

Report Number: 214-TRC-06-006

Safety Compliance Testing For FMVSS 214

Side Impact Protection

Indicant

Nissan Motor Corporation

2007 Nissan Sentra 4-door

NHTSA Number: C75200

Transportation Research Center Inc.

10820 State Route 347

P. O. Box B-67

East Liberty, OH 43319



Test Date: November 15, 2006

Final Report: November 28, 2006

**U. S. Department Of Transportation
National Highway Traffic Safety Administration**

Enforcement

Office of Vehicle Safety Compliance

400 Seventh Street, S. W.

Room No. 6111 (NVS-220)

Washington, DC 20590

This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-02-D-11114. This publication is distributed by the U. S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings, and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Test Performed By: William Millis, Engineering Technician

Report Approved By: _____



Walter Dudek, Project Manager
Transportation Research Center Inc.

Approval Date: _____

11/28/2006

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: _____

Acceptance Date: _____

1. Report No. 214-TRC-06-006	2. Government Accession No.	3. Recipient's Catalog No.																															
4. Title and Subtitle Final Report of FMVSS 214 Indicant Compliance Side Impact Testing of a 2007 Nissan Sentra 4-door, NHTSA No.: C75200		5. Report Date November 28, 2006	6. Performing Organization Code TRC Inc.																														
		8. Performing Organization Report No. 061115																															
7. Author(s) Walter Dudek, Project Manager Transportation Research Center Inc.		10. Work Unit No. (TRAIS)																															
9. Performing Organization Name and Address Transportation Research Center Inc. 10820 State Route 347 East Liberty, OH 43319		11. Contract or Grant No. DTNH22-02-D-11114																															
		13. Type of Report and Period Covered Final Report																															
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-220) 400 Seventh Street, S.W., Room 6111 Washington, DC 20590		14. Sponsoring Agency Code NVS-220																															
		15. Supplemental Notes																															
16. Abstract <p>This 56/28 km/h 90° Impact (Moving Deformable Barrier) Compliance Test was conducted on the subject vehicle, a 2007 Nissan Sentra 4-door in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-214D-06 (except the test was conducted 8 km/h (5 mph) faster than the standard specifies) to determine FMVSS 214 Side Impact Protection compliance. This test was conducted by Transportation Research Center Inc. in East Liberty, Ohio, on November 15, 2006.</p> <p>The impact velocity of the Moving Deformable Barrier (MDB) was 62.0 km/h, and the ambient temperature at the struck (driver) side of the target vehicle at the time of impact was 21° C. The target vehicle's post-test maximum crush was 274 mm at Level 2.</p> <p>The test or target vehicle's performance is given below (with FIR filter):</p> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Front SID HIII</u></th> <th></th> <th style="text-align: center;"><u>Rear SID HIII</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td style="text-align: center;"><u>54.8</u></td> <td>g's</td> <td style="text-align: center;"><u>45.9</u></td> <td>g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td style="text-align: center;"><u>50.3</u></td> <td>g's</td> <td style="text-align: center;"><u>60.2</u></td> <td>g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td style="text-align: center;"><u>46.7</u></td> <td>g's</td> <td style="text-align: center;"><u>58.3</u></td> <td>g's</td> </tr> <tr> <td>Thoracic Trauma Index, (TTI):</td> <td style="text-align: center;"><u>50.8</u></td> <td>g's</td> <td style="text-align: center;"><u>59.2</u></td> <td>g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td style="text-align: center;"><u>63.8</u></td> <td>g's</td> <td style="text-align: center;"><u>60.3</u></td> <td>g's</td> </tr> </tbody> </table> <p>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 side impact event.</p>					<u>Front SID HIII</u>		<u>Rear SID HIII</u>		Left Upper Rib Acceleration:	<u>54.8</u>	g's	<u>45.9</u>	g's	Left Lower Rib Acceleration:	<u>50.3</u>	g's	<u>60.2</u>	g's	Lower Spine Acceleration:	<u>46.7</u>	g's	<u>58.3</u>	g's	Thoracic Trauma Index, (TTI):	<u>50.8</u>	g's	<u>59.2</u>	g's	Pelvis Acceleration (PEV):	<u>63.8</u>	g's	<u>60.3</u>	g's
	<u>Front SID HIII</u>		<u>Rear SID HIII</u>																														
Left Upper Rib Acceleration:	<u>54.8</u>	g's	<u>45.9</u>	g's																													
Left Lower Rib Acceleration:	<u>50.3</u>	g's	<u>60.2</u>	g's																													
Lower Spine Acceleration:	<u>46.7</u>	g's	<u>58.3</u>	g's																													
Thoracic Trauma Index, (TTI):	<u>50.8</u>	g's	<u>59.2</u>	g's																													
Pelvis Acceleration (PEV):	<u>63.8</u>	g's	<u>60.3</u>	g's																													
17. Key Words Compliance Testing Side Impact Protection FMVSS 214 Side Impact Dummy (SID HIII)		18. Distribution Statement <u>Copies of this report are available from:</u> NHTSA Technical Information Services (TIS) Room 5108 (NPO-230), 400 Seventh Street, S.W. Washington, DC 20590 Telephone No. (202) 366-4946 Attn: Robert Hornicle																															
19. Security Classification (of this report) Unclassified	20. Security Classification (of this page) Unclassified	21. Number of Pages 394	22. Price																														

Table of Contents

<u>Section</u>	<u>Description</u>	<u>Page No.</u>
1	Purpose and Test Procedure	1-1
2	Summary of Side Impact Test	2-1
3	Summary of Test Results	3-1
	Data Sheet 1 - General Vehicle Test Parameter Data	3-2
	Data Sheet 2 - Test Vehicle Summary of Results	3-6
	Data Sheet 3 - Moving Deformable Barrier (MDB) Summary	3-7
	Data Sheet 4 - Post-Test Observations	3-8
4	Occupant and Vehicle Information	4-1
	Data Sheet 5 - SID HIII Instrumentation Data	4-2
	Data Sheet 6 - Vehicle Pre-Test And Post-Test Measurements	4-6
	Data Sheet 7 - SID HIII Longitudinal Clearance Dimensions	4-7
	Data Sheet 8 - SID HIII Lateral Clearance Dimensions	4-8
	Data Sheet 9 - Vehicle Side Measurements	4-9
	Data Sheet 10 - Vehicle Exterior Crush Profiles - All Levels	4-10
	Data Sheet 11 - Vehicle Damage Profile Distances	4-12
	Data Sheet 12 - Exterior Static Crush For Impactor Face	4-13
	Data Sheet 13 - Test Vehicle Accelerometer Locations and Data Summary	4-22
	Data Sheet 14 - MDB Accelerometer Locations and Data Summary	4-26
	Data Sheet 15 - High-Speed Camera Locations and Data	4-27
5	Vehicle Fuel System Integrity	5-1
	Data Sheet 16 - FMVSS 301 Fuel System Integrity Data	5-2
	Data Sheet 17 - FMVSS 301 Rollover Data	5-3
Appendix A	Photographs	A-1
Appendix B	Data Plots	B-1
Appendix C	SID HIII Configuration and Performance Verification Data	C-1
Appendix D	Test Equipment List and Calibration Information	D-1

Section 1

Purpose and Test Procedure

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-02-D-11114. The purpose of this test was to evaluate side impact protection in a 2007 Nissan Sentra 4-door. The test was conducted in accordance with the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 2001) (except the test was conducted 8 km/h (5 mph) faster than the standard specifies).

Section 2

Summary of Side Impact Test

A 2007 Nissan Sentra 4-door was impacted on the left side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 62.0 km/h (38.5 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, Ohio on November 15, 2006. Pre-test and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the side impact dummies (SID HIIIs) are included in Appendix A.

Two restrained Side Impact Dummies (SID HIIIs) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OVSC Side Impact Laboratory Test Procedure (TP-214D-06, dated July 2001). Both SID HIII dummies were certified prior to this test. The side impact test was documented by one real-time camera and 9 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SID HIIIs were instrumented with the following accelerometers:

1. Head (HED) triaxial and redundant accelerometers (X, Y, and Z-directions)
2. Neck (NEK) triaxial force and moment load cells (X, Y, and Z-directions)
3. Left Upper Rib (LUR) uniaxial and redundant accelerometer (Y-direction)
4. Left Lower Rib (LLR) uniaxial and redundant accelerometer (Y-direction)
5. Lower Thoracic Spine (T₁₂) uniaxial and redundant accelerometer (Y-direction)
6. Pelvic (PEV) section uniaxial accelerometer (Y-direction)

A summary of the side impact dummy (SID HIII) configuration and verification test data can be found in Appendix C. A total of 66 channels of data were recorded. Appendix B contains the vehicle, MDB, and dummy response data traces.

The following tables summarize the results of the test:

Injury Criteria	Front SID HIII	Rear SID HIII
TTI (g)	50.8	59.2
PEV (g)	63.8	60.3

Data Acquisition Explanations

The vehicle's left lower A-post Y-axis acceleration data channel, 11APILLO0000ACYA, recorded questionable data after approximately 25 milliseconds. The velocity was also affected.

The vehicle's left mid B-post Y-axis acceleration data channel, 14BPILMI0000ACYA, exceeded full-scale at approximately 32 milliseconds. The velocity was also affected.

Section 3

Summary of Test Results

Data Sheet 1

General Test Vehicle Parameter Data

Test Vehicle Information:

Vehicle Year/Make/Model: 2007 Nissan Sentra
Vehicle Body Style/Color: 4-door/Black VIN: 3N1AB61E37L608235
Vehicle NHTSA No.: C75200 Build Date: 10/06
Engine Data: 4 Cylinders; CID; 2 Liters; cc
Placement: X Longitudinal; or - Lateral; or - Horizontal
Transmission: Speed; Manual; X Automatic; Overdrive
Final Drive: - RWD; - FWD; - Four-Wheel Drive
Odometer Reading: 70
Options: X A/C; X Power steering; X Power brakes; X Power windows

Data From Vehicle's Tire Placard:

Tire Pressure (at capacity)¹ 230 kPa Front; 230 kPa Rear
Recommended Tire Size: P205/60R15
Tires on Test Vehicle: P205/60R15 Manufacturer: Bridgestone, Turanza

Vehicle Capacity Data:

Number of Occupants: 2 Front; 3 Rear; - 3rd seat; 5 Total
Type of Front Seats: X Bucket; - Bench; - Split bench
Type of Front Seat Back: - Fixed; X Adjustable with X Lever or - Knob
Vehicle Max. Capacity Loading = 385 kg (A)
No. of Occupants x 68.04 kg. = 340 kg (B)
Vehicle Cargo Capacity (A-B) = 45 kg

Test Vehicle Delivered Weight With Maximum Fluids:

Left Front	=	<u>419.0</u> kg	Left Rear	=	<u>259.4</u> kg
Right Front	=	<u>416.2</u> kg	Right Rear	=	<u>248.4</u> kg
Total Front	=	<u>835.2</u> kg	Total Rear	=	<u>507.8</u> kg
Front % of Total Weight	=	<u>62.2</u> %	Rear % of Total Weight	=	<u>37.8</u> %
Total Weight	=	<u>1343.0</u> kg			

¹ Tire pressure used in test.

Data Sheet 1 (Continued)

General Test Vehicle Parameter Data

Calculation Of Vehicle's Target Test Weight:

Total Test Vehicle Delivered Weight With Max. Fluids	=	<u>1343.0</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>45.0</u>	kg (B)
Weight of Instrumented Side Impact Dummies (2 X <u>84.0</u> kg)	=	<u>168.0</u>	kg (C)
Test Vehicle Target Weight:	=	<u>1556.0</u>	kg (A+B+C)

Fully Loaded Test Vehicle (UDW + 2 SID HIII s + Cargo):

Left Front	=	<u>473.6</u>	kg	Left Rear	=	<u>351.6</u>	kg
Right Front	=	<u>425.8</u>	kg	Right Rear	=	<u>309.8</u>	kg
Total Front	=	<u>899.4</u>	kg	Total Rear	=	<u>661.4</u>	kg
Front % of Total Weight	=	<u>57.6</u>	%	Rear % of Total Weight	=	<u>42.4</u>	%
Total Weight	=	<u>1560.8</u>	kg				

As Tested Weight of Test Vehicle (2 SID HIII s + Cargo + Equipment & Instrumentation):

Left Front	=	<u>476.2</u>	kg	Left Rear	=	<u>332.5</u>	kg
Right Front	=	<u>431.4</u>	kg	Right Rear	=	<u>311.0</u>	kg
Total Front	=	<u>907.6</u>	kg	Total Rear	=	<u>643.5</u>	kg
Front % of Total Weight	=	<u>58.5</u>	%	Rear % of Total Weight	=	<u>41.5</u>	%
Total Weight	=	<u>1551.1</u>	kg				

Test Vehicle Attitude (all dimensions in millimeters):

As Delivered	Fully Loaded	Ready For Test
Right Front <u>687</u>	Right Front <u>684</u>	Right Front <u>679</u>
Left Front <u>687</u>	Left Front <u>674</u>	Left Front <u>674</u>
Right Rear <u>691</u>	Right Rear <u>657</u>	Right Rear <u>657</u>
Left Rear <u>692</u>	Left Rear <u>648</u>	Left Rear <u>649</u>

Data Sheet 1 (Continued)

General Test Vehicle Parameter Data

Test Vehicle Attitude:

	Left Sill Pitch	Right Sill Pitch	Front Bumper L-R Roll	Rear Bumper L-R Roll
As Delivered:	-1.7°	-1.7°	-0.6°	-0.3°
Fully Loaded:	-1.0°	-1.0°	-0.7°	-0.4°
As Tested:	-0.8°	-0.8°	-0.4°	0.0°
Negative Pitch Angle	=	Vehicle front down		
Negative Roll Angle	=	Driver side down		

Test Vehicle Wheelbase: 2685 mm

C.G. = 1114 mm rearward of front wheel centerline

Total Vehicle Length:

Right Side = 4252 mm

Left Side = 4262 mm

Centerline = 4535 mm

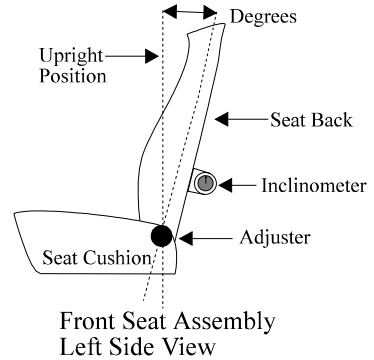
Data Sheet 1 (Continued)

General Test Vehicle Parameter Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Nominal Design Riding Position for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



Front Seat Cushion Placement: Detent 13 of 25 detents

Total Length of Fore/Aft Adjustment Travel: 235 mm

Total Number of Adjustment Positions or Detents: 25

Front Seat Back Adjustment Position: The seat back was adjusted to 10.6° measured at headrest

Seat Back Torso Angle: N/A degrees

Second Position Seat Placement: N/A

Total Length Of Fore/Aft Adjustment Travel: N/A mm

Seat Back Adjustment Position: Fixed

Adjustable Steering Column Position: 26.6°; middle of geometric range of travel

Window Positions:

Right Front: Open Right Rear: Open

Left Front: Closed Left Rear: Closed

Note: Windows will be in closed position on struck side of test vehicle and in open position on opposite side.

Amount of Stoddard Solvent In Fuel Tank:

52.6 liters (fuel tank usable capacity)

48.8 liters used in test (92% - 94% of fuel tank usable capacity)

Location of Impact Point On Test Vehicle Side To Be Impacted:

Wheelbase = 2685 millimeters

Intended impact point is 403 millimeters rearward of front axle centerline
(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 407 millimeters rearward of front axle centerline

Data Sheet 2

Test Vehicle Summary of Results

Vehicle Year/Make/Model: 2007/Nissan/Sentra

Body Style: 4-door

VIN: 3N1AB61E37L608235

NHTSA No.: C75200

Build Date: 10/06

Test Date: 11/15/06

Vehicle Overall Length = 4535 mm

Overall Width = 1760 mm

Vehicle Test Weight (Pre-Test):

Left Front = 476.2 kg Left Rear = 332.5 kg

Right Front = 431.4 kg Right Rear = 311.0 kg

Total Front = 907.6 kg Total Rear = 643.5 kg

Total Weight = 1551.1 kg

Wheelbase = 2685 mm

Longitudinal C.G. From Center Of Front Axle = 1114 mm

Impact Angle With Respect To Impactor = 90 degrees

Impact Point:

Actual Impact Point is 4 mm right of nominal impact ref. line (Lateral)

Actual Impact Point is 0 mm _____ from nominal impact point (Vertical)

Maximum Exterior Static Crush:

1. Level 1 (275 mm above ground) = 101 mm

2. Level 2 (564 mm above ground) = 274 mm

3. Level 3 (635 mm above ground) = 257 mm

4. Level 4 (900 mm above ground) = 201 mm

5. Level 5 (1425 mm above ground) = 13 mm

Maximum Post-Test Intrusion = 274 mm

Occupants:

Front Passenger

Rear Passenger

Dummy Identification 059

055

Restraints Used 3-pt. seat belt, side curtain
and torso airbag

3-pt. seat belt and side
curtain airbag

Instrumentation:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 3 Offboard = 6 Total = 9

Data Sheet 3

Moving Deformable Barrier (MDB) Summary

MDB Face Manufacturer And Serial Number:

Cellbond, GI 303

Position Of Impactor (MDB) On Monorail:

Crabbed 27° to the left

MDB Specifications:

Overall Width of Framework Carriage = 1251 mm
Overall Length of MDB (Incl. honeycomb impact face) = 4014 mm
Wheelbase of Framework Carriage = 2591 mm
Track of Framework Carriage (Front & Rear) = 1881 mm
C.G. Location Rearward of Front Axle = 1103 mm

MDB Weight:

Left Front	=	<u>387.4</u>	kg	Left Rear	=	<u>292.4</u>	kg
Right Front	=	<u>394.0</u>	kg	Right Rear	=	<u>287.2</u>	kg
Total Front	=	<u>781.4</u>	kg	Total Rear	=	<u>579.6</u>	kg
Total MDB Weight	=	<u>1361.0</u>	kg				

Impact Angle (MDB C/L to Target Vehicle C/L) = 90 degrees
Impact Speed = 62.0 km/h

Maximum Static Crush of Honeycomb Impact Face:

1. Row A at Center of Bumper Level = 156 millimeters
2. Row B at Top of Bumper Level = 69 millimeters
3. Row C at Mid Level = 96 millimeters
4. Row D at Top of Stack Level = 146 millimeters

Instrumentation:

Number of MDB Data Channels = 7

Data Sheet 4

Post-Test Observations

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Visible Dummy Contact Points:

	<u>Left Front SID HIII</u>	<u>Left Rear SID HIII</u>
Head:	<u>Side header and side curtain airbag</u>	<u>Headliner, side header, and side curtain airbag</u>
Upper Torso:	<u>Side torso airbag</u>	<u>Door panel</u>
Lower Torso:	<u>Side torso airbag</u>	<u>Door panel</u>
Left Knee:	<u>Door panel</u>	<u>Door panel</u>
Right Knee:	<u>None</u>	<u>None</u>

Door Opening:

	<u>Left Side</u>	<u>Right Side</u>
Front:	<u>Jammed and latched</u>	<u>Closed and latched</u>
Rear:	<u>Jammed and latched</u>	<u>Closed and latched</u>

MDB Distance From Target Impact Point:

Vertical: 0 mm from target
Horizontal: 4 mm right from target

Arm Rest Locations:

Front: 219 mm below the bottom of the window
Rear: 289 mm below the bottom of the window

Seat Movement:

Front: None
Rear: None

Glazing Damage:

Windshield: None
Window: Left side windows broken

Pillar Separation: None

Sill Separation: None

Other Notable Impact Effects:

None

Section 4

Occupant and Vehicle Information

Data Sheet 5

SID HIII Instrumentation Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Test Number: 061115

Driver Dummy Serial Number: 059

Location	Positive Direction		Negative Direction	
	Max. (g)	Time (ms)	Max. (g)	Time (ms)
Head Acceleration (g)				
Longitudinal X	4.5	151.4	19.5	45.5
Lateral Y	50.1	55.7	9.9	154.5
Vertical Z	12.3	27.2	4.9	51.1
Resultant	52.9	55.1		
HIC 36	285			
Head Redundant Acceleration (g)				
Longitudinal X	4.2	151.7	19.6	45.0
Lateral Y	50.1	55.6	10.0	154.2
Vertical Z	12.4	26.8	4.1	57.0
Resultant	52.9	54.9		
Neck Force				
X-Axis Shear	53.5	43.8	129.8	87.2
Y-Axis Shear	729.9	54.7	166.6	154.3
Z-Axis Shear	515.4	30.6	159.3	57.1
Neck Moment				
About X-Axis	10.2	155.2	79.9	53.0
About Y-Axis	13.1	104.1	25.3	53.6
About Z-Axis	6.4	270.3	26.1	173.3
Occipital Condyle	67.5			
Left Upper Rib Acceleration				
Lateral (P)	54.8	36.9	3.8	154.4
Lateral (R)	56.0	36.9	3.7	91.9
Left Lower Rib Acceleration				
Lateral (P)	50.3	35.0	4.5	90.6
Lateral (R)	50.1	35.0	4.5	90.6

Data Sheet 5 (Continued)

SID HIII Instrumentation Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Test Number: 061115

Driver Dummy Serial Number: 059

Location	Positive Direction		Negative Direction	
	Max. (g)	Time (ms)	Max. (g)	Time (ms)
Lower Spine Acceleration				
Lateral (P)	46.7	37.5	11.0	67.5
Lateral (R)	45.7	37.5	10.9	67.5
Pelvis Acceleration				
Lateral (P)	63.8	24.4	17.5	56.2
TTI	50.8			

Positive Direction

Longitudinal: Forward
Lateral: Rightward
Vertical: Downward

Negative Direction

Longitudinal: Rearward
Lateral: Leftward
Vertical: Upward

Data Sheet 5 (Continued)

SID HIII Instrumentation Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Test Number: 061115

Left Rear Dummy Serial Number: 055

Location	Positive Direction		Negative Direction	
	Max. (g)	Time (ms)	Max. (g)	Time (ms)
Head Acceleration (g)				
Longitudinal X	15.6	154.9	20.4	47.0
Lateral Y	115.1	47.9	15.8	155.8
Vertical Z	14.6	45.5	42.4	55.4
Resultant	117.1	47.5		
HIC 36				
Head Redundant Acceleration (g)				
Longitudinal X	15.6	155.0	20.3	47.0
Lateral Y	114.3	47.5	15.7	155.5
Vertical Z	14.9	45.4	41.5	55.9
Resultant	116.8	47.4		
Neck Force				
X-Axis Shear	560.6	54.7	105.3	96.3
Y-Axis Shear	49.9	121.9	1066.3	53.1
Z-Axis Shear	581.9	45.0	1764.8	54.7
Neck Moment				
About X-Axis	32.6	158.4	78.2	58.6
About Y-Axis	19.5	94.8	23.1	62.0
About Z-Axis	14.0	76.0	10.3	116.8
Occipital Condyle	93.7			
Left Upper Rib Acceleration				
Lateral (P)	45.9	46.2	5.3	173.1
Lateral (R)	45.7	46.2	5.3	173.1
Left Lower Rib Acceleration				
Lateral (P)	60.2	41.8	4.5	68.8
Lateral (R)	60.0	41.8	4.6	68.8

Data Sheet 5 (Continued)

SID HIII Instrumentation Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Test Number: 061115

Left Rear Dummy Serial Number: 055

Location	Positive Direction		Negative Direction	
	Max. (g)	Time (ms)	Max. (g)	Time (ms)
Lower Spine Acceleration				
Lateral (P)	58.2	43.8	8.3	65.7
Lateral (R)	57.1	43.2	8.3	65.7
Pelvis Acceleration				
Lateral (P)	60.3	36.9	5.9	62.6
TTI	59.2			

Positive Direction

Longitudinal: Forward

Lateral: Rightward

Vertical: Downward

Negative Direction

Longitudinal: Rearward

Lateral: Leftward

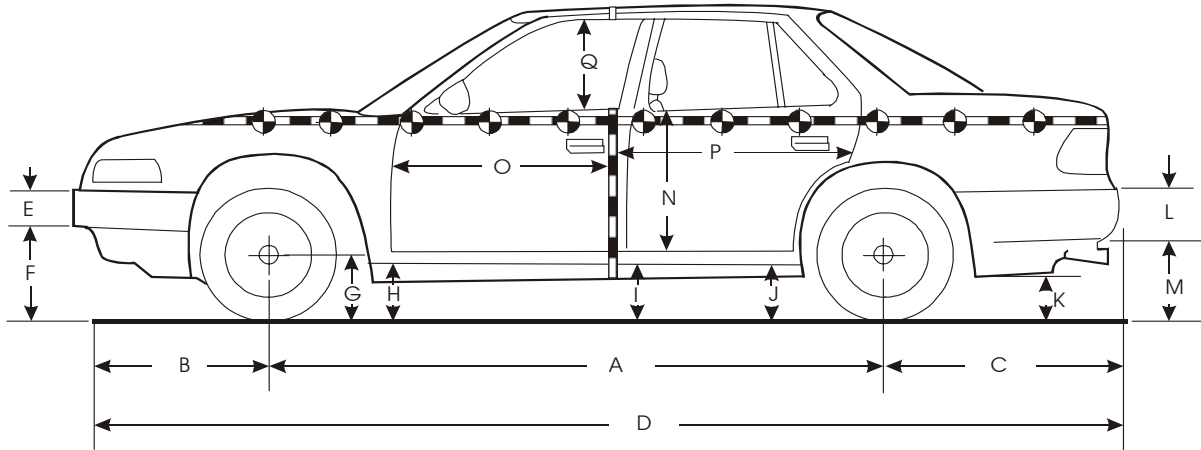
Vertical: Upward

Data Sheet 6

Vehicle Pre-Test And Post-Test Measurements

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



Left Side View

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

	Pre-Test (as delivered)	Pre-Test (as tested)	Post-Test (as tested)	Change
A	2685	2685	2684	1
B	935	935	940	-5
C	915	915	947	-32
D	4535	4535	4548	-13
E	157	157	165	-8
F	396	390	405	-15
G	295	290	274	16
H	211	196	214	3
I	252	219	309	-90
J1	210	175	205	-30
J2	264	227	283	-56
K	300	260	254	6
L	240	240	239	1
M	410	368	374	-6
N	770	770	710	60
O	800	800	764	36
P	1265	1265	1057	208
Q	410	410	333	77
R	4252	4252	4240	12
S	4262	4262	4251	11
T	1325	1325	1173	152

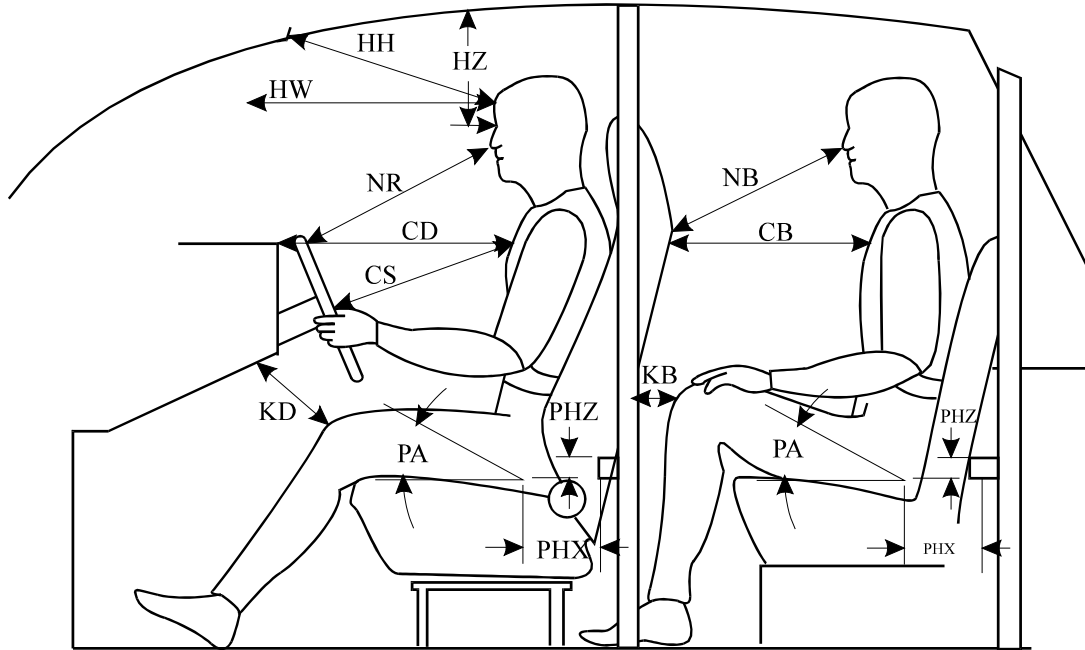
D = Length at centerline E and L = Bumper Thickness R = Right Side Length
 S = Left Side Length T = Width at B-pillar J1 = To Pinch Weld J2 = To Sill

Data Sheet 7

SID HIII Longitudinal Clearance Dimensions

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



Left Side View

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

Measurement	Driver SID HIII # 059	Left Rear Pass. SID HIII # 055
HH	405	N/A
HW	605	N/A
HZ	165	145
NR/NB	474	562
CD/CB	551	540
CS	355	N/A
KDL(KDA°)/KBL(KBA°)	176/(24.2°)	218/(21.7°)
KDR(KDA°)/KBR(KBA°)	178/(19.7°)	212/(18.9°)
PA°	24.7°	24.4°
PHX	225	240
PHZ	109	244

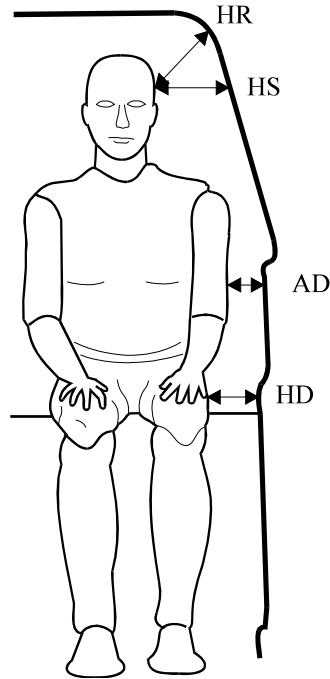
Note: 2-door vehicle shown. Rear dummy PHX and PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

Data Sheet 8

SID HIII Lateral Clearance Dimensions

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



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

Measurement	Driver SID HIII # 059	Left Rear Pass. SID HIII # 055
HR	145	132
HS	242	141
AD*	Lower: 118 Upper: 109	Lower: 90 Upper: 92
HD	142	123

* Lower measurement is taken laterally at center of the lower rib accelerometer height from the SID HIII arm segment to the closest part of the vehicle side.

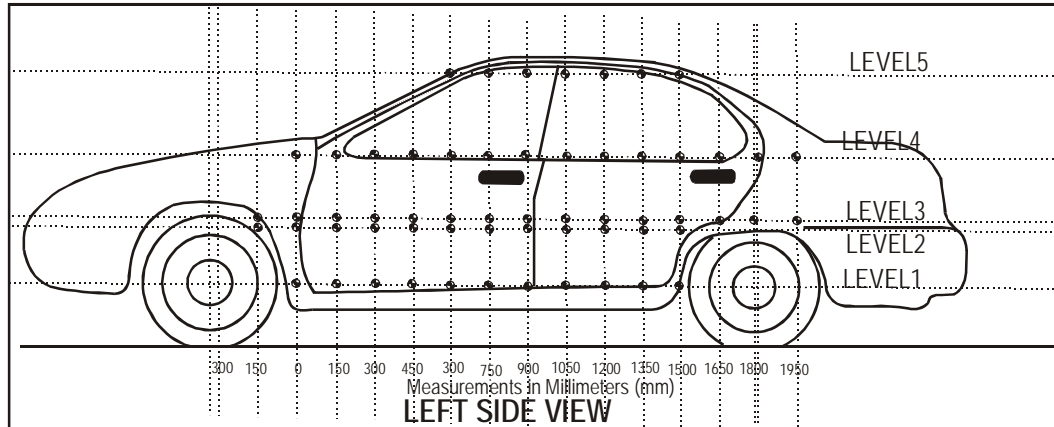
Upper measurement is taken laterally at center of the upper rib accelerometer height from the SID HIII arm segment to the closest part of the vehicle side.

Data Sheet 9

Vehicle Side Measurements

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



- Level 5 - Window Top
- Level 4 - Window Sill
- Level 3 - Mid-Door
- Level 2 - Occupant H-Point
- Level 1 - Axle Centerline Height or Sill Top Height

Measurements Are Taken When The Vehicle Is In The “As Tested” Configuration.

Measurements along the vertical 750 mm line shown above:

Level 5 @ Window Top	=	<u>1425</u>	mm
Level 4 @ Window Sill	=	<u>900</u>	mm
Level 3 @ Mid Door	=	<u>635</u>	mm
Level 2 @ Occupant H-Point	=	<u>564</u>	mm
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>275</u>	mm

Data Sheet 10

Vehicle Exterior Crush Profiles - All Levels

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Location	Height		(mm) From Impact Point														
			-1200	-1050	-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	
Level 1 Side Sill	480	Pre	---	---	---	---	---	---	---	---	---	885	837	829	828	828	828
		Post	---	---	---	---	---	---	---	---	---	884	736	736	734	733	733
		Crush	---	---	---	---	---	---	---	---	---	1	101	93	94	95	95
Level 2 H-Point	835	Pre	---	---	---	868	---	---	---	---	---	883	876	877	880	881	881
		Post	---	---	---	872	---	---	---	---	---	876	629	605	606	611	621
		Crush	---	---	---	-4	---	---	---	---	---	7	247	272	274	270	260
Level 3 Mid-Door	880	Pre	---	---	---	857	875	---	---	---	886	878	875	878	881	883	884
		Post	---	---	---	862	879	---	---	---	884	868	662	625	624	641	651
		Crush	---	---	---	-5	-4	---	---	---	2	10	213	253	257	242	233
Level 4 Window Sill	1205	Pre	---	---	---	760	784	802	816	826	834	839	842	-845	849	851	
		Post	---	---	---	768	791	807	821	826	825	768	721	678	654	652	
		Crush	---	---	---	-8	-7	-5	-5	0	9	71	121	-1523	195	199	
Level 5 Window Top	1760	Pre	---	---	---	---	---	---	---	---	---	---	---	---	608	617	
		Post	---	---	---	---	---	---	---	---	---	---	---	---	617	626	
		Crush	---	---	---	---	---	---	---	---	---	---	---	---	-9	-9	

Data Sheet 10 (Continued)

Vehicle Exterior Crush Profiles - All Levels

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Location	Height		(mm) From Impact Point												
			900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700
Level 1 Side Sill	480	Pre	827	826	825	825	825	826	832	---	---	---	---	---	---
		Post	735	737	742	746	760	778	801	---	---	---	---	---	---
		Crush	92	89	83	79	65	48	31	---	---	---	---	---	---
Level 2 H-Point	835	Pre	880	879	877	876	874	872	873	880	---	---	---	---	839
		Post	623	637	624	612	617	635	697	785	---	---	---	---	827
		Crush	257	242	253	264	257	237	176	95	---	---	---	---	12
Level 3 Mid-Door	880	Pre	883	882	881	880	878	875	874	882	---	---	---	869	833
		Post	659	666	643	649	640	656	677	788	---	---	---	854	824
		Crush	224	216	238	231	238	219	197	94	---	---	---	15	9
Level 4 Window Sill	1205	Pre	855	858	860	859	858	857	854	870	847	843	834	820	802
		Post	-662	672	659	658	660	698	744	818	843	818	822	814	801
		Crush	1517	186	201	201	198	159	110	52	4	25	12	6	1
Level 5 Window Top	1760	Pre	621	621	621	620	619	617	614	608	587	---	---	---	---
		Post	622	614	611	607	609	610	612	611	592	---	---	---	---
		Crush	-1	7	10	13	10	7	2	-3	-5	---	---	---	---

All measurements were recorded using TRC Inc.'s FARO Arm with a tolerance of ± 0.1 mm.

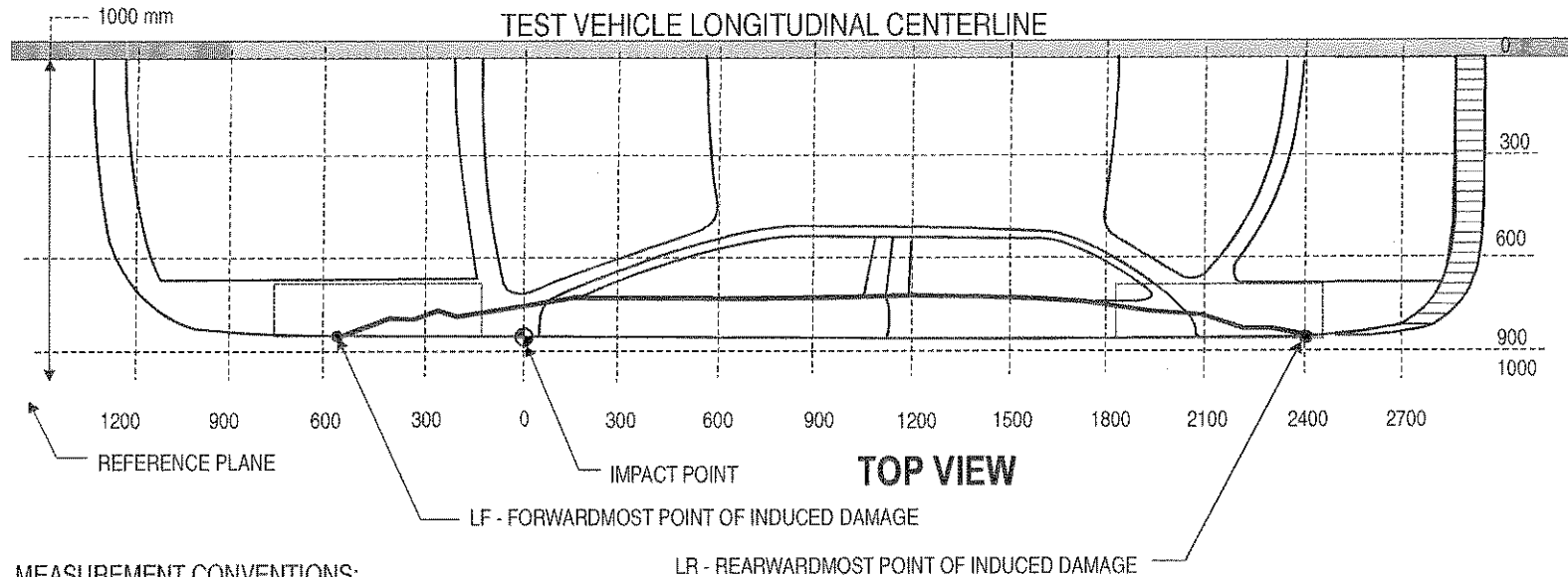
Data Sheet 11

Vehicle Damage Profile Distances

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

NOTE: All measurements are in millimeters (mm) and should be accurate to plus or minus 3mm.



MEASUREMENT CONVENTIONS:

Forward of the impact point (towards front of vehicle) is considered negative (-)

Rearward of the impact point (towards rear end of vehicle) is considered positive (+)

DPD Measurements	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
6: LF = 0 mm (Level 3)	878	868	10
5: 450 mm (Level 2)	880	606	274
4: 750 mm (Level 2)	881	621	260
3: 1200 mm (Level 2)	877	624	253
2: 1500 mm (Level 2)	872	635	237
1: LR = 1950 mm (Level 2)	880	785	95

Full length of induced damage was 1950 mm.

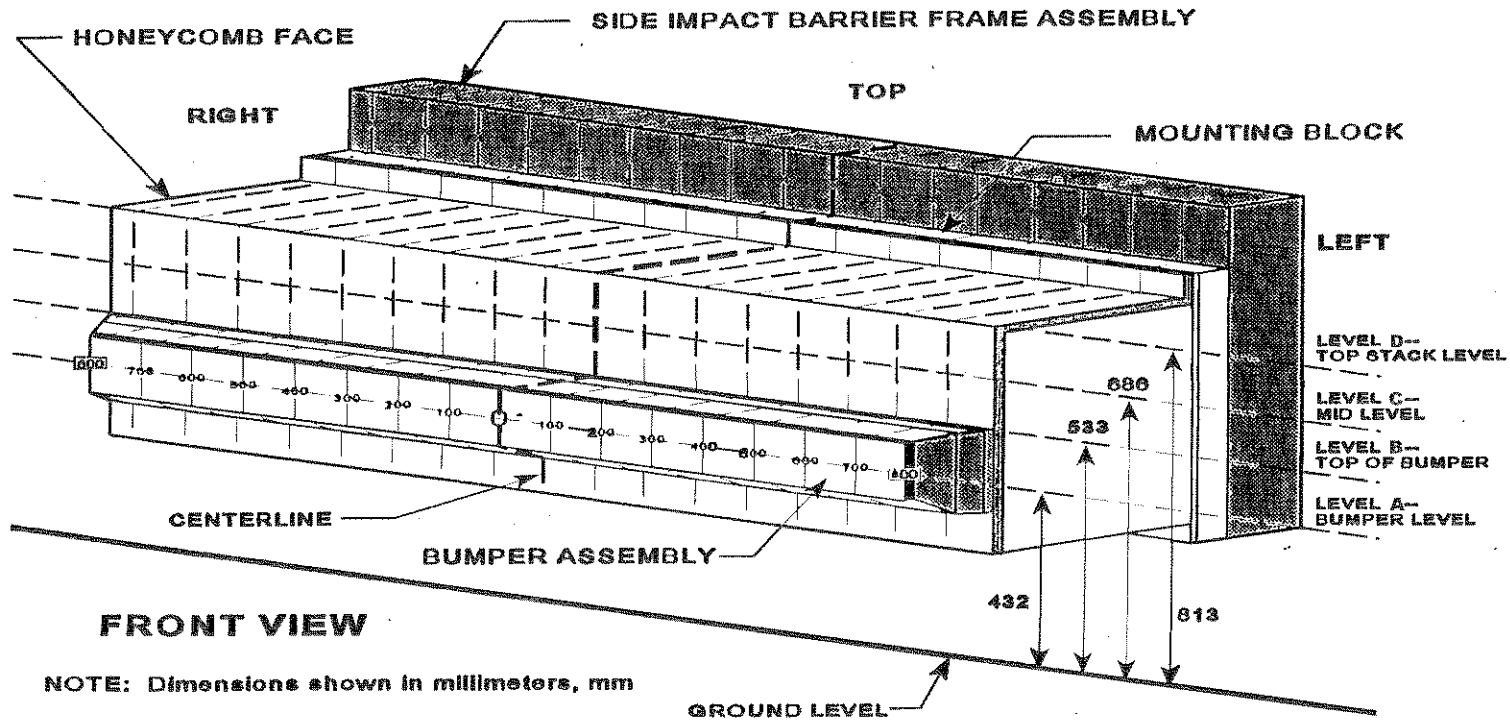
Data Sheet 12

Exterior Static Crush For Impactor Face

(Grid as looking at MDB from front)

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



4-13

061115

Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Location	Height At CL	Distance Right of Center (mm)									Distance Left of Center (mm)								
		800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800	
Top Stack Level - Level D	803	-102	-61	-30	-13	-18	-28	-59	-50	-35	-28	-29	-30	-32	-47	-73	-104	-146	
Mid Level Level C	676	-96	-54	-31	-21	-12	-15	-28	-25	-21	-14	-13	-12	-14	-18	-26	-40	-91	
Top Bumper Level-Level B ¹	549	-69	-55	-45	-40	-37	-35	-35	-35	-34	-32	-32	-32	-31	-32	-35	-51	-53	
Mid Bumper Level - Level A	422	-156	-144	-129	-124	-120	-120	-114	-111	-106	-102	-98	-94	-92	-90	-90	-96	-102	

All measurements were recorded using TRC Inc.'s FARO Arm with a tolerance of ± 0.1 mm.

¹ Top Bumper measurements are collected at 560 mm to eliminate post-test measurement point obstruction by the bumper element.

4-14

061115

Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Deformable Barrier Face Profile

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Pre-Test

Index	Xmm	Ymm	Zmm
1	-384.1	800.5	-50.8
2	-384.0	700.8	-51.1
3	-383.8	600.5	-51.6
4	-383.7	500.1	-52.2
5	-383.8	400.3	-52.3
6	-383.8	299.9	-52.8
7	-383.6	199.8	-53.2
8	-383.6	99.6	-53.5
9	-383.5	-0.4	-53.8
10	-383.3	-100.4	-54.2
11	-383.3	-200.5	-54.5
12	-383.3	-300.5	-54.7
13	-383.1	-400.8	-55.0
14	-383.1	-500.8	-55.4
15	-382.8	-600.7	-55.3
16	-382.7	-700.8	-55.7
17	-382.9	-800.7	-55.8
18	-384.0	800.8	-177.3
19	-383.9	700.5	-177.4
20	-384.0	600.6	-177.7
21	-383.9	500.2	-178.0
22	-383.7	400.8	-178.4
23	-383.8	300.5	-178.9

Post-Test

Index	Xmm	Ymm	Zmm
1	-282.6	749.8	-107.1
2	-323.0	659.1	-100.6
3	-354.0	564.5	-95.5
4	-370.6	466.0	-91.8
5	-366.3	366.2	-89.8
6	-355.3	266.3	-89.1
7	-324.7	170.6	-92.7
8	-334.0	72.5	-97.1
9	-348.1	-26.2	-90.3
10	-354.9	-125.8	-82.4
11	-354.3	-226.1	-77.1
12	-353.3	-326.2	-71.7
13	-351.2	-426.7	-66.1
14	-336.0	-524.6	-67.8
15	-309.7	-620.3	-68.8
16	-278.5	-714.2	-73.4
17	-236.8	-804.2	-81.1
18	-288.2	743.8	-228.4
19	-330.4	654.1	-220.7
20	-353.2	559.9	-219.0
21	-363.0	462.6	-215.9
22	-371.2	363.8	-215.1
23	-369.2	263.7	-213.6

Difference

Index	Xmm	Ymm	Zmm
1	-101.5	50.7	56.3
2	-61.0	41.7	49.5
3	-29.8	36.0	43.9
4	-13.1	34.1	39.6
5	-17.5	34.1	37.5
6	-28.5	33.6	36.3
7	-58.9	29.2	39.5
8	-49.6	27.1	43.6
9	-35.4	25.8	36.5
10	-28.4	25.4	28.2
11	-29.0	25.6	22.6
12	-30.0	25.7	17.0
13	-31.9	25.9	11.1
14	-47.1	23.8	12.4
15	-73.1	19.6	13.5
16	-104.2	13.4	17.7
17	-146.1	3.5	25.3
18	-95.8	57.0	51.1
19	-53.5	46.4	43.3
20	-30.8	40.7	41.3
21	-20.9	37.6	37.9
22	-12.5	37.0	36.7
23	-14.6	36.8	34.7

Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Deformable Barrier Face Profile Cont'd.

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Pre-Test

Index	Xmm	Ymm	Zmm
24	-383.7	200.7	-179.1
25	-383.6	100.6	-179.2
26	-383.5	0.5	-179.4
27	-383.5	-98.7	-179.5
28	-383.3	-199.2	-179.9
29	-383.3	-299.1	-180.1
30	-383.1	-399.4	-180.1
31	-382.9	-499.3	-180.5
32	-382.7	-599.1	-180.9
33	-382.5	-699.3	-181.0
34	-382.3	-799.8	-181.1
35	-383.7	801.9	-304.8
36	-383.6	701.0	-305.0
37	-383.7	600.7	-305.1
38	-383.7	500.8	-305.8
39	-383.8	400.8	-305.5
40	-383.6	300.9	-305.7
41	-383.5	200.7	-305.9
42	-383.9	100.6	-305.2
43	-383.4	0.9	-305.8
44	-383.3	-98.9	-306.5
45	-383.1	-199.0	-306.4
46	-383.1	-299.3	-306.8

Post-Test

Index	Xmm	Ymm	Zmm
24	-355.2	165.2	-212.9
25	-358.2	66.6	-207.0
26	-362.4	-33.2	-204.1
27	-369.5	-131.9	-199.6
28	-370.6	-232.2	-195.9
29	-371.4	-332.1	-192.2
30	-368.8	-432.3	-187.9
31	-364.6	-532.4	-184.3
32	-356.8	-632.3	-180.8
33	-342.2	-731.8	-177.9
34	-291.0	-815.5	-192.8
35	-314.9	761.5	-323.3
36	-328.7	661.9	-329.6
37	-339.1	561.8	-334.7
38	-343.5	462.0	-336.3
39	-347.0	361.9	-336.5
40	-348.9	261.9	-336.0
41	-348.8	161.4	-334.5
42	-349.1	62.1	-331.2
43	-349.9	-37.7	-326.4
44	-351.6	-137.2	-323.4
45	-350.7	-237.4	-319.0
46	-351.0	-337.5	-314.7

Difference

Index	Xmm	Ymm	Zmm
24	-28.5	35.5	33.8
25	-25.4	34.0	27.8
26	-21.1	33.7	24.7
27	-14.0	33.2	20.1
28	-12.7	33.0	16.0
29	-11.9	33.0	12.1
30	-14.3	32.9	7.8
31	-18.3	33.1	3.8
32	-25.9	33.2	-0.1
33	-40.3	32.5	-3.1
34	-91.3	15.7	11.7
35	-68.8	40.4	18.5
36	-54.9	39.1	24.6
37	-44.6	38.9	29.6
38	-40.2	38.8	30.5
39	-36.8	38.9	31.0
40	-34.7	39.0	30.3
41	-34.7	39.3	28.6
42	-34.8	38.5	26.0
43	-33.5	38.6	20.6
44	-31.7	38.3	16.9
45	-32.4	38.4	12.6
46	-32.1	38.2	7.9

Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Vehicle: 2007 Nissan Sentra 4-door

Deformable Barrier Face Profile Cont'd.

NHTSA No.: C75200

Pre-Test

Index	Xmm	Ymm	Zmm
47	-383.0	-399.1	-306.9
48	-382.8	-498.9	-307.5
49	-382.4	-598.6	-307.7
50	-382.0	-699.1	-307.6
51	-381.6	-799.2	-307.5
52	-474.4	796.6	-431.5
53	-485.3	699.4	-432.3
54	-485.3	599.4	-432.7
55	-485.4	499.7	-432.6
56	-485.5	400.0	-432.7
57	-485.5	299.5	-433.2
58	-485.4	199.4	-433.4
59	-485.2	99.4	-433.9
60	-485.2	-0.1	-434.1
61	-485.0	-100.2	-434.3
62	-484.9	-200.1	-434.6
63	-484.7	-300.1	-434.8
64	-484.7	-400.2	-435.6
65	-484.4	-500.2	-436.2
66	-484.1	-599.9	-436.3
67	-484.2	-700.0	-436.5
68	-471.5	-795.7	-436.9

Post-Test

Index	Xmm	Ymm	Zmm
47	-352.2	-437.5	-311.3
48	-350.9	-537.5	-308.5
49	-347.4	-637.6	-305.5
50	-330.7	-736.4	-298.1
51	-329.0	-836.5	-296.0
52	-318.6	752.6	-462.9
53	-341.7	657.8	-473.6
54	-356.2	558.7	-478.2
55	-361.7	459.3	-477.1
56	-365.7	359.4	-475.7
57	-365.4	259.3	-472.1
58	-371.7	159.3	-471.3
59	-374.5	59.4	-468.8
60	-378.9	-40.1	-467.0
61	-382.9	-140.1	-464.7
62	-386.9	-240.1	-462.7
63	-390.4	-339.7	-460.1
64	-393.0	-440.0	-457.8
65	-394.6	-539.7	-454.9
66	-393.8	-639.4	-450.6
67	-388.2	-739.4	-444.8
68	-369.6	-833.9	-436.2

Difference

Index	Xmm	Ymm	Zmm
47	-30.8	38.4	4.4
48	-31.9	38.6	1.0
49	-35.0	39.0	-2.2
50	-51.3	37.3	-9.5
51	-52.6	37.3	-11.5
52	-155.8	44.0	31.4
53	-143.6	41.6	41.3
54	-129.1	40.7	45.5
55	-123.7	40.4	44.5
56	-119.8	40.6	43.0
57	-120.1	40.2	38.9
58	-113.7	40.1	37.9
59	-110.7	40.0	34.9
60	-106.3	40.0	32.9
61	-102.1	39.9	30.4
62	-98.0	40.0	28.1
63	-94.3	39.6	25.3
64	-91.7	39.8	22.2
65	-89.8	39.5	18.7
66	-90.3	39.5	14.3
67	-96.0	39.4	8.3
68	-101.9	38.2	-0.7

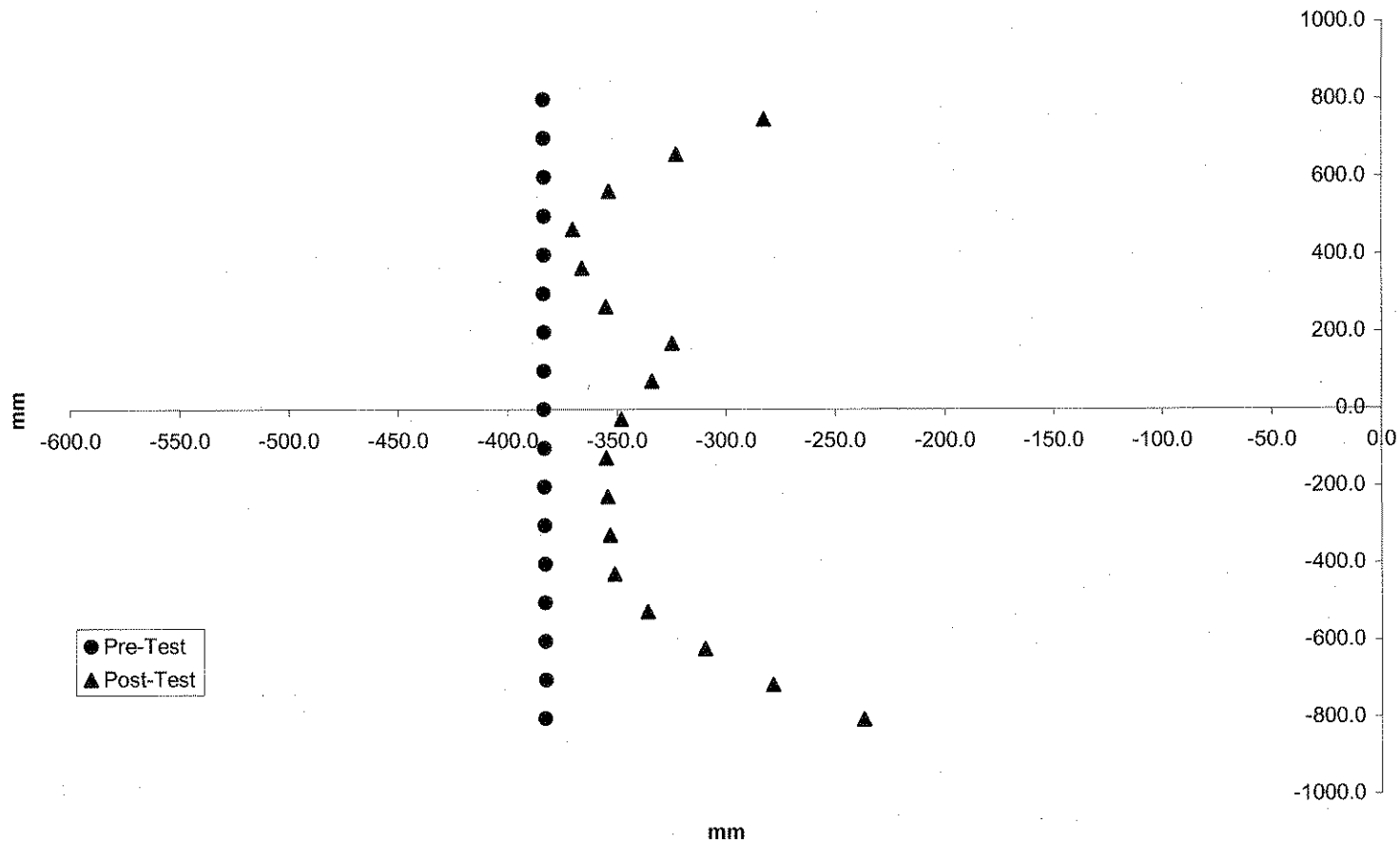
Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Deformable Barrier Face Profile 1-17



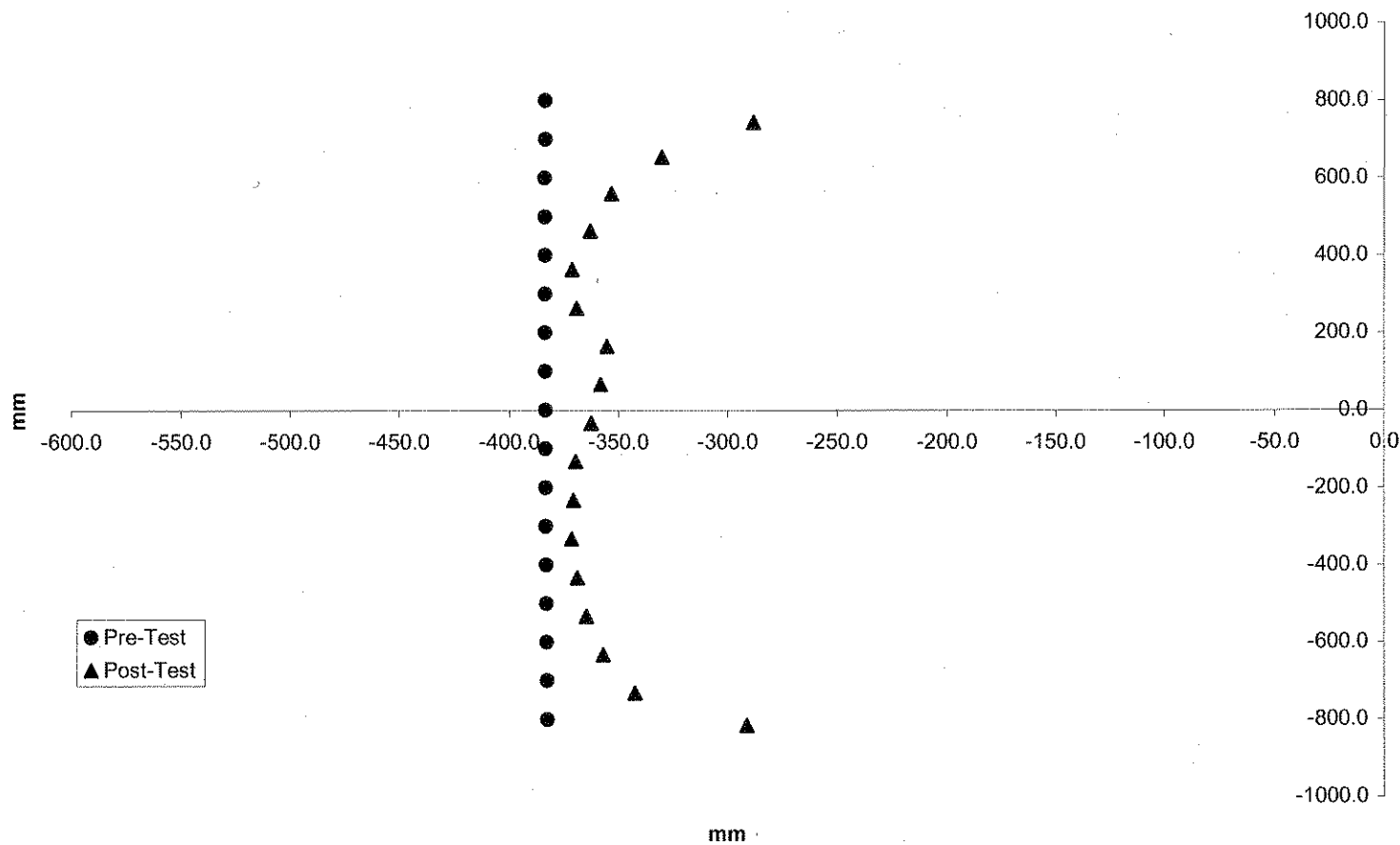
Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Deformable Barrier Face Profile 18-34



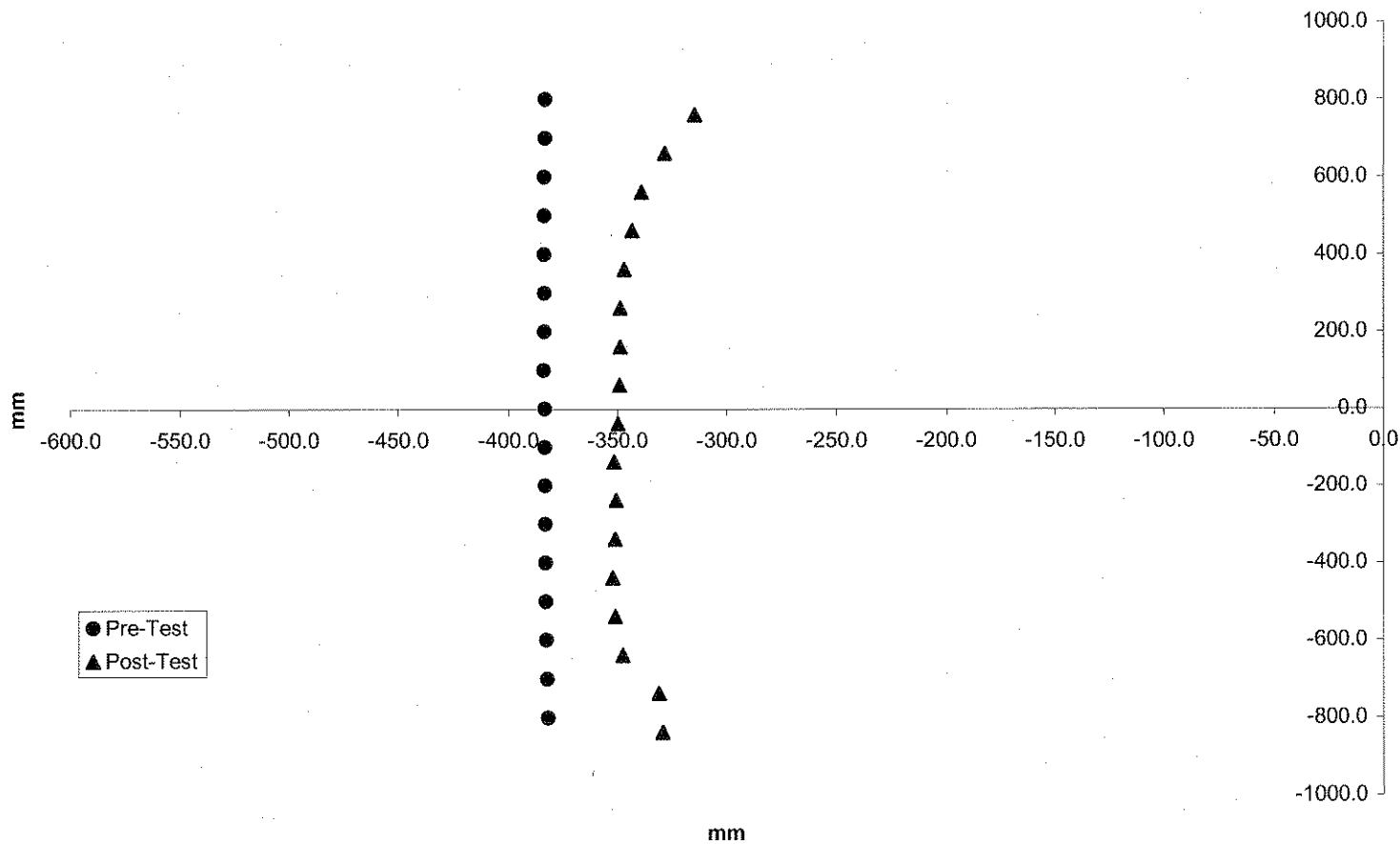
Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Deformable Barrier Face Profile 35-51



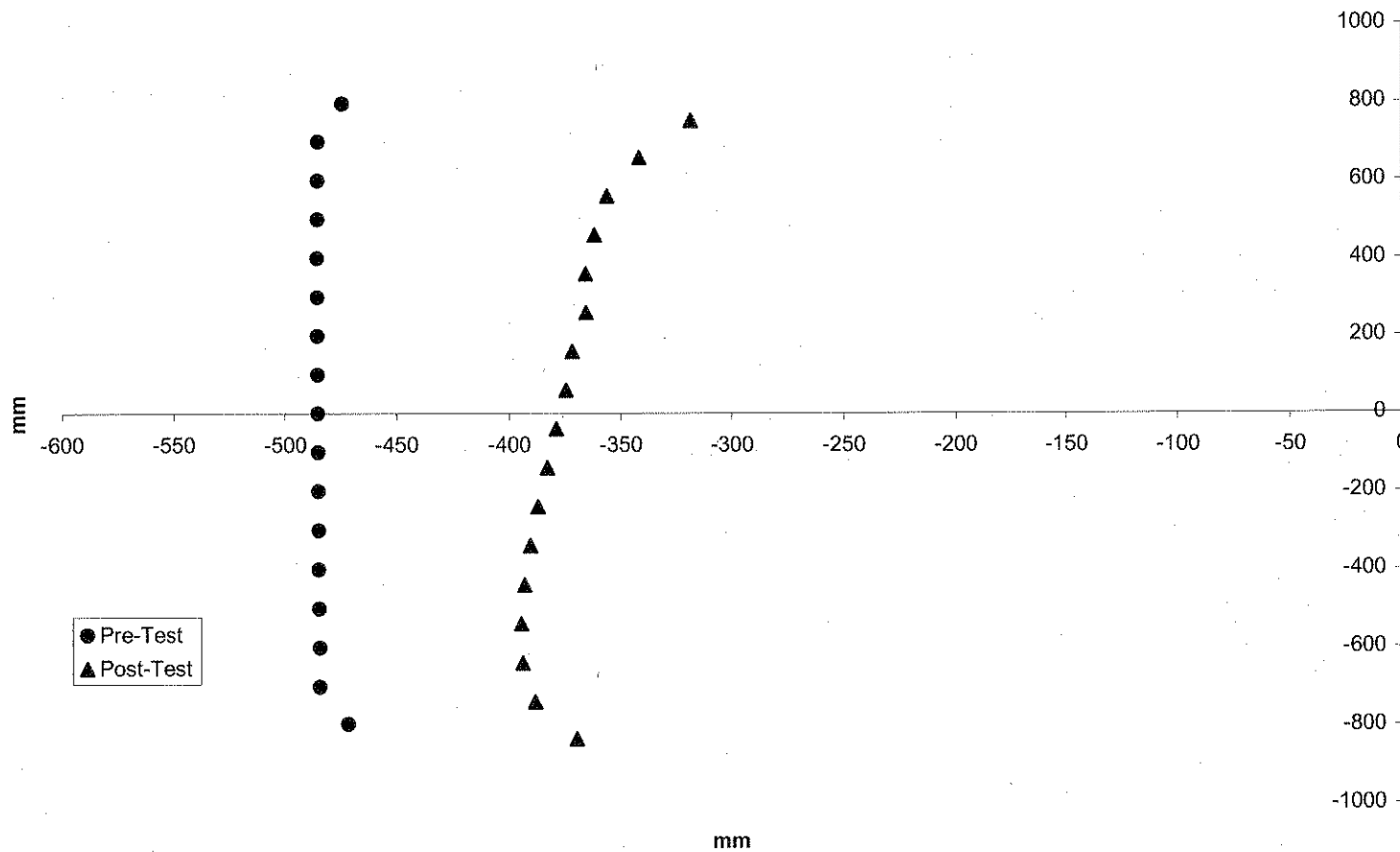
Data Sheet 12 (Continued)

Exterior Static Crush For Impactor Face

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Deformable Barrier Face Profile 52-68



4-21

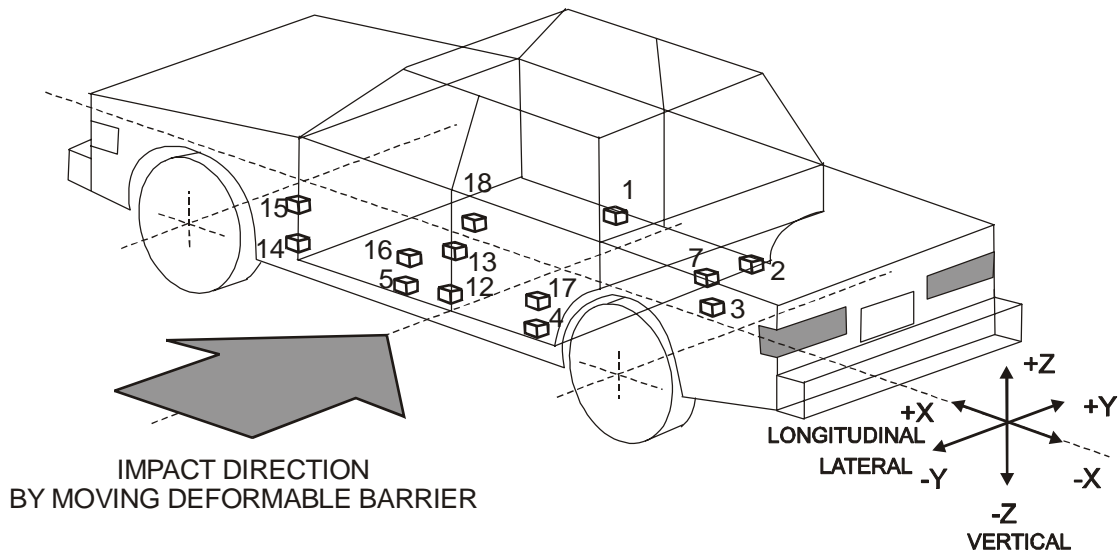
061115

Data Sheet 13

Test Vehicle Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



- 1-Right Front Side Sill
- 2-Right Side Sill at Rear Seat
- 3-Rear Floorpan above Axle
- 4-Left Side Sill at Rear Seat
- 5-Left Front Side Sill
- 7-Right Rear Occupant Compartment
- 12-Left Side Lower B-pillar

- 13-Left Side Middle B-pillar
- 14-Left Side Lower A-pillar
- 15-Left Side Middle A-pillar
- 16-Left Side Front Seat Track at H-point
- 17-Left Rear Seat Track at H-point
- 18-Vehicle Center of Gravity

Data Sheet 13 (Continued)

Test Vehicle Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
1 Right Side Sill at Front Seat	2965	690	-274				
Longitudinal				3.8	37.2	5.0	12.8
Lateral				24.8	6.6	2.2	169.0
Vertical				4.3	66.2	8.4	11.8
Resultant				24.9	6.7		
2 Right Side Sill at Rear Seat	2265	695	-288				
Longitudinal				4.4	37.3	5.0	12.9
Lateral				29.3	7.4	3.2	69.2
Vertical				4.3	33.7	6.8	10.7
Resultant				29.4	7.4		
3 Rear Floorpan Above Axle	1423	40	-494				
Longitudinal				4.2	53.8	10.7	18.6
Lateral				33.7	8.3	2.1	93.1
Vertical				7.1	11.7	9.5	53.4
Resultant				33.7	8.3		
4 Left Side Sill at Rear Seat	2220	-695	-282				
Longitudinal							
Lateral				73.2	9.3	53.5	13.8
Vertical							
Resultant							
5 Left Side Sill at Front Seat	2935	-690	-264				
Longitudinal							
Lateral				71.2	3.7	17.6	13.0
Vertical							
Resultant							

Data Sheet 13 (Continued)

Test Vehicle Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
7 Right Rear Occupant Compartment	2035	497	-386				
Longitudinal							
Lateral				28.1	7.1	2.4	93.4
Vertical							
Resultant							
12 Left Lower B-Pillar	2387	-801	-555				
Longitudinal							
Lateral				120.1	4.7	28.9	14.5
Vertical							
Resultant							
13 Left Middle B-Pillar	2370	-790	-893				
Longitudinal							
Lateral ¹				----	----	----	----
Vertical							
Resultant							
14 Left Lower A-Pillar	3457	-802	-493				
Longitudinal							
Lateral ¹				106.4	2.6	78.5	7.3
Vertical							
Resultant							
15 Left Middle A-Pillar	3454	-790	-834				
Longitudinal							
Lateral				44.2	2.7	3.6	23.6
Vertical							
Resultant							

Data Sheet 13 (Continued)

Test Vehicle Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
16 Left Front Seat Track	2670	-565	-243				
Longitudinal							
Lateral				28.3	4.8	2.9	92.8
Vertical							
Resultant							
17 Left Rear Seat Track	1734	-575	-390				
Longitudinal							
Lateral				39.9	7.8	2.1	102.2
Vertical							
Resultant							
18 Vehicle CG	2808	0	-425				
Longitudinal				13.3	18.8	20.3	27.1
Lateral				95.4	17.2	76.0	22.9
Vertical				24.7	17.8	31.7	22.0
Resultant				98.3	17.3		

Reference: X: + Forward from rear bumper
Y: + Rightward from vehicle centerline
Z: + Downward from ground level

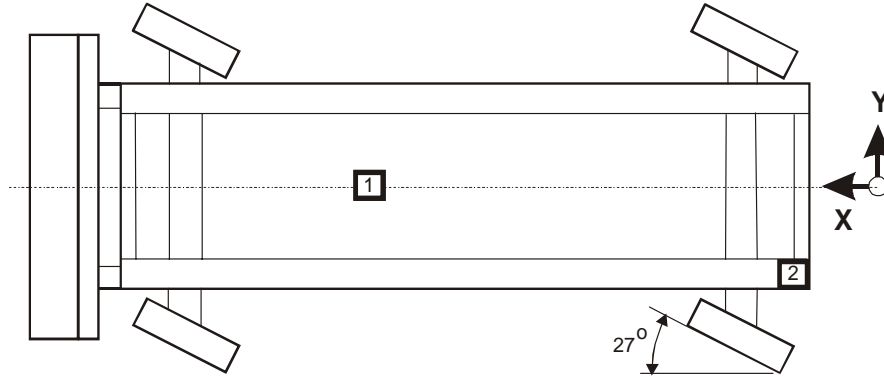
For acceleration data sign convention see Report Sign Convention in Appendix D.

Data Sheet 14

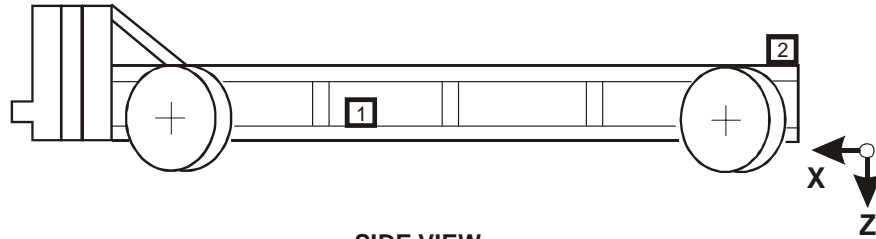
MDB Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



TOP VIEW



SIDE VIEW

Accel. No.	Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
		X*	Y*	Z*	Max. (g)	Time (ms)	Max. (g)	Time (ms)
1	MDB Center of Gravity	1855	0	-520				
	Longitudinal X				3.1	107.8	22.0	32.2
	Lateral Y				4.2	61.4	10.8	27.6
	Vertical Z				6.4	30.7	5.9	109.6
	Resultant R				23.8	31.8		
2	Rear Frame Member	412	-677	-625				
	Longitudinal X				2.0	130.0	23.3	31.8
	Lateral Y				4.1	28.4	2.9	150.6

*Reference: X = Rear Bumper (+ Forward)
 Y = Vehicle Centerline (+ To Right)
 Z = Ground Level (+ Down)

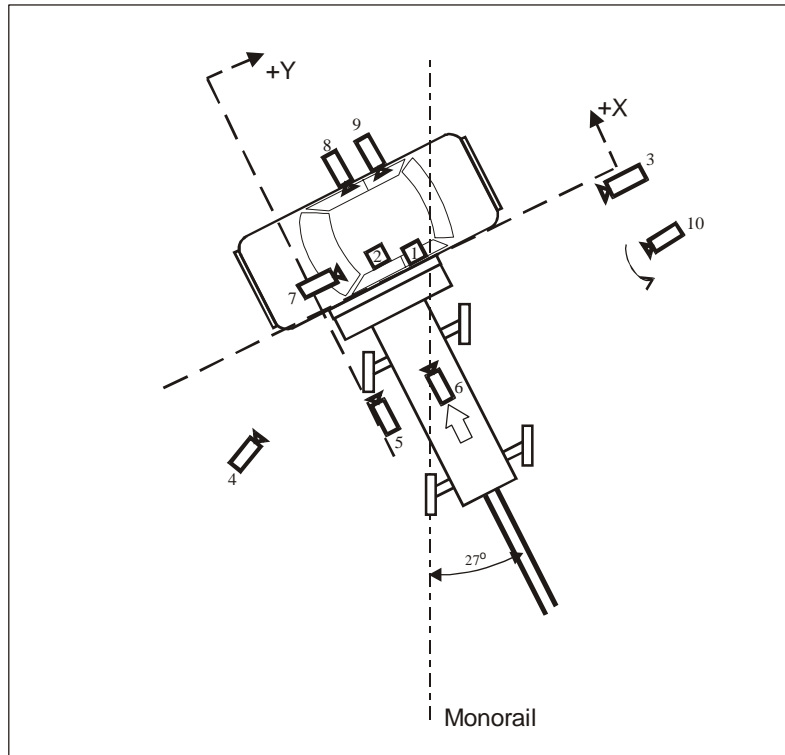
All measurements accurate to within ± 3 mm.

Data Sheet 15

High-Speed Camera Locations and Data Summary

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200



Impact
Area

Camera Number	Location	Location, mm			Angle (deg.)	Lens (mm)	Speed (fps)
		X	Y	Z			
1	Overhead wide	250	2150	-5750	-77.5	12.5	1000
2	Overhead tight	370	1800	-5750	-85.5	25	1000
3	Right side of MDB	0	7300	-940	-2.3	25	1000
4	Left side of MDB	-2400	-4650	-950	-4.1	12.5	1000
5	Onboard MDB left side	-1750	-40	-720	-0.5	12.5	1000
6	Onboard MDB center	-2480	830	-1353	-5.2	12.5	1000
7	Onboard vehicle front	520	-1420	-1290	-3.1	12.5	1000
8	Onboard side front door	1690	300	-1150	-11.1	6.5	1000
9	Onboard side rear door	1690	650	-1270	-15.5	6.5	1000
10	Documentary/Panning	N/A	N/A	N/A	N/A	Zoom	30

+X: Forward (referenced to MDB) from impact point
 +Y: Rightward (referenced to MDB) from impact point
 +Z: Downward from ground level

Section 5

Vehicle Fuel System Integrity

Data Sheet 16

FMVSS 301 Fuel System Integrity Data

NHTSA No.: C75200

Test Date: 11/15/06

Vehicle Year/Make/Model/Body Style: 2007 Nissan Sentra 4-door

Test Vehicle Impact Type :

- Frontal (48.3 km/h)
- Oblique (48.3 km/h) with ____° barrier face first contacting the (driver/passenger) side
- Rear Moving Barrier (48.3 km/h)
- Lateral Moving Barrier (32.2 km/h)
- Side Impact Moving Deformable Barrier (62.0 km/h) contacting the driver side

Fuel Spillage Measurement:

1. From impact until vehicle motion ceases
2. For five-minute period after vehicle motion ceases
3. For next 25 minutes.

Actual	Maximum Allowed
0 g	28 g
0 g	142 g
0 g	28 g/1 minute

Solvent Spillage Details :

None

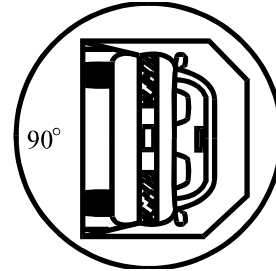
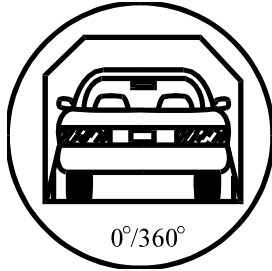
Data Sheet 17

FMVSS 301 Rollover Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

0 - 90 Degrees



1. Determination of Solvent Collection Time Period:

Rollover Fixture 90° Rotation Time	___ 1 ___	minutes	___ 30 ___	seconds
(Spec. Range = 1 to 3 minutes)				
FMVSS 301 Position Hold Time +	___ 5 ___	minutes	___ 0 ___	seconds
Total	___ 6 ___	minutes	___ 30 ___	seconds
Next whole minute interval	___ 7 ___	minutes		

2. FMVSS 301 Requirements:

(1) Time Period

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

3. Actual Test Vehicle Solvent Spillage:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

4. Solvent Spillage Location(s):

None

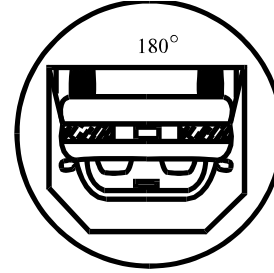
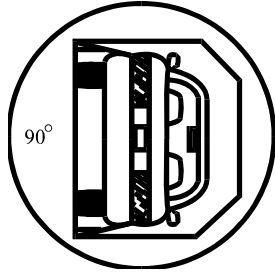
Data Sheet 17 (Continued)

FMVSS 301 Rollover Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

90 - 180 Degrees



1. Determination of Solvent Collection Time Period:

Rollover Fixture 90° Rotation Time	<u> 1 </u> minutes	<u> 30 </u> seconds
(Spec. Range = 1 to 3 minutes)		
FMVSS 301 Position Hold Time +	<u> 5 </u> minutes	<u> 0 </u> seconds
Total	<u> 6 </u> minutes	<u> 30 </u> seconds
Next whole minute interval	<u> 7 </u> minutes	

2. FMVSS 301 Requirements:

(1) Time Period

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

3. Actual Test Vehicle Solvent Spillage:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

4. Solvent Spillage Location(s):

None

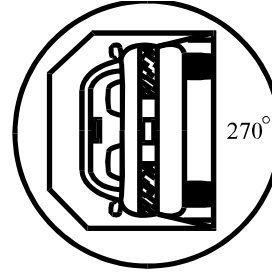
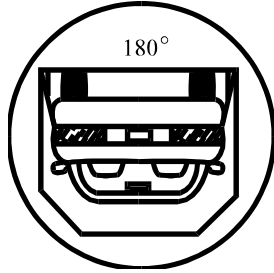
Data Sheet 17 (Continued)

FMVSS 301 Rollover Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

180 - 270 Degrees



1. Determination of Solvent Collection Time Period:

Rollover Fixture 90° Rotation Time 1 minutes 30 seconds
(Spec. Range = 1 to 3 minutes)
FMVSS 301 Position Hold Time + 5 minutes 0 seconds
Total 6 minutes 30 seconds
Next whole minute interval 7 minutes

2. FMVSS 301 Requirements:

(1) Time Period

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

3. Actual Test Vehicle Solvent Spillage:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

4. Solvent Spillage Location(s):

None

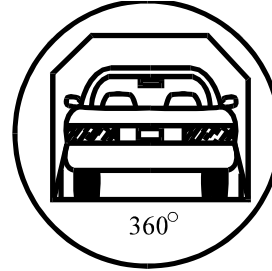
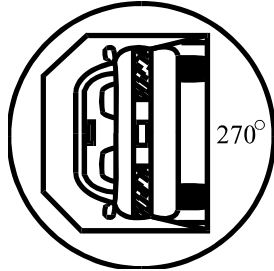
Data Sheet 17 (Continued)

FMVSS 301 Rollover Data

Vehicle: 2007 Nissan Sentra 4-door

NHTSA No.: C75200

270 - 360 Degrees



1. Determination Of Solvent Collection Time Period:

Rollover Fixture 90° Rotation Time 1 minutes 30 seconds
(Spec. Range = 1 to 3 minutes)
FMVSS 301 Position Hold Time + 5 minutes 0 seconds
Total 6 minutes 30 seconds
Next whole minute interval 7 minutes

2. FMVSS 301 Requirements:

(1) Time Period

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

3. Actual Test Vehicle Solvent Spillage:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

4. Solvent Spillage Location(s):

None

Appendix A

Photographs

List of Photographs

<u>Figure</u>	<u>Description</u>	<u>Page</u>
Figure A-1	Pre-Test Front View of Test Vehicle	A-6
Figure A-2	Post-Test Front View of Test Vehicle	A-7
Figure A-3	Pre-Test Left Front View of Test Vehicle	A-8
Figure A-4	Post-Test Left Front View of Test Vehicle	A-9
Figure A-5	Pre-Test Impacted Side View of Test Vehicle	A-10
Figure A-6	Post-Test Impacted Side View of Test Vehicle	A-11
Figure A-7	Pre-Test Left Rear View of Test Vehicle	A-12
Figure A-8	Post-Test Left Rear View of Test Vehicle	A-13
Figure A-9	Pre-Test Rear View of Test Vehicle	A-14
Figure A-10	Post-Test Rear View of Test Vehicle	A-15
Figure A-11	Pre-Test Right Rear View of Test Vehicle	A-16
Figure A-12	Post-Test Right Rear View of Test Vehicle	A-17
Figure A-13	Pre-Test Right Side View of Test Vehicle	A-18
Figure A-14	Post-Test Right Side View of Test Vehicle	A-19
Figure A-15	Pre-Test Right Front View of Test Vehicle	A-20
Figure A-16	Post-Test Right Front View of Test Vehicle	A-21
Figure A-17	Pre-Test Frontal View of Impactor Face	A-22
Figure A-18	Post-Test Frontal View of Impactor Face	A-23
Figure A-19	Pre-Test Left Side View of Impactor Face	A-24
Figure A-20	Post-Test Left Side View of Impactor Face	A-25
Figure A-21	Pre-Test Right Side View of Impactor Face	A-26
Figure A-22	Post-Test Right Side View of Impactor Face	A-27
Figure A-23	Pre-Test Top View of Impactor Face	A-28
Figure A-24	Post-Test Top View of Impactor Face	A-29
Figure A-25	Pre-Test Left Side View of Impactor	A-30
Figure A-26	Post-Test Left Side View of Impactor	A-31
Figure A-27	Pre-Test Right Side View of Impactor	A-32
Figure A-28	Post-Test Right Side View of Impactor	A-33

List of Photographs, Cont'd.

<u>Figure</u>	<u>Description</u>	<u>Page</u>
Figure A-29	Pre-Test Top View of Impactor	A-34
Figure A-30	Post-Test Top View of Impactor	A-35
Figure A-31	Pre-Test Left Front Overall View of Impactor	A-36
Figure A-32	Post-Test Left Front Overall View of Impactor	A-37
Figure A-33	Pre-Test Left Side Overall View of Impactor	A-38
Figure A-34	Post-Test Left Side Overall View of Impactor	A-39
Figure A-35	Pre-Test Rear Overall View of Impactor	A-40
Figure A-36	Post-Test Rear Overall View of Impactor	A-41
Figure A-37	Pre-Test Right Side Overall View of Impactor	A-42
Figure A-38	Post-Test Right Side Overall View of Impactor	A-43
Figure A-39	Pre-Test Right Front Overall View of Impactor	A-44
Figure A-40	Post-Test Right Front Overall View of Impactor	A-45
Figure A-41	Pre-Test View of MDB Showing Contact Switches in Place	A-46
Figure A-42	Post-Test View of MDB Showing Contact Switches in Place	A-47
Figure A-43	Pre-Test Overhead View of MDB Aligned with Vehicle	A-48
Figure A-44	Post-Test Overhead View of MDB and Vehicle	A-49
Figure A-45	Pre-Test Right Occupant Compartment View of Front SID HIII	A-50
Figure A-46	Post-Test Right Occupant Compartment View of Front SID HIII	A-51
Figure A-47	Pre-Test Right Occupant Compartment View of Rear SID HIII	A-52
Figure A-48	Post-Test Right Occupant Compartment View of Rear SID HIII	A-53
Figure A-49	Pre-Test Left View of Front SID HIII	A-54
Figure A-50	Post-Test Left View of Front SID HIII	A-55
Figure A-51	Pre-Test Left View of Front SID HIII and Belt Position	A-56
Figure A-52	Pre-Test Left View of Front SID HIII and Door Clearance	A-57
Figure A-53	Post-Test Left View of Front SID HIII and Door Clearance	A-58
Figure A-54	Pre-Test Left View of Rear SID HIII	A-59
Figure A-55	Post-Test Left View of Rear SID HIII	A-60
Figure A-56	Pre-Test Left of Rear SID HIII and Belt Position	A-61

List of Photographs, Cont'd.

<u>Figure</u>	<u>Description</u>	<u>Page</u>
Figure A-57	Pre-Test Left View of Rear SID HIII and Door Clearance	A-62
Figure A-58	Post-Test Left View of Rear SID HIII and Door Clearance	A-63
Figure A-59	Pre-Test Interior of Front Door	A-64
Figure A-60	Post-Test Interior of Front Door Showing SID HIII Impact Locations	A-65
Figure A-61	Post-Test Front SID HIII Contact - View 1	A-66
Figure A-62	Post-Test Front SID HIII Contact - View 2	A-67
Figure A-63	Post-Test Front SID HIII Contact - View 3	A-68
Figure A-64	Pre-Test Interior of Rear Panel	A-69
Figure A-65	Post-Test Interior of Rear Panel Showing SID HIII Impact Locations	A-70
Figure A-66	Post-Test Rear SID HIII Contact - View 1	A-71
Figure A-67	Post-Test Rear SID HIII Contact - View 2	A-72
Figure A-68	Post-Test Rear SID HIII Contact - View 3	A-73
Figure A-69	Pre-Test Left Side View of MDB With Impactor Face in Position	A-74
Figure A-70	Post-Test Left Side View of MDB With Impactor Face in Position	A-75
Figure A-71	Pre-Test Primary Impact Point View	A-76
Figure A-72	Post-Test Primary Impact Point View	A-77
Figure A-73	Pre-Test Right Side View of MDB With Impactor Face in Position	A-78
Figure A-74	Post-Test Right Side View of MDB With Impactor Face in Position	A-79
Figure A-75	Pre-Test Secondary Impact Point View	A-80
Figure A-76	Post-Test Secondary Impact Point View	A-81
Figure A-77	Pre-Test Overhead view of MDB With Impactor Face in Position	A-82
Figure A-78	Post-Test Overhead view of MDB With Impactor Face in Position	A-83
Figure A-79	Pre-Test Vehicle Certification Label View	A-84
Figure A-80	Pre-Test Vehicle Recommended Tire Pressure Label View	A-85
Figure A-81	Post-Test Light Trap Digital Readout - View 1	A-86
Figure A-82	Post-Test Light Trap Digital Readout - View 2	A-87
Figure A-83	Impact Event	A-88

List of Photographs, Cont'd.

<u>Figure</u>	<u>Description</u>	<u>Page</u>
Figure A-84	Pre-Test Fuel Cap	A-89
Figure A-85	Post-Test Fuel Cap	A-90
Figure A-86	FMVSS 301 Rollover View at 90°	A-91
Figure A-87	FMVSS 301 Rollover View at 180°	A-92
Figure A-88	FMVSS 301 Rollover View at 270°	A-93
Figure A-89	FMVSS 301 Rollover View at 360°	A-94



Figure A-1 Pre-Test Front View of Test Vehicle



Figure A-2 Post-Test Front View of Test Vehicle



Figure A-3 Pre-Test Left Front View of Test Vehicle



Figure A-4 Post-Test Left Front View of Test Vehicle



Figure A-5 Pre-Test Impacted Side View of Test Vehicle



Figure A-6 Post-Test Impacted Side View of Test Vehicle



Figure A-7 Pre-Test Left Rear View of Test Vehicle



Figure A-8 Post-Test Left Rear View of Test Vehicle

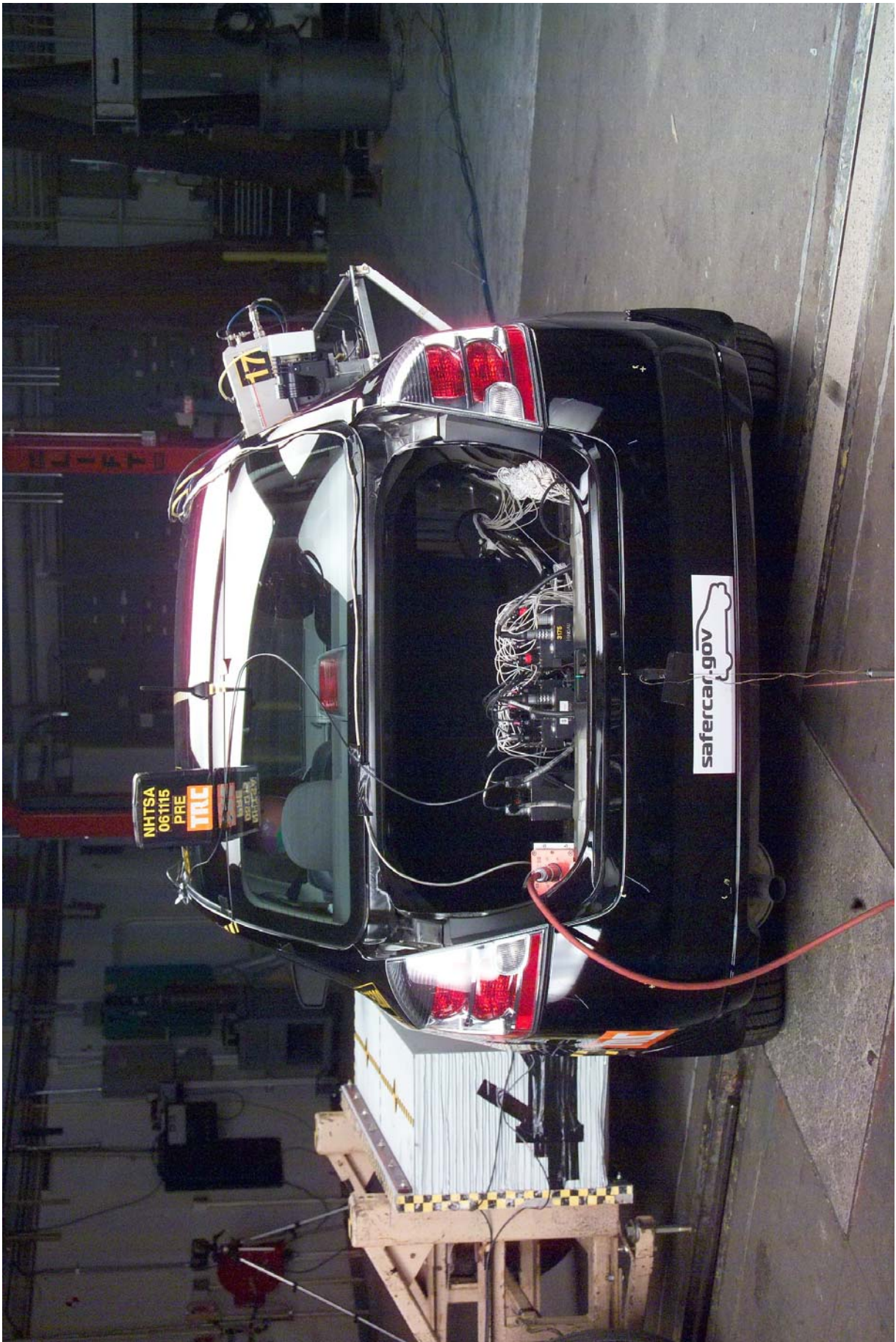


Figure A-9 Pre-Test Rear View of Test Vehicle



Figure A-10 Post-Test Rear View of Test Vehicle



Figure A-11 Pre-Test Right Rear View of Test Vehicle



Figure A-12 Post-Test Right Rear View of Test Vehicle

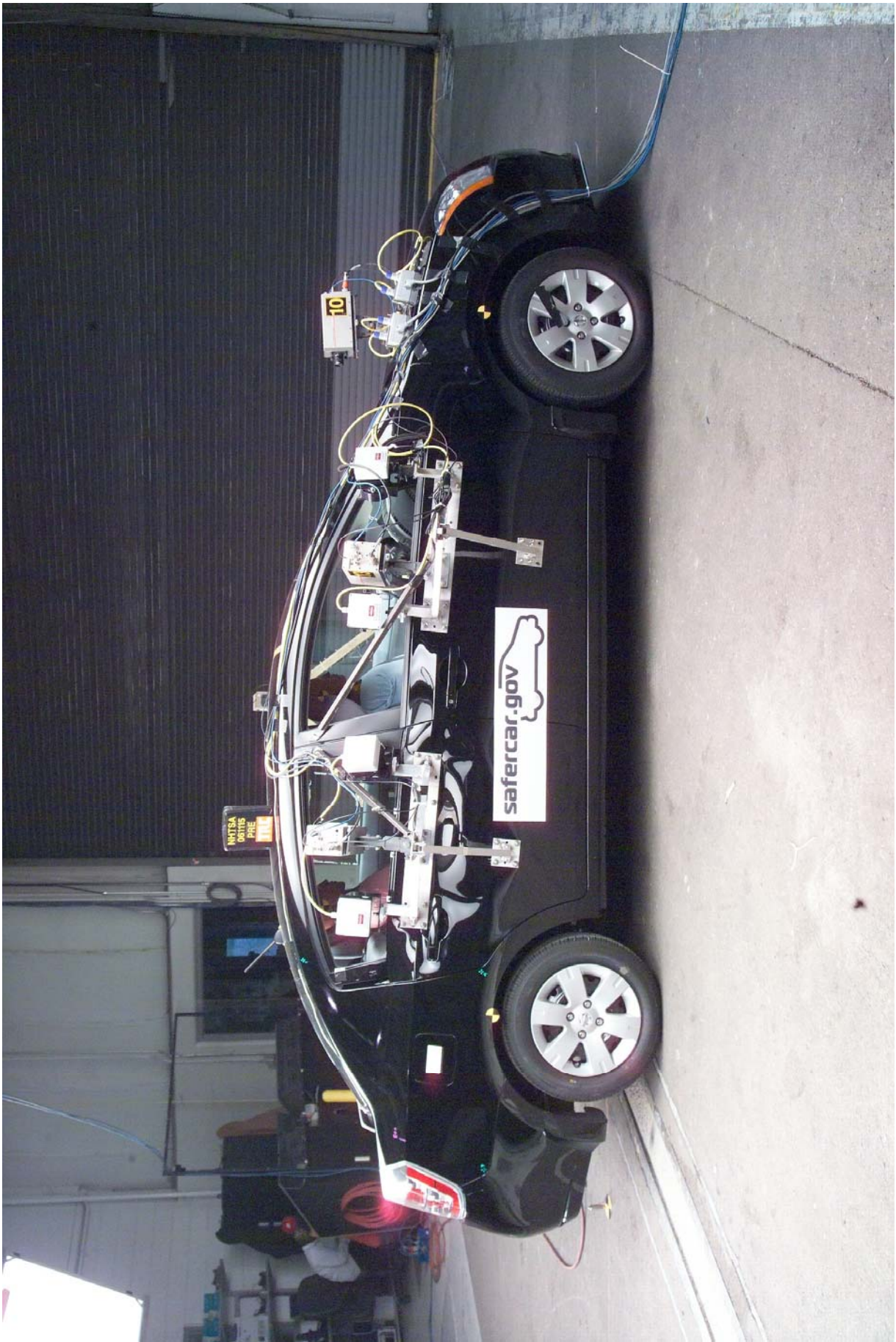


Figure A-13 Pre-Test Right Side View of Test Vehicle



Figure A-14 Post-Test Right Side View of Test Vehicle



Figure A-15 Pre-Test Right Front View of Test Vehicle



Figure A-16 Post-Test Right Front View of Test Vehicle

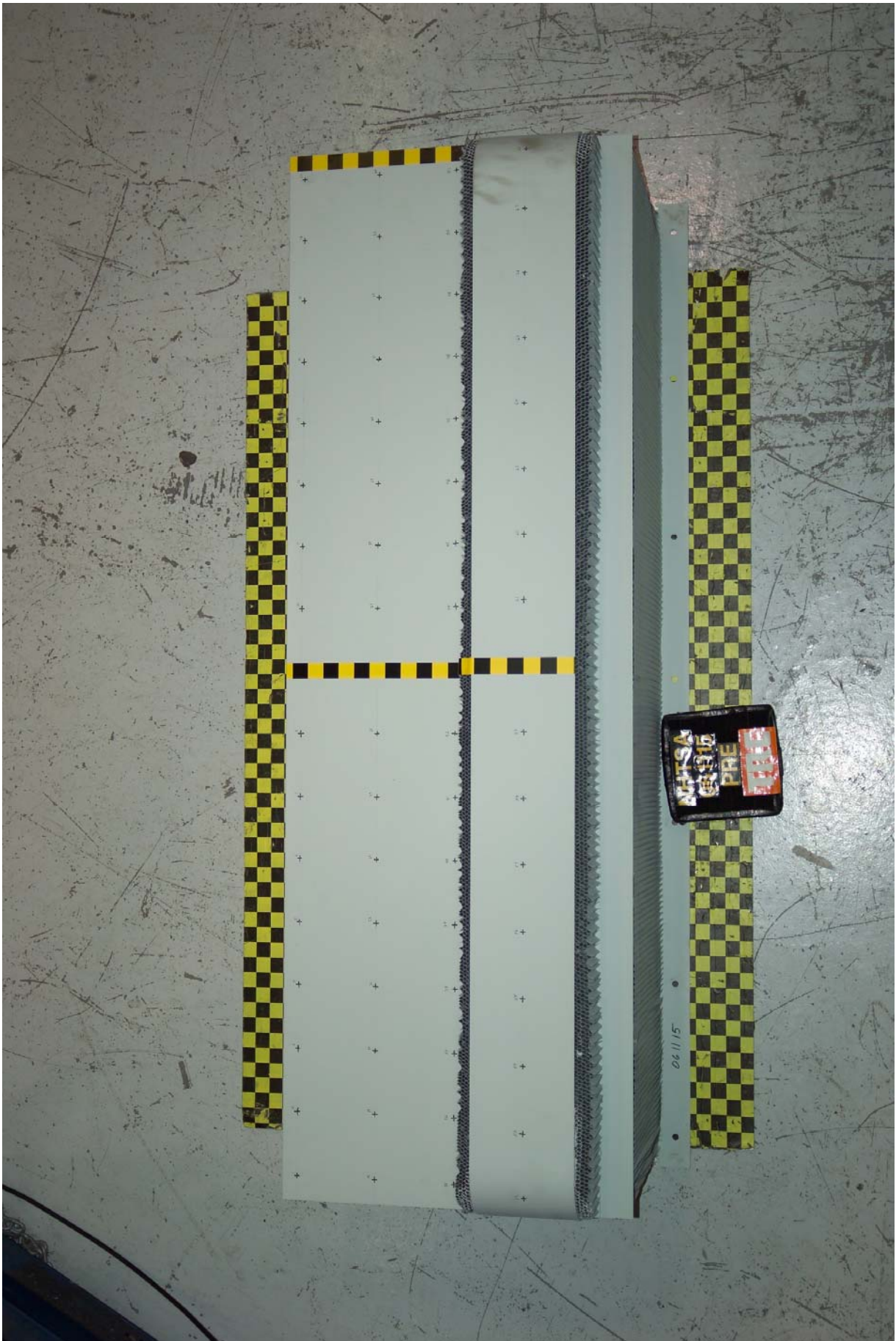


Figure A-17 Pre-Test Frontal View of Impactor Face



Figure A-18 Post-Test Frontal View of Impactor Face

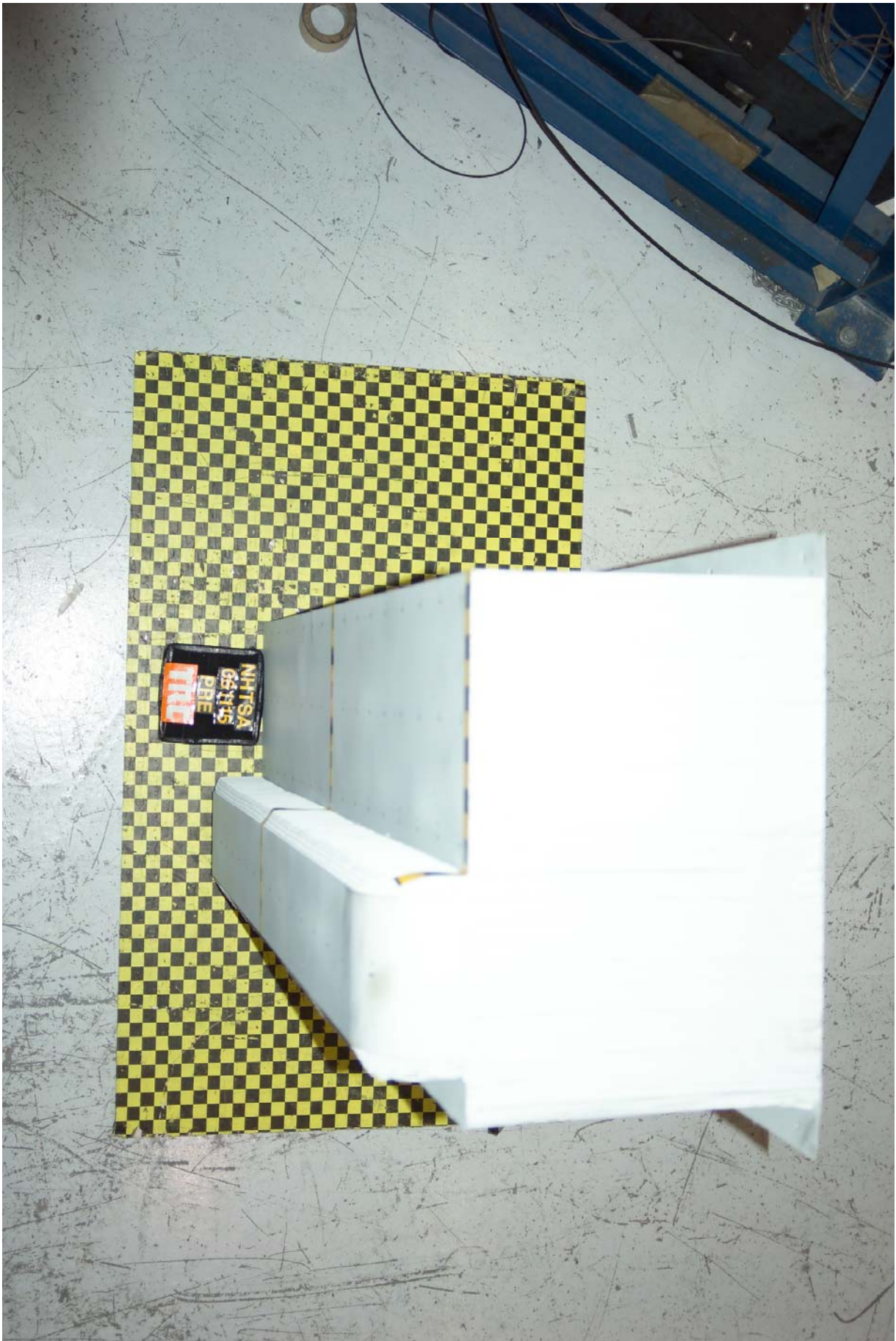


Figure A-19 Pre-Test Left Side View of Impactor Face



Figure A-20 Post-Test Left Side View of Impactor Face

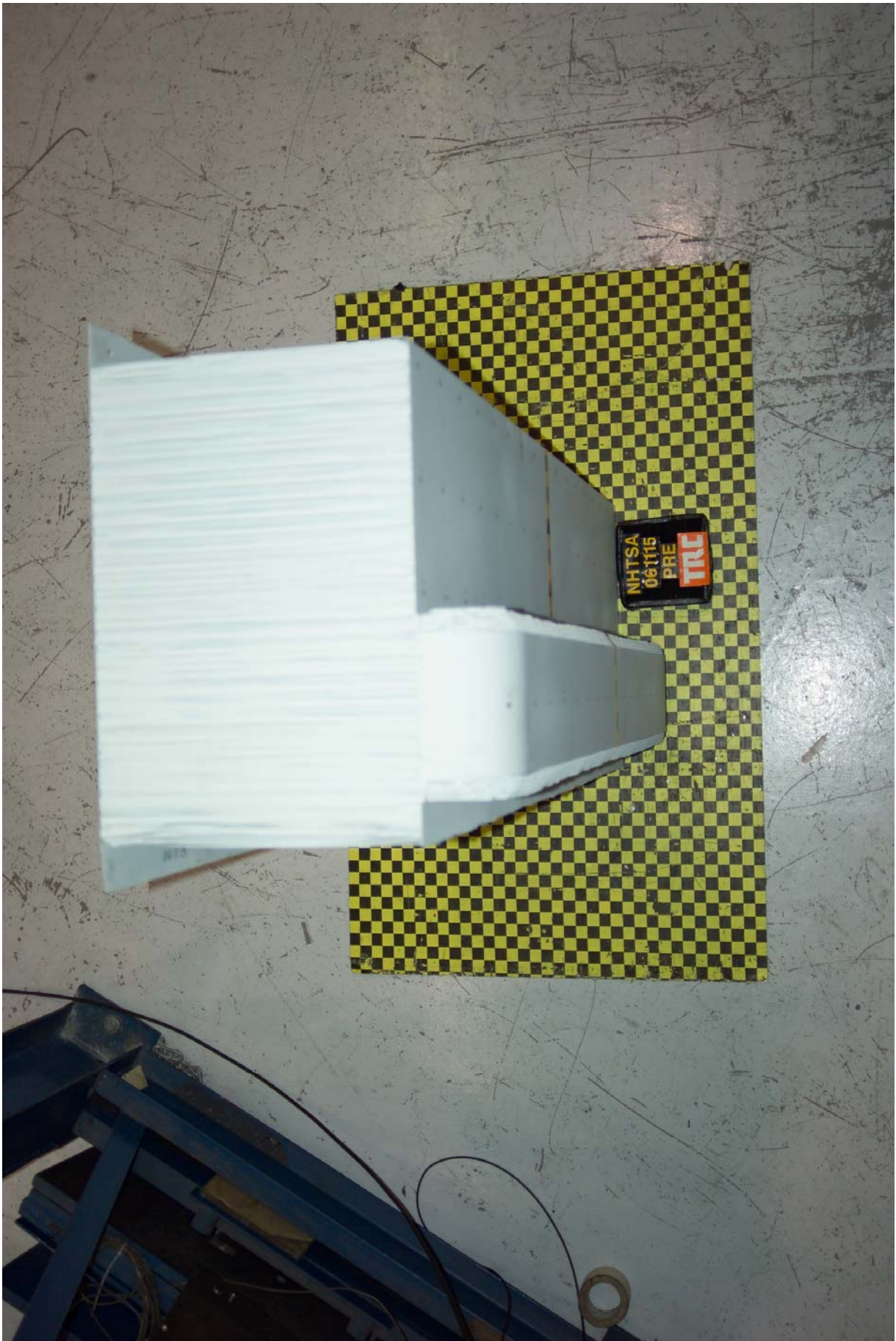


Figure A-21 Pre-Test Right Side View of Impactor Face



Figure A-22 Post-Test Right Side View of Impactor Face

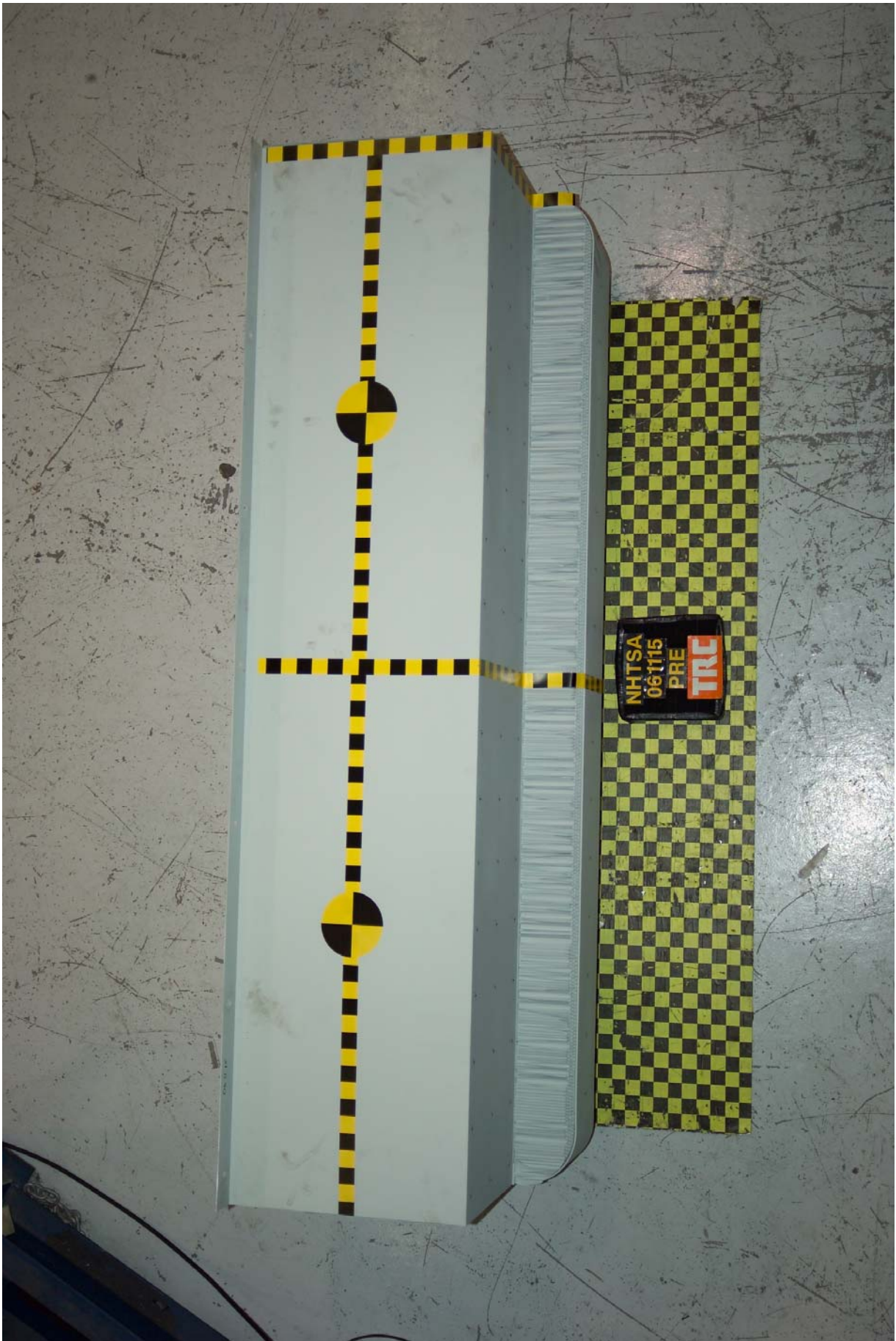


Figure A-23 Pre-Test Top View of Impactor Face

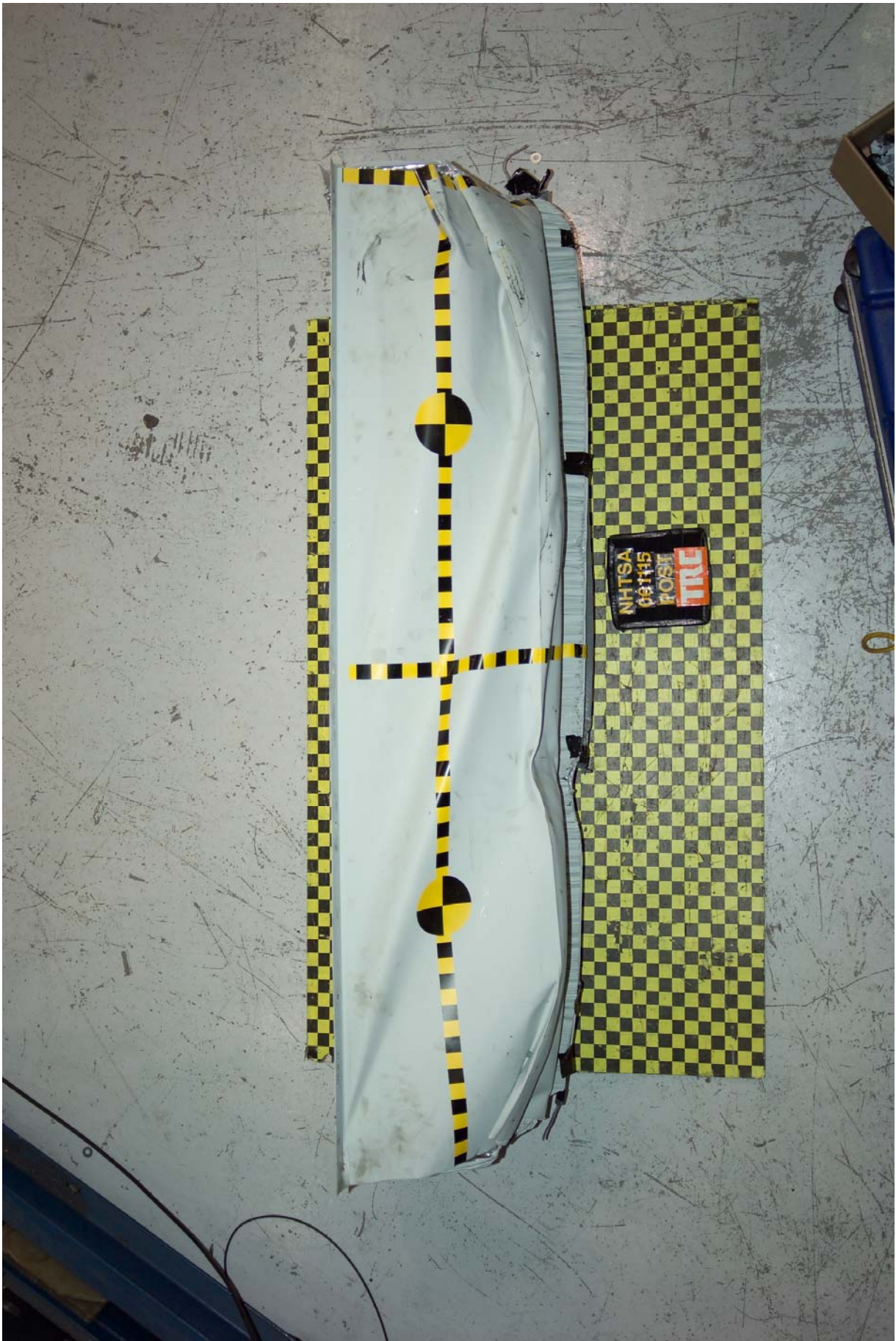


Figure A-24 Post-Test Top View of Impactor Face



Figure A-25 Pre-Test Left Side View of Impactor

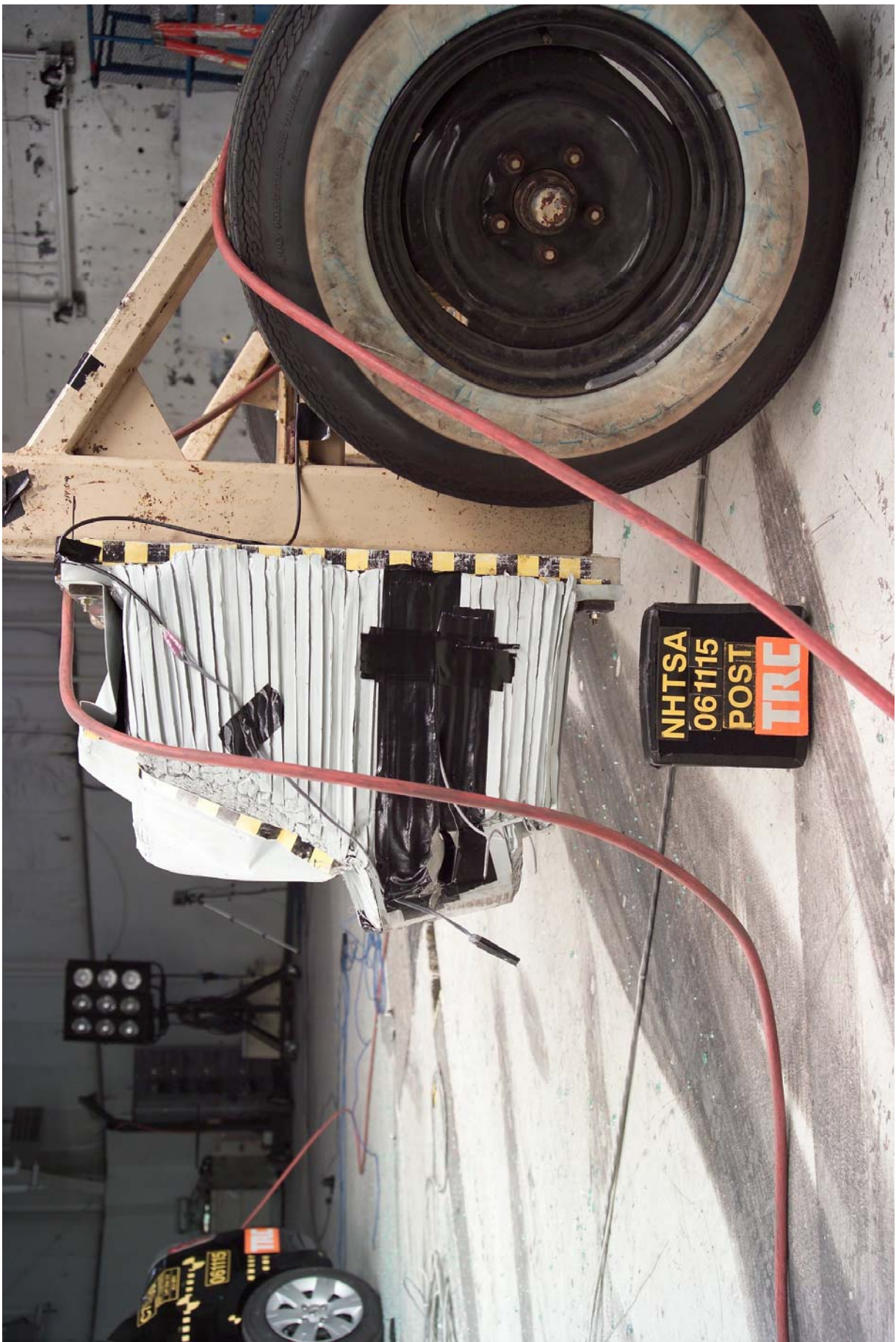


Figure A-26 Post-Test Left Side View of Impactor



Figure A-27 Pre-Test Right Side View of Impactor



Figure A-28 Post-Test Right Side View of Impactor



Figure A-29 Pre-Test Top View of Impactor

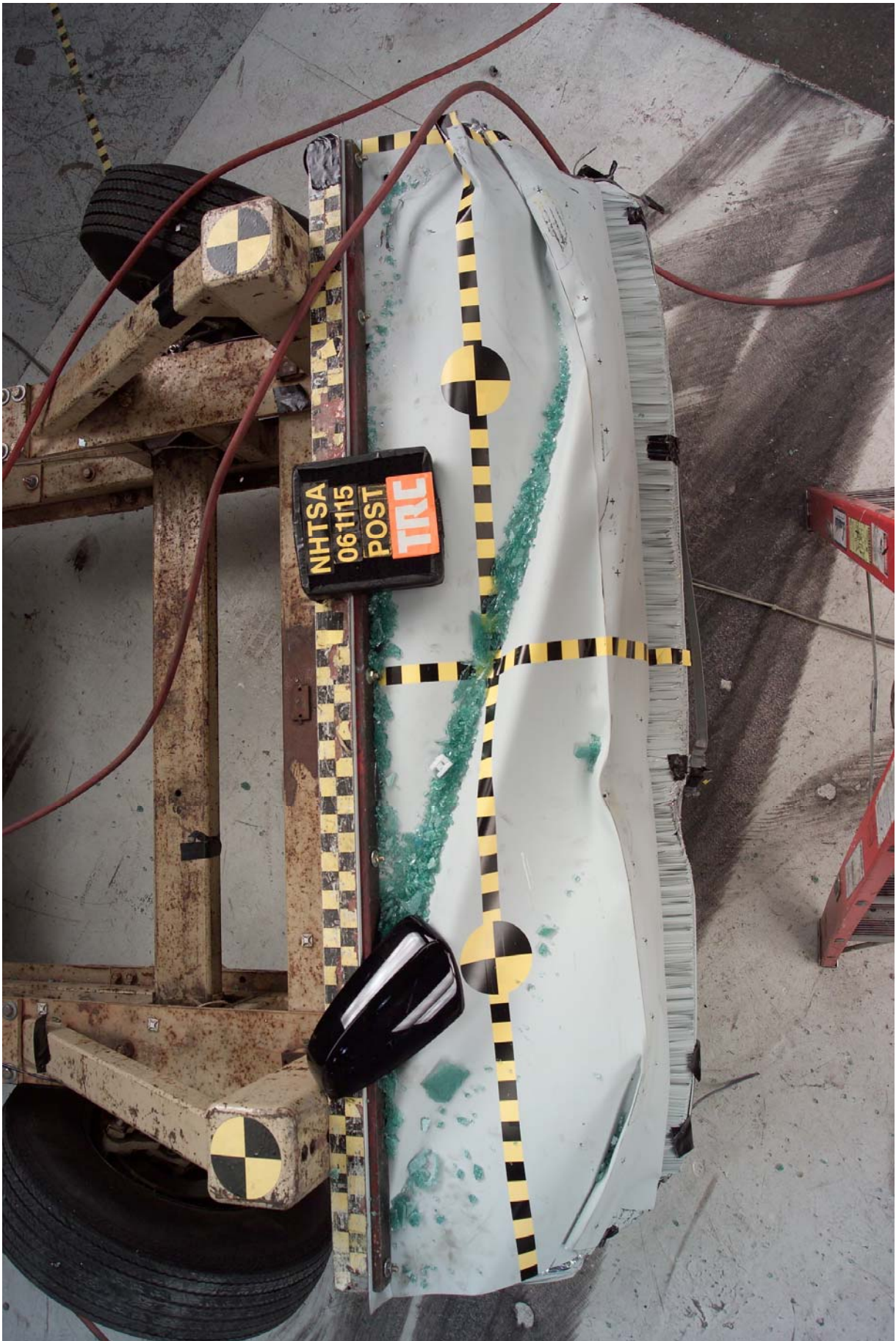


Figure A-30 Post-Test Top View of Impactor



Figure A-31 Pre-Test Left Front Overall View of Impactor

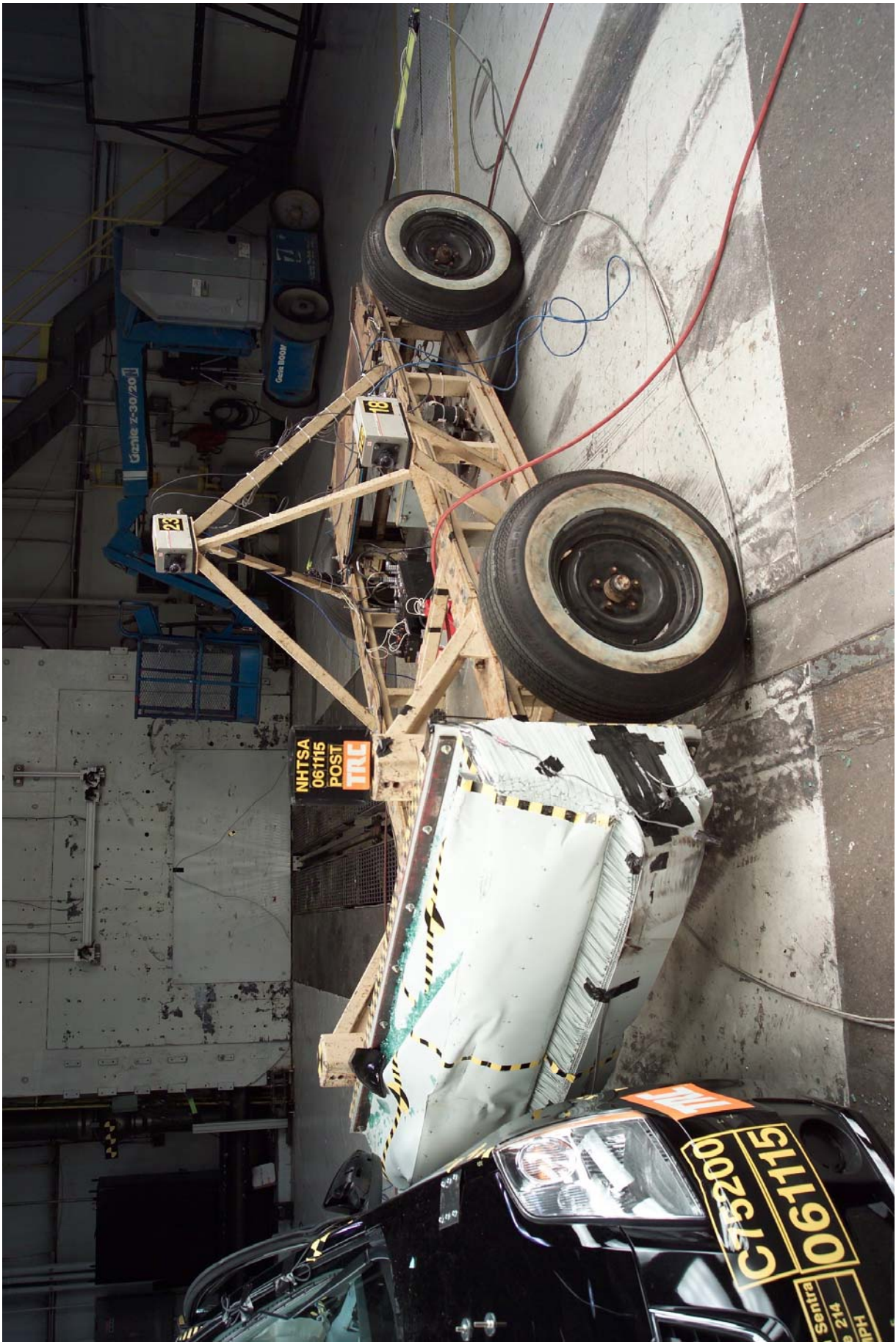


Figure A-32 Post-Test Left Front Overall View of Impactor



Figure A-33 Pre-Test Left Side Overall View of Impactor



Figure A-34 Post-Test Left Side Overall View of Impactor

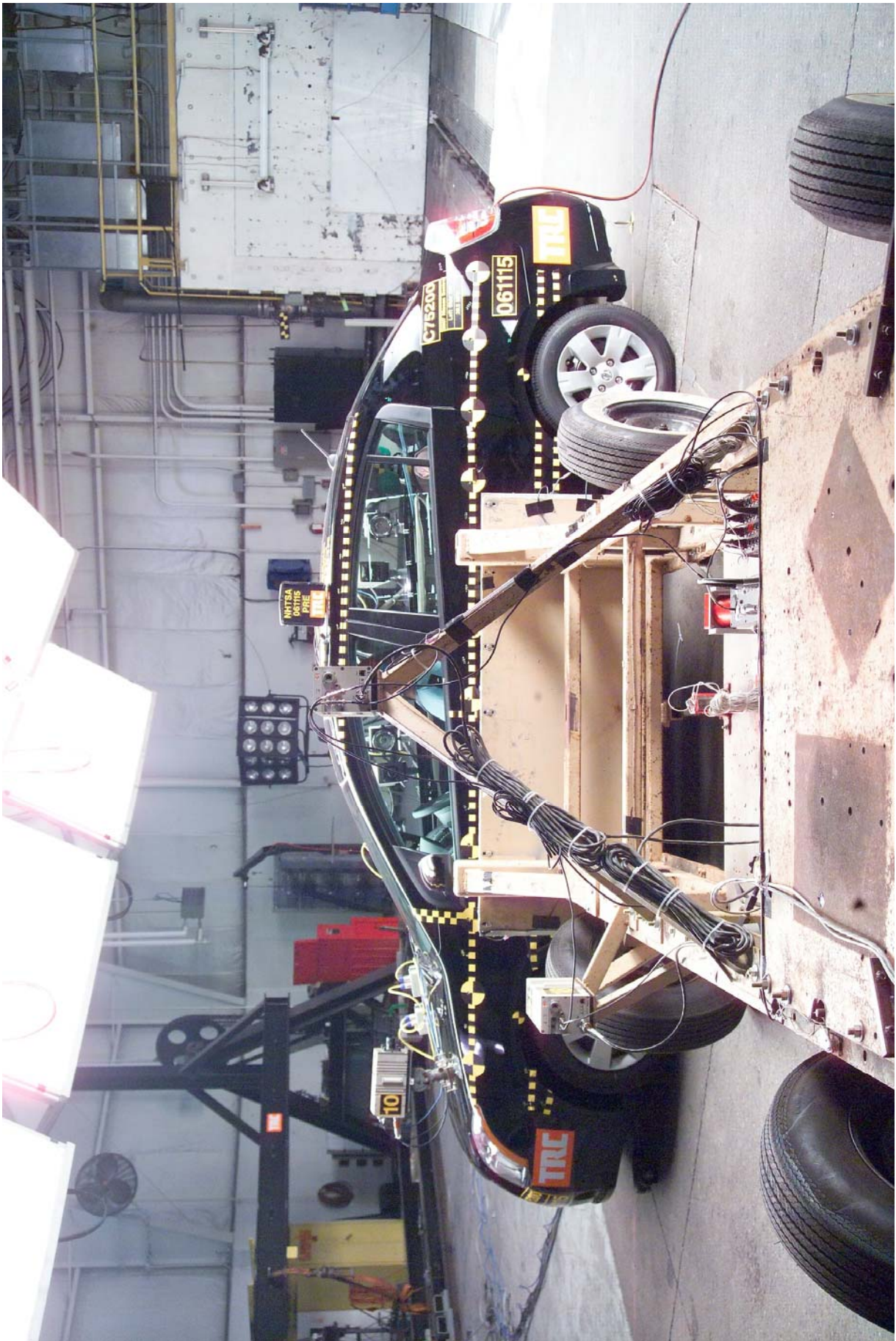


Figure A-35 Pre-Test Rear Overall View of Impactor

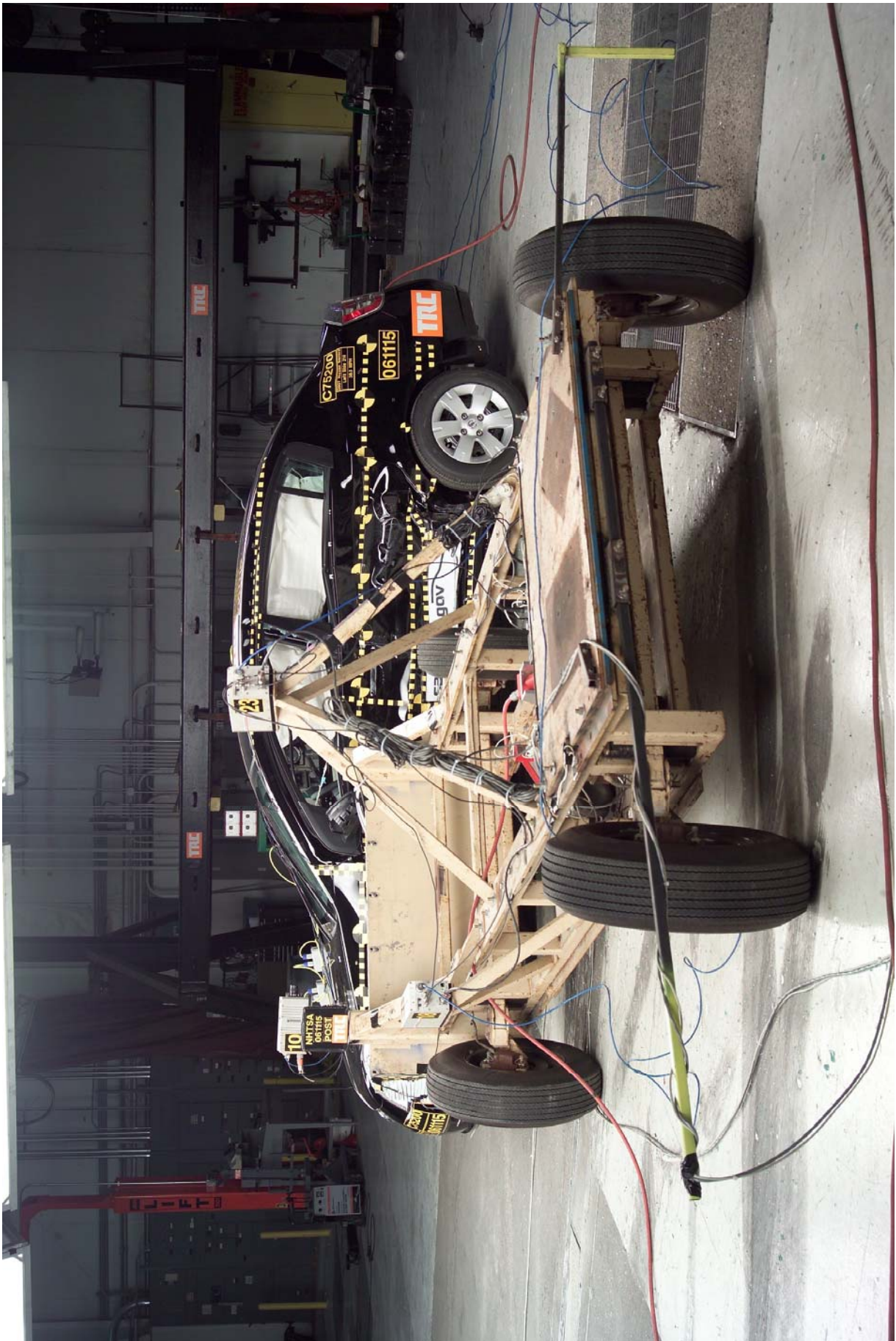


Figure A-36 Post-Test Rear Overall View of Impactor

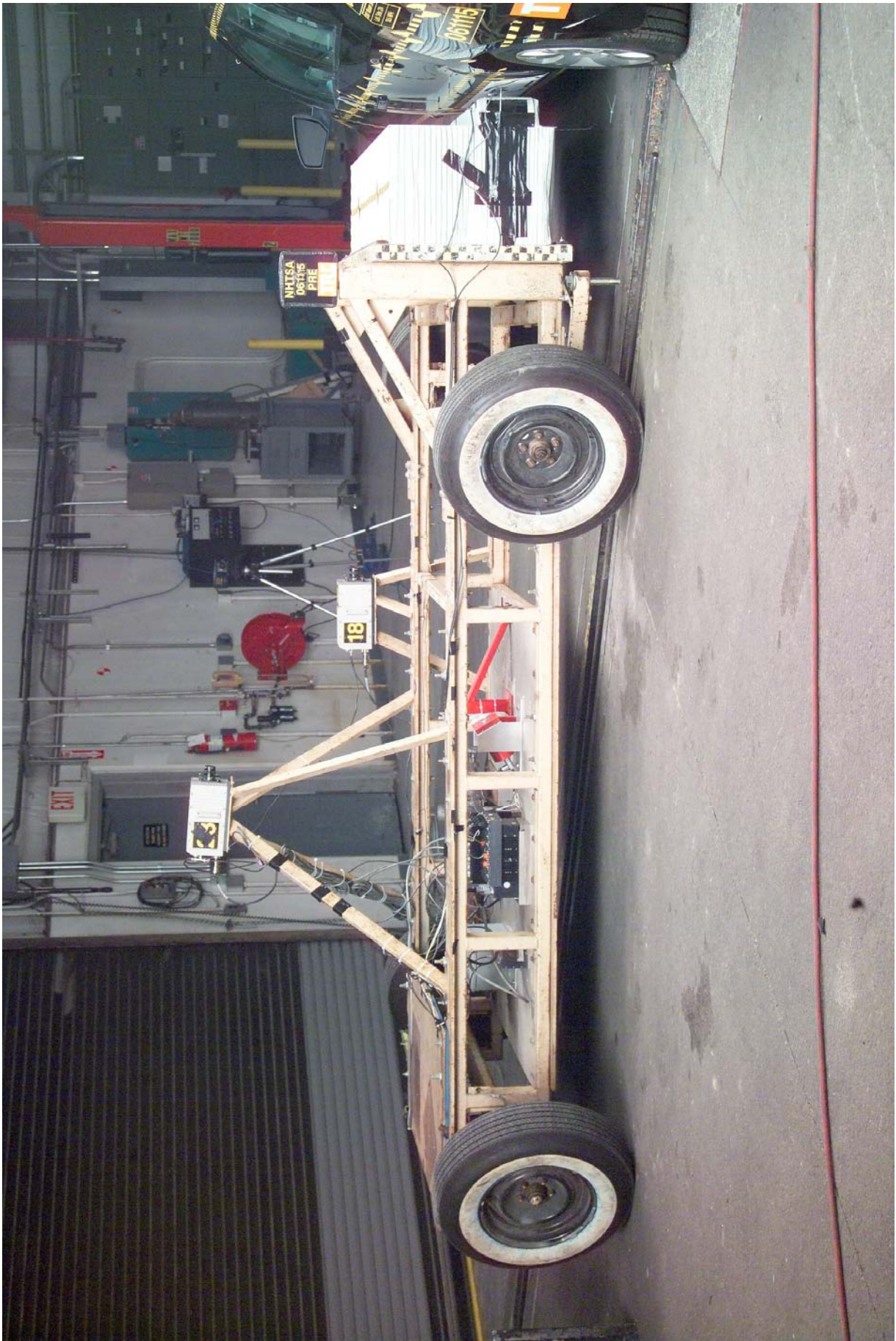


Figure A-37 Pre-Test Right Side Overall View of Impactor



Figure A-38 Post-Test Right Side Overall View of Impactor



Figure A-39 Pre-Test Right Front Overall View of Impactor



Figure A-40 Post-Test Right Front Overall View of Impactor

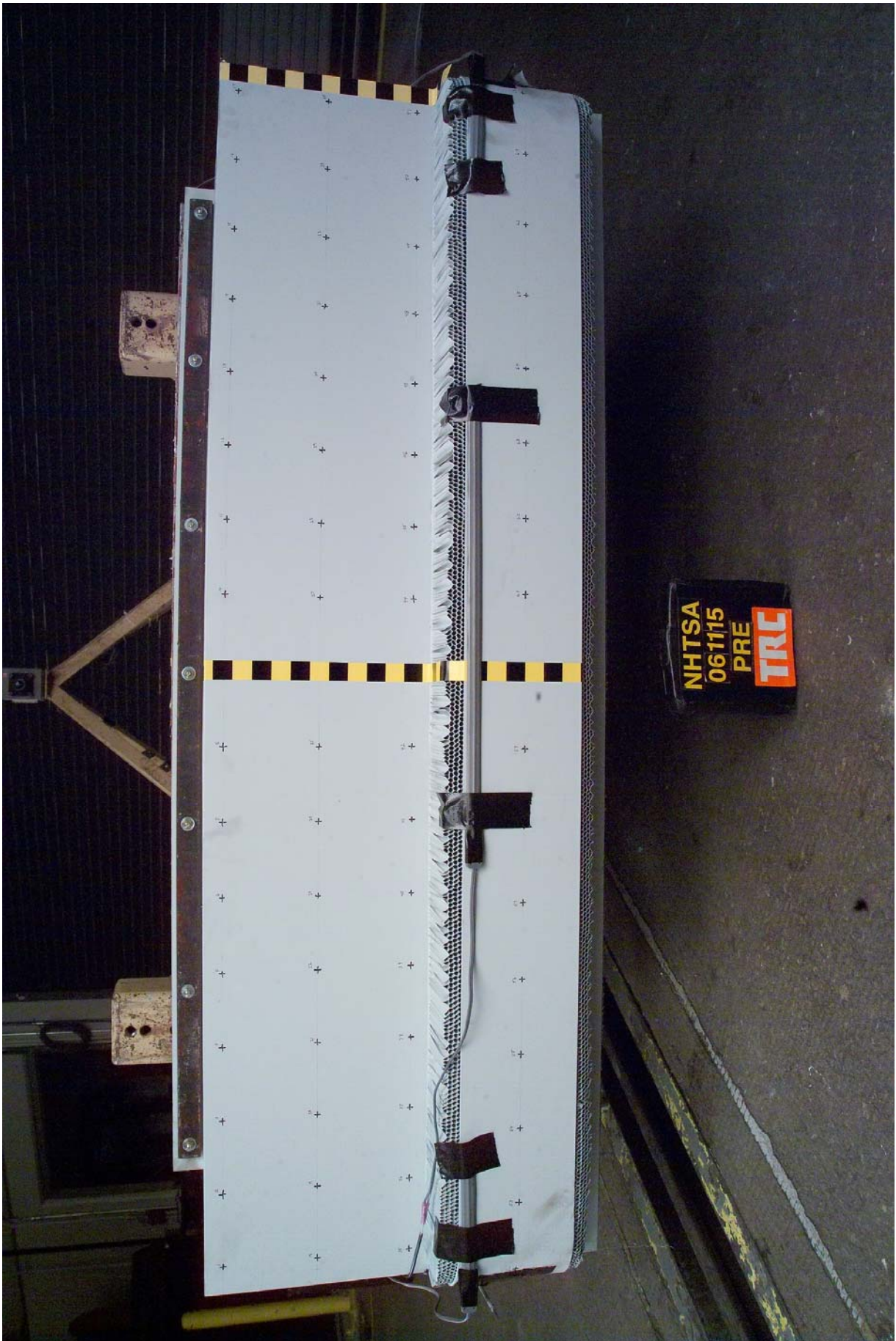


Figure A-41 Pre-Test View of MDB Showing Contact Switches in Place



Figure A-42 Post-Test View of MDB Showing Contact Switches in Place



Figure A-43 Pre-Test Overhead View of MDB Aligned with Vehicle



Figure A-44 Post-Test Overhead View of MDB and Vehicle



Figure A-45 Pre-Test Right Occupant Compartment View of Front SID HIII



Figure A-46 Post-Test Right Occupant Compartment View of Front SID HIII



Figure A-47 Pre-Test Right Occupant Compartment View of Rear SID HIII



Figure A-48 Post-Test Right Occupant Compartment View of Rear SID HIII

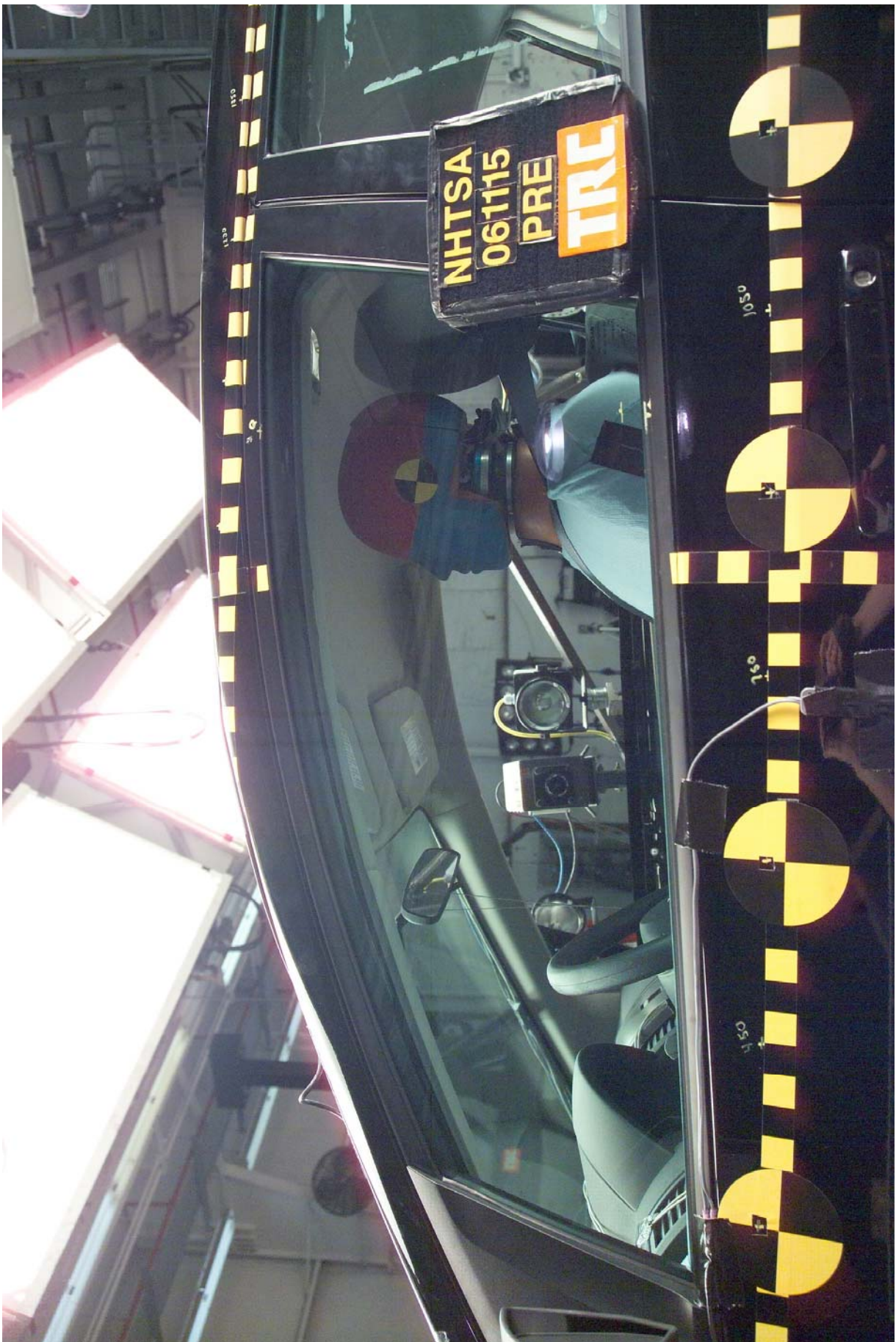


Figure A-49 Pre-Test Left View of Front SID HIII

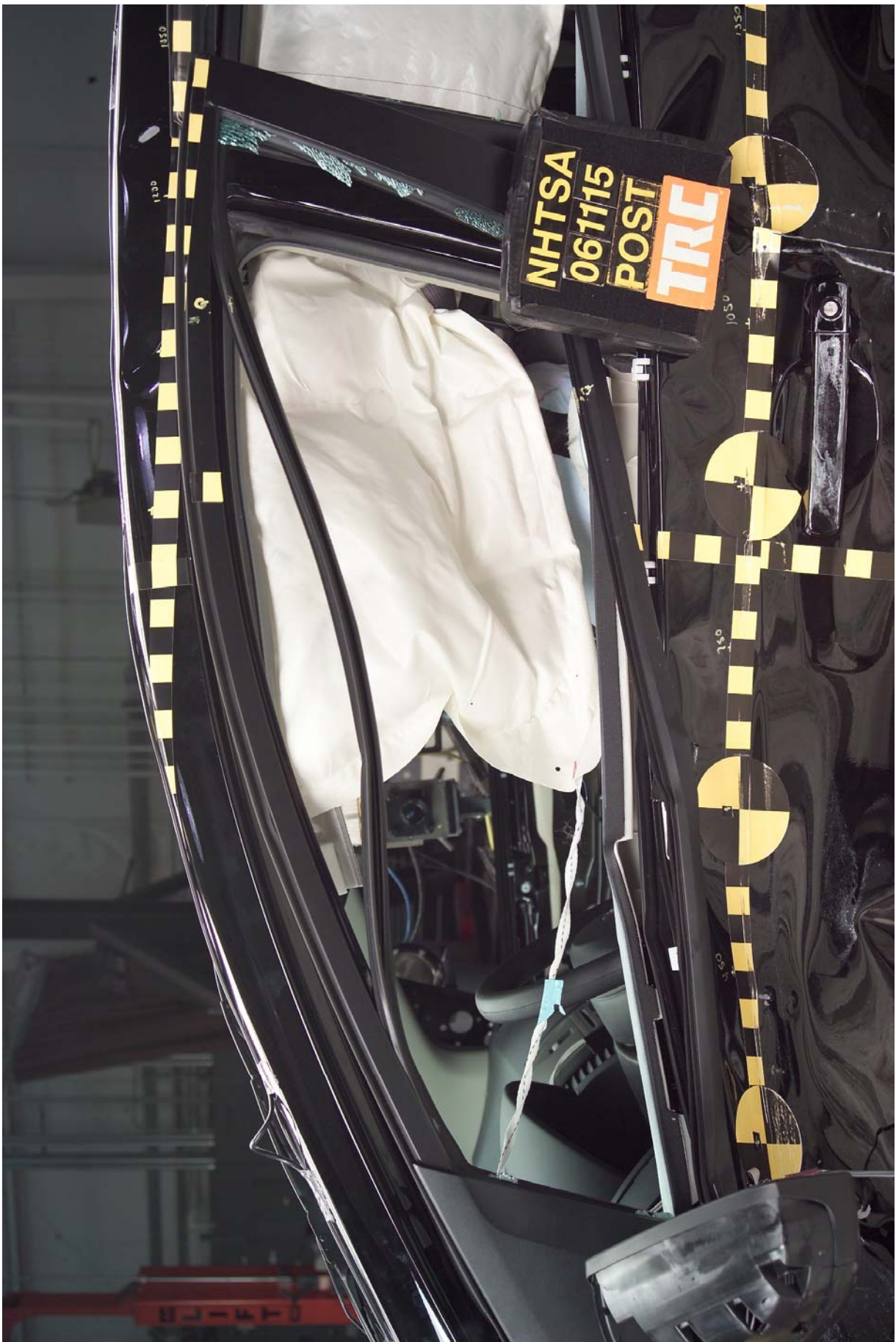


Figure A-50 Post-Test Left View of Front SID HIII



Figure A-51 Pre-Test Left View of Front SID HIII and Belt Position



Figure A-52 Pre-Test Left View of Front SID HIII and Door Clearance



Figure A-53 Post-Test Left View of Front SID HIII and Door Clearance



Figure A-54 Pre-Test Left View of Rear SID HIII



Figure A-55 Post-Test Left View of Rear SID HIII

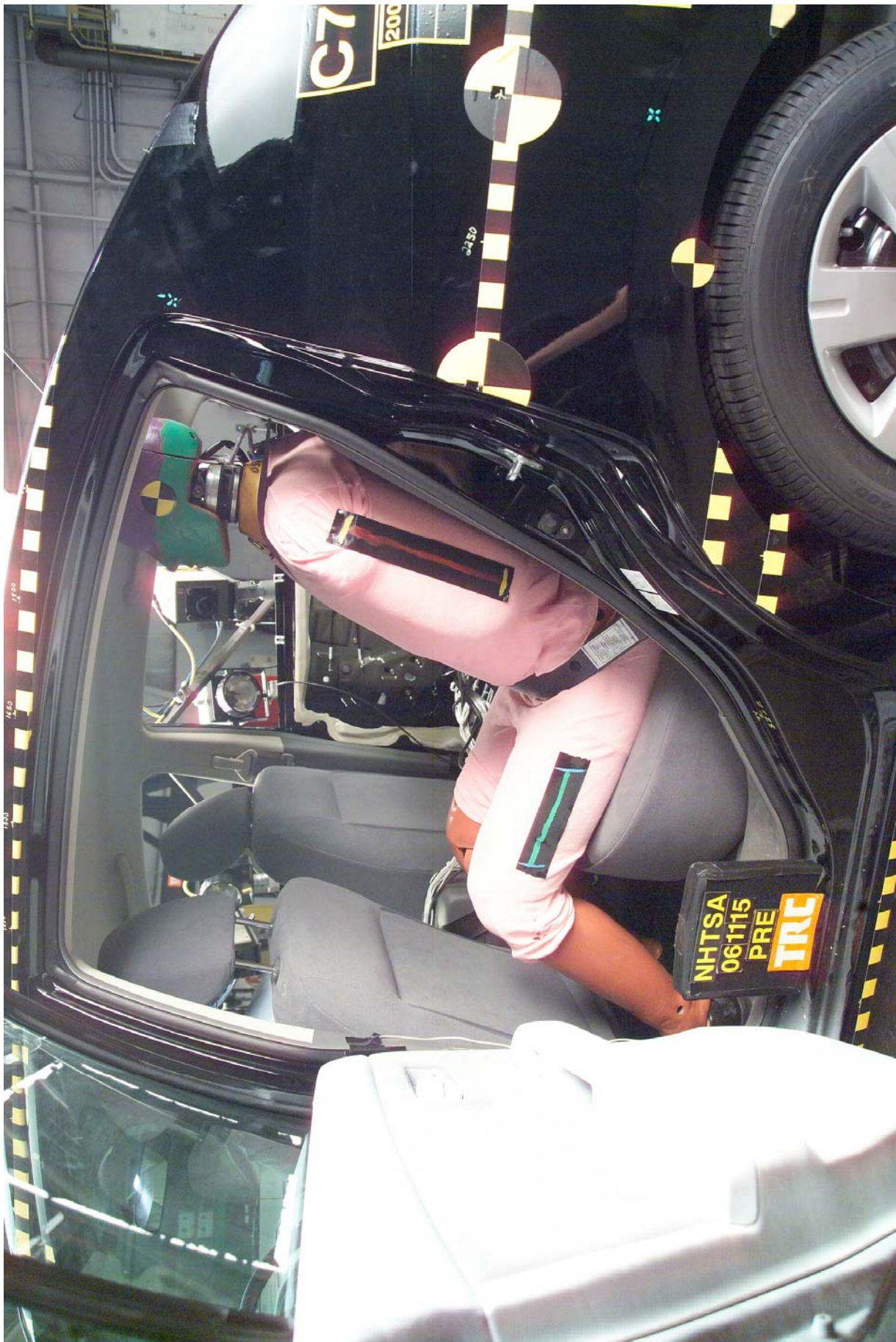


Figure A-56 Pre-Test Left of Rear SID HIII and Belt Position



Figure A-57 Pre-Test Left View of Rear SID HIII and Door Clearance



Figure A-58 Post-Test Left View of Rear SID HIII and Door Clearance



Figure A-59 Pre-Test Interior of Front Door



Figure A-60 Post-Test Interior of Front Door Showing SID HIII Impact Locations

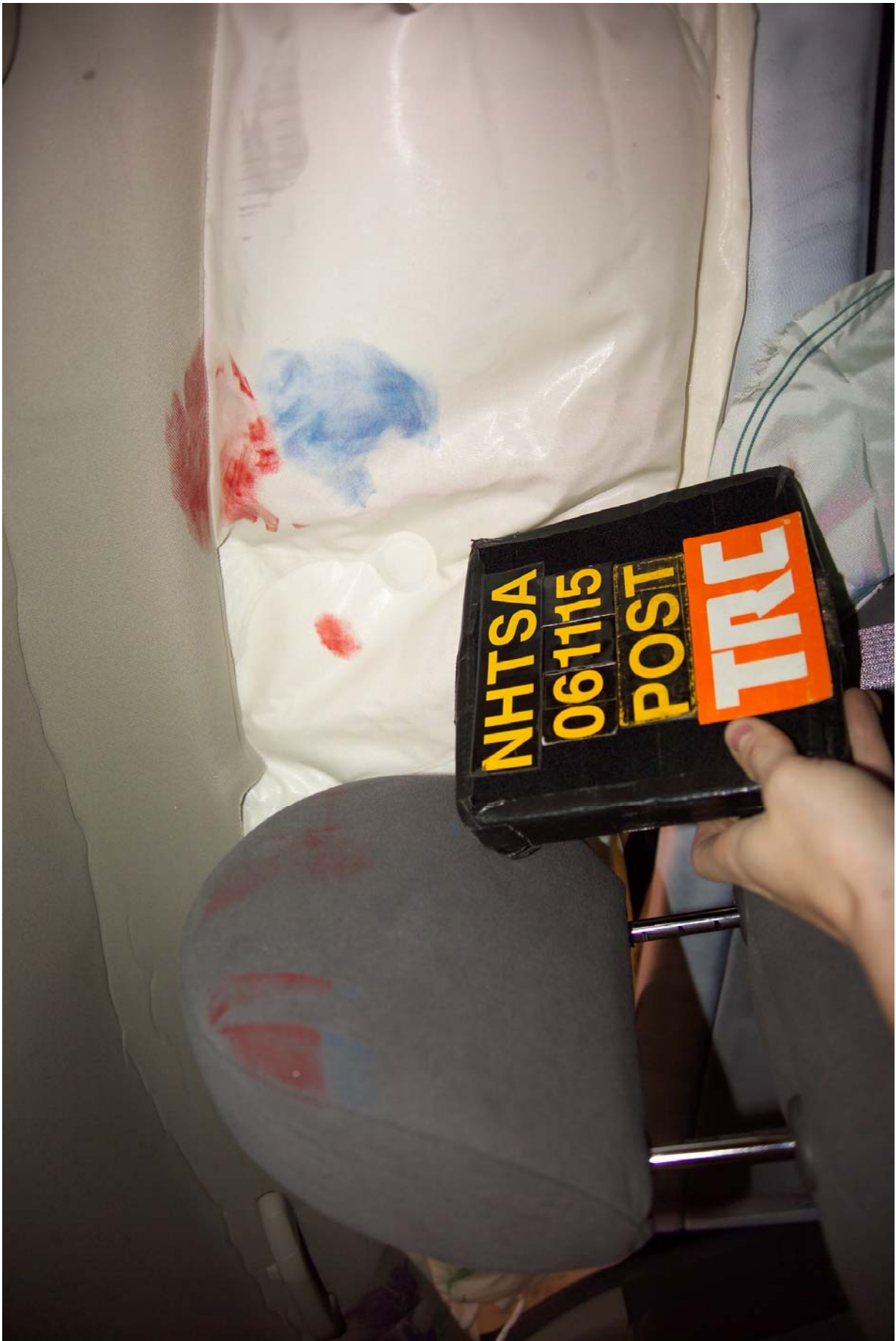


Figure A-61 Post-Test Front SID HIII Contact - View 1



Figure A-62 Post-Test Front SID HIII Contact - View 2



Figure A-63 Post-Test Front SID HIII Contact - View 3



Figure A-64 Pre-Test Interior of Rear Panel



Figure A-65 Post-Test Interior of Rear Panel Showing SID HIII Impact Locations



Figure A-66 Post-Test Rear SID HIII Contact - View 1



Figure A-67 Post-Test Rear SID HIII Contact - View 2



Figure A-68 Post-Test Rear SID HIII Contact - View 3



Figure A-69 Pre-Test Left Side View of MDB With Impactor Face in Position

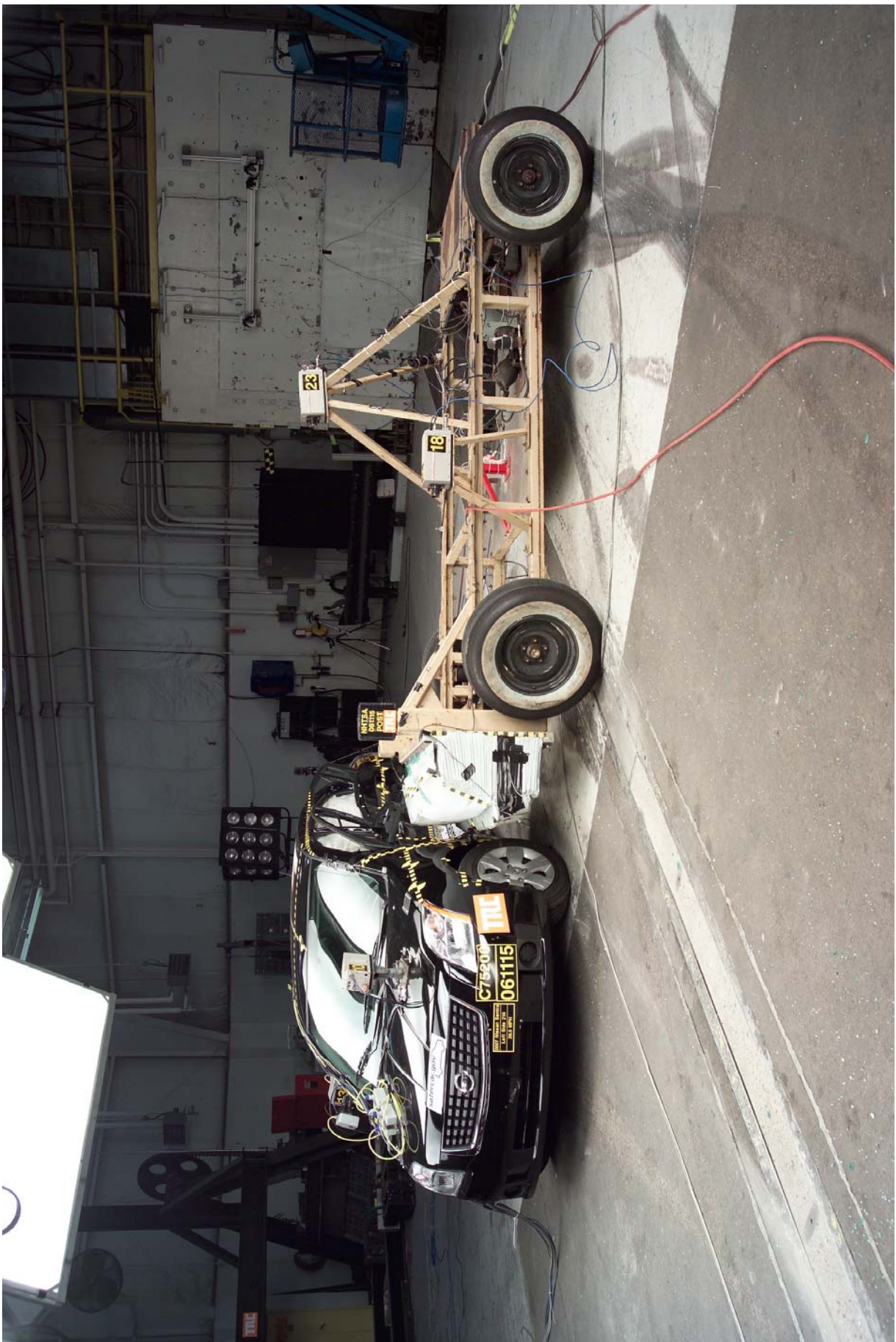


Figure A-70 Post-Test Left Side View of MDB With Impactor Face in Position



Figure A-71 Pre-Test Primary Impact Point View

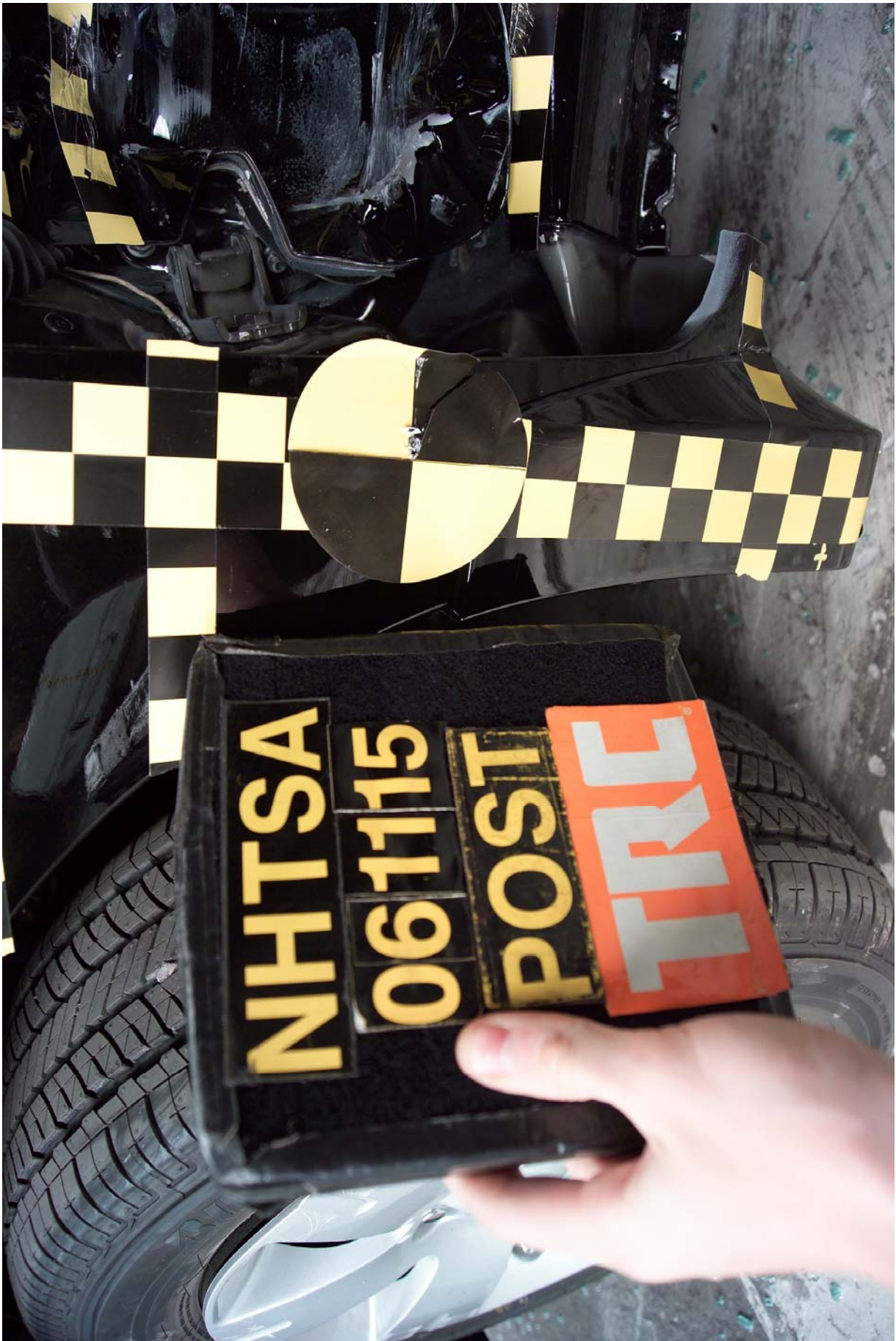


Figure A-72 Post-Test Primary Impact Point View

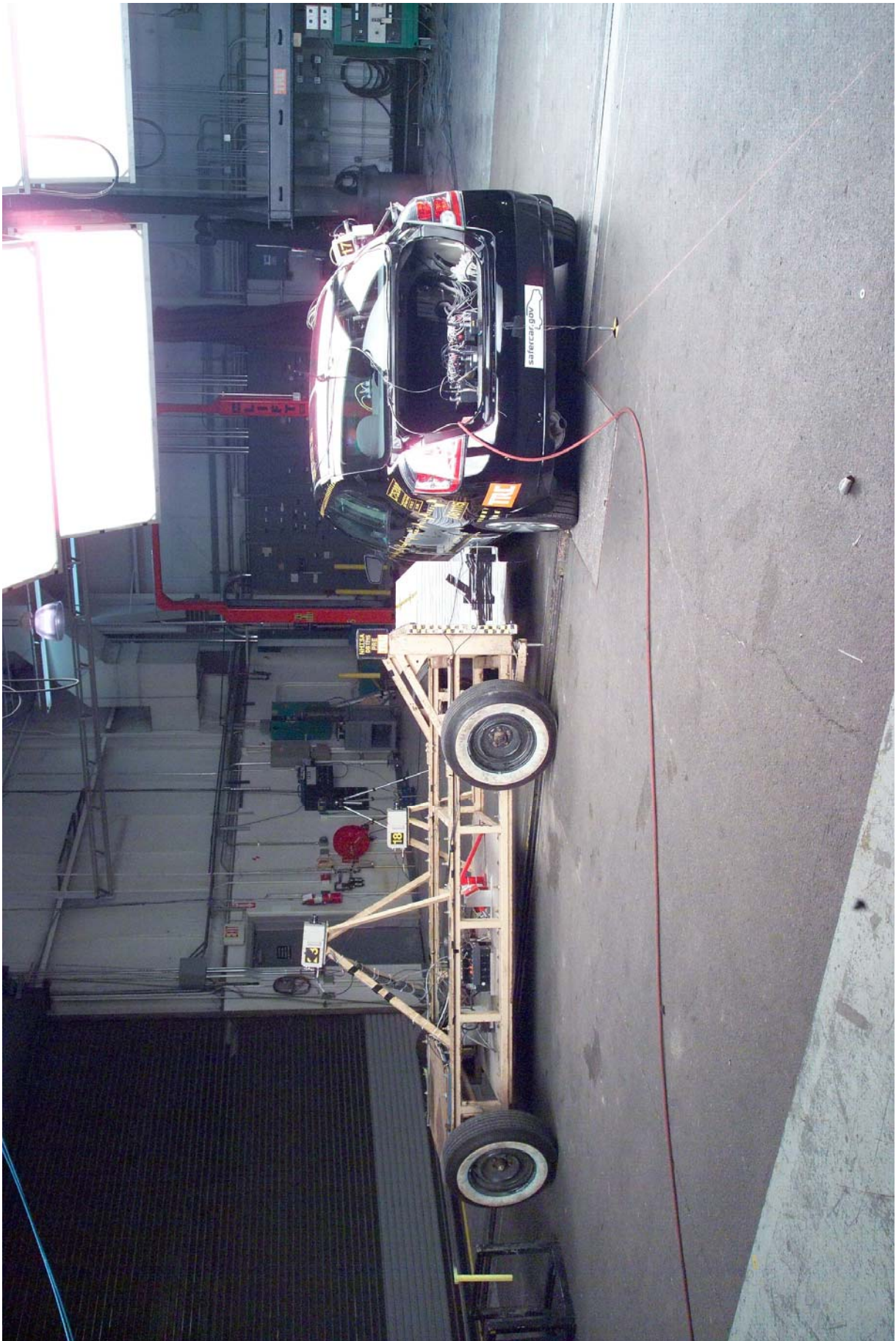


Figure A-73 Pre-Test Right Side View of MDB With Impactor Face in Position

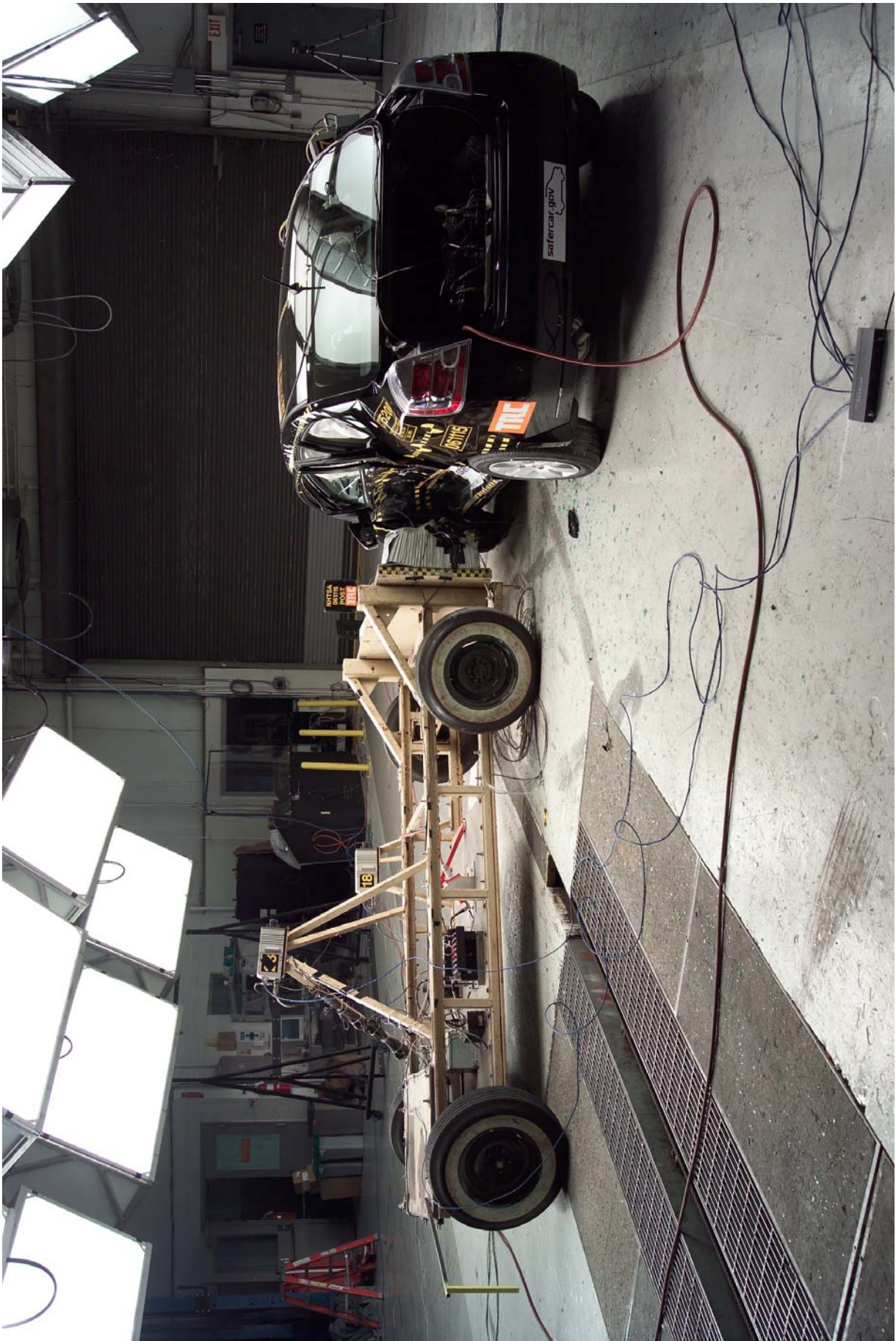


Figure A-74 Post-Test Right Side View of MDB With Impactor Face in Position



Figure A-75 Pre-Test Secondary Impact Point View



Figure A-76 Post-Test Secondary Impact Point View



Figure A-77 Pre-Test Overhead View of MDB With Impactor Face in Position



Figure A-78 Post-Test Overhead View of MDB With Impactor Face in Position

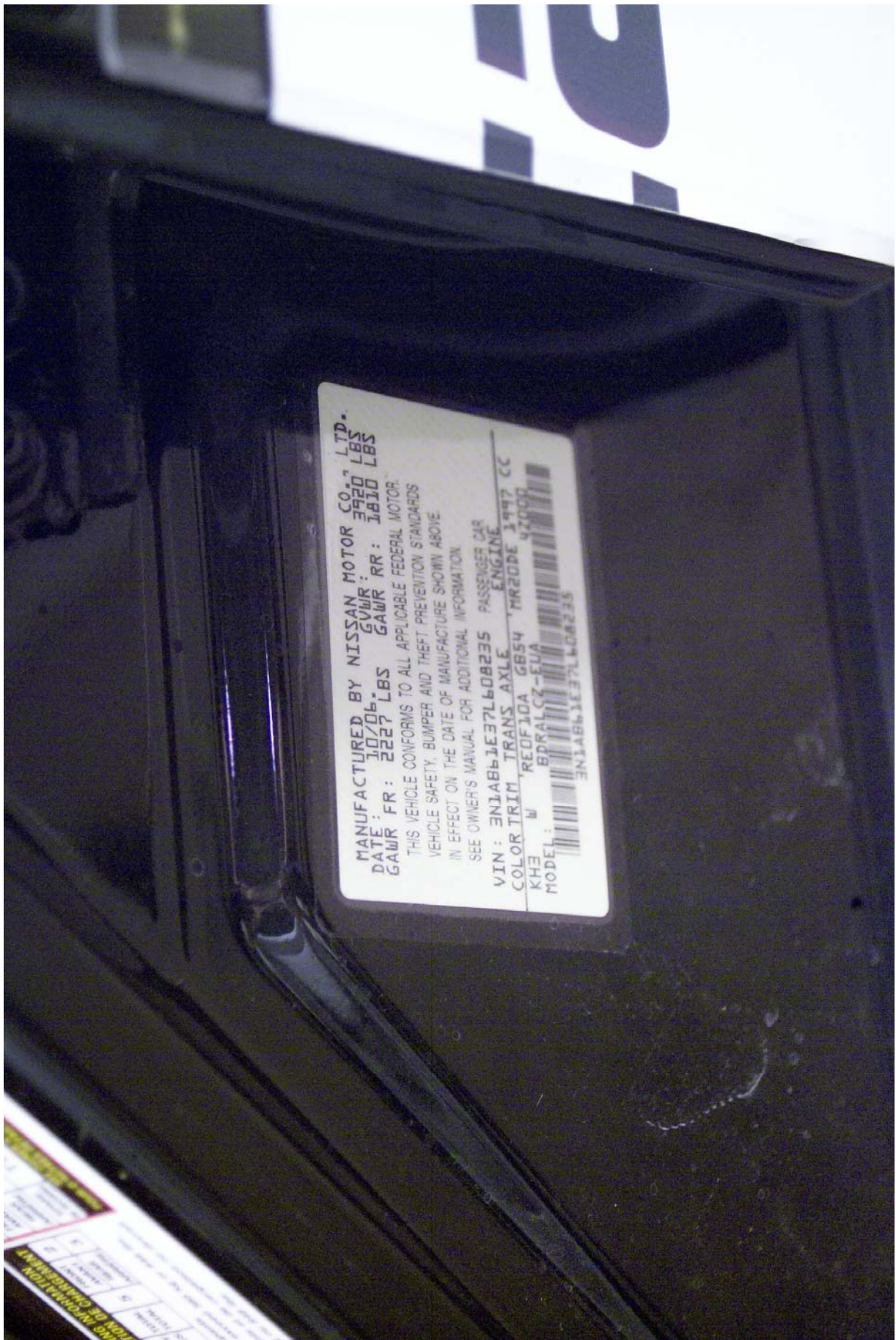


Figure A-79 Pre-Test Vehicle Certification Label View



TIRE PNEU	ORIGINAL SIZE TAILLE ORIGINAL	COLD TIRE PRESSURE PRESSION DES PNEUS FROIDS
FRONT AVANT	P205/60R15	230kPa, 33PSI
REAR ARRIERE	P205/60R15	230kPa, 33PSI
SPARE DE SECOURS	T125/70D16	420kPa, 60PSI

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION.
POUR D'AUTRES DETAILS, SE REPORTER AU MANUEL DU CONDUCTEUR.

ET000

TIRE AND LOADING INFORMATION PNEU ET INFORMATION DE CHARGEMENT	
SEATING CAPACITY NOMBRE DE PLACES	TOTAL
	5
	FRONT AVANT
	2
	REAR ARRIERE
	3

The combined weight of occupants and cargo should never exceed 385 kg or 848 lbs.
Le poids combiné d'occupants et de cargaison ne devrait jamais excéder 385 kg ou 848 lbs.

Figure A-80 Pre-Test Vehicle Recommended Tire Pressure Label View



Figure A-81 Post-Test Light Trap Digital Readout - View 1



Figure A-82 Post-Test Light Trap Digital Readout - View 2



Figure A-83 Impact Event

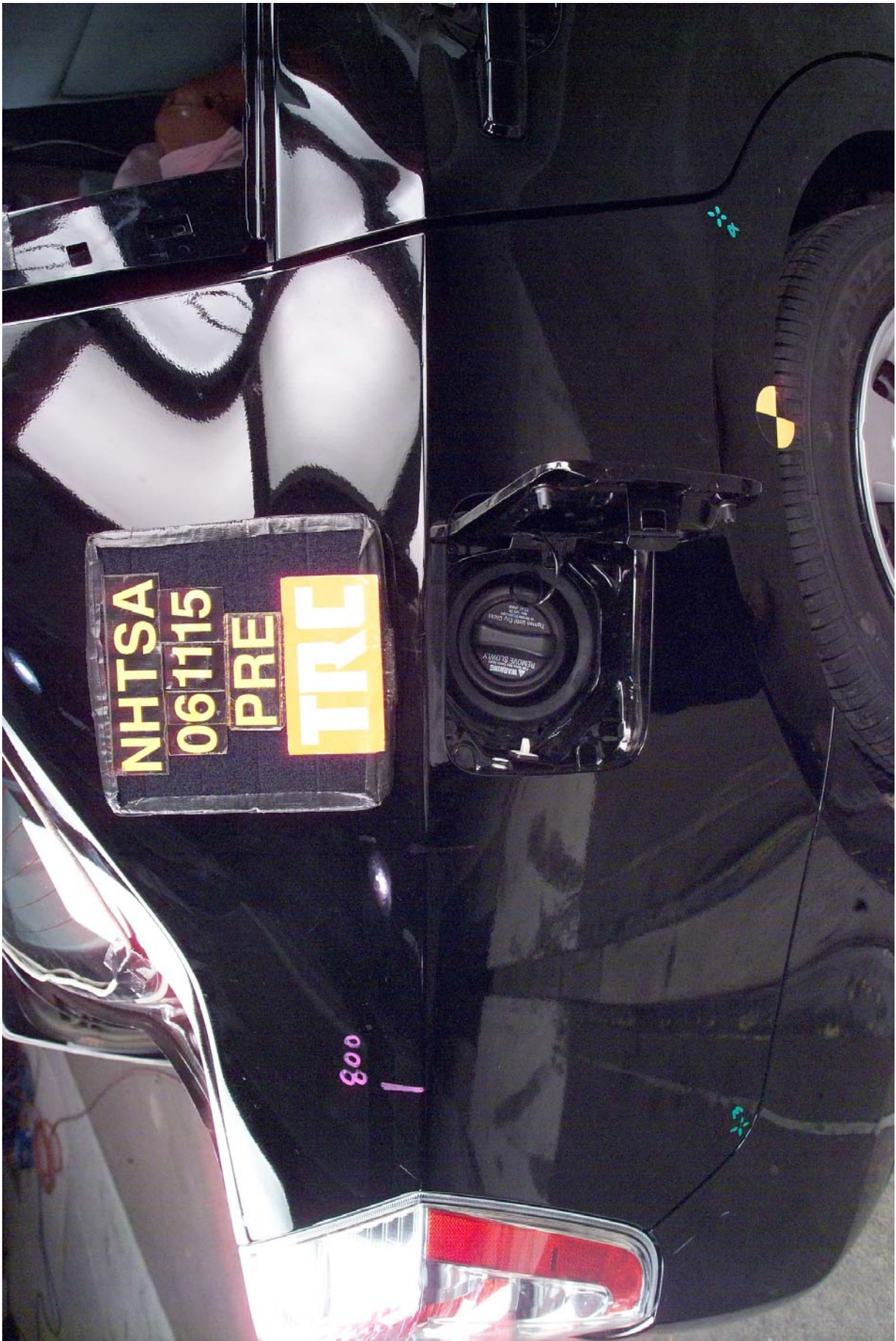


Figure A-84 Pre-Test Fuel Cap



Figure A-85 Post-Test Fuel Cap

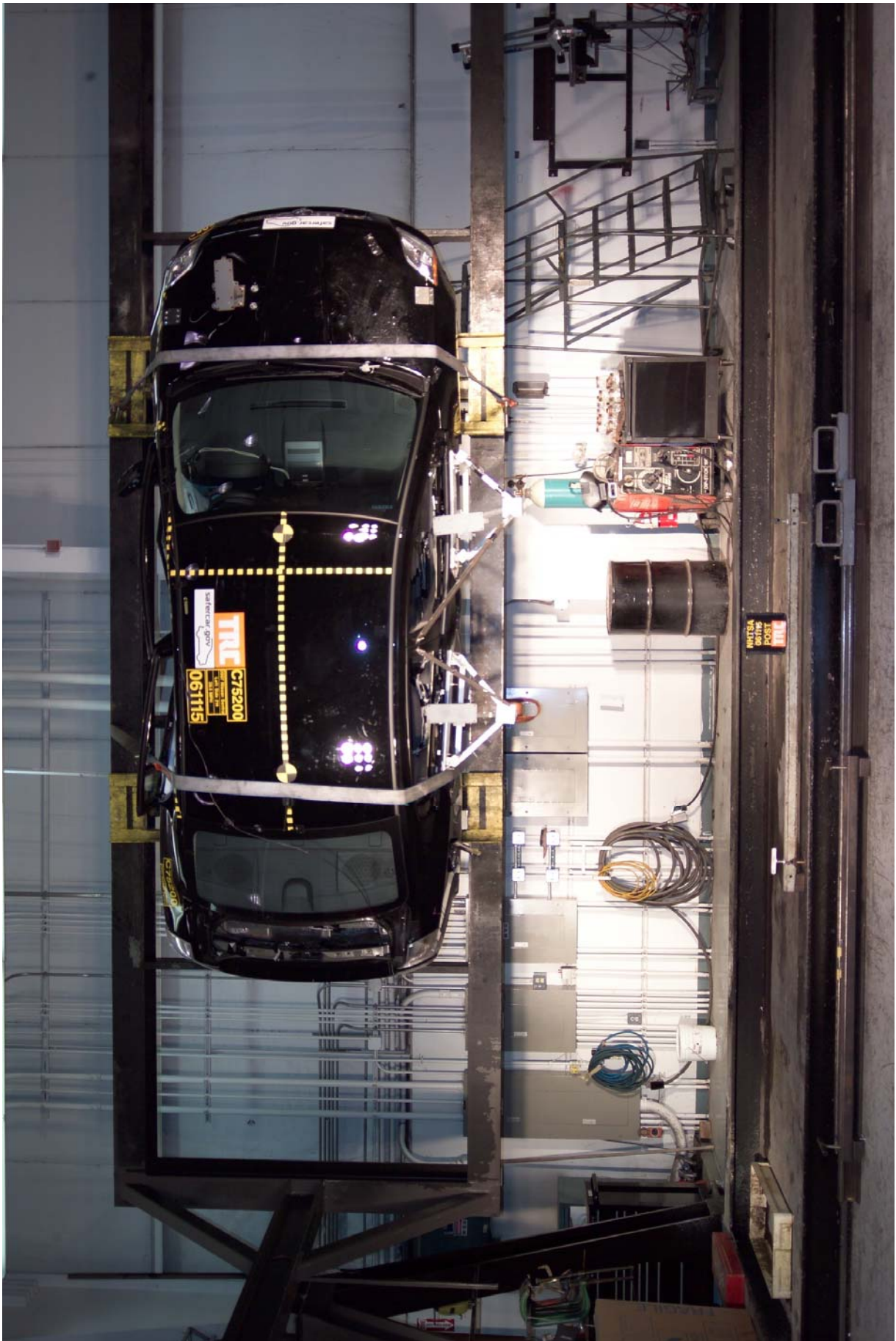


Figure A-86 FMVSS 301 Rollover View at 90°

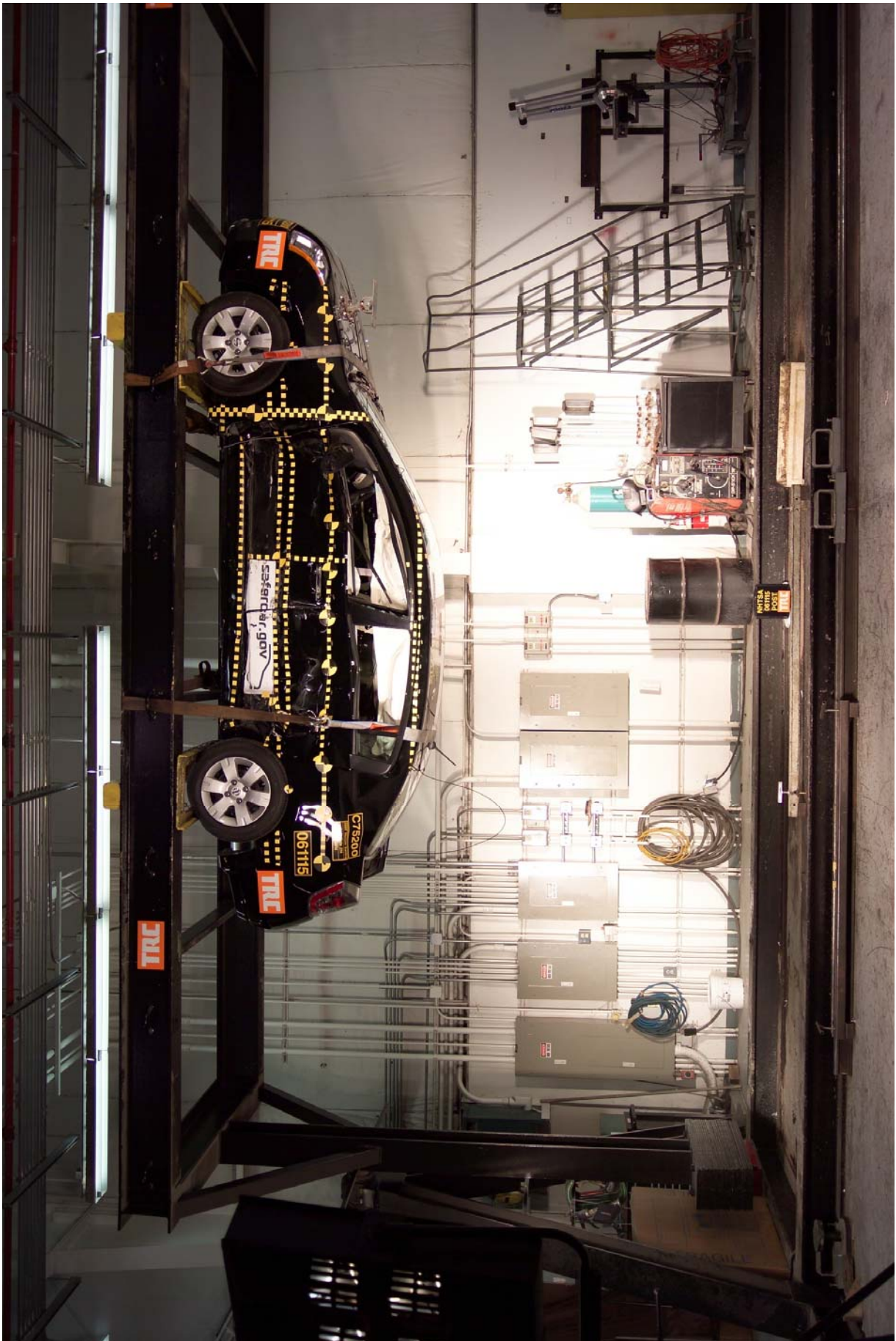


Figure A-87 FMVSS 301 Rollover View at 180°



Figure A-88 FMVSS 301 Rollover View at 270°

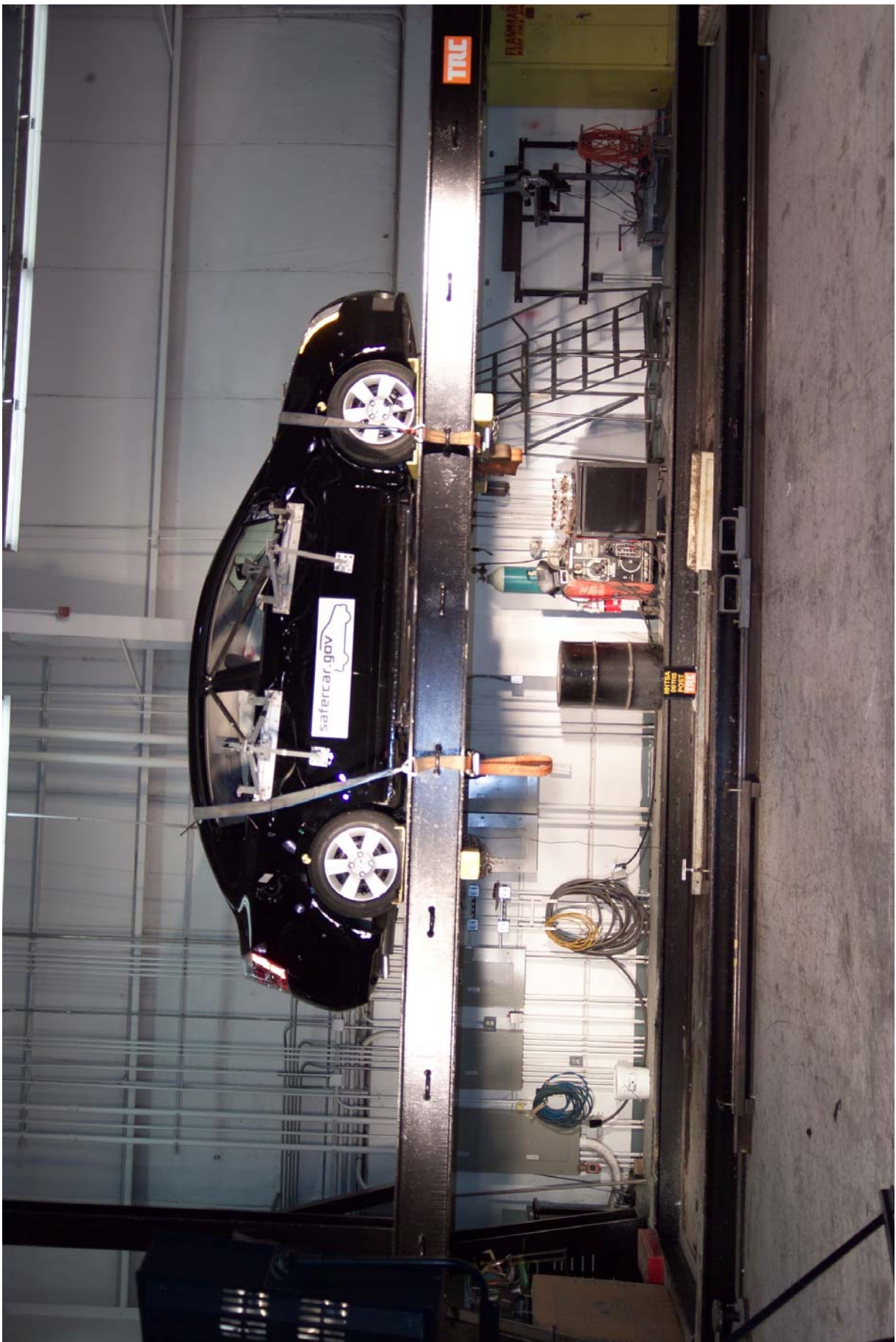


Figure A-89 FMVSS 301 Rollover View at 360°

Appendix B

Data Plots

Table of Data Plots

Driver and Passenger Dummy Instrumentation Plots

Acceleration Data - Filter Class 1000

Integration Data - Filter Class 180

Force Data - Filter Class 1000

Moment Data - Filter Class 600

Contact Data - Filter Class 1000

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
1	Driver Head X-Axis Acceleration	B-10
2	Driver Head X-Axis Velocity	B-11
3	Driver Head Y-Axis Acceleration	B-12
4	Driver Head Y-Axis Velocity	B-13
5	Driver Head Z-Axis Acceleration	B-14
6	Driver Head Z-Axis Velocity	B-15
7	Driver Head Resultant Acceleration	B-16
8	Driver Neck X-Axis Shear Force	B-17
9	Driver Neck Y-Axis Shear Force	B-18
10	Driver Neck Z-Axis Axial Force	B-19
11	Driver Neck Moment about X Axis	B-20
12	Driver Neck Moment about Y Axis	B-21
13	Driver Neck Moment about Z Axis	B-22
14	Driver Neck Occipital Condyle Moment about X Axis	B-23
15	Driver Upper Rib Y-Axis Acceleration	B-24
16	Driver Upper Rib Y-Axis Velocity	B-25
17	Driver Lower Rib Y-Axis Acceleration	B-26
18	Driver Lower Rib Y-Axis Velocity	B-27
19	Driver Lower Spine Y-Axis Acceleration	B-28
20	Driver Lower Spine Y-Axis Velocity	B-29
21	Driver Pelvis Y-Axis Acceleration	B-30
22	Driver Pelvis Y-Axis Velocity	B-31
23	Left Rear Passenger Head X-Axis Acceleration	B-32

Table of Data Plots (Continued)

Driver and Passenger Dummy Instrumentation Plots (Continued)

Acceleration Data - Filter Class 1000

Integration Data - Filter Class 180

Force Data - Filter Class 1000

Moment Data - Filter Class 600

Contact Data - Filter Class 1000

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
24	Left Rear Passenger Head X-Axis Velocity	B-33
25	Left Rear Passenger Head Y-Axis Acceleration	B-34
26	Left Rear Passenger Head Y-Axis Velocity	B-35
27	Left Rear Passenger Head Z-Axis Acceleration	B-36
28	Left Rear Passenger Head Z-Axis Velocity	B-37
29	Left Rear Passenger Head Resultant Acceleration	B-38
30	Left Rear Passenger Neck X-Axis Shear Force	B-39
31	Left Rear Passenger Neck Y-Axis Shear Force	B-40
32	Left Rear Passenger Neck Z-Axis Axial Force	B-41
33	Left Rear Passenger Neck Moment about X Axis	B-42
34	Left Rear Passenger Neck Moment about Y Axis	B-43
35	Left Rear Passenger Neck Moment about Z Axis	B-44
36	Left Rear Passenger Neck Occipital Condyle Moment about X Axis	B-45
37	Left Rear Passenger Upper Rib Y-Axis Acceleration	B-46
38	Left Rear Passenger Upper Rib Y-Axis Velocity	B-47
39	Left Rear Passenger Lower Rib Y-Axis Acceleration	B-48
40	Left Rear Passenger Lower Rib Y-Axis Velocity	B-49
41	Left Rear Passenger Lower Spine Y-Axis Acceleration	B-50
42	Left Rear Passenger Lower Spine Y-Axis Velocity	B-51
43	Left Rear Passenger Pelvis Y-Axis Acceleration	B-52
44	Left Rear Passenger Pelvis Y-Axis Velocity	B-53

Table of Data Plots (Continued)

Driver and Passenger Dummy Redundant Instrumentation Plots

Acceleration Data - Filter Class 1000 - Redundant

Integration Data - Filter Class 180 - Redundant

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
45	Driver Head X-Axis Redundant Acceleration	B-55
46	Driver Head X-Axis Redundant Velocity	B-56
47	Driver Head Y-Axis Redundant Acceleration	B-57
48	Driver Head Y-Axis Redundant Velocity	B-58
49	Driver Head Z-Axis Redundant Acceleration	B-59
50	Driver Head Z-Axis Redundant Velocity	B-60
51	Driver Head Resultant Redundant Acceleration	B-61
52	Driver Upper Rib Y-Axis Redundant Acceleration	B-62
53	Driver Upper Rib Y-Axis Redundant Velocity	B-63
54	Driver Lower Rib Y-Axis Redundant Acceleration	B-64
55	Driver Lower Rib Y-Axis Redundant Velocity	B-65
56	Driver Lower Spine Y-Axis Redundant Acceleration	B-66
57	Driver Lower Spine Y-Axis Redundant Velocity	B-67
58	Left Rear Passenger Head X-Axis Redundant Acceleration	B-68
59	Left Rear Passenger Head X-Axis Redundant Velocity	B-69
60	Left Rear Passenger Head Y-Axis Redundant Acceleration	B-70
61	Left Rear Passenger Head Y-Axis Redundant Velocity	B-71
62	Left Rear Passenger Head Z-Axis Redundant Acceleration	B-72
63	Left Rear Passenger Head Z-Axis Redundant Velocity	B-73
64	Left Rear Passenger Head Resultant Redundant Acceleration	B-74
65	Left Rear Passenger Upper Rib Y-Axis Redundant Acceleration	B-75
66	Left Rear Passenger Upper Rib Y-Axis Redundant Velocity	B-76
67	Left Rear Passenger Lower Rib Y-Axis Redundant Acceleration	B-77
68	Left Rear Passenger Lower Rib Y-Axis Redundant Velocity	B-78
69	Left Rear Passenger Lower Spine Y-Axis Redundant Acceleration	B-79
70	Left Rear Passenger Lower Spine Y-Axis Redundant Velocity	B-80

Table of Data Plots (Continued)
 Test Vehicle Instrumentation Plots
 Acceleration Data - Filter Class 60
 Integration Data - Filter Class 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
71	Right Side Sill at Front Seat X-Axis Acceleration	B-82
72	Right Side Sill at Front Seat X-Axis Velocity	B-83
73	Right Side Sill at Front Seat Y-Axis Acceleration	B-84
74	Right Side Sill at Front Seat Y-Axis Velocity	B-85
75	Right Side Sill at Front Seat Z-Axis Acceleration	B-86
76	Right Side Sill at Front Seat Z-Axis Velocity	B-87
77	Right Side Sill at Front Seat Resultant Acceleration	B-88
78	Right Side Sill at Rear Seat X-Axis Acceleration	B-89
79	Right Side Sill at Rear Seat X-Axis Velocity	B-90
80	Right Side Sill at Rear Seat Y-Axis Acceleration	B-91
81	Right Side Sill at Rear Seat Y-Axis Velocity	B-92
82	Right Side Sill at Rear Seat Z-Axis Acceleration	B-93
83	Right Side Sill at Rear Seat Z-Axis Velocity	B-94
84	Right Side Sill at Rear Seat Resultant Acceleration	B-95
85	Rear Floorpan Above Axle X-Axis Acceleration	B-96
86	Rear Floorpan Above Axle X-Axis Velocity	B-97
87	Rear Floorpan Above Axle Y-Axis Acceleration	B-98
88	Rear Floorpan Above Axle Y-Axis Velocity	B-99
89	Rear Floorpan Above Axle Z-Axis Acceleration	B-100
90	Rear Floorpan Above Axle Z-Axis Velocity	B-101
91	Rear Floorpan Above Axle Resultant Acceleration	B-102
92	Left Side Sill at Front Seat Y-Axis Acceleration	B-103
93	Left Side Sill at Front Seat Y-Axis Velocity	B-104
94	Left Side Sill at Front Seat Y-Axis Displacement	B-105

Table of Data Plots (Continued)
 Test Vehicle Instrumentation Plots (Continued)
 Acceleration Data - Filter Class 60
 Integration Data - Filter Class 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
95	Left Side Sill at Rear Seat Y-Axis Acceleration	B-106
96	Left Side Sill at Rear Seat Y-Axis Velocity	B-107
97	Left Side Sill at Rear Seat Y-Axis Displacement	B-108
98	Right Rear Occupant Compartment Y-Axis Acceleration	B-109
99	Right Rear Occupant Compartment Y-Axis Velocity	B-110
100	Right Rear Occupant Compartment Y-Axis Displacement	B-111
101	Left Lower A-Post Y-Axis Acceleration	B-112
102	Left Lower A-Post Y-Axis Velocity	B-113
103	Left Middle A-Post Y-Axis Acceleration	B-114
104	Left Middle A-Post Y-Axis Velocity	B-115
105	Left Lower B-Post Y-Axis Acceleration	B-116
106	Left Lower B-Post Y-Axis Velocity	B-117
107	Left Middle B-Post Y-Axis Acceleration	B-118
108	Left Middle B-Post Y-Axis Velocity	B-119
109	Left Front Seat Track Y-Axis Acceleration	B-120
110	Left Front Seat Track Y-Axis Velocity	B-121
111	Left Rear Seat Track Y-Axis Acceleration	B-122
112	Left Rear Seat Track Y-Axis Velocity	B-123
113	Vehicle Center of Gravity X-Axis Acceleration	B-124
114	Vehicle Center of Gravity X-Axis Velocity	B-125
115	Vehicle Center of Gravity Y-Axis Acceleration	B-126
116	Vehicle Center of Gravity Y-Axis Velocity	B-127
117	Vehicle Center of Gravity Z-Axis Acceleration	B-128
118	Vehicle Center of Gravity Z-Axis Velocity	B-129
119	Vehicle Center of Gravity Resultant Acceleration	B-130

Table of Data Plots (Continued)
MDB Instrumentation Plots
Acceleration Data - Filter Class 60
Integration Data - Filter Class 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
120	MDB Center of Gravity X-Axis Acceleration	B-132
121	MDB Center of Gravity X-Axis Velocity	B-133
122	MDB Center of Gravity Y-Axis Acceleration	B-134
123	MDB Center of Gravity Y-Axis Velocity	B-135
124	MDB Center of Gravity Z-Axis Acceleration	B-136
125	MDB Center of Gravity Z-Axis Velocity	B-137
126	MDB Center of Gravity Resultant Acceleration	B-138
127	MDB Left Rear X-Axis Acceleration	B-139
128	MDB Left Rear X-Axis Velocity	B-140
129	MDB Left Rear Y-Axis Acceleration	B-141
130	MDB Left Rear Y-Axis Velocity	B-142
131	MDB Right Side Contact Switch	B-143
132	MDB Left Side Contact Switch	B-144

Table of Data Plots (Continued)
Driver and Passenger Dummy Instrumentation Plots
Acceleration Data - FIR Filtered

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
133	Driver Upper Rib Y-Axis Acceleration	B-146
134	Driver Lower Rib Y-Axis Acceleration	B-147
135	Driver Lower Spine Y-Axis Acceleration	B-148
136	Driver Pelvis Y-Axis Acceleration	B-149
137	Left Rear Passenger Upper Rib Y-Axis Acceleration	B-150
138	Left Rear Passenger Lower Rib Y-Axis Acceleration	B-151
139	Left Rear Passenger Lower Spine Y-Axis Acceleration	B-152
140	Left Rear Passenger Pelvis Y-Axis Acceleration	B-153
141	Driver Upper Rib Y-Axis Redundant Acceleration	B-154
142	Driver Lower Rib Y-Axis Redundant Acceleration	B-155
143	Driver Lower Spine Y-Axis Redundant Acceleration	B-156
144	Left Rear Passenger Upper Rib Y-Axis Redundant Acceleration	B-157
145	Left Rear Passenger Lower Rib Y-Axis Redundant Acceleration	B-158
146	Left Rear Passenger Lower Spine Y-Axis Redundant Acceleration	B-159

Driver and Passenger Dummy Instrumentation Plots



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

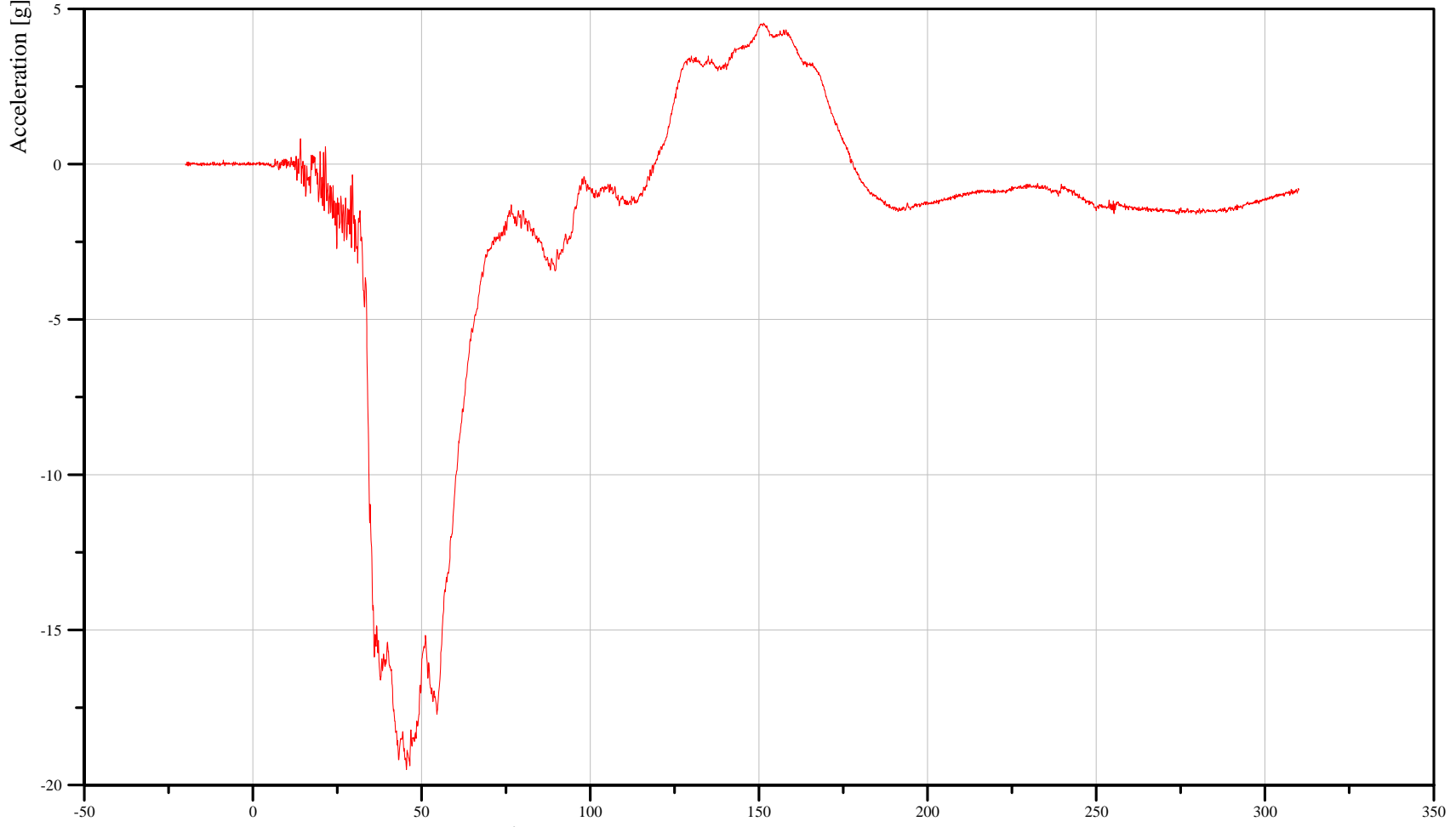
Date: 11/15/2006
Time: 12:16

DRIVER HEAD X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCG00SHACXA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-19.50 g at 45.52 ms

Max. Value
4.55 g at 151.36 ms

Time [ms]

B-10

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

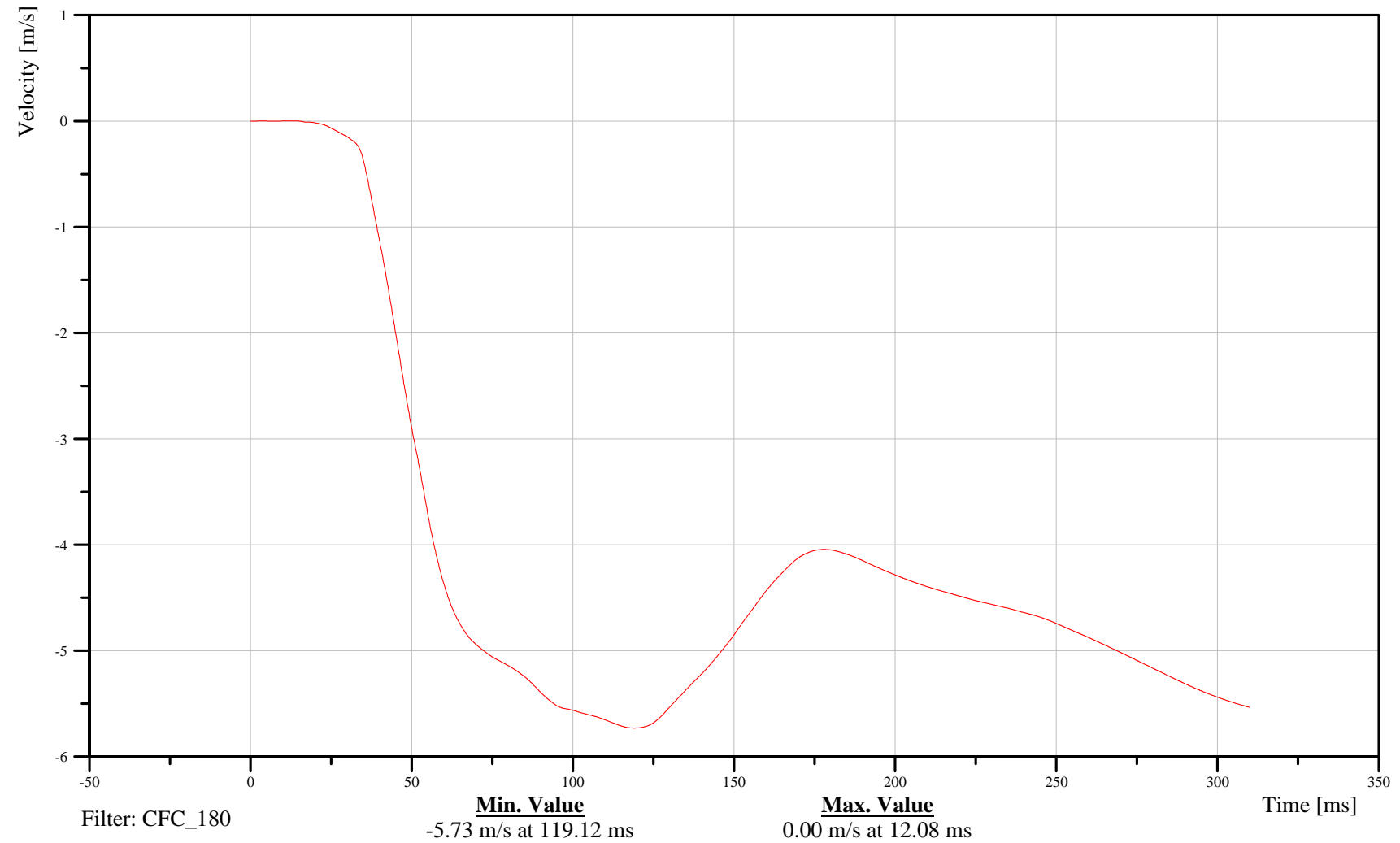
Date: 11/15/2006
Time: 12:16

DRIVER HEAD X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11HEADCG00SHVEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-11

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

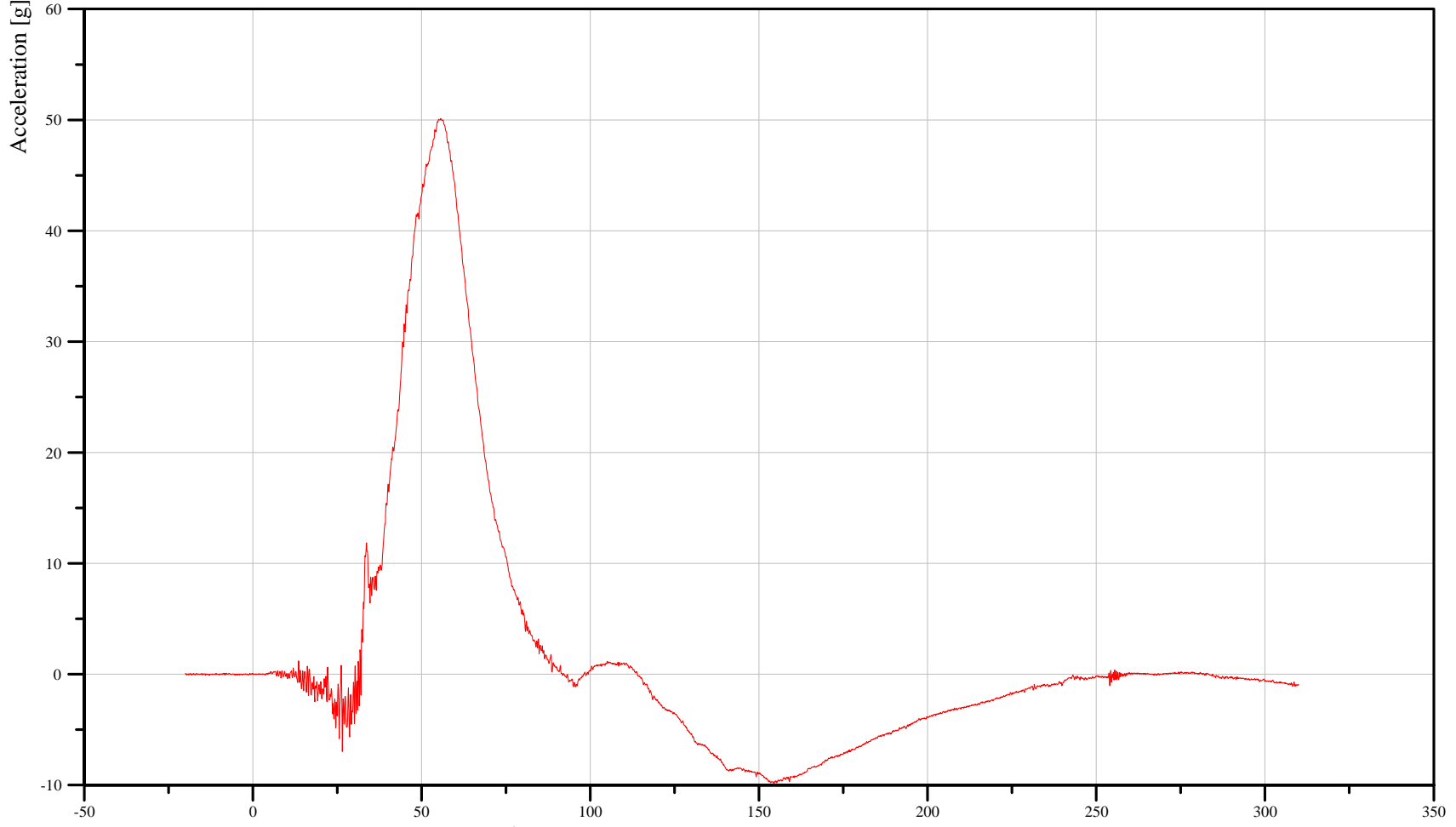
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCG00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-9.86 g at 154.48 ms

Max. Value
50.11 g at 55.68 ms

Time [ms]

B-12

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

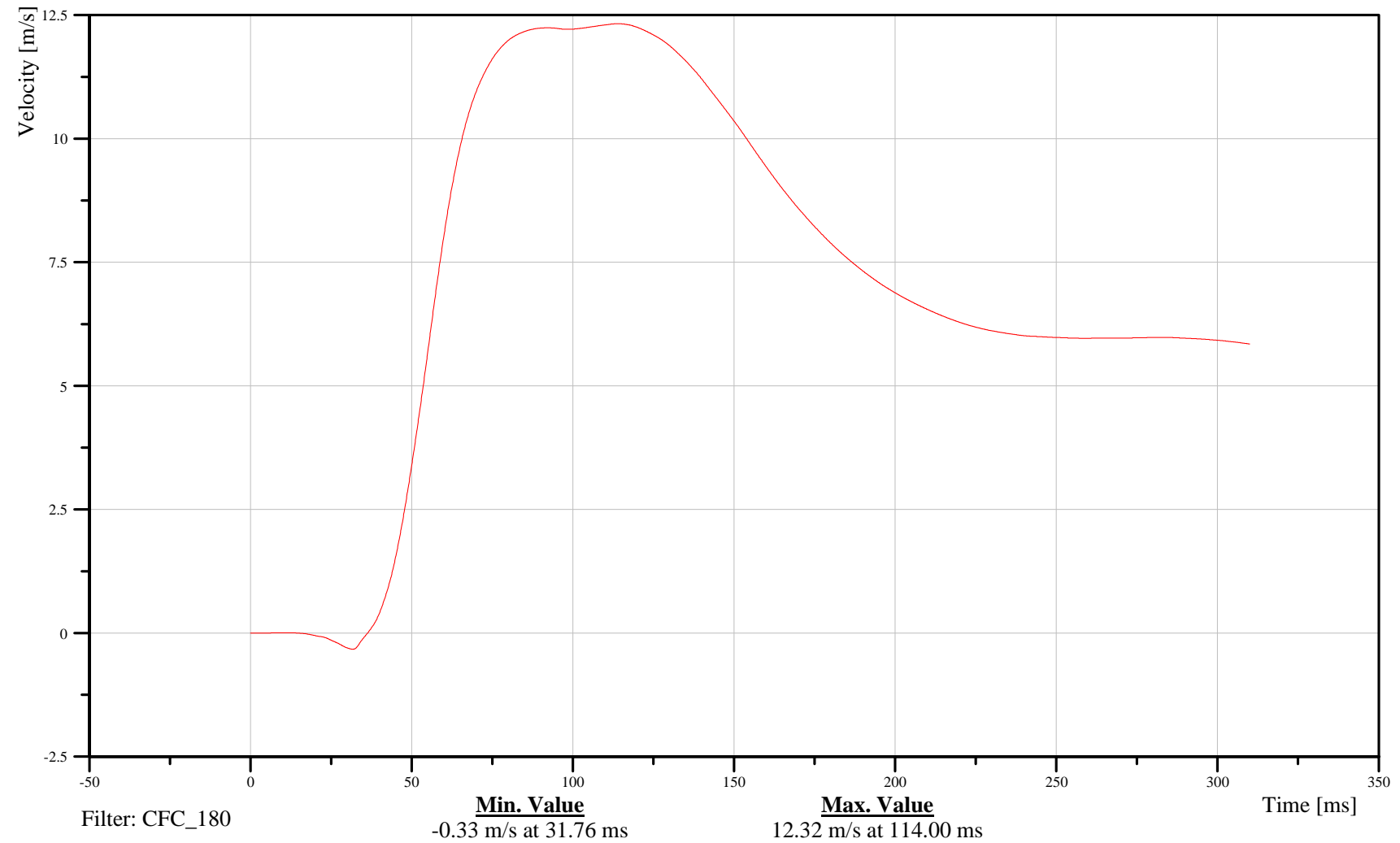
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11HEADCG00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-13

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

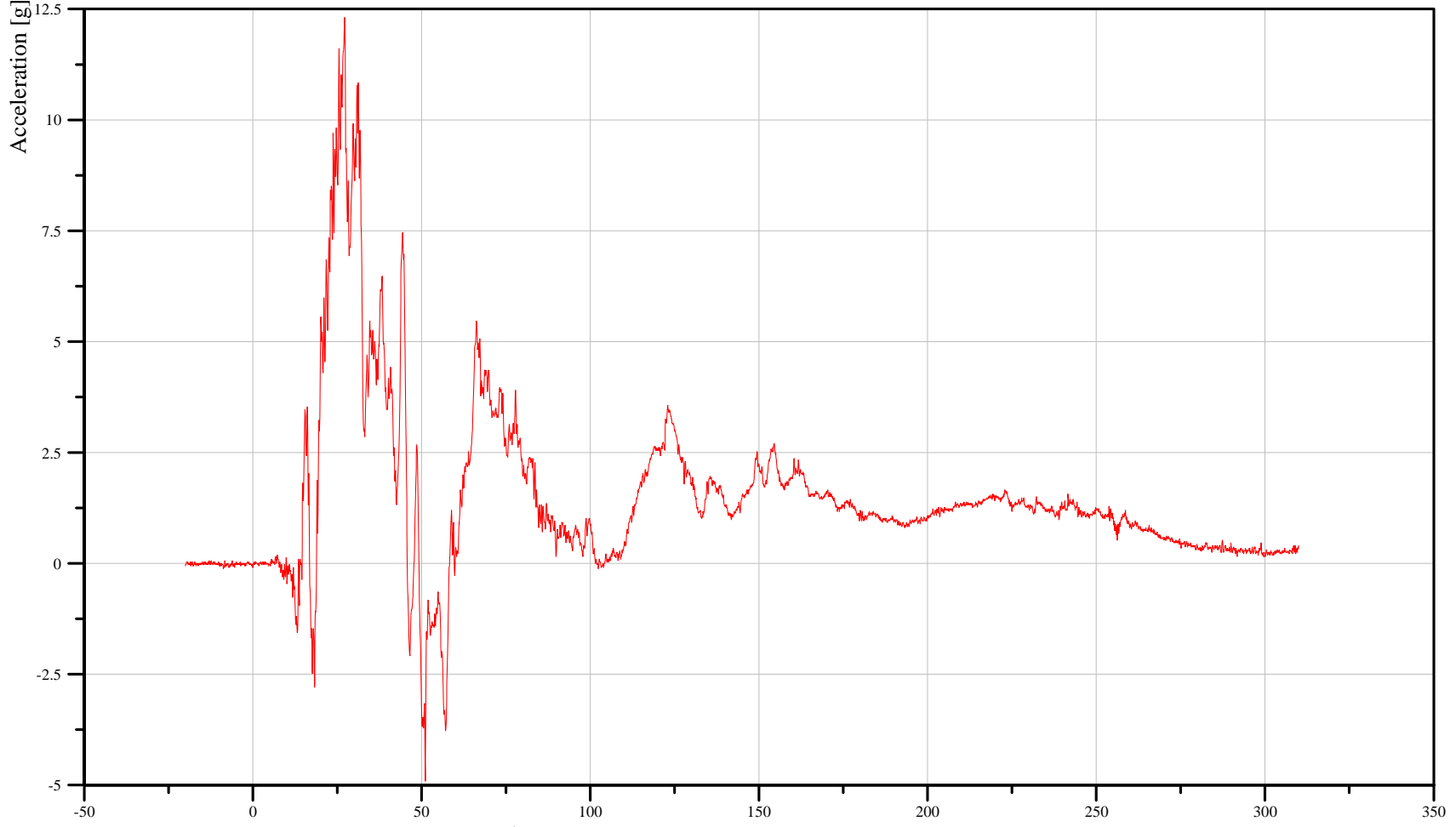
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCG00SHACZA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-4.91 g at 51.12 ms

Max. Value
12.31 g at 27.20 ms

B-14

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

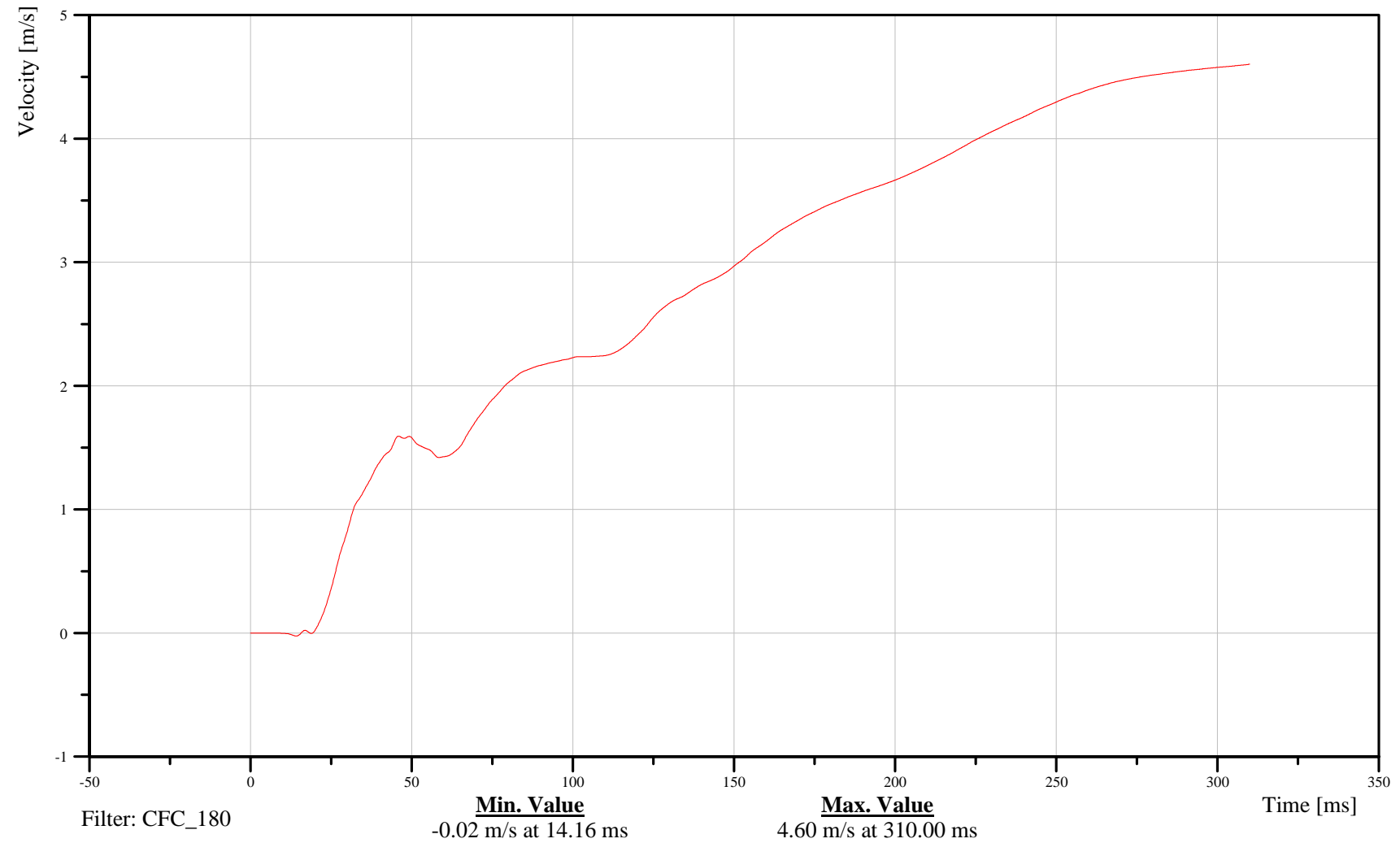
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11HEADCG00SHVEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-15

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

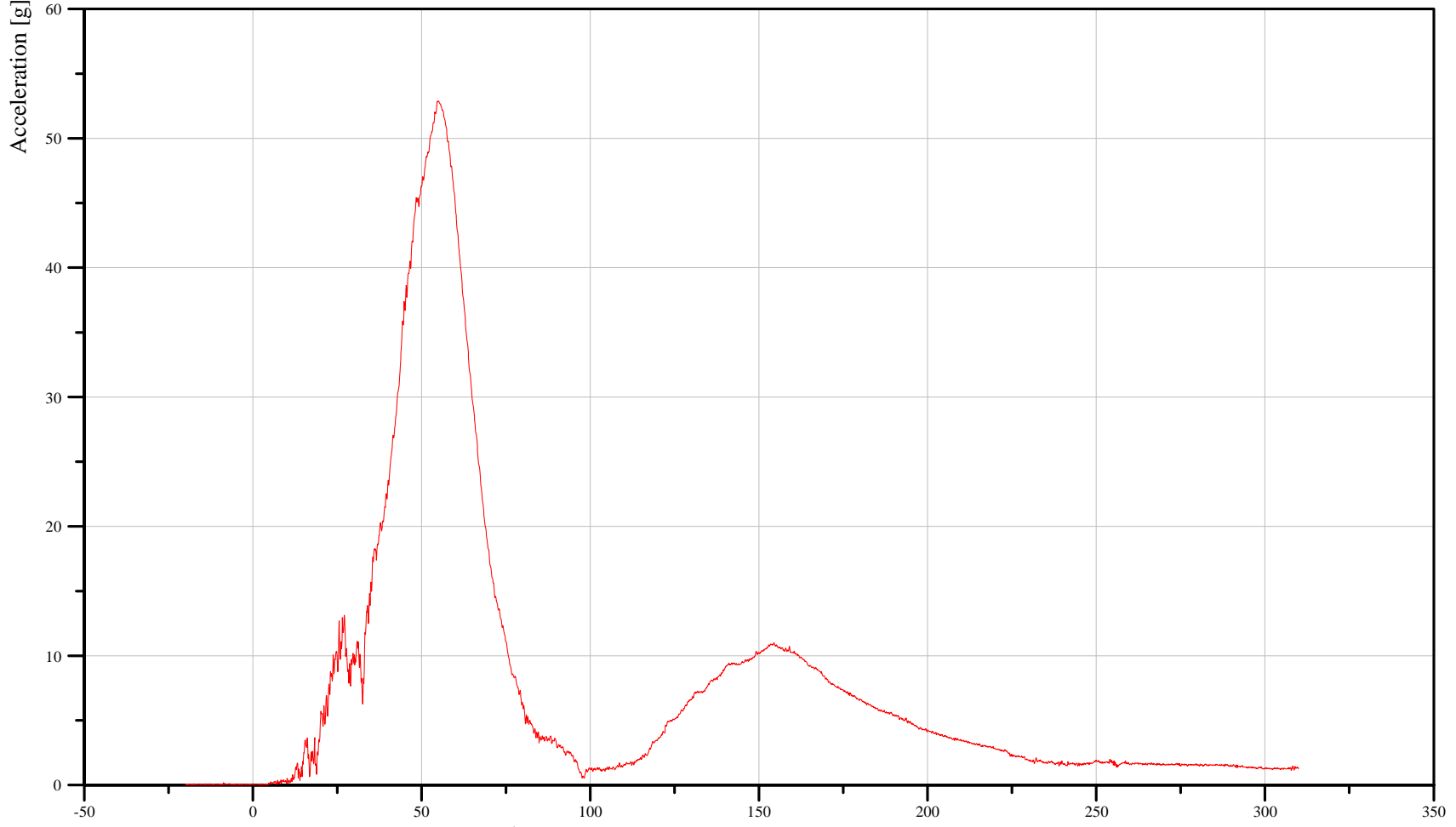
Date: 11/15/2006
Time: 12:16

DRIVER HEAD RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCG00SHACRA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
0.01 g at -19.68 ms

Max. Value
52.90 g at 55.12 ms

Time [ms]

B-16

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

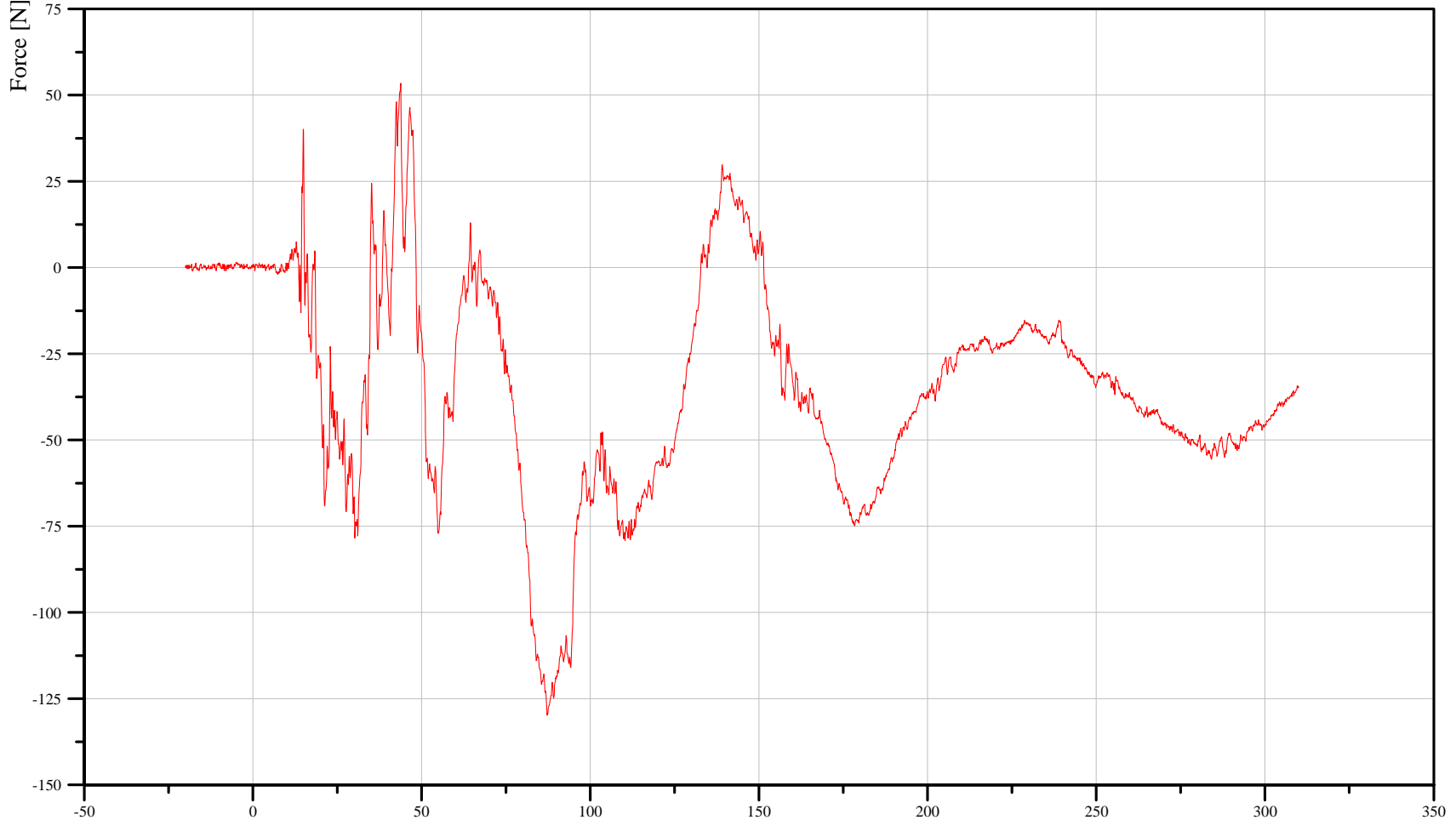
Date: 11/15/2006
Time: 12:16

DRIVER NECK X-AXIS SHEAR FORCE

Customer: NHTSA
Test Number: C75200

11NECKUP00SHFOXA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-129.77 N at 87.20 ms

Max. Value
53.51 N at 43.84 ms

Time [ms]

B-17

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

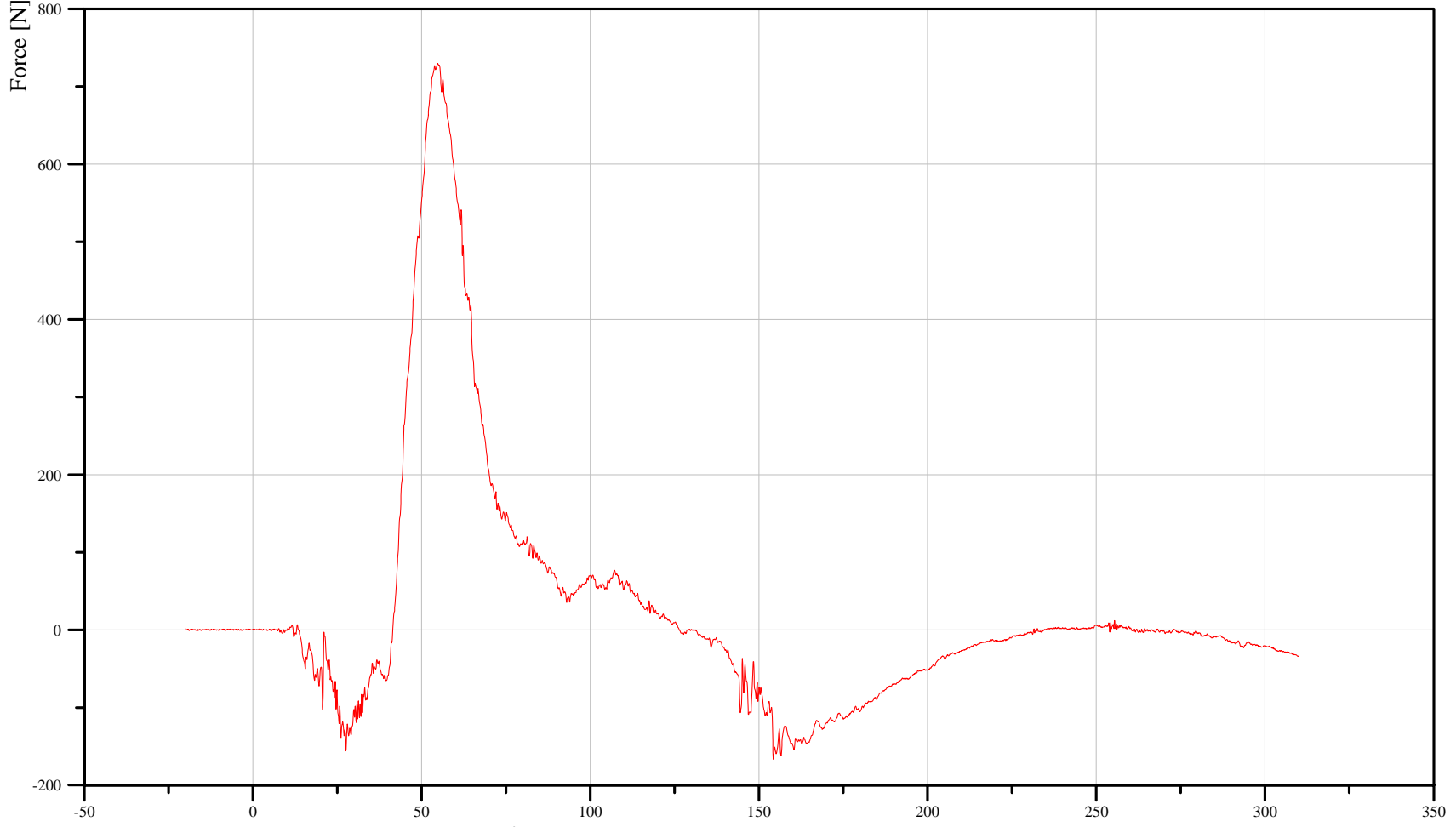
Date: 11/15/2006
Time: 12:16

DRIVER NECK Y-AXIS SHEAR FORCE

Customer: NHTSA
Test Number: C75200

11NECKUP00SHFOYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-166.59 N at 154.32 ms

Max. Value
729.86 N at 54.72 ms

Time [ms]

B-18

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

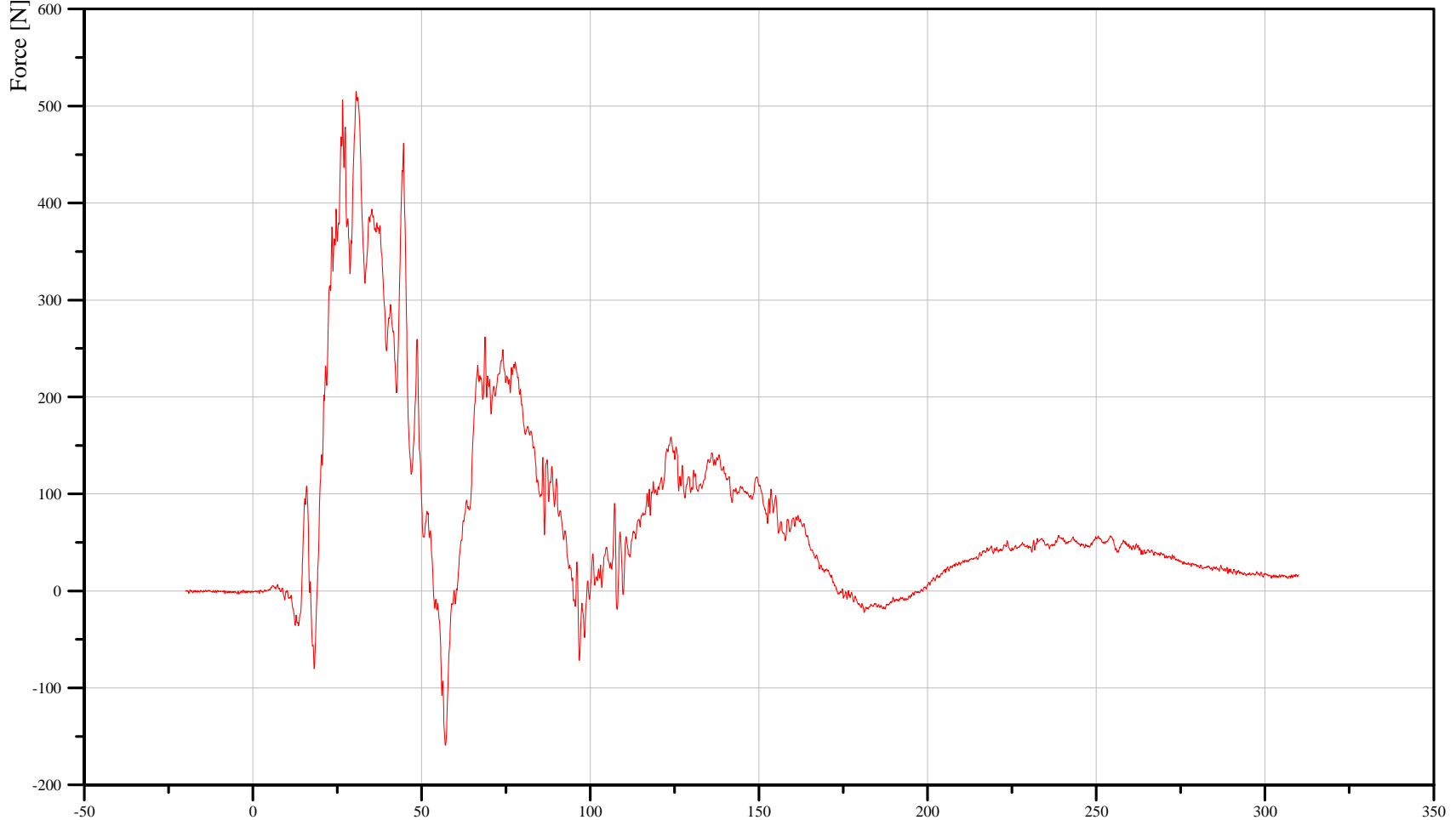
Date: 11/15/2006
Time: 12:16

DRIVER NECK Z-AXIS AXIAL FORCE

Customer: NHTSA
Test Number: C75200

11NECKUP00SHFOZA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-159.25 N at 57.12 ms

Max. Value
515.36 N at 30.64 ms

Time [ms]

B-19

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

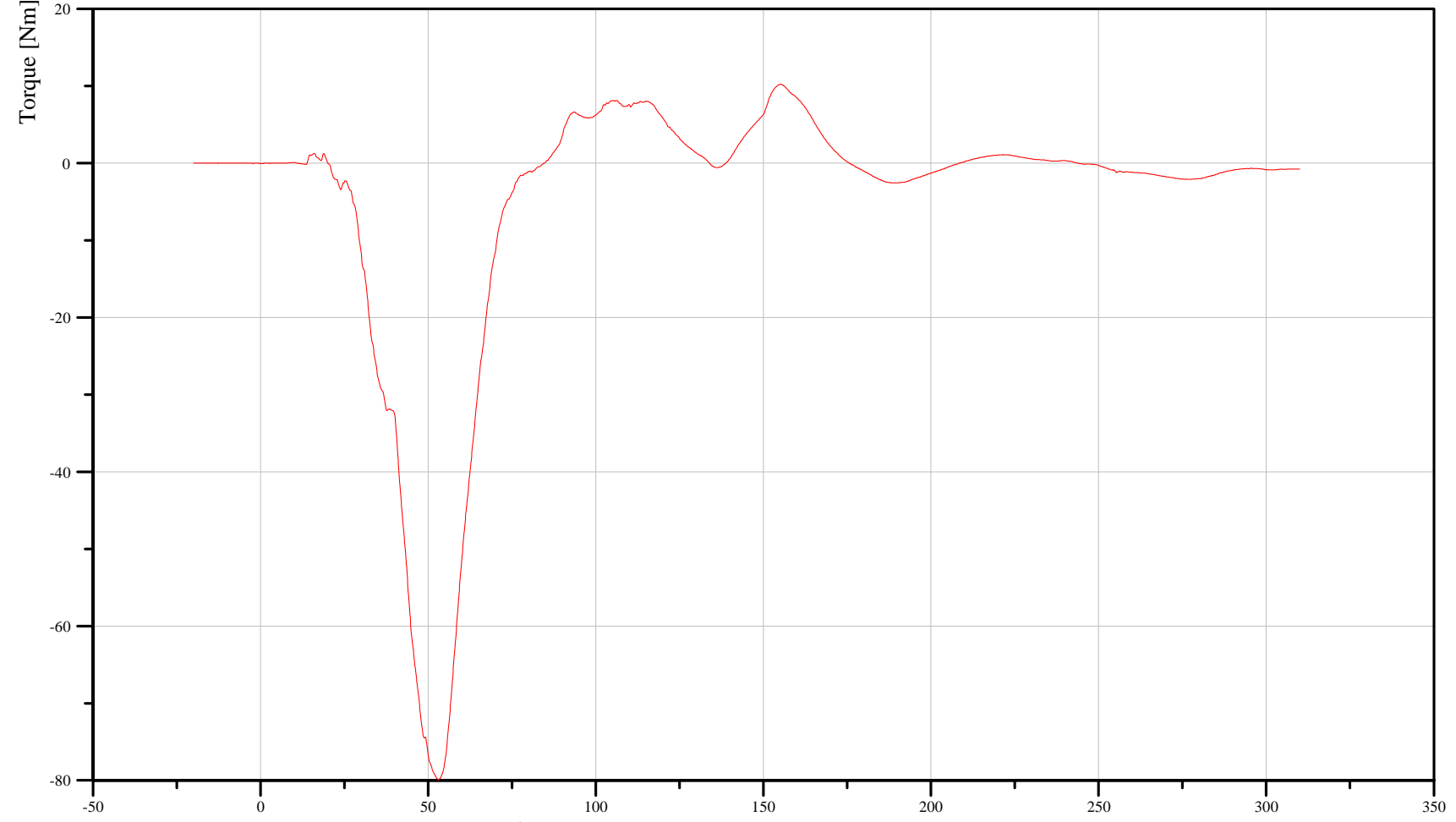
Date: 11/15/2006
Time: 12:16

DRIVER NECK MOMENT ABOUT X AXIS

Customer: NHTSA
Test Number: C75200

11NECKUP00SHMOXB

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_600

Min. Value
-79.93 Nm at 53.04 ms

Max. Value
10.23 Nm at 155.20 ms

Time [ms]

B-20

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

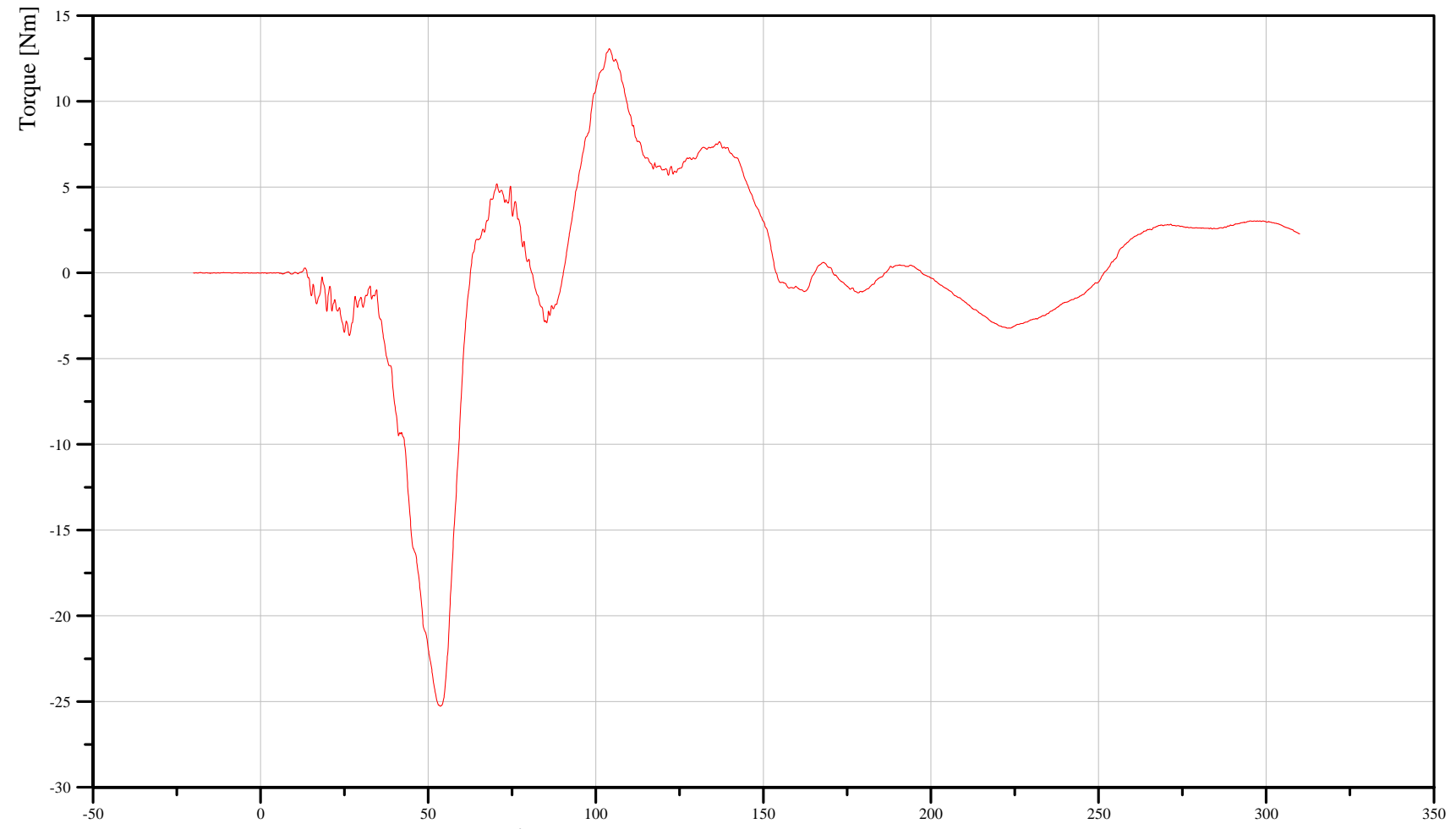
Date: 11/15/2006
Time: 12:16

DRIVER NECK MOMENT ABOUT Y AXIS

Customer: NHTSA
Test Number: C75200

11NECKUP00SHMOYB

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_600

Min. Value
-25.27 Nm at 53.60 ms

Max. Value
13.08 Nm at 104.08 ms

Time [ms]

B-21

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

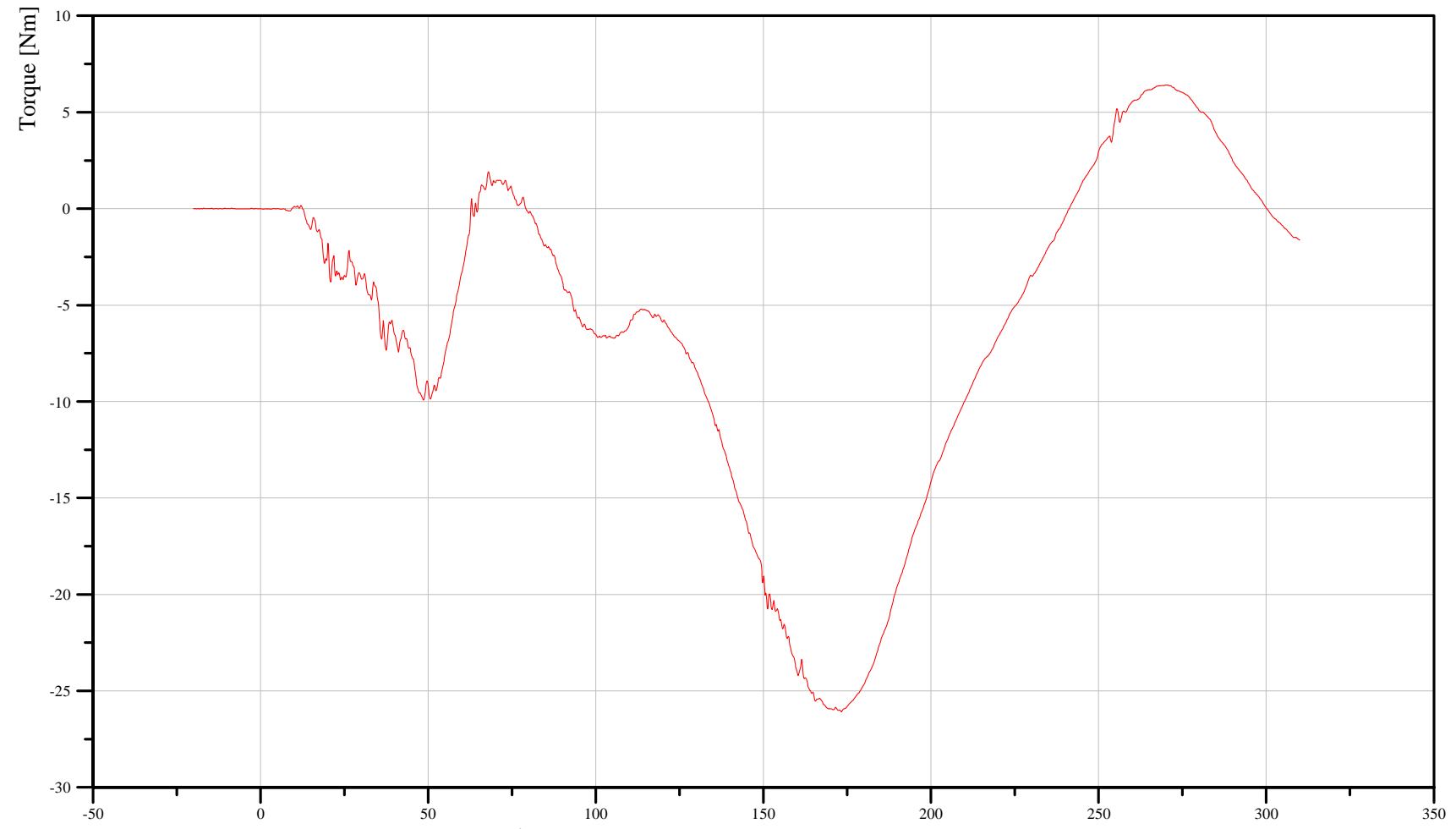
Date: 11/15/2006
Time: 12:16

DRIVER NECK MOMENT ABOUT Z AXIS

Customer: NHTSA
Test Number: C75200

11NECKUP00SHMOZB

TRC Inc. Test Lab: CTF
Test Number: 061115



B-22

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra Neck Moment about the Occipital Condyle (NECK OM)

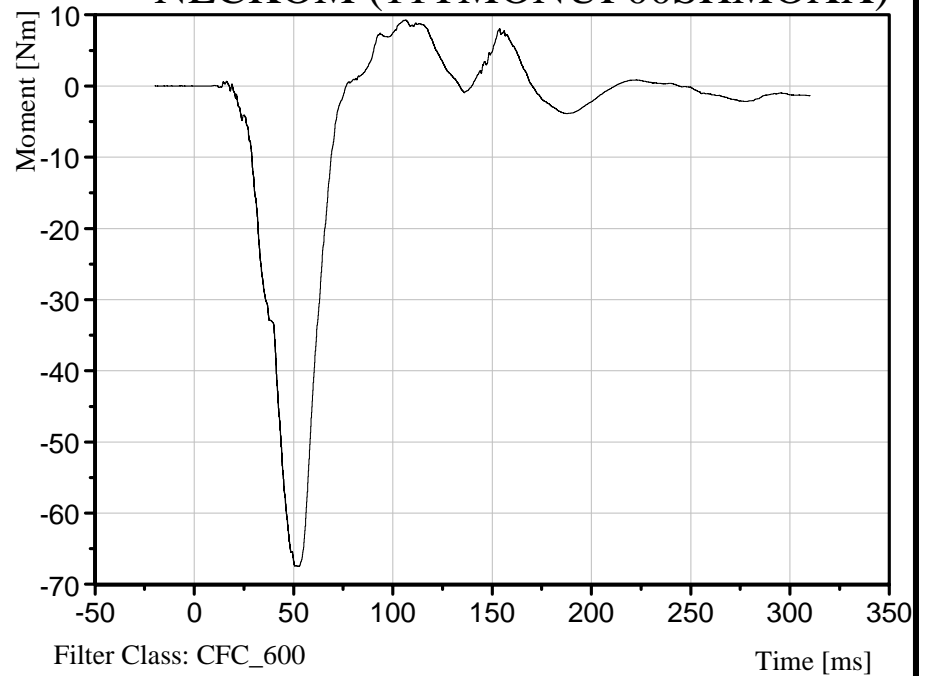
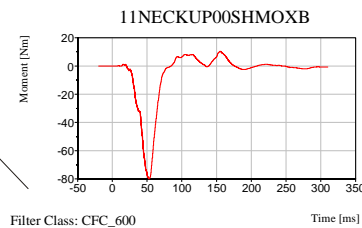
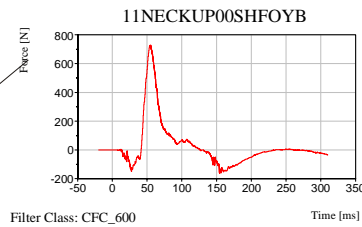
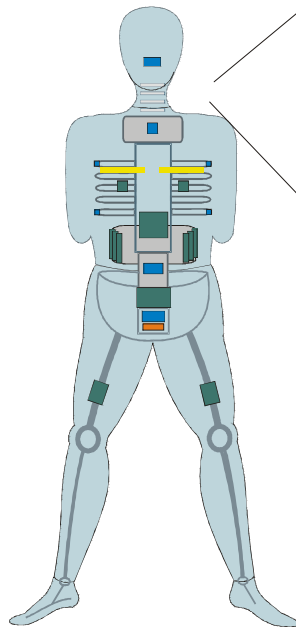
Date: 11/15/2006
Time: 12:16

Customer: NHTSA
Test Number: C75200

TRC Inc. Test Lab: CTF
Test Number: 061115

Test Orientation = Side

NECKOM (11TMONUP00SHMOXX)



[Max.] 9.31 Nm at 106.24 ms

[Min.] -67.47 Nm at 52.00 ms

Dummy: HIII/SID
Seating Position:
Driver

Neck OM Source Code: $M_x + (D * F_y)$

B-23

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

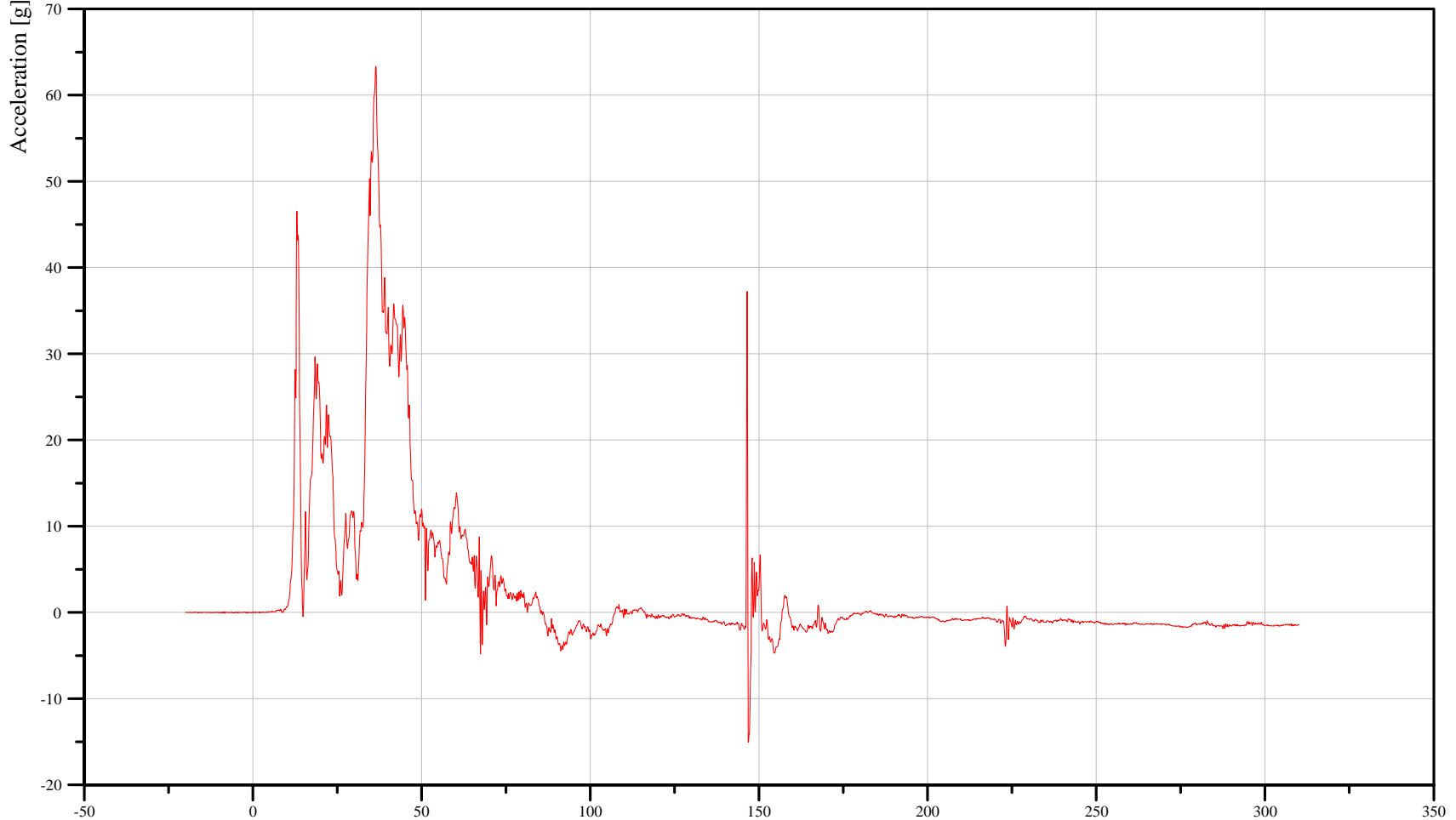
Date: 11/15/2006
Time: 12:16

DRIVER UPPER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLU00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-15.05 g at 146.96 ms

Max. Value
63.37 g at 36.40 ms

Time [ms]

B-24

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

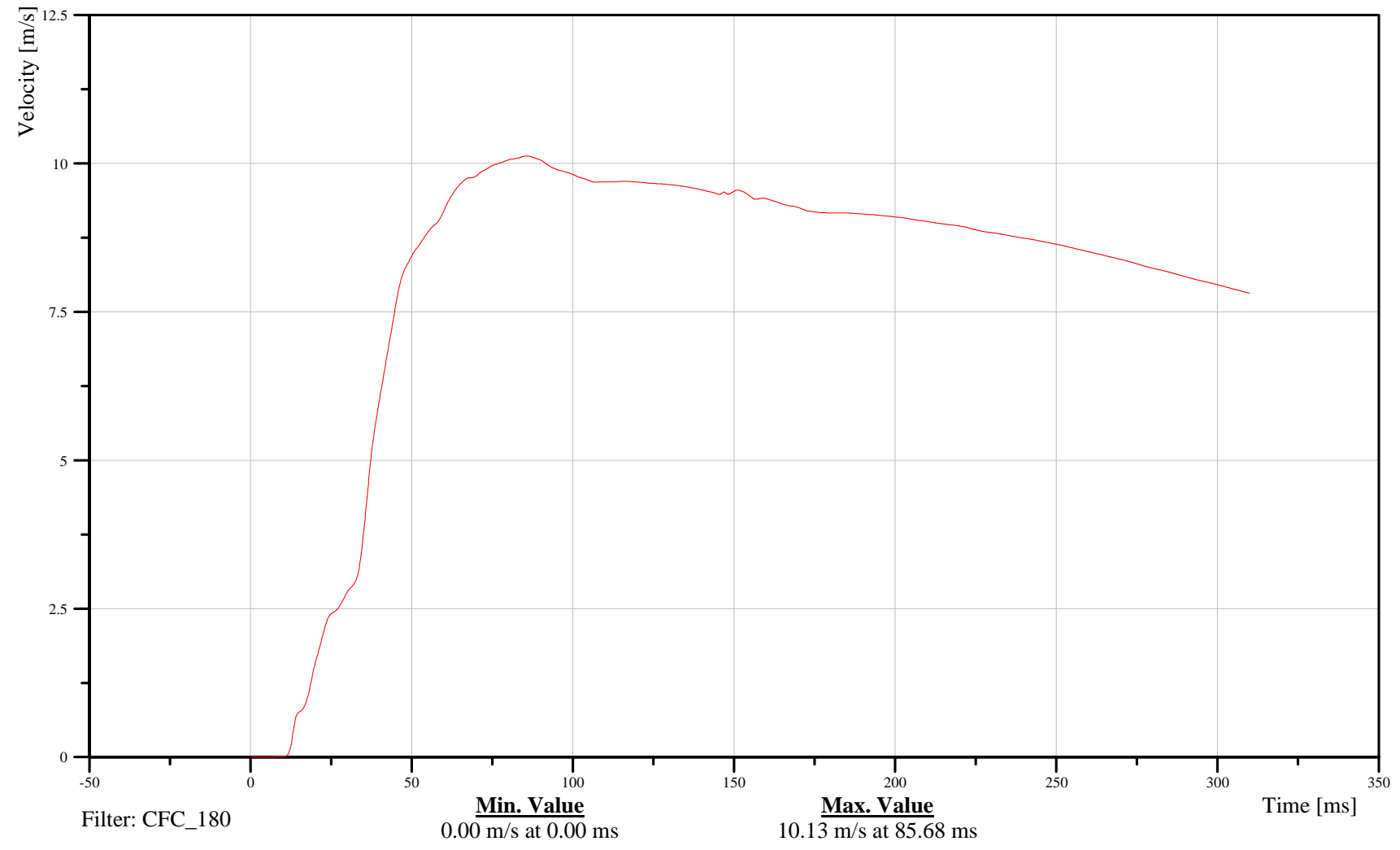
Date: 11/15/2006
Time: 12:16

DRIVER UPPER RIB Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11RIBSLU00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-25

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

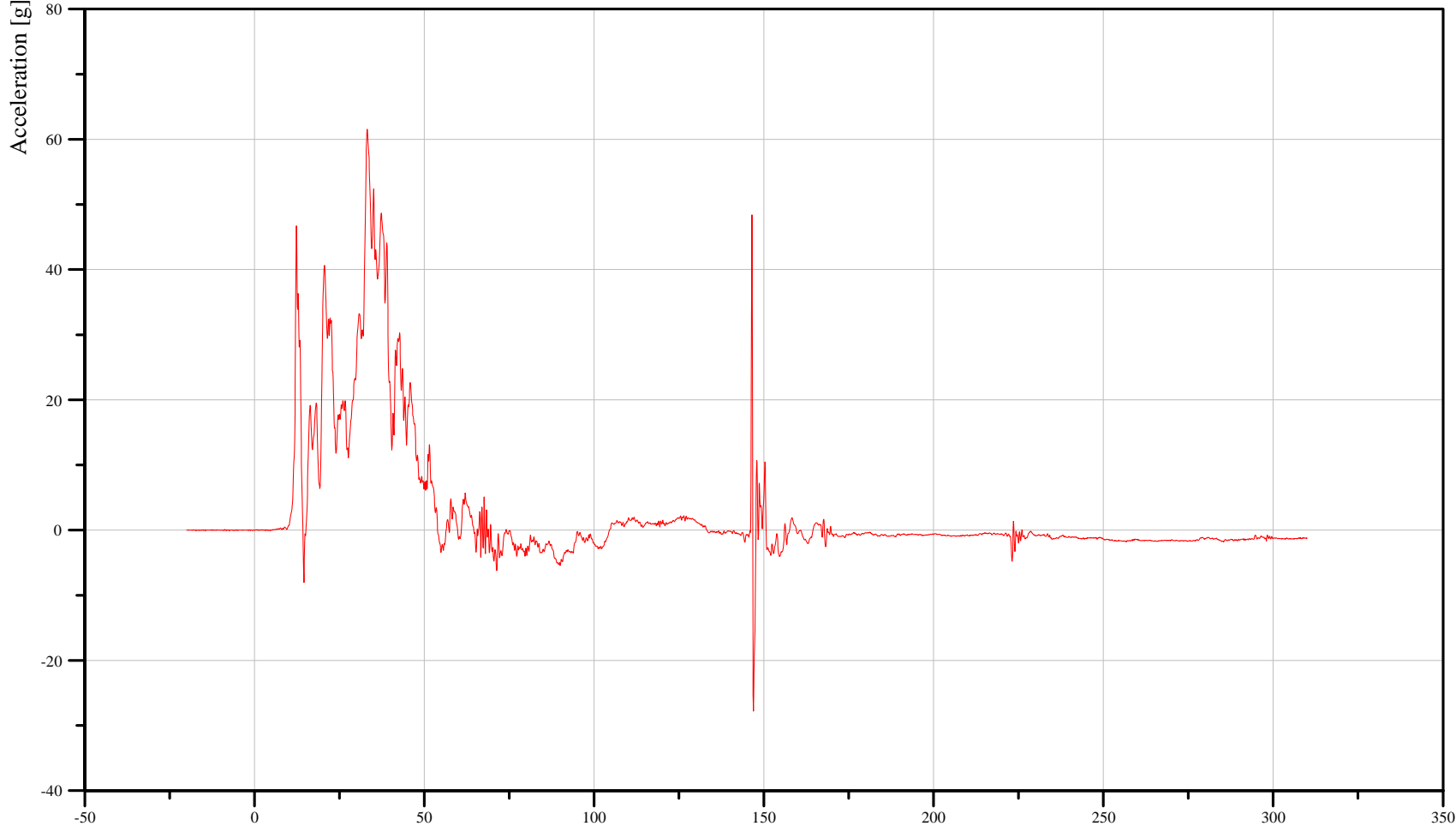
Date: 11/15/2006
Time: 12:16

DRIVER LOWER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLL00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-27.78 g at 146.96 ms

Max. Value
61.56 g at 33.20 ms

B-26

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

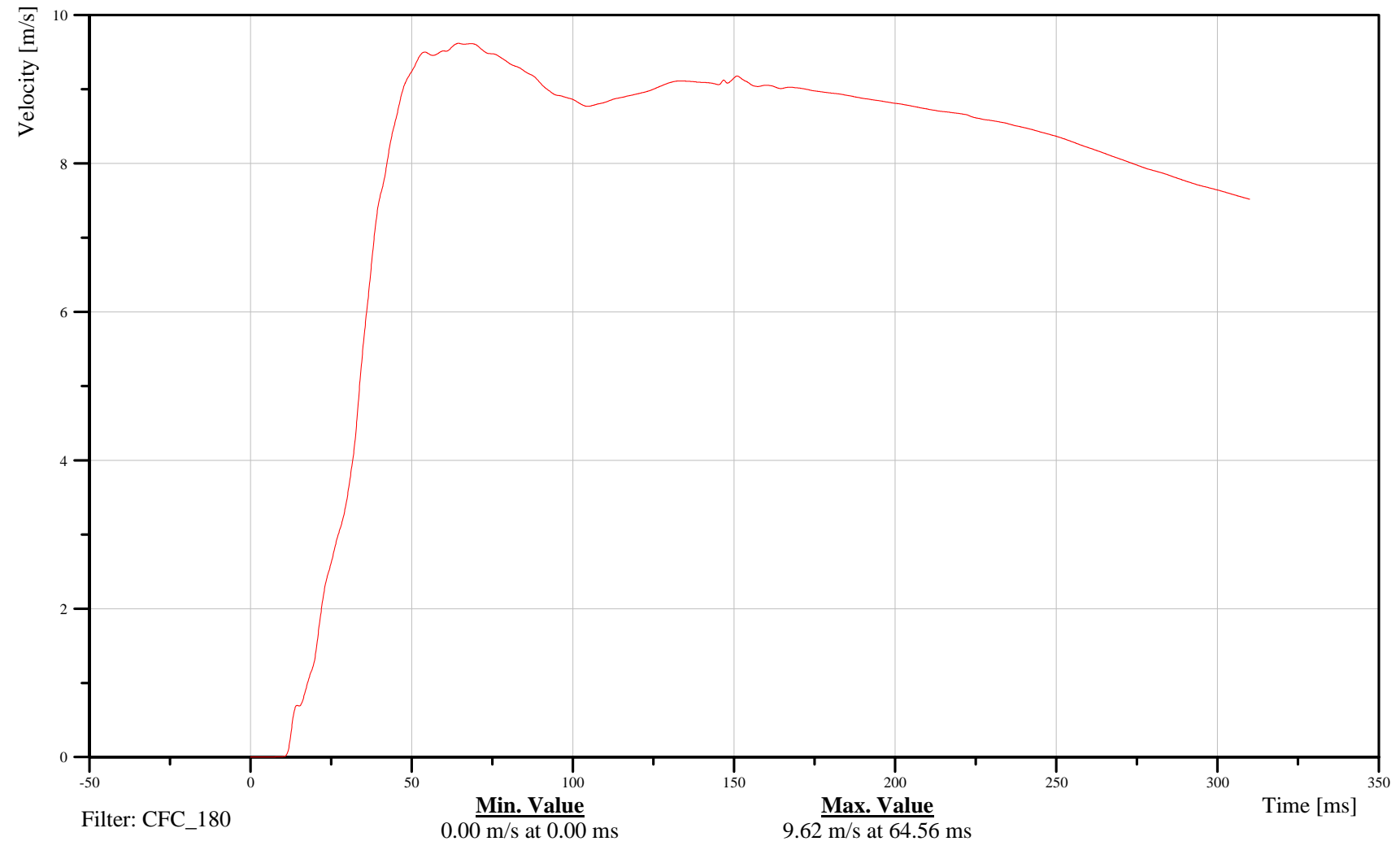
Date: 11/15/2006
Time: 12:16

DRIVER LOWER RIB Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11RIBSLL00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-27

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

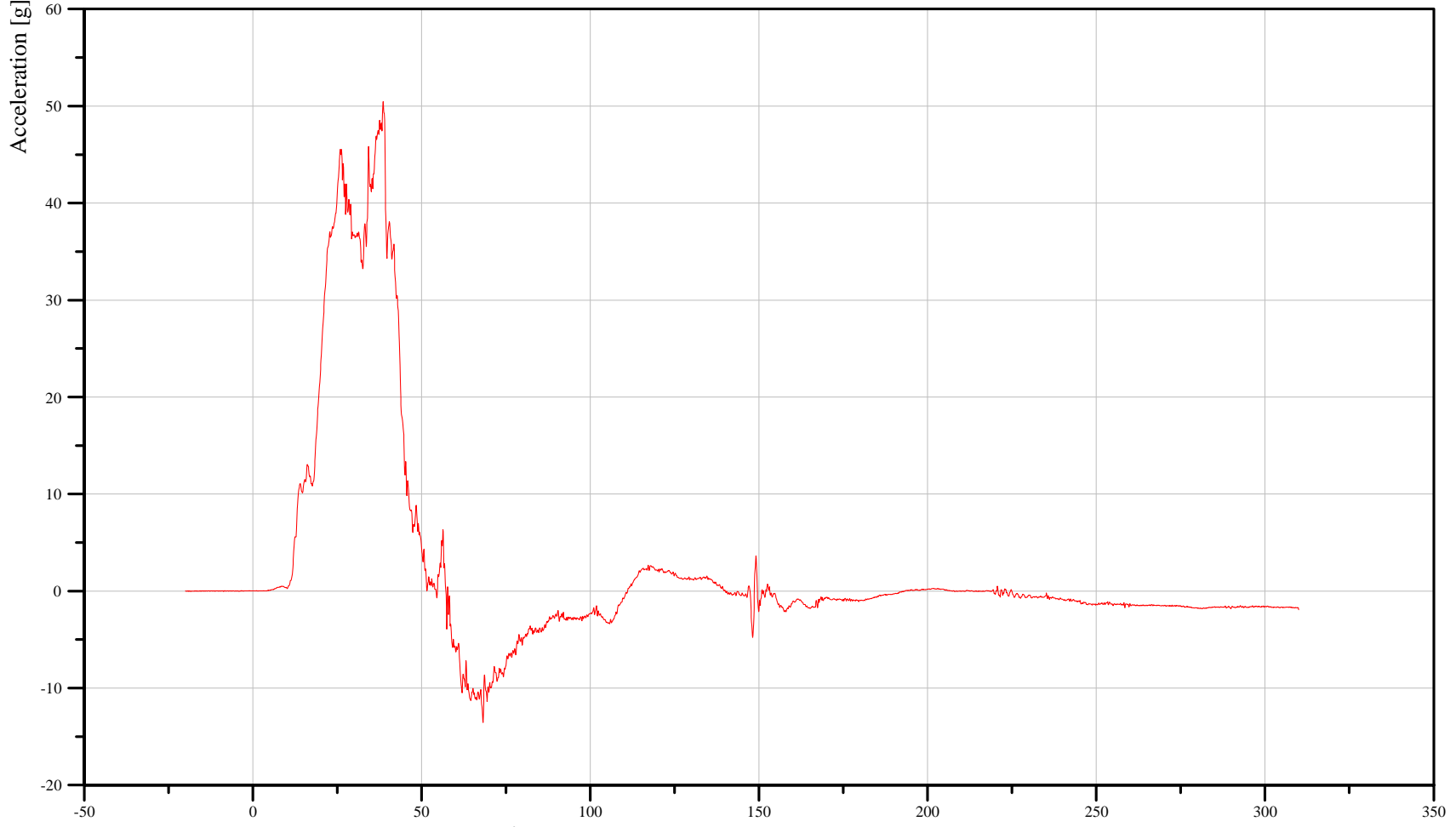
Date: 11/15/2006
Time: 12:16

DRIVER LOWER SPINE Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11SPIN1200SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-13.53 g at 68.24 ms

Max. Value
50.44 g at 38.64 ms

Time [ms]

B-28

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

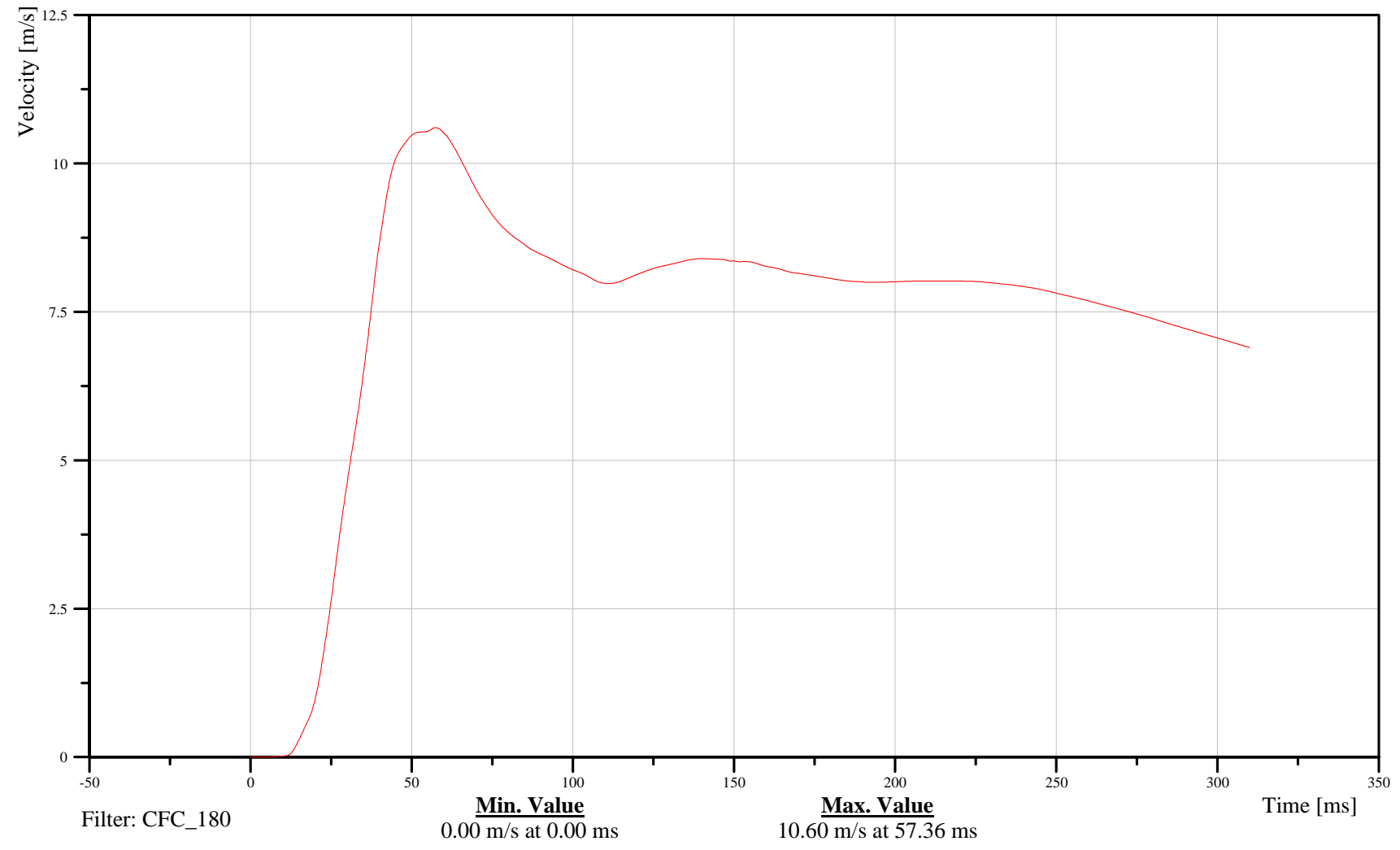
Date: 11/15/2006
Time: 12:16

DRIVER LOWER SPINE Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11SPIN1200SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-29

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

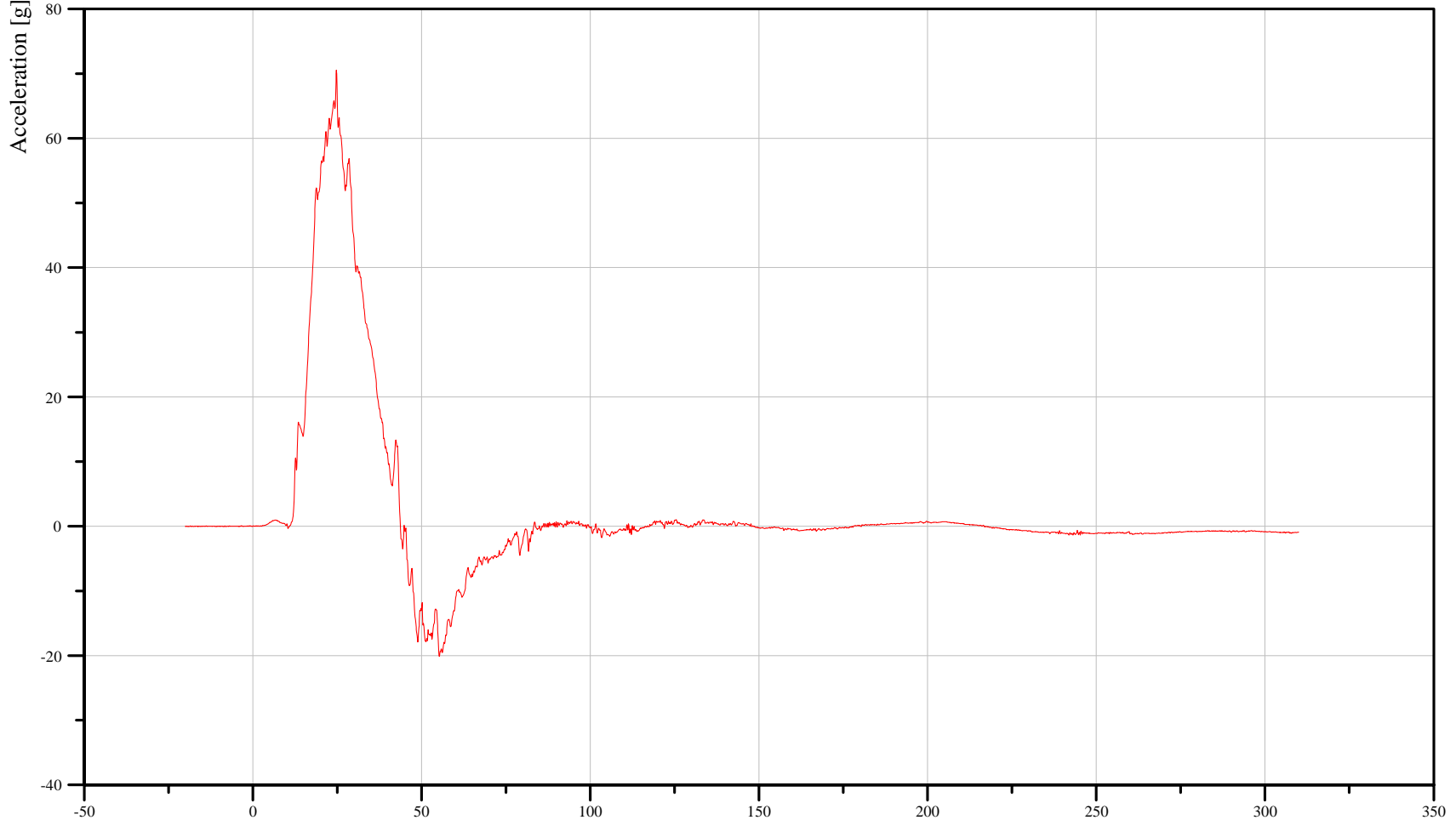
Date: 11/15/2006
Time: 12:16

DRIVER PELVIS Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11PELVCG00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-20.16 g at 55.28 ms

Max. Value
70.52 g at 24.80 ms

Time [ms]

B-30

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

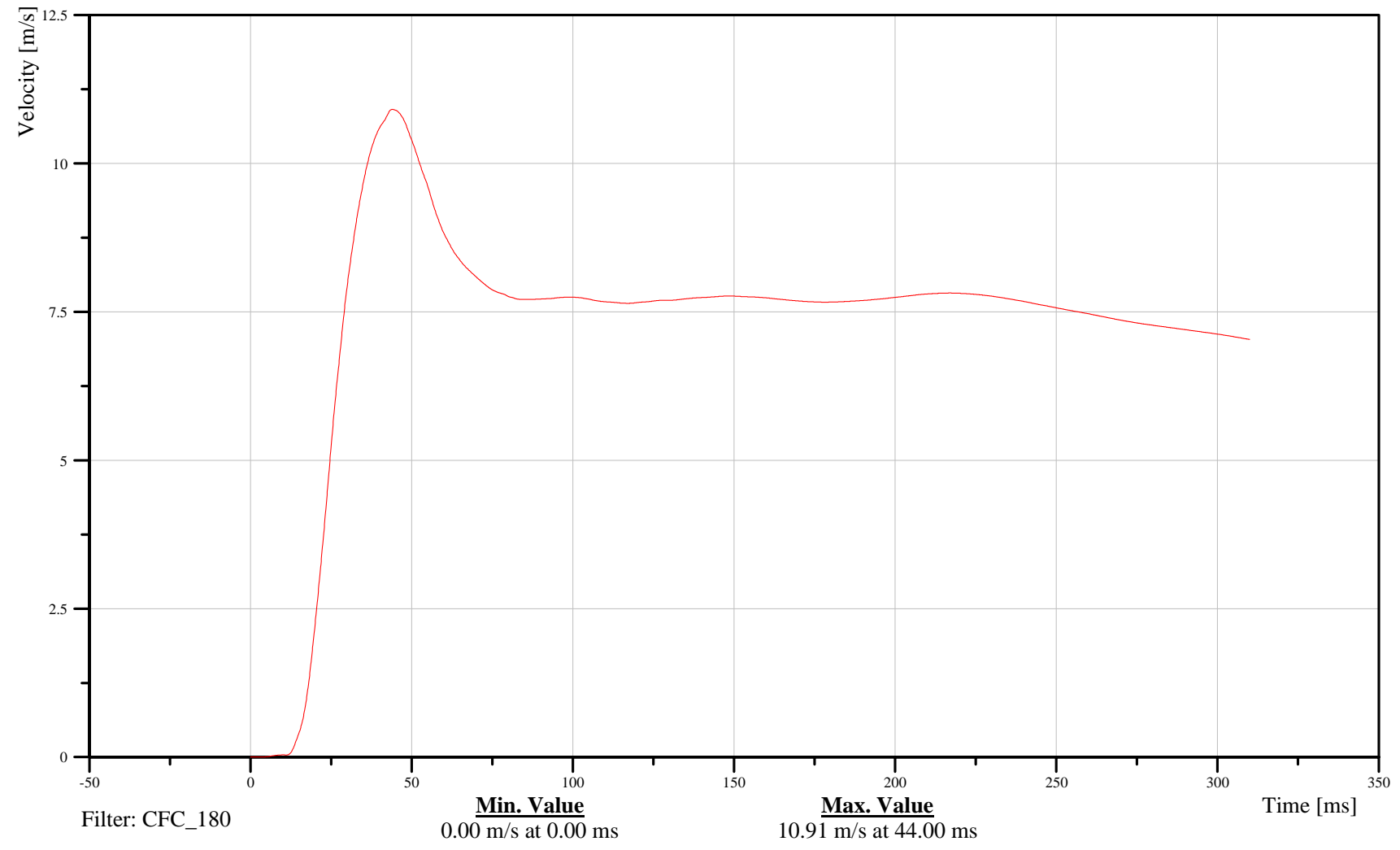
Date: 11/15/2006
Time: 12:16

DRIVER PELVIS Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11PELVCG00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-31

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

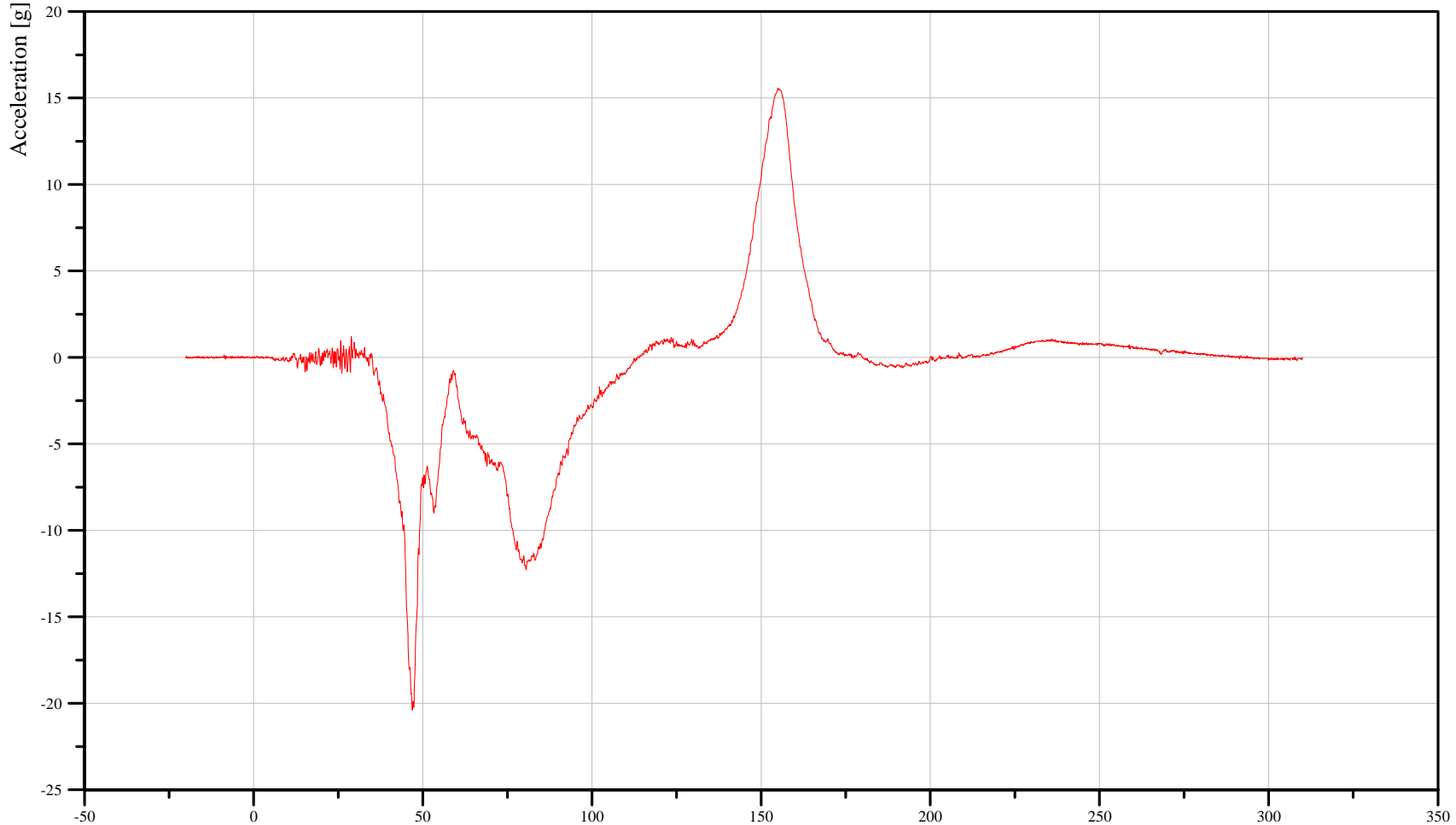
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCG00SHACXA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-20.38 g at 46.96 ms

Max. Value
15.57 g at 154.88 ms

Time [ms]

B-32

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

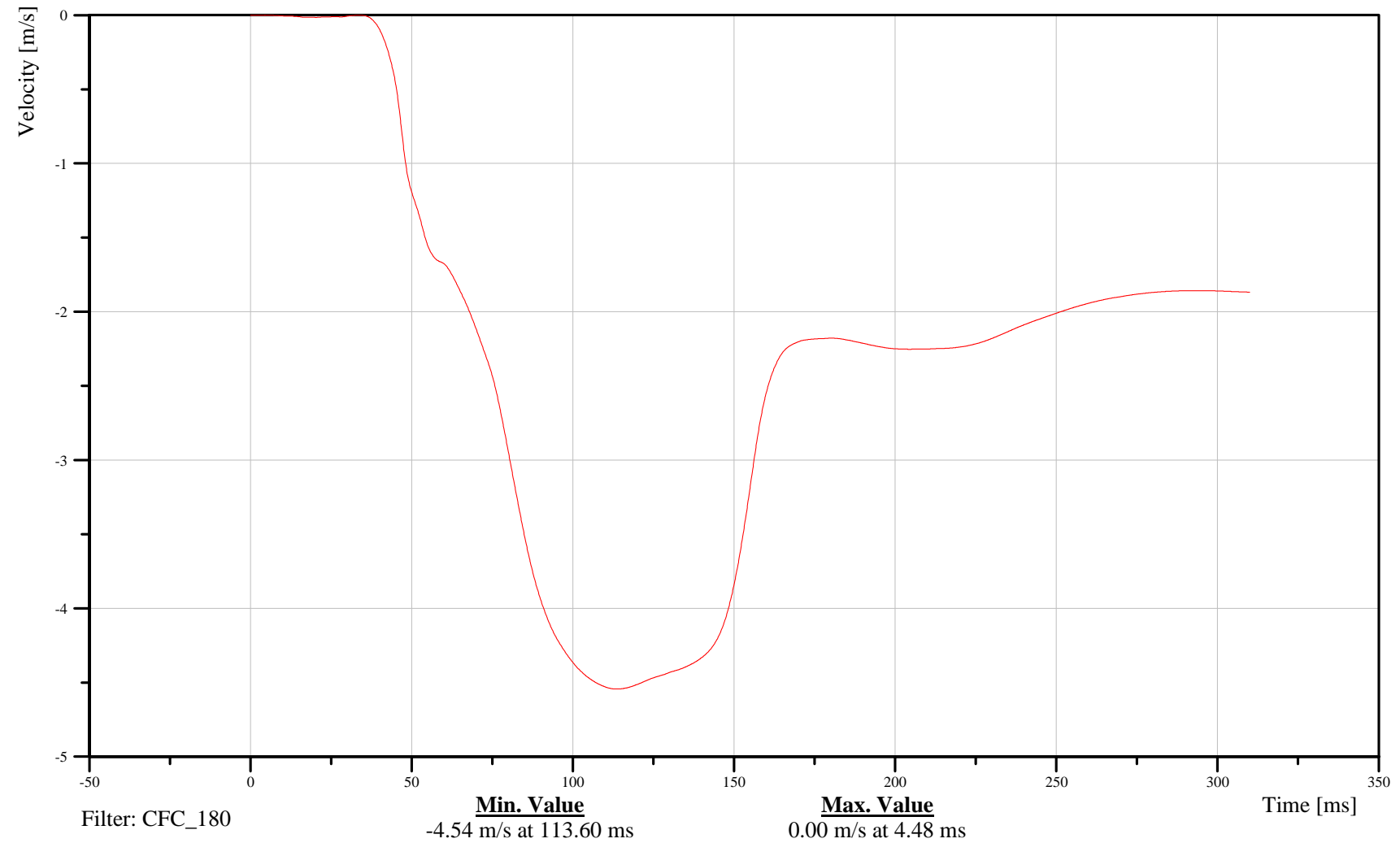
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14HEADCG00SHVEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-33

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

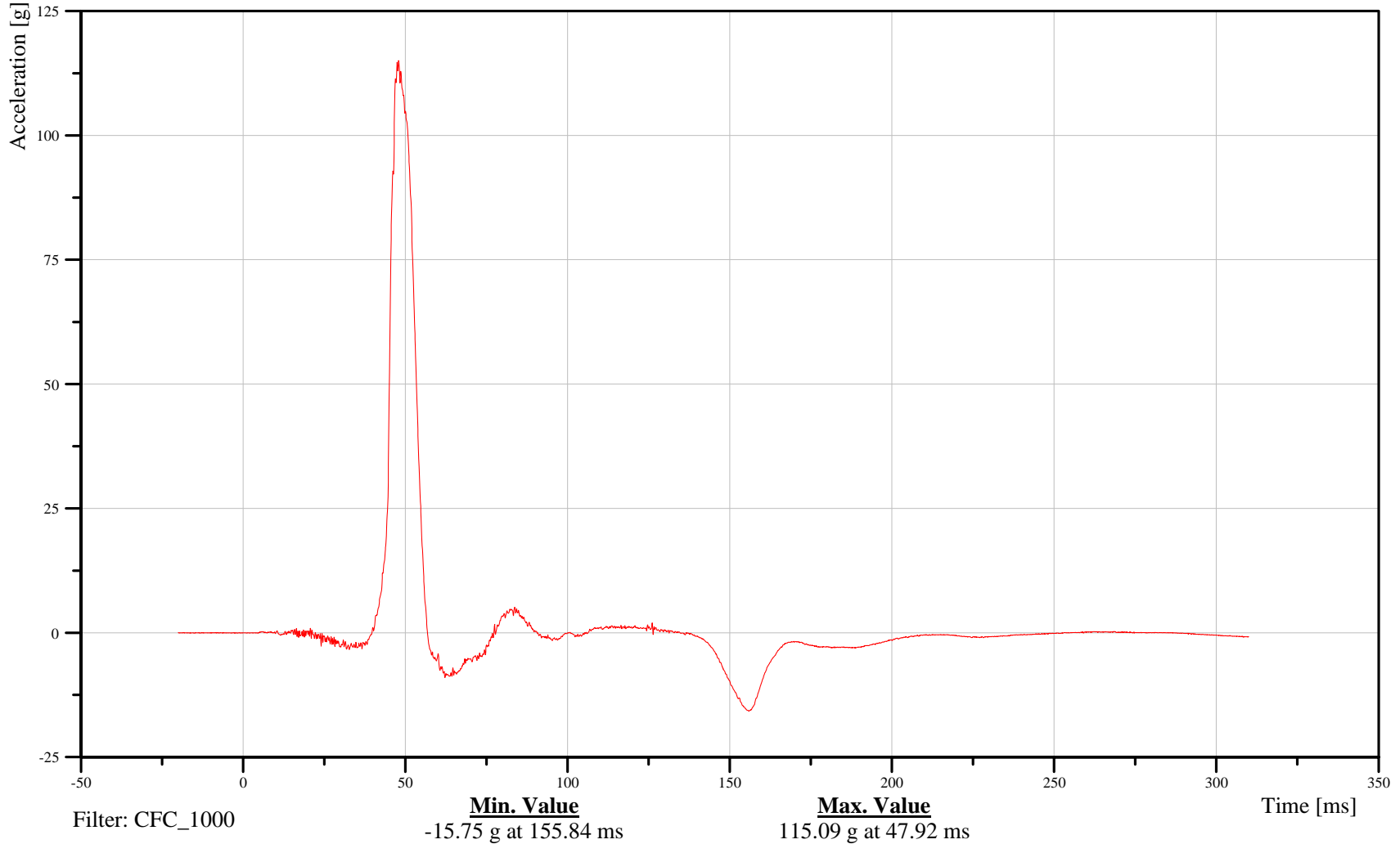
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCG00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



B-34

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

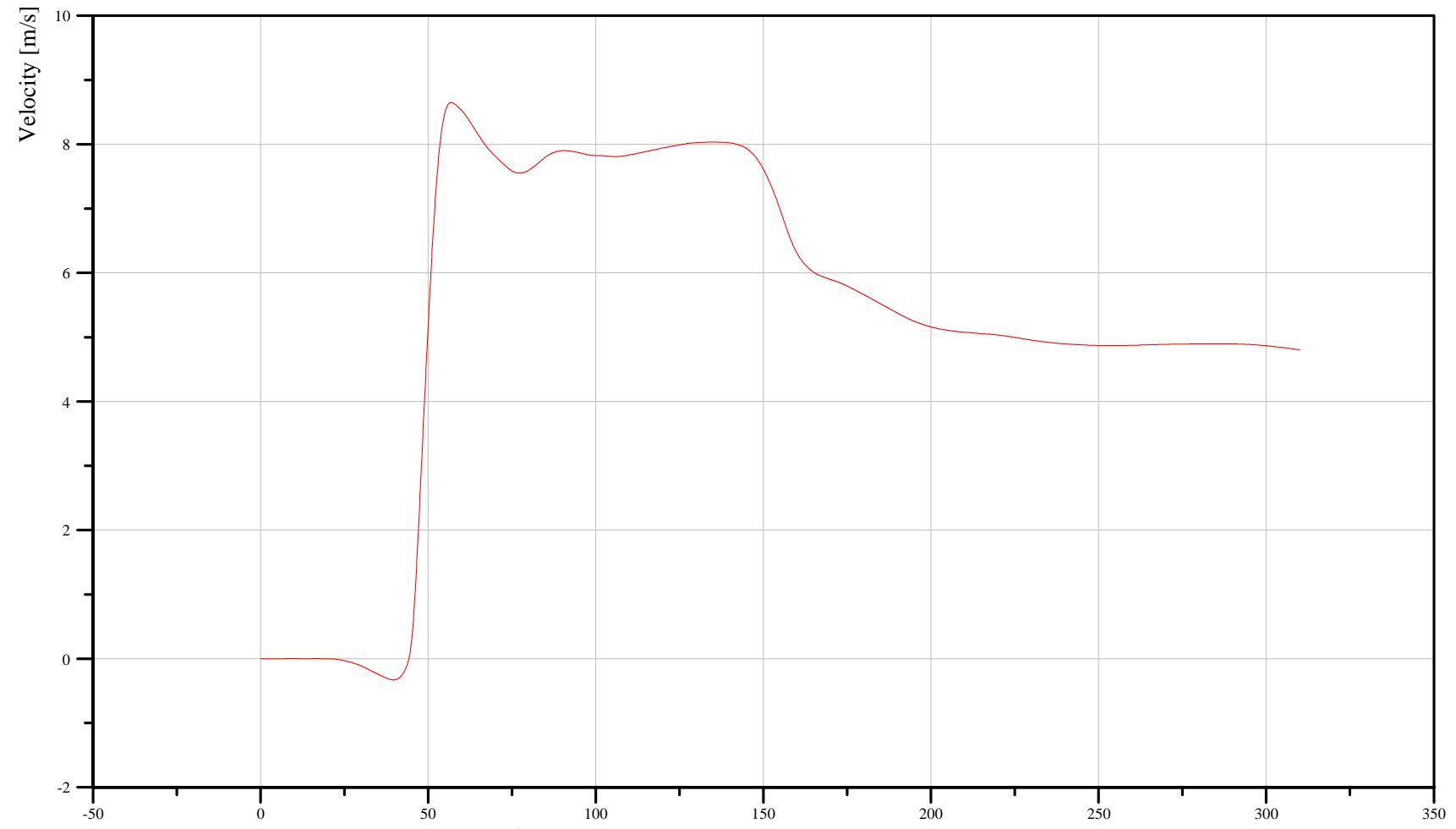
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14HEADCG00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-0.33 m/s at 39.68 ms

Max. Value
8.65 m/s at 56.88 ms

Time [ms]

B-35

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

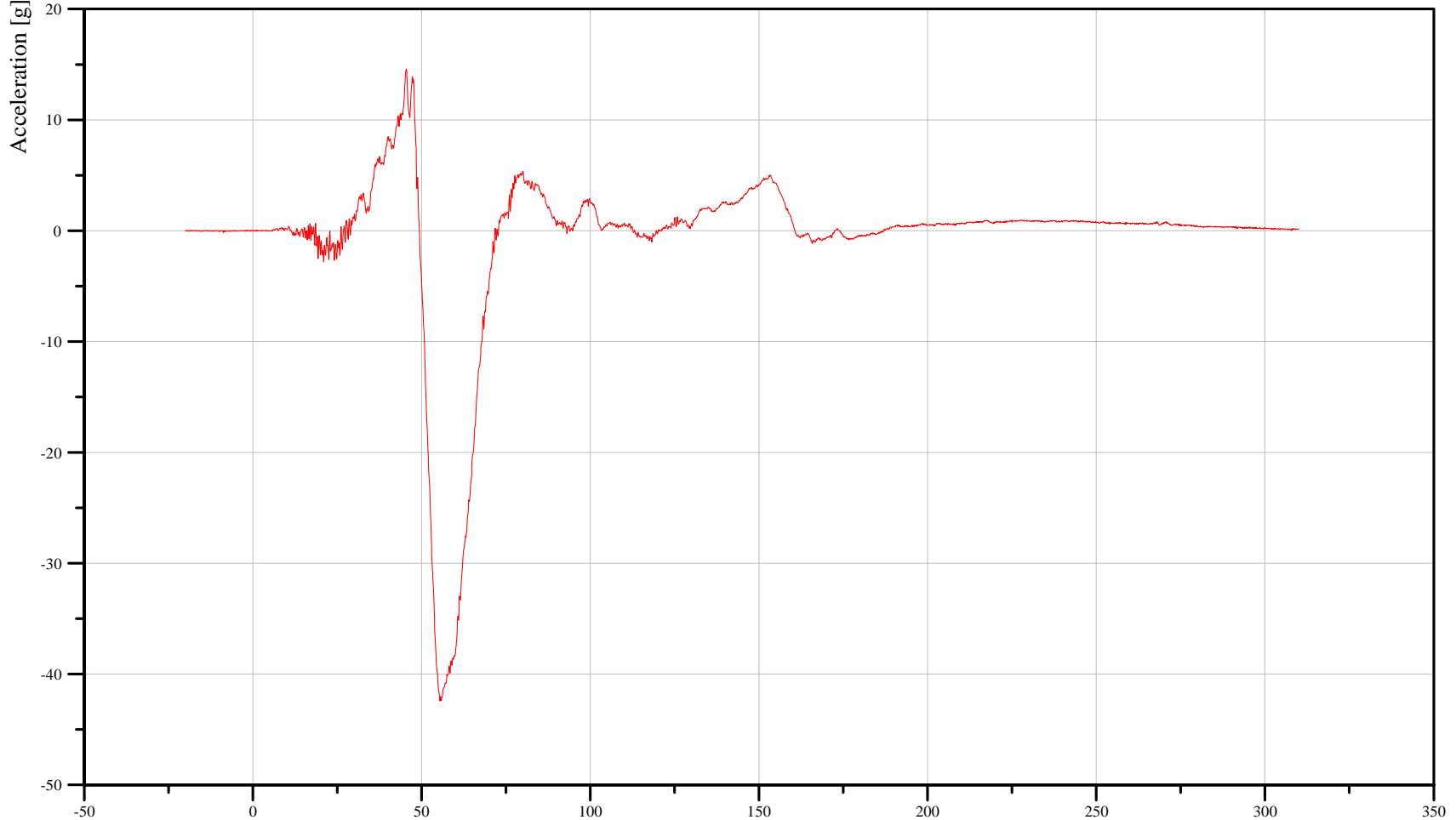
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCG00SHACZA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-42.42 g at 55.44 ms

Max. Value
14.56 g at 45.52 ms

Time [ms]

B-36

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

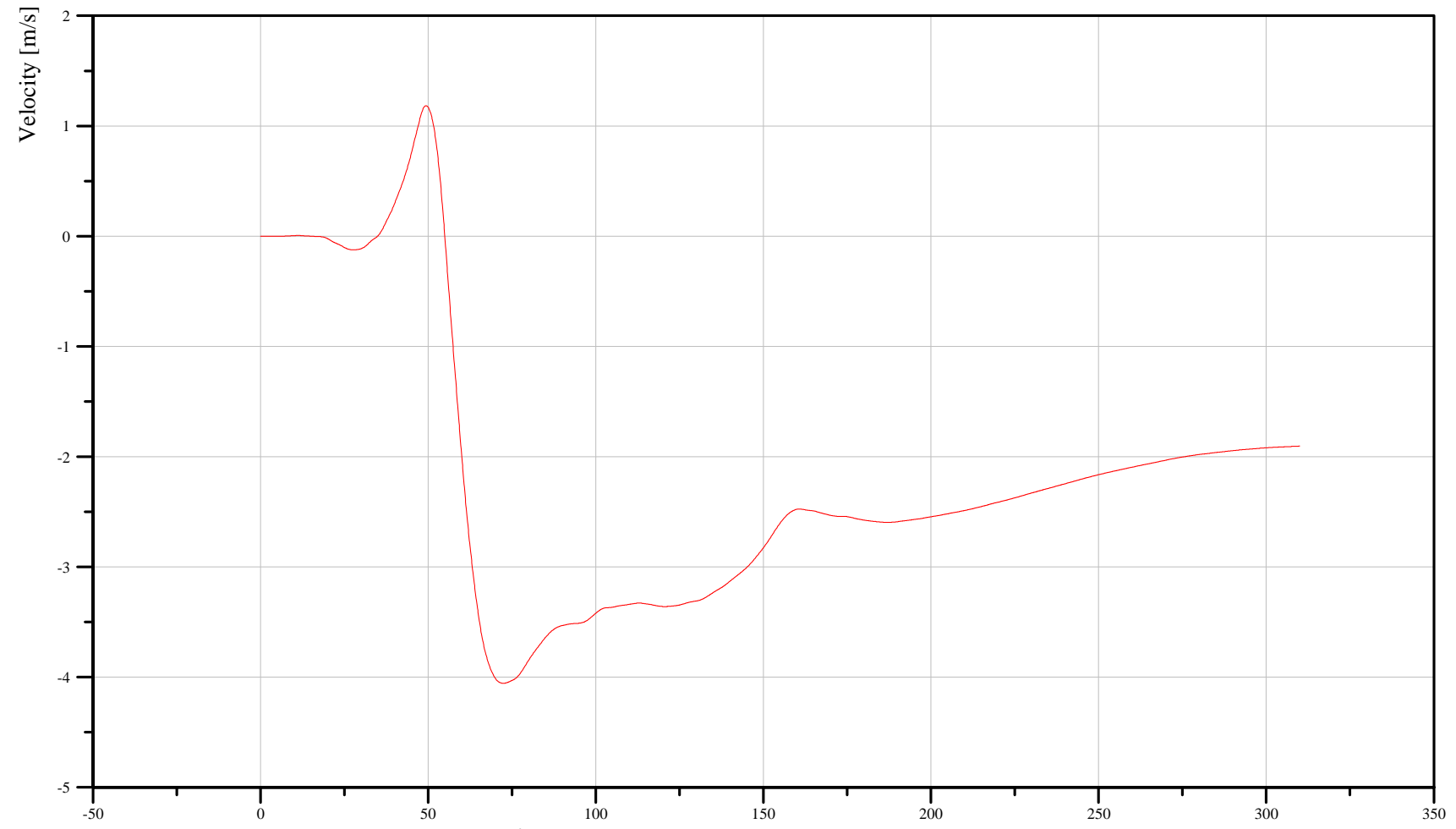
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14HEADCG00SHVEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-4.06 m/s at 72.48 ms

Max. Value
1.18 m/s at 49.36 ms

B-37

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

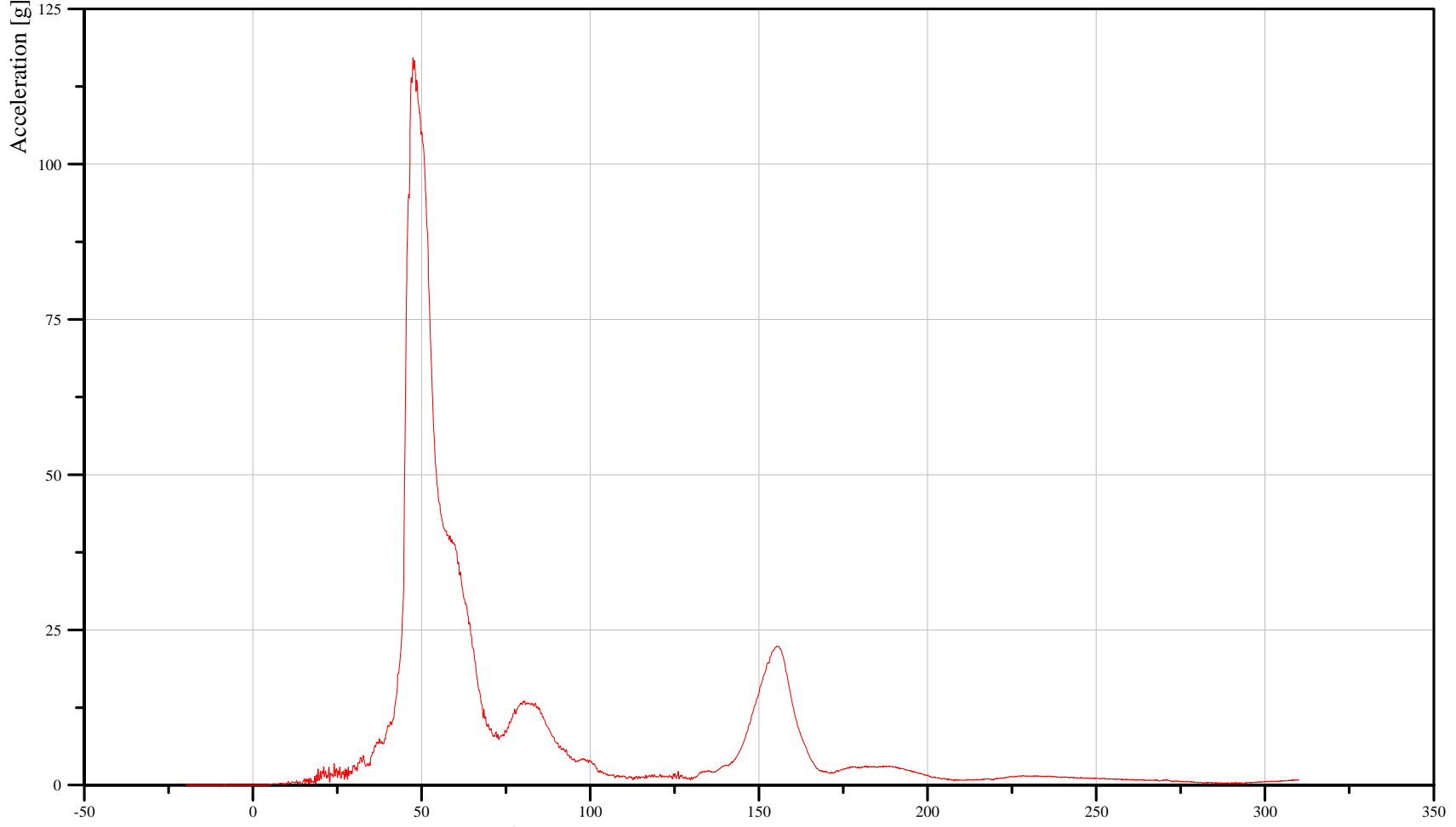
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCG00SHACRA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
0.01 g at -19.92 ms

Max. Value
117.14 g at 47.52 ms

B-38

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

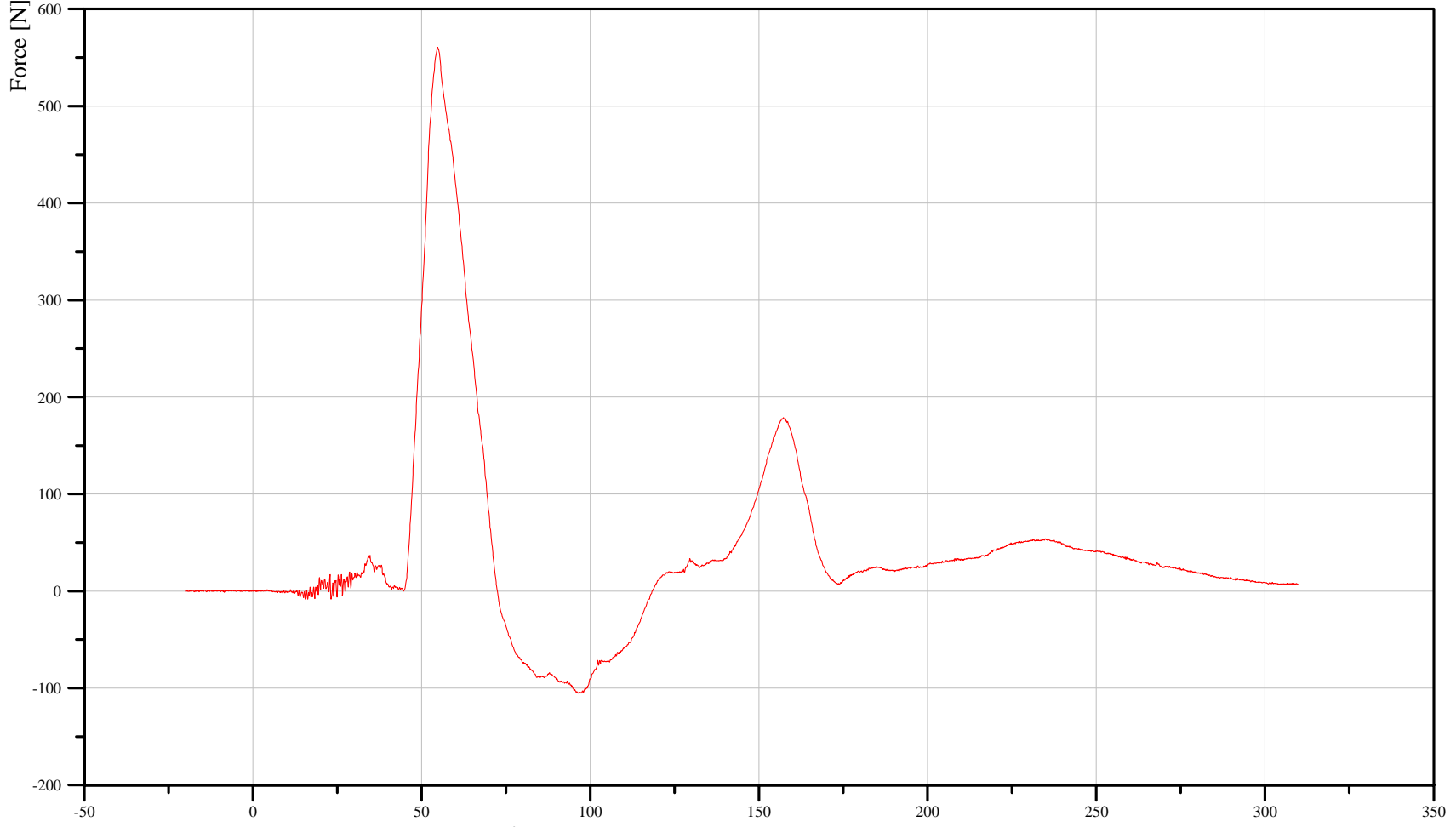
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER NECK X-AXIS SHEAR FORCE

Customer: NHTSA
Test Number: C75200

14NECKUP00SHFOXA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-105.29 N at 96.32 ms

Max. Value
560.60 N at 54.72 ms

Time [ms]

B-39

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

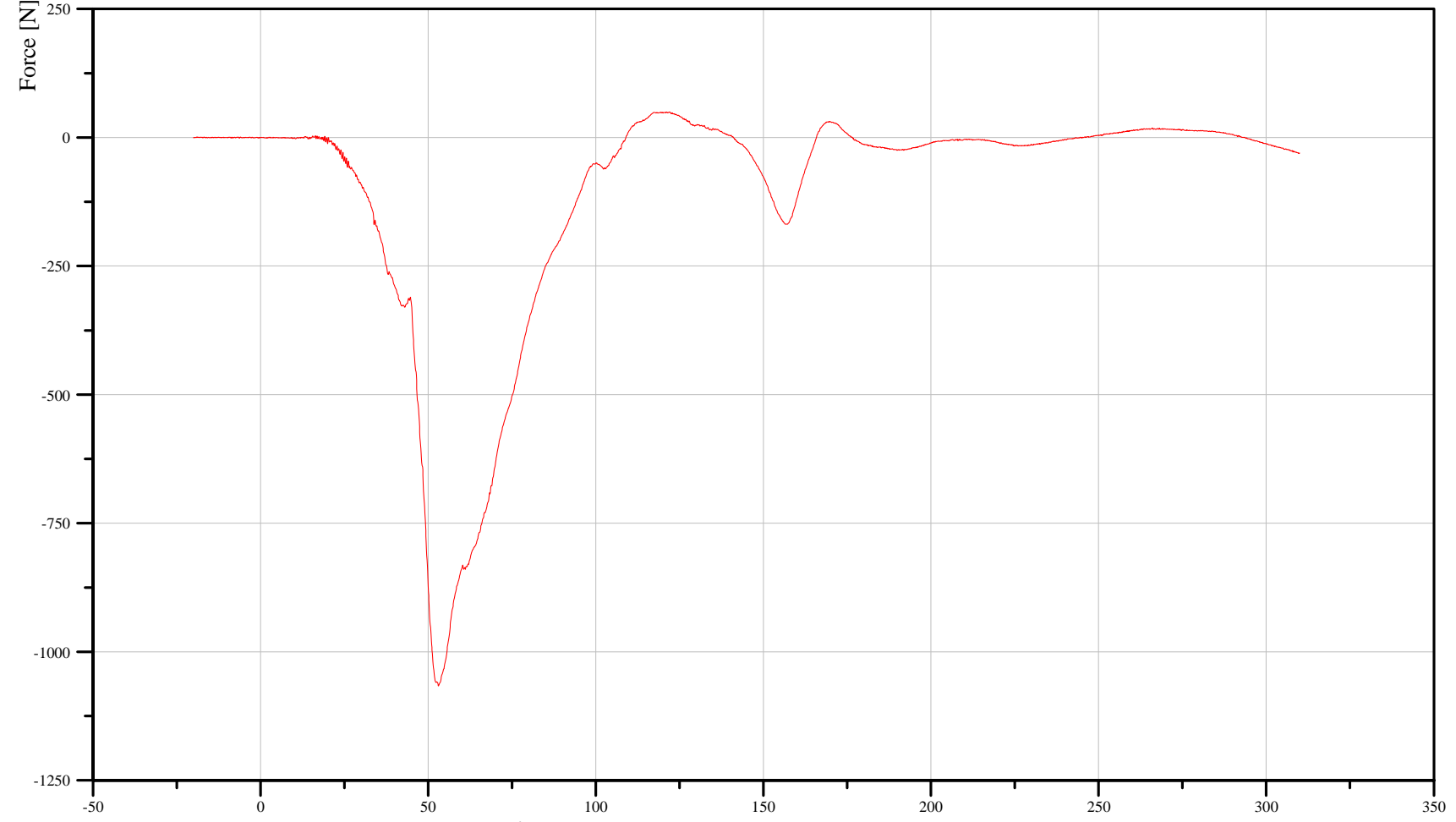
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER NECK Y-AXIS SHEAR FORCE

Customer: NHTSA
Test Number: C75200

14NECKUP00SHFOYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-1,066.35 N at 53.12 ms

Max. Value
49.92 N at 121.92 ms

Time [ms]

B-40

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

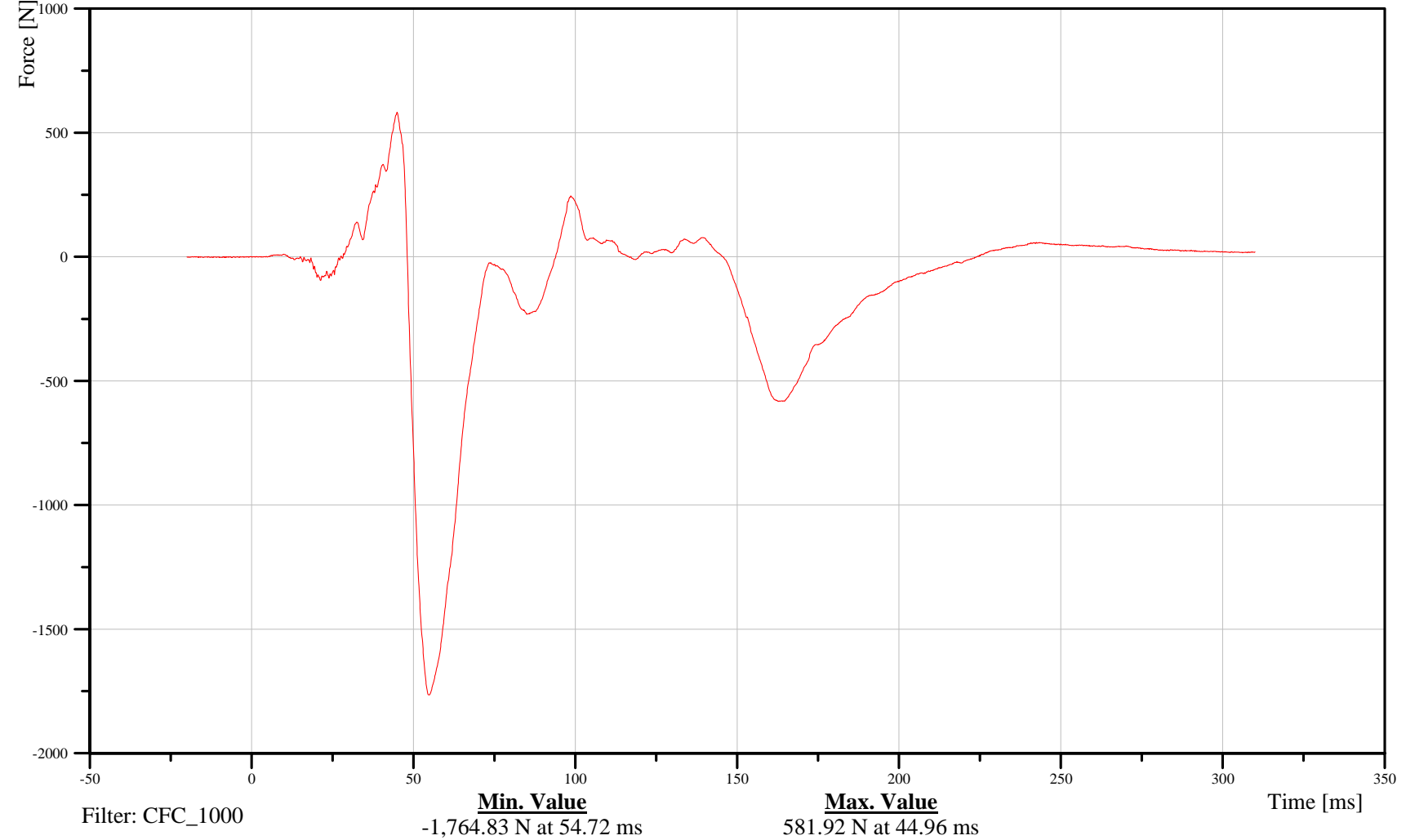
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER NECK Z-AXIS AXIAL FORCE

Customer: NHTSA
Test Number: C75200

14NECKUP00SHFOZA

TRC Inc. Test Lab: CTF
Test Number: 061115



B-41

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

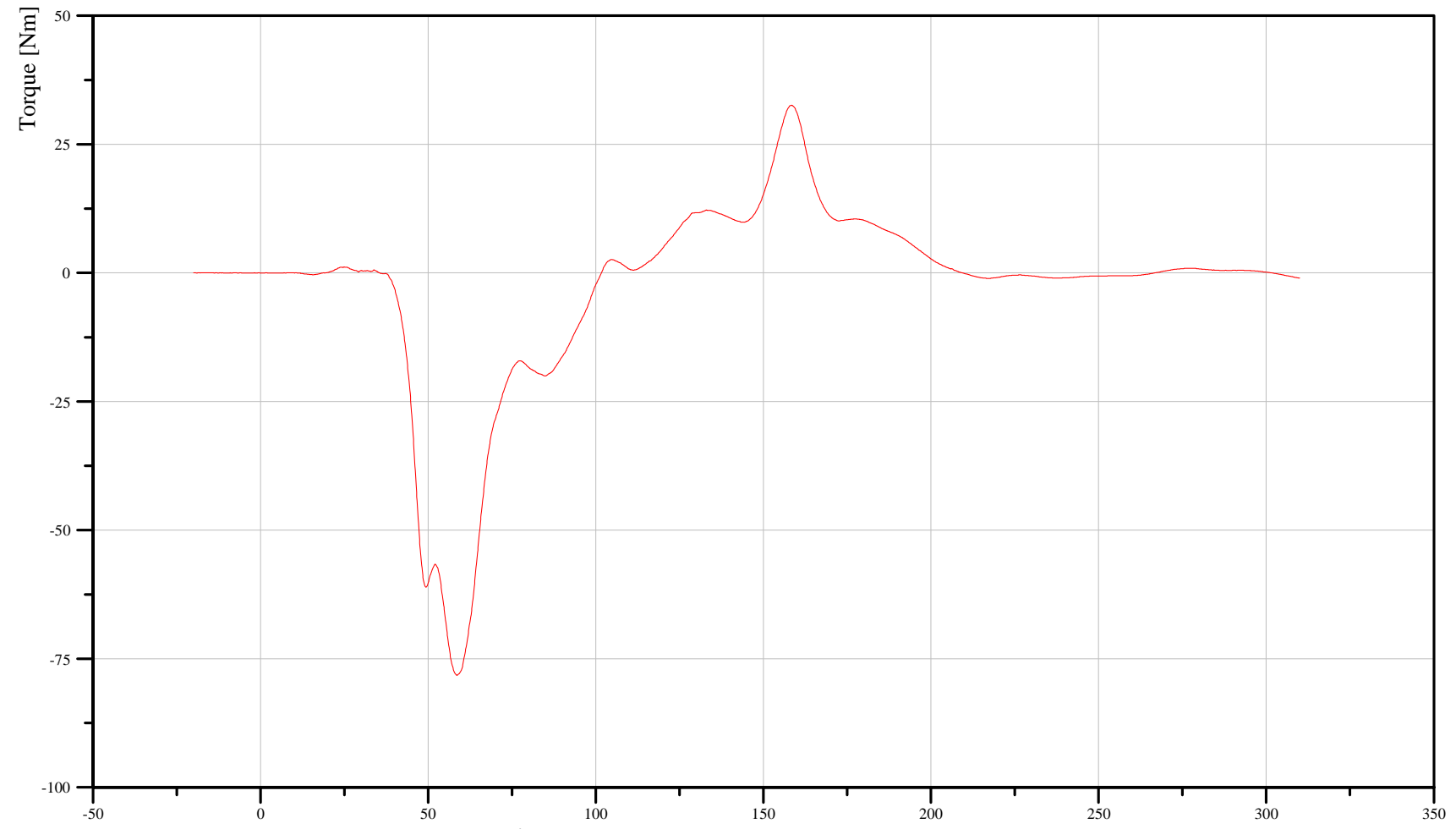
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER NECK MOMENT ABOUT X AXIS

Customer: NHTSA
Test Number: C75200

14NECKUP00SHMOXB

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_600

Min. Value
-78.19 Nm at 58.56 ms

Max. Value
32.59 Nm at 158.40 ms

Time [ms]

B-42

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

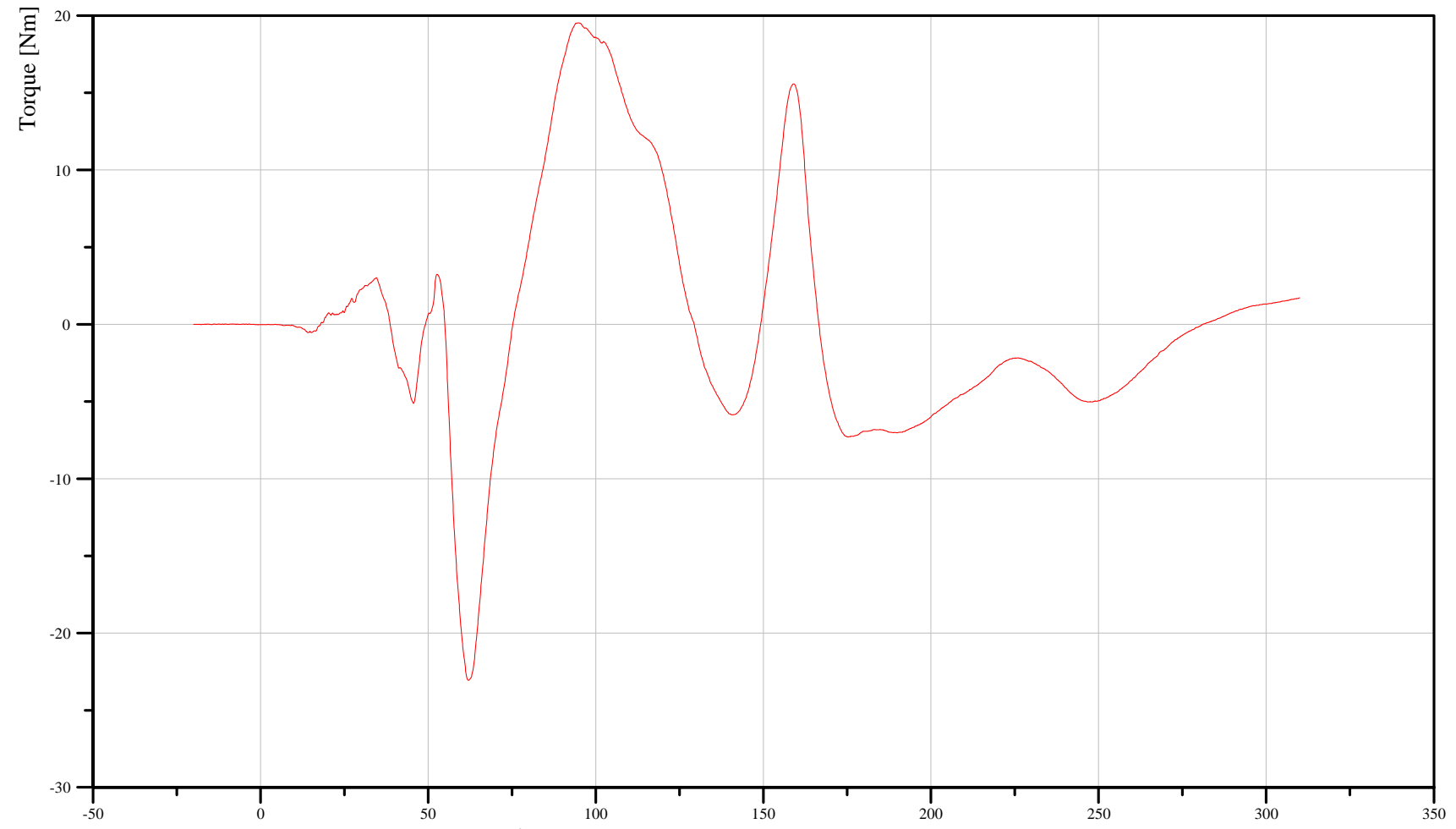
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER NECK MOMENT ABOUT Y AXIS

Customer: NHTSA
Test Number: C75200

14NECKUP00SHMOYB

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_600

Min. Value
-23.07 Nm at 62.00 ms

Max. Value
19.54 Nm at 94.80 ms

Time [ms]

B-43

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

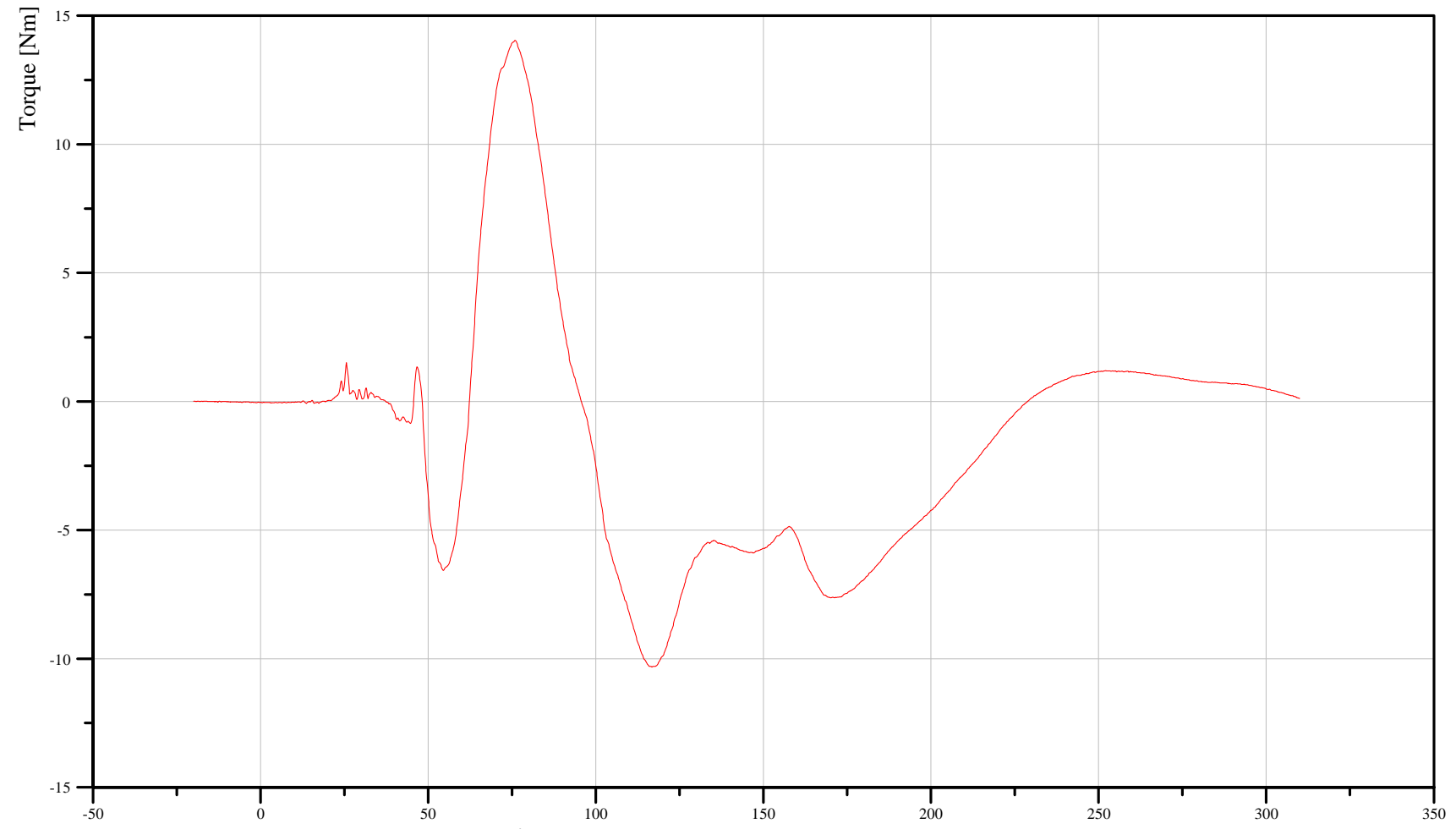
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER NECK MOMENT ABOUT Z AXIS

Customer: NHTSA
Test Number: C75200

14NECKUP00SHMOZB

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_600

Min. Value
-10.32 Nm at 116.80 ms

Max. Value
14.04 Nm at 76.00 ms

Time [ms]

B-44

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra Neck Moment about the Occipital Condyle (NECK OM)

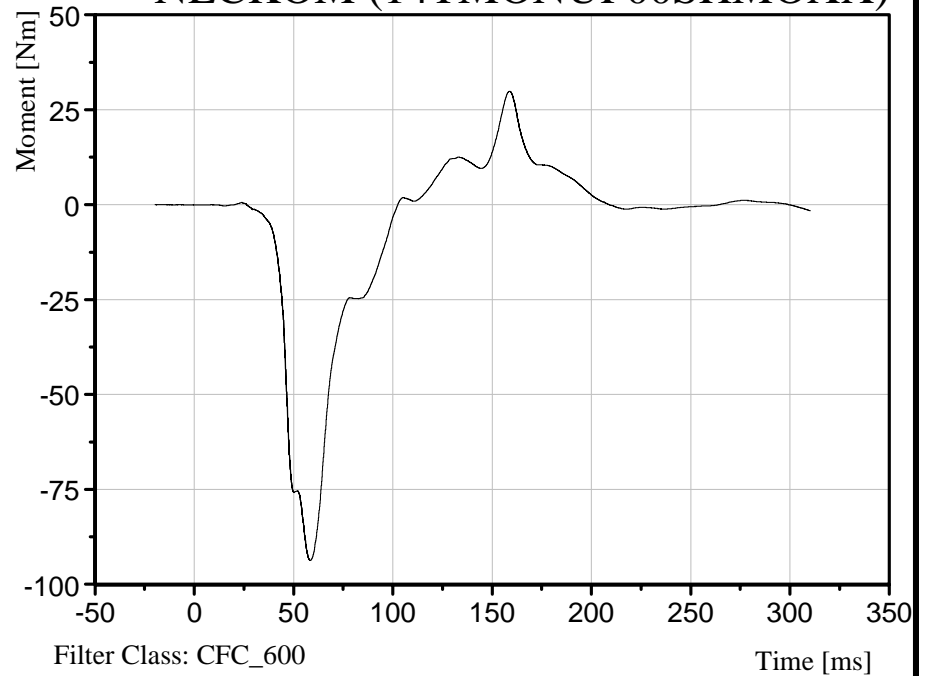
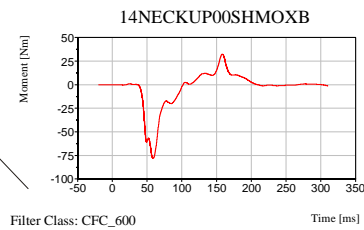
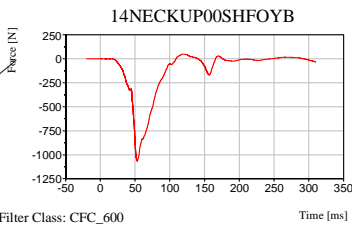
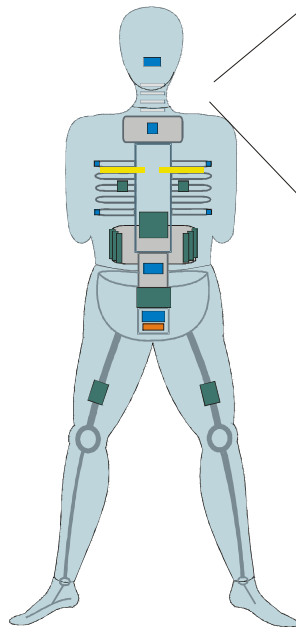
Date: 11/15/2006
Time: 12:16

Customer: NHTSA
Test Number: C75200

TRC Inc. Test Lab: CTF
Test Number: 061115

Test Orientation = Side

NECKOM (14TMONUP00SHMOXX)



[Max.] 29.88 Nm at 158.72 ms

[Min.] -93.74 Nm at 58.40 ms

Dummy: HIII/SID
Seating Position:
Left Rear Passenger

Neck OM Source Code: Mx + (D*Fy)

B-45

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

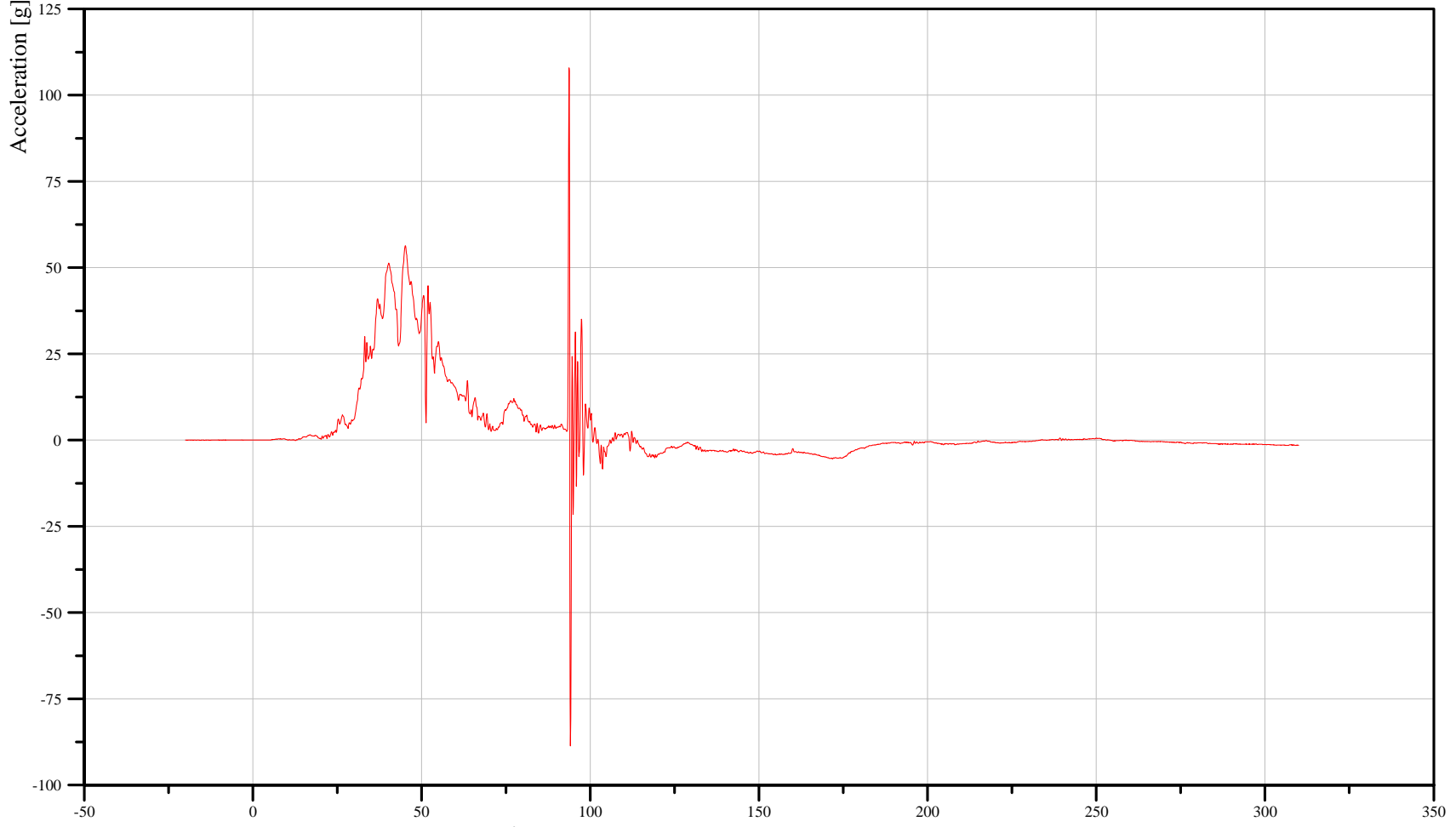
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLU00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-88.59 g at 94.16 ms

Max. Value
107.95 g at 93.68 ms

Time [ms]

B-46

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

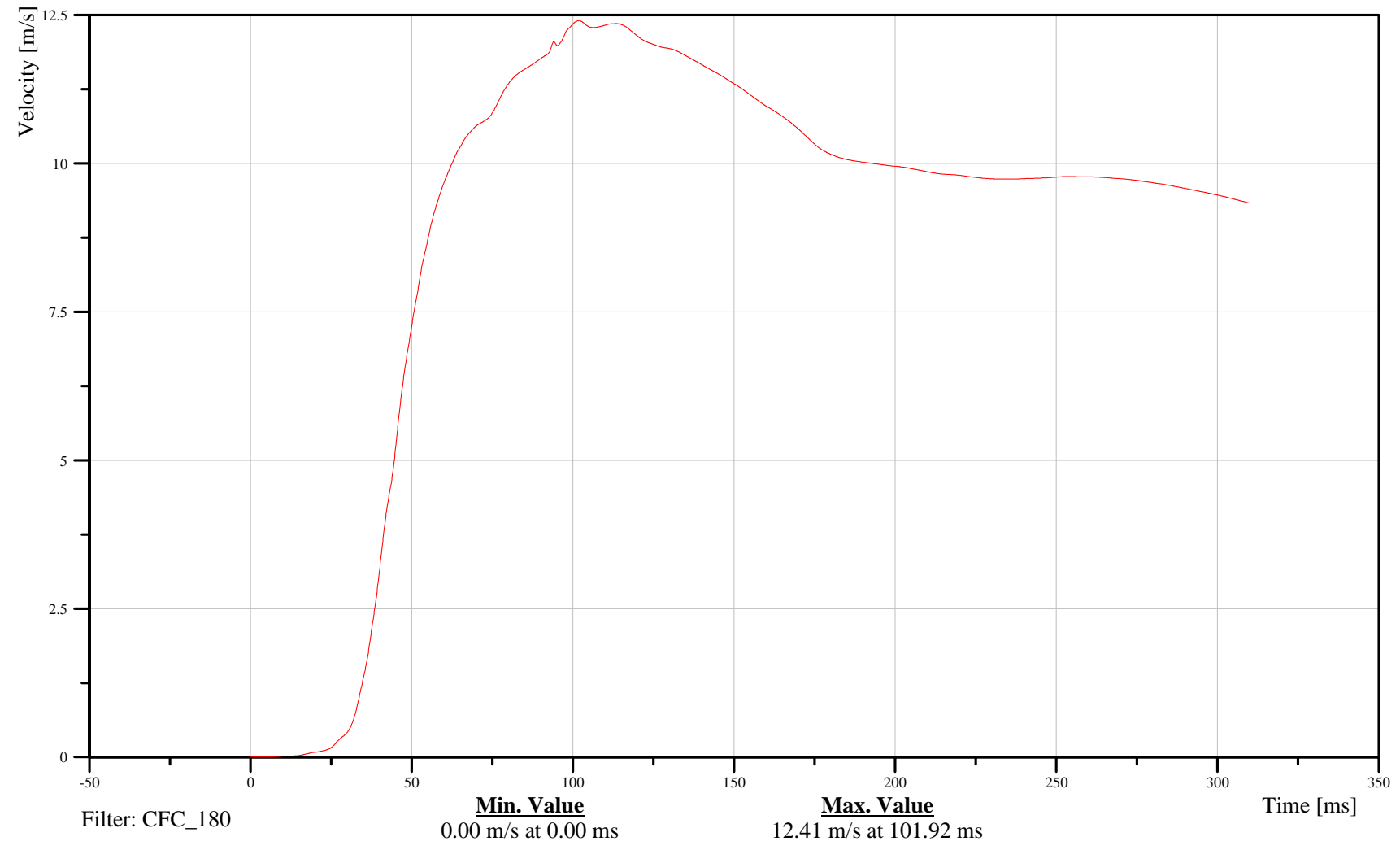
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER UPPER RIB Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14RIBSLU00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-47

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

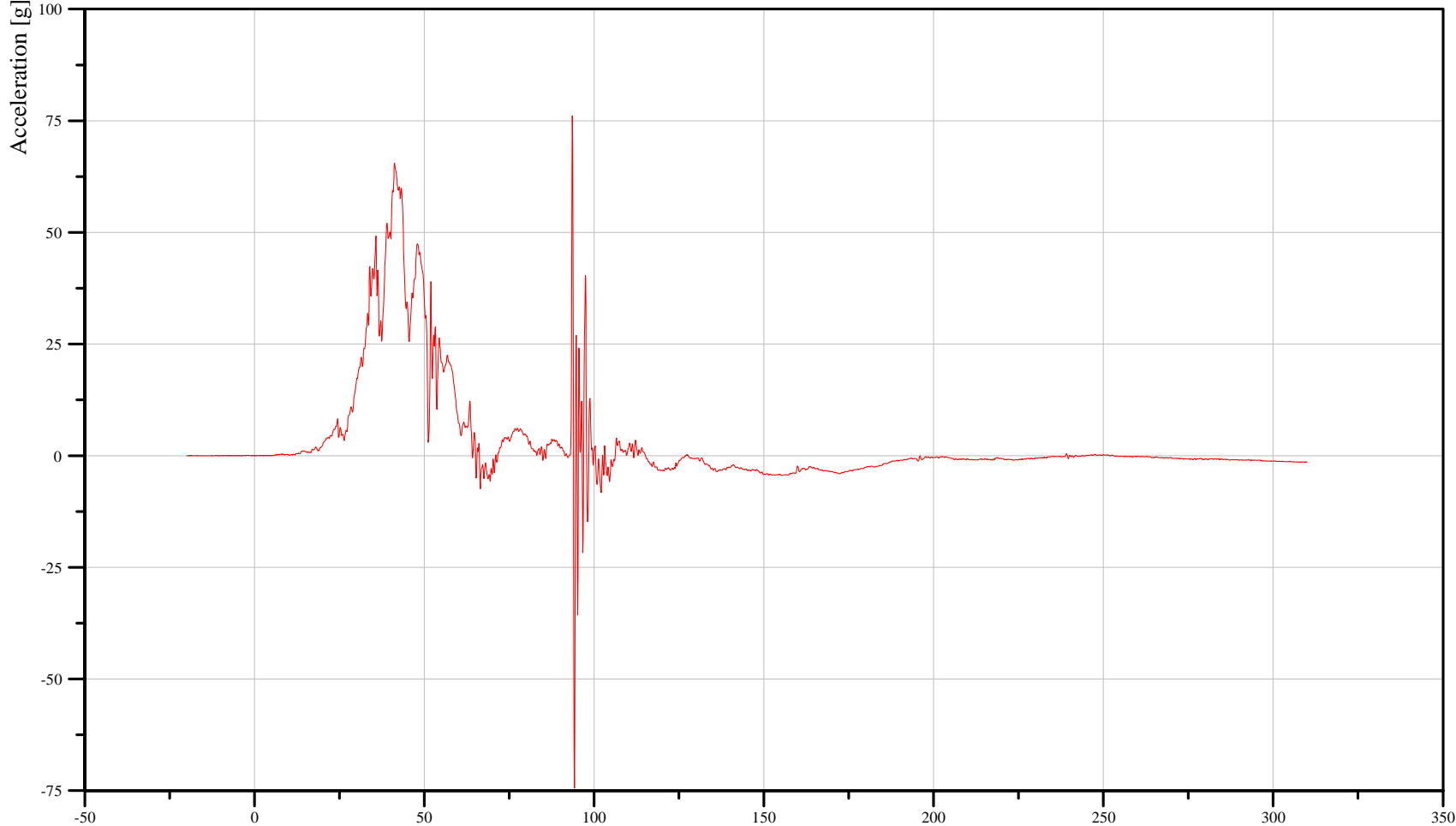
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLL00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-74.46 g at 94.24 ms

Max. Value
76.13 g at 93.60 ms

Time [ms]

B-48

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

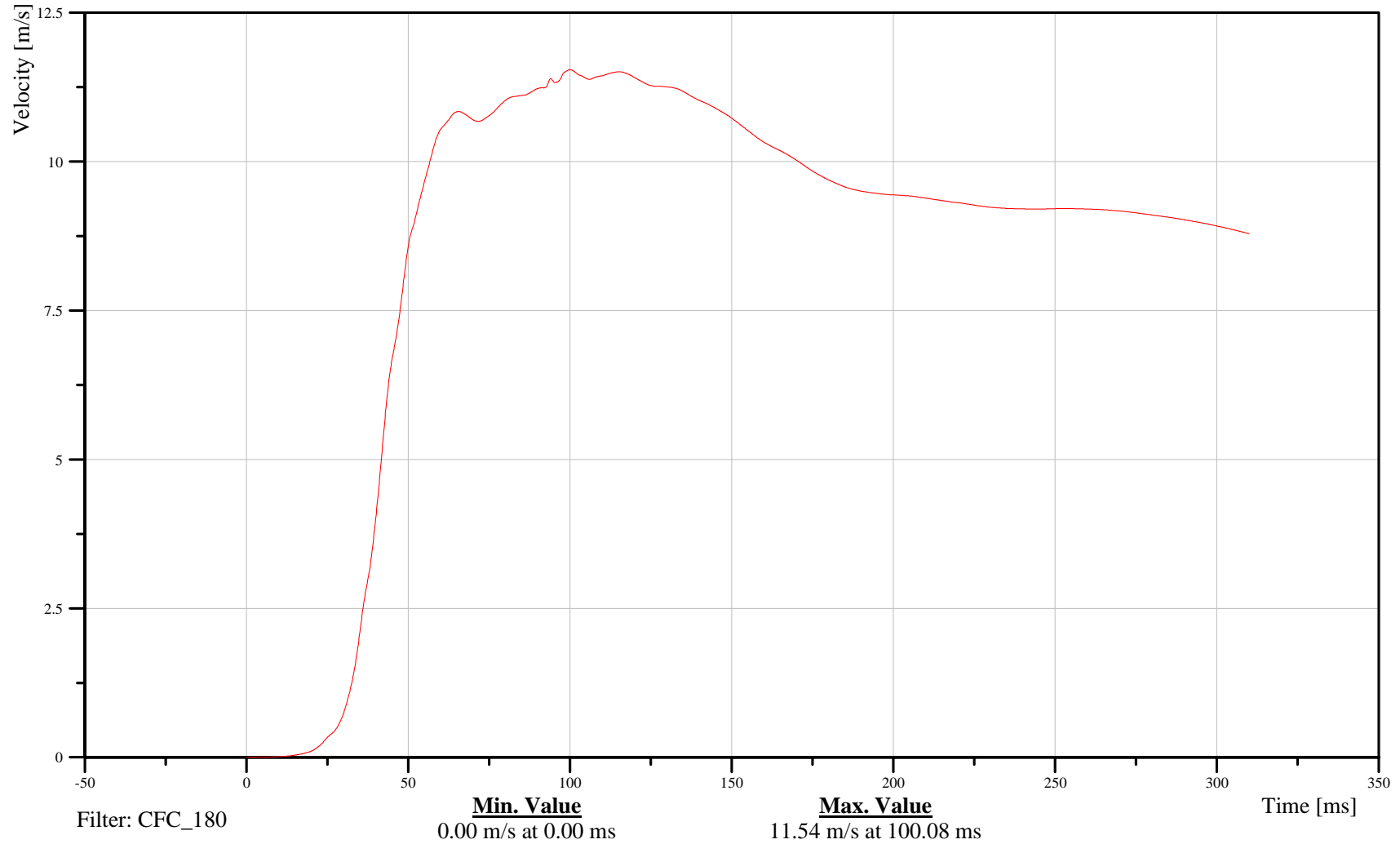
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER RIB Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14RIBSLL00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-49

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

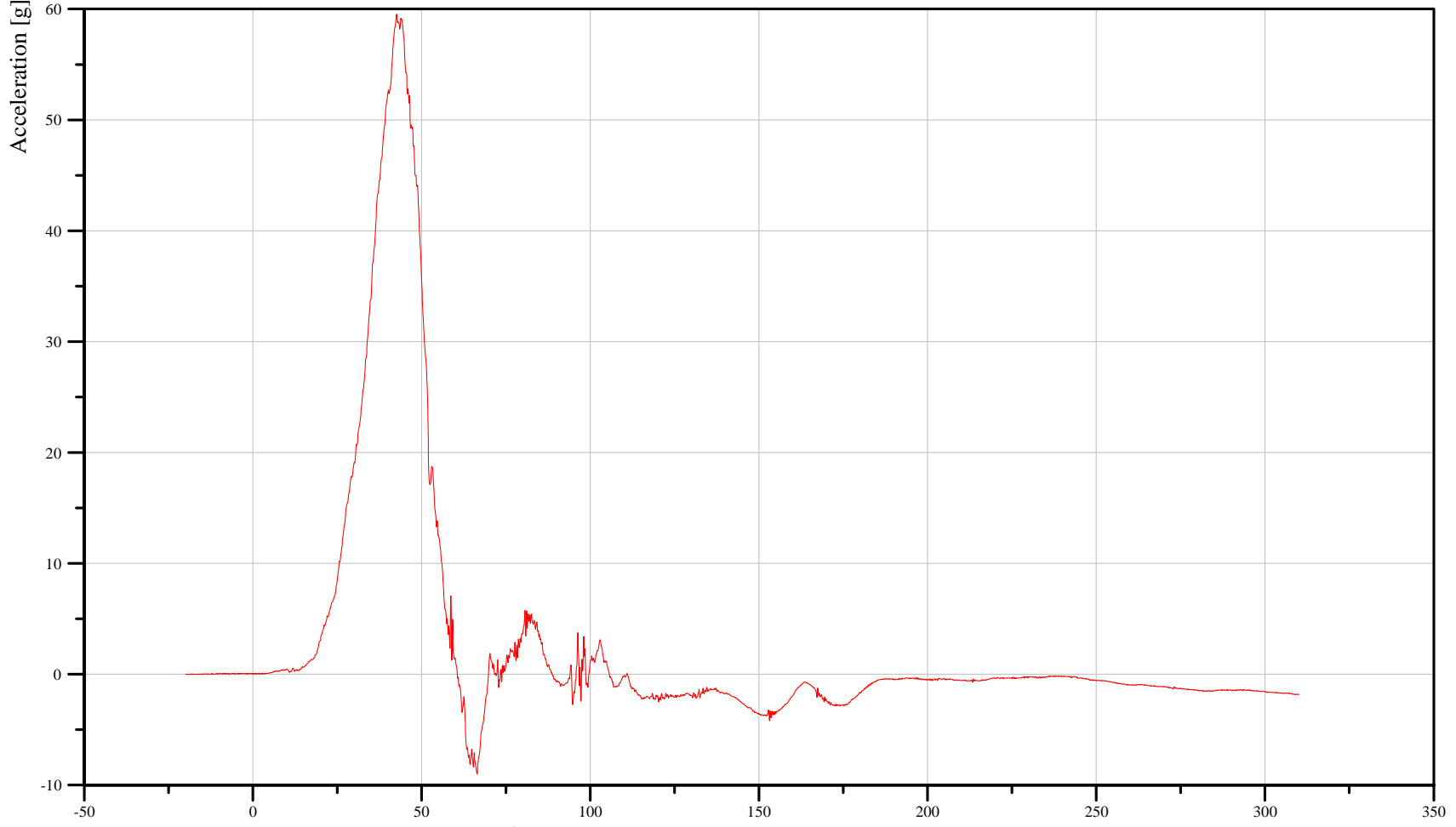
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14SPIN1200SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-8.99 g at 66.40 ms

Max. Value
59.52 g at 42.56 ms

Time [ms]

B-50

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

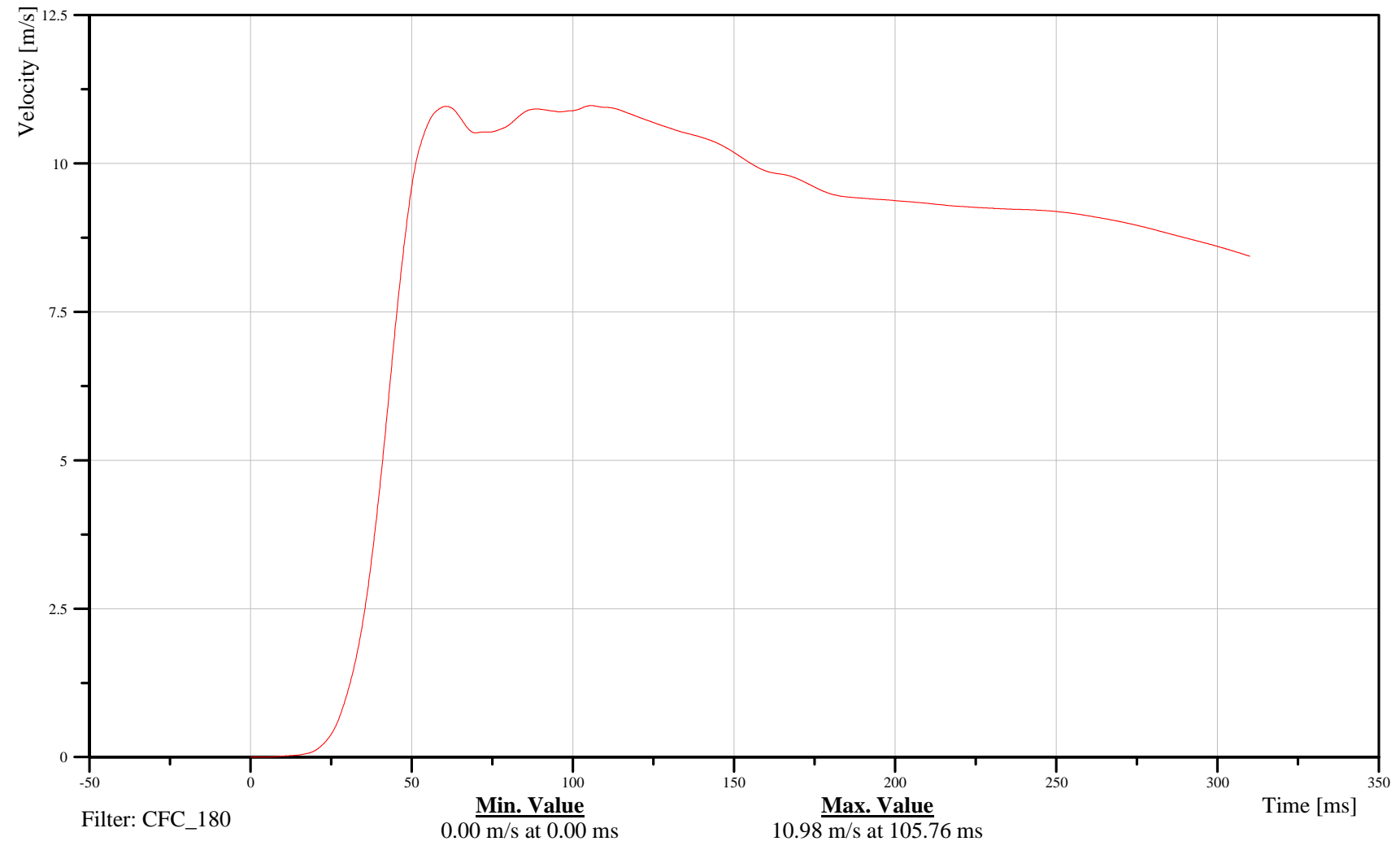
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER SPINE Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14SPIN1200SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-51

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

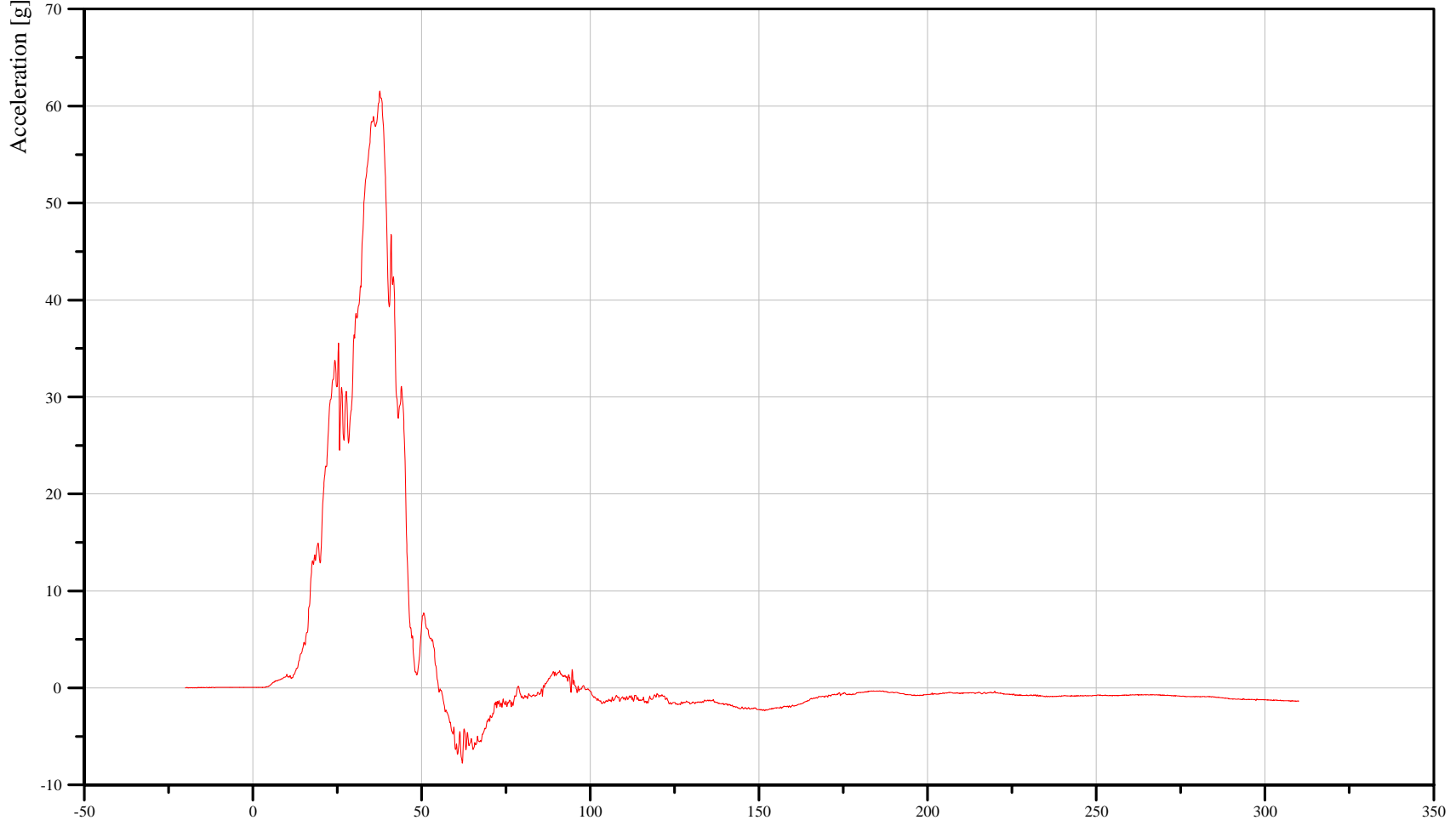
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14PELVCG00SHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-7.75 g at 62.16 ms

Max. Value
61.54 g at 37.68 ms

Time [ms]

B-52

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

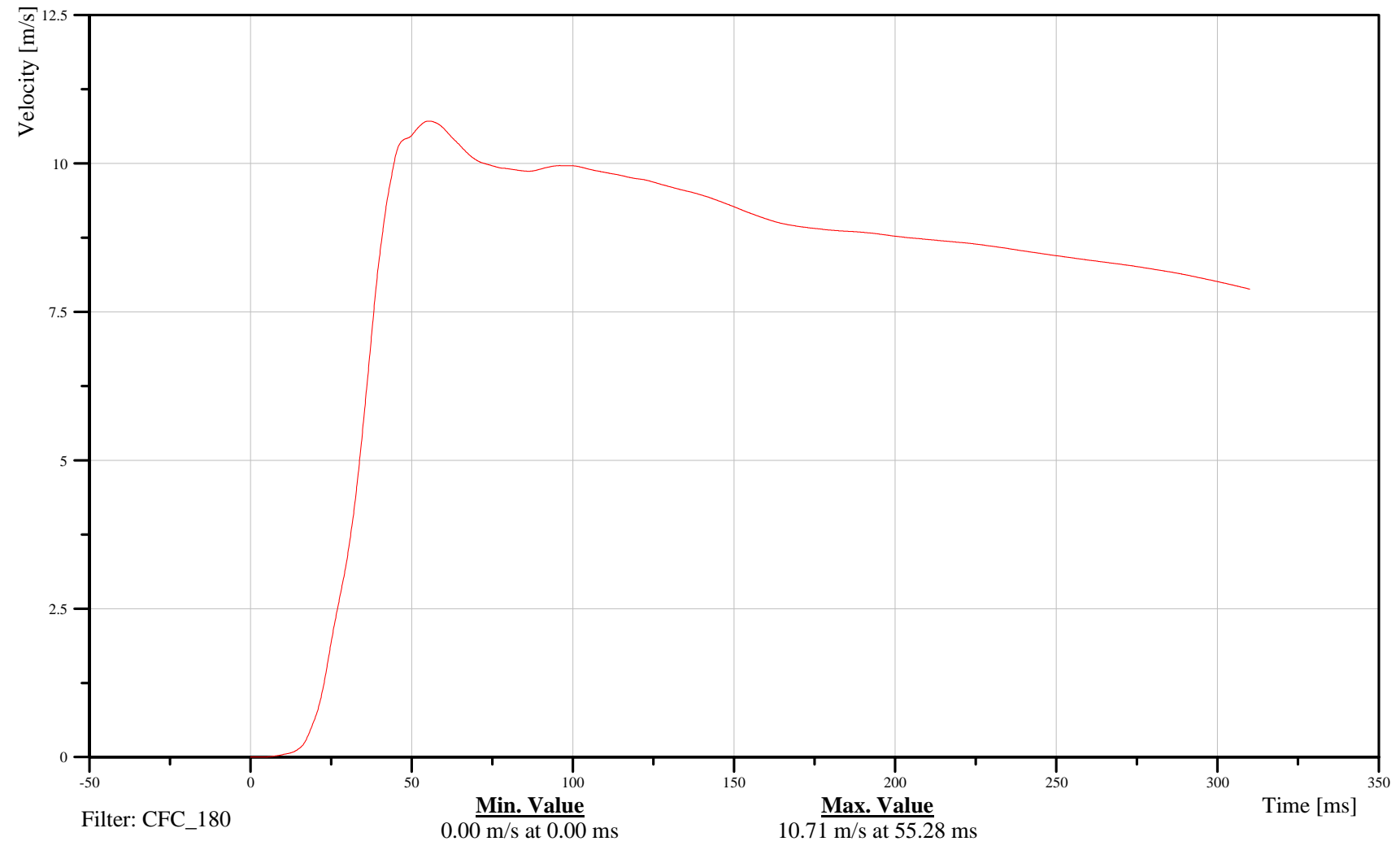
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER PELVIS Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14PELVCG00SHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-53

061115

Driver and Passenger Dummy Redundant Instrumentation Plots



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

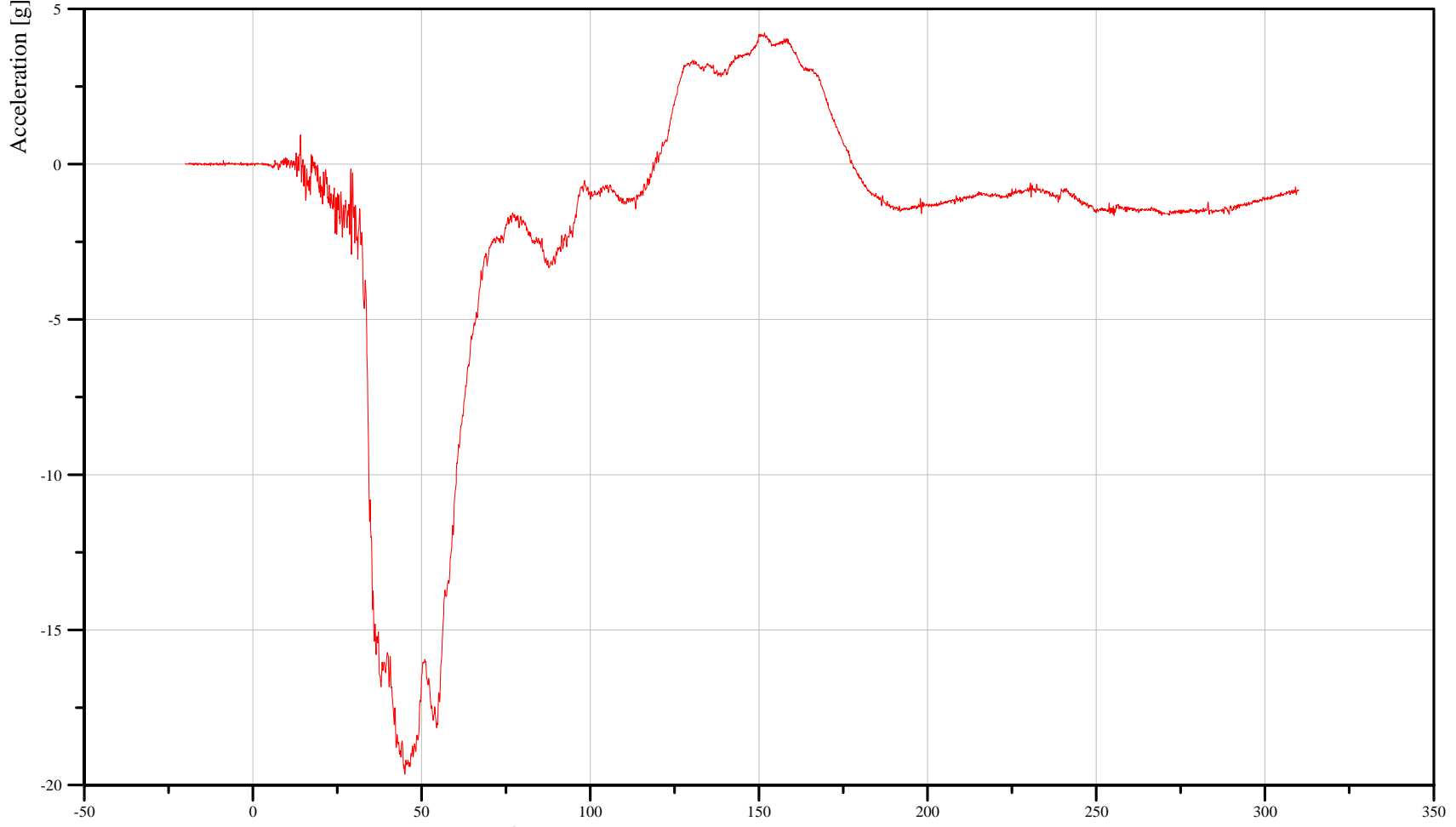
Date: 11/15/2006
Time: 12:16

DRIVER HEAD X-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCGRDSHACXA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-19.65 g at 45.04 ms

Max. Value
4.23 g at 151.68 ms

Time [ms]

B-55

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

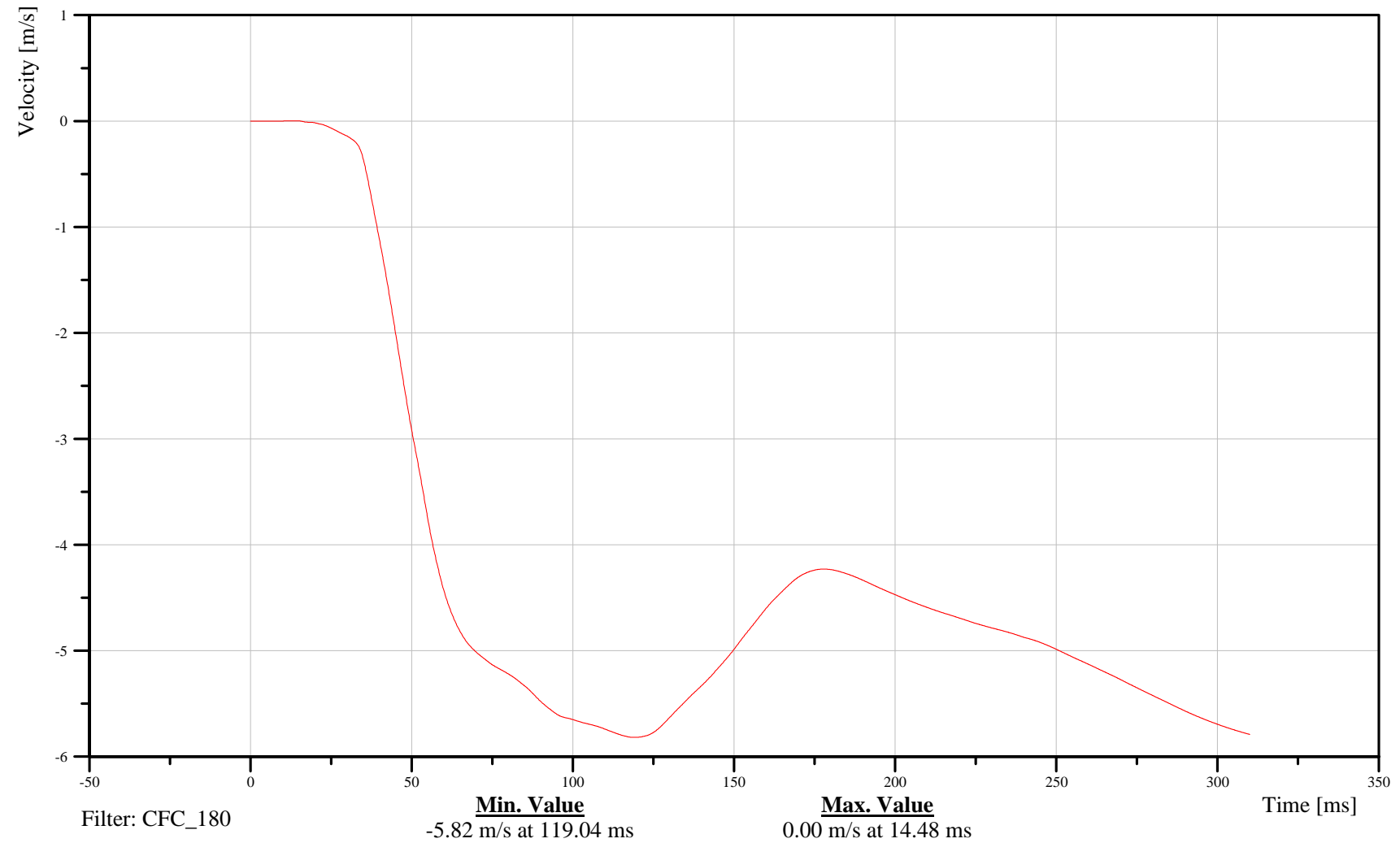
Date: 11/15/2006
Time: 12:16

DRIVER HEAD X-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

11HEADCGRDSHVEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-56

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

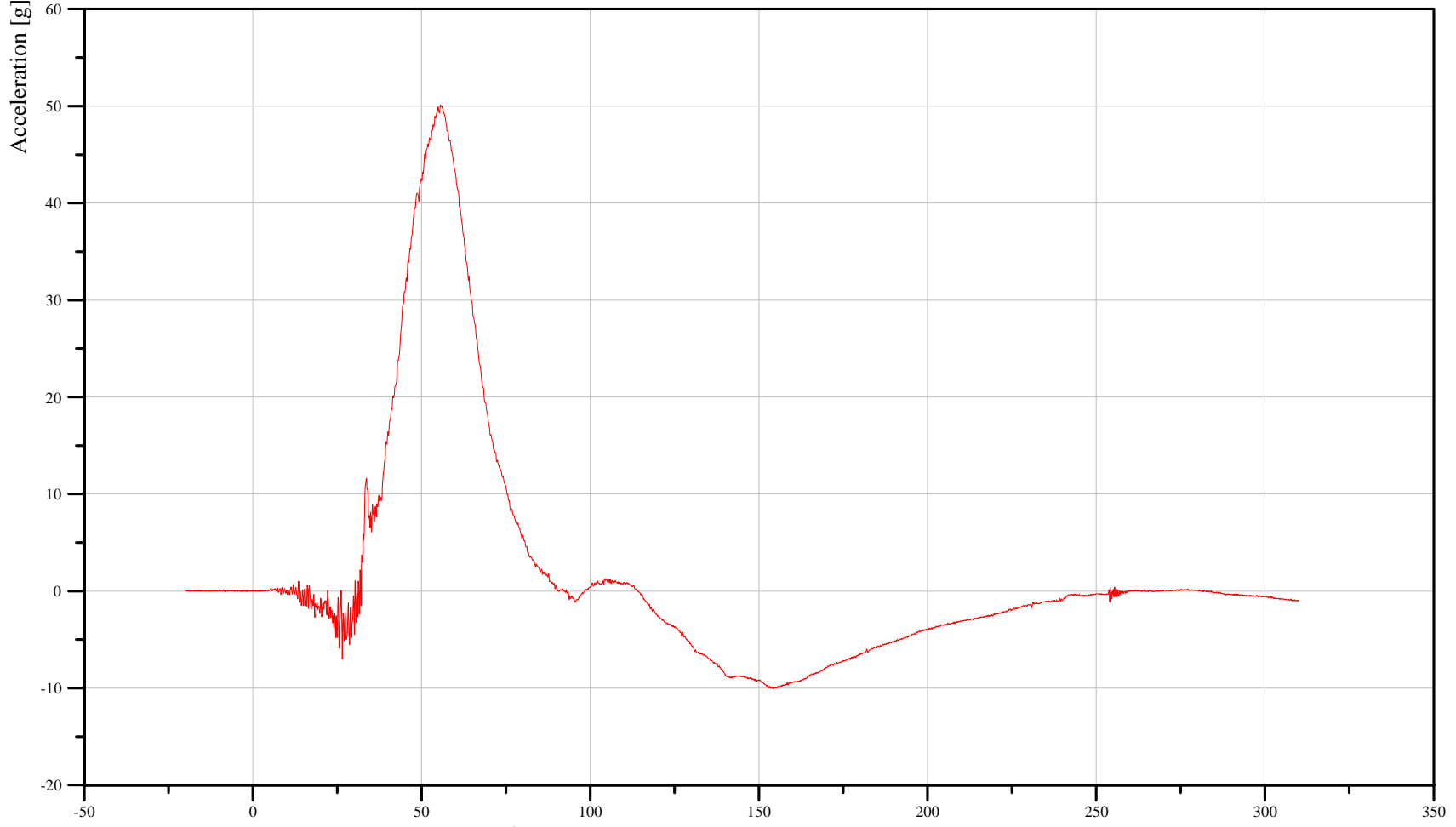
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCGRDSHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-10.04 g at 154.24 ms

Max. Value
50.12 g at 55.60 ms

Time [ms]

B-57

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

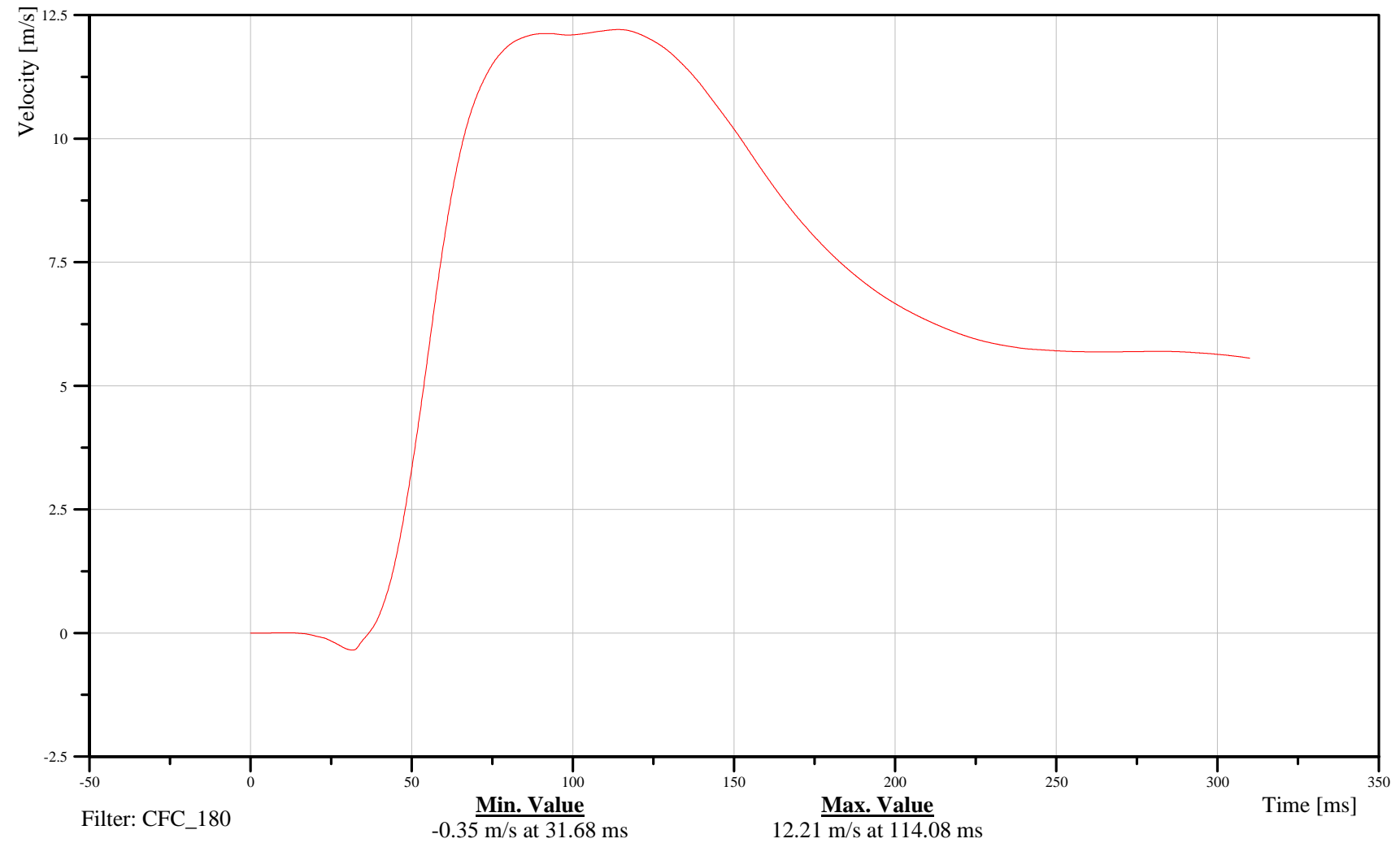
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

11HEADCGRDSHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-58

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

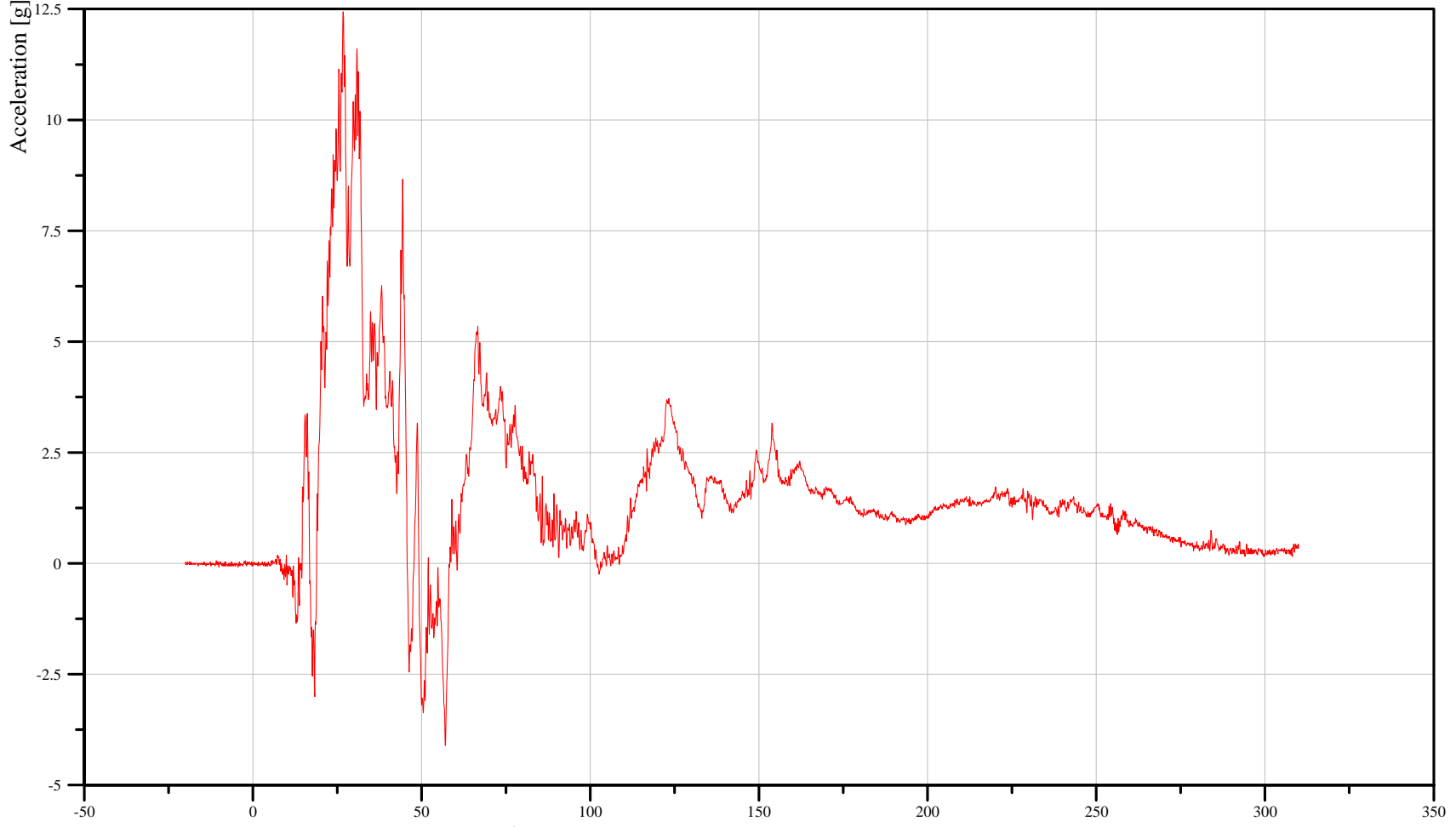
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Z-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCGRDSHACZA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-4.11 g at 57.04 ms

Max. Value
12.44 g at 26.80 ms

B-59

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

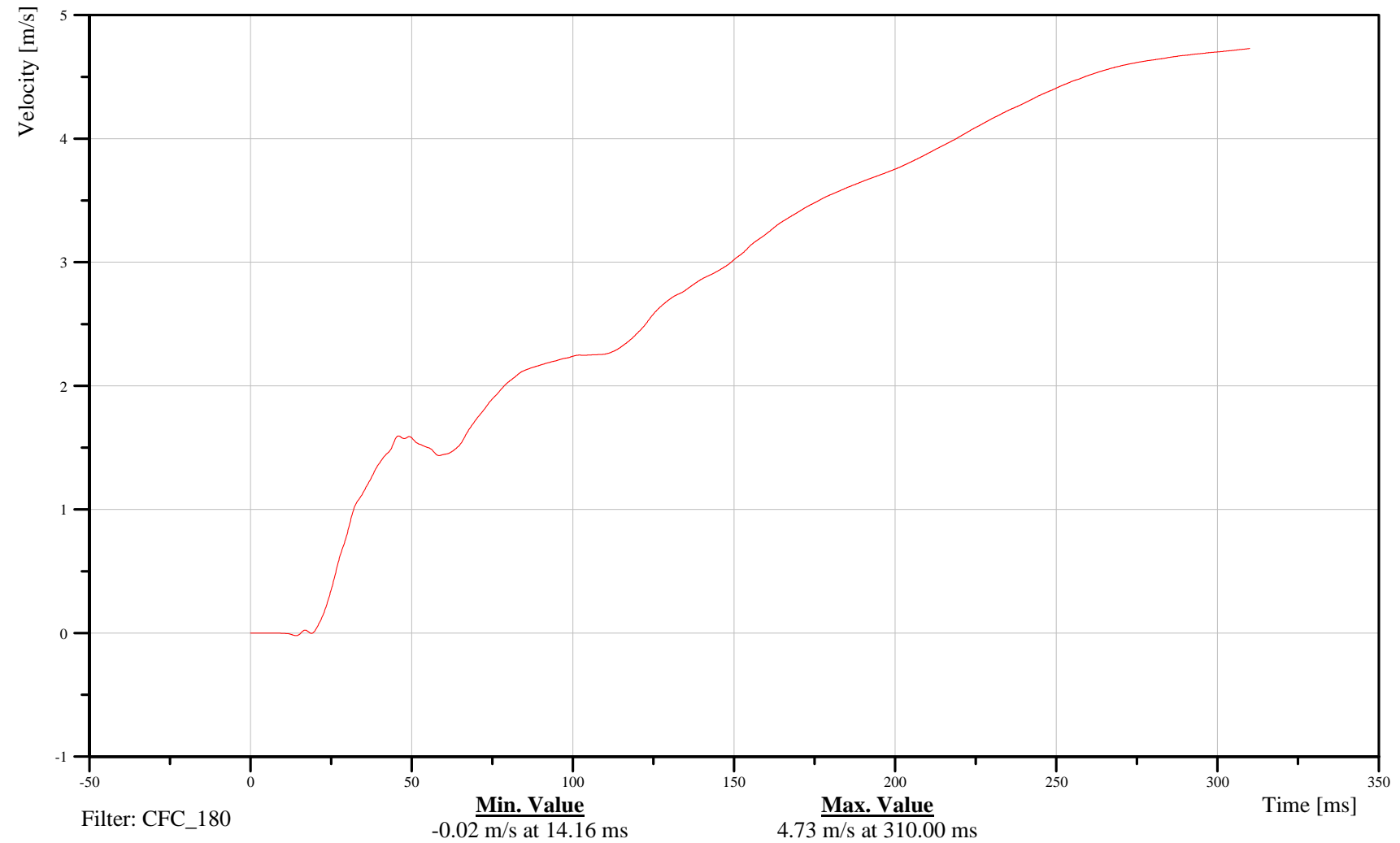
Date: 11/15/2006
Time: 12:16

DRIVER HEAD Z-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

11HEADCGRDISHVEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-60

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

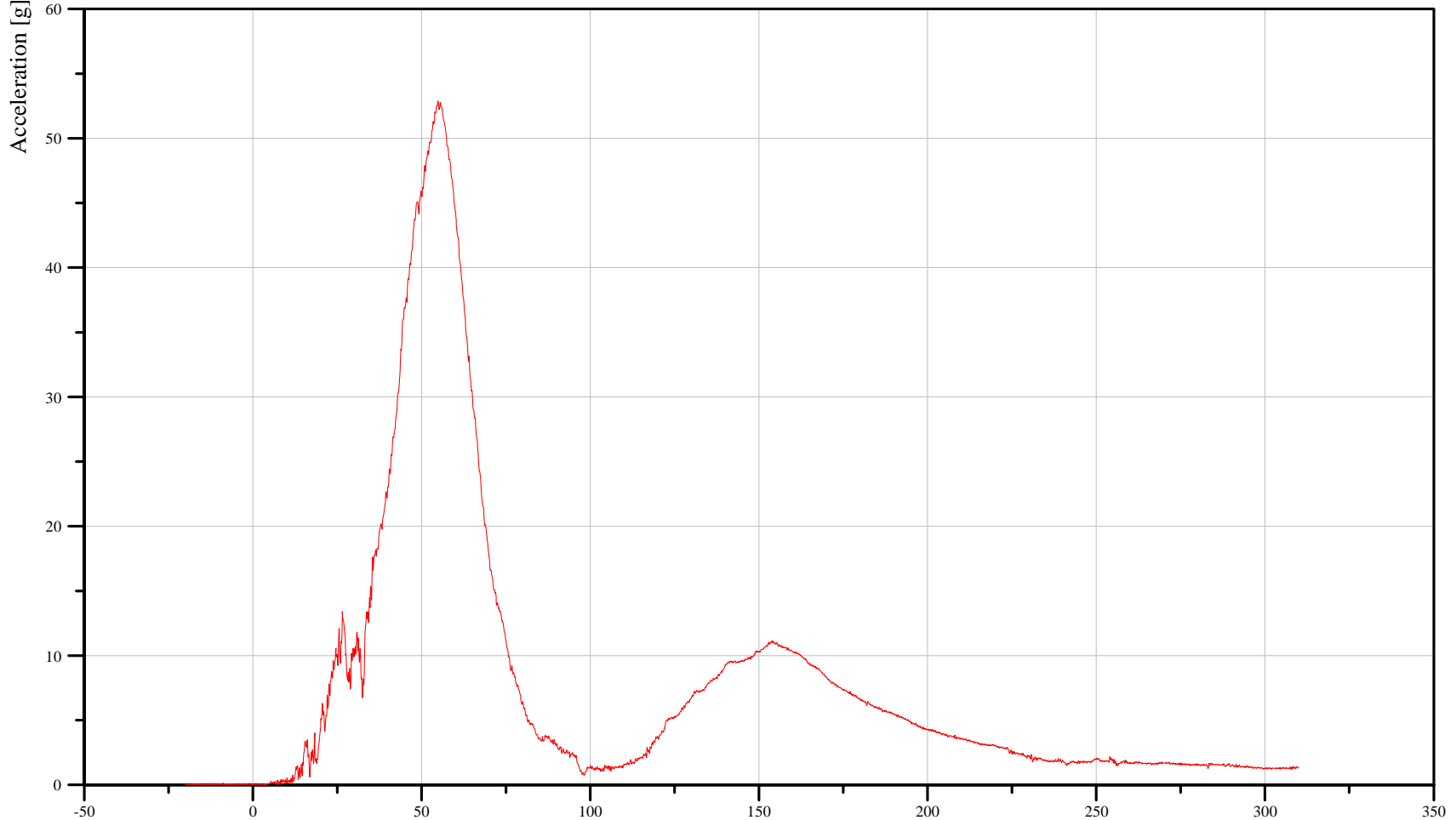
Date: 11/15/2006
Time: 12:16

DRIVER HEAD RESULTANT REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11HEADCGRDSHACRA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
0.01 g at -19.20 ms

Max. Value
52.89 g at 54.88 ms

Time [ms]

B-61

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

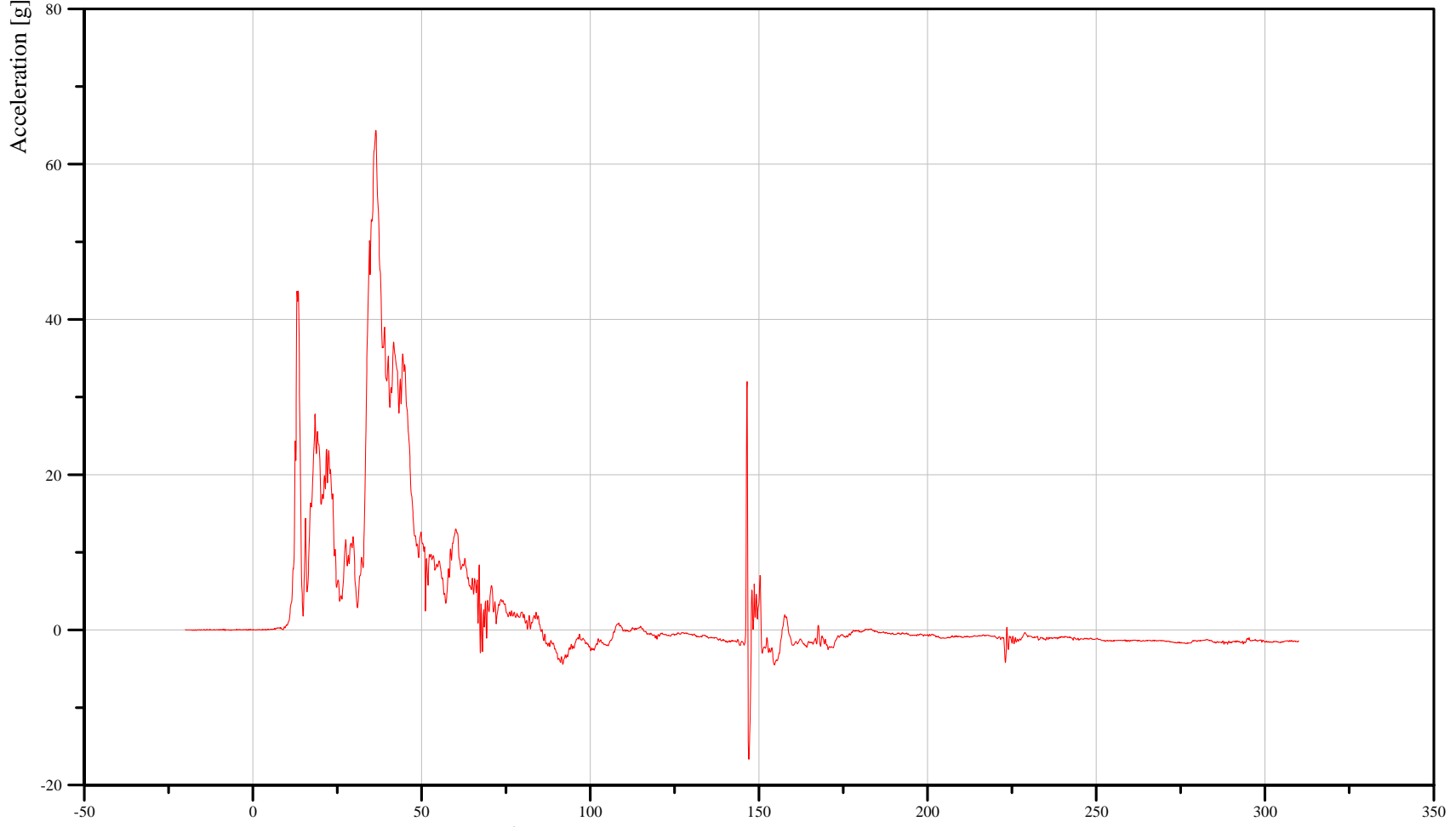
Date: 11/15/2006
Time: 12:16

DRIVER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLURESHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-16.67 g at 147.04 ms

Max. Value
64.37 g at 36.40 ms

B-62

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

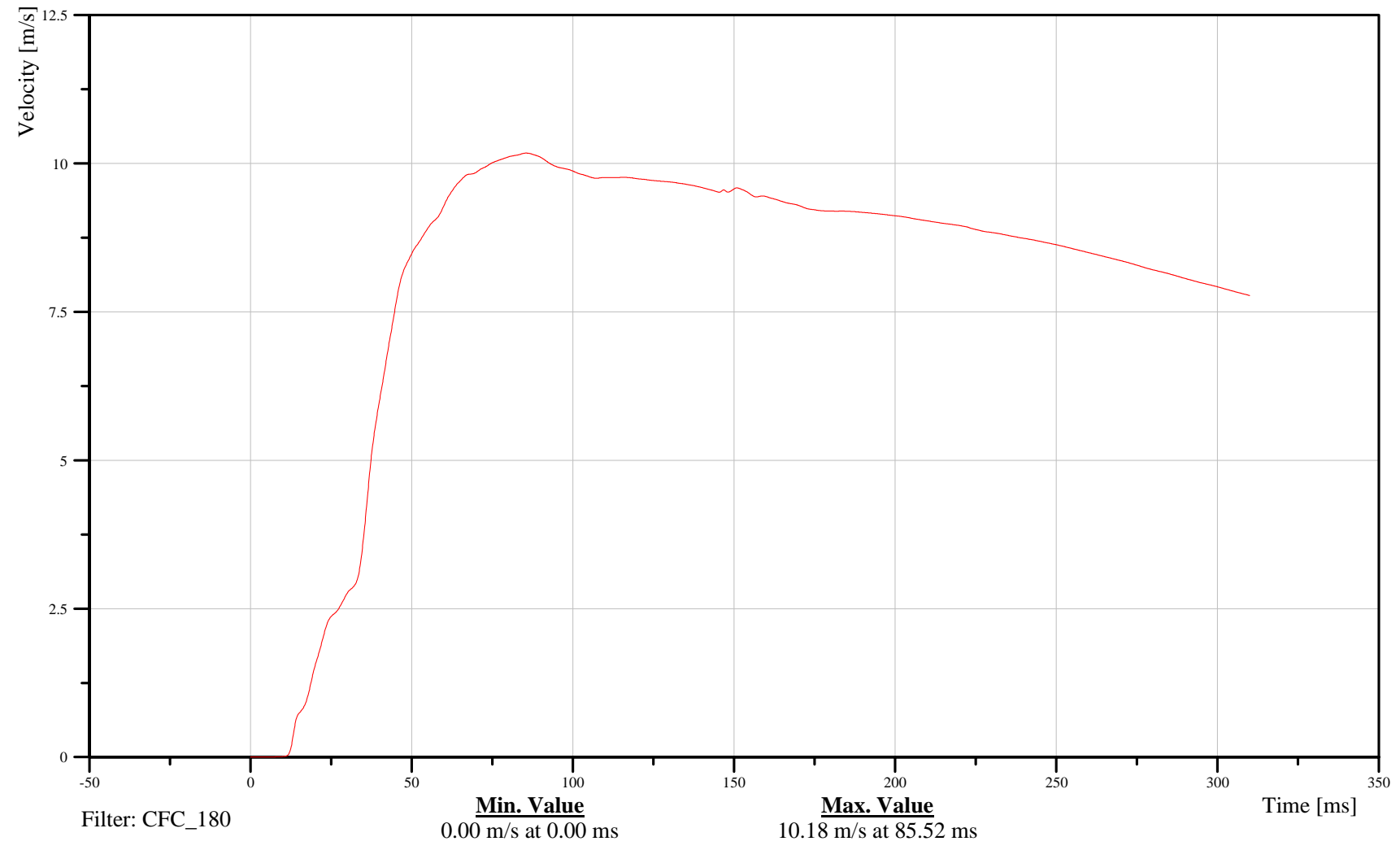
Date: 11/15/2006
Time: 12:16

DRIVER UPPER RIB Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

11RIBSLURESHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-63

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

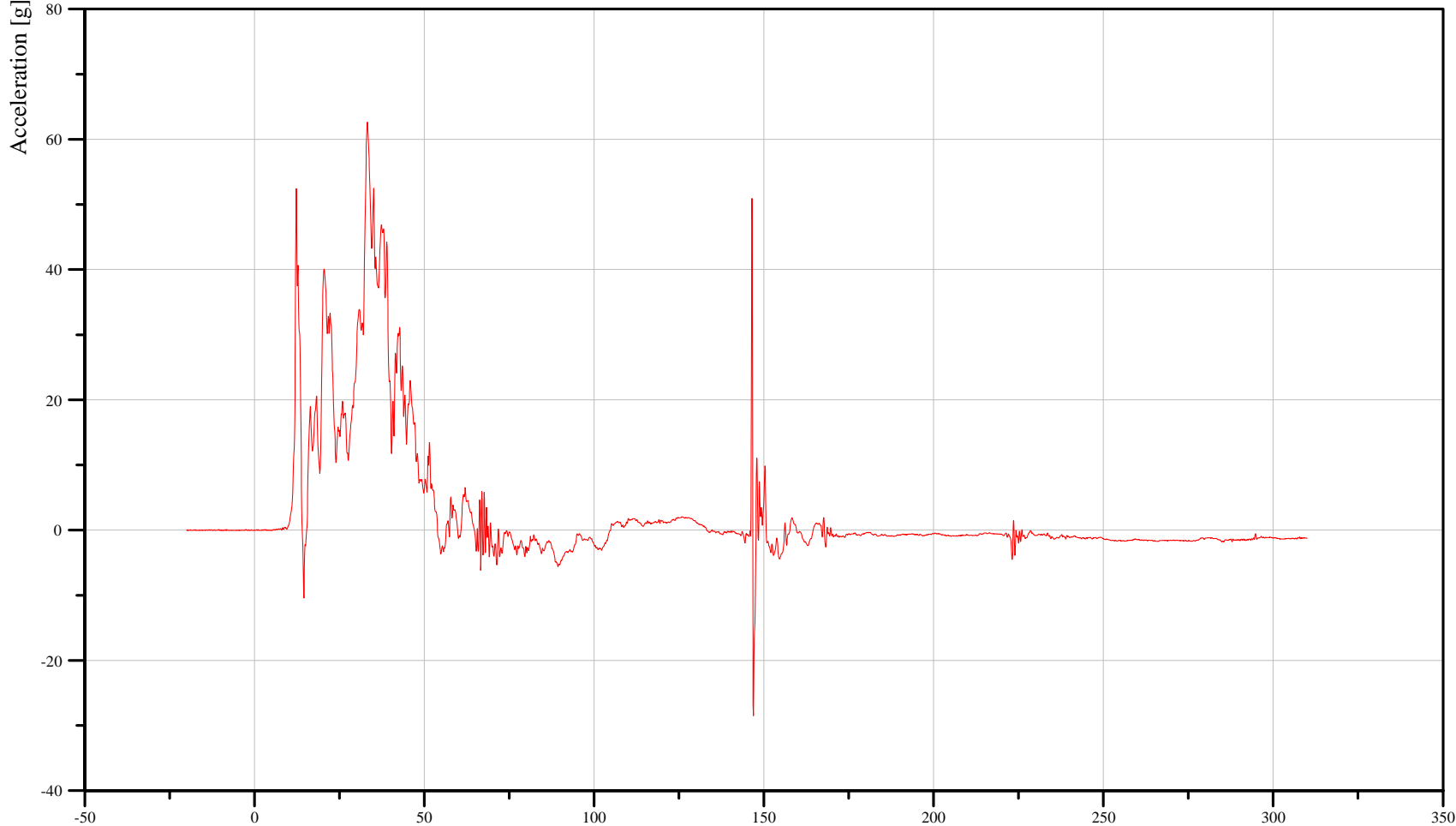
Date: 11/15/2006
Time: 12:16

DRIVER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLLRESHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-28.49 g at 146.96 ms

Max. Value
62.64 g at 33.28 ms

B-64

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

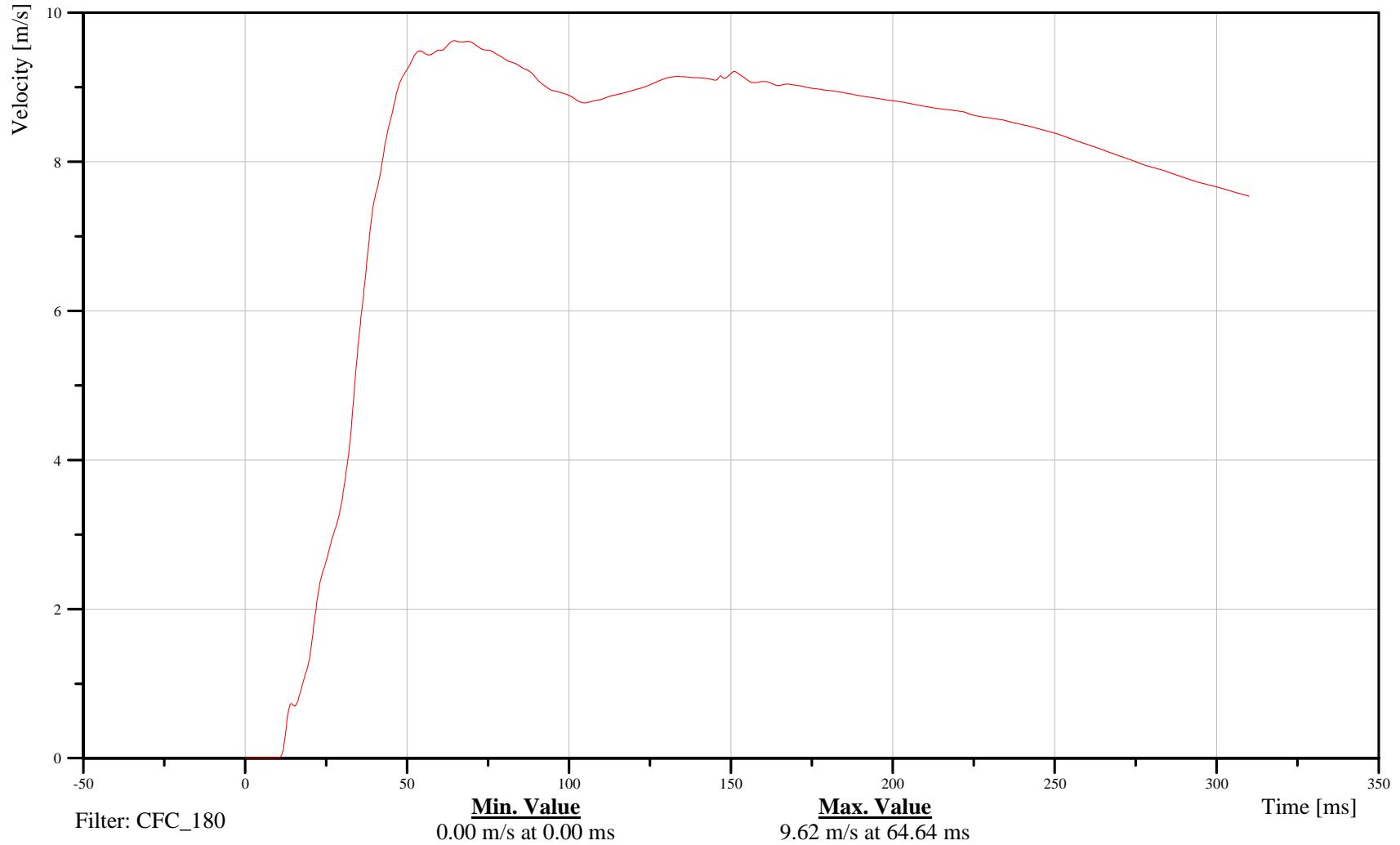
Date: 11/15/2006
Time: 12:16

DRIVER LOWER RIB Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

11RIBSLLRESHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-65

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

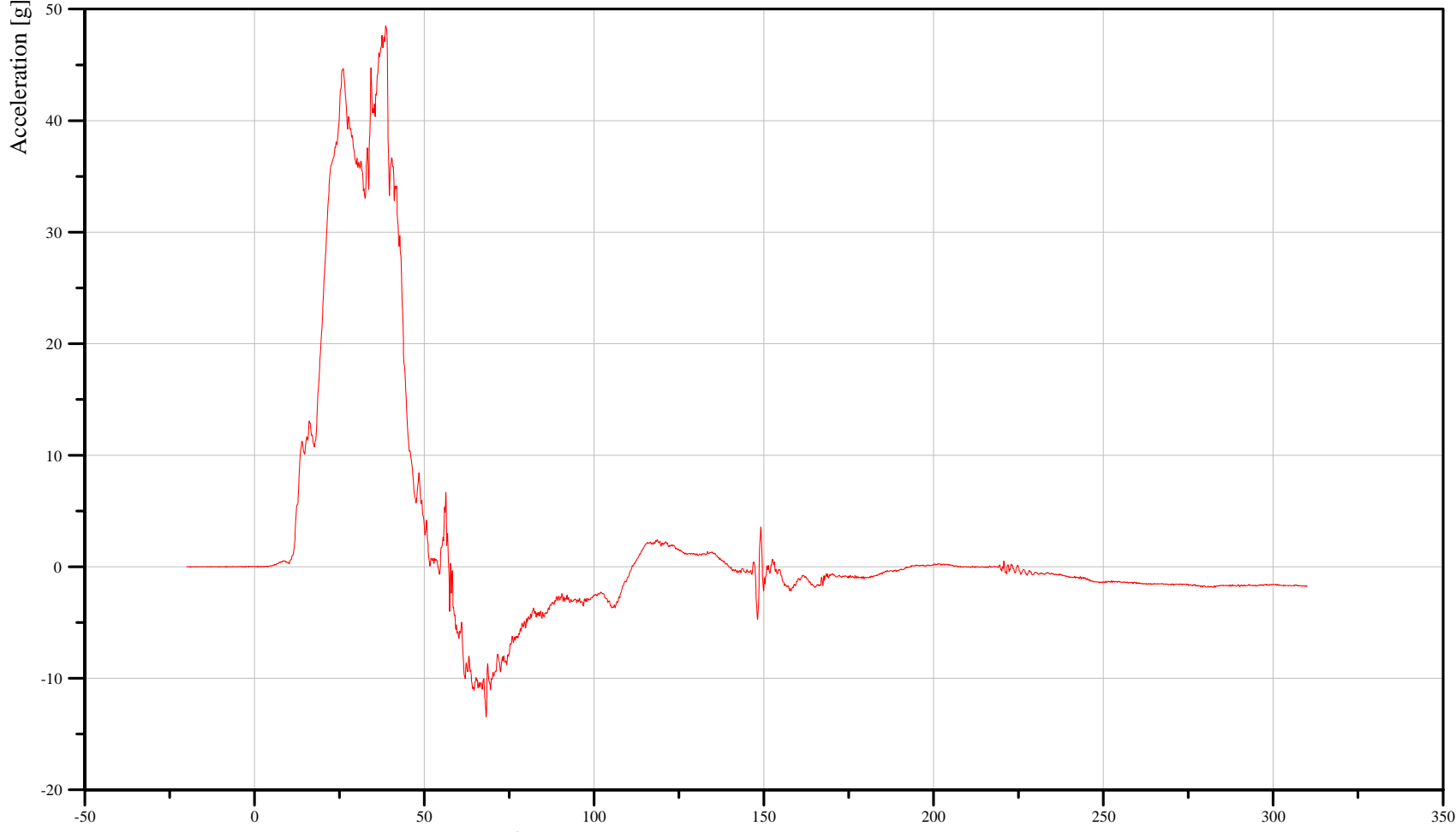
Date: 11/15/2006
Time: 12:16

DRIVER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11SPIN12RDSHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-13.47 g at 68.24 ms

Max. Value
48.51 g at 38.64 ms

Time [ms]

B-66

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

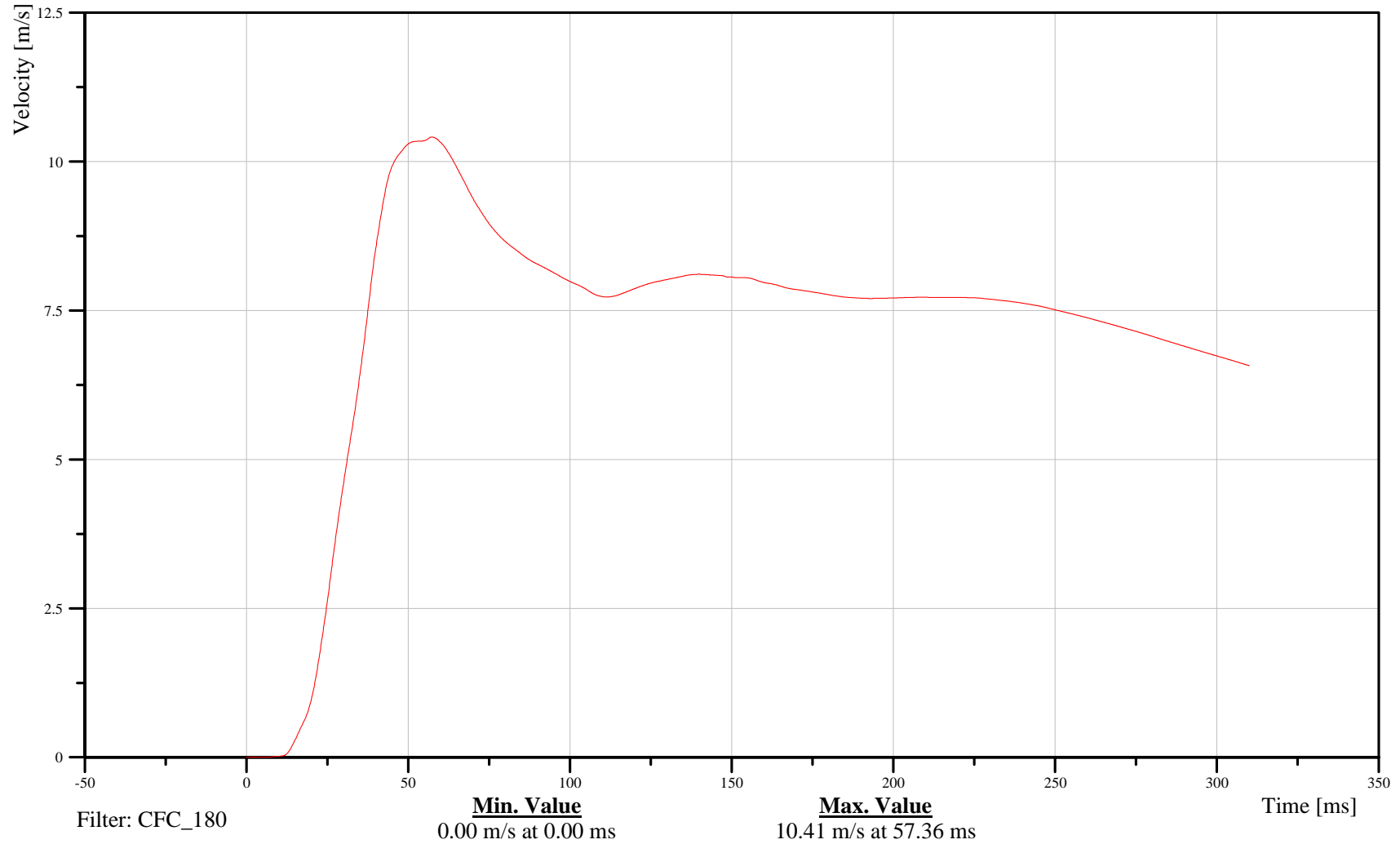
Date: 11/15/2006
Time: 12:16

DRIVER LOWER SPINE Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

11SPIN12RDSHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-67

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

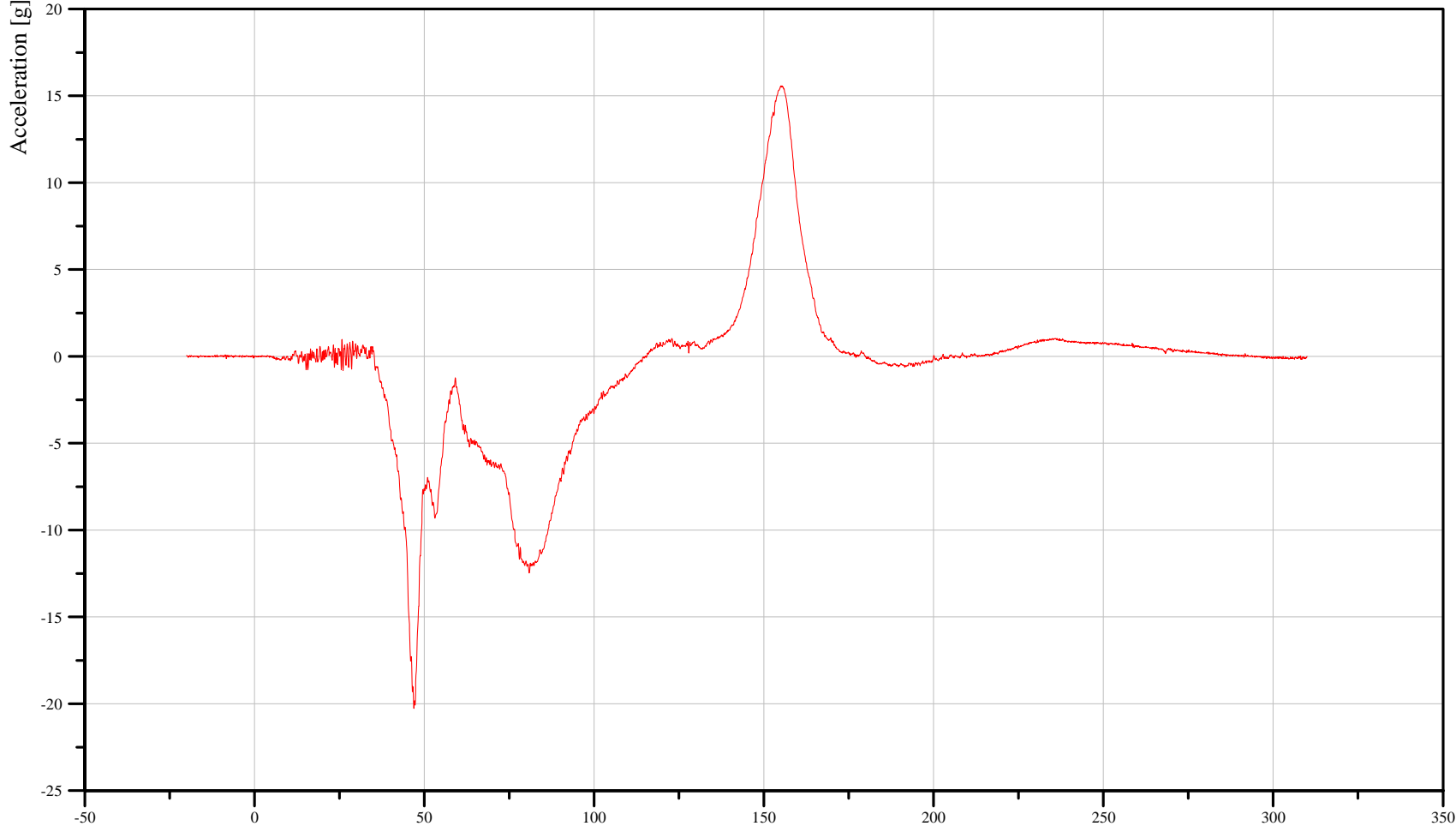
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD X-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHACXA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-20.26 g at 46.96 ms

Max. Value
15.58 g at 154.96 ms

Time [ms]

B-68

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

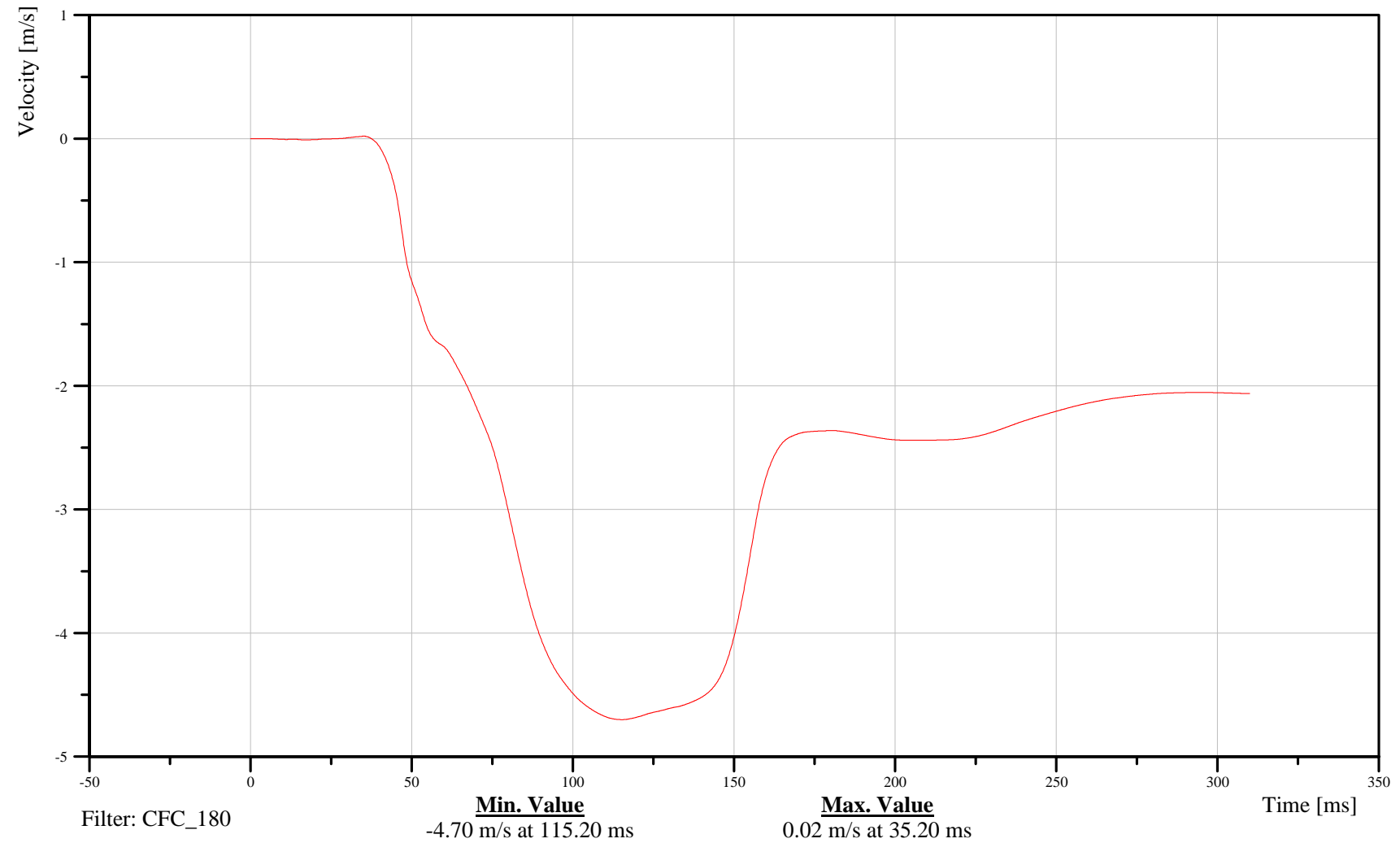
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD X-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHVEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-69

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

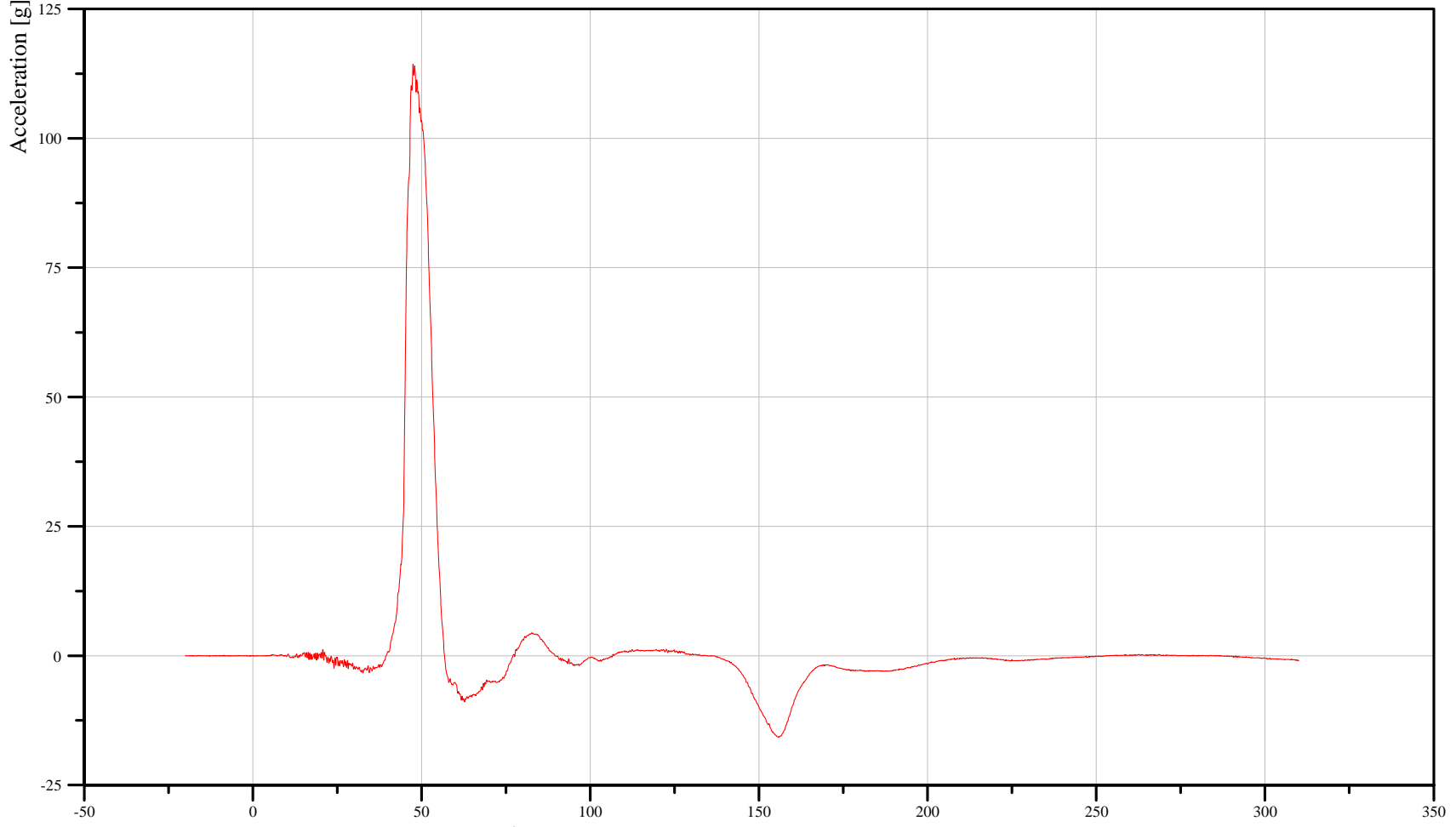
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-15.70 g at 155.52 ms

Max. Value
114.31 g at 47.52 ms

B-70

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

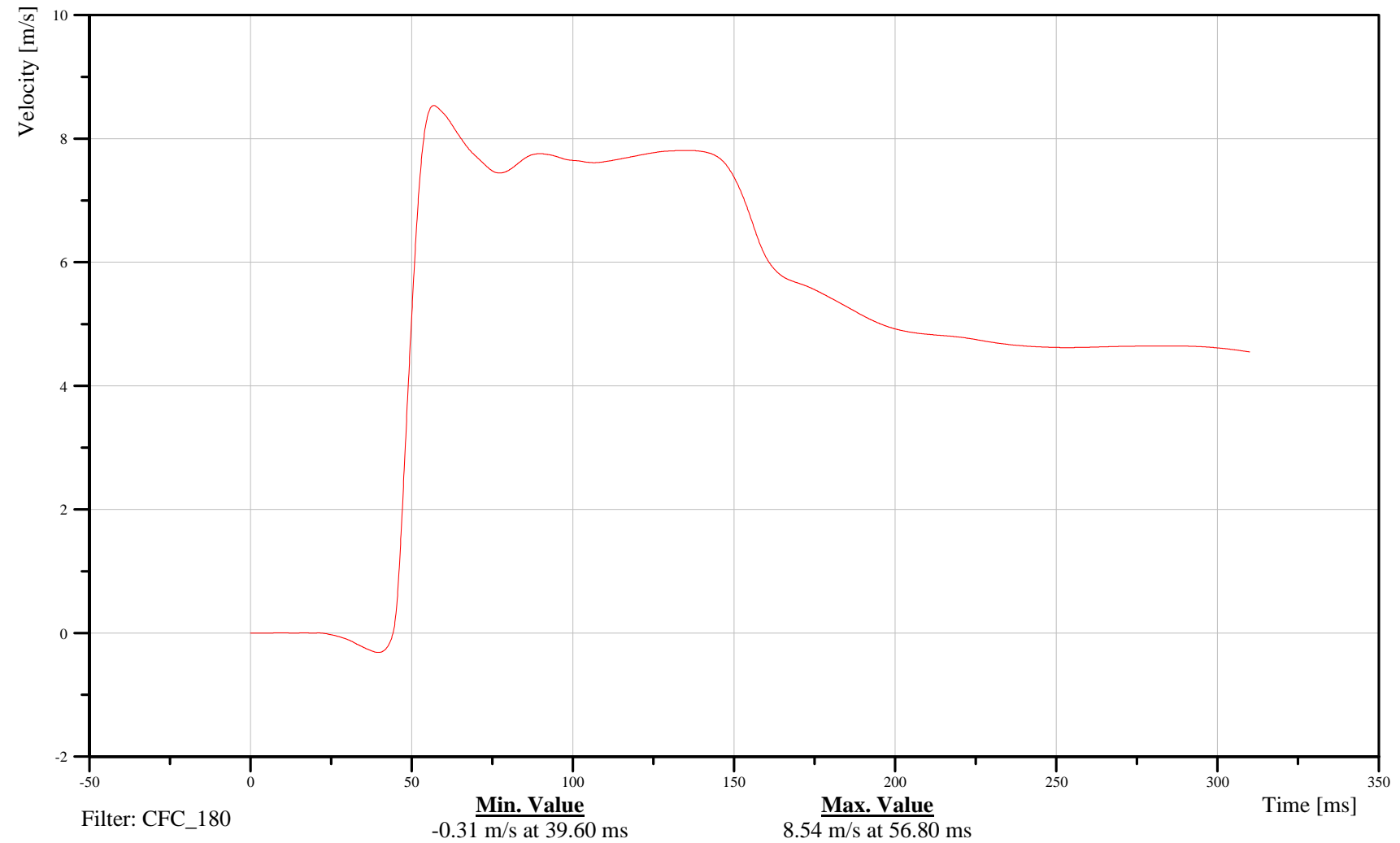
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-71

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

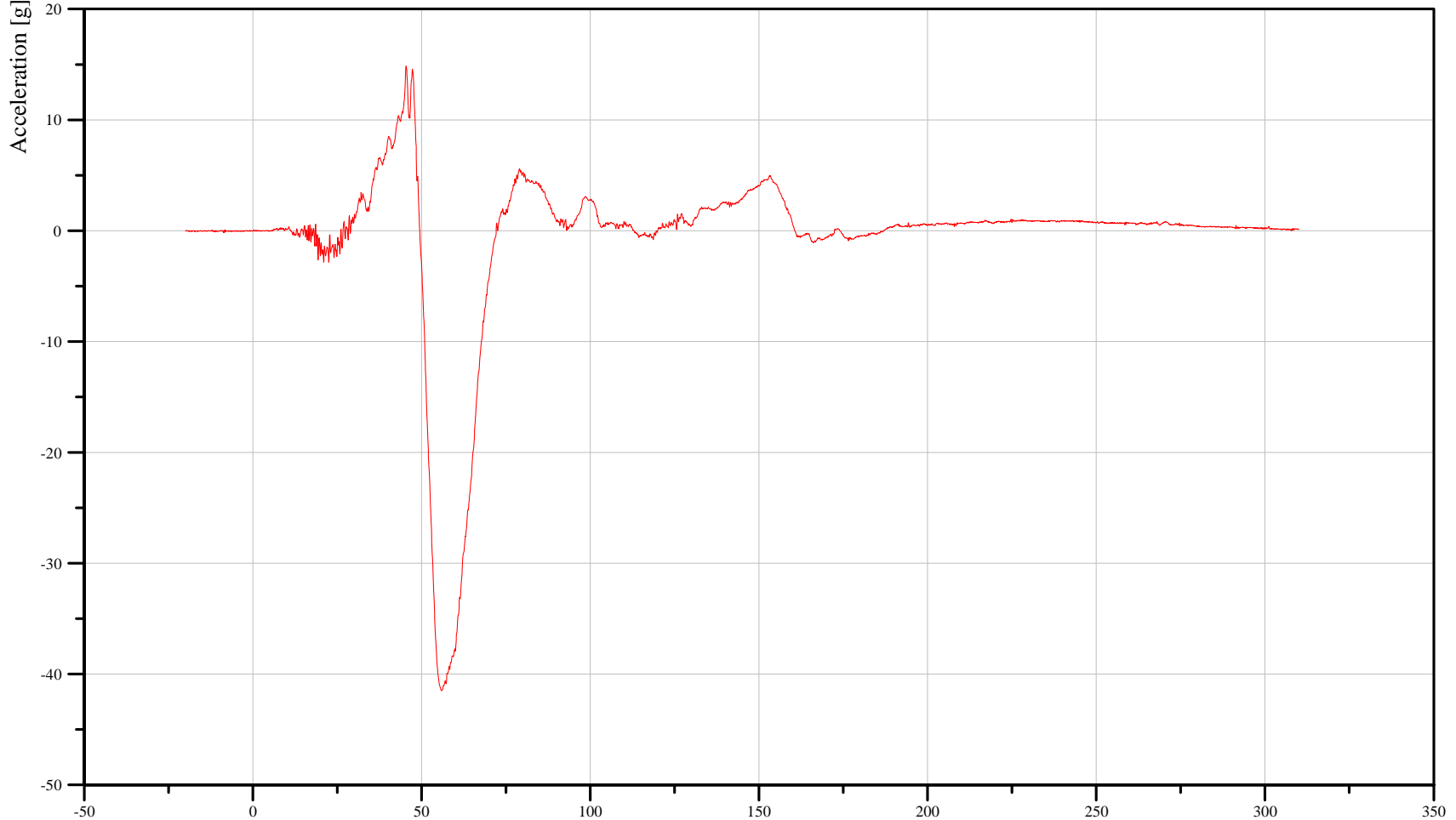
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Z-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHACZA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-41.50 g at 55.92 ms

Max. Value
14.86 g at 45.36 ms

Time [ms]

B-72

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

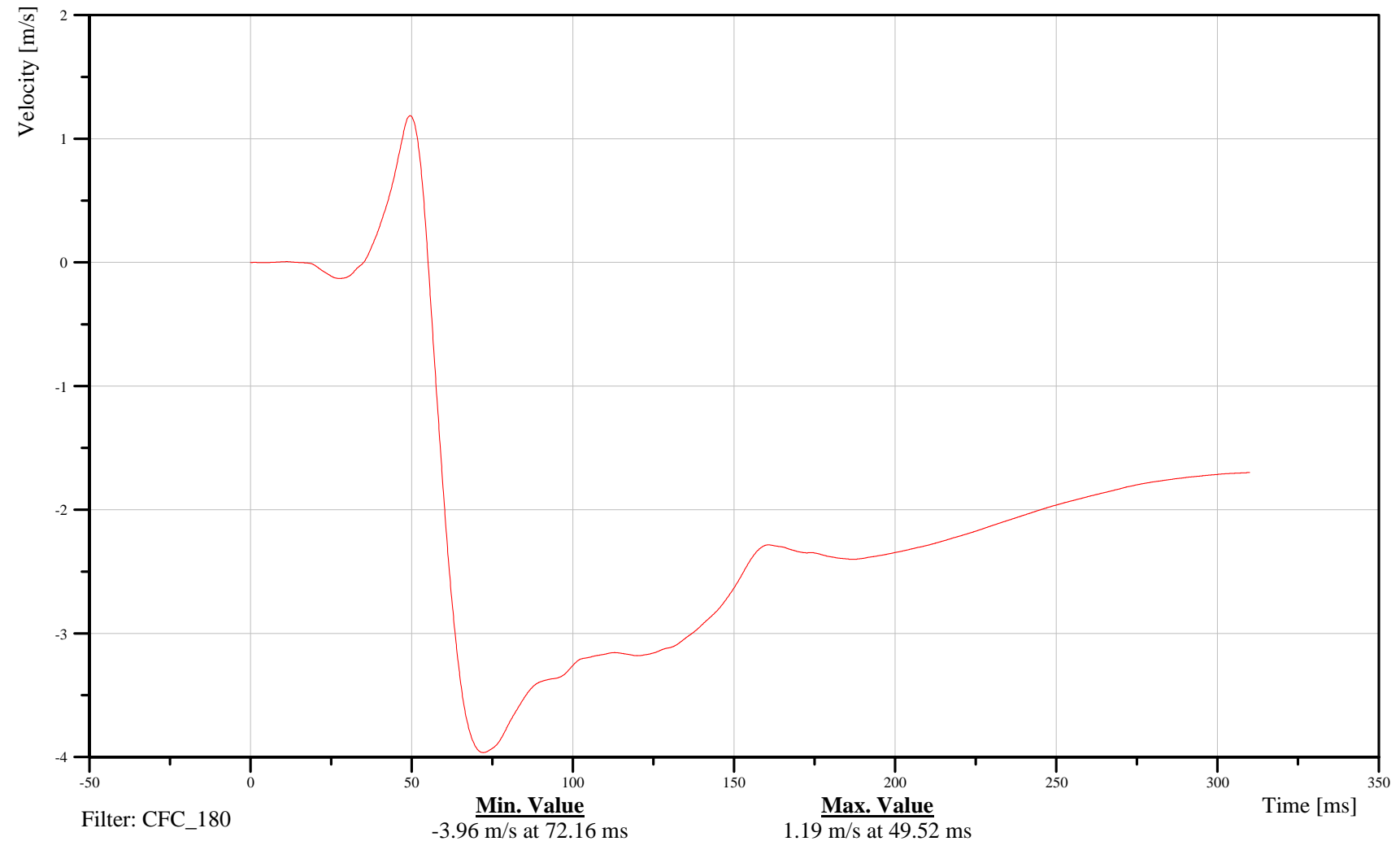
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD Z-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHVEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-73

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

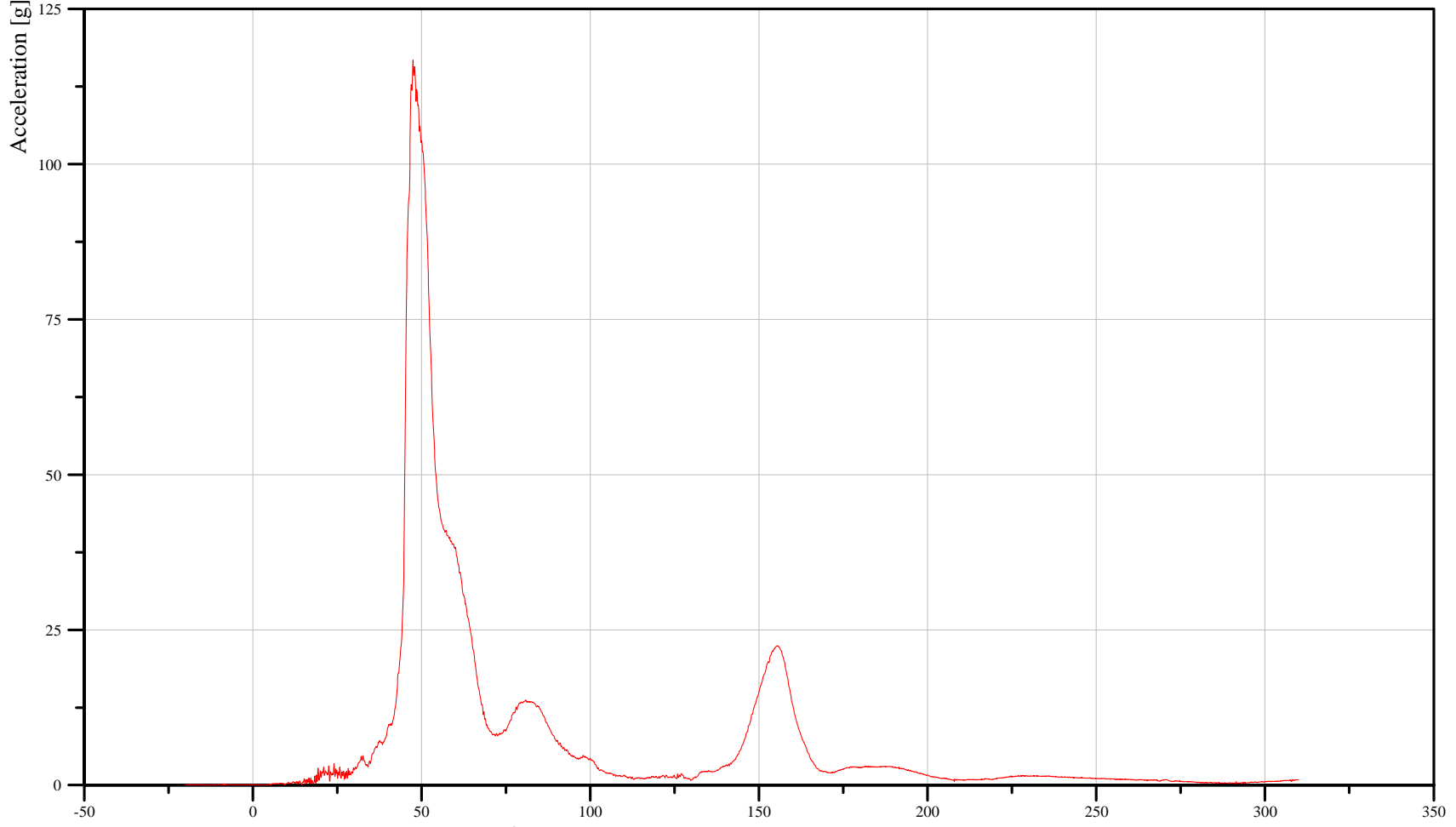
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER HEAD RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14HEADCGRDSHACRA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
0.01 g at -15.60 ms

Max. Value
116.75 g at 47.44 ms

B-74

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

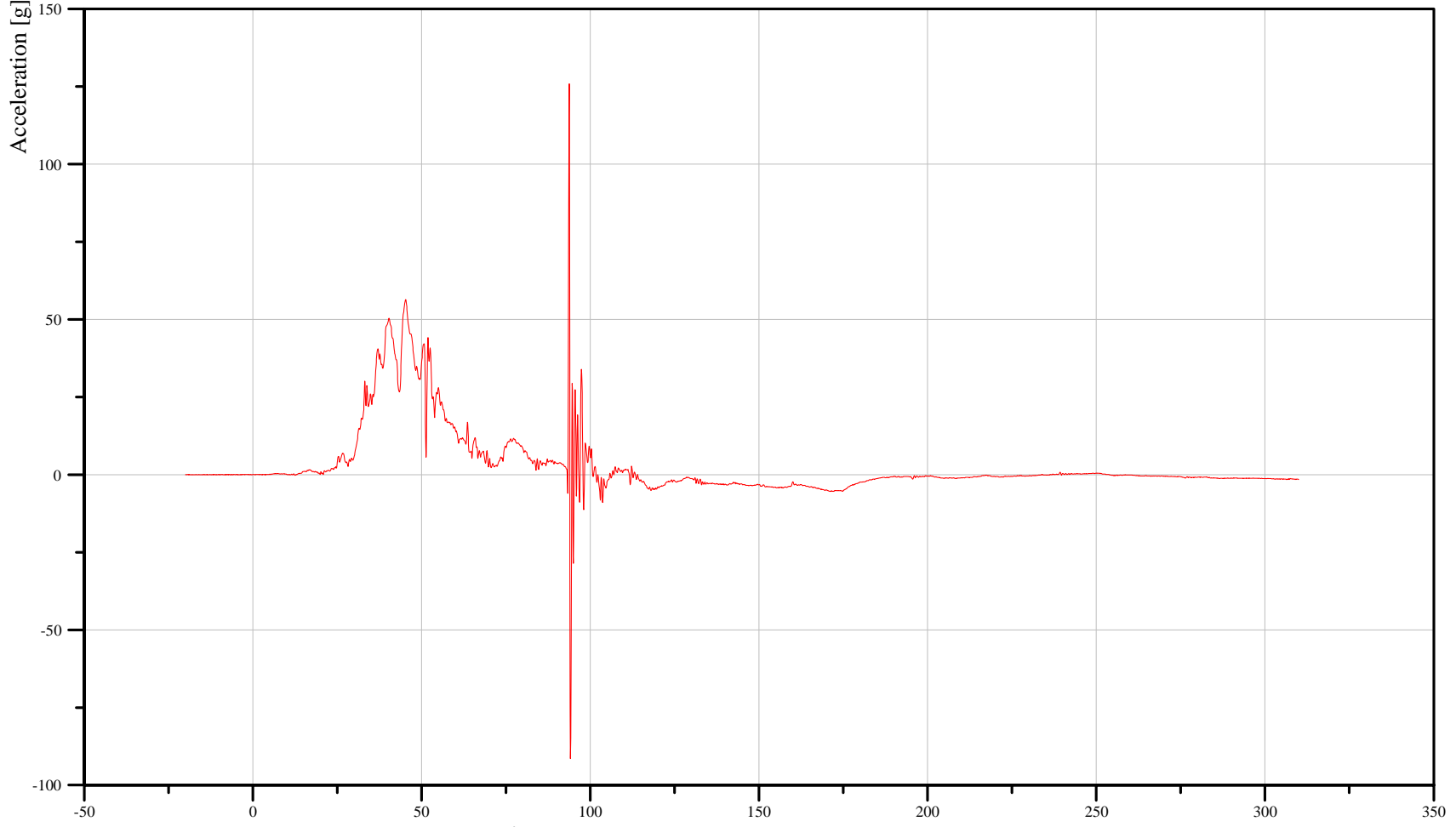
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLURESHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_1000

Min. Value
-91.47 g at 94.16 ms

Max. Value
125.91 g at 93.76 ms

Time [ms]

B-75

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

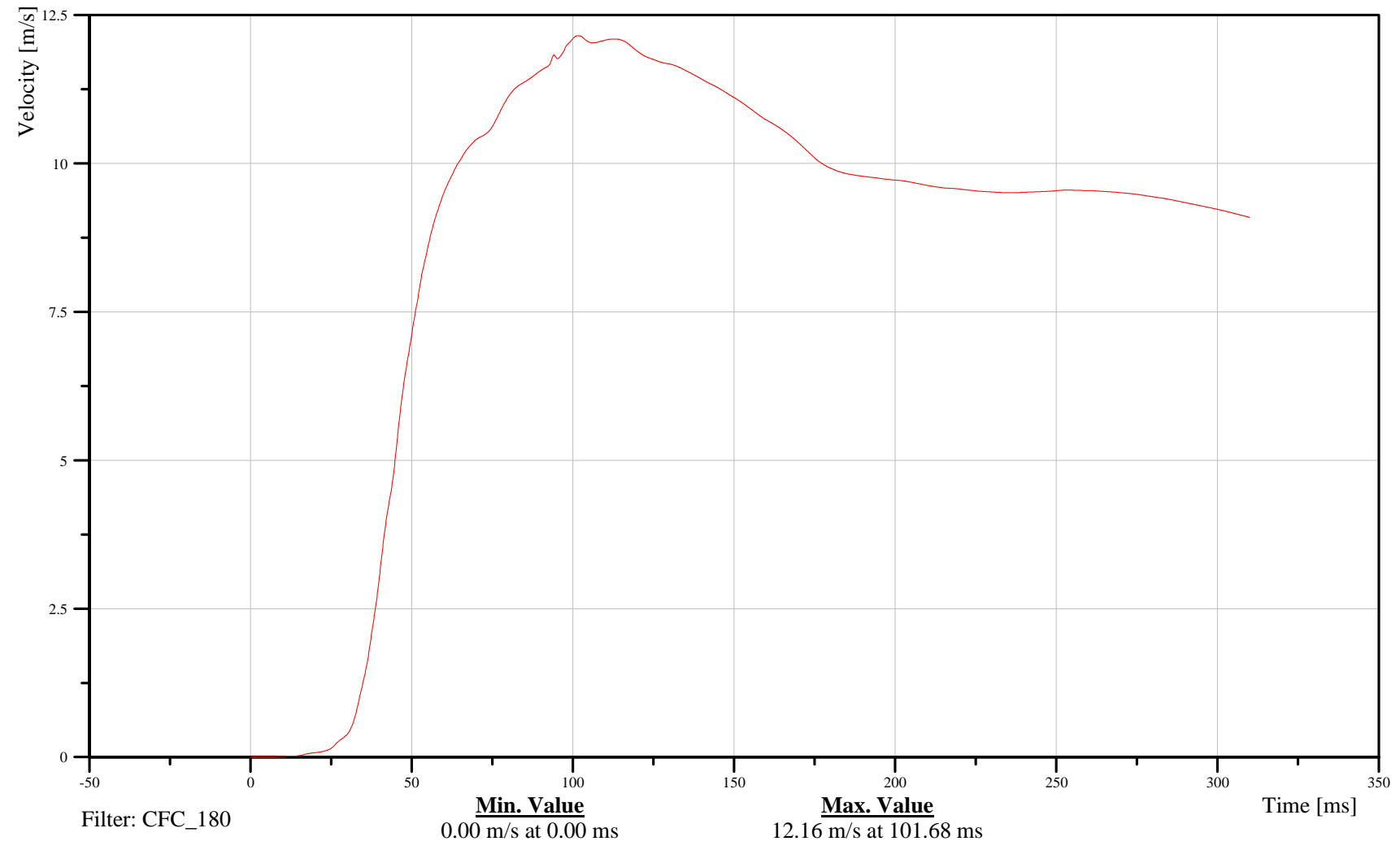
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

14RIBSLURESHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-76

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

Date: 11/15/2006

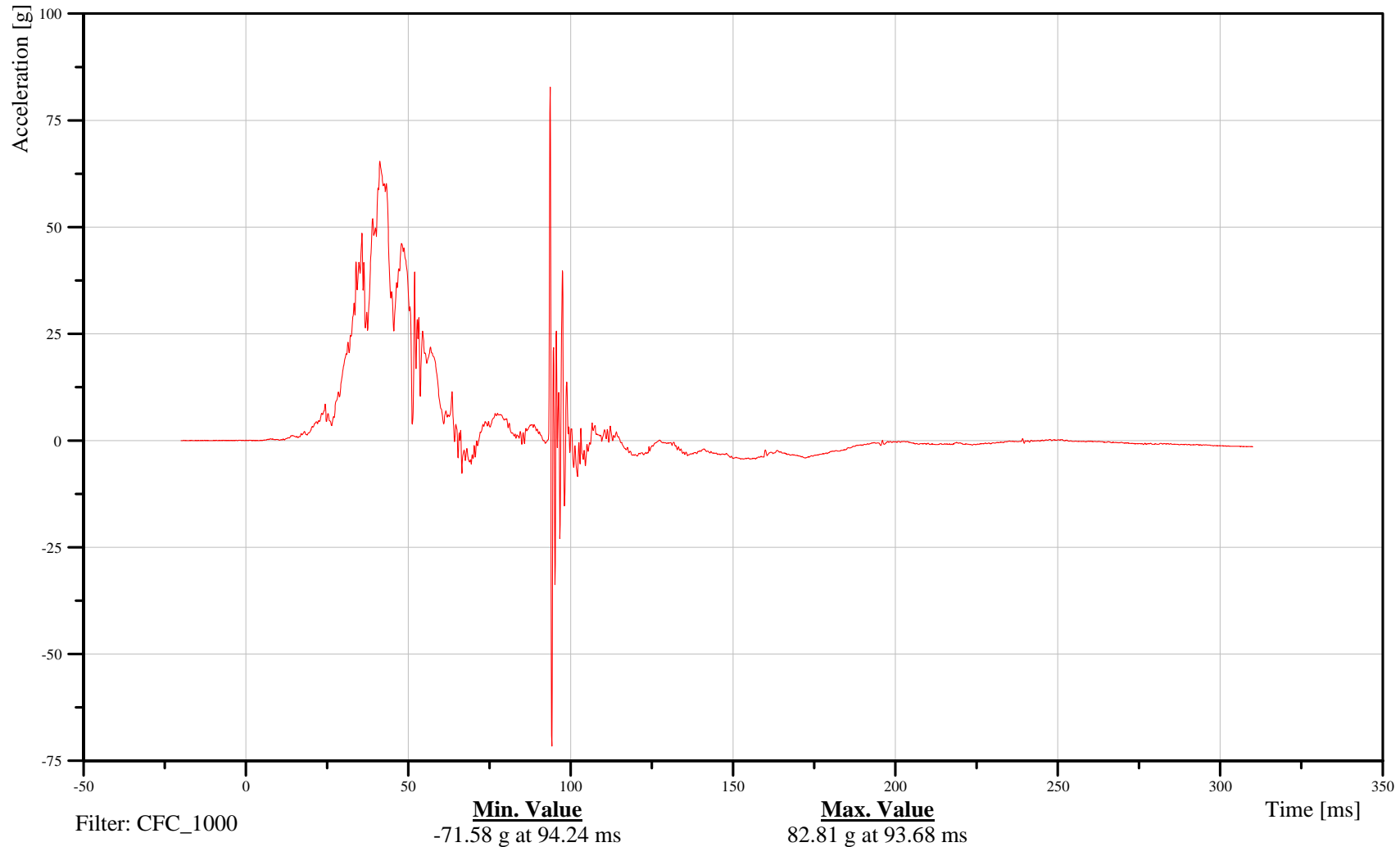
Time: 12:16

LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLLRESHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



B-77

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

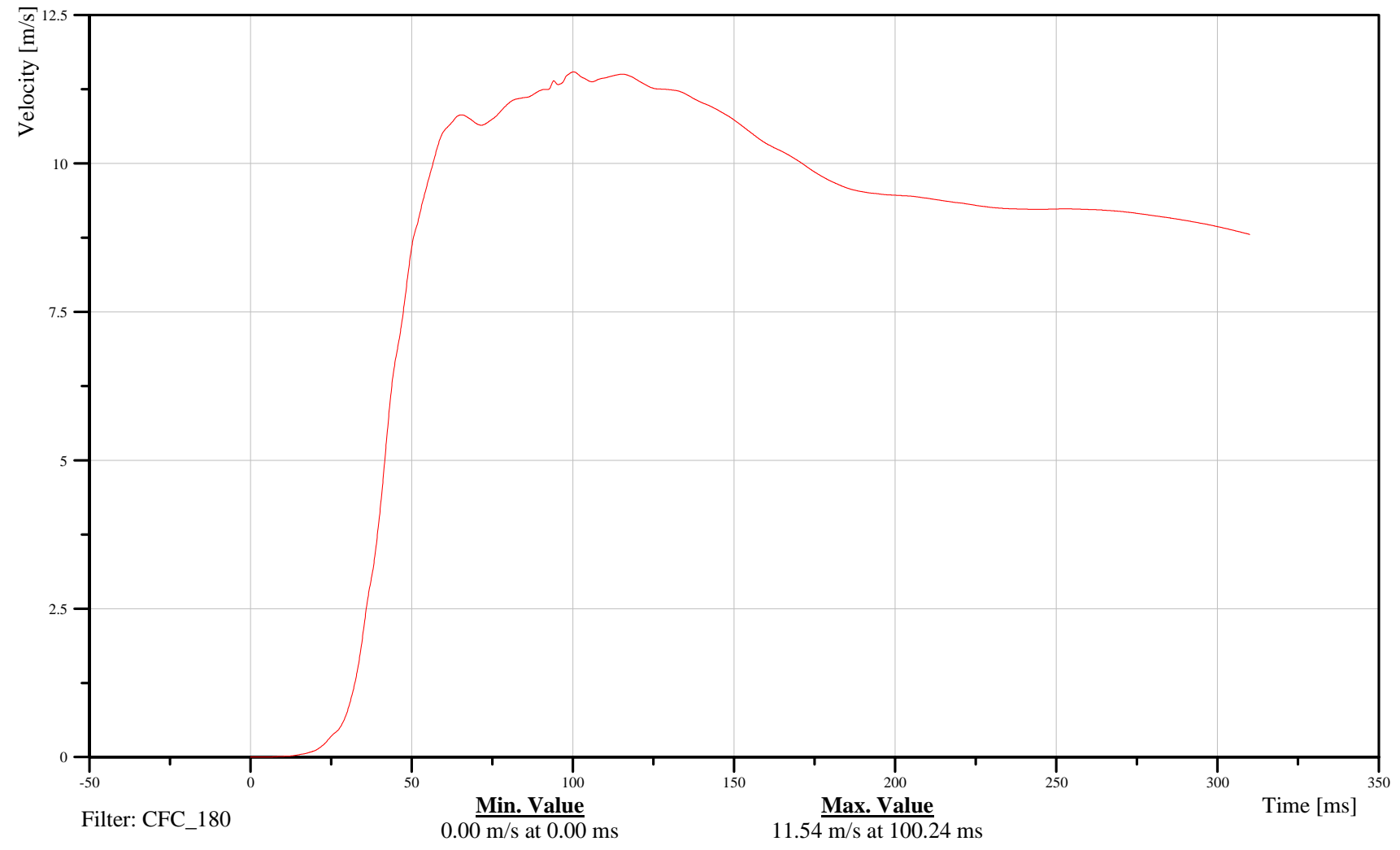
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

14RIBSLLRESHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-78

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

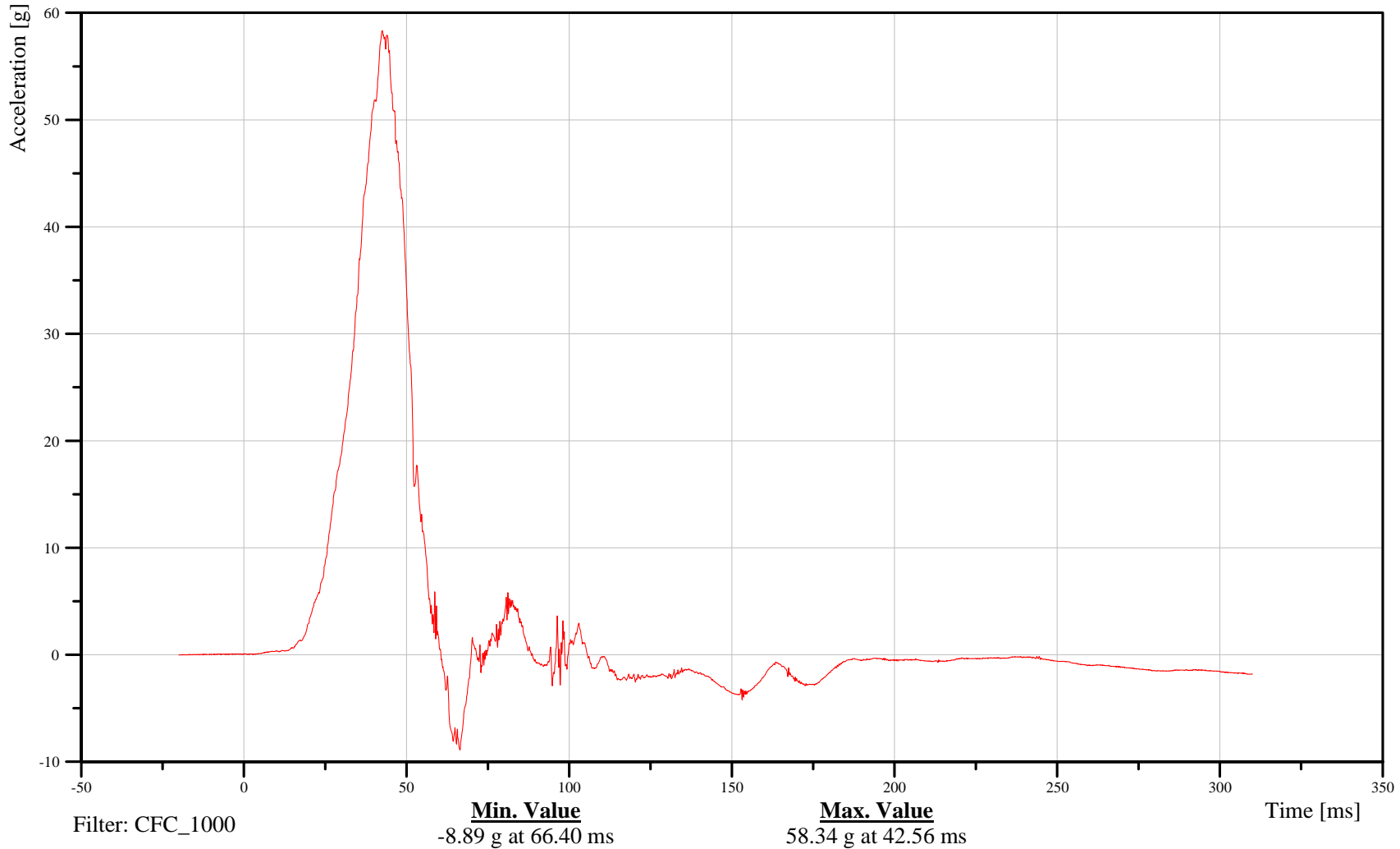
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14SPIN12RDSHACYA

TRC Inc. Test Lab: CTF
Test Number: 061115



B-79

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

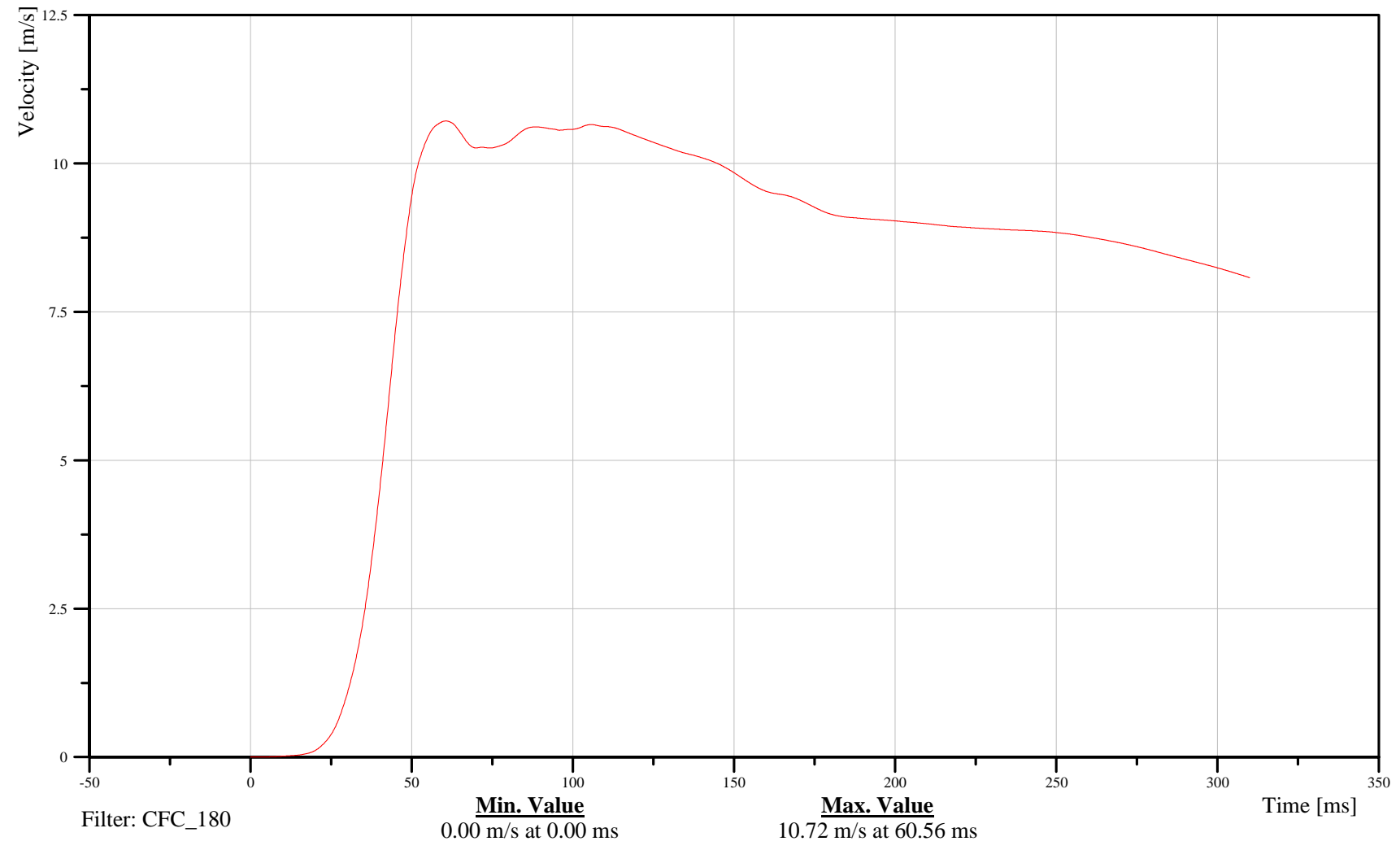
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT VELOCITY

Customer: NHTSA
Test Number: C75200

14SPIN12RDSHVEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-80

061115

Test Vehicle Instrumentation Plots



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

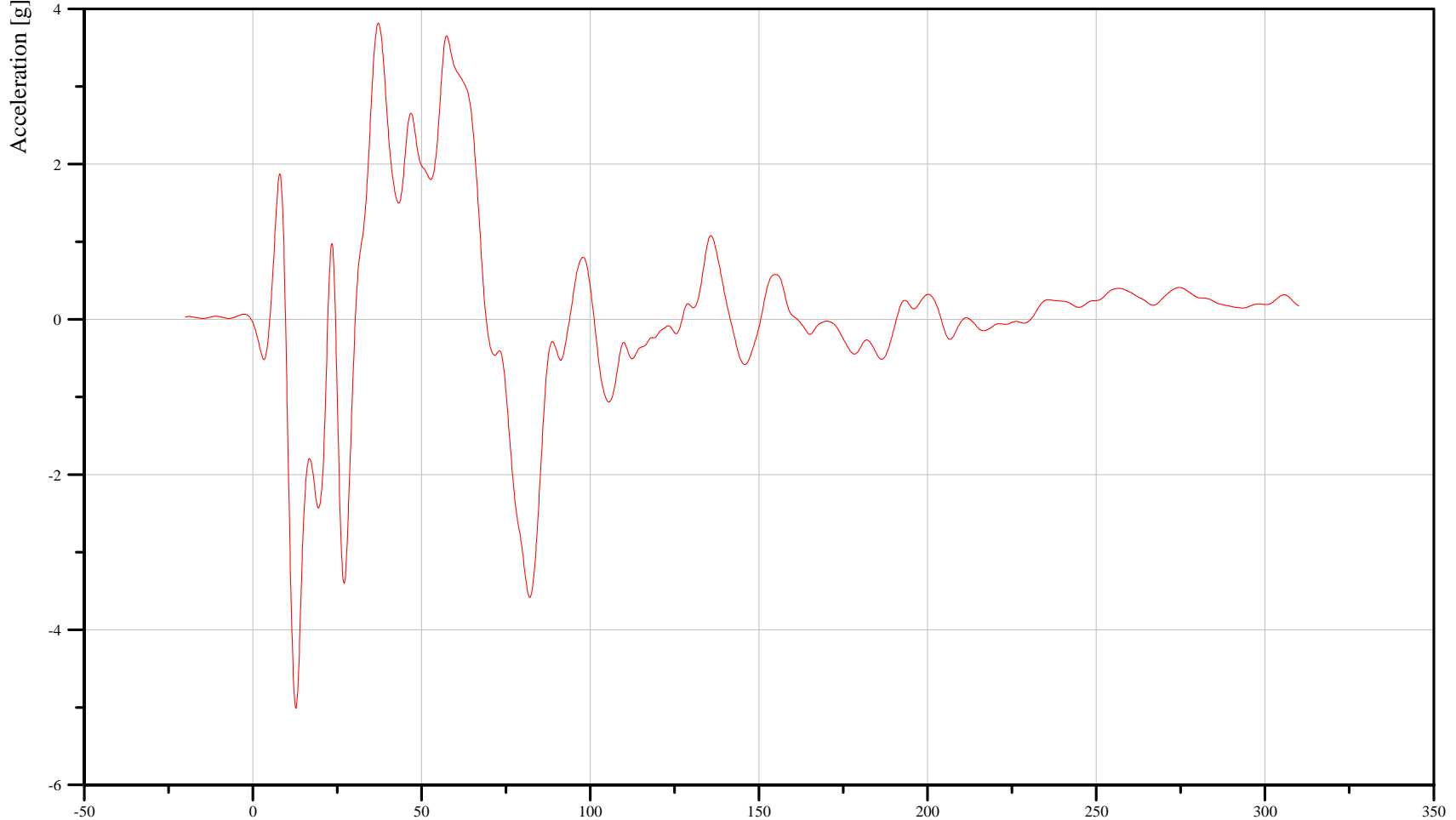
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBFR0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-5.01 g at 12.80 ms

Max. Value
3.82 g at 37.20 ms

Time [ms]

B-82

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

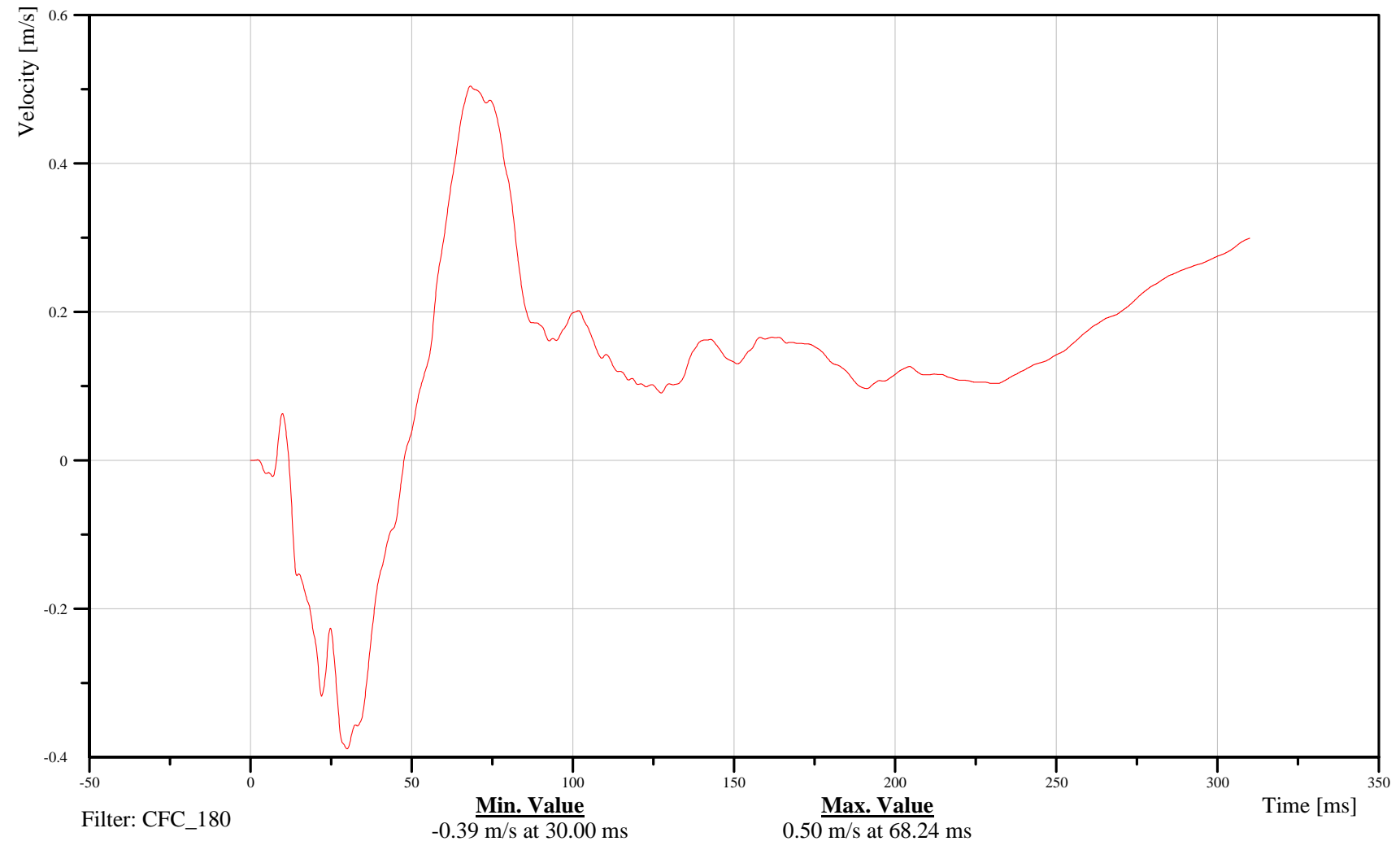
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16SILBFR0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-83

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

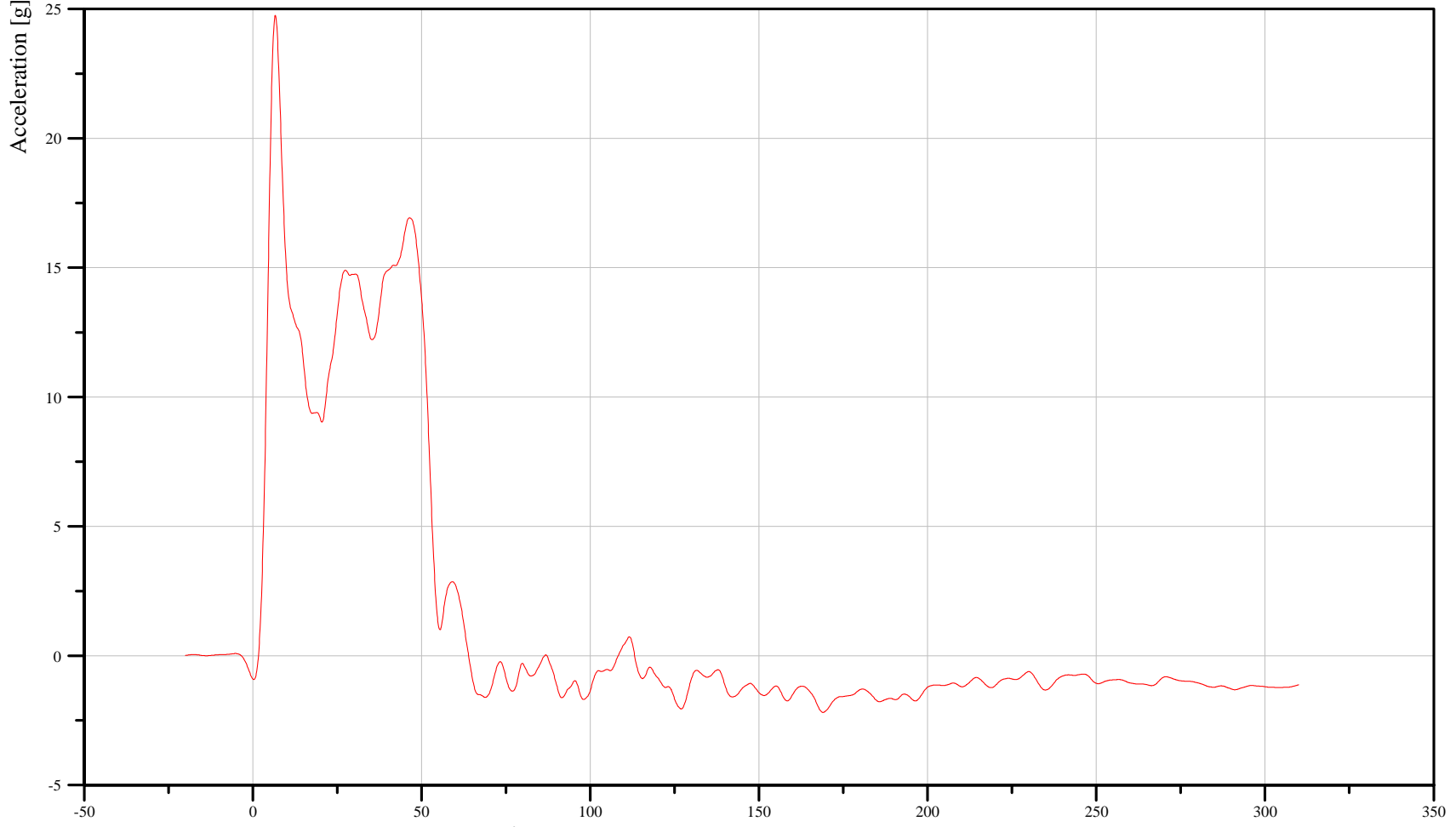
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-2.19 g at 168.96 ms

Max. Value
24.76 g at 6.64 ms

Time [ms]

B-84

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

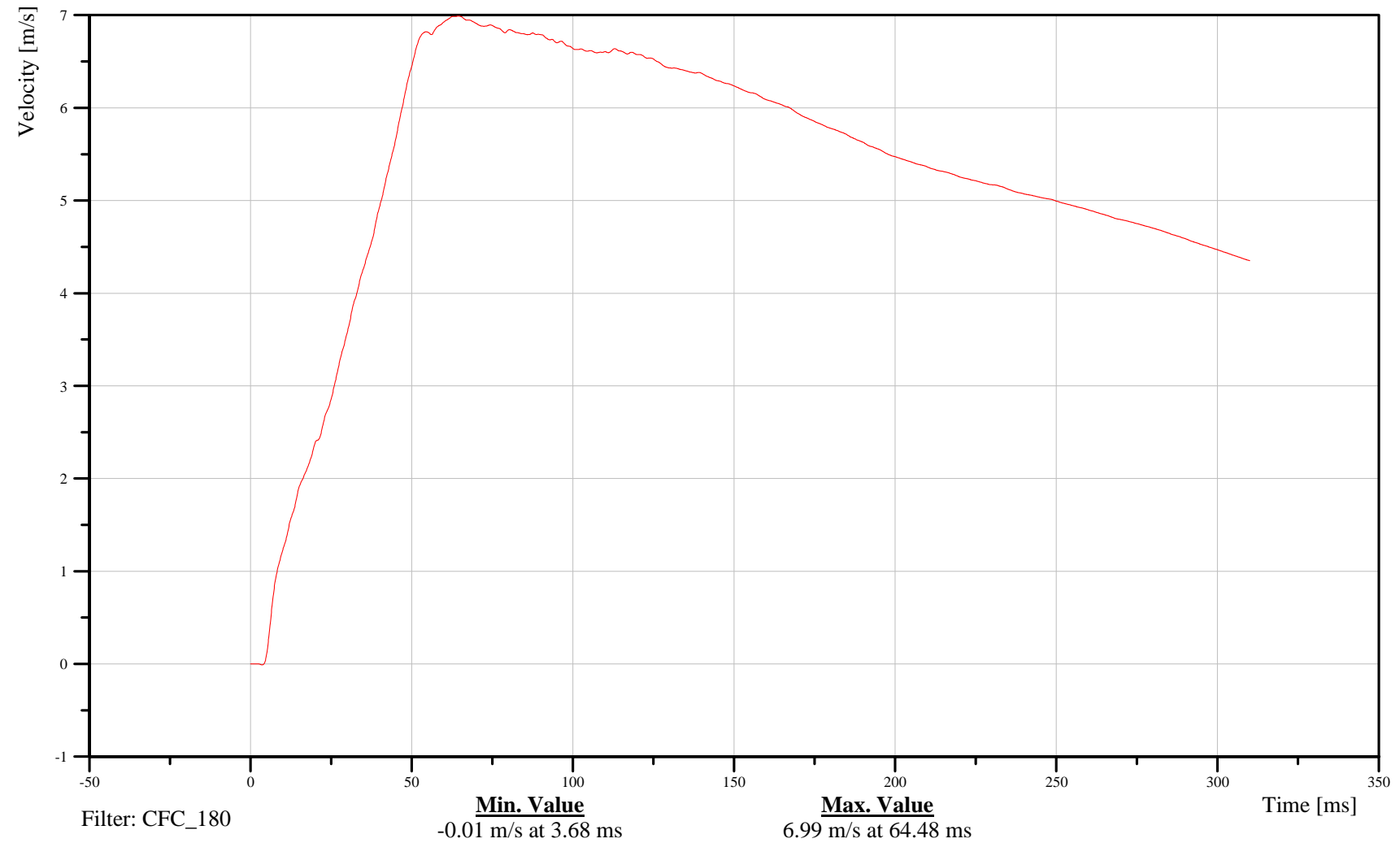
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16SILBFR0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-85

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

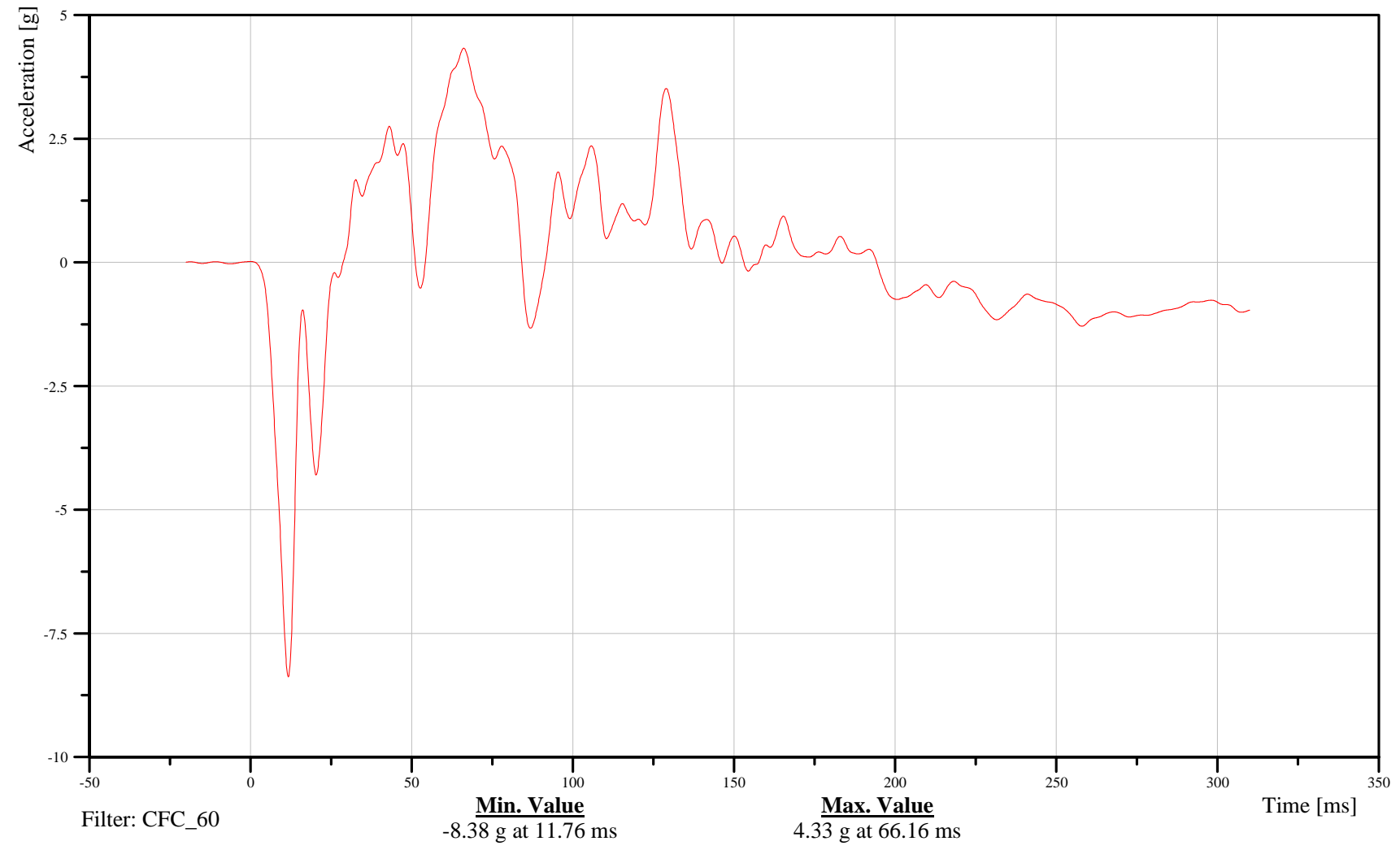
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBFR0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 061115



B-86

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

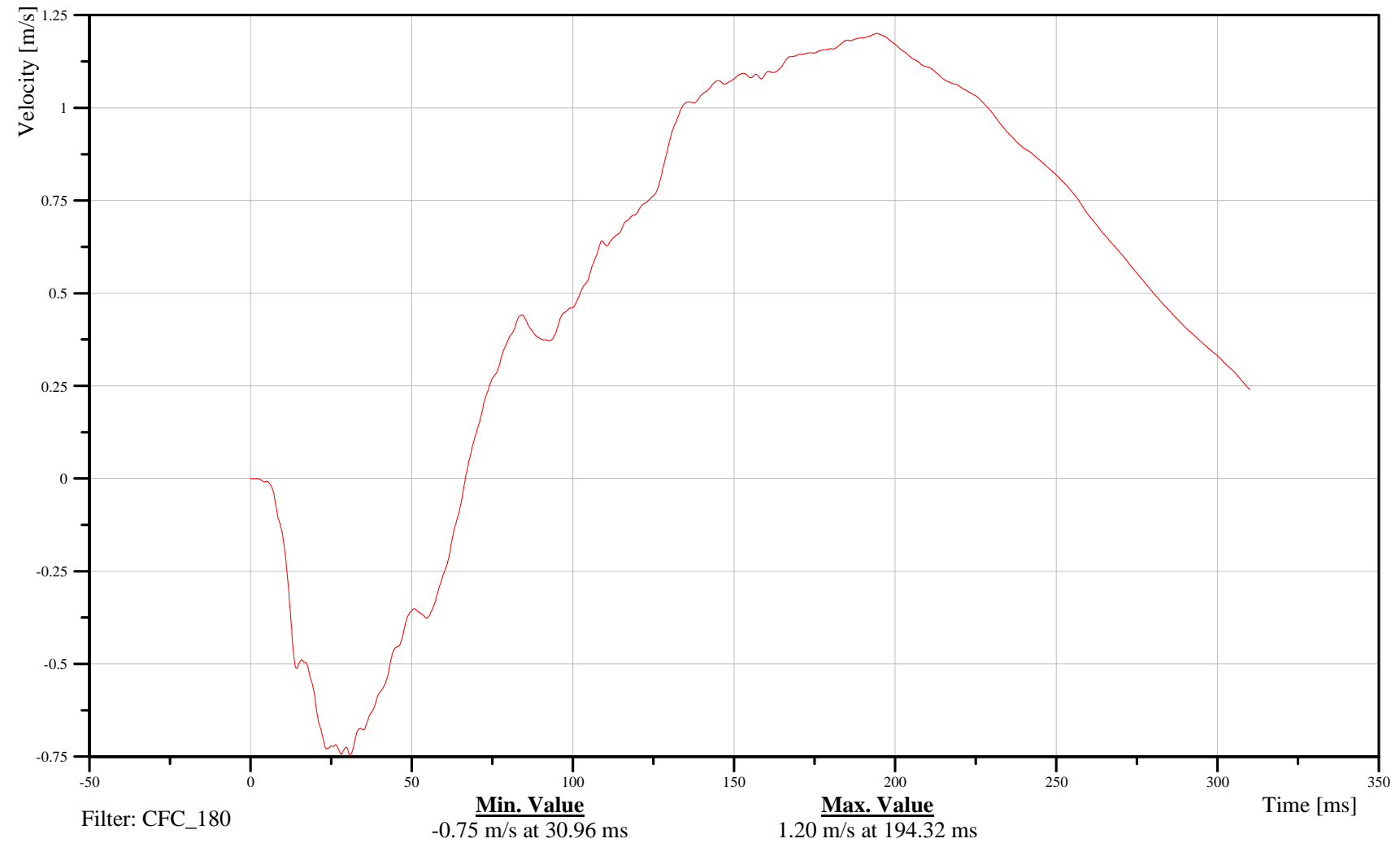
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16SILBFR0000VEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-87

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

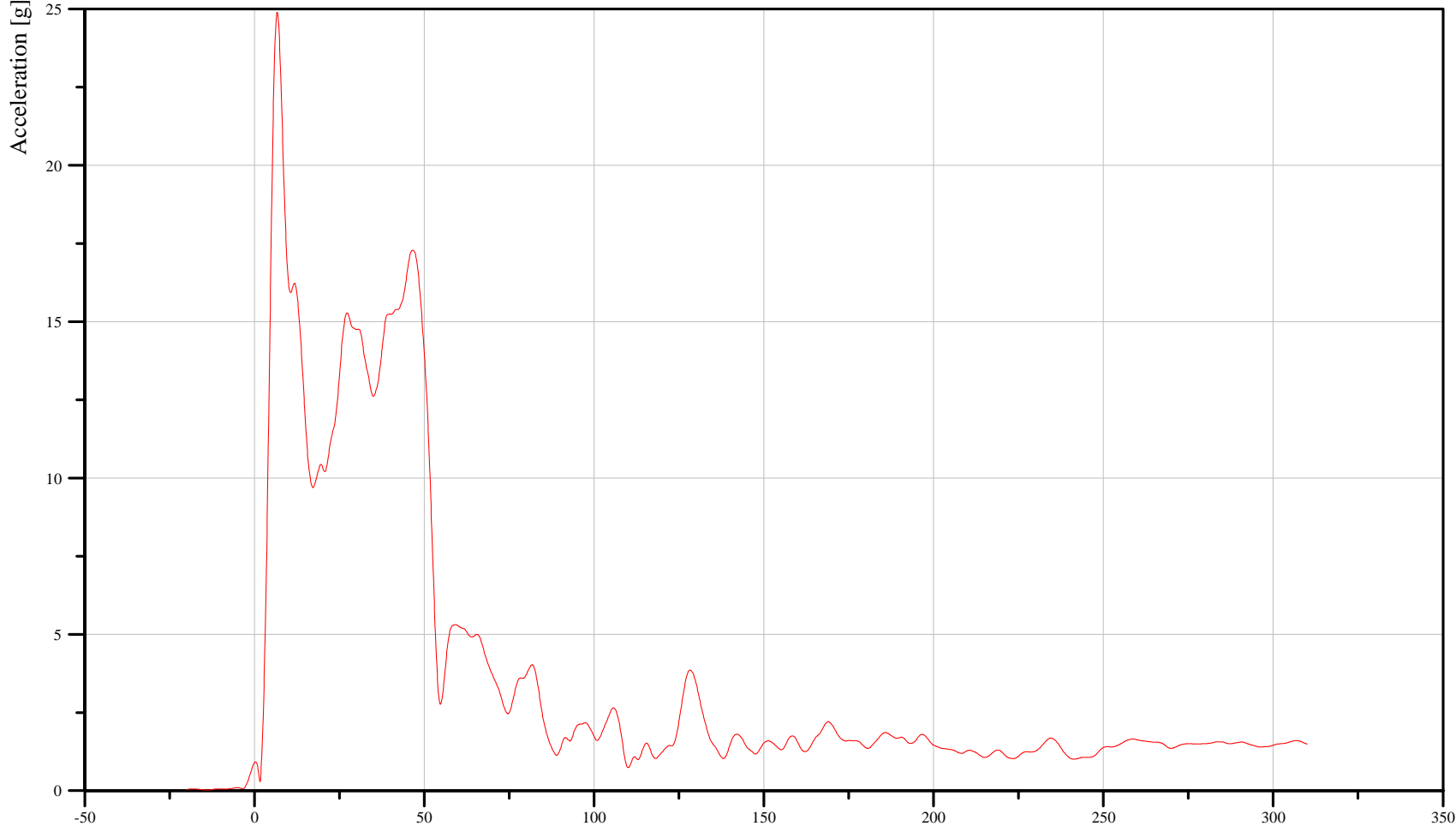
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBFR0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
0.02 g at -13.84 ms

Max. Value
24.90 g at 6.72 ms

Time [ms]

B-88

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

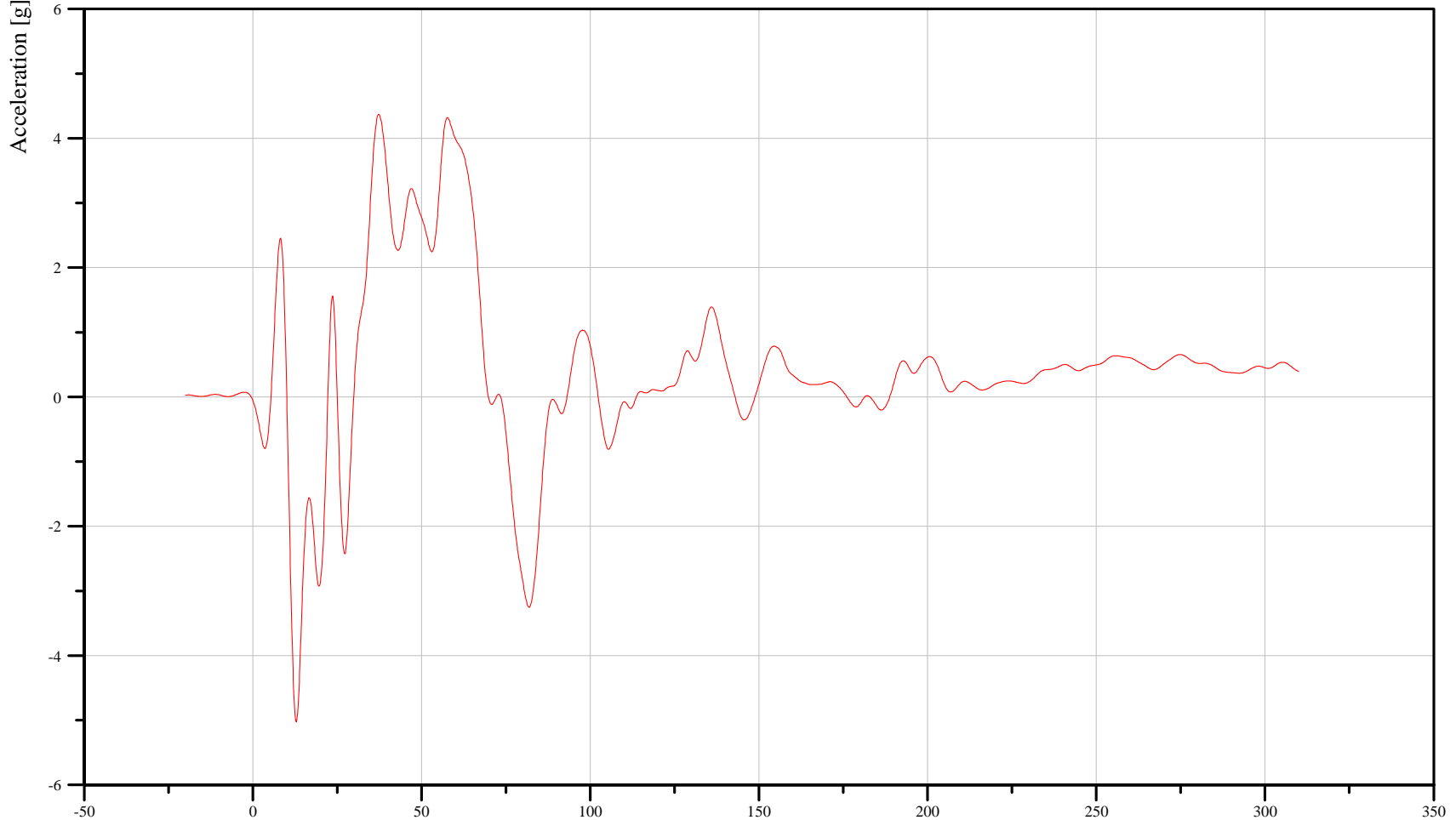
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBRE0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-5.03 g at 12.88 ms

Max. Value
4.37 g at 37.28 ms

Time [ms]

B-89

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

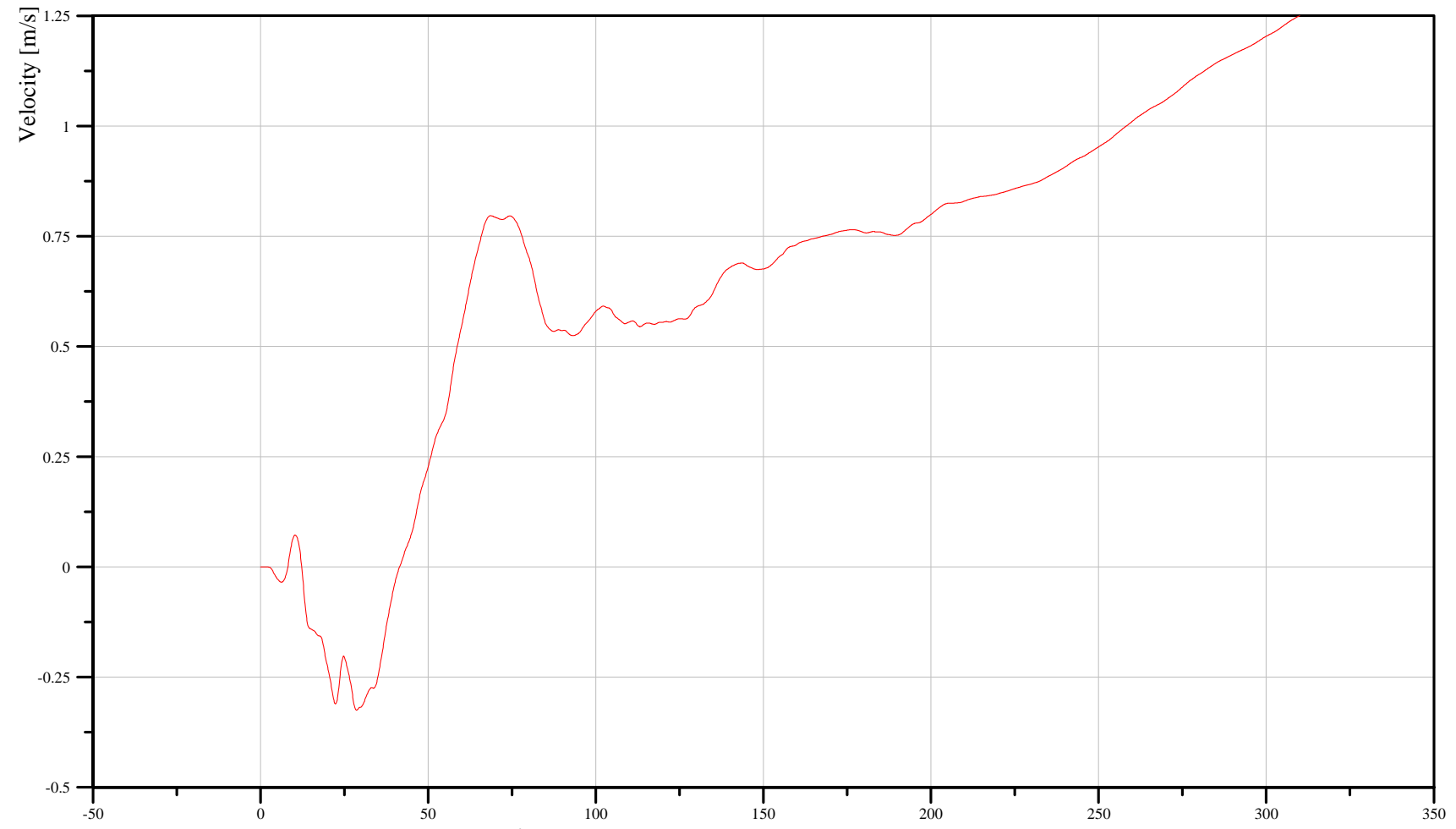
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16SILBRE0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-0.32 m/s at 28.64 ms

Max. Value
1.25 m/s at 310.00 ms

Time [ms]

B-90

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

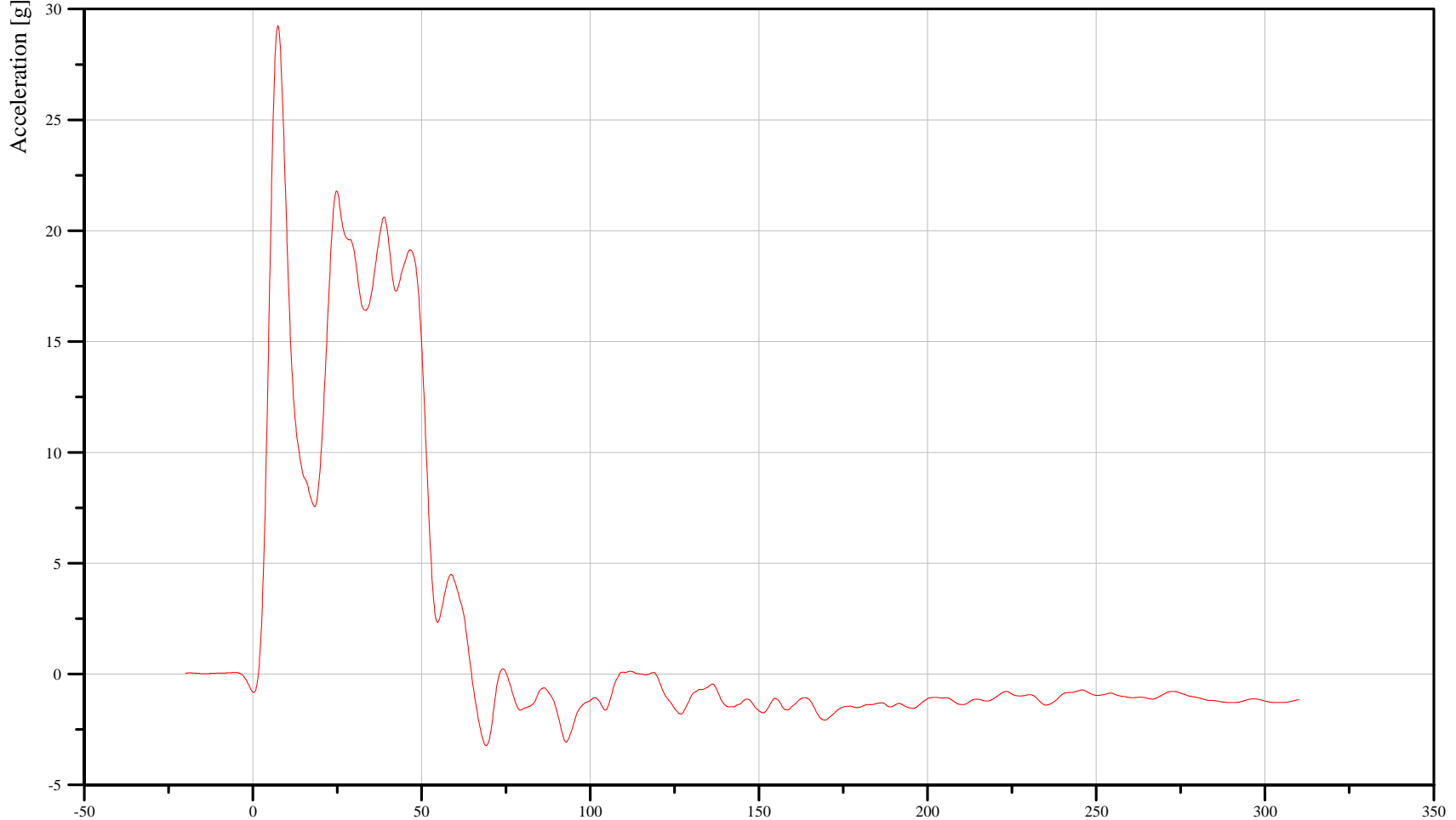
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBRE0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-3.22 g at 69.20 ms

Max. Value
29.26 g at 7.44 ms

Time [ms]

B-91

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

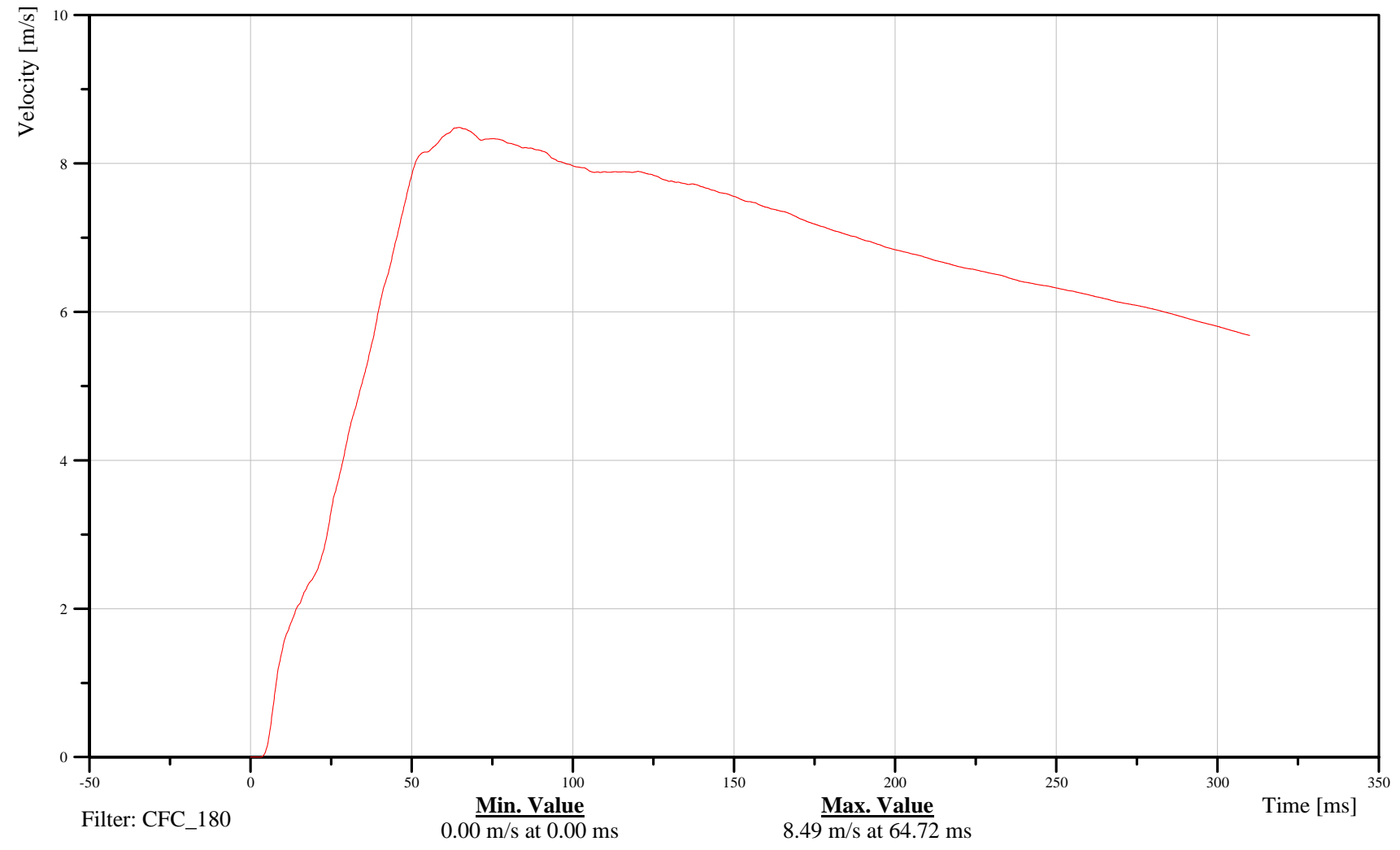
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16SILBRE0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-92

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

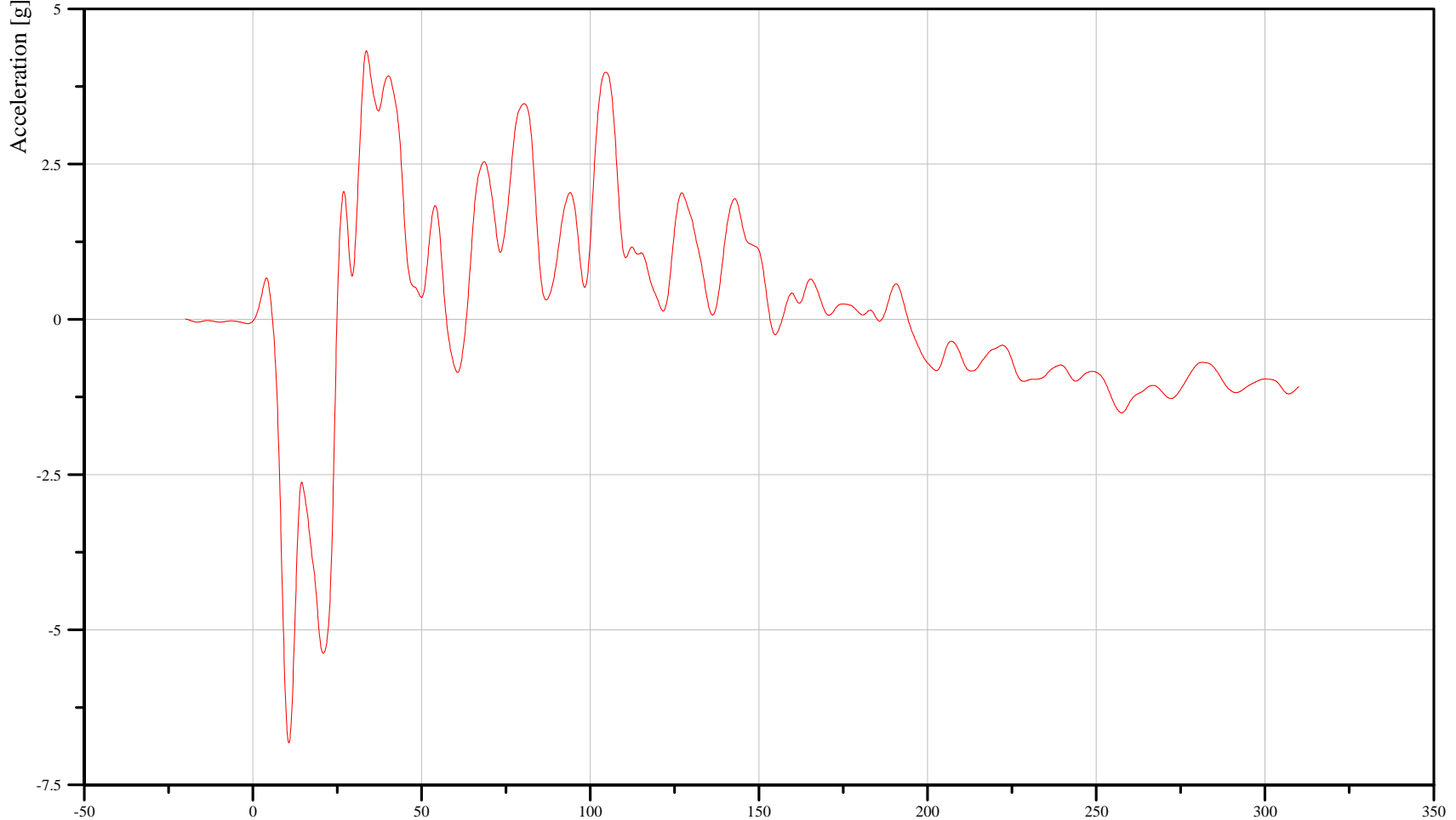
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBRE0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-6.82 g at 10.72 ms

Max. Value
4.33 g at 33.68 ms

Time [ms]

B-93

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

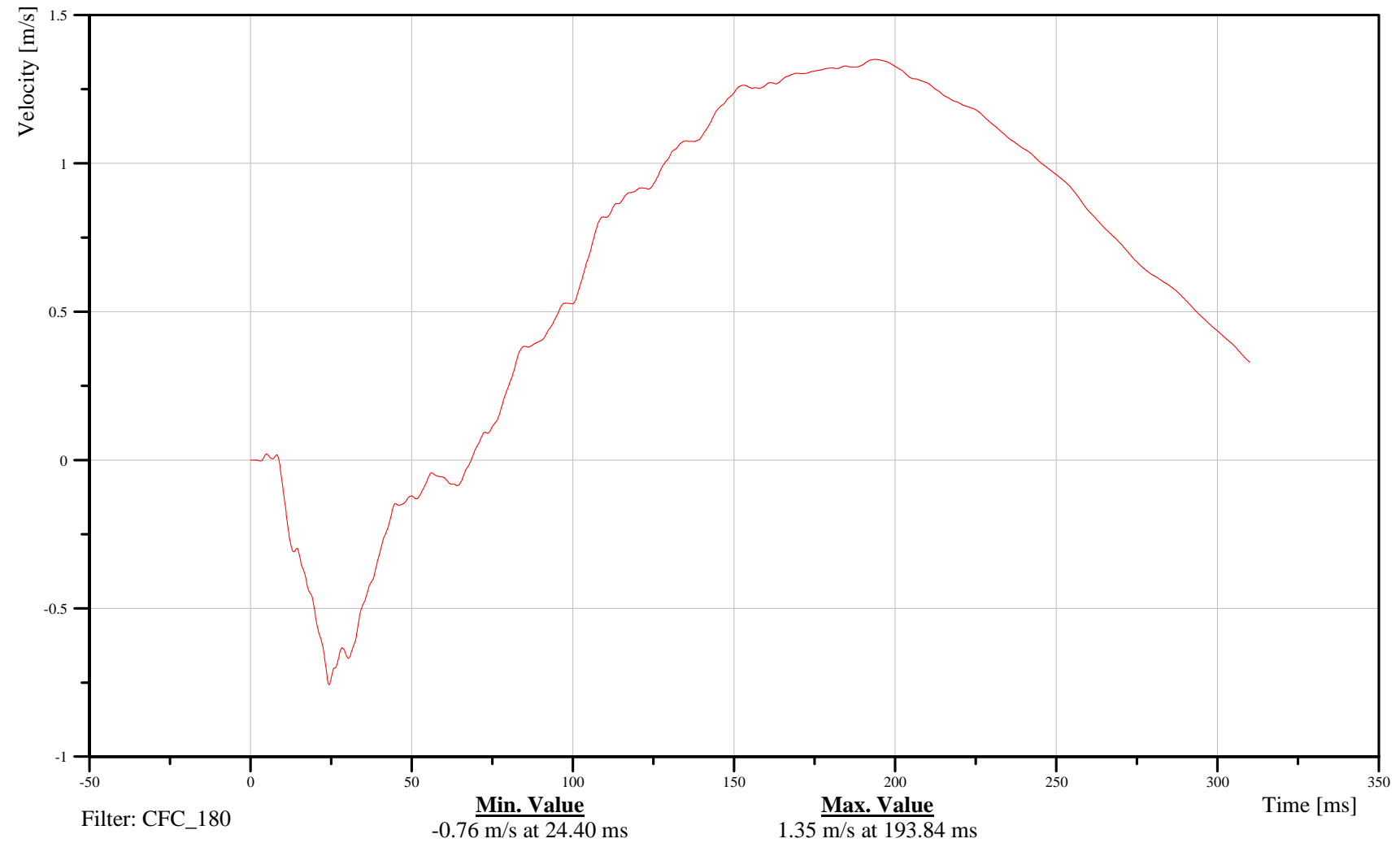
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16SILBRE0000VEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-94

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

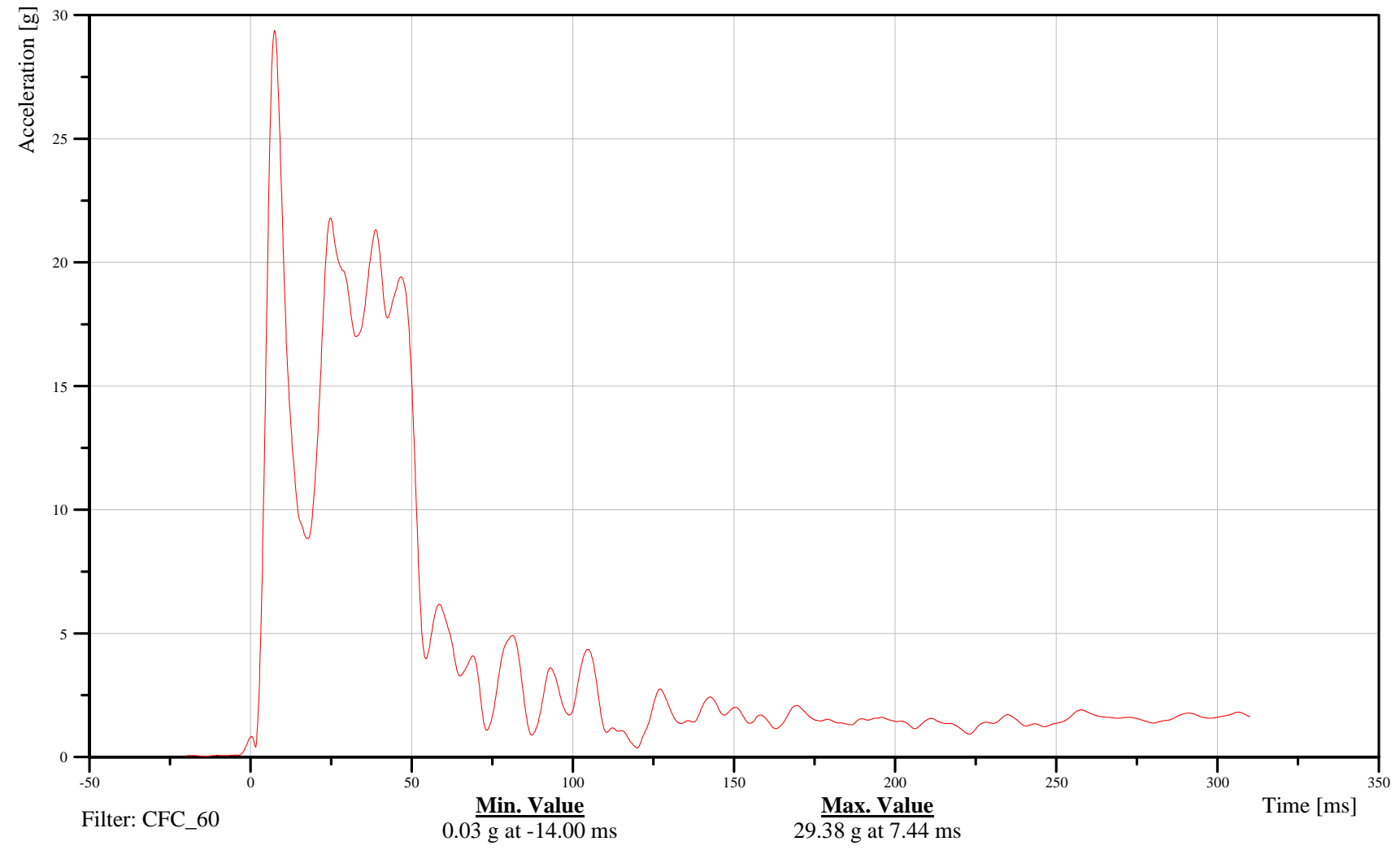
Date: 11/15/2006
Time: 12:16

RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

16SILBRE0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 061115



B-95

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

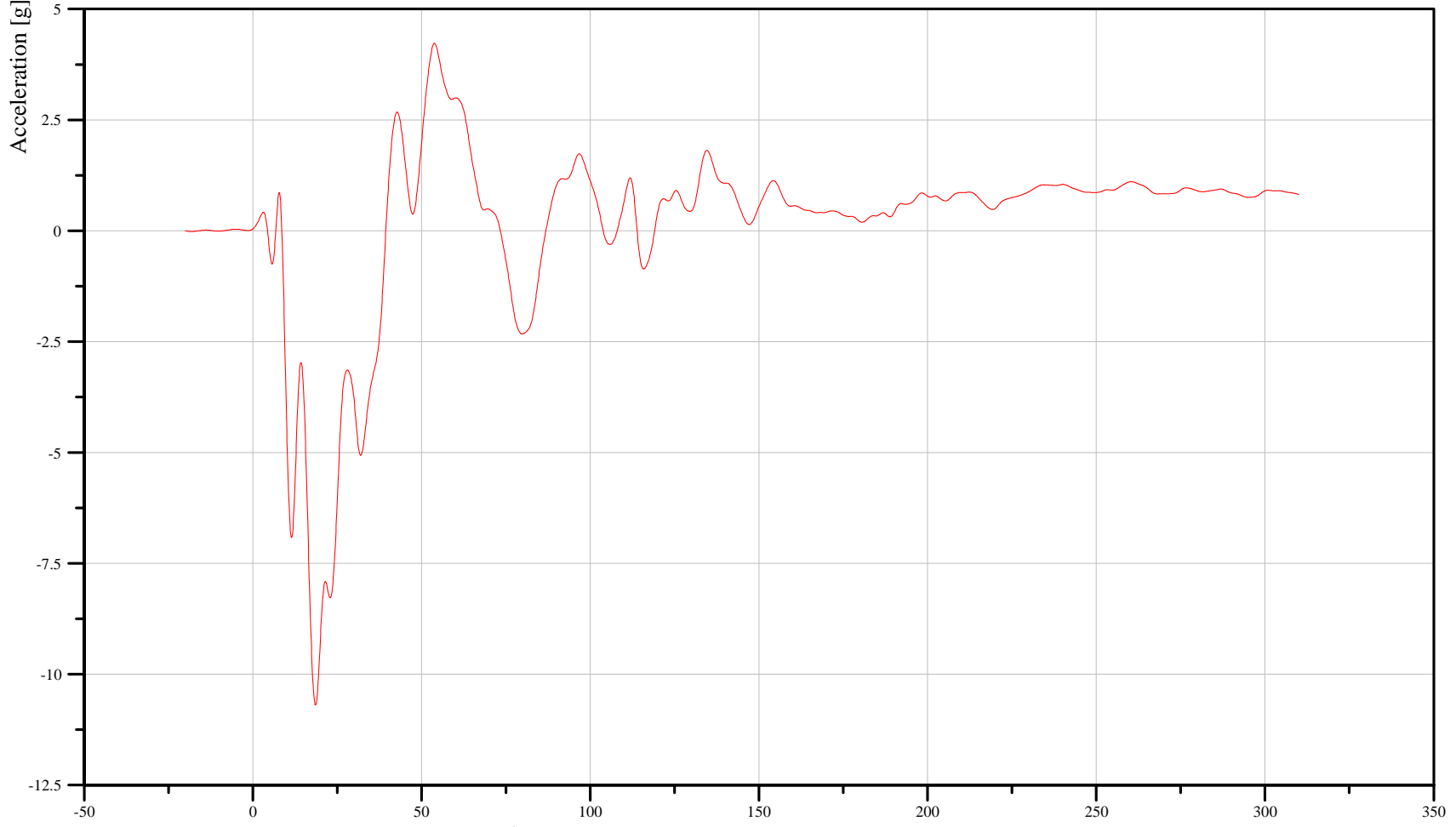
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

18FORA000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-10.69 g at 18.56 ms

Max. Value
4.23 g at 53.84 ms

Time [ms]

B-96

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

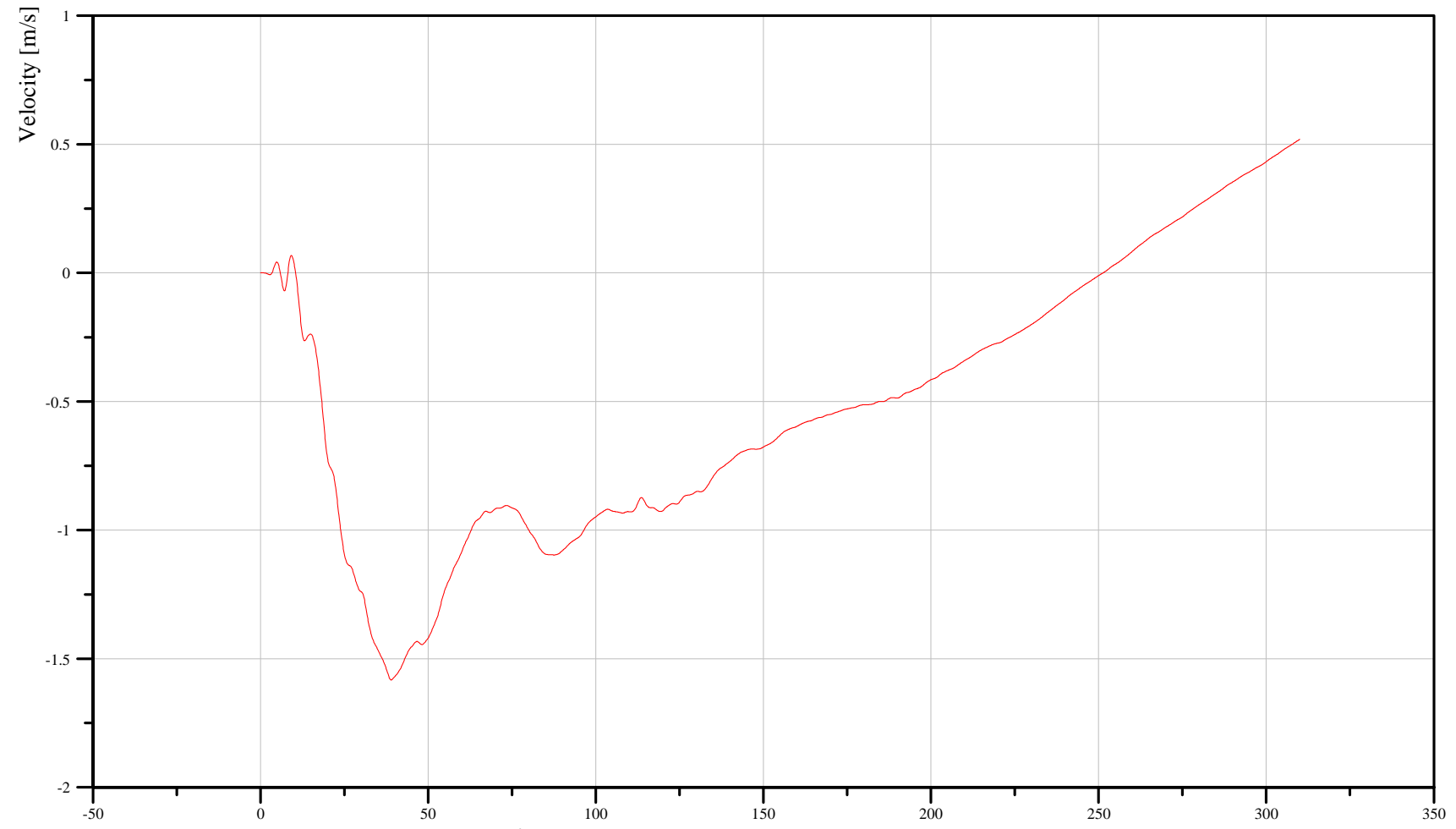
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

18FORA000000VEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-1.58 m/s at 38.96 ms

Max. Value
0.52 m/s at 310.00 ms

B-97

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

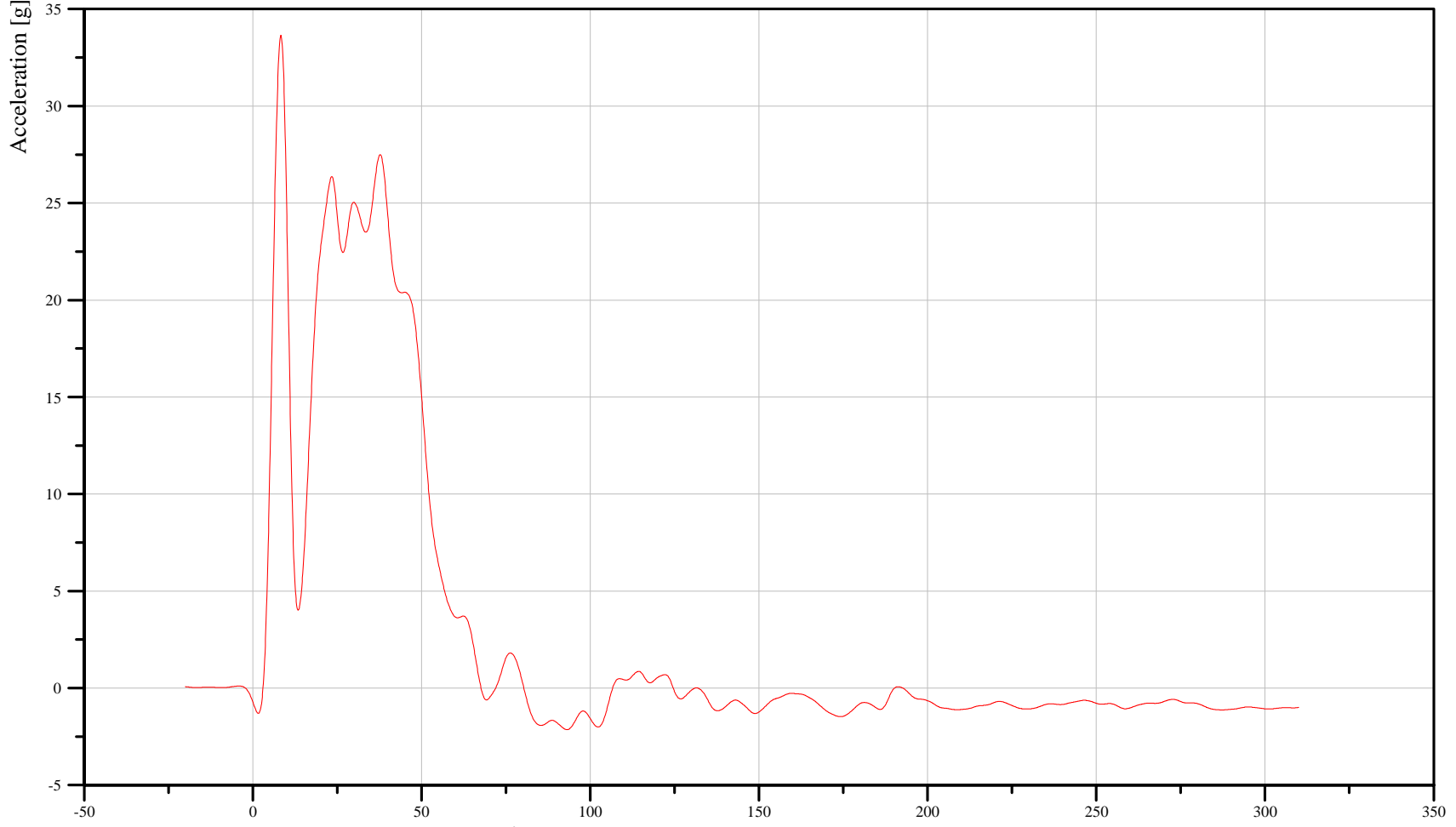
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

18FORA000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-2.14 g at 93.12 ms

Max. Value
33.65 g at 8.32 ms

Time [ms]

B-98

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

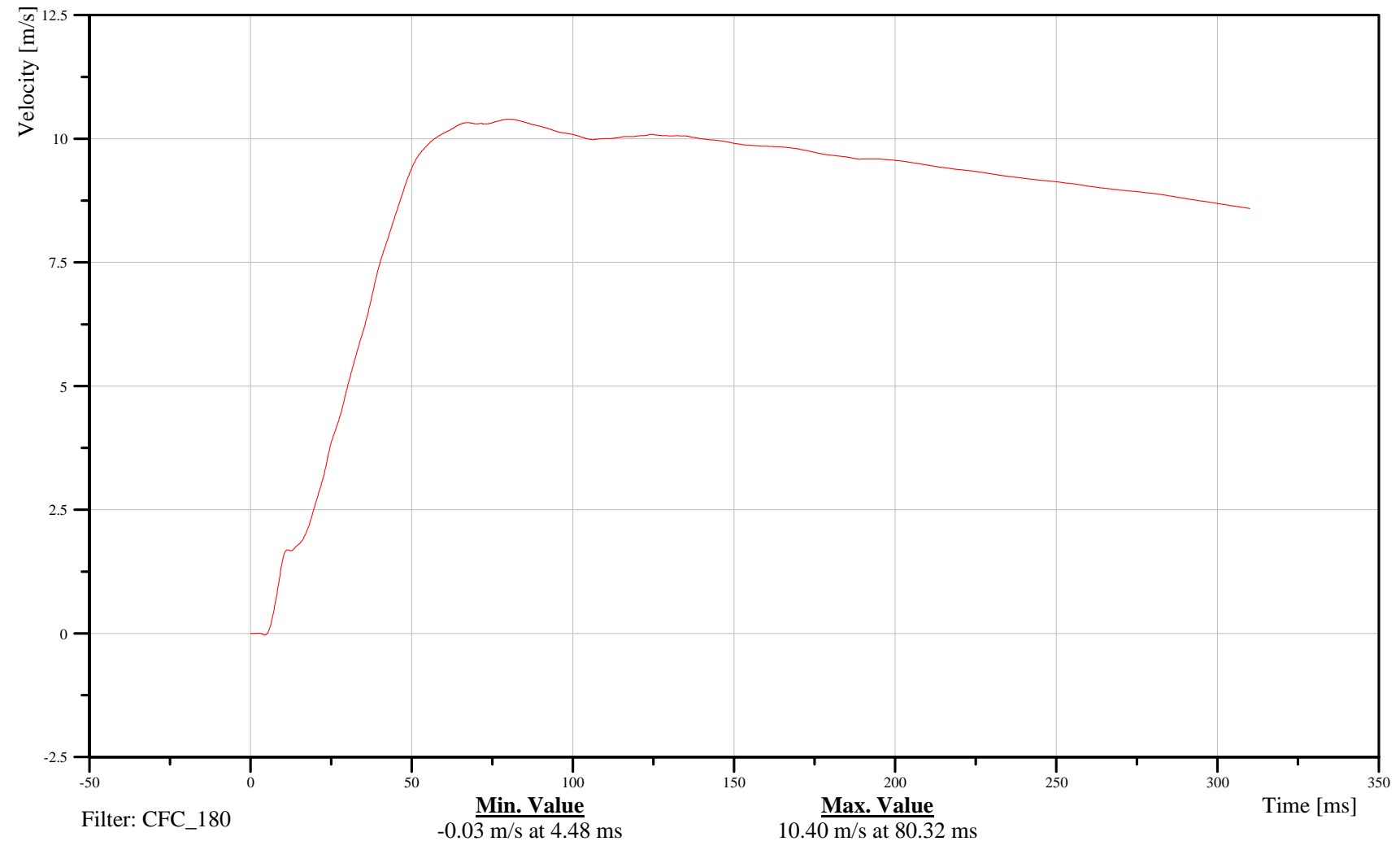
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

18FORA000000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-99

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

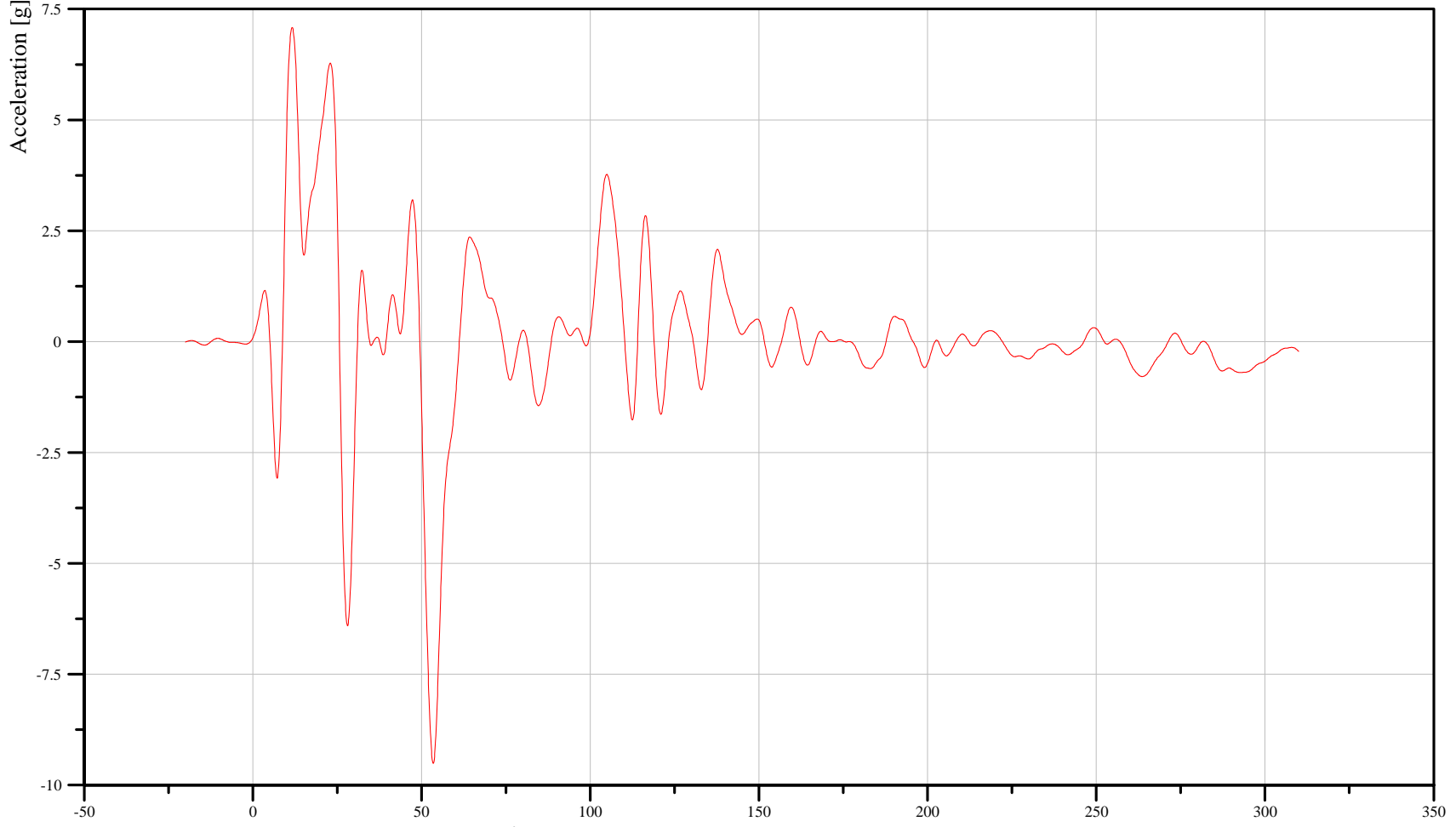
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

18FORA000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-9.51 g at 53.44 ms

Max. Value
7.08 g at 11.68 ms

B-100

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

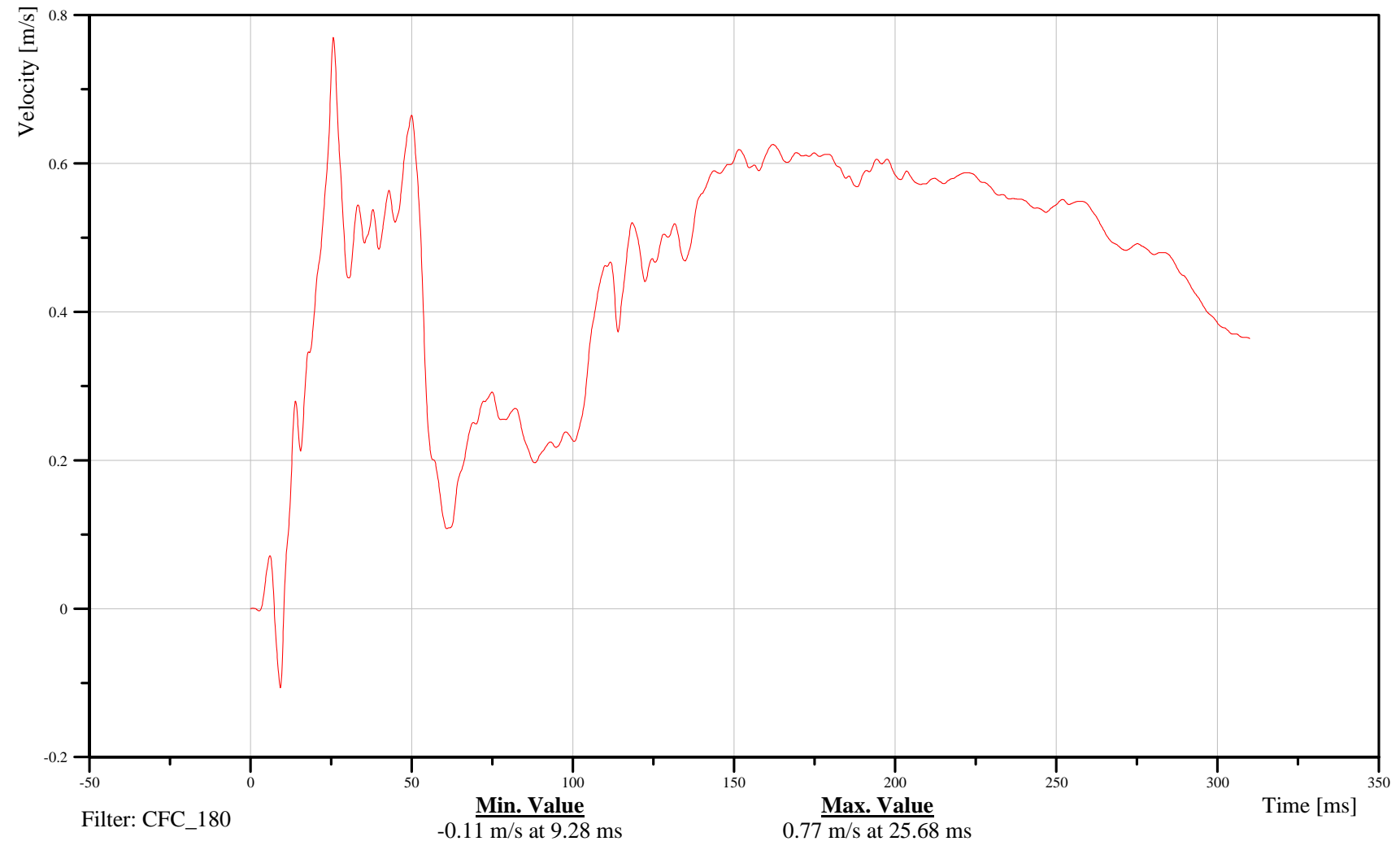
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

18FORA000000VEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-101

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

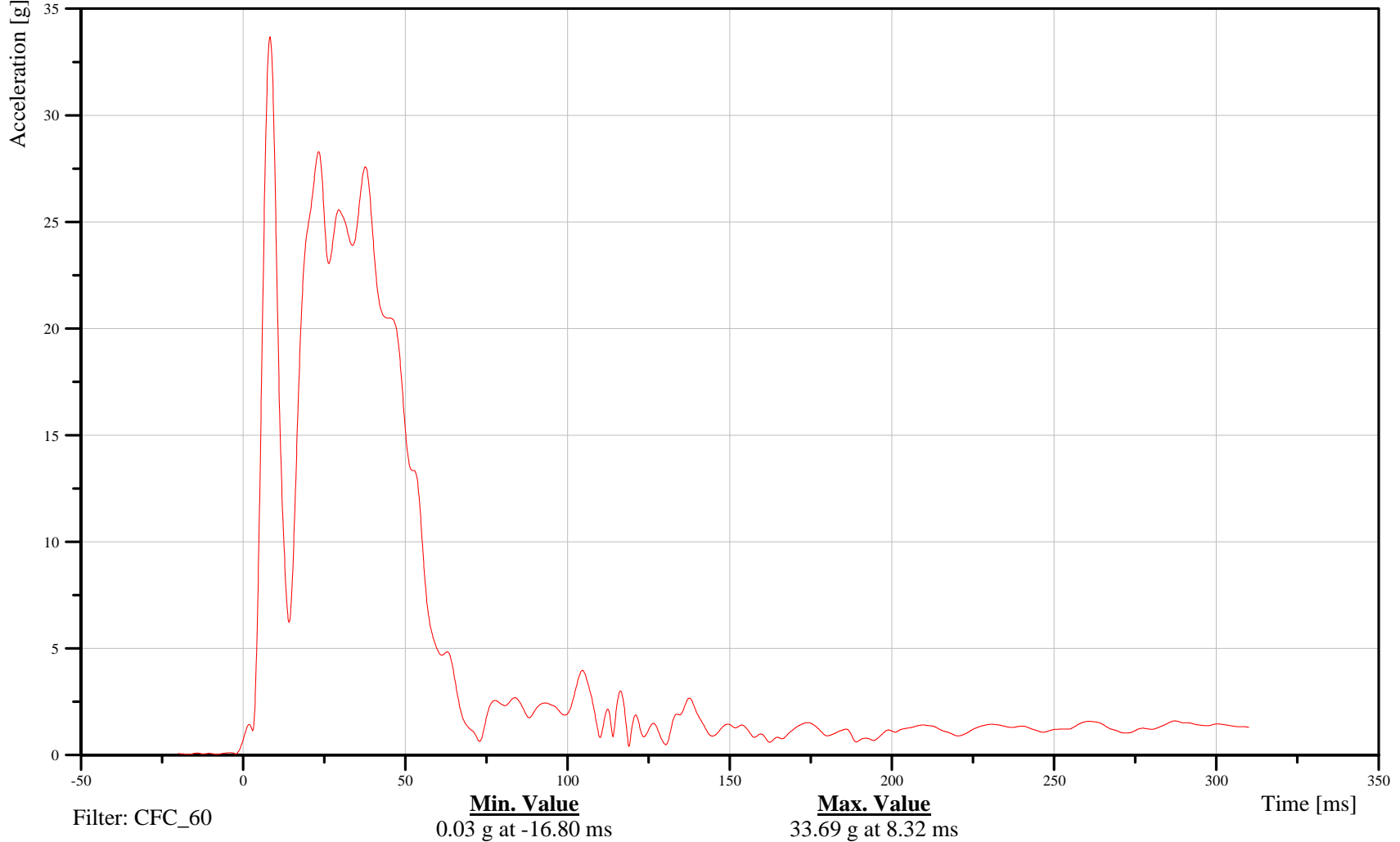
Date: 11/15/2006
Time: 12:16

REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

18FORA000000ACRD

TRC Inc. Test Lab: CTF
Test Number: 061115



B-102

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

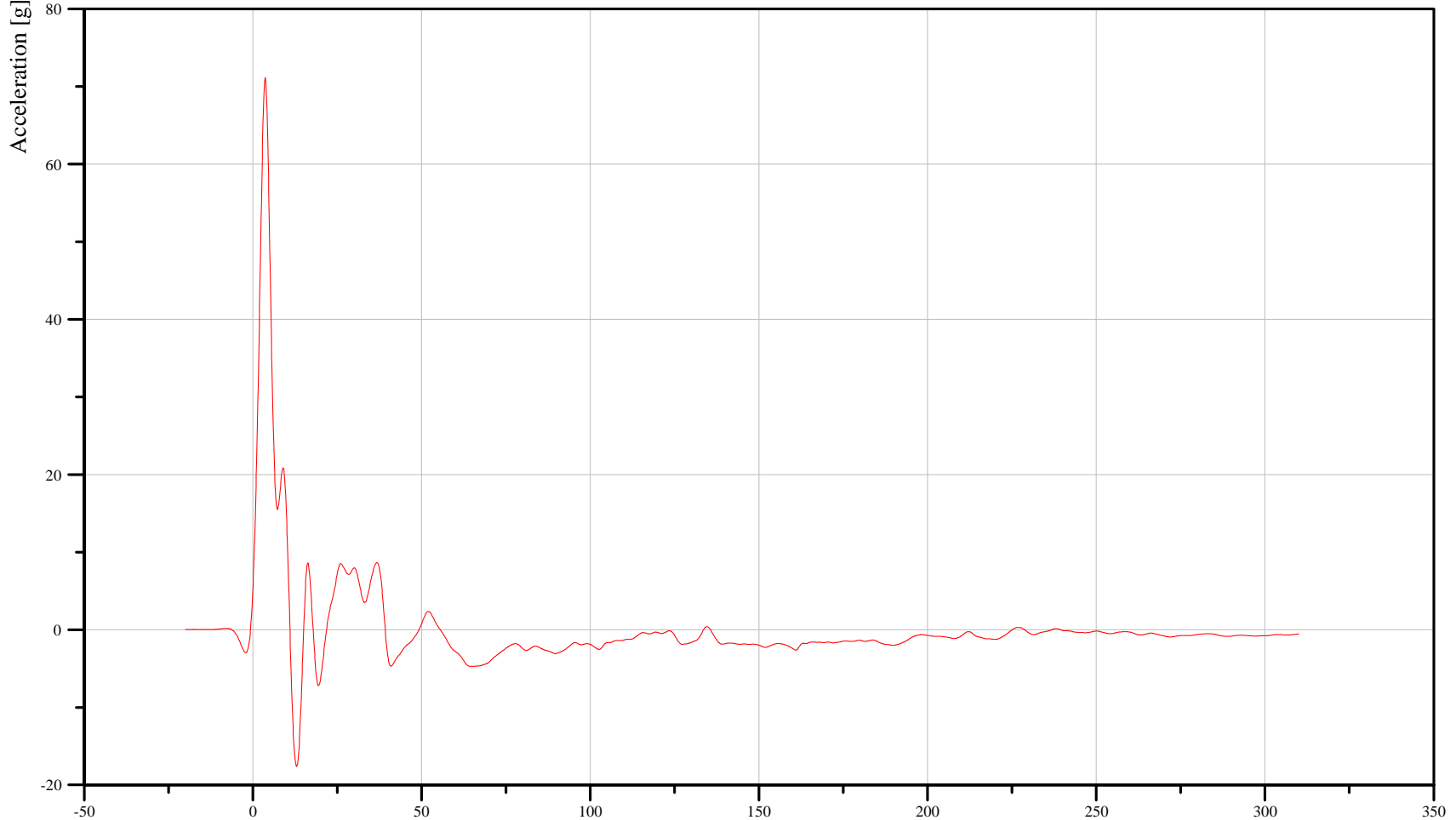
Date: 11/15/2006
Time: 12:16

LEFT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14SILBFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-17.62 g at 12.96 ms

Max. Value
71.16 g at 3.68 ms

Time [ms]

B-103

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

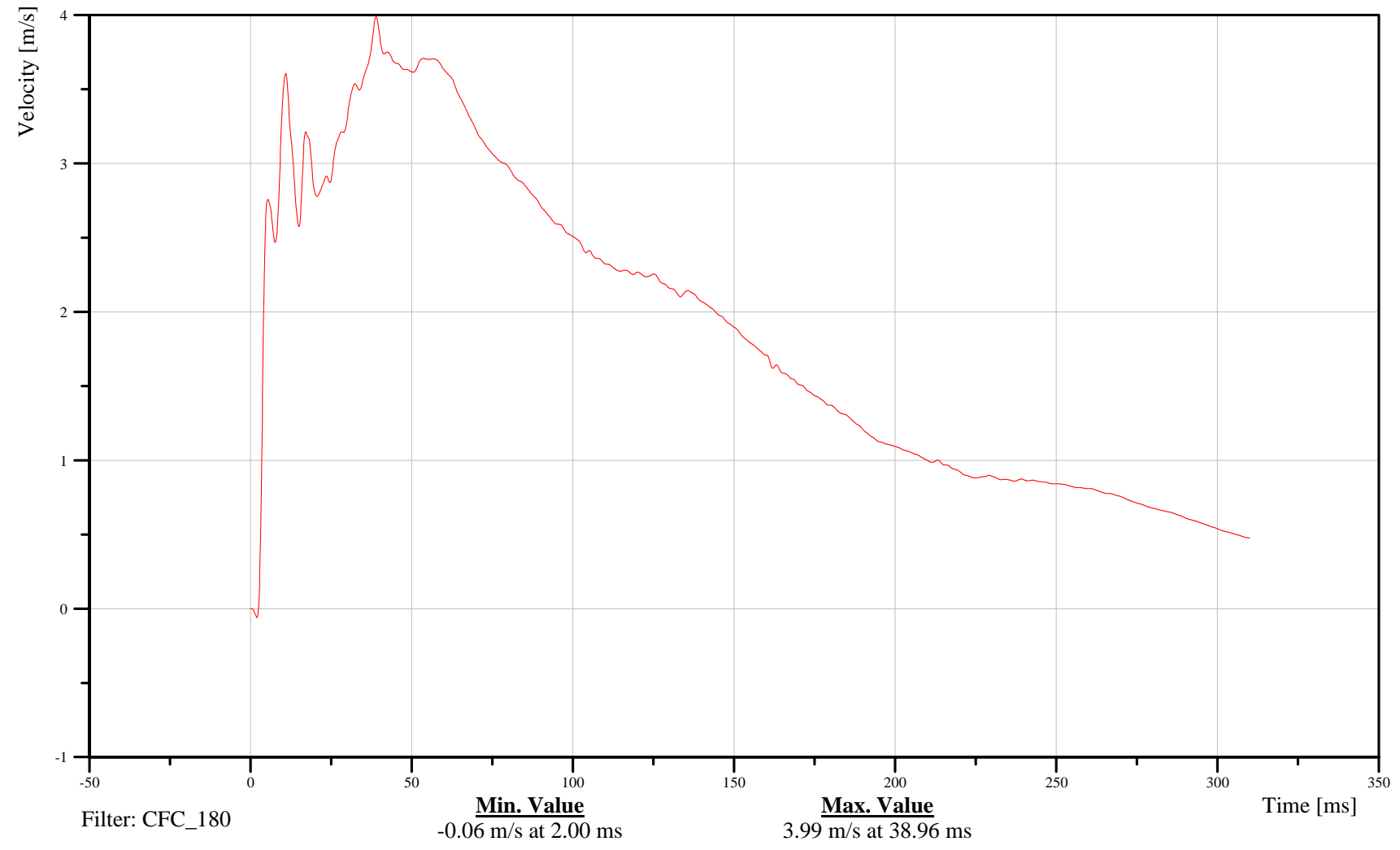
Date: 11/15/2006
Time: 12:16

LEFT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14SILBFR0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-104

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

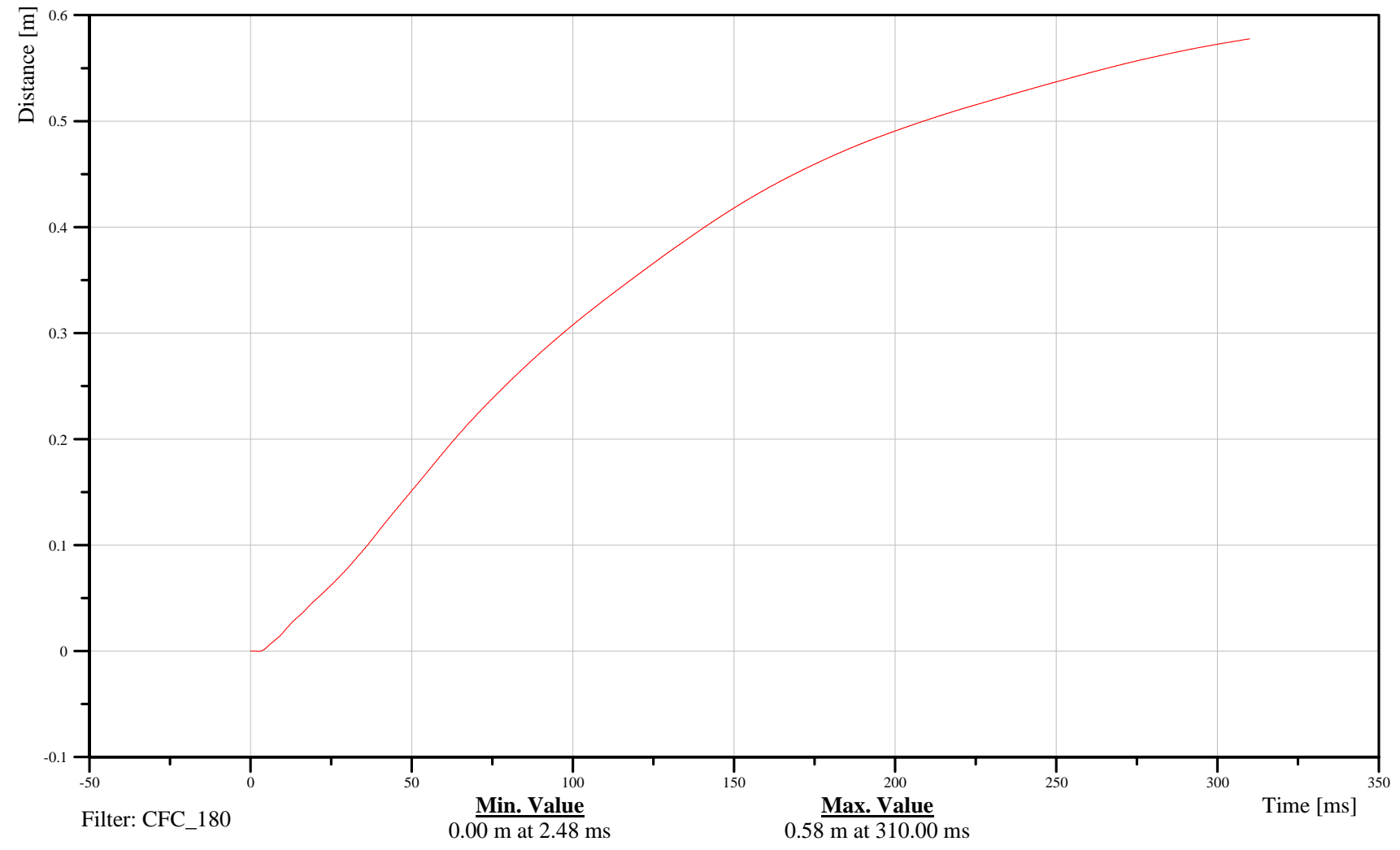
Date: 11/15/2006
Time: 12:16

LEFT SIDE SILL AT FRONT SEAT Y-AXIS DISPLACEMENT

Customer: NHTSA
Test Number: C75200

14SILBFR0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-105

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

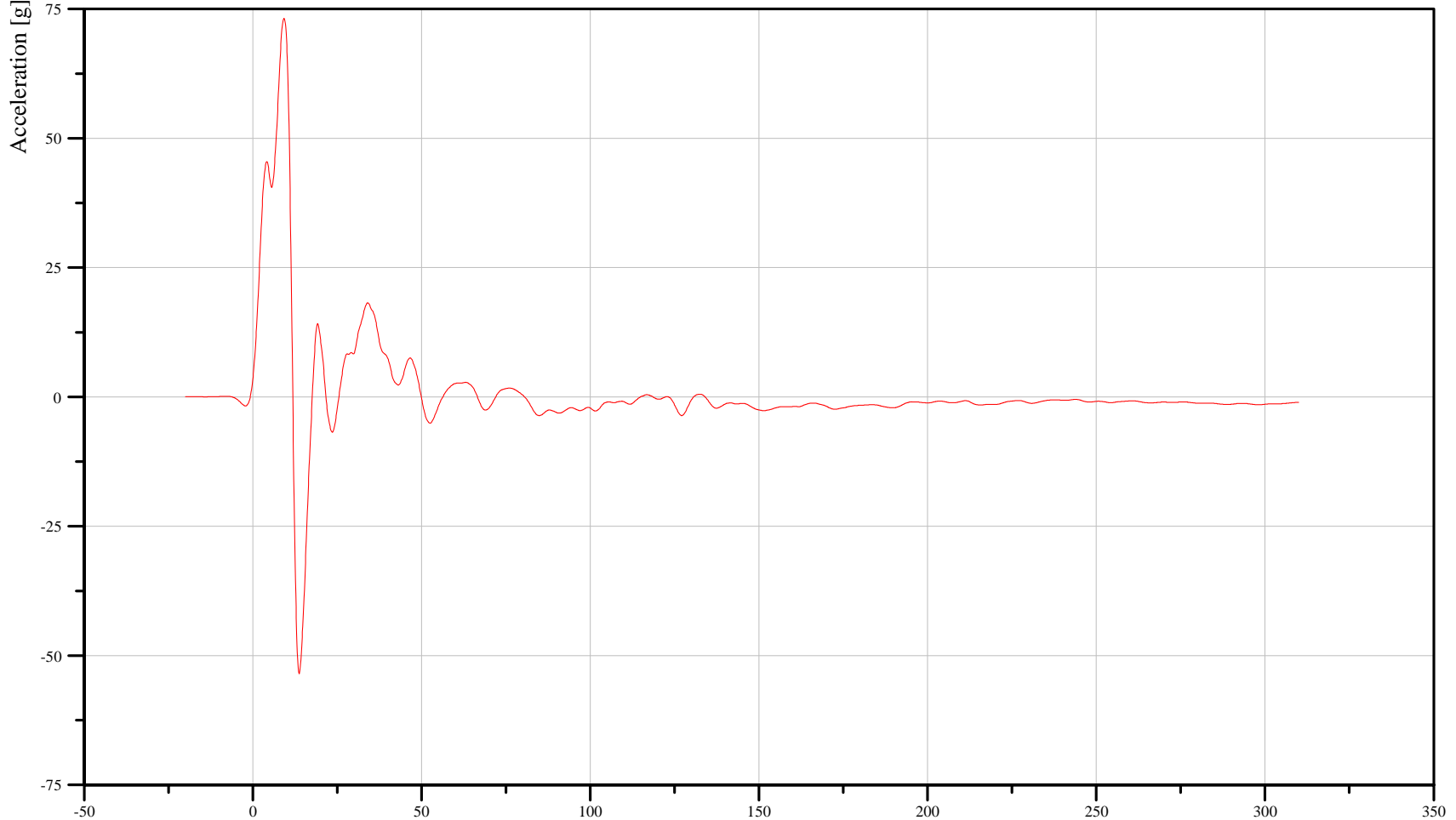
Date: 11/15/2006
Time: 12:16

LEFT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14SILBRE0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-53.51 g at 13.76 ms

Max. Value
73.20 g at 9.28 ms

Time [ms]

B-106

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

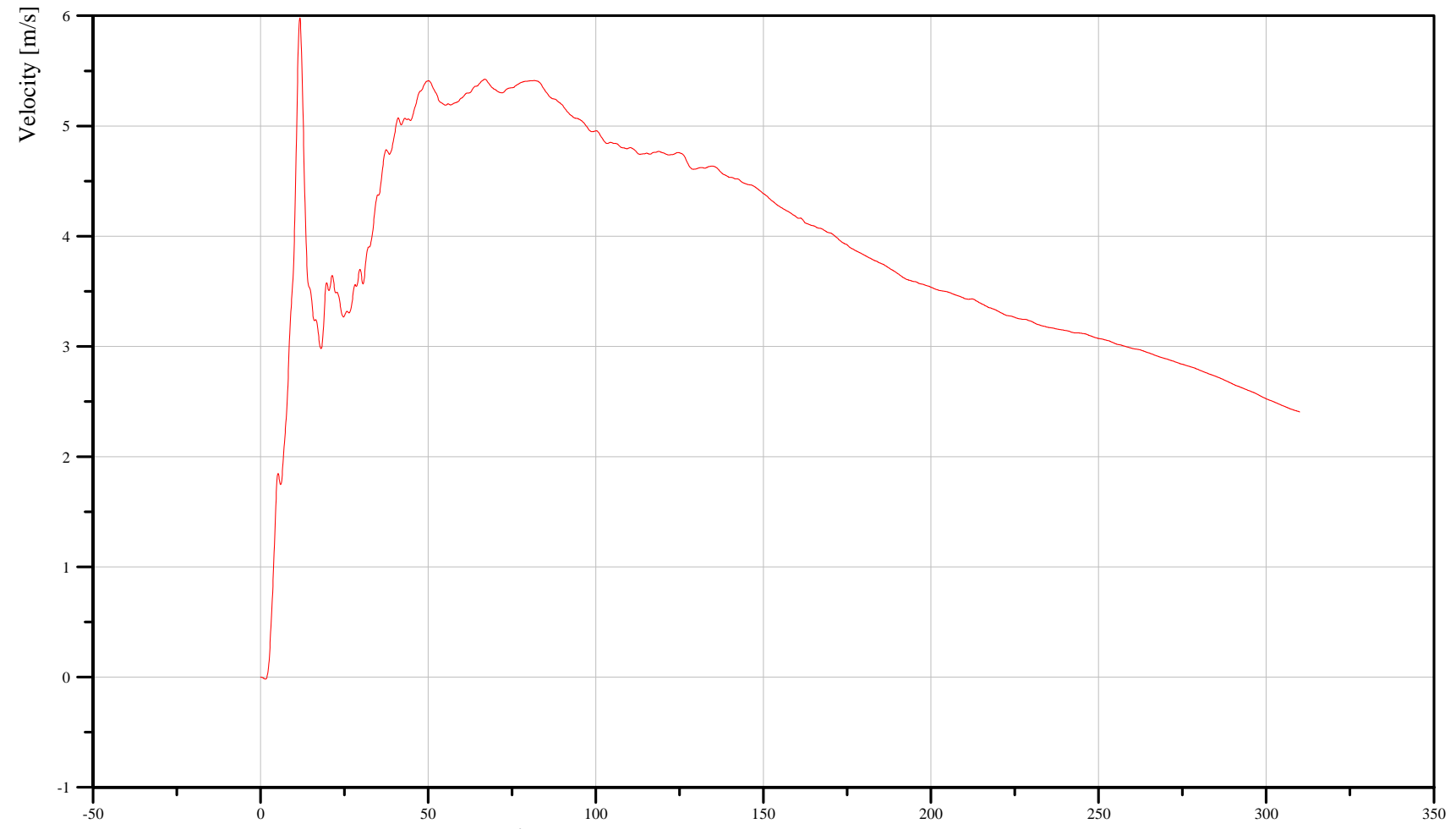
Date: 11/15/2006
Time: 12:16

LEFT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14SILBRE0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-0.02 m/s at 1.44 ms

Max. Value
5.98 m/s at 11.76 ms

Time [ms]

B-107

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

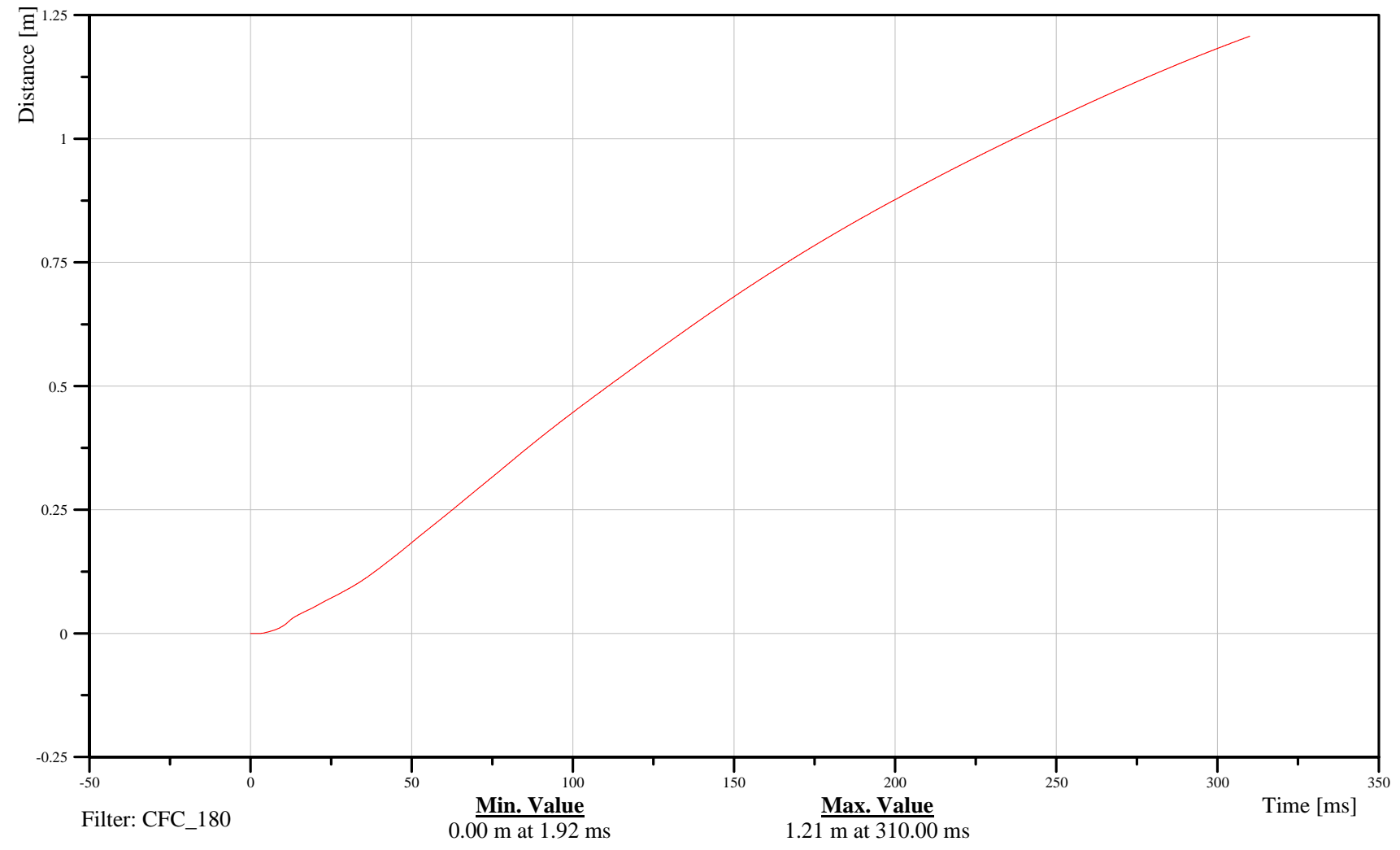
Date: 11/15/2006
Time: 12:16

LEFT SIDE SILL AT REAR SEAT Y-AXIS DISPLACEMENT

Customer: NHTSA
Test Number: C75200

14SILBRE0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-108

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

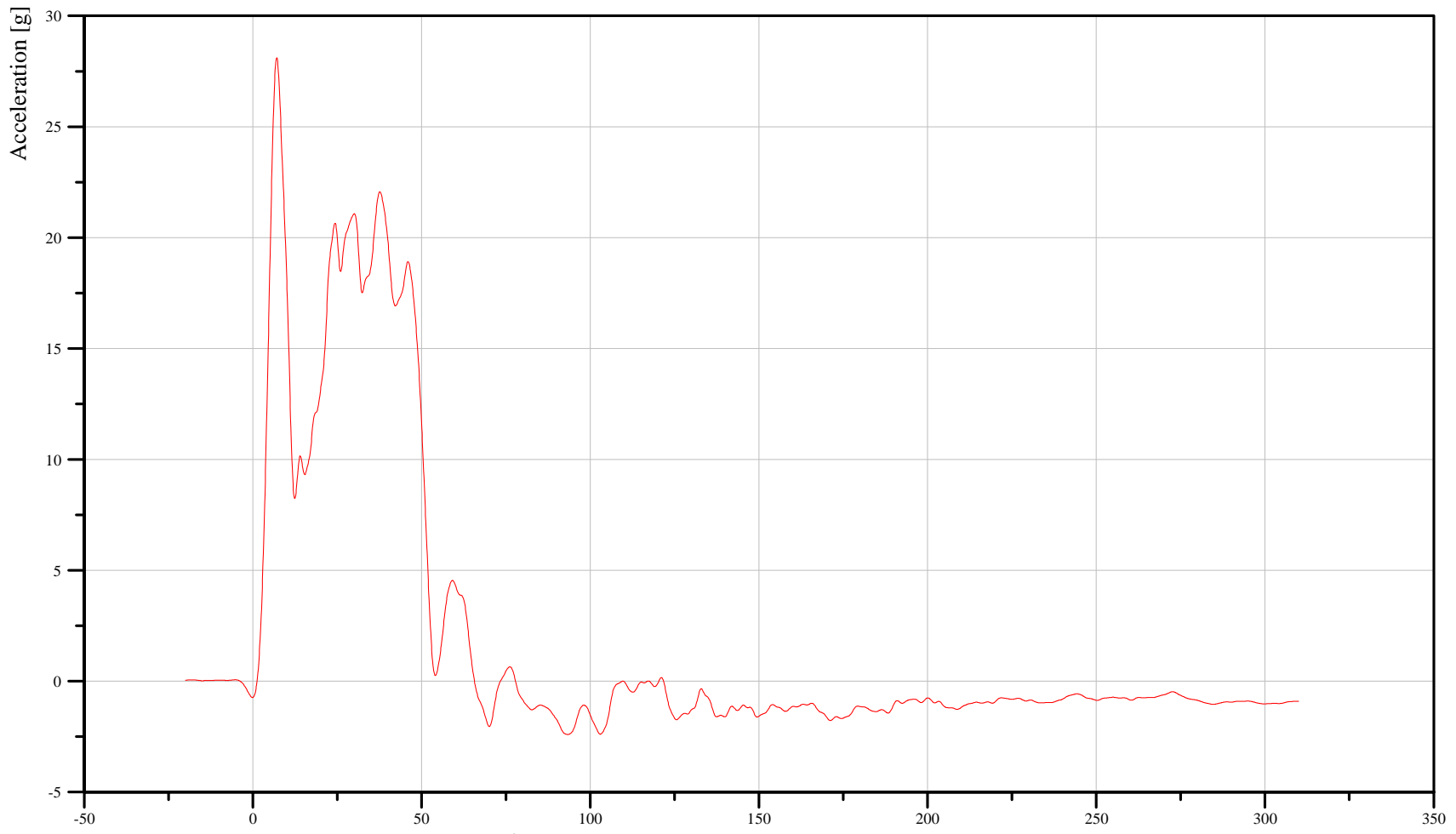
Date: 11/15/2006
Time: 12:16

RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

16VEHCRE0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-2.40 g at 93.36 ms

Max. Value
28.11 g at 7.12 ms

Time [ms]

B-109

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

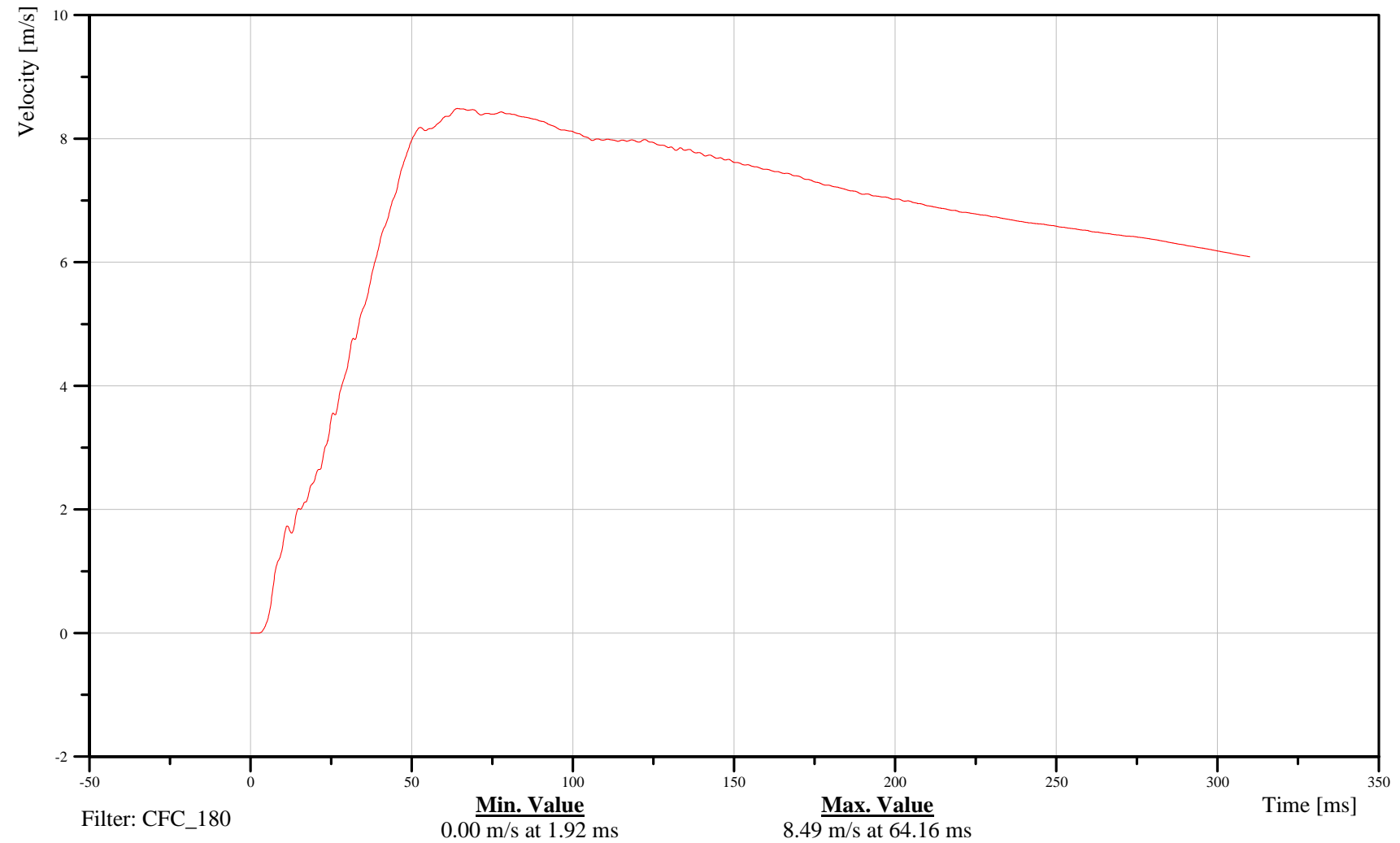
Date: 11/15/2006
Time: 12:16

RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

16VEHCRE0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-110

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

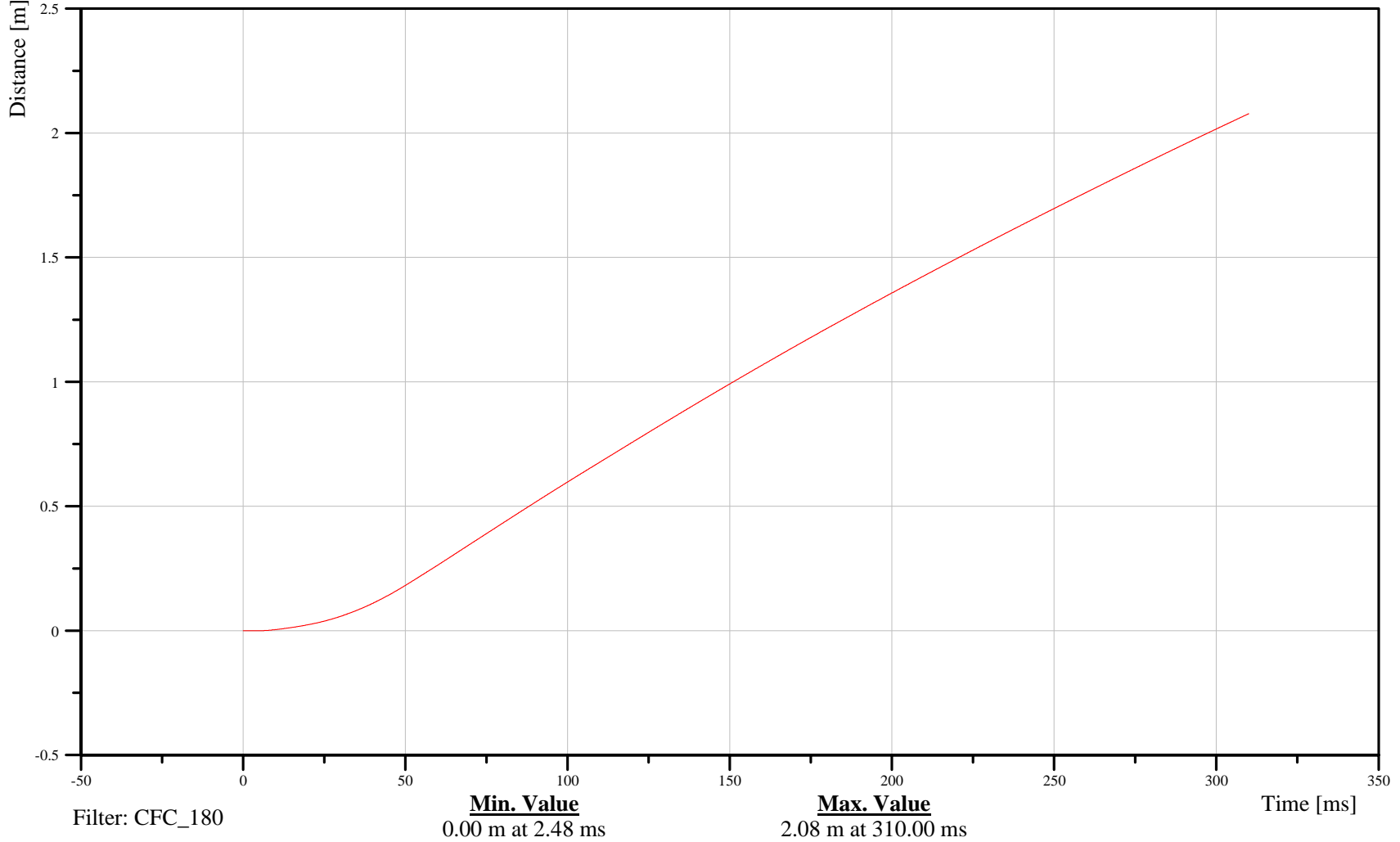
Date: 11/15/2006
Time: 12:16

RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS DISPLACEMENT

Customer: NHTSA
Test Number: C75200

16VEHCRE0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-111

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

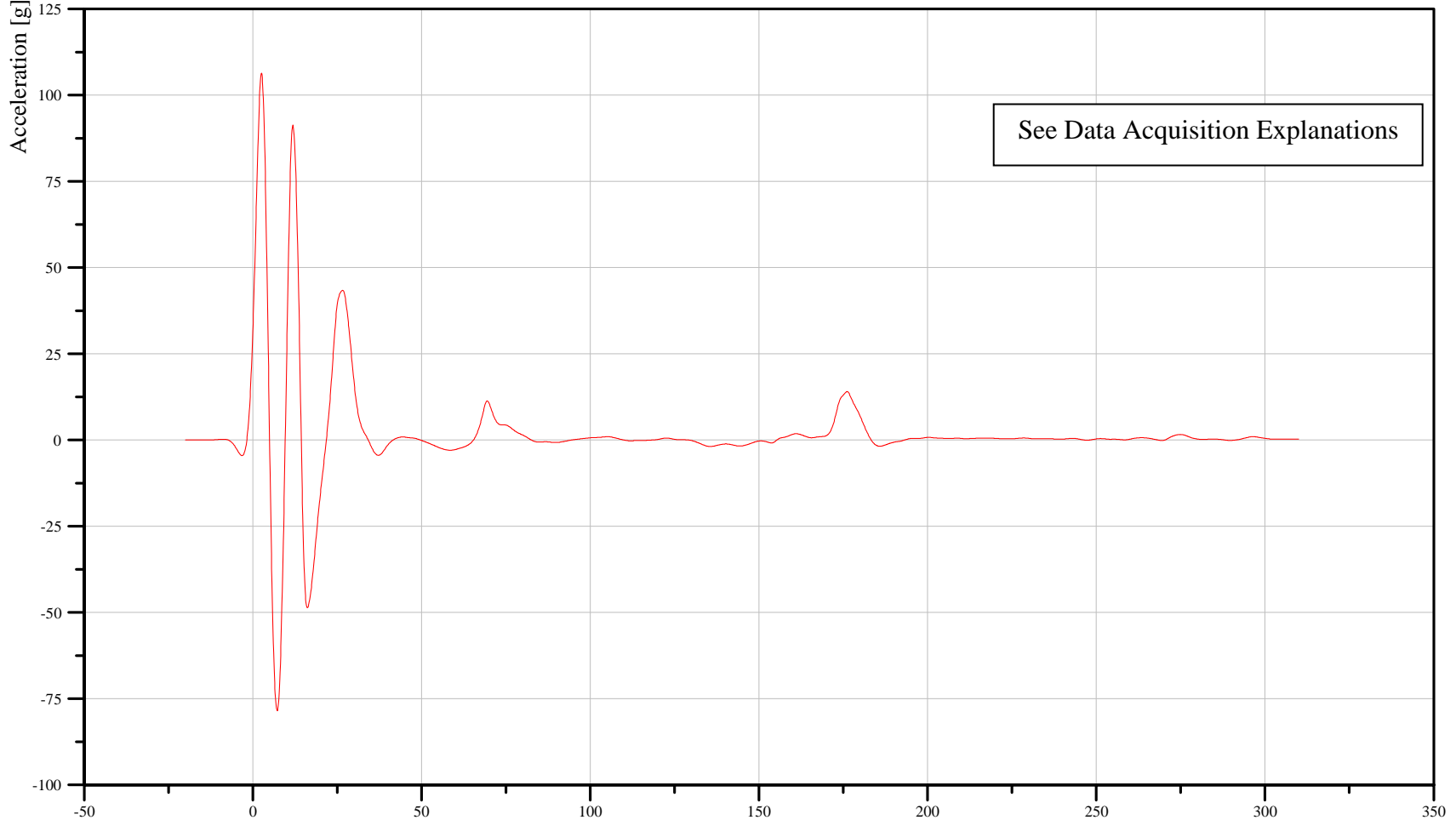
Date: 11/15/2006
Time: 12:16

LEFT LOWER A-POST Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11APILO0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-78.46 g at 7.28 ms

Max. Value
106.39 g at 2.56 ms

Time [ms]

B-112

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

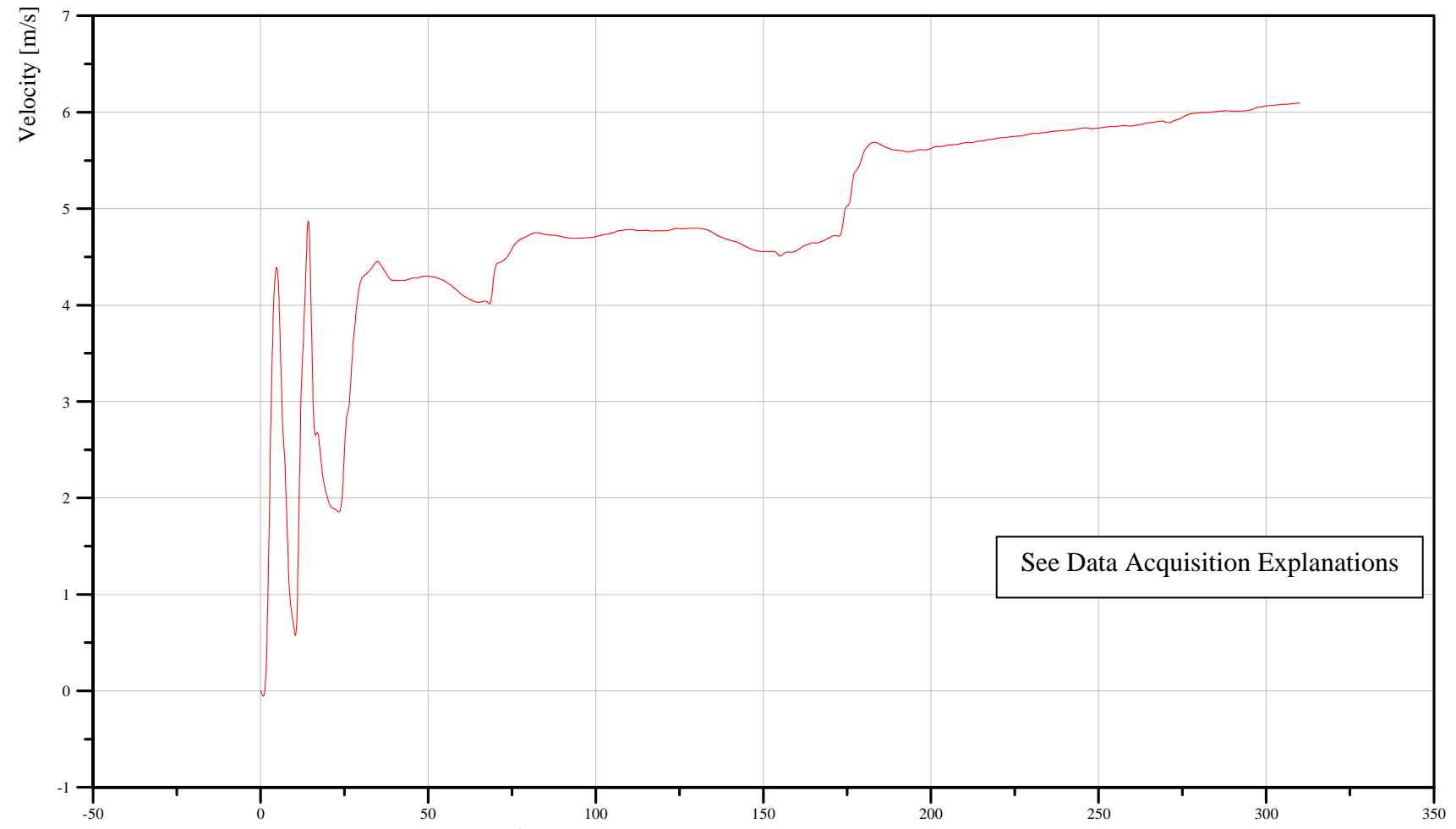
Date: 11/15/2006
Time: 12:16

LEFT LOWER A-POST Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11APILLO0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-0.05 m/s at 0.88 ms

Max. Value
6.09 m/s at 310.00 ms

Time [ms]

B-113

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

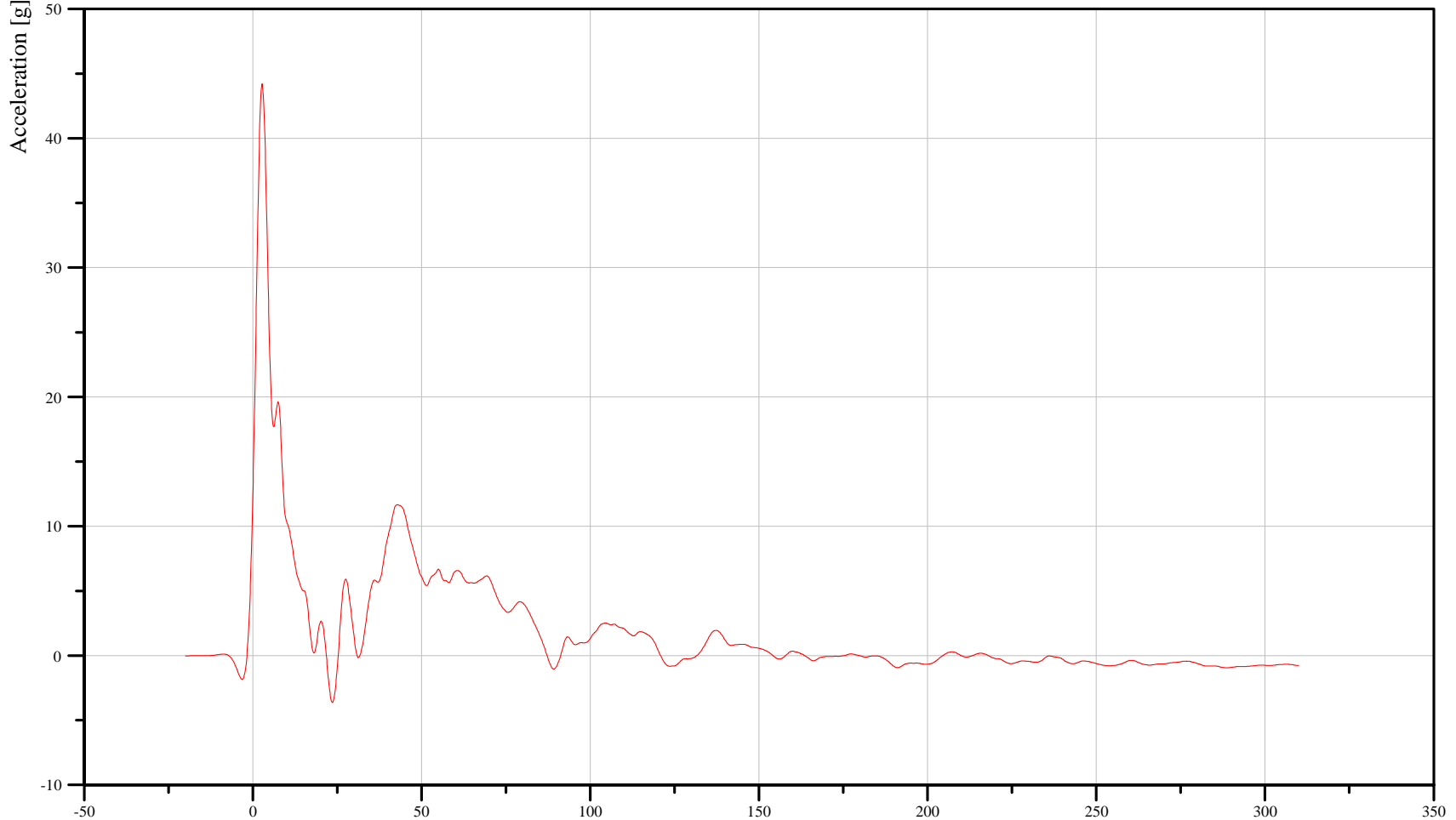
Date: 11/15/2006
Time: 12:16

LEFT MIDDLE A-POST Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11APILMI0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-3.63 g at 23.60 ms

Max. Value
44.21 g at 2.72 ms

Time [ms]

B-114

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

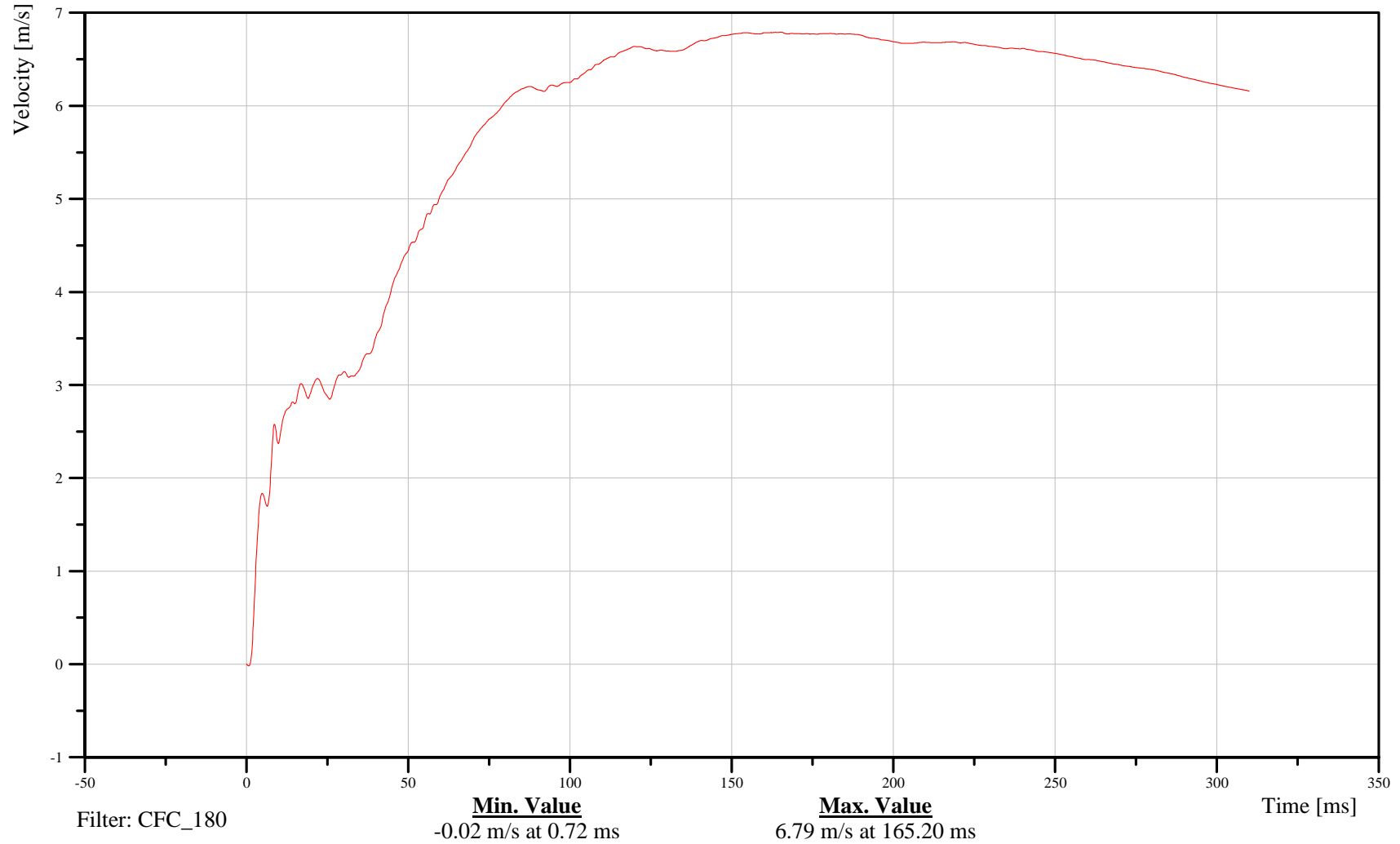
Date: 11/15/2006
Time: 12:16

LEFT MIDDLE A-POST Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11APILMI0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-115

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

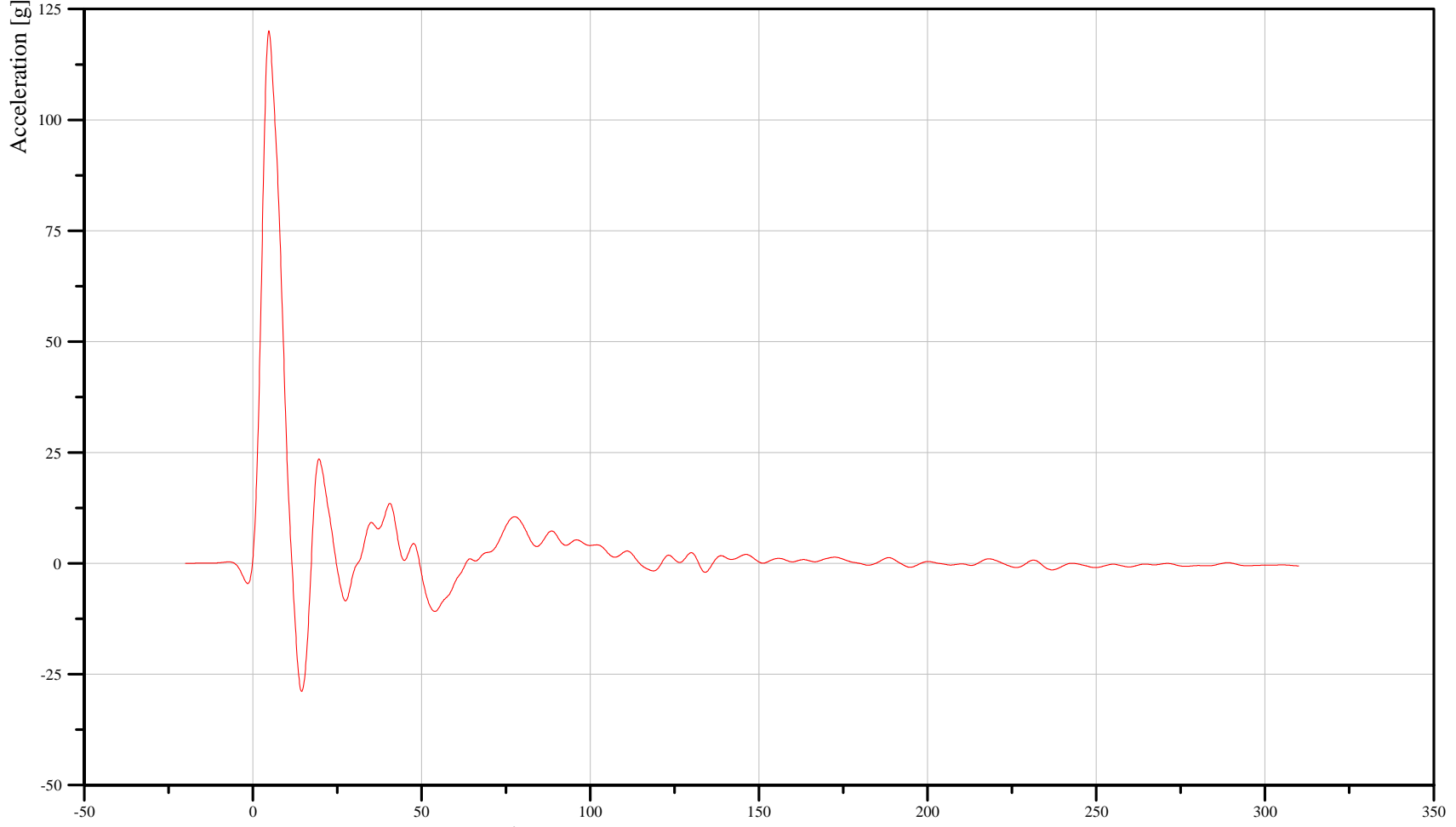
Date: 11/15/2006
Time: 12:16

LEFT LOWER B-POST Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14BPILLO0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-28.87 g at 14.48 ms

Max. Value
120.07 g at 4.72 ms

B-116

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

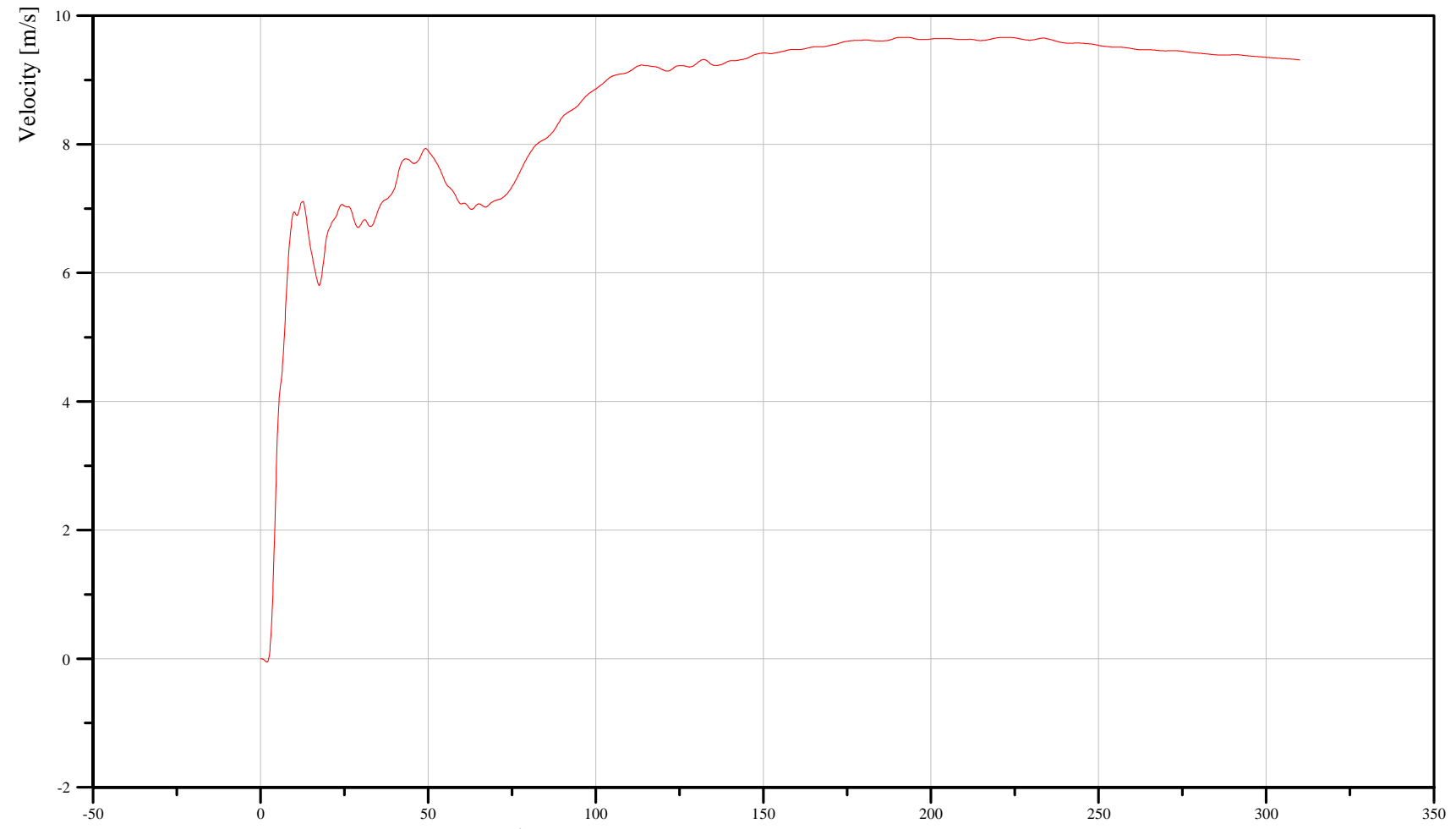
Date: 11/15/2006
Time: 12:16

LEFT LOWER B-POST Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14BPILLO0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-0.05 m/s at 1.92 ms

Max. Value
9.67 m/s at 222.56 ms

Time [ms]

B-117

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

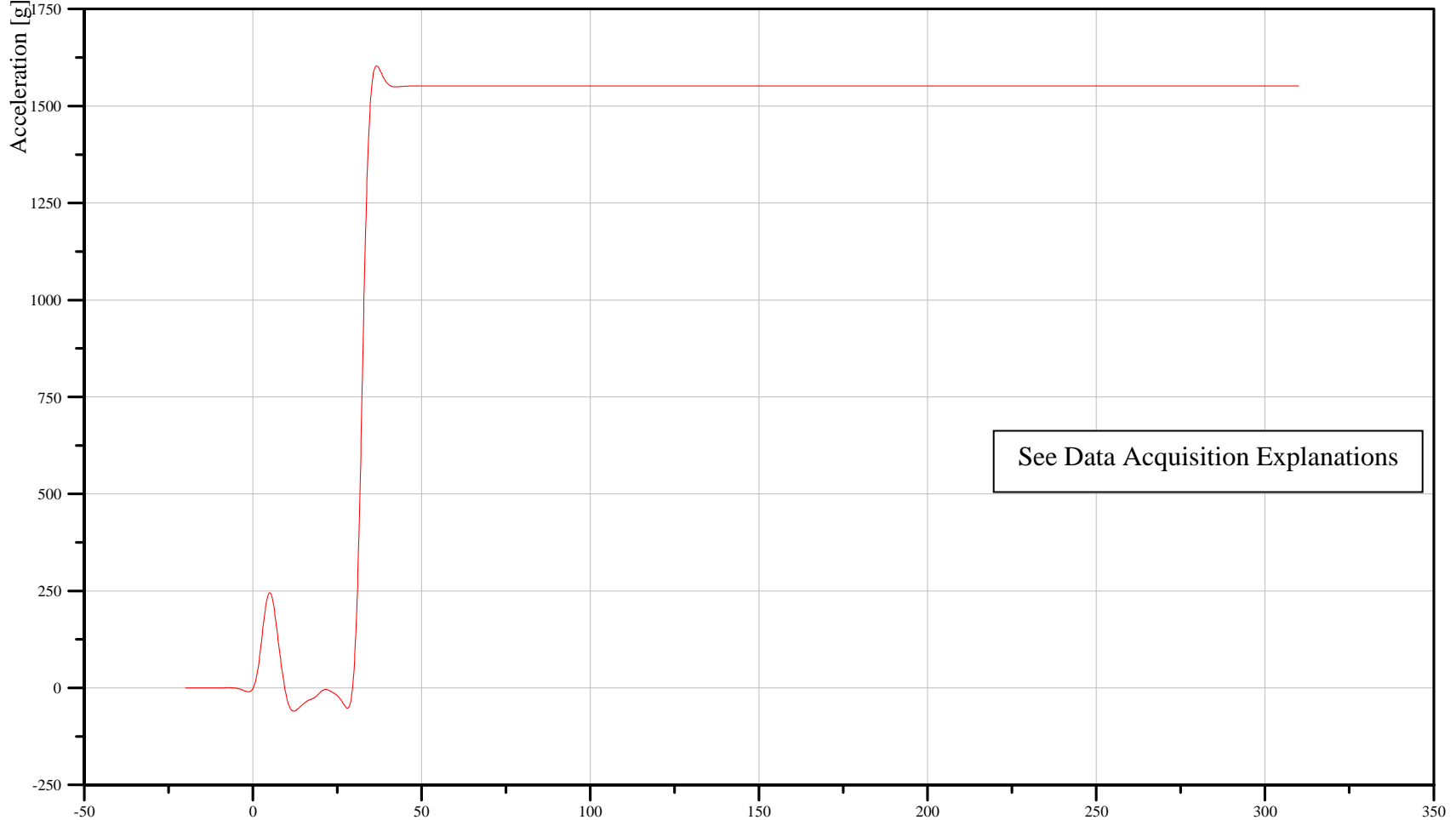
Date: 11/15/2006
Time: 12:16

LEFT MIDDLE B-POST Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14BPILMI0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-59.80 g at 12.16 ms

Max. Value
1,603.35 g at 36.64 ms

B-118

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

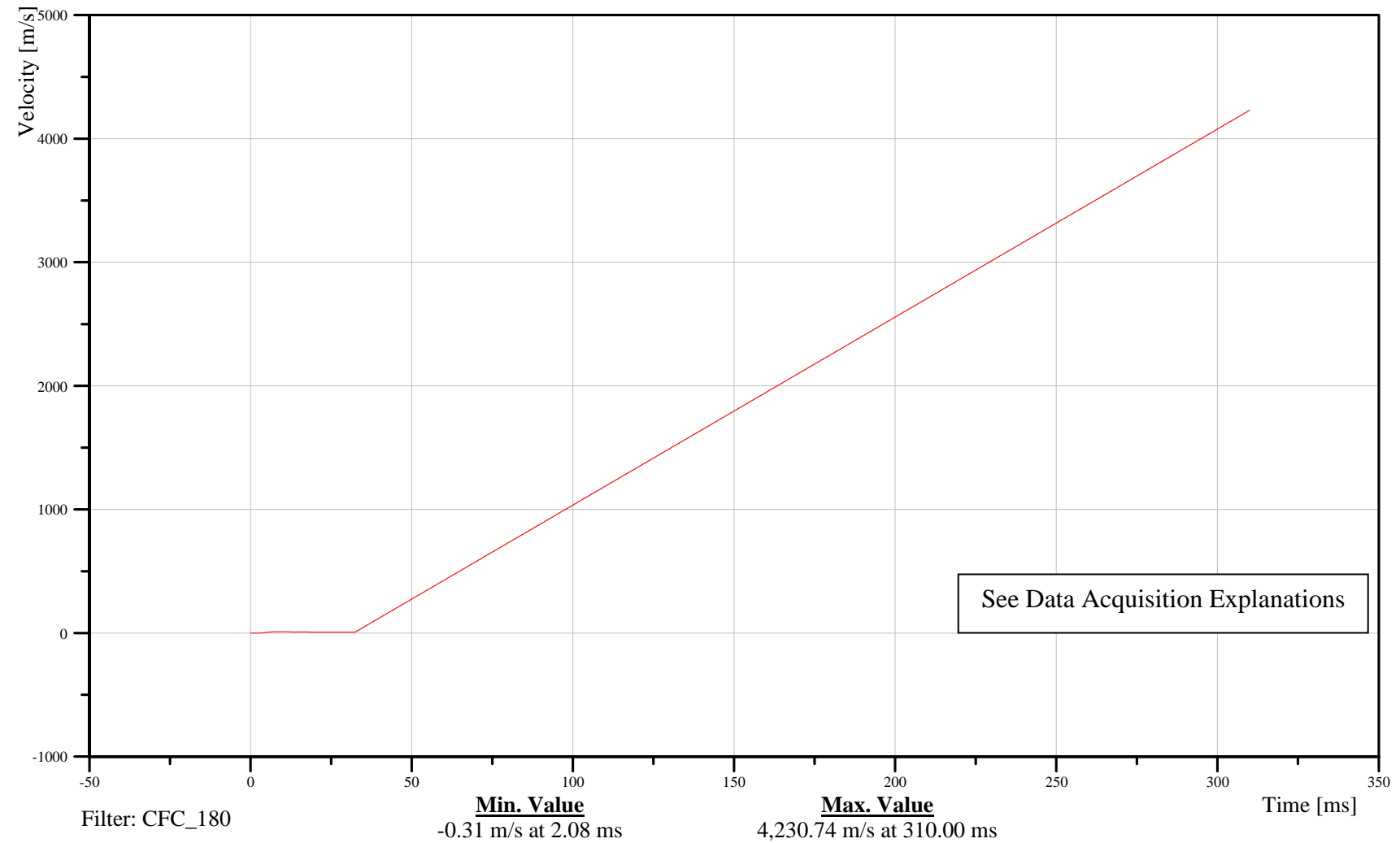
Date: 11/15/2006
Time: 12:16

LEFT MIDDLE B-POST Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14BPILMI0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-119

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

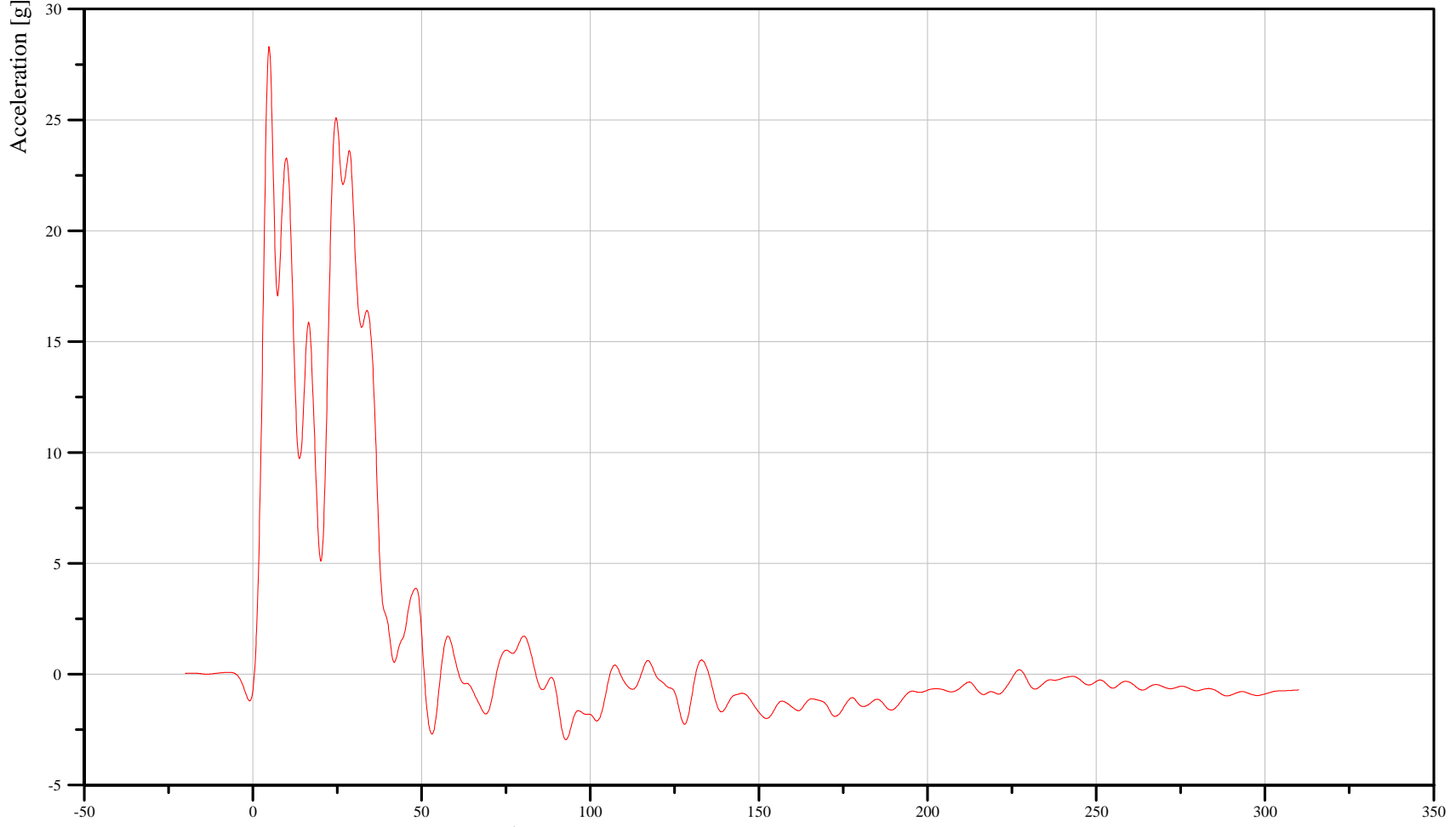
Date: 11/15/2006
Time: 12:16

LEFT FRONT SEAT TRACK Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11SETRFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-2.95 g at 92.80 ms

Max. Value
28.31 g at 4.80 ms

Time [ms]

B-120

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

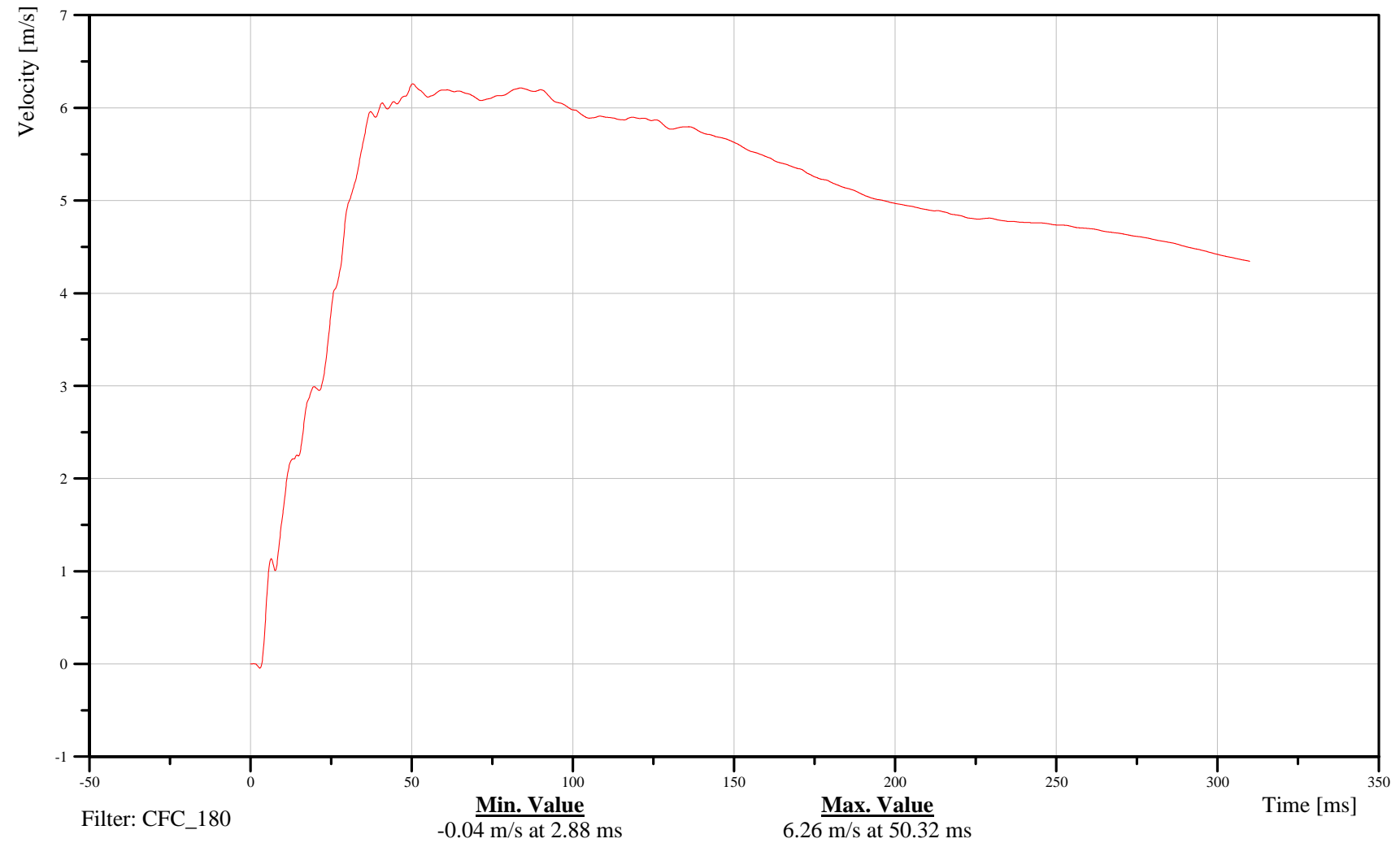
Date: 11/15/2006
Time: 12:16

LEFT FRONT SEAT TRACK Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

11SETRFR0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-121

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

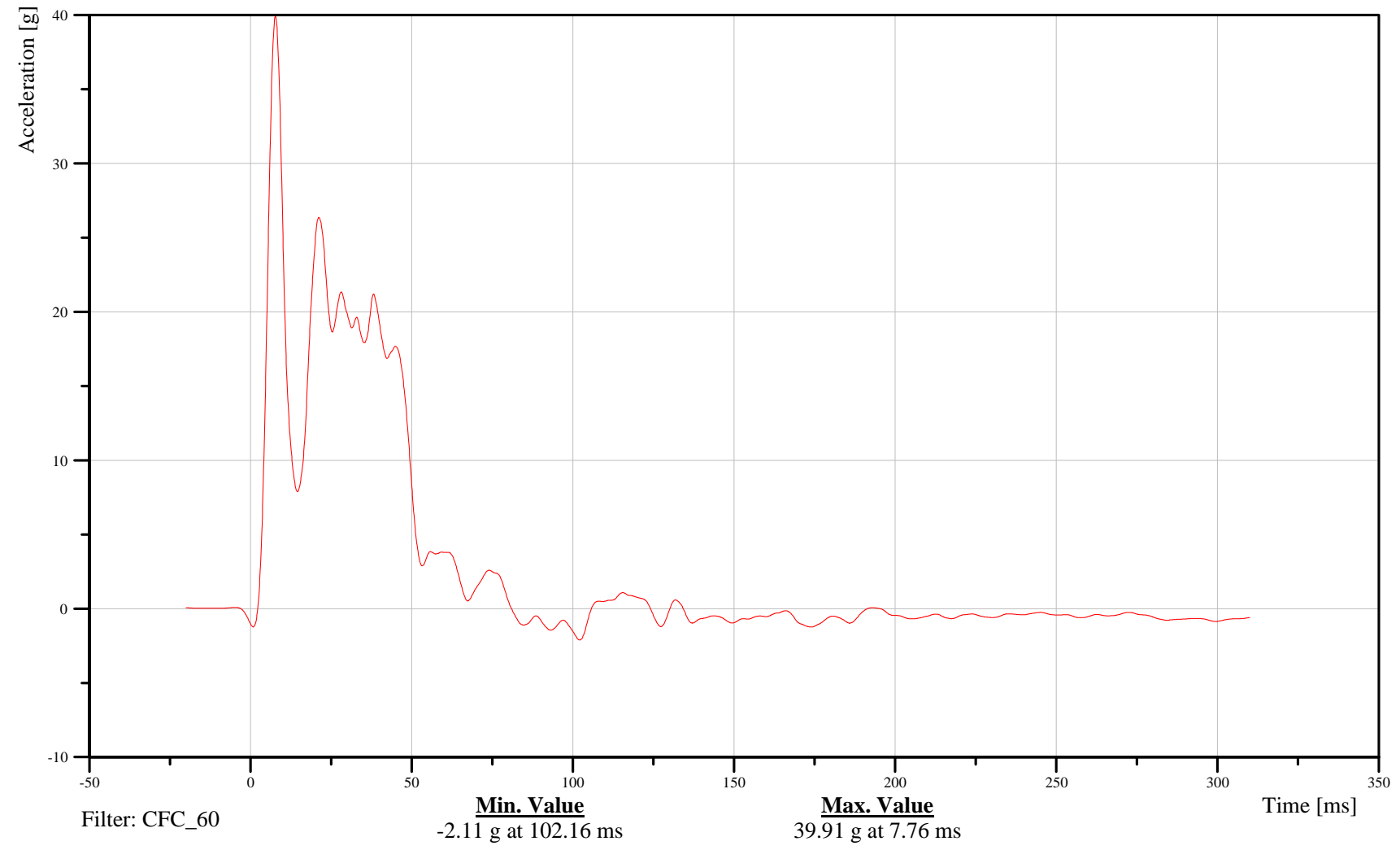
Date: 11/15/2006
Time: 12:16

LEFT REAR SEAT TRACK Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14SETRLERE00ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



B-122

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

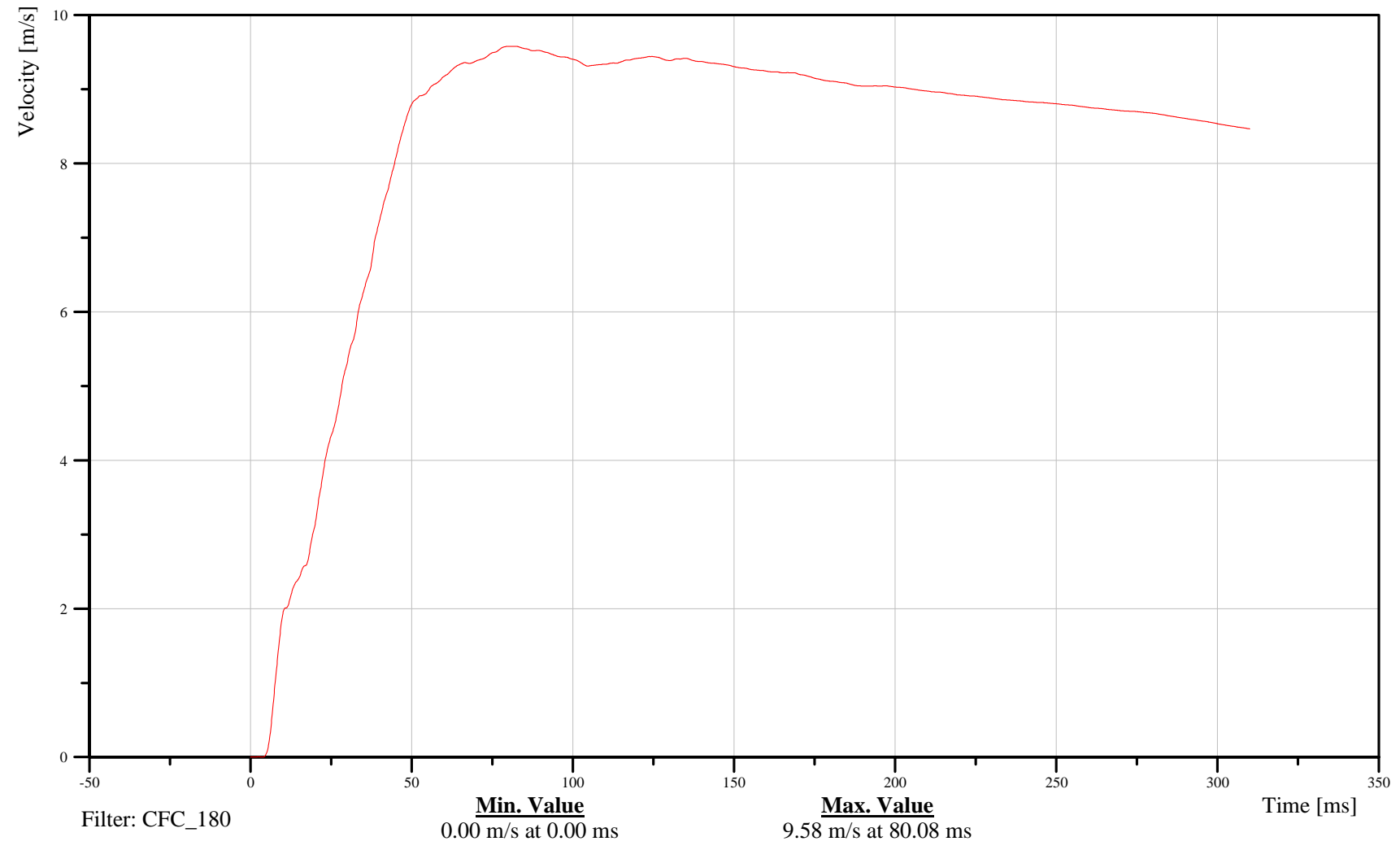
Date: 11/15/2006
Time: 12:16

LEFT REAR SEAT TRACK Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

14SETRLERE00VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-123

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

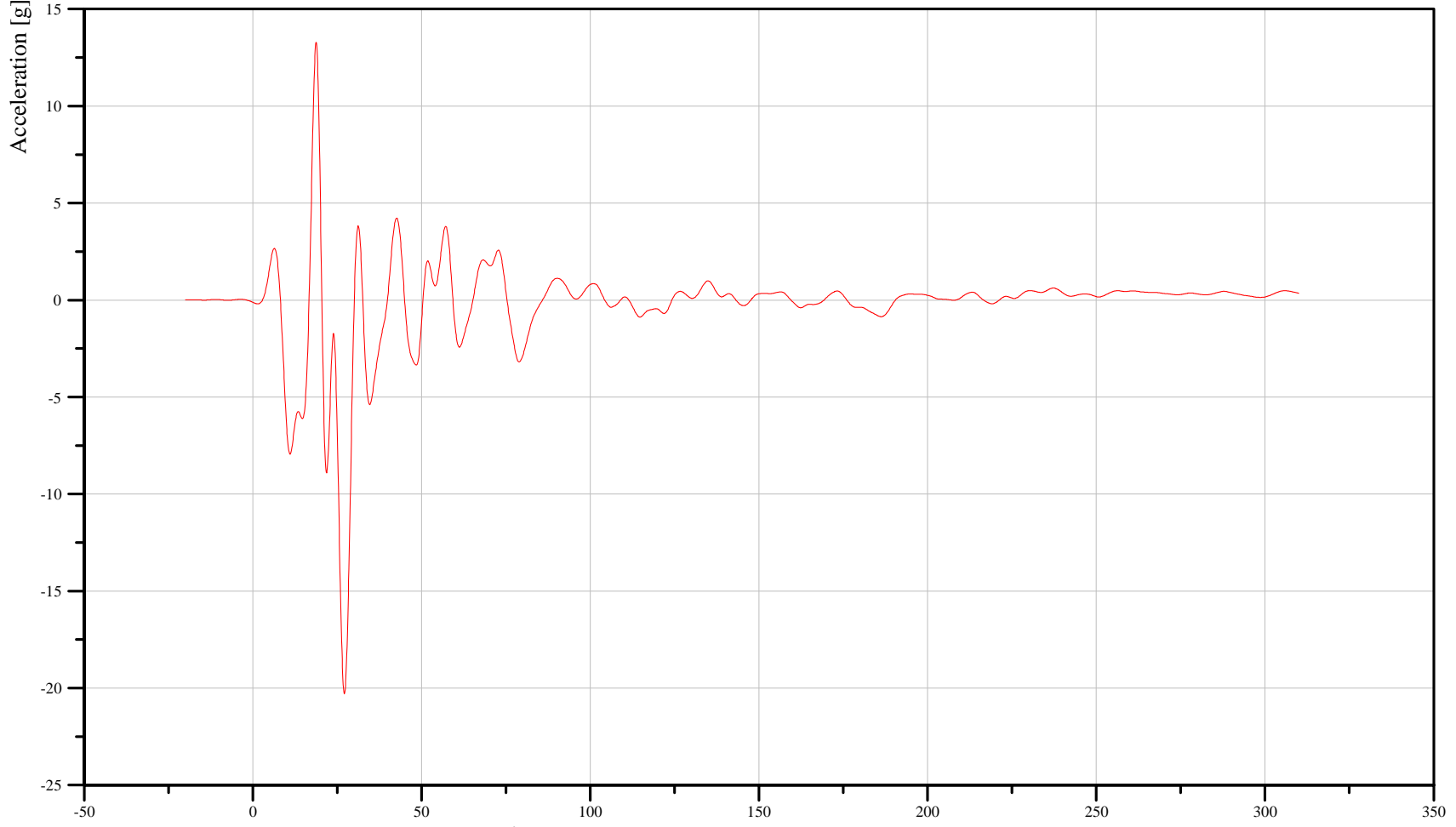
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-20.29 g at 27.12 ms

Max. Value
13.28 g at 18.80 ms

Time [ms]

B-124

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

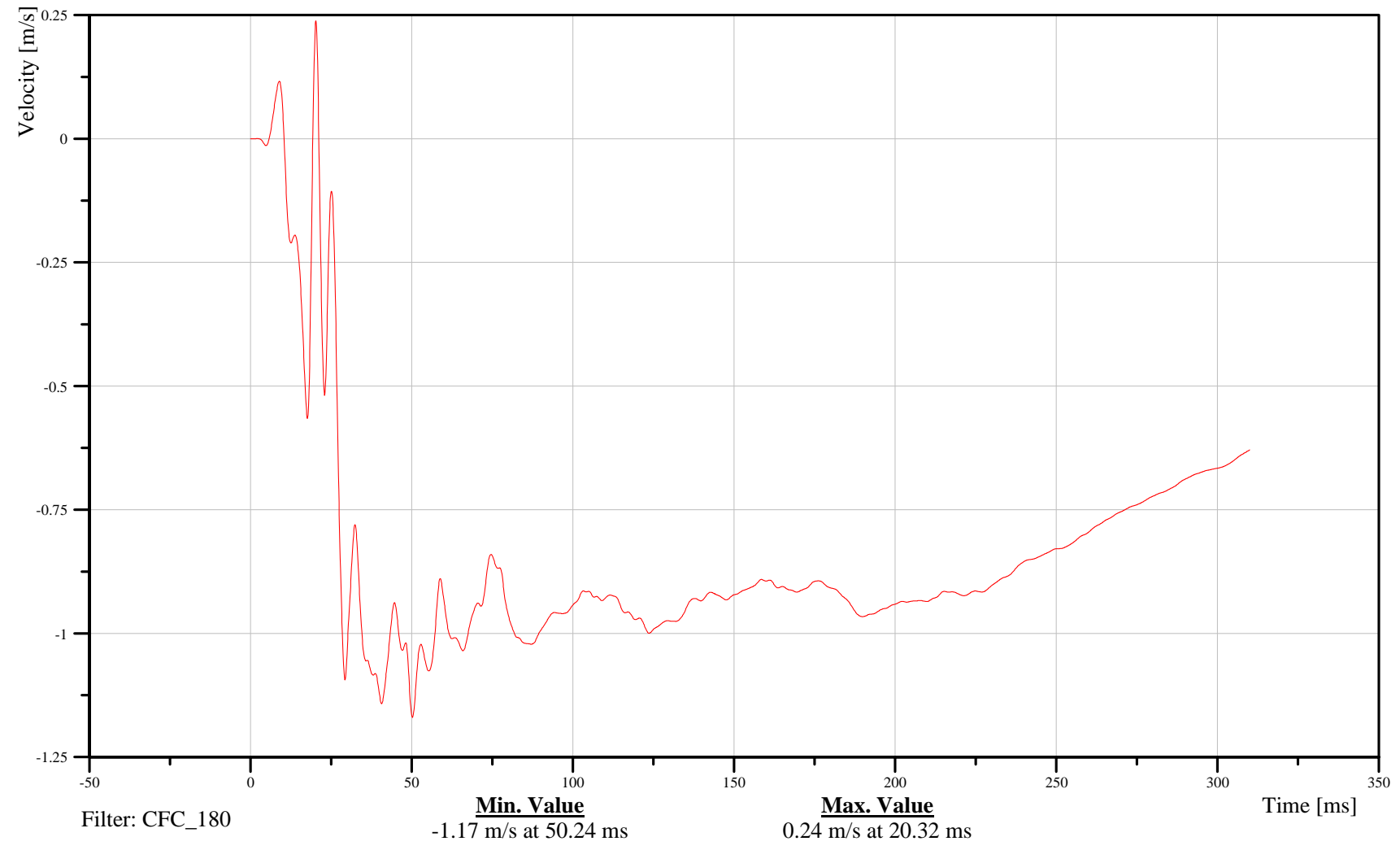
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

10VEHCCG0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-125

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

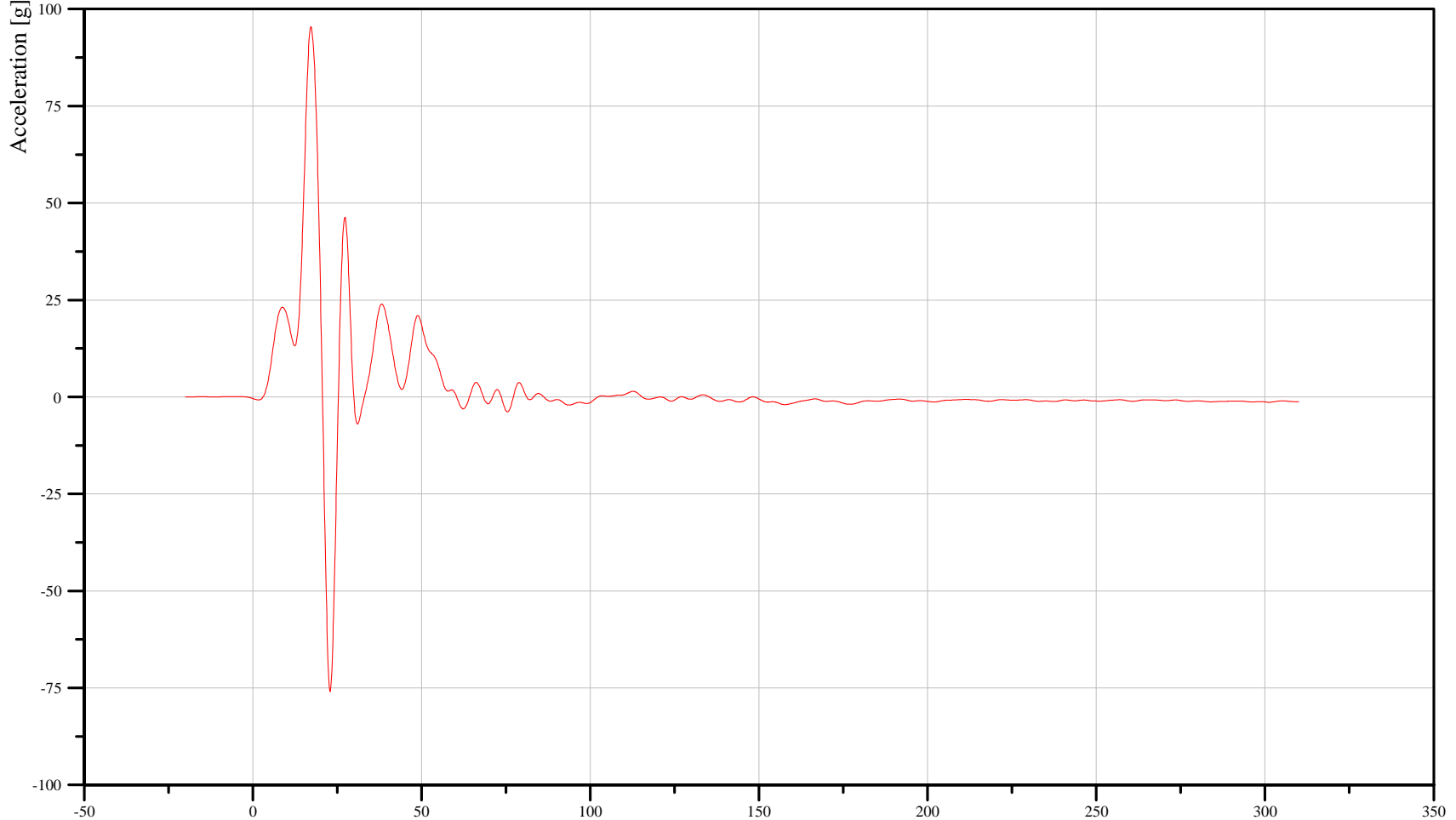
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-76.00 g at 22.88 ms

Max. Value
95.43 g at 17.20 ms

Time [ms]

B-126

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

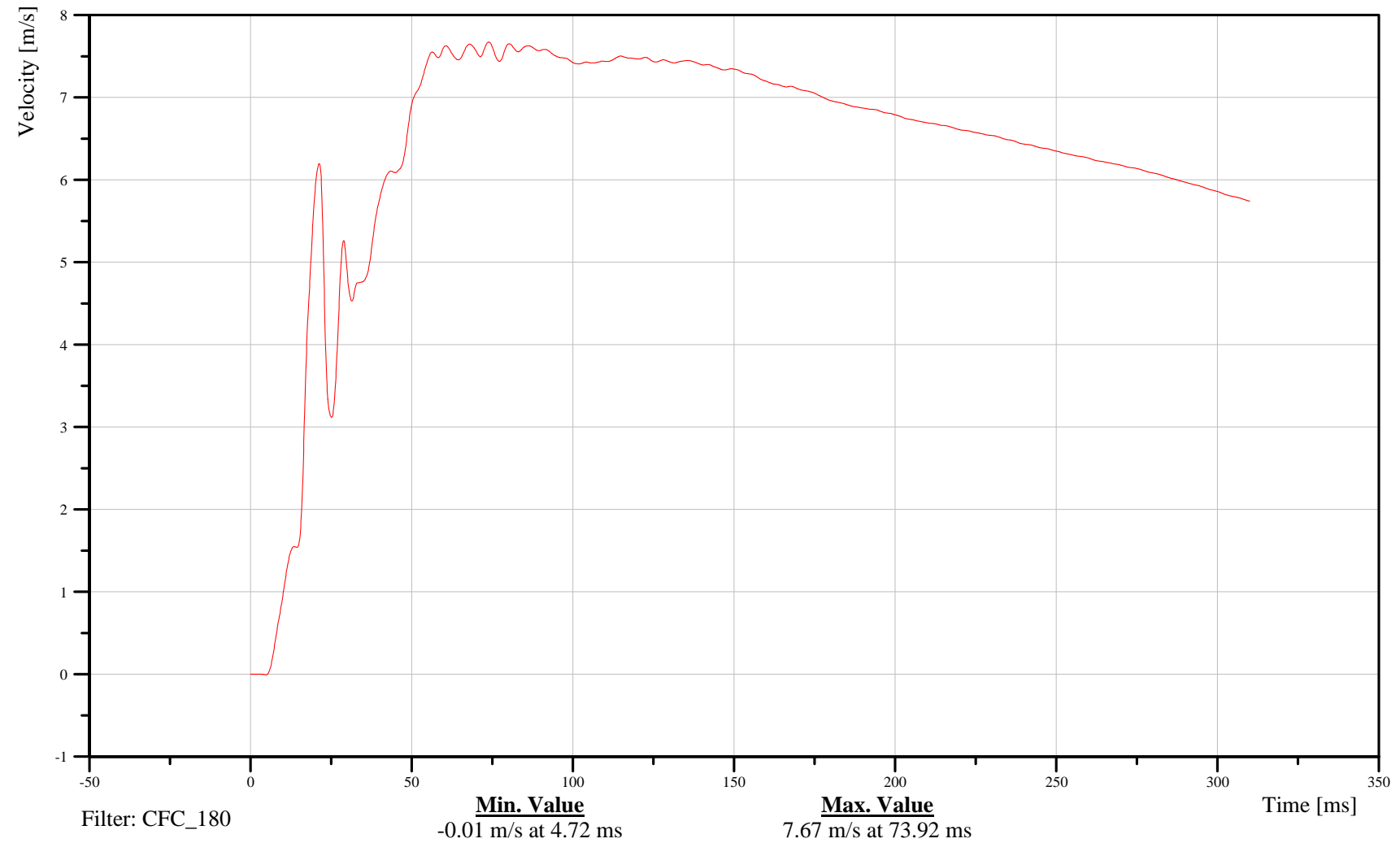
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

10VEHCCG0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-127

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

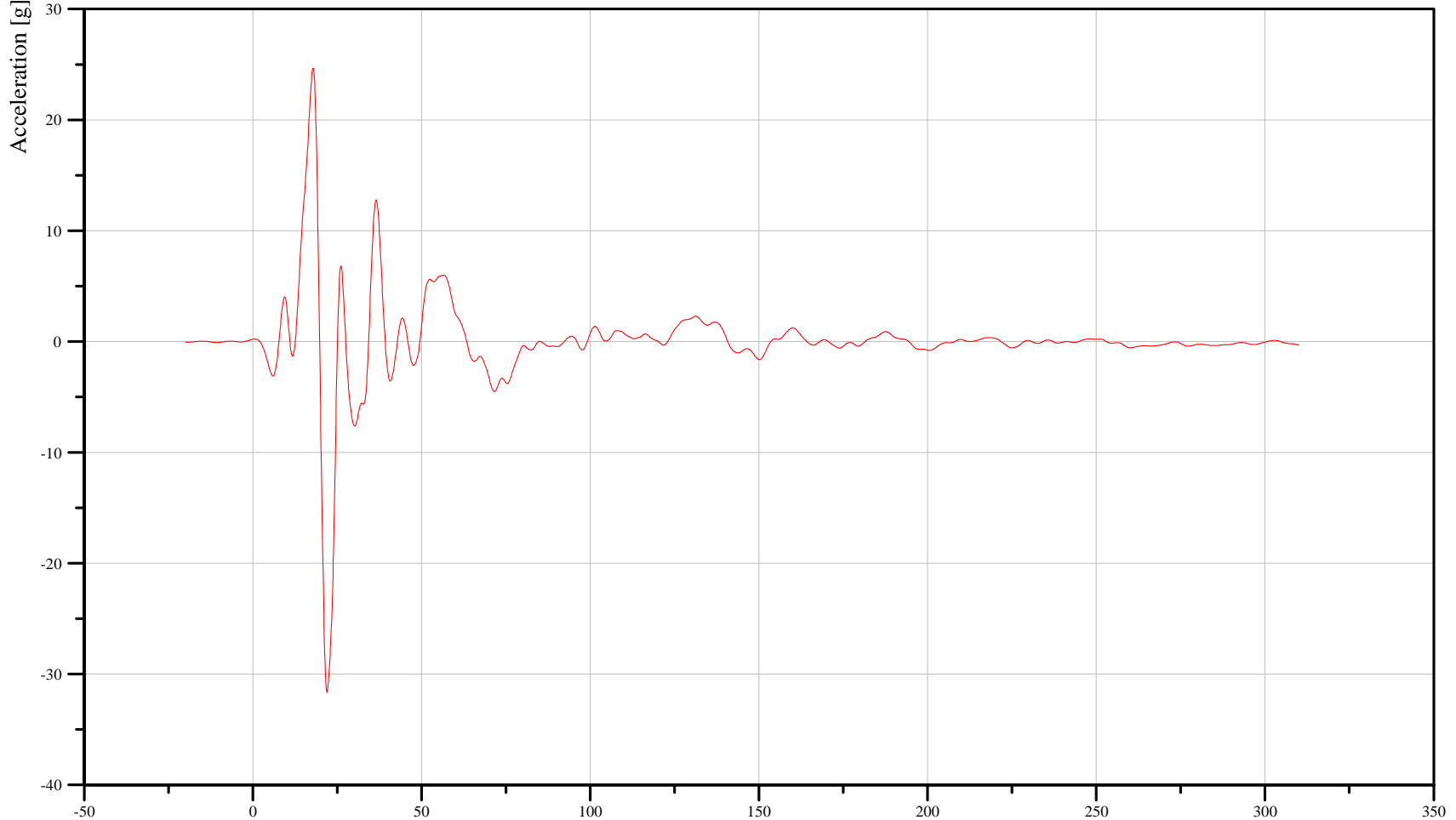
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-31.65 g at 22.00 ms

Max. Value
24.67 g at 17.84 ms

Time [ms]

B-128

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

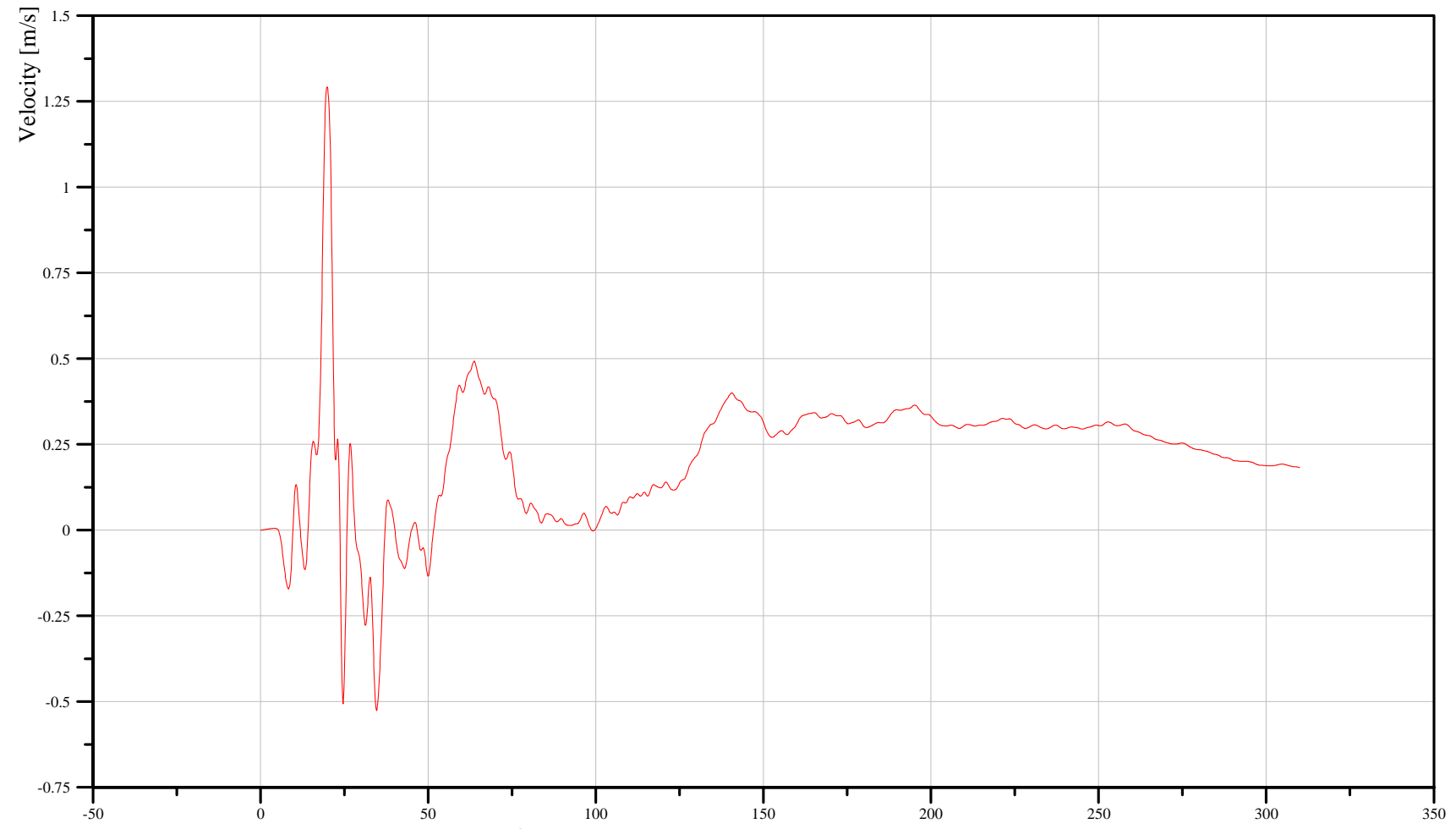
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

10VEHCCG0000VEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
-0.53 m/s at 34.64 ms

Max. Value
1.29 m/s at 19.84 ms

Time [ms]

B-129

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

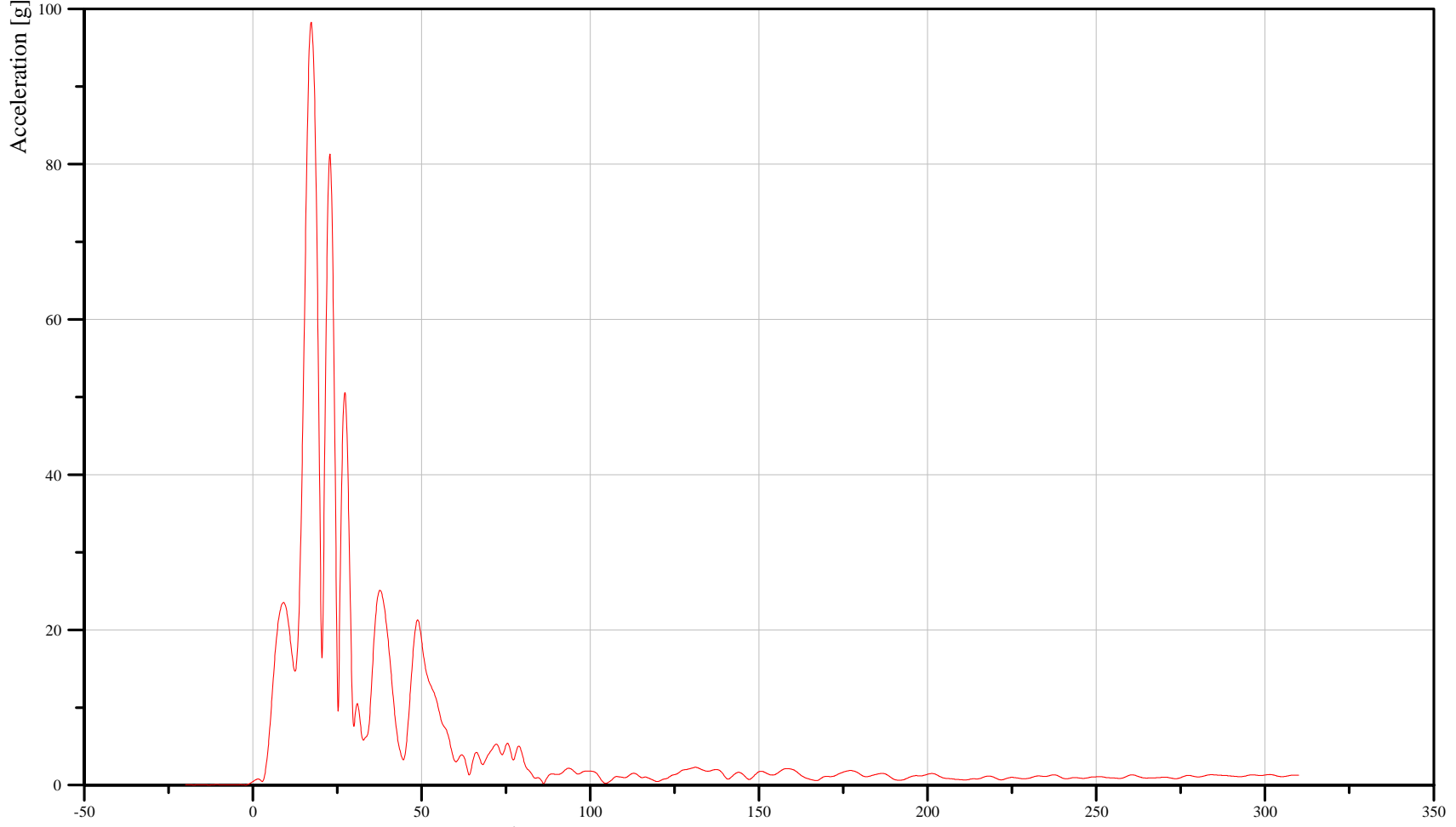
Date: 11/15/2006
Time: 12:16

VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
0.03 g at -12.96 ms

Max. Value
98.30 g at 17.28 ms

Time [ms]

B-130

061115

MDB Instrumentation Plots



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

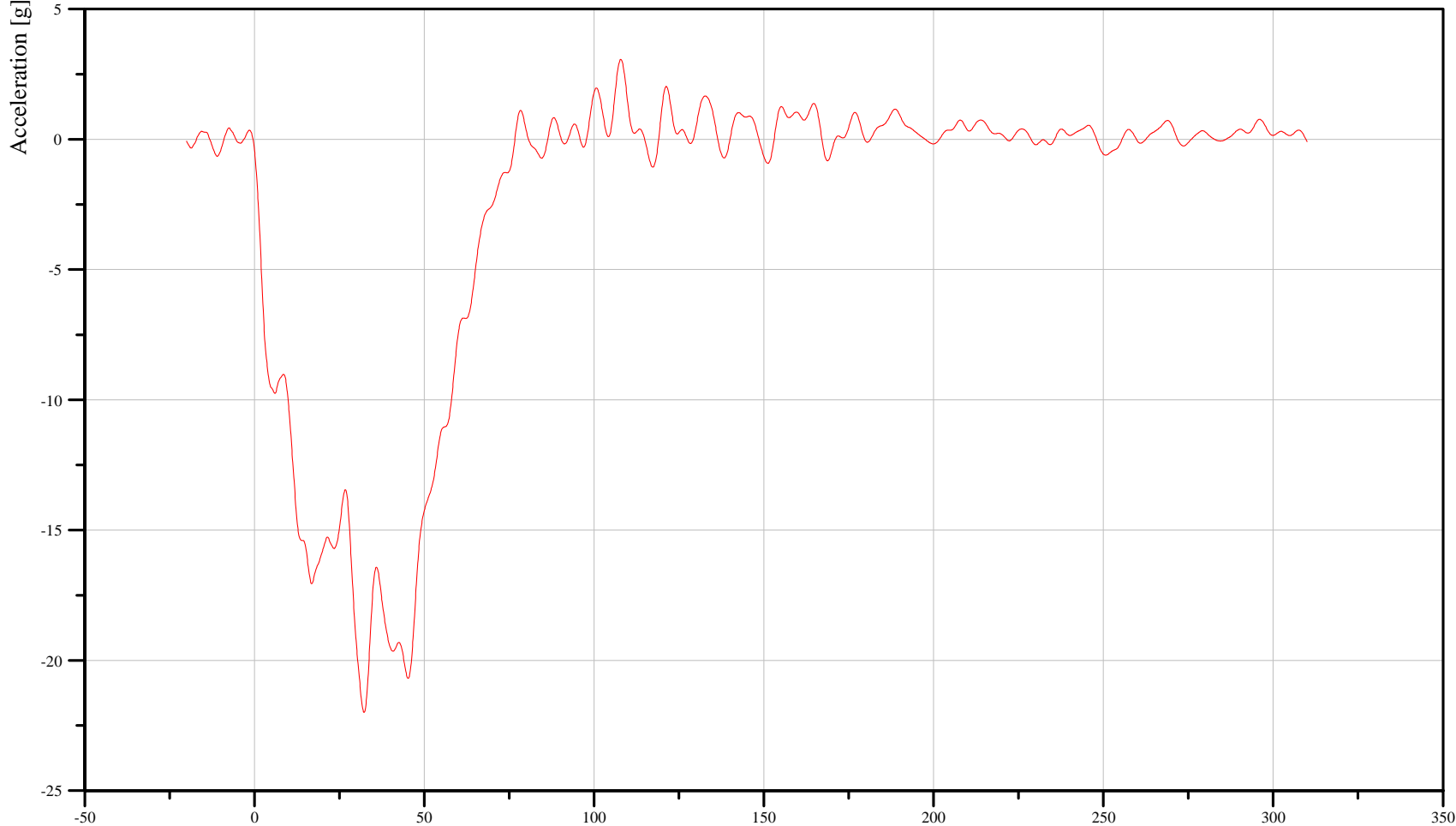
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

M0VEHCCG0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-22.00 g at 32.24 ms

Max. Value
3.07 g at 107.84 ms

Time [ms]

B-132

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

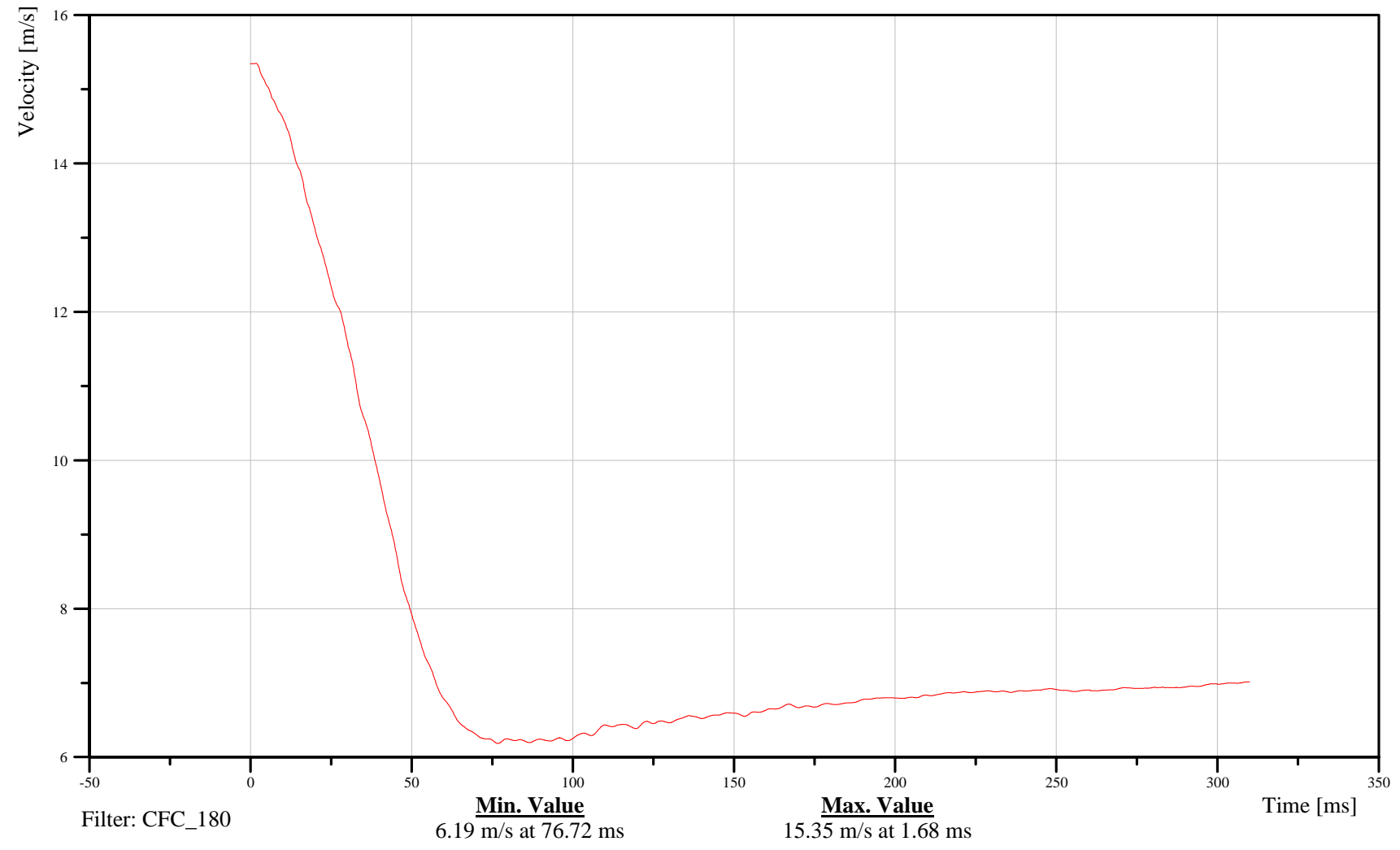
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

M0VEHCCG0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-133

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

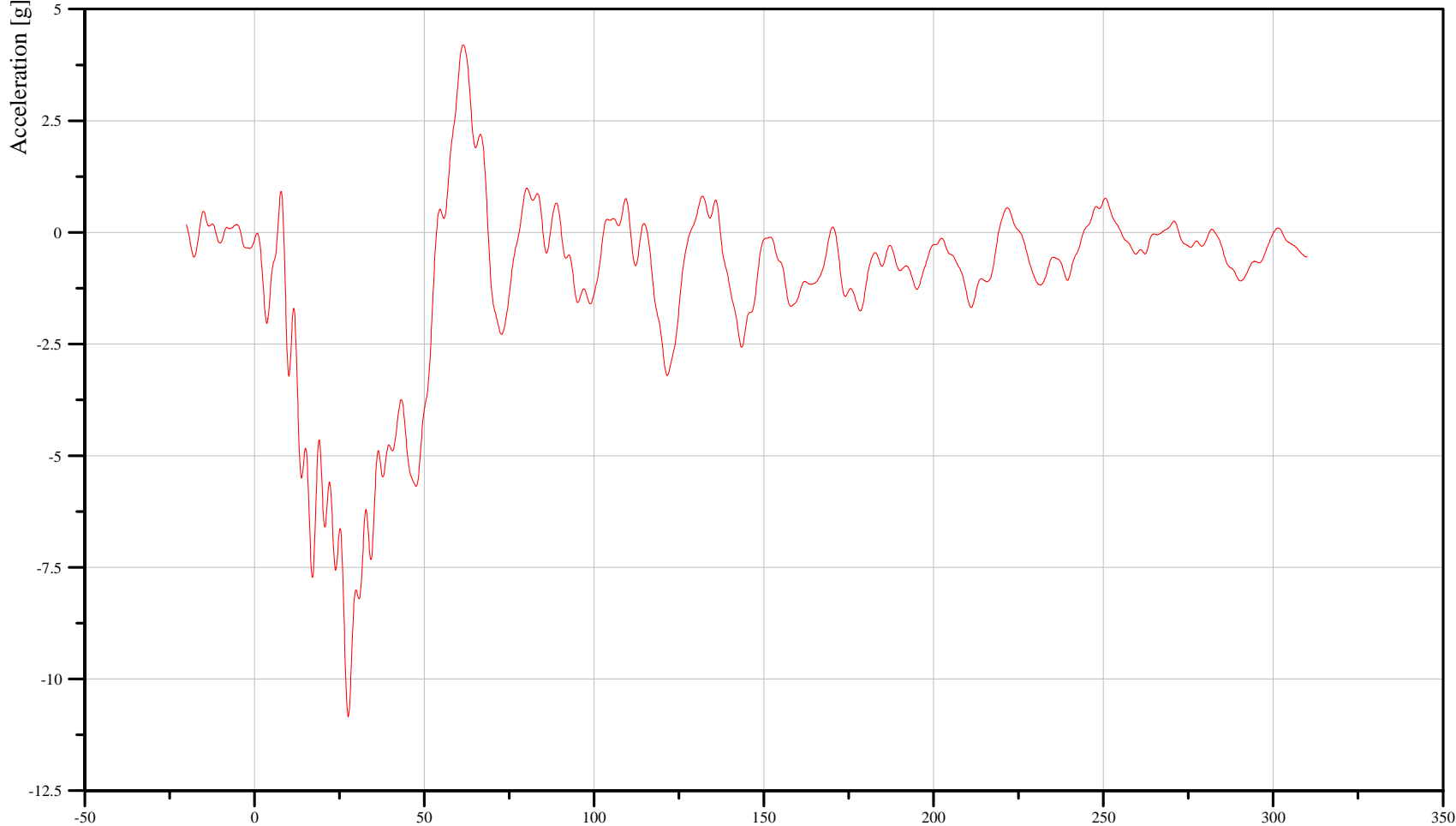
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

M0VEHCCG0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-10.84 g at 27.60 ms

Max. Value
4.20 g at 61.44 ms

Time [ms]

B-134

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

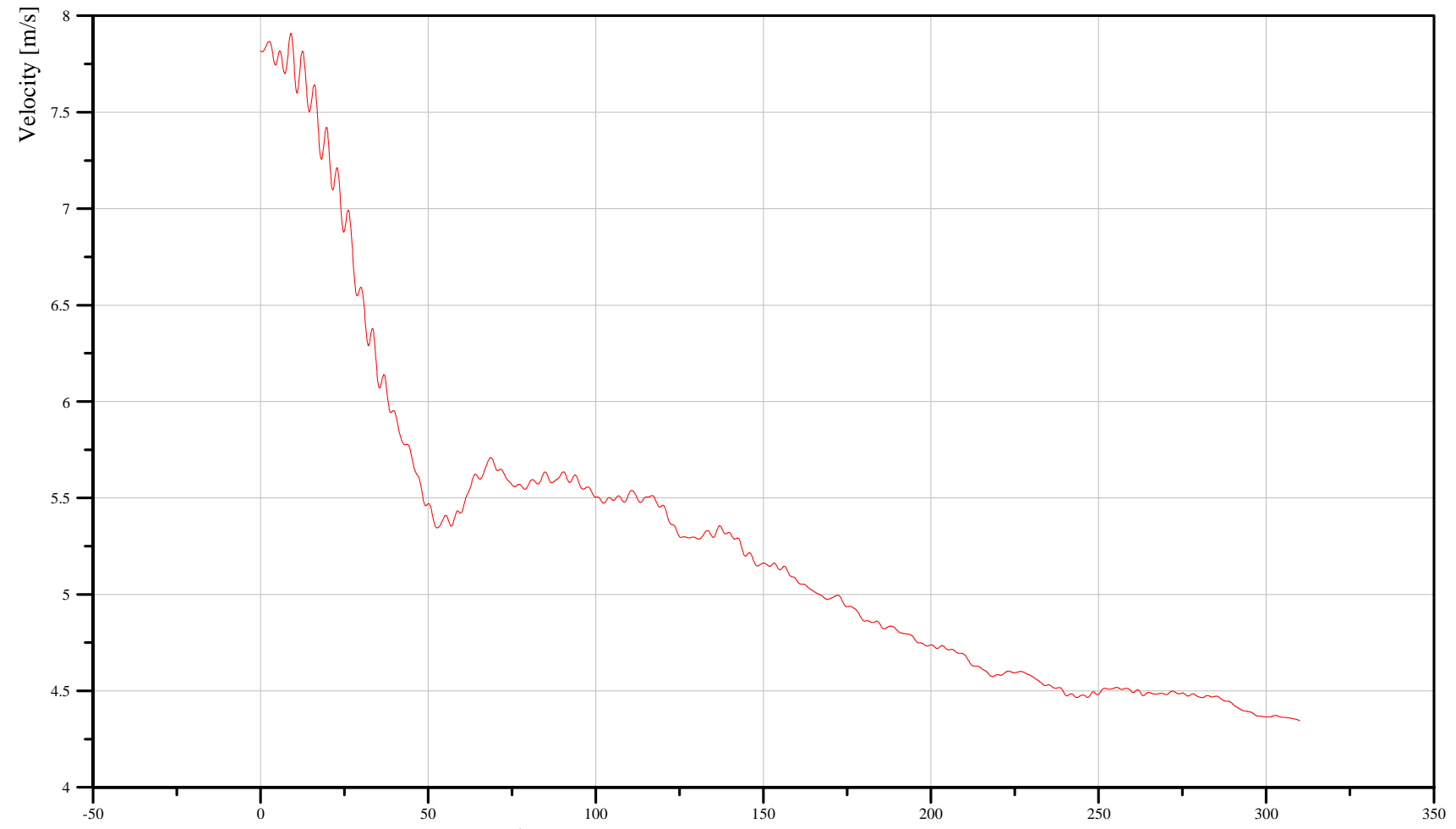
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

M0VEHCCG0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
4.34 m/s at 310.00 ms

Max. Value
7.91 m/s at 9.04 ms

Time [ms]

B-135

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

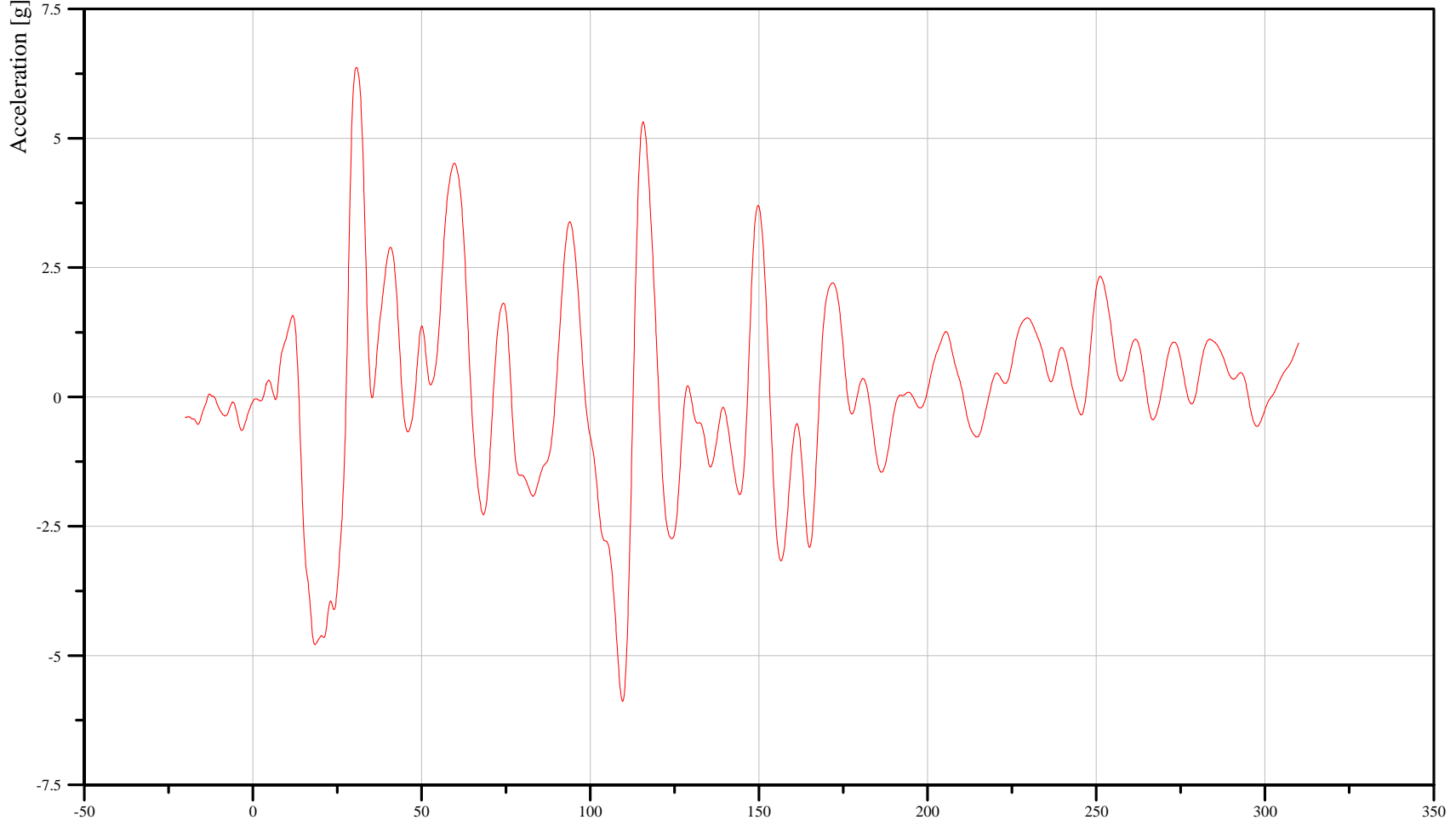
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY Z-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

M0VEHCCG0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-5.89 g at 109.60 ms

Max. Value
6.37 g at 30.72 ms

B-136

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

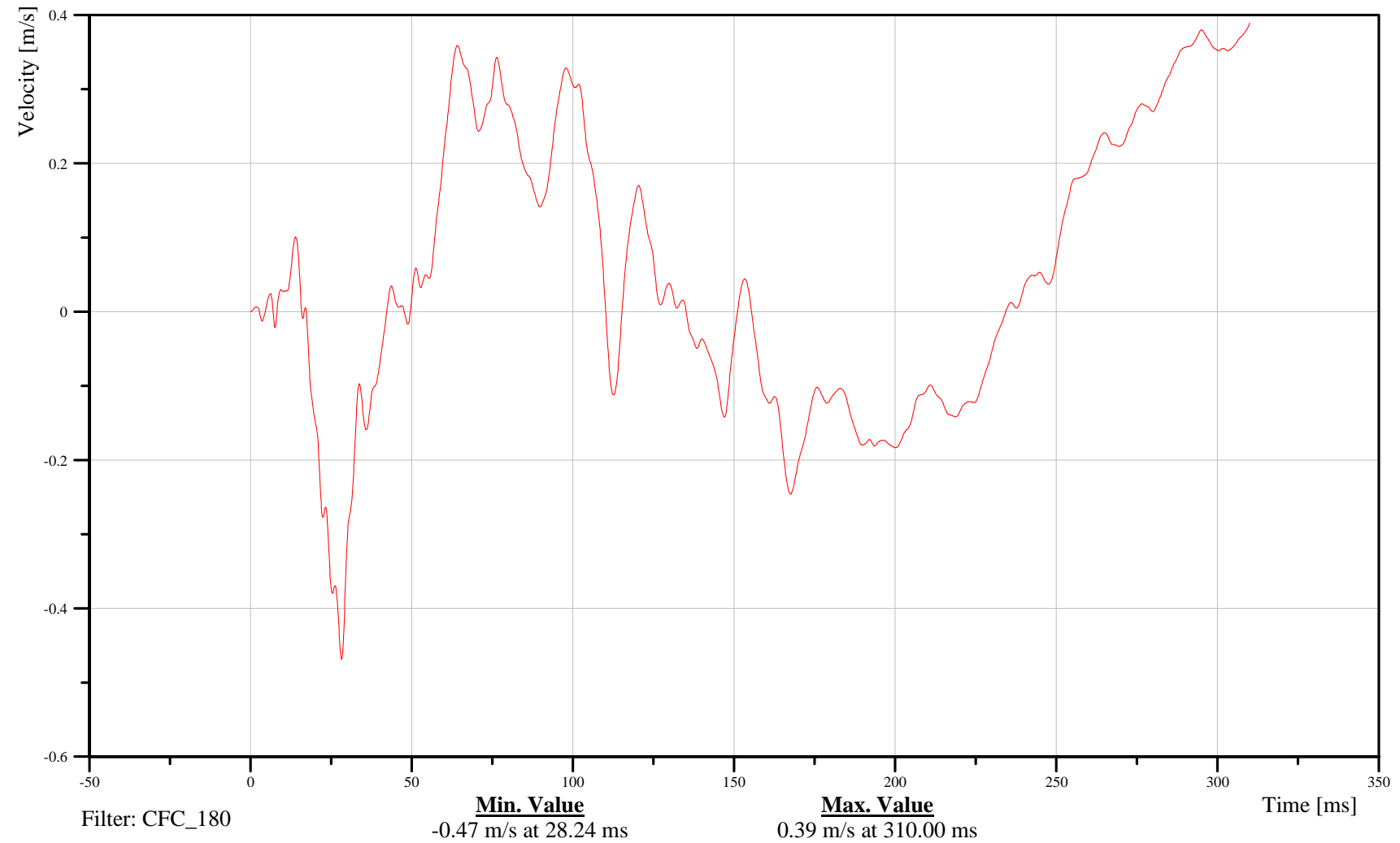
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY Z-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

MOVEHCCG0000VEZC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-137

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

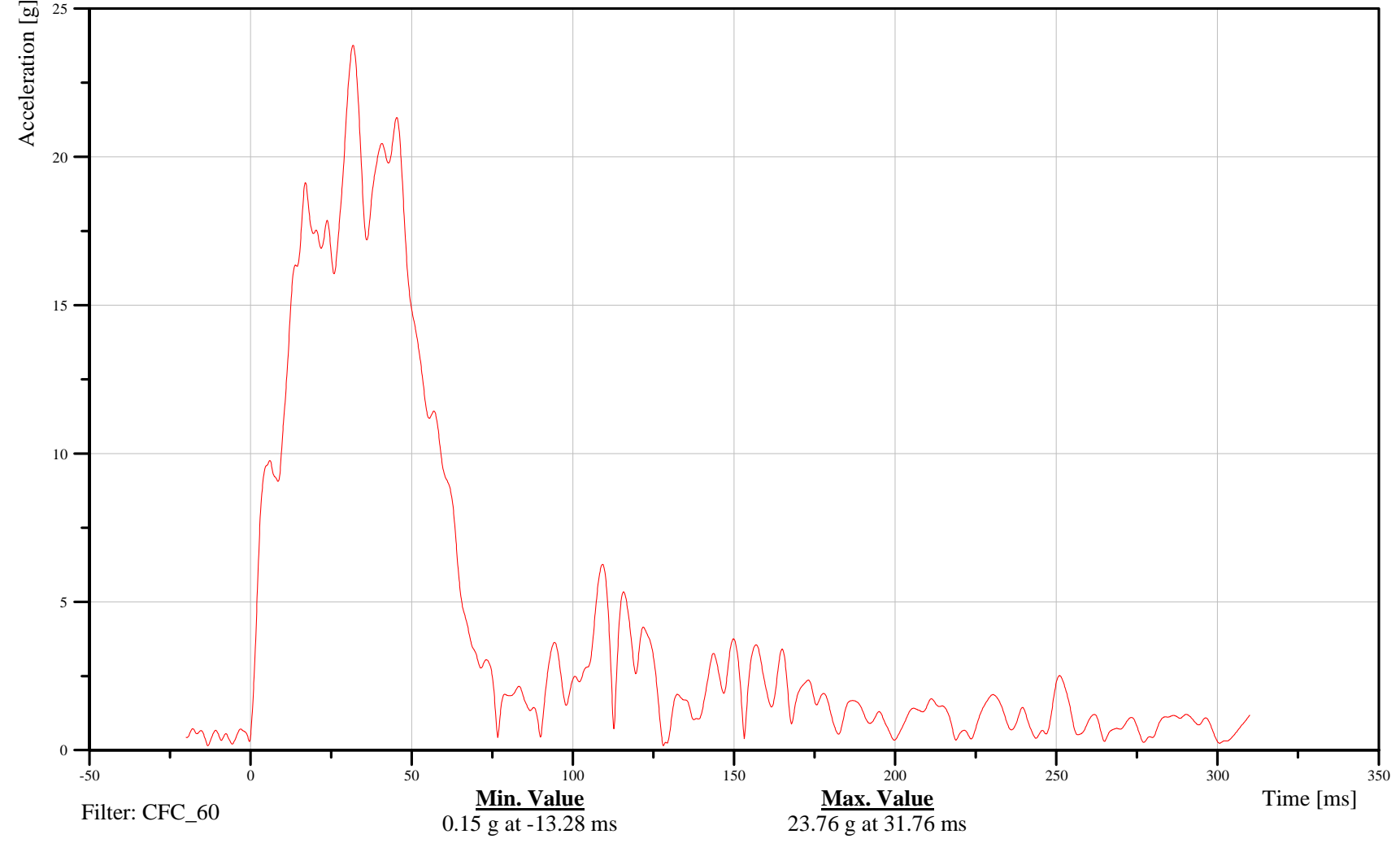
Date: 11/15/2006
Time: 12:16

MDB CENTER OF GRAVITY RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C75200

M0VEHCCG0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 061115



B-138

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

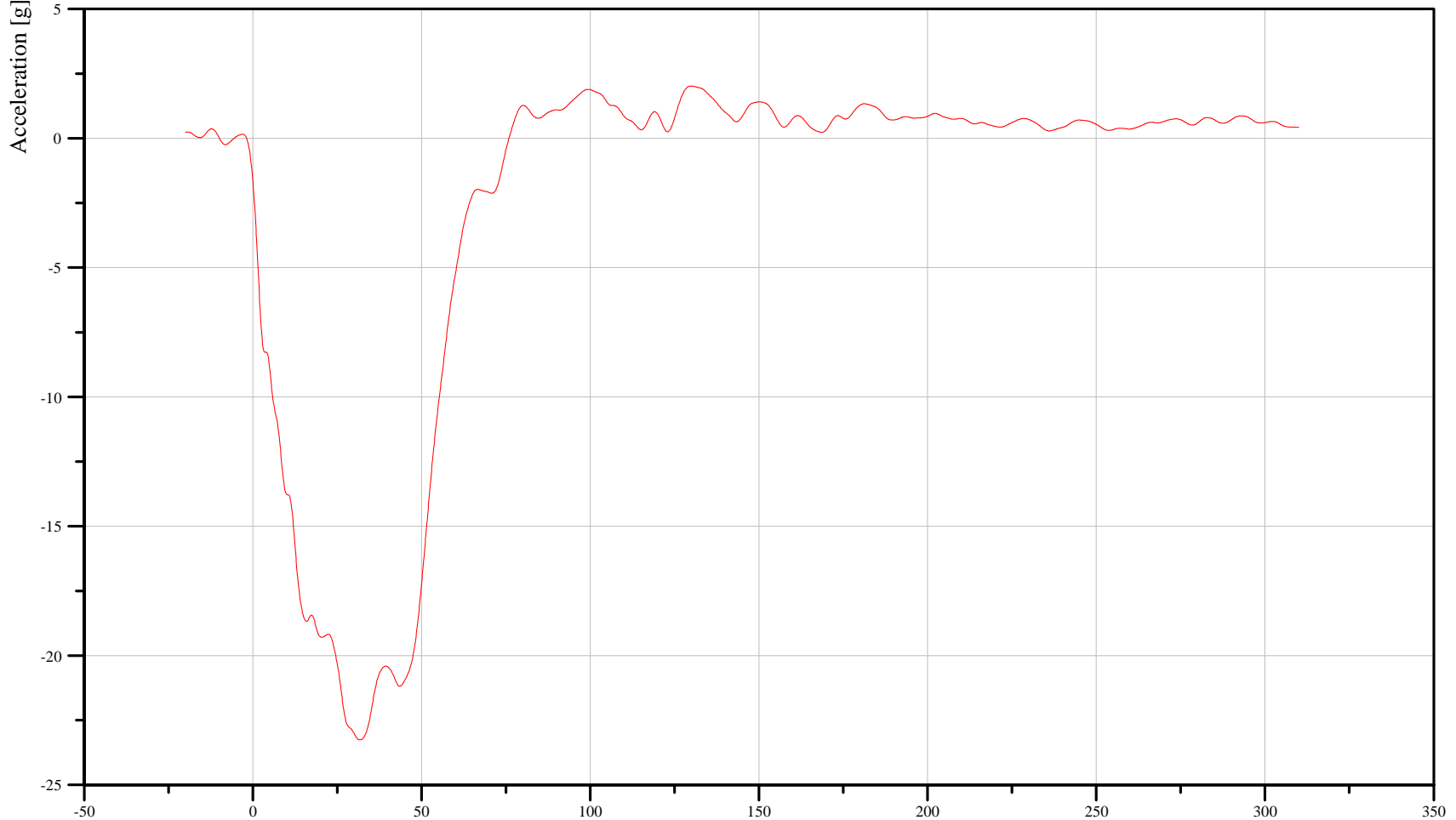
Date: 11/15/2006
Time: 12:16

MDB REAR X-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

M7FRAM000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-23.26 g at 31.76 ms

Max. Value
2.02 g at 130.00 ms

Time [ms]

B-139

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

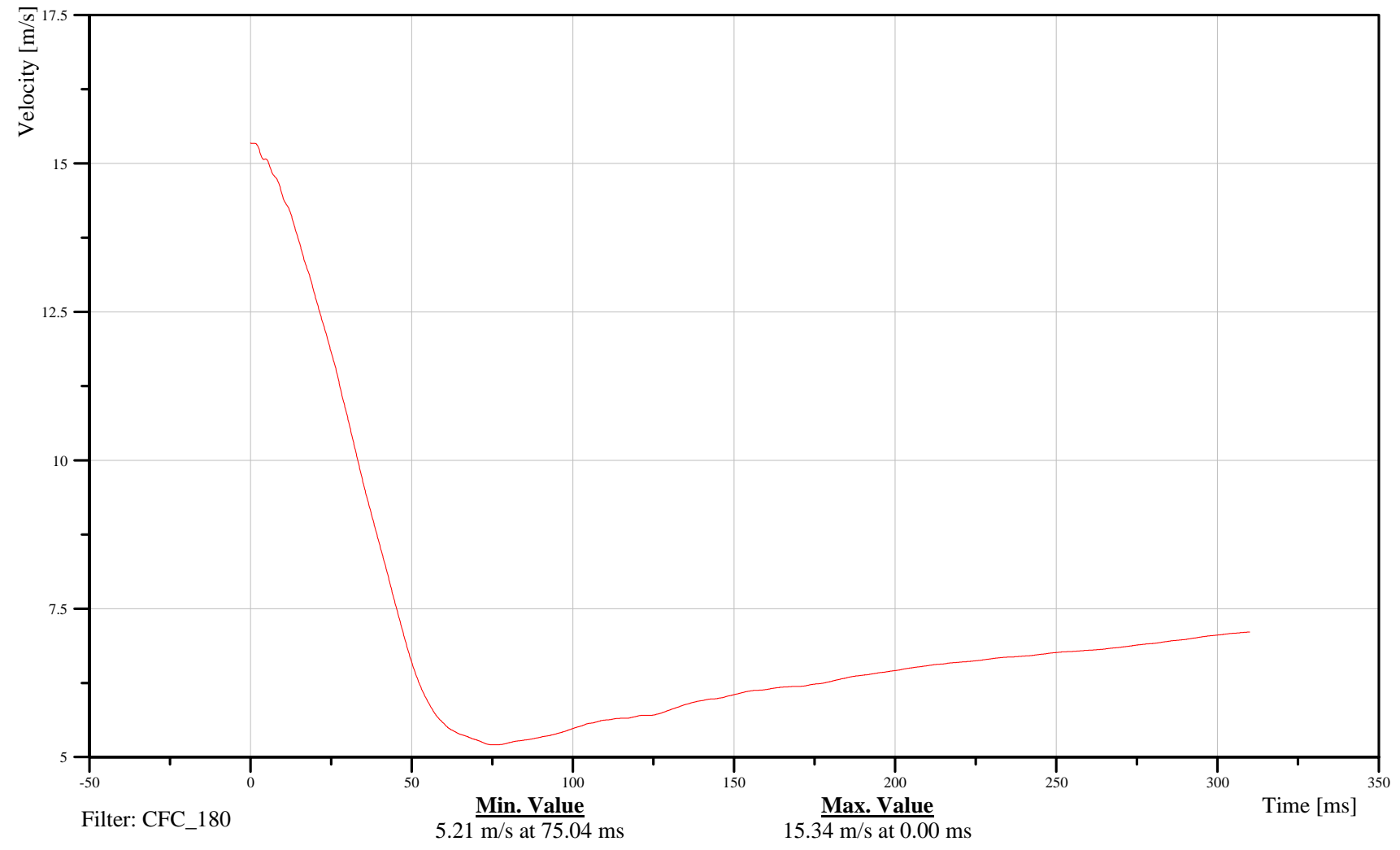
Date: 11/15/2006
Time: 12:16

MDB REAR X-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

M7FRAM000000VEXC

TRC Inc. Test Lab: CTF
Test Number: 061115



B-140

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

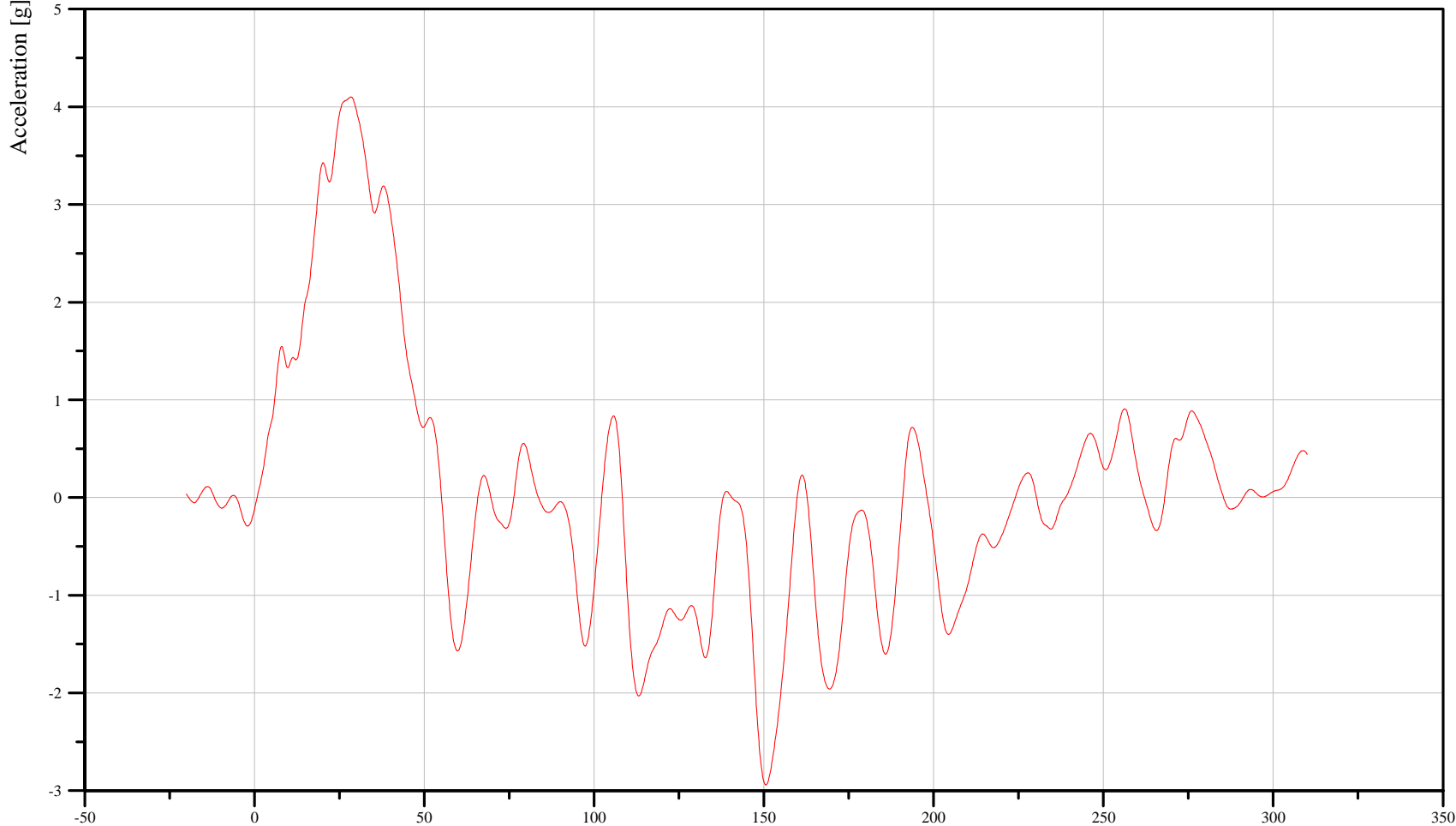
Date: 11/15/2006
Time: 12:16

MDB REAR Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

M7FRAM000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_60

Min. Value
-2.94 g at 150.56 ms

Max. Value
4.10 g at 28.40 ms

Time [ms]

B-141

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

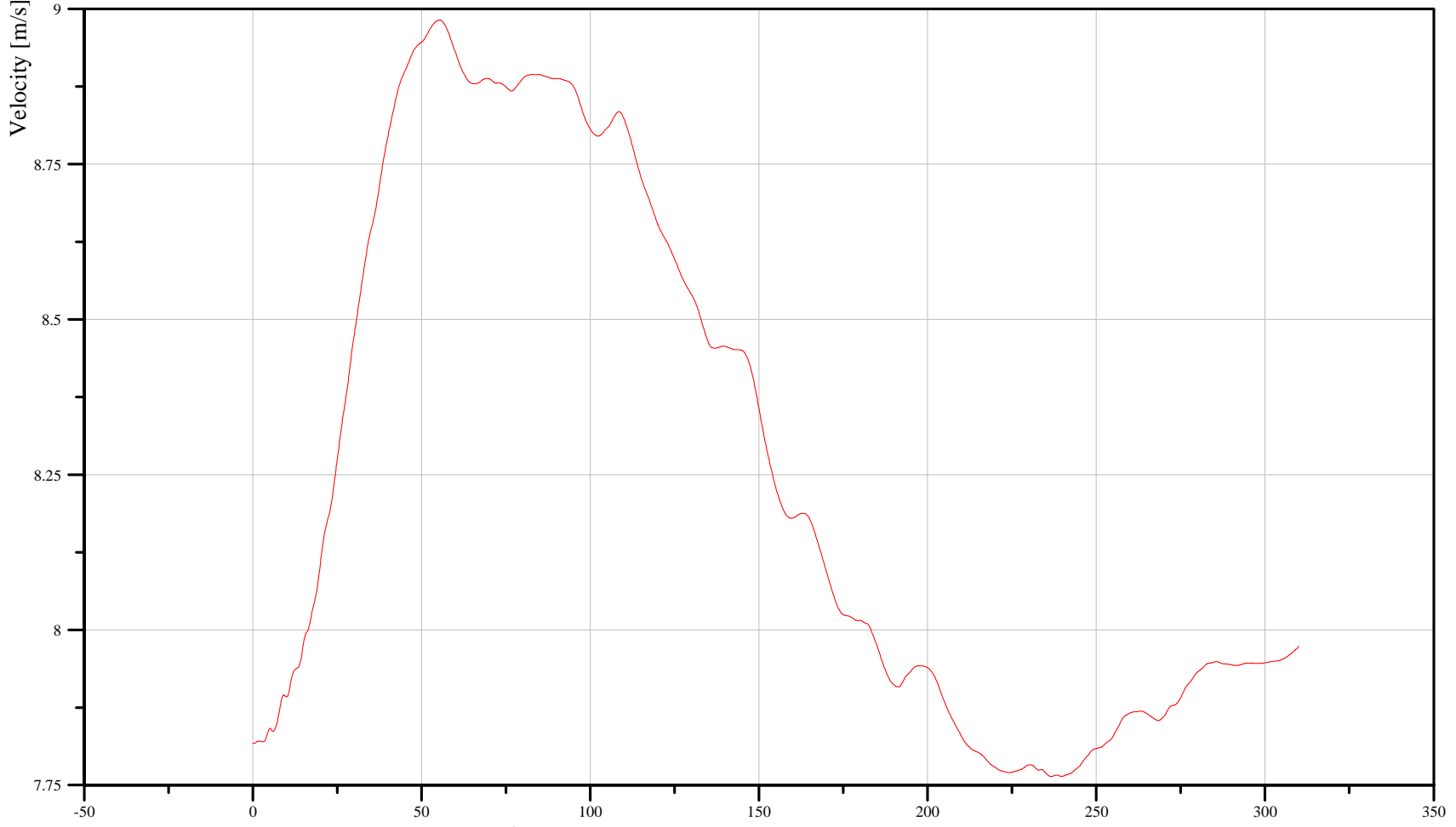
Date: 11/15/2006
Time: 12:16

MDB REAR Y-AXIS VELOCITY

Customer: NHTSA
Test Number: C75200

M7FRAM000000VEYC

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: CFC_180

Min. Value
7.76 m/s at 236.64 ms

Max. Value
8.98 m/s at 55.44 ms

Time [ms]

B-142

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

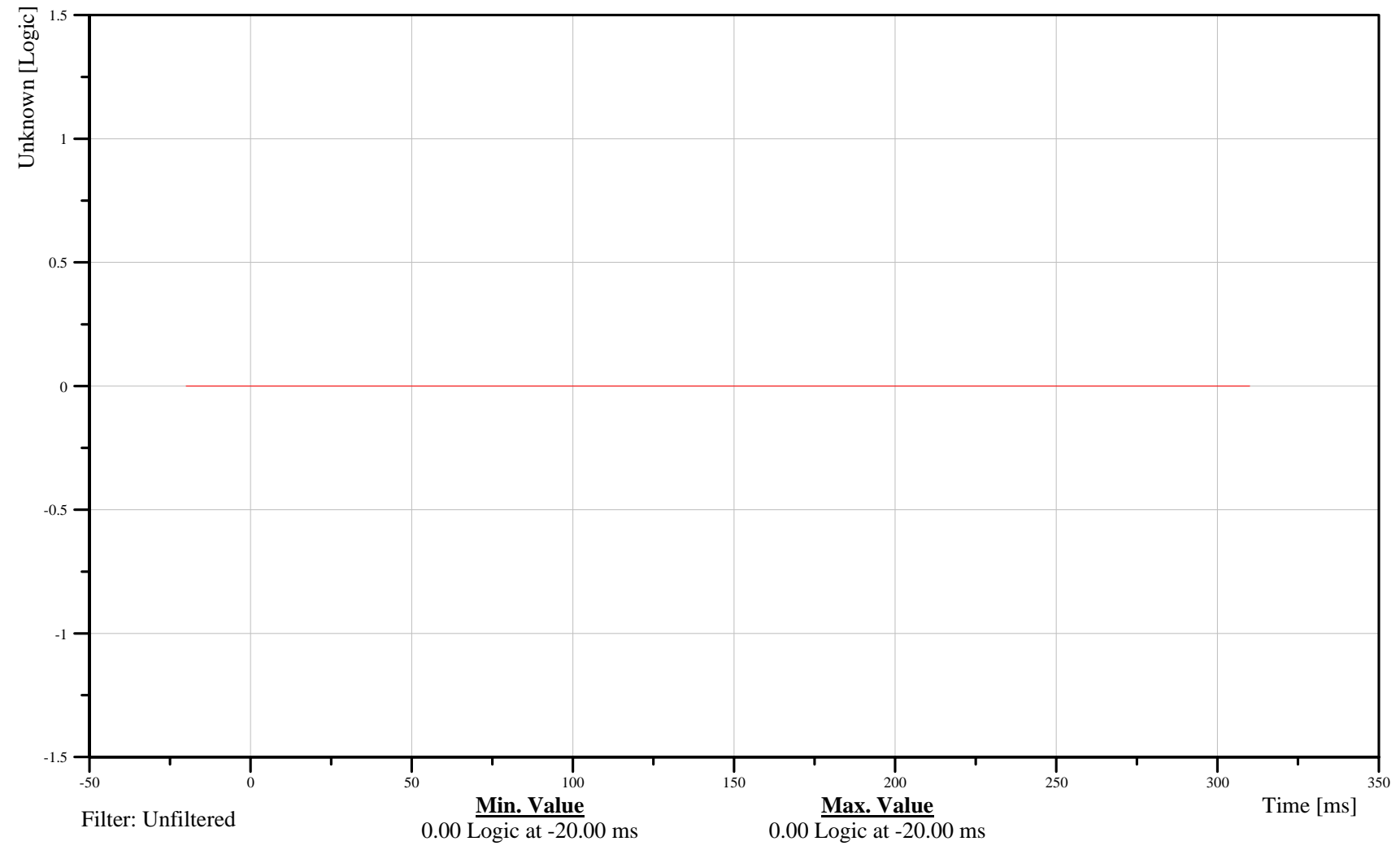
Date: 11/15/2006
Time: 12:16

MDB RIGHT CONTACT SWITCH

Customer: NHTSA
Test Number: C75200

M3CONT000000V000

TRC Inc. Test Lab: CTF
Test Number: 061115



B-143

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

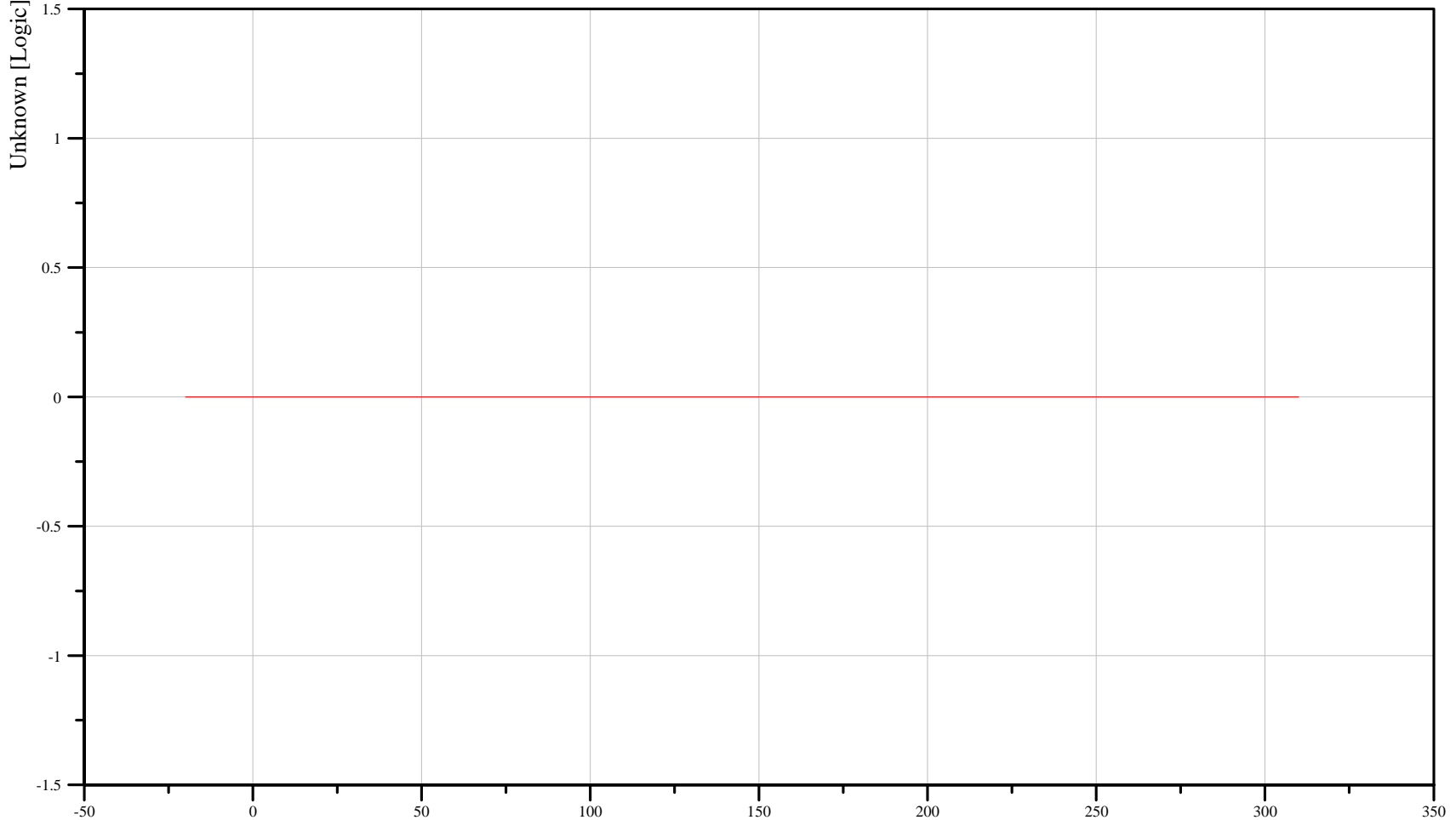
Date: 11/15/2006
Time: 12:16

MDB LEFT CONTACT SWITCH

Customer: NHTSA
Test Number: C75200

M1CONT000000VO00

TRC Inc. Test Lab: CTF
Test Number: 061115



B-144

061115

Driver and Passenger Dummy Instrumentation Plots



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

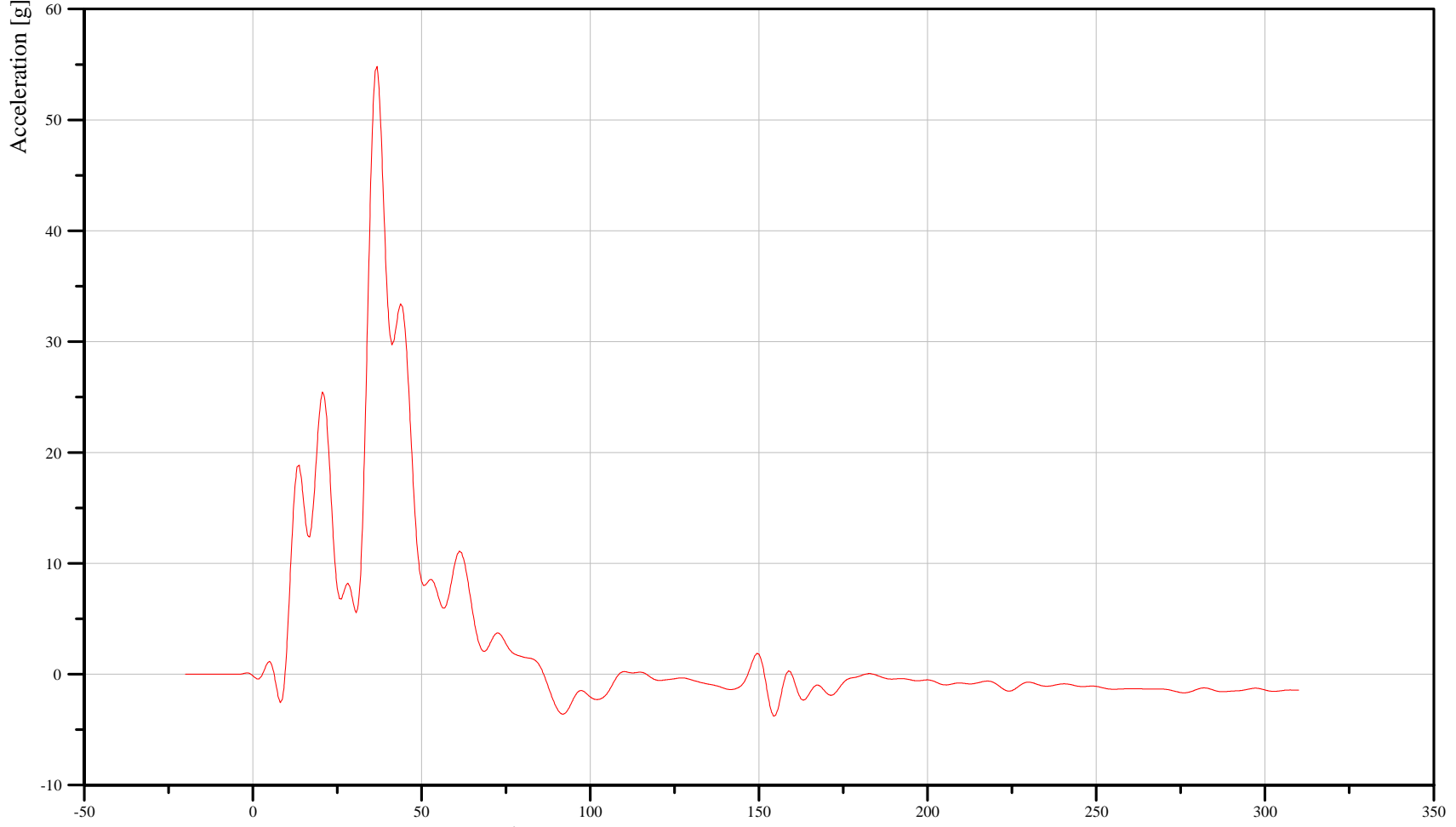
Date: 11/15/2006
Time: 12:16

DRIVER UPPER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLU00SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-3.78 g at 154.40 ms

Max. Value
54.82 g at 36.88 ms

Time [ms]

B-146

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

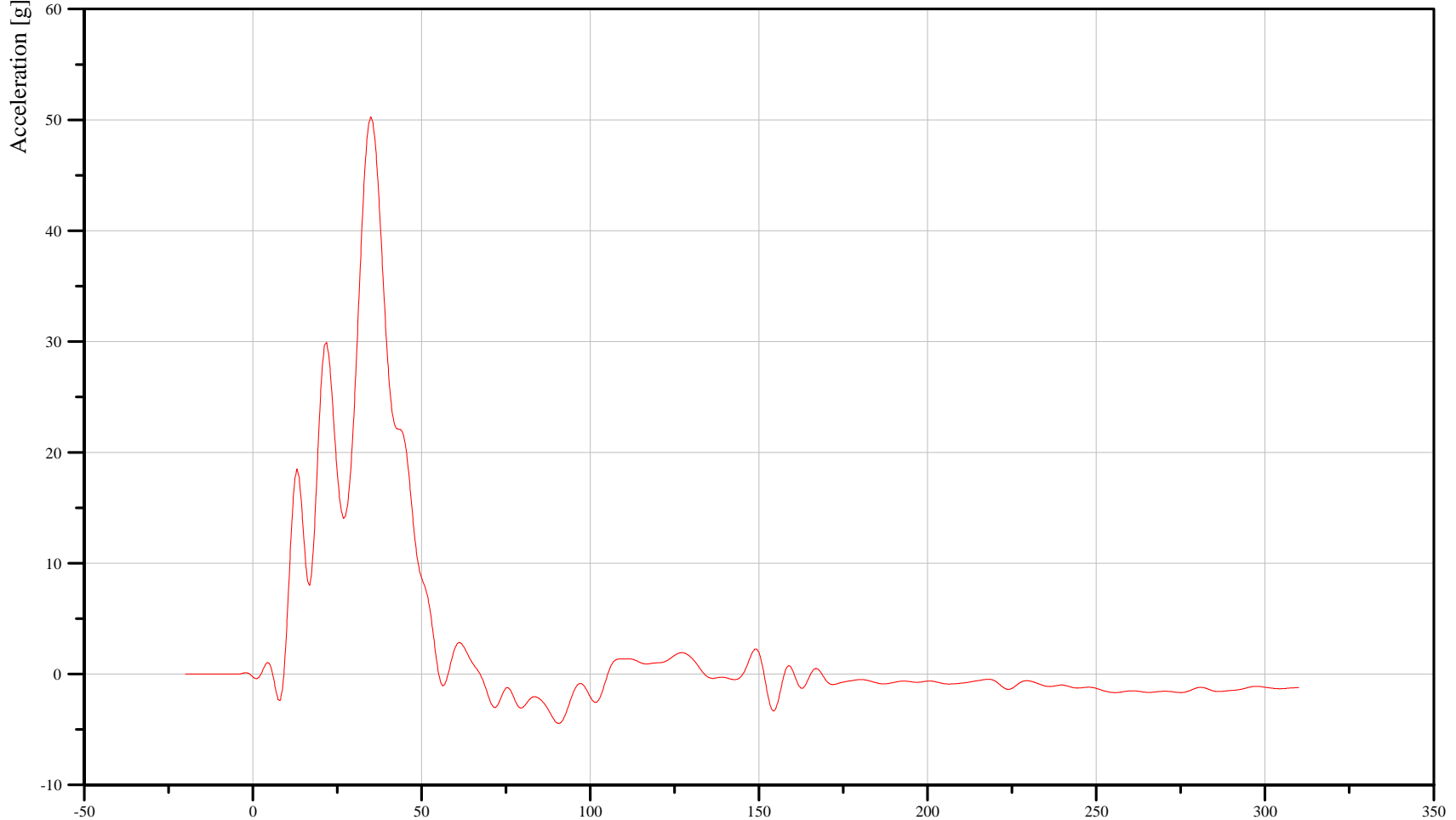
Date: 11/15/2006
Time: 12:16

DRIVER LOWER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLL00SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-4.46 g at 90.64 ms

Max. Value
50.27 g at 34.96 ms

Time [ms]

B-147

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

Date: 11/15/2006
Time: 12:16

DRIVER LOWER SPINE Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11SPIN1200SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-11.03 g at 67.52 ms

Max. Value
46.70 g at 37.52 ms

Time [ms]

B-148

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

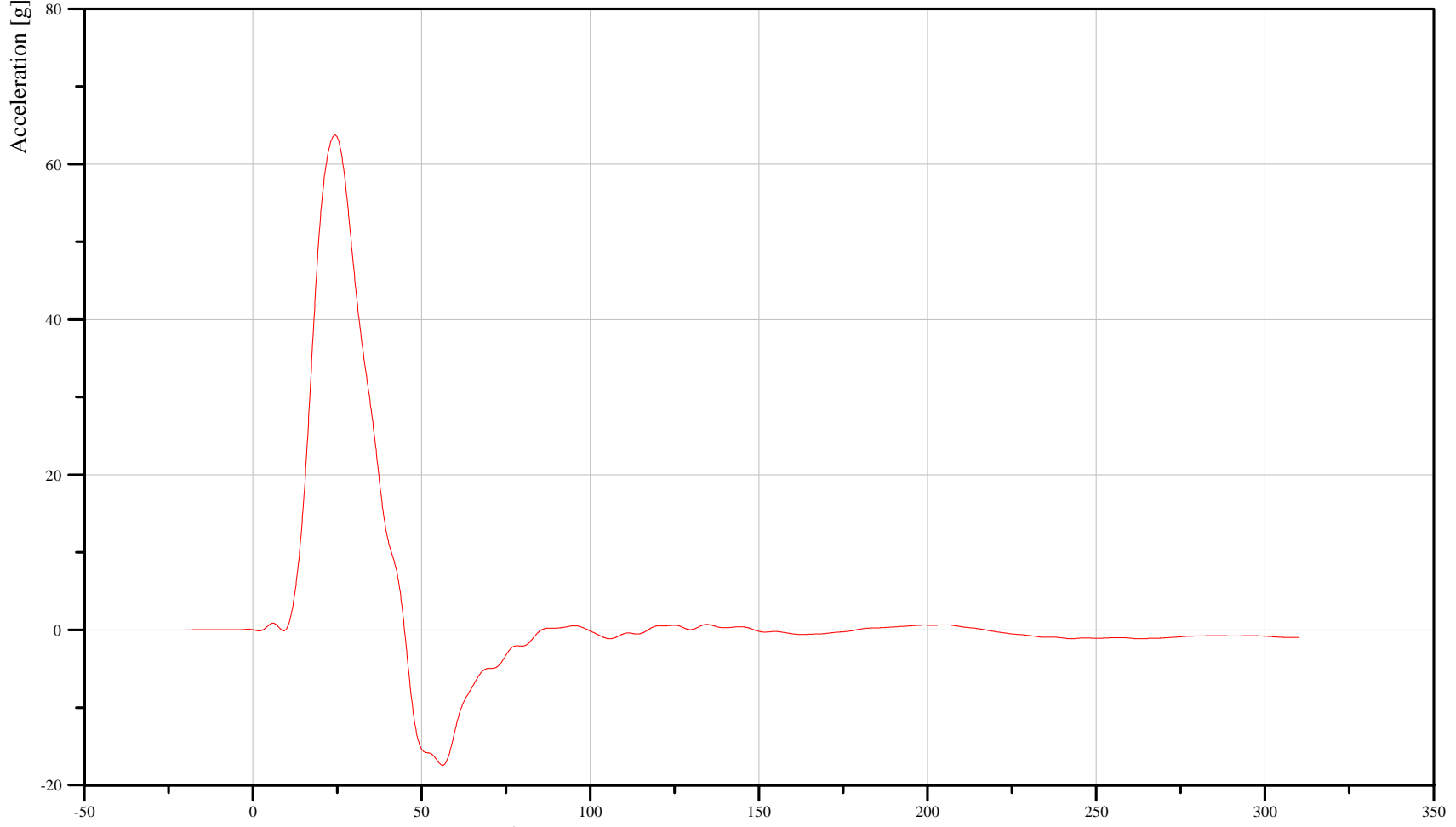
Date: 11/15/2006
Time: 12:16

DRIVER PELVIS Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

11PELVCG00SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-17.46 g at 56.24 ms

Max. Value
63.79 g at 24.40 ms

Time [ms]

B-149

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

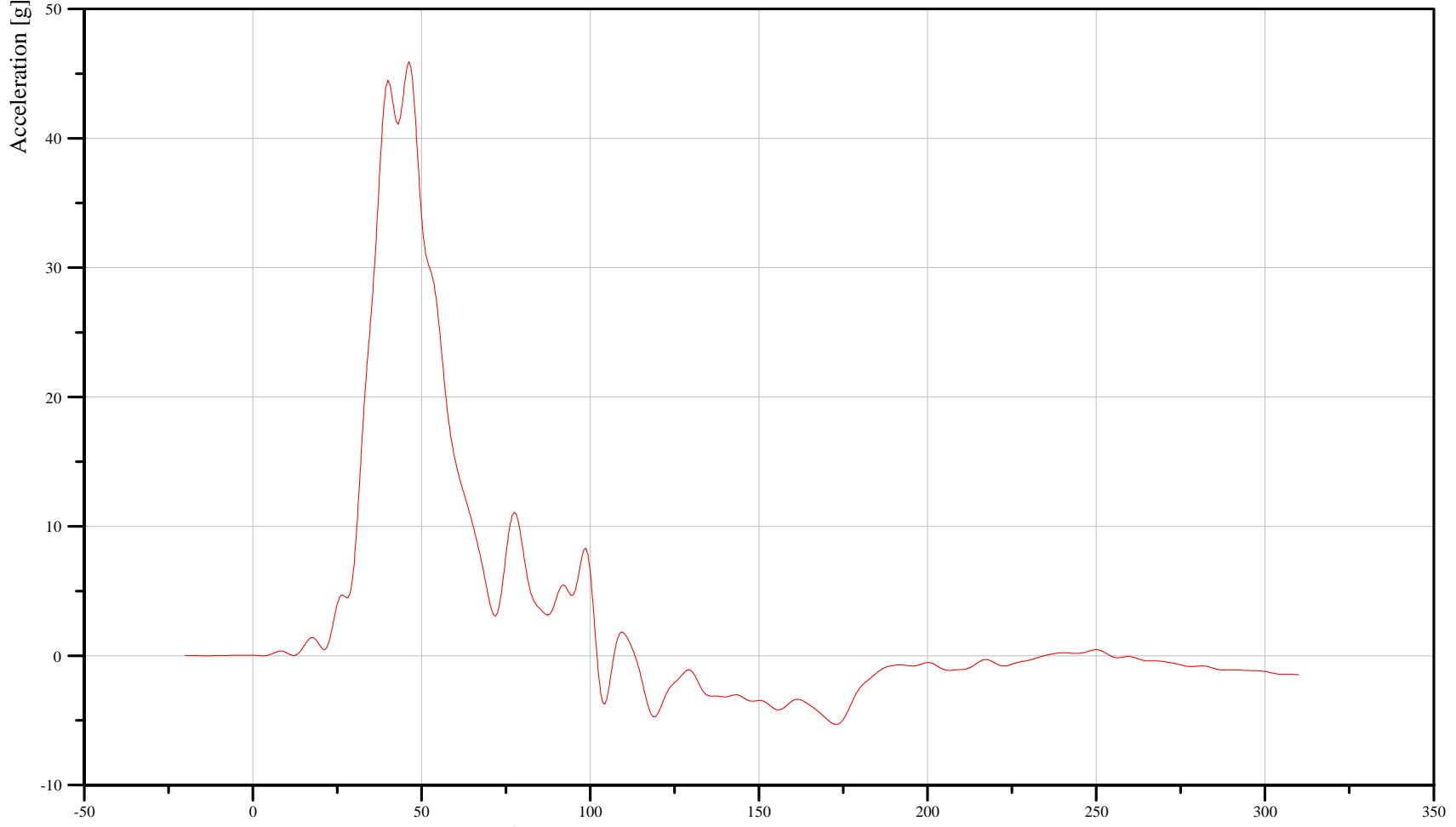
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLU00SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-5.30 g at 173.12 ms

Max. Value
45.93 g at 46.24 ms

Time [ms]

B-150

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

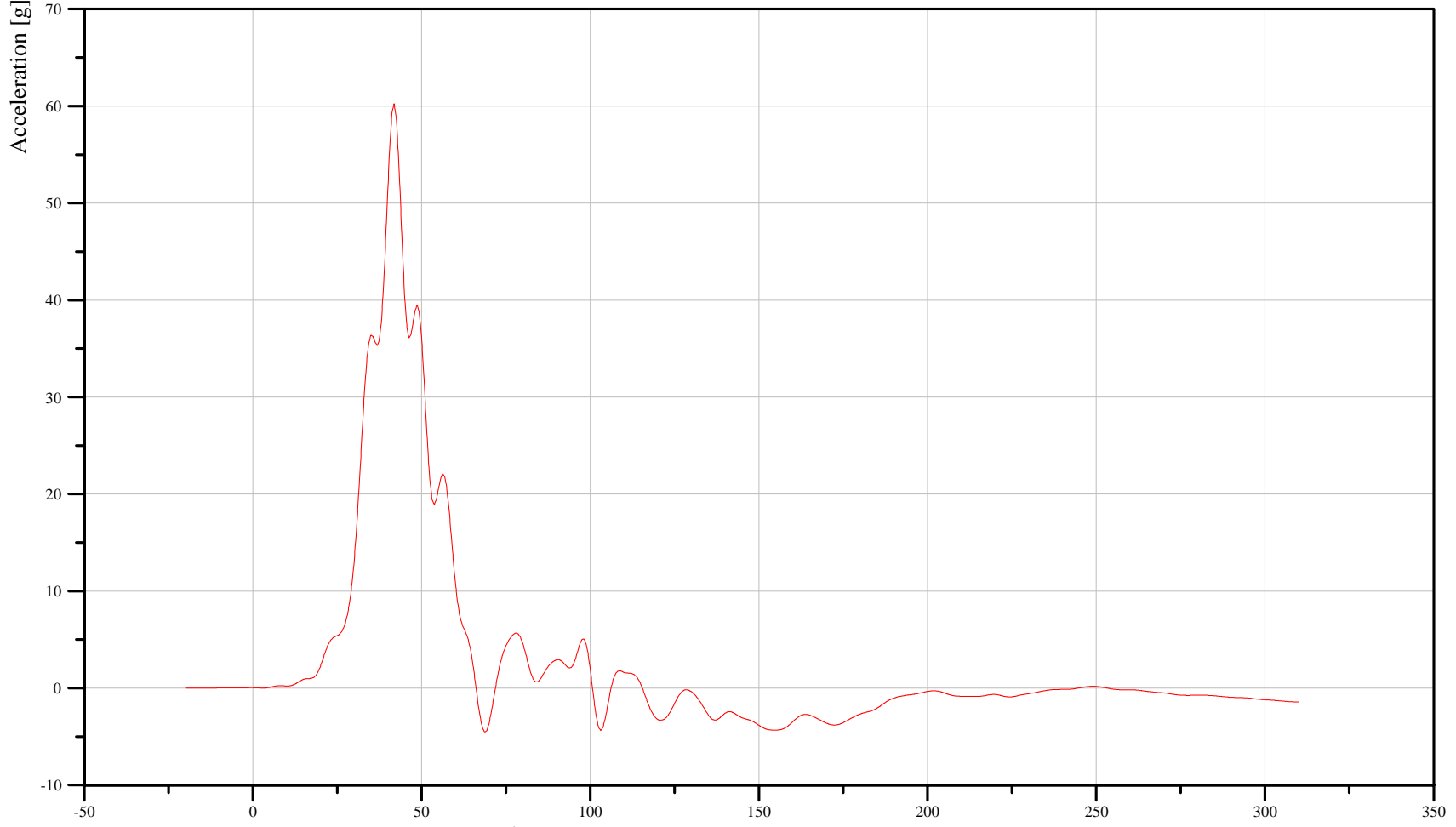
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLL00SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-4.53 g at 68.80 ms

Max. Value
60.24 g at 41.84 ms

Time [ms]

B-151

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

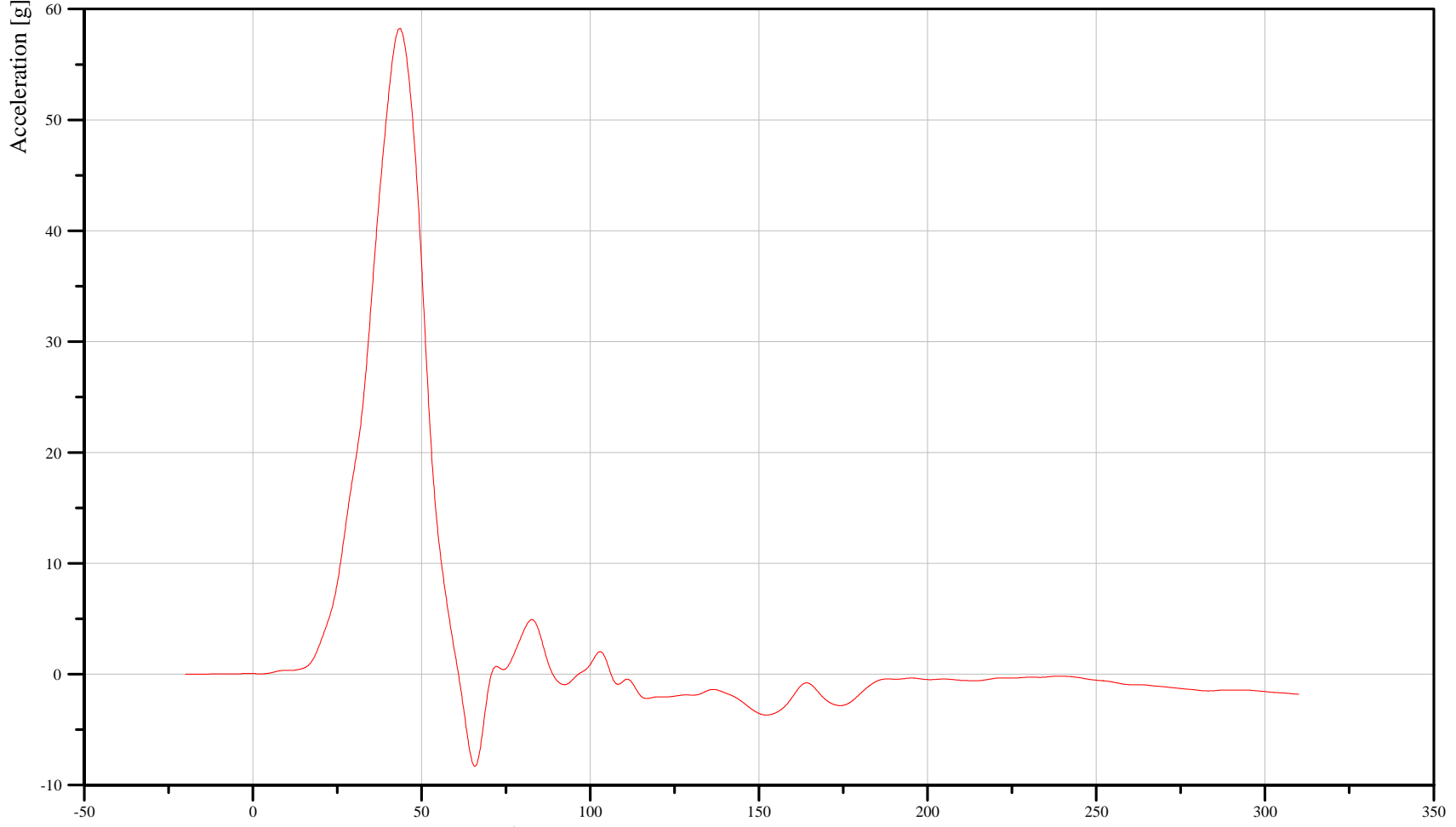
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14SPIN1200SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-8.30 g at 65.68 ms

Max. Value
58.25 g at 43.76 ms

Time [ms]

B-152

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

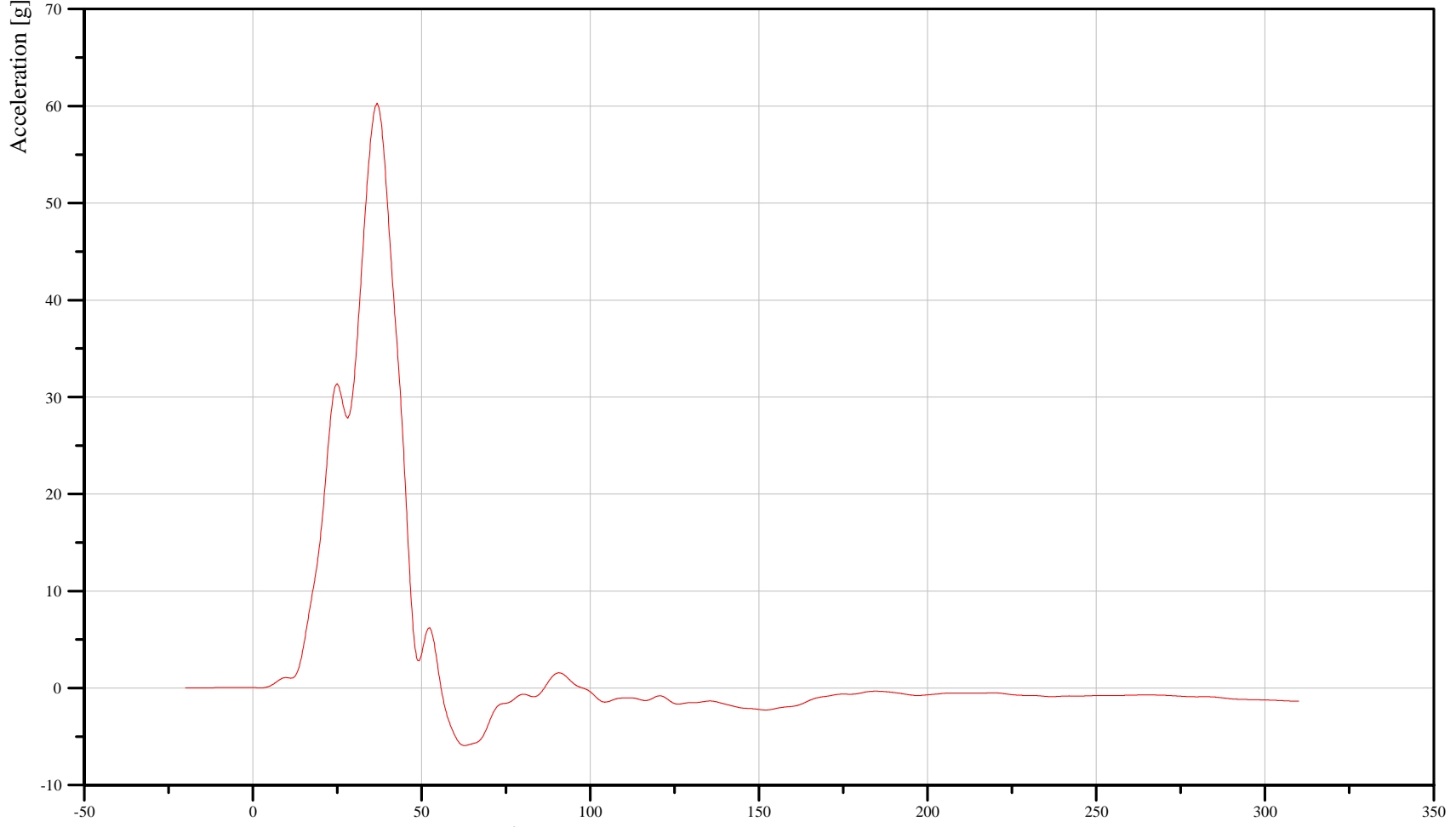
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION

Customer: NHTSA
Test Number: C75200

14PELVCG00SHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-5.92 g at 62.56 ms

Max. Value
60.29 g at 36.88 ms

Time [ms]

B-153

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

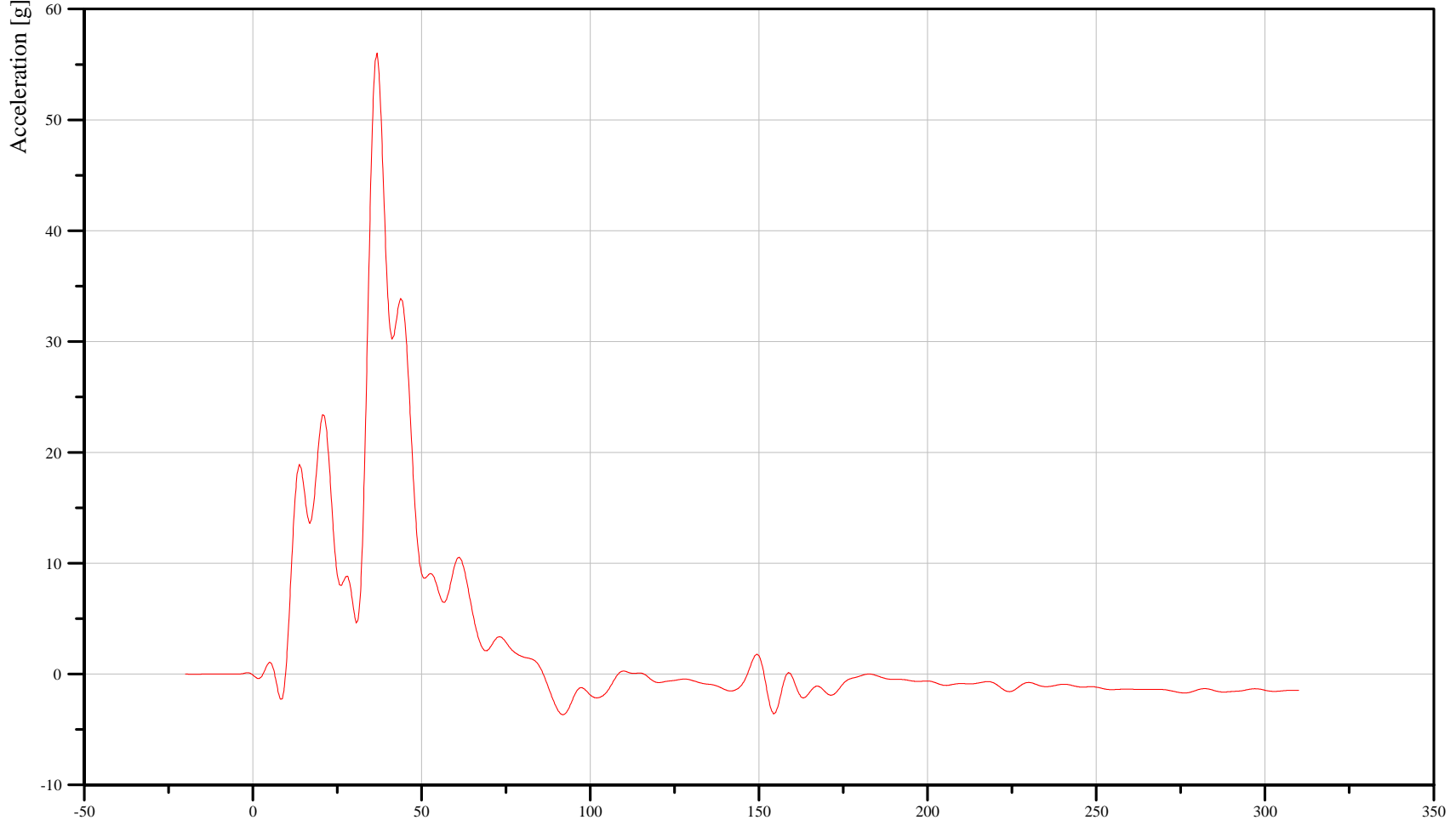
Date: 11/15/2006
Time: 12:16

DRIVER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLURESHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-3.67 g at 91.92 ms

Max. Value
56.04 g at 36.88 ms

Time [ms]

B-154

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

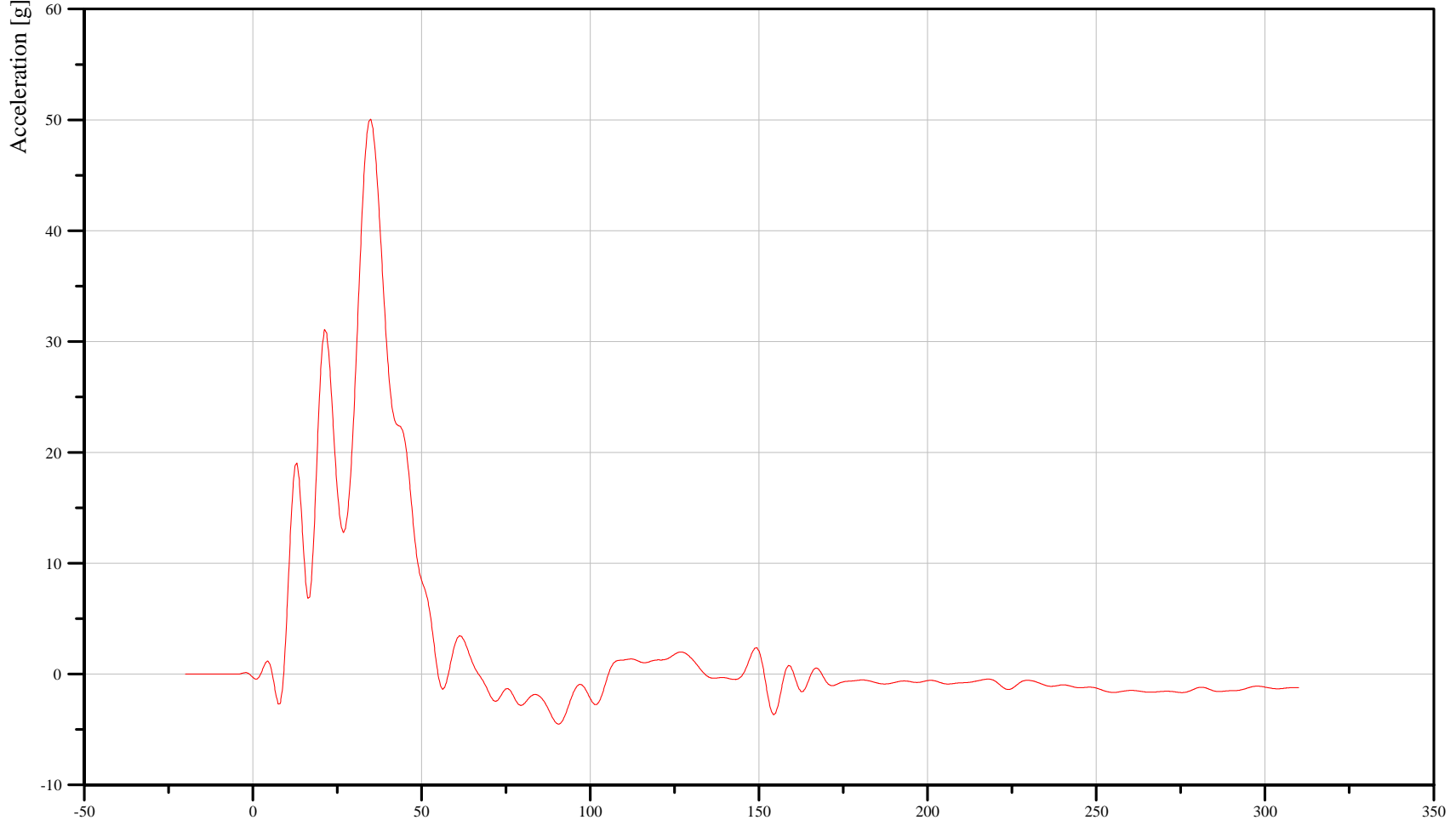
Date: 11/15/2006
Time: 12:16

DRIVER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11RIBSLLRESHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-4.52 g at 90.64 ms

Max. Value
50.06 g at 34.96 ms

Time [ms]

B-155

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

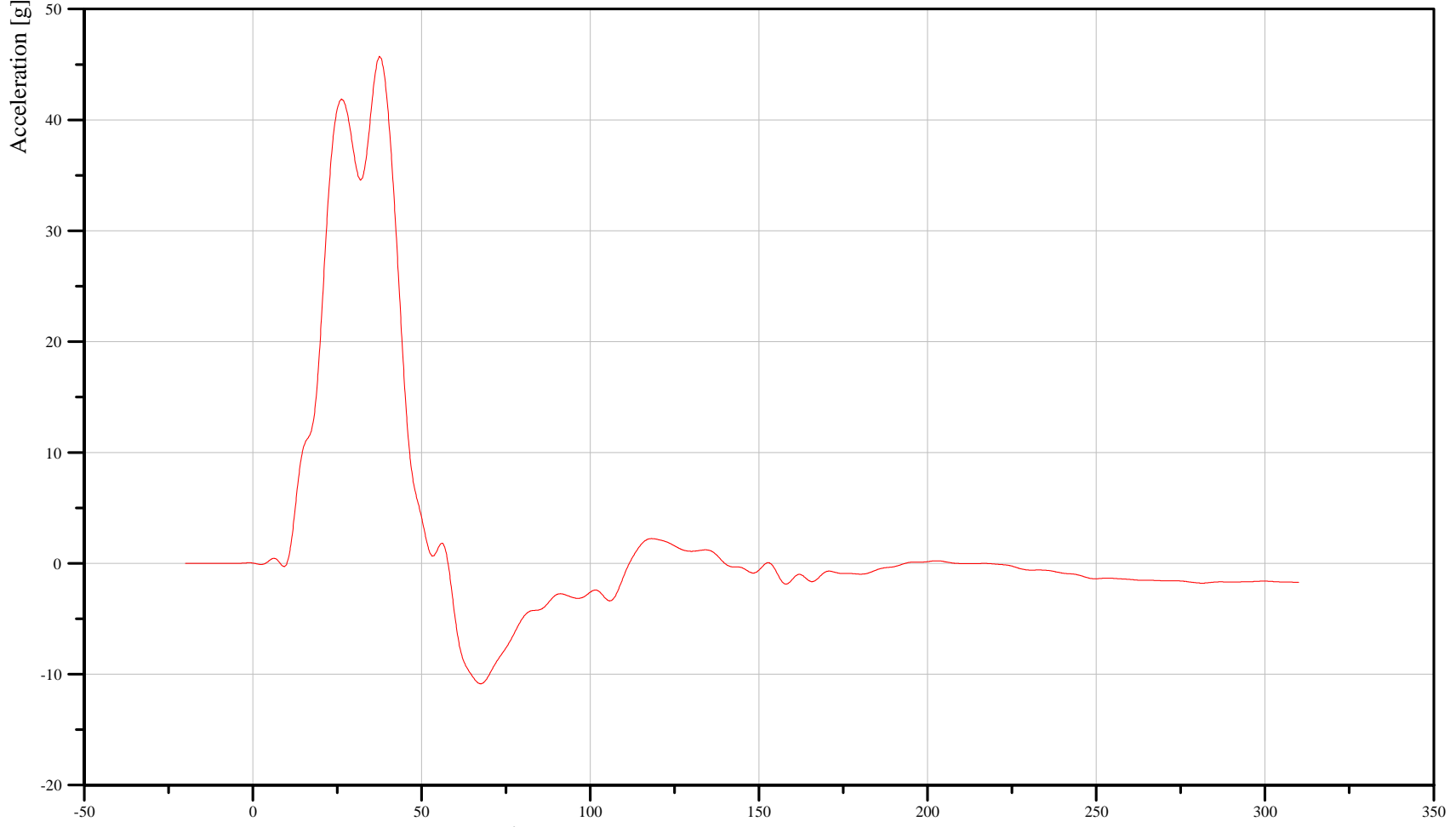
Date: 11/15/2006
Time: 12:16

DRIVER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

11SPIN12RDSHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



Filter: FIR_100

Min. Value
-10.86 g at 67.52 ms

Max. Value
45.74 g at 37.52 ms

Time [ms]

B-156

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

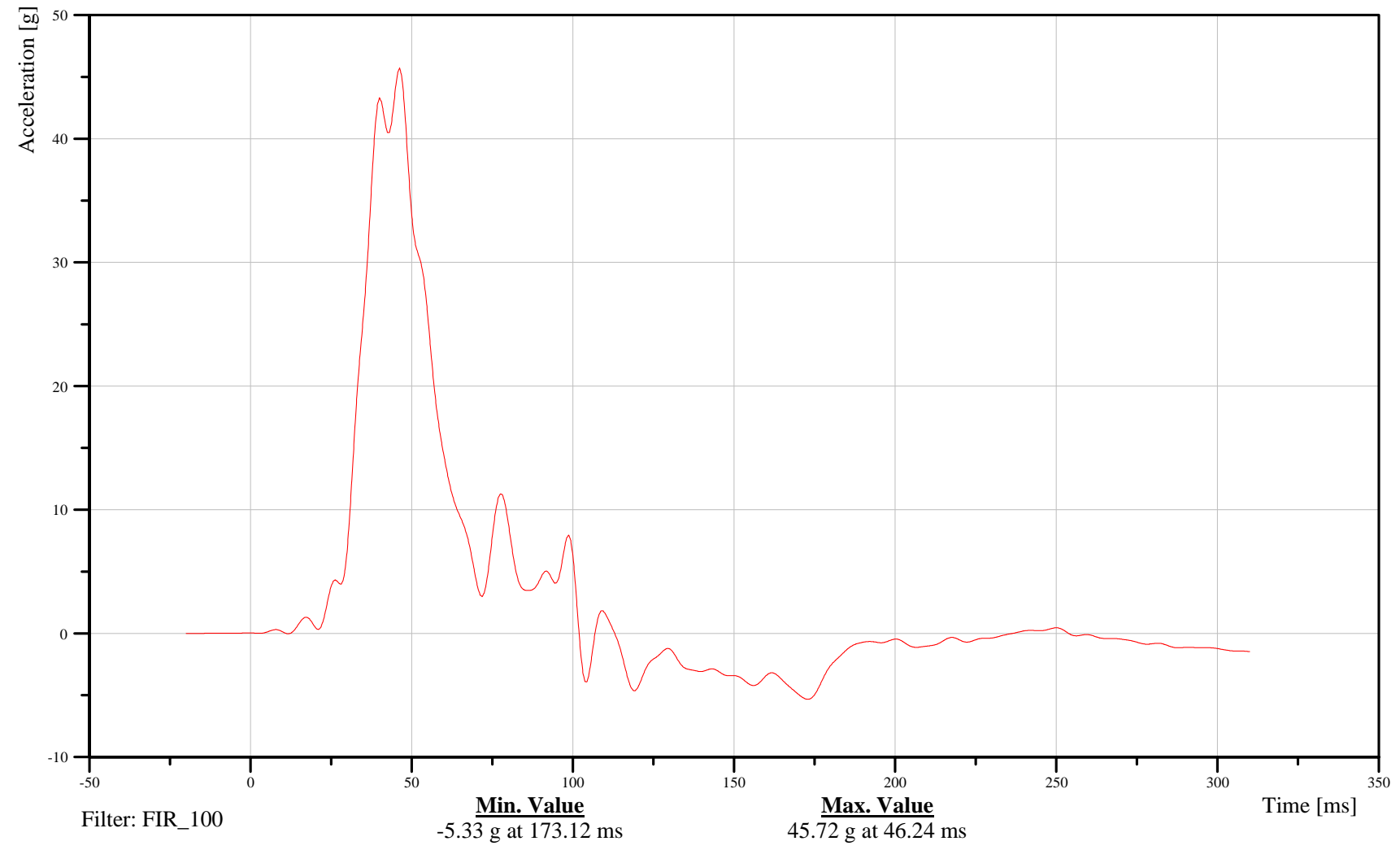
Date: 11/15/2006
Time: 12:16

LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLURESHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



B-157

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

Date: 11/15/2006

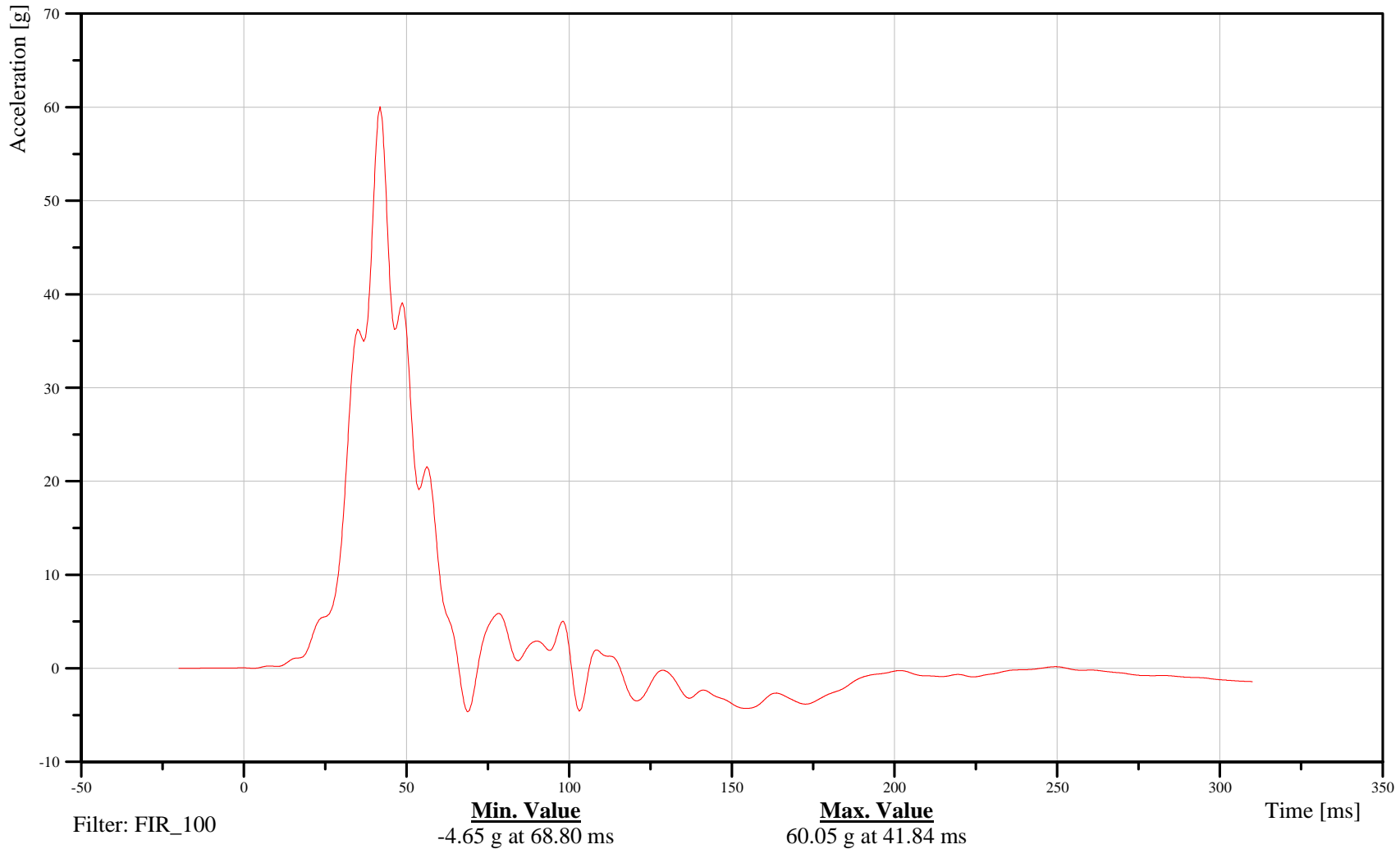
Time: 12:16

LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

Customer: NHTSA
Test Number: C75200

14RIBSLLRESHACY1

TRC Inc. Test Lab: CTF
Test Number: 061115



B-158

061115



56/28 kph 90 Degree Side Impact (MDB) into Left Side of 2007 Nissan Sentra

Date: 11/15/2006

Time: 12:16

LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

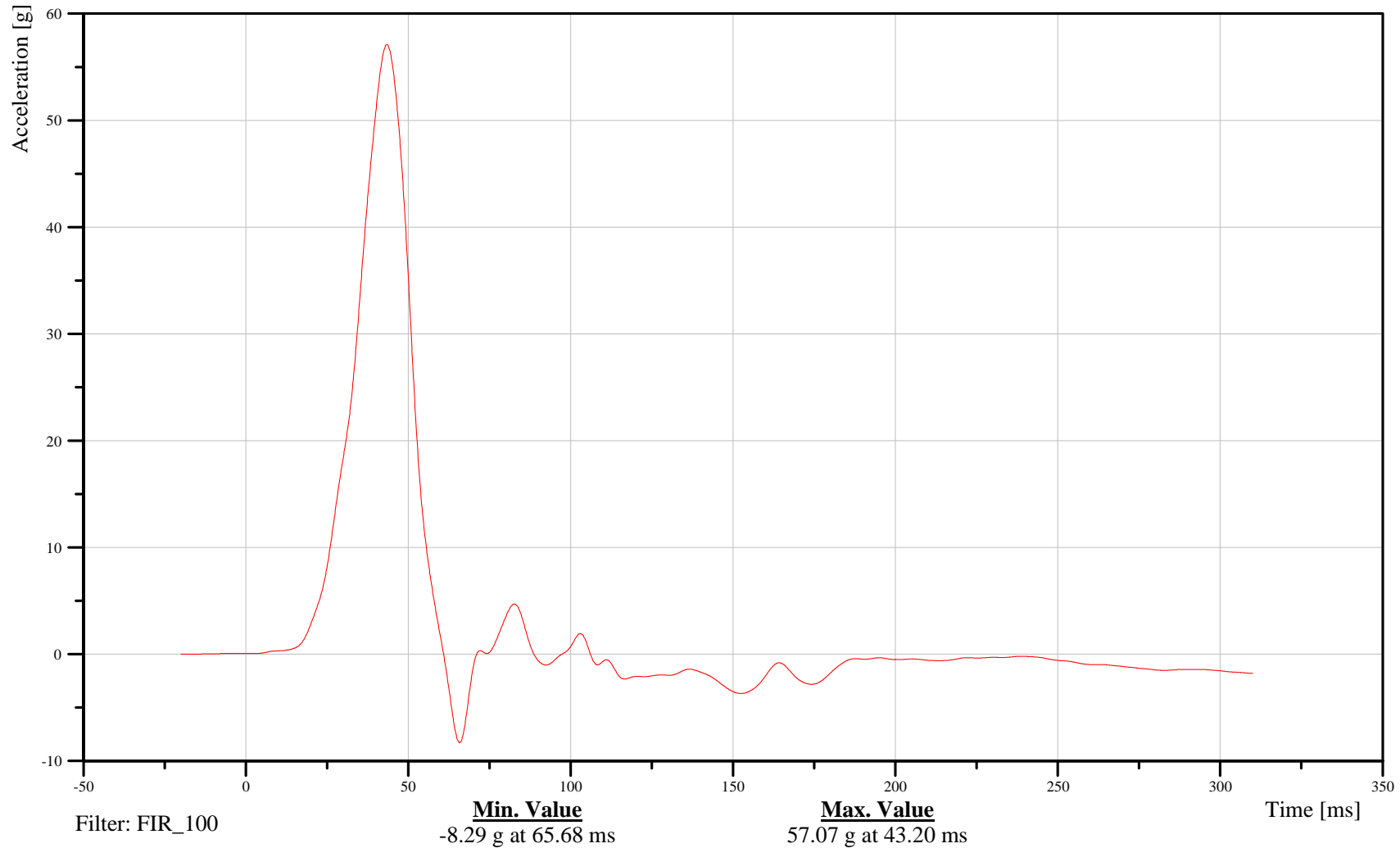
Customer: NHTSA

Test Number: C75200

14SPIN12RDSHACY1

TRC Inc. Test Lab: CTF

Test Number: 061115



B-159

061115

Appendix C

SID HIII Configuration and Performance Verification Data

Summary
 SID HIII Pre-Test and Post-Test Calibration
 Configured For Left Side Impact

Date: 10/31/06 - 11/17/06 TRC Inc. Test Number: S/N059 & S/N055

Laboratory Technician: R. Benavides & R. Stoner

Test Parameter	Specification	SID HIII 059		SID HIII 055	
		Pre-Test	Post-Test	Pre-Test	Post-Test
SH - Seated Height (mm)	889-909	906	904	904	902
RH - Rib Height (mm)	502-520	512	514	502	508
HP - Hip Pivot Height (mm)	99 ref	99.1	99.1	99.1	99.1
KH - Knee Pivot from Back Line (mm)	511-526	520	522	521	520
KV - Knee Pivot to Floor (mm)	490-505	498	501	493	493
HW - Hip Width (mm)	356-391	368	360	376	374
Thorax Impacts					
Temperature (°C)	18.9-25.5	21.4	21.0	21.1	21.3
Relative Humidity (%)	10-70	25	30	47	29
Probe Speed (m/s)	4.27-4.33	4.276	4.287	4.292	4.302
Upper Rib (g's)	37-46	40.7	42.6	44.5	44.7
Lower Rib (g's)	37-46	38.3	41.1	43.1	43.7
Lower Spine (g's)	15-22	19.1	19.4	20.4	20.8
Pelvis Impacts					
Temperature (°C)	18.9-25.5	21.7	21.0	21.3	20.9
Relative Humidity (%)	10-70	24	31	49	29
Probe Speed (m/s)	4.27-4.33	4.281	4.286	4.316	4.321
Pelvis (g's)	40-60	46.2	43.2	54.2	55.4

Calibration Test Results

Pre-Test

SID HIII: 059

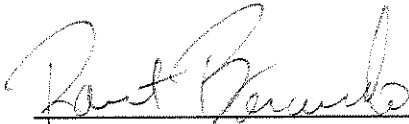
Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber passed all test requirements (was tested on October 20, 2006 for a previous calibration series).

Transportation Research Center Inc.
SID/HIII Dummy Post-Test
External Dimensions
Serial No. 059 Calibration No. 18

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	906 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	512 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	520 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	498 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	368 mm	Yes
Top Rib Width From CVL	RW-1	165.1 - 180.3 mm	172 mm	Yes
Bottom Rib Width From CVL	RW-2	165.1 - 180.3 mm	172 mm	Yes
Difference Between Top & Bottom Rib Width from CVL		<= 2.5 mm	0.0 mm	Yes

Technician



Approved





Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 059 Certification No. 18-3

Test Date: 11/2/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Peak Head Resultant Acceleration	120 - 150 g	145.6 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	-6.9 g	Yes
Is Head Resultant Acceleration Curve Unimodal Within 15% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Rout Barand

Approved

Ron Stoner

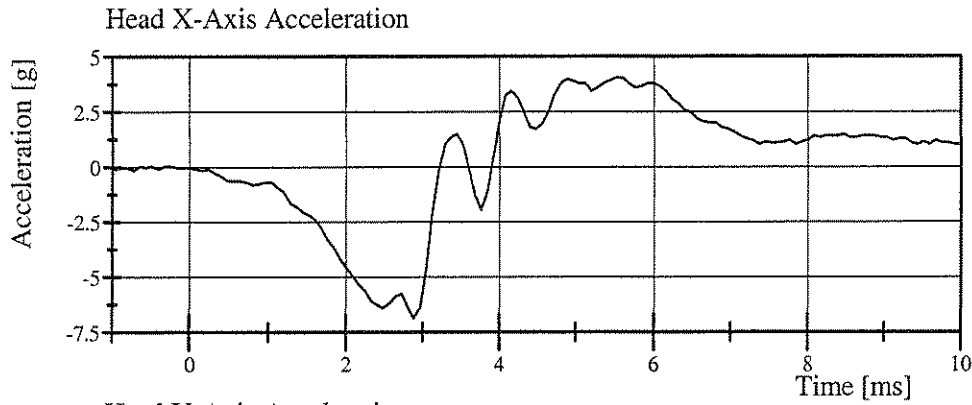


Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 059 Certification No. 18-3

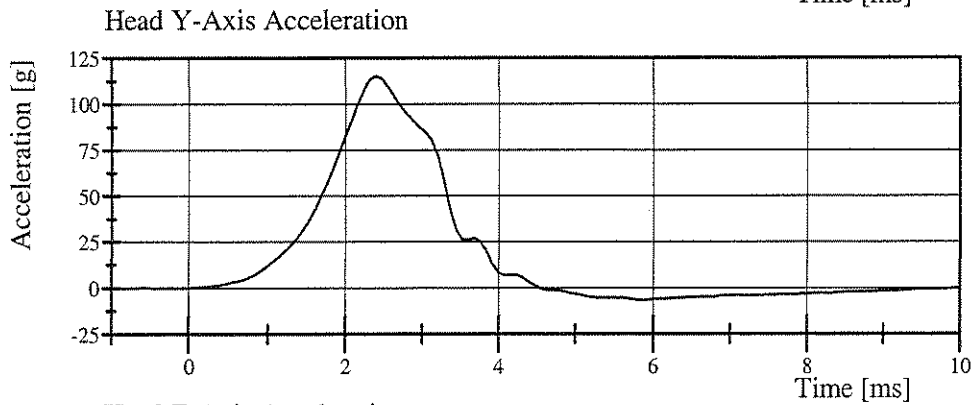
Test Date: 11/2/2006



Filter Class: CFC_1000

Max: 4.1 g at 5.5 ms

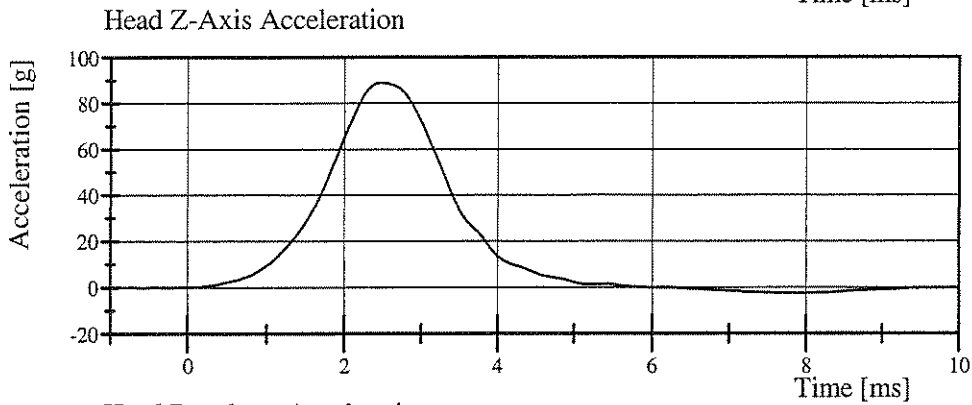
Min: -6.9 g at 2.9 ms



Filter Class: CFC_1000

Max: 115.4 g at 2.4 ms

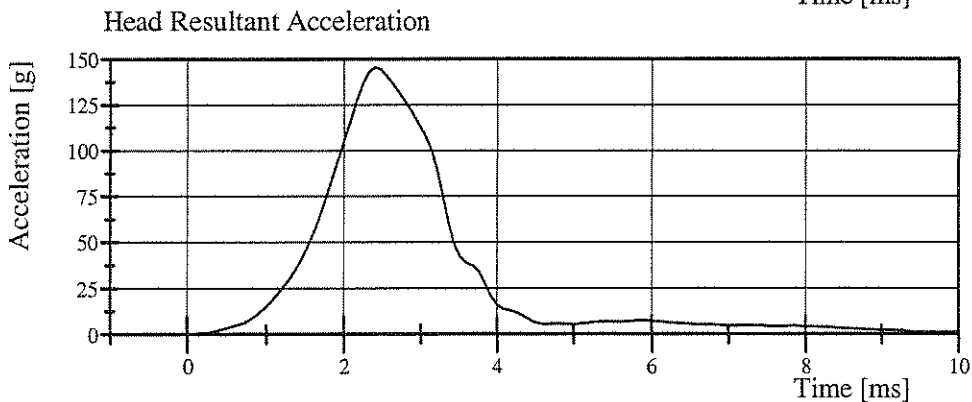
Min: -6.6 g at 5.8 ms



Filter Class: CFC_1000

Max: 89.0 g at 2.5 ms

Min: -2.6 g at 7.8 ms



Filter Class: CFC_1000

Max: 145.6 g at 2.4 ms

Min: 0.1 g at -0.2 ms



Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 18-4

Test Date: 11/14/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Pendulum Velocity	(-6.89) - (-7.13) m/s	-7.059 m/s	Yes
Pendulum Integrated Velocity Change at 10 ms	1.96 - 2.55 m/s	2.394 m/s	Yes
Pendulum Integrated Velocity Change at 20 ms	4.12 - 5.10 m/s	4.739 m/s	Yes
Pendulum Integrated Velocity Change at 30 ms	5.73 - 7.01 m/s	6.665 m/s	Yes
Pendulum Integrated Velocity Change at 40 to 70 ms	6.27 - 7.64 m/s	7.147 m/s	Yes
Total Head D-Plane Rotation	(-66) - (-82) °	-72.9 °	Yes
Total Head D-Plane Rotation Time to 0° after Peak Rotation	58 - 67 ms	58.2 ms	Yes
Total Neck Occipital Condyle Moment	73 - 88 N·m	80.3 N·m	Yes
Total Neck Occipital Condyle Moment Time to 0 N·m after Peak Moment	49 - 64 ms	55.6 ms	Yes
Time from Peak Moment to Peak Rotation	2 - 16 ms	10.4 ms	Yes

Test meets specifications.

Comments:

Technician



Approved



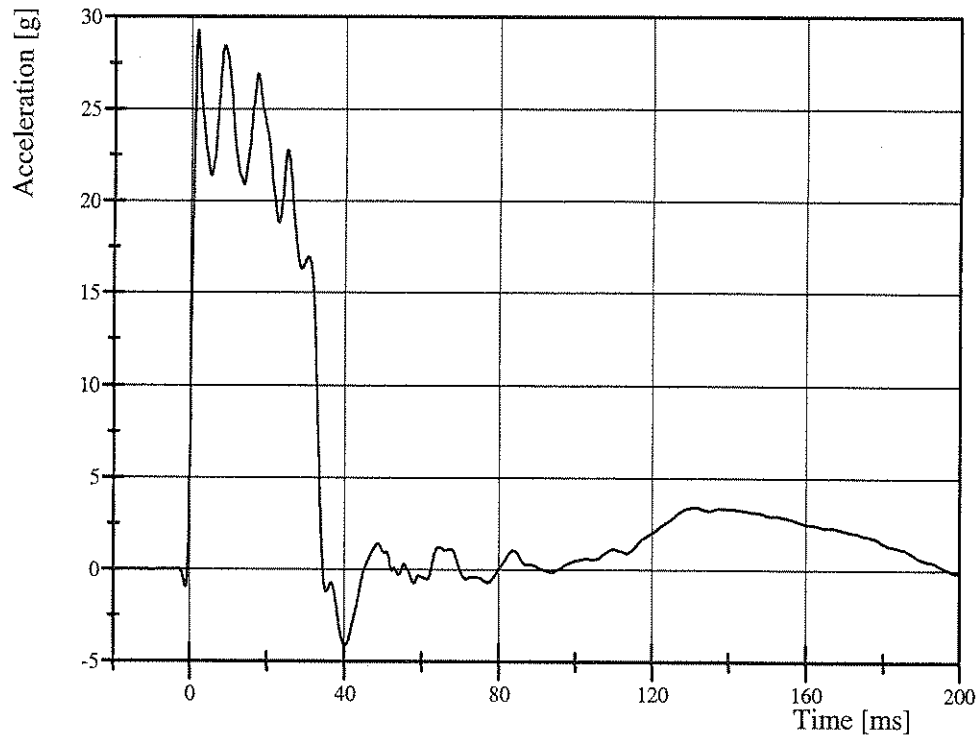
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 18-4

Test Date: 11/14/2006

Pendulum Acceleration

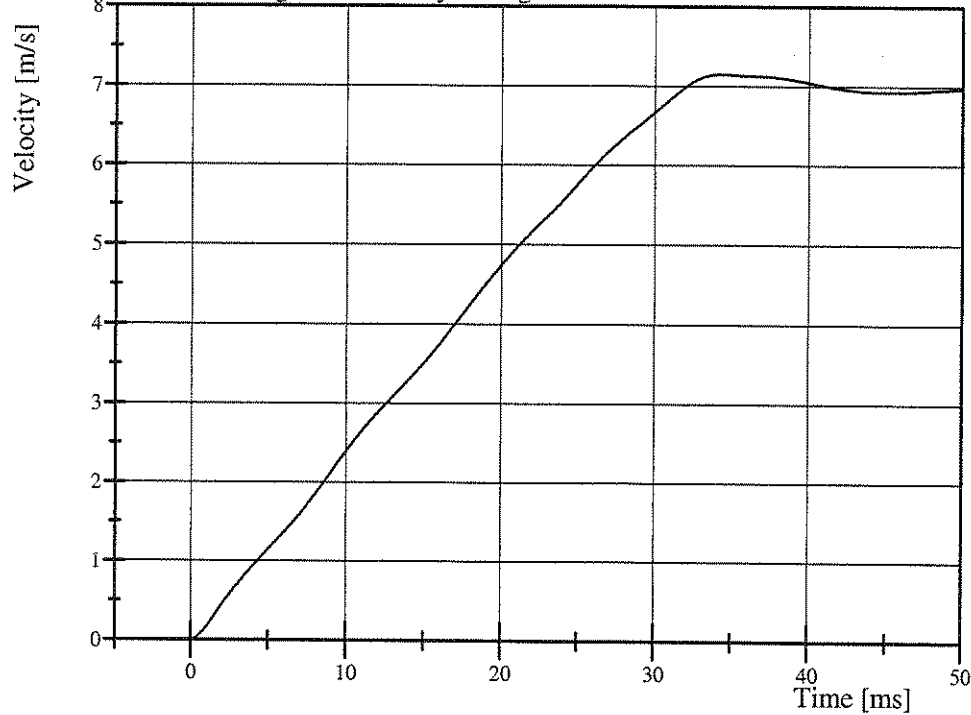


Filter Class: CFC_180

Max: 29.3 g at 1.7 ms

Min: -4.1 g at 40.3 ms

Pendulum Integrated Velocity Change



Filter Class: CFC_180

Max: 7.1 m/s at 34.4 ms

Min: 0.0 m/s at 0.0 ms

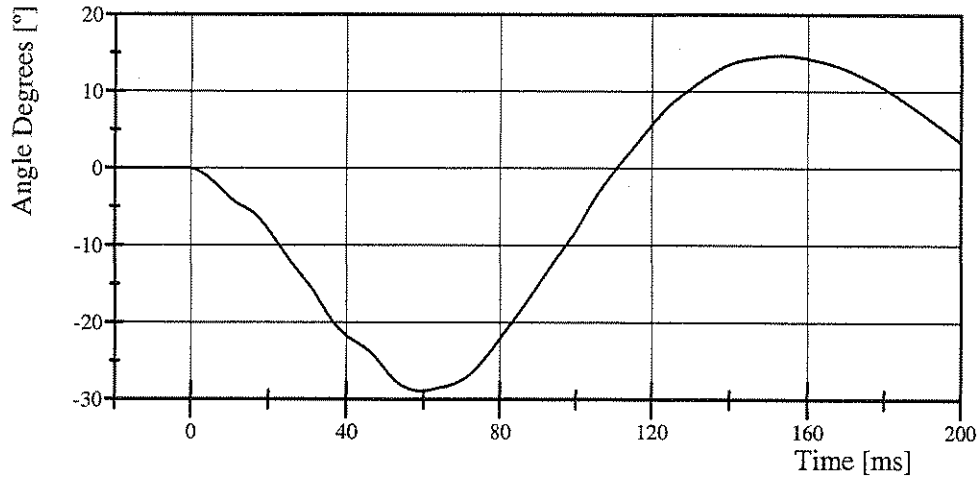
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 18-4

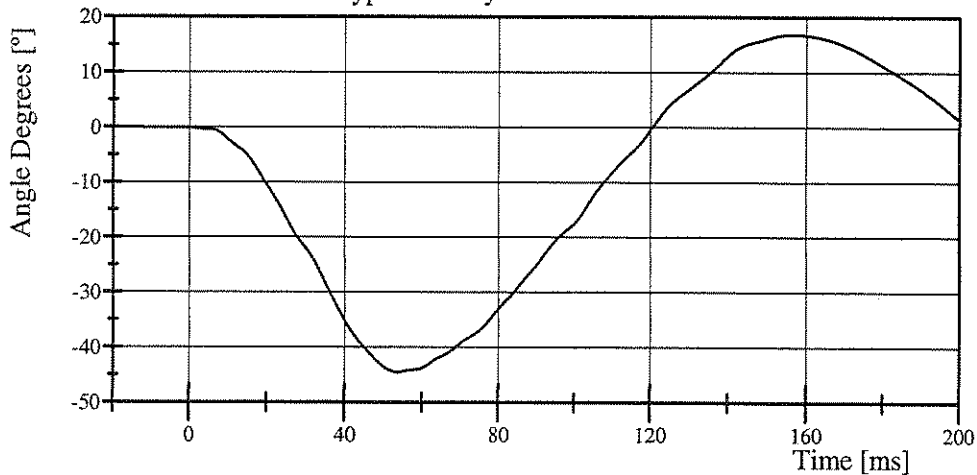
Test Date: 11/14/2006

Pot Rotation at the Base of Neck



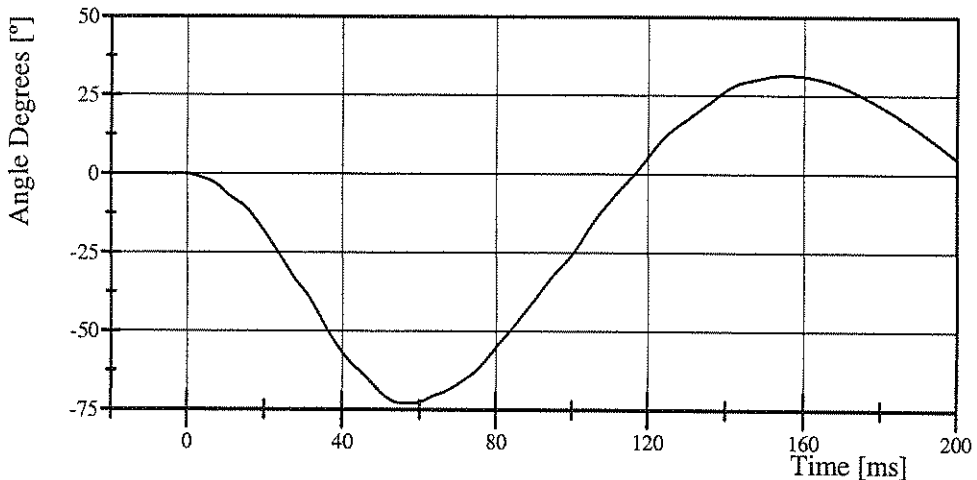
Filter Class: CFC_60
Max: 14.7 ° at 153.1 ms
Min: -28.9 ° at 59.4 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 16.9 ° at 157.1 ms
Min: -44.6 ° at 53.7 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 31.5 ° at 155.1 ms
Min: -72.9 ° at 58.4 ms

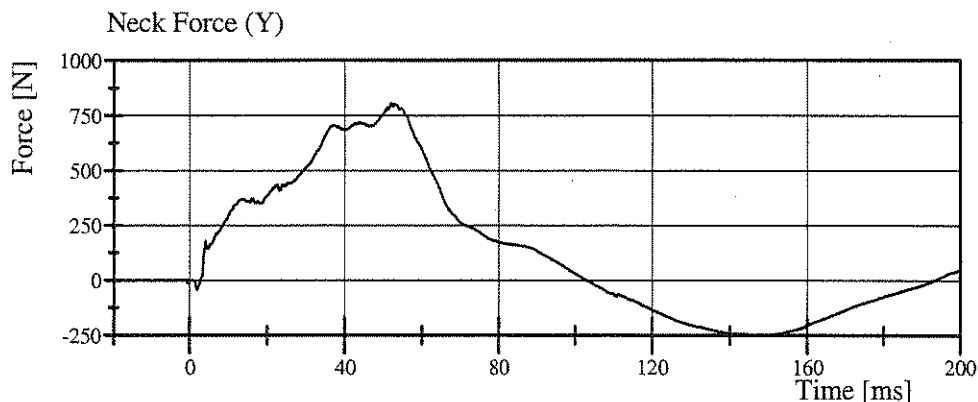


Transportation Research Center Inc.

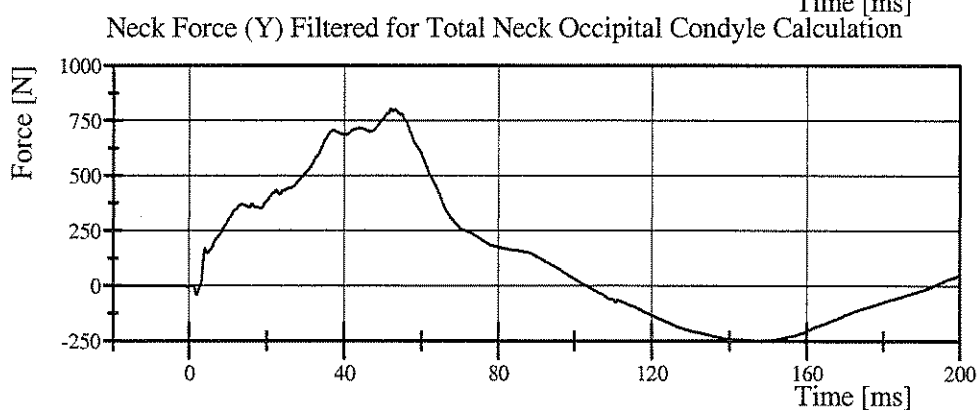
Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 18-4

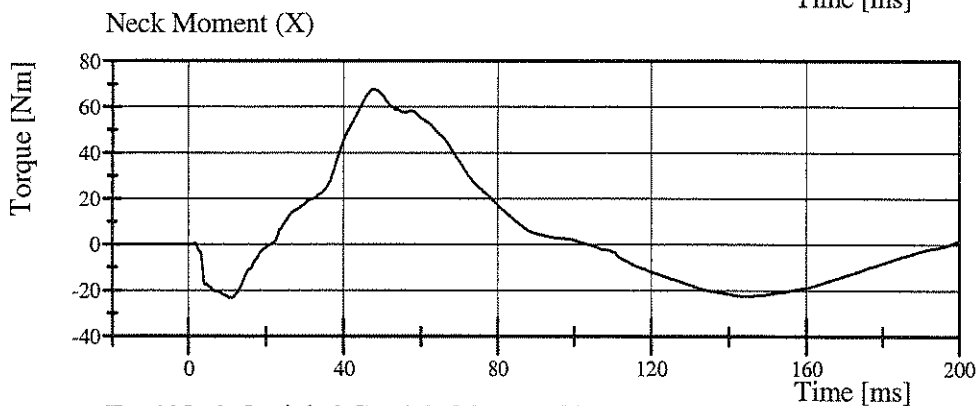
Test Date: 11/14/2006



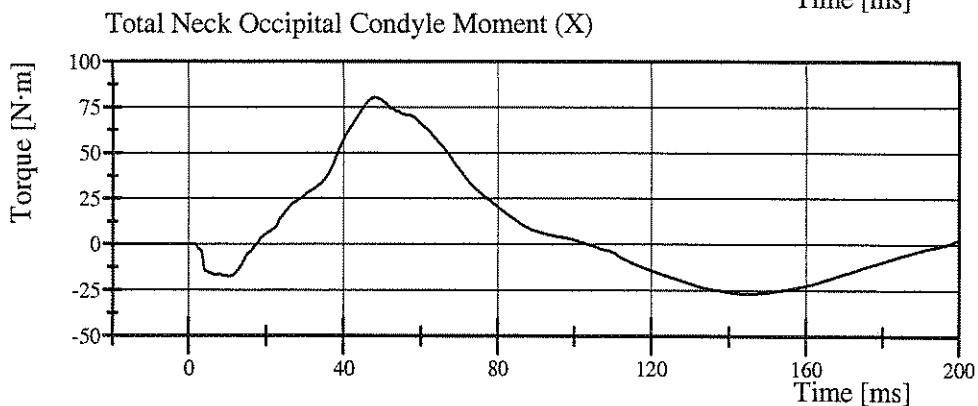
Filter Class: CFC_1000
Max: 805.3 N at 51.9 ms
Min: -249.2 N at 147.6 ms



Filter Class: CFC_600
Max: 804.1 N at 51.8 ms
Min: -248.8 N at 147.6 ms



Filter Class: CFC_600
Max: 67.6 Nm at 47.7 ms
Min: -23.2 Nm at 10.7 ms



Filter Class: CFC_600
Max: 80.3 N·m at 48.0 ms
Min: -26.9 N·m at 145.0 ms



Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 059 Certification No. 18-1

Test Date: 11/1/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.276 m/s	Yes
Upper Rib Lateral Acceleration	37 - 46 g	40.7 g	Yes
Lower Rib Lateral Acceleration	37 - 46 g	38.3 g	Yes
Lower Spine Lateral Acceleration	15 - 22 g	19.1 g	Yes

Test meets specifications.

Comments:

Technician

Rant Barab

Approved

Ron Stoner



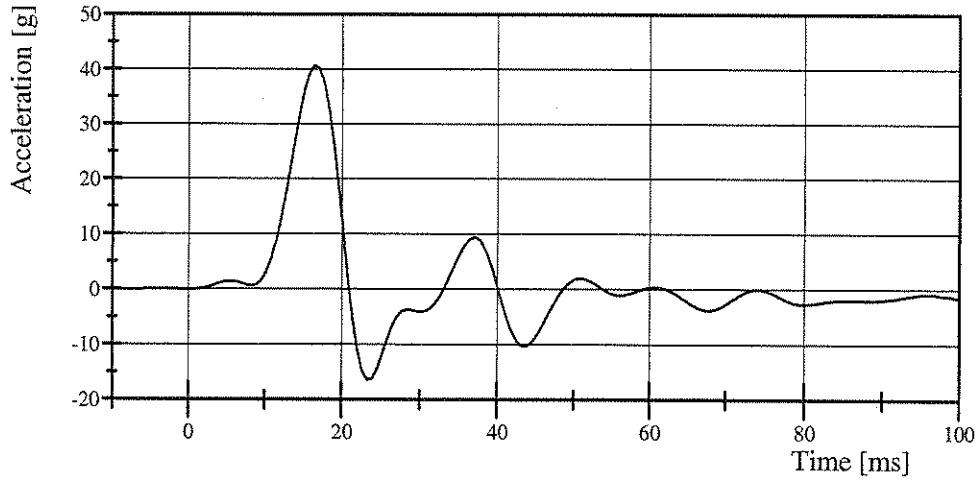
Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 059 Certification No. 18-1

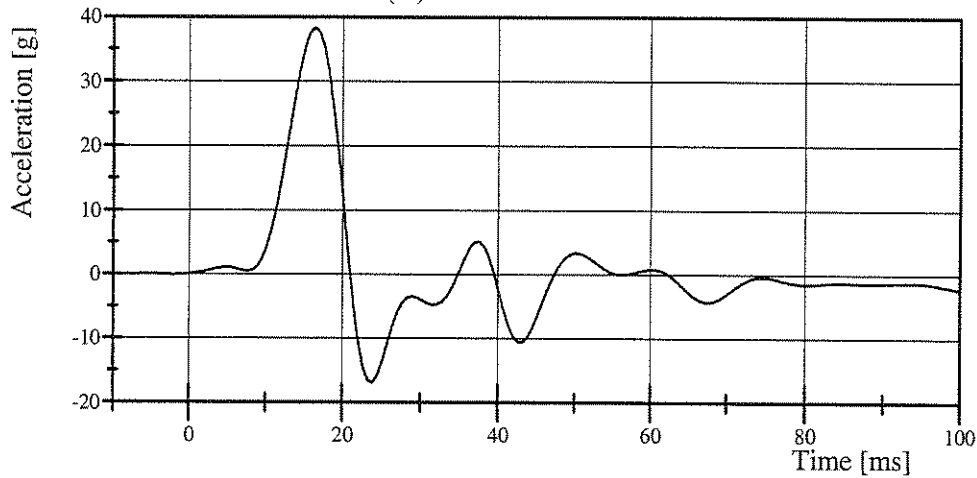
Test Date: 11/1/2006

Upper Rib Acceleration (Y)



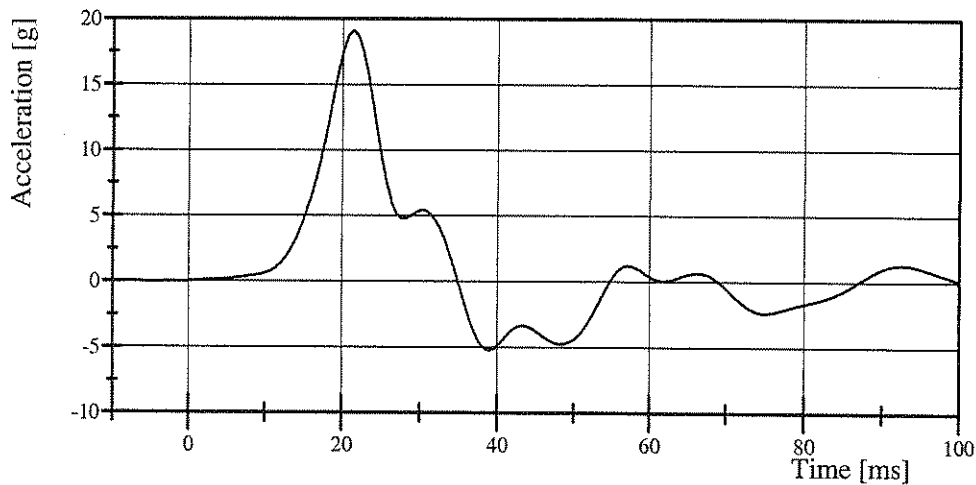
Filter Class: FIR_100
Max: 40.7 g at 16.4 ms
Min: -16.4 g at 23.3 ms

Lower Rib Acceleration (Y)



Filter Class: FIR_100
Max: 38.3 g at 16.4 ms
Min: -16.9 g at 23.8 ms

Lower Spine Acceleration (Y)



Filter Class: FIR_100
Max: 19.1 g at 21.4 ms
Min: -5.2 g at 38.9 ms

Transportation Research Center Inc.

3.05 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 059 Certification No. 17-1
Test Date: 10/20/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	37 %	Yes
Maximum Force at Test Velocity	849 - 1,137 N	929.1 N	Yes
Maximum Displacement at Test Velocity	30.19 - 35.17 mm	30.962 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 3.064

Damper Setting: 5.5

Technician

Joseph L. Beusle

Approved

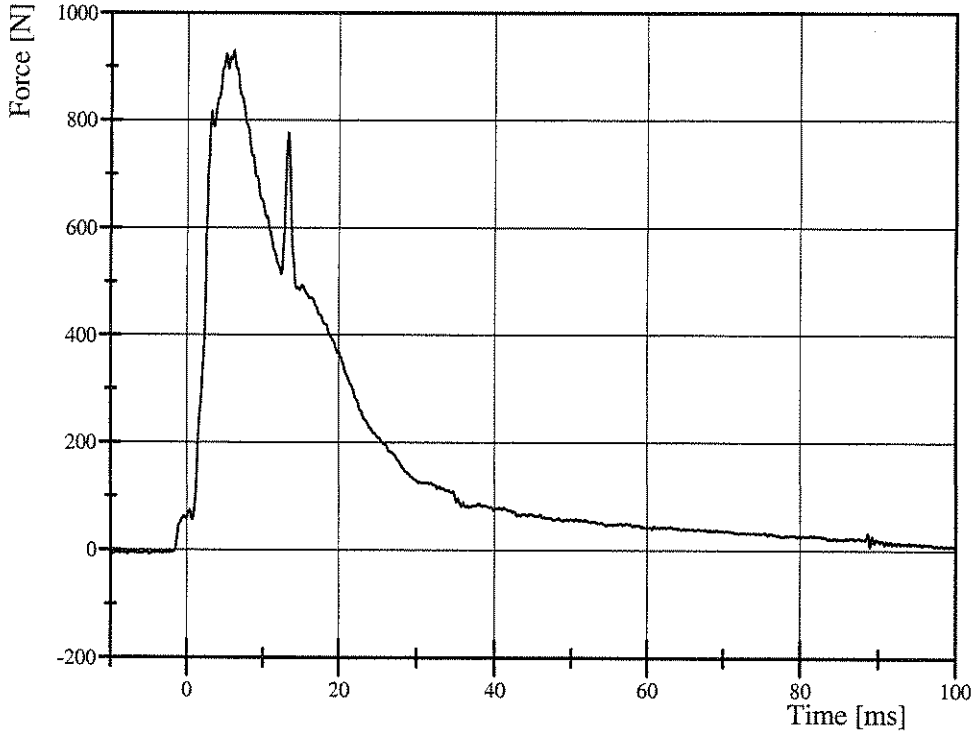
Don Stoner



Transportation Research Center Inc.

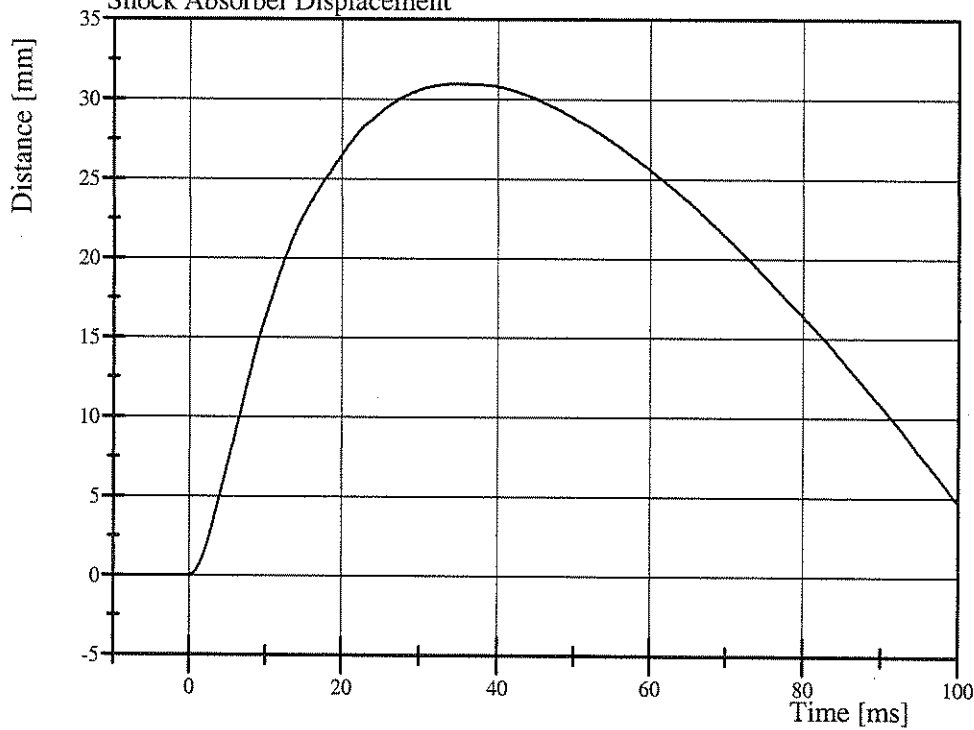
3.05 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 059 Certification No. 17-1
Test Date: 10/20/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 929.1 N at 6.1 ms
Min: -8.2 N at -7.8 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 31.0 mm at 34.9 ms
Min: -0.0 mm at -9.7 ms



Transportation Research Center Inc.

4.27 m/s Thoracic Shock Absorber Compression
SID-III Serial No. 059 Certification No. 17-1
Test Date: 10/20/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	38 %	Yes
Maximum Force at Test Velocity	1,744 - 2,108 N	1,859.9 N	Yes
Maximum Displacement at Test Velocity	31.69 - 37.24 mm	33.640 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 4.278

Damper Setting: 5.5

Technician

Jaqueline Bursik

Approved

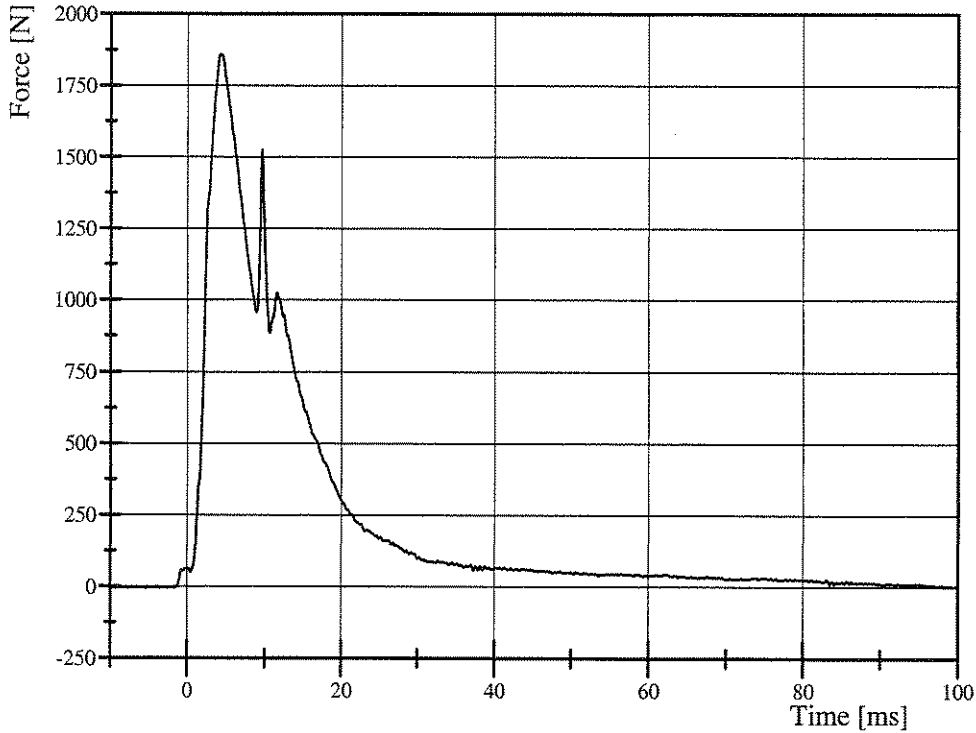
Ron Stone



Transportation Research Center Inc.

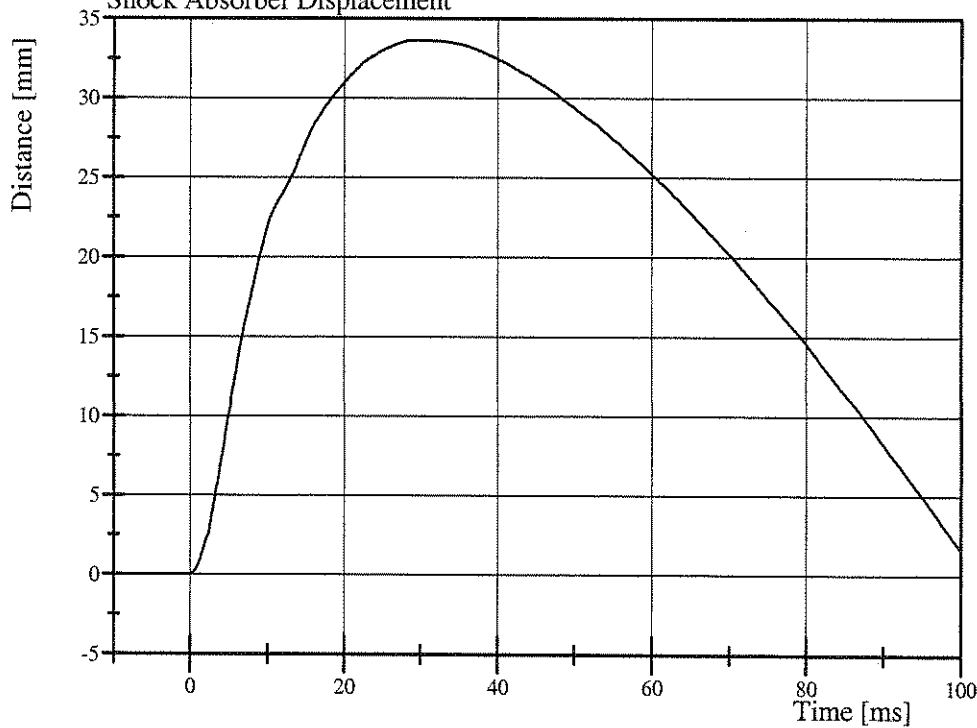
4.27 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 059 Certification No. 17-1
Test Date: 10/20/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 1,859.9 N at 4.2 ms
Min: -6.4 N at -5.3 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 33.6 mm at 29.5 ms
Min: -0.0 mm at -8.6 ms



Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 059 Certification No. 17-1
Test Date: 10/20/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	36 %	Yes
Maximum Force at Test Velocity	3,732 - 4,424 N	4,229.0 N	Yes
Maximum Displacement at Test Velocity	33.36 - 39.56 mm	37.024 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 6.086

Damper Setting: 5.5

Technician

Joseph Busch

Approved

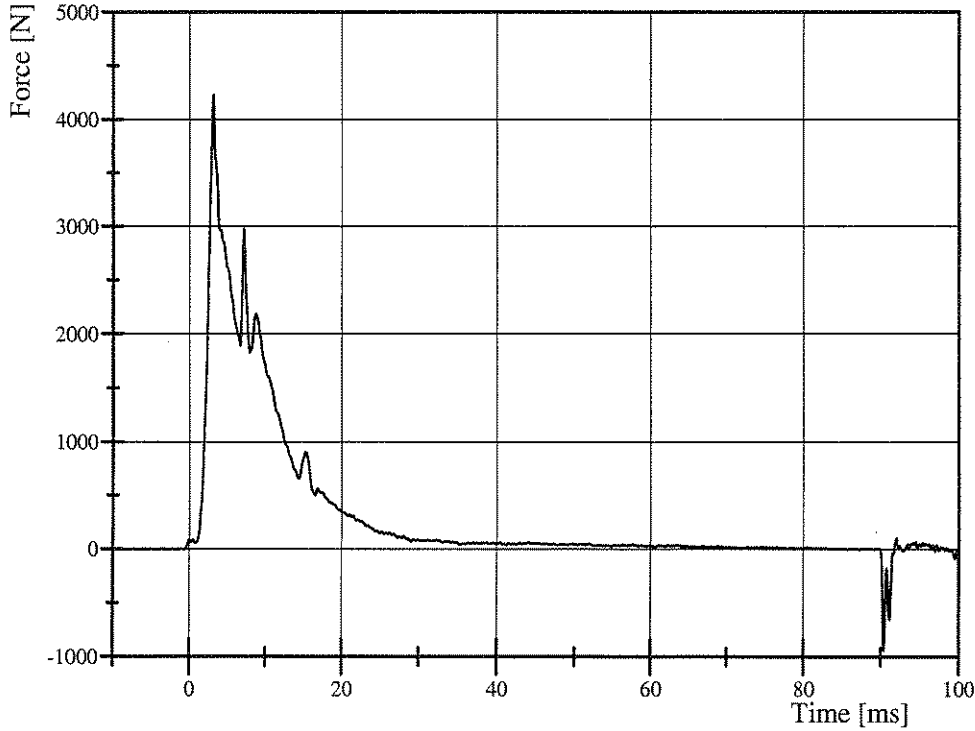
Ron Stump



Transportation Research Center Inc.

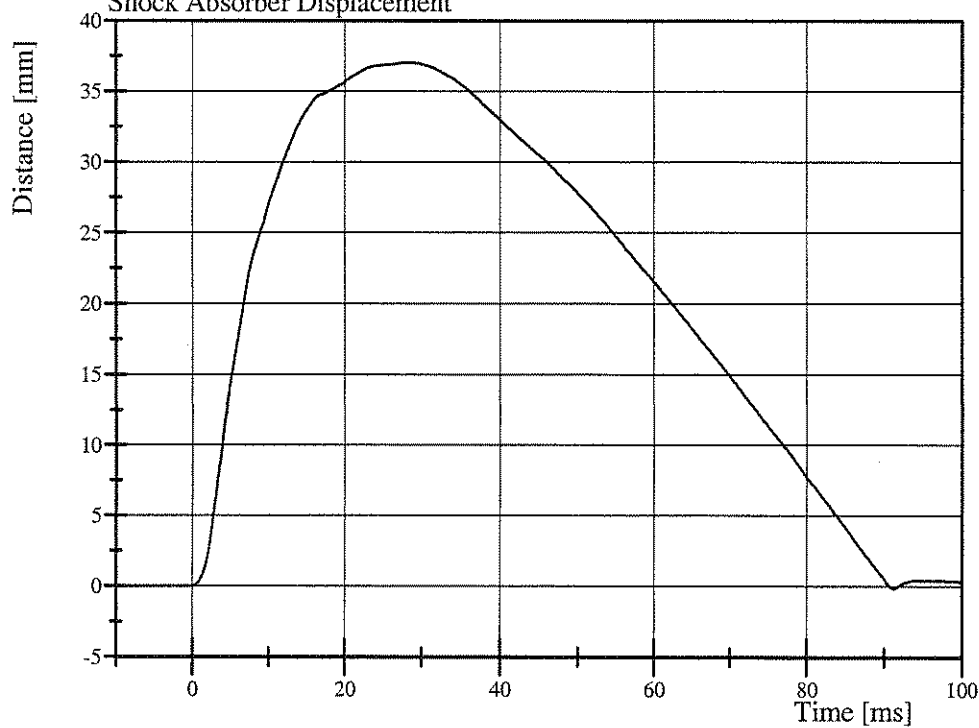
6.10 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 059 Certification No. 17-1
Test Date: 10/20/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 4,229.0 N at 3.1 ms
Min: -939.9 N at 90.4 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 37.0 mm at 28.1 ms
Min: -0.2 mm at 91.2 ms



Transportation Research Center Inc.

Abdomen Compression

SID-HIII Serial No. 059 Certification No. 18-5

Test Date: 11/2/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	8.039 mm/s	Yes

Test meets specifications.

Comments:

Technician

Rand Bernard

Approved

Ron Stoner

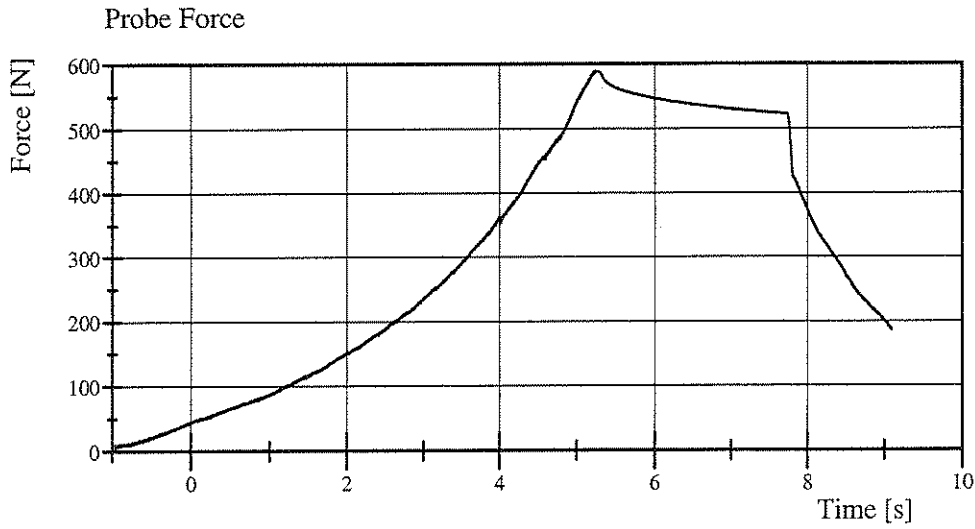


Transportation Research Center Inc.

Abdomen Compression

SID-HIII Serial No. 059 Certification No. 18-5

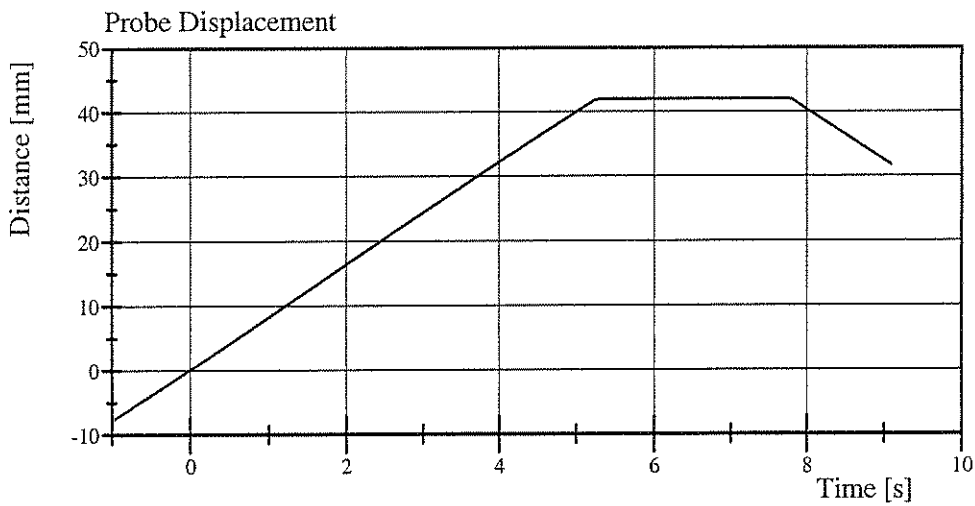
Test Date: 11/2/2006



Filter Class: CFC_600

Max: 588.6 N at 5.3 s

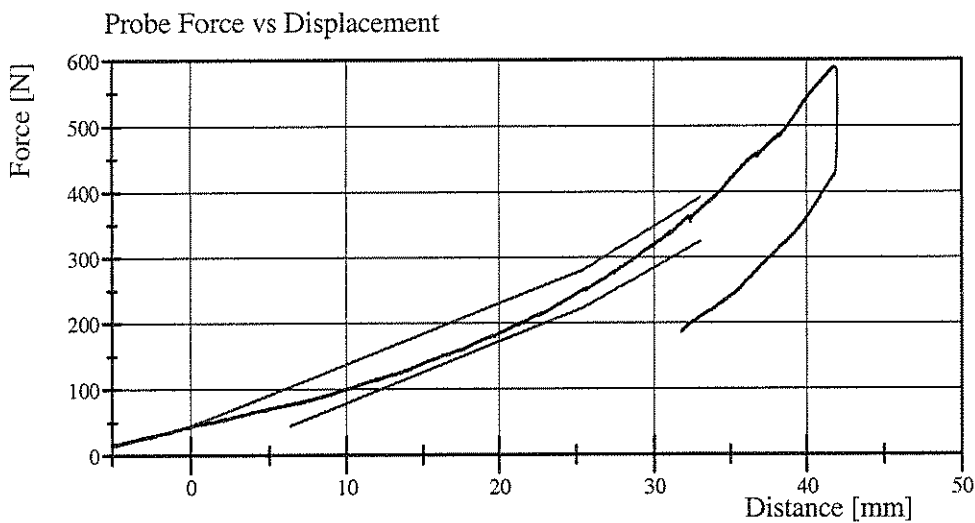
Min: 5.2 N at -1.0 s



Filter Class: CFC_180

Max: 42.0 mm at 7.6 s

Min: -7.6 mm at -1.0 s



Filter Class: CFC_600

Max: 588.6 N at 41.8 mm

Min: 5.2 N at -7.6 mm



TRANSPORTATION RESEARCH CENTER INC.

LUMBAR FLEXION TEST

SID PART 572B

CAL DATE: 02-Nov-06

TRC, INC.

TEST NO: LUFL-01

572B SN 059 TORSO FLEX CAL 18

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6° C	21.6 C
RELATIVE HUMIDITY	10 – 70 %	26 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	0 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	120 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	152 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	206 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	8.0 °

TEST MEETS SPECIFICATIONS

TECHNICIAN *Ron Stoner*

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 059 Certification No. 18-1

Test Date: 11/1/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	24 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.281 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	6.3 ms	Yes
Pelvis Lateral Acceleration	40 - 60 g	46.2 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Rout Barand

Approved

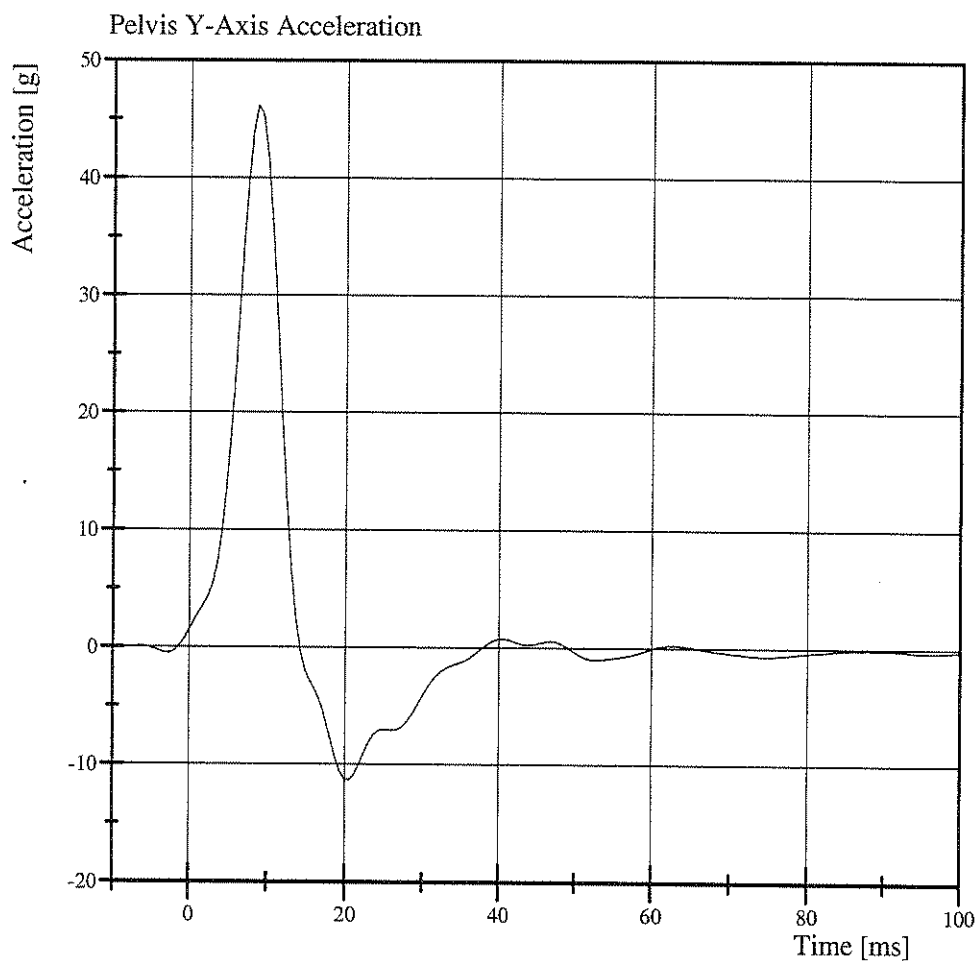
Ron Stover

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 059 Certification No. 18-1

Test Date: 11/1/2006



Filter Class: FIR_100

Max: 46.2 g at 8.6 ms

Min: -11.3 g at 20.5 ms

Calibration Test Results

Pre-Test

SID HIII: 055

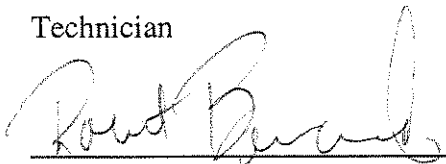
Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber passed all test requirements (was tested on October 20, 2006 for a previous calibration series).


Transportation Research Center Inc.
SID/HIII Dummy
External Dimensions
Serial No. 055 Calibration No. 23

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	904 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	502 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	521 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	493 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	376 mm	Yes
Top Rib Width From CL	RW-1	165.1 - 180.3 mm	171 mm	Yes
Bottom Rib Width From CL	RW-2	165.1 - 180.3 mm	170 mm	Yes
Difference Between Top & Bottom Rib Width from CL		<= 2.5 mm	1.0 mm	Yes

Technician



Approved





Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 055 Certification No. 23-1

Test Date: 11/2/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.8 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Peak Head Resultant Acceleration	120 - 150 g	139.4 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	5.0 g	Yes
Is Head Resultant Acceleration Curve Unimodal Within 15% of Peak?	Yes	Yes	Yes

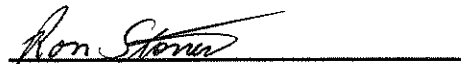
Test meets specifications.

Comments:

Technician



Approved

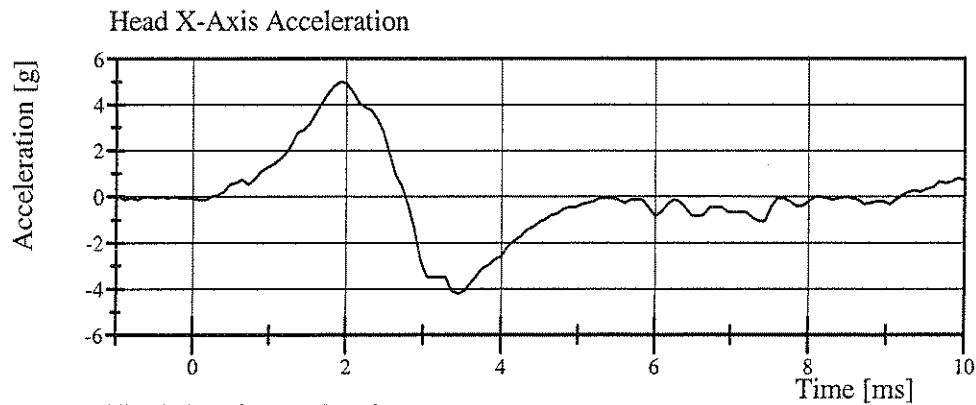


Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 055 Certification No. 23-1

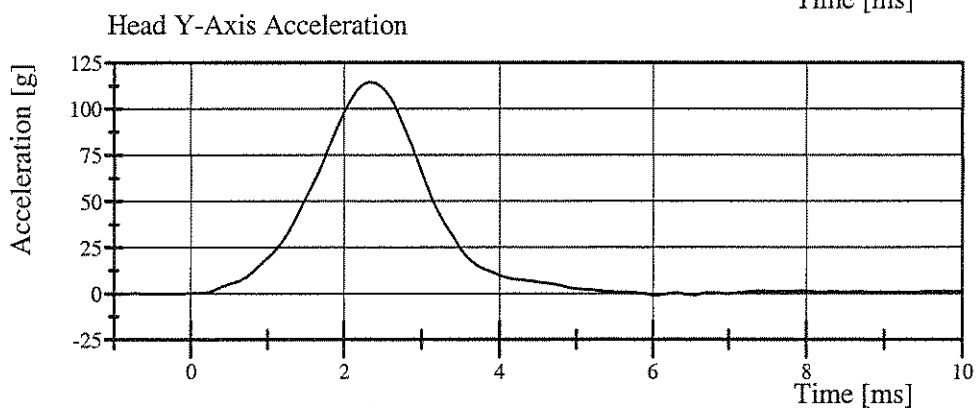
Test Date: 11/2/2006



Filter Class: CFC_1000

Max: 5.0 g at 1.9 ms

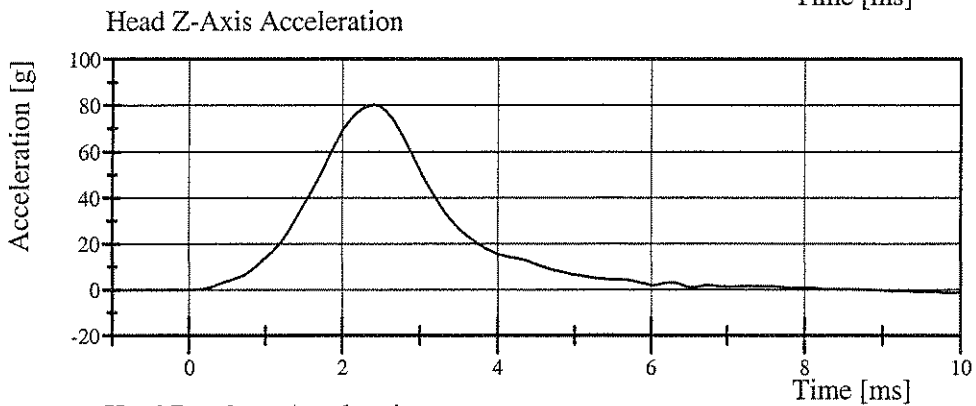
Min: -4.2 g at 3.4 ms



Filter Class: CFC_1000

Max: 114.4 g at 2.3 ms

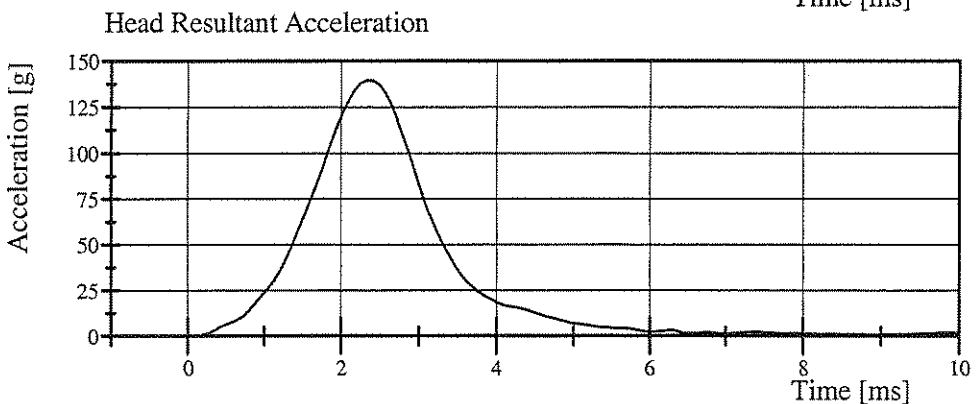
Min: -1.0 g at 6.1 ms



Filter Class: CFC_1000

Max: 80.1 g at 2.4 ms

Min: -1.3 g at 9.9 ms



Filter Class: CFC_1000

Max: 139.4 g at 2.3 ms

Min: 0.0 g at -0.6 ms

Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 23-5

Test Date: 11/14/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Pendulum Velocity	(-6.89) - (-7.13) m/s	-7.087 m/s	Yes
Pendulum Integrated Velocity Change at 10 ms	1.96 - 2.55 m/s	2.365 m/s	Yes
Pendulum Integrated Velocity Change at 20 ms	4.12 - 5.10 m/s	4.641 m/s	Yes
Pendulum Integrated Velocity Change at 30 ms	5.73 - 7.01 m/s	6.571 m/s	Yes
Pendulum Integrated Velocity Change at 40 to 70 ms	6.27 - 7.64 m/s	7.173 m/s	Yes
Total Head D-Plane Rotation	(-66) - (-82) °	-71.0 °	Yes
Total Head D-Plane Rotation Time to 0° after Peak Rotation	58 - 67 ms	59.4 ms	Yes
Total Neck Occipital Condyle Moment	73 - 88 N·m	83.5 N·m	Yes
Total Neck Occipital Condyle Moment Time to 0 N·m after Peak Moment	49 - 64 ms	54.3 ms	Yes
Time from Peak Moment to Peak Rotation	2 - 16 ms	10.1 ms	Yes

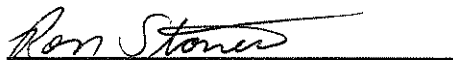
Test meets specifications.

Comments:

Technician



Approved



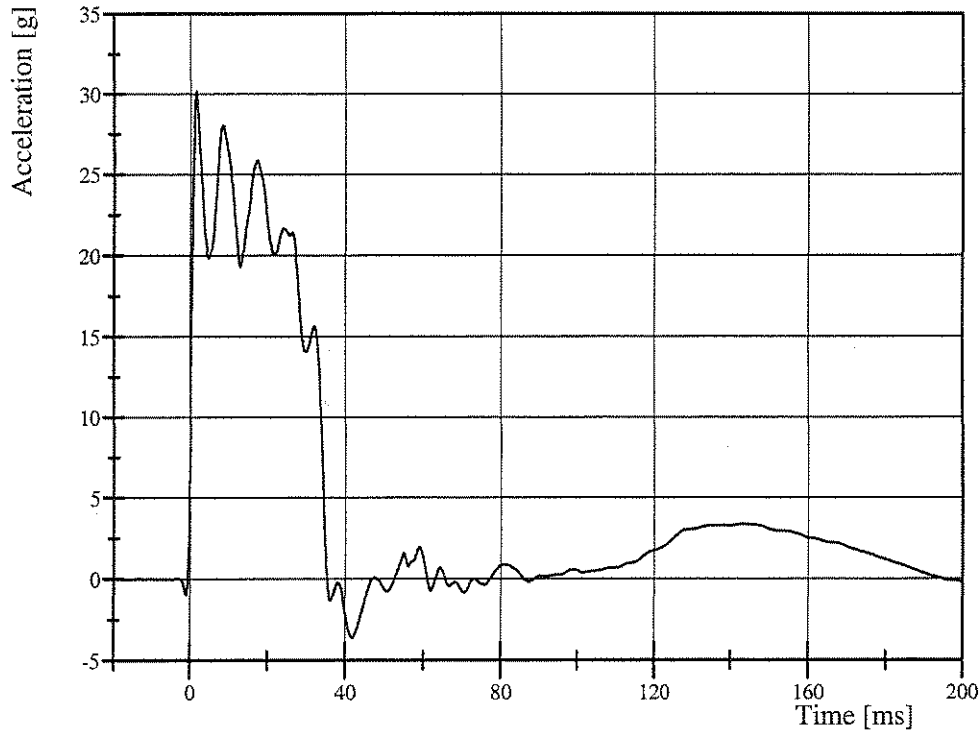
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 23-5

Test Date: 11/14/2006

Pendulum Acceleration



Filter Class: CFC_180

Max: 30.2 g at 1.6 ms

Min: -3.6 g at 41.9 ms

Pendulum Integrated Velocity Change



Filter Class: CFC_180

Max: 7.2 m/s at 35.4 ms

Min: 0.0 m/s at 0.0 ms



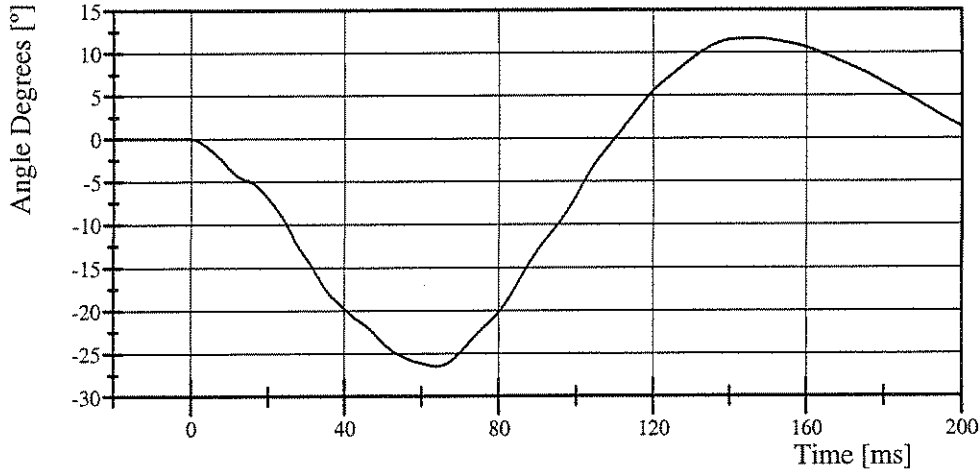
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 23-5

Test Date: 11/14/2006

Pot Rotation at the Base of Neck

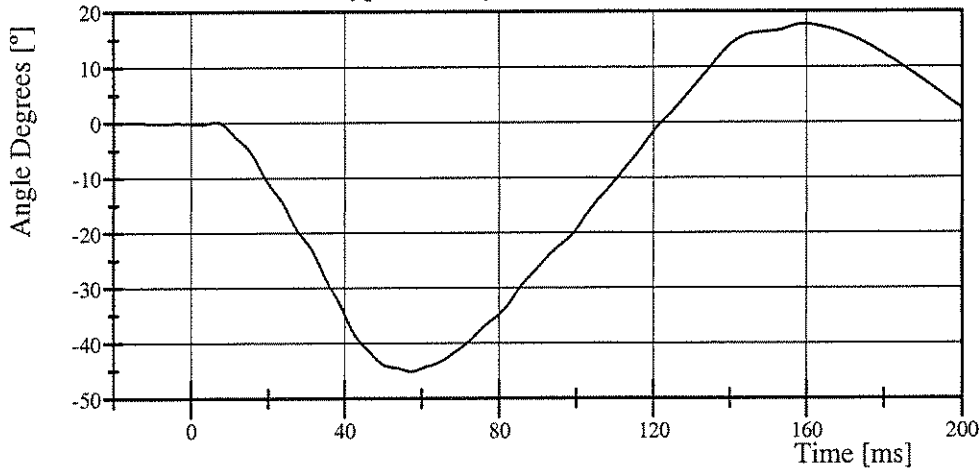


Filter Class: CFC_60

Max: 11.7 ° at 146.5 ms

Min: -26.5 ° at 64.1 ms

Head Rotation at Occypital Condyles

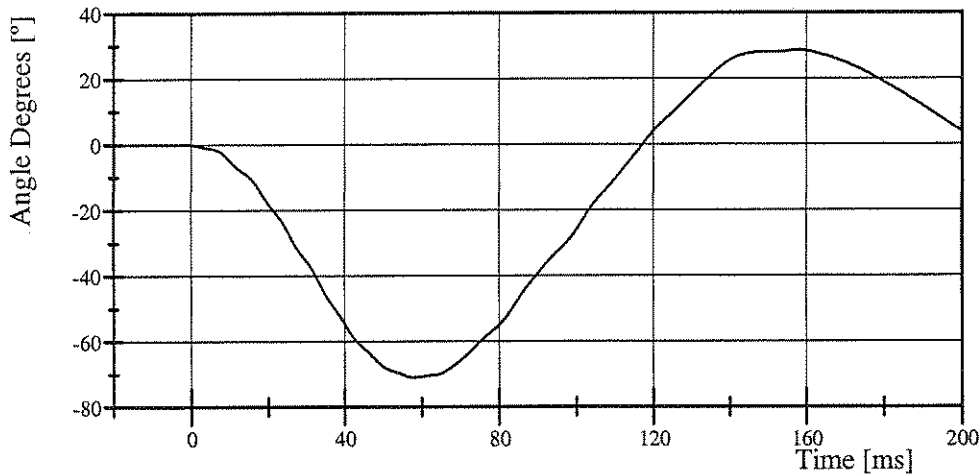


Filter Class: CFC_60

Max: 17.7 ° at 159.6 ms

Min: -45.1 ° at 57.4 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 28.5 ° at 158.1 ms

Min: -71.0 ° at 57.9 ms

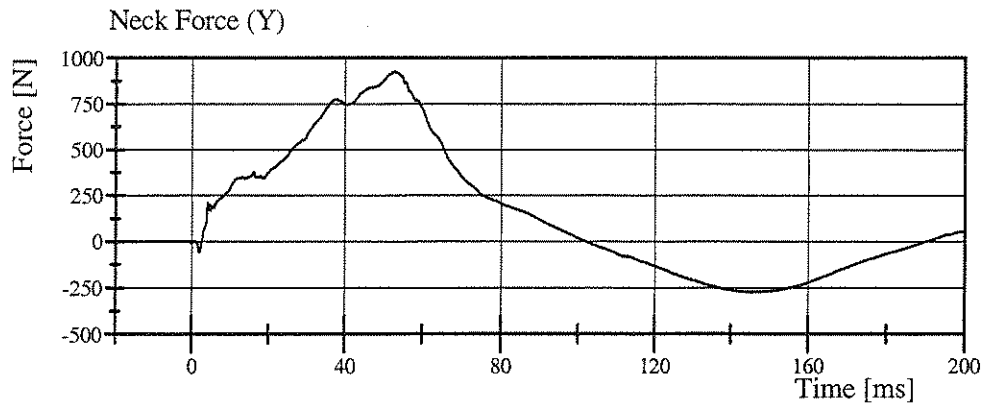


Transportation Research Center Inc.

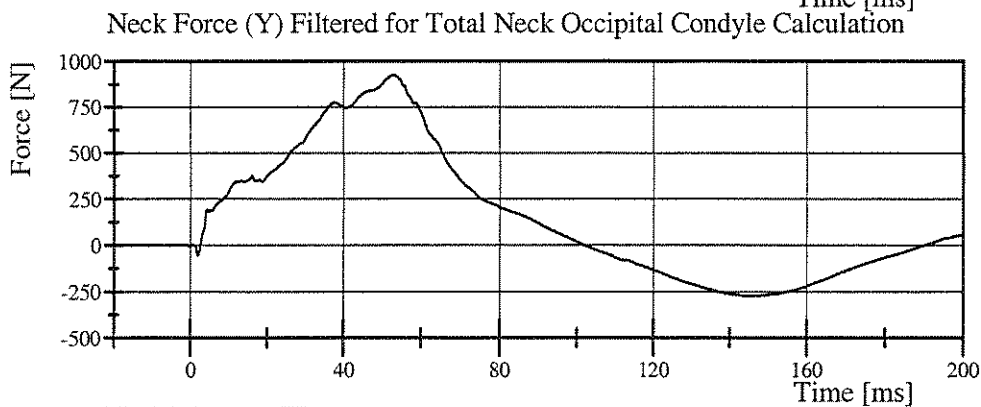
Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 23-5

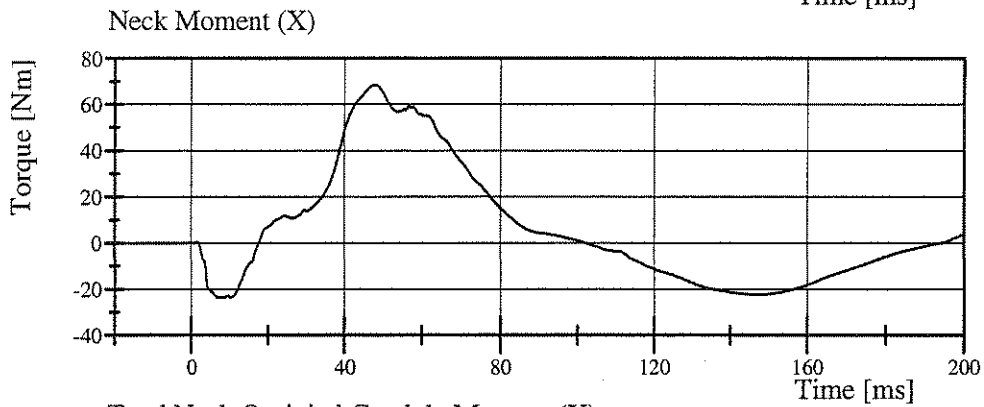
Test Date: 11/14/2006



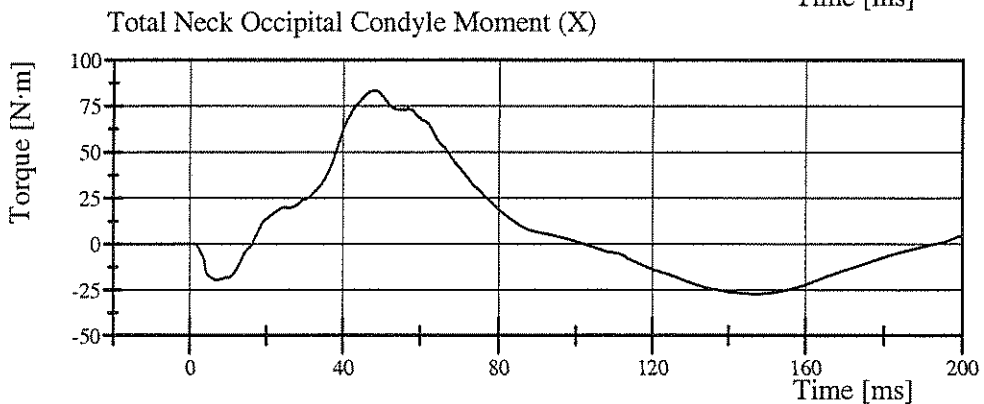
Filter Class: CFC_1000
Max: 925.9 N at 52.6 ms
Min: -273.3 N at 144.6 ms



Filter Class: CFC_600
Max: 925.6 N at 52.6 ms
Min: -273.0 N at 145.1 ms



Filter Class: CFC_600
Max: 68.5 Nm at 47.8 ms
Min: -23.6 Nm at 7.0 ms



Filter Class: CFC_600
Max: 83.5 N·m at 47.8 ms
Min: -27.1 N·m at 147.8 ms



Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 055 Certification No. 23-1

Test Date: 10/31/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.292 m/s	Yes
Upper Rib Lateral Acceleration	37 - 46 g	44.5 g	Yes
Lower Rib Lateral Acceleration	37 - 46 g	43.1 g	Yes
Lower Spine Lateral Acceleration	15 - 22 g	20.4 g	Yes

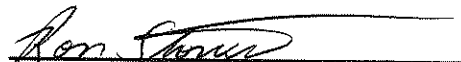
Test meets specifications.

Comments:

Technician



Approved



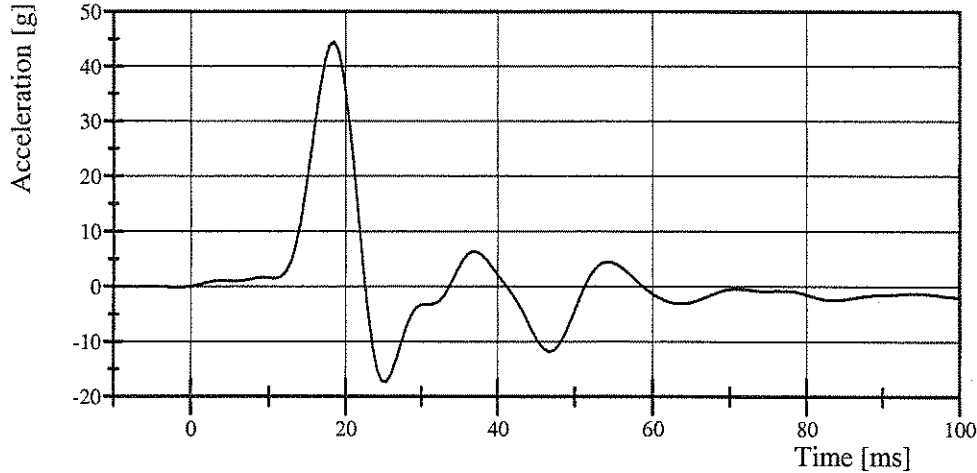
Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 055 Certification No. 23-1

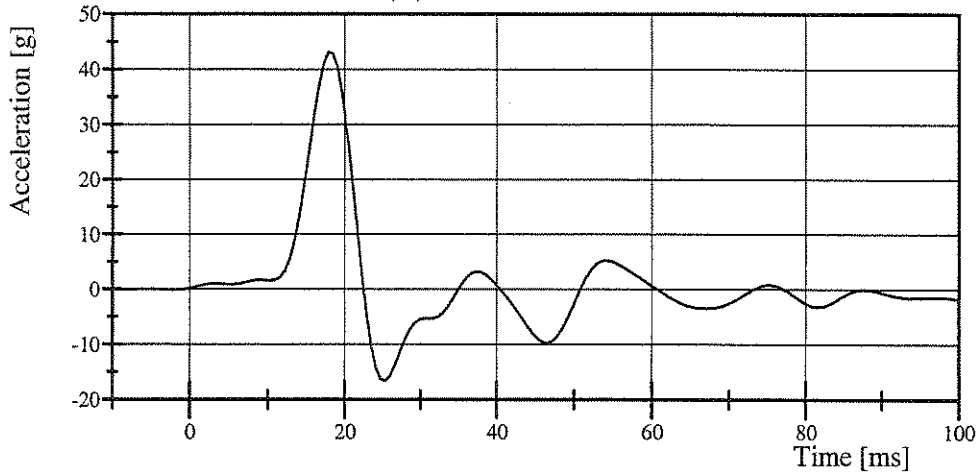
Test Date: 10/31/2006

Upper Rib Acceleration (Y)



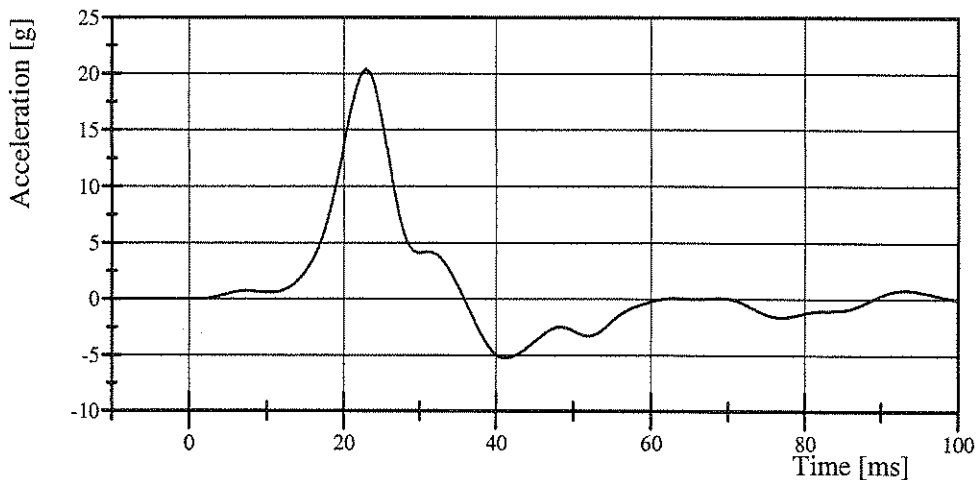
Filter Class: FIR_100
Max: 44.5 g at 18.5 ms
Min: -17.3 g at 25.4 ms

Lower Rib Acceleration (Y)



Filter Class: FIR_100
Max: 43.1 g at 17.9 ms
Min: -16.6 g at 25.4 ms

Lower Spine Acceleration (Y)



Filter Class: FIR_100
Max: 20.4 g at 22.9 ms
Min: -5.3 g at 41.0 ms



Transportation Research Center Inc.

3.05 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 055 Certification No. 22-1
Test Date: 10/20/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Maximum Force at Test Velocity	849 - 1,137 N	927.2 N	Yes
Maximum Displacement at Test Velocity	30.19 - 35.17 mm	32.106 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 3.064

Damper Setting: 9.0

Technician

Jaqueline Bousle

Approved

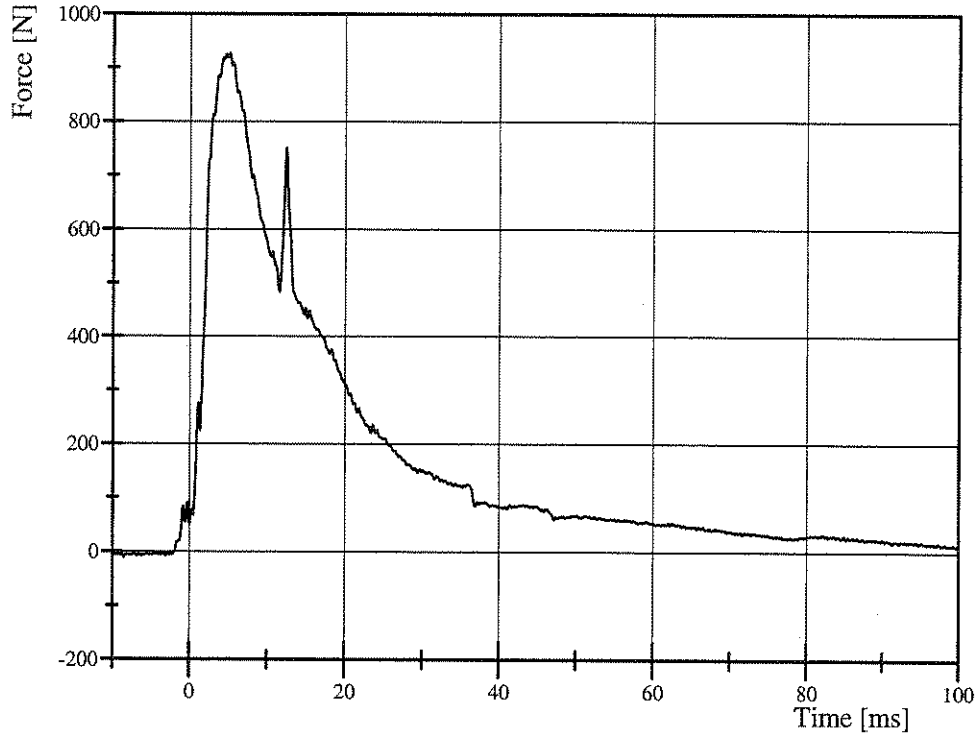
Ron Stover



Transportation Research Center Inc.

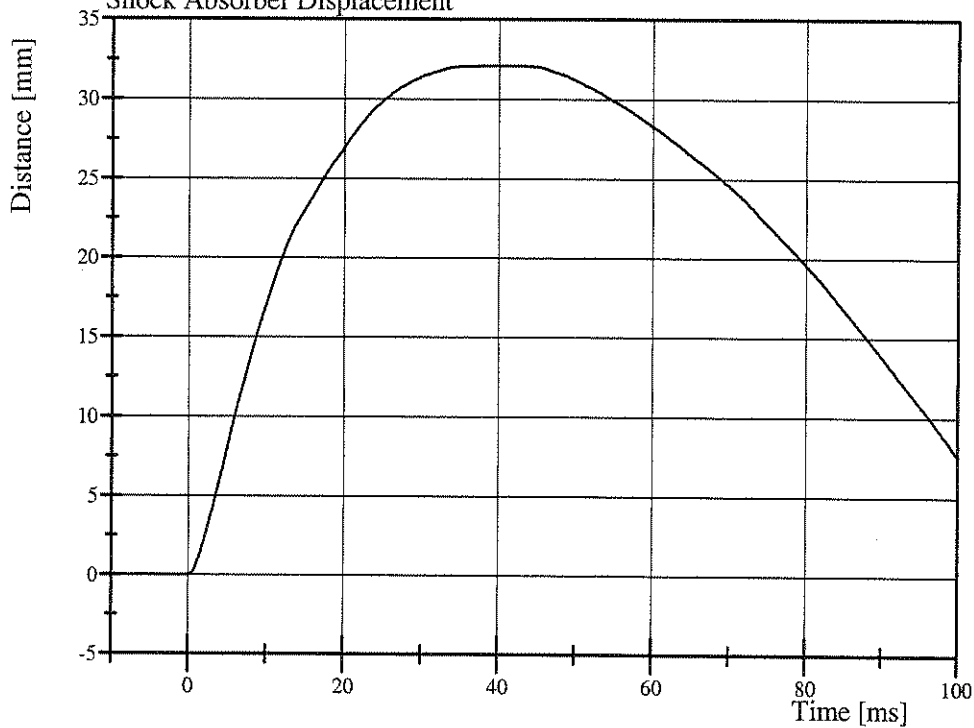
3.05 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 055 Certification No. 22-1
Test Date: 10/20/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 927.2 N at 5.1 ms
Min: -10.9 N at -8.4 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 32.1 mm at 39.8 ms
Min: -0.0 mm at -4.9 ms

Transportation Research Center Inc.

4.27 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 055 Certification No. 22-1
Test Date: 10/20/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	37 %	Yes
Maximum Force at Test Velocity	1,744 - 2,108 N	1,858.3 N	Yes
Maximum Displacement at Test Velocity	31.69 - 37.24 mm	34.677 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 4.278

Damper Setting: 9.0

Technician

Jaqueline Brewster

Approved

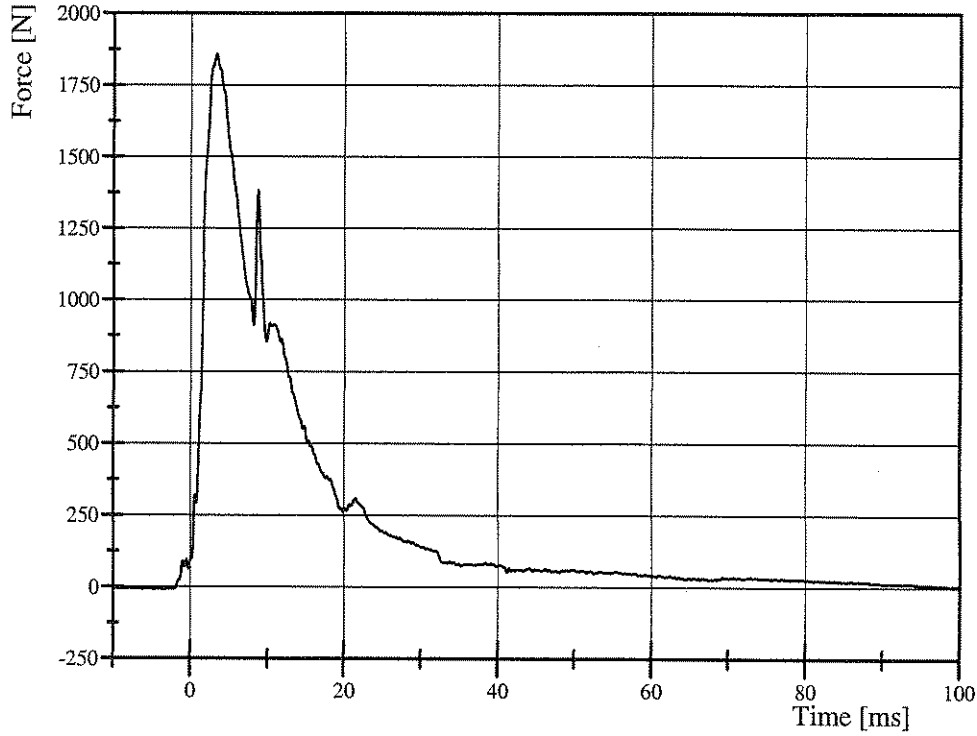
Ron Stoner



Transportation Research Center Inc.

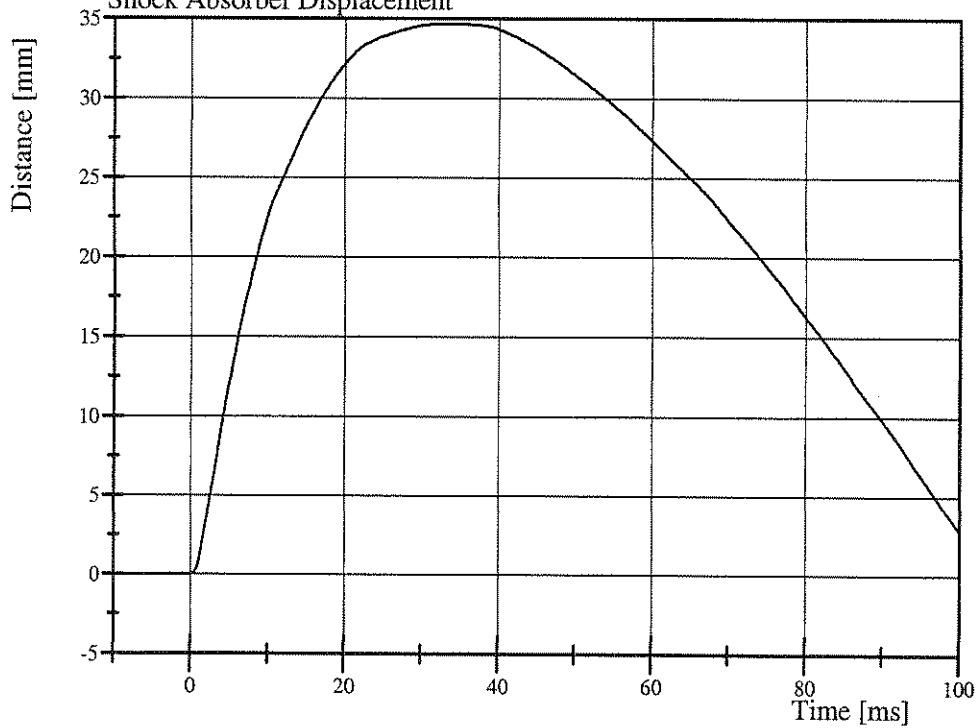
4.27 m/s Thoracic Shock Absorber Compression
SID-HIII Serial No. 055 Certification No. 22-1
Test Date: 10/20/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 1,858.3 N at 3.4 ms
Min: -8.9 N at -6.1 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 34.7 mm at 32.6 ms
Min: -0.0 mm at -9.9 ms



Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression

SID-HIII Serial No. 055 Certification No. 22-2

Test Date: 10/20/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	37 %	Yes
Maximum Force at Test Velocity	3,732 - 4,424 N	4,361.1 N	Yes
Maximum Displacement at Test Velocity	33.36 - 39.56 mm	36.298 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 6.086

Damper Setting: 9.0

Technician

Jaqueline Burski

Approved

Ron Stoner

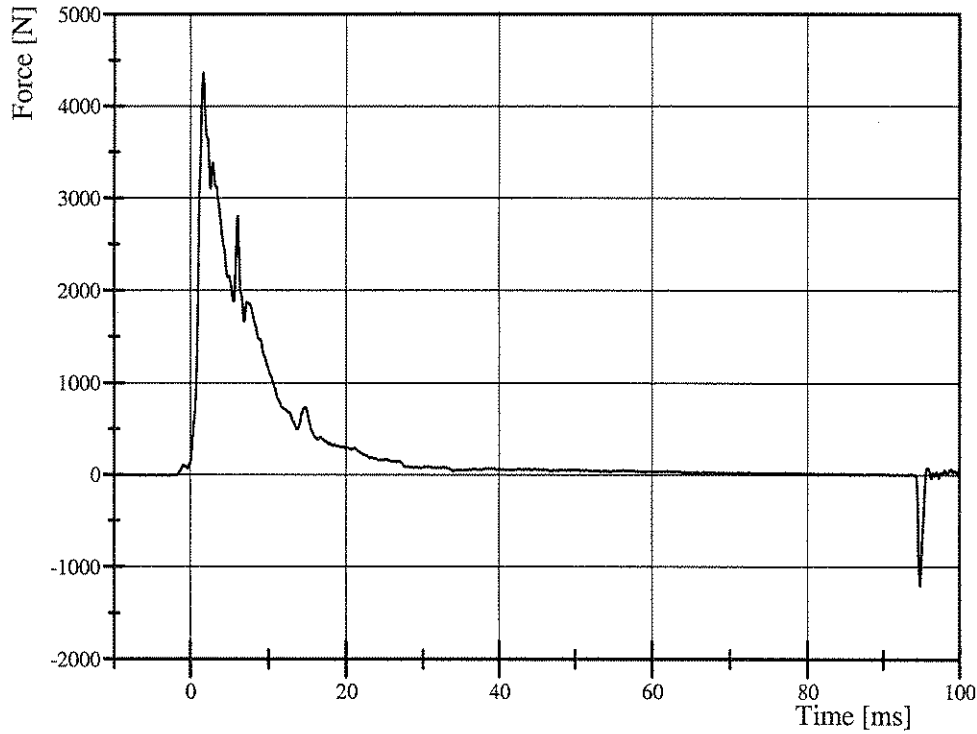
Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression

SID-HIII Serial No. 055 Certification No. 22-2

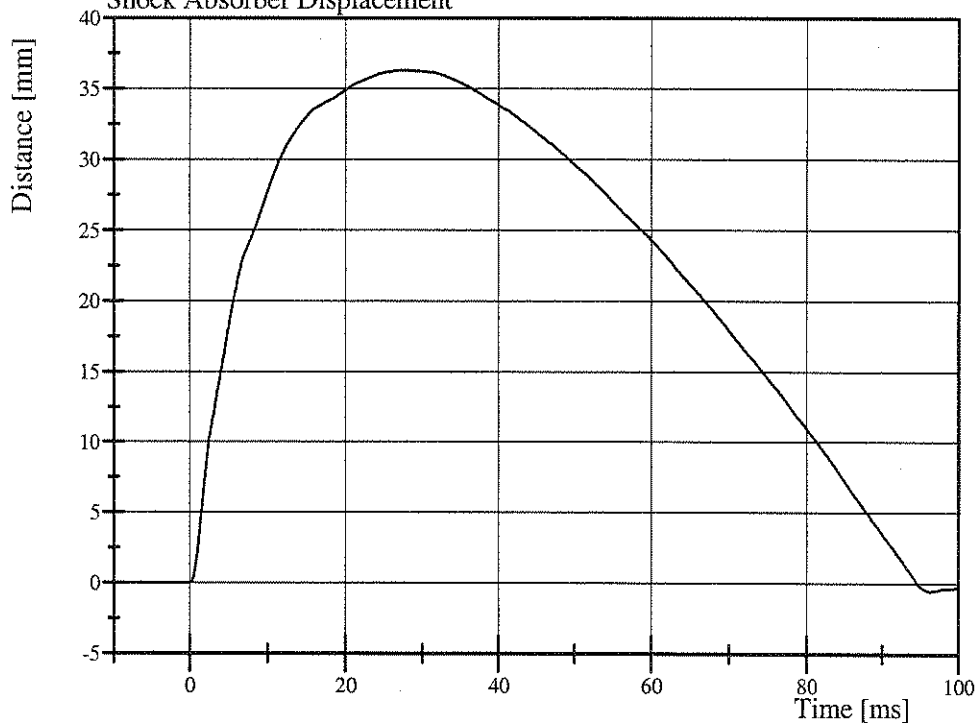
Test Date: 10/20/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 4,361.1 N at 1.7 ms
Min: -1,203.7 N at 94.9 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 36.3 mm at 27.3 ms
Min: -0.6 mm at 96.3 ms



Transportation Research Center Inc.

Abdomen Compression

SID-HIII Serial No. 055 Certification No. 23-3


Test Date: 11/2/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	7.921 mm/s	Yes

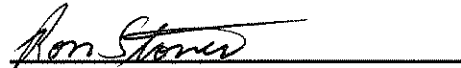
Test meets specifications.

Comments:

Technician



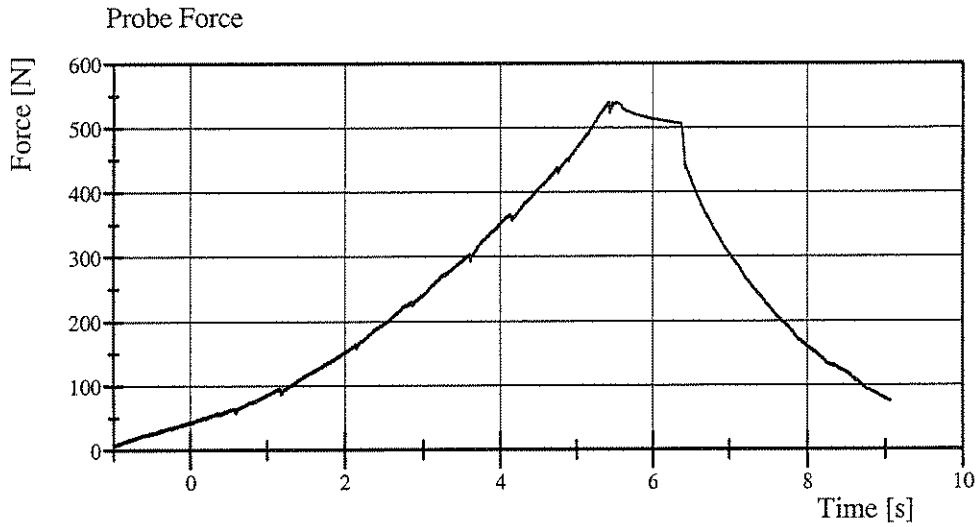
Approved



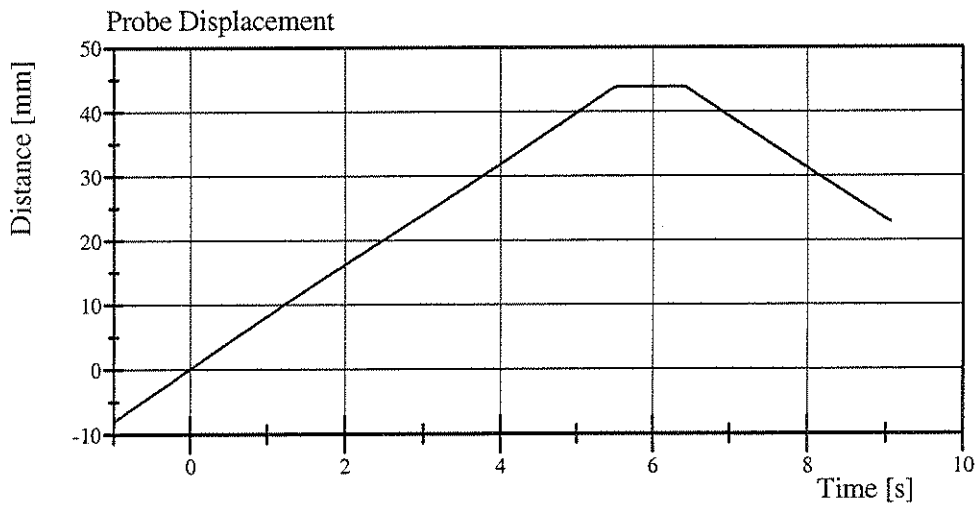


Transportation Research Center Inc.

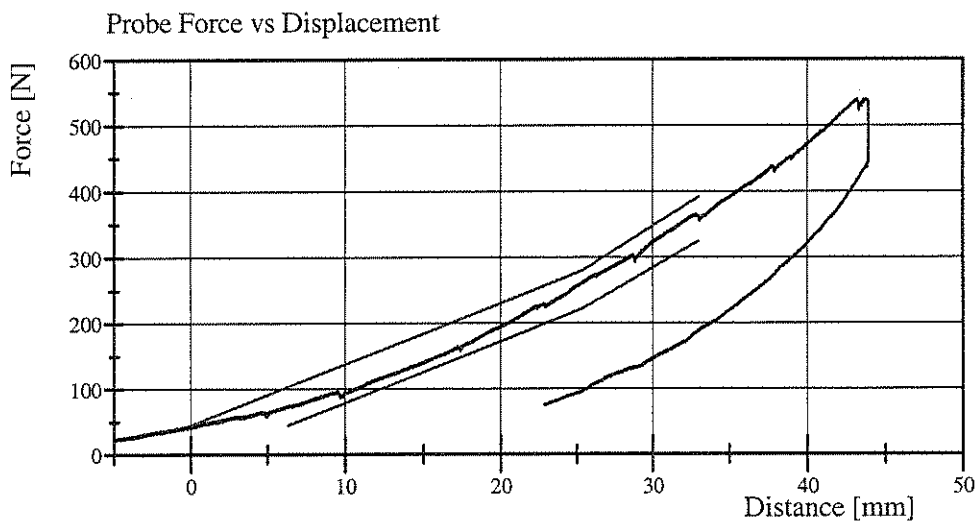
Abdomen Compression
SID-HIII Serial No. 055 Certification No. 23-3
Test Date: 11/2/2006



Filter Class: CFC_600
Max: 539.2 N at 5.5 s
Min: 6.0 N at -1.0 s



Filter Class: CFC_180
Max: 43.9 mm at 6.4 s
Min: -8.0 mm at -1.0 s



Filter Class: CFC_600
Max: 539.2 N at 43.8 mm
Min: 6.0 N at -7.9 mm



Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 055 Certification No. 23-3

Test Date: 10/31/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	49 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.316 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	5.5 ms	Yes
Pelvis Lateral Acceleration	40 - 60 g	54.2 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Rand Berardo

Approved

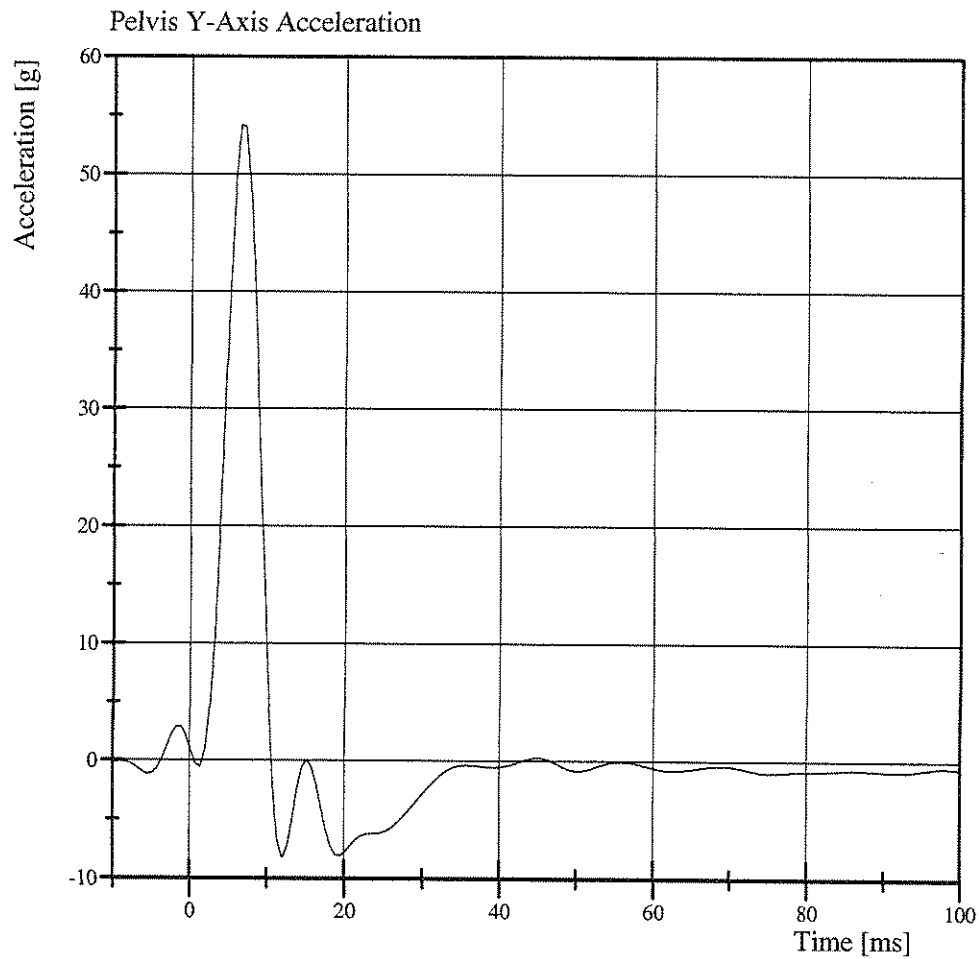
Ken Stover

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 055 Certification No. 23-3

Test Date: 10/31/2006



Filter Class: FIR_100

Max: 54.2 g at 6.4 ms

Min: -8.3 g at 12.0 ms

Calibration Test Results

Post-Test

SID HIII: 059

Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber was not tested at this time.

Transportation Research Center Inc.
SID/HIII Dummy Post-Test
External Dimensions
Serial No. 059 Calibration No. 19

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	904 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	514 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	522 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	501 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	360 mm	Yes
Top Rib Width From CL	RW-1	165.1 - 180.3 mm	172 mm	Yes
Bottom Rib Width From CL	RW-2	165.1 - 180.3 mm	172 mm	Yes
Difference Between Top & Bottom Rib Width from CL		<= 2.5 mm	0.0 mm	Yes

Technician

Rout Berendes

Approved

Ron Stones



Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 059 Certification No. 19-1

Test Date: 11/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	49 %	Yes
Peak Head Resultant Acceleration	120 - 150 g	146.1 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	-4.3 g	Yes
Is Head Resultant Acceleration Curve Unimodal Within 15% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Rand Barusch

Approved

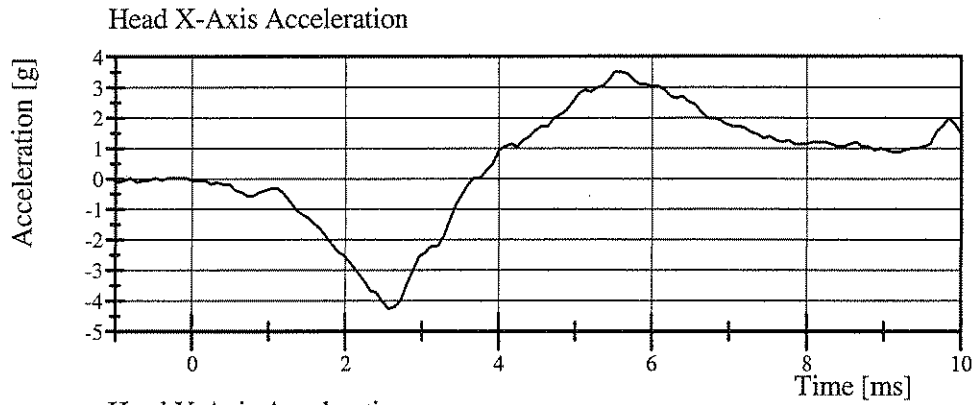
Ron Stone

Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 059 Certification No. 19-1

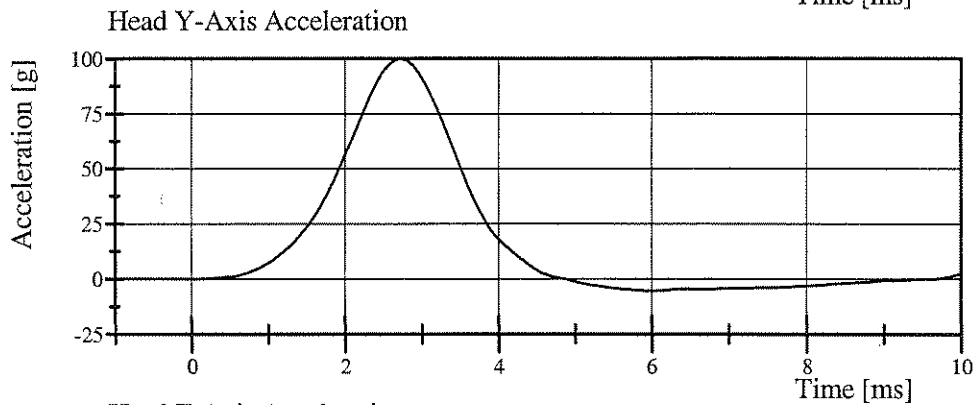
Test Date: 11/16/2006



Filter Class: CFC_1000

Max: 3.5 g at 5.5 ms

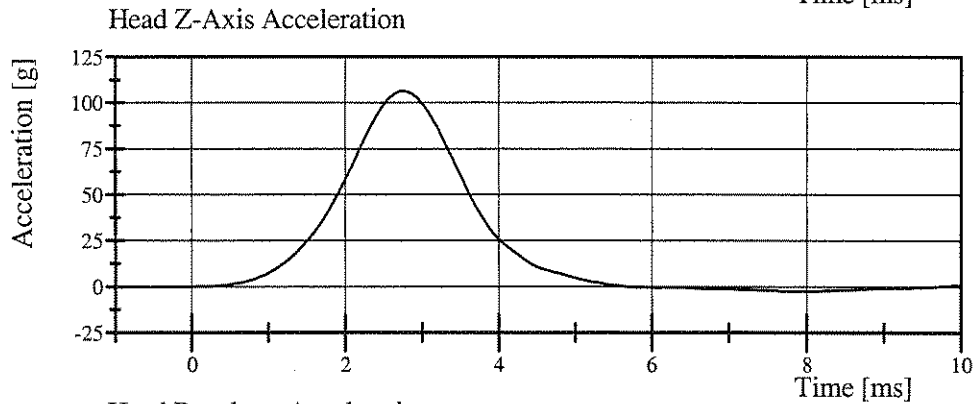
Min: -4.3 g at 2.6 ms



Filter Class: CFC_1000

Max: 100.0 g at 2.7 ms

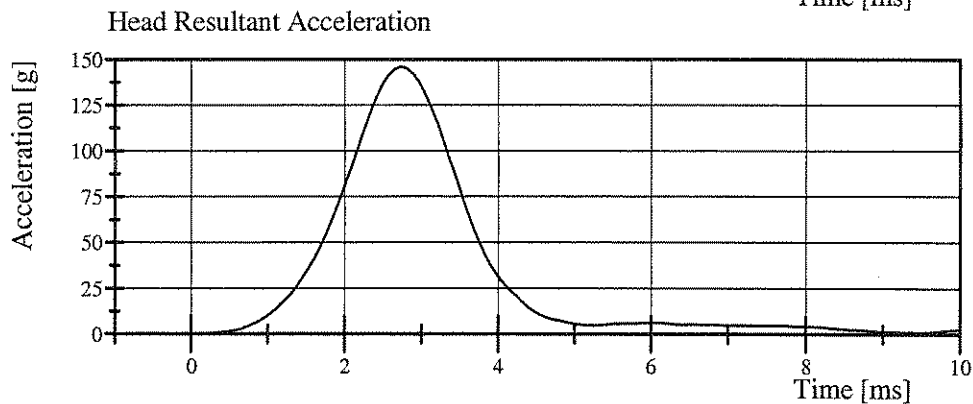
Min: -5.5 g at 6.0 ms



Filter Class: CFC_1000

Max: 106.4 g at 2.7 ms

Min: -2.5 g at 7.8 ms



Filter Class: CFC_1000

Max: 146.1 g at 2.7 ms

Min: 0.0 g at -0.2 ms

Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 19-1

Test Date: 11/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Pendulum Velocity	(-6.89) - (-7.13) m/s	-7.044 m/s	Yes
Pendulum Integrated Velocity Change at 10 ms	1.96 - 2.55 m/s	2.382 m/s	Yes
Pendulum Integrated Velocity Change at 20 ms	4.12 - 5.10 m/s	4.743 m/s	Yes
Pendulum Integrated Velocity Change at 30 ms	5.73 - 7.01 m/s	6.676 m/s	Yes
Pendulum Integrated Velocity Change at 40 to 70 ms	6.27 - 7.64 m/s	7.157 m/s	Yes
Total Head D-Plane Rotation	(-66) - (-82) °	-71.4 °	Yes
Total Head D-Plane Rotation Time to 0° after Peak Rotation	58 - 67 ms	58.2 ms	Yes
Total Neck Occipital Condyle Moment	73 - 88 N·m	80.1 N·m	Yes
Total Neck Occipital Condyle Moment Time to 0 N·m after Peak Moment	49 - 64 ms	55.8 ms	Yes
Time from Peak Moment to Peak Rotation	2 - 16 ms	9.8 ms	Yes

Test meets specifications.

Comments:

Technician

Paul Bonardi

Approved

Ron Stone

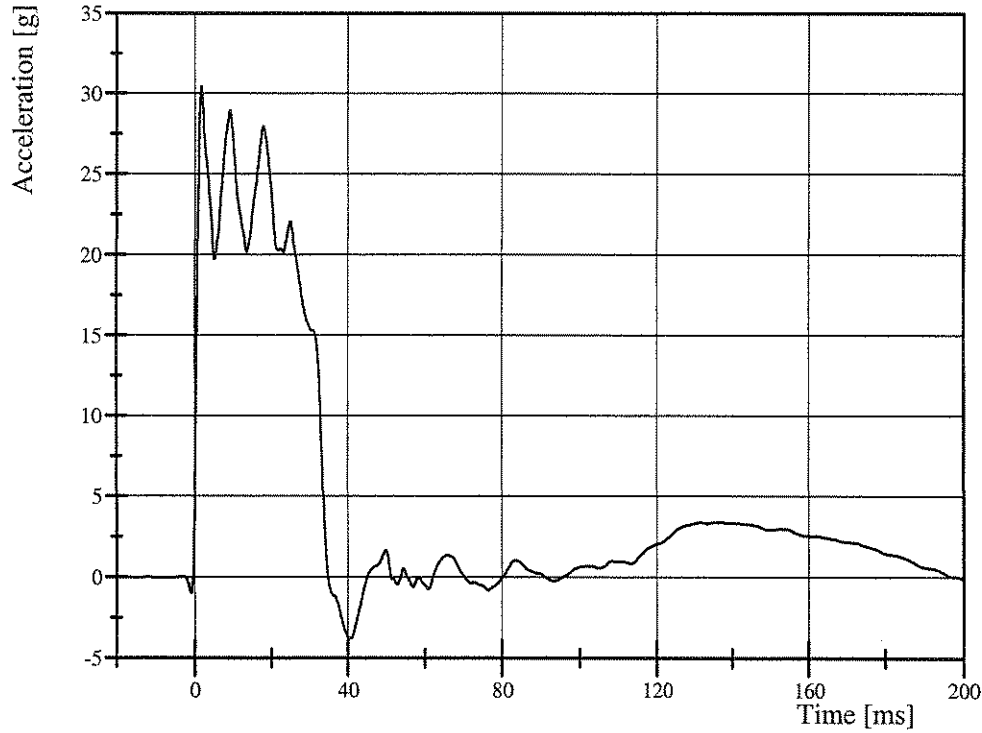
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 19-1

Test Date: 11/16/2006

Pendulum Acceleration

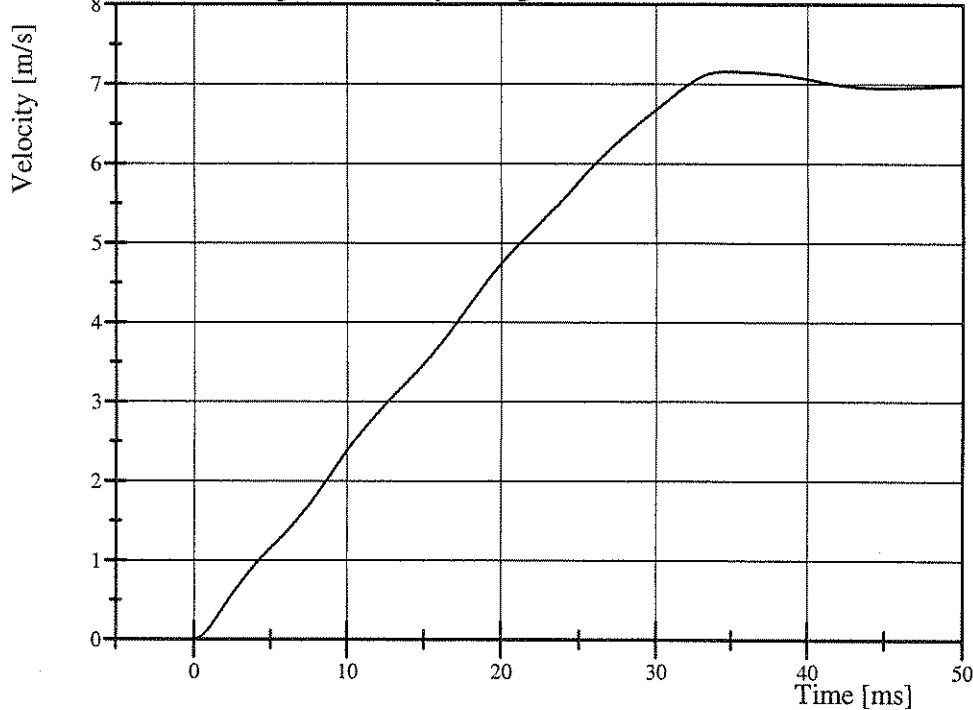


Filter Class: CFC_180

Max: 30.5 g at 1.8 ms

Min: -3.8 g at 40.6 ms

Pendulum Integrated Velocity Change



Filter Class: CFC_180

Max: 7.2 m/s at 34.9 ms

Min: 0.0 m/s at 0.0 ms



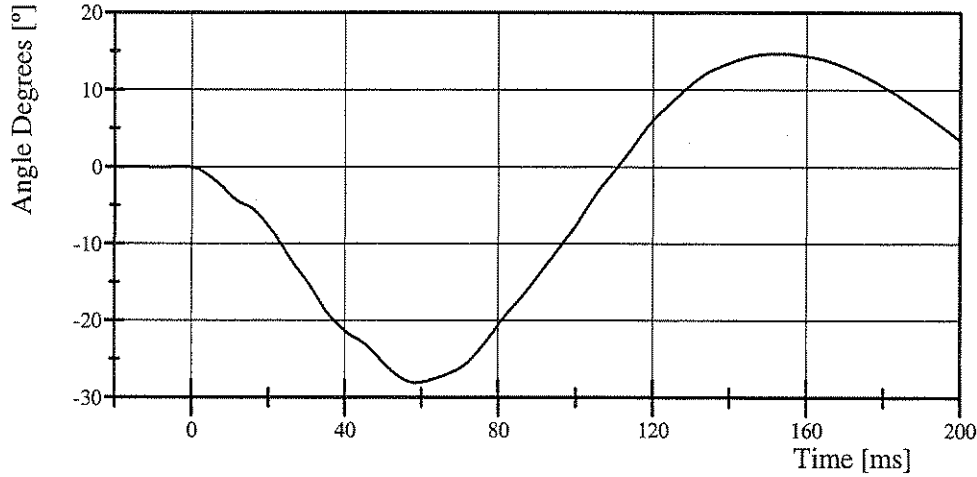
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 19-1

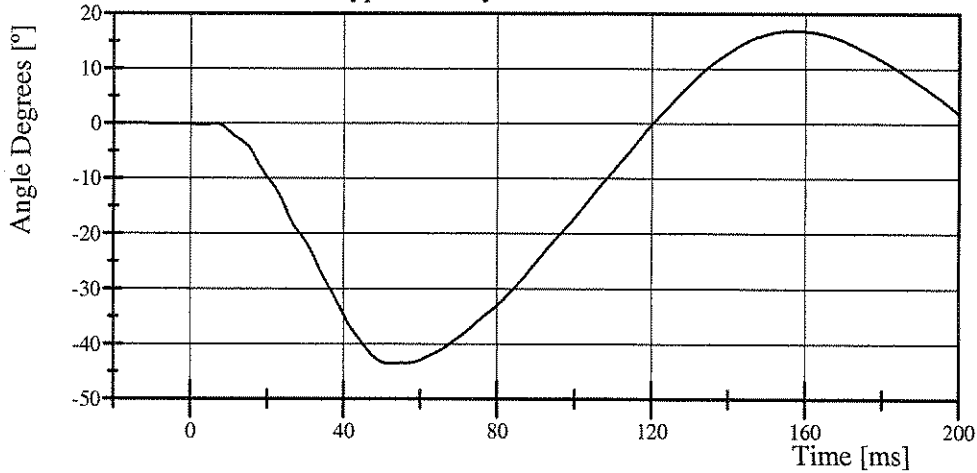
Test Date: 11/16/2006

Pot Rotation at the Base of Neck



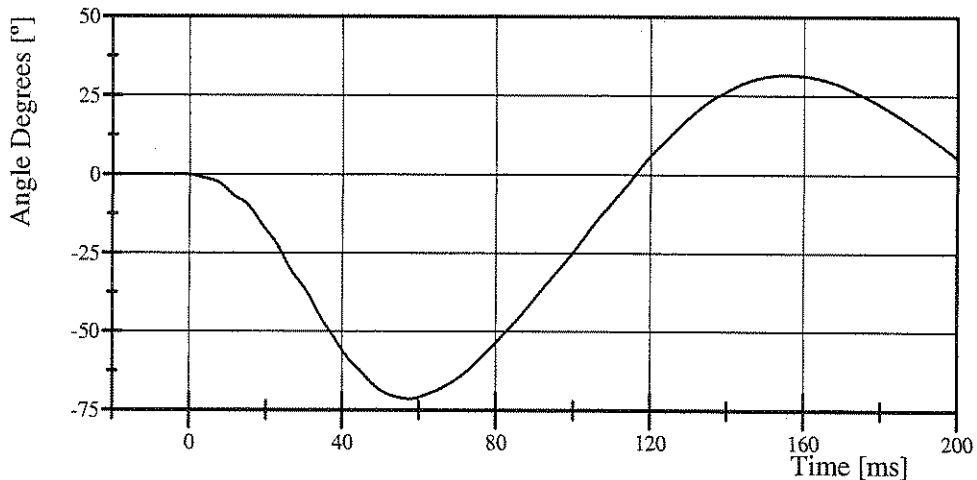
Filter Class: CFC_60
Max: 14.7 ° at 152.6 ms
Min: -28.1 ° at 58.8 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 17.0 ° at 156.8 ms
Min: -43.6 ° at 52.5 ms

Total Head D-Plane Rotation



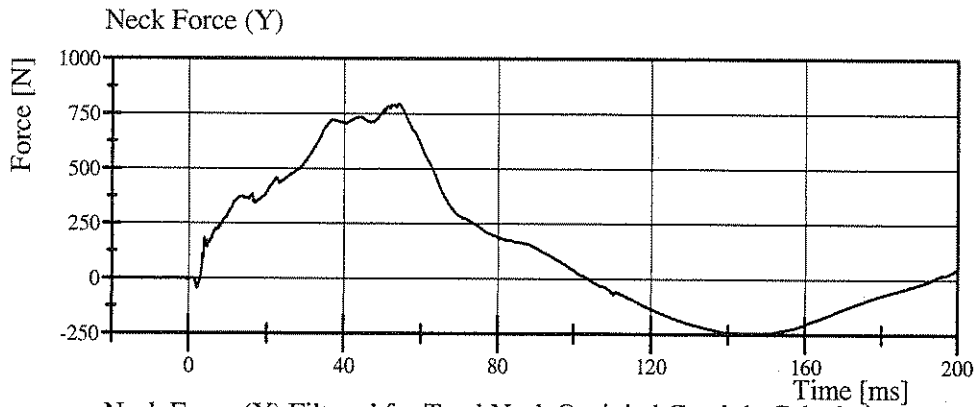
Filter Class: CFC_60
Max: 31.6 ° at 155.0 ms
Min: -71.4 ° at 57.8 ms

Transportation Research Center Inc.

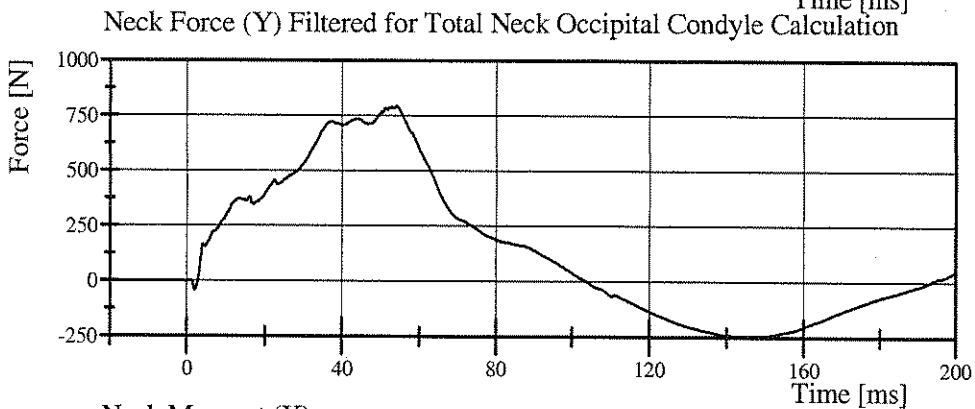
Left Lateral Neck

SID-HIII Serial No. 059 Certification No. 19-1

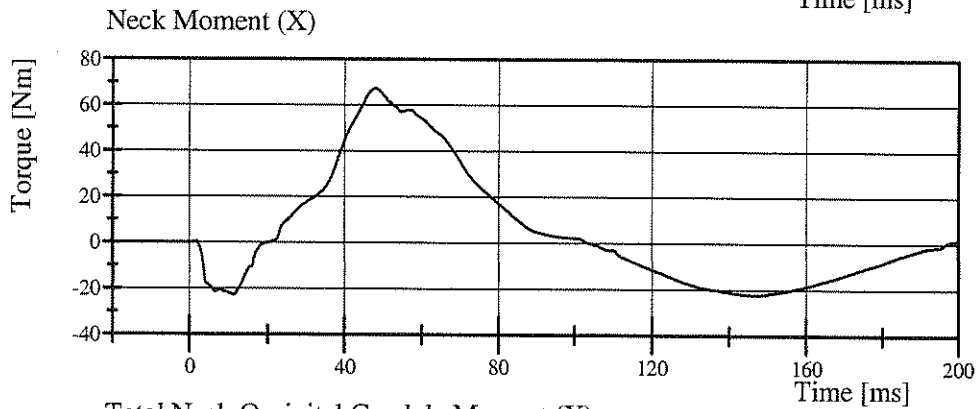
Test Date: 11/16/2006



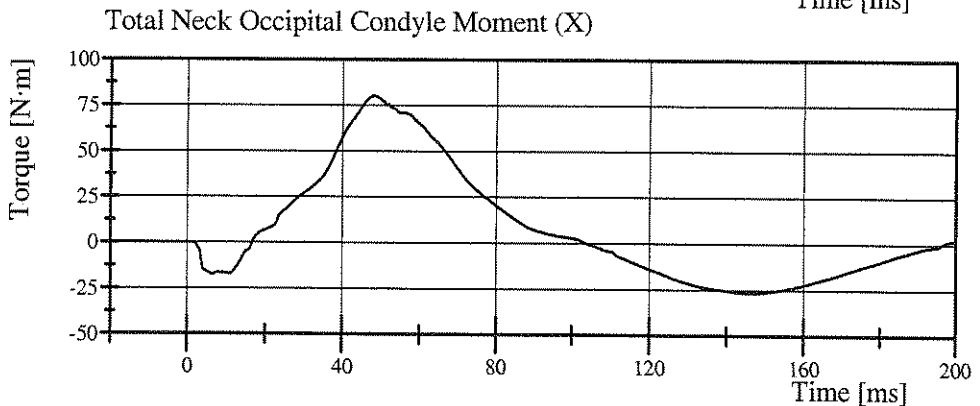
Filter Class: CFC_1000
Max: 797.0 N at 54.0 ms
Min: -245.0 N at 144.5 ms



Filter Class: CFC_600
Max: 795.5 N at 54.0 ms
Min: -244.7 N at 144.6 ms



Filter Class: CFC_600
Max: 67.3 Nm at 47.8 ms
Min: -22.8 Nm at 11.3 ms



Filter Class: CFC_600
Max: 80.1 N·m at 48.0 ms
Min: -26.6 N·m at 146.8 ms

Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 059 Certification No. 19-1

Test Date: 11/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.287 m/s	Yes
Upper Rib Lateral Acceleration	37 - 46 g	42.6 g	Yes
Lower Rib Lateral Acceleration	37 - 46 g	41.1 g	Yes
Lower Spine Lateral Acceleration	15 - 22 g	19.4 g	Yes

Test meets specifications.

Comments:

Technician

Ron Bencard

Approved

Ron Stoner



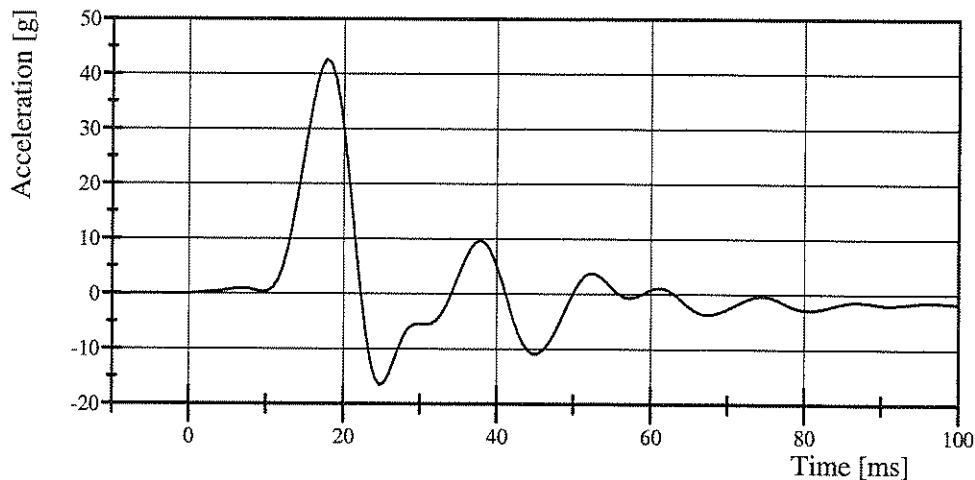
Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 059 Certification No. 19-1

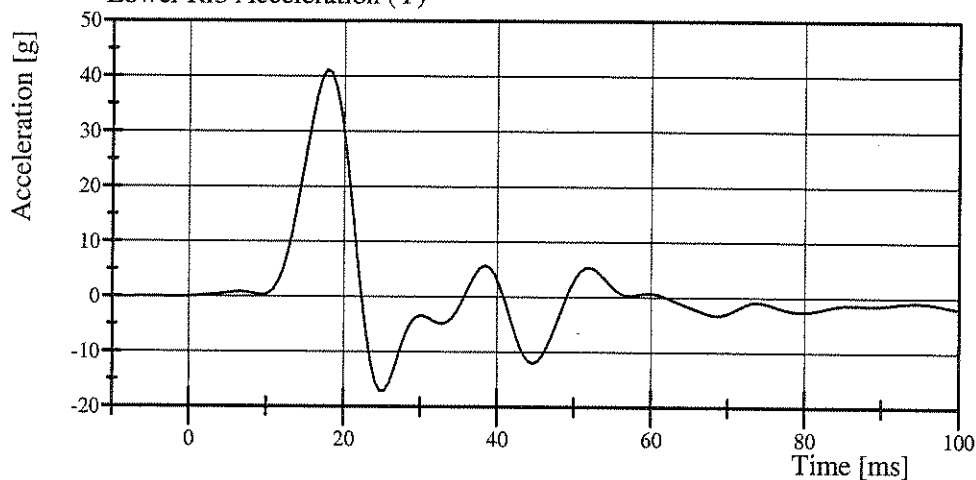
Test Date: 11/17/2006

Upper Rib Acceleration (Y)



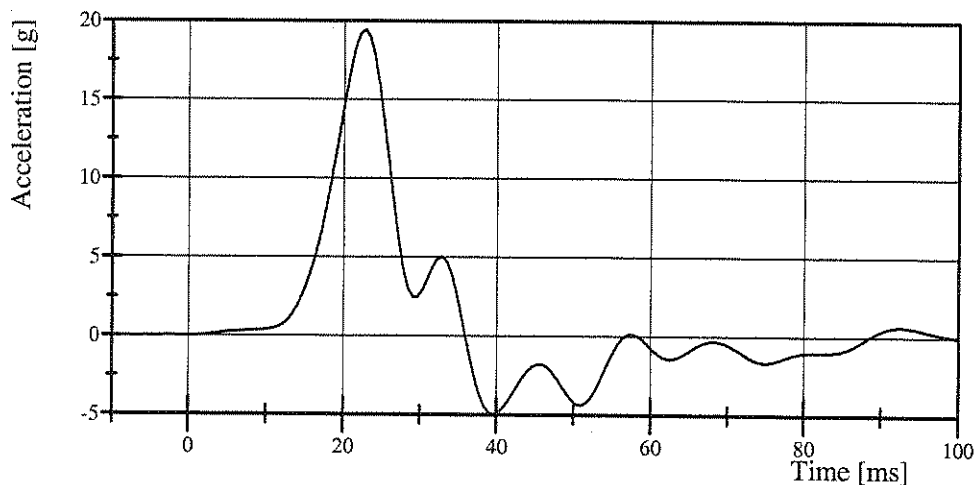
Filter Class: FIR_100
Max: 42.6 g at 17.8 ms
Min: -16.5 g at 24.7 ms

Lower Rib Acceleration (Y)



Filter Class: FIR_100
Max: 41.1 g at 17.8 ms
Min: -17.1 g at 24.7 ms

Lower Spine Acceleration (Y)



Filter Class: FIR_100
Max: 19.4 g at 22.8 ms
Min: -5.0 g at 39.7 ms

Transportation Research Center Inc.

Abdomen Compression

SID-HIII Serial No. 059 Certification No. 19-4

Test Date: 11/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	8.071 mm/s	Yes

Test meets specifications.

Comments:

Technician

Rust Banda

Approved

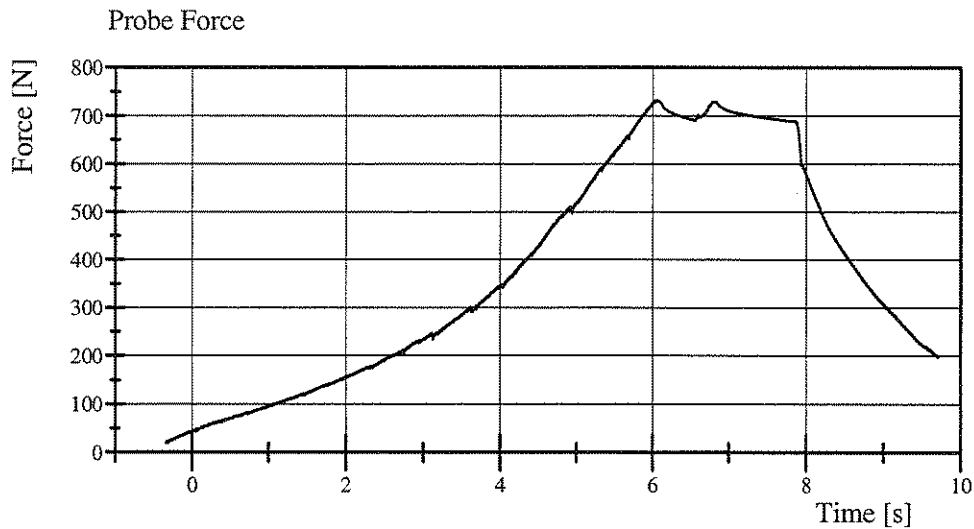
Ron Stone

Transportation Research Center Inc.

Abdomen Compression

SID-HIII Serial No. 059 Certification No. 19-4

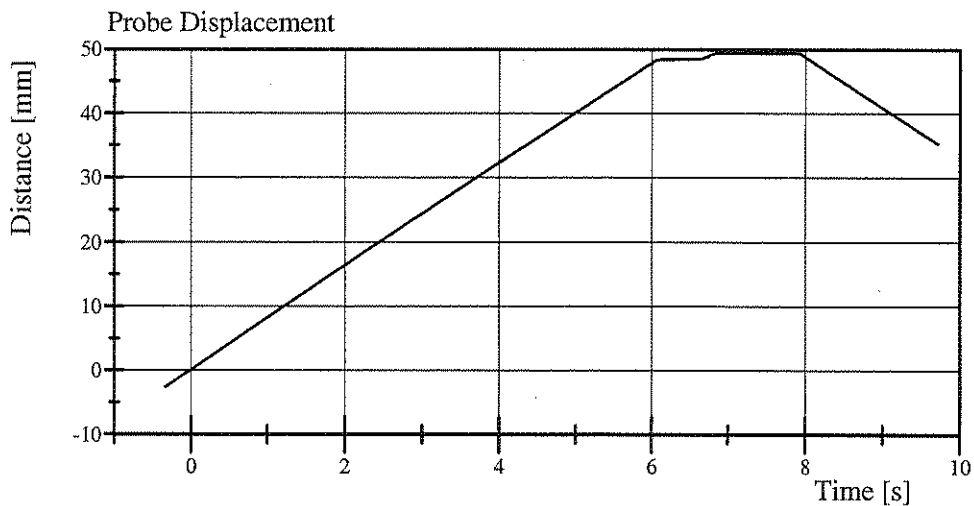
Test Date: 11/16/2006



Filter Class: CFC_600

Max: 731.9 N at 6.0 s

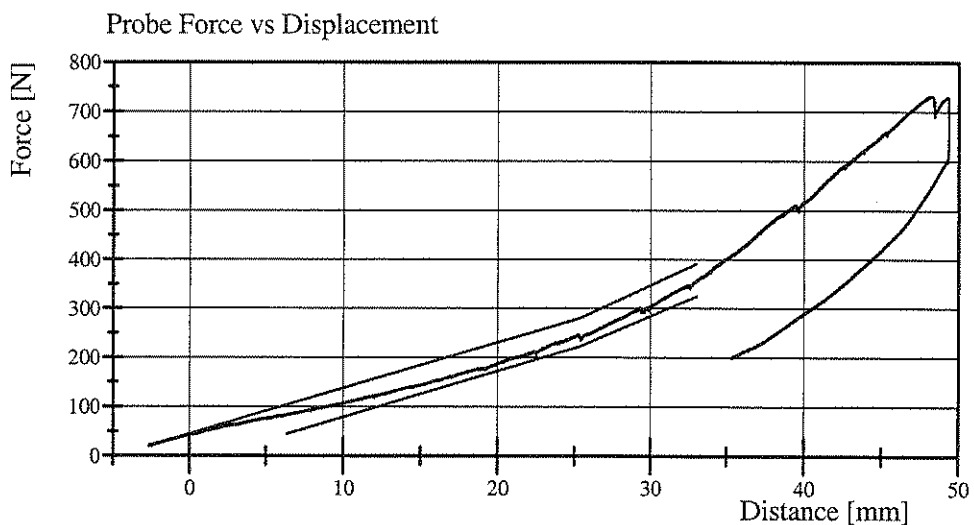
Min: 19.1 N at -0.3 s



Filter Class: CFC_180

Max: 49.4 mm at 7.3 s

Min: -2.6 mm at -0.3 s



Filter Class: CFC_600

Max: 731.9 N at 48.1 mm

Min: 19.1 N at -2.6 mm



TRANSPORTATION RESEARCH CENTER INC.

LUMBAR FLEXION TEST

SID PART 572B

CAL DATE: 17-Nov-06

TRC, INC. TEST NO: LUFL-01 572B SN 059 TORSO FLEX CAL 19

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6° C	21.4 C
RELATIVE HUMIDITY	10 – 70 %	27 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	0 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	125 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	160 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	208 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	9.0 °

TEST MEETS SPECIFICATIONS

TECHNICIAN *Ken Storer*

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 059 Certification No. 19-1

Test Date: 11/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.286 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	6.4 ms	Yes
Pelvis Lateral Acceleration	40 - 60 g	43.2 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Rust Banda

Approved

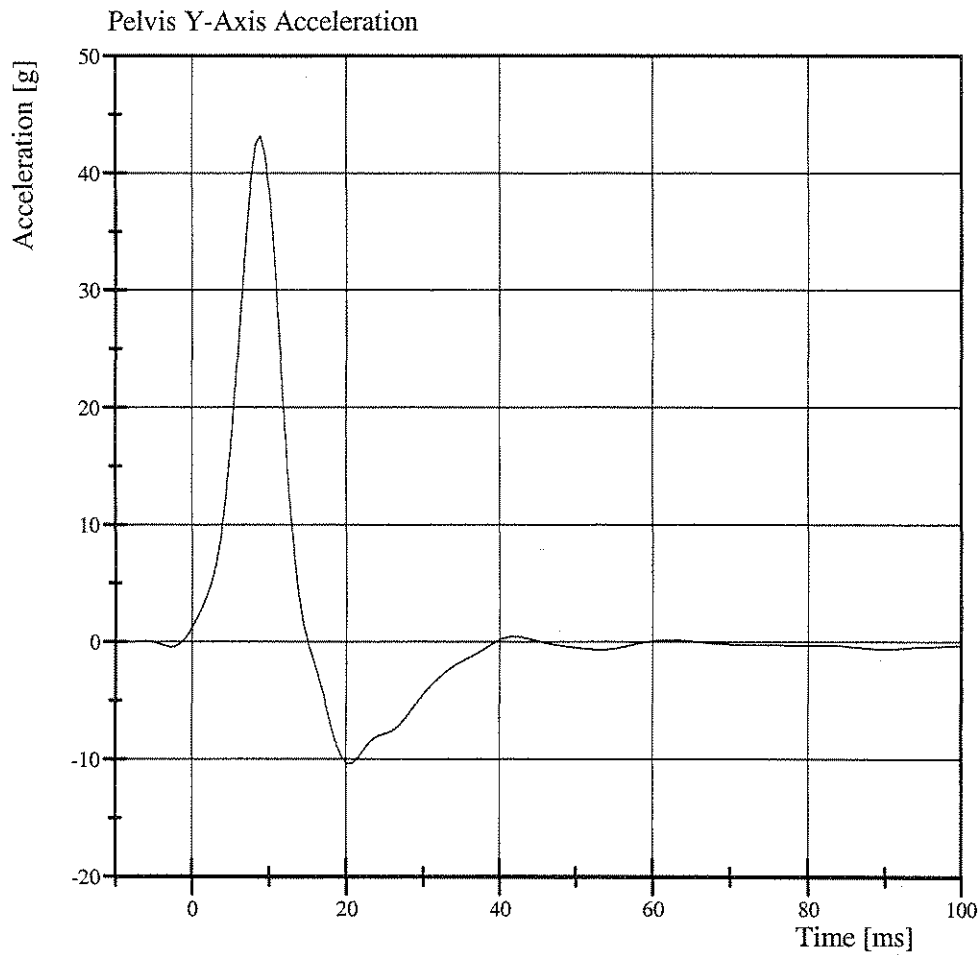
Non Stoner

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 059 Certification No. 19-1

Test Date: 11/17/2006



Filter Class: FIR_100
Max: 43.2 g at 8.9 ms
Min: -10.4 g at 20.2 ms

Calibration Test Results

Post-Test

SID HIII: 055

Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber was not tested at this time.

Transportation Research Center Inc.
SID/HIII Dummy
External Dimensions
Serial No. 055 Calibration No. 24

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	902 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	508 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	520 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	493 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	374 mm	Yes
Top Rib Width From CVL	RW-1	165.1 - 180.3 mm	171 mm	Yes
Bottom Rib Width From CVL	RW-2	165.1 - 180.3 mm	170 mm	Yes
Difference Between Top & Bottom Rib Width from CVL		<= 2.5 mm	1.0 mm	Yes

Technician

Approved

Charles Hill

Ron Stoner



Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 055 Certification No. 24-1

Test Date: 11/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Peak Head Resultant Acceleration	120 - 150 g	149.7 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	6.4 g	Yes
Is Head Resultant Acceleration Curve Unimodal Within 15% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Charles Bell

Approved

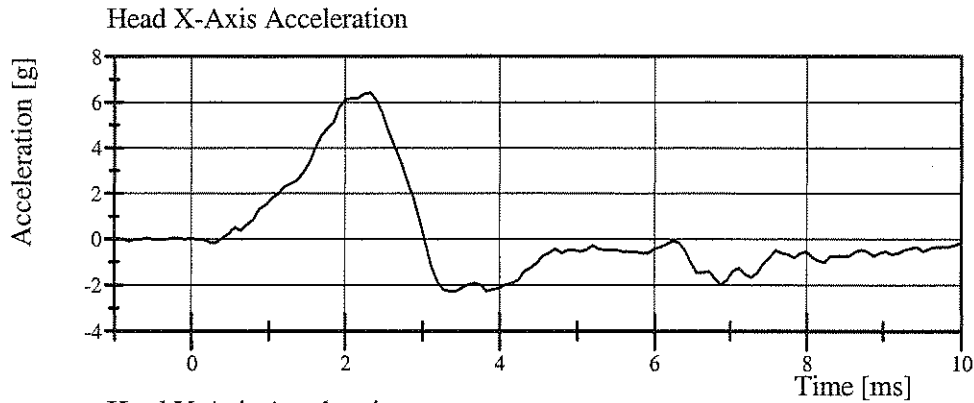
Ron Stoner

Transportation Research Center Inc.

Left Lateral Head Drop

SID-HIII Serial No. 055 Certification No. 24-1

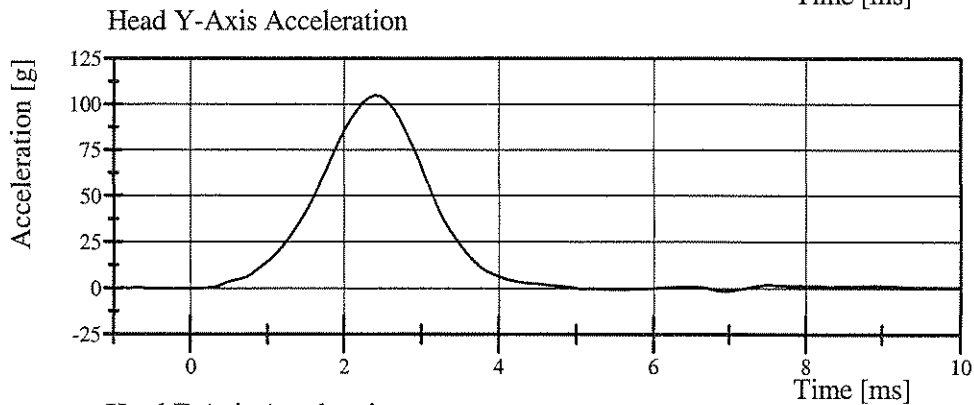
Test Date: 11/16/2006



Filter Class: CFC_1000

Max: 6.4 g at 2.3 ms

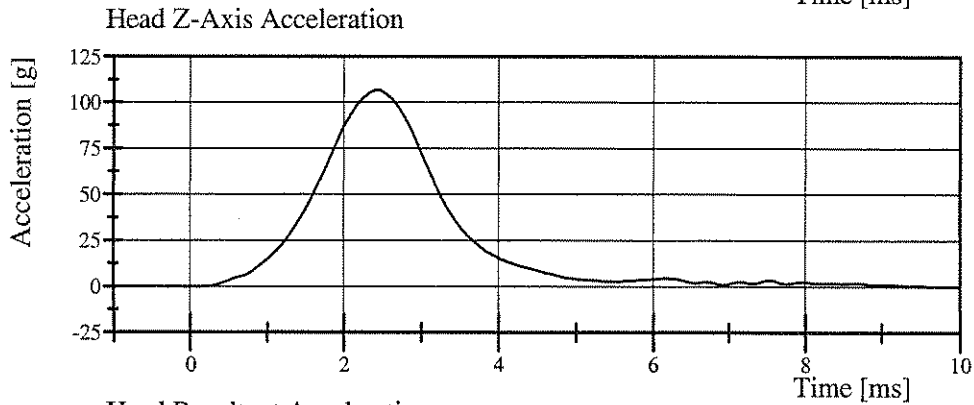
Min: -2.3 g at 3.4 ms



Filter Class: CFC_1000

Max: 105.0 g at 2.4 ms

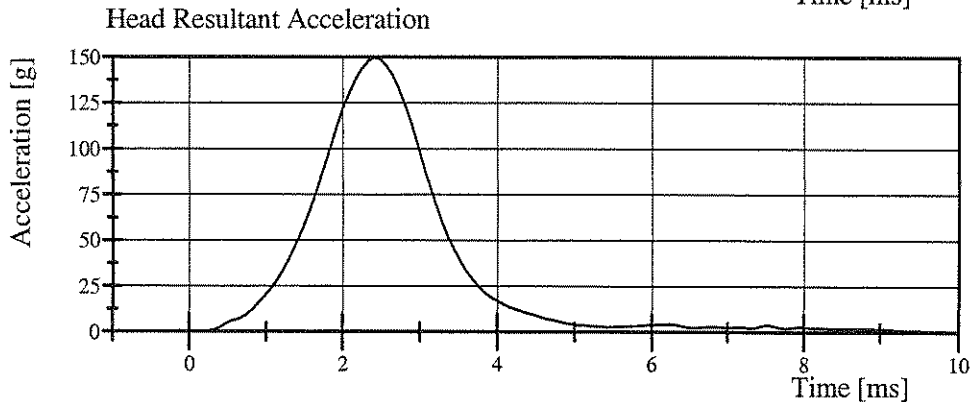
Min: -1.8 g at 7.0 ms



Filter Class: CFC_1000

Max: 106.6 g at 2.4 ms

Min: -0.2 g at -1.0 ms



Filter Class: CFC_1000

Max: 149.7 g at 2.4 ms

Min: 0.0 g at -0.5 ms

Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 24-1

Test Date: 11/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Pendulum Velocity	(-6.89) - (-7.13) m/s	-7.090 m/s	Yes
Pendulum Integrated Velocity Change at 10 ms	1.96 - 2.55 m/s	2.369 m/s	Yes
Pendulum Integrated Velocity Change at 20 ms	4.12 - 5.10 m/s	4.692 m/s	Yes
Pendulum Integrated Velocity Change at 30 ms	5.73 - 7.01 m/s	6.635 m/s	Yes
Pendulum Integrated Velocity Change at 40 to 70 ms	6.27 - 7.64 m/s	7.173 m/s	Yes
Total Head D-Plane Rotation	(-66) - (-82) °	-71.1 °	Yes
Total Head D-Plane Rotation Time to 0° after Peak Rotation	58 - 67 ms	61.2 ms	Yes
Total Neck Occipital Condyle Moment	73 - 88 N·m	82.4 N·m	Yes
Total Neck Occipital Condyle Moment Time to 0 N·m after Peak Moment	49 - 64 ms	54.3 ms	Yes
Time from Peak Moment to Peak Rotation	2 - 16 ms	8.2 ms	Yes

Test meets specifications.

Comments:

Technician

Charles Hill

Approved

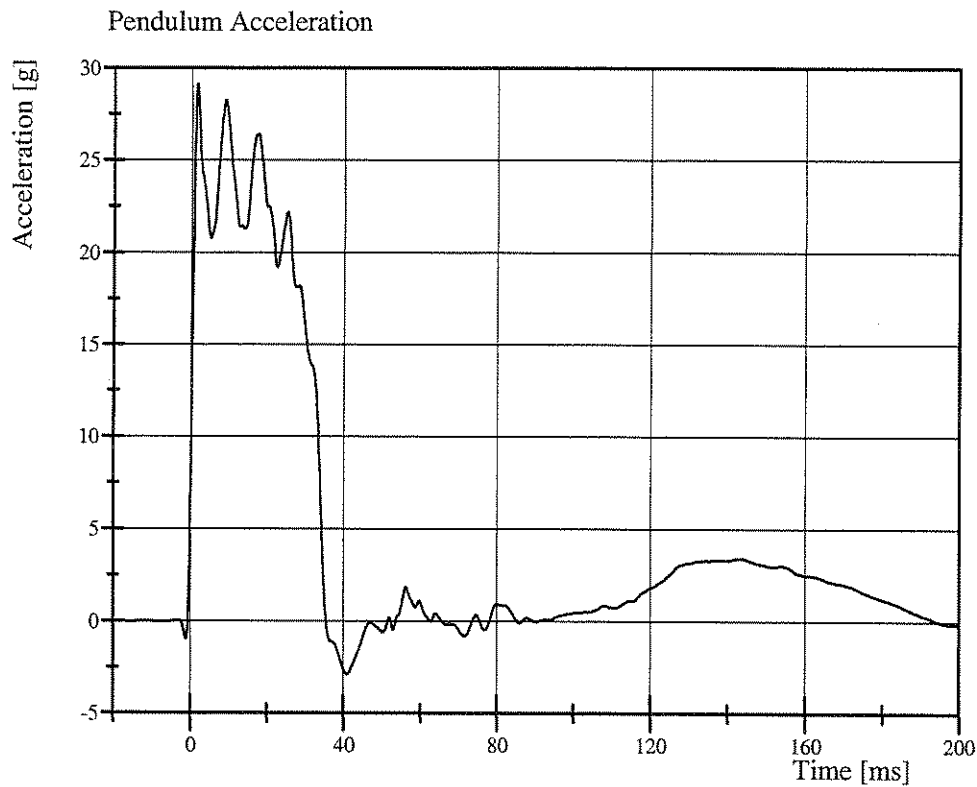
Ron Storer

Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 24-1

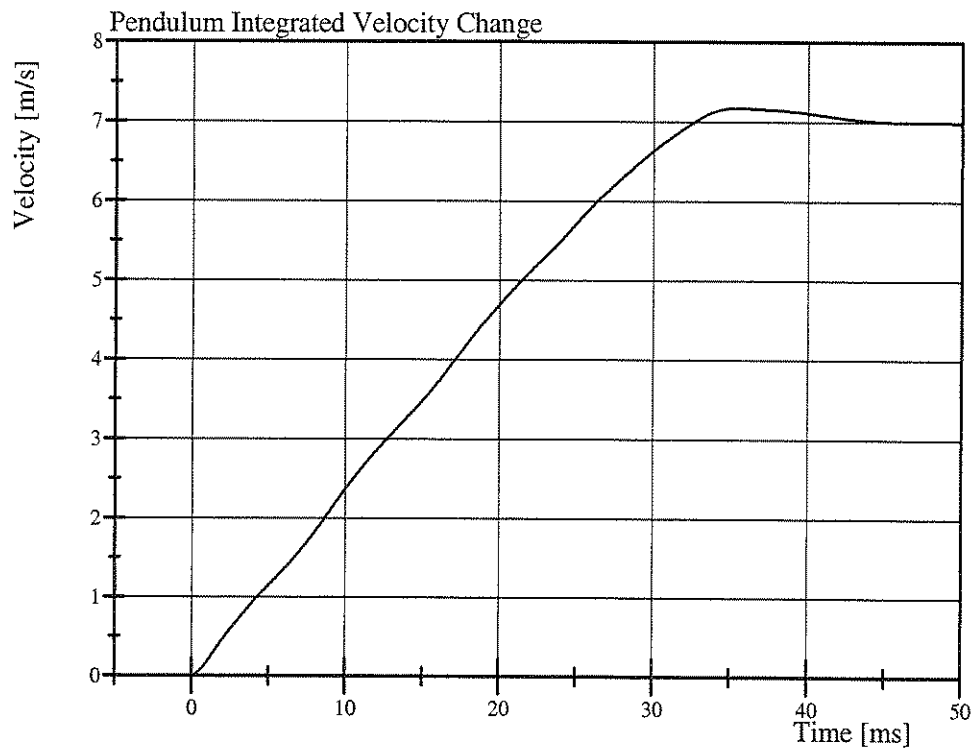
Test Date: 11/16/2006



Filter Class: CFC_180

Max: 29.1 g at 1.5 ms

Min: -2.9 g at 41.0 ms



Filter Class: CFC_180

Max: 7.2 m/s at 35.4 ms

Min: 0.0 m/s at 0.0 ms

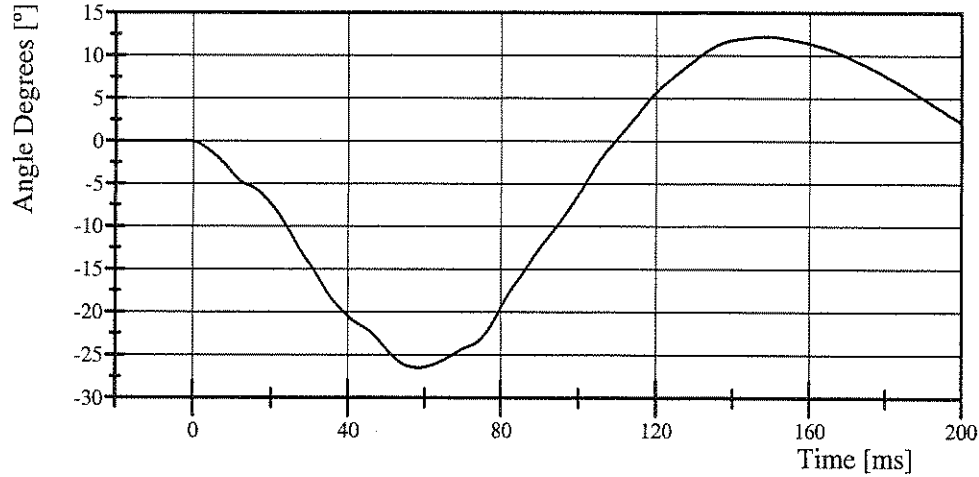
Transportation Research Center Inc.

Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 24-1

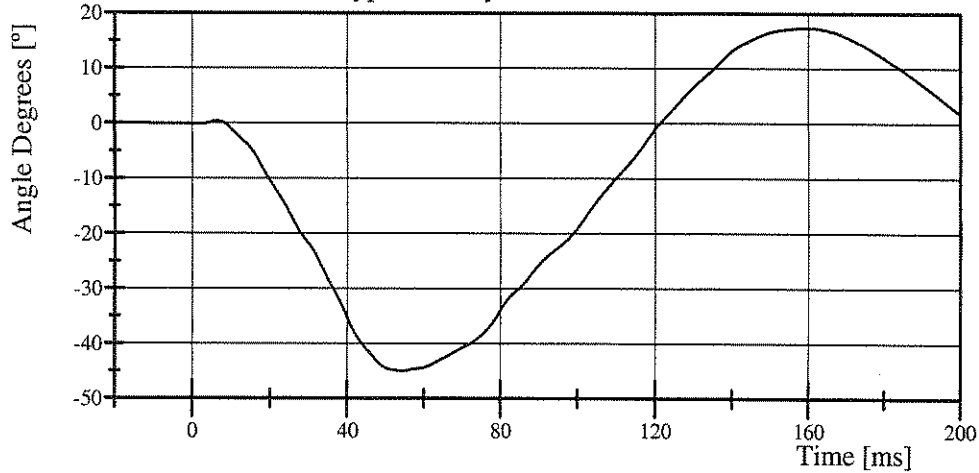
Test Date: 11/16/2006

Pot Rotation at the Base of Neck



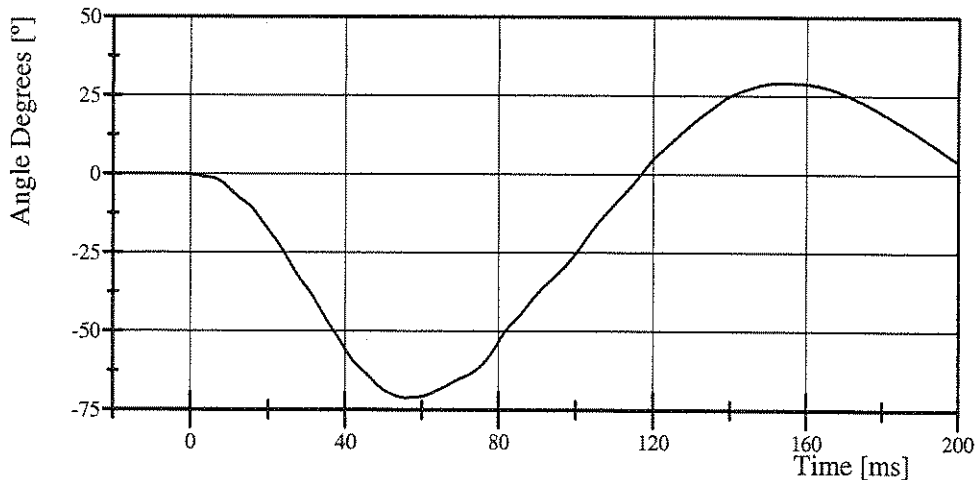
Filter Class: CFC_60
Max: 12.2 ° at 148.7 ms
Min: -26.5 ° at 58.5 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 17.4 ° at 159.5 ms
Min: -44.9 ° at 54.2 ms

Total Head D-Plane Rotation



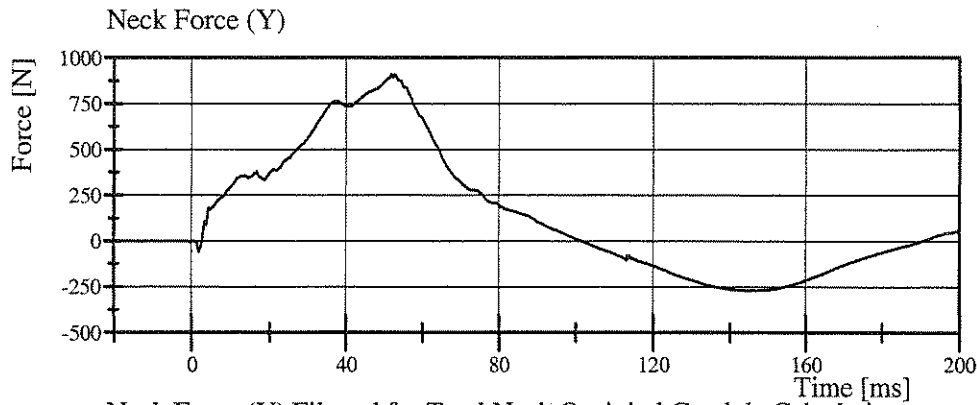
Filter Class: CFC_60
Max: 29.1 ° at 153.7 ms
Min: -71.1 ° at 55.8 ms

Transportation Research Center Inc.

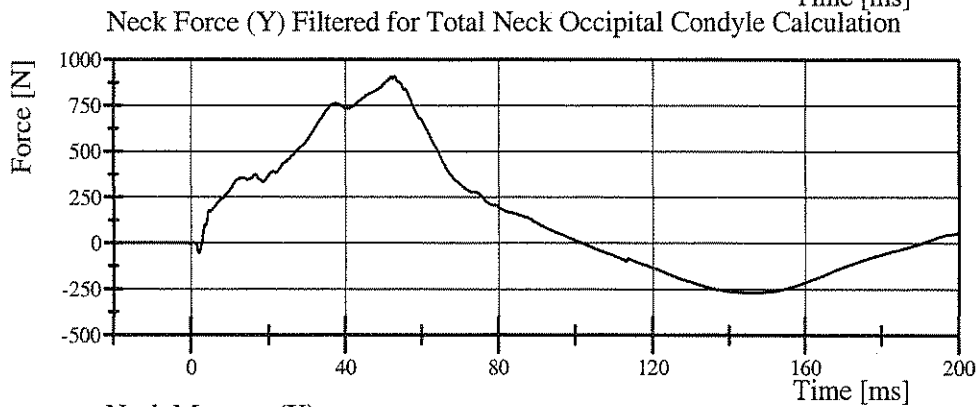
Left Lateral Neck

SID-HIII Serial No. 055 Certification No. 24-1

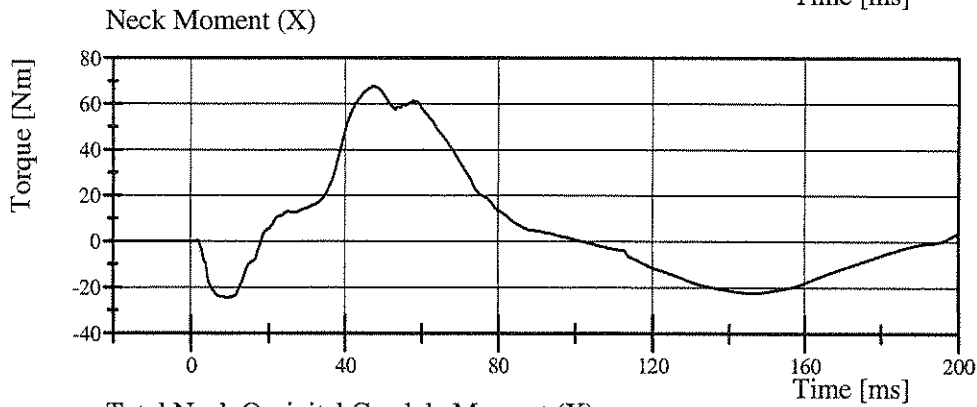
Test Date: 11/16/2006



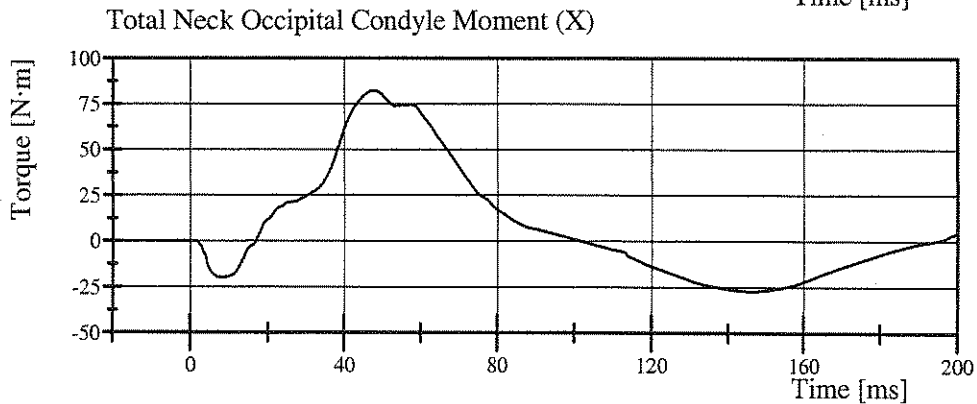
Filter Class: CFC_1000
Max: 909.5 N at 51.9 ms
Min: -270.4 N at 145.0 ms



Filter Class: CFC_600
Max: 908.9 N at 52.8 ms
Min: -270.0 N at 145.6 ms



Filter Class: CFC_600
Max: 67.7 Nm at 47.4 ms
Min: -24.5 Nm at 9.1 ms



Filter Class: CFC_600
Max: 82.4 N·m at 47.5 ms
Min: -27.2 N·m at 146.5 ms

Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 055 Certification No. 24-1

Test Date: 11/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.302 m/s	Yes
Upper Rib Lateral Acceleration	37 - 46 g	44.7 g	Yes
Lower Rib Lateral Acceleration	37 - 46 g	43.7 g	Yes
Lower Spine Lateral Acceleration	15 - 22 g	20.8 g	Yes

Test meets specifications.

Comments:

Technician

Charles Bell

Approved

Ron Stoner



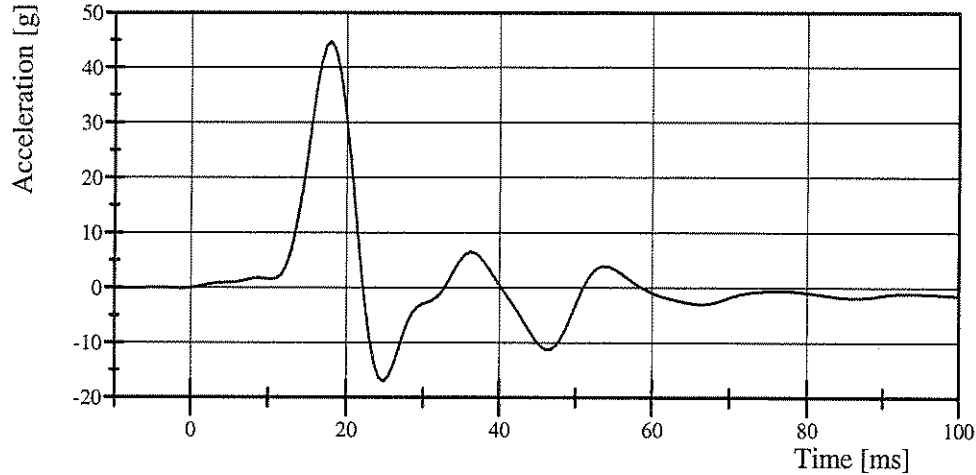
Transportation Research Center Inc.

Left Lateral Thorax

SID-HIII Serial No. 055 Certification No. 24-1

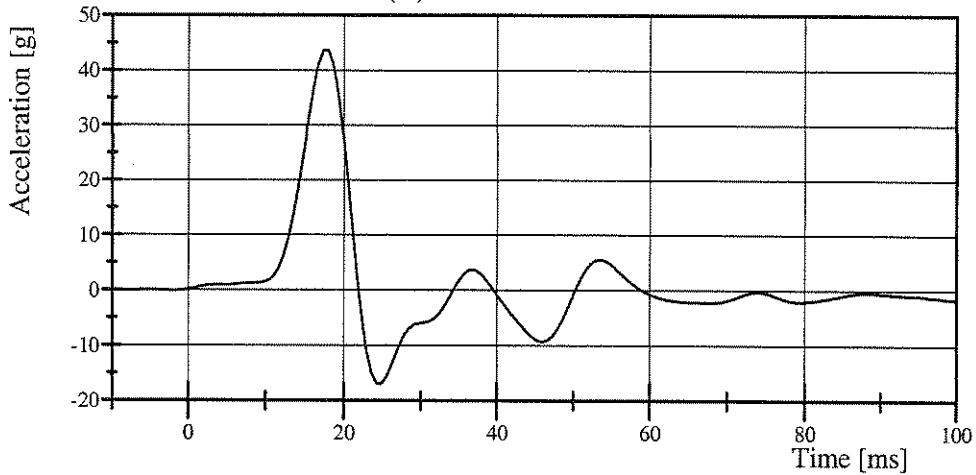
Test Date: 11/17/2006

Upper Rib Acceleration (Y)



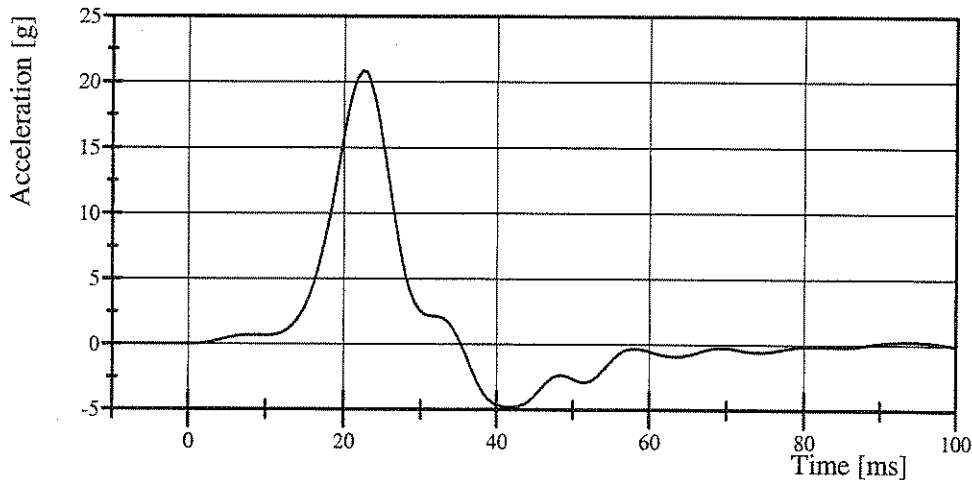
Filter Class: FIR_100
Max: 44.7 g at 18.0 ms
Min: -17.0 g at 24.9 ms

Lower Rib Acceleration (Y)



Filter Class: FIR_100
Max: 43.7 g at 17.9 ms
Min: -17.0 g at 24.8 ms

Lower Spine Acceleration (Y)



Filter Class: FIR_100
Max: 20.8 g at 22.4 ms
Min: -4.8 g at 41.8 ms

Transportation Research Center Inc.

Abdomen Compression

SID-HIII Serial No. 055 Certification No. 24-3

Test Date: 11/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	7.969 mm/s	Yes

Test meets specifications.

Comments:

Technician

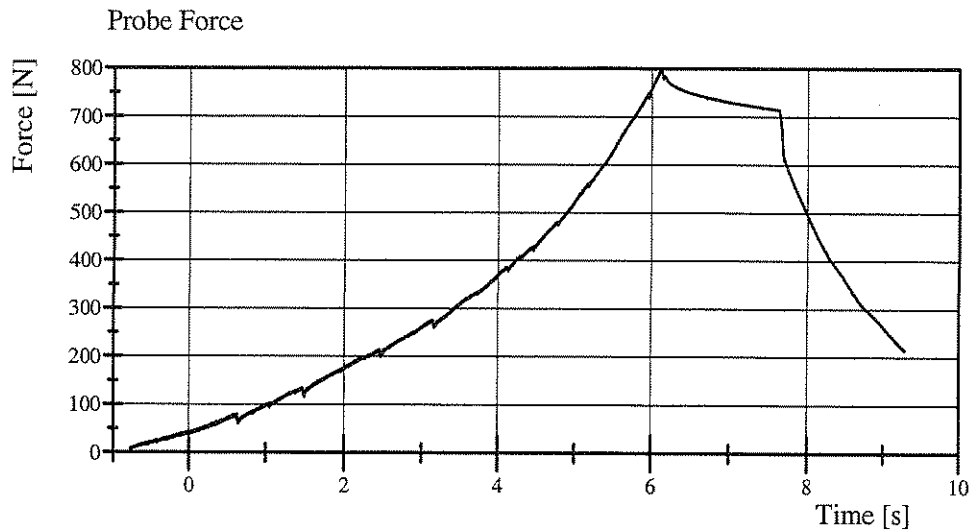
Charles Bell

Approved

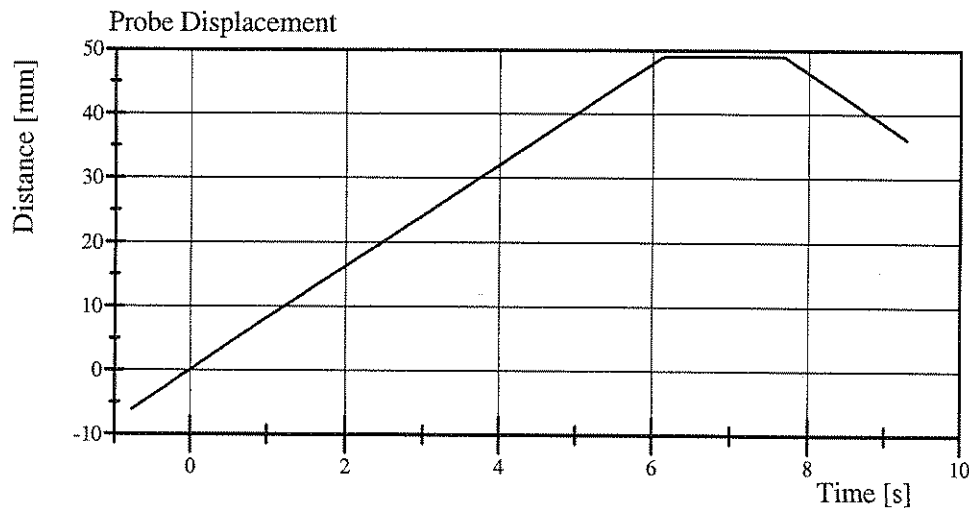
Ron Stone

Transportation Research Center Inc.

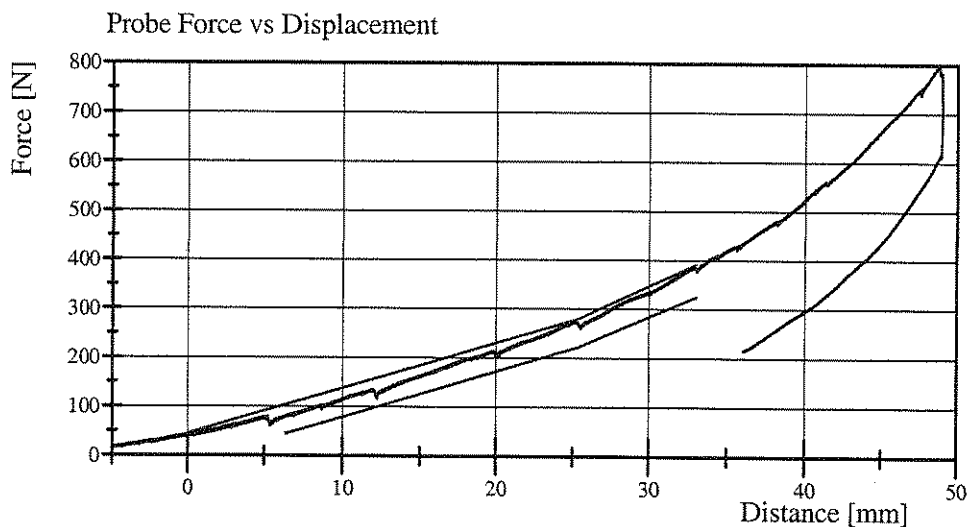
Abdomen Compression
SID-HIII Serial No. 055 Certification No. 24-3
Test Date: 11/17/2006



Filter Class: CFC_600
Max: 796.7 N at 6.1 s
Min: 6.7 N at -0.8 s



Filter Class: CFC_180
Max: 49.0 mm at 7.6 s
Min: -6.2 mm at -0.8 s



Filter Class: CFC_600
Max: 796.7 N at 48.8 mm
Min: 6.7 N at -6.2 mm



TRANSPORTATION RESEARCH CENTER INC.

PART 572B LUMBAR FLEXION TEST

SID/HIII

CAL DATE: 17-Nov-06

TRC, INC.

TEST NO: LUFL-01

572M SN 055 TORSO FLEX CAL 24

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6° C	21.4°C
RELATIVE HUMIDITY	10 – 70 %	27 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	0 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	107 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	155 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	208 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	2.4 °

TEST MEETS SPECIFICATIONS

TECHNICIAN Chandler Beall

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 055 Certification No. 24-1

Test Date: 11/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.321 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	5.7 ms	Yes
Pelvis Lateral Acceleration	40 - 60 g	55.4 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Charles Hill

Approved

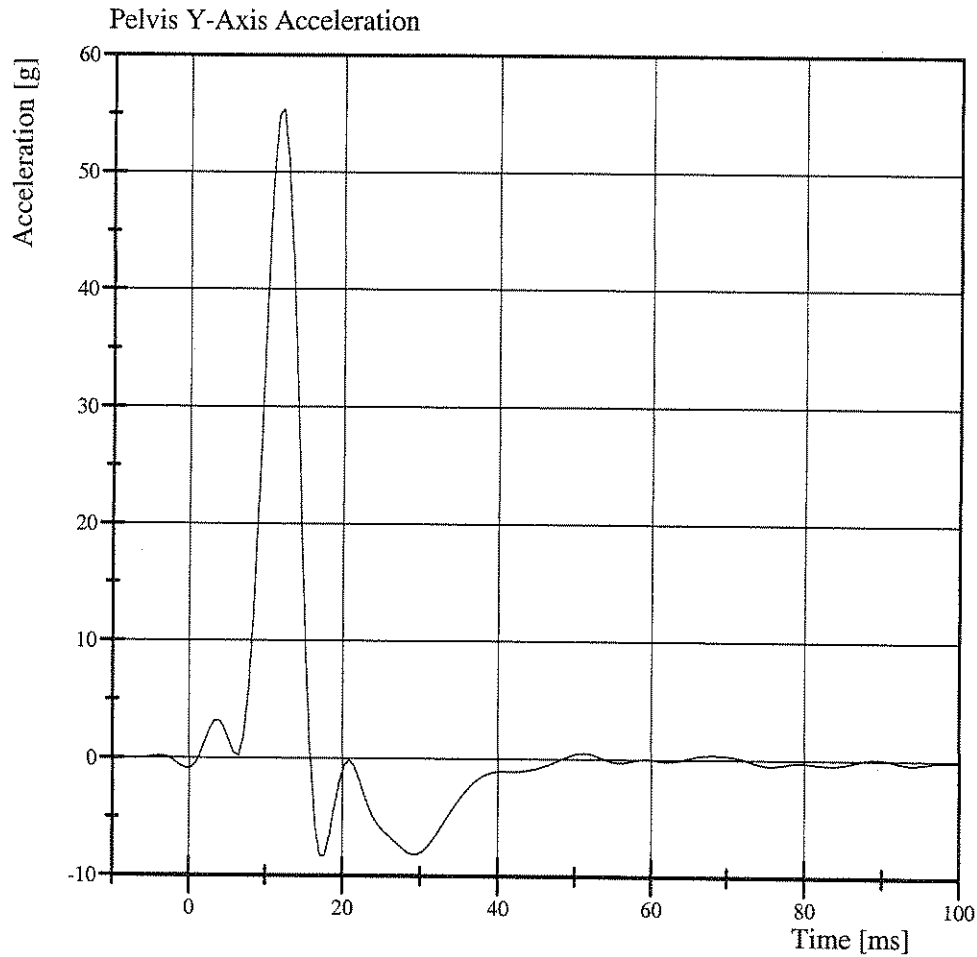
Ron Stoner

Transportation Research Center Inc.

Left Lateral Pelvis

SID-HIII Serial No. 055 Certification No. 24-1

Test Date: 11/17/2006



Filter Class: FIR_100
Max: 55.4 g at 12.1 ms
Min: -8.3 g at 17.1 ms



Test Date: 11/15/06

Type: 50% S/N: 059 Mfg.: ASTC

Proj./Seg. No.: 20020455/ 3050 Test Eng: Walter D. Dudek

ITEM	PRE-USE	POST-USE
HEAD:		
Skull Cap Bolts: tight and no wires pinched	X	
Head Skin Condition	X	X
* Neck Load Cell Cables: secure, taped, and with strain relief	X	
Accel. Cable Exit (left or right)	N/A	
NECK:		
Rubber Condition and Separation From End Caps	X	X
NECK – SID/HIII only:		
Condyle Pin, Set Screws	X	
* Neck Cable Torque (10-14 in lb) Actual: <u>12</u>	X	
* Nodding Blocks Condition and Position (Post-test Joint Function)	X	X
THORAX:		
Jacket & Abdomen Condition	X	X
Stacked Shoulder Foams and Bolts	X	X
Rib Wrap Condition	X	X
Rib Cage Spring and Support Assembly	X	X
Rib Cage Bolts	X	X
Damper Rear Attachment Ring, Pivot Pins, and Bracket	X	X
Location and Adjustment of Chest Pot Bracket and Collars	X	X
Chest Pot Rod End Nuts and Eyebolt	X	
Arm Foam Orientation/Condition	X	X
Thorax/Lumbar Spine Bolts / Condition and Separation from End Caps	X	X
Adjust rib cage position to full extension	X	
PELVIS:		
Iliac Crest Bone	X	X
Flesh Condition	X	X
Tightness and Alignment of H-Point Tool Insert	X	
Hips Range of Motion and 1-2g Adjustment (before calibration only)	X	
Upper Femur Bolt Adjustment and Position	X	
LEGS AND FEET:		
Knee Skins and Castings Condition	X	X
Femur Load Cell Bolts	X	
Breakaway Femur Bolts - function	X	
Knee Joint Function and Range of Motion	X	X
Leg Skin Condition and Position	X	X
Ankle Range of Motion	X	X
Foot Condition	X	X
OTHER:		
Cleanliness	X	
Target Position	X	
Clothes and Shoes BLUE	X	
One G Joint Adjustments	X	
Verify channels against assembly and Check connectors (intact & labeled)	X	
ATTACH TEMPERATURE LOGGER TO DUMMY / DOWNLOAD	X	X

* Items checked during calibration; these items need checked when the dummy is used without recalibration

Pre Test Inspection Completed By: J. Clarridge Date: 11/14/06

Post Test Inspection Completed By: J. Clarridge Date: 11/16/06



Test Date: 11/15/06

Type: 50% S/N: 055 Mfg.: ASTC

Proj./Seg. No.: 20020455/ 3050 Test Eng: Walter D. Dudek

ITEM	PRE-USE	POST-USE
HEAD:		
Skull Cap Bolts: tight and no wires pinched	X	
Head Skin Condition	X	
* Neck Load Cell Cables: secure, taped, and with strain relief	X	
Accel. Cable Exit (left or right)	N/A	
NECK:		
Rubber Condition and Separation From End Caps	X	
NECK – SID/HIII only:		
Condyle Pin, Set Screws	X	
* Neck Cable Torque (10-14 in lb) Actual: <u>12</u>	X	
* Nodding Blocks Condition and Position (Post-test Joint Function)	X	X
THORAX:		
Jacket & Abdomen Condition	X	X
Stacked Shoulder Foams and Bolts	X	X
Rib Wrap Condition	X	X
Rib Cage Spring and Support Assembly	X	X
Rib Cage Bolts	X	X
Damper Rear Attachment Ring, Pivot Pins, and Bracket	X	X
Location and Adjustment of Chest Pot Bracket and Collars	N/A	X
Chest Pot Rod End Nuts and Eyebolt	N/A	
Arm Foam Orientation/Condition	X	X
Thorax/Lumbar Spine Bolts / Condition and Separation from End Caps	X	X
Adjust rib cage position to full extension	X	
PELVIS:		
Iliac Crest Bone	X	X
Flesh Condition	X	X
Tightness and Alignment of H-Point Tool Insert	X	
Hips Range of Motion and 1-2g Adjustment (before calibration only)	X	
Upper Femur Bolt Adjustment and Position	X	
LEGS AND FEET:		
Knee Skins and Castings Condition	X	X
Femur Load Cell Bolts	X	
Breakaway Femur Bolts - function	X	
Knee Joint Function and Range of Motion	X	X
Leg Skin Condition and Position	X	X
Ankle Range of Motion	X	X
Foot Condition	X	X
OTHER:		
Cleanliness	X	
Target Position	X	
Clothes and Shoes PINK	X	
One G Joint Adjustments	X	
Verify channels against assembly and Check connectors (intact & labeled)	X	
ATTACH TEMPERATURE LOGGER TO DUMMY / DOWNLOAD	X	X

* Items checked during calibration; these items need checked when the dummy is used without recalibration

Pre Test Inspection Completed By: J. Clarridge Date: 11/14/06

Post Test Inspection Completed By: J. Clarridge Date: 11/16/06

Appendix D

Test Equipment List and Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers:

+X: Forward
+Y: Rightward
+Z: Downward

Potentiometers:

+Chest longitudinal deflection: Outward
+Chest lateral deflection: Rightward
+Seat belt displacement: Outward
+Seat belt extension: Elongation
+Knee slider displacement: Distance between femur and tibia increased (in relation to a seated dummy)

Rotation potentiometers:

+About the X-axis: Left foot-eversion
Right foot-inversion
+About the Y-axis: Left/right foot-dorsiflexion
+About the Z-axis: Left foot-internal
Right foot-external

Load cells:

+Femur force: Tension
+Seat belt force: Tension
+Barrier force: Tension

Neck load cells:

+X force: Head pushed rearward
+Y force: Head pushed leftward
+Z force: Head pulled upward (tension on neck)
+X moment: Left ear rotating toward left shoulder
+Y moment: Chin rotating toward chest
+Z moment: Chin rotating toward left shoulder

Tibia load cells:

+X force: Ankle forward, knee rearward
+Y force: Ankle rightward, knee leftward
+Z force: Tension
+X moment: Bottom of tibia moving leftward
+Y moment: Bottom of tibia moving rearward

Sign Convention (Continued)
SAE J211 MAR95

Lumbar load cells: +X force: Chest rearward, pelvis forward
+Y force: Chest leftward, pelvis rightward
+Z force: Chest upward, pelvis downward
+X moment: Left shoulder toward left hip
+Y moment: Sternum toward front of legs
+Z moment: Right shoulder forward, left shoulder rearward

Frequency Response Classes
SAE J211 MAR95

<u>Typical Test Measurements</u>	<u>Channel Class</u>
Vehicle Structural Accelerations for use in:	
Total vehicle comparison	60
Collision simulation input	60
Component analysis	600
Integration for velocity or displacement	180
Barrier Face Forces	60
Belt Restraint System Loads	60
Anthropomorphic Test Device	
Head accelerations (linear and angular)	1000
Neck	
Forces	1000
Moments	600
Thorax	
Spine accelerations	180
Rib accelerations	1000
Sternum accelerations	1000
Deflections	600
Lumbar	
Forces	1000
Moments	1000
Pelvis	
Accelerations	1000
Forces	1000
Moments	1000
Femur/Knee/Tibia/Ankle	
Forces	600
Moments	600
Displacements	180
Sled Accelerations	60
Steering Column Loads	600
Head Form Accelerations	1000

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.

Channel Report Test Number 061115

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
1	Trig D1	10ZERO00000V00A	EVENT		1 Logic	+	Bipolar	
2	P46512	11HEADCG00SHACXA	Head Accel X	1000	g	+	Forward	1-059 SID/HIII ASTC.001
3	P49052	11HEADCG00SHACYA	Head Accel Y	1000	g	+	Rightward	1-059 SID/HIII ASTC.002
4	P49038	11HEADCG00SHACZA	Head Accel Z	1000	g	-	Upward	1-059 SID/HIII ASTC.003
5	P49030	11HEADCGRDSHACXA	Head Accel X Red	1000	g	+	Forward	1-059 SID/HIII ASTC.004
6	P49043	11HEADCGRDSHACYA	Head Accel Y Red	1000	g	+	Rightward	1-059 SID/HIII ASTC.005
7	P49039	11HEADCGRDSHACZA	Head Accel Z Red	1000	g	-	Upward	1-059 SID/HIII ASTC.006
8	1716A-1624-FX	11NECKUP00SHFOXA	Neck Force X	8896	N	-	Head forward, chest rearward	1-059 SID/HIII ASTC.007
9	1716A-1624-FY	11NECKUP00SHFOYA	Neck Force Y	8896	N	+	Head leftward, chest rightward	1-059 SID/HIII ASTC.008
10	1716A-1624-FZ	11NECKUP00SHFOZA	Neck Force Z	13344	N	+	Head upward, chest downward	1-059 SID/HIII ASTC.009
11	1716A-1624-MX	11NECKUP00SHMOXA	Neck Moment X	282	Nm	-	Right ear toward right shoulder	1-059 SID/HIII ASTC.010
12	1716A-1624-MY	11NECKUP00SHMOYA	Neck Moment Y	282	Nm	+	Chin toward sternum	1-059 SID/HIII ASTC.011
13	1716A-1624-MZ	11NECKUP00SHMOZA	Neck Moment Z	282	Nm	+	Chin toward left shoulder	1-059 SID/HIII ASTC.012
14	P49567	11RIBSLU00SHACYA	Left Upper Rib Y	800	g	+	Rightward	1-059 SID/HIII ASTC.013
15	P49565	11RIBSLURESHACYA	Left Upper Rid Red Y	800	g	+	Rightward	1-059 SID/HIII ASTC.014
16	P49336	11RIBSLL00SHACYA	Left Lower Rib Y	800	g	+	Rightward	1-059 SID/HIII ASTC.015
17	P47479	11RIBSLLRESHACYA	Left Lower Rib Red Y	800	g	+	Rightward	1-059 SID/HIII ASTC.016
18	P49566	11SPIN1200SHACYA	Lower Spine Y	400	g	-	Leftward	1-059 SID/HIII ASTC.017
19	P49302	11SPIN12RDSHACYA	Lower Spine Red Y	400	g	-	Leftward	1-059 SID/HIII ASTC.018
20	P49333	11PELVCG00SHACYA	Pelvis Accel Y	400	g	-	Leftward	1-059 SID/HIII ASTC.019
21	P49355	11PELVCGRDSHACYA	Pelvis Accel Red Y	400	g	-	Leftward	1-059 SID/HIII ASTC.020
22	P49045	14HEADCG00SHACXA	Head Accel X	1000	g	+	Forward	4-055 SID/HIII ASTC.001
23	P49057	14HEADCG00SHACYA	Head Accel Y	1000	g	+	Rightward	4-055 SID/HIII ASTC.002
24	P49037	14HEADCG00SHACZA	Head Accel Z	1000	g	-	Upward	4-055 SID/HIII ASTC.003
25	P49050	14HEADCGRDSHACXA	Head Accel X Red	1000	g	+	Forward	4-055 SID/HIII ASTC.004
26	P46511	14HEADCGRDSHACYA	Head Accel Y Red	1000	g	+	Rightward	4-055 SID/HIII ASTC.005
27	P49021	14HEADCGRDSHACZA	Head Accel Z Red	1000	g	-	Upward	4-055 SID/HIII ASTC.006
28	1716A-1634-FX	14NECKUP00SHFOXA	Neck Force X	8896	N	-	Head forward, chest rearward	4-055 SID/HIII ASTC.007
29	1716A-1634-FY	14NECKUP00SHFOYA	Neck Force Y	8896	N	+	Head leftward, chest rightward	4-055 SID/HIII ASTC.008
30	1716A-1634-FZ	14NECKUP00SHFOZA	Neck Force Z	13344	N	+	Head upward, chest downward	4-055 SID/HIII ASTC.009
31	1716A-1634-MX	14NECKUP00SHMOXA	Neck Moment X	282	Nm	-	Right ear toward right shoulder	4-055 SID/HIII ASTC.010
32	1716A-1634-MY	14NECKUP00SHMOYA	Neck Moment Y	282	Nm	+	Chin toward sternum	4-055 SID/HIII ASTC.011
33	1716A-1634-MZ	14NECKUP00SHMOZA	Neck Moment Z	282	Nm	+	Chin toward left shoulder	4-055 SID/HIII ASTC.012
34	P54124	14RIBSLU00SHACYA	Left Upper Rib Y	800	g	+	Rightward	4-055 SID/HIII ASTC.013

D-6

061115

Channel Report Test Number 061115

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
35	P54146	14RIBSLURESHACYA	Left Upper Rid Red Y	800	g	+	Rightward	4-055 SID/HIII ASTC.014
36	P54115	14RIBSLL00SHACYA	Left Lower Rib Y	800	g	+	Rightward	4-055 SID/HIII ASTC.015
37	P54155	14RIBSLLRESHACYA	Left Lower Rib Red Y	800	g	+	Rightward	4-055 SID/HIII ASTC.016
38	P54148	14SPIN1200SHACYA	Lower Spine Y	400	g	-	Leftward	4-055 SID/HIII ASTC.017
39	P54150	14SPIN12RDSHACYA	Lower Spine Red Y	400	g	-	Leftward	4-055 SID/HIII ASTC.018
40	P54198	14PELVCG00SHACYA	Pelvis Accel Y	400	g	-	Leftward	4-055 SID/HIII ASTC.019
41	P54147	14PELVCGRDSHACYA	Pelvis Accel Red Y	400	g	-	Leftward	4-055 SID/HIII ASTC.020
42	P46800	16SILBFR0000ACXA	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME (#1)	400	g	+	Rightward	
43	P54228	16SILBFR0000ACYA	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME (#1)	1000	g	-	Leftward	
44	P48537	16SILBFR0000ACZA	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME (#1)	400	g	-	Upward	
45	P54231	16SILBRE0000ACXA	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME (#2)	400	g	+	Forward	
46	P46958	16SILBRE0000ACYA	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME (#2)	1000	g	-	Leftward	
47	P54229	16SILBRE0000ACZA	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME (#2)	400	g	-	Upward	
48	P46606	18FORA000000ACXA	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME (#3)	1000	g	+	Forward	
49	P47384	18FORA000000ACYA	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME (#3)	1000	g	+	Rightward	
50	P54238	18FORA000000ACZA	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME (#3)	1000	g	-	Upward	
51	p50890	14SILBFR0000ACYA	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME (#5)	1000	g	+	Rightward	
52	P49782	14SILBRE0000ACYA	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	1000	g	+	Rightward	
53	P50825	16VEHCRE0000ACYA	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME (#7)	1500	g	+	Rightward	
54	P50879	11APILO0000ACYA	LEFT LOWER A-POST (Y) ACCELERATION VS TIME (#14)	1500	g	-	Leftward	
55	P48542	11APILMI0000ACYA	LEFT MID A-POST (Y) ACCELERATION VS TIME (#15)	1500	g	-	Leftward	
56	P50873	14BPILLO0000ACYA	LEFT LOWER B-POST (Y) ACCELERATION VS TIME (#12)	1500	g	-	Leftward	
57	P50972	14BPILMI0000ACYA	LEFT MID B-POST (Y) ACCELERATION VS TIME (#13)	1500	g	-	Leftward	
58	p50900	11SETRFR0000ACYA	LEFT FRONT SEAT TRACK (Y) ACCELERATION VS TIME (#16)	1500	g	+	Rightward	
59	P50931	14SETRLERE00ACYA	LEFT REAR SEAT TRACK (Y) ACCELERATION VS TIME	1500	g	+	Rightward	
60	p48546	10VEHCCG0000ACXA	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME (#18)	1000	g	+	Forward	
61	p47382	10VEHCCG0000ACYA	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME (#18)	1000	g	-	Leftward	
62	P54183	10VEHCCG0000ACZA	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME (#18)	1000	g	-	Upward	
63	P54160	M0VEHCCG0000ACXA	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME (#1)	600	g	+	Forward	
64	P54125	M0VEHCCG0000ACYA	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME(#1)	600	g	+	Rightward	
65	P54154	M0VEHCCG0000ACZA	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME(#1)	600	g	-	Upward	
66	P49744	M7FRAM000000ACXA	MDB REAR (X) ACCELERATION VS TIME (#2)	600	g	+	Forward	
67	P40751	M7FRAM000000ACYA	MDB REAR (Y) ACCELERATION VS TIME (#2)	600	g	-	Leftward	
68	Bit.00	M1CONT000000VO00	MDB LEFT CONTACT SWITCH	1	Logic	+	Bipolar	
69	Bit.01	M3CONT000000VO00	MDB RIGHT CONTACT SWITCH	1	Logic	+	Bipolar	

D-7

061115

Command File Test Number 061115

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
1	11HEADCG00SHACXA	DRIVER HEAD X-AXIS ACCELERATION	1000	+	yes	1000
1A	11HEADCG00SHVEXA	DRIVER HEAD X-AXIS VELOCITY	180			
2	11HEADCG00SHACYA	DRIVER HEAD Y-AXIS ACCELERATION	1000	+	yes	1000
2A	11HEADCG00SHVEYA	DRIVER HEAD Y-AXIS VELOCITY	180			
3	11HEADCG00SHACZA	DRIVER HEAD Z-AXIS ACCELERATION	1000	+	yes	1000
3A	11HEADCG00SHVEZA	DRIVER HEAD Z-AXIS VELOCITY	180			
3B	11HEADCG00SHACRA	DRIVER HEAD RESULTANT ACCELERATION	1000			
4	11NECKUP00SHFOXA	DRIVER NECK X-AXIS SHEAR FORCE	1000	+	yes	8896
5	11NECKUP00SHFOYA	DRIVER NECK Y-AXIS SHEAR FORCE	1000	+	yes	8896
6	11NECKUP00SHFOZA	DRIVER NECK Z-AXIS AXIAL FORCE	1000	+	yes	13344
7	11NECKUP00SHMOXA	DRIVER NECK MOMENT ABOUT X AXIS	600	+	yes	282
8	11NECKUP00SHMOYA	DRIVER NECK MOMENT ABOUT Y AXIS	600	+	yes	282
9	11NECKUP00SHMOZA	DRIVER NECK MOMENT ABOUT Z AXIS	600	+	yes	282
10	11RIBSLU00SHACYA	DRIVER UPPER RIB Y-AXIS ACCELERATION	1000	+	yes	800
10A	11RIBSLU00SHVEYA	DRIVER UPPER RIB Y-AXIS VELOCITY	180			
11	11RIBSLL00SHACYA	DRIVER LOWER RIB Y-AXIS ACCELERATION	1000	+	yes	800
11A	11RIBSLL00SHVEYA	DRIVER LOWER RIB Y-AXIS VELOCITY	180			
12	11SPIN1200SHACYA	DRIVER LOWER SPINE Y-AXIS ACCELERATION	1000	+	yes	400
12A	11SPIN1200SHVEYA	DRIVER LOWER SPINE Y-AXIS VELOCITY	180			
13	11PELVCG00SHACYA	DRIVER PELVIS Y-AXIS ACCELERATION	1000	+	yes	400
13A	11PELVCG00SHVEYA	DRIVER PELVIS Y-AXIS VELOCITY	180			
14	14HEADCG00SHACXA	LEFT REAR PASSENGER HEAD X-AXIS ACCELERATION	1000	+	yes	1000
14A	14HEADCG00SHVEXA	LEFT REAR PASSENGER HEAD X-AXIS VELOCITY	180			
15	14HEADCG00SHACYA	LEFT REAR PASSENGER HEAD Y-AXIS ACCELERATION	1000	+	yes	1000
15A	14HEADCG00SHVEYA	LEFT REAR PASSENGER HEAD Y-AXIS VELOCITY	180			
16	14HEADCG00SHACZA	LEFT REAR PASSENGER HEAD Z-AXIS ACCELERATION	1000	+	yes	1000
16A	14HEADCG00SHVEZA	LEFT REAR PASSENGER HEAD Z-AXIS VELOCITY	180			
16B	14HEADCG00SHACRA	LEFT REAR PASSENGER HEAD RESULTANT ACCELERATION	1000			
17	14NECKUP00SHFOXA	LEFT REAR PASSENGER NECK X-AXIS SHEAR FORCE	1000	+	yes	8896
18	14NECKUP00SHFOYA	LEFT REAR PASSENGER NECK Y-AXIS SHEAR FORCE	1000	+	yes	8896
19	14NECKUP00SHFOZA	LEFT REAR PASSENGER NECK Z-AXIS AXIAL FORCE	1000	+	yes	13344
20	14NECKUP00SHMOXA	LEFT REAR PASSENGER NECK MOMENT ABOUT X AXIS	600	+	yes	282
21	14NECKUP00SHMOYA	LEFT REAR PASSENGER NECK MOMENT ABOUT Y AXIS	600	+	yes	282
22	14NECKUP00SHMOZA	LEFT REAR PASSENGER NECK MOMENT ABOUT Z AXIS	600	+	yes	282
23	14RIBSLU00SHACYA	LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION	1000	+	yes	800
23A	14RIBSLU00SHVEYA	LEFT REAR PASSENGER UPPER RIB Y-AXIS VELOCITY	180			
24	14RIBSLL00SHACYA	LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION	1000	+	yes	800

Command File Test Number 061115

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
24A	14RIBSLLO0SHVEYA	LEFT REAR PASSENGER LOWER RIB Y-AXIS VELOCITY	180			
25	14SPIN1200SHACYA	LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION	1000	+	yes	400
25A	14SPIN1200SHVEYA	LEFT REAR PASSENGER LOWER SPINE Y-AXIS VELOCITY	180			
26	14PELVCG00SHACYA	LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION	1000	+	yes	400
26A	14PELVCG00SHVEYA	LEFT REAR PASSENGER PELVIS Y-AXIS VELOCITY	180			
27	11HEADCGRDSHACXA	DRIVER HEAD X-AXIS REDUNDANT ACCELERATION	1000	+	yes	1000
27A	11HEADCGRDSHVEXA	DRIVER HEAD X-AXIS REDUNDANT VELOCITY	180			
28	11HEADCGRDSHACYA	DRIVER HEAD Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	1000
28A	11HEADCGRDSHVEYA	DRIVER HEAD Y-AXIS REDUNDANT VELOCITY	180			
29	11HEADCGRDSHACZA	DRIVER HEAD Z-AXIS REDUNDANT ACCELERATION	1000	+	yes	1000
29A	11HEADCGRDSHVEZA	DRIVER HEAD Z-AXIS REDUNDANT VELOCITY	180			
29B	11HEADCGRDSHACRA	DRIVER HEAD RESULTANT REDUNDANT ACCELERATION	1000			
30	11RIBSLURESHACYA	DRIVER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
30A	11RIBSLURESHVEYA	DRIVER UPPER RIB Y-AXIS REDUNDANT VELOCITY	180			
31	11RIBSLLESHACYA	DRIVER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
31A	11RIBSLLESHVEYA	DRIVER LOWER RIB Y-AXIS REDUNDANT VELOCITY	180			
32	11SPIN12RDSHACYA	DRIVER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	400
32A	11SPIN12RDSHVEYA	DRIVER LOWER SPINE Y-AXIS REDUNDANT VELOCITY	180			
33	14HEADCGRDSHACXA	LEFT REAR PASSENGER HEAD X-AXIS REDUNDANT ACCELERATION	1000	+	yes	1000
33A	14HEADCGRDSHVEXA	LEFT REAR PASSENGER HEAD X-AXIS REDUNDANT VELOCITY	180			
34	14HEADCGRDSHACYA	LEFT REAR PASSENGER HEAD Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	1000
34A	14HEADCGRDSHVEYA	LEFT REAR PASSENGER HEAD Y-AXIS REDUNDANT VELOCITY	180			
35	14HEADCGRDSHACZA	LEFT REAR PASSENGER HEAD Z-AXIS REDUNDANT ACCELERATION	1000	+	yes	1000
35A	14HEADCGRDSHVEZA	LEFT REAR PASSENGER HEAD Z-AXIS REDUNDANT VELOCITY	180			
35B	14HEADCGRDSHACRA	LEFT REAR PASSENGER HEAD RESULTANT ACCELERATION	1000			
36	14RIBSLURESHACYA	LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
36A	14RIBSLURESHVEYA	LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT VELOCITY	180			
37	14RIBSLLESHACYA	LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
37A	14RIBSLLESHVEYA	LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT VELOCITY	180			
38	14SPIN12RDSHACYA	LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	400
38A	14SPIN12RDSHVEYA	LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT VELOCITY	180			
39	16SILBFR0000ACXA	RIGHT SIDE SILL AT FRONT SEAT X-AXIS ACCELERATION	60	+	yes	400
39A	16SILBFR0000VEXA	RIGHT SIDE SILL AT FRONT SEAT X-AXIS VELOCITY	180			
40	16SILBFR0000ACYA	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION	60	+	yes	1000
40A	16SILBFR0000VEYA	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY	180			
41	16SILBFR0000ACZA	RIGHT SIDE SILL AT FRONT SEAT Z-AXIS ACCELERATION	60	+	yes	400
41A	16SILBFR0000VEZA	RIGHT SIDE SILL AT FRONT SEAT Z-AXIS VELOCITY	180			

Command File Test Number 061115

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
41B	16SILBFR0000ACRA	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION	60			
42	16SILBRE0000ACXA	RIGHT SIDE SILL AT REAR SEAT X-AXIS ACCELERATION	60	+	yes	400
42A	16SILBRE0000VEXA	RIGHT SIDE SILL AT REAR SEAT X-AXIS VELOCITY	180			
43	16SILBRE0000ACYA	RIGHT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION	60	+	yes	1000
43A	16SILBRE0000VEYA	RIGHT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY	180			
44	16SILBRE0000ACZA	RIGHT SIDE SILL AT REAR SEAT Z-AXIS ACCELERATION	60	+	yes	400
44A	16SILBRE0000VEZA	RIGHT SIDE SILL AT REAR SEAT Z-AXIS VELOCITY	180			
44B	16SILBRE0000ACRA	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION	60			
45	18FORA000000ACXA	REAR FLOORPAN ABOVE AXLE X-AXIS ACCELERATION	60	+	yes	1000
45A	18FORA000000VEXA	REAR FLOORPAN ABOVE AXLE X-AXIS VELOCITY	180			
46	18FORA000000ACYA	REAR FLOORPAN ABOVE AXLE Y-AXIS ACCELERATION	60	+	yes	1000
46A	18FORA000000VEYA	REAR FLOORPAN ABOVE AXLE Y-AXIS VELOCITY	180			
47	18FORA000000ACZA	REAR FLOORPAN ABOVE AXLE Z-AXIS ACCELERATION	60	+	yes	1000
47A	18FORA000000VEZA	REAR FLOORPAN ABOVE AXLE Z-AXIS VELOCITY	180			
47B	18FORA000000ACRA	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION	60			
48	14SILBFR0000ACYA	LEFT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION	60	+	yes	1000
48A	14SILBFR0000VEYA	LEFT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY	180			
48B	14SILBFR0000DCYA	LEFT SIDE SILL AT FRONT SEAT Y-AXIS DISPLACEMENT	180			
49	14SILBRE0000ACYA	LEFT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION	60	+	yes	1000
49A	14SILBRE0000VEYA	LEFT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY	180			
49B	14SILBRE0000DCYA	LEFT SIDE SILL AT REAR SEAT Y-AXIS DISPLACEMENT	180			
50	16VEHCRE0000ACYA	RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS ACCELERATION	60	+	yes	1500
50A	16VEHCRE0000VEYA	RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS VELOCITY	180			
50B	16VEHCRE0000DCYA	RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS DISPLACEMENT	180			
51	11APILLO0000ACYA	LEFT LOWER A-POST Y-AXIS ACCELERATION	60	+	yes	1500
51A	11APILLO0000VEYA	LEFT LOWER A-POST Y-AXIS VELOCITY	180			
52	11APILMI0000ACYA	LEFT MIDDLE A-POST Y-AXIS ACCELERATION	60	+	yes	1500
52A	11APILMI0000VEYA	LEFT MIDDLE A-POST Y-AXIS VELOCITY	180			
53	14BPILLO0000ACYA	LEFT LOWER B-POST Y-AXIS ACCELERATION	60	+	yes	1500
53A	14BPILLO0000VEYA	LEFT LOWER B-POST Y-AXIS VELOCITY	180			
54	14BPILMI0000ACYA	LEFT MIDDLE B-POST Y-AXIS ACCELERATION	60	+	yes	1500
54A	14BPILMI0000VEYA	LEFT MIDDLE B-POST Y-AXIS VELOCITY	180			
55	11SETRFR0000ACYA	LEFT FRONT SEAT TRACK Y-AXIS ACCELERATION	60	+	yes	1500
55A	11SETRFR0000VEYA	LEFT FRONT SEAT TRACK Y-AXIS VELOCITY	180			
56	14SETRLERE00ACYA	LEFT REAR SEAT TRACK Y-AXIS ACCELERATION	60	+	yes	1500
56A	14SETRLERE00VEYA	LEFT REAR SEAT TRACK Y-AXIS VELOCITY	180			
57	10VEHCCG0000ACXA	VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION	60	+	yes	1000

D-10

061115

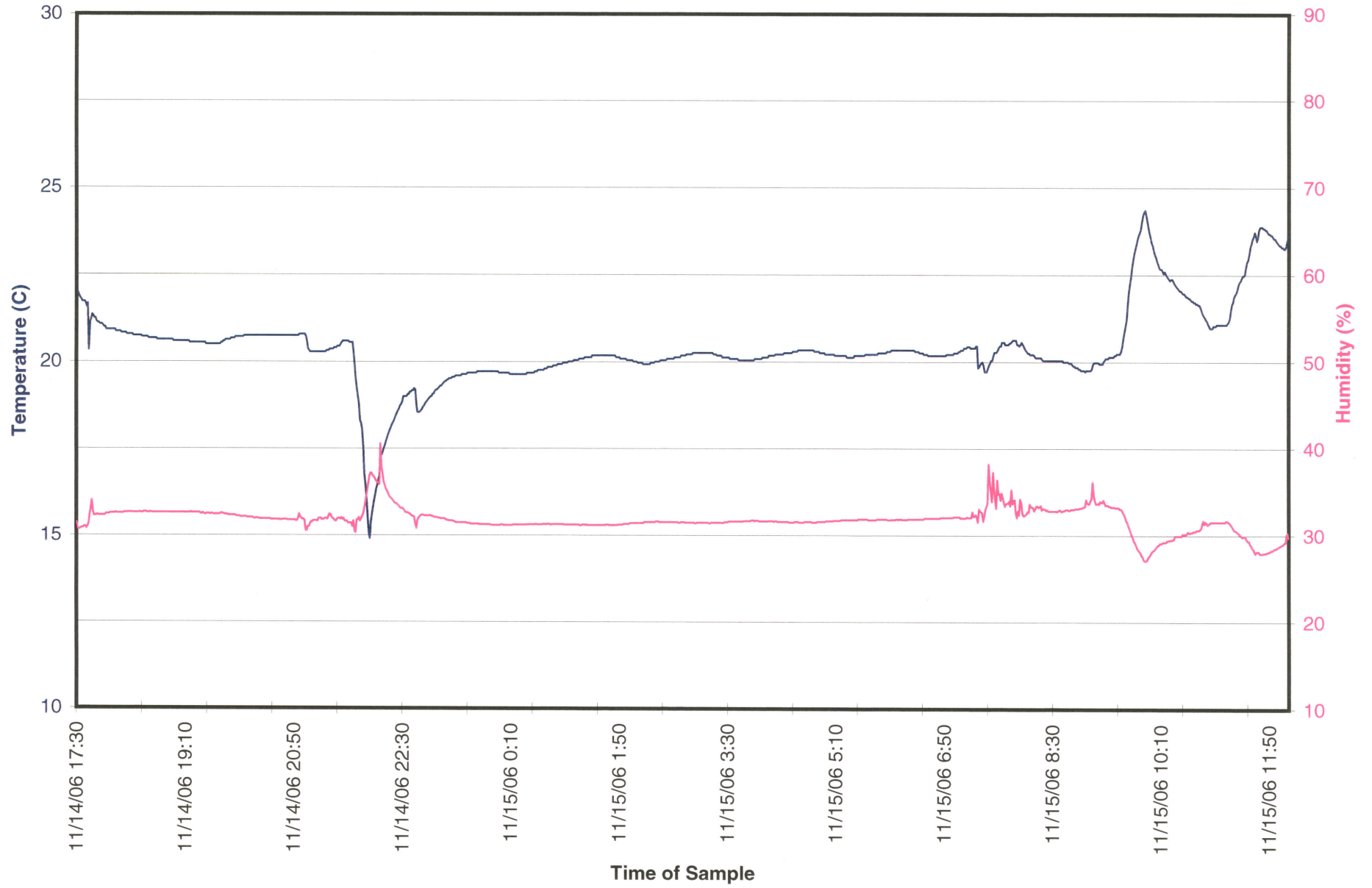
Command File Test Number 061115

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
57A	10VEHCCG0000VEXA	VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY	180			
58	10VEHCCG0000ACYA	VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION	60	+	yes	1000
58A	10VEHCCG0000VEYA	VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY	180			
59	10VEHCCG0000ACZA	VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION	60	+	yes	1000
59A	10VEHCCG0000VEZA	VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY	180			
59B	10VEHCCG0000ACRA	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION	60			
60	M0VEHCCG0000ACXA	MDB CENTER OF GRAVITY X-AXIS ACCELERATION	60	+	yes	600
60A	M0VEHCCG0000VEXA	MDB CENTER OF GRAVITY X-AXIS VELOCITY	180			
61	M0VEHCCG0000ACYA	MDB CENTER OF GRAVITY Y-AXIS ACCELERATION	60	+	yes	600
61A	M0VEHCCG0000VEYA	MDB CENTER OF GRAVITY Y-AXIS VELOCITY	180			
62	M0VEHCCG0000ACZA	MDB CENTER OF GRAVITY Z-AXIS ACCELERATION	60	+	yes	600
62A	M0VEHCCG0000VEZA	MDB CENTER OF GRAVITY Z-AXIS VELOCITY	180			
62B	M0VEHCCG0000ACRA	MDB CENTER OF GRAVITY RESULTANT ACCELERATION	60			
63	M7FRAM000000ACXA	MDB REAR X-AXIS ACCELERATION	60	+	yes	600
63A	M7FRAM000000VEXA	MDB REAR X-AXIS VELOCITY	180			
64	M7FRAM000000ACYA	MDB REAR Y-AXIS ACCELERATION	60	+	yes	600
64A	M7FRAM000000VEYA	MDB REAR Y-AXIS VELOCITY	180			
65	M3CONT000000VO00	MDB RIGHT CONTACT SWITCH	0	+	no	1
66	M1CONT000000VO00	MDB LEFT CONTACT SWITCH	0	+	no	1
66A	11RIBSLU00SHACYA	DRIVER UPPER RIB Y-AXIS ACCELERATION	100	+	yes	800
66B	11RIBSLL00SHACYA	DRIVER LOWER RIB Y-AXIS ACCELERATION	100	+	yes	800
66C	11SPIN1200SHACYA	DRIVER LOWER SPINE Y-AXIS ACCELERATION	100	+	yes	400
66D	11PELVCG00SHACYA	DRIVER PELVIS Y-AXIS ACCELERATION	100	+	yes	400
66E	14RIBSLU00SHACYA	LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION	100	+	yes	800
66F	14RIBSLL00SHACYA	LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION	100	+	yes	800
66G	14SPIN1200SHACYA	LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION	100	+	yes	400
66H	14PELVCG00SHACYA	LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION	100	+	yes	400
66I	11RIBSLURESHACYA	DRIVER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
66J	11RIBSLLRESHACYA	DRIVER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
66K	11SPIN12RDSHACYA	DRIVER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	100	+	yes	400
66L	14RIBSLURESHACYA	LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
66M	14RIBSLLRESHACYA	LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
66N	14SPIN12RDSHACYA	LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	100	+	yes	400

C75200

D-12

0611190





CERTIFICATE OF CONFORMITY

Certificate No. **28709**
Serial No. **G1303**

Cellbond Composites Ltd
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF
United Kingdom

Product Description	FMVSS 214 - 1750x740x550mm Spec with 1.6 3/8 5052 Painted Grey
Cellbond Part No.	70NHTSASIUS G

telephone
+44 (0) 1480 435302
telefax
+44 (0) 1480 450181
email
sales@cellbond.com
website
www.cellbond.com

	Test Results	GR No.	Blk No.
1	17537-7	CHC13030063GH	N/A
2	15782-8	CHC0509011GC	N/A

Declaration.

The above moving deformable barrier has been manufactured in accordance with the provisions of FMVSS 214.

Additional Information...

company registration
England 1944904

registered office
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF

Cellbond Offices
United Kingdom
United States of America





NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER
 ALUMINIUM HONEYCOMB CERTIFICATION
 STATIC TEST RESULTS

MAIN BLOCK
 Core: 1.6 3/8 5052

Required Crush Strength
 42.5 PSI to 47.5 PSI

Test No: 17537-7

GR No: CHC13030063G

H

Block No: N/A

	Crush Strength (PSI)			RESULT
	0.25 to 0.38 inch	0.38 to 0.52 inch	0.52 to 0.65 inch	
Sample* 1	47.268	47.276	47.145	PASS
Sample 2	47.183	47.295	46.841	PASS
Sample 3	46.538	46.352	46.202	PASS
Sample 4	46.781	46.376	46.234	PASS
Sample 5	46.512	46.433	45.264	PASS
Sample 6	45.009	45.365	44.428	PASS
Sample 7	45.585	47.144	45.874	PASS
Sample 8	45.726	45.890	45.523	PASS

Seven out of the eight samples must fulfil the crush strength requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER MAIN BLOCK

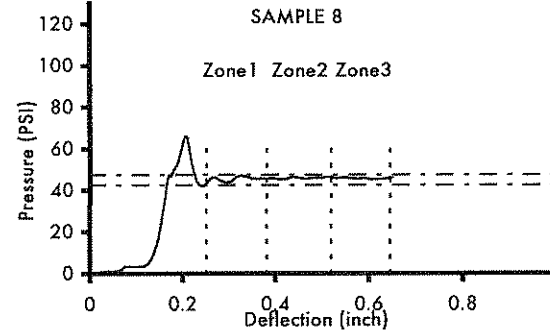
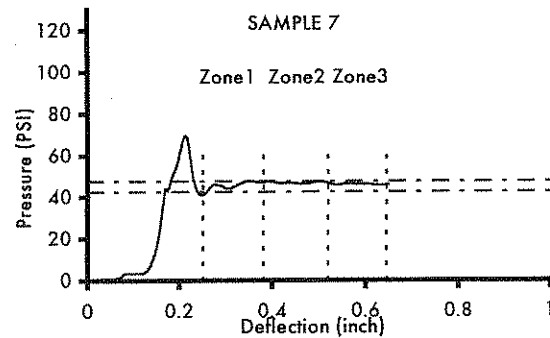
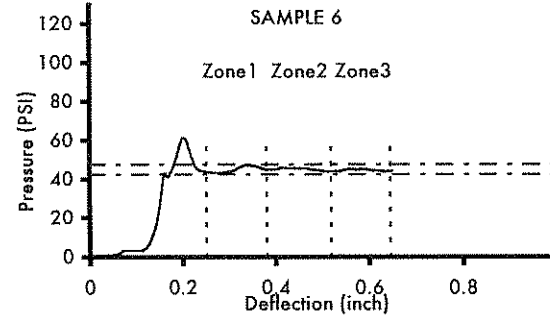
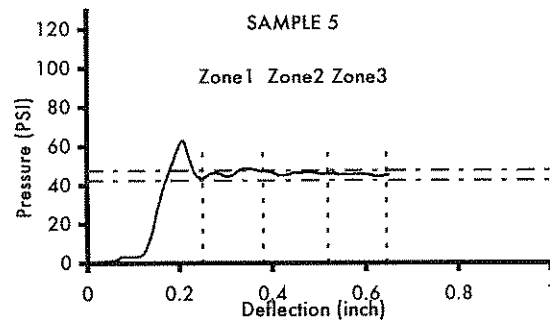
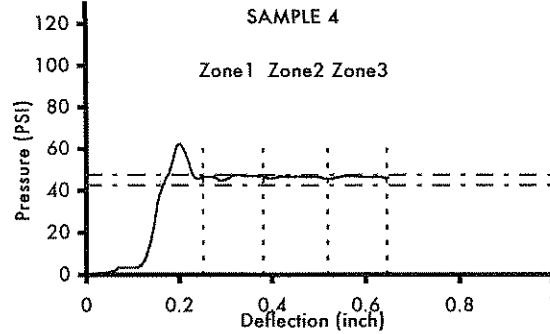
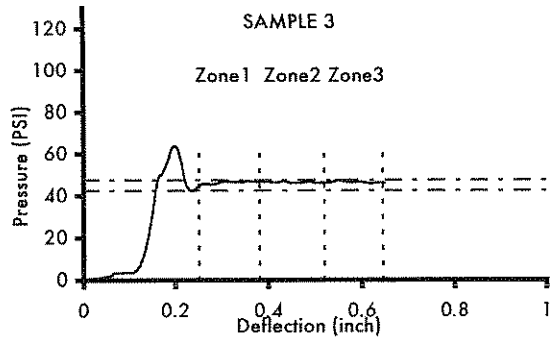
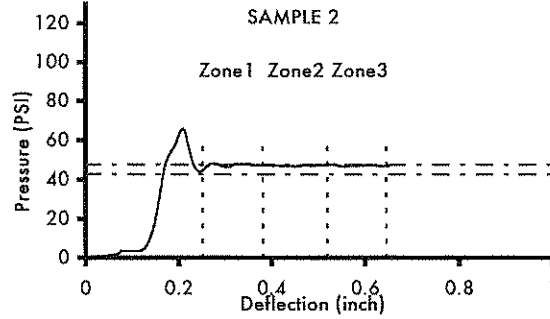
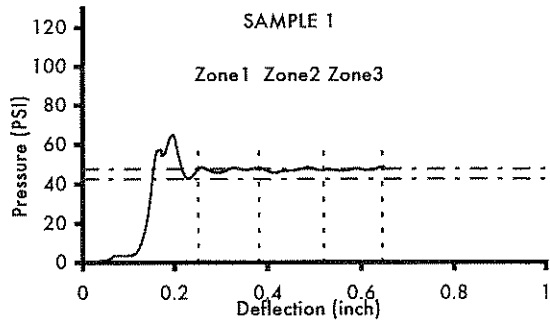
Honeycomb Type: 1.6 3/8 5052
 Higher Acceptable Crush Strength Limit: 47.5 PSI
 Lower Acceptable Crush Strength Limit: 42.5 PSI

Section 1: 0.25 - 0.38 inch
 Section 2: 0.38 - 0.52 inch
 Section 3: 0.52 - 0.65 inch
 Speed: 0.25 inch/min

Test No: 17537-7

GR No: CHC13030063GH

Block No: N/A





NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER
 ALUMINIUM HONEYCOMB CERTIFICATION
 STATIC TEST RESULTS

BUMPER

Core: 5.2 1/4 3003

Required Crush Strength
 230 PSI to 260 PSI

Test No: 15782-8

GR No: CHC0509011GC

Block No: N/A

	Crush Strength (PSI)			RESULT
	0.25 to 0.38	0.38 to 0.52	0.52 to 0.65	
Sample* 1	238.47	239.84	237.34	PASS
Sample 2	238.55	239.75	237.75	PASS
Sample 3	239.65	241.52	239.41	PASS
Sample 4	240.73	242.82	239.25	PASS
Sample 5	235.31	236.15	233.84	PASS
Sample 6	242.81	243.53	243.96	PASS
Sample 7	234.08	237.17	234.23	PASS
Sample 8	228.56	228.29	227.08	FAIL

Seven out of the eight samples must fulfil the crush strength requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER
BUMPER

Honeycomb Type: 5.2 1/4 3003
Higher Acceptable Crush Strength Limit: 260 PSI
Lower Acceptable Crush Strength Limit: 230 PSI

Section 1: 0.25 - 0.38 inch
Section 2: 0.38 - 0.52 inch
Section 3: 0.52 - 0.65 inch
Speed: 0.25 inch/min

Test No: 15782-8

GR No: CHC0509011GC

Block No: N/A

