DTS-TRC-06-009

40% Offset Vehicle to Deformable Barrier Crash Test

Ford Motor Company

2007 Ford 500 SEL 4-door sedan

NHTSA Number: R70202

TRC Inc. Test Number: 070222

Prepared By:

Transportation Research Center Inc.

10820 State Route 347

East Liberty, OH 43319

Final Report

March 7, 2007

Prepared For:

U. S. Department of Transportation

Volpe National Transportation Systems Center

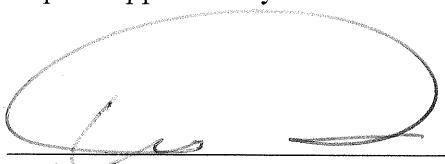
55 Broadway, Kendall Square

Cambridge, MA 02142

This publication is distributed by the U. S. Department of Transportation, Volpe National Transportation Systems Center, 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 Volpe National Transportation Systems Center. 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:



Date 3/7/2007

Walter D. Dudek, Project Manager
Transportation Research Center Inc.

FINAL REPORT ACCEPTANCE BY COTR:

_____ Date _____

Contracting Officer's Technical Representative (COTR),
USDOT, Volpe National Transportation Systems Center

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DTS-TRC-06-009		

4. Title and Subtitle	5. Report Date
Final Report of a 40% Frontal Offset Vehicle to Deformable Barrier Crash Test of a 2007 Ford 500 SEL 4-door sedan, NHTSA No. 070222	March 7, 2007
	6. Performing Organization Code: TRC Inc.
7. Author(s): Walter D. Dudek, Project Manager	8. Performing Organization Report No.: 070222
9. Performing Organization Name and Address: Transportation Research Center Inc., 10820 State Route 347, East Liberty, OH 43319-0367	10. Work Unit No. (TRAIS)
	11. Contract or Grant No.: DTRS57-05-D-30108
12. Sponsoring Agency Name and Address: U. S. Department of Transportation, Volpe National Transportation Systems Center, 55 Broadway, Kendall Square, Cambridge, MA 02142	13. Type of Report and Period Covered: Final Report, February - March 2007
	14. Sponsoring Agency Code: DTS-85

15. Supplemental Notes

16. Abstract

A 56.0 km/h 40% frontal offset vehicle to deformable barrier crash test was conducted on a 2007 Ford 500 SEL 4-door sedan, NHTSA No. R70202, at Transportation Research Center Inc. on February 22, 2007. This test was conducted in accordance with Volpe Task Order No. 1, for the evaluation of vehicle and occupant responses. The barrier impact velocity was 56.0 km/h. The vehicle's maximum static crush was 535 millimeters. The ambient temperature was 21° C.

The driver's 15 millisecond Head Injury Criteria (HIC) was 60. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 24.0 g. The driver's maximum chest deflection was 24 millimeters. The driver's left and right femur maximum axial compressive forces were -608 N and -17 N, respectively.

The right front passenger's 15 millisecond Head Injury Criteria (HIC) was 101. The right front passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 22.0 g. The right front passenger's maximum chest deflection was 24 millimeters. The right front passenger's left and right femur maximum axial compressive forces were -141 N and -84 N, respectively.

17. Key Words	18. Distribution Statement
Frontal Barrier Impact Test	Copies of this report are available from: National Highway Traffic Safety Admin., NHTSA Technical Reference Division, 400 Seventh Street, S. W., Room 5108, Washington, DC 20590

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. Number of Pages	22. Price
Unclassified	Unclassified	659	

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

Table of Contents

Section	Description	Page
1.0	Purpose and Test Procedure	1-1
2.0	Offset Deformable Barrier Test Summary	2-1
Appendix A	Photographs	A-1
Appendix B	Dummy, Vehicle and Barrier Data Plots	B-1
Appendix C	Dummy Configuration and Performance Verification Data	C-1
Appendix D	Customer Provided Seating Procedure	D-1
Appendix E	Test Equipment and Instrumentation Calibration Information	D-1
Appendix F	INSIA Report on Structural Measurements	F-1

Data Sheets

Number	Description	Page
1	Crash Test Summary	2-6
2	General Test and Vehicle Parameter Data	2-8
3	Post-Impact Test Data	2-11
4	Test Vehicle Information	2-12
5	Dummy Positioning in Vehicle	2-14
6	Seat Belt Positioning	2-15
7	Vehicle Accelerometer Location and Data Summary	2-16
8	Dummy Injury Criteria Values	2-19
9	Seat Belt Performance Data	2-23
10	Summary of FMVSS 212 Data	2-24
11	FMVSS 219 (Partial) Windshield Zone Intrusion Data	2-25
12	FMVSS 301 Fuel System Integrity Data	2-26
13	FMVSS 301 Static Rollover Data	2-27
14	Vehicle Measurements	2-28
15	Camera Data	2-40
16	Reference Photo Targets	2-42
17	Post Test Air Bag Data	2-43
18	Accident Investigation Division Data	2-44
19	Offset Barrier and Vehicle Orientation	2-45
20	Deformable Barrier Honeycomb Crush	2-46
21	Load Cell Locations on Fixed Barrier	2-56

List of Photographs

Description	Figure
Pre-Test Front View	A-1
Post-Test Front View	A-2
Pre-Test Left Front View	A-3
Post-Test Left Front View	A-4
Pre-Test Left Side View	A-5
Post-Test Left Side View	A-6
Pre-Test Left Rear View	A-7
Post-Test Left Rear View	A-8
Pre-Test Rear View	A-9
Post-Test Rear View	A-10
Pre-Test Right Rear View	A-11
Post-Test Right Rear View	A-12
Pre-Test Right Side View	A-13
Post-Test Right Side View	A-14
Pre-Test Right Front View	A-15
Post-Test Right Front View	A-16
Pre-Test Overhead View	A-17
Post-Test Overhead View	A-18
Pre-Test Primary Impact Alignment View	A-19
Pre-Test Front Underbody View	A-20
Post-Test Front Underbody View	A-21
Pre-Test Mid Front Underbody View	A-22
Post-Test Mid Front Underbody View	A-23
Pre-Test Mid Underbody View	A-24
Post-Test Mid Underbody View	A-25
Pre-Test Mid Rear Underbody View	A-26
Post-Test Mid Rear Underbody View	A-27
Pre-Test Rear Underbody View	A-28

List of Photographs, Continued

Description	Figure
Post-Test Rear Underbody View	A-29
Pre-Test Fuel Tank View	A-30
Post-Test Fuel Tank View	A-31
Pre-Test Fuel Filler Neck View	A-32
Post-Test Fuel Filler Neck View	A-33
Pre-Test Fuel Filler Cap View	A-34
Post-Test Fuel Filler Cap View	A-35
Pre-Test Engine Compartment View	A-36
Pre-Test Windshield - Front View	A-37
Post-Test Windshield - Front View	A-38
Pre-Test Windshield - Driver and Right Front Passenger Dummies View	A-39
Post-Test Windshield - Driver and Right Front Passenger Dummies View	A-40
Pre-Test Windshield - Driver Dummy View	A-41
Post-Test Windshield - Driver Dummy View	A-42
Pre-Test Driver Dummy - View 1	A-43
Post-Test Driver Dummy - View 1	A-44
Pre-Test Driver Dummy - View 2	A-45
Post-Test Driver Dummy - View 2	A-46
Pre-Test Driver Dummy - View 3	A-47
Post-Test Driver Dummy - View 3	A-48
Post-Test Driver Dummy Overall View	A-49
Post-Test Driver Dummy Head Contact View 1	A-50
Post-Test Driver Dummy Head Contact View 2	A-51
Post-Test Driver Dummy Knee Contact View	A-52
Pre-Test Driver Floorboard Deformation - View 1	A-53
Post-Test Driver Floorboard Deformation - View 1	A-54
Pre-Test Driver Floorboard Deformation - View 2	A-55
Post-Test Driver Floorboard Deformation - View 2	A-56

List of Photographs, Continued

Description	Figure
Pre-Test Driver Toeboard Deformation View	A-57
Post-Test Driver Toeboard Deformation - View 1	A-58
Post-Test Driver Toeboard Deformation - View 2	A-59
Pre-Test Right Front Passenger Dummy - View 1	A-60
Post-Test Right Front Passenger Dummy - View 1	A-61
Pre-Test Right Front Passenger Dummy - View 2	A-62
Post-Test Right Front Passenger Dummy - View 2	A-63
Pre-Test Right Front Passenger Dummy - View 3	A-64
Post-Test Right Front Passenger Dummy - View 3	A-65
Post-Test Right Front Passenger Dummy Overall View	A-66
Post-Test Right Front Passenger Dummy Head Contact - View 1	A-67
Post-Test Right Front Passenger Dummy Head Contact - View 2	A-68
Post-Test Right Front Passenger Dummy Knee Contact View	A-69
Post-Test Right Front Passenger Floorboard Deformation View	A-70
Post-Test Right Front Passenger Toeboard Deformation View	A-71
Pre-Test Barrier Front View	A-72
Post-Test Barrier Front View	A-73
Pre-Test Barrier Left Side View	A-74
Post-Test Barrier Left Side View	A-75
Pre-Test Barrier Right Side View	A-76
Post-Test Barrier Right Side View	A-77
Pre-Test Barrier Top View	A-78
Post-Test Barrier Top View	A-79
Vehicle on Rollover Device - 90°	A-80
Vehicle on Rollover Device - 180°	A-81
Vehicle on Rollover Device - 270°	A-82
Vehicle on Rollover Device - 360°	A-83
Vehicle Certification Label View	A-84

List of Photographs, Continued

Description	Figure
Vehicle Tire Load Label View	A-85
Post-Test Digital Light Trap Read-Out - View 1	A-86
Post-Test Digital Light Trap Read-Out - View 2	A-87

Section 1.0

Purpose and Test Procedure

Purpose

This 56.0 km/h (target speed) Left 40% Offset Deformable Barrier test was conducted for the Volpe National Transportation Systems Center (Volpe) by Transportation Research Center Inc. (TRC Inc).

The purpose of this testing was to evaluate and compare vehicle and occupant responses during 40% frontal offset vehicle to deformable barrier crash tests. For this test, the subject vehicle was a 2007 Ford 500 SEL 4-door sedan with two (2) 50th percentile dummies.

Test Procedure

This test was conducted in accordance with VNTSC's instructions for a 40% offset vehicle to deformable barrier crash test. Data was obtained relative to FMVSS 208, "Occupant Crash Protection" performance, FMVSS 212, "Windshield Retention"; FMVSS 219, "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity," performance.

The test vehicle, a 2007 Ford 500 SEL 4-door sedan, was instrumented with twelve (12) accelerometers to measure longitudinal axis accelerations, four (4) accelerometers to measure vertical axis accelerations, and six (6) accelerometers to measure vertical axis accelerations. The driver and passenger's primary and secondary airbag signals were monitored with inductive pickups. The vehicle impacted a 40% left offset deformable barrier. The vehicle's specified impact velocity range was 55.2 to 56.8 km/h.

The test vehicle contained two (2) Part 572E 50^{th} percentile adult male Hybrid III anthropomorphic test devices (dummies) in the driver and right front passenger positions. The 50th percentile dummies were positioned in the front outboard designated seating positions according to a procedure provided by the NHTSA COTR on October 12, 2006. The seating procedure is included as Appendix D. The driver dummy was restrained with a 3-point seat belt and a front dual stage airbag. The right front passenger dummy was restrained with a 3-point seat belt and a front dual stage airbag.

Each dummy was instrumented with an array of twelve (12) accelerometers in the head, and six (6) accelerometers in the chest, oriented to measure longitudinal, lateral, and vertical accelerations. Each dummy was also instrumented with 6-channel upper and lower neck moment and force load cells, left and right femur load cells to measure axial forces, a chest deflection potentiometer, and knee displacement potentiometers. Each dummy was equipped with THOR-LX legs, which included upper and lower tibia load cells to measure forces and moments, longitudinal and lateral tibia accelerometers, three (3) foot accelerometers on each foot to measure accelerations in three (3) axes and three (3) rotary potentiometers at each ankle to measure foot rotations about three (3) axes.

The vehicle impacted a deformable barrier instrumented with 90 load cells to measure longitudinal forces.

The 267 data channels were digitally sampled and recorded at 12,500 samples per second and processed per SAE J211 March 1995.

The crash event was recorded by one (1) real-time panning motion picture camera and seventeen (17) high-speed digital motion picture cameras. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera.

The 40% left frontal offset vehicle to deformable barrier crash test summary data and all occupant, camera, vehicle, and deformable barrier face measurements are presented in Section 2.0. Appendix A contains the still photographs. Appendix B contains the dummy, vehicle, and barrier data plots. Appendix C contains the dummy verification data. Appendix D contains customer provided seating procedure. Appendix E contains miscellaneous test information. Appendix F contains an INSIA report that was the basis for the Structural Measurements presented in Table 8 of this report.

Section 2.0

Offset Deformable Barrier Test Summary

Test Results Summary

This 56.0 km/h (target speed) left 40% offset vehicle to deformable barrier crash test was conducted by TRC Inc. on February 22, 2007.

The test vehicle, a 2007 Ford 500 SEL 4-door sedan, NHTSA Number R70202, was equipped with a 6-liter 6-cylinder transverse engine, automatic transmission, power steering, power brakes and dual stage front airbags. The vehicle's test weight was 1915.8 kg. The vehicle's impact speed was 56.0 km/h. The vehicle sustained 504 mm of static crush during the impact.

The occupant injury assessment values are summarized below.

Injury Criterion	Limits	Driver	Right Front Passenger
Head			
HIC 36	1000	115	112
HIC 15	700	60	101
Neck			
Upper Neck Tension (N)	4170	915	2750
Upper Neck Compression (N)	-4000	-79	-350
Neck Injury (NIJ) NTE	1.0	0.13	0.10
Neck Injury (NIJ) NTF	1.0	0.22	0.29
Neck Injury (NIJ) NCE	1.0	0.01	0.02
Neck Injury (NIJ) NCF	1.0	0.01	0.00
Chest			
3 ms Clip (g)	60	24	22
Chest Displacement (mm)	63	24	24
Femur			
Left Femur Force (N)	-9040	-608	-141
Right Femur Force (N)	-9040	-18	-84
Tibia			
Left Upper Tibia Index	0.91	0.40	0.24
Right Upper Tibia Index	0.91	0.28	0.23
Left Lower Tibia Index	0.91	0.37	0.35
Right Lower Tibia Index	0.91	0.37	0.25
Left Upper Tibia Force (N)	-5600	-722	-439
Right Upper Tibia Force (N)	-5600	-571	-738
Left Lower Tibia Force (N)	-5200	-1413	-924
Right Lower Tibia Force (N)	-5200	-1277	-1058

Test Results Summary, Continued

Injury Criterion	Limits	Driver	Right Front Passenger
Ankle			
Left Inversion (degrees)	-35	-19	-29
Left Eversion (degrees)	35	35	0
Left Plantarflexion (degrees)	-	16	39
Left Dorsiflexion (degrees)	35	13	17
Left External Rotation (degrees)	-	6	1
Left Internal Rotation (degrees)	-	11	13
Right Eversion (degrees)	-35	-31	-25
Right Inversion (degrees)	35	0	9
Right Plantarflexion (degrees)	-	18	30
Right Dorsiflexion (degrees)	35	15	15
Right Internal Rotation (degrees)	-	6	6
Right External Rotation (degrees)	-	21	10

Data Acquisition Explanations

Electronic data anomalies are summarized below:

Channel Number	Sensor Type	Sensor Location	Sensor Attachment (Name)	Axis	Problem/Action
5	Head Red.	Driver	11HEADCGRDH3ACYA	Y	Anomalous data spike at approximately 119 ms
6	Head Red.	Driver	11HEADCGRDH3ACZA	Z	Anomalous data spike at approximately 119 ms
7	Head (FT)	Driver	11HEADFR00H3ACYA	Y	Anomalous data spike at approximately 119 ms
74	Head	Passenger	13HEADCG00H3ACYA	Y	Anomalous data spikes
75	Head	Passenger	13HEADCG00H3ACZA	Z	Anomalous data spike
76	Head Red.	Passenger	13HEADCGRDH3ACXA	X	Anomalous data spike
77	Head Red.	Passenger	13HEADCGRDH3ACYA	Y	Anomalous data spikes
78	Head Red.	Passenger	13HEADCGRDH3ACZA	Z	Questionable data, anomalous data spikes
79	Head (FT)	Passenger	13HEADFR00H3ACYA	Y	Anomalous data spike
80	Head (FT)	Passenger	13HEADFR00H3ACZA	Z	Questionable data, anomalous data spikes
81	Head (TP)	Passenger	13HEADUP00H3ACXA	X	Anomalous data spike
82	Head (TP)	Passenger	13HEADUP00H3ACYA	Y	Anomalous data spike
83	Head (LT)	Passenger	13HEADLE00H3ACXA	X	Questionable data, anomalous data spikes
87	Neck Force	Passenger	13NECKUP00H3FOZA	Z	Anomalous data spike
89	Neck Moment	Passenger	13NECKUP00H3MOYA	Y	Anomalous data spike

Data Acquisition Explanations (continued)

Channel Number	Sensor Type	Sensor Location	Sensor Attachment (Name)	Axis	Problem/Action
152	Lt Brake Caliper	Vehicle	11VEHCLE0000ACXA	X	Questionable data at approximately 75 ms
158	Under Accel Pedal	Vehicle	11PEAC000000ACXA	X	Questionable data at approximately 120 ms
159	Under Accel Pedal	Vehicle	11PEAC000000ACYA	Y	Questionable data at approximately 120 ms
160	Under Accel Pedal	Vehicle	11PEAC000000ACZA	Z	Questionable data at approximately 107 ms

DATA SHEET NO. 1
CRASH VEHICLE SUMMARY

Vehicle NHTSA No.: R70202 Test Mode: Left 40% Offset Deformable Barrier

Test Date: 02/22/07 Time: 16:50 Temperature: 21 ^{o}C

Vehicle Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan

Vehicle Test Weight: 1915.8 kg

Vehicle/Barrier Impact Angle: 0 ^{o}

Vehicle/Barrier Impact Accuracy: 11 mm up

0 mm

Impact Velocity: 56.0 km/h

Maximum Static Crush: 535 mm

Vehicle Rebound: N/A mm

DUMMIES:	**DRIVER #202**	**RIGHT FRONT PASSENGER #206**
Type:	HIII 50th	HIII 50th
Type Lower Leg / Serial Number:	THOR-LX/045 & 046	THOR-LX/103 & 104
Restraint System:	3-pt. seat belt, airbag	3-pt. seat belt, airbag

Number of Data Channels: 71

Number of Cameras: 1 Real-Time

15 High-Speed Digital

DOOR OPENING DATA: Easy - Left Front

Easy - Right Front

Easy - Left Rear

Easy - Right Rear

DATA SHEET NO. 1 (continued)
CRASH VEHICLE SUMMARY

FRONT SEAT(S) DATA:	**DRIVER**	**RIGHT FRONT PASSENGER**
Seat Track Failure (mm of shift):	None	None
Seat Back Failure:	None	None
REAR SEAT(S) DATA:	**LEFT REAR PASSENGER**	**RIGHT REAR PASSENGER**
Seat Track Failure (mm of shift):	N/A	N/A
Seat Back Failure:	N/A	N/A
VISIBLE DUMMY CONTACT POINTS :	**DRIVER**	**RIGHT FRONT PASSENGER**
Head:	Airbag, head restraint	Airbag, head restraint
Chest:	Airbag	Airbag
Abdomen:	None	None
Left Knee:	Dash panel	Glove box
Right Knee:	None	Glove box

DATA SHEET NO. 2
GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan

NHTSA No.: R70202 VIN: 1FAFP24197G103400 Color: Dark Gray

Engine Data: 6 Cylinders ____ CID 6 Liters 3000 cc

Placement: ___ Longitudinal or In-line X Transverse or Lateral

Transmission Data: 6 Speeds ___ Manual X Automatic X Overdrive

Final Drive: ___ Rear Wheel X Front Wheel ___ Four Wheel

Major Options: X A/C X Pwr. Steering X Pwr. Brakes X Pwr. Seats X Tilt Wheel X Pwr. Windows X Pwr. Locks X Cruise Control

Date Received: 01/02/2007 Odometer Reading: 127 miles

Selling Dealer: Bob Chapman Ford

& Address: 1255 Industrial Parkway, Marysville, OH 43040

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by: Ford Motor Company

Date of Manufacture 05/06

GVWR: 2186 kg; GAWR: 1150 kg FRONT; 1066 kg REAR

DATA FROM TIRE OR TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load: 220 kPa FRONT
220 kPa REAR

Load Index & Speed Symbol: 95T

Recommended Tire Size: P215/60R17

* Recommended Cold Tire Pressure: 220 kPa FRONT; 220 kPa REAR

Tire Grades: 360 Treadwear; A Temperature; A Traction

Size of Tires on Test Vehicle: P215/60R17 ; Manufacturer: Continental, Conti-Contact

Vehicle Capacity Data:

Type of Front Seats: ____ Bench; X Bucket; ____ Split Bench

Number of Occupants: 2 Front; 3 Rear; 5 Total

Vehicle Capacity Weight (VCW) = 430 kg

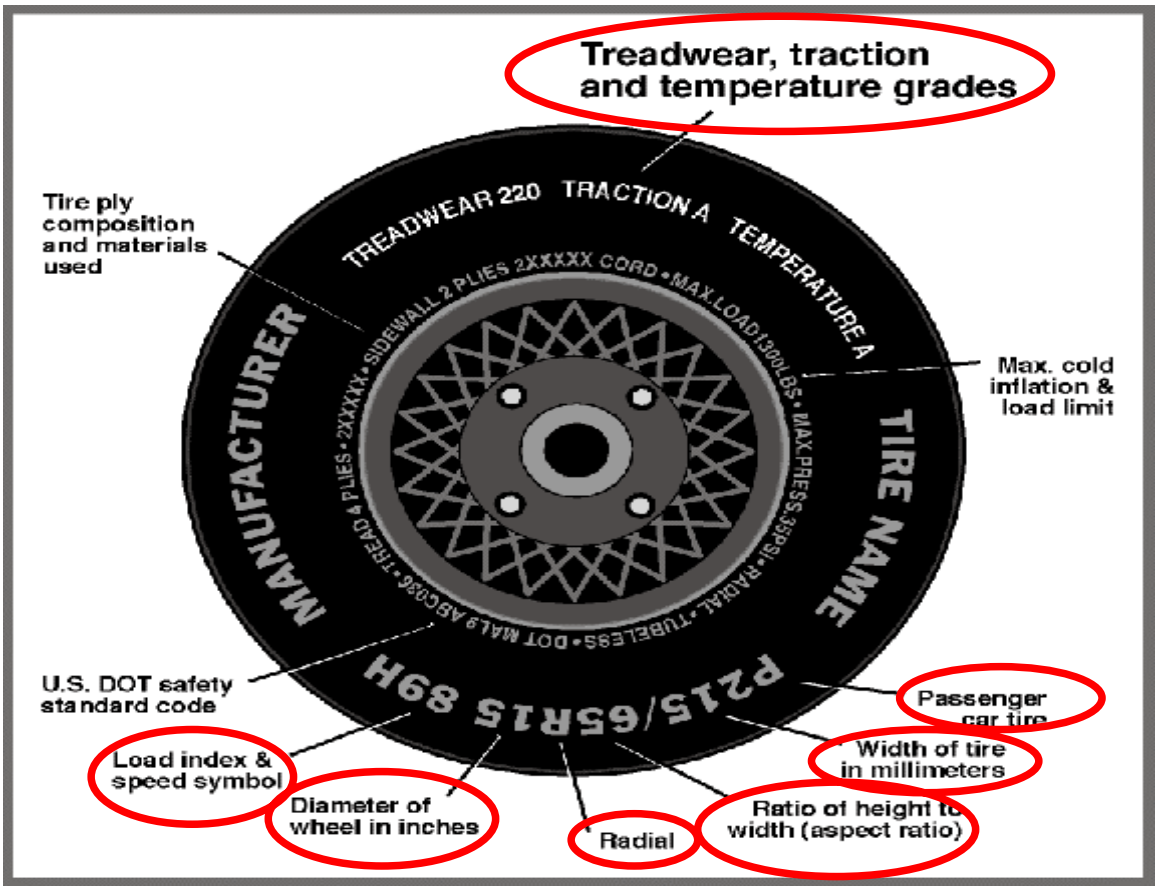
No. of Occupants x 68 kg = 340 kg

Rated Cargo/Luggage Weight (RCLW) = 90 kg

*Tire pressure used for test

DATA SHEET NO. 2 (continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07



DATA RECORDED FROM ACTUAL TIRES ON TEST VEHICLE

	Front	**Rear**
Manufacturer	Continental	Continental
Brand Name	Conti-Contact	Conti-Contact
Tire Size (ex. P215/65R15)	P215/60R17	P215/60R17
Load Index and Speed Symbol	95T	95T
Treadwear	360	360
Traction	A	A
Temperature	A	A

DATA SHEET NO. 2 (continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (with max. fluids) = UDW:

Right Front =	500.8	kg	Right Rear =	332.0	kg
Left Front =	503.8	kg	Left Rear =	337.2	kg
TOTAL FRONT =	1004.6	kg	TOTAL REAR =	669.2	kg

TOTAL DELIVERED WEIGHT = 1673.8 kg
% of Total Front of Vehicle Weight = 60.0 %
% of Total Rear of Vehicle Weight = 40.0 %

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT :

Total Delivered Weight (UDW) =	1673.8	kg
Rated Cargo/Luggage Weight (RCLW) =	90.0	kg
Weight of Two Part 572E Dummies @ 76 each =	152.0	kg
TARGET TEST WEIGHT =	1915.8	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES:

Right Front =	516.0	kg	Right Rear =	436.4	kg
Left Front =	527.8	kg	Left Rear =	435.6	kg
TOTAL FRONT =	1043.8	kg	TOTAL REAR =	872.0	kg

TOTAL TEST WEIGHT = 1915.8 kg
% of Total Front of Vehicle Weight = 54.5 %
% of Total Rear of Vehicle Weight = 45.5 %
Weight of Ballast Secured in Vehicle Trunk Area = 11.3 kg
Vehicle Components Removed for Weight Reduction: None

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED : RF	N/A	LF	N/A	RR	N/A	LR	N/A
FULLY LOADED : RF	N/A	LF	N/A	RR	N/A	LR	N/A
AS TESTED : RF	726	LF	723	RR	703	LR	698

Vehicle's Wheel Base : 2870 mm
Location of Vehicle's C.G.: 1306 mm rearward of front wheel center.

FUEL SYSTEM DATA :

Fuel System Capacity From Owner's Manual = 75.7 liters
Usable Capacity Figure Furnished by COTR = 75.7 liters
Test Volume Range (92 to 94% of Usable Capacity) = 69.6 to 71.2 liters
ACTUAL TEST VOLUME = 70.4 liters (with entire fuel system filled)
Test Fluid Type: Stoddard ; Specific Gravity = 0.764
Kinematic Viscosity = 0.99 centistokes; Color = Purple
Type of Fuel Pump: Electric- X ; Mechanical- ___
Does Electric Pump operate with ignition switch "ON" & engine "OFF" Yes- X No- ___
Details of Fuel System: The fuel tank is located in front of rear axle under rear seat. The fuel filler neck enters the tank of right rear corner. The fuel filler cap is located on right rear quarter panel. The fuel lines run along the right side of center tunnel.

DATA SHEET NO. 3
POST IMPACT DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

TYPE OF TEST:

Type of Test: Left 40% Offset Deformable Barrier Impact Angle: 0 °
Test Date: 02/22/07 Time: 16:50 Temperature: 21 °C
Vehicle NHTSA No.: R70202
Required Impact Velocity Range: 55.2 to 56.8 km/h

BARRIER IMPACT VELOCITY:

Trap No. 1 = 56.0 km/h; Trap No. 2 = 55.9 km/h

VEHICLE STATIC CRUSH: (mm)

Vehicle Length:

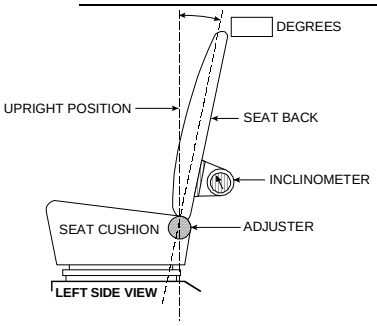
Pre-Test	Right =	4931	C/L =	5013	Left =	4933
Post-Test	Right =	4965	C/L =	4660	Left =	4537
Crush	Right =	-34	C/L =	353	Left =	396

AVERAGE = 238 mm

DATA SHEET NO. 4
TEST VEHICLE INFORMATION

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

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 ASSEMBLY

Left Front Seat Cushion Placement: 52 mm rearward of mid

Total Length of Fore/Aft Adjustment Travel: 241 mm

Total Number of Adjustment Positions or Detents: N/A

Left Front Seat Back Adjustment Position: 8.3° measured at head restraint

Left Front Head Restraint Placement: Full up

Left D-Ring Placement: Full up

Right Front Seat Cushion Placement: 21 mm rearward of mid

Total Length of Fore/Aft Adjustment Travel: 241 mm

Total Number of Adjustment Positions or Detents: N/A

Right Front Seat Back Adjustment Position: 7.4° measured at head restraint

Right Front Head Restraint Placement: Full up

Right D-Ring Placement: Full up

Adjustable Steering Column Position: Fixed

Window Positions:

Right Front: Open Right Rear: Open

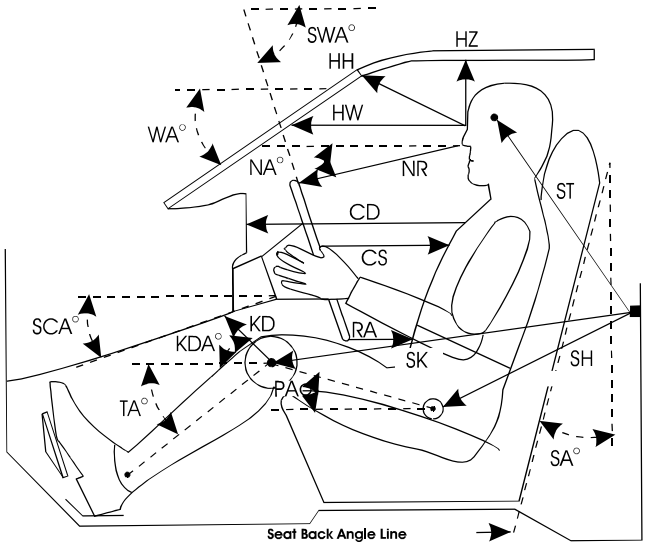
Left Front: Open Left Rear: Open

Amount of Stoddard Solvent In Fuel Tank:

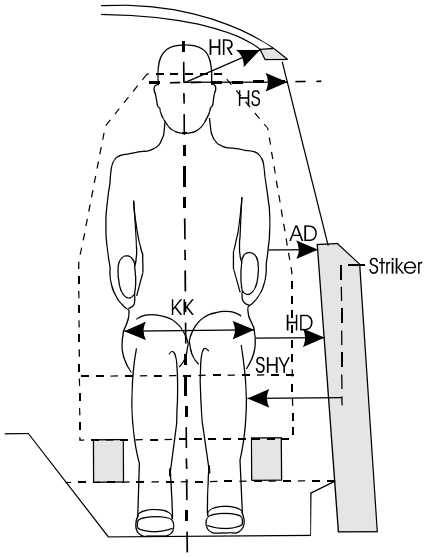
75.7 liters (fuel tank usable capacity)

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

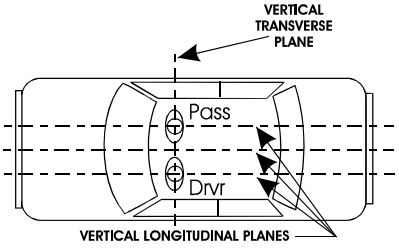
Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07



AD	Arm to Door
HD	H-Point to Door
HR	Head to Side Header
HS	Head to Side Window
KK	Knee to Knee
SHY	Stiker to H-Point (Y-Axis)



CD	Chest to Dash
CS	Chest to Steering Wheel Hub
HH	Head to Header
HW	Head to Windshield
HZ	Head to Roof
KDA	Knee to Dash Angle
KDL	Left Knee to Dash
NA	Nose to Rim Angle
NR	Nose to Rim
PA	Pelvic Angle
RA	Rim to Abdomen
SA	Seat Back Angle
SCA	Steering Column Angle
SH	Striker to H-Point
SK	Striker to Knee
ST	Striker to Head
SWA	Steering Wheel Angle
TA	Tibial Angle
WA	Windshield Angle



DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

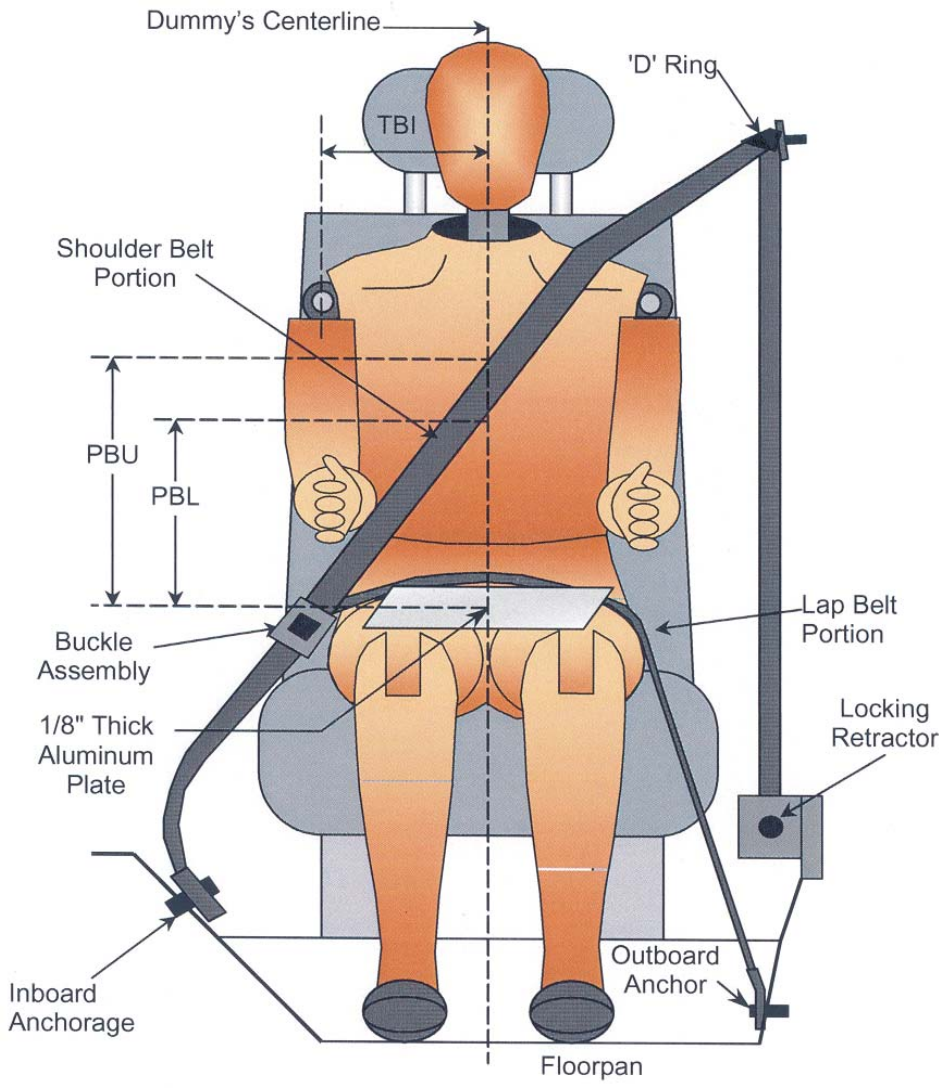
DATA SHEET NO. 5
FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

	DRIVER (Serial #202)	RIGHT FRONT PASSENGER (Serial #206)
WA°	25.2°	
SWA°	67.7°	
SCA°	22.3°	
SA°	8.2°	7.3°
HZ	241 mm	185 mm
HW	748 mm	665 mm
HH	396 mm	354 mm
HR	242 mm	224 mm
NR	463 mm	
NA°	8.2°	
CD	657 mm	583 mm
CS	365 mm	
RA	253 mm	
KDL	191 mm Angle (KDA) 24.4 °	182 mm
KDR	203 mm	181 mm Angle (KDA) 18.4 °
PA°[1]	28.2°	25.0°
TA°	46.8°	45.6°
KK	332 mm	270 mm
ST	478 mm Angle -87.5°	513 mm Angle -83.2°
SK	570 mm Angle 4.1°	591 mm Angle 4.5°
SH	243 mm Angle 39.4°	254 mm Angle 35.9°
SHY	171 mm	190 mm
HS	360 mm	357 mm
HD	200 mm	288 mm
AD	159 mm	176 mm

DATA SHEET NO. 6
SEAT BELT POSITIONING DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

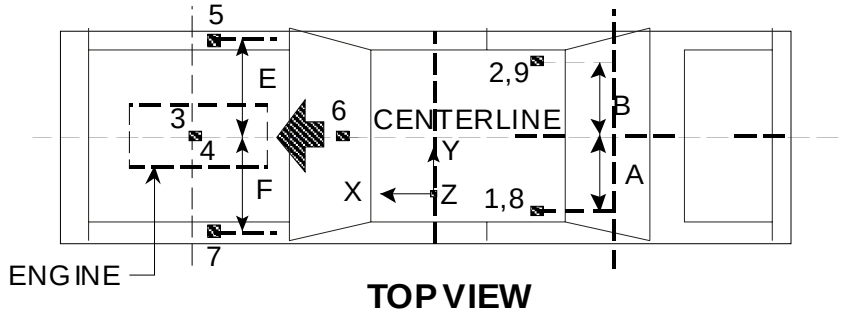


	Driver Dummy	Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge, mm	375	360
PBL - Top surface of aluminum plate to belt lower edge, mm	285	272

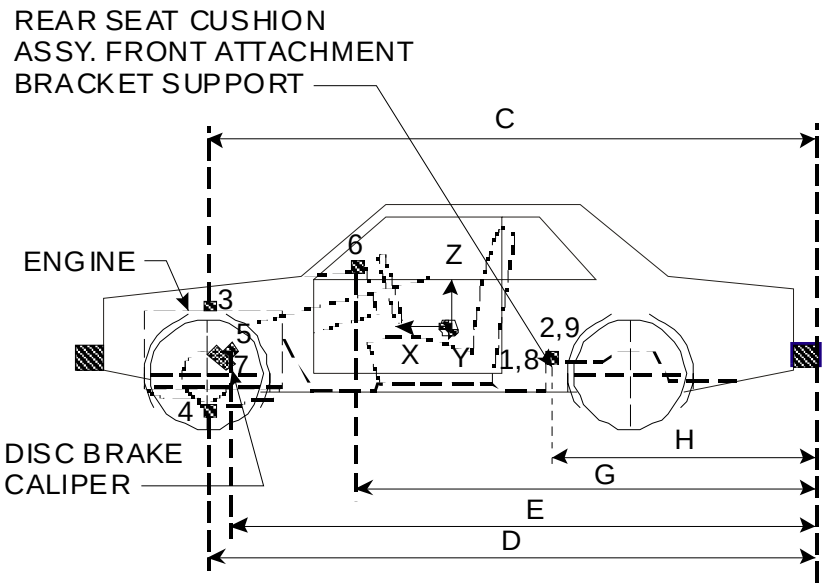
DATA SHEET NO. 7

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



TOP VIEW



LEFT SIDE VIEW

NOTE: Vehicle accelerometer location and data summary shown in DATA SHEET NO. 7.

DATA SHEET NO. 7 (continued)
VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

DIMENSION	LENGTH (mm)
	PRE-TEST VALUES
A Left Rear Seat Crossmember Y	430
B Right Rear Seat Crossmember Y	430
C Top of Engine X	4798
D Bottom of Engine X	4605
E Right Brake Calipers X	4555
F Left Brake Calipers X	4555
G Instrument Panel X	3627
H Left Rear Seat Crossmember X	2400
I Right Rear Seat Crossmember X	2400
Left Side Driver Mid Seat Track X	3110
Vehicle Center of Gravity X	3212
Accel Pedal Heel Location X	3484
Accel Pedal Heel Location Y	243
Brake Pedal Heel Location X	3481
Brake Pedal Heel Location Y	513
Foot Rest X	3608
Foot Rest Y	496

DATA SHEET NO. 7 (continued)
VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

LOCATION NUMBER	**DESCRIPTION**	**MAXIMUM VALUE (g's)**			
		Positive	Time, ms	Negative	Time, ms
1	Left Rear Seat Cross Member X	2.1	219.4	22.9	54.9
2	Right Rear Seat Cross Member X	1.0	210.8	21.9	57.8
3	Top of Engine Block X	8.9	108.5	50.0	78.8
4	Bottom of Engine Block X	11.6	104.0	35.7	80.7
5	Disc Brake Caliper @ Right Side X	6.5	82.6	53.3	104.3
6	Instrument Panel X	51.2	43.9	112.7	47.9
7	Disc Brake Caliper @ Left Side X[1]	----	----	----	----
8	Left Rear Seat Cross Member Z	7.6	75.3	8.6	63.1
9	Right Rear Seat Cross Member Z	6.8	77.4	7.6	63.4
10	Left Side Driver Mid Seat Track X	3.5	72.7	24.4	55.8
11	Vehicle Center of Gravity X	5.3	74.5	30.8	61.2
	Vehicle Center of Gravity Y	20.2	51.2	11.4	56.5
	Vehicle Center of Gravity Z	23.2	77.1	11.7	50.0
	Vehicle Center of Gravity R	35.2	61.2		
12	Accel Pedal Heel Location X[1]	----	----	----	----
	Accel Pedal Heel Location Y[1]	----	----	----	----
	Accel Pedal Heel Location Z[1]	----	----	----	----
	Accel Pedal Heel Location R[1]	----	----		
13	Brake Pedal Heel Location X	12.7	71.5	26.2	53.7
	Brake Pedal Heel Location Y	27.9	90.5	20.4	71.4
	Brake Pedal Heel Location Z	41.1	62.8	41.6	75.1
	Brake Pedal Heel Location R	48.9	91.5		
14	Outside Footrest X	31.1	60.7	58.6	55.2
	Outside Footrest Y	28.1	80.7	35.8	71.4
	Outside Footrest Z	20.9	54.6	10.5	68.9
	Outside Footrest R	64.1	55.0		

DATA SHEET NO. 8
DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

		MAXIMUM VALUE							
		Driver				Right Front Passenger			
DESCRIPTION	**Unit**	**Positive**	**Time, ms**	**Negative**	**Time, ms**	**Positive**	**Time, ms**	**Negative**	**Time, ms**
Head X[1]	g	6.6	300.9	24.0	152.8	5.4	309.9	20.0	124.6
Head Y[1]	g	15.7	119.9	3.2	237.7	51.4	136.7	6.2	137.0
Head Z[1]	g	18.3	145.8	1.7	39.1	21.7	137.0	196.6	101.8
Head Resultant[1]	g	29.9	99.8			198.6	101.8		
Head Redundant X[1]	g	6.5	300.6	24.8	153.3	8.7	309.9	40.7	101.7
Head Redundant Y[1]	g	14.2	119.9	3.3	237.7	26.1	101.7	32.5	94.2
Head Redundant Z[1]	g	31.6	119.9	1.7	39.3	25.4	91.8	44.1	91.4
Head Resultant Red.[1]	g	39.6	119.9			54.3	101.7		
Head (FT) Y[1]	g	13.1	163.4	231.6	120.0	22.5	101.7	1.9	61.0
Head (FT) Z[1]	g	19.3	144.6	1.3	39.4	39.7	129.0	8.7	90.9
Head (TP) X[1]	g	8.3	298.9	31.7	153.3	37.9	86.3	52.7	147.3
Head (TP) Y[1]	g	17.6	162.6	5.8	238.2	26.5	101.7	2.5	232.7
Head (LT) X[1]	g	9.3	301.4	32.1	152.4	7.0	310.0	34.3	101.7
Head (LT) Z	g	22.4	99.8	1.8	39.1	22.8	132.1	1.5	39.6
Upper Neck Fx	N	80.1	268.3	456.6	94.7	80.6	310.0	743.0	101.7
Upper Neck Fy	N	426.7	146.4	117.2	237.6	181.4	148.6	57.3	247.6
Upper Neck Fz[1]	N	914.5	99.5	79.3	40.1	2750.3	101.7	350.4	102.0
Upper Neck Mx	N-m	31.7	155.8	9.1	238.5	11.7	161.4	4.8	233.3
Upper Neck My[1]	N-m	29.7	108.2	13.9	79.9	15.8	106.5	9.5	47.1
Upper Neck Mz	N-m	10.0	186.2	10.9	147.1	2.9	209.2	5.0	160.0
Lower Neck Fx	N	687.9	122.6	297.3	43.7	824.2	131.5	247.8	310.0
Lower Neck Fy	N	285.5	170.7	561.8	119.9	47.6	183.8	210.0	59.4
Lower Neck Fz	N	1007.8	89.0	73.3	35.7	941.7	137.2	65.6	36.6
Lower Neck Mx	N-m	35.3	239.8	105.9	161.8	17.7	244.4	35.0	149.7
Lower Neck My	N-m	123.8	112.2	45.4	295.4	95.7	100.2	50.2	310.0
Lower Neck Mz	N-m	18.7	167.2	8.7	119.4	3.9	209.8	18.6	104.0
Chest X	g	1.6	308.2	23.7	88.5	0.7	238.6	21.2	87.5
Chest Y	g	13.9	119.9	1.6	43.8	7.1	109.4	1.7	168.9
Chest Z	g	3.2	162.6	3.5	99.7	11.0	141.4	6.7	102.6
Chest Resultant	g	24.7	88.7			22.1	89.8		

DATA SHEET NO. 8 (continued)
DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

		MAXIMUM VALUE							
		Driver				Right Front Passenger			
DESCRIPTION	**Unit**	**Positive**	**Time, ms**	**Negative**	**Time, ms**	**Positive**	**Time, ms**	**Negative**	**Time, ms**
Chest Redundant X	g	1.7	309.7	24.2	88.2	0.7	238.5	21.1	87.5
Chest Redundant Y	g	14.0	115.5	1.4	185.2	7.4	109.5	1.9	168.7
Chest Redundant Z	g	3.3	163.2	3.9	99.8	11.5	141.9	6.1	102.5
Chest Resultant Redundant	g	25.4	88.5			21.9	89.8		
Chest Displacement	mm	0.1	38.6	23.9	103.6	0.2	37.0	23.8	91.8
Pelvis X	g	1.6	269.3	25.3	88.2	2.5	185.6	24.5	95.5
Pelvis Y	g	14.8	101.3	5.7	147.8	8.9	112.1	6.7	146.4
Pelvis Z	g	1.7	303.8	13.8	89.6	3.3	150.4	17.8	109.2
Pelvis Resultant	g	29.5	88.3			28.5	95.6	0.0	19.5
Left Femur Z	N	612.5	61.7	608.1	90.4	995.1	87.3	141.2	197.4
Right Femur Z	N	931.0	122.2	17.5	295.8	661.9	78.2	84.4	211.7
Left Knee Displacement X	mm	1.0	146.8	1.4	97.0	0.2	157.0	0.4	211.2
Left Upper Tibia Fx	N	358.8	83.3	215.7	98.6	195.2	79.4	38.7	198.5
Left Upper Tibia Fz	N	76.8	178.3	722.3	71.5	128.1	48.2	438.9	72.9
Left Upper Tibia Mx	N-m	7.2	226.8	43.3	123.9	28.6	153.0	38.0	104.4
Left Upper Tibia My	N-m	15.7	178.9	82.0	83.9	13.2	161.4	42.3	97.0
Left Tibia X	g	6.8	98.8	54.4	83.4	2.3	31.5	21.2	80.0
Left Tibia Y	g	19.6	71.0	13.0	65.8	22.9	97.4	10.8	133.8
Left Lower Tibia Fx	N	50.5	303.0	654.3	83.3	41.3	166.0	259.7	98.0
Left Lower Tibia Fy	N	253.5	83.0	19.6	296.9	78.3	105.0	125.6	72.6
Left Lower Tibia Fz	N	87.4	234.6	1413.1	99.6	45.8	173.0	924.3	72.7
Left Lower Tibia Mx	N-m	27.4	144.2	16.2	307.0	14.2	142.8	60.1	101.5
Left Lower Tibia My	N-m	16.5	98.9	65.3	83.2	2.1	310.0	35.6	97.2
Left Foot Angular Displacement X	°	35.0	143.7	19.2	309.6	0.2	-10.7	29.2	103.4
Left Foot Angular Displacement Y	°	13.5	103.2	15.7	10.9	-16.7	-20.0	38.9	51.4
Left Foot Angular Displacement Z	°	11.3	228.6	6.0	296.2	13.3	103.4	0.9	194.9

DATA SHEET NO. 8 (continued)
DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

		MAXIMUM VALUE							
		Driver				Right Front Passenger			
DESCRIPTION	**Unit**	**Positive**	**Time, ms**	**Negative**	**Time, ms**	**Positive**	**Time, ms**	**Negative**	**Time, ms**
Left Foot X	g	15.0	71.3	58.6	78.8	26.7	50.4	37.3	71.8
Left Foot Y	g	43.6	72.2	23.3	72.5	38.2	99.6	13.2	137.8
Left Foot Z	g	22.2	61.6	48.9	56.4	12.4	73.8	32.5	48.2
Left Foot Resultant	g	65.5	56.4			40.7	99.7		
Right Knee Displacement X	mm	0.0	8.8	1.0	120.2	0.6	221.8	1.3	128.2
Right Upper Tibia Fx	N	323.0	121.4	59.8	89.5	237.7	103.8	86.1	210.0
Right Upper Tibia Fz	N	138.3	48.1	571.1	95.8	74.3	285.1	737.5	74.1
Right Upper Tibia Mx	N-m	39.4	142.8	58.9	122.8	40.1	146.9	20.8	213.2
Right Upper Tibia My	N-m	26.8	107.5	52.2	75.1	24.3	146.4	40.9	74.9
Right Tibia X	g	3.3	107.9	34.2	74.1	3.0	33.1	23.0	98.5
Right Tibia Y	g	28.5	89.7	12.6	133.8	13.5	101.2	8.8	129.0
Right Lower Tibia Fx	N	96.4	264.1	404.8	74.5	79.3	150.5	286.2	98.6
Right Lower Tibia Fy	N	160.3	125.4	235.3	141.1	84.4	91.7	179.2	148.9
Right Lower Tibia Fz	N	123.7	250.9	1276.8	95.6	68.2	295.7	1057.6	73.0
Right Lower Tibia Mx	N-m	7.9	71.9	63.8	101.8	17.9	145.7	35.2	101.0
Right Lower Tibia My	N-m	5.4	227.7	47.1	74.2	7.2	146.2	34.4	98.8
Right Foot Angular Displacement X	°	-0.2	47.9	31.2	101.2	8.6	195.2	24.6	108.9
Right Foot Angular Displacement Y	°	15.4	97.2	17.8	49.3	-14.7	-20.0	30.4	52.2
Right Foot Angular Displacement Z	°	20.9	134.0	6.1	202.4	10.0	112.0	5.9	203.5
Right Foot X	g	22.9	87.1	46.2	80.0	3.0	212.4	29.6	76.6
Right Foot Y	g	111.7	88.1	36.4	96.4	17.3	83.4	12.7	133.3
Right Foot Z	g	51.4	88.1	34.2	73.7	7.8	105.8	13.6	140.6
Right Foot Resultant	g	123.2	88.1			32.9	76.6		
Lap Belt Load	N	2597.8	73.1	1.7	18.9	4204.5	89.8	2.9	19.8
Shoulder Belt	N	5475.7	90.0	28.6	33.1	5306.1	86.6	28.7	32.9

DATA SHEET NO. 8 (continued)
DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

	HEAD INJURY CRITERIA			
	HIC**	t_1 (ms)	t_2 (ms)	Average Acceleration t_1 to t_2 (g's)
Left Front - Driver	60	90.80	105.84	27.21
Right Front - Passenger	101	101.60	101.92	146.32
Left Rear - Passenger				
Right Rear - Passenger				

** Head Injury Criteria (HIC) is as defined in FMVSS 208. The maximum time interval from t_1 to t_2 is 0.015 seconds.

	CLIP SUMMARY*			
	CLIP (g's)	t_1 (ms)	t_2 (ms)	Chest Severity Index
Left Front - Driver	24.1	87.2	90.2	145
Right Front - Passenger	21.8	87.4	90.4	124
Left Rear - Passenger				
Right Rear - Passenger				

* The maximum chest resultant acceleration (clip) is defined as the maximum acceleration that exceeds 0.003 seconds in duration.

DATA SHEET NO. 9
SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

BELT LENGTH DATA:	**Driver***	**Right Front Passenger ***
Total belt length.	2320	2320
Shoulder belt length as measured on Part 572 Dummy.	835	875
Lap belt length as measured on Part 572 Dummy.	590	630

SHOULDER BELT SPOOL-OFF DATA:	**Driver***	**Right Front Passenger***
As determined mechanically.	N/A	N/A

NOTE:

* All measurements in millimeters.

[1] Belt spool data not part of test request.

DATA SHEET NO. 10
SUMMARY OF FMVSS 212 DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

FMVSS No. 212 – "Windshield Mounting" Data

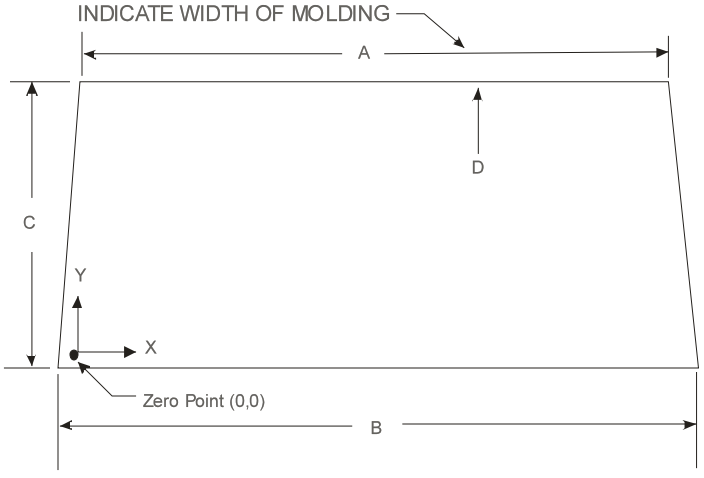
Details Of Windshield Mounting Such As
Retention Method, Trim Type, Etc.: Adhesive, Plastic, N/A

FMVSS 212 Requirements

The Post-Test periphery retention amount must be at least 75% of the Pre-Test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of the windshield for vehicles equipped with automatic restraint systems for front occupants.

	Windshield Periphery		
	Pre-Test (mm)	Post-Test (mm)	% of Retention
Right Side	2328.5	2328.5	100
Left Side	2328.5	2328.5	100
Total	4657.0	4657.0	100

Area of Retention Failure:



FRONT VIEW OF WINDSHIELD

Failure Details

Dimensions (mm)	
A	1330
B	1657
C	835
D	8

DATA SHEET NO. 11
FMVSS 219 (PARTIAL) – "WINDSHIELD ZONE INTRUSION" DATA

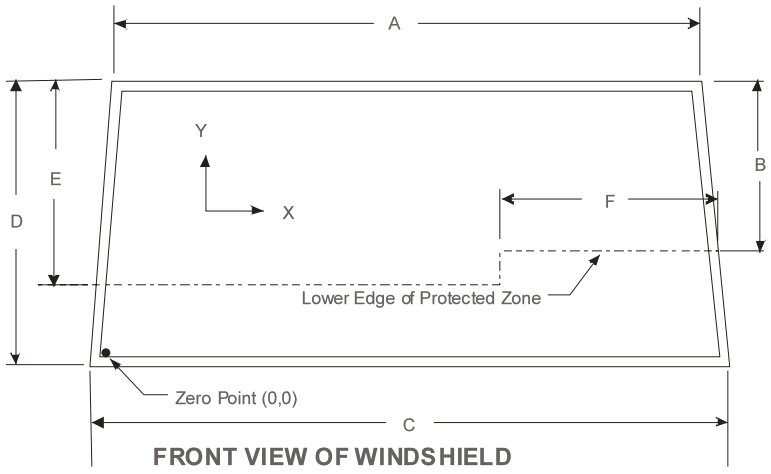
Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

Protected Zone Lower Edge Requirement

The lower edge of the protected zone is determined by placing a 165 mm diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top of the instrument panel including padding. The locus of points is drawn on the inner surface of the windshield contacted by the sphere across the width of the instrument panel. From the outermost contactable points extend the locus line horizontally to the edges of the windshield; then draw a line on the inner surface of the windshield below and 13 mm distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection of this line onto the outer surface of the windshield.

FMVSS 219 Test Data

(Dimensions in mm)



Dimensions	
A	1330
B	490
C	1657
D	835
E	550
F	552

(Show location of penetration on the above sketch)

Details of Windshield Glass Penetration Greater Than 6 mm: None

	COORDINATES	
	X	Y
1.		
2.		
3.		
4.		

DATA SHEET NO. 12

FMVSS NO. 301-75 "FUEL SYSTEM INTEGRITY" POST IMPACT TEST DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan

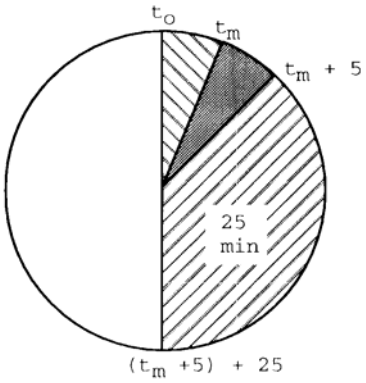
NHTSA Test No.: R70202 Test Date: 02/22/07

The test vehicle was filled from 92% to 94% of the manufacturer's "usable" capacity. The electric fuel pump was operating if it will operate without engine operation. Two Part 572 anthropomorphic test devices were located at each of the front designated seating positions.

TEST VEHICLE IMPACT TYPE

X	Frontal (56 kph)
	Oblique (48 kph) with _____ deg. barrier face first contacting _____ side (driver / passenger)
	Rear Moving Barrier (48 kph)
	Lateral Moving Barrier (32 kph)

FUEL SPILLAGE MEASUREMENT



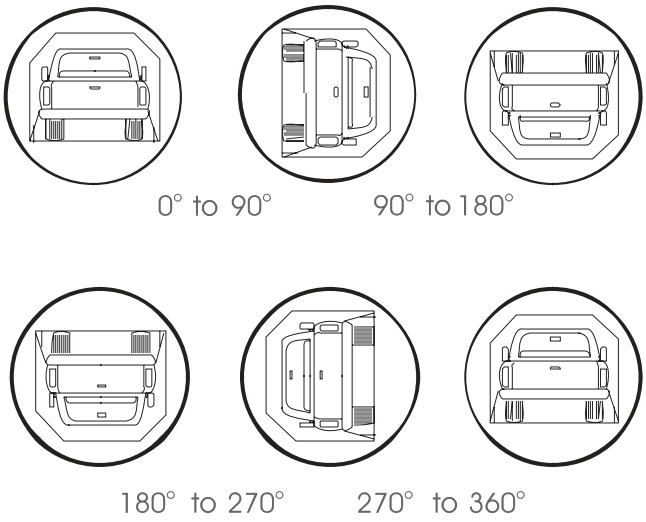
	ACTUAL	MAX. ALLOWED
1. From impact until vehicle motion ceases	0.0 g	28 g
2. For 5 minute period after vehicle motion ceases	0.0 g	141 g
3. For next 25 minutes	0.0 g	28 g/min.

SOLVENT SPILLAGE DETAILS

None

DATA SHEET NO. 13
FMVSS 301 STATIC ROLLOVER DATA SHEET

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
2. The position hold time at each position is 300 seconds (minimum).

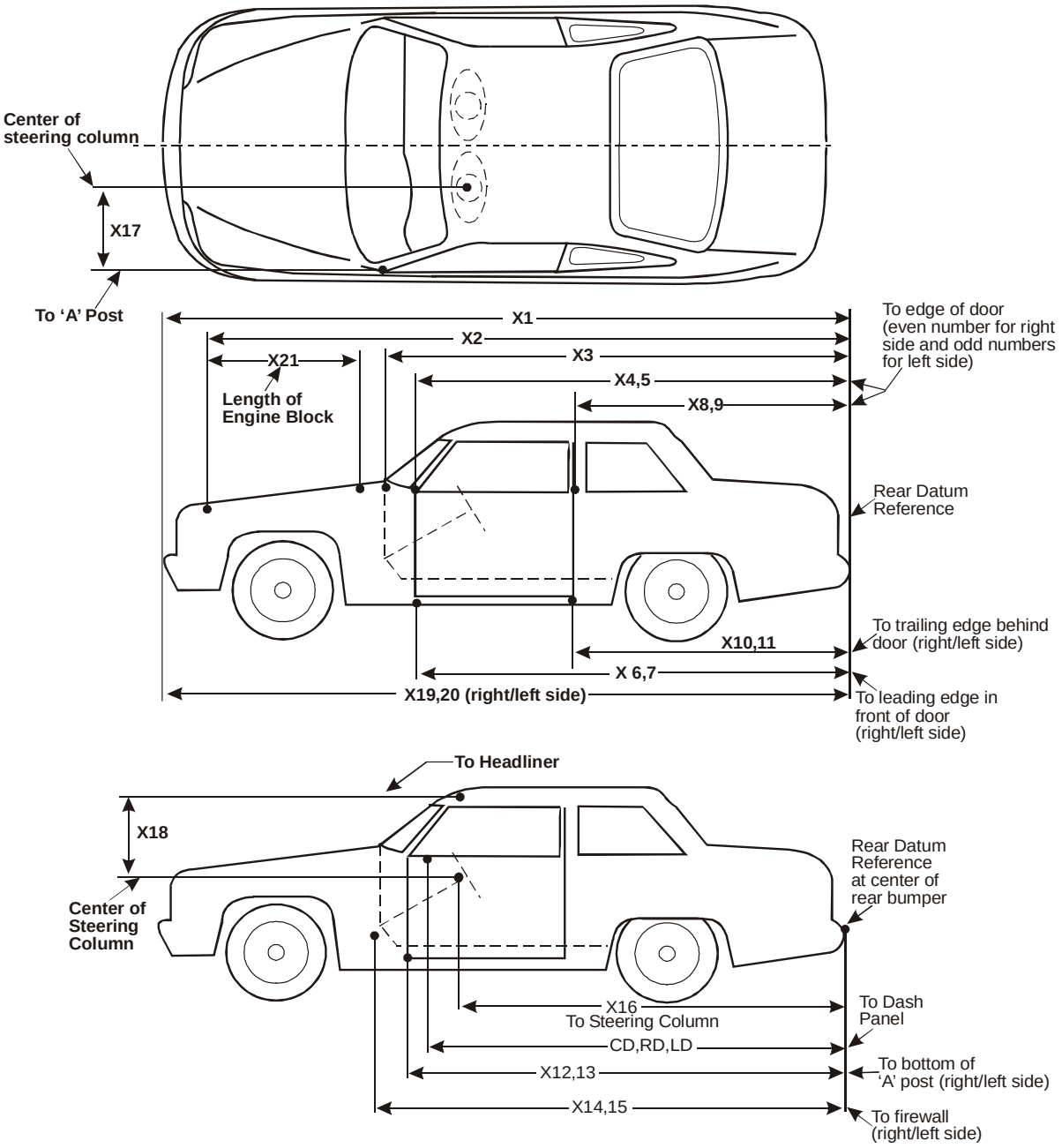
Details of Stoddard Solvent Spillage Locations

None

Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° to 90°	60	300	0
90° to 180°	60	300	0
180° to 270°	60	300	0
270° to 360°	60	300	0

DATA SHEET NO. 14
TEST VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07



DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

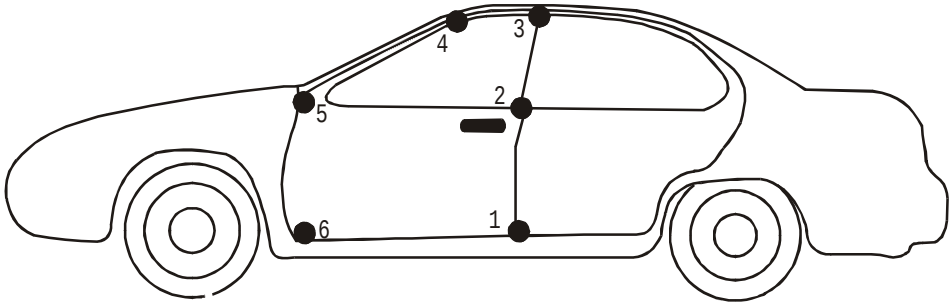
No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	5095	4765	330
X2	Rear Surface of Vehicle to Front of Engine Block	4590	4462	128
X3	Rear Surface of Vehicle to Firewall	3975	4037	-62
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	3529	3529	0
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	3535	3526	9
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3502	3507	-5
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3515	3491	24
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	2475	2476	-1
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	2483	2473	10
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	2500	2501	-1
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	2520	2496	24
X12	Rear Surface of Vehicle to Bottom of " A " Post on Right Side	3490	3503	-13
X13	Rear Surface of Vehicle to Bottom of " A " Post on Left Side	3505	3493	12
X14	Rear Surface of Vehicle to Firewall-Right Side	3955	3981	-26
X15	Rear Surface of Vehicle to Firewall-Left Side	3955	3920	35
X16	Rear Surface of Vehicle to Steering Wheel Center	3082	3025	57
X17	Center of Steering Column to " A " Post	360	360	0
X18	Center of Steering Column to Headliner	450	436	14
X19	Rear Surface of Vehicle to Right Side of Front Bumper[1]	4935	4965	-34
X20	Rear Surface of Vehicle to Left Side of Front Bumper[1]	4933	4537	396
X21	Length of Engine Block	500	500	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3270	3282	-12
CD	Rear Surface of Vehicle to Center of Dash Panel	3355	3340	15
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3287	3267	20

All measurements are in millimeters.
[1] Measurements to bumper beam.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

DOOR OPENING WIDTH



Left Front

Point Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	2610	-817	-25	2609	-822	-22	-1	-5	3
2	2505	-818	-295	2504	-822	-292	-1	-4	3
3	2406	-642	-964	2406	-644	-961	0	-2	3
4	2930	-681	-888	2930	-682	-885	0	-1	3
5	3474	-814	-295	3459	-835	-285	-15	-21	10
6	3419	-805	109	3413	-827	123	-6	-22	14

Right Front

Point Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3404	801	119	3403	812	120	-1	11	1
2	2504	818	-304	2504	819	-303	0	1	1
3	2944	681	-881	2944	681	-879	0	0	2
4	2401	645	-962	2401	645	-961	0	0	1
5	3474	811	-301	3475	816	-301	1	5	0
6	2653	812	32	2653	815	34	0	3	2

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

	Elements	Pre-Test
1	Total Length[2]	5013
2	Total Width	1940
3	Bumper Top Height	549
4	Bumper Bottom Height	386
5	Longitudinal Member Top Height	526
6	Longitudinal Member Bottom Height	436
7	Distance Between Longitudinal Members	1280
7´	Longitudinal Member Width	120
8	Engine Top Height	918
9	Engine Bottom Height	180
10	Engine and Gearbox Width	850
11	Front Bumper - Engine Distance	420
12	Front Shock Absorber Fixing Height	877
13	Bonnet Leading Edge Height	812
14	Front Shock Absorber Fixing Width	1255
15	Front Bumper - Front Axle Distance	992
16	Front Axle - A Pillar Distance	590
17	A Pillar - B Pillar Distance	1050
18	B Pillar - Rear Axle Distance	1242
19	B Pillar - C Pillar Distance	970
20	Roof Sill Bottom Height	1362
21	Roof Sill Top Height	1422
22	Floor Sill Bottom Height	319
23	Floor Sill Top Height	356

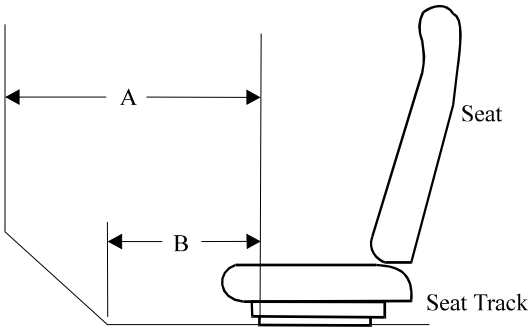
All distance measurements are in millimeters.

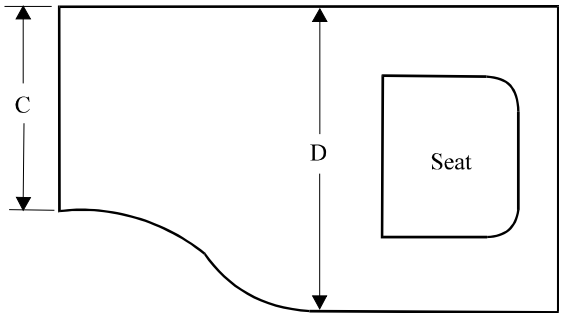
[1] Taken from INSIA report, "Structural Survey of Cars, Methodology of the Main Resistant Elements in the Car Body", March 1999. This report is included in Appendix F.
[2] Measured to the vehicle bumper beam.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

STATIC FOOTWELL DEFORMATION





DRIVER

Measurement	Pre-Test	Post-Test	Difference
A	505	464	-41
B	419	418	-1
C	367	380	13
D	473	471	-2

All units in millimeters

PASSENGER

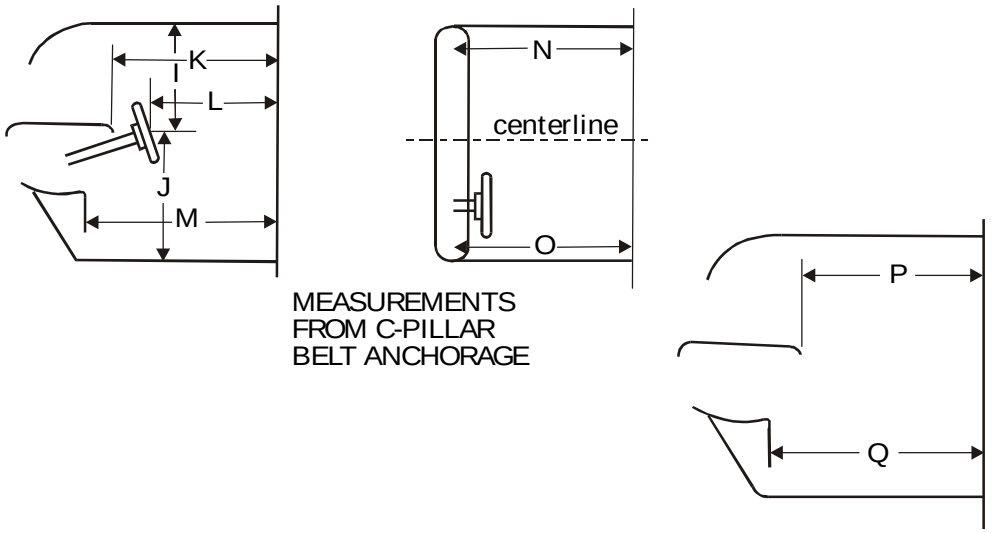
Measurement	Pre-Test	Post-Test	Difference
A	569	568	-1
B	390	390	0
C	335	337	-2
D	445	446	-1

All units in millimeters

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

STATIC PASSENGER COMPARTMENT INTRUSION



Measurement	Pre-Test	Post-Test	Difference
I	455	446	9
J	633	647	-14
K	2060	2038	22
L	1862	1845	17
M	2226	2200	26
N	2070	2062	8
O	2094	2084	10
P = K (PASS.)	2060	2067	-7
Q = M (PASS.)	2236	2239	-3

All units in millimeters

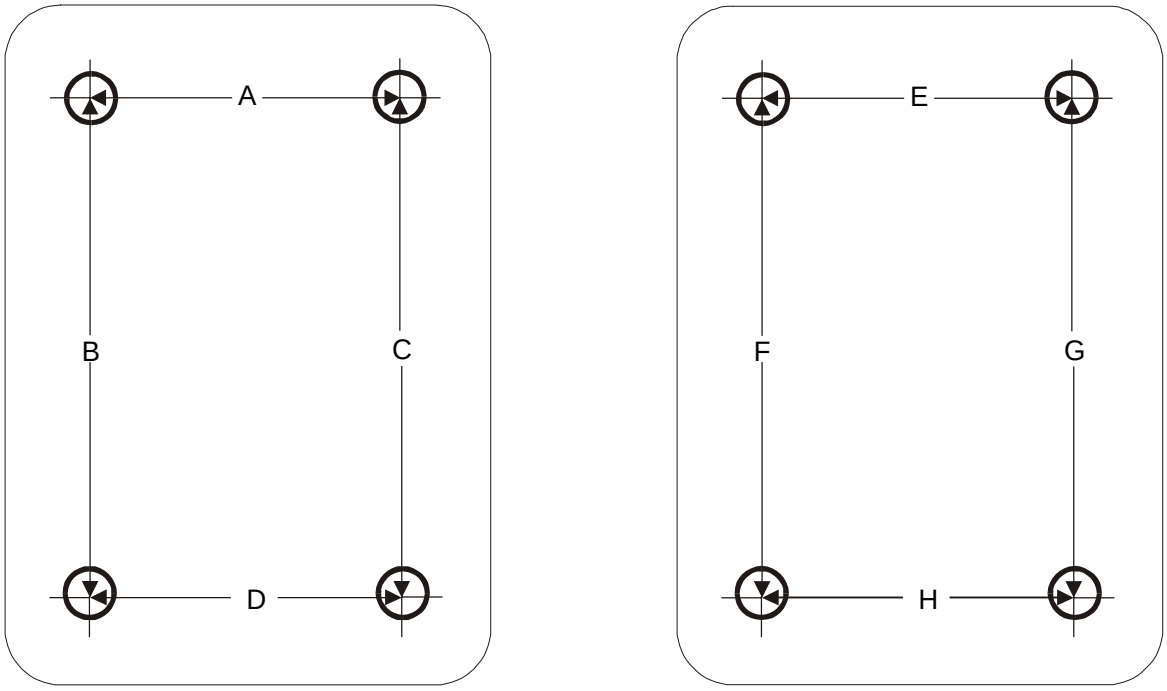
DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

FLOORBOARD DEFORMATION

DRIVERS SIDE

PASSENGERS SIDE



TOP VIEW THROUGH FLOOR PAN

Measurement	Pre-Test	Post-Test	Difference
A	377	379	2
B	419	418	-1
C	366	367	1
D	473	471	-2
E	398	397	-1
F	390	390	0
G	455	453	-2
H	445	446	1

All units in millimeters

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

Bottom of Front Bumper

	Pre-Test			Post-Test			Difference		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4942	-735	52	4343	-776	110	-599	-41	58
2	5041	-449	54	4442	-550	130	-599	-101	76
3	5087	-150	57	4676	-338	53	-411	-188	-4
4	5087	150	55	4837	-85	60	-250	-235	5
5	5041	449	54	4961	191	63	-80	-258	9
6	4943	735	54	5044	481	65	101	-254	11

Top of Front Bumper

	Pre-Test			Post-Test			Difference		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4934	-735	-110	4412	-807	-33	-522	-72	77
2	5038	-450	-104	4551	-592	-166	-487	-142	-62
3	5086	-151	-101	4667	-318	-102	-419	-167	-1
4	5086	153	-100	4842	-80	-96	-244	-233	4
5	5037	451	-104	4967	194	-95	-70	-257	9
6	4936	733	-109	5040	485	-97	104	-248	12

Center of Grill

	Pre-Test			Post-Test			Difference		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4825	-735	-247	0	0	0	-4825	735	247
2	4929	-450	-246	0	0	0	-4929	450	246
3	4978	-148	-239	4593	-274	-233	-385	-126	6
4	4978	148	-239	4760	-29	-236	-218	-177	3
5	4930	451	-245	4884	251	-255	-46	-200	-10
6	4825	735	-246	4825	626	-251	0	-109	-5

Front of Hood

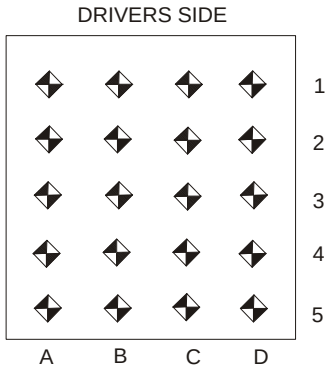
	Pre-Test			Post-Test			Difference		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4648	-749	-389	4422	-827	-684	-226	-78	-295
2	4893	-450	-328	4518	-553	-462	-375	-103	-134
3	4945	-150	-347	4612	-273	-381	-333	-123	-34
4	4946	150	-346	4745	-3	-381	-201	-153	-35
5	4894	451	-328	4790	300	-387	-104	-151	-59
6	4648	749	-387	4638	640	-486	-10	-109	-99

[1] Measurement point could not be located post-test.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

TOE PAN FLOORBARD INTRUSION



Driver Side Toe Pan and Floorboard Measurements

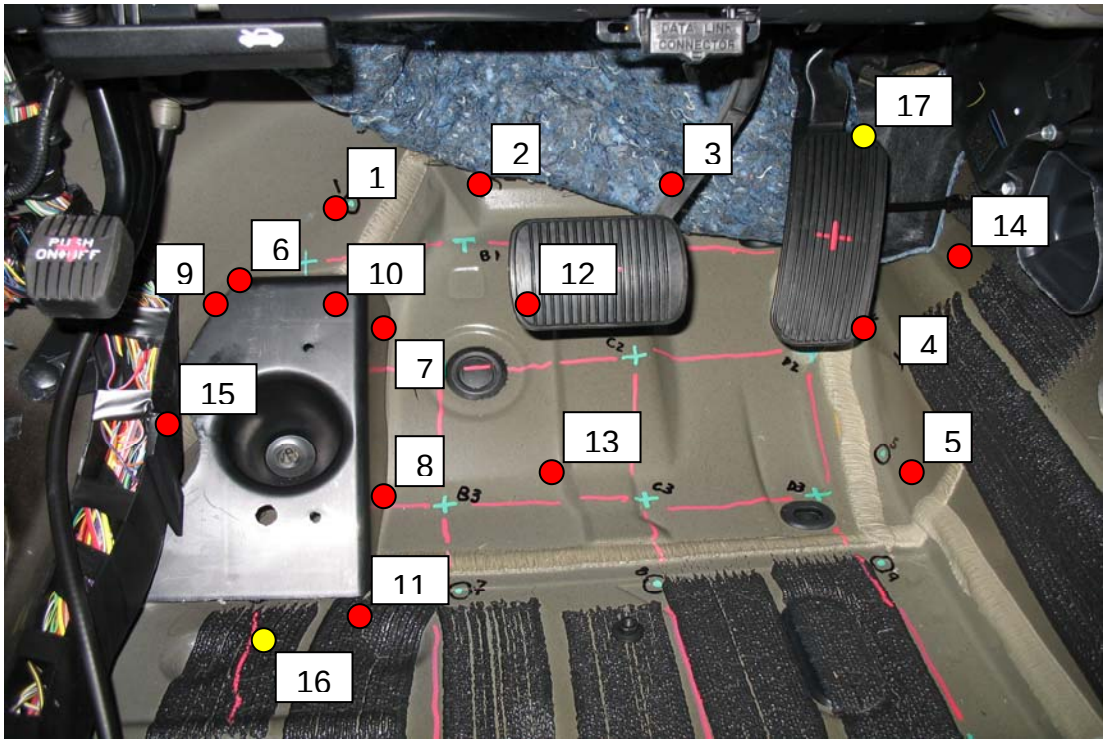
Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	3638	-559	83	3599	-581	73	-39	-22	-10
B1	3723	-435	107	3647	-434	77	-76	1	-30
C1	3712	-318	110	3658	-318	96	-54	0	-14
D1	3733	-192	118	3717	-201	114	-16	-9	-4
A2	3615	-570	159	3587	-586	154	-28	-16	-5
B2	3643	-454	175	3614	-464	168	-29	-10	-7
C2	3639	-317	166	3630	-326	185	-9	-9	19
D2	3645	-188	189	3647	-201	191	2	-13	2
A3	3552	-572	234	3553	-587	243	1	-15	9
B3	3536	-457	233	3539	-472	248	3	-15	15
C3	3535	-324	230	3540	-338	242	5	-14	12
D3	3529	-195	232	3534	-208	239	5	-13	7
A4	3321	-579	236	3322	-591	241	1	-12	5
B4	3324	-474	234	3327	-485	237	3	-11	3
C4	3320	-331	234	3324	-343	240	4	-12	6
D4	3324	-175	234	3328	-188	236	4	-13	2
A5	3133	-647	235	3135	-657	238	2	-10	3
B5	3134	-480	233	3137	-491	237	3	-11	4
C5	3149	-333	234	3153	-343	238	4	-10	4
D5	3163	-174	234	3167	-186	238	4	-12	4
BP	3544	-363	35	3491	-345	29	-53	18	-6
LB	3339	-524	-236	3313	-515	-231	-26	9	5
RB	3338	-223	-236	3323	-214	-231	-15	9	5
SW	3061	-374	-468	3035	-365	-467	-26	9	1
AB	3063	-582	149	3063	-586	152	0	-4	3

BP=Brake Pedal, LB=Left side of bolster, RB=Right side of bolster, SW=Steering wheel center, AB=Front outboard seat anchor bolt.
Procedure for measuring interior points is located in Appendix E.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

ADDITIONAL TOE PAN FLOORBARD INTRUSION



Driver Side Toe Pan and Floorboard Measurements

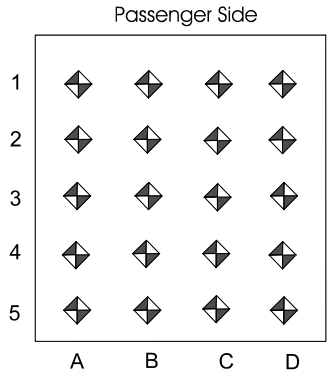
Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3673	-531	50	3615	-548	33	-58	-17	-17
2	3766	-417	66	3679	-414	26	-87	3	-40
3	3765	-243	66	3720	-246	49	-45	-3	-17
4	3665	-144	160	3672	-154	168	7	-10	8
5	3568	-153	218	3574	-166	225	6	-13	7
6	3655	-537	87	3607	-553	73	-48	-16	-14
7	3677	-487	144	3617	-490	119	-60	-3	-25
8	3563	-488	230	3565	-504	246	2	-16	16
9	3611	-581	79	3579	-595	74	-32	-14	-5
10	3612	-515	75	3570	-525	66	-42	-10	-9
11	3468	-503	230	3455	-519	240	-13	-16	10
12	3671	-376	146	3631	-383	139	-40	-7	-7
13	3595	-377	207	3592	-391	223	-3	-14	16
14	3593	-103	49	3601	-105	57	8	-2	8
15	3559	-631	126	3562	-664	132	3	-33	6
16	3383	-505	214	N/A	N/A	N/A	N/A	N/A	N/A
17	3633	-463	12	N/A	N/A	N/A	N/A	N/A	N/A

Additional points identified by COTR.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

TOE PAN FLOORBARD INTRUSION



Passenger Side Toe Pan and Floorboard Measurements

Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	3748	228	93	3749	236	101	1	8	8
B1	3740	321	86	3738	328	92	-2	7	6
C1	3740	443	76	3738	450	78	-2	7	2
D1	3652	563	48	3652	573	50	0	10	2
A2	3676	218	163	3681	230	179	5	12	16
B2	3663	317	147	3663	326	154	0	9	7
C2	3667	466	151	3665	475	154	-2	9	3
D2	3612	581	121	3612	593	122	0	12	1
A3	3569	207	230	3571	218	240	2	11	10
B3	3563	310	226	3564	320	234	1	10	8
C3	3570	485	227	3570	495	232	0	10	5
D3	3564	605	228	3564	615	231	0	10	3
A4	3362	177	233	3366	186	240	4	9	7
B4	3352	327	231	3352	336	238	0	9	7
C4	3425	460	219	3333	484	244	-92	24	25
D4	3342	621	231	3341	630	235	-1	9	4
A5	3179	169	233	3181	175	239	2	6	6
B5	3155	322	232	3157	329	238	2	7	6
C5	3112	466	231	3113	475	234	1	9	3
D5	3109	614	231	3111	621	233	2	7	2

Procedure for measuring interior points is located in Appendix E.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

BUMPER MEASUREMENTS

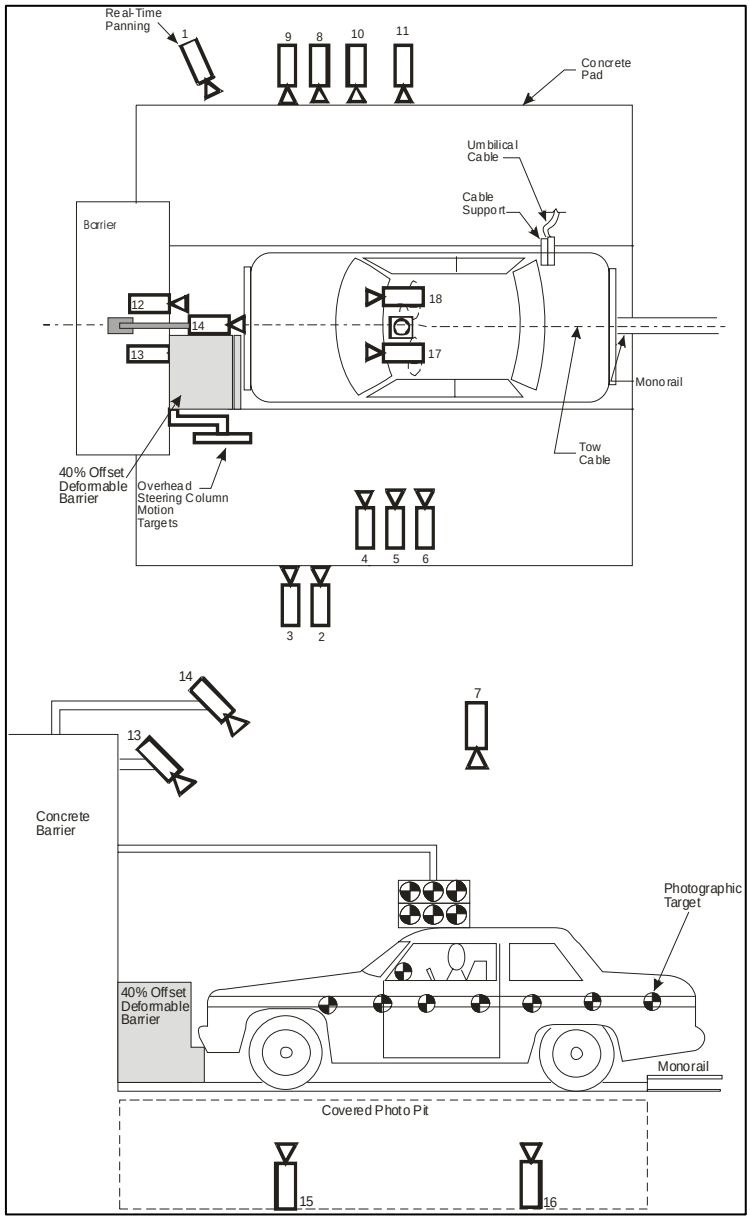
	PRE-TEST			POST-TEST			CHANGE		
Index	X	Y	Z	X	Y	Z	X	Y	Z
1	4933	-672	-12	4537	-746	-58	-396	-74	-46
2	4984	-551	-12	4530	-614	-59	-454	-63	-47
3	4997	-413	-12	4462	-471	-50	-535	-58	-38
4	5006	-275	-12	4514	-344	-46	-492	-69	-34
5	5012	-138	-11	4579	-235	-46	-433	-97	-35
6	5013	-0	-11	4660	-124	-47	-353	-124	-36
7	5011	135	-11	4736	-12	-48	-275	-147	-37
8	5005	278	-10	4812	109	-50	-193	-169	-40
9	4996	410	-10	4878	223	-48	-118	-187	-38
10	4982	549	-10	4944	346	-48	-38	-203	-38
11	4931	671	-9	4965	478	-47	34	-193	-38

All units in millimeters

DATA SHEET NO. 15
CAMERA POSITIONS FOR FRONTAL IMPACTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

NOTE: Camera information shown in DATA SHEET NO. 15.



DATA SHEET NO. 15 (continued)
HIGH-SPEED CAMERA LOCATIONS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

CAMERA NO.	VIEW	CAMERA POSITIONS (mm)* X	Y	Z	ANGLE (deg)**	FILM PLANE TO HEAD TARGET (mm)	LENS (mm)	SPEED (fps)
1	Real-Time Camera	---	---	---	---	---	zoom	30
2	Overall Left Side	2420	6820	1000	0.3	6390	12.5	1000
3	Left Side View	0	6300	740	1.0	6370	25	1000
4	Driver View	1400	6770	1330	1.0	6390	50	1000
5	Steering Column Top	2040	6830	2200	9.9	6460	50	1000
6	Steering Column Bottom	1950	6470	1180	0.8	6060	50	1000
7	Top View	610	0	5620	9.0	N/A	12.5	1000
8	Overall Right Side	1900	7400	990	1.4	7000	12.5	1000
9	Right Side View	0	6680	800	0.2	6730	25	1000
10	Left Driver Foot View	1390	7450	1190	2.0	7050	50	1000
11	Right Driver Foot View	5210	3610	1760	8.7	4140	25	1000
12	Driver Front Angled View	-2000	670	2500	23.9	4650	25	1000
13	Driver Front View	-2000	430	2500	20.9	4650	25	1000
14	Windshield View	-2000	0	2500	26.4	4650	12.5	1000
15	Pit View of Engine	470	0	-3250	90.0	N/A	25	1000
16	Pit View of Fuel Tank	2270	0	-3250	90.0	N/A	12.5	1000
17	Driver Lower Leg View	1850	420	390	0.7	N/A	6.5	1000
18	Passenger Lower Leg View	1850	420	390	0.7	N/A	6.5	1000

*X = film plane to impact location

Y = film plane to monorail centerline

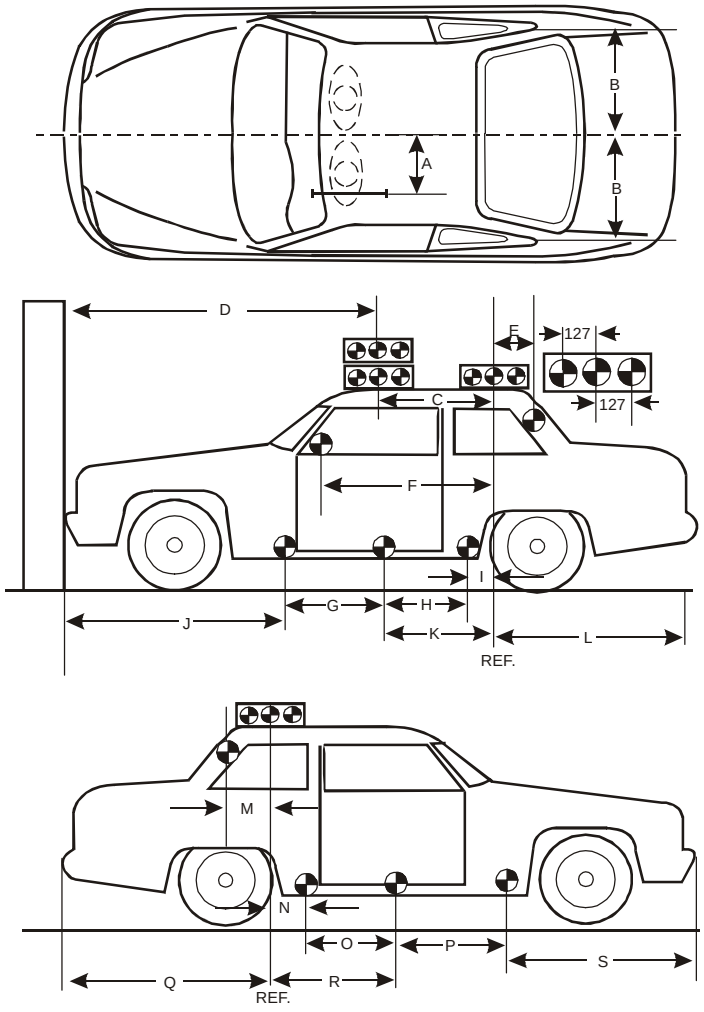
Z = film plane to ground

**Angle = referenced to horizontal plane

DATA SHEET NO. 16
VEHICLE REFERENCE PHOTO TARGET LOCATIONS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

A	400
B	690
C	610
D	319
E	388
F	1285
G	913
H	962
I	-295
J	1356
K	666
L	2000
M	447
N	-337
O	942
P	915
Q	2045
R	604
S	1371



All measurements in millimeters

The relative target spacing for targets placed on top of the hood and roof top of the vehicle is 300 mm.

DATA SHEET NO. 17
POST TEST AIR BAG DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

NHTSA No.: R70202 Test Date: 02/22/07 Technician: William Millis

Vehicle Model Year/Make/Model: 2007/Ford/500 SEL

A. No. of vent holes: 2 -Driver 2 -Passenger

B. Size of vent holes: (mm^2) 30 -Driver 60 -Passenger

C. Total vent area: (mm^2) 1414 -Driver 5655 -Passenger

D. Deflated air bag length and width dimensions or, if round, diameter. (mm)

Driver: 400 -Length; 500 -Width; _____ -Diameter

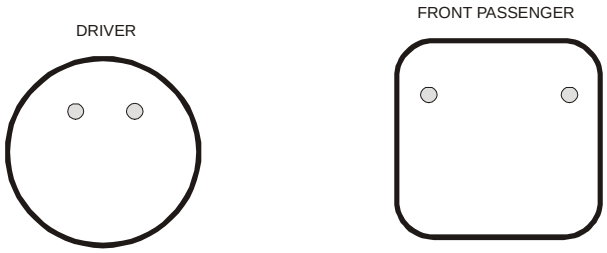
Passenger: 750 -Height; 650 -Width; _____ -Depth

E. Is the air bag tethered?

Driver: _____ -Yes; X -No; If yes, record length of tether (mm)- _____

Passenger: _____ -Yes; X -No; If yes, record length of tether (mm)- _____

Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered. Also describe how the tethers are attached to the bag and the steering wheel.



(Note: Not to scale; V_n = Vent hole$_n$, T_n = Tether$_n$).

F. Record part numbers and manufacturer name of the air bag and gas generator.

Driver: 6F93, 74043B13, BE34N5

Passenger: 5G18, 54044A74, AH

DATA SHEET NO. 18
ACCIDENT INVESTIGATION DIVISION DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07

FOR FRONTAL BARRIER IMPACT

NHTSA Test No.: R70202 VIN: 1FAFP24197G103400

Model Year: 2007 Build Date: 05/06 Test Date: 02/22/07

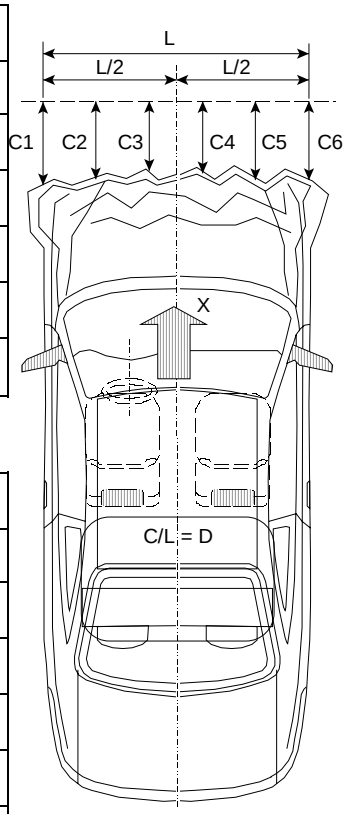
Vehicle Size Category: Sedan Test Weight: 1915.8 kg

Vehicle Wheelbase: 2870 mm; Front Overhang: 992 mm; Overall Width: 1940 mm

Collision Deformation Classification (CDC) Code: 12FDEW2

Crush Depth Dimensions with Bumper

	PRE-TEST	POST-TEST	DIFFERENCE	
C1 =	4934	4412	522	mm
C2 =	5038	4551	487	mm
C3 =	5086	4667	419	mm
C4 =	5086	4842	244	mm
C5 =	5037	4967	70	mm
C6 =	4936	5040	-104	mm



Crush Depth Dimensions without Bumper

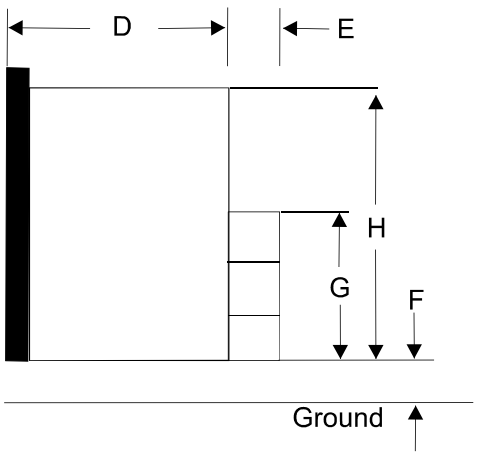
	PRE-TEST	POST-TEST	DIFFERENCE	
C1 =	4933	4537	396	mm
C2 =	4997	4462	535	mm
C3 =	5012	4579	433	mm
C4 =	5011	4736	275	mm
C5 =	4996	4878	118	mm
C6 =	4931	4965	-34	mm

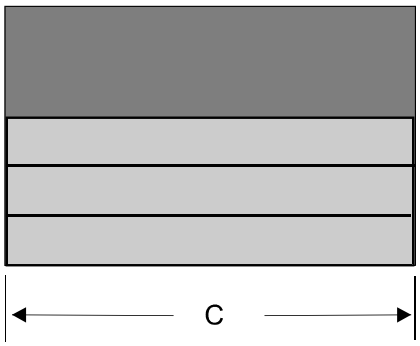
Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

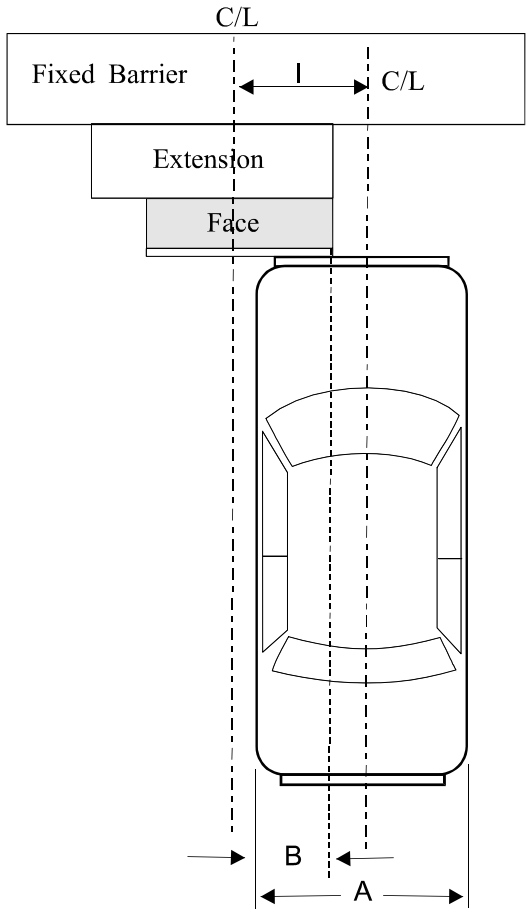
Length of Damaged Region L1= 1500 mm
L2= 750 mm
L3= 750 mm

DATA SHEET NO. 19
OFFSET BARRIER AND VEHICLE ORIENTATION

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07





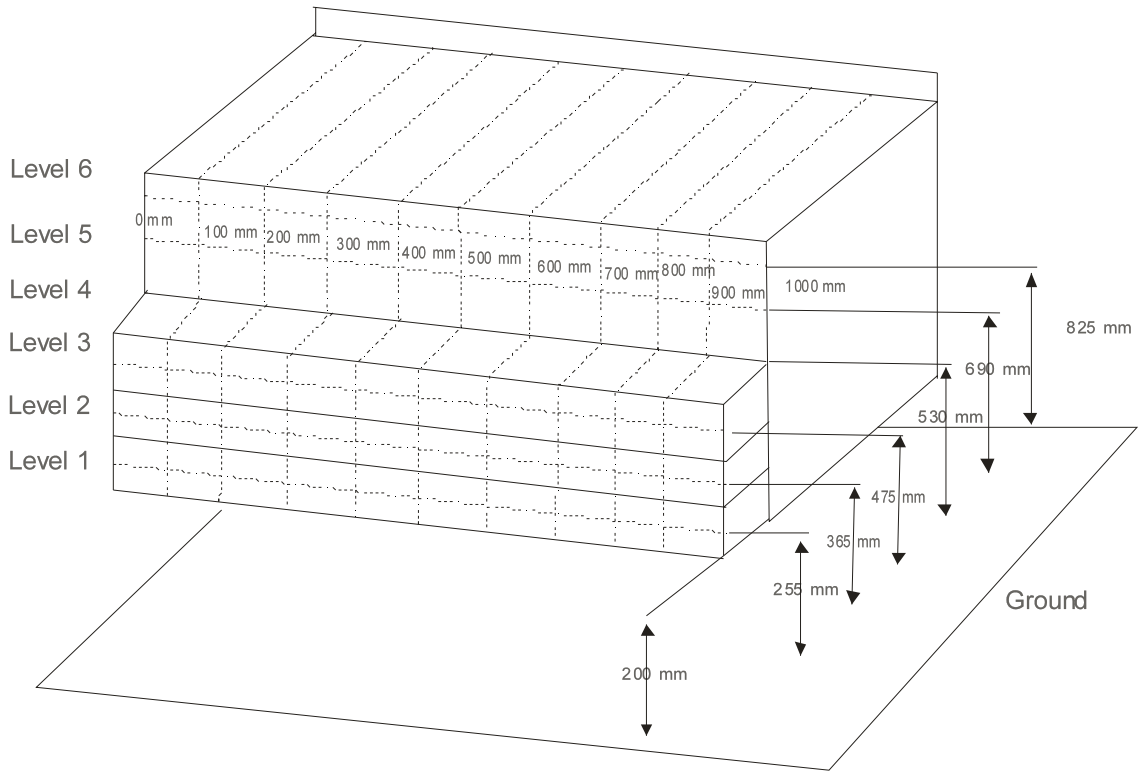


A. Total Vehicle Width	1940	mm
B. 40% Overlap Distance	188	mm
C. Deformable Face Width	1000	mm
D. Single Stage Honeycomb Depth	450	mm
E. Bumper Element Depth	90	mm
F. Lower Edge Height From Ground	200	mm
G. Bumper Element Height*	330	mm
H. Deformable Barrier Honeycomb Height	650	mm
I. Offset Distance	-688	mm

* The bumper element consists of three 110 mm height blocks of 1.723 MPa honeycomb.

DATA SHEET NO. 20
DEFORMABLE BARRIER HONEYCOMB CRUSH

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07



Deformable Barrier Face Profile

Pre-Test

Index	Xmm	Ymm	Zmm
1	-453.6	492.8	52.8
2	-453.7	397.6	52.7
3	-453.3	297.5	52.4
4	-453.1	197.6	52.0
5	-452.9	97.2	52.0
6	-452.7	-2.7	51.7
7	-452.5	-102.4	51.6
8	-452.4	-202.7	51.5
9	-452.2	-302.4	51.1
10	-452.1	-402.8	51.0
11	-452.1	-497.5	50.9
12	-453.8	492.9	-84.4
13	-453.5	397.8	-84.2
14	-453.3	297.3	-84.3
15	-453.2	197.4	-84.2
16	-453.1	97.5	-84.2
17	-452.9	-2.6	-84.3
18	-452.8	-102.0	-84.3
19	-452.5	-202.4	-84.3
20	-452.3	-302.8	-84.2
21	-452.2	-403.4	-84.1
22	-451.9	-497.7	-84.1

Post-Test

Index	Xmm	Ymm	Zmm
1	-487.6	347.5	-27.8
2	-447.3	262.3	-40.9
3	-382.5	189.9	-64.7
4	-317.9	116.5	-87.3
5	-267.3	35.7	-98.6
6	-318.5	-41.9	-88.4
7	-331.0	-140.7	-75.5
8	-285.7	-228.0	-91.2
9	-259.2	-312.3	-116.5
10	-198.6	-391.4	-128.0
11	-135.2	-461.2	-136.6
12	-514.0	361.3	-154.1
13	-455.9	288.1	-170.6
14	-407.6	203.2	-193.4
15	-347.3	127.1	-211.8
16	-302.7	40.8	-225.6
17	-278.6	-20.0	-166.3
18	-225.9	-94.3	-137.1
19	-186.9	-182.2	-146.6
20	-189.7	-266.0	-186.6
21	-156.5	-358.1	-178.9
22	-114.4	-439.2	-171.8

Difference

Index	Xmm	Ymm	Zmm
1	34.0	145.3	80.6
2	-6.4	135.3	93.6
3	-70.8	107.6	117.1
4	-135.2	81.1	139.3
5	-185.6	61.5	150.6
6	-134.2	39.2	140.1
7	-121.5	38.3	127.1
8	-166.7	25.3	142.7
9	-193.0	9.9	167.6
10	-253.5	-11.4	179.0
11	-316.9	-36.3	187.5
12	60.2	131.6	69.7
13	2.4	109.7	86.4
14	-45.7	94.1	109.1
15	-105.9	70.3	127.6
16	-150.4	56.7	141.4
17	-174.3	17.4	82.0
18	-226.9	-7.7	52.8
19	-265.6	-20.2	62.3
20	-262.6	-36.8	102.4
21	-295.7	-45.3	94.8
22	-337.5	-58.5	87.7

Deformable Barrier Face Profile Cont'd.

Pre-Test

Index	Xmm	Ymm	Zmm
23	-453.3	493.5	-224.6
24	-453.3	397.8	-225.0
25	-453.2	297.7	-224.6
26	-453.1	197.7	-224.6
27	-453.0	97.1	-224.9
28	-452.8	-2.0	-225.0
29	-452.7	-102.2	-224.9
30	-452.4	-202.6	-224.8
31	-452.3	-302.4	-224.9
32	-452.1	-402.8	-224.9
33	-451.8	-497.5	-225.3
34	-544.1	491.9	-302.1
35	-544.2	397.1	-302.1
36	-544.1	296.9	-301.9
37	-543.9	196.7	-301.7
38	-543.8	96.9	-301.6
39	-543.5	-3.3	-301.4
40	-543.4	-103.2	-301.4
41	-543.3	-203.3	-301.3
42	-543.0	-303.2	-301.0
43	-542.8	-403.6	-300.7
44	-542.5	-498.9	-300.6

Post-Test

Index	Xmm	Ymm	Zmm
23	-486.9	412.1	-282.3
24	-429.5	338.5	-297.7
25	N/A	N/A	N/A
26	-287.5	186.2	-282.8
27	-239.5	99.2	-270.2
28	-182.7	22.8	-241.9
29	N/A	N/A	N/A
30	-106.1	-130.8	-160.6
31	-69.1	-222.4	-174.4
32	-42.0	-316.2	-197.7
33	-20.3	-405.7	-219.4
34	-554.3	308.7	-314.4
35	-477.8	253.0	-319.9
36	-400.1	194.2	-326.6
37	-324.2	132.8	-345.2
38	-247.8	69.7	-365.0
39	-201.4	16.0	-382.6
40	-132.2	-24.1	-418.3
41	-95.8	-120.8	-381.6
42	-76.0	-215.9	-358.9
43	-54.4	-311.3	-339.9
44	-32.5	-401.5	-321.0

Difference

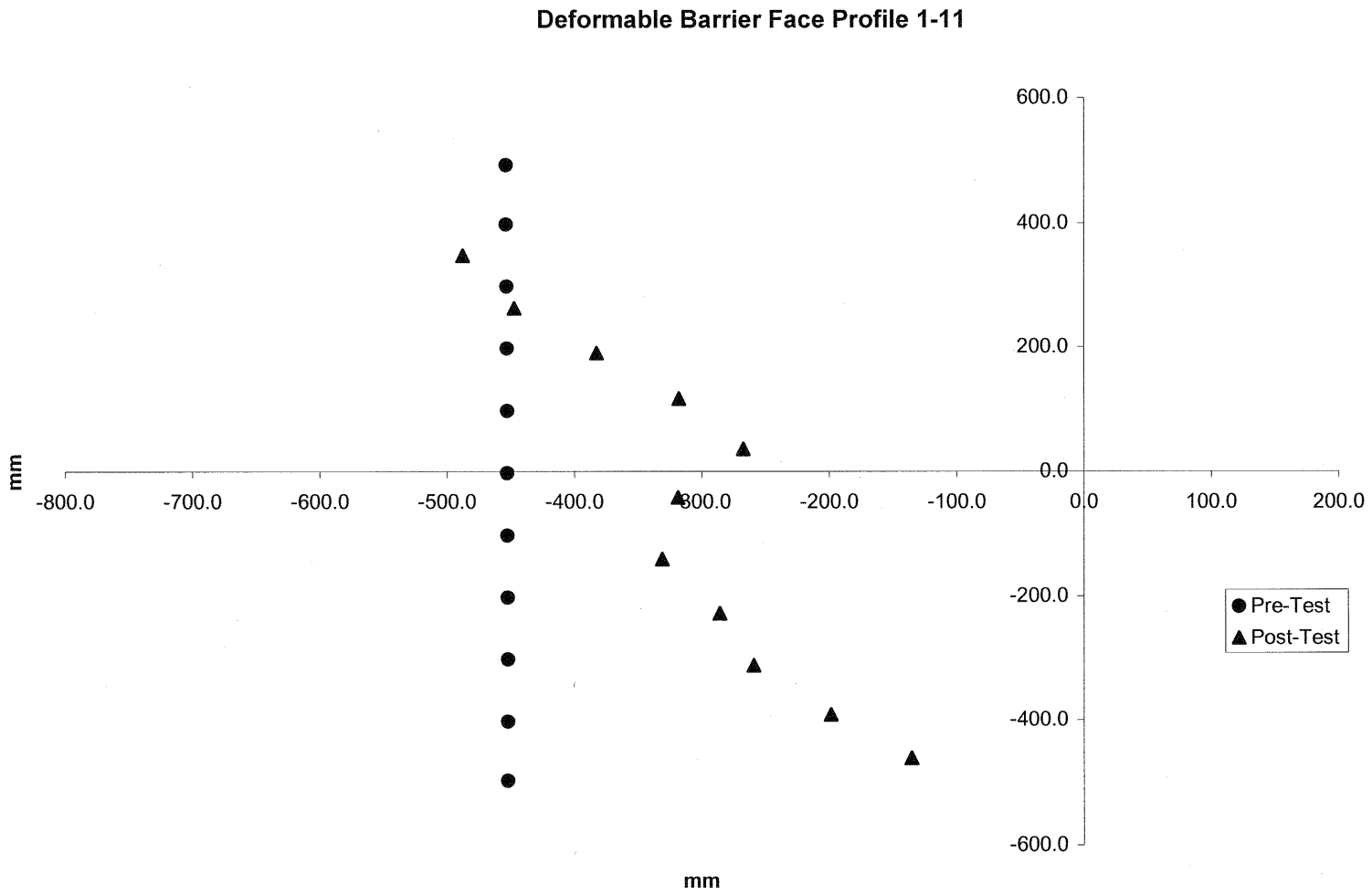
Index	Xmm	Ymm	Zmm
23	33.6	81.4	57.7
24	-23.8	59.3	72.7
25	N/A	N/A	N/A
26	-165.6	11.5	58.2
27	-213.5	-2.1	45.3
28	-270.1	-24.8	16.9
29	N/A	N/A	N/A
30	-346.3	-71.8	-64.2
31	-383.2	-80.0	-50.5
32	-410.1	-86.6	-27.2
33	-431.5	-91.8	-5.9
34	10.2	183.2	12.3
35	-66.4	144.1	17.8
36	-144.0	102.7	24.7
37	-219.7	63.9	43.5
38	-296.0	27.2	63.4
39	-342.1	-19.3	81.2
40	-411.2	-79.1	116.9
41	-447.5	-82.5	80.3
42	-467.0	-87.3	57.9
43	-488.4	-92.3	39.2
44	-510.0	-97.4	20.4

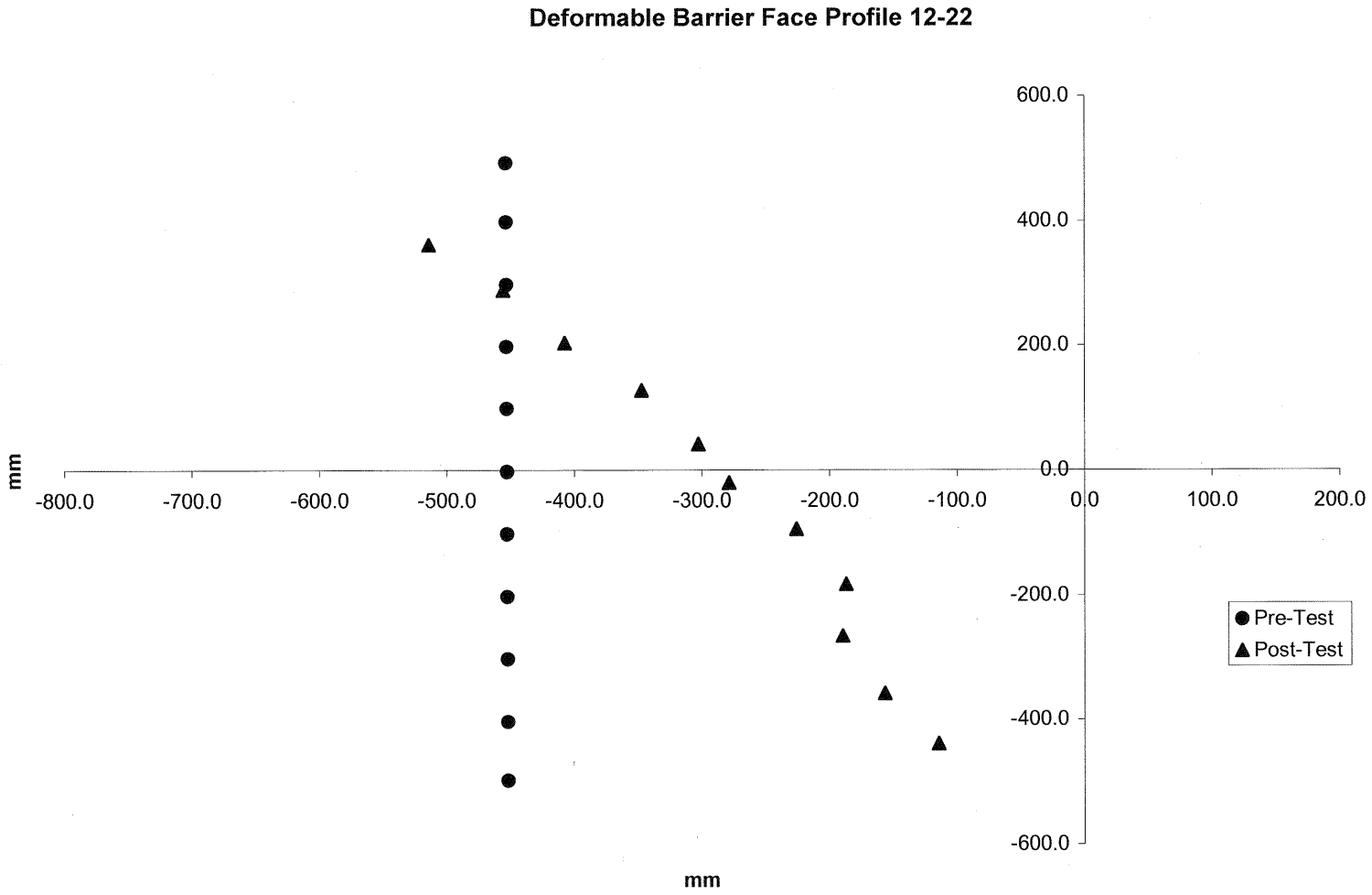
Deformable Barrier Face Profile Cont'd.

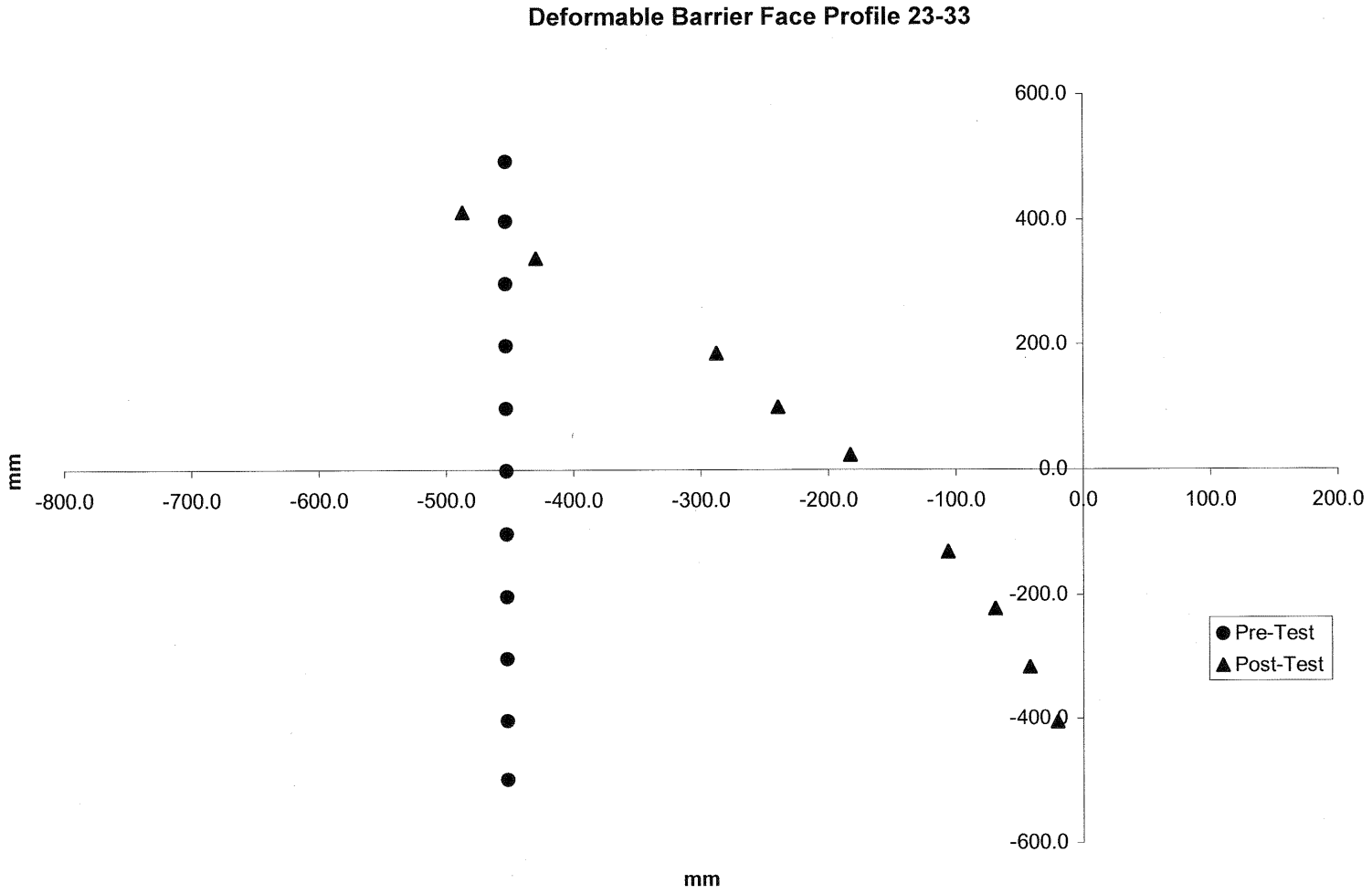
Pre-Test			
Index	Xmm	Ymm	Zmm
45	-544.1	491.4	-412.2
46	-544.1	396.4	-412.1
47	-544.2	296.1	-412.0
48	-543.9	196.2	-411.8
49	-543.7	96.1	-411.7
50	-543.6	-4.4	-411.7
51	-543.3	-103.9	-411.6
52	-543.2	-203.8	-411.5
53	-543.1	-304.3	-411.6
54	-542.8	-404.2	-411.2
55	-542.5	-499.1	-411.0
56	-544.1	491.3	-527.7
57	-544.1	396.1	-527.6
58	-543.8	296.1	-527.4
59	-543.6	195.7	-527.2
60	-543.4	95.5	-527.0
61	-543.3	-4.3	-526.9
62	-543.2	-104.3	-526.9
63	-543.0	-204.5	-526.6
64	-542.9	-304.2	-526.5
65	-542.7	-403.9	-526.2
66	-542.5	-499.4	-526.2

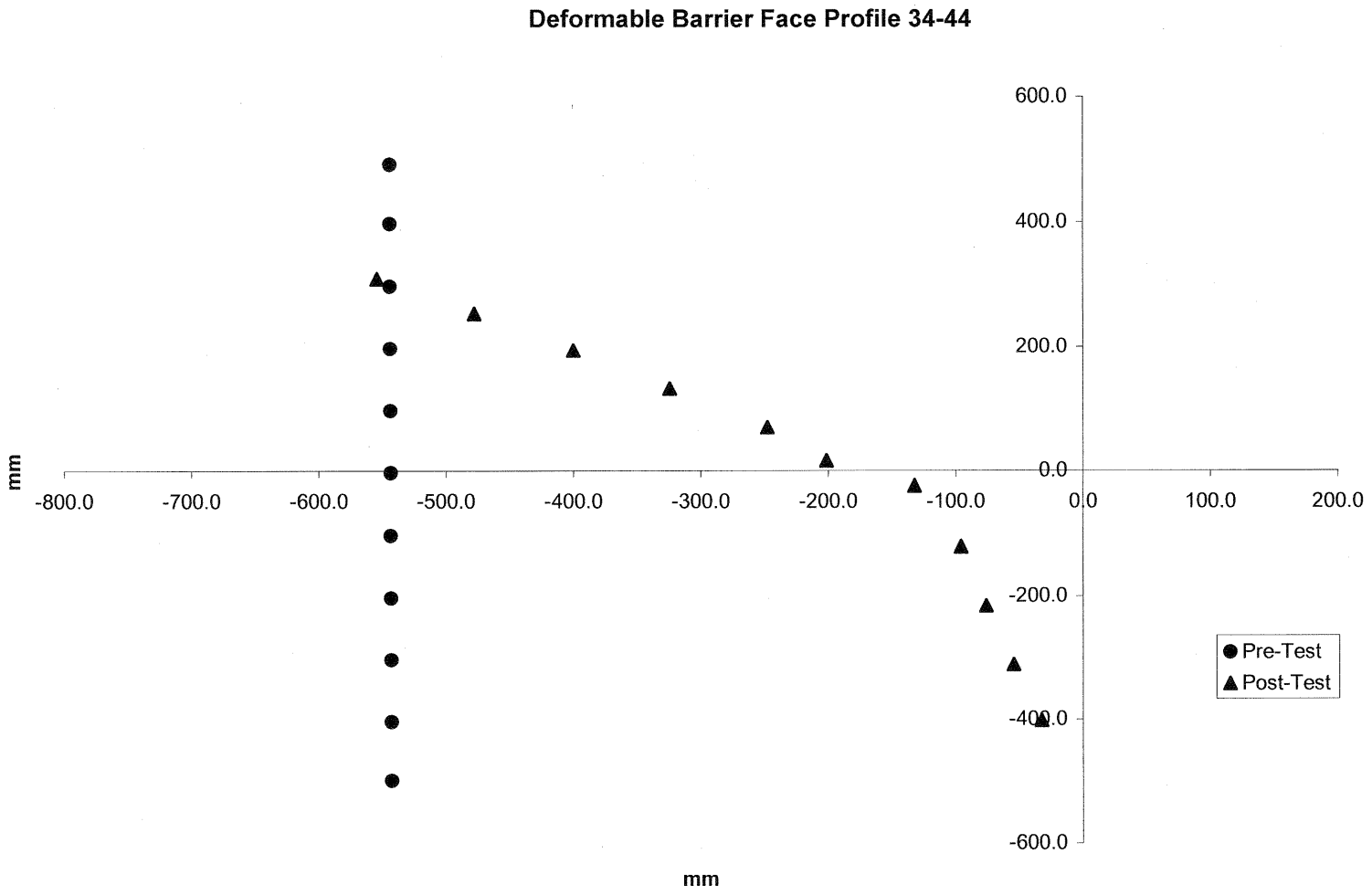
Post-Test			
Index	Xmm	Ymm	Zmm
45	-540.2	327.4	-439.4
46	-469.5	264.1	-440.7
47	-404.6	194.6	-437.1
48	-381.9	100.4	-433.4
49	-312.7	28.7	-448.0
50	-269.9	-24.9	-461.2
51	-203.5	-72.2	-466.0
52	-290.4	-216.6	-499.7
53	-269.3	-312.8	-519.0
54	-241.4	-405.3	-547.9
55	-207.1	-490.7	-568.6
56	-519.1	348.8	-593.6
57	-467.8	269.4	-582.7
58	-425.6	180.8	-570.8
59	-396.9	85.4	-559.0
60	-360.6	-6.8	-546.7
61	N/A	N/A	N/A
62	N/A	N/A	N/A
63	N/A	N/A	N/A
64	N/A	N/A	N/A
65	N/A	N/A	N/A
66	N/A	N/A	N/A

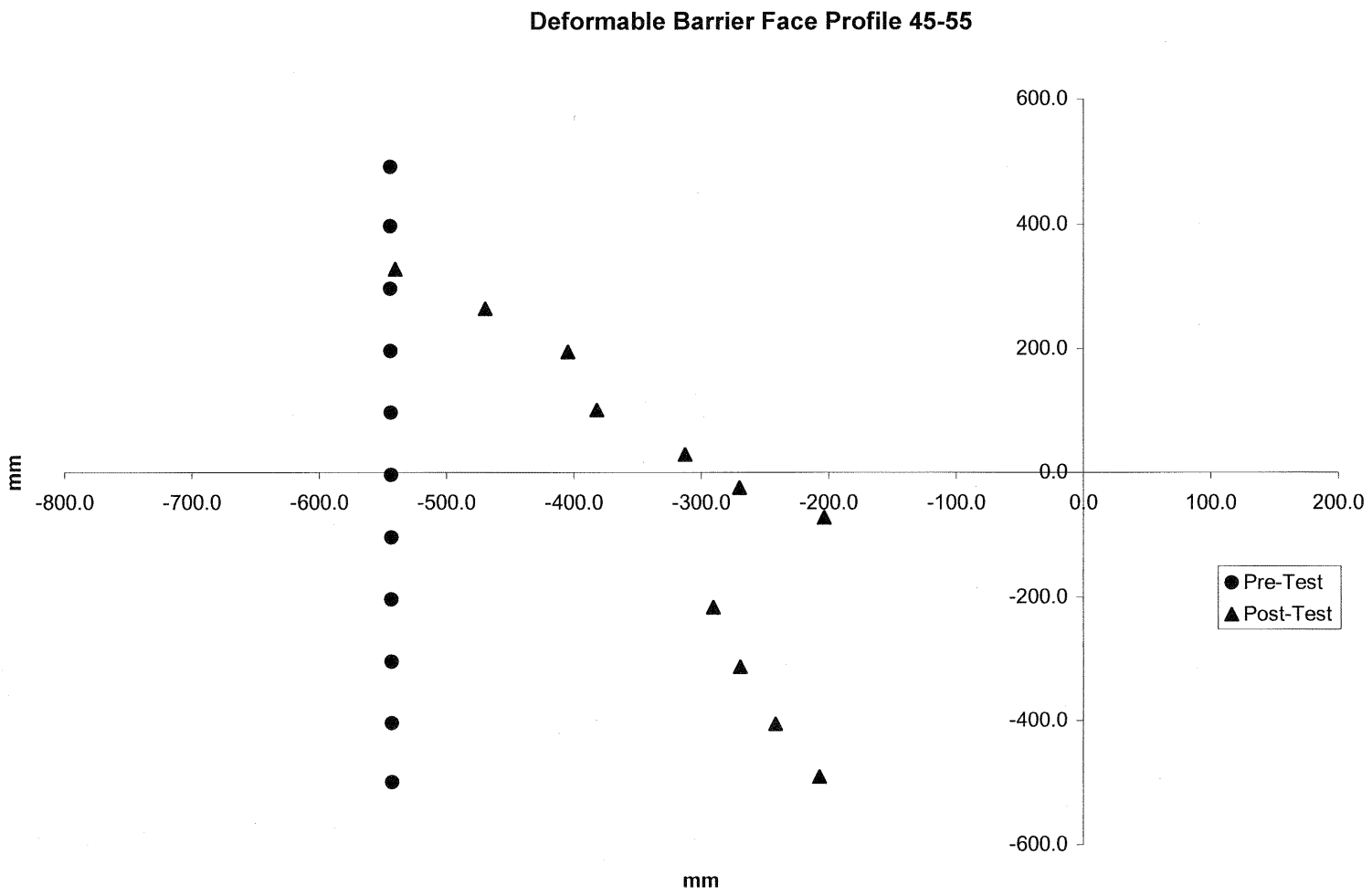
Difference			
Index	Xmm	Ymm	Zmm
45	-3.9	164.0	27.2
46	-74.6	132.3	28.6
47	-139.6	101.5	25.1
48	-162.0	95.8	21.6
49	-231.0	67.4	36.3
50	-273.7	20.5	49.5
51	-339.8	-31.7	54.4
52	-252.8	12.8	88.2
53	-273.8	8.5	107.4
54	-301.4	1.1	136.7
55	-335.4	-8.4	157.6
56	-25.0	142.5	65.9
57	-76.3	126.7	55.1
58	-118.2	115.3	43.4
59	-146.7	110.3	31.8
60	-182.8	102.3	19.7
61	N/A	N/A	N/A
62	N/A	N/A	N/A
63	N/A	N/A	N/A
64	N/A	N/A	N/A
65	N/A	N/A	N/A
66	N/A	N/A	N/A

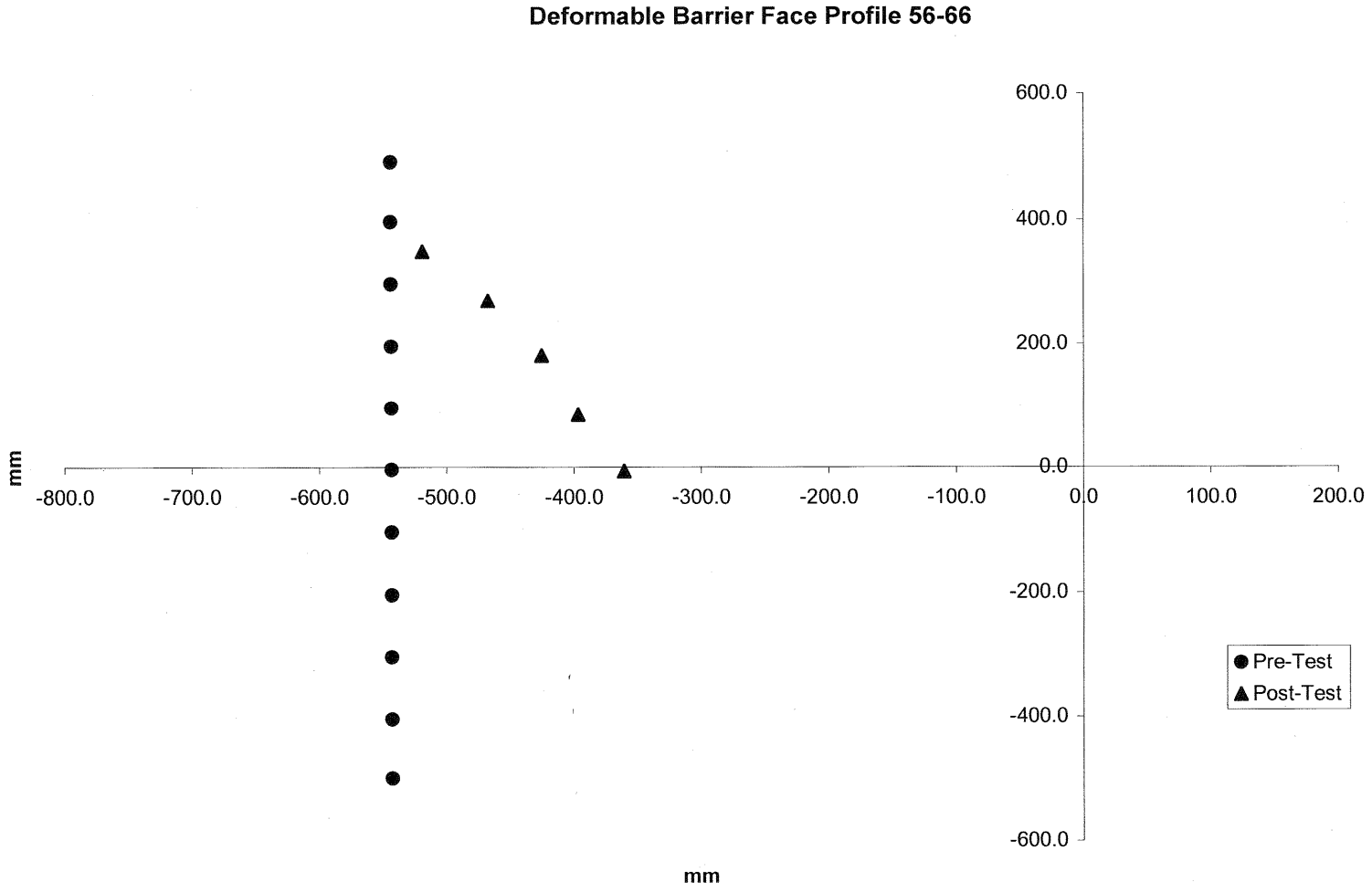

Deformable Barrier Face Profile 1-11
600.0
400.0
200.0
0.0
-200.0
-400.0
-600.0
mm
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
Pre-Test
Post-Test


Deformable Barrier Face Profile 12-22
600.0
400.0
200.0
0.0
-200.0
-400.0
-600.0
mm
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
Pre-Test
Post-Test


Deformable Barrier Face Profile 23-33
600.0
400.0
200.0
0.0
-200.0
-400.0
-600.0
mm
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
Pre-Test
Post-Test

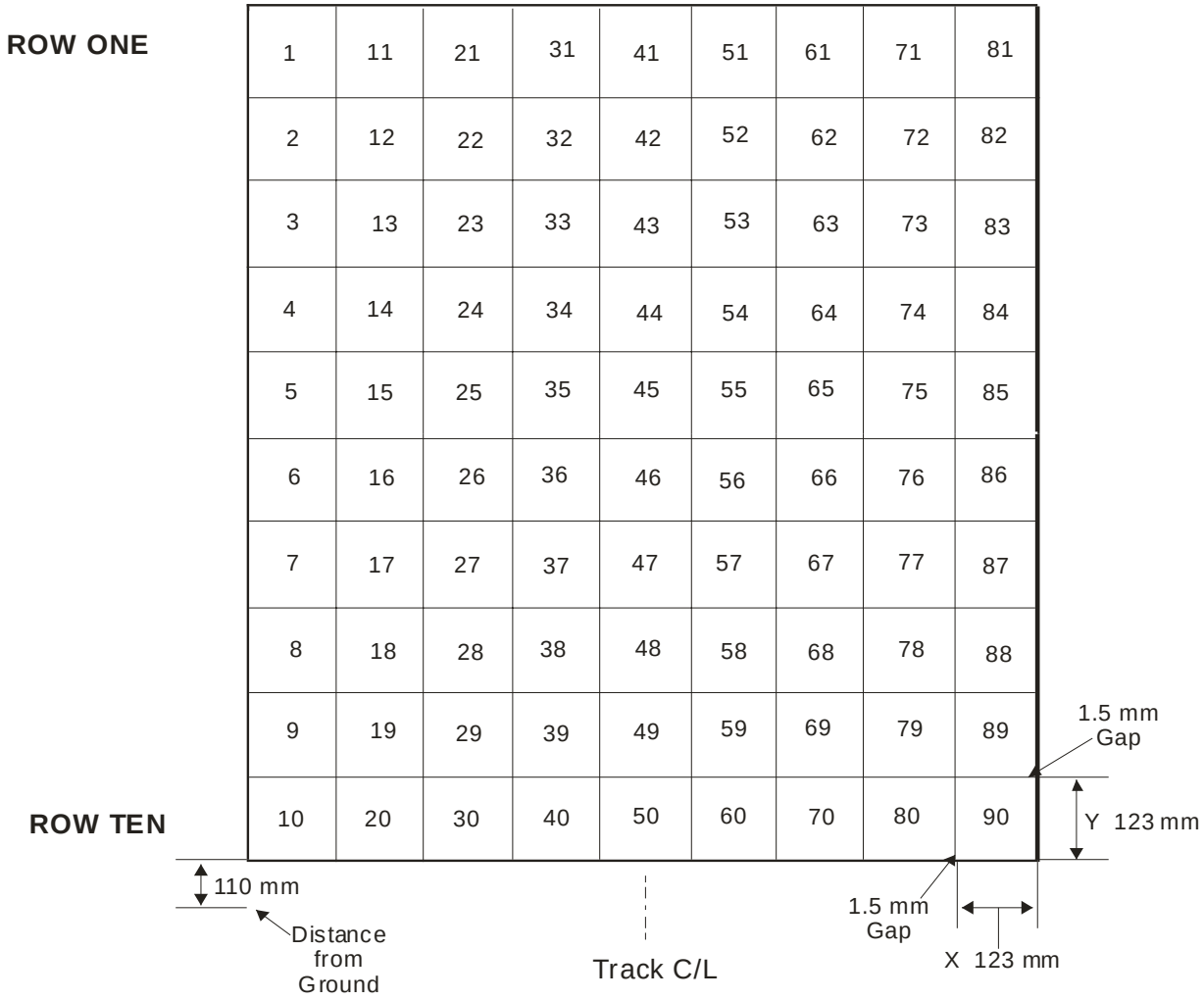

Deformable Barrier Face Profile 34-44
600.0
400.0
200.0
0.0
-200.0
-400.0
-600.0
mm
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
Pre-Test
Post-Test


Deformable Barrier Face Profile 45-55
600.0
400.0
200.0
0.0
-200.0
-400.0
-600.0
mm
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
Pre-Test
Post-Test


Deformable Barrier Face Profile 56-66
600.0
400.0
200.0
0.0
-200.0
-400.0
-600.0
mm
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
Pre-Test
Post-Test

DATA SHEET NO. 21
DEFORMABLE BARRIER LOAD CELL LOCATIONS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/4-door sedan
NHTSA Test No.: R70202 Test Date: 02/22/07



90 LOAD CELLS
10 ROWS
9 COLUMNS

FRONT VIEW

Appendix A

Photographs

Figure A-1 Pre-Test Front View

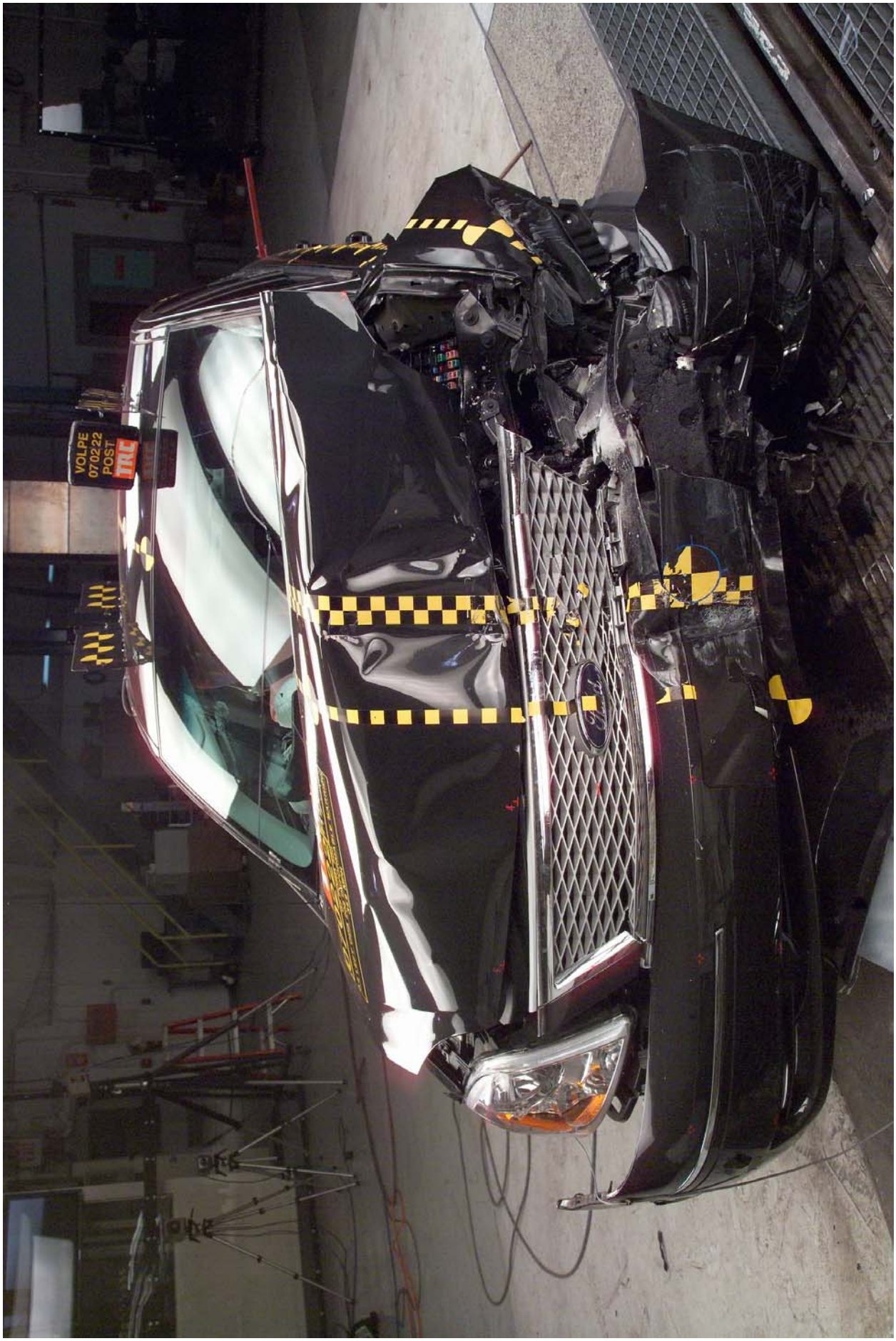


Figure A-2 Post-Test Front View

Figure A-3 Pre-Test Left Front View

Figure A-4 Post-Test Left Front View

Figure A-5 Pre-Test Left Side View

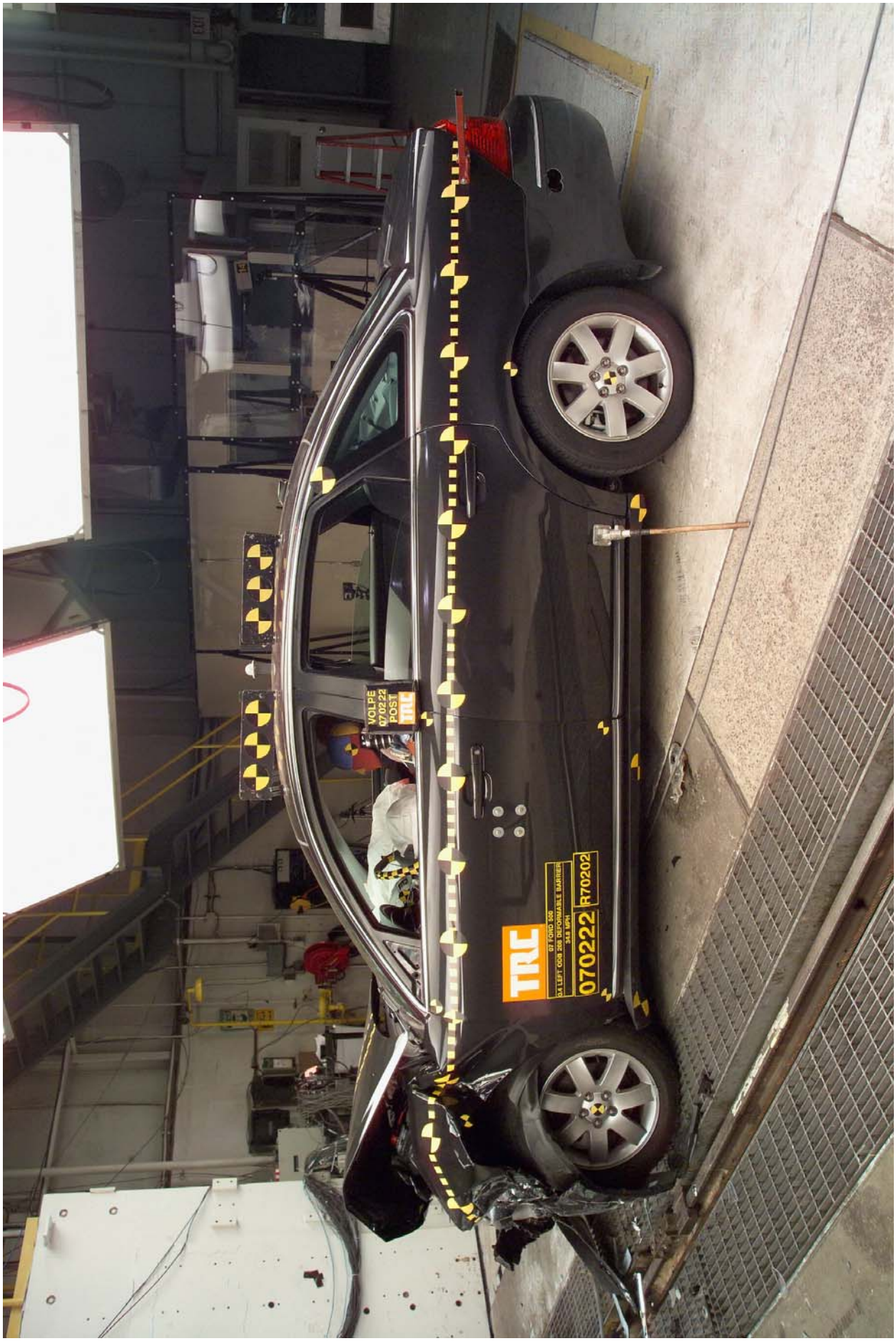


Figure A-6 Post-Test Left Side View

Figure A-7 Pre-Test Left Rear View

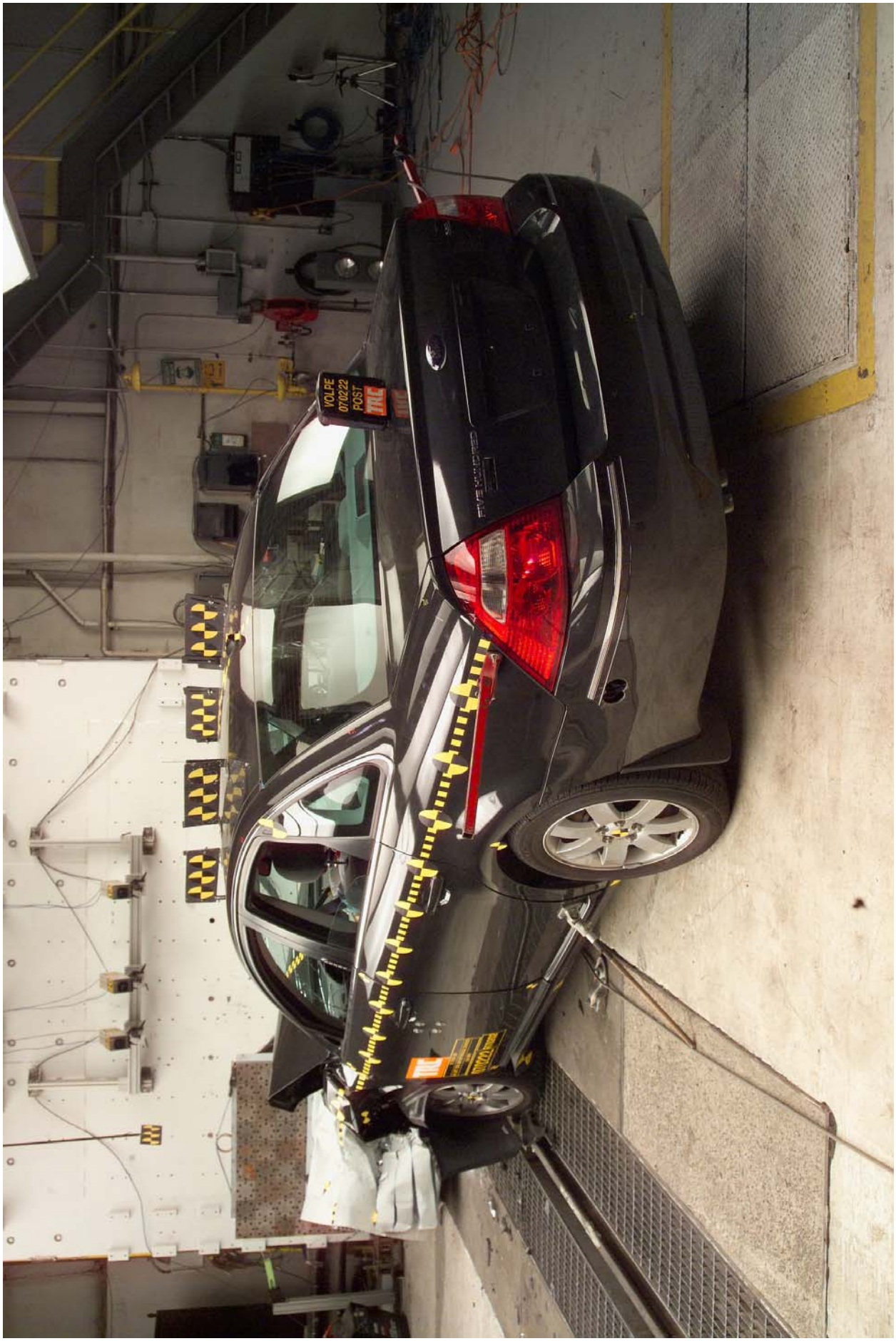


Figure A-8 Post-Test Left Rear View

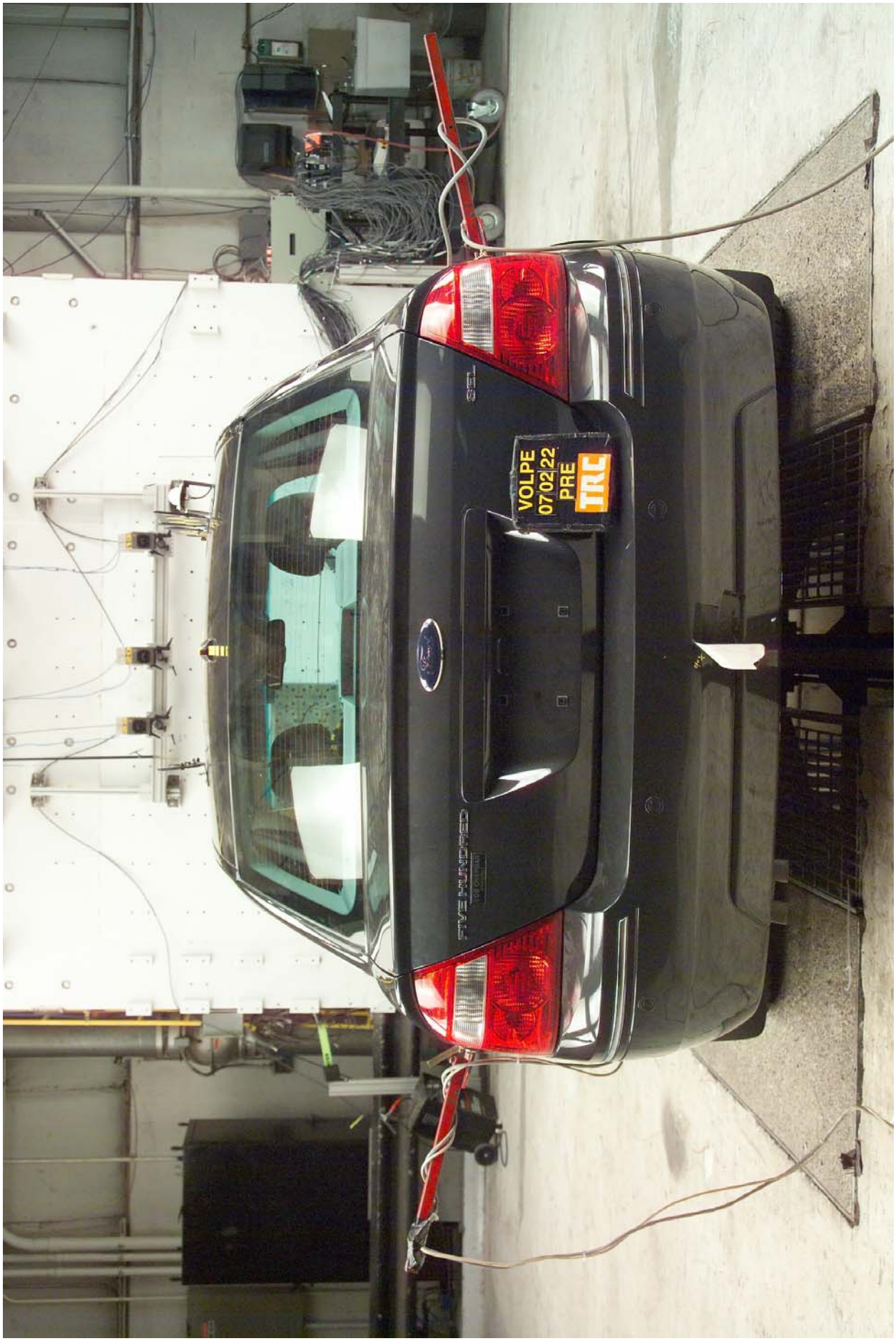


Figure A-9 Pre-Test Rear View

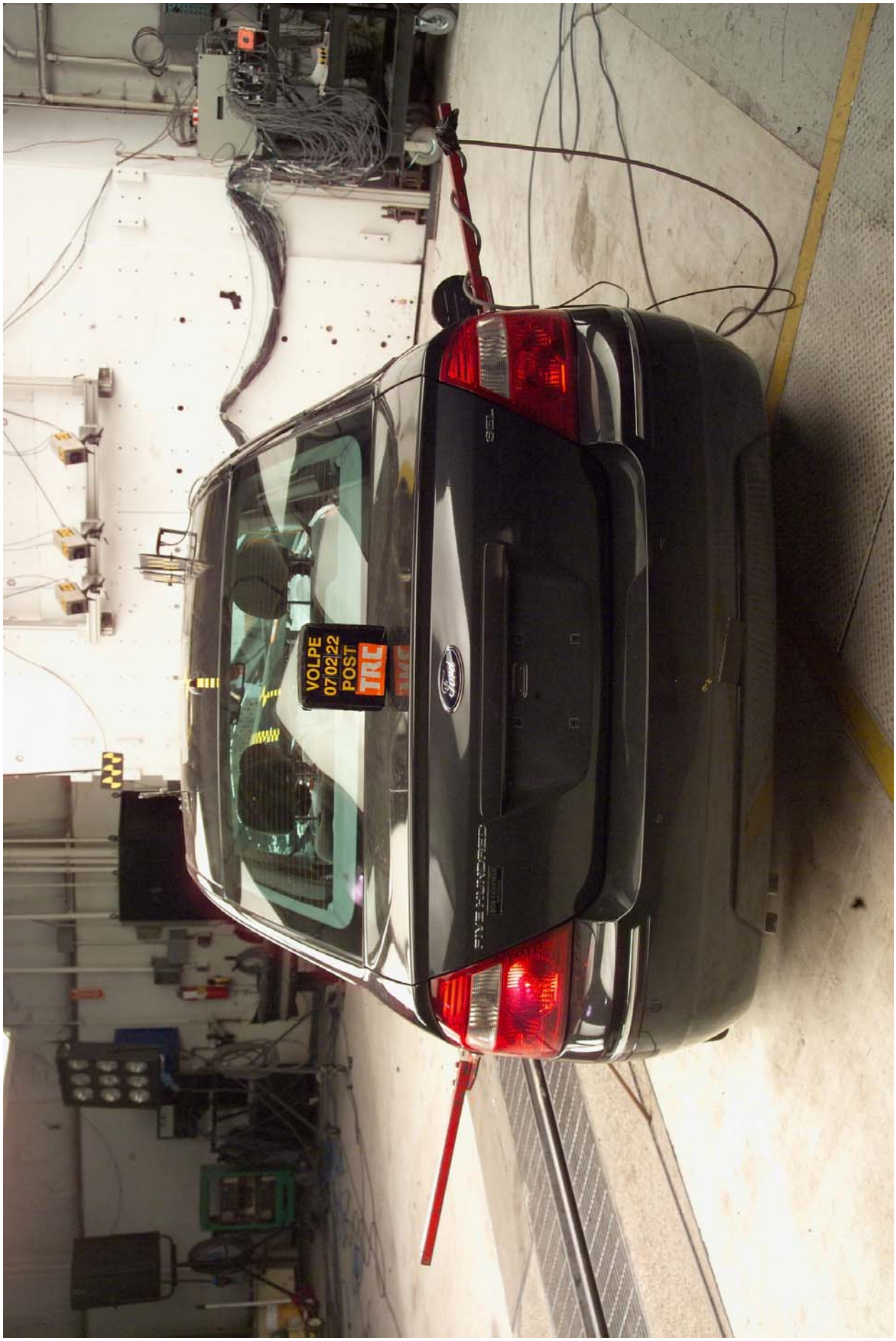


Figure A-10 Post-Test Rear View

Figure A-11 Pre-Test Right Rear View

Figure A-12 Post-Test Right Rear View

Figure A-13 Pre-Test Right Side View

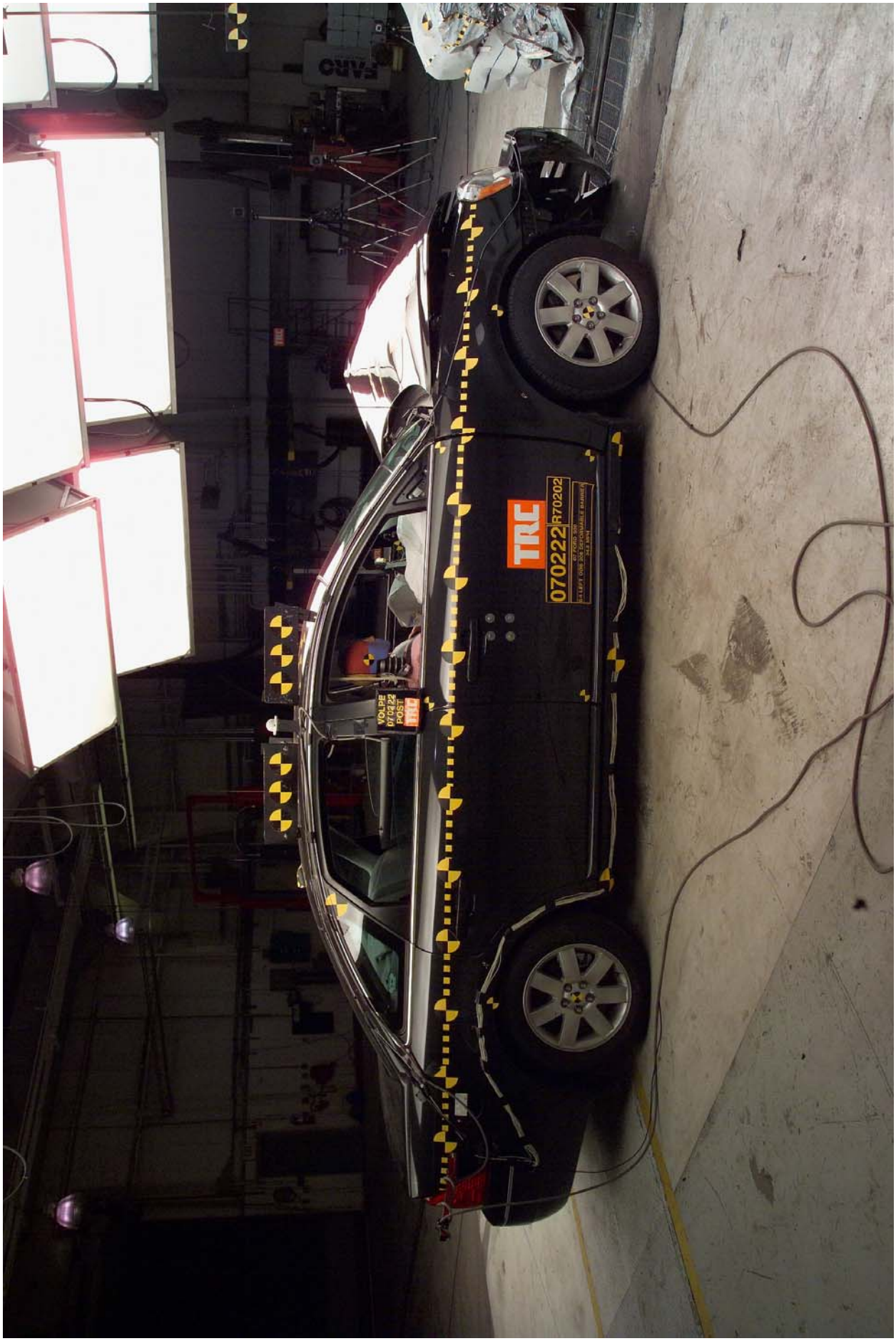


Figure A-14 Post-Test Right Side View

Figure A-15 Pre-Test Right Front View

Figure A-16 Post-Test Right Front View

Figure A-17 Pre-Test Overhead View

Figure A-18 Post-Test Overhead View

Figure A-19 Pre-Test Primary Impact Alignment View

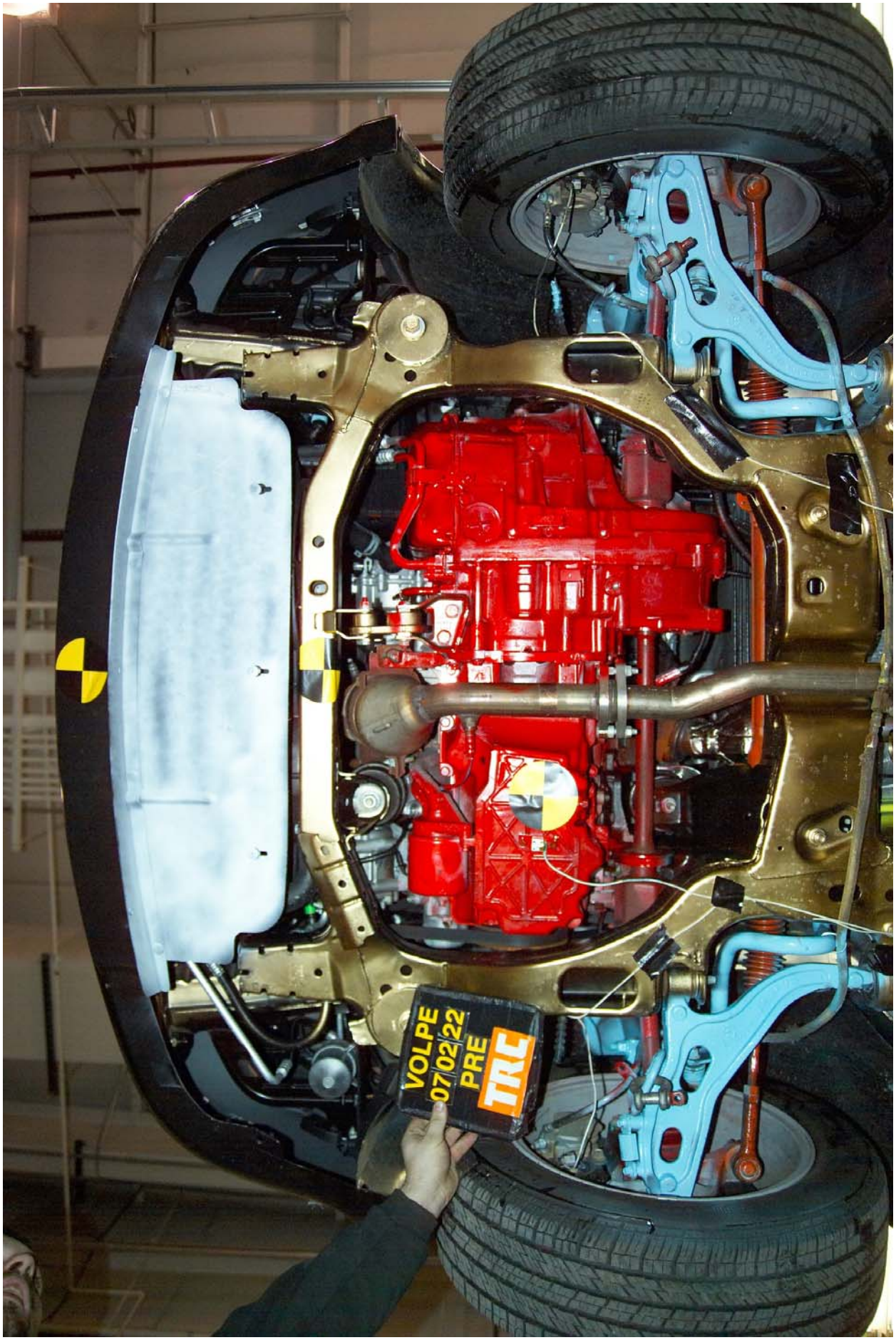


Figure A-20 Pre-Test Front Underbody View

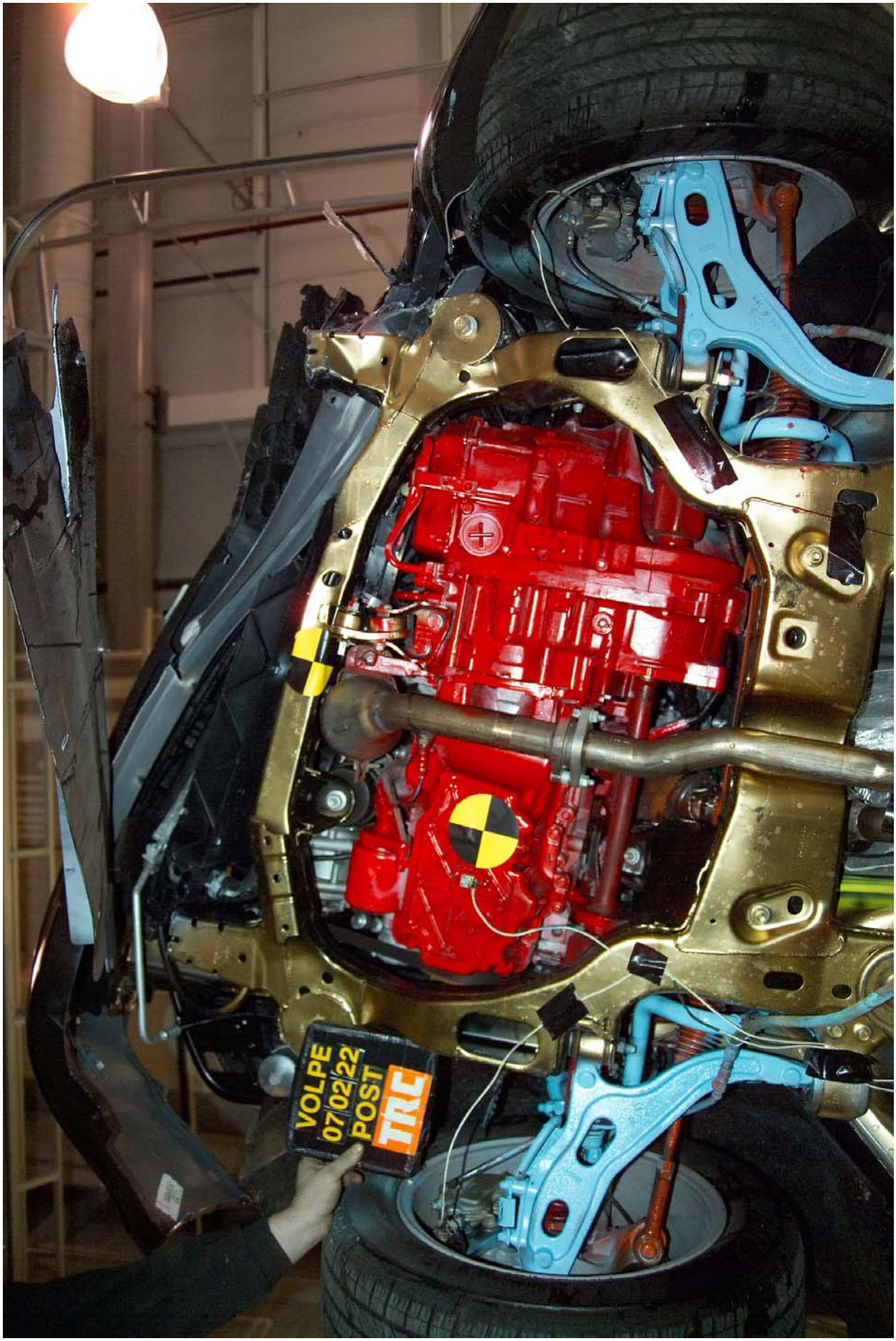


Figure A-21 Post-Test Front Underbody View

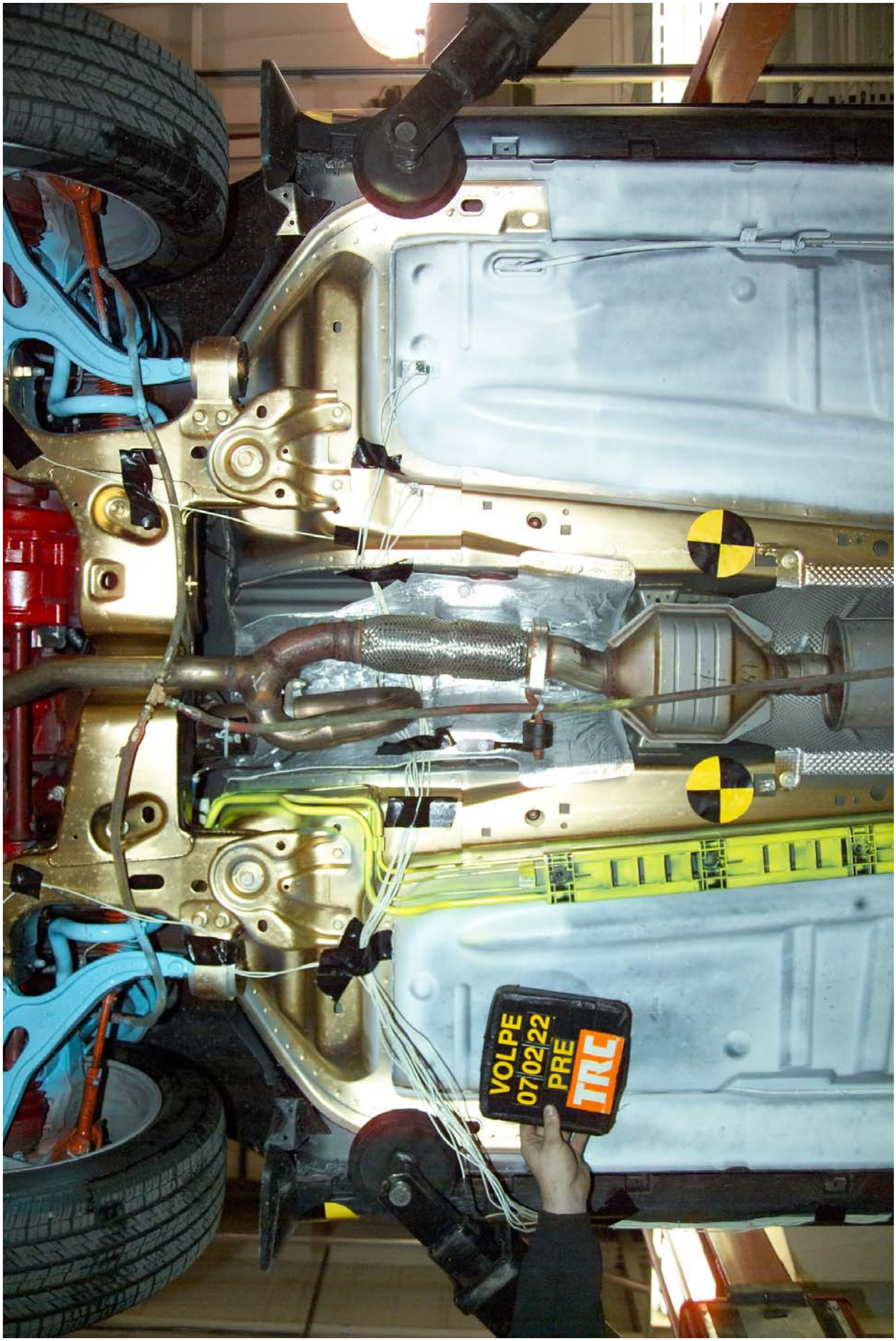


Figure A-22 Pre-Test Mid Front Underbody View

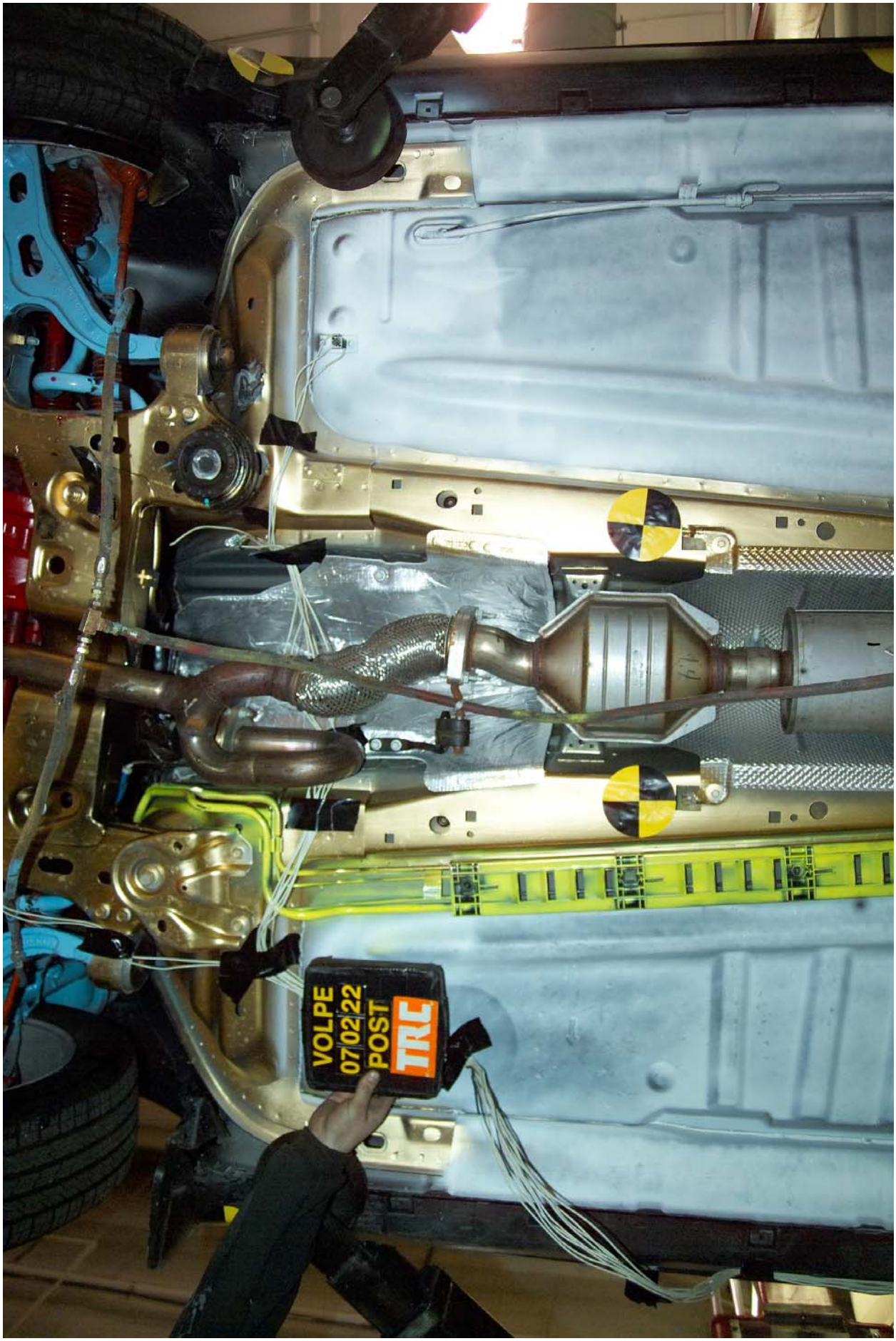


Figure A-23 Post-Test Mid Front Underbody View

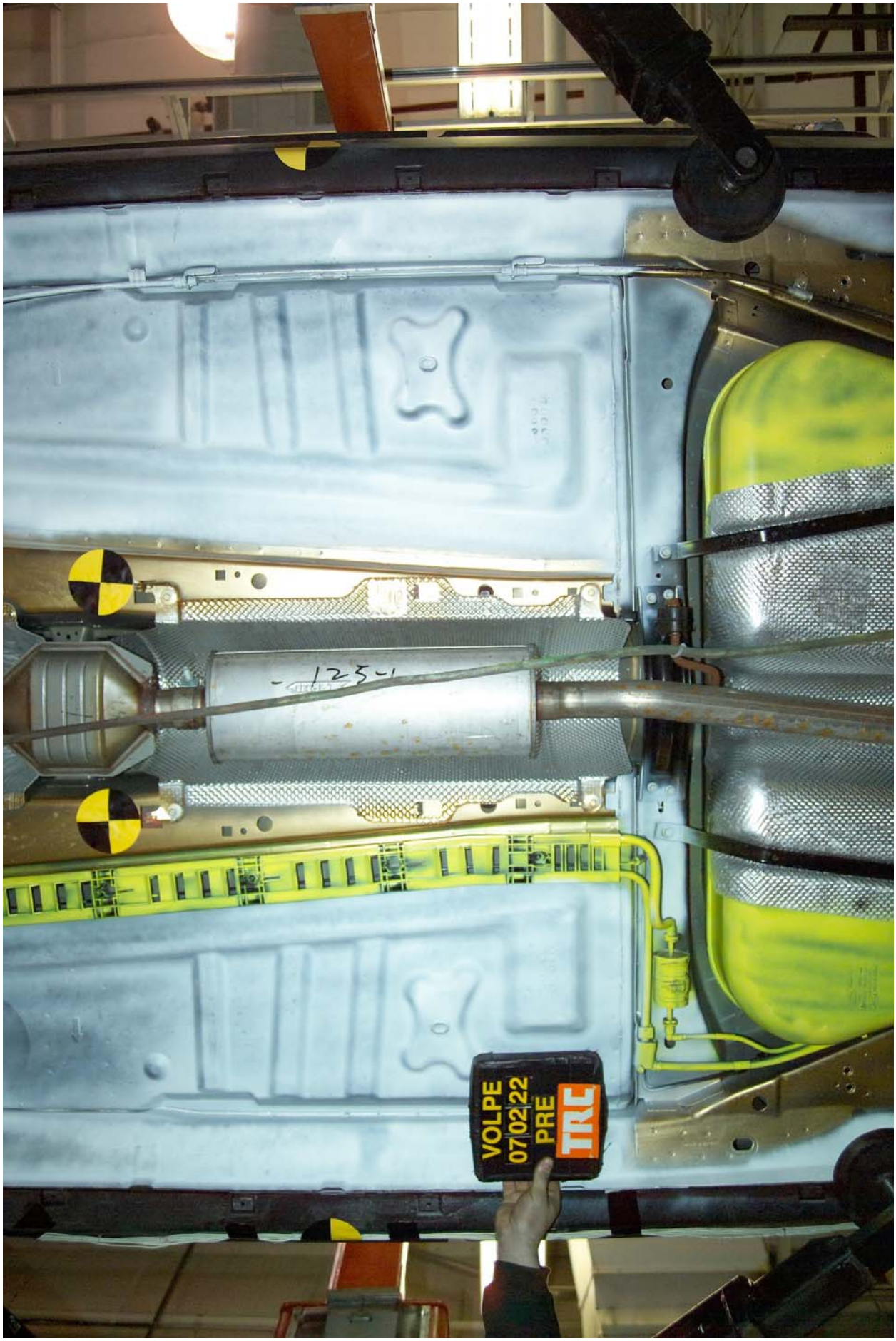


Figure A-24 Pre-Test Mid Underbody View

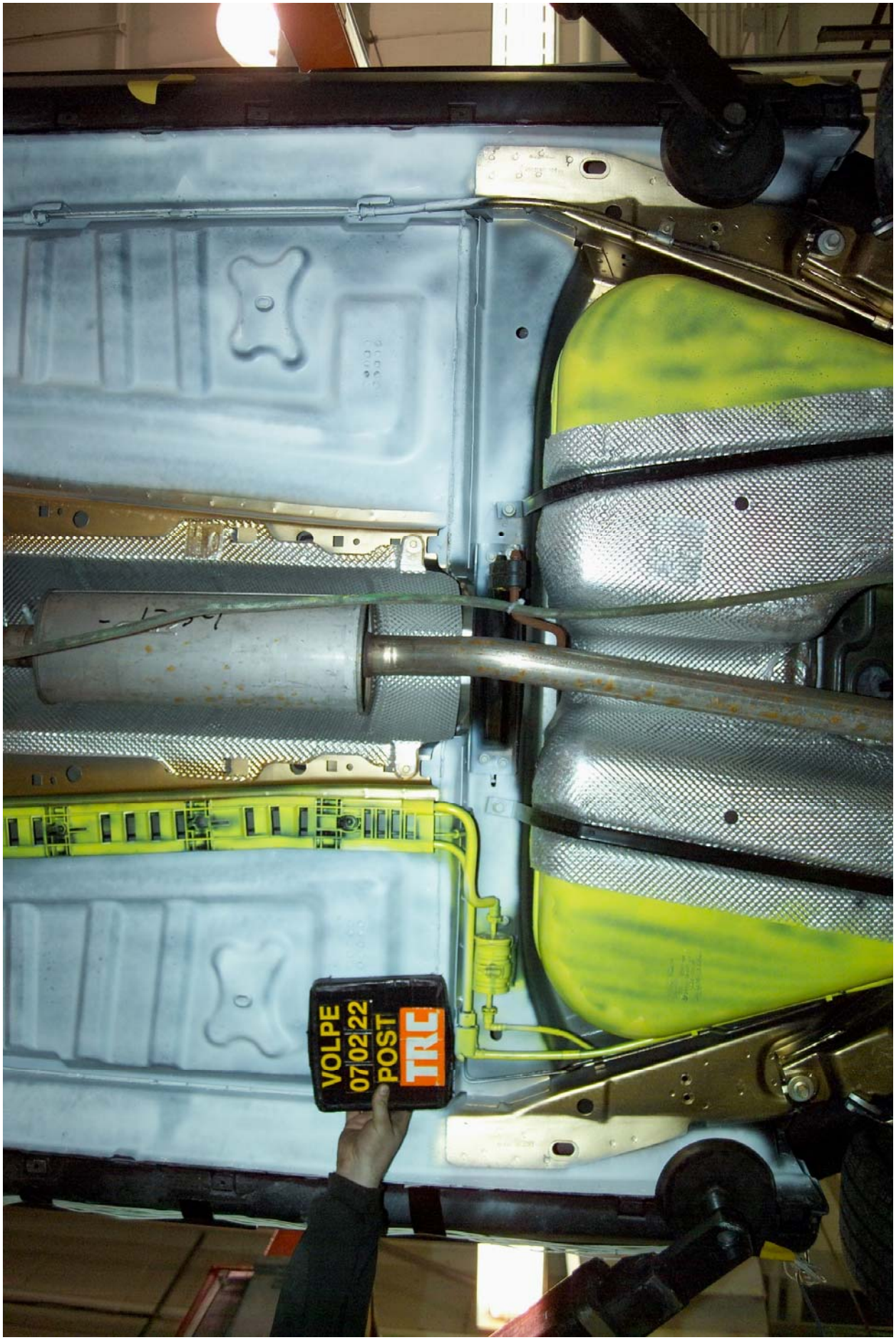


Figure A-25 Post-Test Mid Underbody View

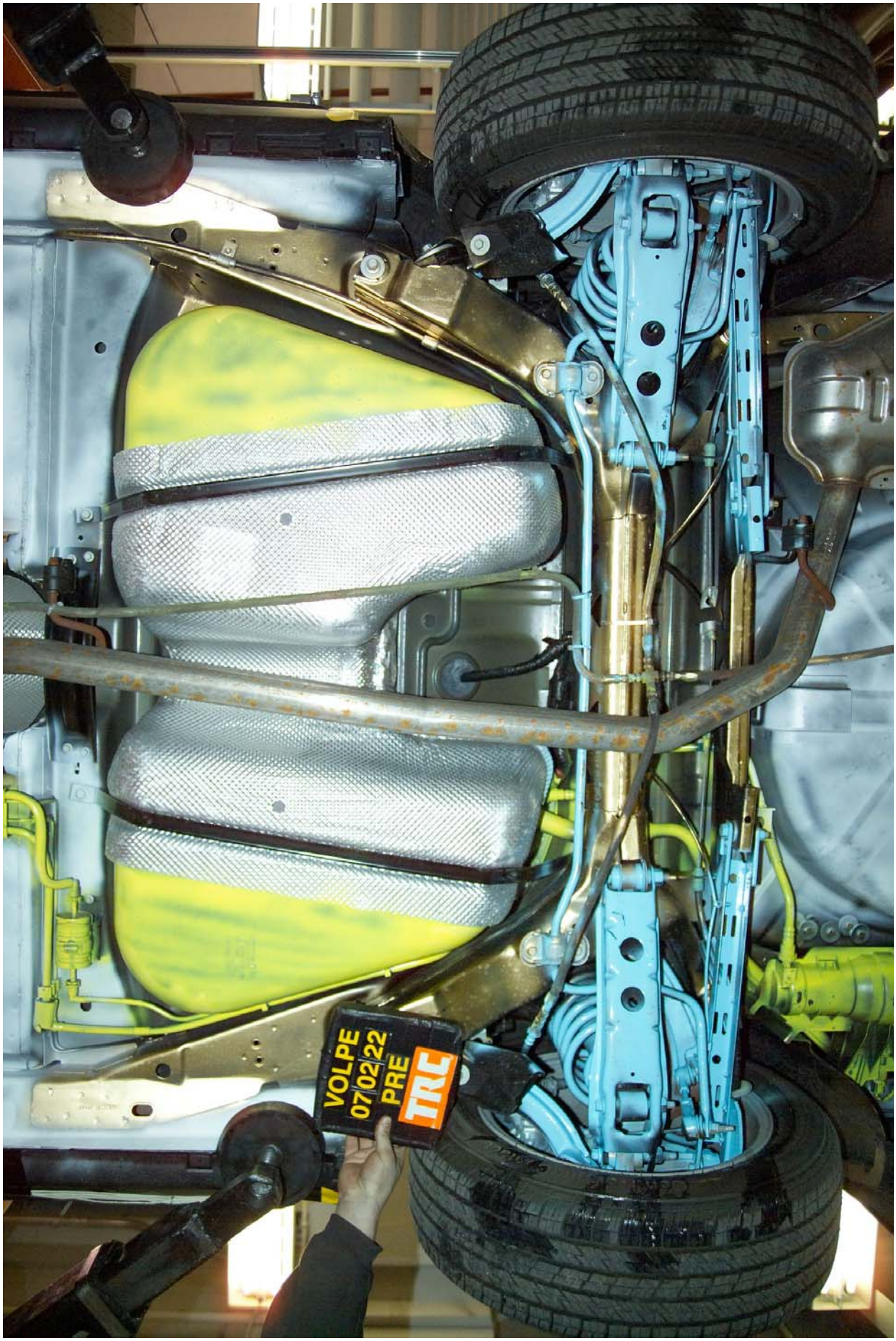


Figure A-26 Pre-Test Mid Rear Underbody View

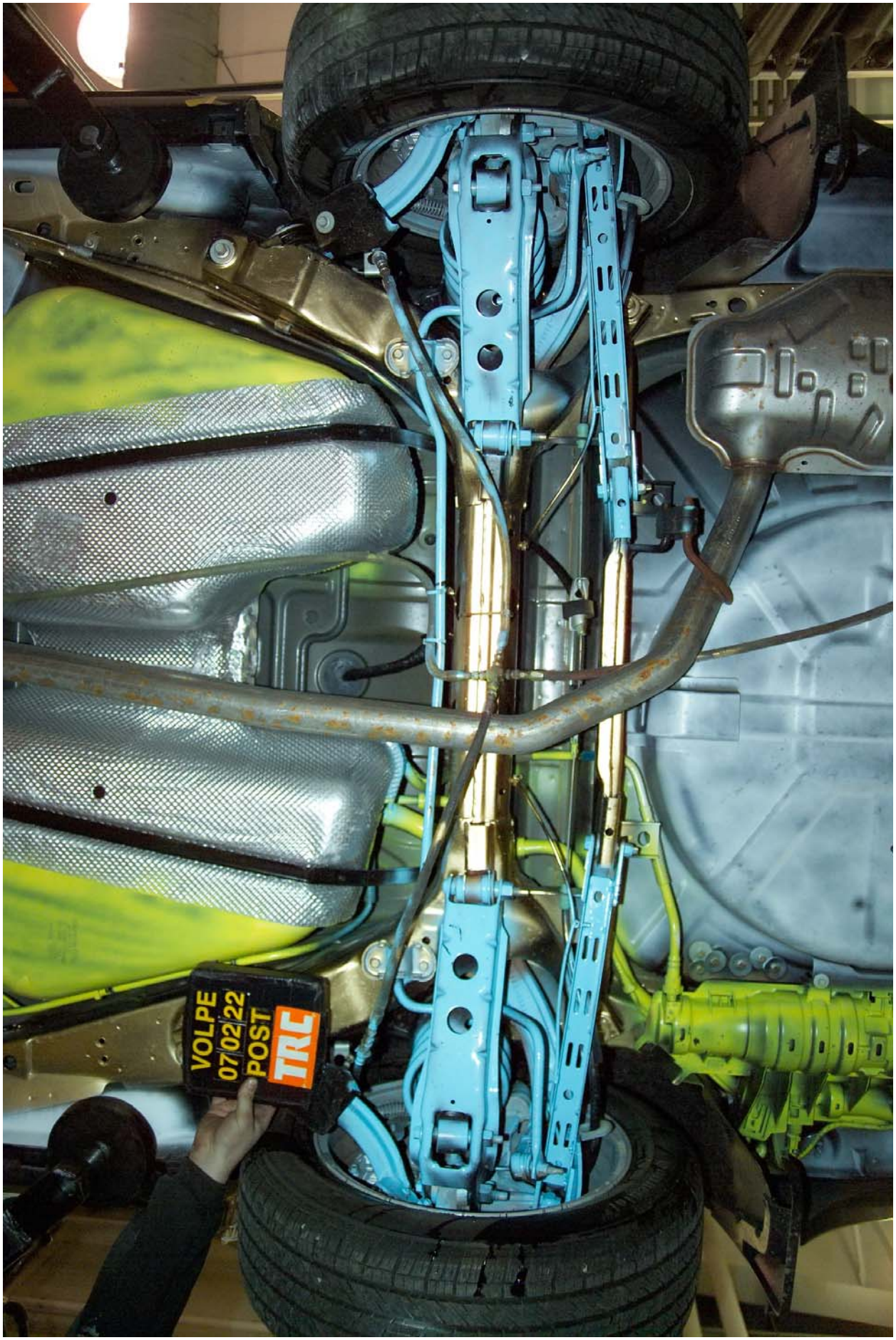


Figure A-27 Post-Test Mid Rear Underbody View

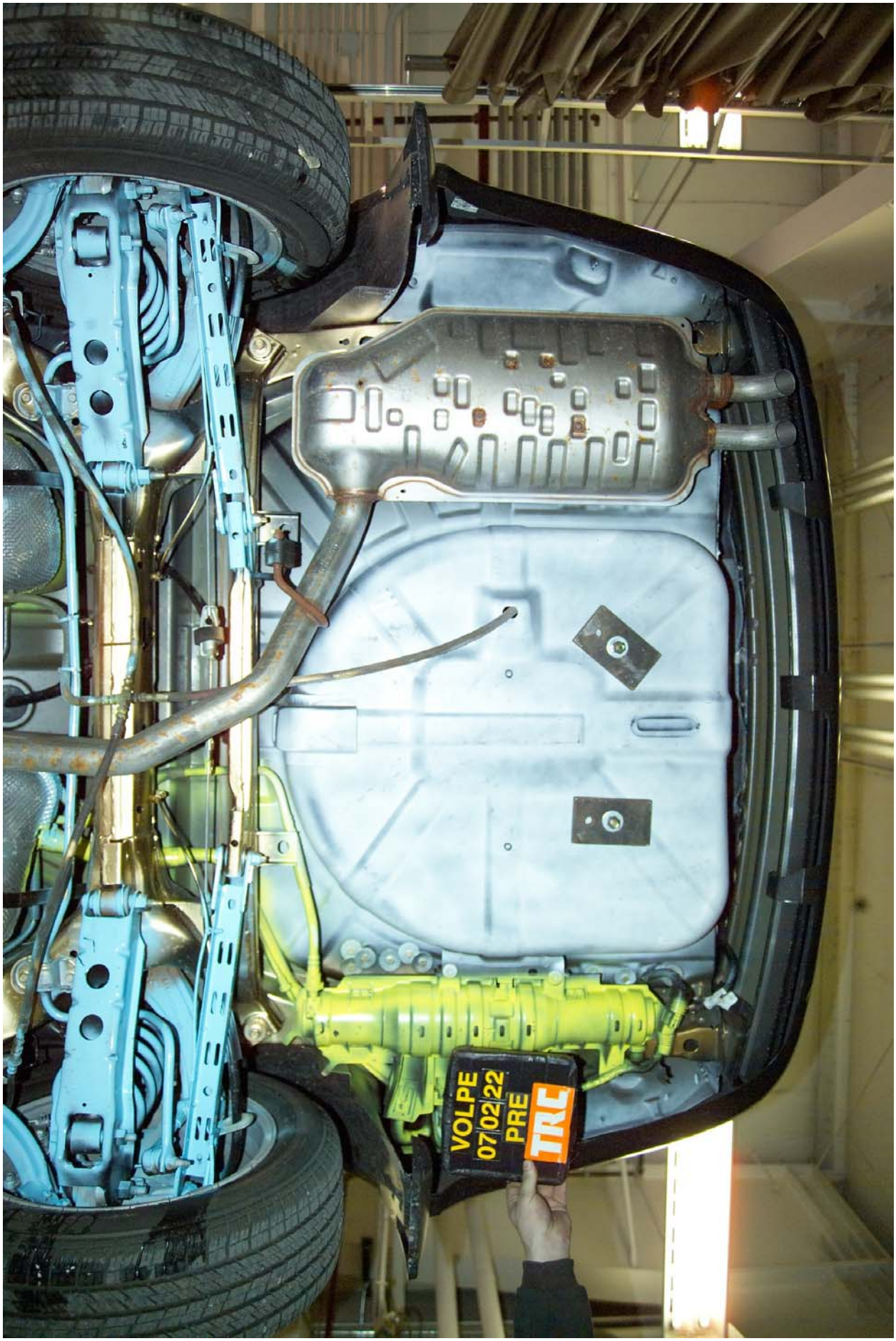


Figure A-28 Pre-Test Rear Underbody View

Figure A-29 Post-Test Rear Underbody View

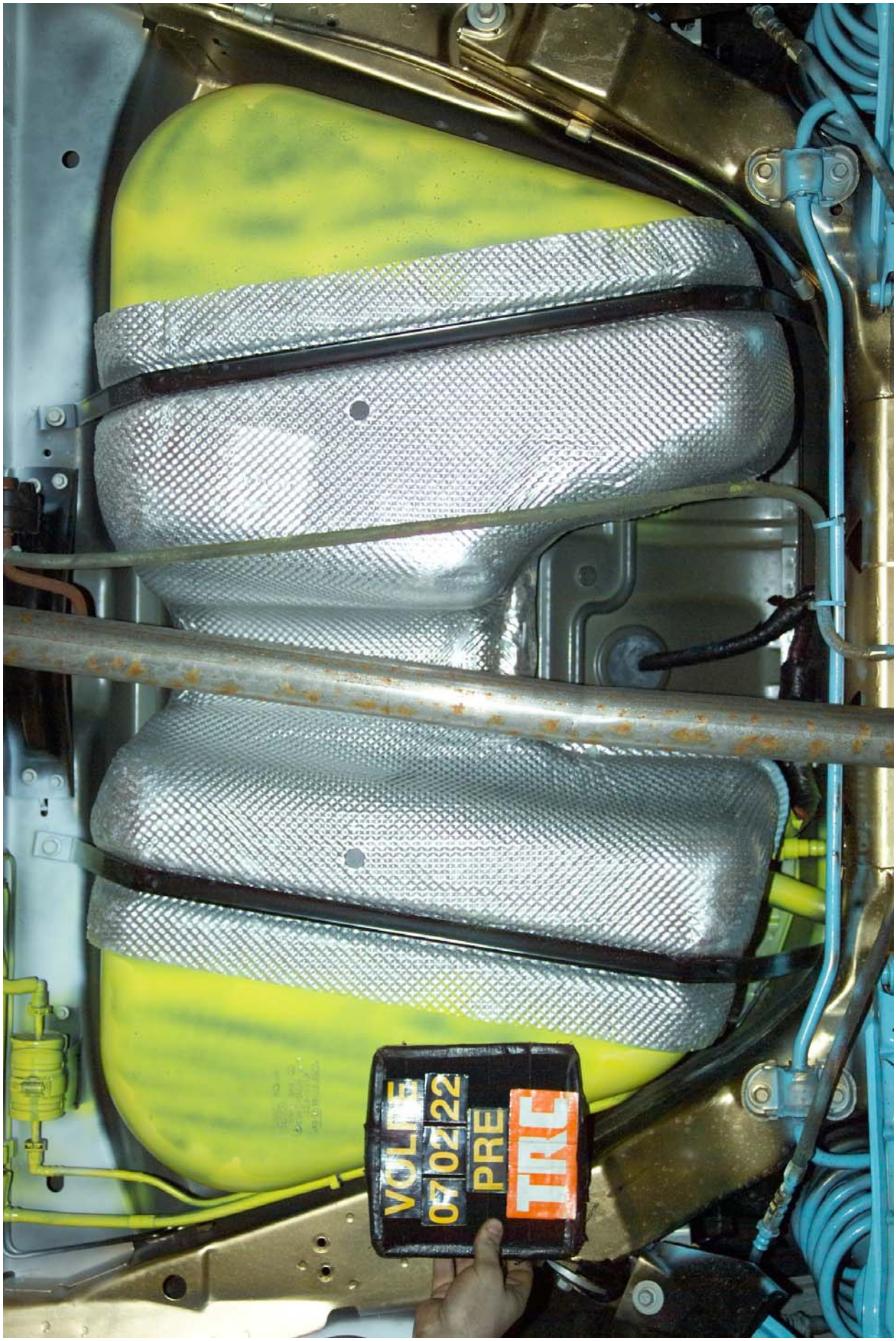


Figure A-30 Pre-Test Fuel Tank View

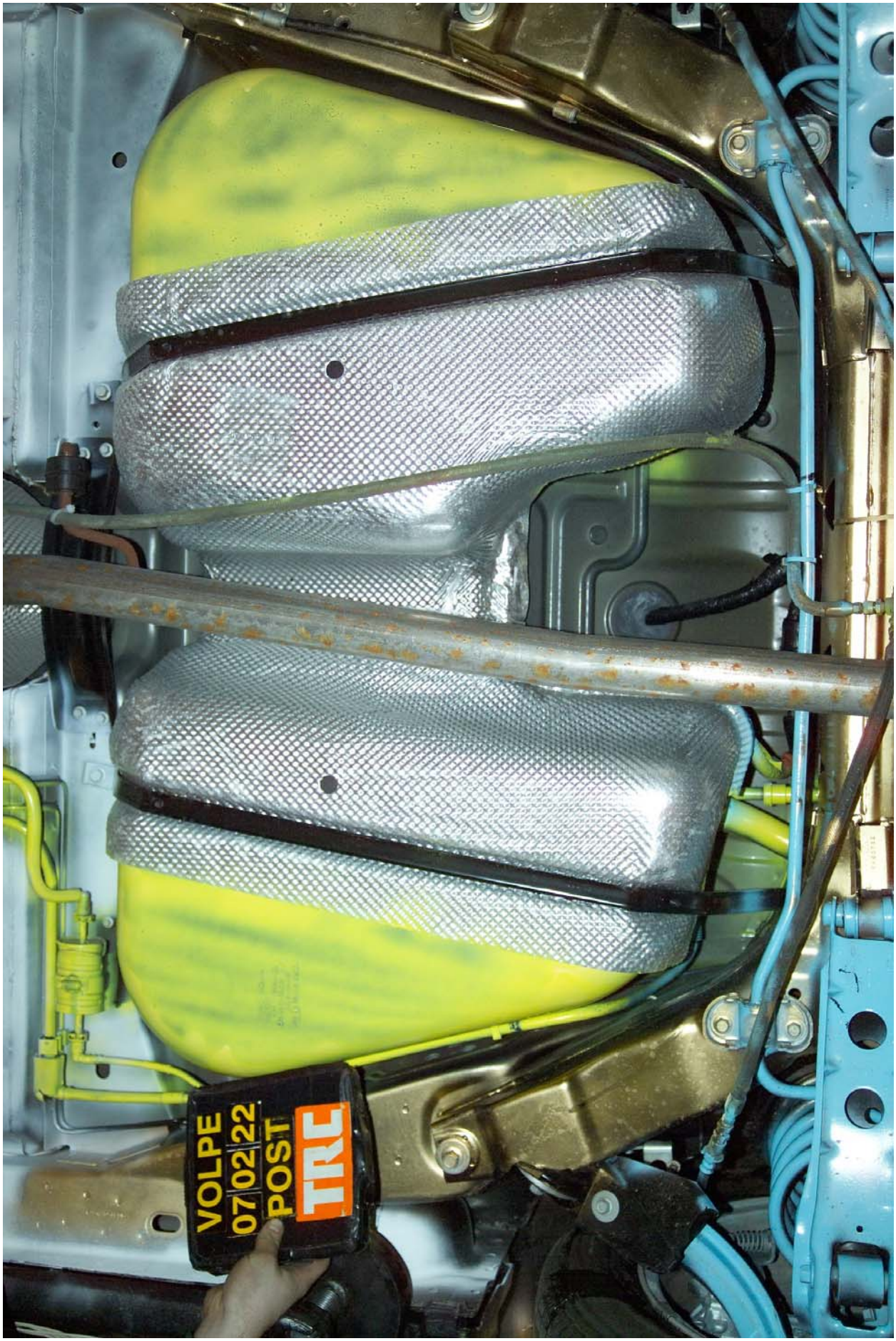


Figure A-31 Post-Test Fuel Tank View

Figure A-32 Pre-Test Fuel Filler Neck View

Figure A-33 Post-Test Fuel Filler Neck View

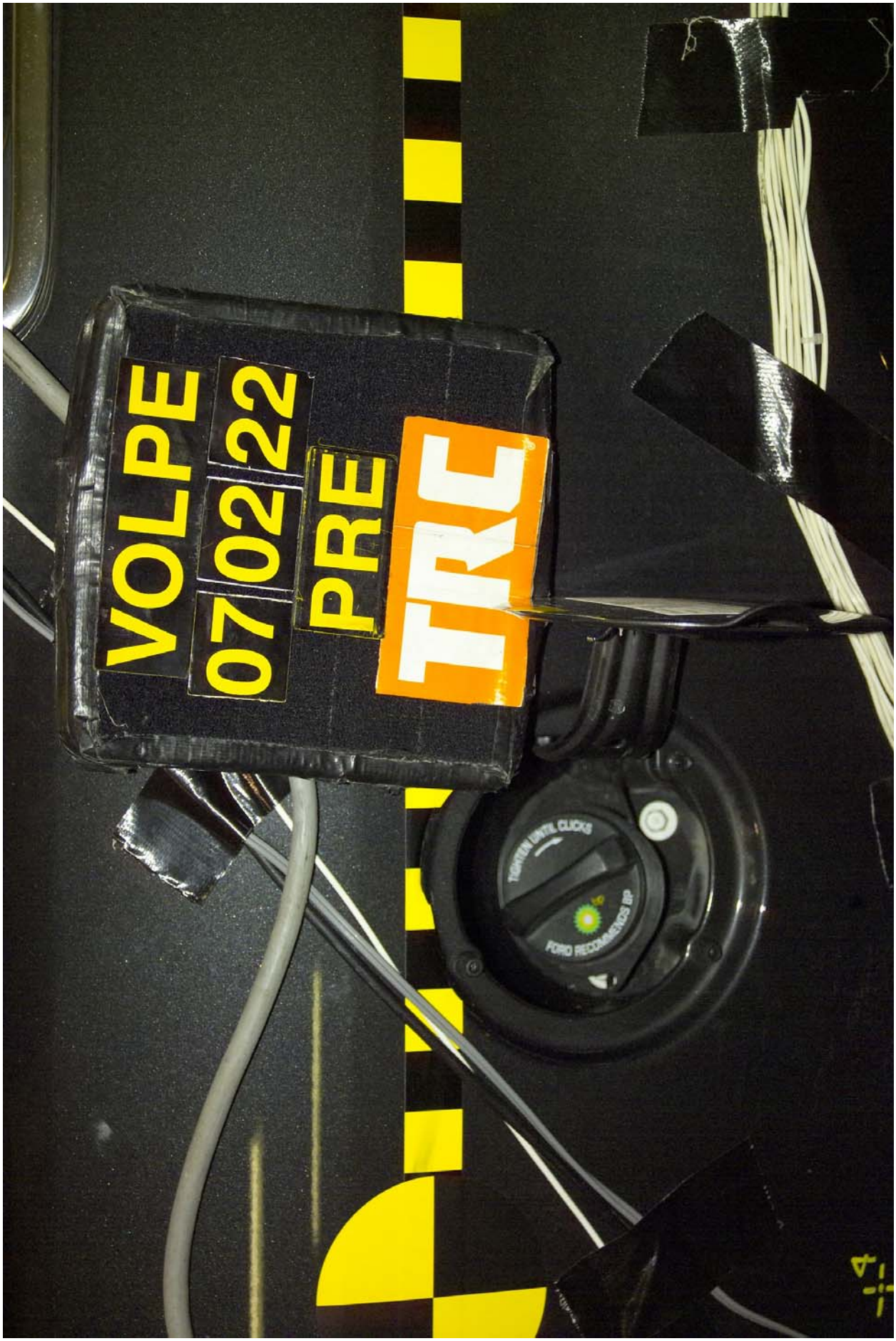


Figure A-34 Pre-Test Fuel Filler Cap View

Figure A-35 Post-Test Fuel Filler Cap View

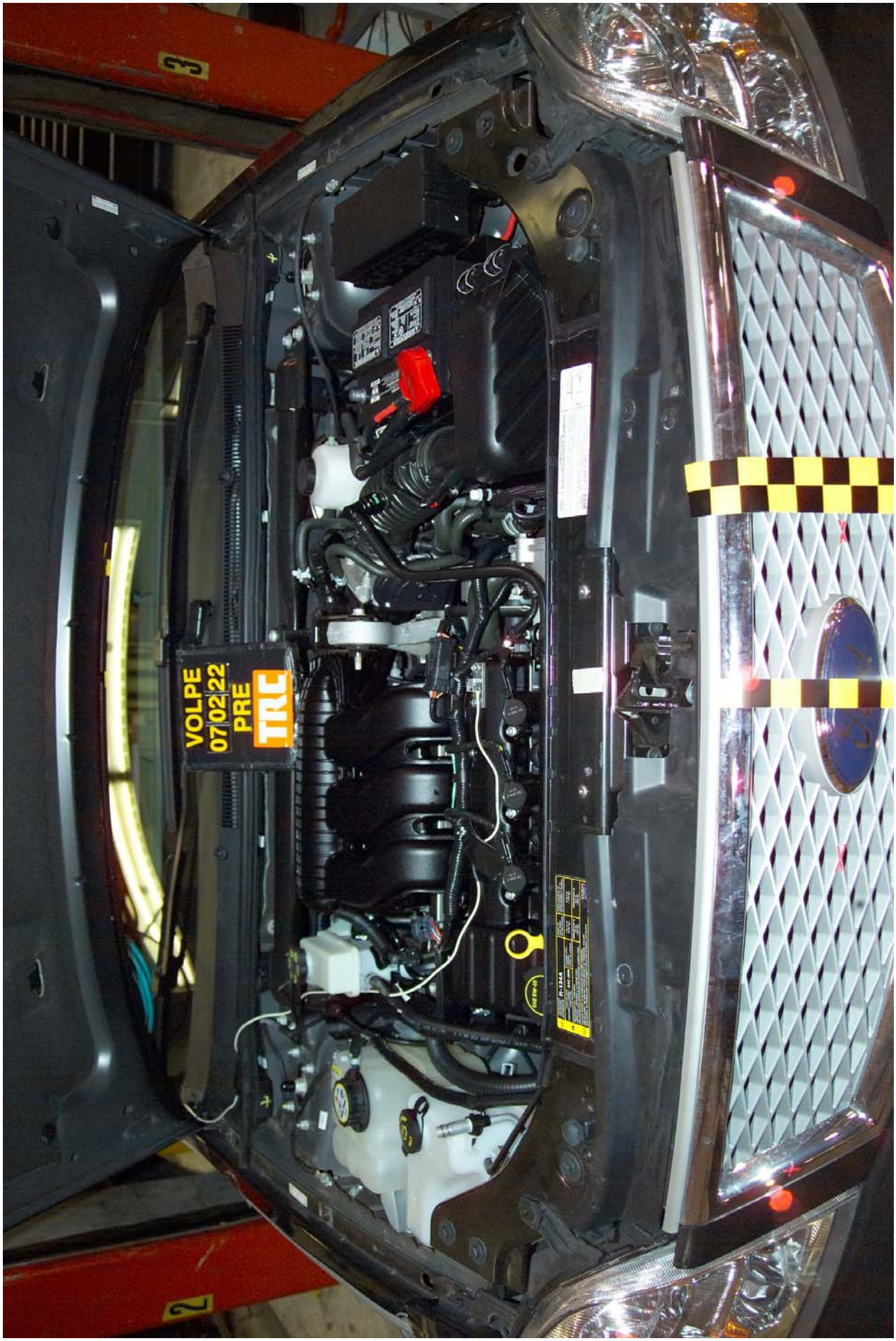


Figure A-36 Pre-Test Engine Compartment View

Figure A-37 Pre-Test Windshield - Front View

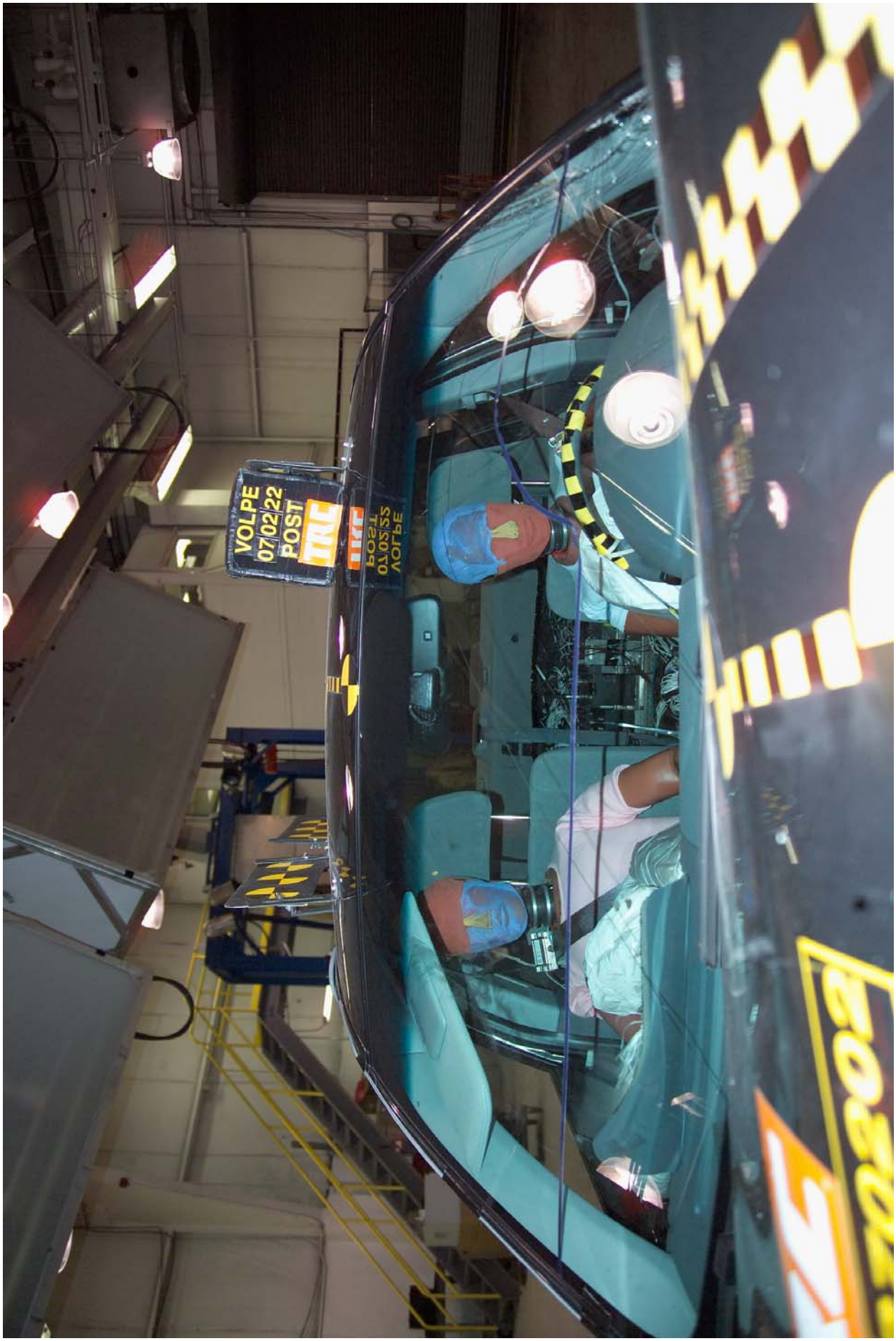


Figure A-38 Post-Test Windshield - Front View

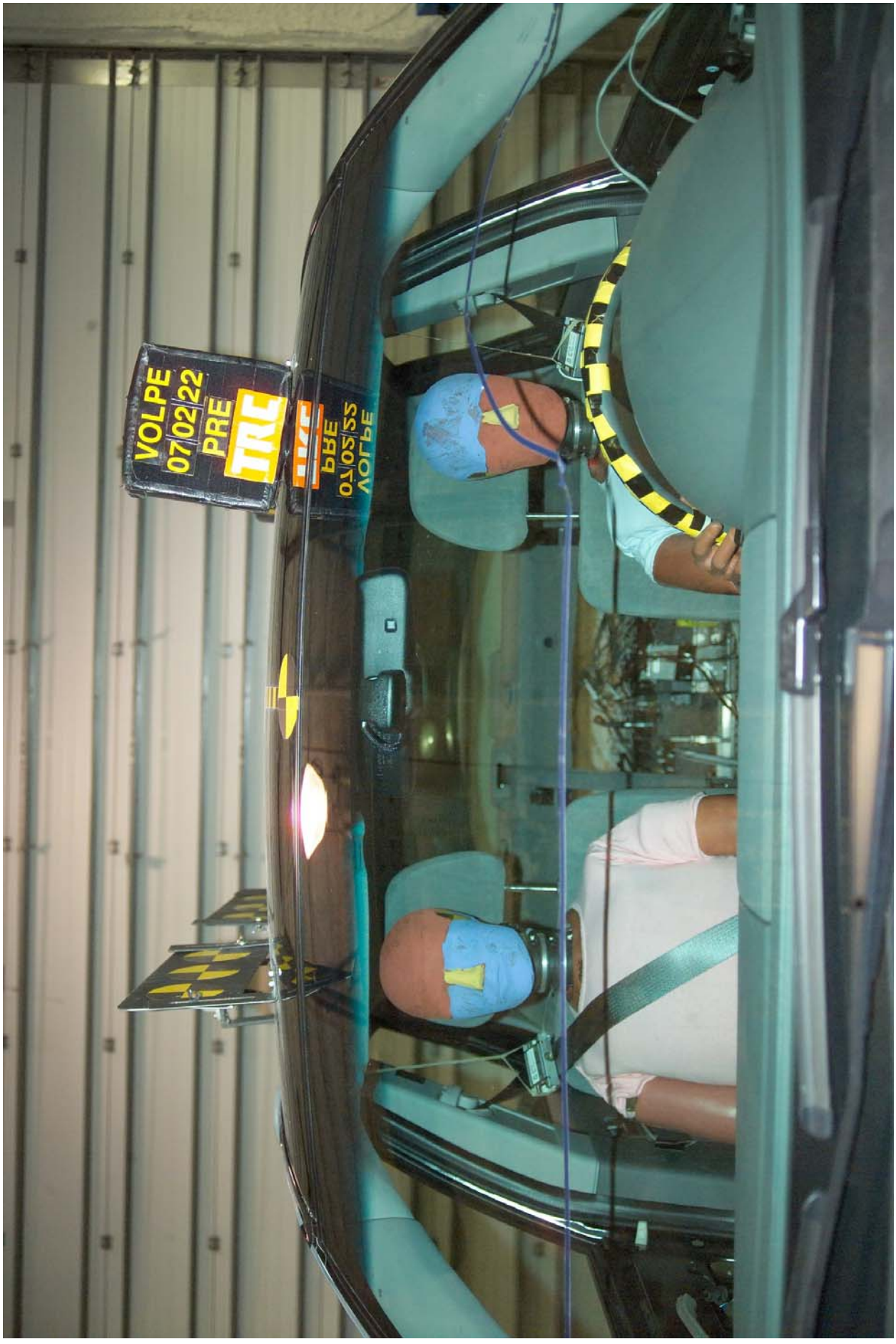


Figure A-39 Pre-Test Windshield - Driver and Right Front Passenger Dummies View

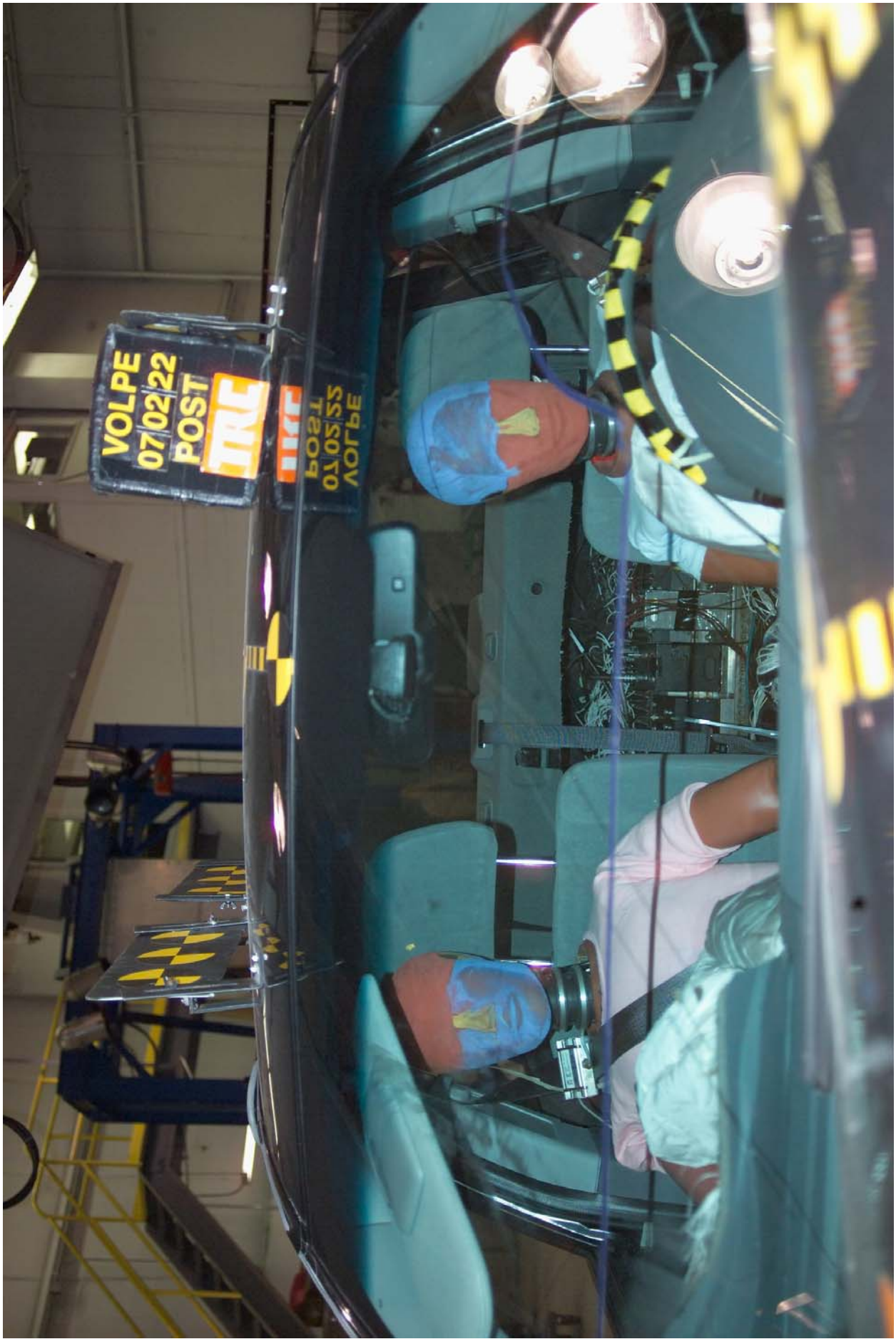


Figure A-40 Post-Test Windshield - Driver and Right Front Passenger Dummies View

Figure A-41 Pre-Test Windshield - Driver Dummy View

Figure A-42 Post-Test Windshield - Driver Dummy View

Figure A-43 Pre-Test Driver Dummy - View 1

Figure A-44 Post-Test Driver Dummy - View 1

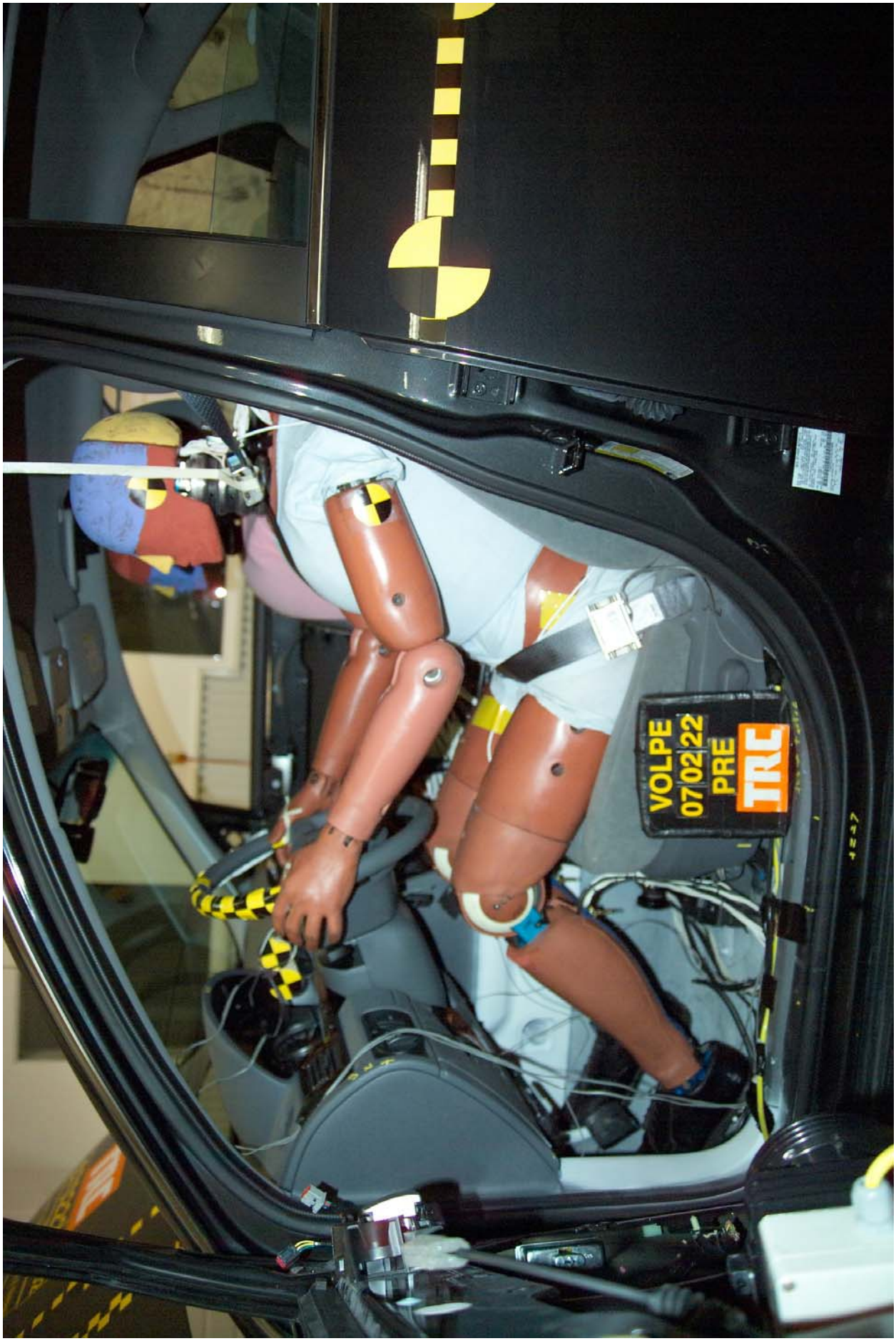


Figure A-45 Pre-Test Driver Dummy - View 2

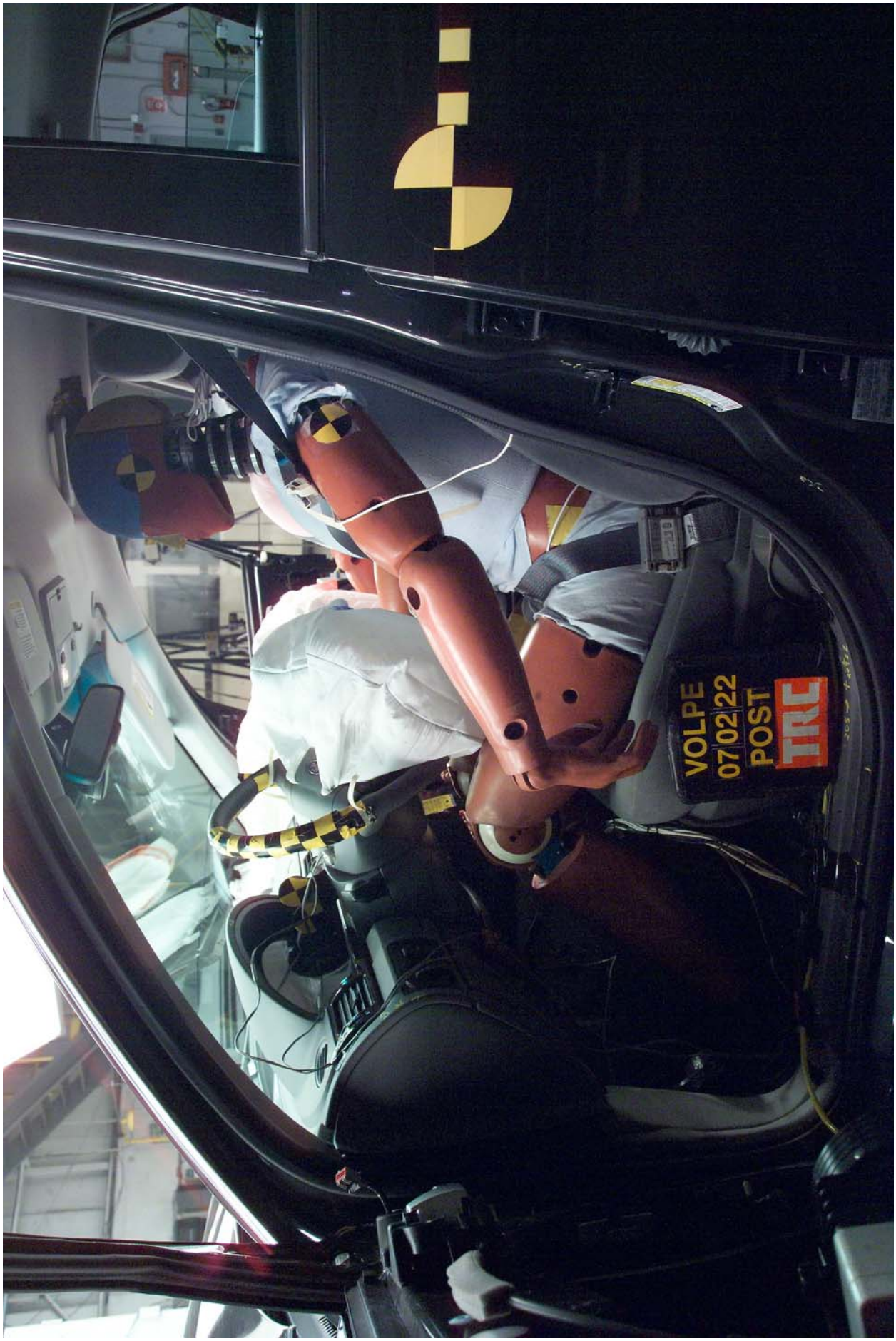


Figure A-46 Post-Test Driver Dummy - View 2

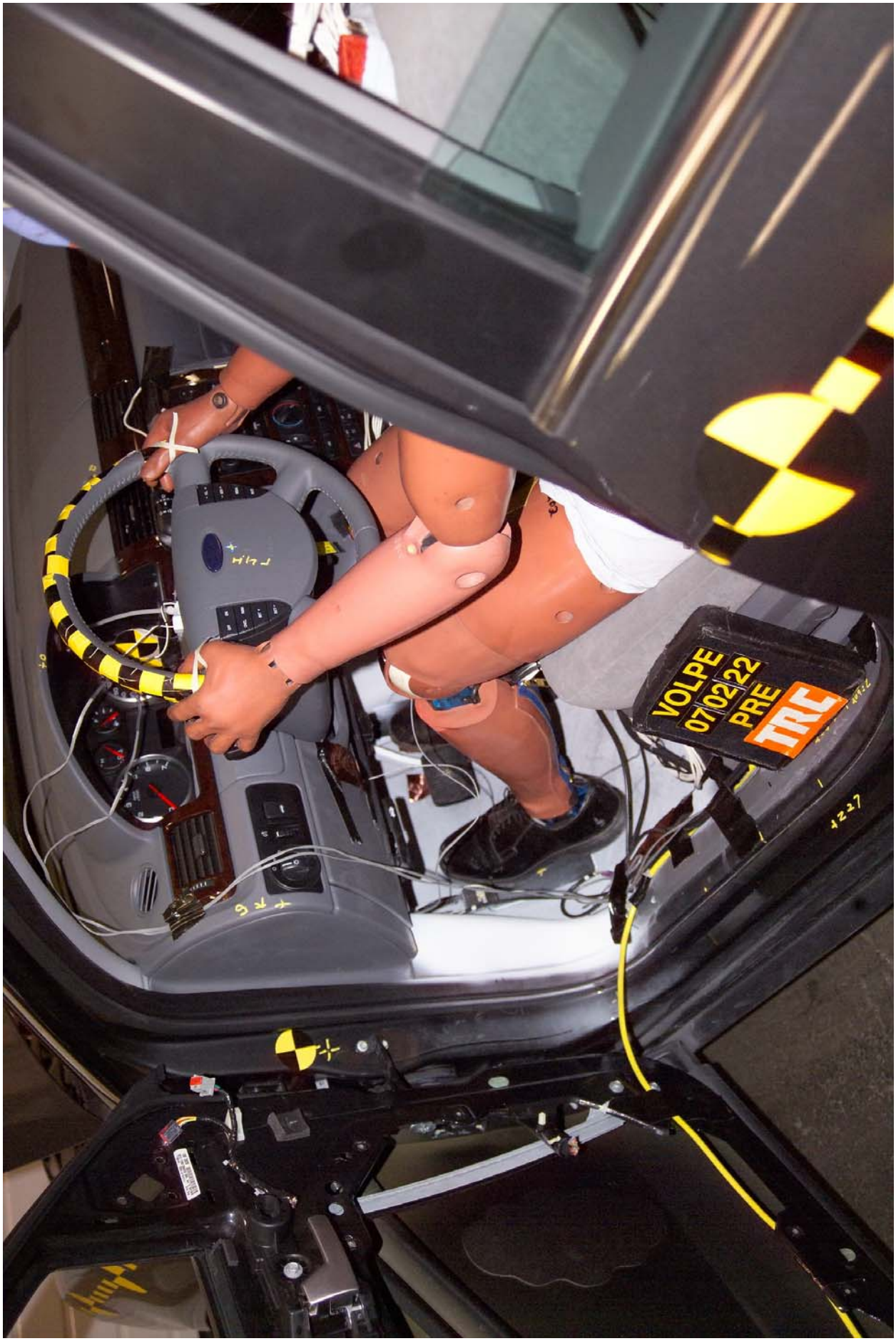


Figure A-47 Pre-Test Driver Dummy - View 3

Figure A-48 Post-Test Driver Dummy - View 3

Figure A-49 Post-Test Driver Dummy Overall View

Figure A-50 Post-Test Driver Dummy Head Contact - View 1

Figure A-51 Post-Test Driver Dummy Head Contact - View 2

Figure A-52 Post-Test Driver Dummy Knee Contact View

Figure A-53 Pre-Test Driver Floorboard Deformation - View 1

Figure A-54 Post-Test Driver Floorboard Deformation - View 1

Figure A-55 Pre-Test Driver Floorboard Deformation - View 2

Figure A-56 Post-Test Driver Floorboard Deformation - View 2

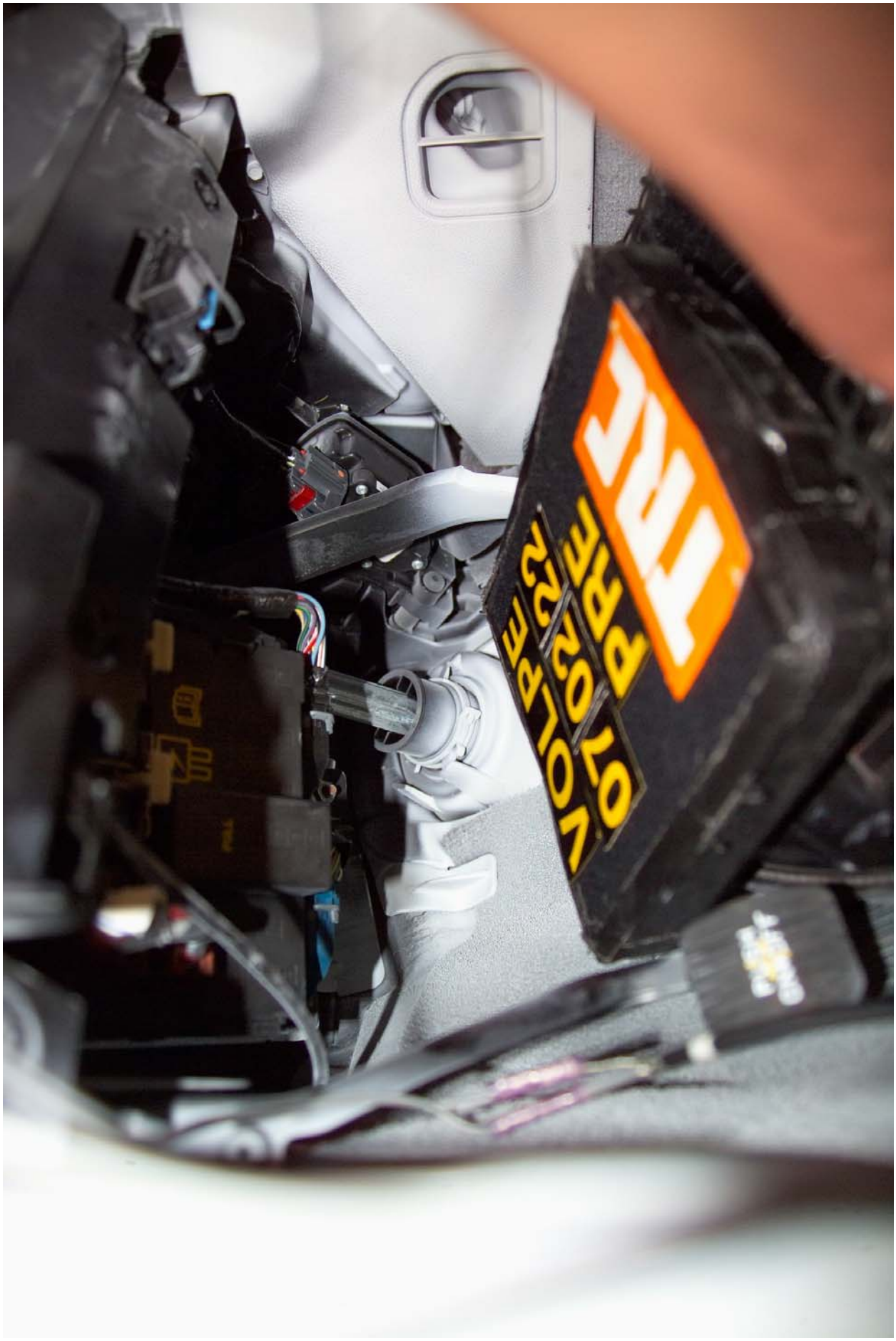


Figure A-57 Pre-Test Driver Toeboard Deformation View

Figure A-58 Post-Test Driver Toeboard Deformation - View 1

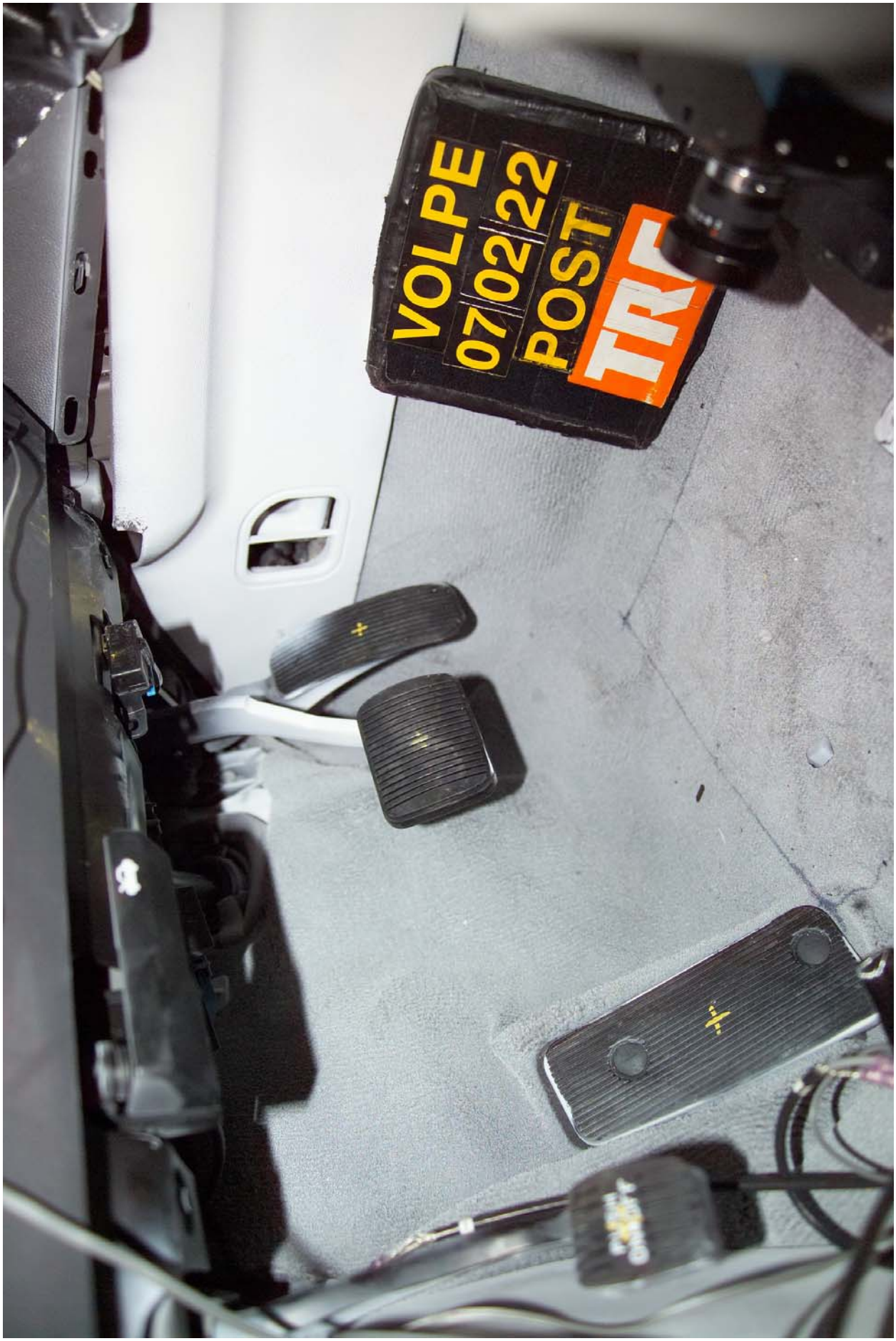


Figure A-59 Post-Test Driver Toeboard Deformation - View 2

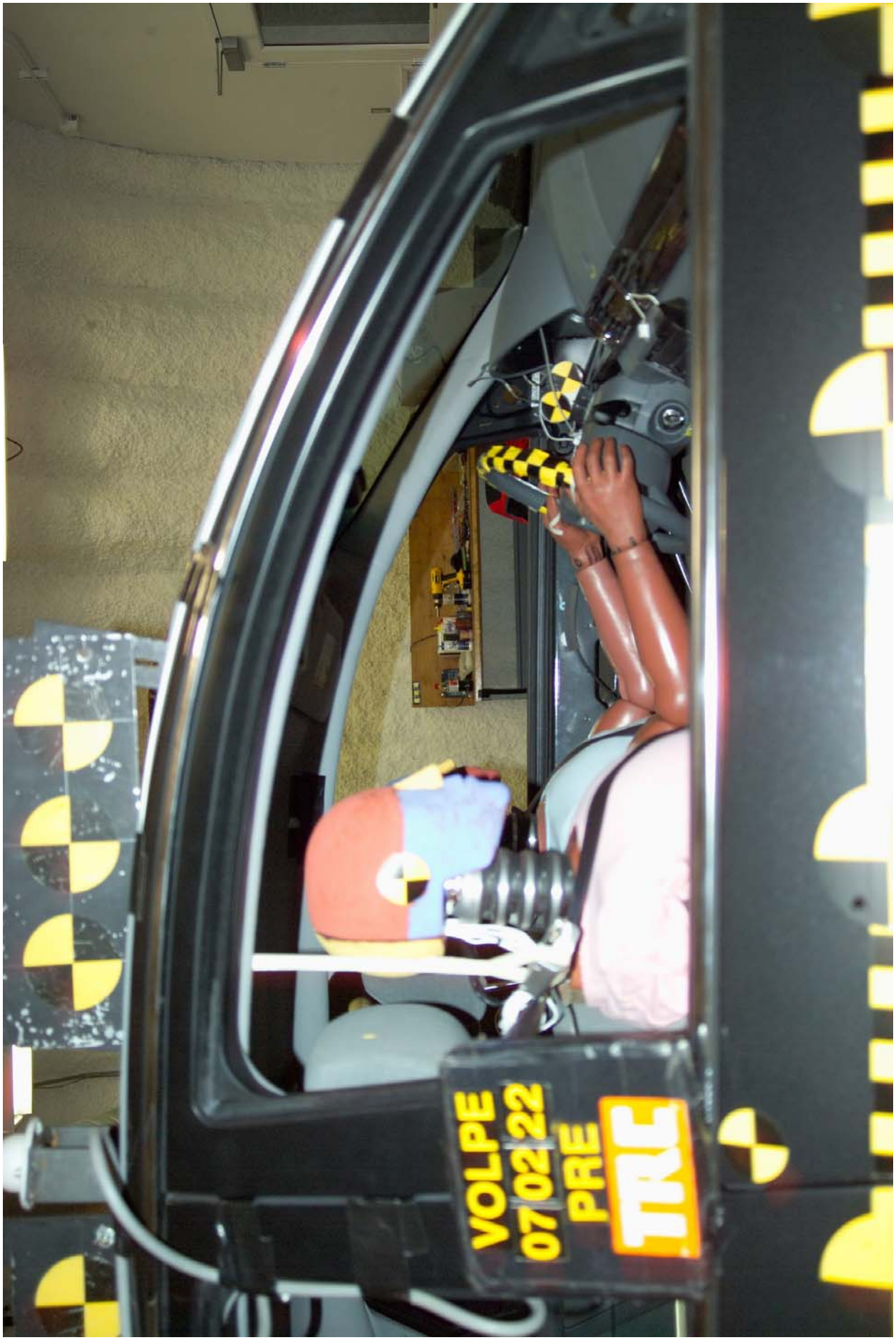


Figure A-60 Pre-Test Right Front Passenger Dummy - View 1

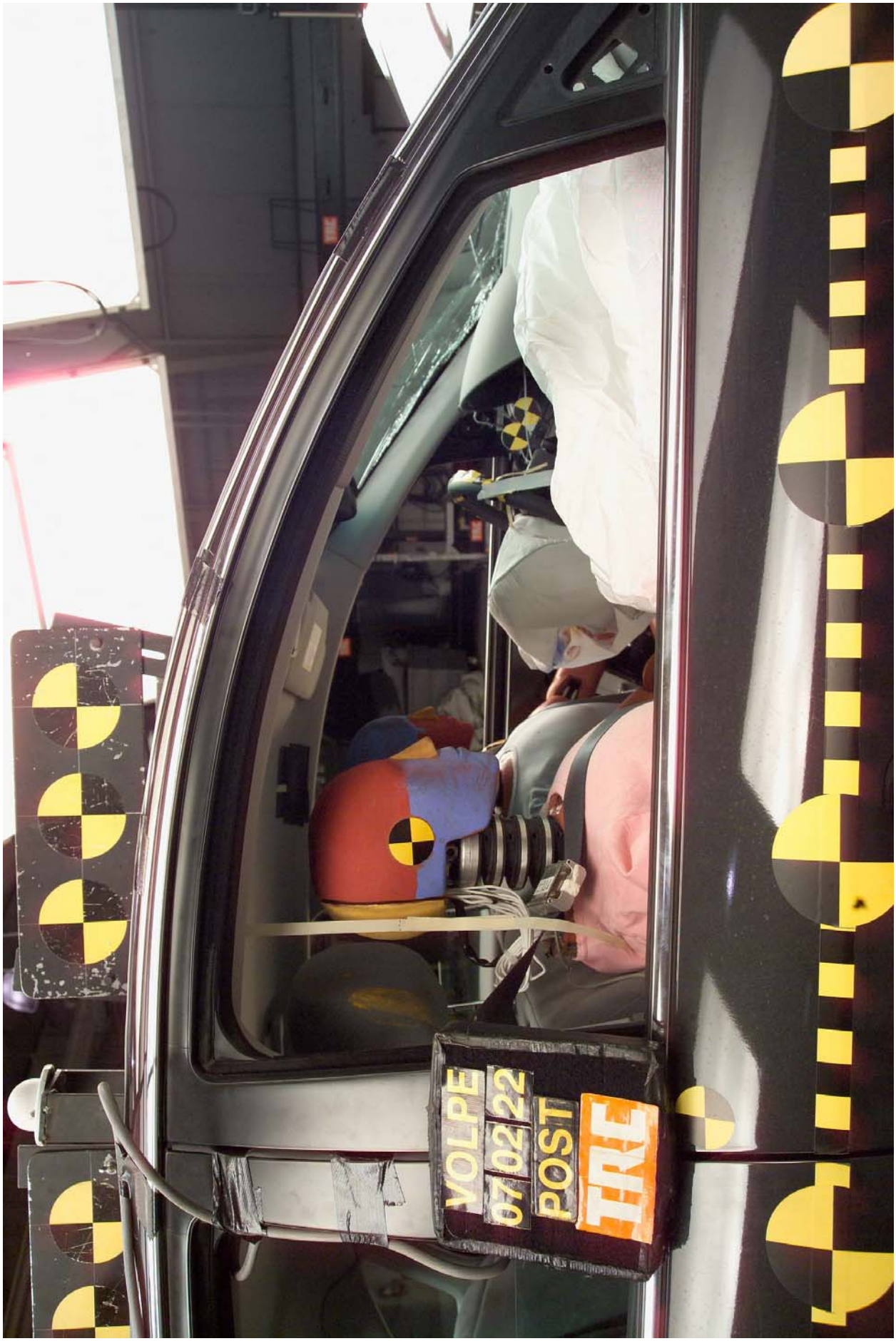


Figure A-61 Post-Test Right Front Passenger Dummy - View 1

Figure A-62 Pre-Test Right Front Passenger Dummy - View 2

Figure A-63 Post-Test Right Front Passenger Dummy - View 2

Figure A-64 Pre-Test Right Front Passenger Dummy - View 3

Figure A-65 Post-Test Right Front Passenger Dummy - View 3

Figure A-66 Post-Test Right Front Passenger Dummy Overall View

Figure A-67 Post-Test Right Front Passenger Dummy Head Contact - View 1

Figure A-68 Post-Test Right Front Passenger Dummy Head Contact - View 2

Figure A-69 Post-Test Right Front Passenger Dummy Knee Contact View

Figure A-70 Post-Test Right Front Passenger Floorboard Deformation View

Figure A-71 Post-Test Right Front Passenger Toeboard Deformation View

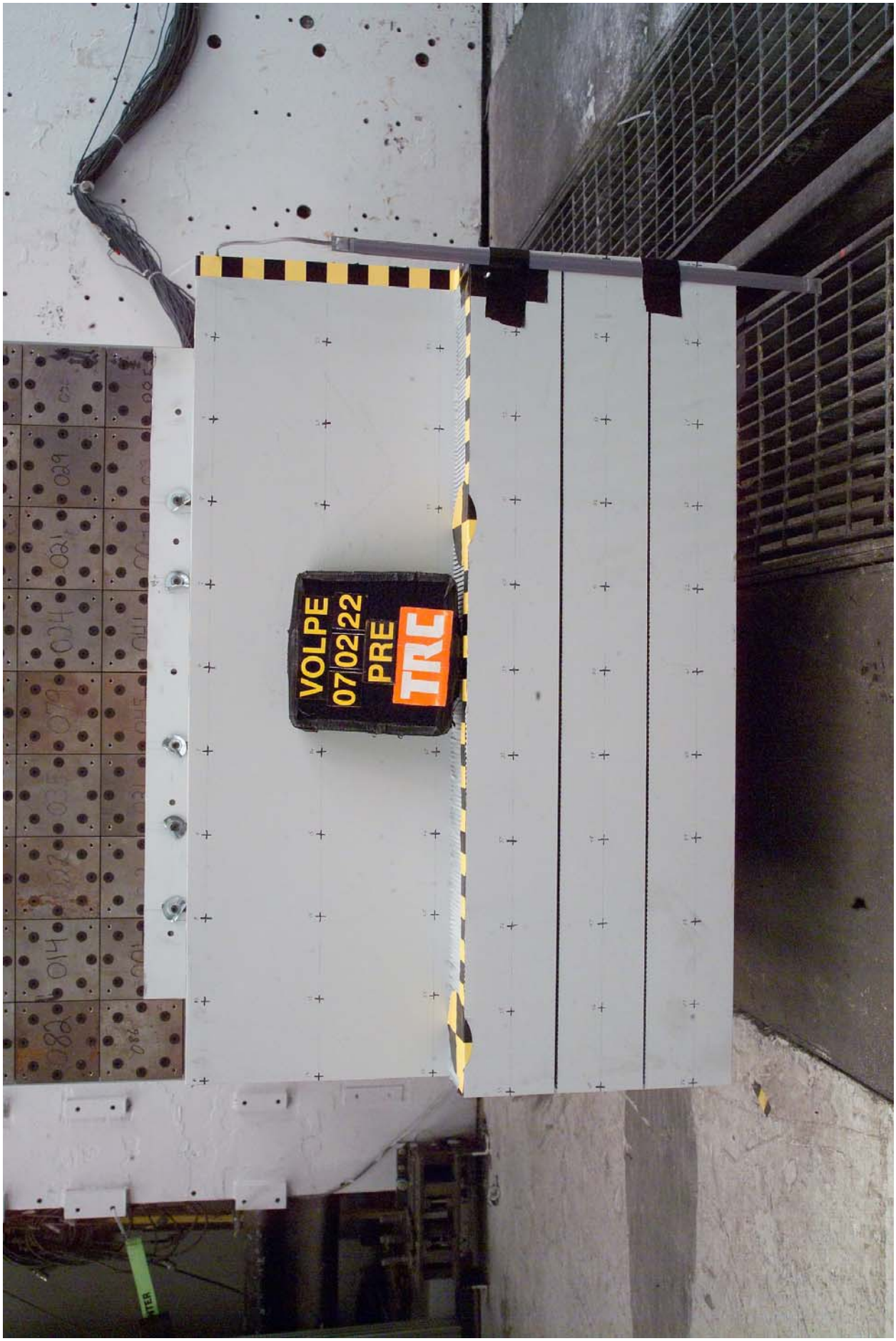


Figure A-72 Pre-Test Barrier Front View

Figure A-73 Post-Test Barrier Front View

Figure A-74 Pre-Test Barrier Left Side View

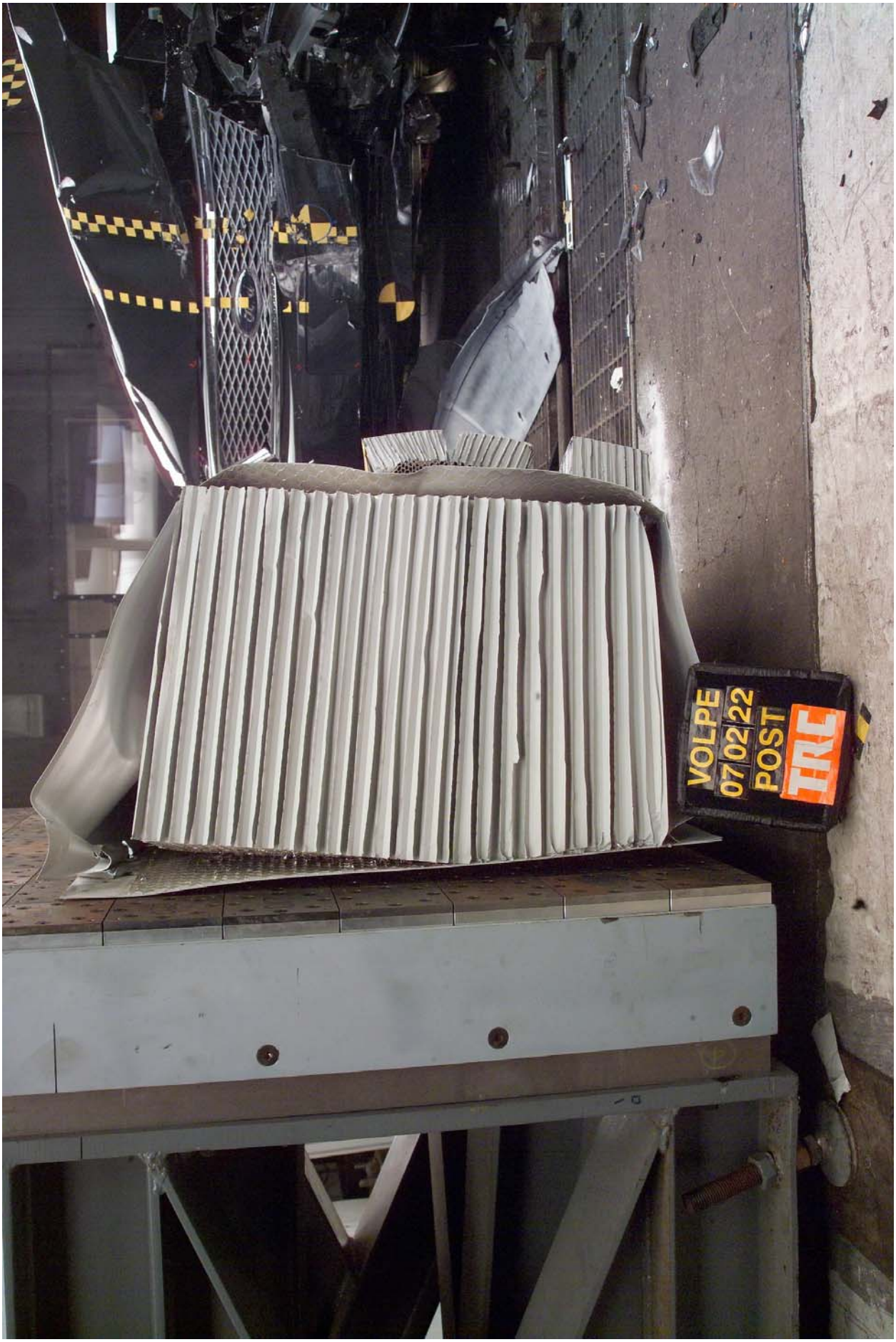


Figure A-75 Post-Test Barrier Left Side View

Figure A-76 Pre-Test Barrier Right Side View

Figure A-77 Post-Test Barrier Right Side View

Figure A-78 Pre-Test Barrier Top View

Figure A-79 Post-Test Barrier Top View

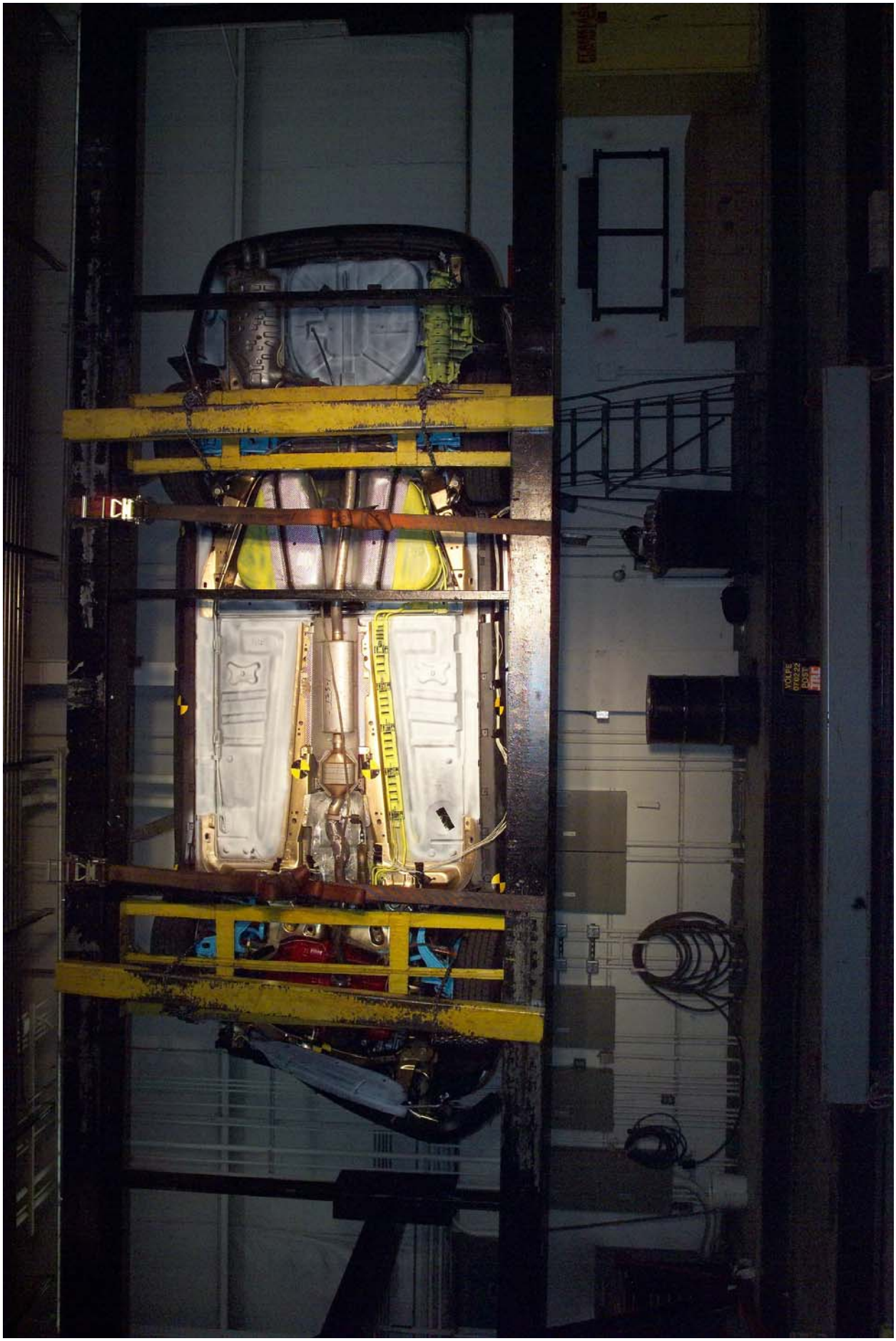


Figure A-80 Vehicle on Rollover Device - 90°

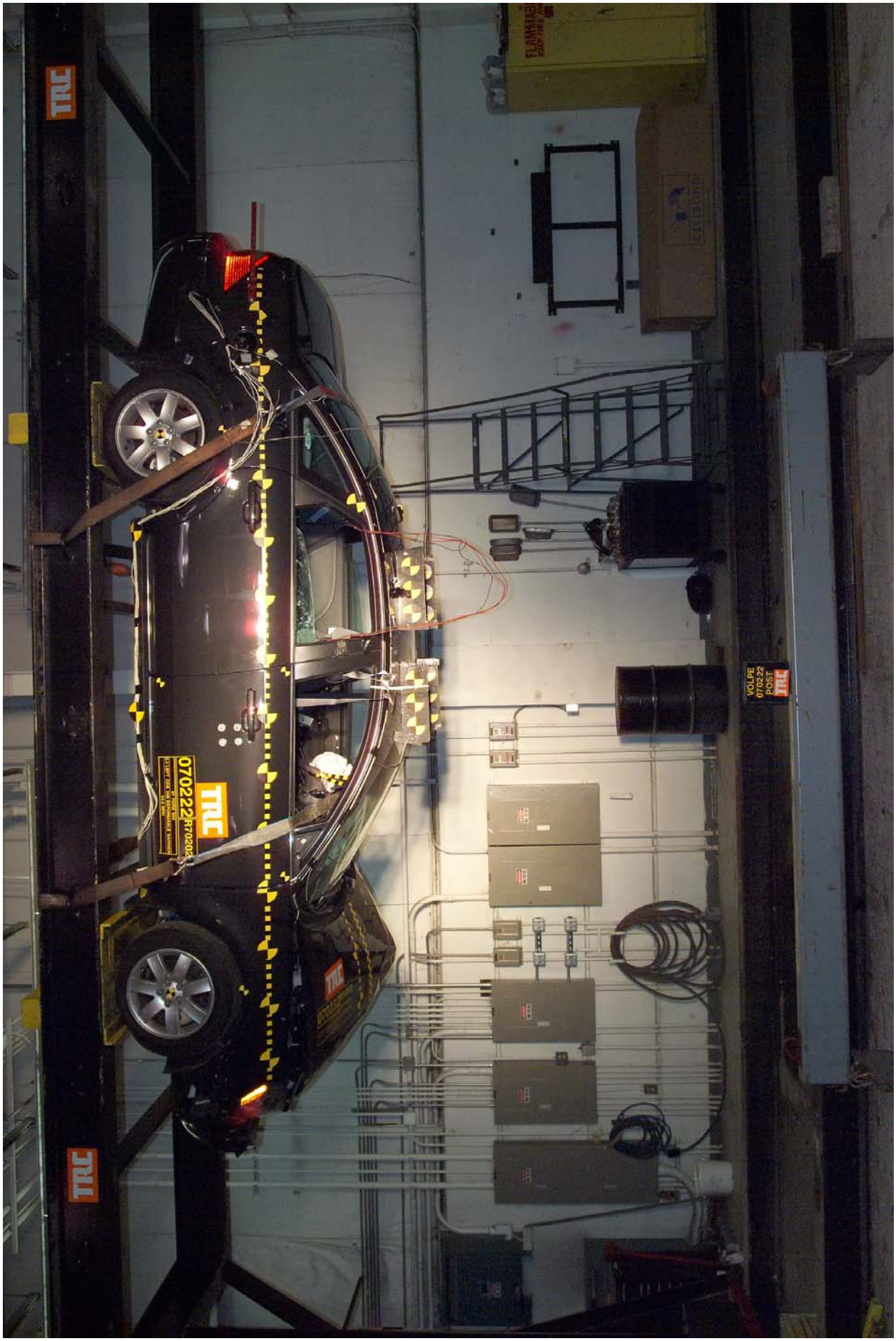


Figure A-81 Vehicle on Rollover Device - 180°

Figure A-82 Vehicle on Rollover Device - 270°

Figure A-83 Vehicle on Rollover Device - 360°

Figure A-84 Vehicle Certification Label View

Figure A-85 Vehicle Tire Load Label View

Figure A-86 Post-Test Digital Light Trap Read-Out - View 1

Figure A-87 Post-Test Digital Light Trap Read-Out - View 2

Appendix B

Dummy, Vehicle, and Load Cell Barrier Data Plots

Table of Data Plots

Curve Number Corresponds to NHTSA Database Sequence

Curve No.	Data Plot Title	Page
1	Driver Head X-Axis Acceleration	B-11
2	Driver Head Y-Axis Acceleration	B-12
3	Driver Head Z-Axis Acceleration	B-13
---[1]	Driver Head Resultant Acceleration	B-14
4	Driver Head X-Axis Acceleration Redundant	B-15
5	Driver Head Y-Axis Acceleration Redundant	B-16
6	Driver Head Z-Axis Acceleration Redundant	B-17
---[1]	Driver Head Redundant Resultant Acceleration	B-18
7	Driver Head Y-Axis (FT) Acceleration	B-19
8	Driver Head Z-Axis (FT) Acceleration	B-20
9	Driver Head X-Axis (TP) Acceleration	B-21
10	Driver Head Y-Axis (TP) Acceleration	B-22
11	Driver Head X-Axis (LT) Acceleration	B-23
12	Driver Head Z-Axis (LT) Acceleration	B-24
13	Driver Neck X-Axis Shear Force	B-25
14	Driver Neck Y-Axis Shear Force	B-26
15	Driver Neck Z-Axis Axial Force	B-27
16	Driver Neck Moment About X Axis	B-28
17	Driver Neck Moment About Y Axis	B-29
18	Driver Neck Moment About Z Axis	B-30
19	Driver Neck Lower X-Axis Shear Force	B-31
20	Driver Neck Lower Y-Axis Shear Force	B-32
21	Driver Neck Lower Z-Axis Axial Force	B-33
22	Driver Neck Lower Moment About X Axis	B-34
23	Driver Neck Lower Moment About Y Axis	B-35
24	Driver Neck Lower Moment About Z Axis	B-36
25	Driver Chest X-Axis Acceleration	B-37
26	Driver Chest Y-Axis Acceleration	B-38
27	Driver Chest Z-Axis Acceleration	B-39
---[1]	Driver Chest Resultant Acceleration	B-40
28	Driver Chest X-Axis Acceleration Redundant	B-41

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
29	Driver Chest Y-Axis Acceleration Redundant	B-42
30	Driver Chest Z-Axis Acceleration Redundant	B-43
---[1]	Driver Chest Redundant Resultant Acceleration	B-44
31	Driver Chest Deflection	B-45
32	Driver Pelvis X-Axis Acceleration	B-46
33	Driver Pelvis Y-Axis Acceleration	B-47
34	Driver Pelvis Z-Axis Acceleration	B-48
---[1]	Driver Pelvis Resultant Acceleration	B-49
35	Driver Left Femur Force	B-50
36	Driver Right Femur Force	B-51
37	Driver Left Knee Displacement	B-52
38	Driver Left Upper Tibia X-Axis Force	B-53
39	Driver Left Upper Tibia Z-Axis Force	B-54
40	Driver Left Upper Tibia Moment About X Axis	B-55
41	Driver Left Upper Tibia Moment About Y Axis	B-56
42	Driver Left Tibia X-Axis Acceleration	B-57
43	Driver Left Tibia Y-Axis Acceleration	B-58
44	Driver Left Lower Tibia X-Axis Force	B-59
45	Driver Left Lower Tibia Y-Axis Force	B-60
46	Driver Left Lower Tibia Z-Axis Force	B-61
47	Driver Left Lower Tibia Moment About X-Axis	B-62
48	Driver Left Lower Tibia Moment About Y-Axis	B-63
49	Driver Left Foot Angular X-Axis Rotation	B-64
50	Driver Left Foot Angular Y-Axis Rotation	B-65
51	Driver Left Foot Angular Z-Axis Rotation	B-66
52	Driver Left Foot X-Axis Acceleration	B-67
53	Driver Left Foot Y-Axis Acceleration	B-68
54	Driver Left Foot Z-Axis Acceleration	B-69
---[1]	Driver Left Foot Resultant Acceleration	B-70
55	Driver Right Knee Displacement	B-71
56	Driver Right Upper Tibia X-Axis Force	B-72
57	Driver Right Upper Tibia Z-Axis Force	B-73
58	Driver Right Upper Tibia Moment About X-Axis	B-74

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
59	Driver Right Upper Tibia Moment About Y-Axis	B-75
60	Driver Right Tibia X-Axis Acceleration	B-76
61	Driver Right Tibia Y-Axis Acceleration	B-77
62	Driver Right Lower Tibia X-Axis Force	B-78
63	Driver Right Lower Tibia Y-Axis Force	B-79
64	Driver Right Lower Tibia Z-Axis Force	B-80
65	Driver Right Lower Tibia Moment About X-Axis	B-81
66	Driver Right Lower Tibia Moment About Y-Axis	B-82
67	Driver Right Foot to Ankle X-Axis Rotation	B-83
68	Driver Right Foot to Ankle Y-Axis Rotation	B-84
69	Driver Right Foot to Ankle Z-Axis Rotation	B-85
70	Driver Right Foot X-Axis Acceleration	B-86
71	Driver Right Foot Y-Axis Acceleration	B-87
72	Driver Right Foot Z-Axis Acceleration	B-88
---[1]	Driver Right Foot Resultant Acceleration	B-89
73	Passenger Head X-Axis Acceleration	B-90
74	Passenger Head Y-Axis Acceleration	B-91
75	Passenger Head Z-Axis Acceleration	B-92
---[1]	Passenger Head Resultant Acceleration	B-93
76	Passenger Head X-Axis Acceleration Redundant	B-94
77	Passenger Head Y-Axis Acceleration Redundant	B-95
78	Passenger Head Z-Axis Acceleration Redundant	B-96
---[1]	Passenger Head Redundant Resultant Acceleration	B-97
79	Passenger Head Y-Axis (FT) Acceleration	B-98
80	Passenger Head Z-Axis (FT) Acceleration	B-99
81	Passenger Head X-Axis (TP) Acceleration	B-100
82	Passenger Head Y-Axis (TP) Acceleration	B-101
83	Passenger Head X-Axis (LT) Acceleration	B-102
84	Passenger Head Z-Axis (LT) Acceleration	B-103
85	Passenger Neck X-Axis Shear Force	B-104
86	Passenger Neck Y-Axis Shear Force	B-105
87	Passenger Neck Z-Axis Axial Force	B-106
88	Passenger Neck Moment About X Axis	B-107

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
89	Passenger Neck Moment About Y Axis	B-108
90	Passenger Neck Moment About Z Axis	B-109
91	Passenger Neck Lower X-Axis Shear Force	B-110
92	Passenger Neck Lower Y-Axis Shear Force	B-111
93	Passenger Neck Lower Z-Axis Axial Force	B-112
94	Passenger Neck Lower Moment About X Axis	B-113
95	Passenger Neck Lower Moment About Y Axis	B-114
96	Passenger Neck Lower Moment About Z Axis	B-115
97	Passenger Chest X-Axis Acceleration	B-116
98	Passenger Chest Y-Axis Acceleration	B-117
99	Passenger Chest Z-Axis Acceleration	B-118
---[1]	Passenger Chest Resultant Acceleration	B-119
100	Passenger Chest X-Axis Acceleration Redundant	B-120
101	Passenger Chest Y-Axis Acceleration Redundant	B-121
102	Passenger Chest Z-Axis Acceleration Redundant	B-122
---[1]	Passenger Chest Redundant Resultant Acceleration	B-123
103	Passenger Chest Deflection	B-124
104	Passenger Pelvis X-Axis Acceleration	B-125
105	Passenger Pelvis Y-Axis Acceleration	B-126
106	Passenger Pelvis Z-Axis Acceleration	B-127
---[1]	Passenger Pelvis Resultant Acceleration	B-128
107	Passenger Left Femur Force	B-129
108	Passenger Right Femur Force	B-130
109	Passenger Left Knee Displacement	B-131
110	Passenger Left Upper Tibia X-Axis Force	B-132
111	Passenger Left Upper Tibia Z-Axis Force	B-133
112	Passenger Left Upper Tibia Moment About X Axis	B-134
113	Passenger Left Upper Tibia Moment About Y Axis	B-135
114	Passenger Left Tibia X-Axis Acceleration	B-136
115	Passenger Left Tibia Y-Axis Acceleration	B-137
116	Passenger Left Lower Tibia X-Axis Force	B-138
117	Passenger Left Lower Tibia Y-Axis Force	B-139
118	Passenger Left Lower Tibia Z-Axis Force	B-140

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
119	Passenger Left Lower Tibia Moment About X-Axis	B-141
120	Passenger Left Lower Tibia Moment About Y-Axis	B-142
121	Passenger Left Foot Angular X-Axis Rotation	B-143
122	Passenger Left Foot Angular Y-Axis Rotation	B-144
123	Passenger Left Foot Angular Z-Axis Rotation	B-145
124	Passenger Left Foot X-Axis Acceleration	B-146
125	Passenger Left Foot Y-Axis Acceleration	B-147
126	Passenger Left Foot Z-Axis Acceleration	B-148
---[1]	Passenger Left Foot Resultant Acceleration	B-149
127	Passenger Right Knee Displacement	B-150
128	Passenger Right Upper Tibia X-Axis Force	B-151
129	Passenger Right Upper Tibia Z-Axis Force	B-152
130	Passenger Right Upper Tibia Moment About X-Axis	B-153
131	Passenger Right Upper Tibia Moment About Y-Axis	B-154
132	Passenger Right Tibia X-Axis Acceleration	B-155
133	Passenger Right Tibia Y-Axis Acceleration	B-156
134	Passenger Right Lower Tibia X-Axis Force	B-157
135	Passenger Right Lower Tibia Y-Axis Force	B-158
136	Passenger Right Lower Tibia Z-Axis Force	B-159
137	Passenger Right Lower Tibia Moment About X-Axis	B-160
138	Passenger Right Lower Tibia Moment About Y-Axis	B-161
139	Passenger Right Foot to Ankle X-Axis Rotation	B-162
140	Passenger Right Foot to Ankle Y-Axis Rotation	B-163
141	Passenger Right Foot to Ankle Z-Axis Rotation	B-164
142	Passenger Right Foot X-Axis Acceleration	B-165
143	Passenger Right Foot Y-Axis Acceleration	B-166
144	Passenger Right Foot Z-Axis Acceleration	B-167
---[1]	Passenger Right Foot Resultant Acceleration	B-168
145	Left Rear Seat Crossmember X-Axis Acceleration	B-169
146	Right Rear Seat Crossmember X-Axis Acceleration	B-170
147	Left Rear Seat Crossmember Z-Axis Acceleration	B-171
148	Right Rear Seat Crossmember Z-Axis Acceleration	B-172
149	Top of Engine Block X-Axis Acceleration	B-173

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
150	Bottom of Engine Block X-Axis Acceleration	B-174
151	Right Front Brake Caliper X-Axis Acceleration	B-175
152	Left Front Brake Caliper X-Axis Acceleration	B-176
153	Instrument Panel X-Axis Acceleration	B-177
154	Left Side Driver Mid Seat Track X-Axis Acceleration	B-178
155	Vehicle CG X-Axis Acceleration	B-179
156	Vehicle CG X-Axis Velocity	B-180
157	Vehicle CG X-Axis Displacement	B-181
158	Vehicle CG Y-Axis Acceleration	B-182
159	Vehicle CG Y-Axis Velocity	B-183
160	Vehicle CG Y-Axis Displacement	B-184
161	Vehicle CG Z-Axis Acceleration	B-185
162	Vehicle CG Z-Axis Velocity	B-186
163	Vehicle CG Z-Axis Displacement	B-187
---1	Vehicle CG Resultant Acceleration	B-188
164	Under Accel Pedal (Centered) X-Axis Acceleration	B-189
165	Under Accel Pedal (Centered) Y-Axis Acceleration	B-190
166	Under Accel Pedal (Centered) Z-Axis Acceleration	B-191
---1	Under Accel Pedal (Centered) Resultant Acceleration	B-192
167	Under Brake Pedal (Centered) X-Axis Acceleration	B-193
168	Under Brake Pedal (Centered) Y-Axis Acceleration	B-194
169	Under Brake Pedal (Centered) Z-Axis Acceleration	B-195
---1	Under Brake Pedal (Centered) Resultant Acceleration	B-196
170	Outside Footrest X-Axis Acceleration	B-197
171	Outside Footrest Y-Axis Acceleration	B-198
172	Outside Footrest Z-Axis Acceleration	B-199
---1	Outside Footrest Resultant Acceleration	B-200
173	Driver Lap Belt	B-201
174	Driver Shoulder Belt	B-202
175	Passenger Lap Belt	B-203
176	Passenger Shoulder Belt	B-204
177	Driver Front Airbag 1 Inductive	B-205
178	Driver Front Airbag 2 Inductive	B-206

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
179	Passenger Front Airbag 1 Inductive	B-207
180	Passenger Front Airbag 2 Inductive	B-208
181	Driver Right Foot Contact Switch	B-209
182	Driver Left Knee Contact Switch	B-210
183	Driver Right Knee Contact Switch	B-211
184	Load Cell Row 1 Column 1	B-212
185	Load Cell Row 2 Column 1	B-213
186	Load Cell Row 3 Column 1	B-214
187	Load Cell Row 4 Column 1	B-215
188	Load Cell Row 5 Column 1	B-216
189	Load Cell Row 6 Column 1	B-217
190	Load Cell Row 7 Column 1	B-218
191	Load Cell Row 8 Column 1	B-219
192	Load Cell Row 9 Column 1	B-220
193	Load Cell Row 10 Column 1	B-221
194	Load Cell Row 1 Column 2	B-222
195	Load Cell Row 2 Column 2	B-223
196	Load Cell Row 3 Column 2	B-224
197	Load Cell Row 4 Column 2	B-225
198	Load Cell Row 5 Column 2	B-226
199	Load Cell Row 6 Column 2	B-227
200	Load Cell Row 7 Column 2	B-228
201	Load Cell Row 8 Column 2	B-229
202	Load Cell Row 9 Column 2	B-230
203	Load Cell Row 10 Column 2	B-231
204	Load Cell Row 1 Column 3	B-232
205	Load Cell Row 2 Column 3	B-233
206	Load Cell Row 3 Column 3	B-234
207	Load Cell Row 4 Column 3	B-235
208	Load Cell Row 5 Column 3	B-236
209	Load Cell Row 6 Column 3	B-237
210	Load Cell Row 7 Column 3	B-238
211	Load Cell Row 8 Column 3	B-239

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
212	Load Cell Row 9 Column 3	B-240
213	Load Cell Row 10 Column 3	B-241
214	Load Cell Row 1 Column 4	B-242
215	Load Cell Row 2 Column 4	B-243
216	Load Cell Row 3 Column 4	B-244
217	Load Cell Row 4 Column 4	B-245
218	Load Cell Row 5 Column 4	B-246
219	Load Cell Row 6 Column 4	B-247
220	Load Cell Row 7 Column 4	B-248
221	Load Cell Row 8 Column 4	B-249
222	Load Cell Row 9 Column 4	B-250
223	Load Cell Row 10 Column 4	B-251
224	Load Cell Row 1 Column 5	B-252
225	Load Cell Row 2 Column 5	B-253
226	Load Cell Row 3 Column 5	B-254
227	Load Cell Row 4 Column 5	B-255
228	Load Cell Row 5 Column 5	B-256
229	Load Cell Row 6 Column 5	B-257
230	Load Cell Row 7 Column 5	B-258
231	Load Cell Row 8 Column 5	B-259
232	Load Cell Row 9 Column 5	B-260
233	Load Cell Row 10 Column 5	B-261
234	Load Cell Row 1 Column 6	B-262
235	Load Cell Row 2 Column 6	B-263
236	Load Cell Row 3 Column 6	B-264
237	Load Cell Row 4 Column 6	B-265
238	Load Cell Row 5 Column 6	B-266
239	Load Cell Row 6 Column 6	B-267
240	Load Cell Row 7 Column 6	B-268
241	Load Cell Row 8 Column 6	B-269
242	Load Cell Row 9 Column 6	B-270
243	Load Cell Row 10 Column 6	B-271
244	Load Cell Row 1 Column 7	B-272

Table of Data Plots, Continued

Curve No.	Data Plot Title	Page
245	Load Cell Row 2 Column 7	B-273
246	Load Cell Row 3 Column 7	B-274
247	Load Cell Row 4 Column 7	B-275
248	Load Cell Row 5 Column 7	B-276
249	Load Cell Row 6 Column 7	B-277
250	Load Cell Row 7 Column 7	B-278
251	Load Cell Row 8 Column 7	B-279
252	Load Cell Row 9 Column 7	B-280
253	Load Cell Row 10 Column 7	B-281
254	Load Cell Row 1 Column 8	B-282
255	Load Cell Row 2 Column 8	B-283
256	Load Cell Row 3 Column 8	B-284
257	Load Cell Row 4 Column 8	B-285
258	Load Cell Row 5 Column 8	B-286
259	Load Cell Row 6 Column 8	B-287
260	Load Cell Row 7 Column 8	B-288
261	Load Cell Row 8 Column 8	B-289
262	Load Cell Row 9 Column 8	B-290
263	Load Cell Row 10 Column 8	B-291
264	Load Cell Row 1 Column 9	B-292
265	Load Cell Row 2 Column 9	B-293
266	Load Cell Row 3 Column 9	B-294
267	Load Cell Row 4 Column 9	B-295
268	Load Cell Row 5 Column 9	B-296
269	Load Cell Row 6 Column 9	B-297
270	Load Cell Row 7 Column 9	B-298
271	Load Cell Row 8 Column 9	B-299
272	Load Cell Row 9 Column 9	B-300
273	Load Cell Row 10 Column 9	B-301

[1] Curve is not included in NHTSA database.

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

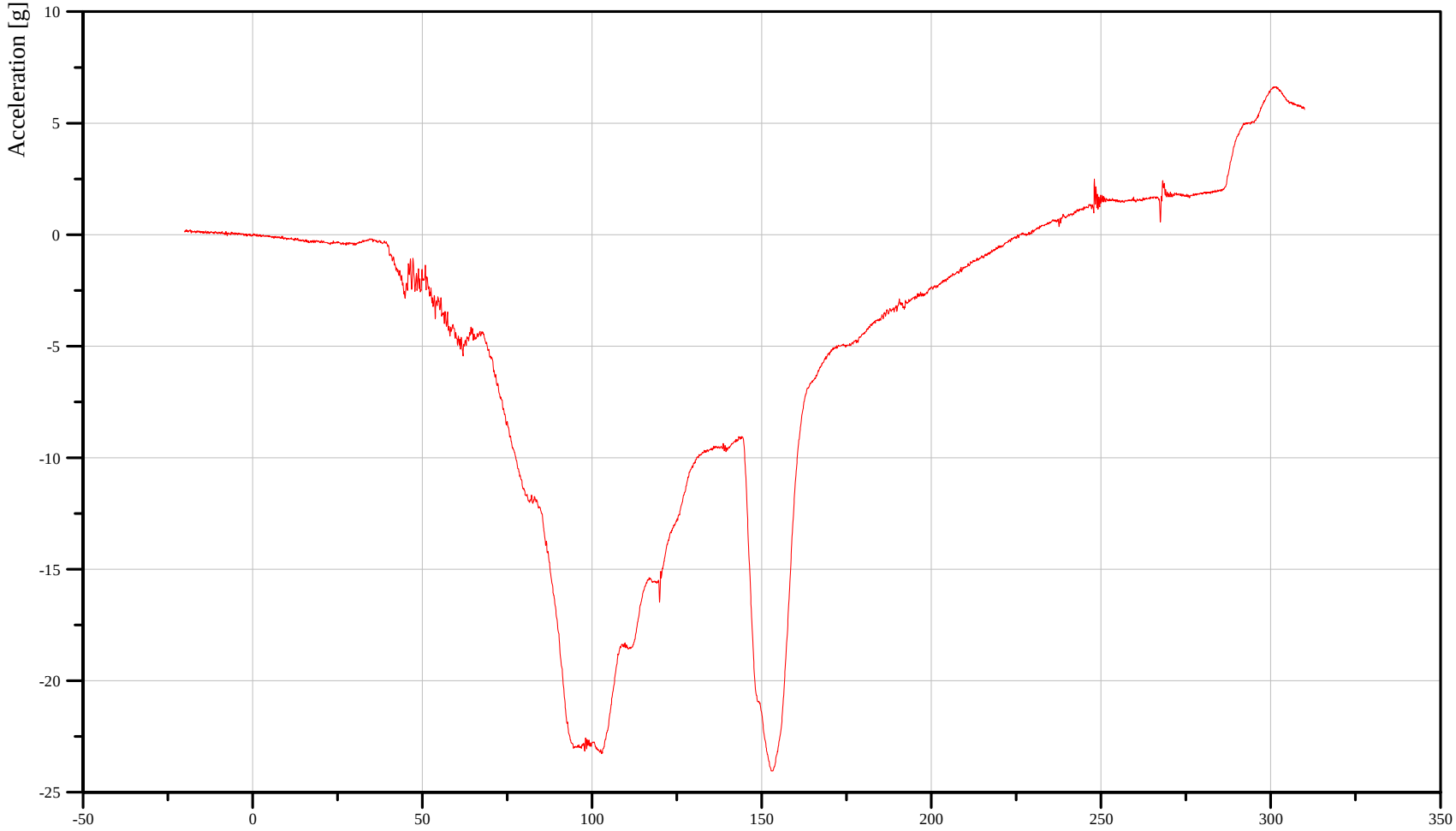
Driver Head X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-24.04 g at 152.80 ms

Max. Value
6.62 g at 300.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

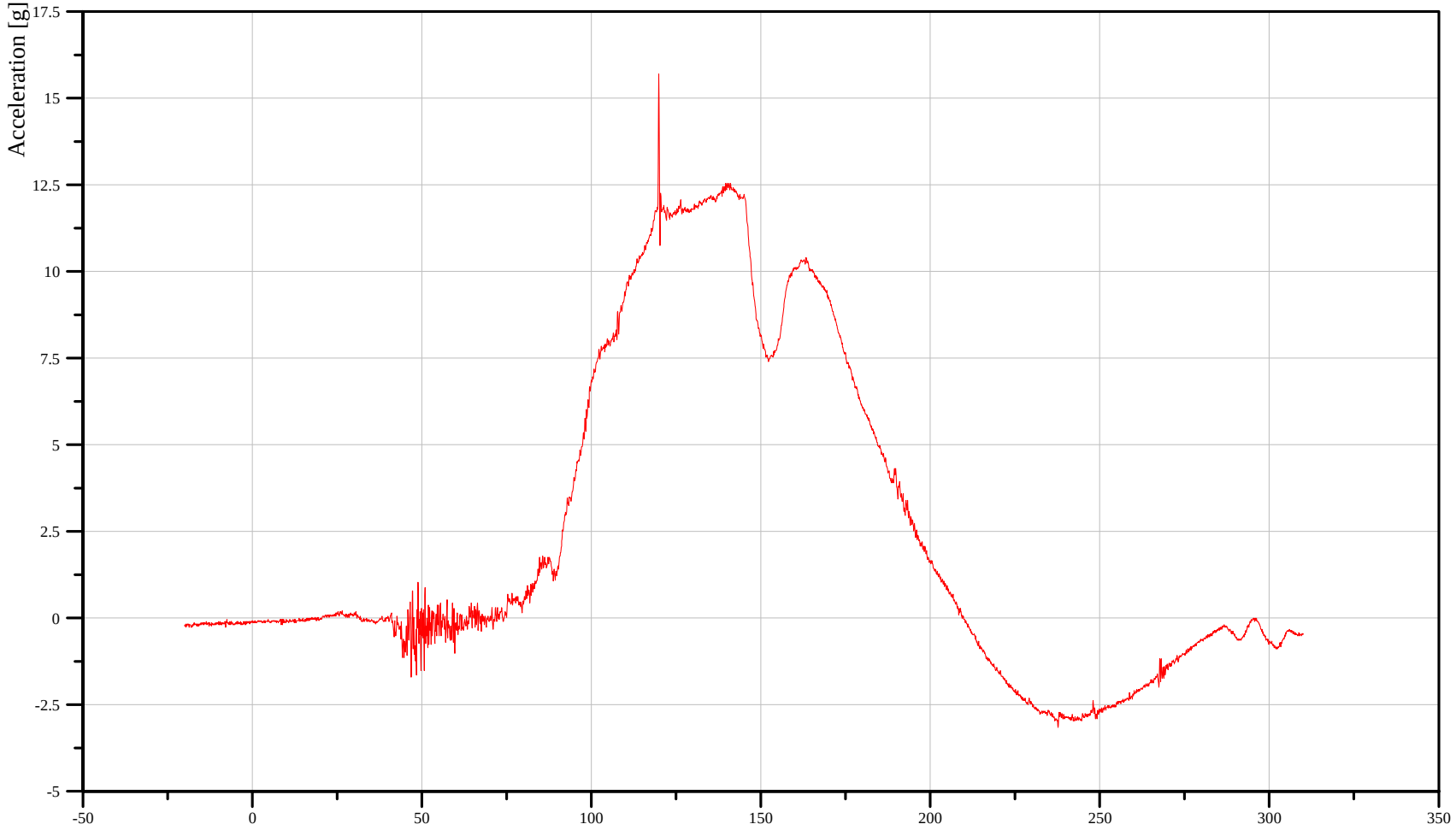
Driver Head Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-3.16 g at 237.68 ms

Max. Value
15.70 g at 119.92 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

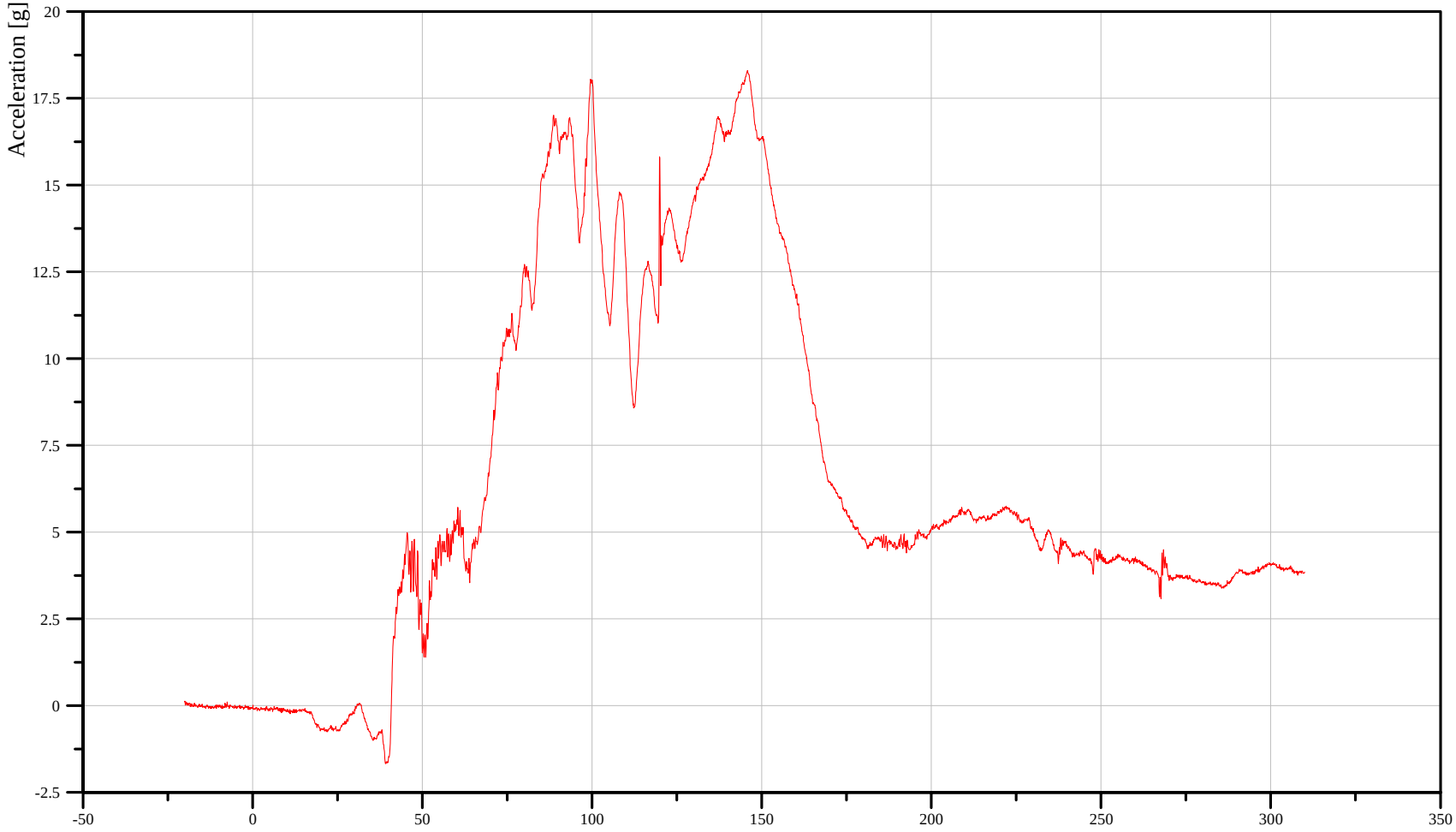
Driver Head Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-1.67 g at 39.12 ms

Max. Value
18.30 g at 145.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

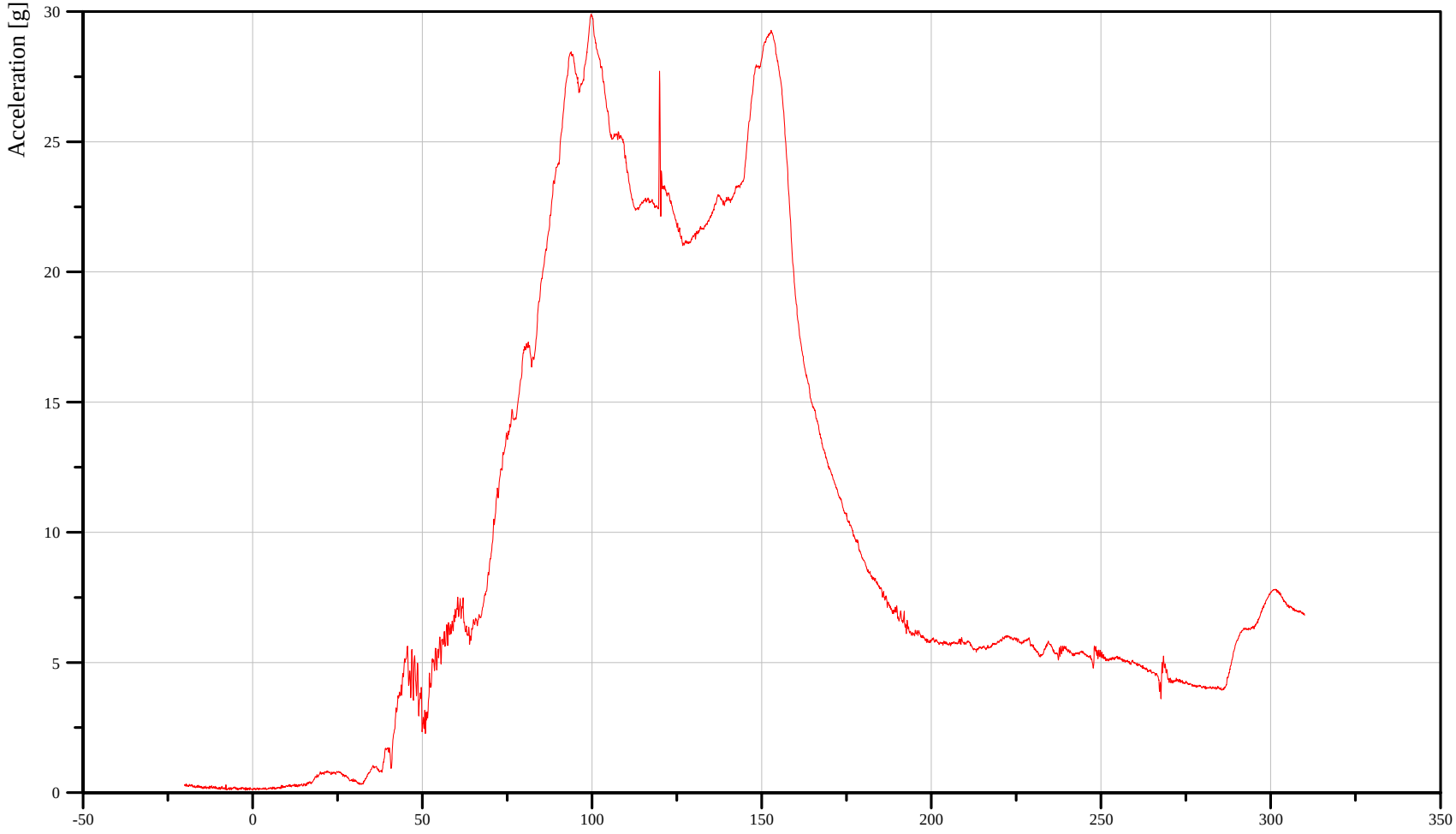
Driver Head Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.10 g at -2.16 ms

Max. Value
29.90 g at 99.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

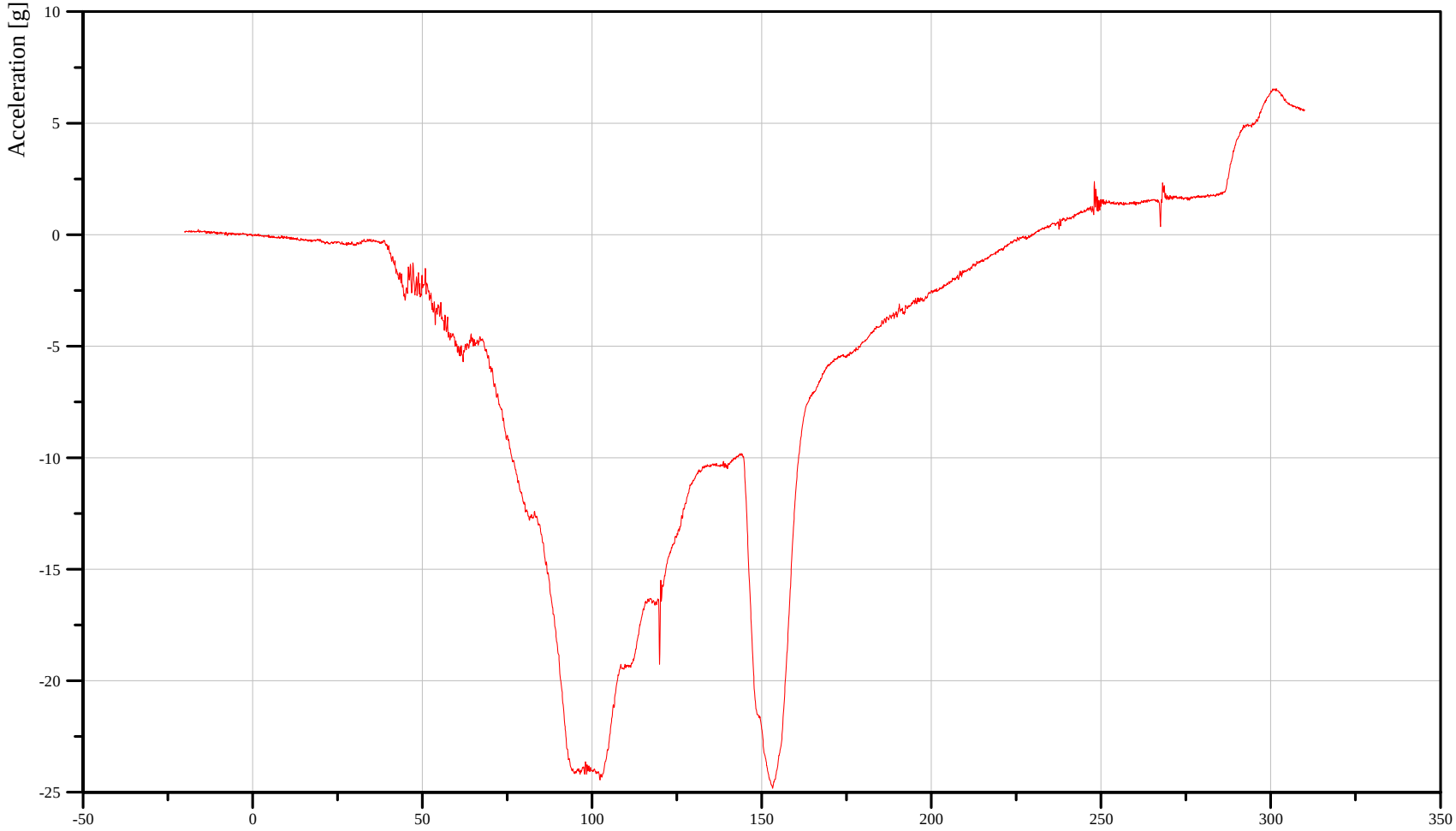
Driver Head X-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCGRDH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-24.82 g at 153.28 ms

Max. Value
6.54 g at 300.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

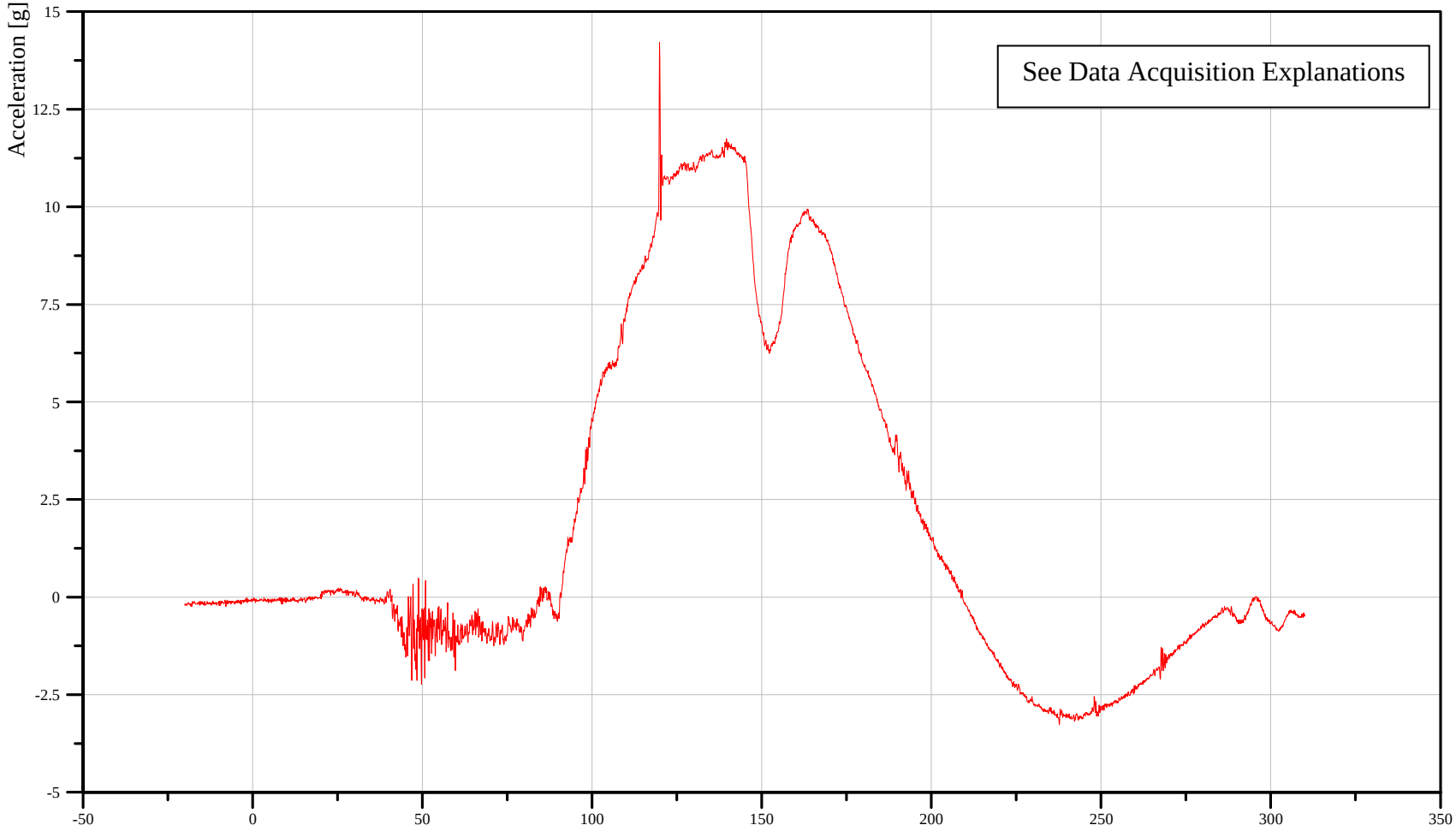
Driver Head Y-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCGRDH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-3.27 g at 237.68 ms

Max. Value
14.21 g at 119.92 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

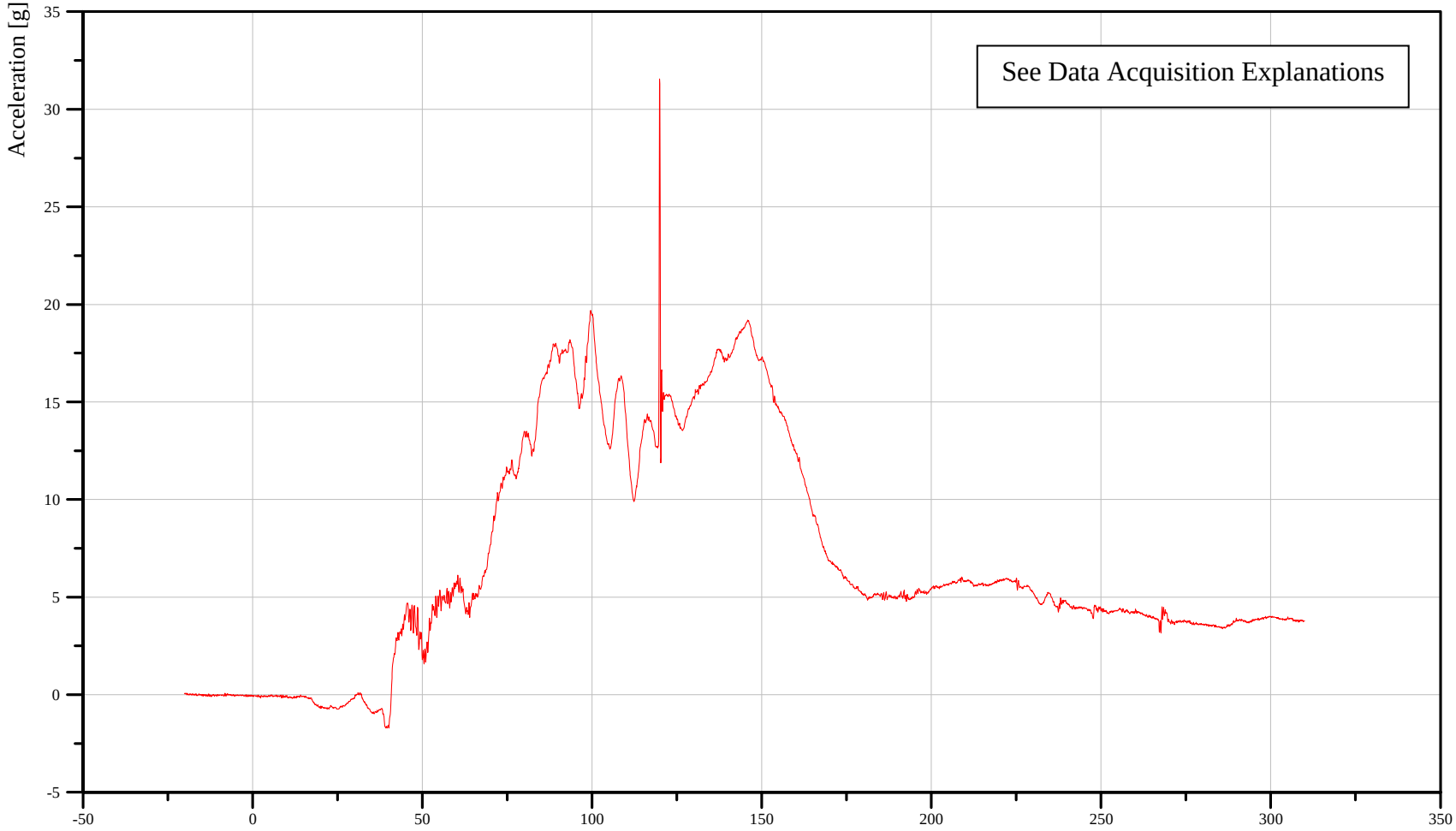
Driver Head Z-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCGRDH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-1.70 g at 39.28 ms

Max. Value
31.56 g at 119.92 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

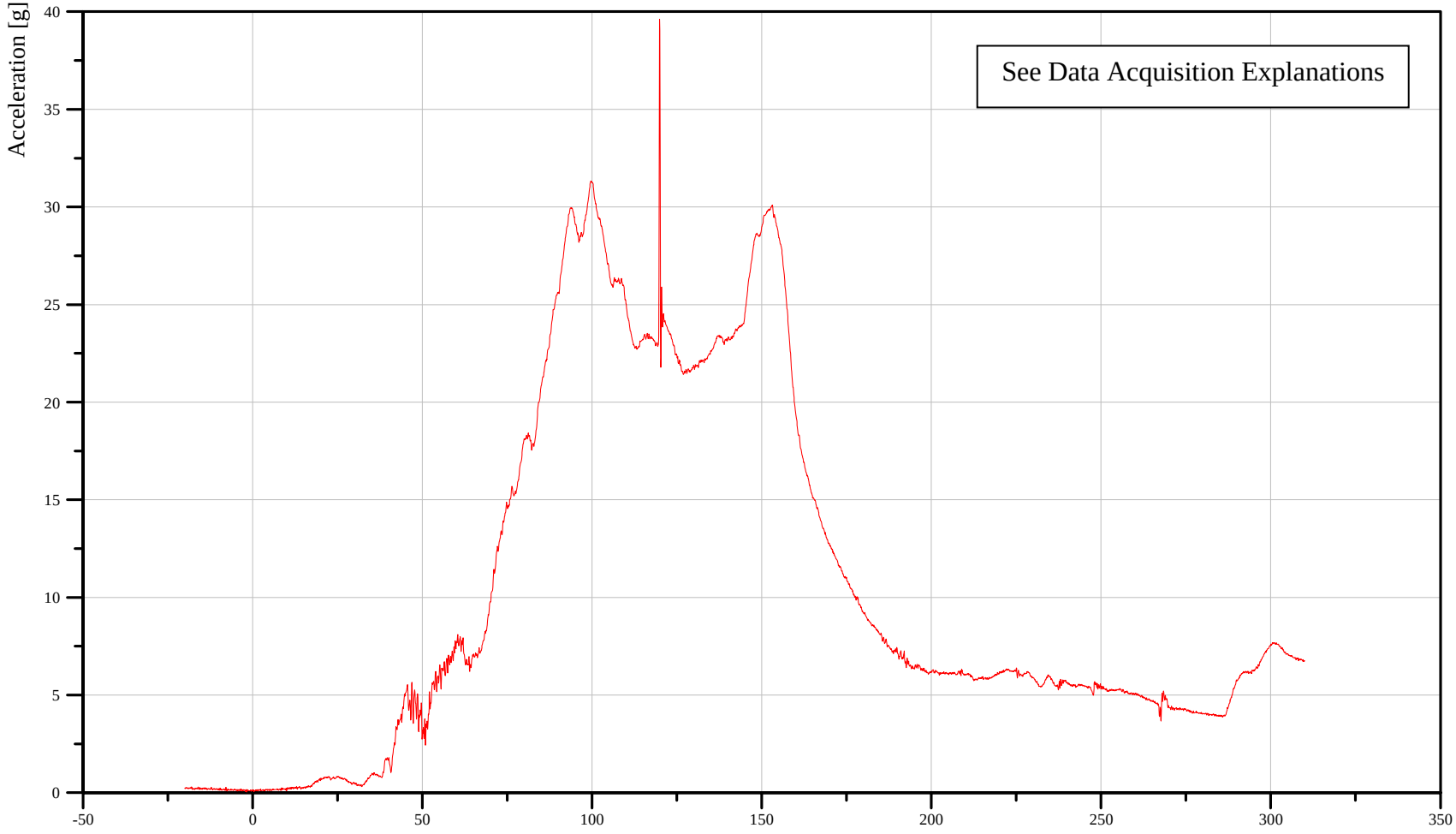
Driver Head Redundant Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADCGRDH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.03 g at -1.76 ms

Max. Value
39.61 g at 119.92 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

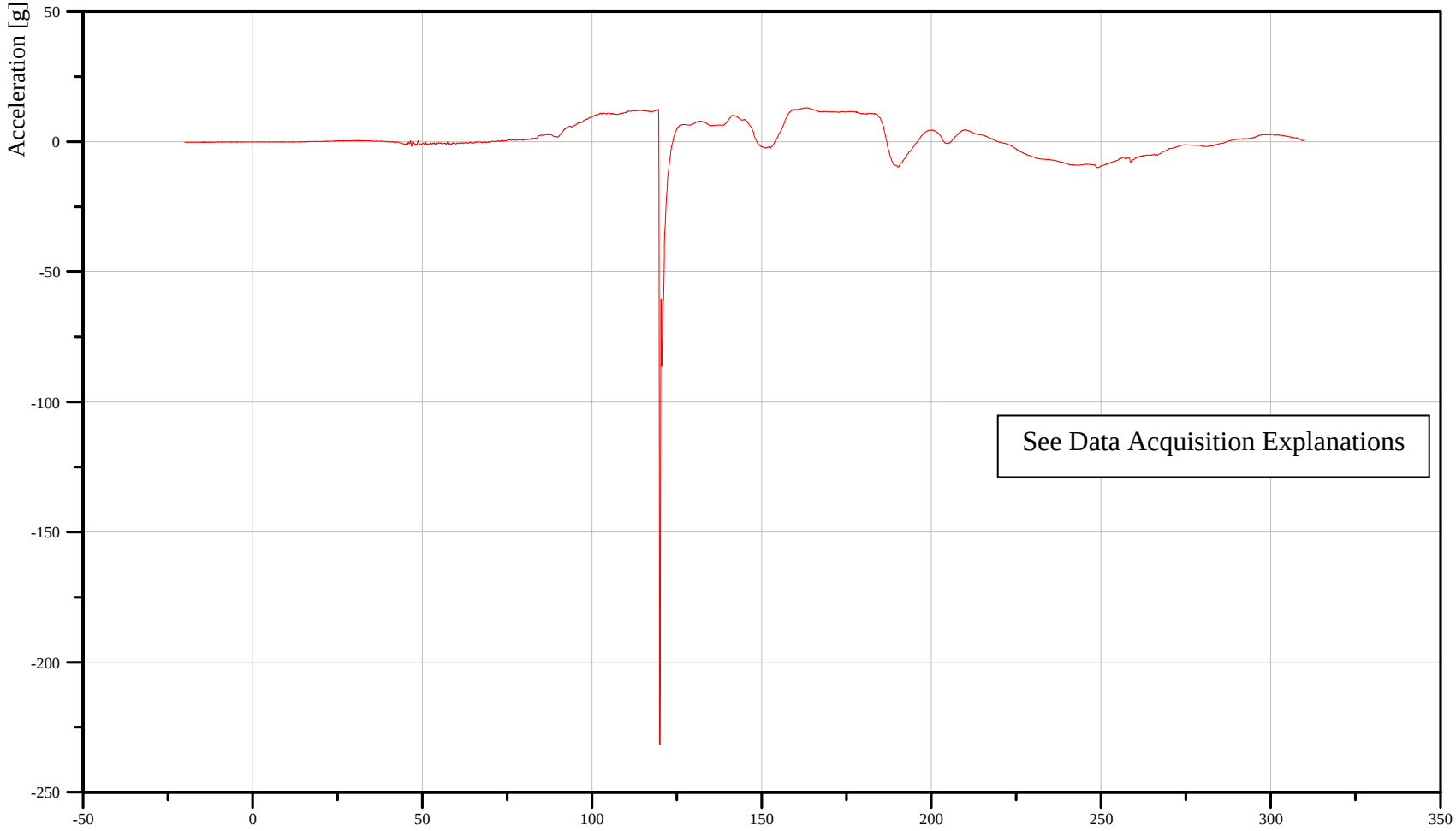
Driver Head (FT) Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADFR00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-231.63 g at 120.00 ms

Max. Value
13.07 g at 163.36 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

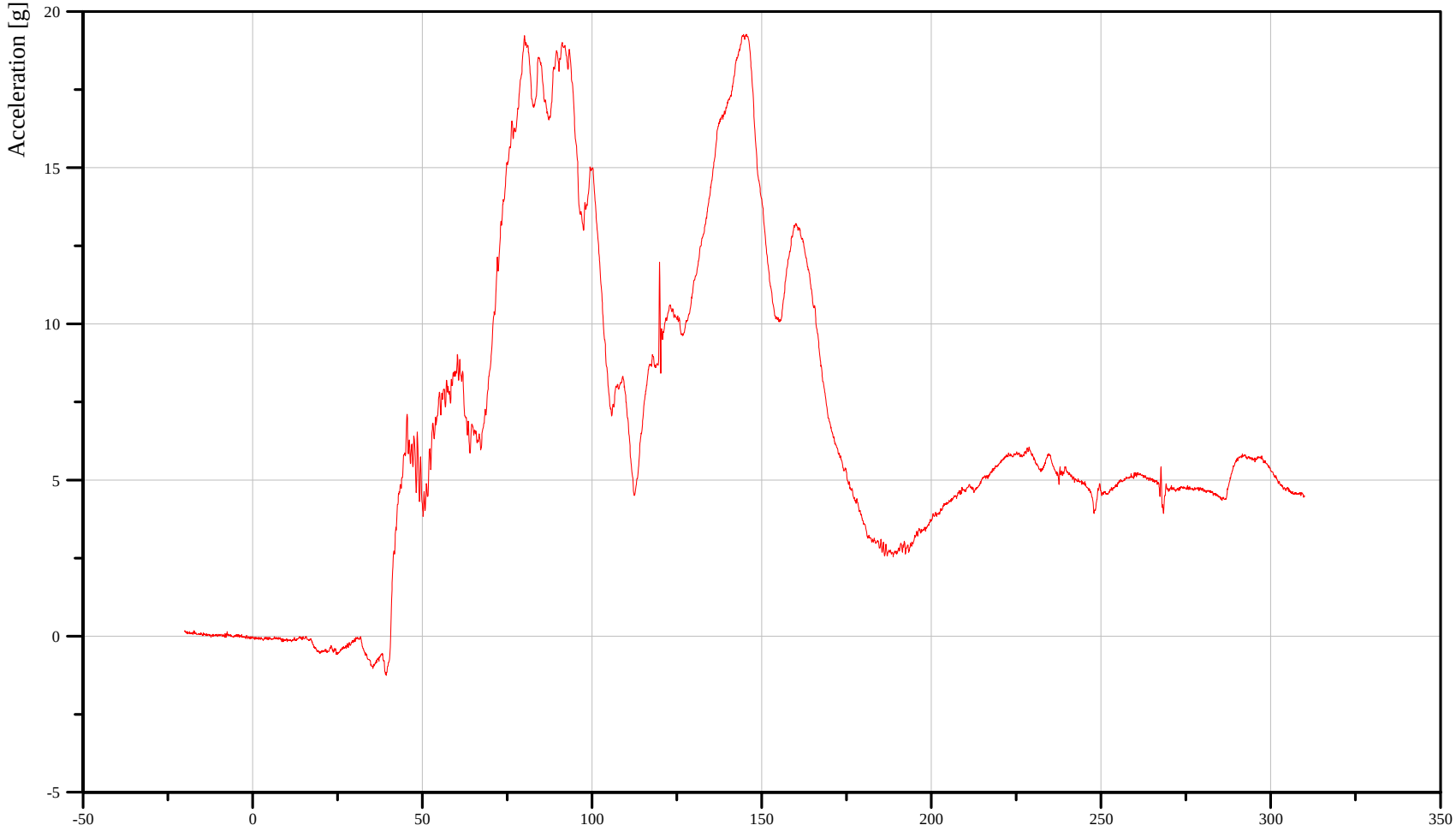
Driver Head (FT) Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADFR00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-1.25 g at 39.44 ms

Max. Value
19.27 g at 144.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

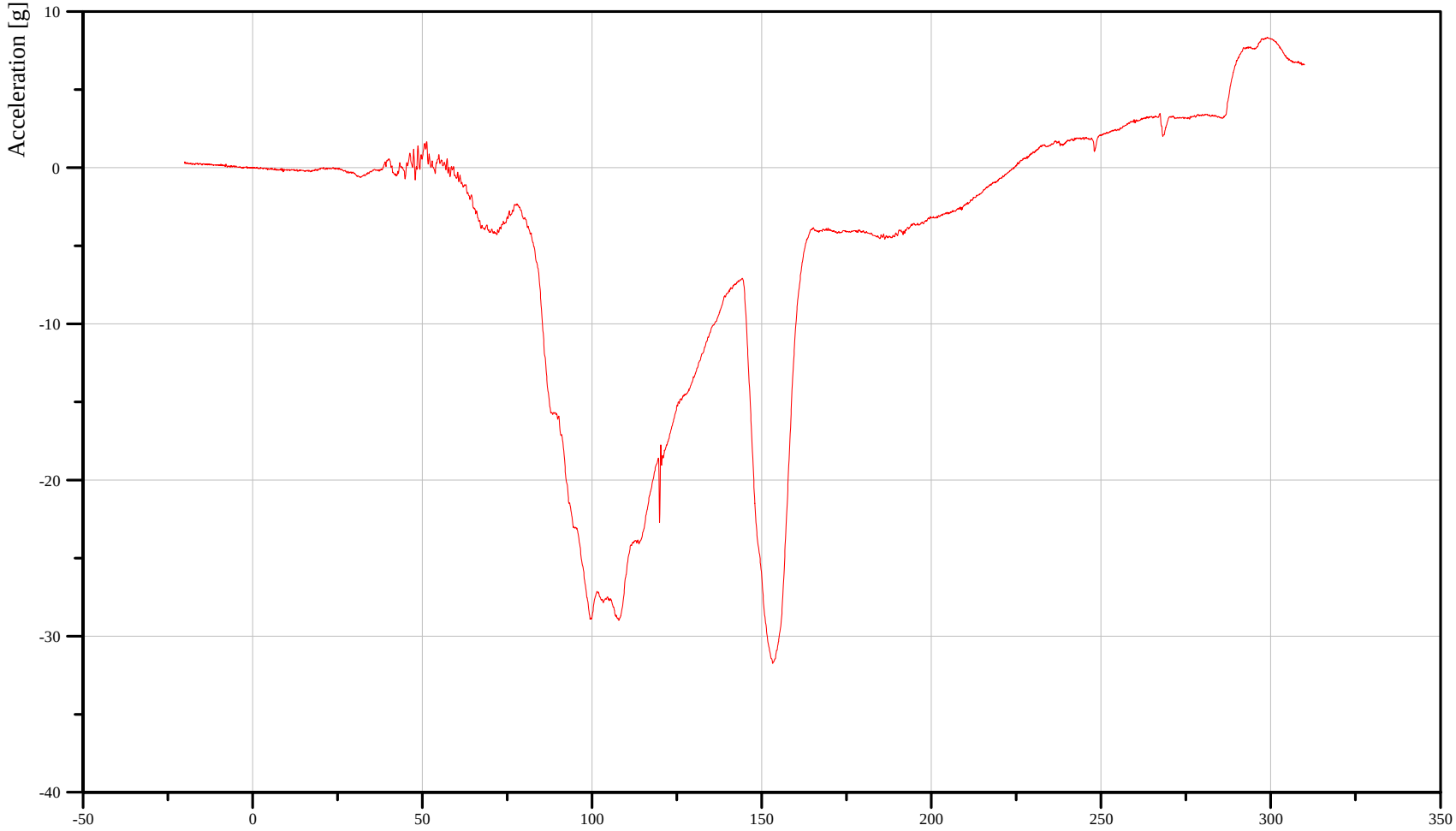
Driver Head (TP) X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADUP00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-31.74 g at 153.28 ms

Max. Value
8.34 g at 298.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

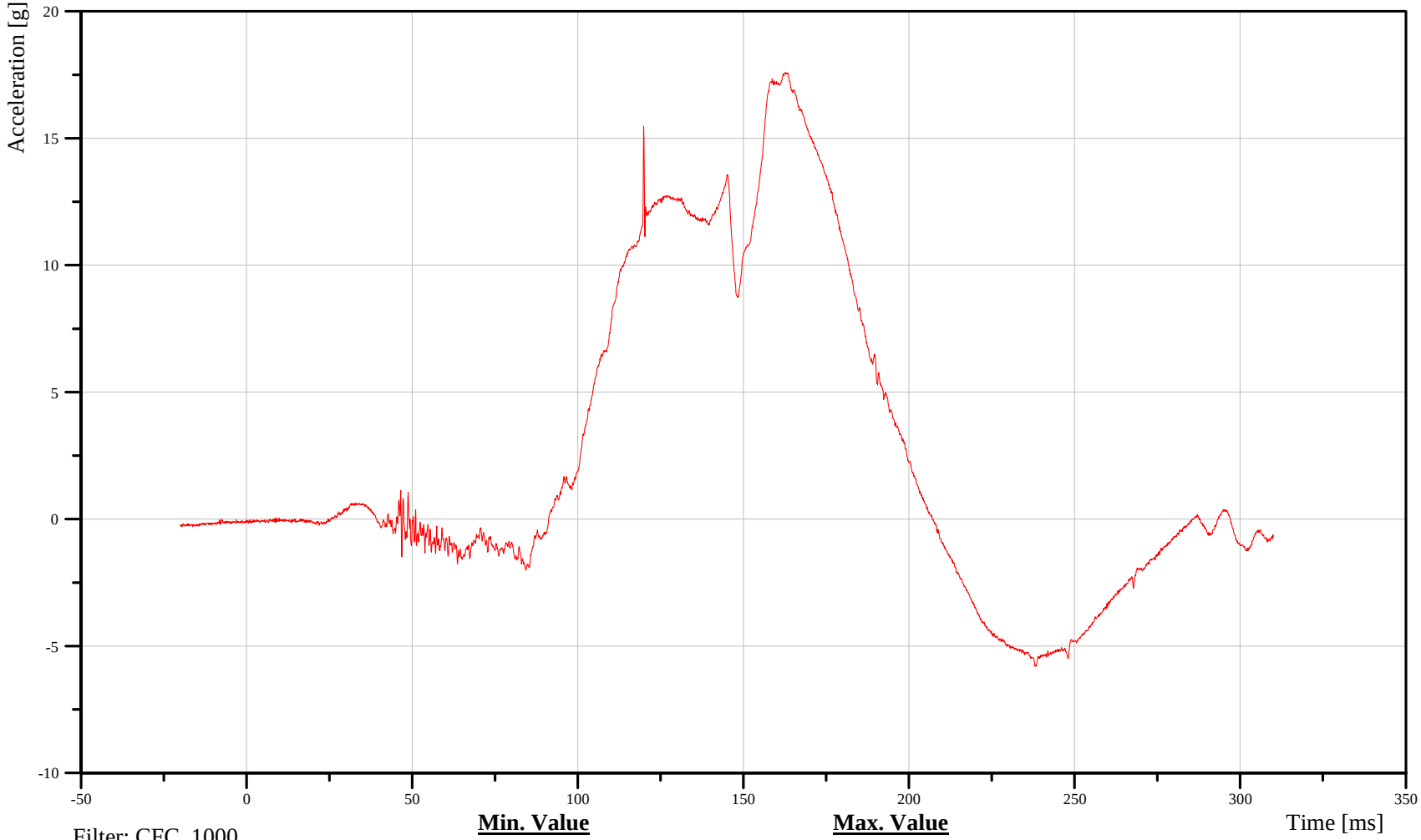
Driver Head (TP) Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADUP00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-5.81 g at 238.24 ms

Max. Value
17.59 g at 162.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

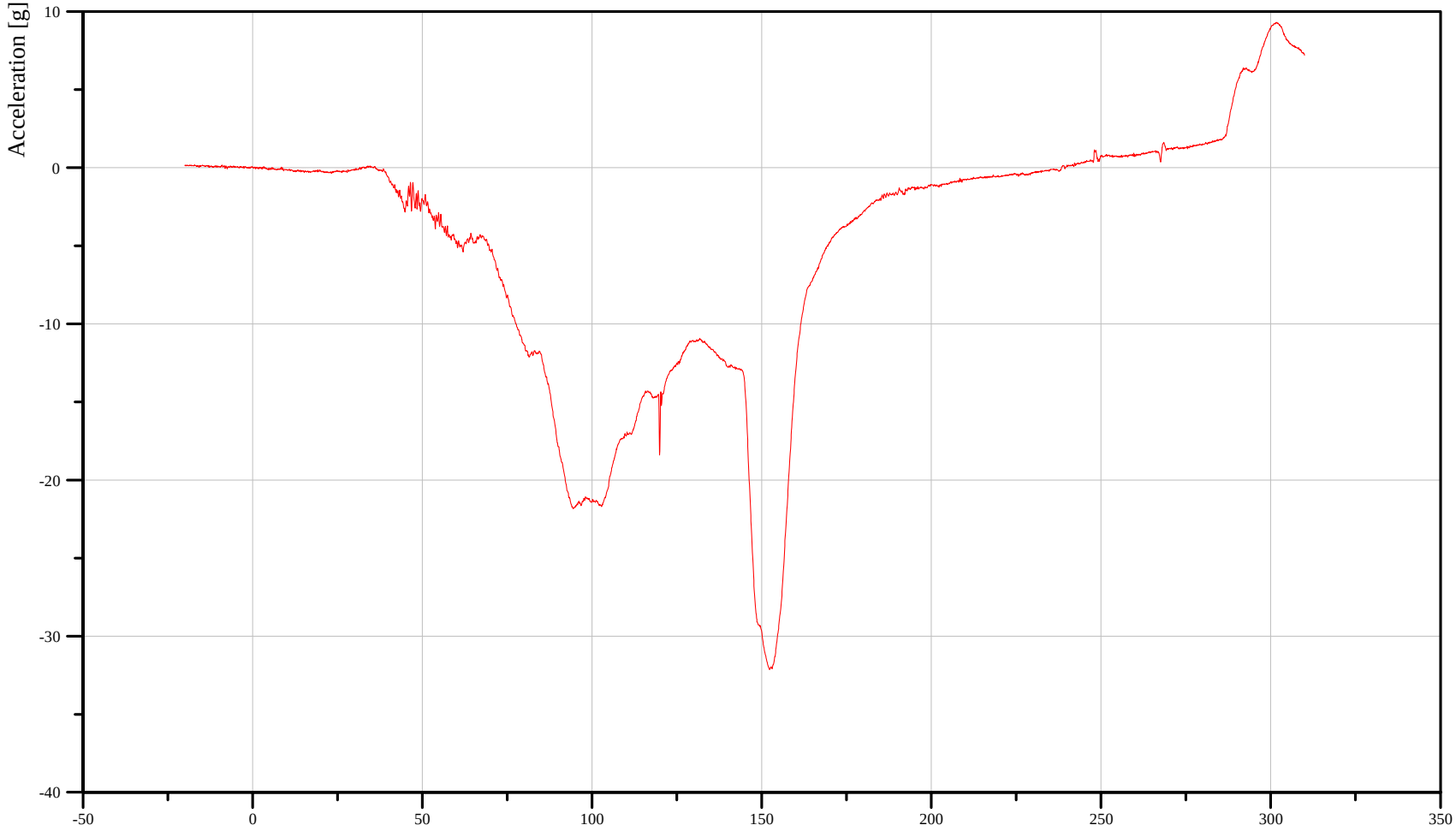
Driver Head (LT) X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADLE00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-32.15 g at 152.40 ms

Max. Value
9.30 g at 301.44 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

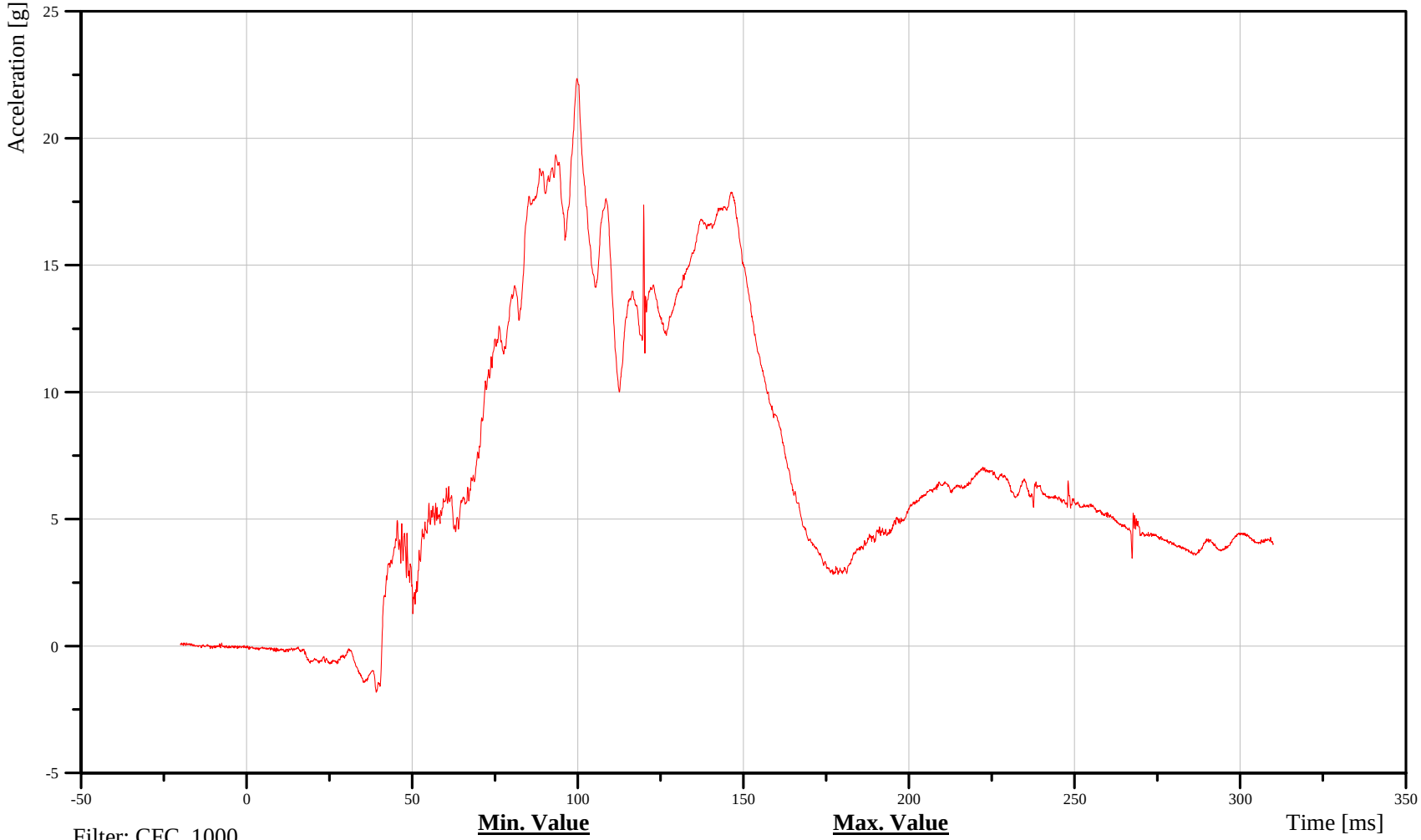
Driver Head (LT) Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11HEADLE00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-1.82 g at 39.12 ms

Max. Value
22.36 g at 99.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

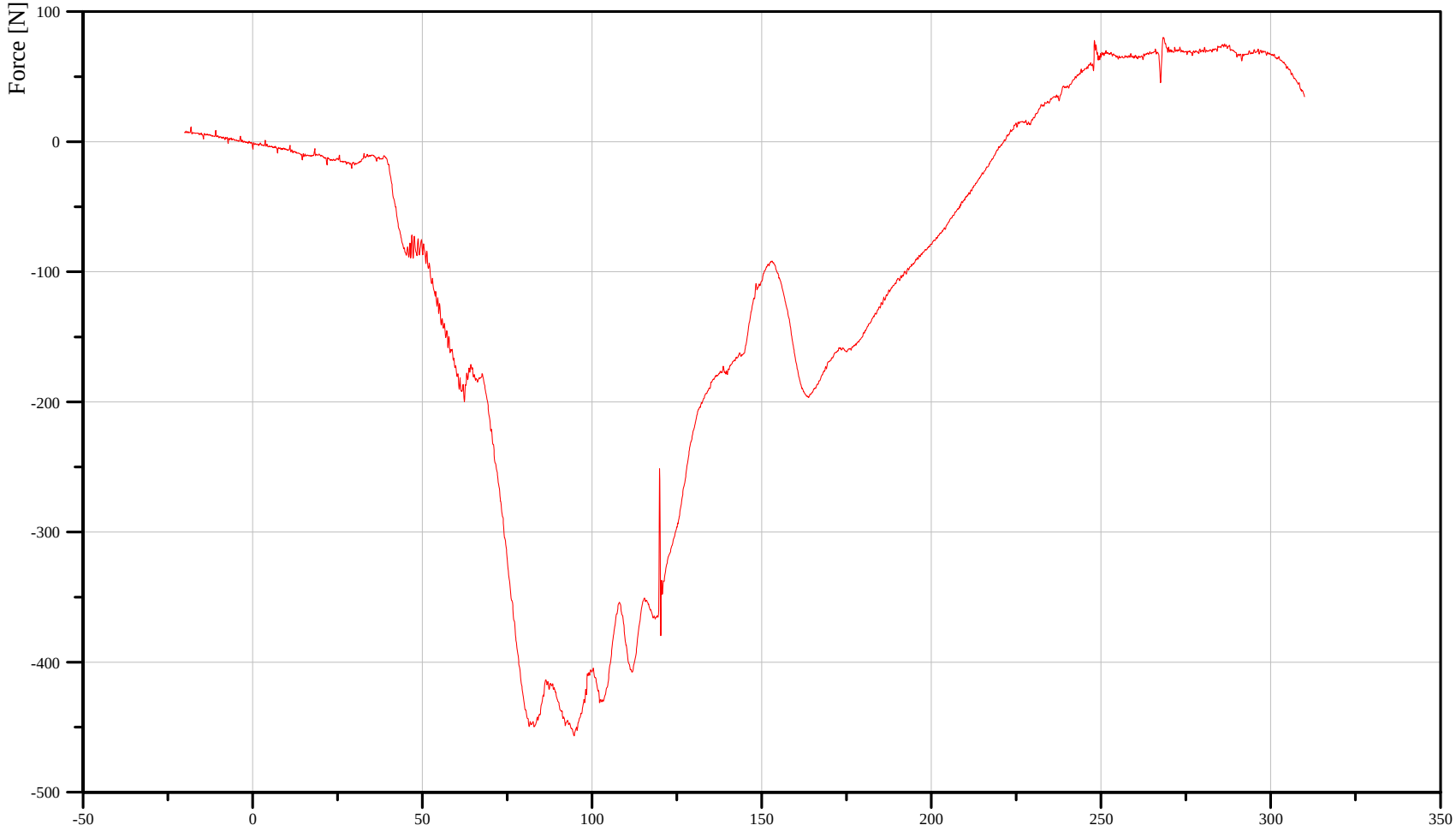
Driver Upper Neck X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKUP00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-456.59 N at 94.72 ms

Max. Value
80.14 N at 268.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

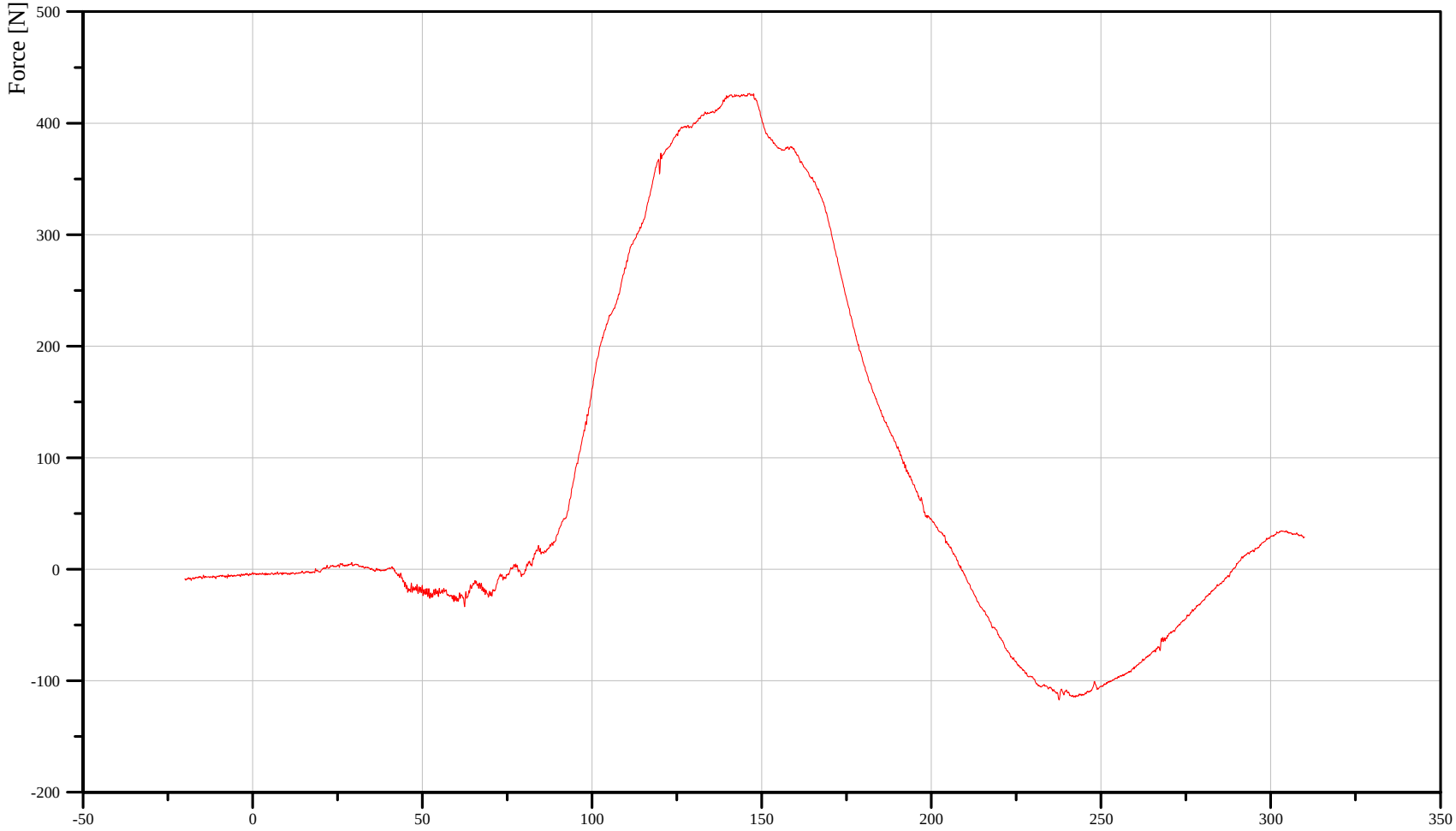
Driver Upper Neck Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKUP00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-117.18 N at 237.60 ms

Max. Value
426.73 N at 146.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

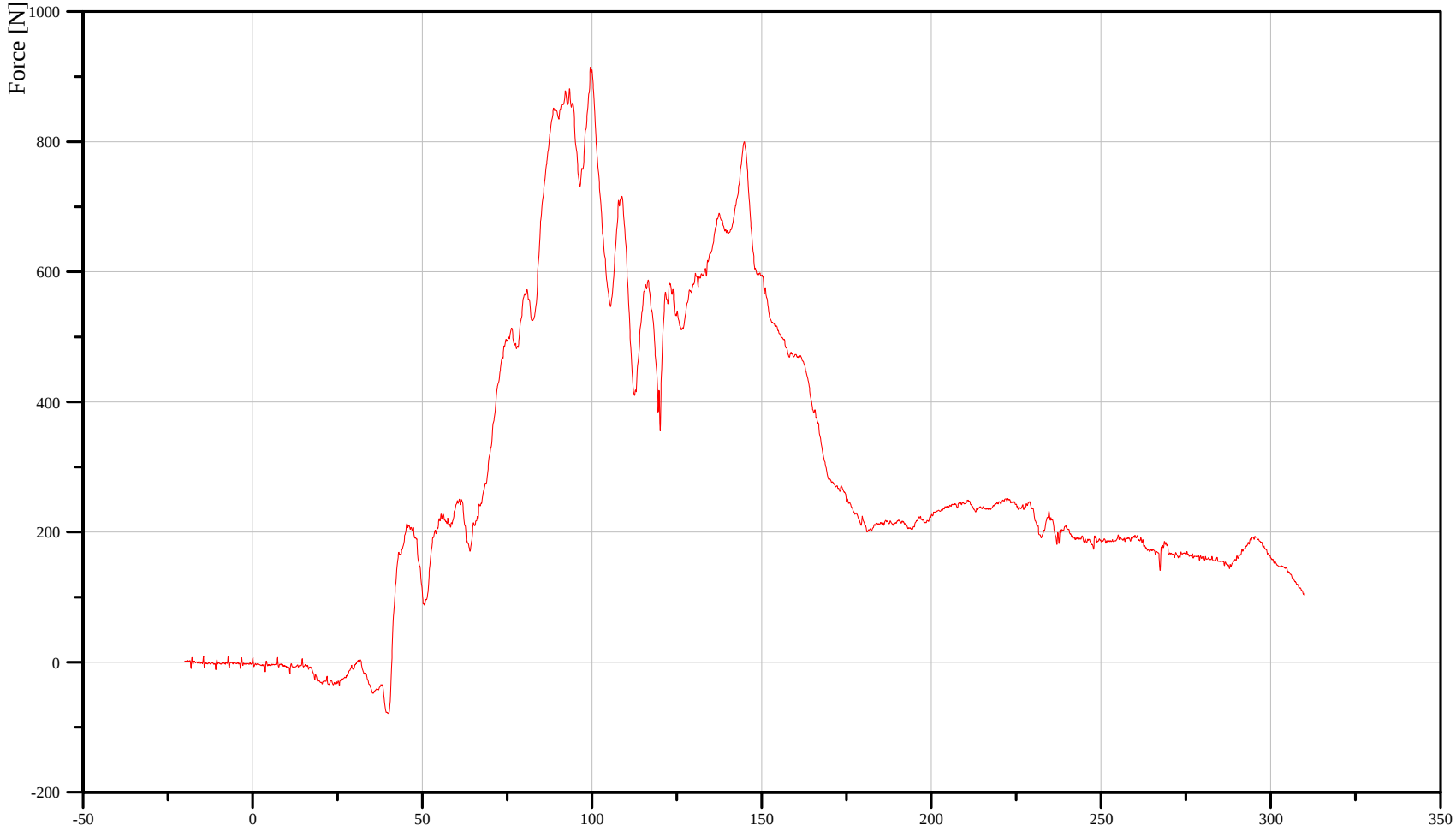
Driver Upper Neck Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKUP00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-79.28 N at 40.08 ms

Max. Value
914.50 N at 99.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

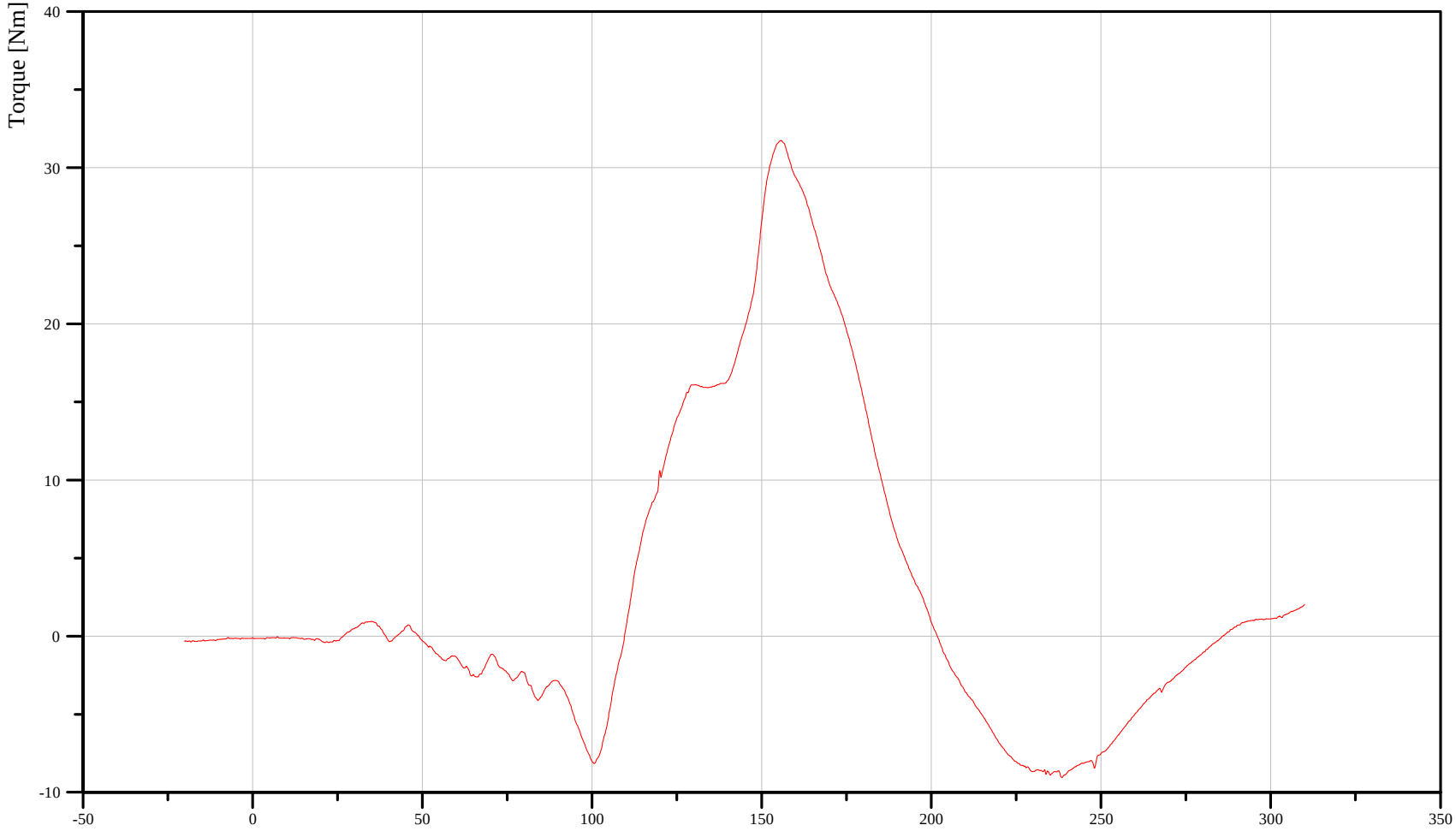
Driver Upper Neck Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKUP00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-9.06 Nm at 238.48 ms

Max. Value
31.74 Nm at 155.76 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

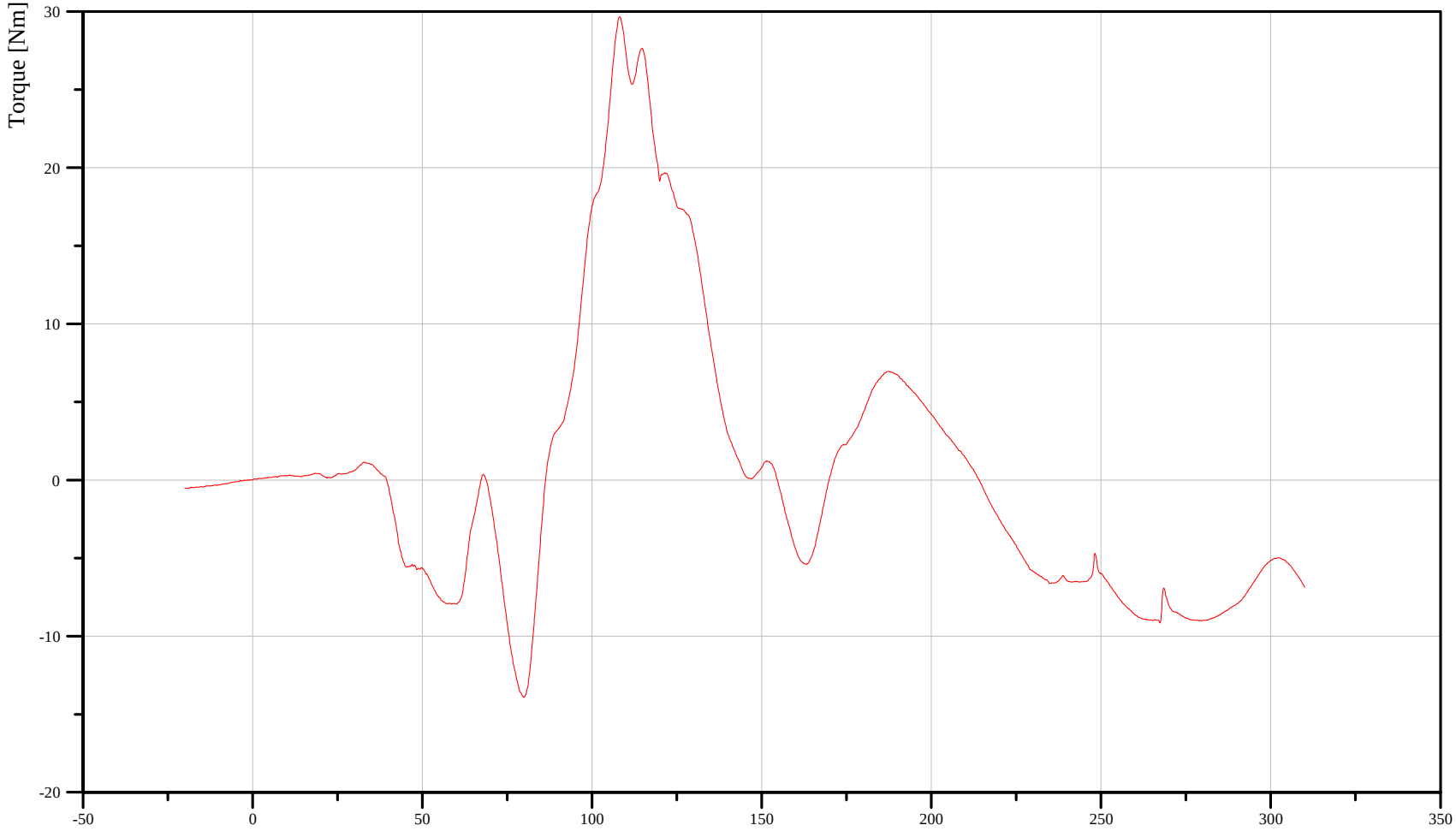
Driver Upper Neck Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKUP00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-13.90 Nm at 79.92 ms

Max. Value
29.67 Nm at 108.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

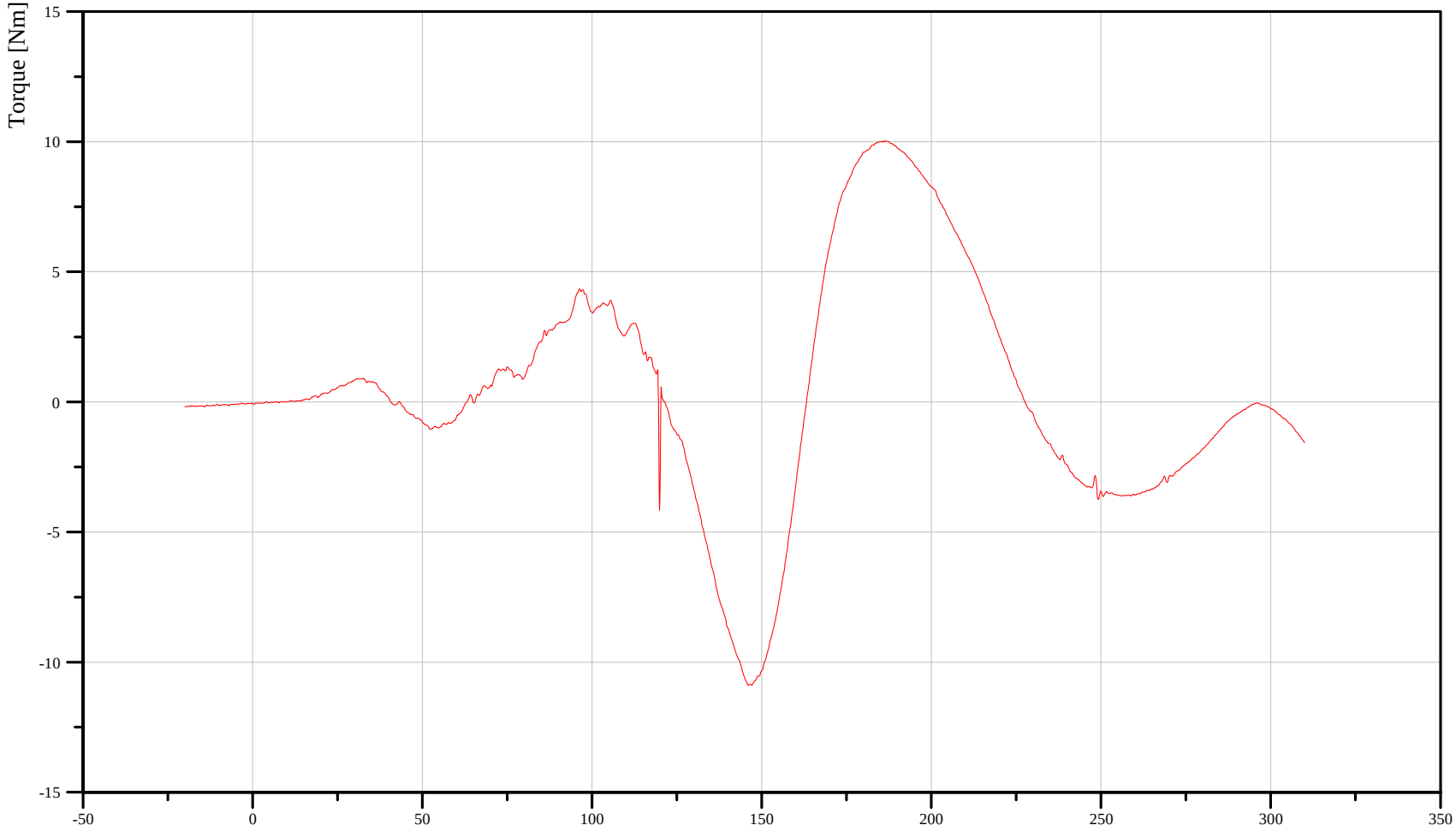
Driver Upper Neck Moment About Z Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKUP00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-10.89 Nm at 147.12 ms

Max. Value
10.03 Nm at 186.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

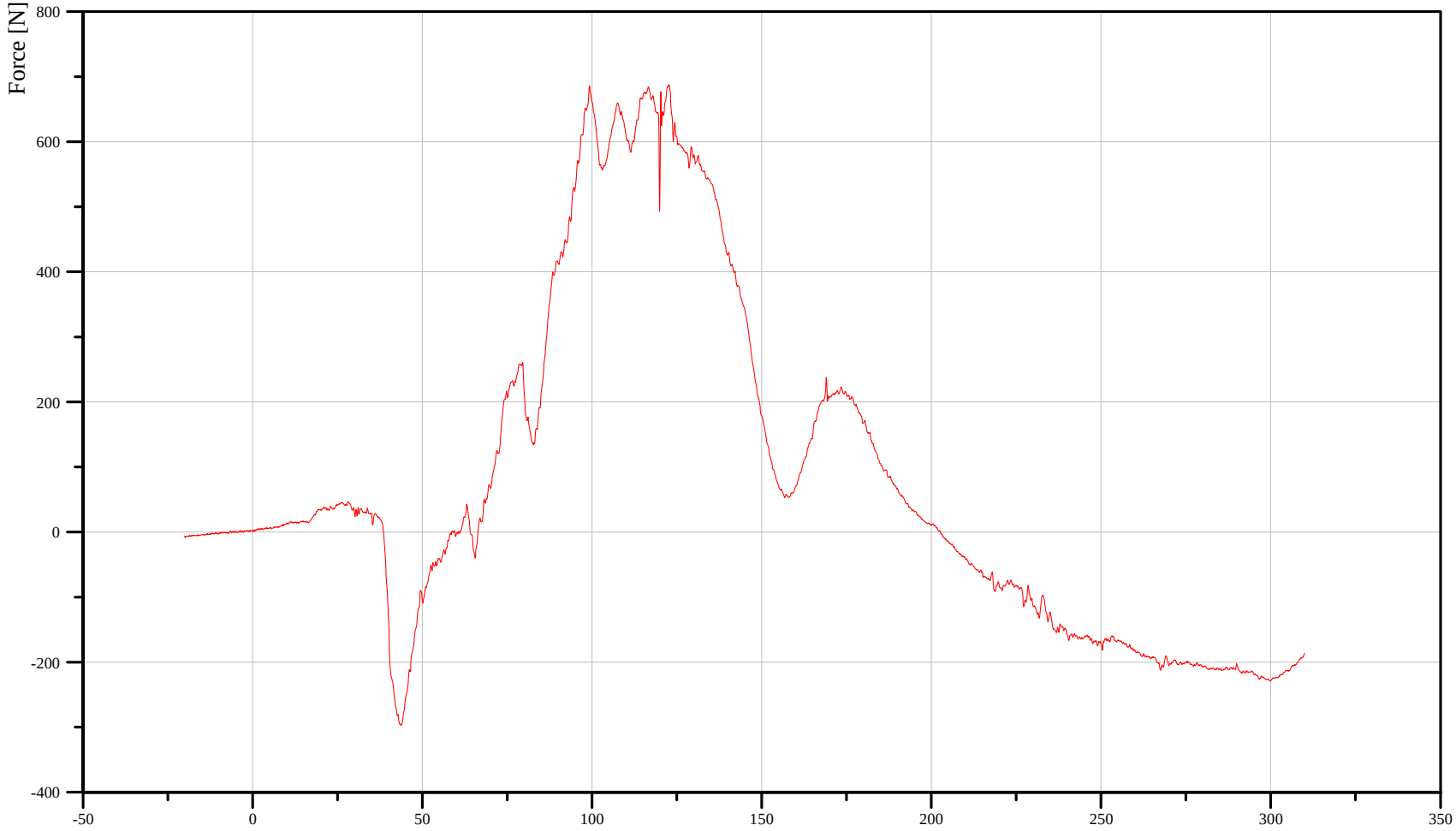
Driver Lower Neck X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKLO00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-297.27 N at 43.68 ms

Max. Value
687.91 N at 122.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

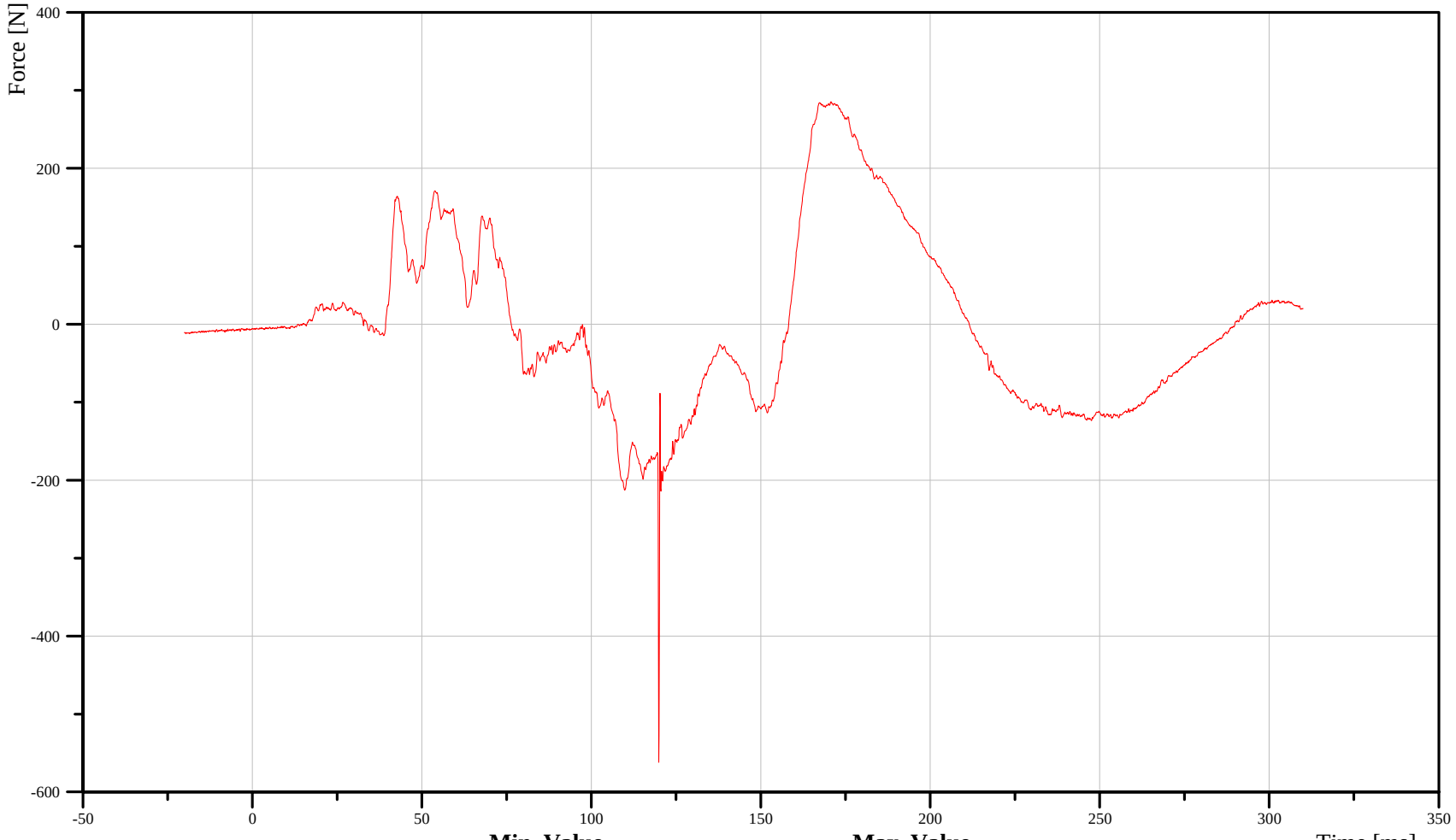
Driver Lower Neck Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKLO00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-561.83 N at 119.92 ms

Max. Value
285.49 N at 170.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

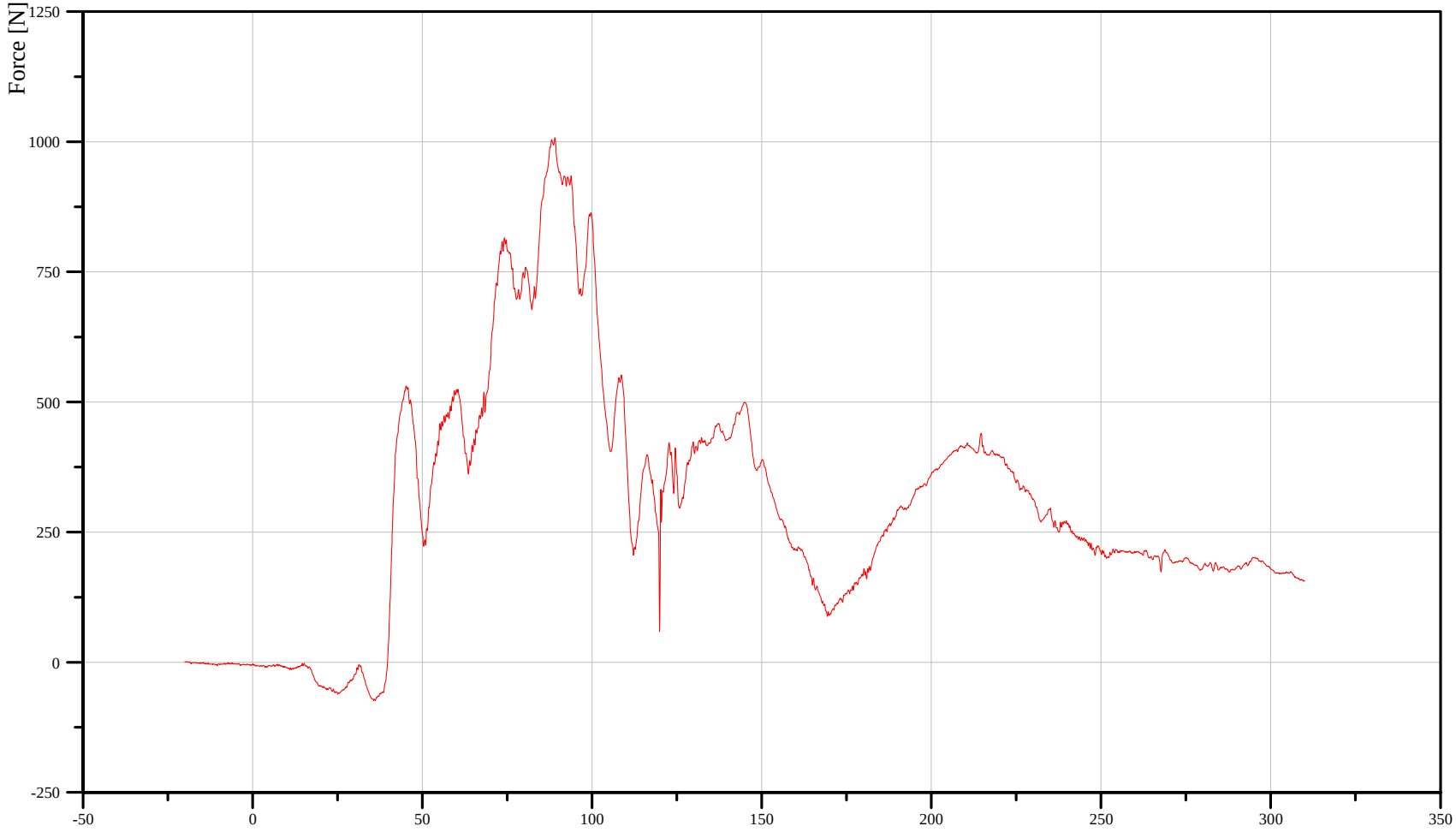
Driver Lower Neck Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKLO00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-73.26 N at 35.68 ms

Max. Value
1,007.84 N at 89.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

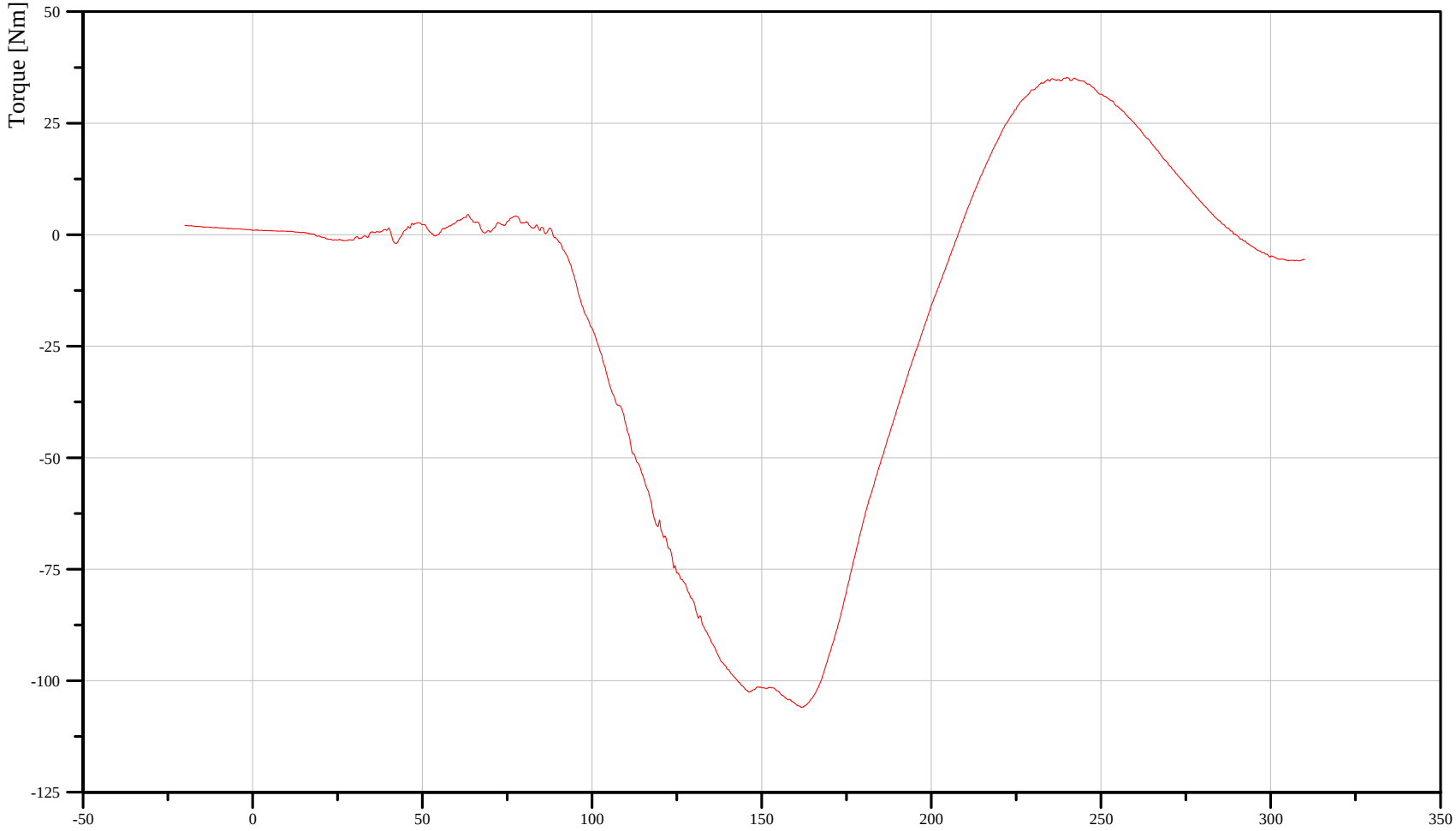
Driver Lower Neck Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKLO00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-105.95 Nm at 161.76 ms

Max. Value
35.26 Nm at 239.84 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

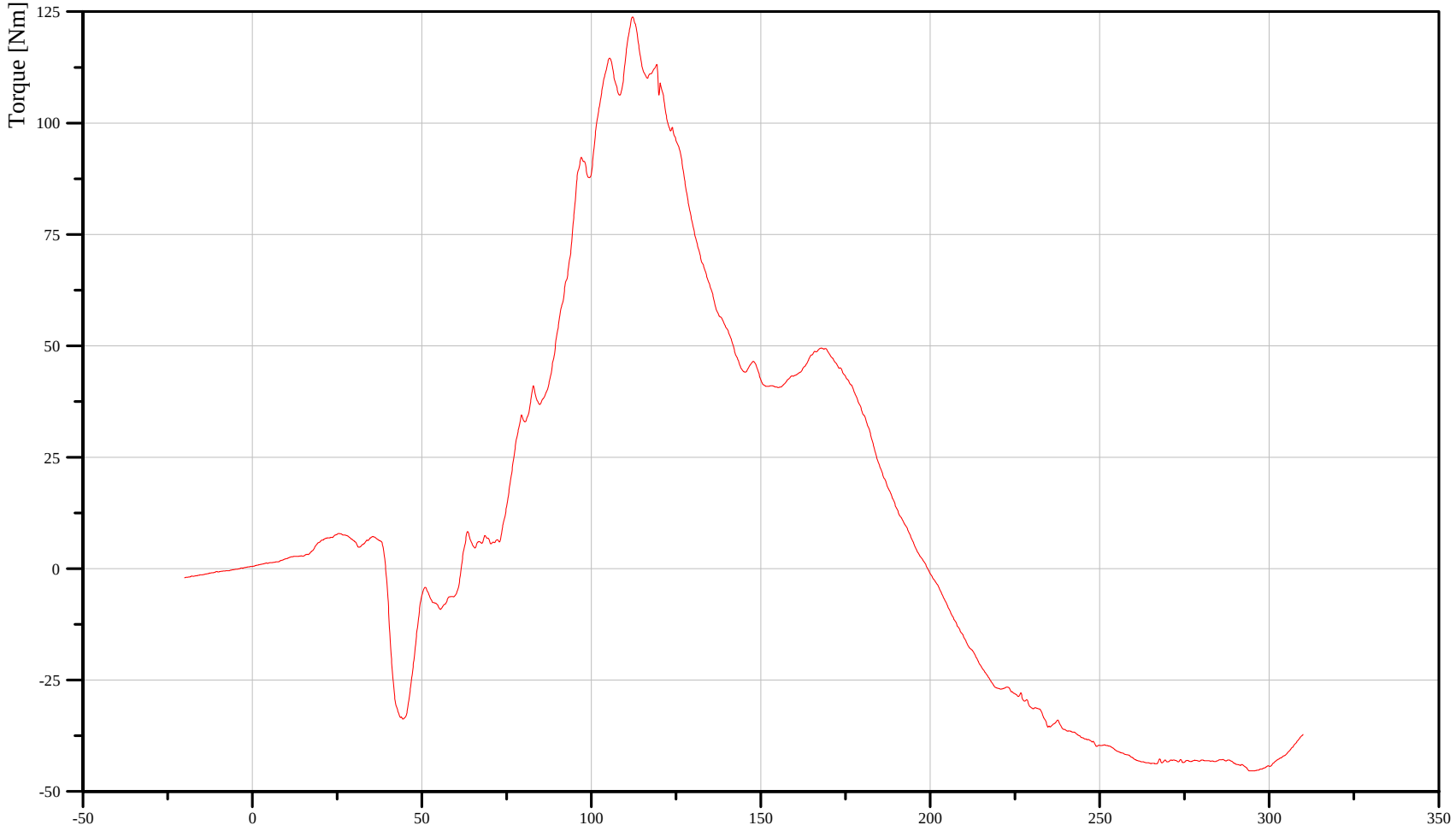
Driver Lower Neck Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKLO00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-45.37 Nm at 295.36 ms

Max. Value
123.81 Nm at 112.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

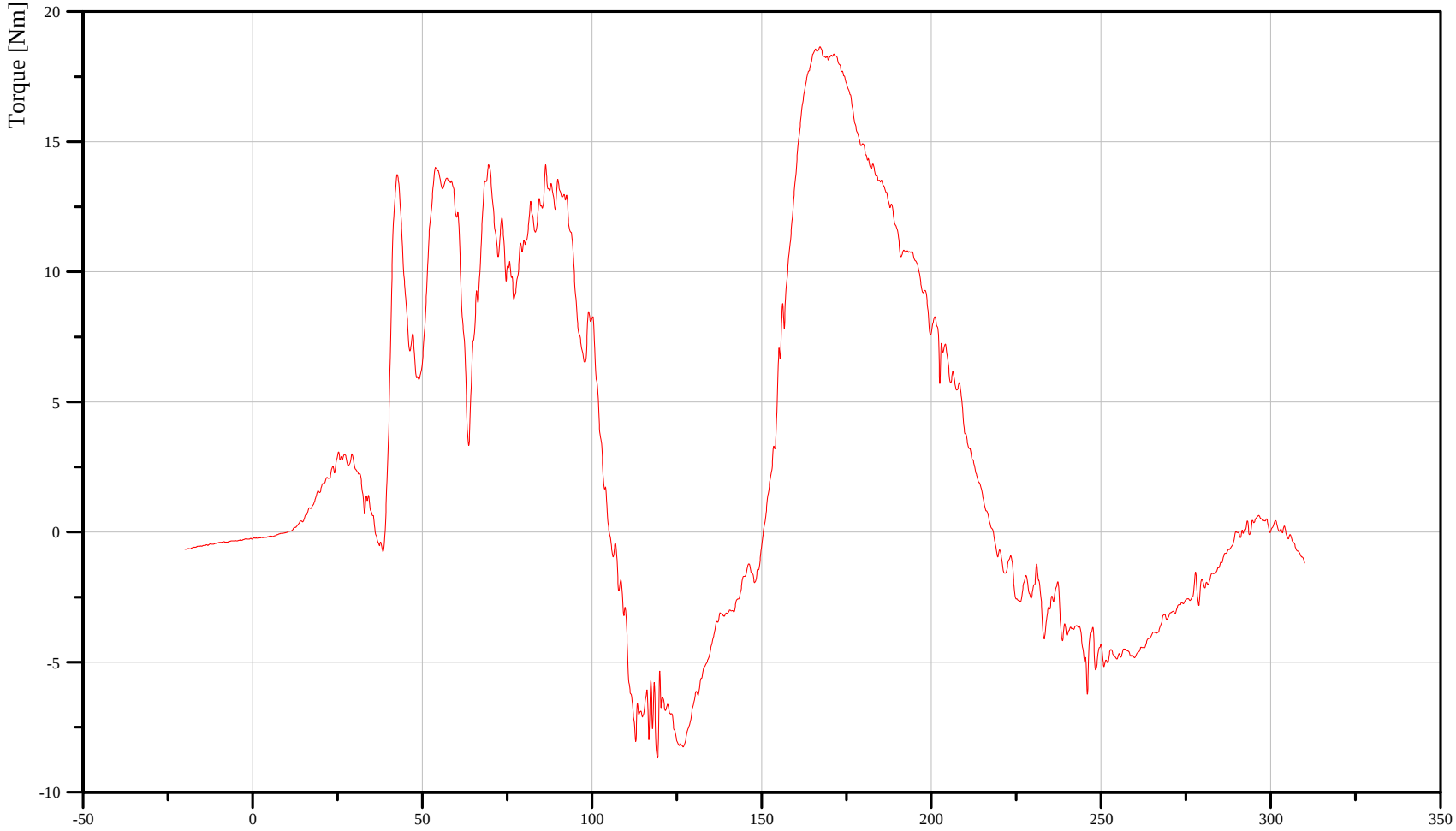
Driver Lower Neck Moment About Z Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11NECKLO00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-8.68 Nm at 119.36 ms

Max. Value
18.65 Nm at 167.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

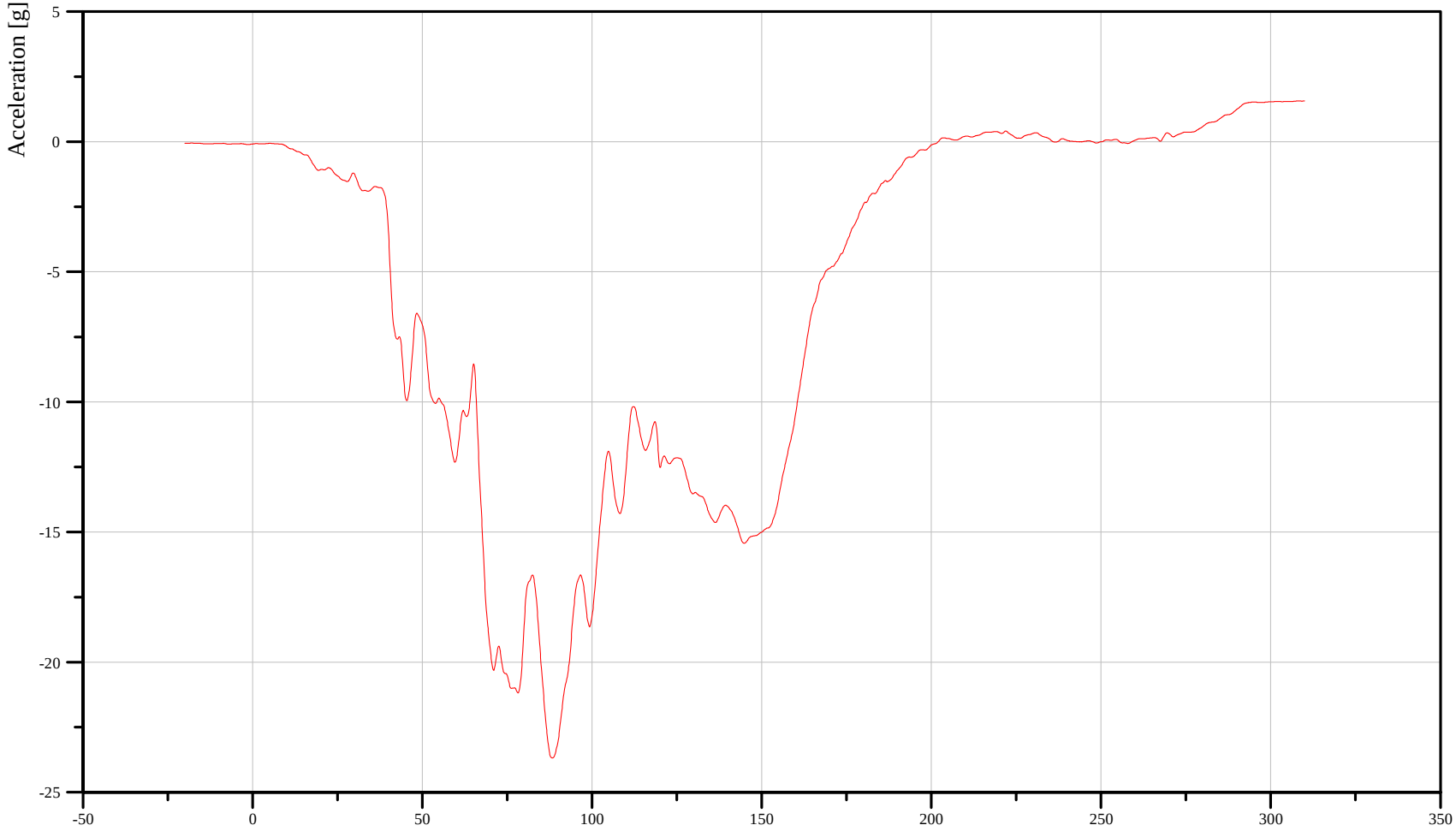
Driver Chest X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-23.68 g at 88.48 ms

Max. Value
1.57 g at 308.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

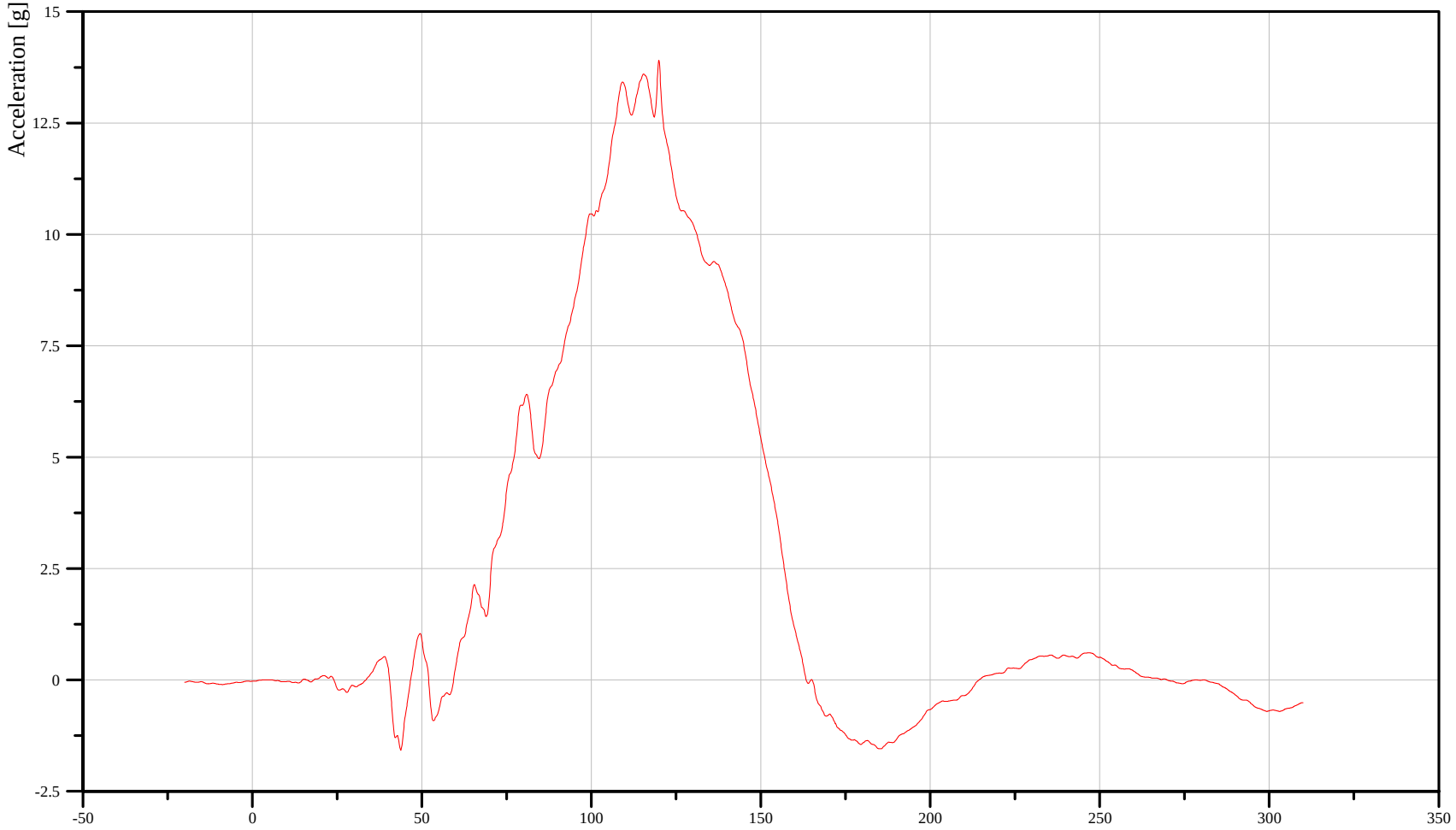
Driver Chest Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.57 g at 43.76 ms

Max. Value
13.91 g at 119.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

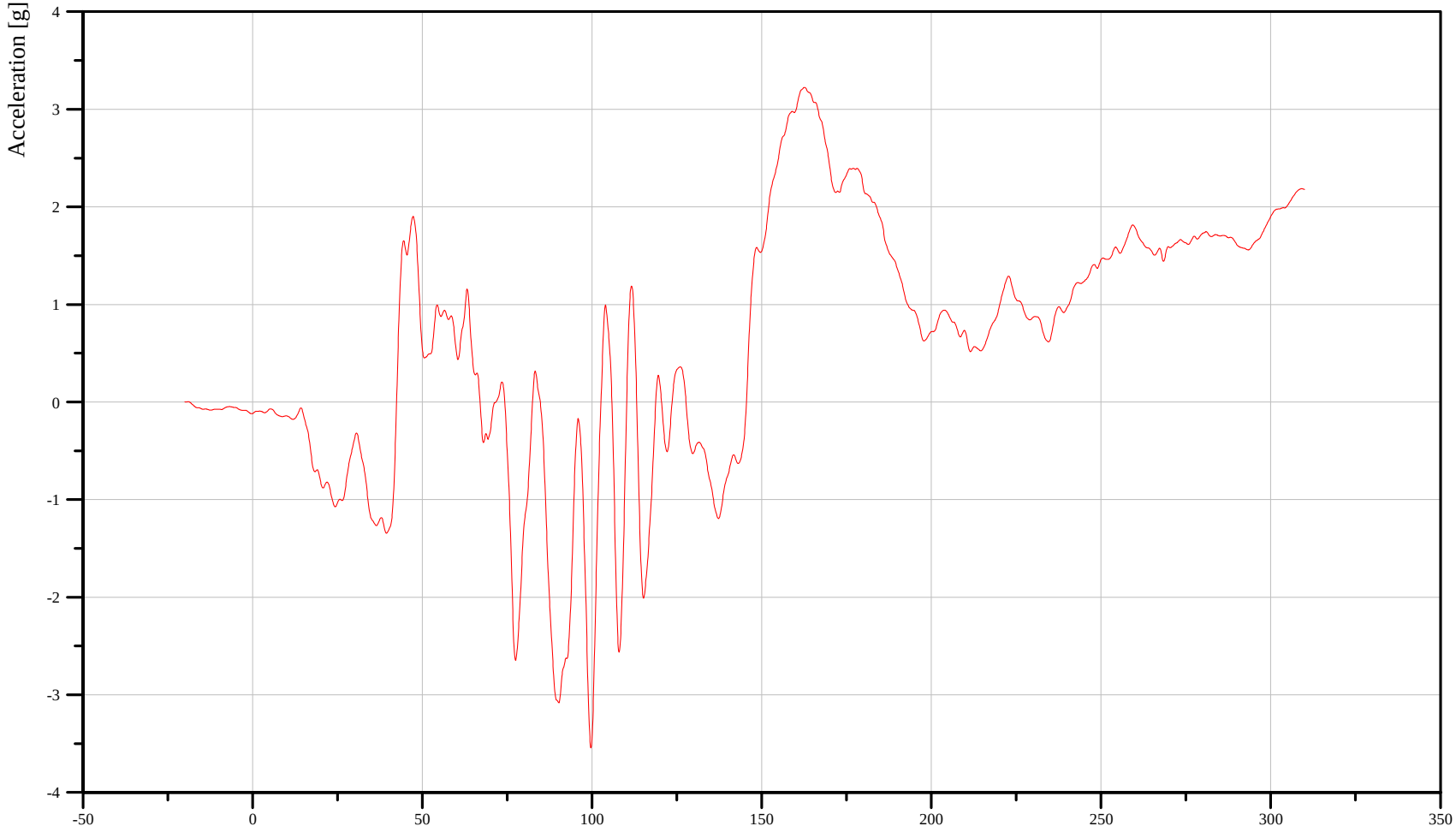
Driver Chest Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-3.54 g at 99.68 ms

Max. Value
3.22 g at 162.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

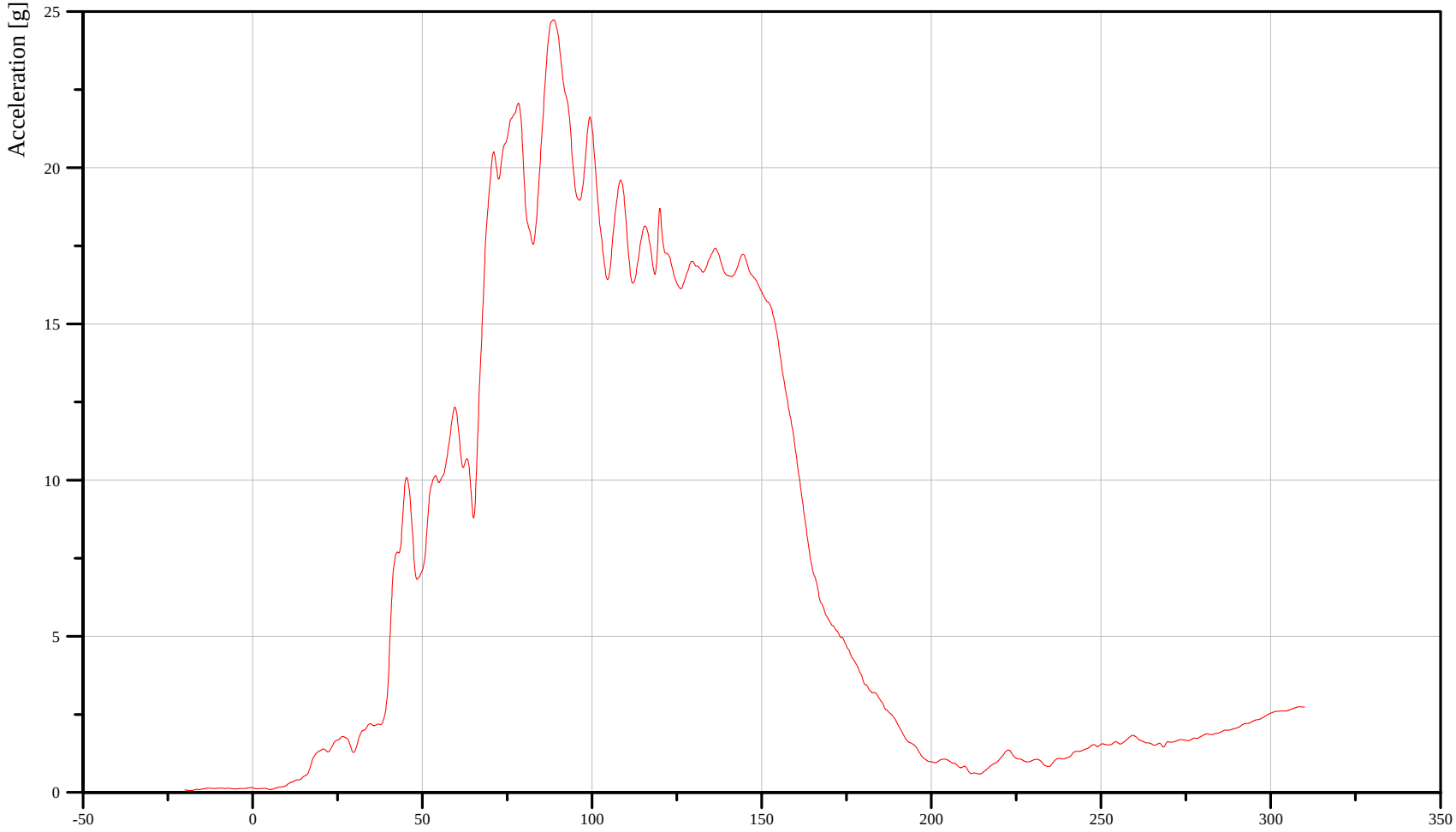
Driver Chest Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.06 g at -18.32 ms

Max. Value
24.74 g at 88.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

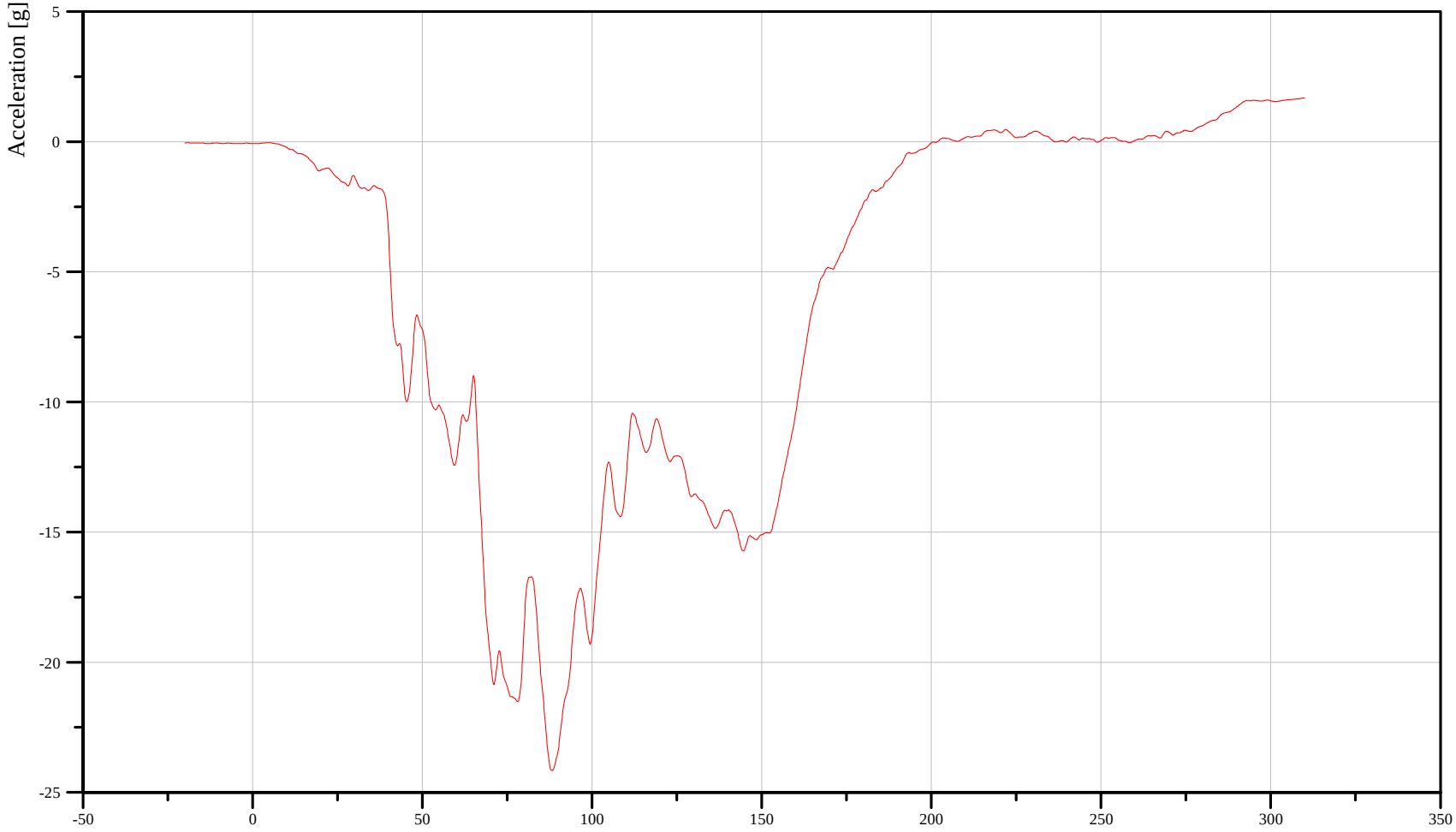
Driver Chest X-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-24.16 g at 88.24 ms

Max. Value
1.68 g at 309.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

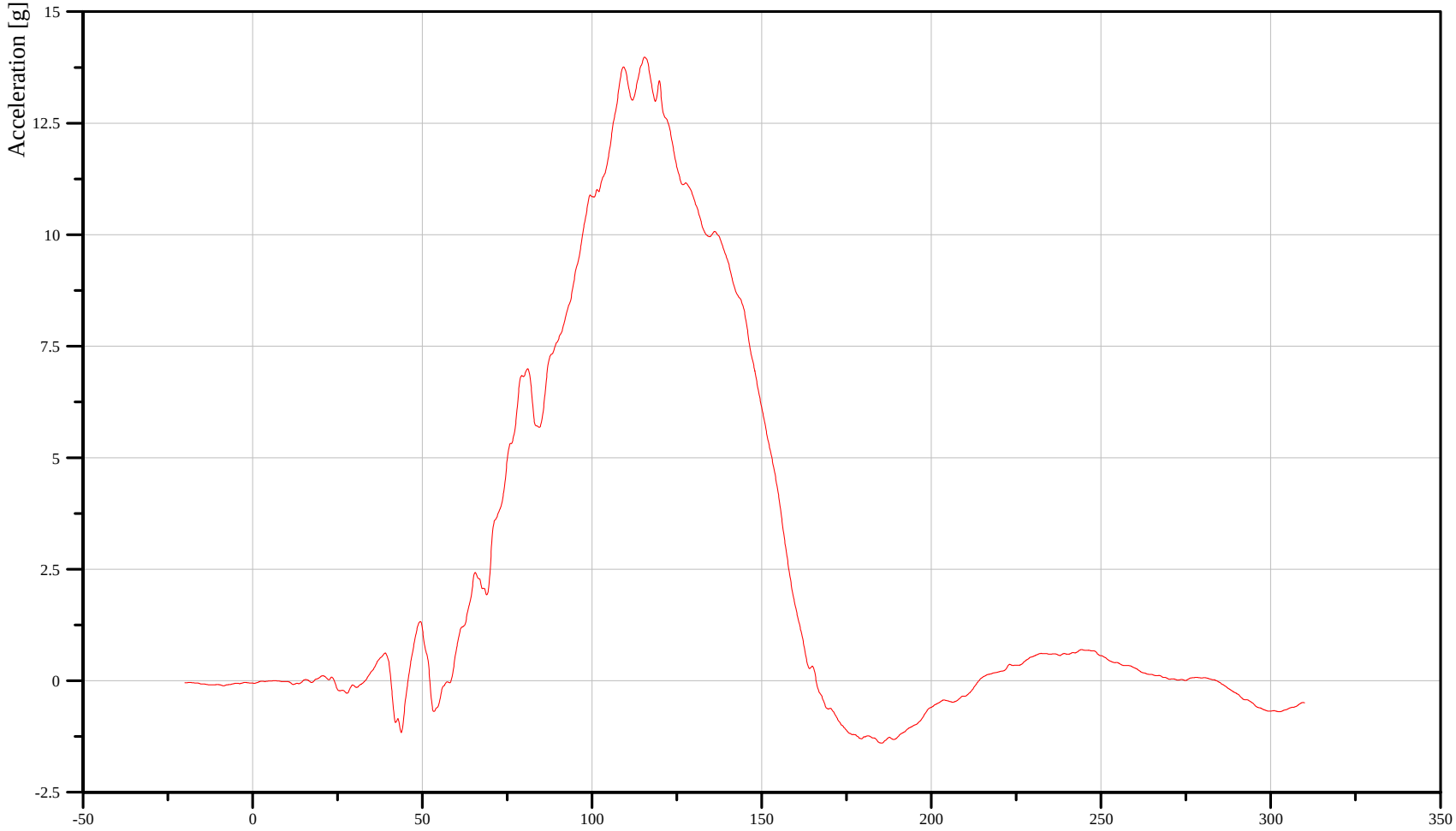
Driver Chest Y-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.39 g at 185.20 ms

Max. Value
13.98 g at 115.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

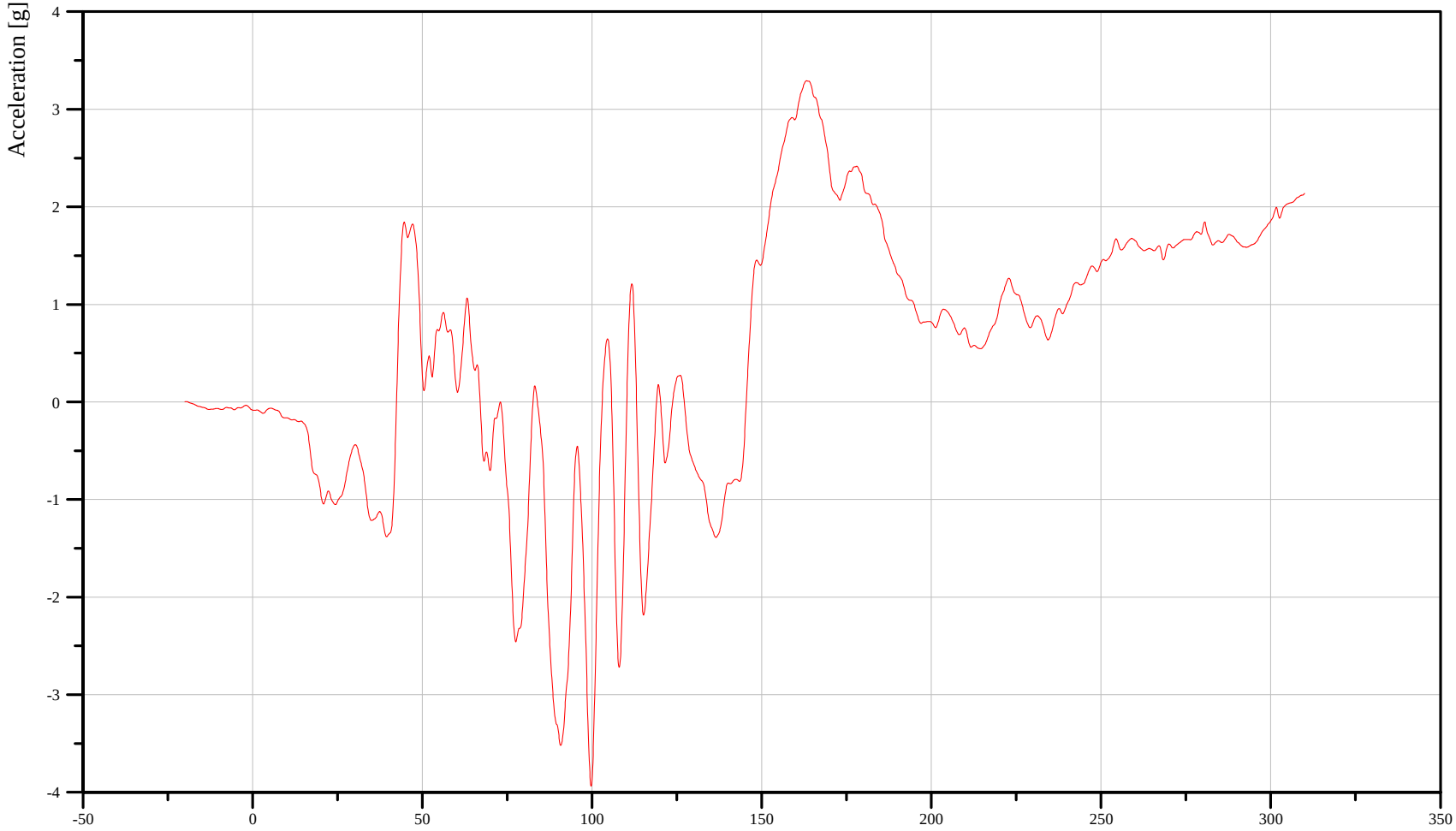
Driver Chest Z-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-3.94 g at 99.76 ms

Max. Value
3.29 g at 163.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

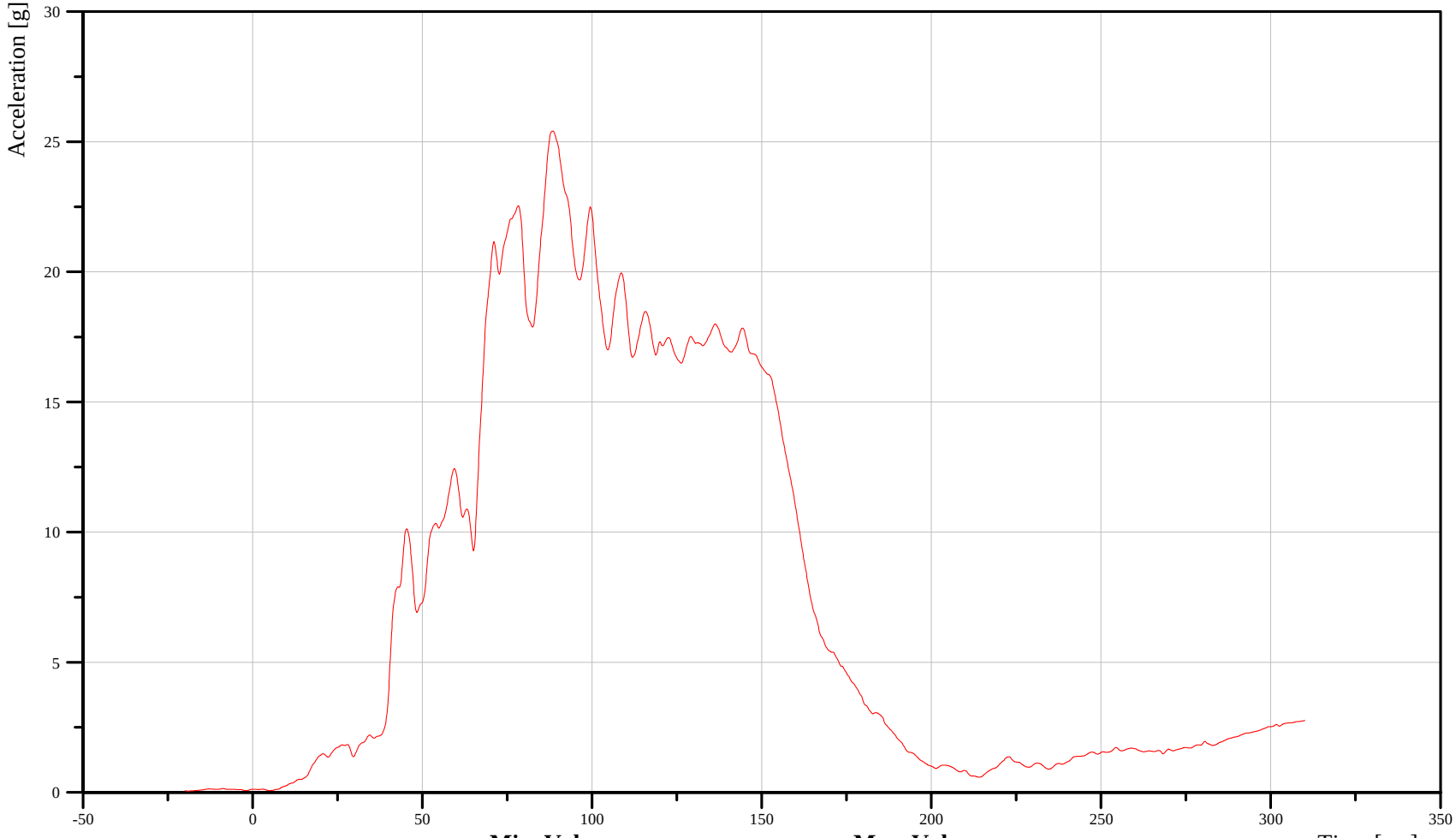
Driver Chest Redundant Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.05 g at -18.96 ms

Max. Value
25.41 g at 88.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

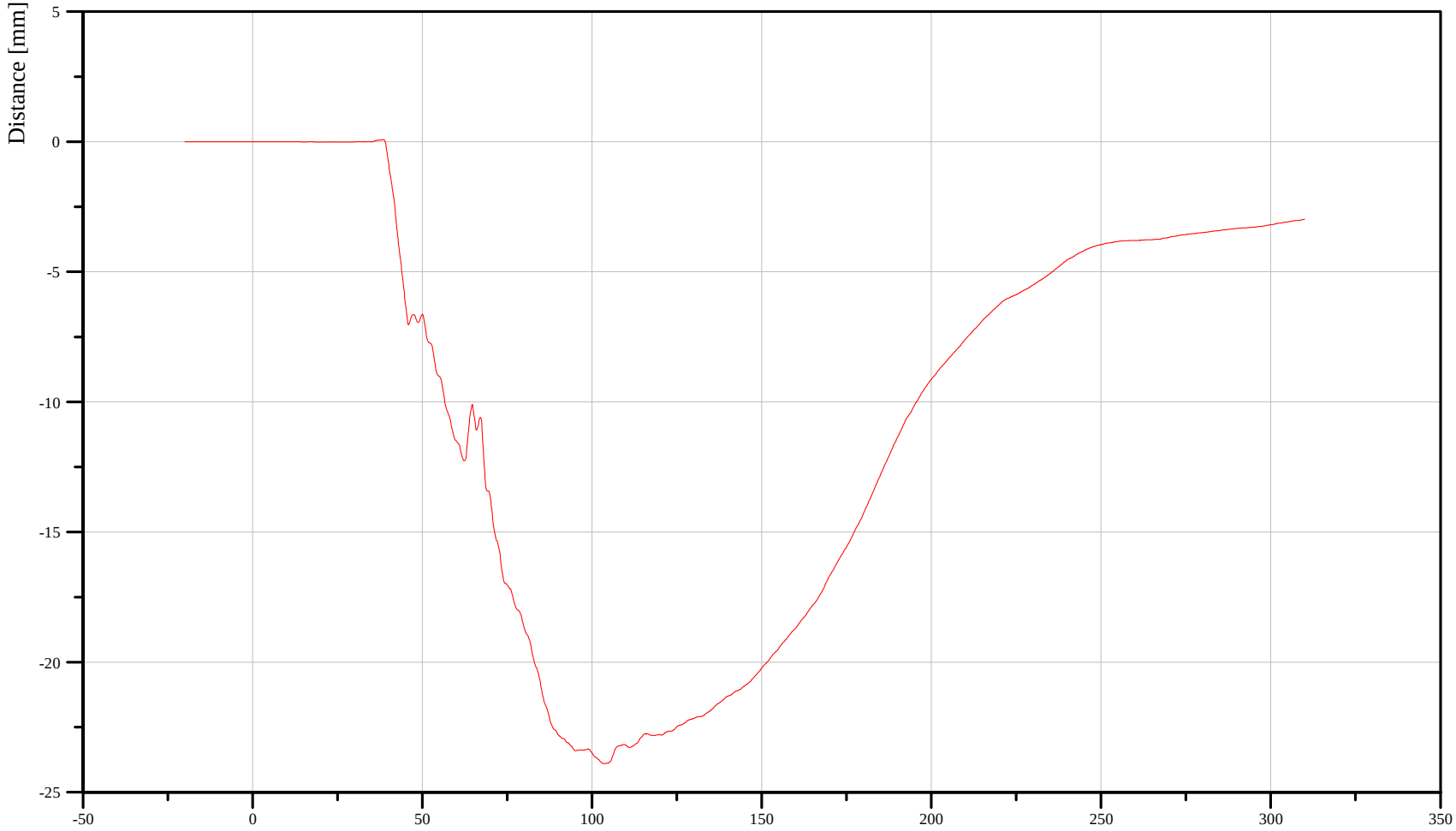
Driver Chest Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CHST0000H3DSXB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-23.90 mm at 103.60 ms

Max. Value
0.08 mm at 38.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

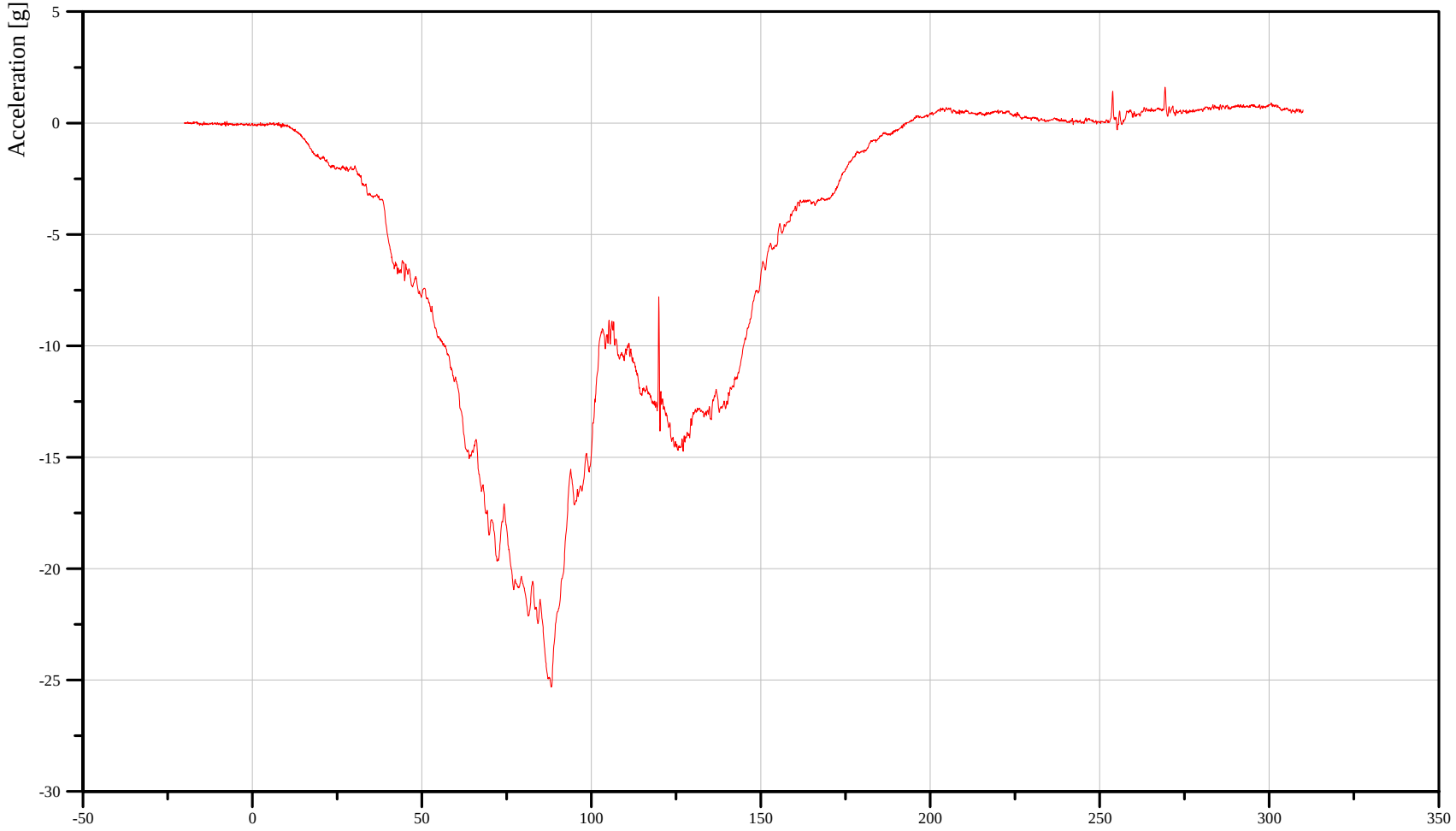
Driver Pelvis X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PELVCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-25.31 g at 88.16 ms

Max. Value
1.61 g at 269.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

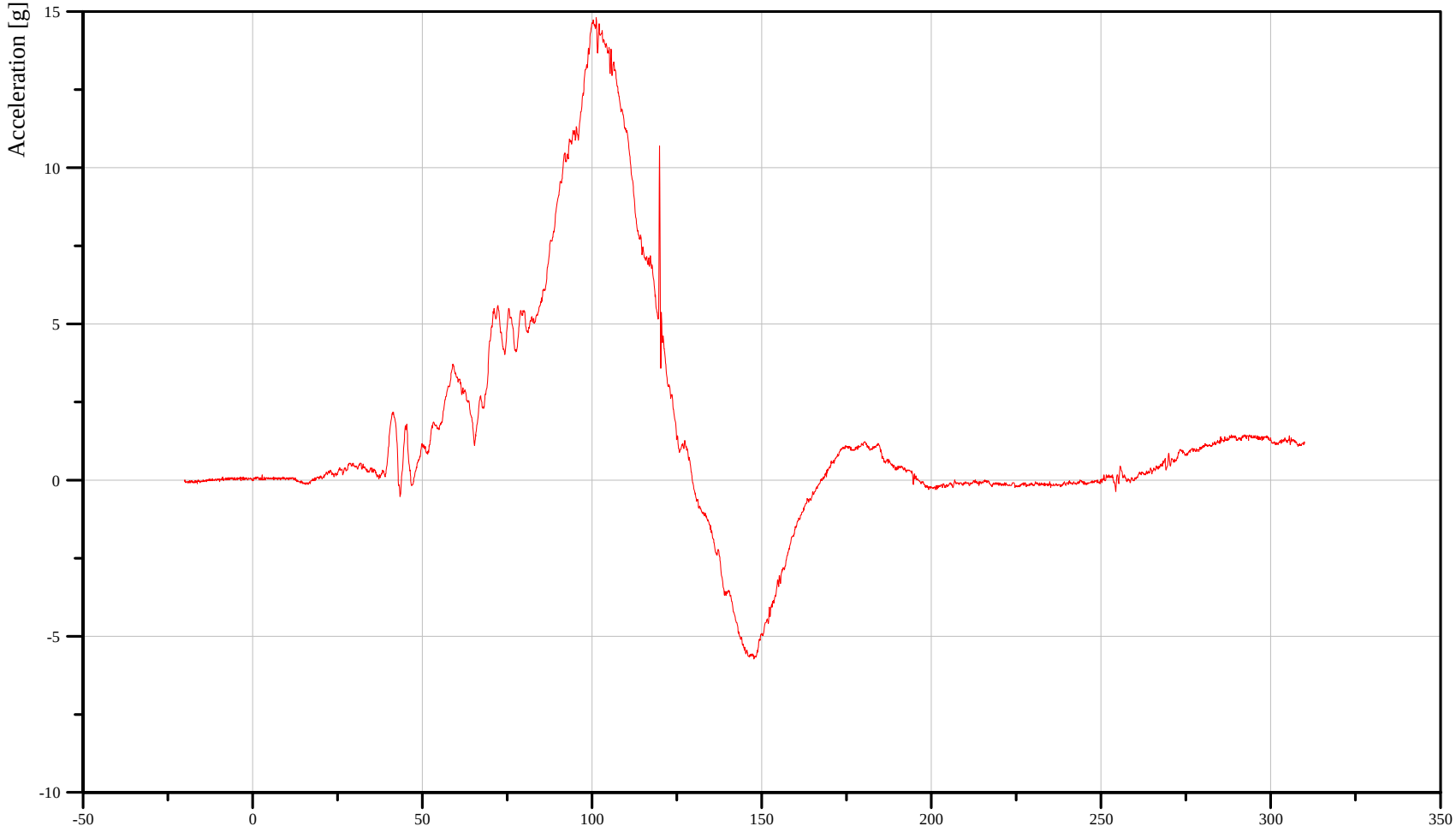
Driver Pelvis Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PELVCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-5.72 g at 147.76 ms

Max. Value
14.80 g at 101.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

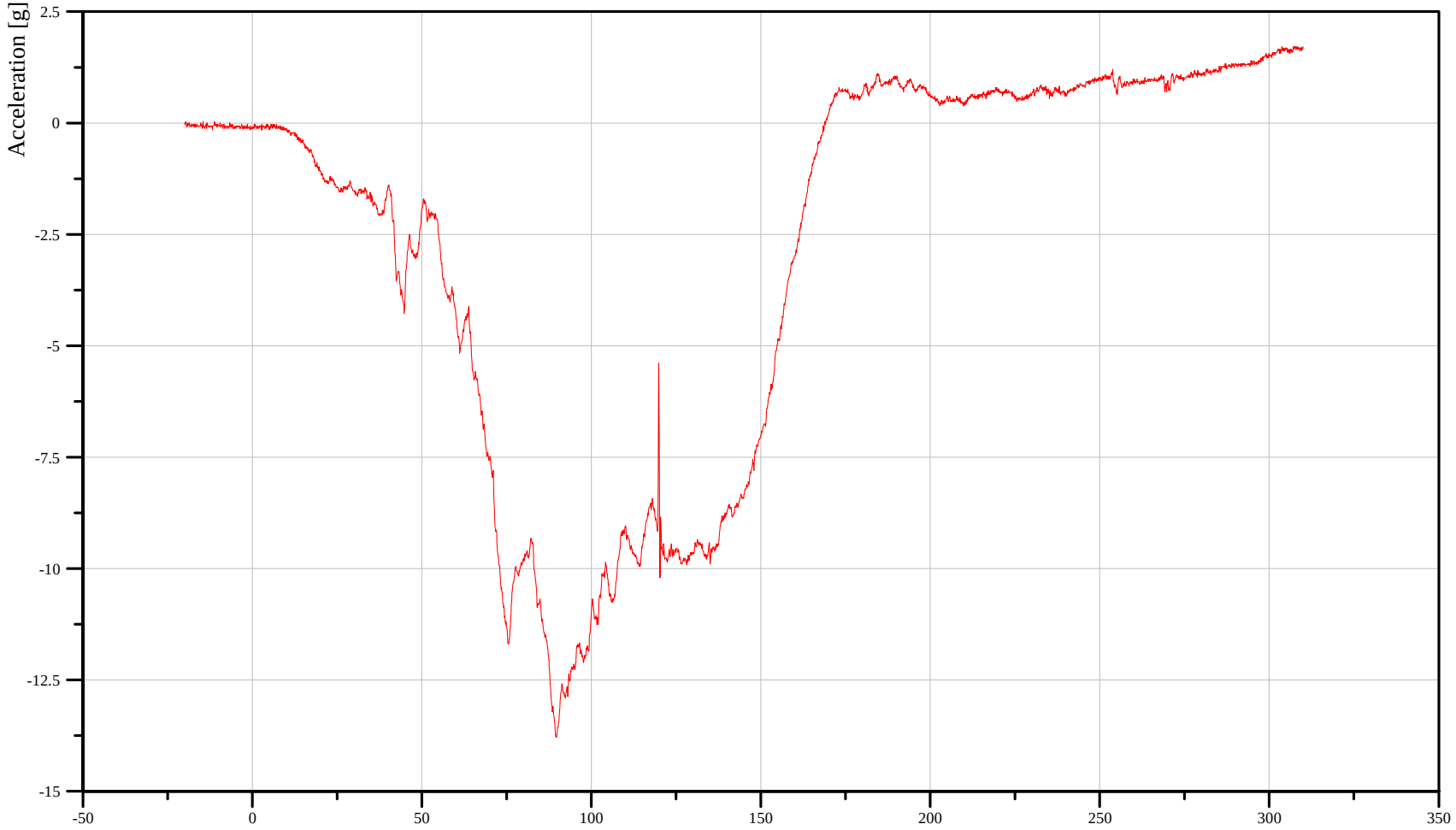
Driver Pelvis Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PELVCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-13.79 g at 89.60 ms

Max. Value
1.72 g at 303.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

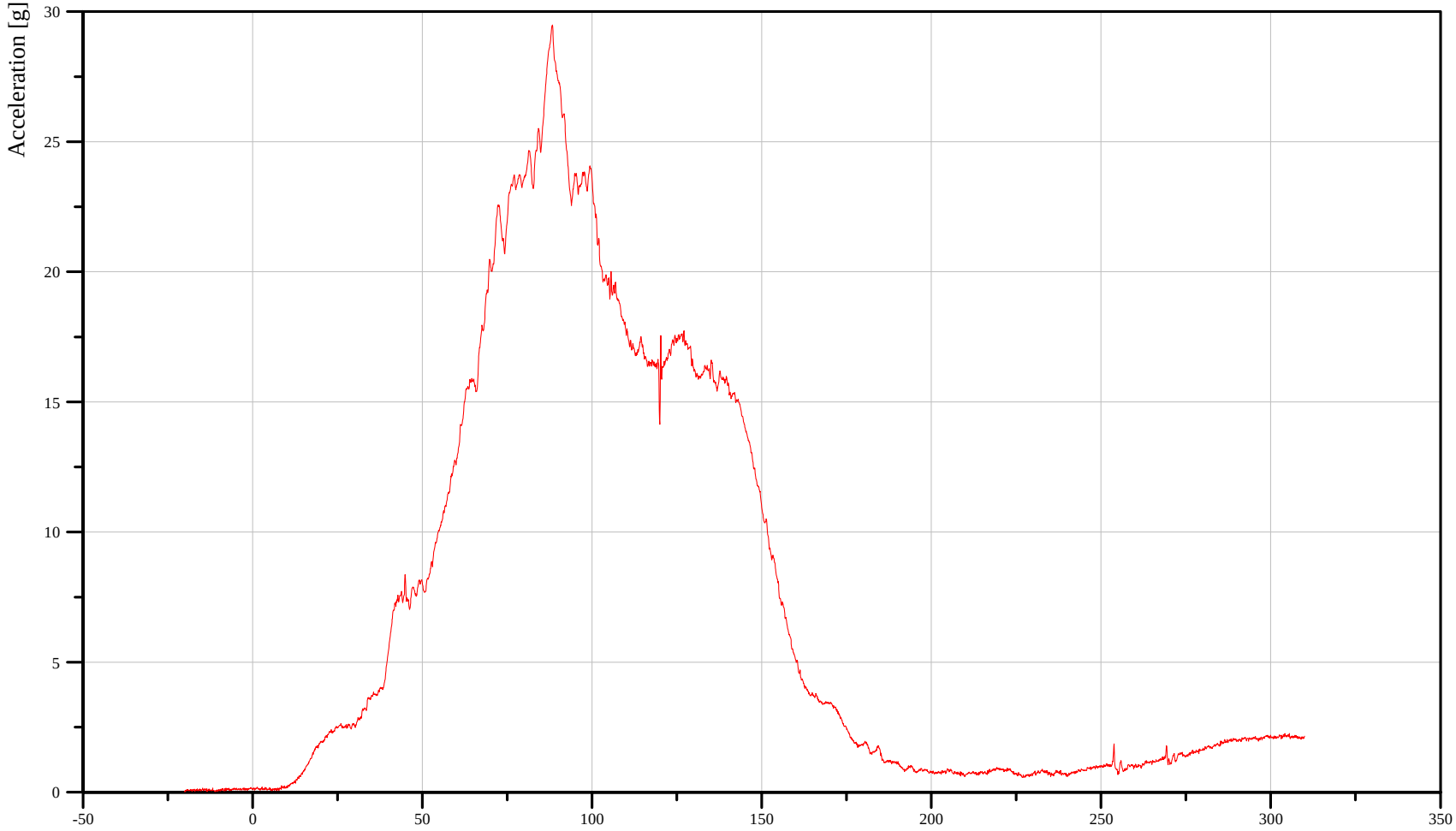
Driver Pelvis Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PELVCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.02 g at -19.92 ms

Max. Value
29.49 g at 88.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

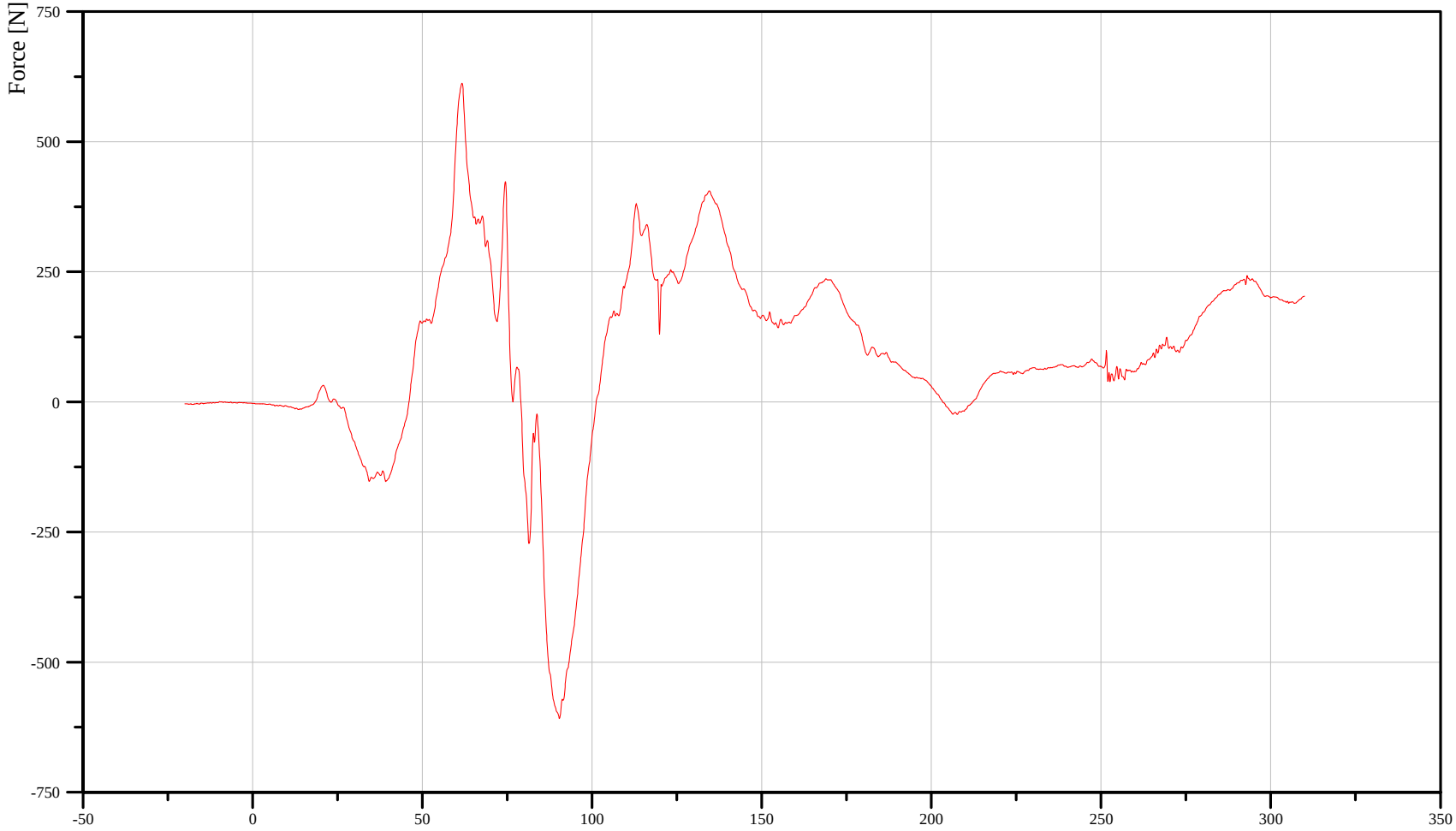
Driver Left Femur Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-608.08 N at 90.40 ms

Max. Value
612.48 N at 61.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

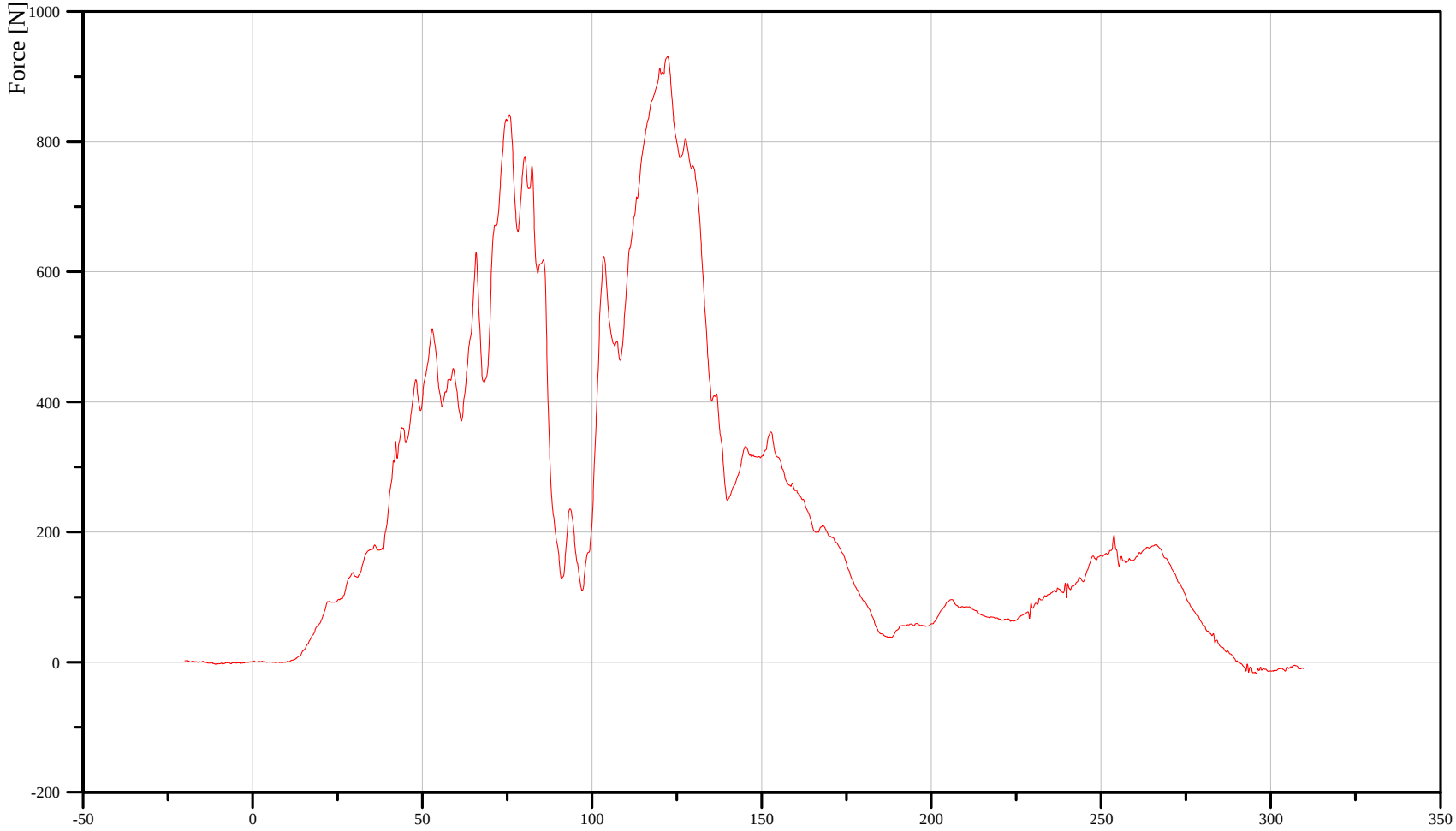
Driver Right Femur Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-17.54 N at 295.76 ms

Max. Value
930.99 N at 122.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

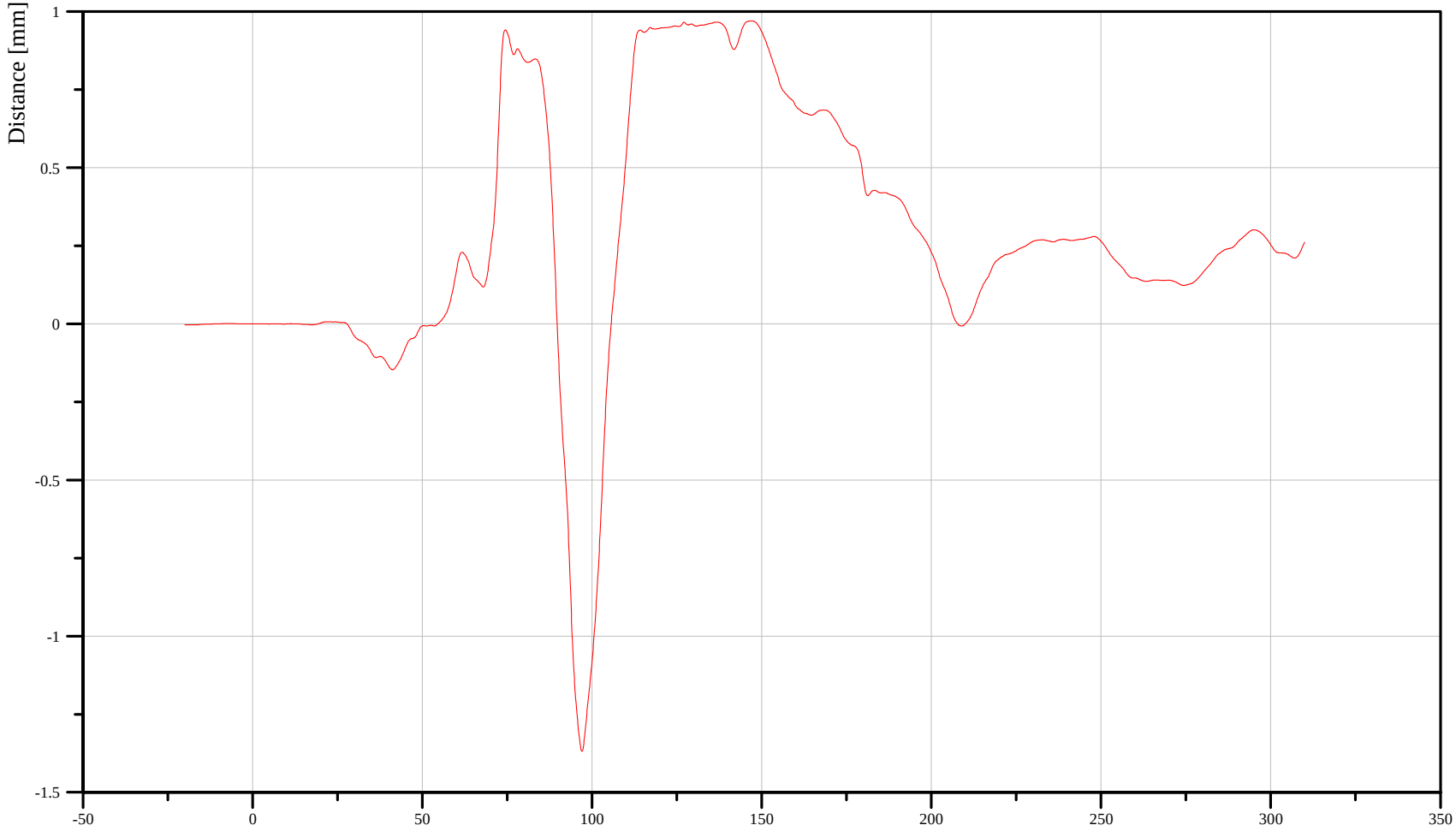
Driver Left Knee Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11KNSLLE00H3DSXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.37 mm at 97.04 ms

Max. Value
0.97 mm at 146.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

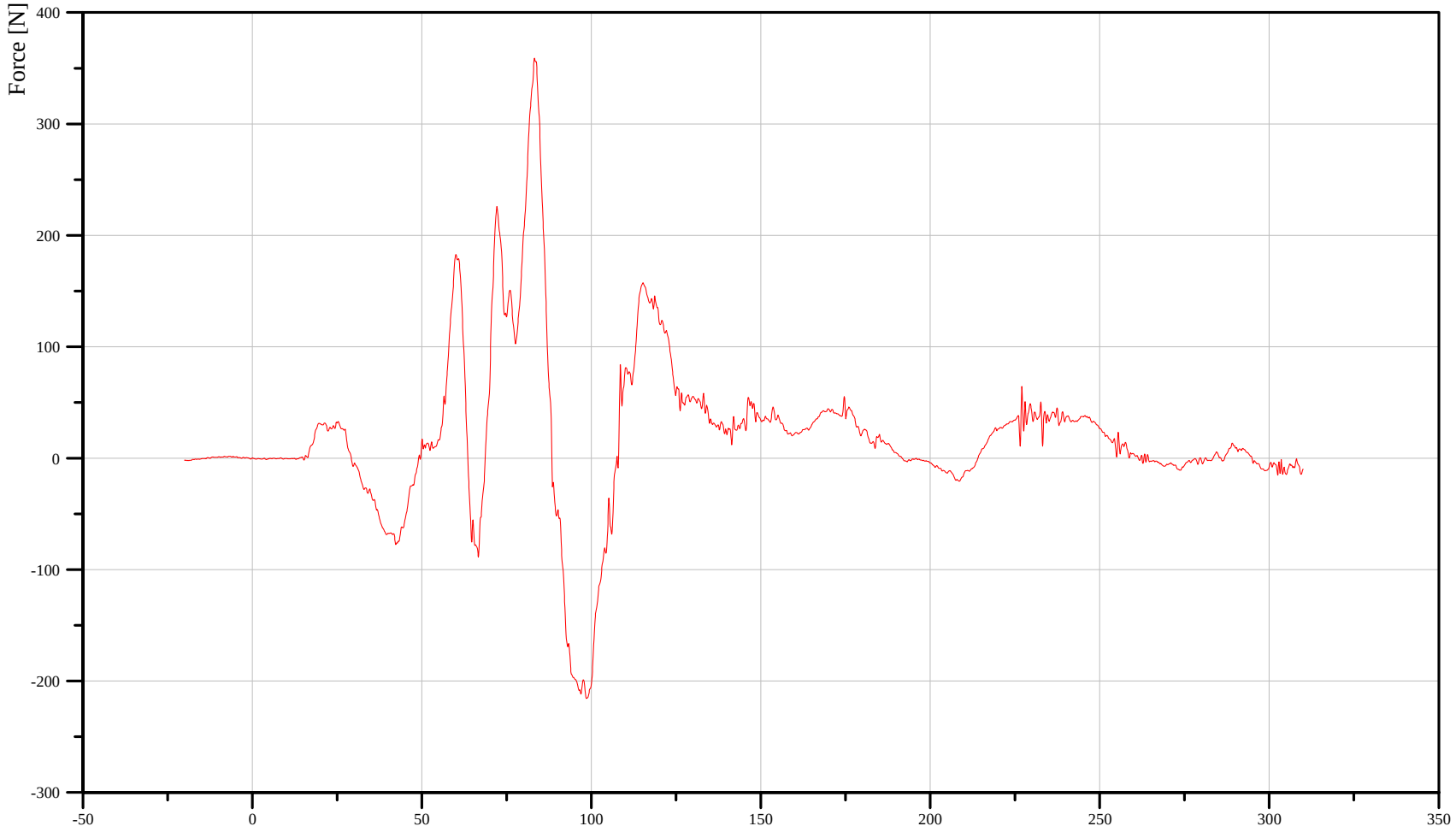
Driver Left Upper Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILULXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-215.69 N at 98.56 ms

Max. Value
358.85 N at 83.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

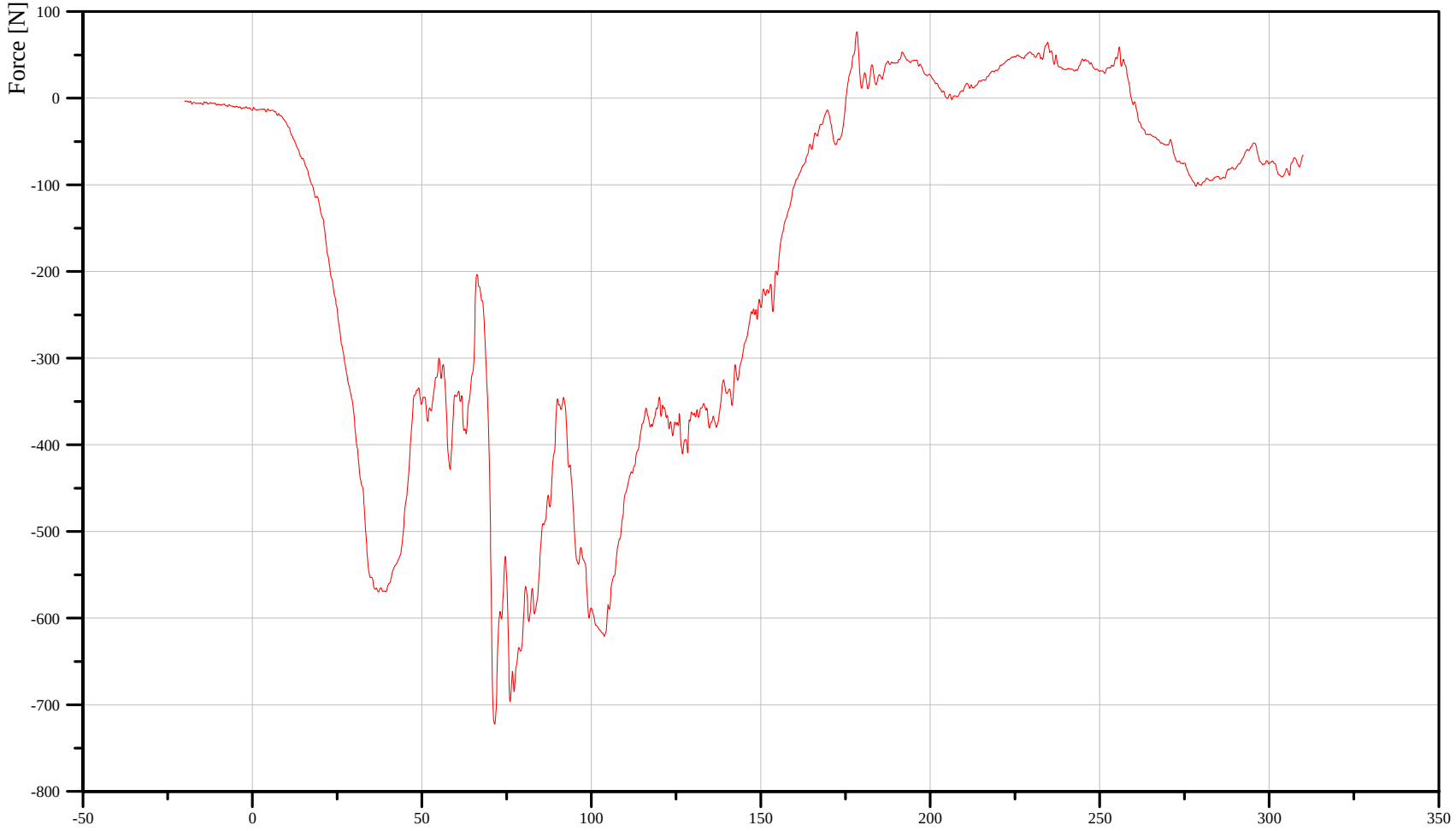
Driver Left Upper Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-722.28 N at 71.52 ms

Max. Value
76.83 N at 178.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

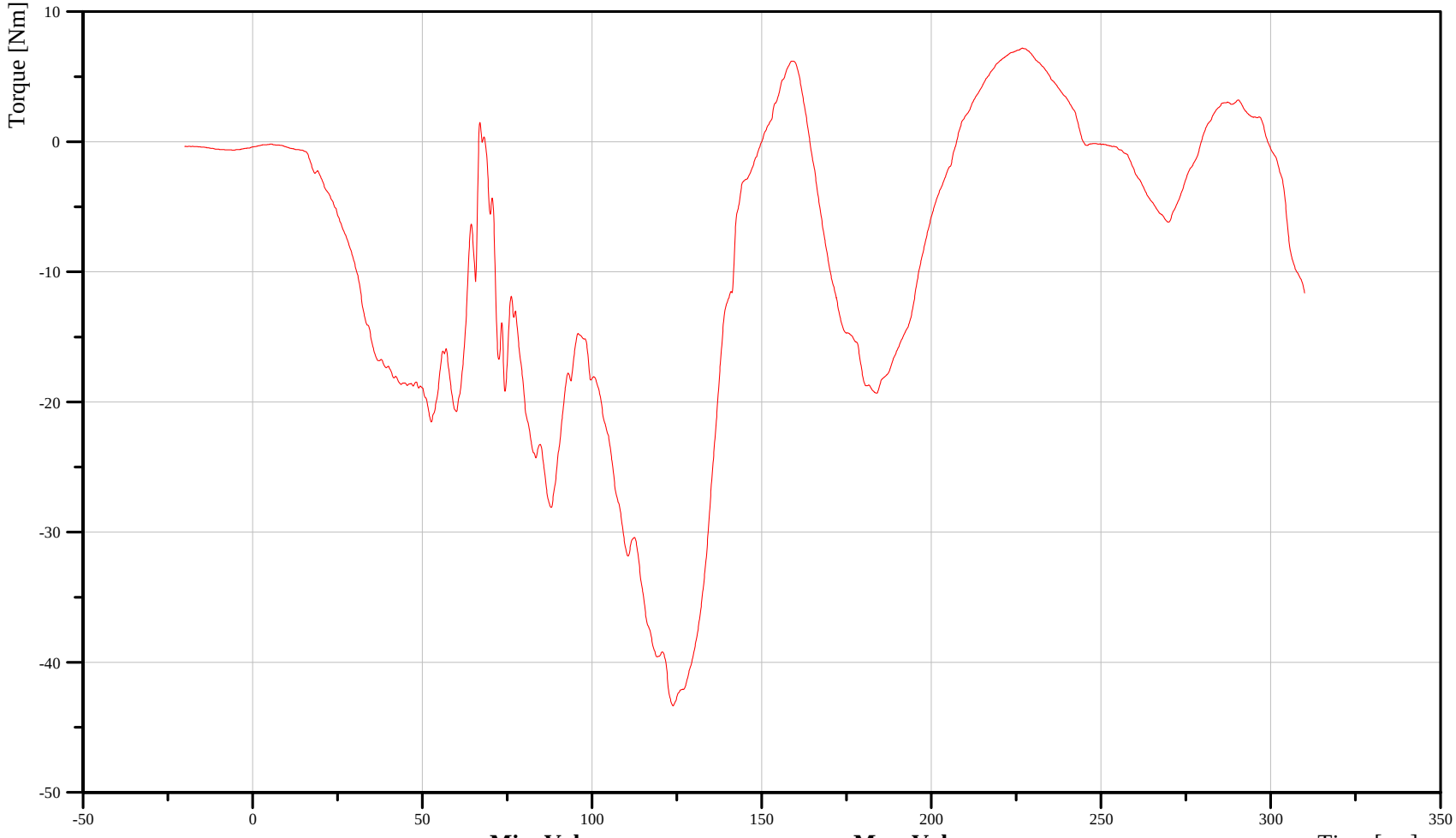
Driver Left Upper Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-43.34 Nm at 123.92 ms

Max. Value
7.18 Nm at 226.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

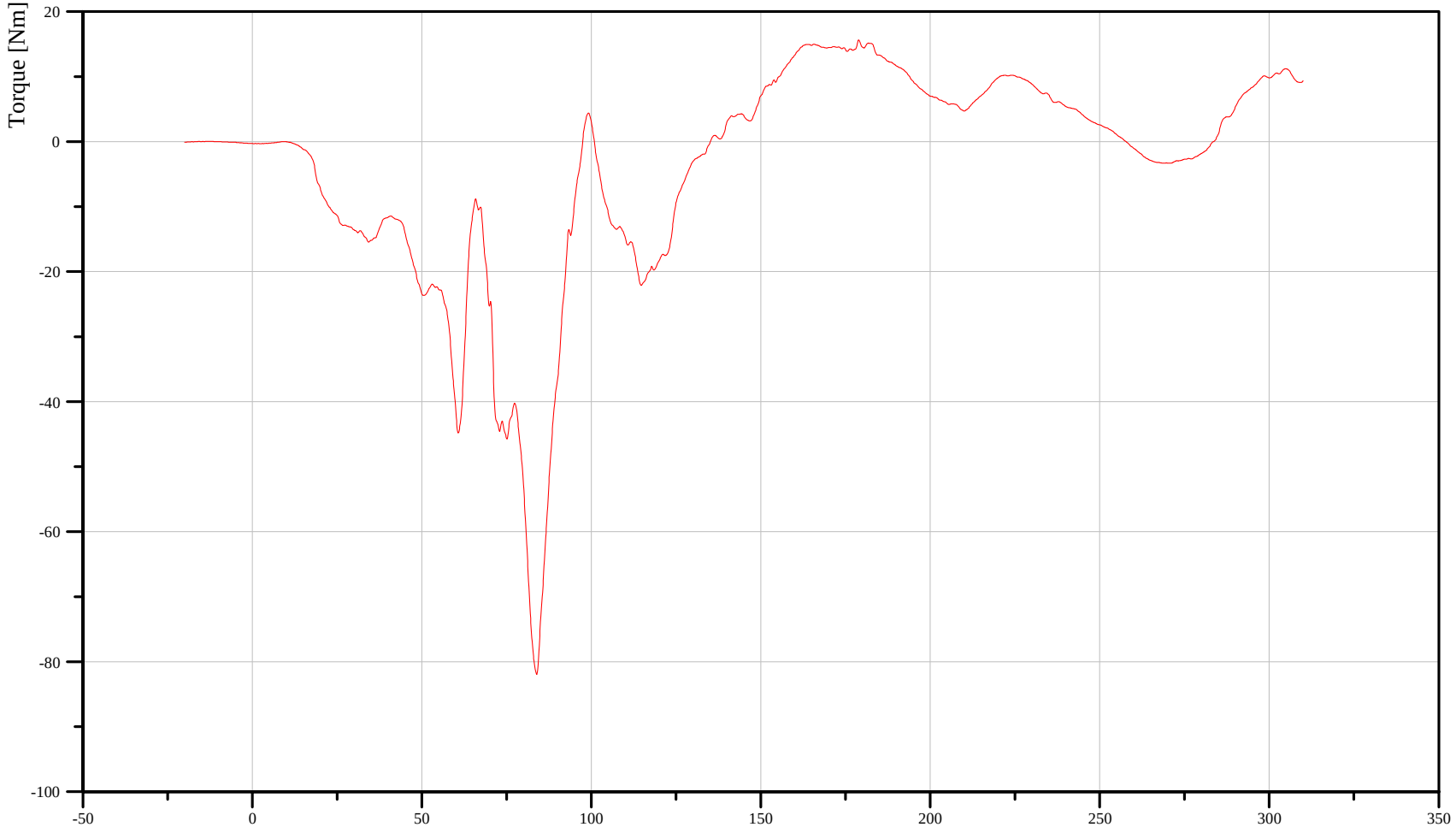
Driver Left Upper Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-81.96 Nm at 83.92 ms

Max. Value
15.65 Nm at 178.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

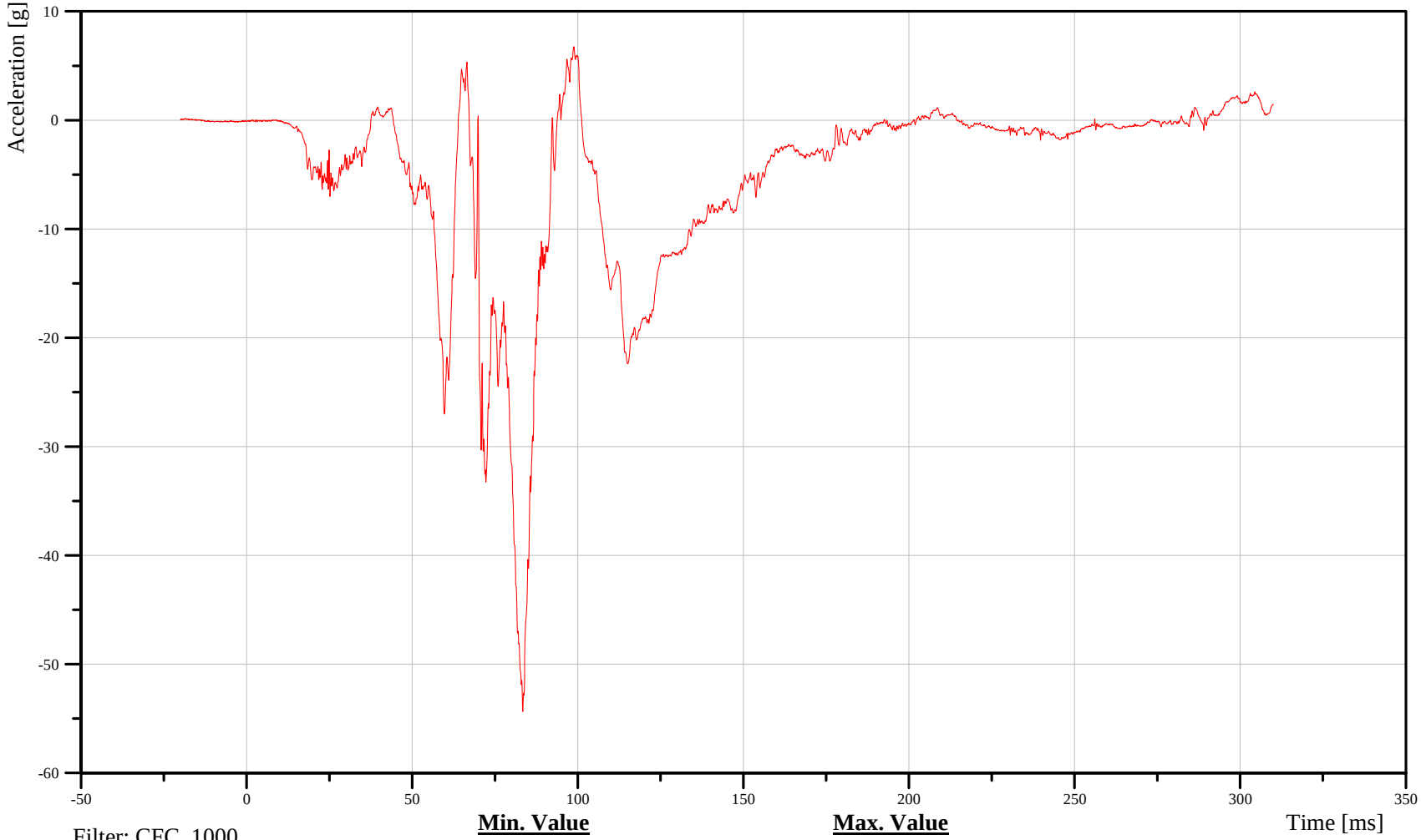
Driver Left Tibia X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-54.35 g at 83.44 ms

Max. Value
6.75 g at 98.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

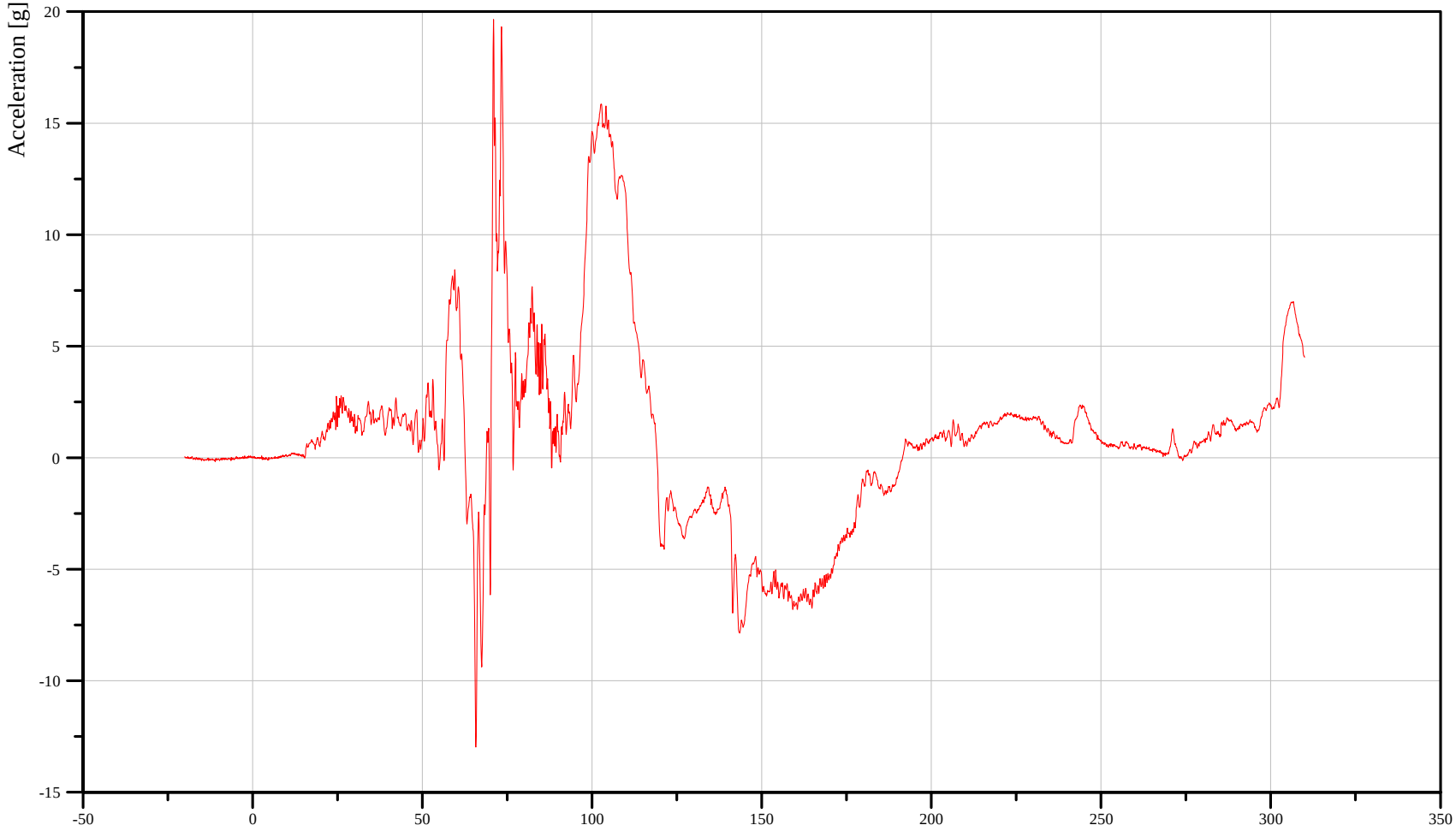
Driver Left Tibia Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-12.97 g at 65.84 ms

Max. Value
19.65 g at 70.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

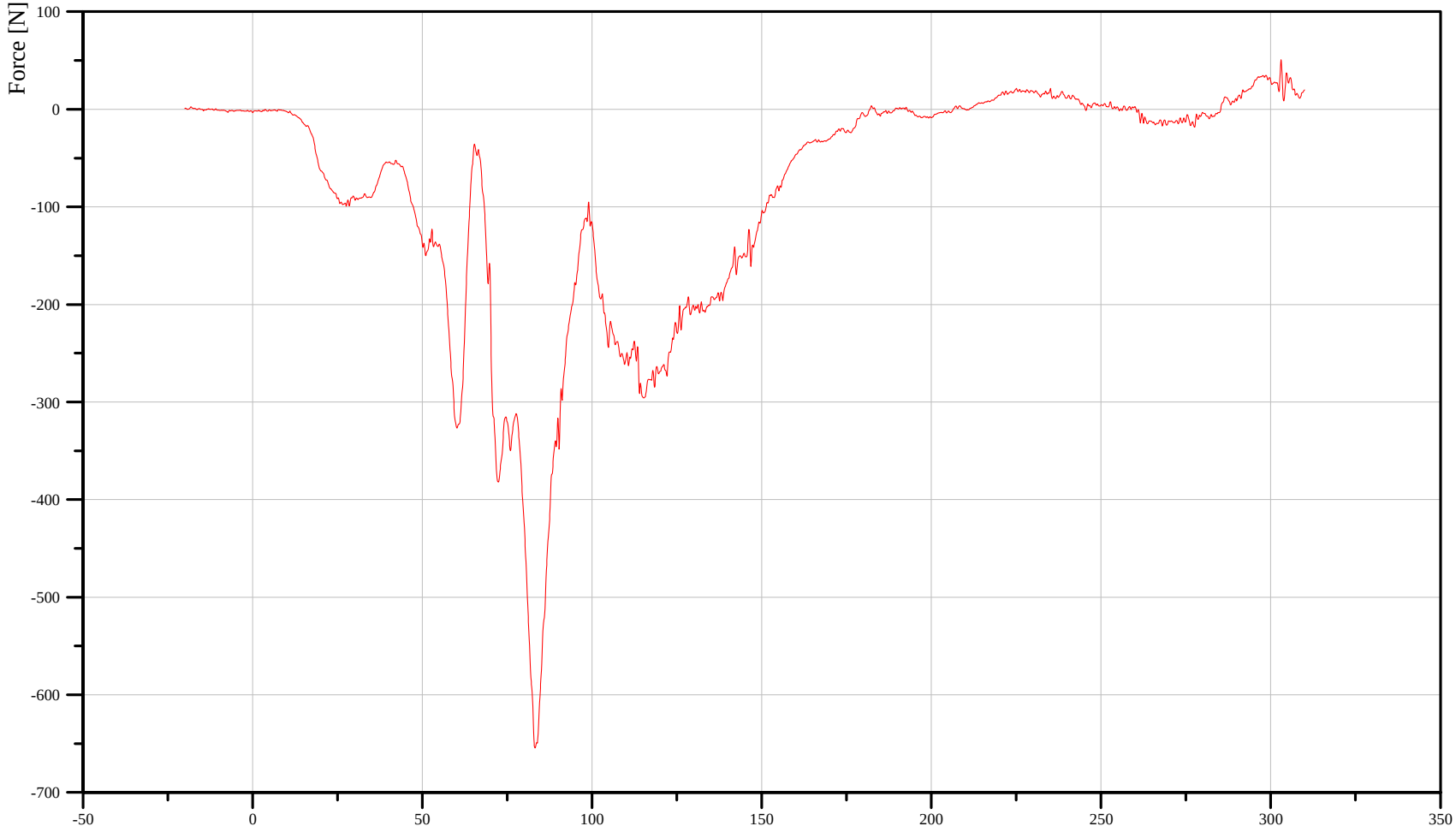
Driver Left Lower Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-654.34 N at 83.28 ms

Max. Value
50.53 N at 303.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

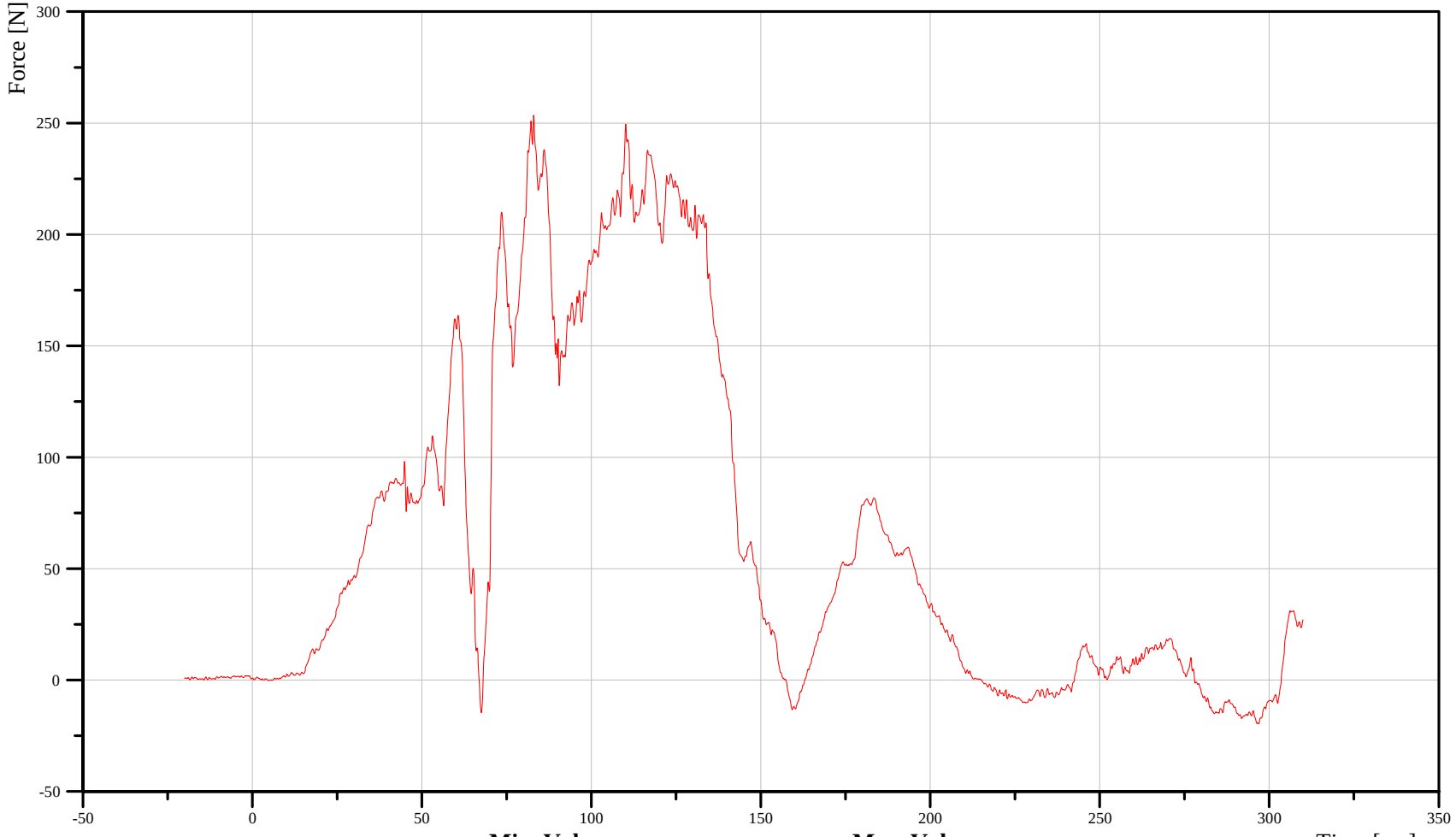
Driver Left Lower Tibia Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-19.55 N at 296.88 ms

Max. Value
253.47 N at 83.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

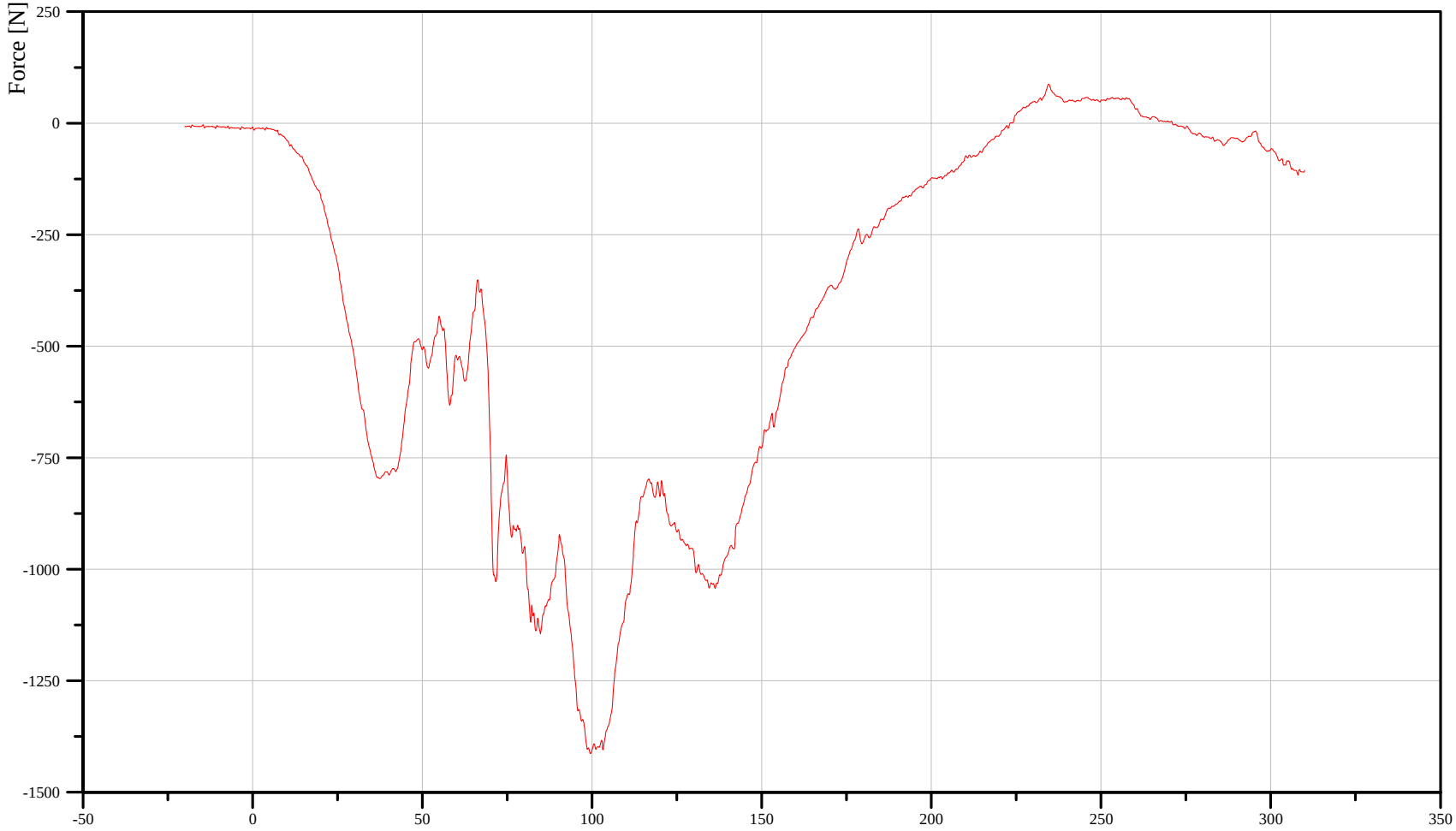
Driver Left Lower Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-1,413.13 N at 99.60 ms

Max. Value
87.41 N at 234.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

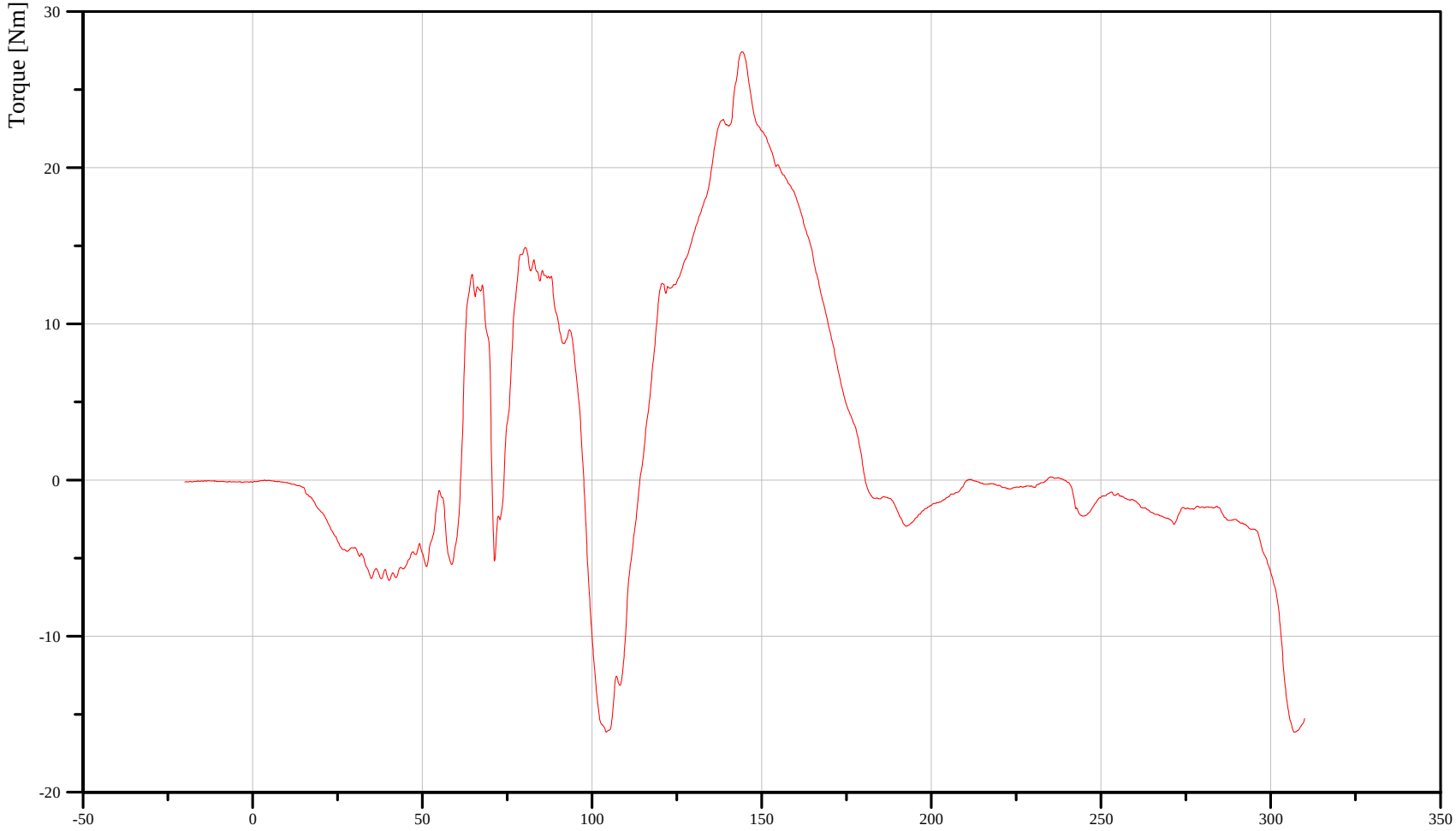
Driver Left Lower Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-16.16 Nm at 307.04 ms

Max. Value
27.43 Nm at 144.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

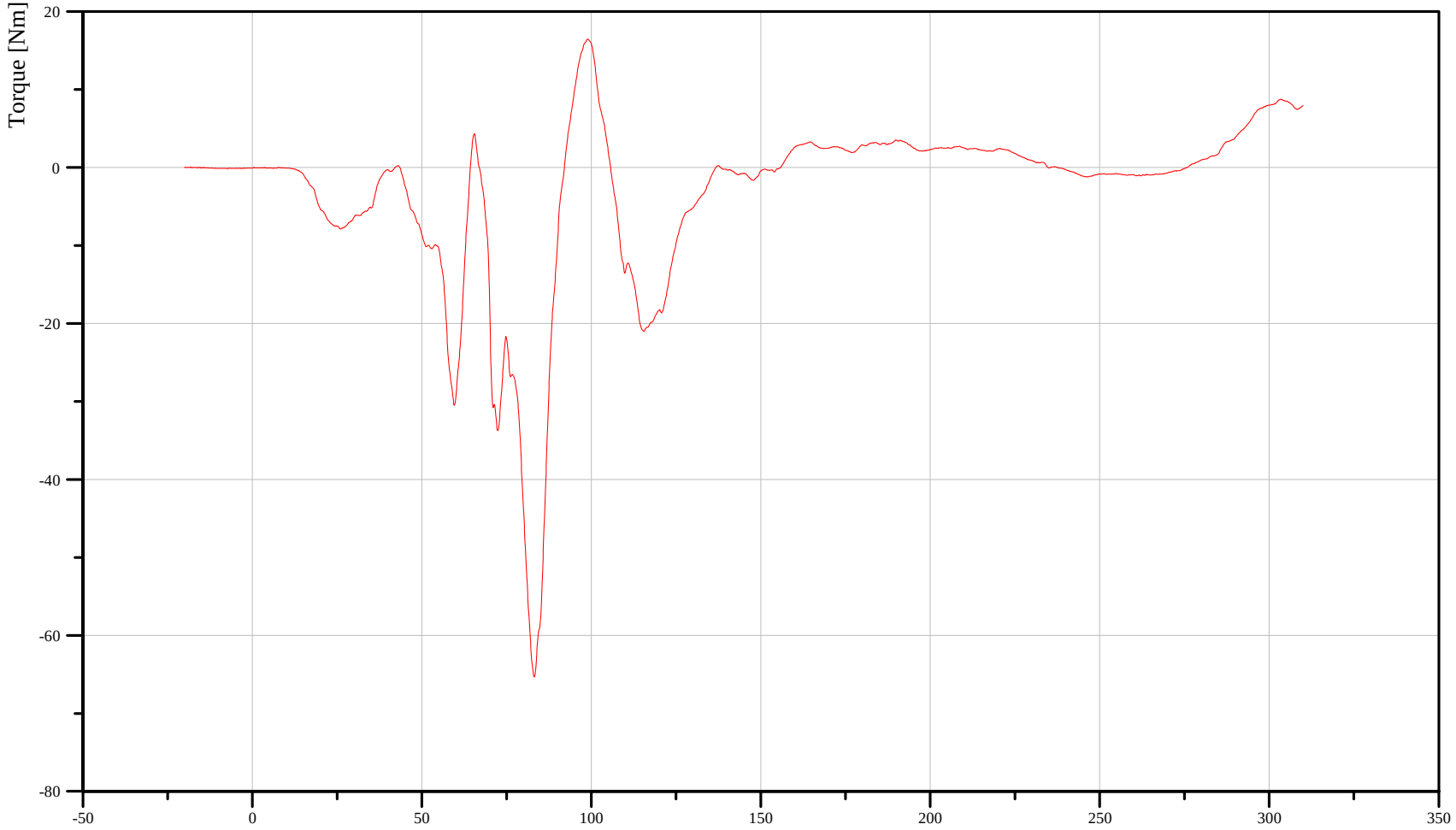
Driver Left Lower Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBILLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-65.32 Nm at 83.20 ms

Max. Value
16.47 Nm at 98.88 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

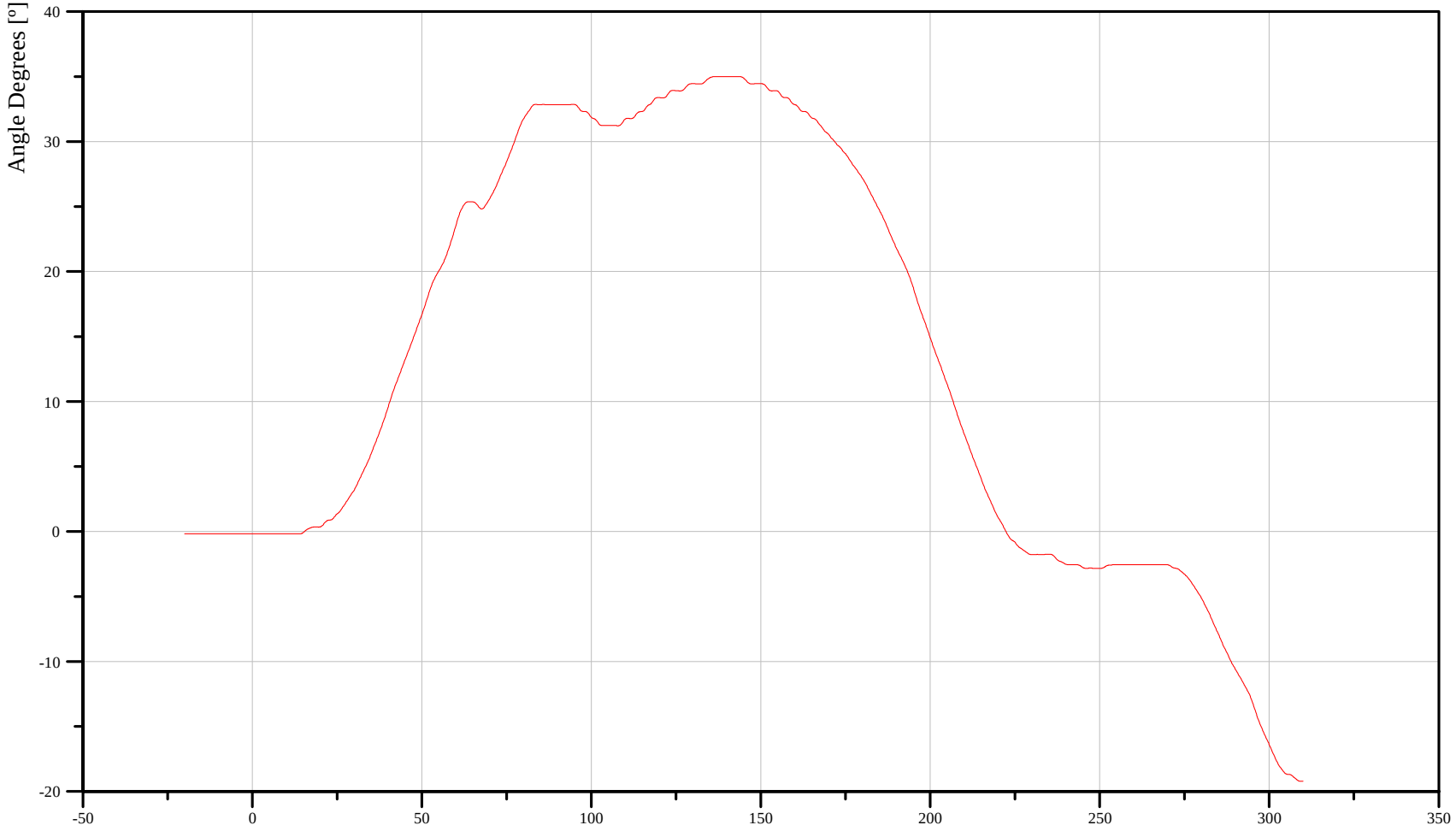
Driver Left Foot X-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-19.22 ° at 309.60 ms

Max. Value
35.00 ° at 143.68 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

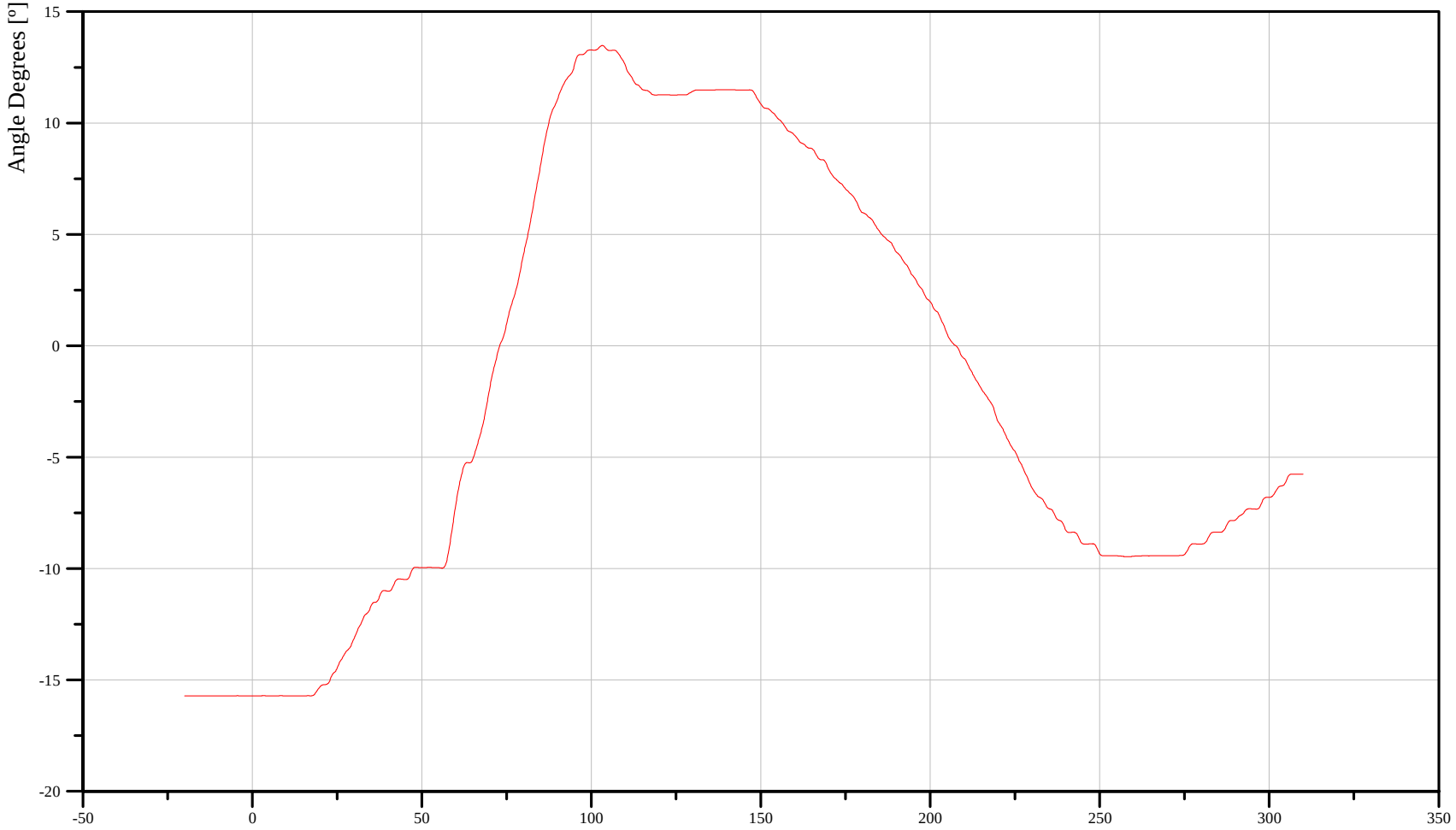
Driver Left Foot Y-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-15.72 ° at -10.88 ms

Max. Value
13.48 ° at 103.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

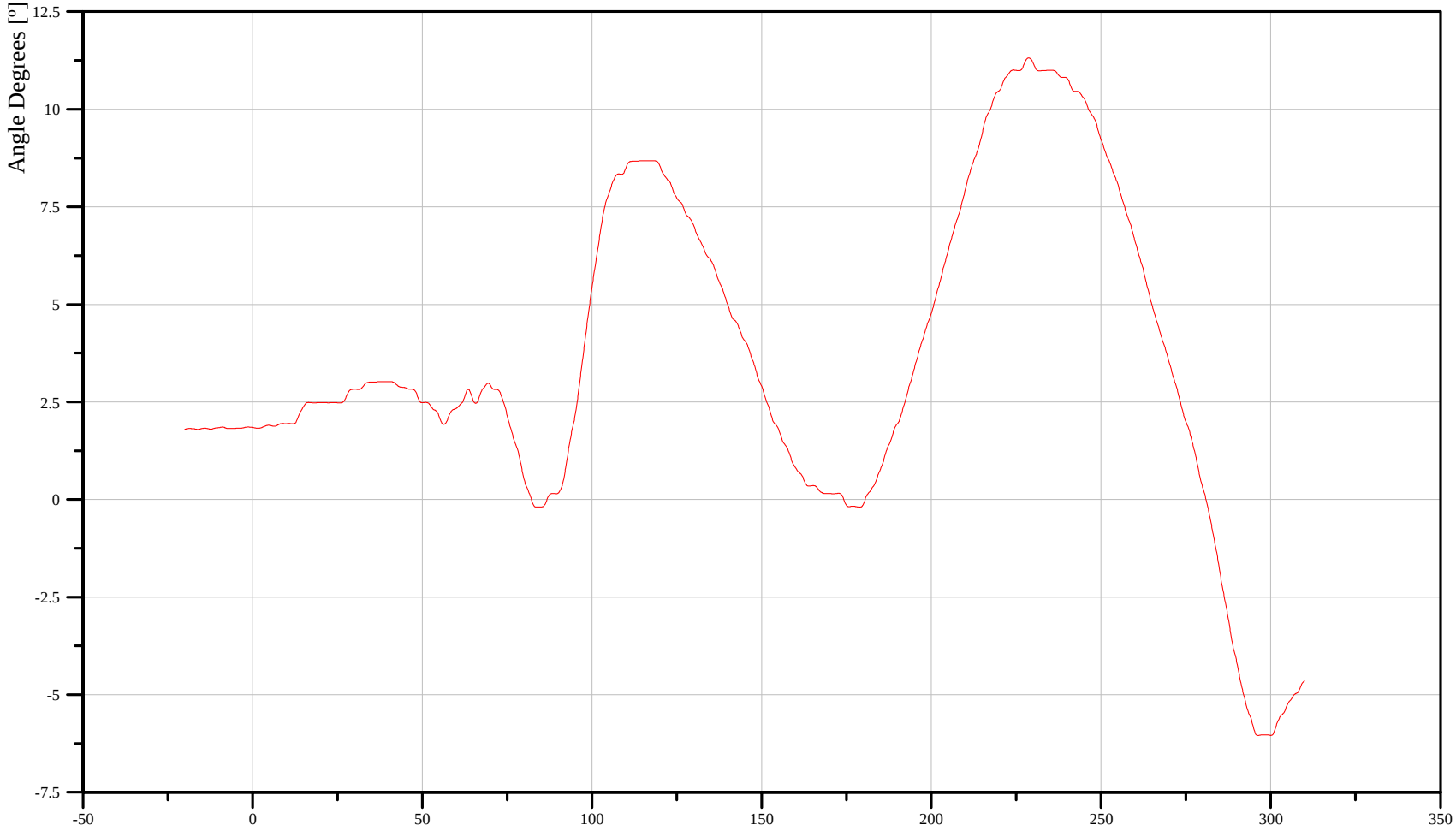
Driver Left Foot Z-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-6.05 ° at 296.24 ms

Max. Value
11.31 ° at 228.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

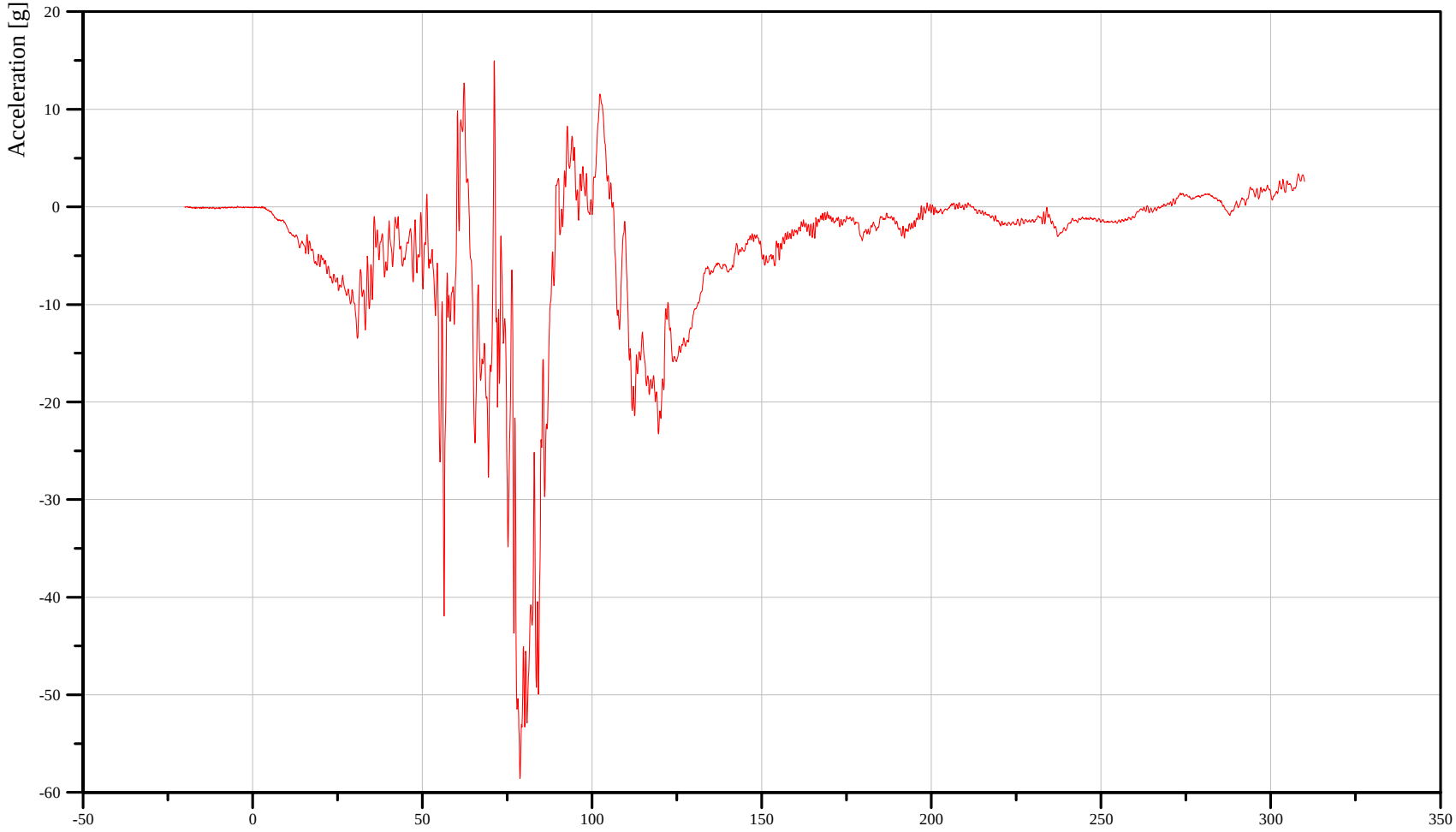
Driver Left Foot X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-58.57 g at 78.80 ms

Max. Value
14.97 g at 71.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

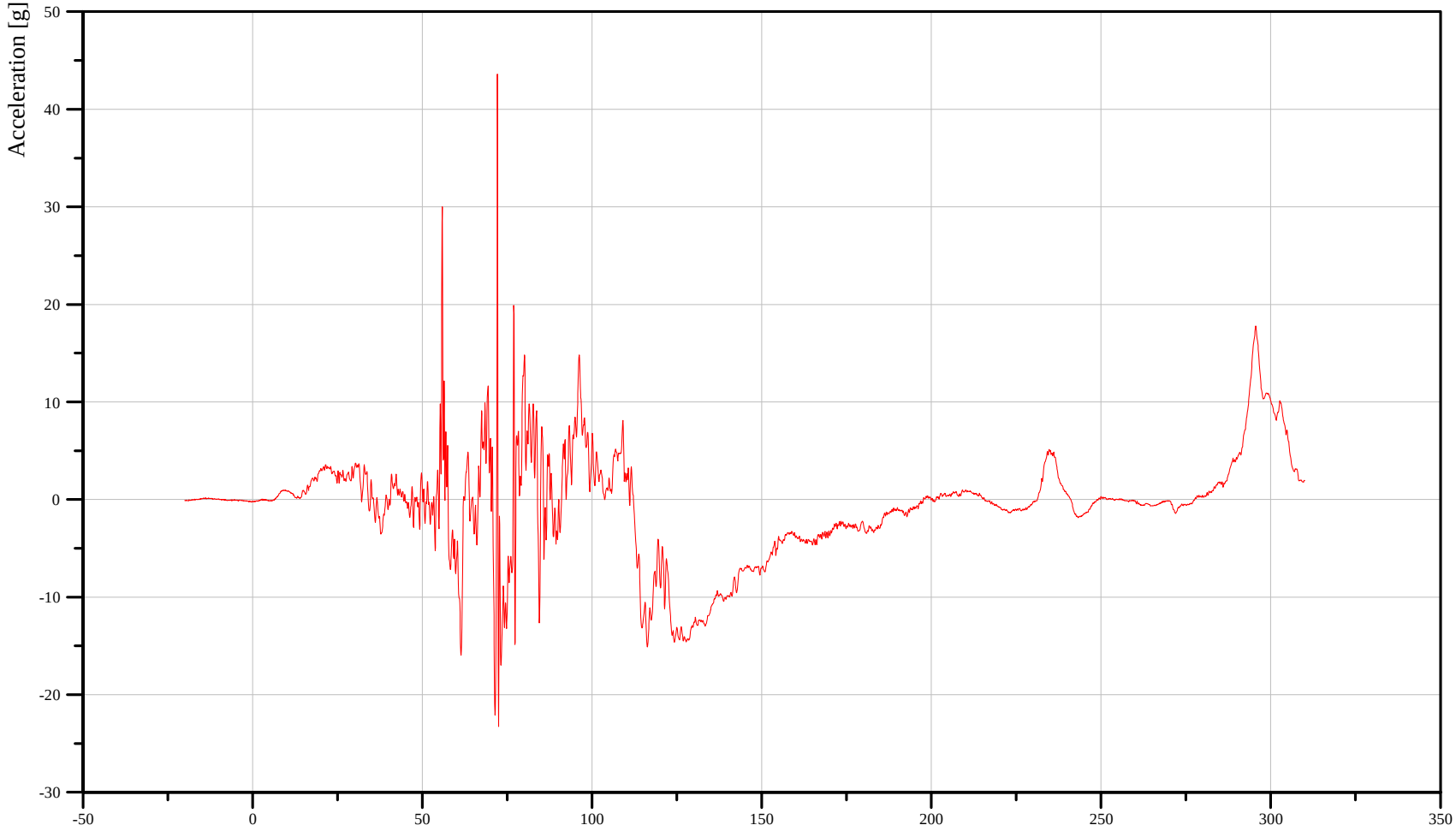
Driver Left Foot Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-23.25 g at 72.48 ms

Max. Value
43.60 g at 72.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

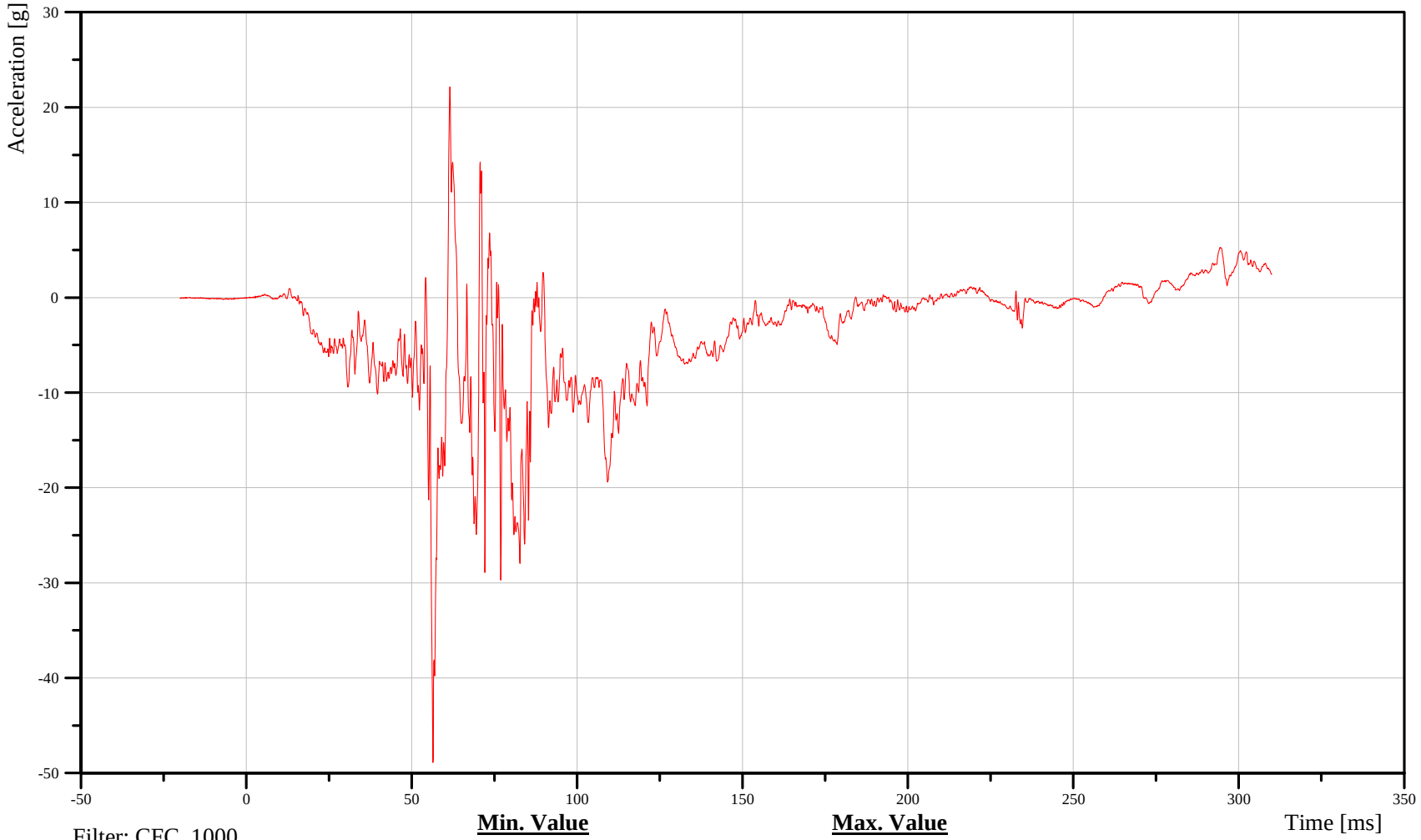
Driver Left Foot Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-48.87 g at 56.40 ms

Max. Value
22.17 g at 61.60 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

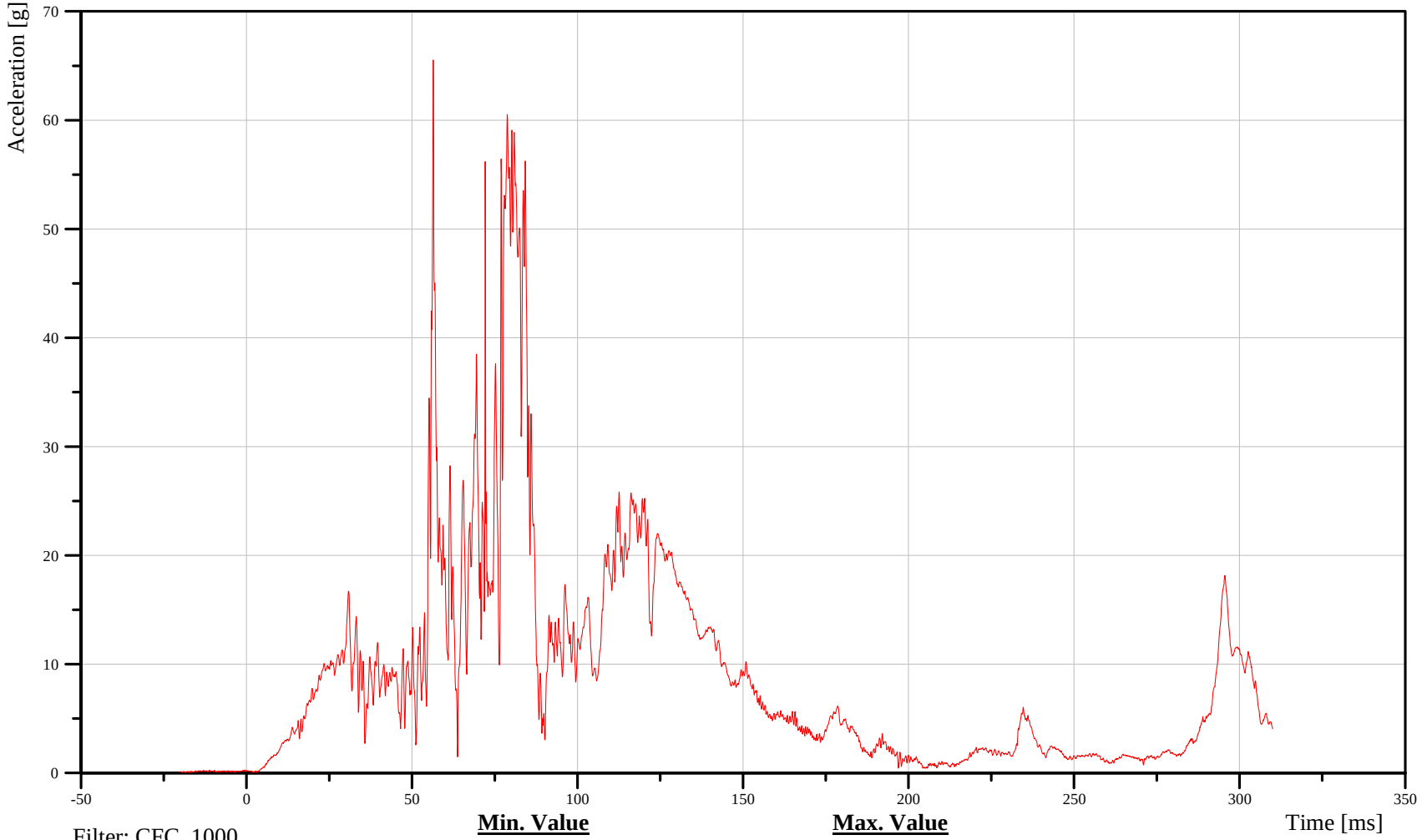
Driver Left Foot Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTLELXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.03 g at -16.72 ms

Max. Value
65.53 g at 56.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

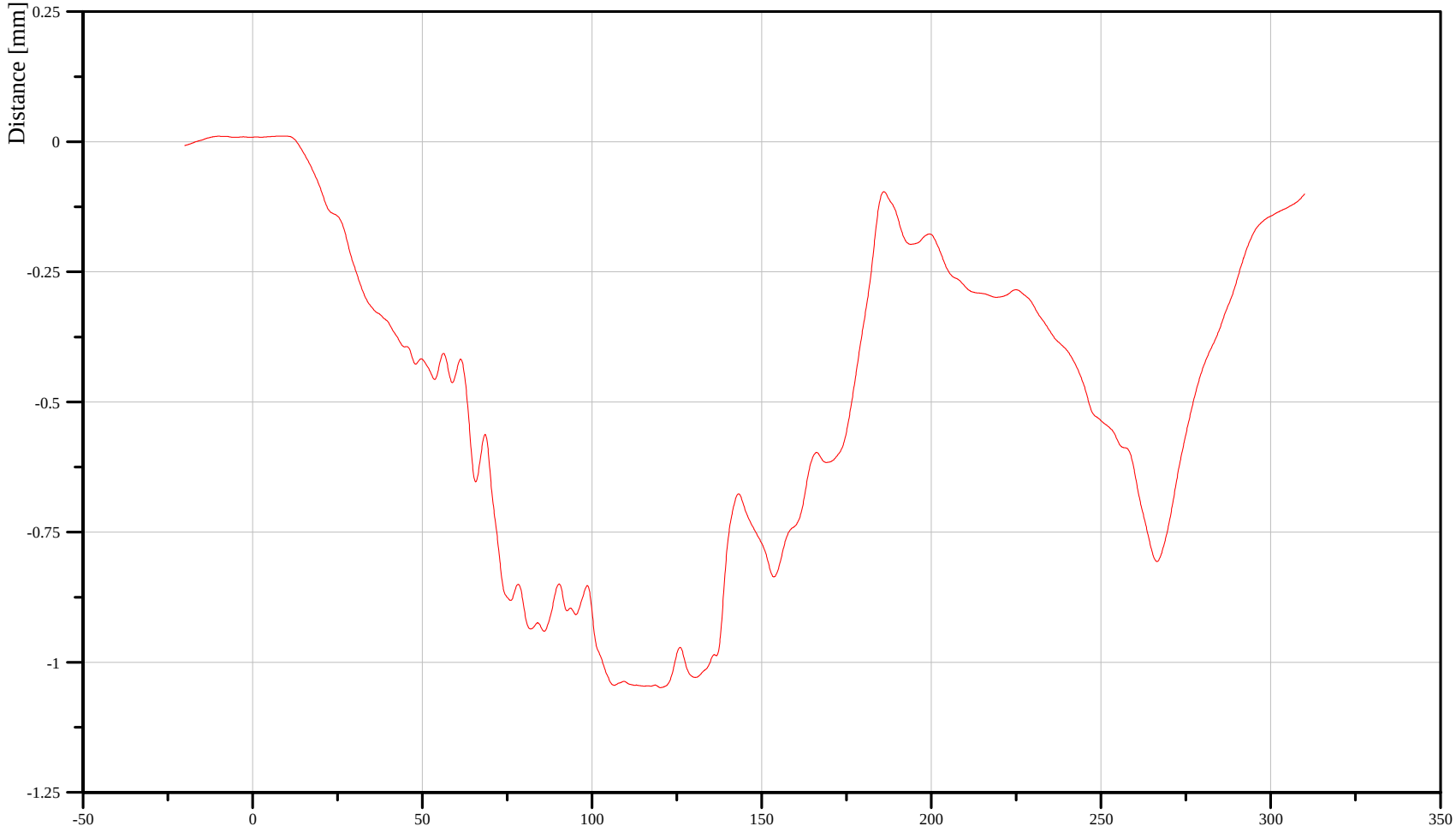
Driver Right Knee Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.05 mm at 120.16 ms

Max. Value
0.01 mm at 8.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

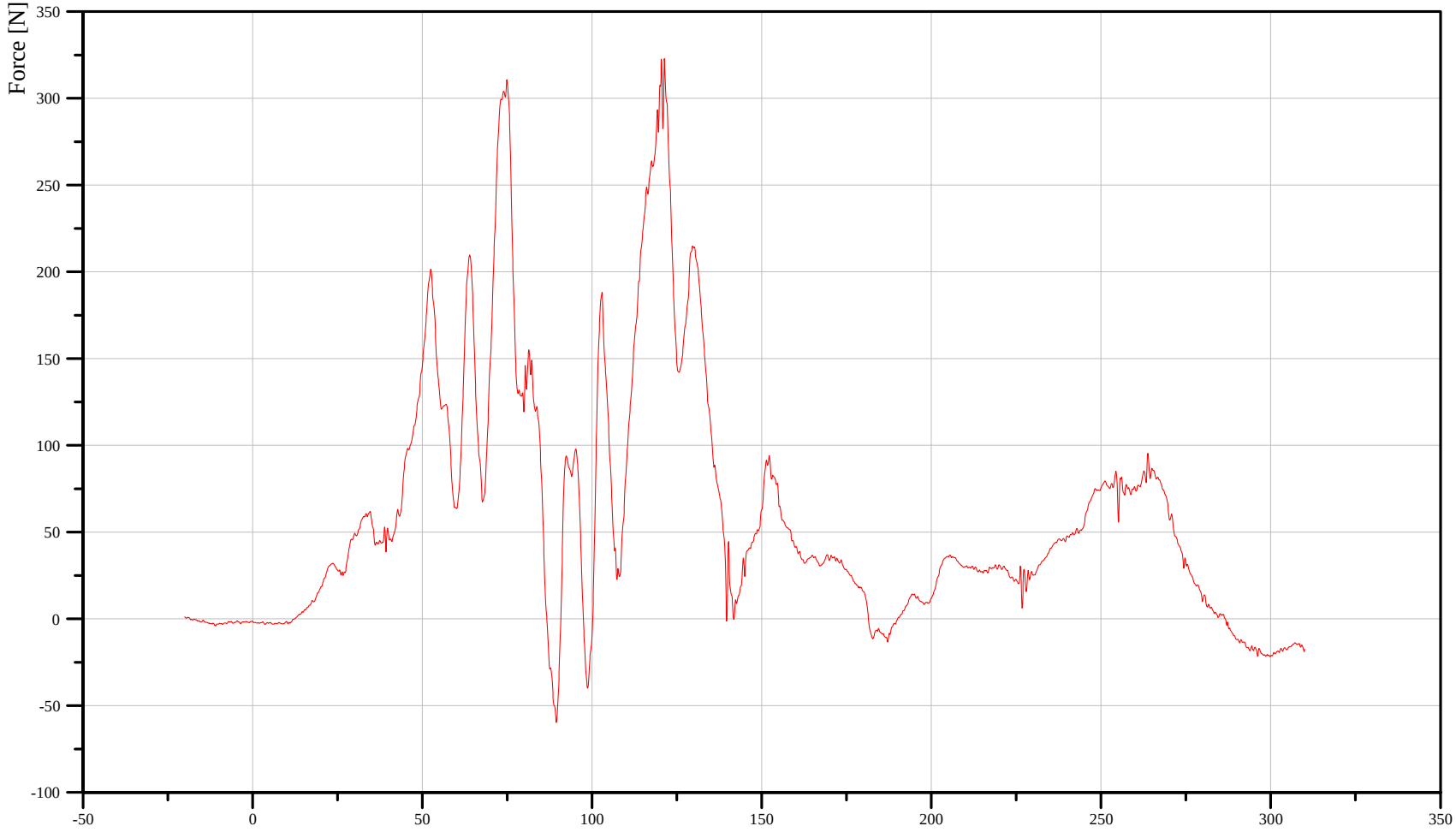
Driver Right Upper Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRULXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-59.76 N at 89.52 ms

Max. Value
322.97 N at 121.36 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

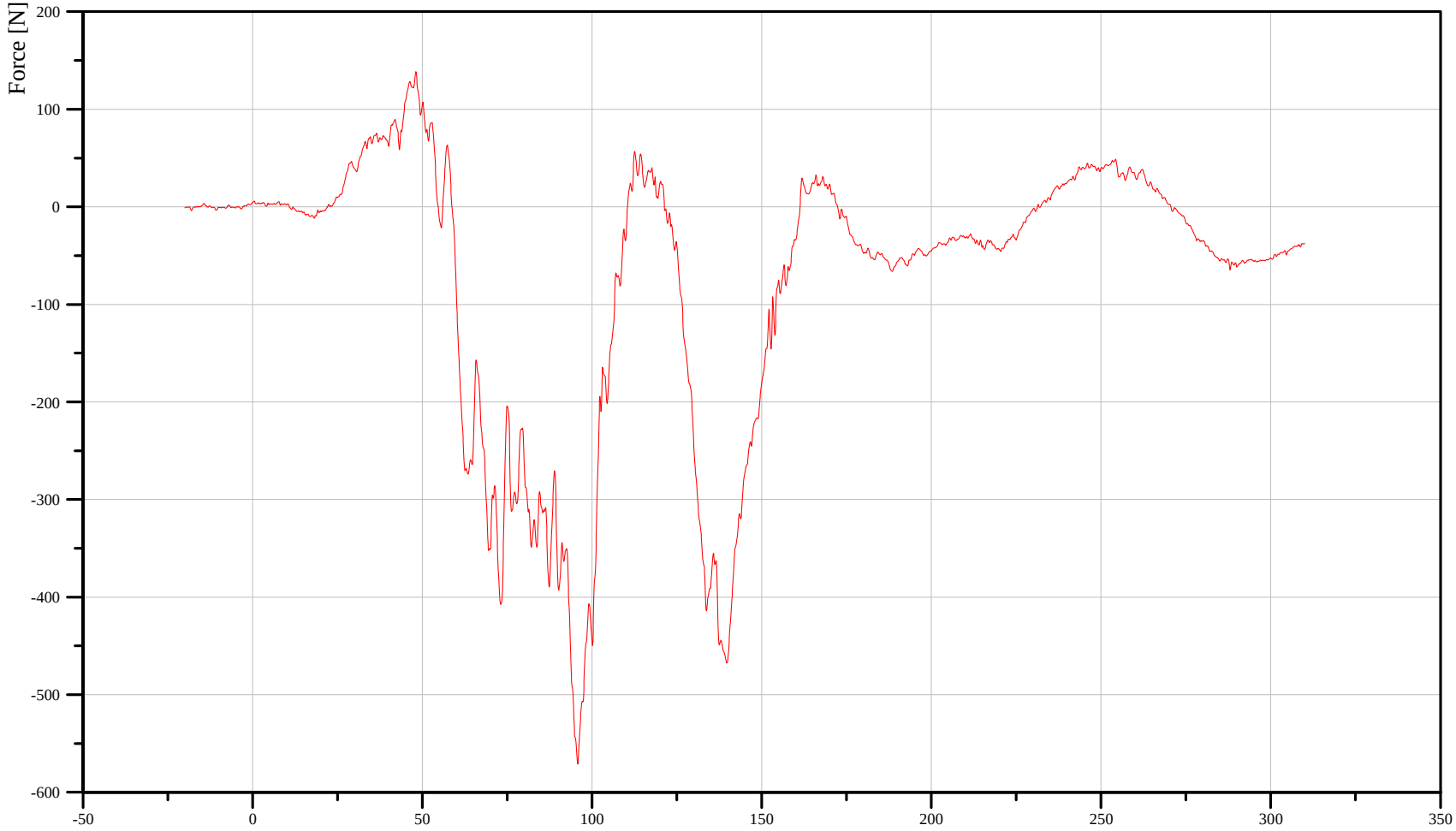
Driver Right Upper Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-571.11 N at 95.84 ms

Max. Value
138.30 N at 48.08 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

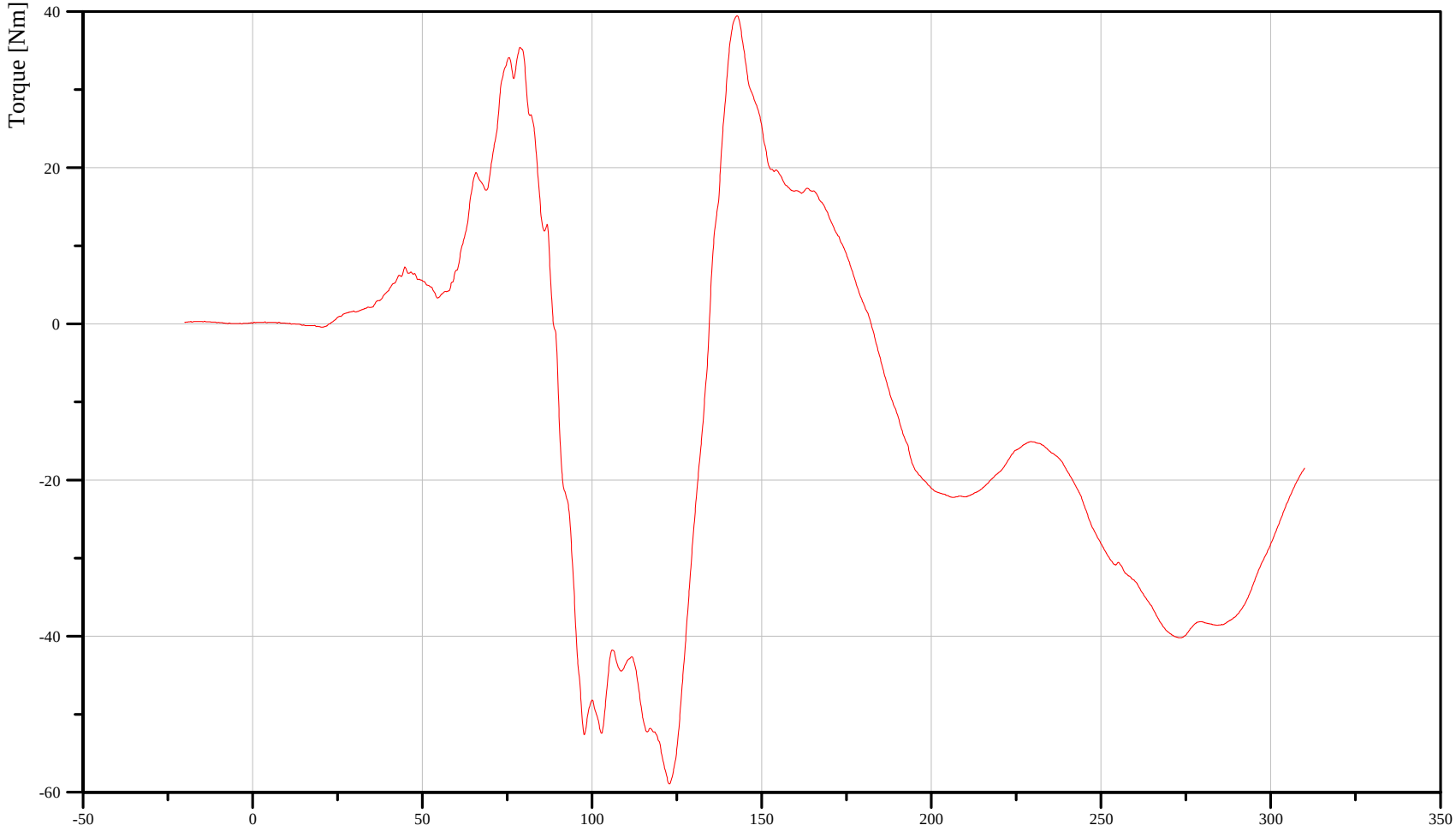
Driver Right Upper Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-58.92 Nm at 122.80 ms

Max. Value
39.45 Nm at 142.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

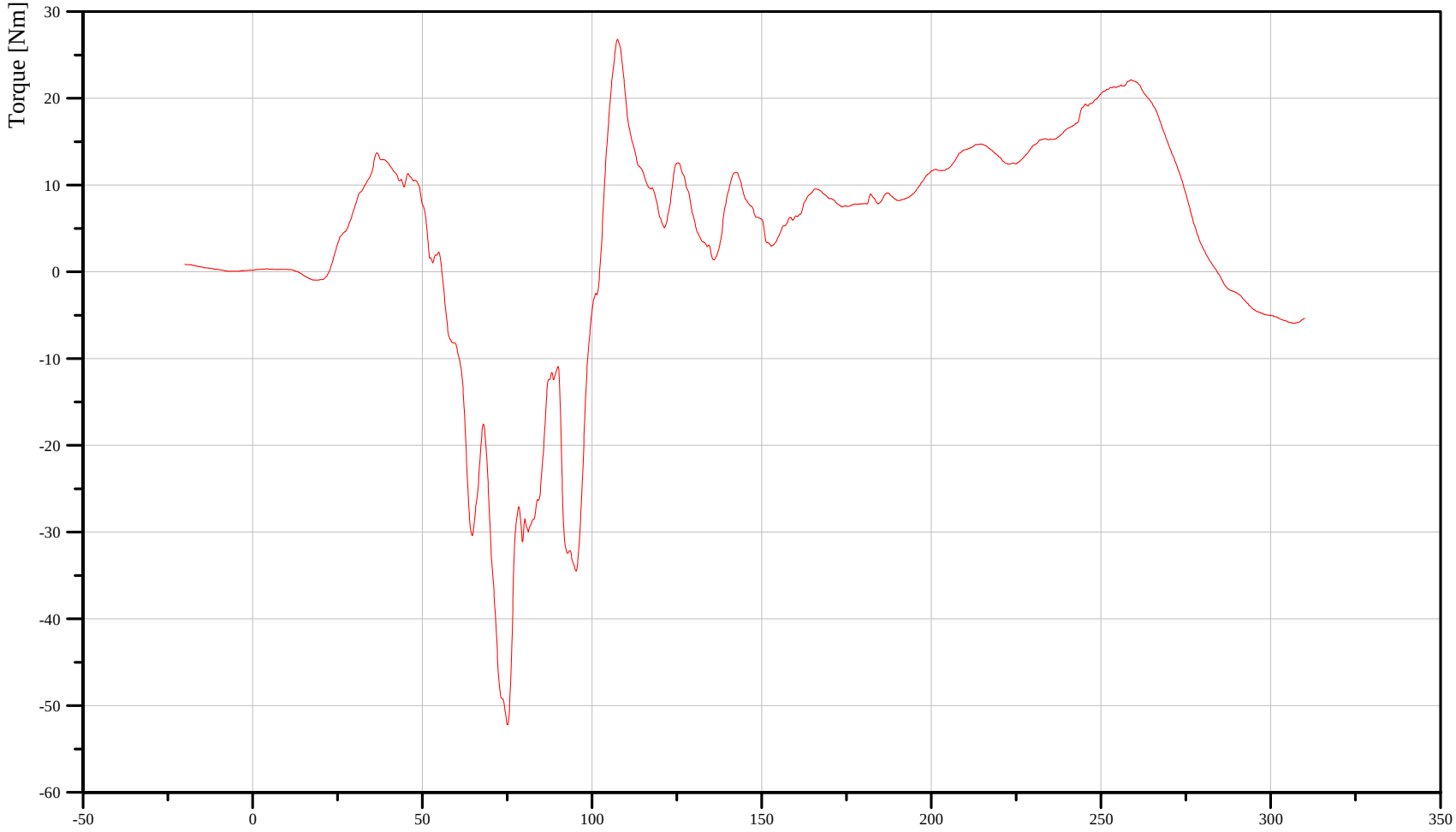
Driver Right Upper Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-52.21 Nm at 75.12 ms

Max. Value
26.82 Nm at 107.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

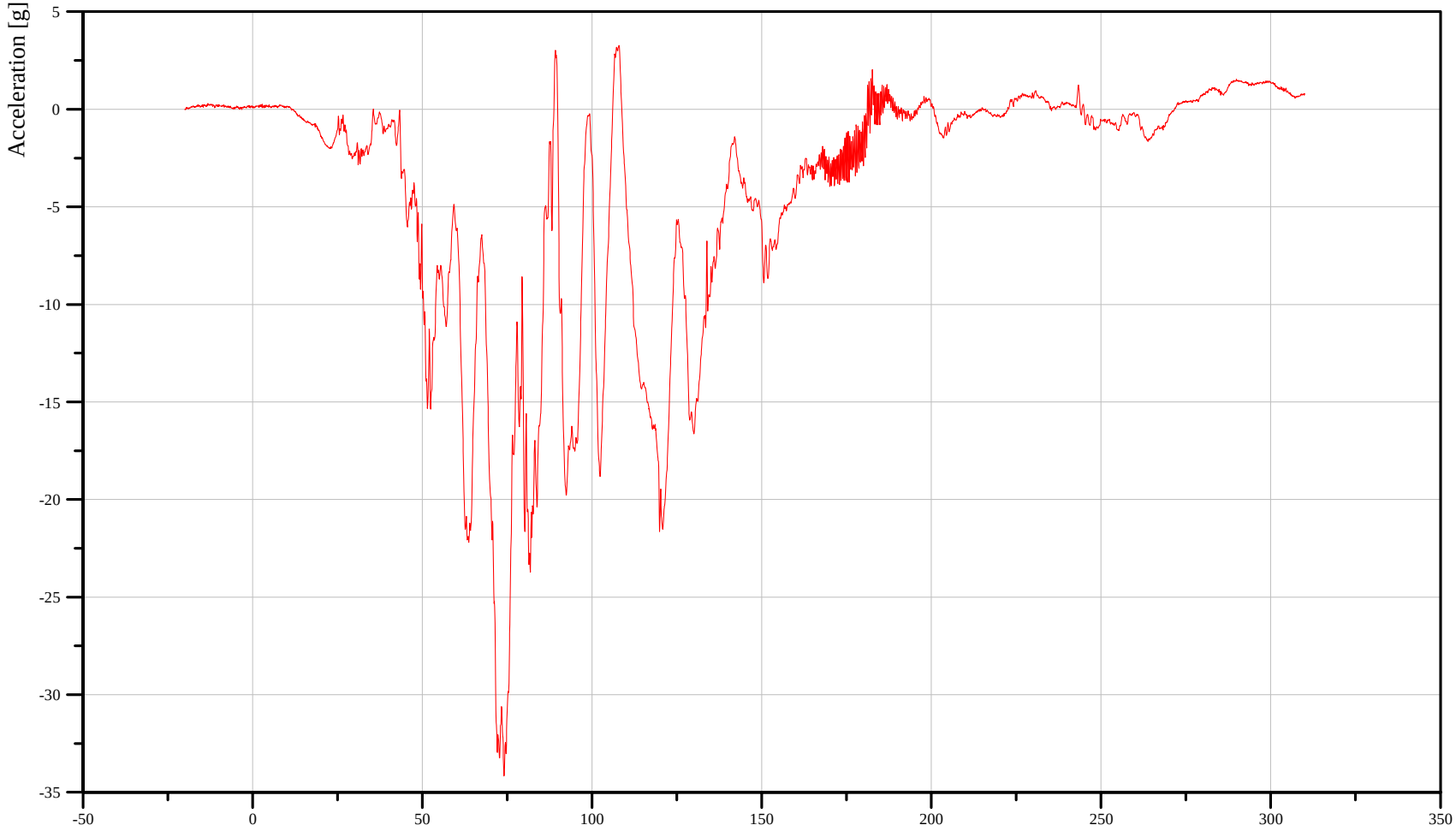
Driver Right Tibia X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-34.16 g at 74.08 ms

Max. Value
3.26 g at 107.92 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

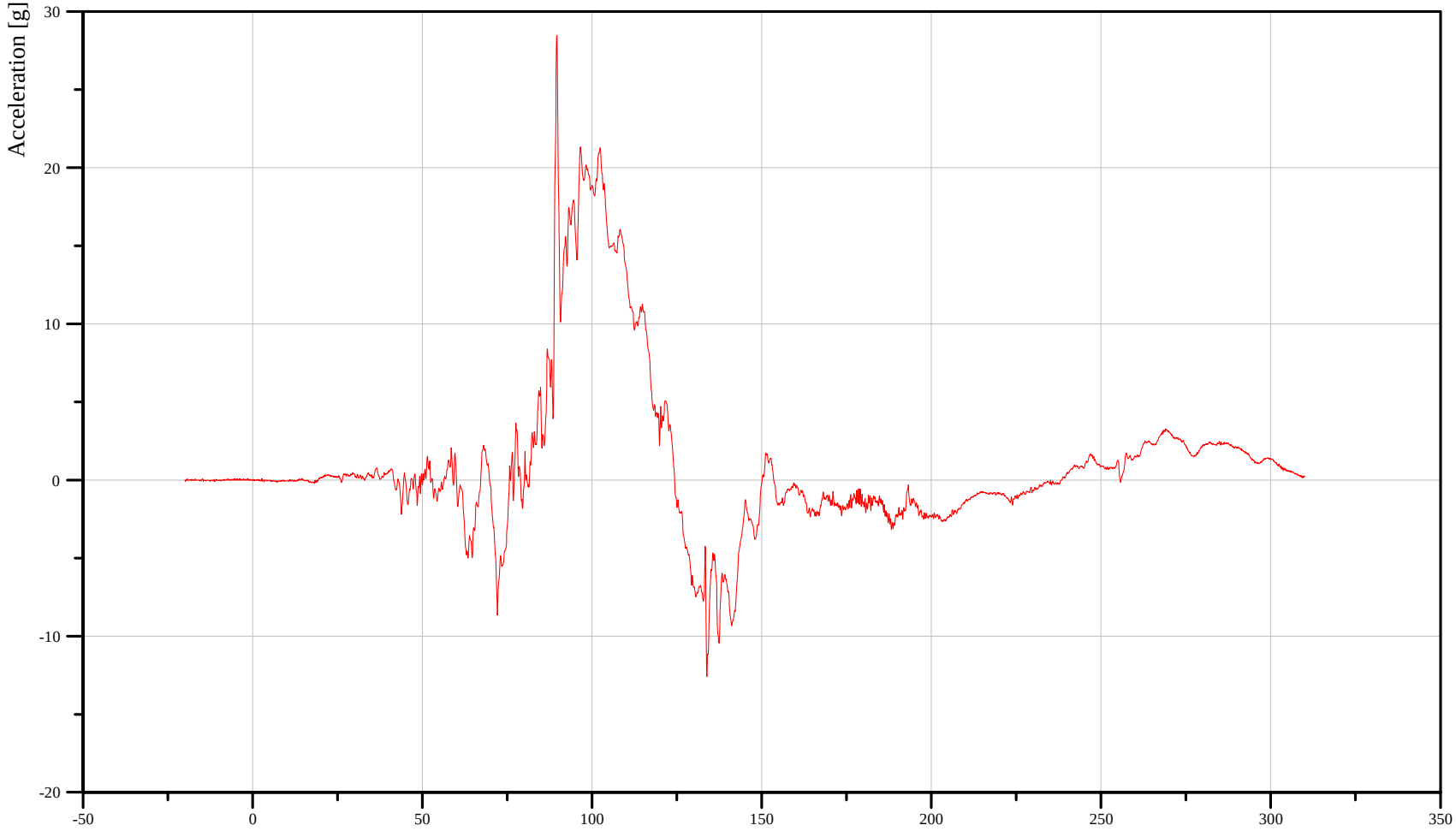
Driver Right Tibia Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-12.58 g at 133.84 ms

Max. Value
28.47 g at 89.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

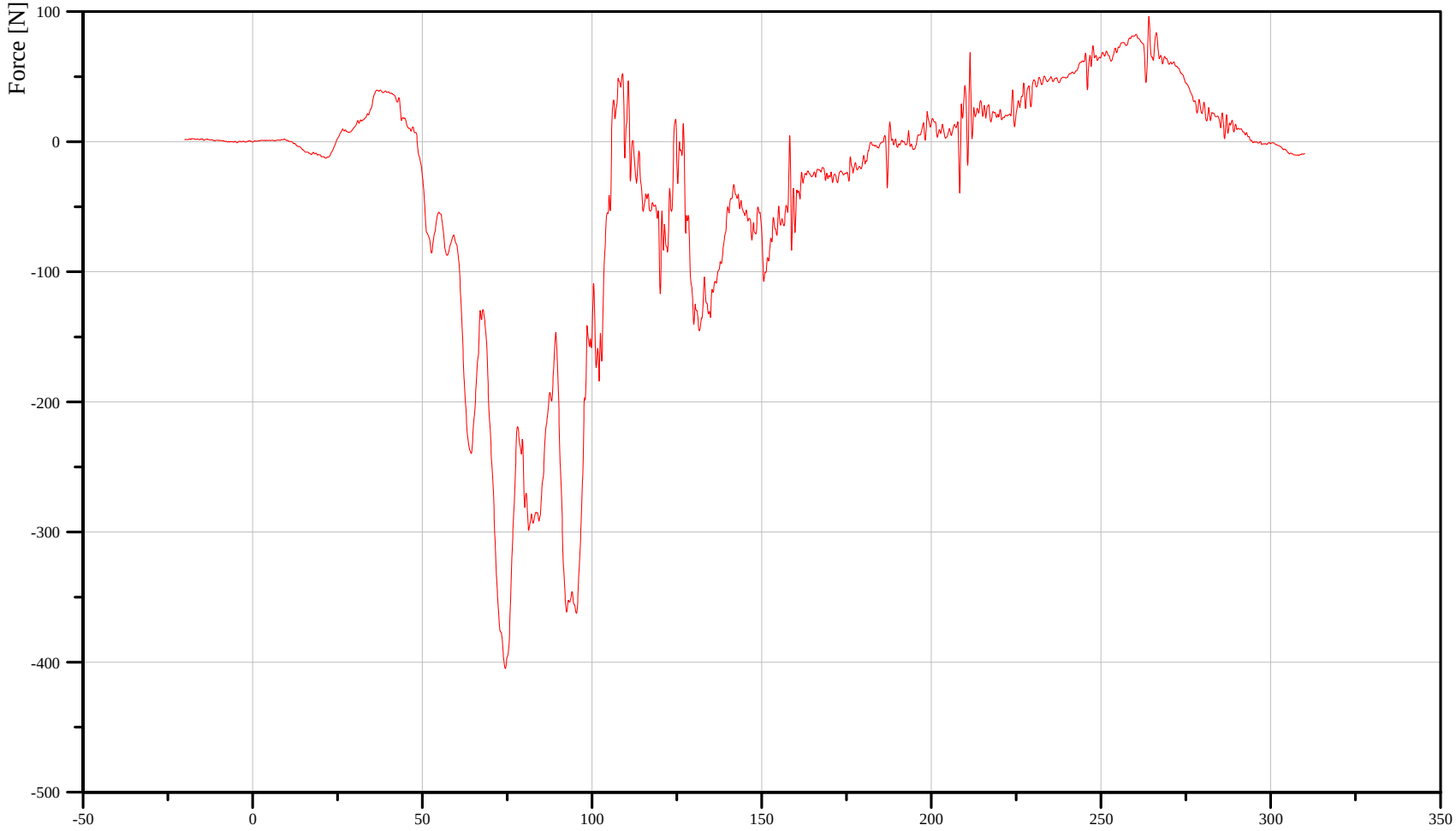
Driver Right Lower Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-404.78 N at 74.48 ms

Max. Value
96.44 N at 264.08 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

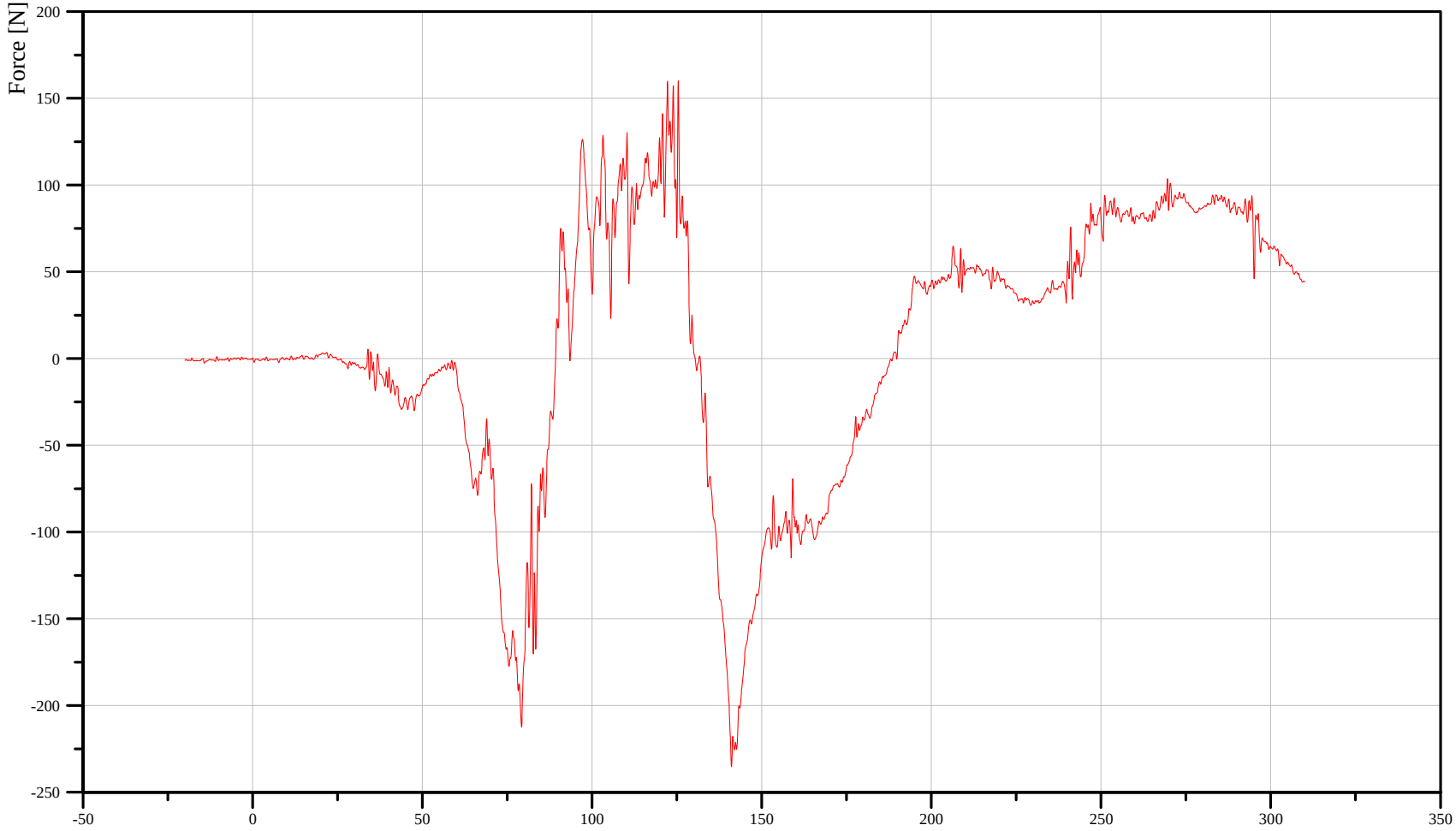
Driver Right Lower Tibia Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-235.30 N at 141.12 ms

Max. Value
160.29 N at 125.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

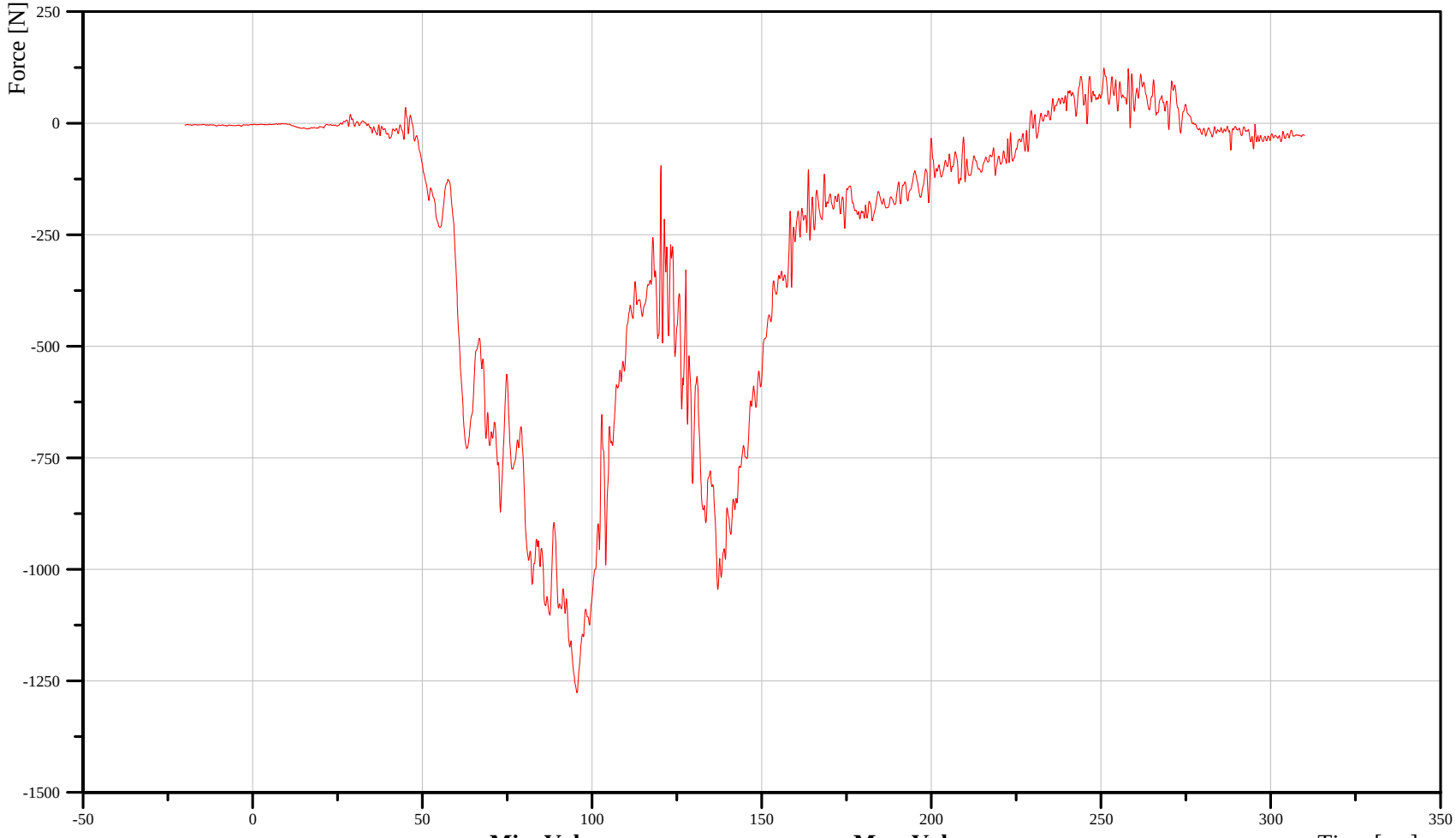
Driver Right Lower Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-1,276.75 N at 95.60 ms

Max. Value
123.67 N at 250.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

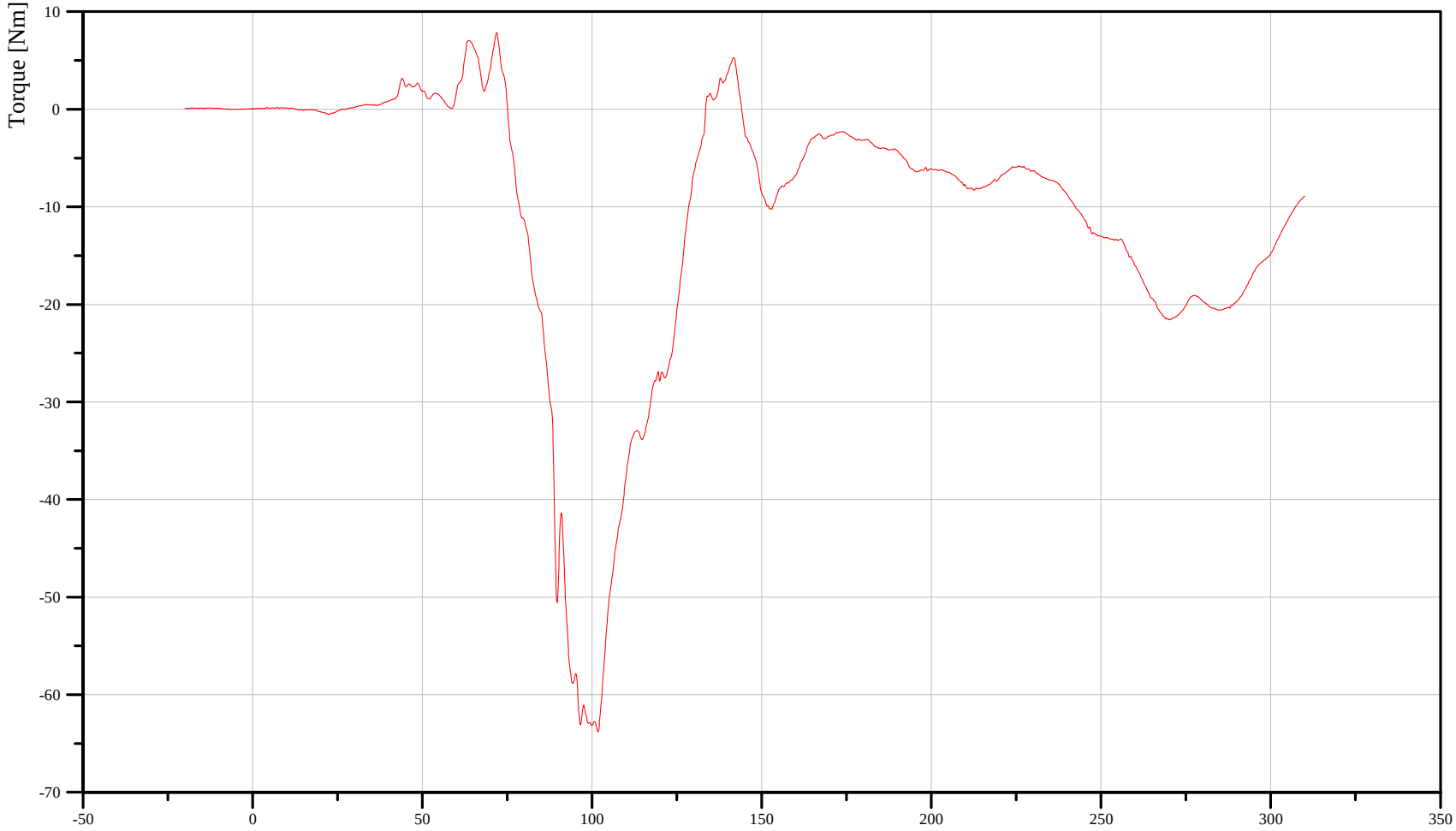
Driver Right Lower Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-63.79 Nm at 101.76 ms

Max. Value
7.86 Nm at 71.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

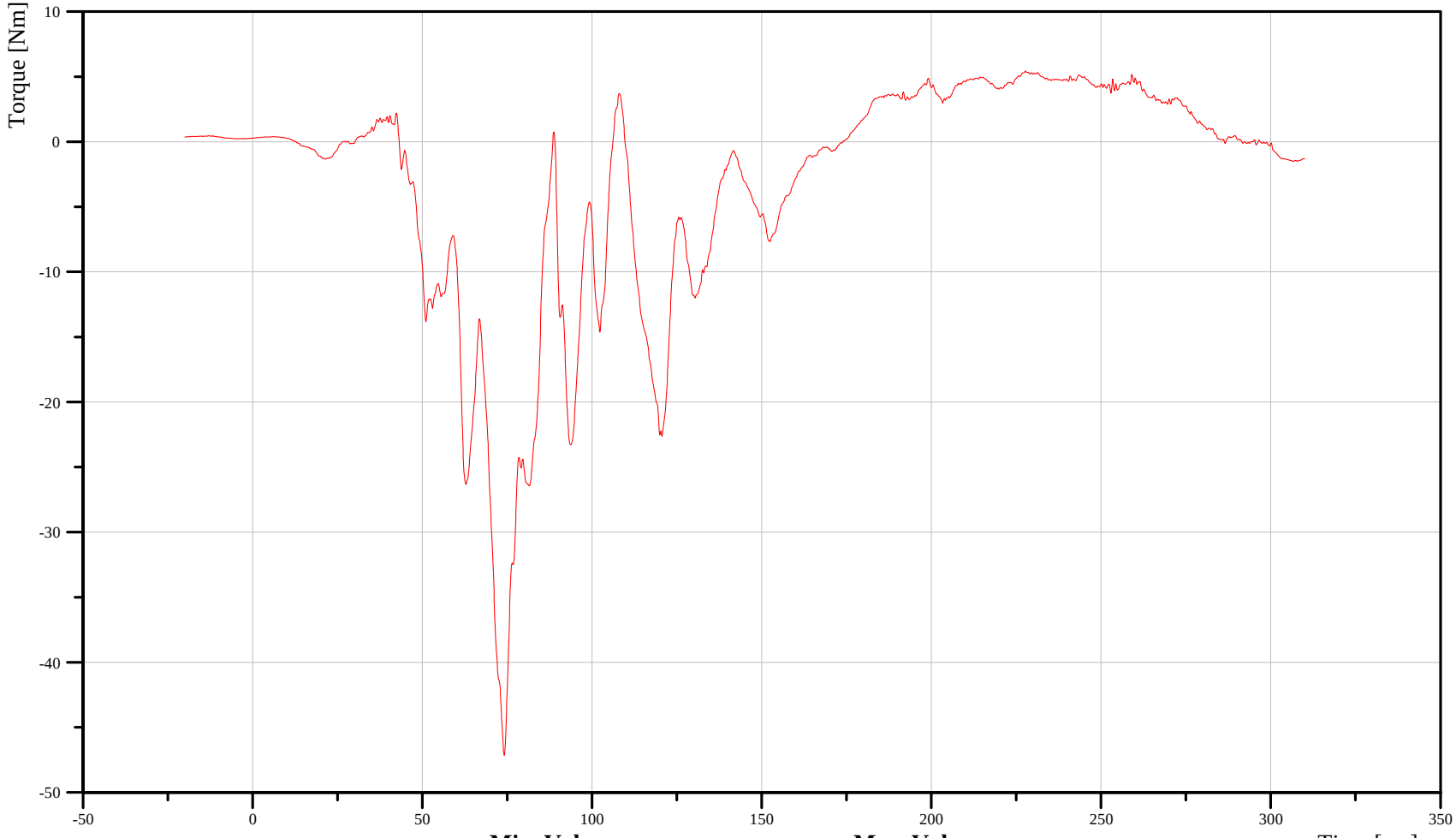
Driver Right Lower Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11TIBIRLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-47.14 Nm at 74.16 ms

Max. Value
5.44 Nm at 227.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

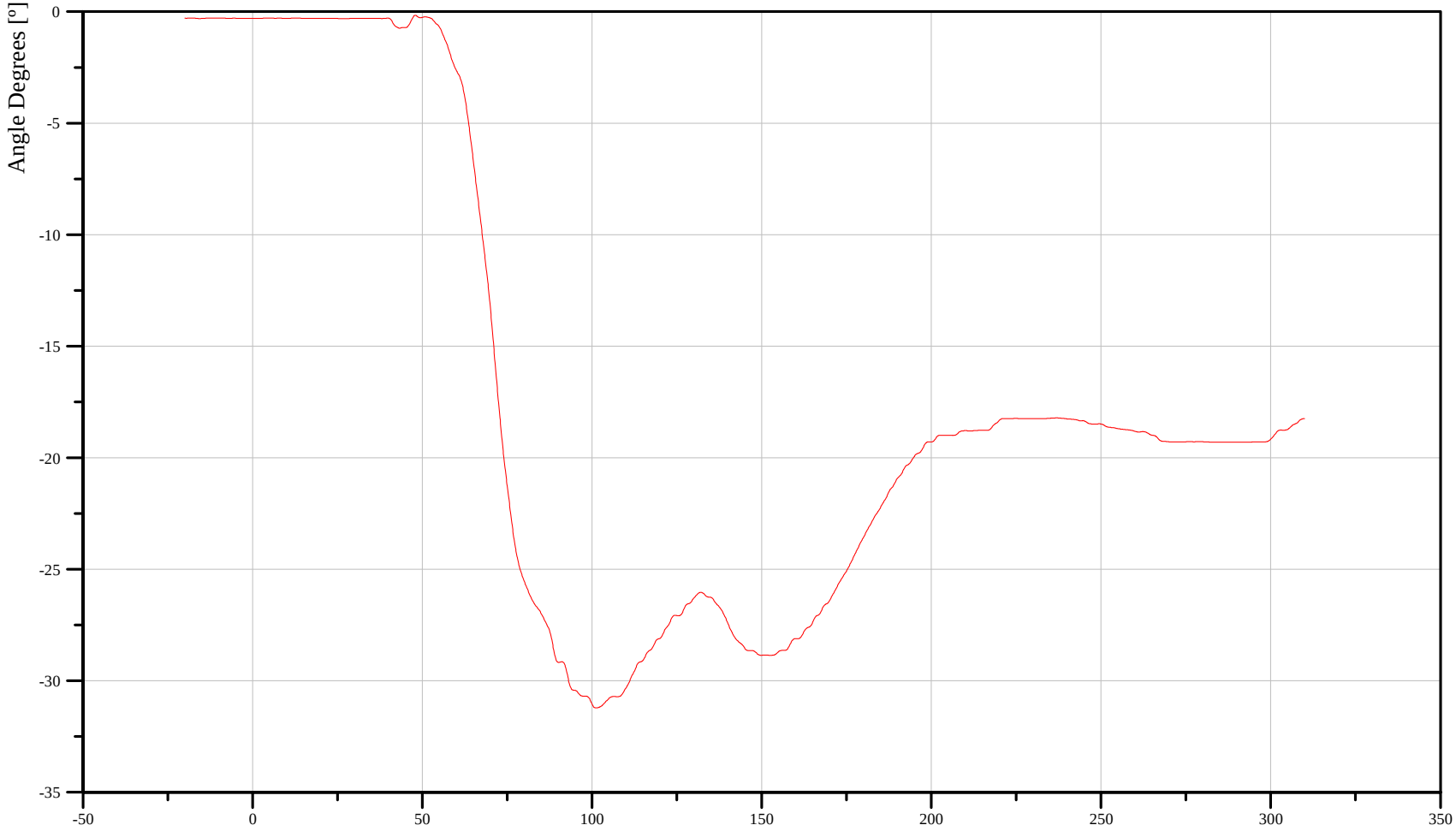
Driver Right Foot X-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-31.22 ° at 101.20 ms

Max. Value
-0.16 ° at 47.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

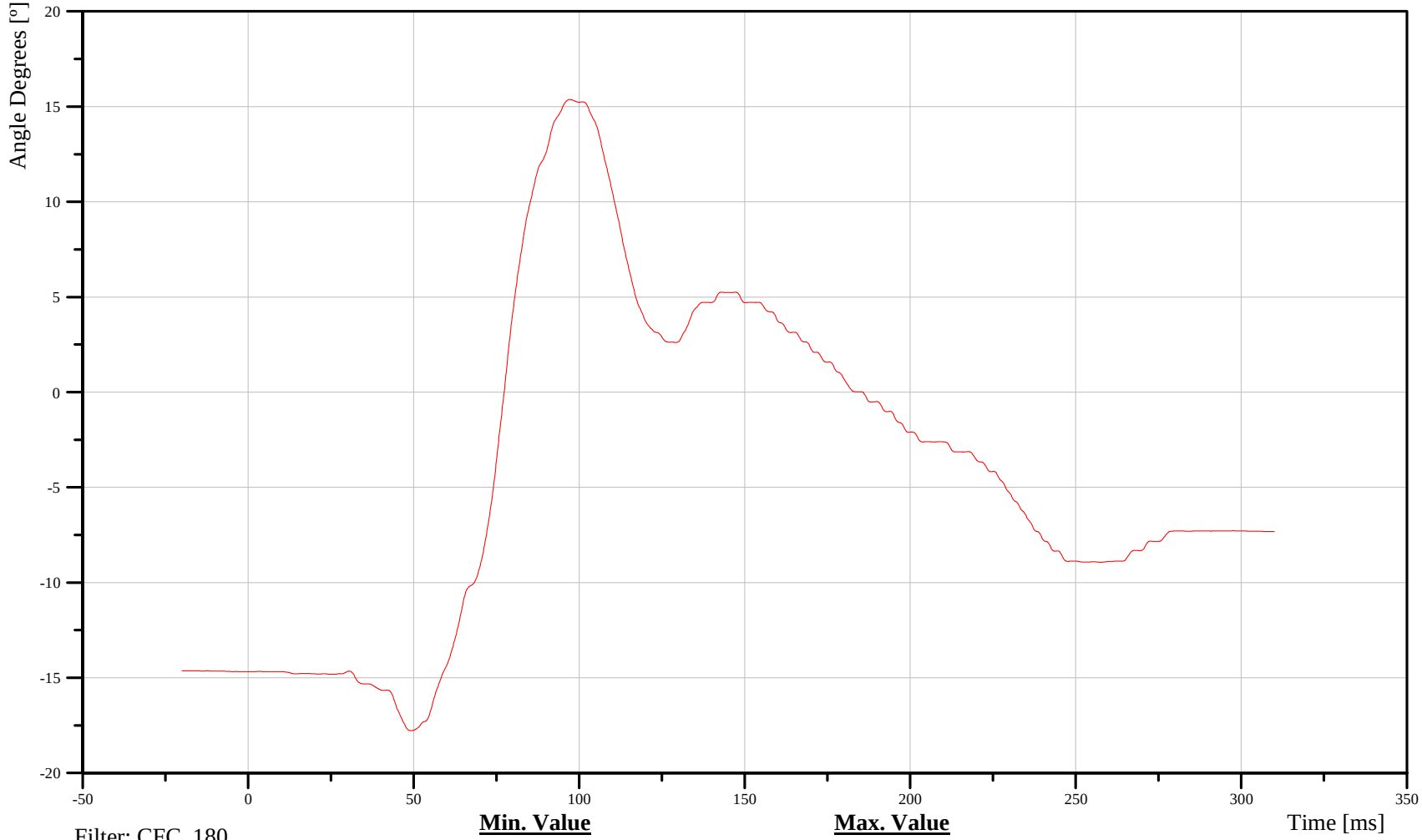
Driver Right Foot Y-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-17.77 ° at 49.28 ms

Max. Value
15.37 ° at 97.20 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

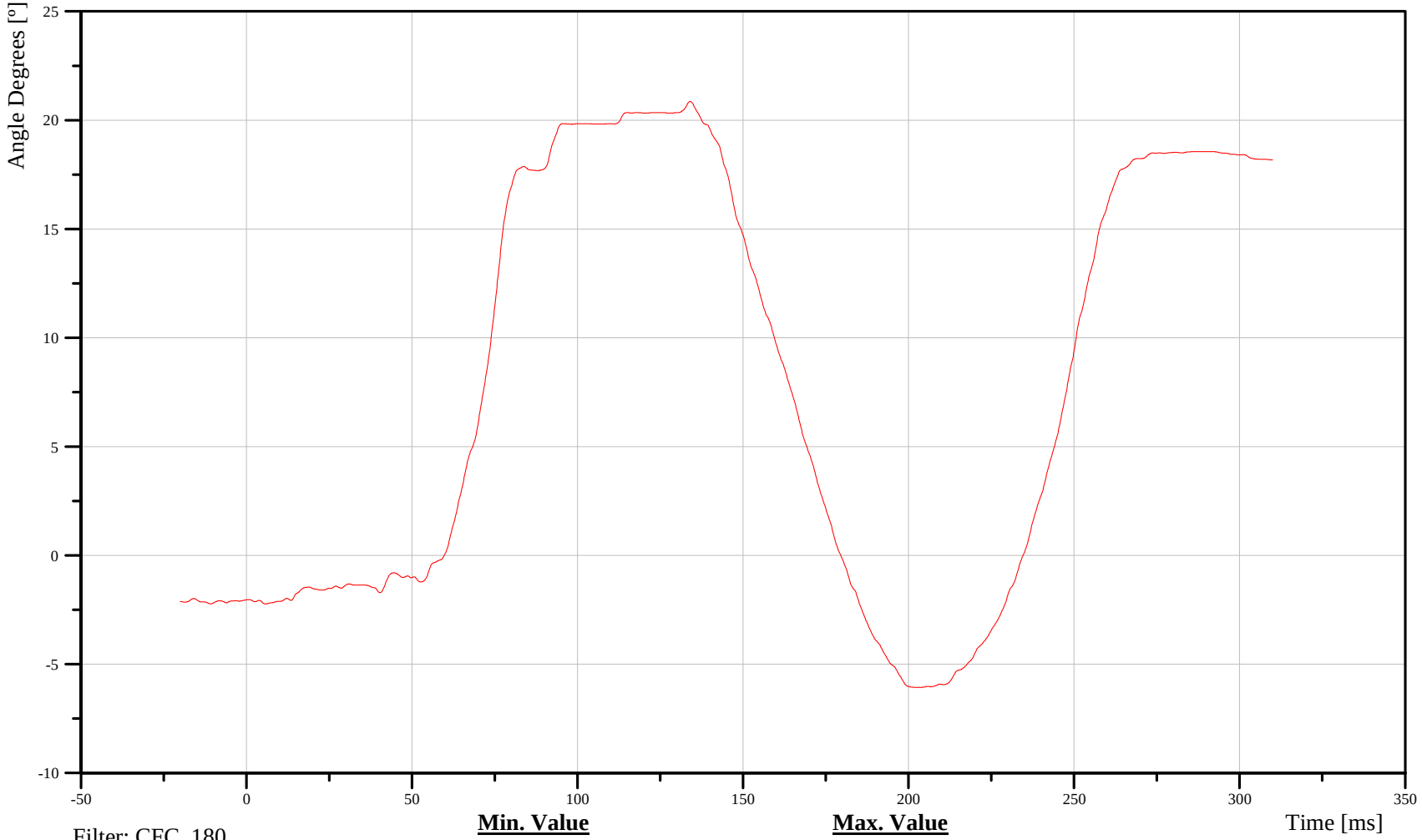
Driver Right Foot Z-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-6.07 ° at 202.40 ms

Max. Value
20.86 ° at 134.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

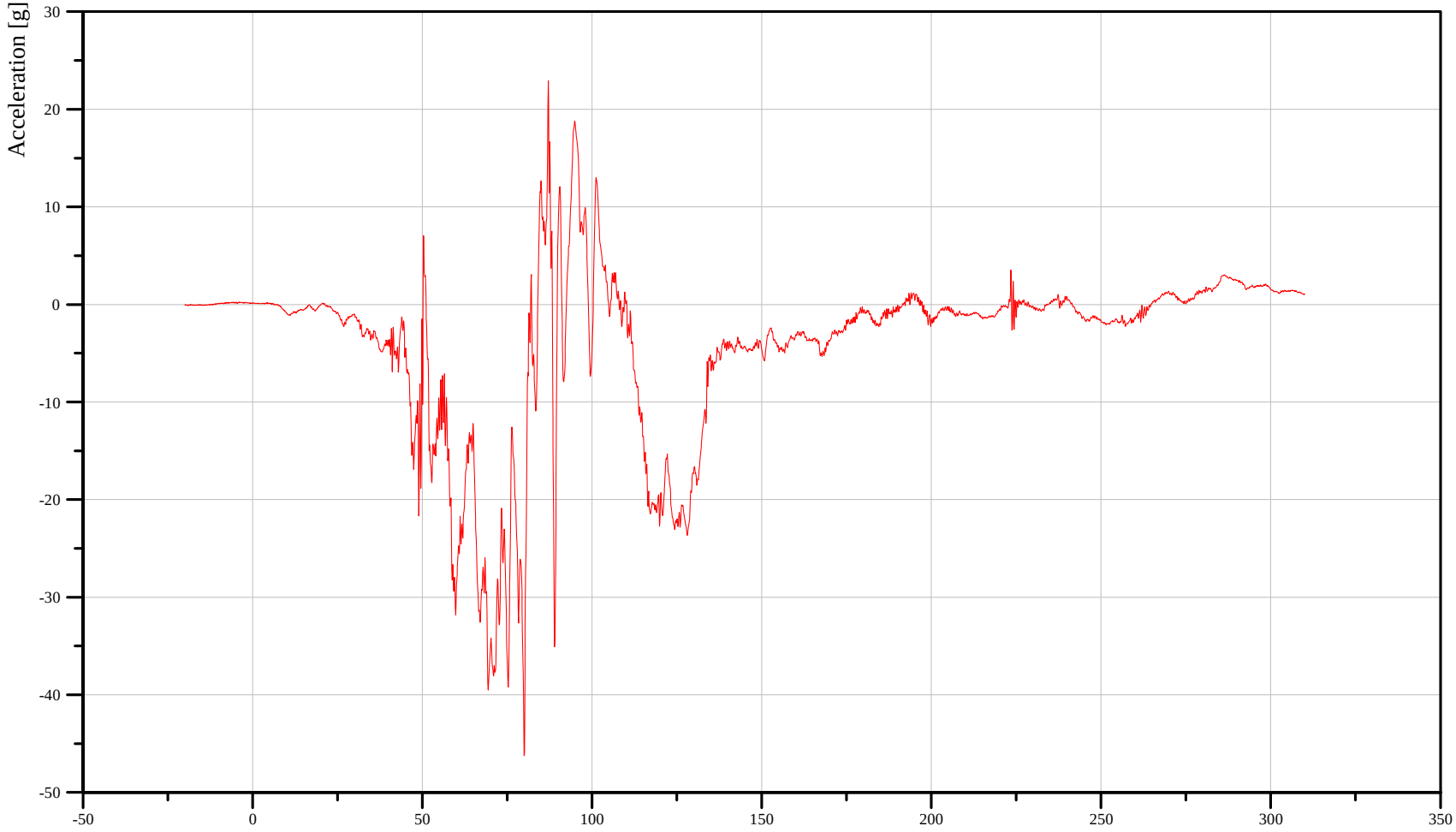
Driver Right Foot X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-46.21 g at 80.00 ms

Max. Value
22.94 g at 87.12 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

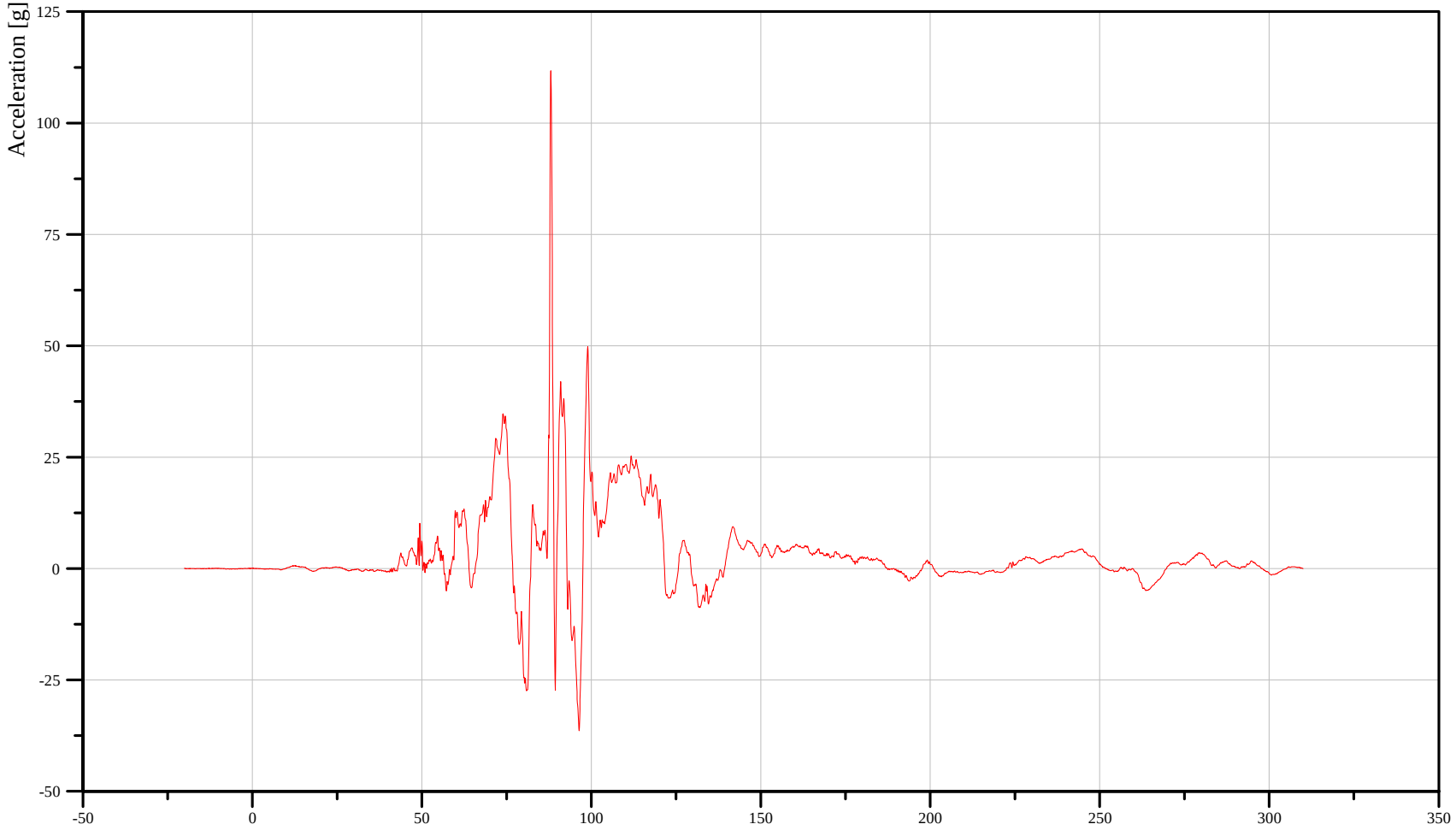
Driver Right Foot Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-36.42 g at 96.40 ms

Max. Value
111.74 g at 88.08 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

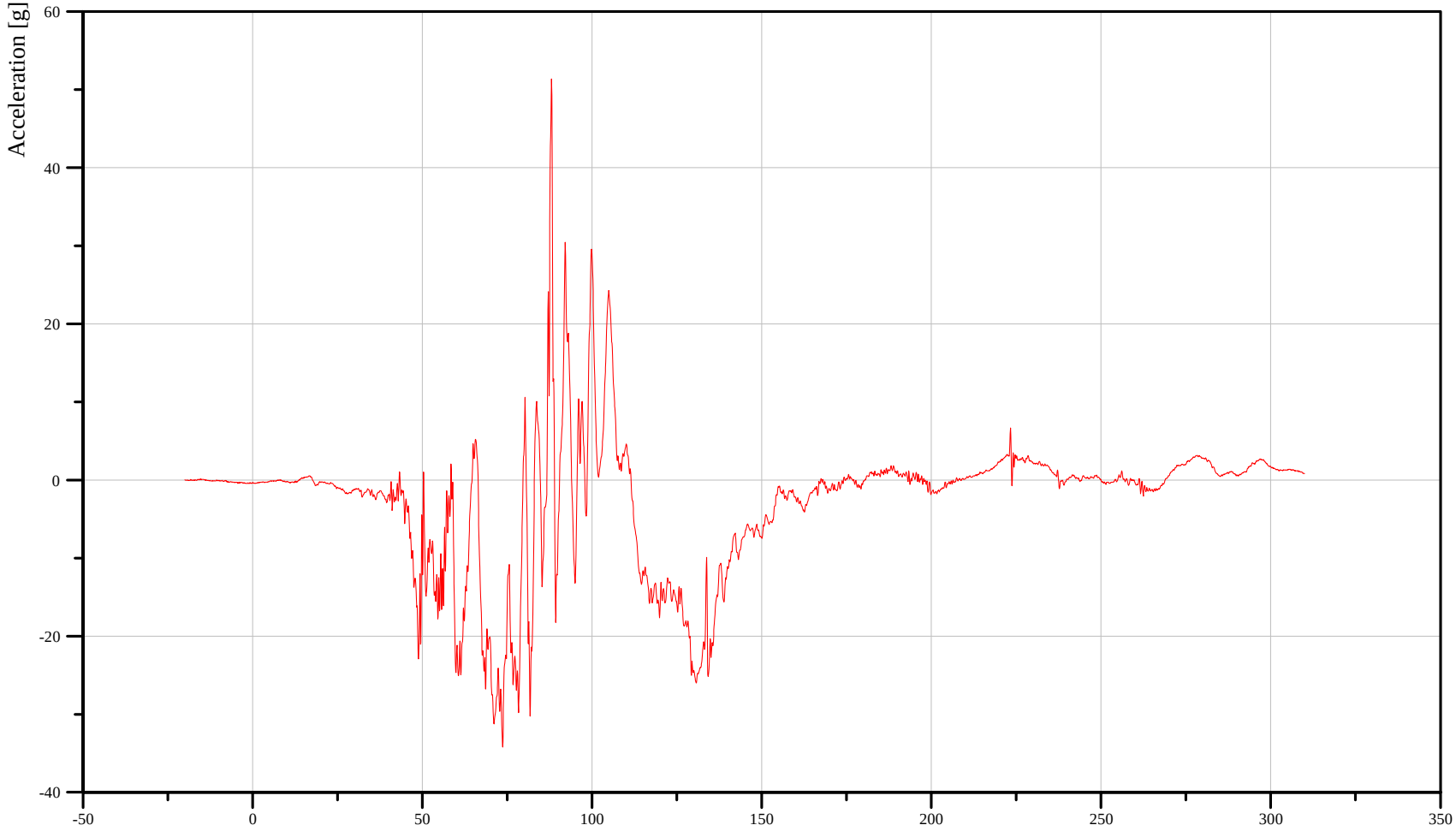
Driver Right Foot Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-34.21 g at 73.68 ms

Max. Value
51.38 g at 88.08 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

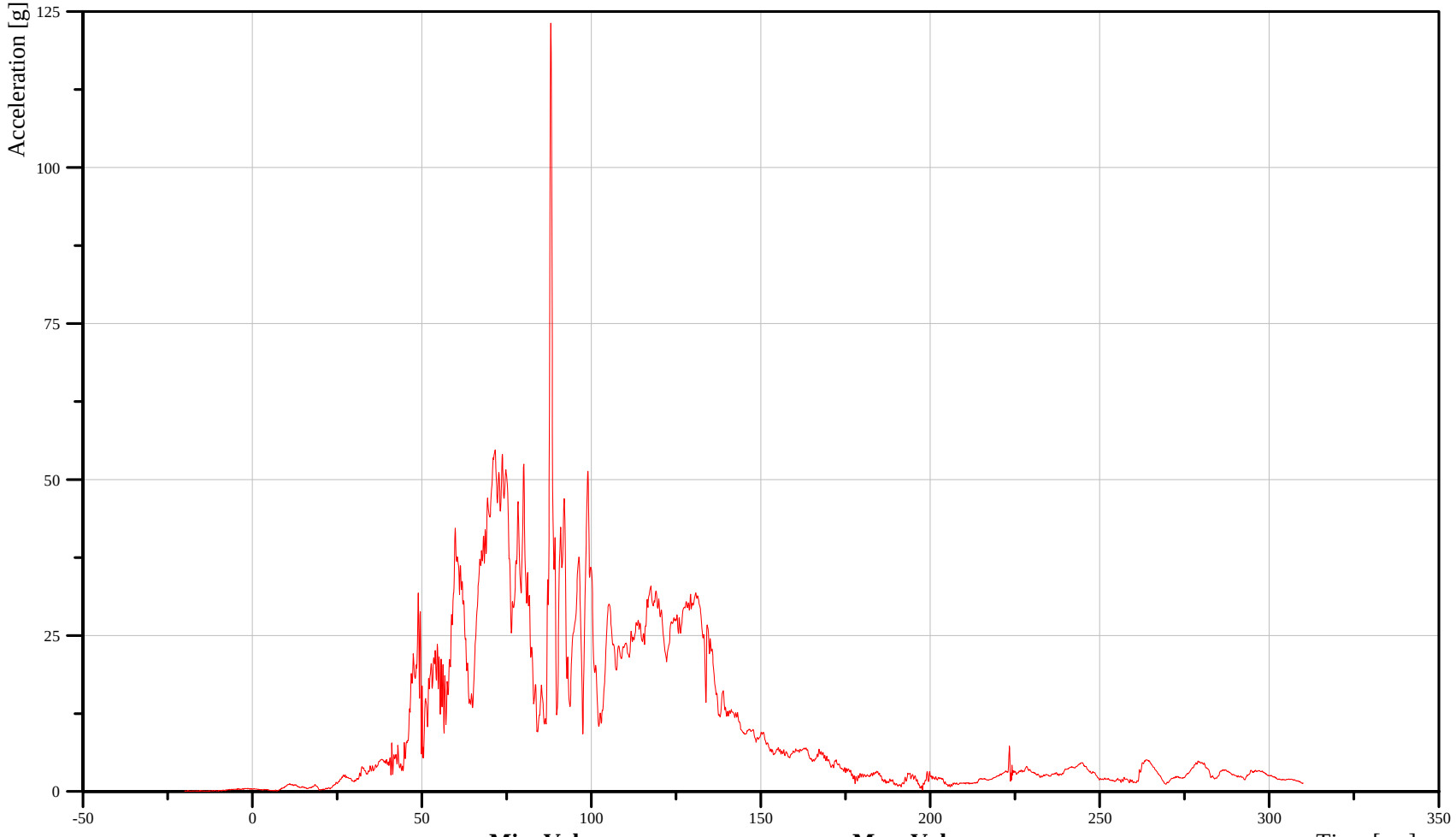
Driver Right Foot Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11FOOTRILXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.04 g at -18.32 ms

Max. Value
123.18 g at 88.08 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

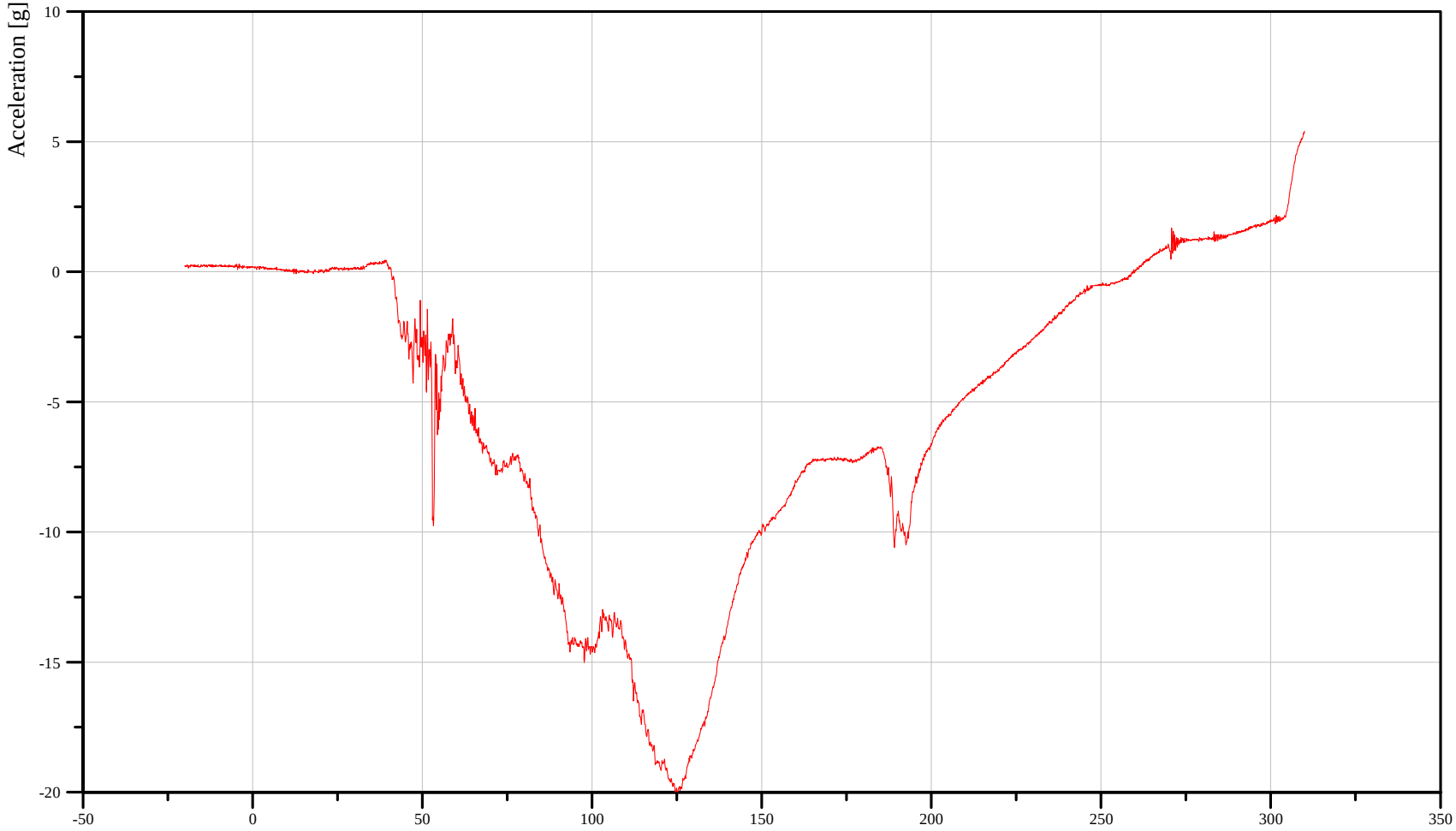
Passenger Head X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-19.99 g at 124.56 ms

Max. Value
5.40 g at 309.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

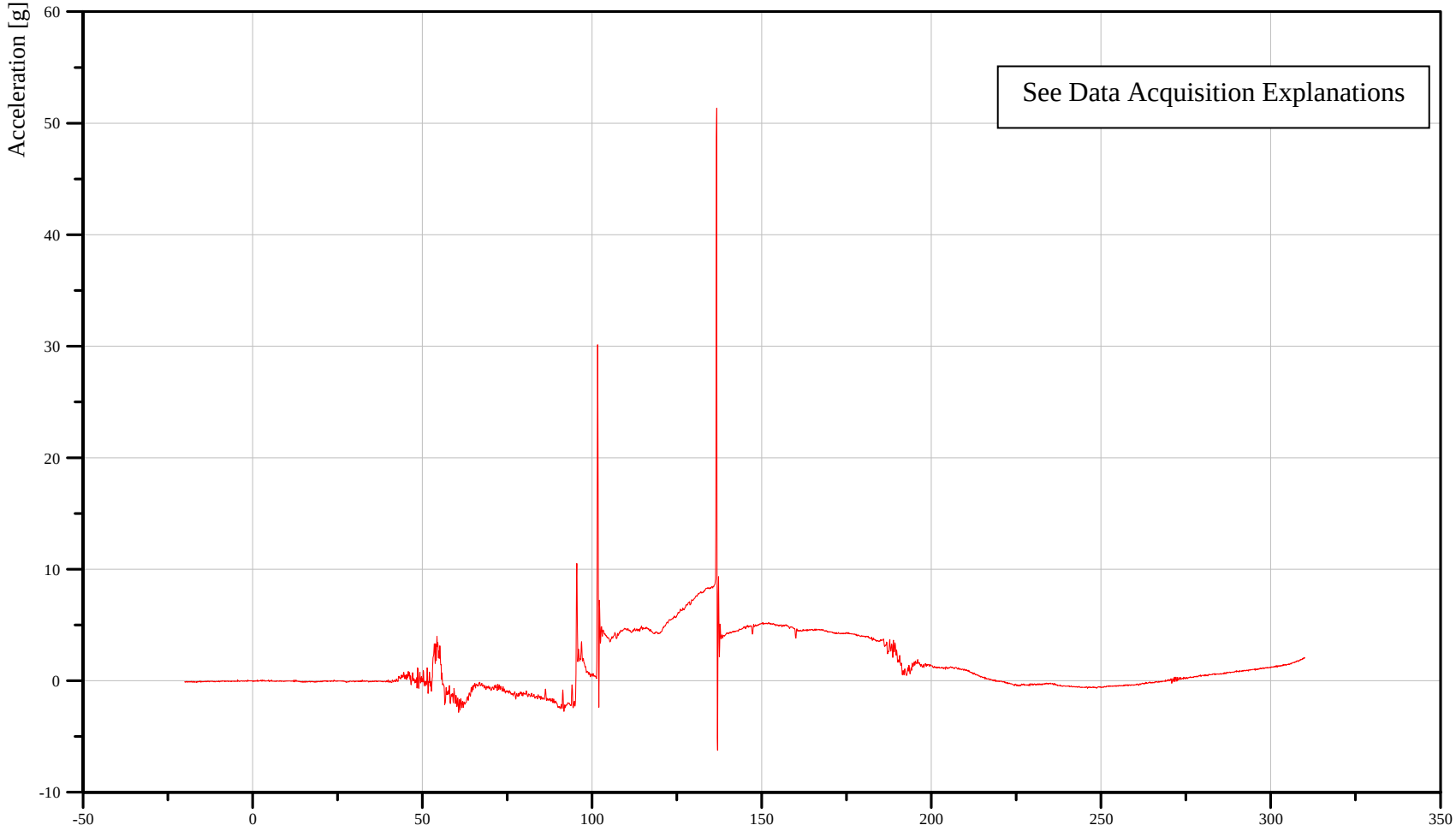
Passenger Head Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-6.24 g at 137.04 ms

Max. Value
51.37 g at 136.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

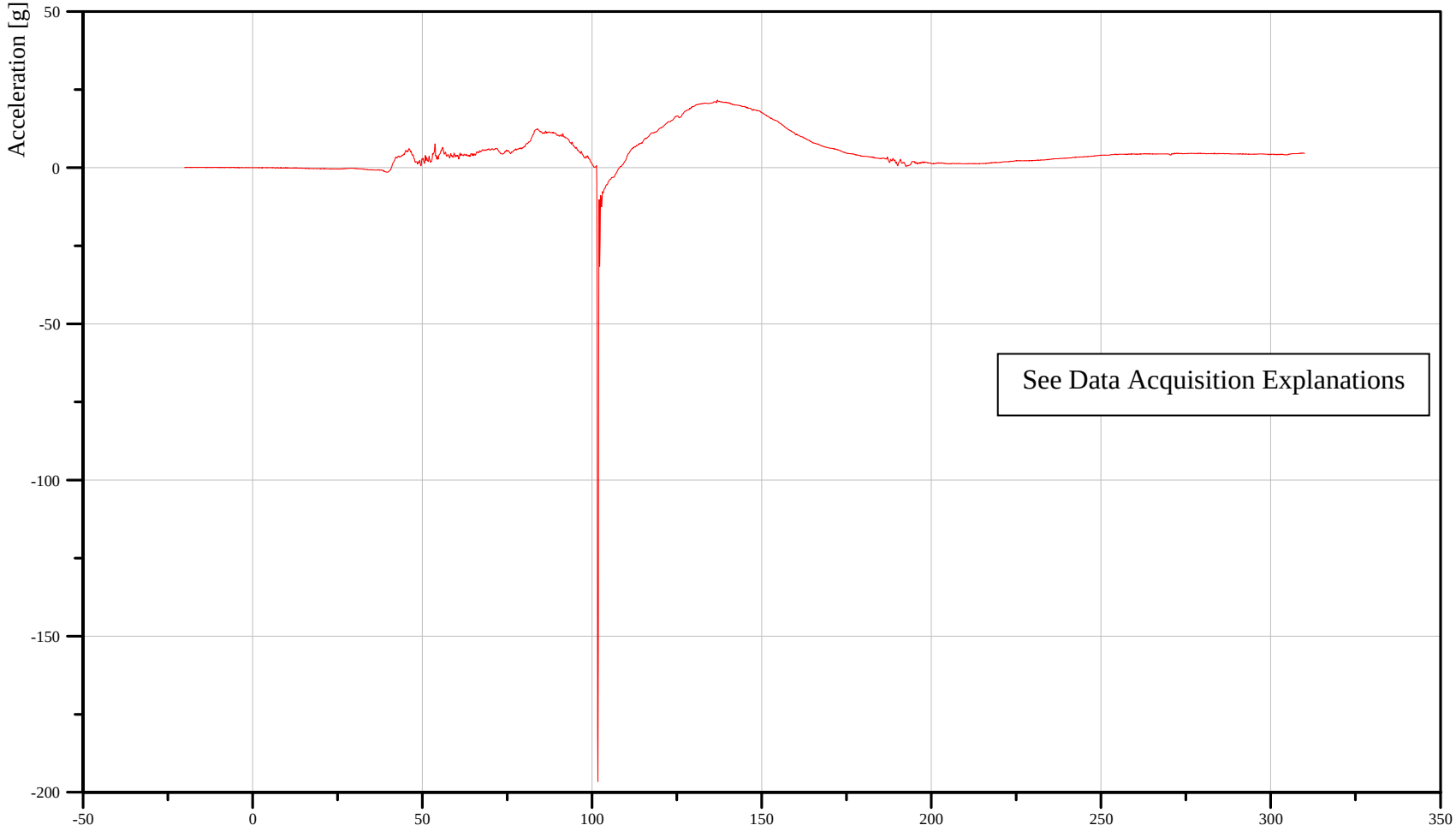
Passenger Head Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-196.56 g at 101.76 ms

Max. Value
21.65 g at 136.96 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

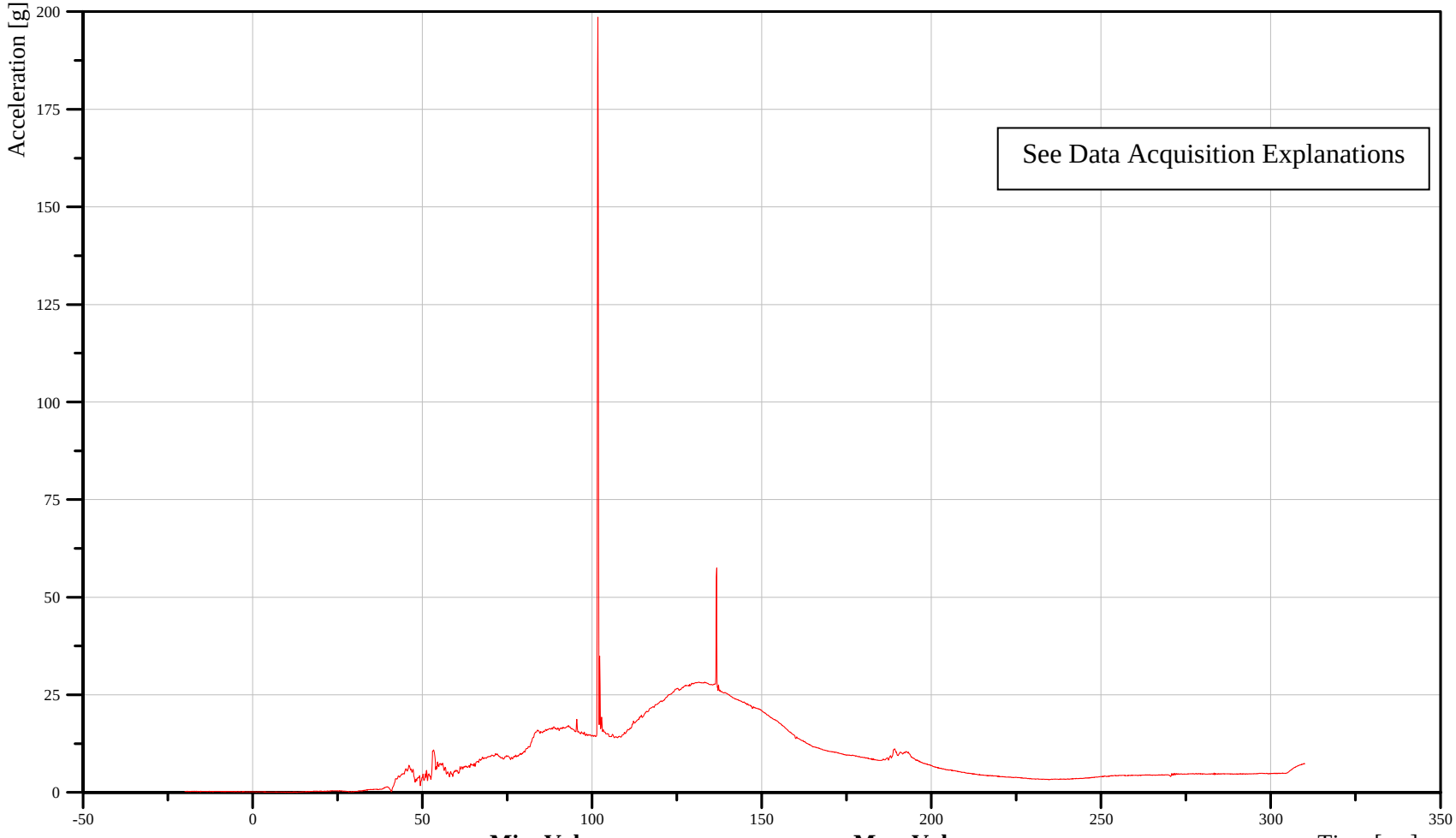
Passenger Head Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.02 g at 10.16 ms

Max. Value
198.61 g at 101.76 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

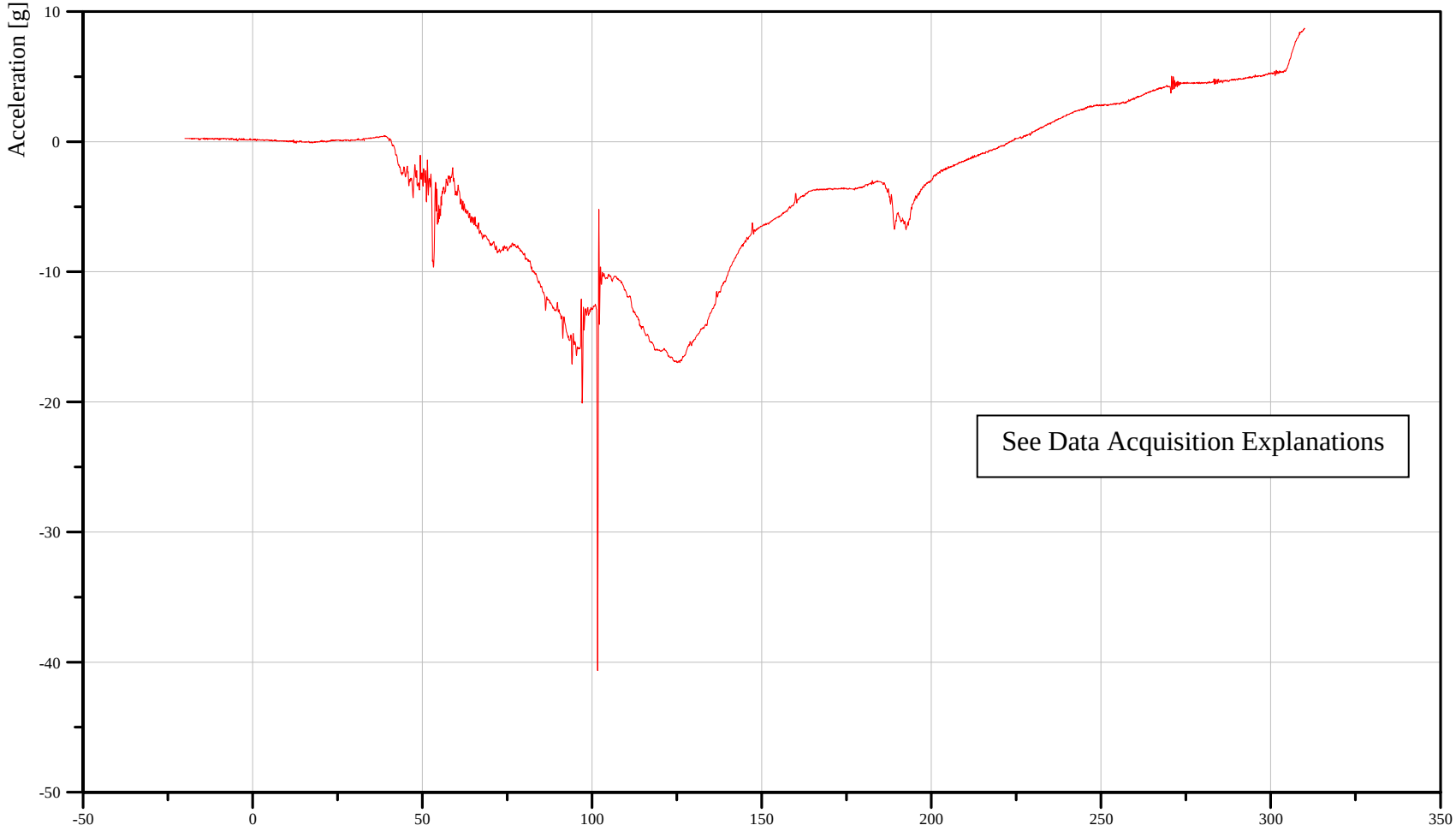
Passenger Head X-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCGRDH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-40.65 g at 101.68 ms

Max. Value
8.72 g at 309.92 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

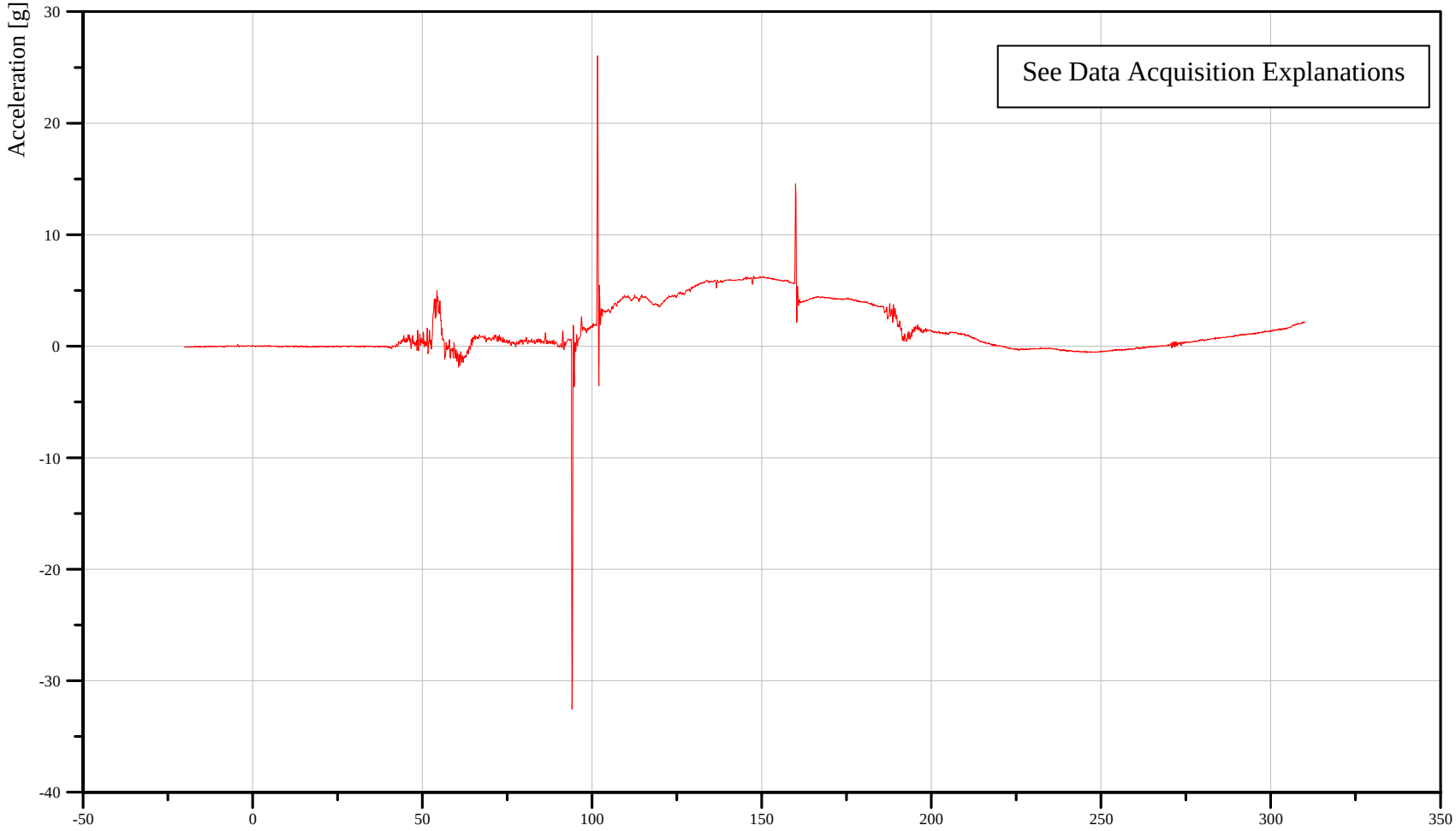
Passenger Head Y-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCGRDH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-32.54 g at 94.16 ms

Max. Value
26.06 g at 101.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

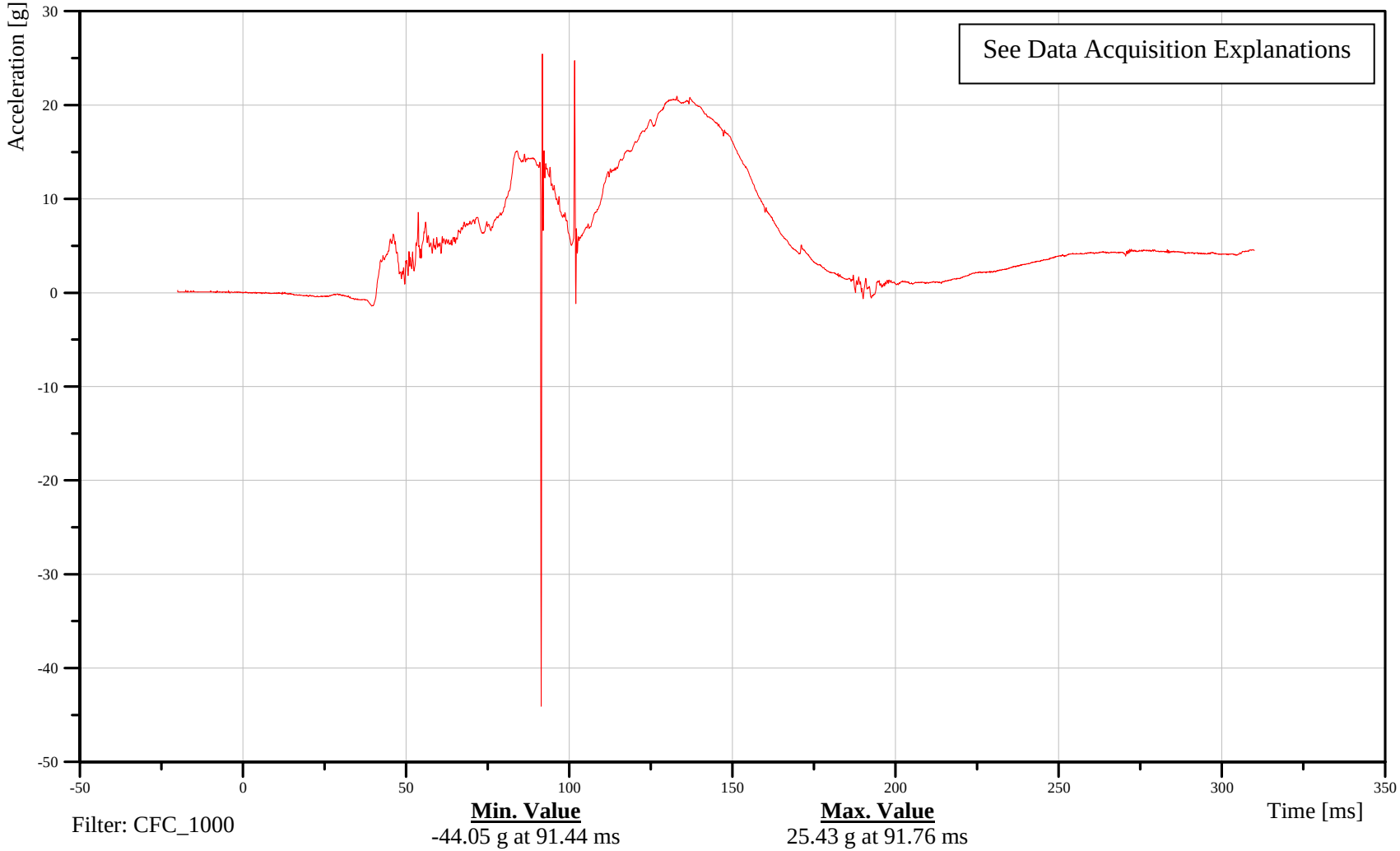
Passenger Head Z-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCGRDH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-44.05 g at 91.44 ms

Max. Value
25.43 g at 91.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

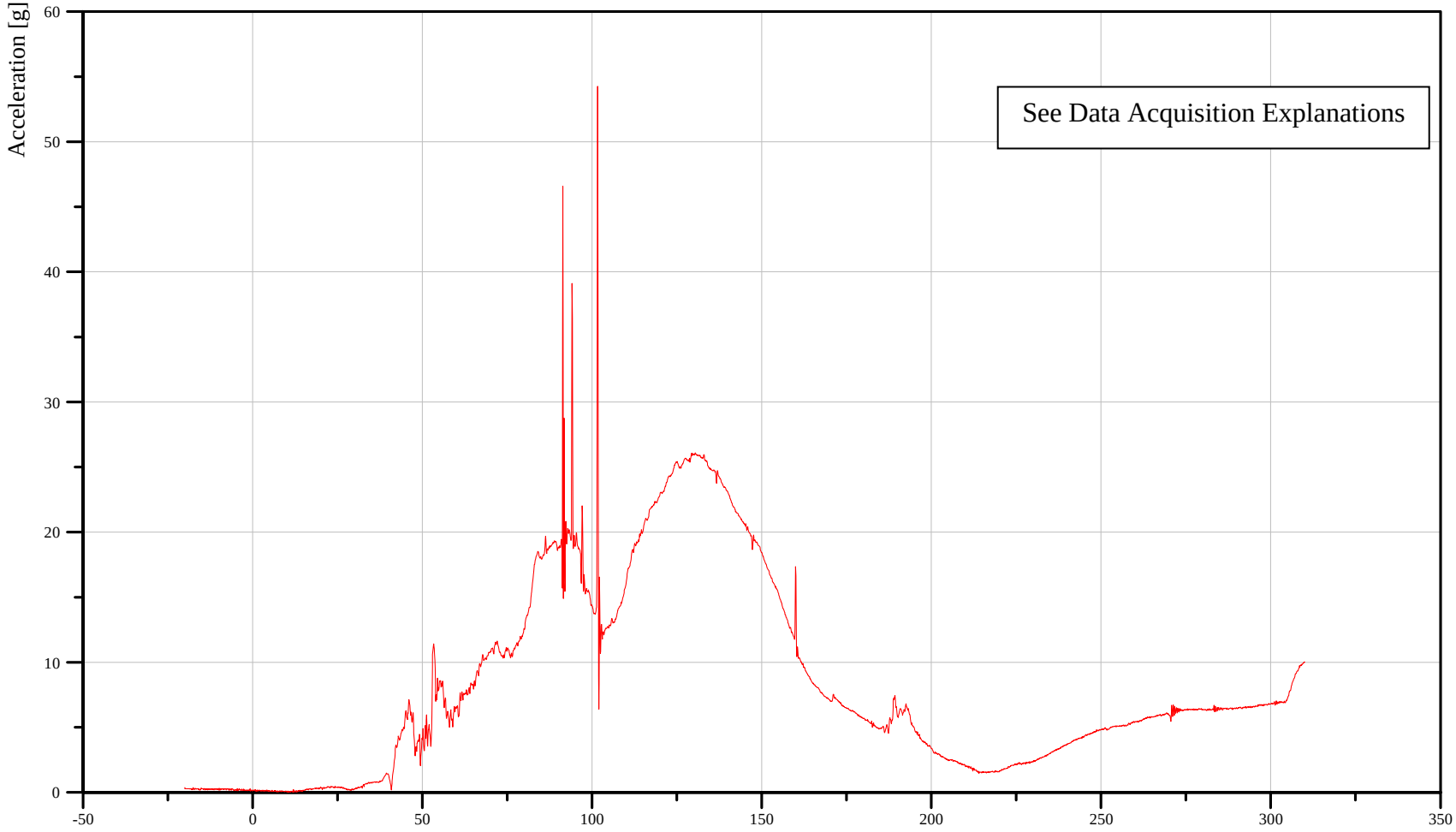
Passenger Head Redundant Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADCGRDH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.01 g at 10.56 ms

Max. Value
54.25 g at 101.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

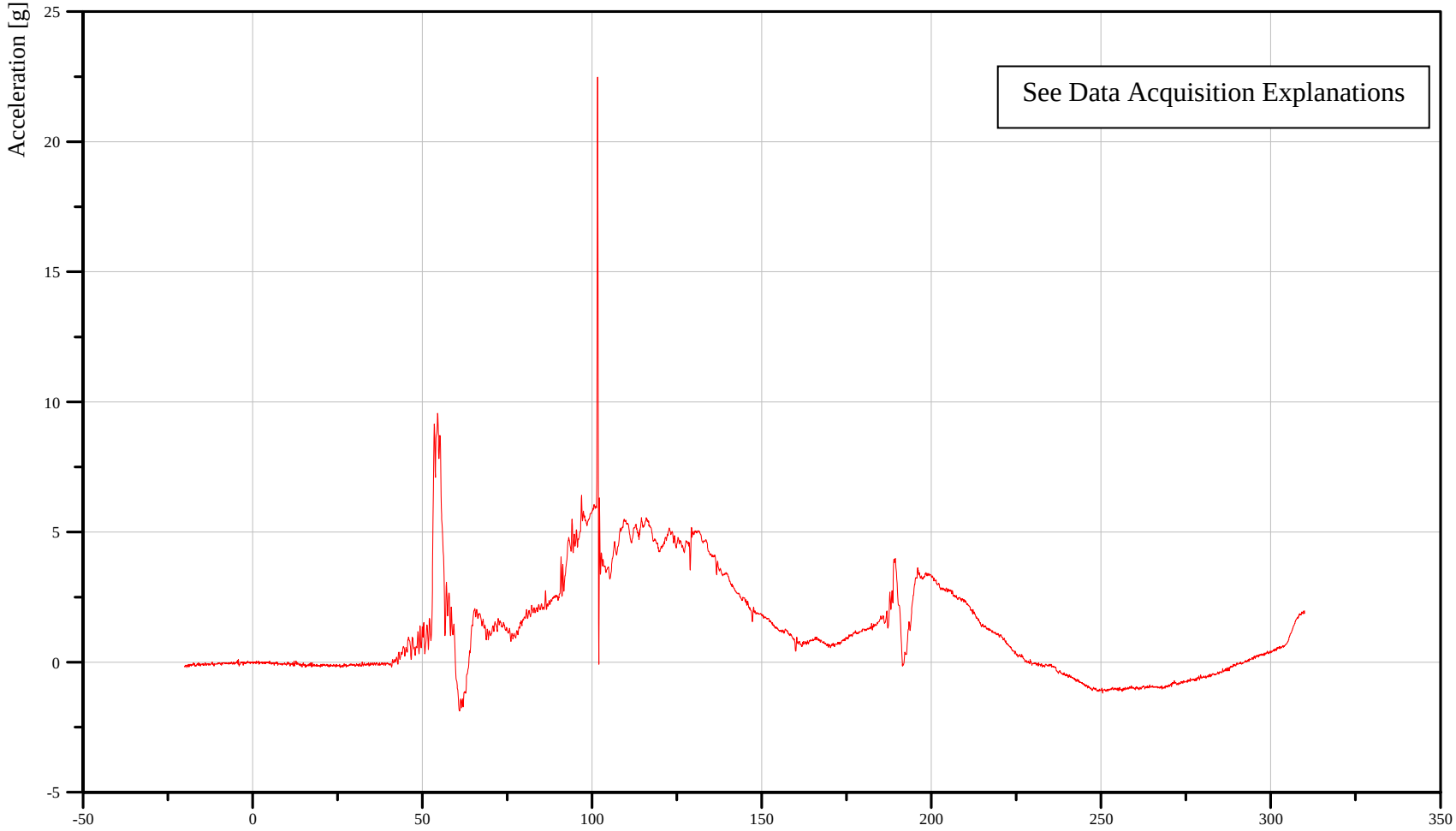
Passenger Head (FT) Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADFR00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-1.88 g at 60.96 ms

Max. Value
22.49 g at 101.68 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

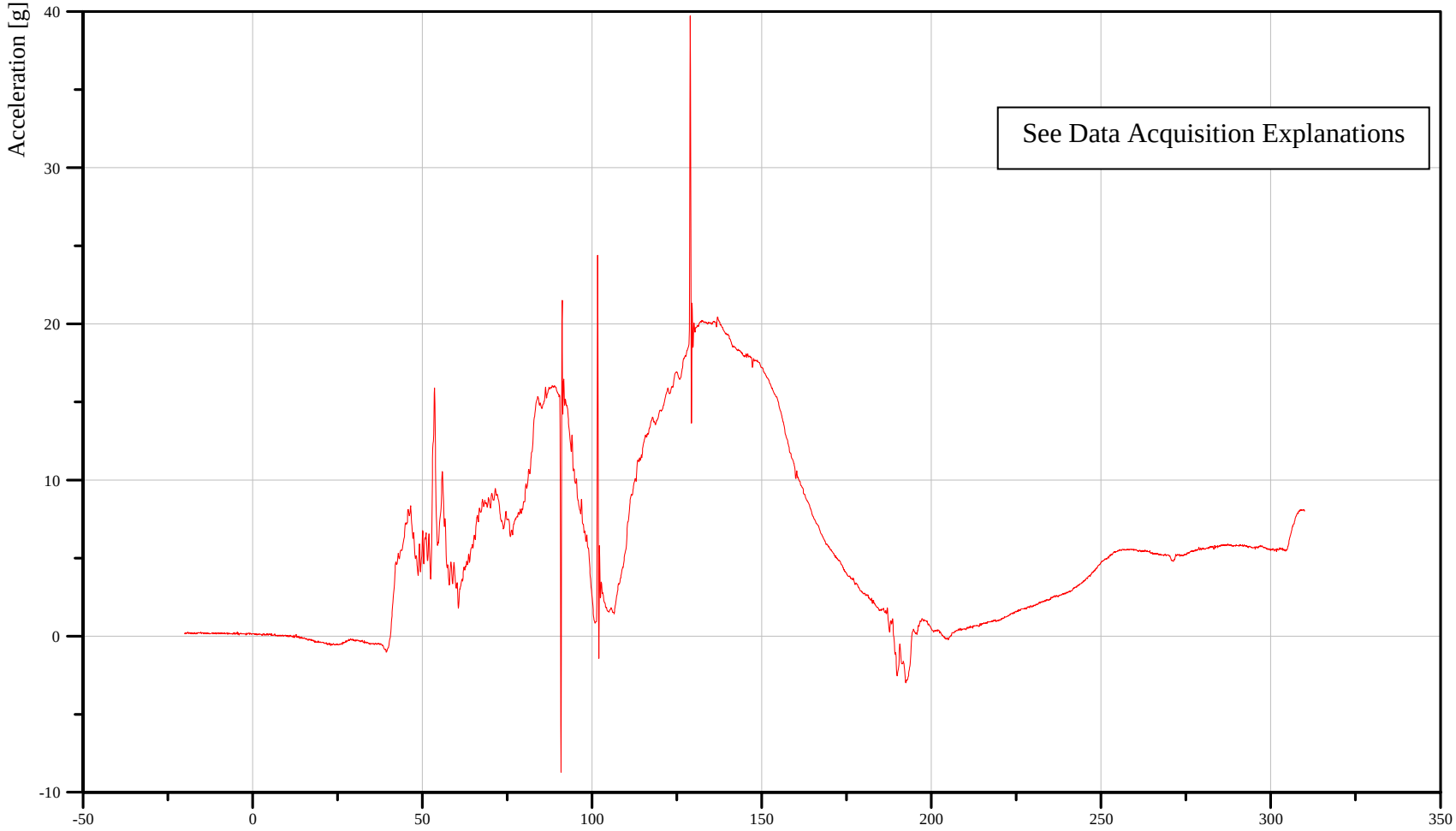
Passenger Head (FT) Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADFR00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-8.72 g at 90.88 ms

Max. Value
39.72 g at 128.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

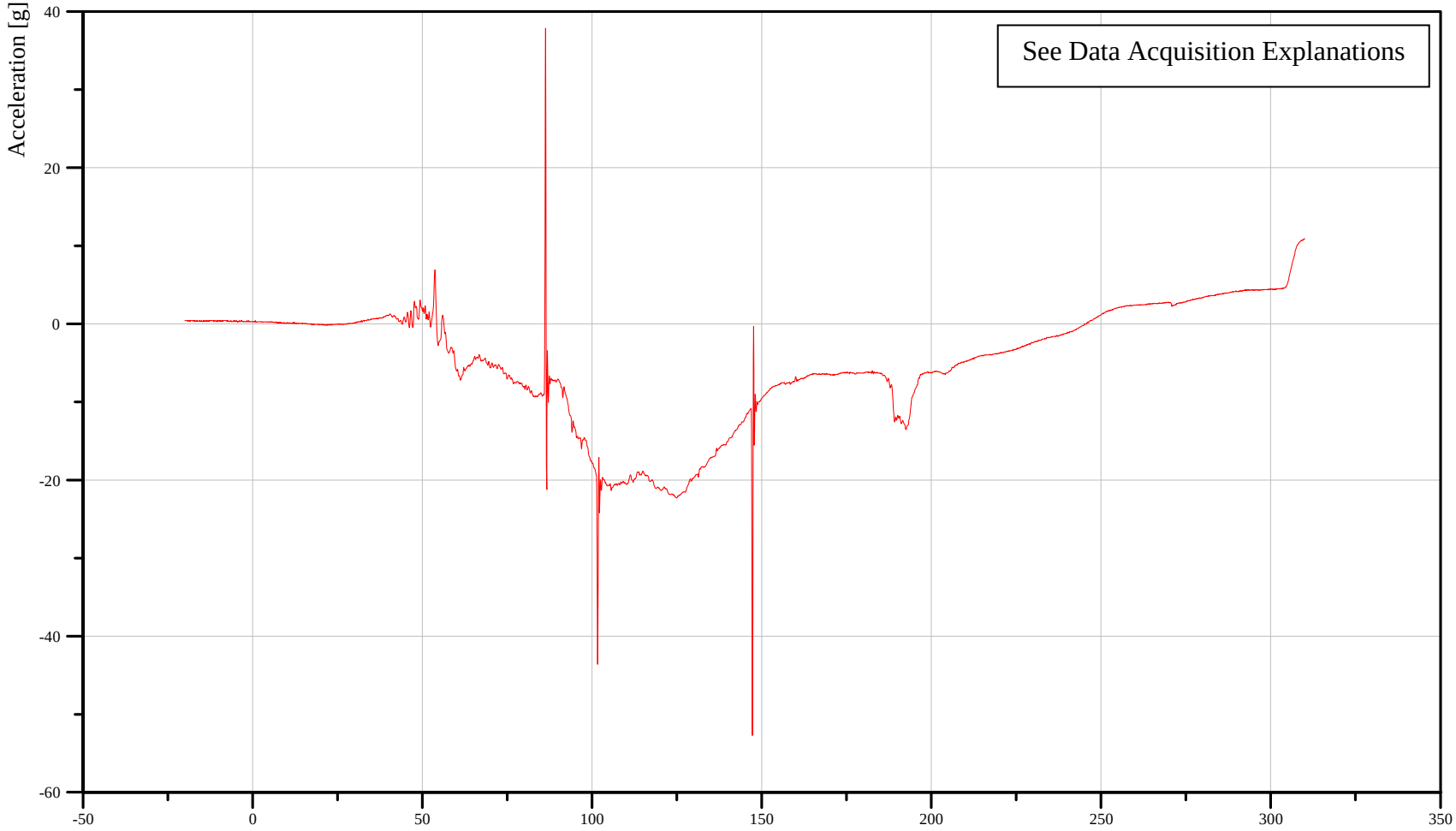
Passenger Head (TP) X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADUP00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-52.73 g at 147.28 ms

Max. Value
37.89 g at 86.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

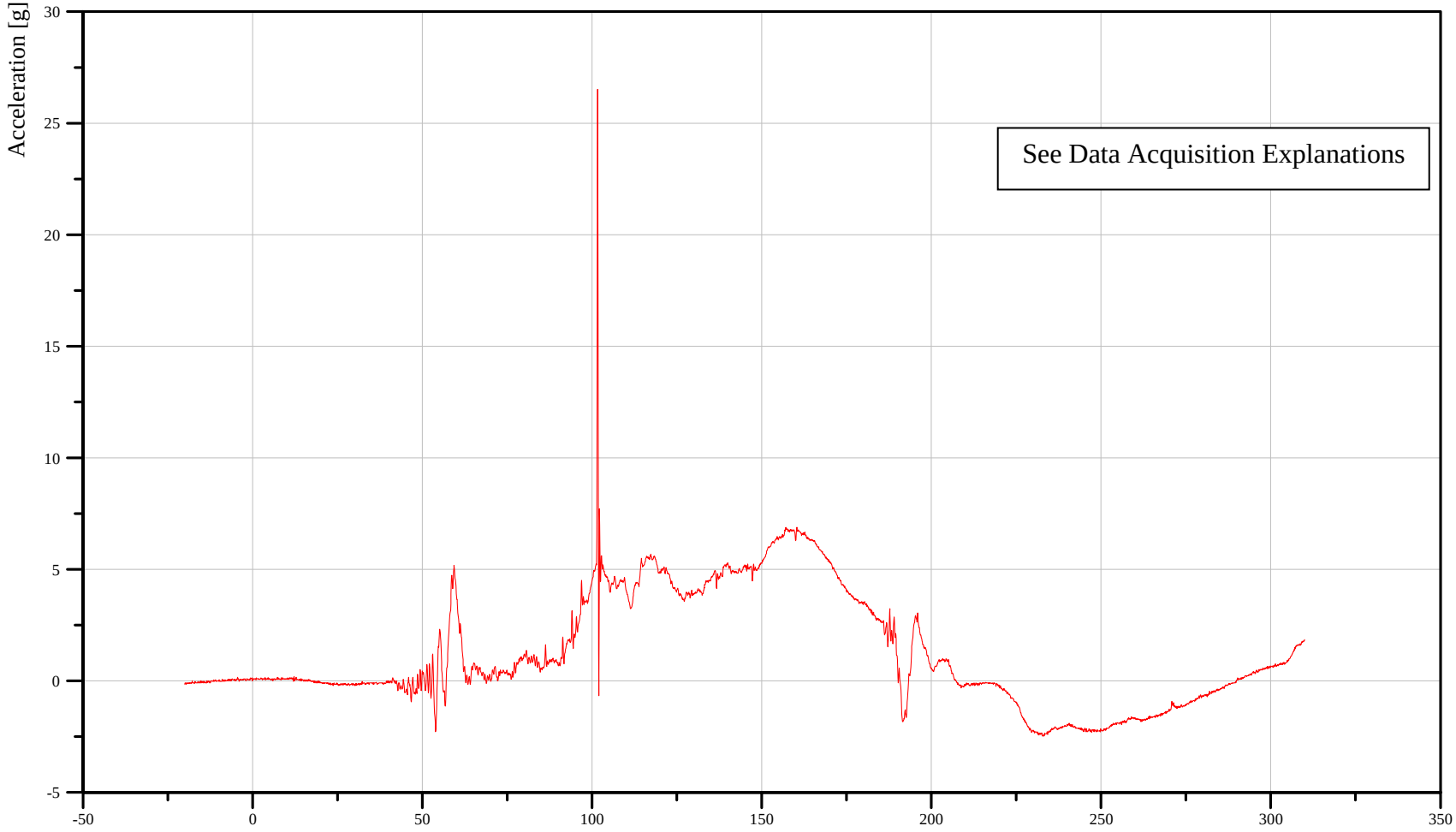
Passenger Head (TP) Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADUP00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-2.47 g at 232.72 ms

Max. Value
26.52 g at 101.68 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

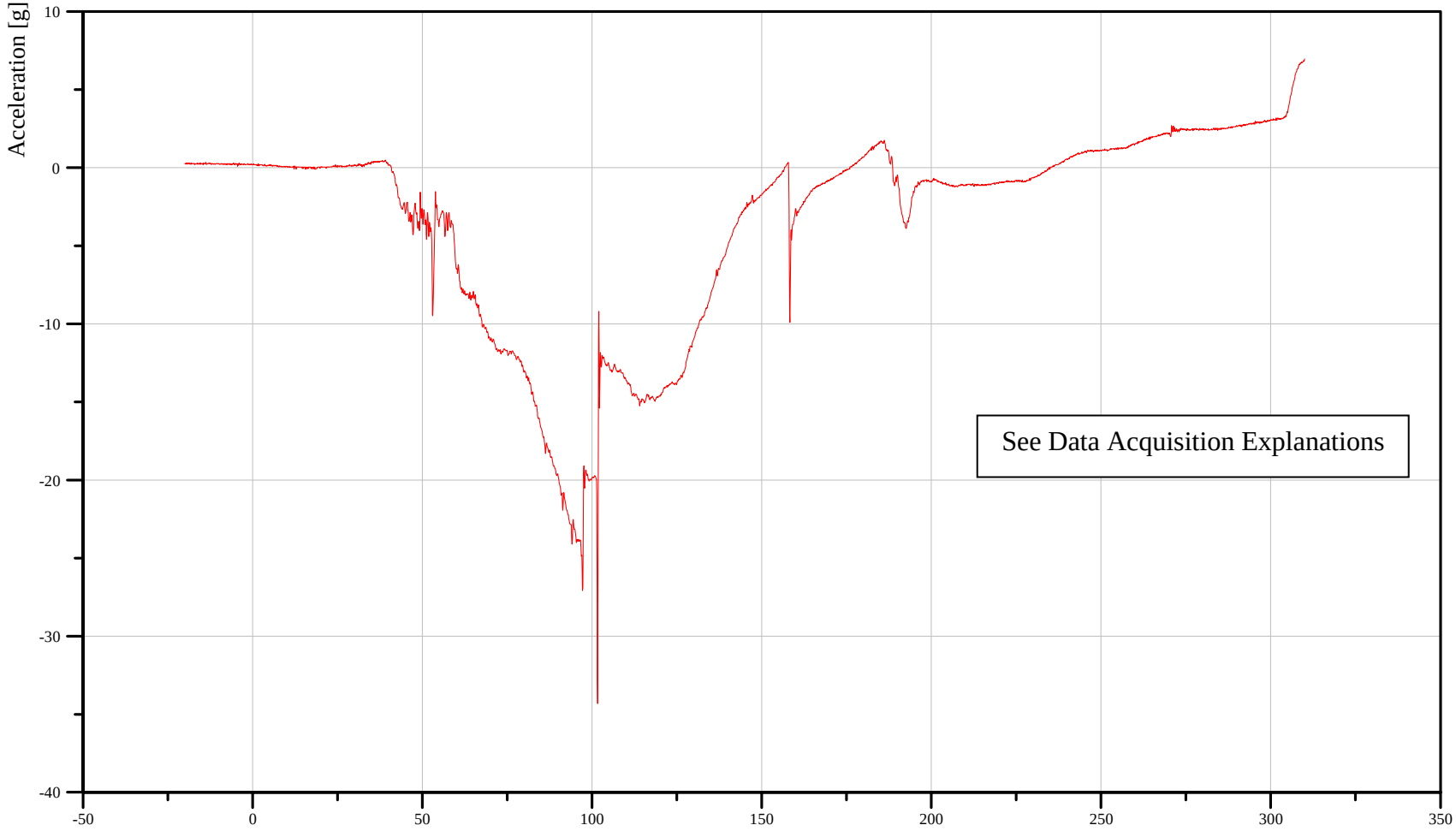
Passenger Head (LT) X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADLE00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-34.33 g at 101.68 ms

Max. Value
6.97 g at 310.00 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

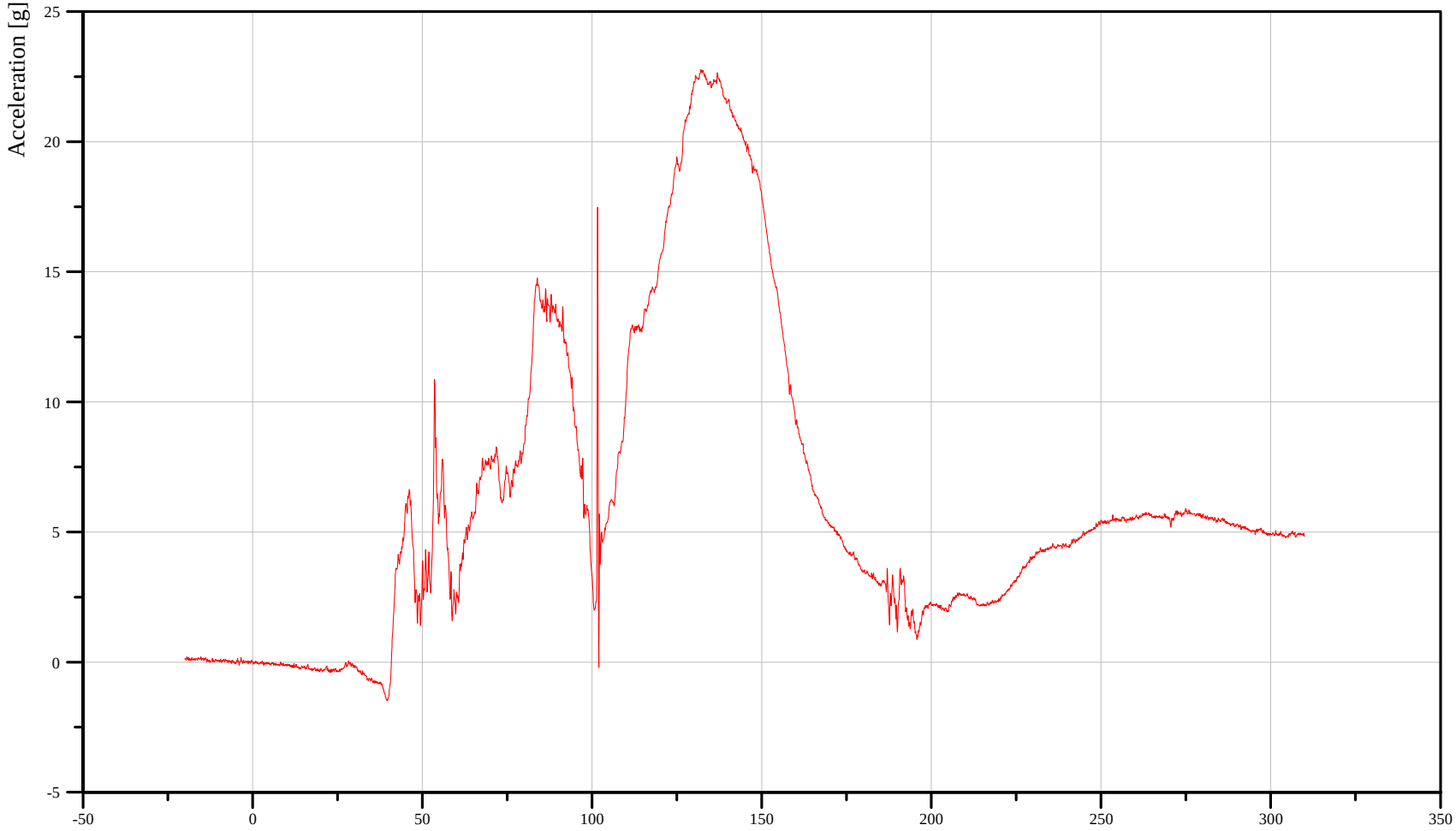
Passenger Head (LT) Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13HEADLE00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-1.46 g at 39.60 ms

Max. Value
22.77 g at 132.08 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

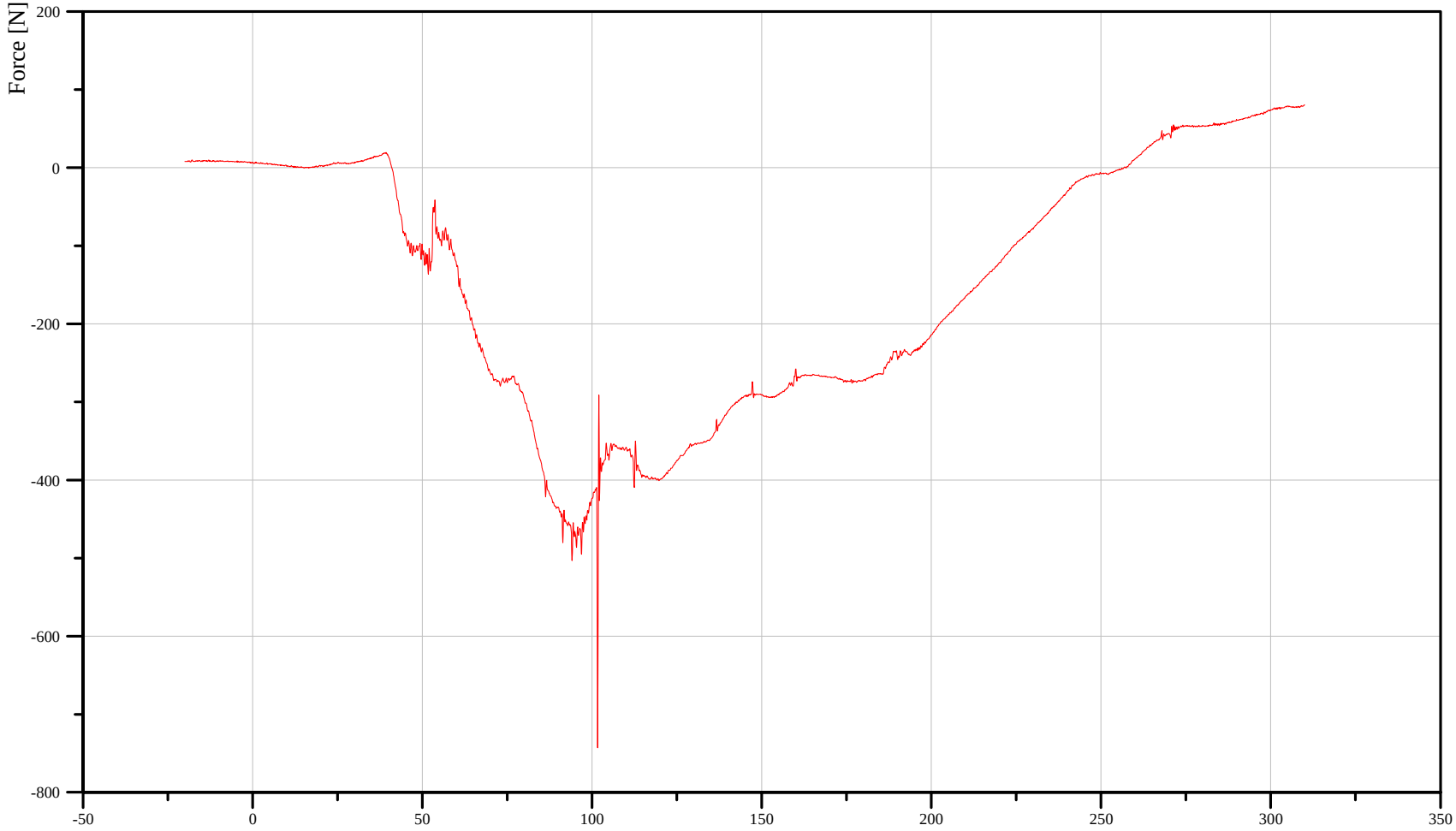
Passenger Upper Neck X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKUP00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-742.95 N at 101.68 ms

Max. Value
80.61 N at 310.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

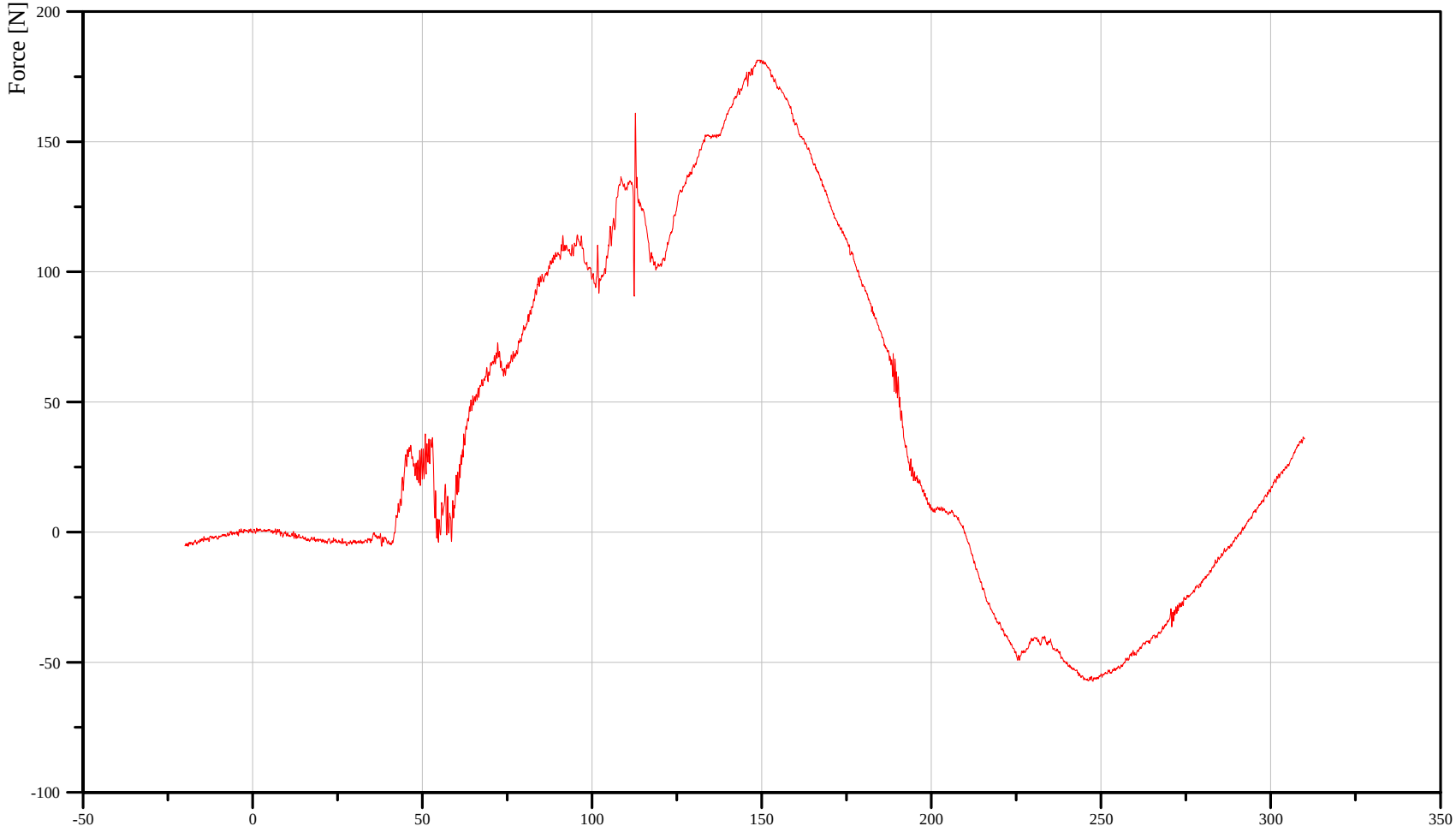
Passenger Upper Neck Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKUP00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-57.33 N at 247.60 ms

Max. Value
181.40 N at 148.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

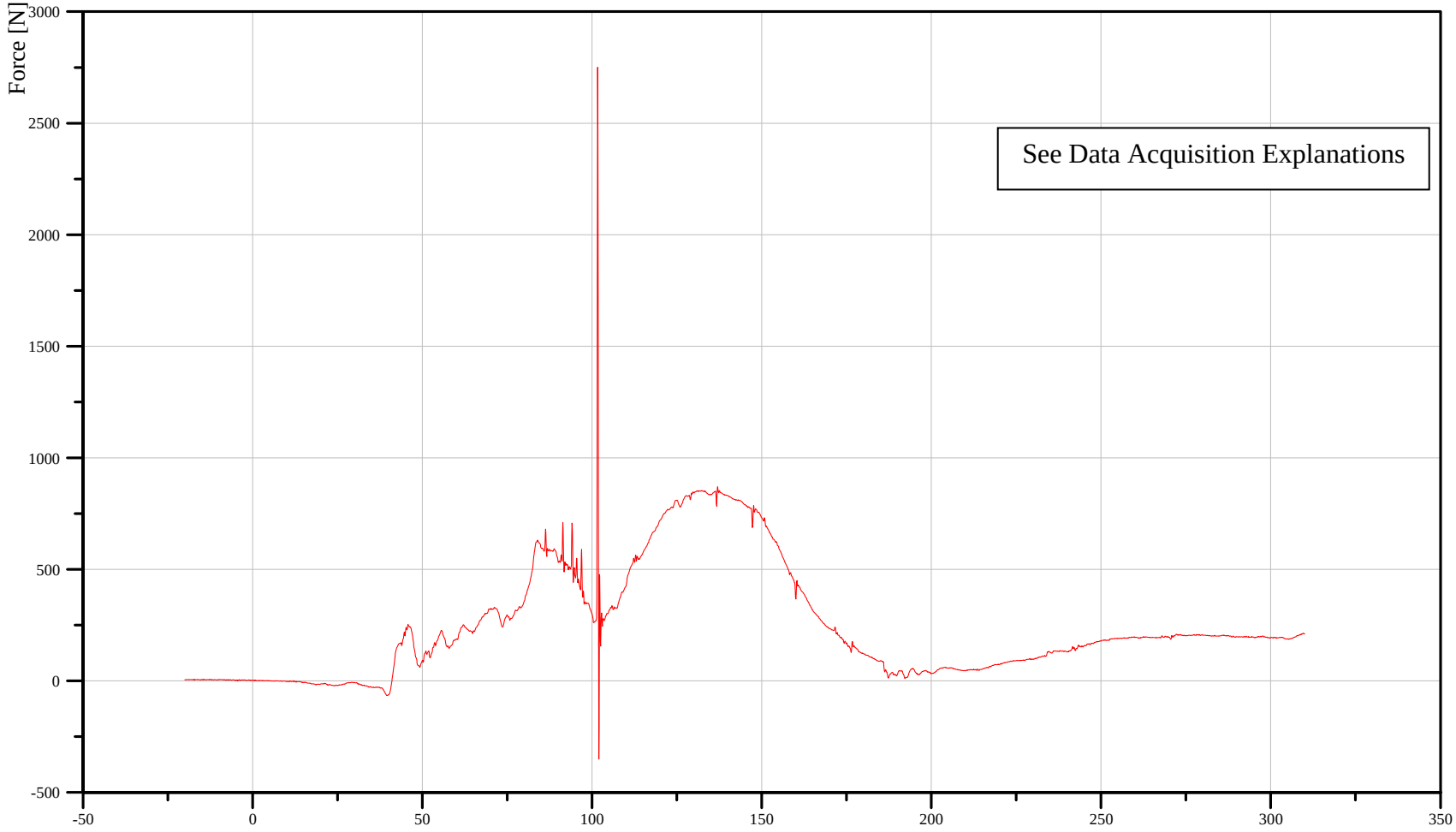
Passenger Upper Neck Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKUP00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-350.35 N at 102.00 ms

Max. Value
2,750.29 N at 101.68 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

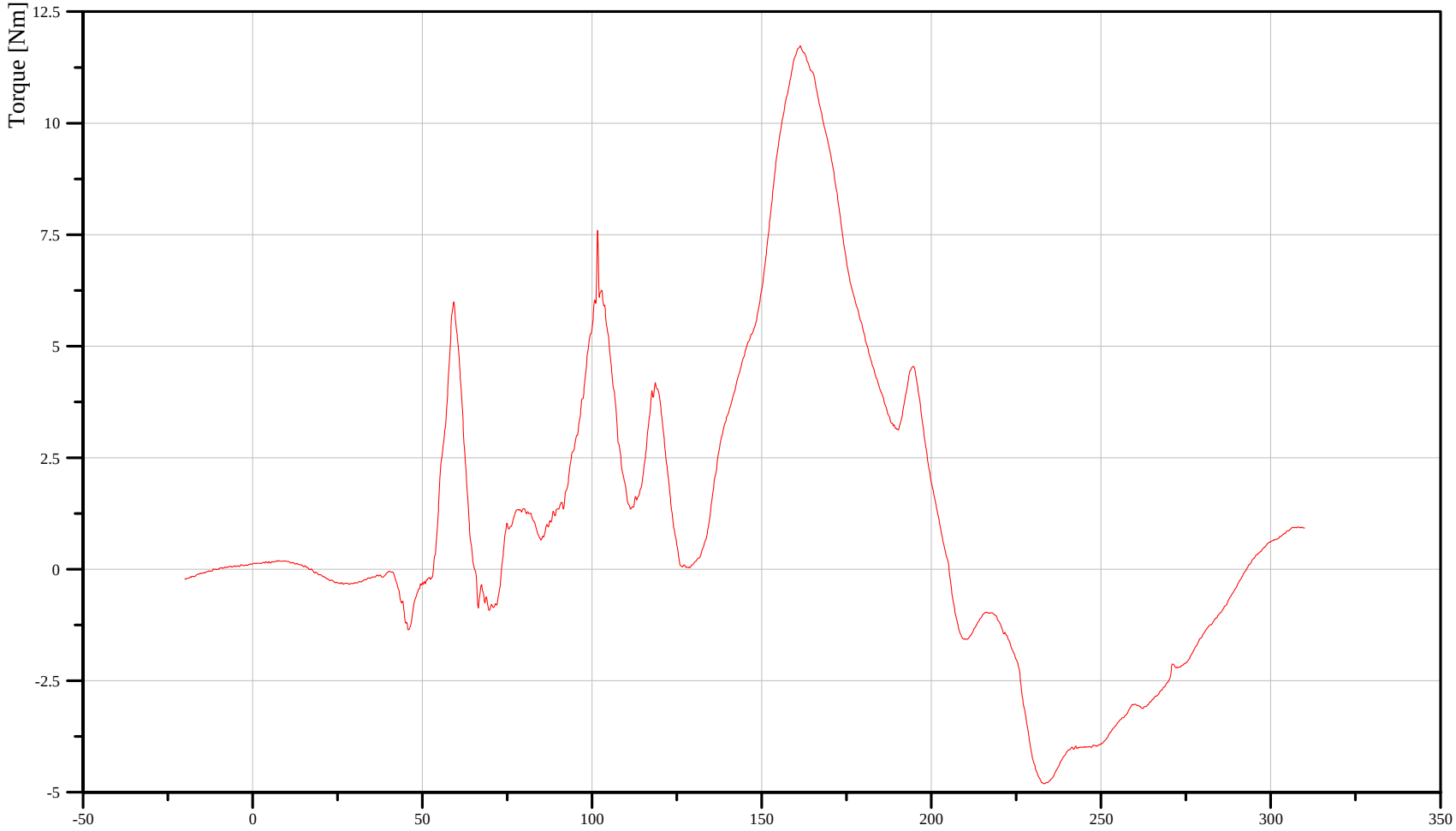
Passenger Upper Neck Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKUP00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-4.81 Nm at 233.28 ms

Max. Value
11.73 Nm at 161.36 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

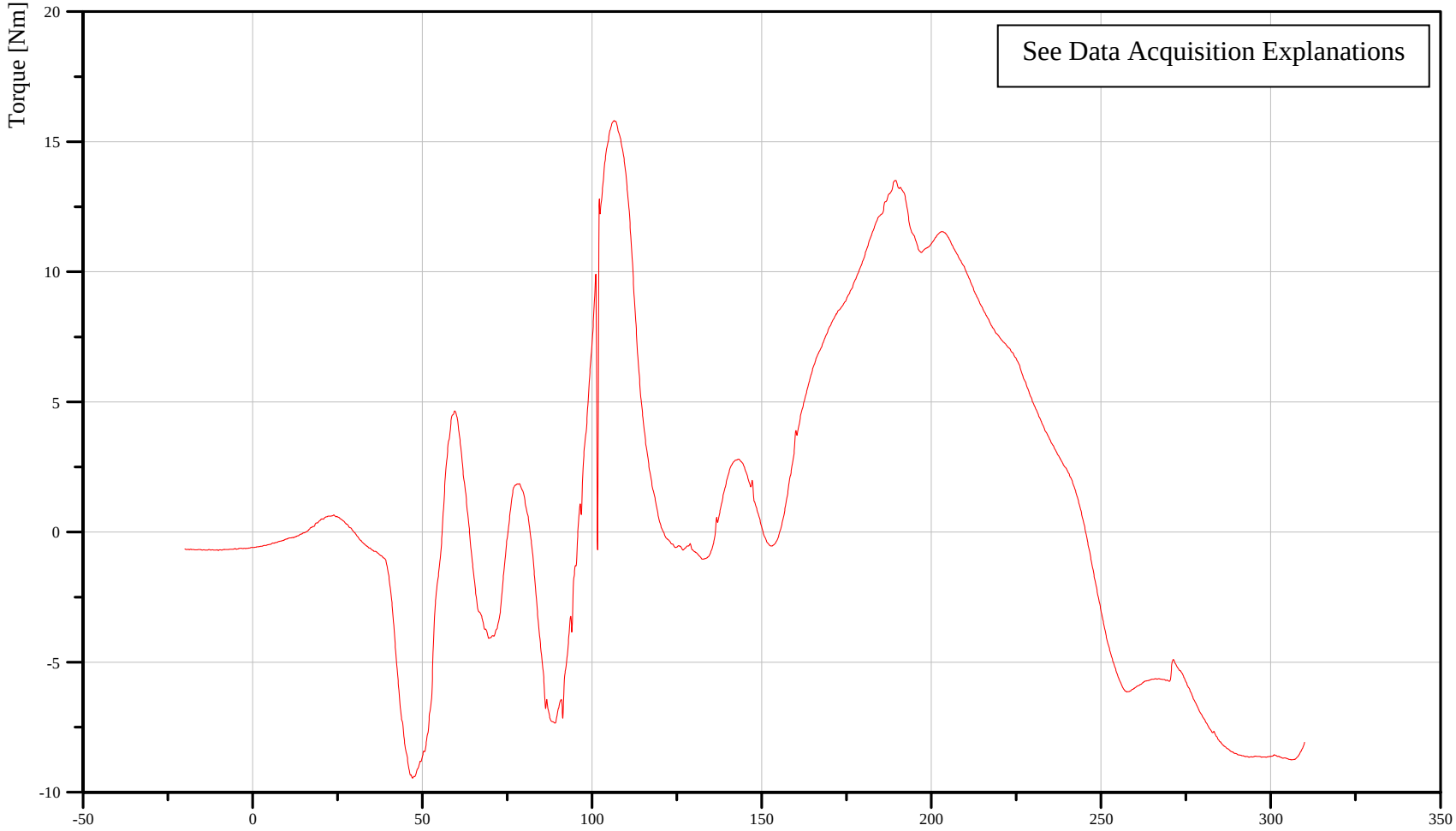
Passenger Upper Neck Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKUP00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-9.46 Nm at 47.12 ms

Max. Value
15.81 Nm at 106.48 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

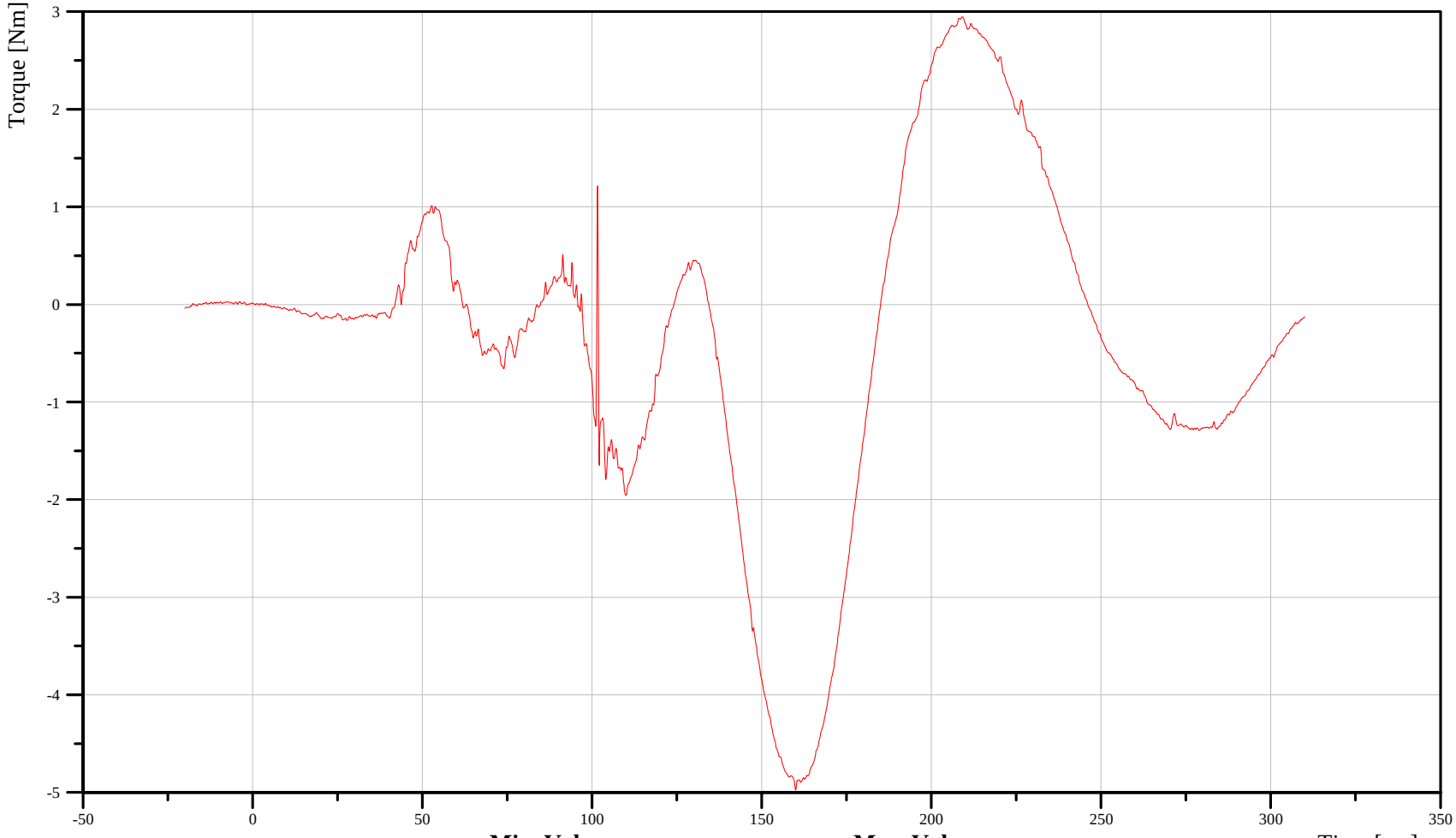
Passenger Upper Neck Moment About Z Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKUP00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-4.97 Nm at 160.00 ms

Max. Value
2.95 Nm at 209.20 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

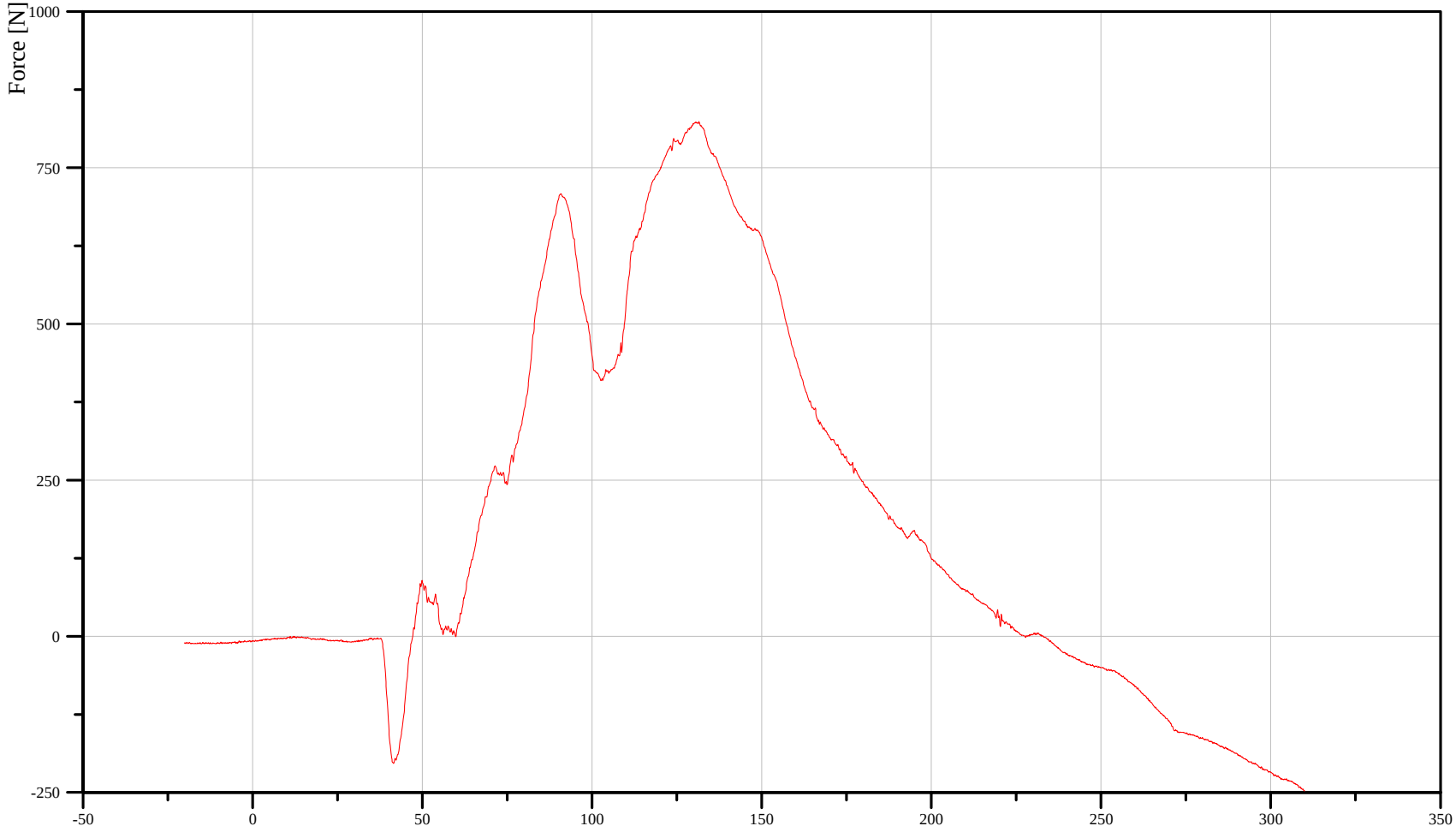
Passenger Lower Neck X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKLO00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-247.77 N at 310.00 ms

Max. Value
824.19 N at 131.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

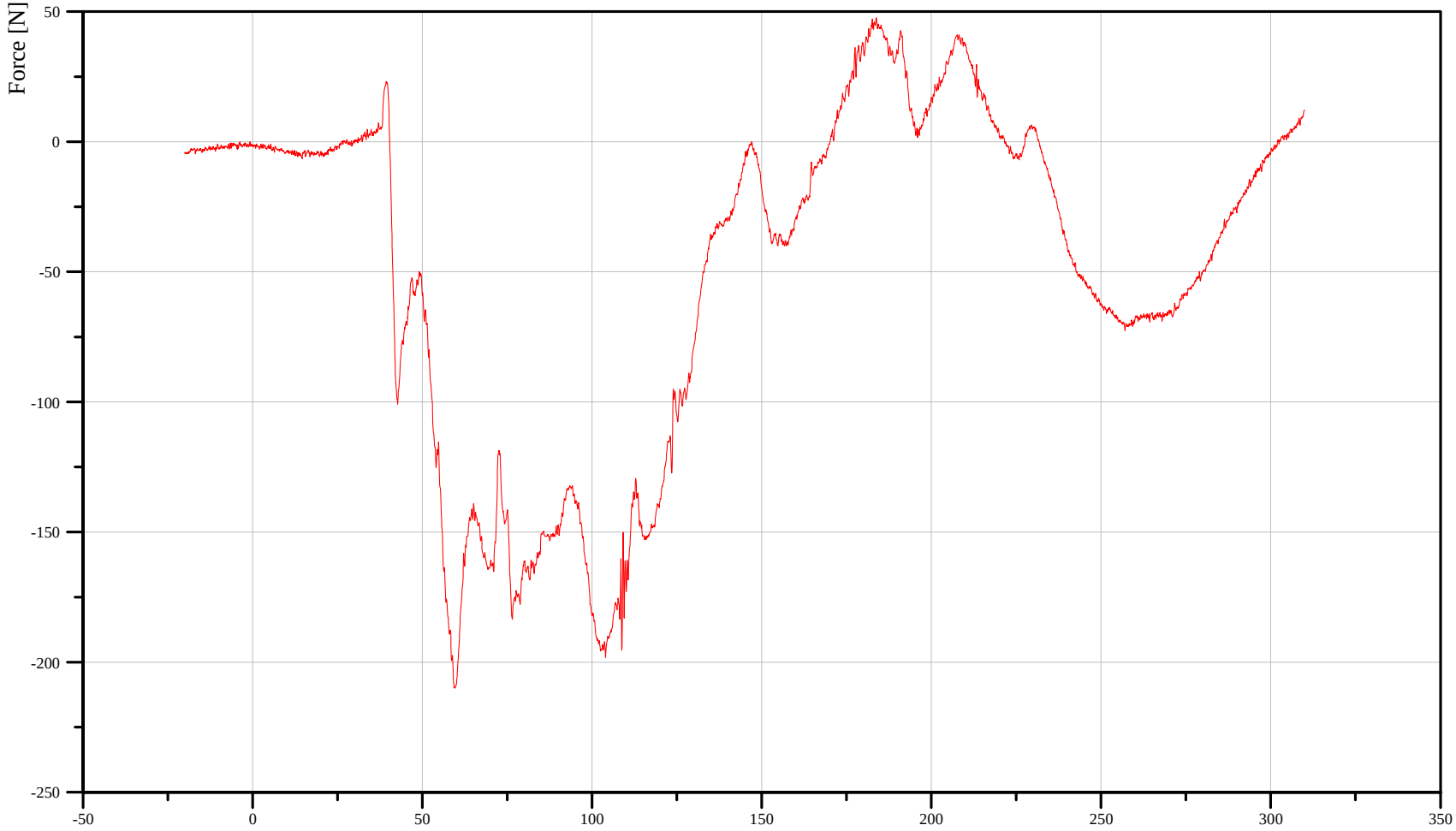
Passenger Lower Neck Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKLO00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-210.00 N at 59.36 ms

Max. Value
47.64 N at 183.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

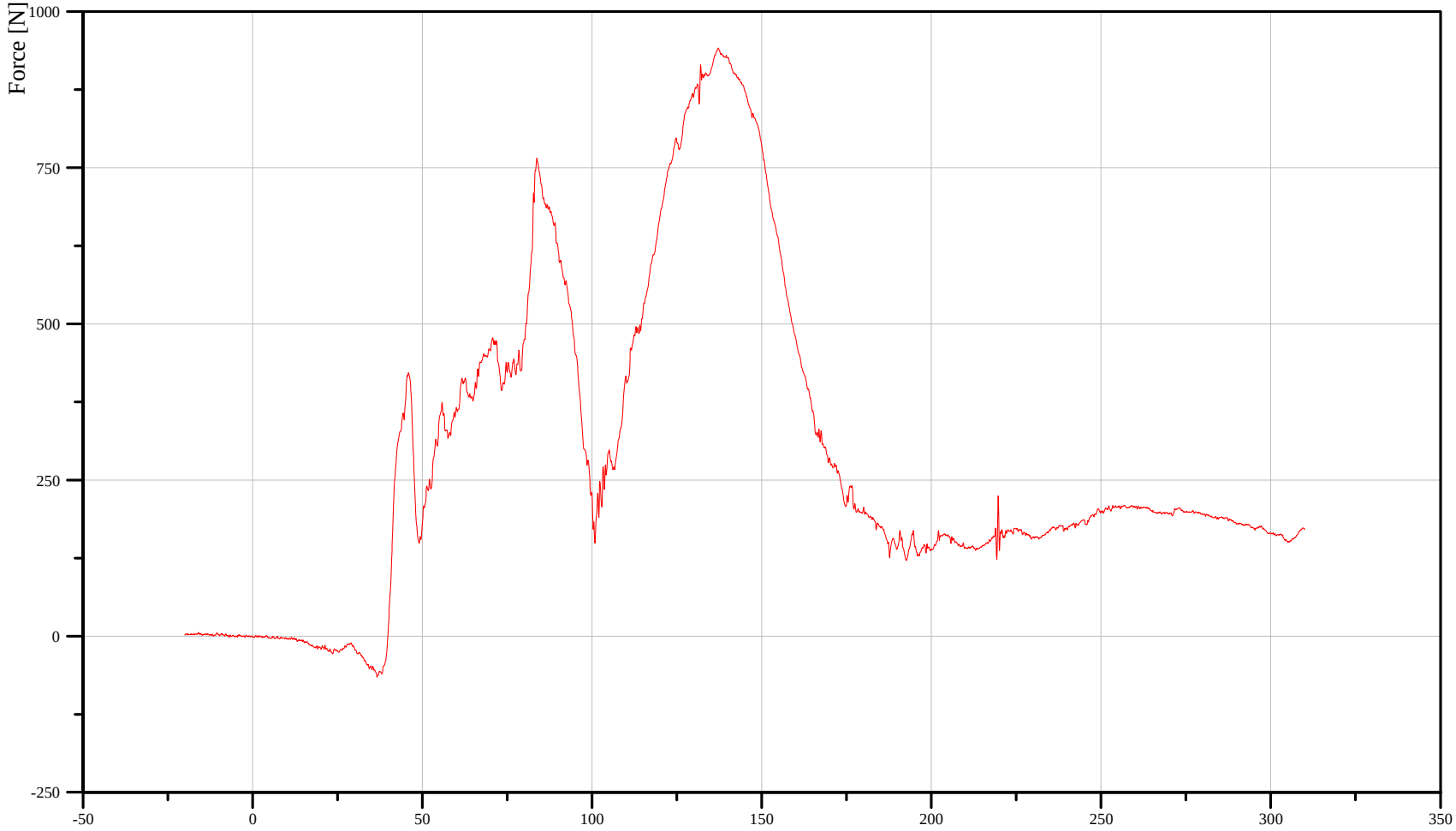
Passenger Lower Neck Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKLO00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-65.58 N at 36.64 ms

Max. Value
941.74 N at 137.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

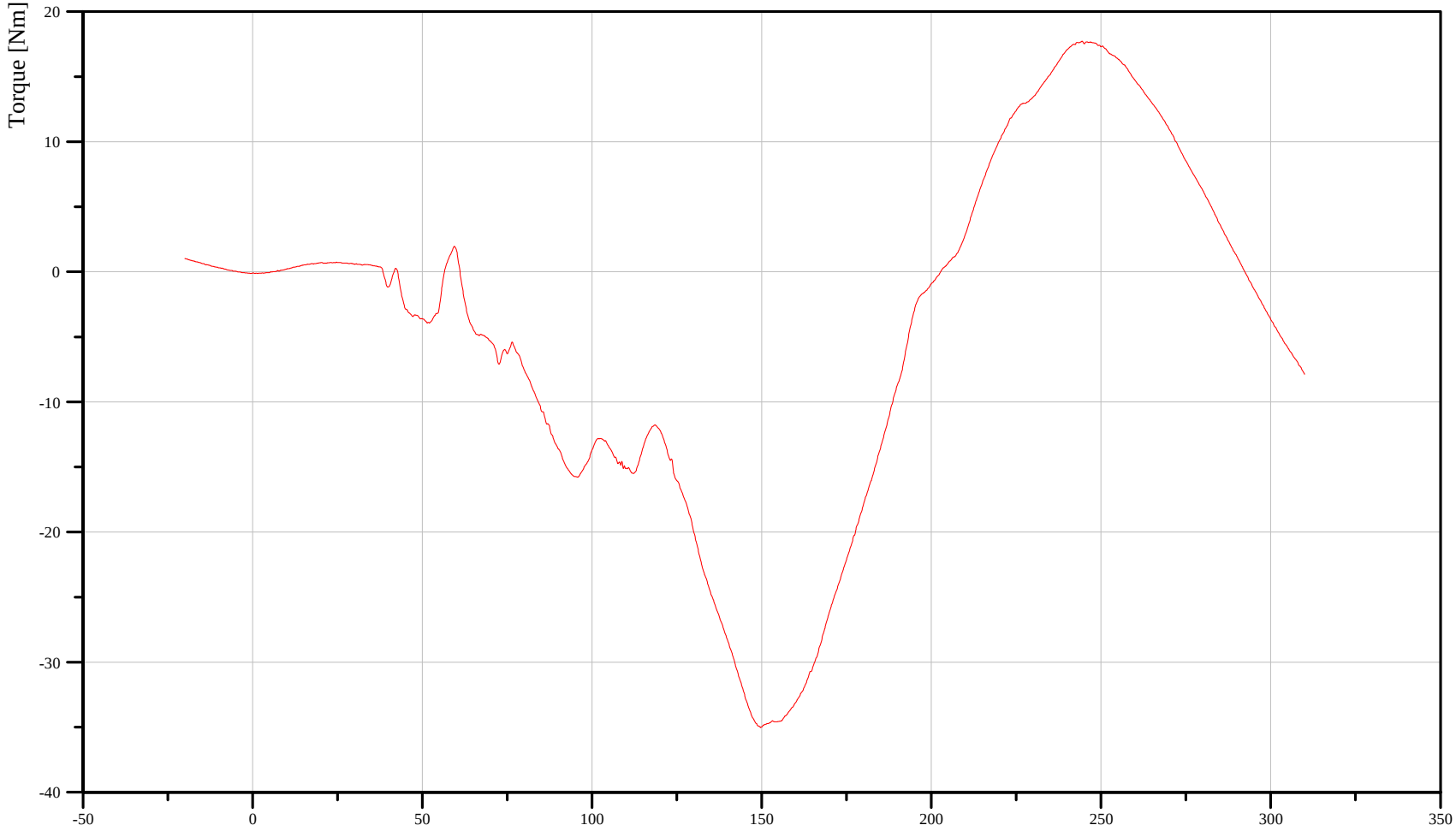
Passenger Lower Neck Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKLO00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-35.01 Nm at 149.68 ms

Max. Value
17.73 Nm at 244.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

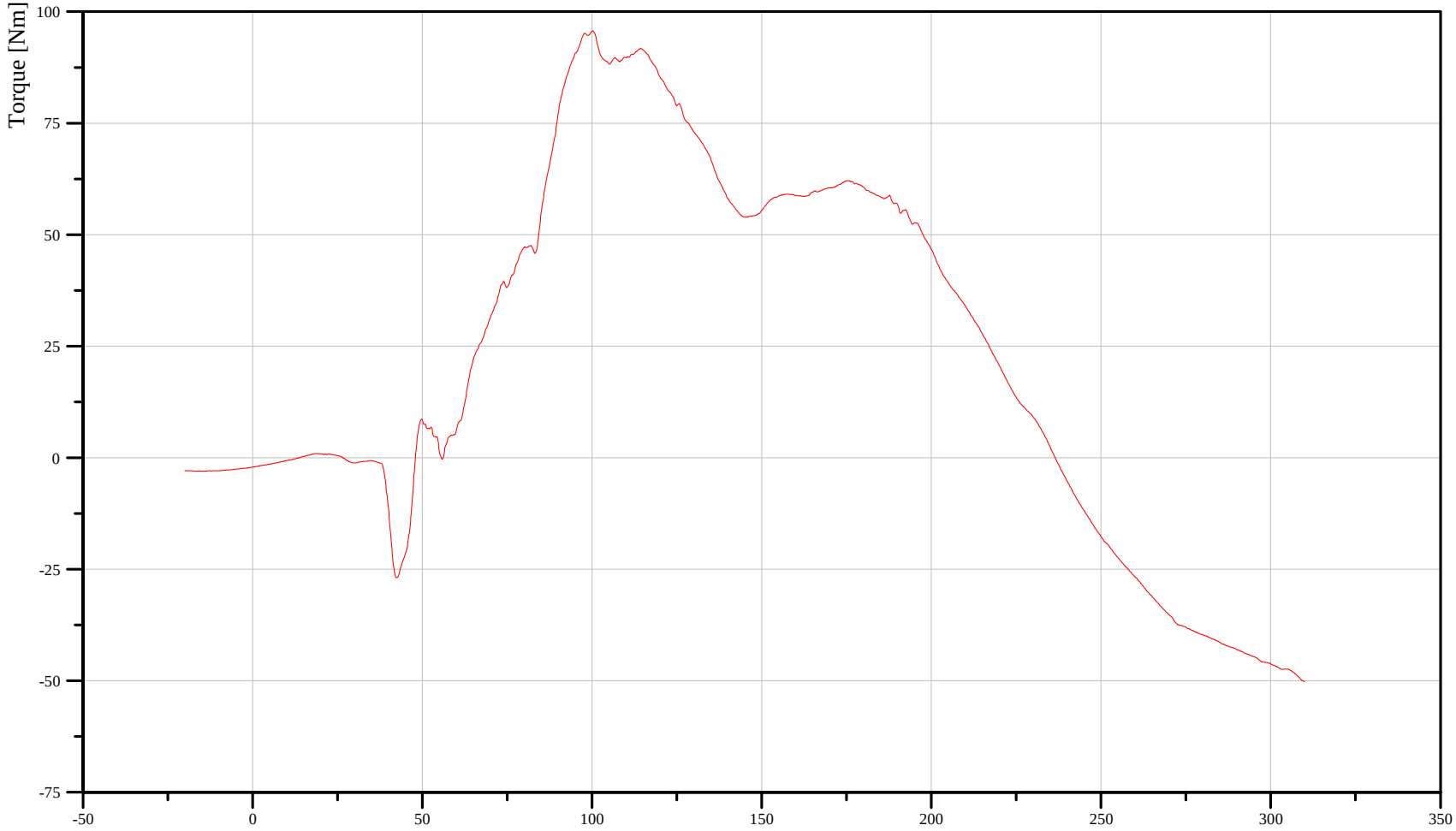
Passenger Lower Neck Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKLO00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-50.19 Nm at 310.00 ms

Max. Value
95.68 Nm at 100.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

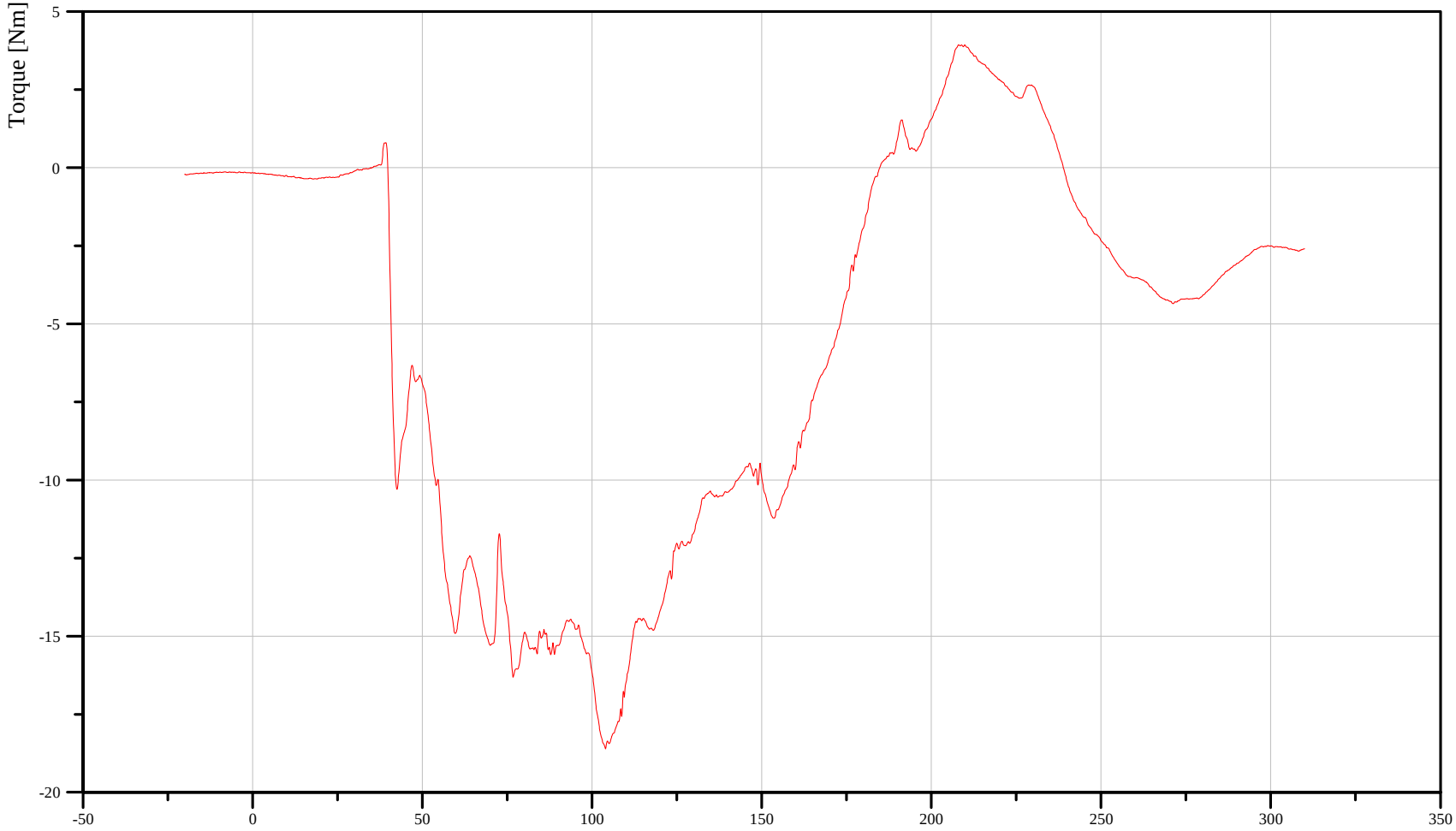
Passenger Lower Neck Moment About Z Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13NECKLO00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-18.61 Nm at 104.00 ms

Max. Value
3.94 Nm at 209.84 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

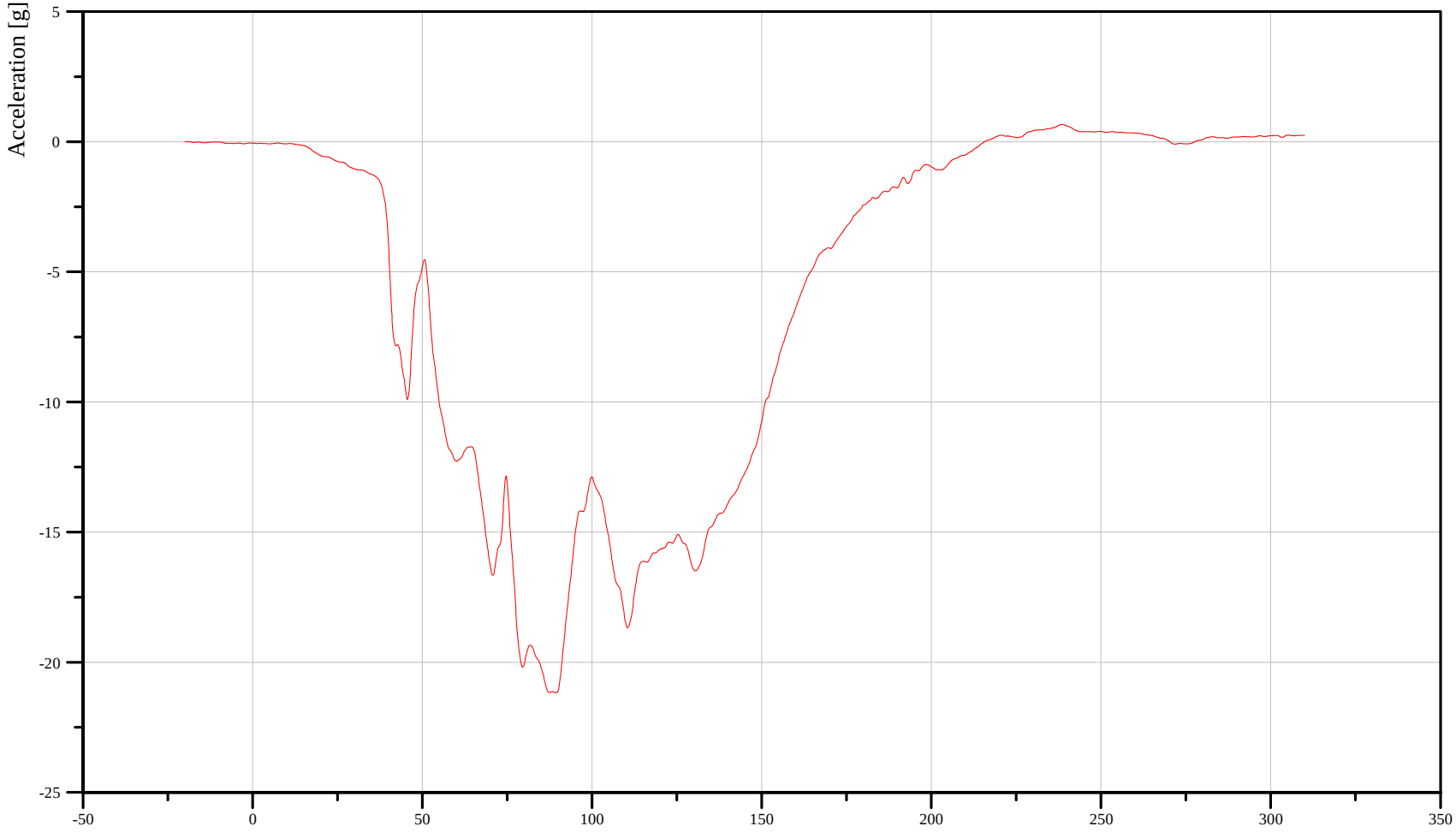
Passenger Chest X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-21.17 g at 87.52 ms

Max. Value
0.67 g at 238.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

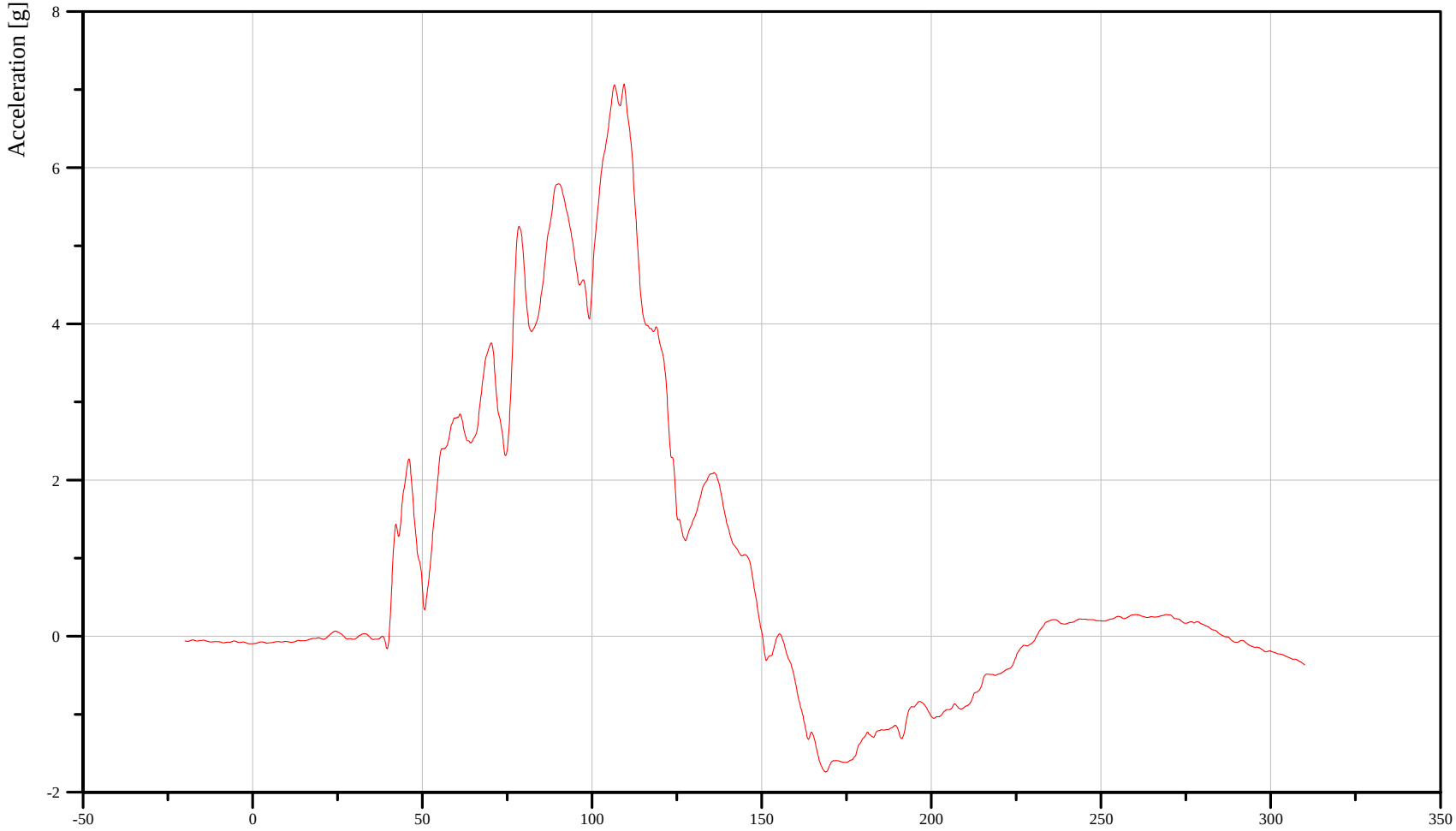
Passenger Chest Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.74 g at 168.88 ms

Max. Value
7.07 g at 109.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

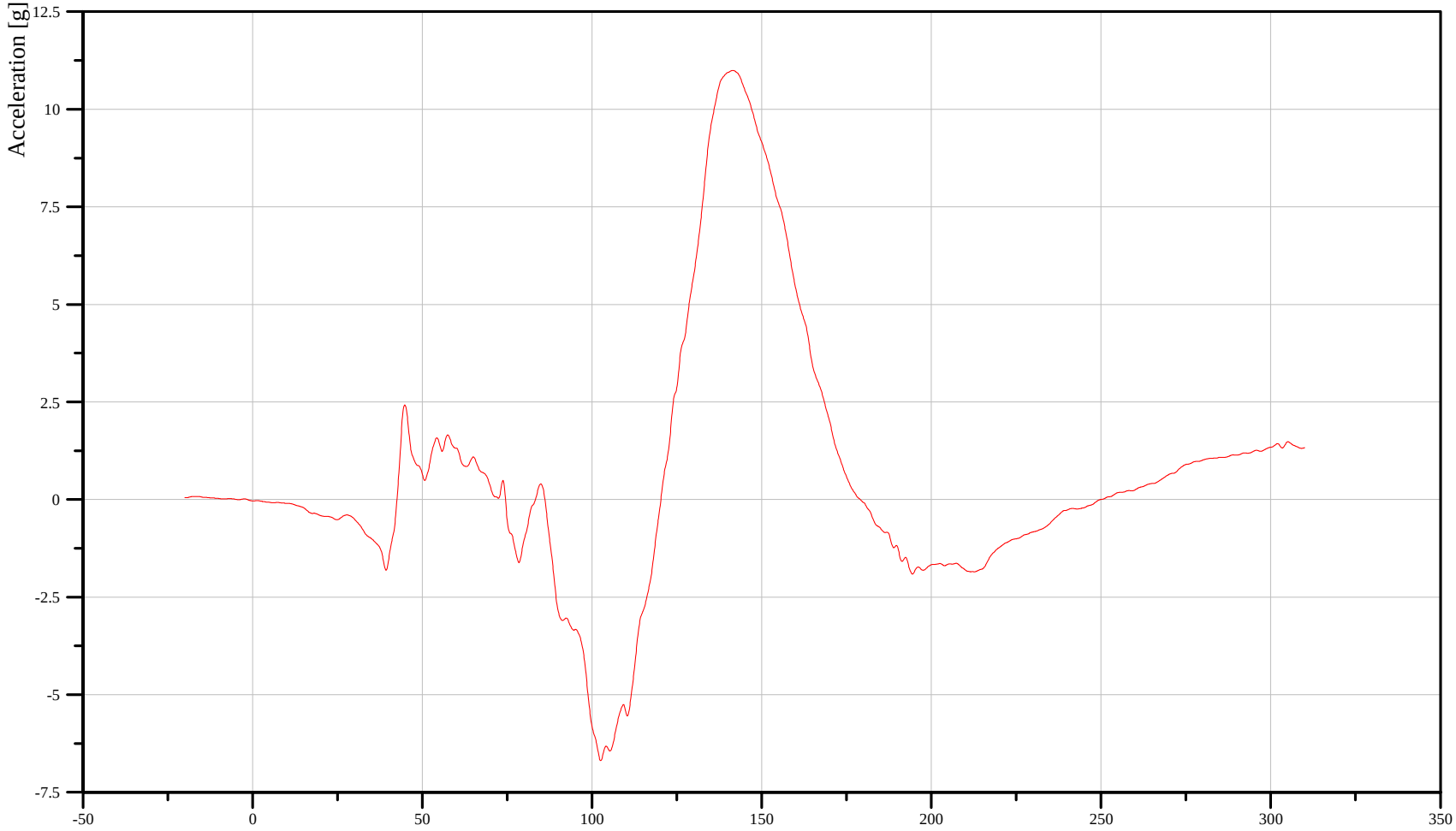
Passenger Chest Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-6.69 g at 102.56 ms

Max. Value
10.99 g at 141.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

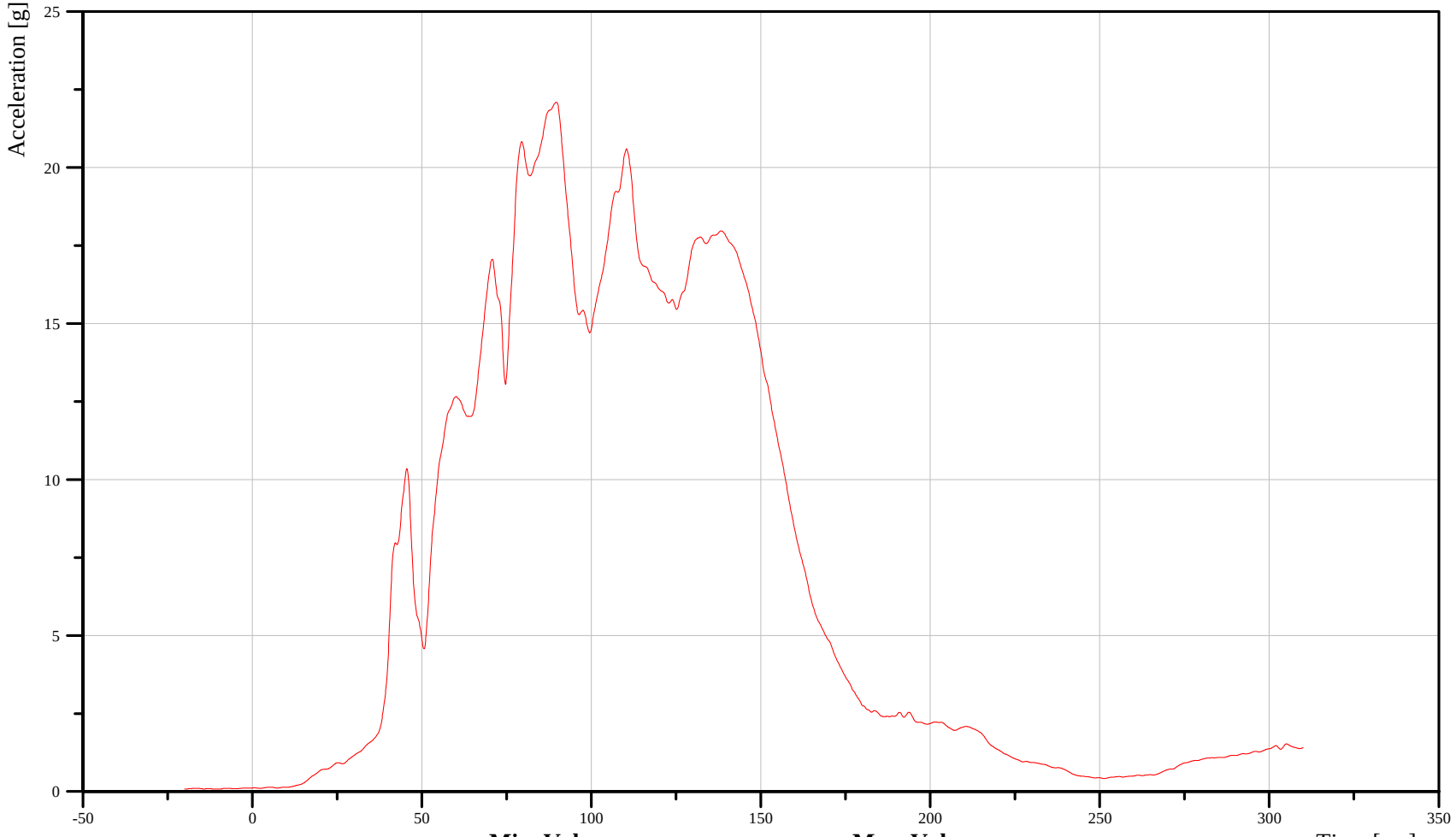
Passenger Chest Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.08 g at -9.76 ms

Max. Value
22.10 g at 89.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

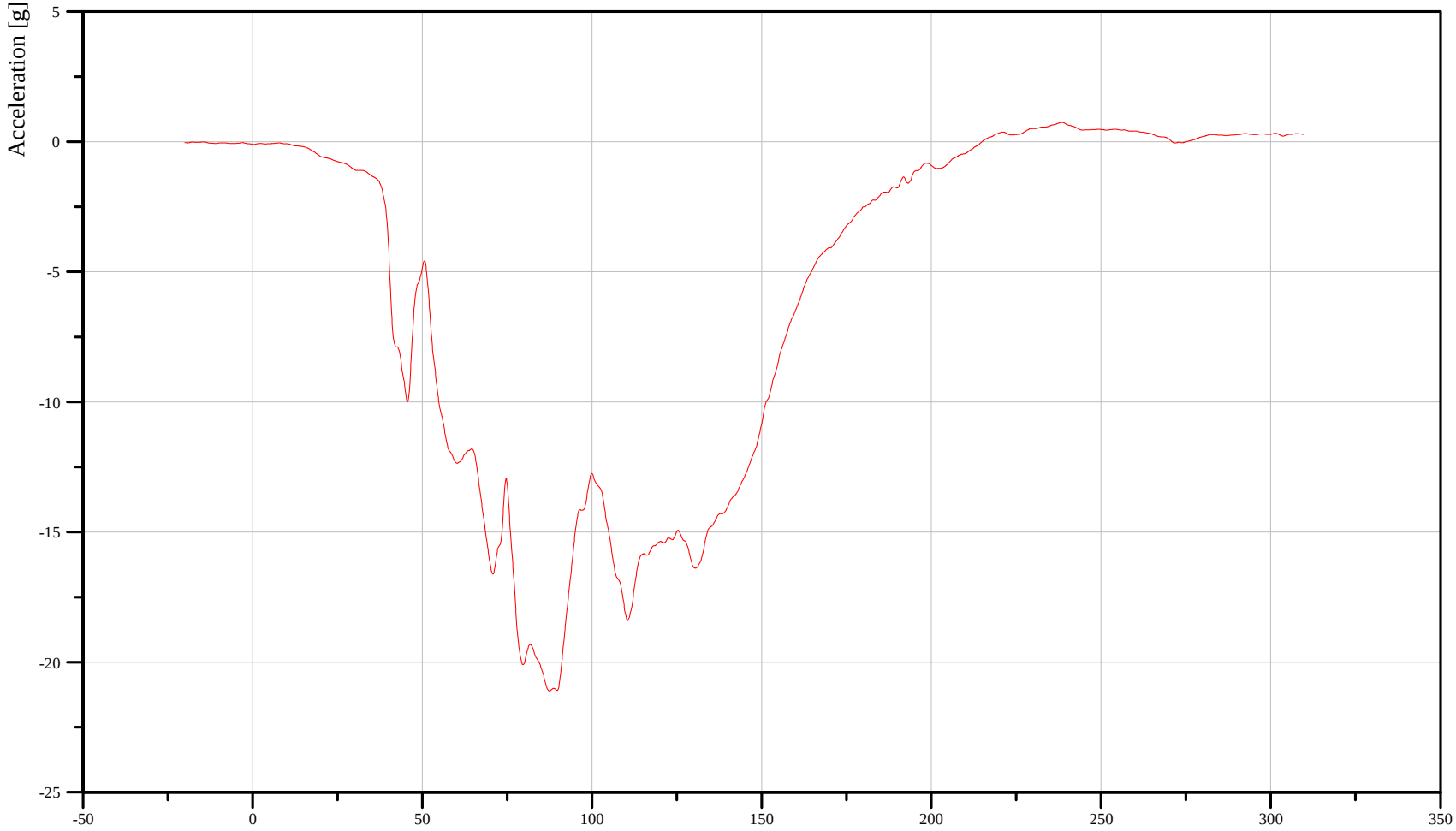
Passenger Chest X-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-21.10 g at 87.52 ms

Max. Value
0.75 g at 238.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

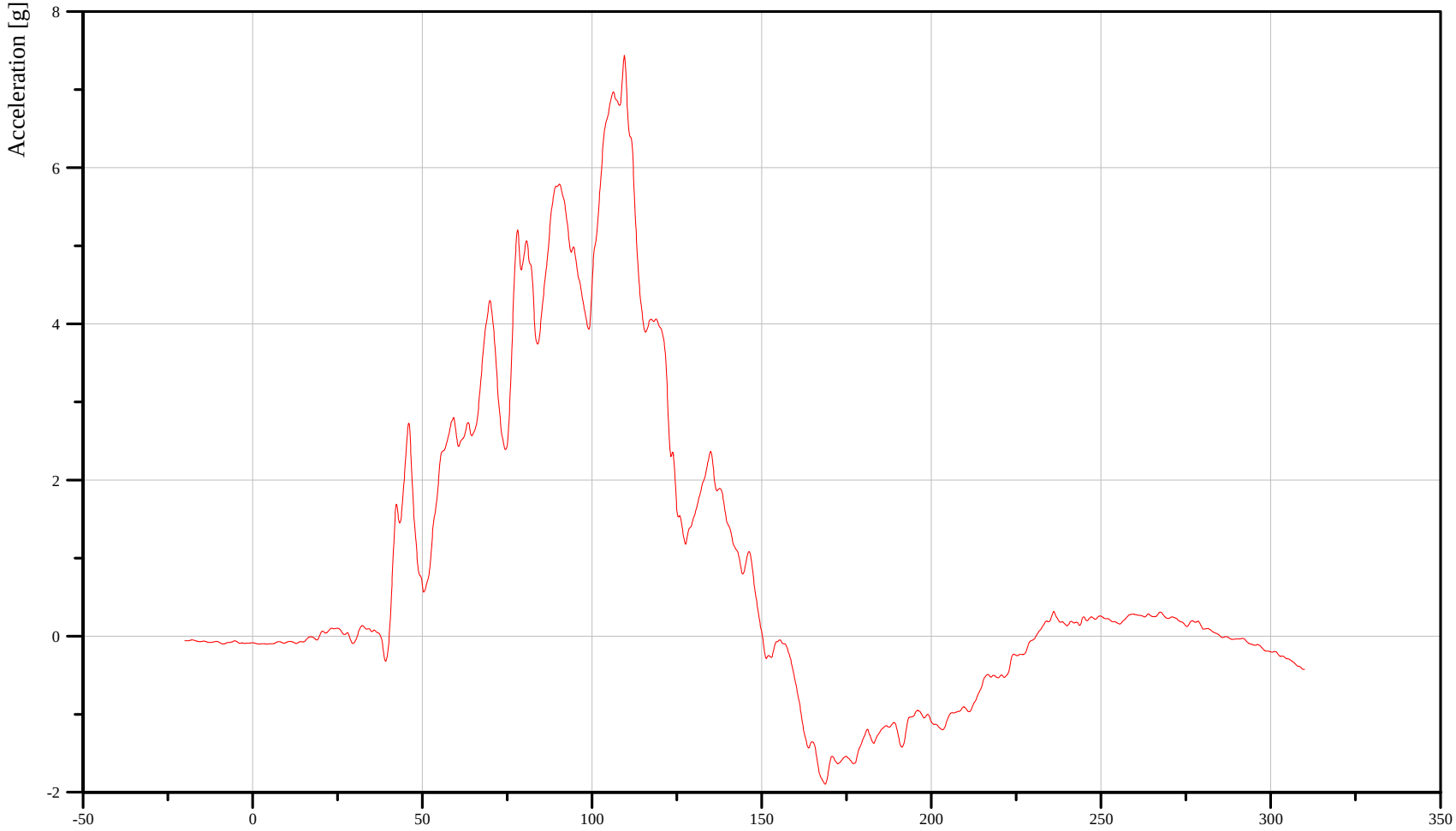
Passenger Chest Y-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.89 g at 168.72 ms

Max. Value
7.44 g at 109.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

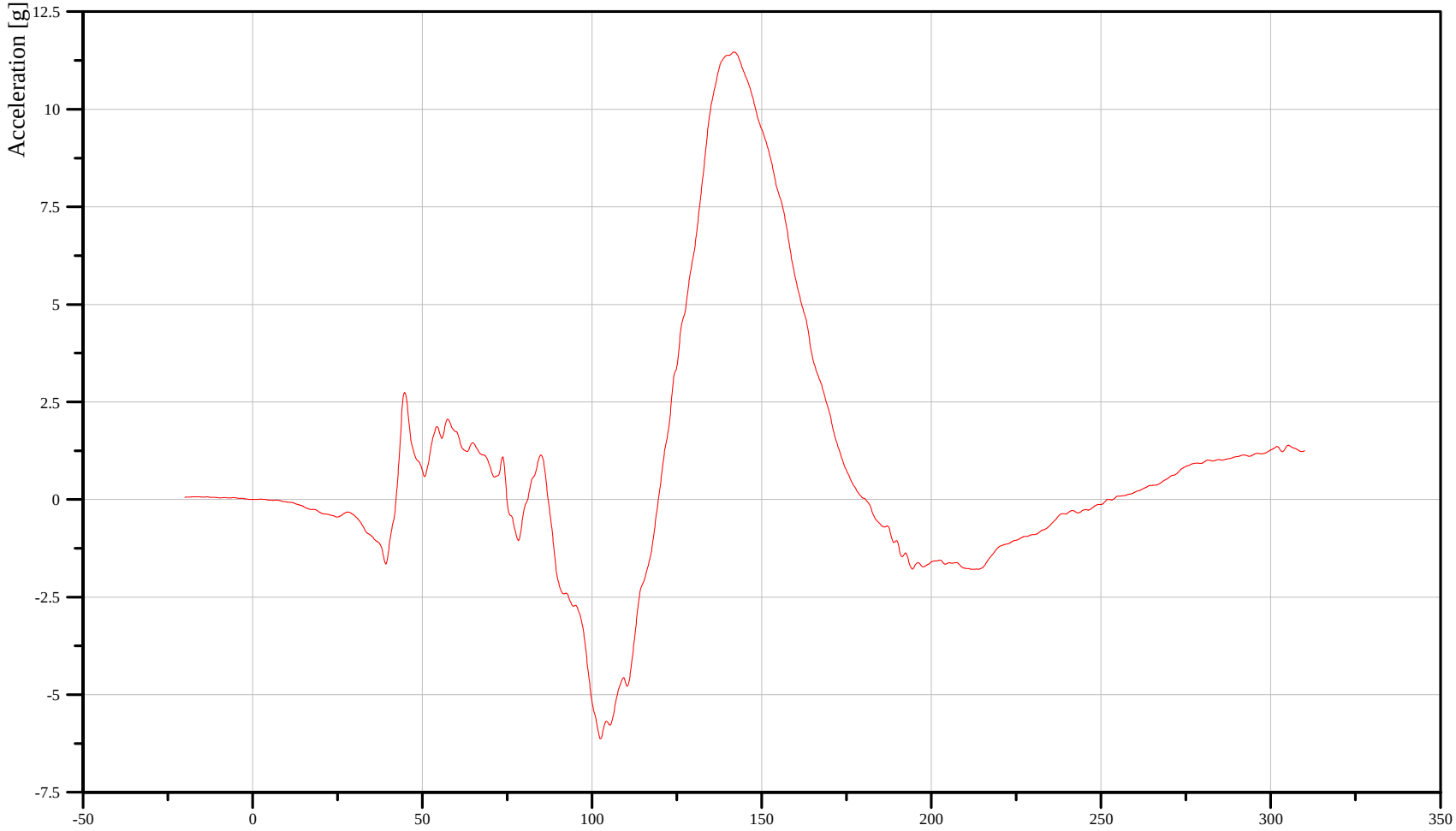
Passenger Chest Z-Axis Redundant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-6.13 g at 102.48 ms

Max. Value
11.47 g at 141.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

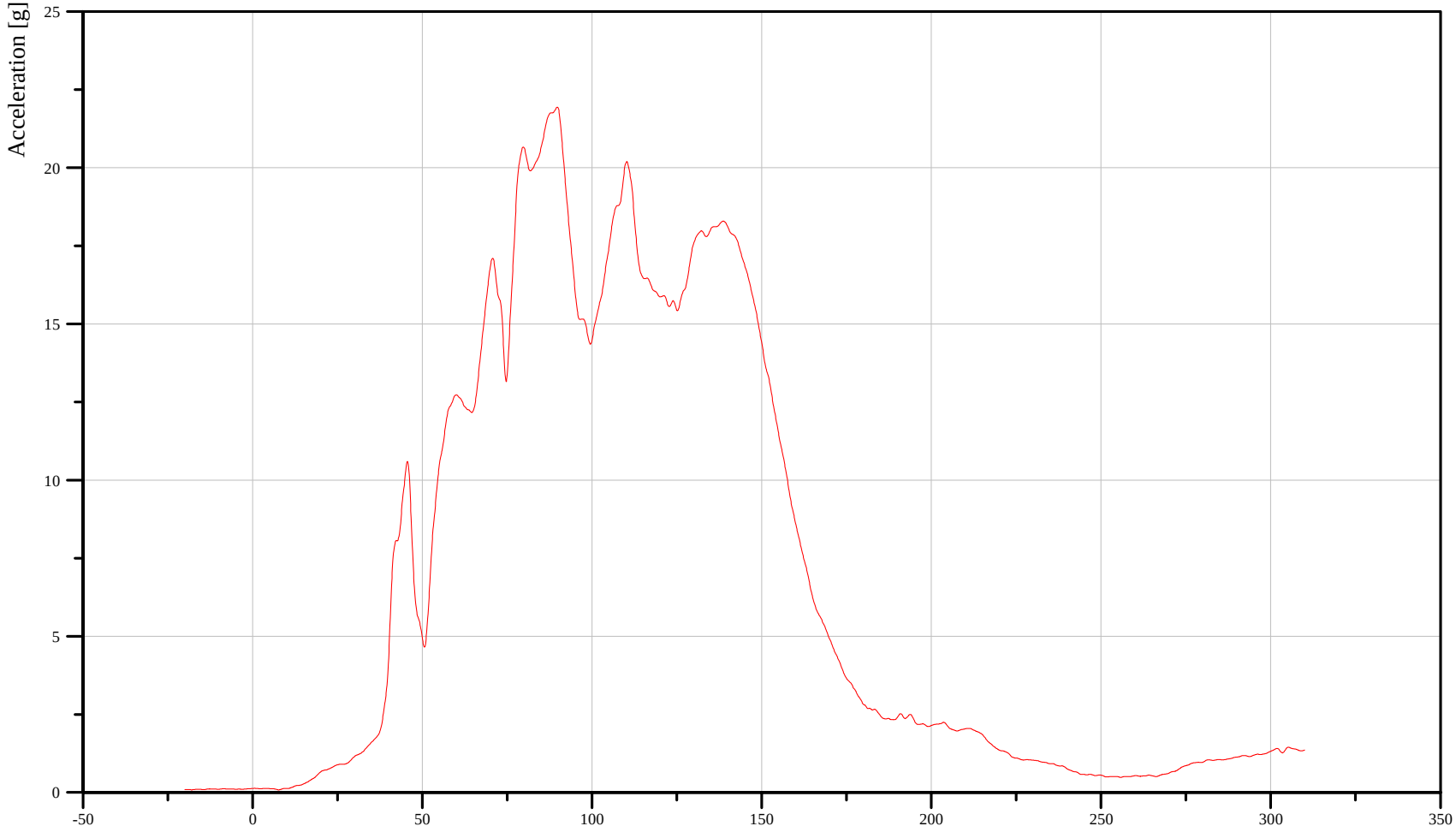
Passenger Chest Redundant Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.08 g at -18.00 ms

Max. Value
21.94 g at 89.84 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

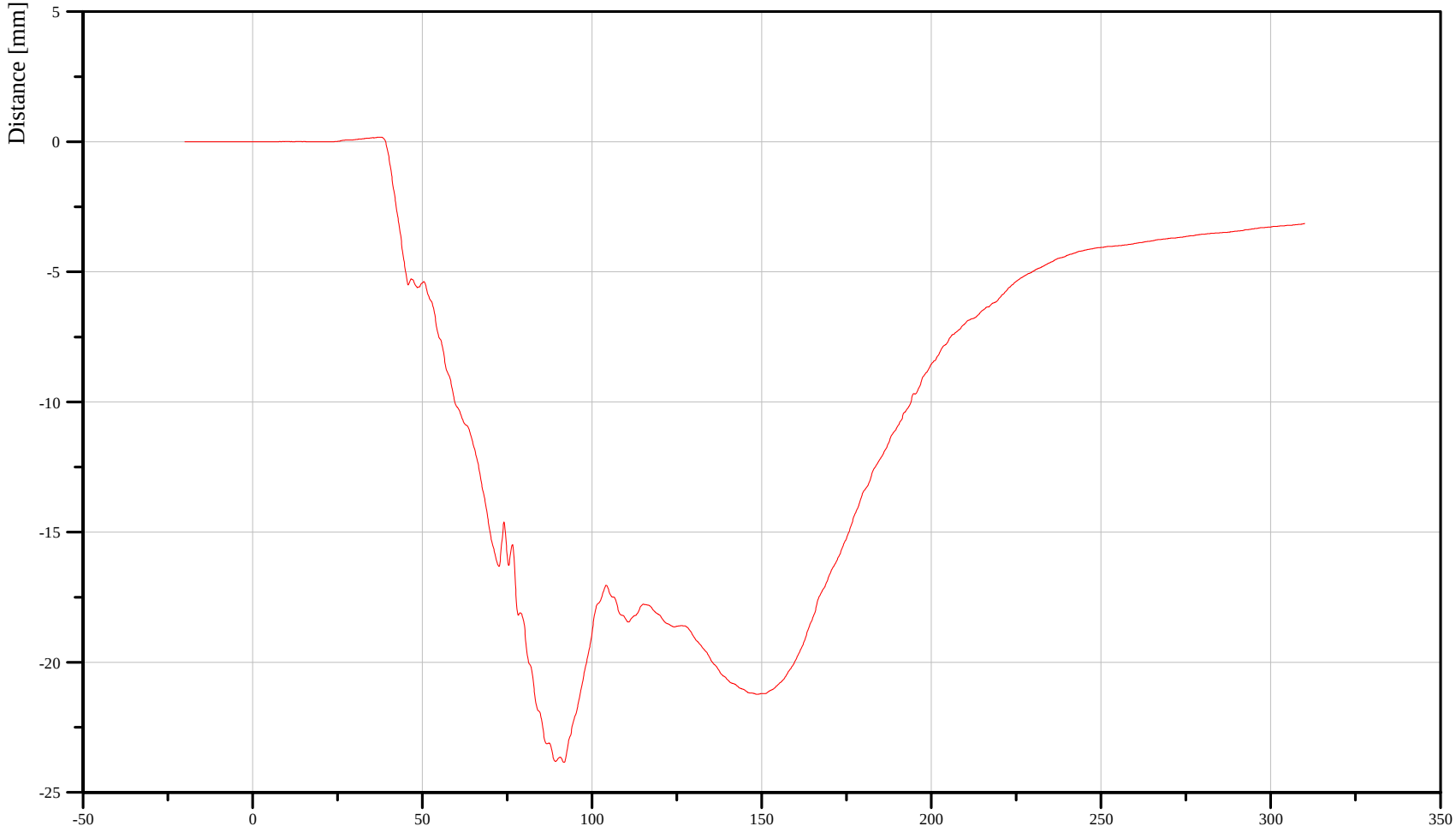
Passenger Chest Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13CHST0000H3DSXB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-23.84 mm at 91.76 ms

Max. Value
0.17 mm at 37.04 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

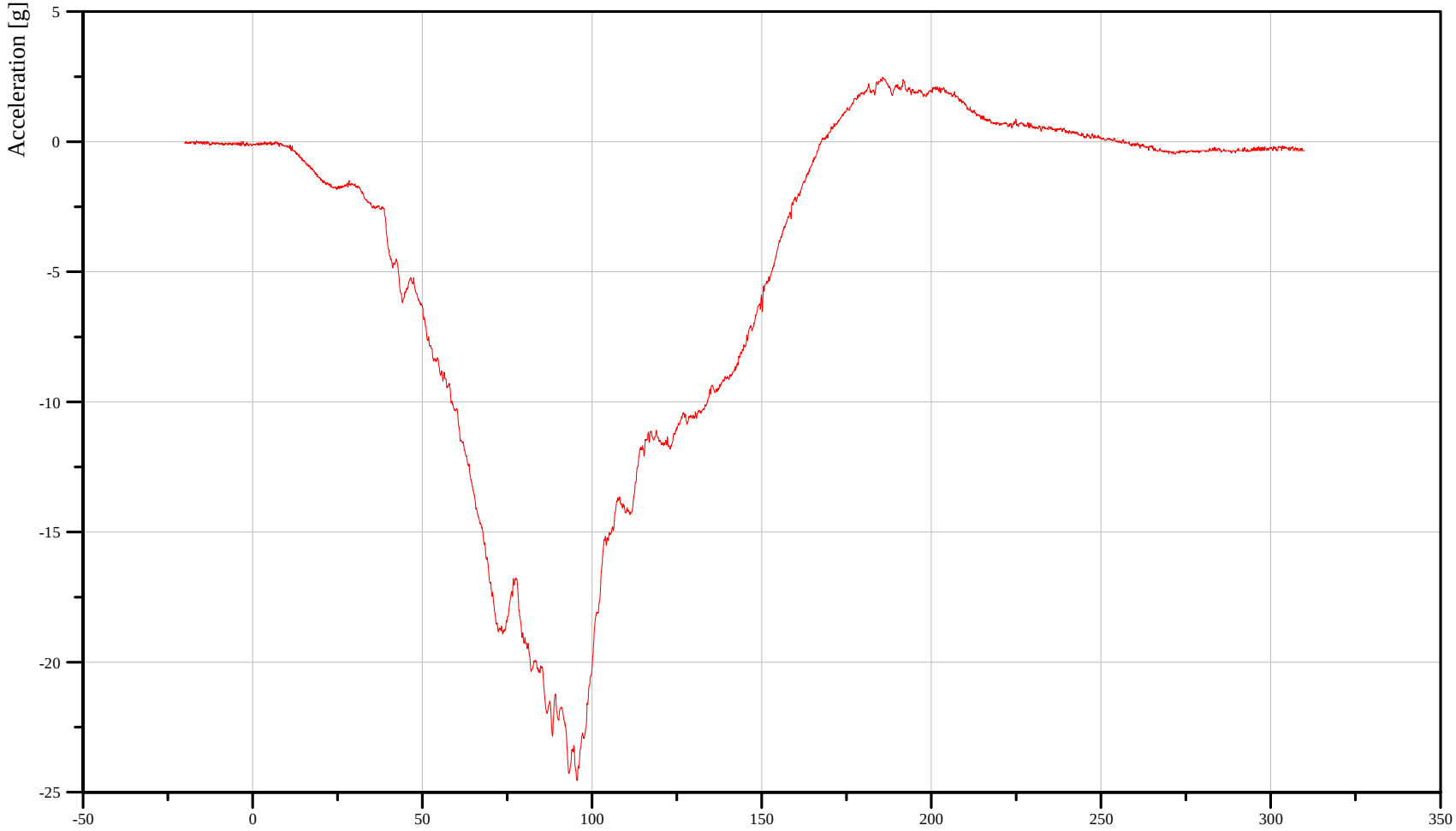
Passenger Pelvis X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13PELVCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-24.55 g at 95.52 ms

Max. Value
2.48 g at 185.60 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

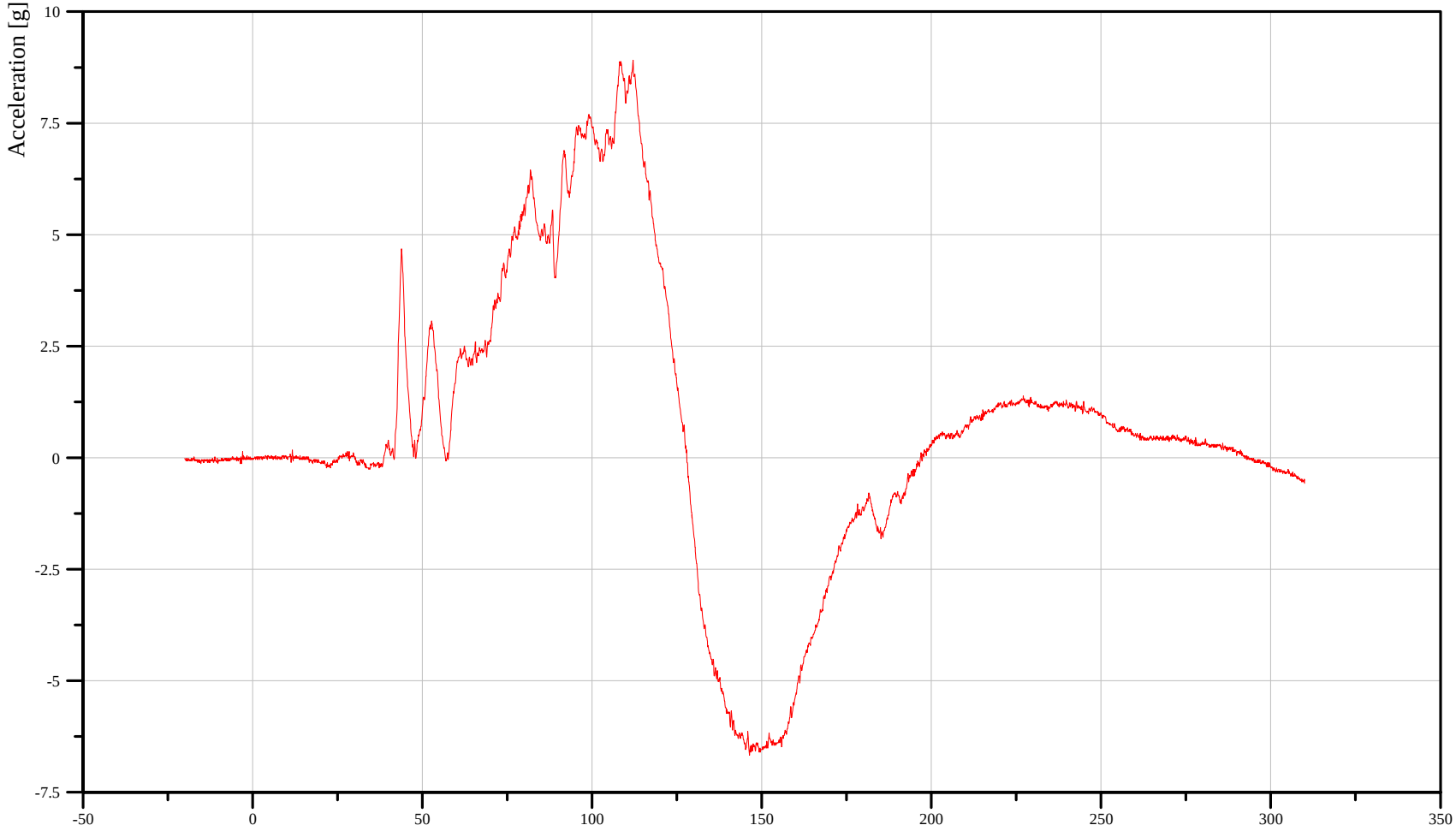
Passenger Pelvis Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13PELVCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-6.67 g at 146.40 ms

Max. Value
8.91 g at 112.08 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

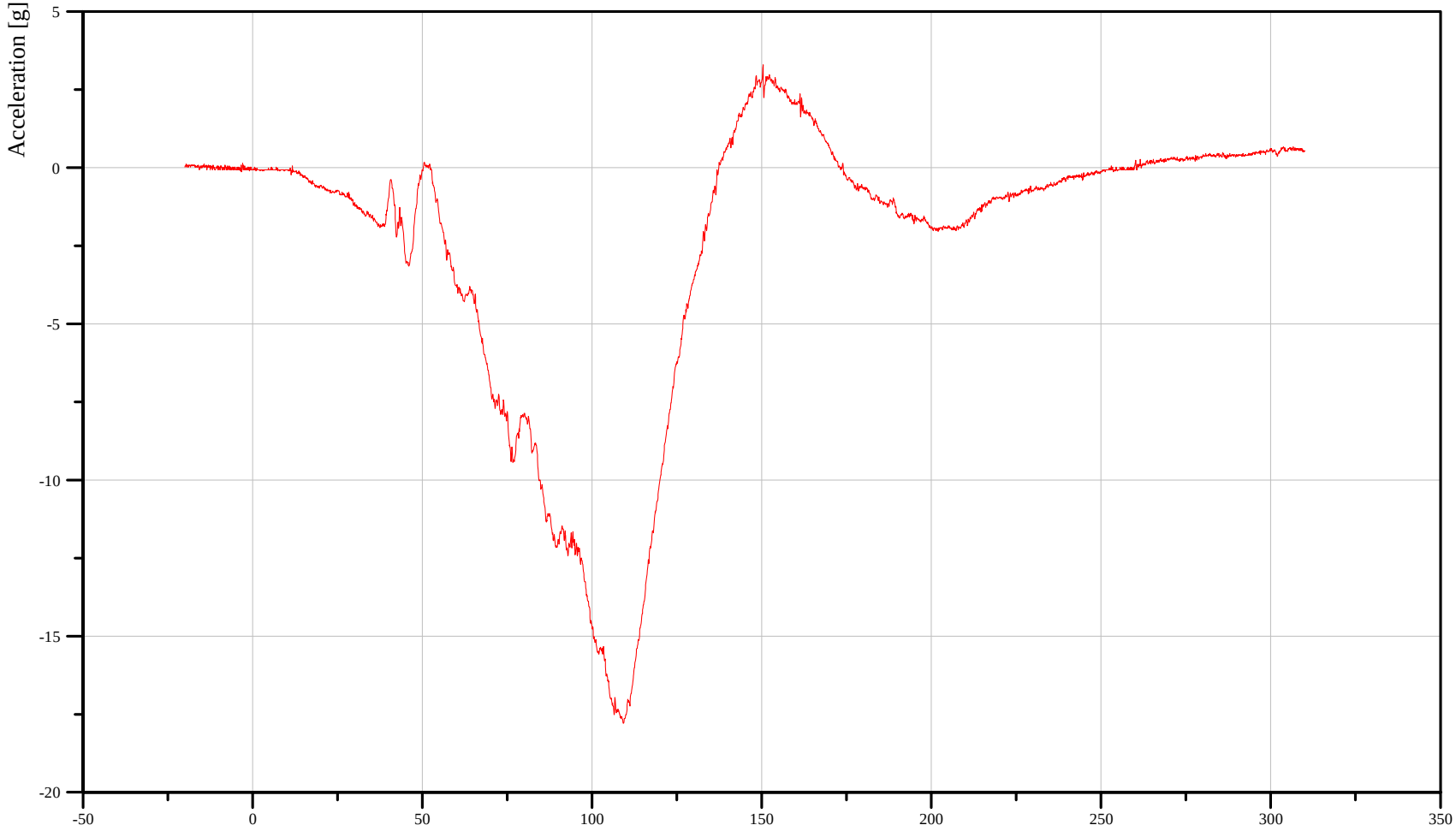
Passenger Pelvis Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13PELVCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-17.79 g at 109.20 ms

Max. Value
3.29 g at 150.40 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

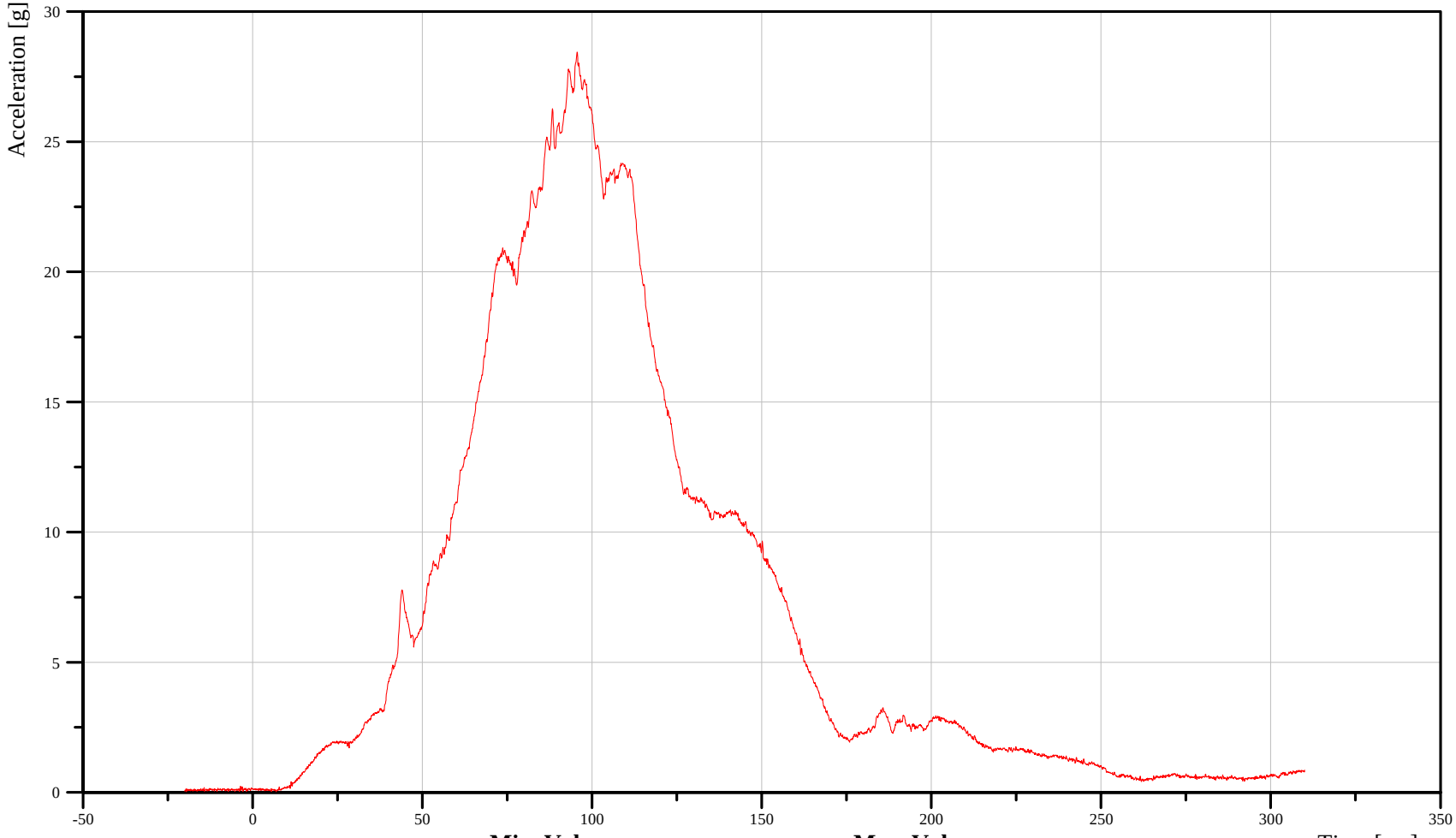
Passenger Pelvis Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13PELVCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.03 g at -19.52 ms

Max. Value
28.45 g at 95.60 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

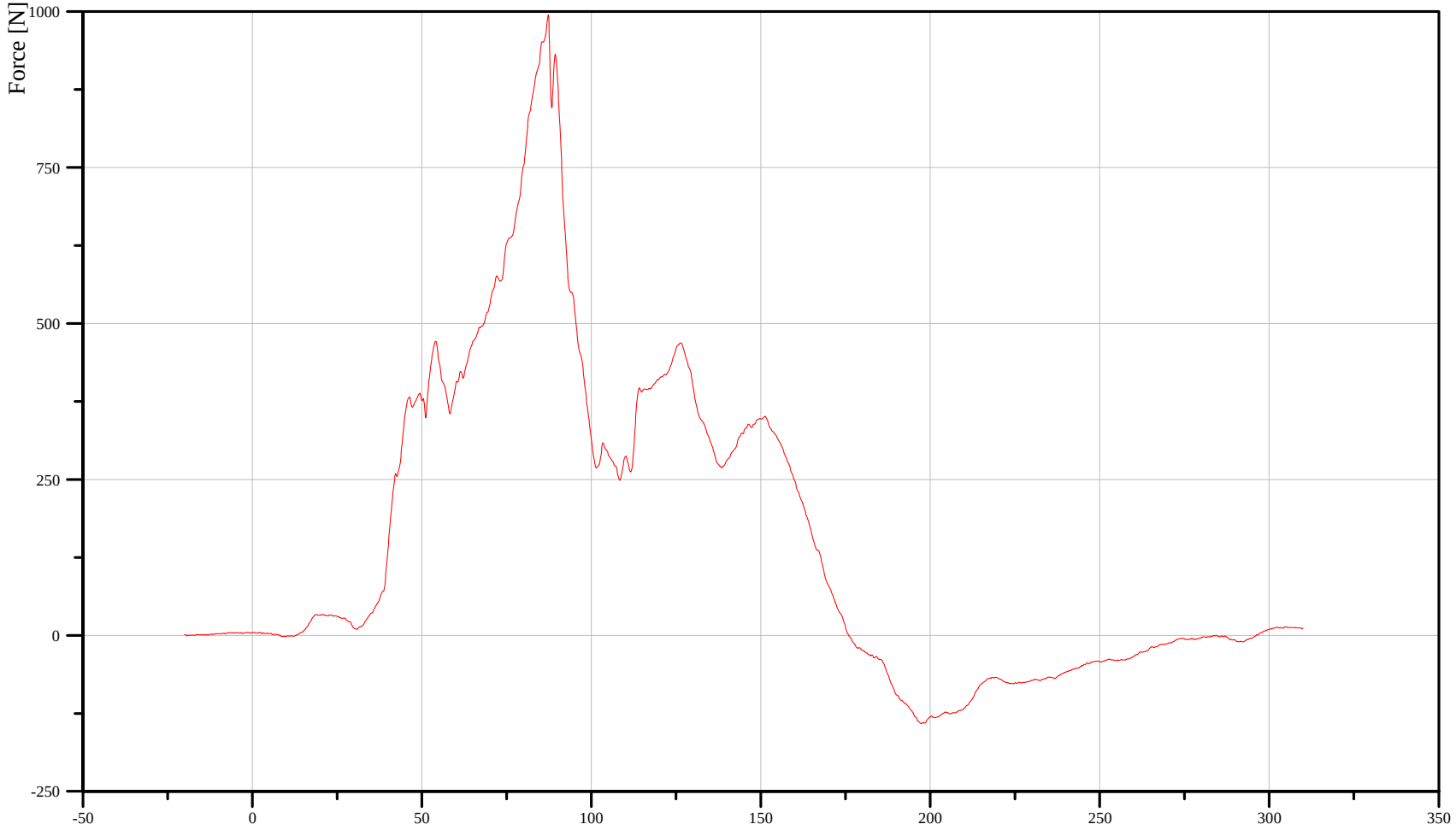
Passenger Left Femur Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-141.20 N at 197.44 ms

Max. Value
995.07 N at 87.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

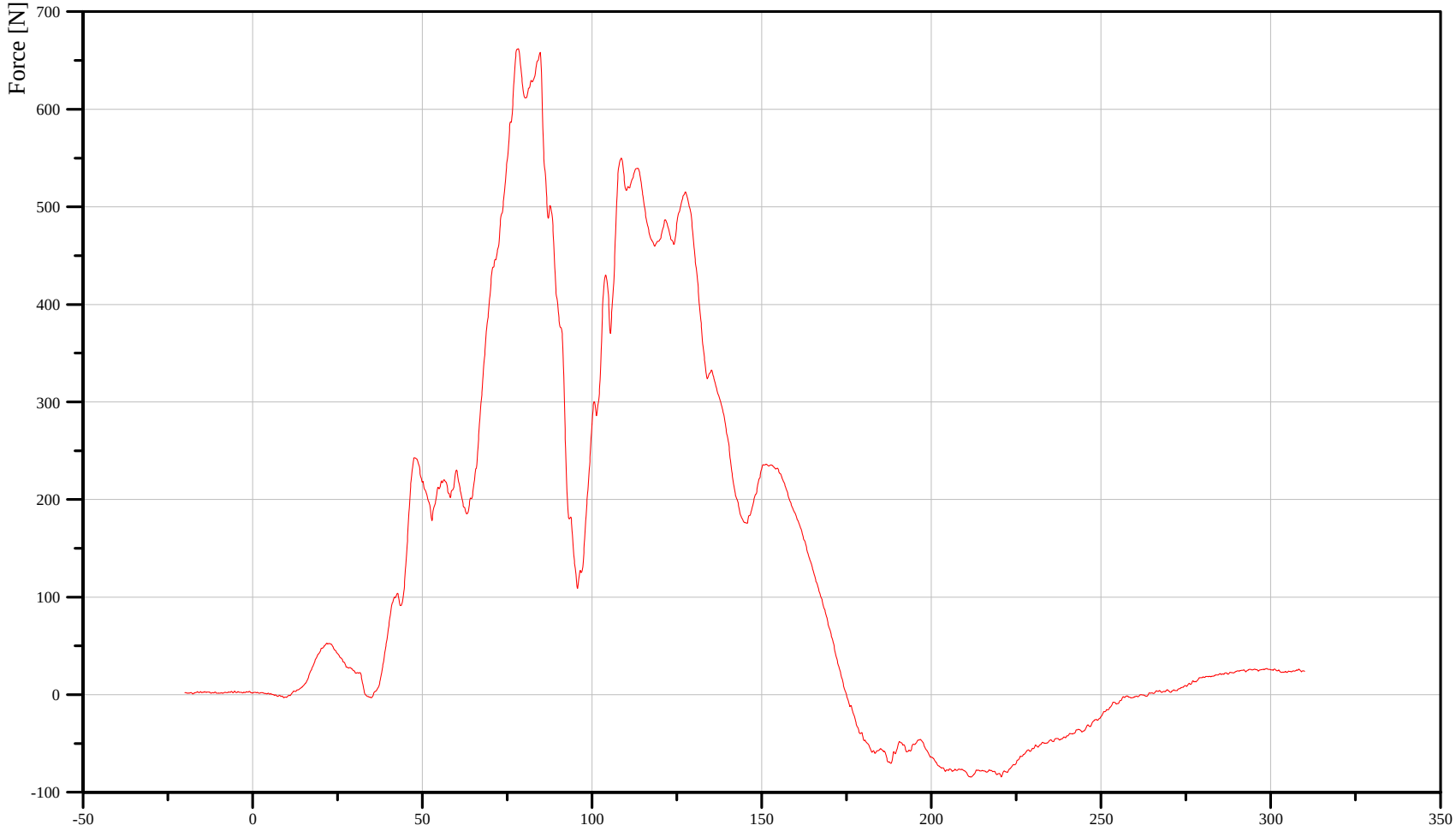
Passenger Right Femur Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-84.41 N at 211.68 ms

Max. Value
661.94 N at 78.24 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

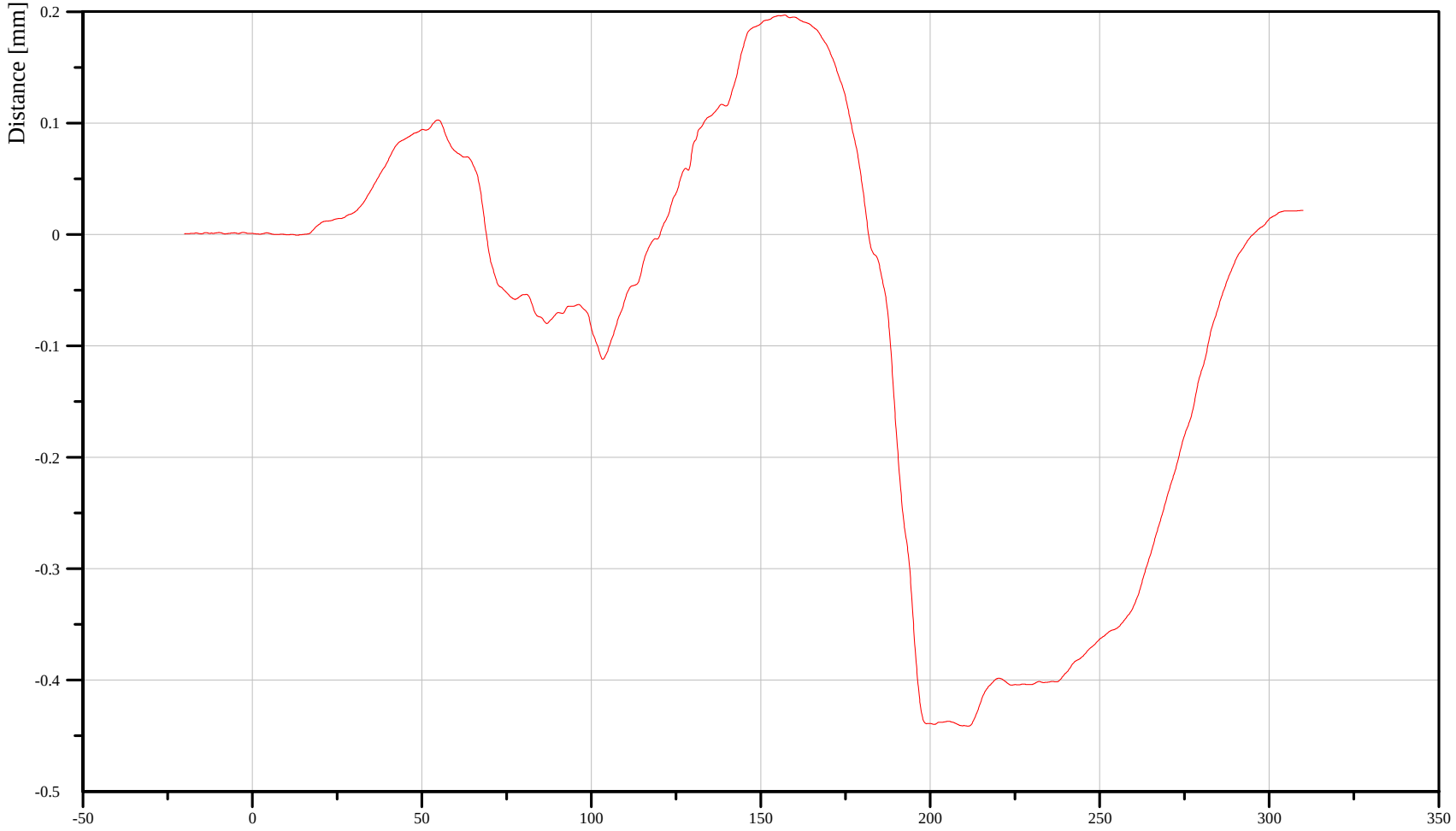
Passenger Left Knee Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13KNSLLE00H3DSXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-0.44 mm at 211.20 ms

Max. Value
0.20 mm at 157.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

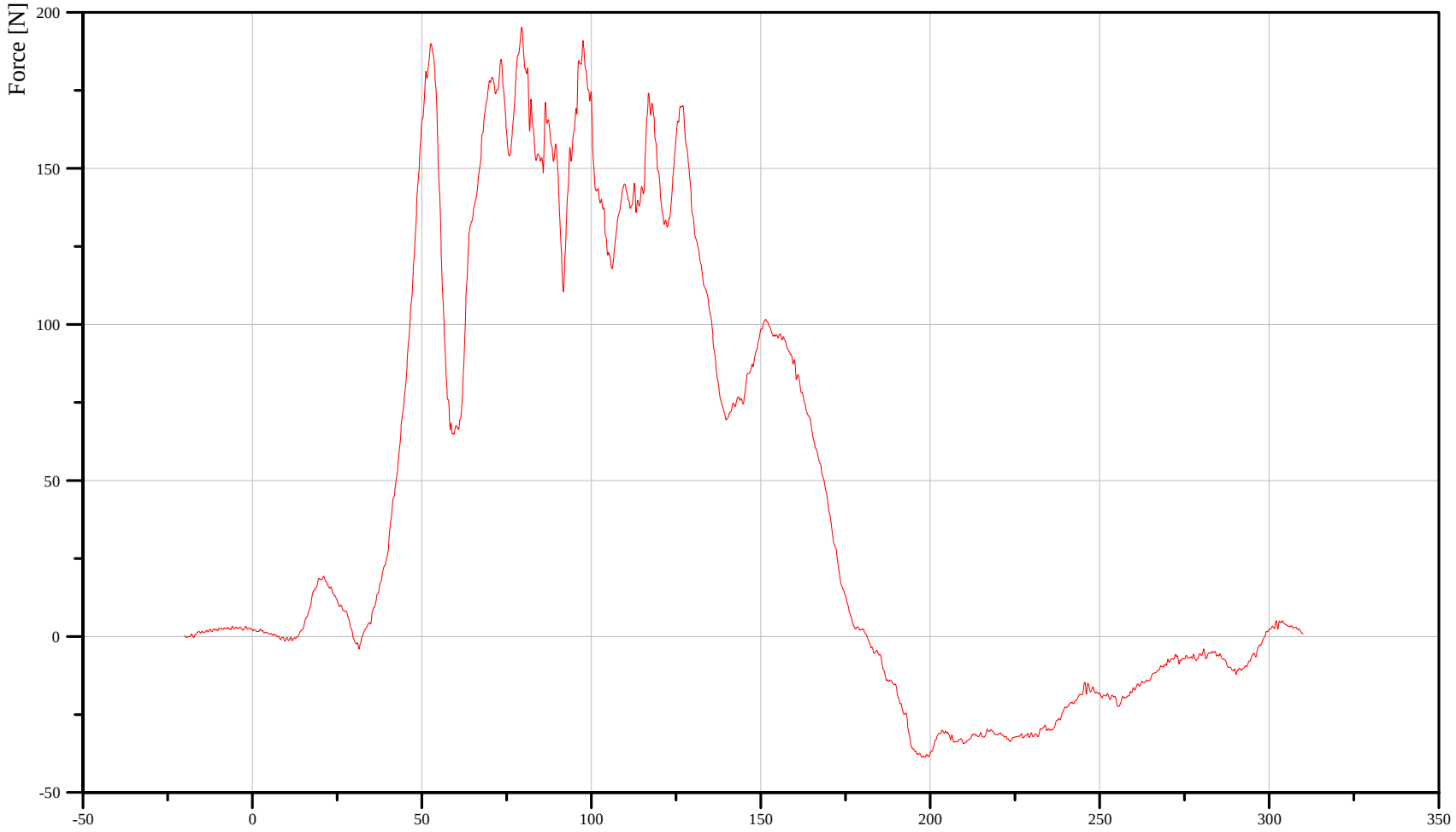
Passenger Left Upper Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILULXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-38.73 N at 198.48 ms

Max. Value
195.23 N at 79.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

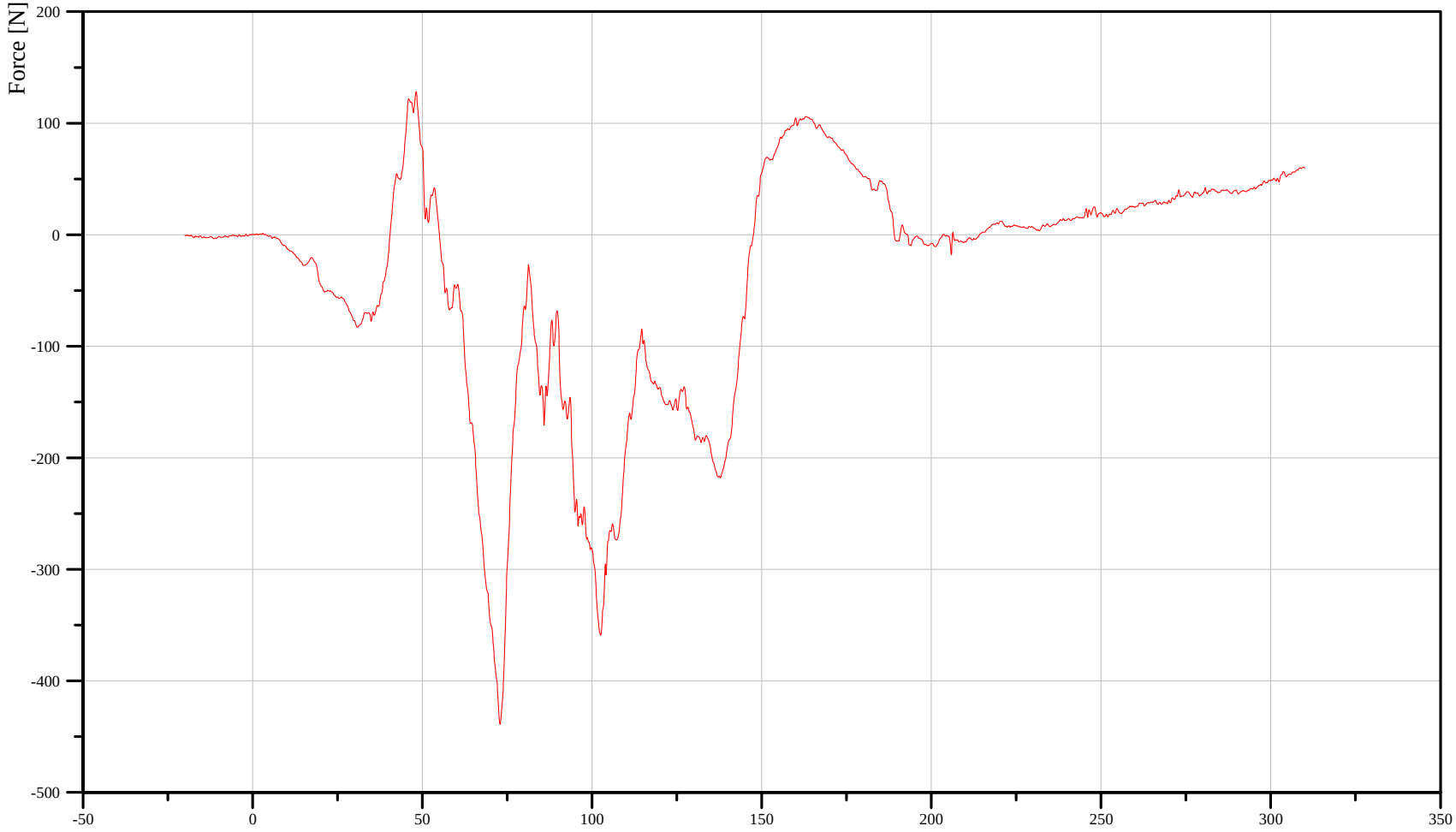
Passenger Left Upper Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-438.91 N at 72.88 ms

Max. Value
128.11 N at 48.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

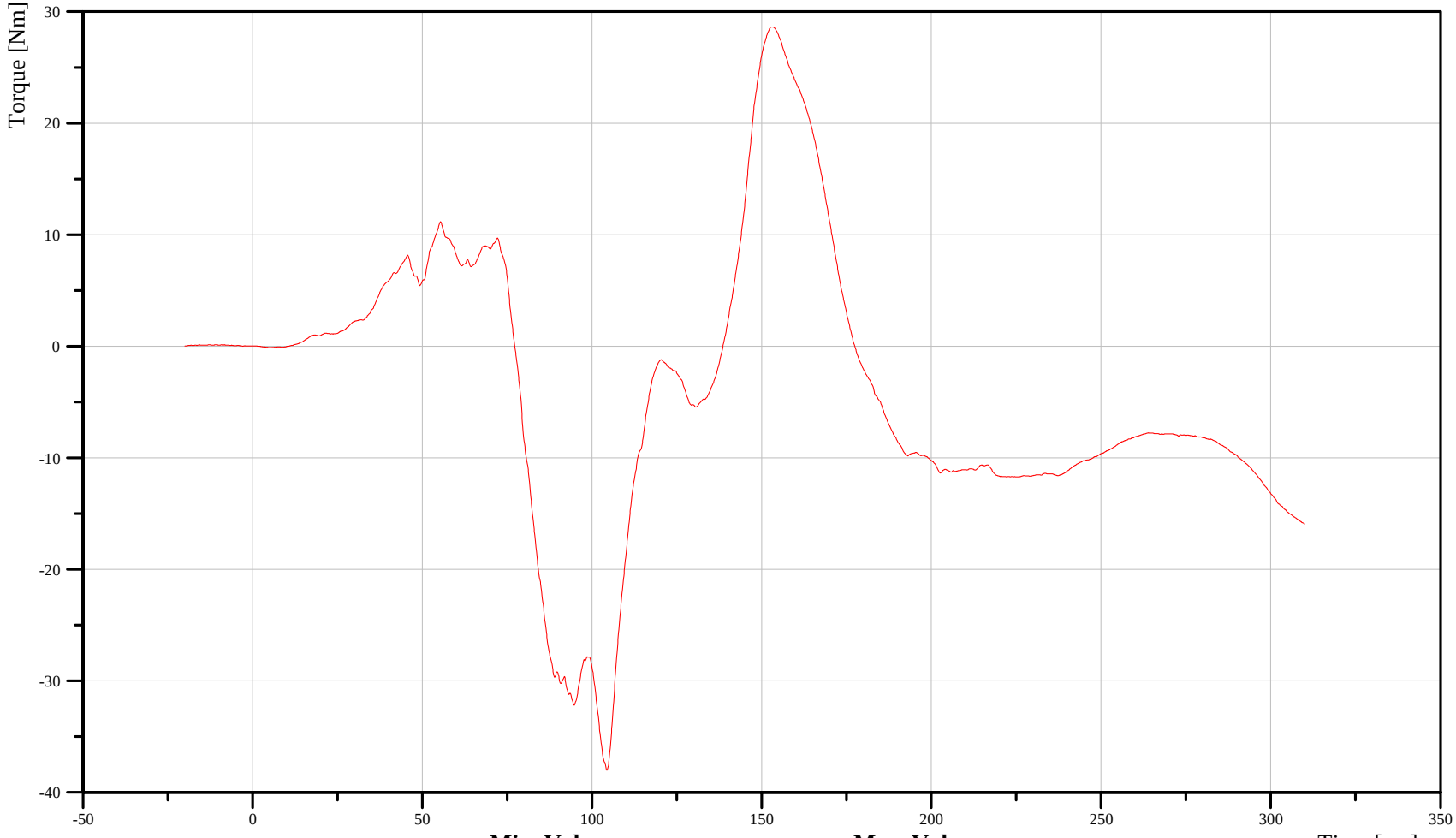
Passenger Left Upper Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-38.01 Nm at 104.40 ms

Max. Value
28.64 Nm at 152.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

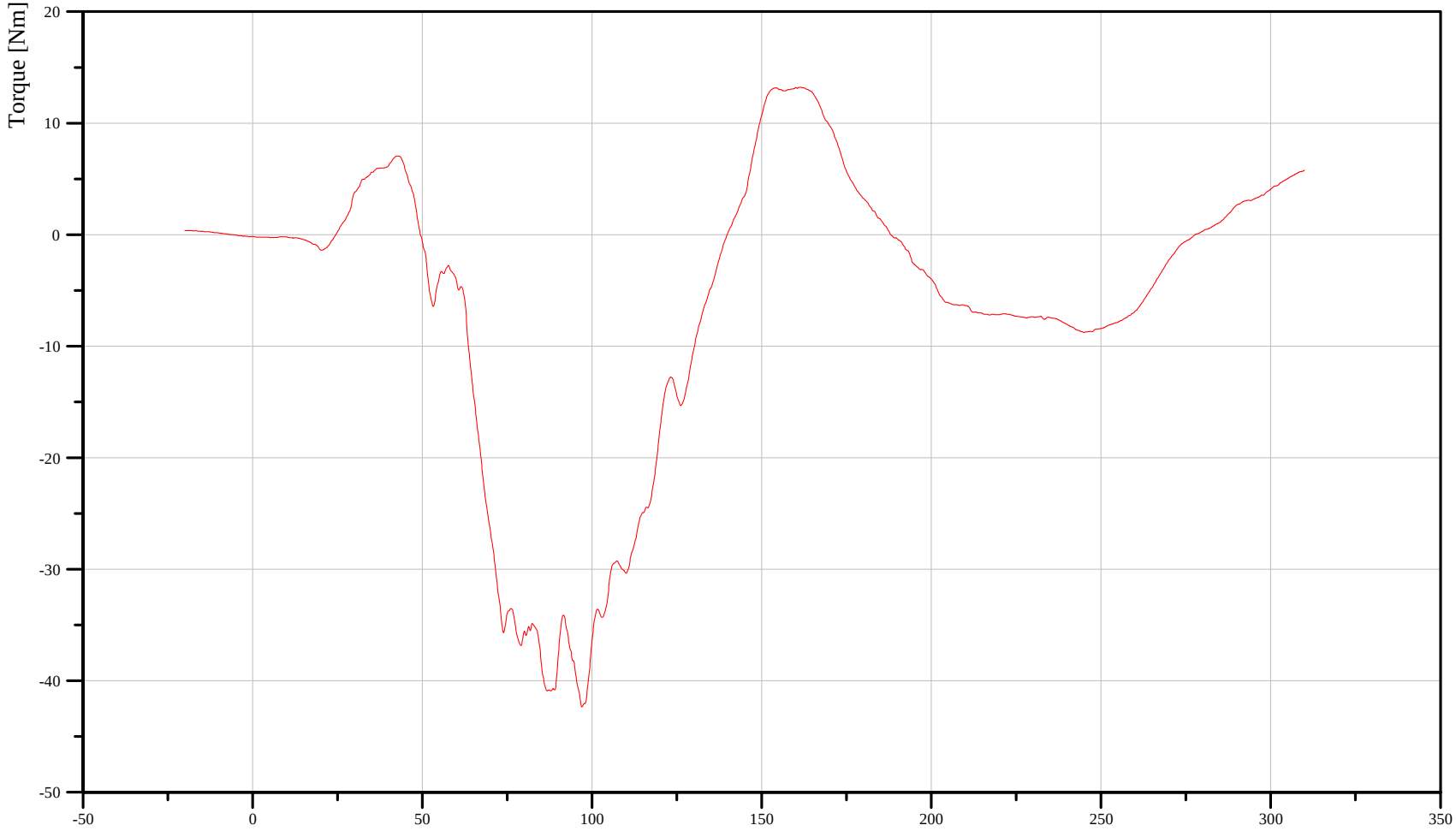
Passenger Left Upper Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-42.35 Nm at 97.04 ms

Max. Value
13.23 Nm at 161.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

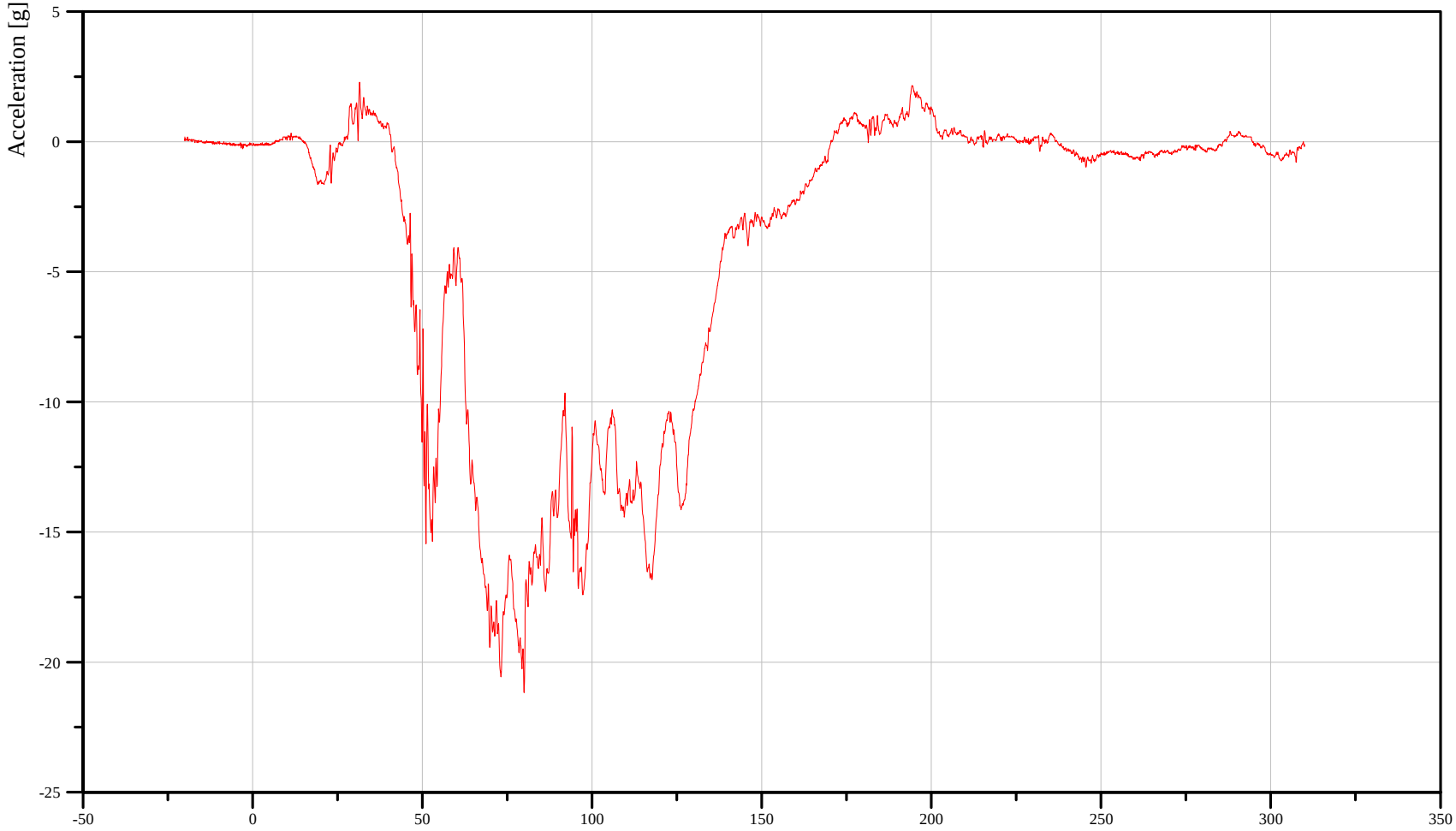
Passenger Left Tibia X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-21.17 g at 80.00 ms

Max. Value
2.29 g at 31.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

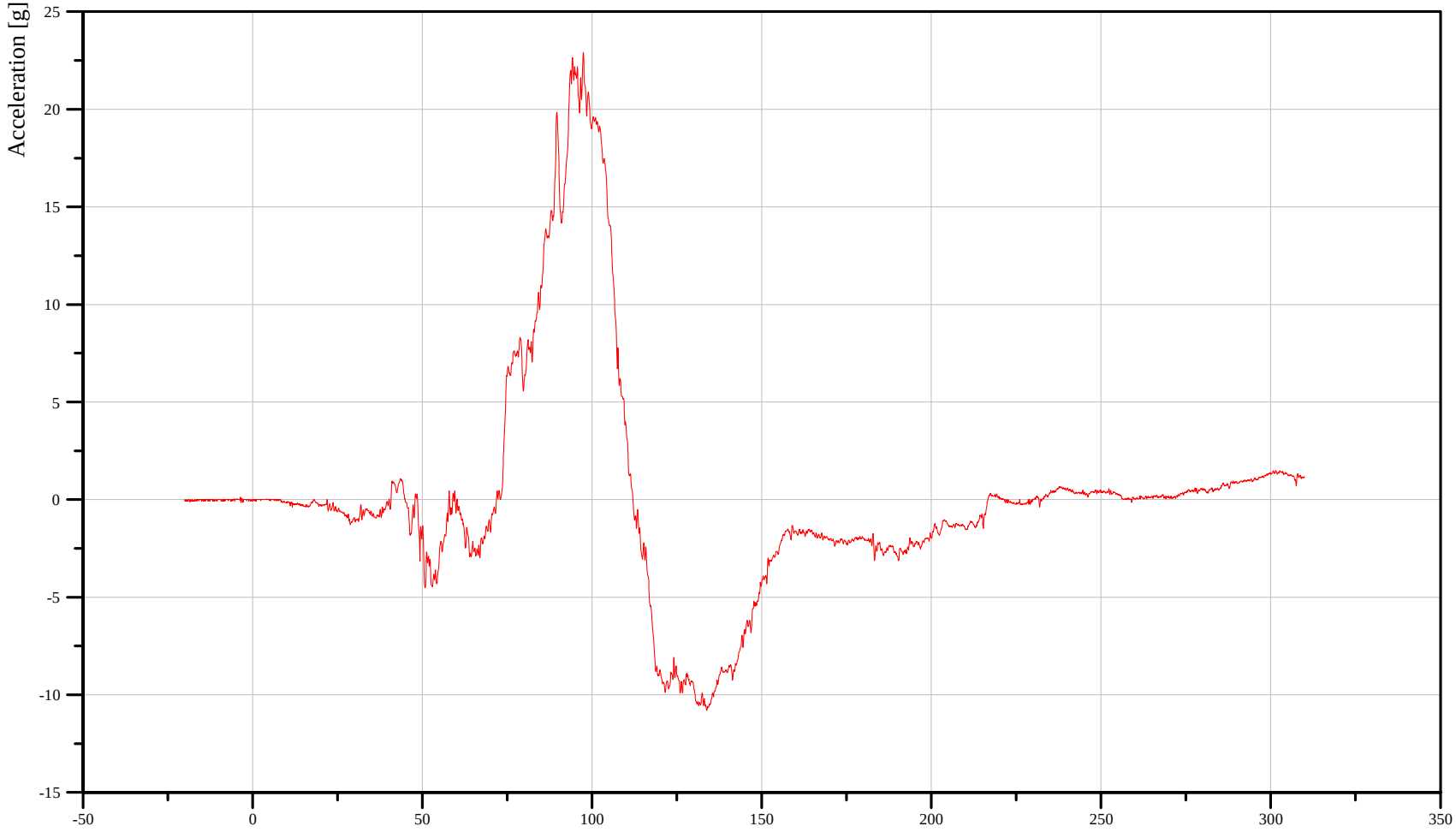
Passenger Left Tibia Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-10.79 g at 133.76 ms

Max. Value
22.91 g at 97.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

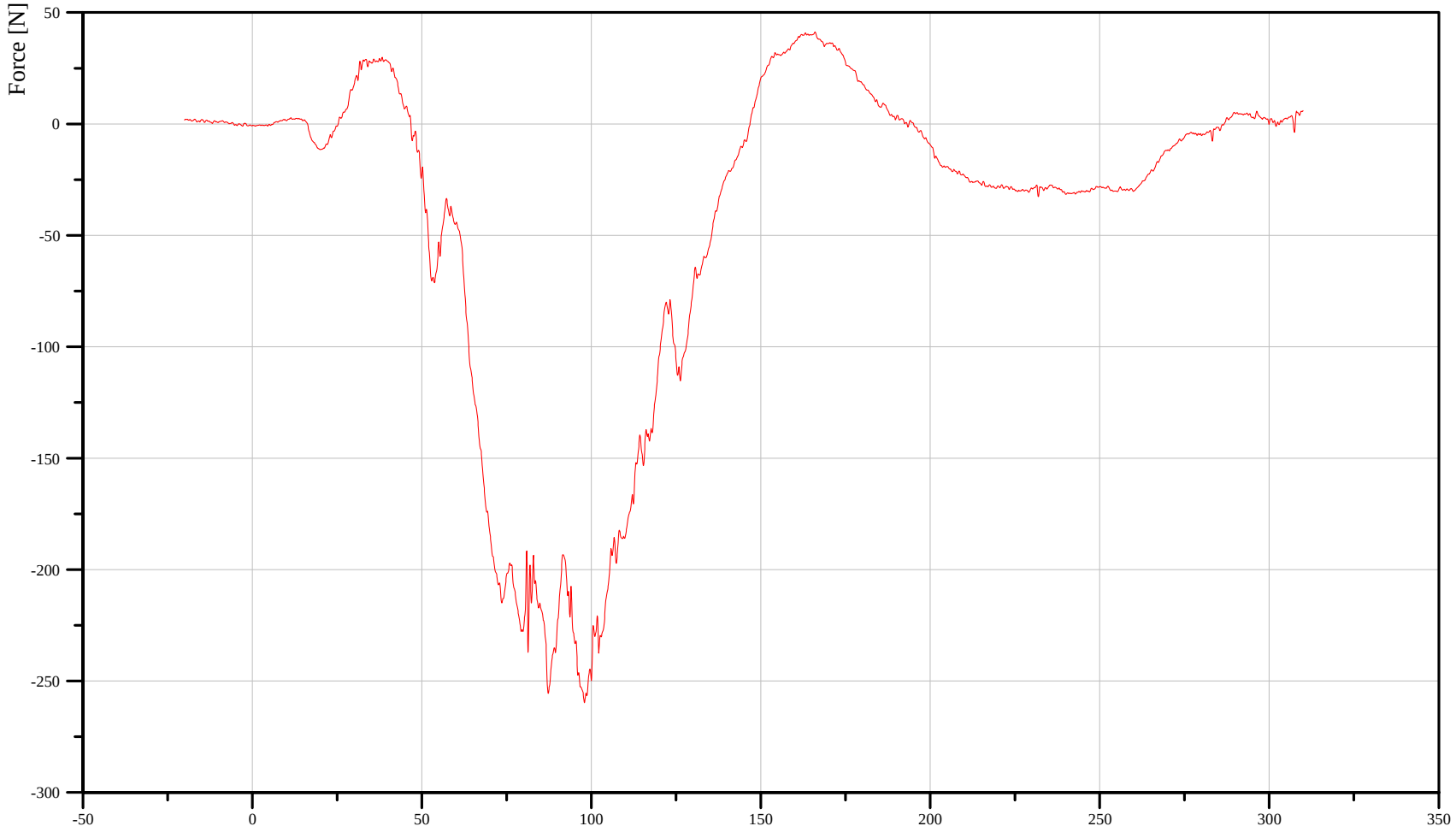
Passenger Left Lower Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-259.67 N at 98.00 ms

Max. Value
41.31 N at 166.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

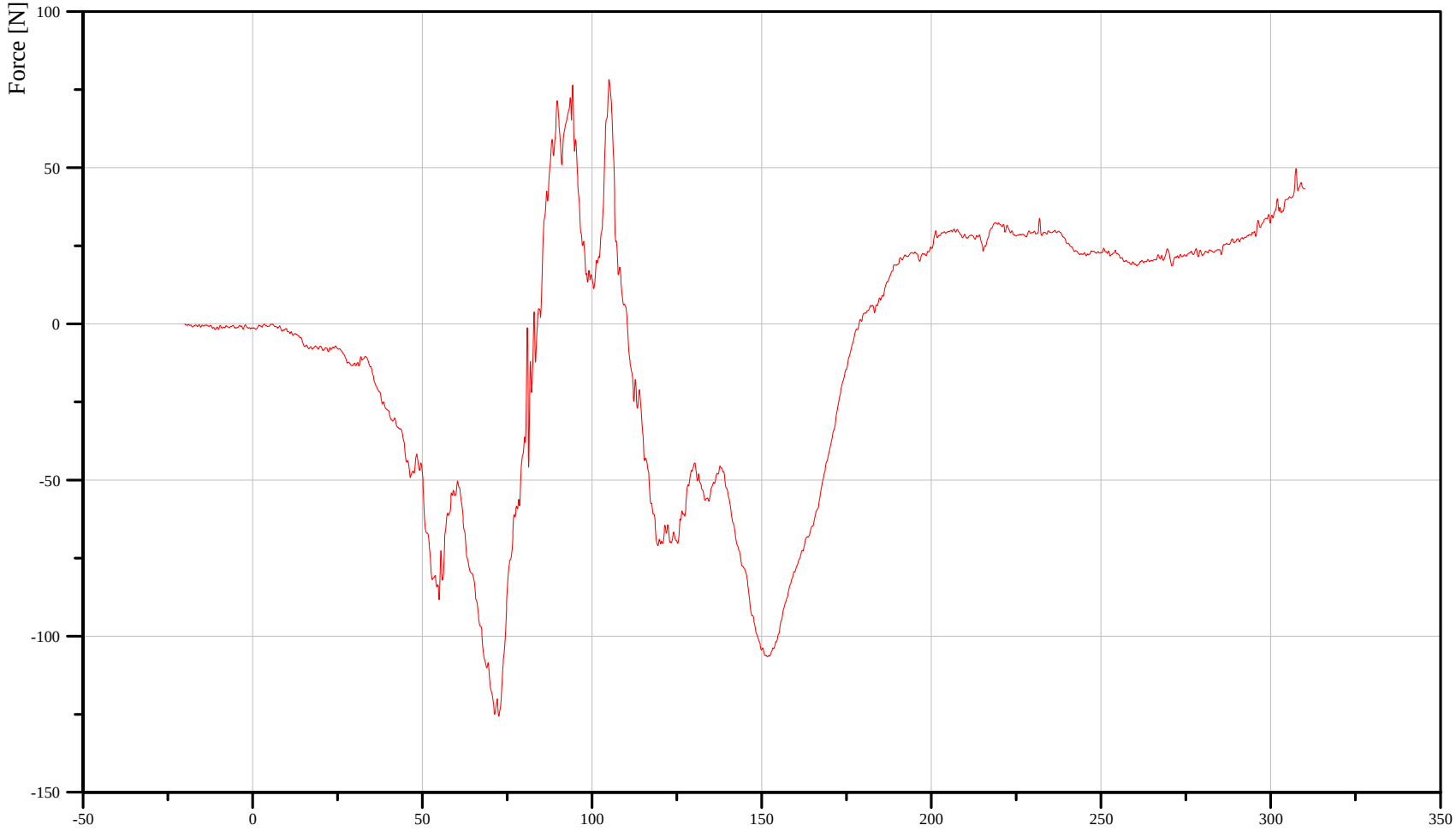
Passenger Left Lower Tibia Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-125.59 N at 72.56 ms

Max. Value
78.28 N at 105.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

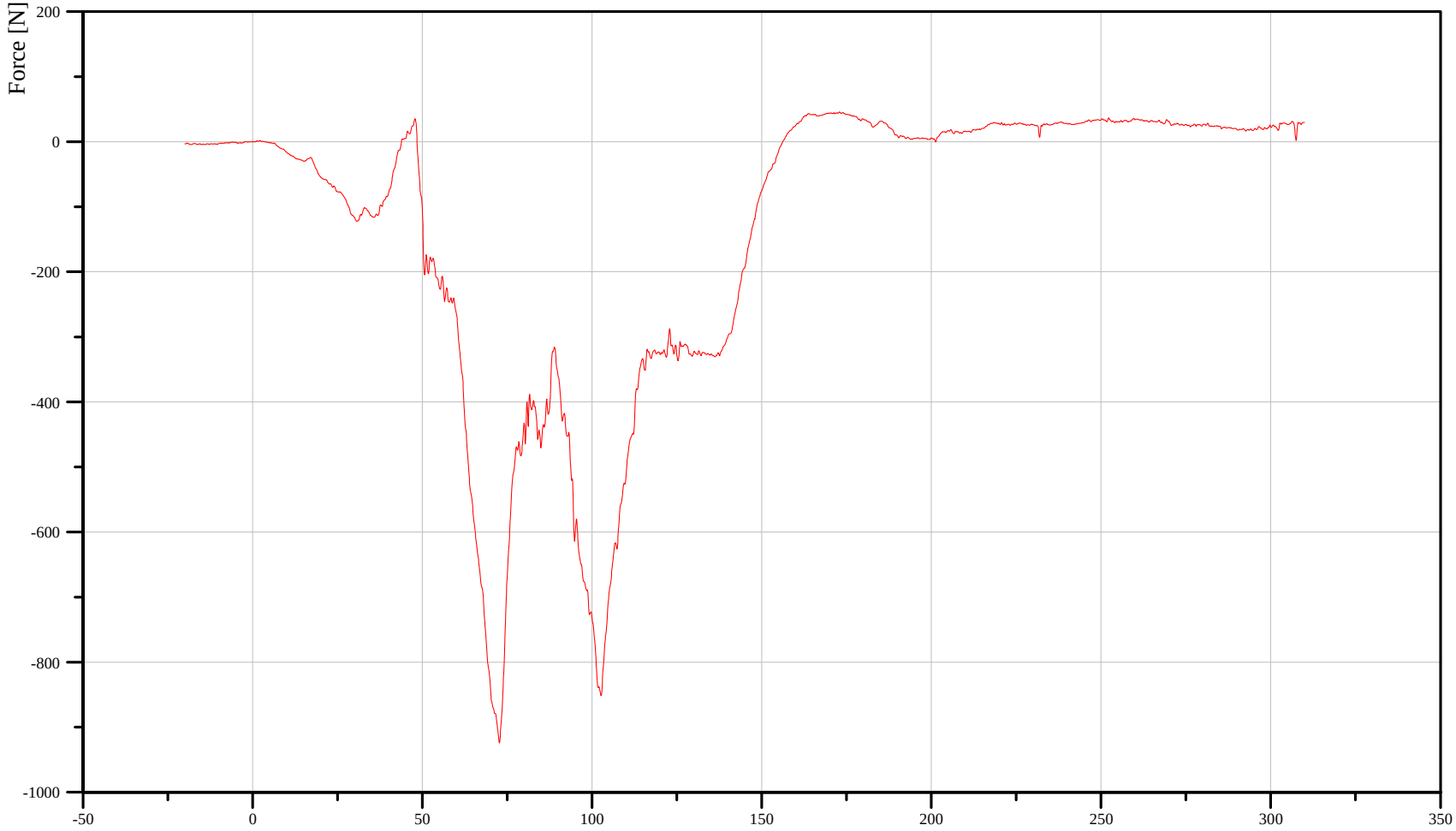
Passenger Left Lower Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-924.26 N at 72.72 ms

Max. Value
45.80 N at 172.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

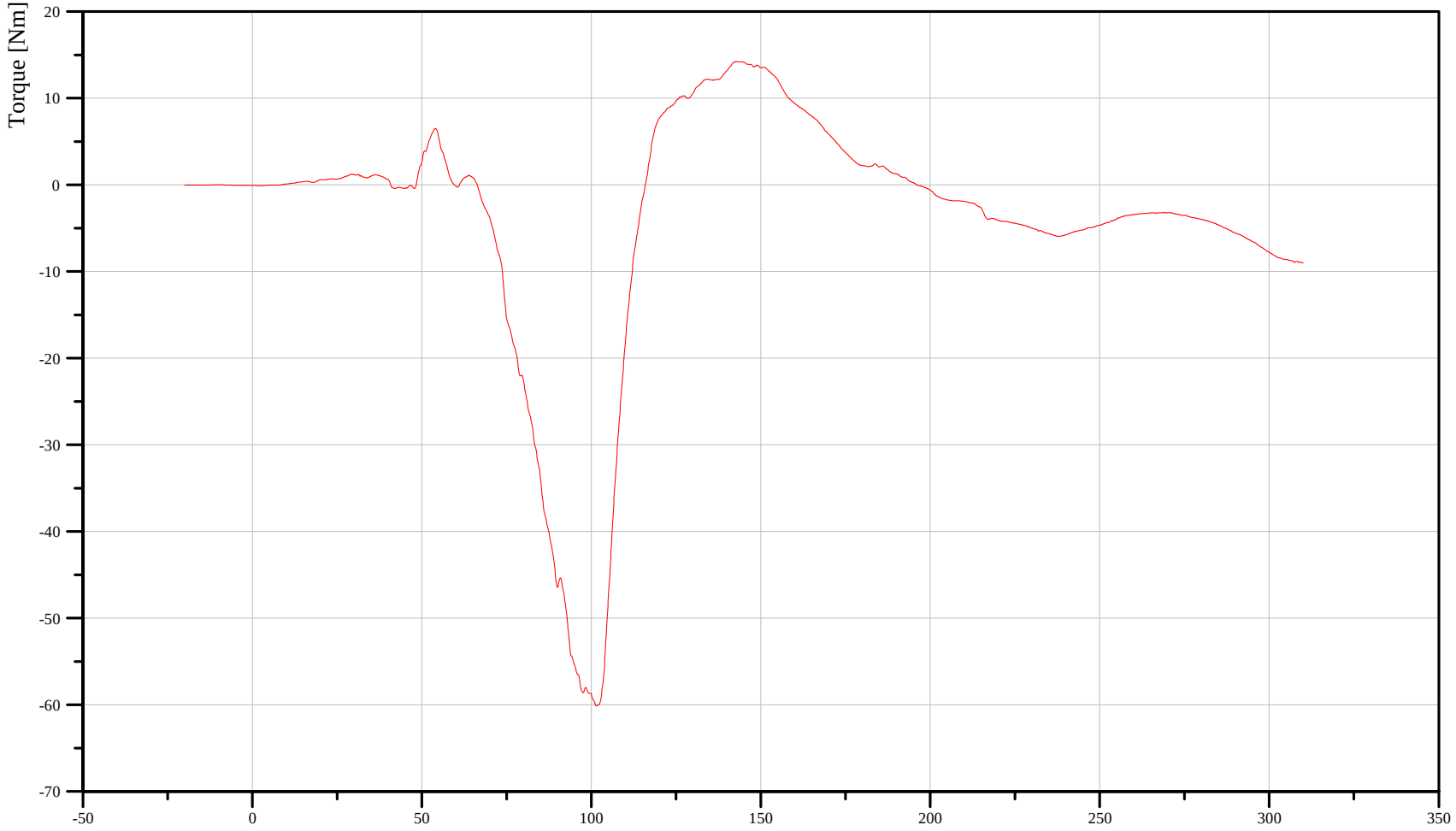
Passenger Left Lower Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-60.12 Nm at 101.52 ms

Max. Value
14.24 Nm at 142.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

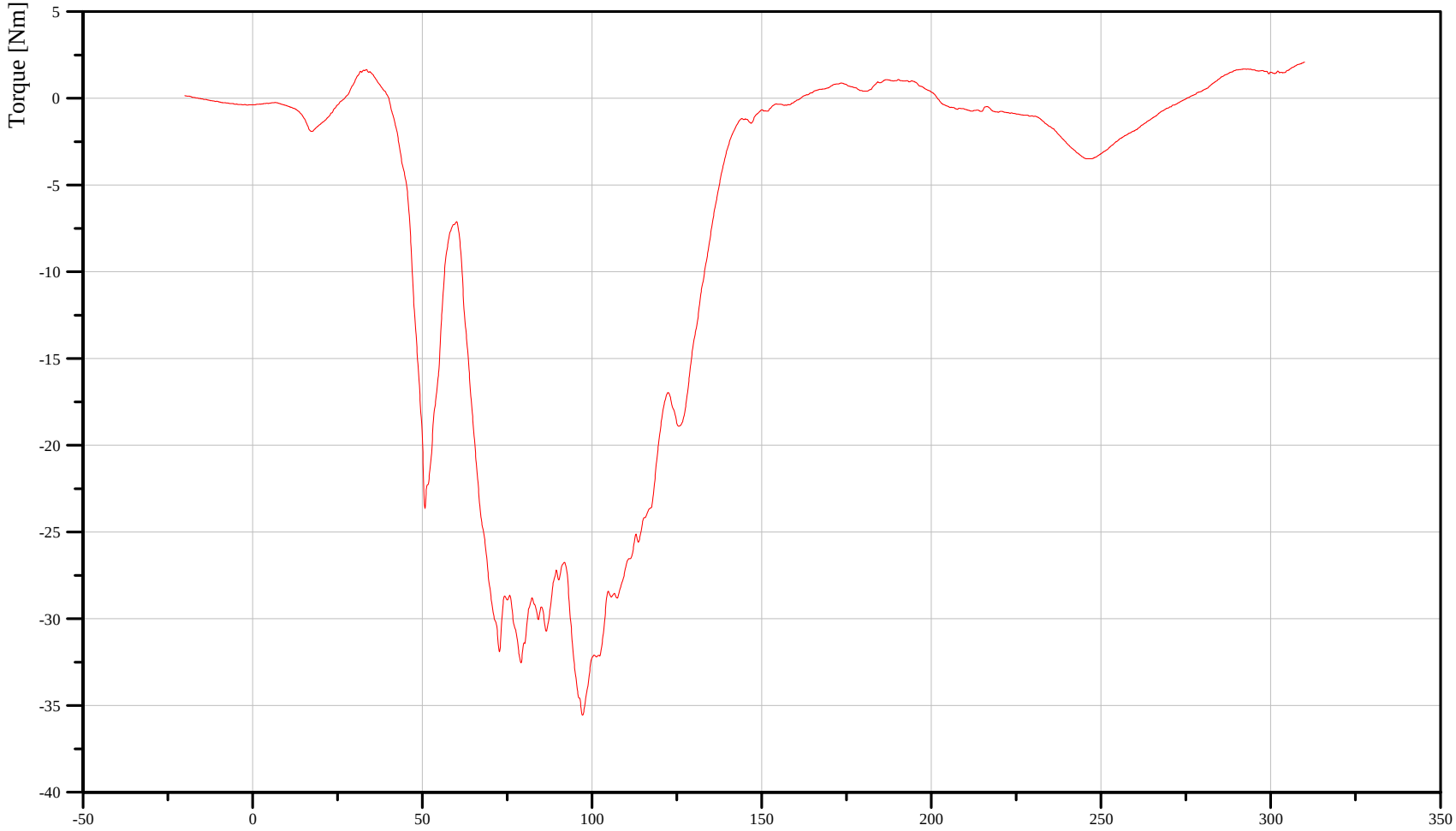
Passenger Left Lower Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBILLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-35.56 Nm at 97.20 ms

Max. Value
2.10 Nm at 310.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

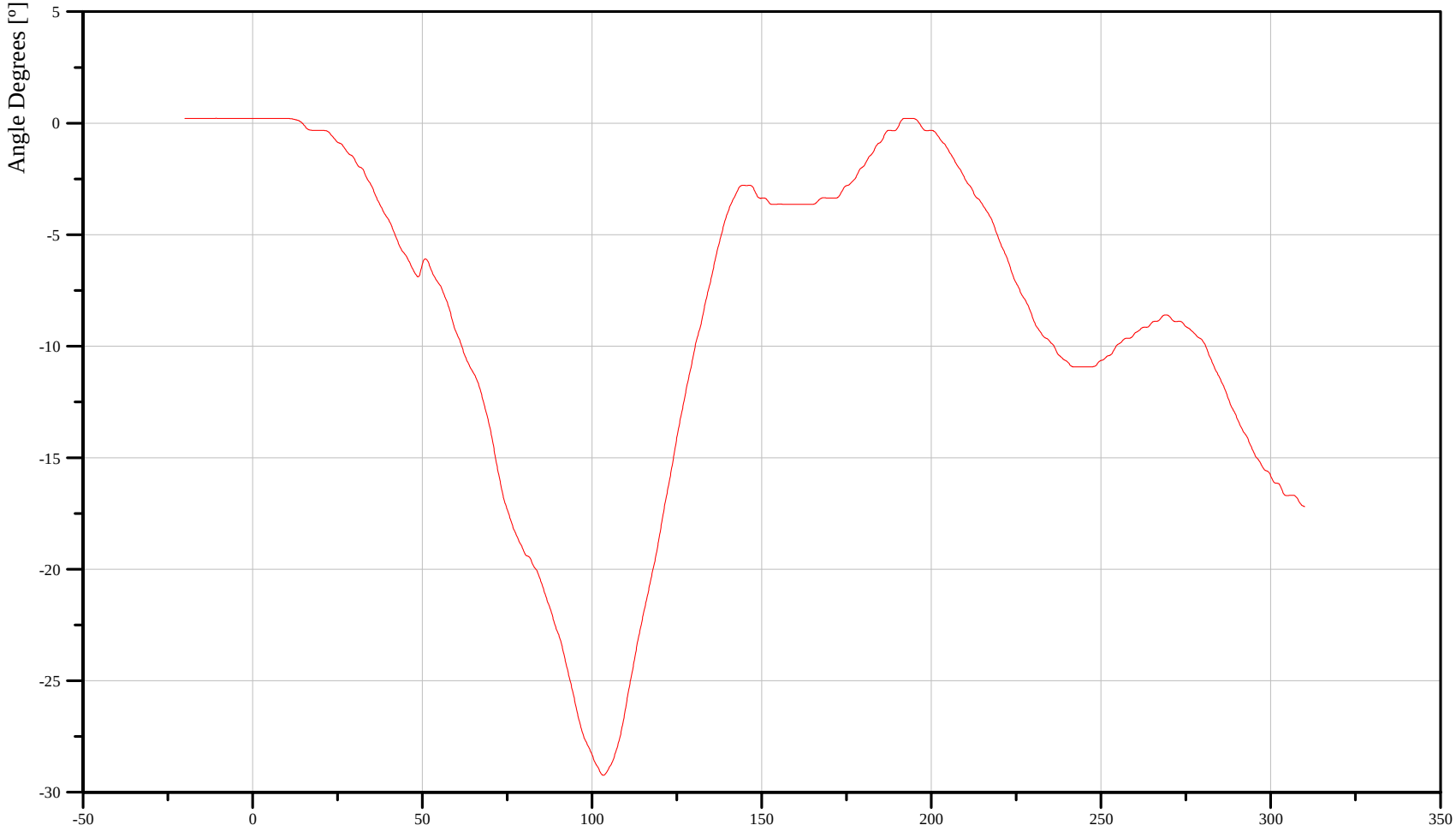
Passenger Left Foot X-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-29.24 ° at 103.36 ms

Max. Value
0.22 ° at -10.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

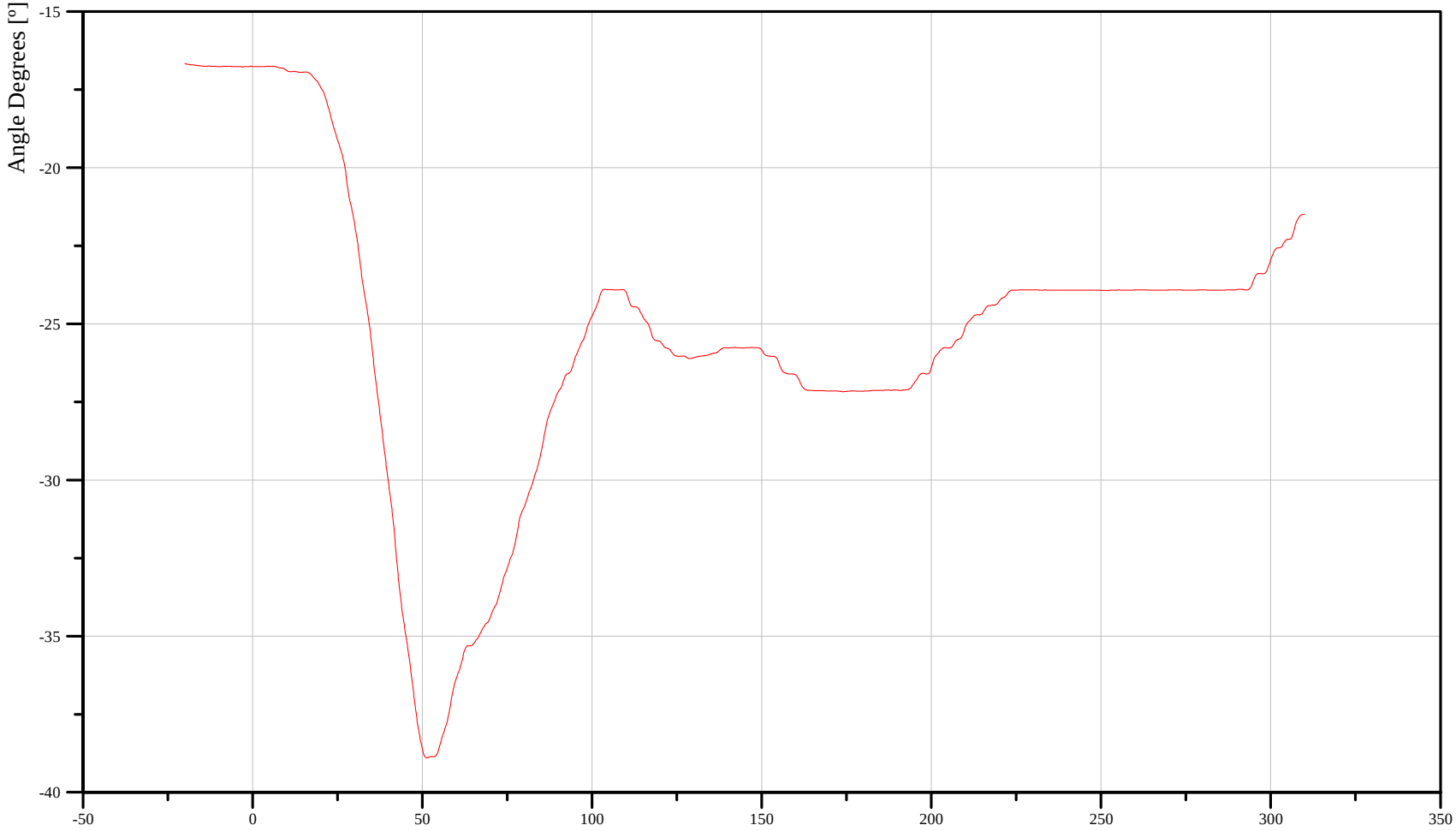
Passenger Left Foot Y-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-38.89 ° at 51.36 ms

Max. Value
-16.67 ° at -20.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

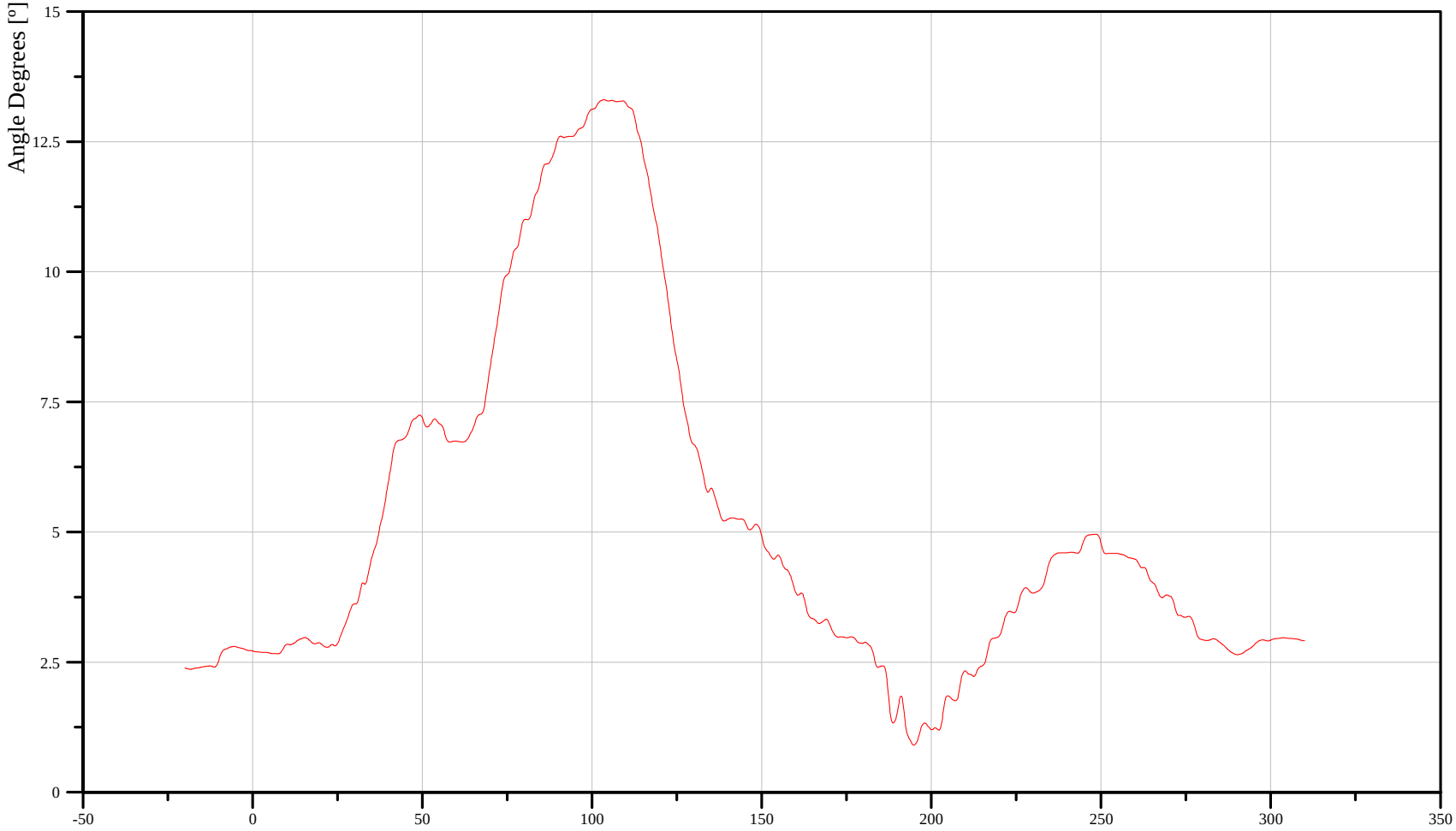
Passenger Left Foot Z-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.91 ° at 194.88 ms

Max. Value
13.31 ° at 103.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

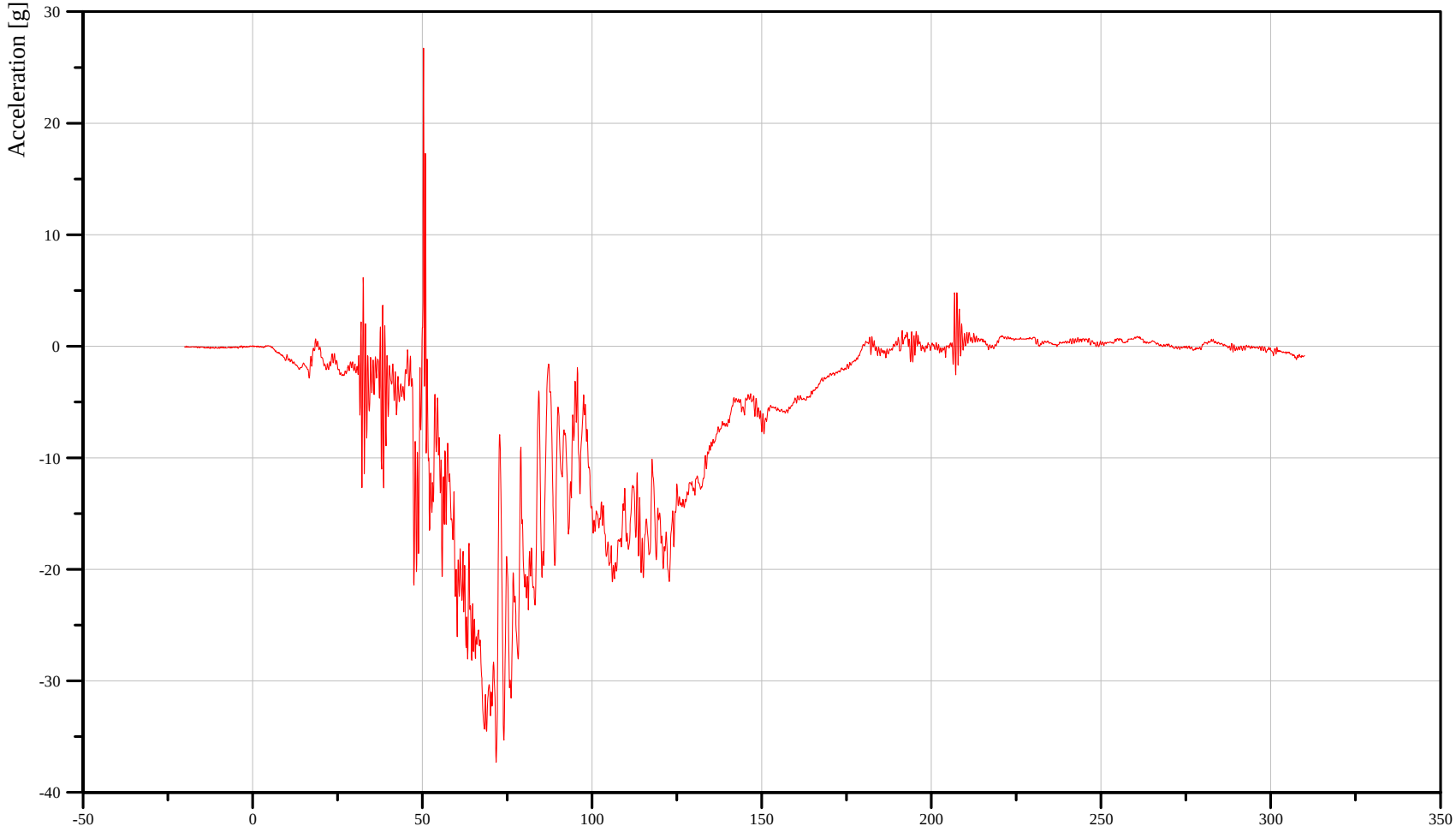
Passenger Left Foot X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-37.27 g at 71.76 ms

Max. Value
26.73 g at 50.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

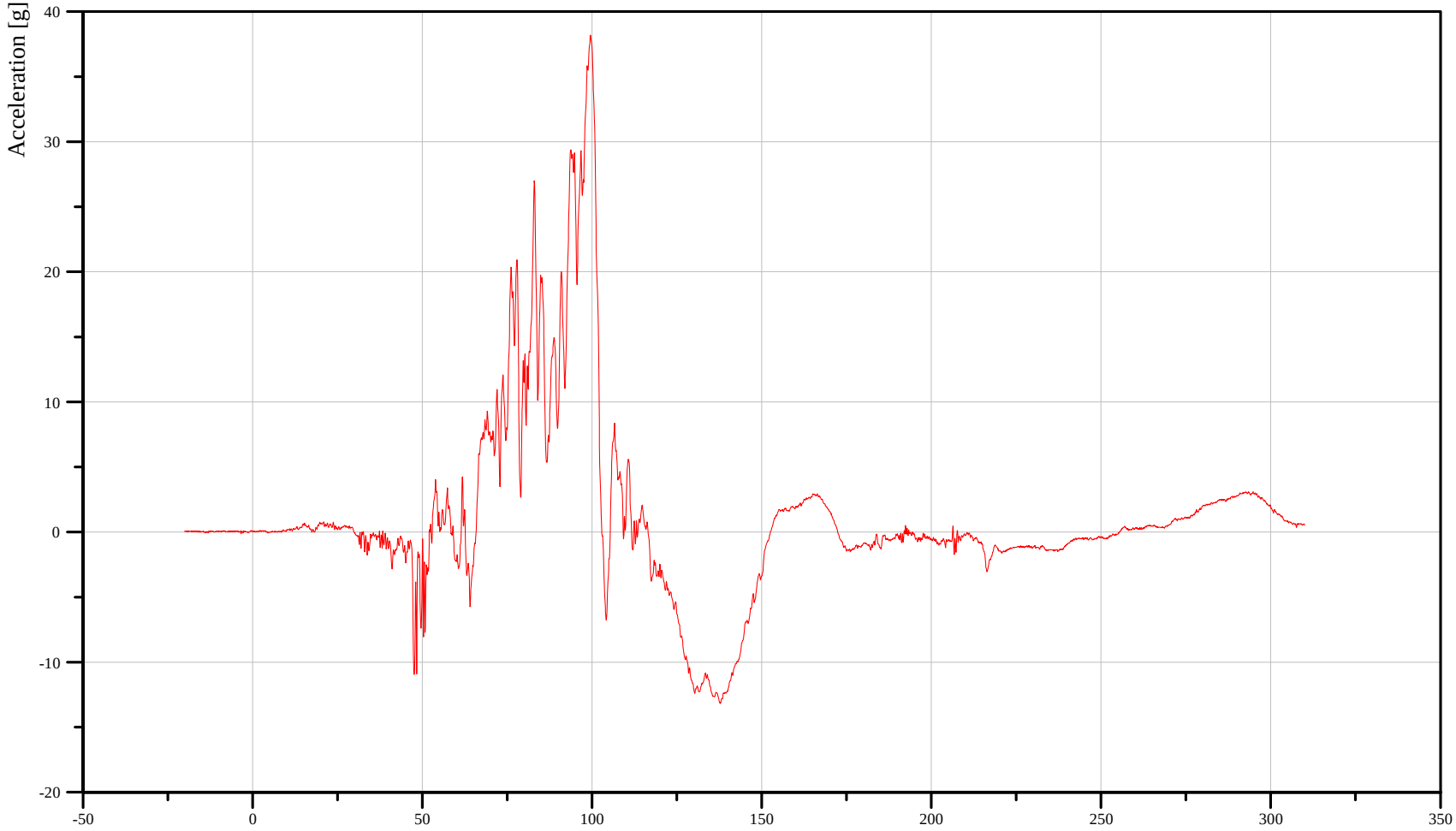
Passenger Left Foot Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-13.19 g at 137.84 ms

Max. Value
38.21 g at 99.60 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

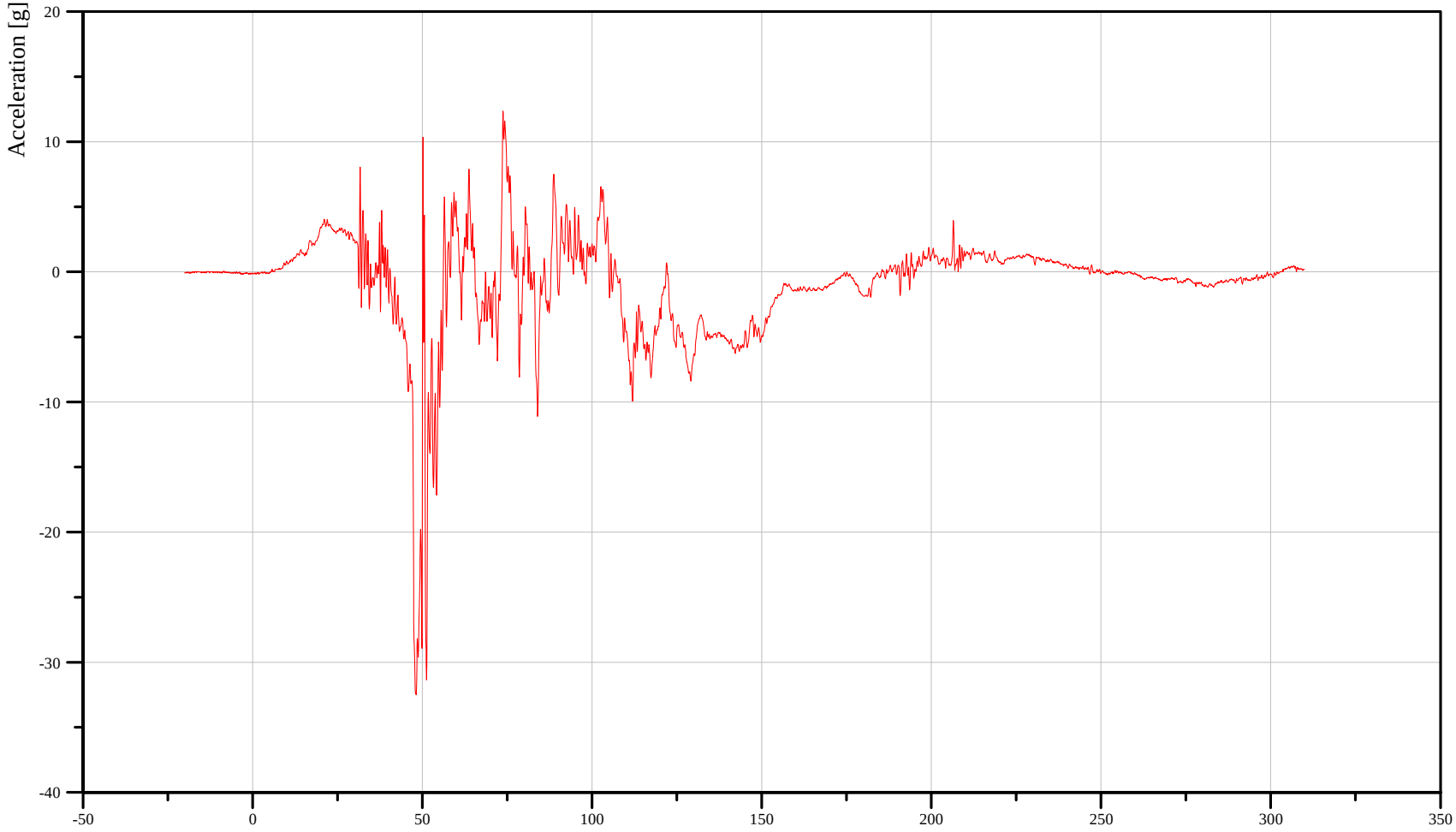
Passenger Left Foot Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-32.51 g at 48.16 ms

Max. Value
12.35 g at 73.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

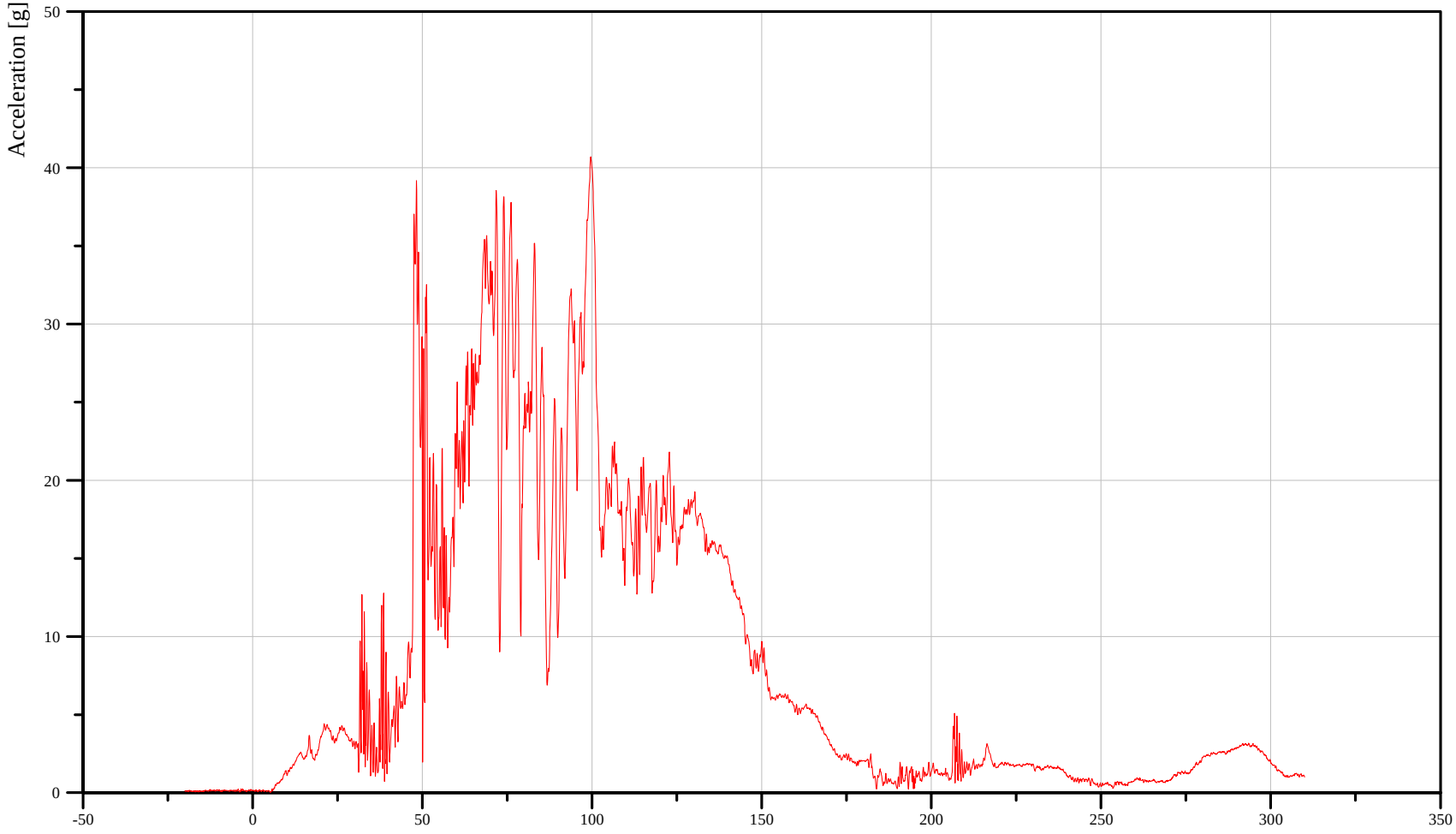
Passenger Left Foot Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTLELXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.03 g at 5.28 ms

Max. Value
40.70 g at 99.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

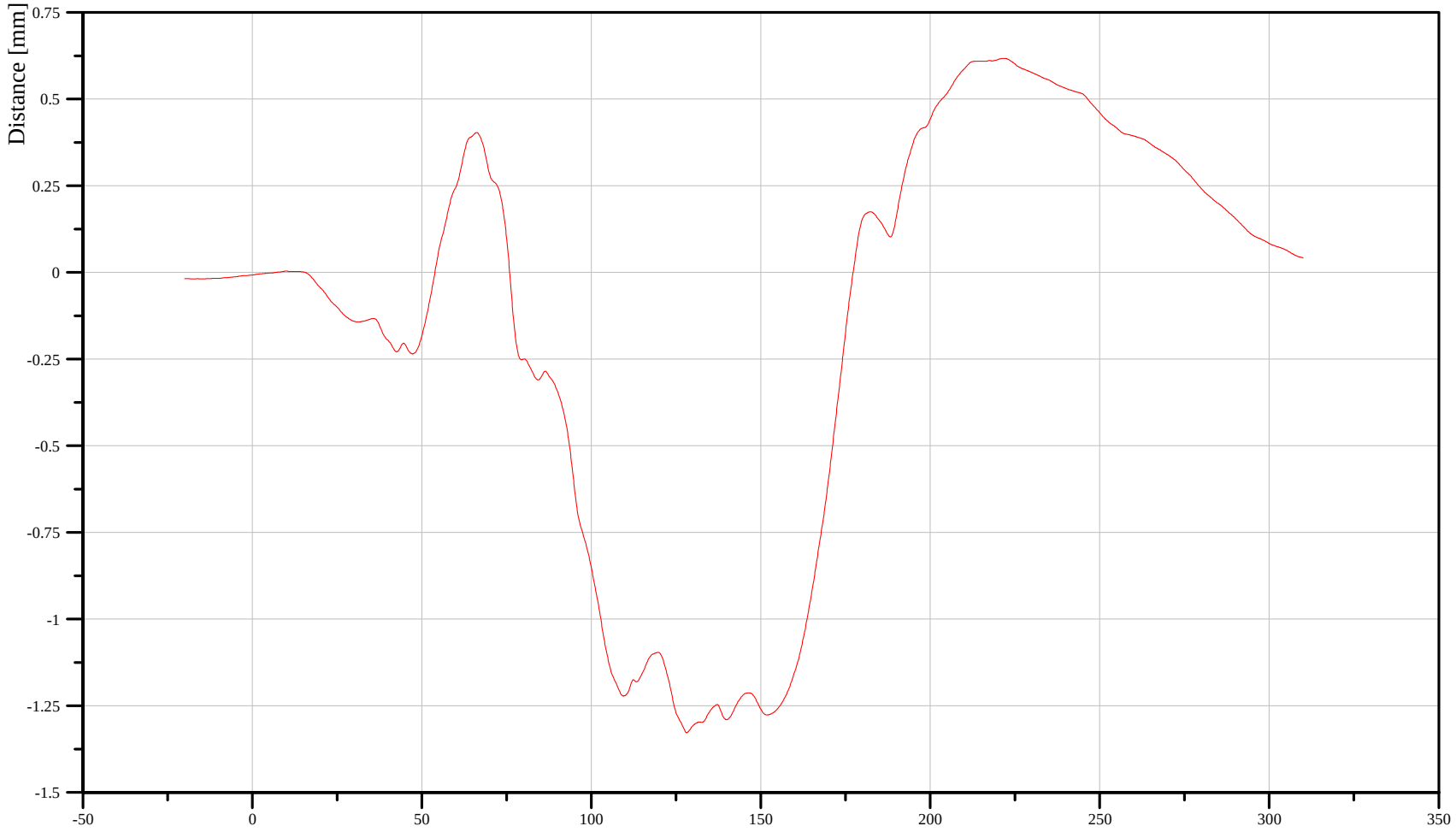
Passenger Right Knee Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.33 mm at 128.16 ms

Max. Value
0.62 mm at 221.84 ms

B-150

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

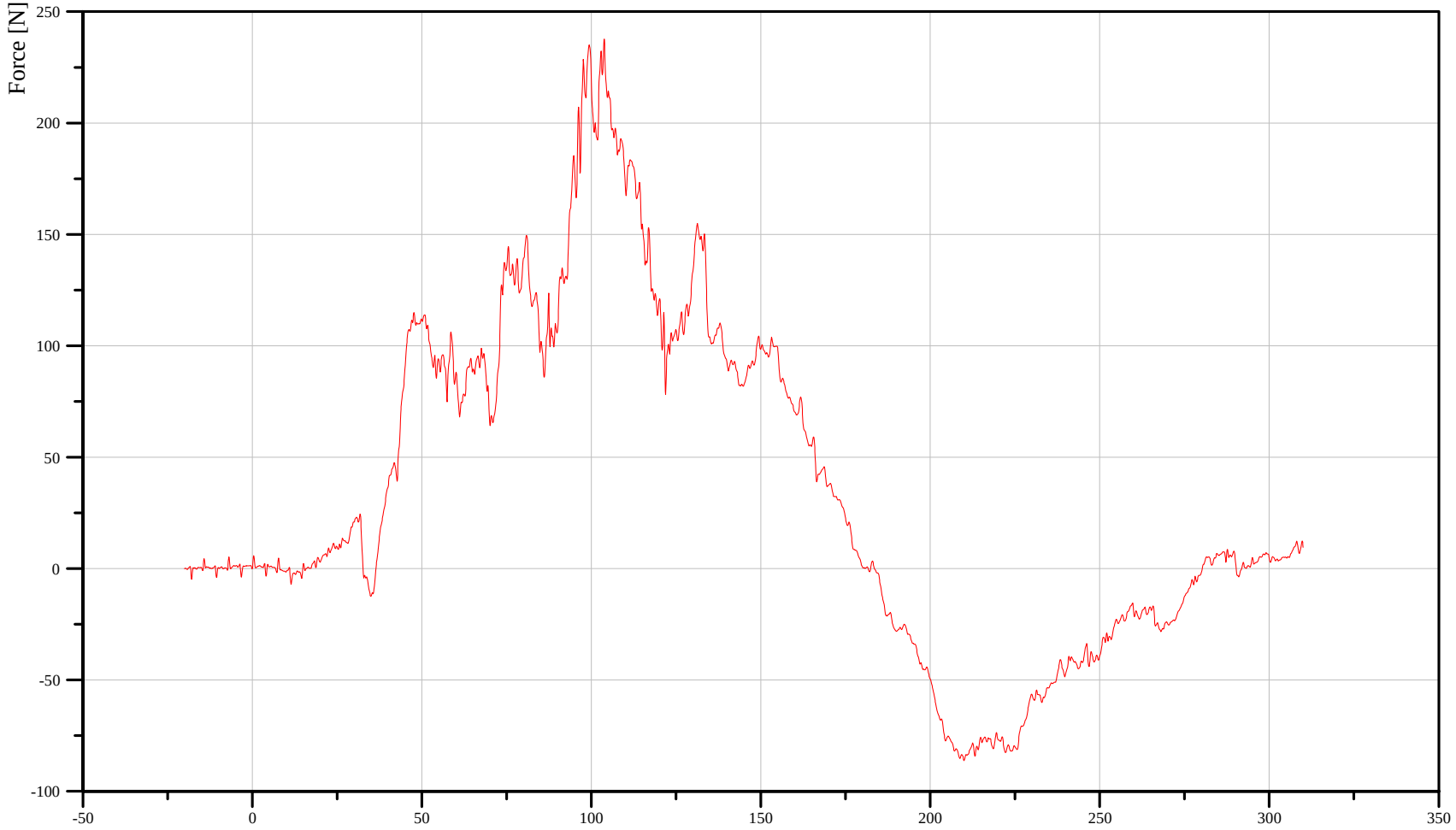
Passenger Right Upper Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRULXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-86.15 N at 210.00 ms

Max. Value
237.65 N at 103.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

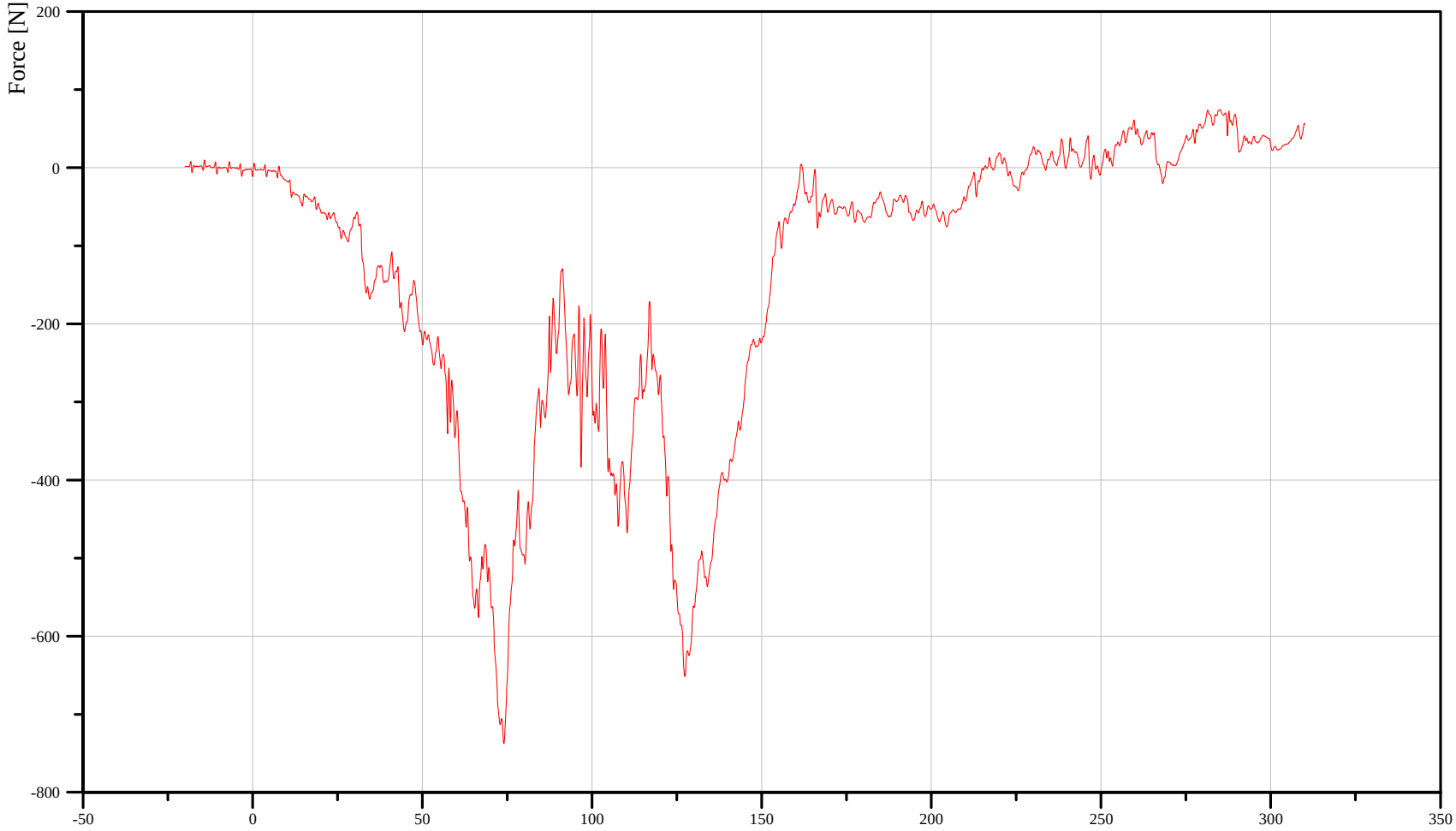
Passenger Right Upper Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-737.54 N at 74.08 ms

Max. Value
74.26 N at 285.12 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

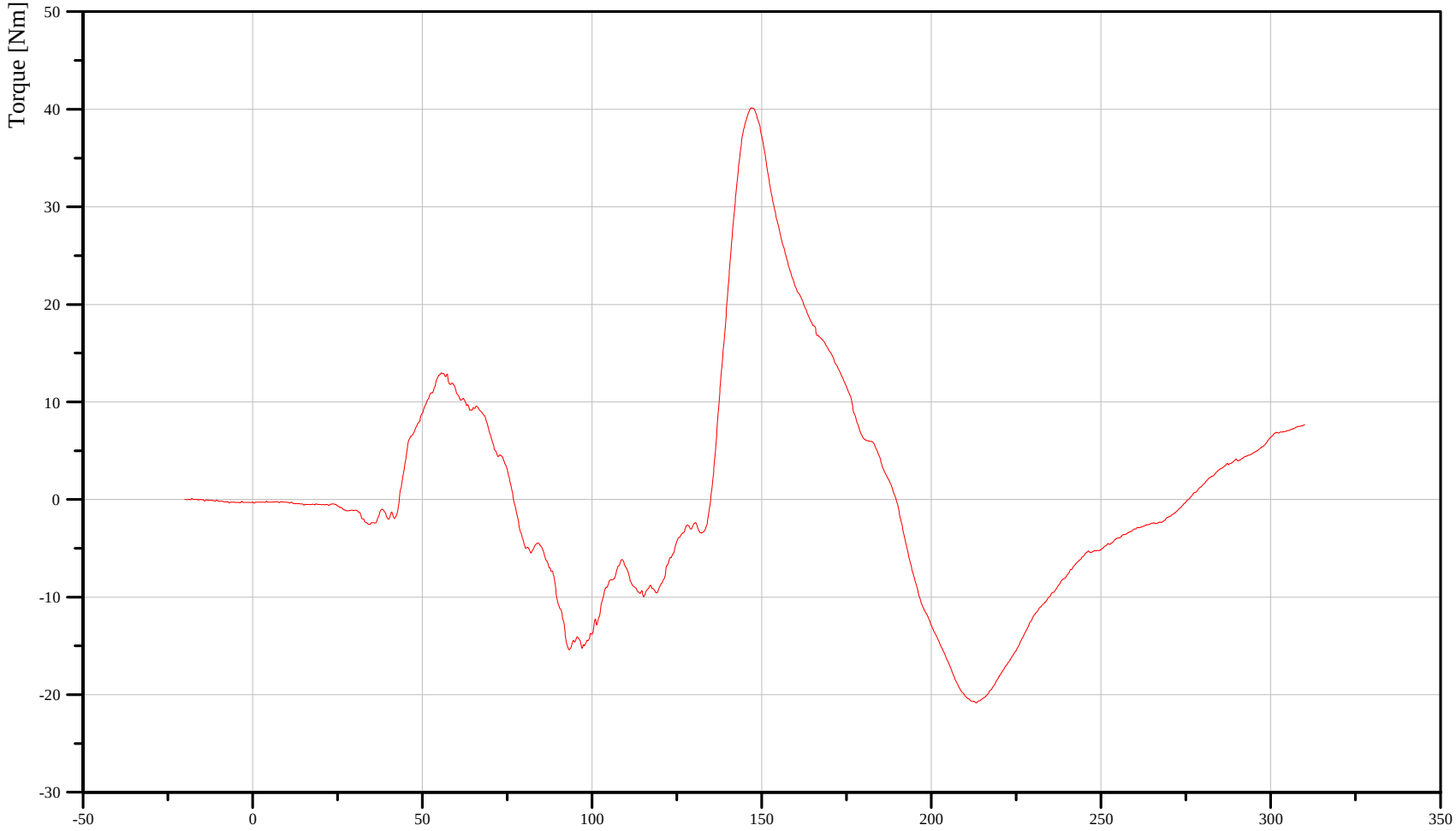
Passenger Right Upper Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-20.82 Nm at 213.20 ms

Max. Value
40.13 Nm at 146.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

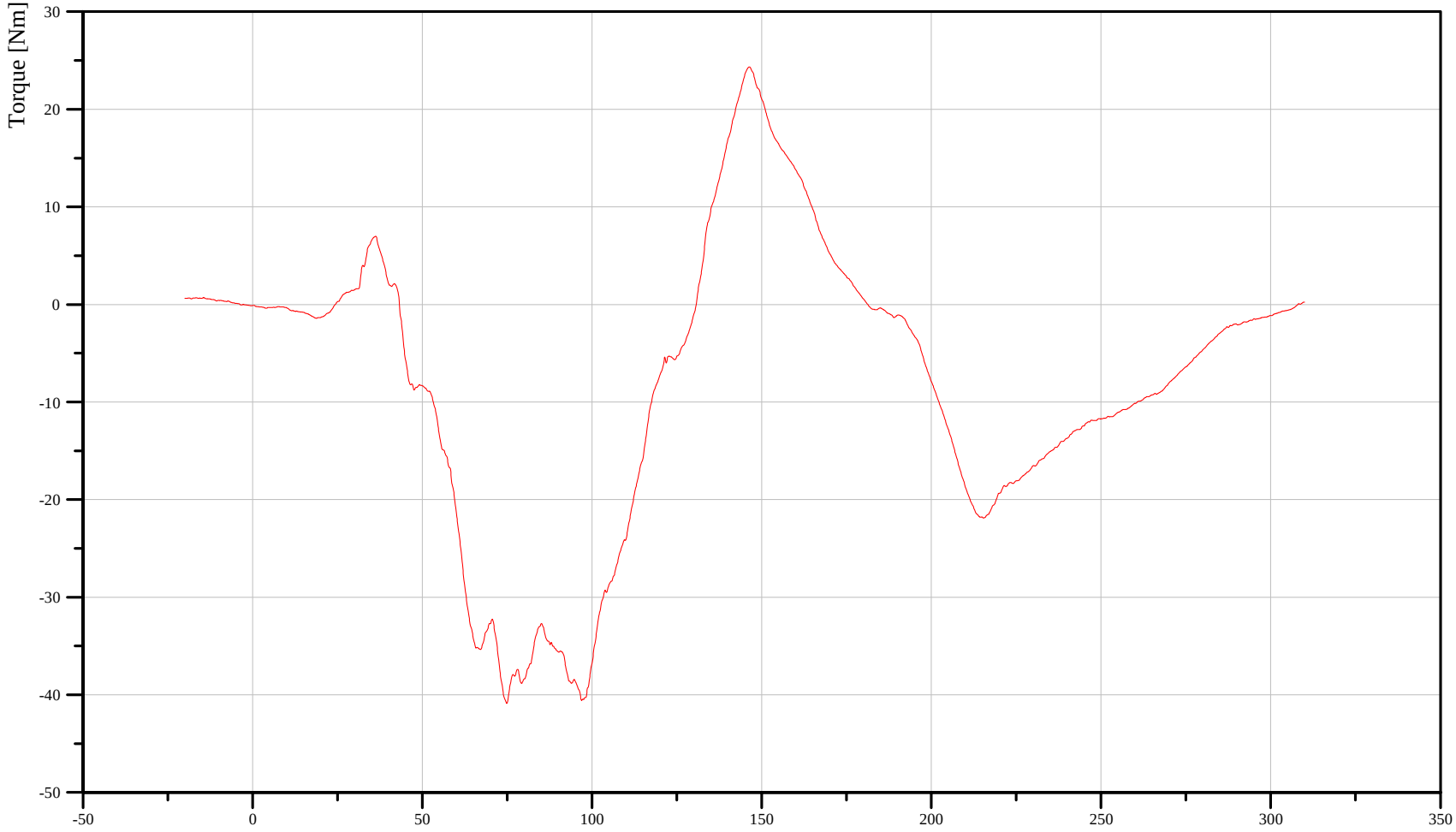
Passenger Right Upper Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-40.87 Nm at 74.88 ms

Max. Value
24.35 Nm at 146.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

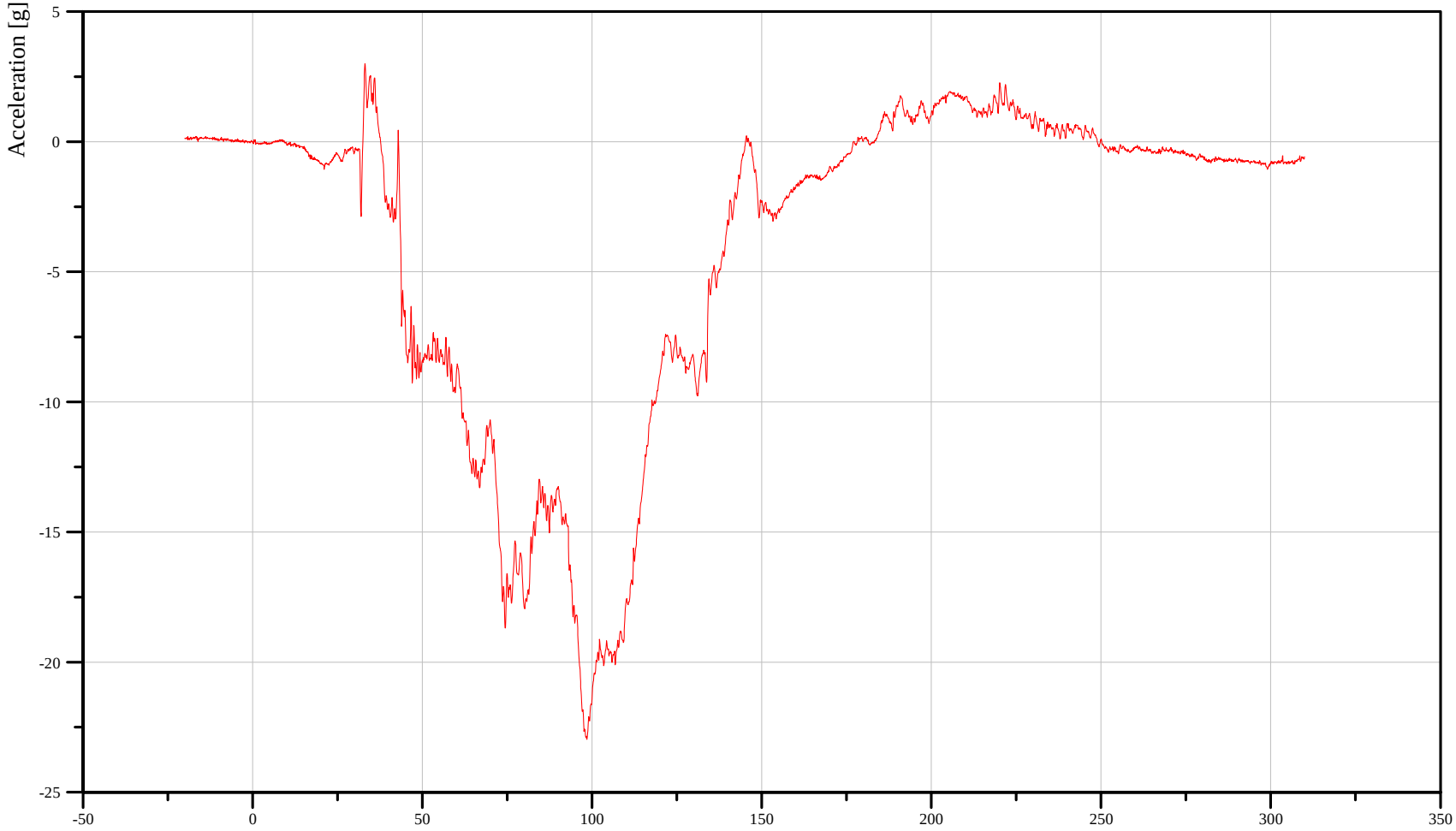
Passenger Right Tibia X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-22.96 g at 98.48 ms

Max. Value
3.00 g at 33.12 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

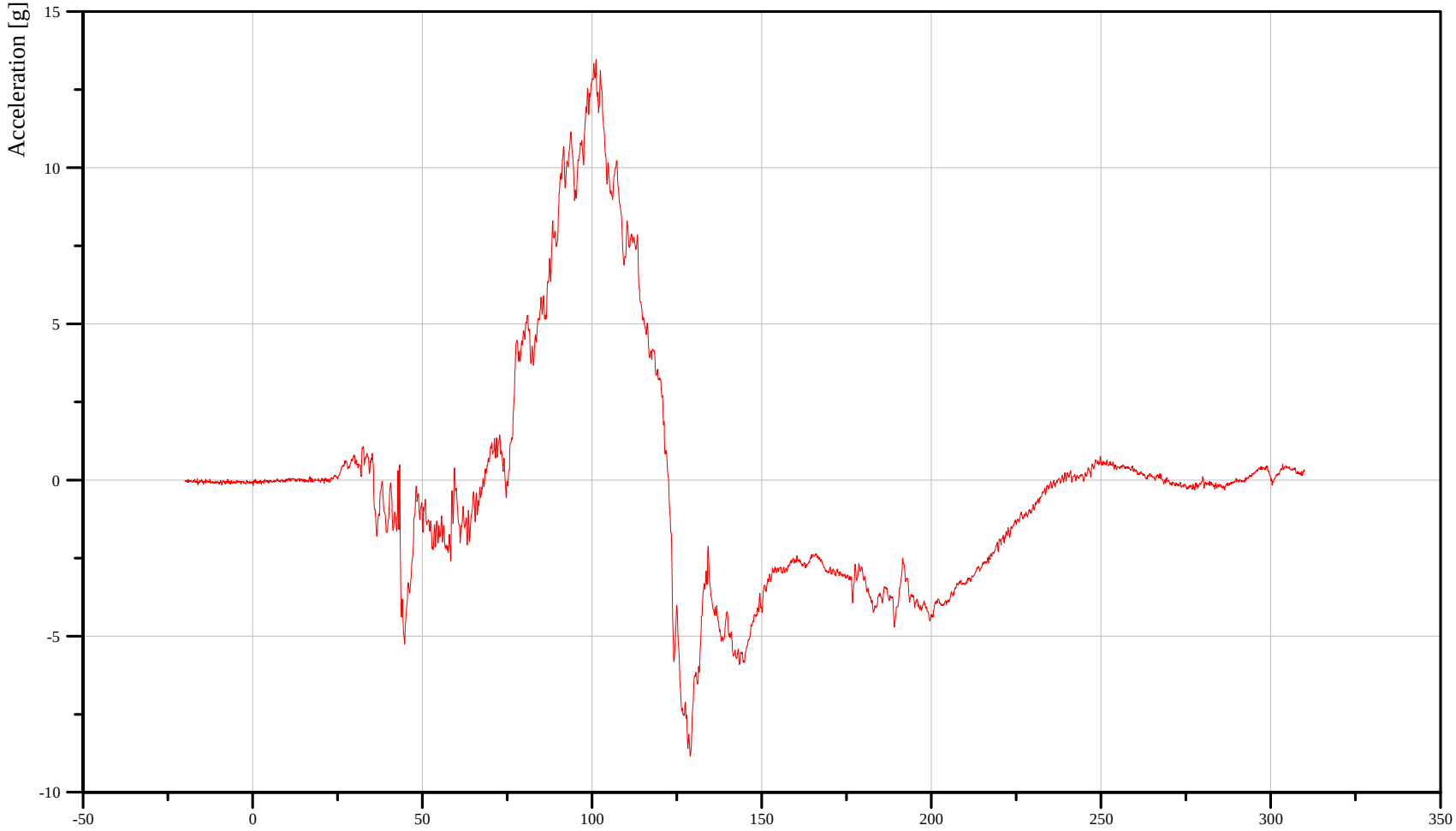
Passenger Right Tibia Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-8.84 g at 128.96 ms

Max. Value
13.47 g at 101.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

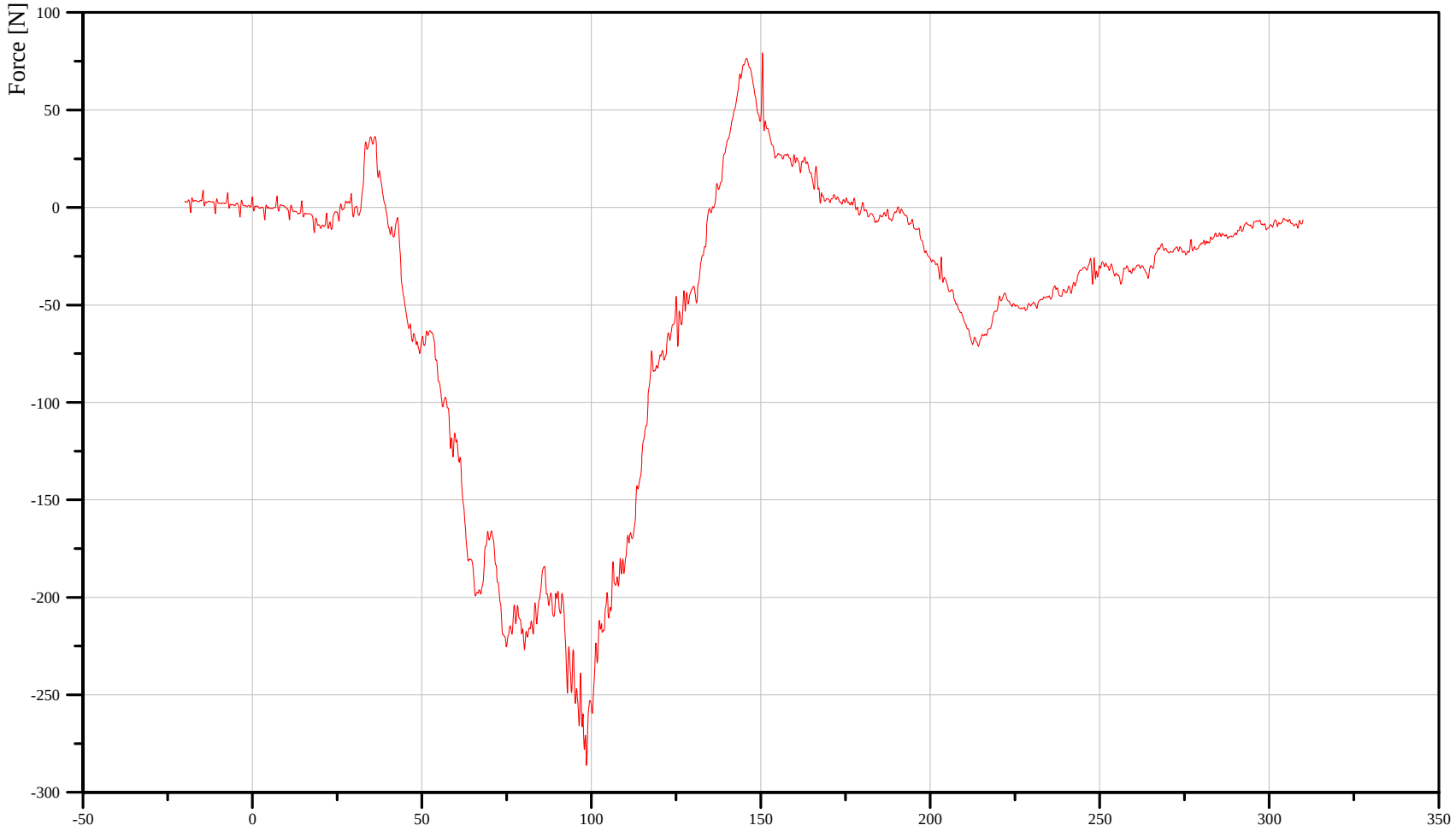
Passenger Right Lower Tibia X-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-286.19 N at 98.64 ms

Max. Value
79.32 N at 150.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

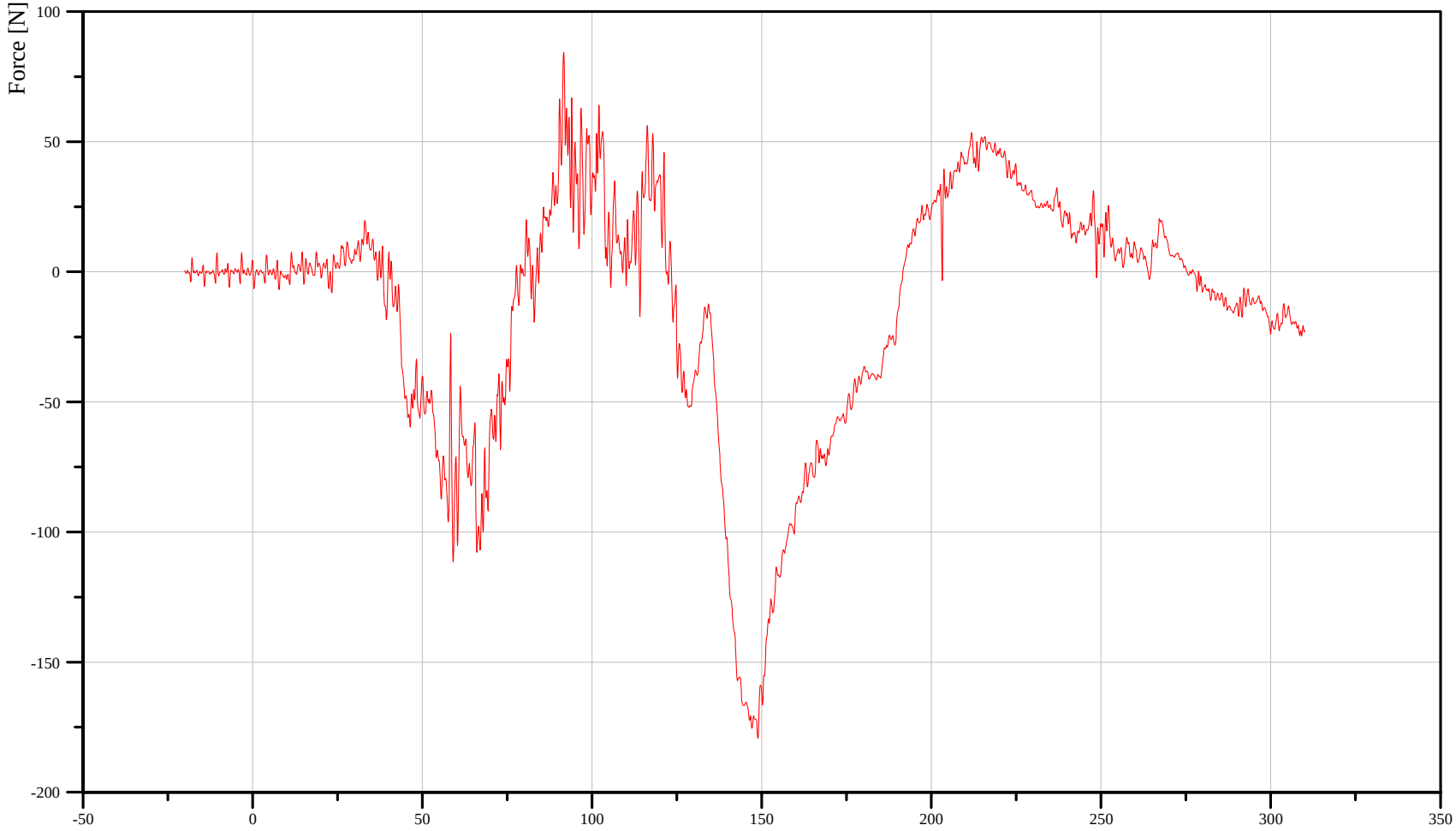
Passenger Right Lower Tibia Y-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-179.17 N at 148.88 ms

Max. Value
84.40 N at 91.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

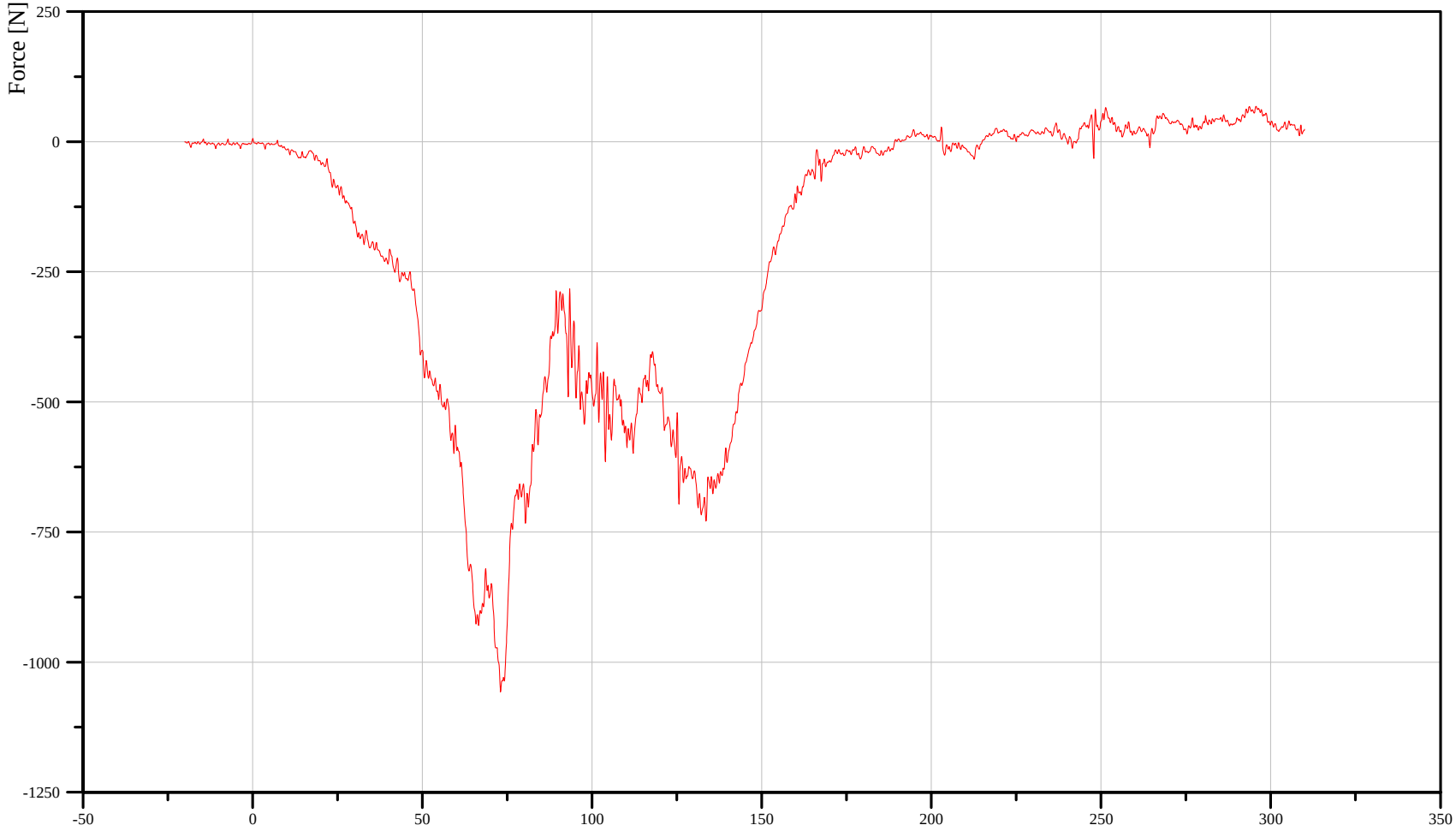
Passenger Right Lower Tibia Z-Axis Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-1,057.56 N at 73.04 ms

Max. Value
68.15 N at 295.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

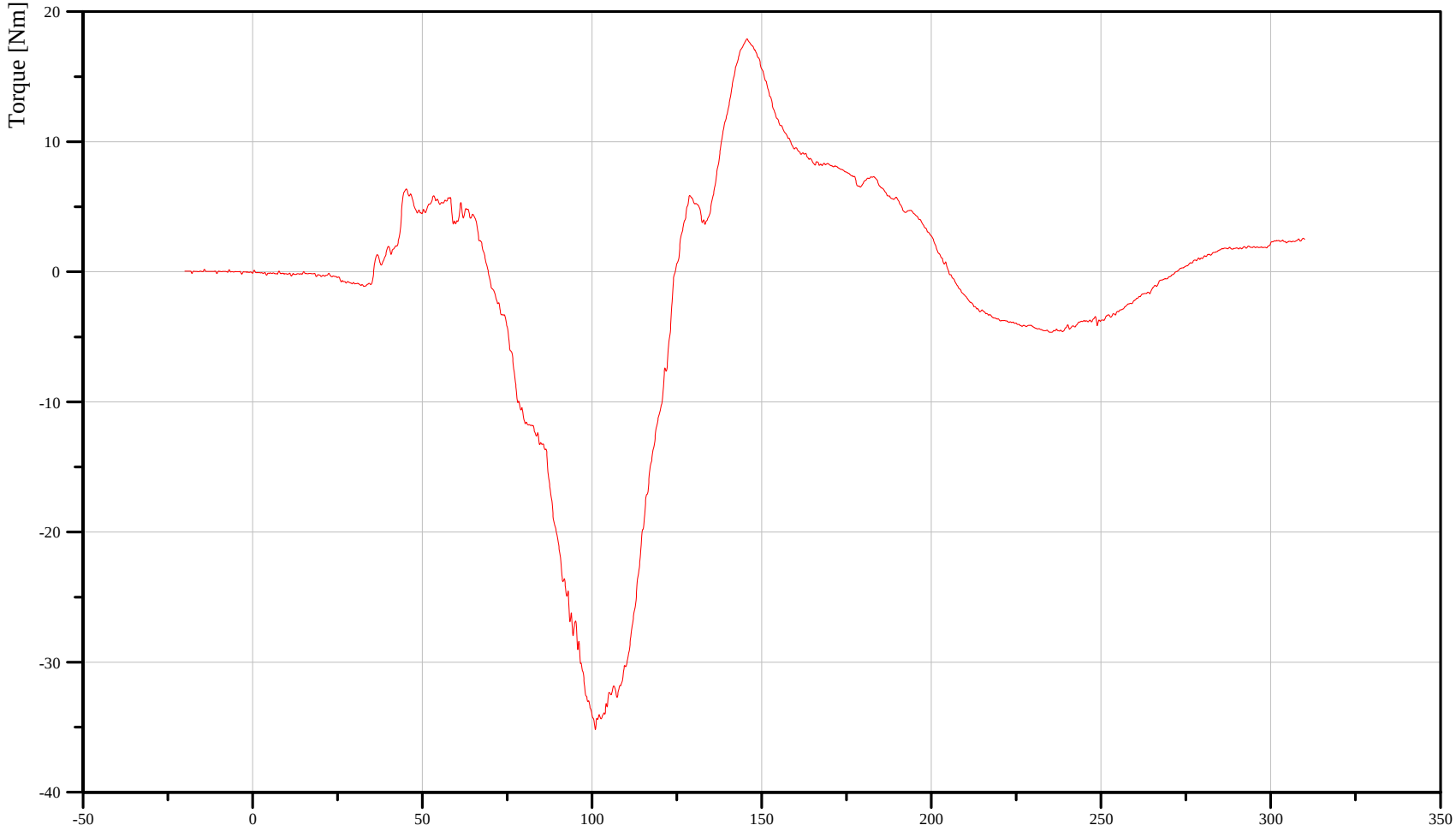
Passenger Right Lower Tibia Moment About X Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-35.17 Nm at 100.96 ms

Max. Value
17.91 Nm at 145.68 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

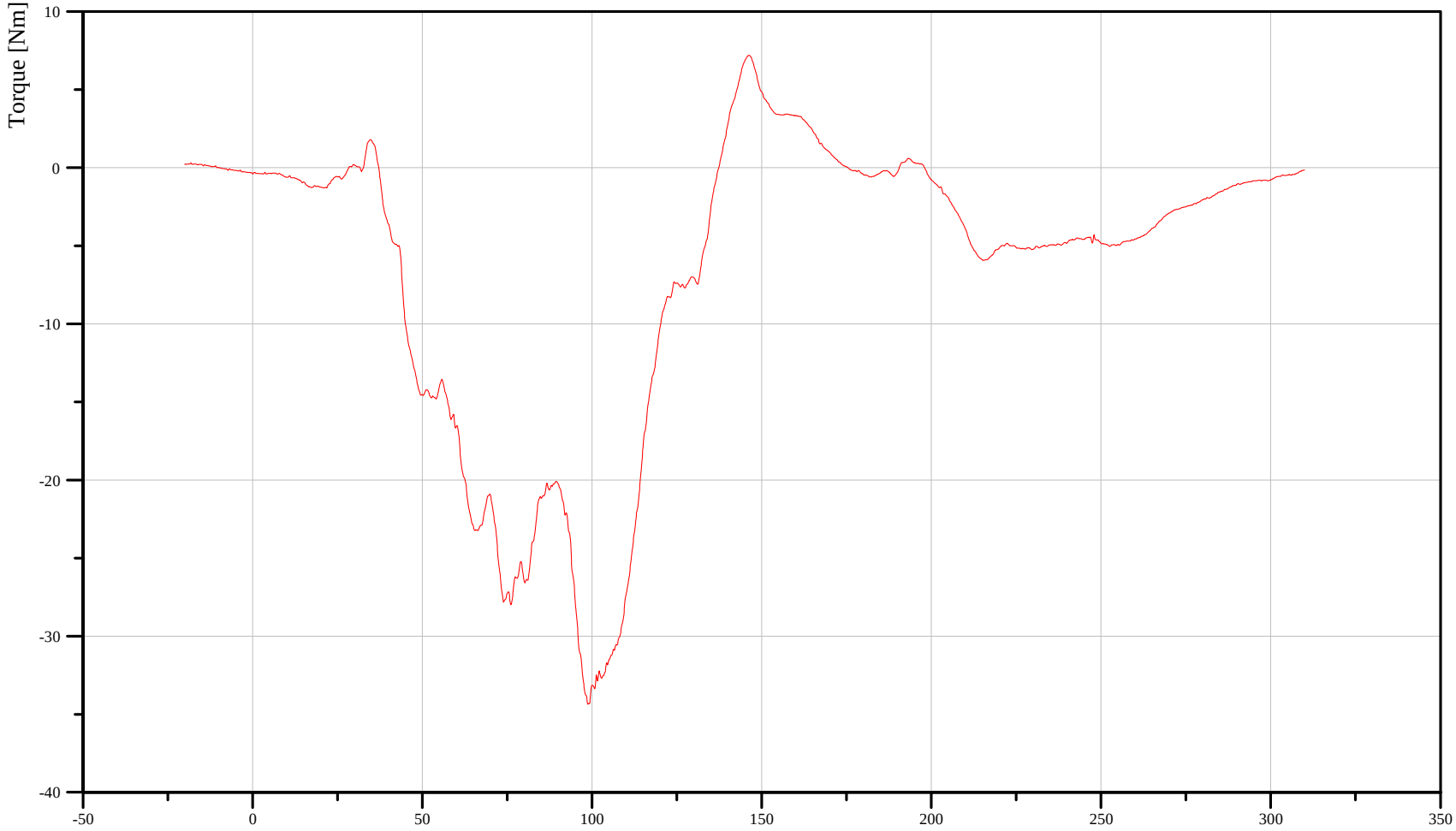
Passenger Right Lower Tibia Moment About Y Axis

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13TIBIRLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_600

Min. Value
-34.35 Nm at 98.80 ms

Max. Value
7.21 Nm at 146.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

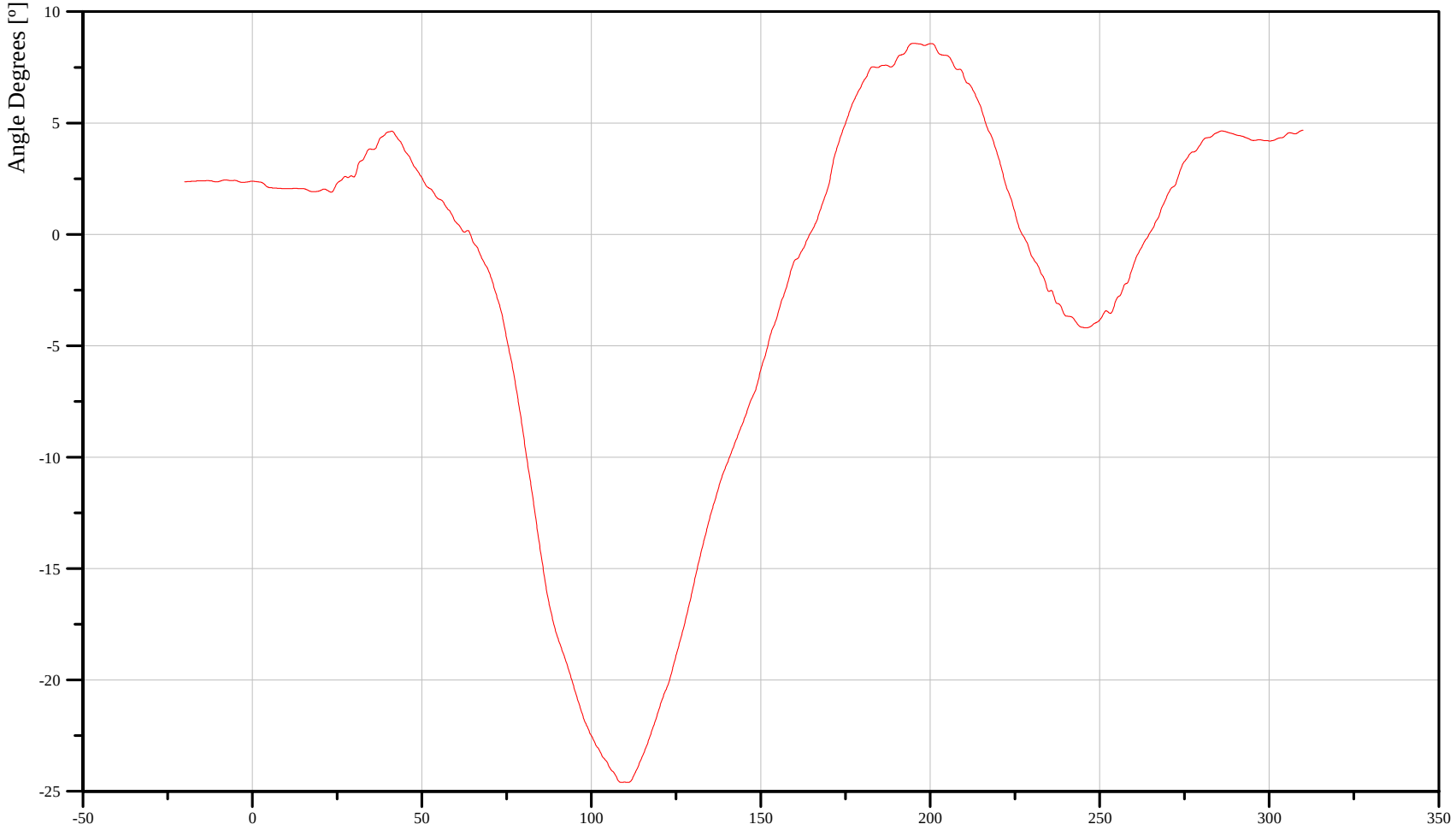
Passenger Right Foot X-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-24.60 ° at 108.88 ms

Max. Value
8.58 ° at 195.20 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

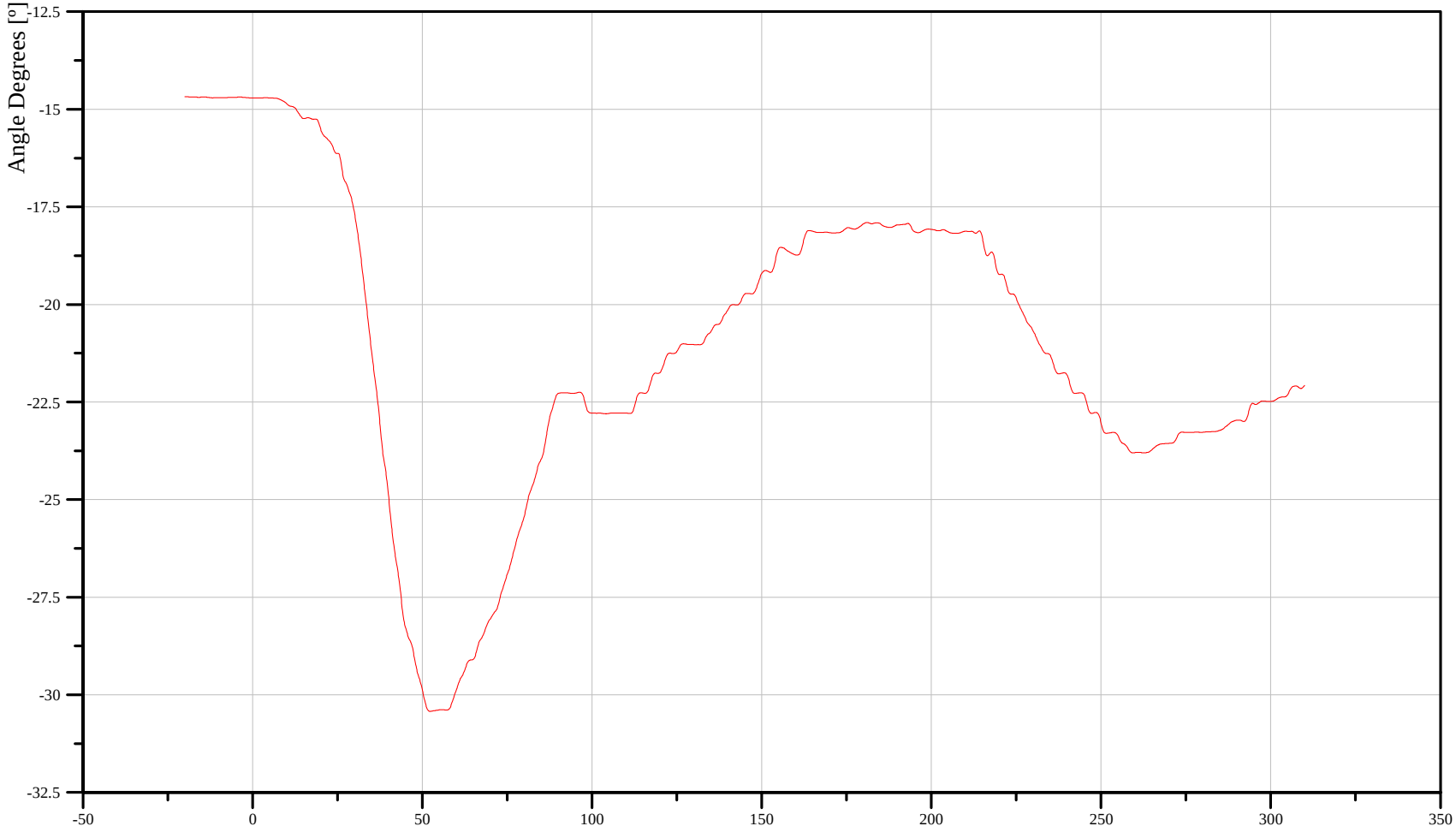
Passenger Right Foot Y-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-30.42 ° at 52.24 ms

Max. Value
-14.68 ° at -20.00 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

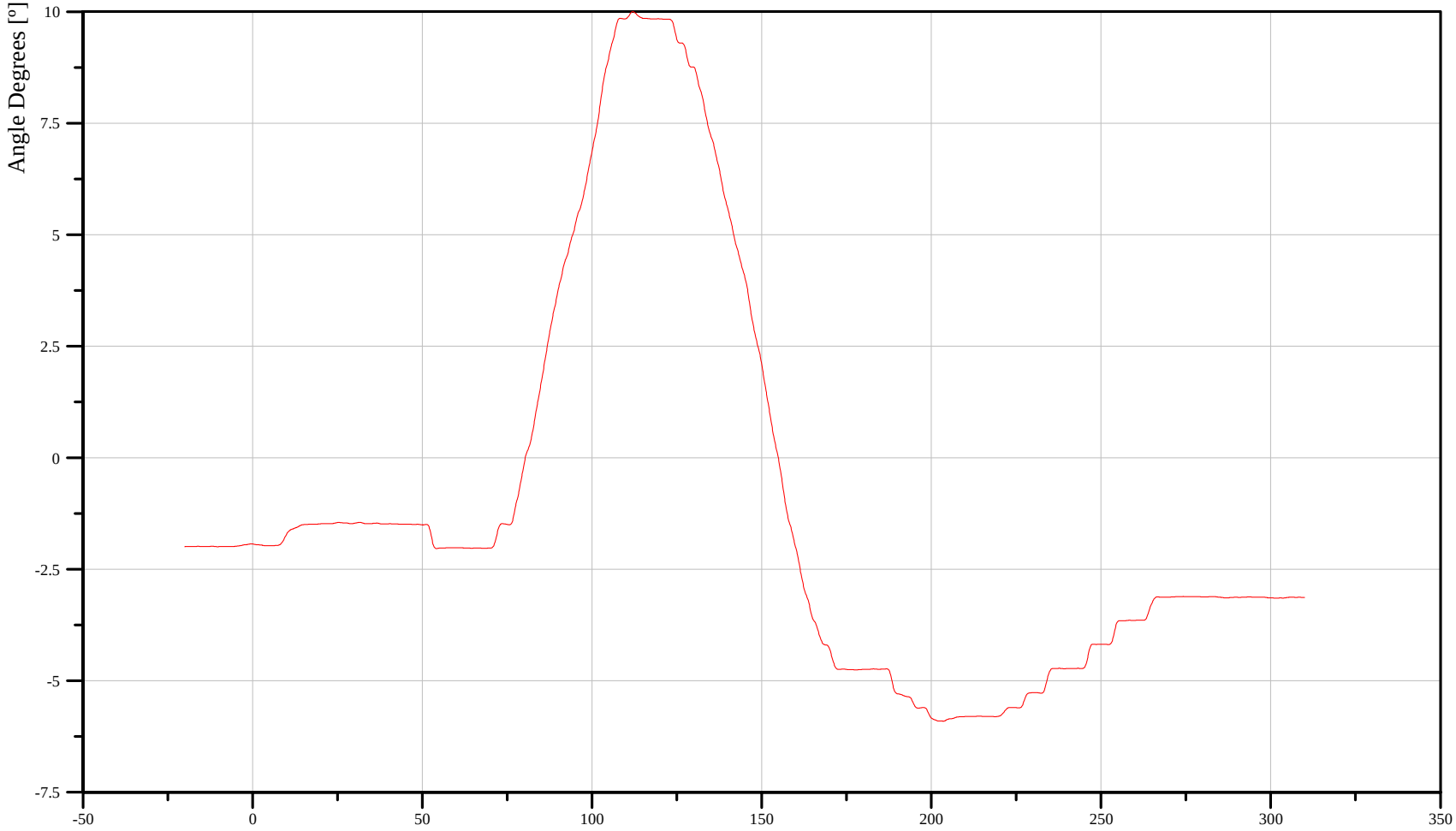
Passenger Right Foot Z-Axis Rotation

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-5.90 ° at 203.52 ms

Max. Value
10.00 ° at 112.00 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

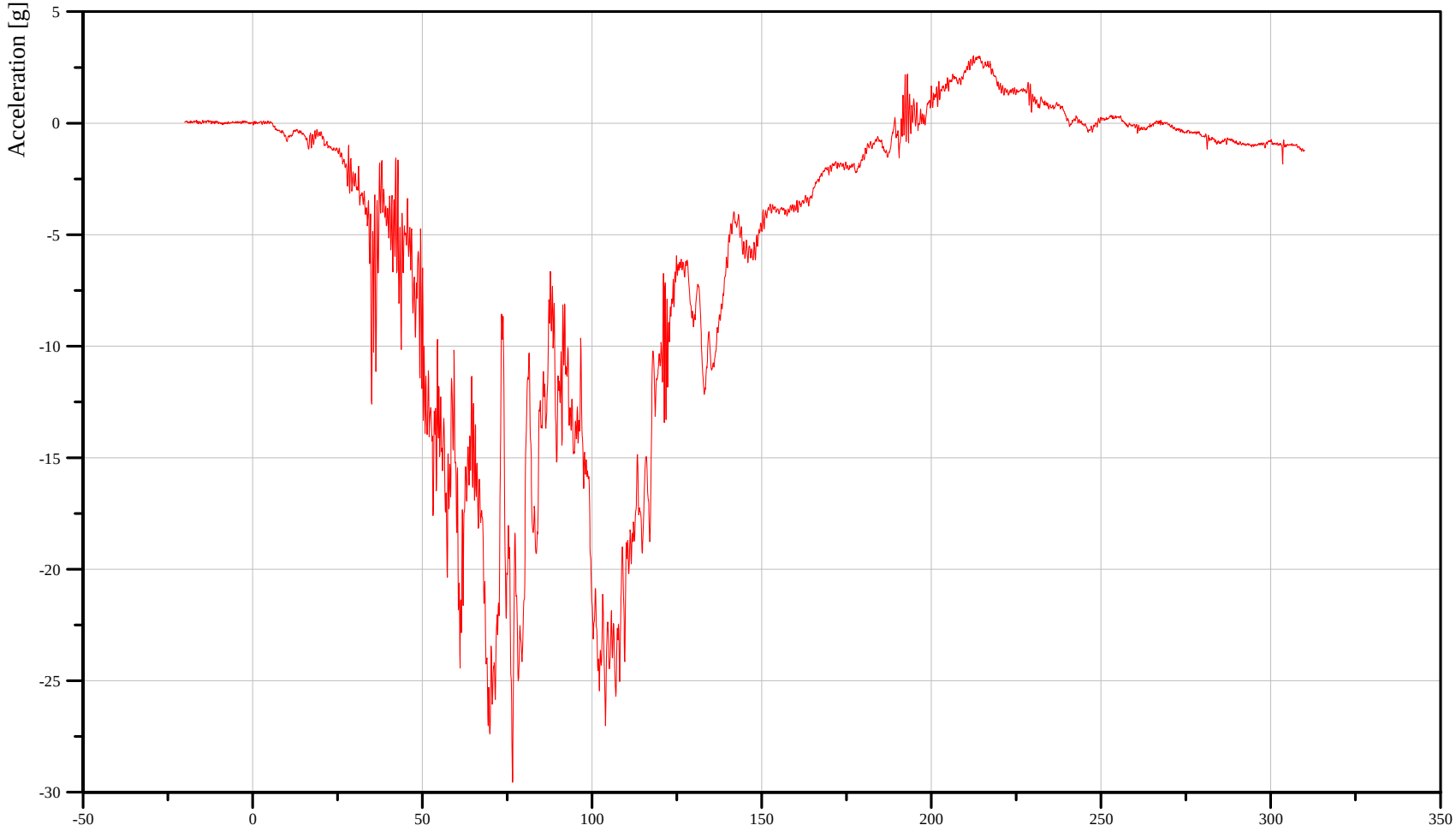
Passenger Right Foot X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-29.55 g at 76.56 ms

Max. Value
3.03 g at 212.40 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

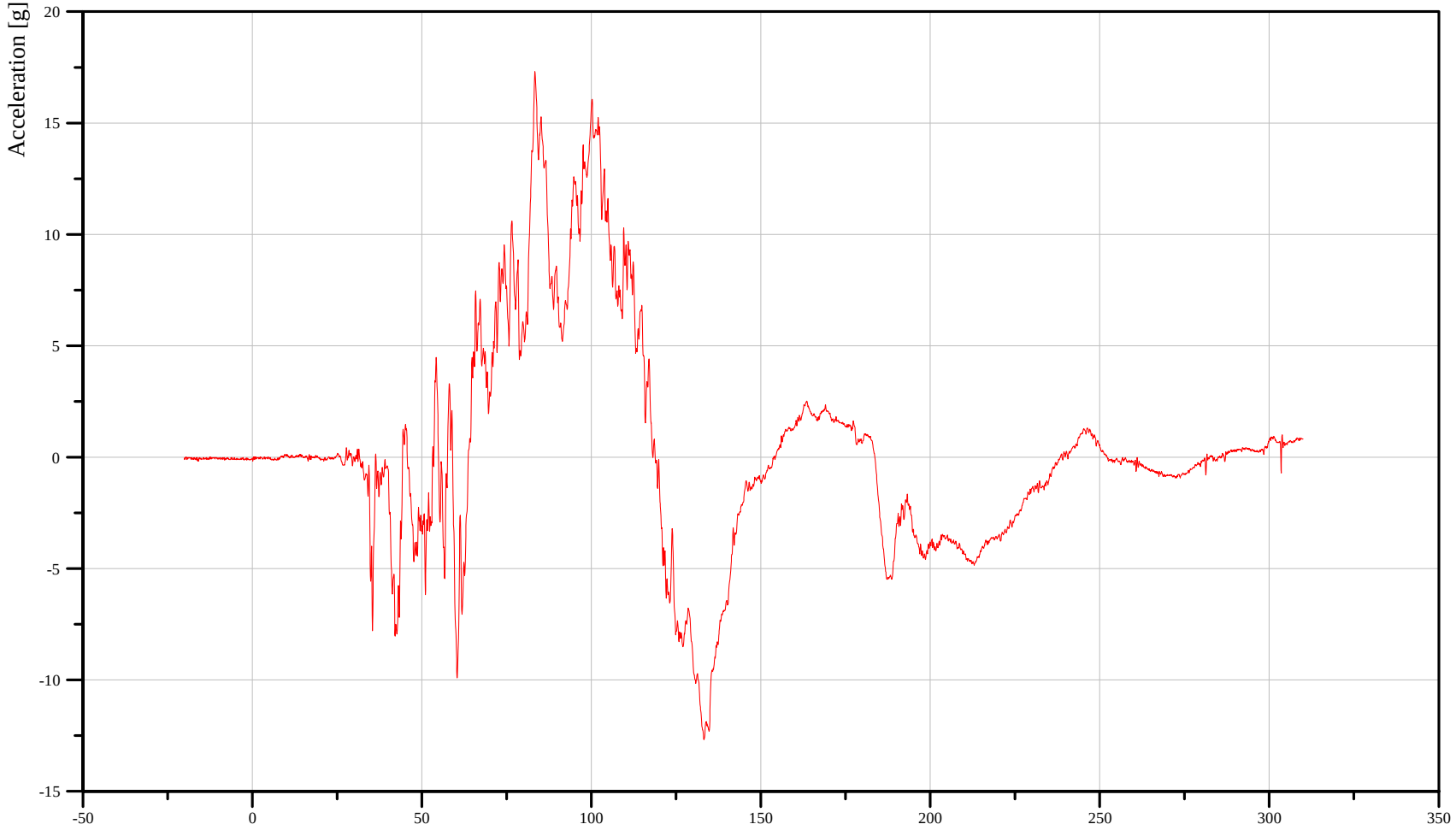
Passenger Right Foot Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-12.68 g at 133.28 ms

Max. Value
17.30 g at 83.36 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

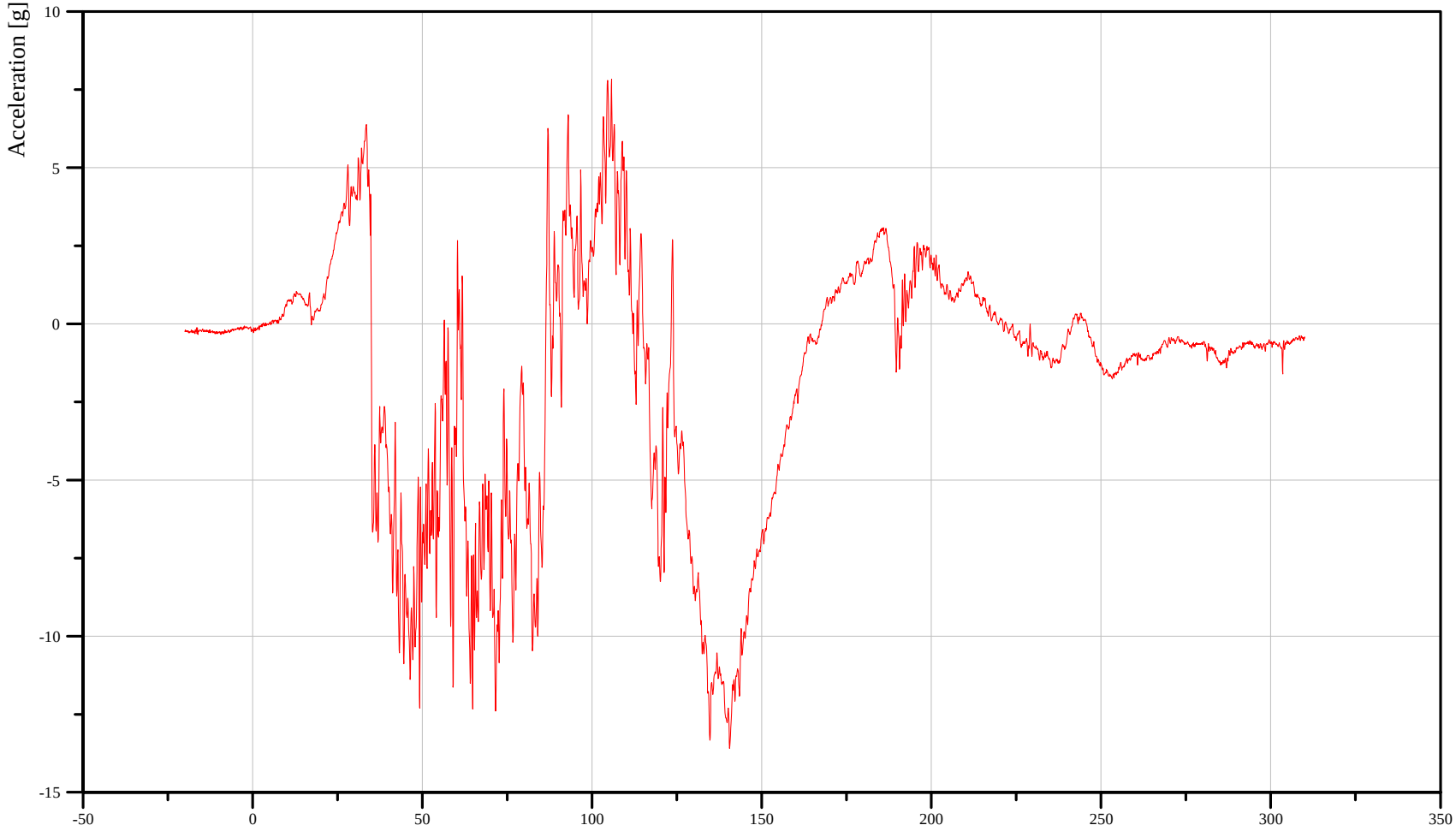
Passenger Right Foot Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-13.59 g at 140.56 ms

Max. Value
7.83 g at 105.76 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

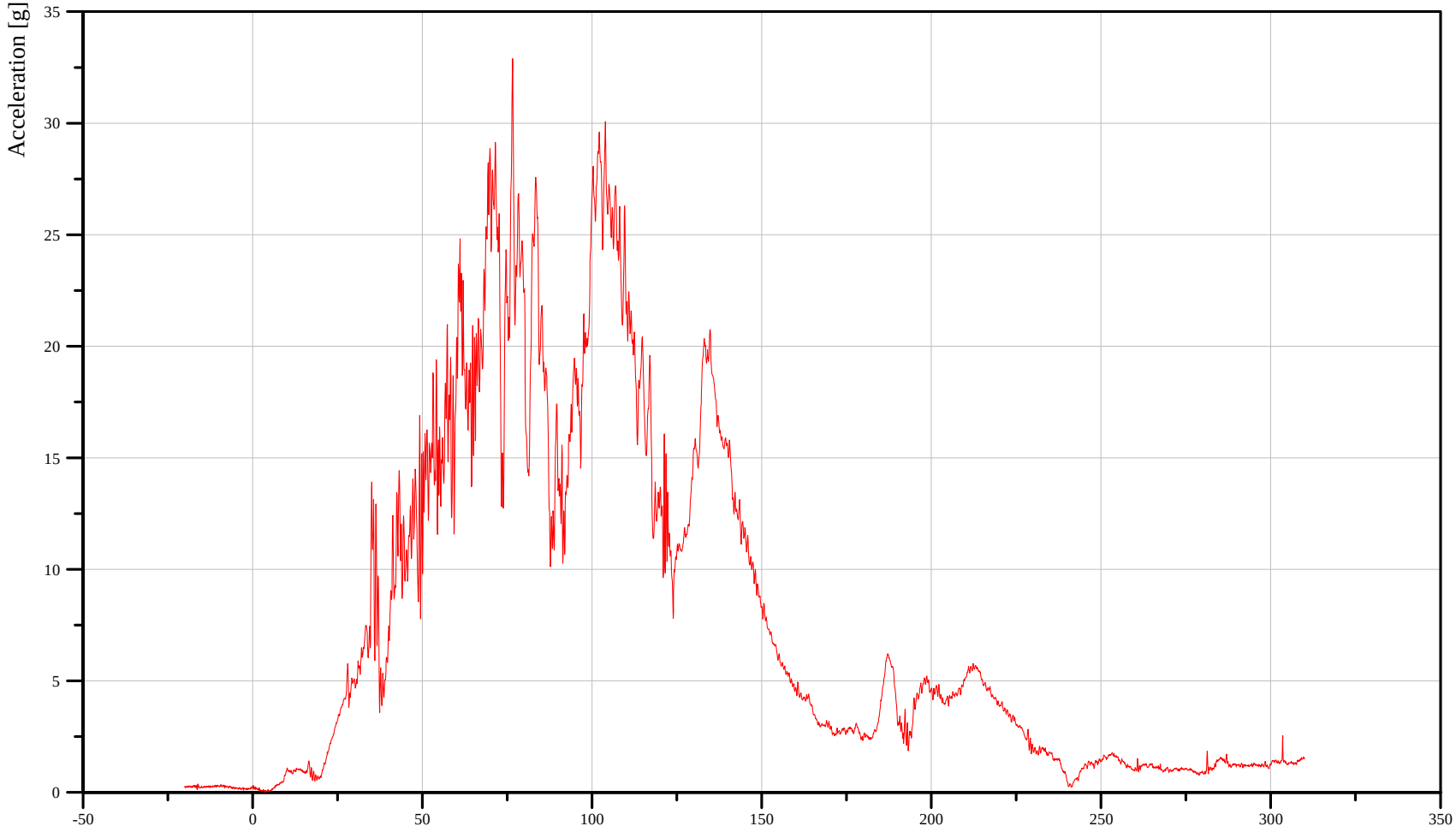
Passenger Right Foot Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13FOOTRILXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
0.01 g at 3.60 ms

Max. Value
32.90 g at 76.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

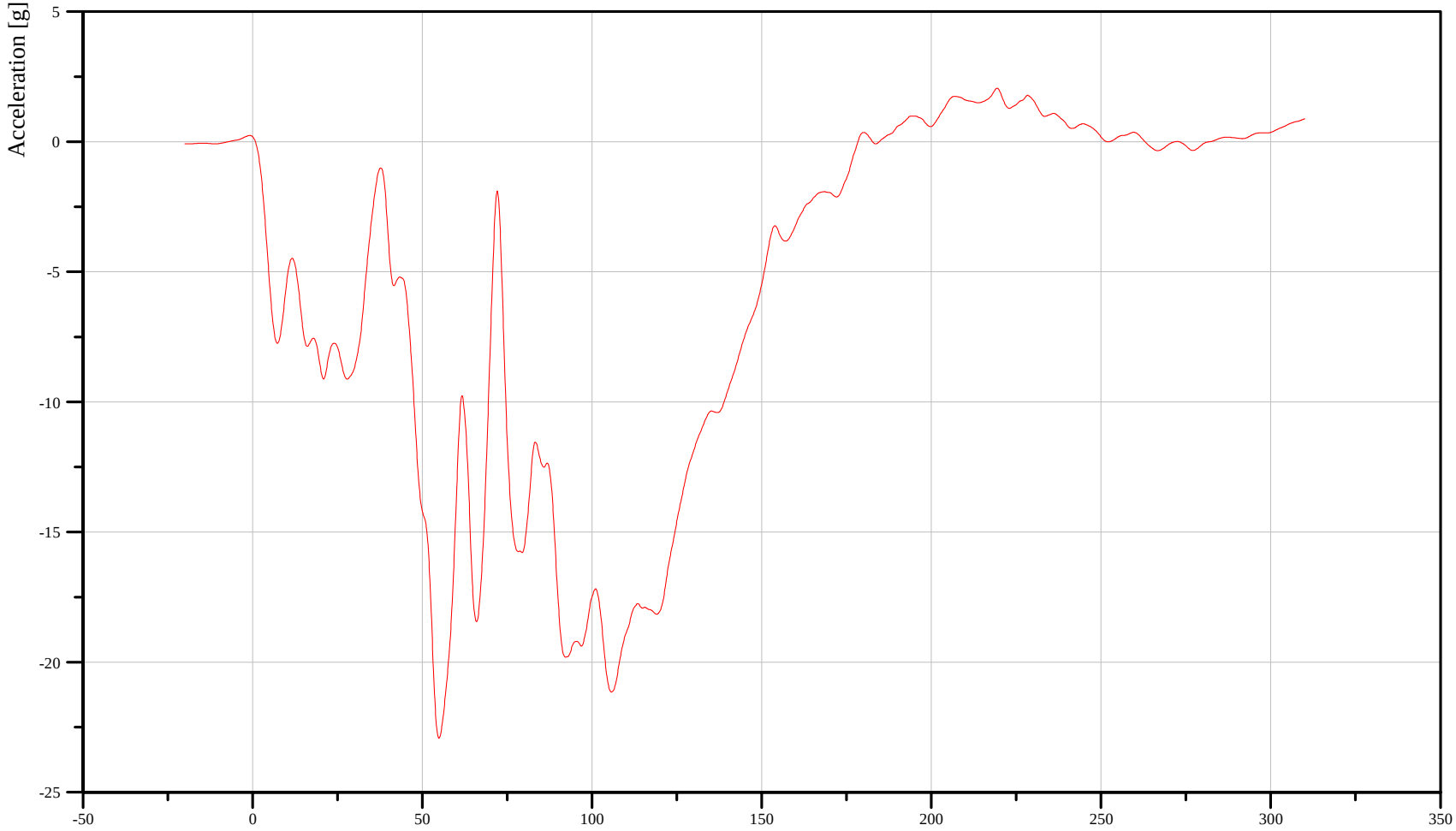
Left Rear Seat Cross-Member X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

14CRMEOOOOOOACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-22.92 g at 54.88 ms

Max. Value
2.06 g at 219.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

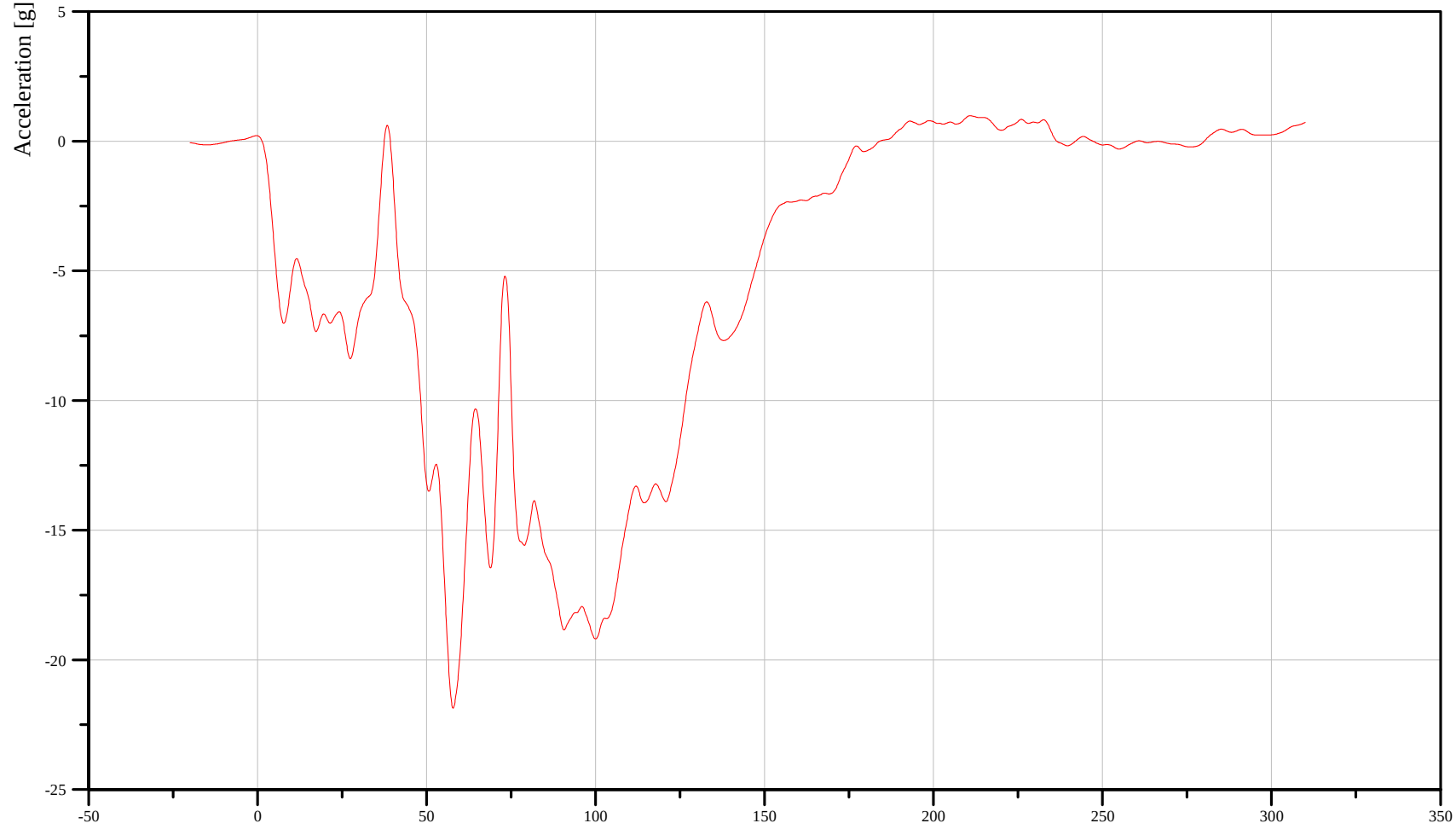
Right Rear Seat Cross-Member X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

16CRME000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-21.86 g at 57.84 ms

Max. Value
0.99 g at 210.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

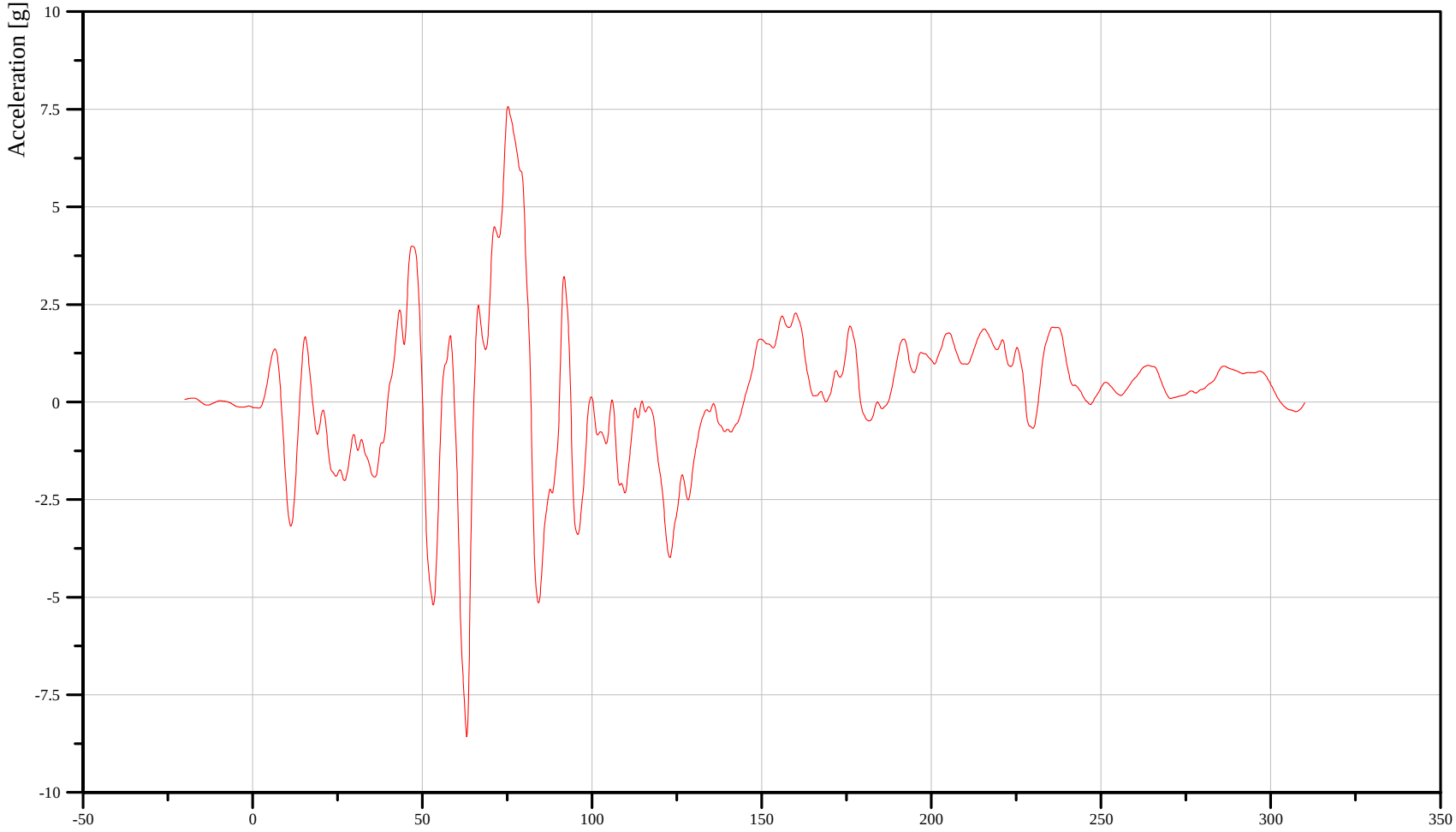
Left Rear Seat Cross-Member Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

14CRMEOOOOOOACZD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-8.57 g at 63.12 ms

Max. Value
7.57 g at 75.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

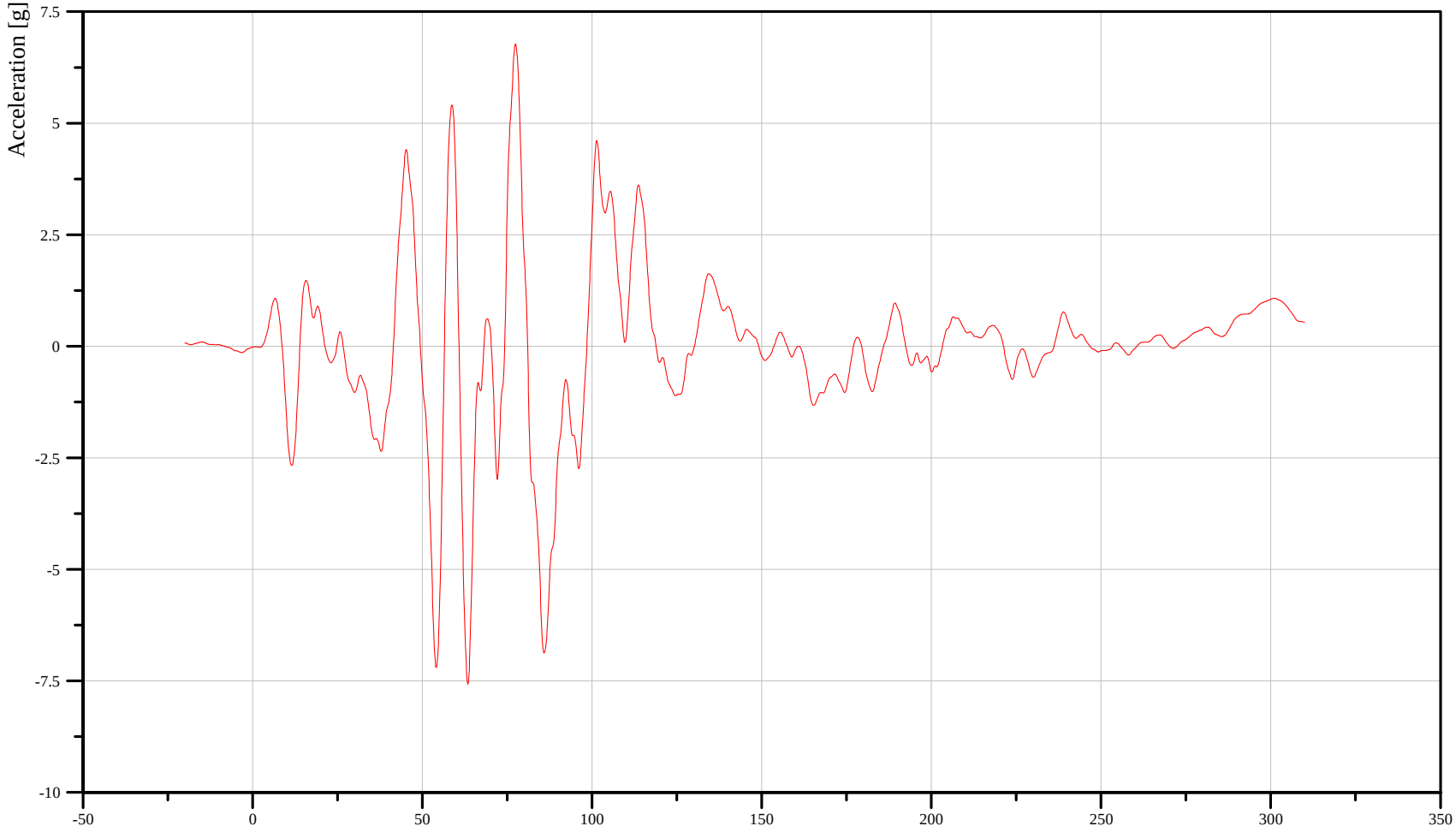
Right Rear Seat Cross-Member Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

16CRME000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-7.57 g at 63.44 ms

Max. Value
6.78 g at 77.44 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

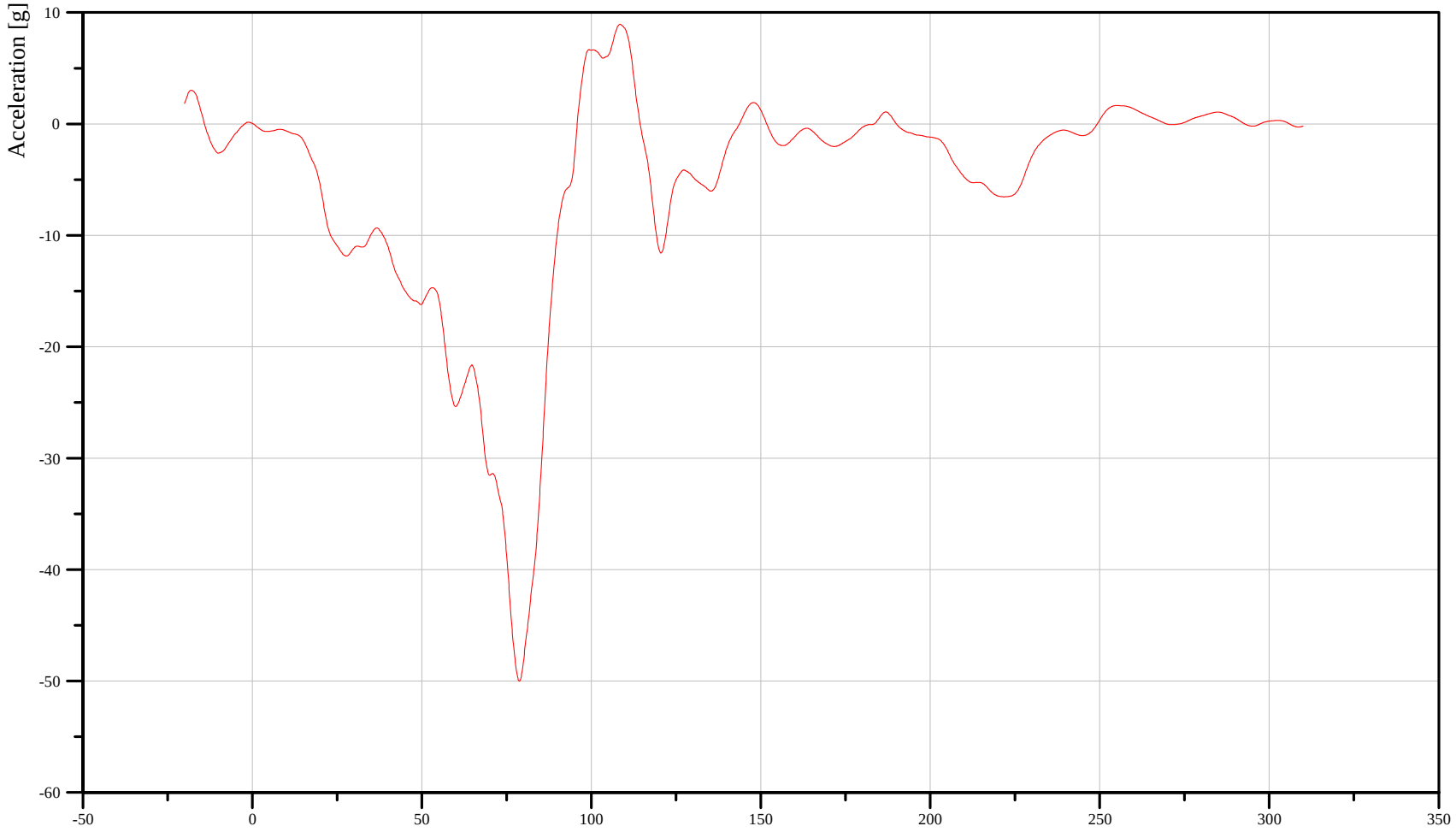
Top of Engine Block X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

12ENGNTP0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-50.01 g at 78.80 ms

Max. Value
8.93 g at 108.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

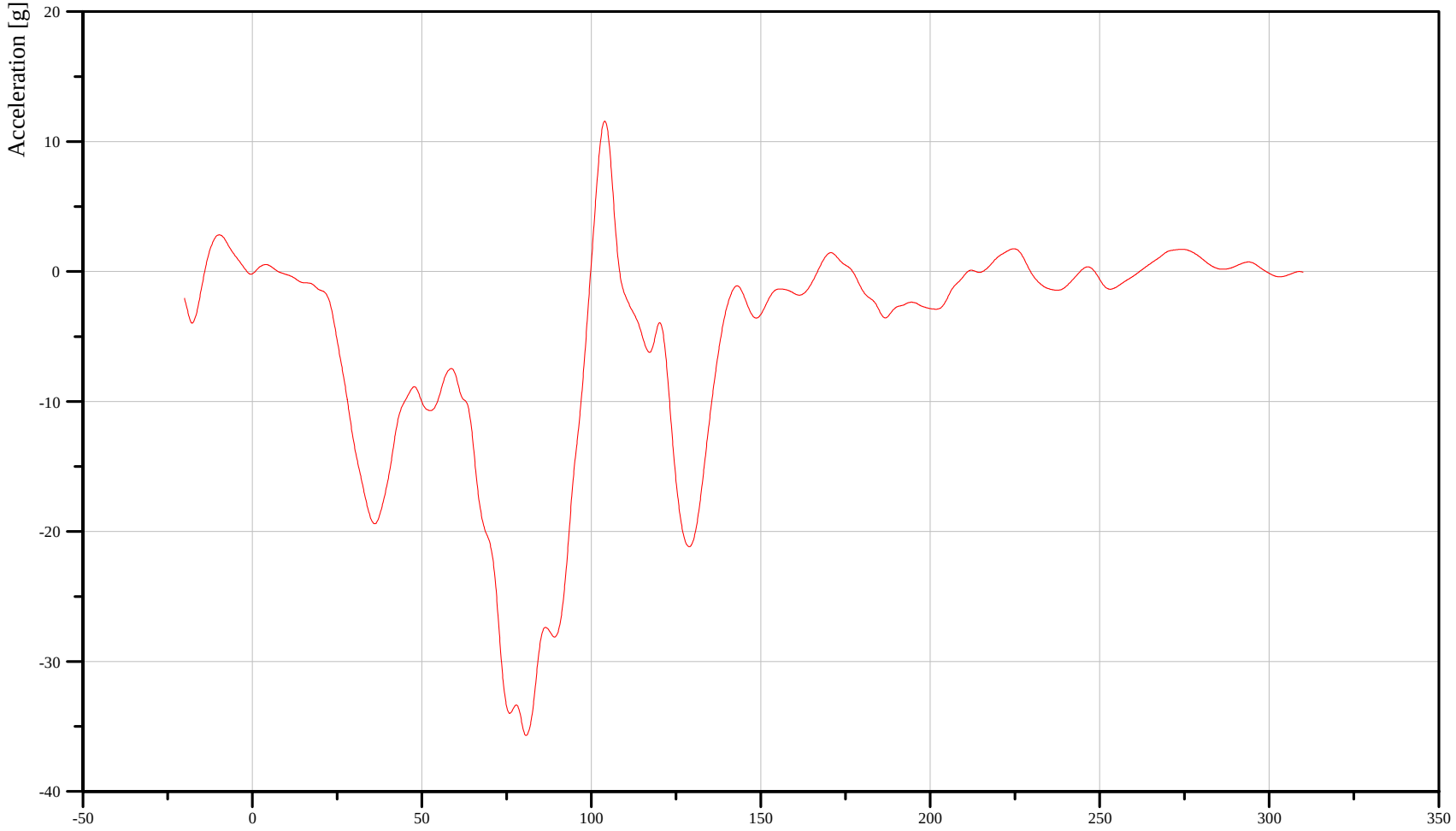
Bottom of Engine Block X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

12ENGNBO0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-35.69 g at 80.72 ms

Max. Value
11.58 g at 104.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

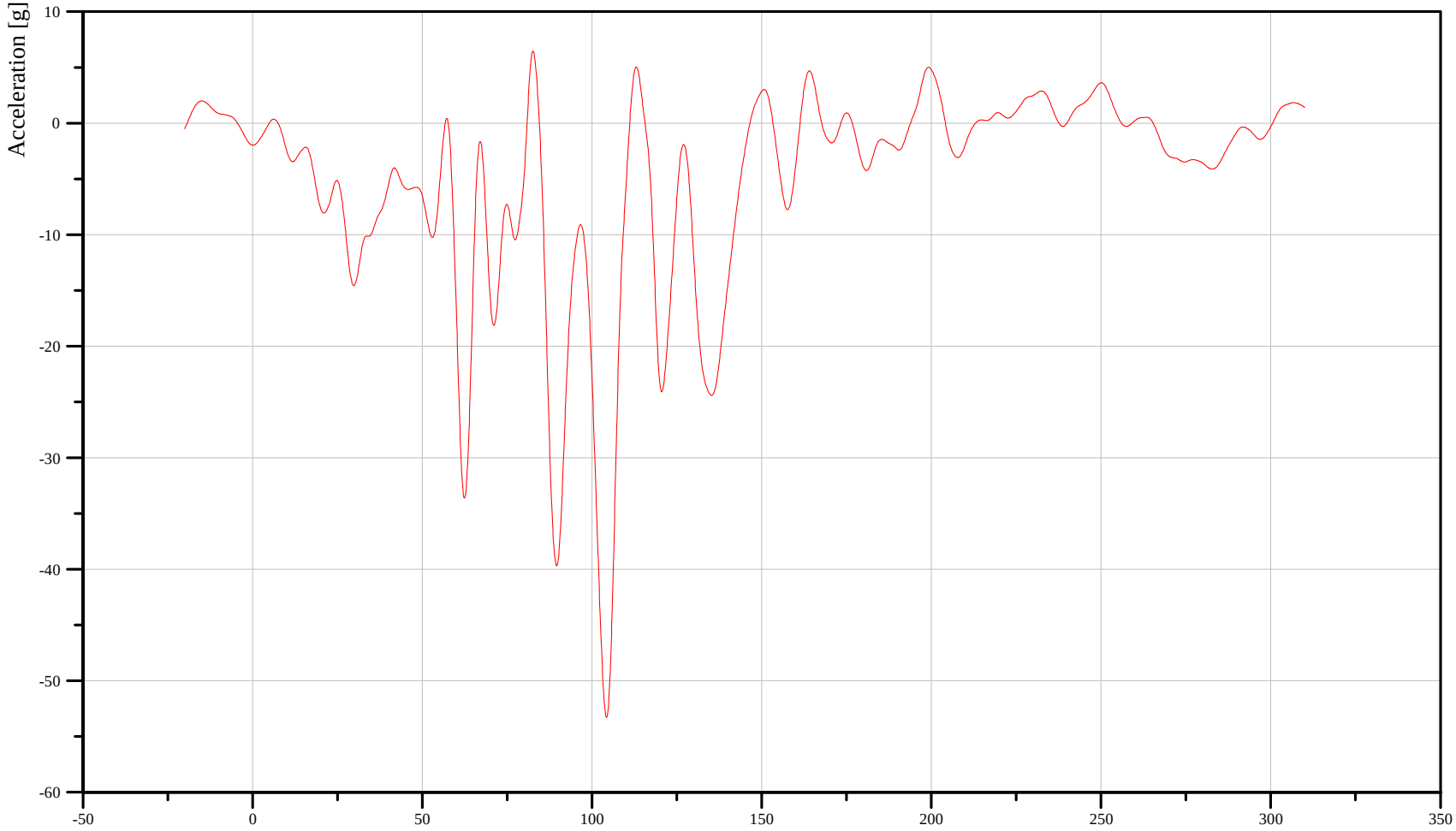
Right Brake Caliper X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13VEHCRI0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-53.28 g at 104.32 ms

Max. Value
6.45 g at 82.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

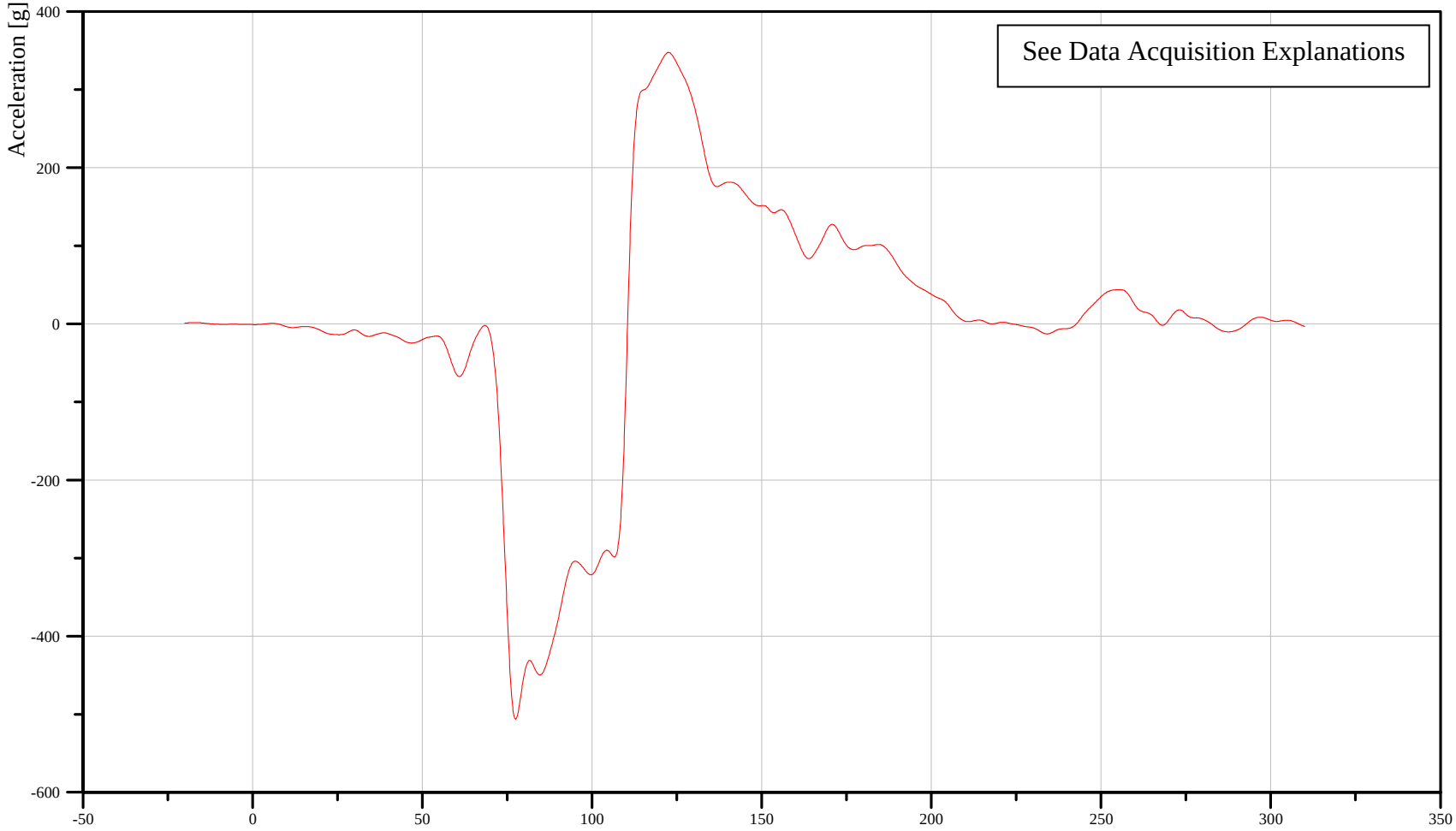
Left Brake Caliper X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11VEHCLE0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-506.32 g at 77.52 ms

Max. Value
347.71 g at 122.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

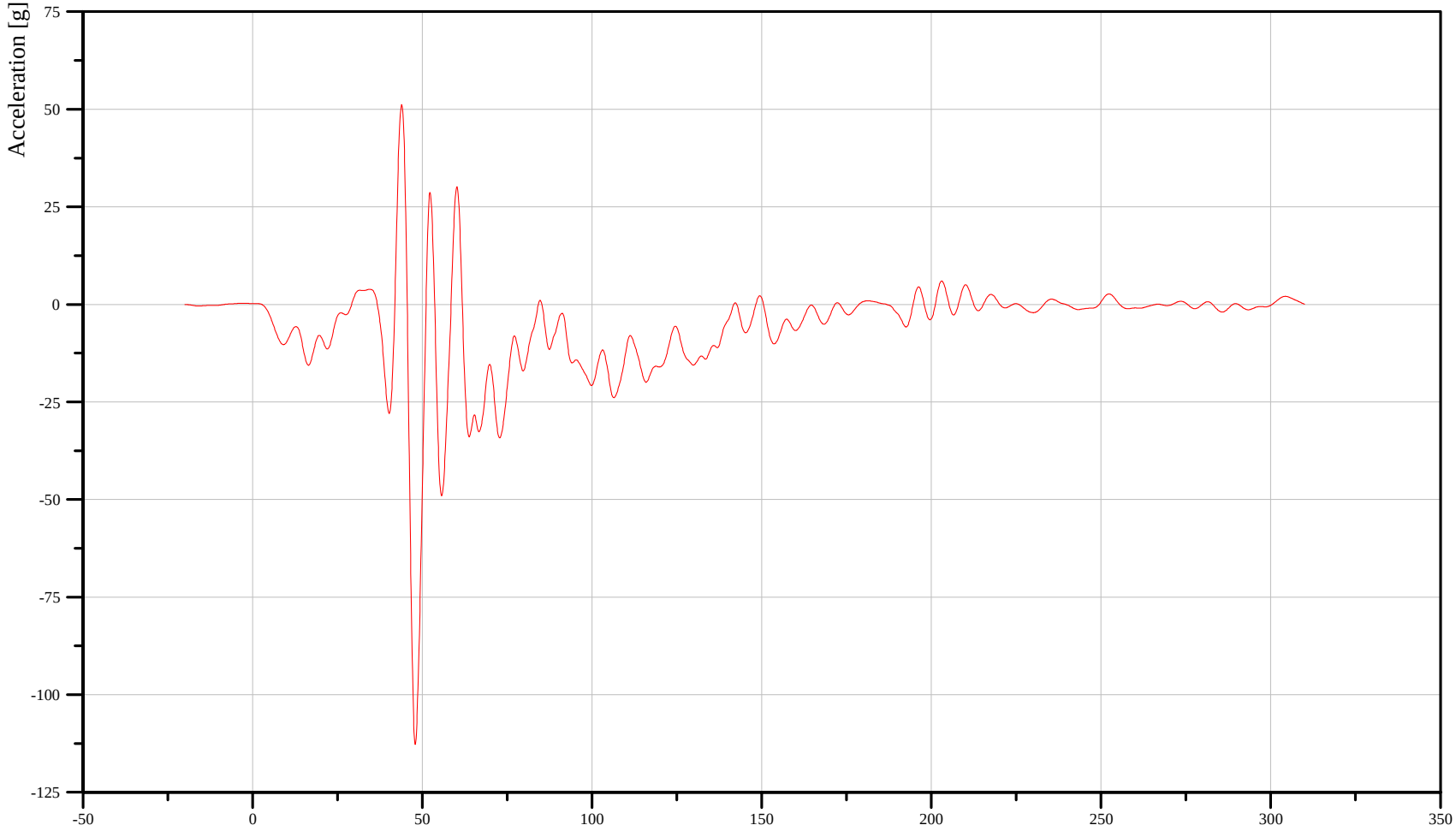
Instrument Panel X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

12DASH000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-112.74 g at 47.92 ms

Max. Value
51.23 g at 43.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

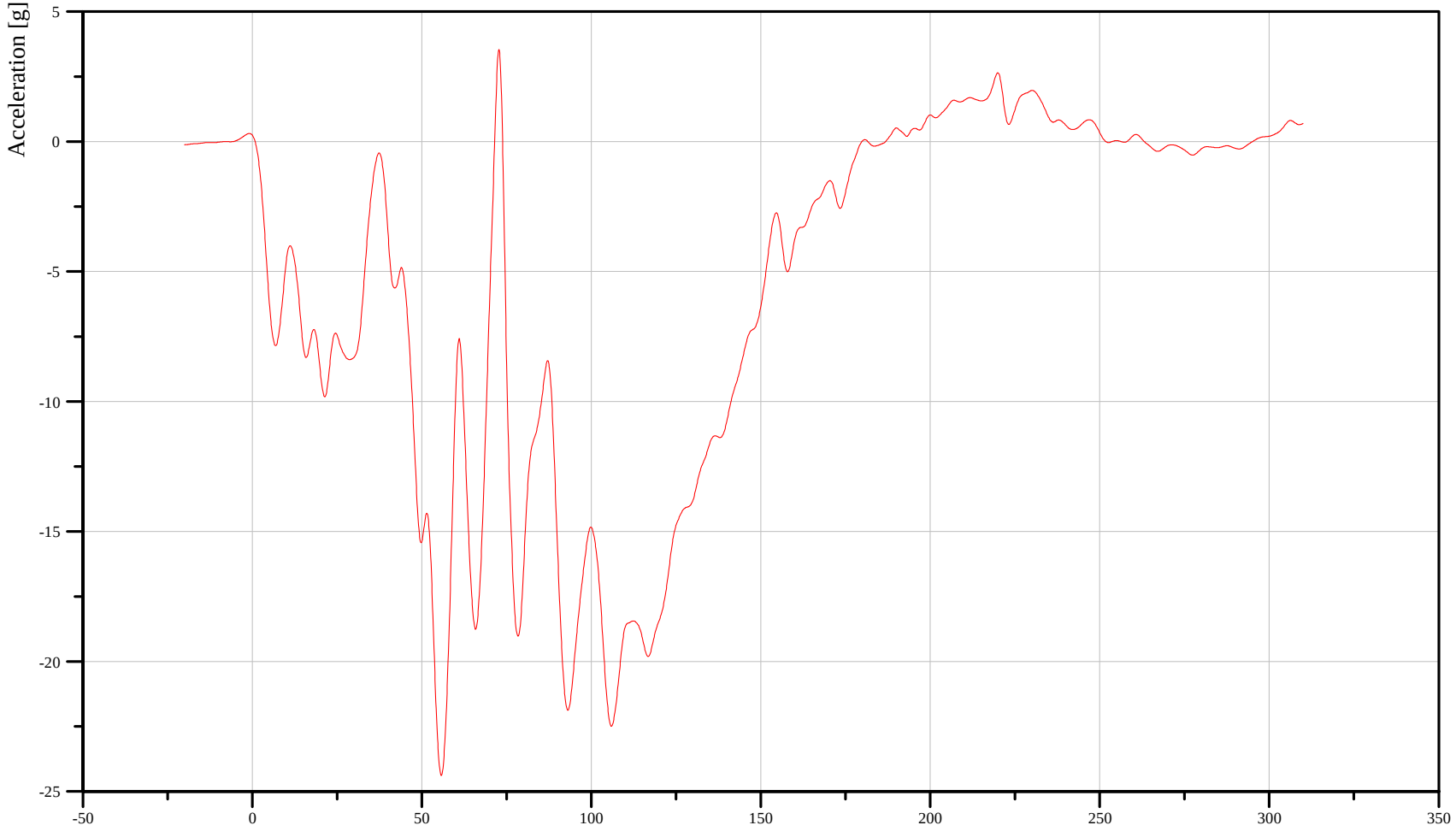
Left Side Driver Mid Seat Track X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11SETR000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-24.39 g at 55.76 ms

Max. Value
3.54 g at 72.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

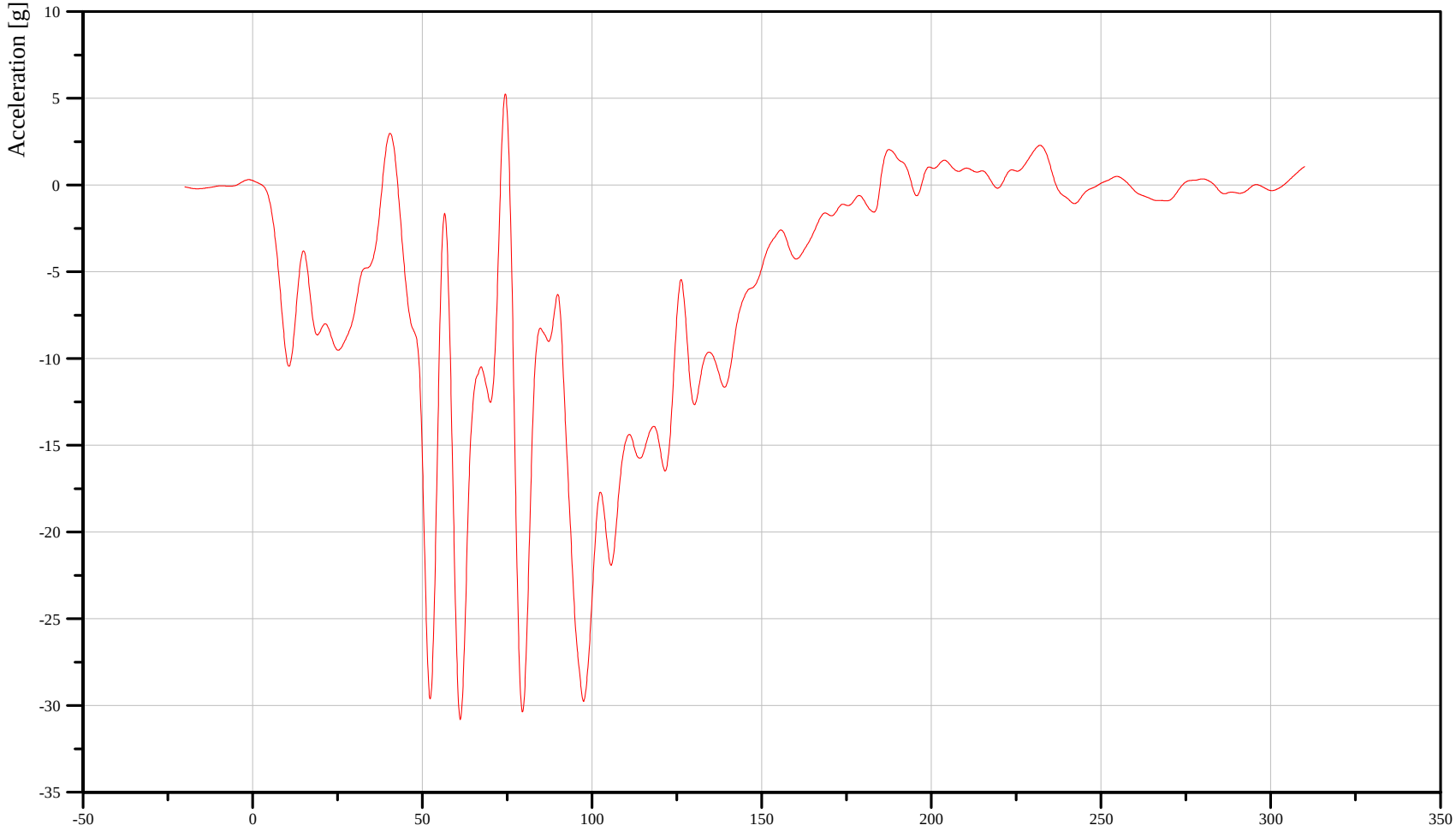
Vehicle CG X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-30.81 g at 61.20 ms

Max. Value
5.26 g at 74.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

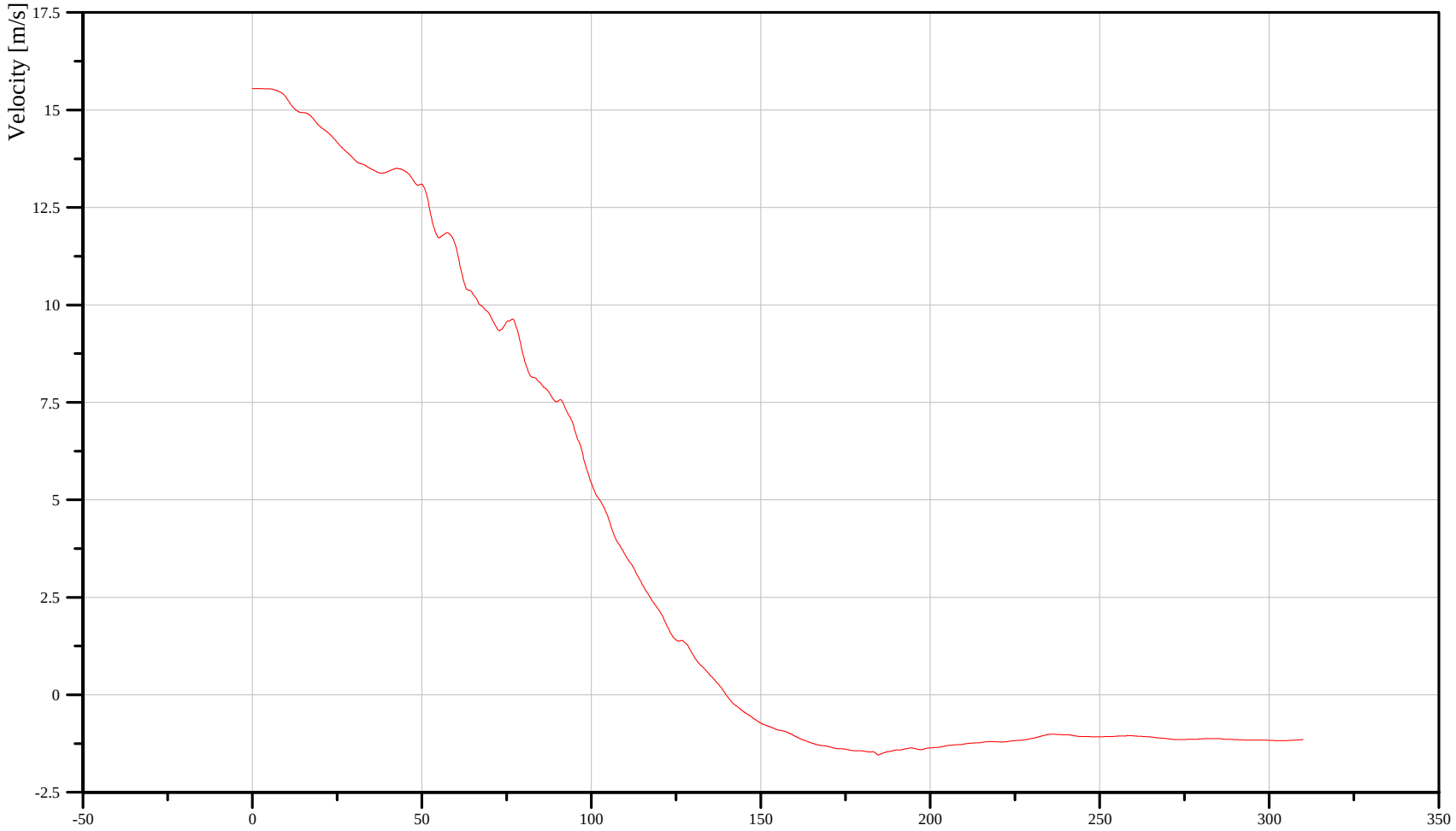
Vehicle CG X-Axis Velocity

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-1.54 m/s at 184.72 ms

Max. Value
15.55 m/s at 1.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

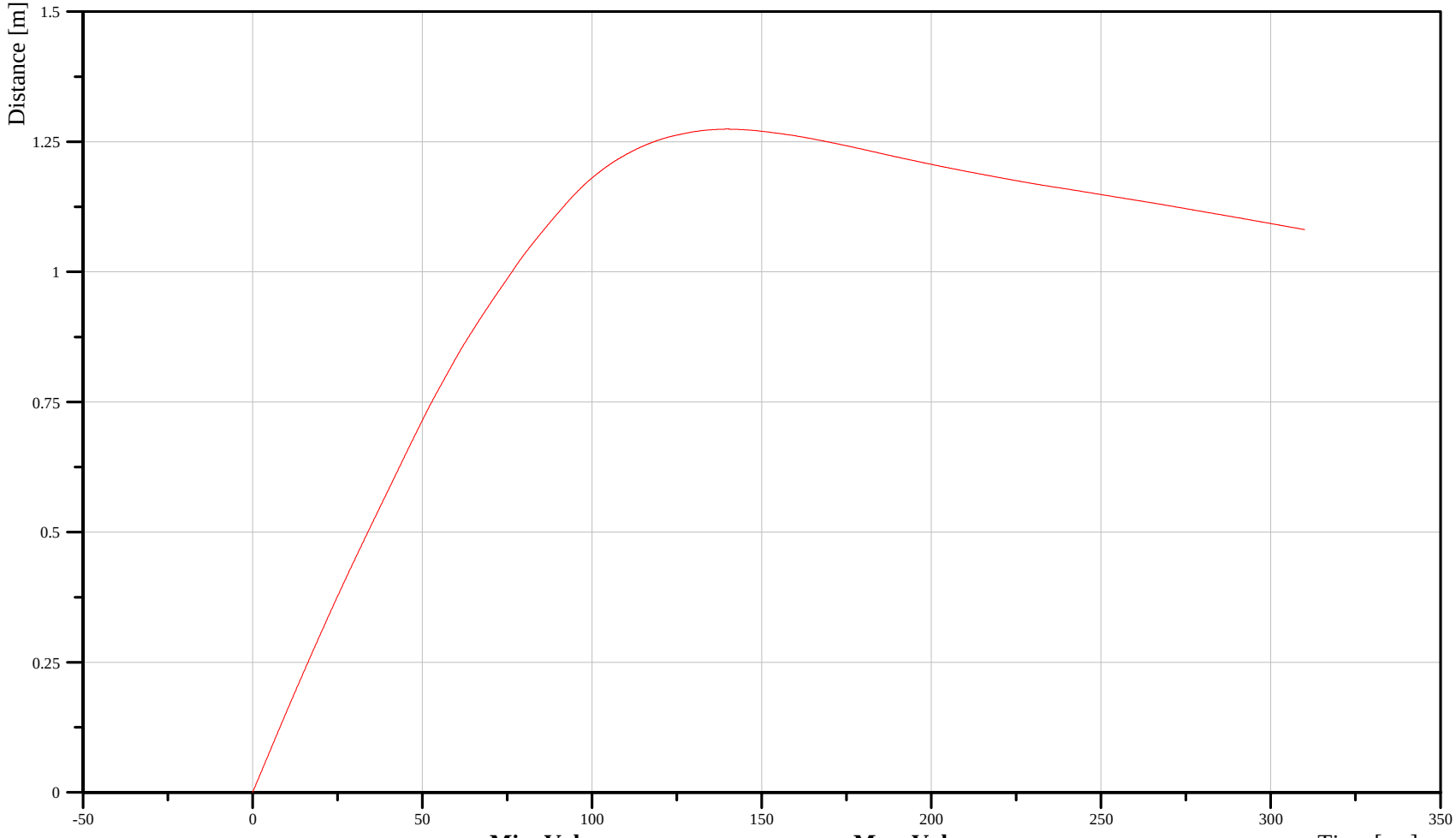
Vehicle CG X-Axis Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000DCXC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.00 m at 0.00 ms

Max. Value
1.27 m at 139.76 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

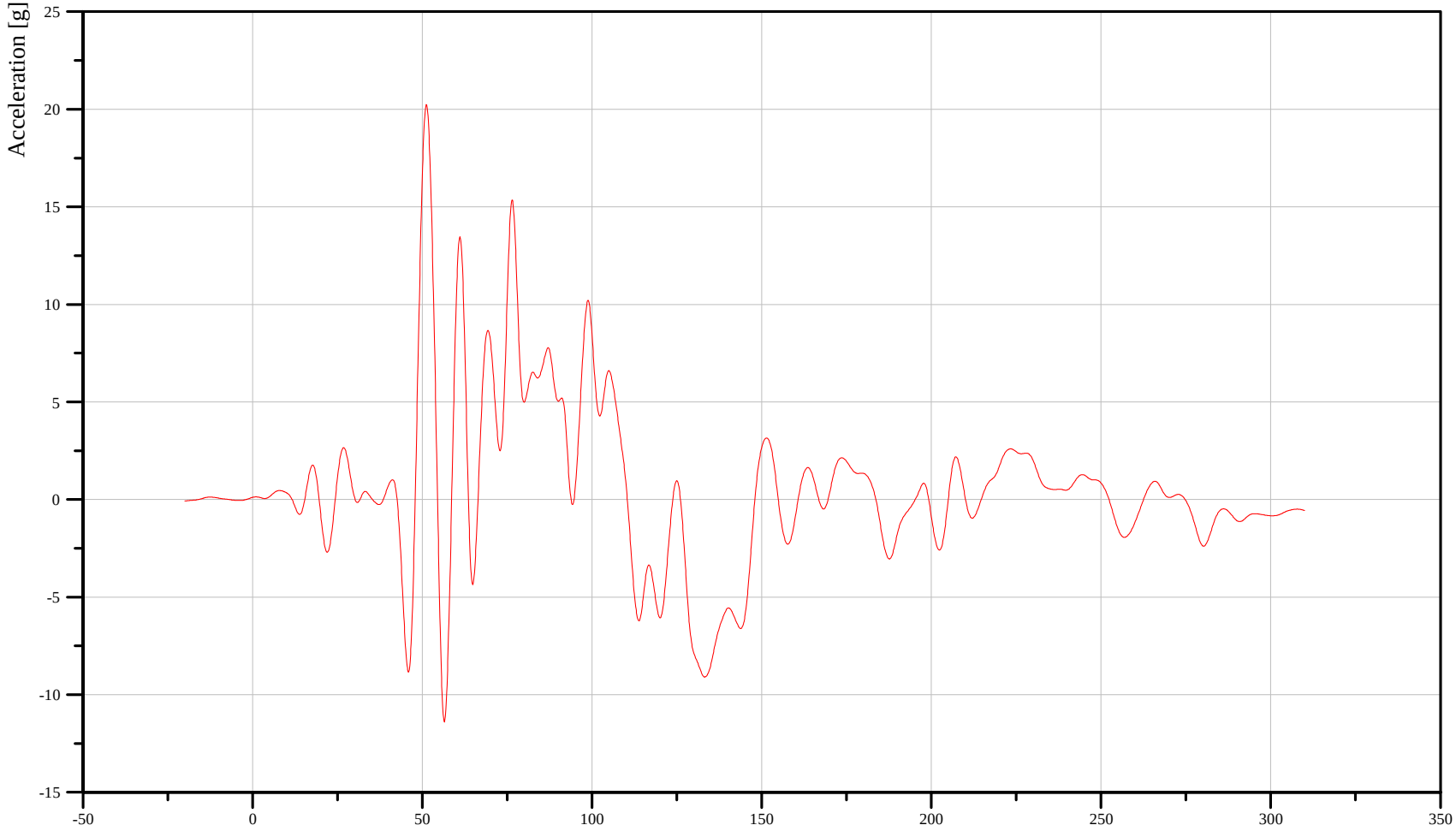
Vehicle CG Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-11.40 g at 56.48 ms

Max. Value
20.24 g at 51.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

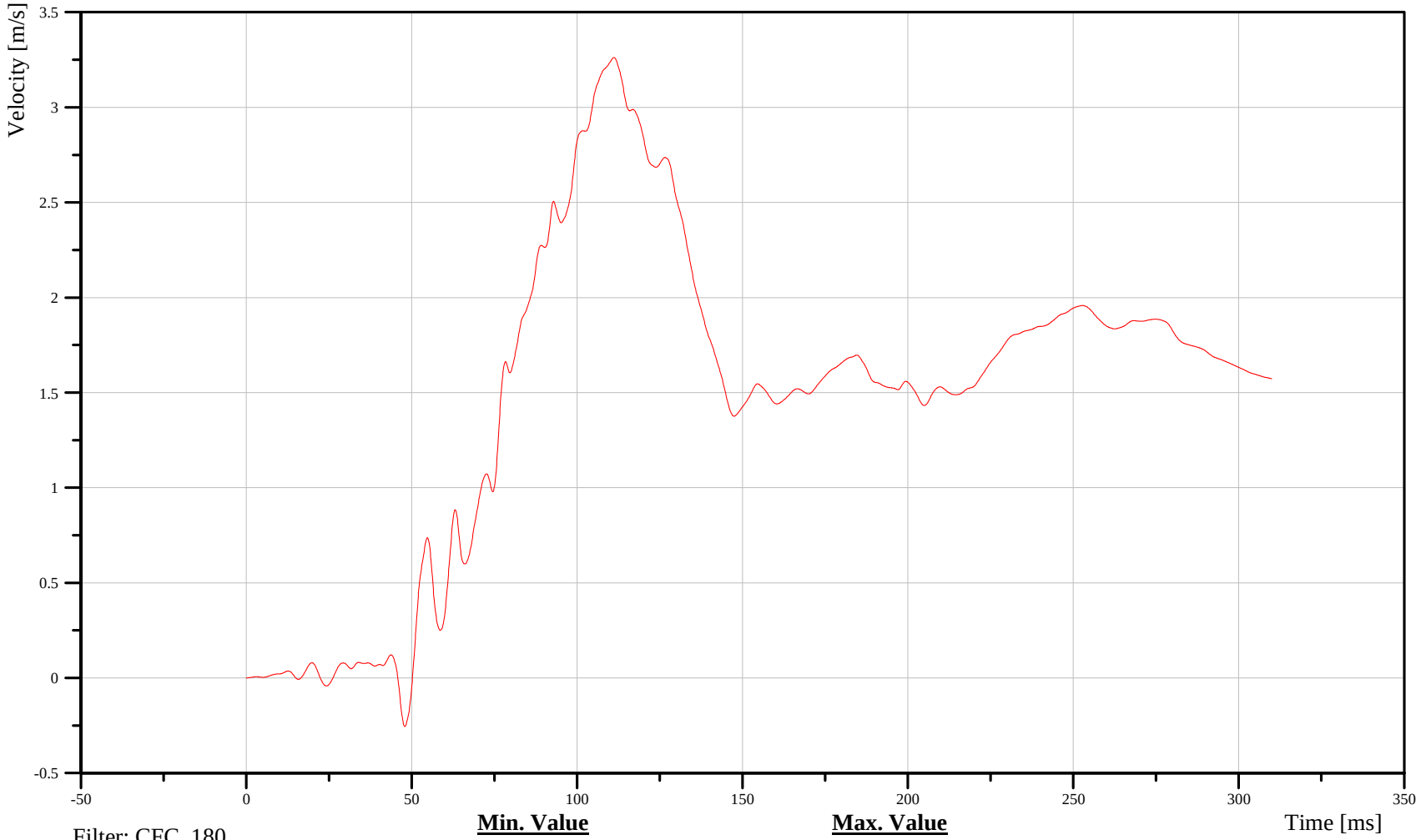
Vehicle CG Y-Axis Velocity

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-0.25 m/s at 47.92 ms

Max. Value
3.26 m/s at 111.20 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

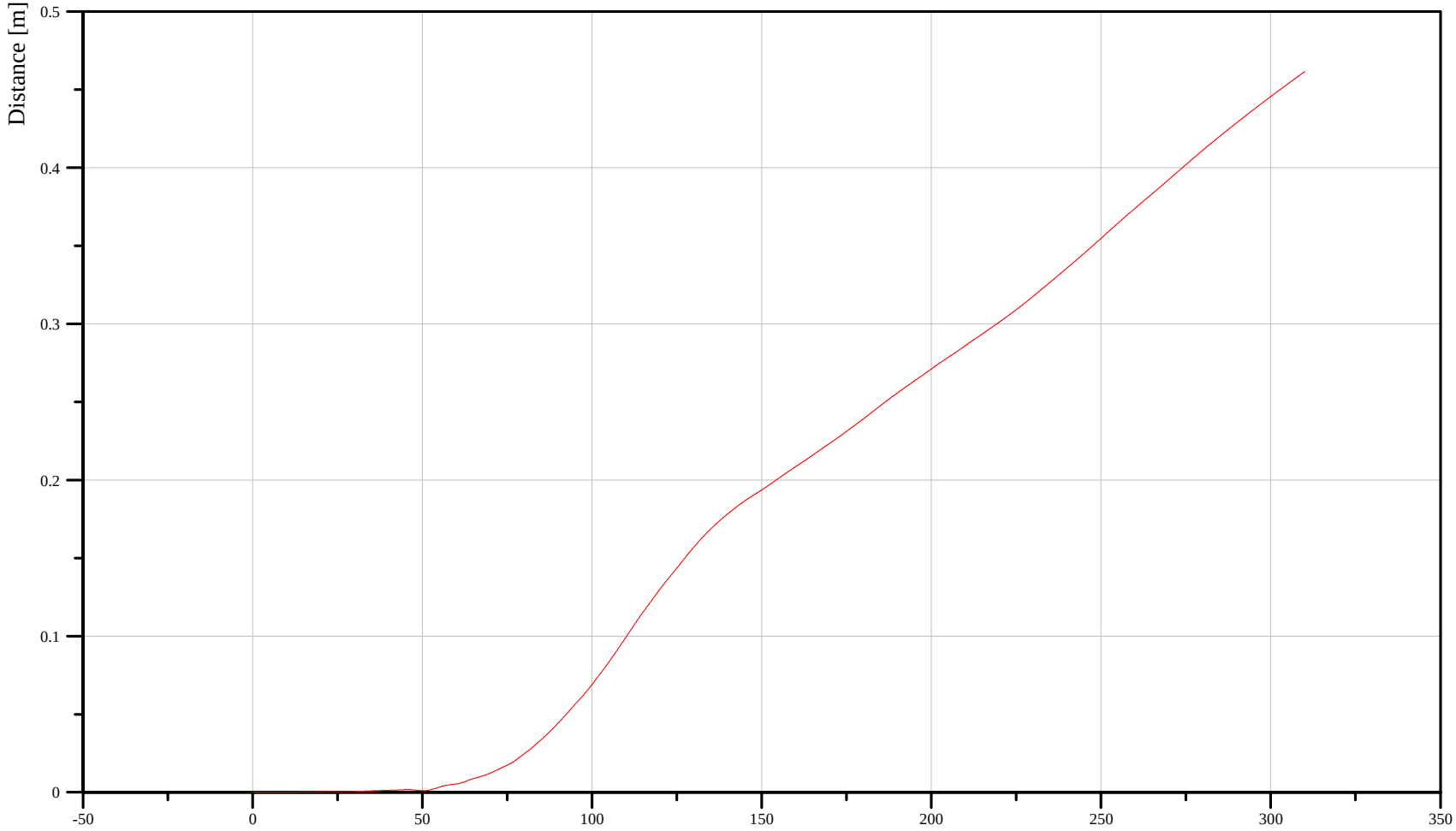
Vehicle CG Y-Axis Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
0.00 m at 0.00 ms

Max. Value
0.46 m at 310.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

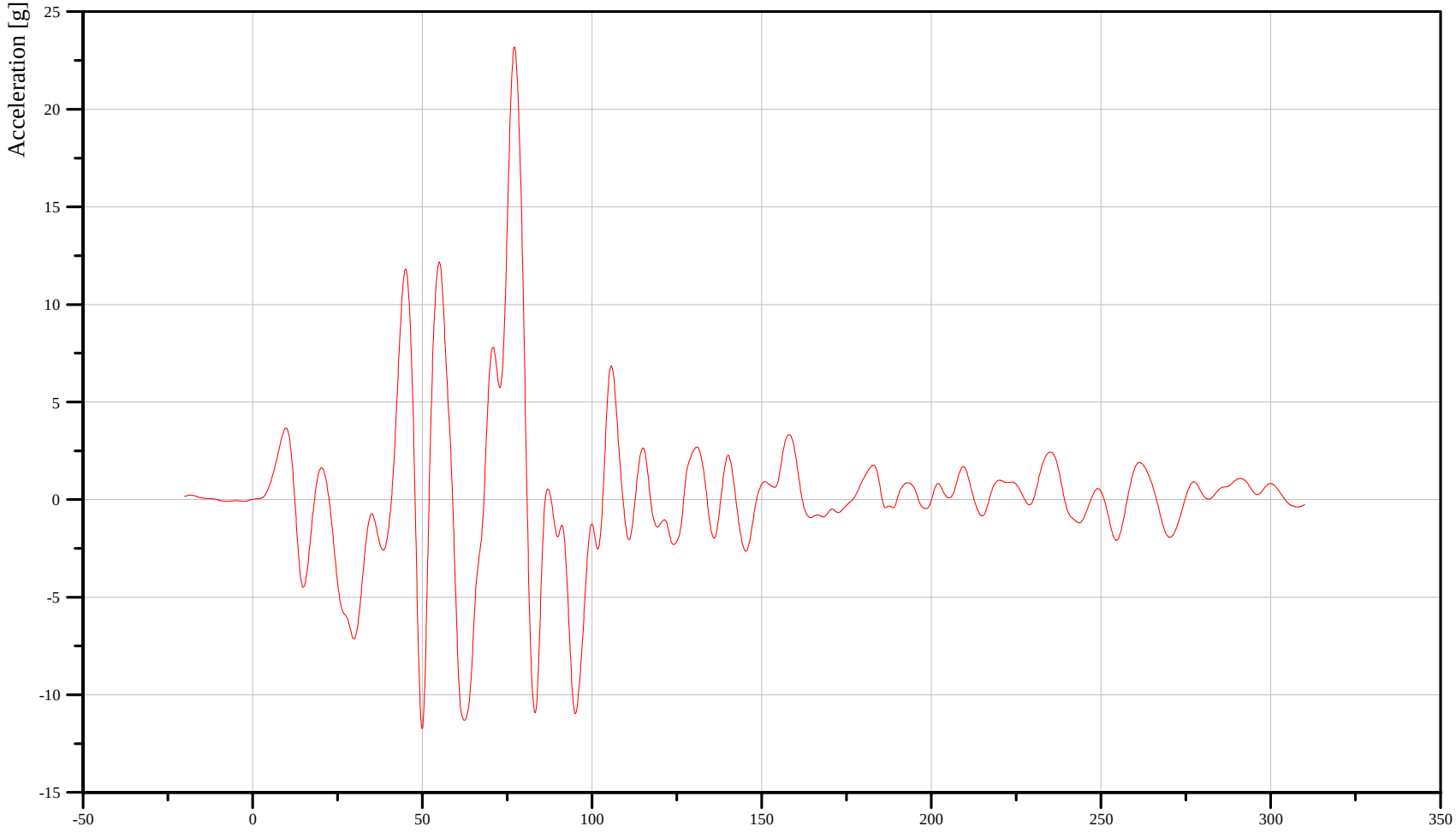
Vehicle CG Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-11.73 g at 50.00 ms

Max. Value
23.20 g at 77.12 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

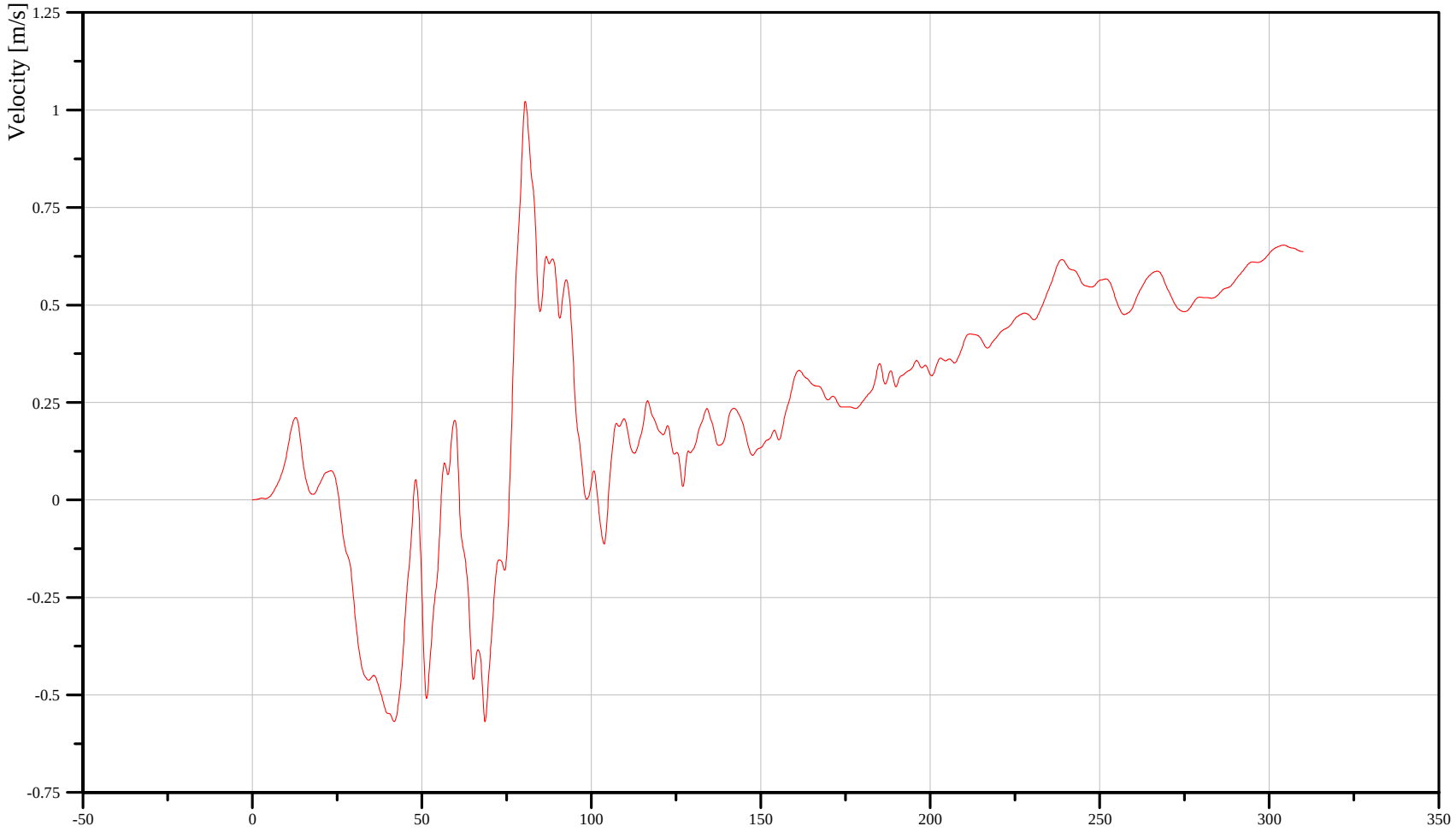
Vehicle CG Z-Axis Velocity

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000VEZC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-0.57 m/s at 68.64 ms

Max. Value
1.02 m/s at 80.56 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

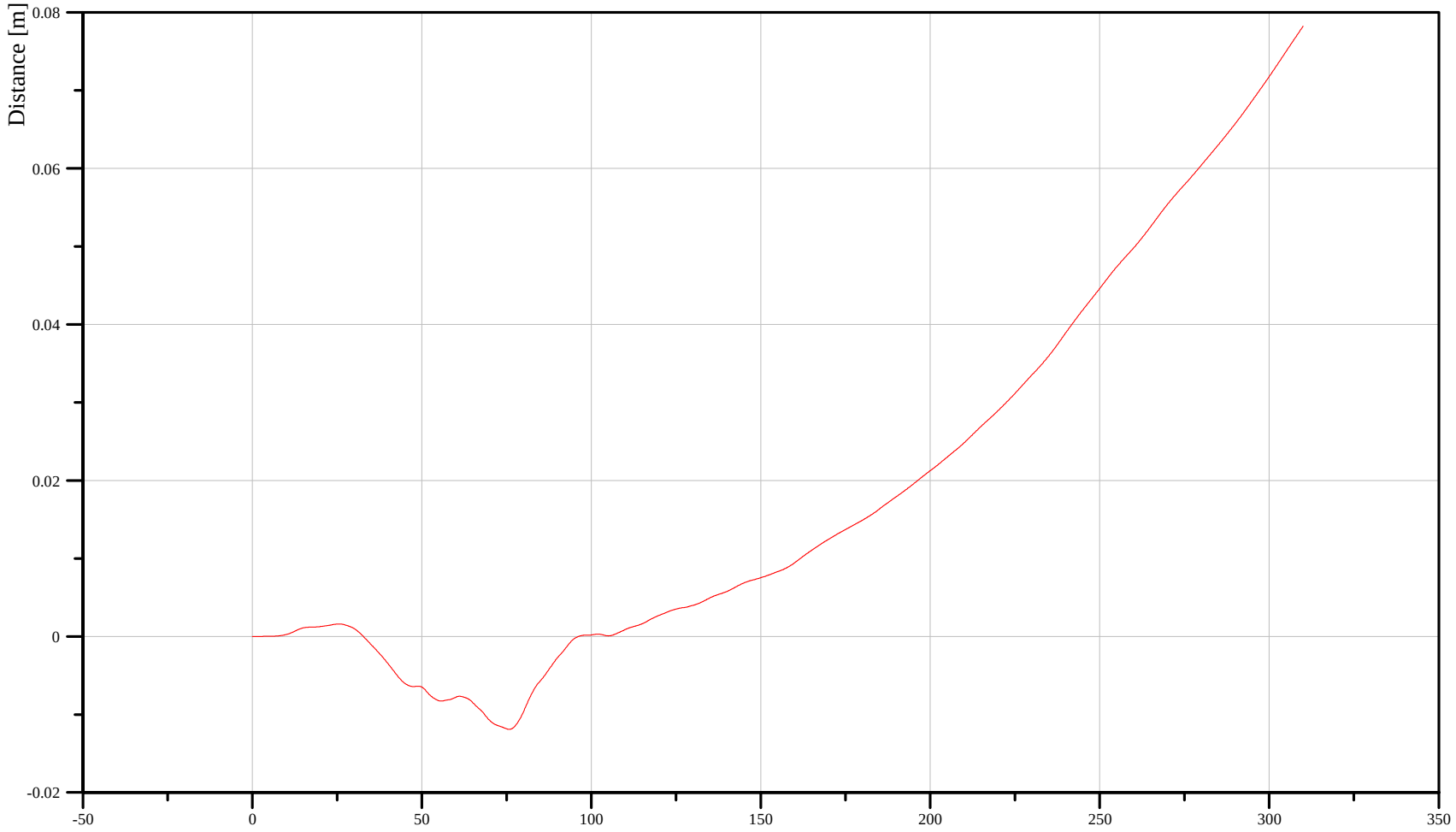
Vehicle CG Z-Axis Displacement

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000DCZC

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_180

Min. Value
-0.01 m at 75.76 ms

Max. Value
0.08 m at 310.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

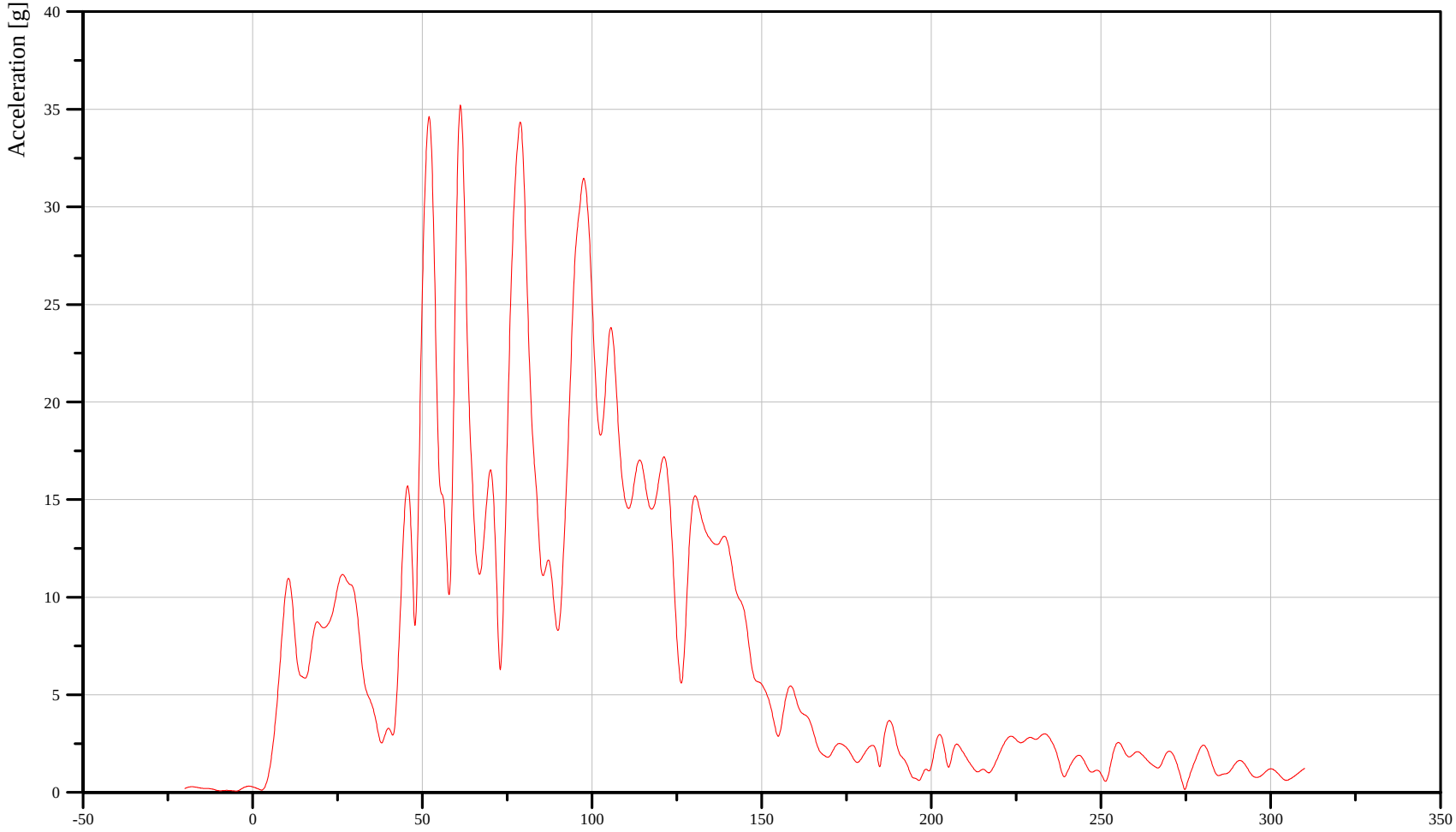
Vehicle CG Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
0.07 g at -4.80 ms

Max. Value
35.22 g at 61.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

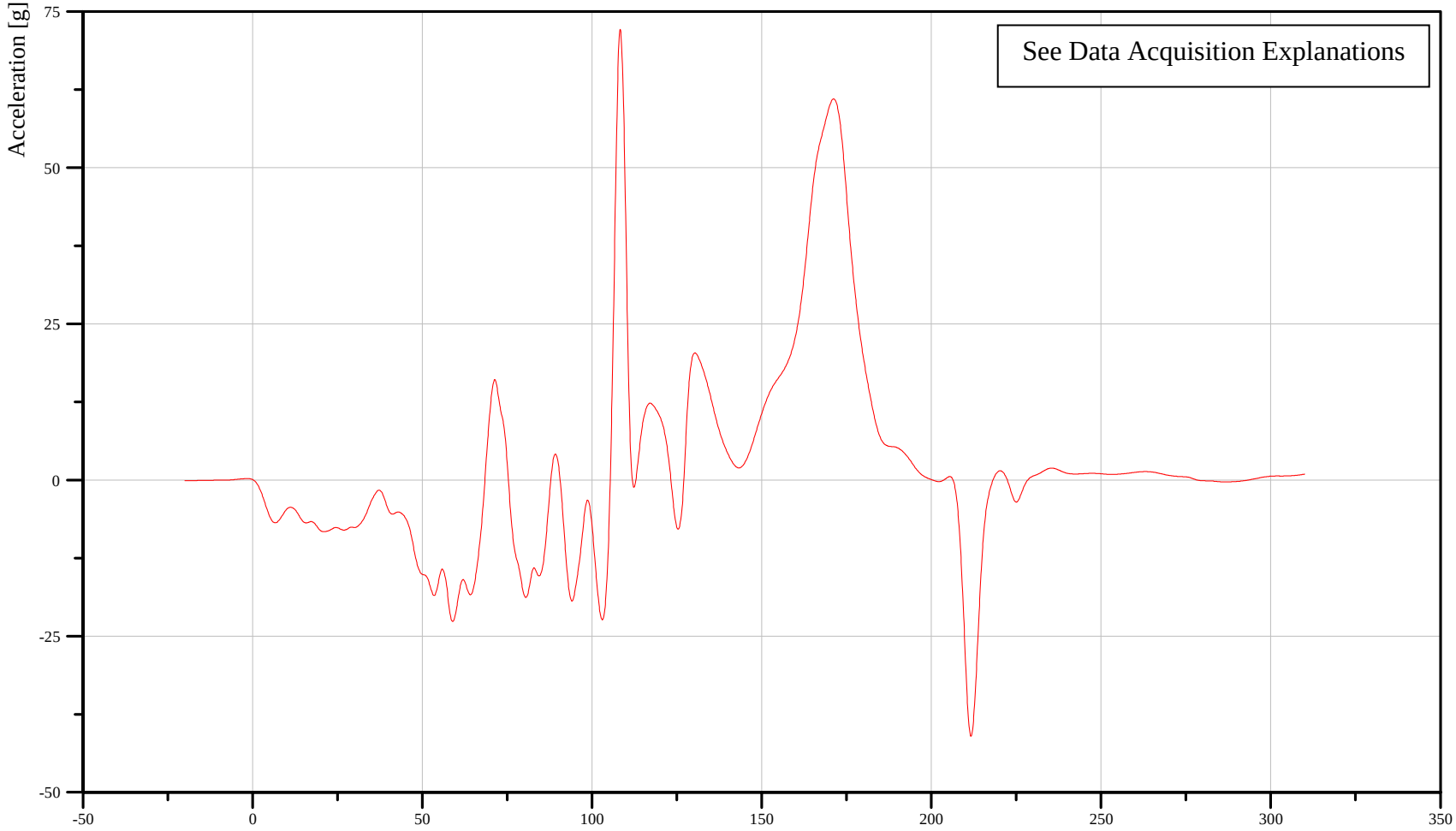
Under Accel Pedal (Centered) X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEAC000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-41.02 g at 211.68 ms

Max. Value
72.15 g at 108.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

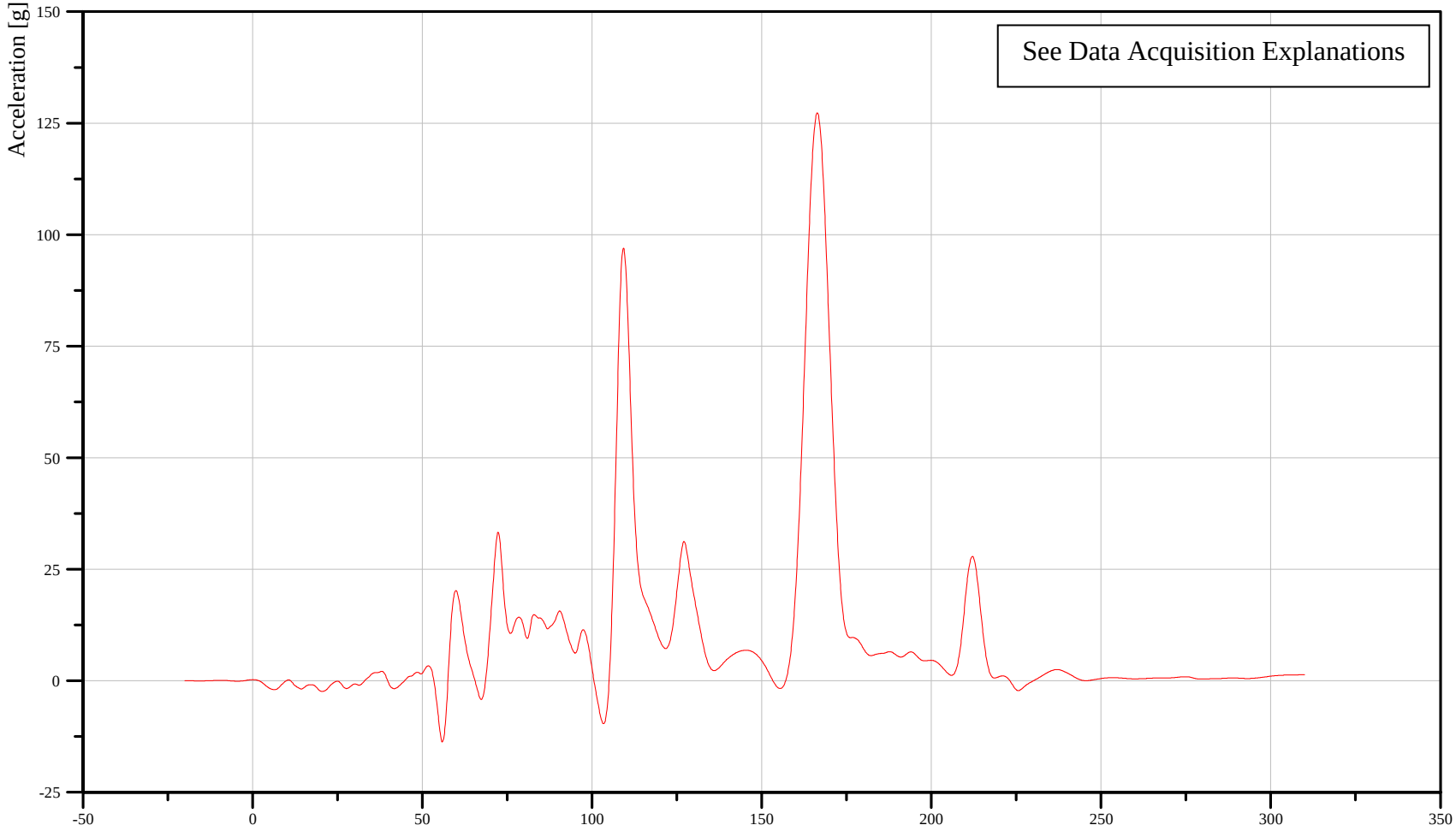
Under Accel Pedal (Centered) Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEAC000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-13.71 g at 55.84 ms

Max. Value
127.31 g at 166.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

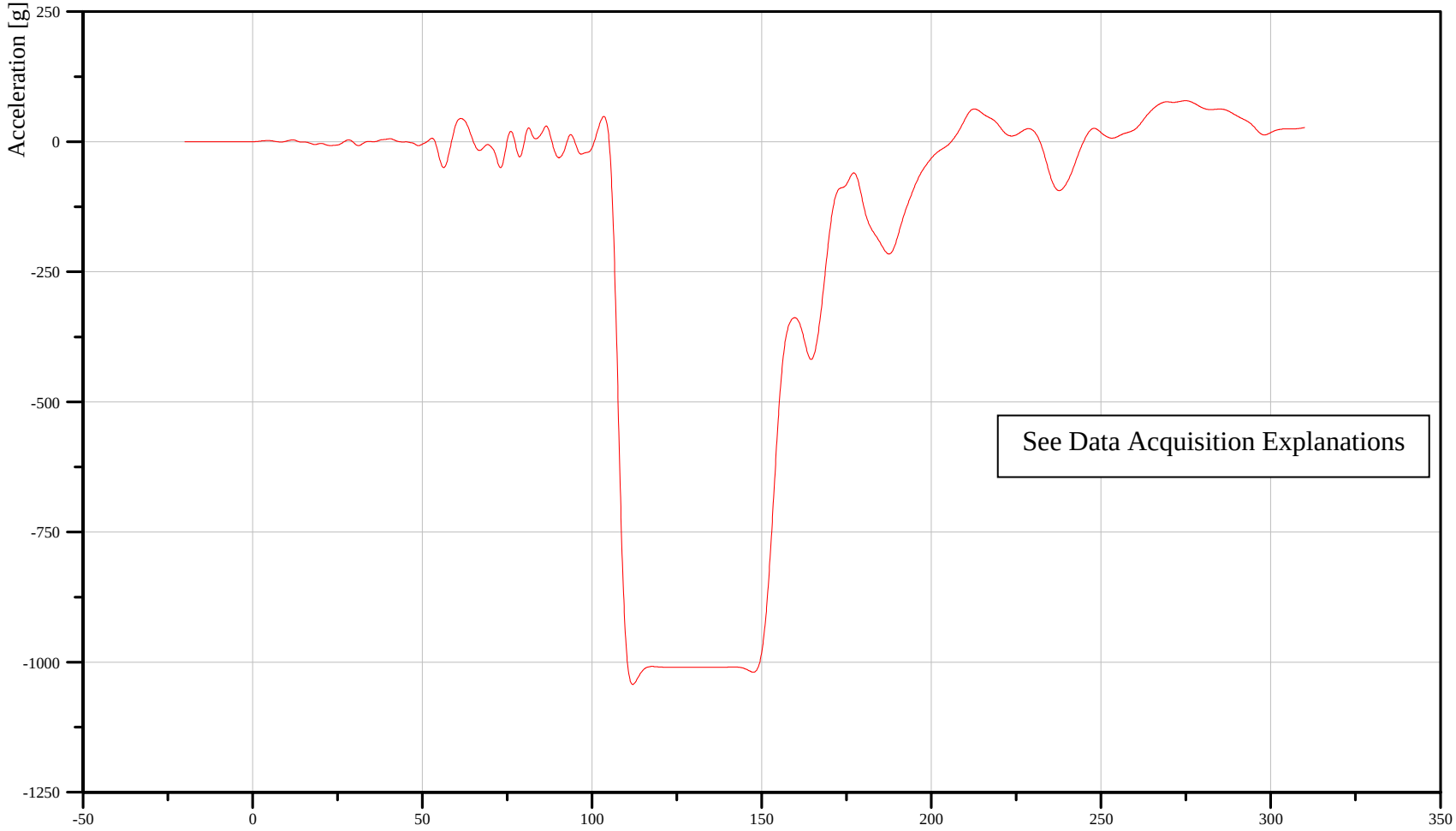
Under Accel Pedal (Centered) Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEAC000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-1,042.73 g at 112.00 ms

Max. Value
79.03 g at 274.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

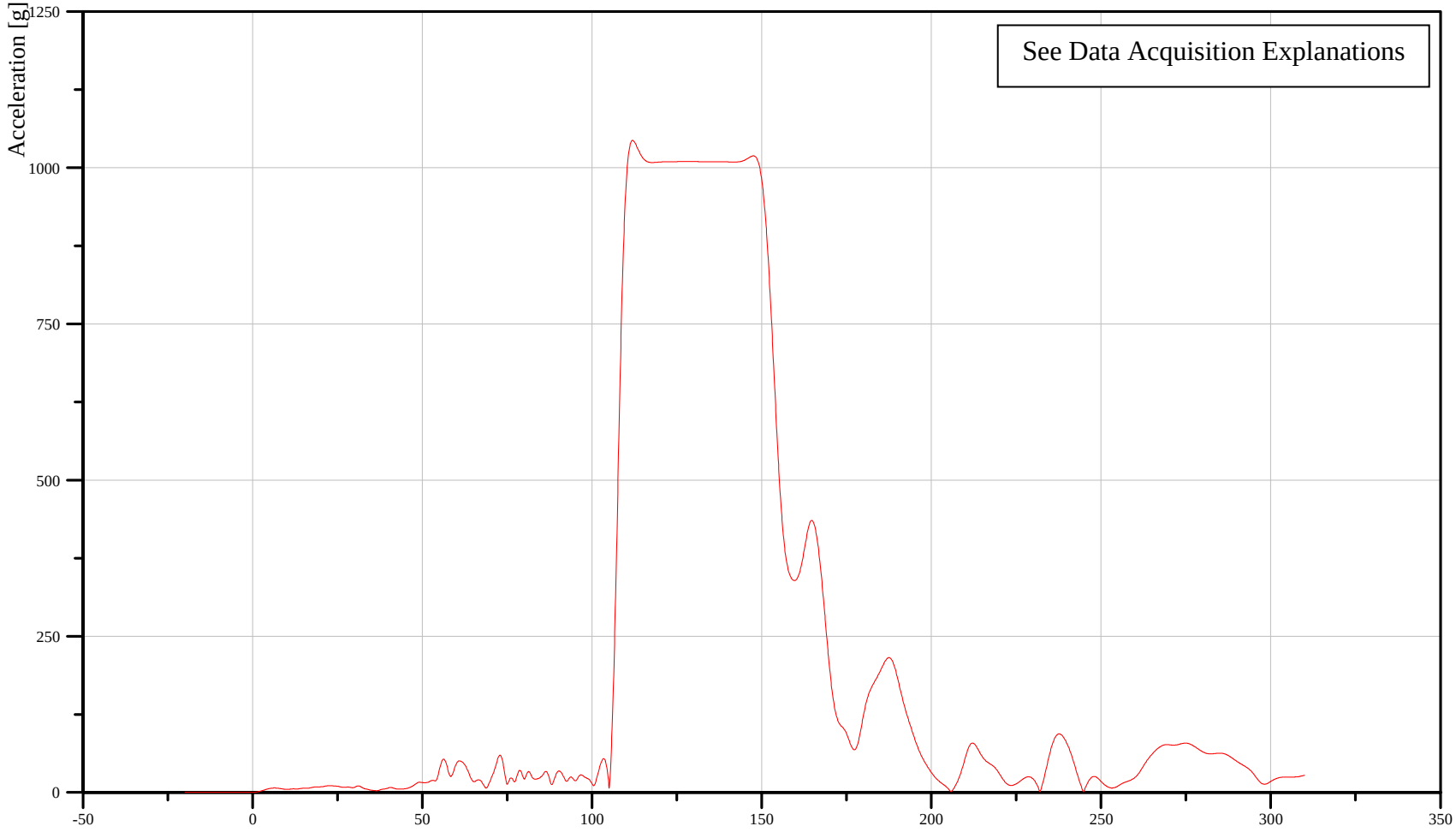
Under Accel Pedal (Centered) Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEAC000000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
0.05 g at -13.04 ms

Max. Value
1,043.85 g at 112.00 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

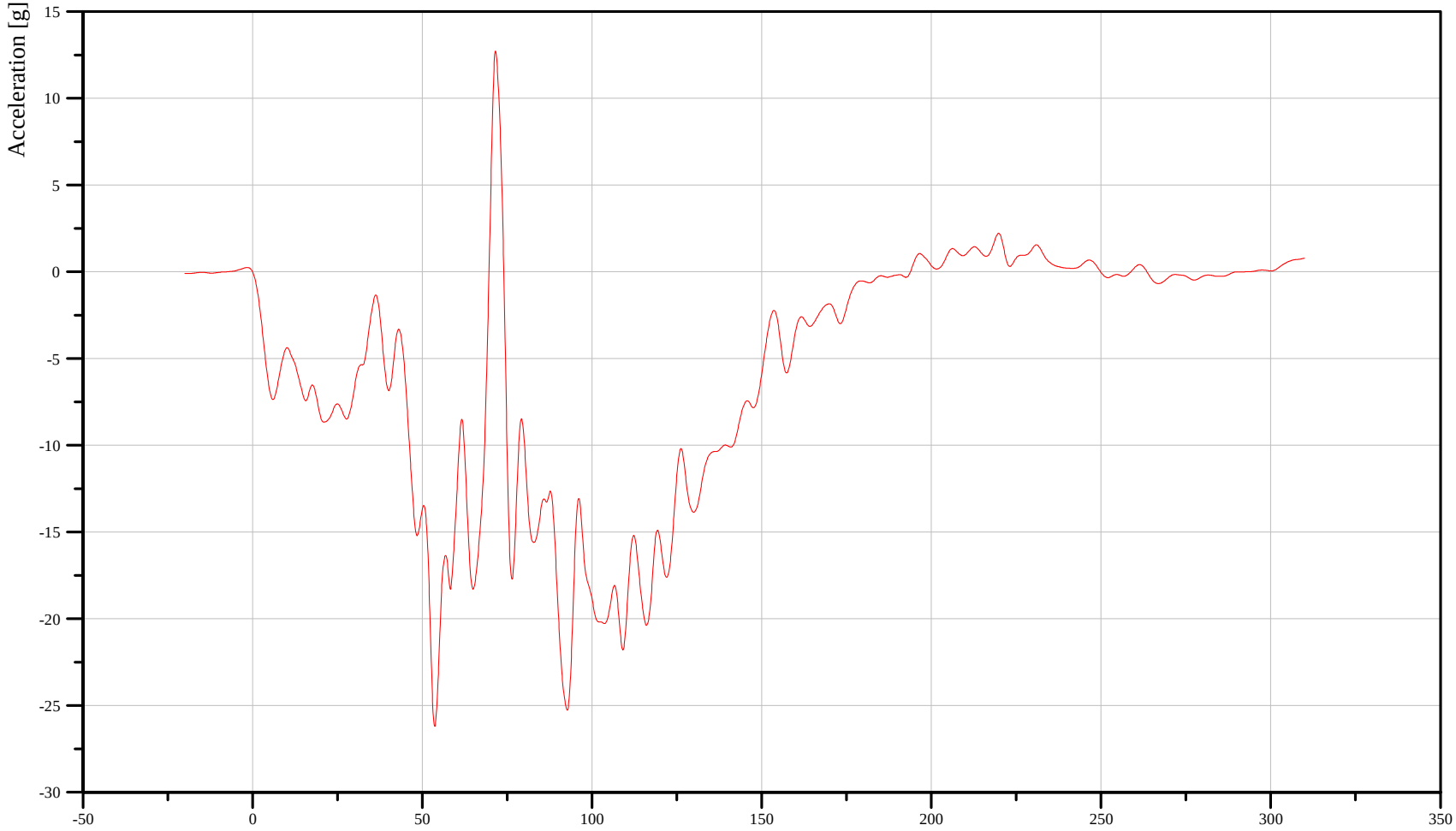
Under Brake Pedal (Centered) X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEBR000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-26.20 g at 53.68 ms

Max. Value
12.73 g at 71.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

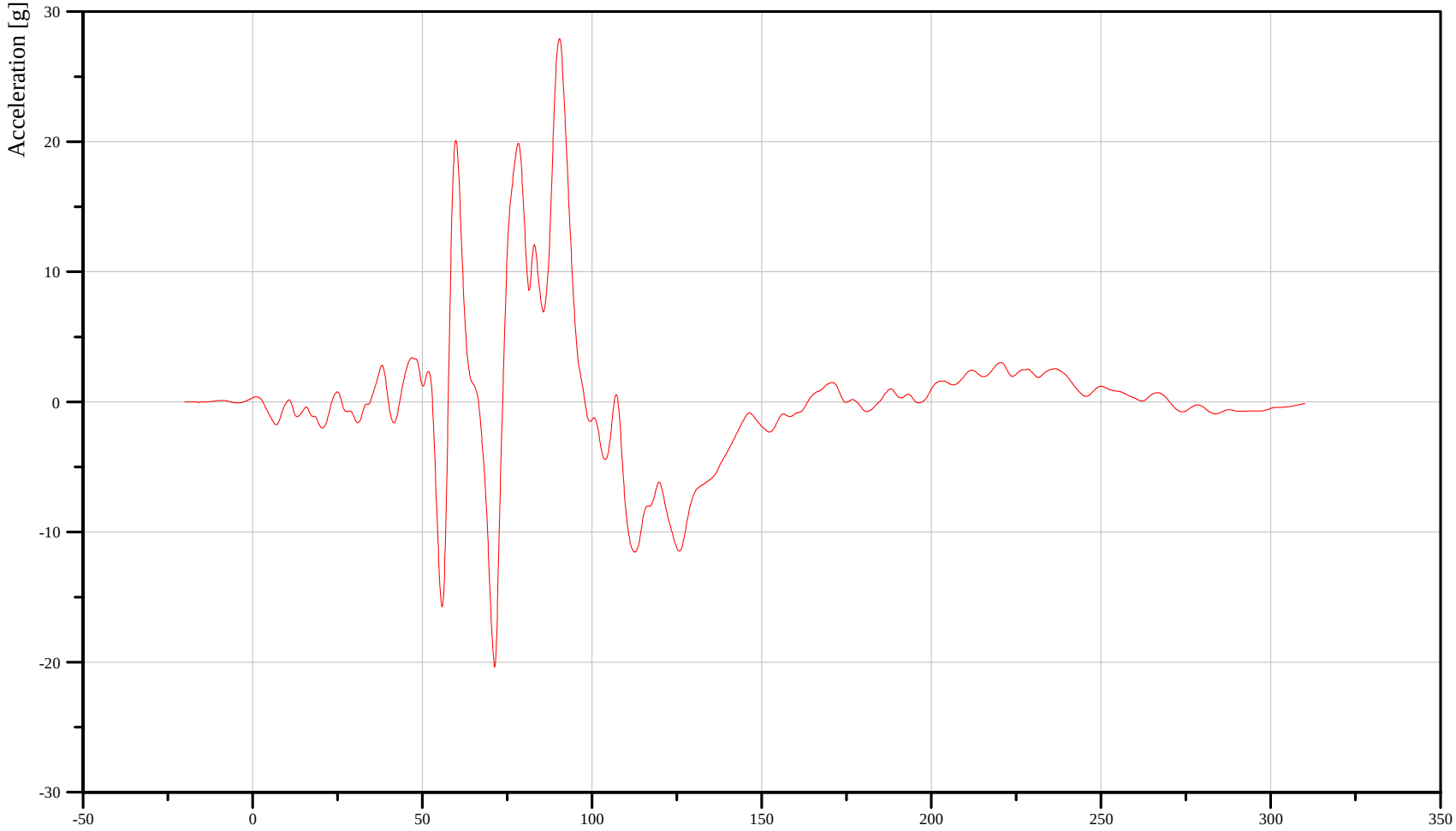
Under Brake Pedal (Centered) Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEBR000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-20.37 g at 71.36 ms

Max. Value
27.93 g at 90.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

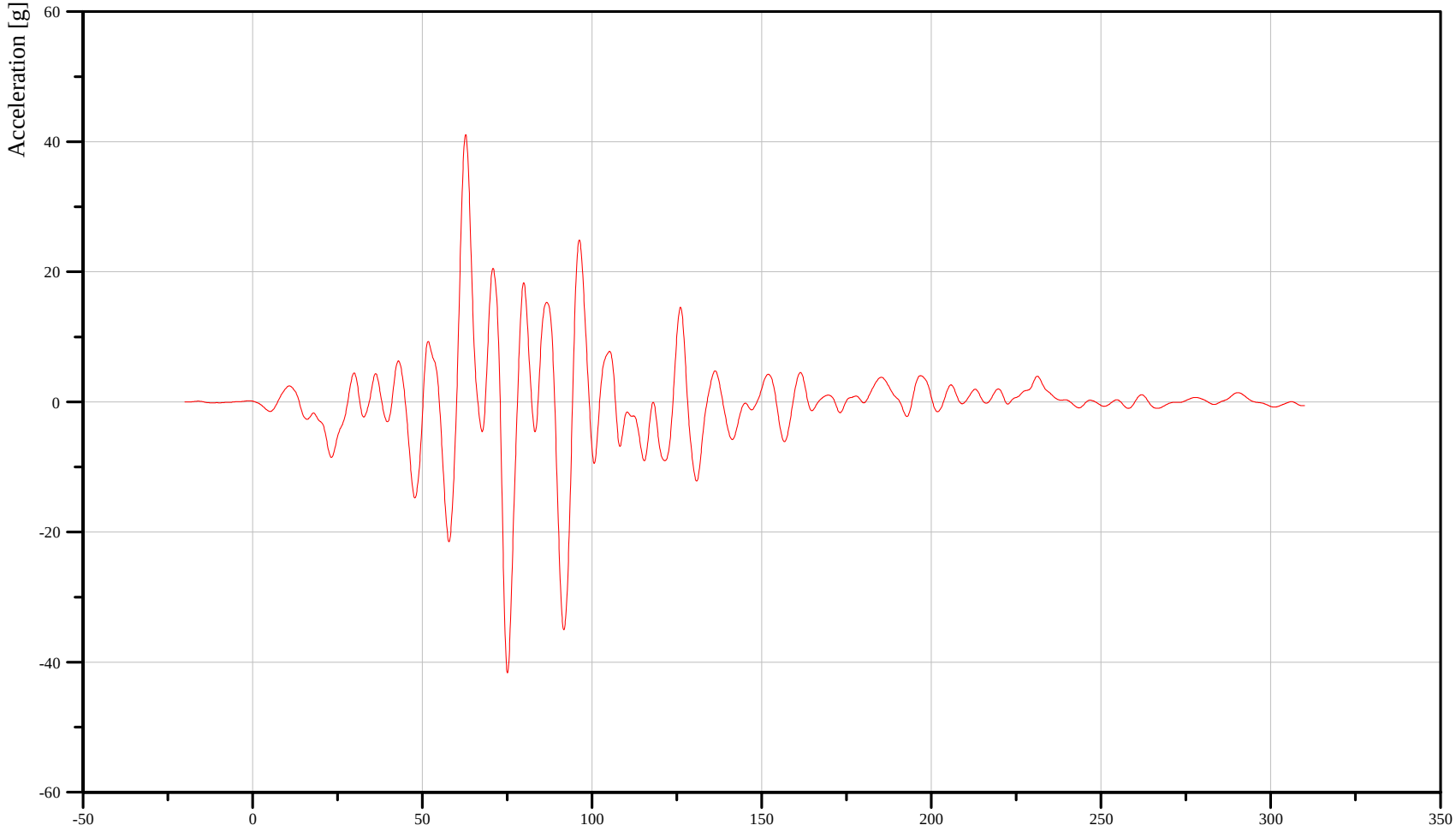
Under Brake Pedal (Centered) Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEBR000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-41.65 g at 75.12 ms

Max. Value
41.09 g at 62.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

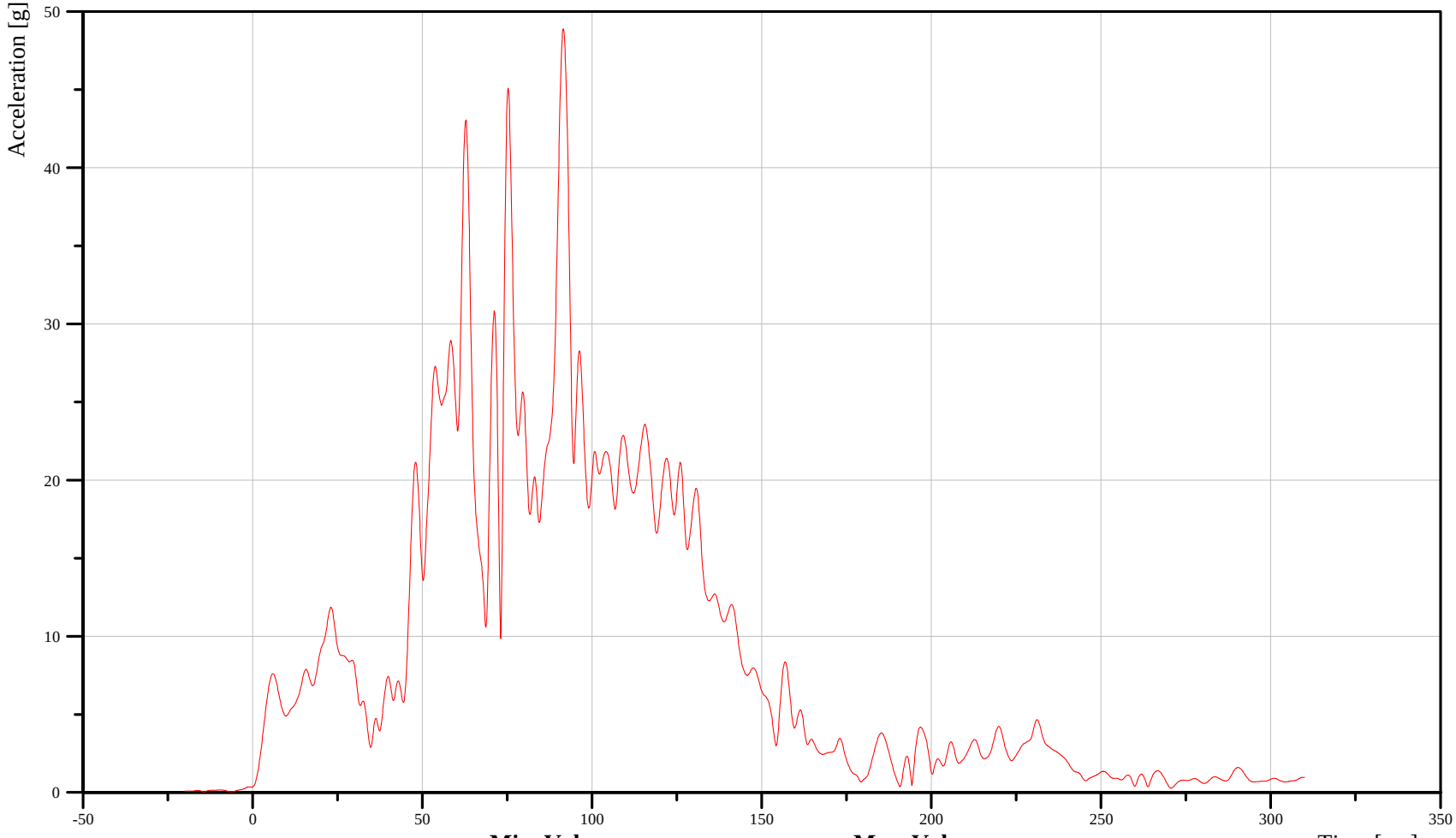
Under Brake Pedal (Centered) Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11PEBR000000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
0.03 g at -14.32 ms

Max. Value
48.89 g at 91.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

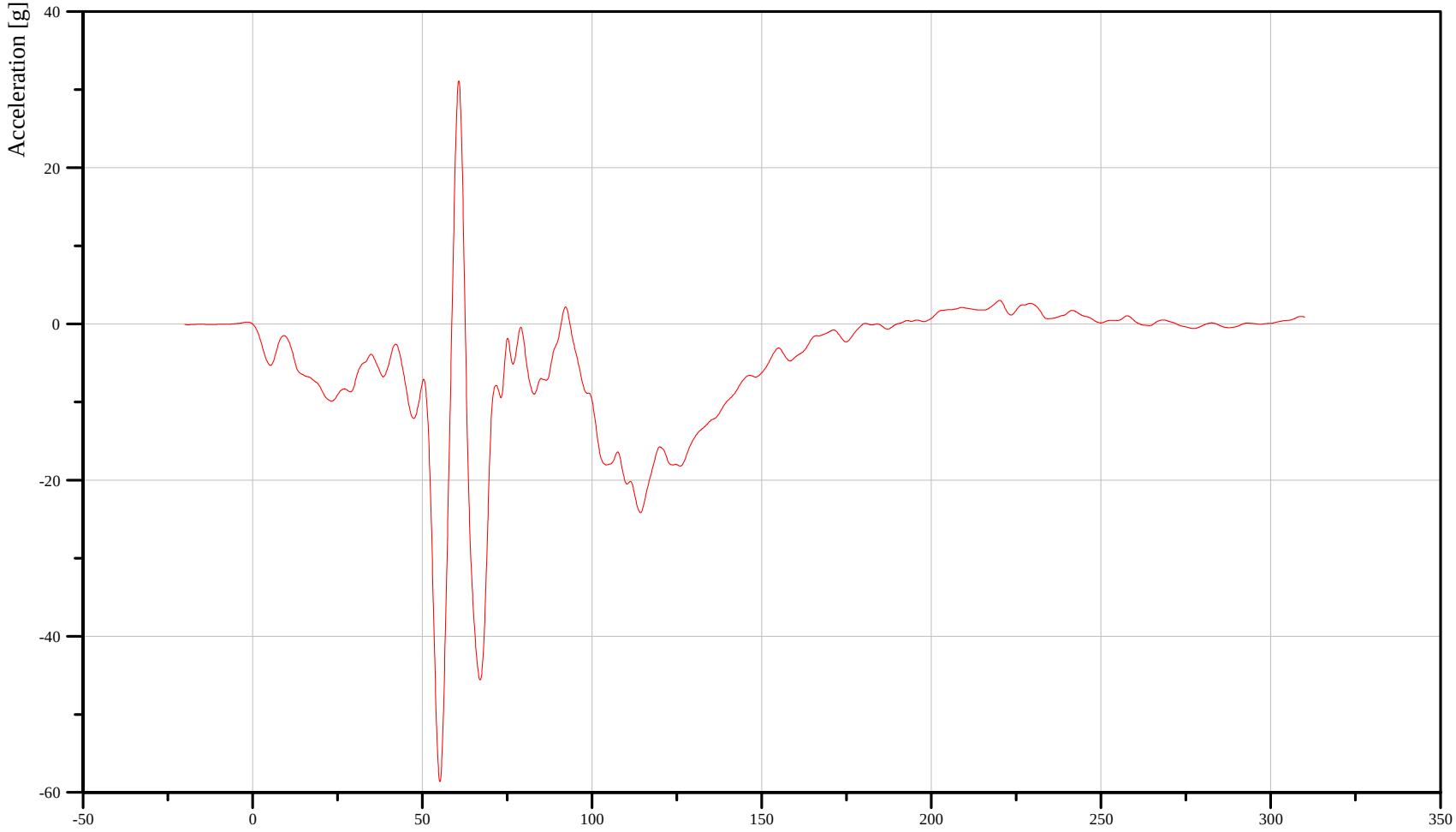
Outside Footrest X-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11VEHC000001ACXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-58.62 g at 55.20 ms

Max. Value
31.14 g at 60.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

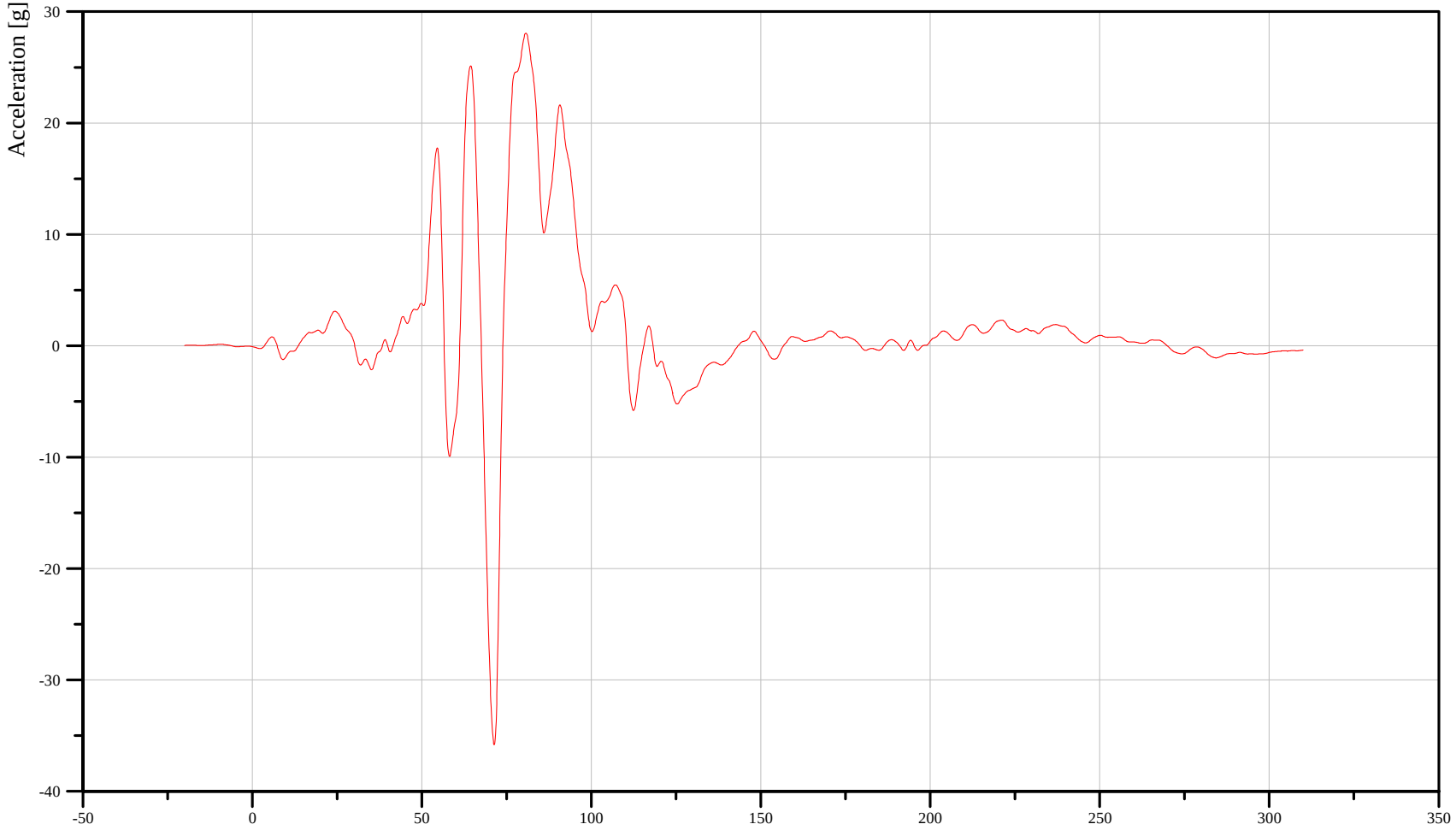
Outside Footrest Y-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11VEHC000001ACYD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-35.82 g at 71.36 ms

Max. Value
28.08 g at 80.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

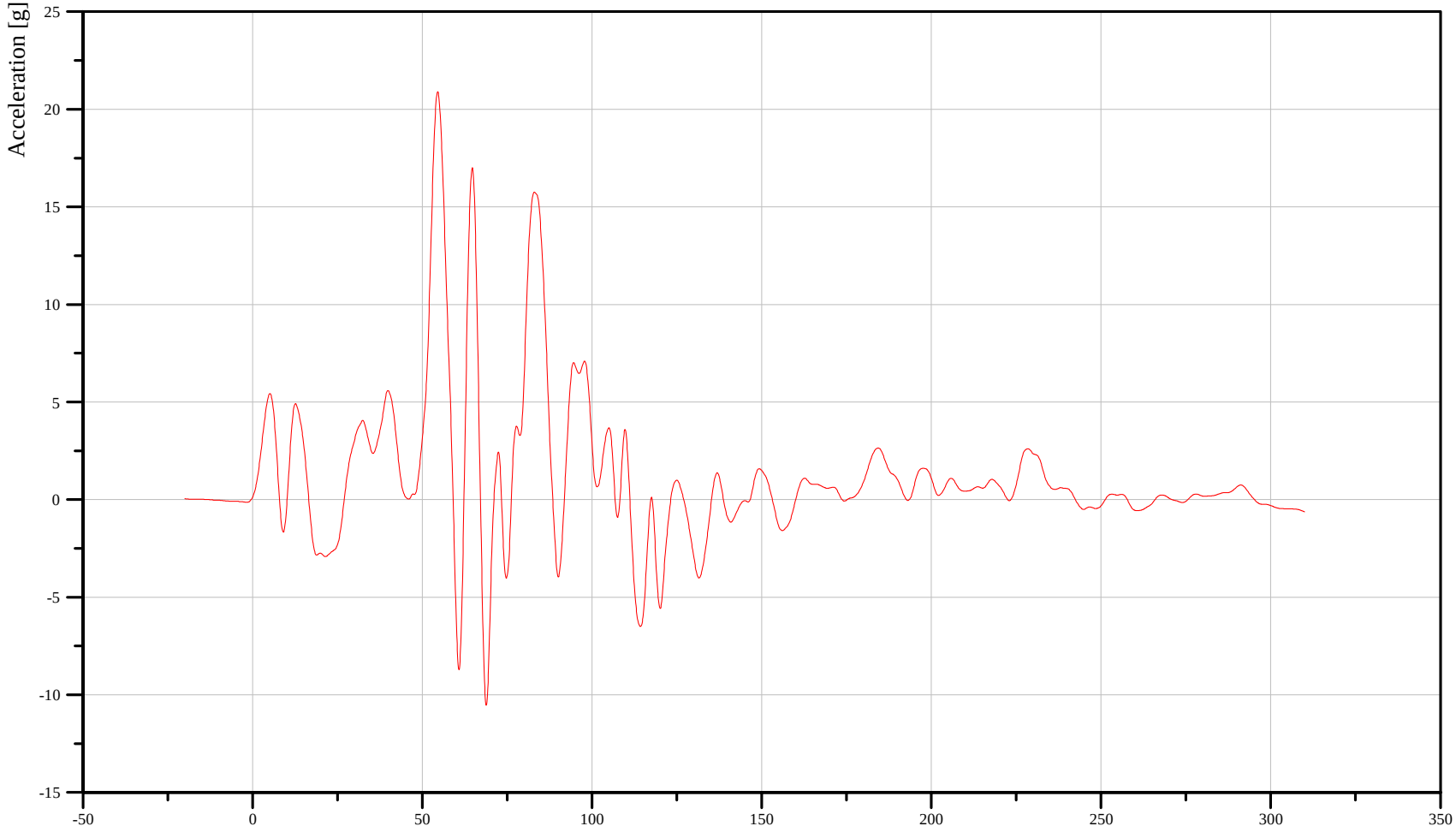
Outside Footrest Z-Axis Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11VEHC000001ACZD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-10.53 g at 68.88 ms

Max. Value
20.90 g at 54.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

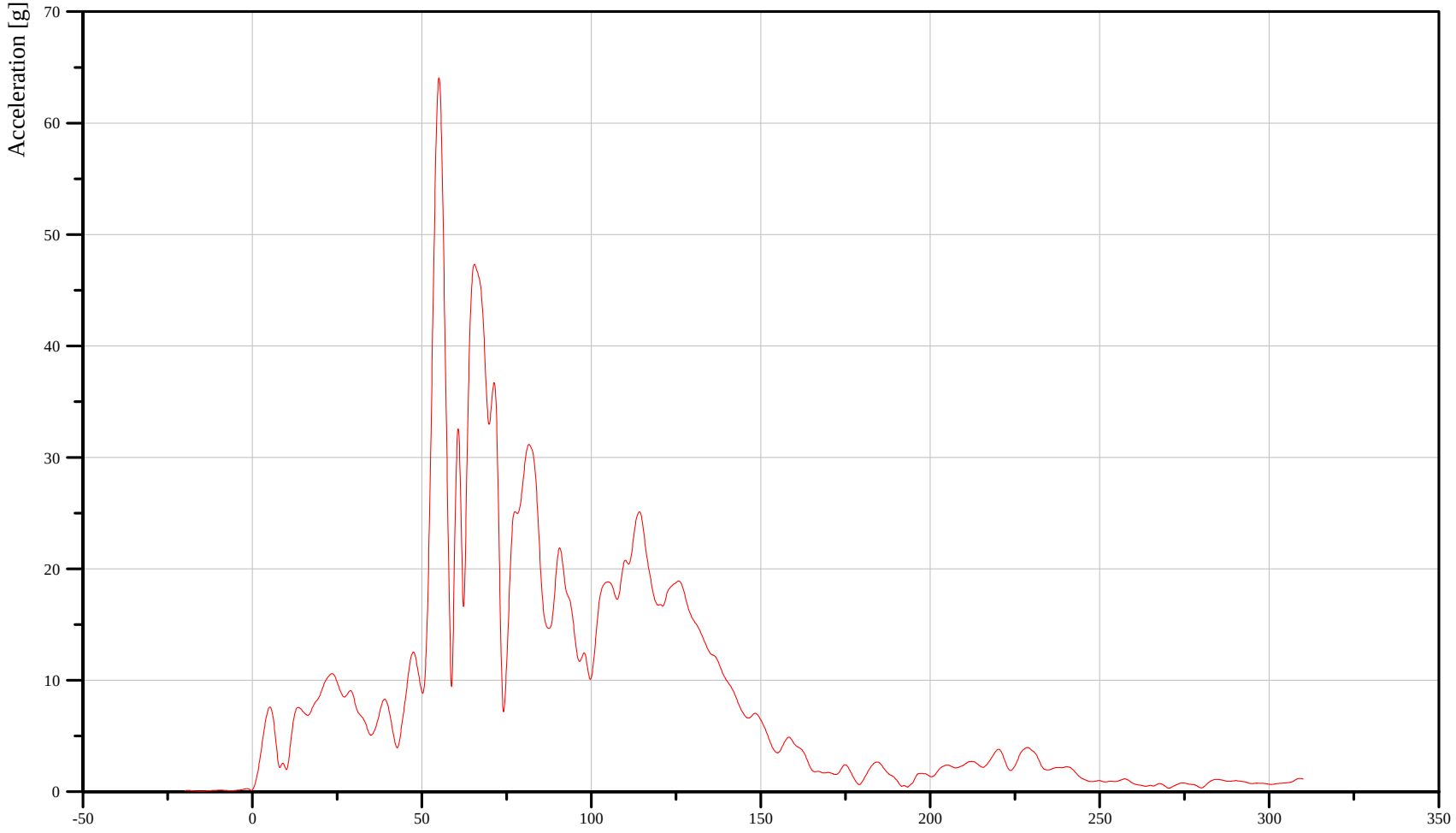
Outside Footrest Resultant Acceleration

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11VEHC000001ACRD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
0.04 g at -15.12 ms

Max. Value
64.06 g at 55.04 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

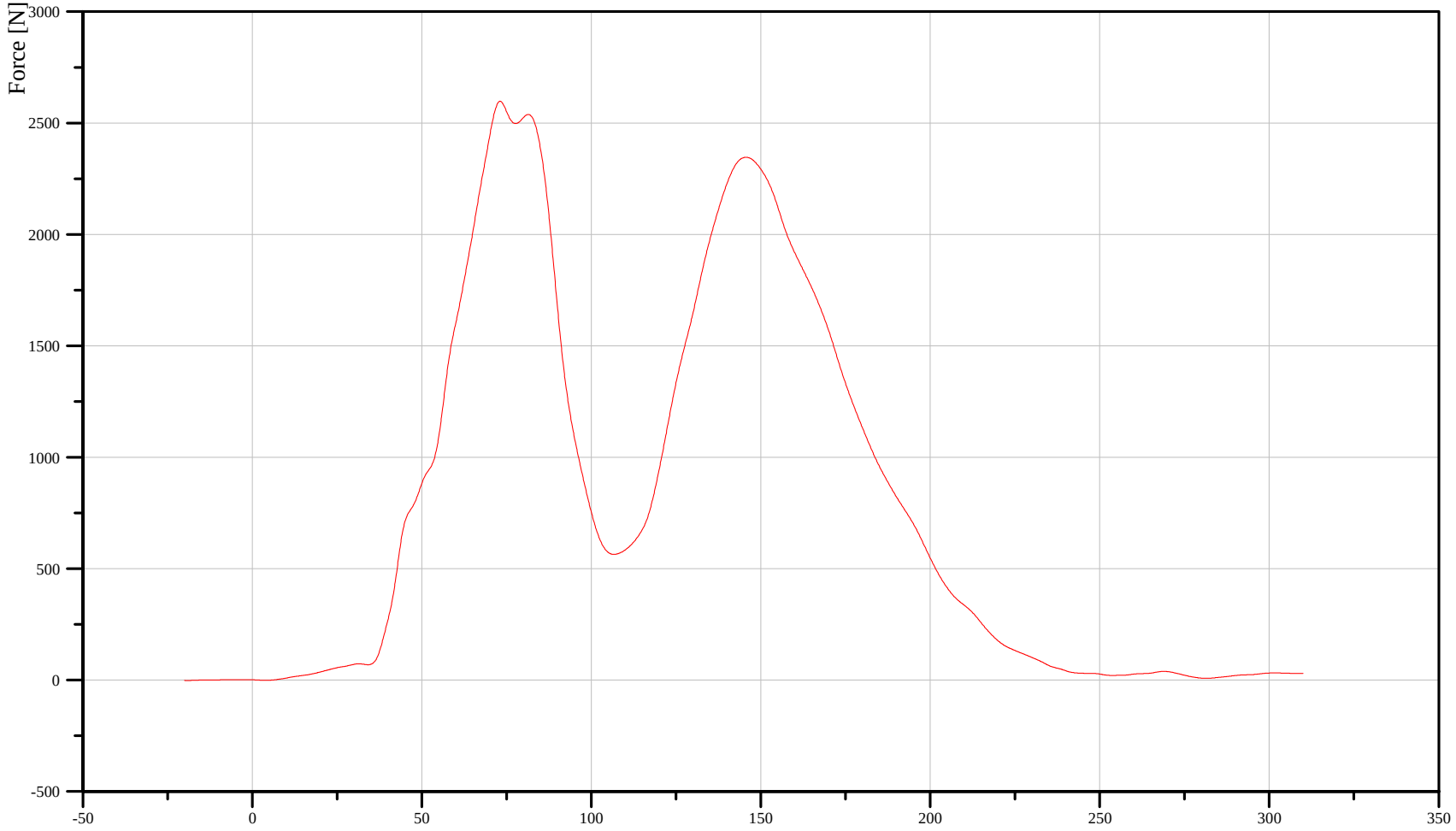
Driver Lap Belt Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11SEBE0000B5FOOA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-1.67 N at -18.88 ms

Max. Value
2,597.84 N at 73.12 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

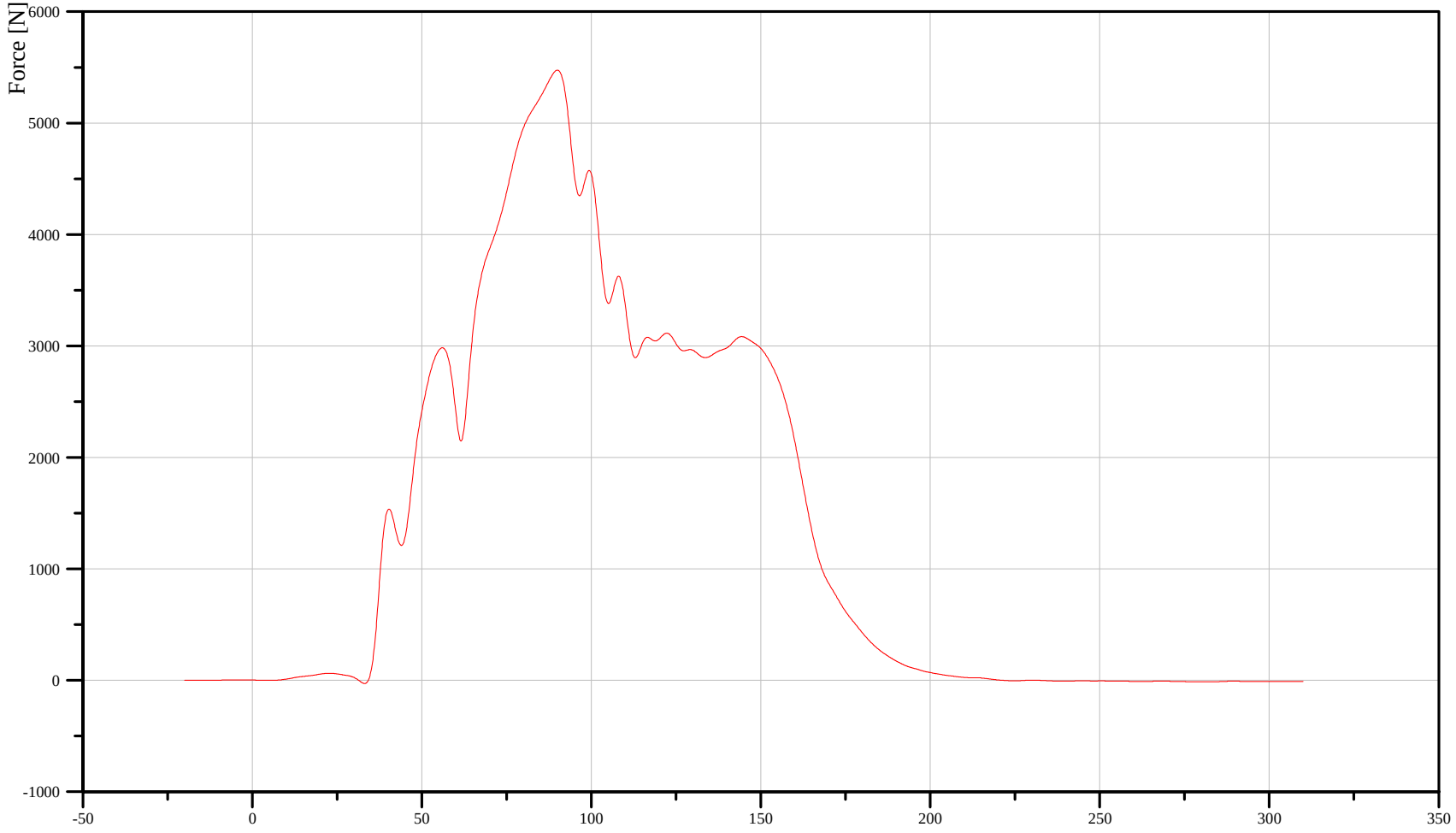
Driver Shoulder Belt Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11SEBE0000B3FOOA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-28.64 N at 33.12 ms

Max. Value
5,475.65 N at 90.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

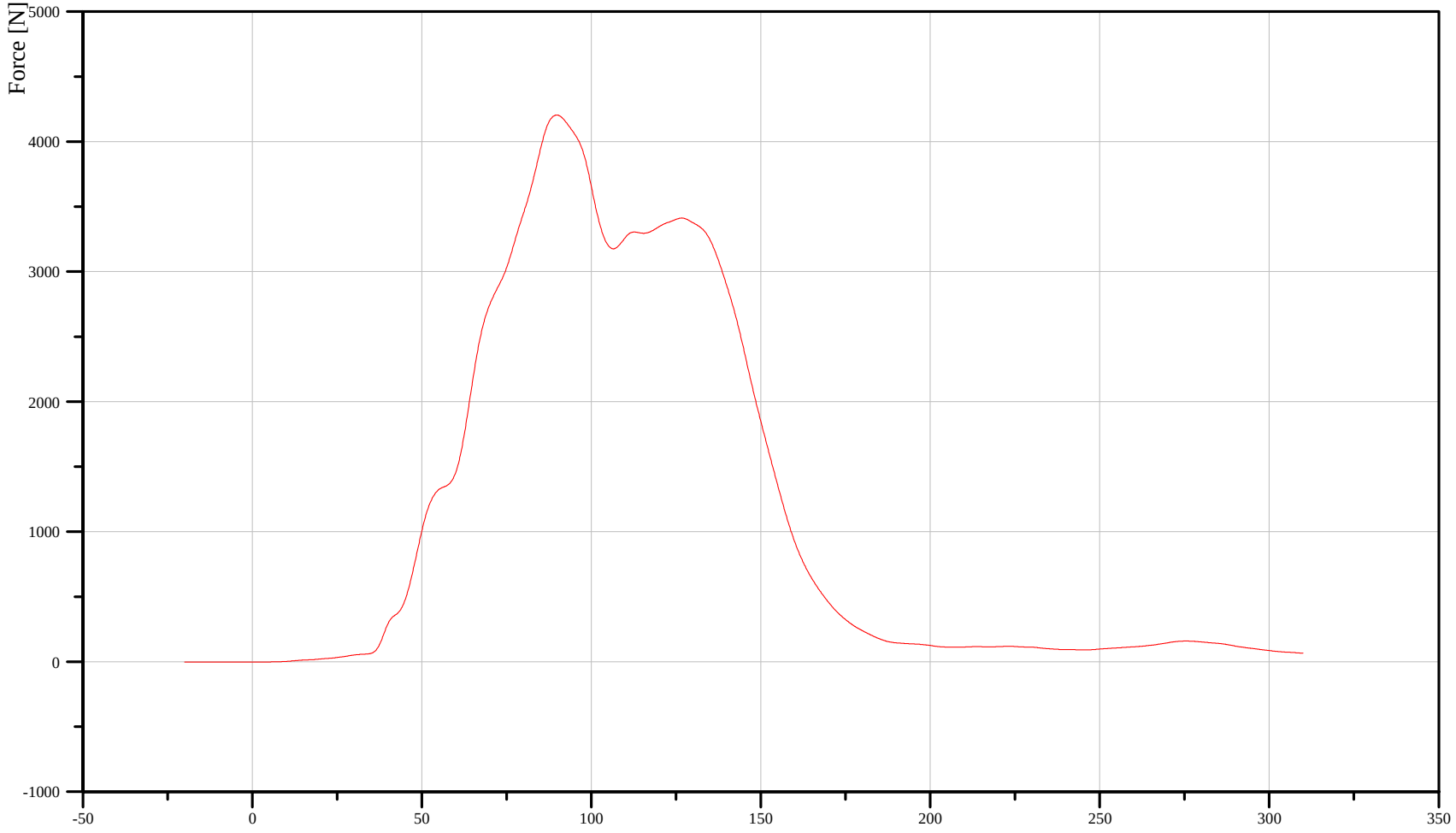
Passenger Lap Belt Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13SEBE0000B5FOOA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-2.92 N at -19.84 ms

Max. Value
4,204.52 N at 89.84 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

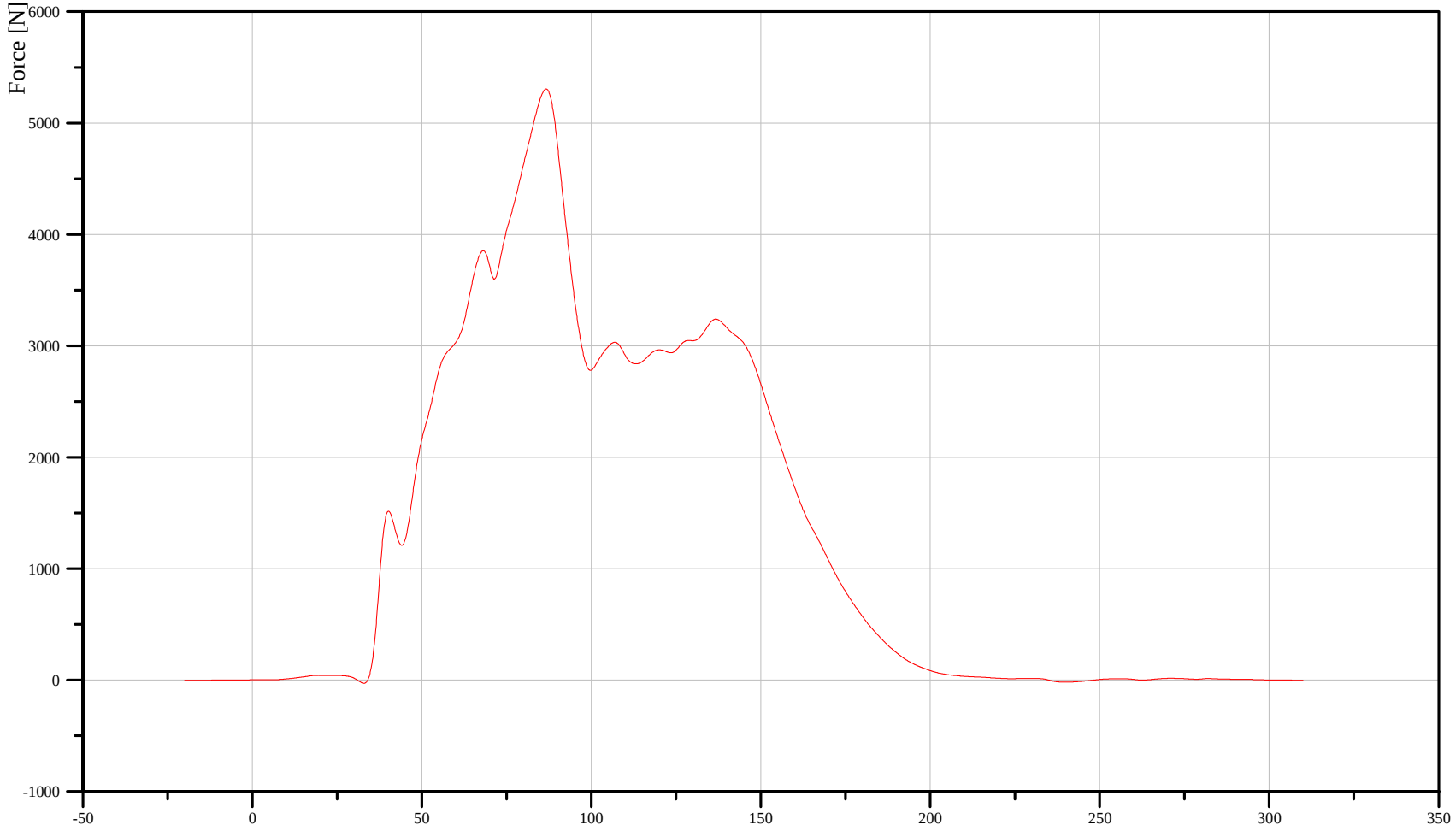
Passenger Shoulder Belt Force

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13SEBE0000B3FOOA

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-28.65 N at 32.88 ms

Max. Value
5,306.13 N at 86.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

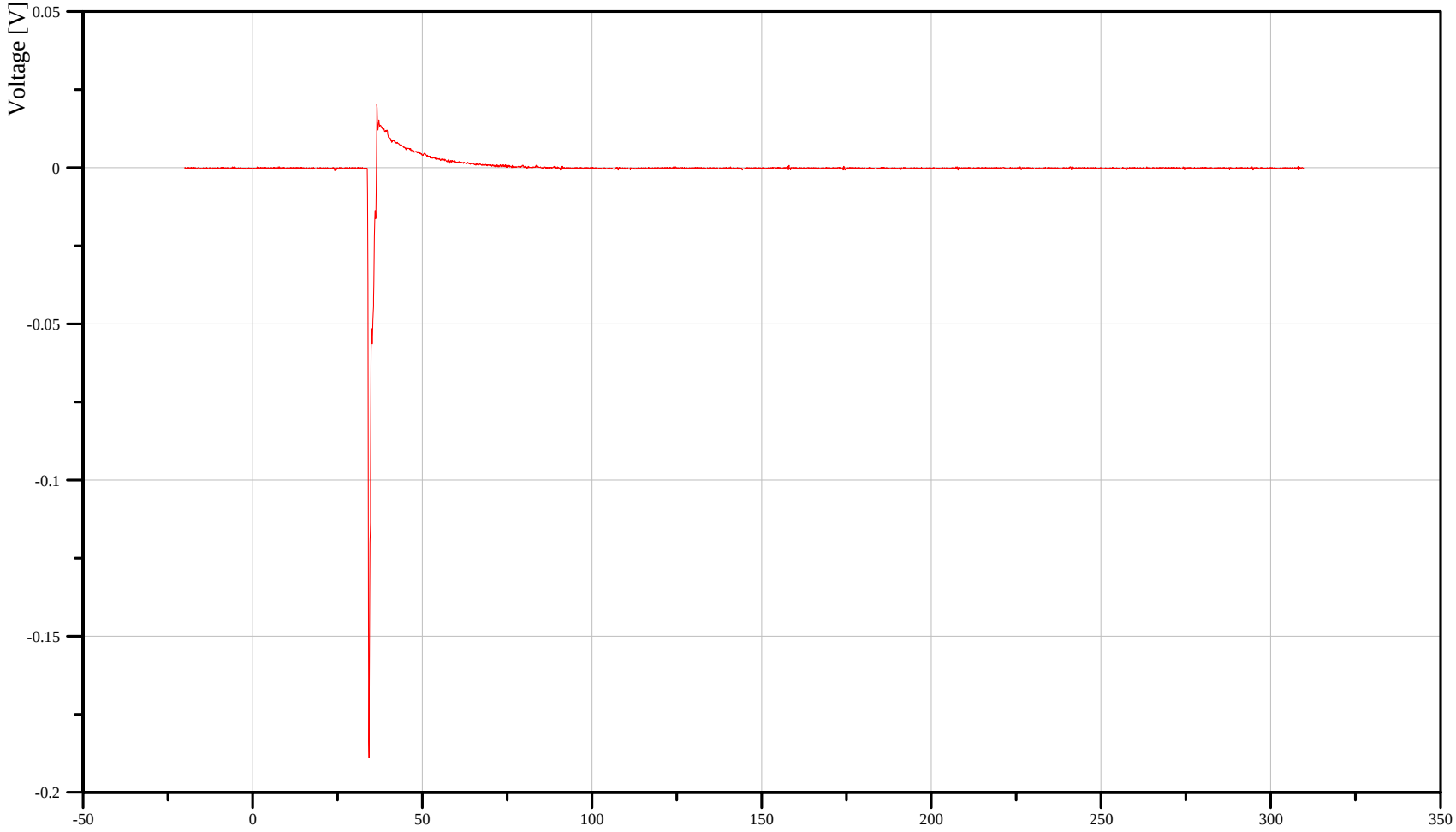
Driver Front Airbag 1 Inductor

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11AIRBFR0100EV0A

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-0.19 V at 34.32 ms

Max. Value
0.02 V at 36.64 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

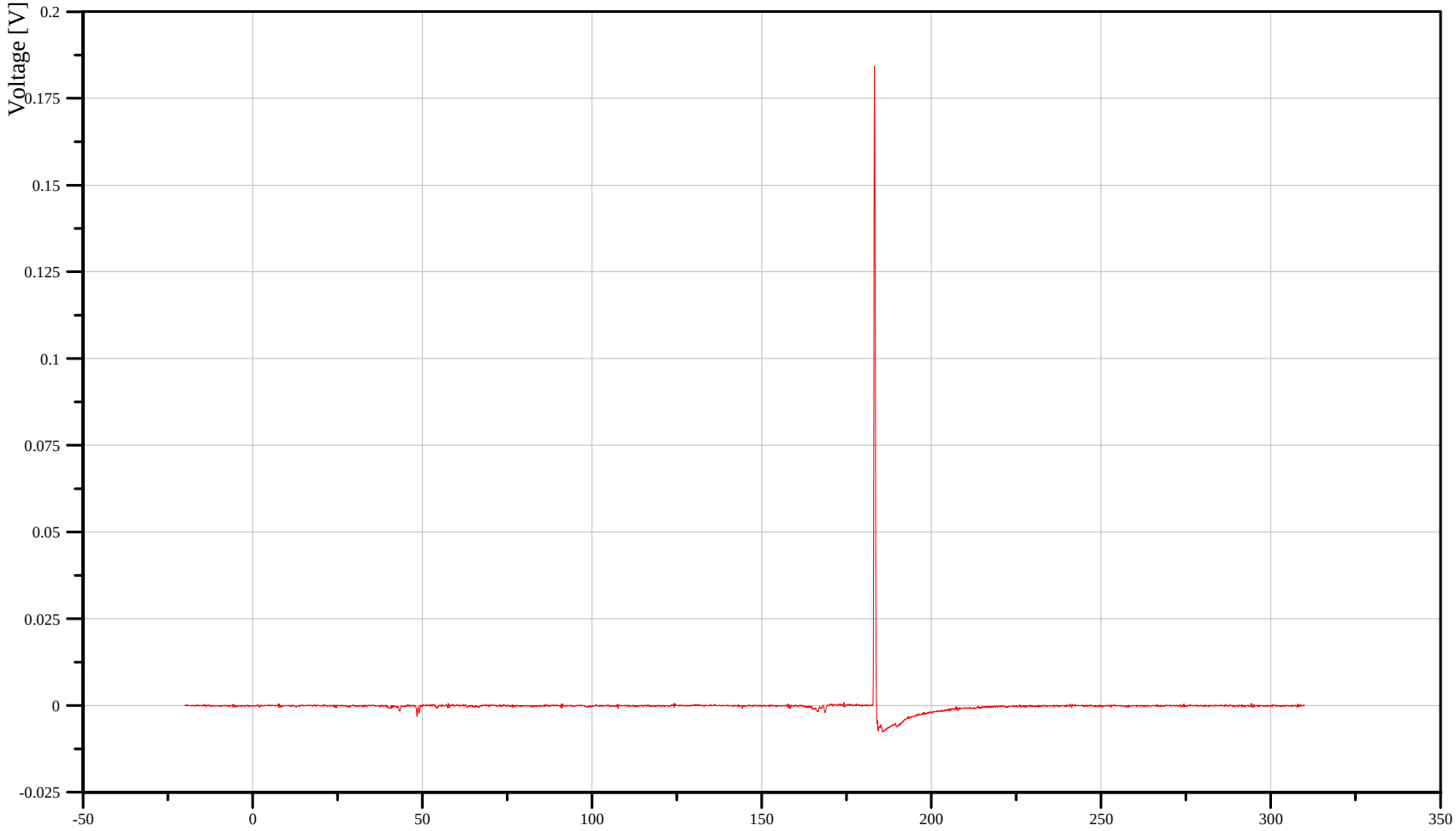
Driver Front Airbag 2 Inductor

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11AIRBFR0200EV0A

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-0.01 V at 185.68 ms

Max. Value
0.18 V at 183.28 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

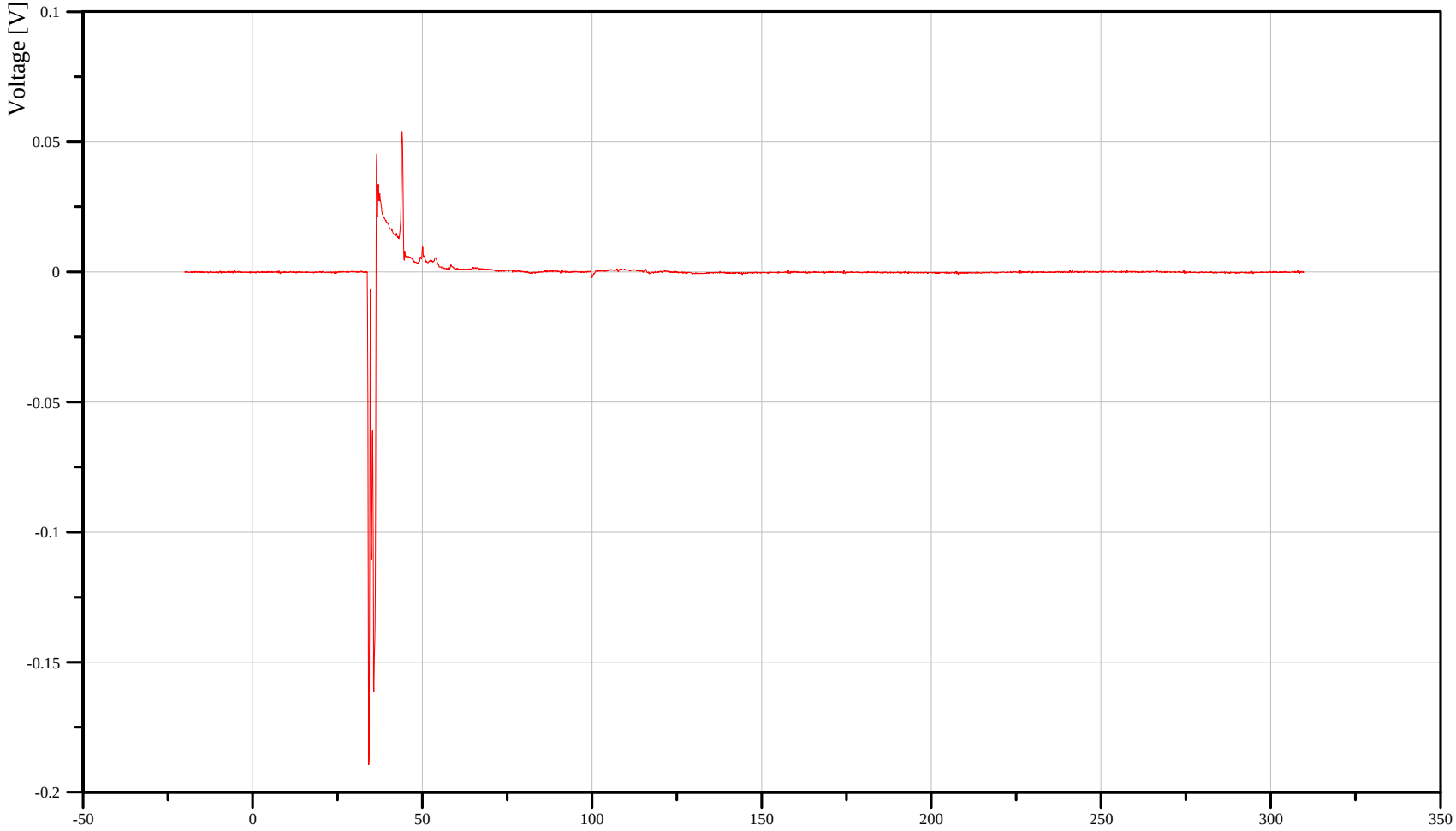
Passenger Front Airbag 1 Inductor

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13AIRBFR0100EV0A

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-0.19 V at 34.24 ms

Max. Value
0.05 V at 44.08 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

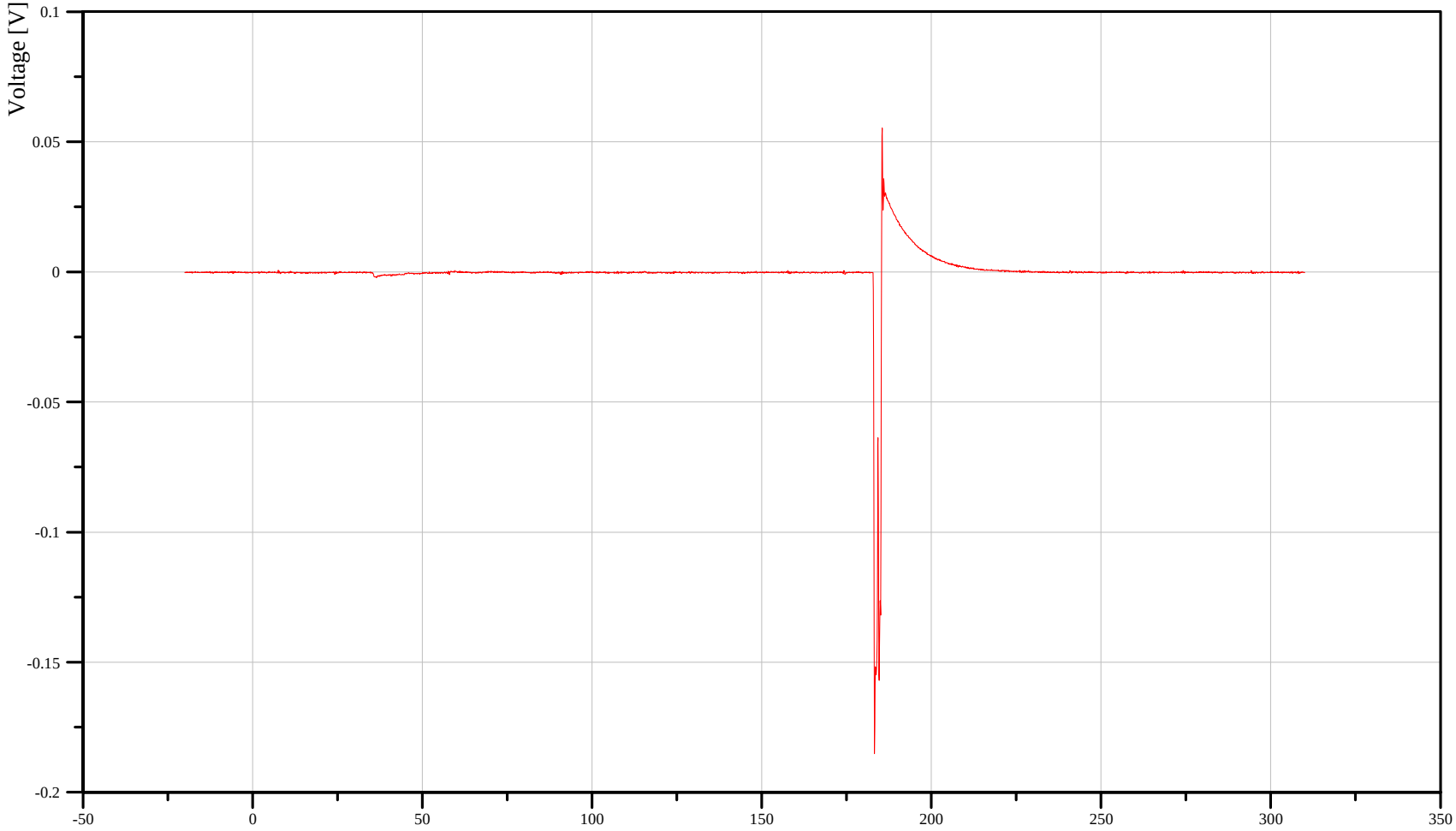
Passenger Front Airbag 2 Inductor

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

13AIRBFR0200EV0A

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_1000

Min. Value
-0.19 V at 183.28 ms

Max. Value
0.06 V at 185.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

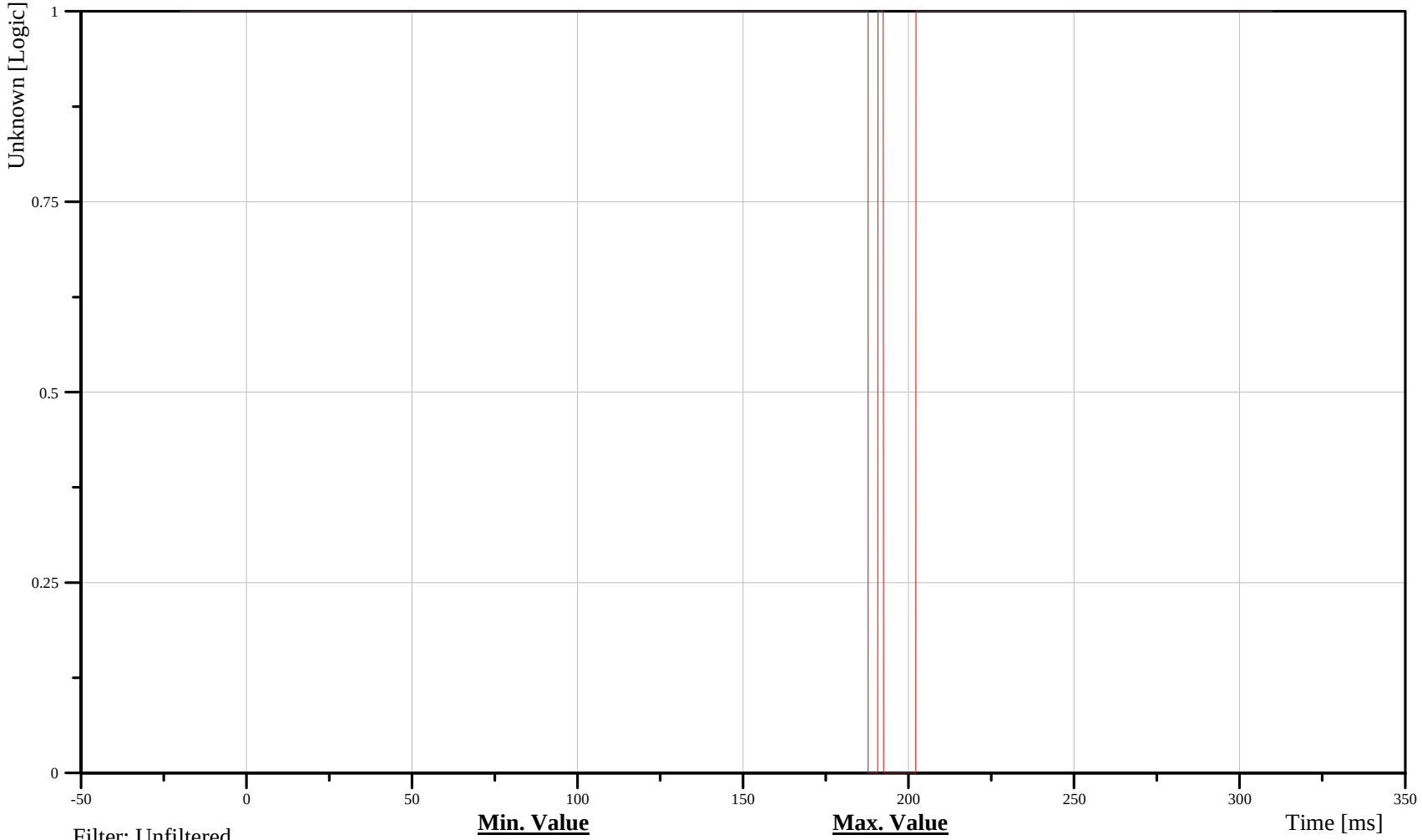
Driver Right Foot Contact Switch

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CONT000001VO00

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: Unfiltered

Min. Value
0.00 Logic at 187.84 ms

Max. Value
1.00 Logic at -20.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

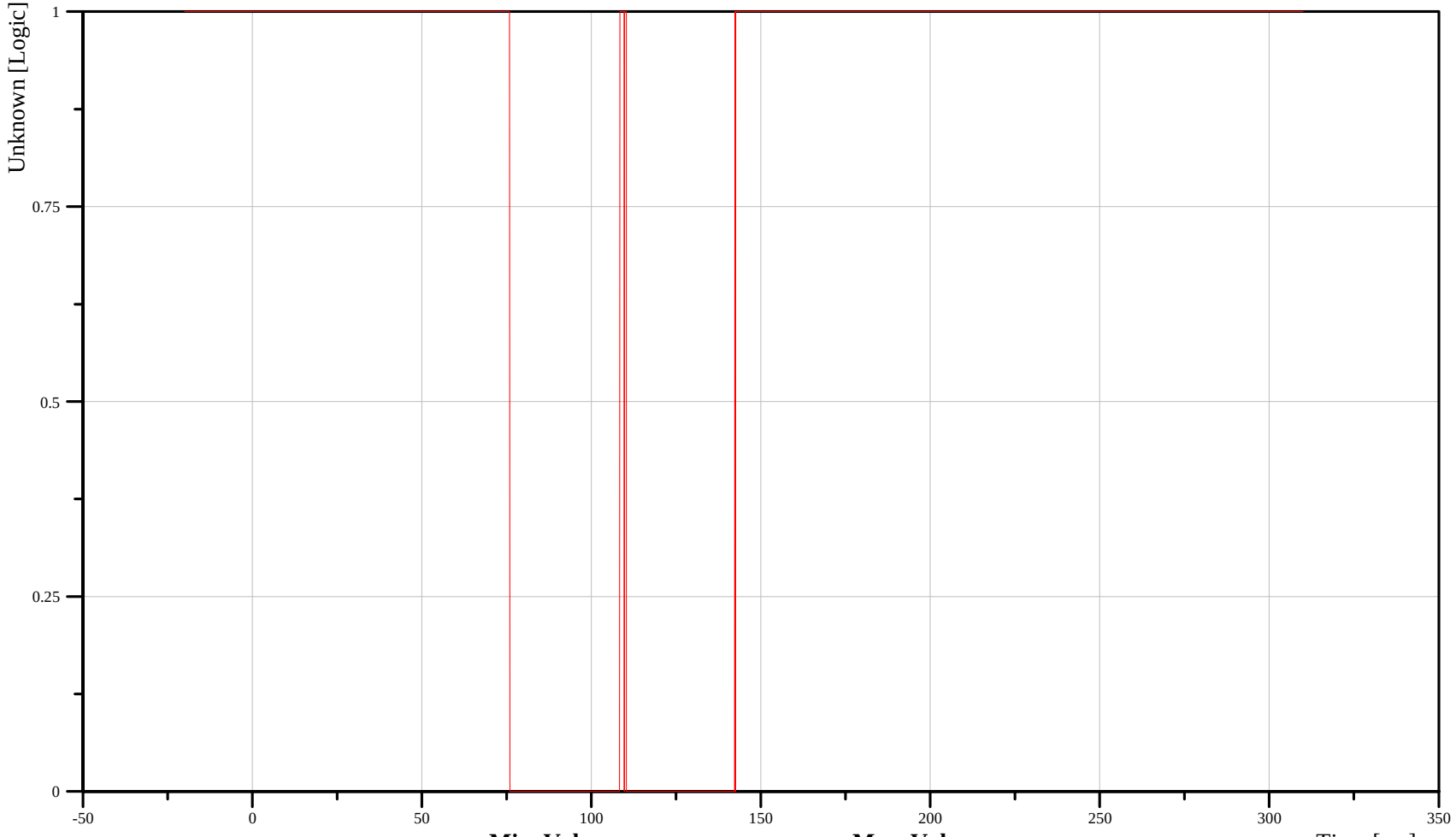
Driver Left Knee Contact Switch

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CONT000003VO00

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: Unfiltered

Min. Value
0.00 Logic at 76.00 ms

Max. Value
1.00 Logic at -20.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

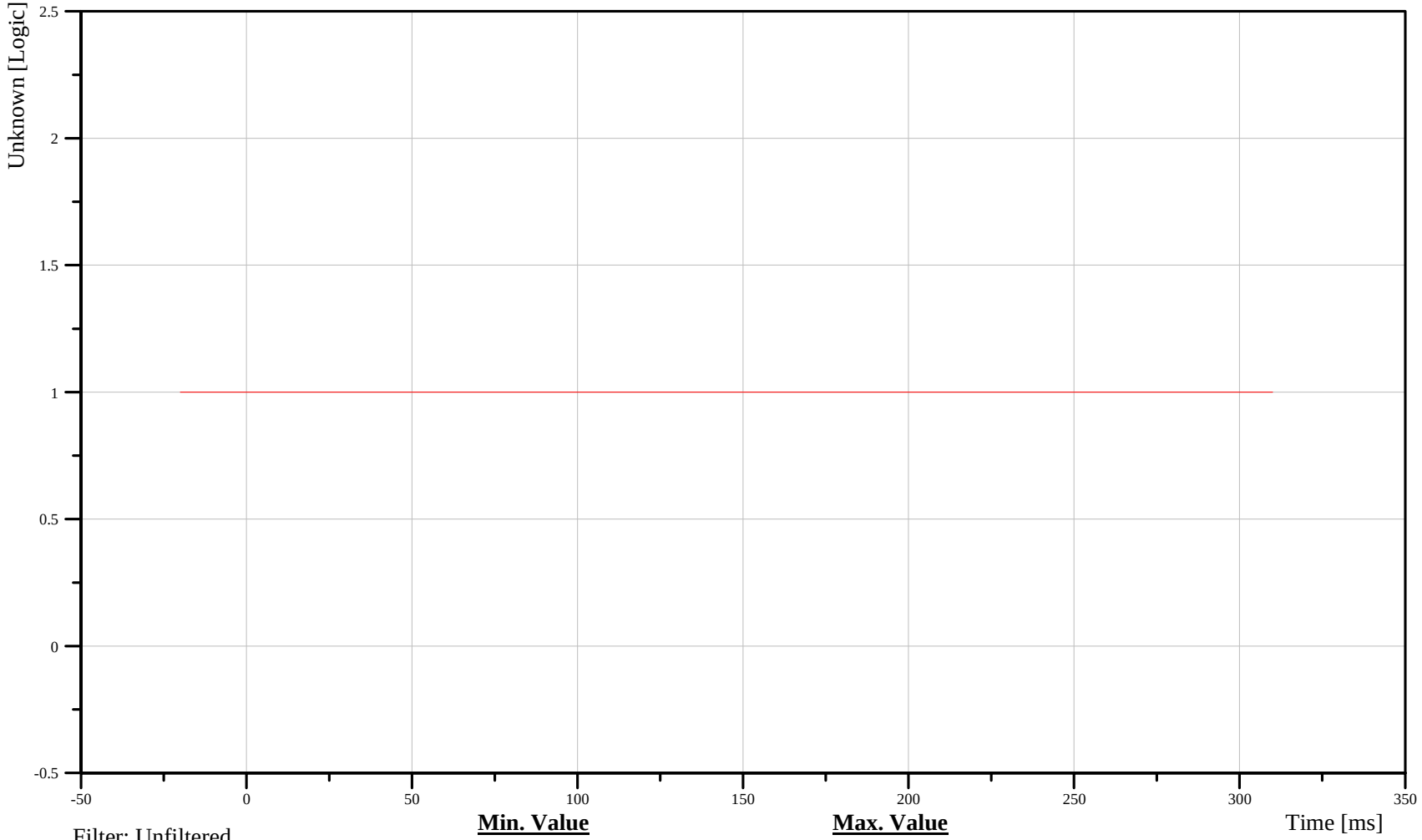
Driver Right Knee Contact Switch

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

11CONT000004VO00

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: Unfiltered

Min. Value
1.00 Logic at -20.00 ms

Max. Value
1.00 Logic at -20.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

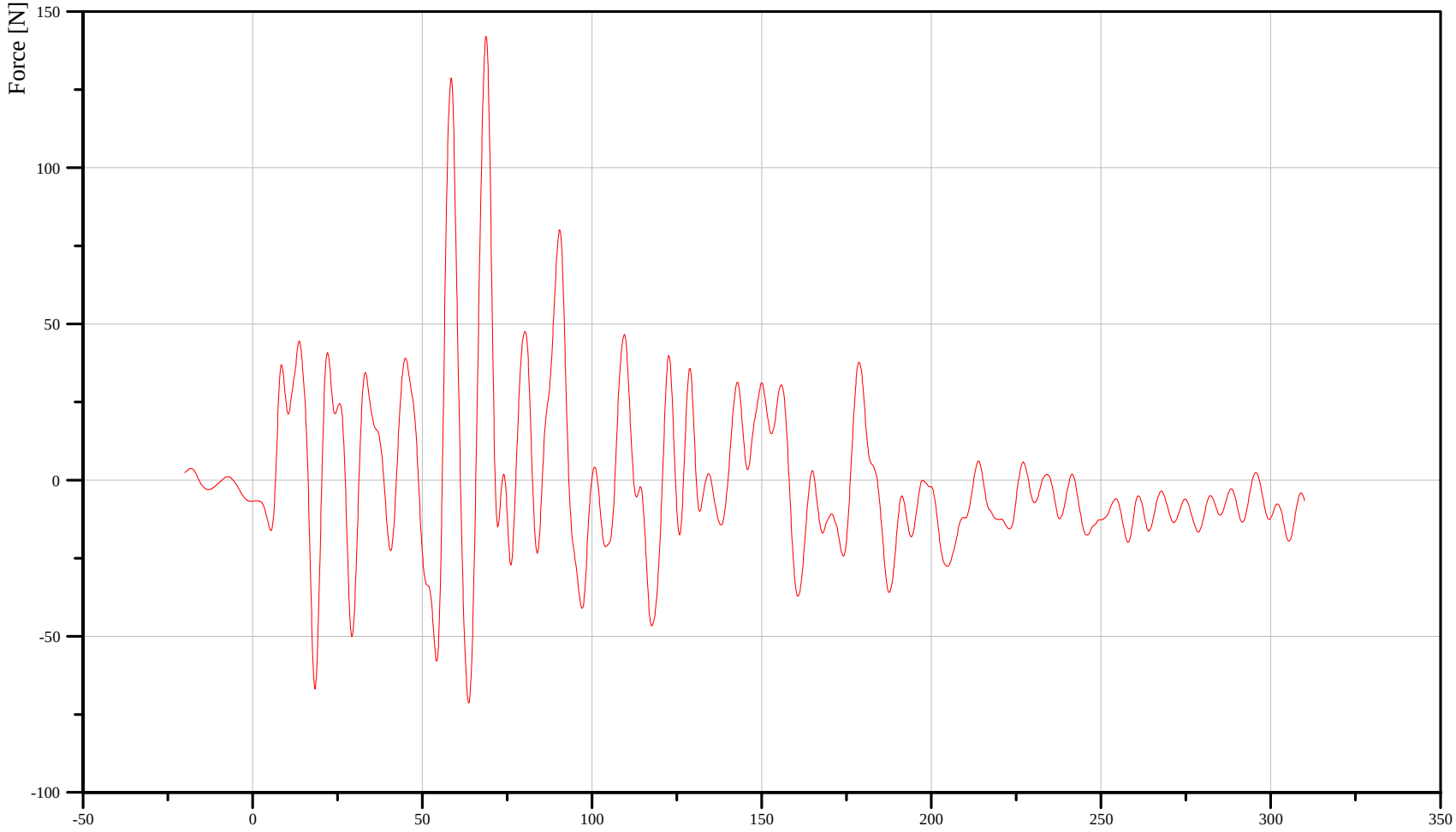
Load Cell Row 1 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000001FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-71.35 N at 63.68 ms

Max. Value
142.15 N at 68.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

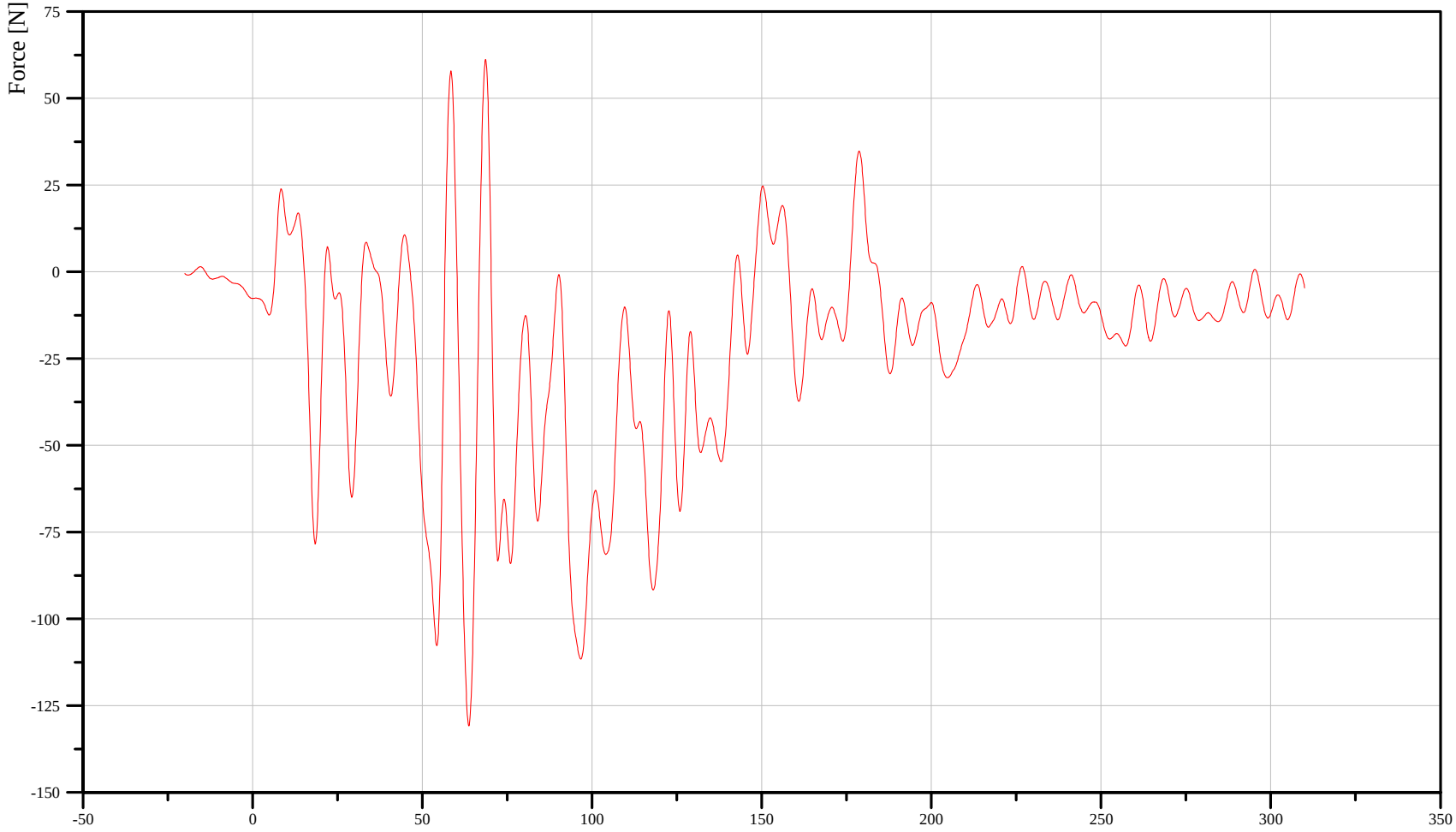
Load Cell Row 2 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000002FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-130.82 N at 63.68 ms

Max. Value
61.23 N at 68.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

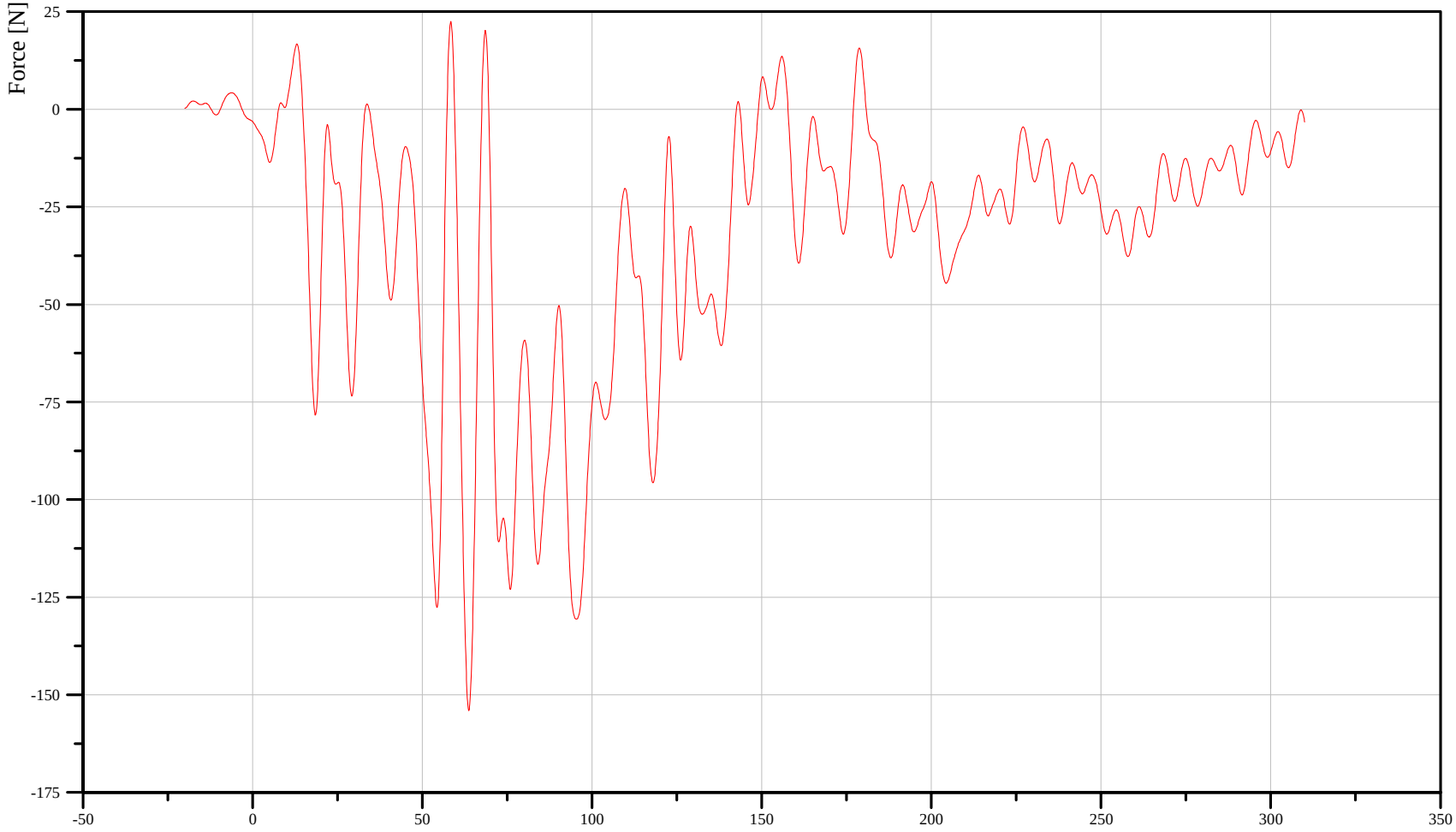
Load Cell Row 3 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000003FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-154.01 N at 63.68 ms

Max. Value
22.53 N at 58.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

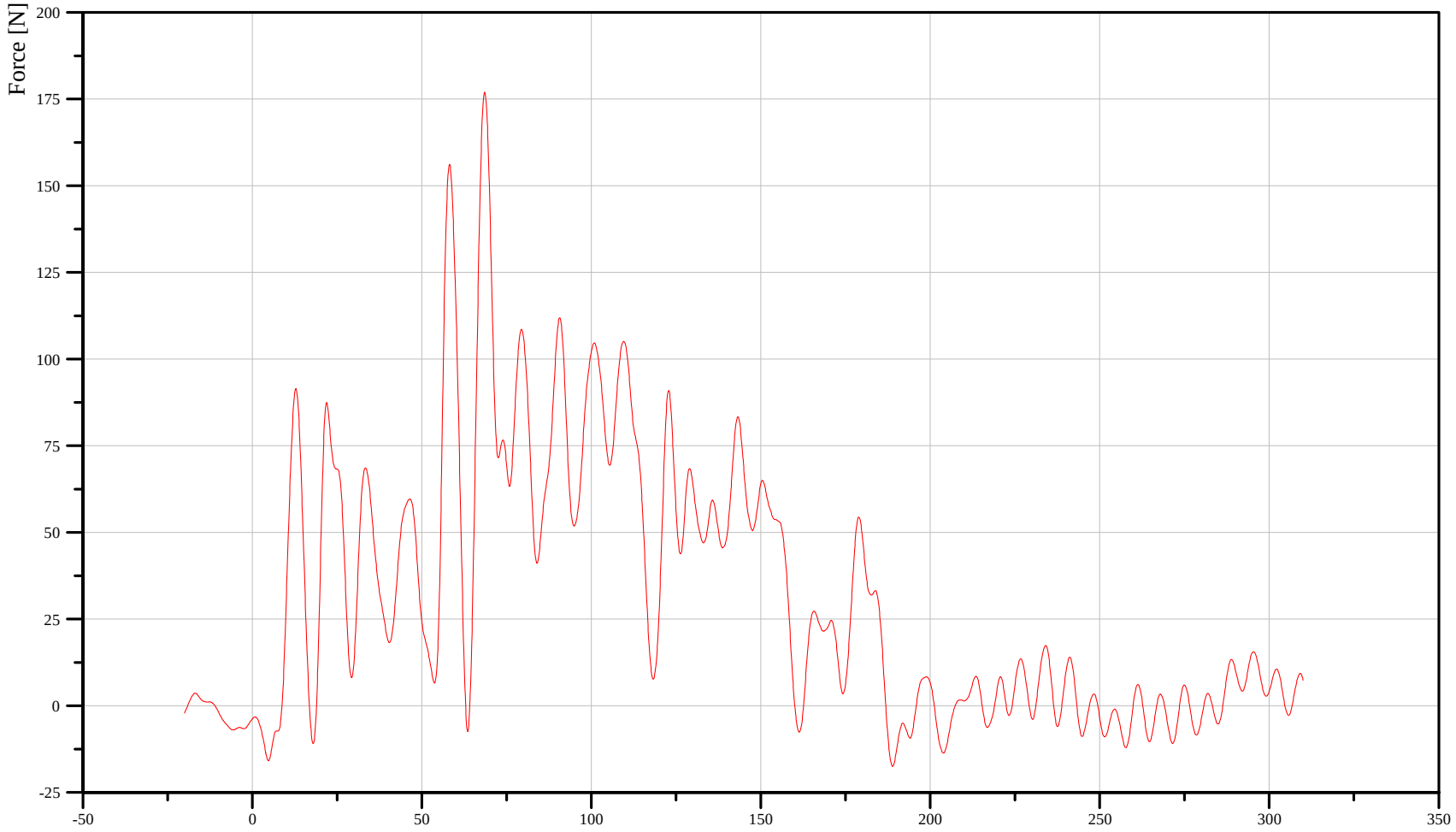
Load Cell Row 4 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000004FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-17.45 N at 188.88 ms

Max. Value
177.01 N at 68.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

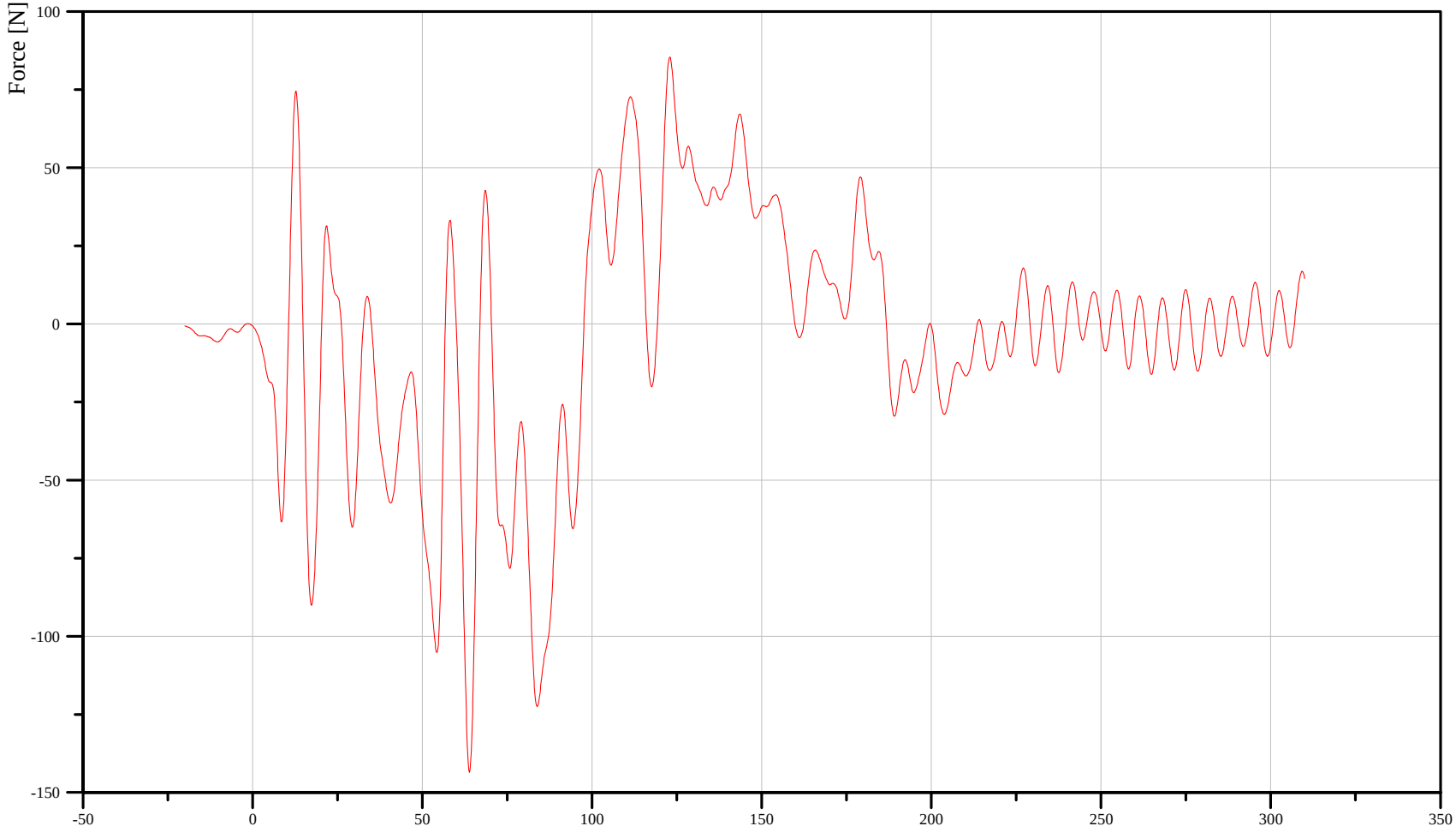
Load Cell Row 5 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000005FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-143.55 N at 63.92 ms

Max. Value
85.43 N at 122.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

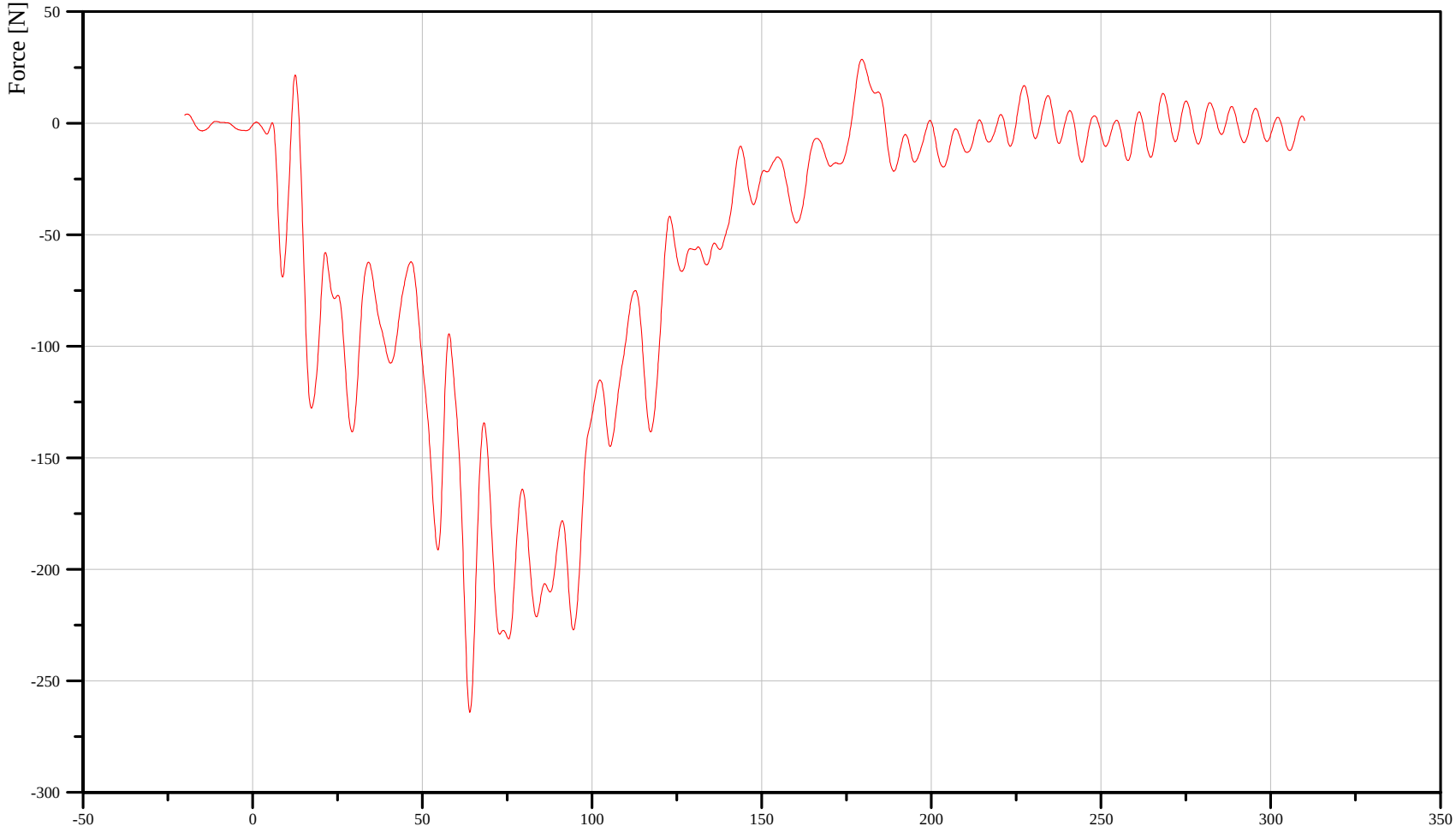
Load Cell Row 6 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000006FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-264.13 N at 64.00 ms

Max. Value
28.63 N at 179.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

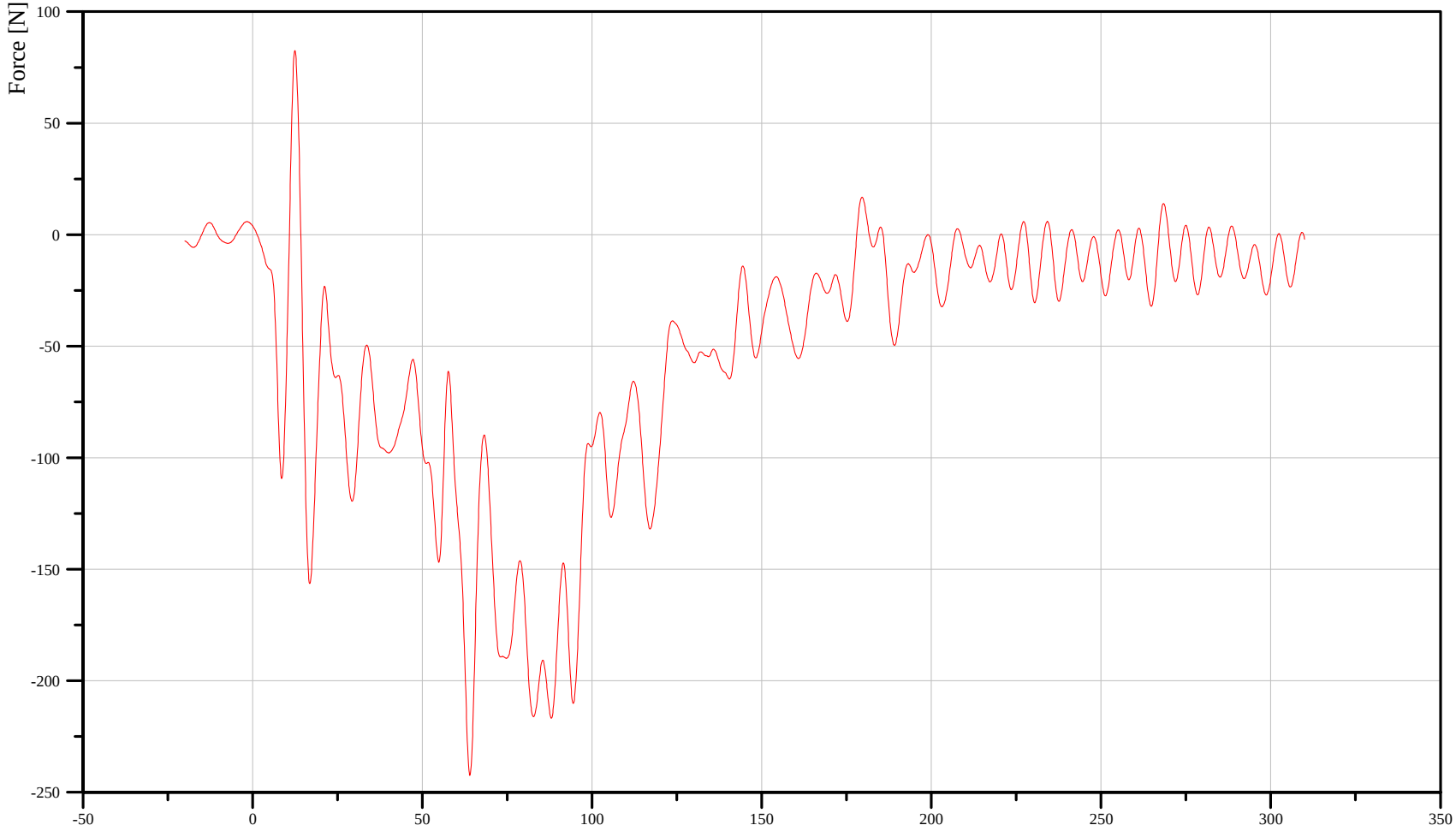
Load Cell Row 7 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000007FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-242.45 N at 64.00 ms

Max. Value
82.60 N at 12.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

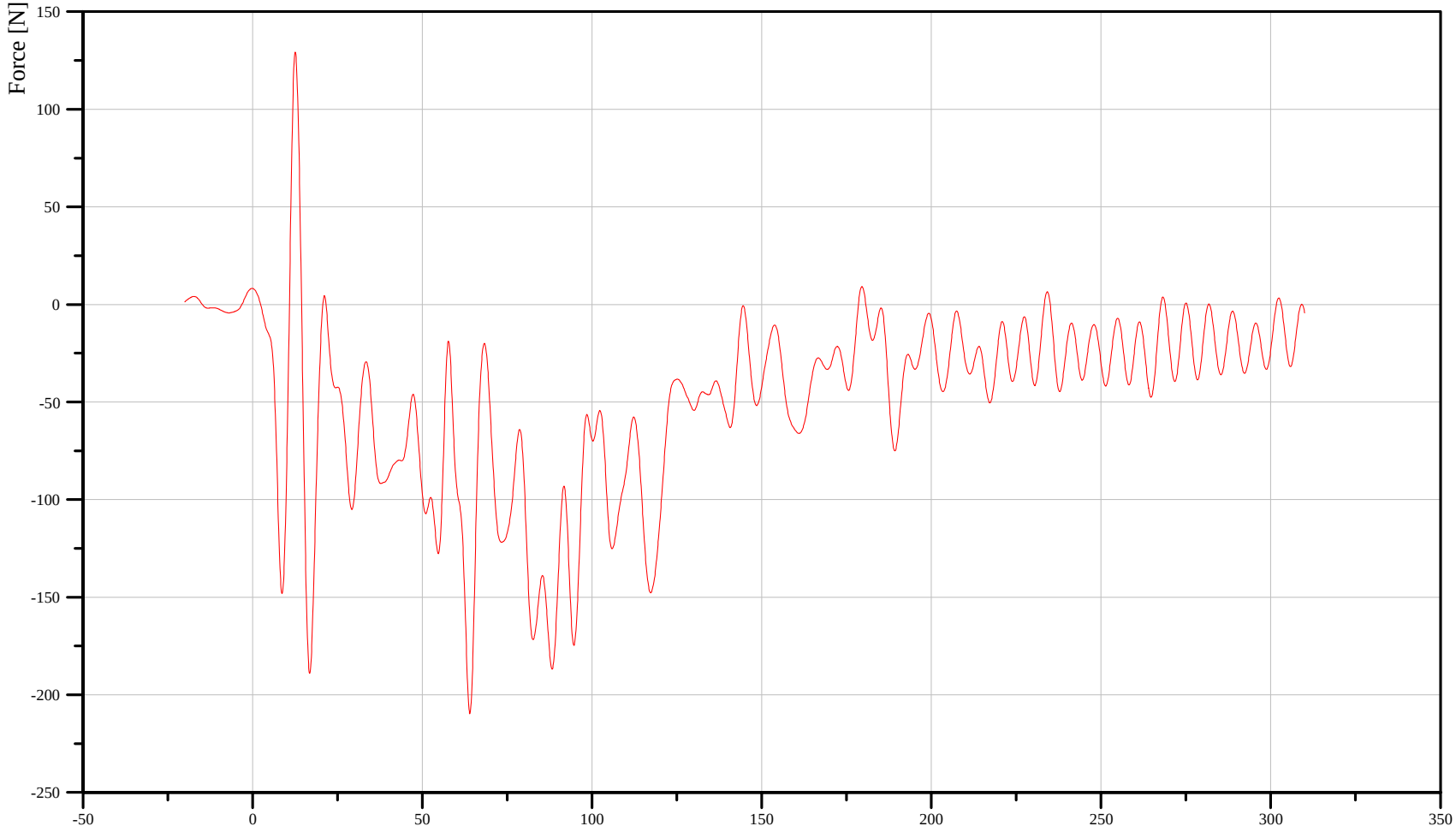
Load Cell Row 8 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000008FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-209.69 N at 64.00 ms

Max. Value
129.34 N at 12.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

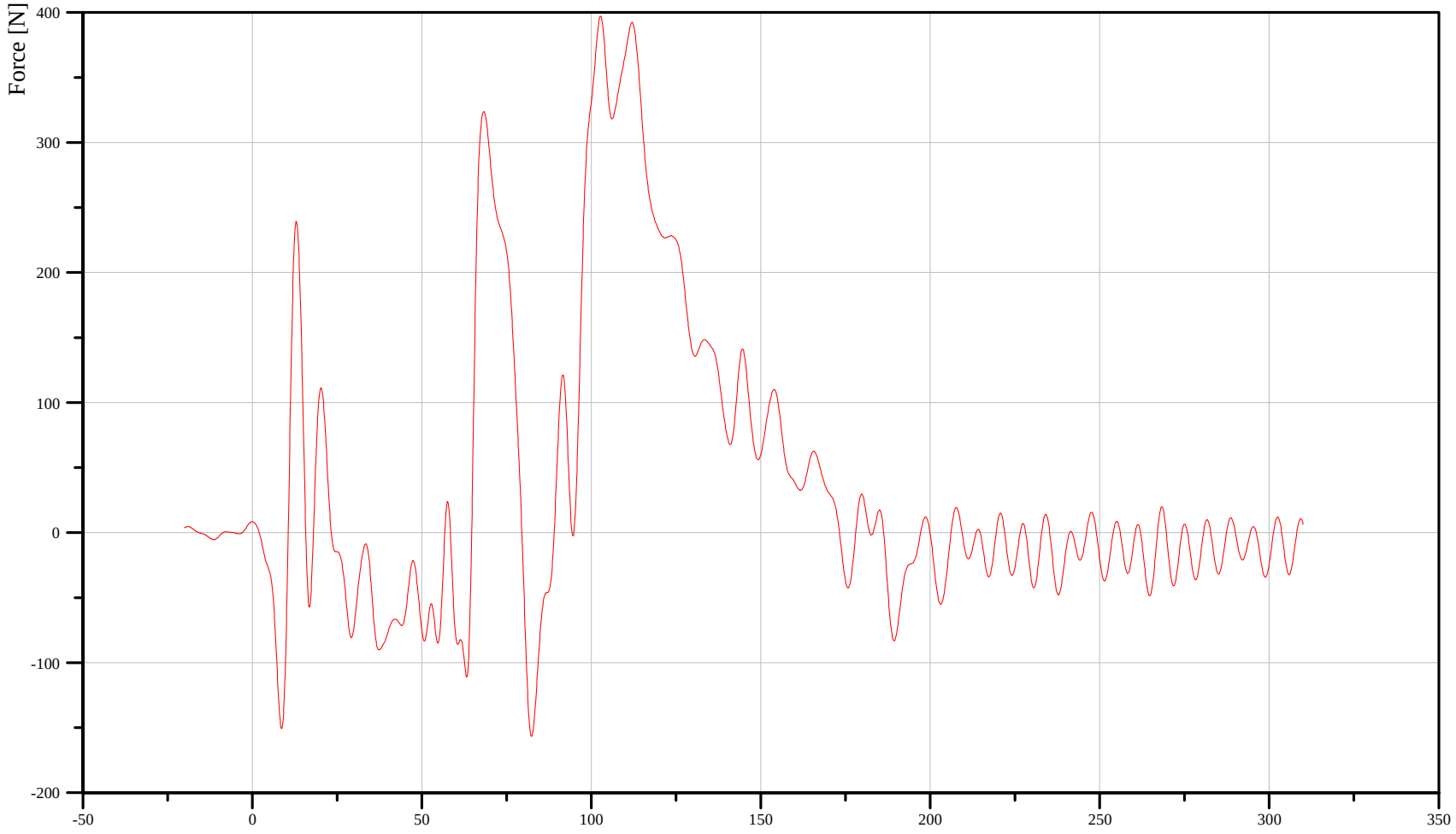
Load Cell Row 9 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000009FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-156.68 N at 82.40 ms

Max. Value
397.17 N at 102.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

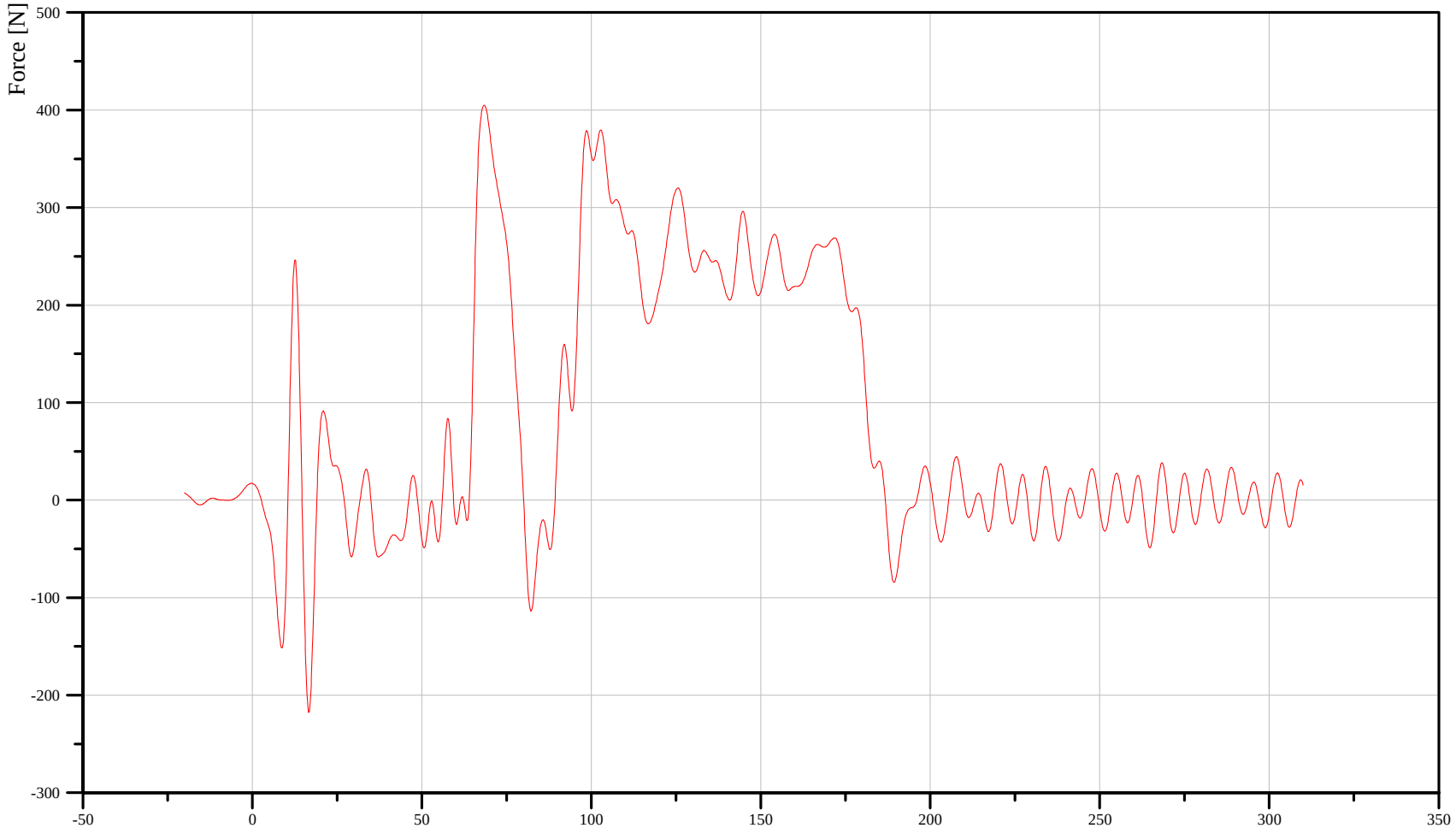
Load Cell Row 10 Column 1

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000010FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-217.60 N at 16.64 ms

Max. Value
404.96 N at 68.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

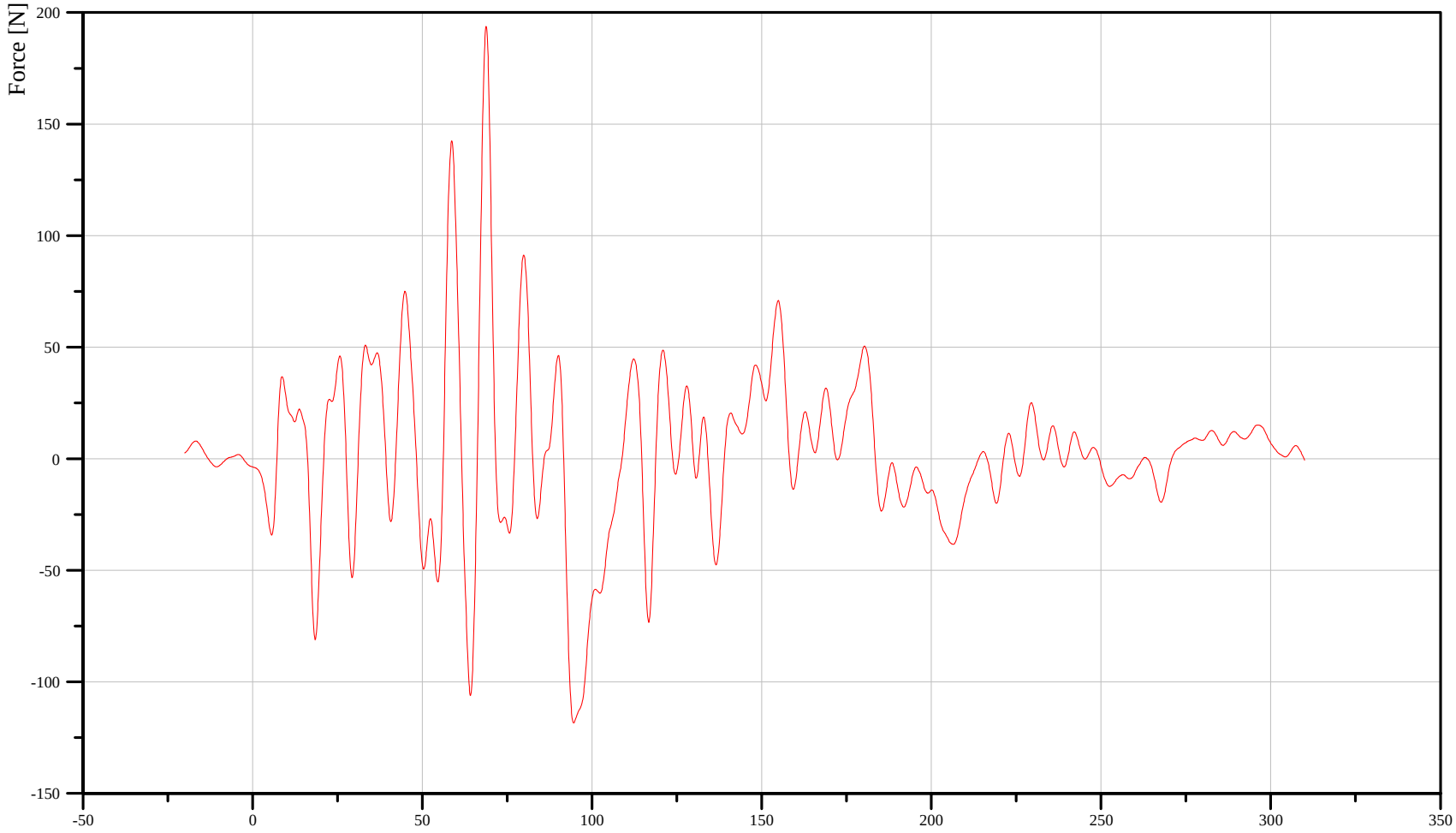
Load Cell Row 1 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000011FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-118.37 N at 94.64 ms

Max. Value
193.80 N at 68.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

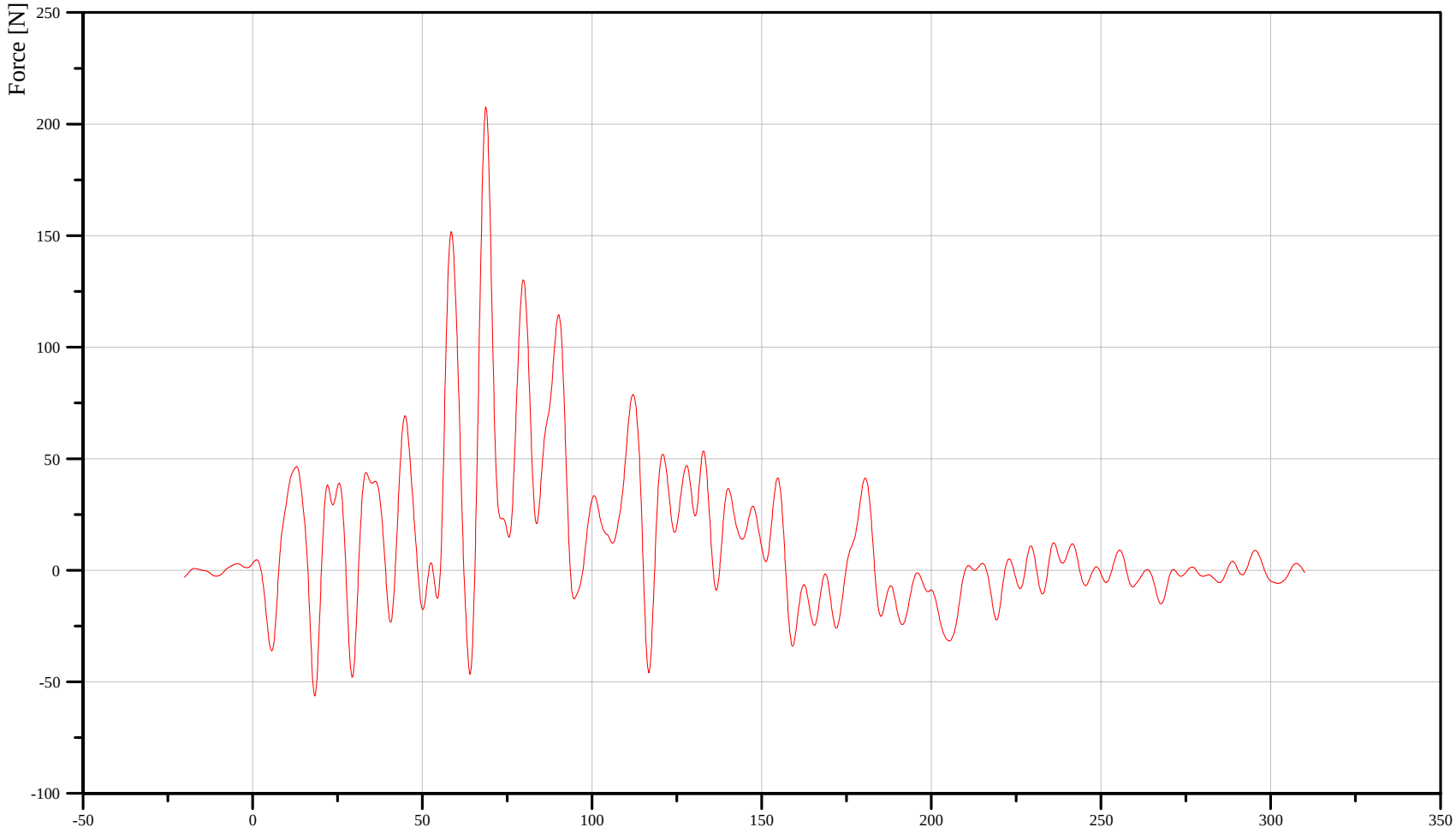
Load Cell Row 2 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000012FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-56.43 N at 18.32 ms

Max. Value
207.64 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

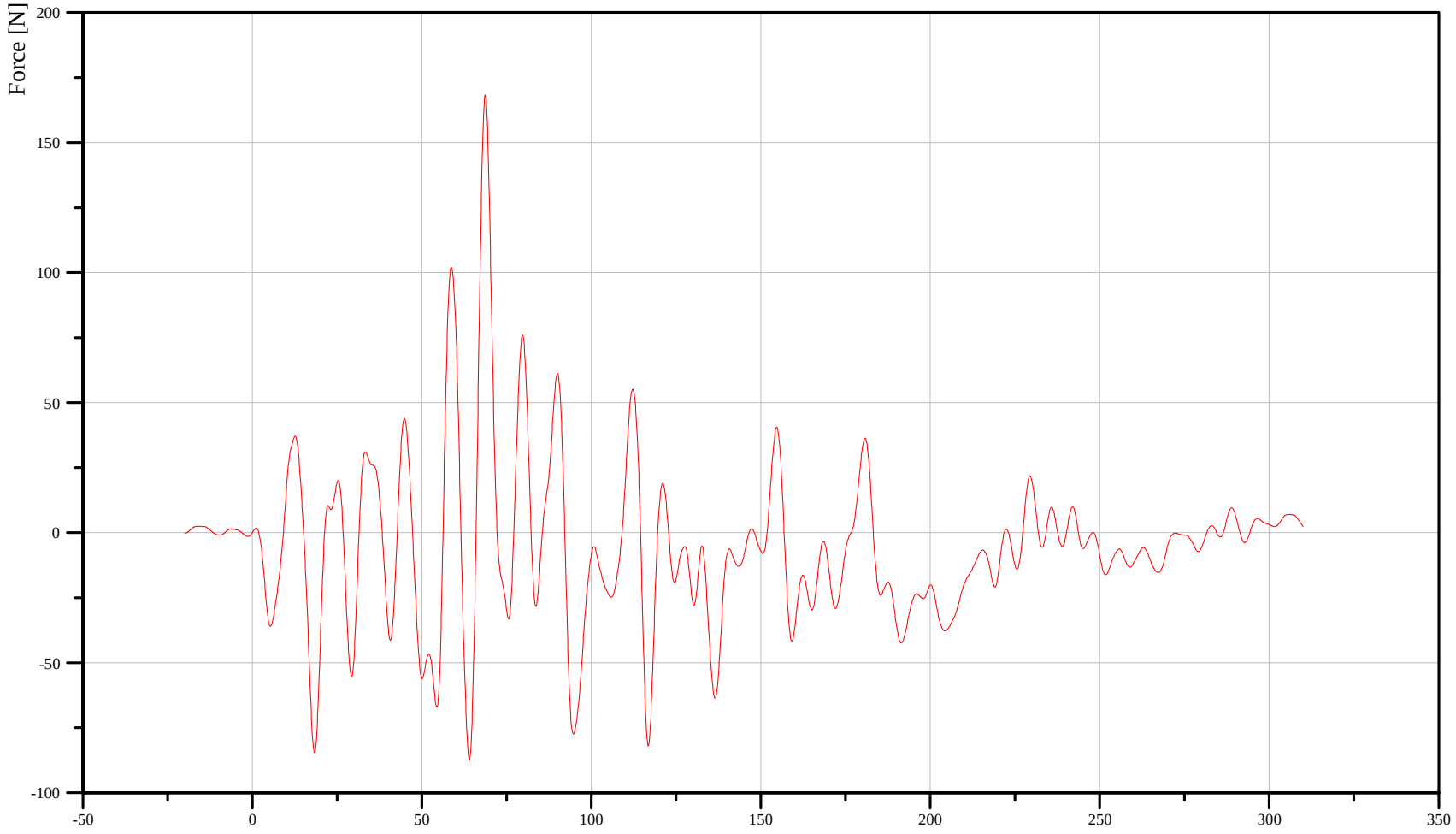
Load Cell Row 3 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000013FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-87.51 N at 64.00 ms

Max. Value
168.31 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

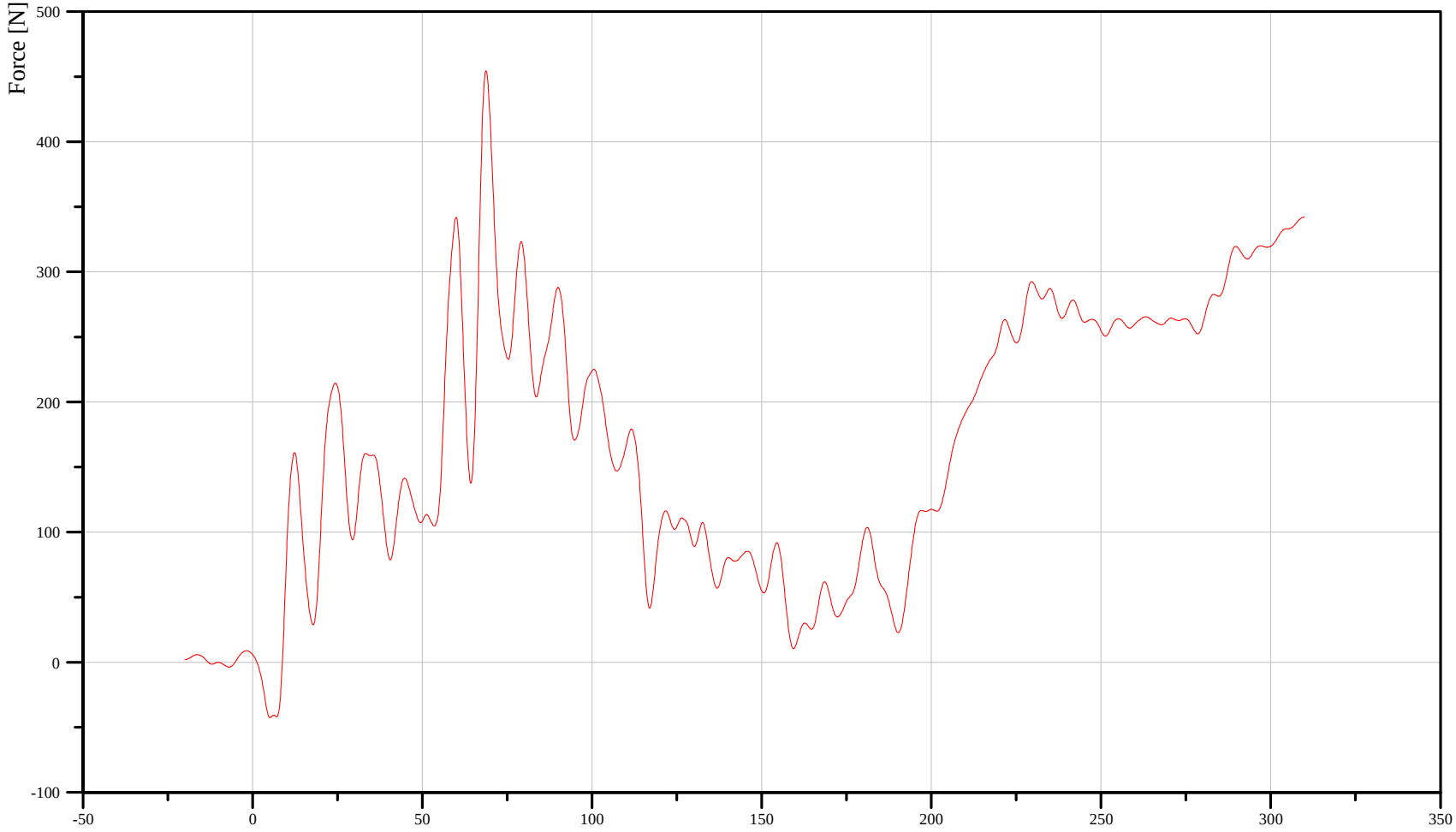
Load Cell Row 4 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000014FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-42.42 N at 5.12 ms

Max. Value
454.57 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

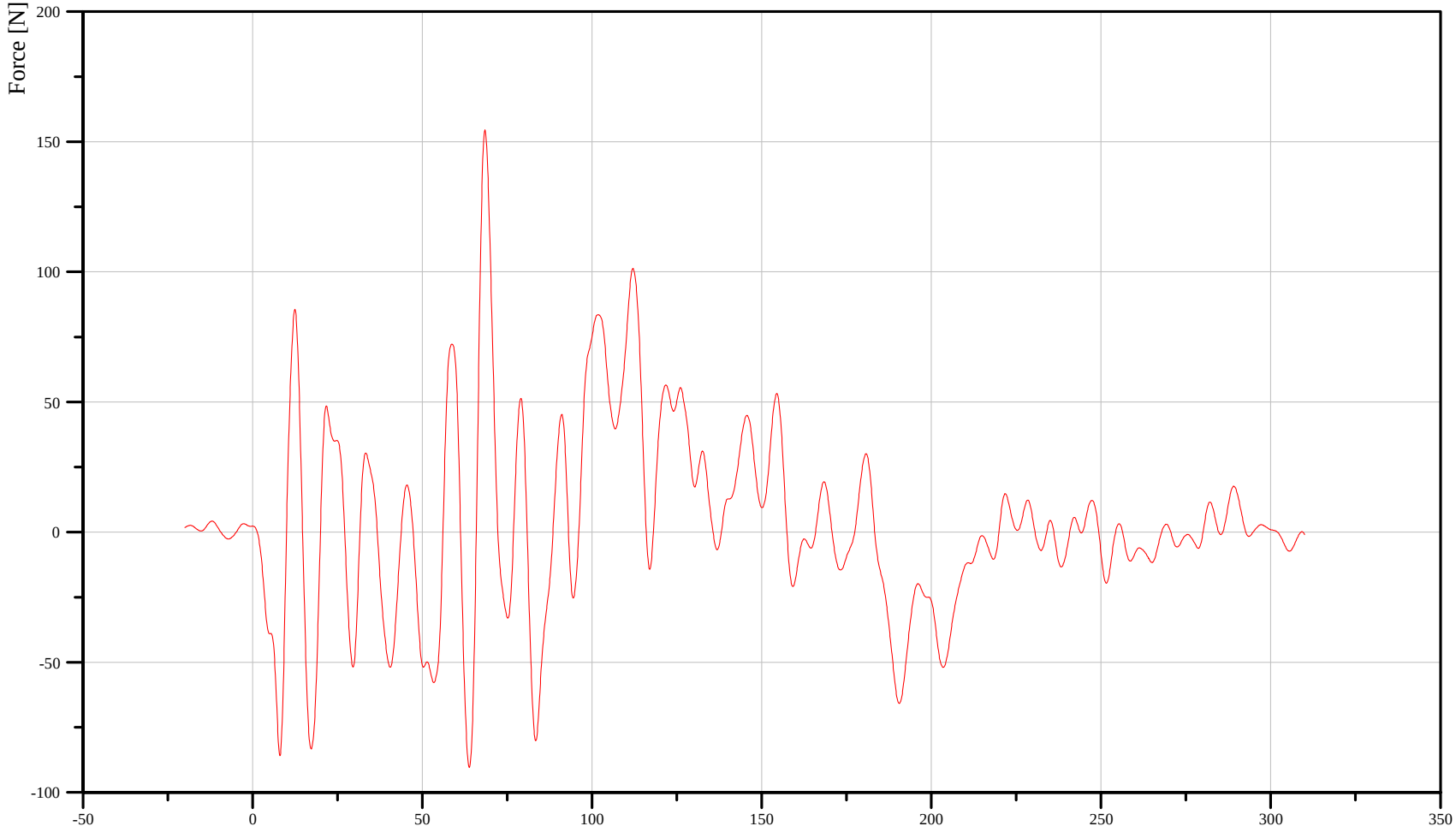
Load Cell Row 5 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000015FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-90.48 N at 63.84 ms

Max. Value
154.55 N at 68.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

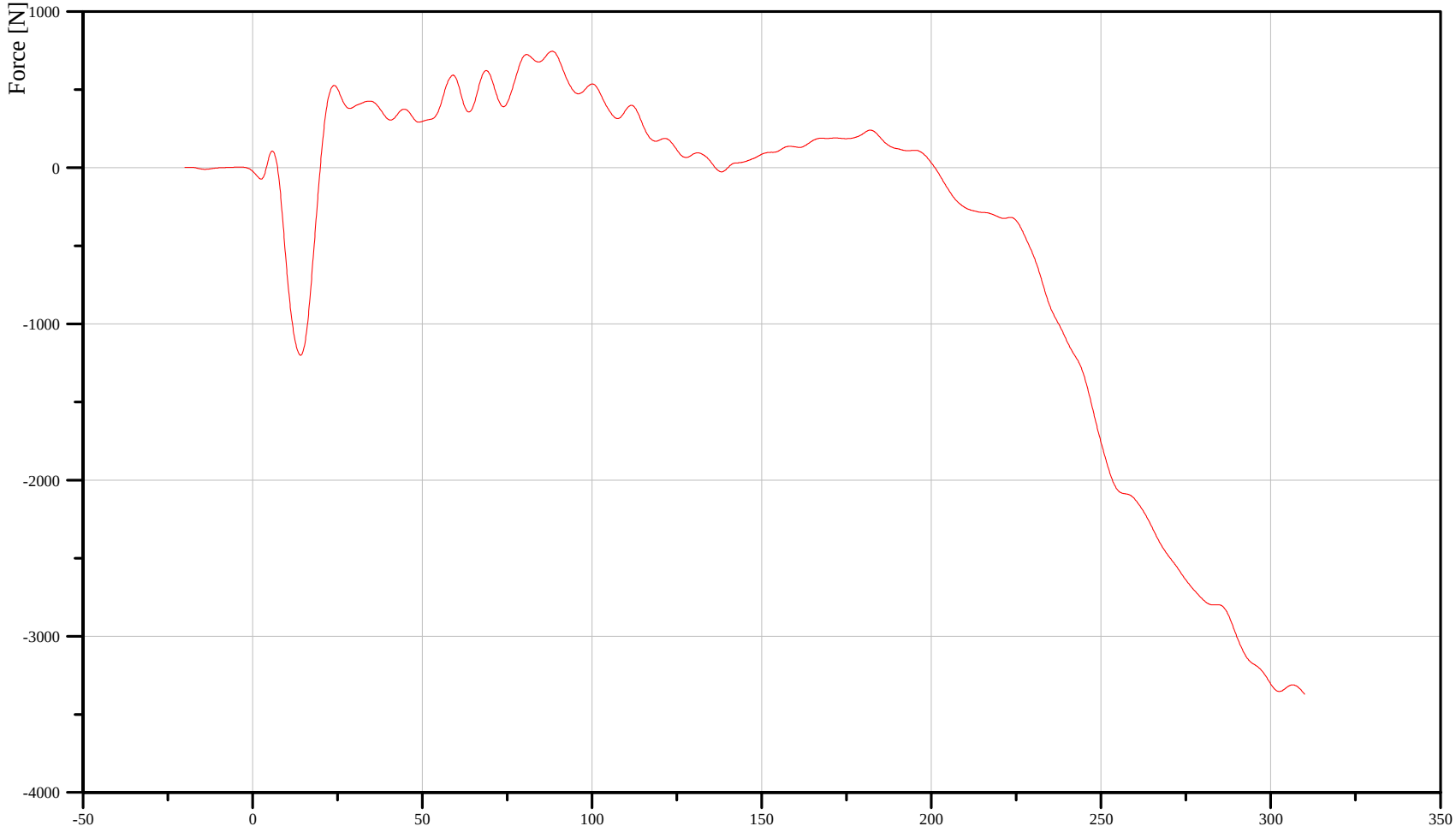
Load Cell Row 6 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000016FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-3,371.39 N at 310.00 ms

Max. Value
746.12 N at 88.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

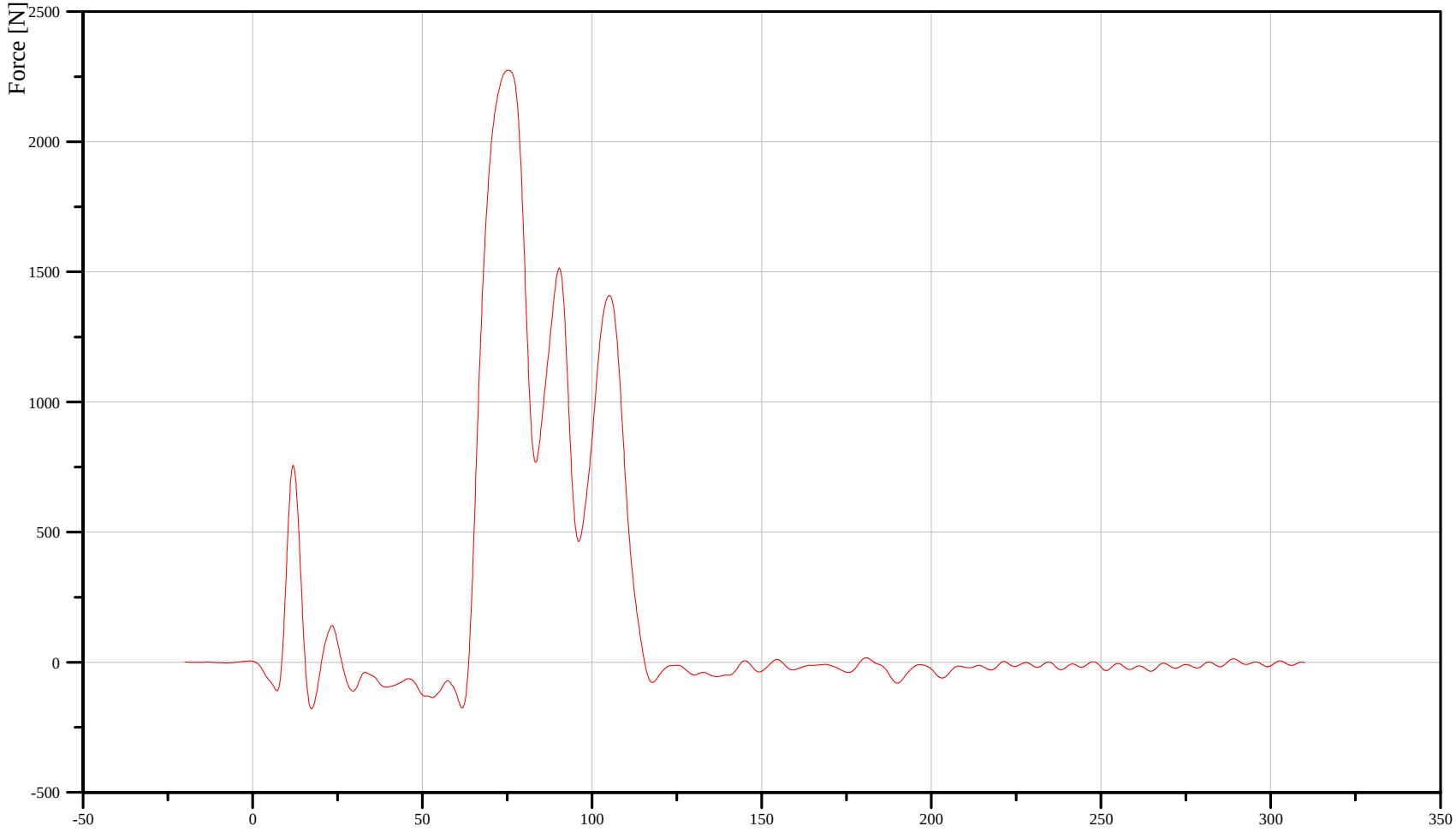
Load Cell Row 7 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000017FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-178.41 N at 17.36 ms

Max. Value
2,274.99 N at 75.36 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

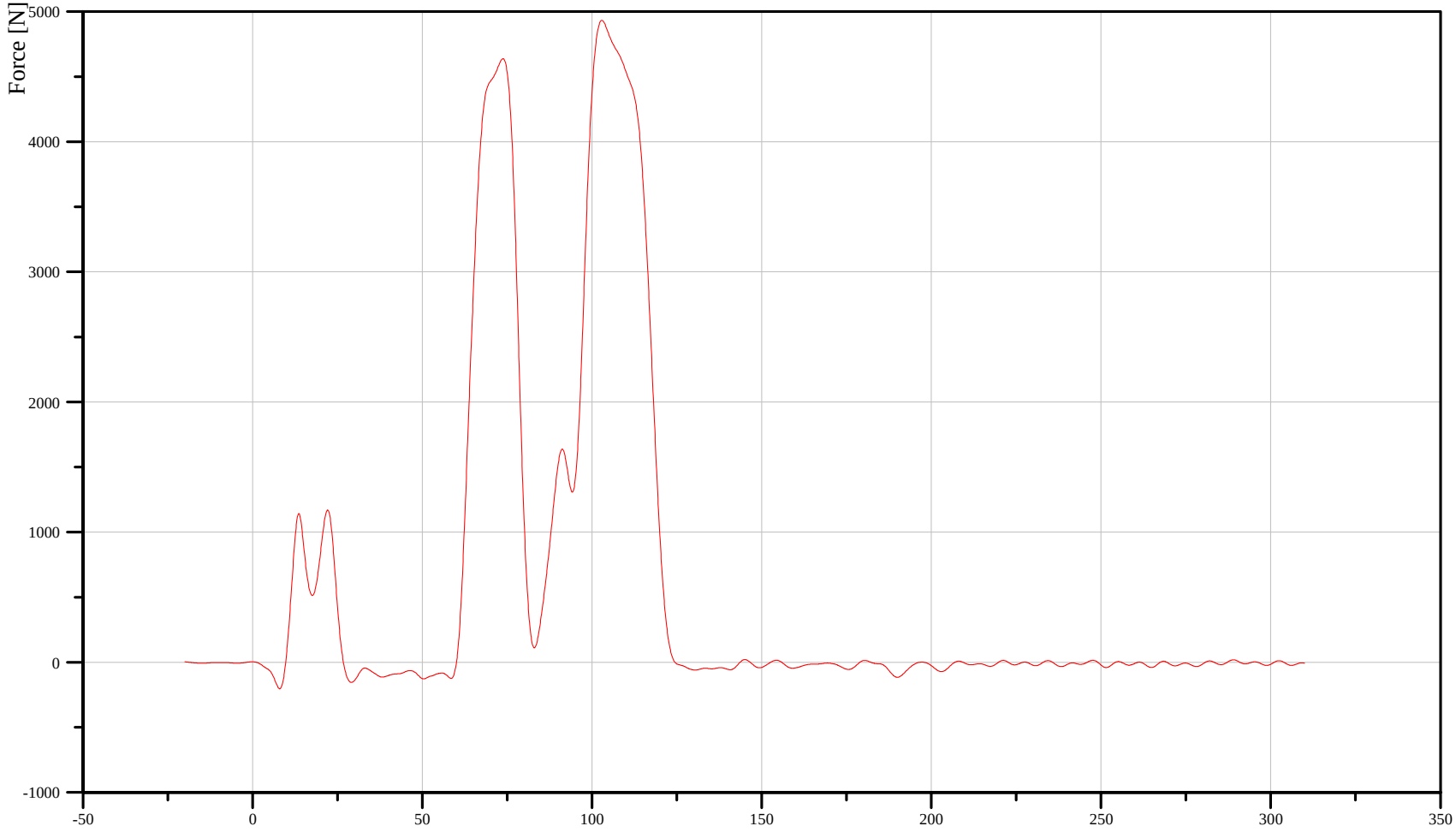
Load Cell Row 8 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000018FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-203.06 N at 8.00 ms

Max. Value
4,933.52 N at 102.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

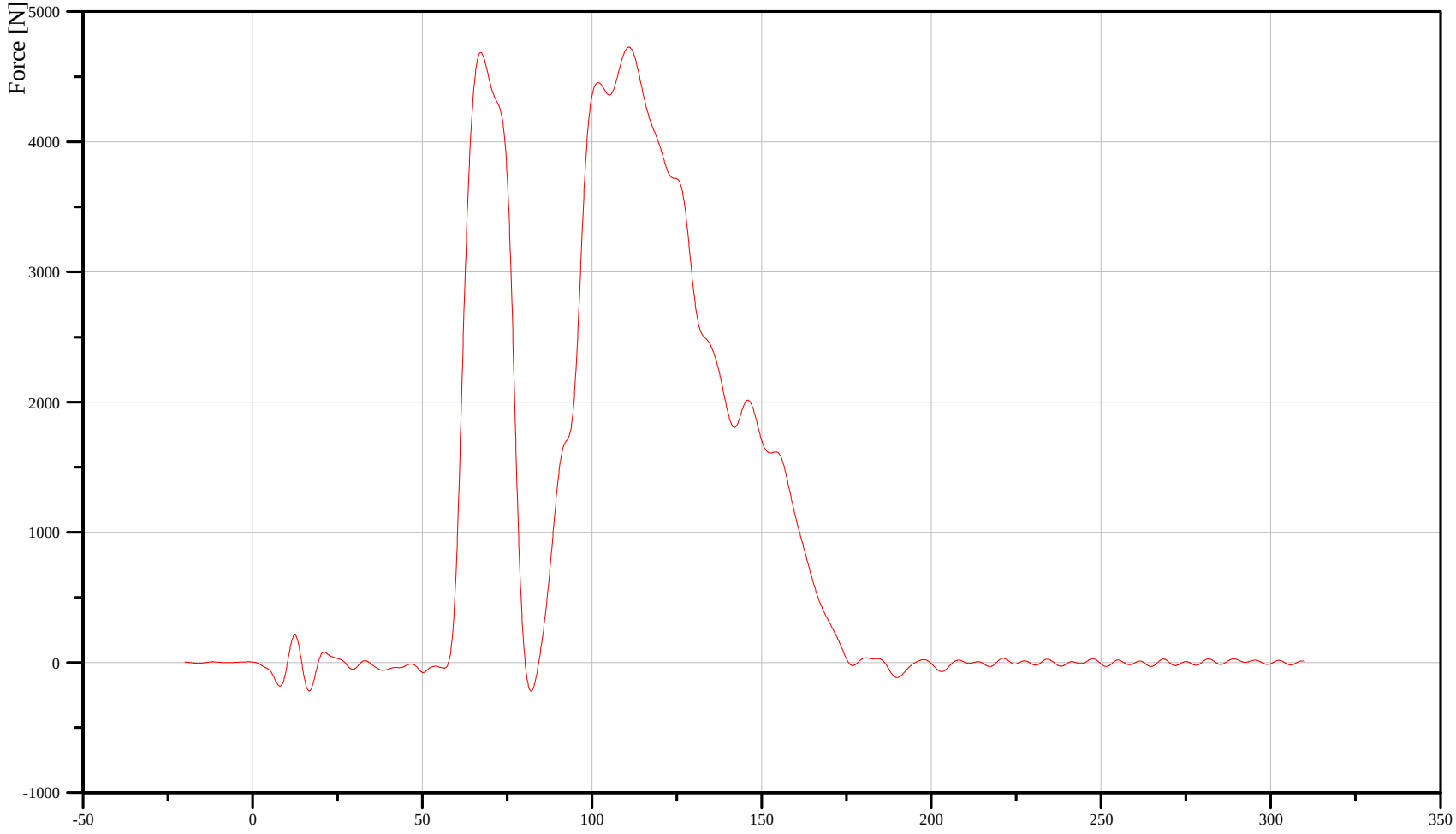
Load Cell Row 9 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000019FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-219.60 N at 82.08 ms

Max. Value
4,727.55 N at 110.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

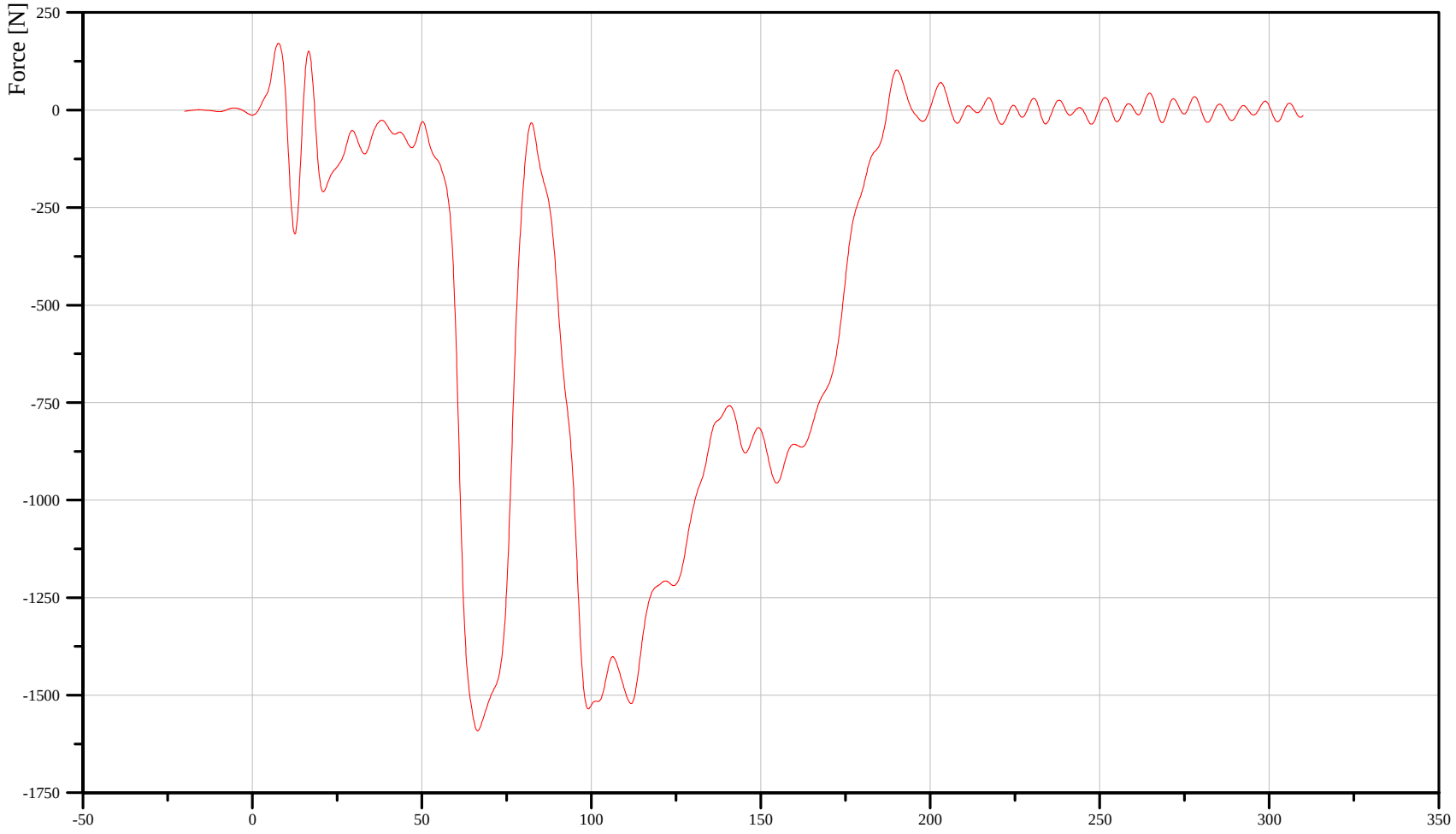
Load Cell Row 10 Column 2

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000020FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-1,591.41 N at 66.48 ms

Max. Value
170.69 N at 7.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

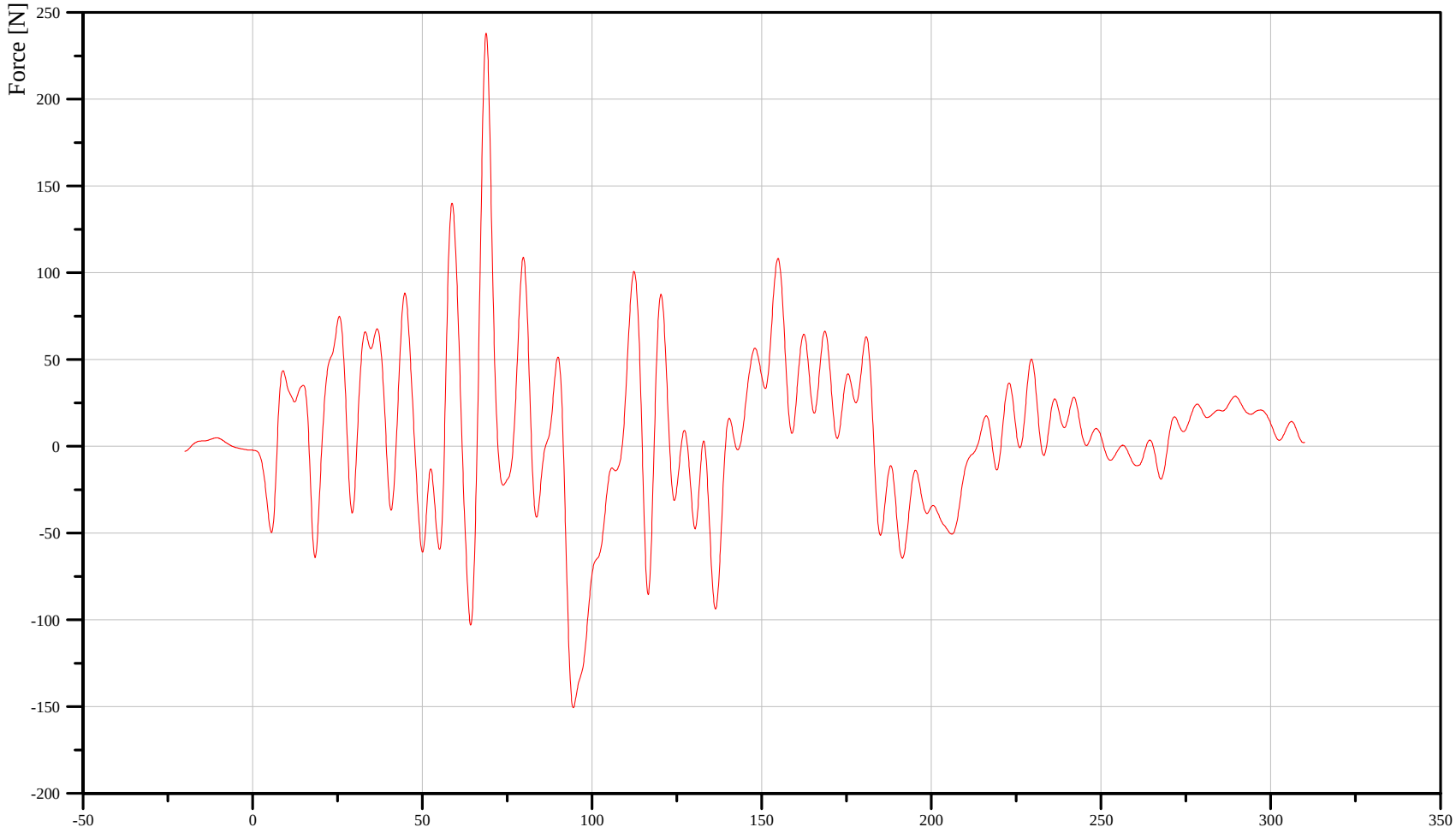
Load Cell Row 1 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000021FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-150.63 N at 94.48 ms

Max. Value
238.09 N at 68.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

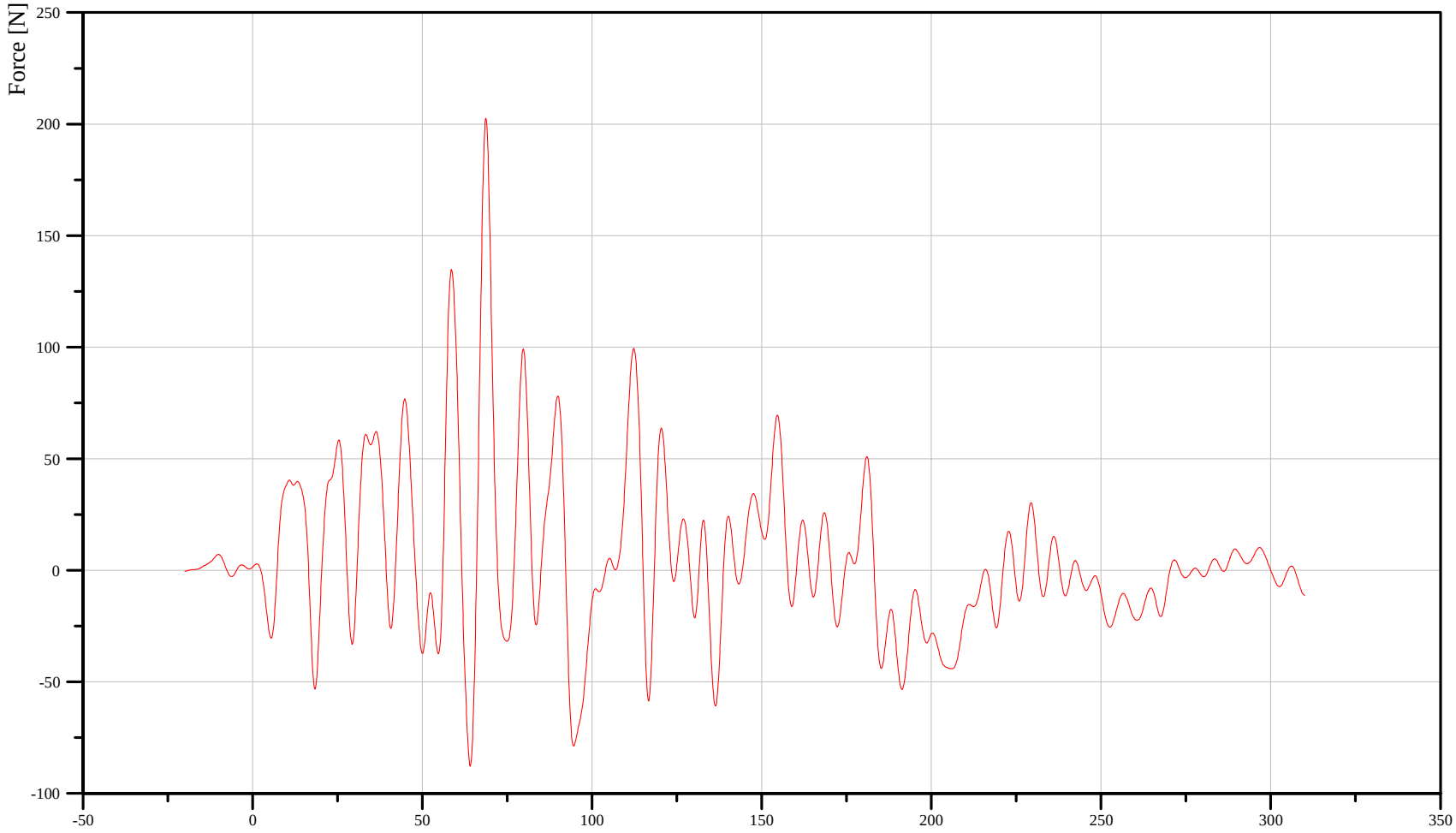
Load Cell Row 2 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000022FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-87.74 N at 64.16 ms

Max. Value
202.69 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

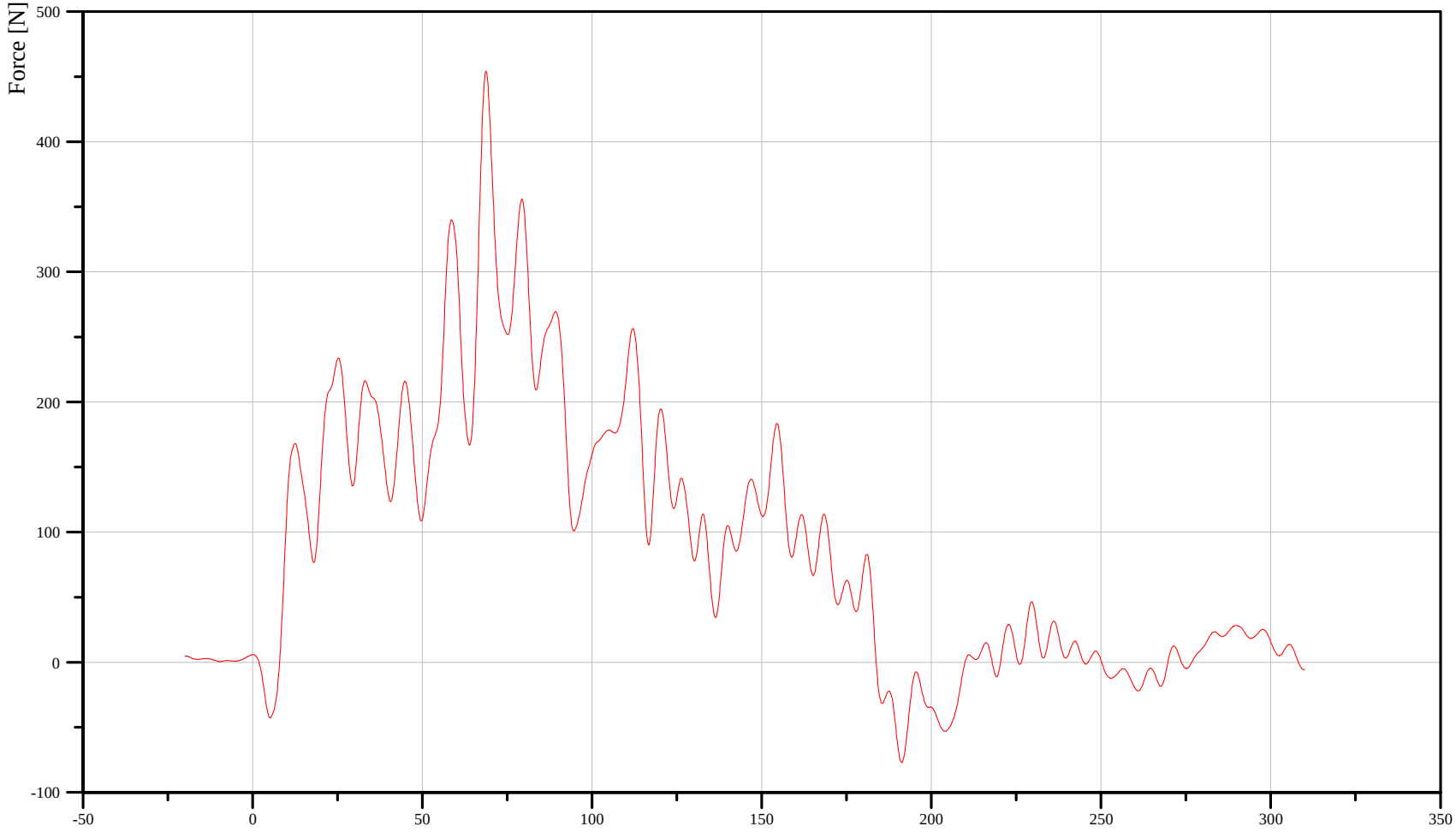
Load Cell Row 3 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000023FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-76.99 N at 191.28 ms

Max. Value
454.24 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

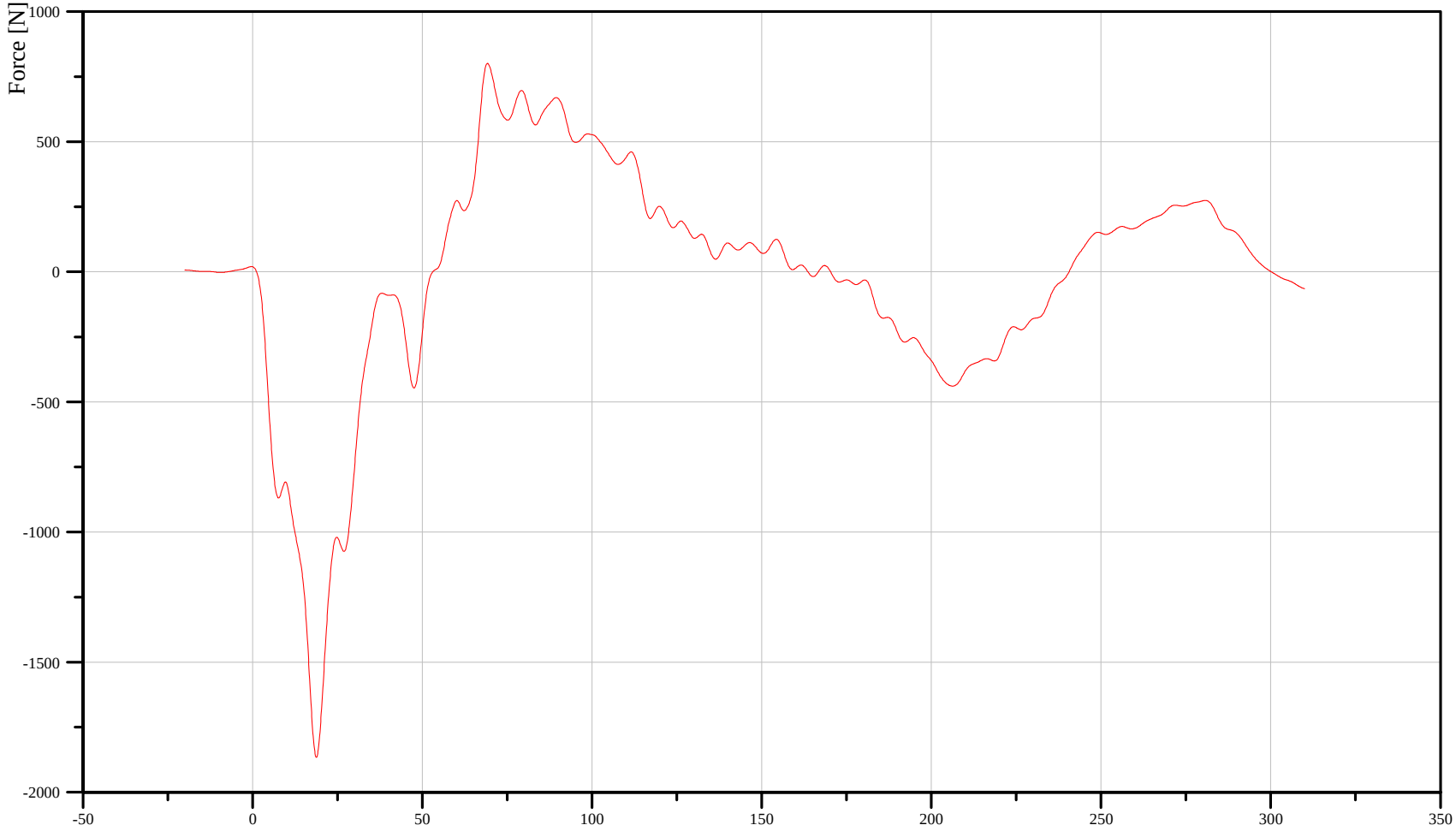
Load Cell Row 4 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000024FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-1,865.60 N at 18.80 ms

Max. Value
800.90 N at 69.20 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

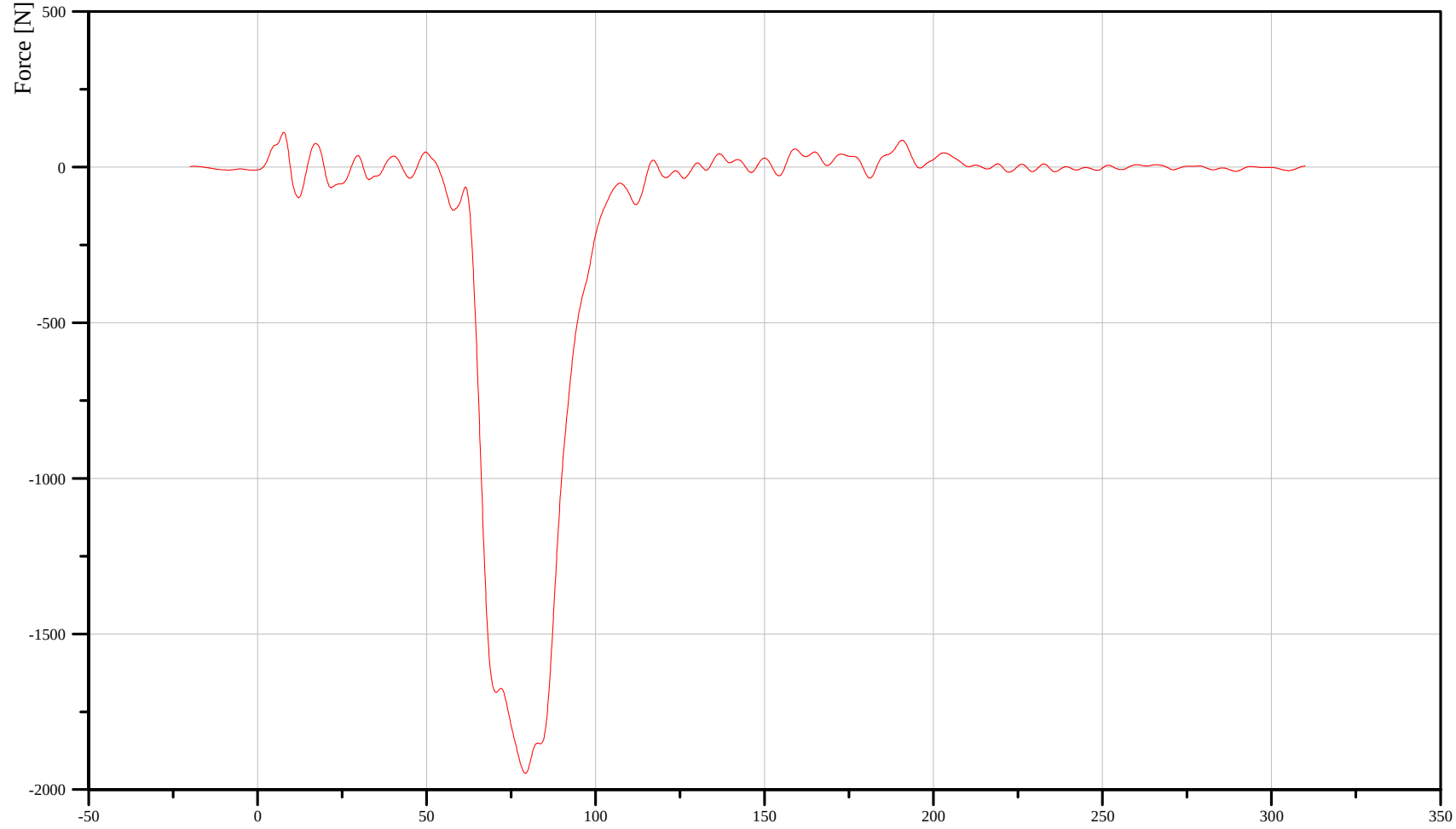
Load Cell Row 5 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000025FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-1,947.84 N at 79.28 ms

Max. Value
112.23 N at 7.76 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

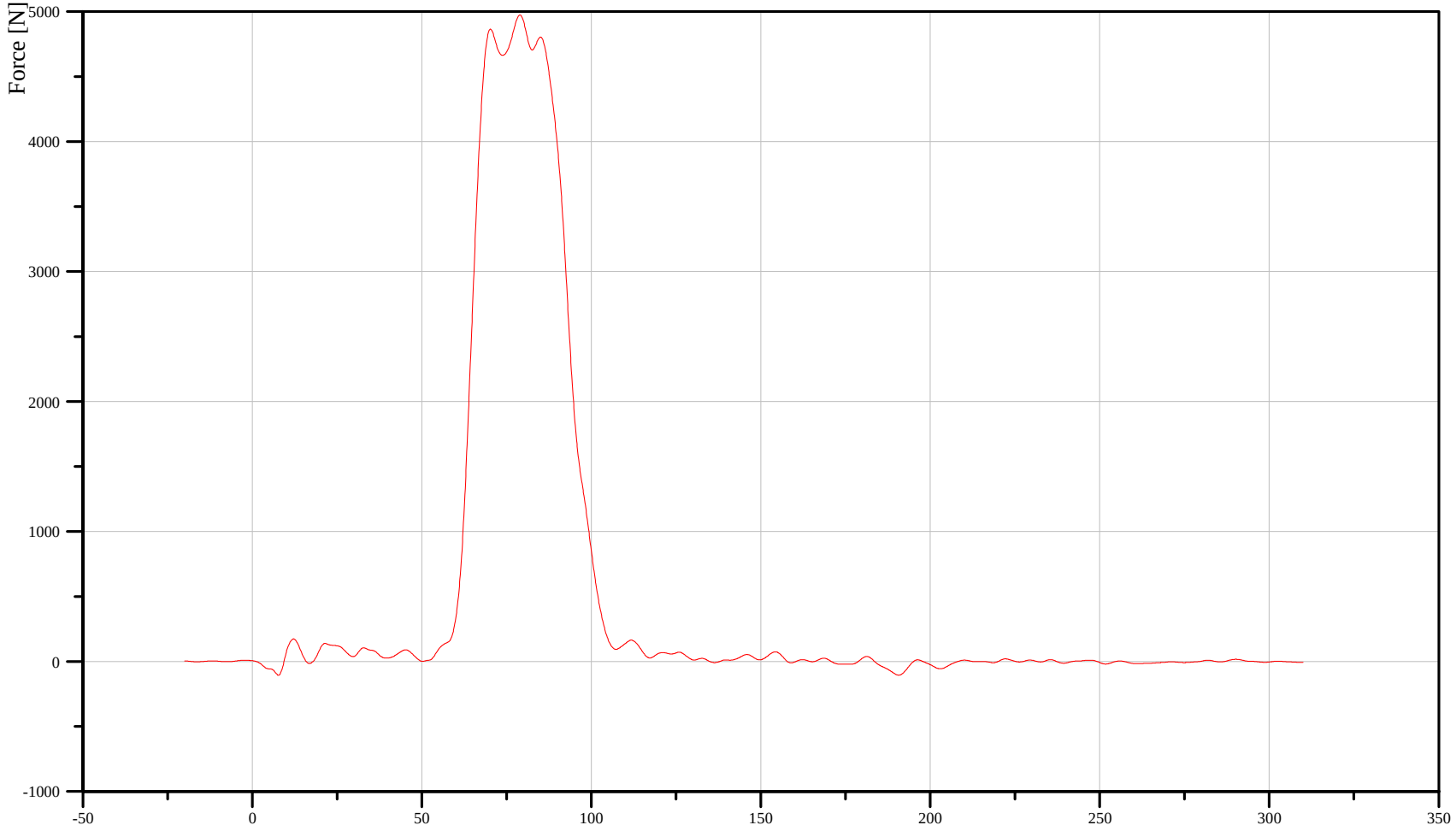
Load Cell Row 6 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000026FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-105.62 N at 7.68 ms

Max. Value
4,974.27 N at 78.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

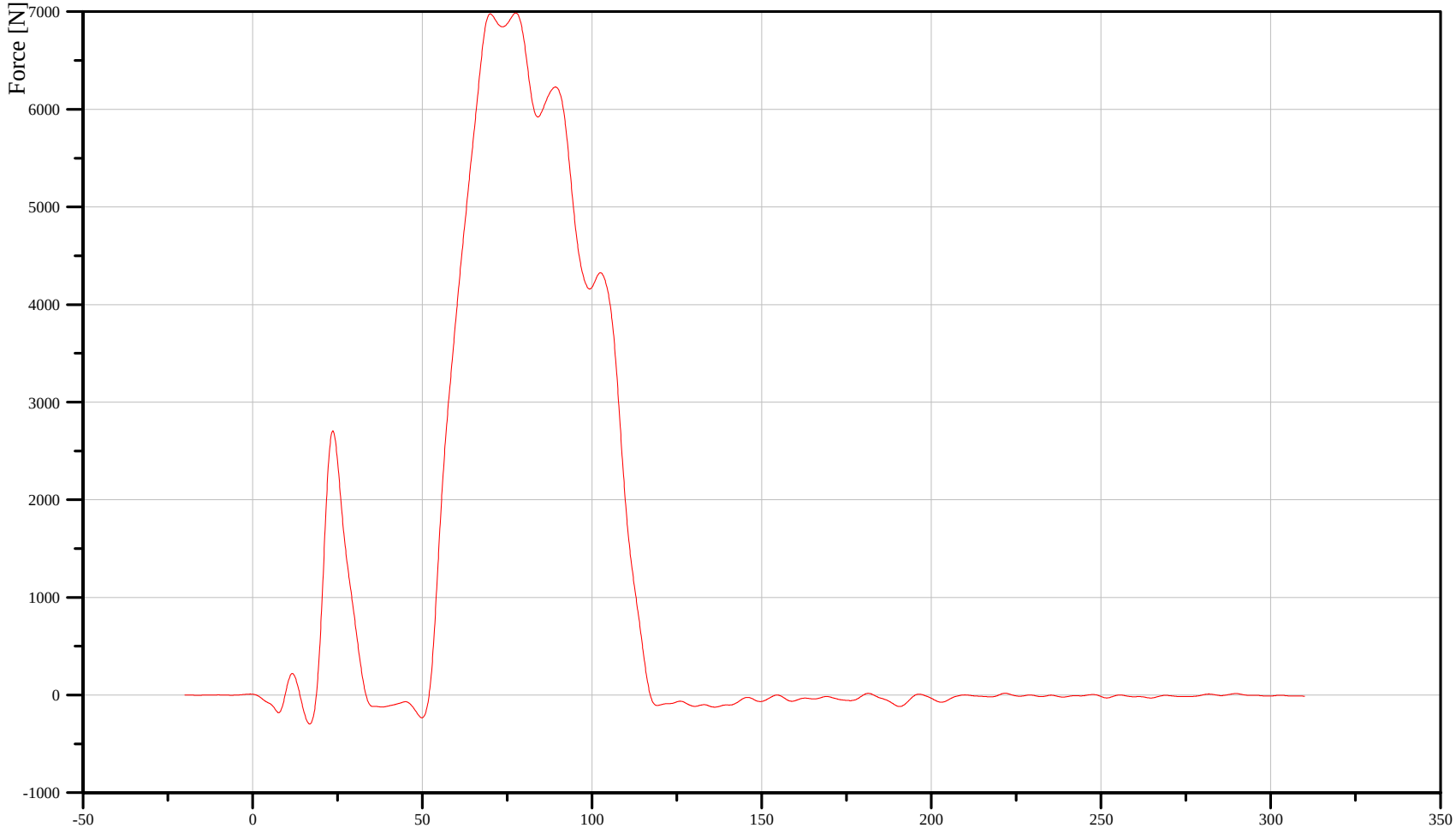
Load Cell Row 7 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000027FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-295.99 N at 16.80 ms

Max. Value
6,986.49 N at 77.52 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

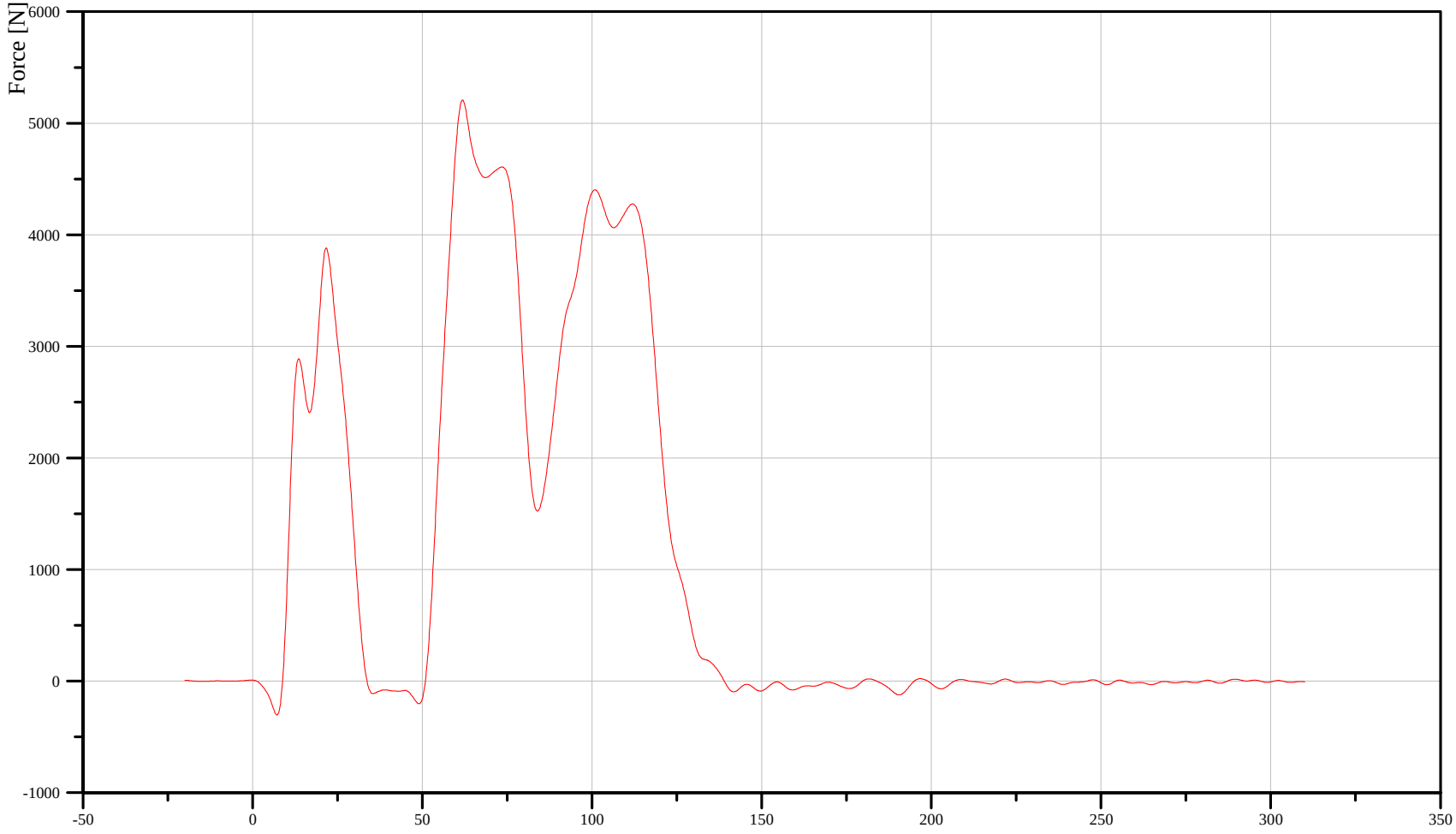
Load Cell Row 8 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000028FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-302.92 N at 7.20 ms

Max. Value
5,208.42 N at 61.84 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

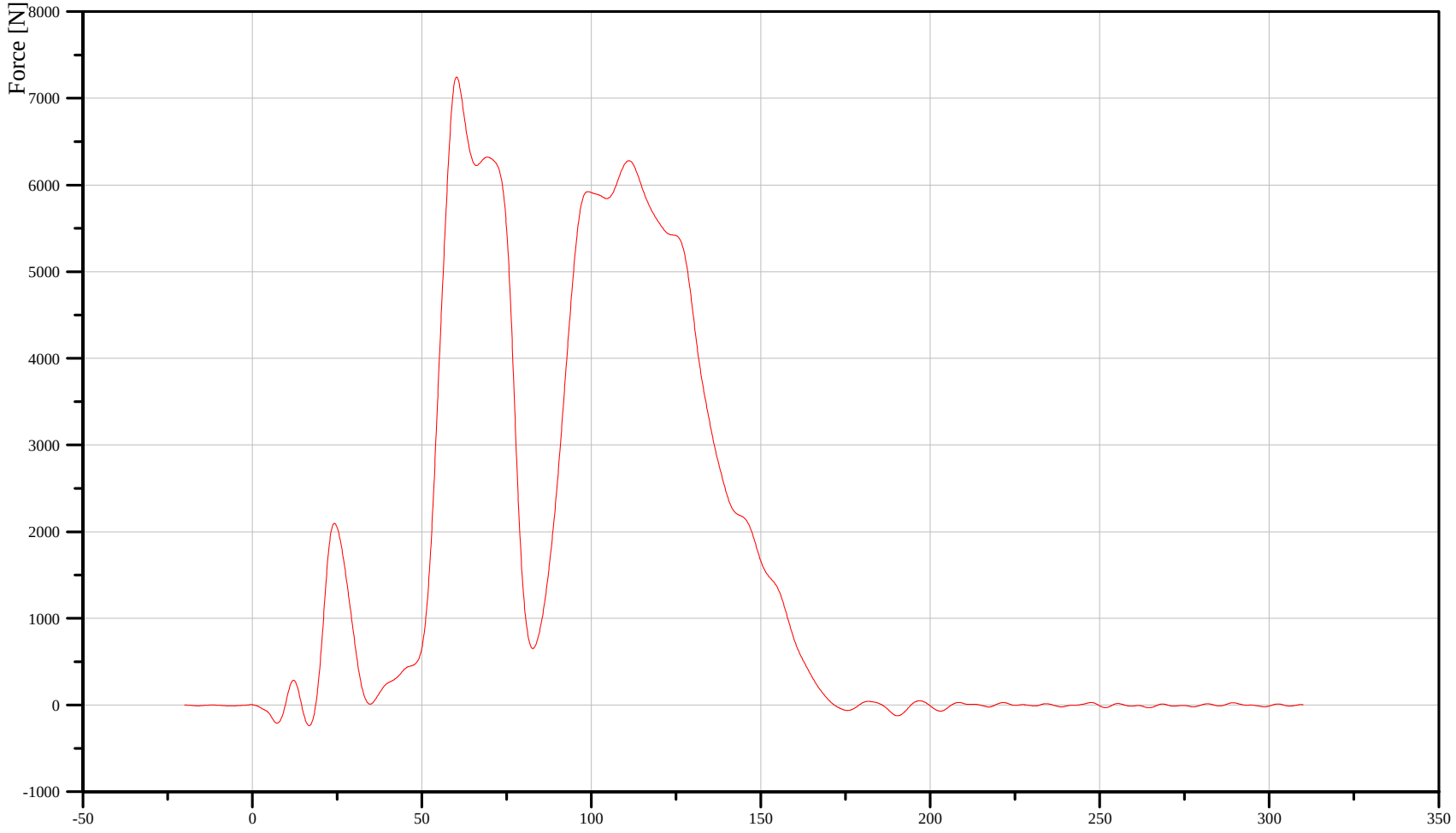
Load Cell Row 9 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000029FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-235.90 N at 16.80 ms

Max. Value
7,247.38 N at 60.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

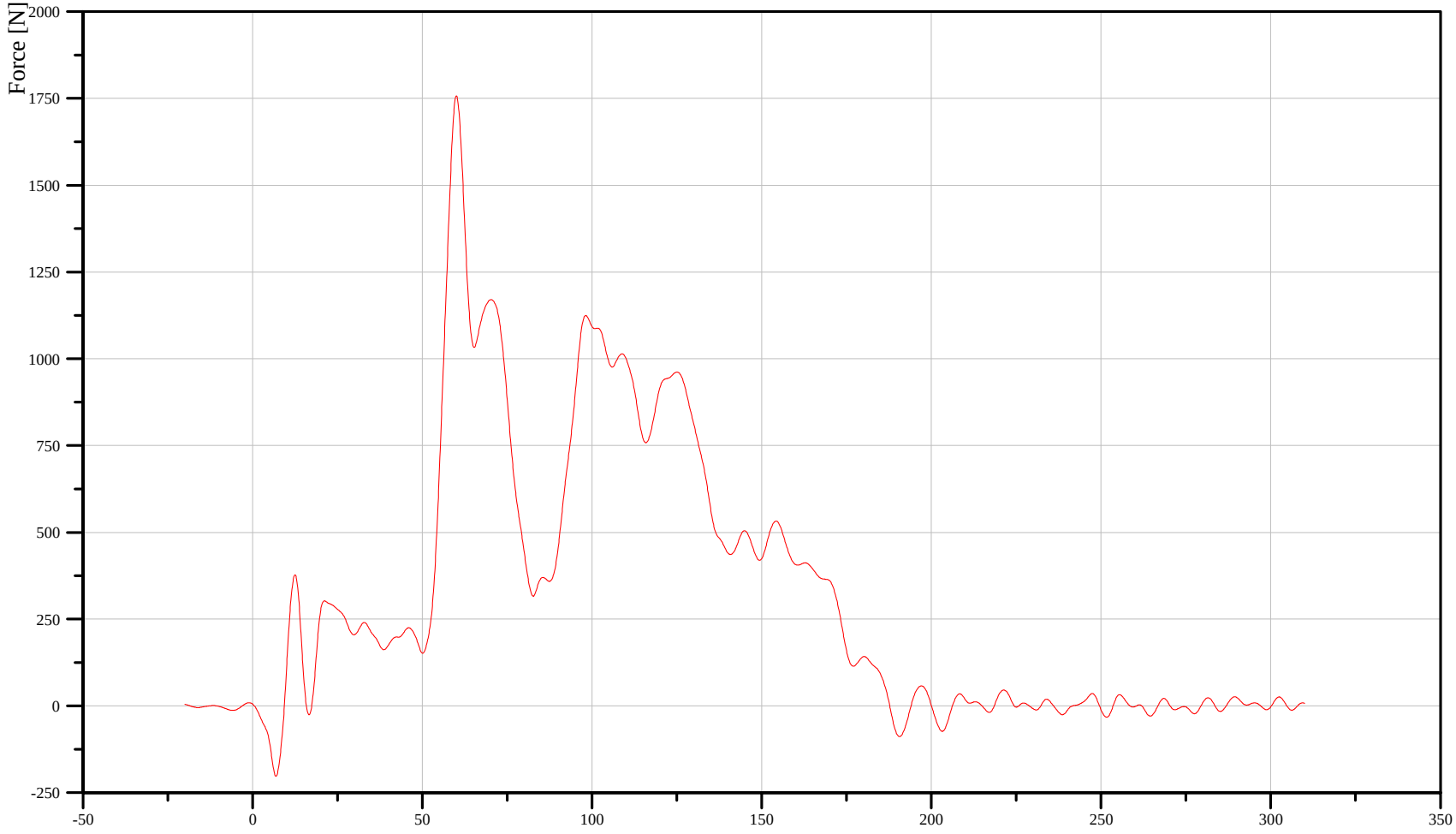
Load Cell Row 10 Column 3

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000030FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-202.24 N at 6.88 ms

Max. Value
1,757.51 N at 60.00 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

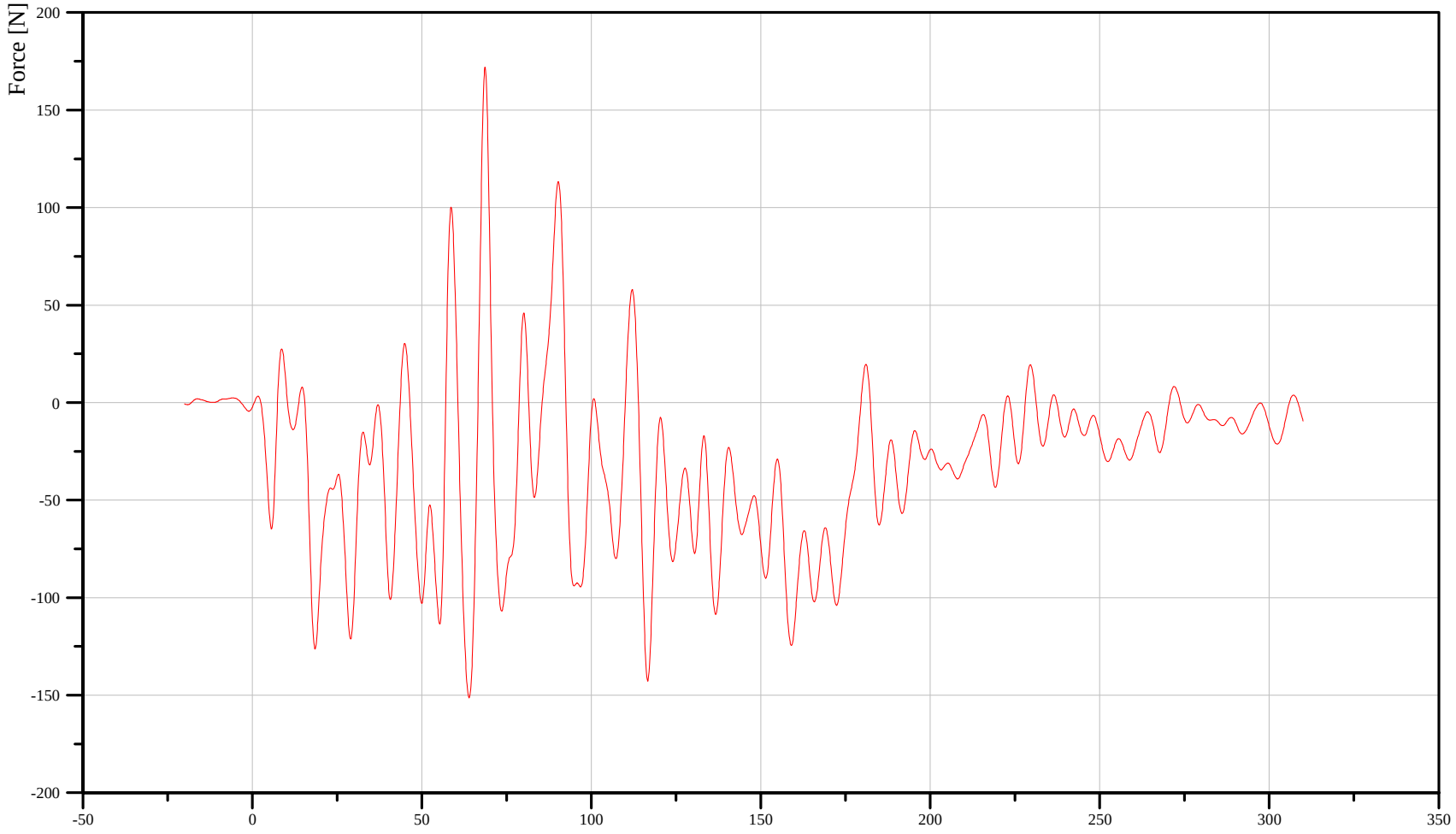
Load Cell Row 1 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000031FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-151.29 N at 64.00 ms

Max. Value
172.03 N at 68.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

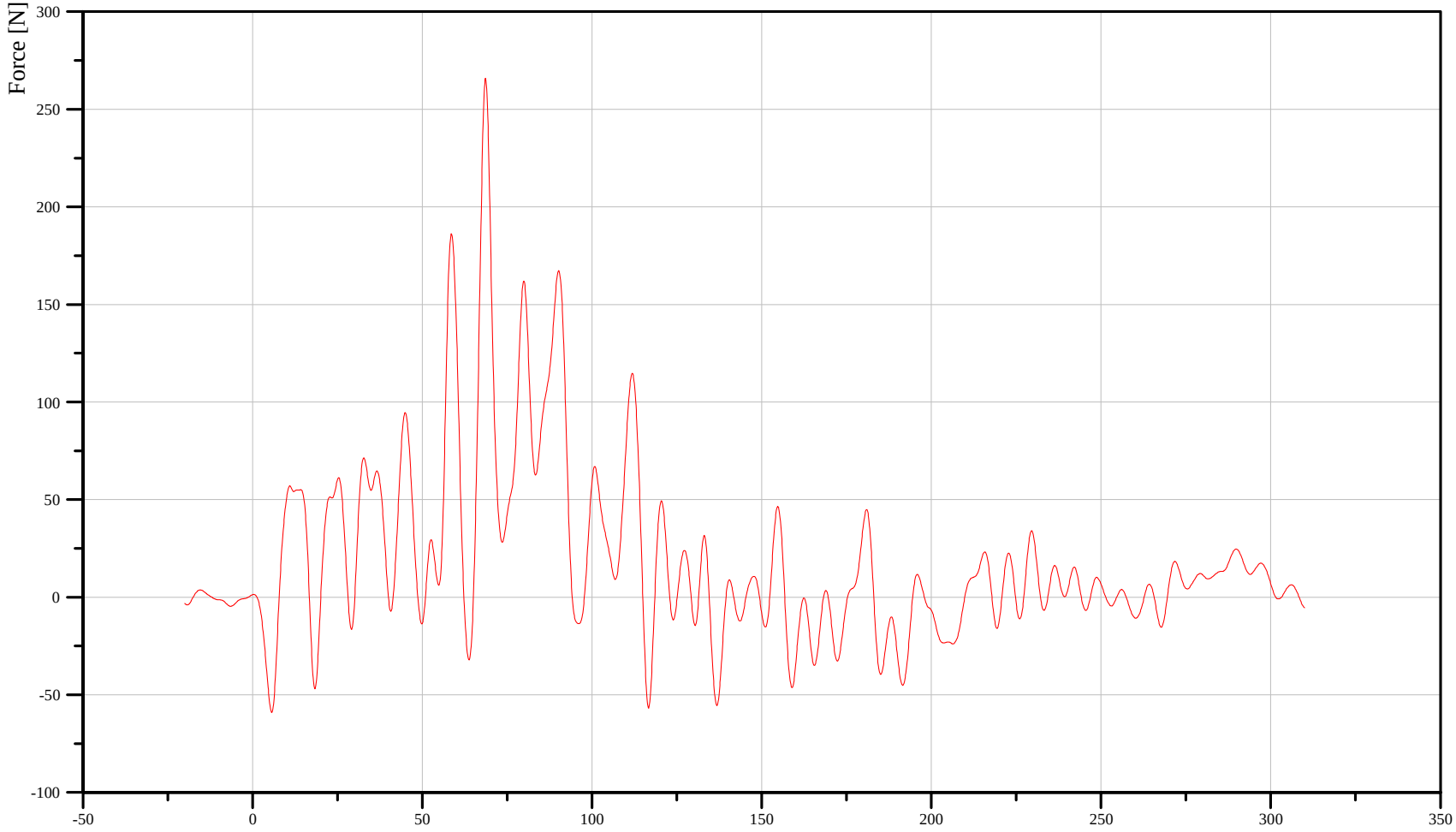
Load Cell Row 2 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000032FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-59.01 N at 5.68 ms

Max. Value
265.88 N at 68.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

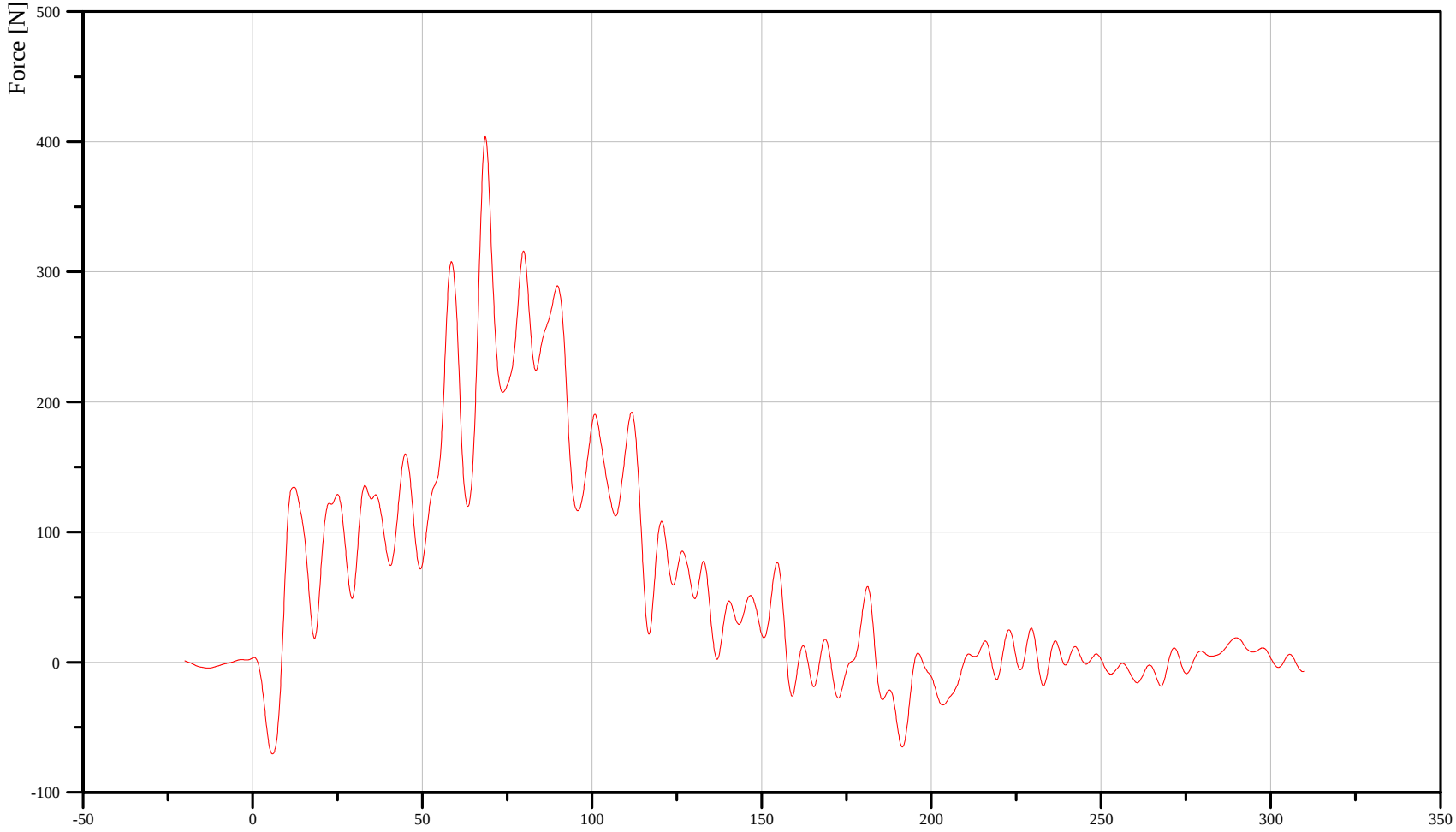
Load Cell Row 3 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000033FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-70.35 N at 5.84 ms

Max. Value
404.22 N at 68.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

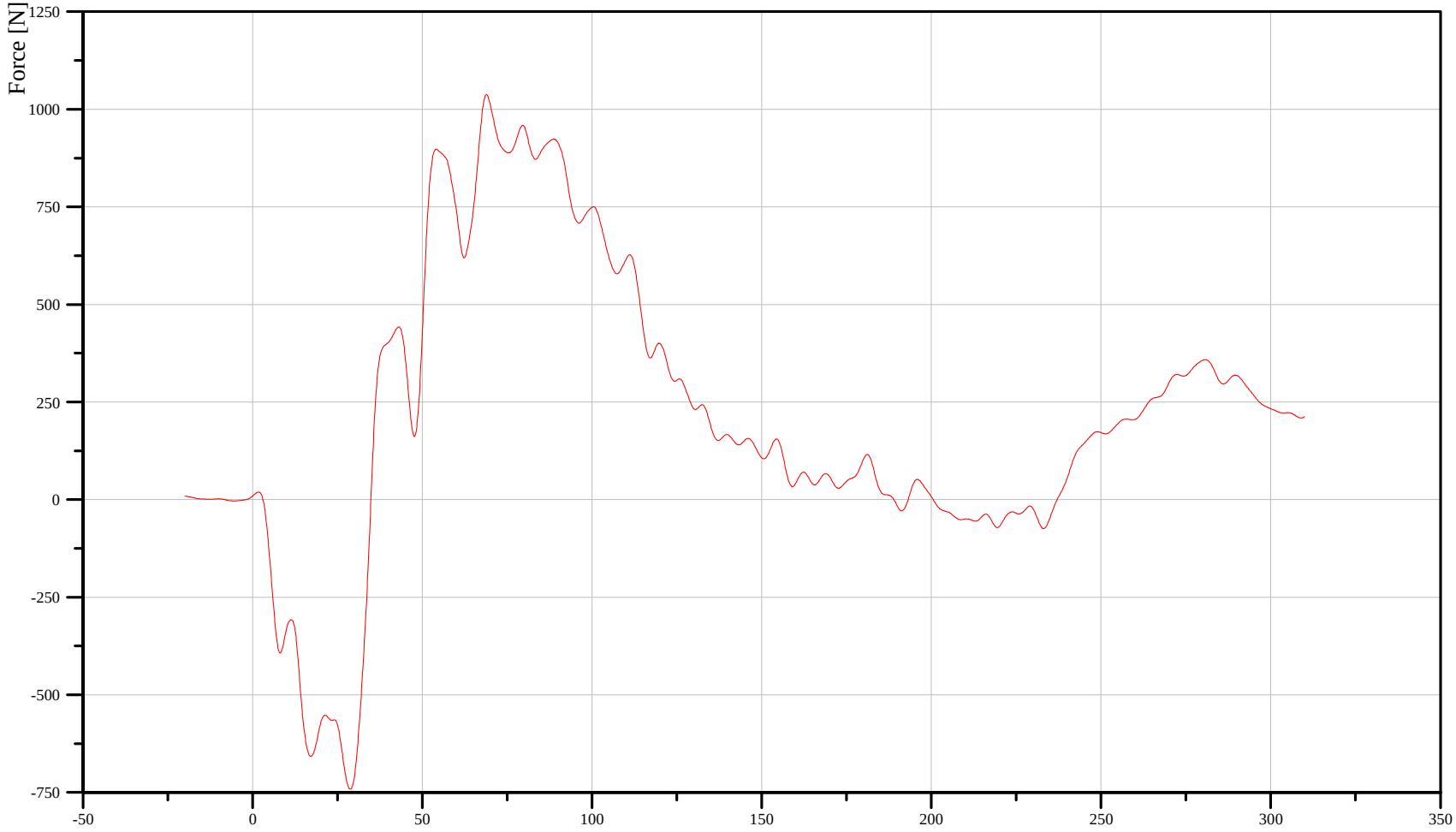
Load Cell Row 4 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000034FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-741.45 N at 28.80 ms

Max. Value
1,037.43 N at 68.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

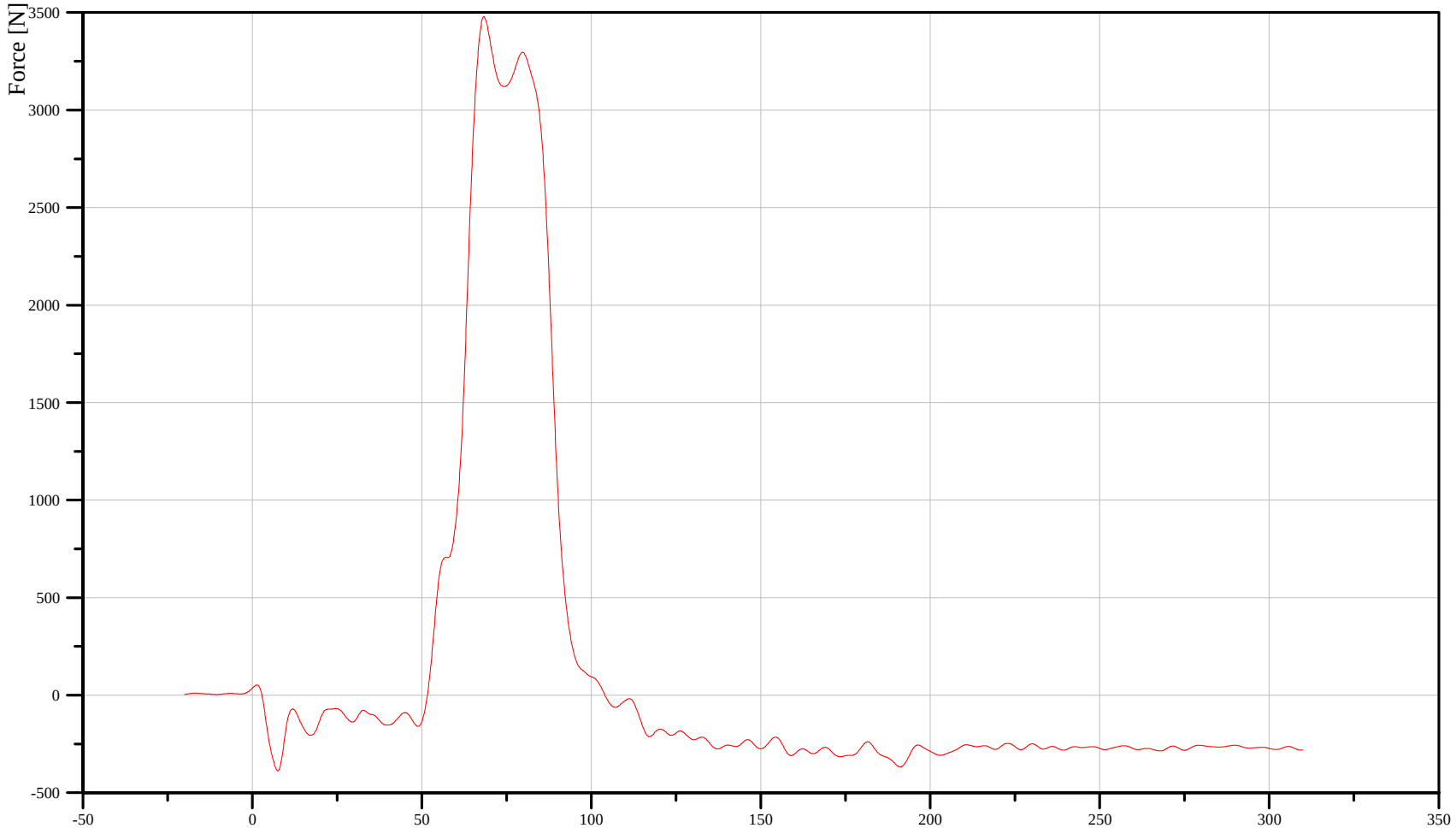
Load Cell Row 5 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000035FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-387.56 N at 7.52 ms

Max. Value
3,478.72 N at 68.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

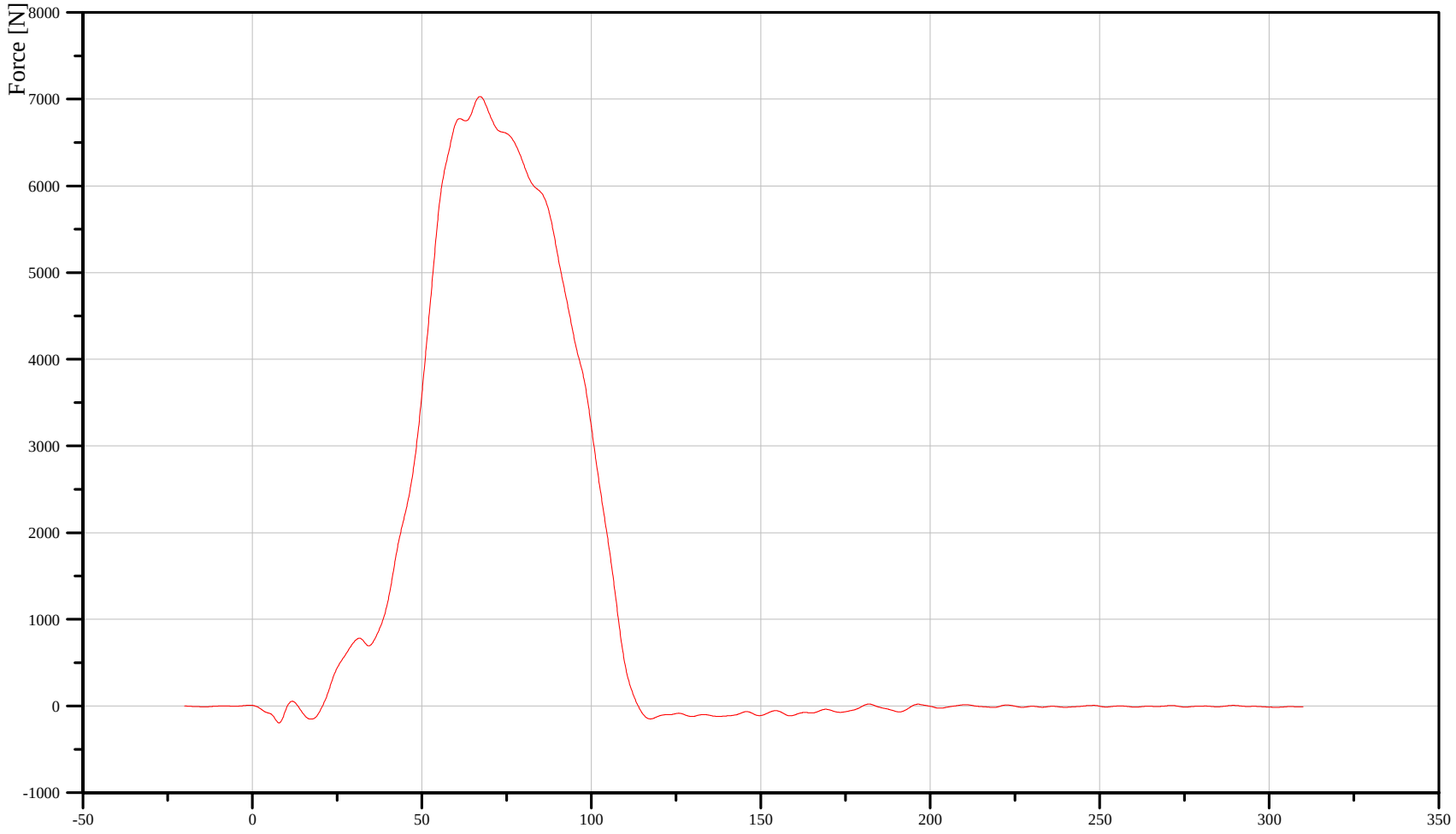
Load Cell Row 6 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000036FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-194.15 N at 7.92 ms

Max. Value
7,030.27 N at 67.20 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

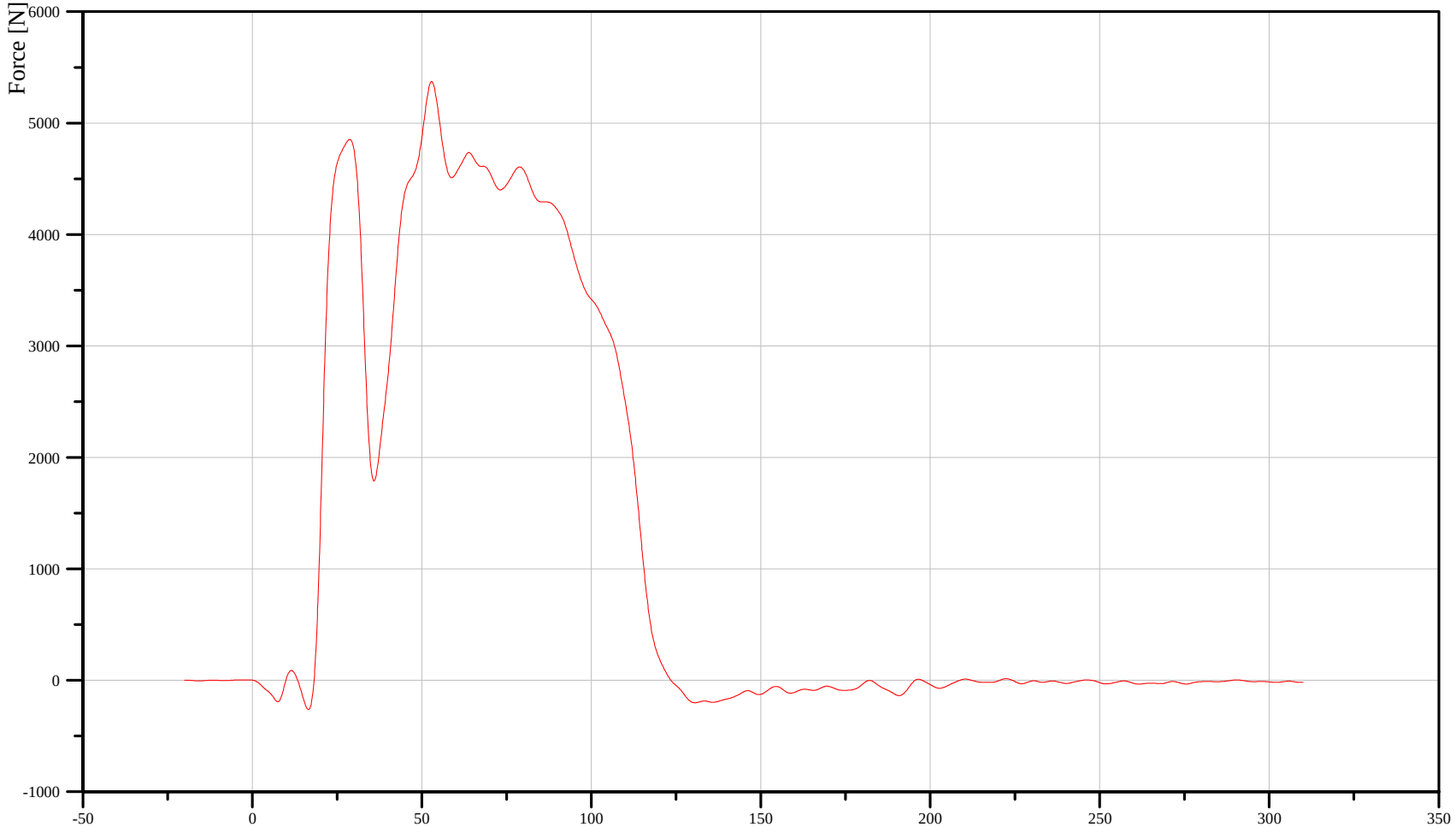
Load Cell Row 7 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000037FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-263.11 N at 16.56 ms

Max. Value
5,373.96 N at 52.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

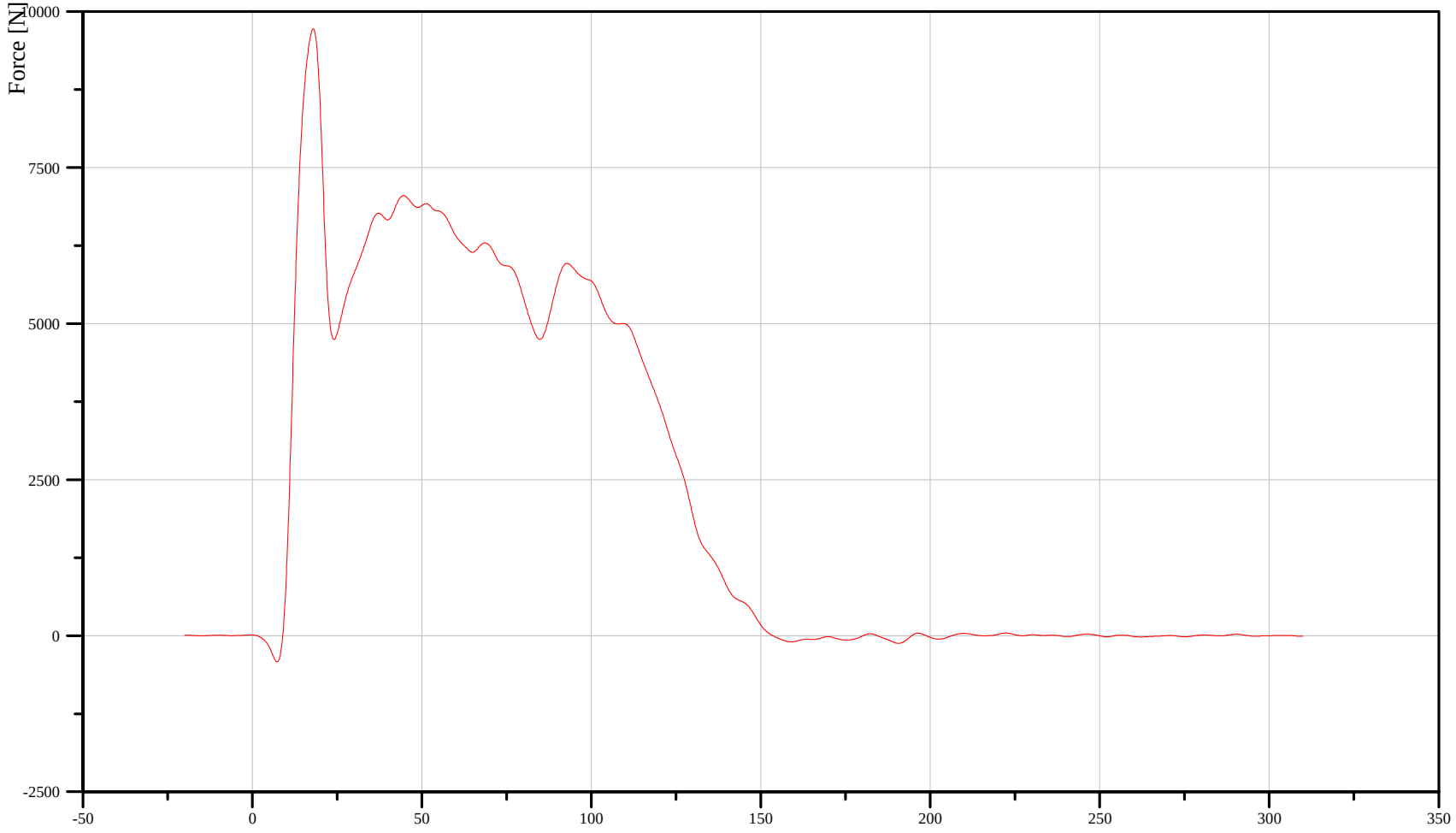
Load Cell Row 8 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000038FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-418.65 N at 7.36 ms

Max. Value
9,724.59 N at 18.00 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

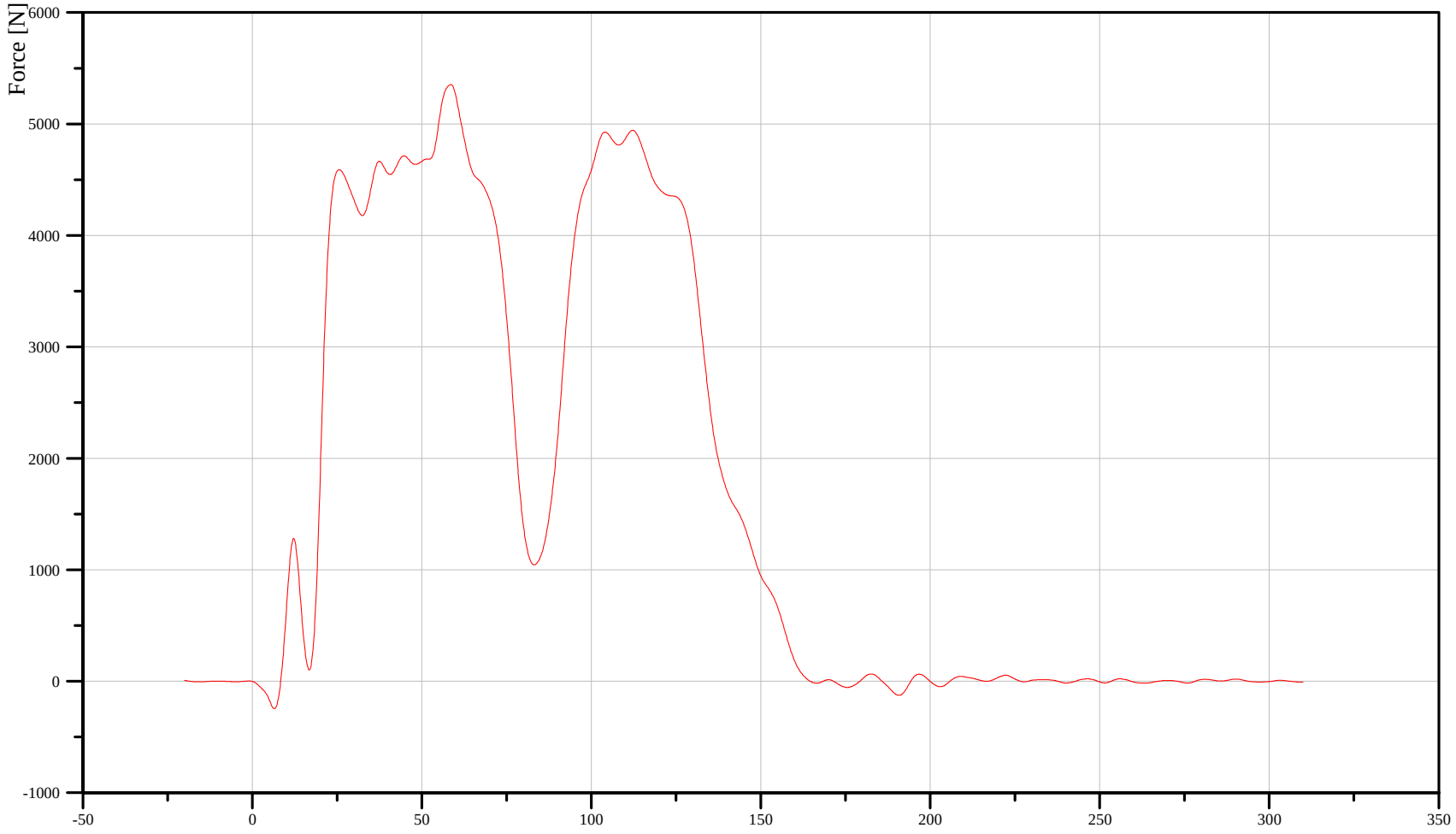
Load Cell Row 9 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000039FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-246.13 N at 6.48 ms

Max. Value
5,354.29 N at 58.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

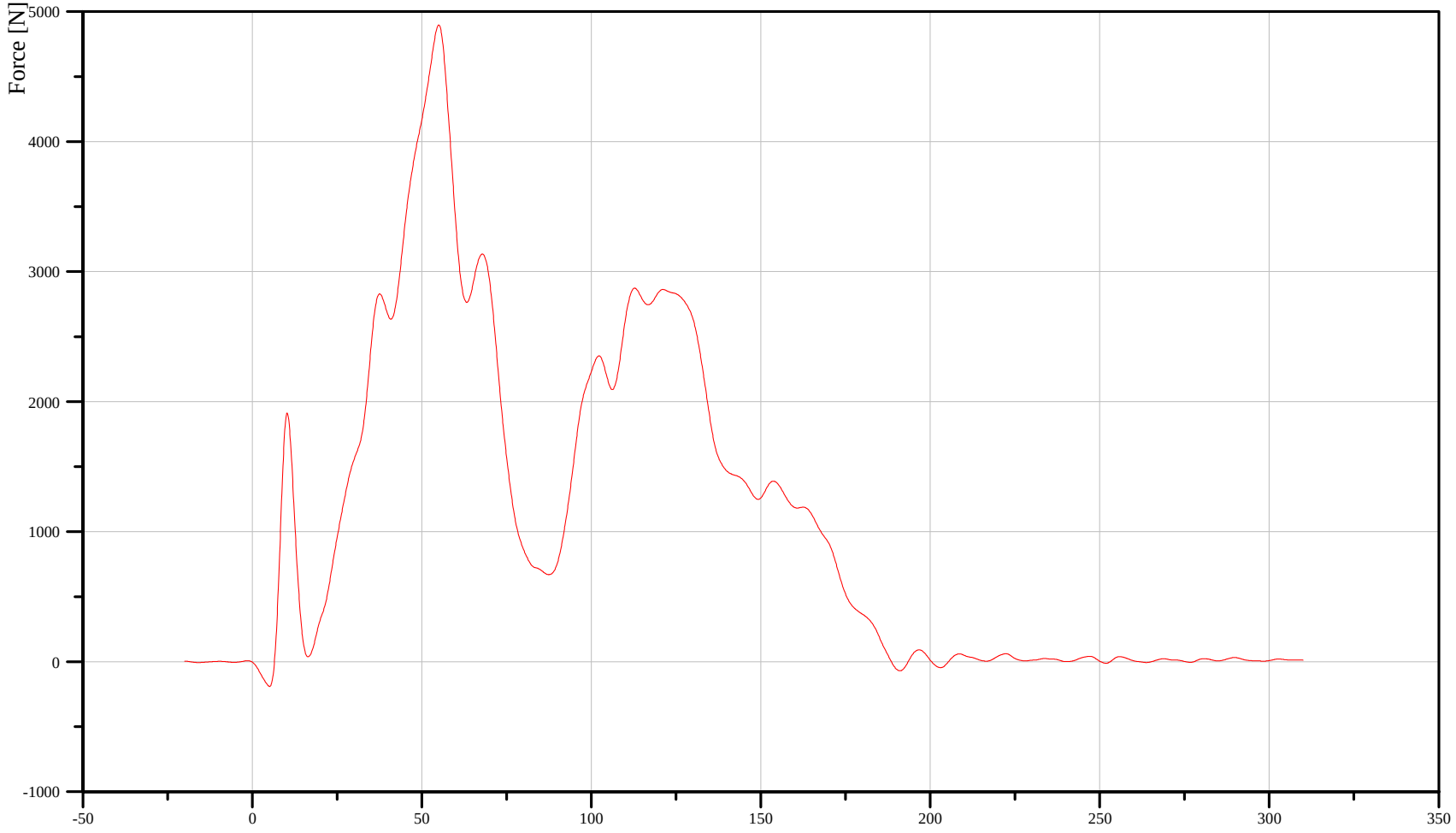
Load Cell Row 10 Column 4

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000040FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-189.44 N at 5.12 ms

Max. Value
4,897.45 N at 55.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

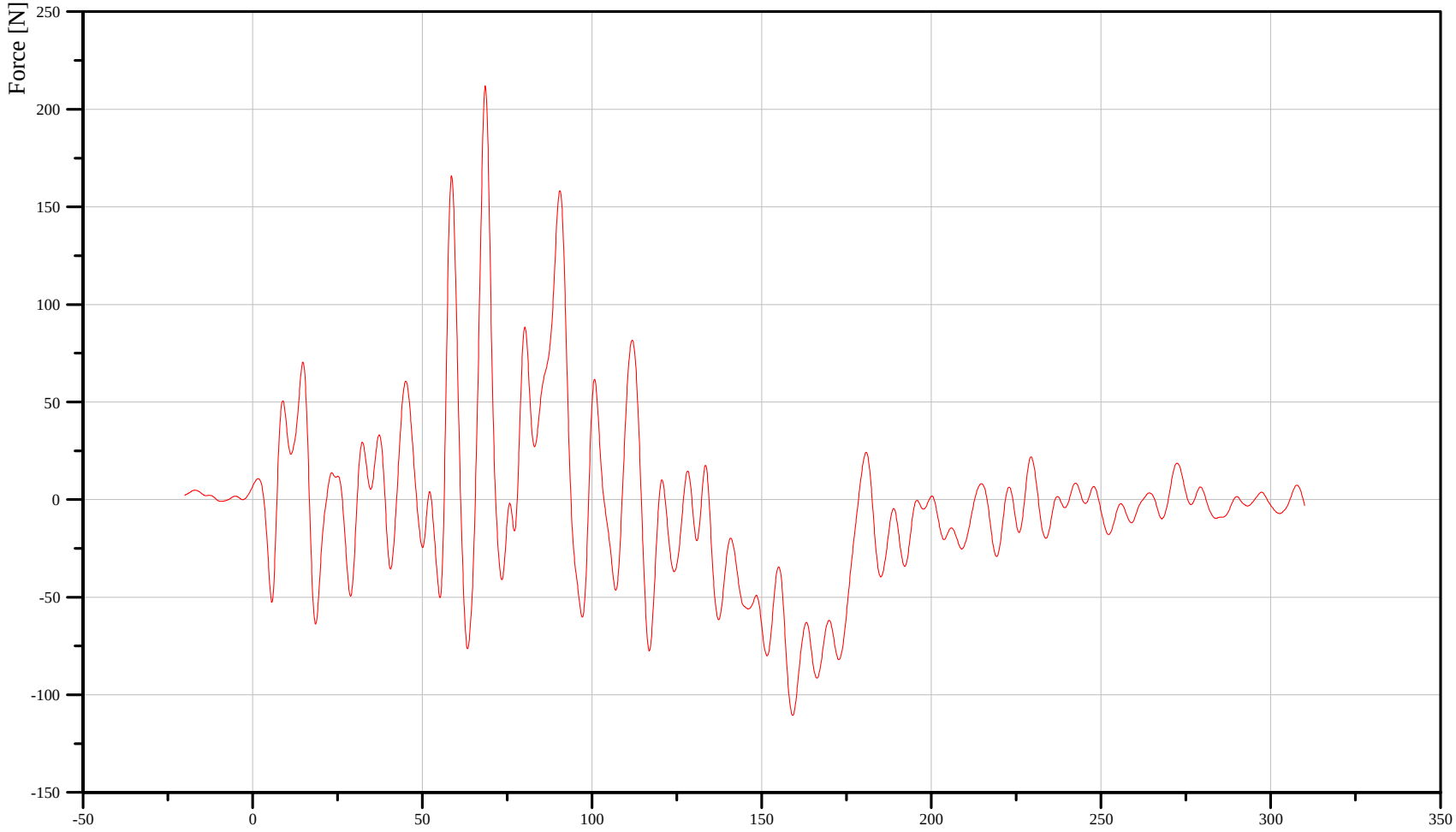
Load Cell Row 1 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000041FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-110.54 N at 159.12 ms

Max. Value
212.02 N at 68.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

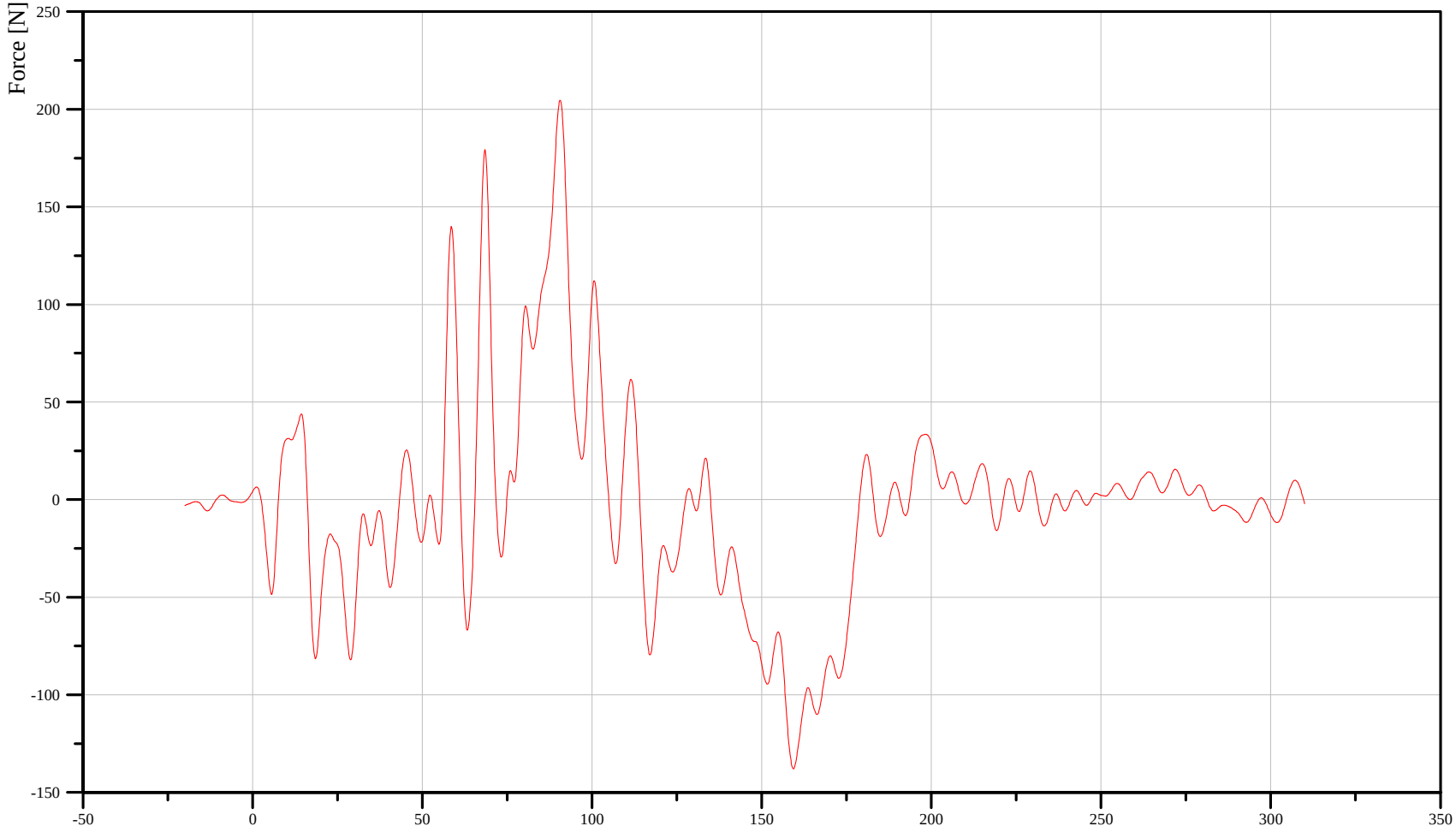
Load Cell Row 2 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000042FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-137.87 N at 159.36 ms

Max. Value
204.54 N at 90.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

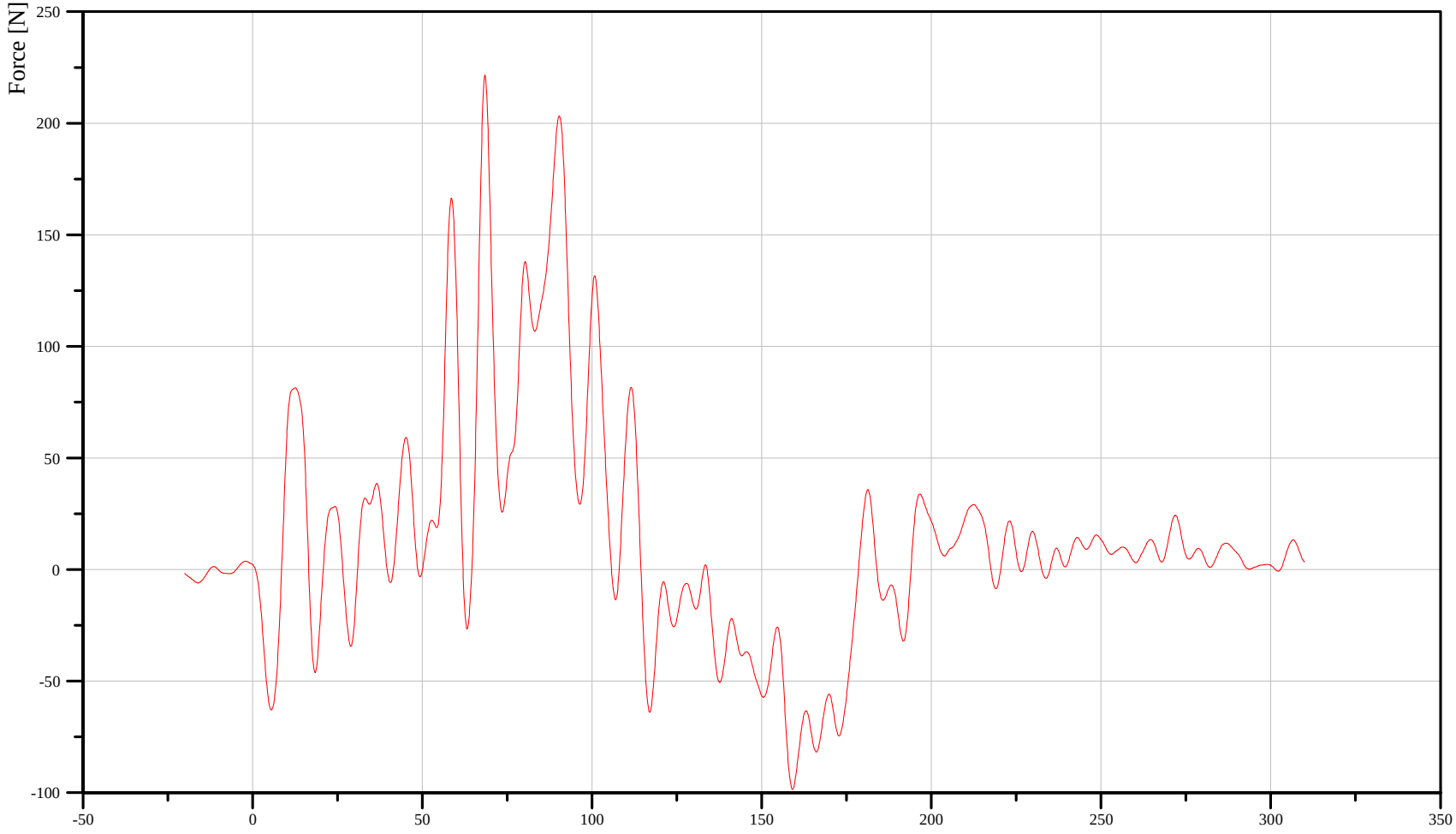
Load Cell Row 3 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000043FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-98.43 N at 159.12 ms

Max. Value
221.61 N at 68.48 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

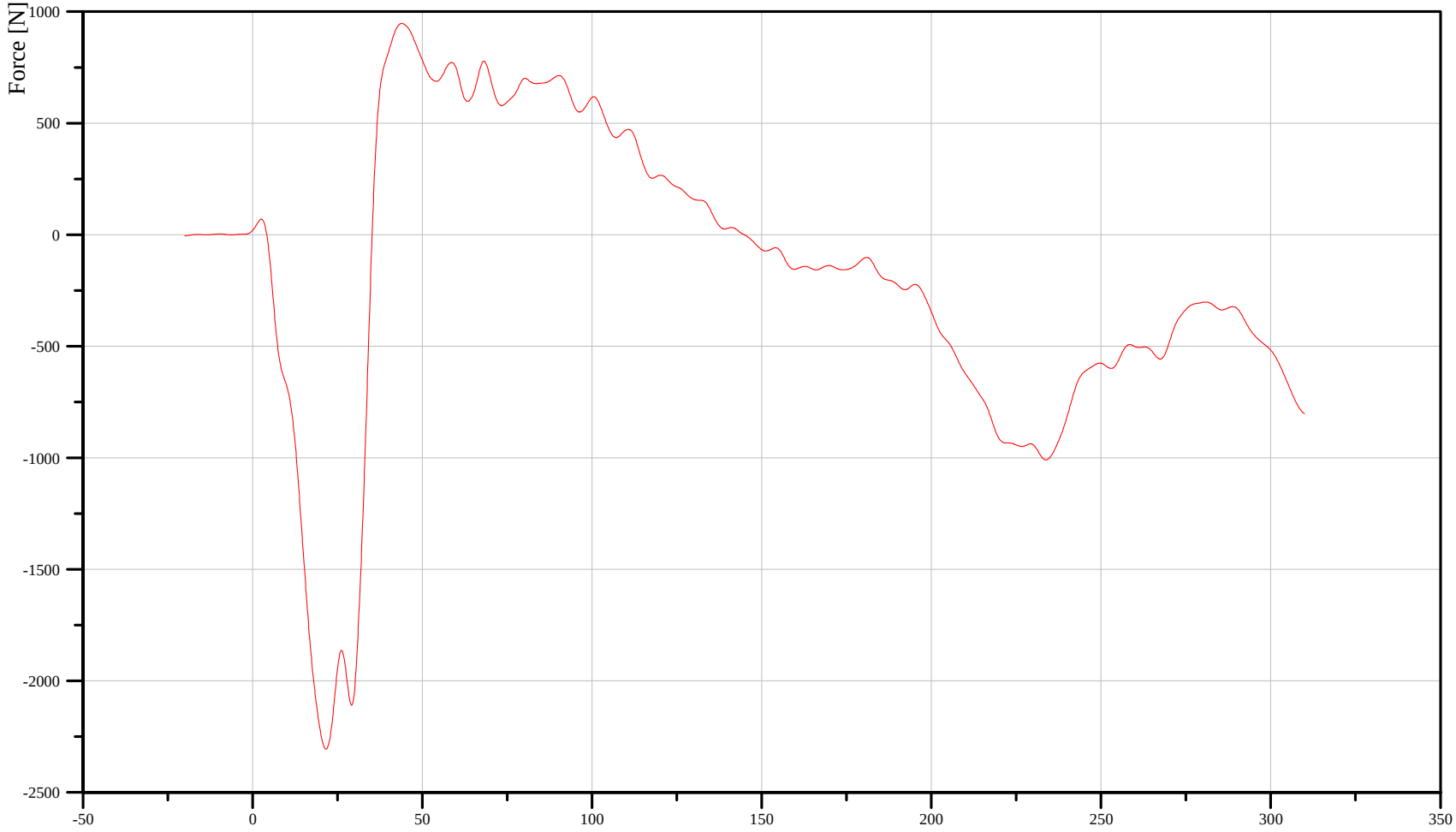
Load Cell Row 4 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000044FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-2,306.18 N at 21.60 ms

Max. Value
946.86 N at 43.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

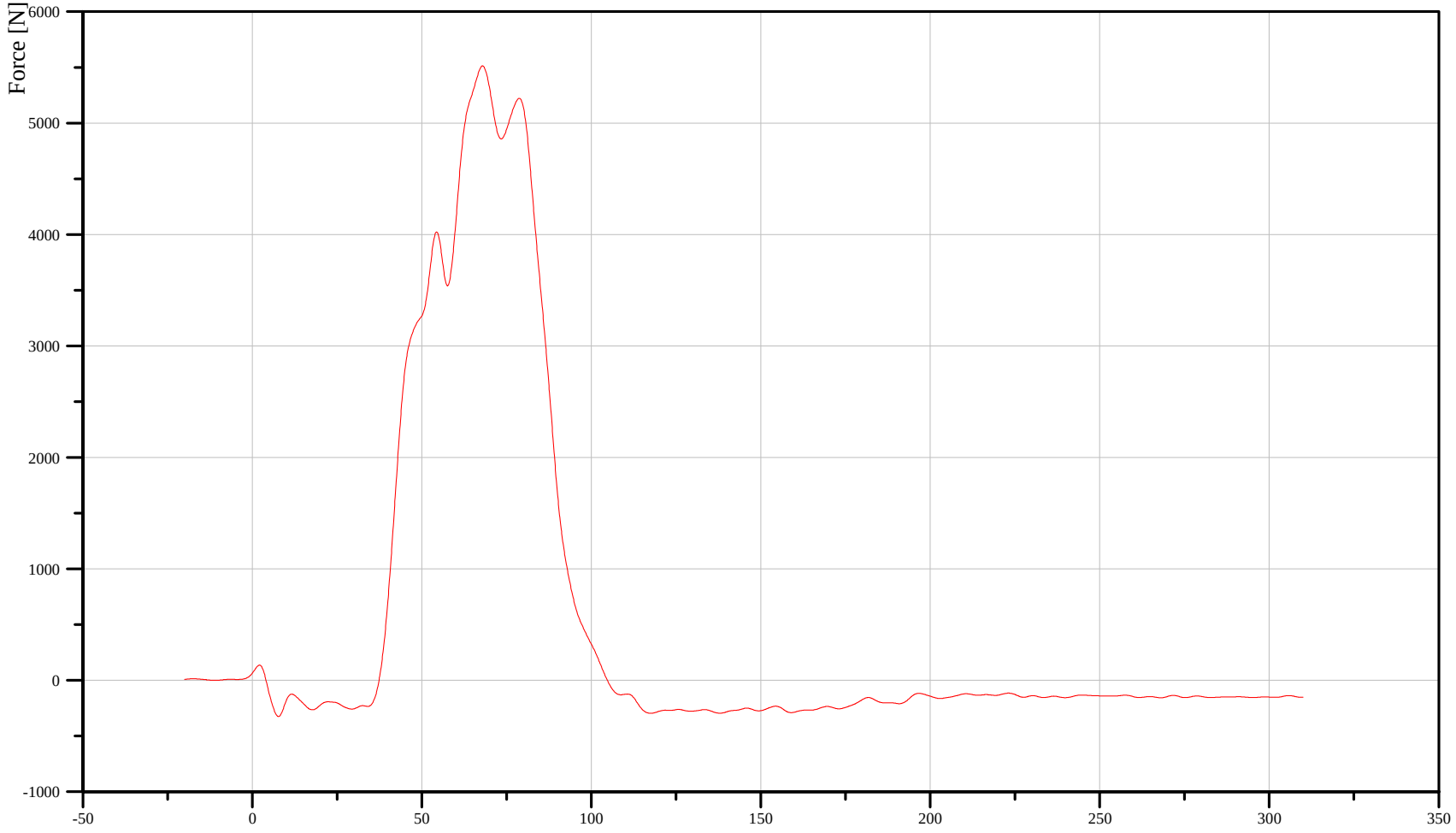
Load Cell Row 5 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000045FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-324.60 N at 7.68 ms

Max. Value
5,513.70 N at 67.92 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

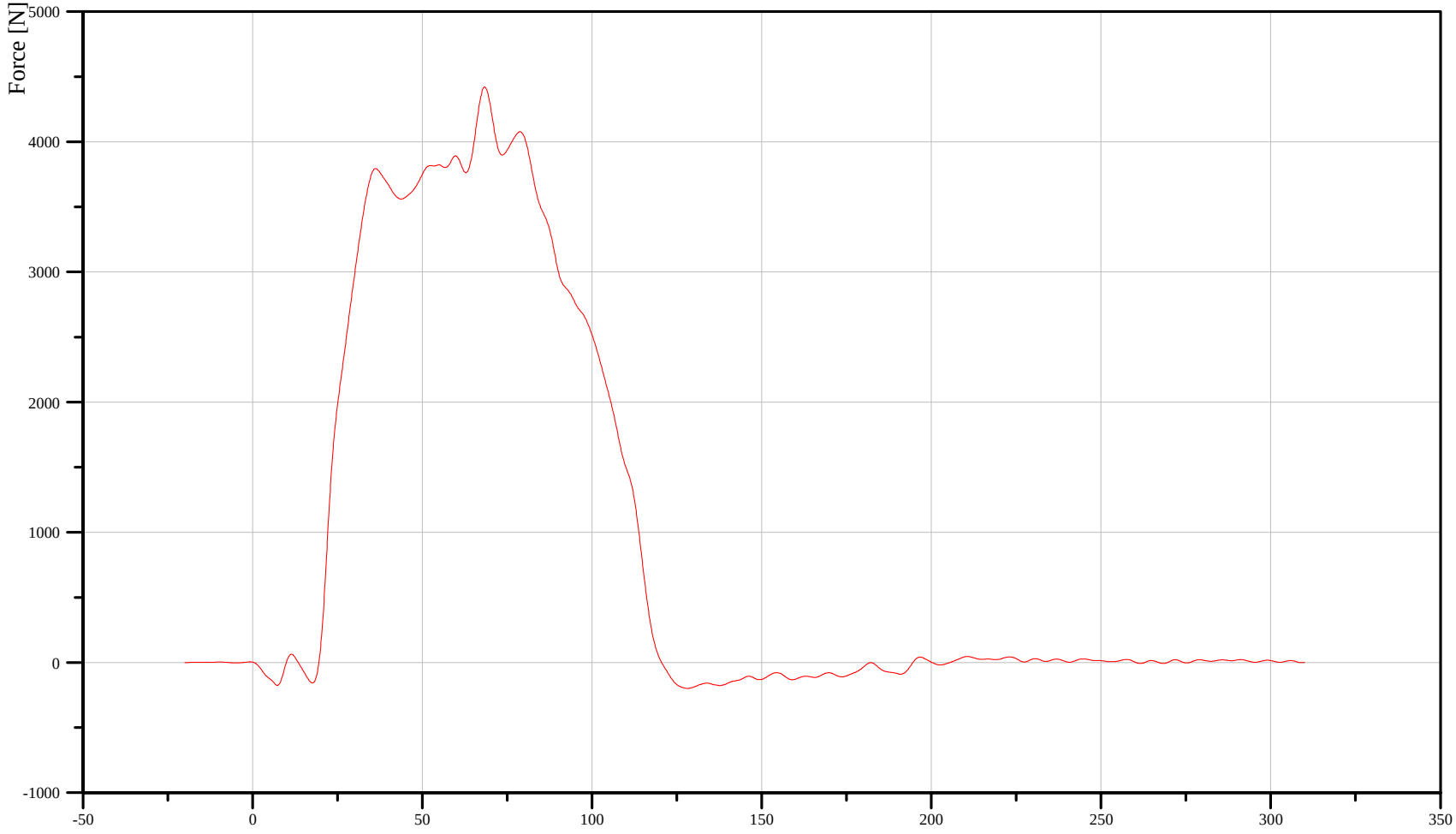
Load Cell Row 6 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000046FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-199.03 N at 128.16 ms

Max. Value
4,421.96 N at 68.32 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

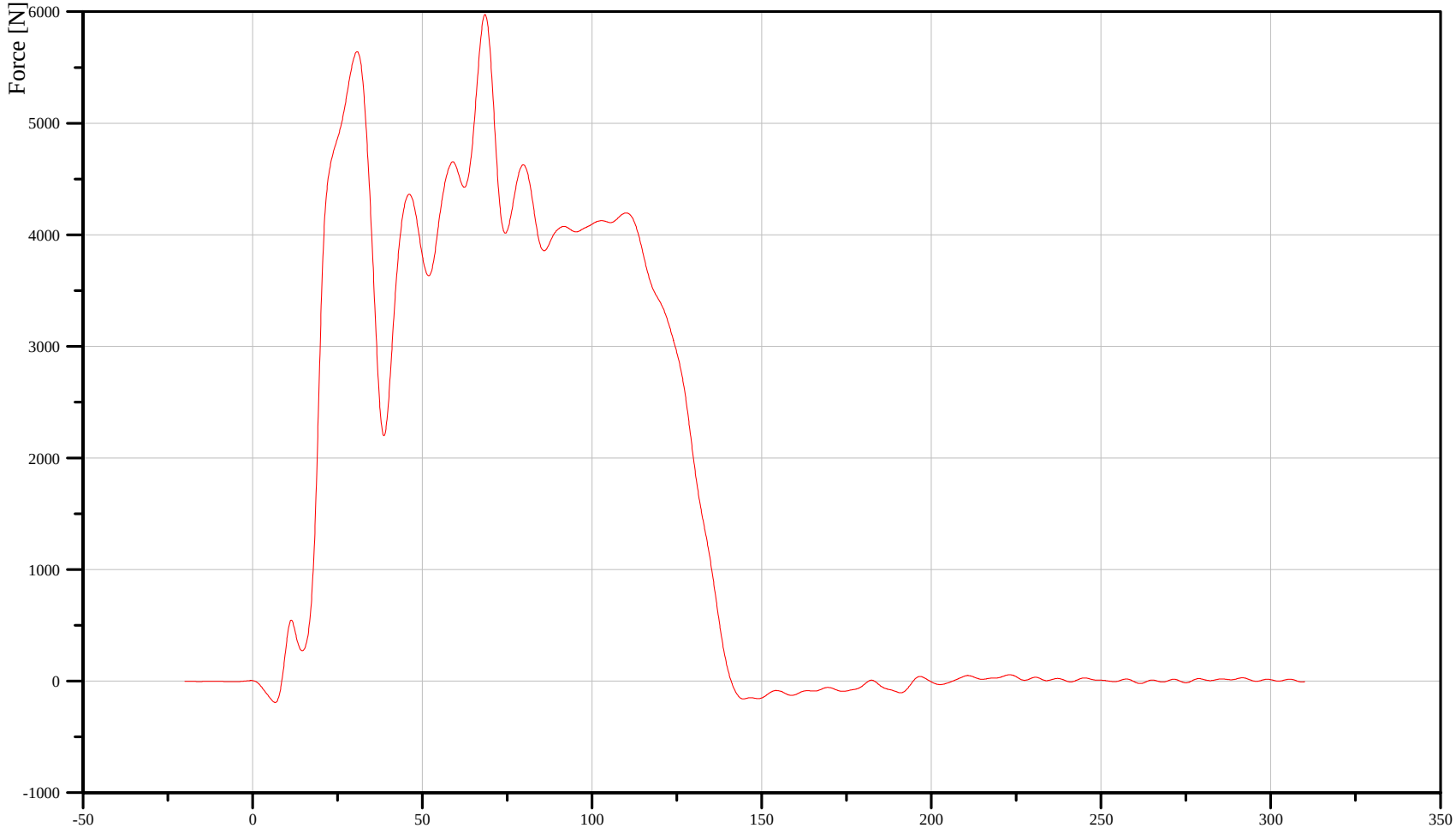
Load Cell Row 7 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000047FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-191.73 N at 6.64 ms

Max. Value
5,975.80 N at 68.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

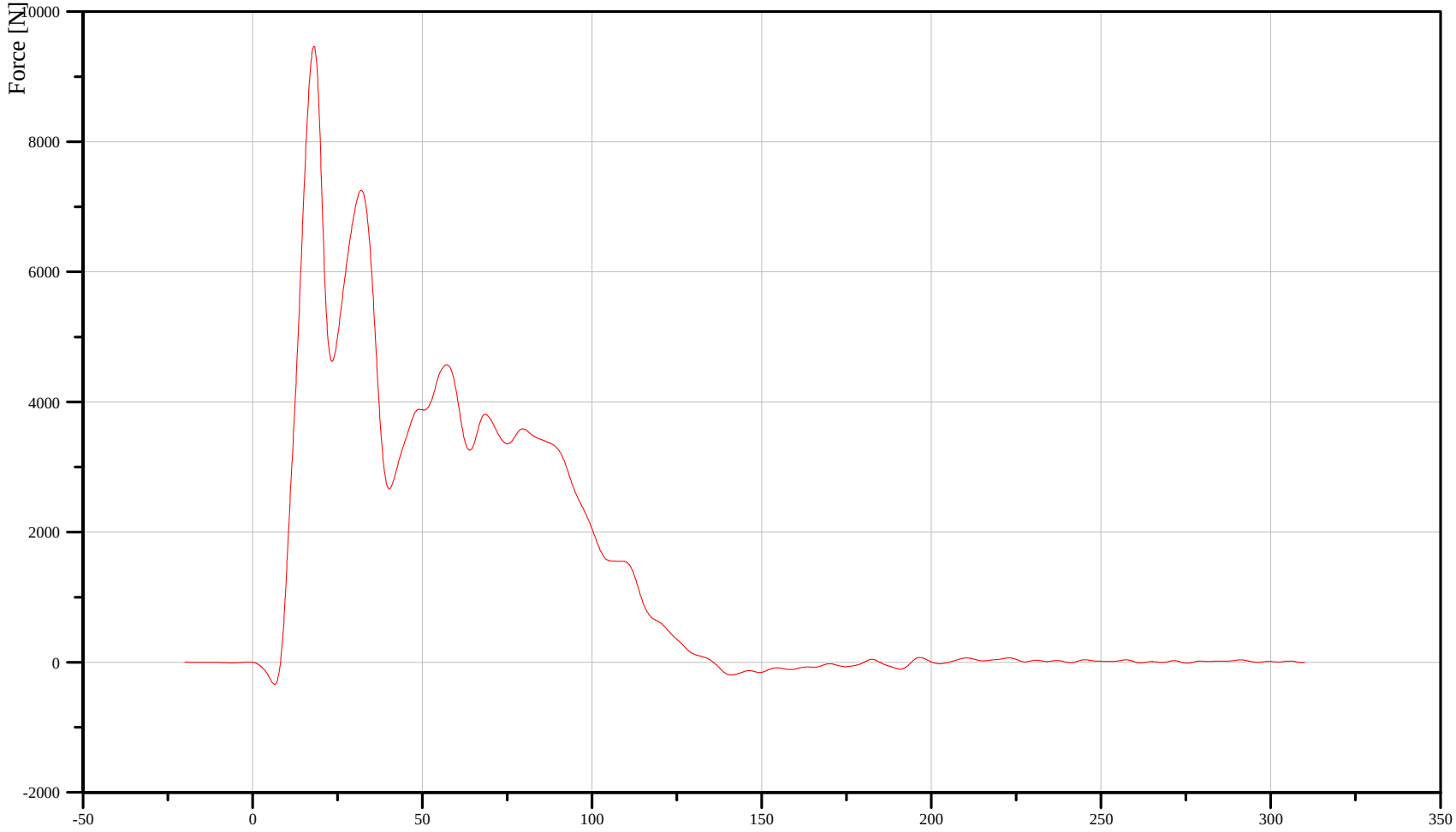
Load Cell Row 8 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000048FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-337.53 N at 6.48 ms

Max. Value
9,468.19 N at 18.08 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

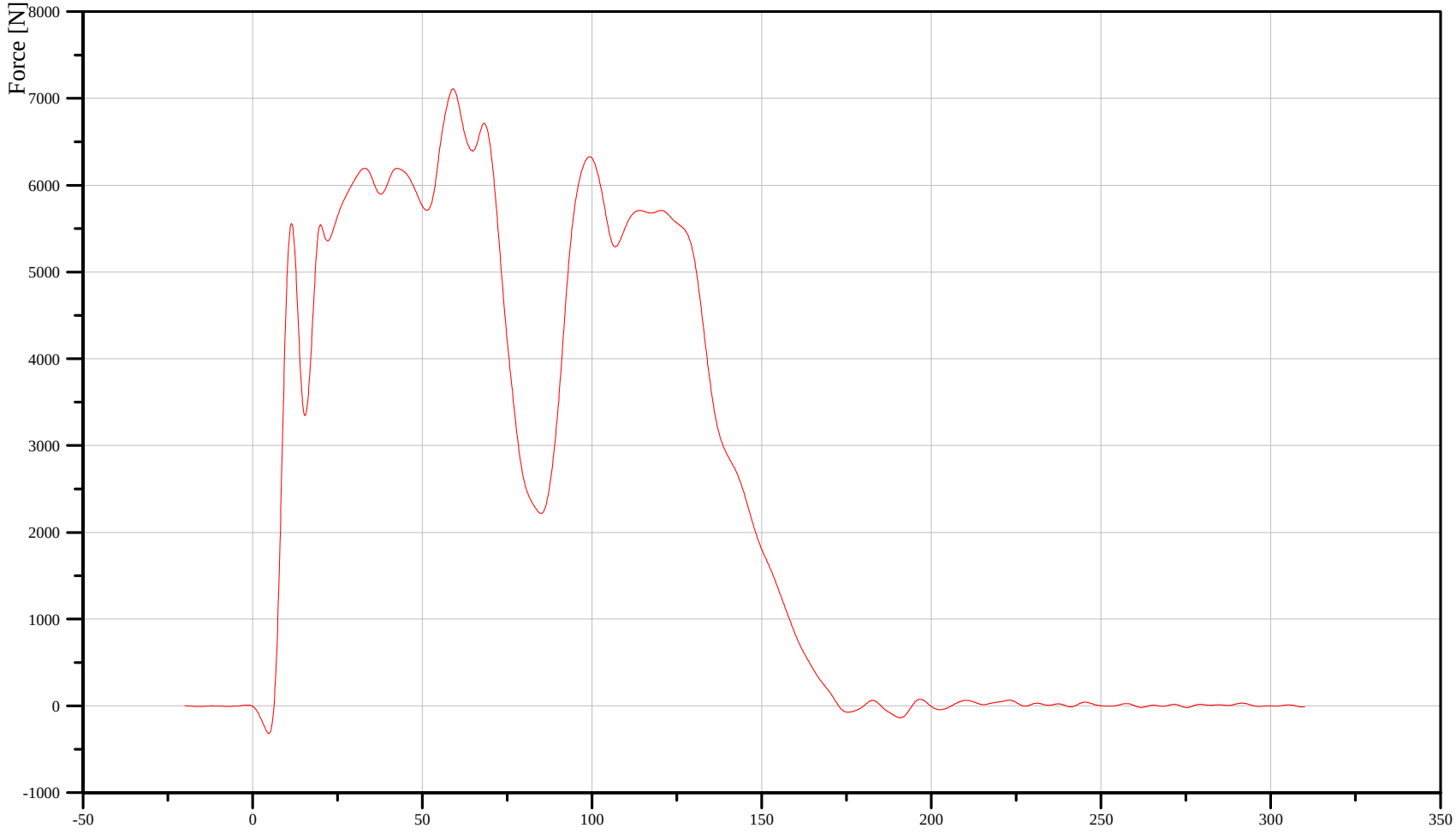
Load Cell Row 9 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000049FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-317.50 N at 4.80 ms

Max. Value
7,111.10 N at 59.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

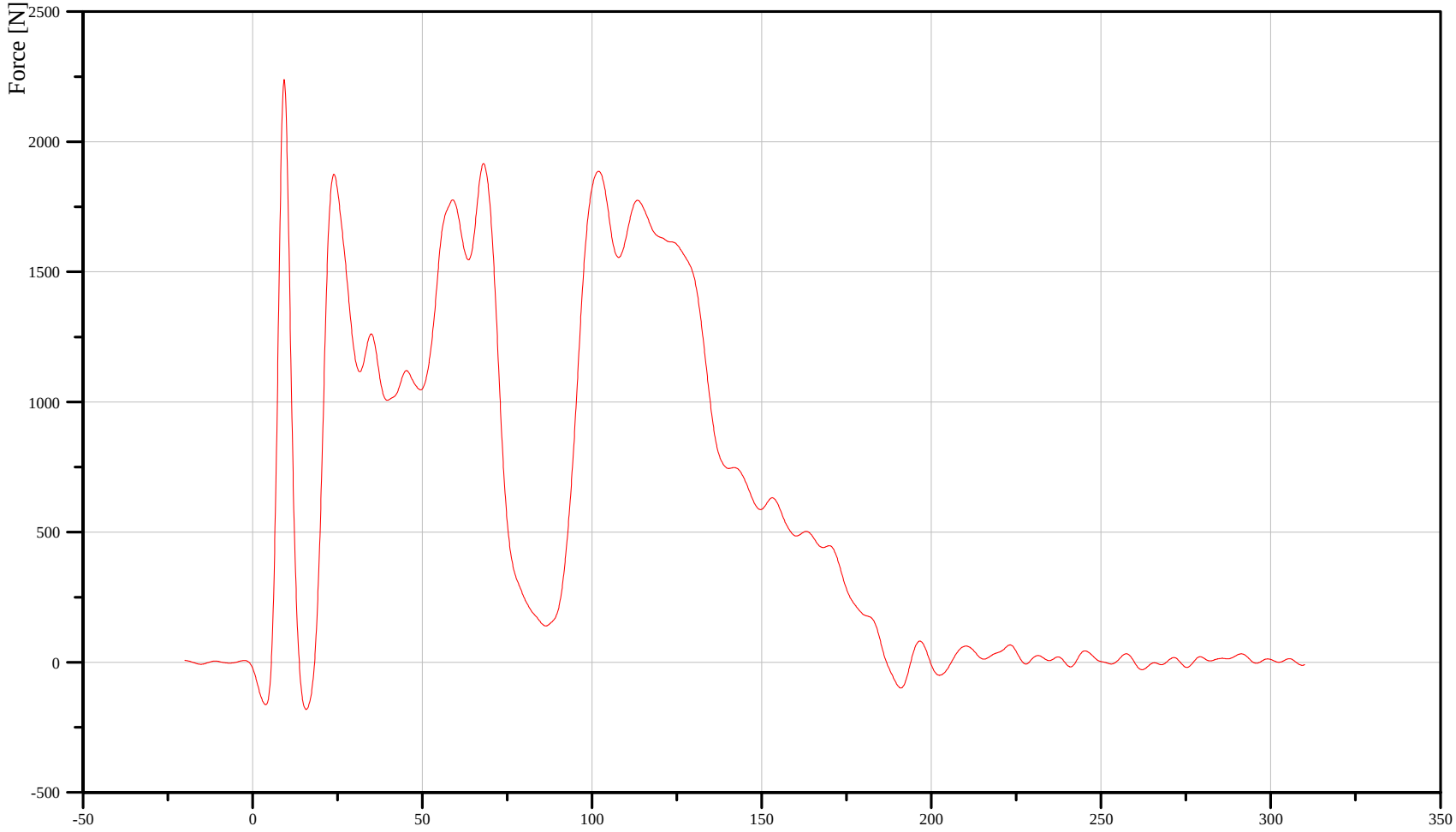
Load Cell Row 10 Column 5

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000050FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-181.08 N at 15.76 ms

Max. Value
2,239.85 N at 9.28 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

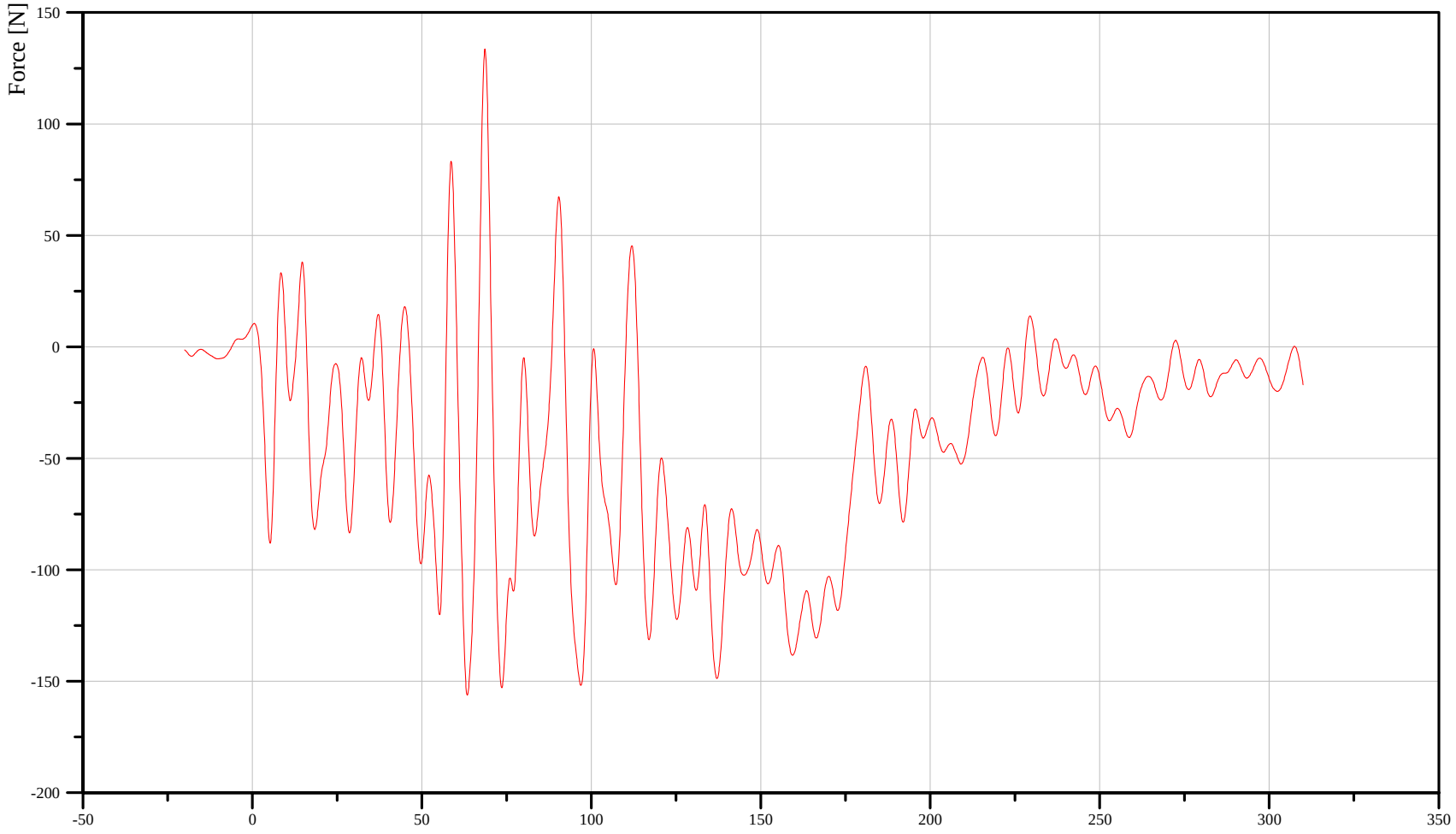
Load Cell Row 1 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000051FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-156.18 N at 63.44 ms

Max. Value
133.58 N at 68.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

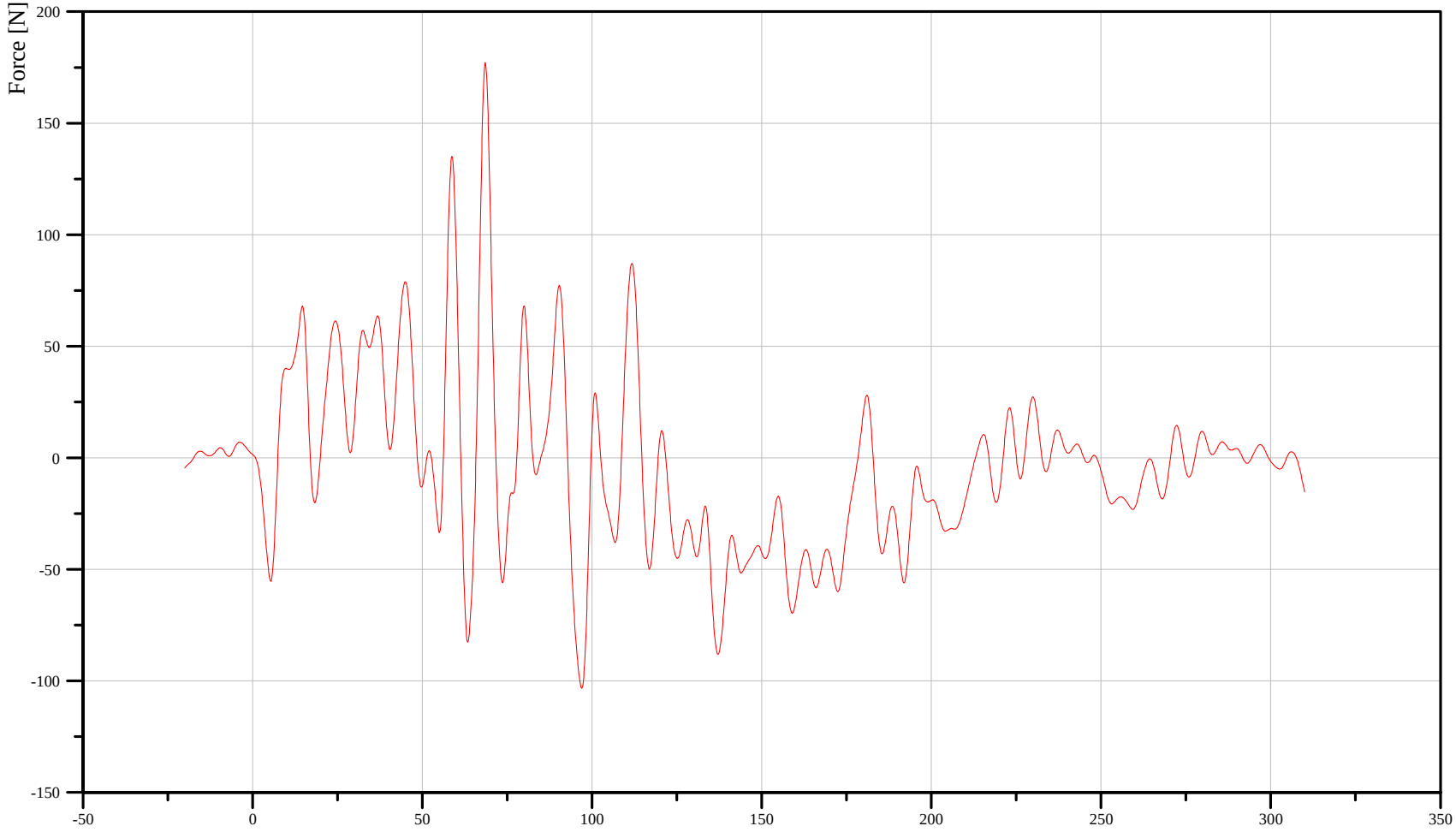
Load Cell Row 2 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000052FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-103.29 N at 96.96 ms

Max. Value
177.07 N at 68.56 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

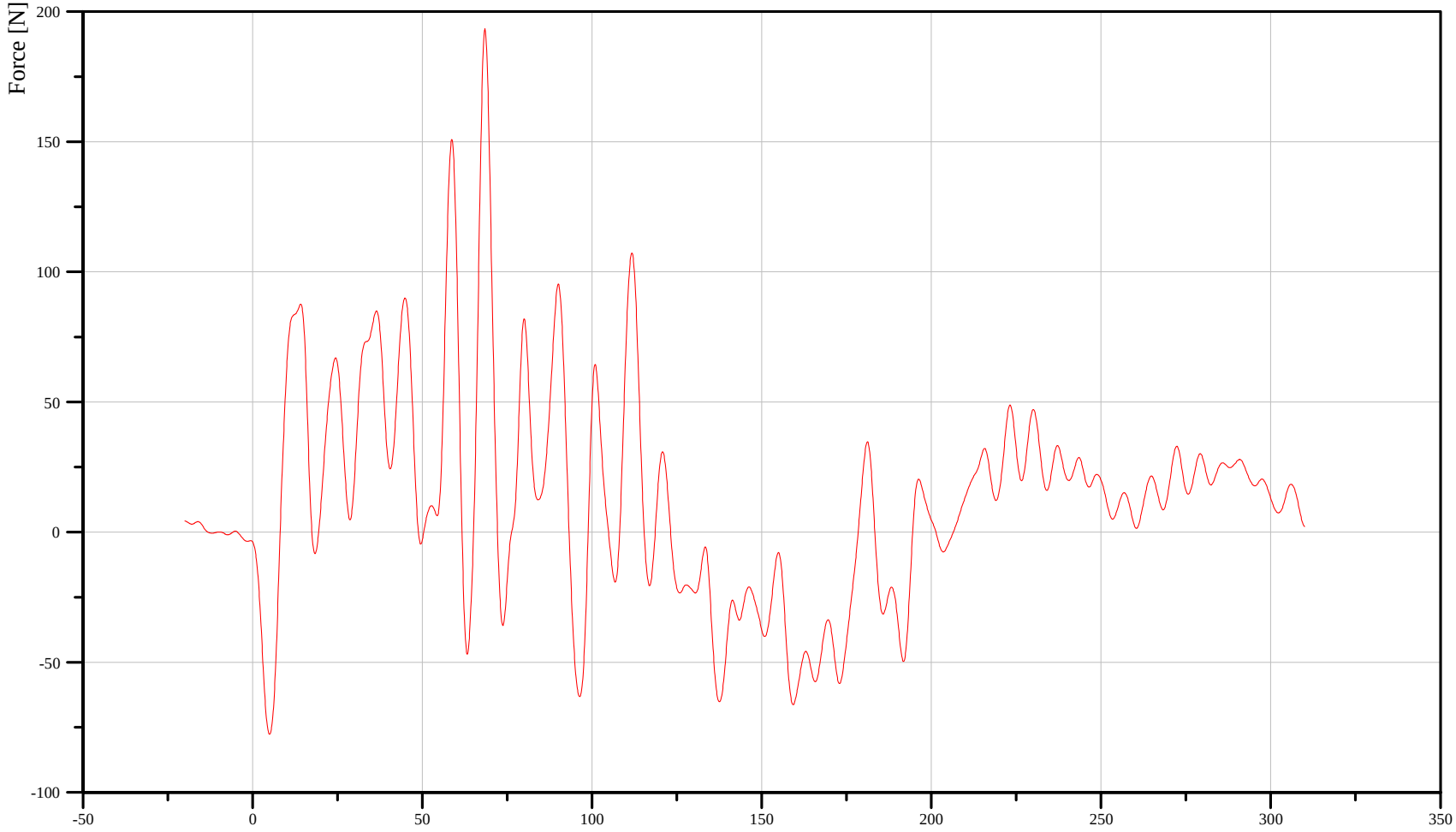
Load Cell Row 3 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000053FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-77.60 N at 5.04 ms

Max. Value
193.37 N at 68.48 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

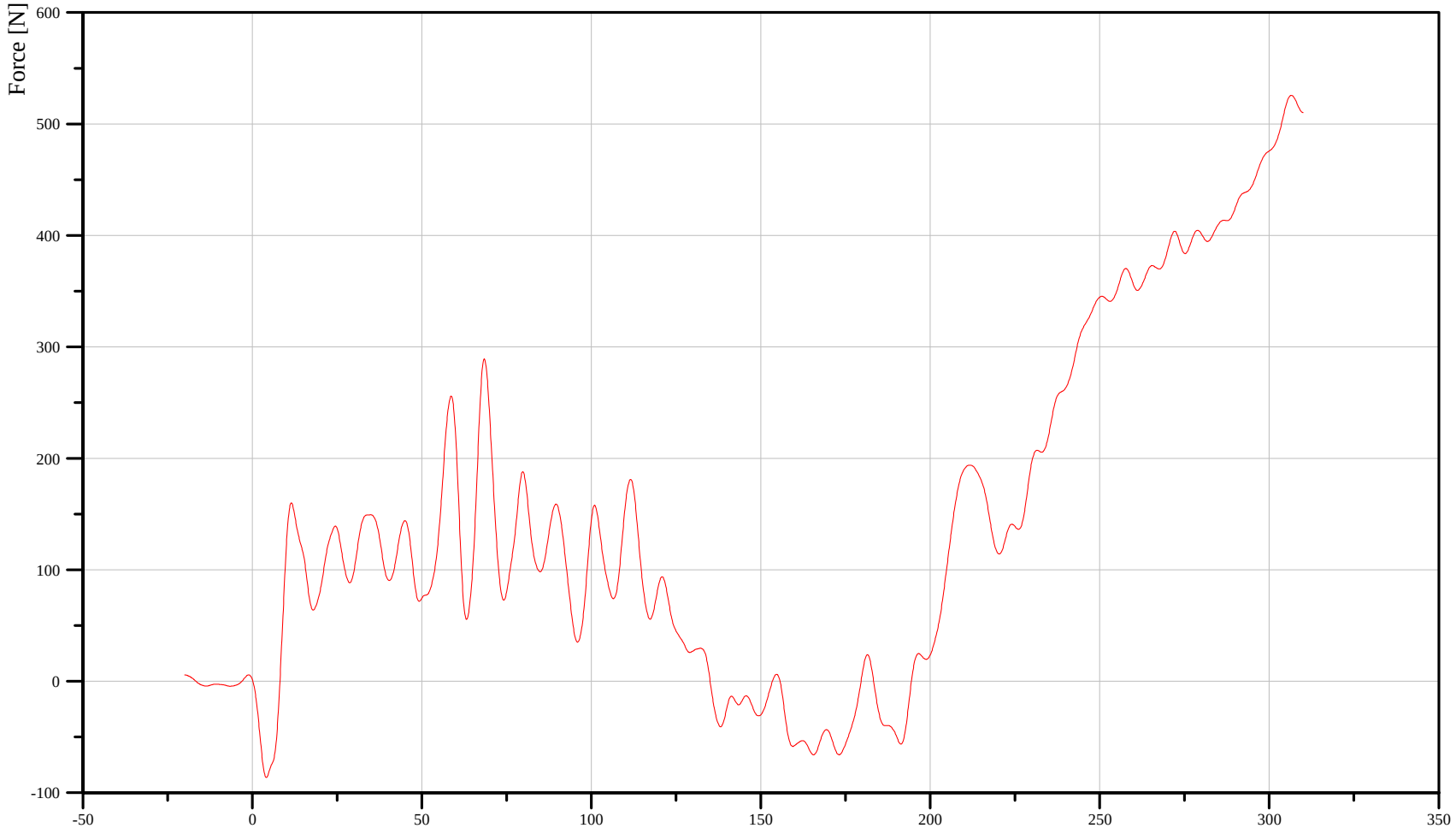
Load Cell Row 4 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000054FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-86.24 N at 4.16 ms

Max. Value
525.65 N at 306.48 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

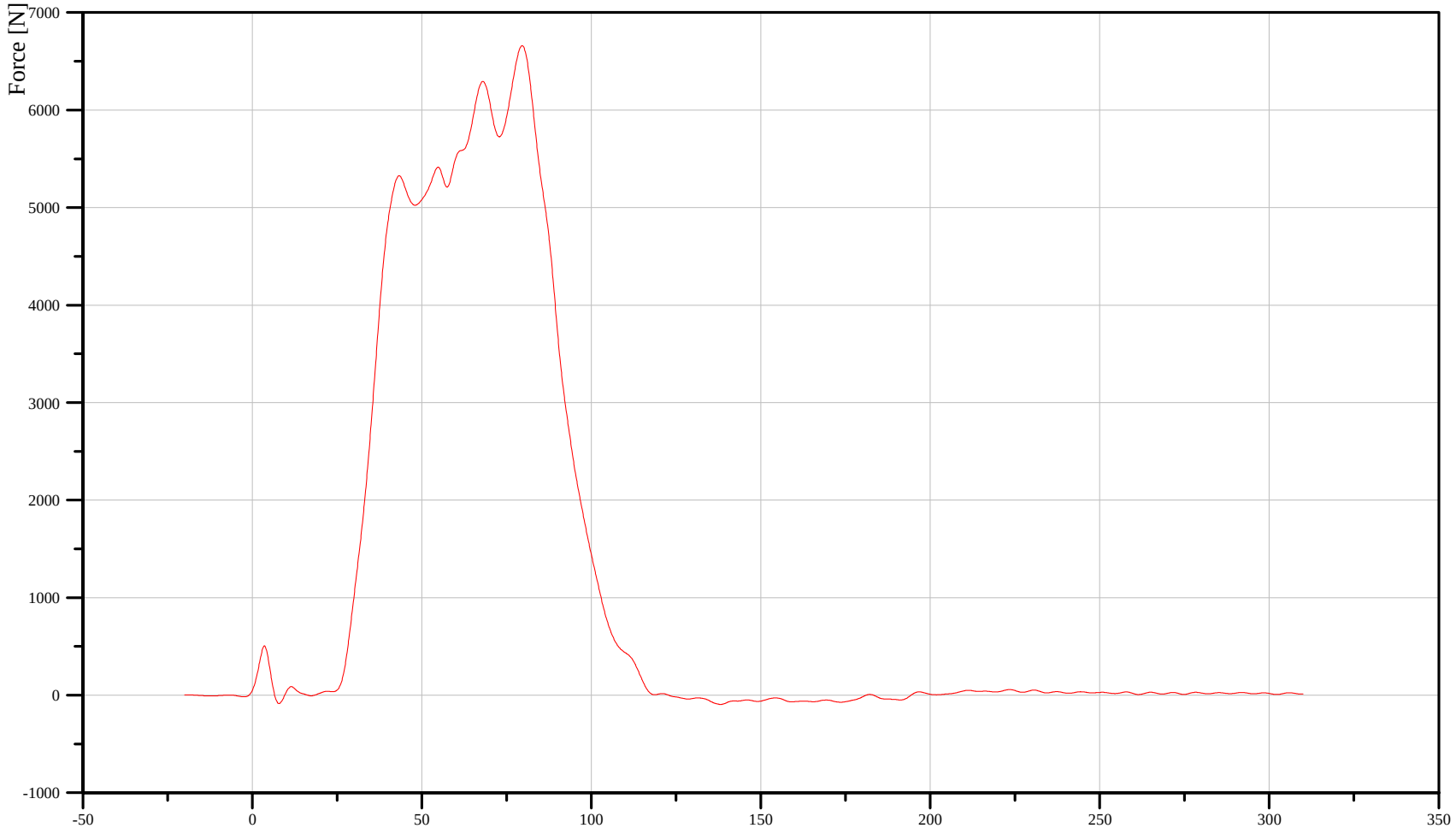
Load Cell Row 5 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000055FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-94.15 N at 138.16 ms

Max. Value
6,660.51 N at 79.60 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

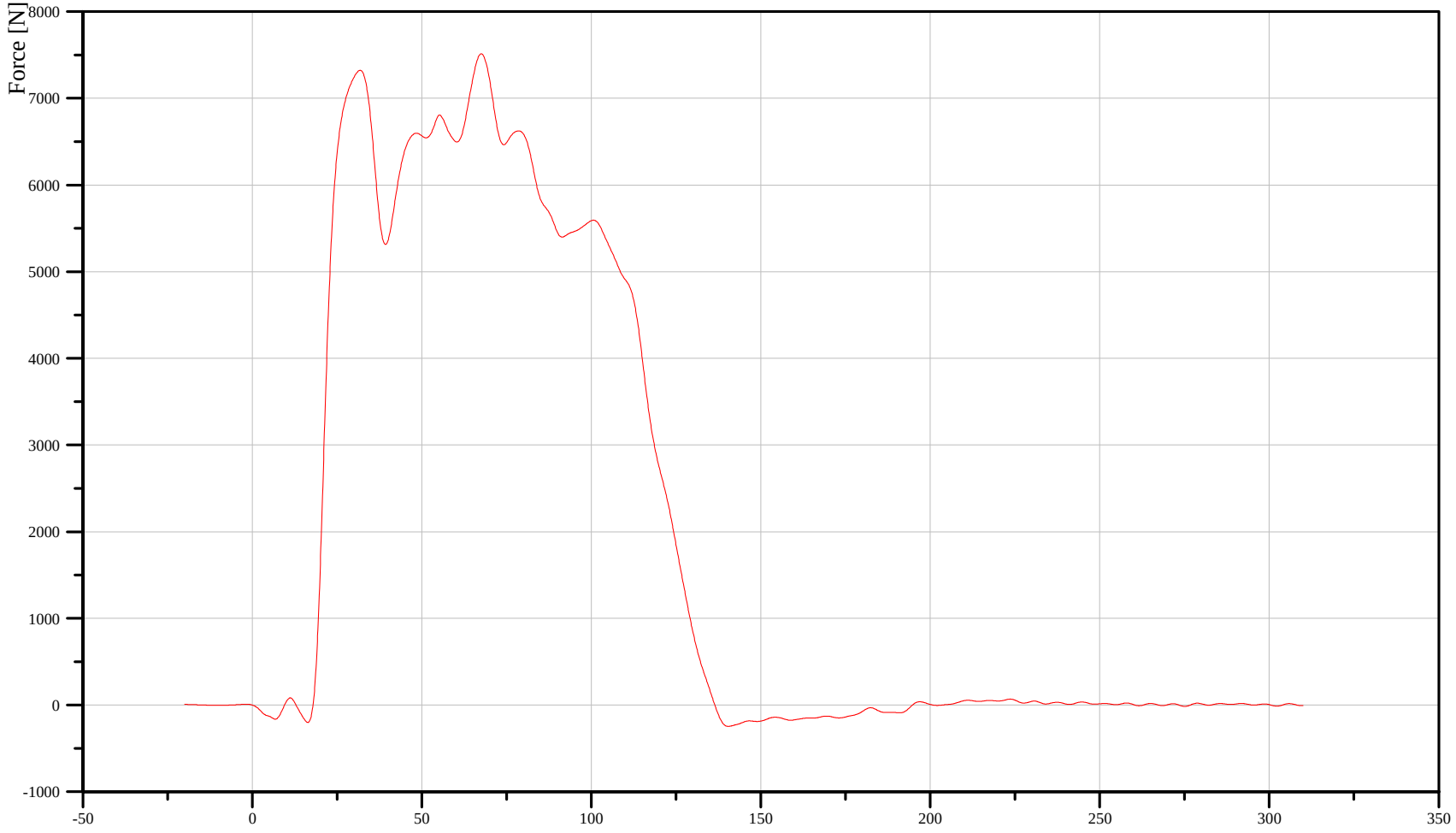
Load Cell Row 6 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000056FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-245.46 N at 140.40 ms

Max. Value
7,514.21 N at 67.52 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

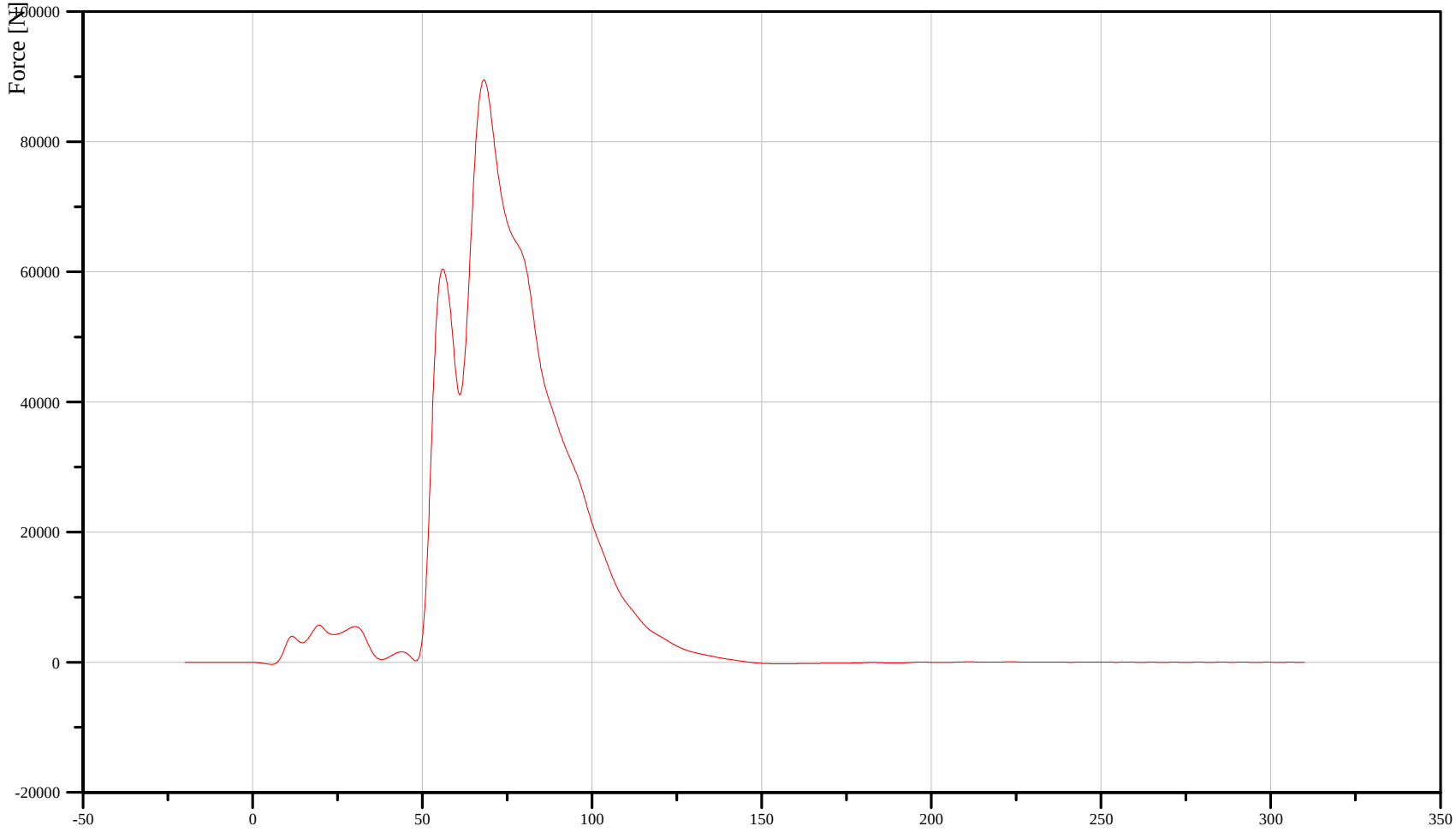
Load Cell Row 7 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000057FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-312.13 N at 5.60 ms

Max. Value
89,540.29 N at 68.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

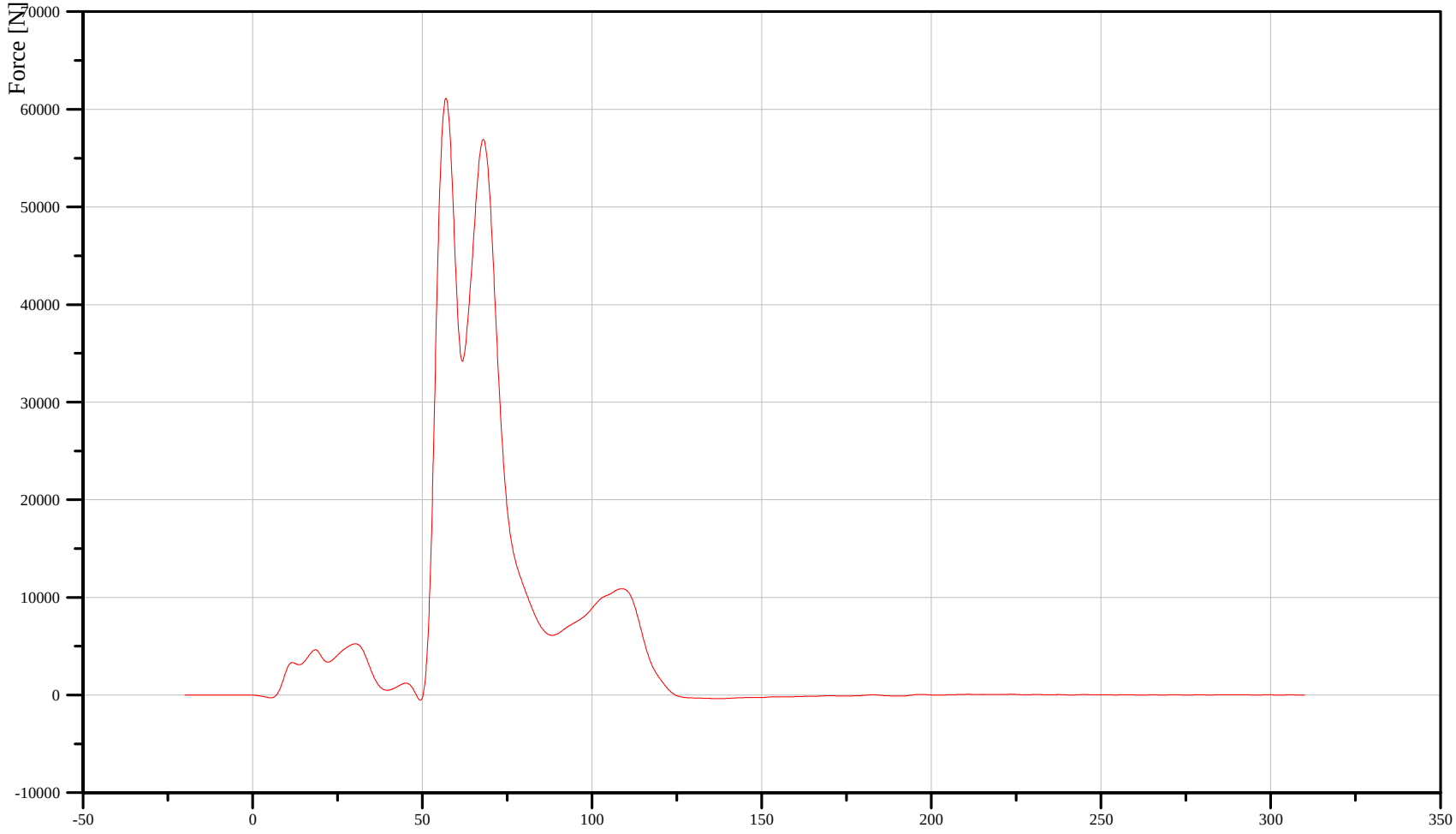
Load Cell Row 8 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000058FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-525.91 N at 49.44 ms

Max. Value
61,121.83 N at 56.96 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

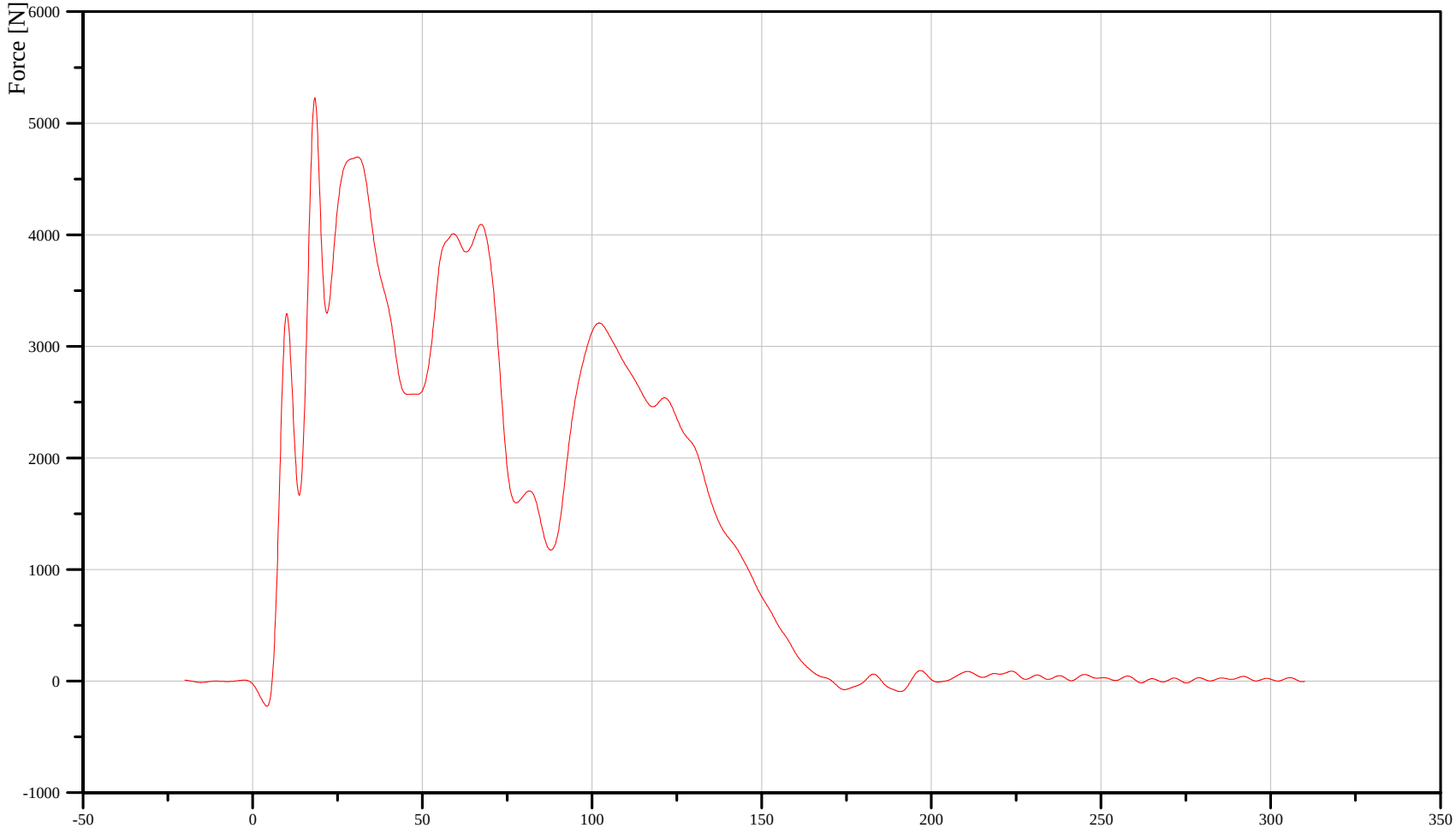
Load Cell Row 9 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000059FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-224.29 N at 4.24 ms

Max. Value
5,228.37 N at 18.32 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

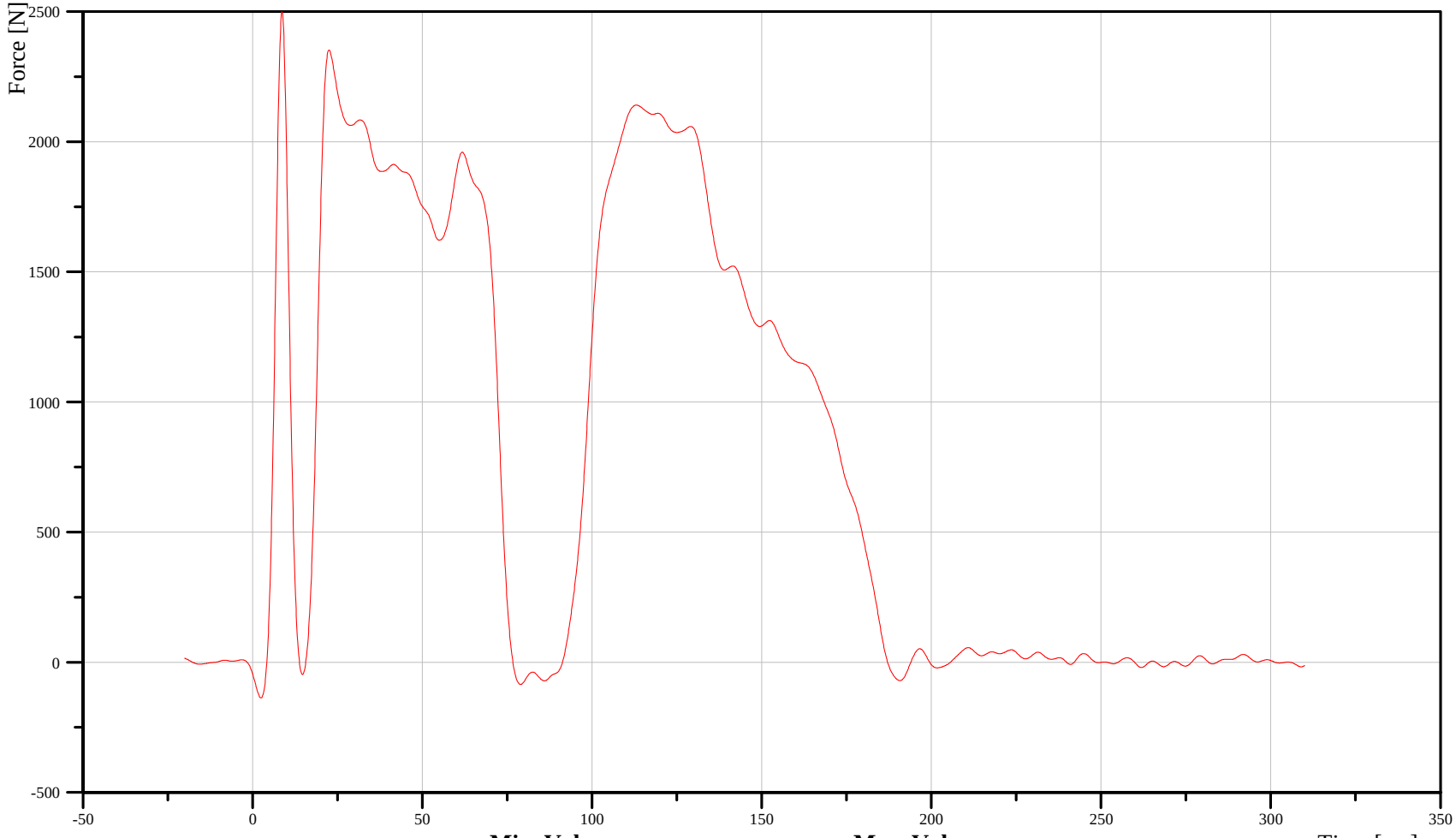
Load Cell Row 10 Column 6

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000060FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-136.71 N at 2.48 ms

Max. Value
2,499.22 N at 8.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

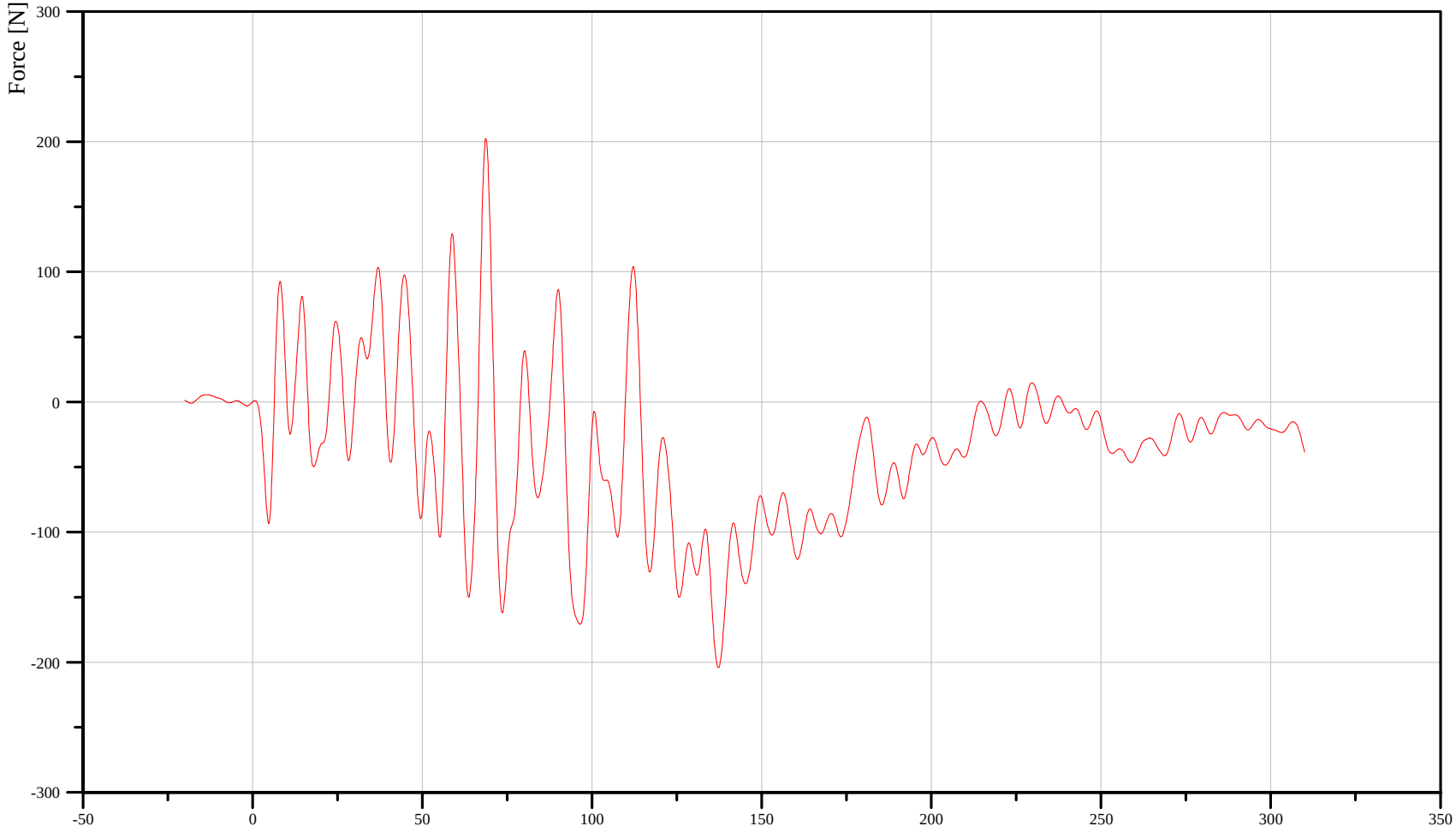
Load Cell Row 1 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000061FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-204.05 N at 137.28 ms

Max. Value
202.58 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

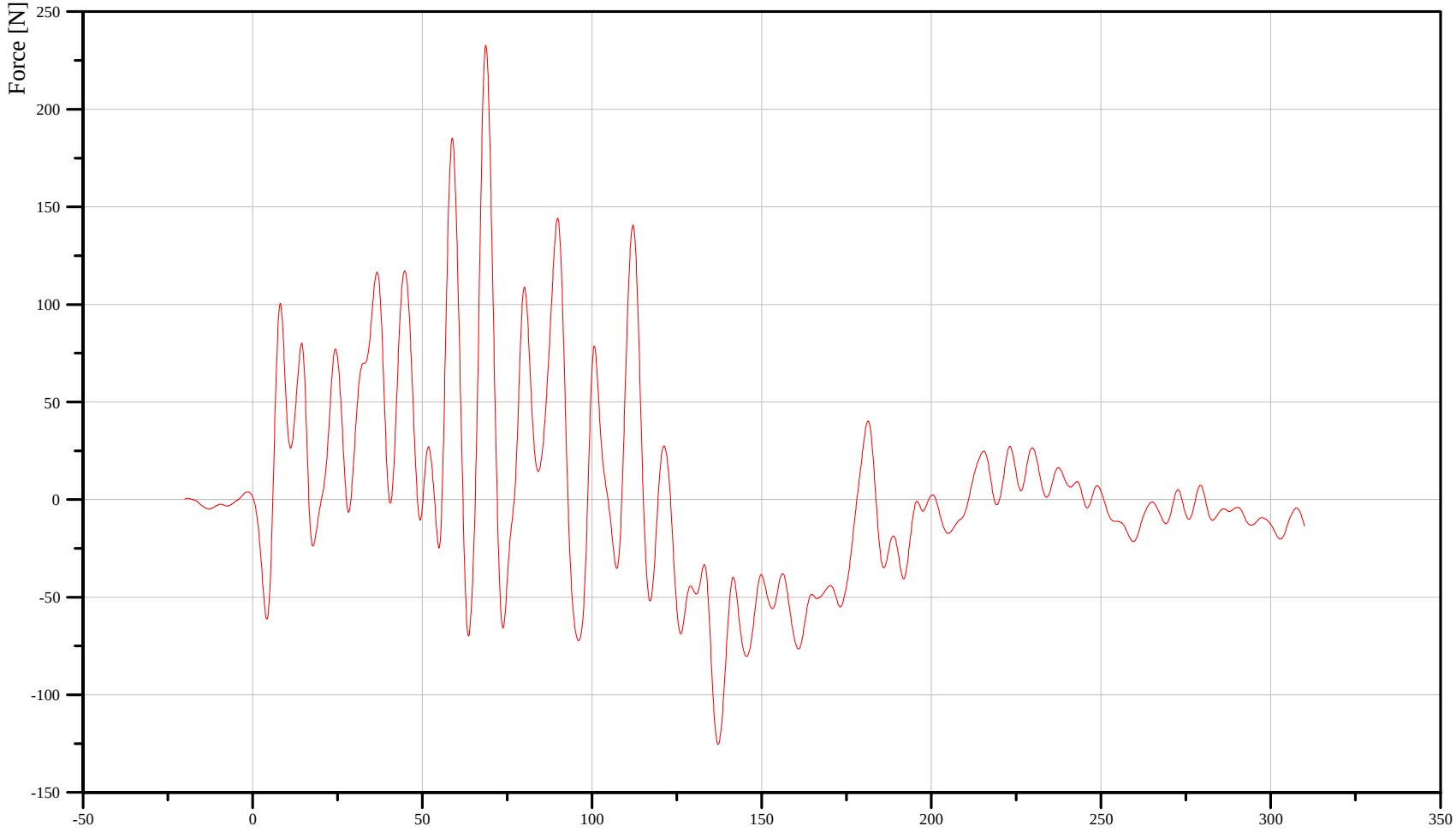
Load Cell Row 2 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000062FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-125.31 N at 137.20 ms

Max. Value
232.83 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

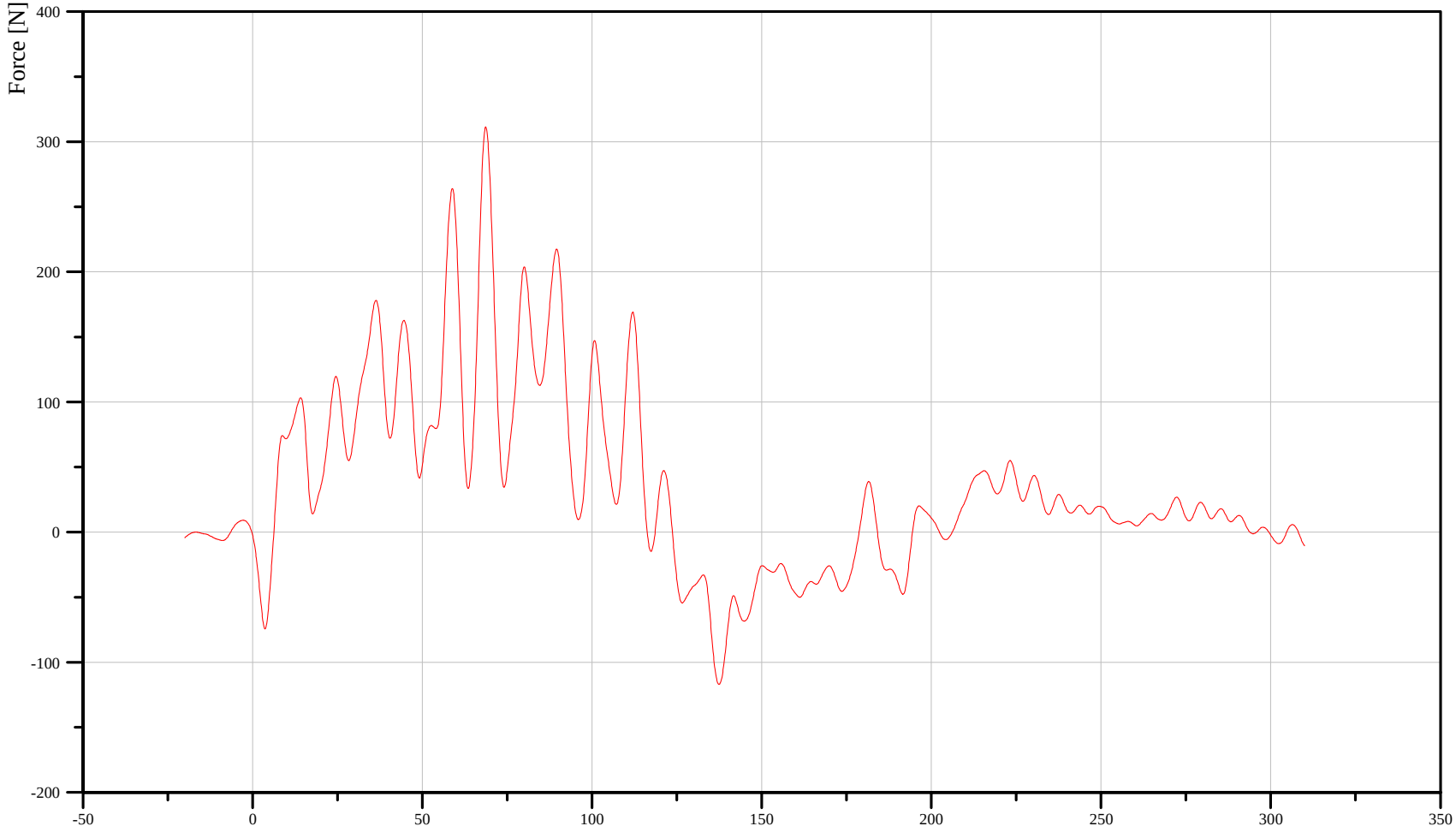
Load Cell Row 3 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000063FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-116.88 N at 137.44 ms

Max. Value
311.45 N at 68.72 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

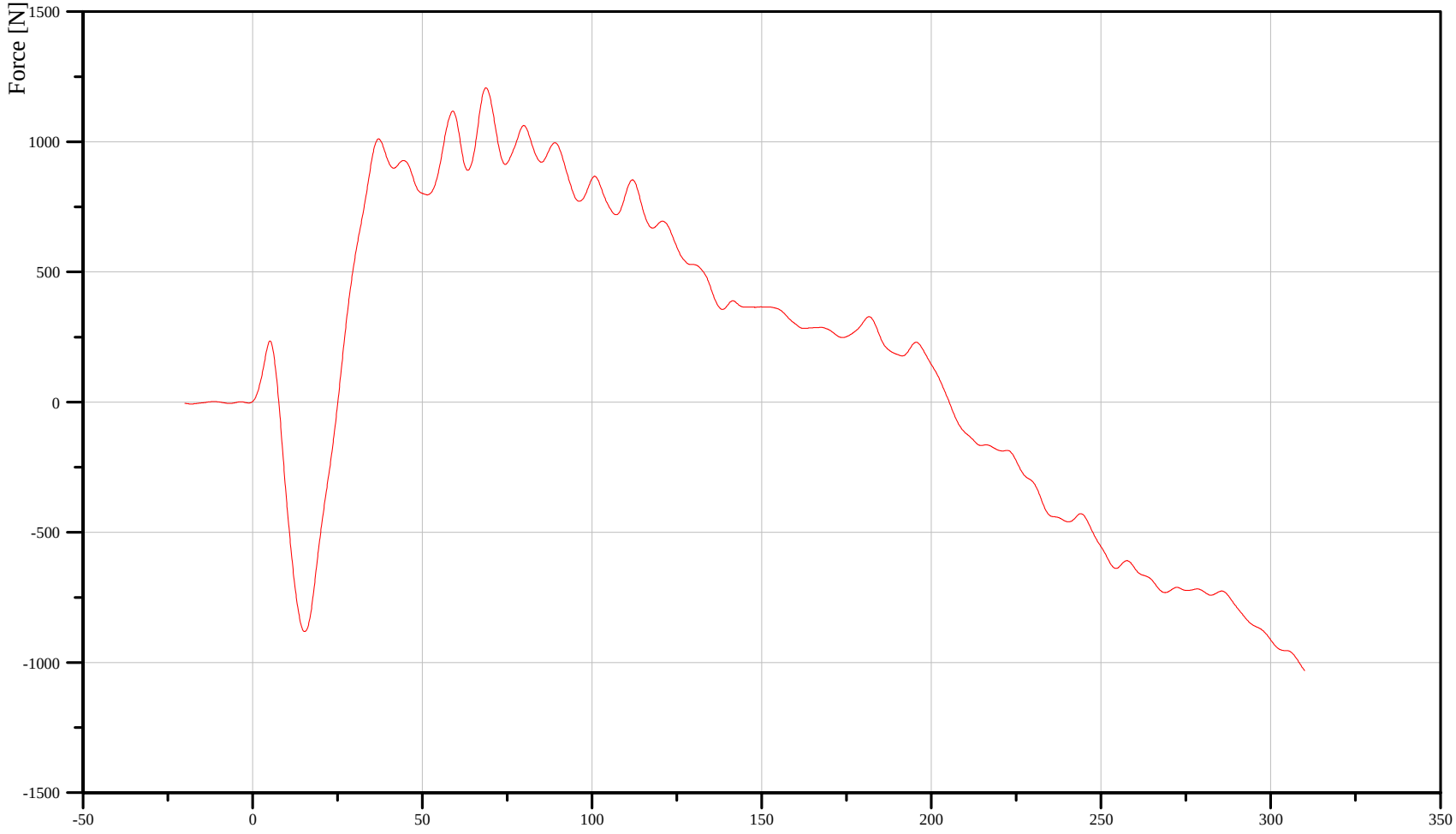
Load Cell Row 4 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000064FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-1,031.11 N at 310.00 ms

Max. Value
1,207.15 N at 68.72 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

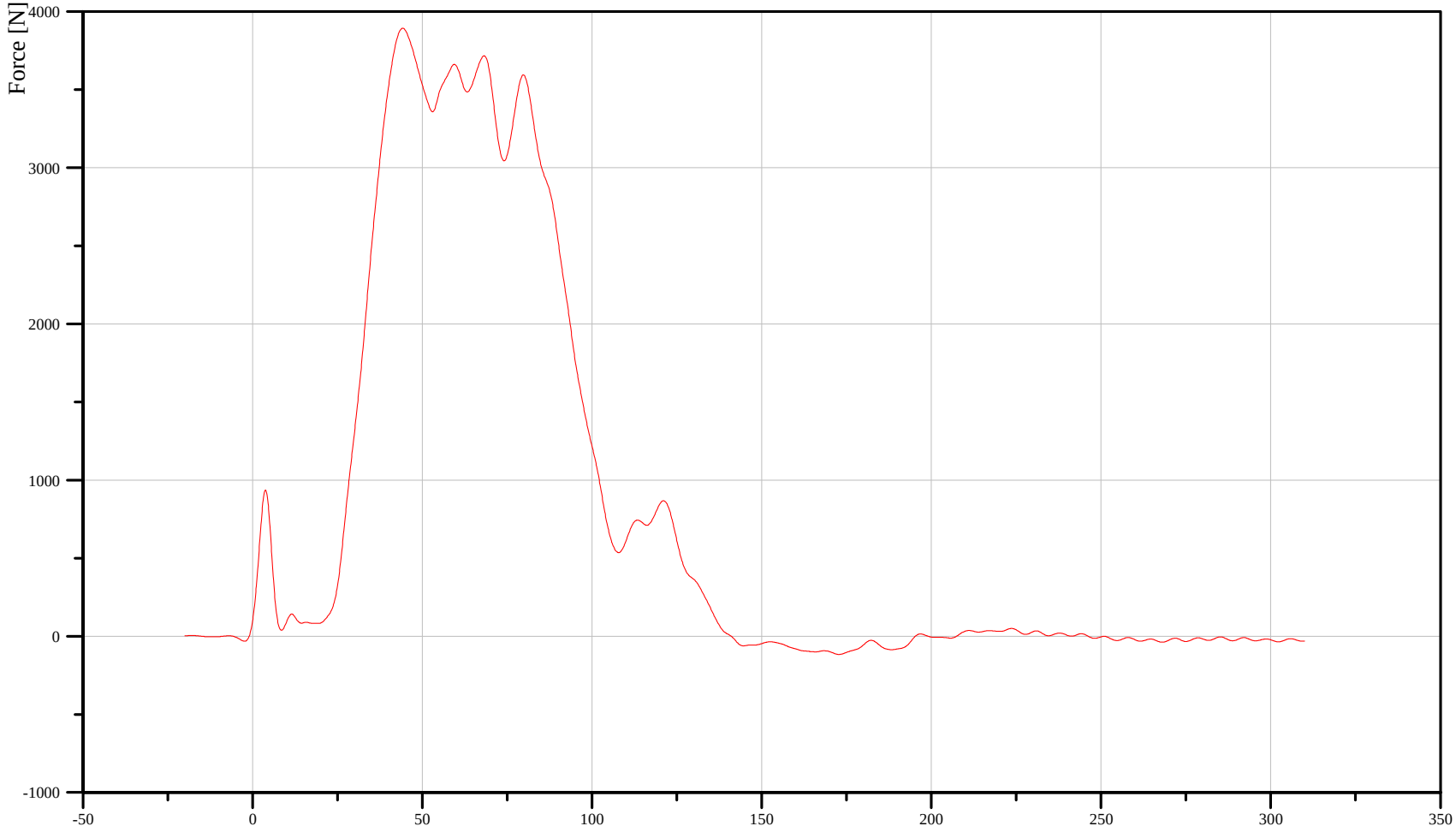
Load Cell Row 5 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000065FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-116.39 N at 172.72 ms

Max. Value
3,894.10 N at 44.24 ms

B-276

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

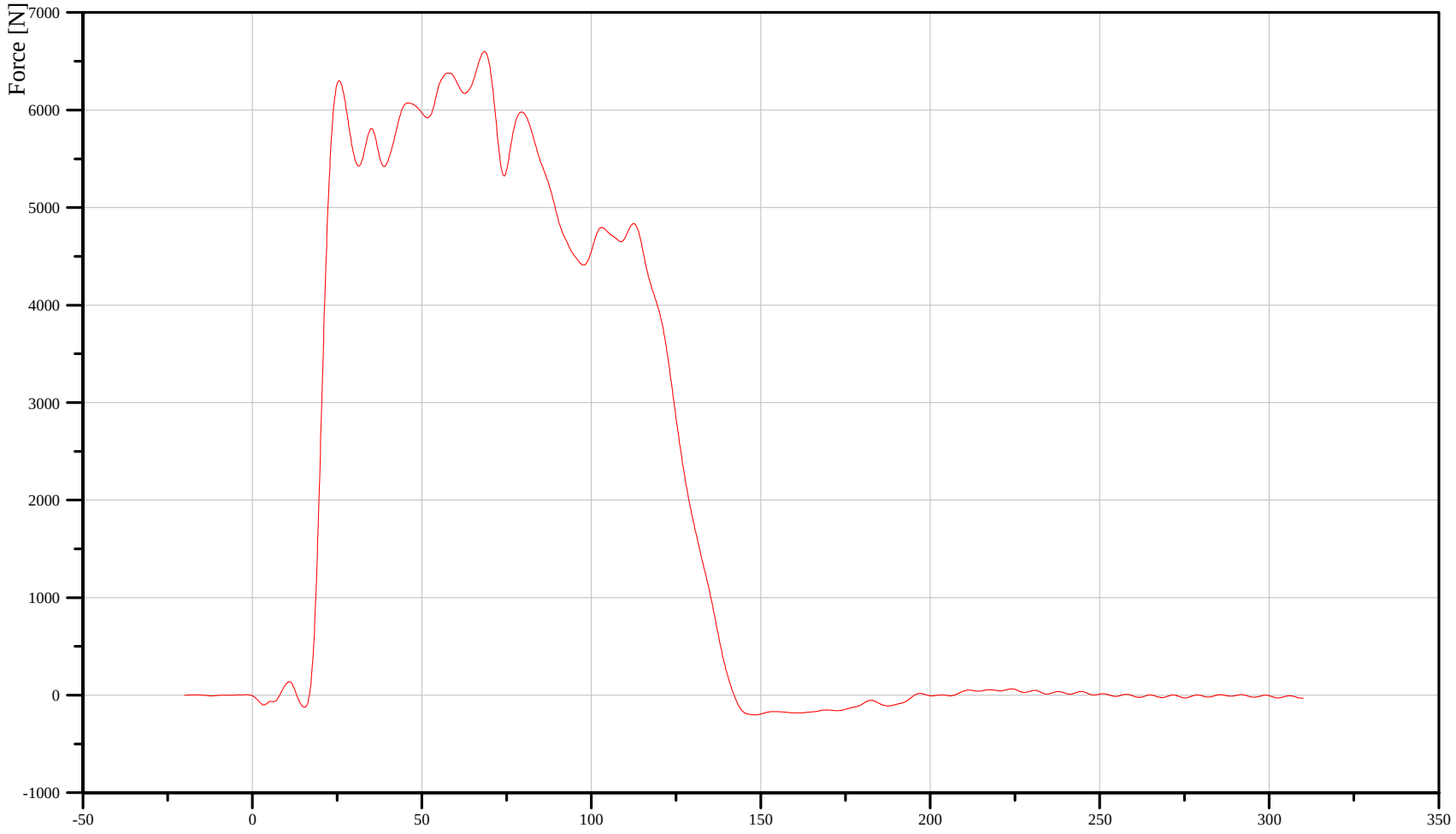
Load Cell Row 6 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000066FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-200.76 N at 148.24 ms

Max. Value
6,600.63 N at 68.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

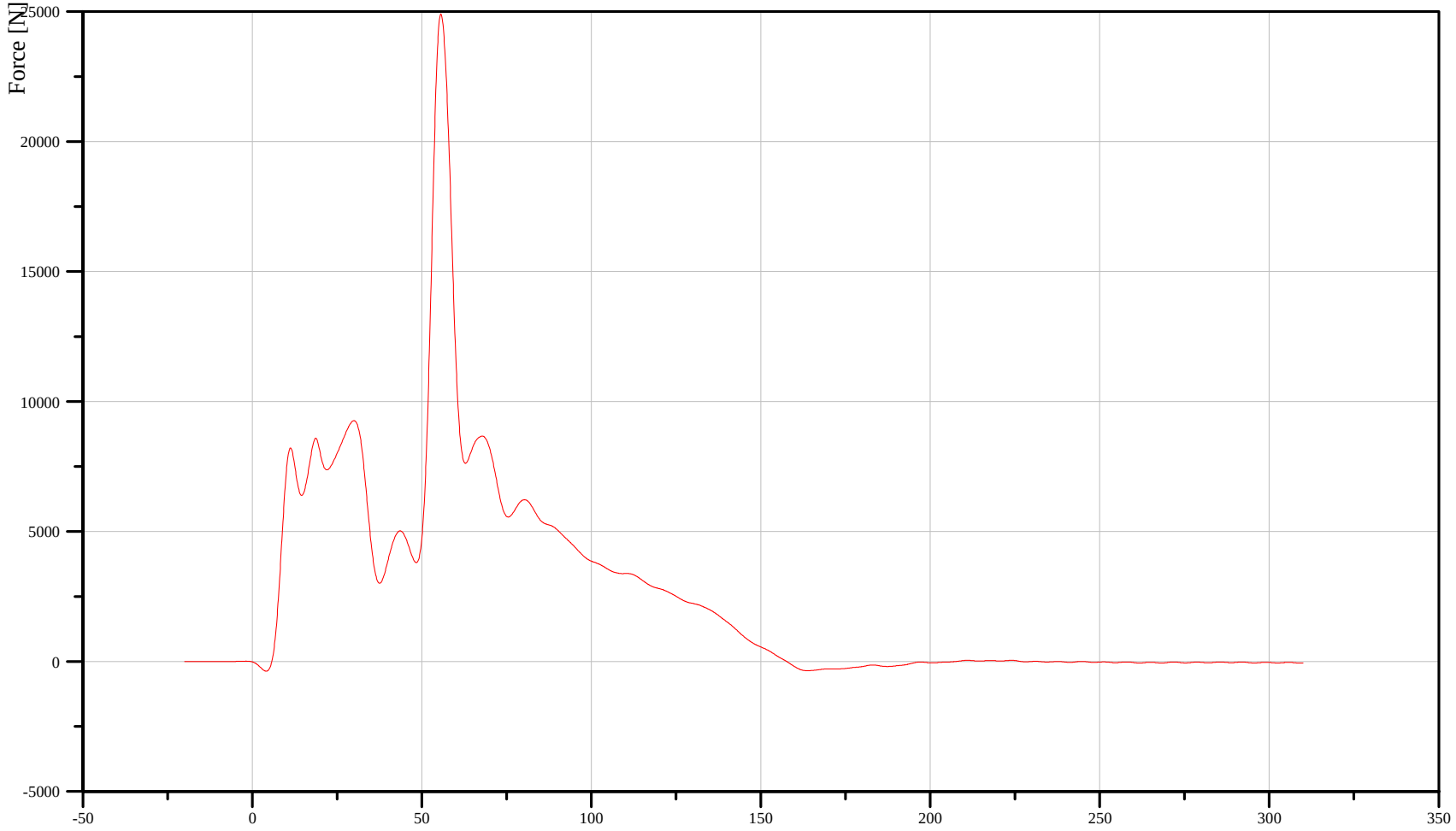
Load Cell Row 7 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000067FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-371.71 N at 4.08 ms

Max. Value
24,910.23 N at 55.60 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

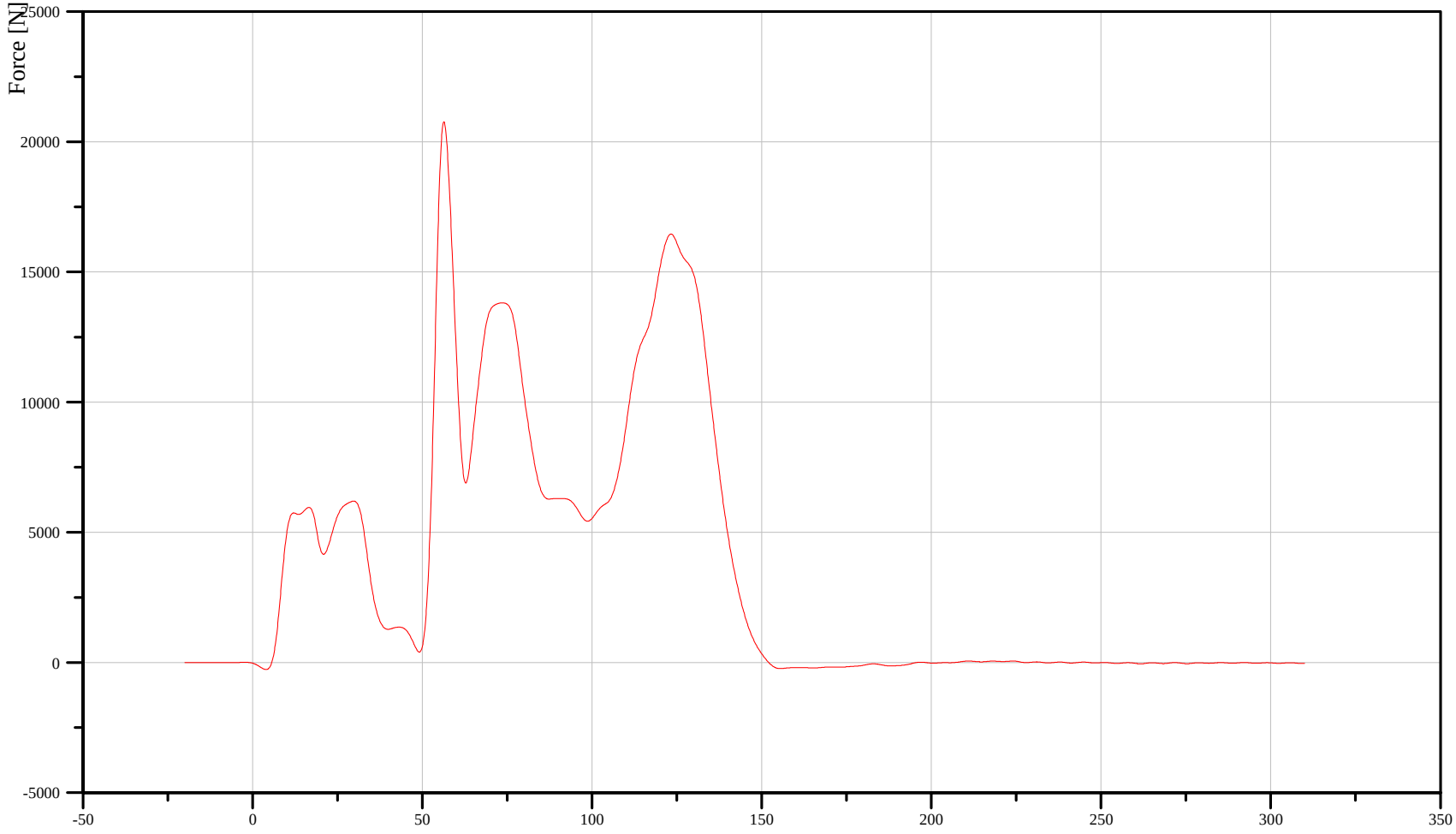
Load Cell Row 8 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000068FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-267.85 N at 4.00 ms

Max. Value
20,773.00 N at 56.40 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

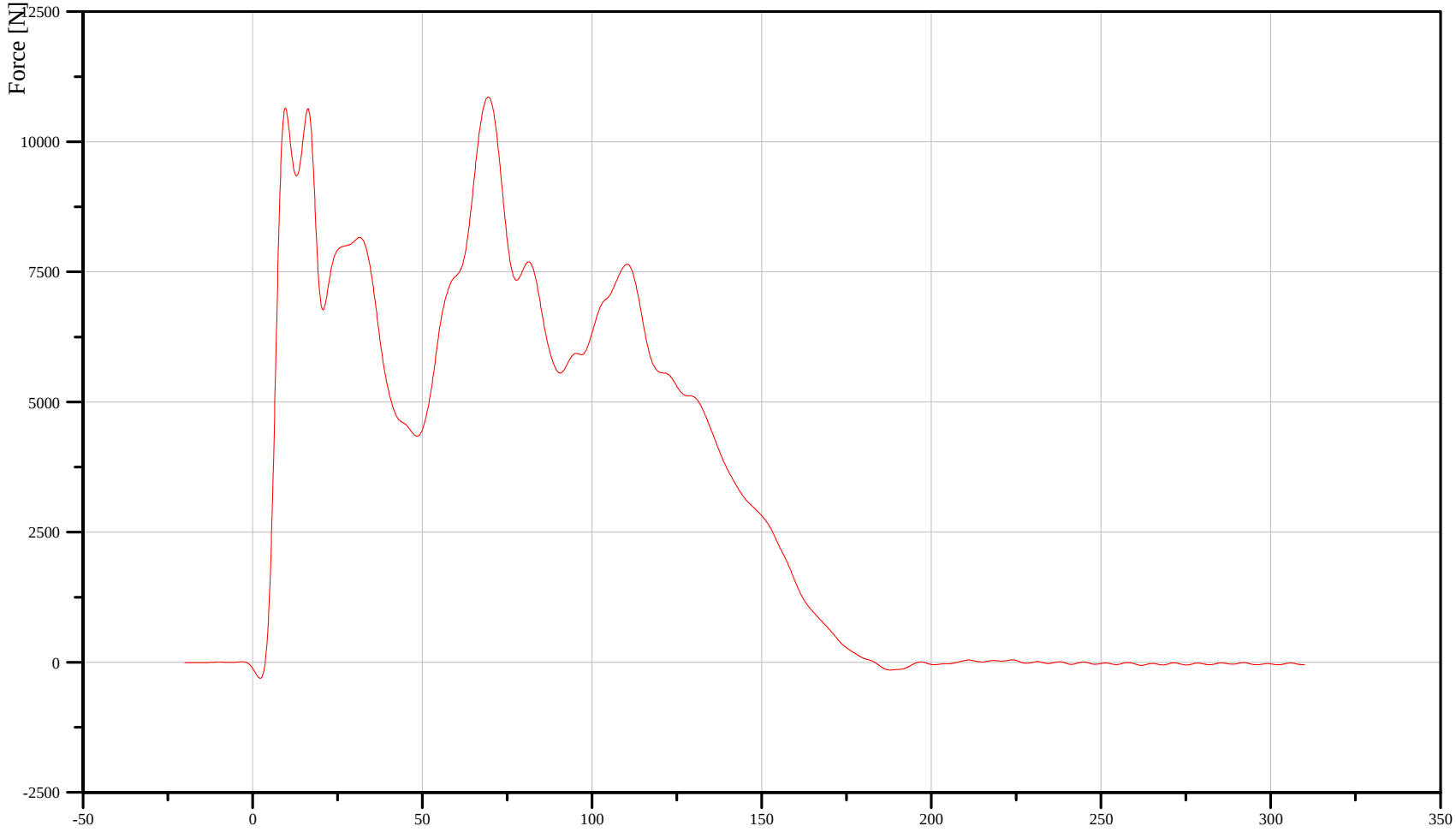
Load Cell Row 9 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000069FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-306.68 N at 2.24 ms

Max. Value
10,861.76 N at 69.44 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

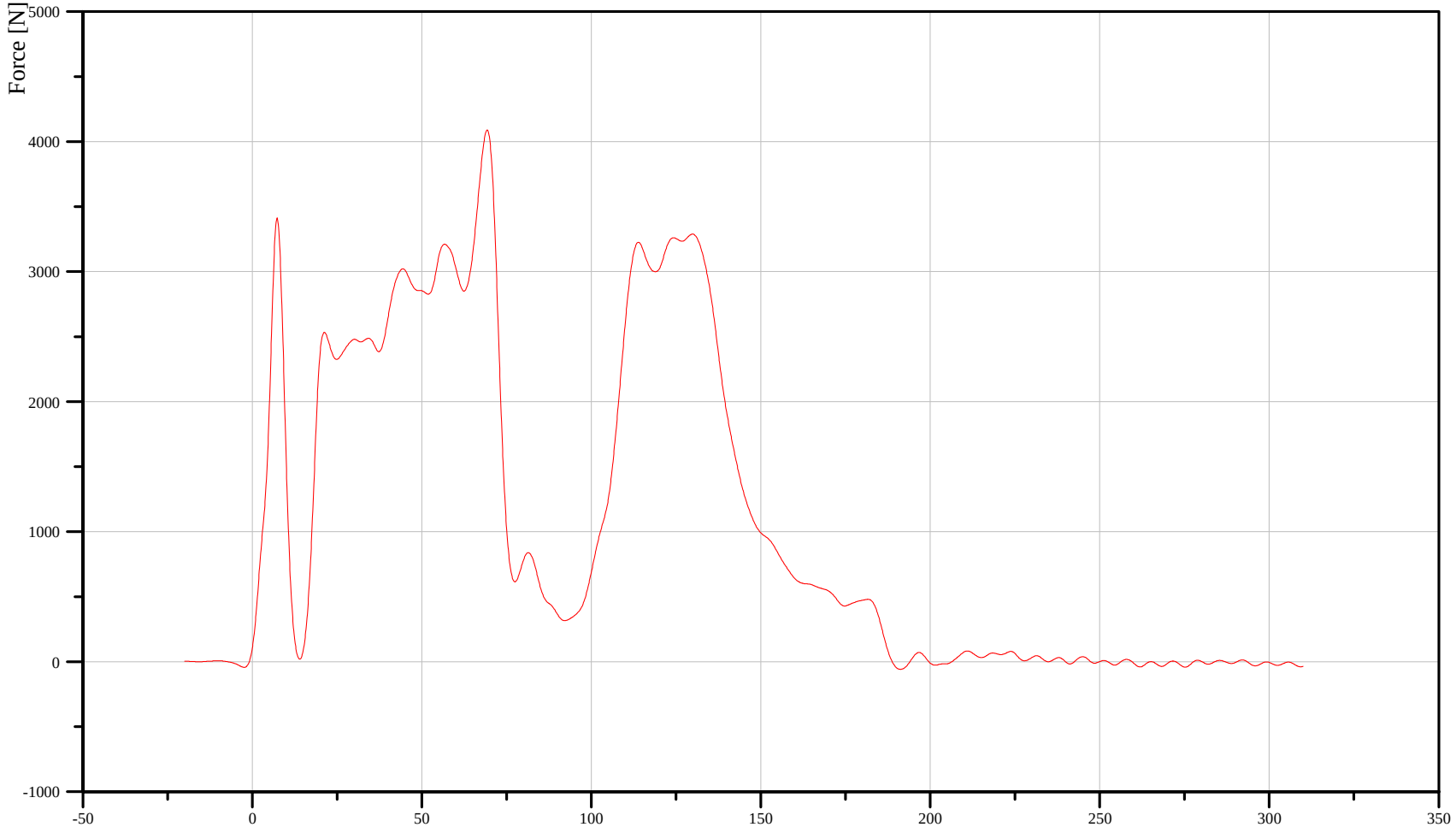
Load Cell Row 10 Column 7

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000070FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-58.52 N at 191.20 ms

Max. Value
4,090.34 N at 69.28 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

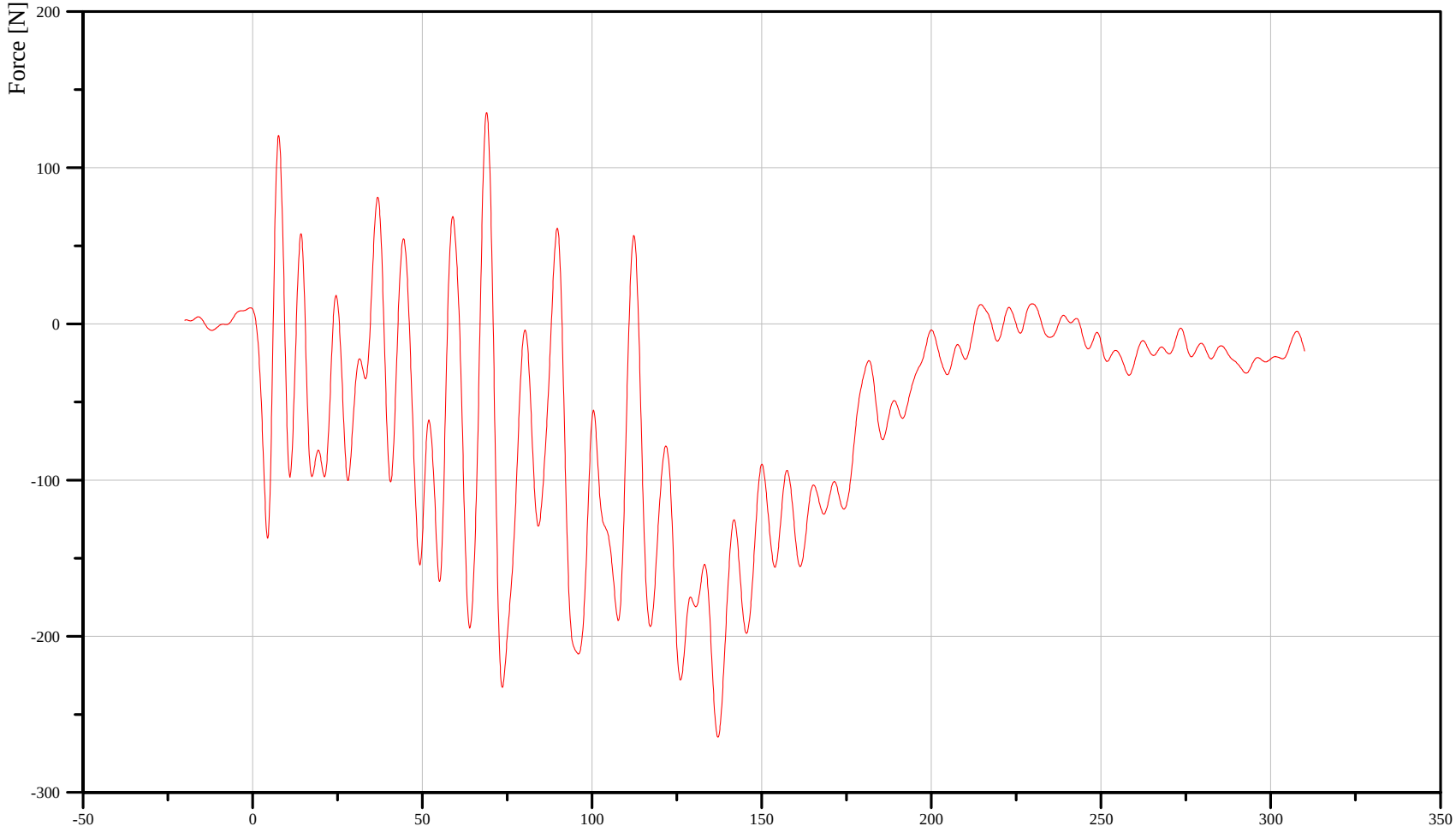
Load Cell Row 1 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000071FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-264.60 N at 137.12 ms

Max. Value
135.45 N at 68.96 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

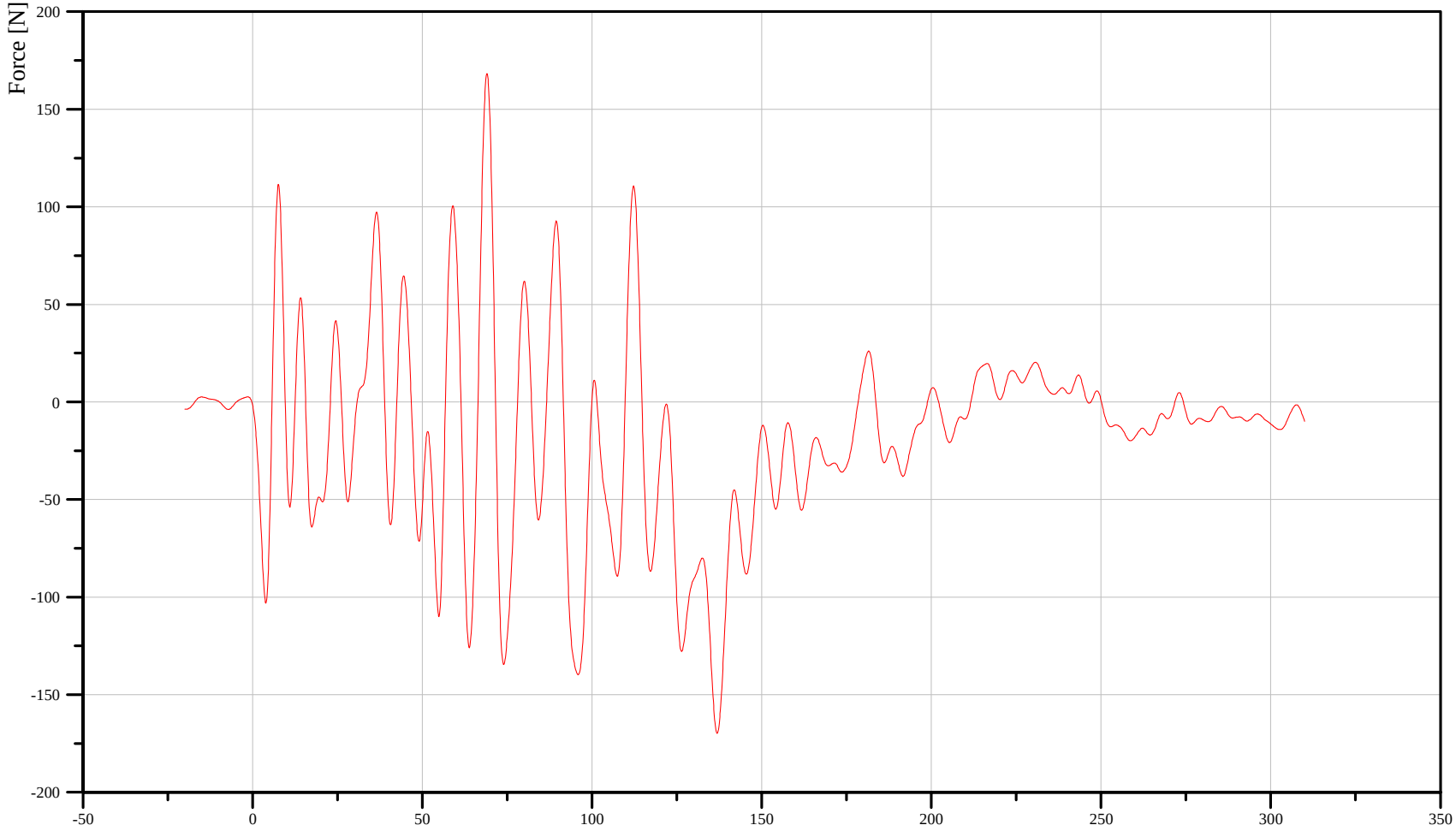
Load Cell Row 2 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000072FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-169.83 N at 136.88 ms

Max. Value
168.28 N at 69.04 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

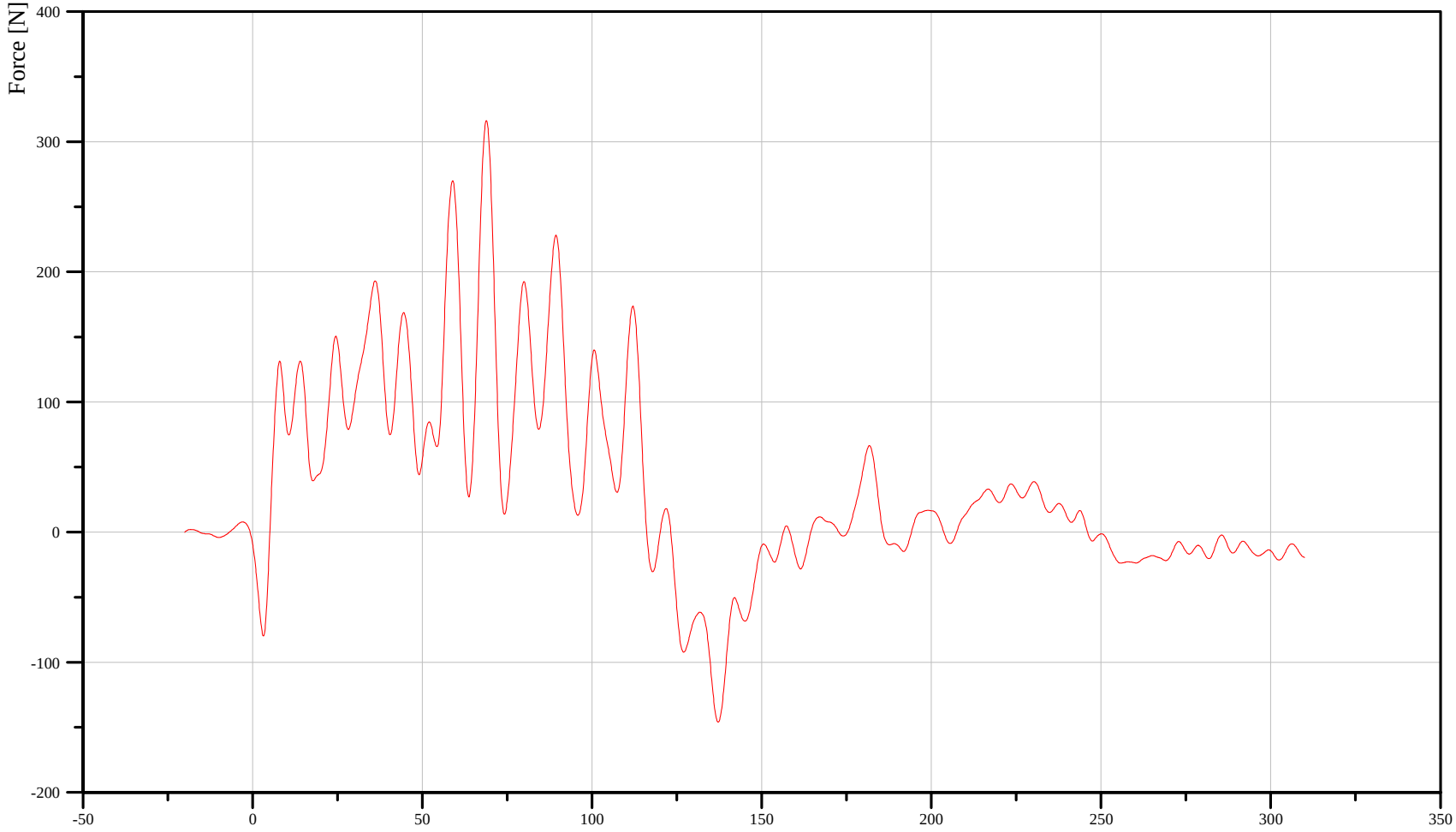
Load Cell Row 3 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000073FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-145.98 N at 137.20 ms

Max. Value
316.24 N at 68.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

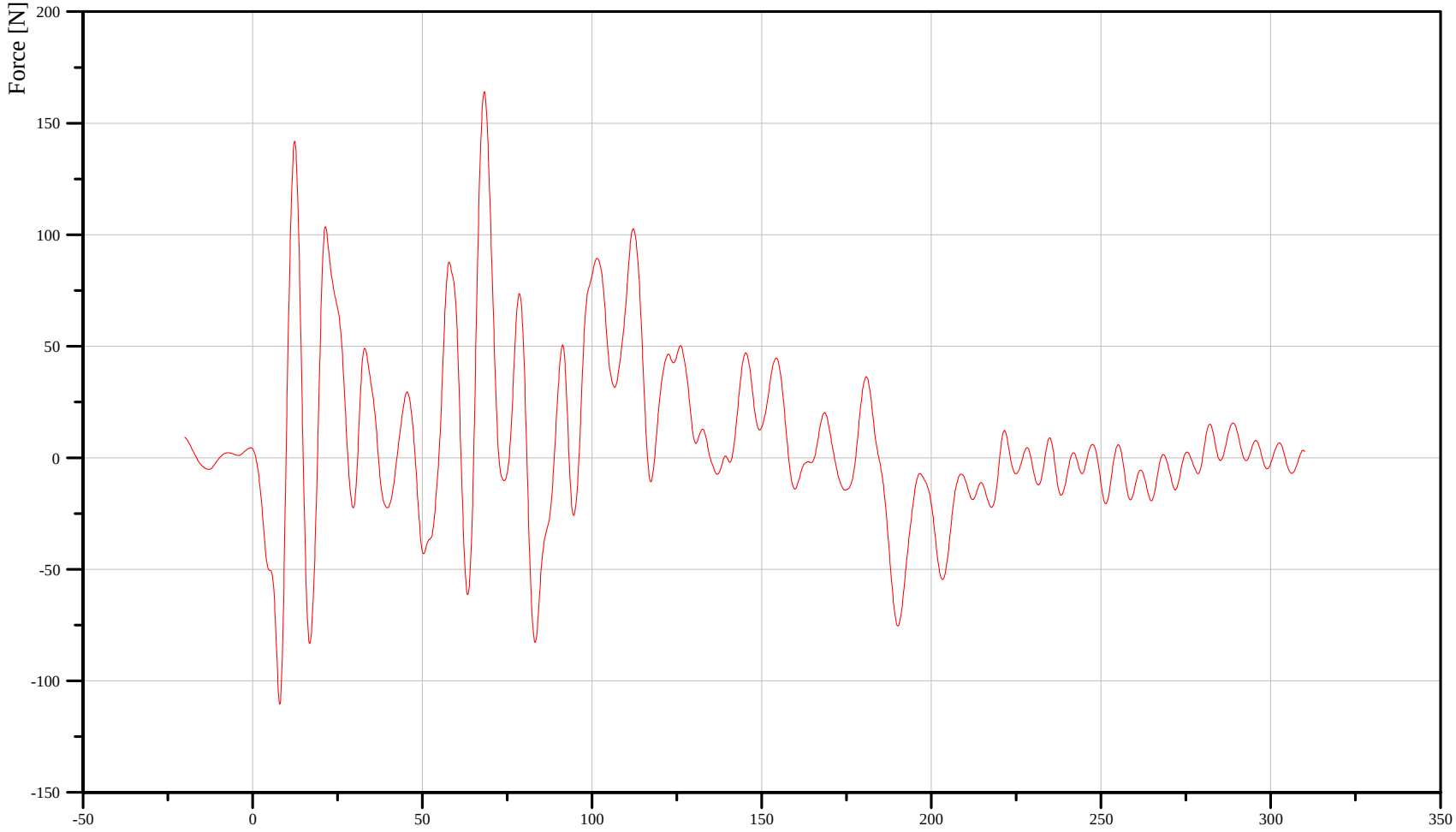
Load Cell Row 4 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000074FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-110.44 N at 8.00 ms

Max. Value
164.07 N at 68.24 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

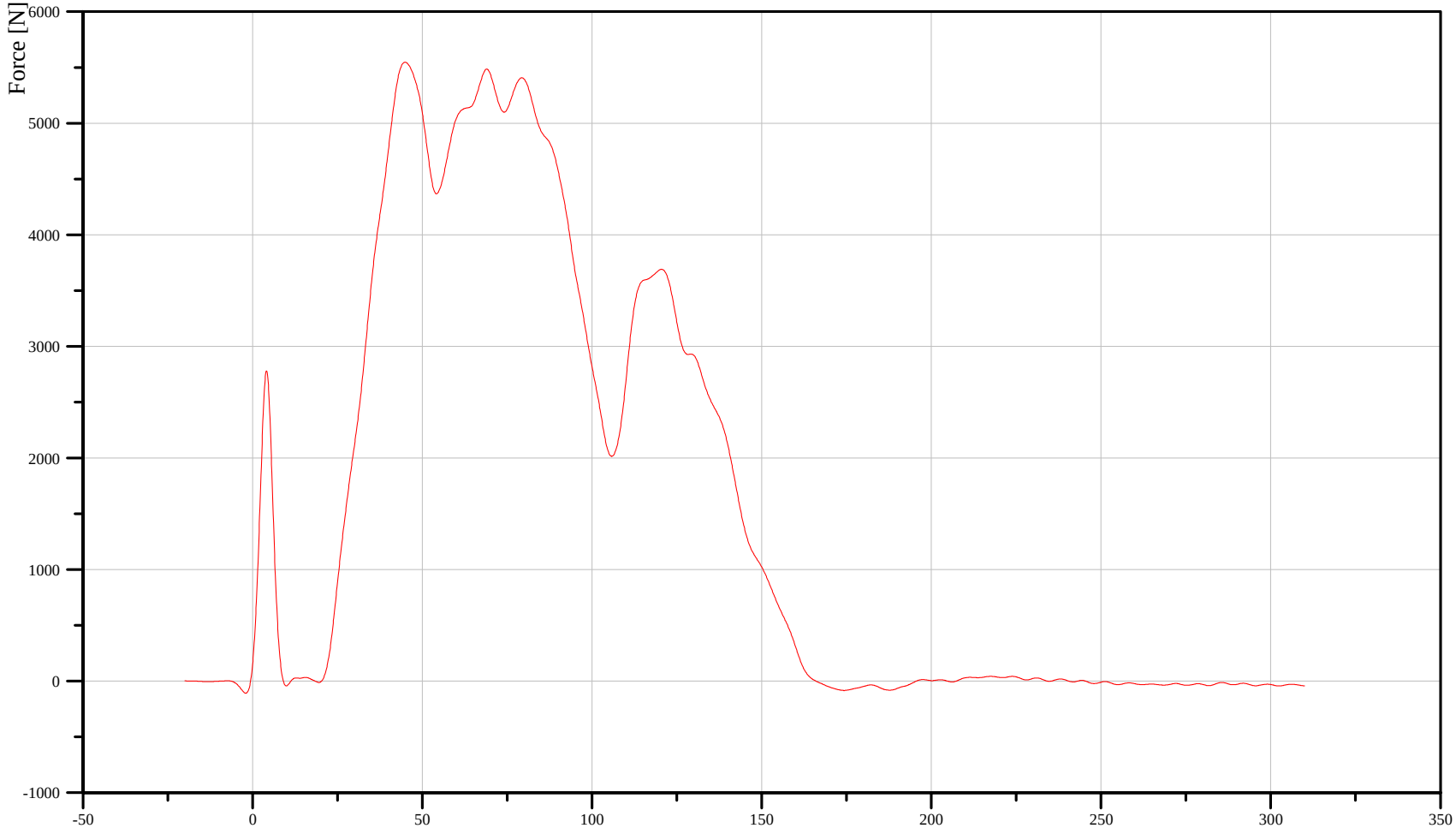
Load Cell Row 5 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000075FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-107.88 N at -2.00 ms

Max. Value
5,546.75 N at 44.88 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

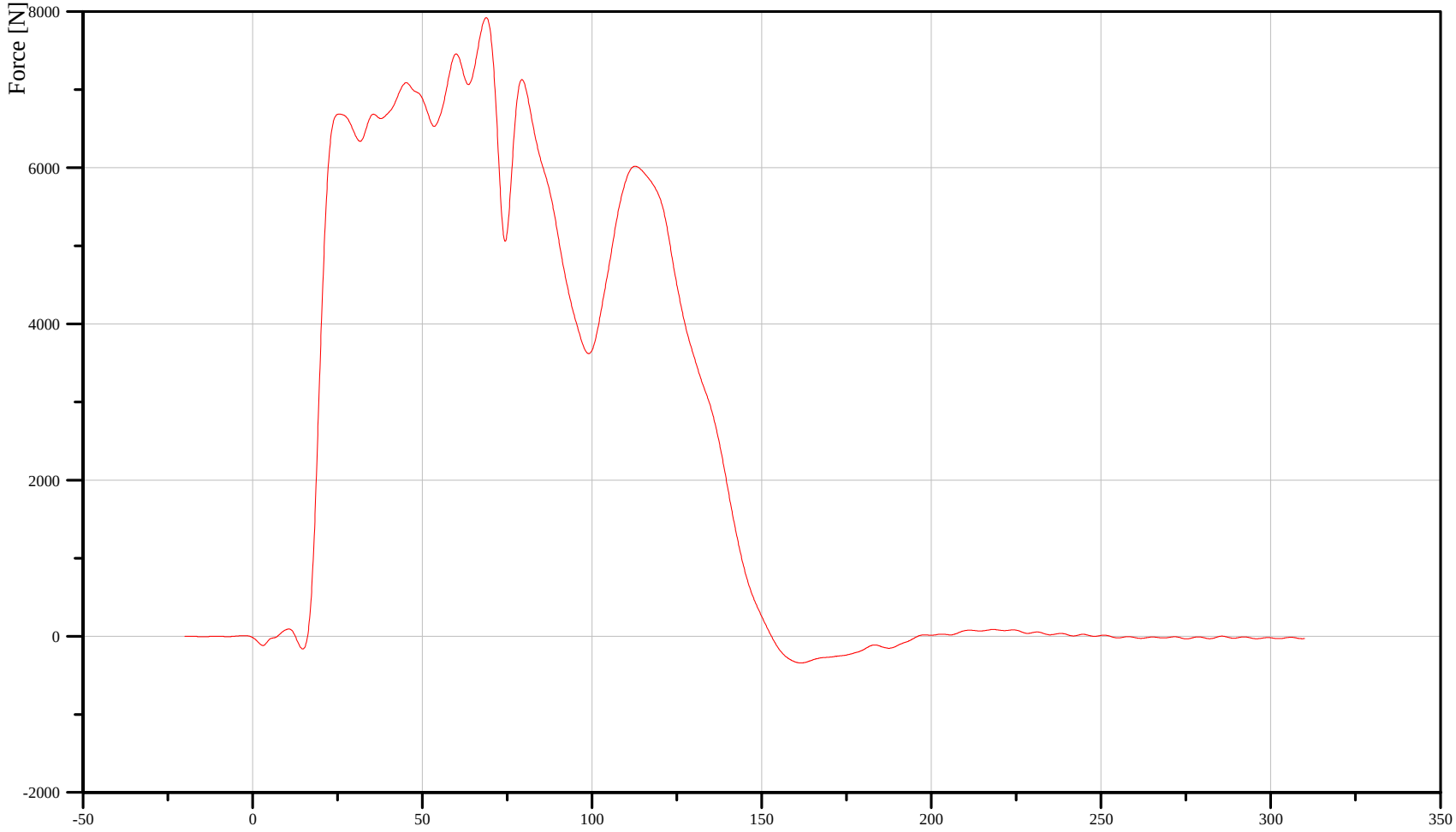
Load Cell Row 6 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000076FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-341.69 N at 161.60 ms

Max. Value
7,922.95 N at 68.80 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

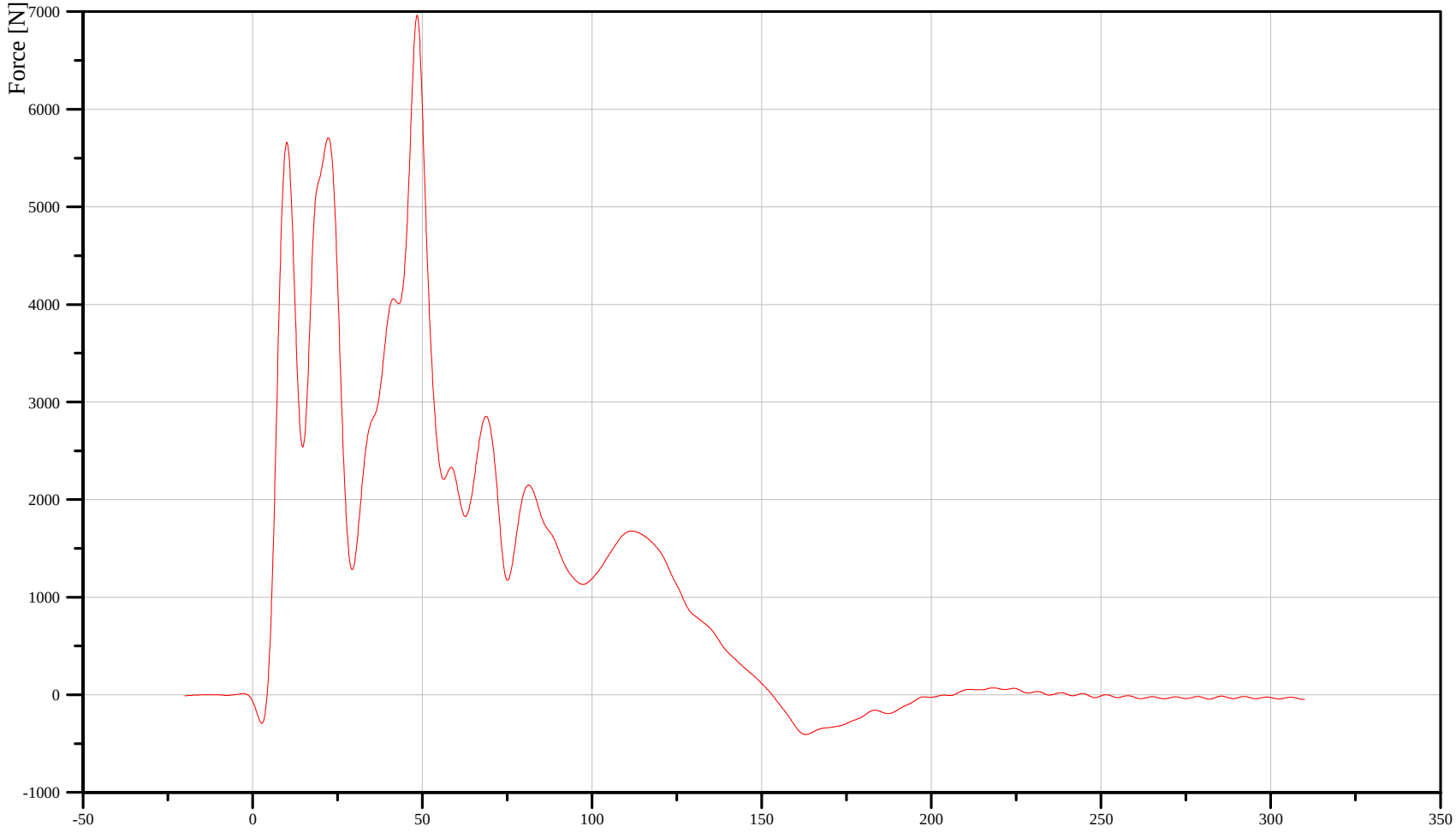
Load Cell Row 7 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000077FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-405.69 N at 162.96 ms

Max. Value
6,965.68 N at 48.48 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

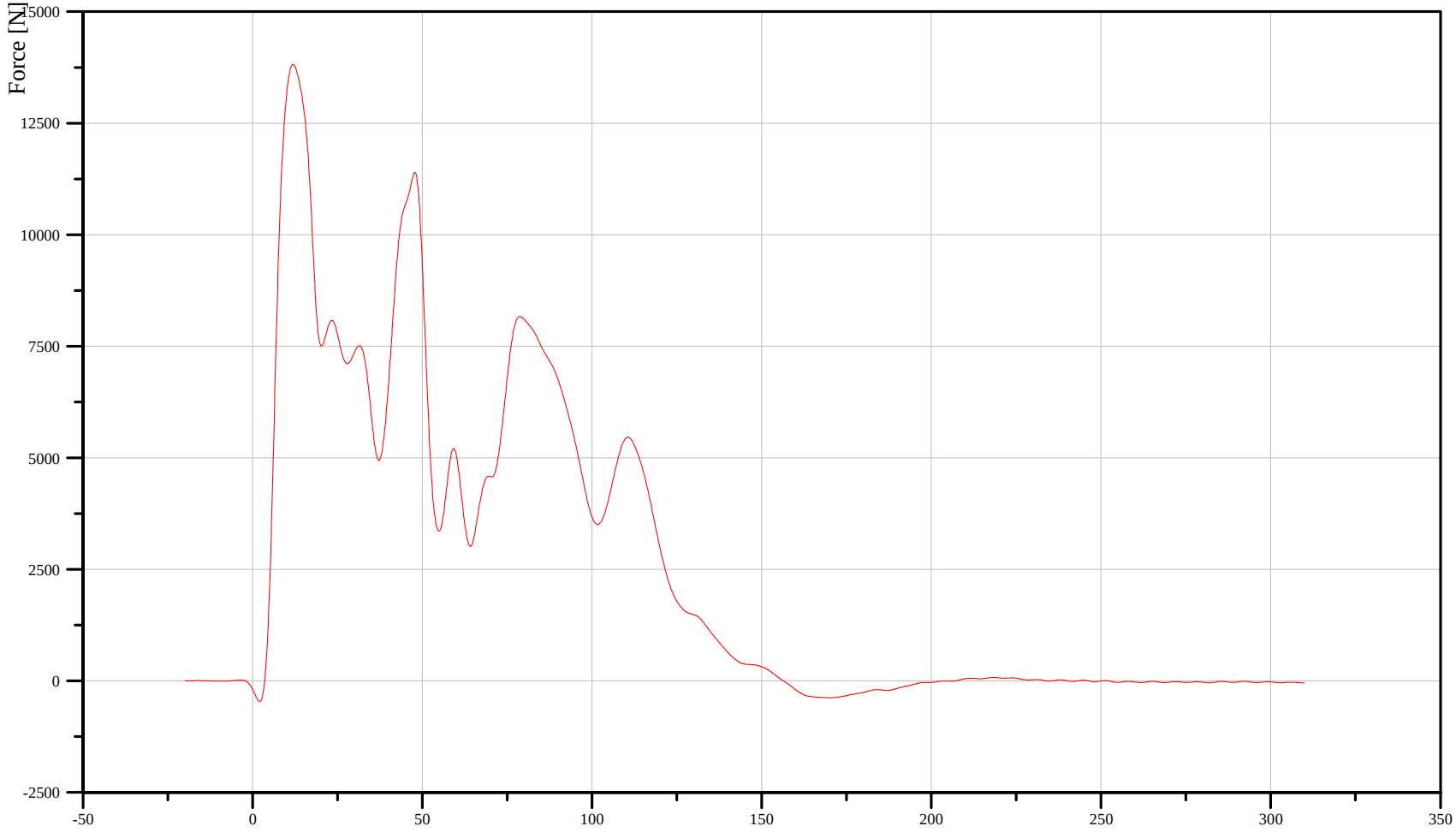
Load Cell Row 8 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000078FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-459.34 N at 2.08 ms

Max. Value
13,818.93 N at 11.92 ms

B-289

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

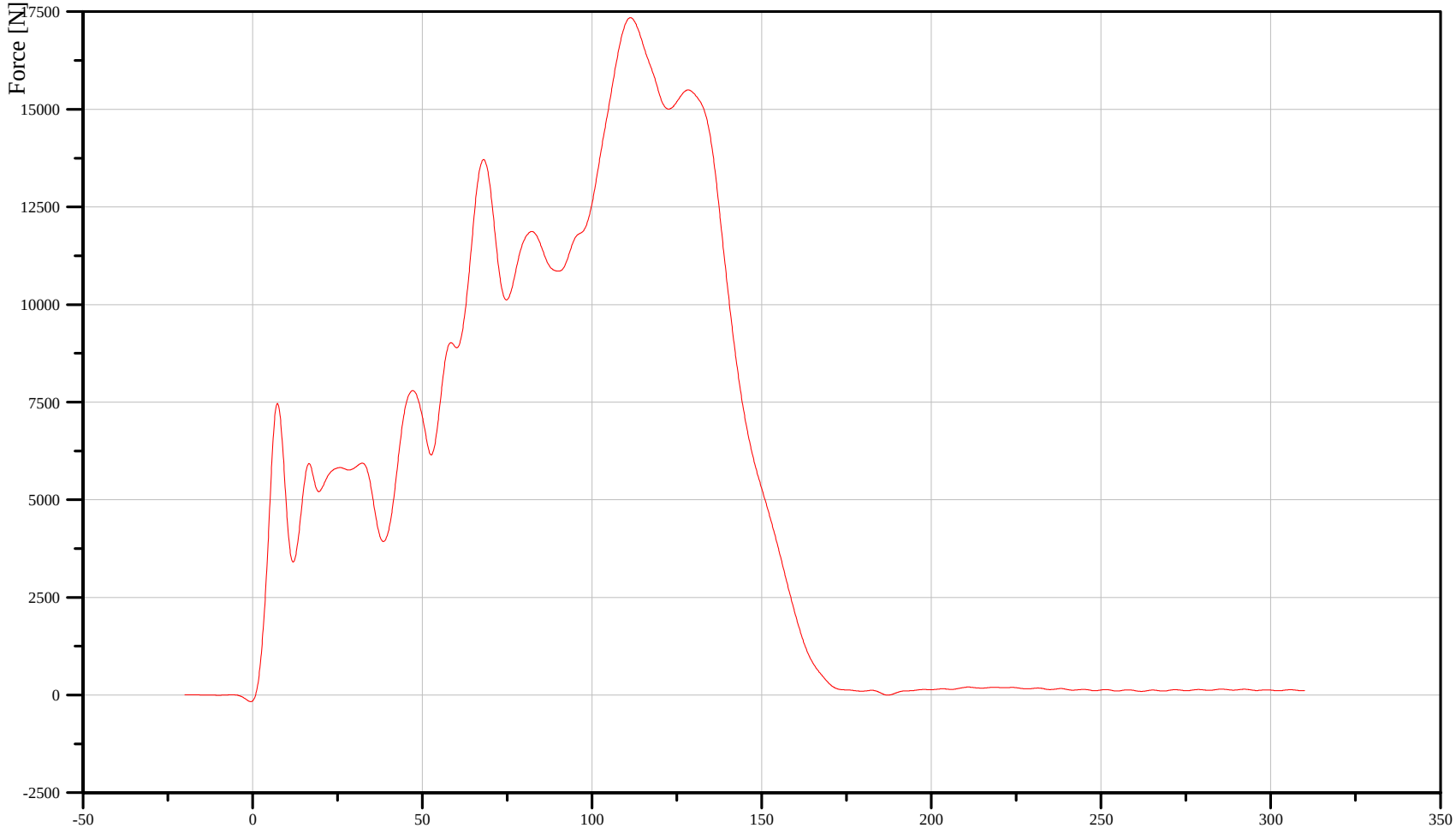
Load Cell Row 9 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000079FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-166.75 N at -0.56 ms

Max. Value
17,346.32 N at 111.36 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

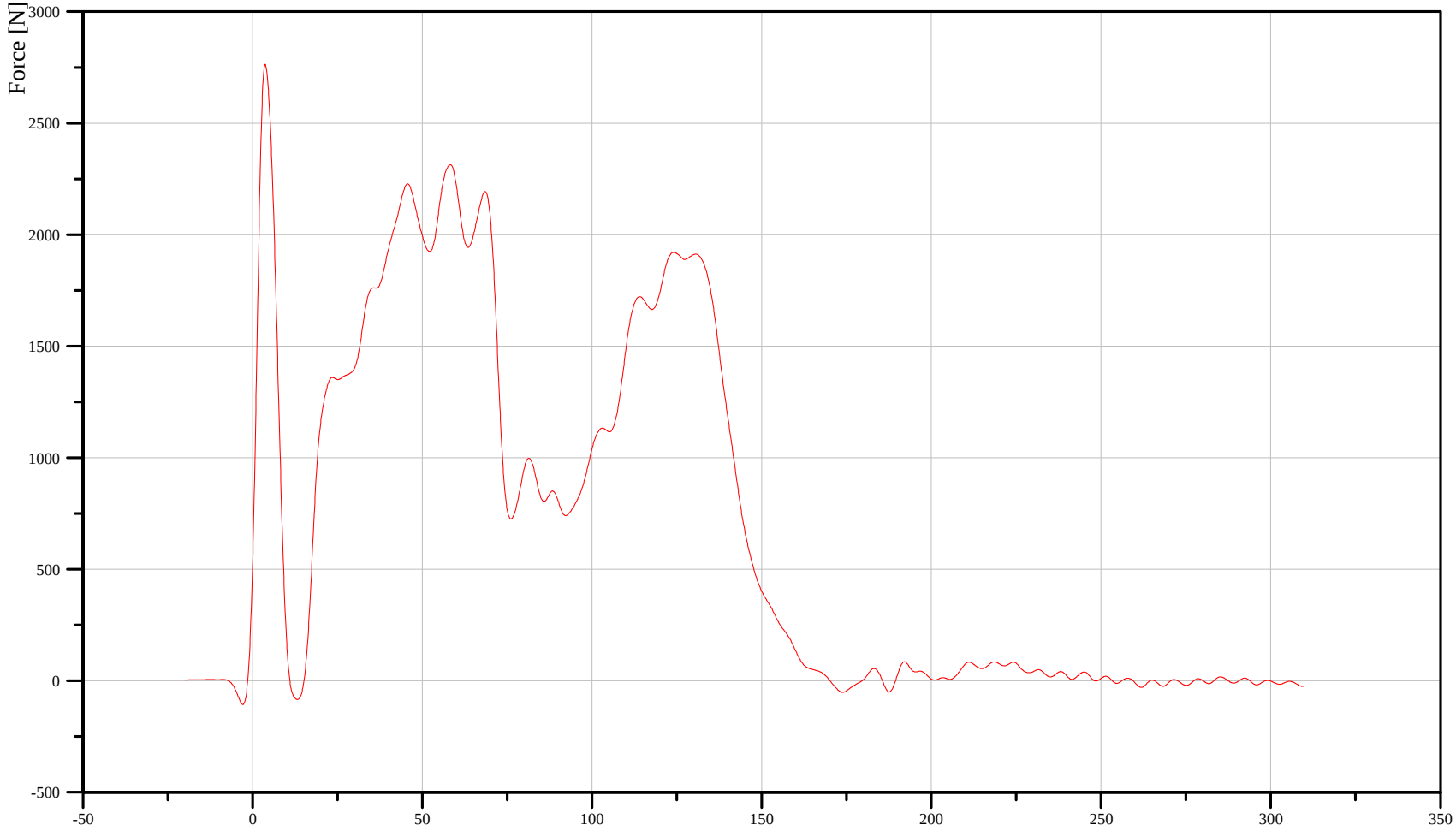
Load Cell Row 10 Column 8

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000080FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-106.24 N at -2.88 ms

Max. Value
2,763.83 N at 3.68 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

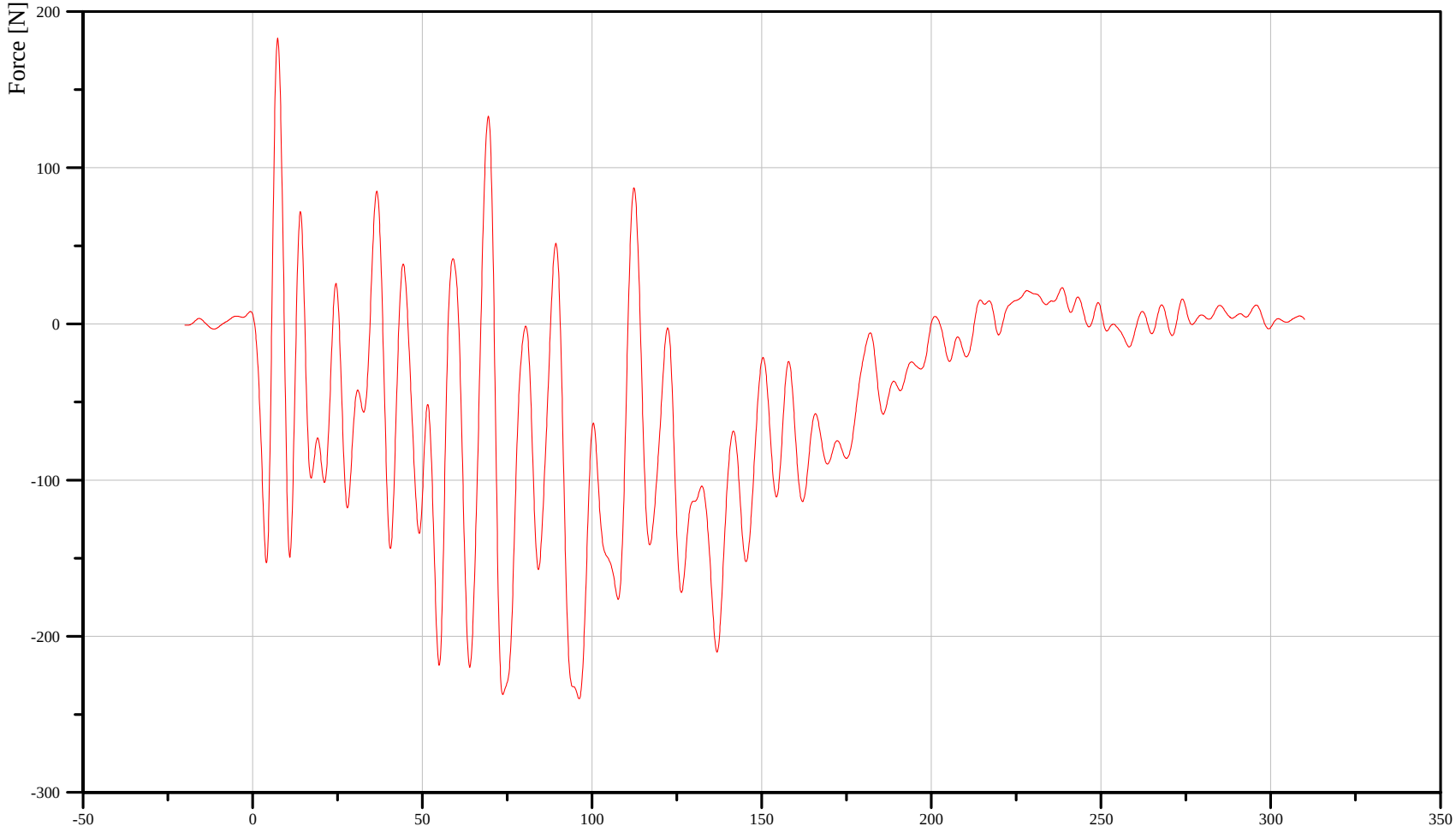
Load Cell Row 1 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000081FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-240.04 N at 96.24 ms

Max. Value
183.18 N at 7.36 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

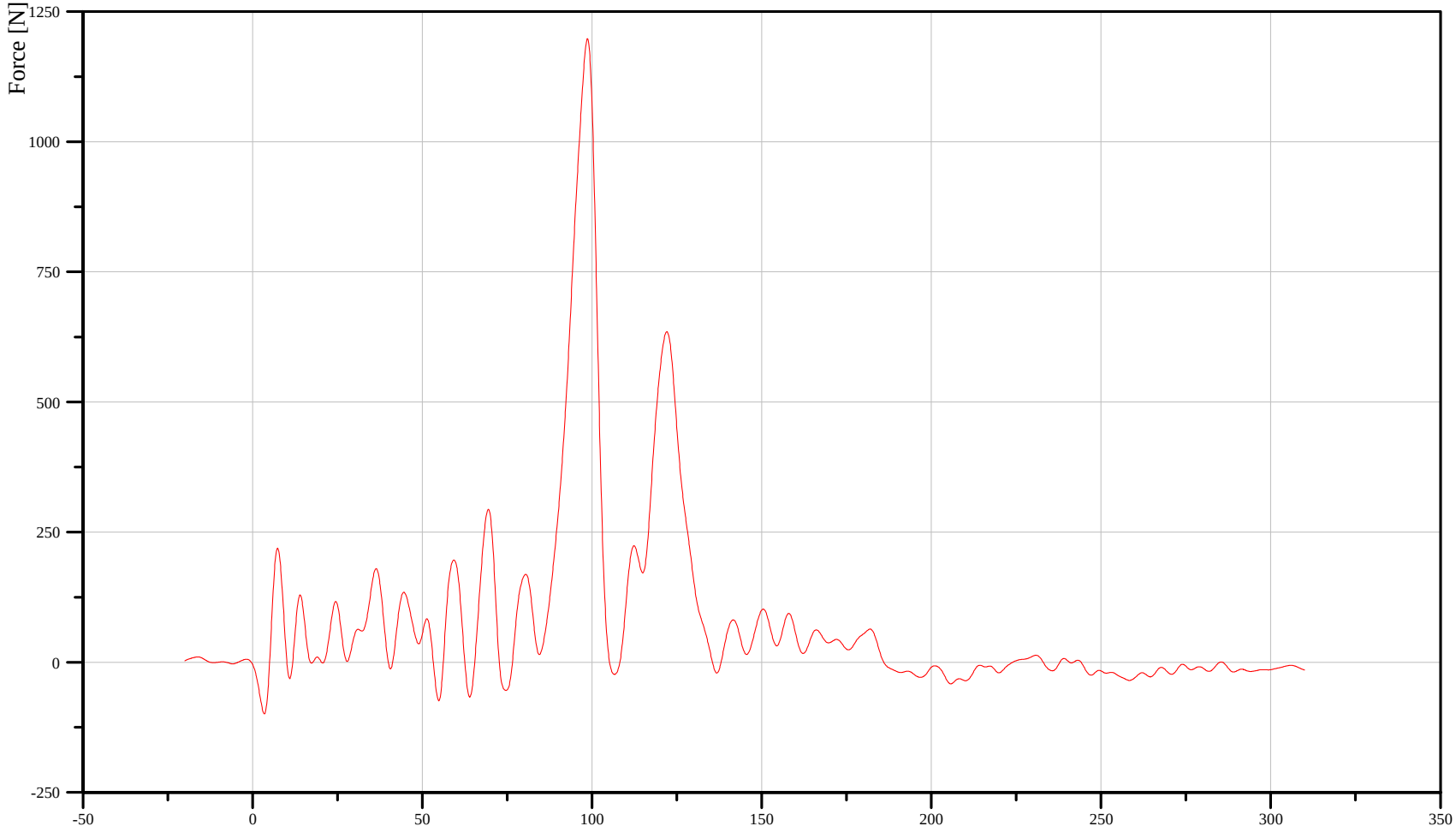
Load Cell Row 2 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000082FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-99.10 N at 3.44 ms

Max. Value
1,198.13 N at 98.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

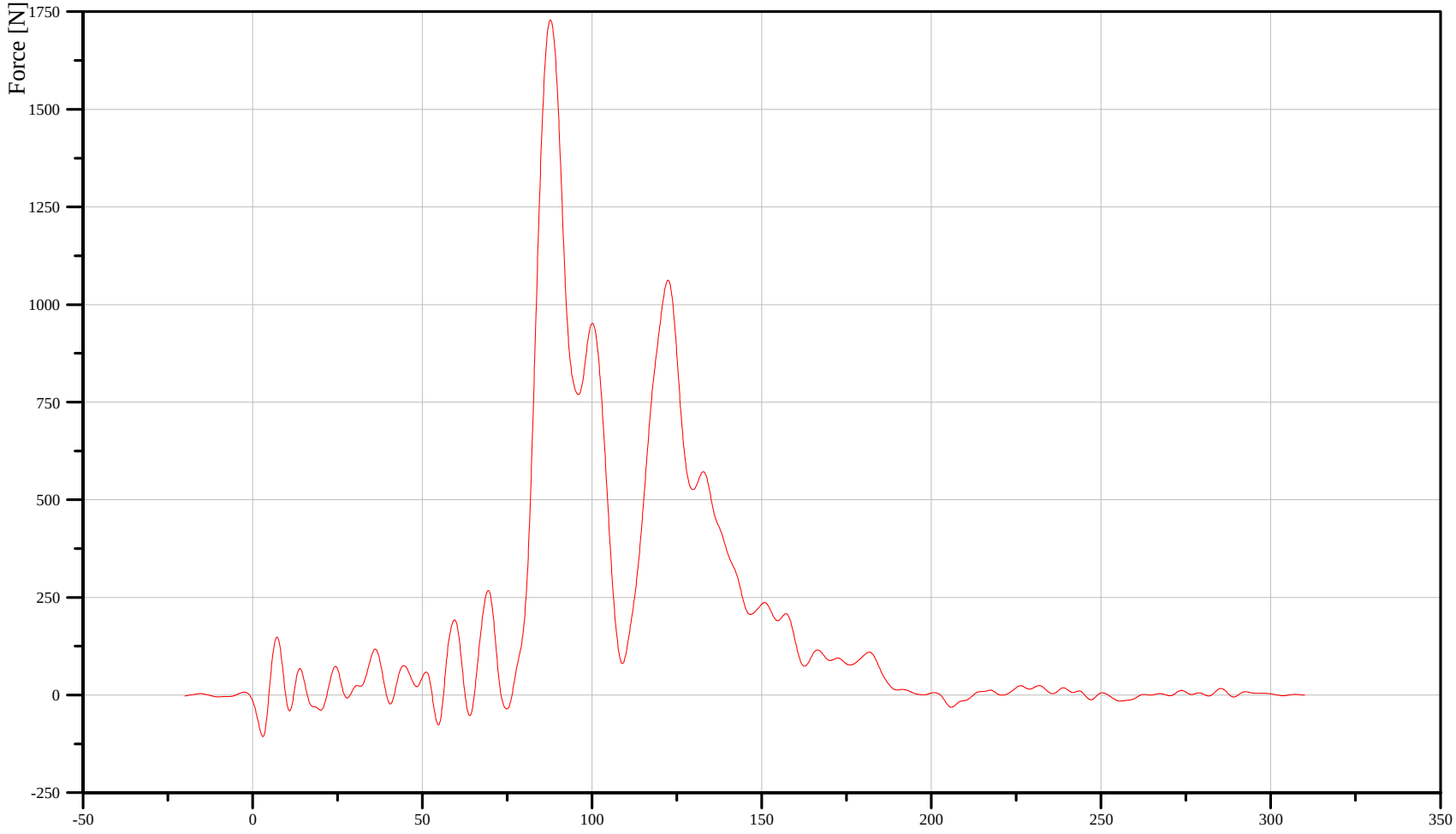
Load Cell Row 3 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000083FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-106.19 N at 3.04 ms

Max. Value
1,728.66 N at 87.76 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

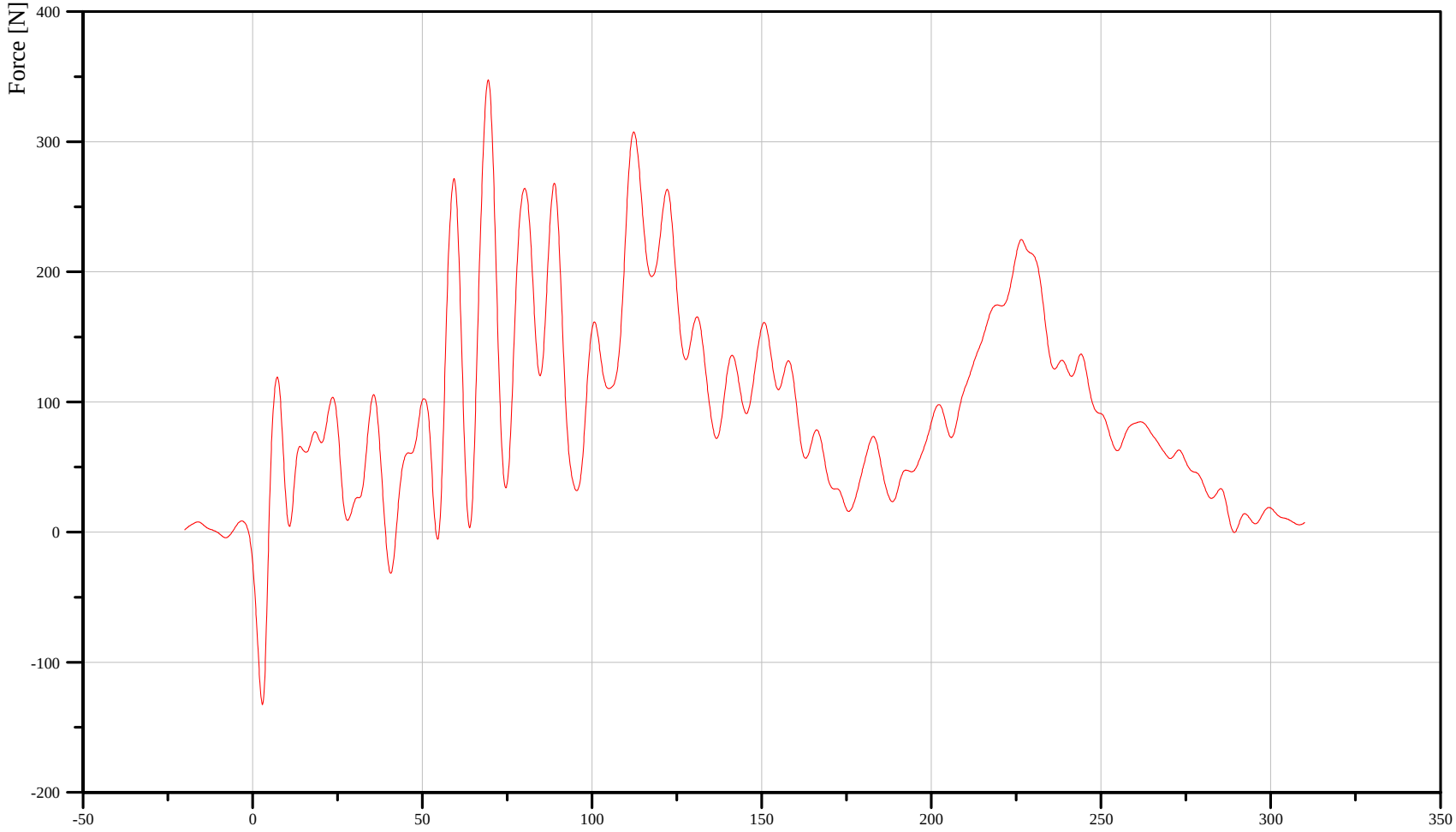
Load Cell Row 4 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000084FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-132.55 N at 2.88 ms

Max. Value
347.68 N at 69.44 ms

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

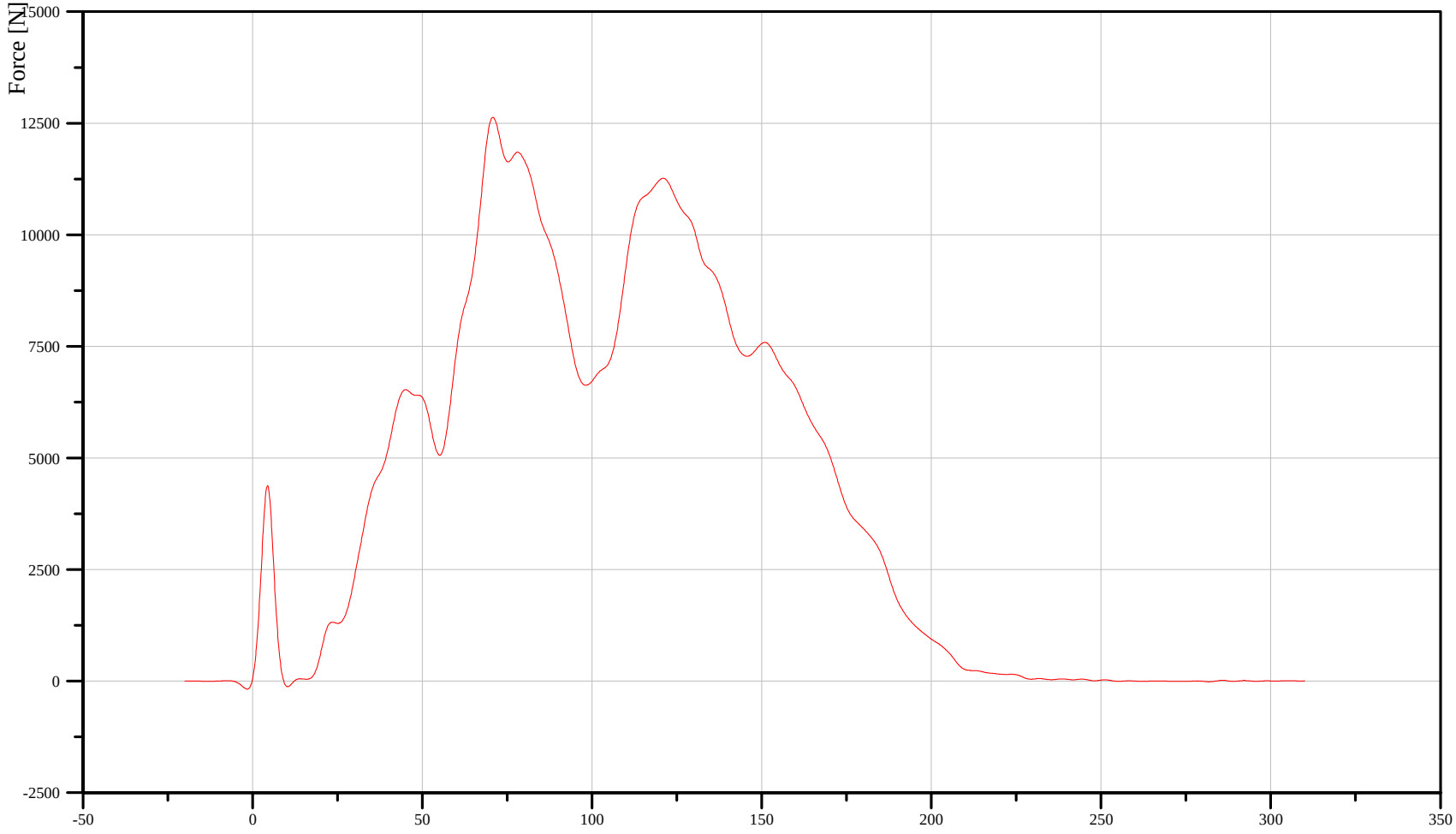
Load Cell Row 5 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000085FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-178.98 N at -1.60 ms

Max. Value
12,632.26 N at 70.80 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

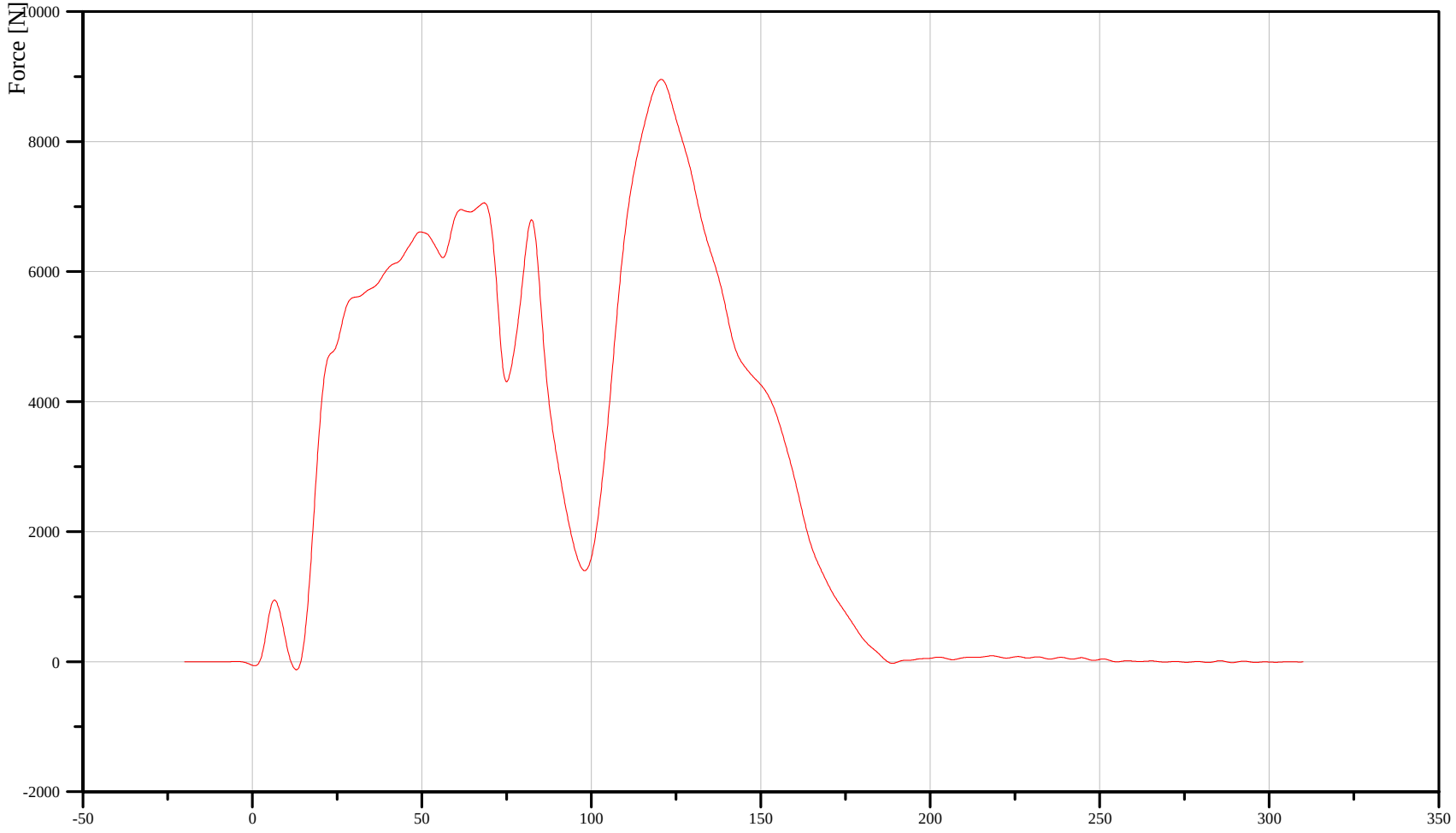
Load Cell Row 6 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000086FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-122.74 N at 13.04 ms

Max. Value
8,956.95 N at 120.64 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

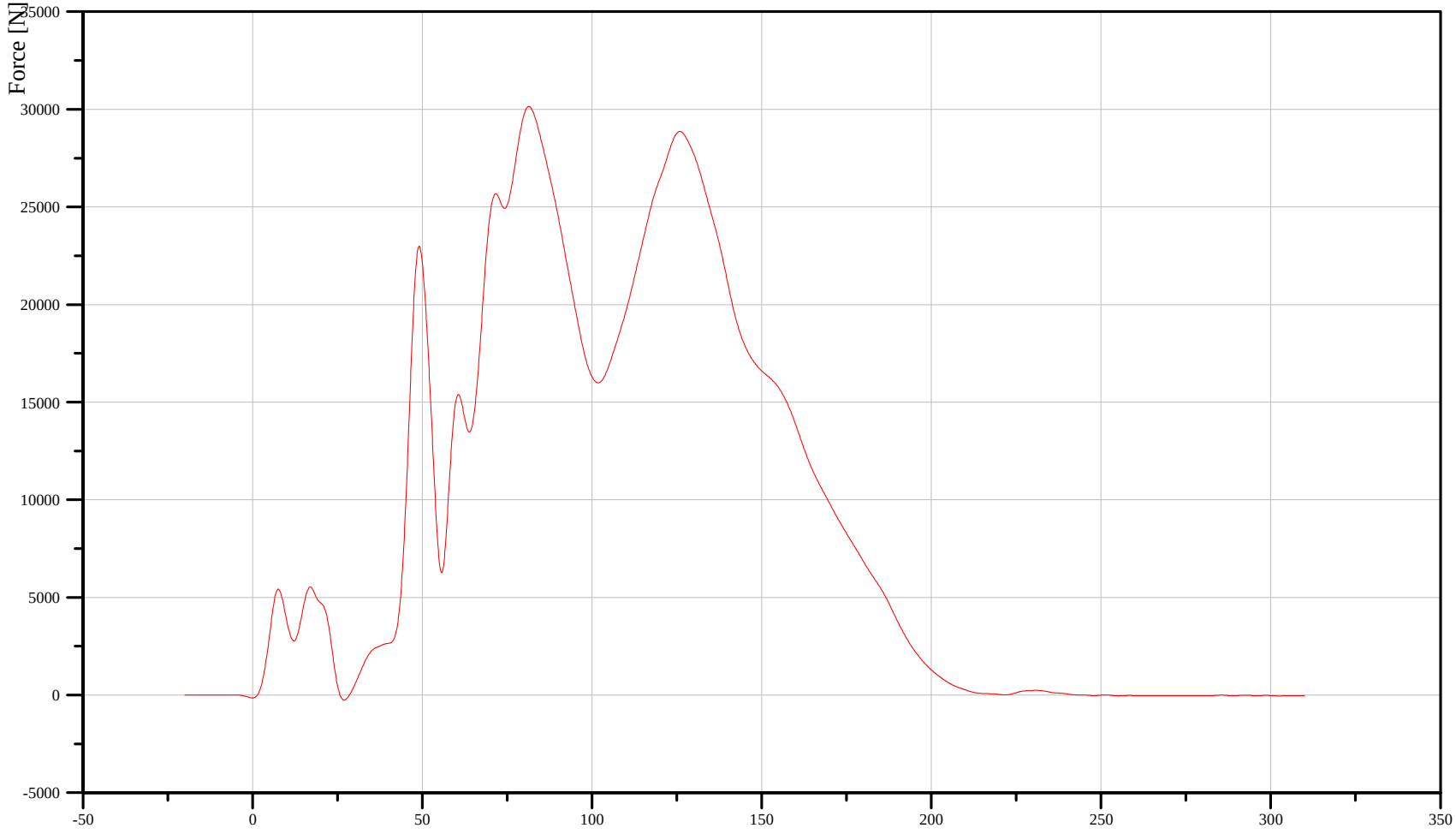
Load Cell Row 7 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000087FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-255.12 N at 26.96 ms

Max. Value
30,147.26 N at 81.36 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

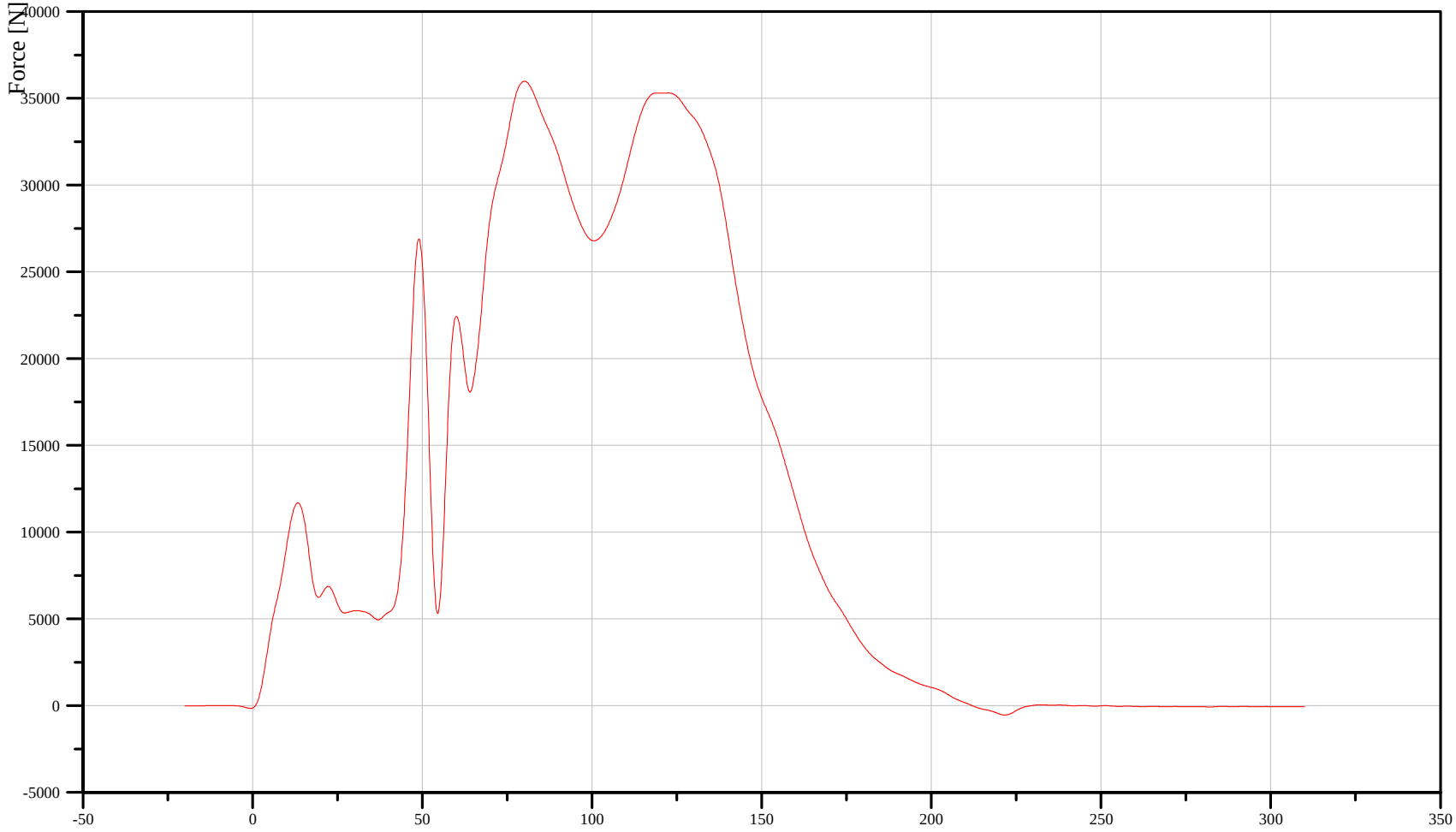
Load Cell Row 8 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000088FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-537.69 N at 221.60 ms

Max. Value
35,986.45 N at 80.16 ms

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

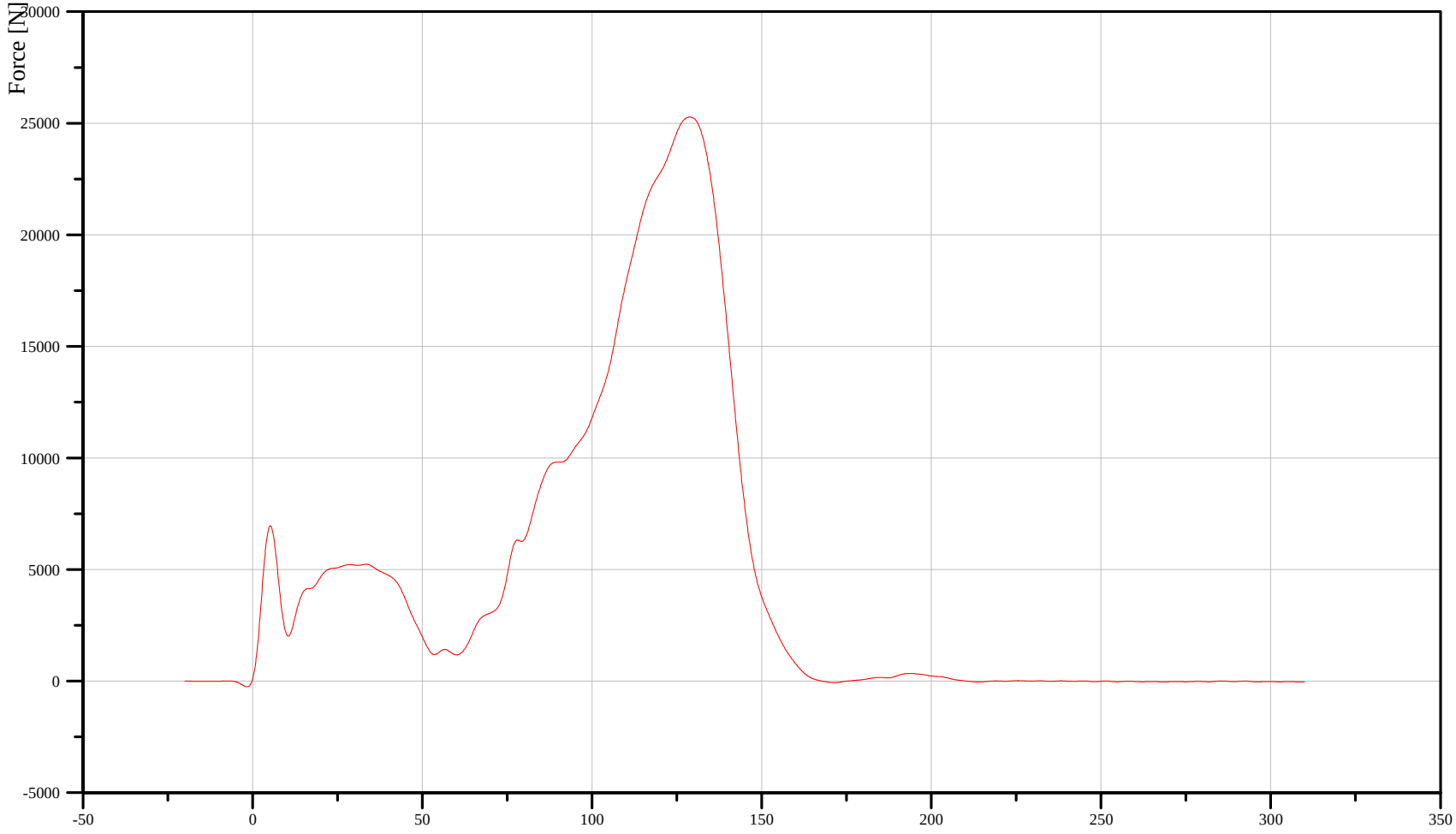
Load Cell Row 9 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000089FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-255.62 N at -1.60 ms

Max. Value
25,275.72 N at 128.80 ms

B-300

070222

2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph

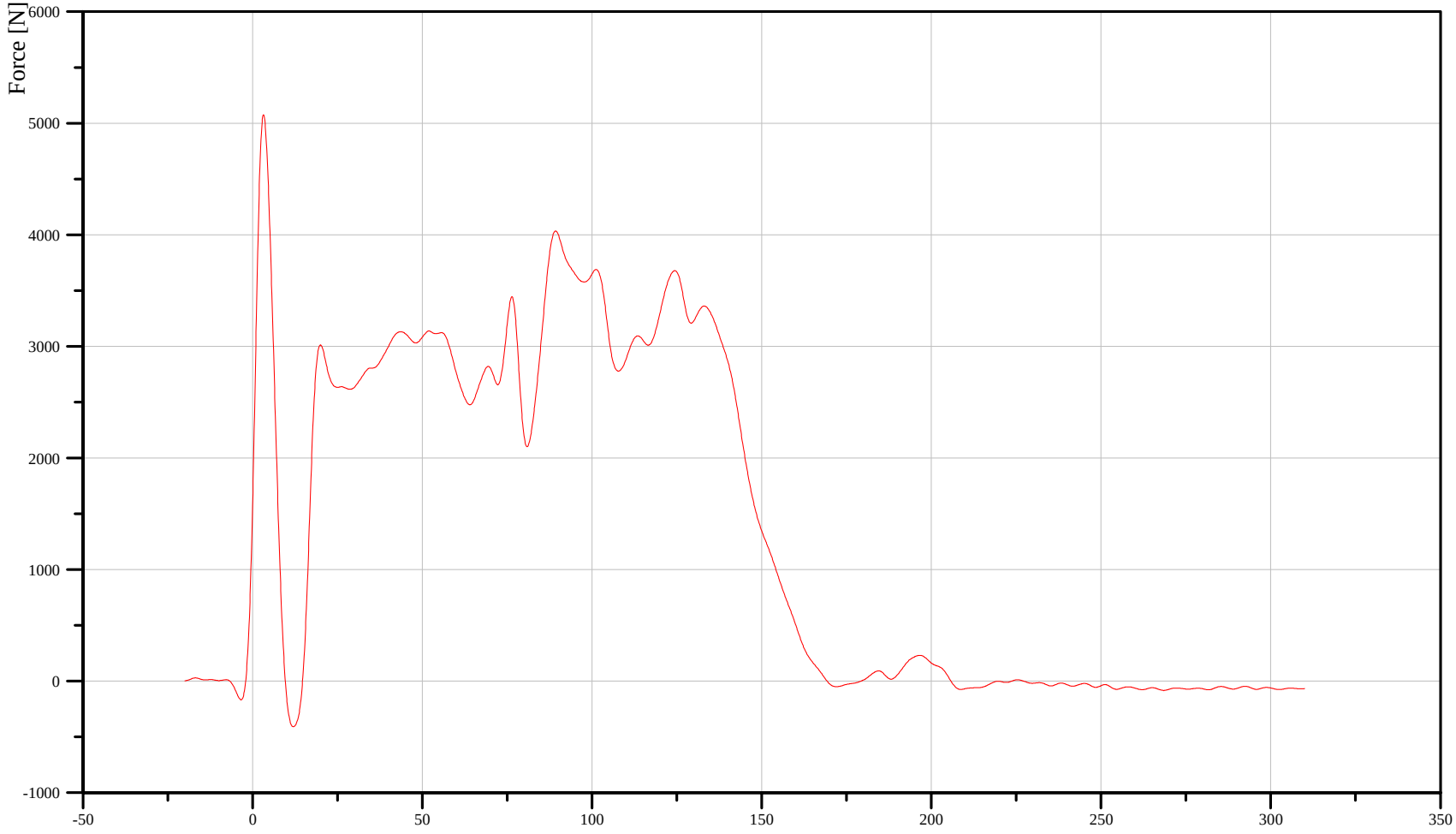
Load Cell Row 10 Column 9

Date: 02/22/2007
Time: 09:30

Customer: Volpe
Test Number: R70202

L0FBAR000090FOXD

TRC Inc. Test Lab: CTF
Test Number: 070222



Filter: CFC_60

Min. Value
-408.47 N at 12.00 ms

Max. Value
5,076.88 N at 3.20 ms

070222

Appendix C

Dummy Certification Data

Pre-test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 202

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 202 Calibration No. 19

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	879	Yes
B	Shoulder Pivot Height	505.5 - 520.7	510	Yes
C	H-Point Height	83.8 - 88.9	88	Yes
D	H-Point From Seatback	134.6 - 139.7	135	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	94	Yes
F	Thigh Clearance	139.7 - 154.9	154	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	291	Yes
H	Skull Cap To Backline	40.6 - 45.7	43	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	340	Yes
J	Elbow Rest Height	190.5 - 210.8	202	Yes
K	Buttock Knee Length	579.1 - 604.5	600	Yes
L	Popliteal Height	429.3 - 454.7	433	Yes
M	Knee Pivot Height	485.1 - 500.4	497	Yes
N	Buttock Popliteal Length	452.1 - 477.5	466	Yes
O	Chest Depth	213.4 - 228.6	218	Yes
P	Foot Length	251.5 - 266.7	262	Yes
V	Shoulder Breadth	421.6 - 436.9	428	Yes
W	Foot Breadth	91.4 - 106.7	100	Yes
Y	Chest Circumference	970.3 - 1000.8	989	Yes
Z	Waist Circumference	835.7 - 866.1	845	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	229	Yes

Technician

Approved

Transportation Research Center Inc.

Front Head Drop
HIII 50th Serial No. 202 Certification No. 19-1
Test Date: 10/24/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	245.9 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-8.9 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

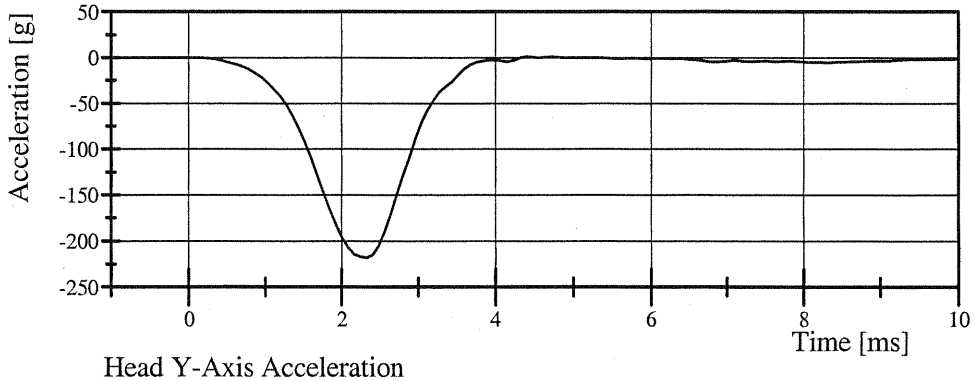
10.24.2006 14:47:44 610

070222

Transportation Research Center Inc.

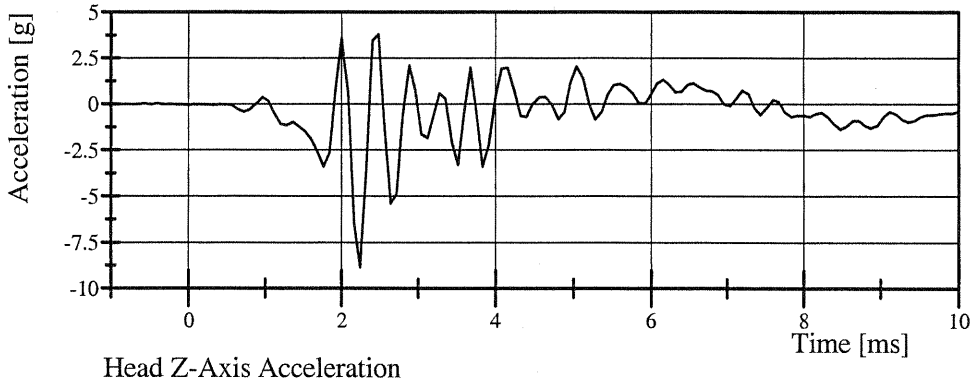
Front Head Drop
HIII 50th Serial No. 202 Certification No. 19-1
Test Date: 10/24/2006

Head X-Axis Acceleration



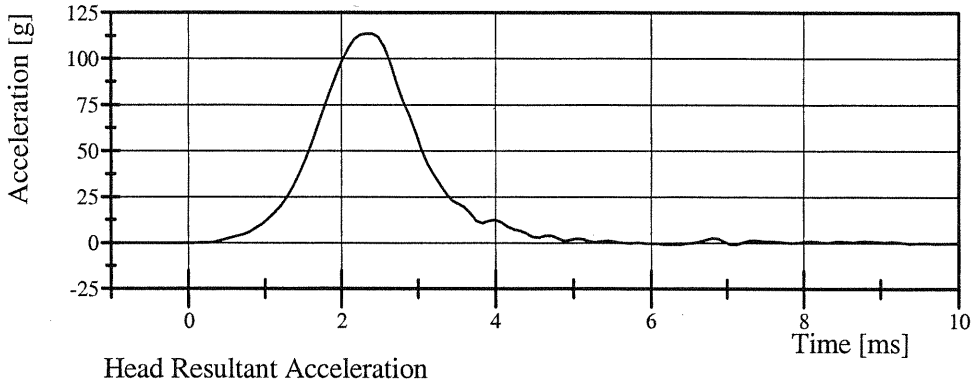
Filter Class: CFC_1000
Max: 1.3 g at 4.4 ms
Min: -218.0 g at 2.3 ms

Head Y-Axis Acceleration



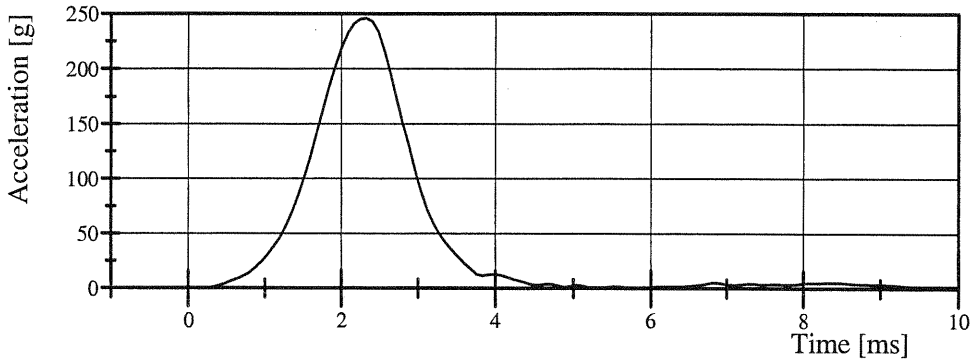
Filter Class: CFC_1000
Max: 3.8 g at 2.5 ms
Min: -8.9 g at 2.2 ms

Head Z-Axis Acceleration



Filter Class: CFC_1000
Max: 113.7 g at 2.3 ms
Min: -0.9 g at 7.1 ms

Head Resultant Acceleration



Filter Class: CFC_1000
Max: 245.9 g at 2.3 ms
Min: 0.0 g at -0.5 ms

Transportation Research Center Inc.

Neck Flexion
HIII 50th Serial No. 202 Certification No. 19-13
Test Date: 10/26/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	24 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.991 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	41.4 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-22.83 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-19.69 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-14.61 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-14.61 g	Yes
Total Head D-Plane Rotation Peak	(-64) - (-78) °	-67.6 °	Yes
Total Head D-Plane Rotation Time of Peak	57 - 64 ms	58.8 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	114.6 ms	Yes
Total Neck Occipital Condyles Moment Peak	88 - 108 N·m	100.4 N·m	Yes
Total Neck Occipital Condyles Moment Time of Peak	47 - 58 ms	53.1 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	97 - 107 ms	97.8 ms	Yes

Test meets specifications.

Comments:

Technician Robert Bravidis

Approved Ron Stover

Specification Source: CFR49 Part 572 Subpart E with Polarity in accordance with J211

10.26.2006 08:45:44 550

070222

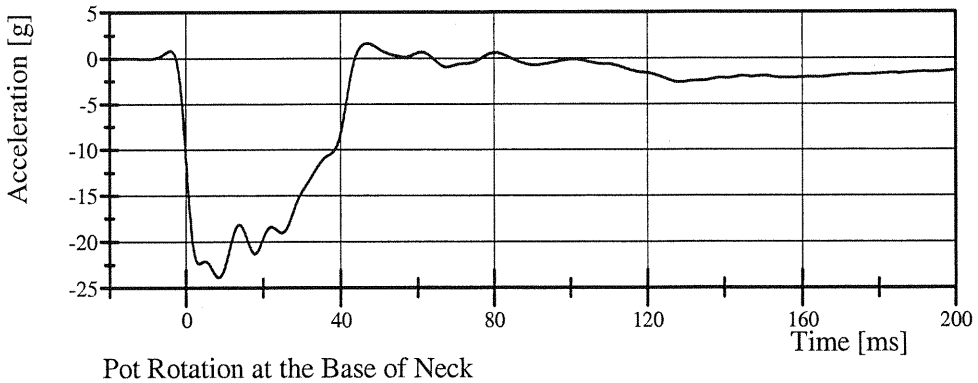
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 202 Certification No. 19-13

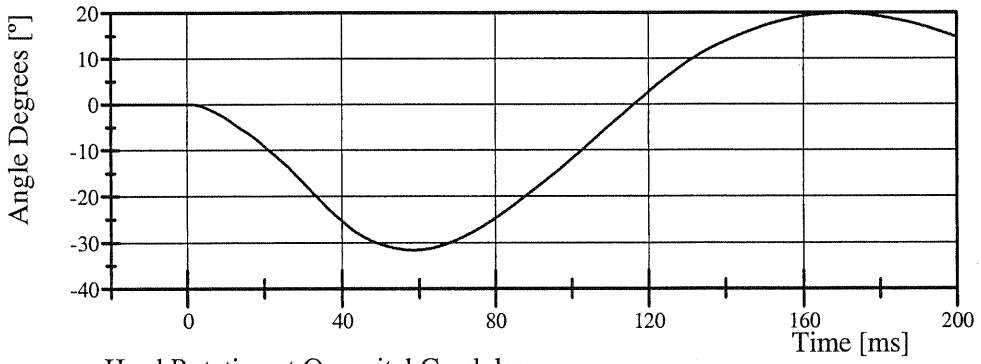
Test Date: 10/26/2006

Pendulum Acceleration



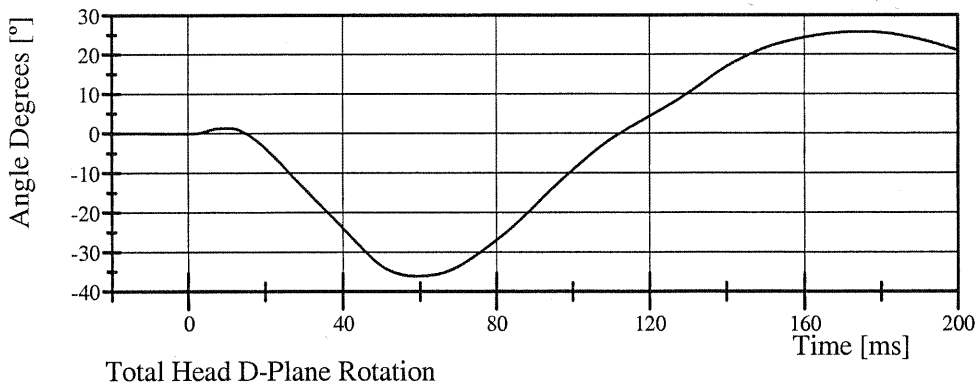
Filter Class: CFC_60
Max: 1.6 g at 46.9 ms
Min: -23.9 g at 8.4 ms

Pot Rotation at the Base of Neck



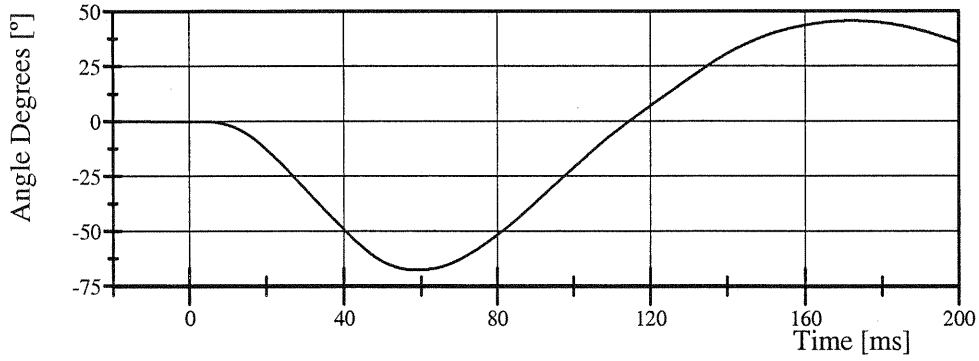
Filter Class: CFC_60
Max: 19.9 ° at 169.9 ms
Min: -31.6 ° at 58.6 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 25.8 ° at 175.0 ms
Min: -36.0 ° at 59.1 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 45.6 ° at 172.2 ms
Min: -67.6 ° at 58.8 ms

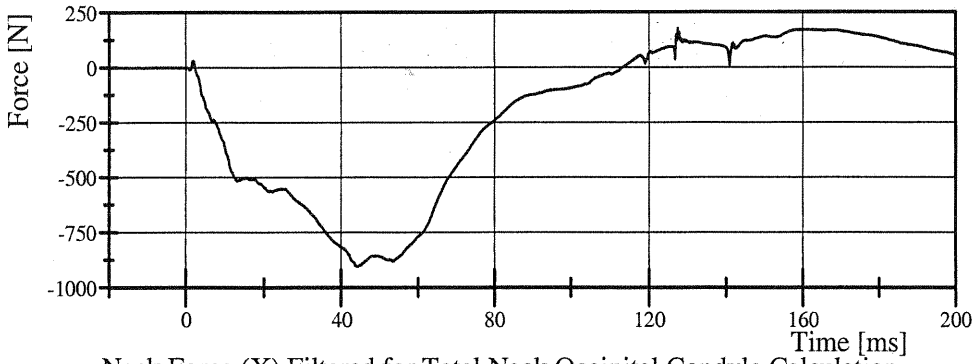
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 202 Certification No. 19-13

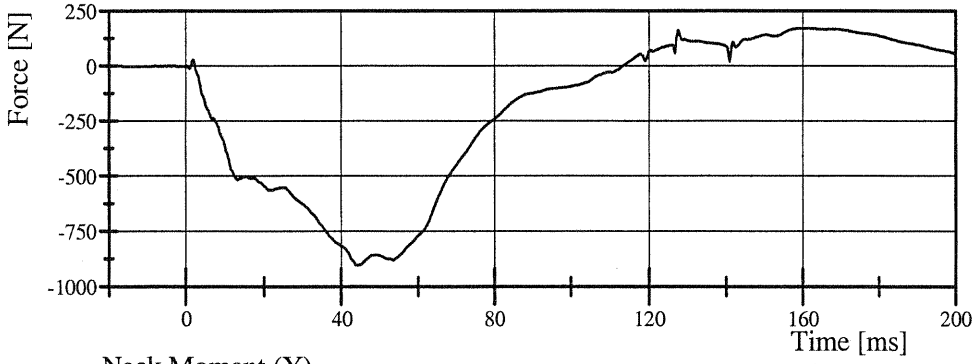
Test Date: 10/26/2006

Neck Force (X)



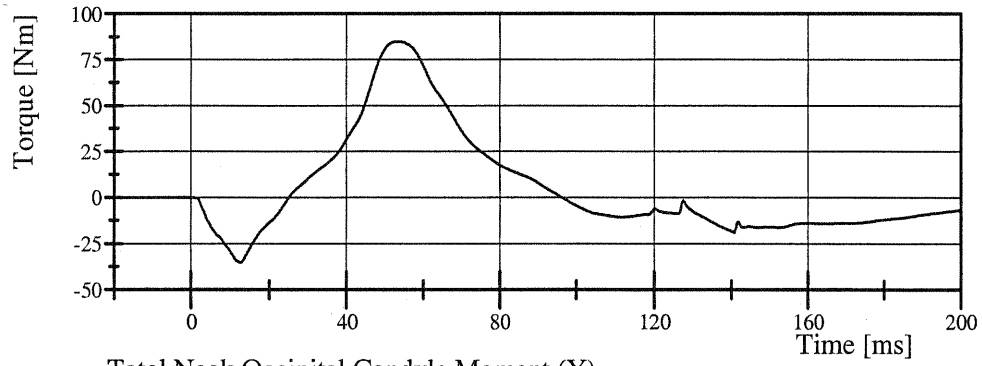
Filter Class: CFC_1000
Max: 178.1 N at 127.5 ms
Min: -903.4 N at 44.2 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



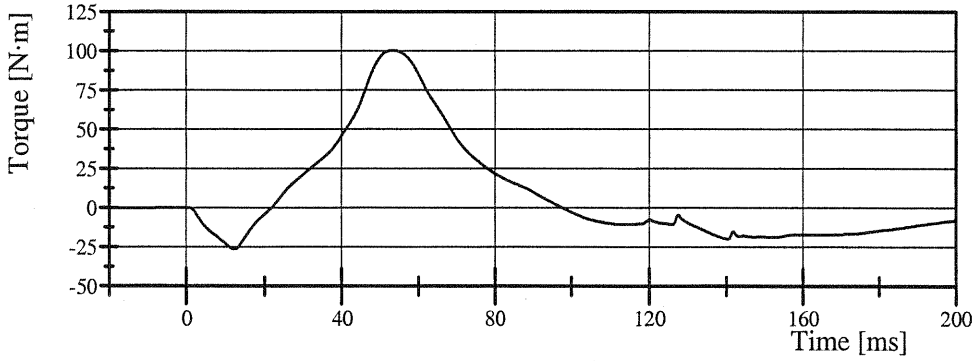
Filter Class: CFC_600
Max: 171.5 N at 161.5 ms
Min: -903.2 N at 44.2 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 84.9 Nm at 53.0 ms
Min: -35.1 Nm at 12.7 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 100.4 N·m at 53.1 ms
Min: -26.2 N·m at 12.4 ms

Transportation Research Center Inc.

Neck Extension
HIII 50th Serial No. 202 Certification No. 19-10
Test Date: 10/26/2006

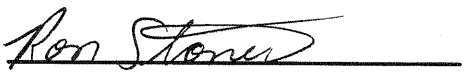
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.969 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	42.7 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	17.56 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	15.87 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	13.19 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	13.19 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	93.9 °	Yes
Time of Peak	72 - 82 ms	76.6 ms	Yes
Total Head D-Plane Rotation Decay to 0°	147 - 174 ms	155.0 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-53) - (-80) N·m	-67.7 N·m	Yes
Time of Peak	65 - 79 ms	72.2 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	120 - 148 ms	141.4 ms	Yes

Test meets specifications.

Comments:

Technician

Approved



Specification Source: CFR49 Part 572 Subpart E with Polarity in accordance with J211

10.26.2006 15:56:40 1186

070222

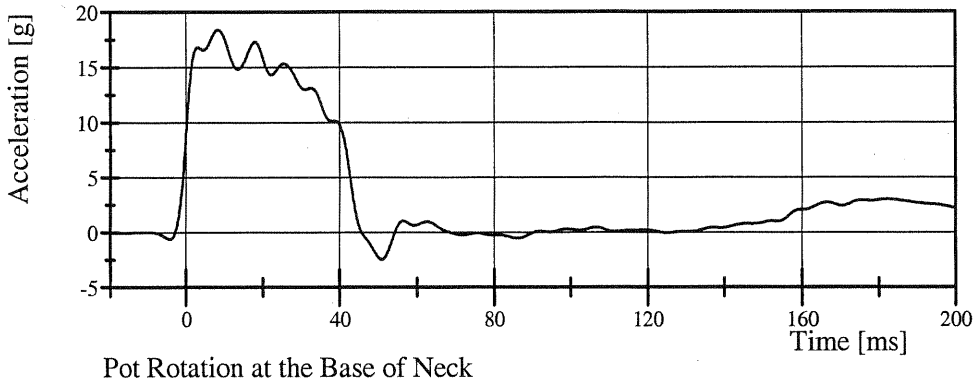
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 202 Certification No. 19-10

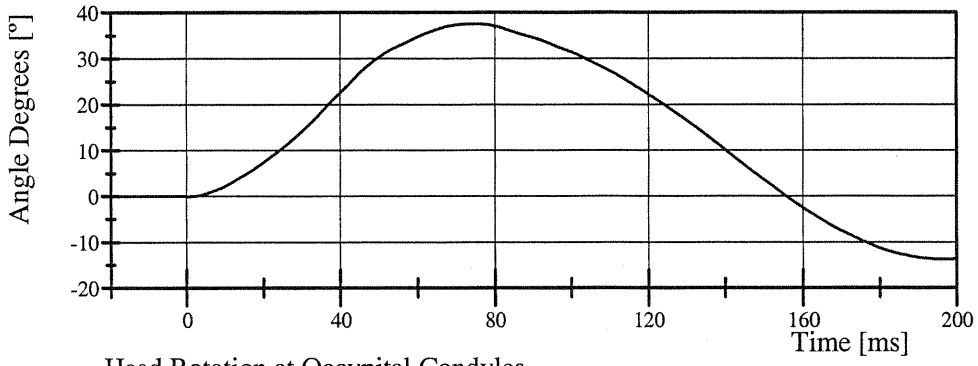
Test Date: 10/26/2006

Pendulum Acceleration



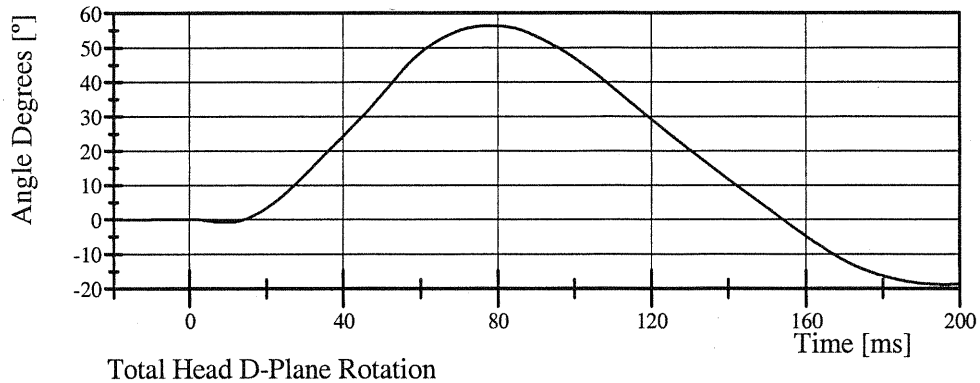
Filter Class: CFC_60
Max: 18.4 g at 8.3 ms
Min: -2.5 g at 50.9 ms

Pot Rotation at the Base of Neck



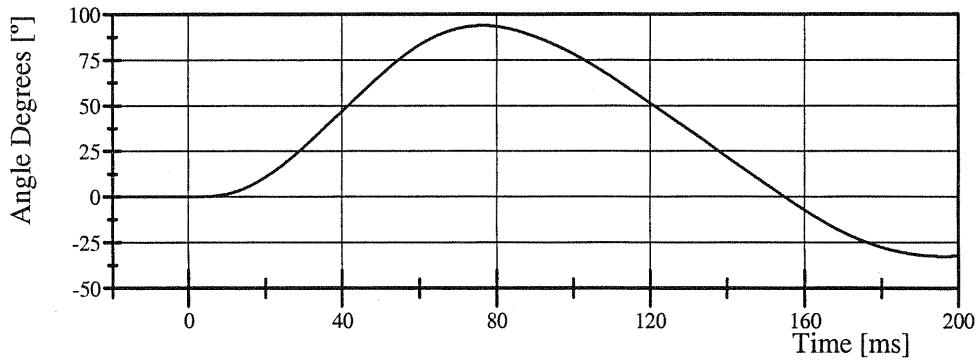
Filter Class: CFC_60
Max: 37.6 ° at 74.6 ms
Min: -13.7 ° at 196.8 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 56.4 ° at 78.1 ms
Min: -18.8 ° at 196.2 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 93.9 ° at 76.6 ms
Min: -32.5 ° at 196.5 ms

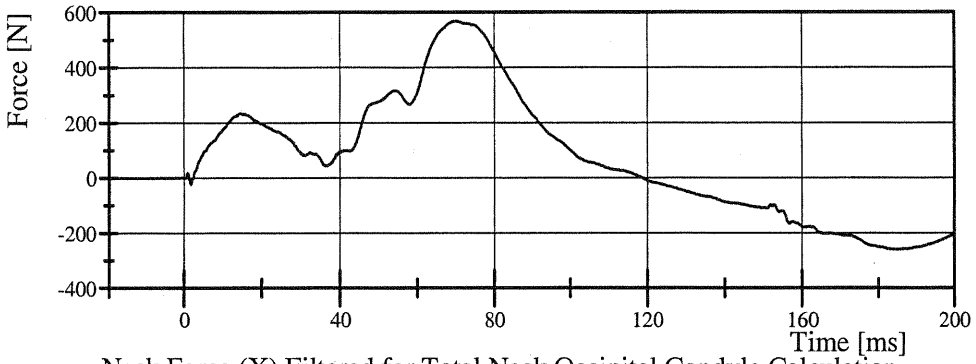
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 202 Certification No. 19-10

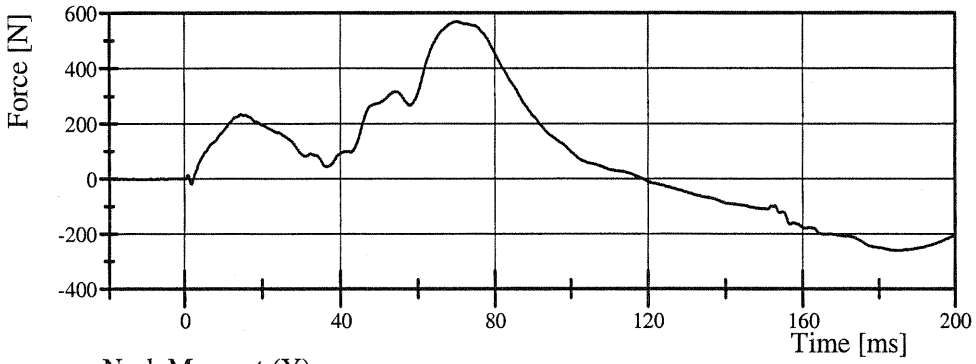
Test Date: 10/26/2006

Neck Force (X)



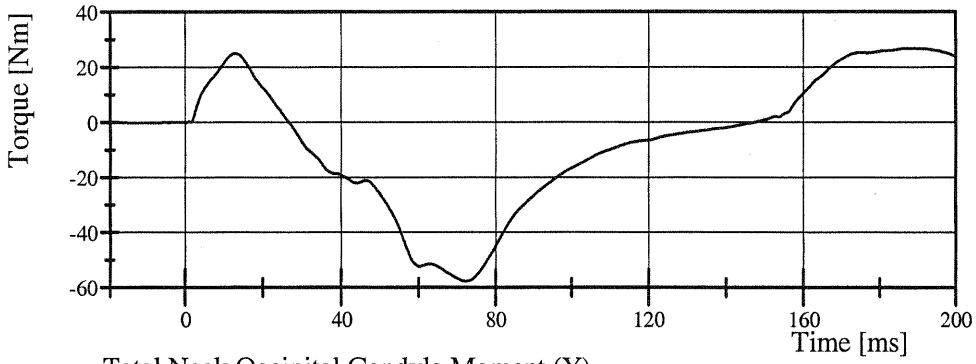
Filter Class: CFC_1000
Max: 569.9 N at 70.1 ms
Min: -259.5 N at 184.8 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



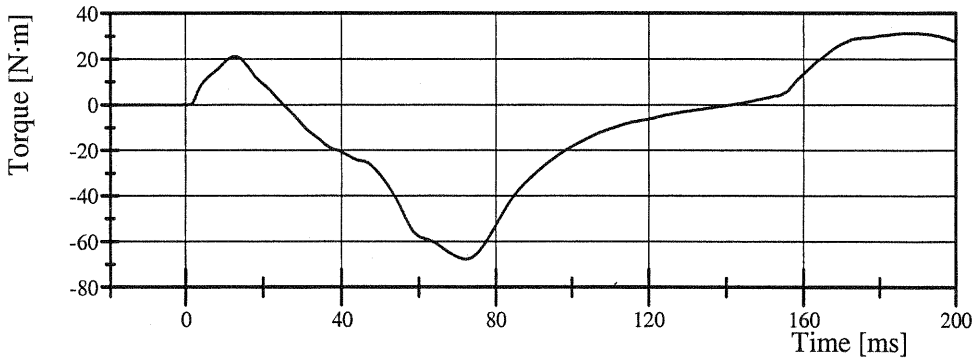
Filter Class: CFC_600
Max: 569.2 N at 70.1 ms
Min: -259.2 N at 184.9 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 26.9 Nm at 189.3 ms
Min: -57.8 Nm at 72.2 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 31.4 N·m at 187.7 ms
Min: -67.7 N·m at 72.2 ms

Transportation Research Center Inc.

Front Thorax
HIII 50th Serial No. 202 Certification No. 19-6
Test Date: 10/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	42 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.623 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,856.6 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-65.84 mm	Yes
Internal Hysteresis	65 - 85 %	73.1 %	Yes

Test meets specifications.

Comments:

Technician

Robert Brewster

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

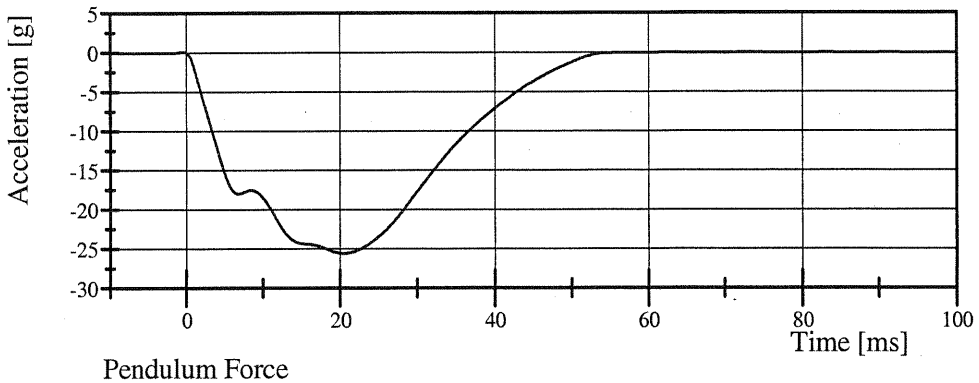
10.30.2006 12:53:36 1573

070222

Transportation Research Center Inc.

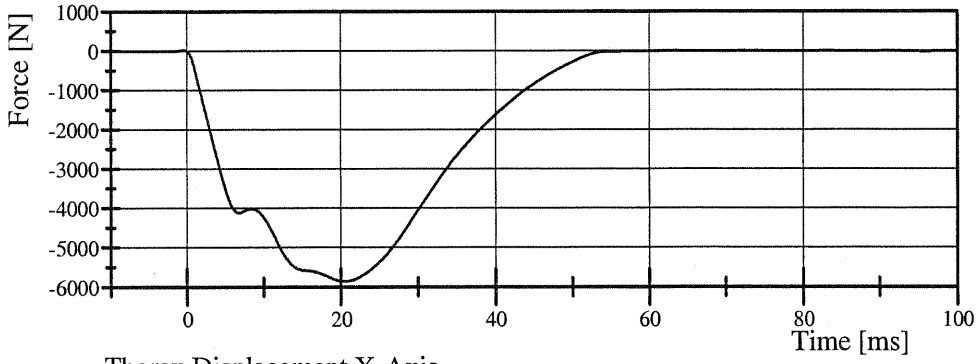
Front Thorax
HIII 50th Serial No. 202 Certification No. 19-6
Test Date: 10/30/2006

Pendulum Acceleration



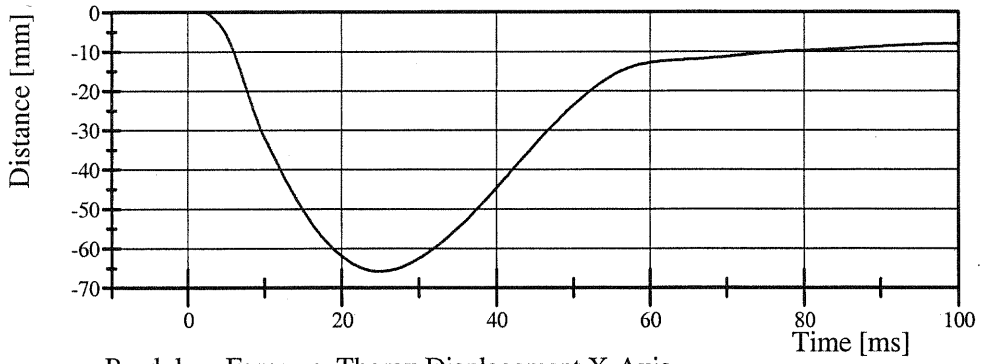
Filter Class: CFC_180
Max: 0.1 g at -0.4 ms
Min: -25.6 g at 20.5 ms

Pendulum Force



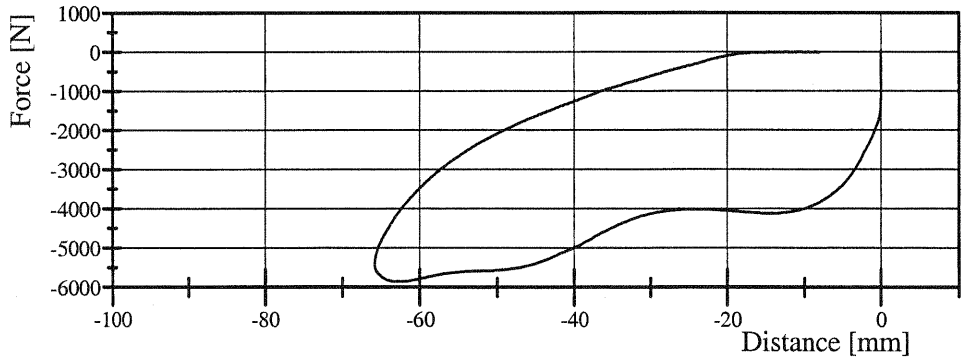
Filter Class: CFC_180
Max: 21.3 N at -0.4 ms
Min: -5,856.6 N at 20.5 ms

Thorax Displacement X-Axis



Filter Class: CFC_600
Max: 0.0 mm at -4.9 ms
Min: -65.8 mm at 24.8 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180
Max: 21.3 N at -0.0 mm
Min: -5,856.6 N at -62.7 mm

Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

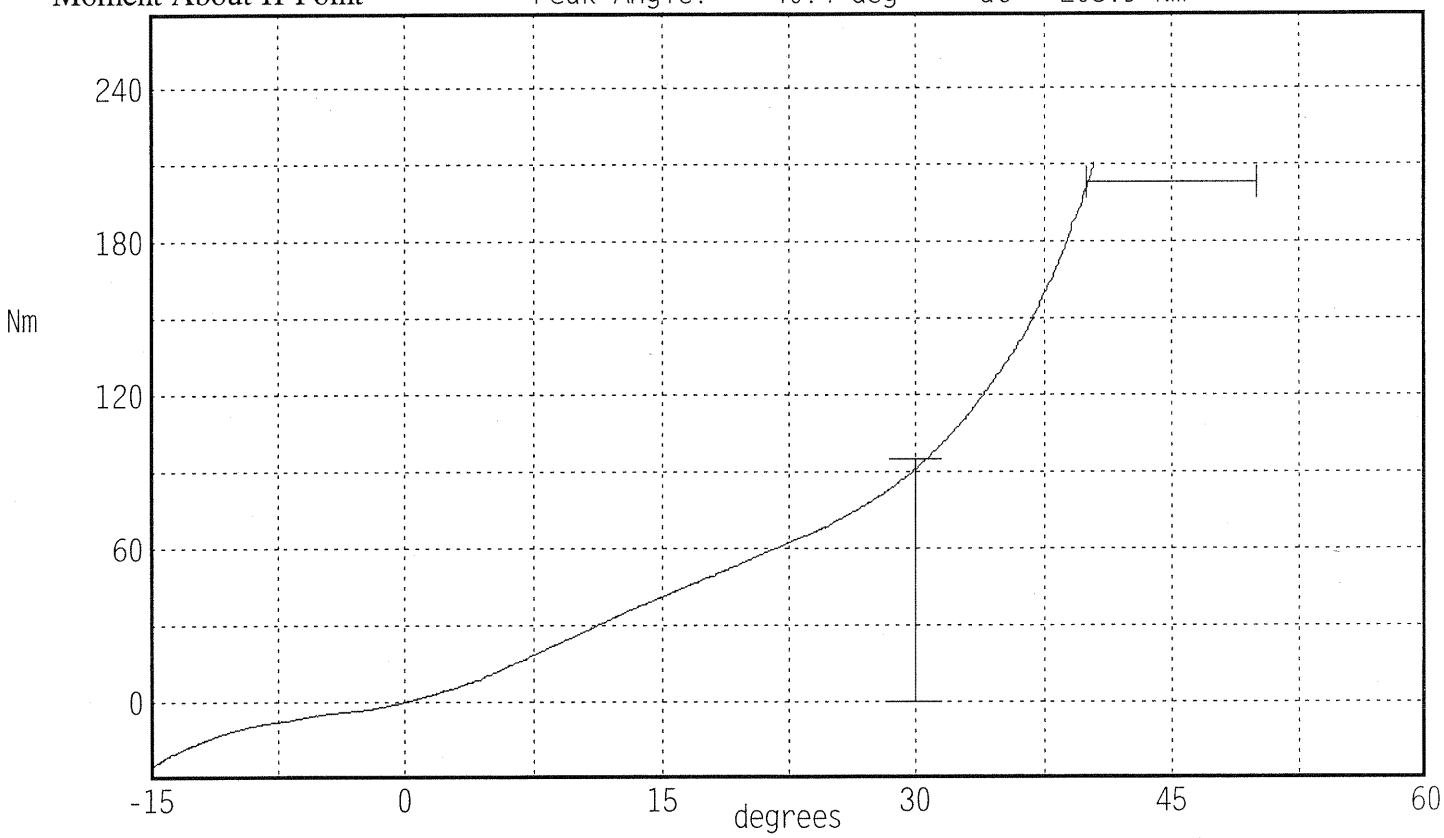
Serial Number: 202C19
Test Number: 202L
Comments:

Date: 10/25/2006
Time: 15:15

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.4	°C	Pass
Humidity	10 - 70	23	%	Pass
Moment at 30 deg	<= 94.9	91.2	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	40.1	deg	Pass
Average Velocity	5.0 - 10.0	7.5	deg/sec	Pass

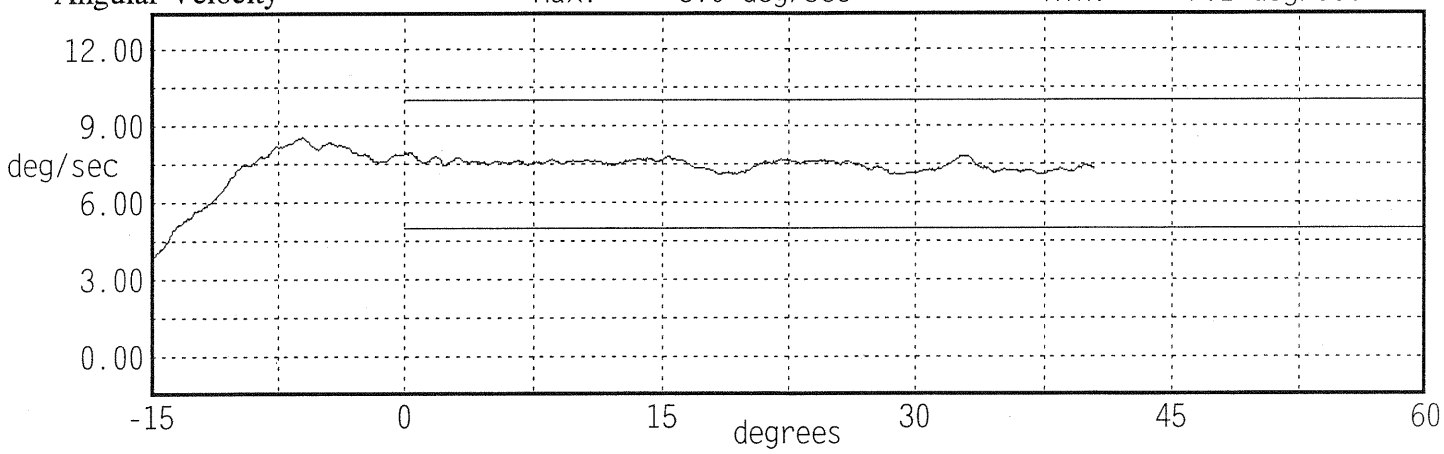
Moment About H-Point

Peak Moment: 210.4 Nm at 40.4 deg
Peak Angle: 40.4 deg at 208.9 Nm



Angular Velocity

Max: 8.0 deg/sec Min: 7.1 deg/sec



Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

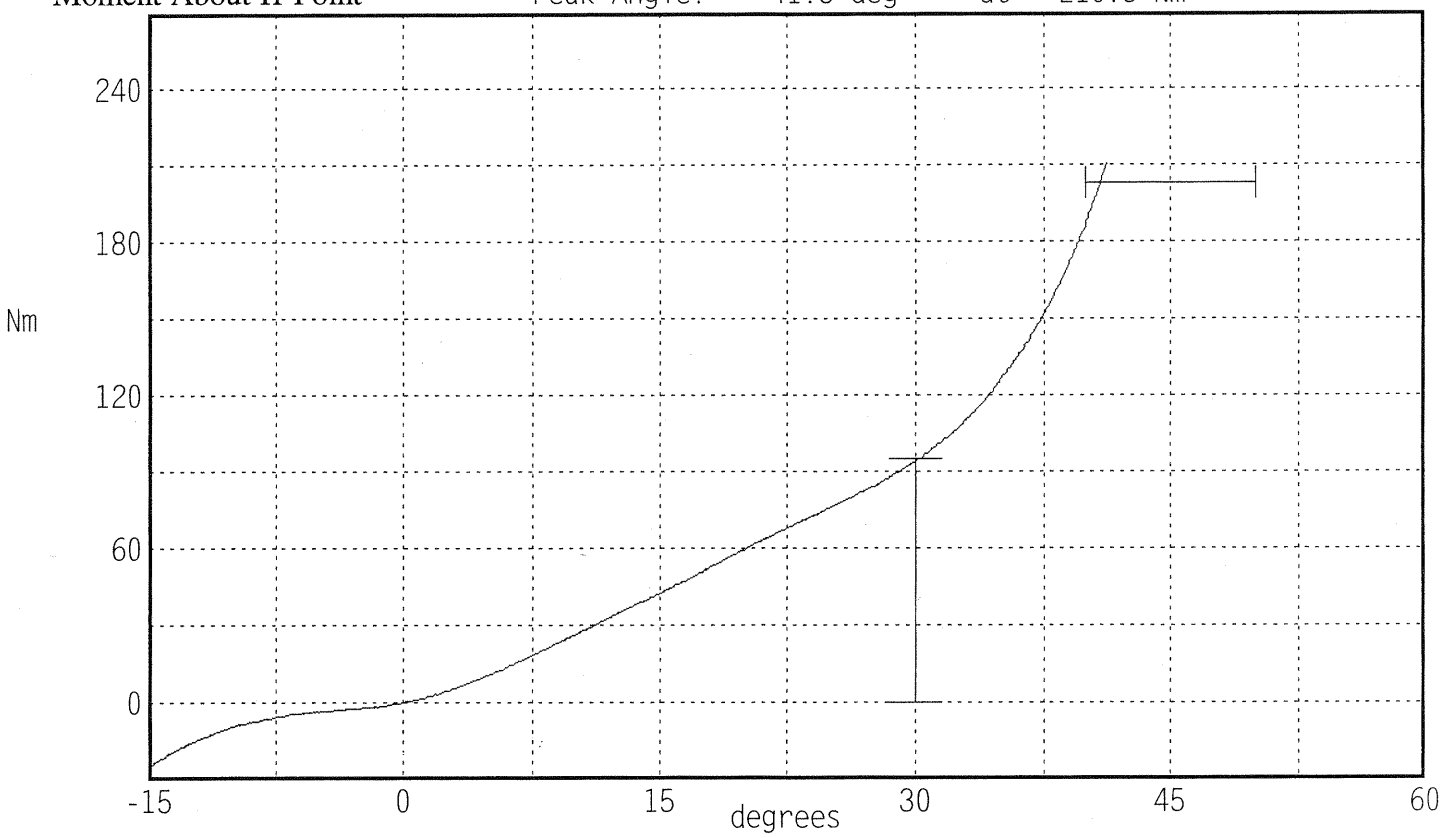
Serial Number: 202C19
Test Number: 202R
Comments:

Date: 10/25/2006
Time: 15:23

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.0	°C	Pass
Humidity	10 - 70	24	%	Pass
Moment at 30 deg	<= 94.9	93.9	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	40.9	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

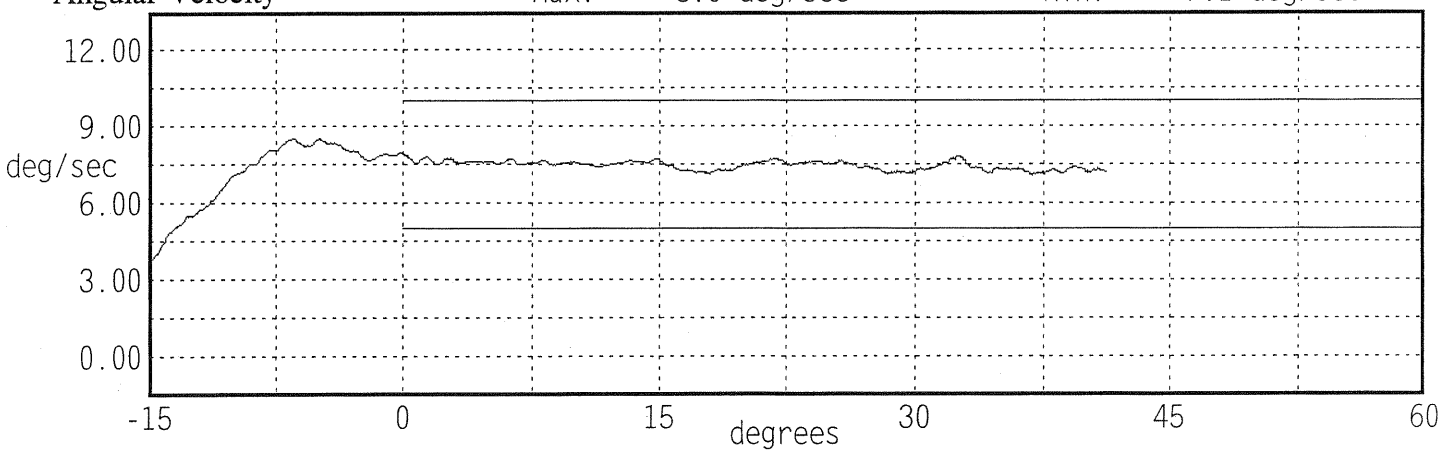
Moment About H-Point

Peak Moment: 210.5 Nm at 41.3 deg
Peak Angle: 41.3 deg at 210.5 Nm



Angular Velocity

Max: 8.0 deg/sec Min: 7.1 deg/sec



Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 19-2
Test Date: 10/27/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	42 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.086 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,468.53 N	Yes

Test meets specifications.

Comments:

Technician Robert Brandes

Approved Ron Stover

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

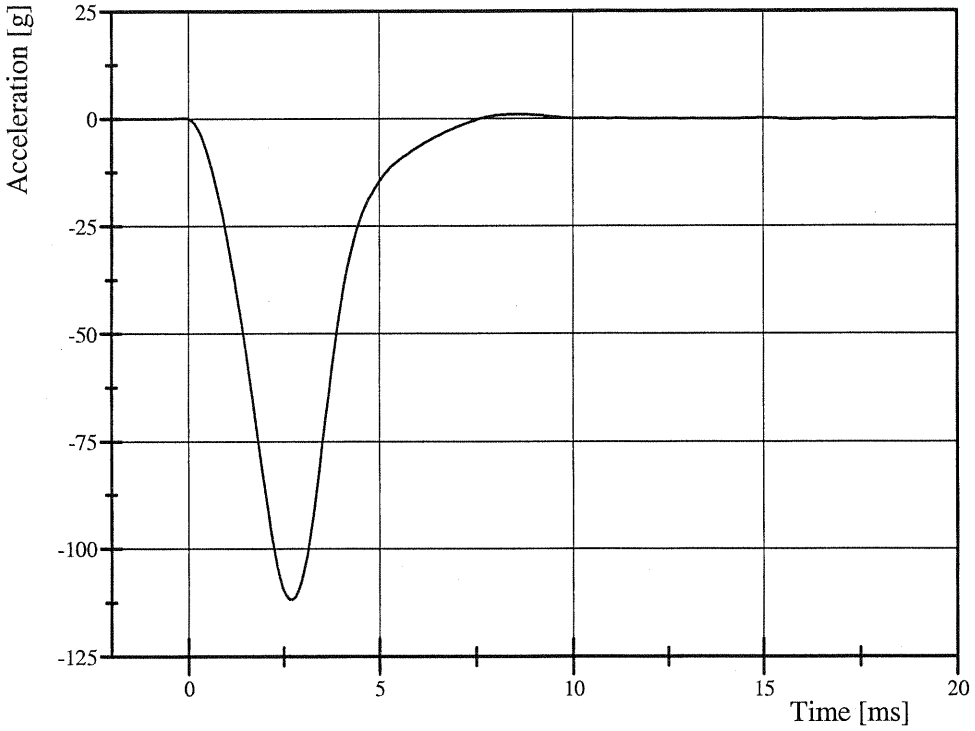
10.27.2006 12:59:11 1704

070222

Transportation Research Center Inc.

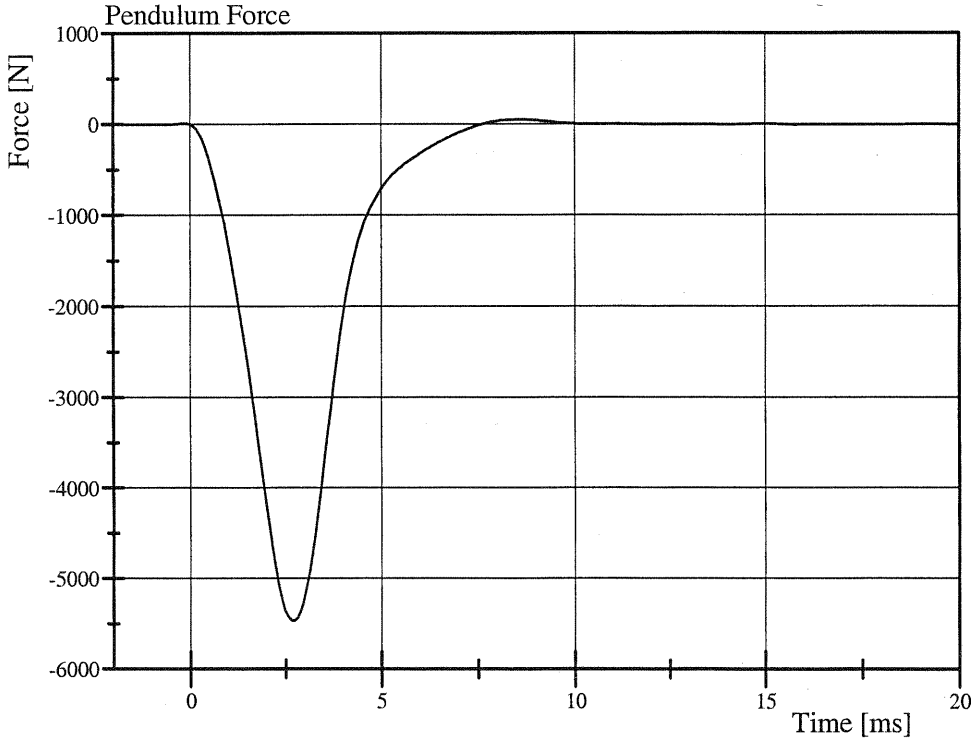
Left Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 19-2
Test Date: 10/27/2006

Pendulum Acceleration



Filter Class: CFC_600
Max: 1.0 g at 8.6 ms
Min: -111.8 g at 2.7 ms

Pendulum Force



Filter Class: CFC_600
Max: 48.6 N at 8.6 ms
Min: -5,468.5 N at 2.7 ms

Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 19-2
Test Date: 10/27/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	42 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.084 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-4,970.32 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

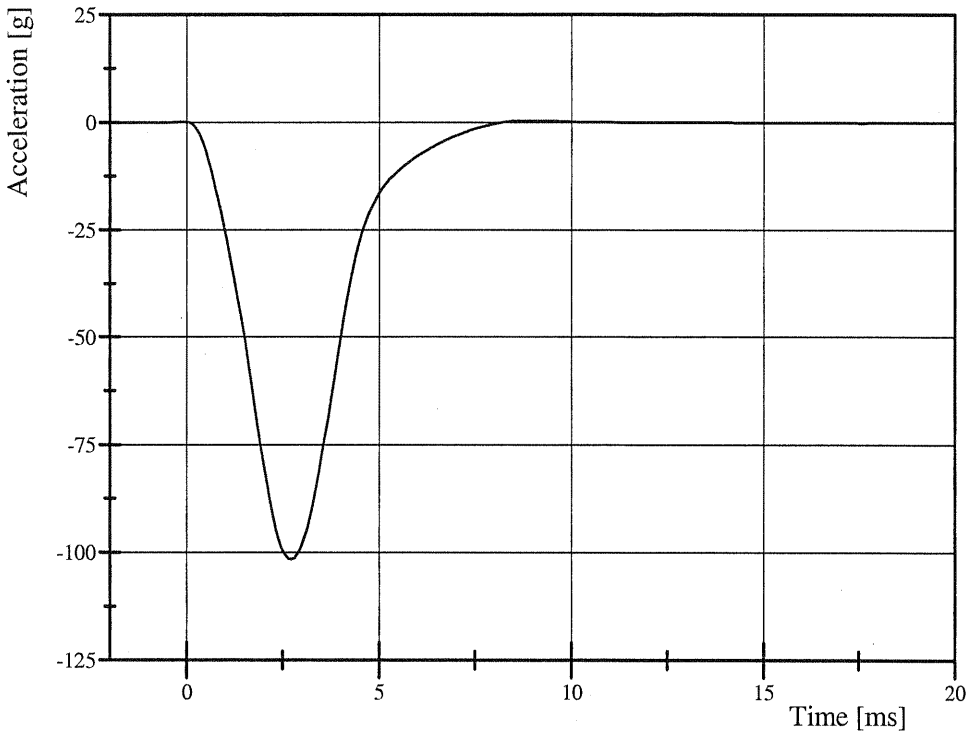
10.27.2006 12:36:11 1705

070222

Transportation Research Center Inc.

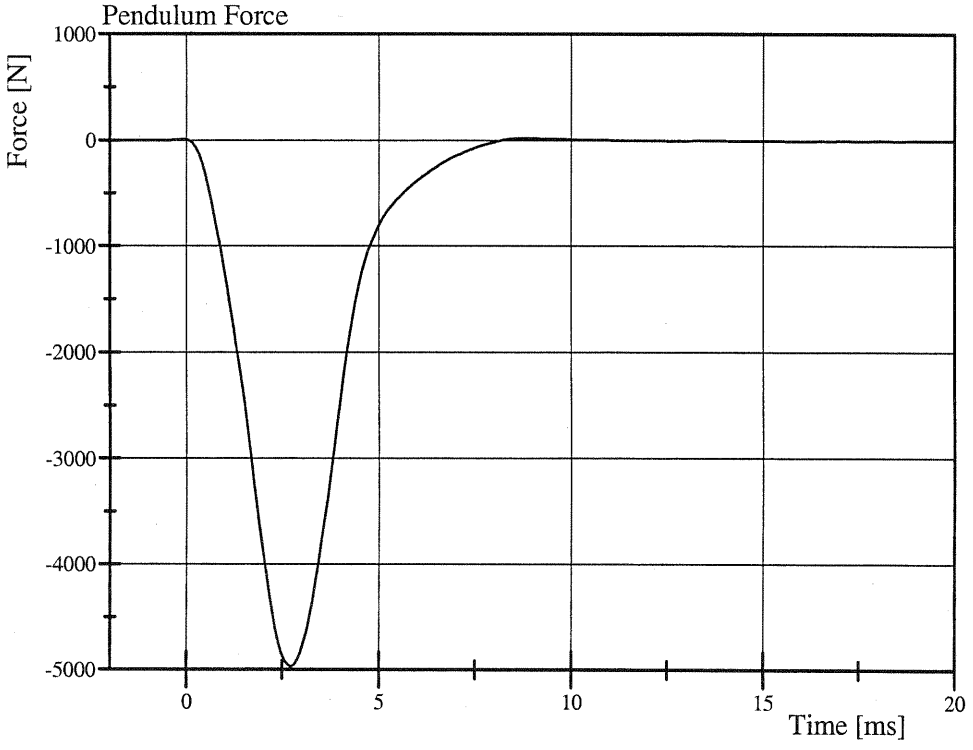
Right Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 19-2
Test Date: 10/27/2006

Pendulum Acceleration



Filter Class: CFC_600
Max: 0.4 g at 8.7 ms
Min: -101.6 g at 2.7 ms

Pendulum Force



Filter Class: CFC_600
Max: 19.2 N at 8.7 ms
Min: -4,970.3 N at 2.7 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.27.2006 12:36:25 1705

070222

Transportation Research Center Inc.

Left Knee Slider
HIII 50th Serial No. 202 Certification No. 19-4
Test Date: 10/31/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.730 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,509.4 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,855.8 N	Yes

Test meets specifications.

Comments:

Technician

Approved

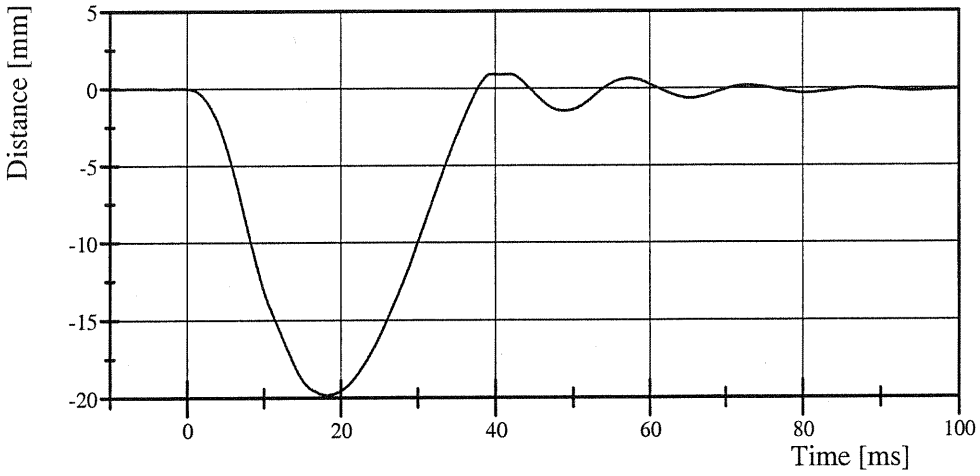
Specification Source: SAE User's Manual with Polarity in Accordance with J211

10.31.2006 15:28:44 1448

Transportation Research Center Inc.

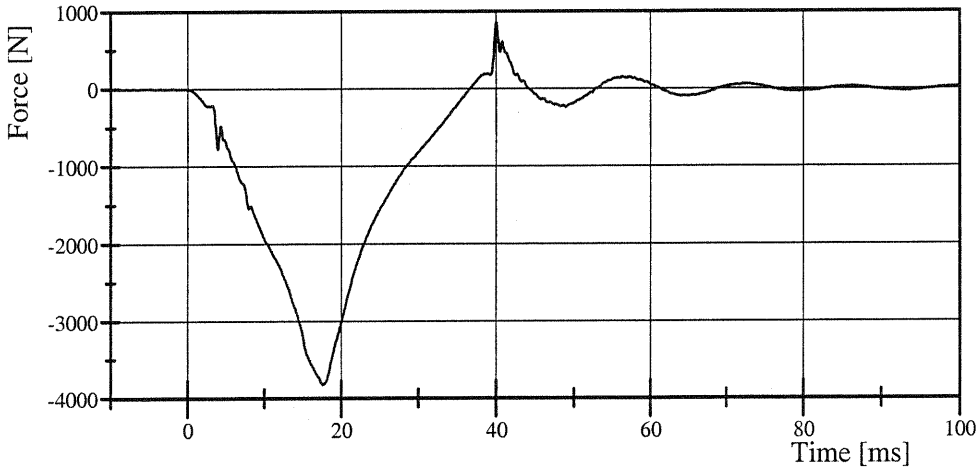
Left Knee Slider
HIII 50th Serial No. 202 Certification No. 19-4
Test Date: 10/31/2006

Knee Slider Displacement



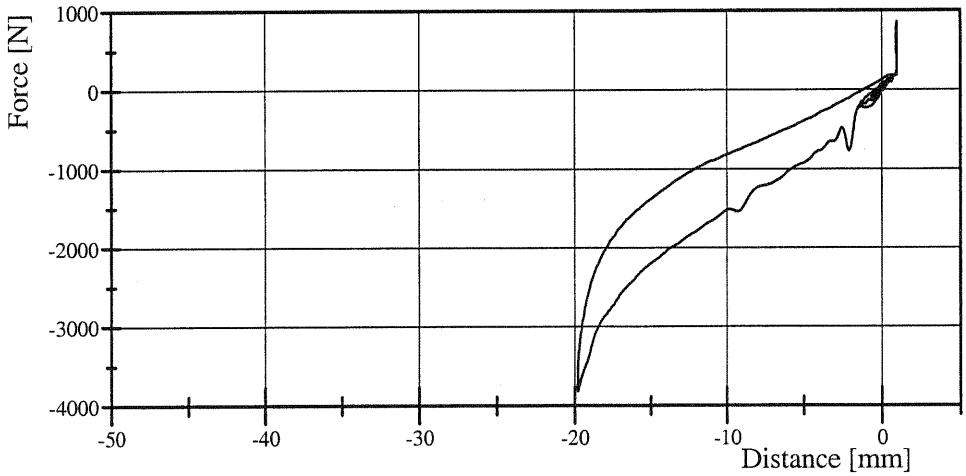
Filter Class: CFC_180
Max: 0.9 mm at 41.8 ms
Min: -19.8 mm at 18.2 ms

Femur Force



Filter Class: CFC_600
Max: 858.6 N at 40.0 ms
Min: -3,819.5 N at 17.7 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 858.6 N at 0.9 mm
Min: -3,819.5 N at -19.8 mm

Transportation Research Center Inc.

Right Knee Slider
HIII 50th Serial No. 202 Certification No. 19-3
Test Date: 10/27/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	43 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.767 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,371.3 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,659.9 N	Yes

Test meets specifications.

Comments:

Technician

Approved

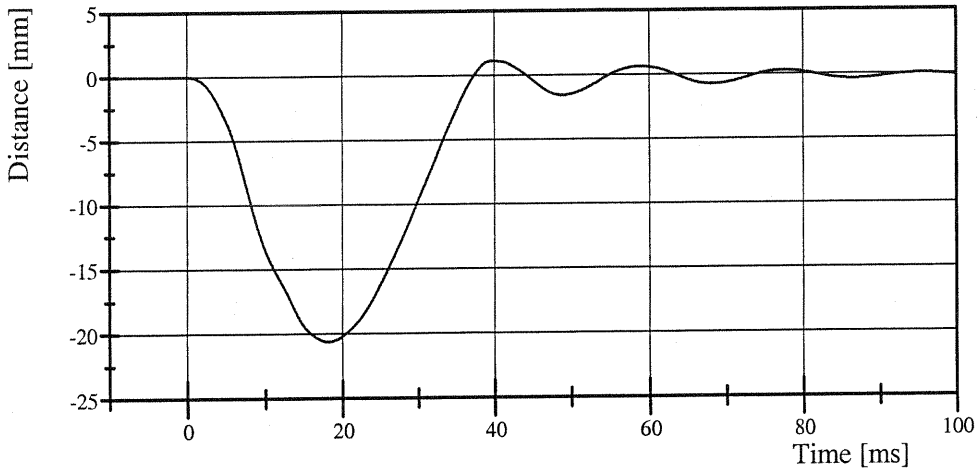
Specification Source: SAE User's Manual with Polarity in Accordance with J211

10.27.2006 14:55:46 1147

Transportation Research Center Inc.

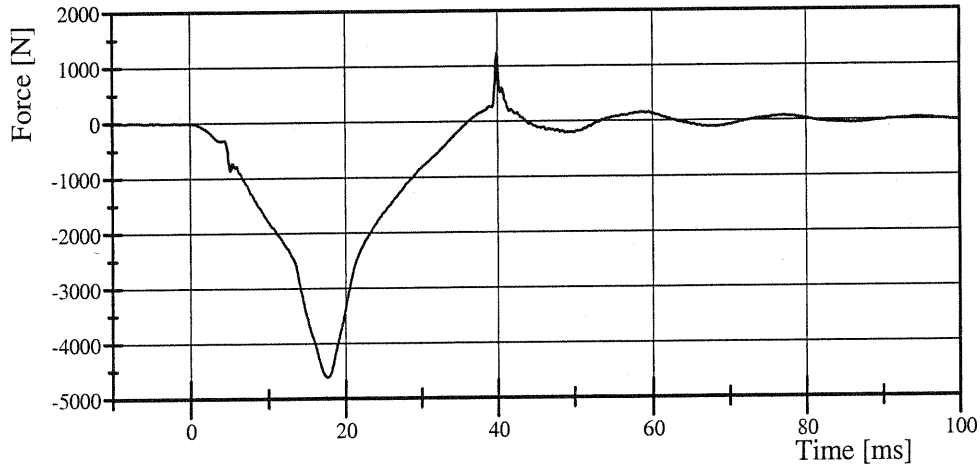
Right Knee Slider
HIII 50th Serial No. 202 Certification No. 19-3
Test Date: 10/27/2006

Knee Slider Displacement



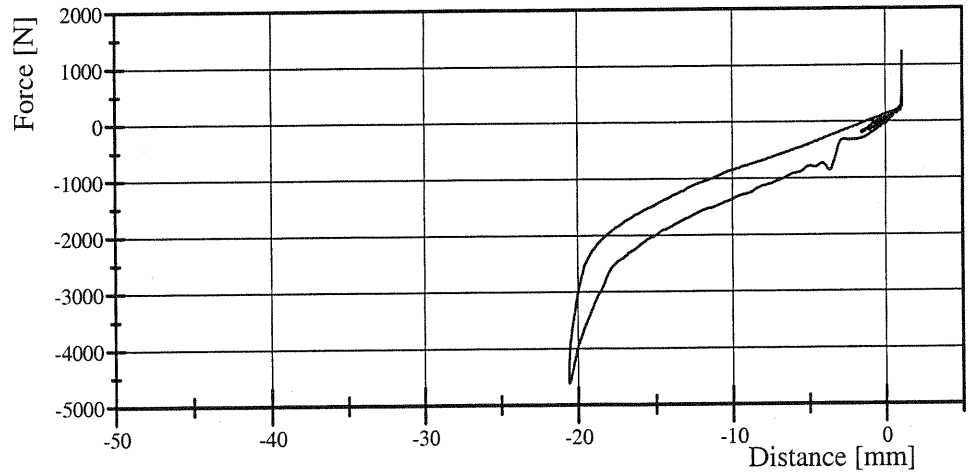
Filter Class: CFC_180
Max: 1.1 mm at 39.8 ms
Min: -20.6 mm at 18.2 ms

Femur Force



Filter Class: CFC_600
Max: 1,229.7 N at 39.9 ms
Min: -4,611.2 N at 17.6 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 1,229.7 N at 1.1 mm
Min: -4,611.2 N at -20.6 mm

Specification Source: SAE User's Manual with Polarity in Accordance with J211

10.27.2006 14:55:58 1147

070222

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Potentiometer Calibration**	Revision:	**6/23/2004**
Sub Test Name:	**T1AKM060 Rotary Pot**	Spec Type:	**Internal**
Dummy Type:	**General**		
Dummy Serial Number:	**2116 0046A**		
Test ID:	**7921-0525**	Test Date:	**9/13/2006**
Test Number:	**1**	Test Time:	**9:54:42 PM**

Component Part Number	Component Serial Number
T1AKM060	**7921 0525**

Comments:
X - AXIS
LEFT LEG - RE'CAL

Test Parameters		Test Specifications			Test Results		
Calibration Range		149	--	151	**150**	degrees	P
Linearity Over Calibration Range		-0.85	--	0.85	**-0.186**	%F.S.	P
Linearity Over Calibration Range		-1.280	--	1.280	**-0.280**	degrees	P
Slope		-65	--	65	**-15.76**	Deg/V	P
Slope Coefficient		0.29	--	0.35	**-0.3153**	Deg/mV/V	P
Position Repeatability at	15	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	0	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	-15	-0.50	--	0.50	**0.00**	degrees	P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Test ID: **7921-0525** Test Time: **9:54:42 PM** Test Date: **9/13/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Potentiometer Calibration**	Revision:	**6/23/2004**
Sub Test Name:	**T1AKM060 Rotary Pot**	Spec Type:	**Internal**
Dummy Type:	**General**		
Dummy Serial Number:	**2116 0046A**		
Test ID:	**7921-0524**	Test Date:	**9/13/2006**
Test Number:	**1**	Test Time:	**9:41:59 PM**

Component Part Number	Component Serial Number
T1AKM060	**7921 0524**

Comments:
Y - AXIS
LEFT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results	
Calibration Range	149 -- 151	**150** degrees	P
Linearity Over Calibration Range	-0.85 -- 0.85	**0.200** %F.S.	P
Linearity Over Calibration Range	-1.280 -- 1.280	**0.299** degrees	P
Slope	-65 -- 65	**-15.69** Deg/V	P
Slope Coefficient	0.29 -- 0.35	**-0.3138** Deg/mV/V	P
Position Repeatability at 15	-0.50 -- 0.50	**0.00** degrees	P
Position Repeatability at 0	-0.50 -- 0.50	**0.01** degrees	P
Position Repeatability at -15	-0.50 -- 0.50	**0.00** degrees	P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Test ID: **7921-0524** Test Time: **9:41:59 PM** Test Date: **9/13/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Potentiometer Calibration**	Revision:	**6/23/2004**
Sub Test Name:	**T1AKM060 Rotary Pot**	Spec Type:	**Internal**
Dummy Type:	**General**		
Dummy Serial Number:	**2116 0046A**		
Test ID:	**7921-0523**	Test Date:	**9/13/2006**
Test Number:	**1**	Test Time:	**9:19:44 PM**

Component Part Number	Component Serial Number
T1AKM060	**7921 0523**

Comments:
Z - AXIS
LEFT LEG - RE'CAL

Test Parameters		Test Specifications			Test Results		
Calibration Range		149	--	151	**150**	degrees	P
Linearity Over Calibration Range		-0.85	--	0.85	**-0.142**	%F.S.	P
Linearity Over Calibration Range		-1.280	--	1.280	**-0.213**	degrees	P
Slope		-65	--	65	**-15.84**	Deg/V	P
Slope Coefficient		0.29	--	0.35	**-0.3168**	Deg/mV/V	P
Position Repeatability at	15	-0.50	--	0.50	**0.25**	degrees	P
Position Repeatability at	0	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	-15	-0.50	--	0.50	**0.11**	degrees	P

All test parameters are within specifications

Technician: **J RANG**

Approved By: _____

Test ID: **7921-0523** Test Time: **9:19:44 PM** Test Date: **9/13/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PV0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**4:42:47 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL
INVERSION

Test Parameters	Test Specifications	Test Results
Temperature	20.6 -- 22.2	**21.3** deg C P
Humidity	10.0 -- 70.0	**39.0** %RH P
Angular Velocity	1.00 -- 2.00	**-1.53** deg/s P
Angle at 6 Nm	17.5 -- 21.3	**-19.3** degrees P
Angle at 23 Nm	29.3 -- 35.9	**-30.3** degrees P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

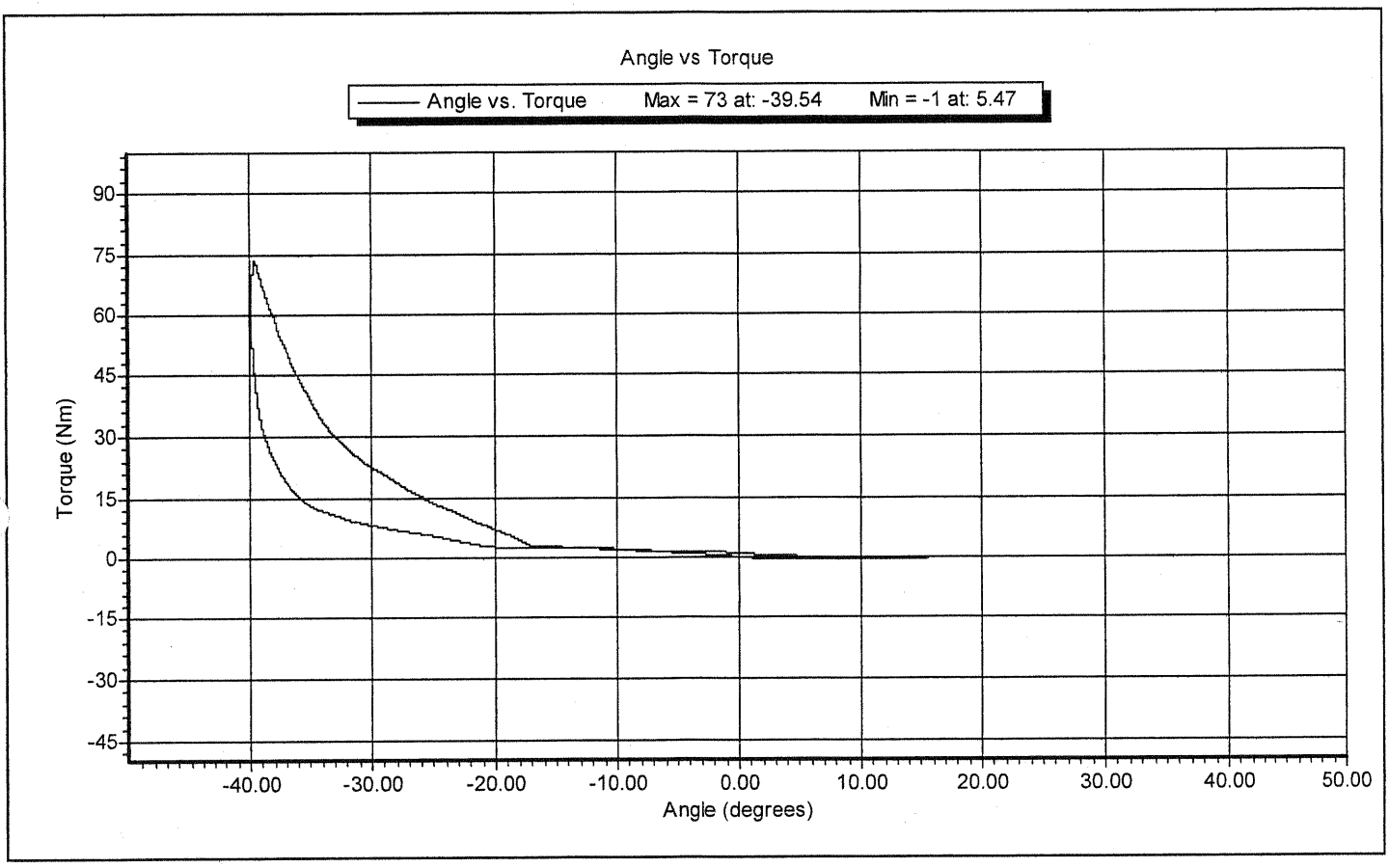
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

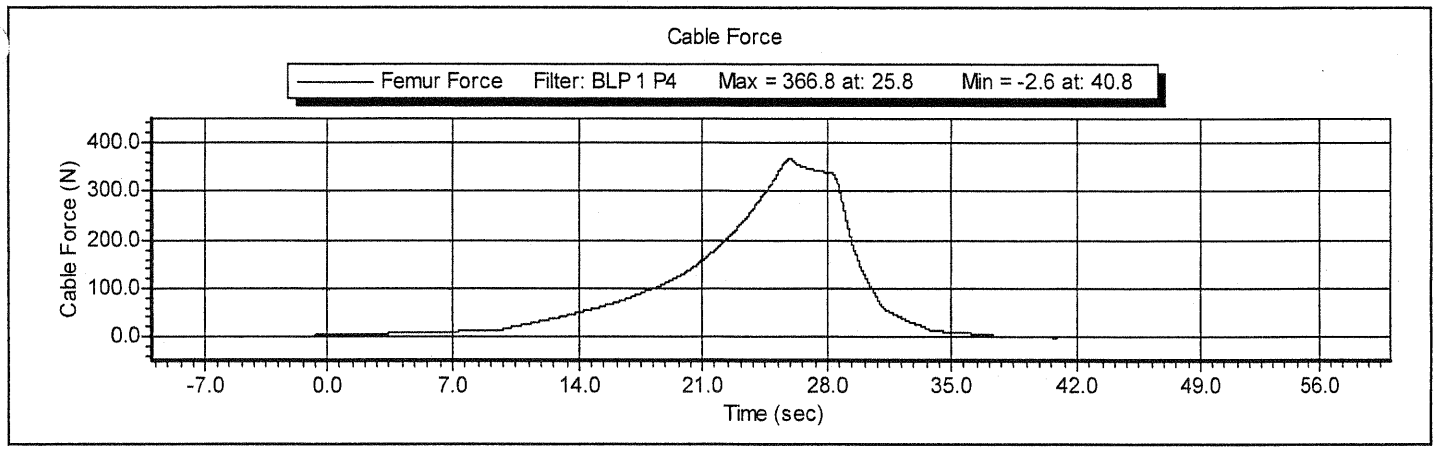
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

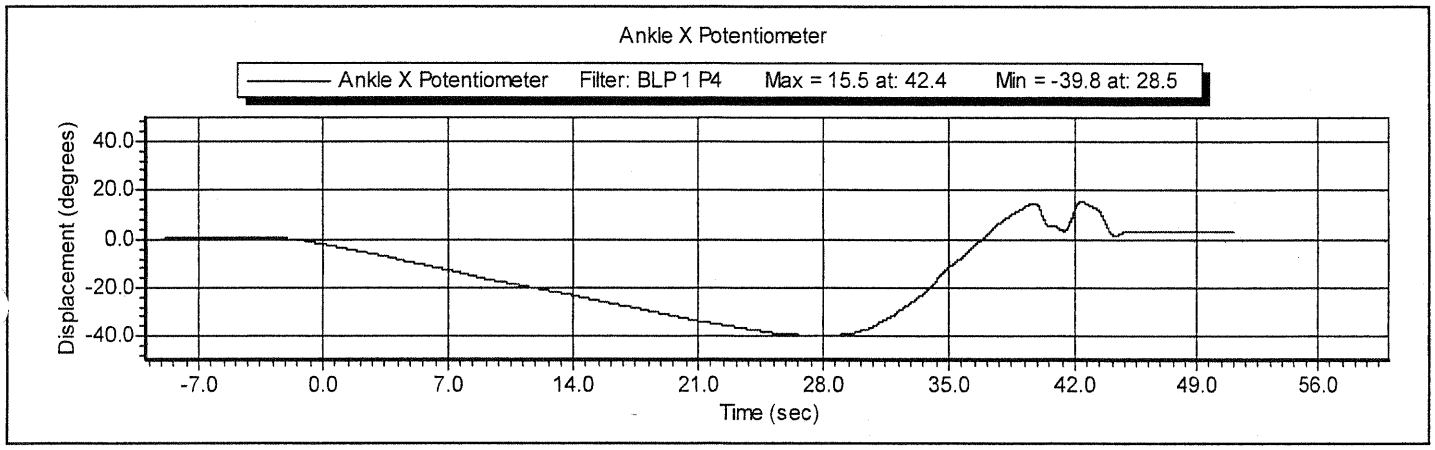
Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PV0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**4:42:47 PM**

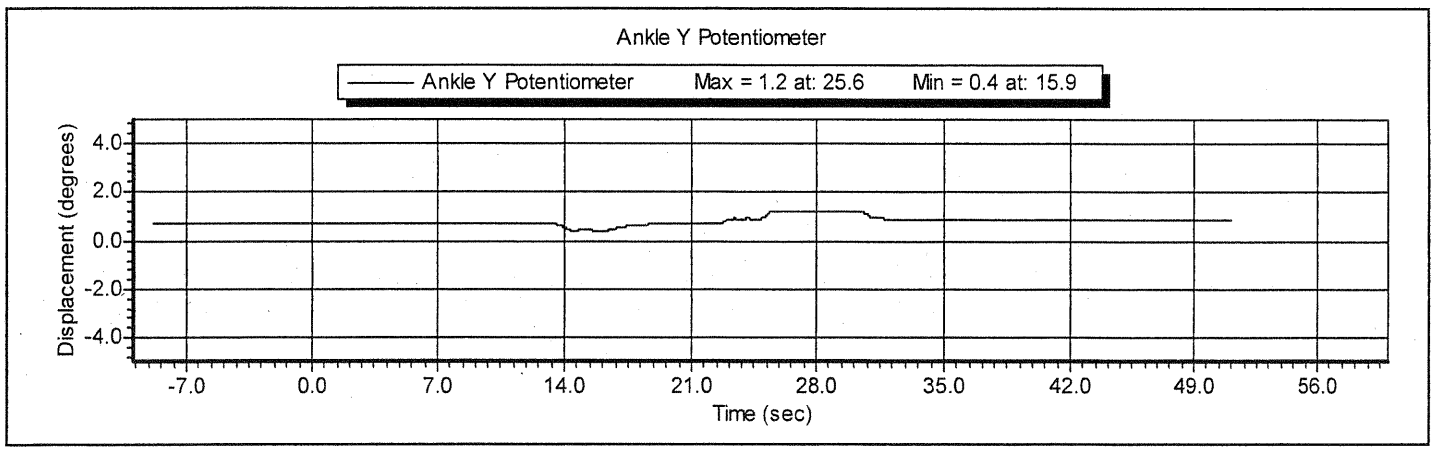


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



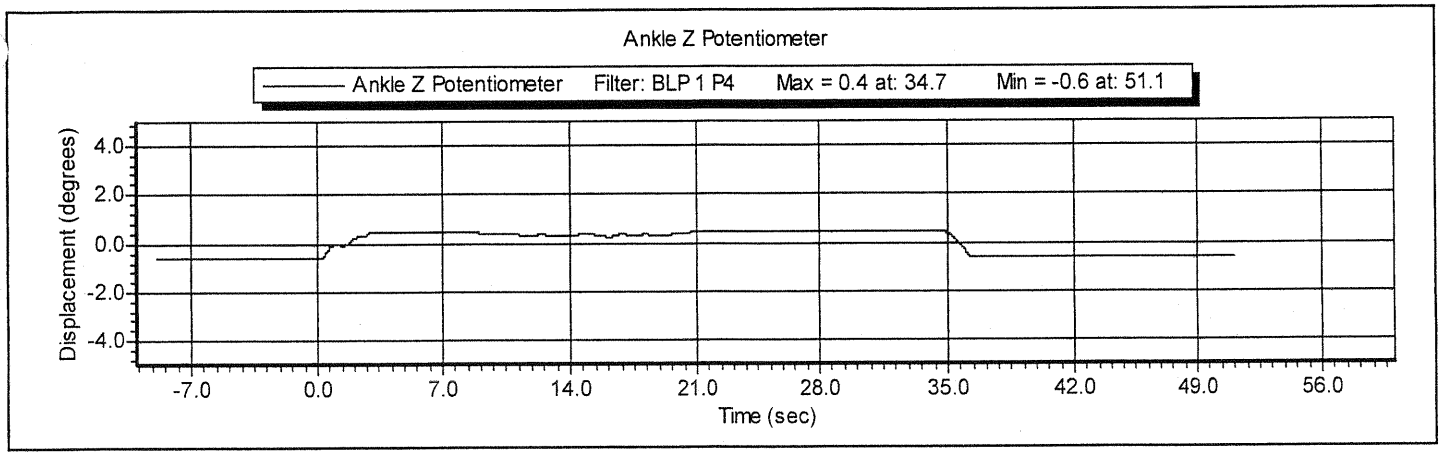


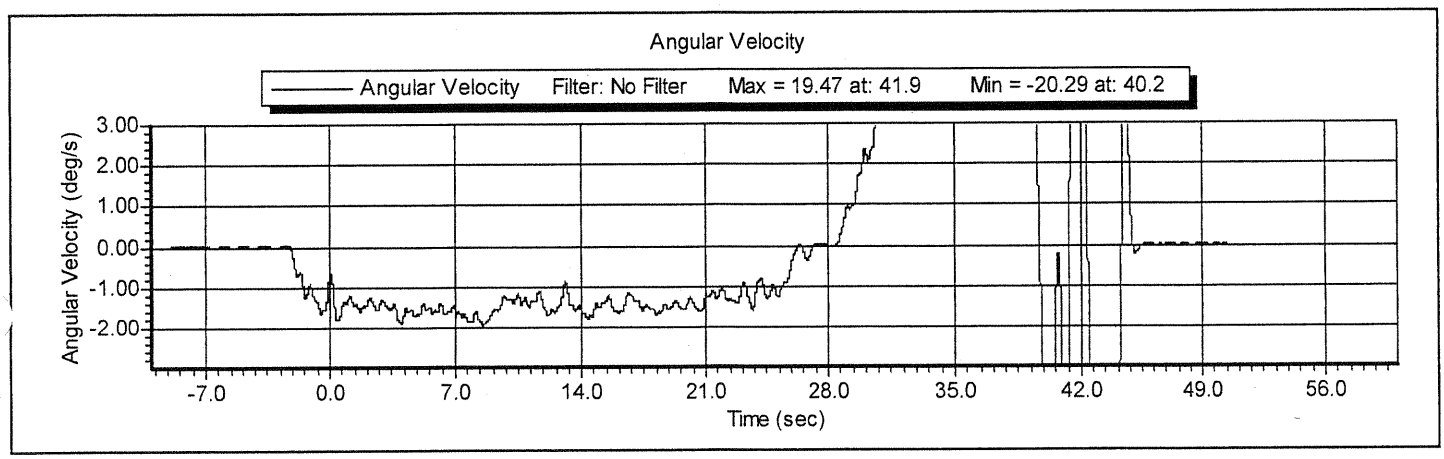


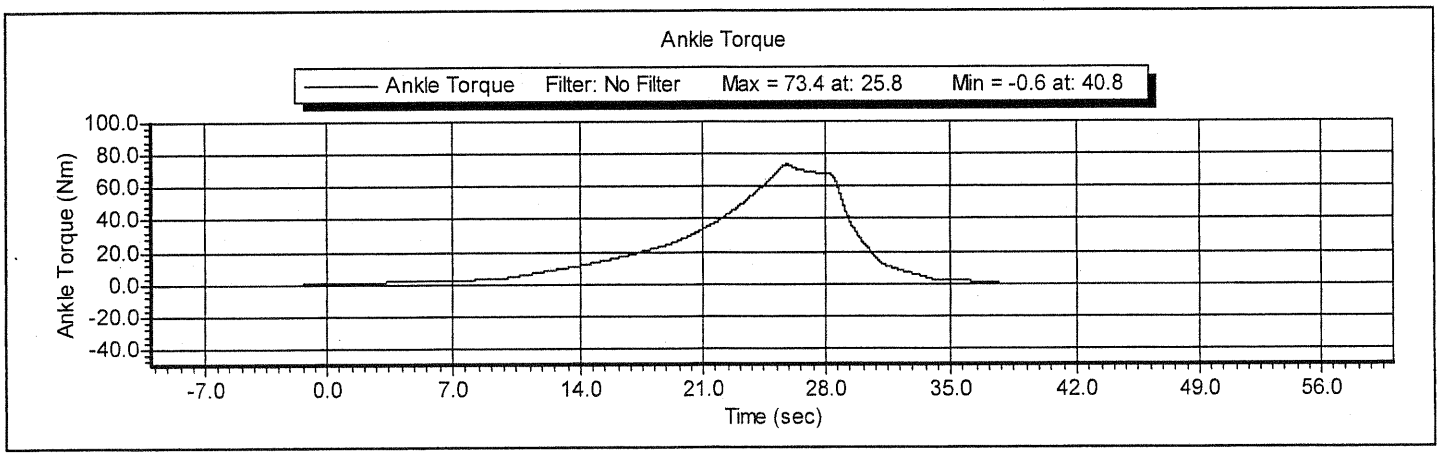
Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-6200 • Fax (419) 625-6335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PW0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**4:52:01 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL
EVERSION

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**21.2** deg C	P
Humidity	10.0 -- 70.0	**39.0** %RH	P
Angular Velocity	1.00 -- 2.00	**1.60** deg/s	P
Angle at 6 Nm	17.5 -- 21.3	**19.8** degrees	P
Angle at 23 Nm	29.3 -- 35.9	**31.3** degrees	P

All test parameters are within specifications

Technician: J RANG

Approved By:

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

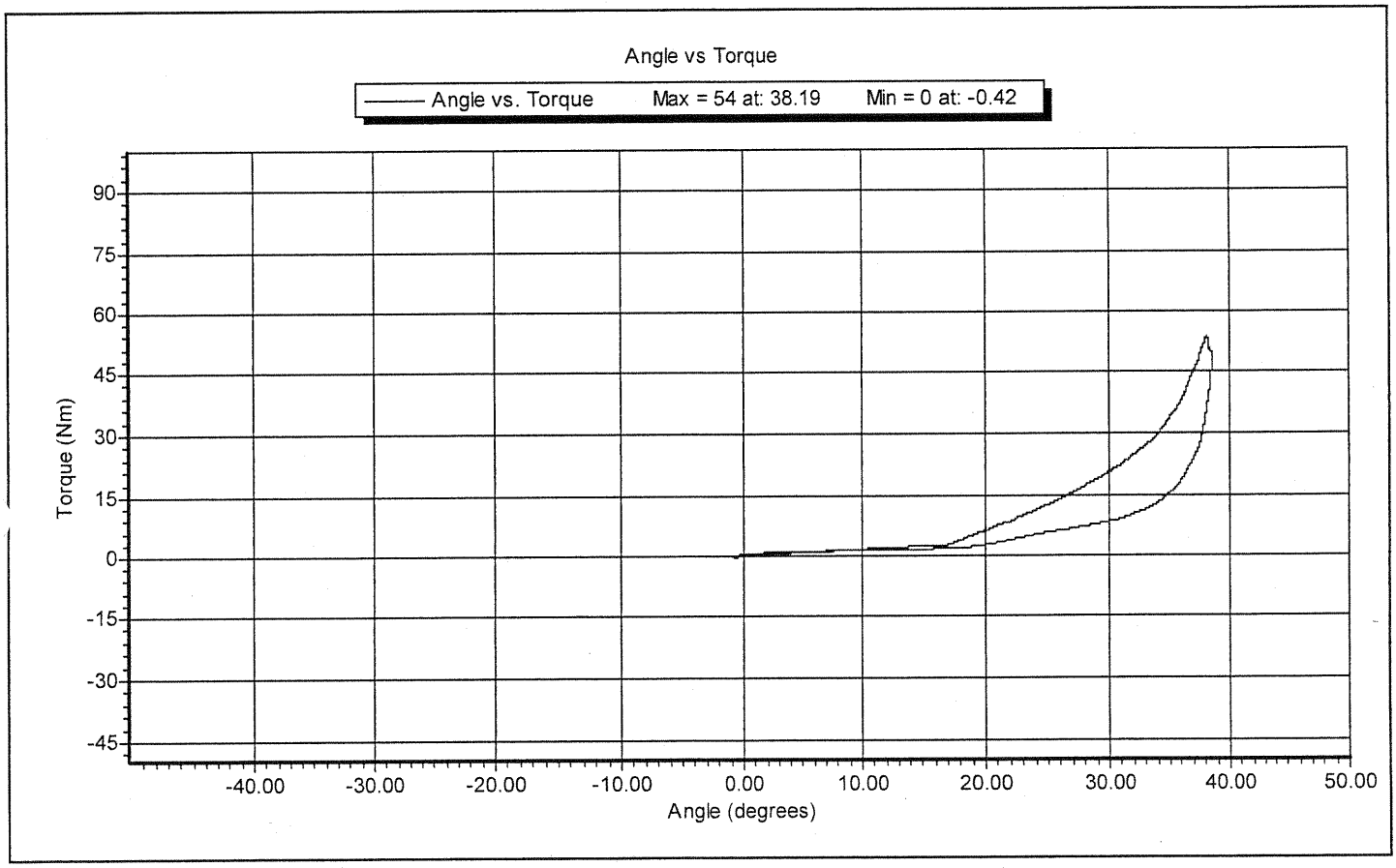
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

Test ID: **PW0046-1** Test Time: **4:52:01 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

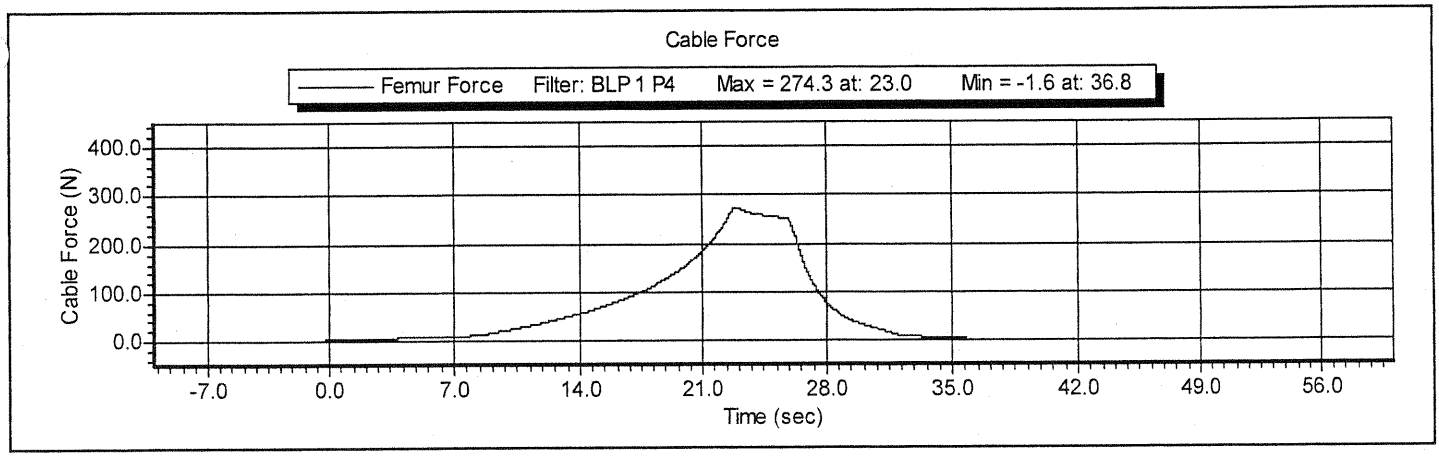
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

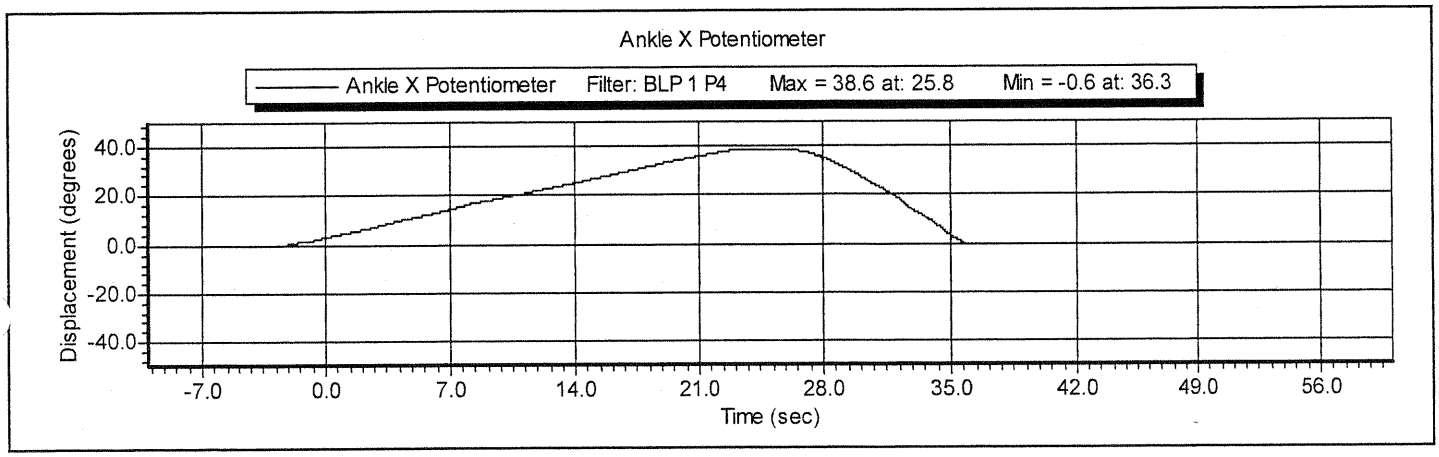
Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PW0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**4:52:01 PM**

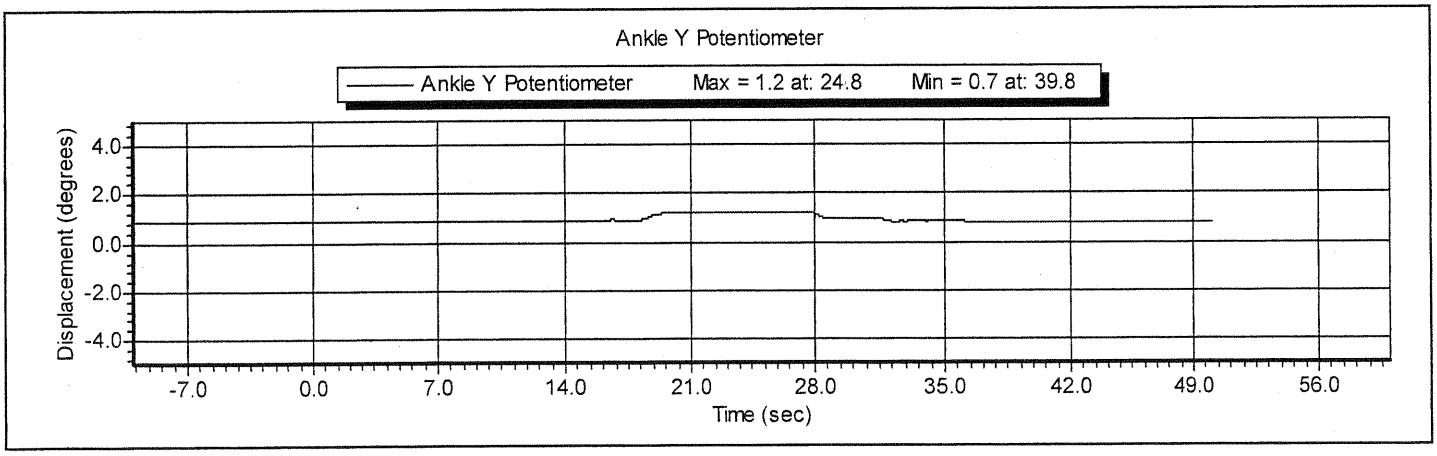


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



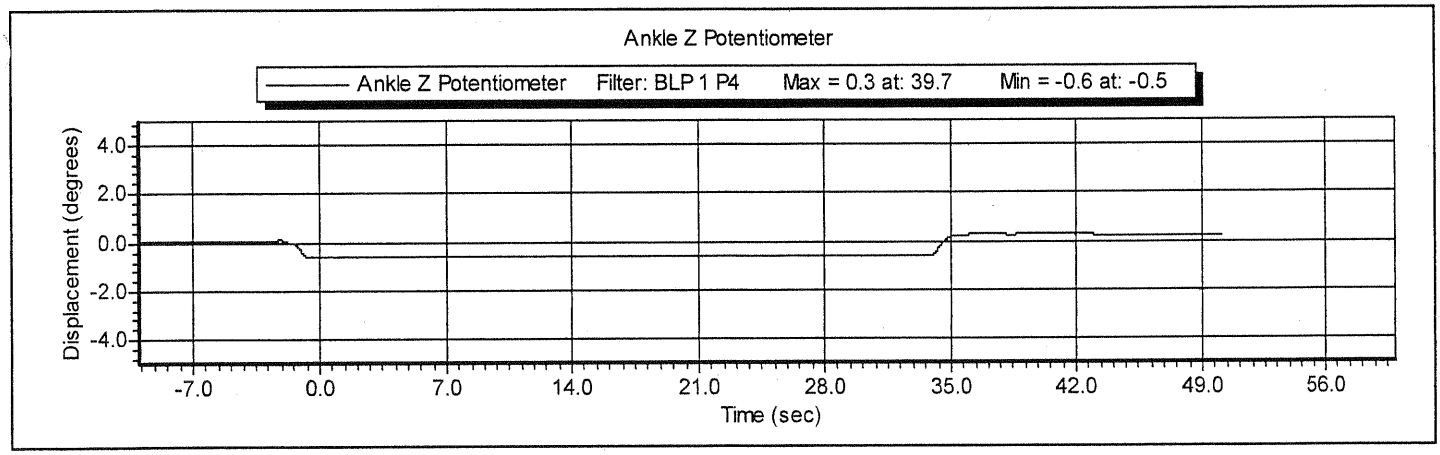


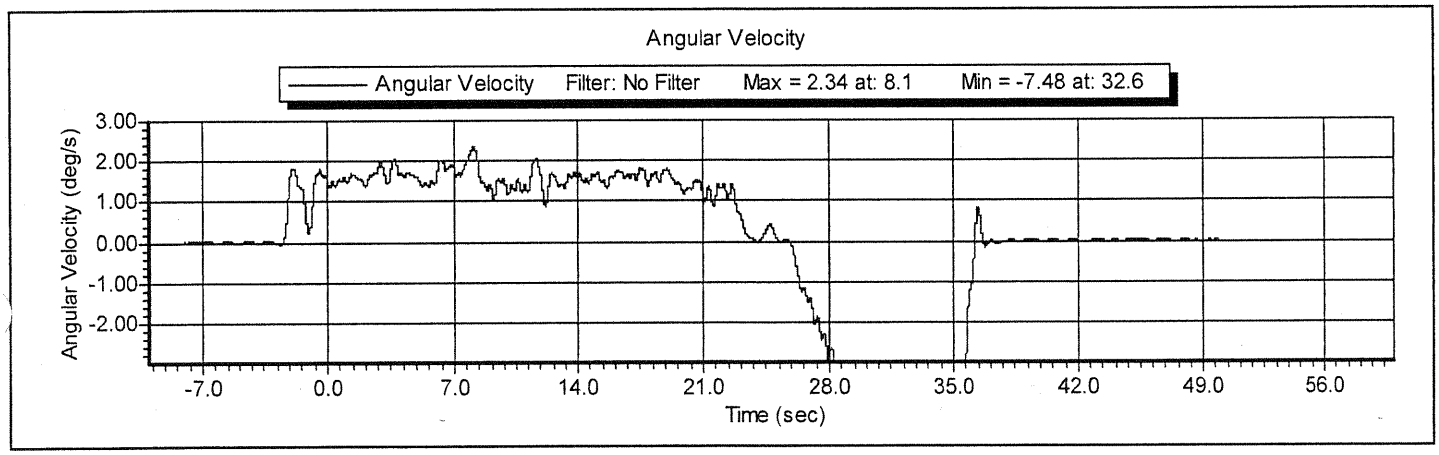


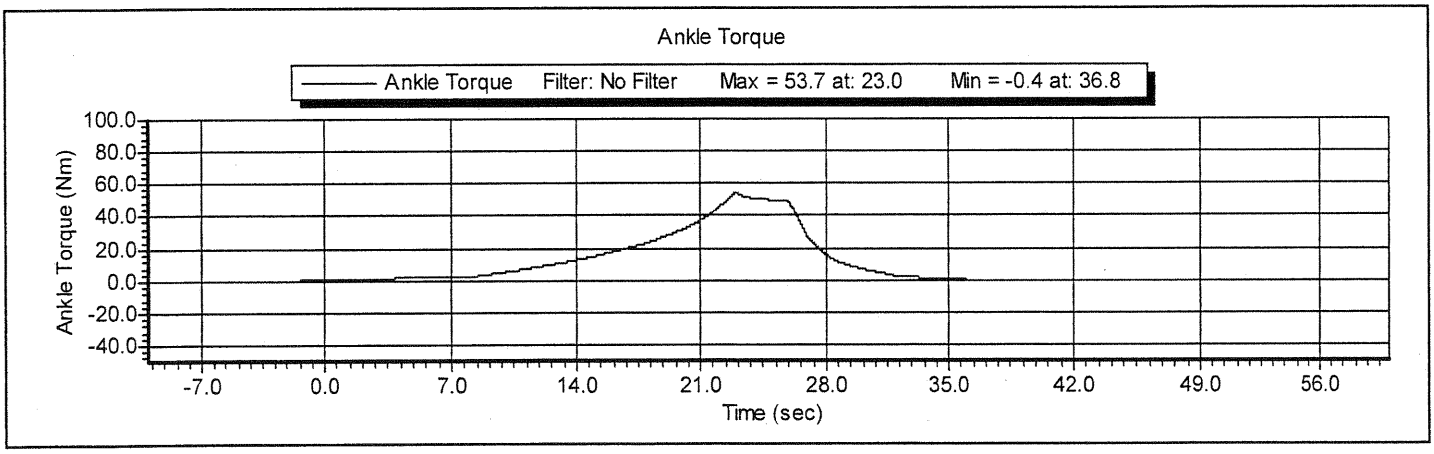
Test ID: **PW0046-1** Test Time: **4:52:01 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PW0046-1** Test Time: **4:52:01 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Dorsi-Flexion with Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PY0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:04:12 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**21.0** deg C	P
Humidity	10.0 -- 70.0	**39.0** %RH	P
Angular Velocity	1.00 -- 2.00	**1.35** deg/s	P
DESIGN REFERENCE GUIDELINES	--		P
Angle at 40 Nm	16.3 -- 19.9	**13.8** degrees	F
Angle at 92 Nm	33.4 -- 40.8	**29.9** degrees	F

All test parameters are NOT within specifications

Technician: **J RANG**

Approved By:

Test ID: **PY0046-1** Test Time: **5:04:12 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

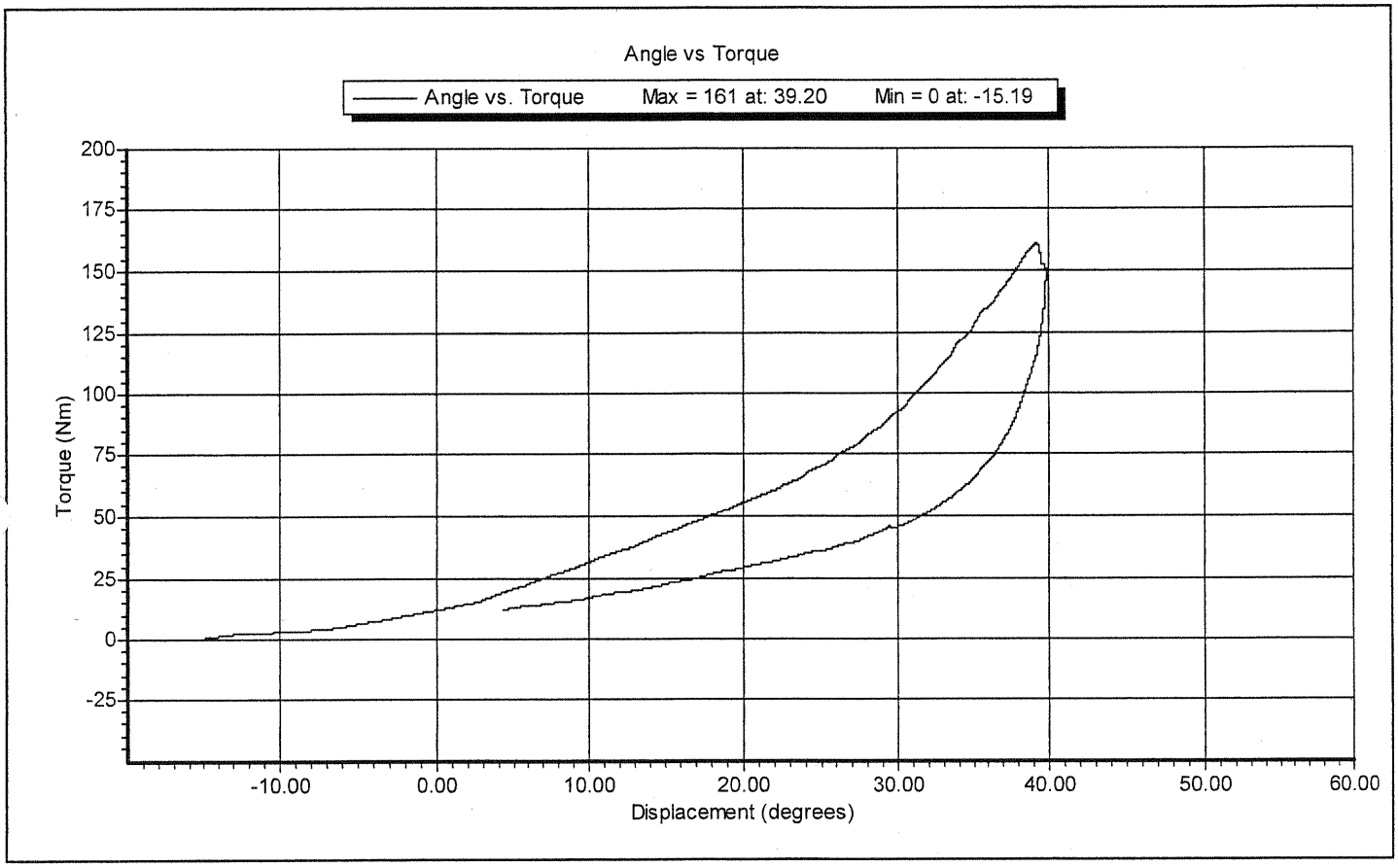
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

Test ID: **PY0046-1** Test Time: **5:04:12 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

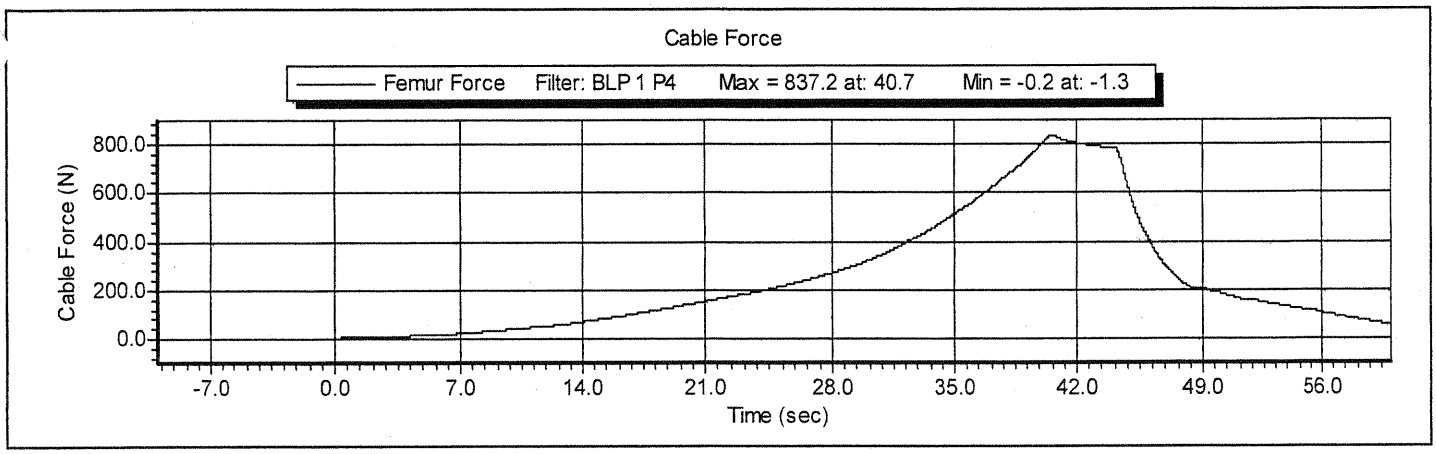
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

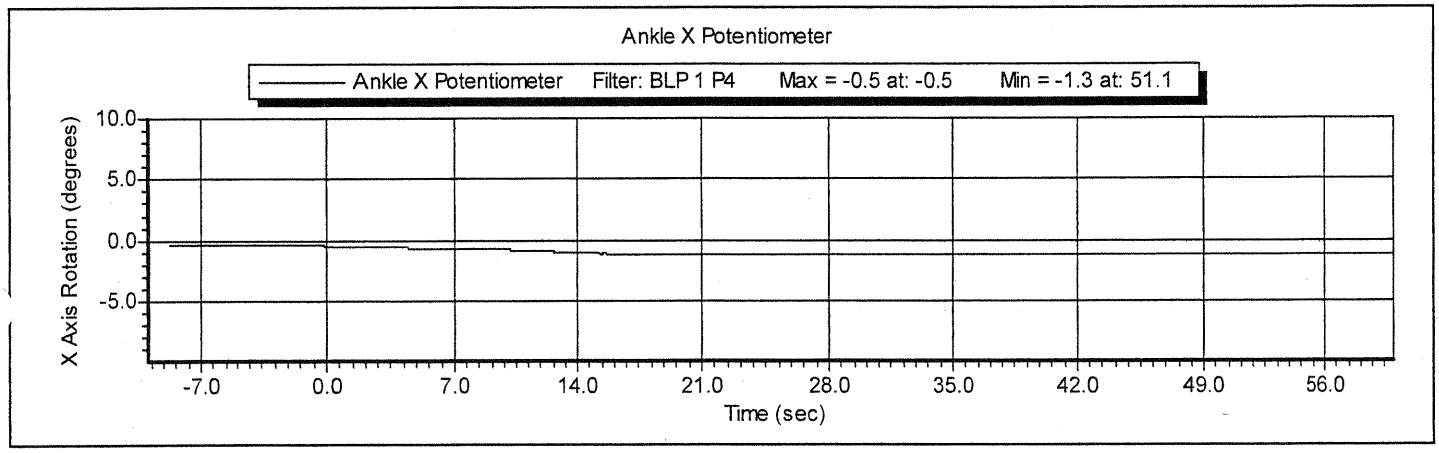
Test Name:	**Dorsi-Flexion with Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PY0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:04:12 PM**

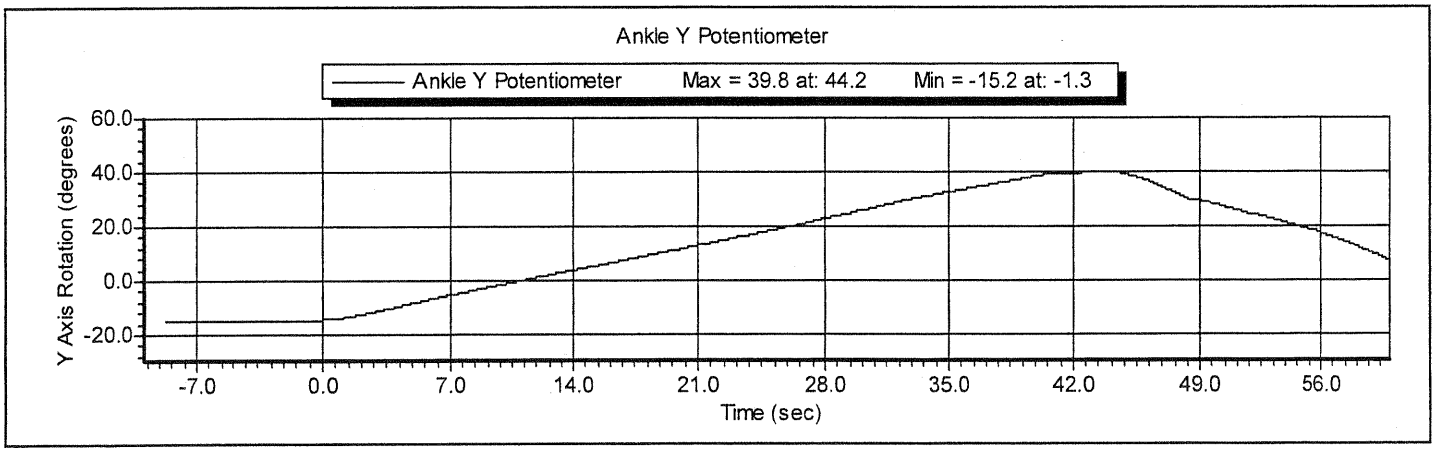


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



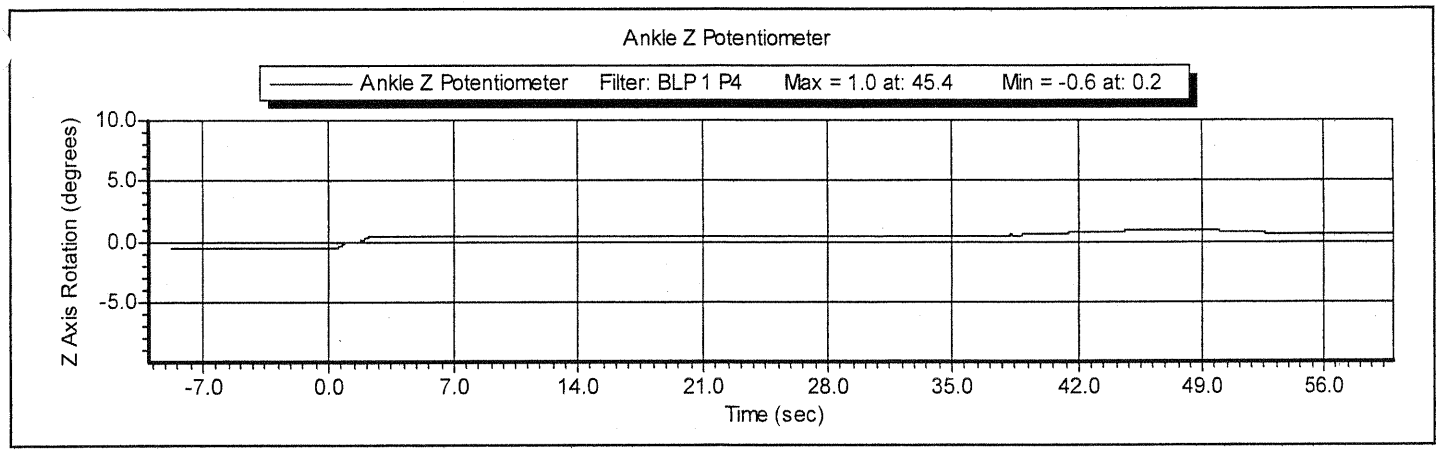


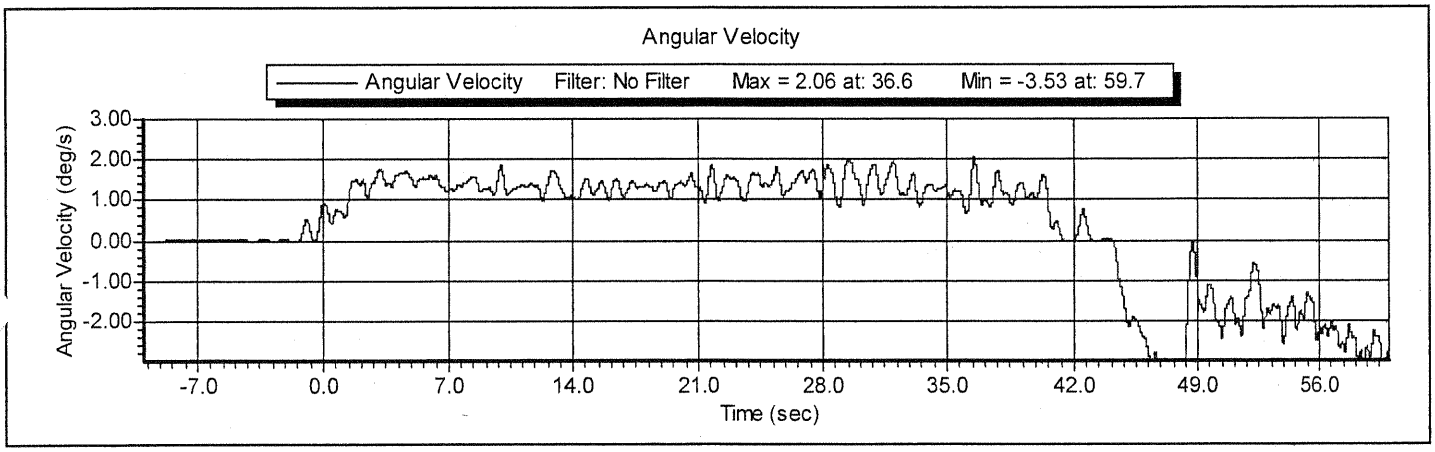


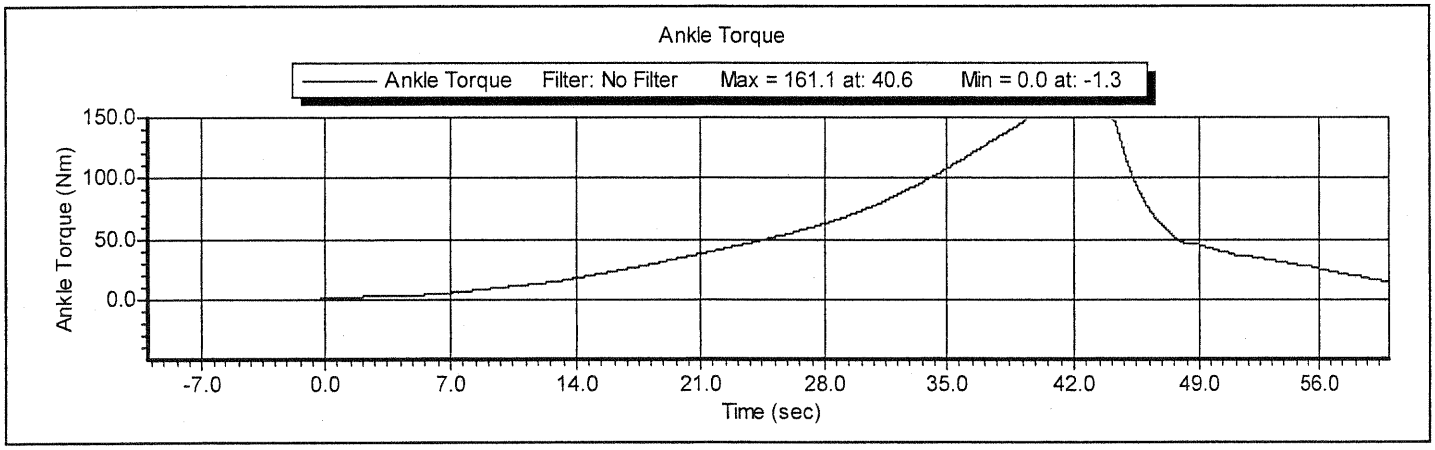
Test ID: **PY0046-1** Test Time: **5:04:12 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PY0046-1** Test Time: **5:04:12 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Dorsi-Flexion without Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PX0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:53:51 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**20.9** deg C	P
Humidity	10.0 -- 70.0	**38.0** %RH	P
Angular Velocity	1.00 -- 2.00	**1.49** deg/s	P
DESIGN REFERENCE GUIDELINES	--		P
Angle at 10 Nm	16.6 -- 20.2	**12.3** degrees	F
Angle at 37 Nm	33.5 -- 40.9	**30.3** degrees	F

All test parameters are NOT within specifications

Technician: J RANG

Approved By:

Test ID: **PX0046-1** Test Time: **5:53:51 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

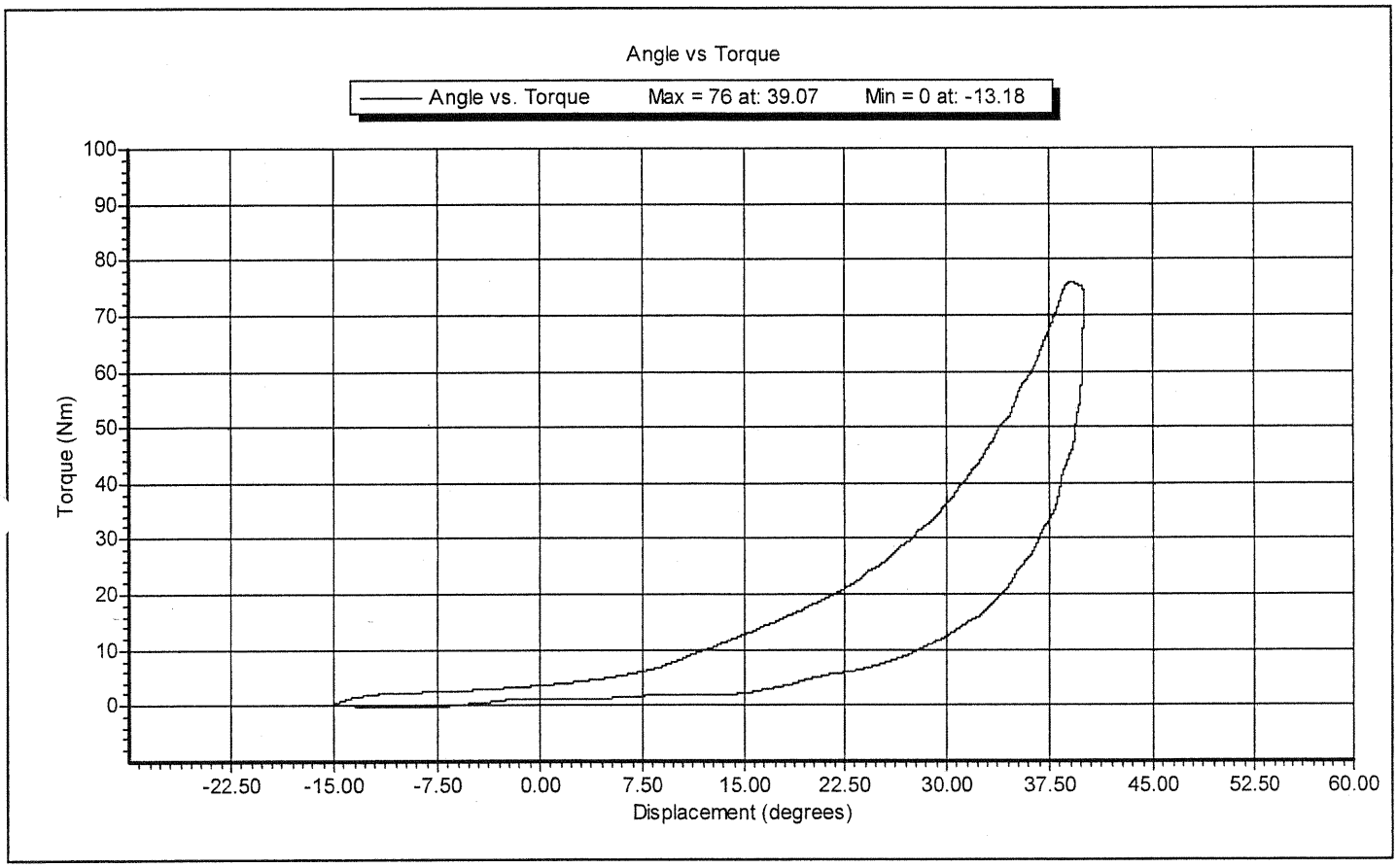
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

Test ID: **PX0046-1** Test Time: **5:53:51 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

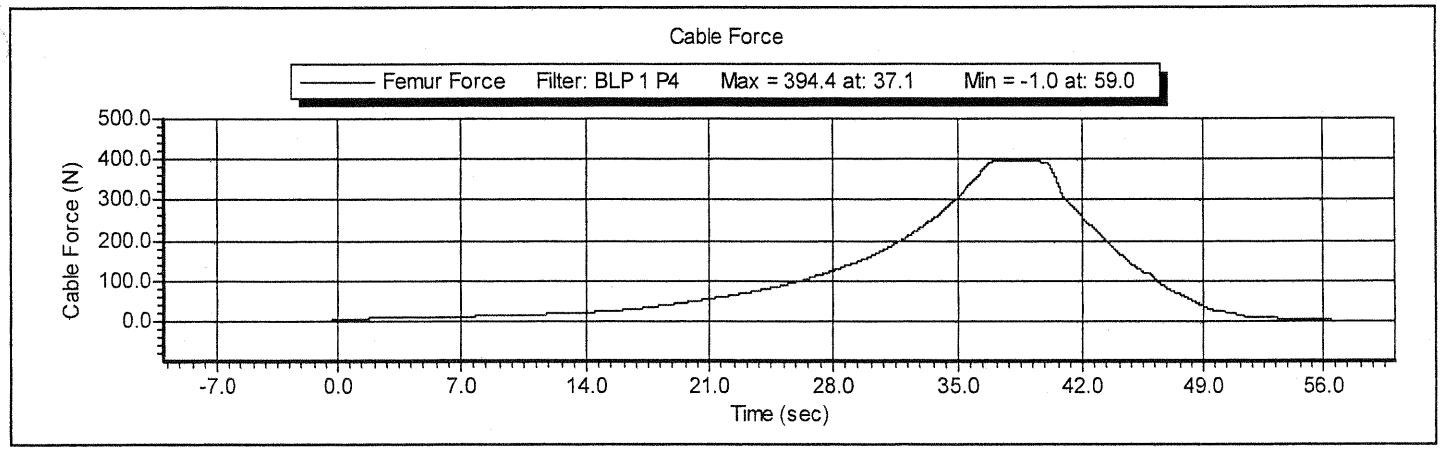
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

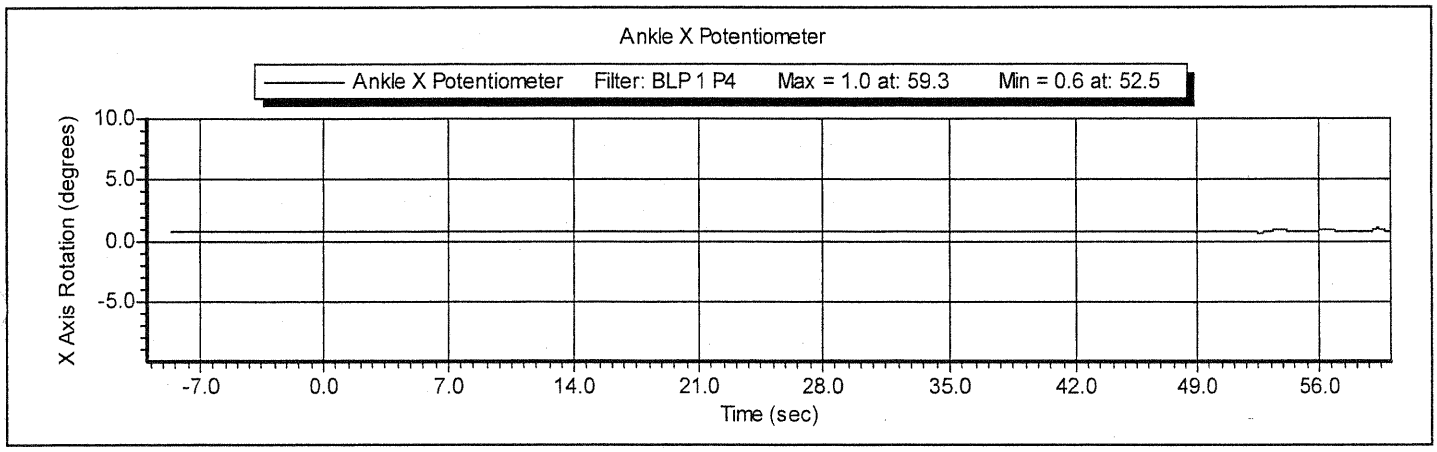
Test Name:	**Dorsi-Flexion without Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PX0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:53:51 PM**

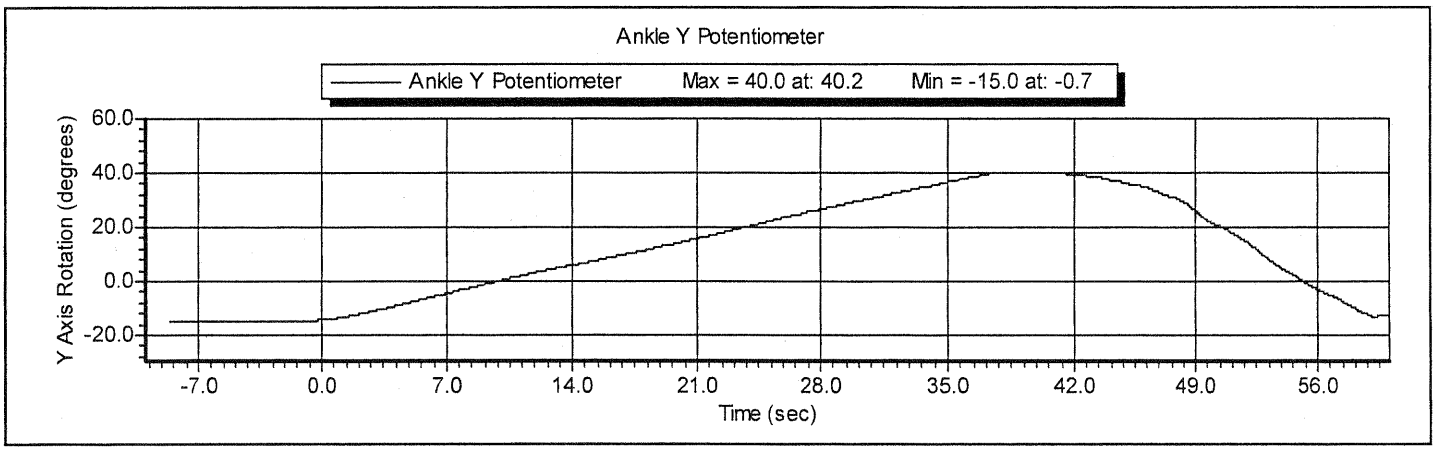


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



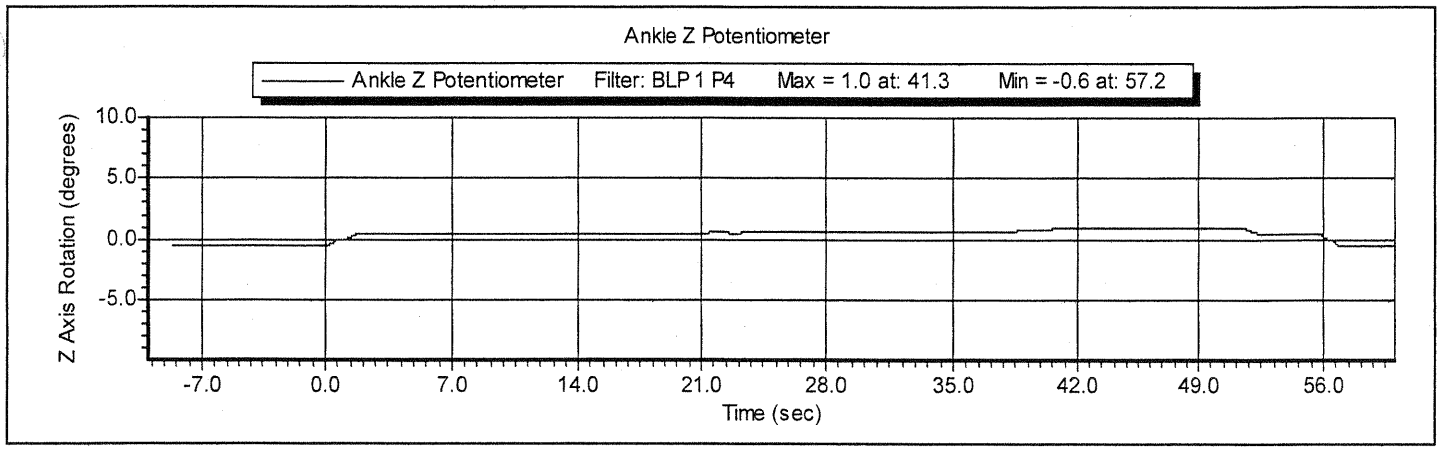


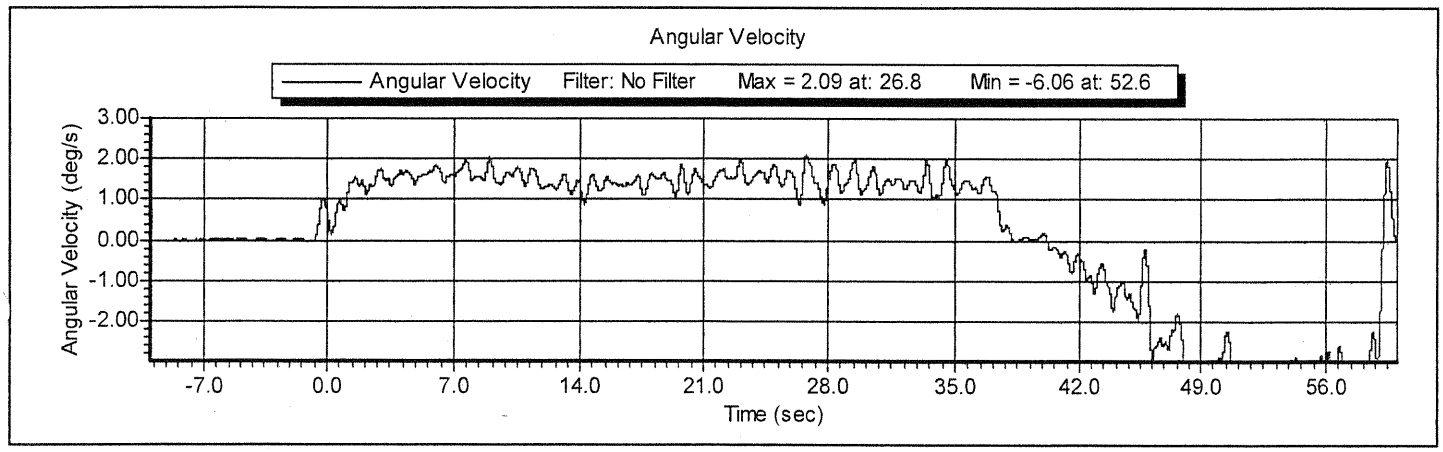


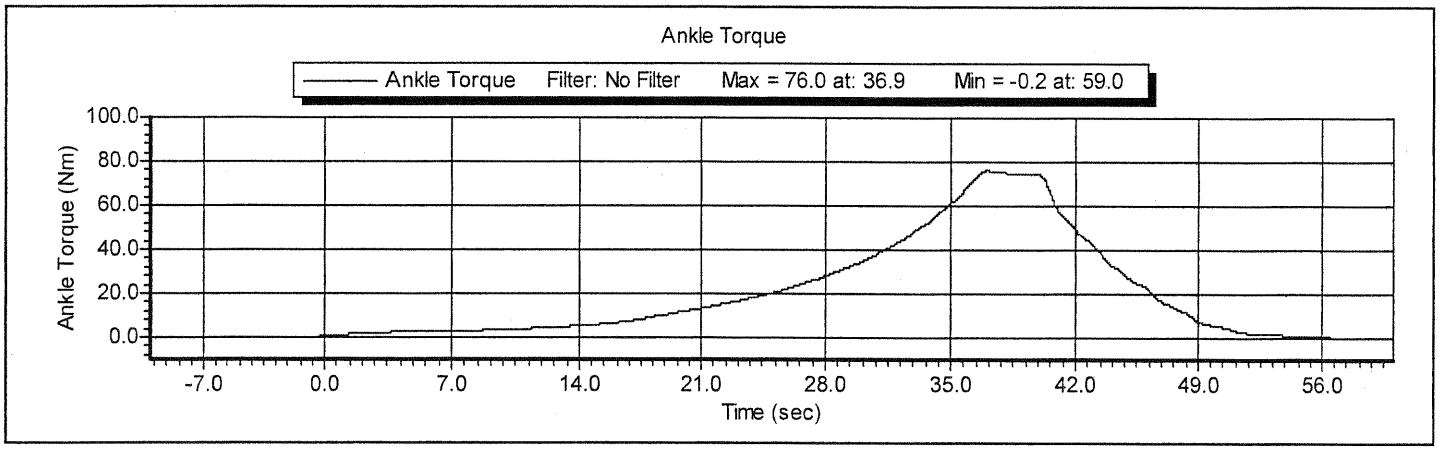
Test ID: **PX0046-1** Test Time: **5:53:51 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PX0046-1** Test Time: **5:53:51 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Plantar-Flexion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PZ0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:23:06 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**21.0** deg C	P
Humidity	10.0 -- 70.0	**39.0** %RH	P
Angular Velocity	1.00 -- 2.00	**-1.72** deg/s	P
DESIGN REFERENCE GUIDELINES	--		P
Angle at 3 Nm	28.2 -- 34.4	**-20.8** degrees	F
Angle at 17 Nm	44.0 -- 53.8	**-38.8** degrees	F

All test parameters are NOT within specifications

Technician: **J RANG**

Approved By:

Test ID: **PZ0046-1** Test Time: **5:23:06 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

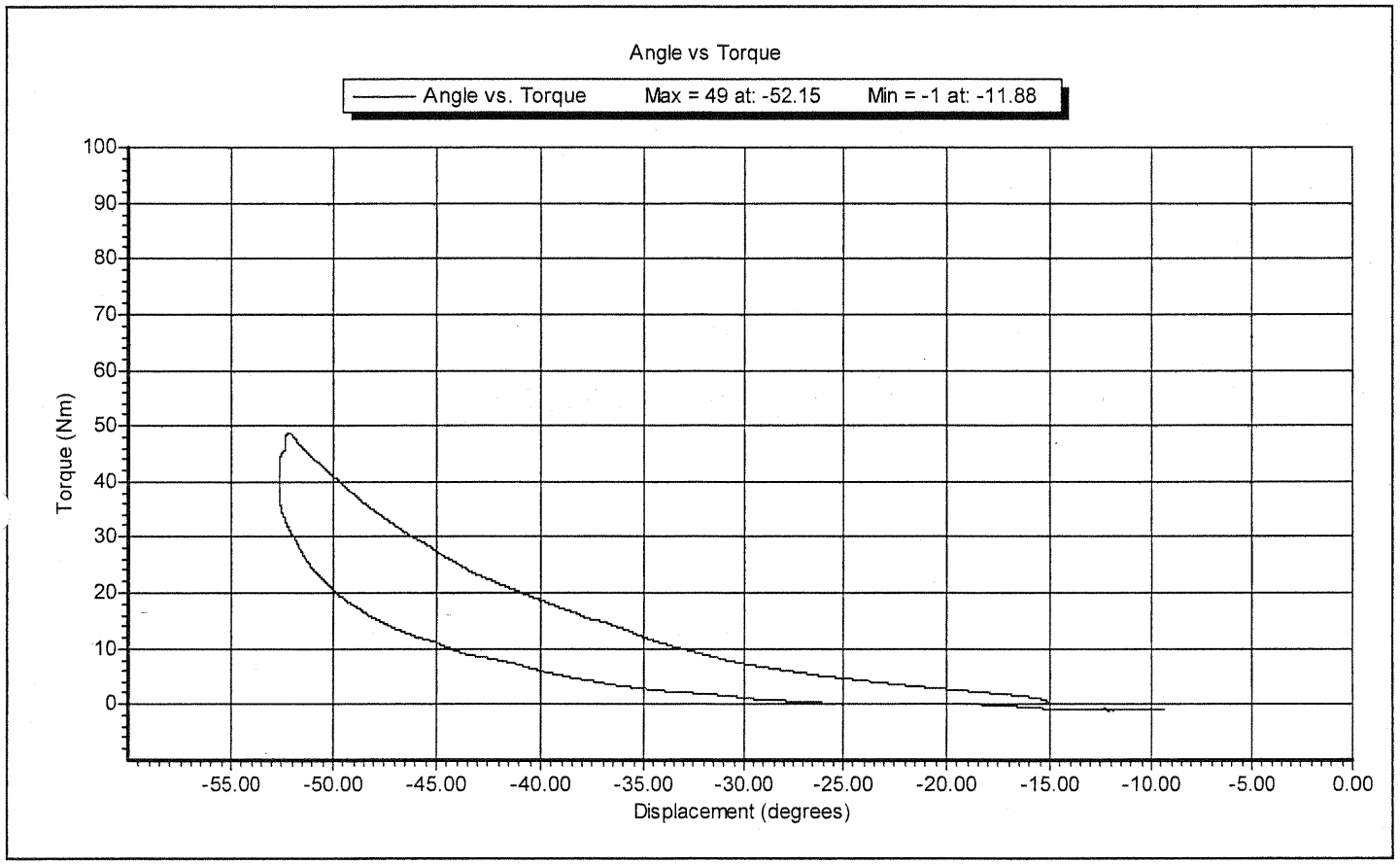
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

Test ID: **PZ0046-1** Test Time: **5:23:06 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

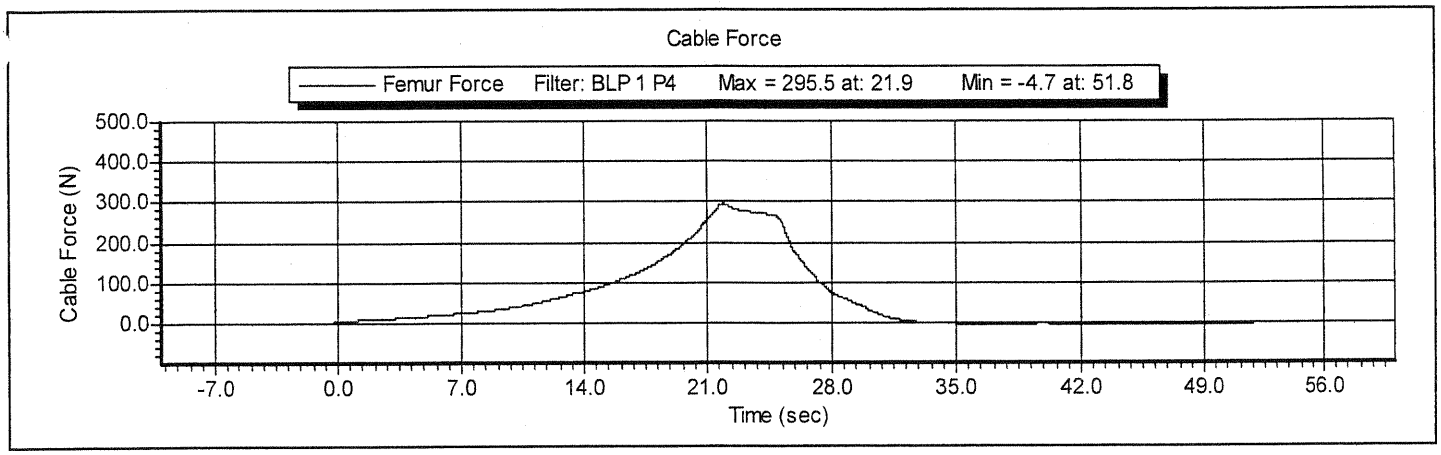
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

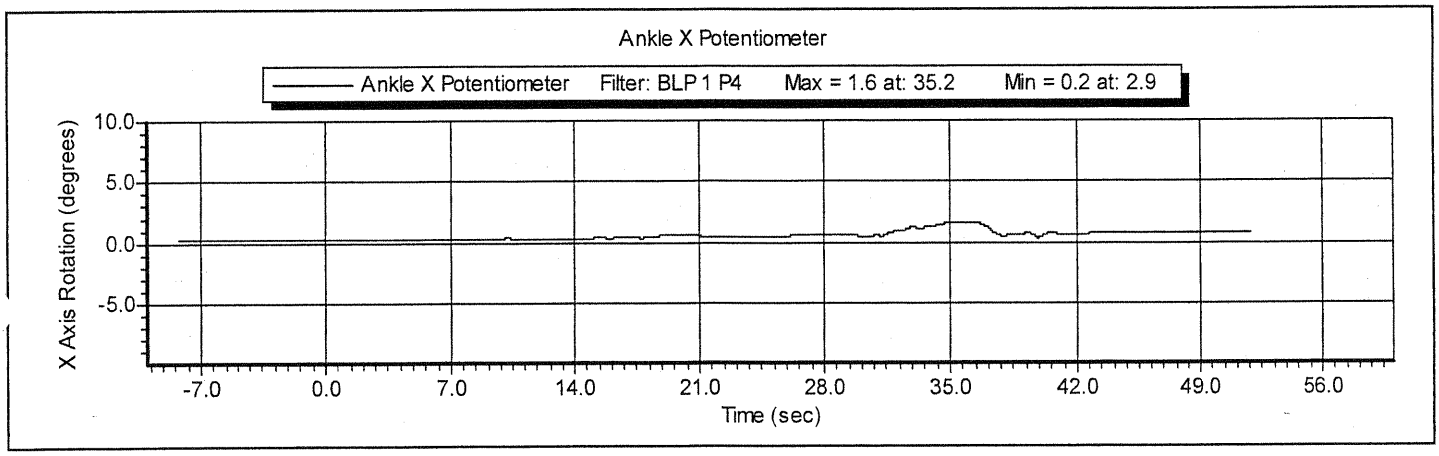
Test Name:	**Plantar-Flexion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PZ0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:23:06 PM**

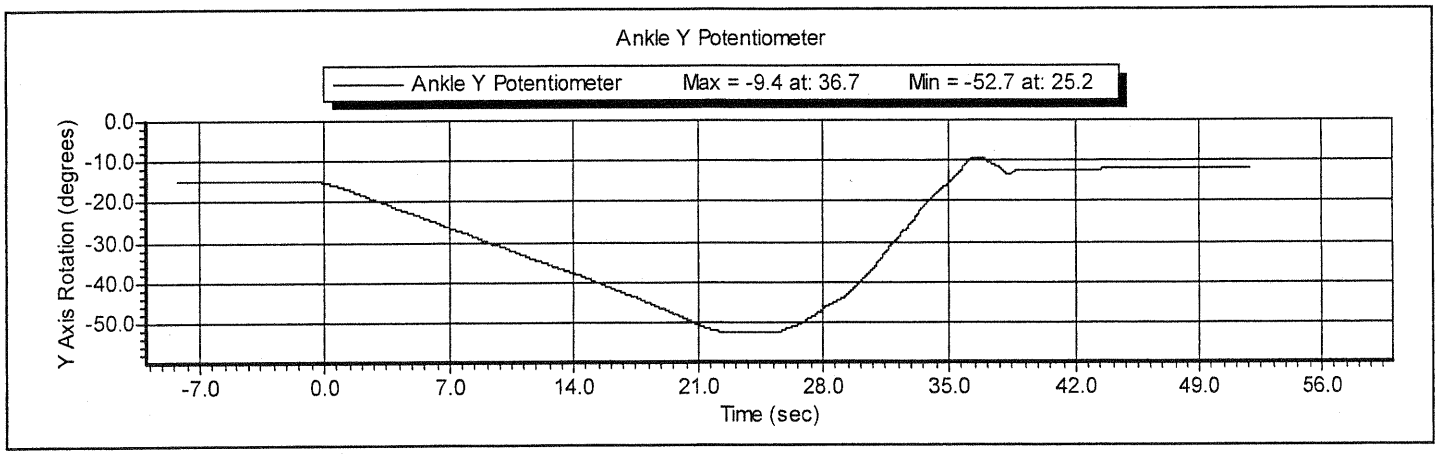


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



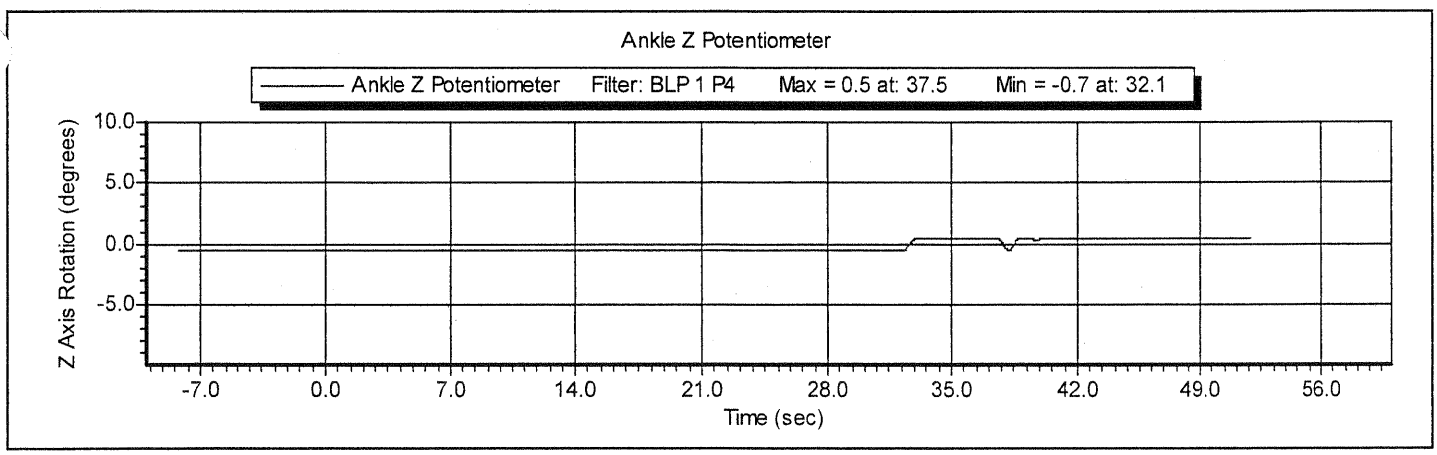


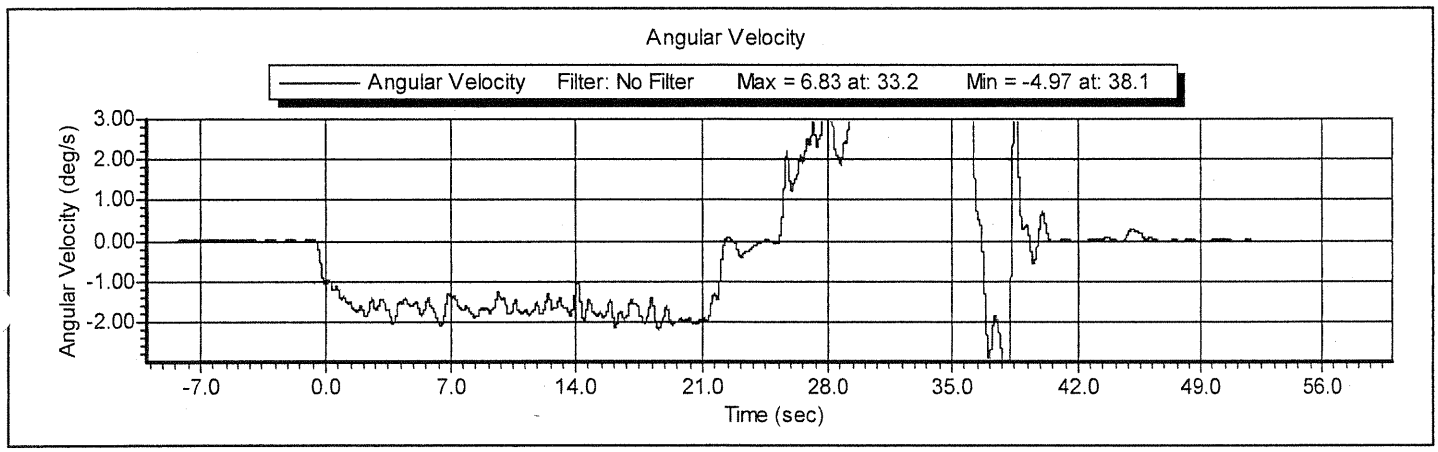


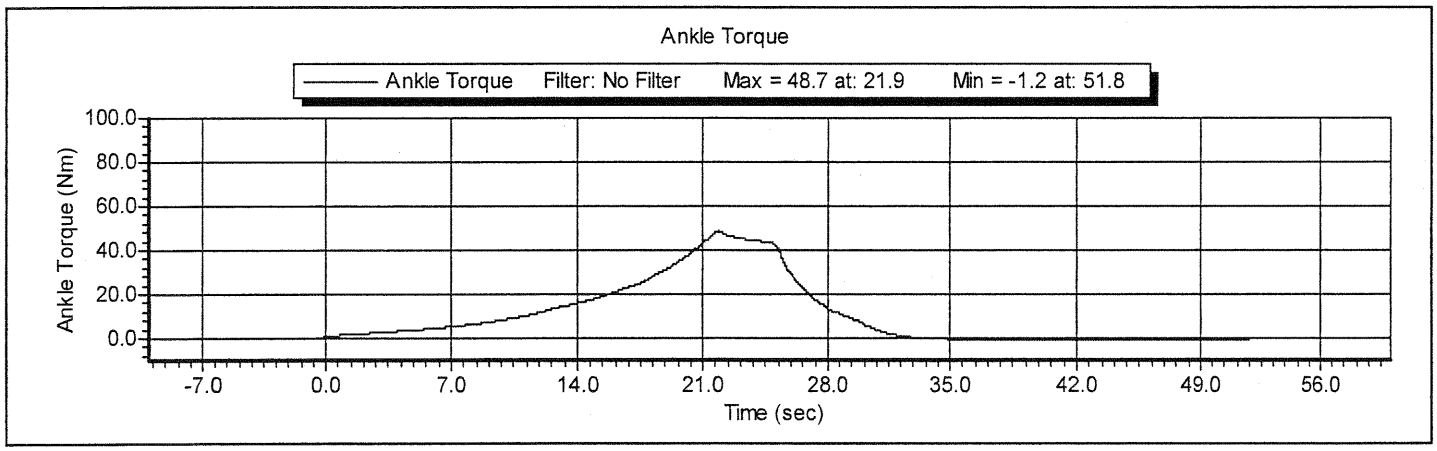
Test ID: **PZ0046-1** Test Time: **5:23:06 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PZ0046-1** Test Time: **5:23:06 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Ball of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P10046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**3:52:26 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL

Test Parameters	Test Specifications			Test Results		
Temperature	20.6	--	22.2	**21.5**	deg C	P
Humidity	10.0	--	70.0	**39.0**	%RH	P
Velocity	4.90	--	5.10	**5.00**	m/s	P
Peak Lower Tibia Compressive Force	3058.00	--	3738.00	**-3391.38**	N	P
Peak Ankle Resistive Moment	76.2	--	93.2	**86.1**	Nm	P
DESIGN REFERENCE GUIDELINES		--				P
Lower Tibia My peak between -15 - 0 deg	74.1	--	90.5	**-83.9**	Nm	P
Lower Tibia My peak between 0 - 15 deg	71.3	--	87.1	**77.3**	Nm	P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

Manufacturer	Model	Serial Number	Calibration Date
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
DentonATD	T1AKM060	7921-0525	9/13/2006
DentonATD	T1AKM060	7921-0524	9/13/2006
DentonATD	T1AKM060	7921-0523	9/13/2006
Endevco	7264-2000	J40071	11/2/2005

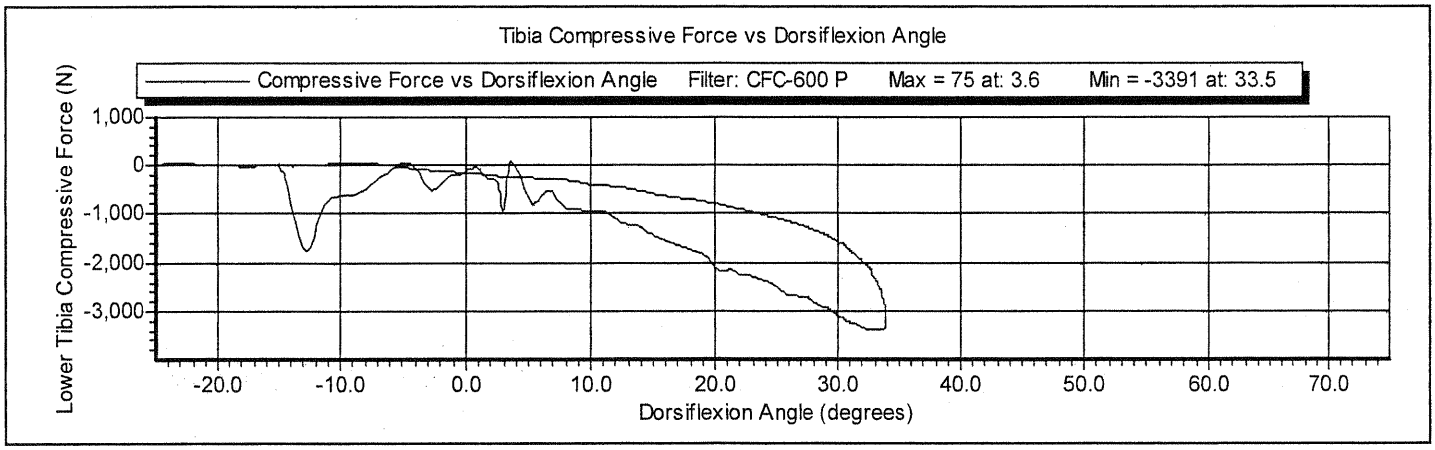
Test ID: **P10046-1** Test Time: **3:52:26 PM** Test Date: **9/21/2006**

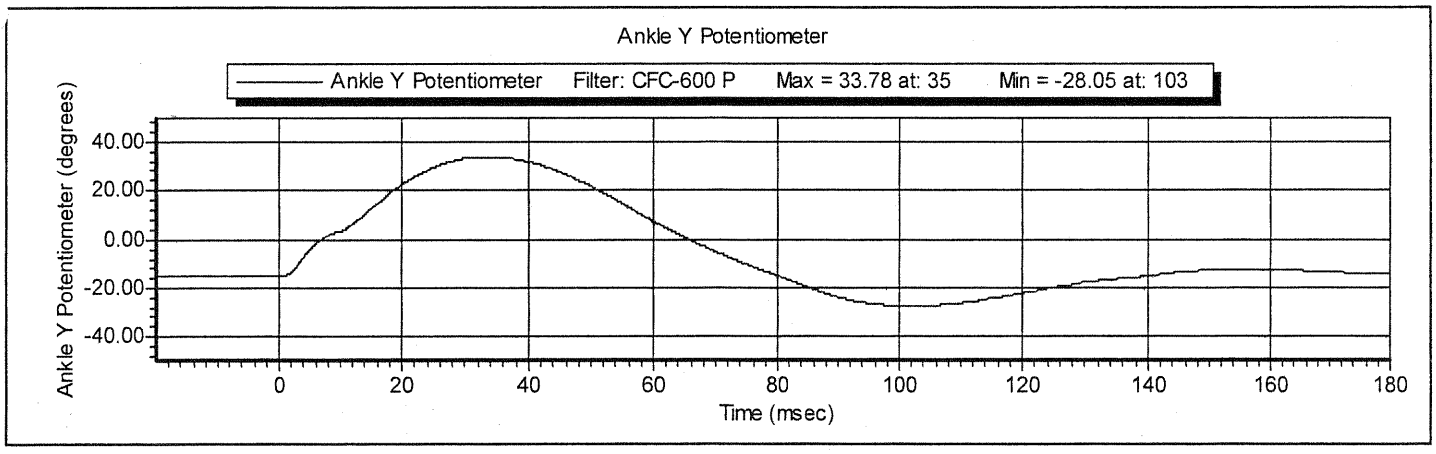
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

C-53 070222

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

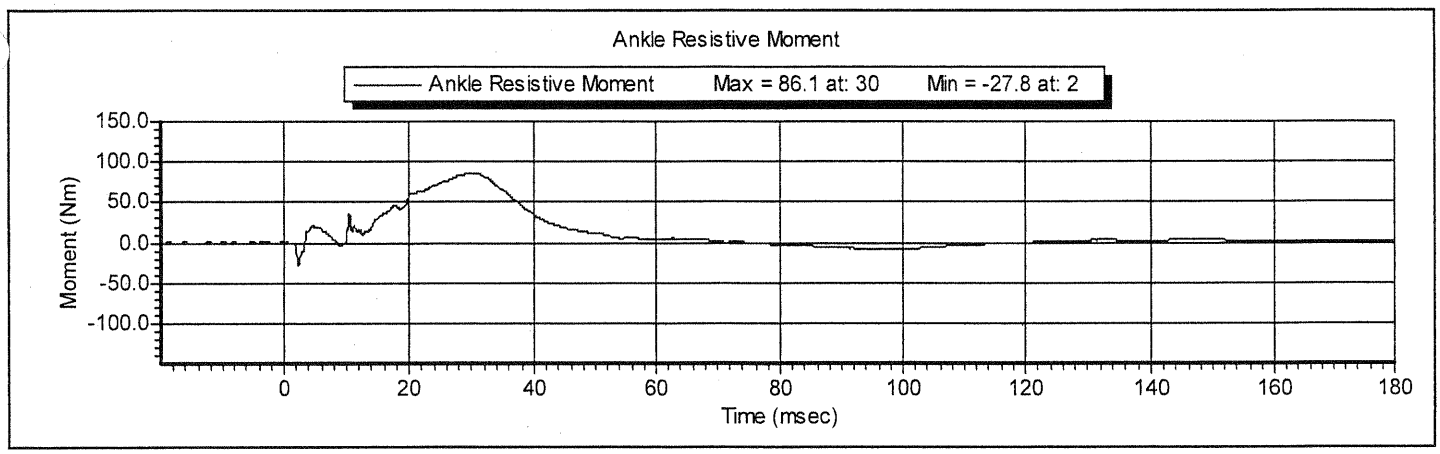
Test Name:	**Ball of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P10046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**3:52:26 PM**

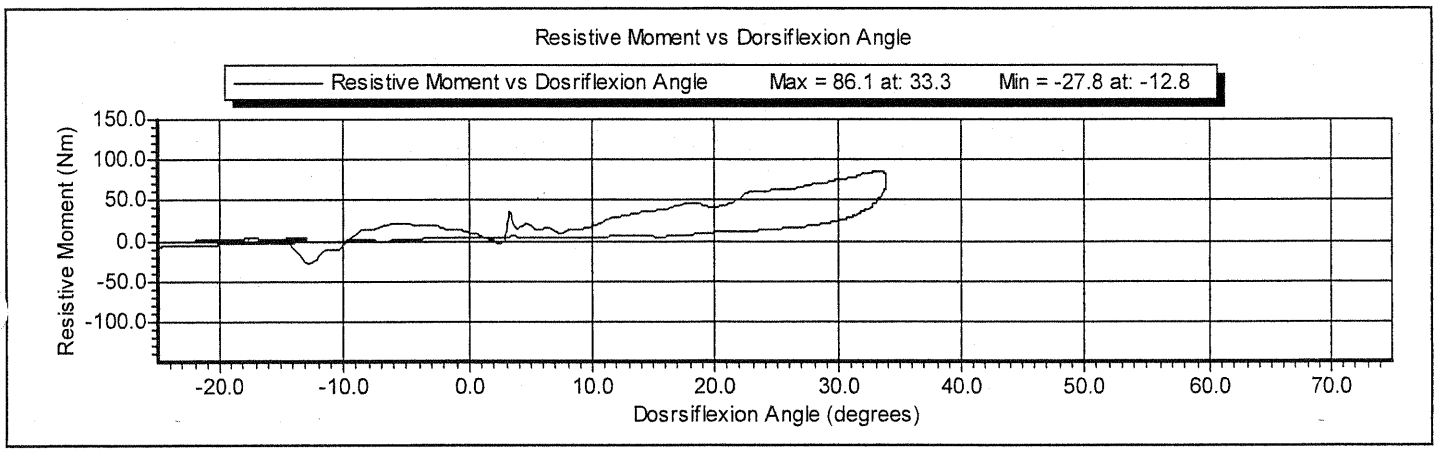


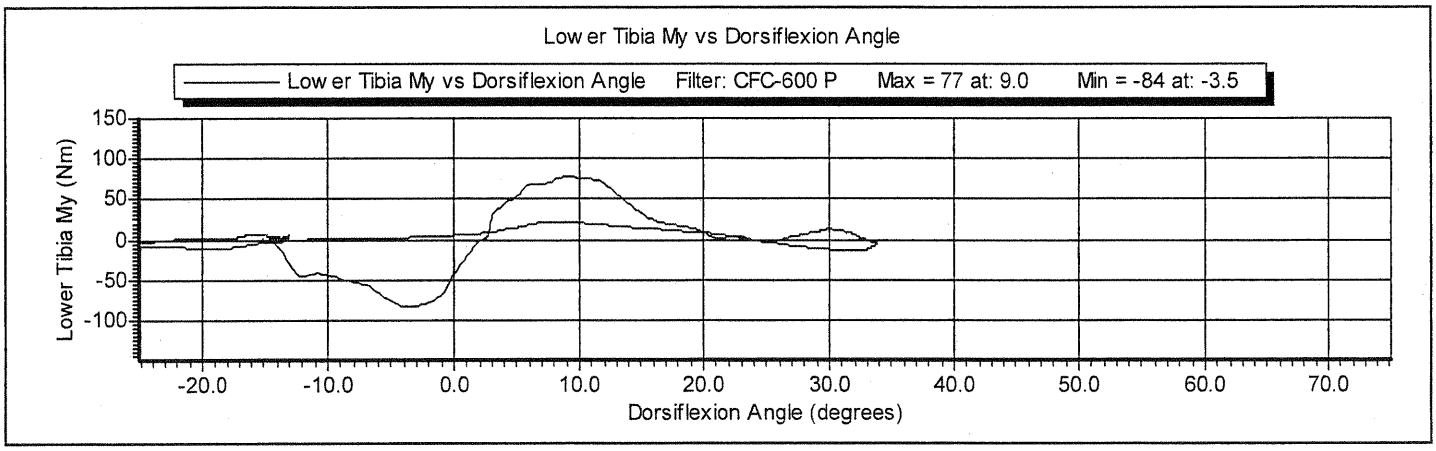


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



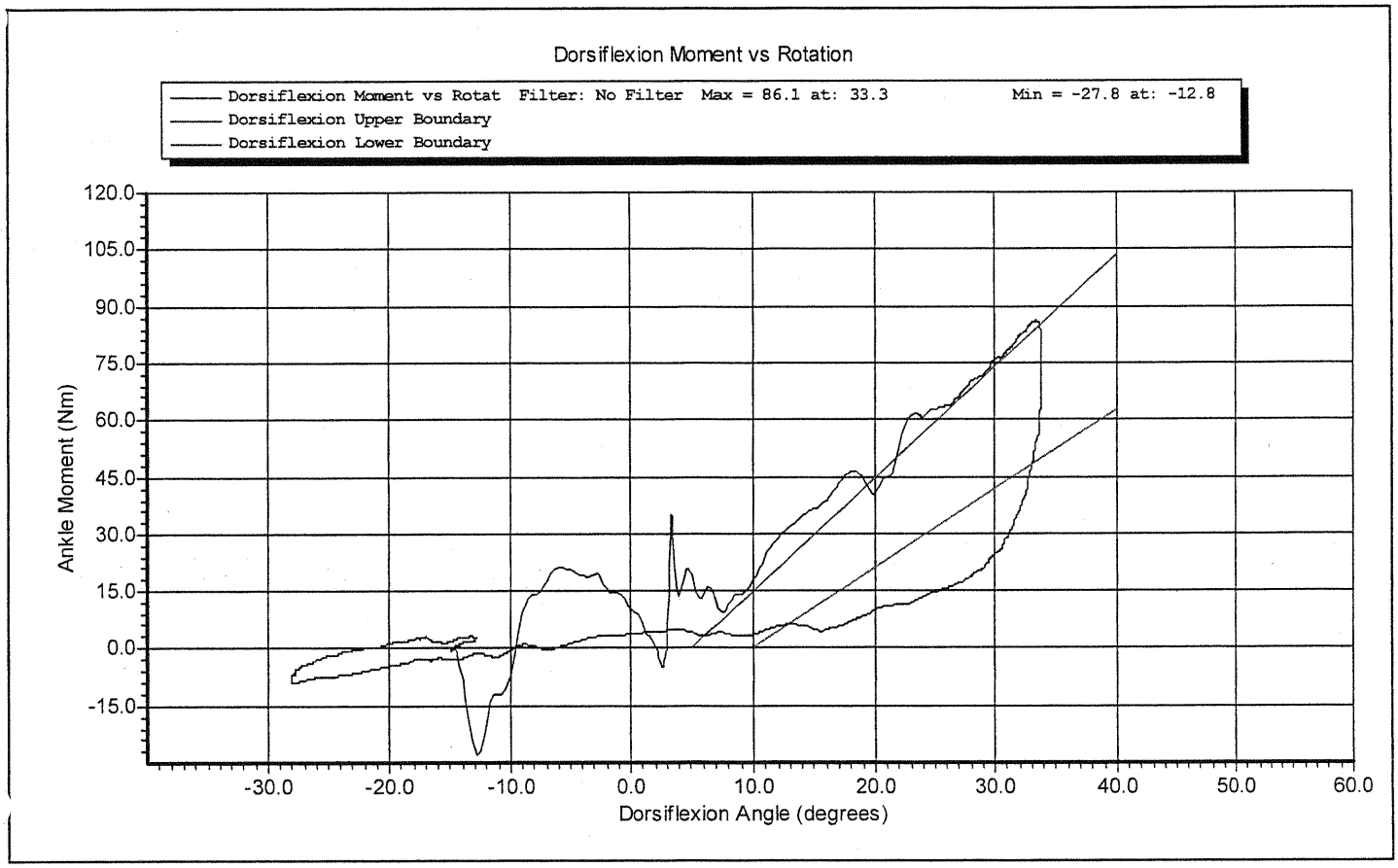




Test ID: **P10046-1** Test Time: **3:52:26 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P10046-1** Test Time: **3:52:26 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Heel of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P20046-3**	Test Date:	**9/21/2006**
Test Number:	**3**	Test Time:	**3:03:32 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL

NEW UPPER TIBIA ELEMENT

Test Parameters	Test Specifications		Test Results	
Temperature	20.6 -- 22.2		**22.0** deg C	P
Humidity	10.0 -- 70.0		**41.0** %RH	P
Velocity	3.90 -- 4.10		**3.99** m/s	P
Peak Lower Tibia Fz Force	2694 -- 3292		**-2910** N	P
DESIGN REFERENCE GUIDELINES	--			P
Axial Impulse Loss	2.71 -- 3.33		**-2.70** N-sec	F

All test parameters are NOT within specifications

Technician: J RANG

Approved By:

Test ID: **P20046-3** Test Time: **3:03:32 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

Manufacturer	Model	Serial Number	Calibration Date
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
DentonATD	T1AKM060	7921-0525	9/13/2006
DentonATD	T1AKM060	7921-0524	9/13/2006
DentonATD	T1AKM060	7921-0523	9/13/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Endevco	7264-2000	J40071	11/2/2005

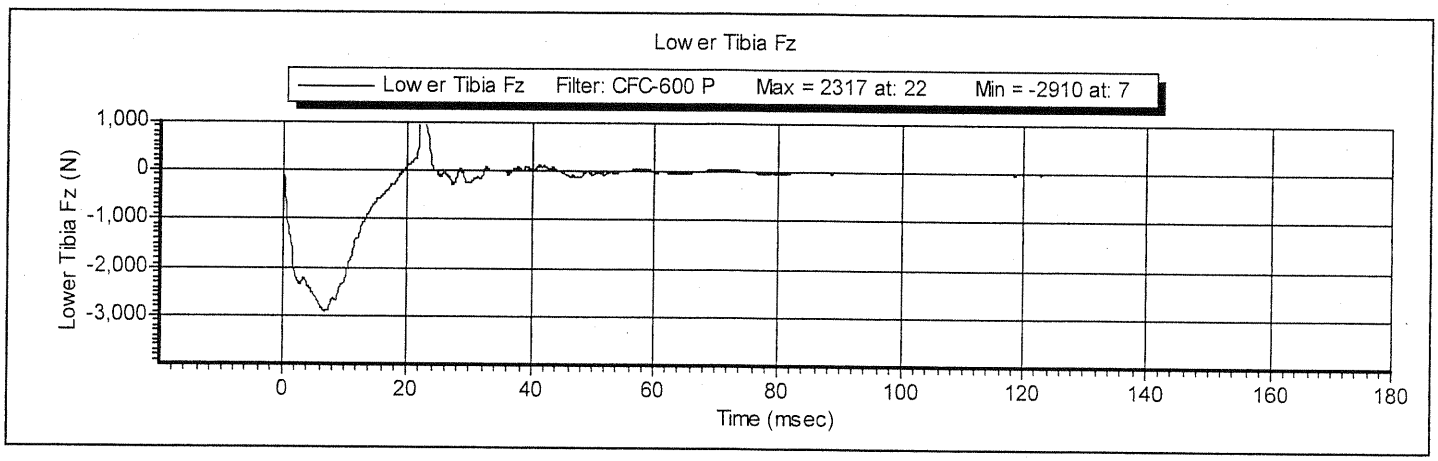
Test ID: **P20046-3** Test Time: **3:03:32 PM** Test Date: **9/21/2006**

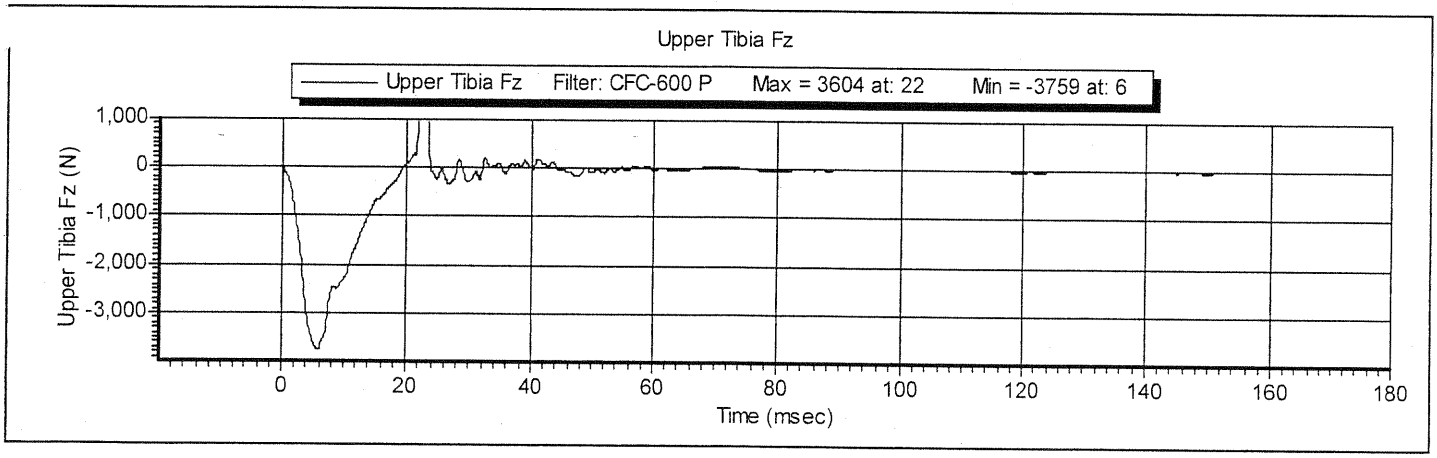
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

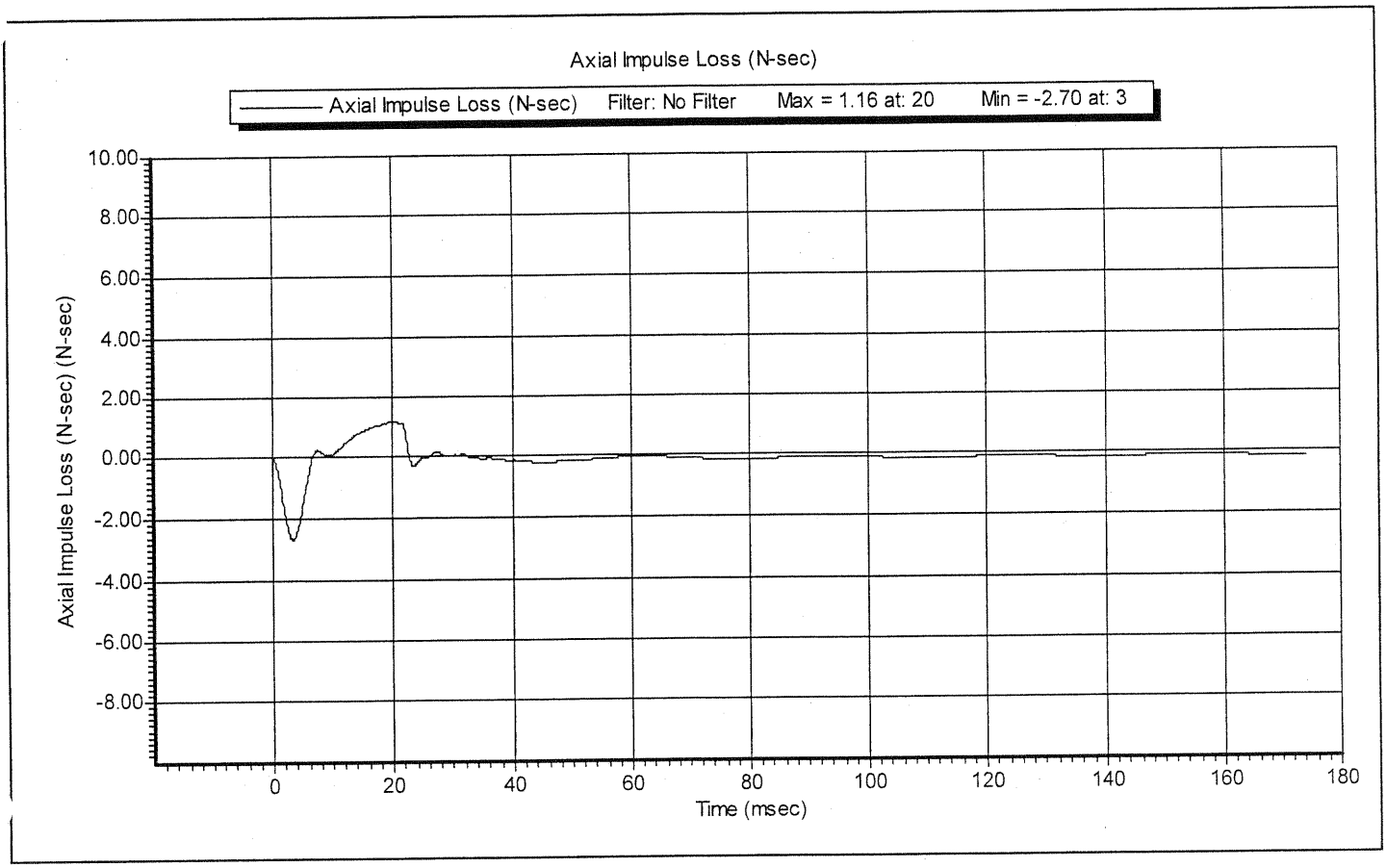
Test Name:	**Heel of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P20046-3**	Test Date:	**9/21/2006**
Test Number:	**3**	Test Time:	**3:03:32 PM**





Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P20046-3** Test Time: **3:03:32 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaq® Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Heel of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P20046-4**	Test Date:	**9/21/2006**
Test Number:	**4**	Test Time:	**3:34:44 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0046A**

Comments:
LEFT LEG - RE'CAL

NEW UPPER TIBIA ELEMENT

Test Parameters	Test Specifications			Test Results		
Temperature	20.6	--	22.2	**21.5**	deg C	P
Humidity	10.0	--	70.0	**40.0**	%RH	P
Velocity	3.90	--	4.10	**3.99**	m/s	P
Peak Lower Tibia Fz Force	2694	--	3292	**-2967**	N	P
DESIGN REFERENCE GUIDELINES		--				P
Axial Impulse Loss	2.71	--	3.33	**-2.72**	N-sec	P

All test parameters are within specifications

Technician: J RANG

Approved By:

Test ID: **P20046-4** Test Time: **3:34:44 PM** Test Date: **9/21/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

Manufacturer	Model	Serial Number	Calibration Date
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
DentonATD	T1AKM060	7921-0525	9/13/2006
DentonATD	T1AKM060	7921-0524	9/13/2006
DentonATD	T1AKM060	7921-0523	9/13/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Endevco	7264-2000	J40071	11/2/2005

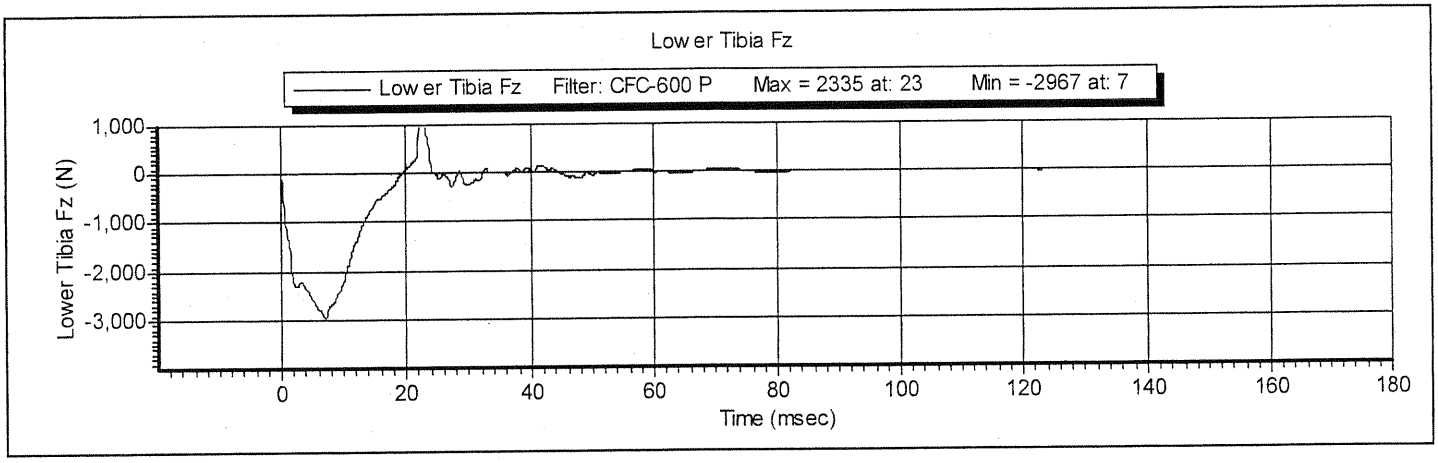
Test ID: **P20046-4** Test Time: **3:34:44 PM** Test Date: **9/21/2006**

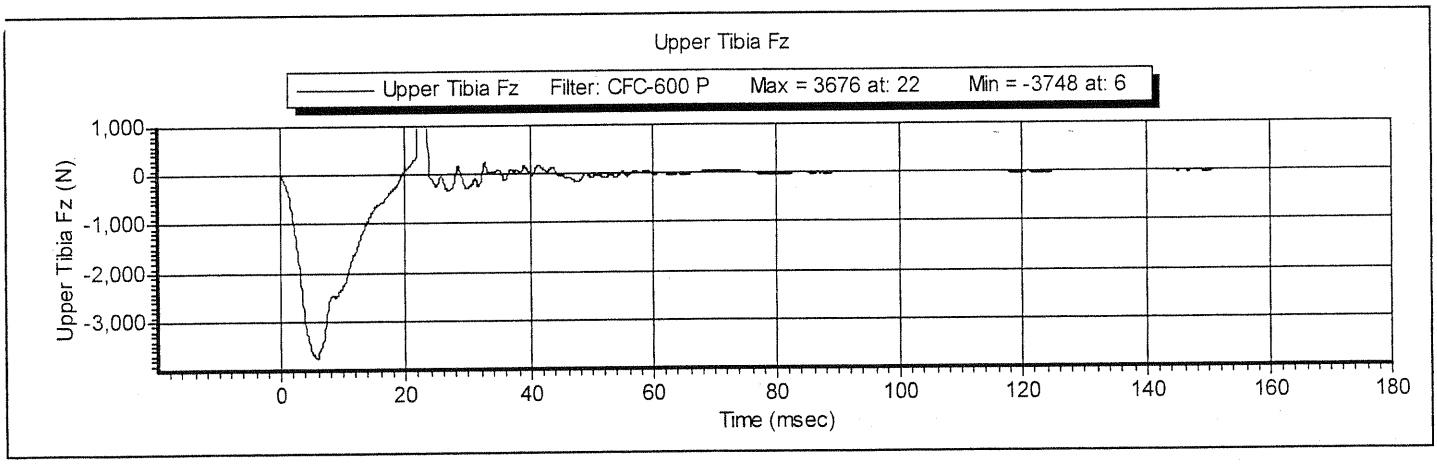
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

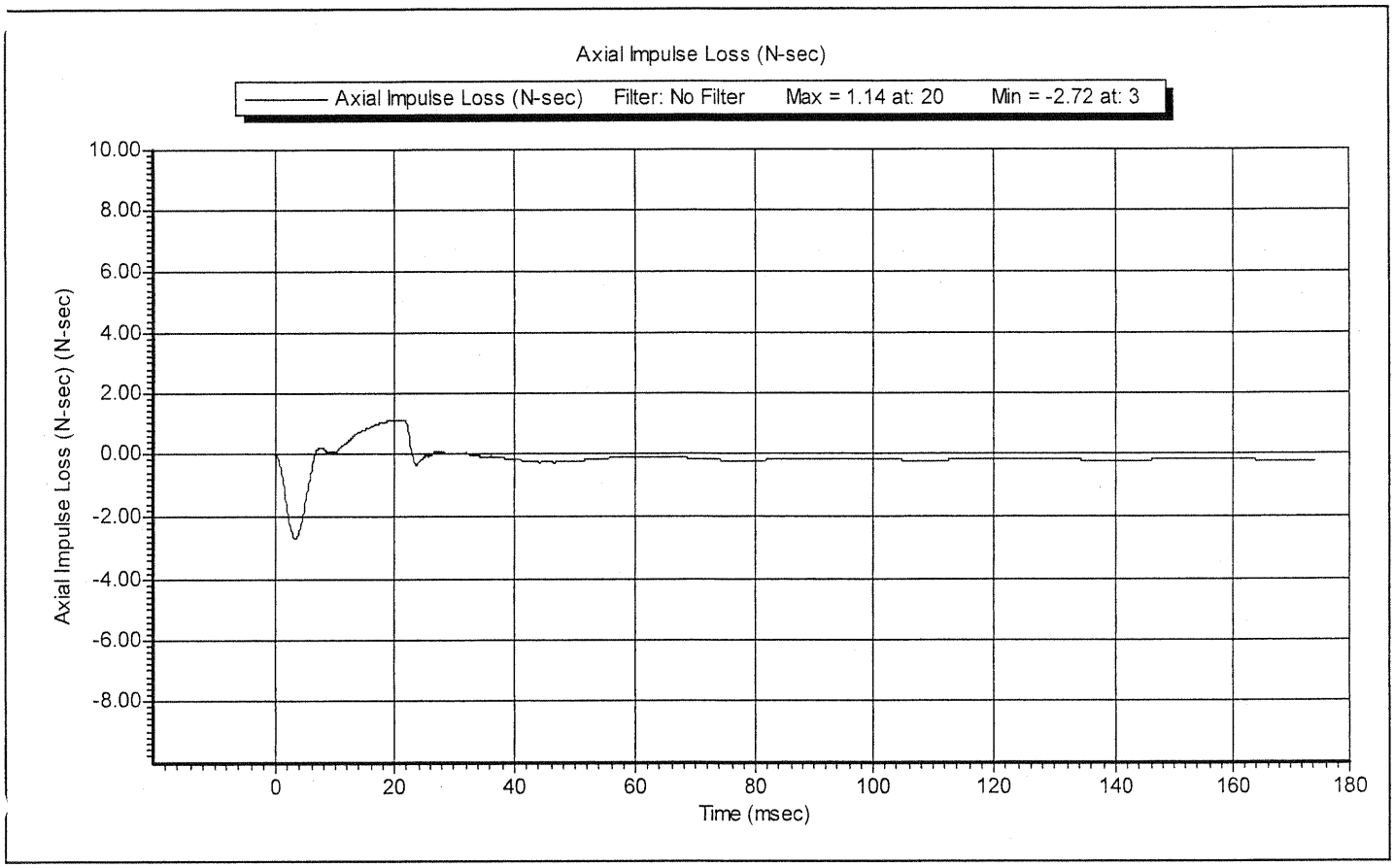
Test Name:	**Heel of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P20046-4**	Test Date:	**9/21/2006**
Test Number:	**4**	Test Time:	**3:34:44 PM**





Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P20046-4** Test Time: **3:34:44 PM** Test Date: **9/21/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Potentiometer Calibration**	Revision:	**6/23/2004**
Sub Test Name:	**T1AKM060 Rotary Pot**	Spec Type:	**Internal**
Dummy Type:	**General**		
Dummy Serial Number:	**2116 0045A**		
Test ID:	**7921-0528**	Test Date:	**9/13/2006**
Test Number:	**1**	Test Time:	**10:30:06 PM**

Component Part Number	Component Serial Number
T1AKM060	**7921 0528**

Comments:
X - AXIS
RIGHT LEG - RECAL

Test Parameters		Test Specifications			Test Results		
Calibration Range		149	--	151	**150**	degrees	P
Linearity Over Calibration Range		-0.85	--	0.85	**-0.165**	%F.S.	P
Linearity Over Calibration Range		-1.280	--	1.280	**-0.248**	degrees	P
Slope		-65	--	65	**-15.75**	Deg/V	P
Slope Coefficient		0.29	--	0.35	**-0.3150**	Deg/mV/V	P
Position Repeatability at	15	-0.50	--	0.50	**0.03**	degrees	P
Position Repeatability at	0	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	-15	-0.50	--	0.50	**0.00**	degrees	P

All test parameters are within specifications

Technician: J RANG

Approved By:

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Potentiometer Calibration**	Revision:	**6/23/2004**
Sub Test Name:	**T1AKM060 Rotary Pot**	Spec Type:	**Internal**
Dummy Type:	**General**		
Dummy Serial Number:	**2116 0045A**		
Test ID:	**7921-0526**	Test Date:	**9/13/2006**
Test Number:	**1**	Test Time:	**10:06:58 PM**

Component Part Number	Component Serial Number
T1AKM060	**7921 0526**

Comments:
Y - AXIS
RIGHT LEG - RE'CAL

Test Parameters		Test Specifications			Test Results		
Calibration Range		149	--	151	**150**	degrees	P
Linearity Over Calibration Range		-0.85	--	0.85	**-0.195**	%F.S.	P
Linearity Over Calibration Range		-1.280	--	1.280	**-0.292**	degrees	P
Slope		-65	--	65	**-15.88**	Deg/V	P
Slope Coefficient		0.29	--	0.35	**-0.3176**	Deg/mV/V	P
Position Repeatability at	15	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	0	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	-15	-0.50	--	0.50	**0.00**	degrees	P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Test ID: **7921-0526** Test Time: **10:06:58 PM** Test Date: **9/13/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Potentiometer Calibration**	Revision:	**6/23/2004**
Sub Test Name:	**T1AKM060 Rotary Pot**	Spec Type:	**Internal**
Dummy Type:	**General**		
Dummy Serial Number:	**2116 0045A**		
Test ID:	**7921-0527**	Test Date:	**9/13/2006**
Test Number:	**1**	Test Time:	**10:18:59 PM**

Component Part Number	Component Serial Number
T1AKM060	**7921 0527**

Comments:
Z - AXIS
RIGHT LEG - RE'CAL

Test Parameters		Test Specifications			Test Results		
Calibration Range		149	--	151	**150**	degrees	P
Linearity Over Calibration Range		-0.85	--	0.85	**-0.163**	%F.S.	P
Linearity Over Calibration Range		-1.280	--	1.280	**-0.245**	degrees	P
Slope		-65	--	65	**-15.78**	Deg/V	P
Slope Coefficient		0.29	--	0.35	**-0.3156**	Deg/mV/V	P
Position Repeatability at	15	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	0	-0.50	--	0.50	**0.00**	degrees	P
Position Repeatability at	-15	-0.50	--	0.50	**0.00**	degrees	P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Test ID: **7921-0527** Test Time: **10:18:59 PM** Test Date: **9/13/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PV0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:20:10 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL
INVERSION

Test Parameters	Test Specifications	Test Results
Temperature	20.6 -- 22.2	**21.3** deg C P
Humidity	10.0 -- 70.0	**40.0** %RH P
Angular Velocity	1.00 -- 2.00	**1.41** deg/s P
Angle at 6 Nm	17.5 -- 21.3	**19.2** degrees P
Angle at 23 Nm	29.3 -- 35.9	**30.3** degrees P

All test parameters are within specifications

Technician: **J RANG**

Approved By:

Test ID: **PV0045-1** Test Time: **4:20:10 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

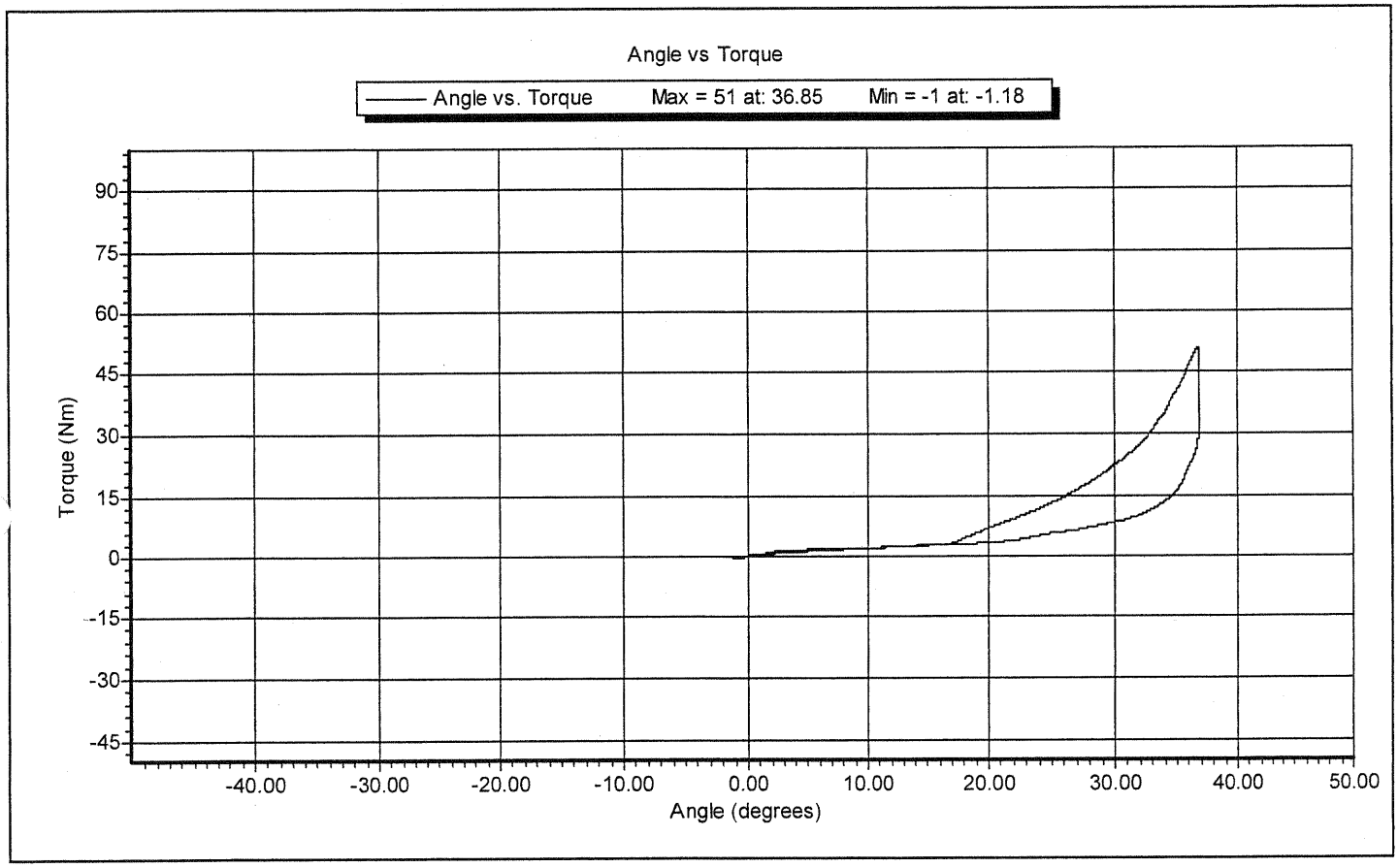
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0528**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0526**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0527**	**9/13/2006**

Test ID: **PV0045-1** Test Time: **4:20:10 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

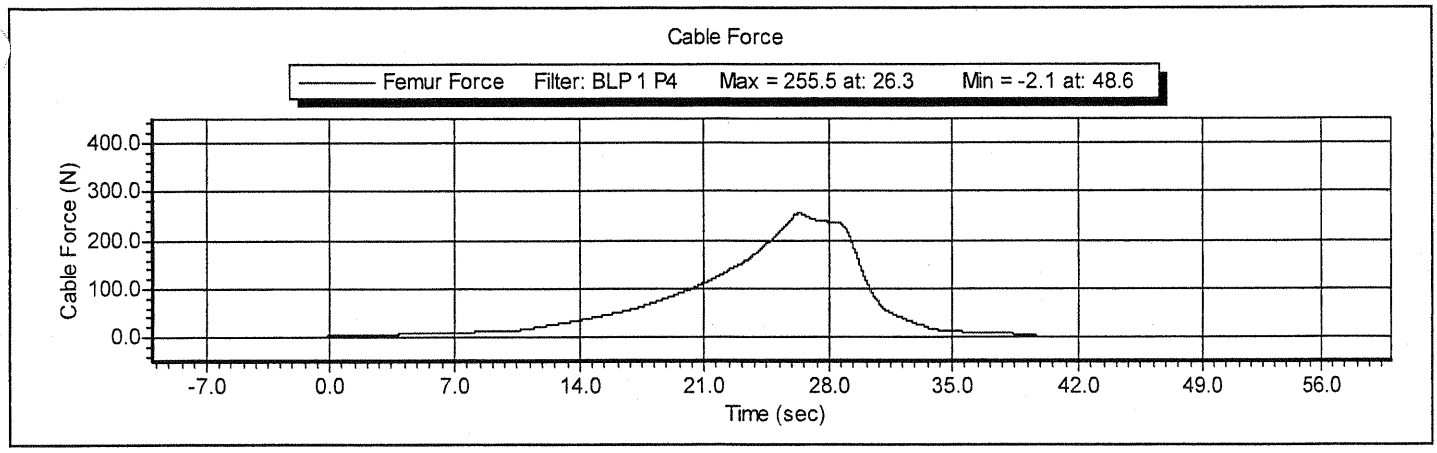
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

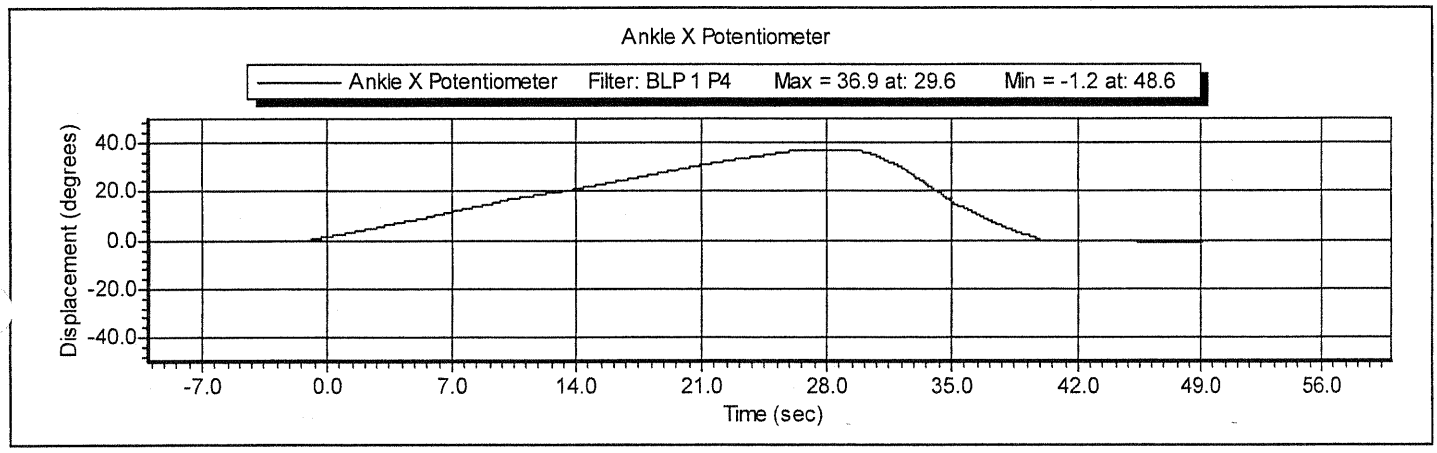
Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PV0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:20:10 PM**

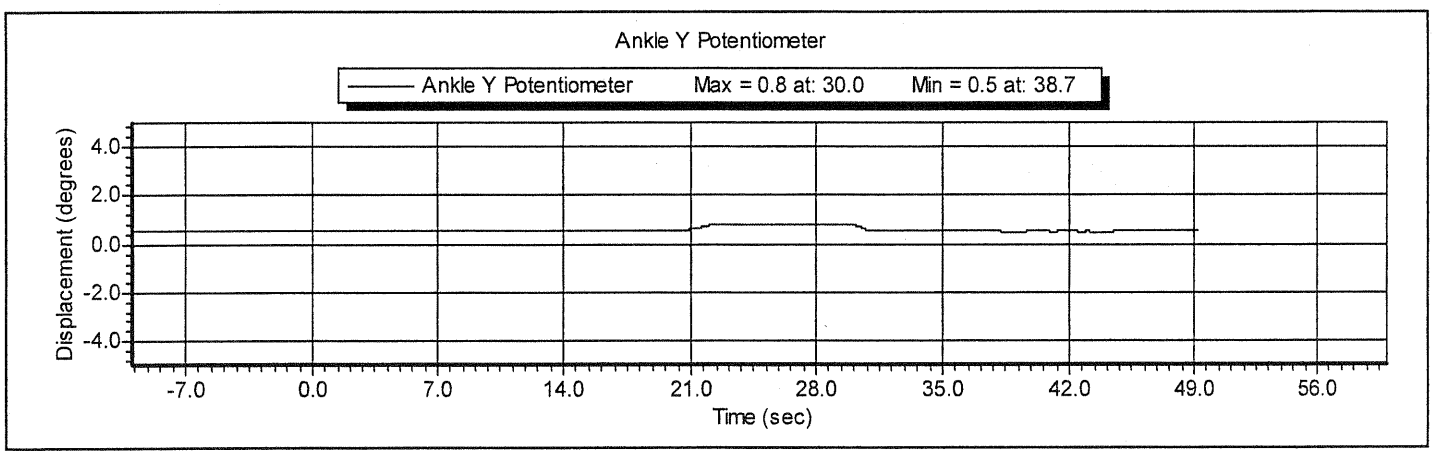


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com





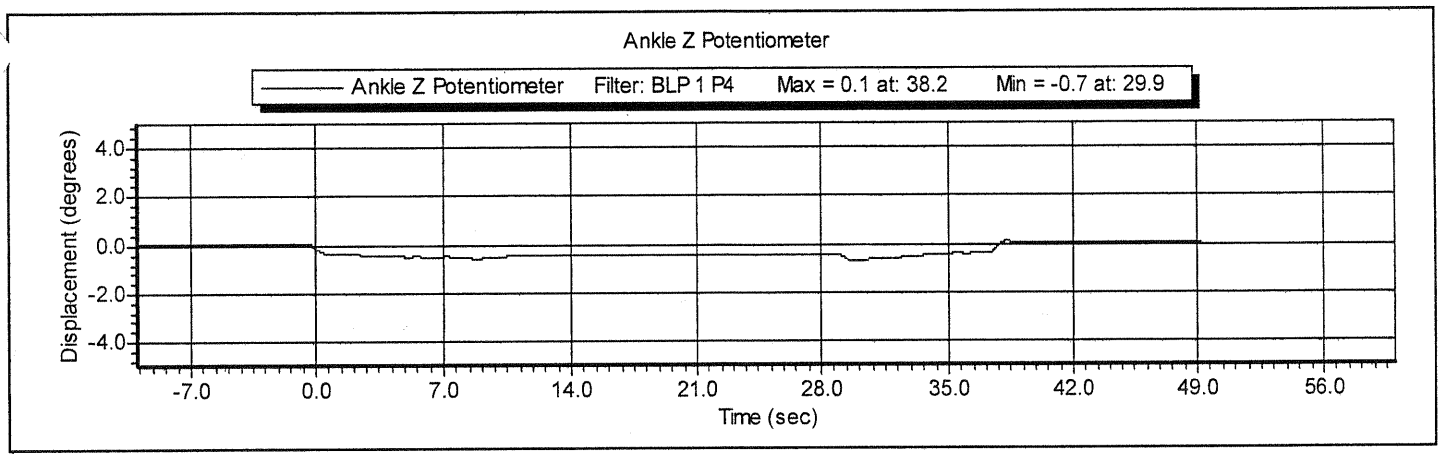


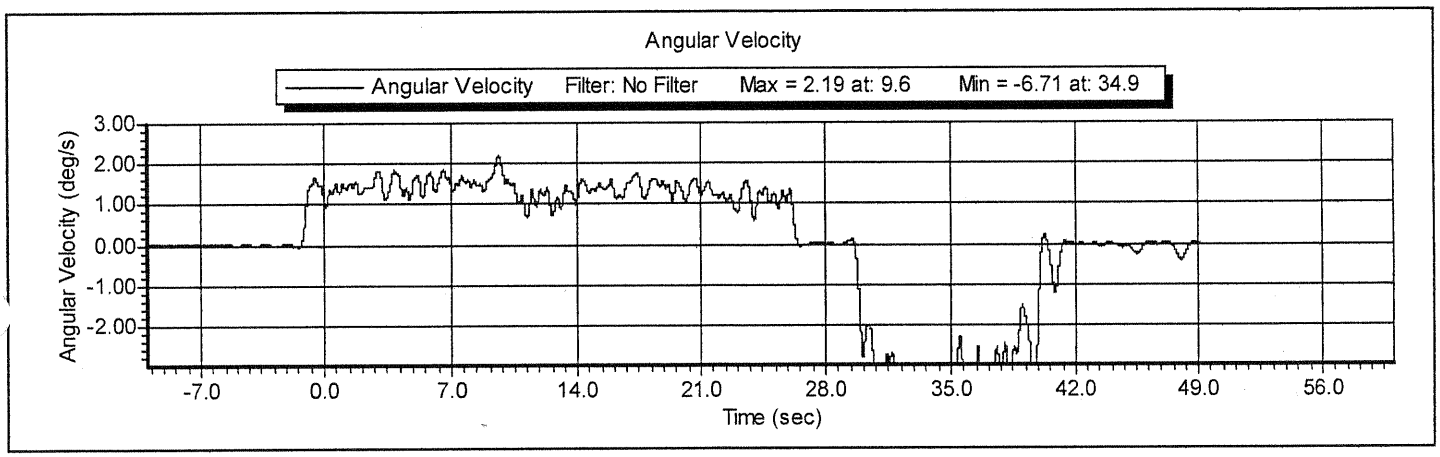
Test ID: **PV0045-1** Test Time: **4:20:10 PM** Test Date: **9/20/2006**

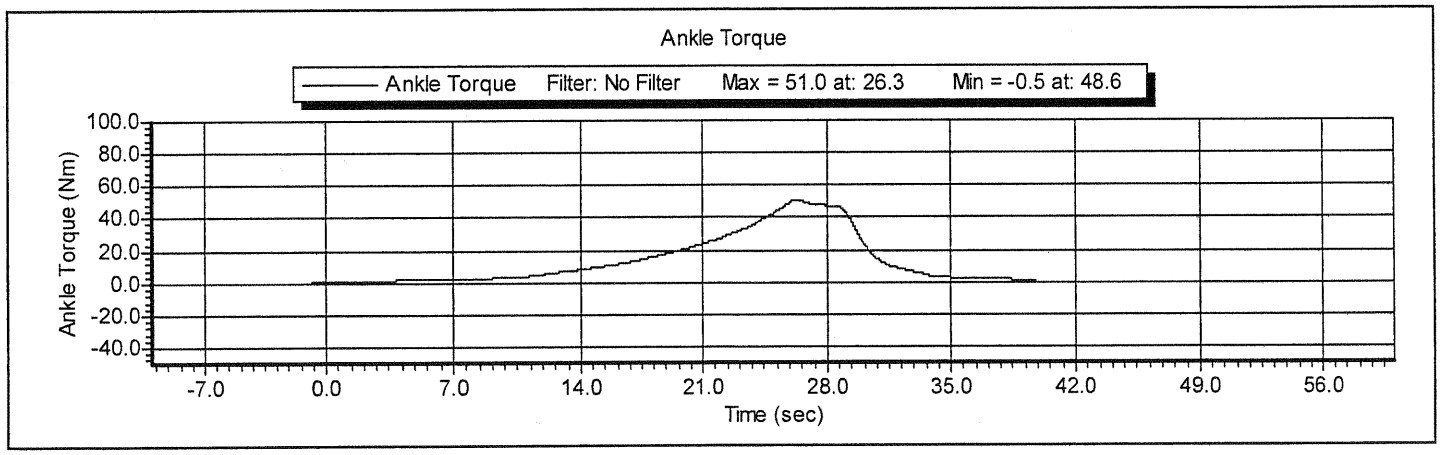
Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

970222

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PV0045-1** Test Time: **4:20:10 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PW0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:29:17 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL
EVERSION

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**21.3** deg C	P
Humidity	10.0 -- 70.0	**39.0** %RH	P
Angular Velocity	1.00 -- 2.00	**-1.54** deg/s	P
Angle at 6 Nm	17.5 -- 21.3	**-19.6** degrees	P
Angle at 23 Nm	29.3 -- 35.9	**-31.1** degrees	P

All test parameters are within specifications

Technician: **J RANG**

Approved By: _____

Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

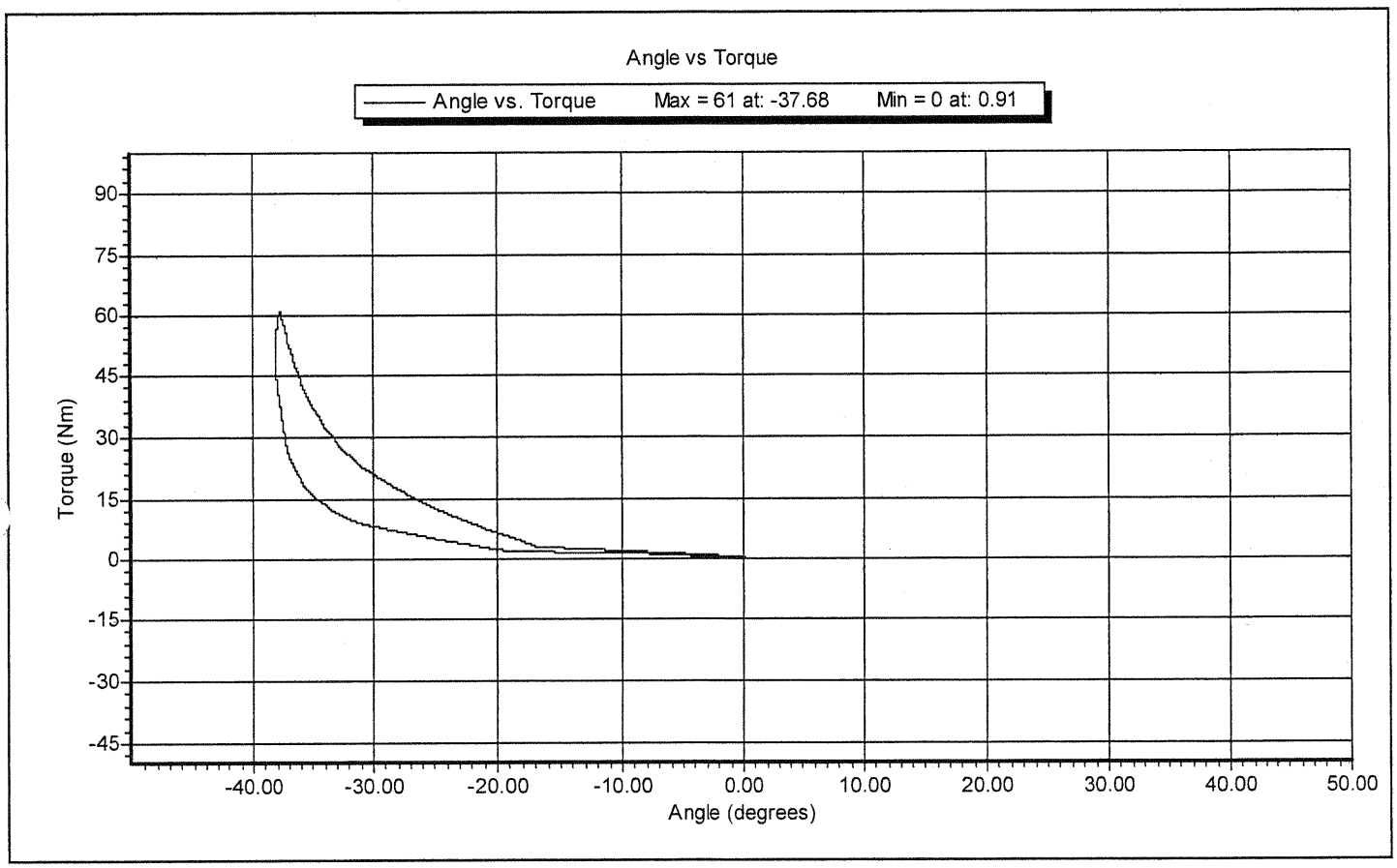
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0528**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0526**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0527**	**9/13/2006**

Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

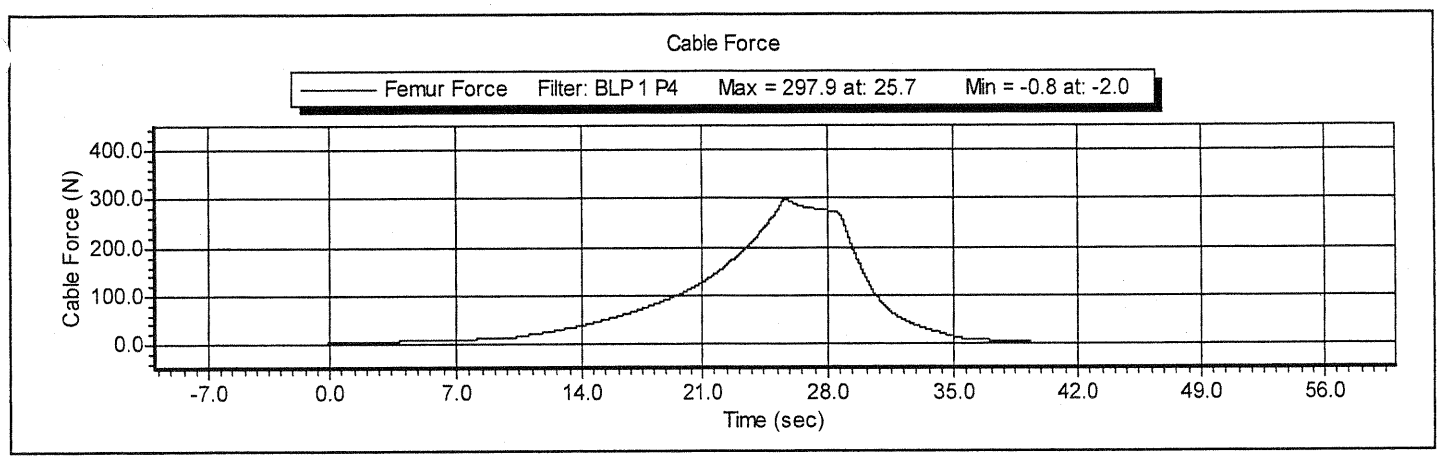
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

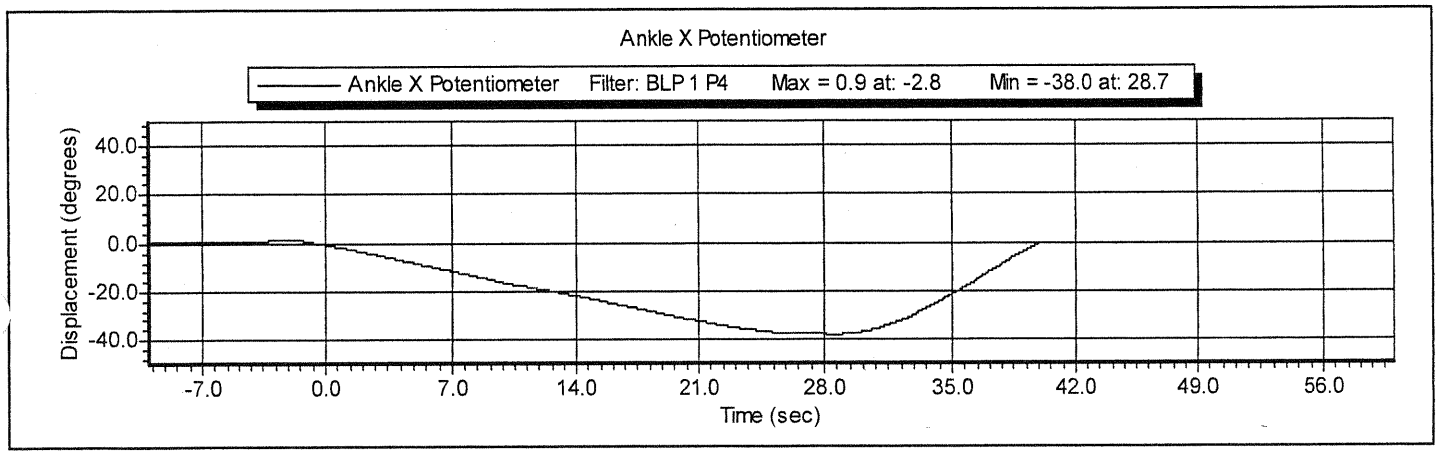
Test Name:	**Inversion/Eversion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PW0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:29:17 PM**

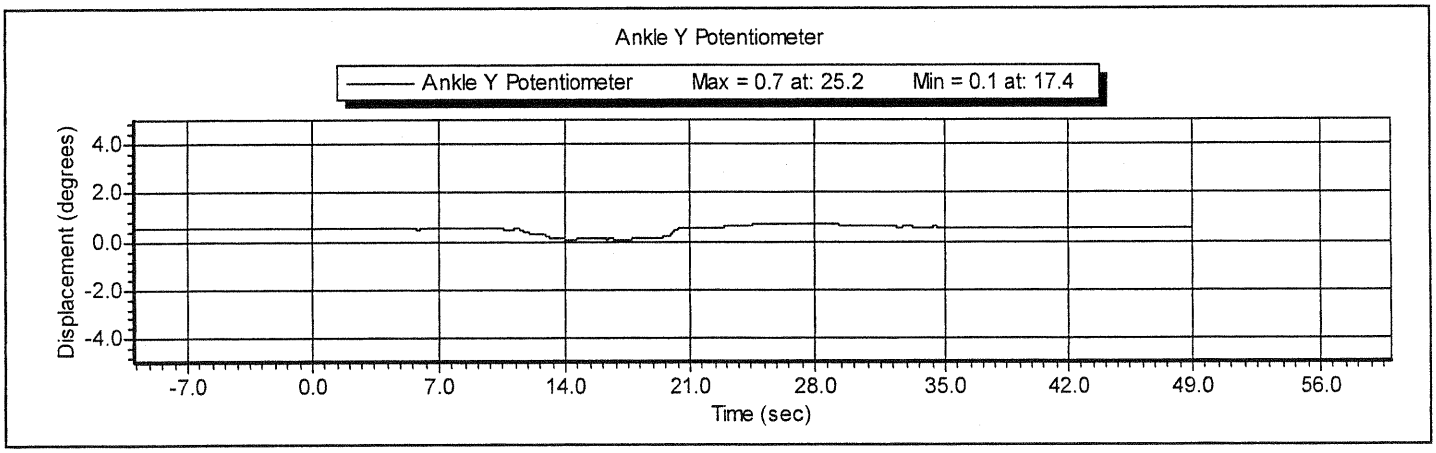


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



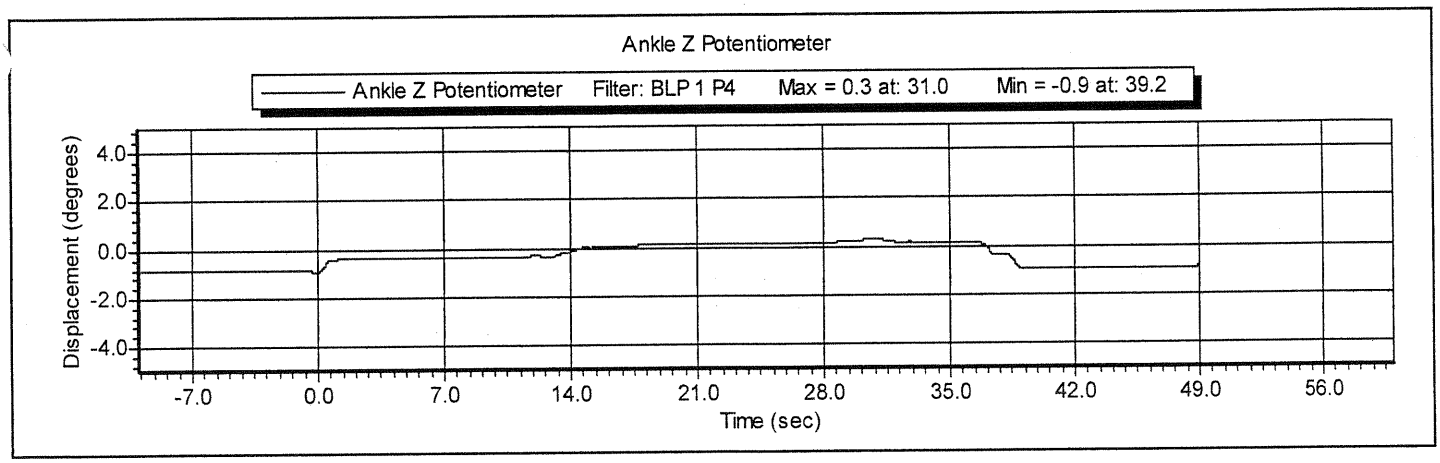


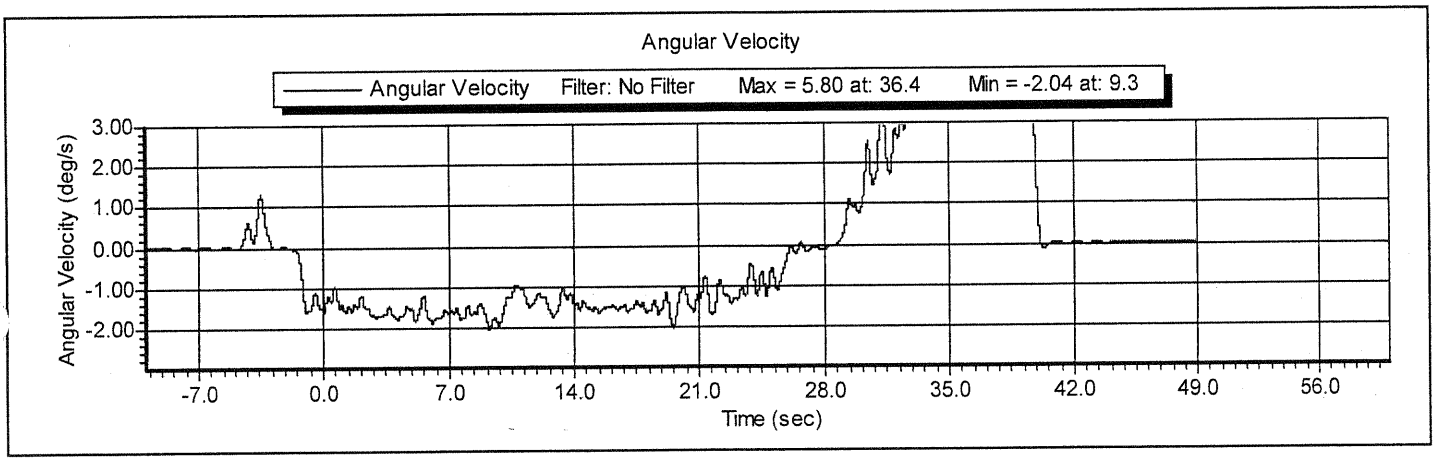


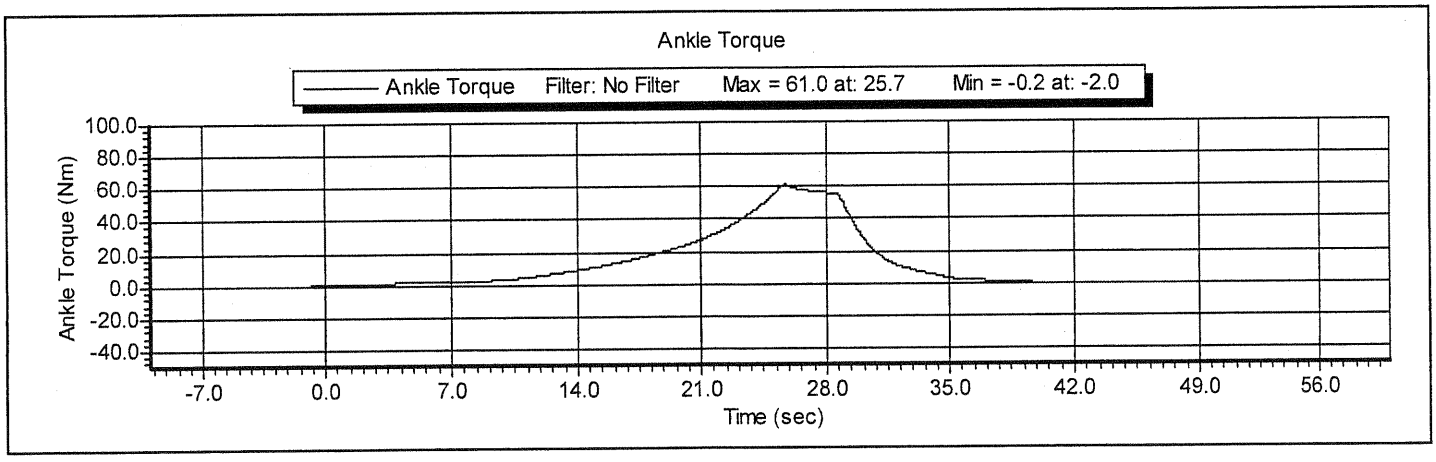
Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaq Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Dorsi-Flexion with Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PY0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:38:49 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**21.2** deg C	P
Humidity	10.0 -- 70.0	**39.0** %RH	P
Angular Velocity	1.00 -- 2.00	**1.31** deg/s	P
DESIGN REFERENCE GUIDELINES	--		P
Angle at 40 Nm	16.3 -- 19.9	**14.1** degrees	F
Angle at 92 Nm	33.4 -- 40.8	**29.9** degrees	F

All test parameters are NOT within specifications

Technician: **J RANG**

Approved By:

Test ID: **PY0045-1** Test Time: **4:38:49 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

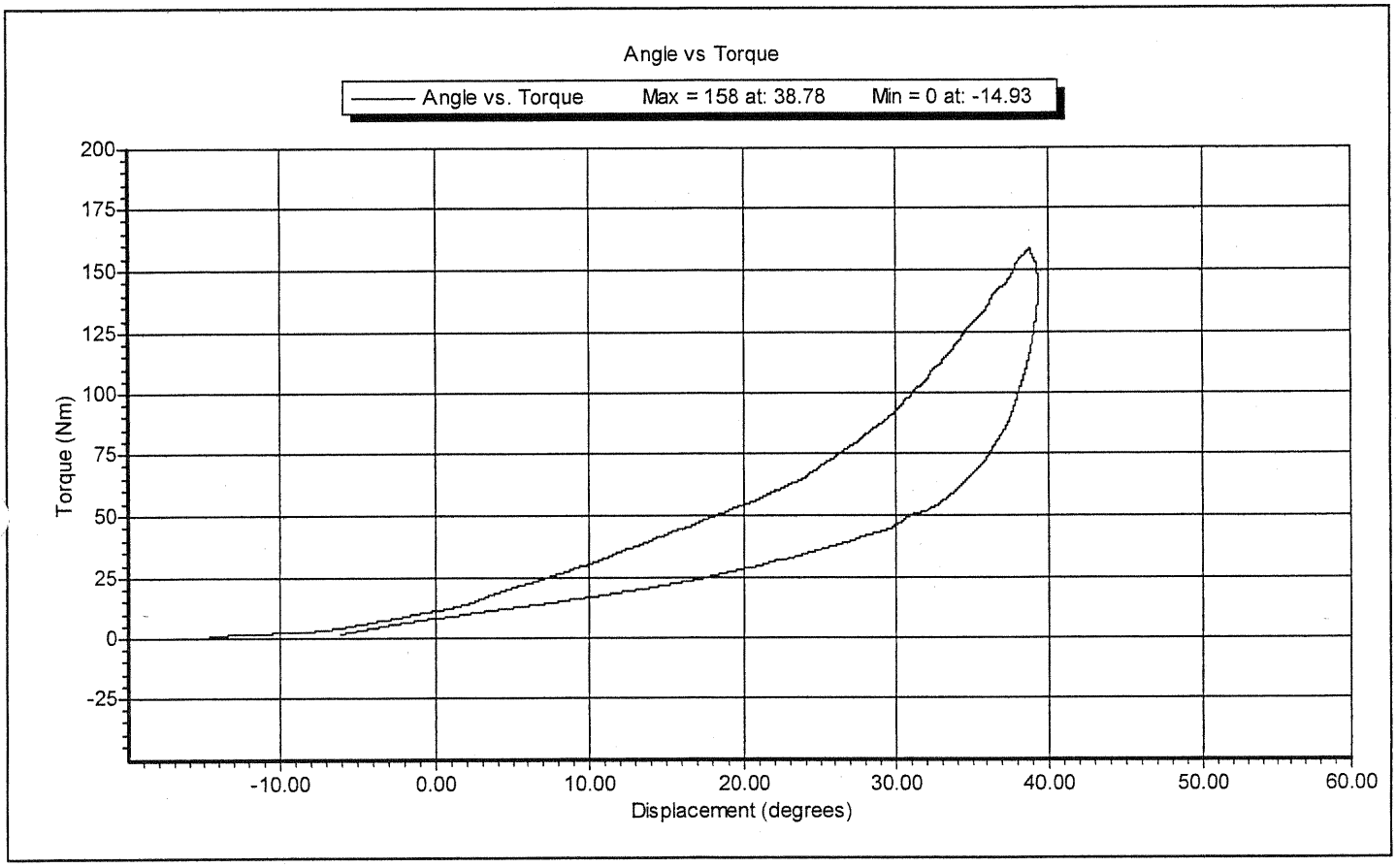
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0528**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0526**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0527**	**9/13/2006**

Test ID: **PY0045-1** Test Time: **4:38:49 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

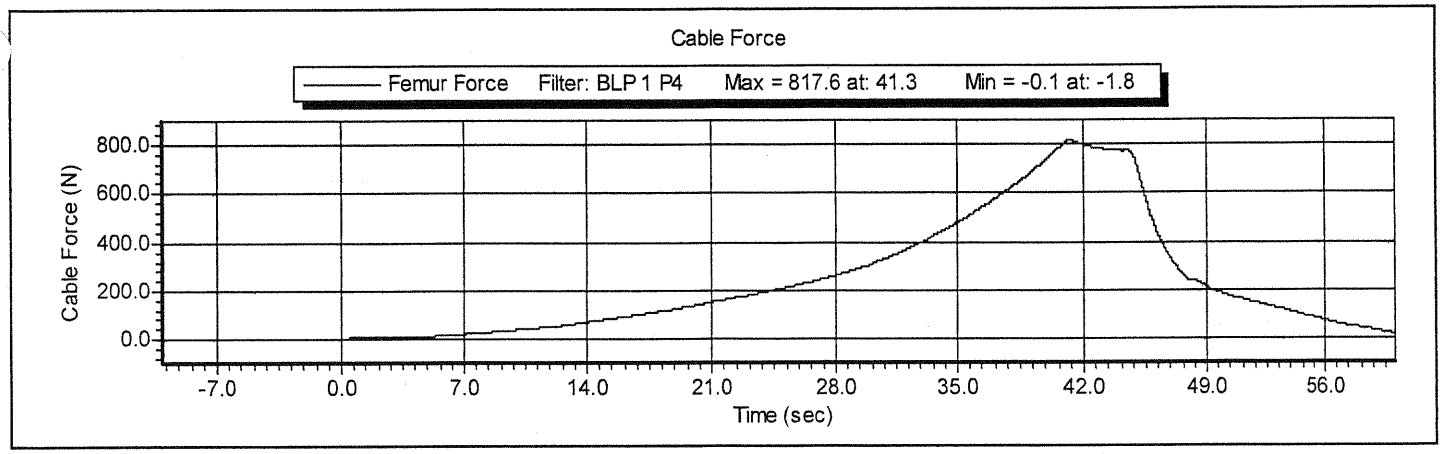
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

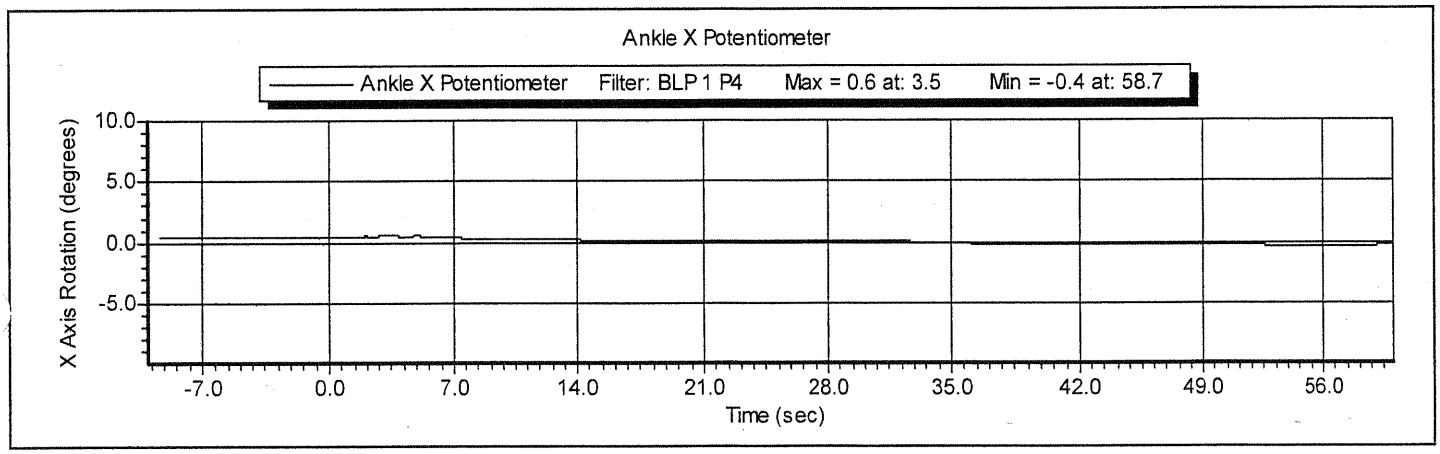
Test Name:	**Dorsi-Flexion with Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PY0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:38:49 PM**

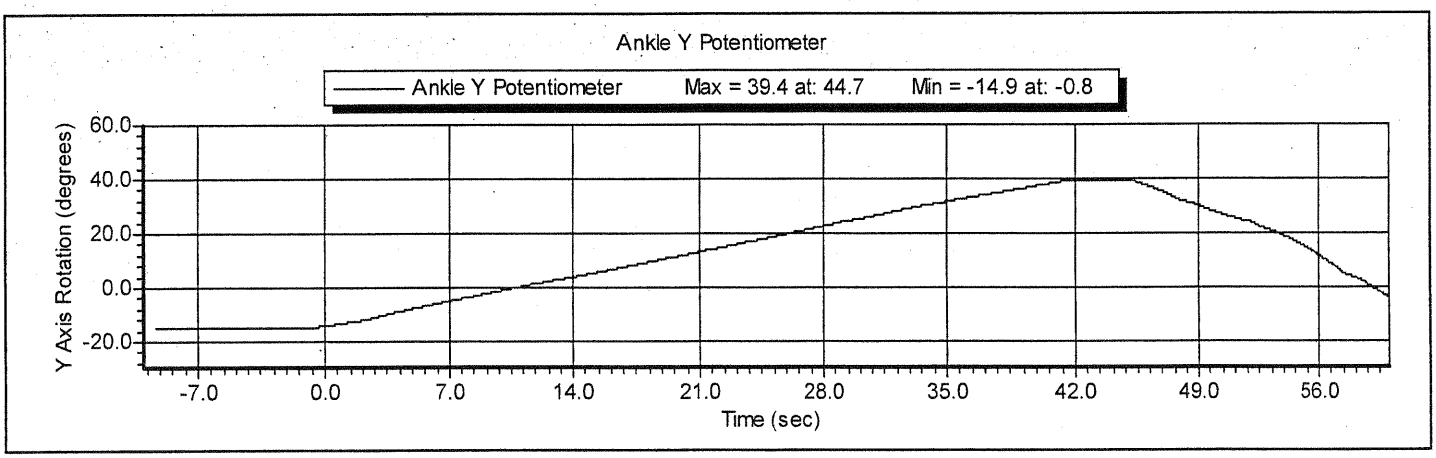


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



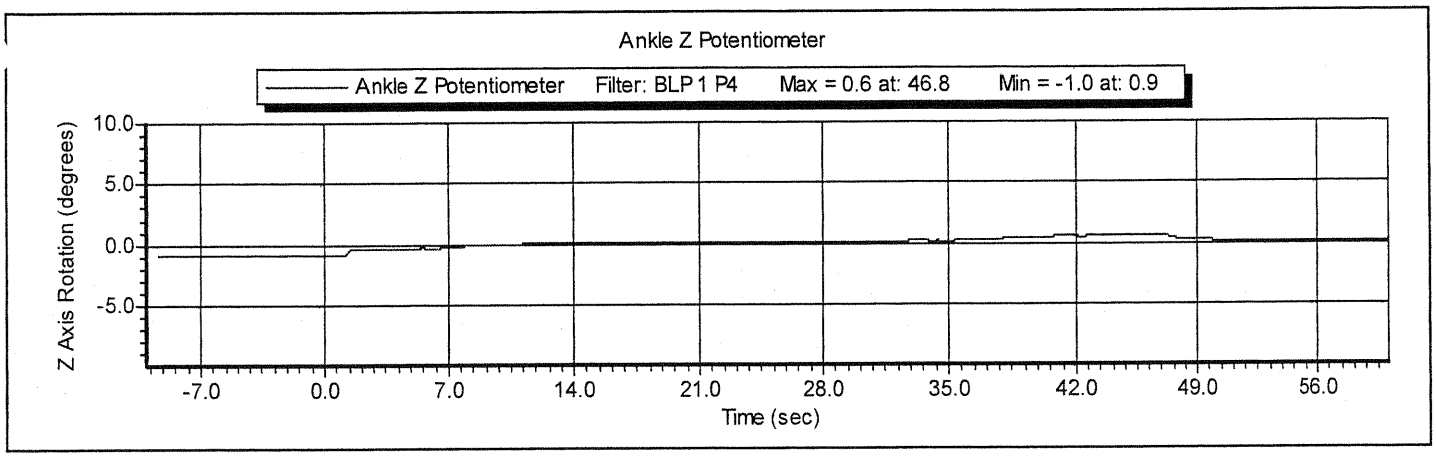


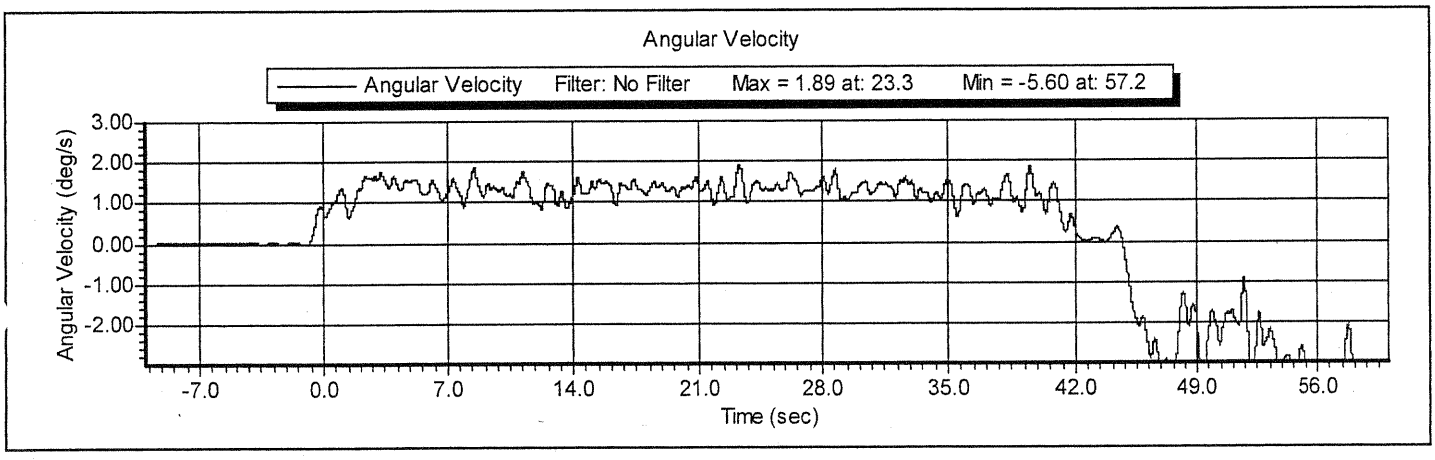


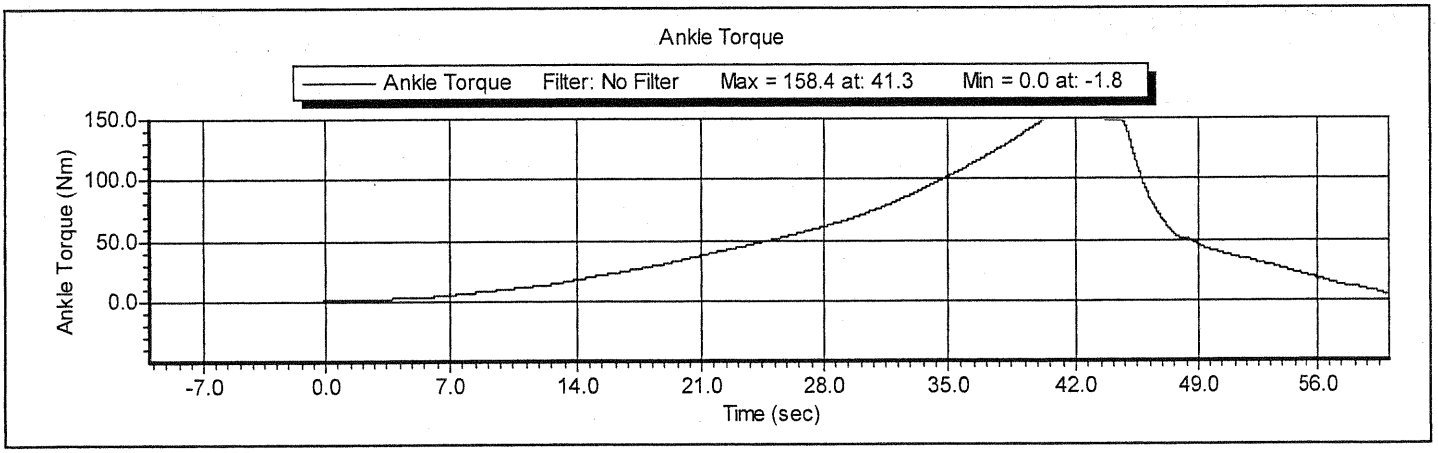
Test ID: **PY0045-1** Test Time: **4:38:49 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PY0045-1** Test Time: **4:38:49 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Dorsi-Flexion without Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PX0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**5:12:18 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results
Temperature	20.6 -- 22.2	**21.1** deg C P
Humidity	10.0 -- 70.0	**39.0** %RH P
Angular Velocity	1.00 -- 2.00	**1.51** deg/s P
DESIGN REFERENCE GUIDELINES	--	P
Angle at 10 Nm	16.6 -- 20.2	**13.6** degrees F
Angle at 37 Nm	33.5 -- 40.9	**30.9** degrees F

All test parameters are NOT within specifications

Technician: **J RANG**

Approved By:

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

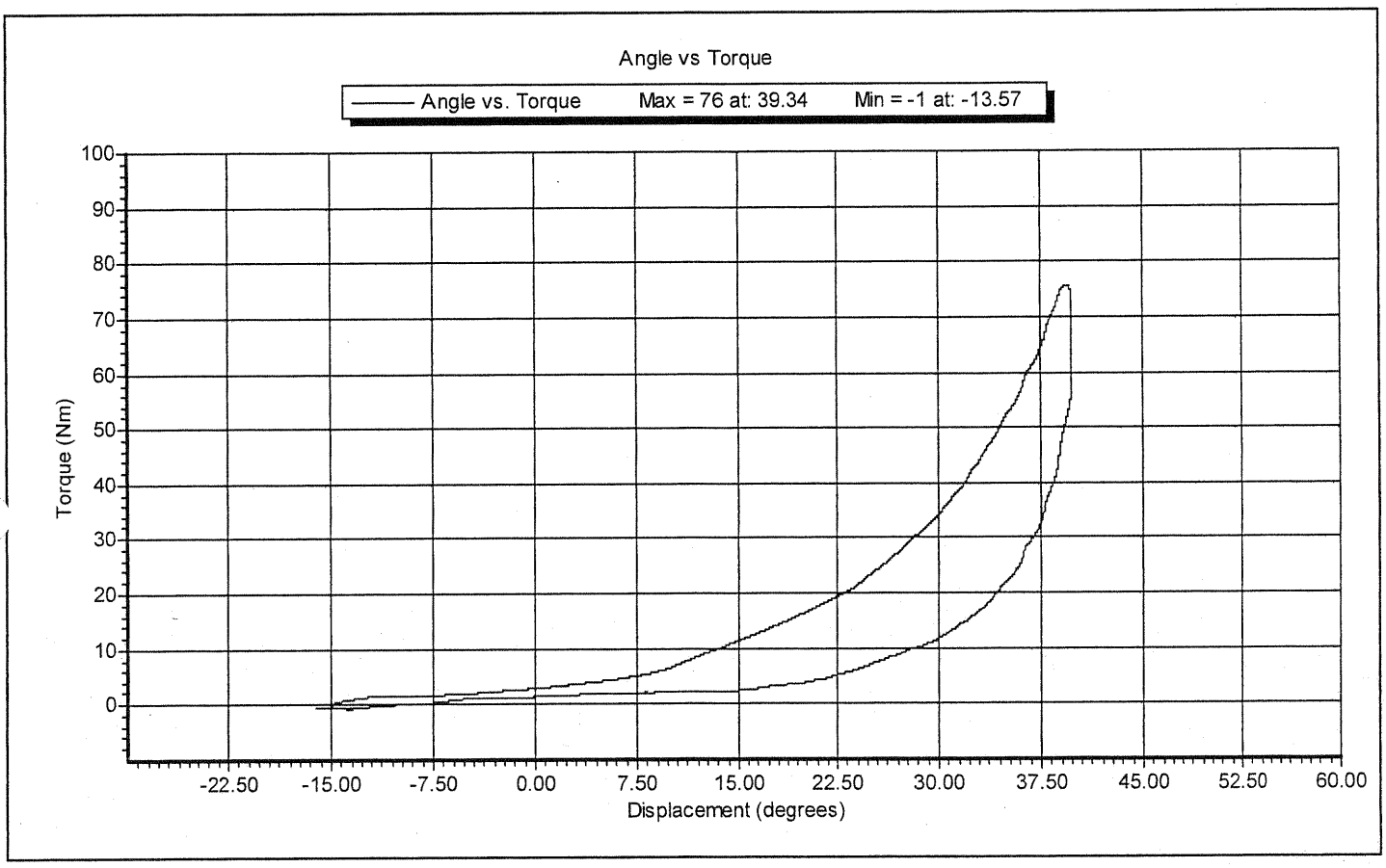
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0528**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0526**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0527**	**9/13/2006**

Test ID: **PX0045-1** Test Time: **5:12:18 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

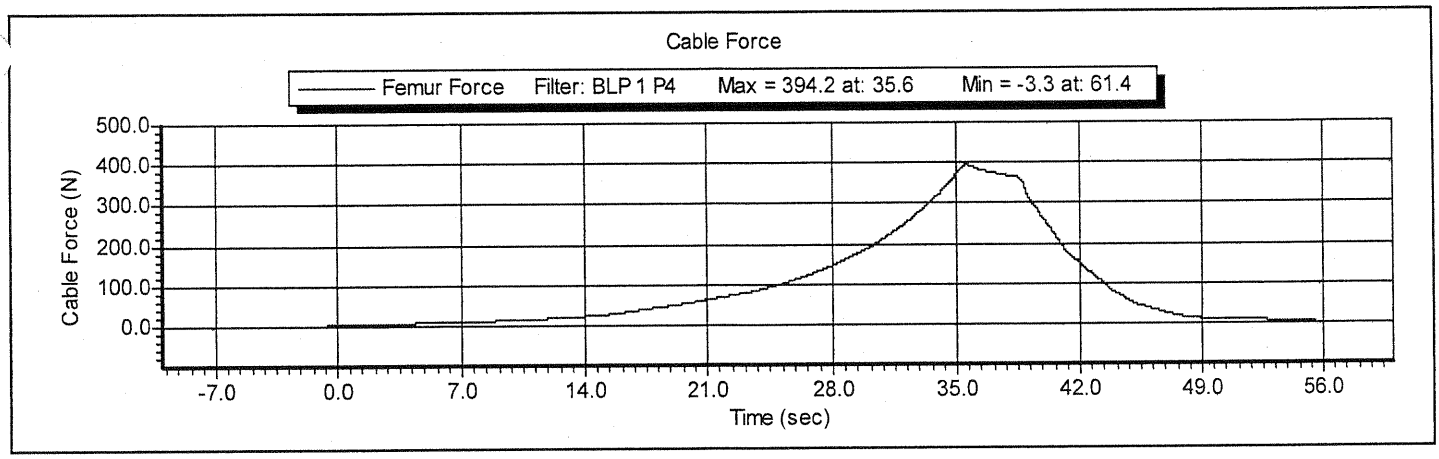
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

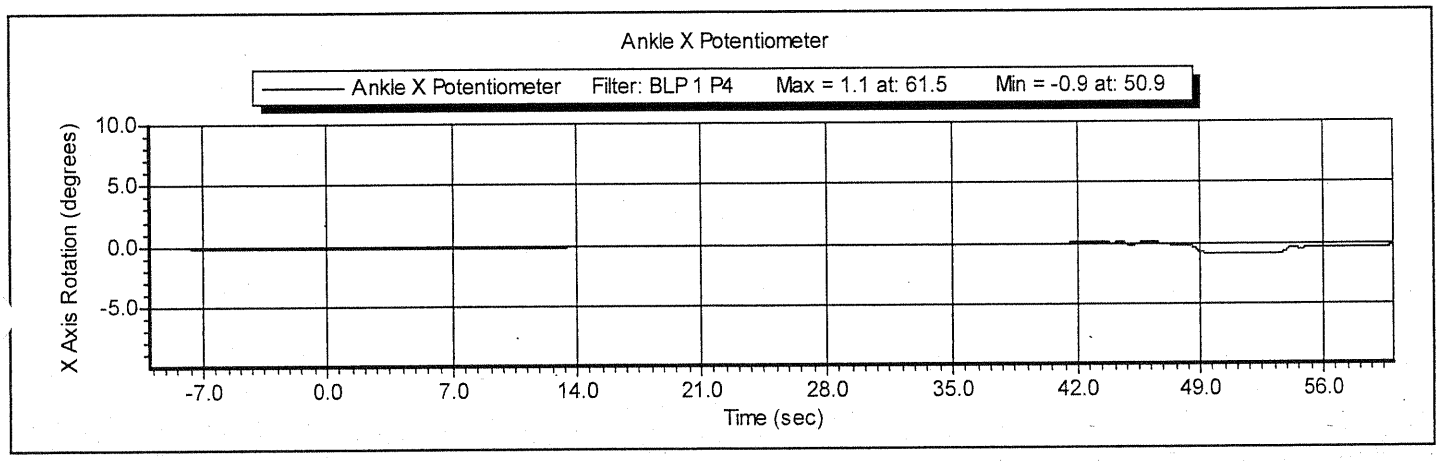
Test Name:	**Dorsi-Flexion without Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PX0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**5:12:18 PM**

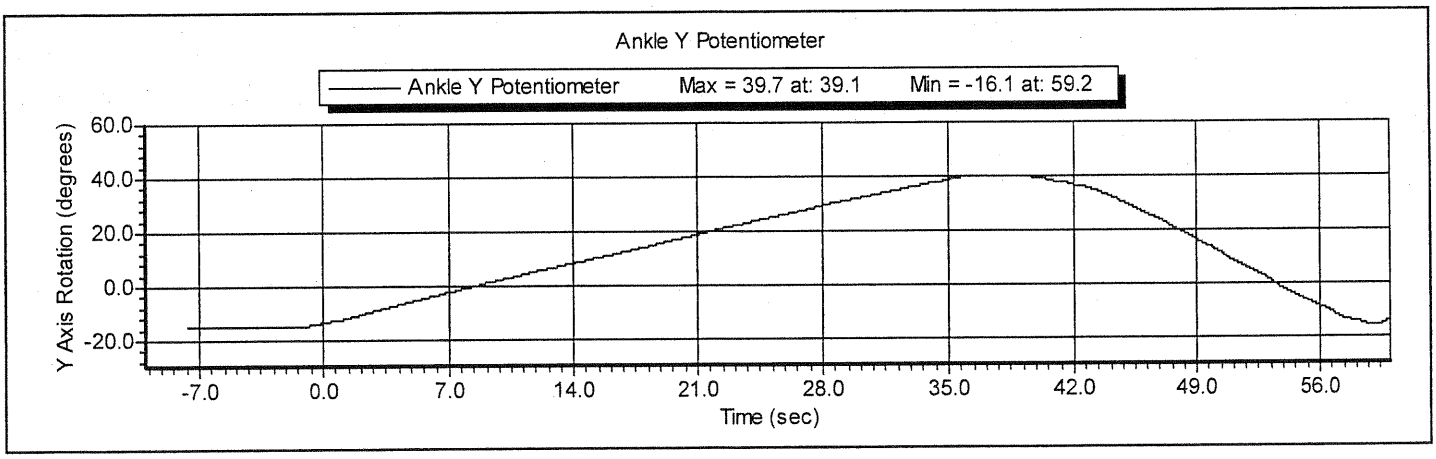


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



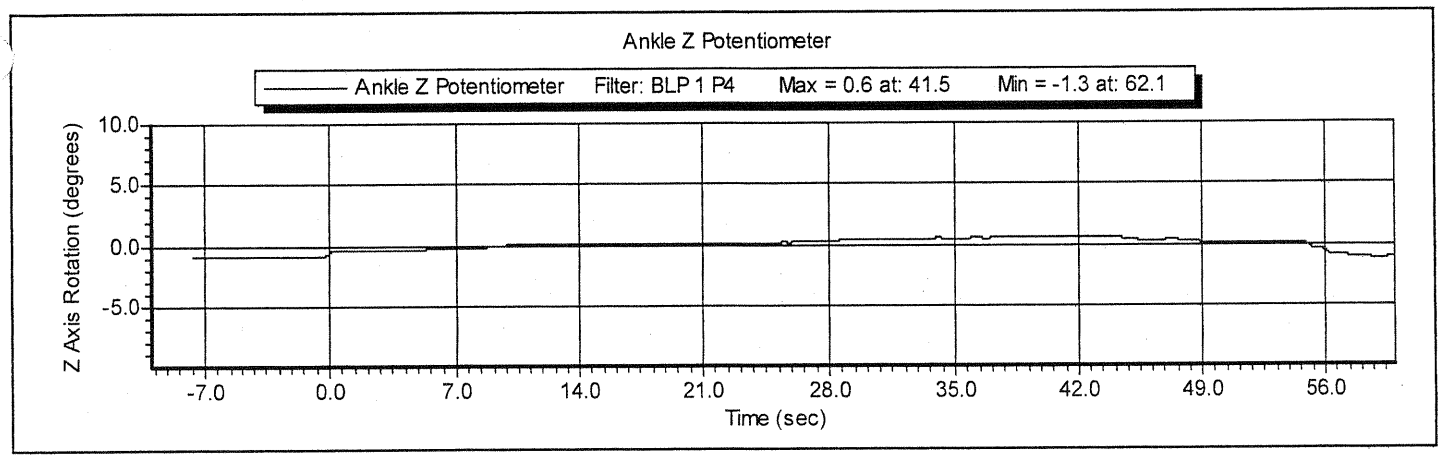


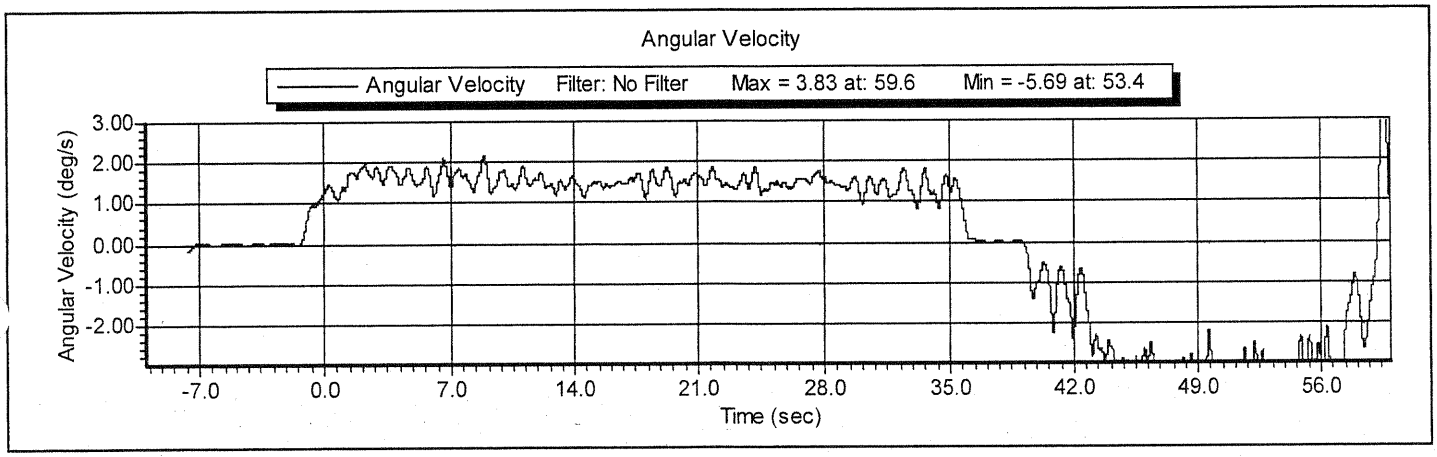


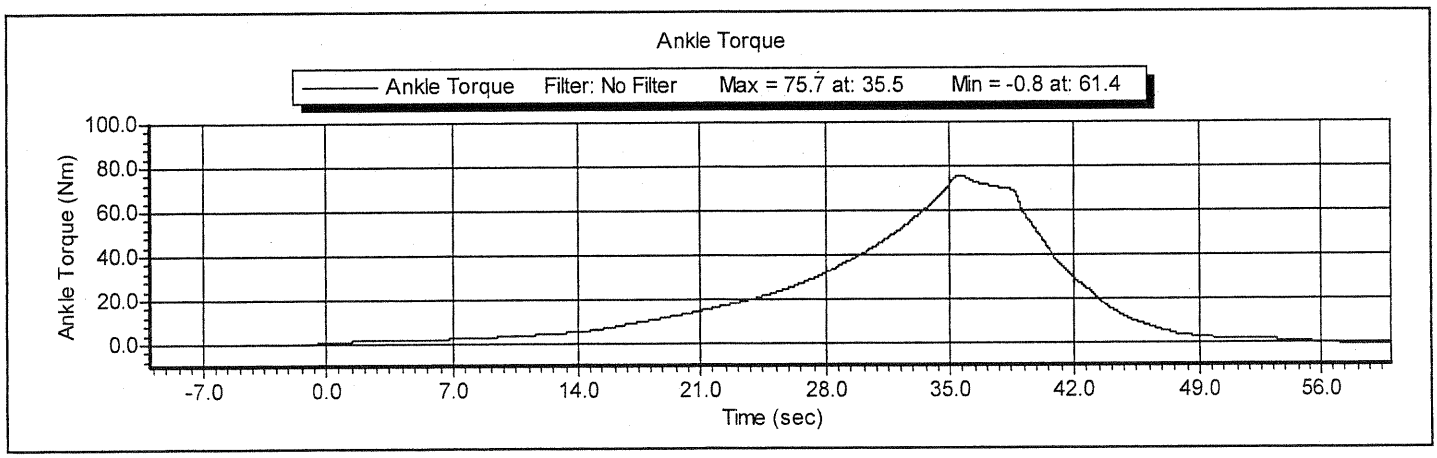
Test ID: **PX0045-1** Test Time: **5:12:18 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PX0045-1** Test Time: **5:12:18 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Plantar-Flexion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PZ0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:50:04 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL

Test Parameters	Test Specifications	Test Results	
Temperature	20.6 -- 22.2	**21.2** deg C	P
Humidity	10.0 -- 70.0	**39.0** %RH	P
Angular Velocity	1.00 -- 2.00	**-1.61** deg/s	P
DESIGN REFERENCE GUIDELINES	--		P
Angle at 3 Nm	28.2 -- 34.4	**-20.4** degrees	F
Angle at 17 Nm	44.0 -- 53.8	**-38.8** degrees	F

All test parameters are NOT within specifications

Technician: J RANG

Approved By:

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

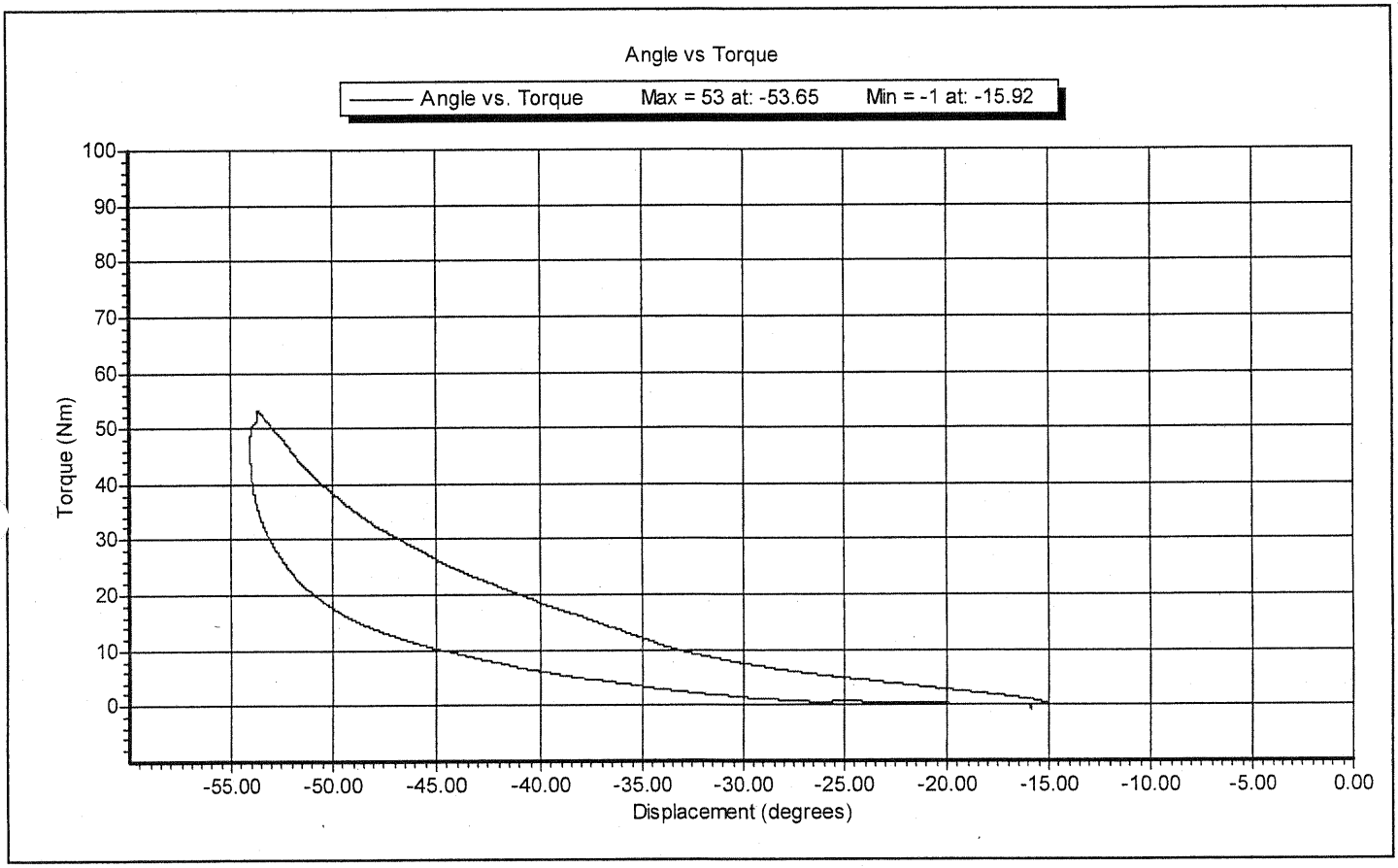
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	STC-250	G46804	3/1/2006
DentonATD	T1AKM060	7921-0528	9/13/2006
DentonATD	T1AKM060	7921-0526	9/13/2006
DentonATD	T1AKM060	7921-0527	9/13/2006

Test ID: **PZ0045-1** Test Time: **4:50:04 PM** Test Date: **9/20/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

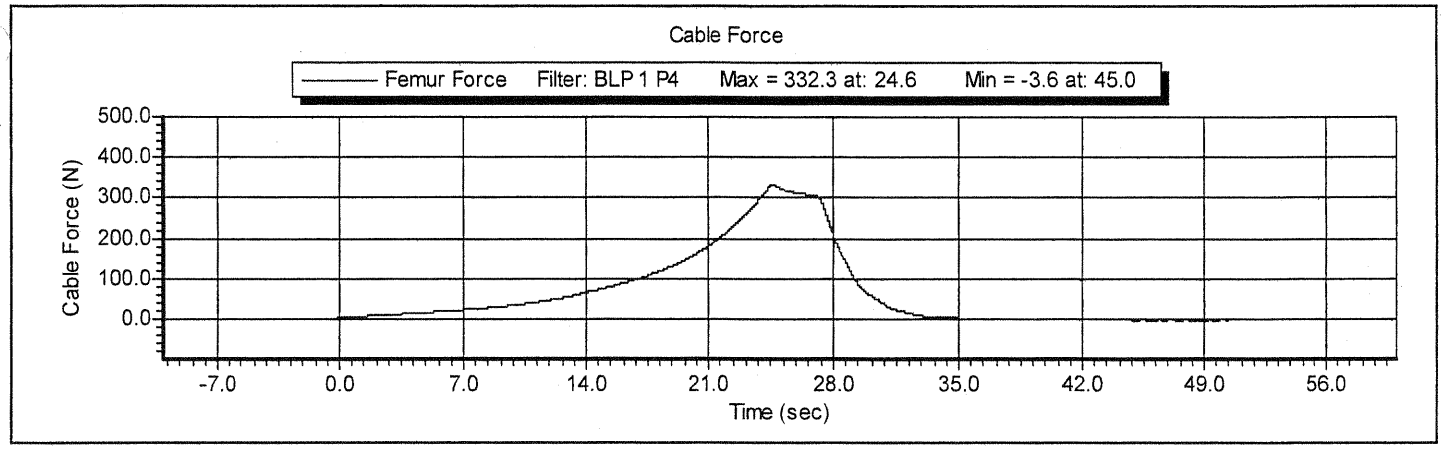
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

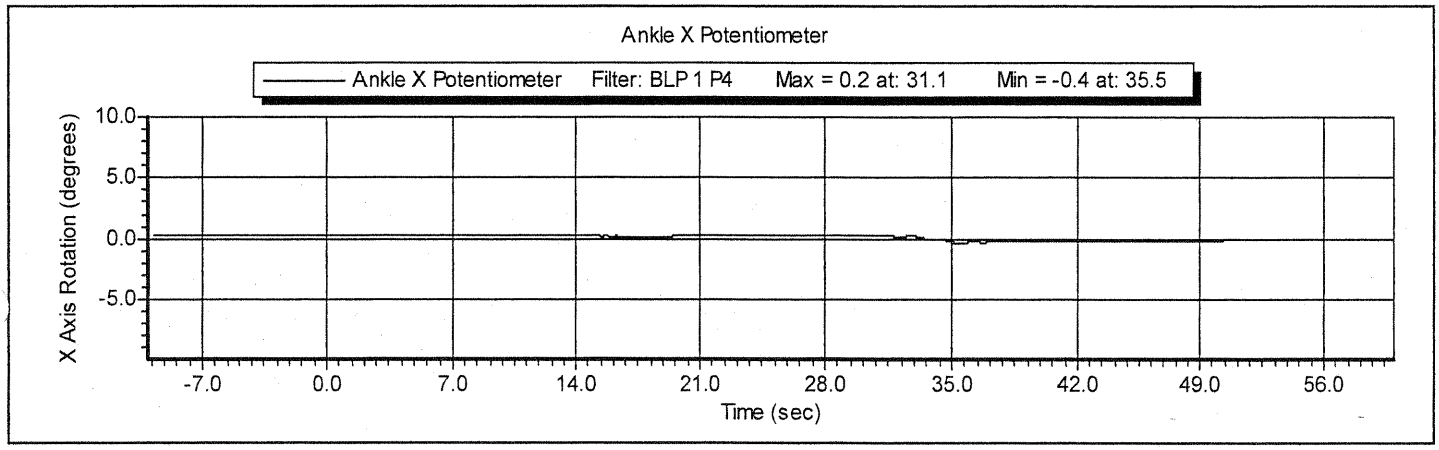
Test Name:	**Plantar-Flexion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PZ0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:50:04 PM**

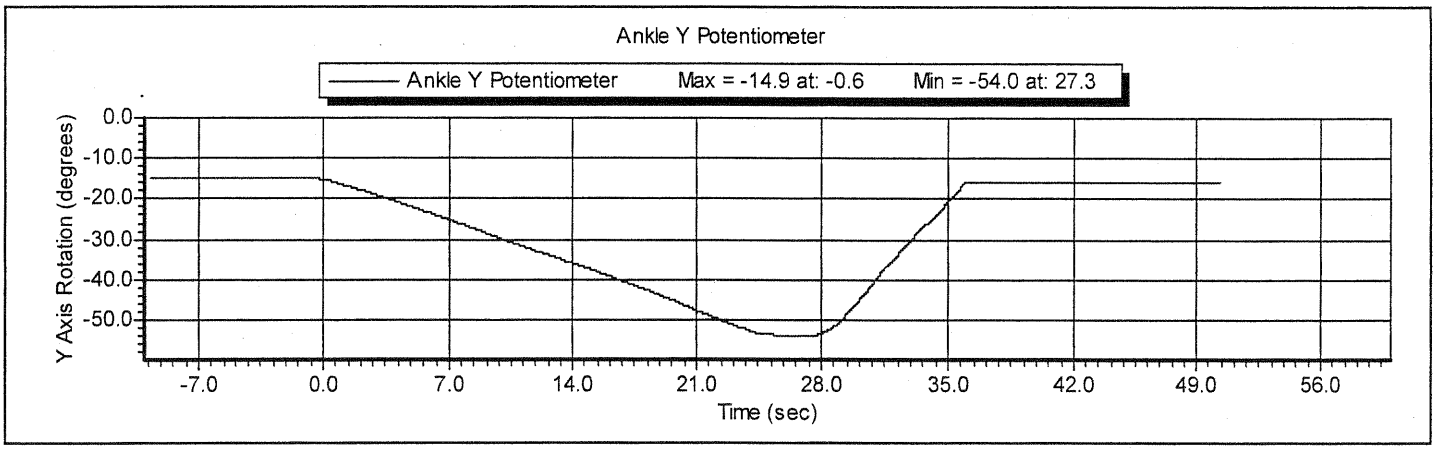


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



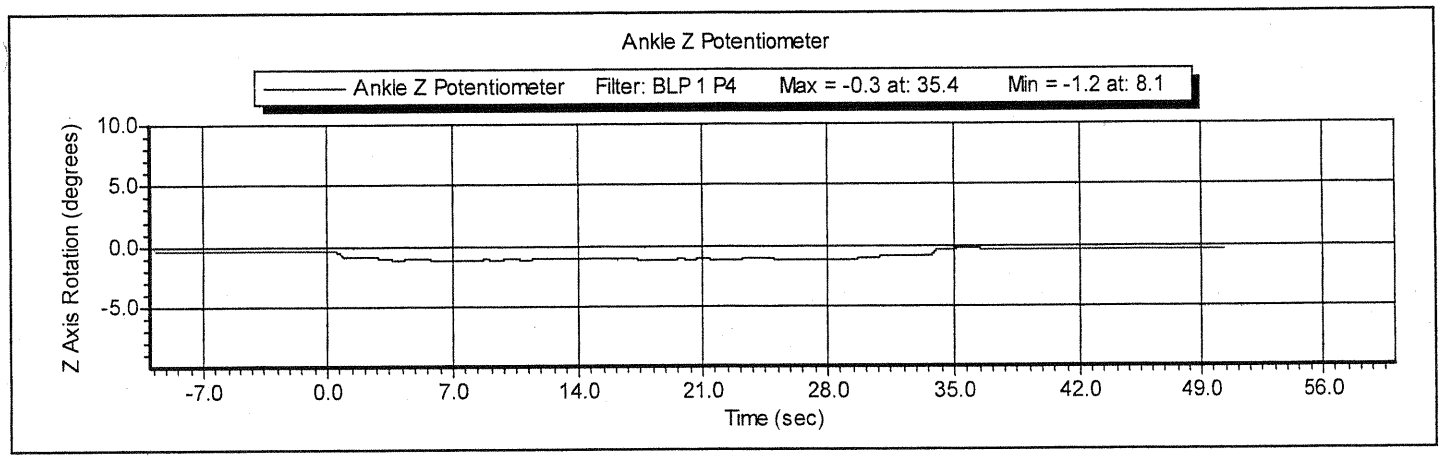


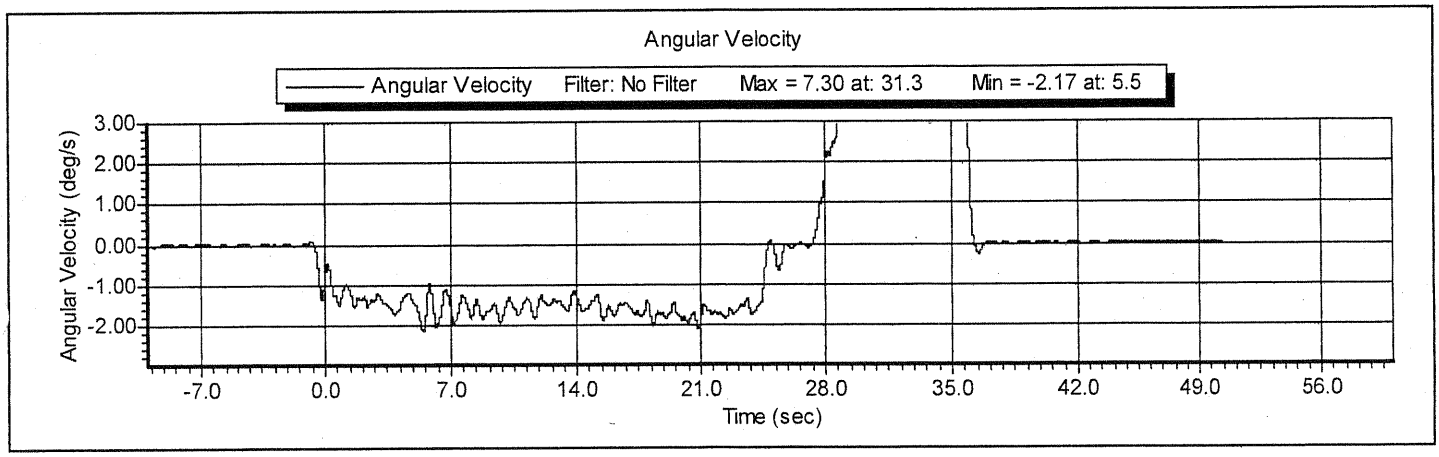


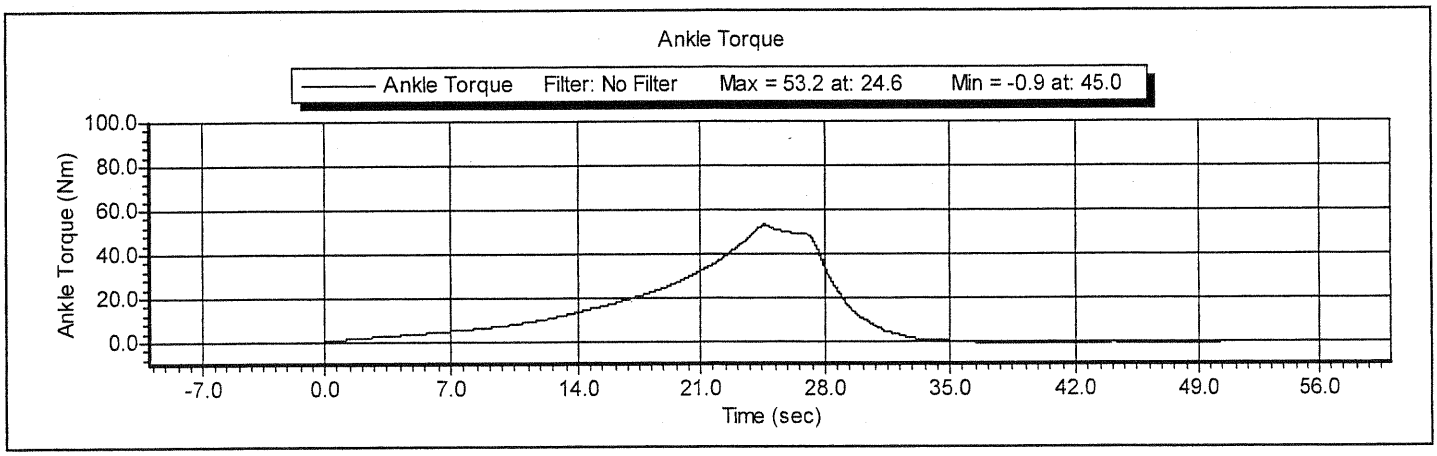
Test ID: **PZ0045-1** Test Time: **4:50:04 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PZ0045-1** Test Time: **4:50:04 PM** Test Date: **9/20/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Ball of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P10045-1**	Test Date:	**9/19/2006**
Test Number:	**1**	Test Time:	**7:20:50 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL

Test Parameters	Test Specifications			Test Results		
Temperature	20.6	--	22.2	**20.8**	deg C	P
Humidity	10.0	--	70.0	**40.0**	%RH	P
Velocity	4.90	--	5.10	**5.00**	m/s	P
Peak Lower Tibia Compressive Force	3058.00	--	3738.00	**-3328.16**	N	P
Peak Ankle Resistive Moment	76.2	--	93.2	**84.1**	Nm	P
DESIGN REFERENCE GUIDELINES		--				P
Lower Tibia My peak between -15 - 0 deg	74.1	--	90.5	**-92.5**	Nm	F
Lower Tibia My peak between 0 - 15 deg	71.3	--	87.1	**90.1**	Nm	F

All test parameters are NOT within specifications

Technician: **J RANG**

Approved By: _____

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

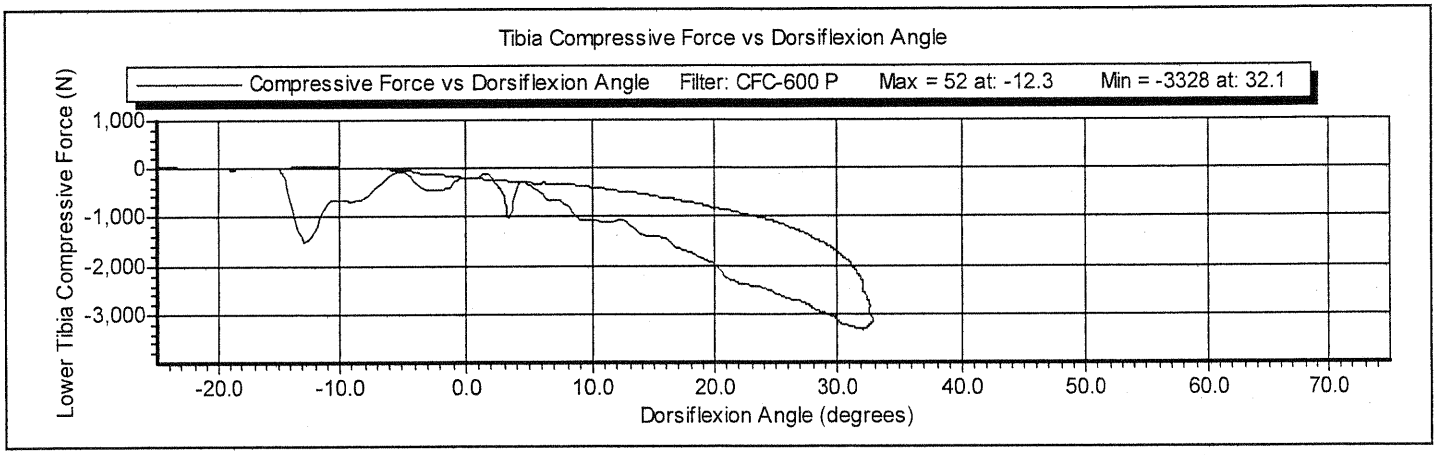
Manufacturer	Model	Serial Number	Calibration Date
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
DentonATD	T1AKM060	7921-0528	9/13/2006
DentonATD	T1AKM060	7921-0526	9/13/2006
DentonATD	T1AKM060	7921-0527	9/13/2006
Endevco	7264-2000	J40071	11/2/2005

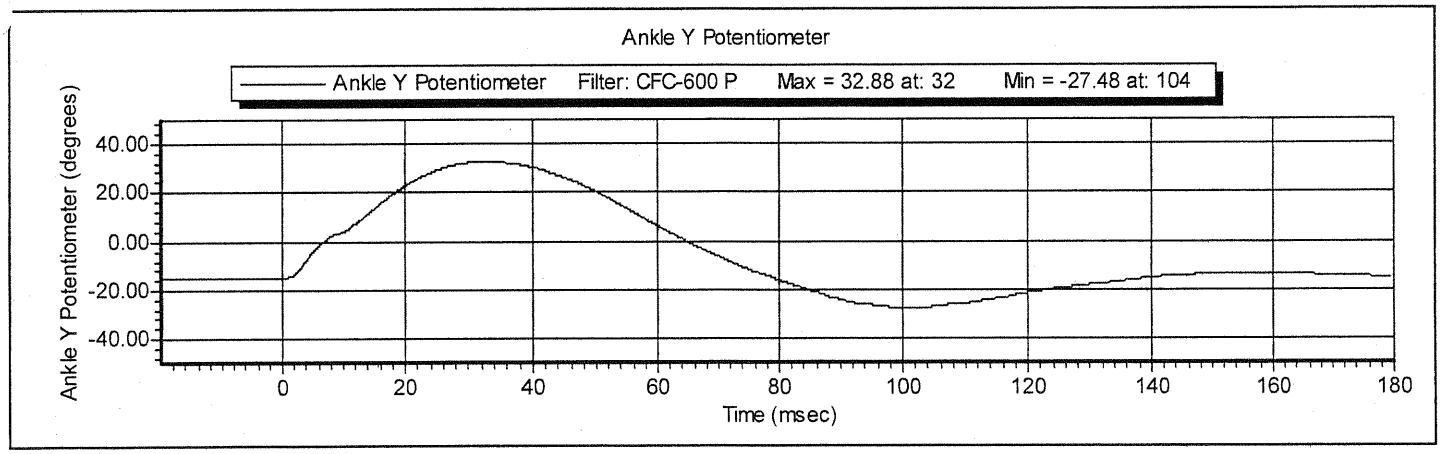
Test ID: **P10045-1** Test Time: **7:20:50 PM** Test Date: **9/19/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

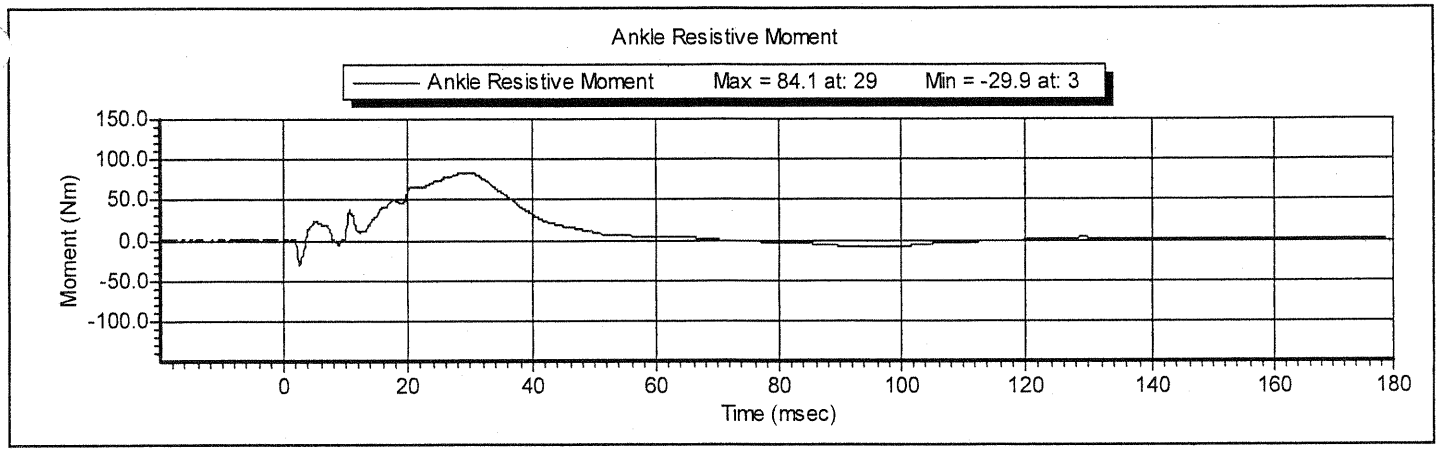
Test Name:	**Ball of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P10045-1**	Test Date:	**9/19/2006**
Test Number:	**1**	Test Time:	**7:20:50 PM**

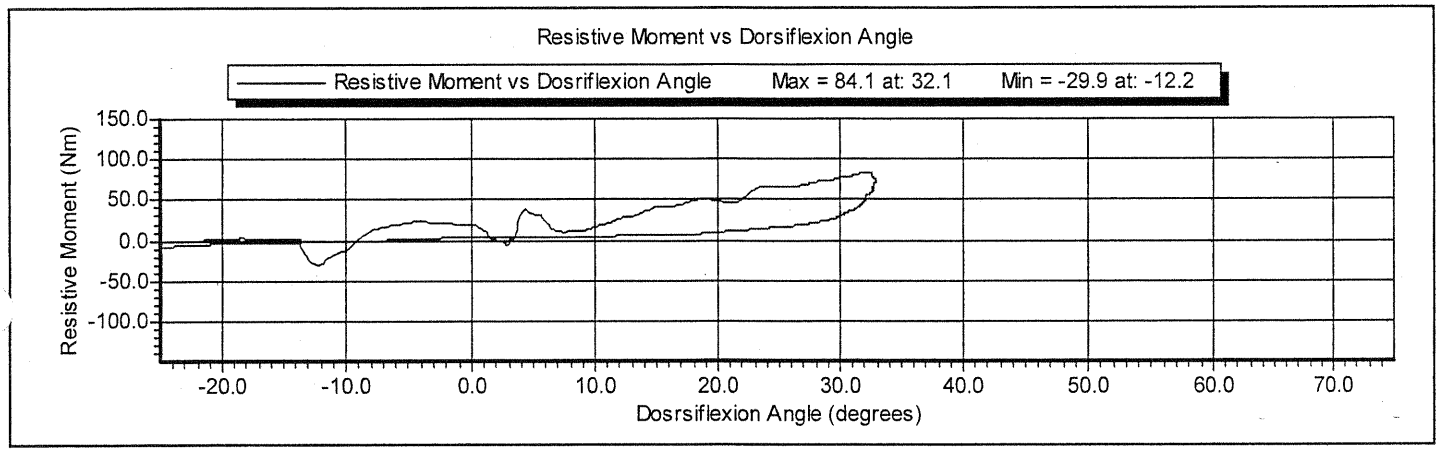


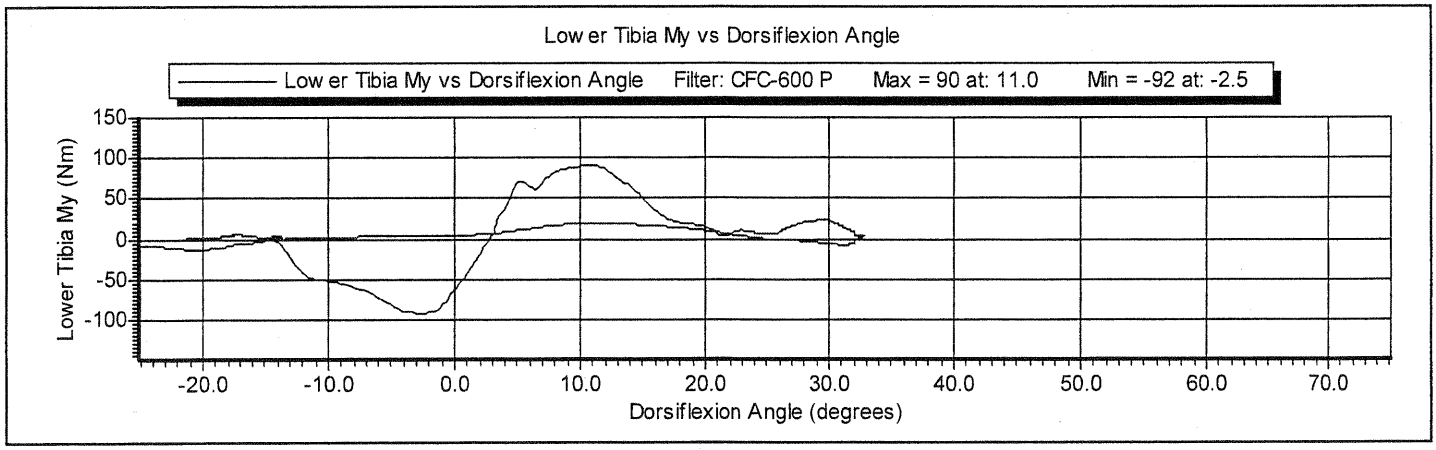


Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



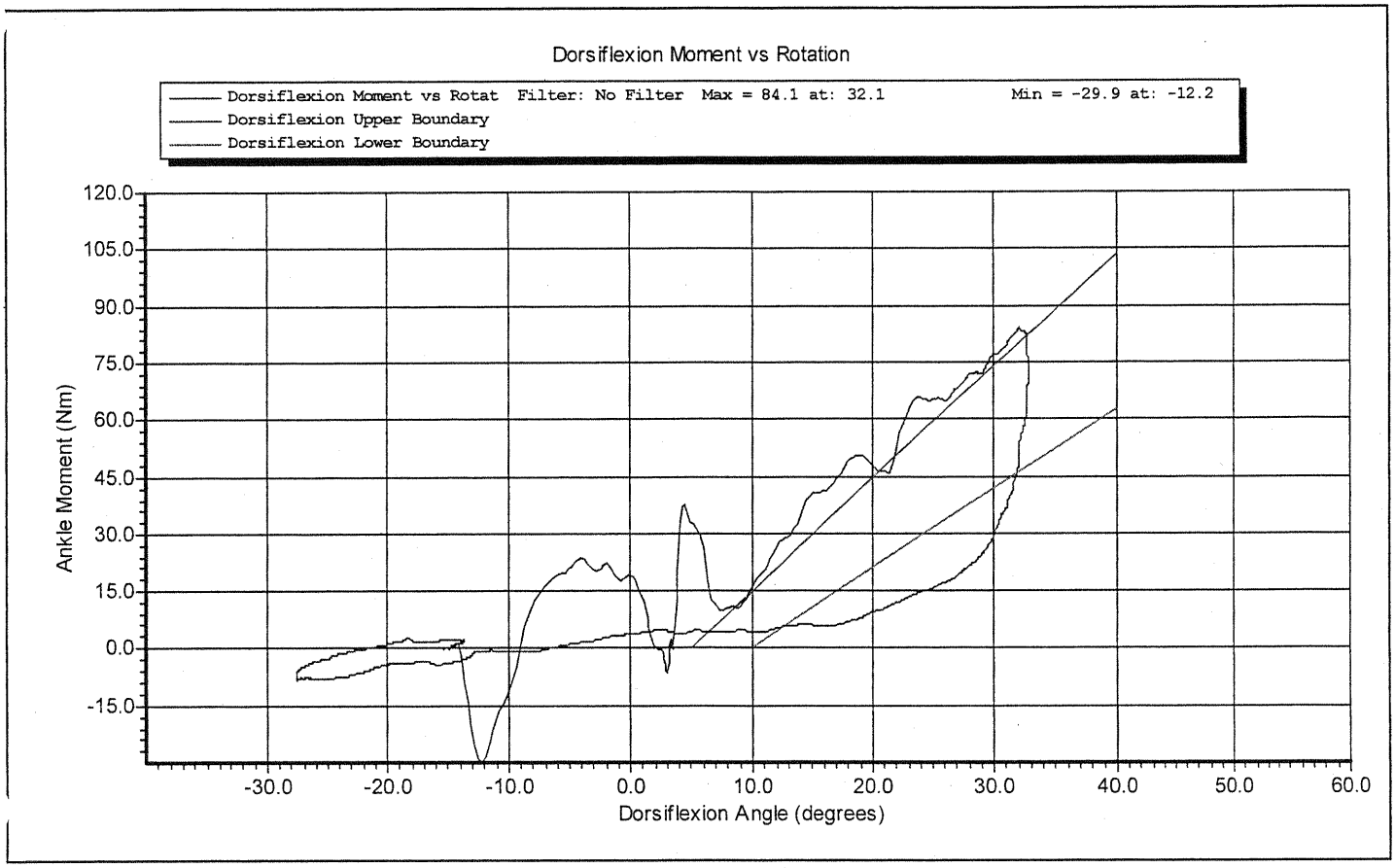




Test ID: **P10045-1** Test Time: **7:20:50 PM** Test Date: **9/19/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P10045-1** Test Time: **7:20:50 PM** Test Date: **9/19/2006**

Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

Test Name:	**Heel of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P20045-3**	Test Date:	**9/19/2006**
Test Number:	**3**	Test Time:	**8:51:34 PM**

Component Part Number	Component Serial Number
T1LLS000	**2116 0045A**

Comments:
RIGHT LEG - RE'CAL

Test Parameters	Test Specifications			Test Results		
Temperature	20.6	--	22.2	**20.9** deg C		P
Humidity	10.0	--	70.0	**39.0** %RH		P
Velocity	3.90	--	4.10	**3.91** m/s		P
Peak Lower Tibia Fz Force	2694	--	3292	**-3165** N		P
DESIGN REFERENCE GUIDELINES		--				P
Axial Impulse Loss	2.71	--	3.33	**-2.57** N-sec		F

All test parameters are NOT within specifications

Technician: **J RANG**

Approved By: _____

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

Copyright 2006 Denton ATD, Inc. LabPaq II Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

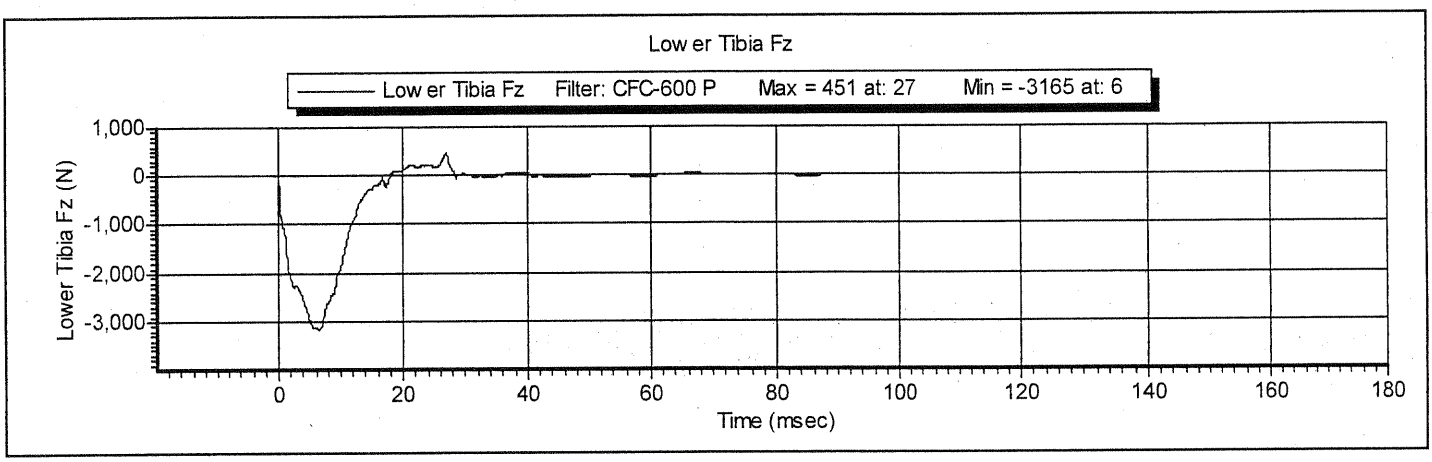
Manufacturer	Model	Serial Number	Calibration Date
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
DentonATD	T1AKM060	7921-0528	9/13/2006
DentonATD	T1AKM060	7921-0526	9/13/2006
DentonATD	T1AKM060	7921-0527	9/13/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Denton	4353J	101	1/9/2006
Endevco	7264-2000	J40071	11/2/2005

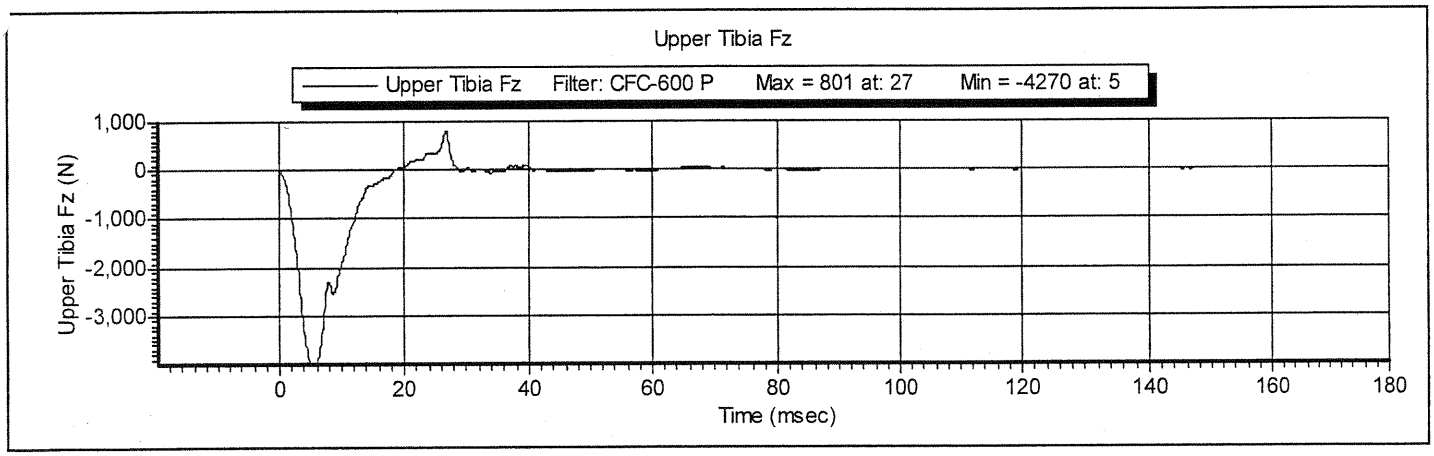
Test ID: **P20045-3** Test Time: **8:51:34 PM** Test Date: **9/19/2006**

Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

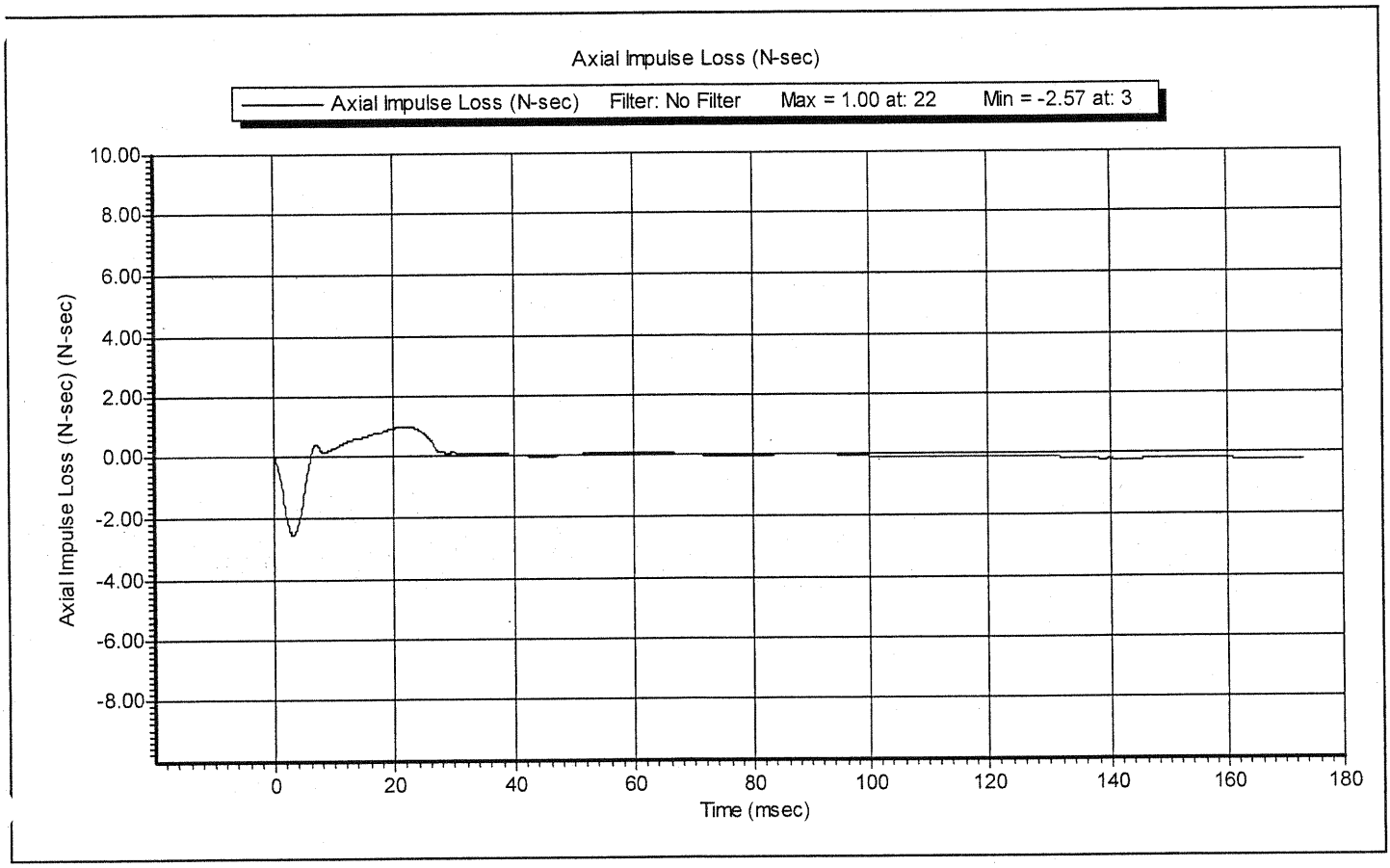
Test Name:	**Heel of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P20045-3**	Test Date:	**9/19/2006**
Test Number:	**3**	Test Time:	**8:51:34 PM**





Copyright 2003 Denton ATD, Inc. LabPaqII Version: 1.3.4.0

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P20045-3** Test Time: **8:51:34 PM** Test Date: **9/19/2006**

Copyright 2003 Denton ATD, Inc. LabPacII Version: 1.3.4.0

Post-test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 202

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 202 Calibration No. 20

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	880	Yes
B	Shoulder Pivot Height	505.5 - 520.7	511	Yes
C	H-Point Height	83.8 - 88.9	88	Yes
D	H-Point From Seatback	134.6 - 139.7	135	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	94	Yes
F	Thigh Clearance	139.7 - 154.9	153	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	292	Yes
H	Skull Cap To Backline	40.6 - 45.7	43	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	340	Yes
J	Elbow Rest Height	190.5 - 210.8	202	Yes
K	Buttock Knee Length	579.1 - 604.5	600	Yes
L	Popliteal Height	429.3 - 454.7	433	Yes
M	Knee Pivot Height	485.1 - 500.4	497	Yes
N	Buttock Popliteal Length	452.1 - 477.5	467	Yes
O	Chest Depth	213.4 - 228.6	220	Yes
P	Foot Length	251.5 - 266.7	262	Yes
V	Shoulder Breadth	421.6 - 436.9	430	Yes
W	Foot Breadth	91.4 - 106.7	100	Yes
Y	Chest Circumference	970.3 - 1000.8	990	Yes
Z	Waist Circumference	835.7 - 866.1	846	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	229	Yes

Technician

Robert Brandes

Approved

Ron Stoner

Transportation Research Center Inc.

Front Head Drop
HIII 50th Serial No. 202 Certification No. 20-1
Test Date: 3/1/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	260.5 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-9.0 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

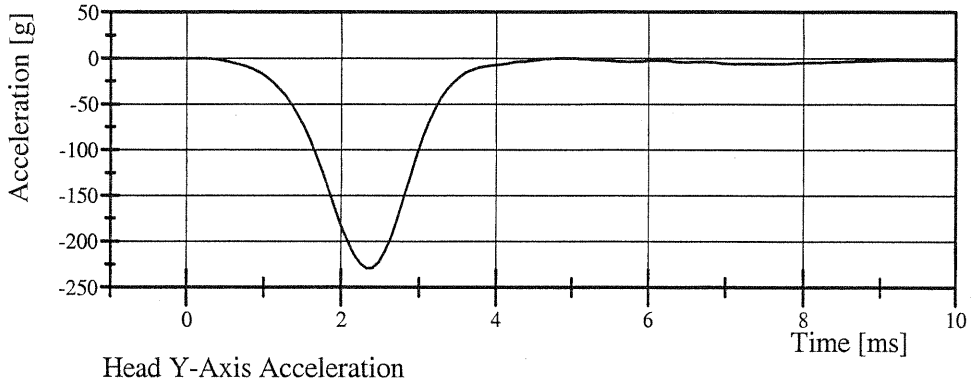
03.01.2007 15:03:18 609

070222

Transportation Research Center Inc.

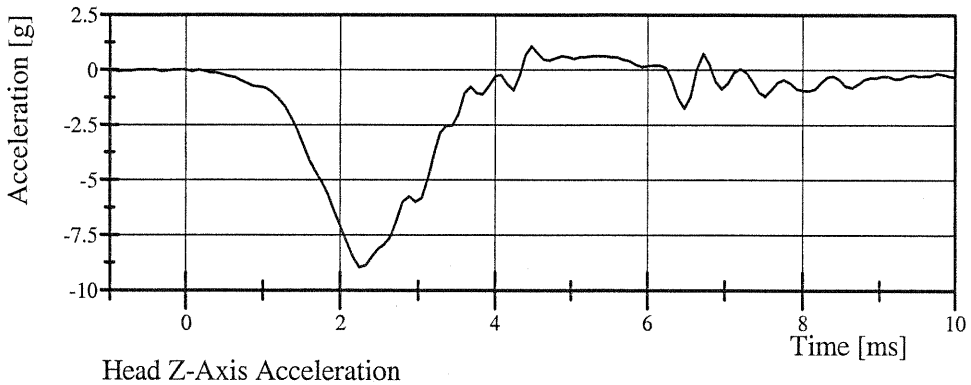
Front Head Drop
HIII 50th Serial No. 202 Certification No. 20-1
Test Date: 3/1/2007

Head X-Axis Acceleration



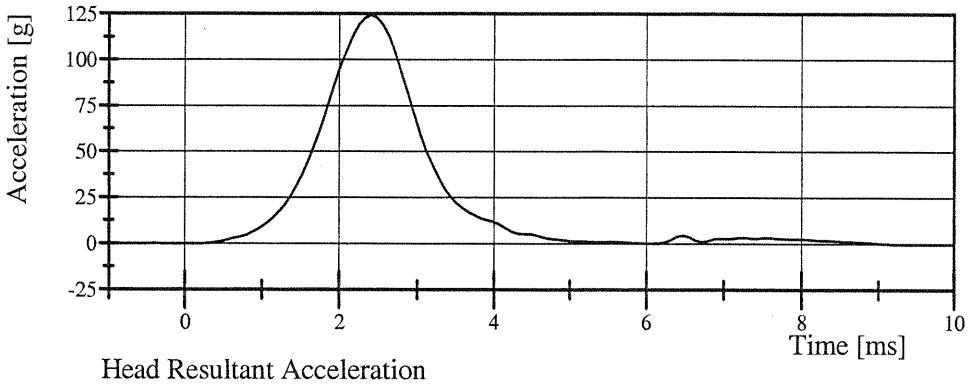
Filter Class: CFC_1000
Max: 0.2 g at 5.0 ms
Min: -229.2 g at 2.3 ms

Head Y-Axis Acceleration



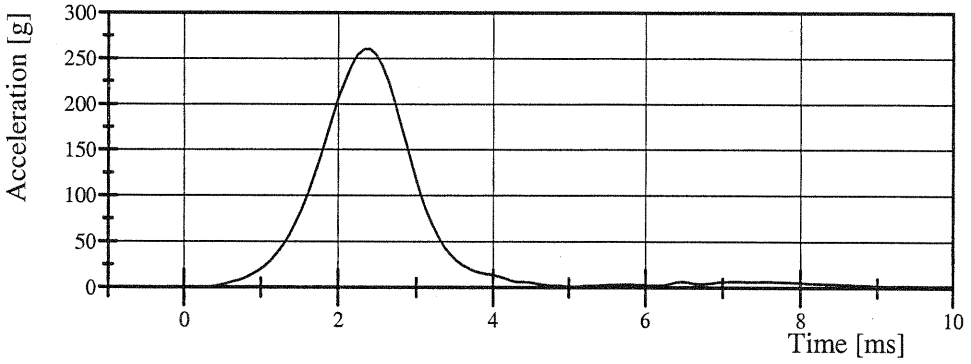
Filter Class: CFC_1000
Max: 1.1 g at 4.5 ms
Min: -9.0 g at 2.2 ms

Head Z-Axis Acceleration



Filter Class: CFC_1000
Max: 124.2 g at 2.4 ms
Min: -0.3 g at 9.6 ms

Head Resultant Acceleration



Filter Class: CFC_1000
Max: 260.5 g at 2.4 ms
Min: 0.0 g at -0.1 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

03.01.2007 15:03:24 609

070222

Transportation Research Center Inc.

Neck Flexion
HIII 50th Serial No. 202 Certification No. 20-3
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	21 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.980 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	40.3 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-22.81 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-19.88 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-15.11 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-15.11 g	Yes
Total Head D-Plane Rotation			
Peak	(-64) - (-78) °	-66.0 °	Yes
Time of Peak	57 - 64 ms	58.9 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	115.3 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	88 - 108 N·m	101.7 N·m	Yes
Time of Peak	47 - 58 ms	52.6 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	97 - 107 ms	97.8 ms	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E with Polarity in accordance with J211

03.02.2007 10:28:54 552

070222

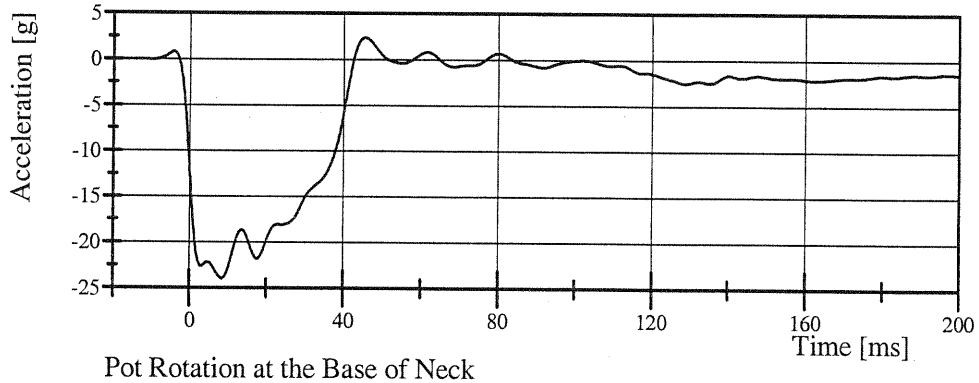
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 202 Certification No. 20-3

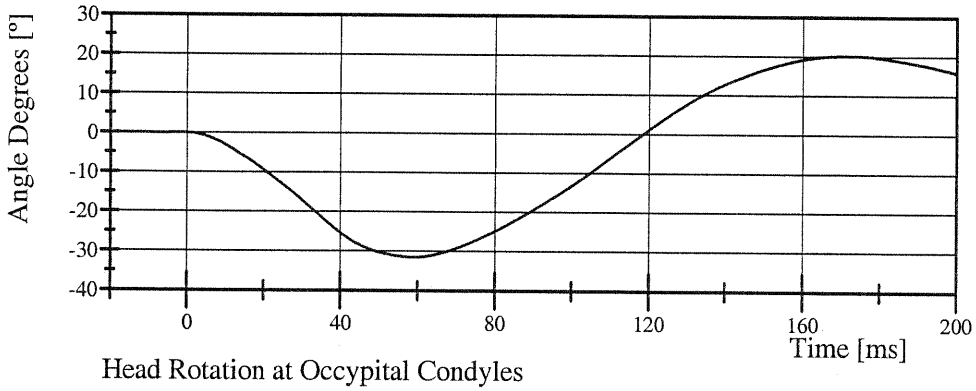
Test Date: 3/2/2007

Pendulum Acceleration



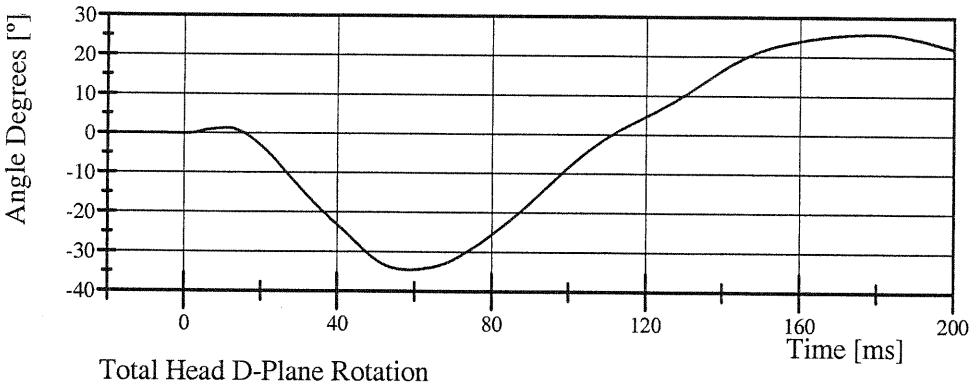
Filter Class: CFC_60
Max: 2.4 g at 45.4 ms
Min: -23.9 g at 8.3 ms

Pot Rotation at the Base of Neck



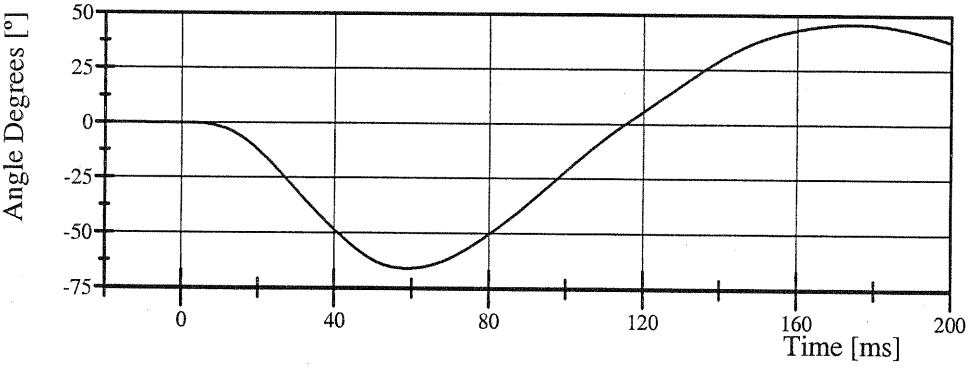
Filter Class: CFC_60
Max: 20.3 ° at 172.2 ms
Min: -31.5 ° at 59.0 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 25.9 ° at 179.7 ms
Min: -34.5 ° at 58.8 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 46.0 ° at 174.7 ms
Min: -66.0 ° at 58.9 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

03.02.2007 10:29:02 552

070222

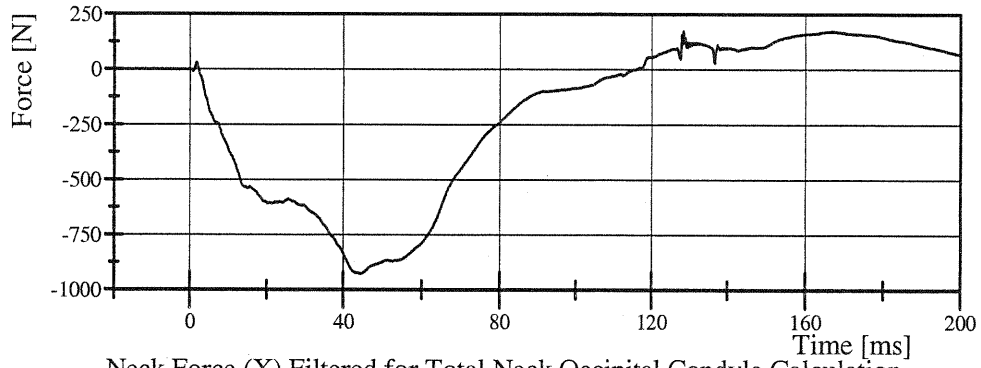
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 202 Certification No. 20-3

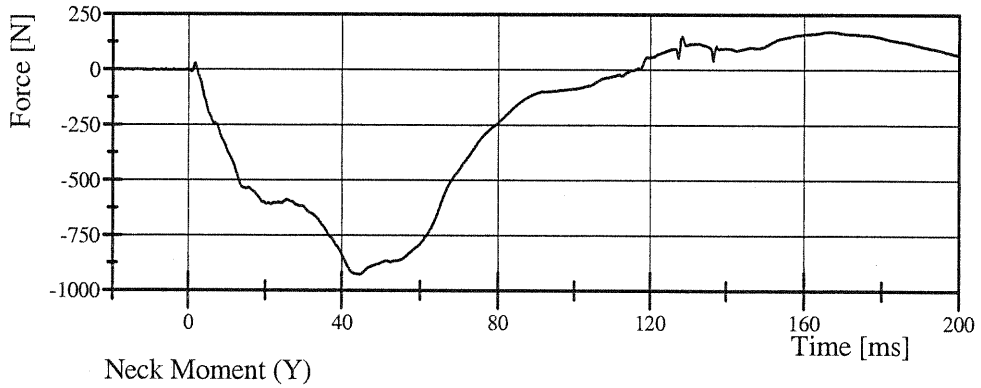
Test Date: 3/2/2007

Neck Force (X)



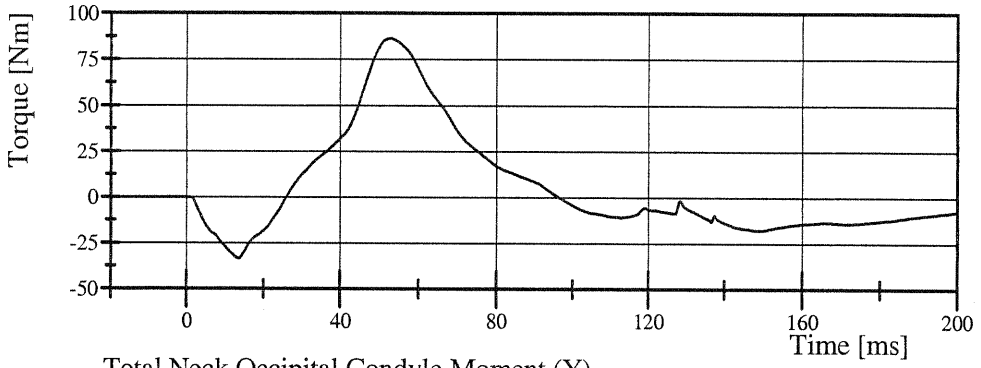
Filter Class: CFC_1000
Max: 174.1 N at 128.5 ms
Min: -927.5 N at 44.5 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



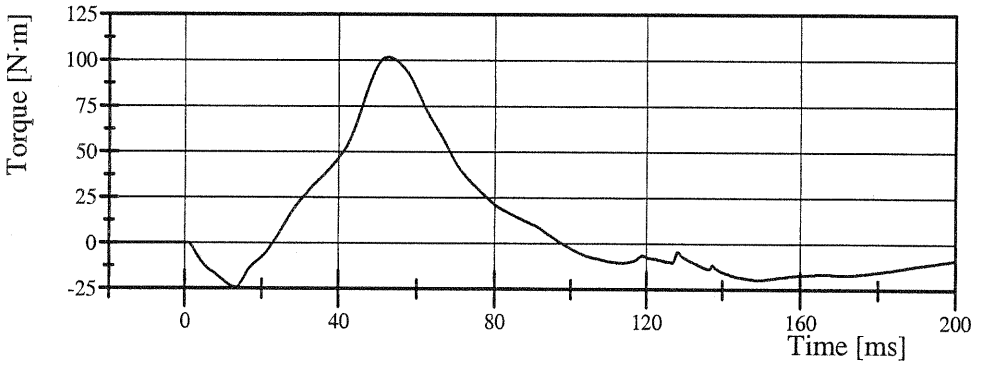
Filter Class: CFC_600
Max: 173.3 N at 166.6 ms
Min: -926.9 N at 44.5 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 86.3 Nm at 53.0 ms
Min: -33.4 Nm at 13.5 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 101.7 N·m at 52.6 ms
Min: -24.3 N·m at 13.2 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

03.02.2007 10:29:03 552

070222

Transportation Research Center Inc.

Neck Extension
HIII 50th Serial No. 202 Certification No. 20-2
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	24 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-6.004 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	38.9 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	19.00 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	17.04 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	14.51 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	14.51 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	93.7 °	Yes
Time of Peak	72 - 82 ms	74.5 ms	Yes
Total Head D-Plane Rotation Decay to 0°	147 - 174 ms	153.4 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-53) - (-80) N·m	-71.7 N·m	Yes
Time of Peak	65 - 79 ms	69.6 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	120 - 148 ms	139.9 ms	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E with Polarity in accordance with J211

03.02.2007 11:32:16 1187

070222

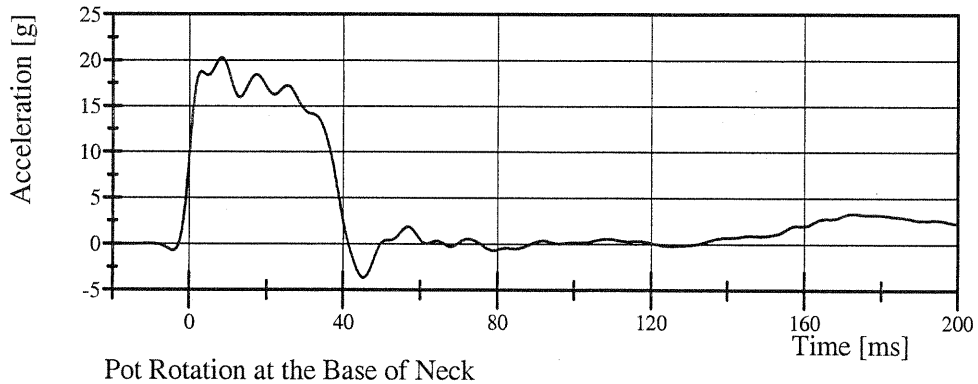
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 202 Certification No. 20-2

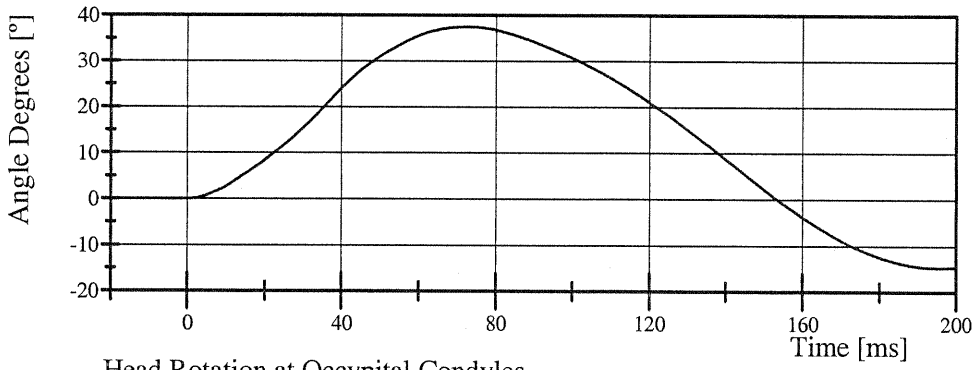
Test Date: 3/2/2007

Pendulum Acceleration



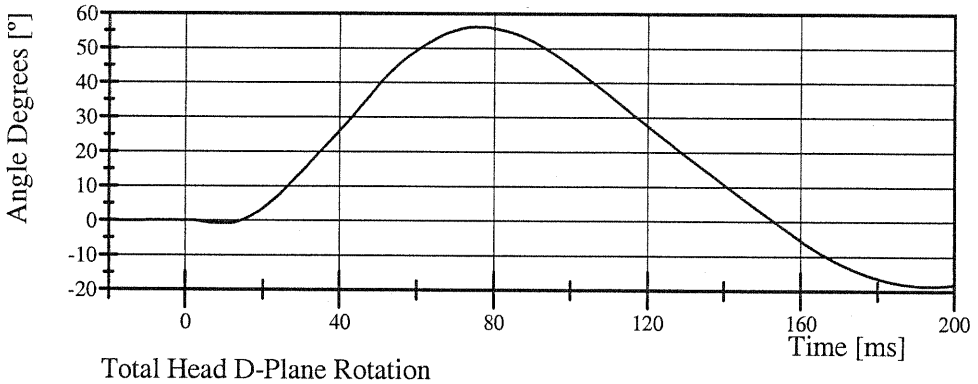
Filter Class: CFC_60
Max: 20.3 g at 8.3 ms
Min: -3.6 g at 45.3 ms

Pot Rotation at the Base of Neck



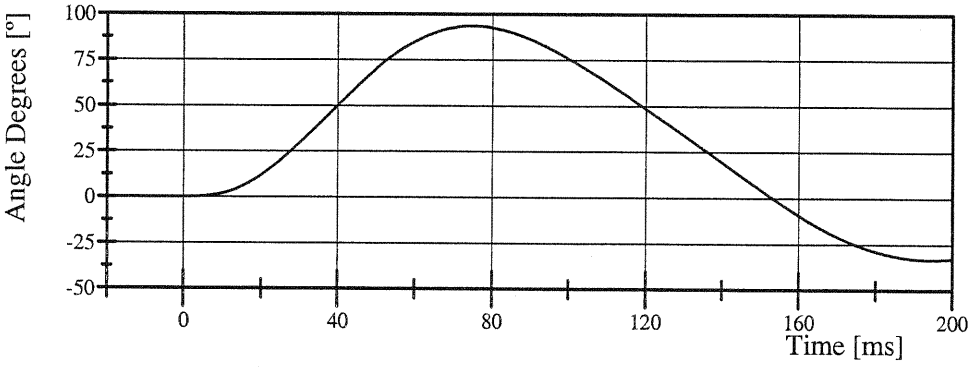
Filter Class: CFC_60
Max: 37.5 ° at 72.9 ms
Min: -14.7 ° at 196.4 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 56.2 ° at 75.2 ms
Min: -18.5 ° at 193.6 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 93.7 ° at 74.5 ms
Min: -33.2 ° at 194.8 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

03.02.2007 11:32:25 1187

070222

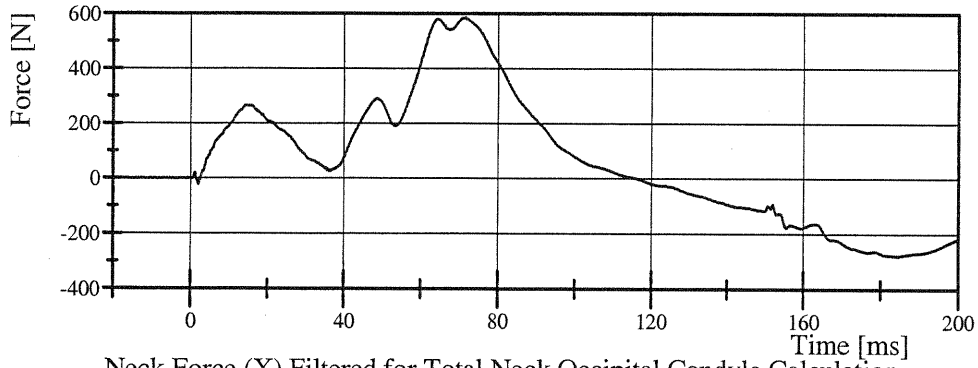
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 202 Certification No. 20-2

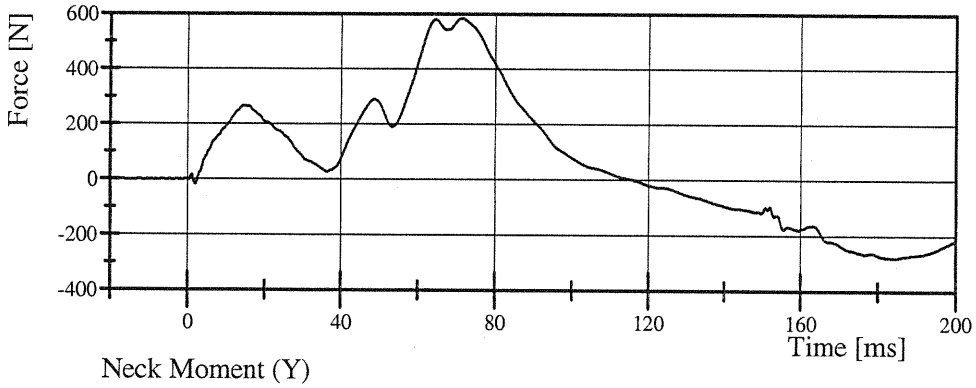
Test Date: 3/2/2007

Neck Force (X)



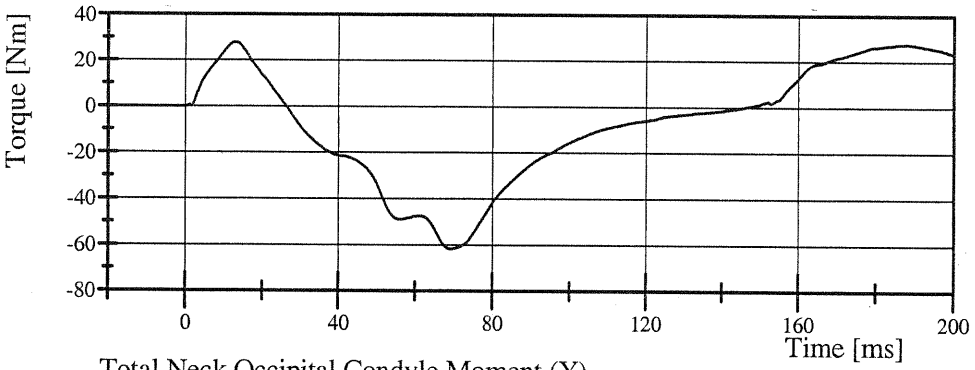
Filter Class: CFC_1000
Max: 586.7 N at 71.7 ms
Min: -278.9 N at 184.6 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



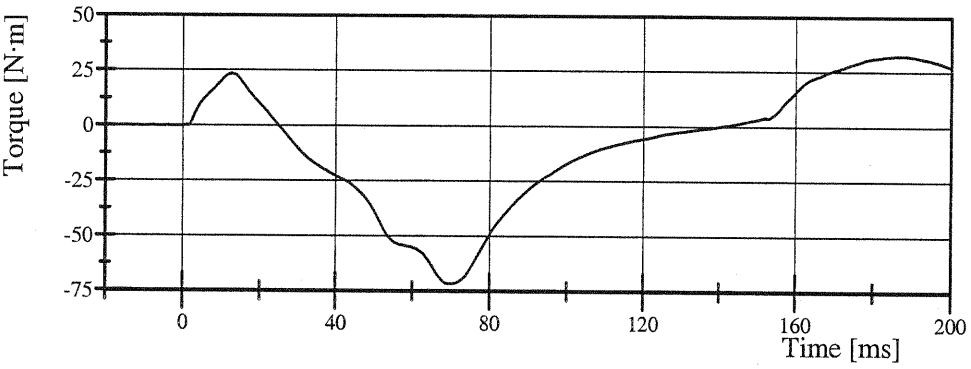
Filter Class: CFC_600
Max: 585.5 N at 71.6 ms
Min: -278.7 N at 184.6 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 27.8 Nm at 12.8 ms
Min: -61.8 Nm at 69.2 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 32.5 N·m at 187.8 ms
Min: -71.7 N·m at 69.6 ms

Transportation Research Center Inc.

Front Thorax
HIII 50th Serial No. 202 Certification No. 20-3
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.615 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,808.6 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-65.73 mm	Yes
Internal Hysteresis	65 - 85 %	73.2 %	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

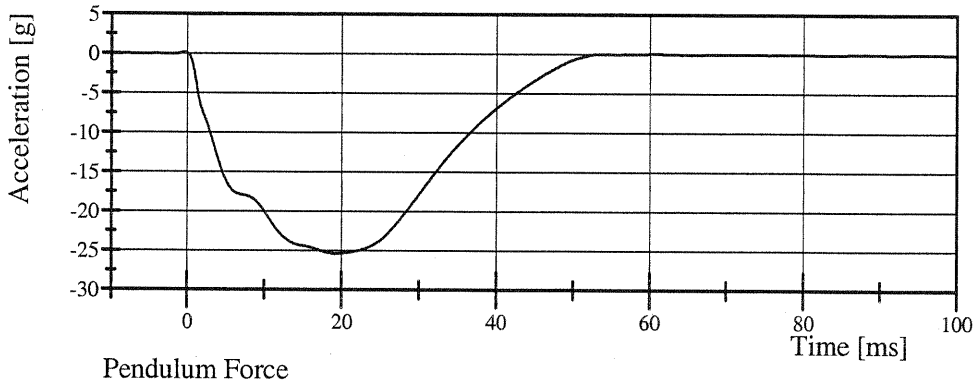
03.02.2007 14:42:52 1578

070222

Transportation Research Center Inc.

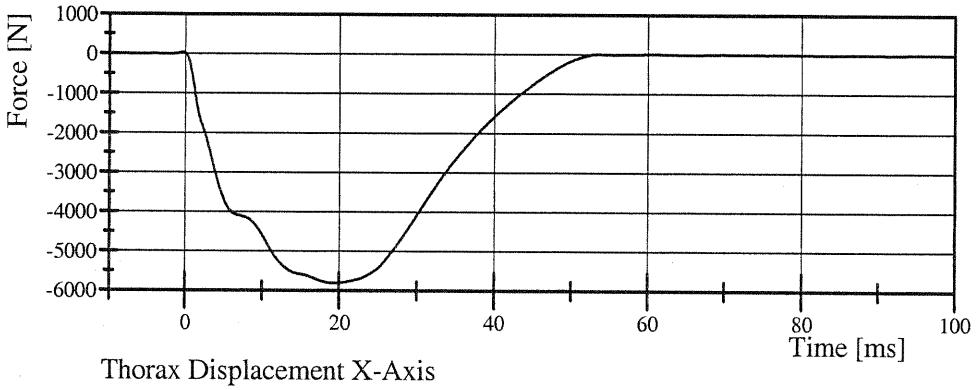
Front Thorax
HIII 50th Serial No. 202 Certification No. 20-3
Test Date: 3/2/2007

Pendulum Acceleration



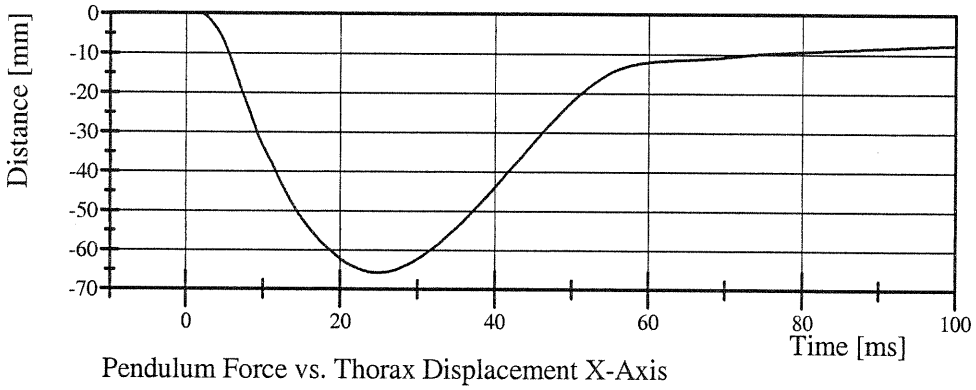
Filter Class: CFC_180
Max: 0.2 g at -0.3 ms
Min: -25.4 g at 19.3 ms

Pendulum Force



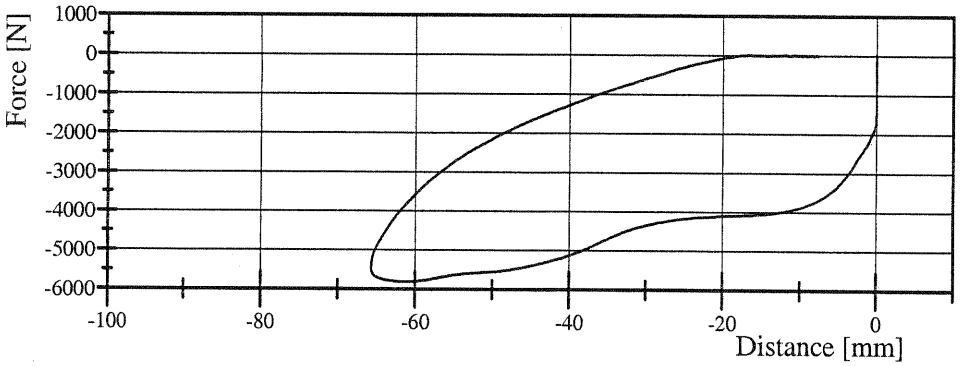
Filter Class: CFC_180
Max: 40.0 N at -0.3 ms
Min: -5,808.6 N at 19.3 ms

Thorax Displacement X-Axis



Filter Class: CFC_600
Max: 0.0 mm at -6.4 ms
Min: -65.7 mm at 24.6 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180
Max: 40.0 N at -0.0 mm
Min: -5,808.6 N at -61.1 mm

Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

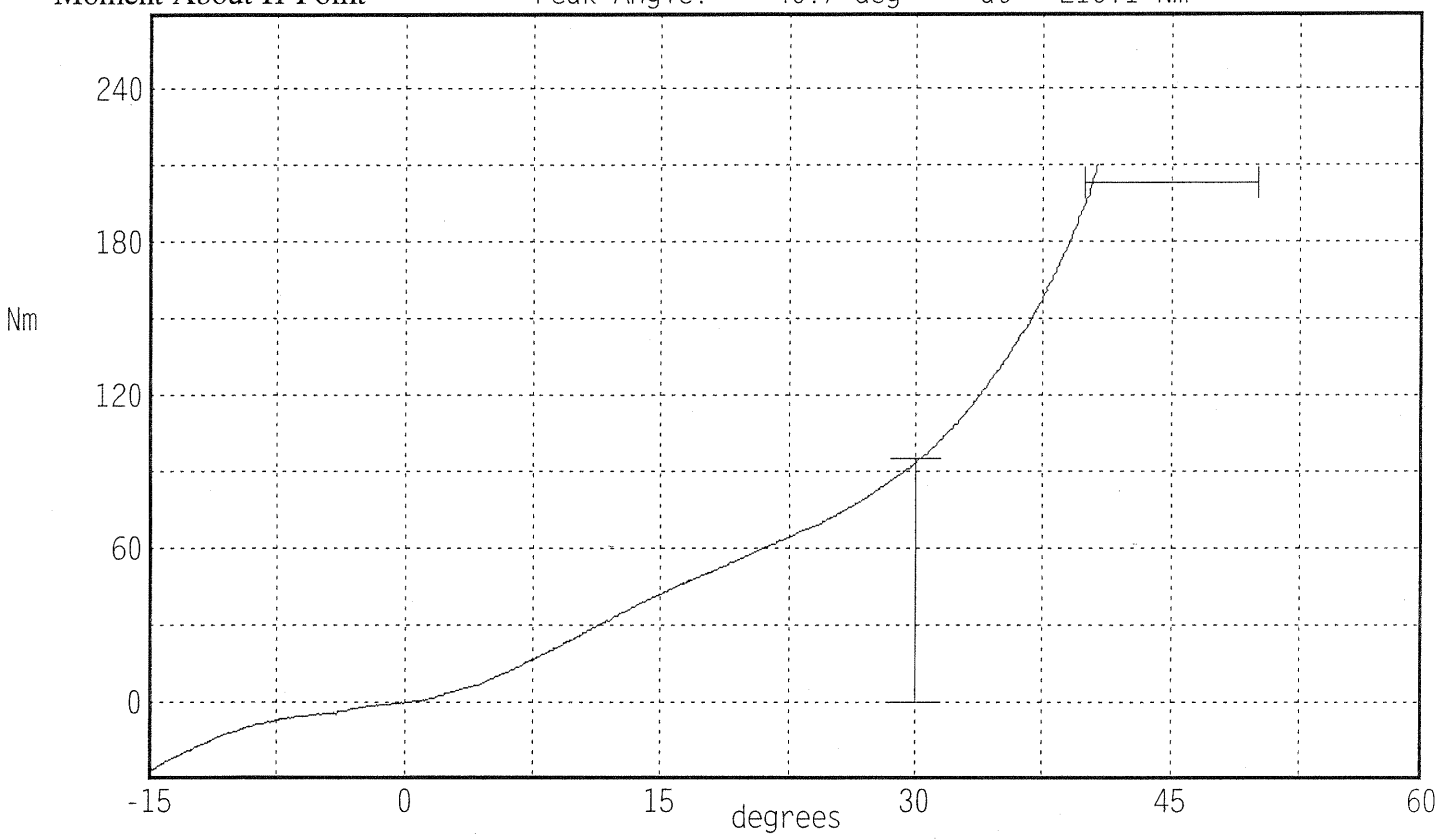
Serial Number: 202L
Test Number: 202C20
Comments:

Date: 03/01/2007
Time: 15:21

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.1	°C	Pass
Humidity	10 - 70	32	%	Pass
Moment at 30 deg	<= 94.9	93.5	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	40.5	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

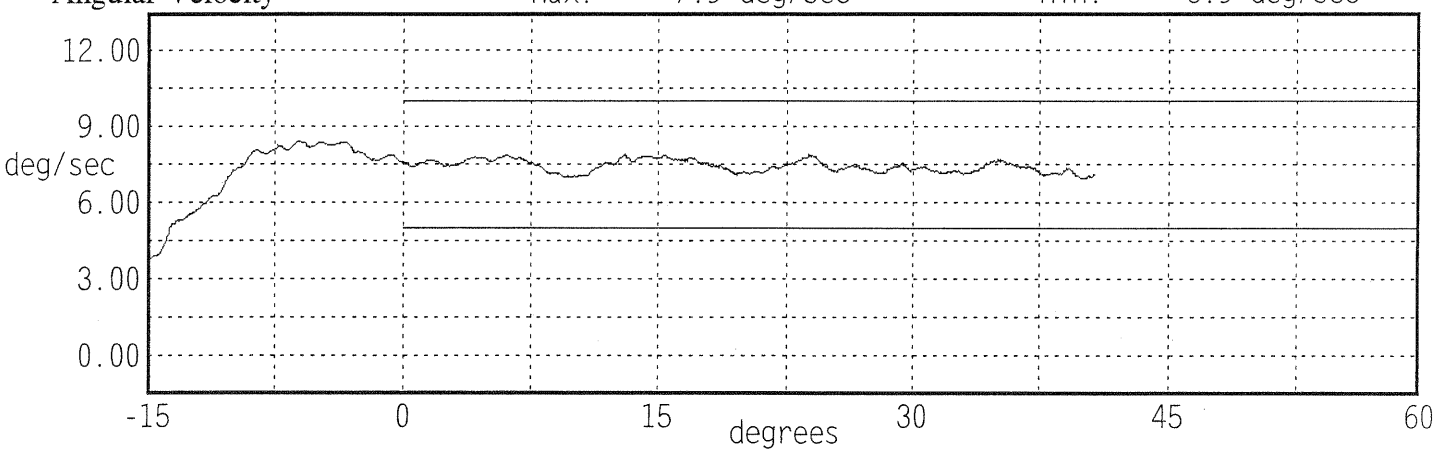
Moment About H-Point

Peak Moment: 210.1 Nm at 40.7 deg
Peak Angle: 40.7 deg at 210.1 Nm



Angular Velocity

Max: 7.9 deg/sec Min: 6.9 deg/sec



Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

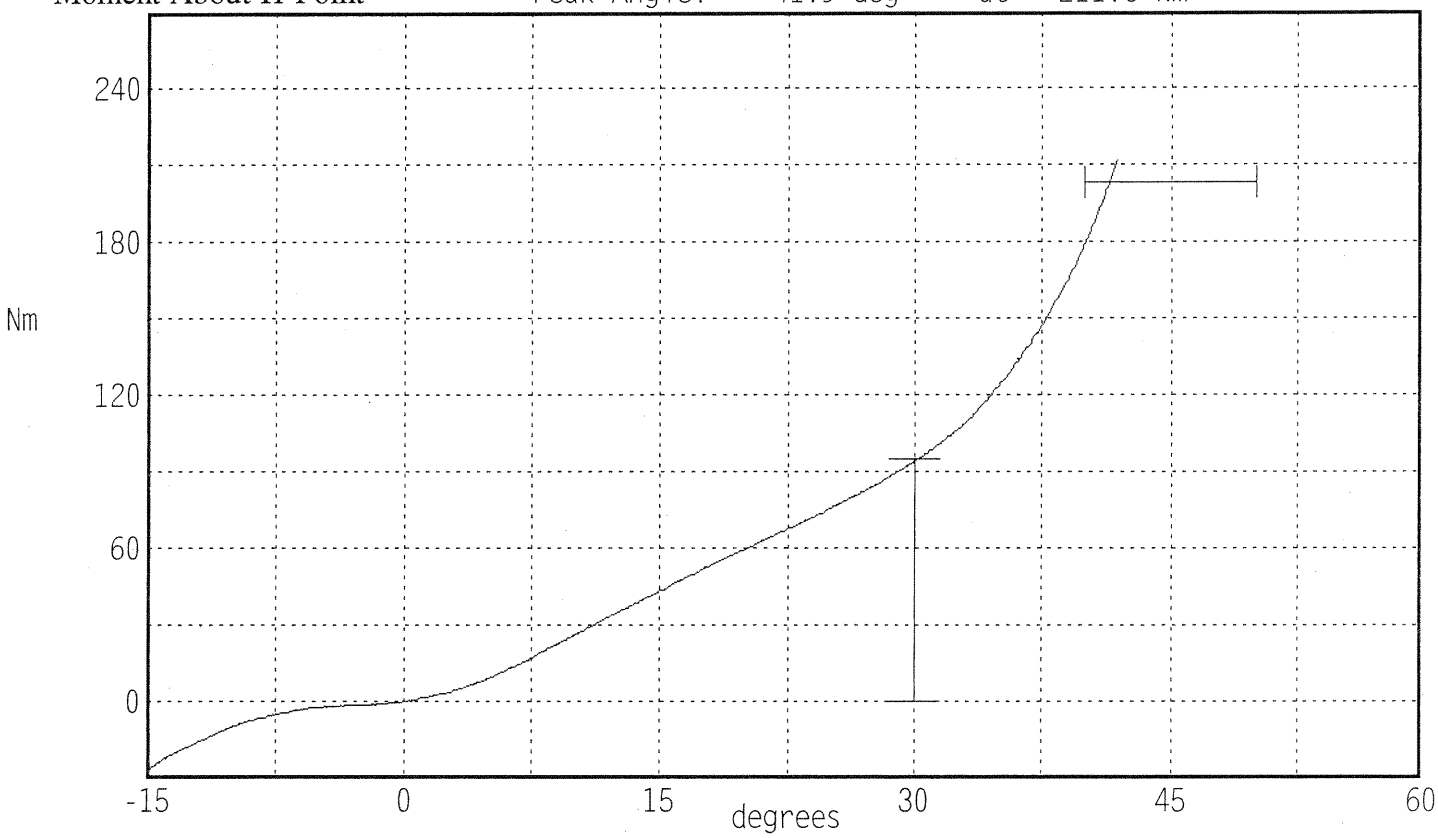
Serial Number: 202R
Test Number: 202C20
Comments:

Date: 03/02/2007
Time: 09:44

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.1	°C	Pass
Humidity	10 - 70	22	%	Pass
Moment at 30 deg	<= 94.9	94.4	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	41.5	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

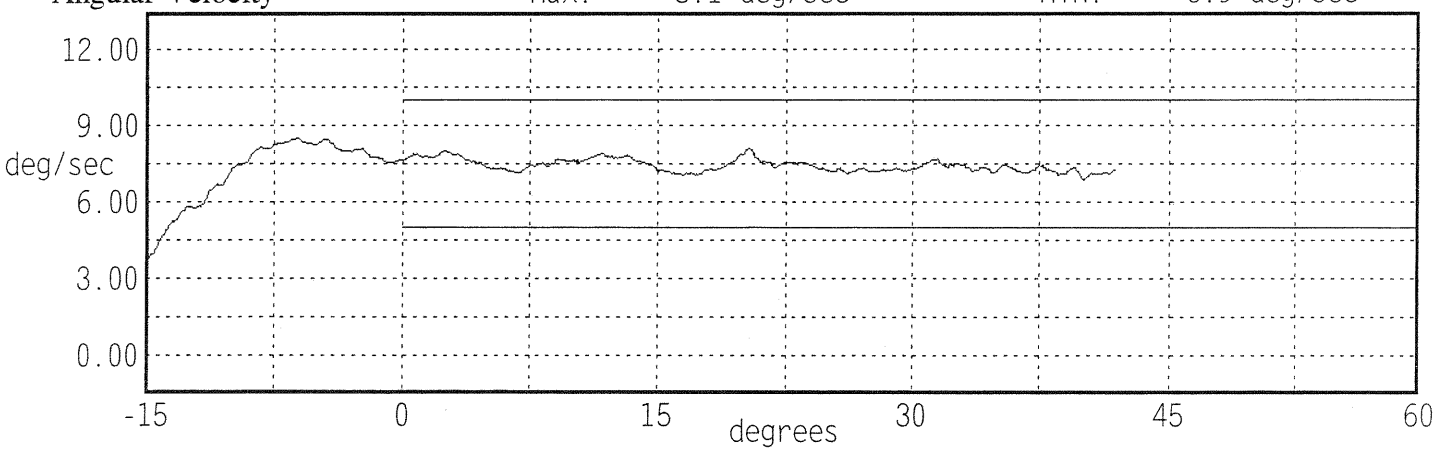
Moment About H-Point

Peak Moment: 211.6 Nm at 41.9 deg
Peak Angle: 41.9 deg at 211.6 Nm



Angular Velocity

Max: 8.1 deg/sec Min: 6.9 deg/sec



Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 20-3
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	22 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.089 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-4,844.61 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

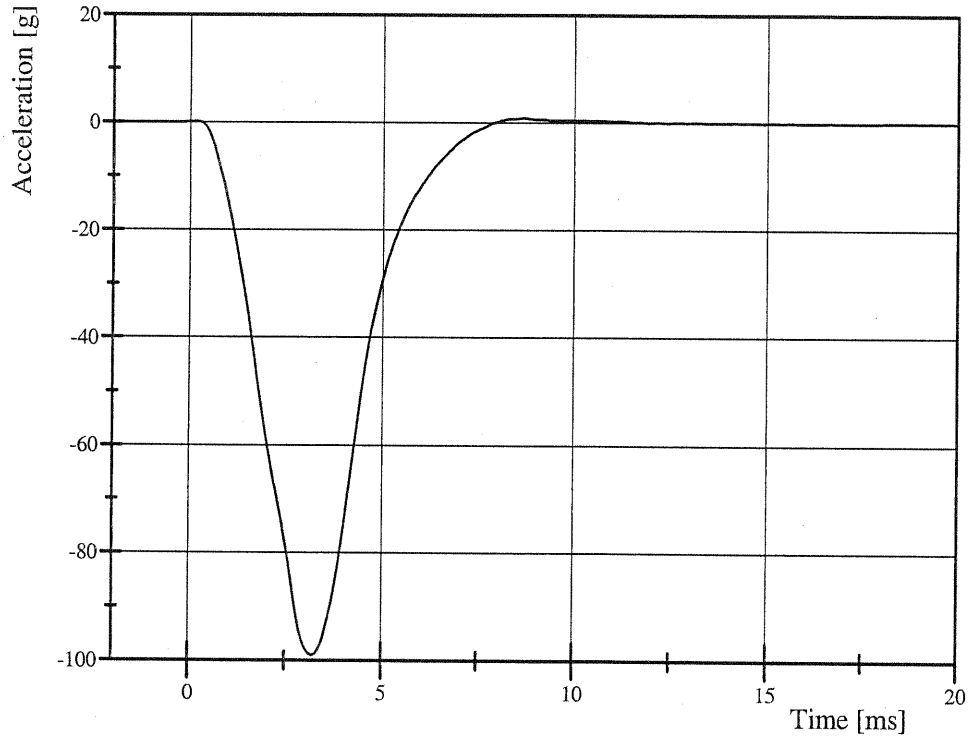
03.02.2007 10:19:30 1724

070222

Transportation Research Center Inc.

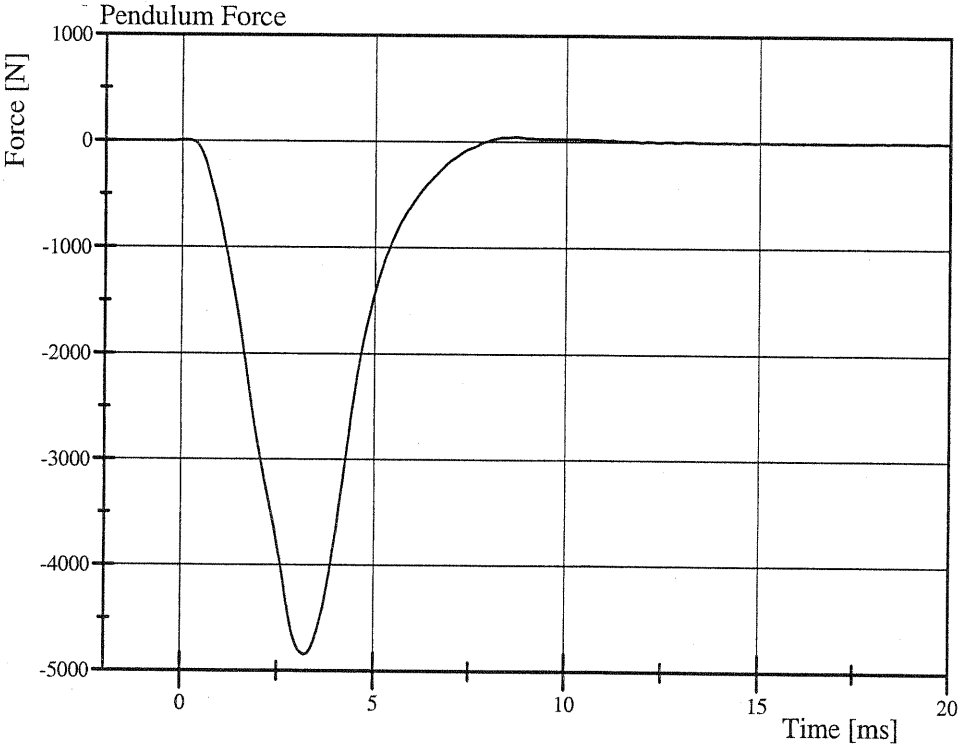
Left Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 20-3
Test Date: 3/2/2007

Pendulum Acceleration



Filter Class: CFC_600
Max: 0.9 g at 8.7 ms
Min: -99.0 g at 3.2 ms

Pendulum Force



Filter Class: CFC_600
Max: 43.1 N at 8.7 ms
Min: -4,844.6 N at 3.2 ms

Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 20-4
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	22 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.093 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,083.53 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

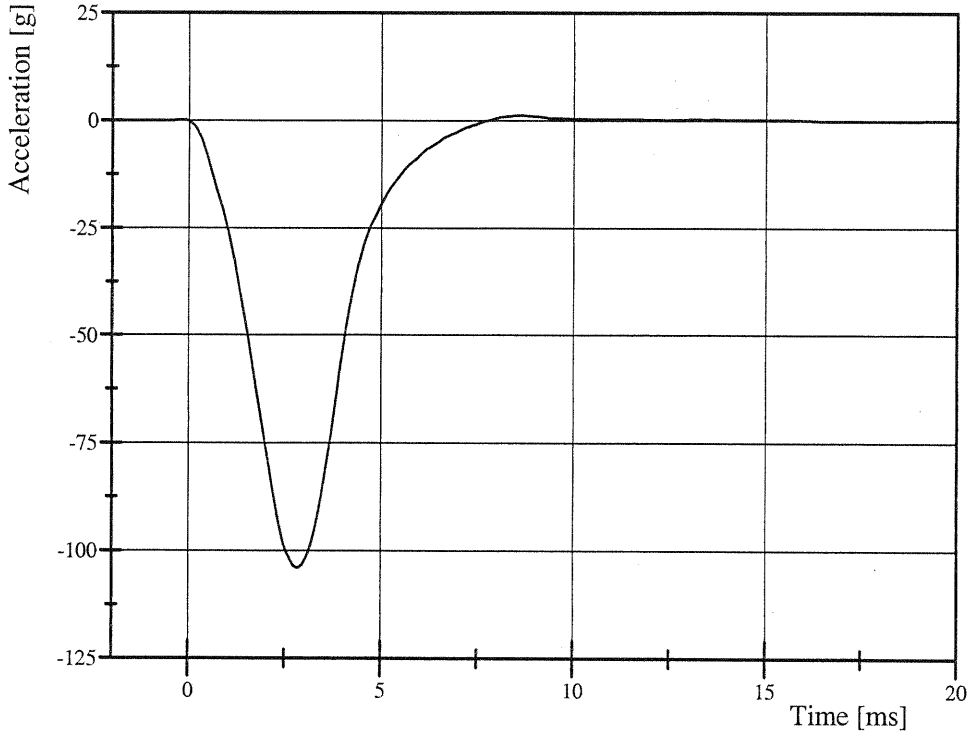
03.02.2007 10:51:17 1727

070222

Transportation Research Center Inc.

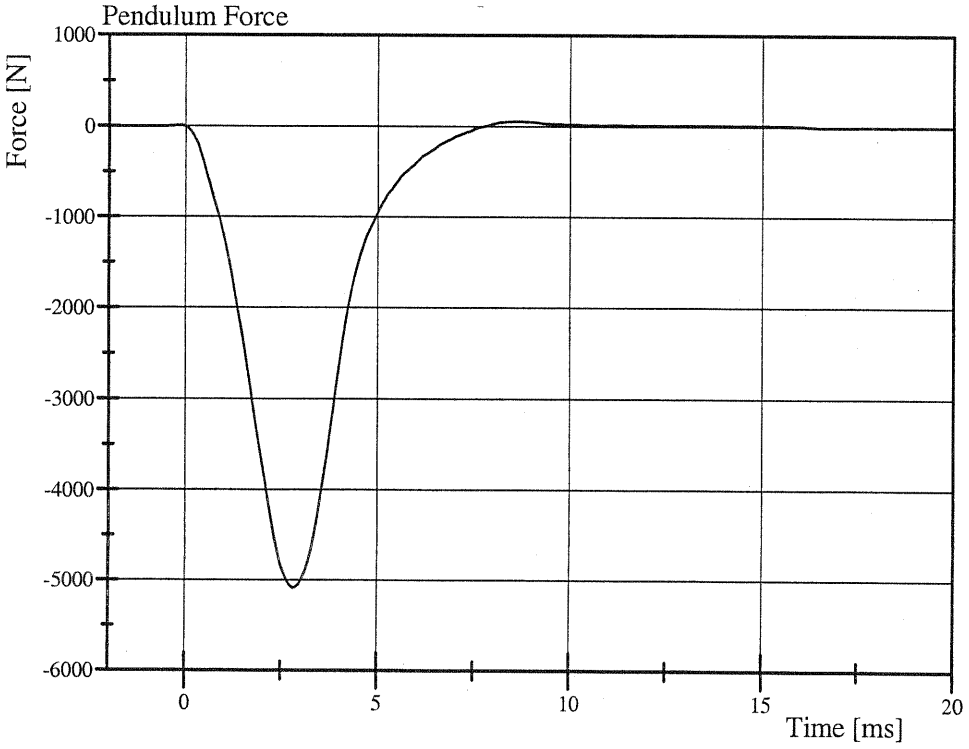
Right Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 20-4
Test Date: 3/2/2007

Pendulum Acceleration



Filter Class: CFC_600
Max: 1.2 g at 8.6 ms
Min: -103.9 g at 2.8 ms

Pendulum Force



Filter Class: CFC_600
Max: 60.3 N at 8.6 ms
Min: -5,083.5 N at 2.8 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

03.02.2007 10:51:29 1727

070222

Transportation Research Center Inc.

Left Knee Slider
HIII 50th Serial No. 202 Certification No. 20-1
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	23 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.771 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,577.2 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,987.5 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: SAE User's Manual with Polarity in Accordance with J211

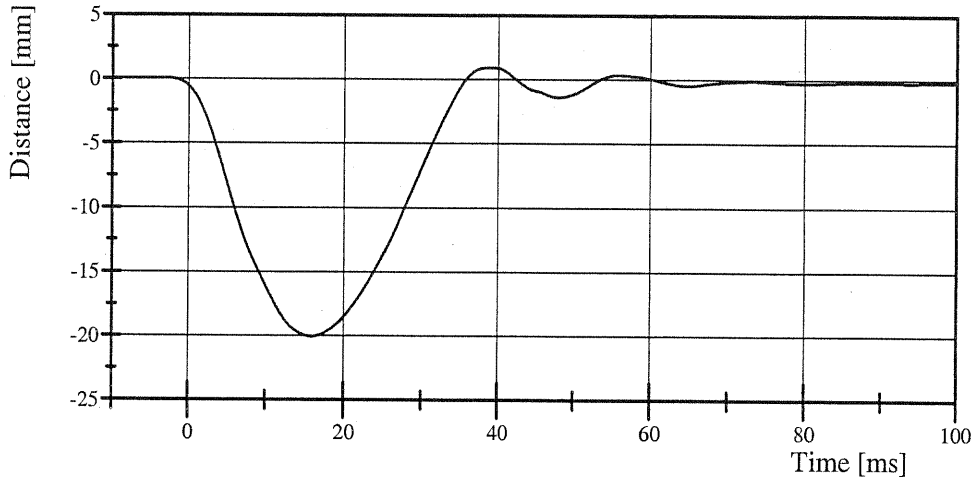
03.02.2007 11:09:02 1464

070222

Transportation Research Center Inc.

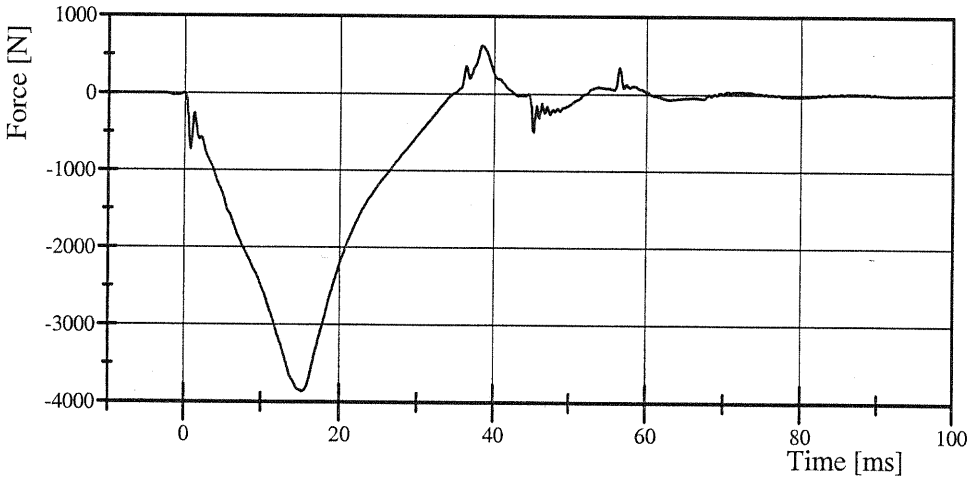
Left Knee Slider
HIII 50th Serial No. 202 Certification No. 20-1
Test Date: 3/2/2007

Knee Slider Displacement



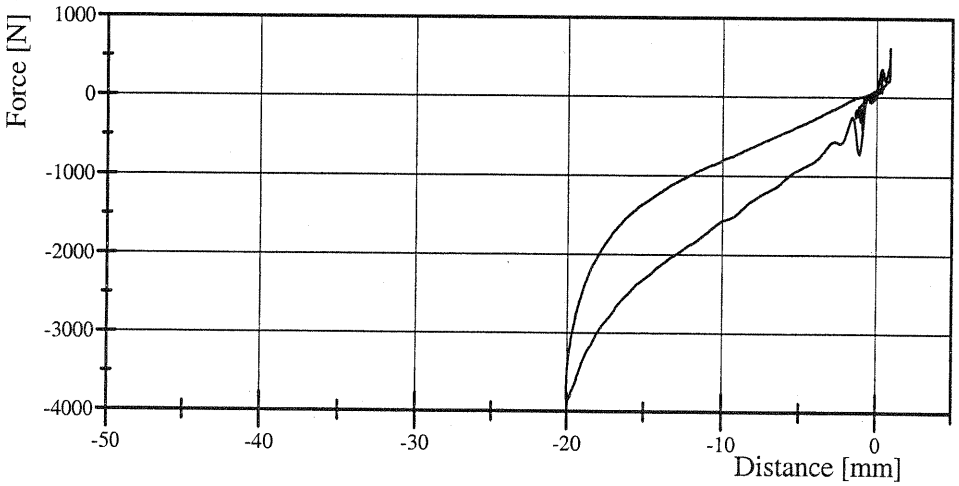
Filter Class: CFC_180
Max: 0.9 mm at 39.4 ms
Min: -20.0 mm at 16.0 ms

Femur Force



Filter Class: CFC_600
Max: 622.6 N at 38.4 ms
Min: -3,857.8 N at 15.3 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 622.6 N at 0.9 mm
Min: -3,857.8 N at -20.0 mm

Specification Source: SAE User's Manual with Polarity in Accordance with J211

03.02.2007 11:09:10 1464

070222

Transportation Research Center Inc.

Right Knee Slider
HIII 50th Serial No. 202 Certification No. 20-1
Test Date: 3/2/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.774 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,470.7 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,986.5 N	Yes

Test meets specifications.

Comments:

Technician

Robert Barnes

Approved

Ron Stoner

Specification Source: SAE User's Manual with Polarity in Accordance with J211

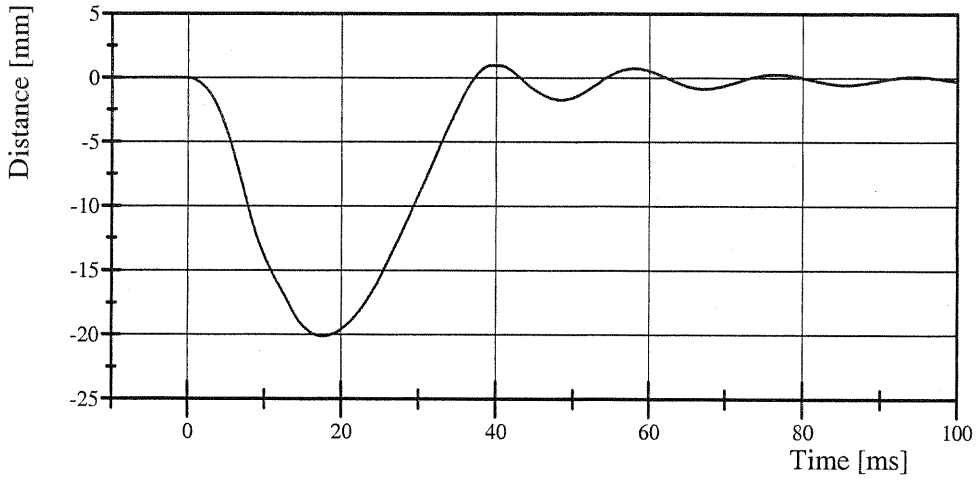
03.02.2007 11:25:08 1440

070222

Transportation Research Center Inc.

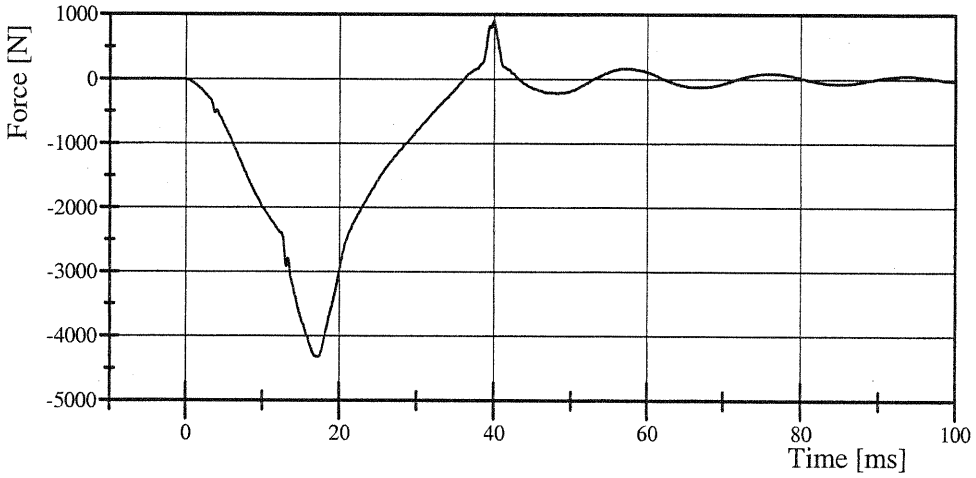
Right Knee Slider
HIII 50th Serial No. 202 Certification No. 20-1
Test Date: 3/2/2007

Knee Slider Displacement



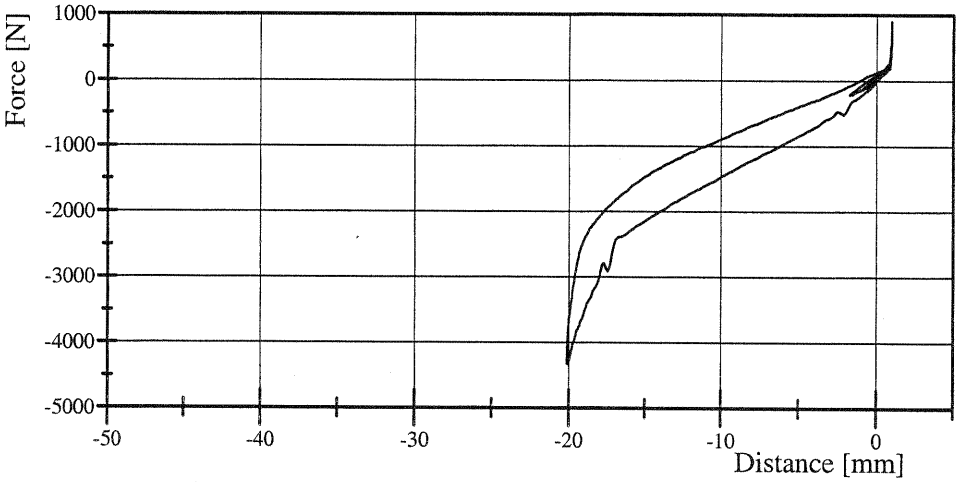
Filter Class: CFC_180
Max: 1.0 mm at 39.6 ms
Min: -20.1 mm at 17.6 ms

Femur Force



Filter Class: CFC_600
Max: 901.9 N at 39.9 ms
Min: -4,322.7 N at 17.2 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 901.9 N at 1.0 mm
Min: -4,322.7 N at -20.1 mm

TRANSPORTATION RESEARCH CENTER INC.

Hybrid III Dummy

Test Date: 02/22/07 (5^{th} %, 50^{th} %, 95^{th} %, 10 YO and 6YO)

Type: 50% S/N: 202 Mfg.: ASTC

Proj./Seg. No.: 20040479/ 1030 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	
NECK:		
Bracket at specified setting, Serration Alignment, Bolt Actual: N/A	Lower neck LC	X
Condyle Pin, Set Screws	X	
* Rubber Condition	X	X
* Neck Cable Torque (5^{th}/50^{th}/95^{th}: 10-14 in-lb) (6YO: 1.8 – 2.2 in-lb) Actual: 12	X	
* Nodding Blocks Condition and Position (Nodding Joint Function)	X	X
ARMS AND HANDS:		
Clavicle and Shoulder Bumpers Condition	X	
Range of Motion Stops: Elbow, Top and Rear Shoulder		X
THORAX:		
Front and Rear Rib Bolts, Rib Ends Position, Rib Spacing	X	
Chest Pot Arm, Ball Movement, Set Screws	X	X
Sternum Bolts and Sternum Bumpers Condition	X	X
Jacket Condition	X	X
Abdominal Insert Condition	X	X
Rib Damping Material and Stiffeners Condition	X	X
Accel. Mount Bolts	X	
Lumbar Spine Rubber Condition, Spine Angle (10YO), 4 Attachment Bolts	X	X
LUMBAR/PELVIS:		
Iliac Crest Bone	X	X
Flesh Condition	X	X
Accel. Mount Bolt	X	
10YO: Lumbar Block Adjustment Position as requested. Actual:_____	N/A	
Lumbar Block Bolts	X	
Range of Motion Bumpers & Leg Cavity	X	X
LEGS AND FEET:		
Femur Load Cell Bolts (5^{th} /50^{th} / 95^{th} : 30 ft-lb / 6YO: 16 ft-lb)	X	
Knee Joint Function and Range of Motion	X	
Knee Skins, Casting, and Inserts Condition	X	X
Knee Slider Zero Position	X	
Ankle Range of Motion, Bumper Condition	X	
Foot Condition	X	X
OTHER:		
Cleanliness / Skin Condition & Position	X	
Target Position	X	
Clothes and Shoes BLUE	X	
One G Joint Adjustments	X	
Verify channel s 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: 02/21/07

Post Test Inspection Completed By: J. Clarridge Date: 02/26/07

Pre-test Dummy Configuration and Performance Verification Data

Right Front Passenger Dummy S/N: 206

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 206 Calibration No. 20

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	880	Yes
B	Shoulder Pivot Height	505.5 - 520.7	510	Yes
C	H-Point Height	83.8 - 88.9	87	Yes
D	H-Point From Seatback	134.6 - 139.7	137	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	93	Yes
F	Thigh Clearance	139.7 - 154.9	150	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	291	Yes
H	Skull Cap To Backline	40.6 - 45.7	45	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	335	Yes
J	Elbow Rest Height	190.5 - 210.8	195	Yes
K	Buttock Knee Length	579.1 - 604.5	594	Yes
L	Popliteal Height	429.3 - 454.7	436	Yes
M	Knee Pivot Height	485.1 - 500.4	490	Yes
N	Buttock Popliteal Length	452.1 - 477.5	474	Yes
O	Chest Depth	213.4 - 228.6	216	Yes
P	Foot Length	251.5 - 266.7	252	Yes
V	Shoulder Breadth	421.6 - 436.9	427	Yes
W	Foot Breadth	91.4 - 106.7	100	Yes
Y	Chest Circumference	970.3 - 1000.8	986	Yes
Z	Waist Circumference	835.7 - 866.1	864	Yes
AA	Location For Chest Circumference	429.3 - 434.3	430	Yes
BB	Location For Waist Circumference	226.1 - 231.1	230	Yes

Technician

Approved

Transportation Research Center Inc.

Front Head Drop
HIII 50th Serial No. 206 Certification No. 20-14
Test Date: 2/1/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	242.6 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	4.8 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

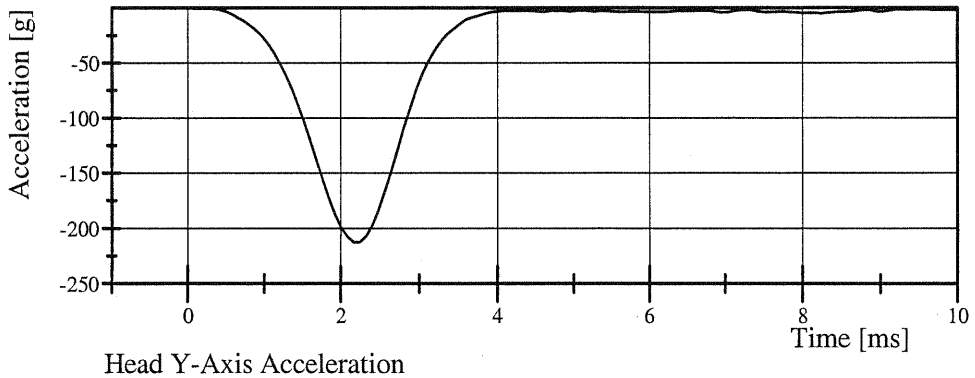
02.01.2007 13:02:51 611

070222

Transportation Research Center Inc.

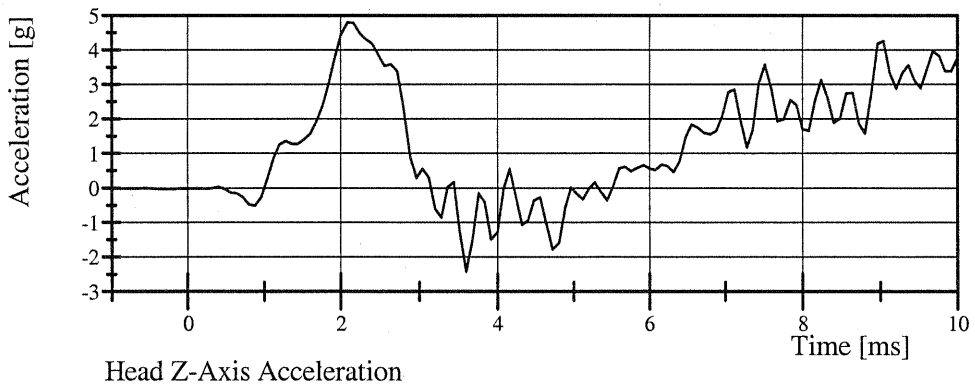
Front Head Drop
HIII 50th Serial No. 206 Certification No. 20-14
Test Date: 2/1/2007

Head X-Axis Acceleration



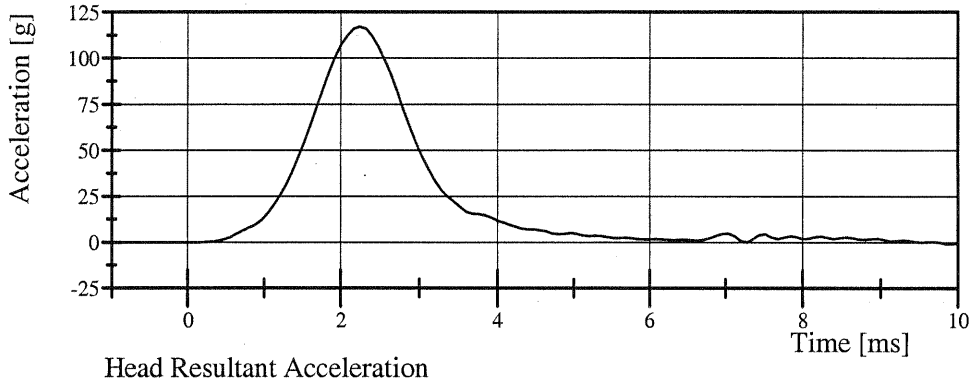
Filter Class: CFC_1000
Max: -0.0 g at -1.0 ms
Min: -212.4 g at 2.2 ms

Head Y-Axis Acceleration



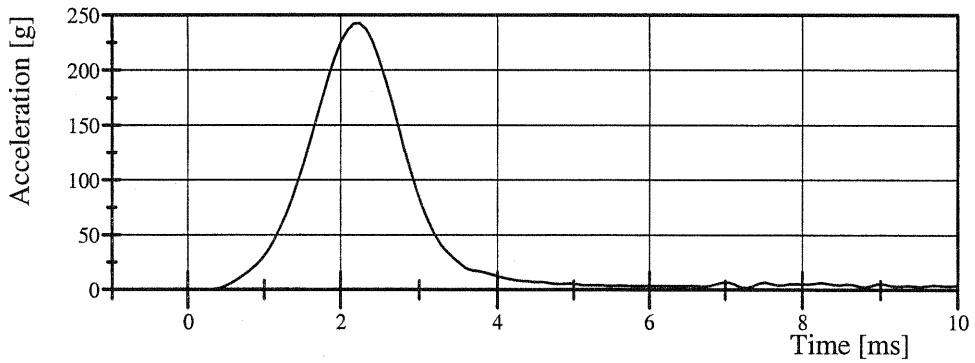
Filter Class: CFC_1000
Max: 4.8 g at 2.1 ms
Min: -2.4 g at 3.6 ms

Head Z-Axis Acceleration



Filter Class: CFC_1000
Max: 117.1 g at 2.2 ms
Min: -0.8 g at 9.9 ms

Head Resultant Acceleration



Filter Class: CFC_1000
Max: 242.6 g at 2.2 ms
Min: 0.0 g at -0.6 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

02.01.2007 13:03:00 611

070222

Transportation Research Center Inc.

Neck Flexion
HIII 50th Serial No. 206 Certification No. 20-3
Test Date: 1/30/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	23 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.927 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	40.5 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-23.31 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-20.53 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-14.27 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-14.27 g	Yes
Total Head D-Plane Rotation			
Peak	(-64) - (-78) °	-66.9 °	Yes
Time of Peak	57 - 64 ms	60.3 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	121.4 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	88 - 108 N·m	98.7 N·m	Yes
Time of Peak	47 - 58 ms	52.5 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	97 - 107 ms	102.1 ms	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

01.30.2007 13:31:34 1104

070222

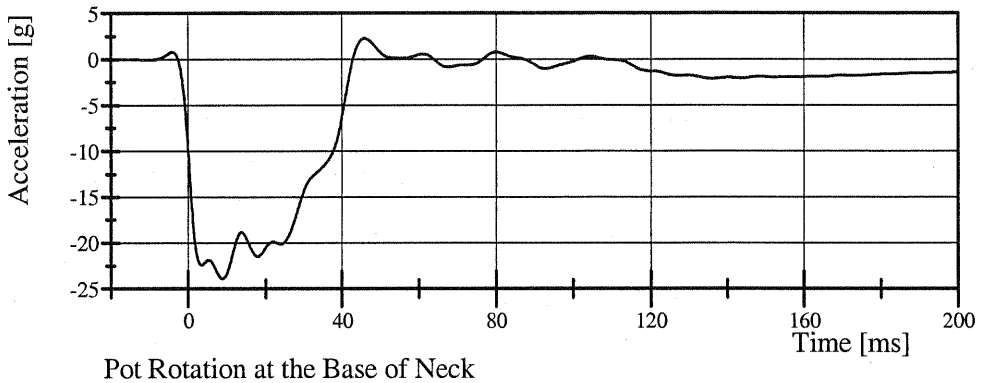
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 206 Certification No. 20-3

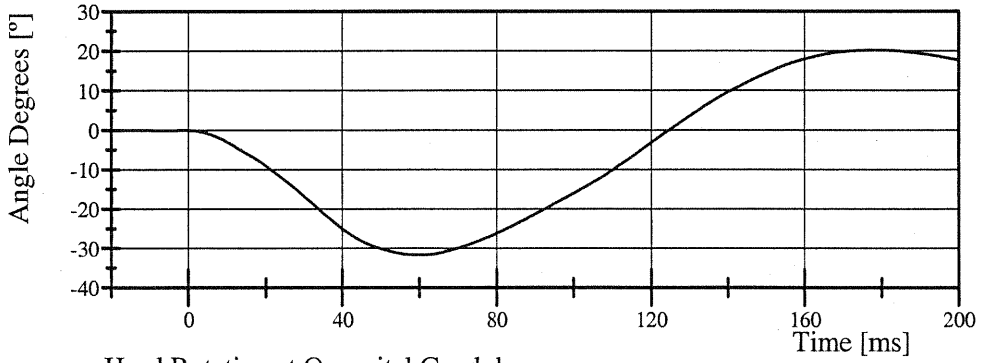
Test Date: 1/30/2007

Pendulum Acceleration



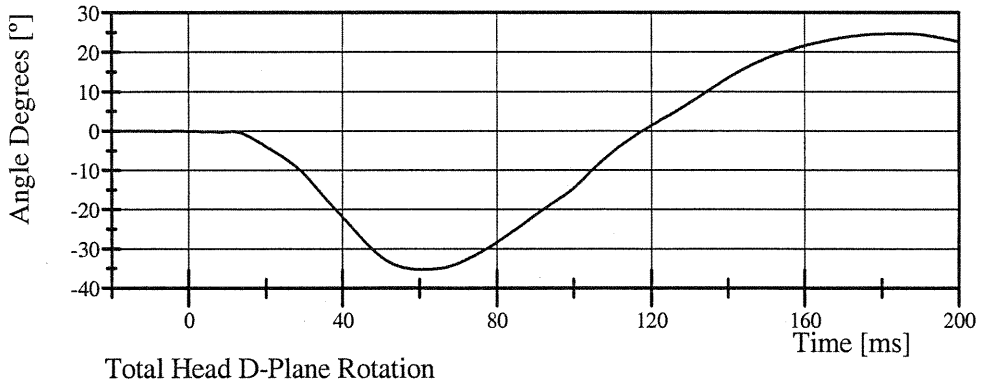
Filter Class: CFC_60
Max: 2.3 g at 45.9 ms
Min: -23.9 g at 8.8 ms

Pot Rotation at the Base of Neck



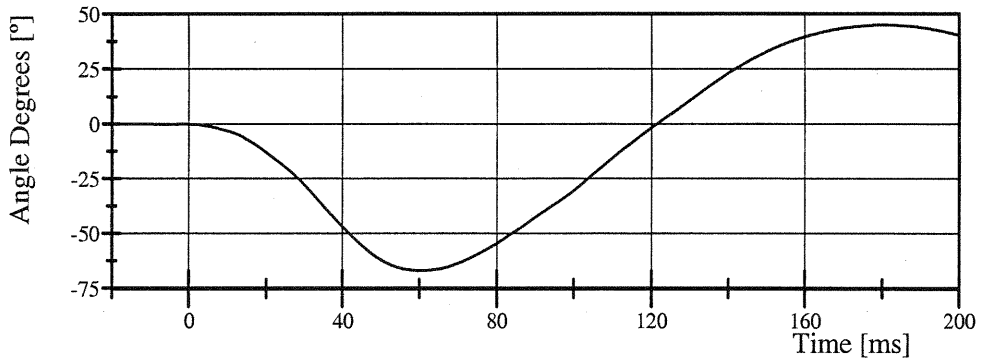
Filter Class: CFC_60
Max: 20.3 ° at 178.6 ms
Min: -31.7 ° at 60.1 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 24.8 ° at 185.8 ms
Min: -35.2 ° at 60.5 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 44.9 ° at 180.4 ms
Min: -66.9 ° at 60.3 ms

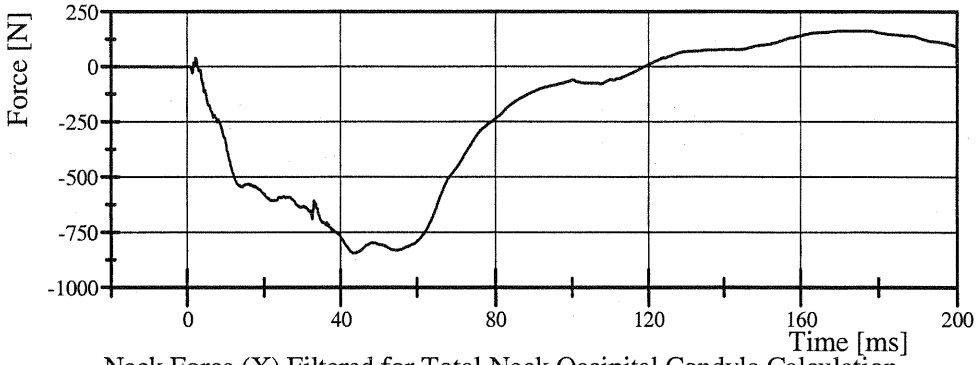
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 206 Certification No. 20-3

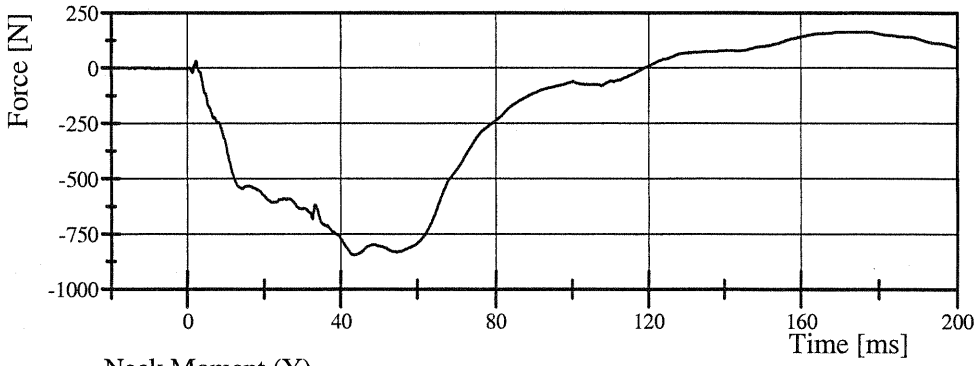
Test Date: 1/30/2007

Neck Force (X)



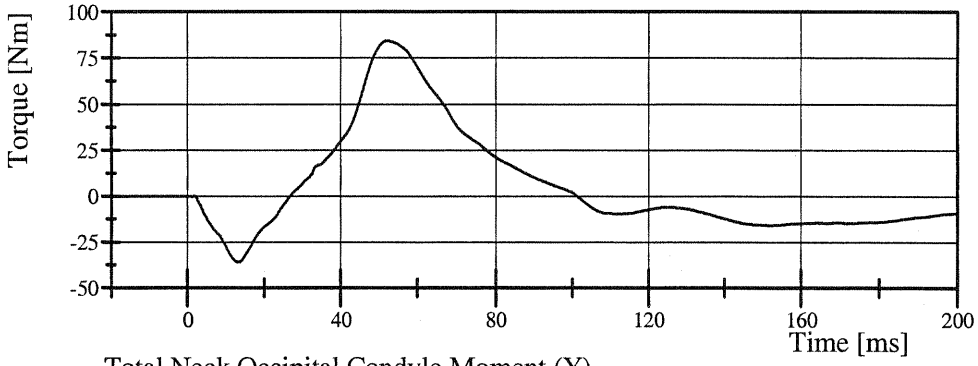
Filter Class: CFC_1000
Max: 164.5 N at 176.6 ms
Min: -844.0 N at 43.6 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



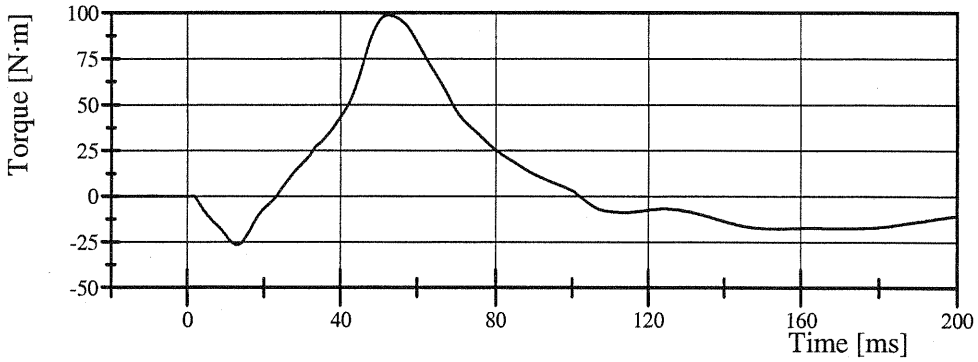
Filter Class: CFC_600
Max: 164.3 N at 176.6 ms
Min: -844.0 N at 43.7 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 84.3 Nm at 52.1 ms
Min: -35.8 Nm at 13.2 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 98.7 N·m at 52.5 ms
Min: -26.4 N·m at 13.0 ms

Transportation Research Center Inc.

Neck Extension
HIII 50th Serial No. 206 Certification No. 20-2
Test Date: 1/30/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	23 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.974 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	43.4 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	18.74 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	14.95 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	13.55 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	13.55 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	89.5 °	Yes
Time of Peak	72 - 82 ms	78.5 ms	Yes
Total Head D-Plane Rotation Decay to 0°	147 - 174 ms	160.8 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-53) - (-80) N·m	-67.0 N·m	Yes
Time of Peak	65 - 79 ms	73.3 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	120 - 148 ms	143.1 ms	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E with Polarity in accordance with J211

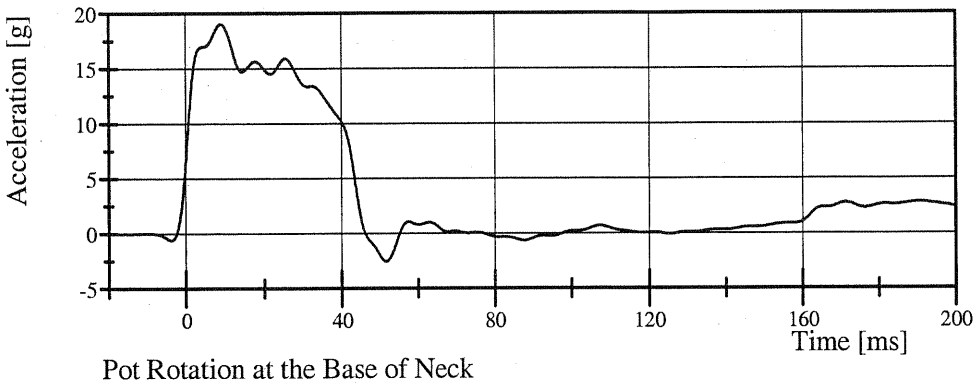
01.30.2007 14:39:42 1185

070222

Transportation Research Center Inc.

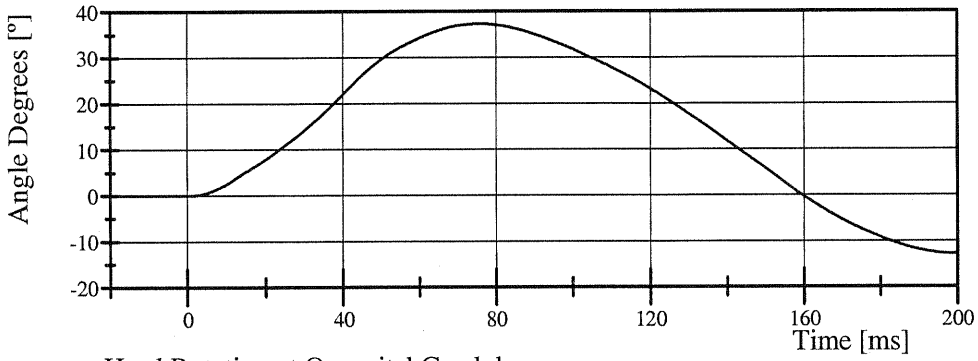
Neck Extension
HIII 50th Serial No. 206 Certification No. 20-2
Test Date: 1/30/2007

Pendulum Acceleration



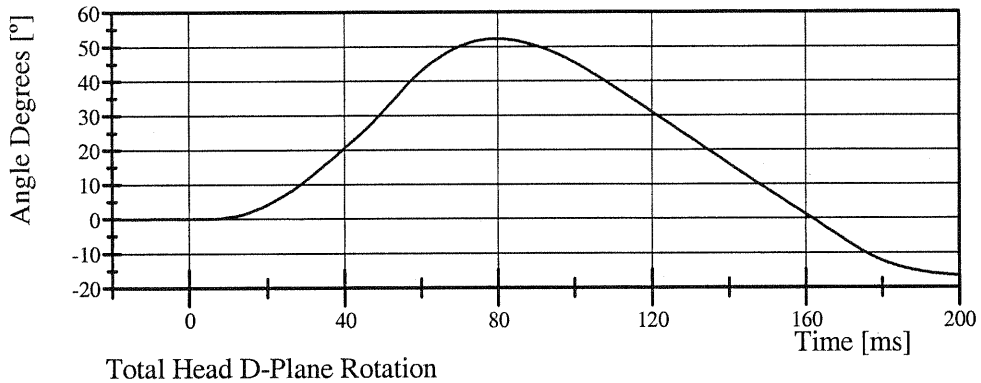
Filter Class: CFC_60
Max: 19.1 g at 9.0 ms
Min: -2.5 g at 51.6 ms

Pot Rotation at the Base of Neck



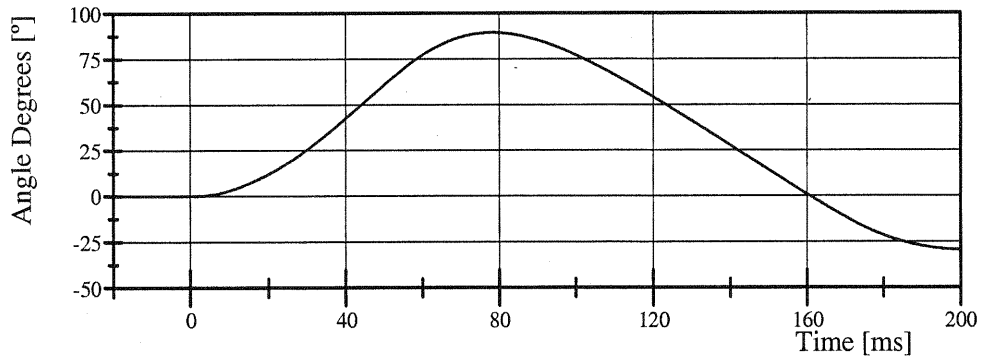
Filter Class: CFC_60
Max: 37.3 ° at 75.9 ms
Min: -12.9 ° at 200.0 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 52.3 ° at 79.7 ms
Min: -16.5 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 89.5 ° at 78.5 ms
Min: -29.4 ° at 200.0 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

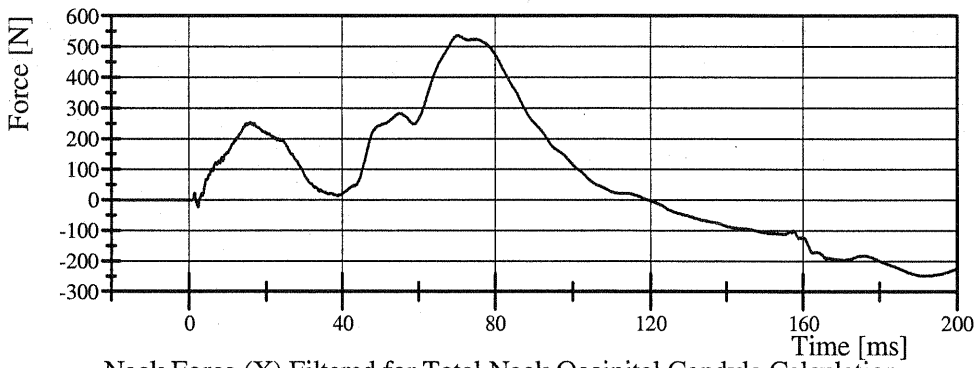
01.30.2007 14:39:48 1185

070222

Transportation Research Center Inc.

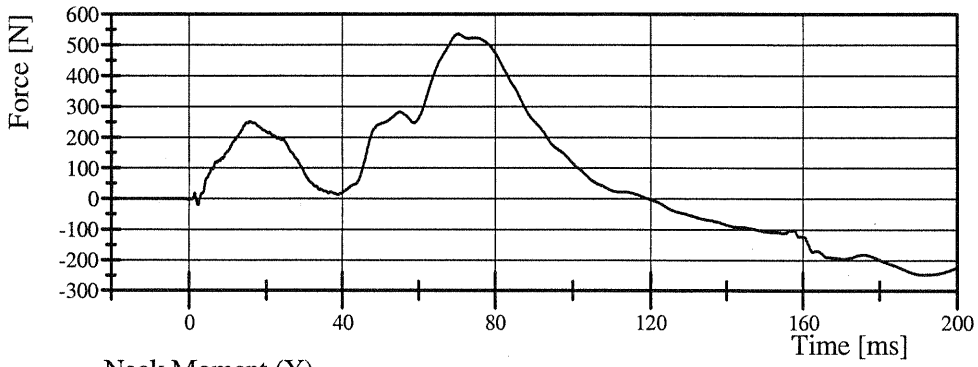
Neck Extension
HIII 50th Serial No. 206 Certification No. 20-2
Test Date: 1/30/2007

Neck Force (X)



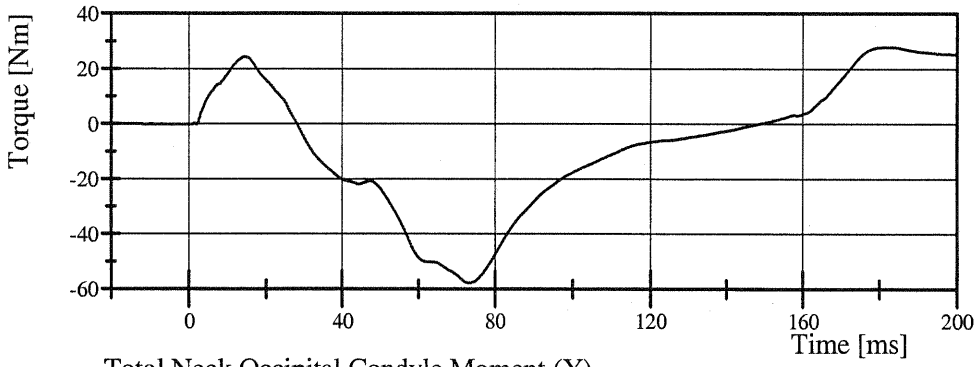
Filter Class: CFC_1000
Max: 535.8 N at 70.6 ms
Min: -248.0 N at 191.7 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



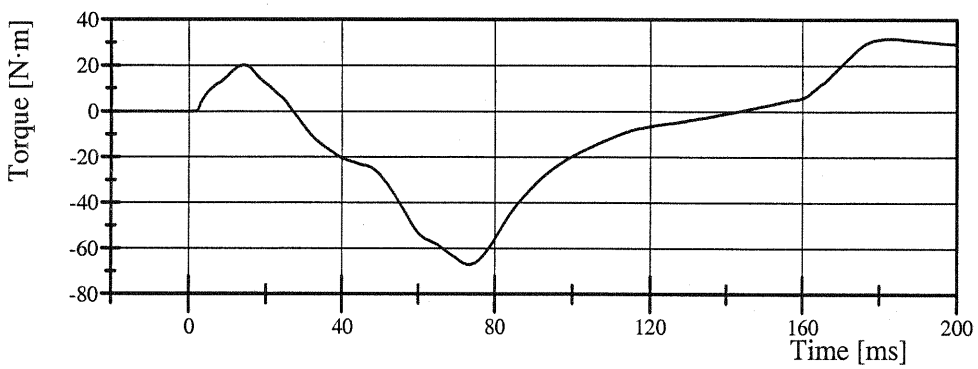
Filter Class: CFC_600
Max: 535.8 N at 70.5 ms
Min: -247.7 N at 191.8 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 28.0 Nm at 182.3 ms
Min: -57.8 Nm at 73.2 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 31.8 N·m at 183.0 ms
Min: -67.0 N·m at 73.3 ms

Transportation Research Center Inc.

Front Thorax
HIII 50th Serial No. 206 Certification No. 20-11
Test Date: 2/6/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	17 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.607 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,501.7 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-70.52 mm	Yes
Internal Hysteresis	65 - 85 %	71.4 %	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

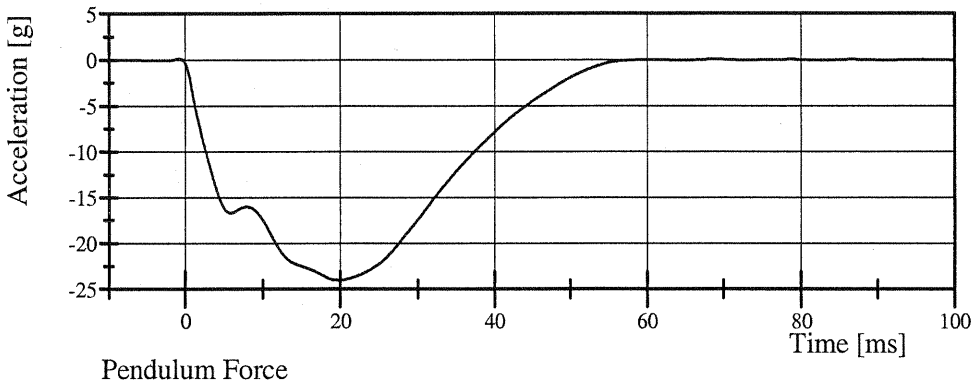
02.06.2007 10:42:06 1586

070222

Transportation Research Center Inc.

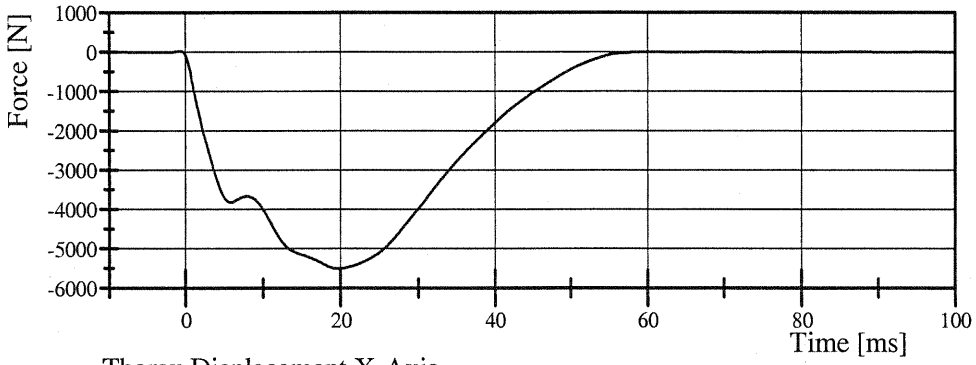
Front Thorax
HIII 50th Serial No. 206 Certification No. 20-11
Test Date: 2/6/2007

Pendulum Acceleration



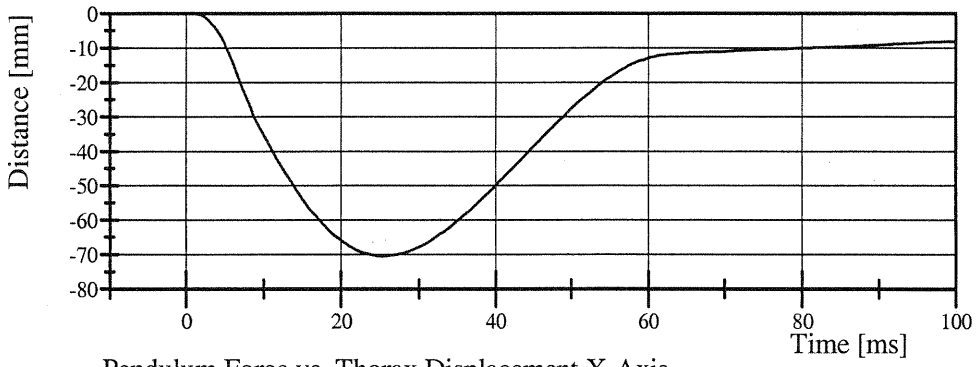
Filter Class: CFC_180
Max: 0.1 g at -0.7 ms
Min: -24.0 g at 19.8 ms

Pendulum Force



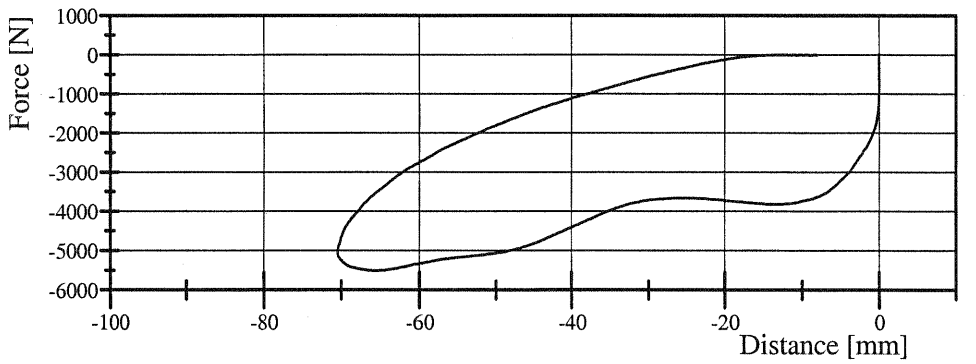
Filter Class: CFC_180
Max: 29.6 N at -0.7 ms
Min: -5,501.7 N at 19.8 ms

Thorax Displacement X-Axis



Filter Class: CFC_600
Max: 0.0 mm at -5.5 ms
Min: -70.5 mm at 25.3 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180
Max: 29.6 N at -0.0 mm
Min: -5,501.7 N at -65.7 mm

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

02.06.2007 10:42:52 1586

070222

Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

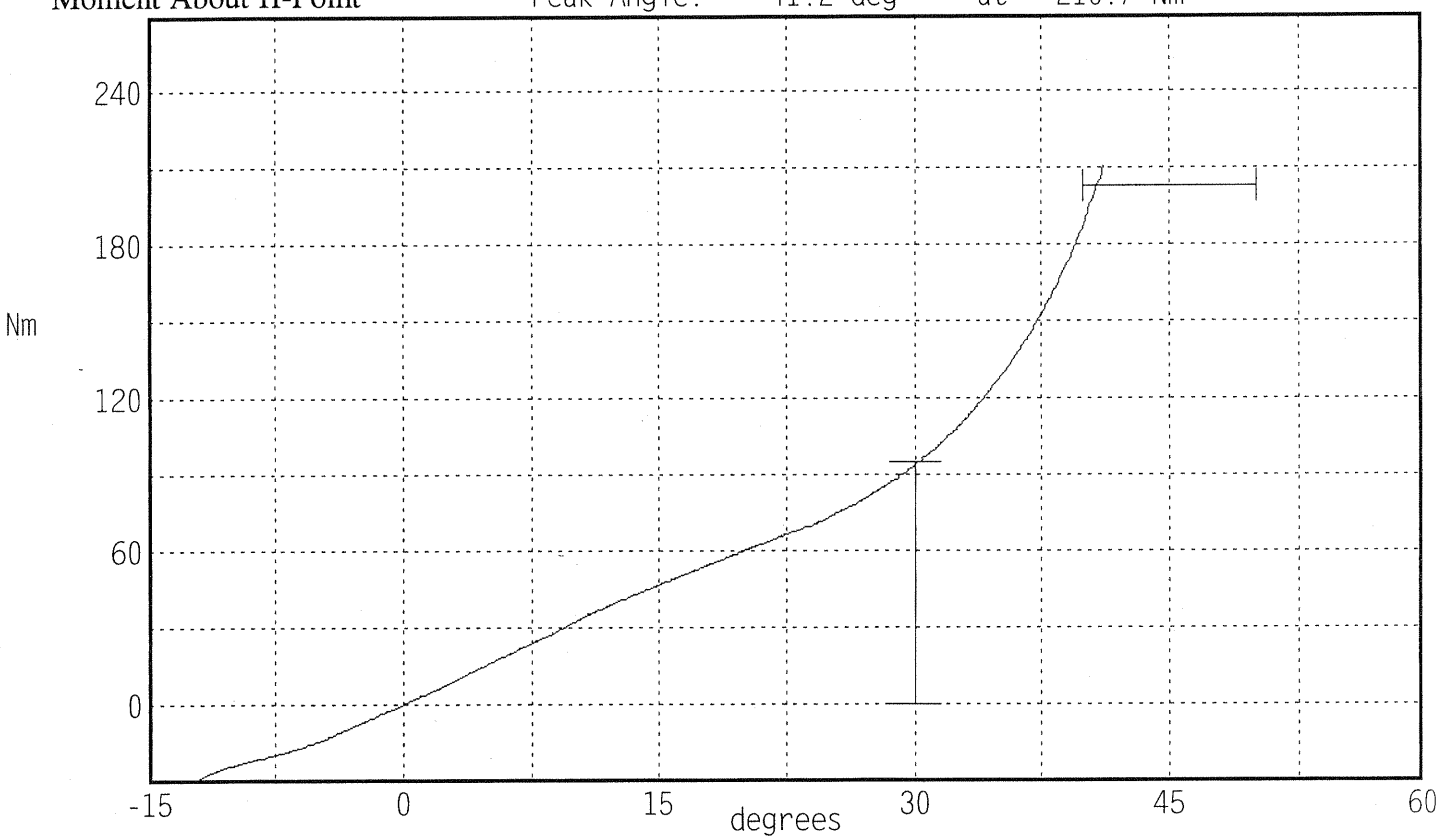
Serial Number: 206L
Test Number: 206C20
Comments:

Date: 01/30/2007
Time: 10:11

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.4	°C	Pass
Humidity	10 - 70	26	%	Pass
Moment at 30 deg	<= 94.9	93.8	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	40.7	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

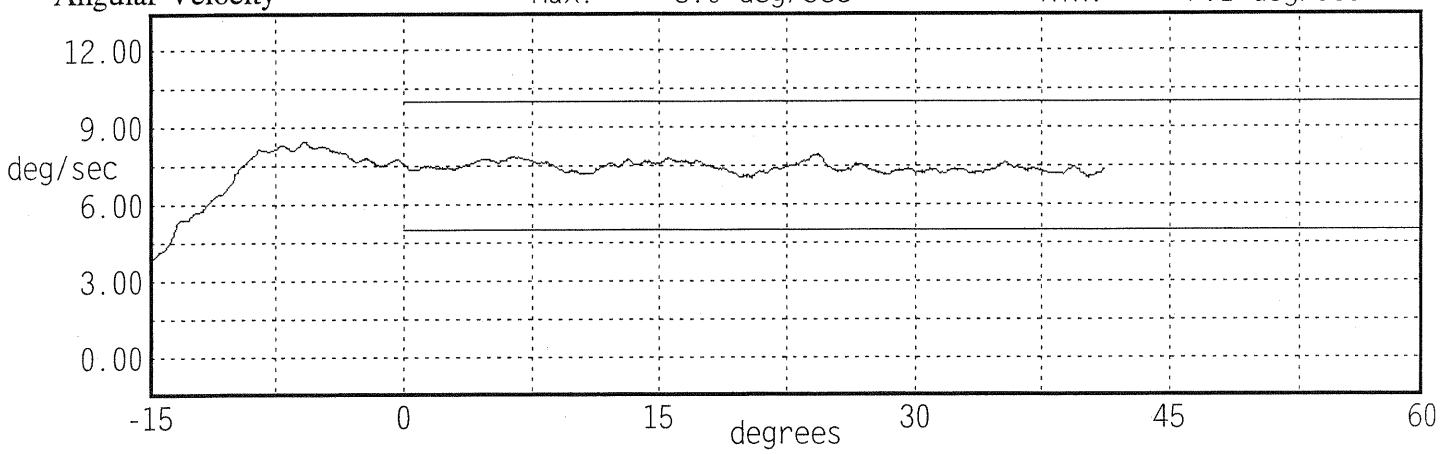
Moment About H-Point

Peak Moment: 210.7 Nm at 41.2 deg
Peak Angle: 41.2 deg at 210.7 Nm



Angular Velocity

Max: 8.0 deg/sec Min: 7.1 deg/sec



Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

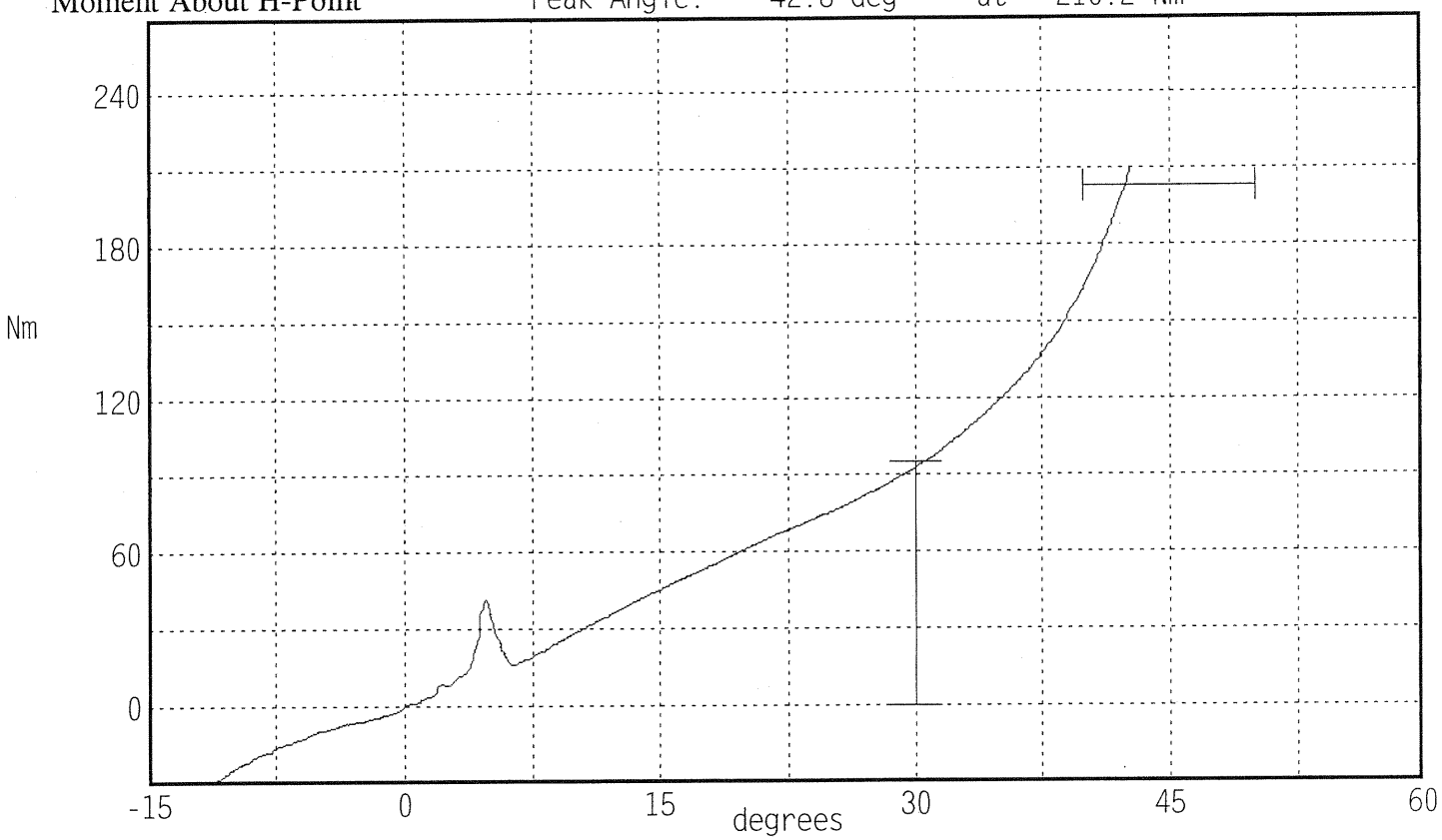
Serial Number: 206R
Test Number: 206C20
Comments:

Date: 01/30/2007
Time: 12:06

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.4	°C	Pass
Humidity	10 - 70	26	%	Pass
Moment at 30 deg	<= 94.9	92.6	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	42.6	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

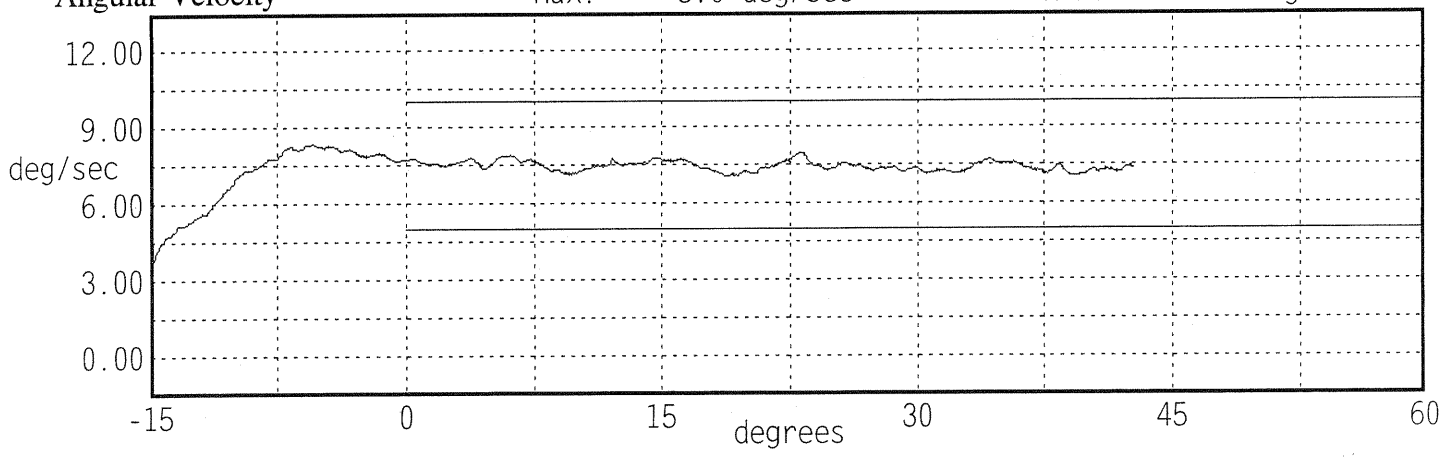
Moment About H-Point

Peak Moment: 210.2 Nm at 42.8 deg
Peak Angle: 42.8 deg at 210.2 Nm



Angular Velocity

Max: 8.0 deg/sec Min: 7.0 deg/sec



Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 5-4
Test Date: 1/29/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	23 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.106 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,736.93 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

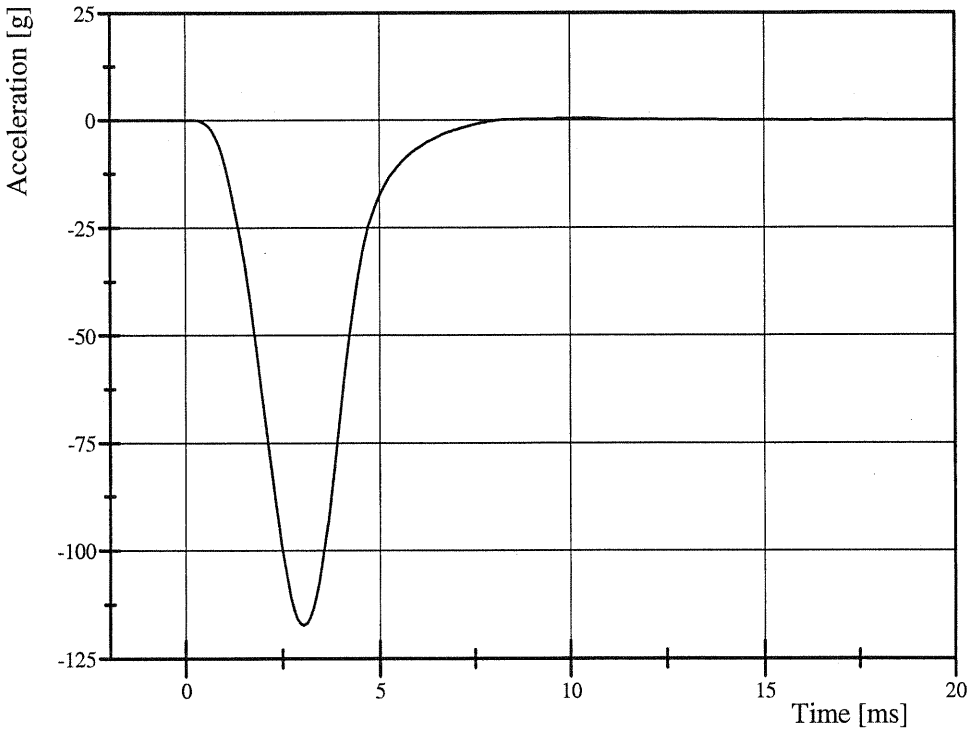
01.29.2007 15:28:59 1721

070222

Transportation Research Center Inc.

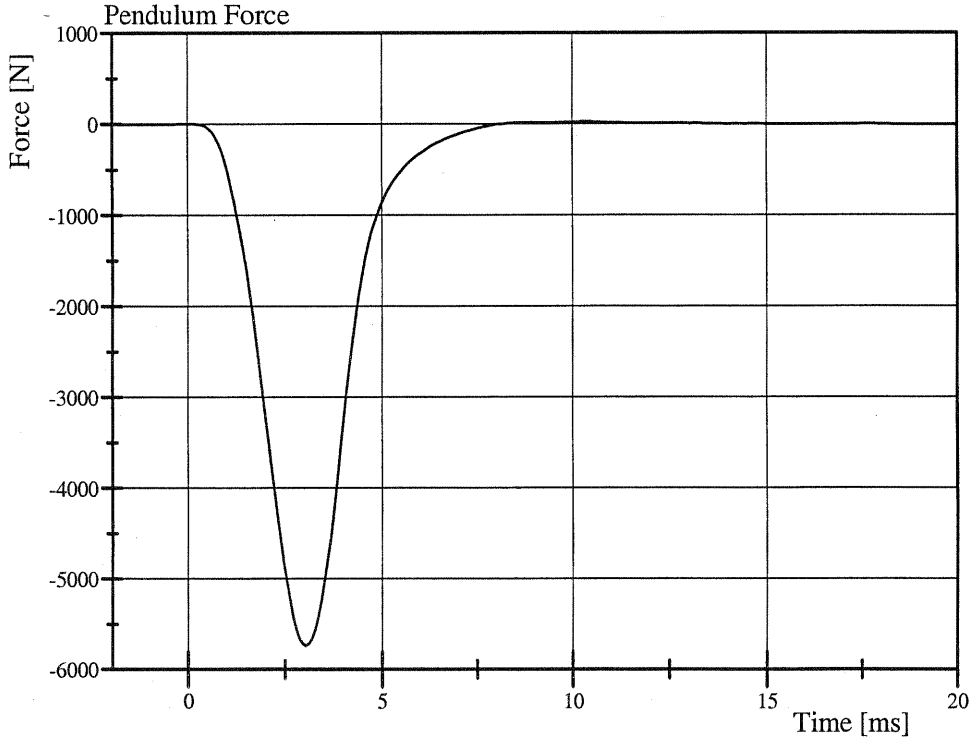
Left Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 5-4
Test Date: 1/29/2007

Pendulum Acceleration



Filter Class: CFC_600
Max: 0.5 g at 10.3 ms
Min: -117.2 g at 3.0 ms

Pendulum Force



Filter Class: CFC_600
Max: 23.8 N at 10.3 ms
Min: -5,736.9 N at 3.0 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

01.29.2007 15:29:06 1721

070222

Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 5-5
Test Date: 1/30/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	26 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.102 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,532.65 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

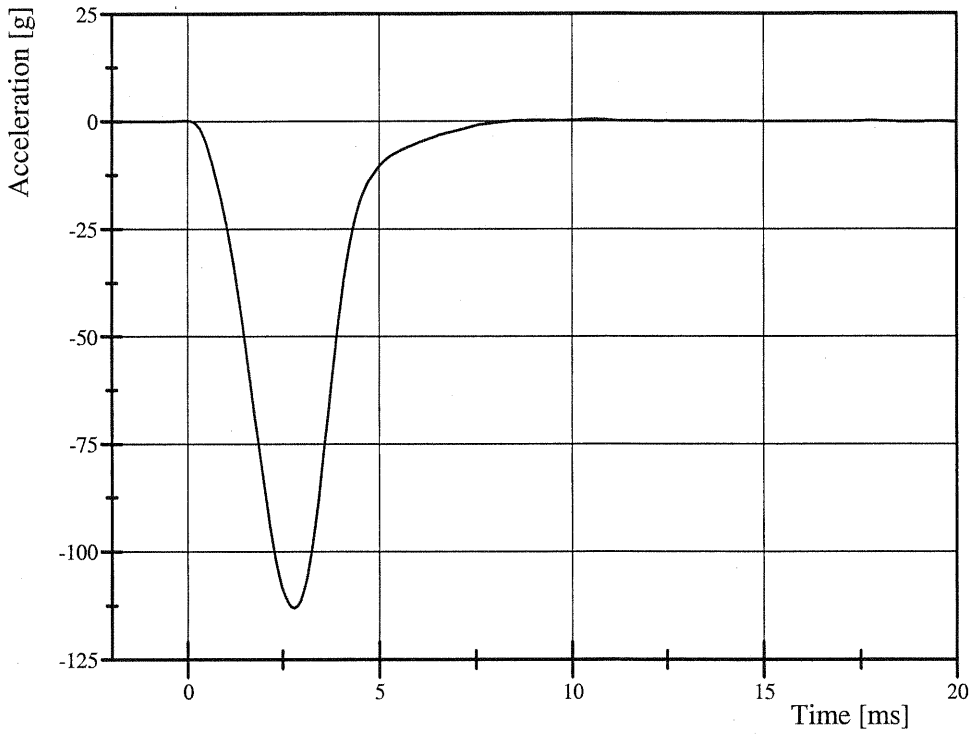
01.30.2007 07:57:50 1735

070222

Transportation Research Center Inc.

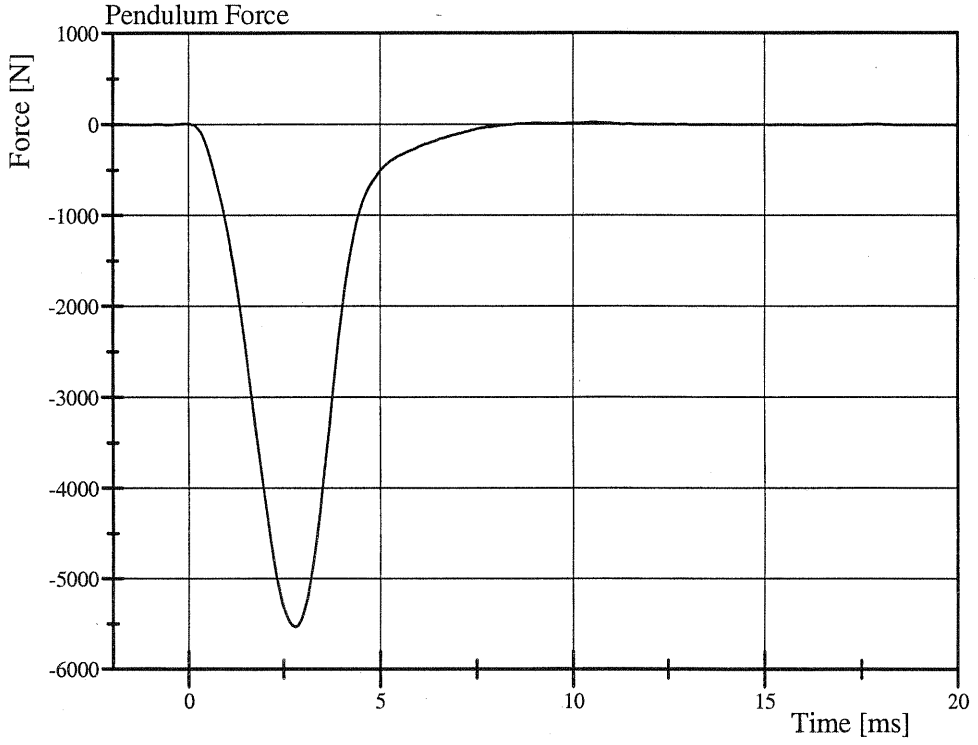
Right Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 5-5
Test Date: 1/30/2007

Pendulum Acceleration



Filter Class: CFC_600
Max: 0.5 g at 10.5 ms
Min: -113.1 g at 2.8 ms

Pendulum Force



Filter Class: CFC_600
Max: 22.6 N at 10.5 ms
Min: -5,532.7 N at 2.8 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

01.30.2007 07:58:13 1735

070222

Transportation Research Center Inc.

Left Knee Slider
HIII 50th Serial No. LX103104 Certification No. 5-3
Test Date: 2/1/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.746 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,504.2 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,846.8 N	Yes

Test meets specifications.

Comments:

Technician

Approved

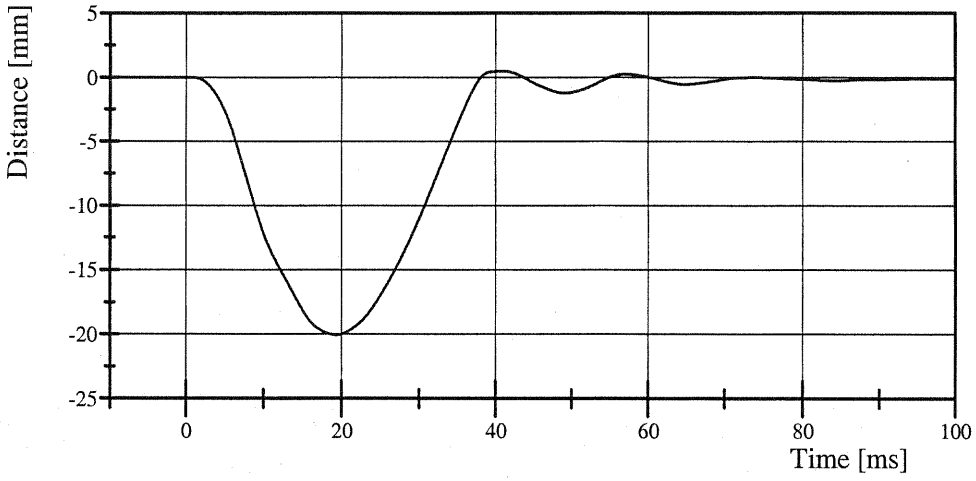
Specification Source: SAE User's Manual with Polarity in Accordance with J211

02.01.2007 12:27:57 1460

Transportation Research Center Inc.

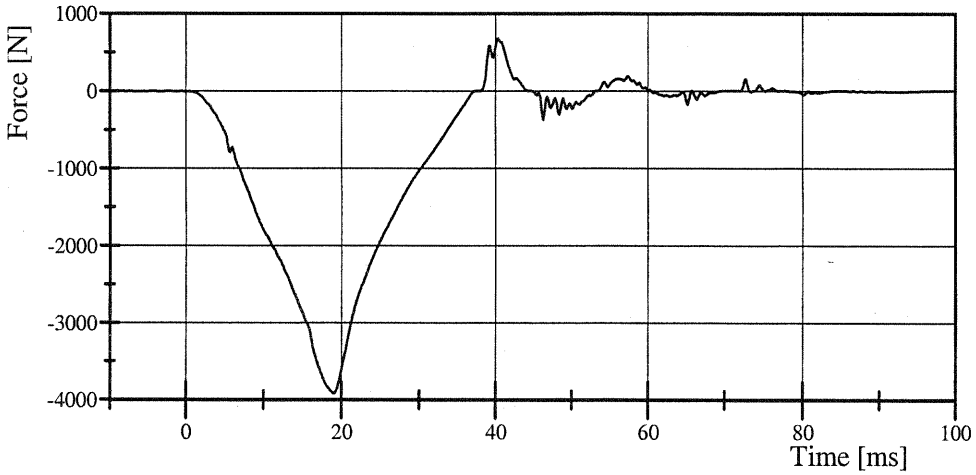
Left Knee Slider
HIII 50th Serial No. LX103104 Certification No. 5-3
Test Date: 2/1/2007

Knee Slider Displacement



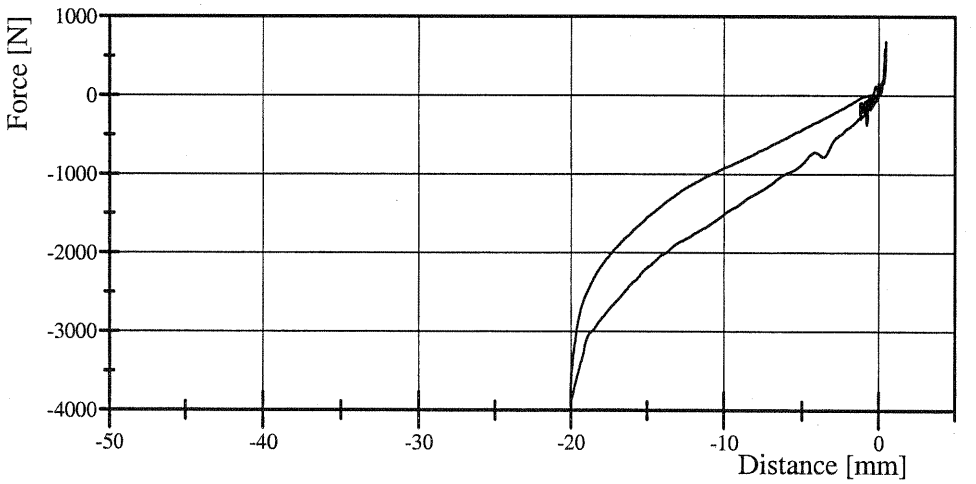
Filter Class: CFC_180
Max: 0.5 mm at 40.9 ms
Min: -20.1 mm at 19.3 ms

Femur Force



Filter Class: CFC_600
Max: 683.1 N at 40.3 ms
Min: -3,913.6 N at 19.0 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 683.1 N at 0.5 mm
Min: -3,913.6 N at -20.0 mm

Specification Source: SAE User's Manual with Polarity in Accordance with J211

02.01.2007 12:28:03 1460

070222

Transportation Research Center Inc.

Right Knee Slider
HIII 50th Serial No. LX103104 Certification No. 5-1
Test Date: 1/31/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	21 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.749 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,581.7 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,937.3 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: SAE User's Manual with Polarity in Accordance with J211

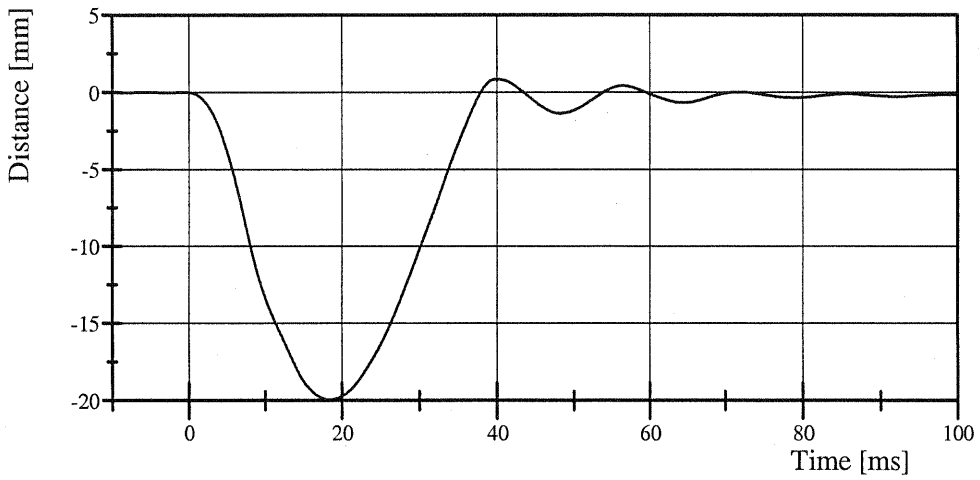
01.31.2007 12:54:41 1470

070222

Transportation Research Center Inc.

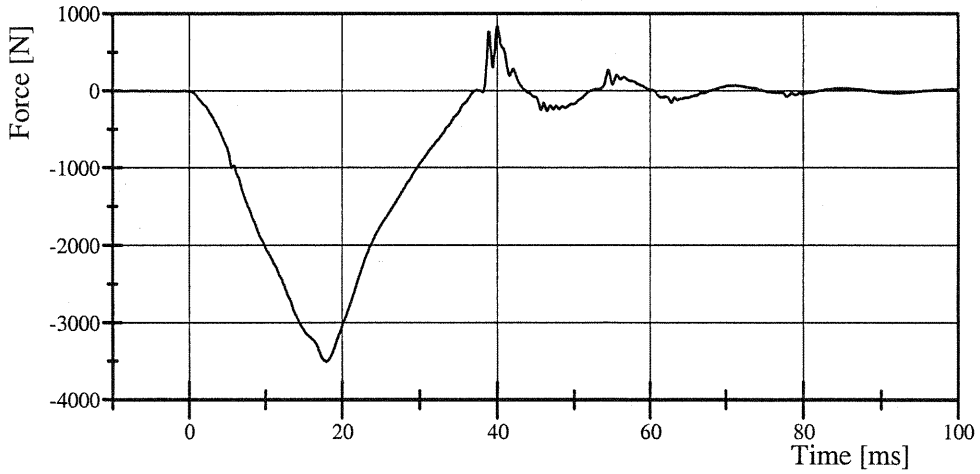
Right Knee Slider
HIII 50th Serial No. LX103104 Certification No. 5-1
Test Date: 1/31/2007

Knee Slider Displacement



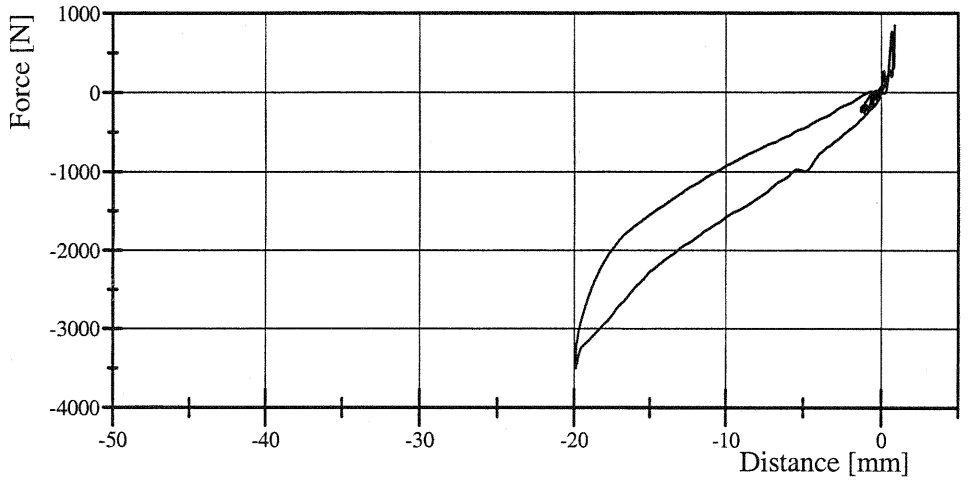
Filter Class: CFC_180
Max: 0.9 mm at 40.0 ms
Min: -19.9 mm at 18.3 ms

Femur Force



Filter Class: CFC_600
Max: 840.9 N at 40.0 ms
Min: -3,500.6 N at 17.9 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 840.9 N at 0.9 mm
Min: -3,500.6 N at -19.9 mm

TRANSPORTATION RESEARCH CENTER INC.

Hybrid III Dummy

Test Date: 02/22/07 (5th %, 50th %, 95th %, 10 YO and 6YO)

Type: 50% S/N: 206 Mfg.: ASTC

Proj./Seg. No.: 20040479/ 1030 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	
NECK:		
Bracket at specified setting, Serration Alignment, Bolt Actual: N/A	Lower neck LC	X
Condyle Pin, Set Screws	X	
* Rubber Condition	X	X
* Neck Cable Torque (5th/50th/95th: 10-14 in-lb) (6YO: 1.8 – 2.2 in-lb) Actual: 12	X	
* Nodding Blocks Condition and Position (Nodding Joint Function)	X	X
ARMS AND HANDS:		
Clavicle and Shoulder Bumpers Condition	X	
Range of Motion Stops: Elbow, Top and Rear Shoulder		X
THORAX:		
Front and Rear Rib Bolts, Rib Ends Position, Rib Spacing	X	
Chest Pot Arm, Ball Movement, Set Screws	X	X
Sternum Bolts and Sternum Bumpers Condition	X	X
Jacket Condition	X	X
Abdominal Insert Condition	X	X
Rib Damping Material and Stiffeners Condition	X	X
Accel. Mount Bolts	X	
Lumbar Spine Rubber Condition, Spine Angle (10YO), 4 Attachment Bolts	X	X
LUMBAR/PELVIS:		
Iliac Crest Bone	X	X
Flesh Condition	X	X
Accel. Mount Bolt	X	
10YO: Lumbar Block Adjustment Position as requested. Actual:_____	N/A	
Lumbar Block Bolts	X	
Range of Motion Bumpers & Leg Cavity	X	X
LEGS AND FEET:		
Femur Load Cell Bolts (5th /50th / 95th : 30 ft-lb / 6YO: 16 ft-lb)	X	
Knee Joint Function and Range of Motion	X	
Knee Skins, Casting, and Inserts Condition	X	X
Knee Slider Zero Position	X	
Ankle Range of Motion, Bumper Condition	X	
Foot Condition	X	X
OTHER:		
Cleanliness / Skin Condition & Position	X	
Target Position	X	
Clothes and Shoes Pink	X	
One G Joint Adjustments	X	
Verify channel s 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: 02/21/07

Post Test Inspection Completed By: J. Clarridge Date: 02/26/07

Appendix D

Customer Provided Seating Procedure

A.2 Driver side (with Brake and clutch pedals in place while avoiding pedal interaction)

__1. Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1, S22.1.7.1)
__ N/A – No lumbar adjustment

__2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1, S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
__ N/A – No additional support adjustment

__3. Position an adjustable leg support system in its rearmost position. (8/27/04 interpretation to Toyota)
__N/A – No adjustable leg support system

___4. Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)

___5. Draw a line (seat cushion reference line) through the seat cushion reference point. (S16.3.1.13)

__6. Use only the controls that primarily move the seat in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)

___7. If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S20..1.9.3)

___N/A – No independent fore-aft seat cushion adjustment

___8. Use any part of any control, other than the parts just used for fore-aft positioning, to determine the range of angles of the seat cushion reference line and to set the seat cushion reference line at the mid-angle. (S16.2.10.3.1)
Maximum angle _____
Minimum angle _____
Mid-angle _____

___9. If the seat and/or seat cushion height is adjustable, use any part of any control other than the parts which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 8. (S16.2.10.3.1)
__N/A – No seat height adjustment

___10. Use only the controls that primarily move the seat in the fore-aft direction to verify the seat is in the rearmost position.

___12. Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.

__14. Visually mark for future reference the seat back angle at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer for the rearmost seat position. (S20.1.9.5, S22.1.7.5, S22.4.2.1, S22.4.3.1, S24.1.2, S24.4.2.1, S26.2.3, S26.3.1)
__ N/A – No seat back angle adjustment
Manufacturer's design seat back angle _____

__ 15. Is the seat a bucket seat?
__Yes, go to 16 and skip 17
__No, go to 17 and skip 16

___16. Bucket seats:
Locate and mark for future reference the longitudinal centerline of the seat cushion. The intersection of the vertical longitudinal plane that passes through the SgRP and the seat cushion upper surface determines the longitudinal centerline of a bucket seat cushion. (S16.3.1.10 & S20.1.10)

___17. Bench seats
Locate and mark for future reference the longitudinal line on the seat cushion that marks the intersection of the vertical longitudinal plane through the centerline of the steering wheel and the seat cushion upper surface.

__18. Head Restraint Position
__N/A Vehicle contains automatic head restraints.
__N/A, there is no head restraint adjustment
___Adjust the head restraint to its highest position. (S8.1.3)

___19. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
__N/A – No adjustable upper seat belt anchorage
Manufacturer's specified anchorage position. _____
Tested anchorage position _____

___20. Place adjustable pedals in the full forward position (towards the front of the vehicle.)
__N/A – the pedals are not adjustable.

___21. Locate and mark the right heel point (RHP) on the carpet.
Flat accelerator pedals: Extend a line through the axis of symmetry (that is closest to the vertical plane) of the accelerator pedal. The RHP is the intersection of that line with the floorpan.
Curved accelerator pedals: Construct a line in the side view tangent to the accelerator pedal such that the distance from the contact point on the pedal to the floorpan, along the tangent line, is 200 mm. The RHP is at the intersection of this tangent line and the floorpan

___22. Locate a longitudinal line L1 and a transverse line T1 on the floorpan through the RHP. Locate a Left Heel Point (LHP) point on the line T1 that is to the left of the seat centerline at the same distance from the seat centerline as the RHP. Locate a longitudinal line L2 through the LHP.

___23. Set the steering wheel hub at the geometric center of the full range of driving positions including any telescoping positions as determined in data sheet 14.3.

___24. Verify that the seat is in the rearmost seat track position and full down height adjustment with the seat cushion at the mid-angle with the seat back at the manufacturer's nominal seat back angle.

___25. With the seat in the rearmost, full down, mid-angle position, determine the H-point using SAE J826 and the FMVSS 208 leg and thigh dimensions.

__26. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings and the upper torso resting against the seat back. (S10.4.1.1 & S10.4.1.2)

__27. Rest the thighs on the seat cushion. (S10.5)

__28. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
___measured distance (10.6 inches) (S10.5)

__29. Set the heels of the feet on the floor pan.

__30. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined in Data Sheet 15. (S10.4.2.1)
Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
___horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
___vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
___pelvic angle (20^o to 25^o)
The H-point and pelvic angle are not adjusted after this step.

__31. Set the left and right feet in the neutral position (longitudinal centerline of foot in the same plane as the lower leg/thigh, foot at -15 degrees +/- 2 degrees to lower leg), as determined by the output of the potentiometers at the ankle.

__32. Without moving the seat, and while keeping the right thigh and leg in the same vertical plane, set the right foot heel on Line L1. If the vehicle interior prevents the heel from reaching L1, place the heel as close to L1 as possible, while maintaining a clearance of 0.25" from the vehicle interior.

__32.1. Without moving the seat, and while keeping the left thigh and leg in the same vertical plane, move the left foot laterally to the left until any of the following occurs first:
- The right edge of the foot is clear of the brake or clutch pedal by 0.25" laterally
- The left heel is on Line L2
- The left edge of the shoe contacts the vehicle interior

__33. Place a 100 N +0, -5N weight (e.g. 100 N shot bag), no larger than 4" x 4", on each knee-thigh area. The weight should be centered on the assembly-hole on the top of the knee.

__34. Raise the heels off the floor pan so that the seat can be moved forward.

__35. Using only the control that primarily moves the seat in the fore-aft direction, move the seat forward and rest the rearmost point of the right foot heel on the floor pan such that:
- the heel is on the line L1
- the foot is in the same plane as the lower leg/thigh, foot at -15 degrees +/- 2 degrees (about the Y-axis) to lower leg,
- foot is contacting the accelerator pedal
- the thighs are resting on the seat cushion
- the thigh, leg and foot are in the same vertical plane

If the heel is unable to reach line L1 because the foot contacts the vehicle interior, place the foot as close to the line L1 as possible while maintaining a gap of no more than 5 mm between the shoe and the vehicle interior.

If the left foot contacts the brake or clutch pedals or the vehicle interior, then stop the forward movement of the left foot, raising the left knee off the seat cushion if needed. The pedals should not be depressed.

__36. If the right foot does not reach the accelerator pedal, move the adjustable pedal until it contacts the foot. Locate a new heel point. Repeat steps 21 – 35 to re-position the seat. If the pedals are not adjustable, place the heel at the point closest to the pedal, in the same longitudinal vertical plane as the line L1.

____N/A – the accelerator pedal is not adjustable

____N/A – the accelerator pedal did not need to be moved.

__37. Verify that the left thigh and leg are in a vertical longitudinal plane, the foot in the neutral position (longitudinal centerline of foot in the same plane as the lower leg/thigh, foot at -15 degrees +/- 2 degrees (Y-axis) to lower leg), the heel on the floor pan. Place the heel on the line L2, unless the left edge of the shoe contacts the vehicle, preventing the heel from reaching Line L2.

__38. Remove the leg weights.

__39. Verify that the right foot is in the neutral position, at the lateral location determined in step 32, and is contacting the accelerator pedal. If the foot is not contacting the accelerator pedal, move the seat forward to rest the right foot on the accelerator pedal, keeping the foot in the neutral position.

__40. While holding the thighs in place, push with a 50 lb force on a 3 inch diameter area of the chest that is centered 5" (127mm) vertically below the chin on the midsaggital plane of the dummy.

__41.1 Fasten the seat belt around the dummy.

__41.2 Remove all slack from the lap belt portion. (S10.9)

__41.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)

__41.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)

____pound load applied

__41.5 Is the belt system equipped with a tension-relieving device?

___Yes, continue

___No, go to 42

__41.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9).

__42. Place the upper arms adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)

__43. Adjust the head level within ± 0.5 degrees using the seat back adjustment. Check the head angle after pushing on the chest with a 50 lb force on a 3 inch diameter area of the chest that is centered 5" (127mm) vertically below the chin on the midsaggital plane of the dummy, while holding the thighs in place, and releasing.

__43.1 No seat back adjustment. Adjust the neck bracket to achieve head level within ± 0.5 degrees Record neck bracket setting. _____

__44. Maintaining the head alignment as determined above place the right hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

__45. Maintaining the head alignment as determined above place the left hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

__46. If the hands don't reach the steering wheel at the horizontal centerline, maintaining the head alignment place them at symmetric location on the wheel, below the horizontal centerline.

__47. Tape the thumb of each hand to the steering wheel by using masking tape with a width of 0.25 inch. The length of the tape shall only be enough to go around the thumb and steering wheel one time.

__48. Verify that the feet are in the neutral position (+/- 2 deg), and at lateral locations determined in step 32 (right foot) and step 37 (left foot), and the head is level (+/- 0.5 deg). Adjust and repeat until the feet position and angles and head angles are within this range.

A.4 Passenger Side

__1. The seat is a bench seat for which the adjustments have already been made for the driver and there are no independent adjustments that can be made for the passenger. Go to 16.
__ N/A – the passenger seat adjusts independently of the driver seat.

__2. Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1, S22.1.7.1)
__ N/A – No additional support adjustment

__3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1, S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
__N/A – No additional support adjustment

___4. Position an adjustable leg support system in its rearmost position. (8/27/04 interpretation to Toyota)
__N/A – No adjustable support system

___5. Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)

___6. Draw a line (seat cushion reference line) through the seat cushion reference point. (S16.3.1.13)

__ 7. Use only the controls that primarily move the seat in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)

___8. If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S20..1.9.3)

___N/A – No independent fore-aft seat cushion adjustment

___9. Use any part of any control, other than the parts just used for fore-aft positioning, to determine the range of angles of the seat cushion reference line and to set the seat cushion reference line at the mid-angle. (S16.2.10.3.1)
Maximum angle _____
Minimum angle _____
Mid-angle _____

___10. If the seat and/or seat cushion height is adjustable, use any part of any control other than the parts which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 8. (S16.2.10.3.1)
__N/A – No seat height adjustment

___11. Use only the controls that primarily move the seat in the fore-aft direction to verify the seat is in the rearmost position.

___13. Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.

___14. __N/A – No seat height adjustment. Go to 14

___15. Visually **mark** for future reference the seat back angle at the manufacturer's nominal design riding position for a **50th percentile adult male** in the manner specified by the manufacturer for the rearmost seat position. (S20.1.9.5, S22.1.7.5, S22.4.2.1, S22.4.3.1, S24.1.2, S24.4.2.1, S26.2.3, S26.3.1)
__ N/A – No seat back angle adjustment
Manufacturer's design seat back angle _____

__ 16. Is the seat a bucket seat?
__Yes, go to 16 and skip 17
__No, go to 17 and skip 16

___17. Bucket seats:
Locate and **mark** for future reference the longitudinal centerline of the seat cushion. The intersection of the vertical longitudinal plane that passes through the SgRP and the seat cushion upper surface determines the longitudinal centerline of a bucket seat cushion. (S16.3.1.10 & S20.1.10)

___18. Bench seats
Locate and **mark** for future reference the longitudinal line on the passenger seat cushion. The longitudinal centerline is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel. (S20.2.1.3, S22.2.1.3, S24.2.3, S20.4., S22.2.1(b), S22.2.2.3(b), S22.2.2.4(a), S22.2.2.5(a), S22.2.2.6(a), S22.2.2.7(a), S24.2.3(a))

Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel. _____

Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) _____

___19. Head Restraint Position

__N/A Vehicle contains automatic head restraints.

__N/A, there is no head restraint adjustment

___Adjust the head restraint to its highest position. (S8.1.3)

___20. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)

__N/A – No adjustable upper seat belt anchorage

Manufacturer's specified anchorage position. _____

Tested anchorage position _____

___21. Verify that the seat is in the rearmost seat track position and full down height adjustment with the seat cushion at the mid-angle, the seat back at the manufacturer's nominal design position for the 50th male.

__21.1 With the seat in the rearmost, full down, mid-angle position, seat back at the manufacturer's nominal design position for the 50th male, determine the H-point using SAE J826 and the FMVSS 208 leg and thigh dimensions.

___22. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings and the upper torso resting against the seat back. (S10.4.1.1 & S10.4.1.2)

___23. Rest the thighs on the seat cushion. (S10.5)

___24. Set the distance between the outboard knee clevis flange surfaces at 9¼ inches, with the leg-knee-thigh in the same vertical plane.

___measured distance (8 inches) (S10.5)

___25. Set the heels of the feet on the floor pan.

___26. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined in Step 21.1 as per Data Sheet 15. (S10.4.2.1)

Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)

___horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

___vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

___pelvic angle (20^o to 25^o)

The H-point and pelvic angle are not adjusted again after this step.

___27. Place a 100 N +0, -5N weight (e.g. 100 N shot bag), no larger than 4" x 4", on each knee-thigh area. The weight should be centered on the assembly-hole on the top of the knee.

___28. Set the left and right feet such that the following conditions are met after the feet are placed:

___The foot is in neutral position.

___The leg and thigh are in the same plane.

___The thighs are resting on the seat cushion.

___The heel is in contact with the floor pan.

___29. Lift the feet off the floor and set the toe towards the floorpan (Y angle = 25 +/- 2 deg). Using controls that move the seat fore-aft, move the seat forward until either foot contacts vehicle interior. Position the feet at that seat location with the heels on the floor and the feet in neutral position. If the vehicle interior prevents the feet from reaching the neutral position, place the feet as close as possible to the neutral position while maintaining a distance of 5 mm from the vehicle interior.

___30. Move the seat forward while maintaining the foot orientations (+/- 2 deg) until either foot contacts the vehicle interior.

___31. Keeping the thigh-leg in the same vertical plane, move the feet apart symmetrically about the dummy midsaggital plane until the either foot contacts the vehicle interior or the knee spacing of 10.6 inches is attained, whichever comes first. Place the feet in neutral position unless contact with the vehicle interior prevents the feet from reaching the neutral position.

Check all that applies:

___The right foot contacted a flat part of the toe board.

___The right foot contacted the right side of vehicle interior.

___The right foot contacted is at neutral position.

___The left foot contacted a flat part of the toe board.

___The left foot contacted the left side of the vehicle interior.
___The left foot contacted is at neutral position.

___32. Remove the leg weights.

___33. <u>While holding the thighs in place, push with a 50 lb force on a 3 inch diameter area of the chest that is centered 5" (127 mm) vertically below the chin on the midsaggital plane of the dummy.</u>

___34. Seat belt

__34.1 Fasten the seat belt around the dummy.

__34.2 Remove all slack from the lap belt portion. (S10.9)

__34.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)

__34.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
___pound load applied

__34.5 Is the belt system equipped with a tension-relieving device?
___Yes, continue
___No, go to 36

__34.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9)

___35. Place the upper arms adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)

___36. Place the right upper arm in contact with the seat back and side of the torso. (S10.2.2)

___37. Place the left hand palm in contact with the outside of the left thigh and the little finger in contact with the seat cushion. (S10.3.2)

___38. Place the right hand palm in contact with the outside of the right thigh and the little finger in contact with the seat cushion. (S10.3.2)

___39. Adjust the head level within ± 0.5 degrees using the seat back adjustment. Check the head angle after pushing on the chest with a 50 lb force on a 3 inch diameter area of the chest that is centered 5" (127 mm) vertically below the chin on the midsaggital plane of the dummy, while holding the thighs in place, and releasing.

__40.1 No seat back adjustment. Adjust the neck bracket to achieve head level within ± 0.5 degrees. Record neck bracket setting. _____

Appendix E

Test Equipment and Instrumentation 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

Frequency Response Classes
SAE J211 MAR95

Typical Test Measurements	Channel Class
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 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
1	Trig D1	10ZERO000000VO0A	EVENT	1	Logic	+	Bipolar	
2	05G15-L07	11HEADCG00H3ACXA	Head Accel X	1000	g	+	Forward	1-202 HIII 50th ASTC.001
3	03E03E18-F05	11HEADCG00H3ACYA	Head Accel Y	1000	g	-	Leftward	1-202 HIII 50th ASTC.002
4	05I07-Z17	11HEADCG00H3ACZA	Head Accel Z	1000	g	-	Upward	1-202 HIII 50th ASTC.003
5	03E03E18-F10	11HEADCGRDH3ACXA	Head Accel X Red	1000	g	+	Forward	1-202 HIII 50th ASTC.004
6	01G25-N10	11HEADCGRDH3ACYA	Head Accel Y Red	1000	g	-	Leftward	1-202 HIII 50th ASTC.005
7	02I02I16-A12	11HEADCGRDH3ACZA	Head Accel Z Red	1000	g	-	Upward	1-202 HIII 50th ASTC.006
8	05G20-L21	11HEADFR00H3ACYA	Head (FT) Accel Y	1000	g	-	Leftward	1-202 HIII 50th ASTC.007
9	05H25-L15	11HEADFR00H3ACZA	Head (FT) Accel Z	1000	g	-	Upward	1-202 HIII 50th ASTC.008
10	05I07-Z05	11HEADUP00H3ACXA	Head (TP) Accel X	1000	g	+	Forward	1-202 HIII 50th ASTC.009
11	05G20-L01	11HEADUP00H3ACYA	Head (TP) Accel Y	1000	g	-	Leftward	1-202 HIII 50th ASTC.010
12	05G29-X51	11HEADLE00H3ACXA	Head (LT) Accel X	1000	g	+	Forward	1-202 HIII 50th ASTC.011
13	05G20-L18	11HEADLE00H3ACZA	Head (LT) Accel Z	1000	g	-	Upward	1-202 HIII 50th ASTC.012
14	1716A-1872-FX	11NECKUP00H3FOXA	Neck Force X	8896.4	N	-	Head forward, chest rearward	1-202 HIII 50th ASTC.013
15	1716A-1872-FY	11NECKUP00H3FOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	1-202 HIII 50th ASTC.014
16	1716A-1872-FZ	11NECKUP00H3FOZA	Neck Force Z	13344	N	+	Head upward, chest downward	1-202 HIII 50th ASTC.015
17	1716A-1872-MX	11NECKUP00H3MOXA	Neck Moment X	282	Nm	-	Right ear toward right shoulder	1-202 HIII 50th ASTC.016
18	1716A-1872-MY	11NECKUP00H3MOYA	Neck Moment Y	282	Nm	+	Chin toward sternum	1-202 HIII 50th ASTC.017
19	1716A-1872-MZ	11NECKUP00H3MOZA	Neck Moment Z	282	Nm	+	Chin toward left shoulder	1-202 HIII 50th ASTC.018
20	1794S-078-FX	11NECKLO00H3FOXA	Neck Lower Force X	13344	N	+	Head rearward, chest rightward	1-202 HIII 50th ASTC.019
21	1794S-078-FY	11NECKLO00H3FOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	1-202 HIII 50th ASTC.020
22	1794S-078-FZ	11NECKLO00H3FOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	1-202 HIII 50th ASTC.021
23	1794S-078-MX	11NECKLO00H3MOXA	Neck Lower Moment X	452	Nm	+	Left ear toward left shoulder	1-202 HIII 50th ASTC.022
24	1794S-078-MY	11NECKLO00H3MOYA	Neck Lower Moment Y	452	Nm	+	Chin toward sternum	1-202 HIII 50th ASTC.023
25	1794S-078-MZ	11NECKLO00H3MOZA	Neck Lower Moment Z	452	Nm	+	Chin toward left shoulder	1-202 HIII 50th ASTC.024
26	03E03E02-N01	11CHSTCG00H3ACXA	Chest Accel X	1000	g	+	Forward	1-202 HIII 50th ASTC.025
27	03E03E02-N06	11CHSTCG00H3ACYA	Chest Accel Y	1000	g	-	Leftward	1-202 HIII 50th ASTC.026
28	J23792	11CHSTCG00H3ACZA	Chest Accel Z	1000	g	-	Upward	1-202 HIII 50th ASTC.027
29	J20294	11CHSTCGRDH3ACXA	Chest Accel X Red.	1000	g	-	Rearward	1-202 HIII 50th ASTC.028
30	04J04I20-Z14	11CHSTCGRDH3ACYA	Chest Accel Y Red.	1000	g	-	Leftward	1-202 HIII 50th ASTC.029
31	AALG2	11CHSTCGRDH3ACZA	Chest Accel Z Red.	1000	g	-	Upward	1-202 HIII 50th ASTC.030
32	CST202	11CHST0000H3DSXA	Chest Deflection X	84	mm	+	Forward	1-202 HIII 50th ASTC.031
33	03F03F09-N18	11PELVCG00H3ACXA	Pelvis X	1000	g	-	Rearward	1-202 HIII 50th ASTC.032

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
34	03E03E20-N20	11PELVCG00H3ACYA	Pelvis Y	1000	g	-	Leftward	1-202 HIII 50th ASTC.033
35	00L20-A20	11PELVCG00H3ACZA	Pelvis Z	1000	g	-	Upward	1-202 HIII 50th ASTC.034
36	2121AJ-1520	11FEMRLL00H3FOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	1-202 HIII 50th ASTC.035
37	2121AJ-1517	11FEMRRL00H3FOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	1-202 HIII 50th ASTC.036
38	150-0121VL-021203	11KNSLLE00H3DSXA	Left Knee Displacement X	40	mm	-	Hold femur in place, tibia rearward	1-LX045-046 VOLPE THOR LEGS.001
39	4509J-107-FX	11TIBILULXH3FOXA	Left Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	1-LX045-046 VOLPE THOR LEGS.002
40	4509J-107-FZ	11TIBILULXH3FOZA	Left Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX045-046 VOLPE THOR LEGS.004
41	4509J-107-MX	11TIBILULXH3MOXA	Left Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.005
42	4509J-107-MY	11TIBILULXH3MOYA	Left Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.006
43	01G18-F15	11TIBILELXH3ACXA	Left Tibia Accel X	1000	g	+	Tibia forward	1-LX045-046 VOLPE THOR LEGS.007
44	05I07-Z13	11TIBILELXH3ACYA	Left Tibia Accel Y	1000	g	+	Tibia right	1-LX045-046 VOLPE THOR LEGS.008
45	4929-139-FX	11TIBILLLXH3FOXA	Left Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	1-LX045-046 VOLPE THOR LEGS.009
46	4929-139-FY	11TIBILLLXH3FOYA	Left Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	1-LX045-046 VOLPE THOR LEGS.010
47	4929-139-FZ	11TIBILLLXH3FOZA	Left Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX045-046 VOLPE THOR LEGS.011
48	4929-139-MX	11TIBILLLXH3MOXA	Left Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.012
49	4929-139-MY	11TIBILLLXH3MOYA	Left Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.013
50	7921-0525-PD210-4B-426	11FOOTLELXH3ANXA	Left Foot Angular Dis. X LX104X	318	°	-	Inversion	1-LX045-046 VOLPE THOR LEGS.014
51	7921-0524-PD210-4B-424	11FOOTLELXH3ANYA	Left Foot Angular Dis. Y LX104Y	318	°	+	Dorsiflexion	1-LX045-046 VOLPE THOR LEGS.015
52	7921-0523-PD210-4B-423	11FOOTLELXH3ANZA	Left Foot Angular Dis. Z LX104Z	318	°	-	External rotation	1-LX045-046 VOLPE THOR LEGS.016
53	05G20-L14	11FOOTLELXH3ACXA	Left Foot Accel X	1000	g	+	Foot forward	1-LX045-046 VOLPE THOR LEGS.017
54	05G20-L12	11FOOTLELXH3ACYA	Left Foot Accel Y	1000	g	+	Foot rightward	1-LX045-046 VOLPE THOR LEGS.018
55	06A04-R12	11FOOTLELXH3ACZA	Left Foot Accel Z	1000	g	+	Foot down	1-LX045-046 VOLPE THOR LEGS.019
56	150-0121VL-33646	11KNSLRI00H3DSXA	Right Knee Displacement X	40	mm	-	Hold femur in place, tibia rearward	1-LX045-046 VOLPE THOR LEGS.020
57	4509-104-FX	11TIBIRULXH3FOXA	Right Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	1-LX045-046 VOLPE THOR LEGS.021

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
58	4509-104-FZ	11TIBIRULXH3FOZA	Right Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX045-046 VOLPE THOR LEGS.023
59	4509-104-MX	11TIBIRULXH3MOXA	Right Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.024
60	4509-104-MY	11TIBIRULXH3MOYA	Right Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.025
61	05I07-Z23	11TIBIRILXH3ACXA	Right Tibia Accel X	1000	g	+	Tibia forward	1-LX045-046 VOLPE THOR LEGS.026
62	05G20-L06	11TIBIRILXH3ACYA	Right Tibia Accel Y	1000	g	+	Tibia right	1-LX045-046 VOLPE THOR LEGS.027
63	4929-138-FX	11TIBIRLLXH3FOXA	Right Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	1-LX045-046 VOLPE THOR LEGS.028
64	4929-138-FY	11TIBIRLLXH3FOYA	Right Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	1-LX045-046 VOLPE THOR LEGS.029
65	4929-138-FZ	11TIBIRLLXH3FOZA	Right Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX045-046 VOLPE THOR LEGS.030
66	4929-138-MX	11TIBIRLLXH3MOXA	Right Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.031
67	4929-138-MY	11TIBIRLLXH3MOYA	Right Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX045-046 VOLPE THOR LEGS.032
68	7921-0528-PD210-4B-427	11FOOTRILXH3ANXA	Right Foot Angular Dis. X AK037X	318	°	-	Eversion	1-LX045-046 VOLPE THOR LEGS.033
69	7921-0526-PD210-4B-425	11FOOTRILXH3ANYA	Right Foot Angular Dis. Y AK225Y	318	°	+	Dorsiflexion	1-LX045-046 VOLPE THOR LEGS.034
70	7921-0527-PD210-4B-422	11FOOTRILXH3ANZA	Right Foot Angular Dis. Z AK039Z	318	°	-	Internal rotation	1-LX045-046 VOLPE THOR LEGS.035
71	05I07-Z07	11FOOTRILXH3ACXA	Right Foot Accel X	1000	g	+	Foot forward	1-LX045-046 VOLPE THOR LEGS.036
72	05H31-Z12	11FOOTRILXH3ACYA	Right Foot Accel Y	1000	g	+	Foot rightward	1-LX045-046 VOLPE THOR LEGS.037
73	05G20-L03	11FOOTRILXH3ACZA	Right Foot Accel Z	1000	g	+	Foot down	1-LX045-046 VOLPE THOR LEGS.038
74	P49170	13HEADCG00H3ACXA	Head Accel X	1000	g	+	Forward	3-206 HIII 50th ASTC.001
75	05I07-Z25	13HEADCG00H3ACYA	Head Accel Y	1000	g	-	Leftward	3-206 HIII 50th ASTC.002
76	03E03E18-F21	13HEADCG00H3ACZA	Head Accel Z	1000	g	-	Upward	3-206 HIII 50th ASTC.003
77	05H06-L14	13HEADCGRDH3ACXA	Head Accel X Red	1000	g	+	Forward	3-206 HIII 50th ASTC.004
78	05H06-L20	13HEADCGRDH3ACYA	Head Accel Y Red	1000	g	-	Leftward	3-206 HIII 50th ASTC.005
79	05H06-L26	13HEADCGRDH3ACZA	Head Accel Z Red	1000	g	-	Upward	3-206 HIII 50th ASTC.006
80	05H10-M20	13HEADFR00H3ACYA	Head (FT) Accel Y	1000	g	-	Leftward	3-206 HIII 50th ASTC.007
81	05I07-Z12	13HEADFR00H3ACZA	Head (FT) Accel Z	1000	g	-	Upward	3-206 HIII 50th ASTC.008
82	05G20-L09	13HEADUP00H3ACXA	Head (TP) Accel X	1000	g	+	Forward	3-206 HIII 50th ASTC.009
83	05G20-L17	13HEADUP00H3ACYA	Head (TP) Accel Y	1000	g	-	Leftward	3-206 HIII 50th ASTC.010
84	05G14-X33	13HEADLE00H3ACXA	Head (LT) Accel X	1000	g	+	Forward	3-206 HIII 50th ASTC.011
85	05G15-L02	13HEADLE00H3ACZA	Head (LT) Accel Z	1000	g	-	Upward	3-206 HIII 50th ASTC.012
86	1716A-1875-FX	13NECKUP00H3FOXA	Neck Force X	8896.4	N	-	Head forward, chest rearward	3-206 HIII 50th ASTC.013
87	1716A-1875-FY	13NECKUP00H3FOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	3-206 HIII 50th ASTC.014

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
88	1716A-1875-FZ	13NECKUP00H3FOZA	Neck Force Z	13344	N	+	Head upward, chest downward	3-206 HIII 50th ASTC.015
89	1716A-1875-MX	13NECKUP00H3MOXA	Neck Moment X	282	Nm	-	Right ear toward right shoulder	3-206 HIII 50th ASTC.016
90	1716A-1875-MY	13NECKUP00H3MOYA	Neck Moment Y	282	Nm	+	Chin toward sternum	3-206 HIII 50th ASTC.017
91	1716A-1875-MZ	13NECKUP00H3MOZA	Neck Moment Z	282	Nm	+	Chin toward left shoulder	3-206 HIII 50th ASTC.018
92	1794A-0216-FX	13NECKLO00H3FOXA	Neck Lower Force X	13344	N	+	Head rearward, chest rightward	3-206 HIII 50th ASTC.019
93	1794A-0216-FY	13NECKLO00H3FOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	3-206 HIII 50th ASTC.020
94	1794A-0216-FZ	13NECKLO00H3FOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	3-206 HIII 50th ASTC.021
95	1794A-0216-MX	13NECKLO00H3MOXA	Neck Lower Moment X	452	Nm	+	Left ear toward left shoulder	3-206 HIII 50th ASTC.022
96	1794A-0216-MY	13NECKLO00H3MOYA	Neck Lower Moment Y	452	Nm	+	Chin toward sternum	3-206 HIII 50th ASTC.023
97	1794A-0216-MZ	13NECKLO00H3MOZA	Neck Lower Moment Z	452	Nm	+	Chin toward left shoulder	3-206 HIII 50th ASTC.024
98	05G11-X33	13CHSTCG00H3ACXA	Chest Accel X	1000	g	+	Forward	3-206 HIII 50th ASTC.025
99	P15831	13CHSTCG00H3ACYA	Chest Accel Y	1000	g	-	Leftward	3-206 HIII 50th ASTC.026
100	05I07-Z08	13CHSTCG00H3ACZA	Chest Accel Z	1000	g	-	Upward	3-206 HIII 50th ASTC.027
101	05G15-L04	13CHSTCGRDH3ACXA	Chest Accel X Red.	1000	g	-	Rearward	3-206 HIII 50th ASTC.028
102	J32100	13CHSTCGRDH3ACYA	Chest Accel Y Red.	1000	g	-	Leftward	3-206 HIII 50th ASTC.029
103	05G20-L20	13CHSTCGRDH3ACZA	Chest Accel Z Red.	1000	g	-	Upward	3-206 HIII 50th ASTC.030
104	CST206	13CHST0000H3DSXA	Chest Deflection X	84	mm	+	Forward	3-206 HIII 50th ASTC.031
105	P46524	13PELVCG00H3ACXA	Pelvis Accel X	1000	g	-	Rearward	3-206 HIII 50th ASTC.032
106	P21343	13PELVCG00H3ACYA	Pelvis Accel Y	1000	g	-	Leftward	3-206 HIII 50th ASTC.033
107	P15345	13PELVCG00H3ACZA	Pelvis Accel Z	1000	g	-	Upward	3-206 HIII 50th ASTC.034
108	2121AJ-1521	13FEMRLL00H3FOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	3-206 HIII 50th ASTC.035
109	2121AJ-1519	13FEMRRL00H3FOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	3-206 HIII 50th ASTC.036
110	150-0121VR-026993	13KNSLLE00H3DSXA	Left Knee Displacement X	40	mm	-	Hold femur in place, tibia rearward	3-LX103-104.001
111	4353-76-FX	13TIBILULXH3FOXA	Left Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	3-LX103-104.002
112	4353-76-FZ	13TIBILULXH3FOZA	Left Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	3-LX103-104.003
113	4353-76-MX	13TIBILULXH3MOXA	Left Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	3-LX103-104.004

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
114	4353-76-MY	13TIBILULXH3MOYA	Left Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	3-LX103-104.005
115	01G25-N04	13TIBILELXH3ACXA	Left Tibia Accel X	1000	g	+	Tibia forward	3-LX103-104.006
116	02I02I10-N22	13TIBILELXH3ACYA	Left Tibia Accel Y	1000	g	+	Tibia right	3-LX103-104.007
117	4929J-78-FX	13TIBILLLXH3FOXA	Left Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	3-LX103-104.008
118	4929J-78-FY	13TIBILLLXH3FOYA	Left Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	3-LX103-104.009
119	4929J-78-FZ	13TIBILLLXH3FOZA	Left Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	3-LX103-104.010
120	4929J-78-MX	13TIBILLLXH3MOXA	Left Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	3-LX103-104.011
121	4929J-78-MY	13TIBILLLXH3MOYA	Left Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	3-LX103-104.012
122	PD210-4B-7921-0118	13FOOTLELXH3ANXA	Left Foot Angular Dis. X LX104X	318	°	+	Eversion	3-LX103-104.013
123	PD210-4B-7921-0229	13FOOTLELXH3ANYA	Left Foot Angular Dis. Y LX104Y	318	°	+	Downward	3-LX103-104.014
124	PD210-4B-7921-0224	13FOOTLELXH3ANZA	Left Foot Angular Dis. Z LX104Z	318	°	+	Internal rotation	3-LX103-104.015
125	03D03D09-N02	13FOOTLELXH3ACXA	Left Foot Accel X	1000	g	+	Foot forward	3-LX103-104.016
126	03E03E18-F09	13FOOTLELXH3ACYA	Left Foot Accel Y	1000	g	+	Foot rightward	3-LX103-104.017
127	02I02I05-F09	13FOOTLELXH3ACZA	Left Foot Accel Z	1000	g	+	Foot down	3-LX103-104.018
128	150-0121VL-13723	13KNSLRI00H3DSXA	Right Knee Displacement X	40	mm	-	Hold femur in place, tibia rearward	3-LX103-104.019
129	4353-75-FX	13TIBIRULXH3FOXA	Right Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	3-LX103-104.020
130	4353-75-FZ	13TIBIRULXH3FOZA	Right Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	3-LX103-104.021
131	4353-75-MX	13TIBIRULXH3MOXA	Right Upper Tibia Moment X	395.4	Nm	+	Ankle forward, hold knee in place	3-LX103-104.022
132	4353-75-MY	13TIBIRULXH3MOYA	Right Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	3-LX103-104.023
133	02I02I05-F22	13TIBIRILXH3ACXA	Right Tibia Accel X	1000	g	+	Tibia forward	3-LX103-104.024
134	01G25-N18	13TIBIRILXH3ACYA	Right Tibia Accel Y	1000	g	+	Tibia right	3-LX103-104.025
135	4929-76-FX	13TIBIRLLXH3FOXA	Right Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	3-LX103-104.026
136	4929-76-FY	13TIBIRLLXH3FOYA	Right Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	3-LX103-104.027
137	4929-76-FZ	13TIBIRLLXH3FOZA	Right Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	3-LX103-104.028

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
138	4929-76-MX	13TIBIRLLXH3MOXA	Right Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	3-LX103-104.029
139	4929-76-MY	13TIBIRLLXH3MOYA	Right Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	3-LX103-104.030
140	PD210-4B-7921-0037	13FOOTRILXH3ANXA	Right Foot Angular Dis. X AK037X	318	°	-	Eversion	3-LX103-104.031
141	PD210-4B-7921-0225	13FOOTRILXH3ANYA	Right Foot Angular Dis. Y AK225Y	318	°	+	Downward	3-LX103-104.032
142	PD210-4B-7921-0039	13FOOTRILXH3ANZA	Right Foot Angular Dis. Z AK039Z	318	°	-	Internal rotation	3-LX103-104.033
143	05I07-Z14	13FOOTRILXH3ACXA	Right Foot Accel X	1000	g	+	Foot forward	3-LX103-104.034
144	04J04I20-Z24	13FOOTRILXH3ACYA	Right Foot Accel Y	1000	g	+	Foot rightward	3-LX103-104.035
145	01J02-F07	13FOOTRILXH3ACZA	Right Foot Accel Z	1000	g	+	Foot down	3-LX103-104.036
146	P50431	14CRME000000ACXA	Left Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
147	P49931	16CRME000000ACXA	Right Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
148	P50783	14CRME000000ACZA	Left Rear Seat Cross-member Z-axis Acceleration	1000	g	-	Upward	
149	p46202	16CRME000000ACZA	Right Rear Seat Cross-member Z-axis Acceleration	1000	g	-	Upward	
150	p54288	12ENGNTP0000ACXA	Top of Engine Block X-axis acceleration	1000	g	+	Forward	
151	P50791	12ENGNBO0000ACXA	Bottom of Engine Block X-axis acceleration	1000	g	+	Forward	
152	P46607	13VEHCRI0000ACXA	Right Brake Caliper X-axis Acceleration	1000	g	+	Forward	
153	P45689	11VEHCLE0000ACXA	Left Brake Caliper X-axis Acceleration	1000	g	+	Forward	
154	P49877	12DASH000000ACXA	Instrumnet Pannel X-axis Acceleration	1000	g	+	Forward	
155	P49961	11SETR000000ACXA	Left Side Driver Mid Seat Track X-axis Acceleration	1000	g	+	Forward	
156	p47391	10VEHCCG0000ACXA	Vehicle CG X-axis acceleration	1000	g	+	Forward	
157	P46613	10VEHCCG0000ACYA	Vehicle CG Y-axis acceleration	1000	g	-	Leftward	
158	p46801	10VEHCCG0000ACZA	Vehicle CG Z-axis acceleration	1000	g	-	Upward	
159	P54192	11PEAC000000ACXA	Under Accel Pedal X-axis Acceleration	1000	g	-	Rearward	
160	P54220	11PEAC000000ACYA	Under Accel Pedal Y-axis Acceleration	1000	g	-	Leftward	
161	P46610	11PEAC000000ACZA	Under Accel Pedal Z-axis Acceleration	1000	g	+	Downward	
162	P54334	11PEBR000000ACXA	Under Brake Pedal X-axis Acceleration	1000	g	-	Rearward	
163	P48630	11PEBR000000ACYA	Under Brake Pedal Y-axis Acceleration	1000	g	-	Leftward	
164	P48549	11PEBR000000ACZA	Under Brake Pedal Z-axis Acceleration	1000	g	+	Downward	
165	P54216	11VEHC000001ACXA	Outside Footrest X-axis Acceleration	1000	g	+	Forward	
166	p50887	11VEHC000001ACYA	Outside Footrest Y-axis Acceleration	1000	g	-	Leftward	
167	p48546	11VEHC000001ACZA	Outside Footrest Z-axis Acceleration	1000	g	-	Upward	
168	3419-837	11SEBE0000B5FOOA	Driver lap belt (1018)	13344	N	+	Tension	
169	3419T-606	11SEBE0000B3FOOA	Driver shoulder belt	13344	N	+	Tension	
170	3419-807	13SEBE0000B5FOOA	Passenger lap belt (108)	13344	N	+	Tension	
171	3419T-842	13SEBE0000B3FOOA	Passenger shoulder belt (102)	13344	N	+	Tension	
172	ABFire1	11AIRBFR0100EV0A	DRIV. FRONT AIRBAG1 IND	5	V	+	Bipolar	
173	ABFire2	11AIRBFR0200EV0A	DRIV. FRONT AIRBAG2 IND	5	V	+	Bipolar	
174	ABFire3	13AIRBFR0100EV0A	PASS. FRONT AIRBAG1 IND	5	V	+	Bipolar	
175	ABFire4	13AIRBFR0200EV0A	PASS. FRONT AIRBAG2 IND	5	V	+	Bipolar	
176	Bit.00	11CONT000001VO00	Driver right foot contact switch	1	Logic	+	Bipolar	
177	Bit.02	11CONT000003VO00	Driver left knee contact switch	1	Logic	+	Bipolar	
178	Bit.03	11CONT000004VO00	Driver right knee contact switch	1	Logic	+	Bipolar	

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
1	476830002	L0FBAR000001FOXA	Load Cell Row 1 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.001
2	476830015	L0FBAR000002FOXA	Load Cell Row 2 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.002
3	476830082	L0FBAR000003FOXA	Load Cell Row 3 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.003
4	476830086	L0FBAR000004FOXA	Load Cell Row 4 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.004
5	476830023	L0FBAR000005FOXA	Load Cell Row 5 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.005
6	476830017	L0FBAR000006FOXA	Load Cell Row 6 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.006
7	476830043	L0FBAR000007FOXA	Load Cell Row 7 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.007
8	476830080	L0FBAR000008FOXA	Load Cell Row 8 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.008
9	476830007	L0FBAR000009FOXA	Load Cell Row 9 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.009
10	476830069	L0FBAR000010FOXA	Load Cell Row 10 Column 1	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.010
11	476830044	L0FBAR000011FOXA	Load Cell Row 1 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.011
12	476830006	L0FBAR000012FOXA	Load Cell Row 2 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.012
13	476830014	L0FBAR000013FOXA	Load Cell Row 3 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.013
14	476830001	L0FBAR000014FOXA	Load Cell Row 4 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.014
15	476830048	L0FBAR000015FOXA	Load Cell Row 5 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.015
16	476830059	L0FBAR000016FOXA	Load Cell Row 6 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.016
17	476830049	L0FBAR000017FOXA	Load Cell Row 7 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.017
18	476830076	L0FBAR000018FOXA	Load Cell Row 8 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.018
19	476830028	L0FBAR000019FOXA	Load Cell Row 9 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.019
20	476830053	L0FBAR000020FOXA	Load Cell Row 10 Column 2	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.020
21	476830034	L0FBAR000021FOXA	Load Cell Row 1 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.021
22	476830060	L0FBAR000022FOXA	Load Cell Row 2 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.022
23	476830022	L0FBAR000023FOXA	Load Cell Row 3 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.023
24	476830062	L0FBAR000024FOXA	Load Cell Row 4 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.024
25	476830092	L0FBAR000025FOXA	Load Cell Row 5 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.025
26	476830020	L0FBAR000026FOXA	Load Cell Row 6 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.026
27	476830088	L0FBAR000027FOXA	Load Cell Row 7 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.027
28	476830012	L0FBAR000028FOXA	Load Cell Row 8 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.028
29	476830077	L0FBAR000029FOXA	Load Cell Row 9 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.029
30	476830011	L0FBAR000030FOXA	Load Cell Row 10 Column 3	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.030
31	476830065	L0FBAR000031FOXA	Load Cell Row 1 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.031
32	476830078	L0FBAR000032FOXA	Load Cell Row 2 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.032
33	476830035	L0FBAR000033FOXA	Load Cell Row 3 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.033
34	476830031	L0FBAR000034FOXA	Load Cell Row 4 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.034
35	476830046	L0FBAR000035FOXA	Load Cell Row 5 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.035
36	476830033	L0FBAR000036FOXA	Load Cell Row 6 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.036

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
37	476830019	L0FBAR000037FOXA	Load Cell Row 7 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.037
38	476830093	L0FBAR000038FOXA	Load Cell Row 8 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.038
39	476830074	L0FBAR000039FOXA	Load Cell Row 9 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.039
40	476830030	L0FBAR000040FOXA	Load Cell Row 10 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.040
41	476830036	L0FBAR000041FOXA	Load Cell Row 1 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.041
42	476830010	L0FBAR000042FOXA	Load Cell Row 2 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.042
43	476830079	L0FBAR000043FOXA	Load Cell Row 3 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.043
44	476830045	L0FBAR000044FOXA	Load Cell Row 4 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.044
45	476830025	L0FBAR000045FOXA	Load Cell Row 5 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.045
46	476830039	L0FBAR000046FOXA	Load Cell Row 6 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.046
47	476830047	L0FBAR000047FOXA	Load Cell Row 7 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.047
48	476830057	L0FBAR000048FOXA	Load Cell Row 8 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.048
49	476830032	L0FBAR000049FOXA	Load Cell Row 9 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.049
50	476830037	L0FBAR000050FOXA	Load Cell Row 10 Column 5	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.050
51	476830038	L0FBAR000051FOXA	Load Cell Row 1 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.051
52	476830054	L0FBAR000052FOXA	Load Cell Row 2 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.052
53	476830024	L0FBAR000053FOXA	Load Cell Row 3 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.053
54	476830041	L0FBAR000054FOXA	Load Cell Row 4 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.054
55	476830004	L0FBAR000055FOXA	Load Cell Row 5 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.055
56	476830091	L0FBAR000056FOXA	Load Cell Row 6 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.056
57	476830087	L0FBAR000057FOXA	Load Cell Row 7 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.057
58	476830064	L0FBAR000058FOXA	Load Cell Row 8 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.058
59	476830083	L0FBAR000059FOXA	Load Cell Row 9 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.059
60	476830018	L0FBAR000060FOXA	Load Cell Row 10 Column 6	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.060
61	476830008	L0FBAR000061FOXA	Load Cell Row 1 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.061
62	476830013	L0FBAR000062FOXA	Load Cell Row 2 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.062
63	476830021	L0FBAR000063FOXA	Load Cell Row 3 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.063
64	476830003	L0FBAR000064FOXA	Load Cell Row 4 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.064
65	476830051	L0FBAR000065FOXA	Load Cell Row 5 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.065
66	476830067	L0FBAR000066FOXA	Load Cell Row 6 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.066
67	476830009	L0FBAR000067FOXA	Load Cell Row 7 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.067
68	476830026	L0FBAR000068FOXA	Load Cell Row 8 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.068
69	476830089	L0FBAR000069FOXA	Load Cell Row 9 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.069
70	476830016	L0FBAR000070FOXA	Load Cell Row 10 Column 7	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.070
71	476830071	L0FBAR000071FOXA	Load Cell Row 1 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.071
72	476830072	L0FBAR000072FOXA	Load Cell Row 2 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.072

Channel Report Test Number 070222

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
73	476830029	L0FBAR000073FOXA	Load Cell Row 3 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.073
74	476830058	L0FBAR000074FOXA	Load Cell Row 4 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.074
75	476830027	L0FBAR000075FOXA	Load Cell Row 5 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.075
76	476830052	L0FBAR000076FOXA	Load Cell Row 6 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.076
77	476830063	L0FBAR000077FOXA	Load Cell Row 7 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.077
78	476830075	L0FBAR000078FOXA	Load Cell Row 8 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.078
79	476830070	L0FBAR000079FOXA	Load Cell Row 9 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.079
80	476830042	L0FBAR000080FOXA	Load Cell Row 10 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.080
81	476830068	L0FBAR000081FOXA	Load Cell Row 1 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.081
82	476830084	L0FBAR000082FOXA	Load Cell Row 2 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.082
83	476830056	L0FBAR000083FOXA	Load Cell Row 3 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.083
84	476830085	L0FBAR000084FOXA	Load Cell Row 4 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.084
85	476830073	L0FBAR000085FOXA	Load Cell Row 5 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.085
86	476830055	L0FBAR000086FOXA	Load Cell Row 6 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.086
87	476830090	L0FBAR000087FOXA	Load Cell Row 7 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.087
88	476830061	L0FBAR000088FOXA	Load Cell Row 8 Column 8	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.088
89	476830005	L0FBAR000089FOXA	Load Cell Row 9 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.089
90	476830050	L0FBAR000090FOXA	Load Cell Row 10 Column 9	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.090

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
1	11HEADCG00H3ACXA	Driver Head X-Axis Acceleration	1000	+	yes	1000
2	11HEADCG00H3ACYA	Driver Head Y-Axis Acceleration	1000	+	yes	1000
3	11HEADCG00H3ACZA	Driver Head Z-Axis Acceleration	1000	+	yes	1000
3A	11HEADCG00H3ACRA	Driver Head Resultant Acceleration	1000			
4	11HEADCGRDH3ACXA	Driver Head X-Axis Redundant Acceleration	1000	+	yes	1000
5	11HEADCGRDH3ACYA	Driver Head Y-Axis Redundant Acceleration	1000	+	yes	1000
6	11HEADCGRDH3ACZA	Driver Head Z-Axis Redundant Acceleration	1000	+	yes	1000
6A	11HEADCGRDH3ACRA	Driver Head Redundant Resultant Acceleration	1000			
7	11HEADFR00H3ACYA	Driver Head (FT) Y-Axis Acceleration	1000	+	yes	1000
8	11HEADFR00H3ACZA	Driver Head (FT) Z-Axis Acceleration	1000	+	yes	1000
9	11HEADUP00H3ACXA	Driver Head (TP) X-Axis Acceleration	1000	+	yes	1000
10	11HEADUP00H3ACYA	Driver Head (TP) Y-Axis Acceleration	1000	+	yes	1000
11	11HEADLE00H3ACXA	Driver Head (LT) X-Axis Acceleration	1000	+	yes	1000
12	11HEADLE00H3ACZA	Driver Head (LT) Z-Axis Acceleration	1000	+	yes	1000
13	11NECKUP00H3FOXA	Driver Upper Neck X-Axis Force	1000	+	yes	8896.4
14	11NECKUP00H3FOYA	Driver Upper Neck Y-Axis Force	1000	+	yes	8896.4
15	11NECKUP00H3FOZA	Driver Upper Neck Z-Axis Force	1000	+	yes	13344
16	11NECKUP00H3MOXA	Driver Upper Neck Moment About X Axis	600	+	yes	282
17	11NECKUP00H3MOYA	Driver Upper Neck Moment About Y Axis	600	+	yes	282
18	11NECKUP00H3MOZA	Driver Upper Neck Moment About Z Axis	600	+	yes	282
19	11NECKLO00H3FOXA	Driver Lower Neck X-Axis Force	1000	+	yes	13344
20	11NECKLO00H3FOYA	Driver Lower Neck Y-Axis Force	1000	+	yes	13344
21	11NECKLO00H3FOZA	Driver Lower Neck Z-Axis Force	1000	+	yes	13344
22	11NECKLO00H3MOXA	Driver Lower Neck Moment About X Axis	600	+	yes	452
23	11NECKLO00H3MOYA	Driver Lower Neck Moment About Y Axis	600	+	yes	452
24	11NECKLO00H3MOZA	Driver Lower Neck Moment About Z Axis	600	+	yes	452
25	11CHSTCG00H3ACXA	Driver Chest X-Axis Acceleration	180	+	yes	1000
26	11CHSTCG00H3ACYA	Driver Chest Y-Axis Acceleration	180	+	yes	1000
27	11CHSTCG00H3ACZA	Driver Chest Z-Axis Acceleration	180	+	yes	1000
27A	11CHSTCG00H3ACRA	Driver Chest Resultant Acceleration	180			
28	11CHSTCGRDH3ACXA	Driver Chest X-Axis Redundant Acceleration	180	+	yes	1000
29	11CHSTCGRDH3ACYA	Driver Chest Y-Axis Redundant Acceleration	180	+	yes	1000
30	11CHSTCGRDH3ACZA	Driver Chest Z-Axis Redundant Acceleration	180	+	yes	1000
30A	11CHSTCGRDH3ACRA	Driver Chest Redundant Resultant Acceleration	180			
31	11CHST0000H3DSXA	Driver Chest Displacement	600	+	yes	84
32	11PELVCG00H3ACXA	Driver Pelvis X-Axis Acceleration	1000	+	yes	1000
33	11PELVCG00H3ACYA	Driver Pelvis Y-Axis Acceleration	1000	+	yes	1000

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
34	11PELVCG00H3ACZA	Driver Pelvis Z-Axis Acceleration	1000	+	yes	1000
34A	11PELVCG00H3ACRA	Driver Pelvis Resultant Acceleration	1000			
35	11FEMRLL00H3FOZA	Driver Left Femur Z-Axis Force	600	+	yes	13344
36	11FEMRRL00H3FOZA	Driver Right Femur Z-Axis Force	600	+	yes	13344
37	11KNSLLE00H3DSXA	Driver Left Knee Displacement	180	+	yes	40
38	11TIBILULXH3FOXA	Driver Left Upper Tibia X-Axis Force	600	+	yes	11120
39	11TIBILULXH3FOZA	Driver Left Upper Tibia Z-Axis Force	600	+	yes	11120
40	11TIBILULXH3MOXA	Driver Left Upper Tibia Moment About X Axis	600	+	yes	395.4
41	11TIBILULXH3MOYA	Driver Left Upper Tibia Moment About Y Axis	600	+	yes	395.4
42	11TIBILELXH3ACXA	Driver Left Tibia X-Axis Acceleration	1000	+	yes	1000
43	11TIBILELXH3ACYA	Driver Left Tibia Y-Axis Acceleration	1000	+	yes	1000
44	11TIBILLLXH3FOXA	Driver Left Lower Tibia X-Axis Force	600	+	yes	11120
45	11TIBILLLXH3FOYA	Driver Left Lower Tibia Y-Axis Force	600	+	yes	11120
46	11TIBILLLXH3FOZA	Driver Left Lower Tibia Z-Axis Force	600	+	yes	11120
47	11TIBILLLXH3MOXA	Driver Left Lower Tibia Moment About X Axis	600	+	yes	395.4
48	11TIBILLLXH3MOYA	Driver Left Lower Tibia Moment About Y Axis	600	+	yes	395.4
49	11FOOTLELXH3ANXA	Driver Left Foot X-Axis Rotation	180	+	no	318
50	11FOOTLELXH3ANYA	Driver Left Foot Y-Axis Rotation	180	+	no	318
51	11FOOTLELXH3ANZA	Driver Left Foot Z-Axis Rotation	180	+	no	318
52	11FOOTLELXH3ACXA	Driver Left Foot X-Axis Acceleration	1000	+	yes	1000
53	11FOOTLELXH3ACYA	Driver Left Foot Y-Axis Acceleration	1000	+	yes	1000
54	11FOOTLELXH3ACZA	Driver Left Foot Z-Axis Acceleration	1000	+	yes	1000
54A	11FOOTLELXH3ACRA	Driver Left Foot Resultant Acceleration	1000			
55	11KNSLRI00H3DSXA	Driver Right Knee Displacement	180	+	yes	40
56	11TIBIRULXH3FOXA	Driver Right Upper Tibia X-Axis Force	600	+	yes	11120
57	11TIBIRULXH3FOZA	Driver Right Upper Tibia Z-Axis Force	600	+	yes	11120
58	11TIBIRULXH3MOXA	Driver Right Upper Tibia Moment About X Axis	600	+	yes	395.4
59	11TIBIRULXH3MOYA	Driver Right Upper Tibia Moment About Y Axis	600	+	yes	395.4
60	11TIBIRILXH3ACXA	Driver Right Tibia X-Axis Acceleration	1000	+	yes	1000
61	11TIBIRILXH3ACYA	Driver Right Tibia Y-Axis Acceleration	1000	+	yes	1000
62	11TIBIRLLXH3FOXA	Driver Right Lower Tibia X-Axis Force	600	+	yes	11120
63	11TIBIRLLXH3FOYA	Driver Right Lower Tibia Y-Axis Force	600	+	yes	11120
64	11TIBIRLLXH3FOZA	Driver Right Lower Tibia Z-Axis Force	600	+	yes	11120
65	11TIBIRLLXH3MOXA	Driver Right Lower Tibia Moment About X Axis	600	+	yes	395.4
66	11TIBIRLLXH3MOYA	Driver Right Lower Tibia Moment About Y Axis	600	+	yes	395.4
67	11FOOTRILXH3ANXA	Driver Right Foot X-Axis Rotation	180	+	no	318
68	11FOOTRILXH3ANYA	Driver Right Foot Y-Axis Rotation	180	+	no	318

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
69	11FOOTRILXH3ANZA	Driver Right Foot Z-Axis Rotation	180	+	no	318
70	11FOOTRILXH3ACXA	Driver Right Foot X-Axis Acceleration	1000	+	yes	1000
71	11FOOTRILXH3ACYA	Driver Right Foot Y-Axis Acceleration	1000	+	yes	1000
72	11FOOTRILXH3ACZA	Driver Right Foot Z-Axis Acceleration	1000	+	yes	1000
72A	11FOOTRILXH3ACRA	Driver Right Foot Resultant Acceleration	1000			
73	13HEADCG00H3ACXA	Passenger Head X-Axis Acceleration	1000	+	yes	1000
74	13HEADCG00H3ACYA	Passenger Head Y-Axis Acceleration	1000	+	yes	1000
75	13HEADCG00H3ACZA	Passenger Head Z-Axis Acceleration	1000	+	yes	1000
75A	13HEADCG00H3ACRA	Passenger Head Resultant Acceleration	1000			
76	13HEADCGRDH3ACXA	Passenger Head X-Axis Redundant Acceleration	1000	+	yes	1000
77	13HEADCGRDH3ACYA	Passenger Head Y-Axis Redundant Acceleration	1000	+	yes	1000
78	13HEADCGRDH3ACZA	Passenger Head Z-Axis Redundant Acceleration	1000	+	yes	1000
78A	13HEADCGRDH3ACRA	Passenger Head Redundant Resultant Acceleration	1000			
79	13HEADFR00H3ACYA	Passenger Head (FT) Y-Axis Acceleration	1000	+	yes	1000
80	13HEADFR00H3ACZA	Passenger Head (FT) Z-Axis Acceleration	1000	+	yes	1000
81	13HEADUP00H3ACXA	Passenger Head (TP) X-Axis Acceleration	1000	+	yes	1000
82	13HEADUP00H3ACYA	Passenger Head (TP) Y-Axis Acceleration	1000	+	yes	1000
83	13HEADLE00H3ACXA	Passenger Head (LT) X-Axis Acceleration	1000	+	yes	1000
84	13HEADLE00H3ACZA	Passenger Head (LT) Z-Axis Acceleration	1000	+	yes	1000
85	13NECKUP00H3FOXA	Passenger Upper Neck X-Axis Force	1000	+	yes	8896.4
86	13NECKUP00H3FOYA	Passenger Upper Neck Y-Axis Force	1000	+	yes	8896.4
87	13NECKUP00H3FOZA	Passenger Upper Neck Z-Axis Force	1000	+	yes	13344
88	13NECKUP00H3MOXA	Passenger Upper Neck Moment About X Axis	600	+	yes	282
89	13NECKUP00H3MOYA	Passenger Upper Neck Moment About Y Axis	600	+	yes	282
90	13NECKUP00H3MOZA	Passenger Upper Neck Moment About Z Axis	600	+	yes	282
91	13NECKLO00H3FOXA	Passenger Lower Neck X-Axis Force	1000	+	yes	13344
92	13NECKLO00H3FOYA	Passenger Lower Neck Y-Axis Force	1000	+	yes	13344
93	13NECKLO00H3FOZA	Passenger Lower Neck Z-Axis Force	1000	+	yes	13344
94	13NECKLO00H3MOXA	Passenger Lower Neck Moment About X Axis	600	+	yes	452
95	13NECKLO00H3MOYA	Passenger Lower Neck Moment About Y Axis	600	+	yes	452
96	13NECKLO00H3MOZA	Passenger Lower Neck Moment About Z Axis	600	+	yes	452
97	13CHSTCG00H3ACXA	Passenger Chest X-Axis Acceleration	180	+	yes	1000
98	13CHSTCG00H3ACYA	Passenger Chest Y-Axis Acceleration	180	+	yes	1000
99	13CHSTCG00H3ACZA	Passenger Chest Z-Axis Acceleration	180	+	yes	1000
99A	13CHSTCG00H3ACRA	Passenger Chest Resultant Acceleration	180			
100	13CHSTCGRDH3ACXA	Passenger Chest X-Axis Redundant Acceleration	180	+	yes	1000
101	13CHSTCGRDH3ACYA	Passenger Chest Y-Axis Redundant Acceleration	180	+	yes	1000

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
102	13CHSTCGRDH3ACZA	Passenger Chest Z-Axis Redundant Acceleration	180	+	yes	1000
102A	13CHSTCGRDH3ACRA	Passenger Chest Redundant Resultant Acceleration	180			
103	13CHST0000H3DSXA	Passenger Chest Displacement	600	+	yes	84
104	13PELVCG00H3ACXA	Passenger Pelvis X-Axis Acceleration	1000	+	yes	1000
105	13PELVCG00H3ACYA	Passenger Pelvis Y-Axis Acceleration	1000	+	yes	1000
106	13PELVCG00H3ACZA	Passenger Pelvis Z-Axis Acceleration	1000	+	yes	1000
106A	13PELVCG00H3ACRA	Passenger Pelvis Resultant Acceleration	1000			
107	13FEMRLL00H3FOZA	Passenger Left Femur Z-Axis Force	600	+	yes	13344
108	13FEMRRL00H3FOZA	Passenger Right Femur Z-Axis Force	600	+	yes	13344
109	13KNSLLE00H3DSXA	Passenger Left Knee Displacement	180	+	yes	40
110	13TIBILULXH3FOXA	Passenger Left Upper Tibia X-Axis Force	600	+	yes	11120
111	13TIBILULXH3FOZA	Passenger Left Upper Tibia Z-Axis Force	600	+	yes	11120
112	13TIBILULXH3MOXA	Passenger Left Upper Tibia Moment About X Axis	600	+	yes	395.4
113	13TIBILULXH3MOYA	Passenger Left Upper Tibia Moment About Y Axis	600	+	yes	395.4
114	13TIBILELXH3ACXA	Passenger Left Tibia X-Axis Acceleration	1000	+	yes	1000
115	13TIBILELXH3ACYA	Passenger Left Tibia Y-Axis Acceleration	1000	+	yes	1000
116	13TIBILLLXH3FOXA	Passenger Left Lower Tibia X-Axis Force	600	+	yes	11120
117	13TIBILLLXH3FOYA	Passenger Left Lower Tibia Y-Axis Force	600	+	yes	11120
118	13TIBILLLXH3FOZA	Passenger Left Lower Tibia Z-Axis Force	600	+	yes	11120
119	13TIBILLLXH3MOXA	Passenger Left Lower Tibia Moment About X Axis	600	+	yes	395.4
120	13TIBILLLXH3MOYA	Passenger Left Lower Tibia Moment About Y Axis	600	+	yes	395.4
121	13FOOTLELXH3ANXA	Passenger Left Foot X-Axis Rotation	180	+	no	318
122	13FOOTLELXH3ANYA	Passenger Left Foot Y-Axis Rotation	180	+	no	318
123	13FOOTLELXH3ANZA	Passenger Left Foot Z-Axis Rotation	180	+	no	318
124	13FOOTLELXH3ACXA	Passenger Left Foot X-Axis Acceleration	1000	+	yes	1000
125	13FOOTLELXH3ACYA	Passenger Left Foot Y-Axis Acceleration	1000	+	yes	1000
126	13FOOTLELXH3ACZA	Passenger Left Foot Z-Axis Acceleration	1000	+	yes	1000
126A	13FOOTLELXH3ACRA	Passenger Left Foot Resultant Acceleration	1000			
127	13KNSLRI00H3DSXA	Passenger Right Knee Displacement	180	+	yes	40
128	13TIBIRULXH3FOXA	Passenger Right Upper Tibia X-Axis Force	600	+	yes	11120
129	13TIBIRULXH3FOZA	Passenger Right Upper Tibia Z-Axis Force	600	+	yes	11120
130	13TIBIRULXH3MOXA	Passenger Right Upper Tibia Moment About X Axis	600	+	yes	395.4
131	13TIBIRULXH3MOYA	Passenger Right Upper Tibia Moment About Y Axis	600	+	yes	395.4
132	13TIBIRILXH3ACXA	Passenger Right Tibia X-Axis Acceleration	1000	+	yes	1000
133	13TIBIRILXH3ACYA	Passenger Right Tibia Y-Axis Acceleration	1000	+	yes	1000
134	13TIBIRLLXH3FOXA	Passenger Right Lower Tibia X-Axis Force	600	+	yes	11120
135	13TIBIRLLXH3FOYA	Passenger Right Lower Tibia Y-Axis Force	600	+	yes	11120

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
136	13TIBIRLLXH3FOZA	Passenger Right Lower Tibia Z-Axis Force	600	+	yes	11120
137	13TIBIRLLXH3MOXA	Passenger Right Lower Tibia Moment About X Axis	600	+	yes	395.4
138	13TIBIRLLXH3MOYA	Passenger Right Lower Tibia Moment About Y Axis	600	+	yes	395.4
139	13FOOTRILXH3ANXA	Passenger Right Foot X-Axis Rotation	180	+	no	318
140	13FOOTRILXH3ANYA	Passenger Right Foot Y-Axis Rotation	180	+	no	318
141	13FOOTRILXH3ANZA	Passenger Right Foot Z-Axis Rotation	180	+	no	318
142	13FOOTRILXH3ACXA	Passenger Right Foot X-Axis Acceleration	1000	+	yes	1000
143	13FOOTRILXH3ACYA	Passenger Right Foot Y-Axis Acceleration	1000	+	yes	1000
144	13FOOTRILXH3ACZA	Passenger Right Foot Z-Axis Acceleration	1000	+	yes	1000
144A	13FOOTRILXH3ACRA	Passenger Right Foot Resultant Acceleration	1000			
145	14CRME000000ACXA	Left Rear Seat Cross-Member X-Axis Acceleration	60	+	yes	1000
146	16CRME000000ACXA	Right Rear Seat Cross-Member X-Axis Acceleration	60	+	yes	1000
147	14CRME000000ACZA	Left Rear Seat Cross-Member Z-Axis Acceleration	60	+	yes	1000
148	16CRME000000ACZA	Right Rear Seat Cross-Member Z-Axis Acceleration	60	+	yes	1000
149	12ENGNTP0000ACXA	Top of Engine Block X-Axis Acceleration	60	+	yes	1000
150	12ENGNBO0000ACXA	Bottom of Engine Block X-Axis Acceleration	60	+	yes	1000
151	13VEHCRI0000ACXA	Right Brake Caliper X-Axis Acceleration	60	+	yes	1000
152	11VEHCLE0000ACXA	Left Brake Caliper X-Axis Acceleration	60	+	yes	1000
153	12DASH000000ACXA	Instrument Panel X-Axis Acceleration	60	+	yes	1000
154	11SETR000000ACXA	Left Side Driver Mid Seat Track X-Axis Acceleration	60	+	yes	1000
155	10VEHCCG0000ACXA	Vehicle CG X-Axis Acceleration	60	+	yes	1000
155A	10VEHCCG0000VEXA	Vehicle CG X-Axis Velocity	180			
155B	10VEHCCG0000DCXA	Vehicle CG X-Axis Displacement	180			
156	10VEHCCG0000ACYA	Vehicle CG Y-Axis Acceleration	60	+	yes	1000
156A	10VEHCCG0000VEYA	Vehicle CG Y-Axis Velocity	180			
156B	10VEHCCG0000DCYA	Vehicle CG Y-Axis Displacement	180			
157	10VEHCCG0000ACZA	Vehicle CG Z-Axis Acceleration	60	+	yes	1000
157A	10VEHCCG0000VEZA	Vehicle CG Z-Axis Velocity	180			
157B	10VEHCCG0000DCZA	Vehicle CG Z-Axis Displacement	180			
157C	10VEHCCG0000ACRA	Vehicle CG Resultant Acceleration	60			
158	11PEAC000000ACXA	Under Accel Pedal (Centered) X-Axis Acceleration	60	+	yes	1000
159	11PEAC000000ACYA	Under Accel Pedal (Centered) Y-Axis Acceleration	60	+	yes	1000
160	11PEAC000000ACZA	Under Accel Pedal (Centered) Z-Axis Acceleration	60	+	yes	1000
160A	11PEAC000000ACRA	Under Accel Pedal (Centered) Resultant Acceleration	60			
161	11PEBR000000ACXA	Under Brake Pedal (Centered) X-Axis Acceleration	60	+	yes	1000
162	11PEBR000000ACYA	Under Brake Pedal (Centered) Y-Axis Acceleration	60	+	yes	1000
163	11PEBR000000ACZA	Under Brake Pedal (Centered) Z-Axis Acceleration	60	+	yes	1000

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
163A	11PEBR000000ACRA	Under Brake Pedal (Centered) Resultant Acceleration	60			
164	11VEHC000001ACXA	Outside Footrest X-Axis Acceleration	60	+	yes	1000
165	11VEHC000001ACYA	Outside Footrest Y-Axis Acceleration	60	+	yes	1000
166	11VEHC000001ACZA	Outside Footrest Z-Axis Acceleration	60	+	yes	1000
166A	11VEHC000001ACRA	Outside Footrest Resultant Acceleration	60			
167	11SEBE0000B5FOOA	Driver Lap Belt Force	60	+	yes	13344
168	11SEBE0000B3FOOA	Driver Shoulder Belt Force	60	+	yes	13344
169	13SEBE0000B5FOOA	Passenger Lap Belt Force	60	+	yes	13344
170	13SEBE0000B3FOOA	Passenger Shoulder Belt Force	60	+	yes	13344
171	11AIRBFR0100EV0A	Driver Front Airbag 1 Inductor	1000	+	no	5
172	11AIRBFR0200EV0A	Driver Front Airbag 2 Inductor	1000	+	no	5
173	13AIRBFR0100EV0A	Passenger Front Airbag 1 Inductor	1000	+	no	5
174	13AIRBFR0200EV0A	Passenger Front Airbag 2 Inductor	1000	+	no	5
175	11CONT000001VO00	Driver Left Foot Contact Switch	0	+	no	1
176	11CONT000002VO00	Driver Right Foot Contact Switch	0	+	no	1
177	11CONT000003VO00	Driver Left Knee Contact Switch	0	+	no	1
178	11CONT000004VO00	Driver Right Knee Contact Switch	0	+	no	1
179	L0FBAR000001FOXA	Load Cell Row 1 Column 1	60	+	yes	222411
180	L0FBAR000002FOXA	Load Cell Row 2 Column 1	60	+	yes	222411
181	L0FBAR000003FOXA	Load Cell Row 3 Column 1	60	+	yes	222411
182	L0FBAR000004FOXA	Load Cell Row 4 Column 1	60	+	yes	222411
183	L0FBAR000005FOXA	Load Cell Row 5 Column 1	60	+	yes	222411
184	L0FBAR000006FOXA	Load Cell Row 6 Column 1	60	+	yes	222411
185	L0FBAR000007FOXA	Load Cell Row 7 Column 1	60	+	yes	222411
186	L0FBAR000008FOXA	Load Cell Row 8 Column 1	60	+	yes	222411
187	L0FBAR000009FOXA	Load Cell Row 9 Column 1	60	+	yes	222411
188	L0FBAR000010FOXA	Load Cell Row 10 Column 1	60	+	yes	222411
189	L0FBAR000011FOXA	Load Cell Row 1 Column 2	60	+	yes	222411
190	L0FBAR000012FOXA	Load Cell Row 2 Column 2	60	+	yes	222411
191	L0FBAR000013FOXA	Load Cell Row 3 Column 2	60	+	yes	222411
192	L0FBAR000014FOXA	Load Cell Row 4 Column 2	60	+	yes	222411
193	L0FBAR000015FOXA	Load Cell Row 5 Column 2	60	+	yes	222411
194	L0FBAR000016FOXA	Load Cell Row 6 Column 2	60	+	yes	222411
195	L0FBAR000017FOXA	Load Cell Row 7 Column 2	60	+	yes	222411
196	L0FBAR000018FOXA	Load Cell Row 8 Column 2	60	+	yes	222411
197	L0FBAR000019FOXA	Load Cell Row 9 Column 2	60	+	yes	222411
198	L0FBAR000020FOXA	Load Cell Row 10 Column 2	60	+	yes	222411

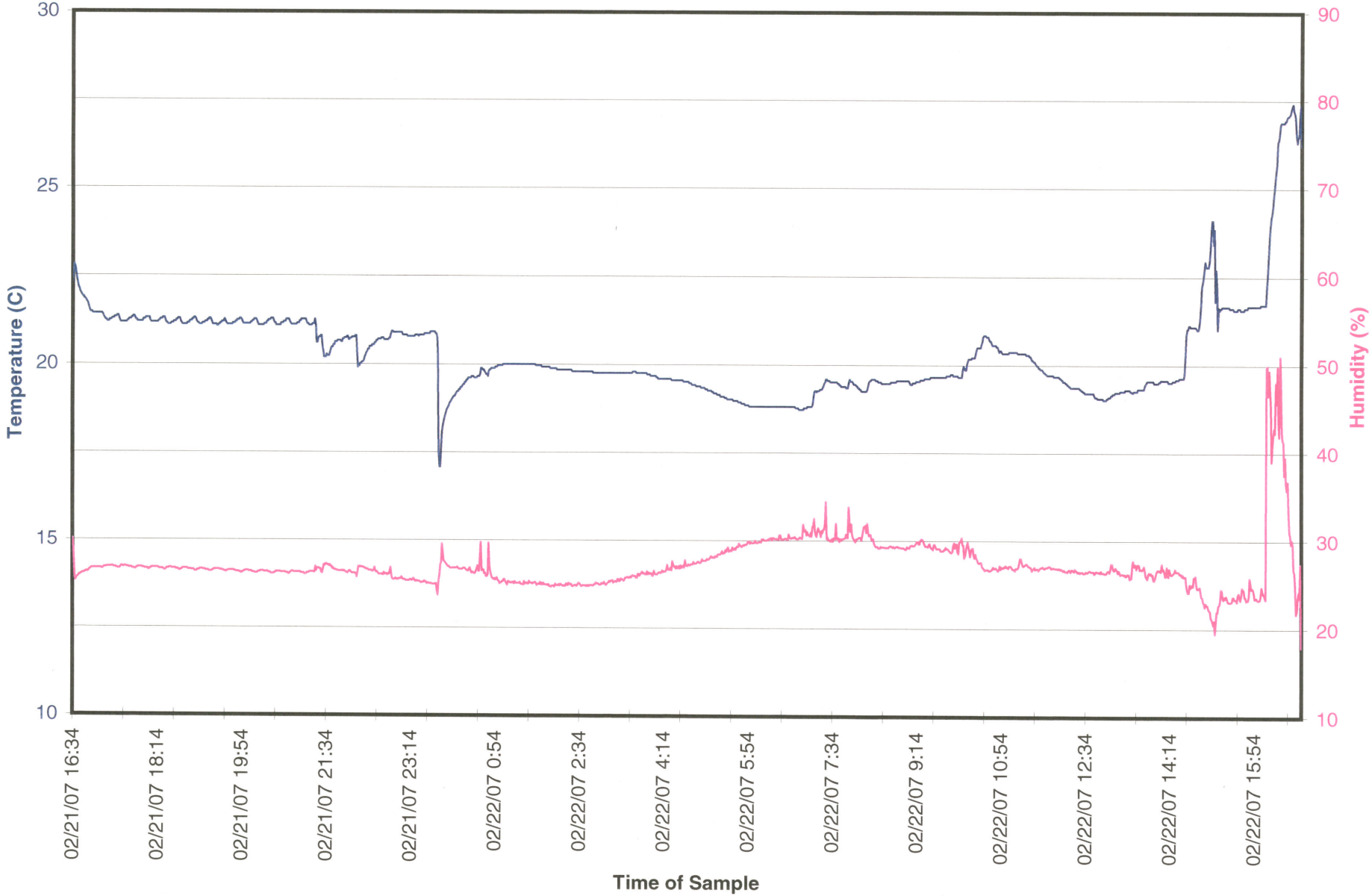
Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
199	L0FBAR000021FOXA	Load Cell Row 1 Column 3	60	+	yes	222411
200	L0FBAR000022FOXA	Load Cell Row 2 Column 3	60	+	yes	222411
201	L0FBAR000023FOXA	Load Cell Row 3 Column 3	60	+	yes	222411
202	L0FBAR000024FOXA	Load Cell Row 4 Column 3	60	+	yes	222411
203	L0FBAR000025FOXA	Load Cell Row 5 Column 3	60	+	yes	222411
204	L0FBAR000026FOXA	Load Cell Row 6 Column 3	60	+	yes	222411
205	L0FBAR000027FOXA	Load Cell Row 7 Column 3	60	+	yes	222411
206	L0FBAR000028FOXA	Load Cell Row 8 Column 3	60	+	yes	222411
207	L0FBAR000029FOXA	Load Cell Row 9 Column 3	60	+	yes	222411
208	L0FBAR000030FOXA	Load Cell Row 10 Column 3	60	+	yes	222411
209	L0FBAR000031FOXA	Load Cell Row 1 Column 4	60	+	yes	222411
210	L0FBAR000032FOXA	Load Cell Row 2 Column 4	60	+	yes	222411
211	L0FBAR000033FOXA	Load Cell Row 3 Column 4	60	+	yes	222411
212	L0FBAR000034FOXA	Load Cell Row 4 Column 4	60	+	yes	222411
213	L0FBAR000035FOXA	Load Cell Row 5 Column 4	60	+	yes	222411
214	L0FBAR000036FOXA	Load Cell Row 6 Column 4	60	+	yes	222411
215	L0FBAR000037FOXA	Load Cell Row 7 Column 4	60	+	yes	222411
216	L0FBAR000038FOXA	Load Cell Row 8 Column 4	60	+	yes	222411
217	L0FBAR000039FOXA	Load Cell Row 9 Column 4	60	+	yes	222411
218	L0FBAR000040FOXA	Load Cell Row 10 Column 4	60	+	yes	222411
219	L0FBAR000041FOXA	Load Cell Row 1 Column 5	60	+	yes	222411
220	L0FBAR000042FOXA	Load Cell Row 2 Column 5	60	+	yes	222411
221	L0FBAR000043FOXA	Load Cell Row 3 Column 5	60	+	yes	222411
222	L0FBAR000044FOXA	Load Cell Row 4 Column 5	60	+	yes	222411
223	L0FBAR000045FOXA	Load Cell Row 5 Column 5	60	+	yes	222411
224	L0FBAR000046FOXA	Load Cell Row 6 Column 5	60	+	yes	222411
225	L0FBAR000047FOXA	Load Cell Row 7 Column 5	60	+	yes	222411
226	L0FBAR000048FOXA	Load Cell Row 8 Column 5	60	+	yes	222411
227	L0FBAR000049FOXA	Load Cell Row 9 Column 5	60	+	yes	222411
228	L0FBAR000050FOXA	Load Cell Row 10 Column 5	60	+	yes	222411
229	L0FBAR000051FOXA	Load Cell Row 1 Column 6	60	+	yes	222411
230	L0FBAR000052FOXA	Load Cell Row 2 Column 6	60	+	yes	222411
231	L0FBAR000053FOXA	Load Cell Row 3 Column 6	60	+	yes	222411
232	L0FBAR000054FOXA	Load Cell Row 4 Column 6	60	+	yes	222411
233	L0FBAR000055FOXA	Load Cell Row 5 Column 6	60	+	yes	222411
234	L0FBAR000056FOXA	Load Cell Row 6 Column 6	60	+	yes	222411
235	L0FBAR000057FOXA	Load Cell Row 7 Column 6	60	+	yes	222411

Command File Test Number 070222

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
236	L0FBAR000058FOXA	Load Cell Row 8 Column 6	60	+	yes	222411
237	L0FBAR000059FOXA	Load Cell Row 9 Column 6	60	+	yes	222411
238	L0FBAR000060FOXA	Load Cell Row 10 Column 6	60	+	yes	222411
239	L0FBAR000061FOXA	Load Cell Row 1 Column 7	60	+	yes	222411
240	L0FBAR000062FOXA	Load Cell Row 2 Column 7	60	+	yes	222411
241	L0FBAR000063FOXA	Load Cell Row 3 Column 7	60	+	yes	222411
242	L0FBAR000064FOXA	Load Cell Row 4 Column 7	60	+	yes	222411
243	L0FBAR000065FOXA	Load Cell Row 5 Column 7	60	+	yes	222411
244	L0FBAR000066FOXA	Load Cell Row 6 Column 7	60	+	yes	222411
245	L0FBAR000067FOXA	Load Cell Row 7 Column 7	60	+	yes	222411
246	L0FBAR000068FOXA	Load Cell Row 8 Column 7	60	+	yes	222411
247	L0FBAR000069FOXA	Load Cell Row 9 Column 7	60	+	yes	222411
248	L0FBAR000070FOXA	Load Cell Row 10 Column 7	60	+	yes	222411
249	L0FBAR000071FOXA	Load Cell Row 1 Column 8	60	+	yes	222411
250	L0FBAR000072FOXA	Load Cell Row 2 Column 8	60	+	yes	222411
251	L0FBAR000073FOXA	Load Cell Row 3 Column 8	60	+	yes	222411
252	L0FBAR000074FOXA	Load Cell Row 4 Column 8	60	+	yes	222411
253	L0FBAR000075FOXA	Load Cell Row 5 Column 8	60	+	yes	222411
254	L0FBAR000076FOXA	Load Cell Row 6 Column 8	60	+	yes	222411
255	L0FBAR000077FOXA	Load Cell Row 7 Column 8	60	+	yes	222411
256	L0FBAR000078FOXA	Load Cell Row 8 Column 8	60	+	yes	222411
257	L0FBAR000079FOXA	Load Cell Row 9 Column 8	60	+	yes	222411
258	L0FBAR000080FOXA	Load Cell Row 10 Column 8	60	+	yes	222411
259	L0FBAR000081FOXA	Load Cell Row 1 Column 9	60	+	yes	222411
260	L0FBAR000082FOXA	Load Cell Row 2 Column 9	60	+	yes	222411
261	L0FBAR000083FOXA	Load Cell Row 3 Column 9	60	+	yes	222411
262	L0FBAR000084FOXA	Load Cell Row 4 Column 9	60	+	yes	222411
263	L0FBAR000085FOXA	Load Cell Row 5 Column 9	60	+	yes	222411
264	L0FBAR000086FOXA	Load Cell Row 6 Column 9	60	+	yes	222411
265	L0FBAR000087FOXA	Load Cell Row 7 Column 9	60	+	yes	222411
266	L0FBAR000088FOXA	Load Cell Row 8 Column 9	60	+	yes	222411
267	L0FBAR000089FOXA	Load Cell Row 9 Column 9	60	+	yes	222411
268	L0FBAR000090FOXA	Load Cell Row 10 Column 9	60	+	yes	222411

2007 FORD 500 INTO LEFT 40% OFFSET DEFORMABLE LCB AT 56 KPH



070222

www.fordvehicles.com

VEHICLE DESCRIPTION

FIVE HUNDRED

2007 SEL FWD
5-PASSENGER
3.0L 4V V6 DURATEC ENGINE
AUTO 6-SPEED TRANSMISSION

VIN 1FAFP24197G **103400**

EXTERIOR
ALLOY CLEARCOAT METALLIC
INTERIOR
SHALE CLOTH BUCKET

STANDARD EQUIPMENT INCLUDED AT NO EXTRA CHARGE

EXTERIOR
- 17" CAST ALUMINUM WHEELS
- PAINTED BRIGHT GRILLE
- CHROME-FRT & REAR FASCIAS, GRILLE SURROUND&SIDE WNDW
- HALOGEN HEADLAMPS
- POWER MIRRORS, FOLDABLE

INTERIOR
- 6-WAY POWER DRIVER'S SEAT
- AM/FM CD PLAYER W/CLOCK
- A/C W/MANUAL CLIMATE CONTROL, SINGLE ZONE
- MESSAGE CTR W/COMPASS
- WOODGRAIN INTERIOR ACCENTS
- LEATHER STEERING WHEEL W/ AUDIO CONTROLS
- ELECTROCHROMIC MIRROR
- LOCKING GLOVE BOX

FUNCTIONAL
- P215/60RX17 BSW
- FRONT WHEEL DRIVE
- POWER WNDOWS/LOCKS/MIRRORS
- SPEED CONTROL
- POWER STEERING
- 8 CUP/BOTTLE HOLDERS
- 20 GALLON FUEL TANK

SAFETY/SECURITY
- PERSONAL SAFETY SYSTEM
- ANTI-LOCK BRAKING SYSTEM
- LATCH SYSTEM
- SECURILOCK PASS ANTI THEFT
- OCCUPNT CLASSIFICATION SYS
- CHILD SAFETY REAR DR LOCKS
- REMOTE KEYLESS ENTRY

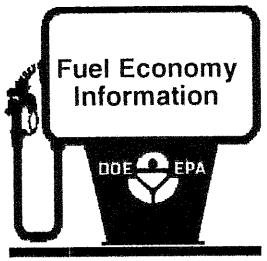
WARRANTY
- 3YR/36,000 BUMPER / BUMPER
- 5YR/60,000 POWERTRAIN
- 5YR/60,000 ROADSIDE ASSIST

Compare this vehicle to others in the FREE FUEL ECONOMY GUIDE available at the dealer.

CITY MPG

21

Actual Mileage will vary with options, driving conditions, driving habits and vehicle's condition. Results reported to EPA indicate that the majority of vehicles with these estimates will achieve between 17 and 25 mpg in the city and between 24 and 34 mpg on the highway.



For more information see WWW.FUELECONOMY.GOV

HIGHWAY MPG

29

For Comparison Shopping all vehicles classified as **SEE NOTE BELOW** have been issued mileage ratings ranging from to mpg city and to mpg highway.

2007 FORD FIVE HUNDRED FWD,
3.0L ENG., 4 VALVE
6 CYLINDERS, FUEL INJECTION,
CATALYST, 6 SPEED AUTOMATIC
TRANSMISSION

Estimated Annual Fuel Cost: $1376

A RANGE OF FUEL ECONOMY VALUES
FOR OTHER VEHICLES CLASSIFIED
AS LARGE IS NOT AVAILABLE
AT THIS TIME.

PRICE INFORMATION

Manufacturer's Suggested Retail Price

STANDARD VEHICLE PRICE	$ 22695.00

INCLUDED ON THIS VEHICLE
ORDER CODE 110A
- POWER EXTERIOR MIRRORS
- ANTI-LOCK BRAKES
- AIR CONDITIONING, MANUAL
- PASSENGER POWER SEAT
- PREMIUM SOUND SYSTEM

OPTIONAL EQUIPMENT

TRACTION CONTROL	195.00
REVERSE SENSING SYSTEM	295.00
TOTAL VEHICLE & OPTION	23185.00
DESTINATION & DELIVERY	700.00
TOTAL BEFORE DISCOUNTS	23885.00
SAFETY PACKAGE ADJ-STD	505.00
TOTAL SAVINGS	505.00

TOTAL MSRP $ 23380.00

070222

CERTIFICATE OF CONFORMITY

Certificate No. **28923**
Serial No. **GI086.**

Product Description	**Frontal ODB painted grey**
Cellbond Part No.	**70EEVCFIUS**

	Test Results	GR No.	Blk No.
1	17904-8	CHC0303205GH	N/A
2	17546-8	CHC0511042GF	N/A

Declaration.

The above moving deformable barrier has been manufactured in accordance with the provisions of the European Parliament and Council No 96/79/EC Directive (Regulation ECE R94)

Additional Information...

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

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

company registration
England 1944904

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

Cellbond Offices
United Kingdom
United States of America

070222

CELLBOND

EEVC DEFORMABLE FRONTAL BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

MAIN BLOCK
Core: 1.8 3/4 3003

Required Crush Strength
0.308 MPa to 0.342 MPa

Test No: 17904-8

GR No : CHC0303205GH
Block No: N/A

	Crush Strength (MPa)			
	6.4 to 9.7 mm	9.7 to 13.2 mm	13.2 to 16.5 mm	RESULT
Sample* 1	0.3143	0.3196	0.3283	PASS
Sample 2	0.3275	0.3260	0.3299	PASS
Sample 3	0.3256	0.3308	0.3320	PASS
Sample 4	0.3176	0.3375	0.3432	FAIL
Sample 5	0.3323	0.3369	0.3374	PASS
Sample 6	0.3154	0.3246	0.3347	PASS
Sample 7	0.3221	0.3243	0.3307	PASS
Sample 8	0.3280	0.3328	0.3398	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.

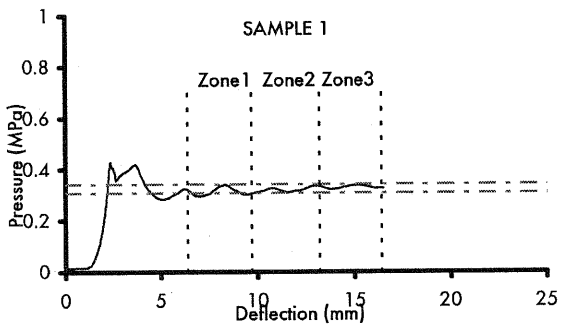
RESULT: PASSED

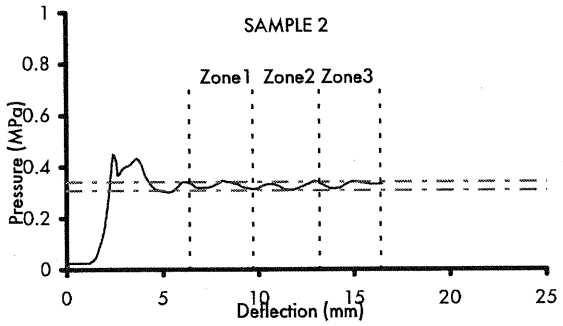
EEVC DEFORMABLE FRONTAL BARRIER
MAIN BLOCK

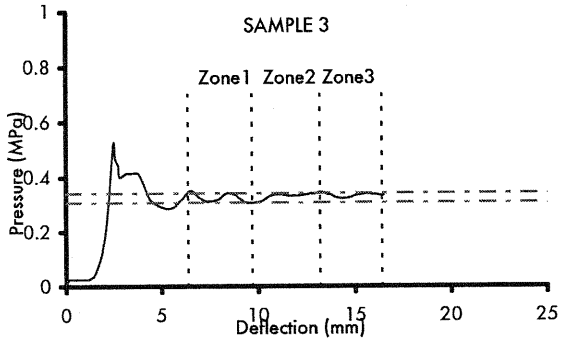
Honeycomb Type: 1.8 3/4 3003
Higher Acceptable Crush Strength Limit: 0.342 MPa
Lower Acceptable Crush Strength Limit: 0.308 MPa

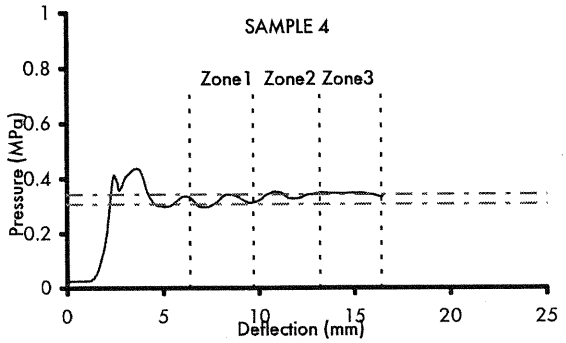
Section 1:	6.4 - 9.7mm
Section 2:	9.7 - 13.2mm
Section 3:	13.2 - 16.5mm
Speed:	6.35 mm/min

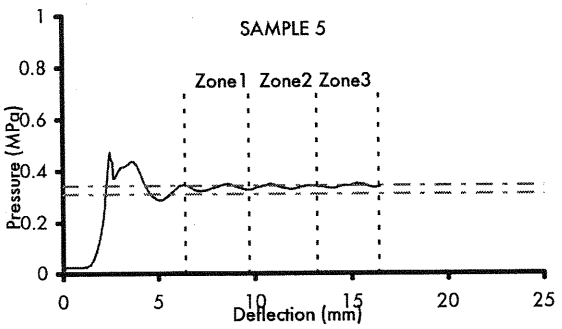
Test No: 17904-8 GR No: CHC0303205GH Block No: N/A

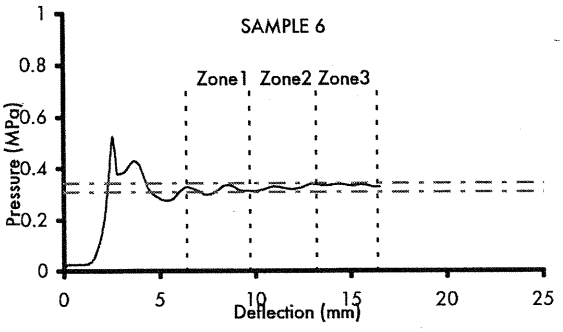


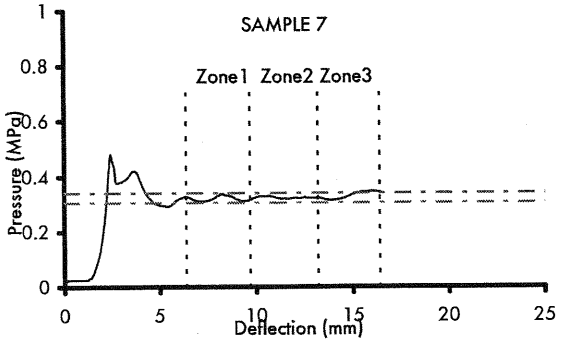


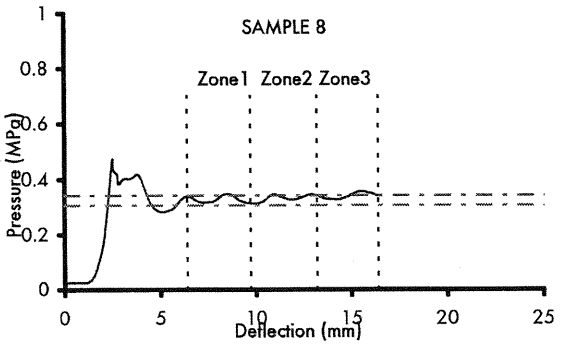












CELLBOND

EEVC DEFORMABLE FRONTAL BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

BUMPER
Core: 5.2 1/4 3003

Required Crush Strength
1.540 MPa to 1.711 MPa

Test No: 17546-8

GR No: CHC0511042GF
Block No: N/A

	Crush Strength (MPa)			
	6.4 to 9.7 mm	9.7 to 13.2 mm	13.2 to 16.5 mm	RESULT
Sample* 1	1.565	1.575	1.565	PASS
Sample 2	1.585	1.563	1.577	PASS
Sample 3	1.570	1.577	1.568	PASS
Sample 4	1.601	1.588	1.591	PASS
Sample 5	1.587	1.595	1.581	PASS
Sample 6	1.591	1.569	1.563	PASS
Sample 7	1.578	1.571	1.562	PASS
Sample 8	1.590	1.562	1.583	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.

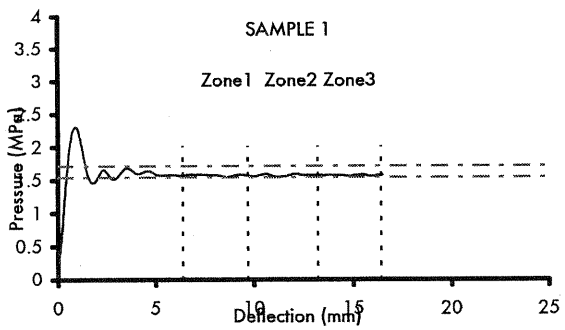
RESULT: PASSED

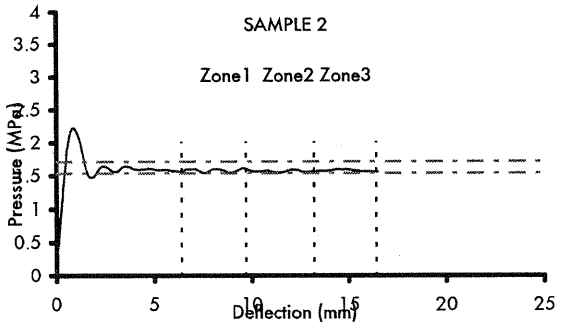
EEVC DEFORMABLE FRONTAL BARRIER
BUMPER

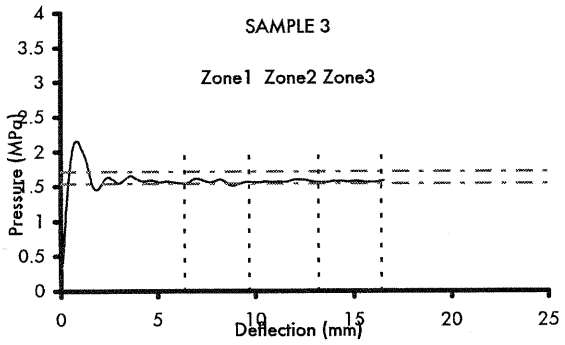
Honeycomb Type: 5.2 1/4 3003
Higher Acceptable Crush Strength Limit: 1.711 MPa
Lower Acceptable Crush Strength Limit: 1.540 MPa

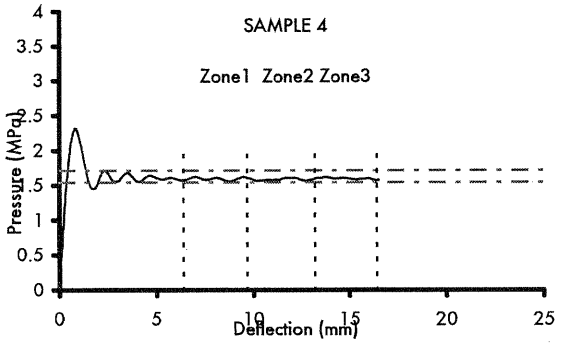
Section 1:	6.4 - 9.7mm
Section 2:	9.7 - 13.2mm
Section 3:	13.2 - 16.5mm
Speed:	6.35 mm/min

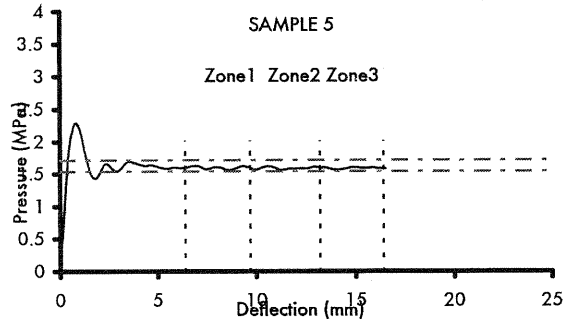
Test No: 17546-8 GR No: CHC0511042GF Block No: N/A

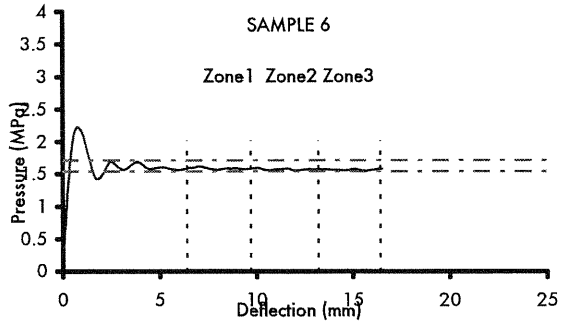


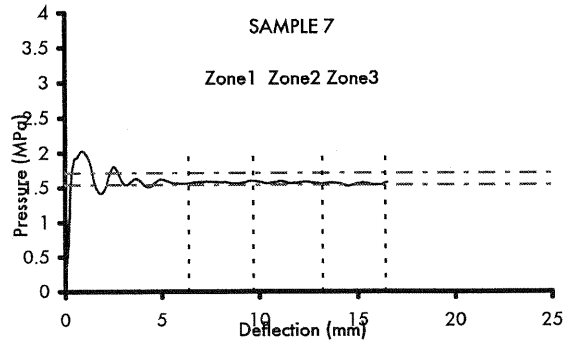


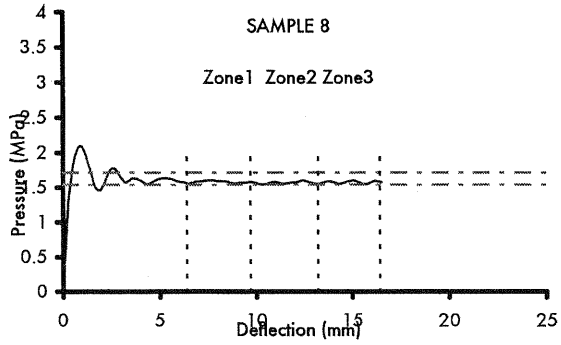












Procedure For Vehicle Interior Intrusion Measurements

The interior intrusion measurement locations are marked on both the driver and passenger side of the vehicle and are to be recorded using a coordinate measuring machine (CMM). The coordinate system for intrusion measurements is based on SAE J211 vehicle and laboratory coordinates. The X-direction is positive from the left of the vehicle to the right of the vehicle. The Z-direction is positive from the top of the vehicle to the ground. The frame of reference for the vehicle coordinate system is the non-deforming part of the vehicle.

The Contractor shall level the vehicle (Note: do not use suspension) and locate the vehicle coordinate system on a rigid surface of the vehicle's bumper at centerline of the vehicle. The post-test intrusion measurement points shall be measured using the same reference coordinate system by leveling the vehicle to the same pretest condition. The before and after impact measurements are in millimeters in the range -10,000 to 10,000 millimeters. A unique intrusion point number (IPNO) further identifies an intrusion point within each possible intrusion point location. The unique IPNO codes are identified in Table E1. The locations of the toe pan intrusion points are depicted in Figure E1. The Contractor shall record the intrusion measurements described in Figure E1. The COTR reserves the right to modify these measurements and the procedure.

Table E1: Intrusion Point Numbers (IPNO) Codes

Intrusion Point Number (IPNO) Format: Integer	Description
1	Toe pan point A1 (See Figure E1)
2	Toe pan point B1 (See Figure E1)
3	Toe pan point C1 (See Figure E1)
4	Toe pan point D1 (See Figure E1)
5	Toe pan point A2 (See Figure E1)
6	Toe pan point B2 (See Figure E1)
7	Toe pan point C2 (See Figure E1)
8	Toe pan point D2 (See Figure E1)
9	Toe pan point A3 (See Figure E1)
10	Toe pan point B3 (See Figure E1)
11	Toe pan point C3 (See Figure E1)
12	Toe pan point D3 (See Figure E1)
13	Floorboard point A4 (See Figure E1)
14	Floorboard point B4 (See Figure E1)
15	Floorboard point C4 (See Figure E1)
16	Floorboard point D4 (See Figure E1)
17	Floorboard point A5 (See Figure E1)
18	Floorboard point B5 (See Figure E1)
19	Floorboard point C5 (See Figure E1)
20	Floorboard point D5 (See Figure E1)
21	Geometric center of brake pedal (See Figure E1)
22	Upper instrument panel (IP) left knee (located above where dummy's knees contact dash)
23	Upper IP right knee (located above where dummy's knees contact dash)
24	Steering column
25	Front outboard seat attachment point

Procedure for Marking Toe Pan and Floorboard

1. Locate and mark point D1 (column D row 1): Project a line 45 degrees (from the horizontal) down and forward from the center of the top accelerometer pedal in x-z place until the line intersects the interior of the vehicle. Mark this point by cutting a small "v" in the carpet and underlying padding and peeling back and exposing the floor. The carpet and padding are then refitted prior to crash.
2. ST plane: The ST plane is a y-z plane that passes through the front edge of the right seat track.
3. AP1 plane: The AP1 plane is a y-z plane that passes through point D1.
4. AP2 plane: The AP2 plane is an x-z plane that passes through point D1.
5. AP3 plane: The AP3 plane is an x-y plane that passes through point D1.
6. MP plane: The MP plane is a y-z plane located halfway between the ST plane and AP1 plane.

7. CF plane: The CF plane is an x-z plane that passes through the center of the footrest. If there is no visible footrest, locate the x-z plane to pass through a point located 64 mm measured along the MP plane in the y-direction from the intersection of the door sill and floorboard.
8. BP plane: The BP plane is an x-z plane that passes through the center of the brake pedal.
9. TP plane: The TP plane is a y-z plane at the intersection of the BP plane and the intersection of the toe pan and floorboard.
10. Column A is at the intersection of the vehicle and the CF plane.
11. Column D is at the intersection of the vehicle and the AP2 plane.
12. Row 1 is at the intersection of the vehicle and the AP3 plane.
13. Row 3 is at the intersection of the vehicle and the TP plane.
14. Row 5 is at the intersection of the vehicle and MP plane.
15. Columns B and C are evenly spaced between Columns A and D.
16. Row 2 is evenly spaced between Row 1 and Row 3.
17. Row 4 is evenly spaced between Row 3 and Row 5.
18. Map and mark additional driver points:
    a. Mark the center of the brake pedal.
    b. Mark the left upper IP located above where dummy's knees contact the dash.
    c. Mark the right upper IP located above where dummy's knees contact the dash.
    d. Mark the center of the steering wheel.
    e. Mark the front outboard seat attachment point.
19. Map all driver side toe pan and floorboard points to the passenger side from the center line of the vehicle.
20. Map and mark additional driver points:
    a. Mark the left upper IP located above where dummy's knees contact dash.
    b. Mark the right upper IP located above where dummy's knees contact dash.
    c. Mark the front outboard seat attachment point.

Data Submission

For each intrusion point, six measurements may be taken. The Contractor shall submit a table that describes the data fro three pre-test and three post-test measurements in the test report. The data shall be submitted in ENTRÉE format:

Notes: (1) If no data is taken for one of the coordinate systems please leave blank - do not put a zero.
(2) VEHNO denotes Vehicle Number
(3) TSTREF denotes Test Reference Number
(4) Table E2 defines IPLOC
(5) Table E3 defines measurement format

Table E2: Intrusion Point Location Format

Intrusion Point Locations (IPLOC) Format: Text	Description
C	Steering Column
D	Driver Side
P	Passenger Side

Table E3: Intrusion Measurement Format

Intrusion Measurements (Millimeters) Format: Integer	Description
BIX, BIY, BIZ	Pre-test measurements for x, y, z axis respectively
AIX, AIY, AIZ	Post-test measurements for x, y, z axis respectively

DATA LINK CONNECTOR
PUSH ON•OFF
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
B1
B2
B3
C2
C3
D2
D3

Points	
6-8	on the toe-board at the contact points with the foot rest support block
9-11	on the corners of the foot rest support block
12	on the toe board (not brake pedal)
14	on the side of the toe board along the Y-axis directly from center of accel pedal
15	on the side of the toe board along the Y-axis directly from center of foot rest
16	center of left heel contact to carpet after dummy positioning
17	center of top of right shoe sole after dummy positioning

Appendix F

INSIA Report on Structural Measurements

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

APARICIO IZQUIERDO, FRANCISCO

PÁEZ AYUSO, FRANCISCO JAVIER

INSIA

Carretera de Valencia, km. 7

Campus Sur de la Universidad Politécnica de Madrid

28031 – MADRID – (SPAIN)

March, 1999

REPORT DOCUMENTATION PAGE
Title: *STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY*
Author(s): Aparicio Izquierdo, Francisco Páez Ayuso, Francisco Javier
Performing Organisation name and address: INSIA – University Institute for Automobile Research Carretera de Valencia, Km. 7 – Campus Sur de la Universidad Politécnica de Madrid 28031 – Madrid – Spain
Suplementary notes: Under contract to: THE EUROPEAN COMMUNITY Project: "Improvement of Crash Compatibility between Cars" Contract Nº: RO – 97 – SC.1064
Abstract: The main aim of this working package -*Structural Survey of Cars*- is the reduction of incompatibilities, both structural and geometric, between passenger vehicles and their potential collision partners. The understanding of these incompatibilities needs a previous step for the knowledge of the existing car fleet. Firstly, it is necessary to select the main resistant elements in the car body. These elements have to be chosen from the point of view of the sort of collision that we want to study, that is to say, frontal and side impacts. Detailed measurements have been taken from exterior and interior elements, spread to a total number of 74 models selected from the main vehicle manufacturers at Spain. All of them are being sold this year. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars will be defined. This report shows the methodology followed to get these measurements.
Subject terms: Crash compatibility, geometric compatibility, resistant elements, measure methodology
Date: March, 1999

1.- METHODOLOGY.

Detailed measurements have been taken from exterior and interior elements. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars have been defined. These elements are presented in the following figures, and have been divided in two main groups according to the vehicle zones studied in this project.

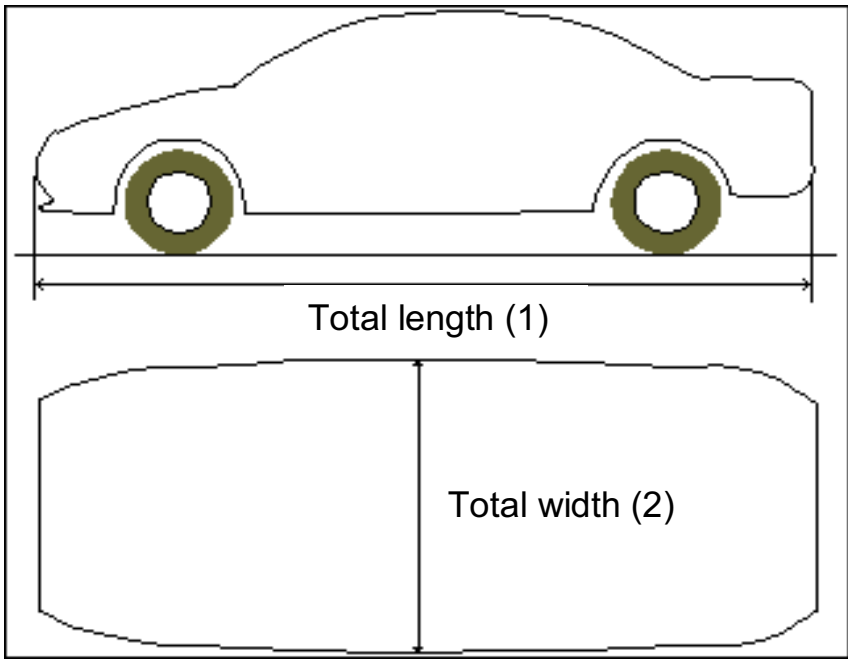


Figure 1.- Definition of the main resistant elements. General dimensions.

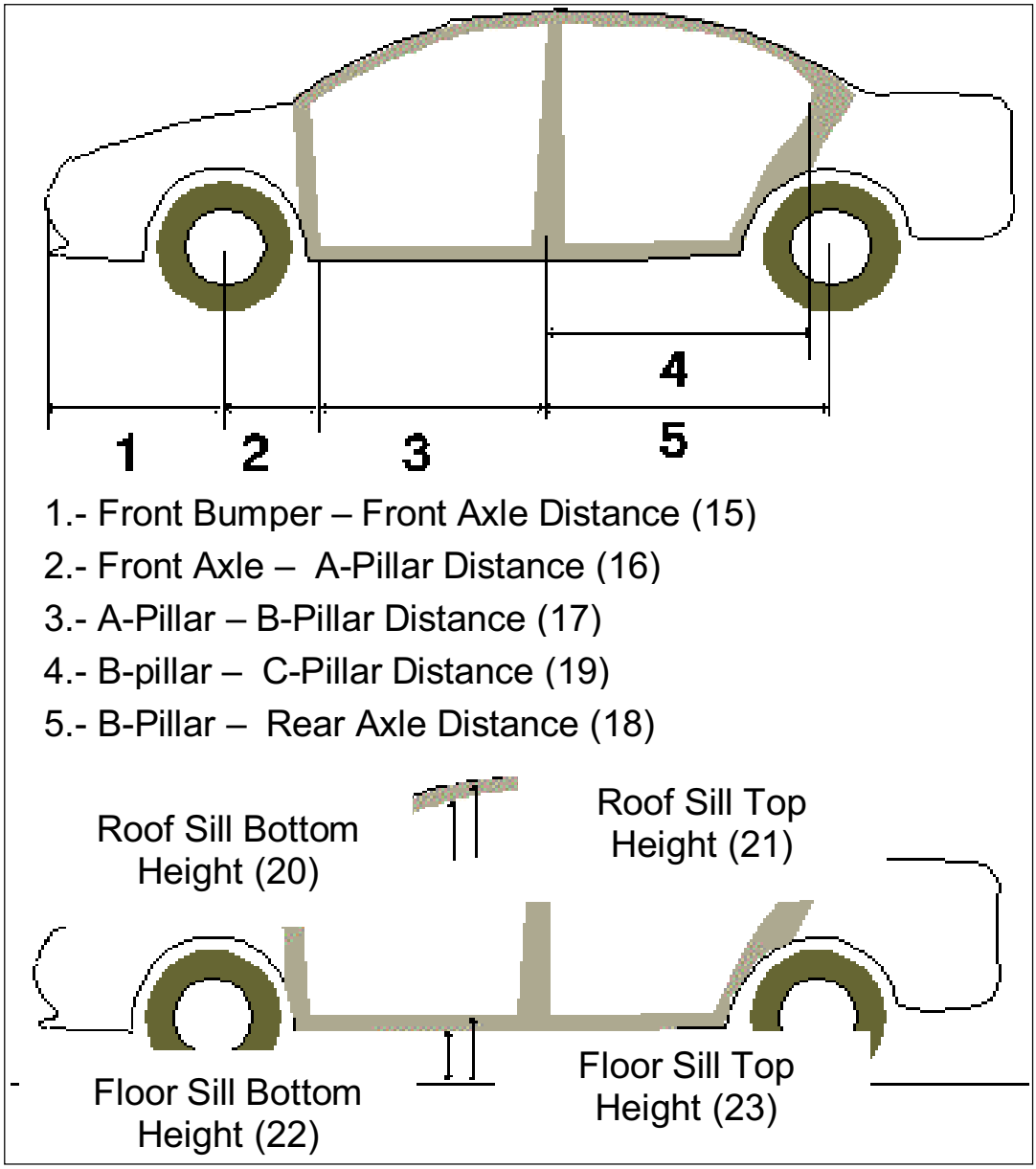


Figure 2.- Definition of the main resistant elements. Side elements.

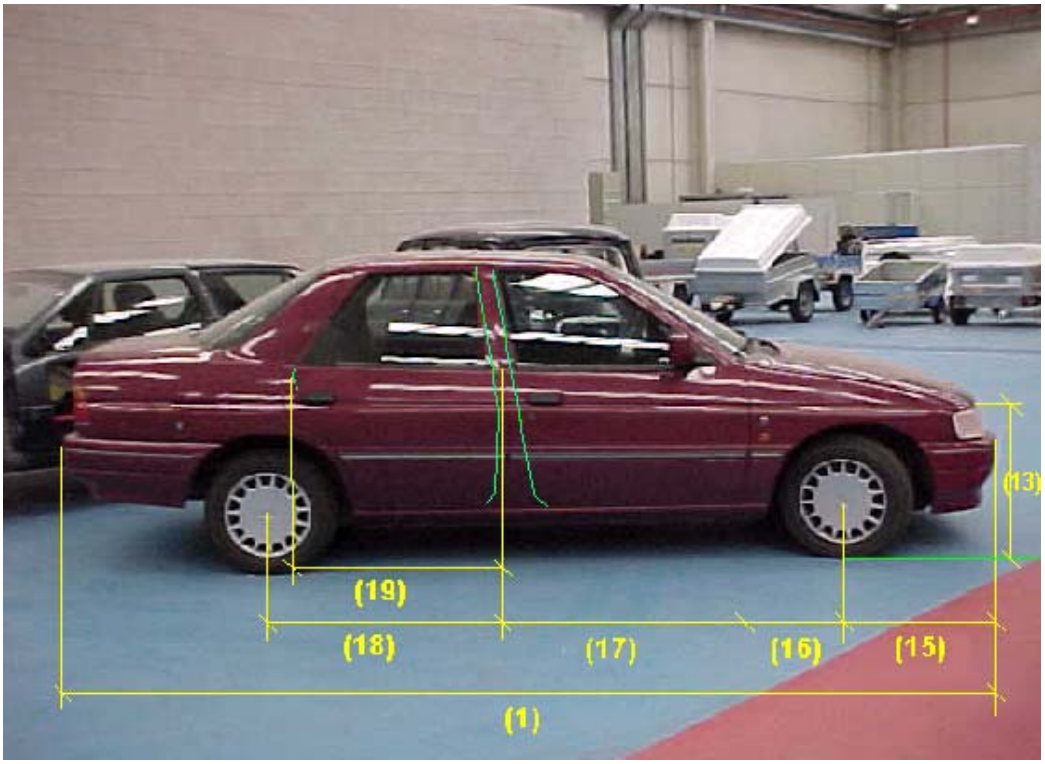


Figure 3.- Measurements of the side resistant elements (outer).

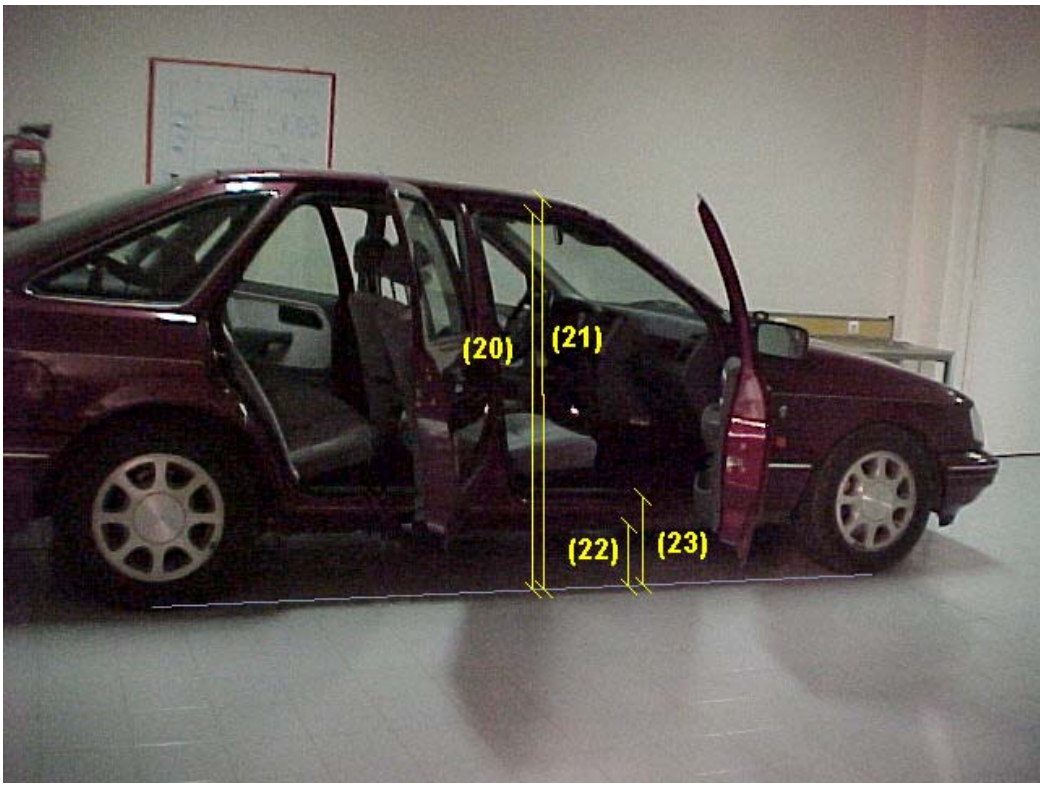


Figure 4.- Measurements of the side resistant elements (inner).

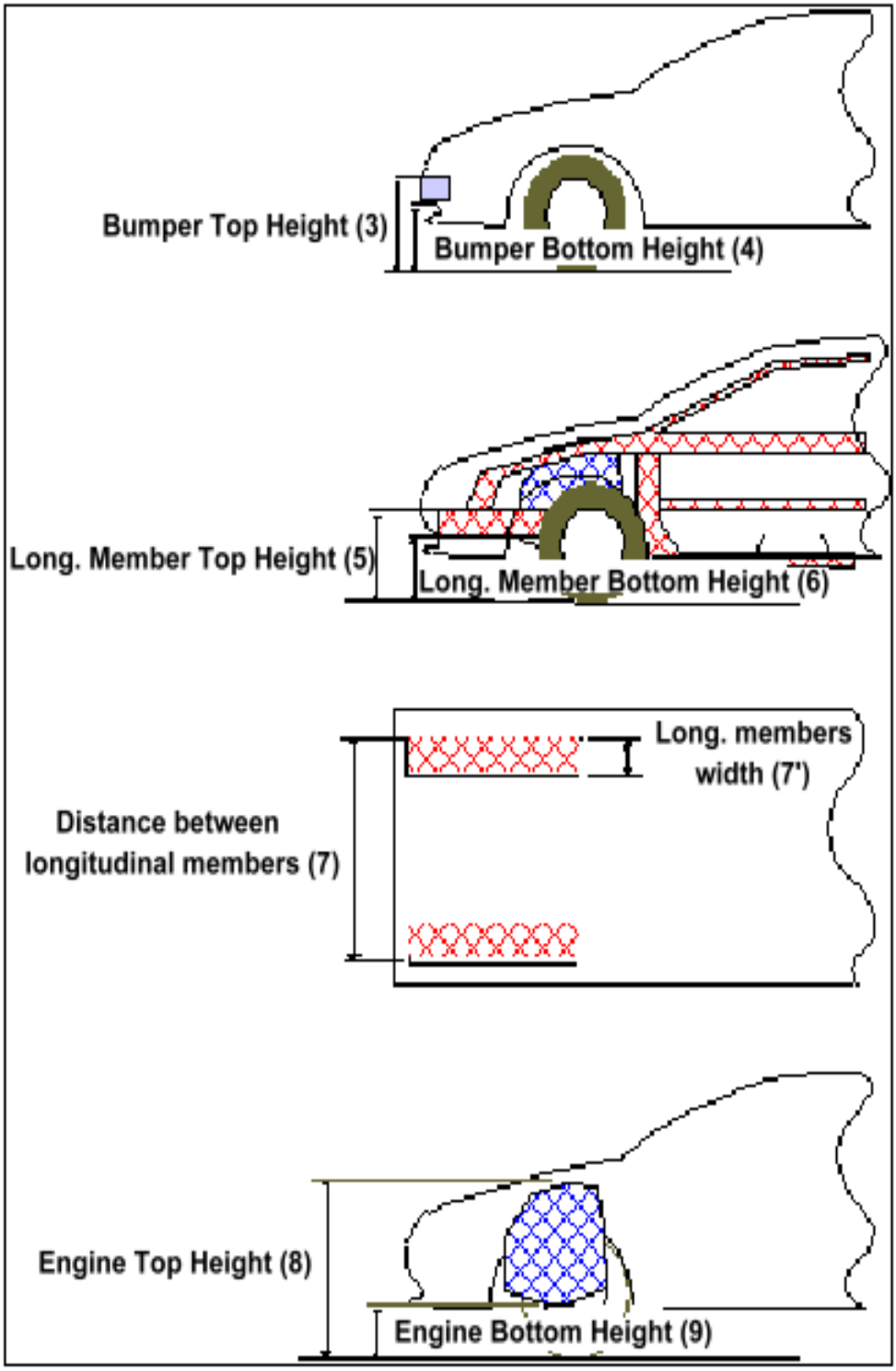


Figure 5.- Definition of the main resistant elements. Front elements.

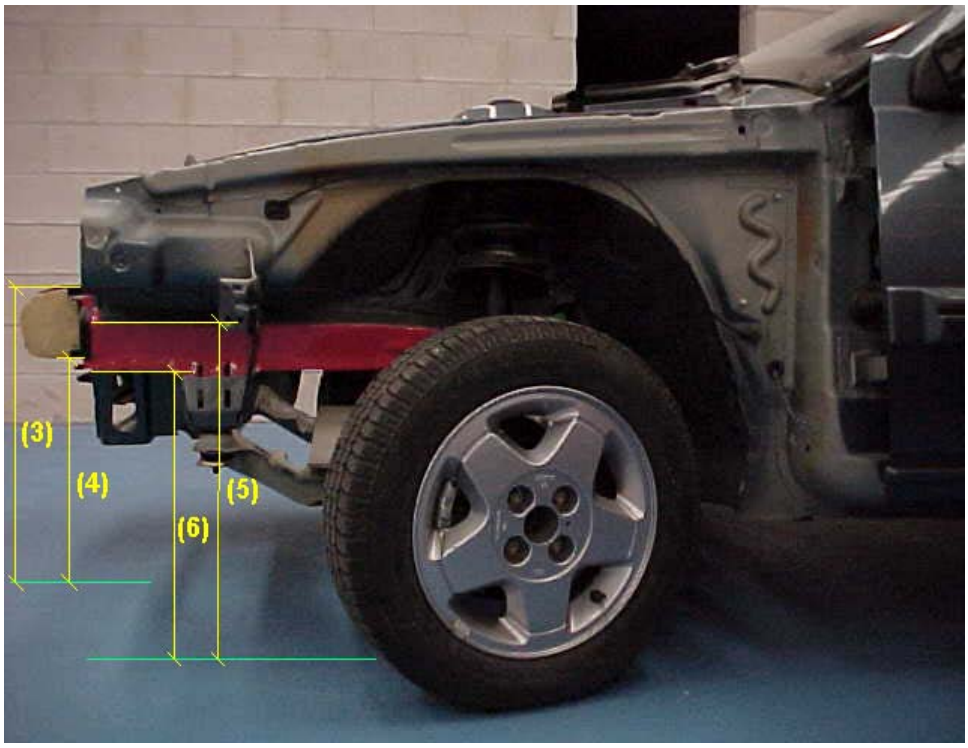


Figure 6.- Measurements of the main resistant elements. Front elements 1.

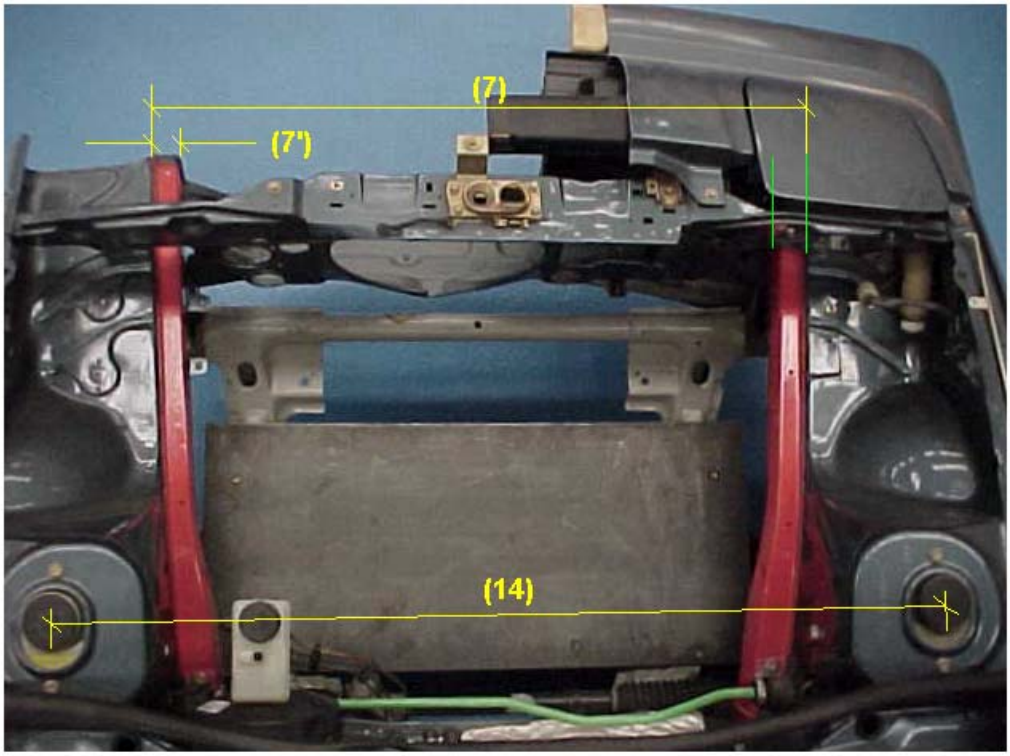


Figure 7.- Measurements of the main resistant elements. Front elements 2.

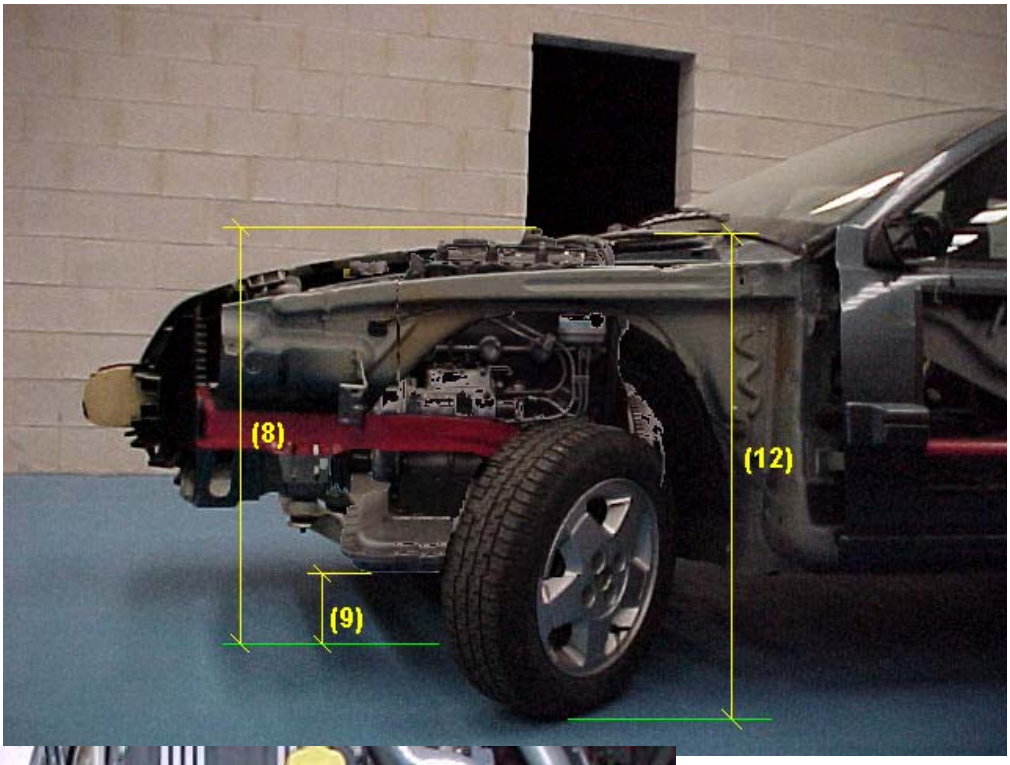


Figure 8.- Measurements of the main resistant elements. Front elements 3.

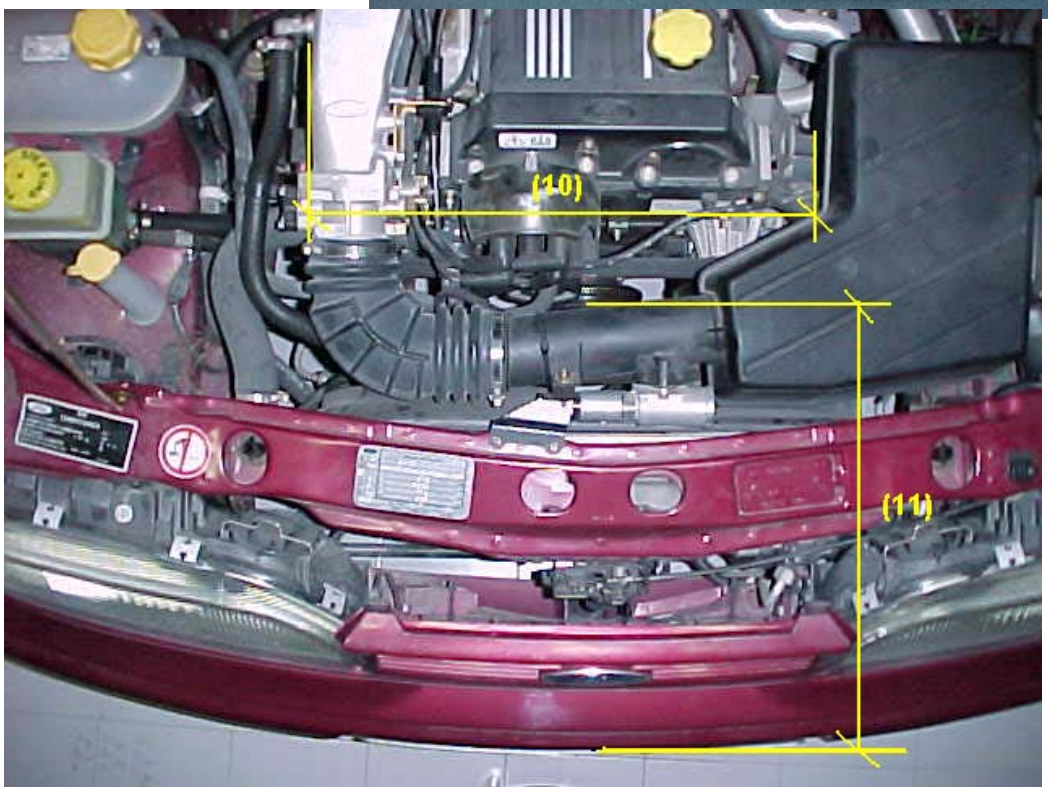


Figure 9.- Definition of the main resistant elements. Front elements (Longitudinal engine).

The procedure considered to measure these elements is described as follows, where it is indicated the location of these ones in the Excel Sheet (SURVEY.XLS) into brackets:

FRONT ELEMENTS

• **Total Length –(1)- (Side & Front Sheets - C column)**: distance between the point in the front bumper further on and the point in the rear bumper further back.

• **Weight (Side & Front Sheets - D column)**: mass, including an average driver weight (70 kg), and the fuel tank mass (at half-capacity).

• **Total Width –(2)- (Side & Front Sheets - E column)**: distance between the outer side points in a transverse plane of the vehicle (middle plane between the front and rear axles).

• **Bumper bottom height –(4)- (Front Sheet G column)**: distance between the ground and the lowest point on the front bumper, being a resistant member (aerodynamic elements under the front bumper are not considered).

• **Bumper top height –(3)- (Front Sheet H column)**: distance between the ground and the highest point on the front bumper, being a resistant member (aerodynamic elements are not considered).

• **Longitudinal member top height –(5)- (Front Sheet I column)**: distance between the ground and the highest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint (when accessible).

• **Longitudinal member bottom height –(6)- (Front Sheet J column)**: distance between the ground and the lowest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint.

• **Distance between longitudinal members (Front Sheet K column)**: transverse distance between extreme points in longitudinal members, measured approximately in the front bumper-longitudinal member joint.

Depending on the accessibility of these members, the extreme points are the inner points (I) or the outer points (O).

• **Longitudinal member width -7'- (Front Sheet L column)**: width of one of the longitudinal members, measured approximately in the front bumper-longitudinal member joint.

• **Engine top height (8) (Front Sheet N column)**: distance between the ground and the highest point on the engine that can be a resistant member in case of accident (usually, the highest point on the head, or the highest point of the inlet or exhaust manifolds).

• **Engine bottom height (9) (Front Sheet M column)**: distance between the ground and the lowest point on the engine (usually, the lowest point on the crankcase).

• **Engine and Gearbox width (10) (Front Sheet O & P columns)**:

- Transverse *configuration engine*: distance between extreme points in the gearbox-cylinder block unit or others resistant members attached to the cylinder block unit, i.e. fan belts (from a front point of view).

- *Longitudinal configuration engine*: distance between extreme points in the cylinder block unit (from a front point of view).

• **Front bumper - Engine distance (11) (Front Sheet Q column)**: distance between the point in the front bumper further on and the point in the engine further on that is a resistant element, i.e. the further on point of the exhaust manifold placed in the front of the engine.

• **Front shock absorber fixing width (14) (Front Sheet R column)**: transverse distance between the front shock absorber - body car joints.

• **Front shock absorber fixing height (12) (Front Sheet S column)**: distance between the ground and the front shock absorber-body car joint.

• **Bonnet leading edge height (Front Sheet T column)**: distance between the ground and the bonnet edge further on.

SIDE ELEMENTS

• **Front bumper - Front axle distance (15) (Side Sheet G column)**: distance between the point in the front bumper further on and the middle point in the front tyre-road contact patch.

• **Front axle - A Pillar distance (16) (Side Sheet H column)**: distance between the middle point in the front tyre-road contact patch and the point in the A-pillar further back.

• **A Pillar - B Pillar distance (17) (Side Sheet I column)**: distance between the point in the A-pillar further back and the middle point in the B-pillar.

• **B Pillar - C Pillar distance (19) (Side Sheet J column)**: distance between the middle point in the B-pillar and the point in the C-pillar further back (only 4/5-door vehicles).

• **B Pillar - Rear axle distance (18) (Side Sheet K column)**: distance between the middle point in the B-pillar and the middle point in the rear tyre-road contact patch.

• **Roof sill bottom height (20) (Side Sheet L column)**: distance between the ground and the lowest point on the roof sill, measured in the front door middle point.

• **Roof sill top height (21) (Side Sheet M column)**: distance between the ground and the highest point on the roof sill (usually located in the sill-roof joint), measured in the front door middle point.

• **Floor sill bottom height (22) (Side Sheet N column)**: distance between the ground and the lowest point on the floor sill, measured in the front door middle point.

• **Floor sill top height (23) (Side Sheet O column)**: distance between the ground and the highest point on the floor sill, measured in the front door middle point.

NOTE

- N/A: dimension not available.