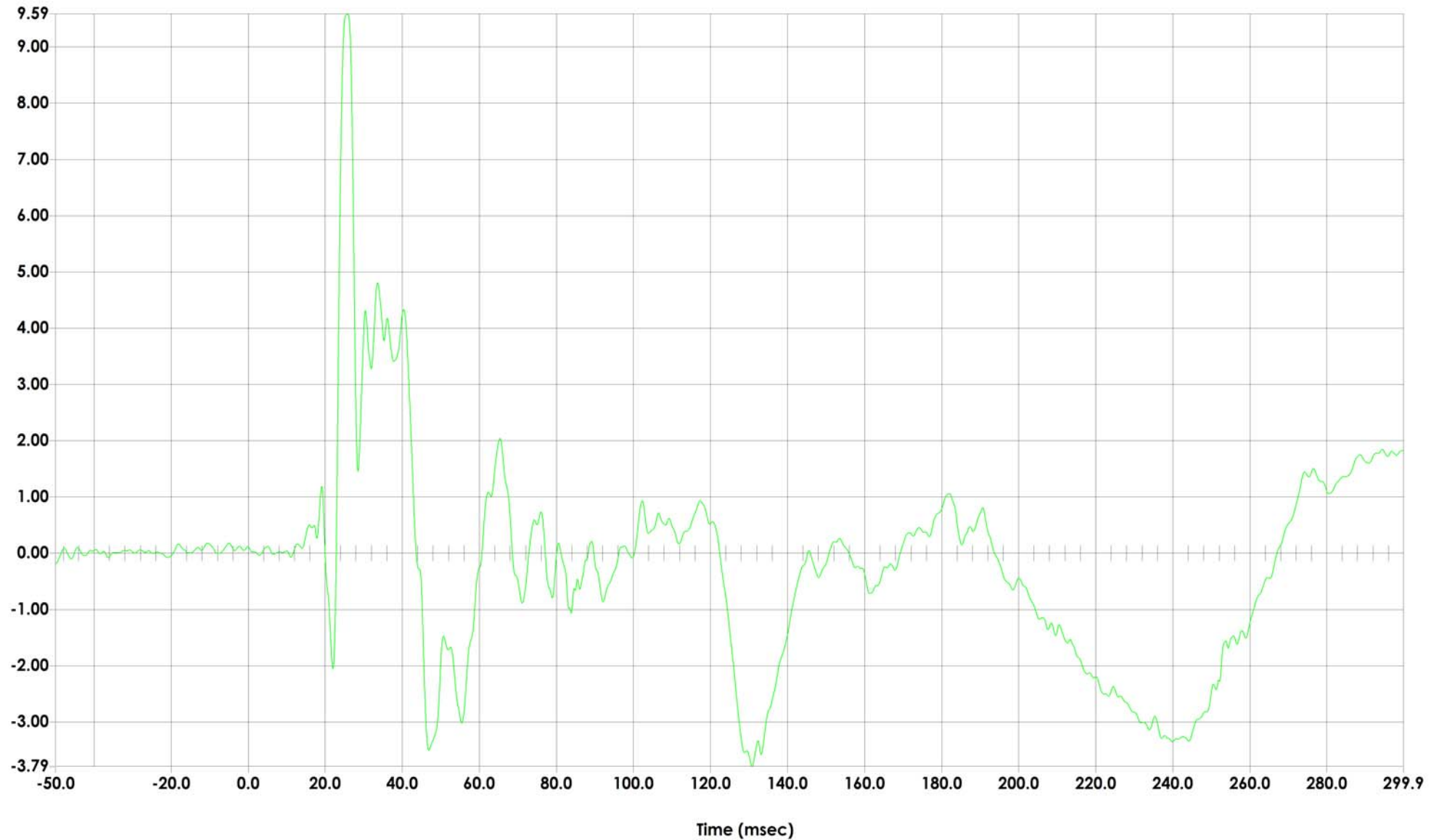


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC180
Plot number	014
Units	G'S

Max	9.59	G'S
	25.60	msec
Min	-3.79	G'S
	130.80	msec



Lower Spine T12 Acceleration (Z) vs. Time



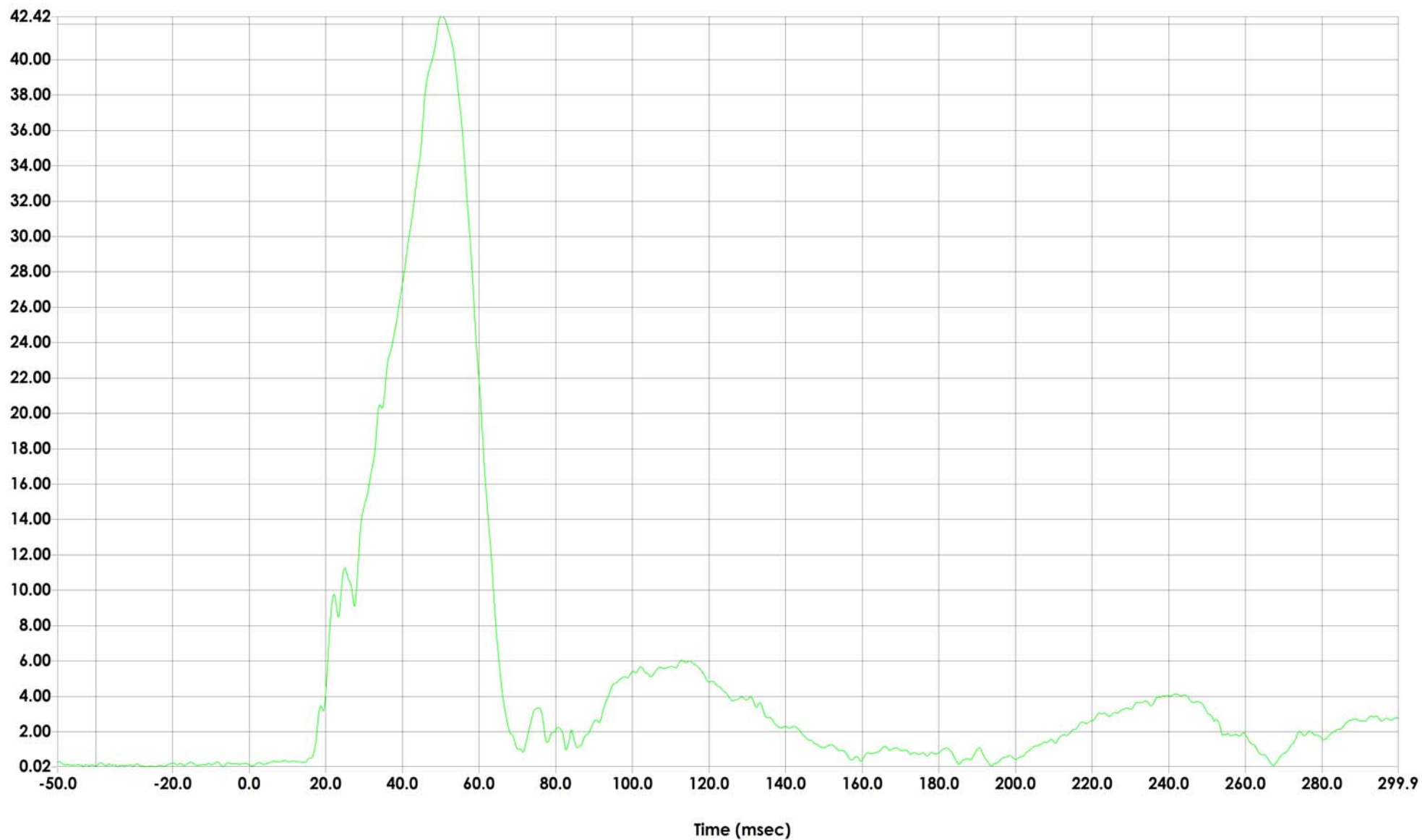
Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC180
Plot number	044
Units	G'S

Max	42.42	G'S
	50.32	msec
Min	0.02	G'S
	-34.32	msec



Questionable (X) Data

Driver Lower Spine T12 Resultant Acceleration vs. Time

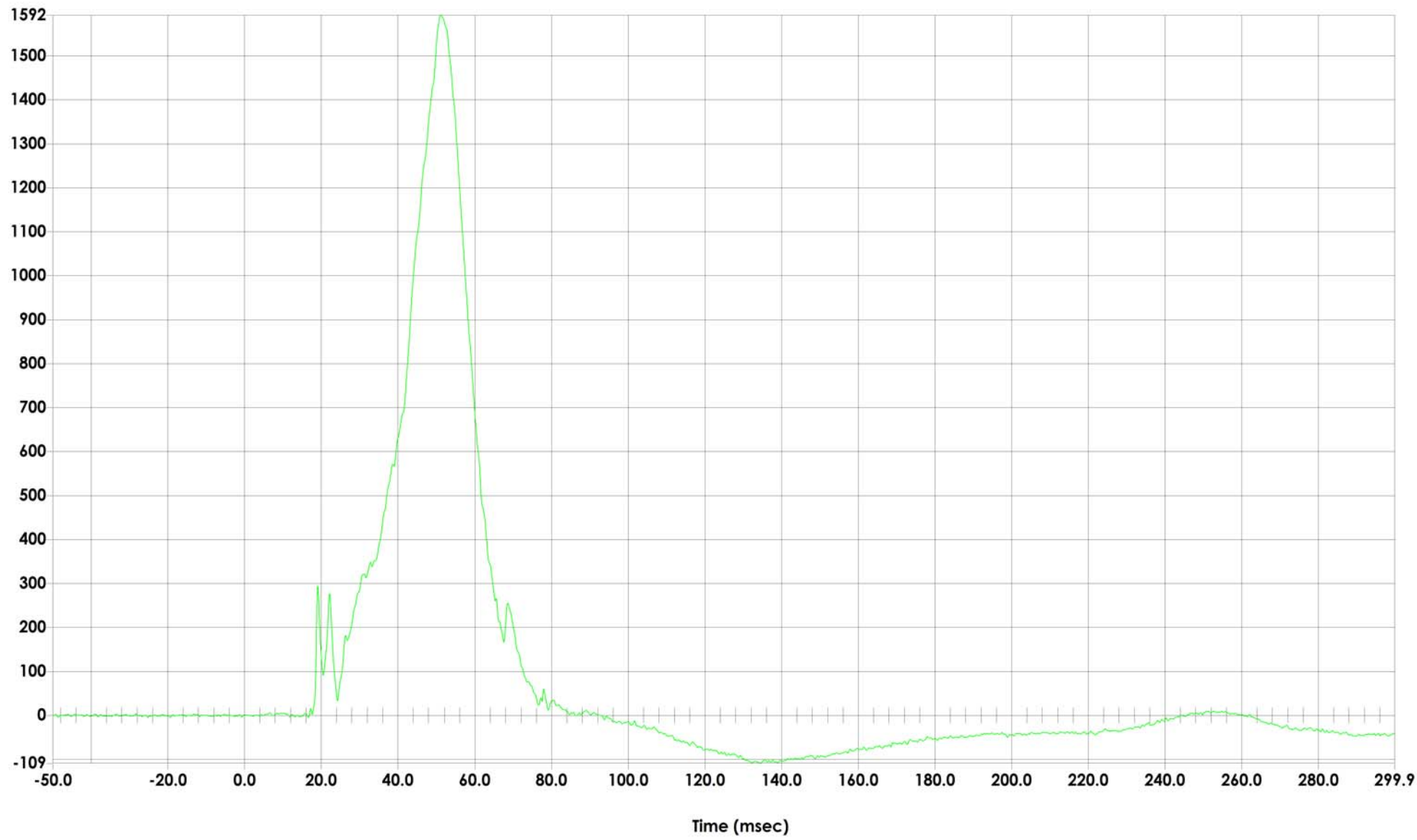


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC600
Plot number	015
Units	NWT

Max	1592.29	NWT
	51.12	msec
Min	-109.08	NWT
	134.48	msec



Iliac Wing Force on Impact Side (Y) vs. Time

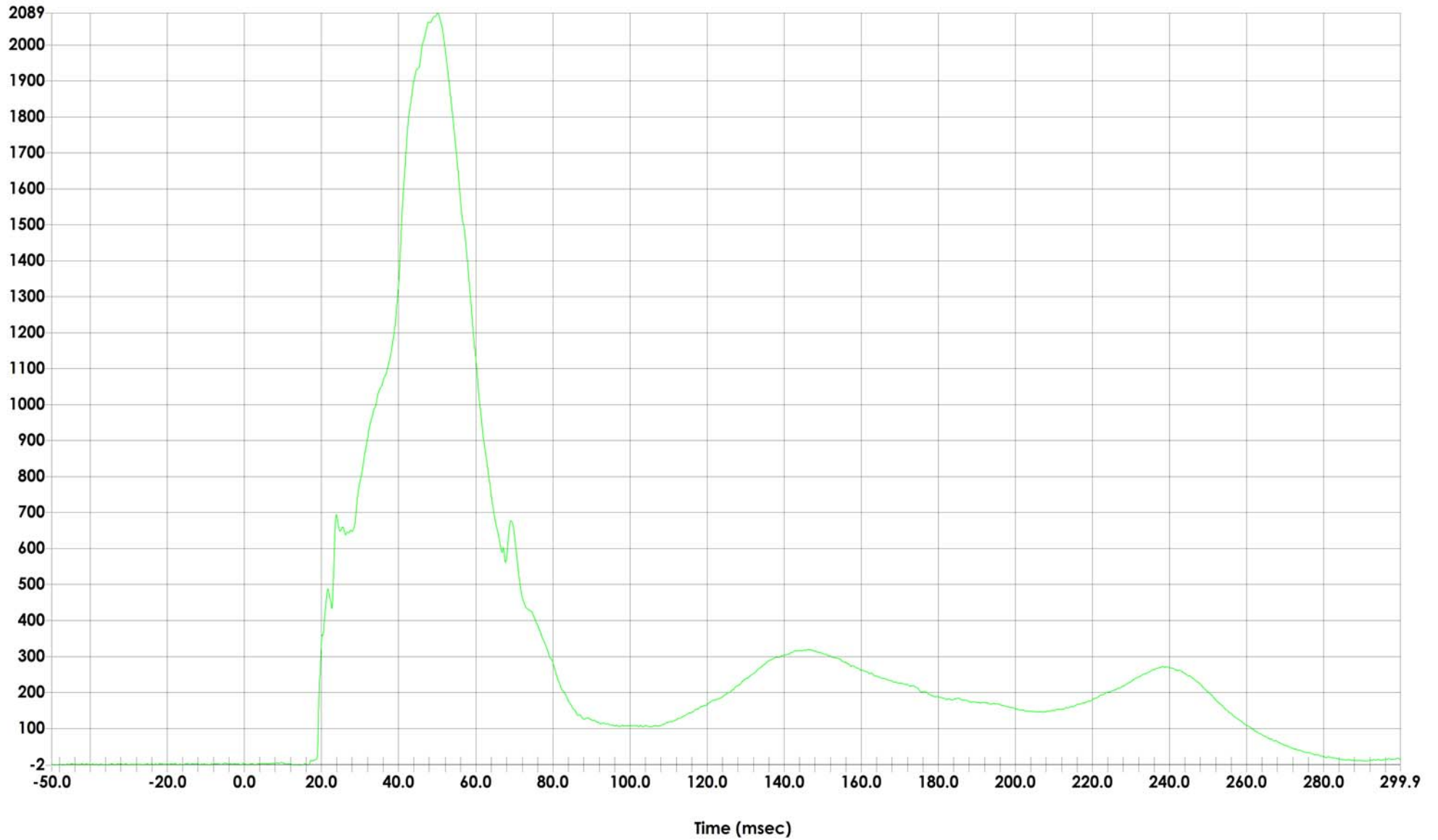


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC600
Plot number	016
Units	NWT

Max	2088.59	NWT
	50.16	msec
Min	-2.23	NWT
	14.24	msec



Acetabulum Force on Impact Side (Y) vs. Time

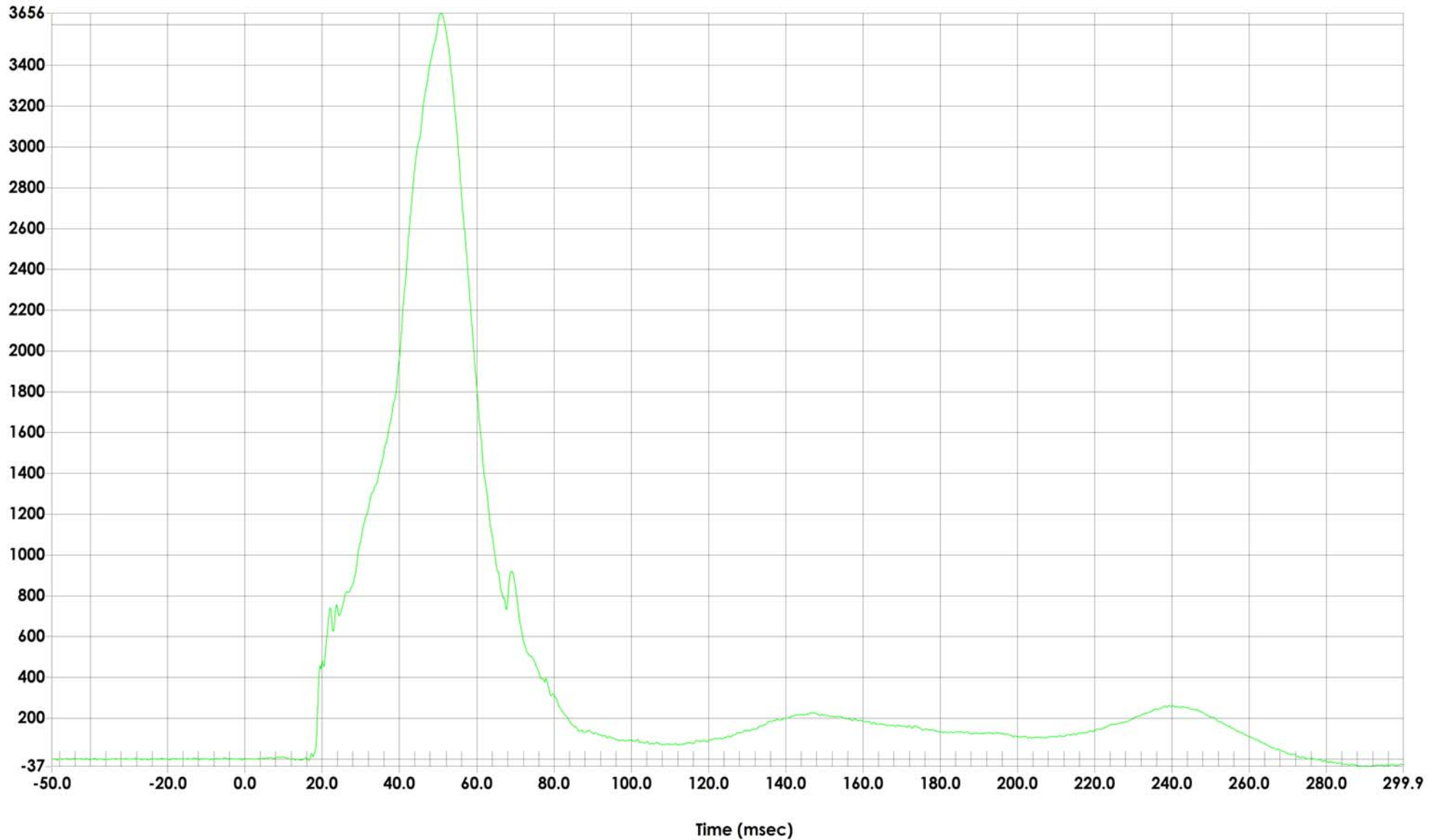


Test ID	M20145601
Sampling Rate (Hz)	12500
Filter	CFC600
Plot number	045
Units	NWT

Max	3655.63	NWT
	50.80	msec
Min	-36.65	NWT
	289.60	msec



Driver Total Pelvis Force on Impact Side (Y) vs. Time



Test Vehicle: 2014 Mitsubishi Outlander 5-Door MPV
Test Program: SPNCAP

NHTSA Number: M20145601
Test Date: January 30, 2014

APPENDIX C
DUMMY CONFIGURATION AND PERFORMANCE DATA

TABLE 1
EXTERNAL MEASUREMENTS

SIDIIs Serial Number 301

Test Sequences

6 & 7

TEST PARAMETER	SPEC.	PRE		POST	
Date	-	12-22-13		2-5-14	
Sequential Test Number	-	6		7	
		Result	Pass/Fail	Result	Pass/Fail
Temperature (°C)	20.6-22.2	21.4	Pass	21.9	Pass
Relative Humidity (%)	10-70	26.6	Pass	29.1	Pass
Sitting Height	772 – 788	778	Pass	782	Pass
Shoulder Pivot Height	437 – 453	446	Pass	450	Pass
H-Point Height	79 – 89	85	Pass	85	Pass
H-Point from Seat Back	141 – 151	149	Pass	148	Pass
Shoulder Pivot from Backline	97 – 107	100	Pass	100	Pass
Thigh Clearance	119 – 135	125	Pass	126	Pass
Head Breadth	140 – 148	142	Pass	141	Pass
Head Back from Backline	40 – 46	42	Pass	42	Pass
Head Depth	178 – 188	182	Pass	181	Pass
Head Circumference	541 – 551	543	Pass	545	Pass
Buttock to Knee Length	514 – 540	524	Pass	524	Pass
Popliteal Height	343 – 369	355	Pass	355	Pass
Knee Pivot to Floor Height	392 – 409	406	Pass	406	Pass
Buttock Popliteal Length	416 – 442	430	Pass	430	Pass
Chest Depth w/o Jacket	195 – 211	206	Pass	205	Pass
Foot Length	216 – 232	226	Pass	226	Pass
Hip Breadth	313 – 323	320	Pass	320	Pass
Arm Length	249 – 259	255	Pass	255	Pass
Knee Joint to Seat Back	477 – 493	490	Pass	490	Pass
Shoulder Width	341 – 357	344	Pass	345	Pass
Foot Width	78 – 94	88	Pass	88	Pass
Chest Circumference w/Jacket	851 – 881	856	Pass	855	Pass
Waist Circumference	761 – 791	775	Pass	775	Pass

TABLE 2
HEAD DROP TEST

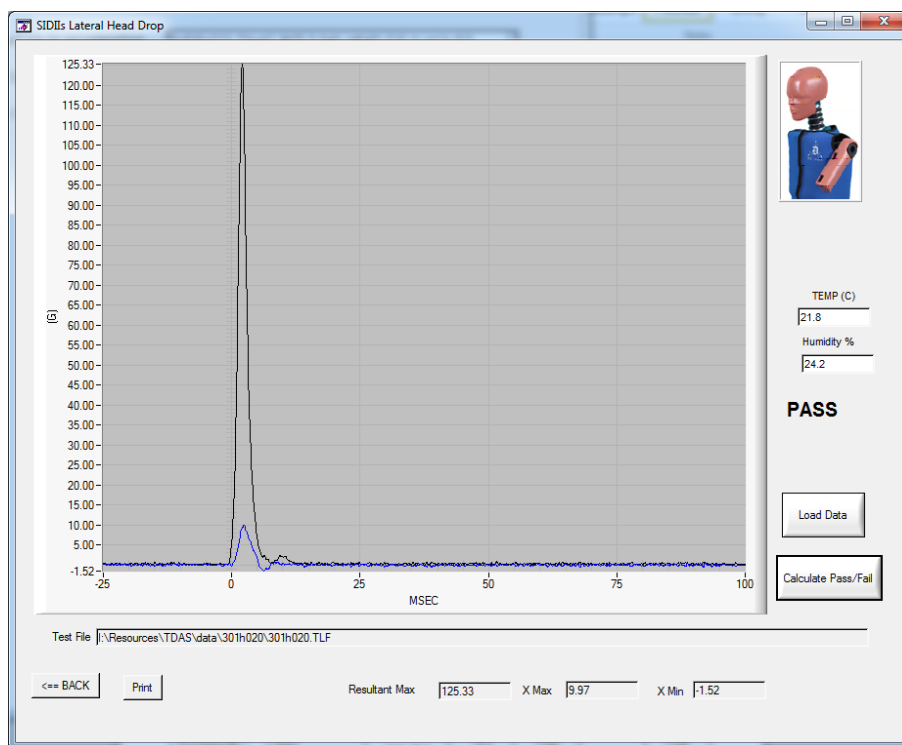
SIDIIs Serial Number 301

Test Sequences 6 & 7

TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-20-13		2-3-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Head Soak Time (min)		≥ 240	240	Pass	240	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	22.0	Pass	20.8	Pass
	Min		21.8	Pass	20.6	Pass
Humidity(%) – During Soak	Max	10.0-70.0	24.2	Pass	21.1	Pass
	Min		22.7	Pass	13.5	Pass
Temperature – During Test (°C)		20.6-22.2	21.8	Pass	20.8	Pass
Humidity – During Test (%)		10-70	24.2	Pass	21.1	Pass
Peak Head Resultant Acceleration (G)		115-137	125.3	Pass	127.5	Pass
Peak Head X Acceleration (G)		<15	10.0	Pass	10.9	Pass
Unimodal (Oscillation) (Yes/No)		<15%	-	Yes	-	Yes

TABLE 2
HEAD DROP TEST (CONTINUED)

PRE-TEST



POST-TEST

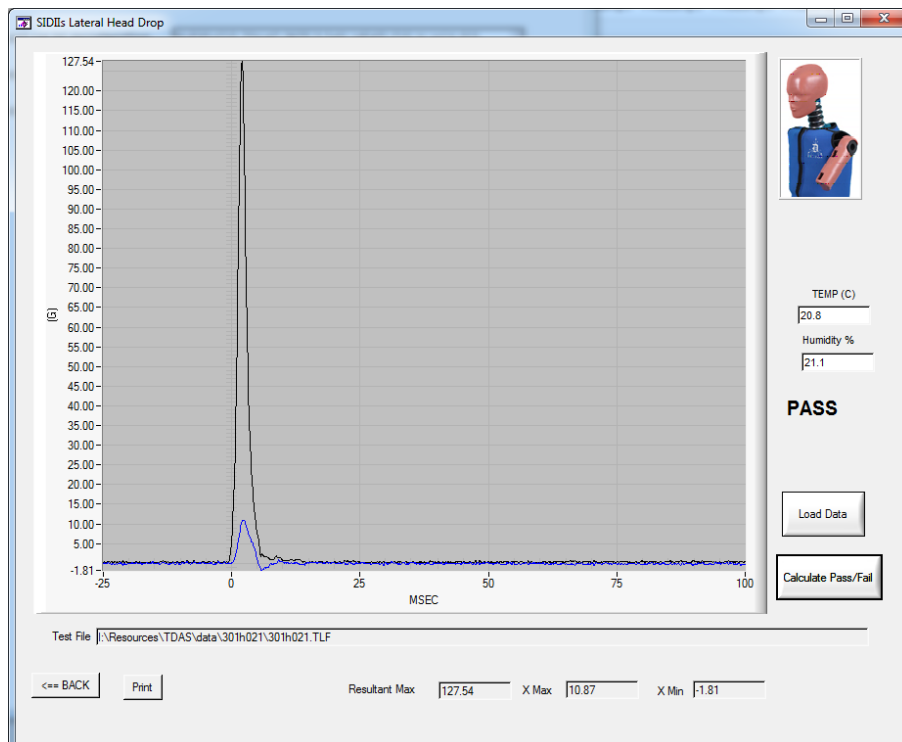
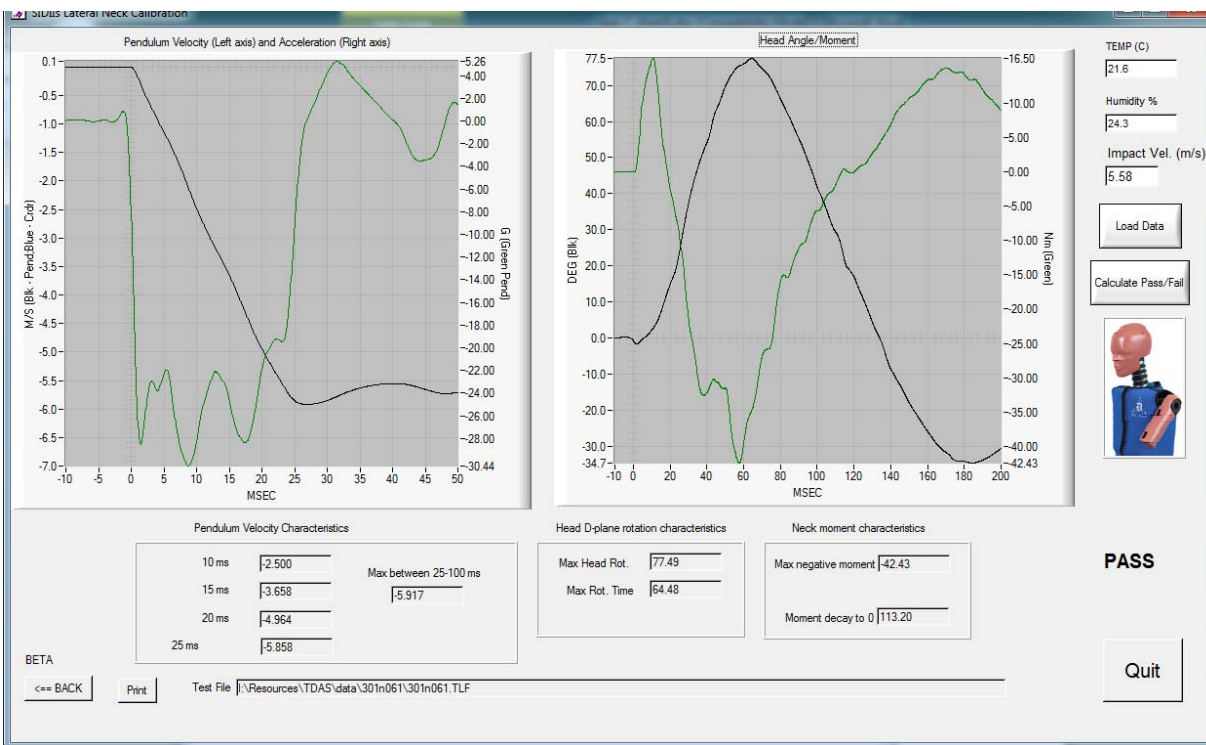


TABLE 3
LATERAL NECK PENDULUM TEST

SIDIIs Serial Number		301	Test Sequences		6 & 7	
TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-20-13		2-4-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Neck Assembly Soak Time (min)		≥ 240	240	Pass	240	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	22.0	Pass	21.5	Pass
	Min		21.6	Pass	20.6	Pass
Humidity(%) – During Soak	Max	10.0-70.0	24.3	Pass	26.5	Pass
	Min		22.7	Pass	23.1	Pass
Temperature – During Test (°C)		20.6-22.2	21.6	Pass	21.5	Pass
Humidity – During Test (%)		10-70	24.3	Pass	26.5	Pass
Pendulum Velocity (m/s)		5.51-5.63	5.6	Pass	5.6	Pass
Pendulum Deceleration (G)	10 ms	2.20-2.80	2.5	Pass	2.7	Pass
	15 ms	3.30-4.10	3.7	Pass	3.9	Pass
	20 ms	4.40-5.40	5.0	Pass	5.2	Pass
	25 ms	5.40-6.10	5.9	Pass	5.9	Pass
	25-100 ms	5.50-6.20	5.9	Pass	5.9	Pass
Maximum D-Plane rotation (deg)		71-81	77.5	Pass	72.5	Pass
Time of Maximum D-Plane Rotation (ms)		50-70	64.5	Pass	61.8	Pass
Peak Occ. Condyle Moment (Nm)		36-44	42.4	Pass	40.3	Pass
Time of Moment Decay (ms)		102-126	113.2	Pass	120.8	Pass

TABLE 3
LATERAL NECK PENDULUM TEST (CONTINUED)

PRE-TEST



POST-TEST

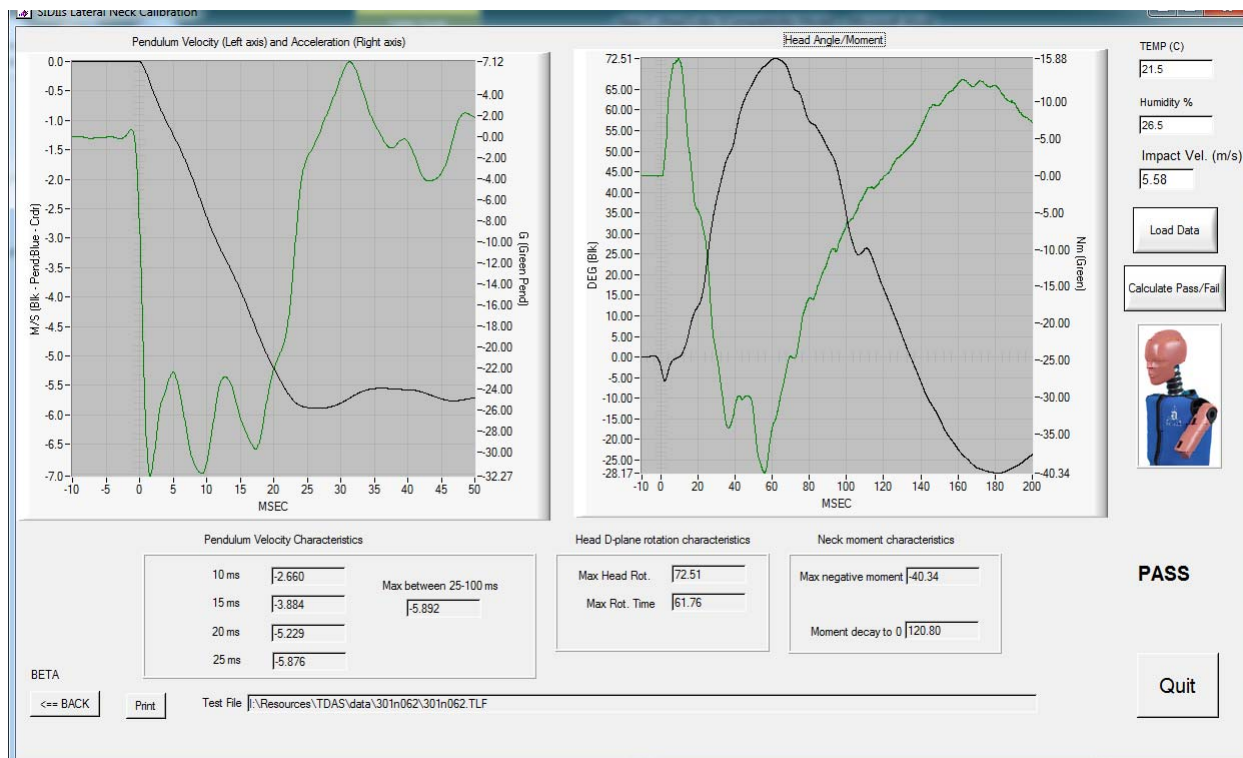


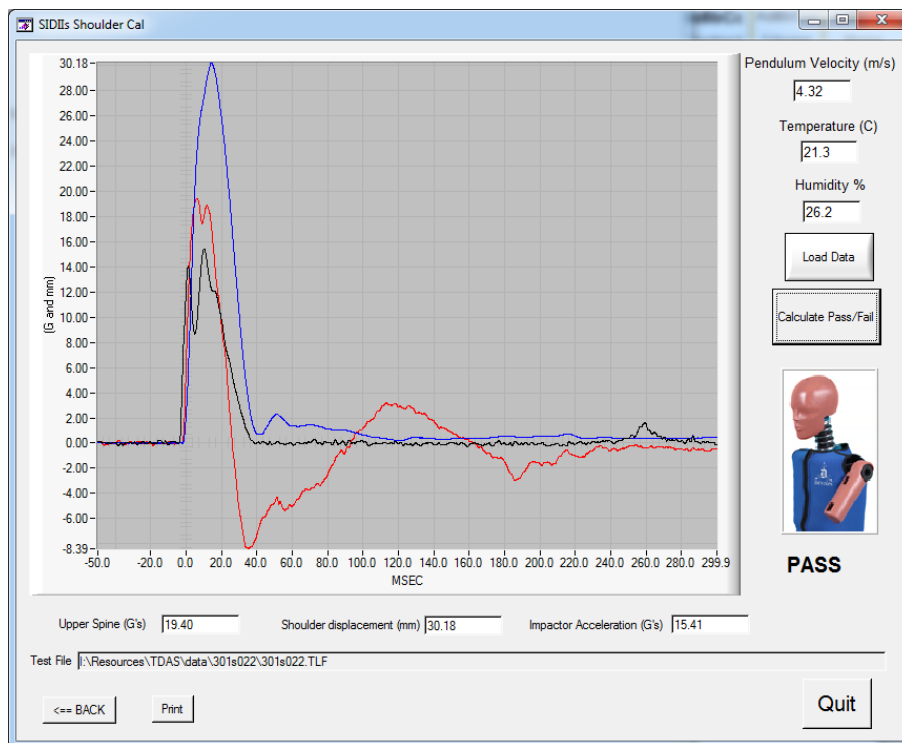
TABLE 4
SHOULDER IMPACT TEST

SIDIIs Serial Number 301 Test Sequences 6 & 7

TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-22-13		2-5-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Dummy Soak Time (min)		≥ 180	180	Pass	180	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	21.3	Pass	22.0	Pass
	Min		21.0	Pass	20.7	Pass
Humidity(%) – During Soak	Max	10.0-70.0	26.2	Pass	25.8	Pass
	Min		22.9	Pass	15.3	Pass
Temperature – During Test (°C)		20.6-22.2	21.3	Pass	22.0	Pass
Relative Humidity – During Test (%)		10-70	26.2	Pass	25.8	Pass
Impactor Velocity (m/s)		4.2-4.4	4.3	Pass	4.3	Pass
Peak Shoulder Deflection (mm)		28-37	30.2	Pass	30.4	Pass
Peak Lateral Spine (T1) Acceleration Y (G)		17-22	19.4	Pass	19.4	Pass
Peak Impactor Acceleration (G)		13-18	15.4	Pass	15.0	Pass

TABLE 4
SHOULDER IMPACT TEST (CONTINUED)

PRE-TEST



POST-TEST

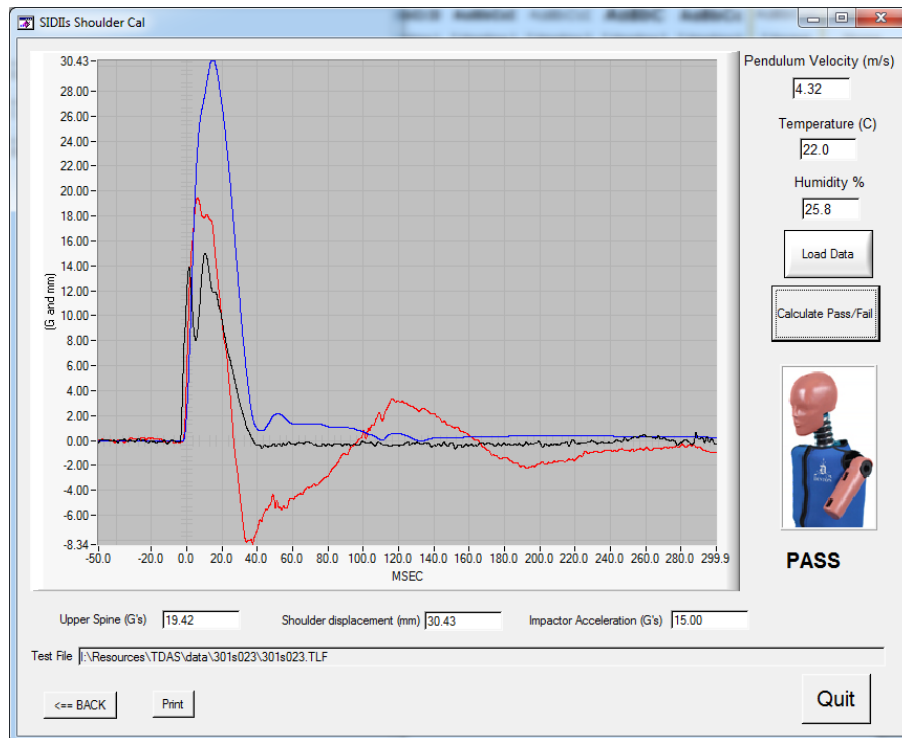


TABLE 5
THORAX (WITH ARM) IMPACT TEST

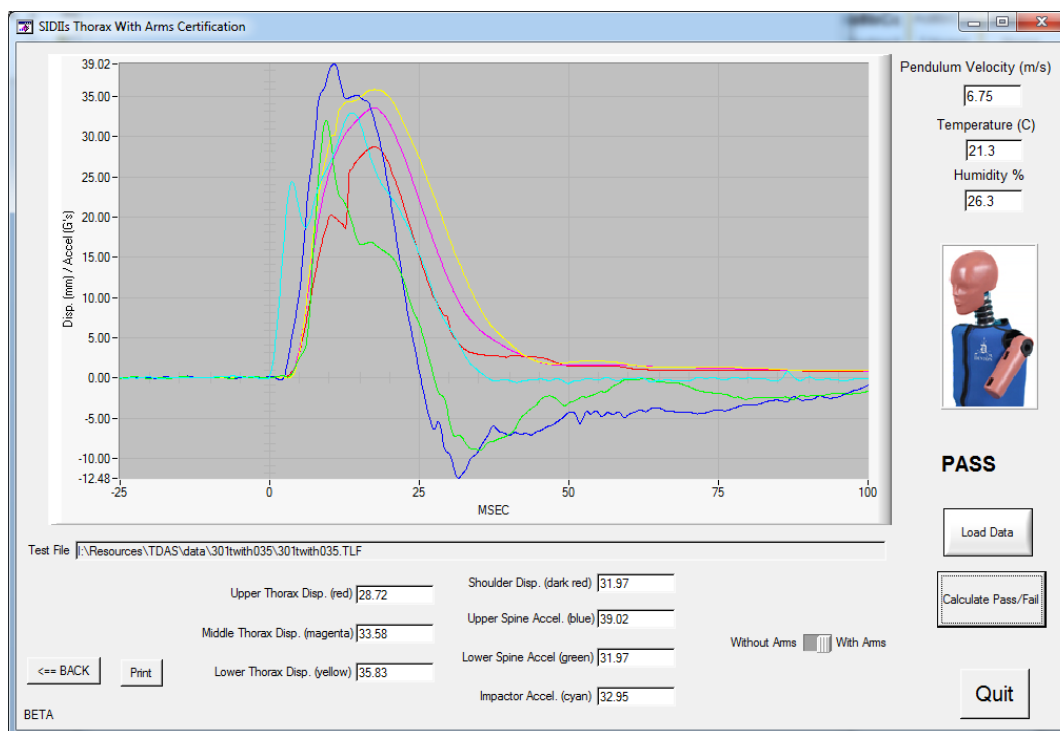
SIDIIs Serial Number 301

Test Sequences

6 & 7

TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-22-13		2-5-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Dummy Soak Time (min)		≥ 180	180	Pass	180	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	21.3	Pass	22.0	Pass
	Min		21.0	Pass	20.7	Pass
Humidity(%) – During Soak	Max	10.0-70.0	26.3	Pass	25.9	Pass
	Min		22.9	Pass	15.3	Pass
Temperature – During Test (°C)		20.6-22.2	21.3	Pass	22.0	Pass
Relative Humidity – During Test (%)		10-70	26.3	Pass	25.9	Pass
Impactor Velocity (m/s)		6.6-6.8	6.7	Pass	6.7	Pass
Peak Shoulder Deflection (mm)		31-40	32.0	Pass	31.1	Pass
Peak Upper Rib Deflection (mm)		25-32	28.7	Pass	28.7	Pass
Peak Middle Rib Deflection (mm)		30-36	33.6	Pass	33.0	Pass
Peak Lower Rib Deflection (mm)		32-38	35.8	Pass	34.2	Pass
Peak Upper Spine (T1) Acceleration Y (G)		34-43	39.0	Pass	38.9	Pass
Peak Lower Spine (T12) Acceleration Y (G)		29-37	32.0	Pass	31.1	Pass
Peak Impactor Acceleration (G)		30-36	33.0	Pass	32.3	Pass

TABLE 5
THORAX (WITH ARM) IMPACT TEST (CONTINUED)
PRE-TEST



POST-TEST

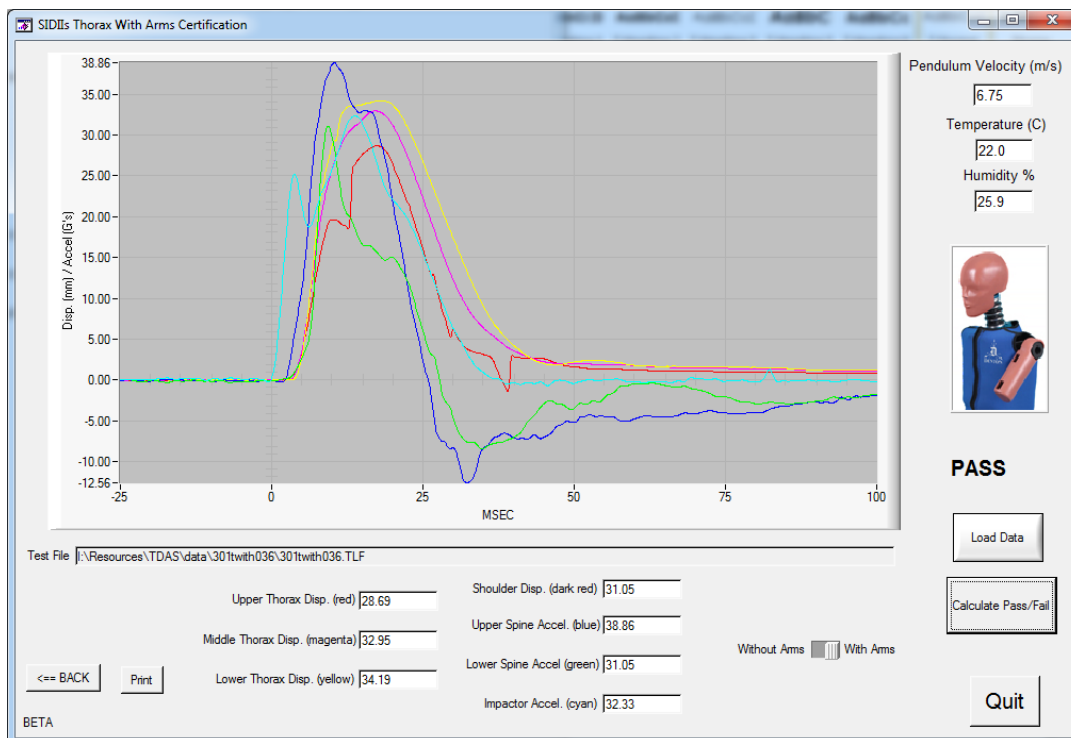


TABLE 6
THORAX (WITHOUT ARM) IMPACT TEST

SIDIIs Serial Number 301

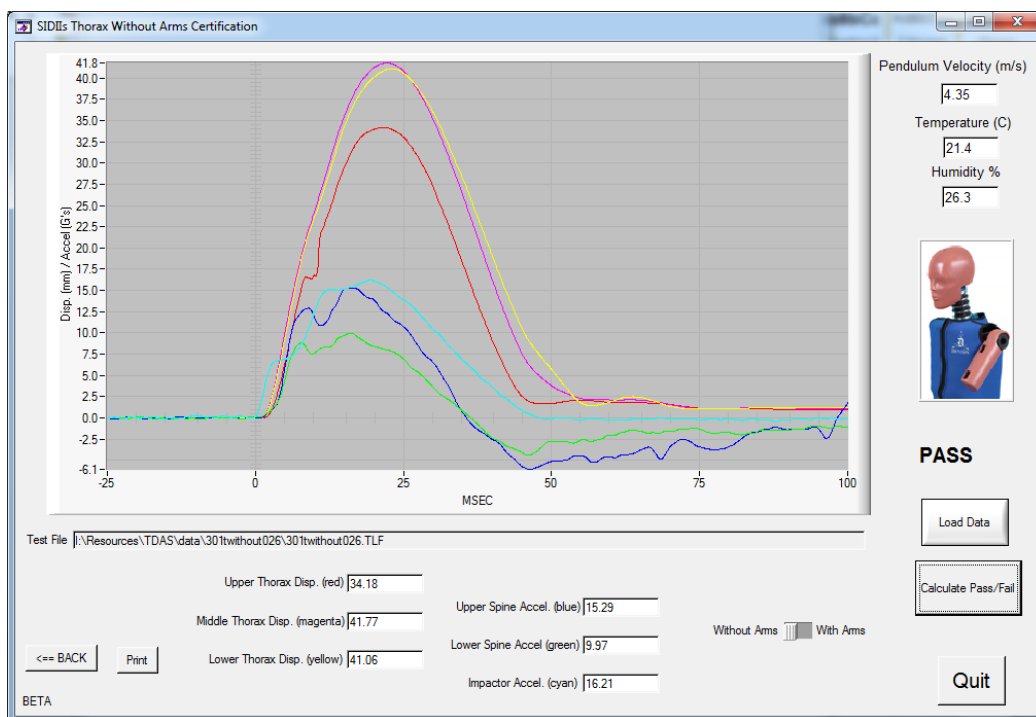
Test Sequences

6 & 7

TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-22-13		2-5-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Dummy Soak Time (min)		≥ 180	180	Pass	180	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	21.4	Pass	22.1	Pass
	Min		21.3	Pass	20.7	Pass
Humidity(%) – During Soak	Max	10.0-70.0	26.3	Pass	26.4	Pass
	Min		22.9	Pass	15.3	Pass
Temperature – During Test (°C)		20.6-22.2	21.4	Pass	22.1	Pass
Relative Humidity – During Test (%)		10-70	26.3	Pass	26.4	Pass
Impactor Velocity (m/s)		4.2-4.4	4.3	Pass	4.3	Pass
Peak Upper Rib Deflection (mm)		32-40	34.2	Pass	37.0	Pass
Peak Middle Rib Deflection (mm)		39-45	41.8	Pass	41.8	Pass
Peak Lower Rib Deflection (mm)		35-43	41.1	Pass	38.7	Pass
Peak Upper Spine (T1) Acceleration Y (G)		13-17	15.3	Pass	15.9	Pass
Peak Lower Spine (T12) Acceleration Y (G)		7-11	10.0	Pass	8.9	Pass
Peak Impactor Acceleration (G)		14-18	16.2	Pass	15.9	Pass

TABLE 6
THORAX (WITHOUT ARM) IMPACT TEST (CONTINUED)

PRE-TEST



POST-TEST

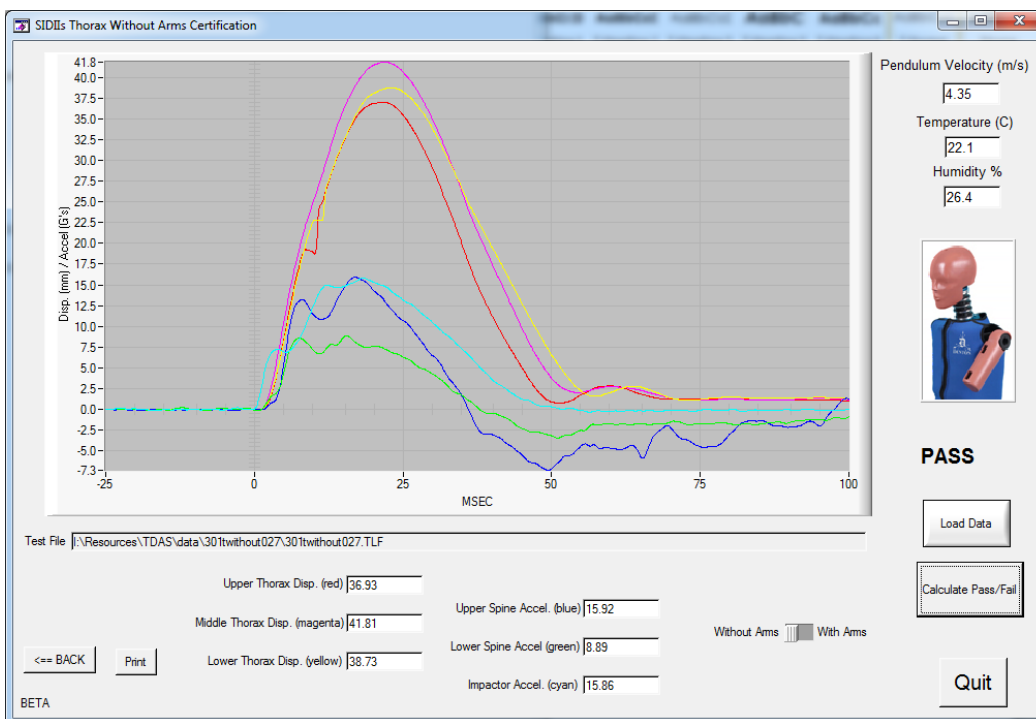


TABLE 7
ABDOMEN IMPACT TEST

SIDIIs Serial Number 301

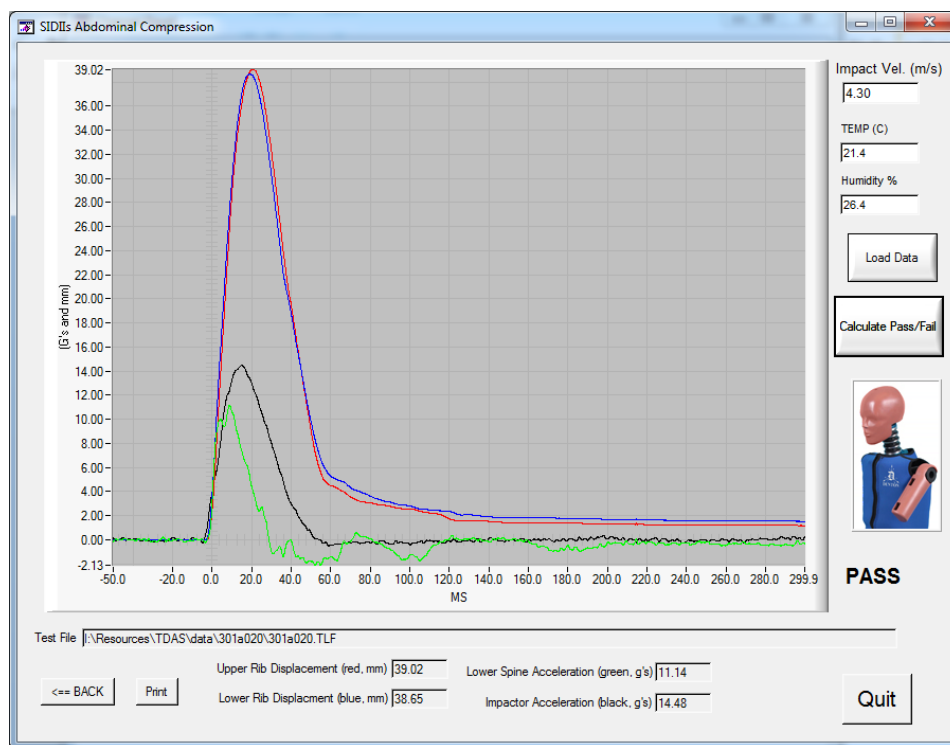
Test Sequences

6 & 7

TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-22-13		2-5-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Dummy Soak Time (min)		≥ 180	180	Pass	180	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	21.4	Pass	22.0	Pass
	Min		21.3	Pass	20.7	Pass
Humidity(%) – During Soak	Max	10.0-70.0	26.4	Pass	26.5	Pass
	Min		22.9	Pass	15.3	Pass
Temperature – During Test (°C)		20.6-22.2	21.4	Pass	22.0	Pass
Relative Humidity – During Test (%)		10-70	26.4	Pass	26.5	Pass
Impactor Velocity (m/s)		4.2-4.4	4.3	Pass	4.3	Pass
Peak Upper Abdominal Rib Deflection (mm)		36-47	39.0	Pass	36.4	Pass
Peak Lower Abdominal Rib Deflection (mm)		33-44	38.7	Pass	40.1	Pass
Peak Lower Spine (T12) Acceleration Y (G)		9-14	11.1	Pass	10.9	Pass
Peak Impactor Acceleration (G)		12-16	14.5	Pass	14.2	Pass

TABLE 7
ABDOMEN IMPACT TEST (CONTINUED)

PRE-TEST



POST-TEST

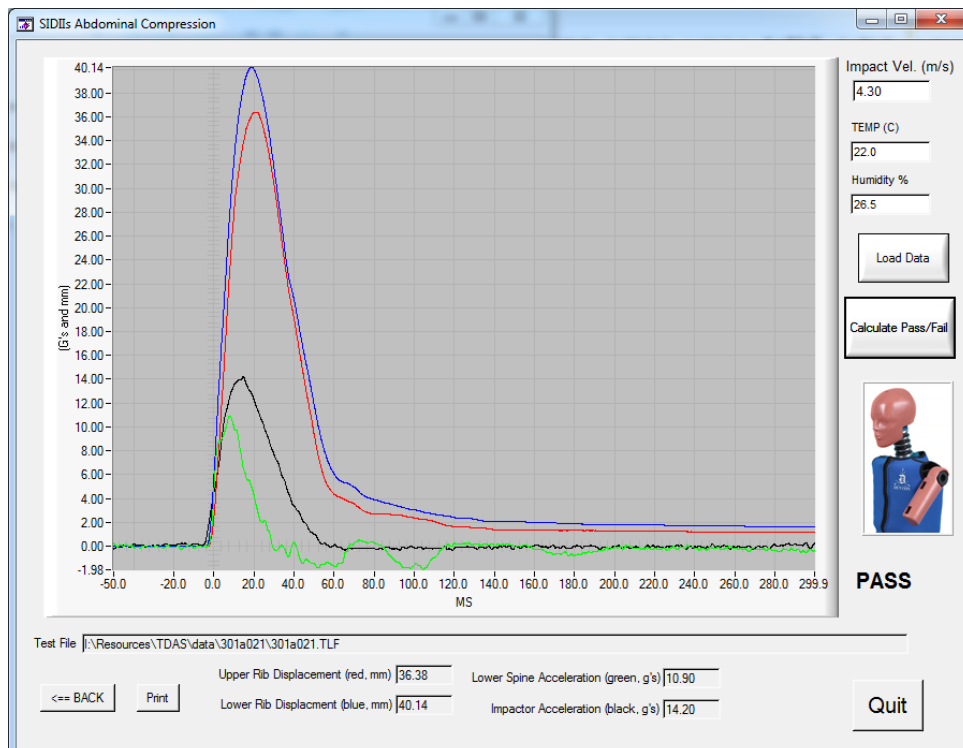
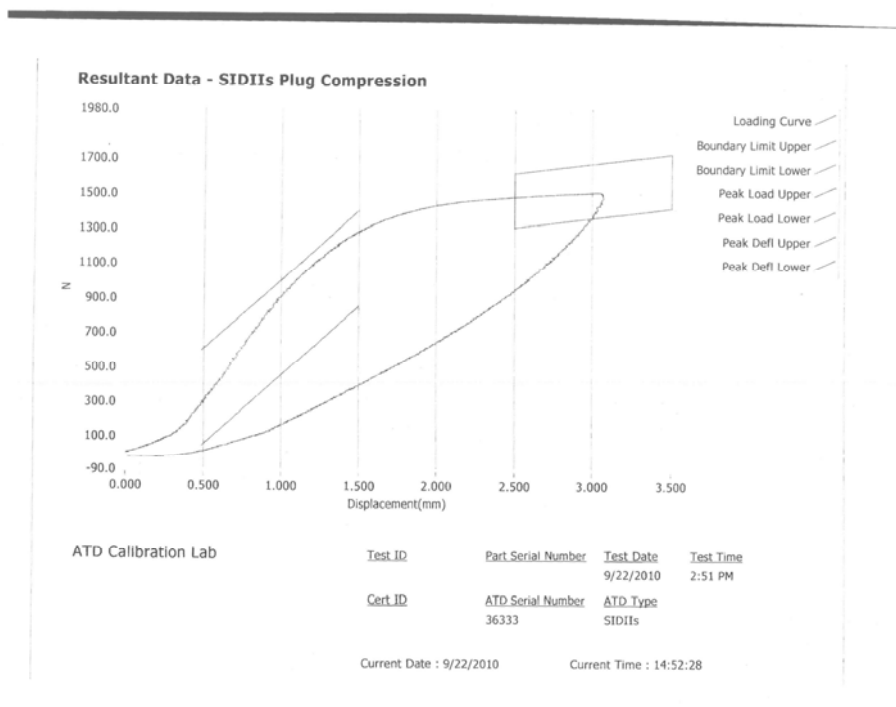


TABLE 8
PELVIS PLUG QUASI-STATIC TEST
PRE-TEST



POST-TEST

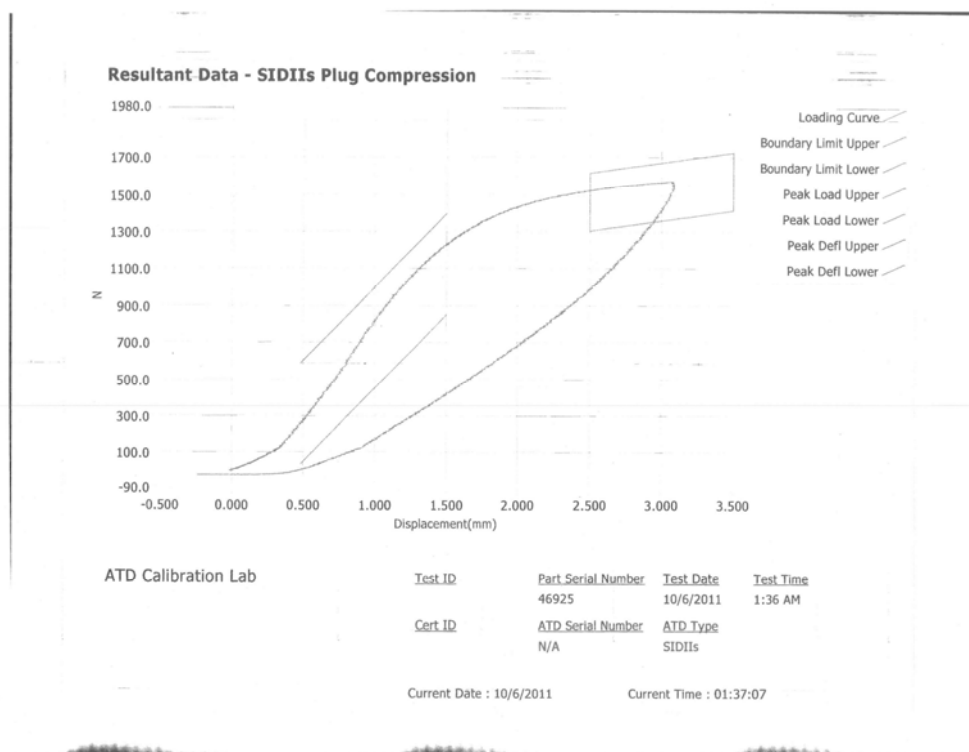


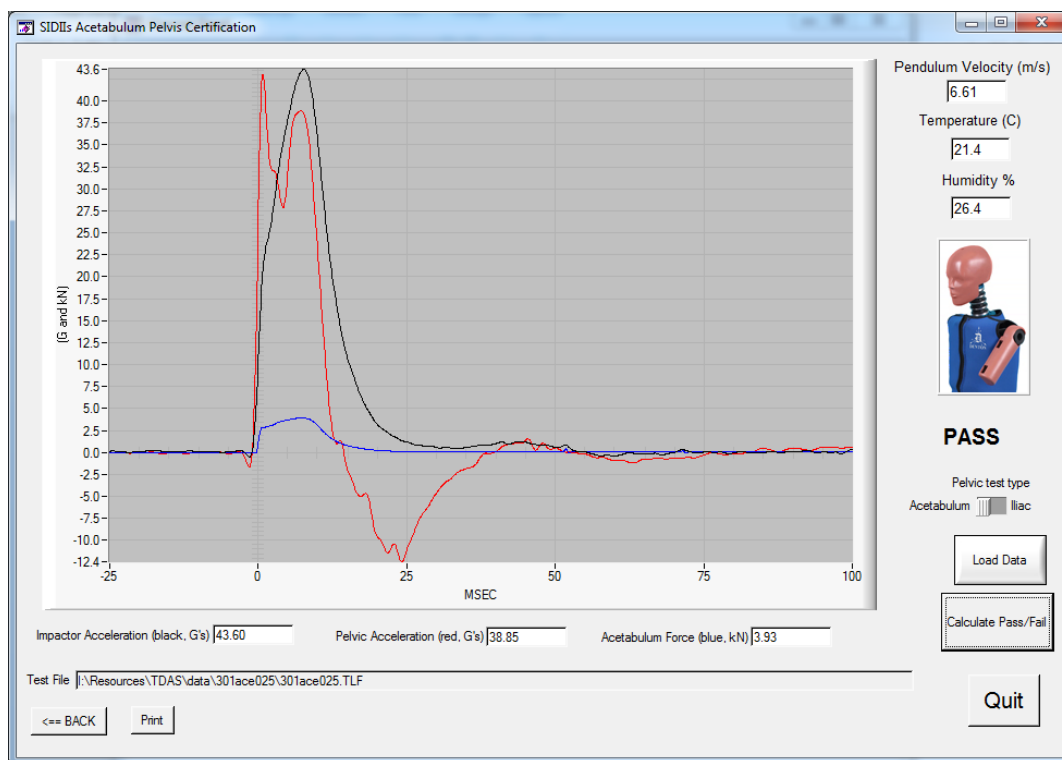
TABLE 9
PELVIS ACETABULUM IMPACT TEST

SIDIIs Serial Number 301 Test Sequences 6 & 7

TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-22-13		2-5-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Results	Pass/Fail
Dummy Soak Time (min)		≥ 180	180	Pass	180	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	21.4	Pass	22.0	Pass
	Min		21.3	Pass	20.7	Pass
Humidity(%) – During Soak	Max	10.0-70.0	26.4	Pass	27.1	Pass
	Min		22.9	Pass	15.3	Pass
Temperature – During Test (°C)		20.6-22.2	21.4	Pass	22.0	Pass
Humidity – During Test (%)		10-70	26.4	Pass	27.1	Pass
Impactor Velocity (m/s)		6.6-6.8	6.6	Pass	6.6	Pass
Peak Impactor Acceleration (G)		38-47	43.6	Pass	43.5	Pass
Pelvis Acceleration Y after 6ms (G)		34-42	38.9	Pass	40.0	Pass
Peak Acetabulum Force (kN)		3.60-4.30	3.9	Pass	4.0	Pass
Pelvis Plug Serial No. 36333 (Pre) No. 46925 (Post)						

TABLE 9
PELVIS ACETABULUM IMPACT TEST (CONTINUED)

PRE-TEST



POST-TEST

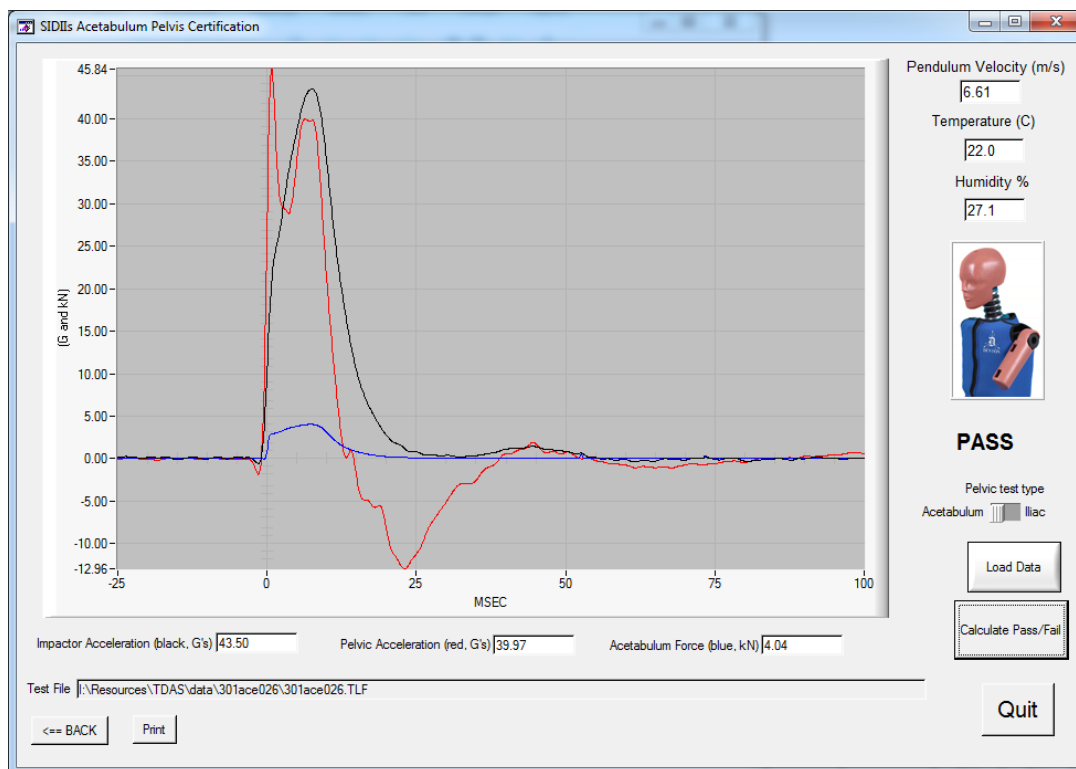


TABLE 10
PELVIS ILIAC IMPACT TEST

SIDIIs Serial Number 301

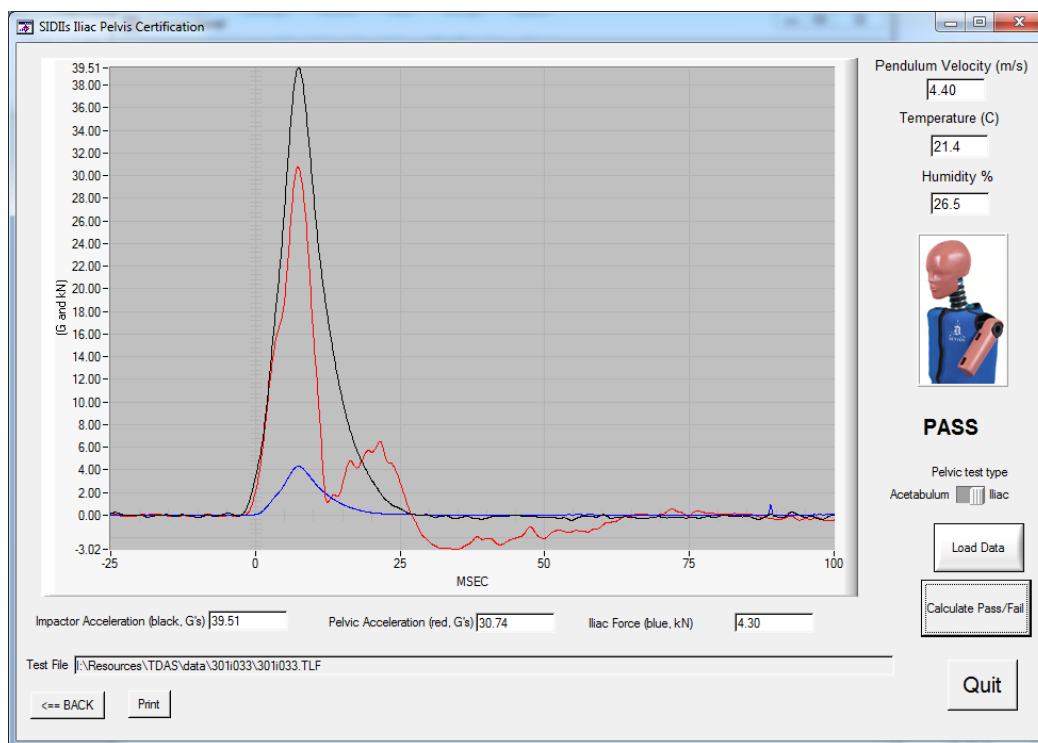
Test Sequences

6 & 7

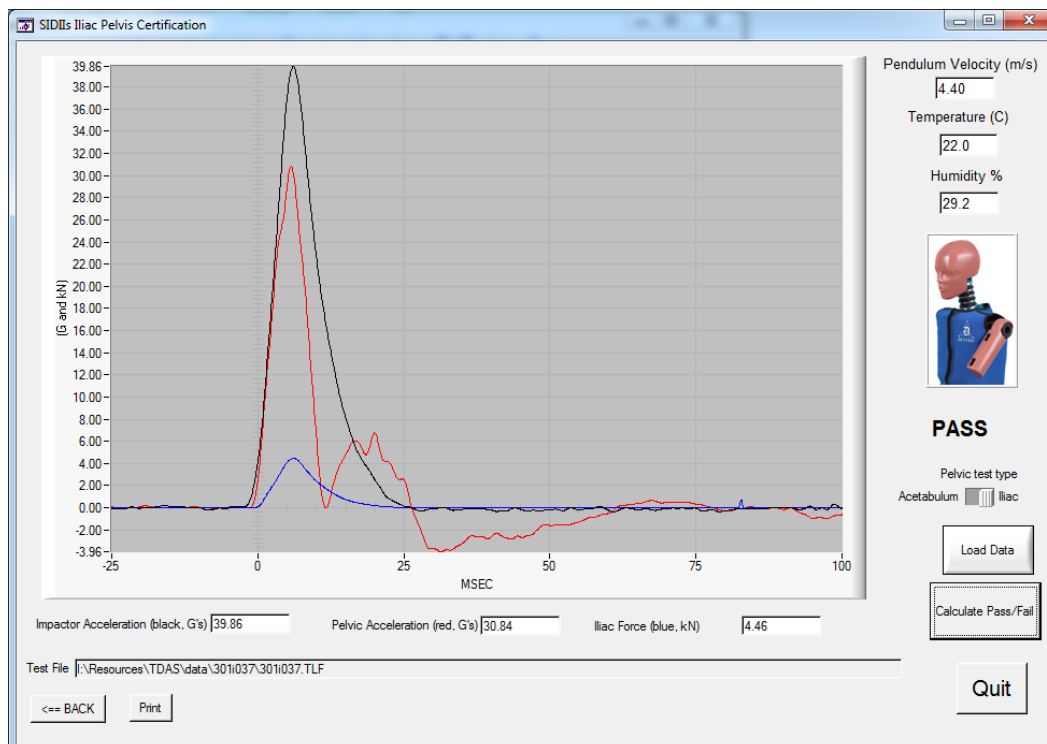
TEST PARAMETER		SPEC.	PRE		POST	
Date		-	12-22-13		2-5-14	
Sequential Test Number		-	6		7	
			Result	Pass/Fail	Result	Pass/Fail
Dummy Soak Time (min)		≥ 180	180	Pass	180	Pass
Temperature(°C) – During Soak	Max	20.6-22.2	21.4	Pass	22.0	Pass
	Min		21.3	Pass	20.7	Pass
Humidity(%) – During Soak	Max	10.0-70.0	26.5	Pass	29.2	Pass
	Min		22.9	Pass	15.3	Pass
Temperature – During Test (°C)		20.6-22.2	21.4	Pass	22.0	Pass
Humidity – During Test (%)		10-70	26.5	Pass	29.2	Pass
Pendulum Velocity (m/s)		4.2-4.4	4.4	Pass	4.4	Pass
Peak Impactor Acceleration (G)		36-46	39.5	Pass	39.9	Pass
Pelvis Acceleration Y (G)		29-39	30.7	Pass	30.8	Pass
Peak Iliac Force Y (N)		4.00-5.20	4.3	Pass	4.5	Pass
Pelvis Plug Serial No. 36333 (Pre) No. 46925 (Post)						

TABLE 10
PELVIS ILIAC IMPACT TEST (CONTINUED)

PRE-TEST



POST-TEST



Test Vehicle: 2014 Mitsubishi Outlander 5-Door MPV
Test Program: SPNCAP

NHTSA Number: M20145601
Test Date: January 30, 2014

APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA

TABLE 1 - DUMMY INSTRUMENTATION						
				SID-IIs S/N: 301		
				Serial Number	Manufacturer	Calibration Date
Head Accelerometers			X	P24562	Endevco	25/APR/2013
			Y	P59121	Endevco	25/APR/2013
			Z	P21151	Endevco	25/APR/2013
			X _R	12095	Endevco	15/JUNE/2013
			Y _R	12116	Endevco	15/JUNE/2013
			Z _R	12100	Endevco	06/AUG/2013
Displacement Potentiometers	Thoracic Rib	Upper	Y	1142	FTSS	24/MAY/2013
		Middle	Y	014	Servo	24/MAY/2013
		Lower	Y	1155	FTSS	24/MAY/2013
	Abdominal Rib	Upper	Y	1205	FTSS	24/MAY/2013
		Lower	Y	1237	FTSS	03/MAY/2013
Lower Spine Accelerometers (T ₁₂)			X	P22230	Endevco	15/OCT/2013
			Y	P22315	Endevco	15/ OCT /2013
			Z	P14233	Endevco	15/ OCT /2013
Acetabulum Load Cell			Y	IF-520_DI4284	FTSS	07/MAY/2013
Iliac Wing Load Cell			Y	IF-507_115	FTSS	07/MAY/2013
Pelvis Plug (Struck-Side)				46901	FTSS	23/SEP/2013
Pelvis Plug (Non-Struck-Side)				36403	FTSS	23/SEP/2013

TABLE 2 - VEHICLE INSTRUMENTATION				
		Serial Number	Manufacturer	Calibration Date
Vehicle Center of Gravity	X	12111	Endevco	15/OCT/2013
Vehicle Center of Gravity	Y	12096	Endevco	15/OCT/2013
Vehicle Center of Gravity	Z	12118	Endevco	15/OCT/2013
Left Floor Sill	Y	A119070	MSI	05/NOV/2013
A-Pillar Sill	Y	A119073	MSI	05/NOV/2013
A-Pillar Low	Y	A119075	MSI	05/NOV/2013
A-Pillar Mid	Y	J43513	Endevco	15/OCT/2013
B-Pillar Sill	Y	A119063	MSI	24/SEPT/2013
B-Pillar Low	Y	P24089	Endevco	13/MAR/2013
B-Pillar Mid	Y	A119062	MSI	24/SEPT/2013
Driver Seat	Y	J44021	Endevco	28/MAR/2013
Engine Top	X	P12746	Endevco	15/OCT/2013
Engine Top	Y	P13835	Endevco	15/OCT/2013
Firewall	Y	A007267	MSI	15/OCT/2013
Right Roof	Y	A127954	MSI	17/OCT/2013
Right Floor Sill	Y	A119078	MSI	15/OCT/2013
Rear Floorpan	X	A011321	MSI	15/OCT/2013
Rear Floorpan	Y	A011312	MSI	15/OCT/2013

TABLE 3 - POLE INSTRUMENTATION				
		Serial Number	Manufacturer	Calibration Date
Load Cell 1	Y	332420	Interface	03/SEPT/2013
Load Cell 2	Y	332407	Interface	03/SEPT/2013
Load Cell 3	Y	332400	Interface	03/SEPT/2013
Load Cell 4	Y	352865	Interface	03/SEPT/2013
Load Cell 5	Y	332403	Interface	03/SEPT/2013
Load Cell 6	Y	330824	Interface	03/SEPT/2013
Load Cell 7	Y	334238	Interface	03/SEPT/2013
Load Cell 8	Y	330834	Interface	03/SEPT/2013