DTS-TRC-06-008

40% Offset Vehicle to Deformable Barrier Crash Test

Ford Motor Company

2007 Ford 500 SEL Sedan

NHTSA Number: R70201

TRC Inc. Test Number: 070126

Prepared By:

Transportation Research Center Inc.

10820 State Route 347

East Liberty, OH 43319

Final Report

February 8, 2007

Prepared For:

U. S. Department of Transportation

Volpe National Transportation Systems Center

55 Broadway, Kendall Square

Cambridge, MA 02142

Test Performed By: William Millis, Engineering Technician

Report Approved By:

______________________________ Date 2/8/2007

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. DTS-TRC-06-008	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle Final Report of a 40% Frontal Offset Vehicle to Deformable Barrier Crash Test of a 2007 Ford 500 SEL Sedan, NHTSA No. R70201		5. Report Date February 8, 2007 6. Performing Organization Code TRC Inc.
7. Author(s) Walter D. Dudek, Project Manager		8. Performing Organization Report No. 070126
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 January - February 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 Sedan, NHTSA No. 070126, at Transportation Research Center Inc. on January 26, 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 56.2 km/h. The vehicle's maximum static crush was 434 millimeters. The ambient temperature was 21° C.

The driver's 15 millisecond Head Injury Criteria (HIC) was 97. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 21.8 g. The driver's maximum chest deflection was 27 millimeters. The driver's left and right femur maximum axial compressive forces were -54 N and -61 N, respectively.

The passenger's 15 millisecond Head Injury Criteria (HIC) was 45. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 22.0 g. The passenger's maximum chest deflection was 31 millimeters. The passenger's left and right femur maximum axial compressive forces were 116 N and 77 N, respectively.

17. Key Words Frontal Barrier Impact Test		18. Distribution Statement 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) Unclassified	20. Security Classif. (of this page) Unclassified	21. Number of Pages 650	22. Price

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

Table of Contents

Data Sheets

List of Photographs

List of Photographs, Continued

List of Photographs, Continued

List of Photographs, Continued

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 Sedan with 50th percentile driver and passenger 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 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’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 50th 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 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 266 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 January 26, 2007.

The test vehicle, a 2007 Ford 500 SEL Sedan, NHTSA Number R70201, was equipped with a 6.0-liter 6-cylinder transverse engine, automatic transmission, power steering, power brakes and dual stage front airbags. The vehicle's test weight was 1913.3 kg. The vehicle's impact speed was 56.2 km/h. The vehicle sustained 434 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	179	93
HIC 15	700	97	45
Neck			
Upper Neck Tension (N)	4170	780	793
Upper Neck Compression (N)	-4000	-61	-44
Neck Injury (NIJ) NTE	1.0	0.1	0.3
Neck Injury (NIJ) NTF	1.0	0.2	0.2
Neck Injury (NIJ) NCE	1.0	0.0	0.3
Neck Injury (NIJ) NCF	1.0	0.0	0.0
Chest			
3 ms Clip (g)	60	22	22
Chest Displacement (mm)	63	-27	-31
Femur			
Left Femur Force (N)	-9040	-54	-116
Right Femur Force (N)	-9040	-61	-77
Tibia			
Left Upper Tibia Index	0.91	0.21	0.19
Right Upper Tibia Index	0.91	0.21	0.23
Left Lower Tibia Index	0.91	0.23	0.25
Right Lower Tibia Index	0.91	0.22	0.22
Left Upper Tibia Force (N)	-5600	-646	-550
Right Upper Tibia Force (N)	-5600	-503	-583
Left Lower Tibia Force (N)	-5200	-1129	-1081
Right Lower Tibia Force (N)	-5200	-1080	-871

Test Results Summary, Continued

Injury Criterion	Limits	Driver	Right Front Passenger
Ankle			
Left Inversion (degrees)	-35	-12	-20
Left Eversion (degrees)	35	33	6
Left Plantarflexion (degrees)	-	-15	-36
Left Dorsiflexion (degrees)	35	8	-16
Left External Rotation (degrees)	-	-15	0
Left Internal Rotation (degrees)	-	4	12
Right Eversion (degrees)	-35	-29	-17
Right Inversion (degrees)	35	1	7
Right Plantarflexion (degrees)	-	-17	-27
Right Dorsiflexion (degrees)	35	6	-16
Right Internal Rotation (degrees)	-	3	-7
Right External Rotation (degrees)	-	20	4

Data Acquisition Explanations

Electronic data anomalies are summarized below:

Channel Number	Sensor Type	Sensor Location	Sensor Attachment (Name)	Axis	Problem/Action
1	Head	Dummy	11HEADCG00H3ACXA	X	Data spike at 225 ms. HIC not affected.
7	Head (FT)	Dummy	11HEADFR00H3ACYA	Y	Questionable data
73	Head	Dummy	13HEADCG00H3ACXA	X	Data spike at 90 ms. HIC not affected.
74	Head	Dummy	13HEADCG00H3ACYA	Y	Data spike at 90 ms. HIC not affected.
77	Head Red	Dummy	13HEADCGRDH3ACYA	Y	Data spike at 90 ms
78	Head Red	Dummy	13HEADCGRDH3ACZA	Z	Data appears to be anomalous after 90 ms
80	Head (FT)	Dummy	13HEADFR00HEACZA	Z	Data spike at approximately 90 ms
81	Head (TP)	Dummy	13HEADUP00H3ACXA	X	Data spike at approximately 90 ms
83	Head (LT)	Dummy	13HEADLE00H3ACXA	X	Data appears to be anomalous after 90 ms
88	Neck Moment	Dummy	13NECKUP00H3MOXA	X	Multiple anomalous data spikes.
89	Neck Moment	Dummy	13NECKUP00H3MOYA	Y	Multiple anomalous data spikes.
90	Neck Moment	Dummy	13NECKUP00H3MOZA	Z	Multiple anomalous data spikes.
152	Lt Brake Caliper	Vehicle	11VEHCLE0000ACXA	X	Post-test failed to return to zero
164	Outside Footrest	Vehicle	11VEHC000001ACXA	X	Questionable data; resultant also affected.
165	Outside Footrest	Vehicle	11VEHC000001ACYA	Y	Questionable data; resultant also affected.
166	Outside Footrest	Vehicle	11VEHC000001ACZA	Z	Questionable data; resultant also affected.

The vehicle was incorrectly labeled as R70126. The correct vehicle number is R70201.

DATA SHEET NO. 1
CRASH VEHICLE SUMMARY

Vehicle NHTSA No.:	R70201	Test Mode:	Left 40% Offset Deformable Barrier
Test Date:	01/26/07	Time:	17:55
Temperature:	21 °C		
Vehicle Make/Model/Body Style:	2007/Ford/500 SEL/Sedan		
Vehicle Test Weight:	1913.3	kg	
Vehicle/Barrier Impact Angle:	0	°	
Vehicle/Barrier Impact Accuracy:	0	mm up	
	11	mm left	
Impact Velocity:	56.2	km/h	
Maximum Static Crush:	434	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 & 46	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
	17	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:	Head restraint, airbag	Head restraint, airbag
Chest:	Airbag	Airbag
Abdomen:	None	None
Left Knee:	None	None
Right Knee:	None	None

DATA SHEET NO. 2

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan

NHTSA No.: R70201 VIN: 1FAFP24147G103403 Color: Black

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: 01/2/2007 Odometer Reading: 153 miles

Selling Dealer: Findlay Ford Lincoln-Mercury, Inc.

& Address: 12000 County Road 99, Findlay, OH 45840

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: 215/60R17

* 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, Conticontact

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

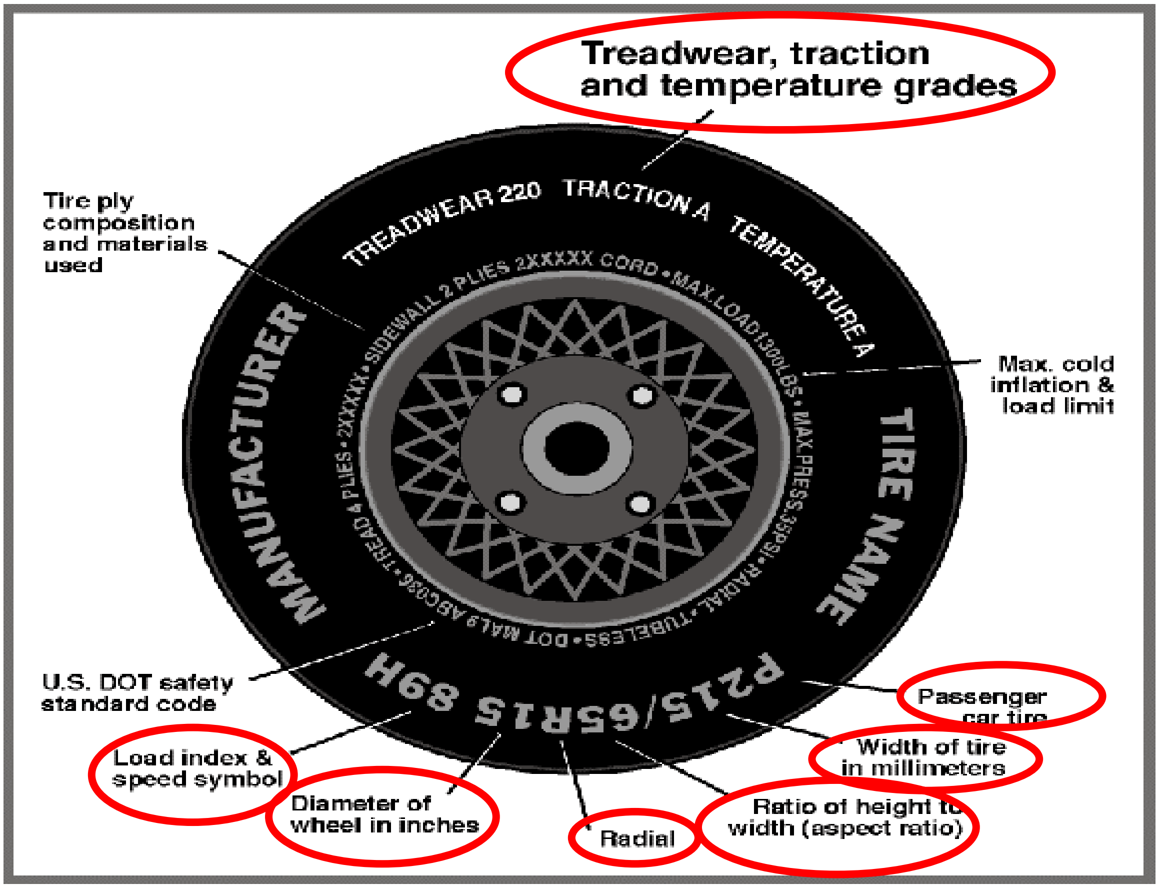
No. of Occupants x 68 kg = 340 kg

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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07



DATA RECORDED FROM ACTUAL TIRES ON TEST VEHICLE

	Front	**Rear**
Manufacturer	Continental	Continental
Brand Name	Conticontact	Conticontact
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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

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

Right Front =	503.0	kg	Right Rear =	328.4	kg
Left Front =	503.4	kg	Left Rear =	336.4	kg
TOTAL FRONT =	1006.4	kg	TOTAL REAR =	664.8	kg

TOTAL DELIVERED WEIGHT = 1671.2 kg
% of Total Front of Vehicle Weight = 60.2 %
% of Total Rear of Vehicle Weight = 39.8 %

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT :

Total Delivered Weight (UDW) =	1671.2	kg
Rated Cargo/Luggage Weight (RCLW) =	90.0	kg
Weight of Two Part 572E Dummies @ 76 each =	152.0	kg
TARGET TEST WEIGHT =	1913.2	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES:

Right Front =	517.0	kg	Right Rear =	434.0	kg
Left Front =	532.8	kg	Left Rear =	429.5	kg
TOTAL FRONT =	1049.8	kg	TOTAL REAR =	863.5	kg

TOTAL TEST WEIGHT = 1913.3 kg
% of Total Front of Vehicle Weight = 54.9 %
% of Total Rear of Vehicle Weight = 45.1 %
Weight of Ballast Secured in Vehicle Trunk Area = 16.8 kg
Vehicle Components Removed for
Weight Reduction: None

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED :	RF	741	LF	732	RR	755	LR	741
FULLY LOADED :	RF	730	LF	724	RR	722	LR	710
AS TESTED :	RF	430	LF	724	RR	709	LR	699

Vehicle's Wheel Base : 2870 mm
Location of Vehicle's C.G.: 1295 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 2nd row seat. The fuel filler neck is located in the right rear corner of the fuel tank. The fuel filler cap is on the right rear quarter panel. The fuel line runs along the right side of center tunnel.

DATA SHEET NO. 3

POST IMPACT DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan

NHTSA Test No.: R70201 Test Date: 01/26/07

TYPE OF TEST:

Type of Test: Left 40% Offset Deformable Barrier Impact Angle: 0 °

Test Date: 01/26/07 Time: 17:55 Temperature: 21 °C

Vehicle NHTSA No.: R70201

Required Impact Velocity Range: 55.2 to 56.8 km/h

BARRIER IMPACT VELOCITY:

Trap No. 1 = 56.2 km/h; Trap No. 2 = 56.1 km/h

VEHICLE STATIC CRUSH: (mm)[1]

Vehicle Length:

Pre-Test	Right = 4933	C/L = 5014	Left = 4933	
Post-Test	Right = 4967	C/L = 4703	Left = 4633	
Crush	Right = -34	C/L = 311	Left = 300	
AVERAGE	= 192 mm			

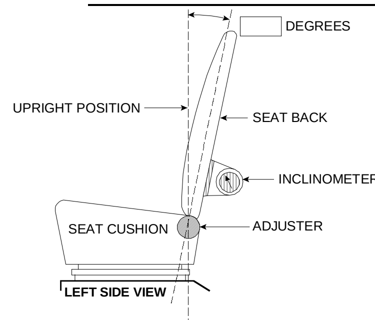
[1] Measurements taken to bumper beam.

DATA SHEET NO. 4
TEST VEHICLE INFORMATION

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan

NHTSA Test No.: R70201 Test Date: 01/26/07

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: 171 mm rearward of full forward

Total Length of Fore/Aft Adjustment Travel: 245 mm

Total Number of Adjustment Positions or Detents: N/A

Left Front Seat Back Adjustment Position: 6.9° measured at head restraint

Left Front Head Restraint Placement: Full up

Left D-Ring Placement: Full up

Right Front Seat Cushion Placement: 142 mm rearward of full forward

Total Length of Fore/Aft Adjustment Travel: 240 mm

Total Number of Adjustment Positions or Detents: N/A

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

Right Front Head Restraint Placement: Full up

Right D-Ring Placement: Full up

Adjustable Steering Column Position: 24.2°; center of geometric range of travel

Window Positions:

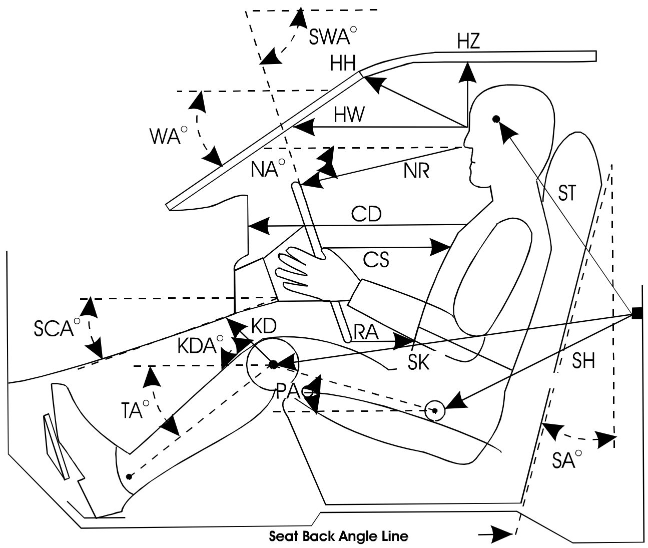
Right Front: Open Right Rear: Closed

Left Front: Open Left Rear: Closed

Amount of Stoddard Solvent In Fuel Tank:

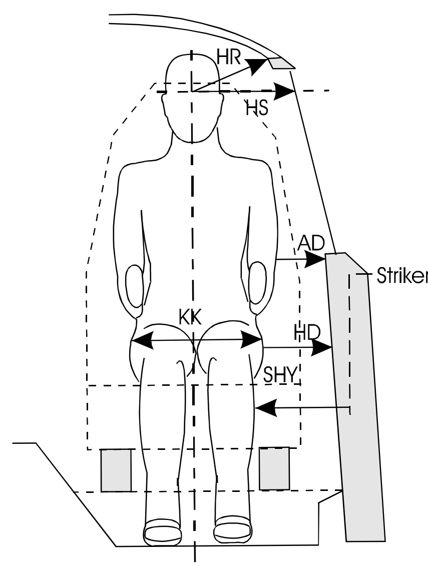
75.7 liters (fuel tank usable capacity)

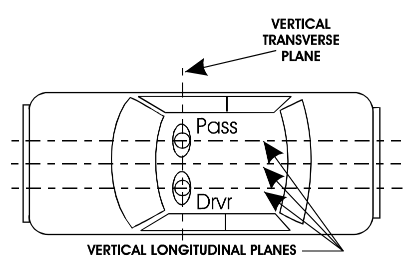
70.4 liters used in test (92% - 94% of fuel tank usable capacity)



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

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)





DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

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

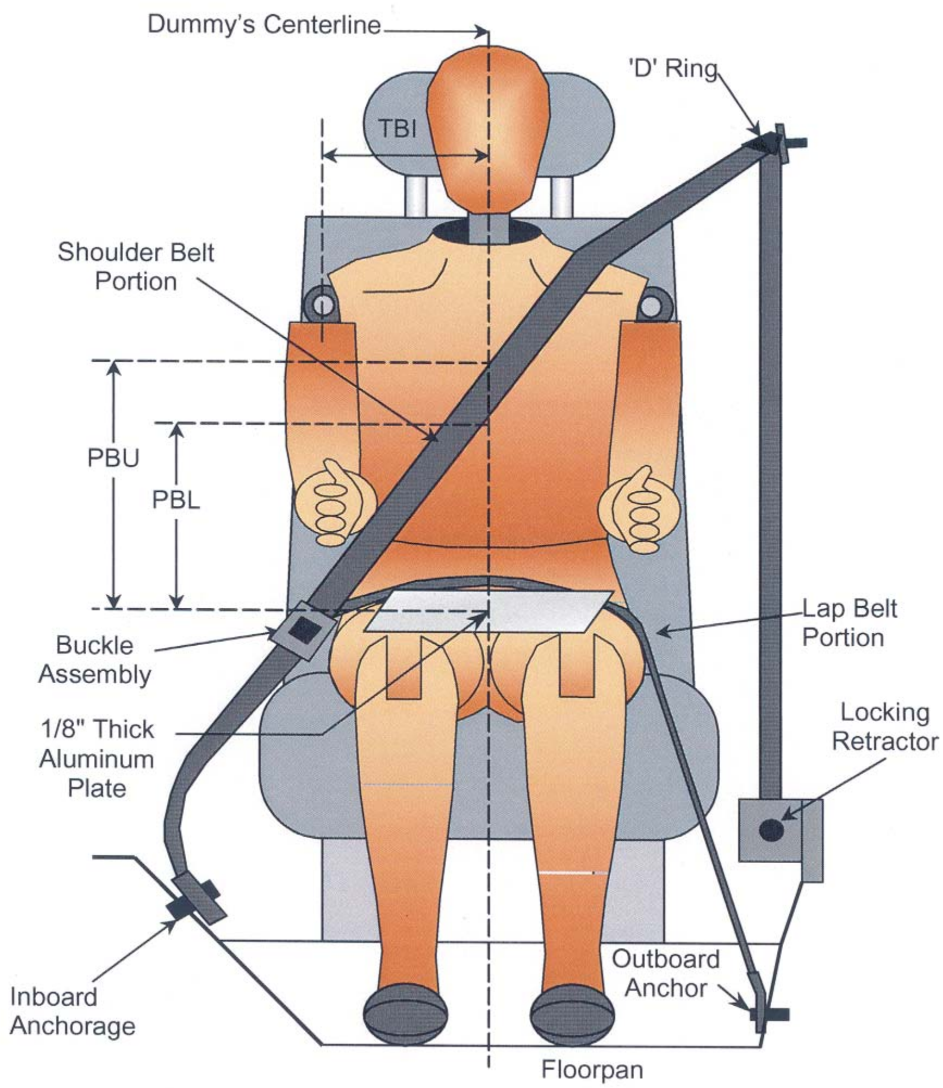
Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

<table>
<tr><th></th><th colspan="3">DRIVER (Serial #202)</th><th colspan="3">RIGHT FRONT PASSENGER (Serial #206)</th></tr>
<tr><td>WA°</td><td colspan="3">22.7°</td><td colspan="3"></td></tr>
<tr><td>SWA°</td><td colspan="3">65.9°</td><td colspan="3"></td></tr>
<tr><td>SCA°</td><td colspan="3">24.1°</td><td colspan="3"></td></tr>
<tr><td>SA°</td><td colspan="3">7.0°</td><td colspan="3">8.1°</td></tr>
<tr><td>HZ</td><td colspan="3">242 mm</td><td colspan="3">195 mm</td></tr>
<tr><td>HW</td><td colspan="3">748 mm</td><td colspan="3">657 mm</td></tr>
<tr><td>HH</td><td colspan="3">391 mm</td><td colspan="3">354 mm</td></tr>
<tr><td>HR</td><td colspan="3">241 mm</td><td colspan="3">228 mm</td></tr>
<tr><td>NR</td><td colspan="3">469 mm</td><td colspan="3"></td></tr>
<tr><td>NA°</td><td colspan="3">5.4°</td><td colspan="3"></td></tr>
<tr><td>CD</td><td colspan="3">652 mm</td><td colspan="3">581 mm</td></tr>
<tr><td>CS</td><td colspan="3">358 mm</td><td colspan="3"></td></tr>
<tr><td>RA</td><td colspan="3">242 mm</td><td colspan="3"></td></tr>
<tr><td>KDL</td><td>196 mm</td><td>Angle (KDA)</td><td>20.1 °</td><td colspan="3">183 mm</td></tr>
<tr><td>KDR</td><td colspan="3">195 mm</td><td>180 mm</td><td>Angle (KDA)</td><td>16.2 °</td></tr>
<tr><td>PA°[1]</td><td colspan="3">28.9°</td><td colspan="3">26.0°</td></tr>
<tr><td>TA°</td><td colspan="3">47.0°</td><td colspan="3">45.7°</td></tr>
<tr><td>KK</td><td colspan="3">328 mm</td><td colspan="3">273 mm</td></tr>
<tr><td>ST</td><td>470 mm</td><td>Angle</td><td>-87.4°</td><td>502 mm</td><td>Angle</td><td>-83.4°</td></tr>
<tr><td>SK</td><td>571 mm</td><td>Angle</td><td>4.4°</td><td>595 mm</td><td>Angle</td><td>4.5°</td></tr>
<tr><td>SH</td><td>255 mm</td><td>Angle</td><td>41.9°</td><td>254 mm</td><td>Angle</td><td>34.5°</td></tr>
<tr><td>SHY</td><td colspan="3">204 mm</td><td colspan="3">190 mm</td></tr>
<tr><td>HS</td><td colspan="3">363 mm</td><td colspan="3">361 mm</td></tr>
<tr><td>HD</td><td colspan="3">313 mm</td><td colspan="3">281 mm</td></tr>
<tr><td>AD</td><td colspan="3">171 mm</td><td colspan="3">176 mm</td></tr>
</table>

[1] After final dummy positioning.

DATA SHEET NO. 6
SEAT BELT POSITIONING DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

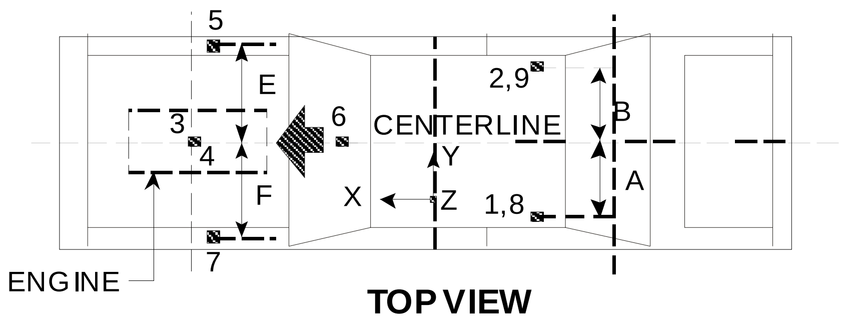


	Driver Dummy	Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge, mm	316	356
PBL - Top surface of aluminum plate to belt lower edge, mm	240	265

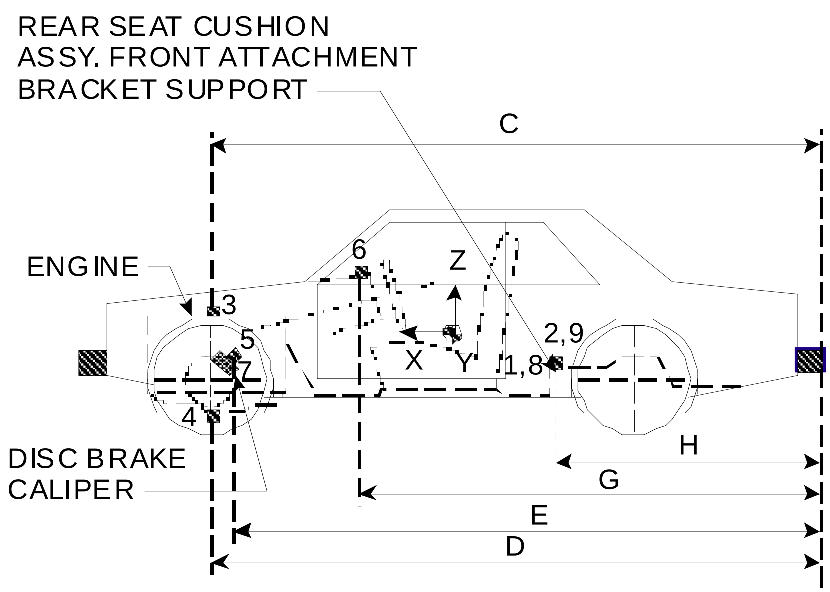
DATA SHEET NO. 7

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



TOP VIEW



LEFT SIDE VIEW

NOTE: Vehicle accelerometer location and data summary shown in DATA SHEET NO. 6.

DATA SHEET NO. 7 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan

NHTSA Test No.: R70201 Test Date: 01/26/07

DIMENSION		LENGTH (mm)
		PRE-TEST VALUES
A	Left Rear Seat Crossmember Y	568
B	Right Rear Seat Crossmember Y	575
C	Top of Engine X	4710
D	Bottom of Engine X	4520
E	Right Brake Calipers X	4460
F	Left Brake Calipers X	4460
G	Instrument Panel X	3565
H	Left Rear Seat Crossmember X	2405
I	Right Rear Seat Crossmember X	2405
	Left Side Driver Mid Seat Track X	3122
	Vehicle Center of Gravity X	3123
	Accel Pedal Heel Location X	3477
	Accel Pedal Heel Location Y	238
	Brake Pedal Heel Location X	3473
	Brake Pedal Heel Location Y	500
	Foot Rest X	3581
	Foot Rest Y	501

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

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE (g's)			
		Positive	Time, ms	Negative	Time, ms
1	Left Rear Seat Cross Member X	1.9	205.8	19.3	67.8
2	Right Rear Seat Cross Member X	1.6	232.7	21.9	94.8
3	Top of Engine Block X	13.2	115.4	40.7	78.8
4	Bottom of Engine Block X	14.2	100.7	39.5	84.2
5	Disc Brake Caliper @ Right Side X	11.7	99.4	30.3	105.3
6	Instrument Panel X	46.2	32.7	76.7	37.3
7	Disc Brake Caliper @ Left Side X[1]	40.3	96.2	71.4	91.6
8	Left Rear Seat Cross Member Z	2.5	218.0	14.4	92.2
9	Right Rear Seat Cross Member Z	1.5	243.0	11.1	92.3
10	Left Side Driver Mid Seat Track X	2.1	206.1	27.6	96.6
11	Vehicle Center of Gravity X	2.4	92.3	25.6	102.8
	Vehicle Center of Gravity Y	21.7	40.3	14.0	46.5
	Vehicle Center of Gravity Z	26.4	95.4	23.6	106.4
	Vehicle Center of Gravity R	34.7	95.8	0.1	268.8
12	Accel Pedal Heel Location X	1.9	222.0	28.7	101.1
	Accel Pedal Heel Location Y	16.9	94.8	28.8	90.3
	Accel Pedal Heel Location Z	48.5	90.2	31.5	107.4
	Accel Pedal Heel Location R	56.7	90.2		
13	Brake Pedal Heel Location X	5.8	90.0	27.3	94.7
	Brake Pedal Heel Location Y	14.1	85.0	23.8	90.5
	Brake Pedal Heel Location Z	52.1	100.3	41.4	94.0
	Brake Pedal Heel Location R	54.3	100.3		
14	Outside Footrest X[1]	10.2	85.3	44.8	74.7
	Outside Footrest Y[1]	75.1	75.3	9.5	57.9
	Outside Footrest Z[1]	23.4	75.4	7.6	59.4
	Outside Footrest R[1]	89.7	75.1		

[1] See Data Acquisition Explanations

DATA SHEET NO. 8
DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

		MAXIMUM VALUE							
		Driver				Right Front Passenger			
DESCRIPTION	**Unit**	**Positive**	**Time, ms**	**Negative**	**Time, ms**	**Positive**	**Time, ms**	**Negative**	**Time, ms**
Head X[1]	g	21.1	225.4	27.1	125.1	11.0	301.0	22.1	116.6
Head Y[1]	g	12.0	149.0	3.1	231.3	3.4	165.7	23.0	86.8
Head Z	g	22.9	134.5	1.4	29.5	18.1	141.8	0.8	30.3
Head Resultant[1]	g	35.9	125.0			27.0	86.8		
Head Redundant X	g	8.3	310.0	28.2	125.1	10.8	301.7	23.5	113.2
Head Redundant Y[1]	g	11.2	149.1	3.3	231.6	3.3	298.5	26.8	88.7
Head Redundant Z[1]	g	24.1	134.2	1.4	29.4	12.6	84.2	33.2	85.6
Head Resultant Red[1].	g	37.1	125.0			39.1	88.7		
Head (FT) Y[1]	g	20.5	125.3	50.5	33.8	6.7	88.6	1.7	263.0
Head (FT) Z[1]	g	23.6	143.4	1.2	29.4	19.6	146.0	10.5	84.2
Head (TP) X[1]	g	11.9	310.0	34.4	133.9	37.9	81.7	31.2	115.8
Head (TP) Y	g	18.9	149.0	6.0	228.4	7.1	297.3	2.6	254.6
Head (LT) X[1]	g	8.9	310.0	31.6	135.5	20.7	302.3	26.3	94.2
Head (LT) Z	g	23.9	130.8	1.5	29.8	19.9	141.9	1.1	30.6
Upper Neck Fx	N	107.0	270.7	487.2	88.9	107.7	306.3	504.8	99.6
Upper Neck Fy	N	378.2	130.5	114.1	234.8	147.5	153.6	63.3	248.6
Upper Neck Fz	N	779.6	121.4	61.3	29.7	792.6	88.6	44.0	30.4
Upper Neck Mx[1]	N-m	23.6	155.0	11.1	225.8	13.5	183.6	4.9	241.0
Upper Neck My[1]	N-m	27.5	104.6	11.5	307.2	43.8	178.9	38.4	240.6
Upper Neck Mz[1]	N-m	8.9	110.7	2.4	151.1	10.0	201.3	7.1	183.6
Lower Neck Fx	N	818.9	115.4	270.2	292.4	821.6	109.5	260.5	307.0
Lower Neck Fy	N	396.8	157.8	151.5	239.6	71.1	306.4	220.8	107.4
Lower Neck Fz	N	978.4	122.2	45.2	23.5	844.5	142.1	25.8	26.6
Lower Neck Mx	N-m	39.2	235.1	101.4	149.8	19.6	247.7	30.3	162.6
Lower Neck My	N-m	90.9	103.4	51.1	285.0	114.5	110.9	49.6	300.4
Lower Neck Mz	N-m	19.6	144.6	5.5	237.5	2.9	211.9	19.5	107.5
Chest X	g	3.4	310.0	21.4	77.8	1.2	299.1	21.3	81.9
Chest Y	g	12.9	115.4	3.4	33.8	6.7	108.4	2.2	168.5
Chest Z	g	6.7	125.3	5.4	79.5	8.1	145.1	6.2	96.3
Chest Resultant	g	22.2	137.0			22.1	82.2		

[1] See Data Acquisition Explanations

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

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

		MAXIMUM VALUE							
		Driver				**Right Front Passenger**			
DESCRIPTION	**Unit**	**Positive**	**Time, ms**	**Negative**	**Time, ms**	**Positive**	**Time, ms**	**Negative**	**Time, ms**
Chest Redundant X	g	3.5	310.0	21.7	78.0	1.3	298.5	21.0	82.0
Chest Redundant Y	g	13.8	115.4	3.0	33.8	6.6	108.4	2.3	167.9
Chest Redundant Z	g	6.1	125.4	5.6	78.2	8.4	145.1	5.5	96.5
Chest Resultant Redundant	g	22.8	86.1			21.8	82.2		
Chest Displacement	mm	0.0	11.0	26.8	87.8	0.0	3.6	31.4	91.3
Pelvis X	g	3.0	258.3	20.3	81.0	1.5	174.0	20.4	81.1
Pelvis Y	g	12.6	104.6	4.4	146.5	6.7	118.5	7.2	141.0
Pelvis Z	g	2.2	300.2	15.2	87.8	1.6	162.7	14.4	87.1
Pelvis Resultant	g	26.0	81.0			24.8	81.3		
Left Femur Z	N	793.3	86.4	54.2	29.0	906.7	91.7	116.3	197.8
Right Femur Z	N	878.1	127.7	60.9	188.5	783.2	104.6	77.1	195.2
Left Knee Displacement X	mm	1.0	143.0	0.2	310.0	12.2	165.4	0.5	114.4
Left Upper Tibia Fx	N	276.9	88.0	95.1	310.0	286.4	70.5	17.6	243.6
Left Upper Tibia Fz	N	201.8	162.0	646.0	82.6	224.1	47.1	550.1	73.7
Left Upper Tibia Mx	N-m	25.8	171.8	39.9	112.4	34.4	136.8	29.0	88.6
Left Upper Tibia My	N-m	14.9	133.7	28.8	75.2	12.4	143.5	36.6	108.1
Left Tibia X	g	12.1	310.0	27.1	86.6	2.4	36.0	30.2	69.6
Left Tibia Y	g	13.5	108.4	7.4	159.8	11.3	91.8	11.8	134.1
Left Lower Tibia Fx	N	74.2	310.0	314.9	88.1	35.9	157.8	272.2	70.6
Left Lower Tibia Fy	N	300.9	111.8	89.7	171.2	104.0	84.8	171.2	135.4
Left Lower Tibia Fz	N	104.1	306.6	1128.8	82.2	79.5	46.6	1081.5	73.8
Left Lower Tibia Mx	N-m	21.0	148.3	7.5	108.9	23.9	135.4	28.9	91.2
Left Lower Tibia My	N-m	10.9	310.0	34.8	87.0	3.0	131.5	40.4	69.7
Left Foot Angular Displacement X	°	33.5	143.6	12.3	235.3	6.5	183.6	20.3	118.1
Left Foot Angular Displacement Y	°	8.0	131.8	14.7	20.0	15.8	19.4	36.2	49.5
Left Foot Angular Displacement Z	°	4.2	255.6	15.0	175.2	12.3	111.2	0.2	56.0

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

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

		MAXIMUM VALUE							
		Driver				Right Front Passenger			
DESCRIPTION	**Unit**	**Positive**	**Time, ms**	**Negative**	**Time, ms**	**Positive**	**Time, ms**	**Negative**	**Time, ms**
Left Foot X	g	20.7	306.2	30.6	81.7	11.4	90.8	33.3	46.4
Left Foot Y	g	10.7	78.2	19.3	92.7	22.6	48.8	78.3	48.0
Left Foot Z	g	11.0	59.0	26.0	85.8	89.8	48.6	62.5	46.6
Left Foot Resultant	g	35.0	84.6			94.3	49.2		
Right Knee Displacement X	mm	0.1	310.0	1.1	121.5	0.7	297.9	1.3	136.0
Right Upper Tibia Fx	N	265.3	117.0	33.8	150.6	355.6	106.0	70.9	203.2
Right Upper Tibia Fz	N	134.3	36.5	502.8	79.0	66.3	237.4	583.1	74.6
Right Upper Tibia Mx	N-m	24.1	152.9	43.1	124.7	36.5	138.2	18.0	200.9
Right Upper Tibia My	N-m	25.9	148.7	38.5	77.6	23.2	129.9	43.6	76.5
Right Tibia X	g	3.8	272.8	25.9	76.9	4.4	128.3	29.4	103.6
Right Tibia Y	g	15.1	117.2	4.0	201.8	8.6	107.0	11.1	139.3
Right Lower Tibia Fx	N	56.6	232.2	332.7	77.4	91.0	128.6	277.2	83.4
Right Lower Tibia Fy	N	95.7	255.1	140.4	152.5	56.2	203.8	187.9	139.0
Right Lower Tibia Fz	N	102.8	35.9	1079.6	78.4	67.2	307.8	871.3	73.4
Right Lower Tibia Mx	N-m	4.6	165.4	38.2	117.8	23.7	139.5	14.2	107.0
Right Lower Tibia My	N-m	8.0	150.1	34.0	76.4	8.3	129.4	39.0	105.7
Right Foot Angular Displacement X	°	1.3	197.3	29.1	147.5	7.0	187.8	17.2	111.2
Right Foot Angular Displacement Y	°	6.3	98.2	17.3	231.0	15.7	10.6	27.2	106.6
Right Foot Angular Displacement Z	°	19.9	118.6	2.6	9.0	3.9	114.2	7.4	163.3
Right Foot X	g	5.9	270.1	26.5	74.5	3.1	196.0	36.7	100.7
Right Foot Y	g	89.8	110.6	8.8	109.0	13.0	100.0	11.3	142.6
Right Foot Z	g	7.7	200.6	37.6	76.1	15.4	99.4	14.8	42.6
Lap Belt Load	N	2937.7	74.2	12.7	310.0	2786.8	116.5	3.0	20.0
Shoulder Belt	N	5432.6	83.4	22.3	23.1	5343.0	86.2	31.1	258.5

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

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

	HEAD INJURY CRITERIA			
	HIC**	t_1 (ms)	t_2 (ms)	Average Acceleration t_1 to t_2 (g's)
Left Front - Driver	97	124.4	139.4	33.4
Right Front - Passenger	45	113.1	128.2	24.6
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	21.8	135.0	138.0	153
Right Front - Passenger	22.0	81.3	84.3	121
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/Sedan

NHTSA Test No.: R70201 Test Date: 01/26/07

BELT LENGTH DATA:	**Driver***	**Right Front Passenger ***
Total belt length.	2320	2315
Shoulder belt length as measured on Part 572 Dummy.	842	868
Lap belt length as measured on Part 572 Dummy.	595	620

SHOULDER BELT SPOOL-OFF DATA:	**Driver***	**Right Front Passenger***
As determined mechanically.[1]	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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

FMVSS No. 212 – "Windshield Mounting" Data

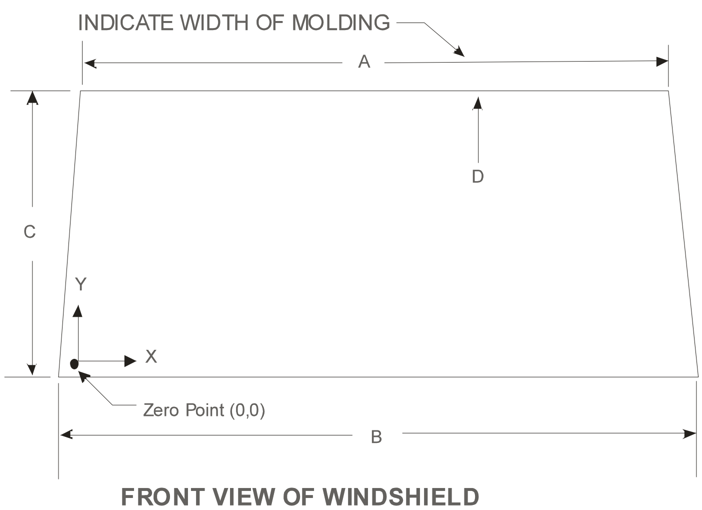
Details Of Windshield Mounting Such As
Retention Method, Trim Type, Etc.: Adhesive, Plastic, N/A

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	2328	100.0
Left Side	2328	2328	100.0
Total	4656	4656	100.0

Area of Retention Failure:



Failure Details

Dimensions (mm)	
A	1325
B	1655
C	838
D	18

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

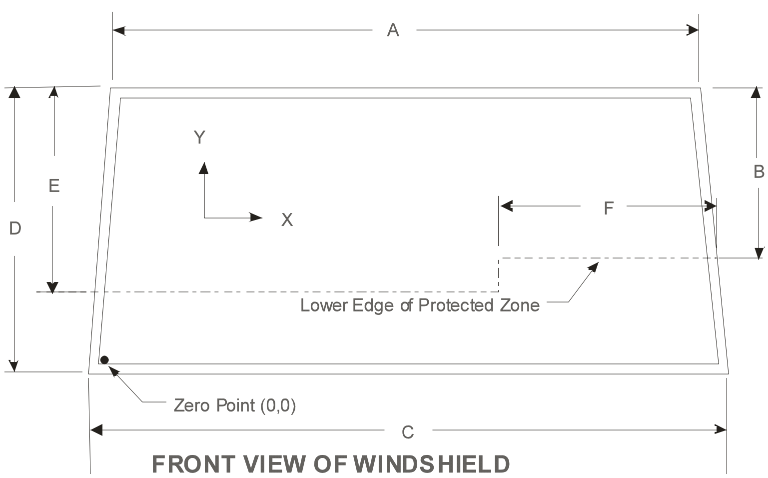
Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

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	1325
B	480
C	1655
D	838
E	545
F	560

(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/Sedan

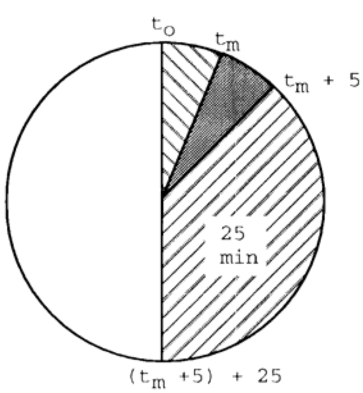
NHTSA Test No.: R70201 Test Date: 01/26/07

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



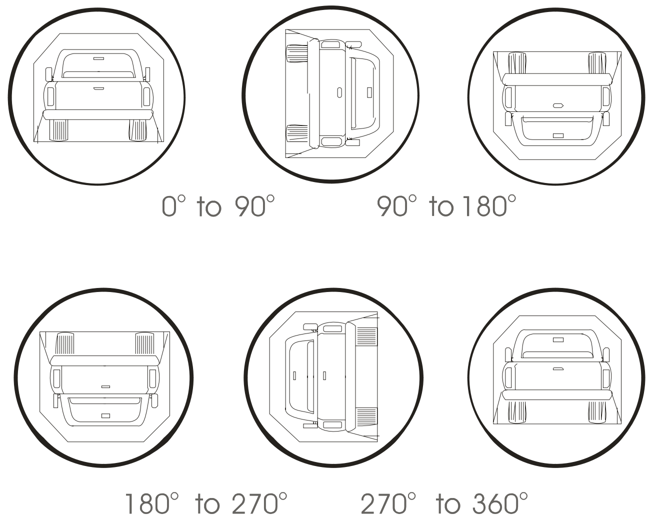
	ACTUAL	MAX. ALLOWED
1. From impact until vehicle motion ceases	0.0 g	28 g
2. For 5 minute period after vehicle motion ceases	0.0 g	141 g
3. For next 25 minutes	0.0 g	28 g/min.

SOLVENT SPILLAGE DETAILS

None

DATA SHEET NO. 13
FMVSS 301 STATIC ROLLOVER DATA SHEET

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07



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).

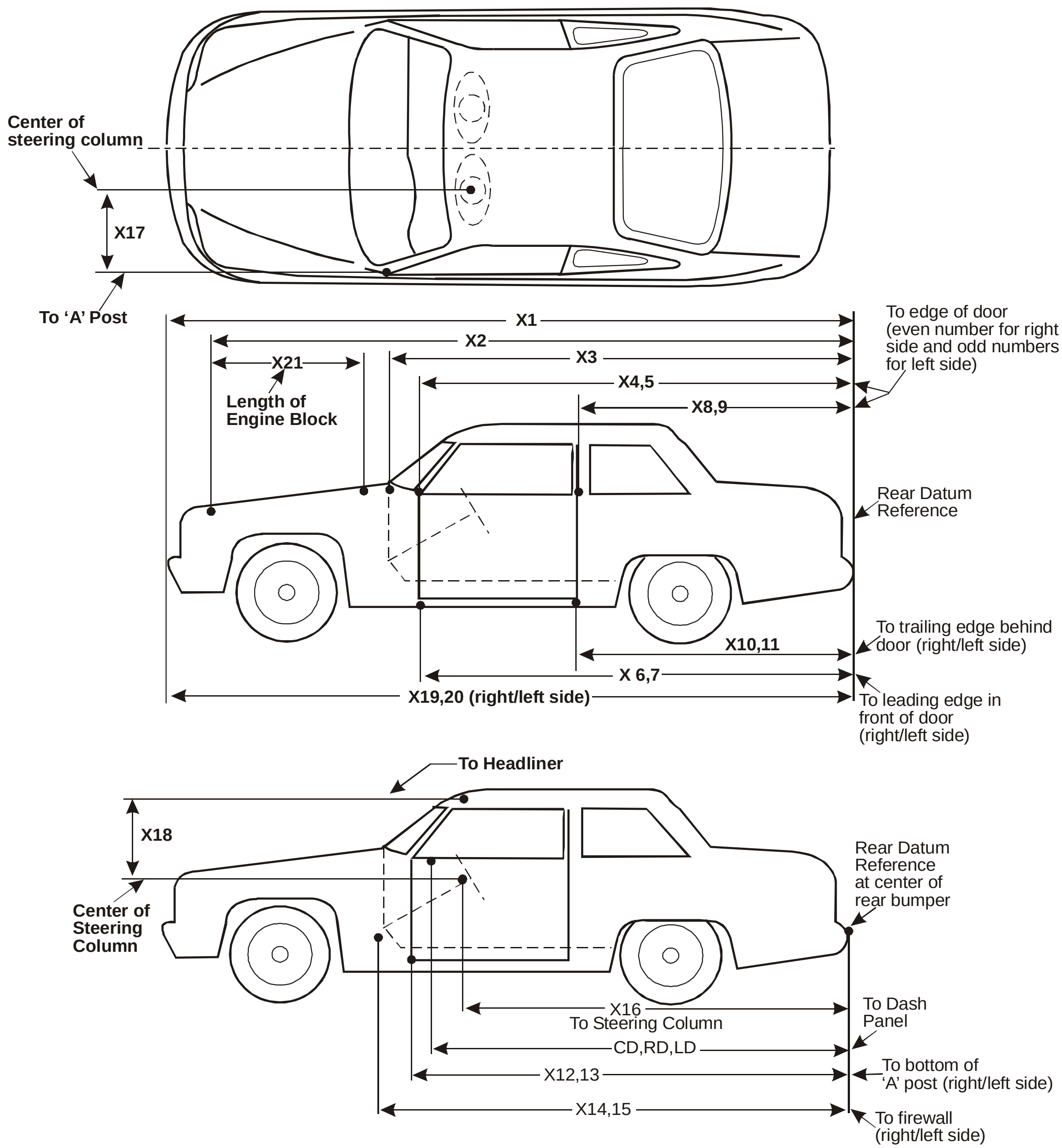
Details of Stoddard Solvent Spillage Locations

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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07



DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline[1]	5080	4892	188
X2	Rear Surface of Vehicle to Front of Engine Block	4575	4283	292
X3	Rear Surface of Vehicle to Firewall	4012	4073	-61
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	3533	3538	-5
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	3538	3537	1
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3499	3500	-1
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3509	3505	4
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	2480	2482	-2
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	2478	2476	2
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	2500	2498	2
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	2513	2508	5
X12	Rear Surface of Vehicle to Bottom of " A " Post on Right Side	3487	3492	-5
X13	Rear Surface of Vehicle to Bottom of " A " Post on Left Side	3502	3476	26
X14	Rear Surface of Vehicle to Firewall-Right Side	3920	3939	-19
X15	Rear Surface of Vehicle to Firewall-Left Side	3915	3928	-13
X16	Rear Surface of Vehicle to Steering Wheel Center	3075	3086	-11
X17	Center of Steering Column to " A " Post	364	364	0
X18	Center of Steering Column to Headliner	455	398	57
X19	Rear Surface of Vehicle to Right Side of Front Bumper[1]	4930	5082	-152
X20	Rear Surface of Vehicle to Left Side of Front Bumper[1]	4915	4710	205
X21	Length of Engine Block	464	464	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3292	3299	-7
CD	Rear Surface of Vehicle to Center of Dash Panel	3354	3356	-2
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3290	3286	4

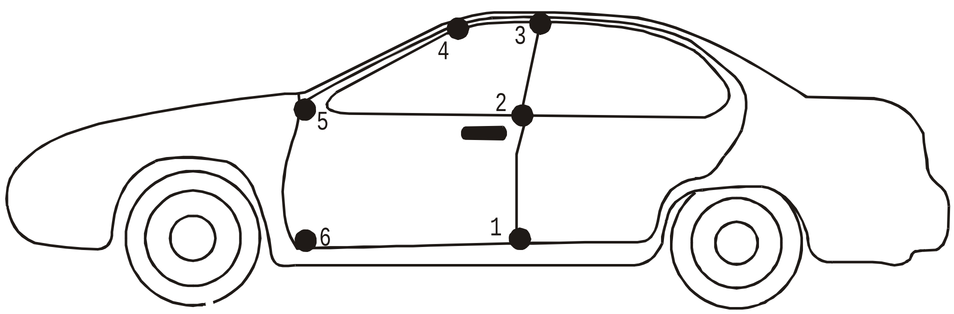
All measurements are in millimeters.

[1] Measurement taken to the bumper beam.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

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	2309	-790	59	2310	-782	60	1	8	1
2	2232	-762	-341	2233	-756	-340	1	6	1
3	2118	-568	-792	2118	-566	-792	0	2	0
4	2668	-607	-727	2669	-602	-733	1	5	-6
5	4325	716	-194	3267	-727	-343	-1058	-1443	-149
6	3204	-766	190	3204	-741	190	0	25	0

Right Front

Point Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3185	781	199	3184	796	197	-1	15	-2
2	2232	769	-323	2231	773	-323	-1	4	0
3	2666	620	-728	2665	625	-730	-1	5	-2
4	2116	577	-794	2115	580	-794	-1	3	0
5	3265	747	-323	3264	757	-326	-1	10	-3
6	2279	796	19	2278	800	19	-1	4	0

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

	Elements	Pre-Test
1	Total Length	5080
2	Total Width	1950
3	Bumper Top Height	547
4	Bumper Bottom Height	392
5	Longitudinal Member Top Height	552
6	Longitudinal Member Bottom Height	442
7	Distance Between Longitudinal Members	1305
7´	Longitudinal Member Width	115
8	Engine Top Height	922
9	Engine Bottom Height	168
10	Engine and Gearbox Width	785
11	Front Bumper - Engine Distance	475
12	Front Shock Absorber Fixing Height	875
13	Bonnet Leading Edge Height	806
14	Front Shock Absorber Fixing Width	1256
15	Front Bumper - Front Axle Distance	990
16	Front Axle - A Pillar Distance	611
17	A Pillar - B Pillar Distance	1036
18	B Pillar - Rear Axle Distance	1244
19	B Pillar - C Pillar Distance	968
20	Roof Sill Bottom Height	1360
21	Roof Sill Top Height	1426
22	Floor Sill Bottom Height	306
23	Floor Sill Top Height	344

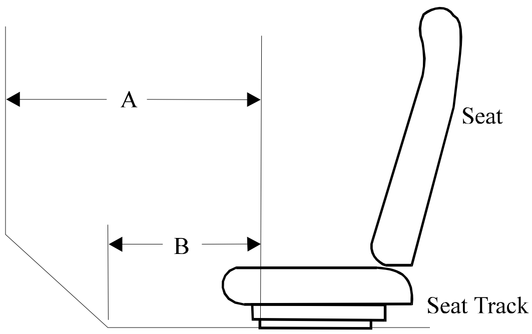
All distance measurements are in millimeters.

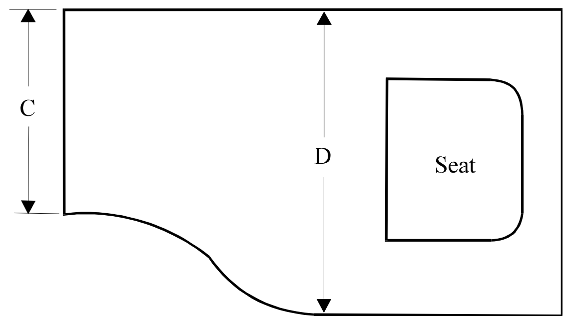
[1] Taken from INSIA report, "Structural Survey of Cars, Methodology of the Main Resistant Elements in the Car Body", March 1999. This report is included in Appendix F.

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

STATIC FOOTWELL DEFORMATION





DRIVER

Measurement	Pre-Test	Post-Test	Difference
A	538	522	-16
B	445	443	-2
C	359	366	7
D	412	410	-2

All units in millimeters

PASSENGER

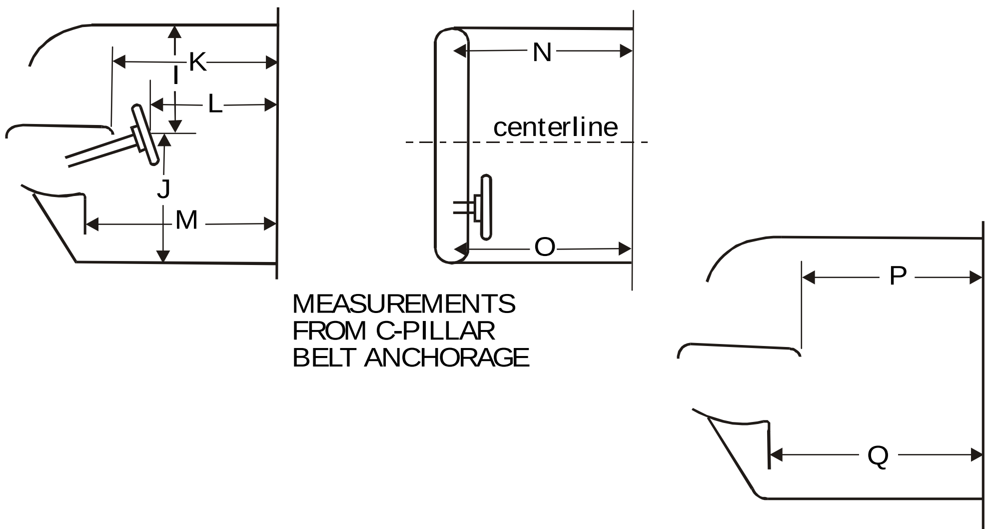
Measurement	Pre-Test	Post-Test	Difference
A	578	580	2
B	382	382	0
C	-324	-326	-2
D	-443	-443	0

All units in millimeters

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

STATIC PASSENGER COMPARTMENT INTRUSION



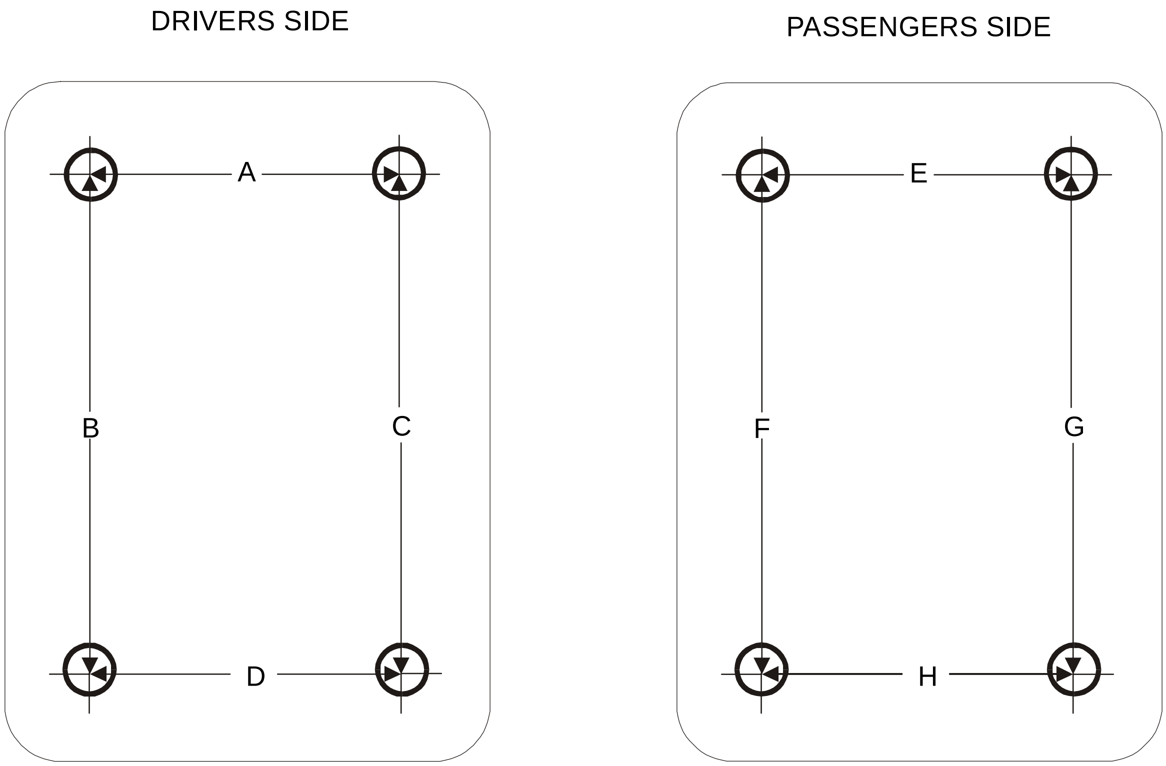
Measurement	Pre-Test	Post-Test	Difference
I	460	443	17
J	634	671	-37
K	2030	2020	10
L	1850	1831	19
M	2180	2152	28
N	2123	2125	-2
O	2090	2072	18
P = K (PASS.)	2035	2037	-2
Q = M (PASS.)	2148	2150	-2

All units in millimeters

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

FLOORBOARD DEFORMATION



TOP VIEW THROUGH FLOOR PAN

Measurement	Pre-Test	Post-Test	Difference
A	361	359	-2
B	445	443	-2
C	387	386	-1
D	412	410	-2
E	392	391	-1
F	382	382	0
G	444	443	-1
H	443	443	0

All units in millimeters

DATA SHEET NO. 14 (continued)
VEHICLE MEASUREMENTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

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	4938	-738	68	N/A[1]	N/A[1]	N/A[1]	N/A	N/A	N/A
2	5044	-457	66	4677	-512	138	-367	-55	72
3	5091	-158	67	4740	-216	145	-351	-58	78
4	5088	149	65	4894	48	143	-194	-101	78
5	5043	447	64	5007	326	127	-36	-121	63
6	4941	734	62	5046	628	108	105	-106	46

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	4931	-741	-94	N/A[1]	N/A[1]	N/A[1]	N/A	N/A	N/A
2	5039	-458	-90	4719	-517	-10	-320	-59	80
3	5088	-159	-89	4757	-217	1	-331	-58	90
4	5087	148	-91	4915	30	-12	-172	-118	79
5	5039	449	-93	5009	320	-31	-30	-129	62
6	4937	732	-100	5030	620	-51	93	-112	49

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	4817	-742	-244	N/A[1]	N/A[1]	N/A[1]	N/A	N/A	N/A
2	4920	-457	-245	N/A[1]	N/A[1]	N/A[1]	N/A	N/A	N/A
3	4971	-149	-245	4697	-200	-181	-274	-51	64
4	4972	144	-246	4845	57	-187	-127	-87	59
5	4922	447	-244	4951	347	-210	29	-100	34
6	4823	732	-246	4819	665	-250	-4	-67	-4

Front of Hood

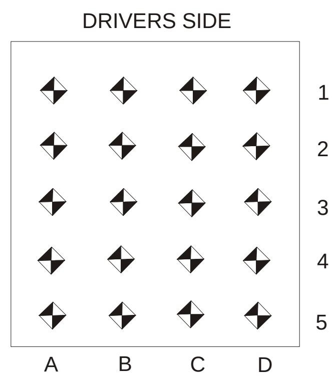
	Pre-Test			Post-Test			Difference		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4650	-751	-372	4549	-791	-594	-101	-40	-222
2	4893	-459	-313	4638	-511	-368	-255	-52	-55
3	4947	-158	-333	4674	-213	-320	-273	-55	13
4	4948	148	-334	4802	58	-349	-146	-90	-15
5	4897	448	-317	4829	361	-368	-68	-87	-51
6	4650	748	-379	4645	689	-464	-5	-59	-85

[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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

TOE PAN FLOORBARD INTRUSION



Driver Side Toe Pan and Floorboard Measurements

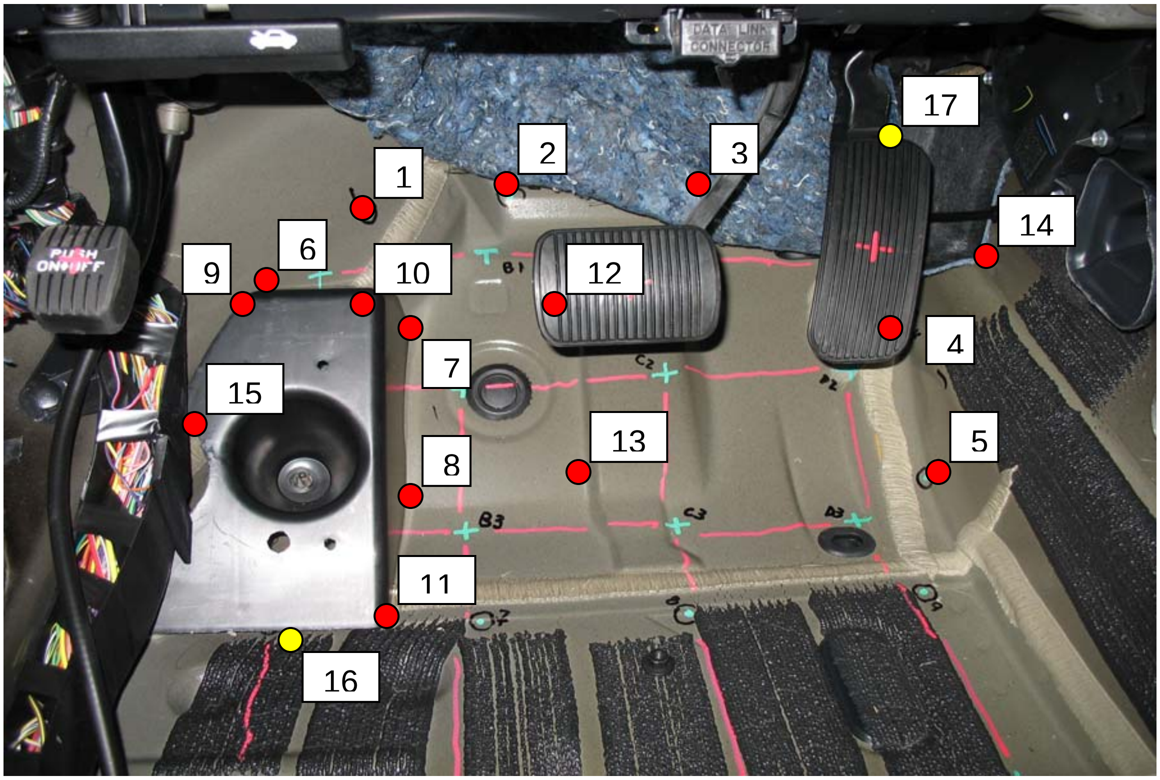
Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	3655	-540	91	3639	-546	90	-16	-6	-1
B1	3732	-433	117	3707	-432	105	-25	1	-12
C1	3719	-321	120	3699	-319	117	-20	2	-3
D1	3733	-181	131	3730	-180	134	-3	1	3
A2	3634	-545	158	3623	-549	158	-11	-4	0
B2	3645	-453	184	3633	-454	187	-12	-1	3
C2	3642	-319	177	3639	-320	191	-3	-1	14
D2	3660	-185	189	3662	-185	196	2	0	7
A3	3562	-565	243	3560	-567	254	-2	-2	11
B3	3556	-456	244	3555	-460	258	-1	-4	14
C3	3547	-324	240	3550	-325	248	3	-1	8
D3	3547	-204	245	3548	-208	251	1	-4	6
A4	3322	-577	248	3322	-577	257	0	0	9
B4	3304	-468	246	3305	-470	246	1	-2	0
C4	3309	-324	245	3310	-325	249	1	-1	4
D4	3317	-185	244	3318	-189	248	1	-4	4
A5	3117	-596	244	3117	-597	250	0	-1	6
B5	3114	-476	243	3114	-478	248	0	-2	5
C5	3151	-328	245	3153	-330	249	2	-2	4
D5	3160	-184	244	3162	-187	249	2	-3	5
BP	3539	-365	42	3524	-345	45	-15	20	3
LB	3341	-522	-222	3329	-515	-216	-12	7	6
RB	3341	-222	-223	3334	-215	-215	-7	7	8
SW	3067	-372	-469	3054	-360	-463	-13	12	6
AB	3065	-579	160	3066	-582	165	1	-3	5

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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

ADDITIONAL TOE PAN FLOORBARD INTRUSION



Driver Side Toe Pan and Floorboard Measurements

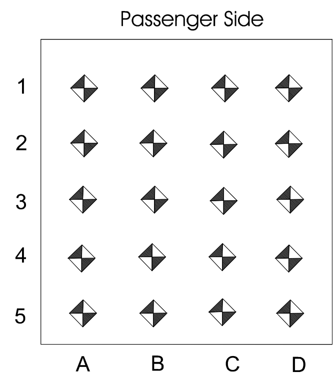
Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3689	-509	63	3666	-513	57	-23	-4	-6
2	3766	-414	87	3736	-412	74	-30	2	-13
3	3765	-294	86	3745	-292	80	-20	2	-6
4	3686	-137	161	3689	-136	169	3	1	8
5	3572	-151	231	3574	-152	238	2	-1	7
6	3621	-583	86	3610	-595	89	-11	-12	3
7	3679	-494	147	3657	-494	139	-22	0	-8
8	3576	-489	235	3576	-493	248	0	-4	13
9	3608	-584	91	3598	-581	94	-10	3	3
10	3612	-514	88	3601	-511	92	-11	3	4
11	3463	-500	245	3461	-501	252	-2	-1	7
12	3684	-379	150	3667	-379	150	-17	0	0
13	3600	-380	216	3598	-382	231	-2	-2	15
14	3589	-99	52	3592	-97	59	3	2	7
15	3555	-631	133	3557	-646	140	2	-15	7
16	3396	-496	235	N/A	N/A	N/A	N/A	N/A	N/A
17	3626	-215	-9	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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

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	3756	226	96	3759	231	105	3	5	9
B1	3748	326	92	3747	332	96	-1	6	4
C1	3741	449	75	3740	454	79	-1	5	4
D1	3665	550	53	3664	557	57	-1	7	4
A2	3670	219	180	3673	227	194	3	8	14
B2	3656	320	164	3655	327	171	-1	7	7
C2	3669	467	161	3667	473	165	-2	6	4
D2	3619	577	124	3619	584	128	0	7	4
A3	3560	211	243	3561	219	251	1	8	8
B3	3567	321	234	3566	328	242	-1	7	8
C3	3564	480	240	3564	488	245	0	8	5
D3	3558	603	241	3557	610	245	-1	7	4
A4	3331	177	243	3332	183	249	1	6	6
B4	3334	328	240	3334	335	247	0	7	7
C4	3316	475	237	3316	483	249	0	8	12
D4	3312	624	239	3311	631	241	-1	7	2
A5	3178	165	243	3179	170	248	1	5	5
B5	3161	324	241	3162	329	247	1	5	6
C5	3111	457	239	3112	463	243	1	6	4
D5	3114	608	238	3114	613	241	0	5	3

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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

BUMPER MEASUREMENTS

Index	PRE-TEST			POST-TEST			CHANGE		
	X	Y	Z	X	Y	Z	X	Y	Z
1	4933	-672	4	4633	-802	26	-300	-130	22
2	4984	-549	4	4625	-673	13	-359	-124	9
3	4997	-415	4	4588	-547	8	-409	-132	4
4	5006	-281	4	4572	-315	-24	-434	-34	-28
5	5012	-145	4	4619	-188	-23	-393	-43	-27
6	5014	-7	4	4703	-81	-22	-311	-74	-26
7	5013	134	4	4772	42	-21	-241	-92	-25
8	5007	271	4	4835	163	-20	-172	-108	-24
9	4997	412	3	4897	291	-20	-100	-121	-23
10	4984	549	2	4952	416	-20	-32	-133	-22
11	4933	674	3	4967	550	-20	34	-124	-23

All units in millimeters

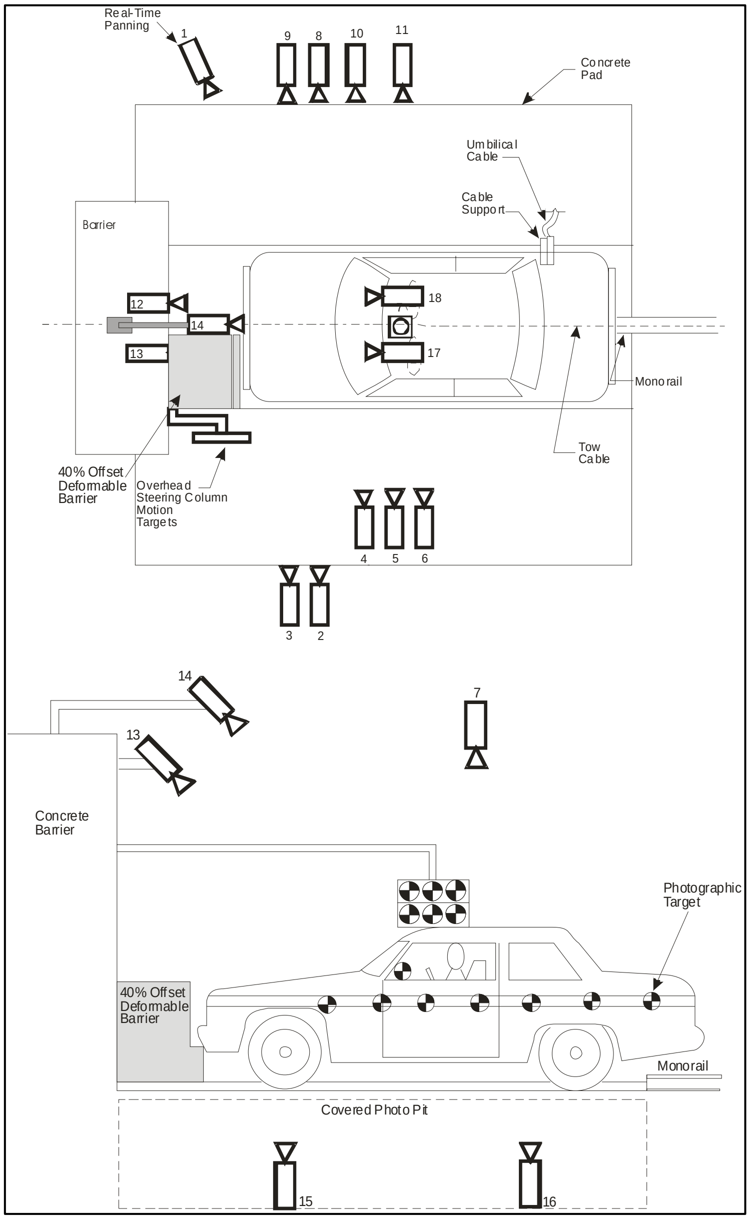
DATA SHEET NO. 15

CAMERA POSITIONS FOR FRONTAL IMPACTS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan

NHTSA Test No.: R70201 Test Date: 01/26/07

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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

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	2930	8500	922	0.2	8000	12.5	1000
3	Left Side View	1700	6558	990	1.2	6058	25	1000
4	Driver View	1700	6550	1310	2.5	6558	50	1000
5	Steering Column Top	1470	3550	1630	3.4	6080	50	1000
6	Steering Column Bottom	2430	6550	1285	0.2	6050	50	1000
7	Top View		90		90.0	N/A	12.5	1000
8	Overall Right Side	1100	3562	1215	4.7	3062	12.5	1000
9	Right Side View	380	7560	930	2.4	7060	25	1000
10	Right Passenger View	1290	9560	1010	1.1	9060	50	1000
11	Passenger and Interior View	1720	9530	1150	18.0	9030	50	1000
12	Driver Front Angled View	-740	590	2185	19.8	7000	25	1000
13	Driver Front View	-740	610	2180	20.9	7000	25	1000
14	Windshield View	-740	0	2140	27.3	7000	12.5	1000
15	Pit View of Engine	0	0	-3250	90.0	N/A	25	1000
16	Pit View of Fuel Tank	1080	0	-3250	90.0	N/A	12.5	1000
17	Driver Lower Leg View	1900	400	380	2.5	N/A	6.5	1000
18	Passenger Lower Leg View	1900	400	380	17.5	N/A	6.5	1000

*X = film plane to impact location

Y = film plane to monorail centerline

Z = film plane to ground

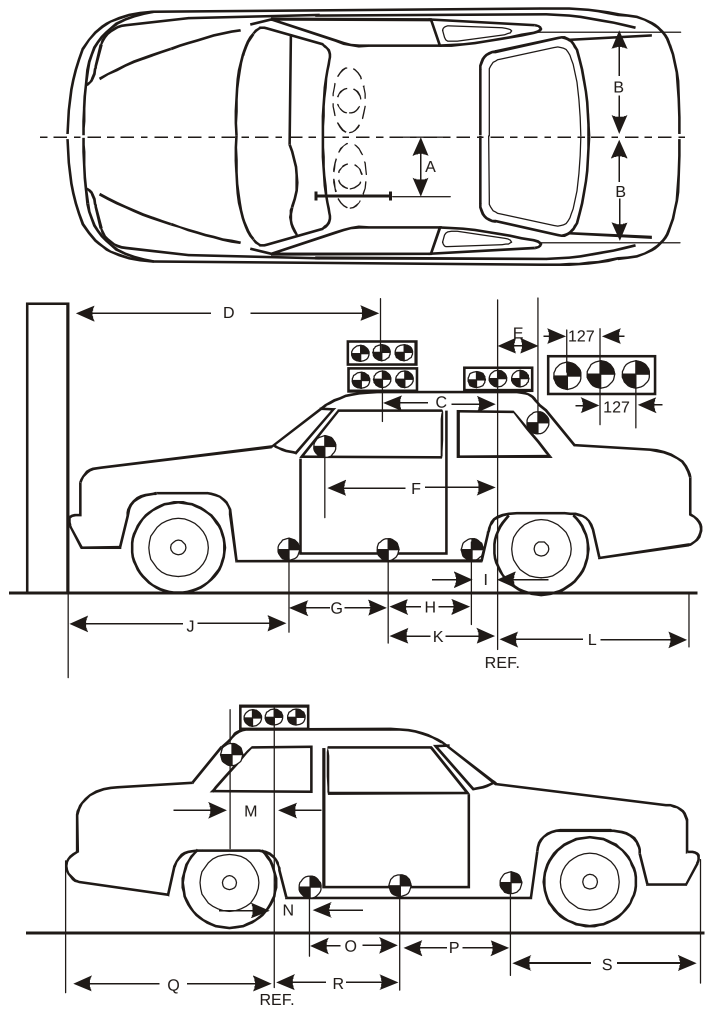
**Angle = referenced to horizontal plane

DATA SHEET NO. 16
VEHICLE REFERENCE PHOTO TARGET LOCATIONS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

A	375
B	665
C	610
D	N/A
E	555
F	1204
G	918
H	951
I	-377
J	1340
K	580
L	2077
M	552
N	-380
O	936
P	910
Q	2085
R	566
S	1369

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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

NHTSA No.: R70201 Test Date: 01/26/07 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) 491 -Driver 2826 -Passenger

C. Total vent area: (mm^2) 982 -Driver 5652 -Passenger

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

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

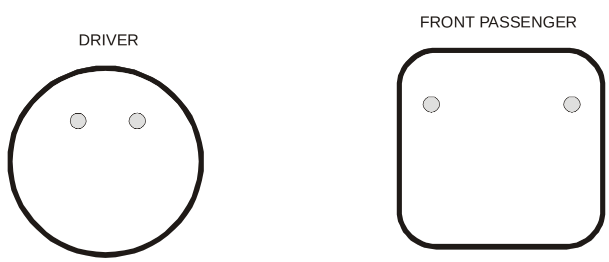
Passenger: 750 -Height; 660 -Width; ____ -Depth

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: D2193ST4VABS, 6F93, 74043B13

Passenger: 5G13, 54044A74, AH

DATA SHEET NO. 18
ACCIDENT INVESTIGATION DIVISION DATA

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

FOR FRONTAL BARRIER IMPACT

NHTSA Test No.: R70201 VIN: 1FAFP24147G103403

Model Year: 2007 Build Date: 05/06 Test Date: 01/26/07

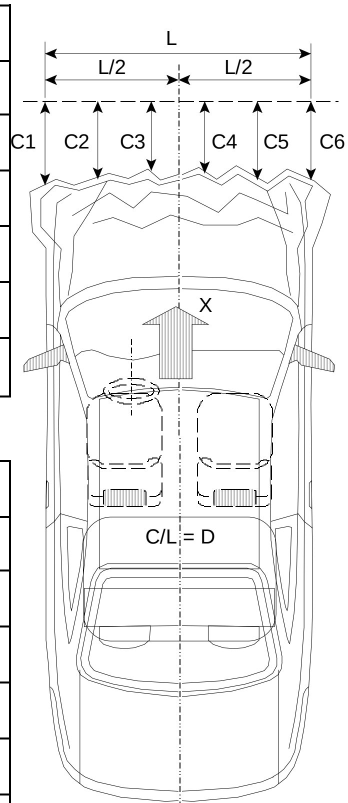
Vehicle Size Category: Sedan Test Weight: 1913.3 kg

Vehicle Wheelbase: 2870 mm; Front Overhang: 990 mm; Overall Width: 1950 mm

Collision Deformation Classification (CDC) Code: ____________

Crush Depth Dimensions with Bumper

	PRE-TEST	POST-TEST	DIFFERENCE	
C1 =	4931	----	----	mm
C2 =	5039	4719	320	mm
C3 =	5088	4717	331	mm
C4 =	5087	4915	172	mm
C5 =	5039	5009	30	mm
C6 =	4937	5030	-94	mm



Crush Depth Dimensions without Bumper[1]

	PRE-TEST	POST-TEST	DIFFERENCE	
C1 =	4933	4633	300	mm
C2 =	4997	4588	409	mm
C3 =	5012	4619	393	mm
C4 =	5013	4772	241	mm
C5 =	4997	4897	100	mm
C6 =	4933	4967	-34	mm

Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

Length of Damaged Region L1= 1500 mm

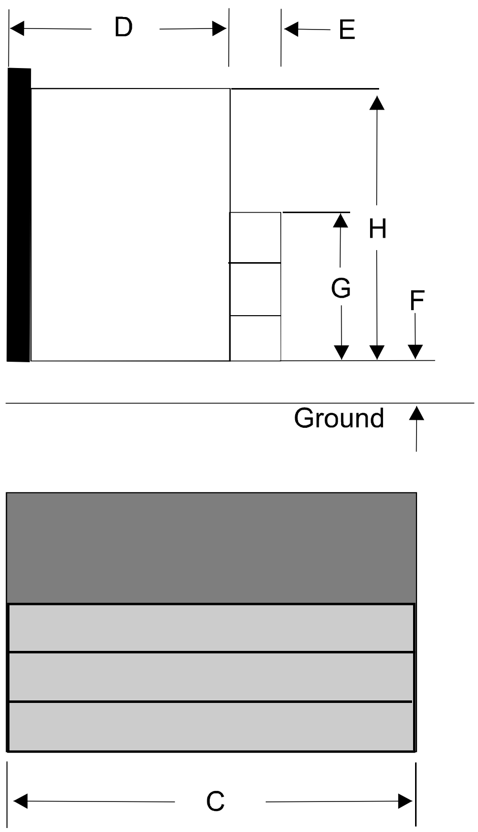
L2= 750 mm

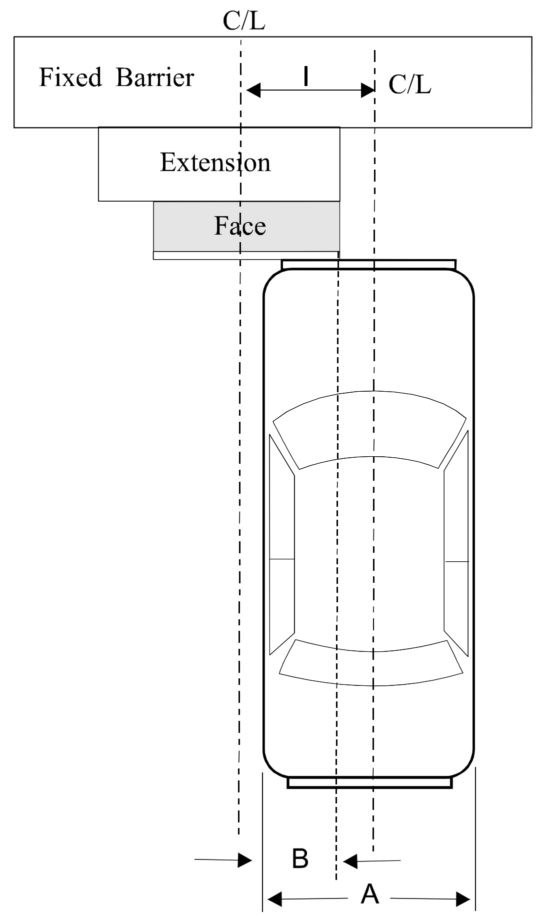
L3= 750 mm

[1] Measurements taken to the bumper beam included in NHTSA Entrée Database submission as Damage Profile Distance 1-6.

DATA SHEET NO. 19
OFFSET BARRIER AND VEHICLE ORIENTATION

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07



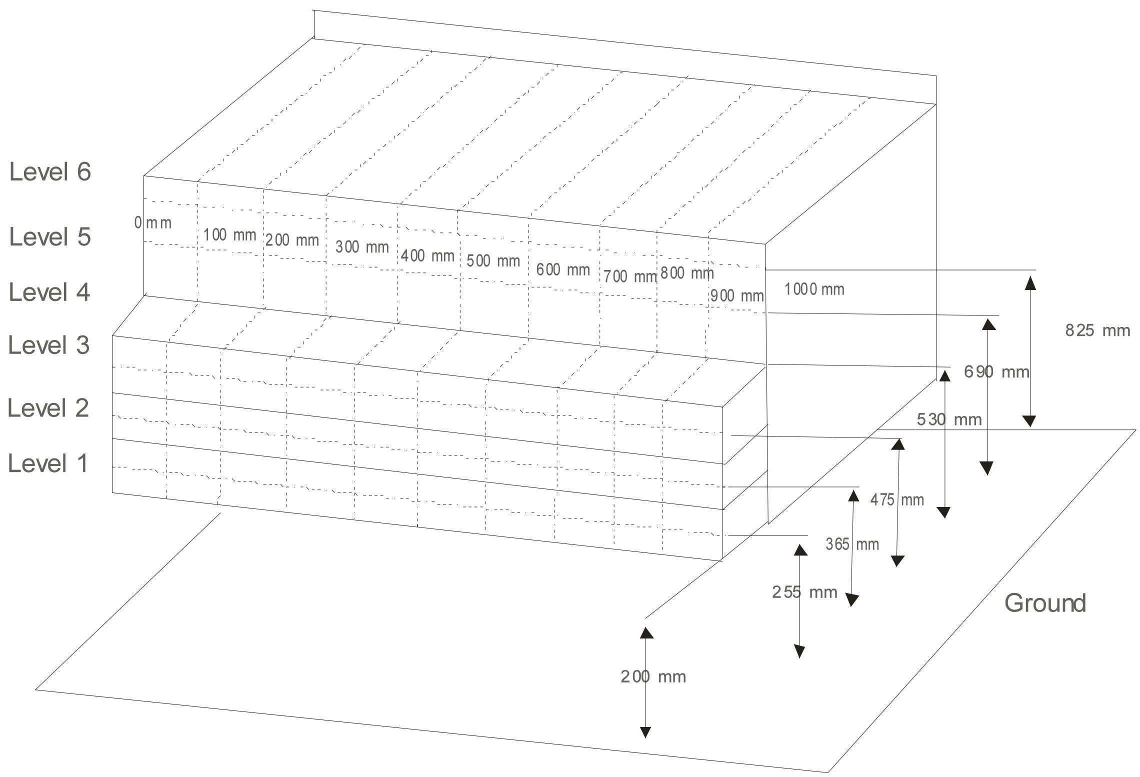


A. Total Vehicle Width	1950	mm
B. 40% Overlap Distance	787	mm
C. Deformable Face Width	1000	mm
D. Single Stage Honeycomb Depth	450	mm
E. Bumper Element Depth	90	mm
F. Lower Edge Height From Ground	200	mm
G. Bumper Element Height*	330	mm
H. Deformable Barrier Honeycomb Height	650	mm
I. Offset Distance	-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/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07



Deformable Barrier Face Profile

Pre-Test

Index	Xmm	Ymm	Zmm
1	-453.5	494.9	49.7
2	-453.5	399.4	49.3
3	-452.9	299.7	49.3
4	-452.8	199.3	48.8
5	-453.0	99.4	48.8
6	-452.7	-0.4	48.6
7	-452.8	-100.4	48.7
8	-452.7	-200.6	48.5
9	-452.7	-300.5	48.2
10	-452.5	-400.8	47.9
11	-452.4	-495.9	47.7
12	-454.0	494.8	-85.0
13	-454.1	400.0	-85.5
14	-453.8	299.9	-85.7
15	-453.6	199.4	-85.9
16	-453.3	99.6	-86.4
17	-453.3	-0.6	-86.2
18	-453.1	-100.4	-86.7
19	-453.1	-200.7	-87.0
20	-452.9	-300.7	-87.1
21	-452.7	-401.1	-87.2
22	-452.5	-495.7	-87.8

Post-Test

Index	Xmm	Ymm	Zmm
1	-513.1	375.4	-47.5
2	-481.9	286.8	-63.9
3	-442.0	198.2	-79.4
4	-401.4	108.8	-98.6
5	-325.6	24.9	-80.4
6	-285.3	-50.0	-83.2
7	-223.2	-113.8	-68.9
8	-154.3	-182.0	-65.8
9	-191.4	-284.2	-136.5
10	-171.5	-379.5	-158.8
11	-138.4	-468.4	-167.0
12	-560.4	377.5	-172.2
13	-525.7	290.9	-188.0
14	-491.9	198.2	-203.2
15	-655.0	8.2	-411.2
16	-633.1	-87.7	-417.6
17	-209.3	32.1	-135.3
18	-133.5	-24.2	-106.7
19	-88.6	-163.1	-116.8
20	-98.5	-260.9	-123.2
21	-70.4	-357.0	-118.2
22	-38.5	-445.8	-114.9

Difference

Index	Xmm	Ymm	Zmm
1	59.6	119.5	97.2
2	28.4	112.6	113.2
3	-10.9	101.5	128.7
4	-51.4	90.5	147.4
5	-127.4	74.5	129.2
6	-167.4	49.6	131.8
7	-229.6	13.4	117.6
8	-298.4	-18.6	114.3
9	-261.3	-16.3	184.7
10	-281.0	-21.3	206.7
11	-314.0	-27.5	214.7
12	106.4	117.3	87.2
13	71.6	109.1	102.5
14	38.1	101.7	117.5
15	201.4	191.2	325.3
16	179.8	187.3	331.2
17	-244.0	-32.7	49.1
18	-319.6	-76.2	20.0
19	-364.5	-37.6	29.8
20	-354.4	-39.8	36.1
21	-382.3	-44.1	31.0
22	-414.0	-49.9	27.1

Deformable Barrier Face Profile Cont'd.

Pre-Test

Index	Xmm	Ymm	Zmm
23	-454.1	494.6	-224.8
24	-454.1	399.8	-225.5
25	-454.0	299.6	-225.7
26	-453.8	199.4	-226.1
27	-453.6	99.1	-226.5
28	-453.3	-0.5	-226.9
29	-453.2	-100.6	-227.2
30	-453.2	-200.8	-227.8
31	-452.9	-300.6	-228.4
32	-452.7	-401.2	-228.6
33	-452.3	-495.0	-229.1
34	-545.5	494.1	-302.7
35	-545.3	398.8	-302.7
36	-545.2	298.5	-302.7
37	-545.0	198.3	-302.6
38	-544.8	98.4	-302.3
39	-544.7	-1.7	-302.2
40	-544.5	-101.2	-302.3
41	-544.3	-201.7	-302.1
42	-544.0	-301.6	-302.1
43	-543.8	-402.0	-301.7
44	-543.6	-497.4	-301.8

Post-Test

Index	Xmm	Ymm	Zmm
23	-517.6	387.0	-298.5
24	-699.5	204.2	-520.3
25	-664.9	112.1	-539.0
26	-622.8	20.2	-547.2
27	-575.2	-68.4	-538.3
28	-517.6	-129.4	-515.3
29	-45.6	-62.1	-251.6
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	-716.2	297.7	-645.6
35	-683.4	207.9	-643.3
36	-649.2	117.1	-647.1
37	-607.5	25.3	-645.4
38	-563.9	-67.2	-640.7
39	-507.3	-143.4	-608.0
40	-55.5	-76.8	-301.1
41	-85.7	-176.6	-290.3
42	-99.9	-271.5	-282.8
43	-81.7	-370.2	-282.4
44	-45.3	-457.9	-288.0

Difference

Index	Xmm	Ymm	Zmm
23	63.5	107.6	73.7
24	245.4	195.6	294.8
25	210.9	187.5	313.3
26	169.0	179.2	321.1
27	121.6	167.5	311.8
28	64.3	128.9	288.4
29	-407.6	-38.5	24.4
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	170.7	196.4	342.9
35	138.1	190.9	340.6
36	104.0	181.4	344.4
37	62.5	173.0	342.8
38	19.1	165.6	338.4
39	-37.4	141.7	305.8
40	-489.0	-24.4	-1.2
41	-458.6	-25.1	-11.8
42	-444.1	-30.1	-19.3
43	-462.1	-31.8	-19.3
44	-498.3	-39.5	-13.8

Deformable Barrier Face Profile Cont'd.

Pre-Test

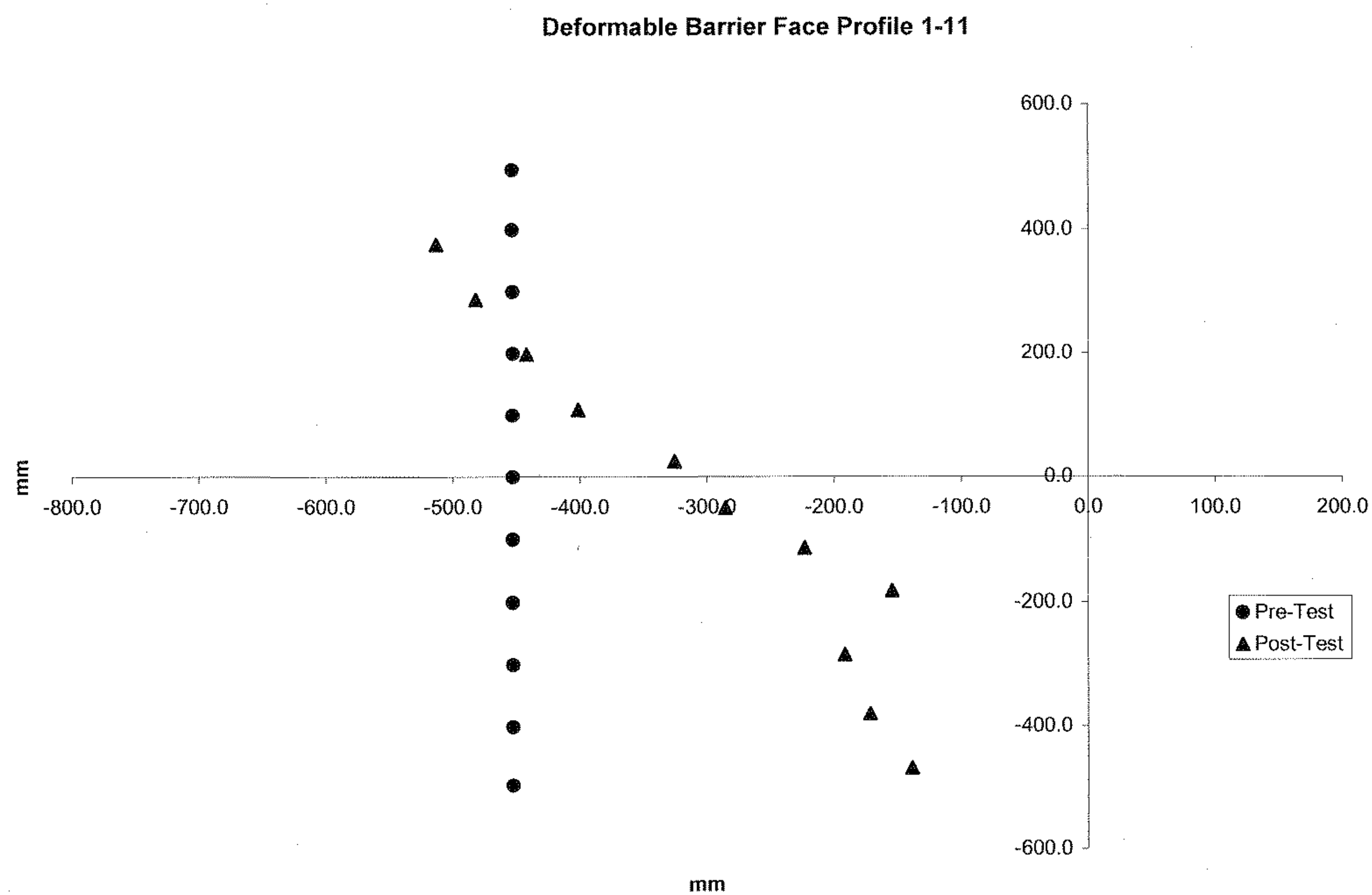
Index	Xmm	Ymm	Zmm
45	-545.7	494.0	-413.1
46	-545.3	398.1	-412.9
47	-545.2	298.0	-412.9
48	-545.0	197.9	-412.7
49	-544.8	97.7	-412.6
50	-544.5	-2.2	-412.5
51	-544.3	-102.2	-412.2
52	-544.1	-202.5	-412.1
53	-543.9	-302.3	-412.1
54	-543.6	-402.1	-411.8
55	-543.5	-496.8	-411.7
56	-545.7	493.2	-528.1
57	-545.3	398.3	-528.0
58	-545.1	298.4	-528.0
59	-544.8	198.2	-527.9
60	-544.6	97.8	-527.8
61	-544.4	-1.5	-527.5
62	-544.2	-101.6	-527.4
63	-544.0	-201.9	-527.6
64	-543.8	-301.8	-527.3
65	-543.8	-402.2	-527.0
66	-543.5	-497.4	-527.3

Post-Test

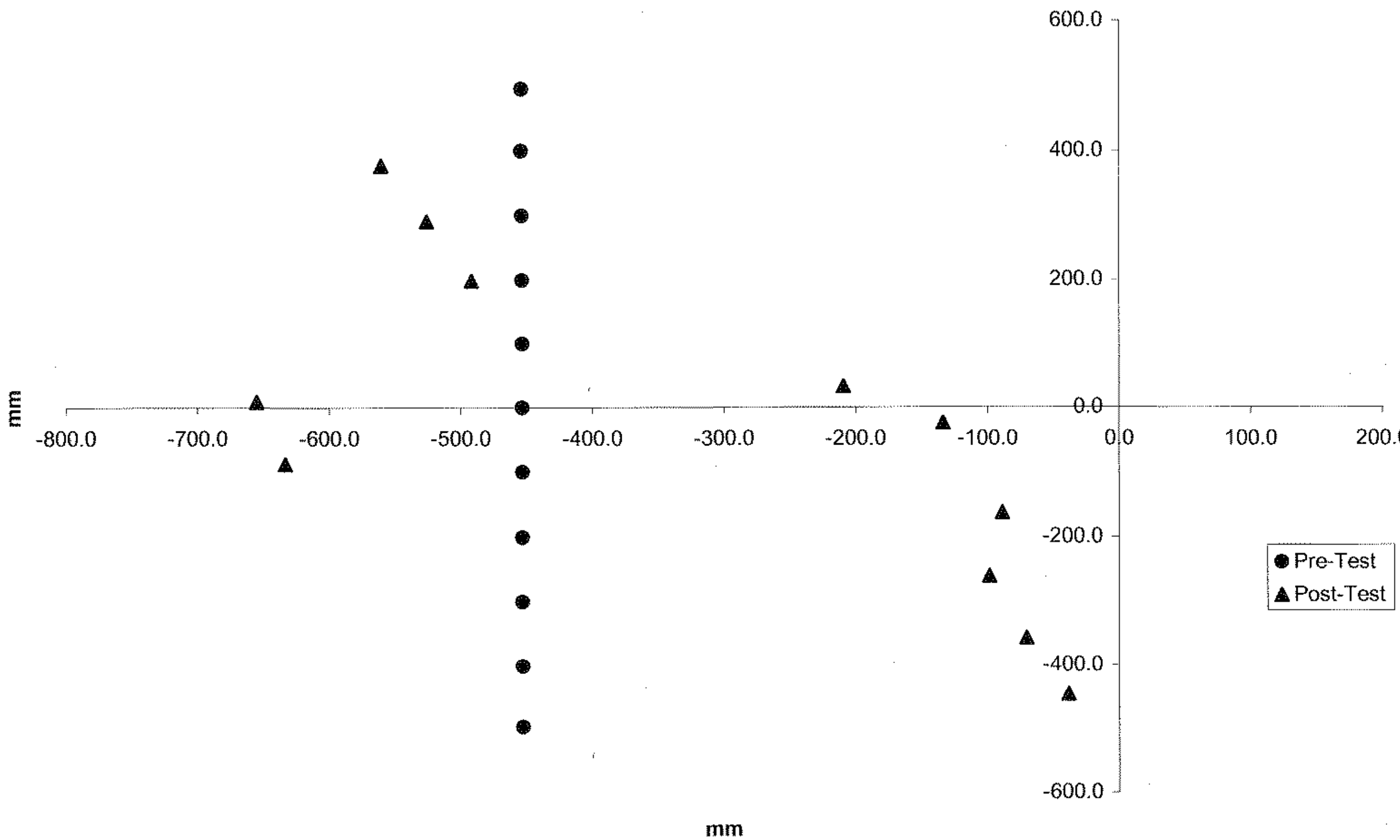
Index	Xmm	Ymm	Zmm
45	-624.9	356.1	-669.5
46	-592.2	266.7	-681.8
47	-560.3	176.5	-693.2
48	-529.4	82.6	-710.2
49	-498.9	-13.3	-716.2
50	-475.3	-106.7	-725.1
51	-414.7	-211.2	-609.6
52	-328.5	-310.8	-506.8
53	-253.2	-365.2	-477.8
54	-184.8	-429.9	-444.1
55	-117.5	-486.3	-413.7
56	-532.7	399.5	-721.1
57	-502.9	310.4	-735.2
58	-471.4	216.7	-751.2
59	-441.8	121.8	-766.9
60	-414.8	25.0	-782.1
61	-381.5	-69.1	-779.9
62	-338.4	-155.4	-752.5
63	-292.1	-235.3	-715.4
64	-237.2	-330.0	-623.8
65	N/A	N/A	N/A
66	N/A	N/A	N/A

Difference

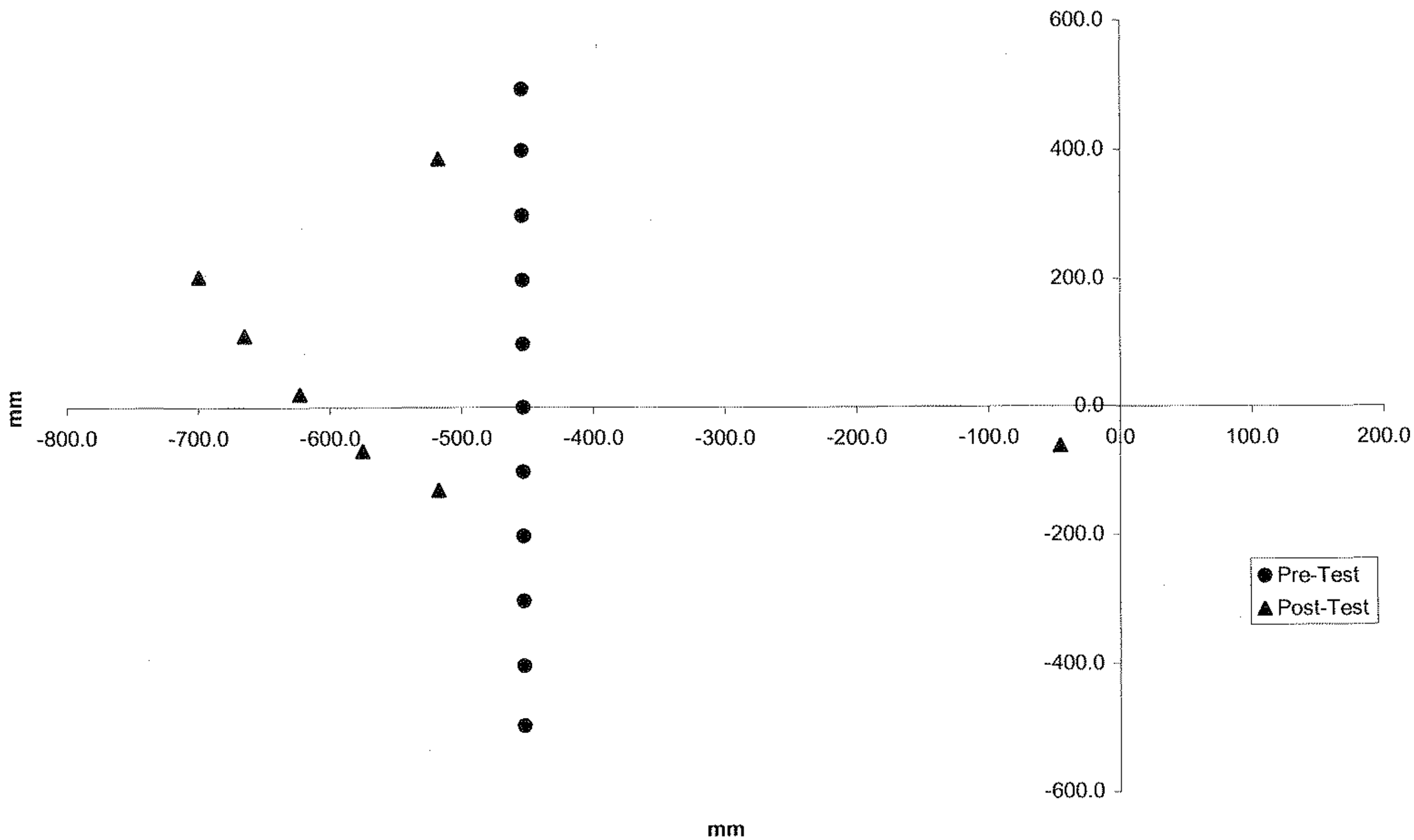
Index	Xmm	Ymm	Zmm
45	79.2	137.9	256.4
46	46.9	131.4	268.9
47	15.1	121.5	280.3
48	-15.6	115.3	297.5
49	-45.9	111.0	303.6
50	-69.2	104.5	312.6
51	-129.6	109.0	197.4
52	-215.6	108.3	94.7
53	-290.7	62.9	65.7
54	-358.8	27.8	32.3
55	-426.0	-10.5	2.0
56	-13.0	93.7	193.0
57	-42.4	87.9	207.2
58	-73.7	81.7	223.2
59	-103.0	76.4	239.0
60	-129.8	72.8	254.3
61	-162.9	67.6	252.4
62	-205.8	53.8	225.1
63	-251.9	33.4	187.8
64	-306.6	28.2	96.5
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
-800.0
-700.0
-600.0
-500.0
-400.0
-300.0
-200.0
-100.0
0.0
100.0
200.0
mm
mm
Pre-Test
Post-Test

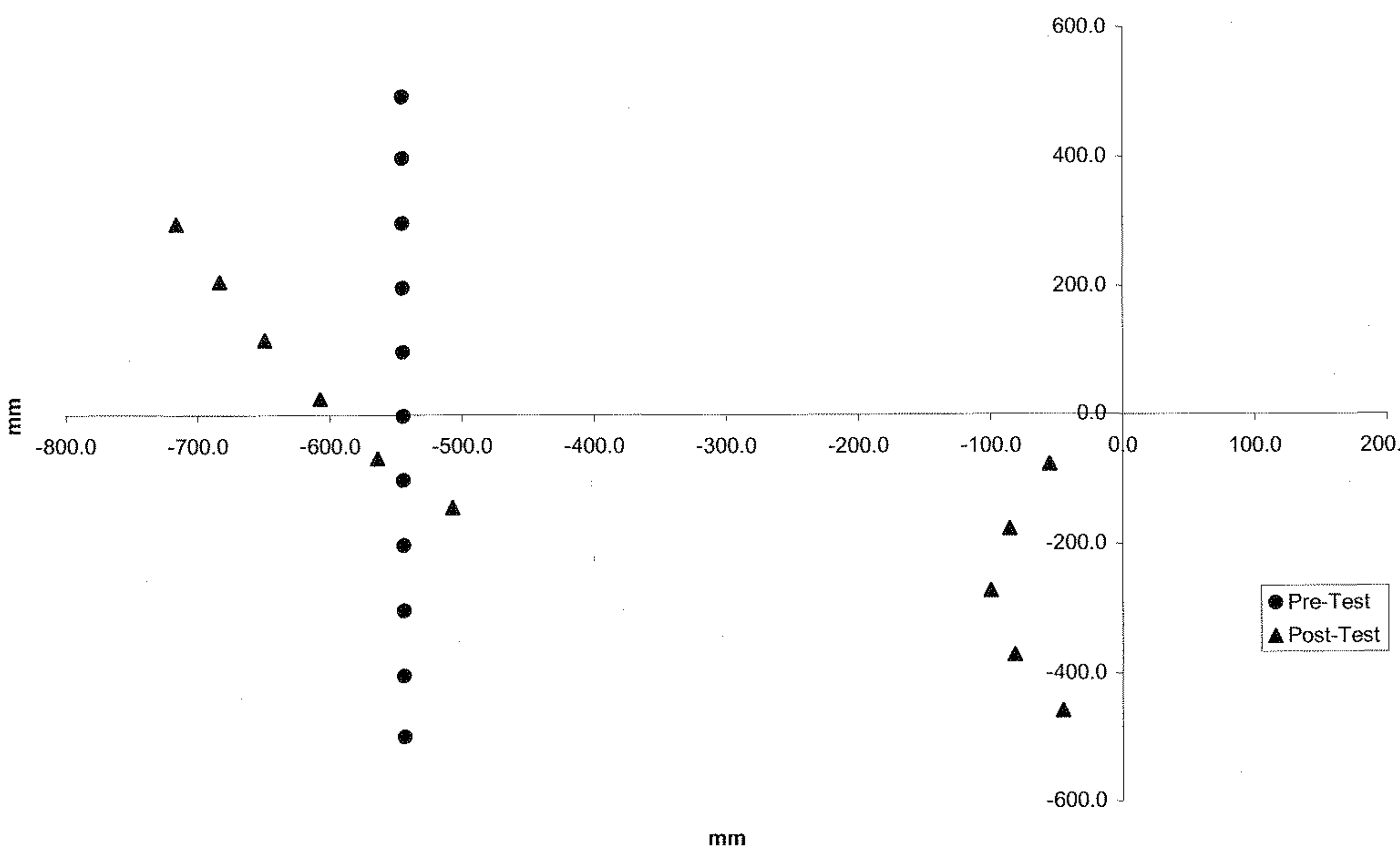
Deformable Barrier Face Profile 12-22



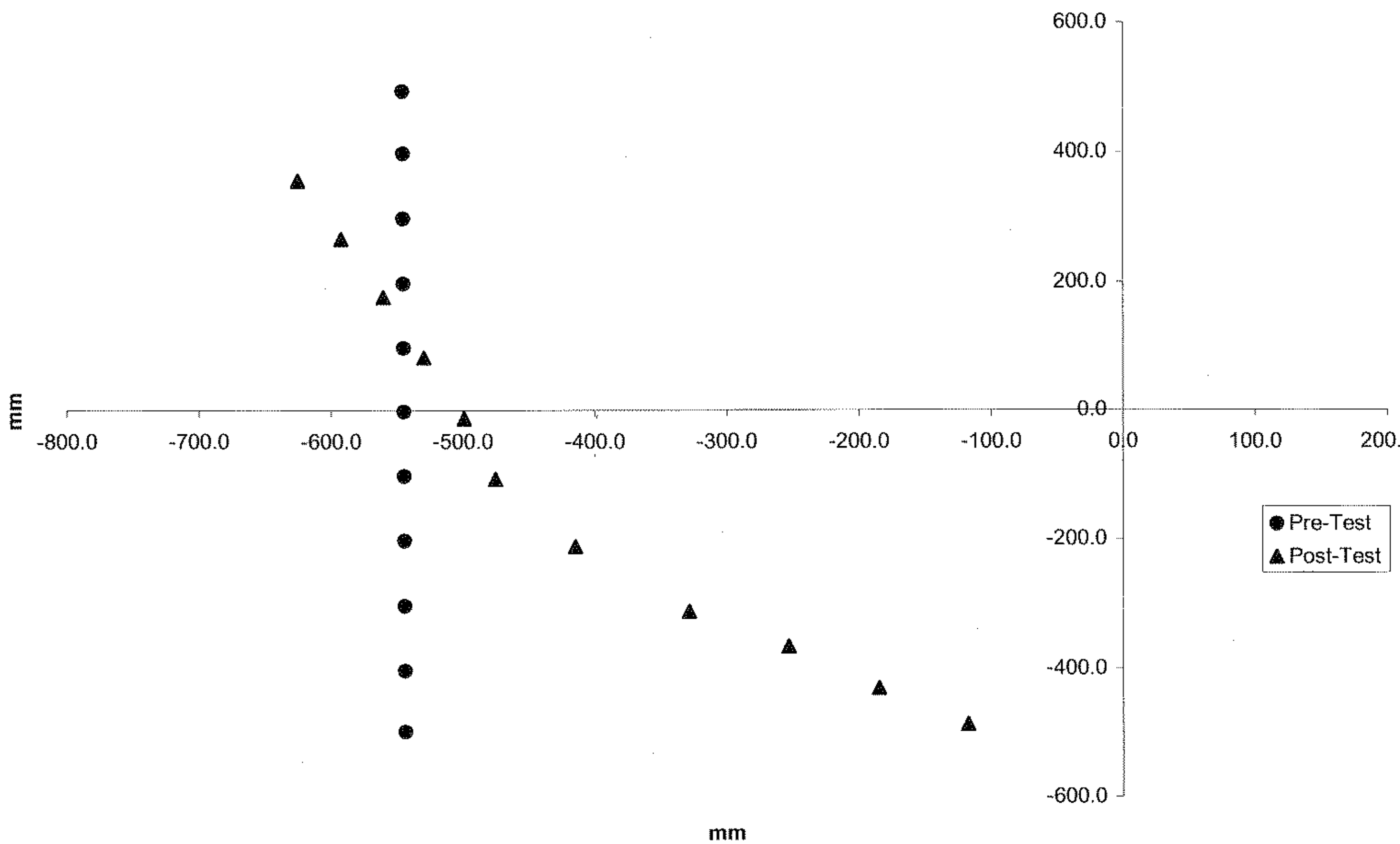
Deformable Barrier Face Profile 23-33



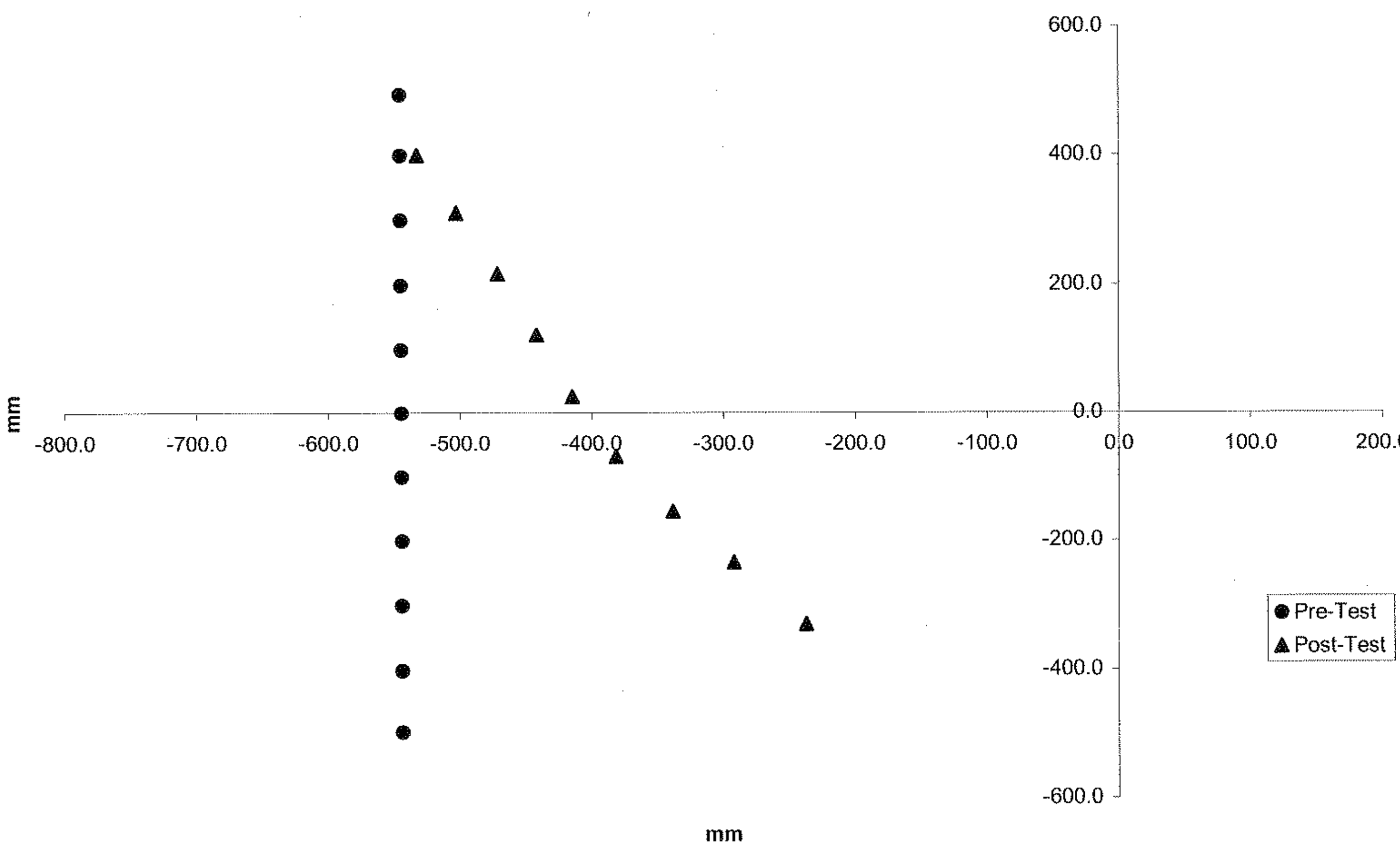
Deformable Barrier Face Profile 34-44



Deformable Barrier Face Profile 45-55

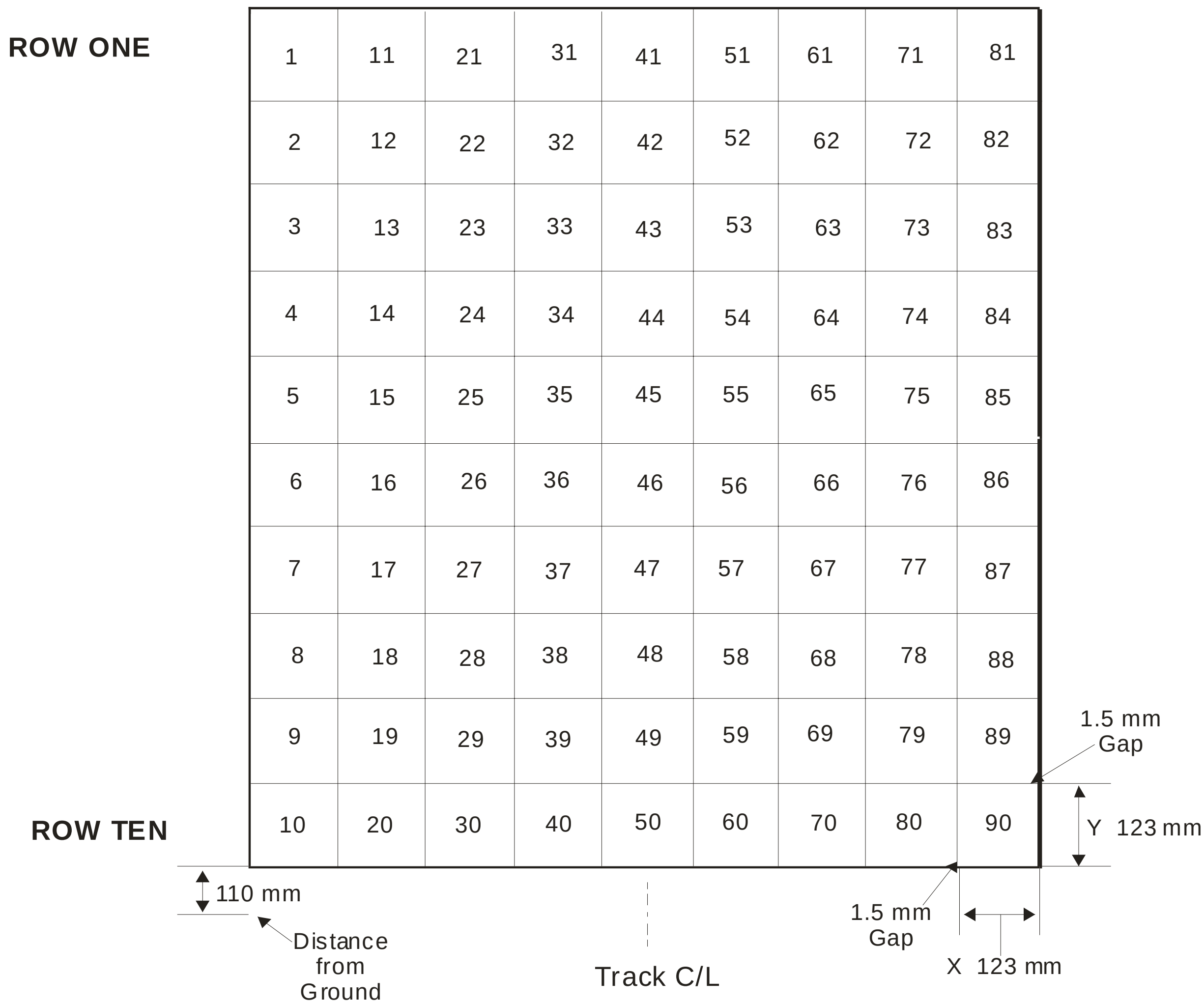


Deformable Barrier Face Profile 56-66



DATA SHEET NO. 21
DEFORMABLE BARRIER LOAD CELL LOCATIONS

Vehicle Year/Make/Model/Body Style: 2007/Ford/500 SEL/Sedan
NHTSA Test No.: R70201 Test Date: 01/26/07

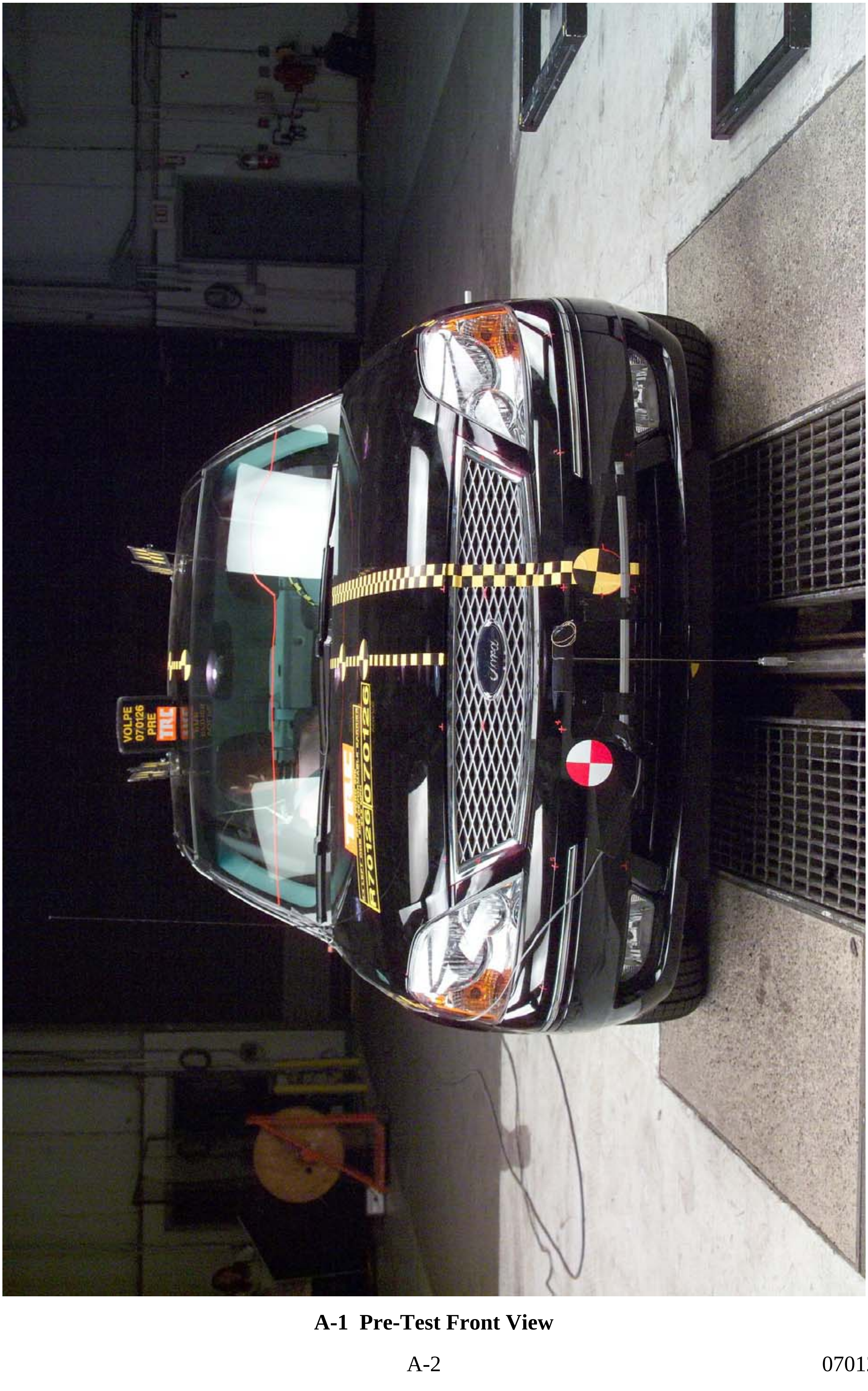


90 LOAD CELLS
10 ROWS
9 COLUMNS

FRONT VIEW

Appendix A

Photographs



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

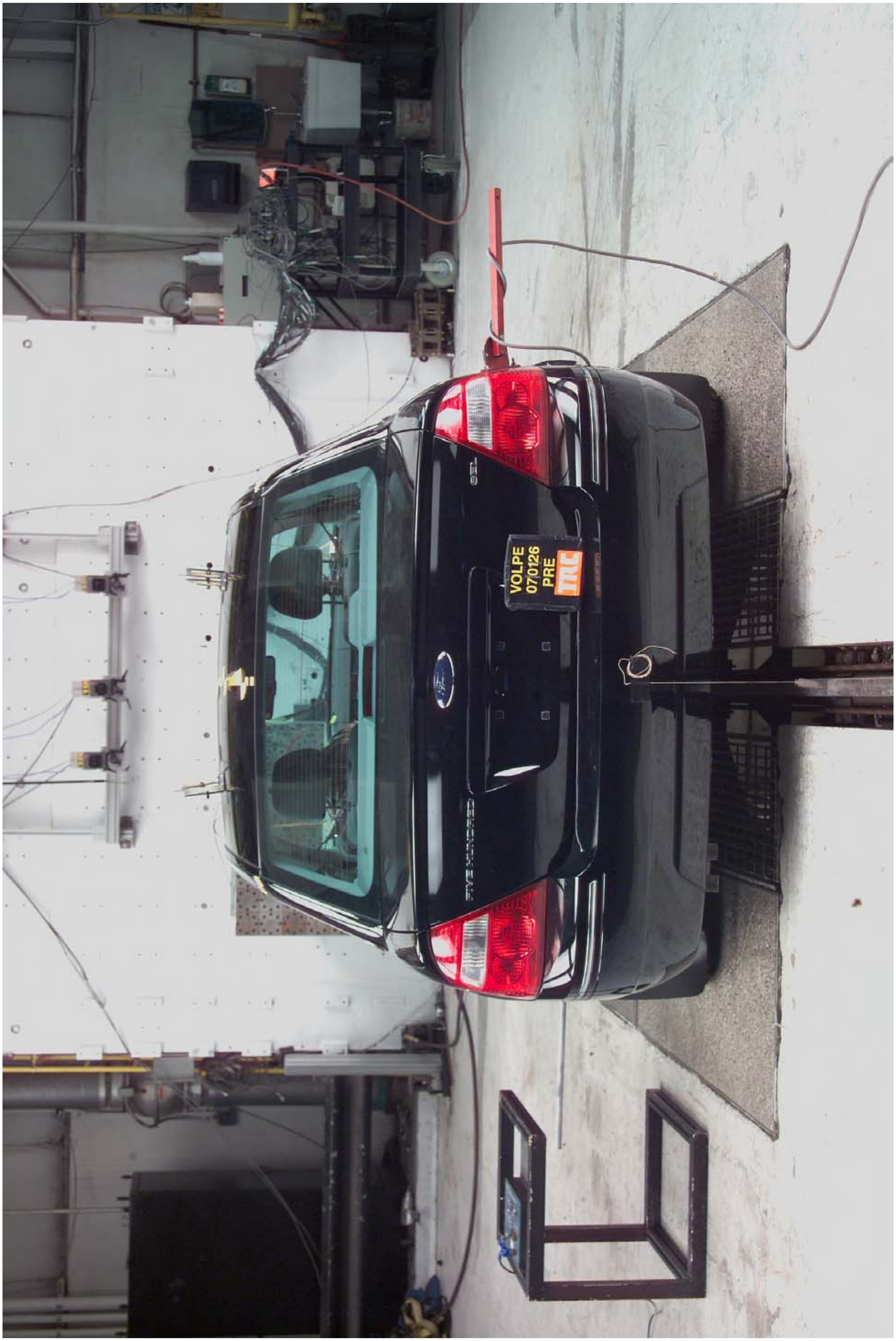


Figure A-9 Pre-Test Rear View

Figure A-10 Post-Test Rear View

Figure A-11 Pre-Test Right Rear View

070126

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

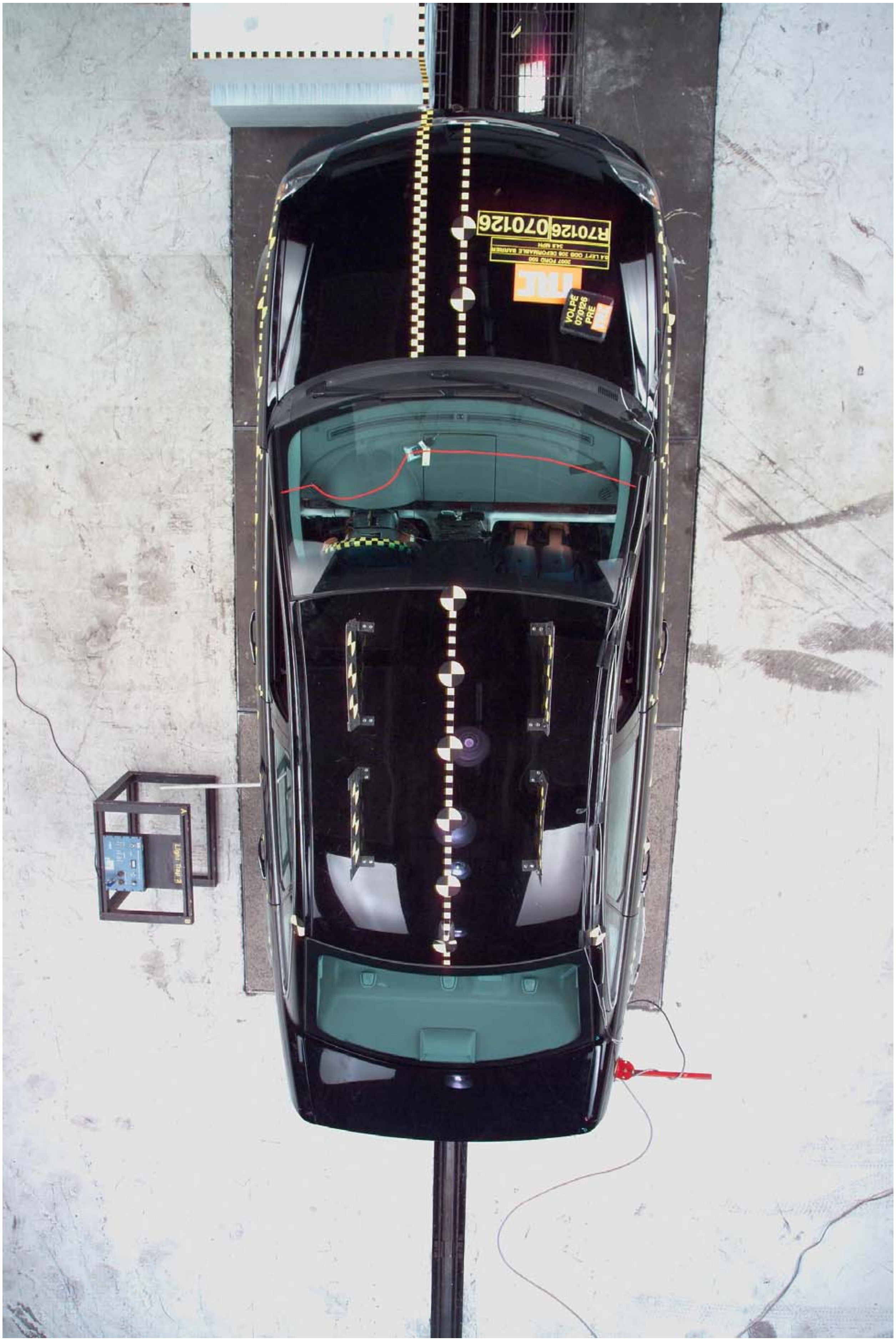


Figure A-17 Pre-Test Overhead View

Figure A-18 Post-Test Overhead View

Figure A-19 Pre-Test Primary Impact Alignment View

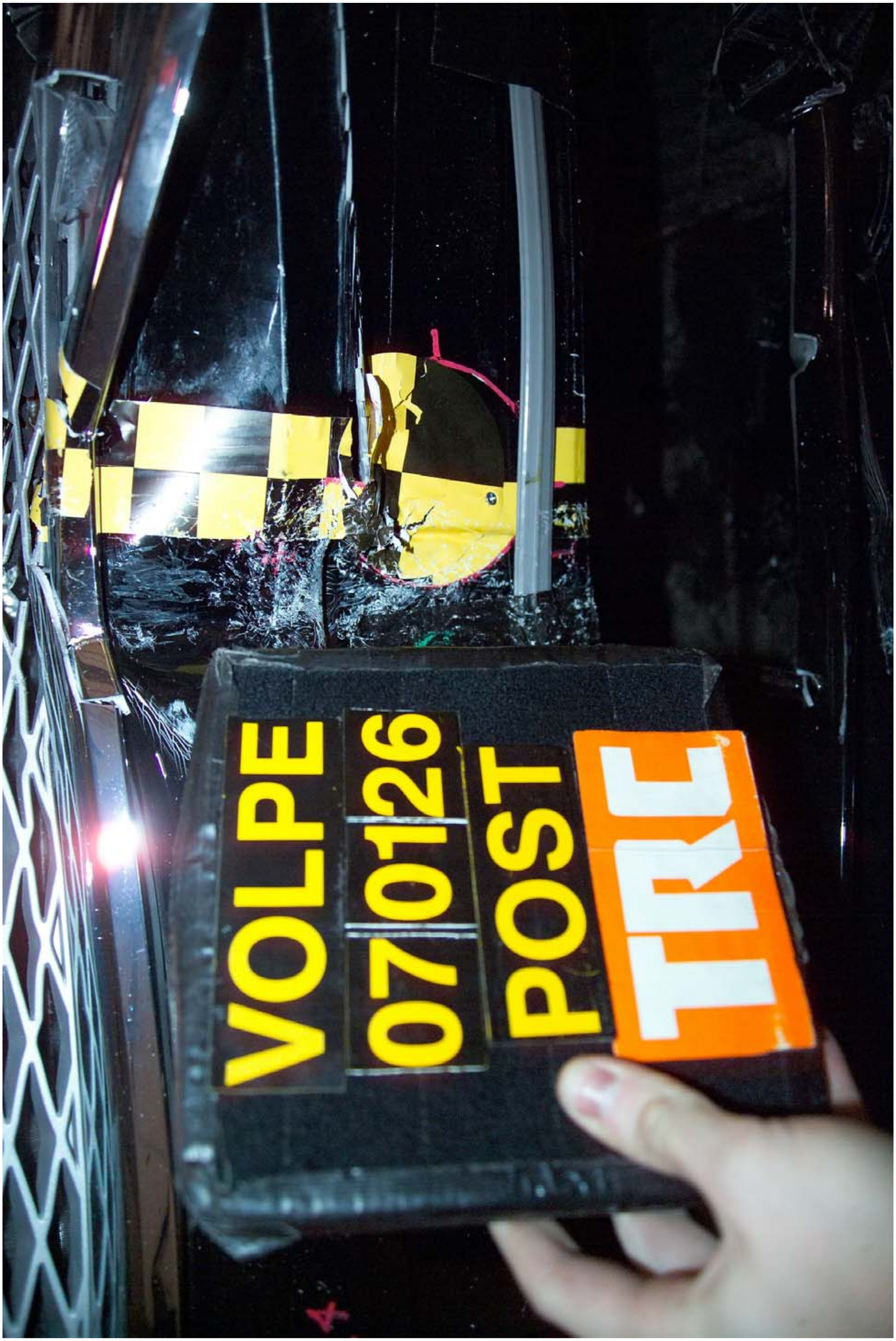


Figure A-20 Post-Test Primary Impact Alignment View

Figure A-21 Pre-Test Secondary Impact Alignment View

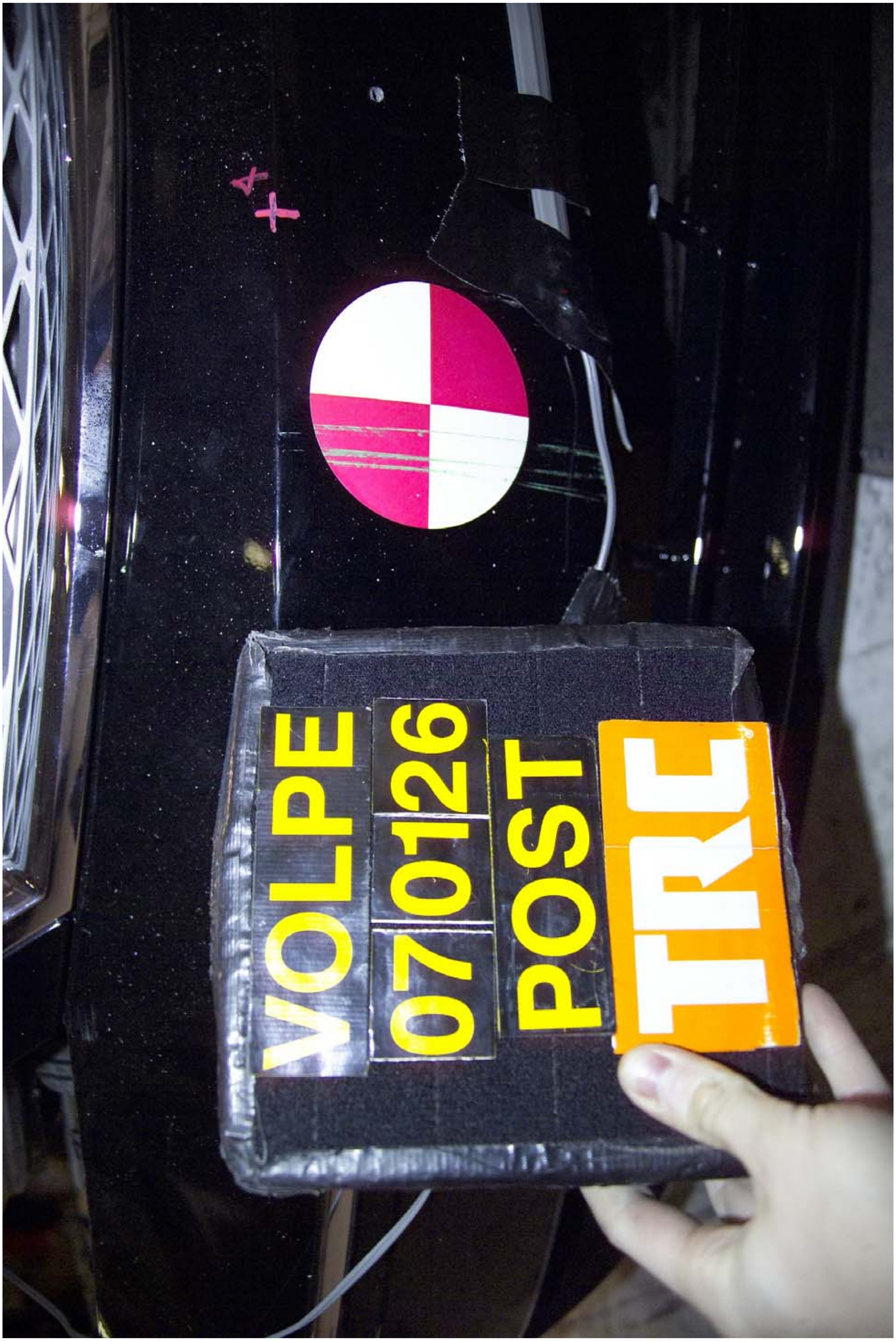


Figure A-22 Post-Test Secondary Impact Alignment View

Photograph Not Available

Figure A-23 Pre-Test Front Underbody View

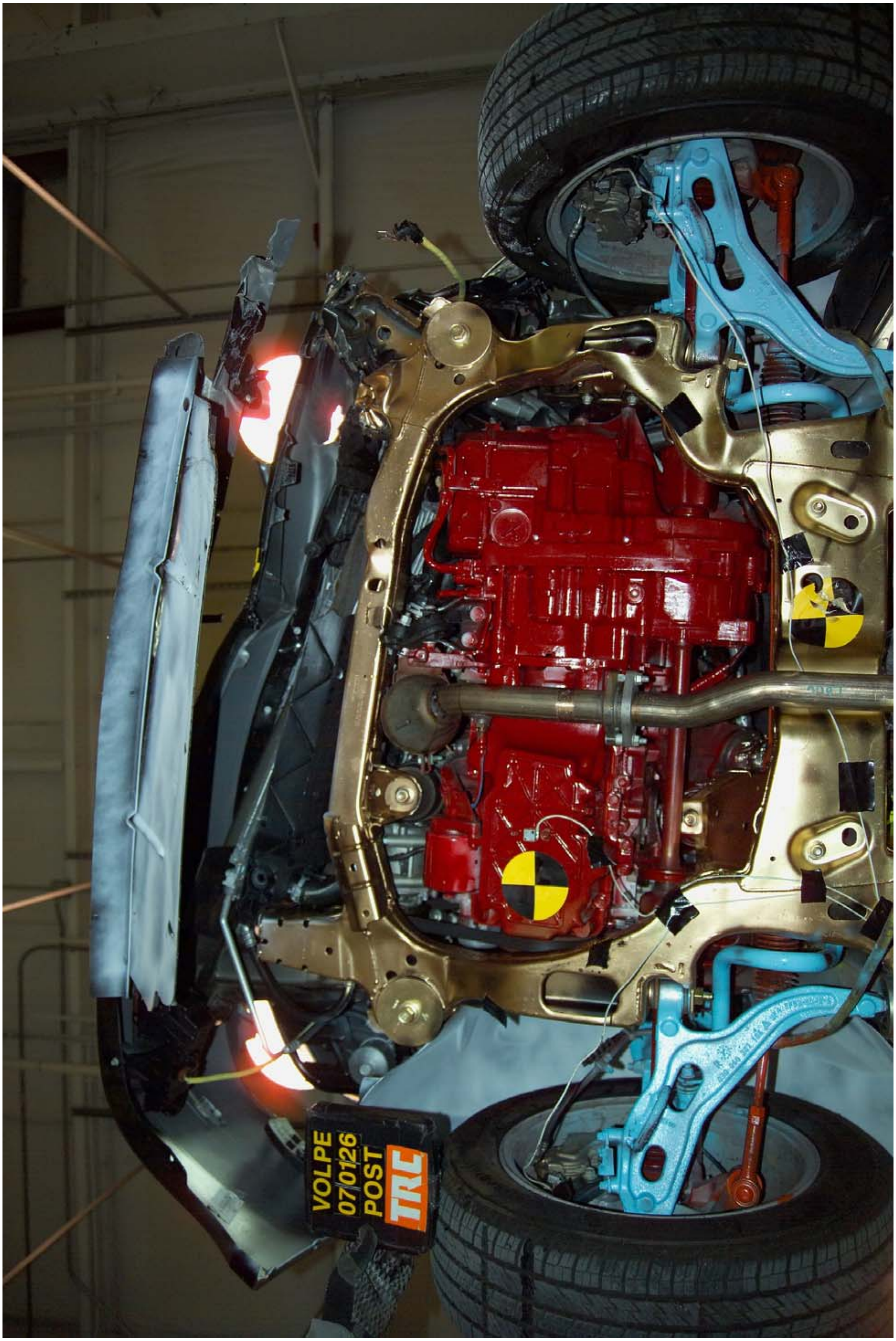


Figure A-24 Post-Test Front Underbody View

Photograph Not Available

Figure A-25 Pre-Test Mid Front Underbody View

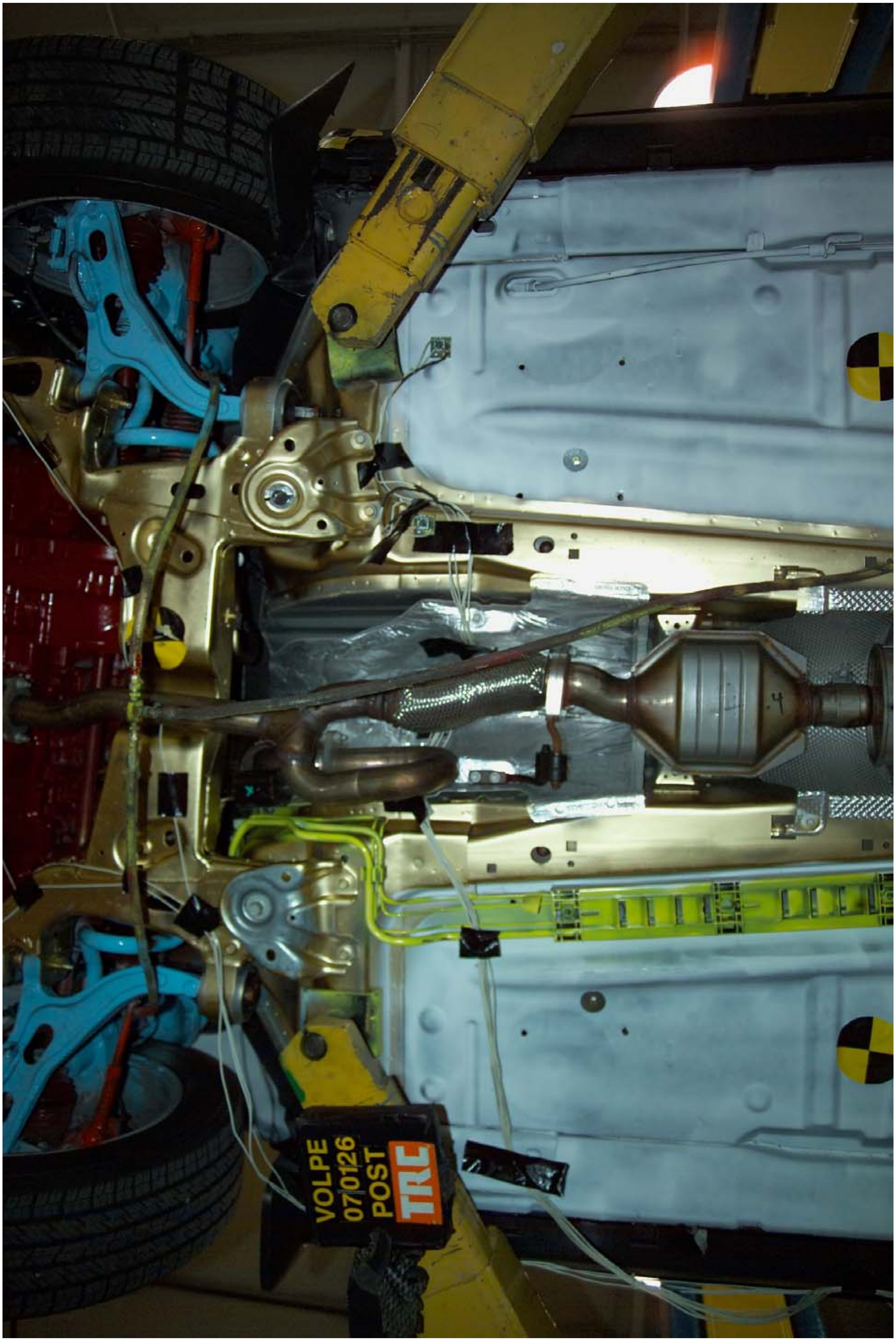


Figure A-26 Post-Test Mid Front Underbody View

Photograph Not Available

Figure A-27 Pre-Test Mid Underbody View

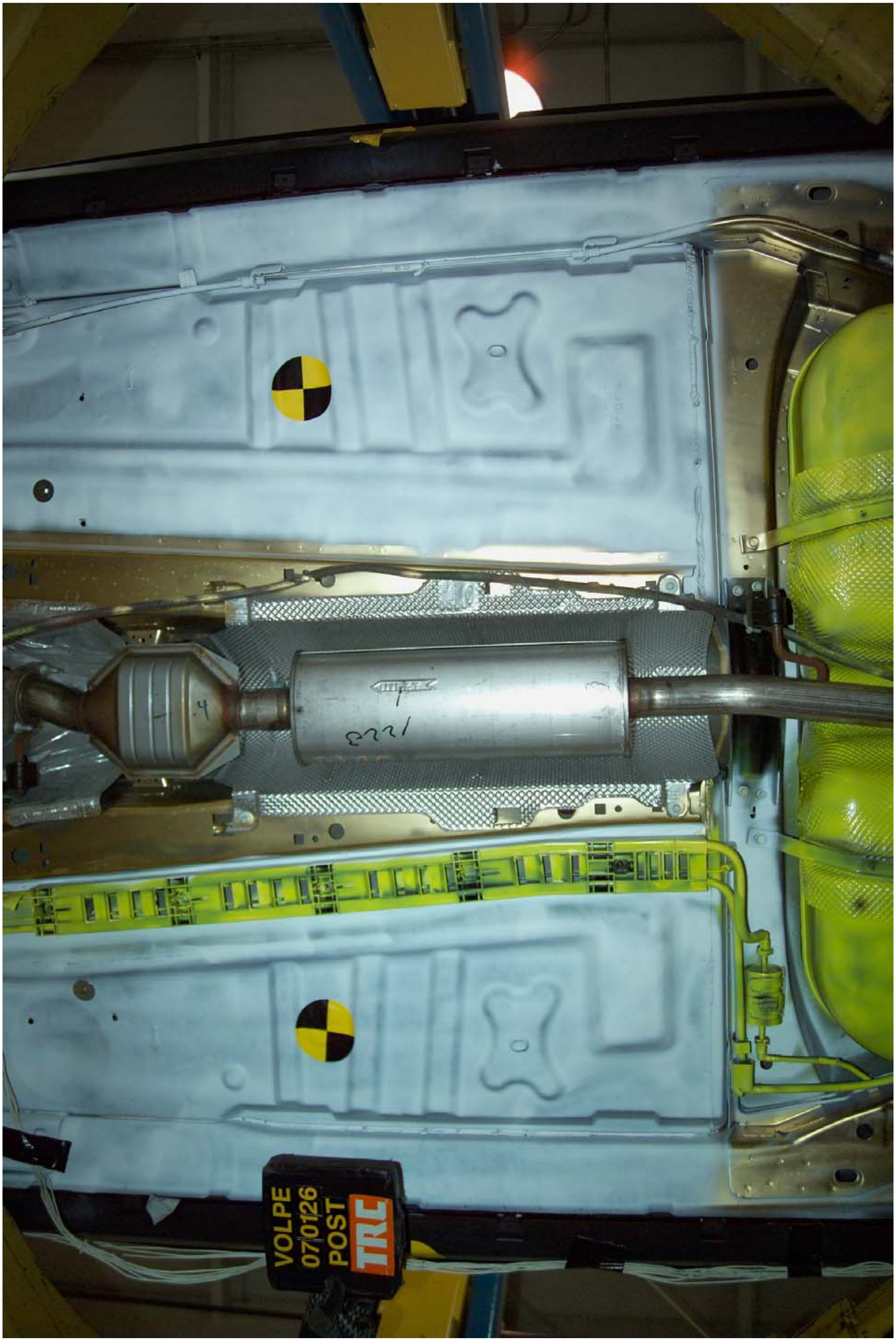


Figure A-28 Post-Test Mid Underbody View

Photograph Not Available

Figure A-29 Pre-Test Mid Rear Underbody View

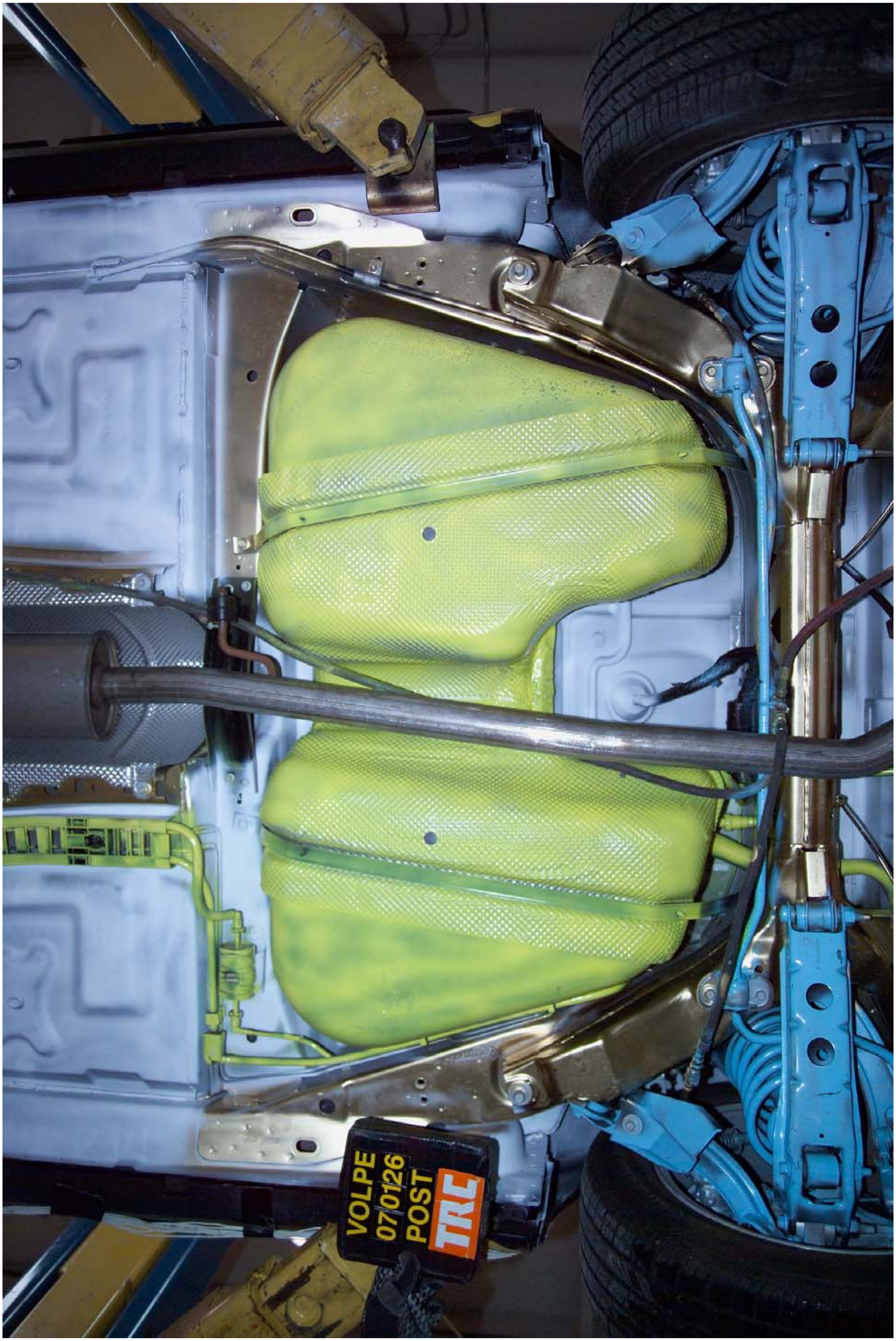


Figure A-30 Post-Test Mid Rear Underbody View

Photograph Not Available

Figure A-31 Pre-Test Rear Underbody View

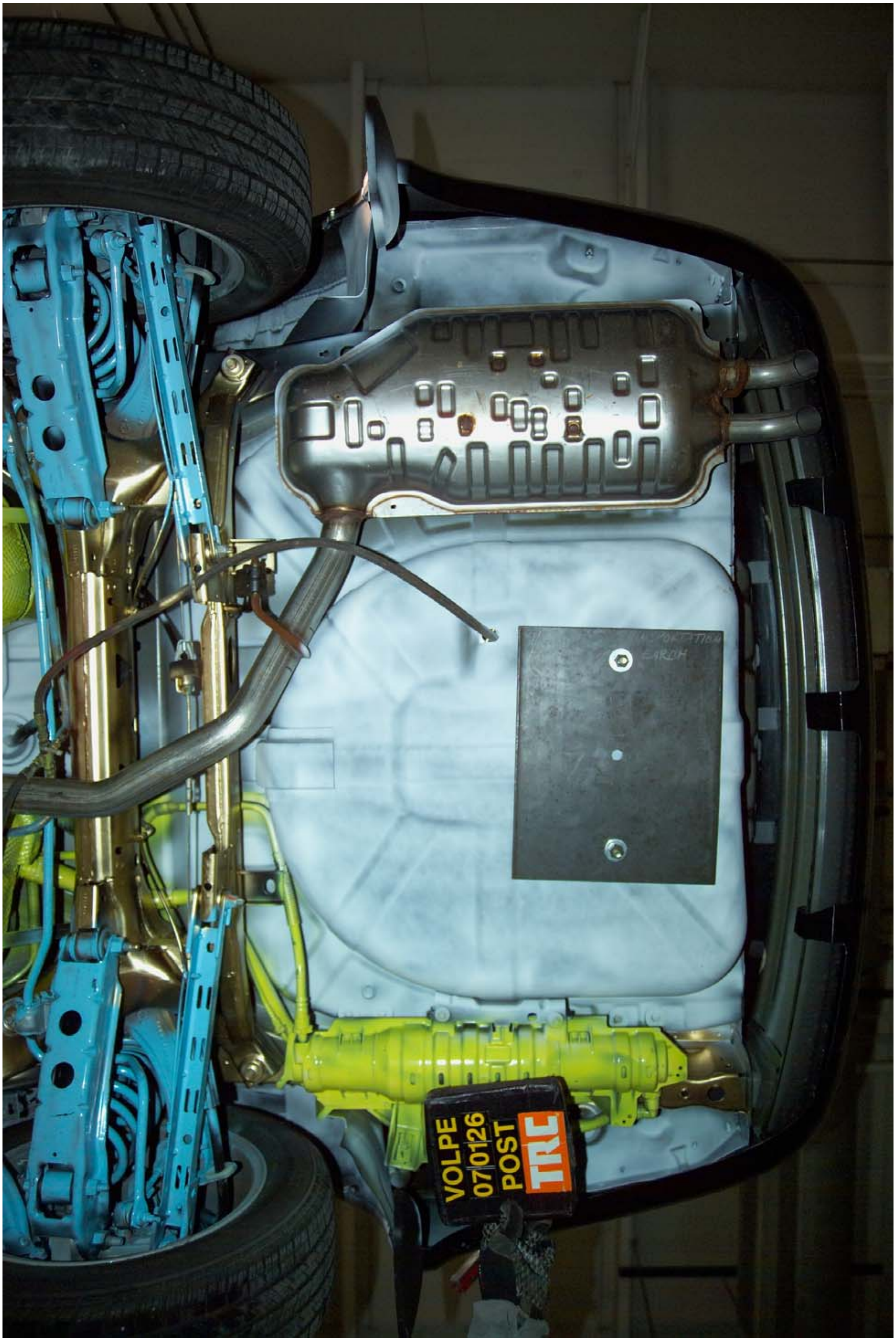


Figure A-32 Post-Test Rear Underbody View

Photograph Not Available

Figure A-33 Pre-Test Fuel Tank View

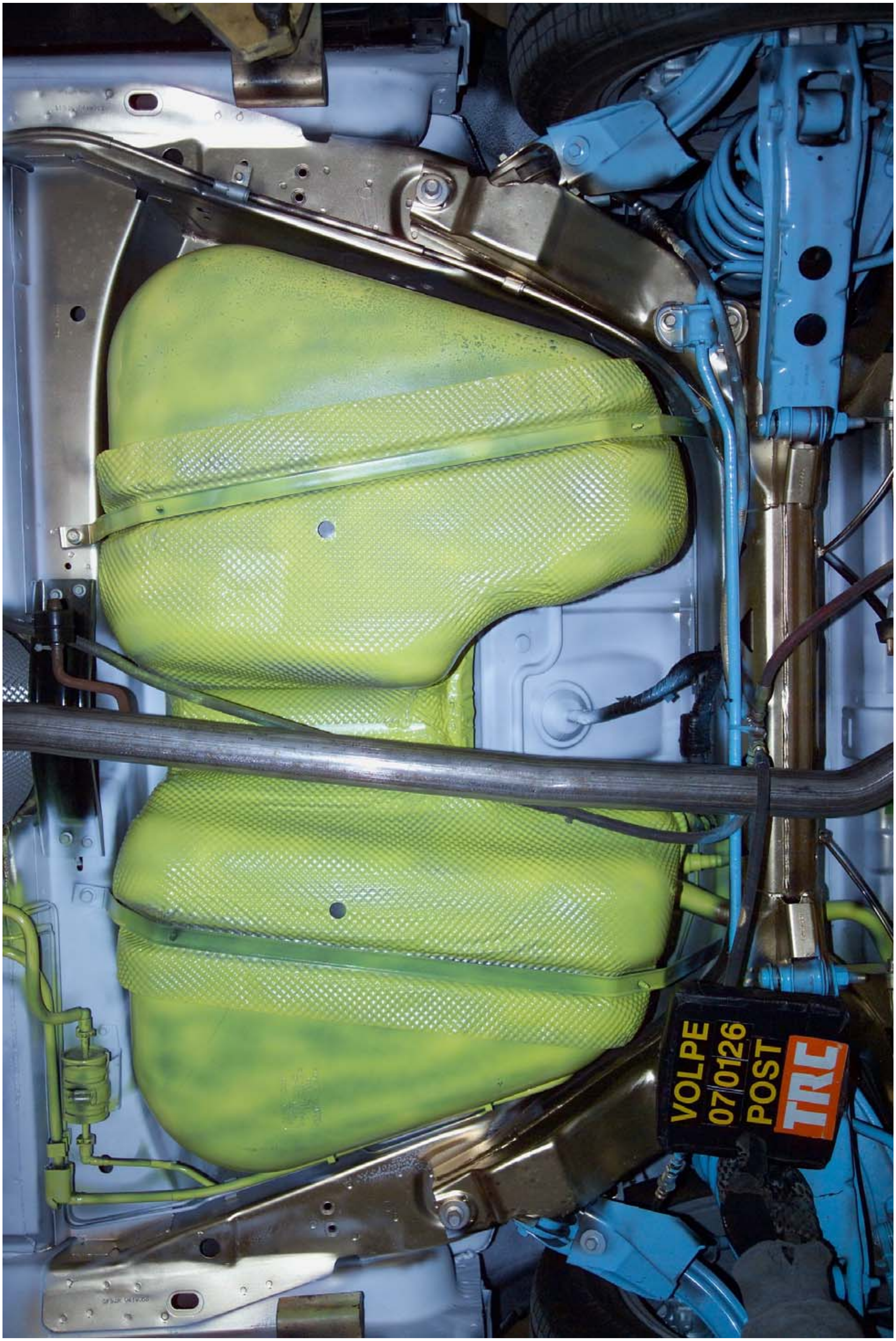


Figure A-34 Post-Test Fuel Tank View

Photograph Not Available

Figure A-35 Pre-Test Fuel Filler Neck View

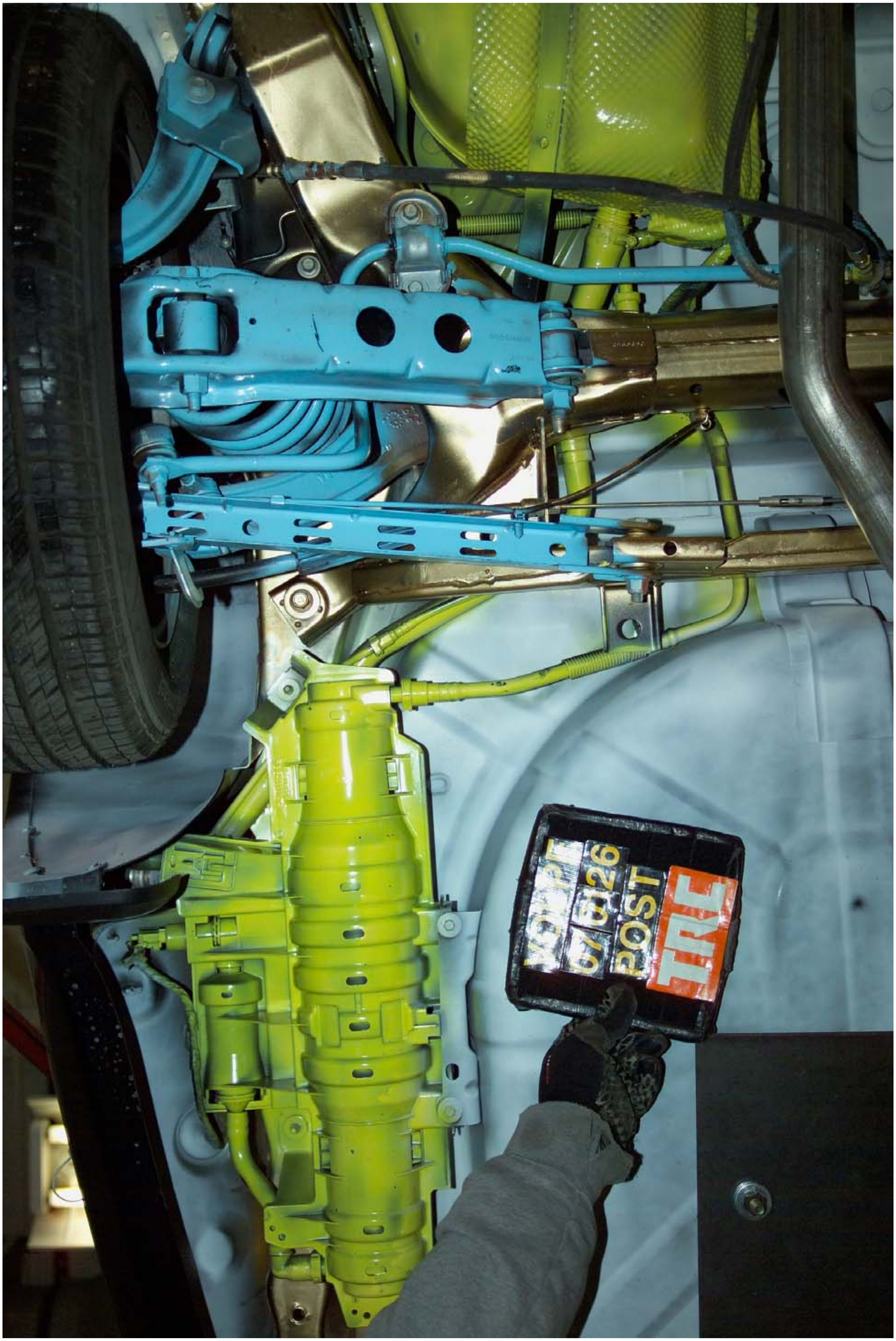


Figure A-36 Post-Test Fuel Filler Neck View

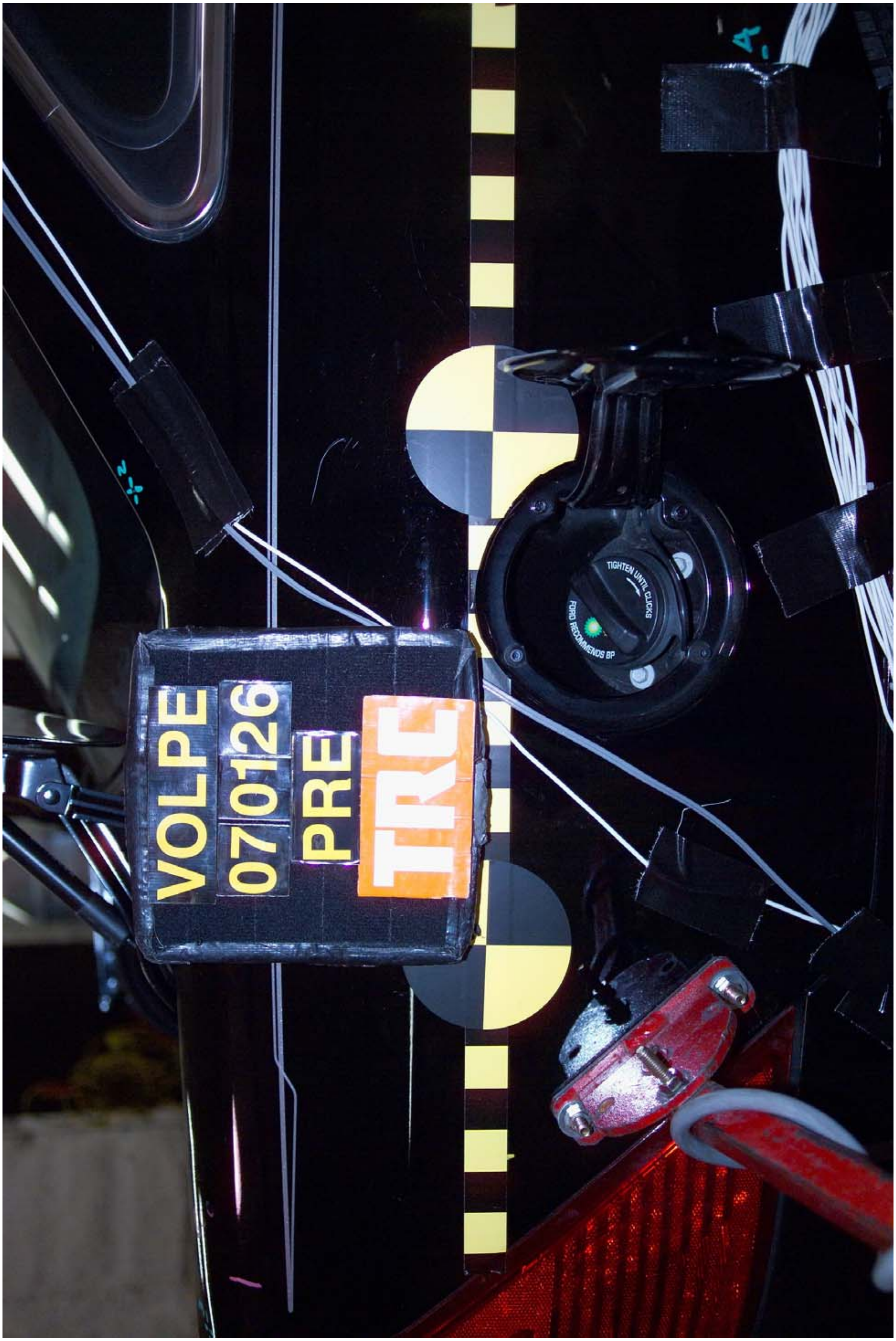


Figure A-37 Pre-Test Fuel Filler Cap View

Figure A-38 Post-Test Fuel Filler Cap View

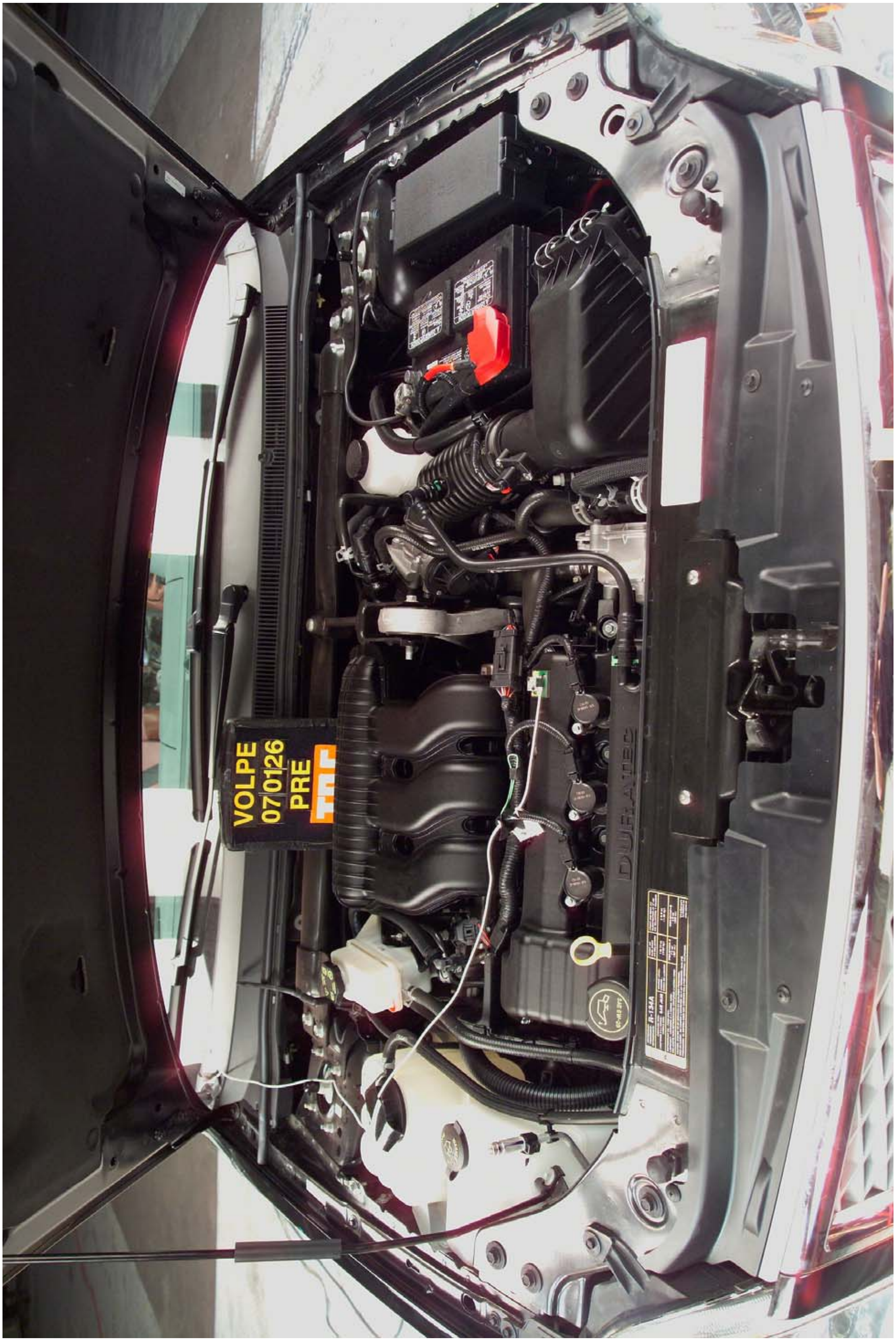


Figure A-39 Pre-Test Engine Compartment View

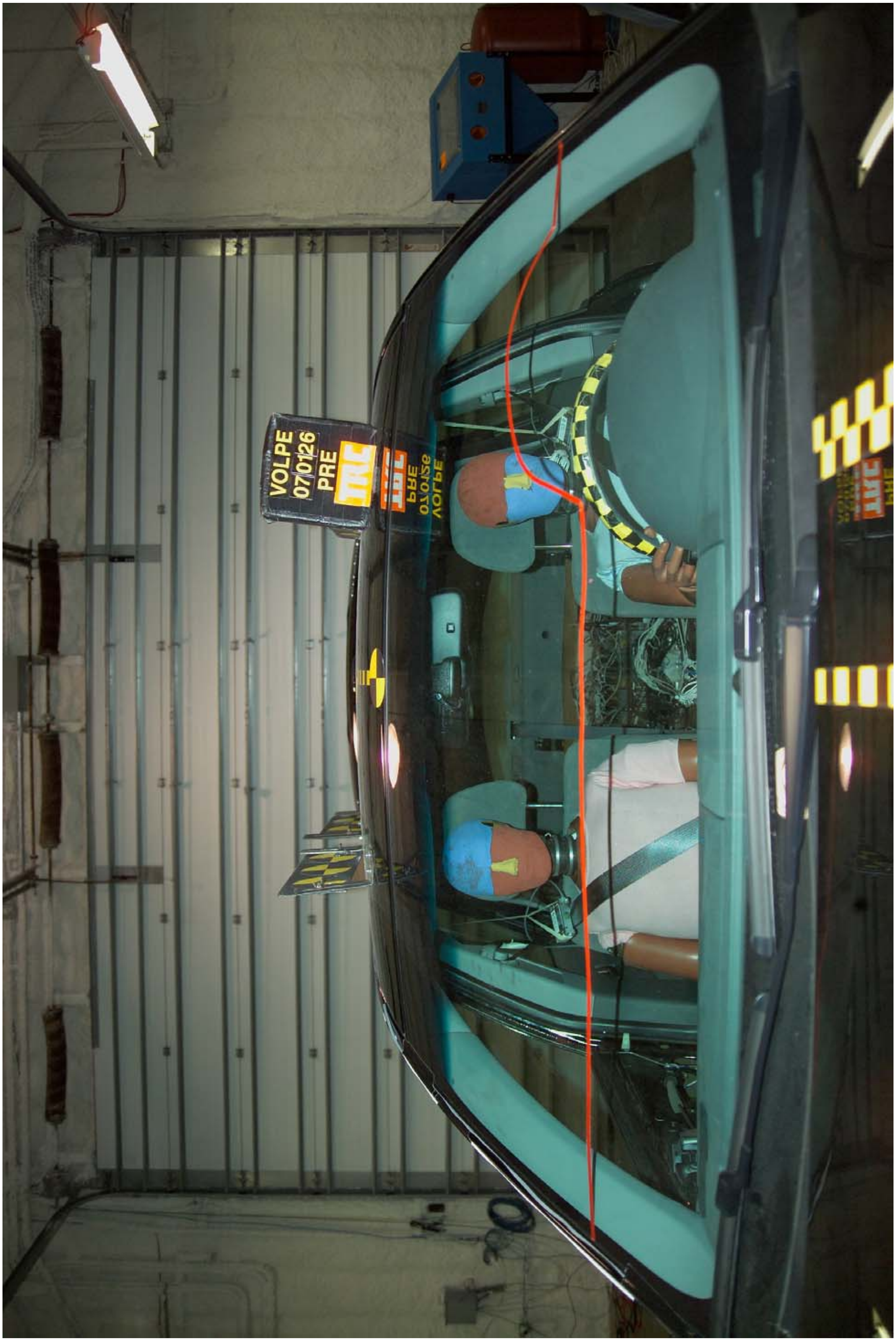


Figure A-40 Pre-Test Windshield - Front View

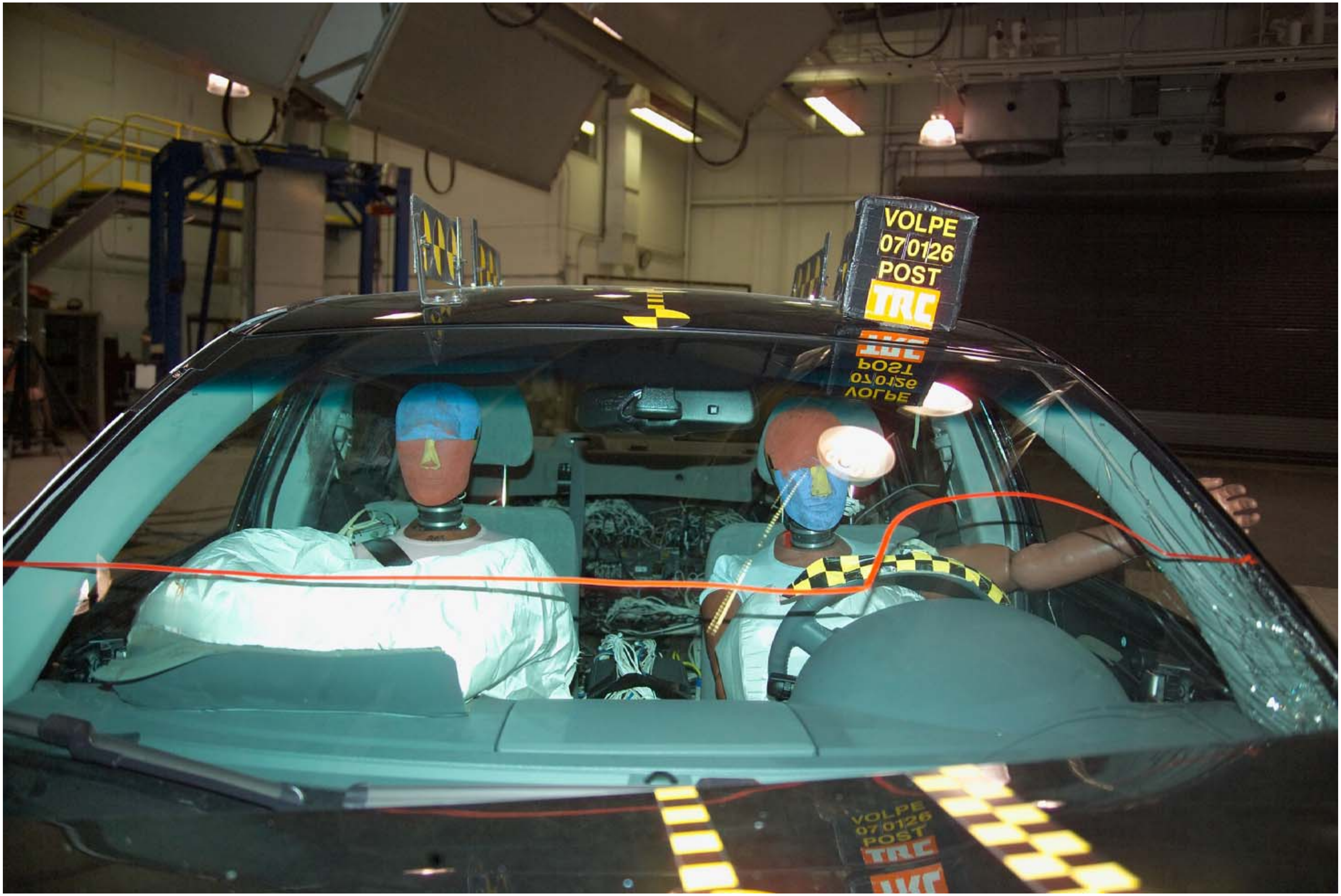


Figure A-41 Post-Test Windshield - Front View

Figure A-42 Pre-Test Windshield - Driver and Right Front Passenger Dummies View

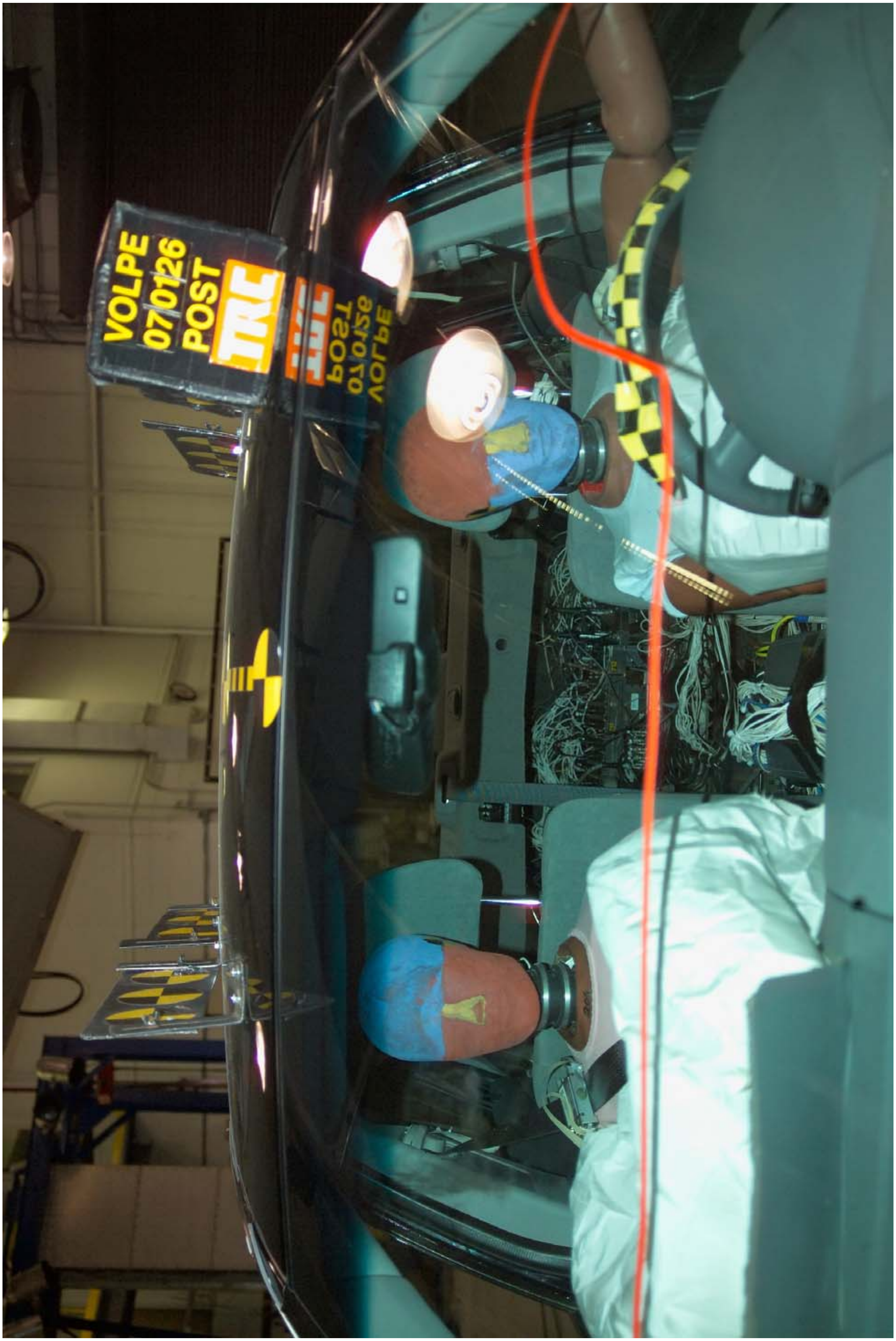


Figure A-43 Post-Test Windshield - Driver and Right Front Passenger Dummies View

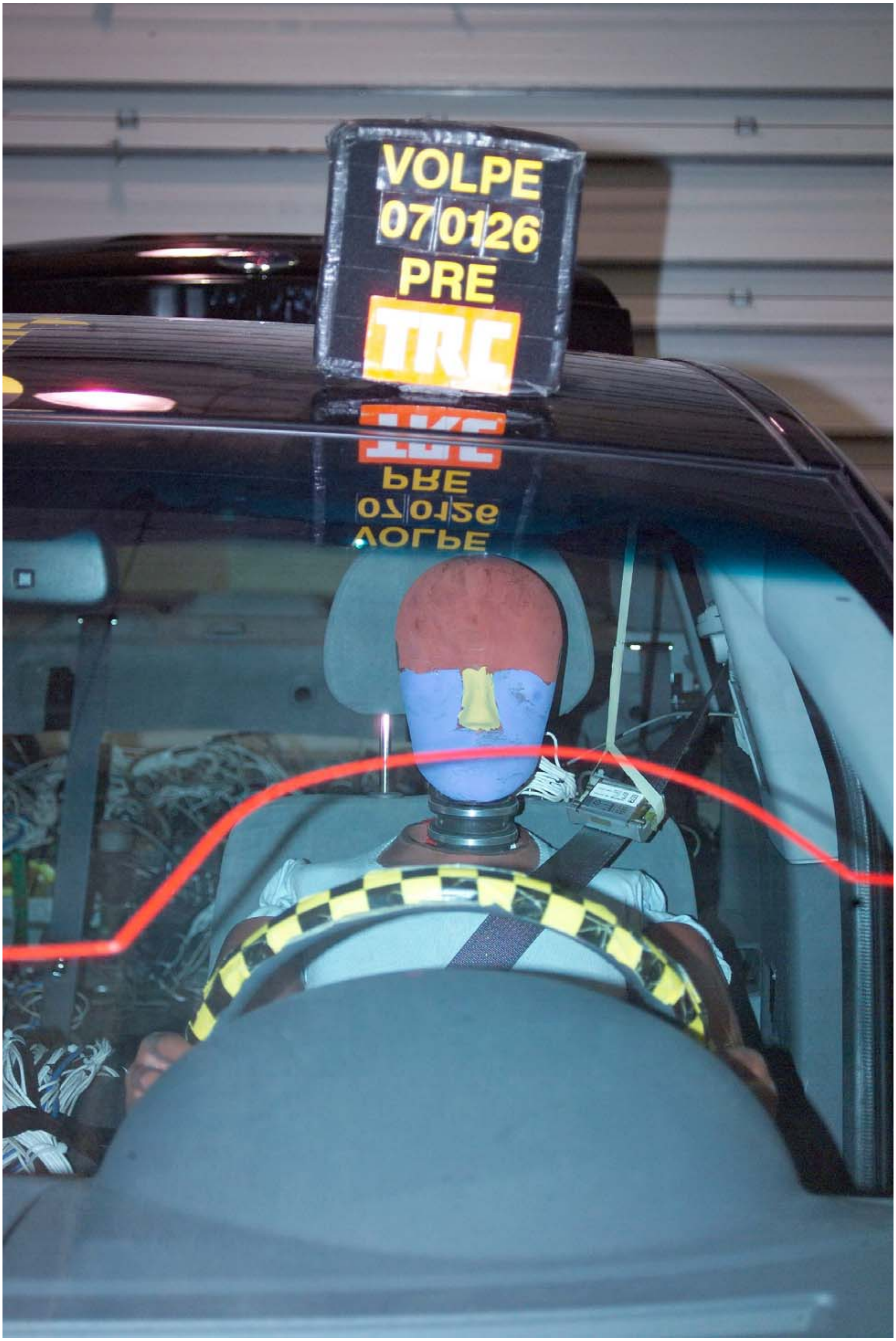


Figure A-44 Pre-Test Windshield - Driver Dummy View

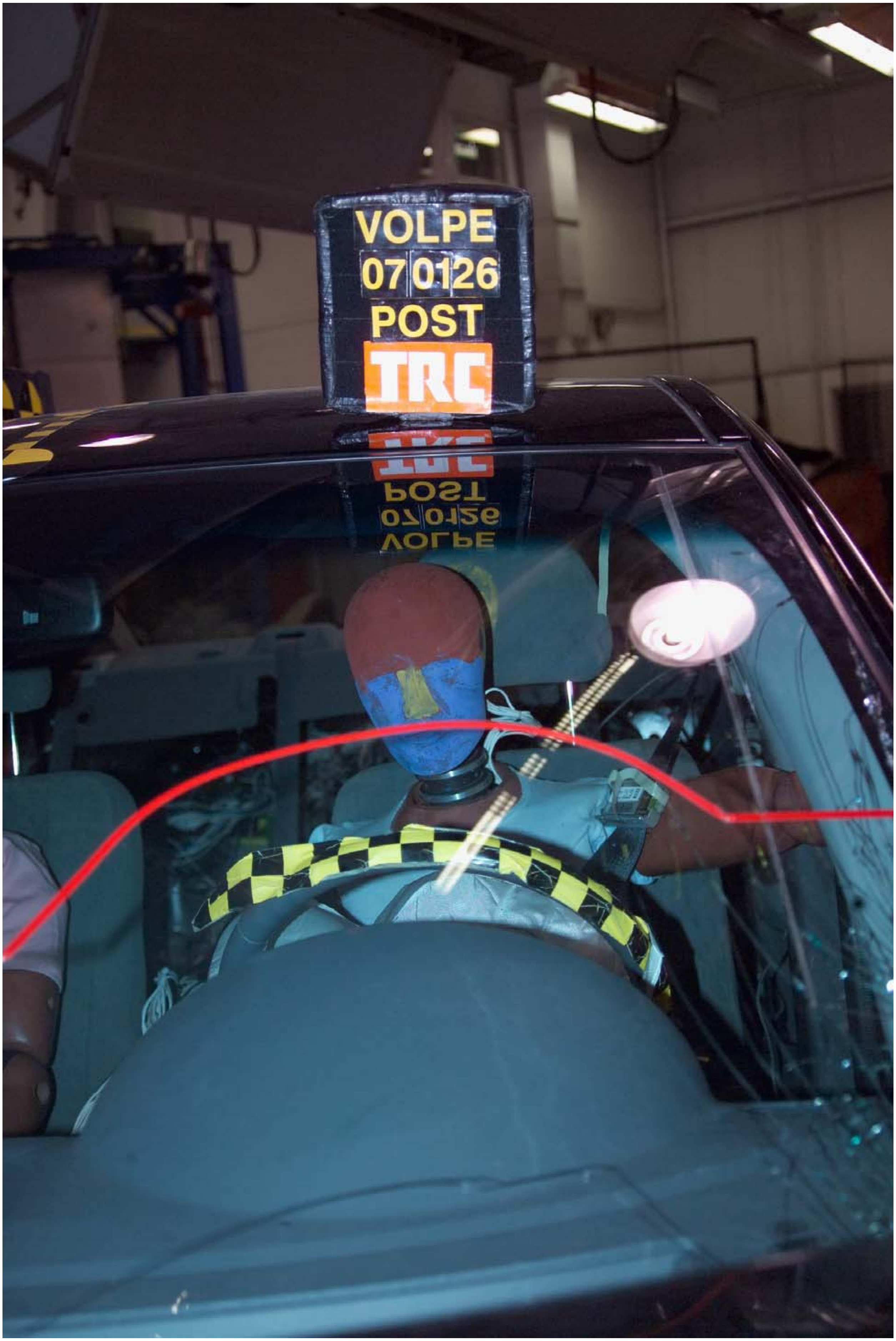


Figure A-45 Post-Test Windshield - Driver Dummy View

Figure A-46 Pre-Test Driver Dummy - View 1

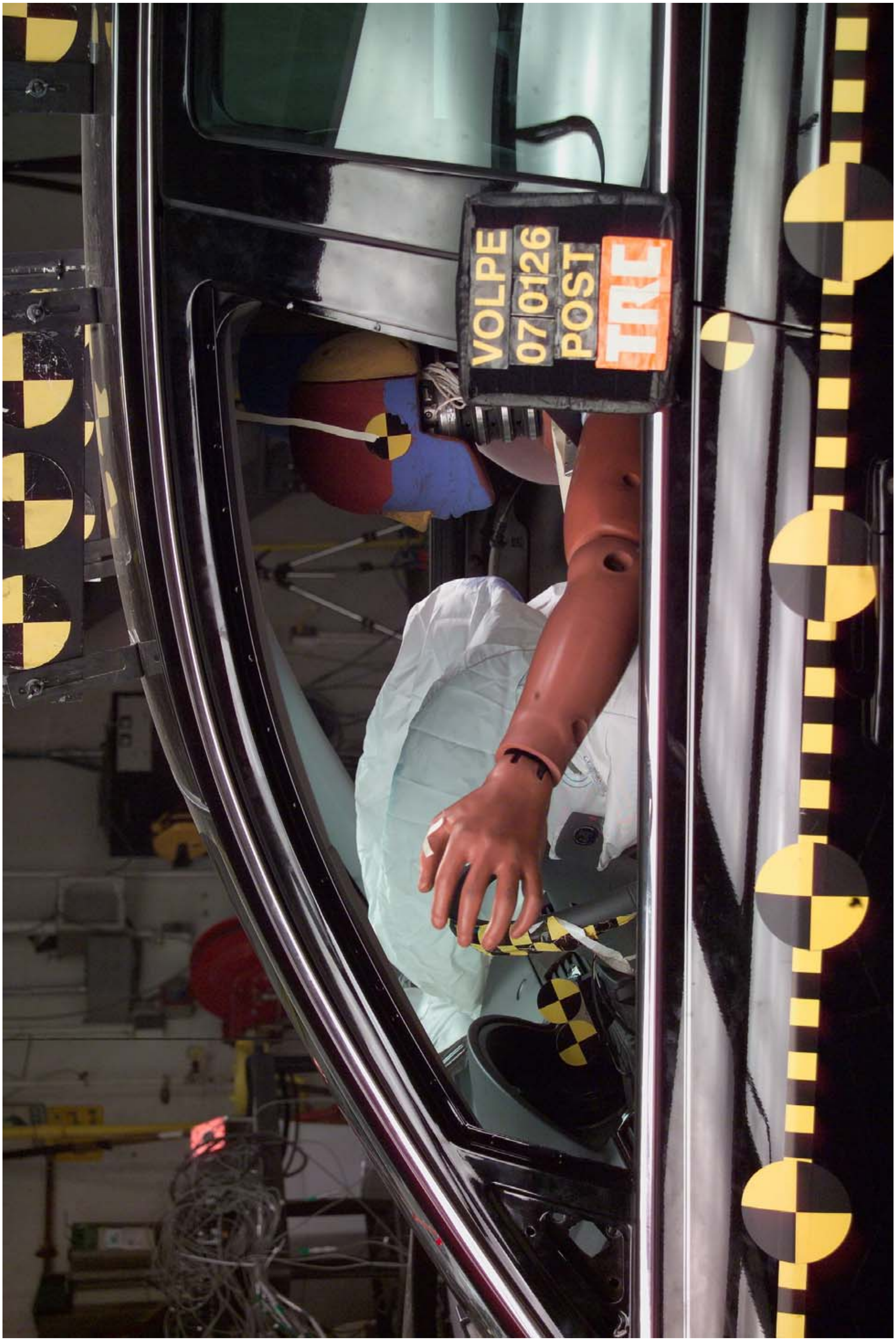


Figure A-47 Post-Test Driver Dummy - View 1

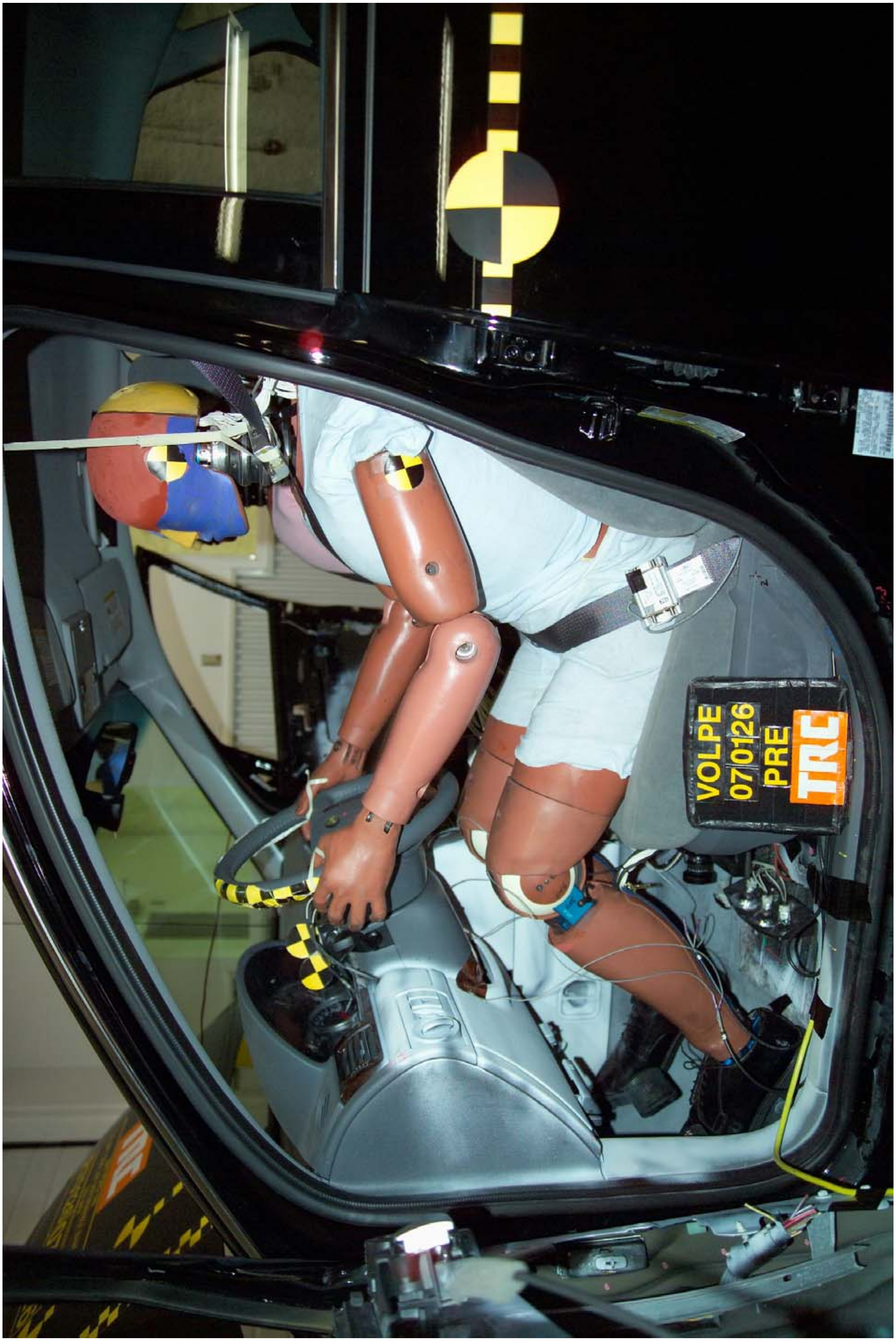


Figure A-48 Pre-Test Driver Dummy - View 2

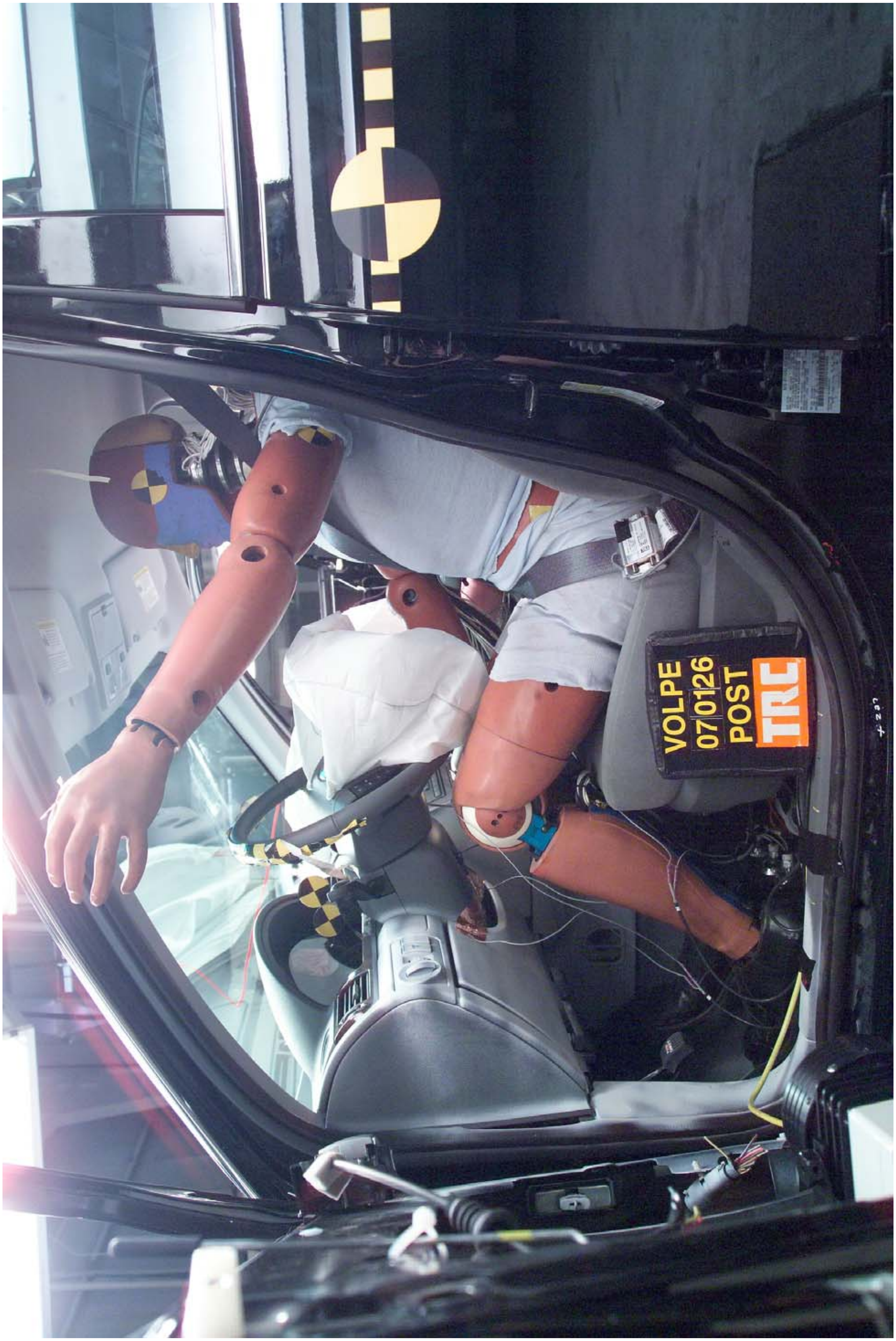


Figure A-49 Post-Test Driver Dummy - View 2

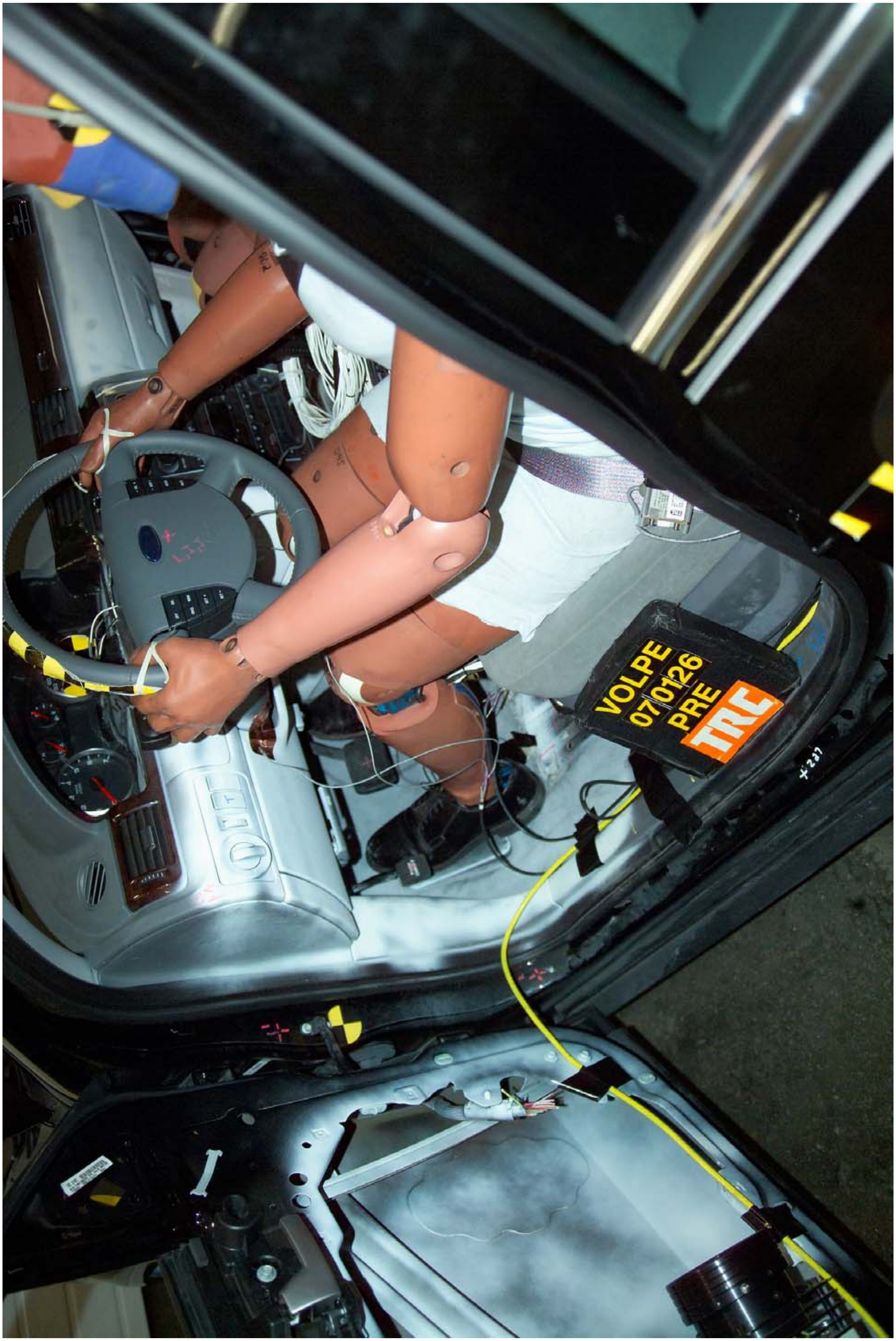


Figure A-50 Pre-Test Driver Dummy - View 3

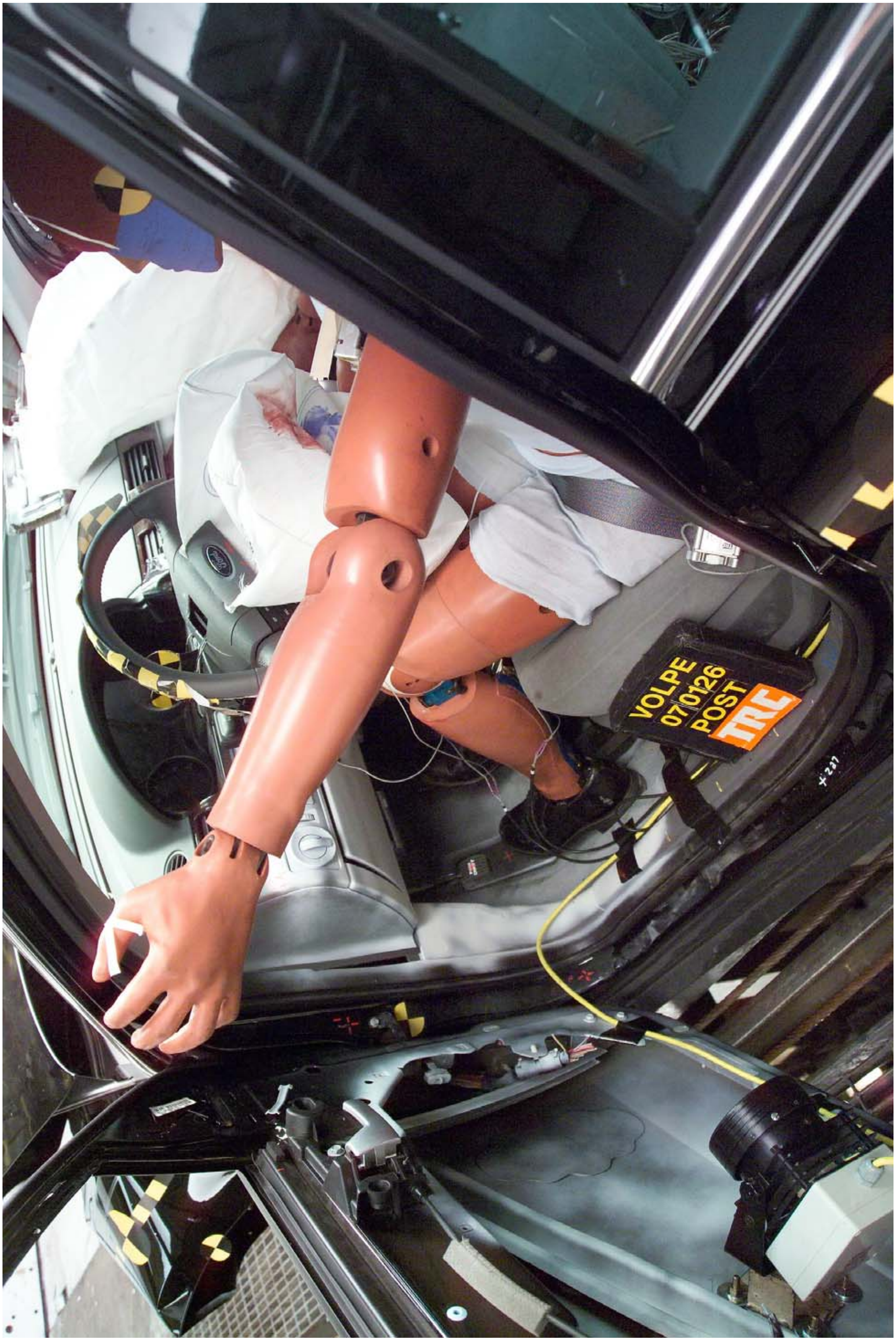


Figure A-51 Post-Test Driver Dummy - View 3

Figure A-52 Post-Test Driver Dummy Overall View

Figure A-53 Post-Test Driver Dummy Head Contact View 1

Figure A-54 Post-Test Driver Dummy Head Contact View 2

Figure A-55 Post-Test Driver Dummy Knee Contact - View 1

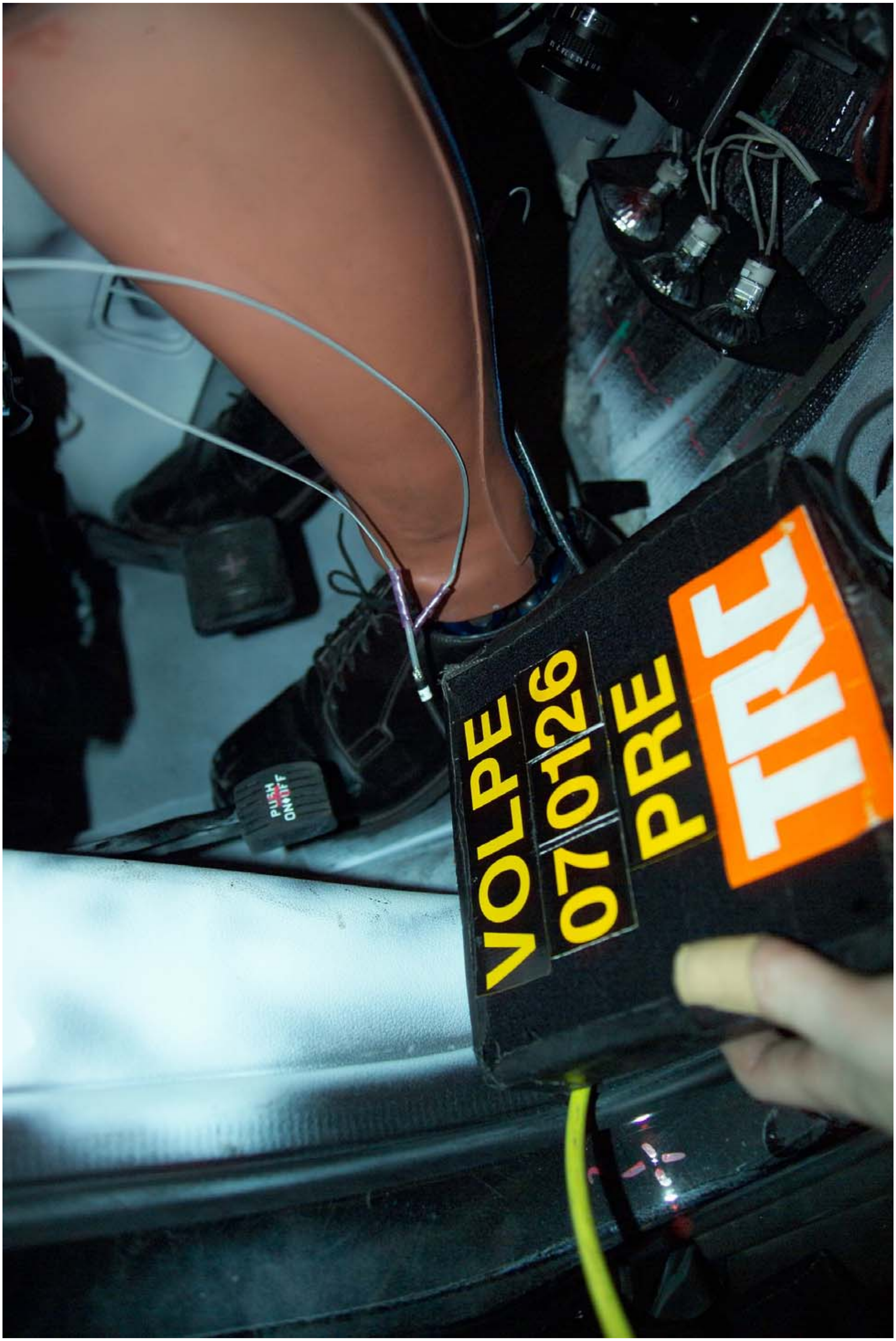


Figure A-56 Pre-Test Driver Floorboard Deformation - View 1

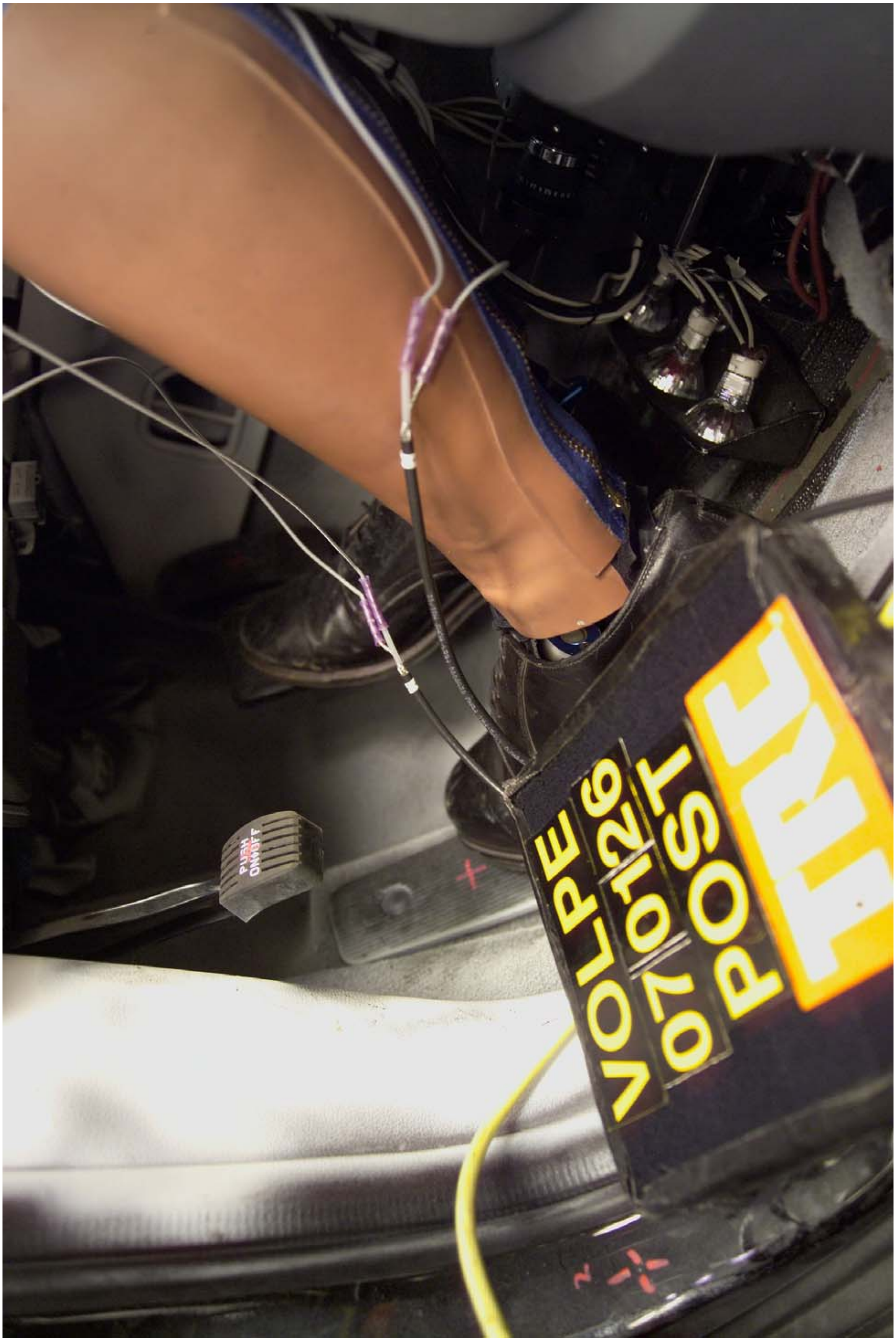


Figure A-57 Post-Test Driver Floorboard Deformation - View 1

Figure A-58 Post-Test Driver Floorboard Deformation - View 2

Figure A-59 Post-Test Driver Floorboard Deformation - View 3

Figure A-60 Pre-Test Driver Toeboard Deformation View

Figure A-61 Post-Test Driver Toeboard Deformation View

Figure A-62 Pre-Test Right Front Passenger Dummy - View 1

Figure A-63 Post-Test Right Front Passenger Dummy - View 1

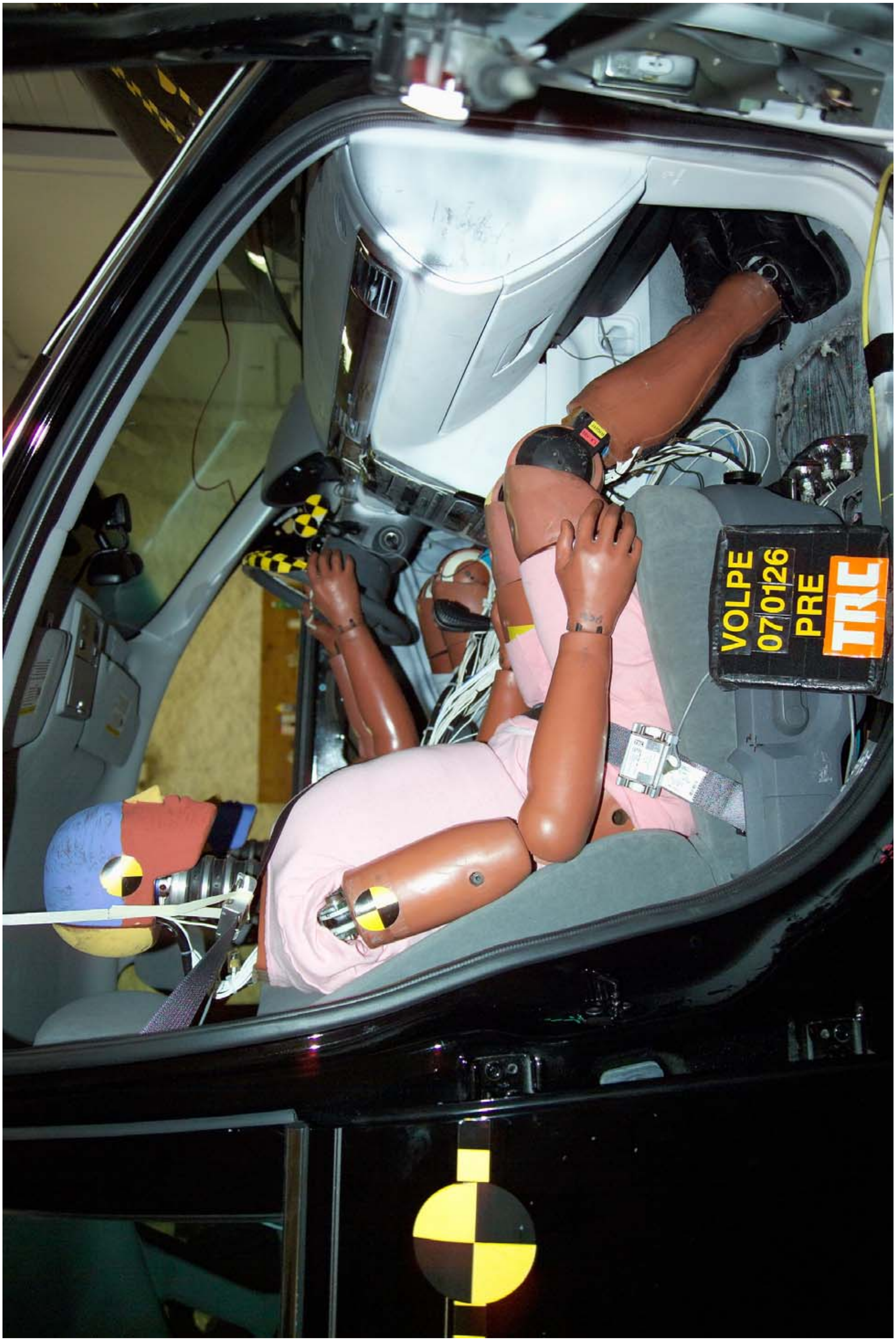


Figure A-64 Pre-Test Right Front Passenger Dummy - View 2

Figure A-65 Post-Test Right Front Passenger Dummy - View 2

Figure A-66 Pre-Test Right Front Passenger Dummy - View 3

Figure A-67 Post-Test Right Front Passenger Dummy - View 3

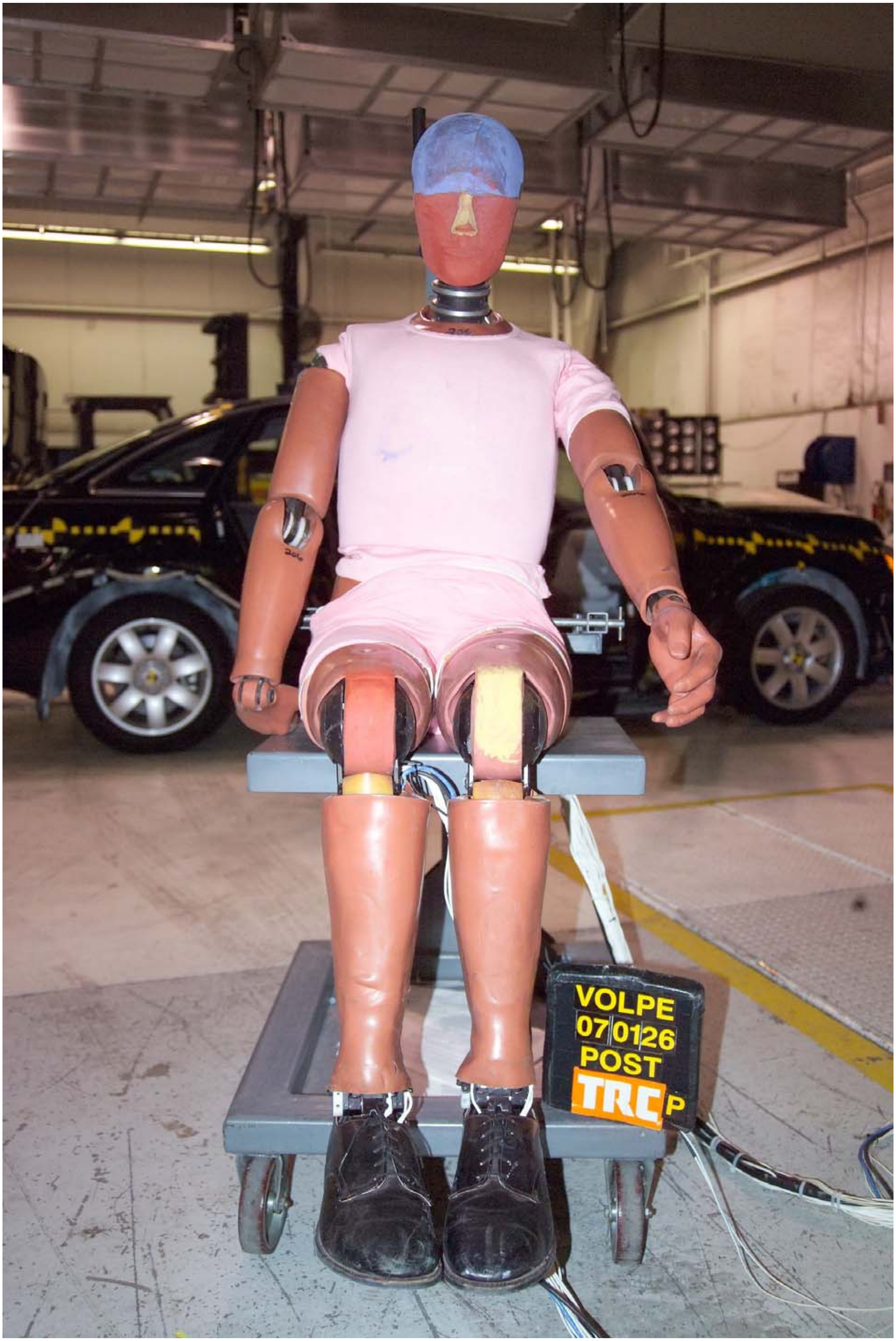


Figure A-68 Post-Test Right Front Passenger Dummy Overall View

Figure A-69 Post-Test Right Front Passenger Dummy Head Contact - View 1

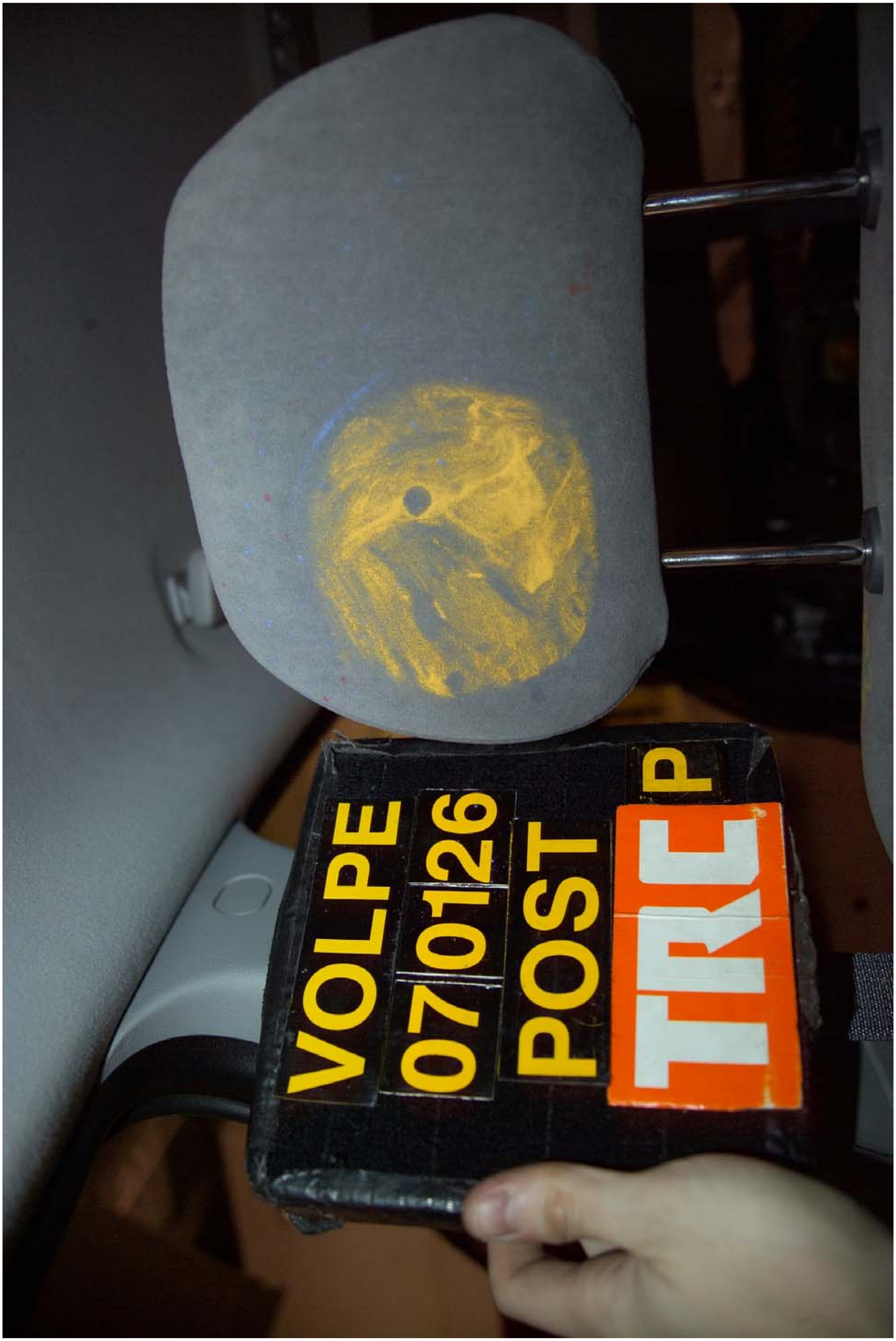


Figure A-70 Post-Test Right Front Passenger Dummy Head Contact - View 2

Figure A-71 Post-Test Right Front Passenger Dummy Knee Contact View

Figure A-72 Post-Test Right Front Passenger Floorboard Deformation View

Figure A-73 Post-Test Right Front Passenger Toeboard Deformation View

Figure A-74 Pre-Test Barrier Front View

Figure A-75 Post-Test Barrier Front View

Figure A-76 Pre-Test Barrier Left Side View

Figure A-77 Post-Test Barrier Left Side View

Figure A-78 Pre-Test Barrier Right Side View

Figure A-79 Post-Test Barrier Right Side View

Figure A-80 Pre-Test Barrier Top View

Figure A-81 Post-Test Barrier Top View

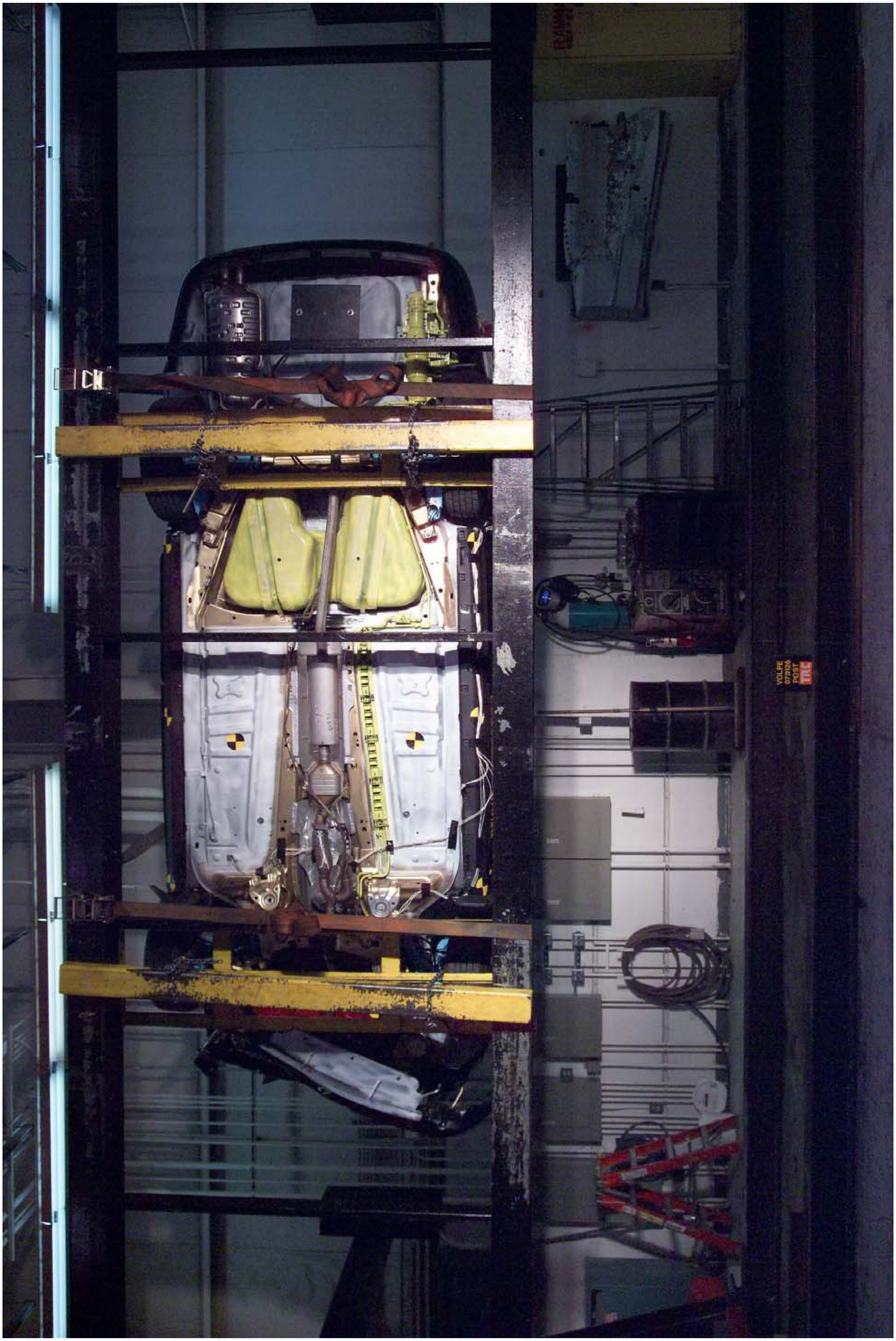


Figure A-82 Vehicle on Rollover Device - 90°

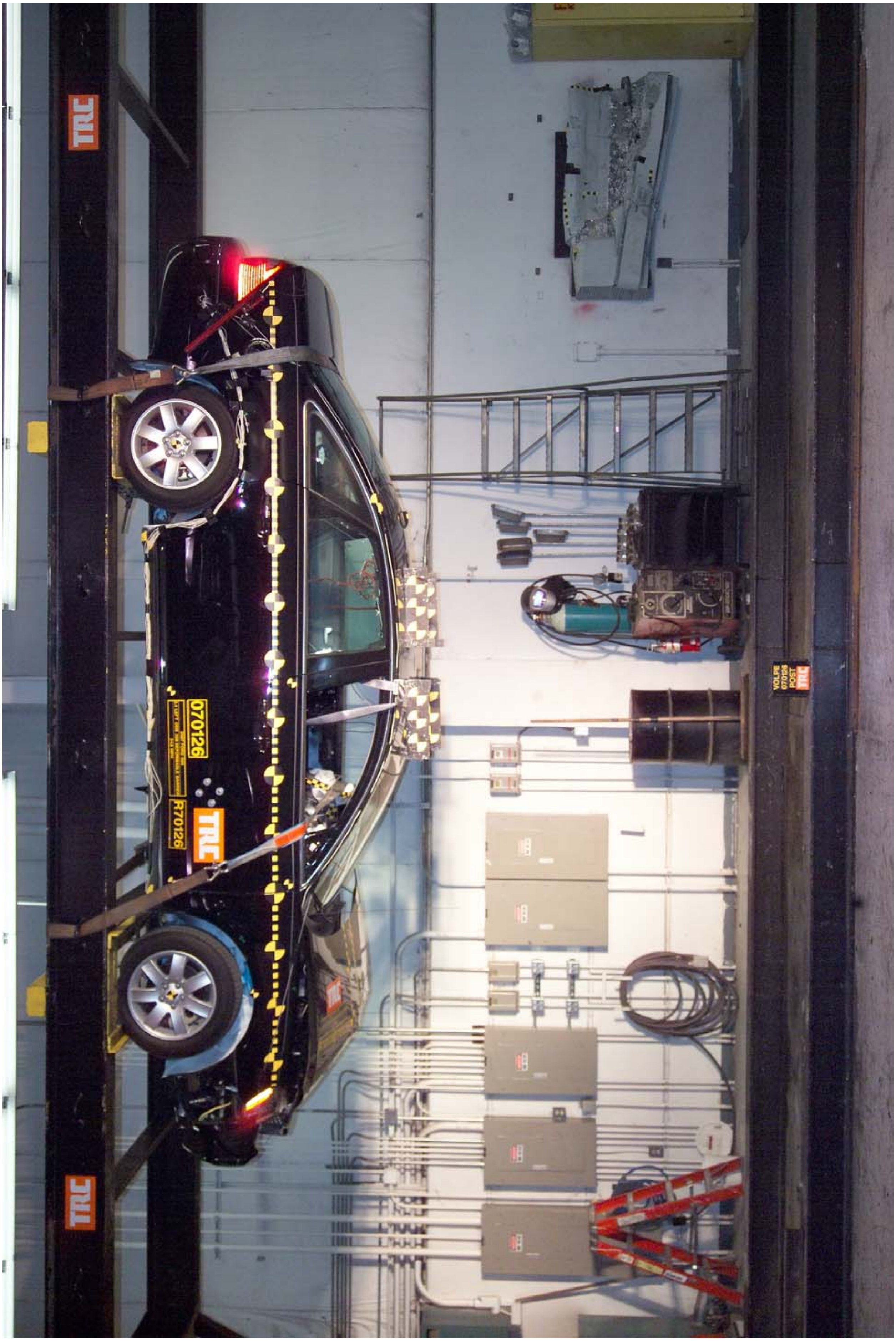


Figure A-83 Vehicle on Rollover Device - 180°

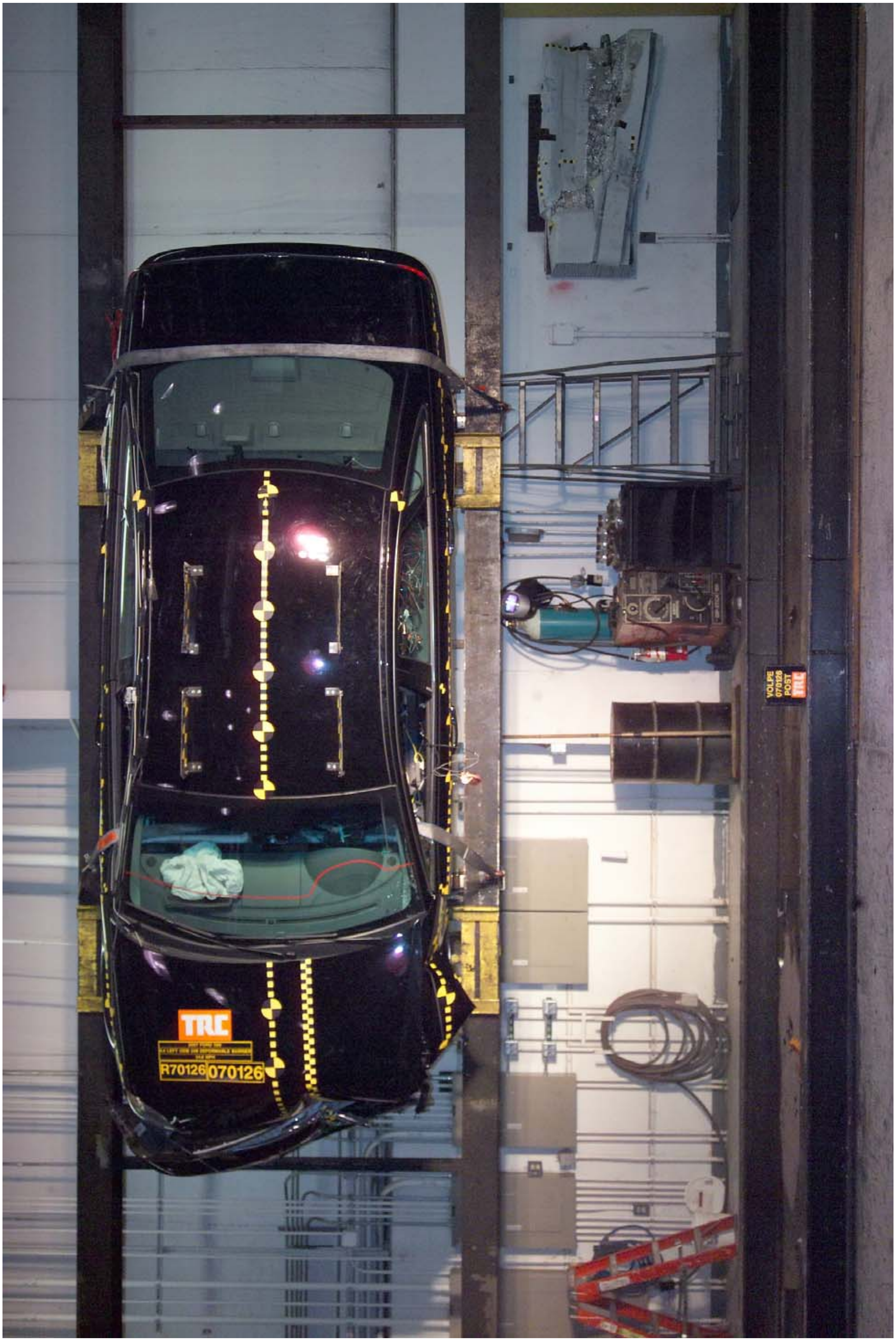


Figure A-84 Vehicle on Rollover Device - 270°

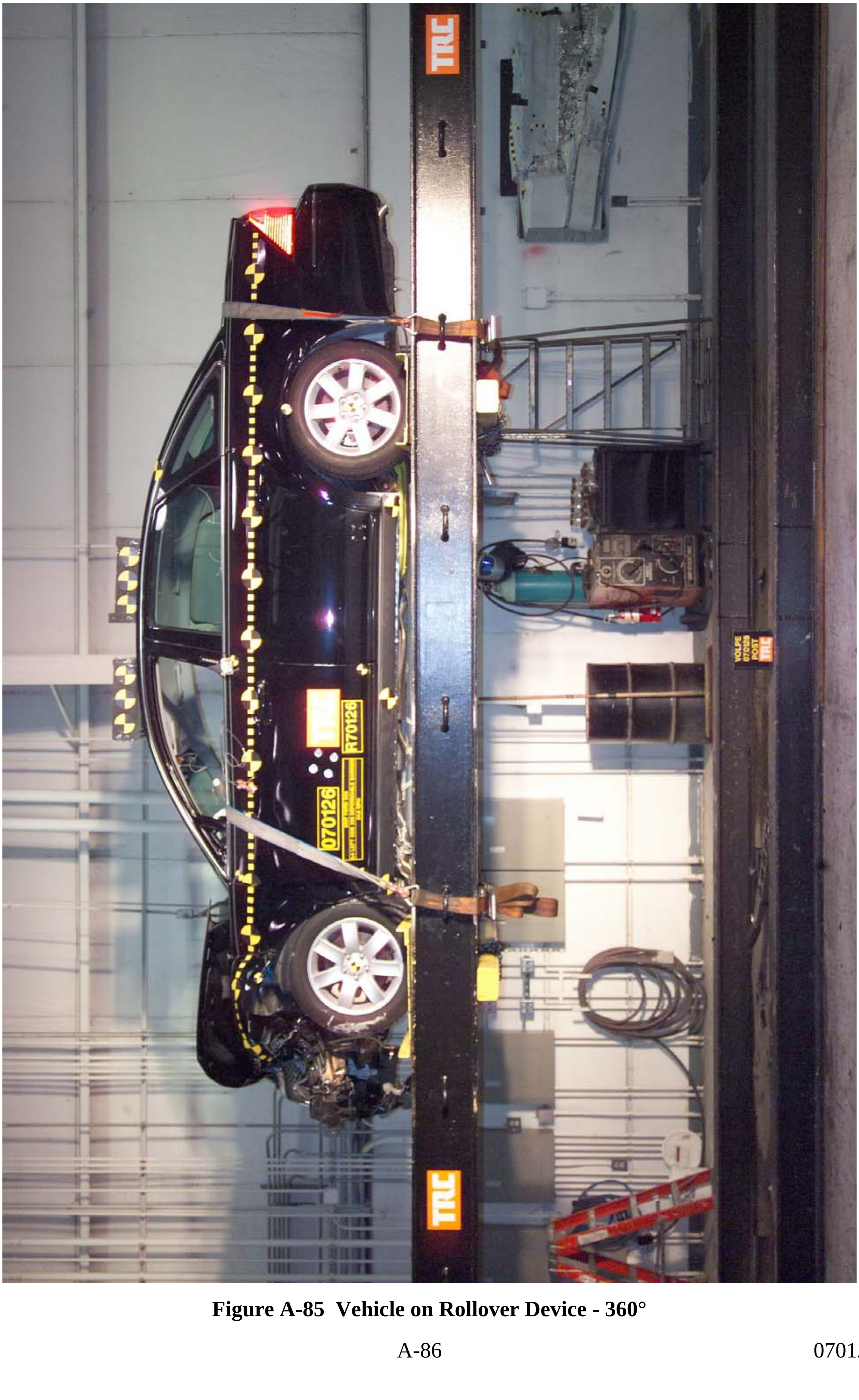


Figure A-85 Vehicle on Rollover Device - 360°

Figure A-86 Vehicle Certification Label View

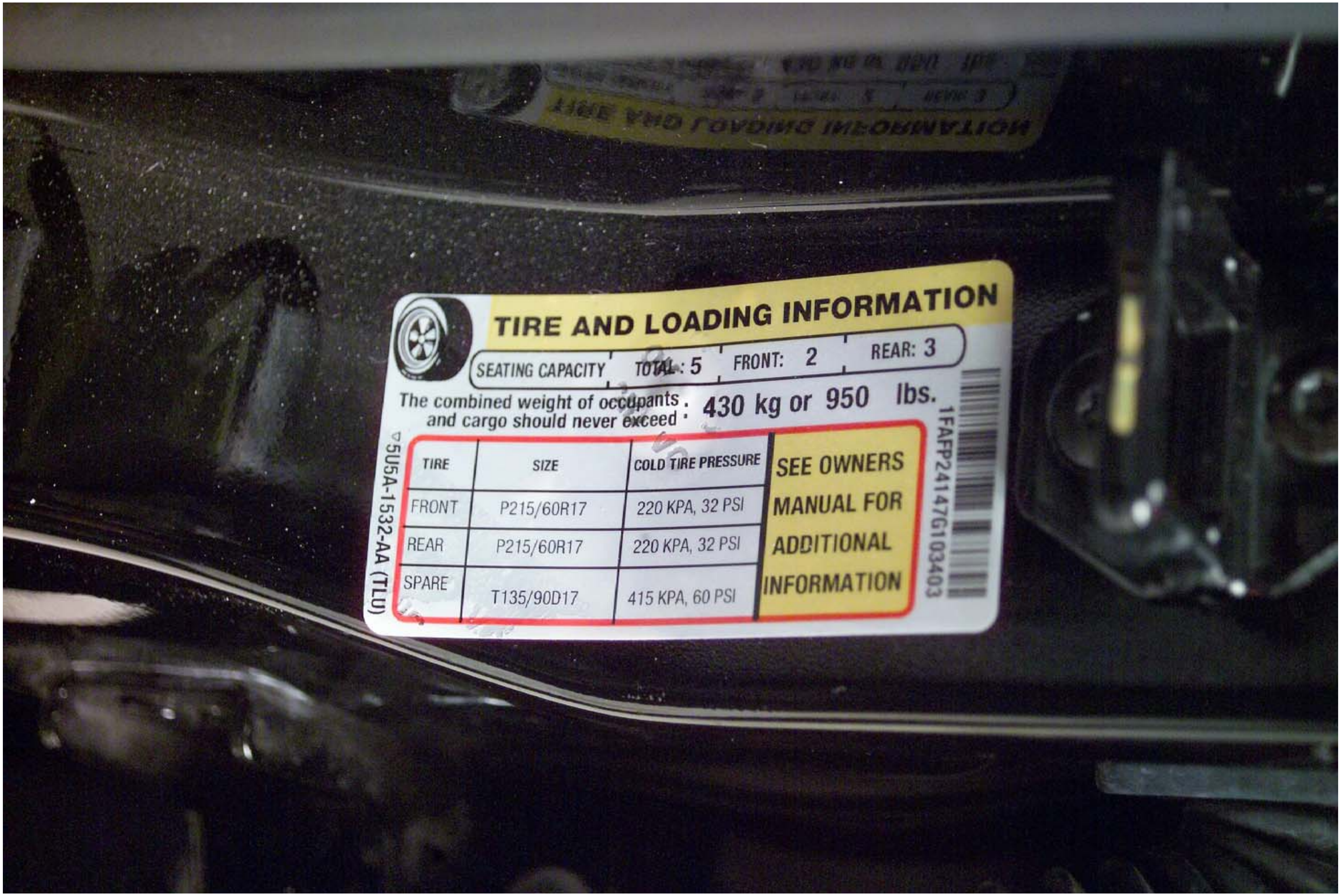


Figure A-87 Vehicle Tire Load Label View

Figure A-88 Post-Test Digital Light Trap Read-Out - View 1

Figure A-89 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

Table of Data Plots, Continued

Table of Data Plots, Continued

Table of Data Plots, Continued

Table of Data Plots, Continued

Table of Data Plots, Continued

Table of Data Plots, Continued

Table of Data Plots, Continued

Table of Data Plots, Continued

[1] Curve is not included in NHTSA database.

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

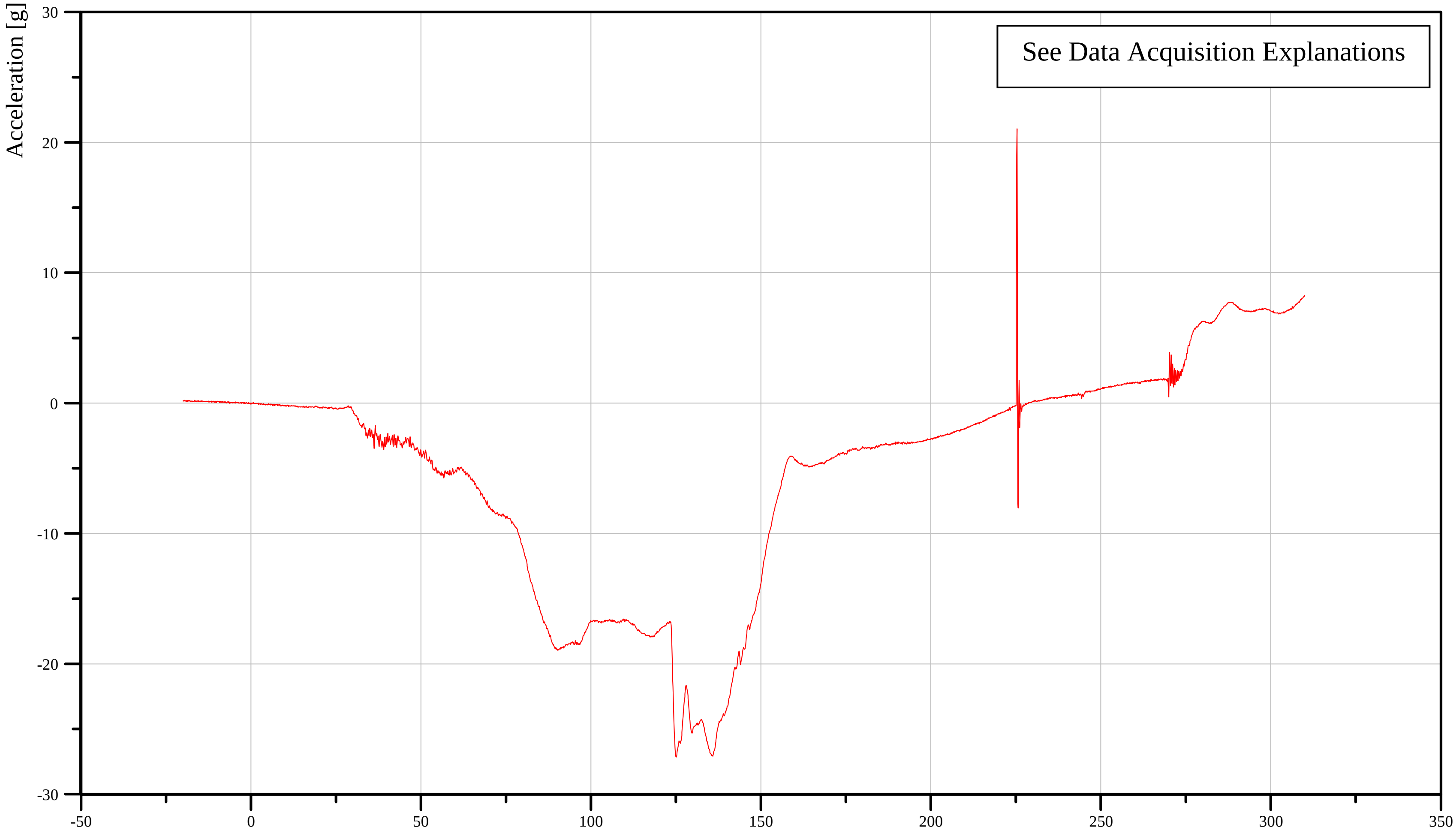
Driver Head X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-27.14 g at 125.12 ms

Max. Value
21.05 g at 225.36 ms

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

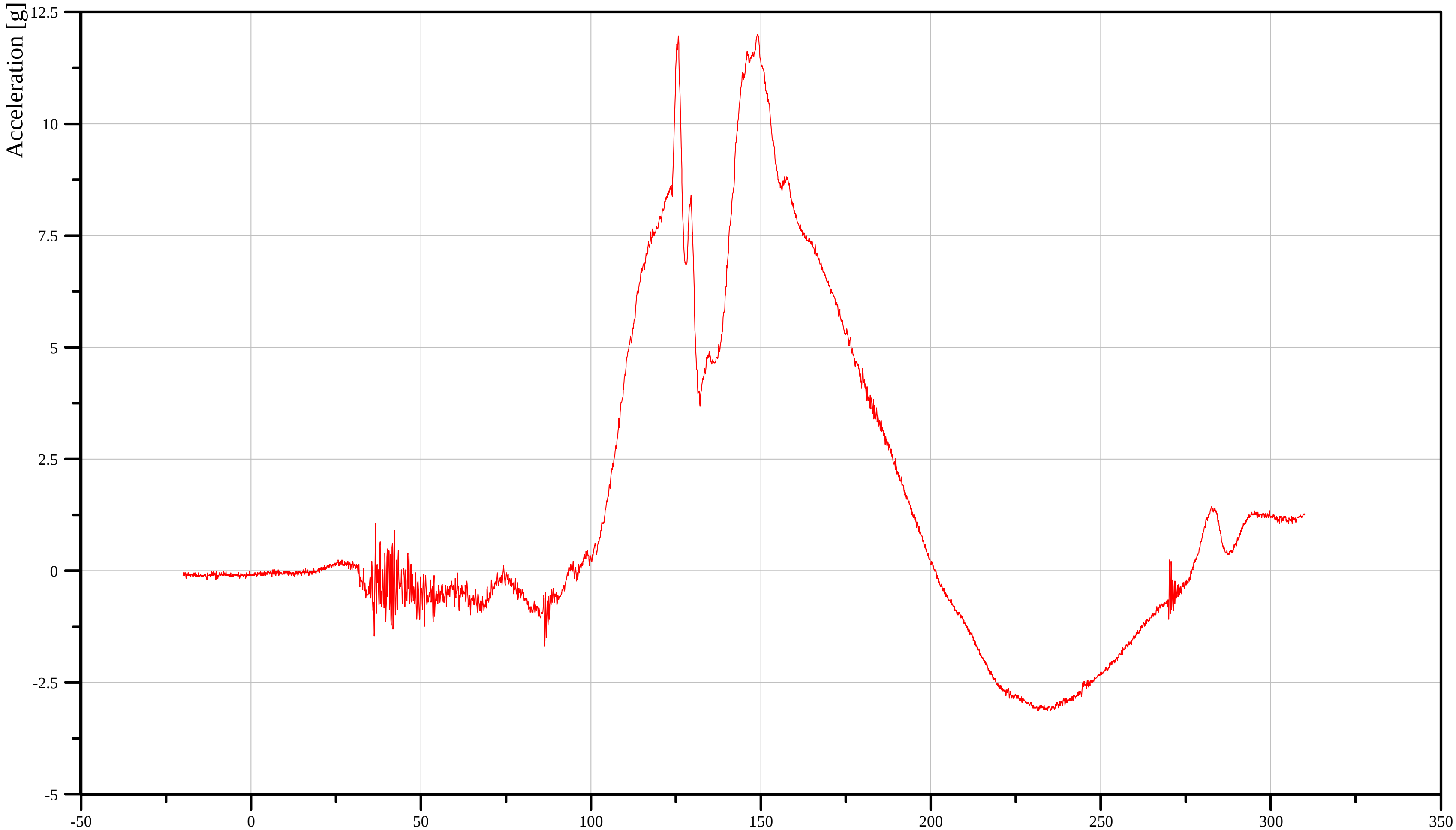
Driver Head Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-3.14 g at 231.28 ms

Max. Value
12.00 g at 149.04 ms

B-12

070126

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

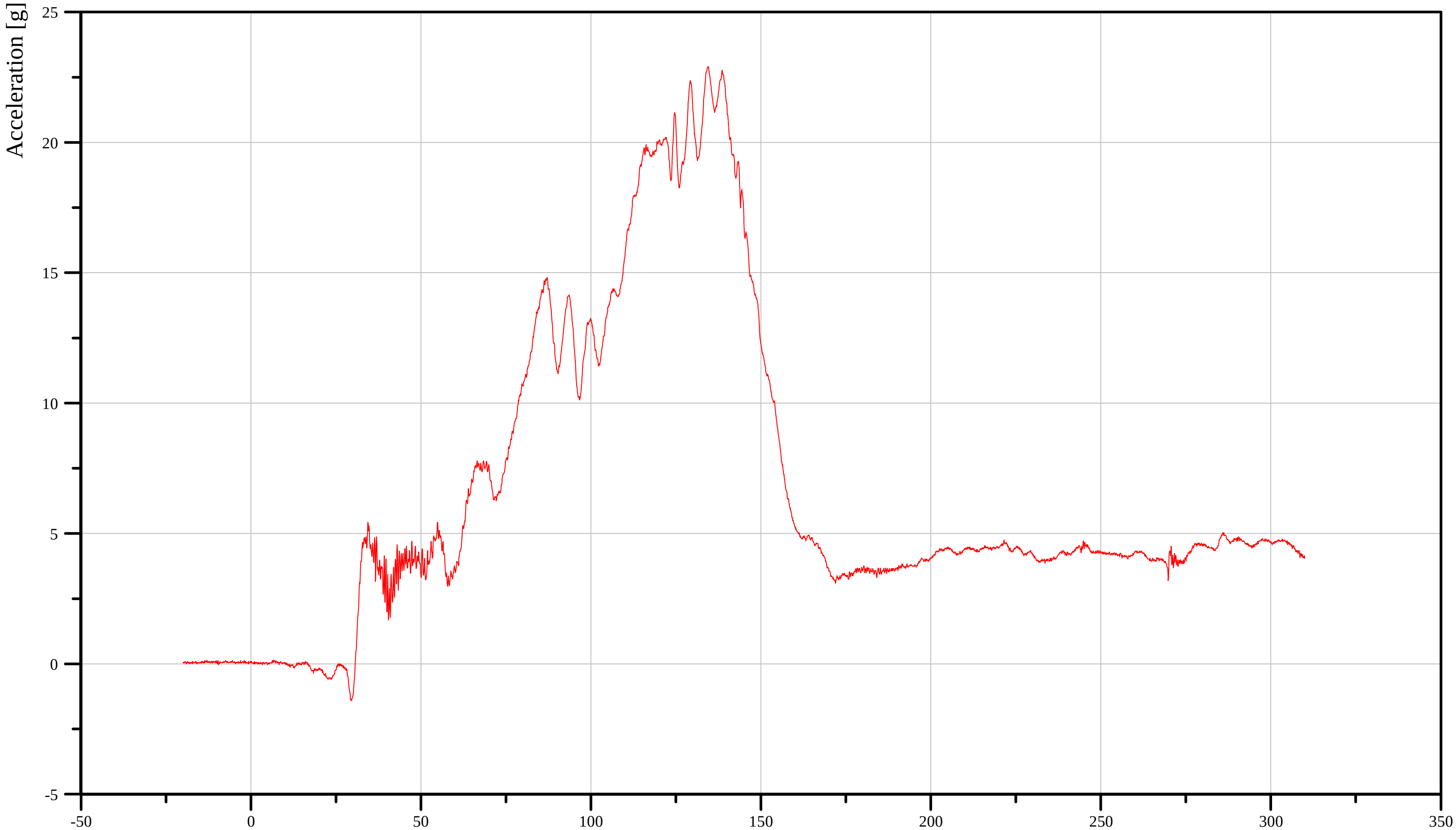
Driver Head Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-1.41 g at 29.52 ms

Max. Value
22.92 g at 134.48 ms

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

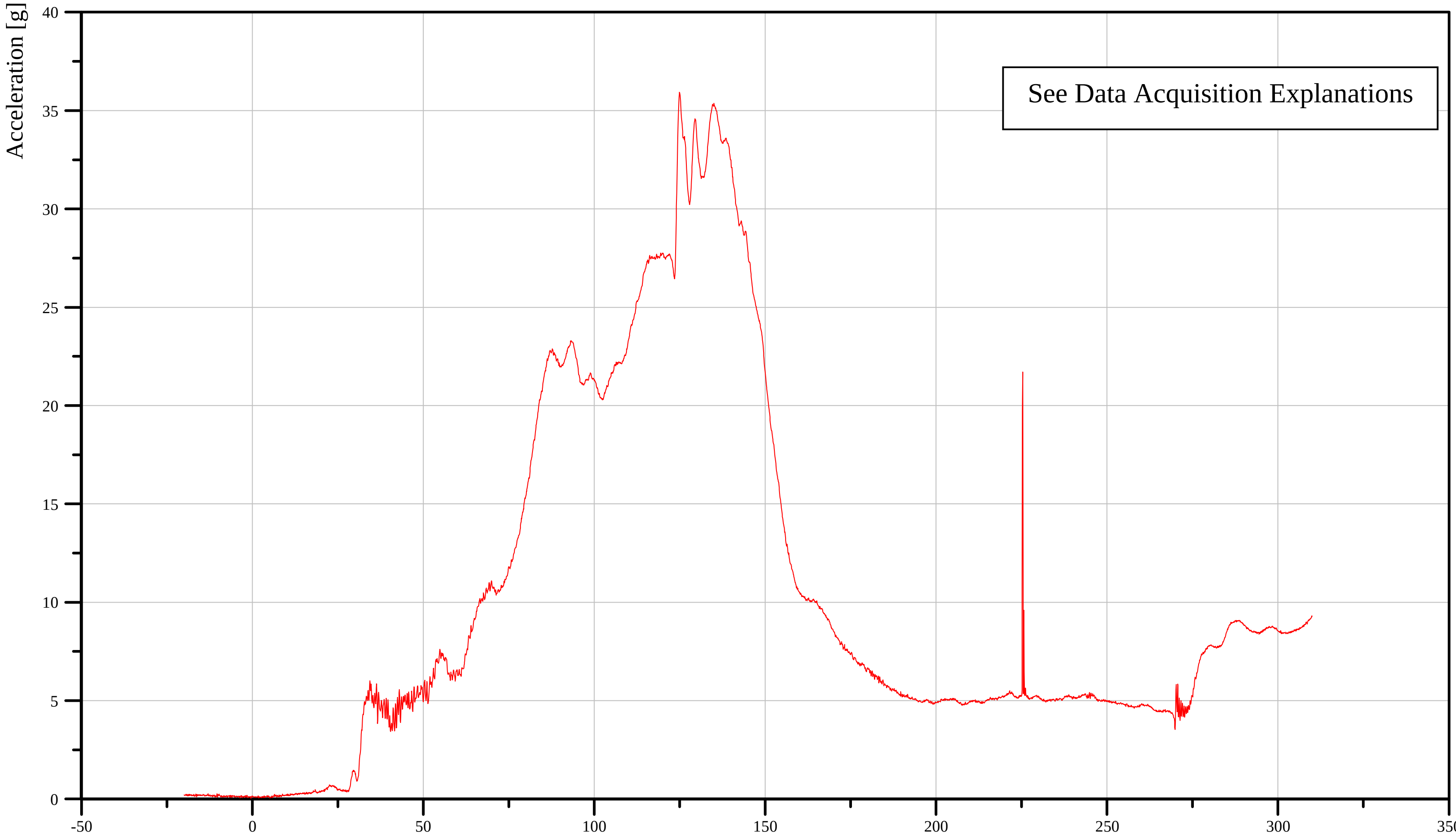
Driver Head Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.03 g at -0.40 ms

Max. Value
35.93 g at 124.96 ms

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

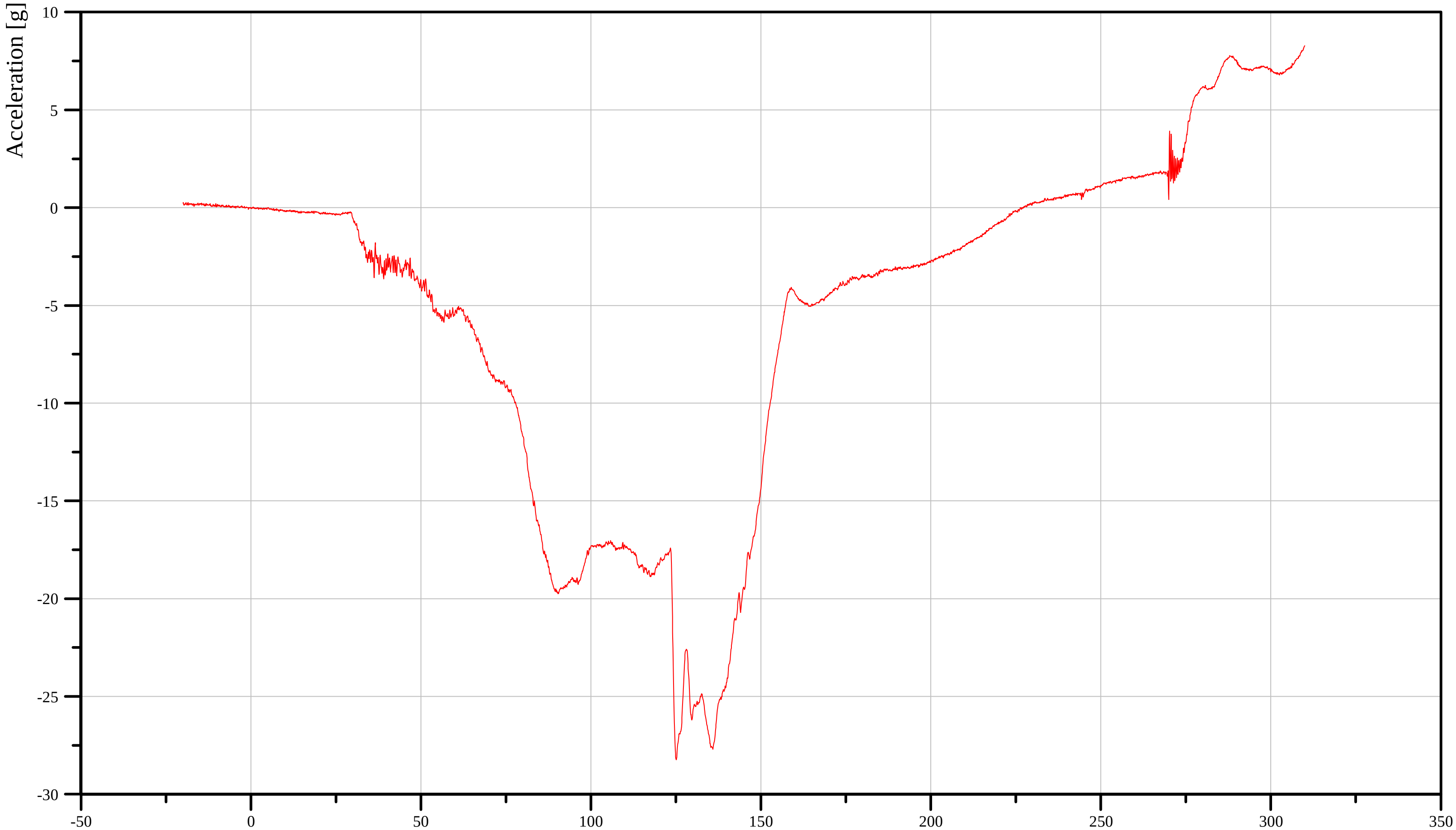
Driver Head X-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCGRDH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-28.23 g at 125.12 ms

Max. Value
8.28 g at 310.00 ms

070126

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

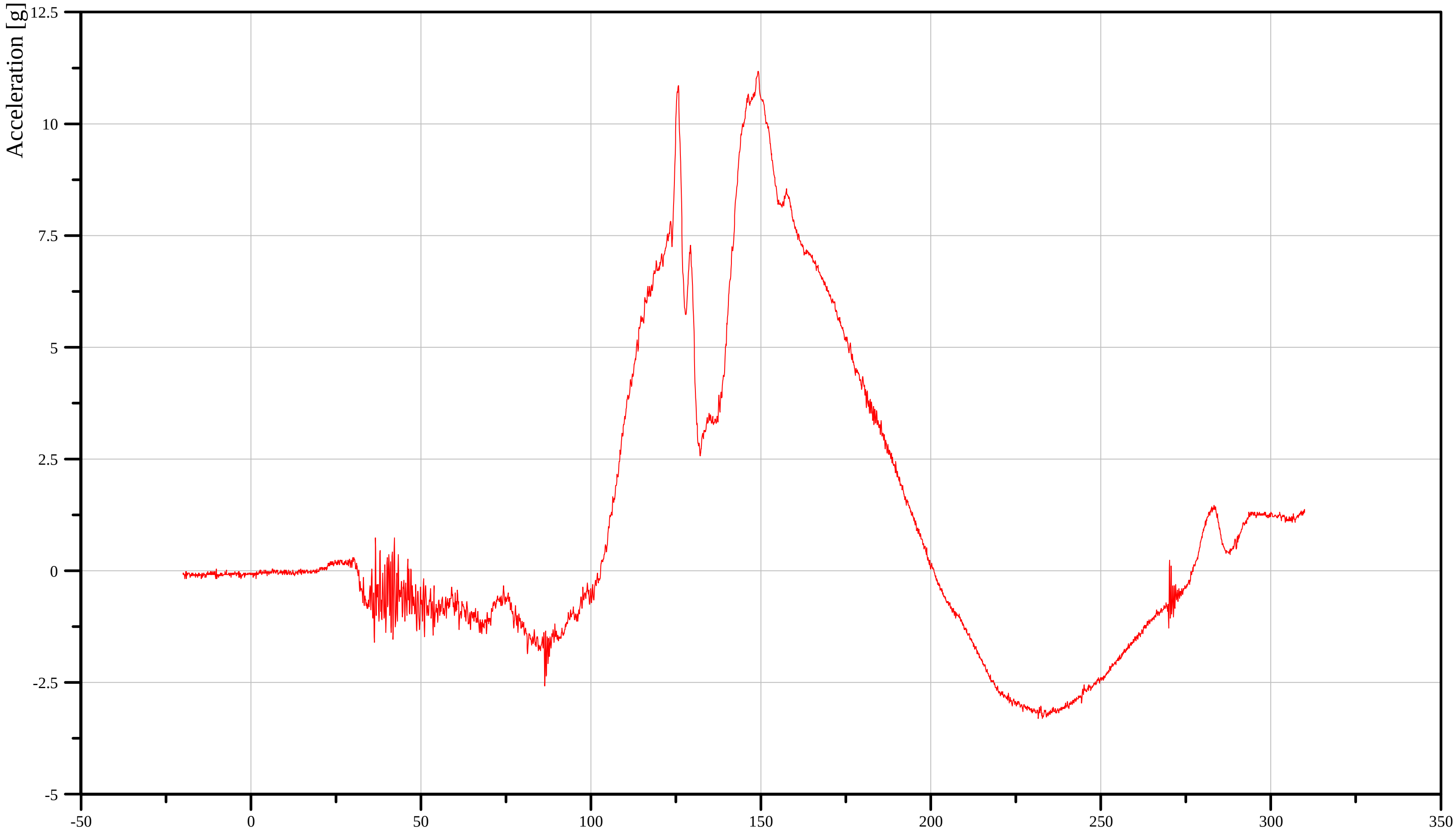
Driver Head Y-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCGRDH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-3.31 g at 231.60 ms

Max. Value
11.17 g at 149.12 ms

070126

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

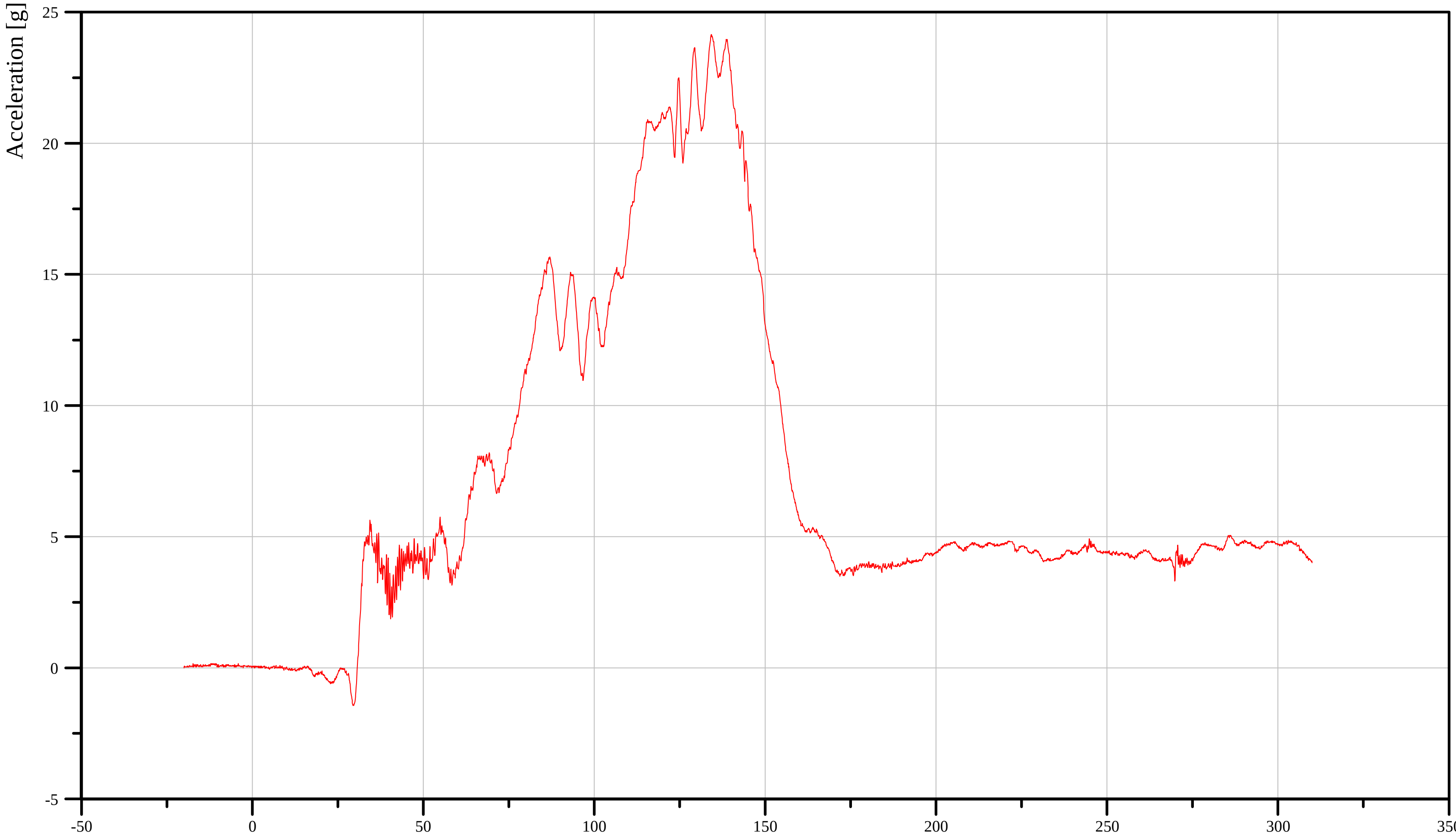
Driver Head Z-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCGRDH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-1.44 g at 29.44 ms

Max. Value
24.14 g at 134.24 ms

TRC

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

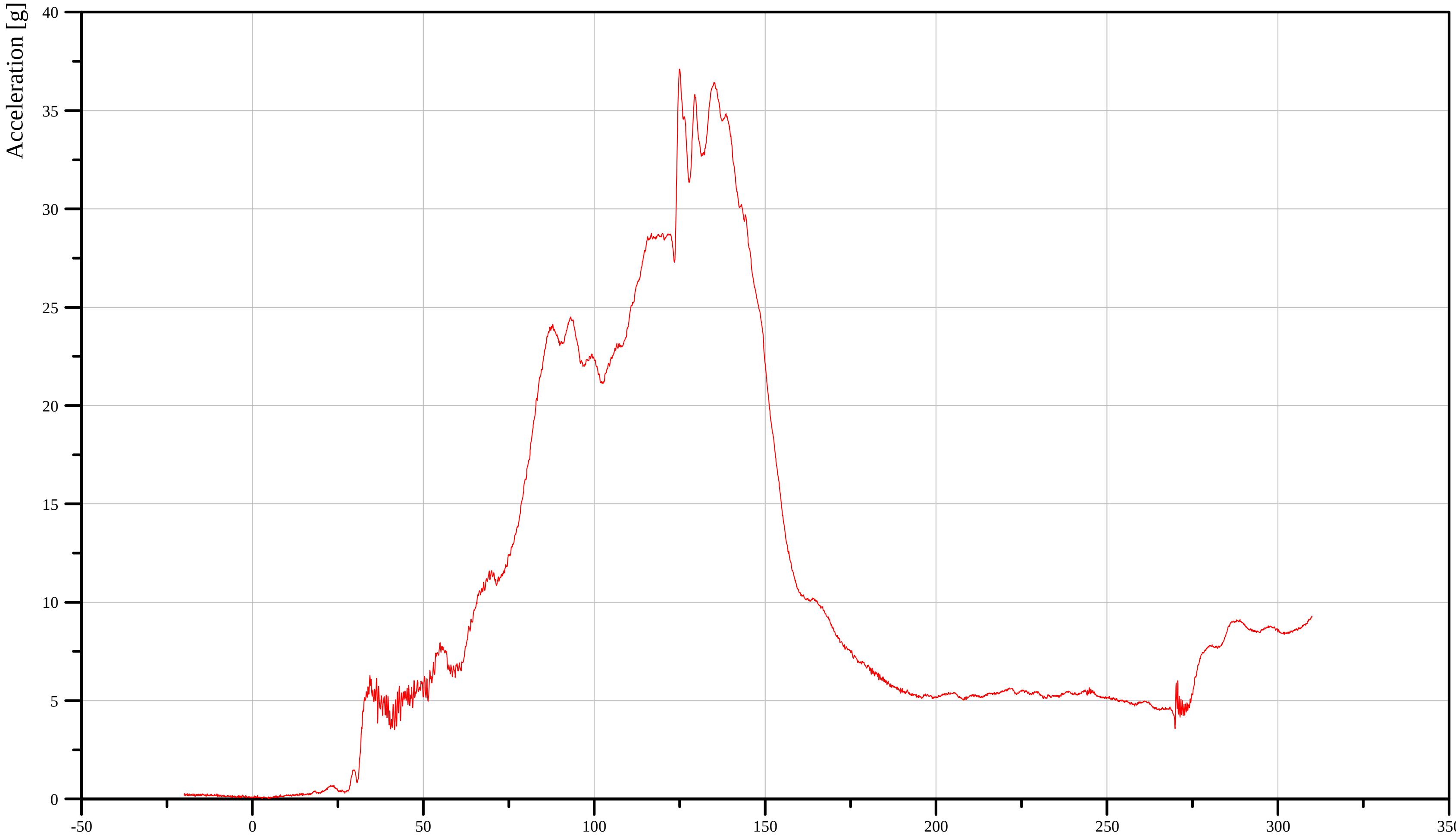
Driver Head Redundant Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADCGRDH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.03 g at 2.96 ms

Max. Value
37.11 g at 124.96 ms

070126

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

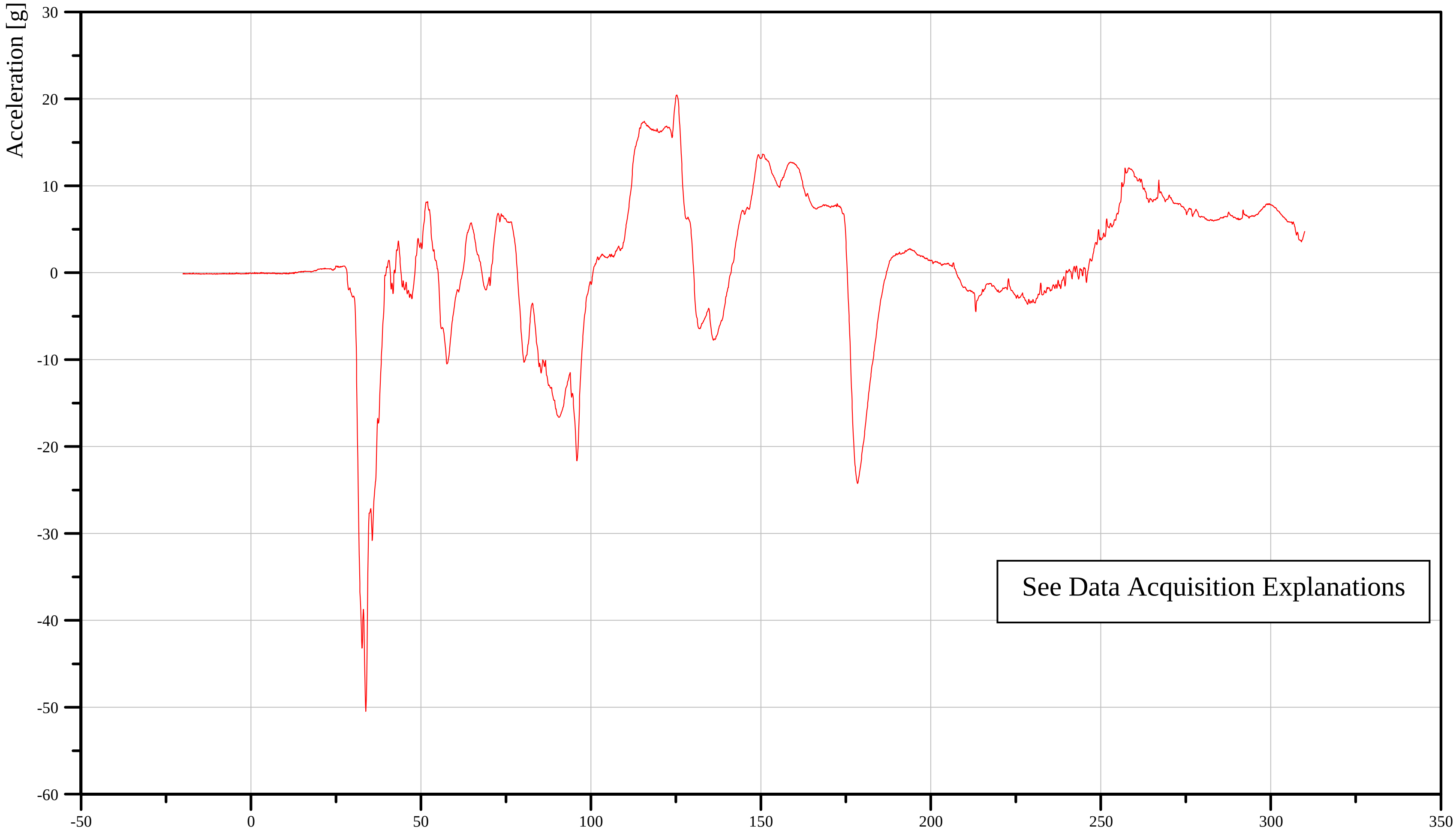
Driver Head (FT) Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADFR00H3ACYA

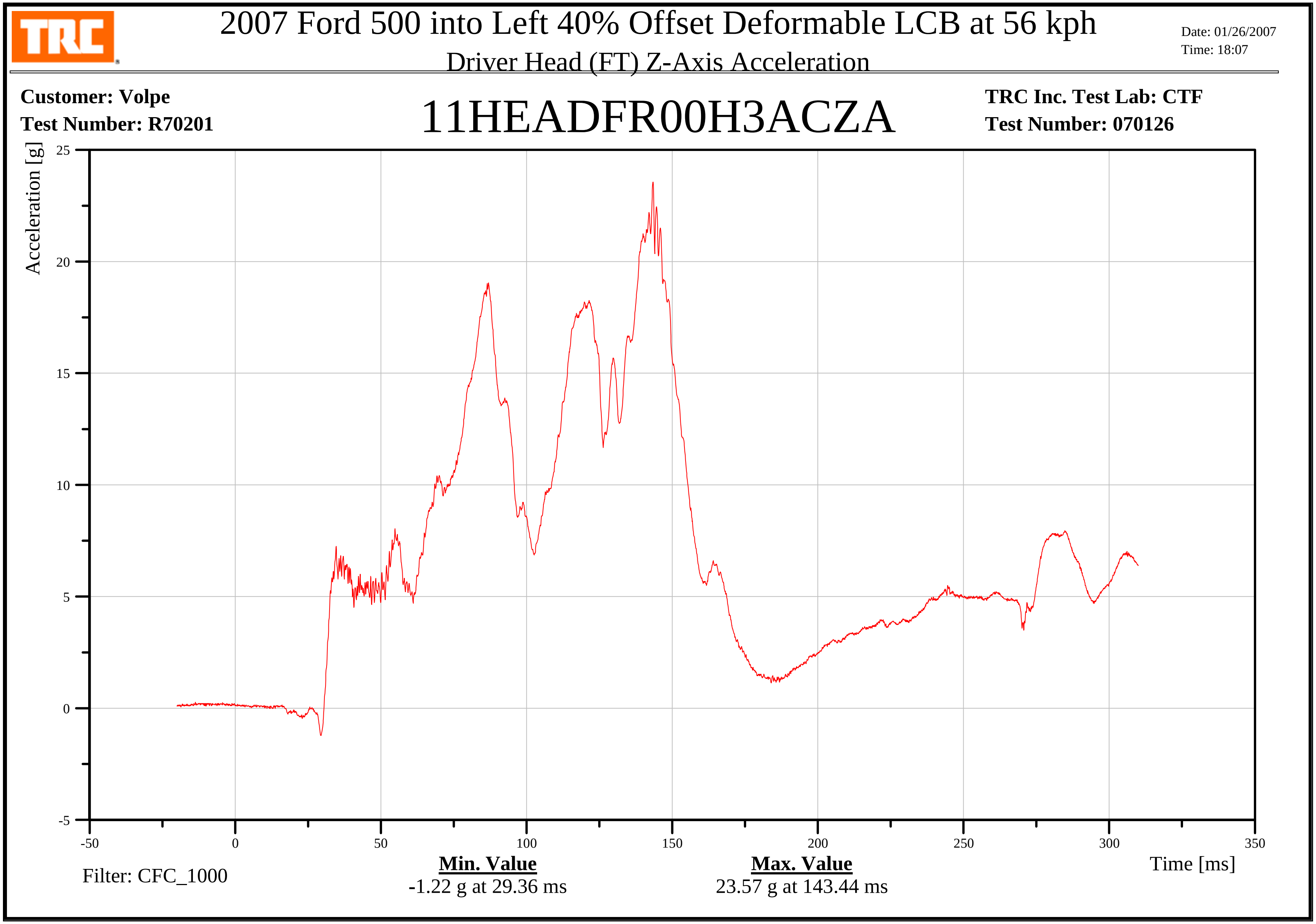
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-50.47 g at 33.84 ms

Max. Value
20.45 g at 125.28 ms



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Driver Head (FT) Z-Axis Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
11HEADFR00H3ACZA
TRC Inc. Test Lab: CTF
Test Number: 070126
Acceleration [g]
25
20
15
10
5
0
-5
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_1000
Min. Value
-1.22 g at 29.36 ms
Max. Value
23.57 g at 143.44 ms

B-20

070126

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

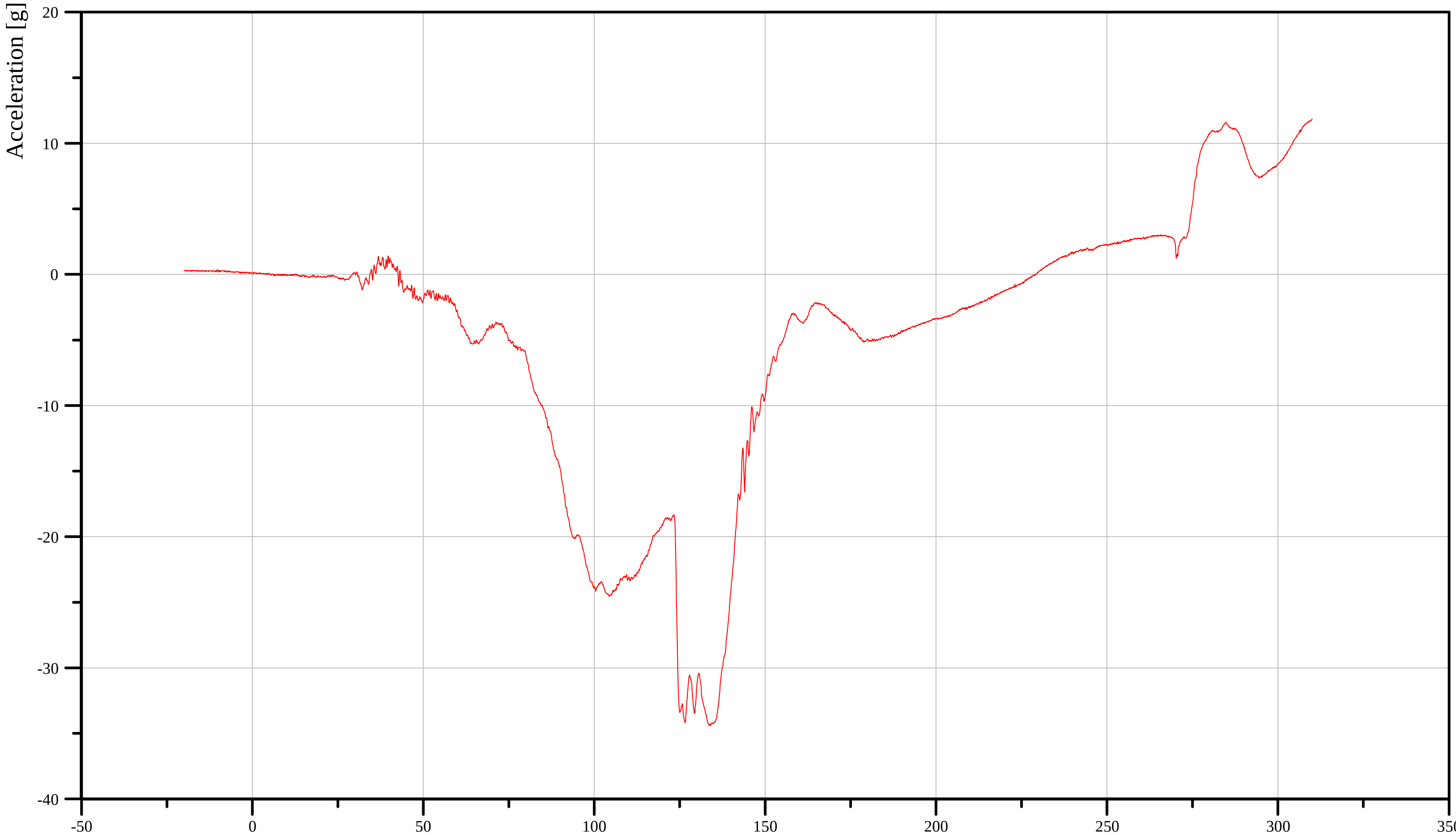
Driver Head (TP) X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADUP00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-34.41 g at 133.92 ms

Max. Value
11.85 g at 310.00 ms

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

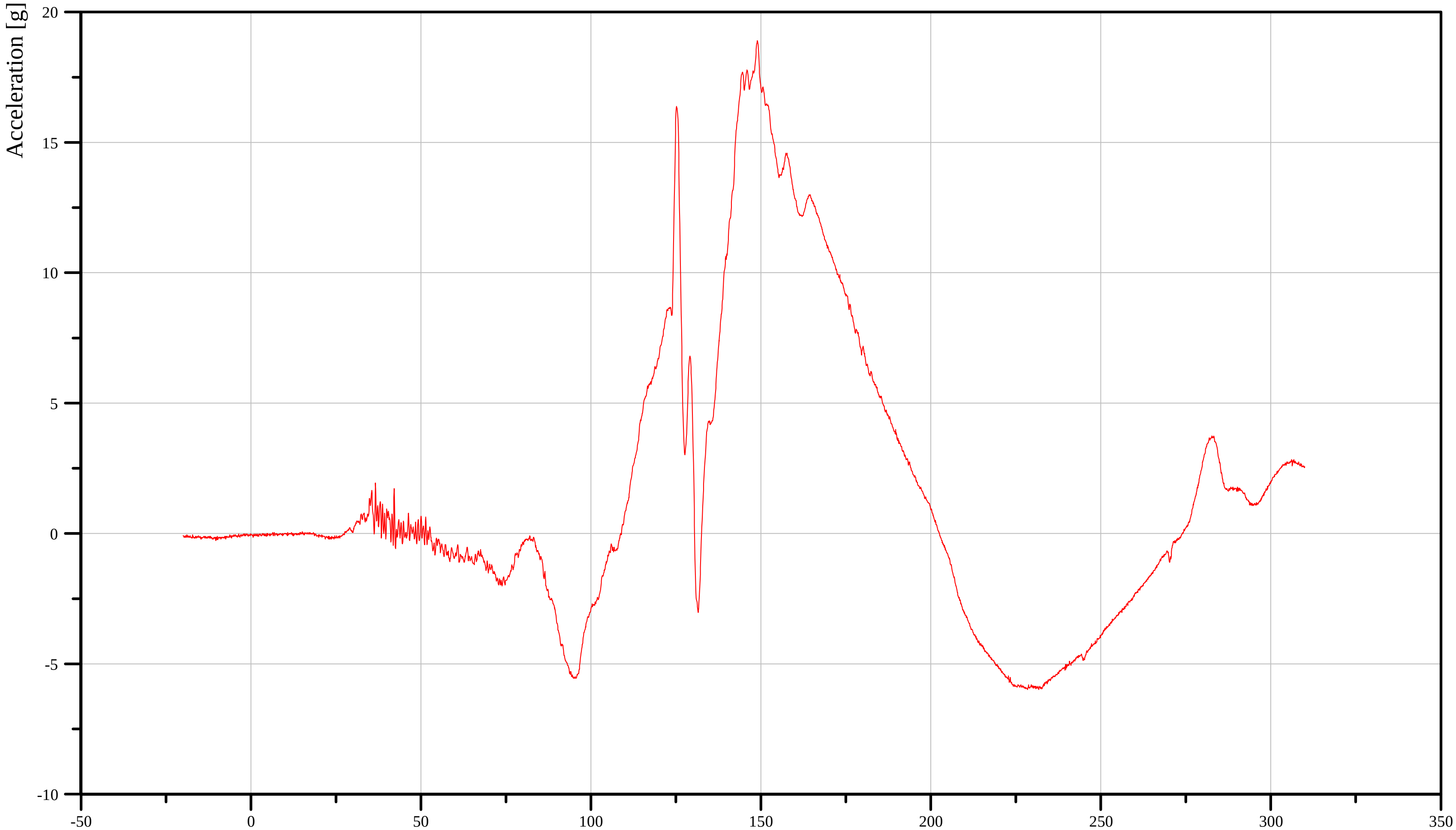
Driver Head (TP) Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADUP00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-5.99 g at 228.40 ms

Max. Value
18.90 g at 148.96 ms

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

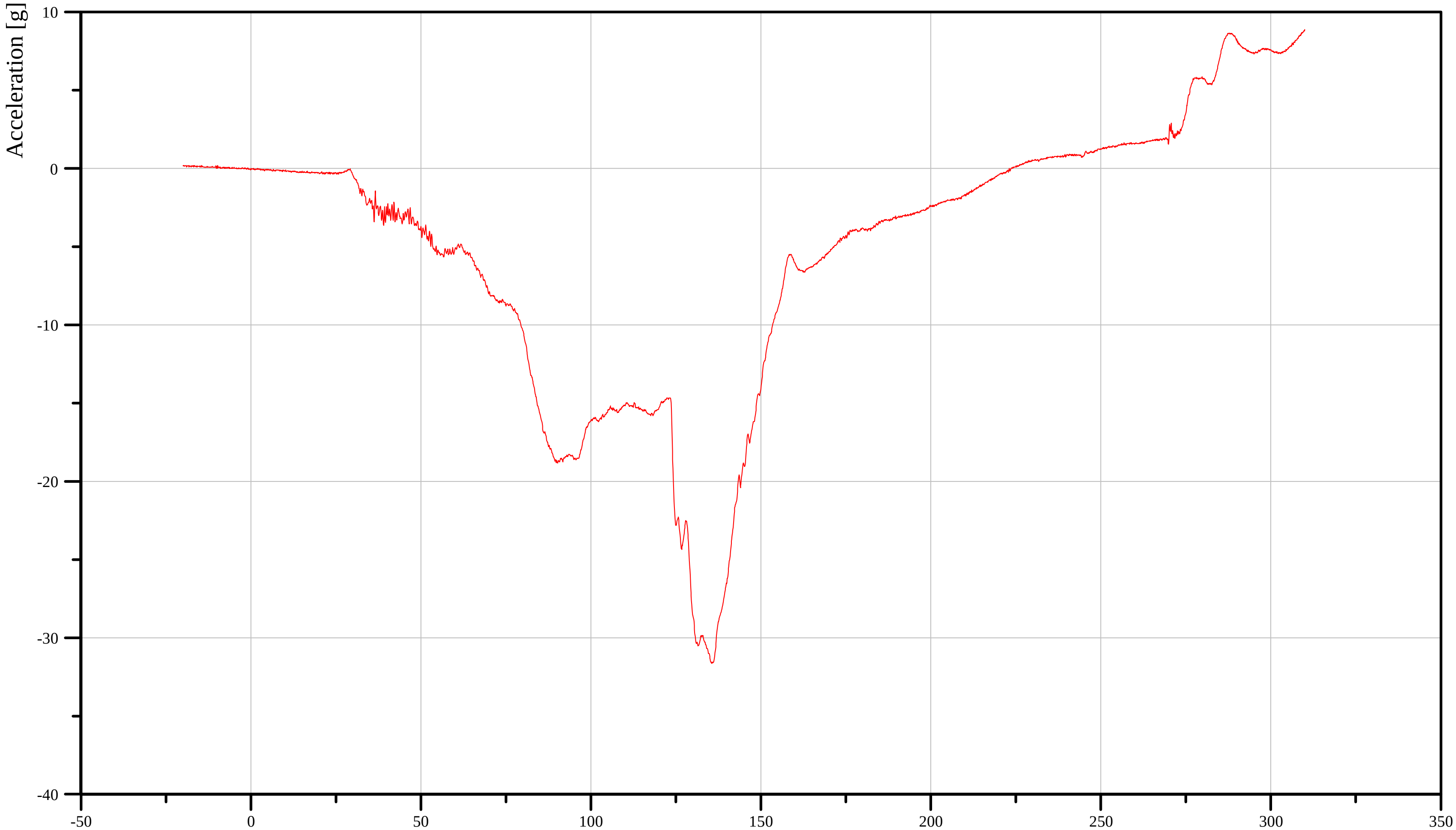
Driver Head (LT) X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADLE00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-31.62 g at 135.52 ms

Max. Value
8.88 g at 310.00 ms

070126

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

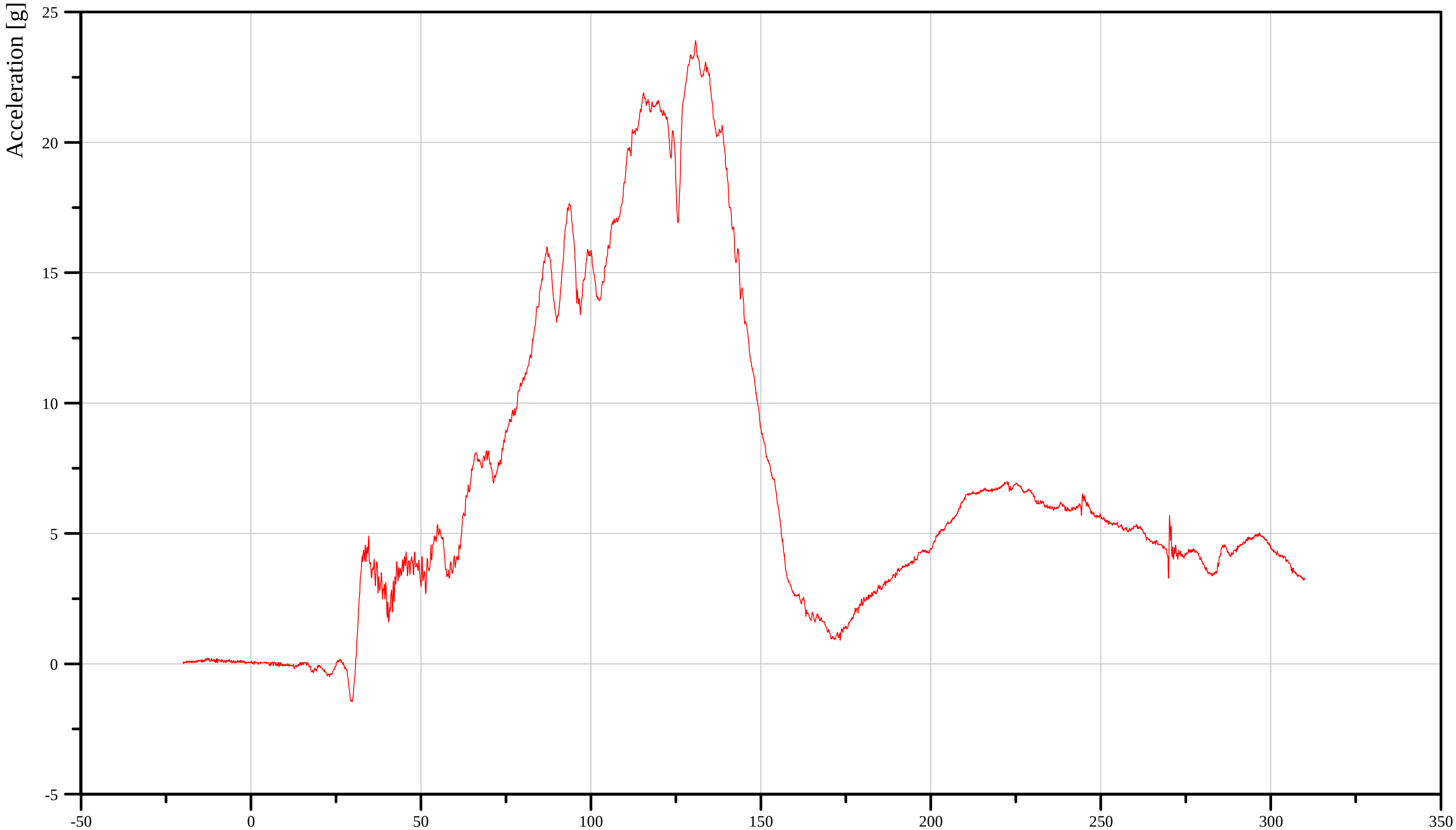
Driver Head (LT) Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11HEADLE00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-1.45 g at 29.76 ms

Max. Value
23.90 g at 130.80 ms

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

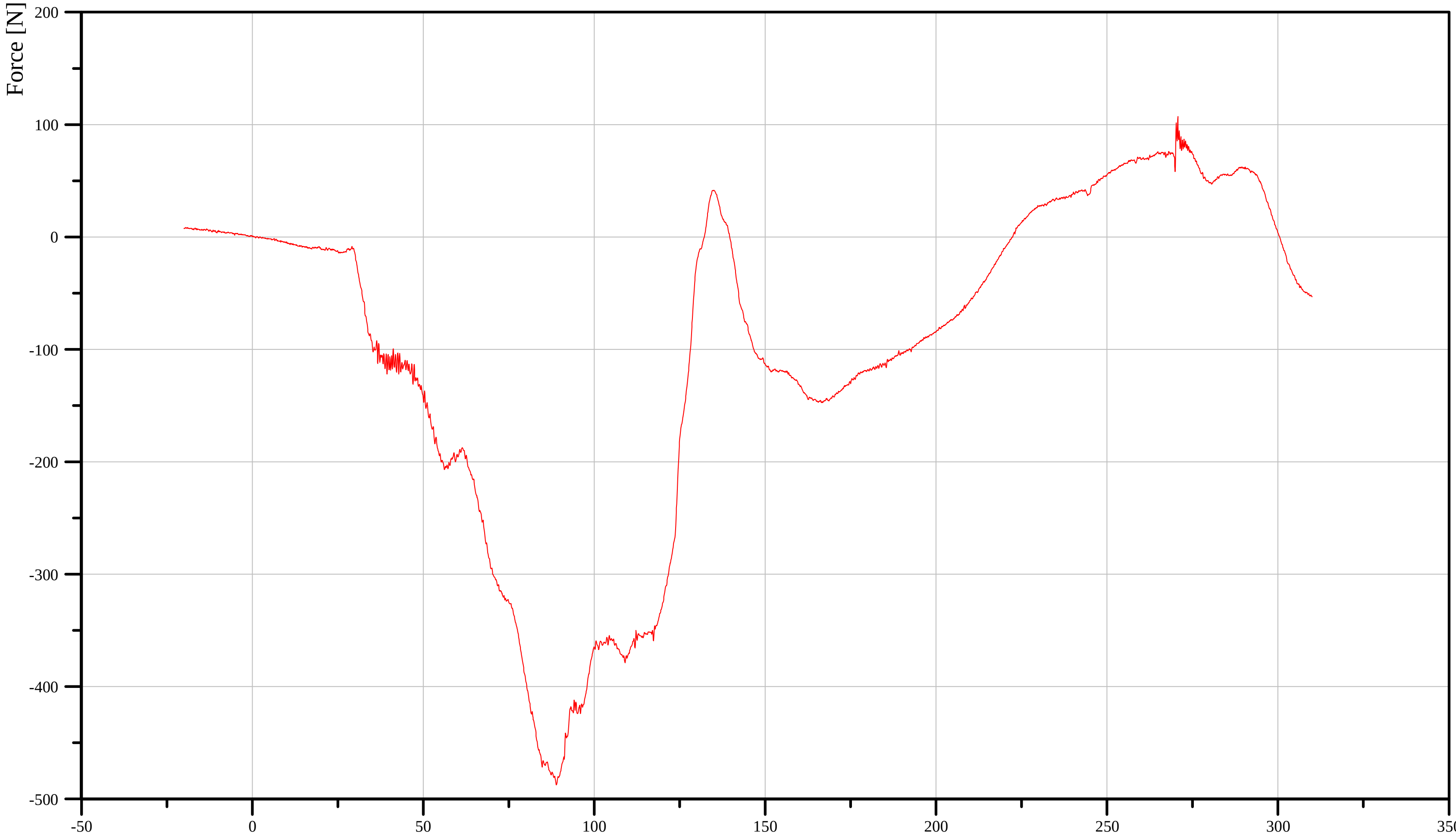
Driver Upper Neck X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKUP00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-487.20 N at 88.88 ms

Max. Value
106.99 N at 270.72 ms

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

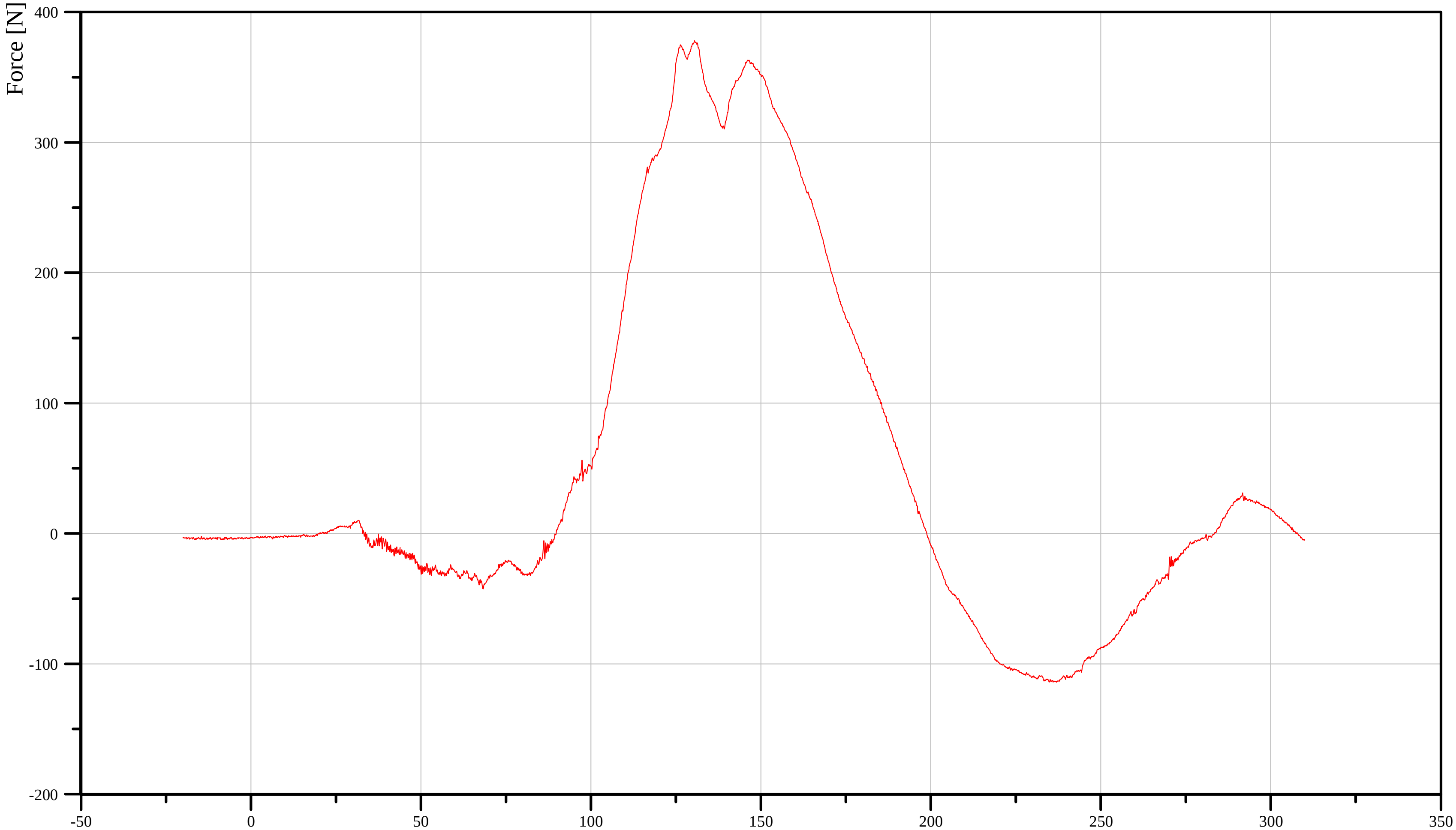
Driver Upper Neck Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKUP00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-114.06 N at 234.80 ms

Max. Value
378.15 N at 130.48 ms

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

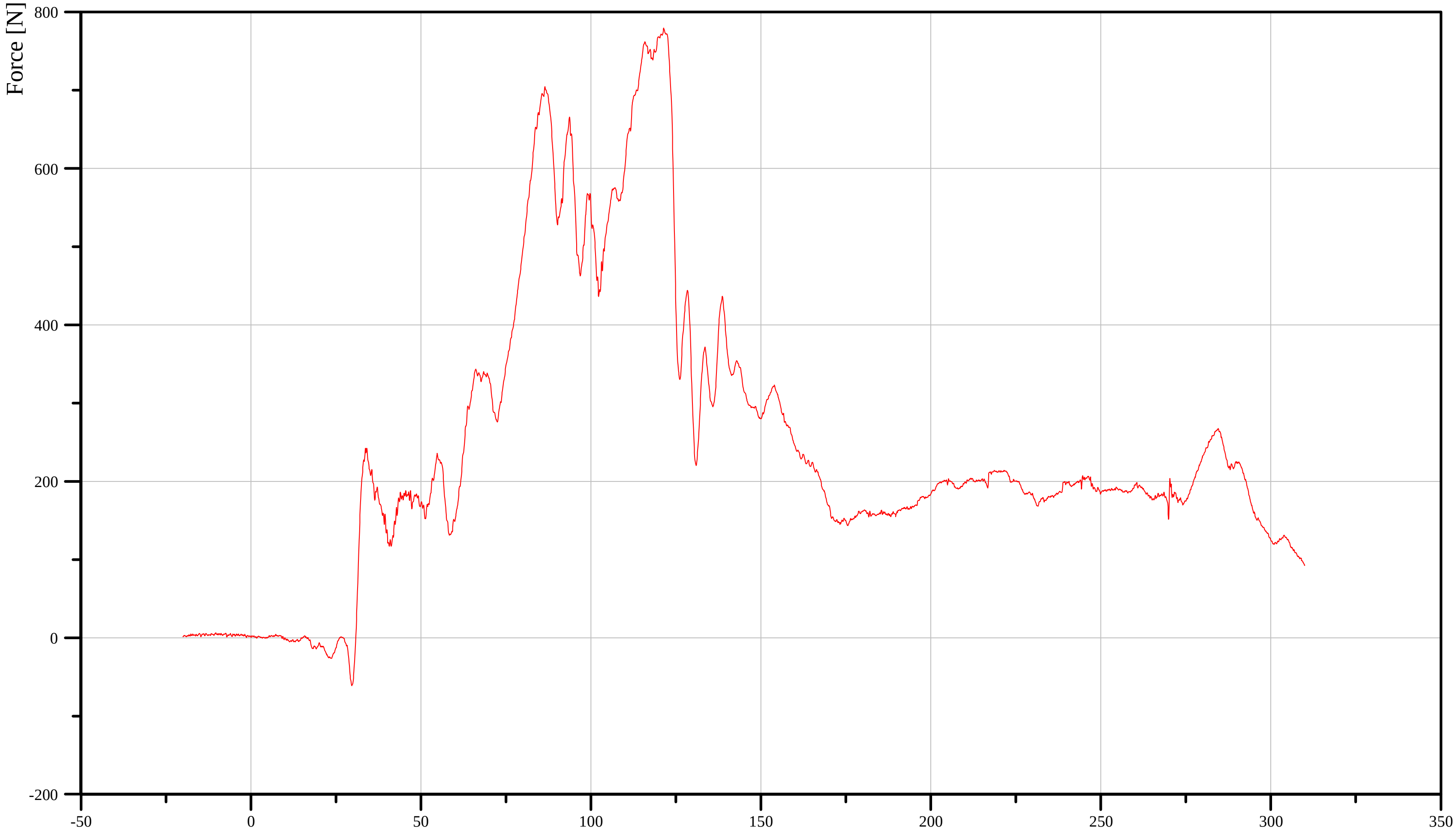
Driver Upper Neck Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKUP00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-61.28 N at 29.68 ms

Max. Value
779.64 N at 121.44 ms

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

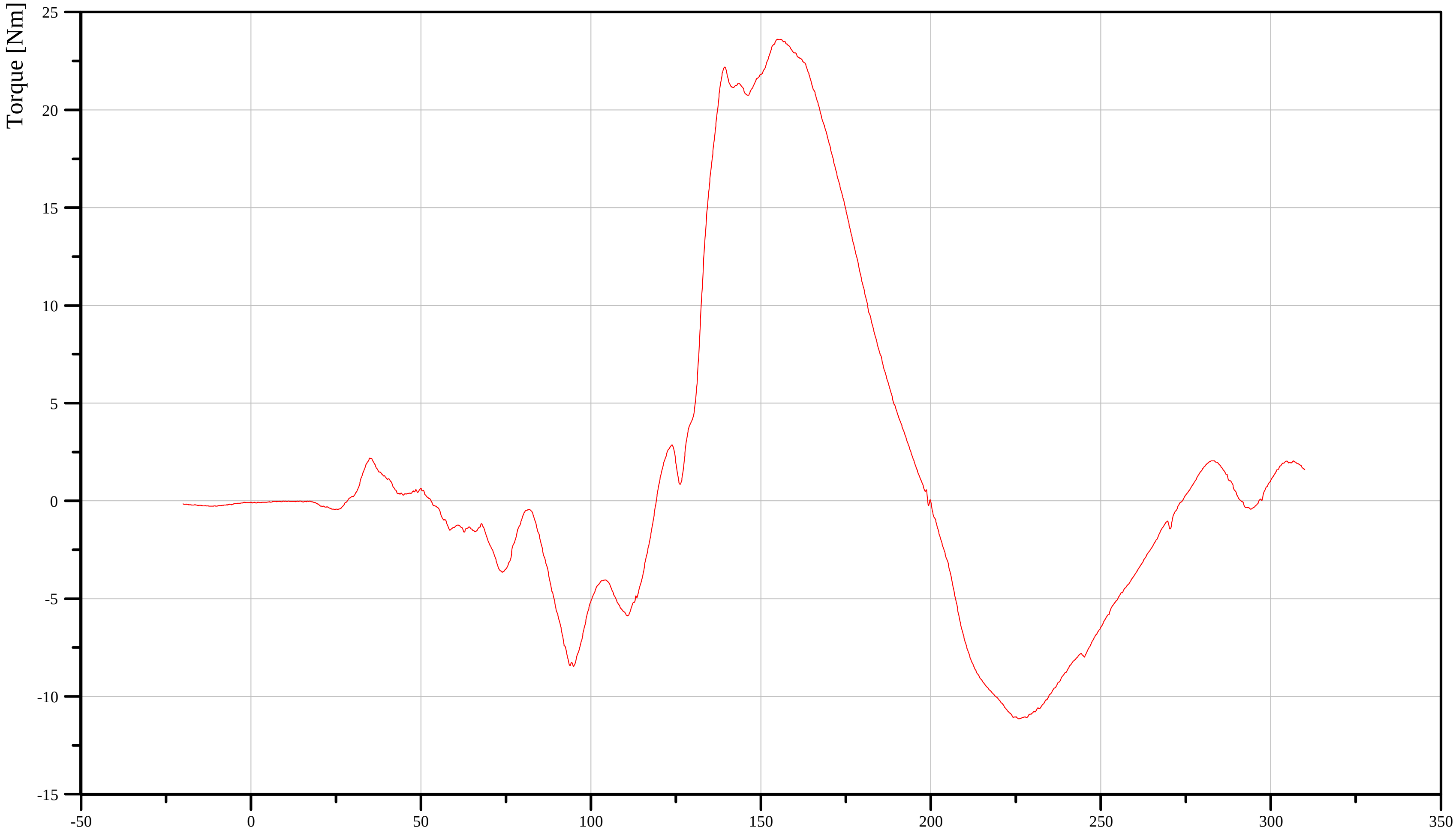
Driver Upper Neck Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKUP00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-11.14 Nm at 225.84 ms

Max. Value
23.61 Nm at 154.96 ms

070126

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

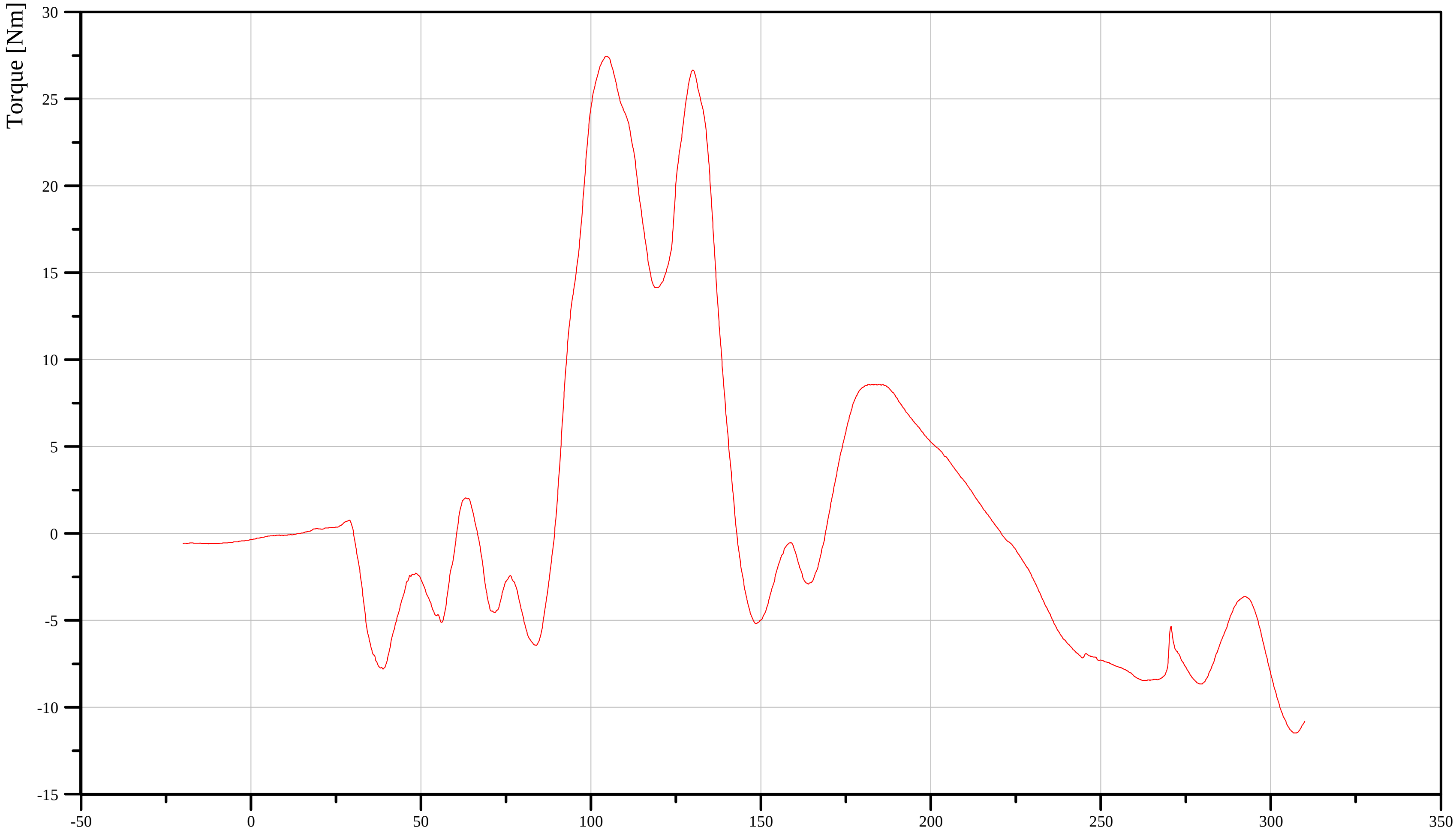
Driver Upper Neck Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKUP00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-11.47 Nm at 307.20 ms

Max. Value
27.45 Nm at 104.56 ms

070126

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

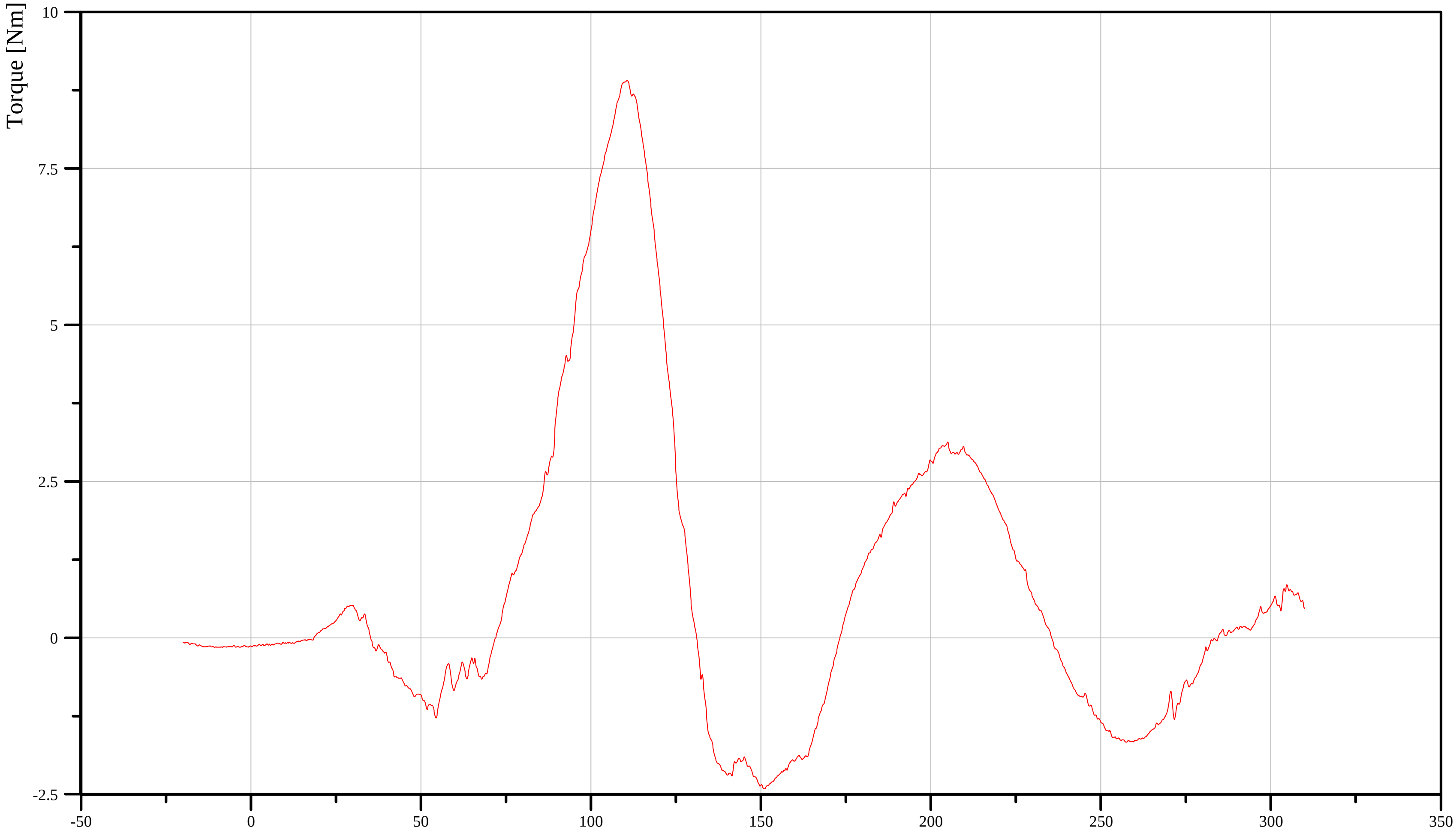
Driver Upper Neck Moment About Z Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKUP00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-2.41 Nm at 151.12 ms

Max. Value
8.91 Nm at 110.72 ms

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

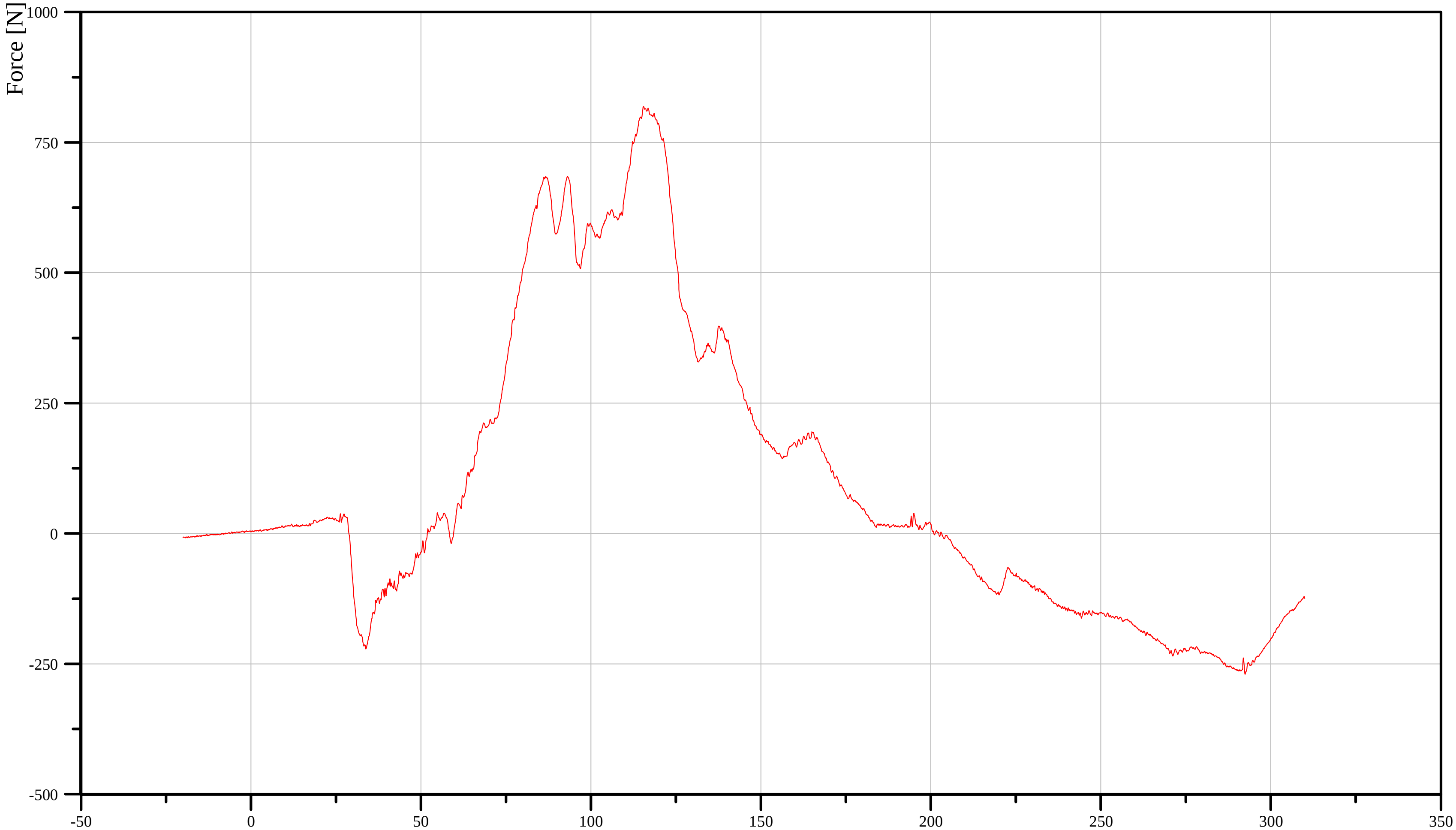
Driver Lower Neck X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKLO00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-270.17 N at 292.40 ms

Max. Value
818.95 N at 115.44 ms

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

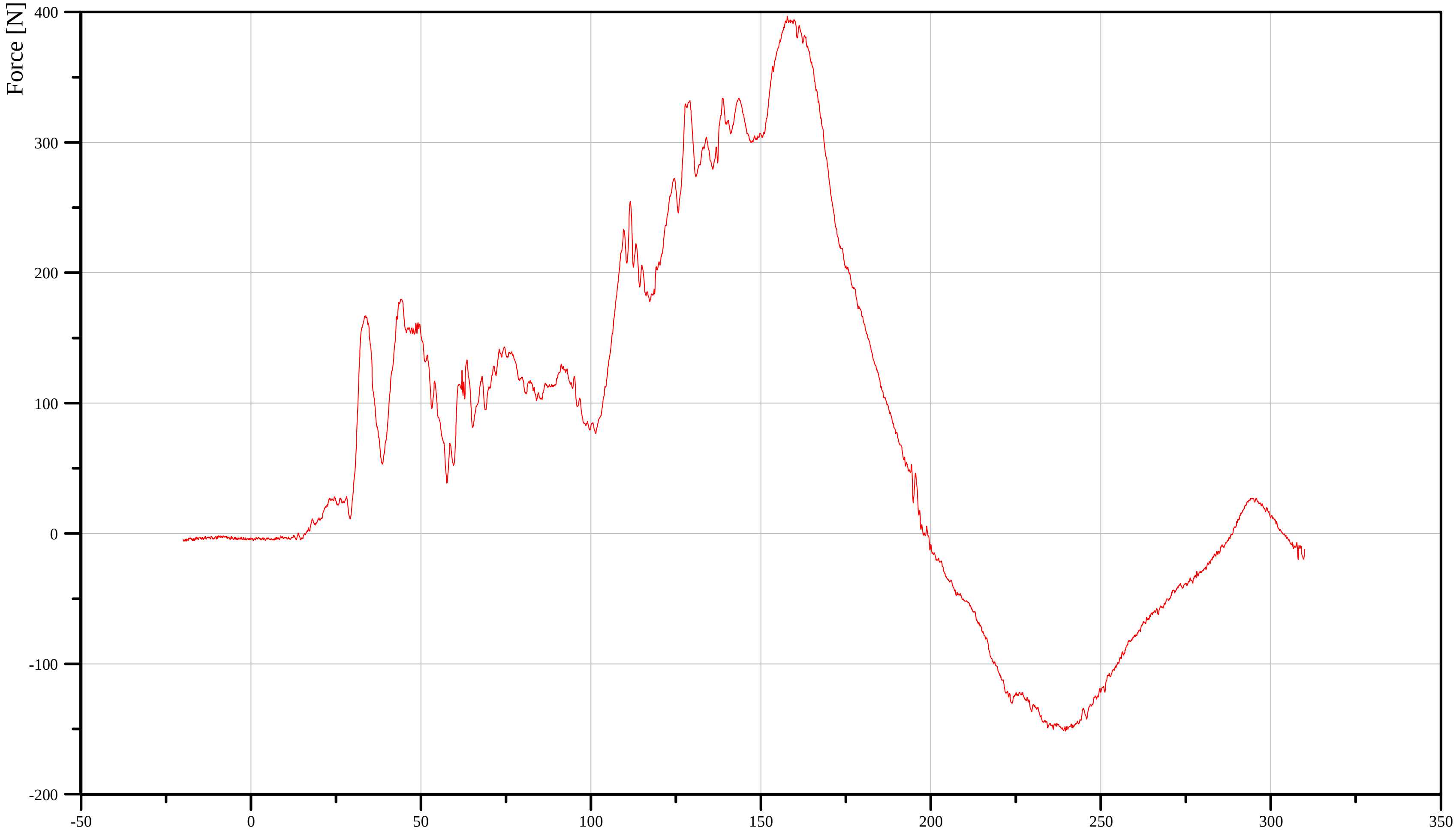
Driver Lower Neck Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKLO00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-151.45 N at 239.60 ms

Max. Value
396.83 N at 157.76 ms

070126

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

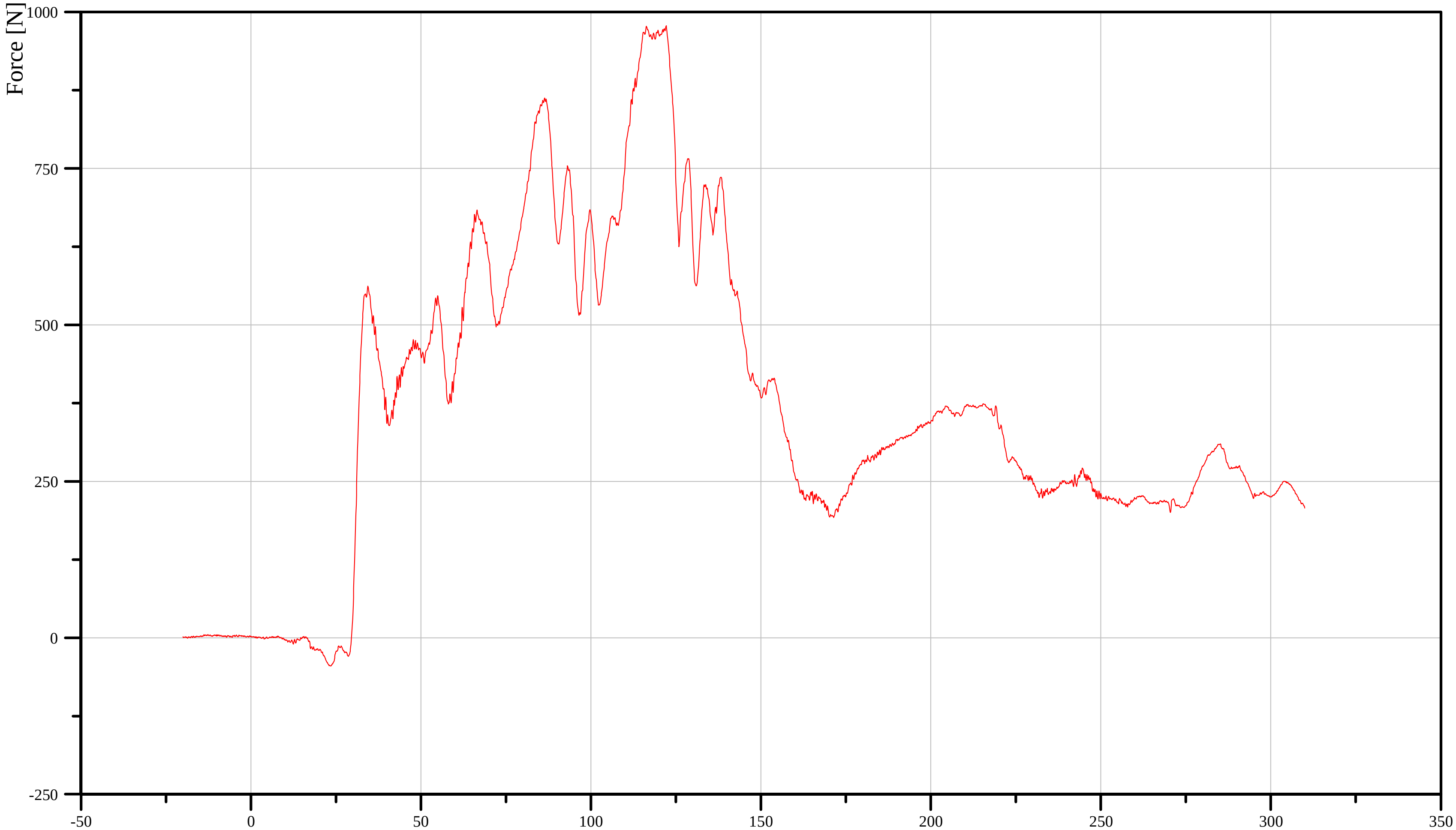
Driver Lower Neck Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKLO00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-45.21 N at 23.52 ms

Max. Value
978.43 N at 122.16 ms

070126

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

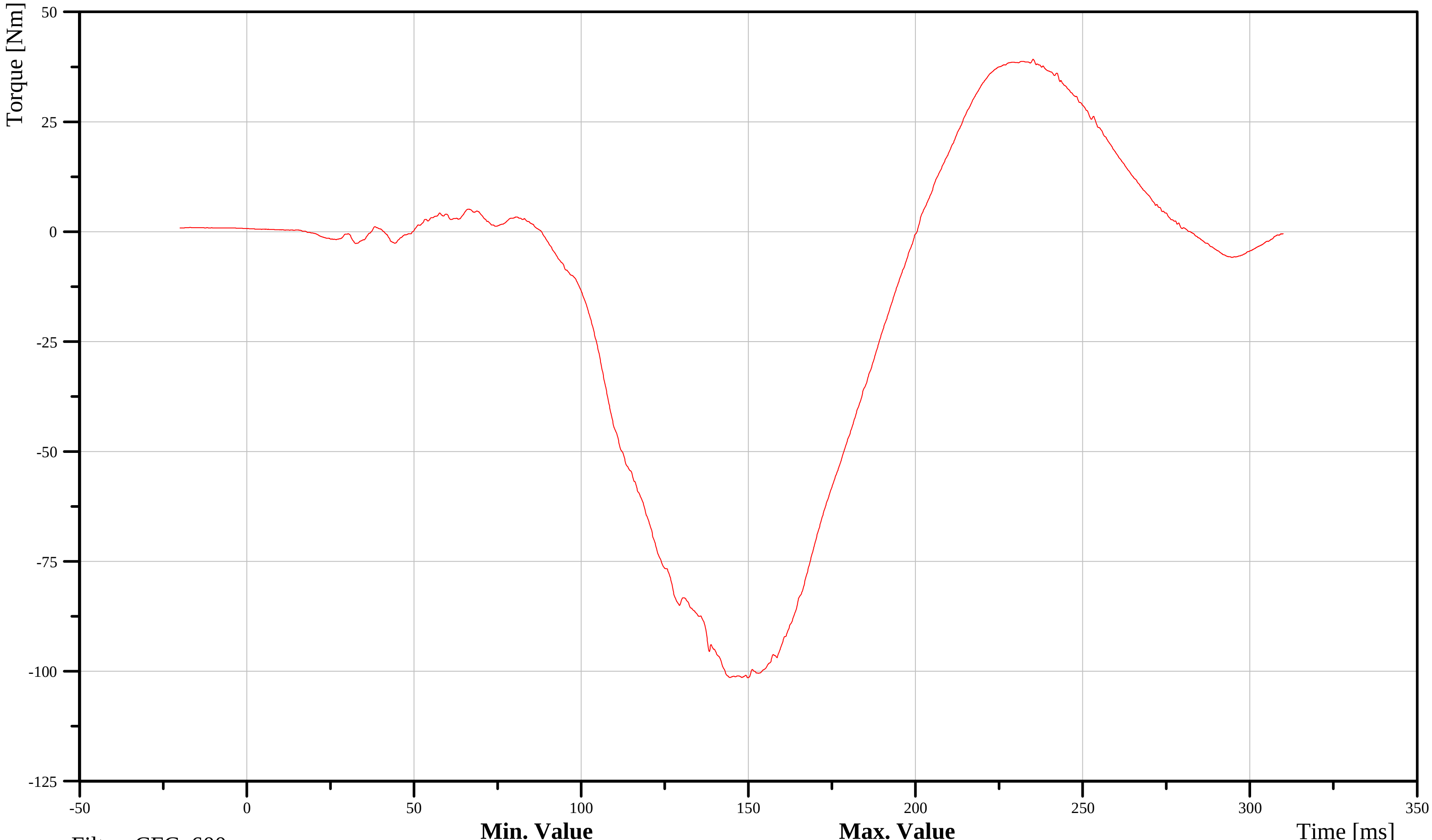
Driver Lower Neck Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKLO00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-101.44 Nm at 149.84 ms

Max. Value
39.23 Nm at 235.12 ms

070126

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

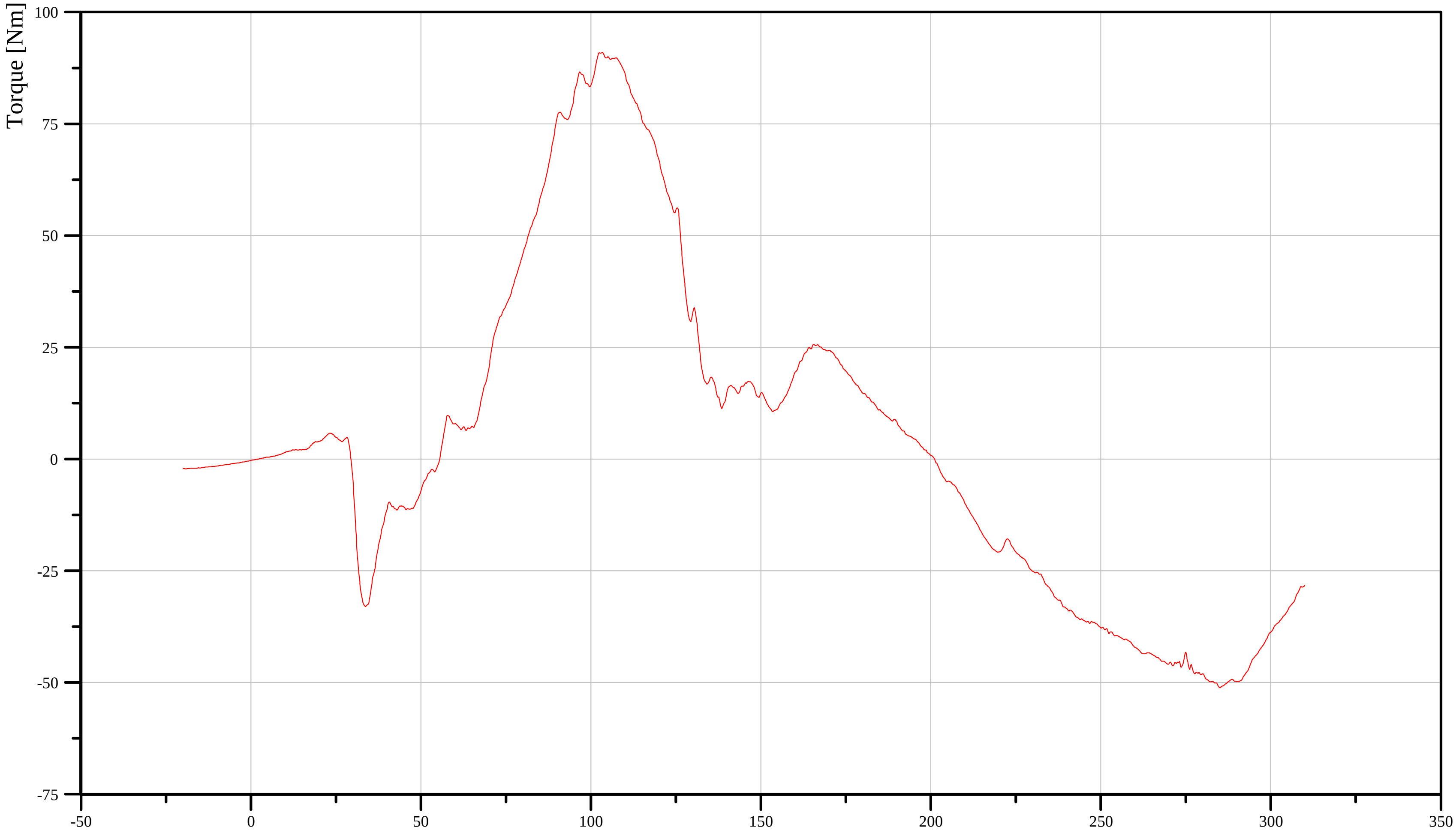
Driver Lower Neck Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKLO00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-51.15 Nm at 285.04 ms

Max. Value
90.94 Nm at 103.36 ms

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

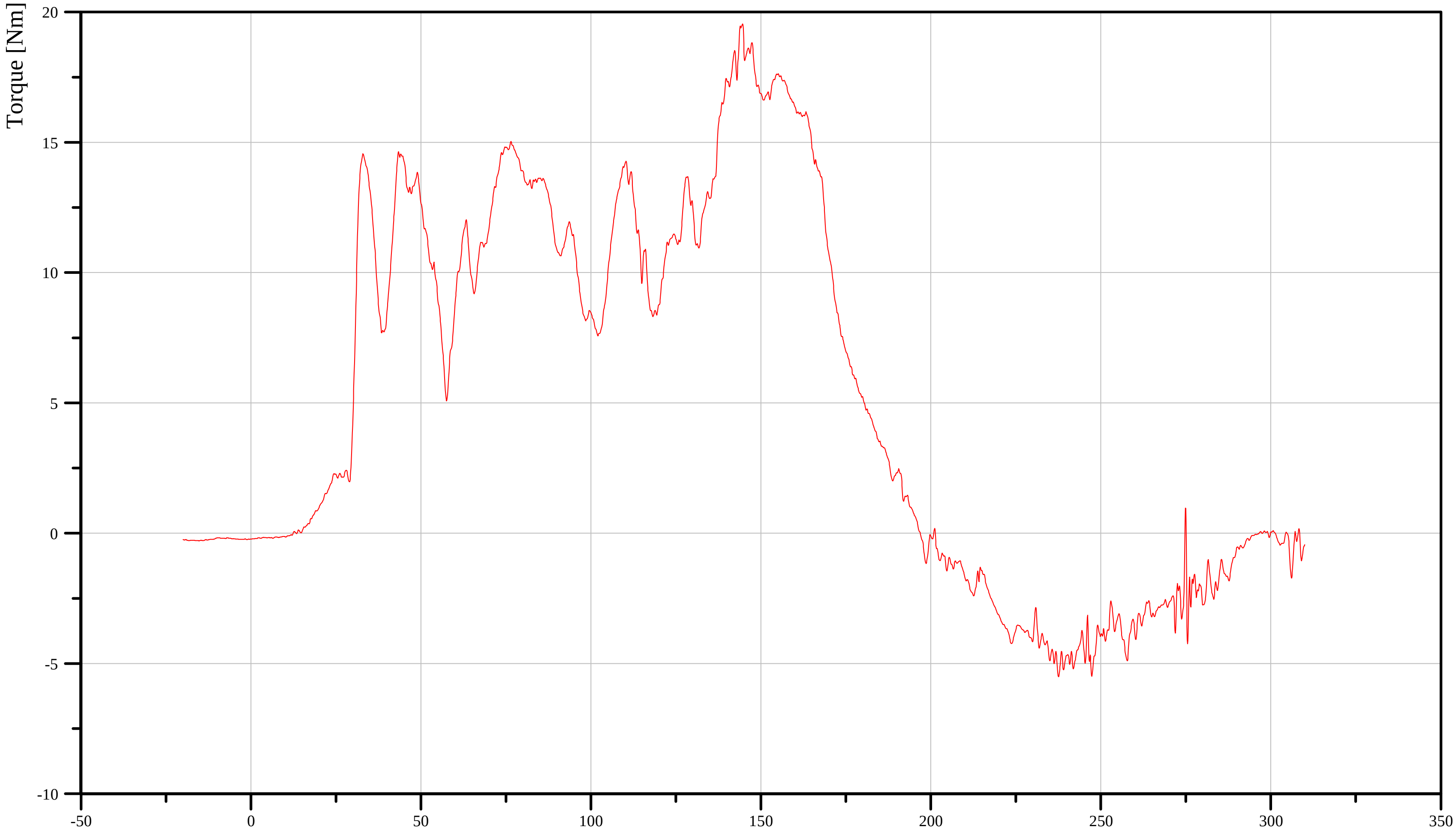
Driver Lower Neck Moment About Z Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11NECKLO00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-5.51 Nm at 237.52 ms

Max. Value
19.55 Nm at 144.64 ms

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

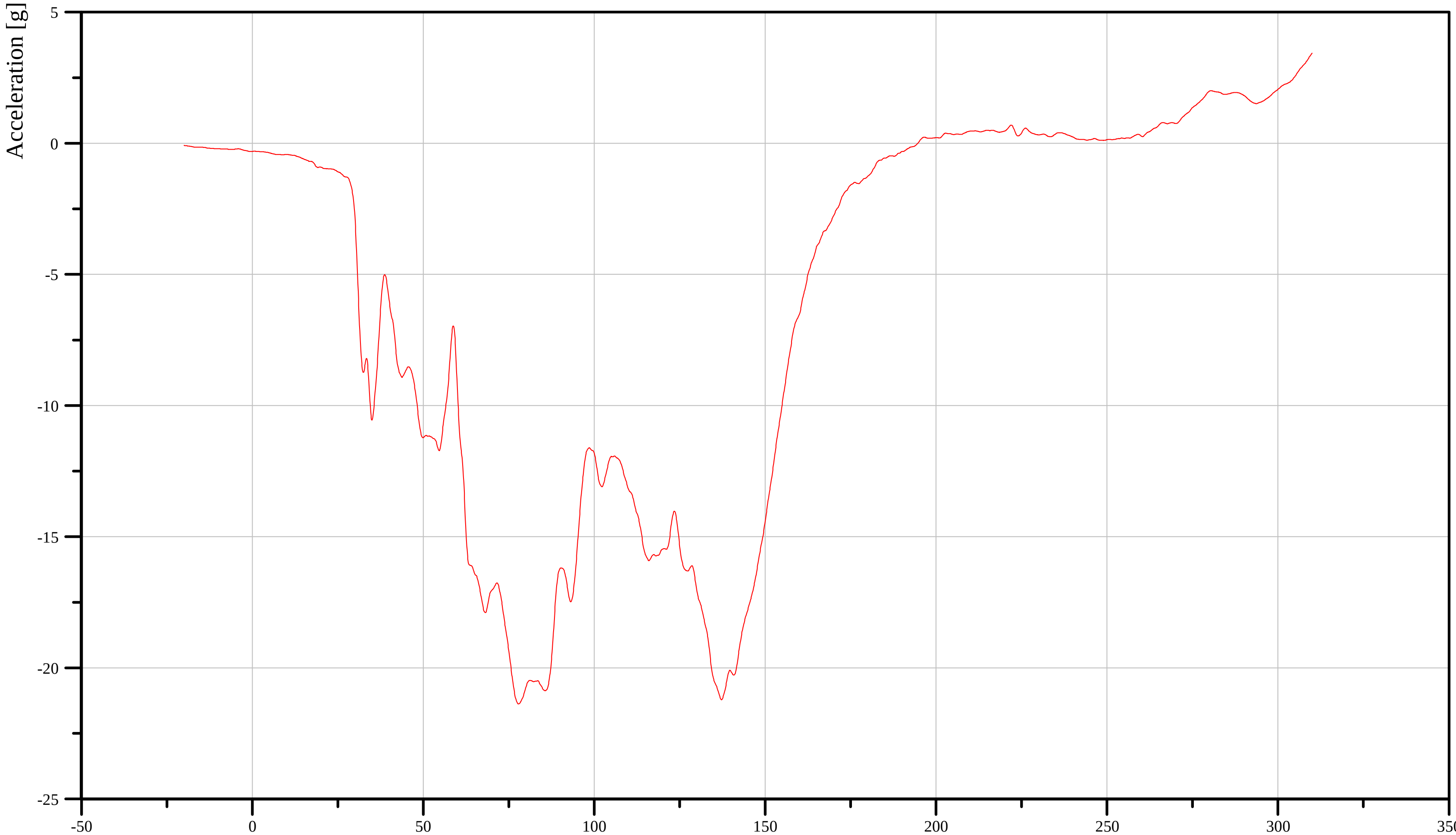
Driver Chest X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-21.37 g at 77.84 ms

Max. Value
3.44 g at 310.00 ms

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

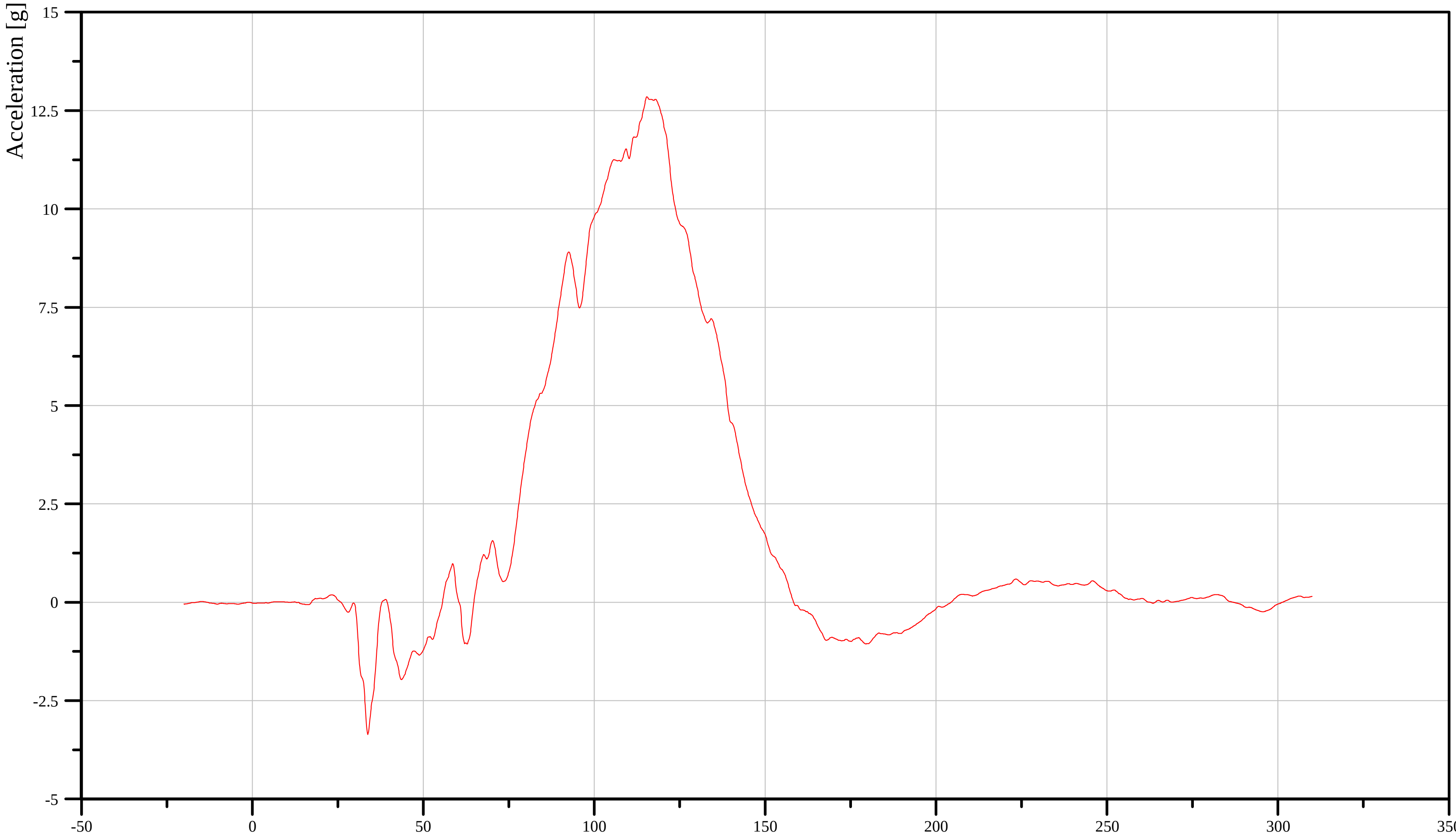
Driver Chest Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-3.36 g at 33.76 ms

Max. Value
12.85 g at 115.44 ms

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

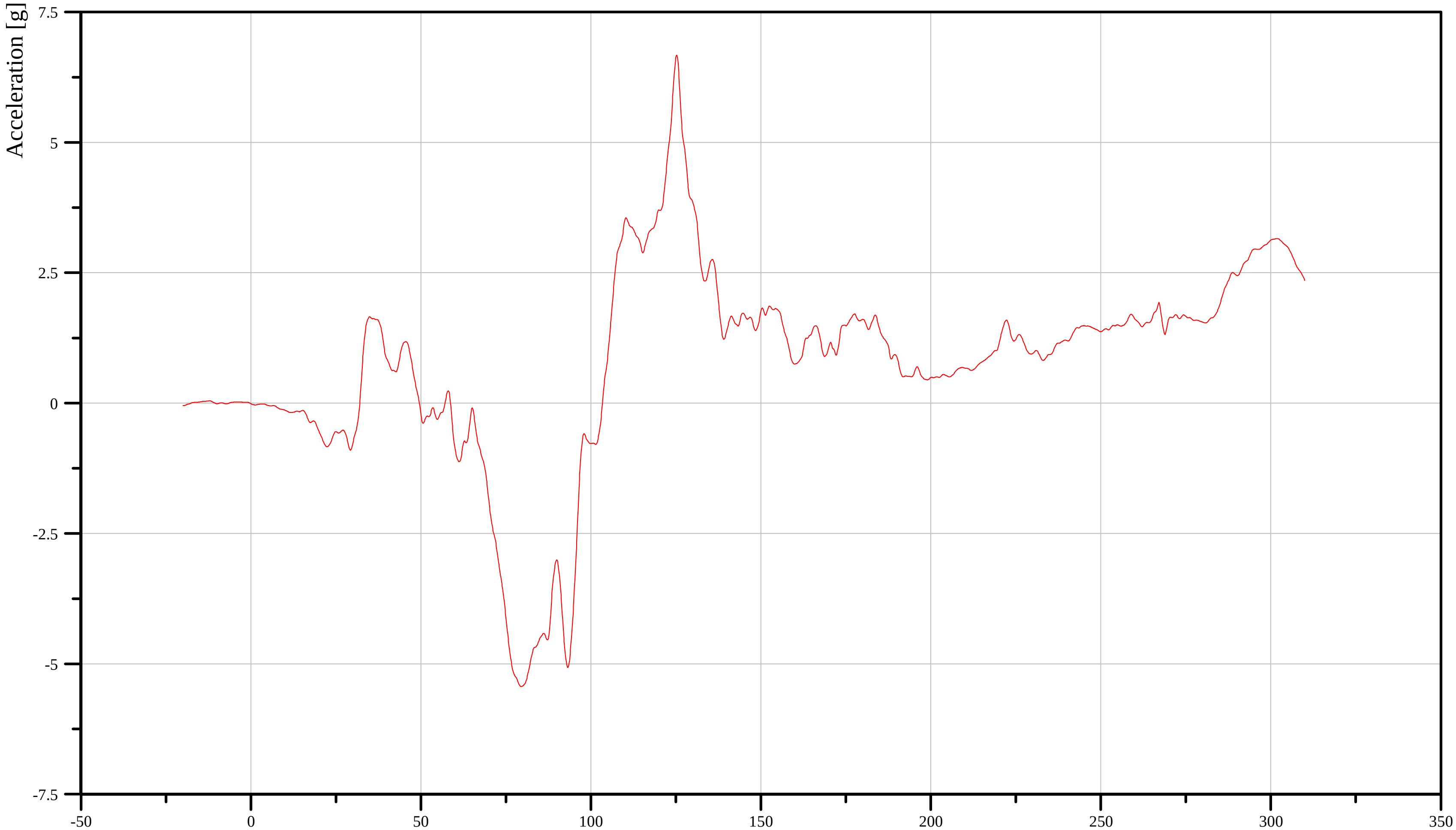
Driver Chest Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-5.44 g at 79.52 ms

Max. Value
6.67 g at 125.28 ms

070126

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

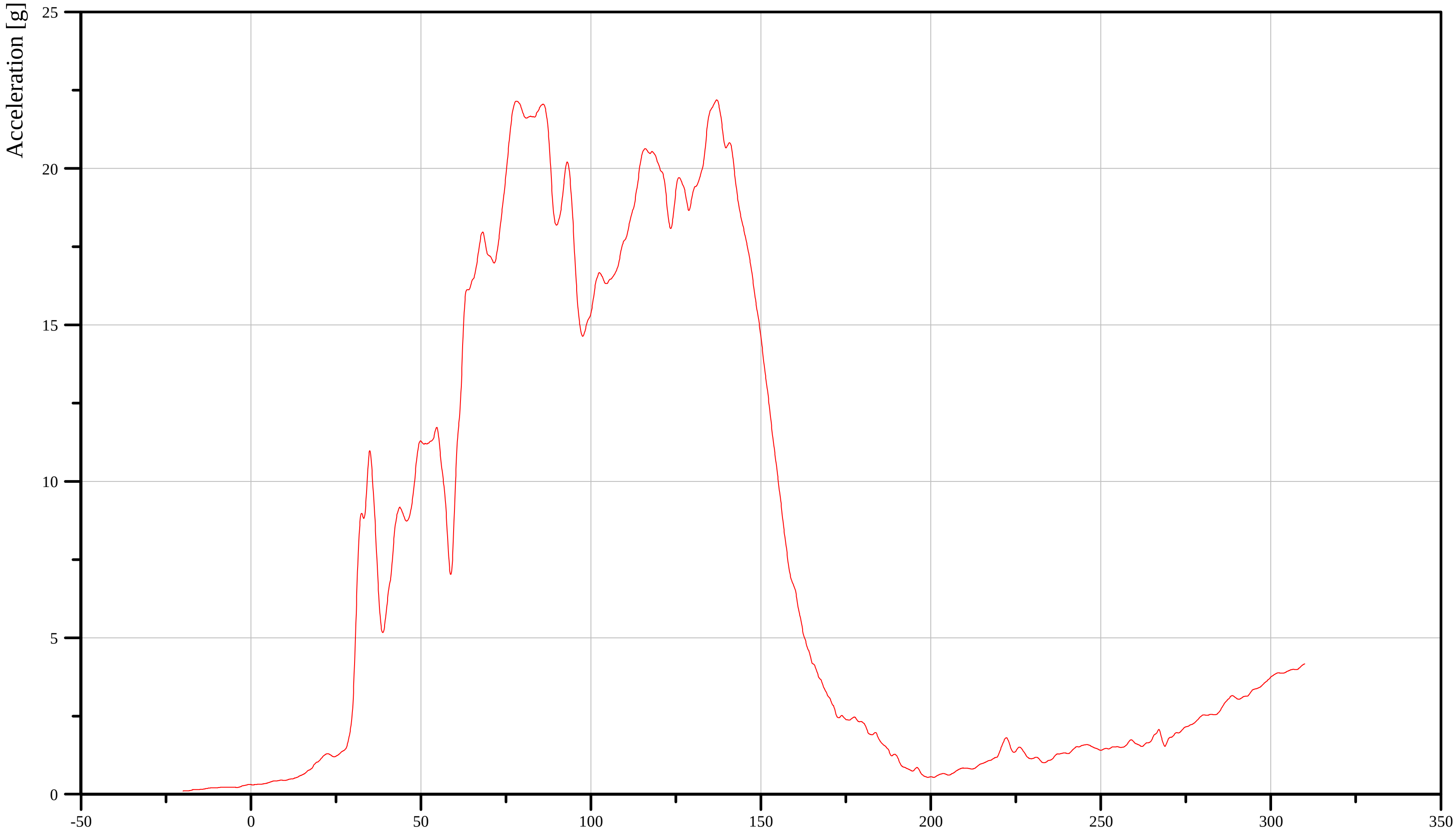
Driver Chest Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
0.10 g at -20.00 ms

Max. Value
22.20 g at 137.04 ms

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

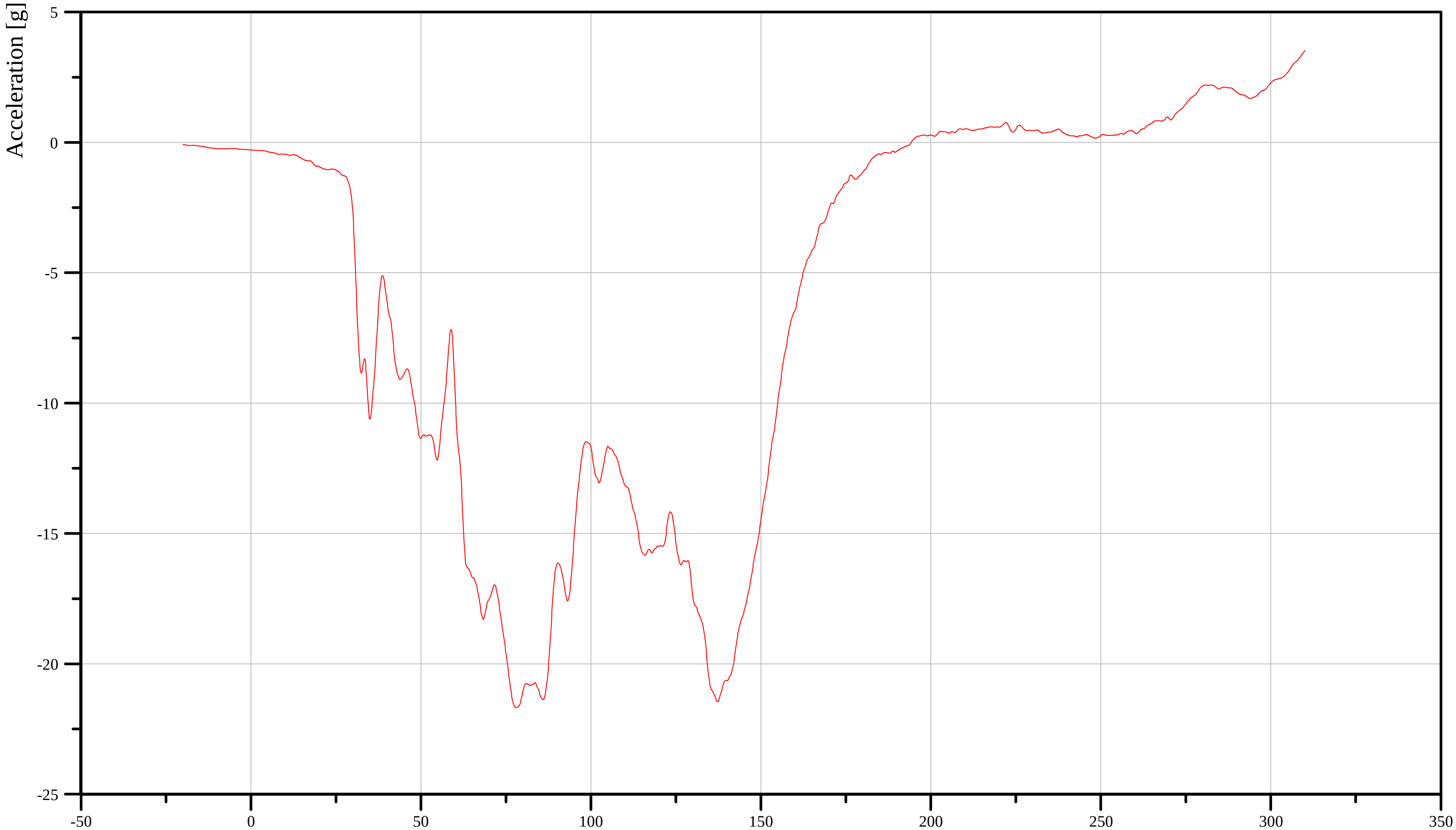
Driver Chest X-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-21.68 g at 78.00 ms

Max. Value
3.52 g at 310.00 ms

070126

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

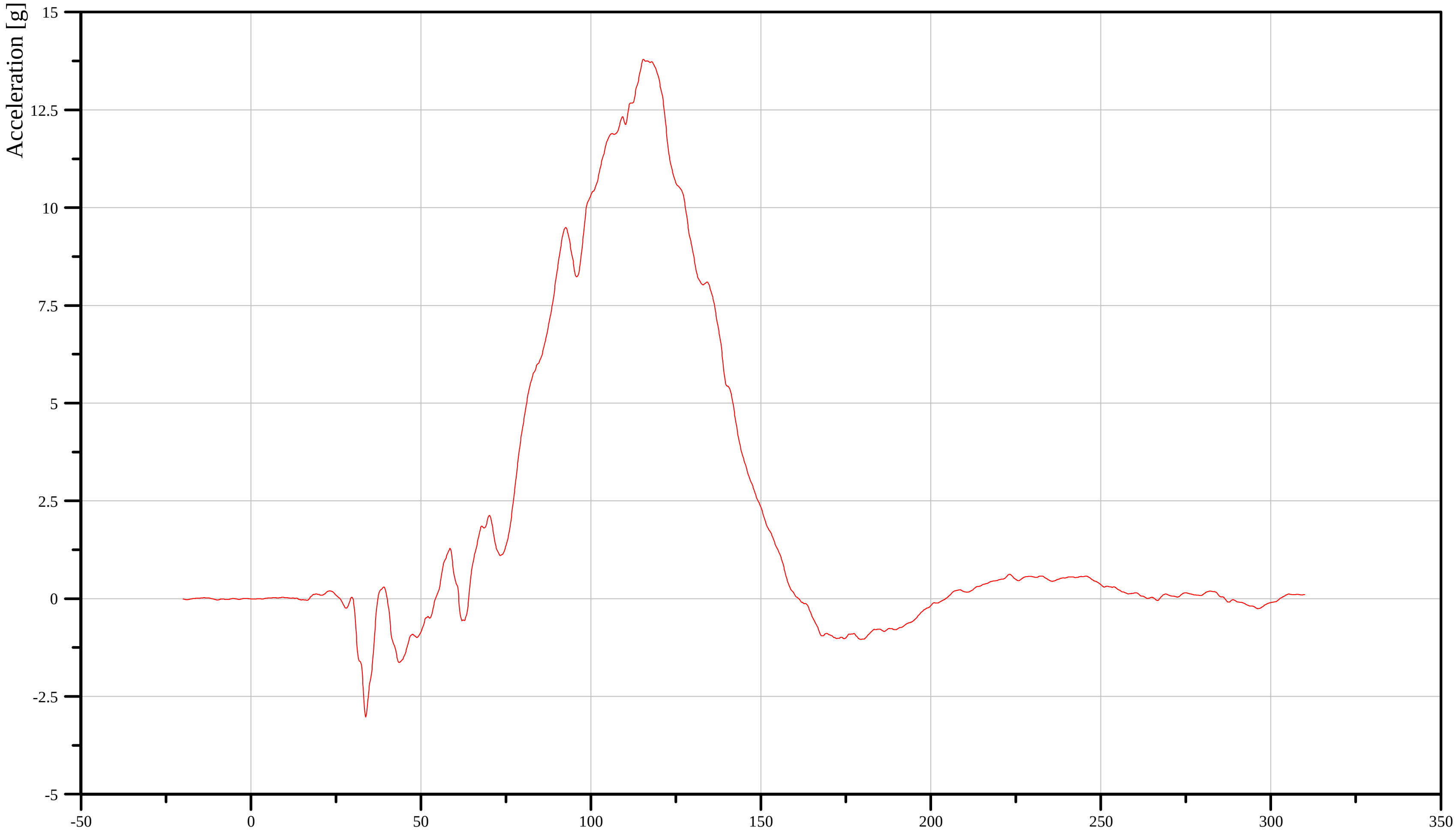
Driver Chest Y-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-3.02 g at 33.76 ms

Max. Value
13.79 g at 115.44 ms

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

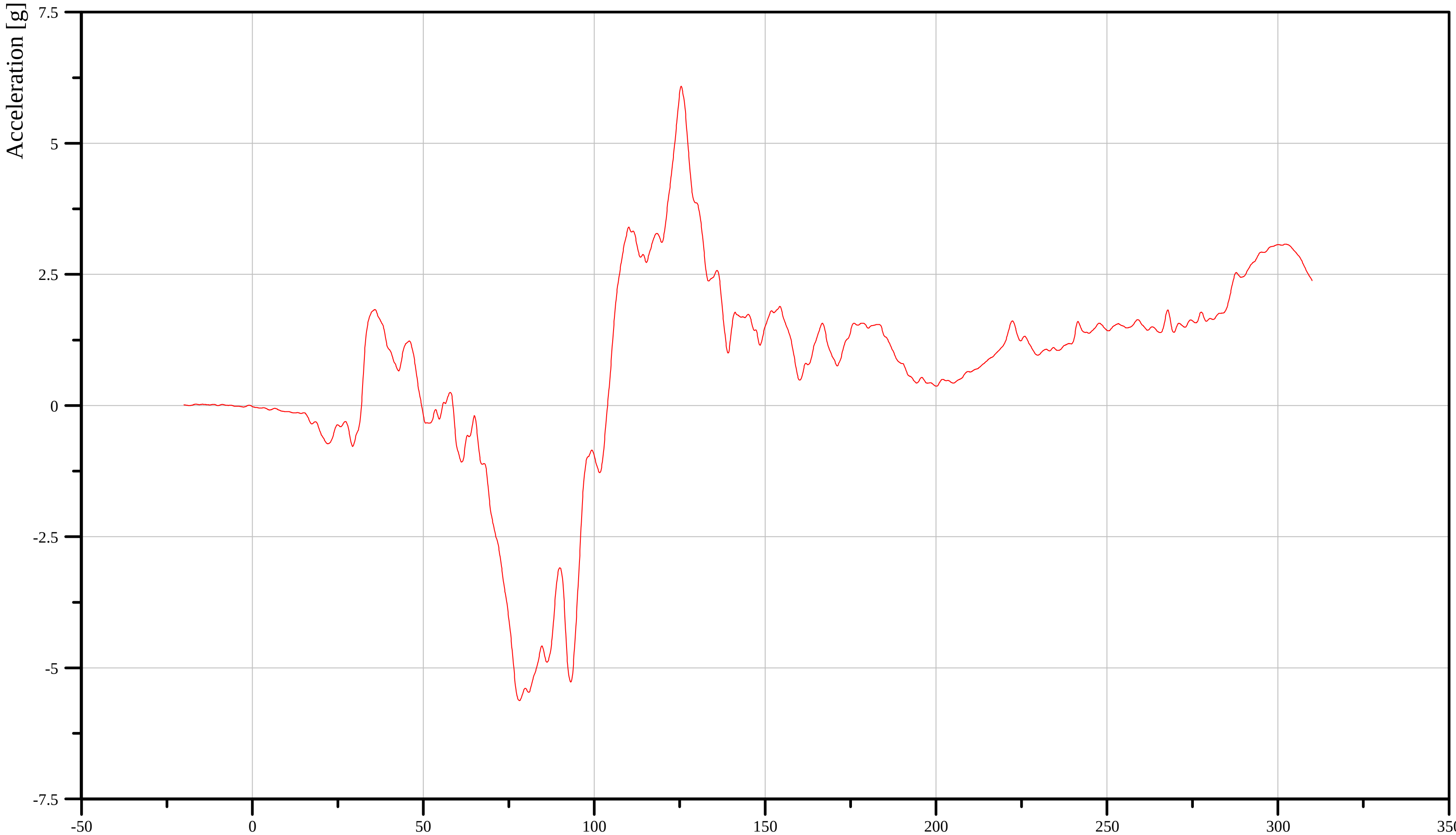
Driver Chest Z-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-5.62 g at 78.16 ms

Max. Value
6.09 g at 125.44 ms

070126

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

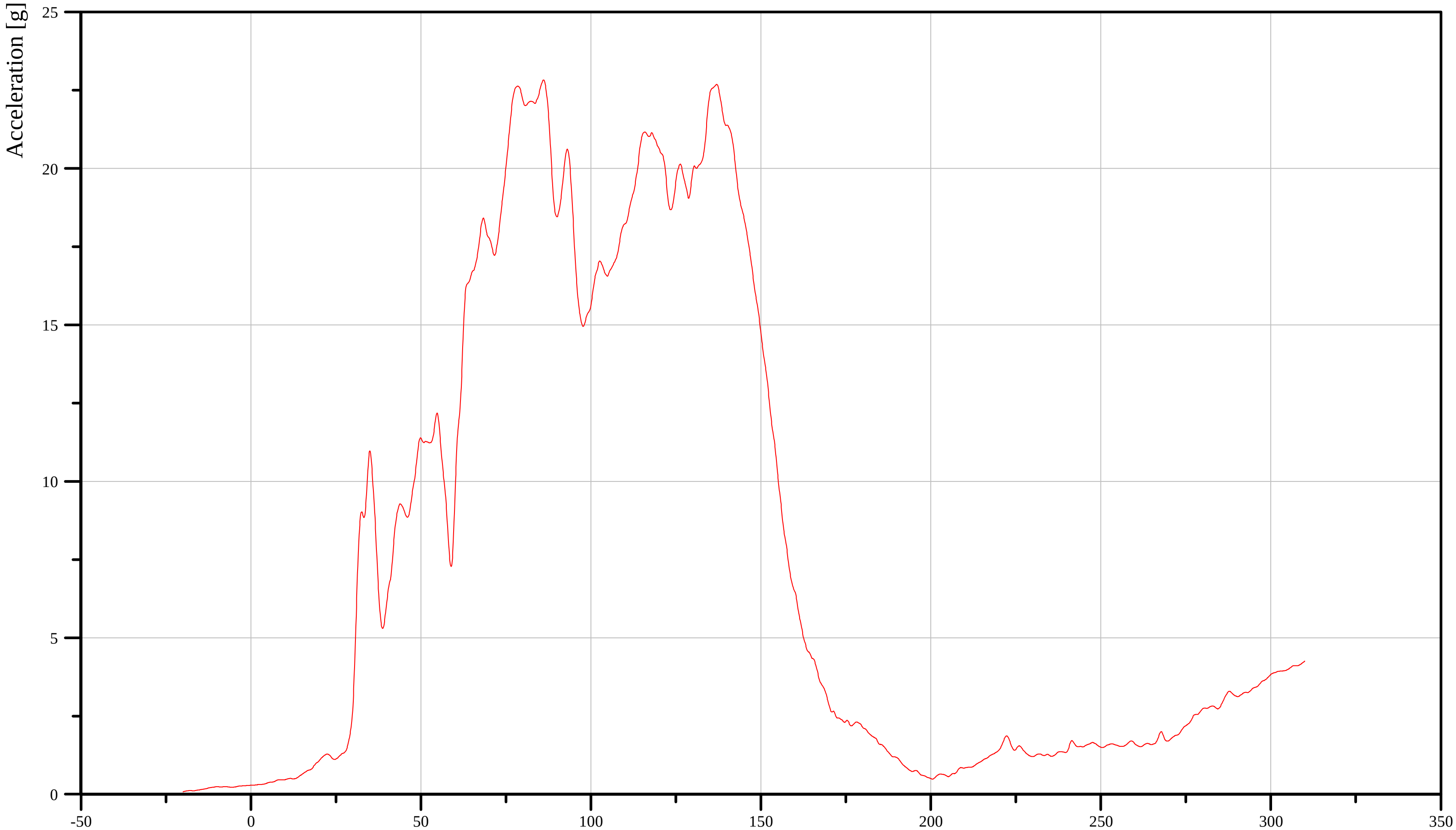
Driver Chest Redundant Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
0.08 g at -20.00 ms

Max. Value
22.83 g at 86.08 ms

TRC

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

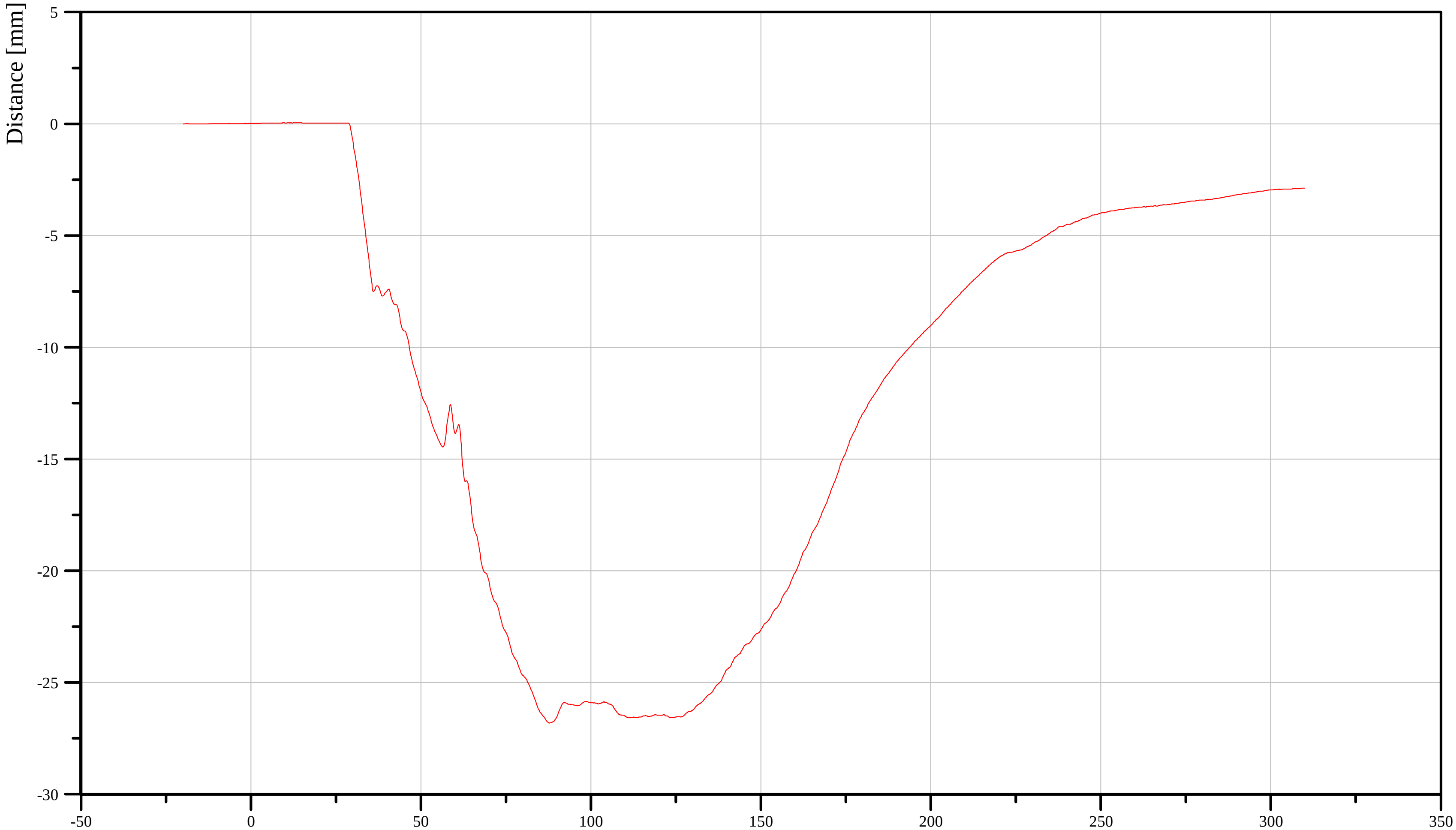
Driver Chest Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CHST0000H3DSXB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-26.81 mm at 87.84 ms

Max. Value
0.04 mm at 10.96 ms

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

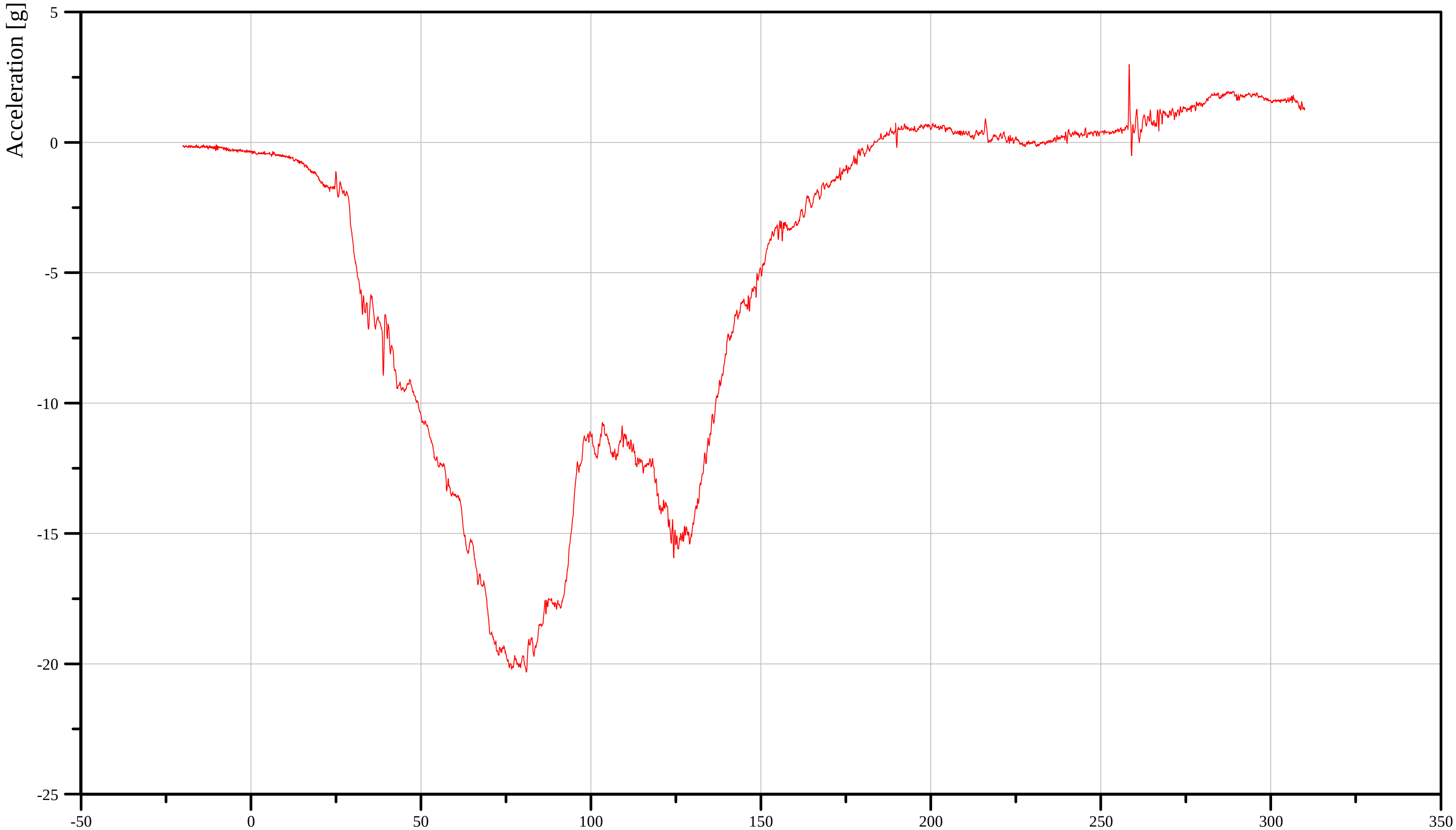
Driver Pelvis X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PELVCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-20.31 g at 80.96 ms

Max. Value
2.99 g at 258.32 ms

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

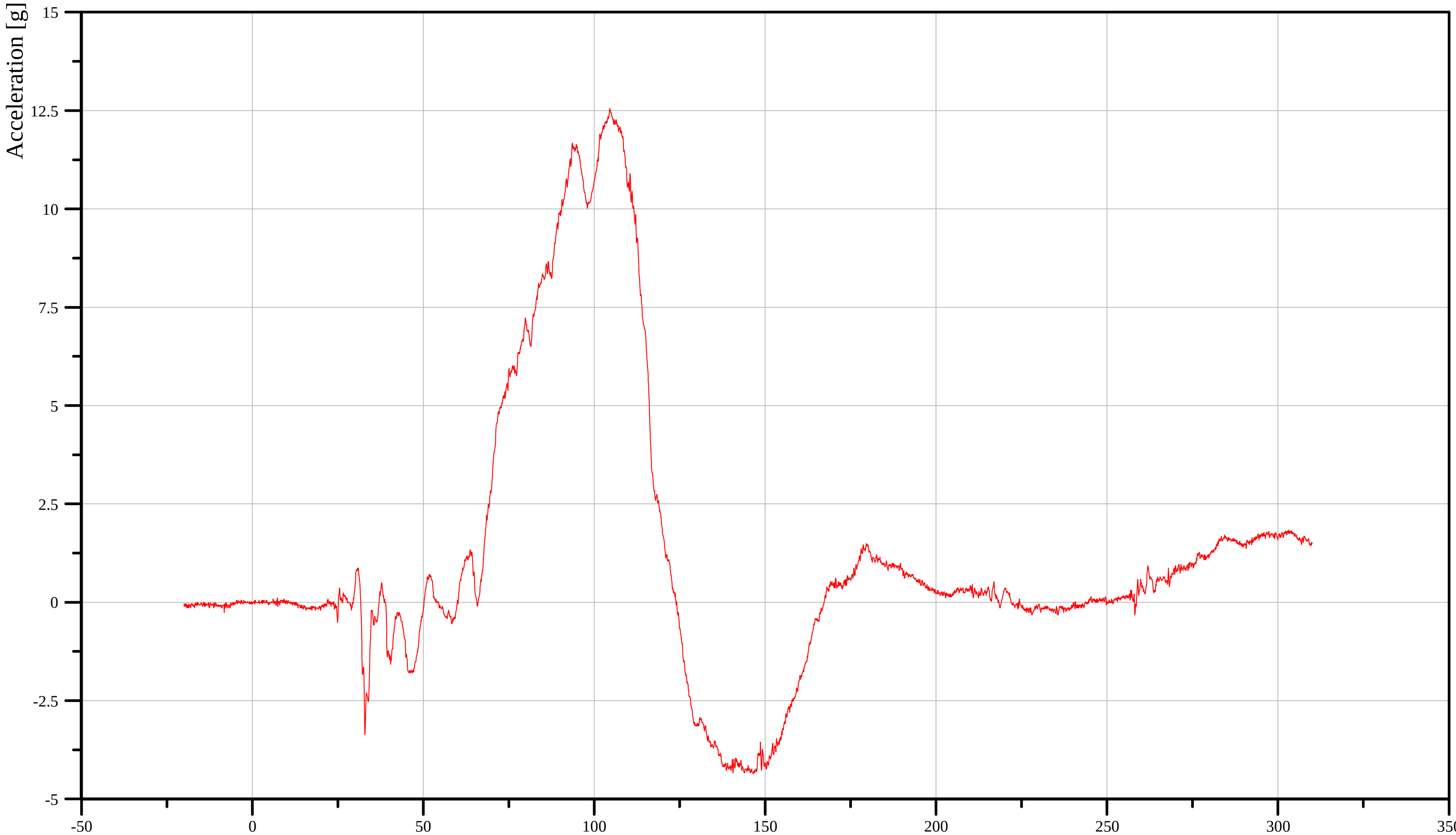
Driver Pelvis Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PELVCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-4.37 g at 146.48 ms

Max. Value
12.55 g at 104.56 ms

TRC

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

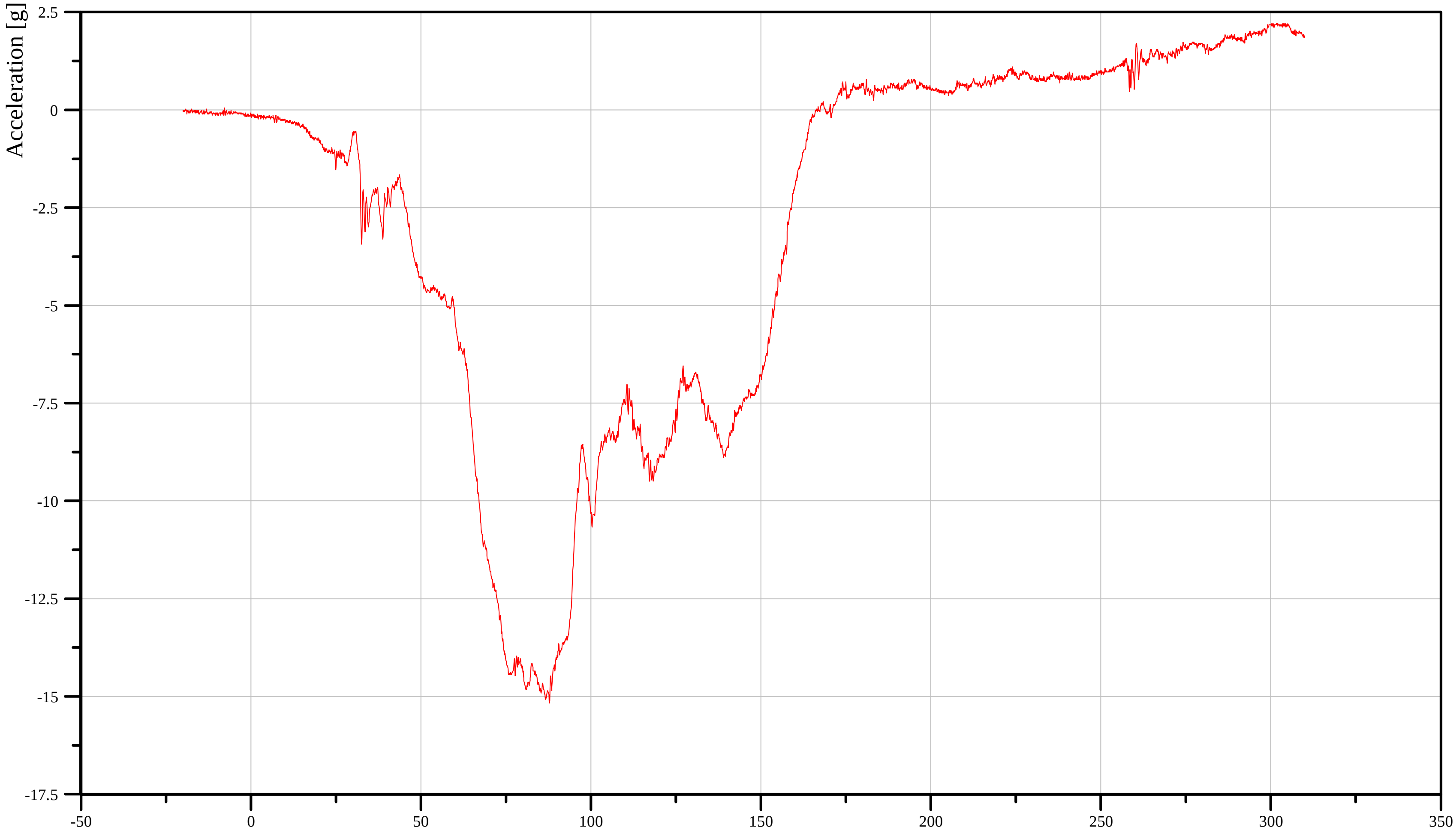
Driver Pelvis Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PELVCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-15.17 g at 87.84 ms

Max. Value
2.21 g at 300.24 ms

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

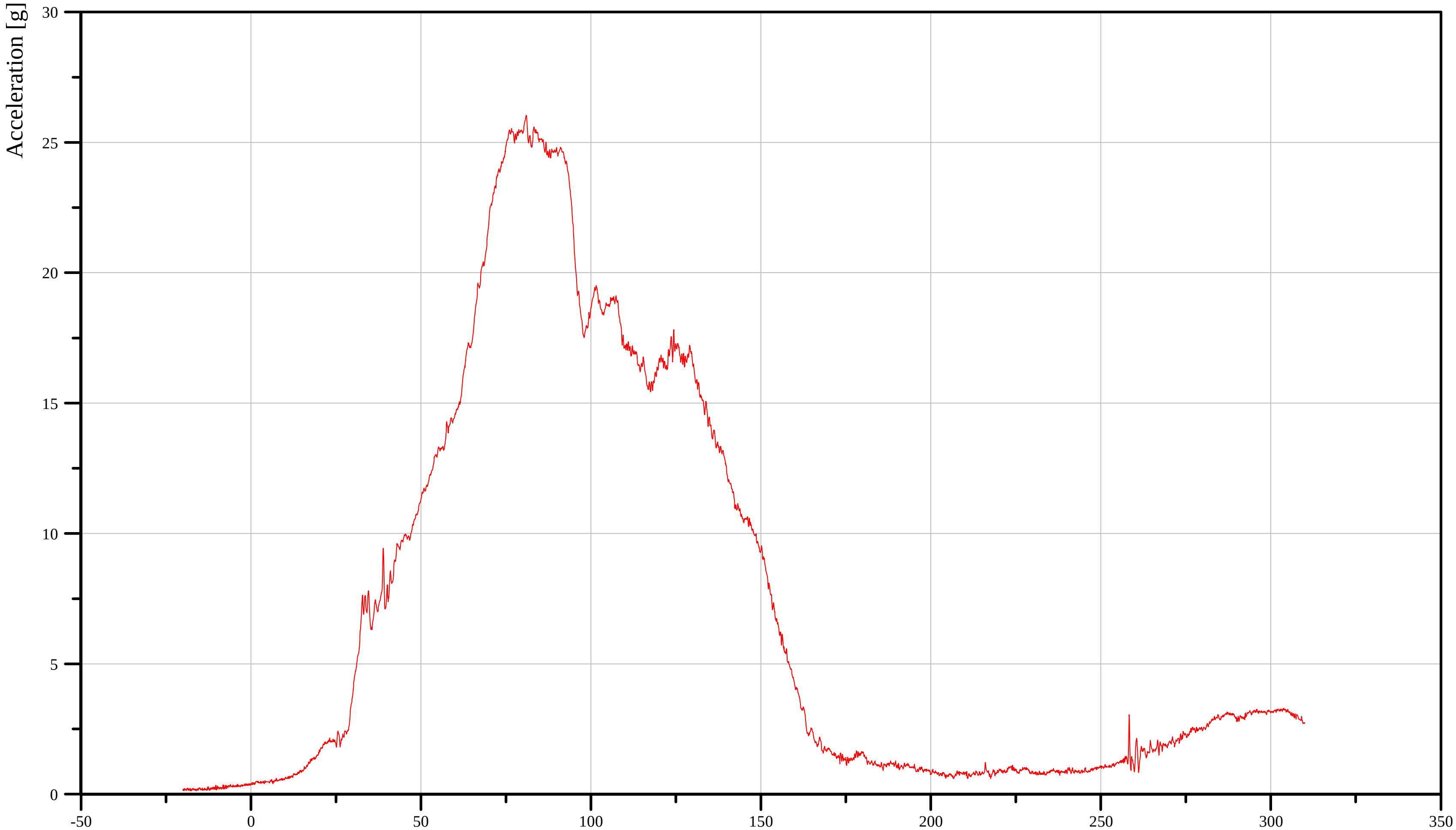
Driver Pelvis Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PELVCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.13 g at -16.00 ms

Max. Value
26.04 g at 80.96 ms

070126

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

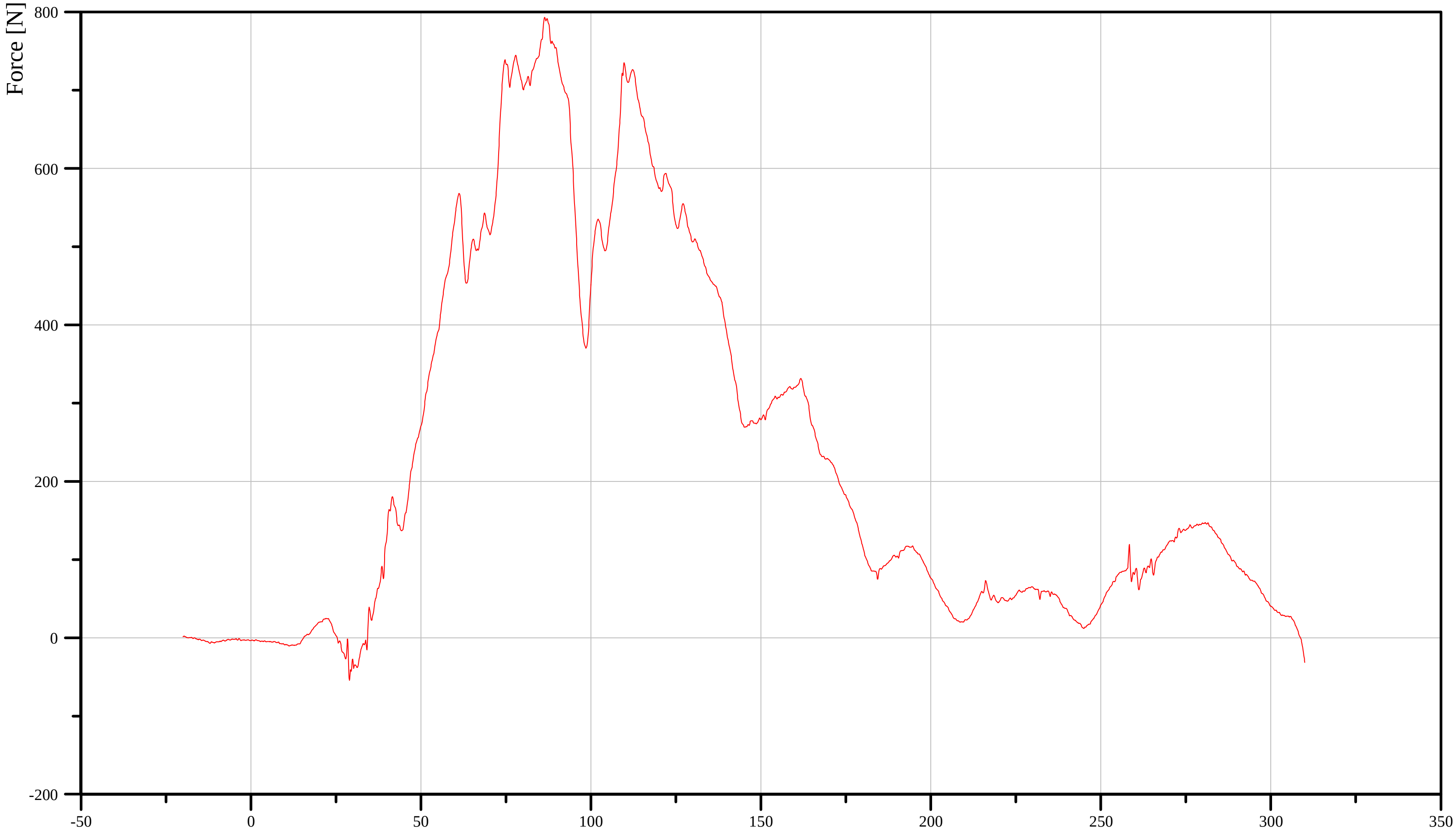
Driver Left Femur Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-54.18 N at 28.96 ms

Max. Value
793.35 N at 86.40 ms

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

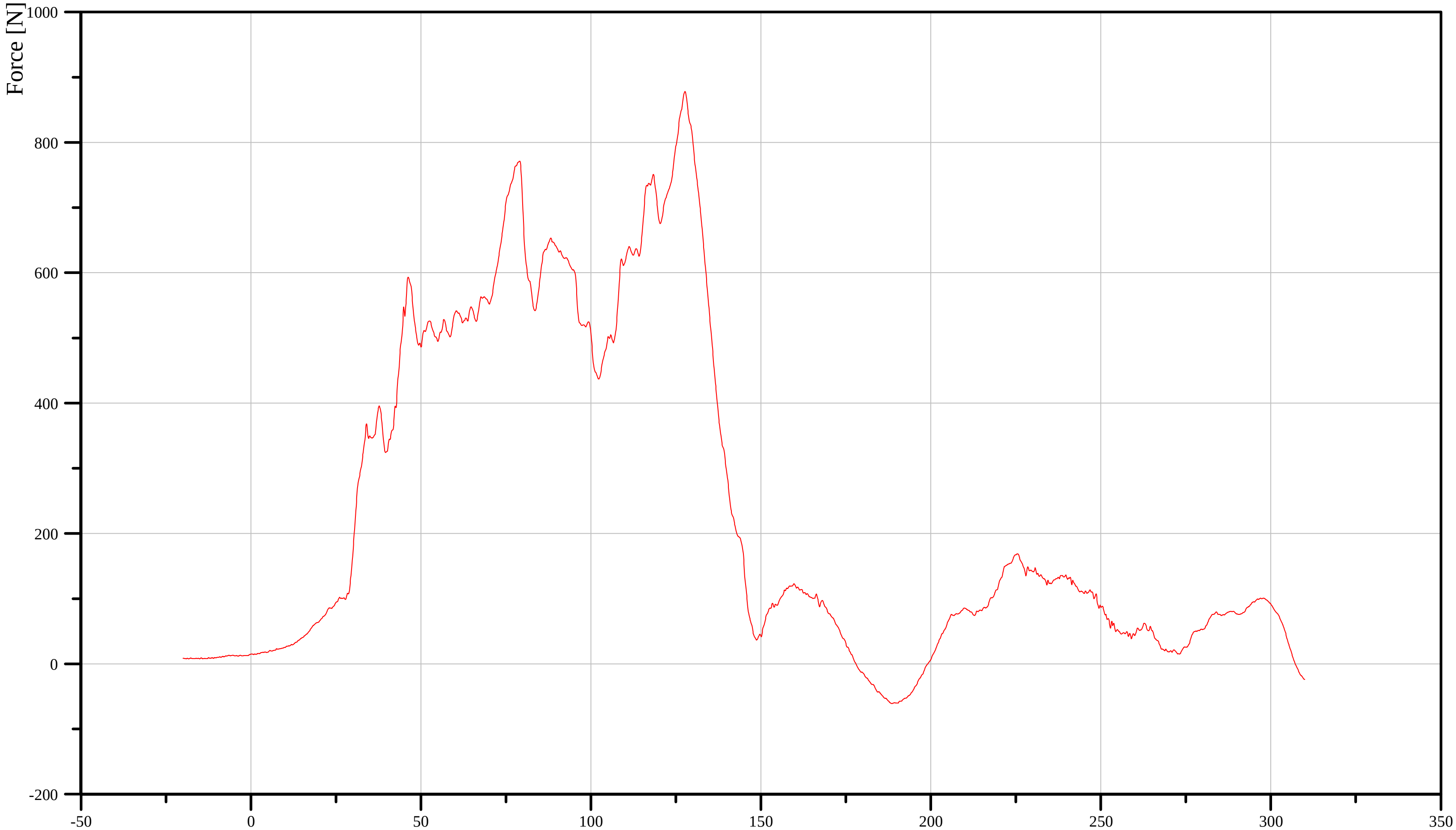
Driver Right Femur Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FEMRRL00H3FOZB

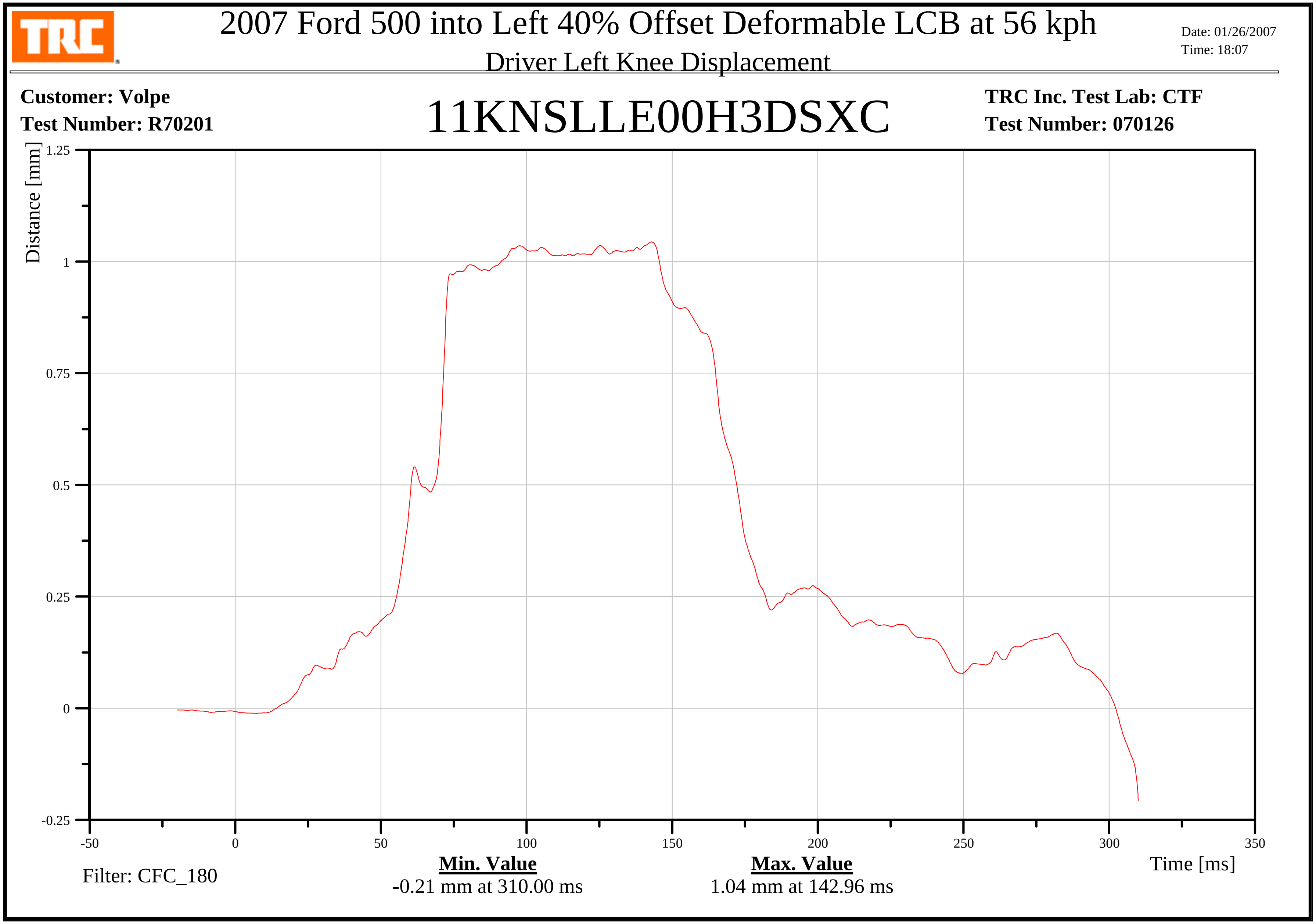
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-60.91 N at 188.48 ms

Max. Value
878.14 N at 127.68 ms



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Driver Left Knee Displacement
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
11KNSLLE00H3DSXC
TRC Inc. Test Lab: CTF
Test Number: 070126
Distance [mm]
1.25
1
0.75
0.5
0.25
0
-0.25
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_180
Min. Value
-0.21 mm at 310.00 ms
Max. Value
1.04 mm at 142.96 ms

070126

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

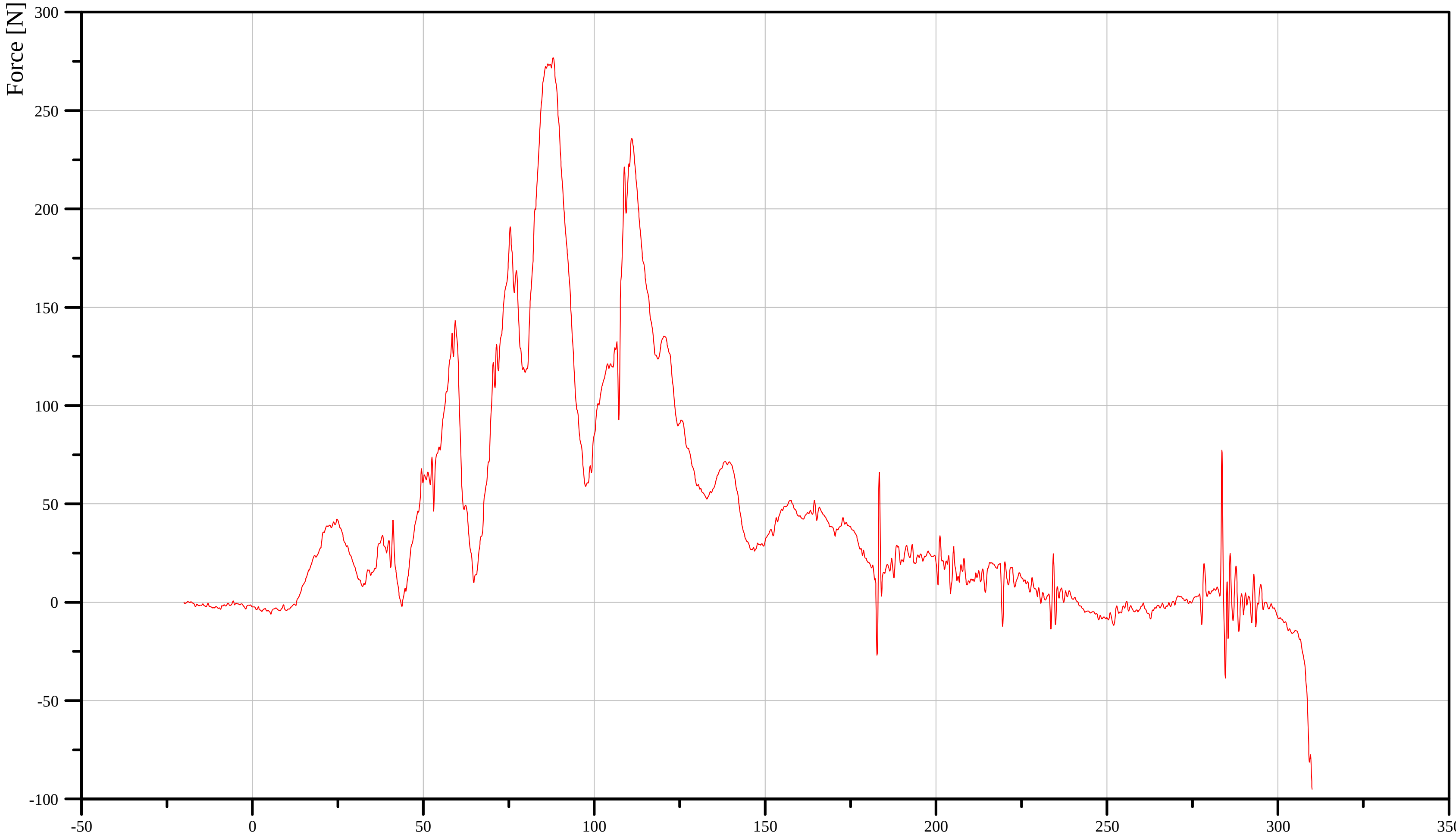
Driver Left Upper Tibia X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILULXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-95.06 N at 310.00 ms

Max. Value
276.90 N at 88.00 ms

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

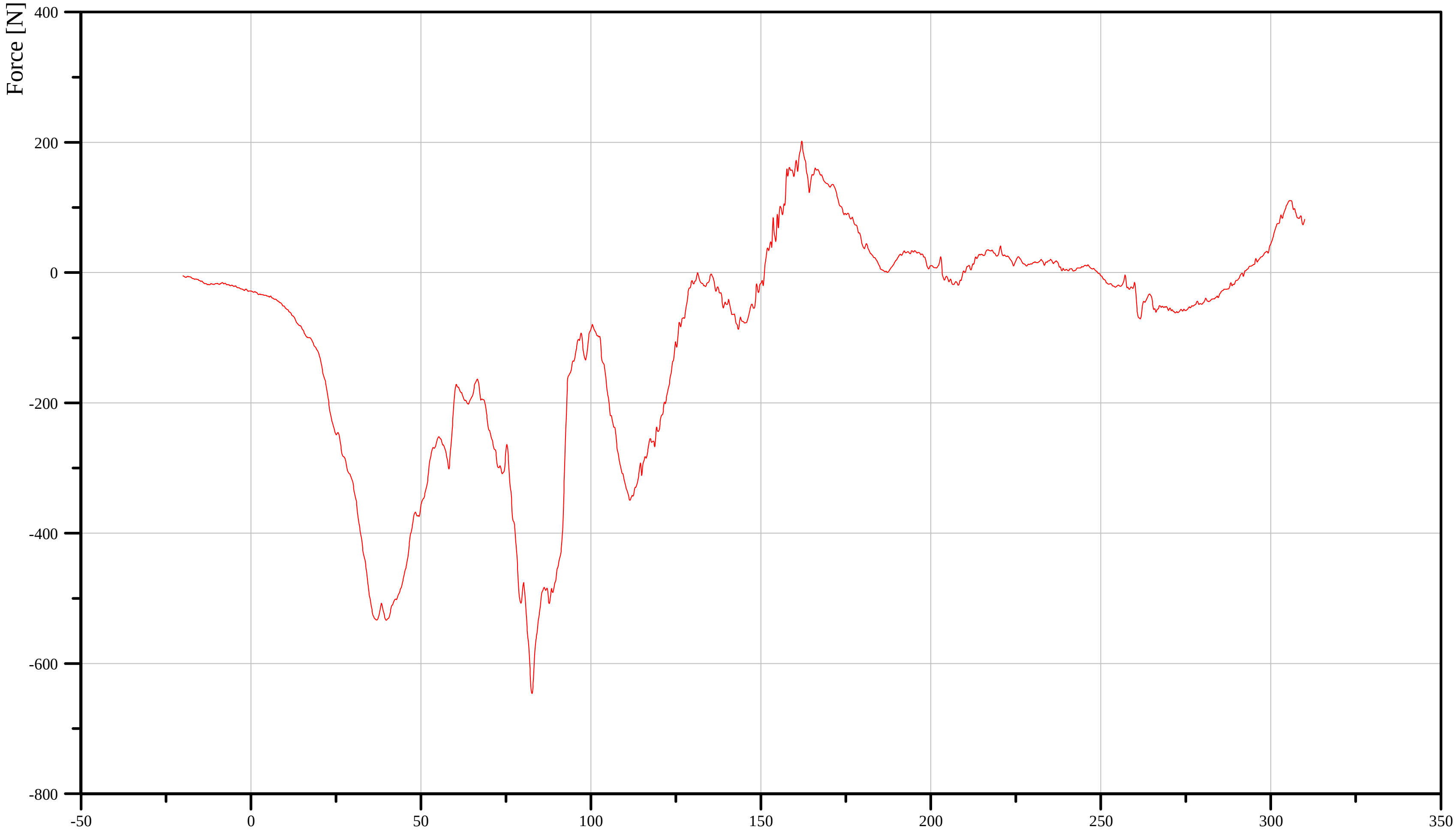
Driver Left Upper Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126

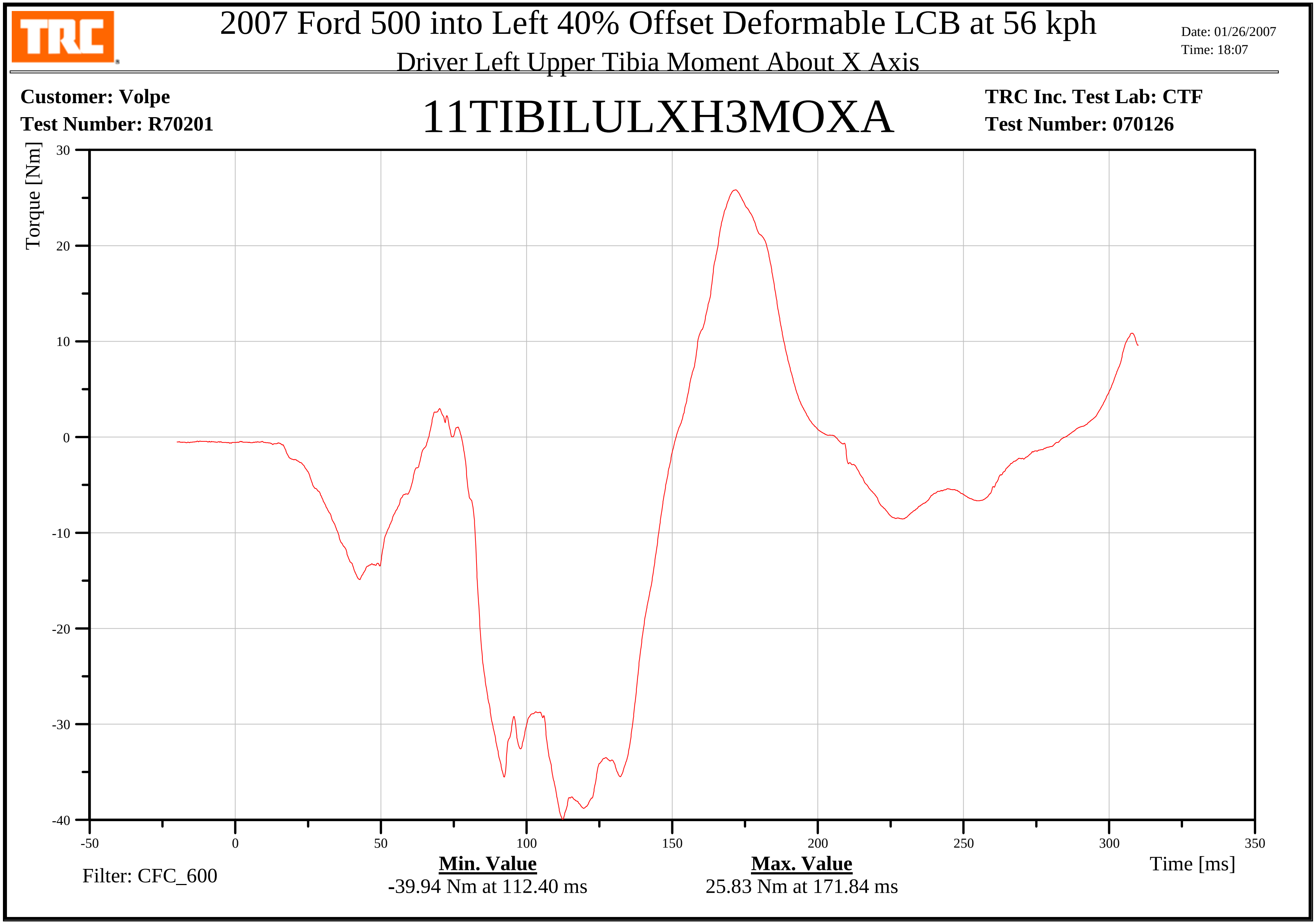


Filter: CFC_600

Min. Value
-646.01 N at 82.64 ms

Max. Value
201.77 N at 162.00 ms

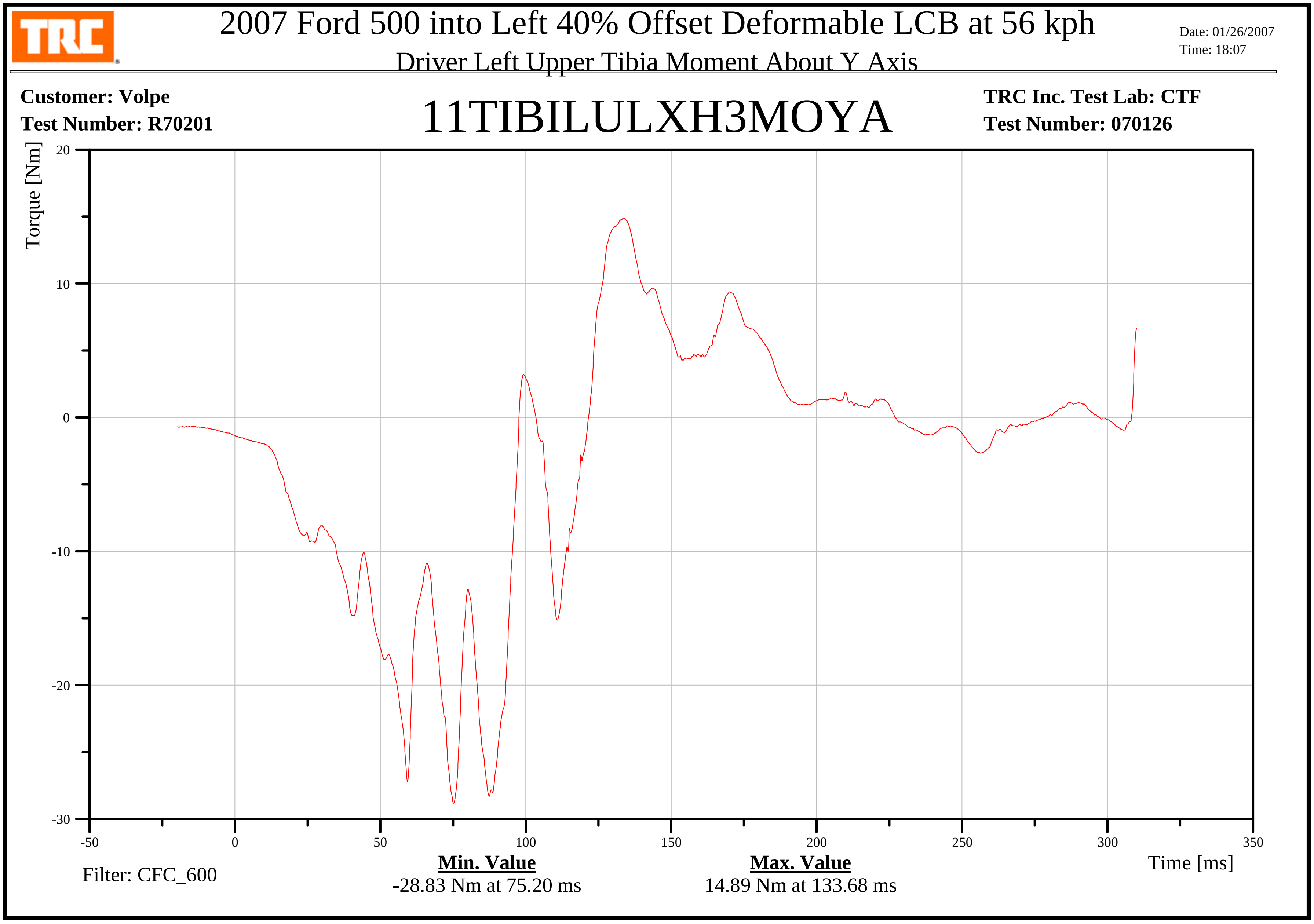
070126



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Driver Left Upper Tibia Moment About X Axis
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
11TIBILULXH3MOXA
TRC Inc. Test Lab: CTF
Test Number: 070126
Torque [Nm]
30
20
10
0
-10
-20
-30
-40
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-39.94 Nm at 112.40 ms
Max. Value
25.83 Nm at 171.84 ms

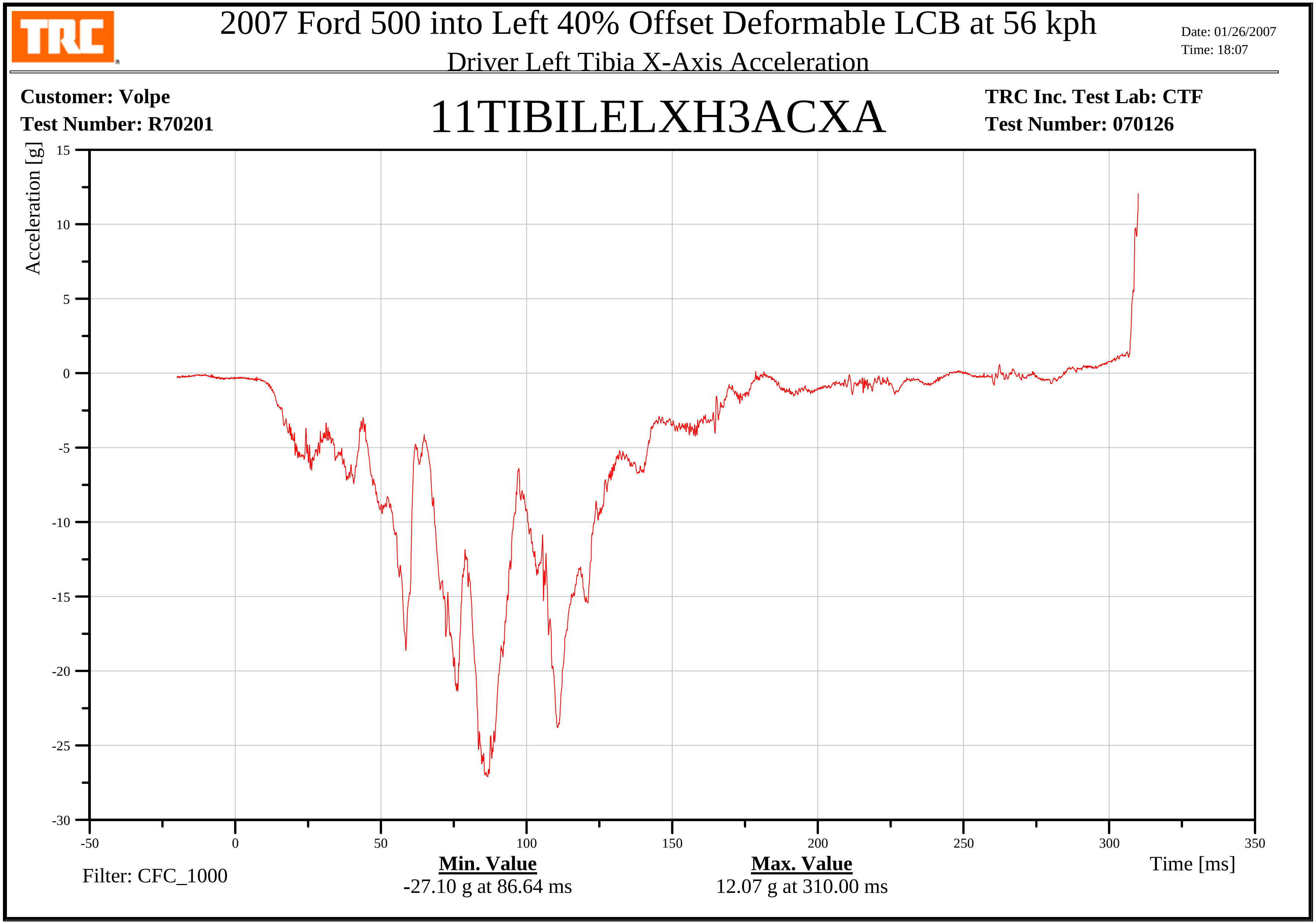
B-55

070126


TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Driver Left Upper Tibia Moment About Y Axis
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
11TIBILULXH3MOYA
TRC Inc. Test Lab: CTF
Test Number: 070126
Torque [Nm]
20
10
0
-10
-20
-30
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-28.83 Nm at 75.20 ms
Max. Value
14.89 Nm at 133.68 ms

B-56

070126



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Driver Left Tibia X-Axis Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
11TIBILELXH3ACXA
TRC Inc. Test Lab: CTF
Test Number: 070126
Acceleration [g]
15
10
5
0
-5
-10
-15
-20
-25
-30
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_1000
Min. Value
-27.10 g at 86.64 ms
Max. Value
12.07 g at 310.00 ms

B-57

070126

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

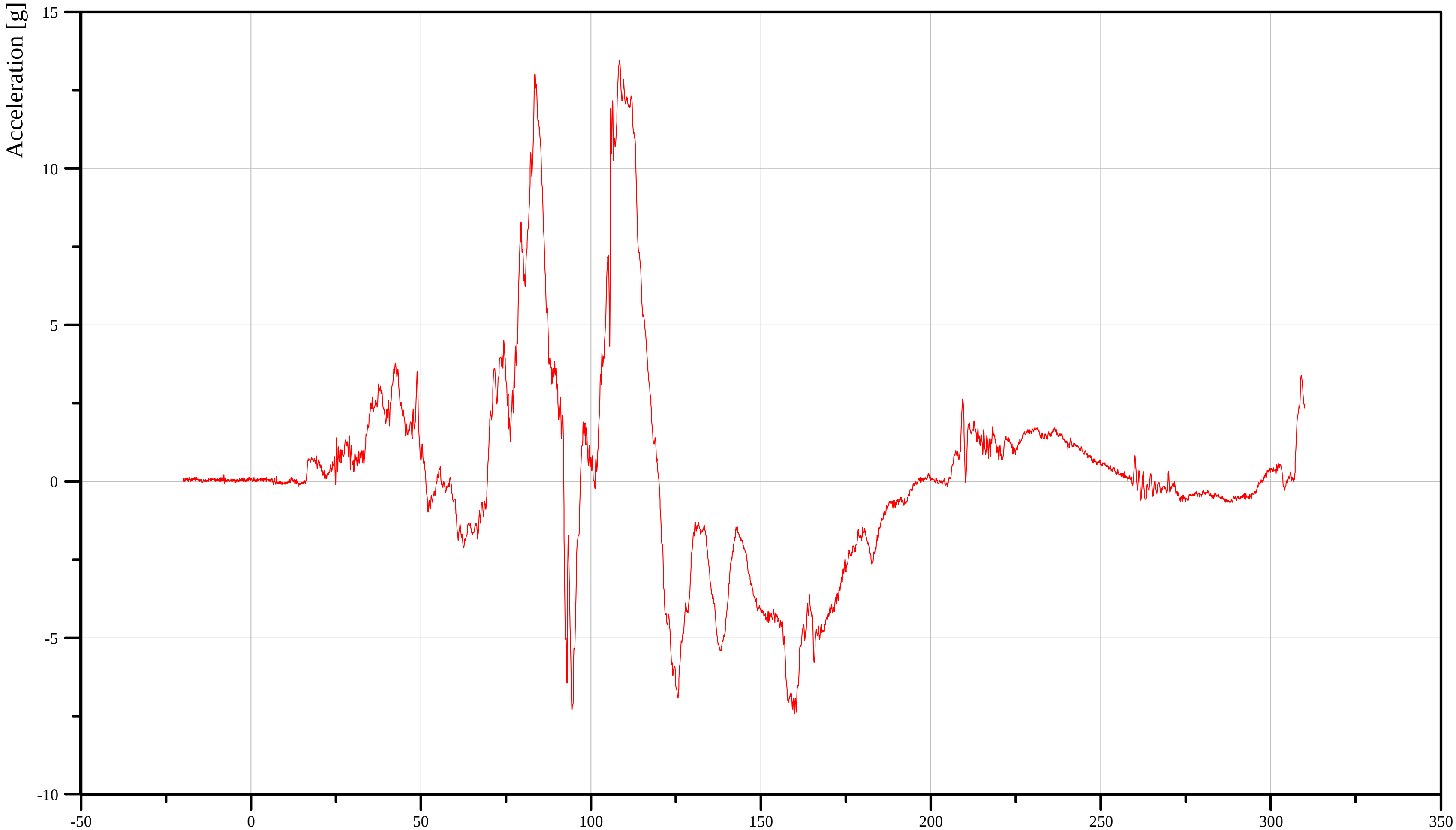
Driver Left Tibia Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-7.43 g at 159.84 ms

Max. Value
13.46 g at 108.40 ms

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

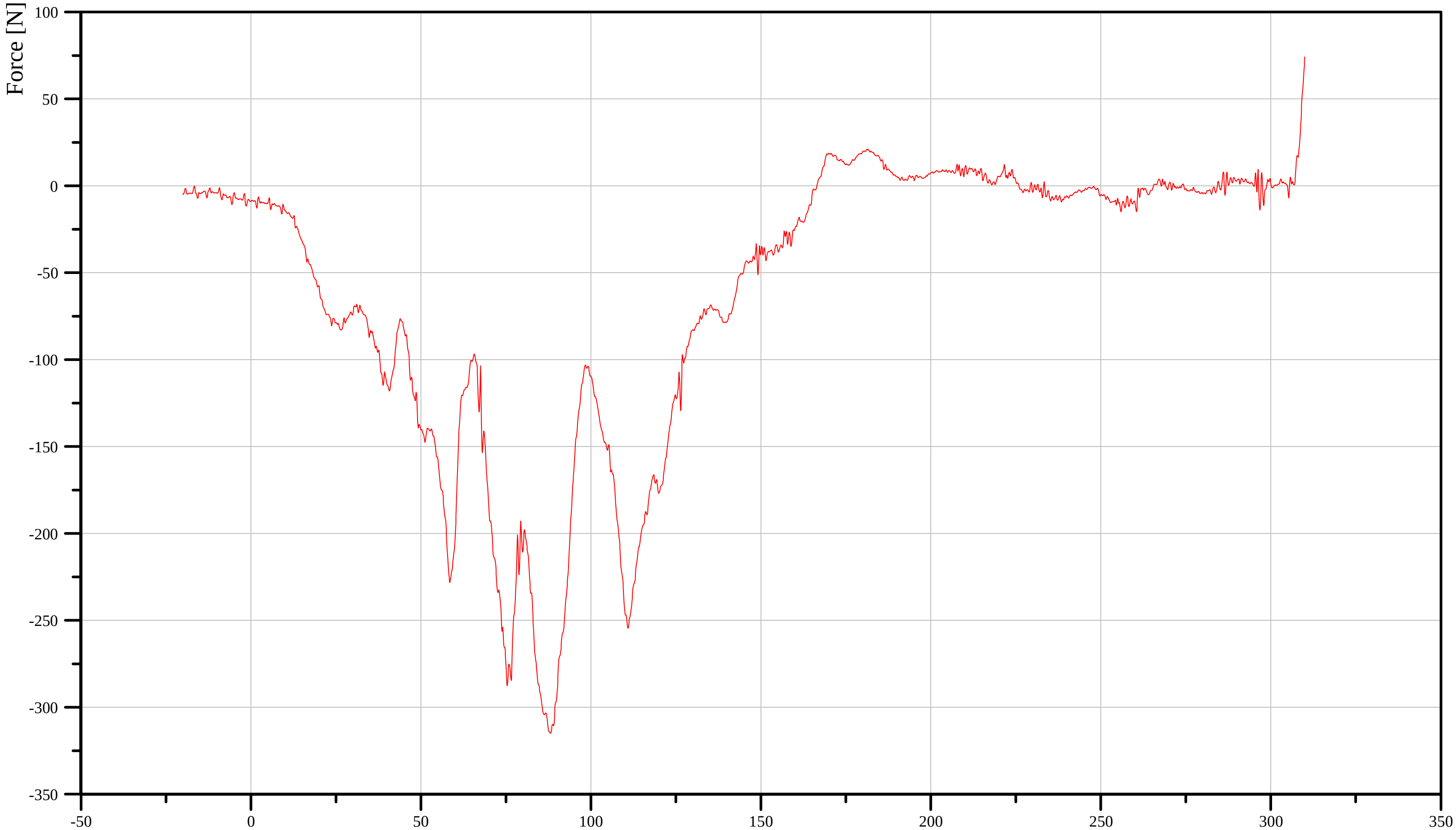
Driver Left Lower Tibia X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-314.86 N at 88.08 ms

Max. Value
74.17 N at 310.00 ms

070126

TRC

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

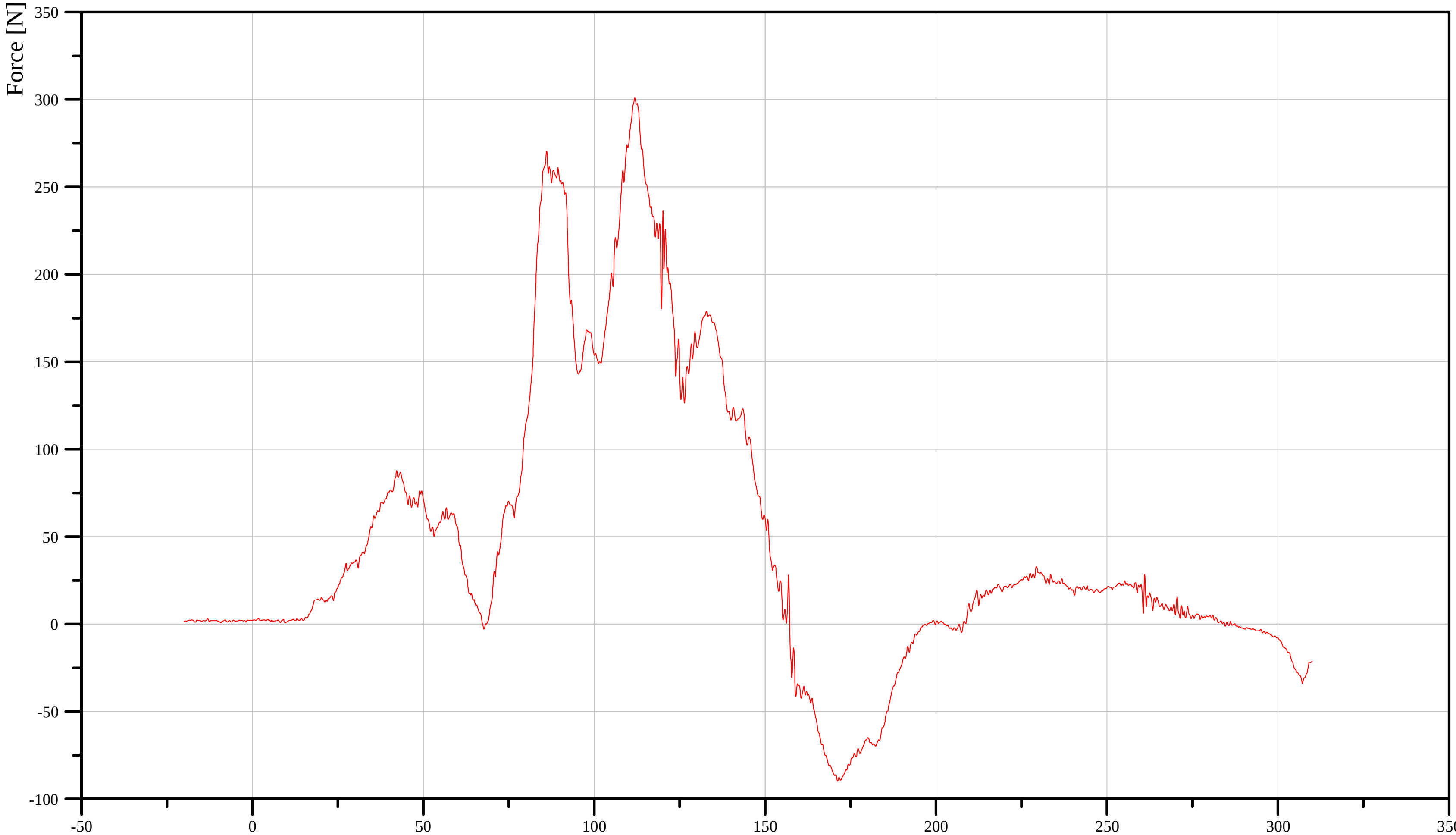
Driver Left Lower Tibia Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-89.65 N at 171.20 ms

Max. Value
300.87 N at 111.84 ms

B-60

070126

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

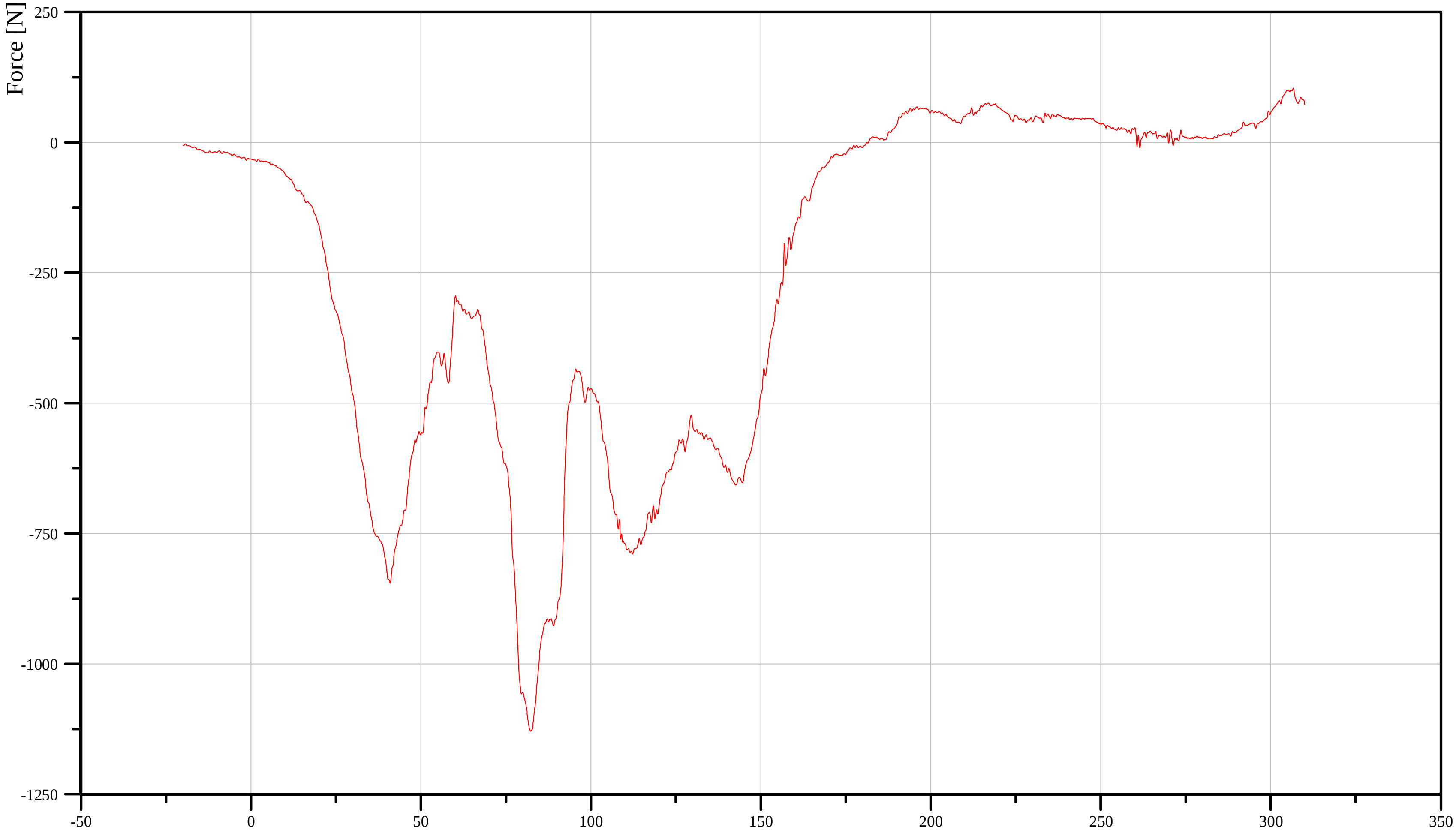
Driver Left Lower Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-1,128.77 N at 82.24 ms

Max. Value
104.14 N at 306.64 ms

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

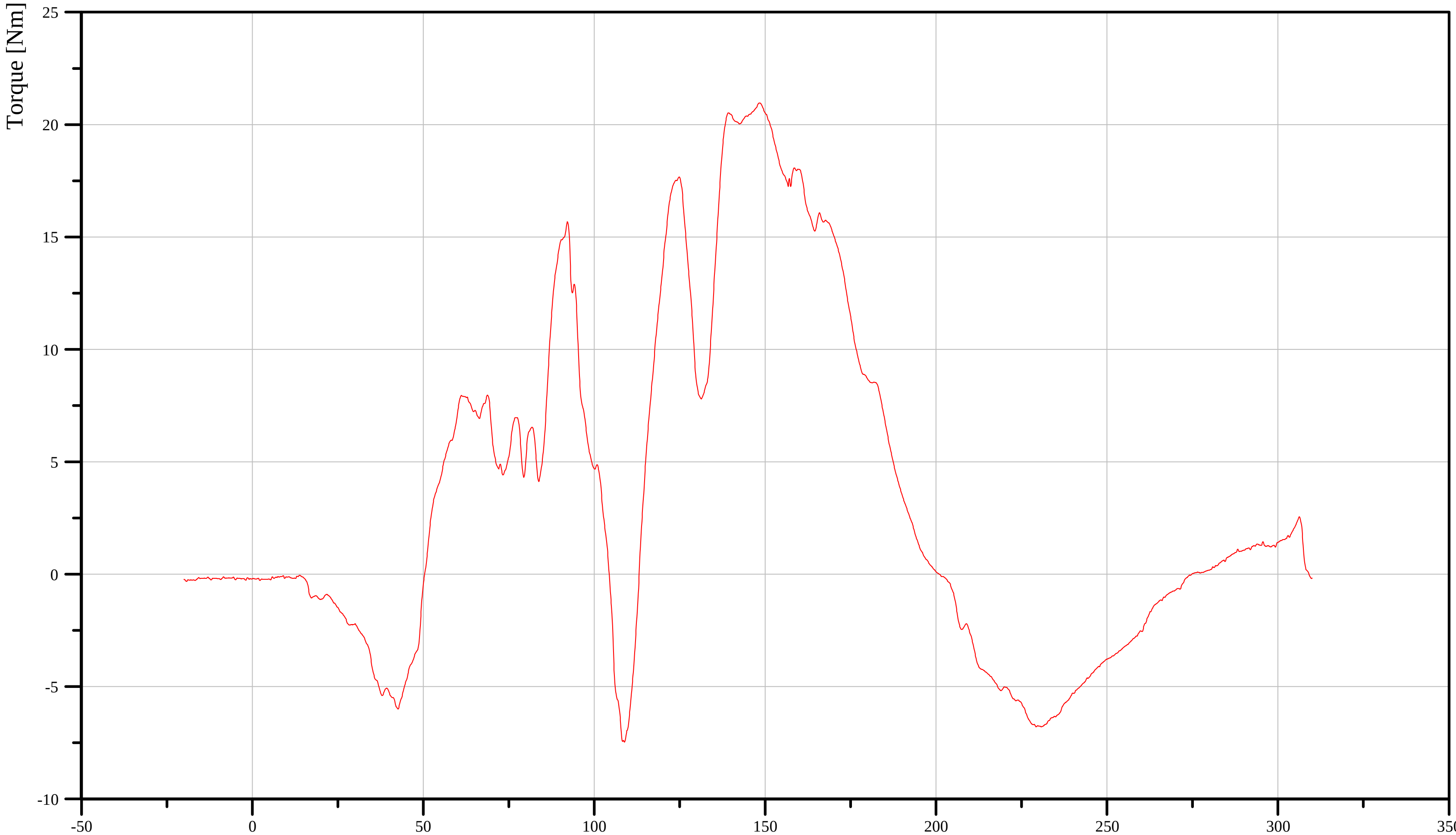
Driver Left Lower Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBILLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126

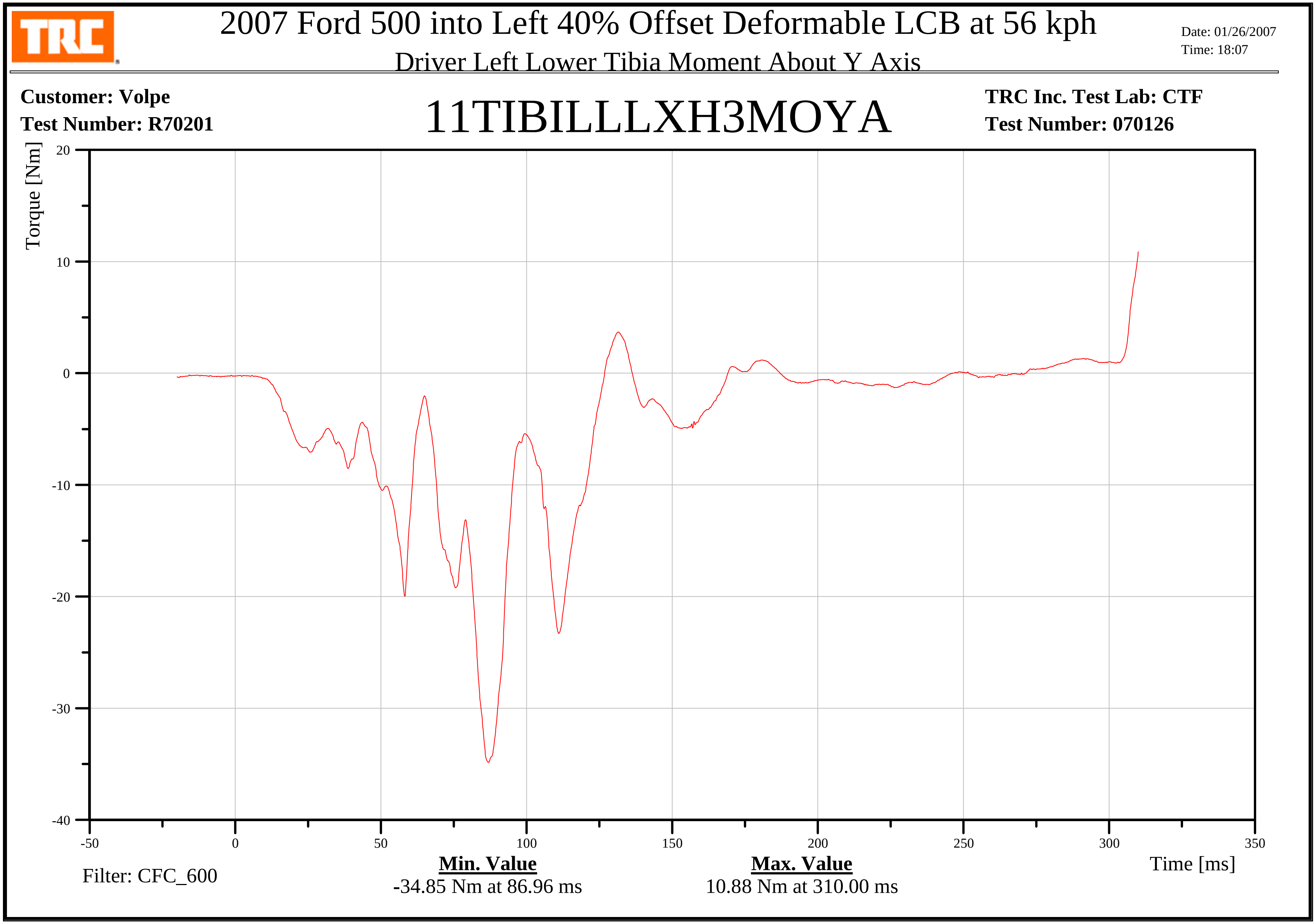


Filter: CFC_600

Min. Value
-7.46 Nm at 108.88 ms

Max. Value
20.95 Nm at 148.32 ms

070126



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Driver Left Lower Tibia Moment About Y Axis
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
11TIBILLLXH3MOYA
TRC Inc. Test Lab: CTF
Test Number: 070126
Torque [Nm]
20
10
0
-10
-20
-30
-40
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-34.85 Nm at 86.96 ms
Max. Value
10.88 Nm at 310.00 ms

B-63

070126

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

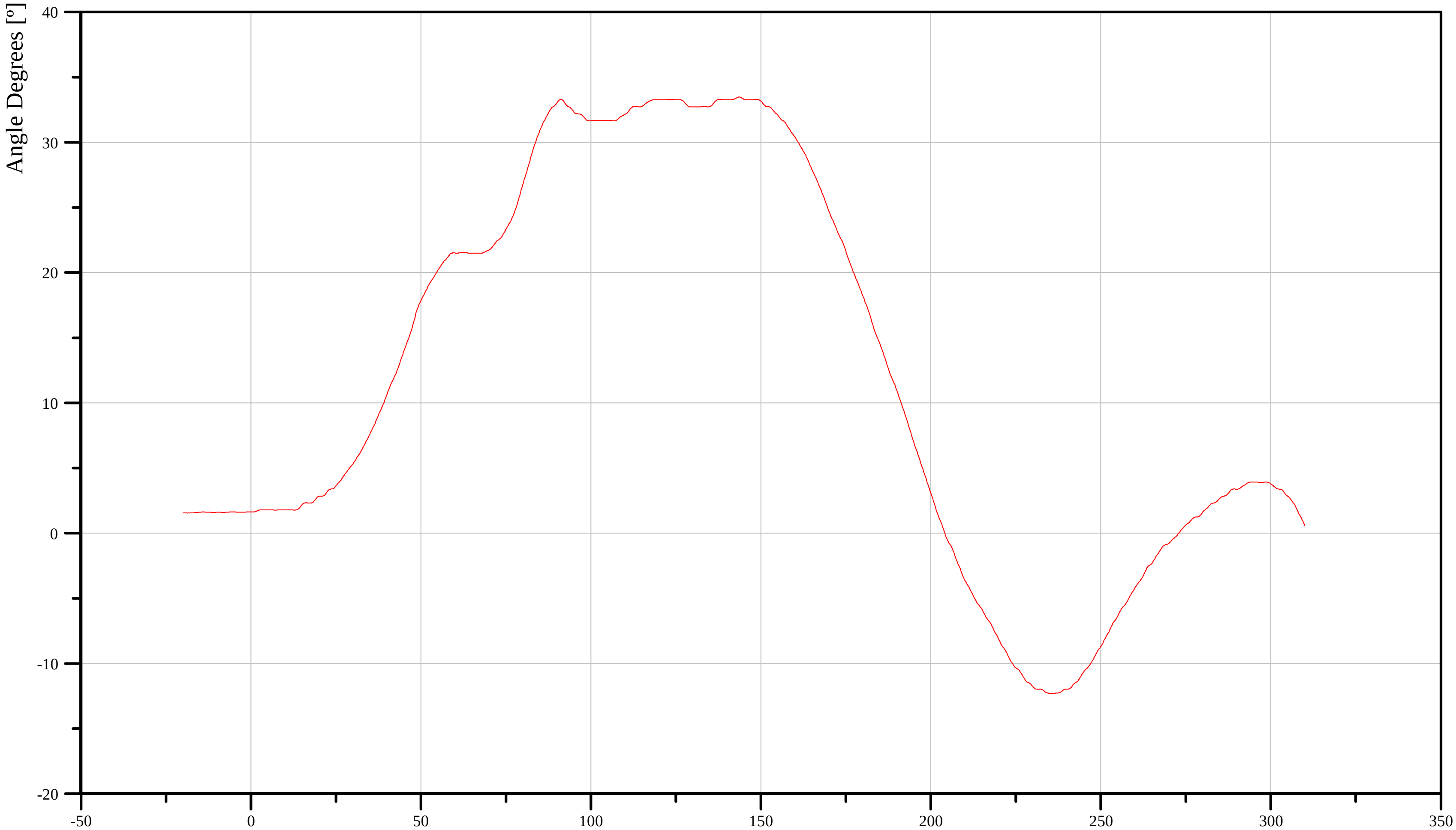
Driver Left Foot X-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-12.29 ° at 235.28 ms

Max. Value
33.48 ° at 143.60 ms

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

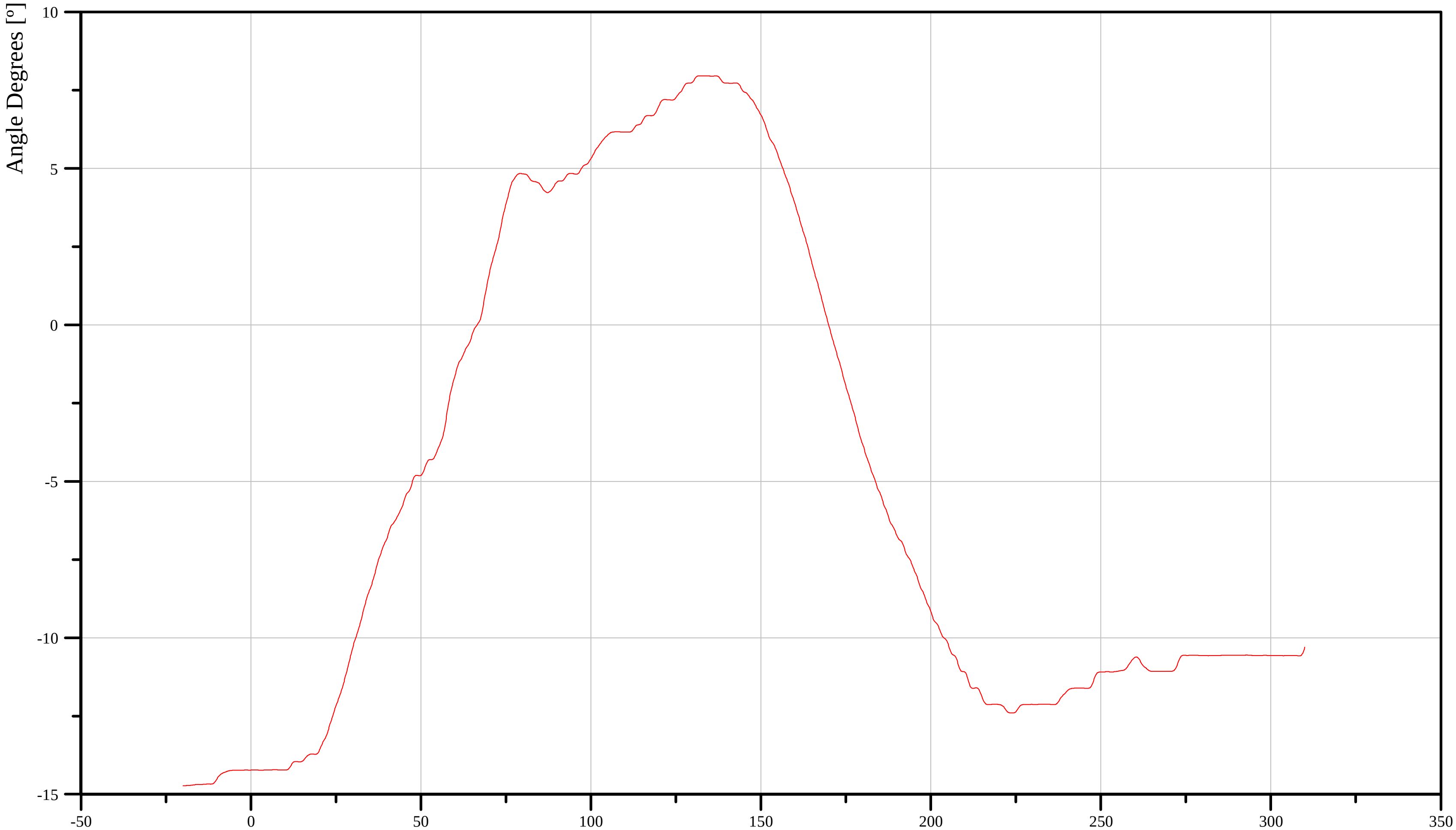
Driver Left Foot Y-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-14.73 ° at -20.00 ms

Max. Value
7.97 ° at 131.84 ms

070126

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

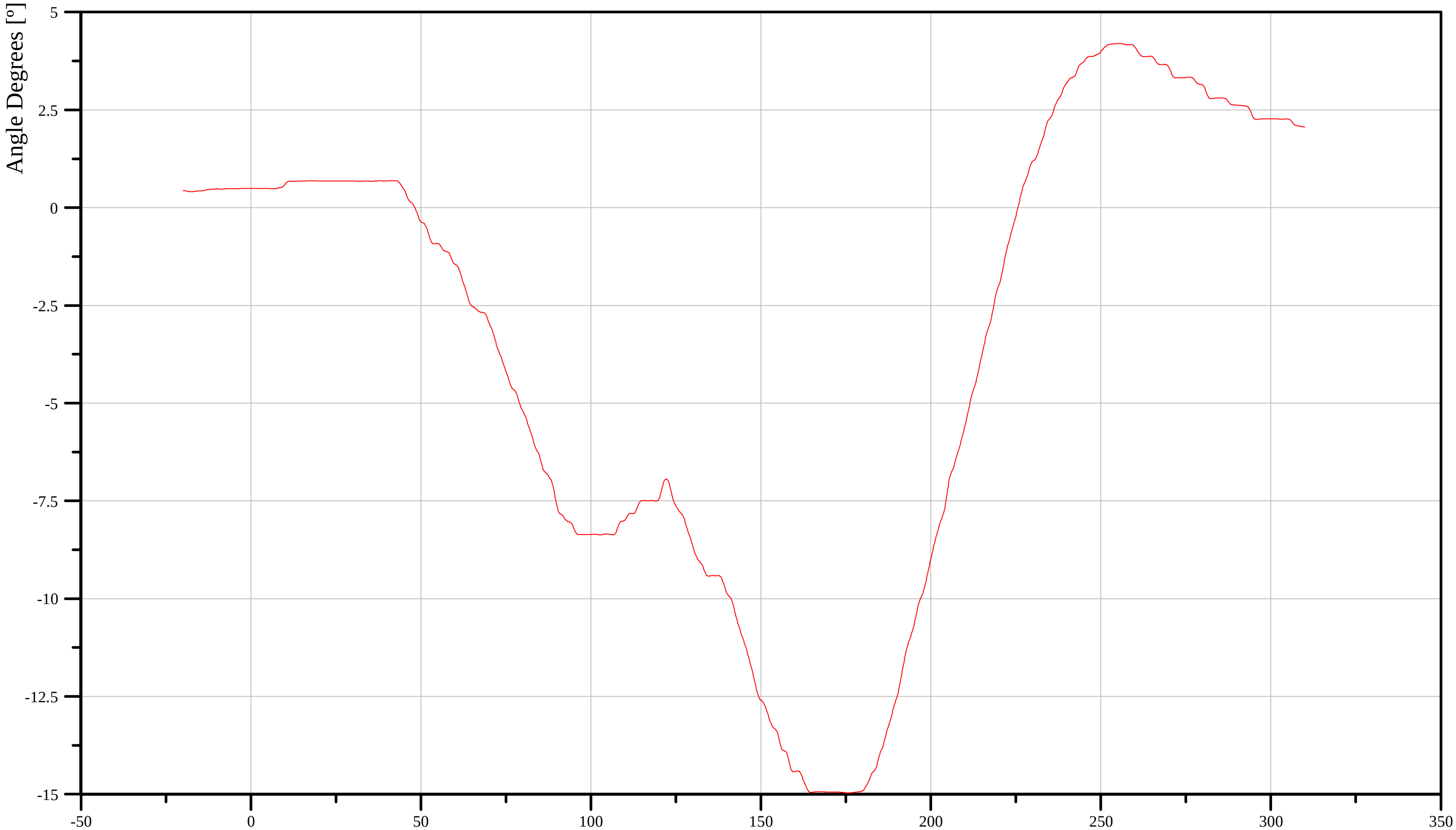
Driver Left Foot Z-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-14.96 ° at 175.20 ms

Max. Value
4.19 ° at 255.60 ms

B-66

070126

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

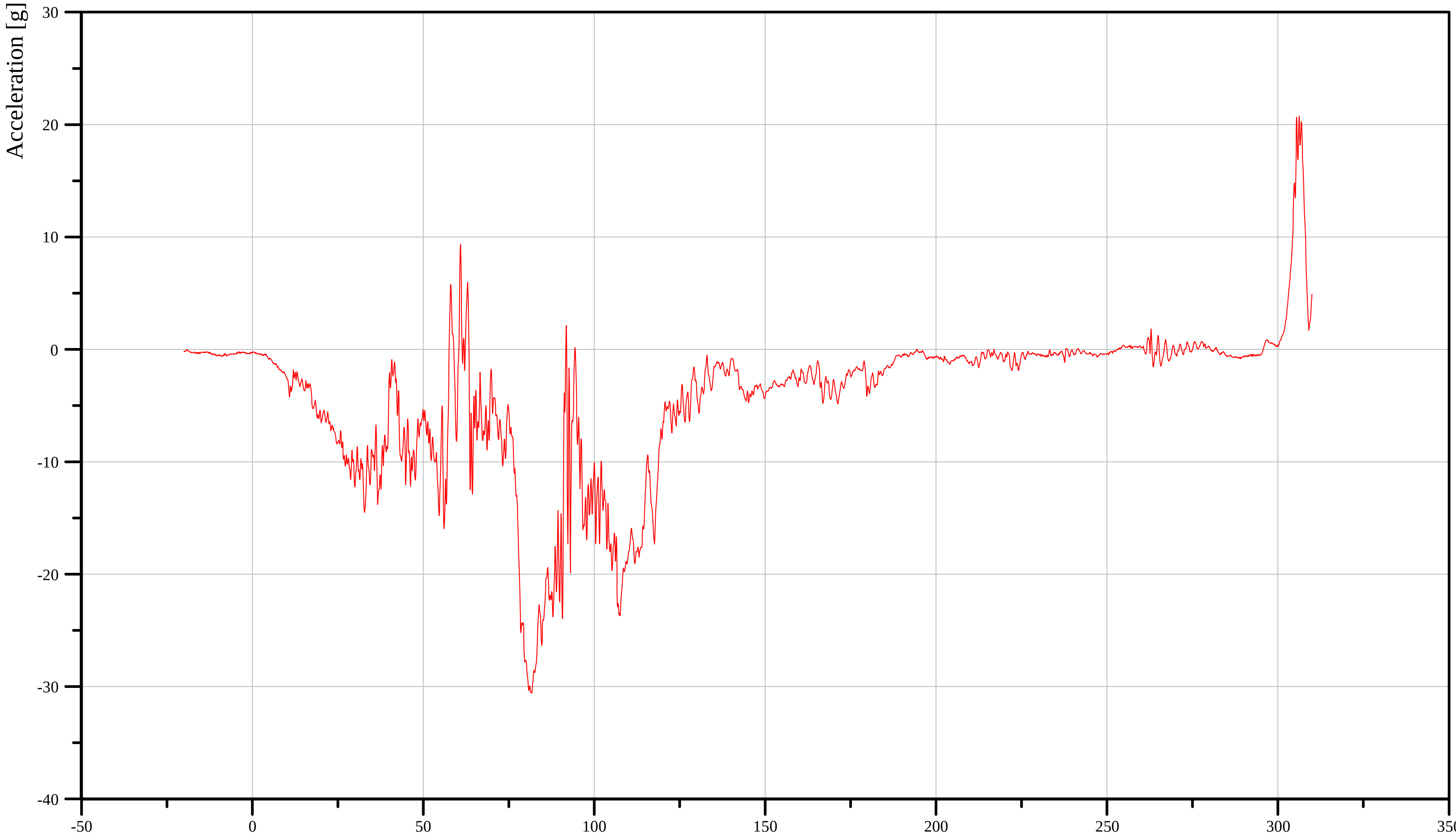
Driver Left Foot X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Time [ms]

Filter: CFC_1000

Min. Value
-30.59 g at 81.68 ms

Max. Value
20.74 g at 306.16 ms

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

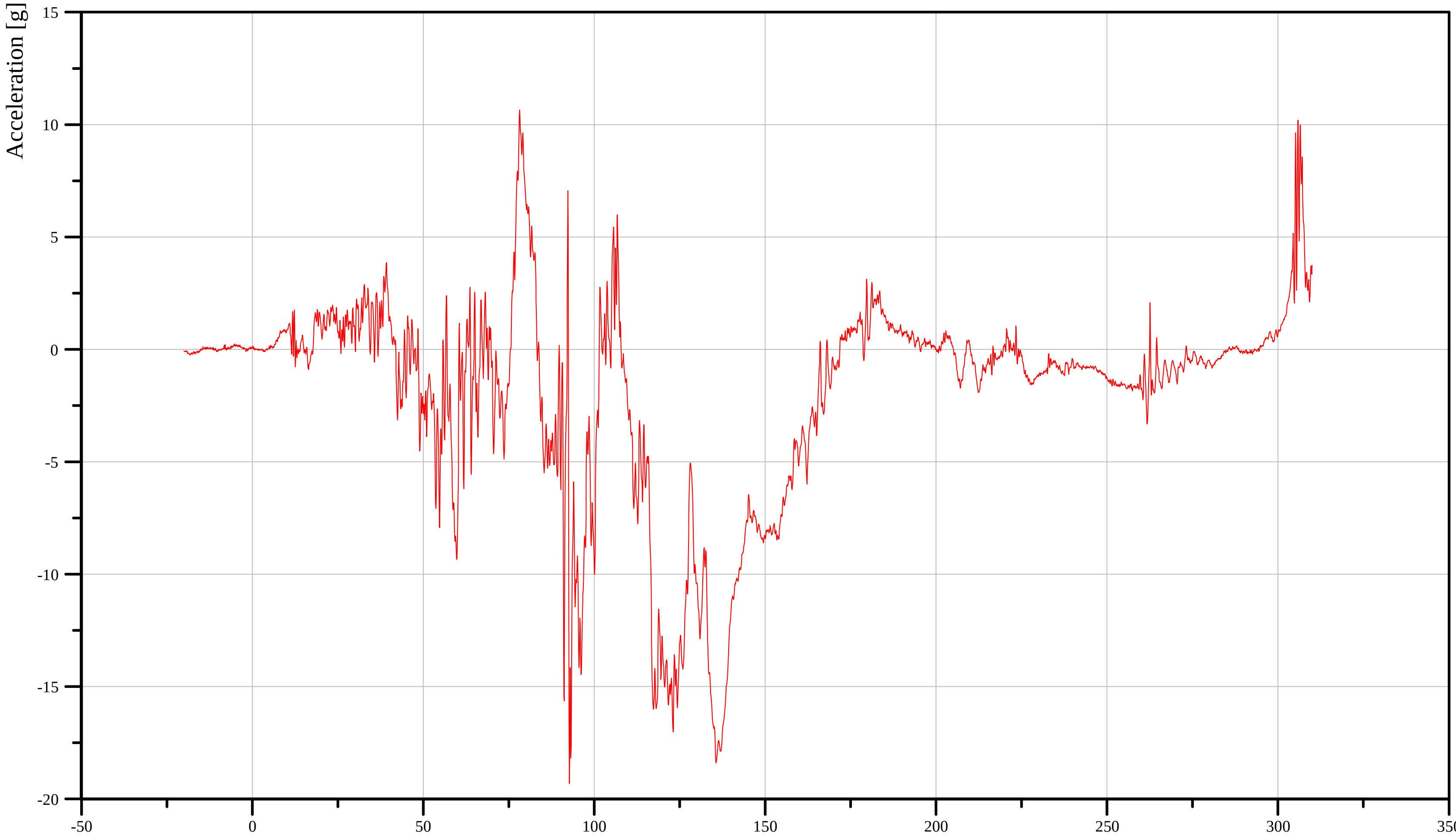
Date: 01/26/2007
Time: 18:07

Driver Left Foot Y-Axis Acceleration

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-19.32 g at 92.72 ms

Max. Value
10.65 g at 78.16 ms

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

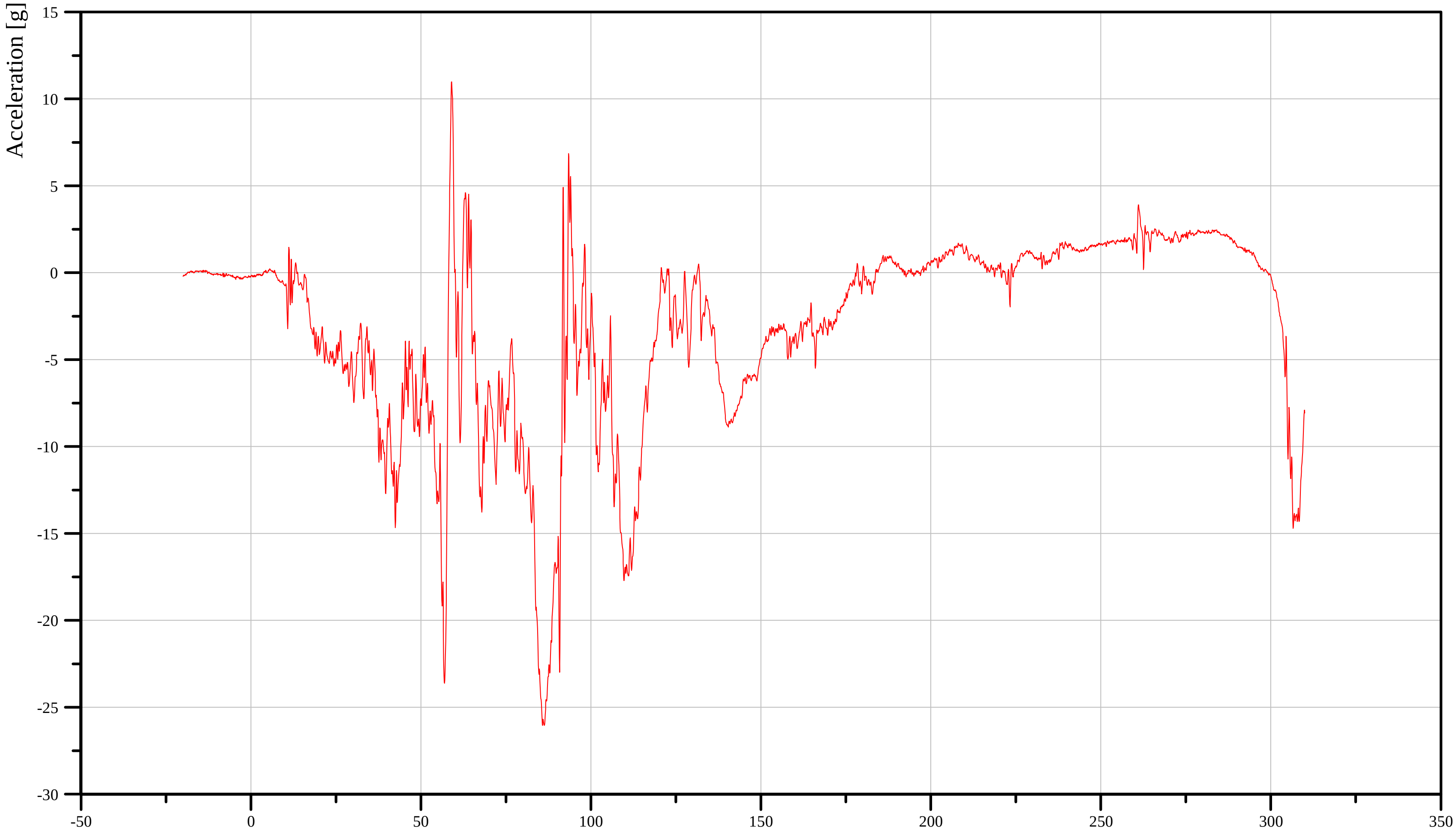
Driver Left Foot Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-26.04 g at 85.76 ms

Max. Value
11.00 g at 59.04 ms

B-69

070126

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

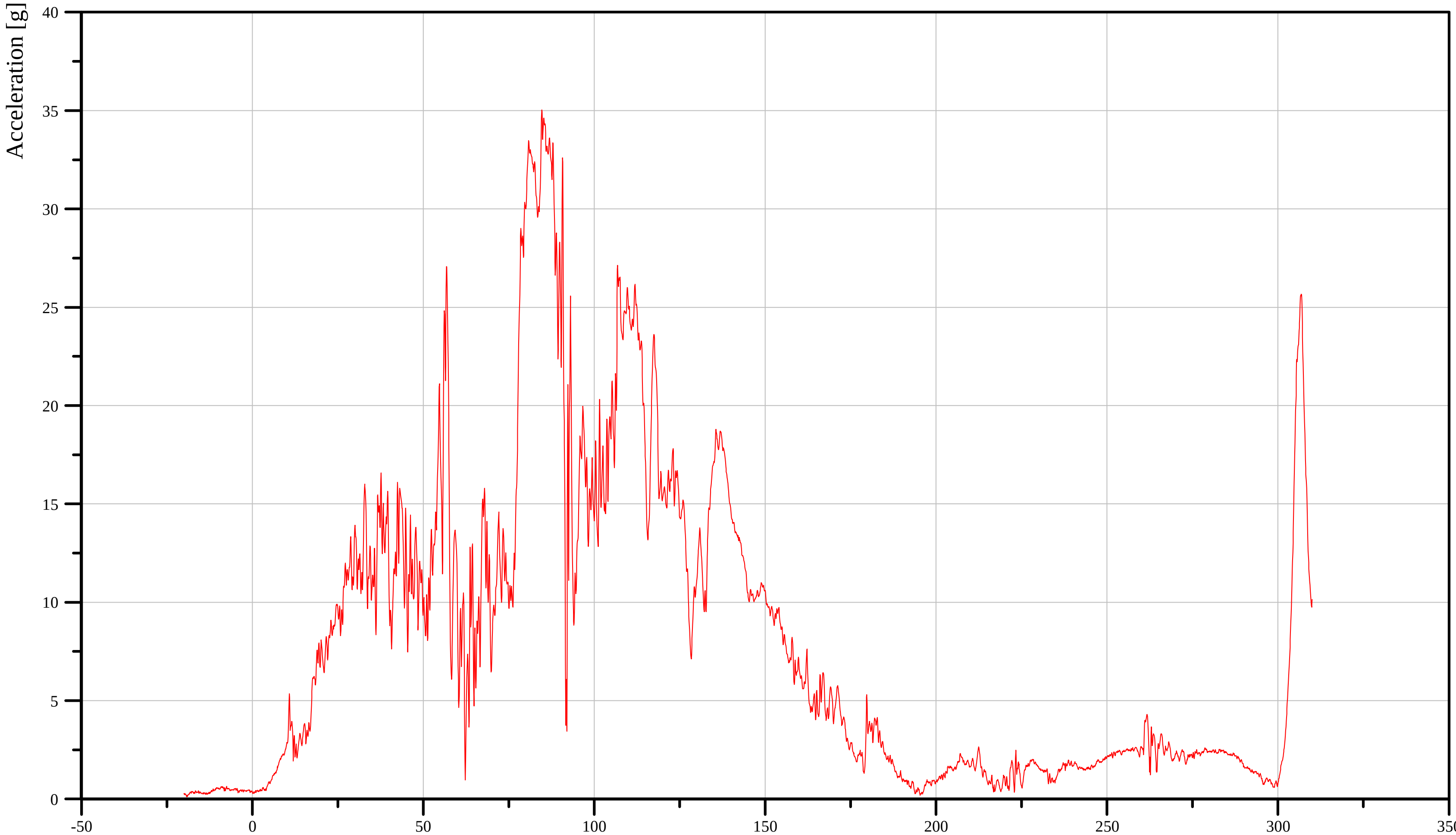
Driver Left Foot Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTLELXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.12 g at -19.20 ms

Max. Value
35.04 g at 84.64 ms

070126

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

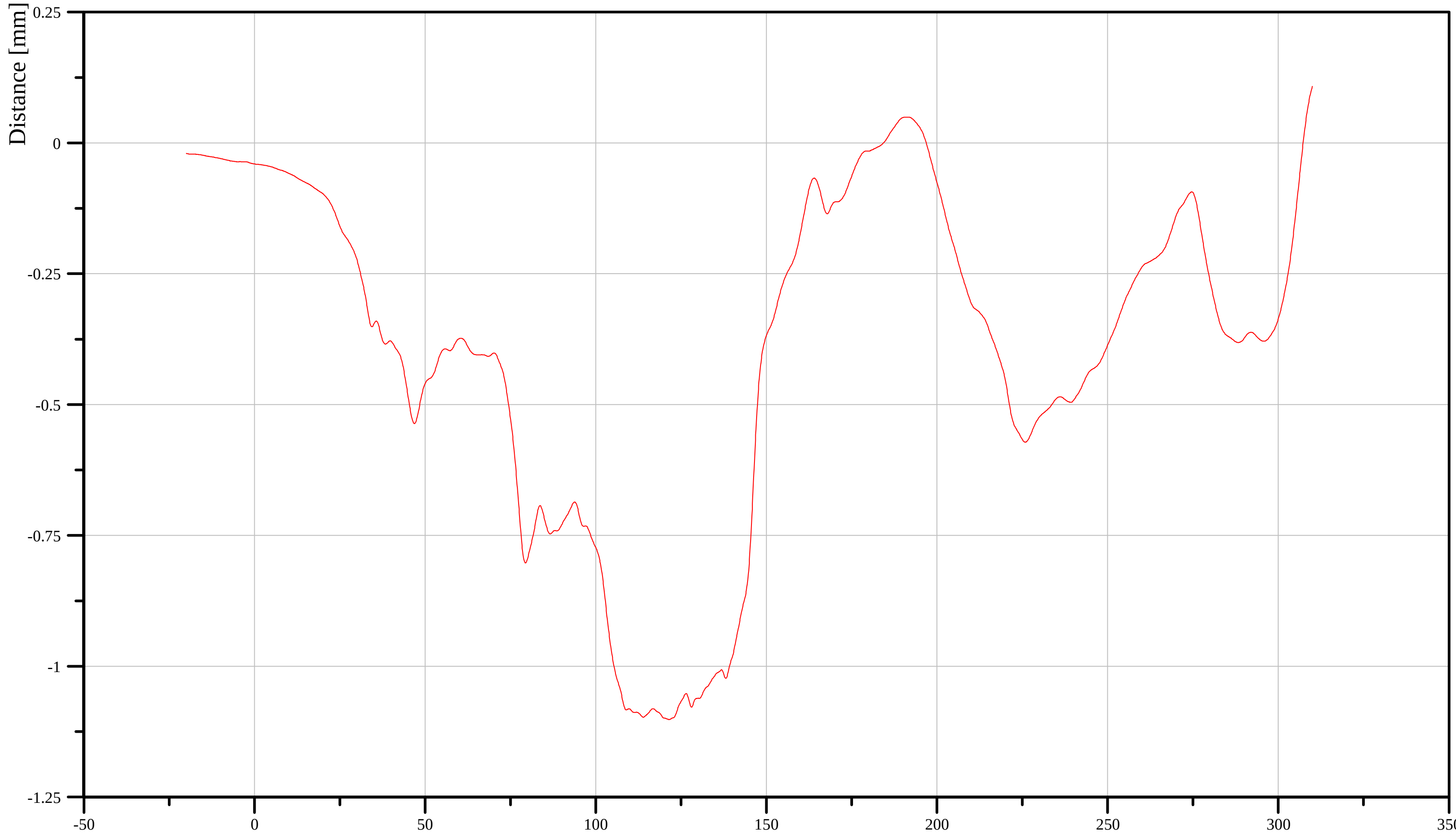
Driver Right Knee Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-1.10 mm at 121.52 ms

Max. Value
0.11 mm at 310.00 ms

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

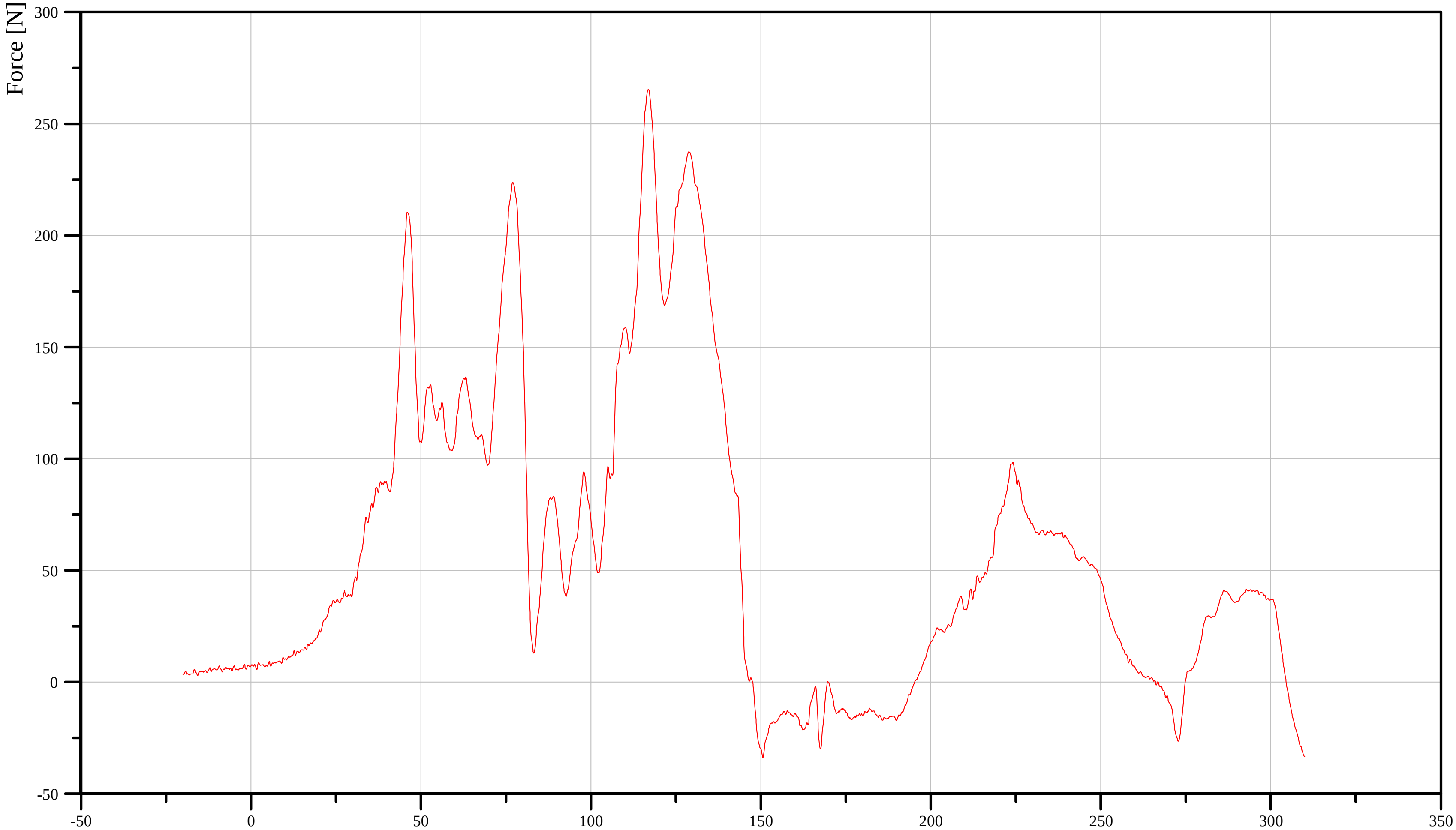
Driver Right Upper Tibia X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRULXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-33.79 N at 150.64 ms

Max. Value
265.29 N at 116.96 ms

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

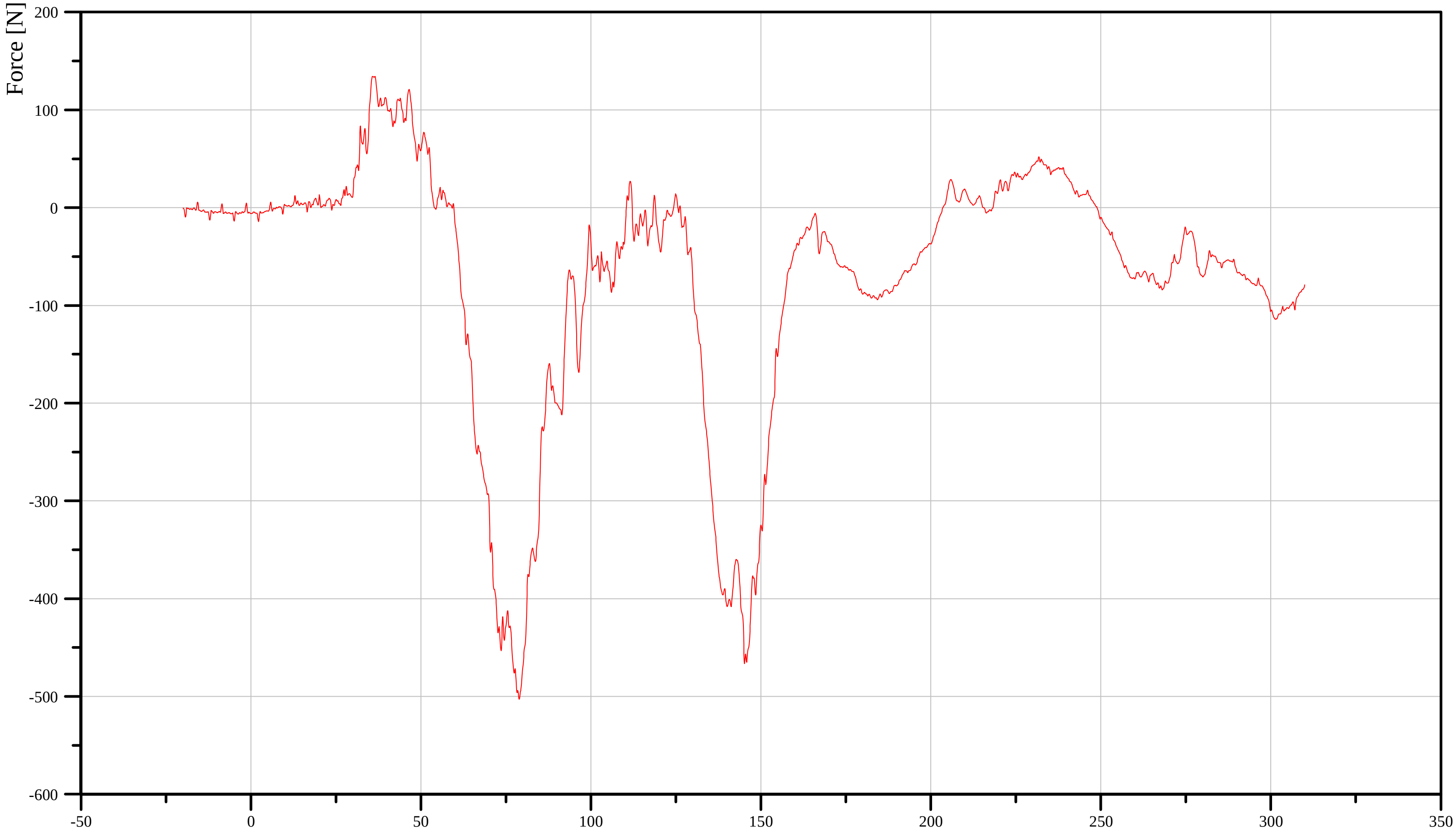
Driver Right Upper Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-502.82 N at 78.96 ms

Max. Value
134.32 N at 36.48 ms

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

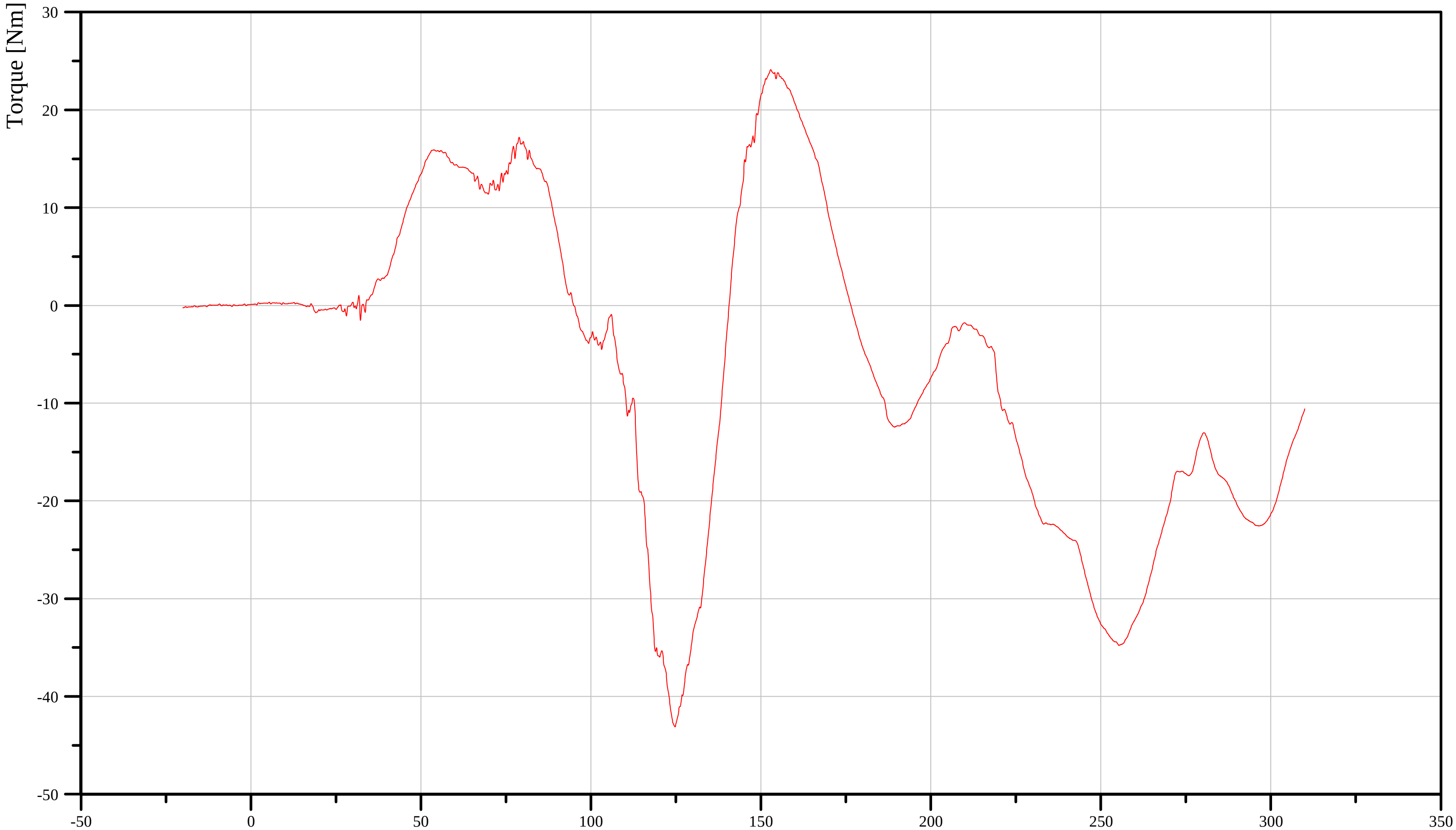
Driver Right Upper Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-43.10 Nm at 124.72 ms

Max. Value
24.11 Nm at 152.88 ms

070126

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

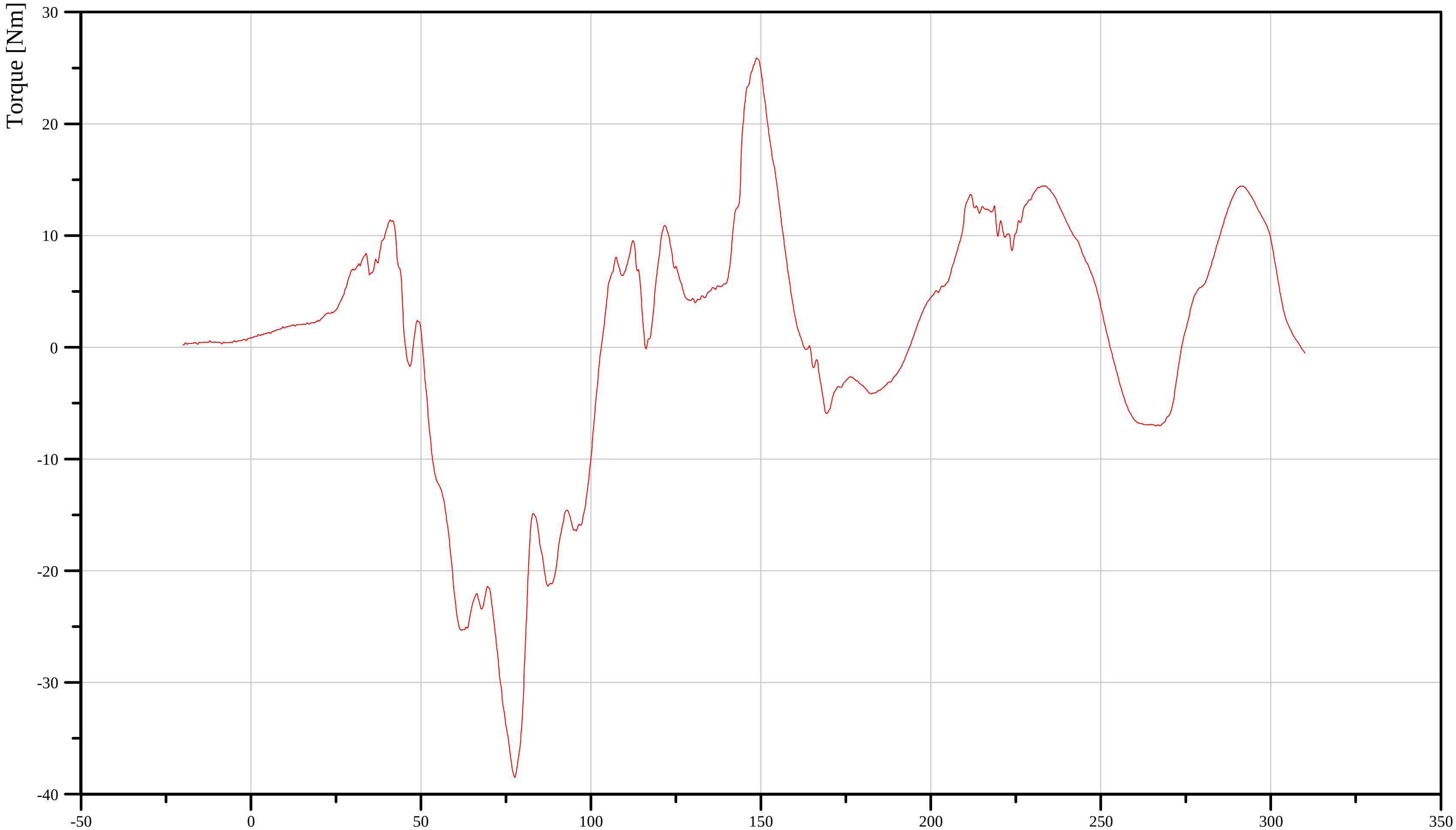
Driver Right Upper Tibia Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-38.49 Nm at 77.60 ms

Max. Value
25.90 Nm at 148.72 ms

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

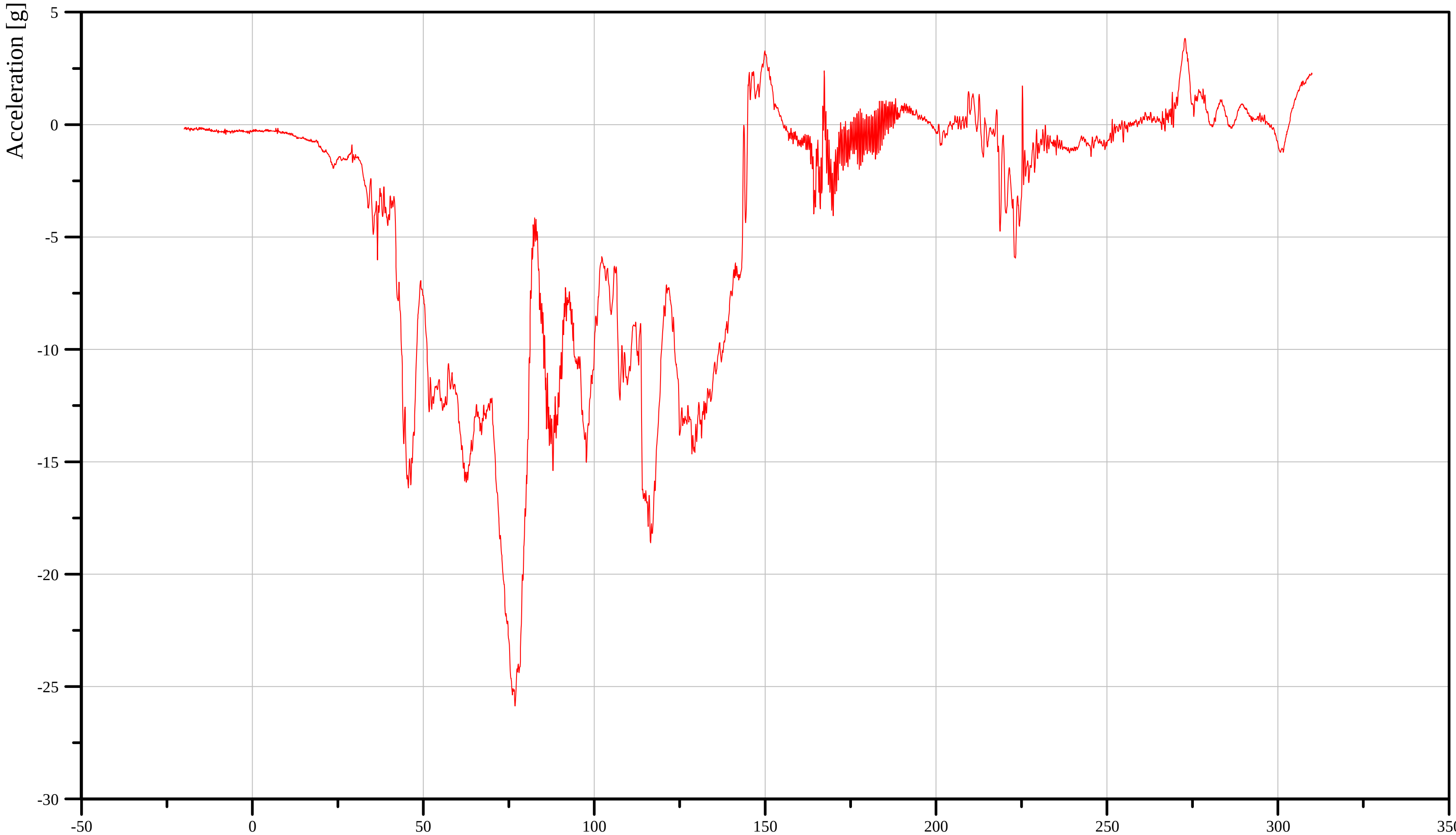
Driver Right Tibia X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-25.86 g at 76.88 ms

Max. Value
3.83 g at 272.80 ms

070126

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

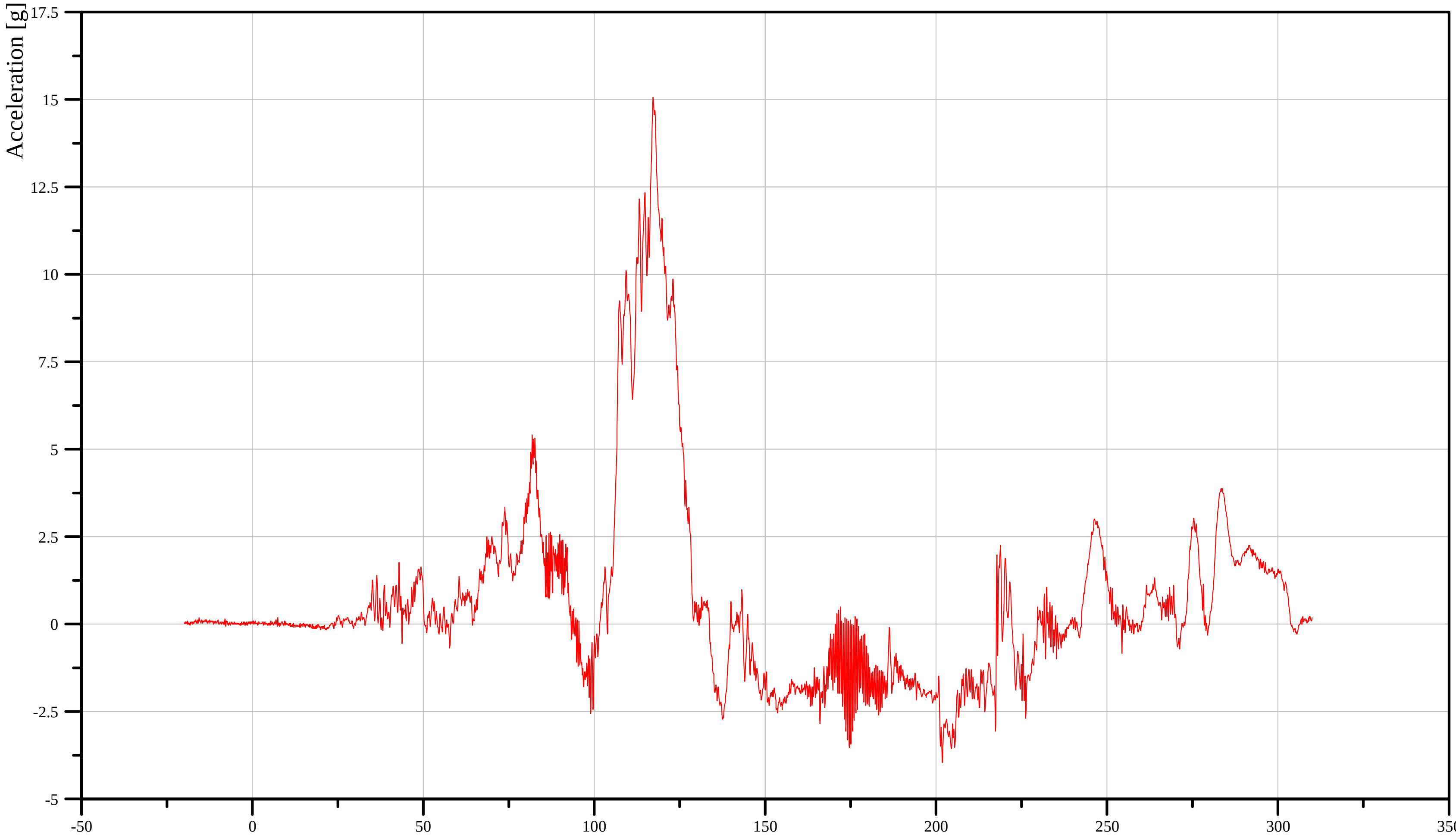
Driver Right Tibia Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-3.96 g at 201.84 ms

Max. Value
15.07 g at 117.20 ms

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

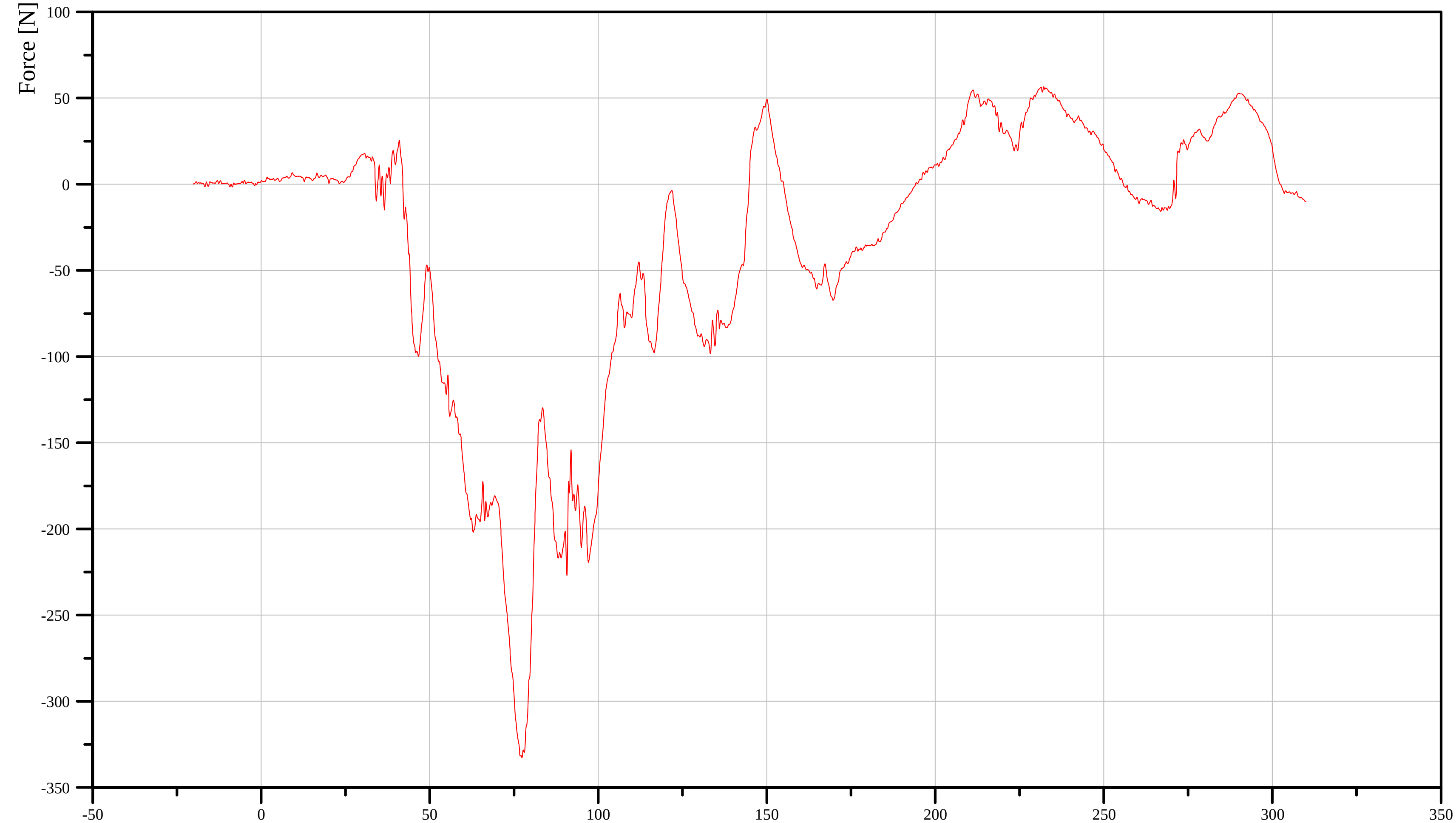
Driver Right Lower Tibia X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-332.75 N at 77.36 ms

Max. Value
56.63 N at 232.16 ms

B-78

070126

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

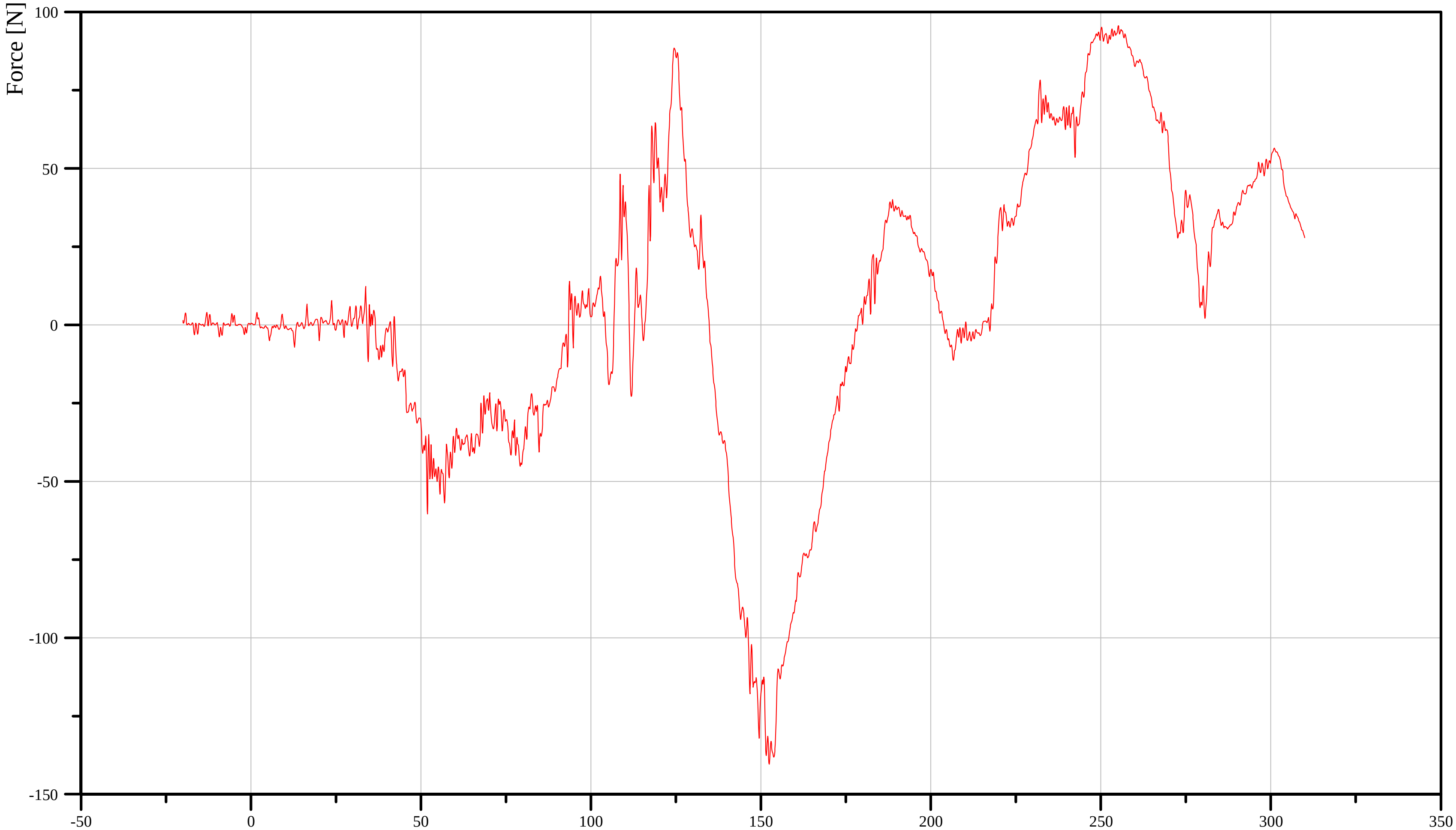
Driver Right Lower Tibia Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-140.38 N at 152.48 ms

Max. Value
95.70 N at 255.12 ms

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

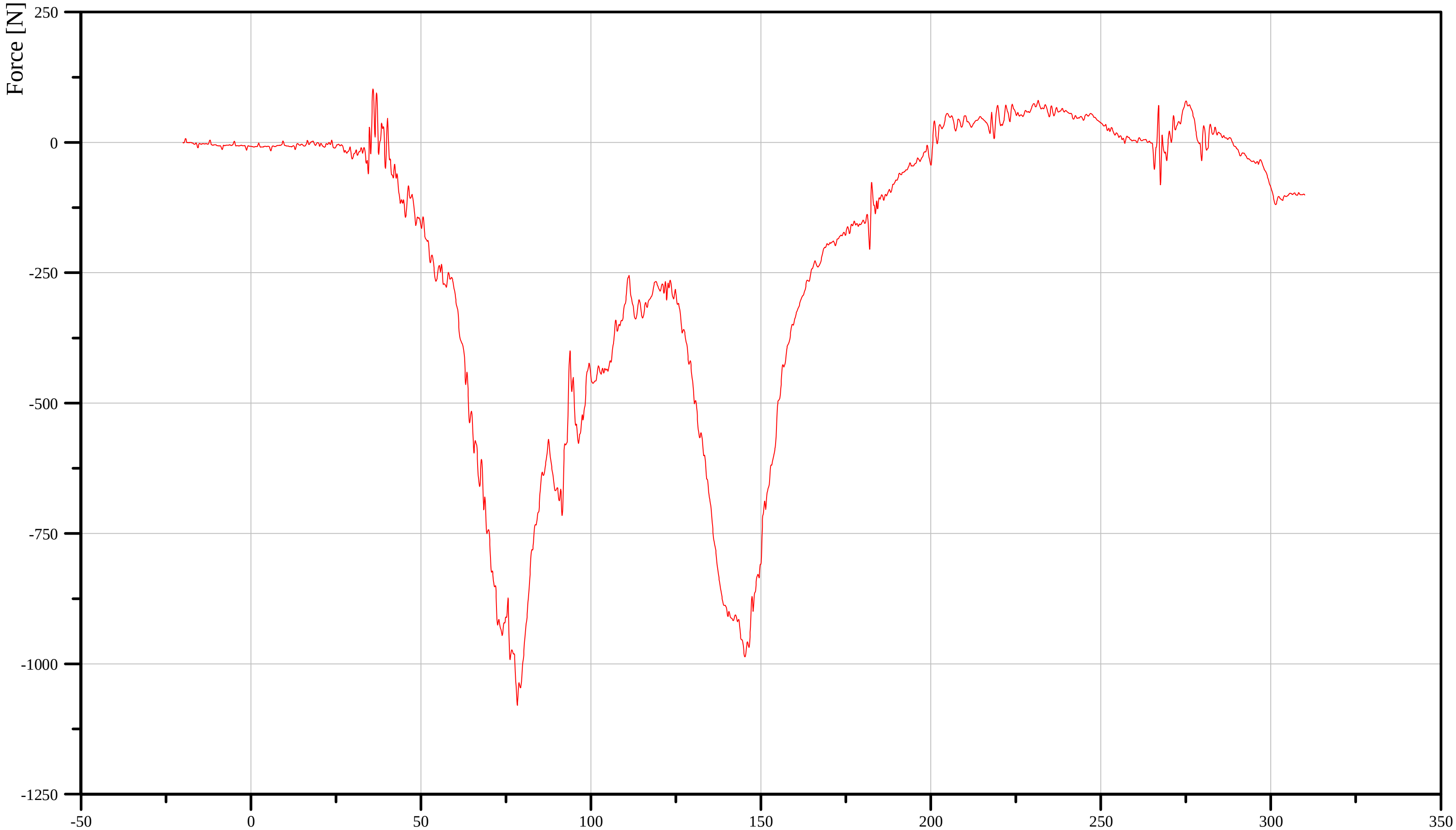
Driver Right Lower Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-1,079.63 N at 78.40 ms

Max. Value
102.79 N at 35.92 ms

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

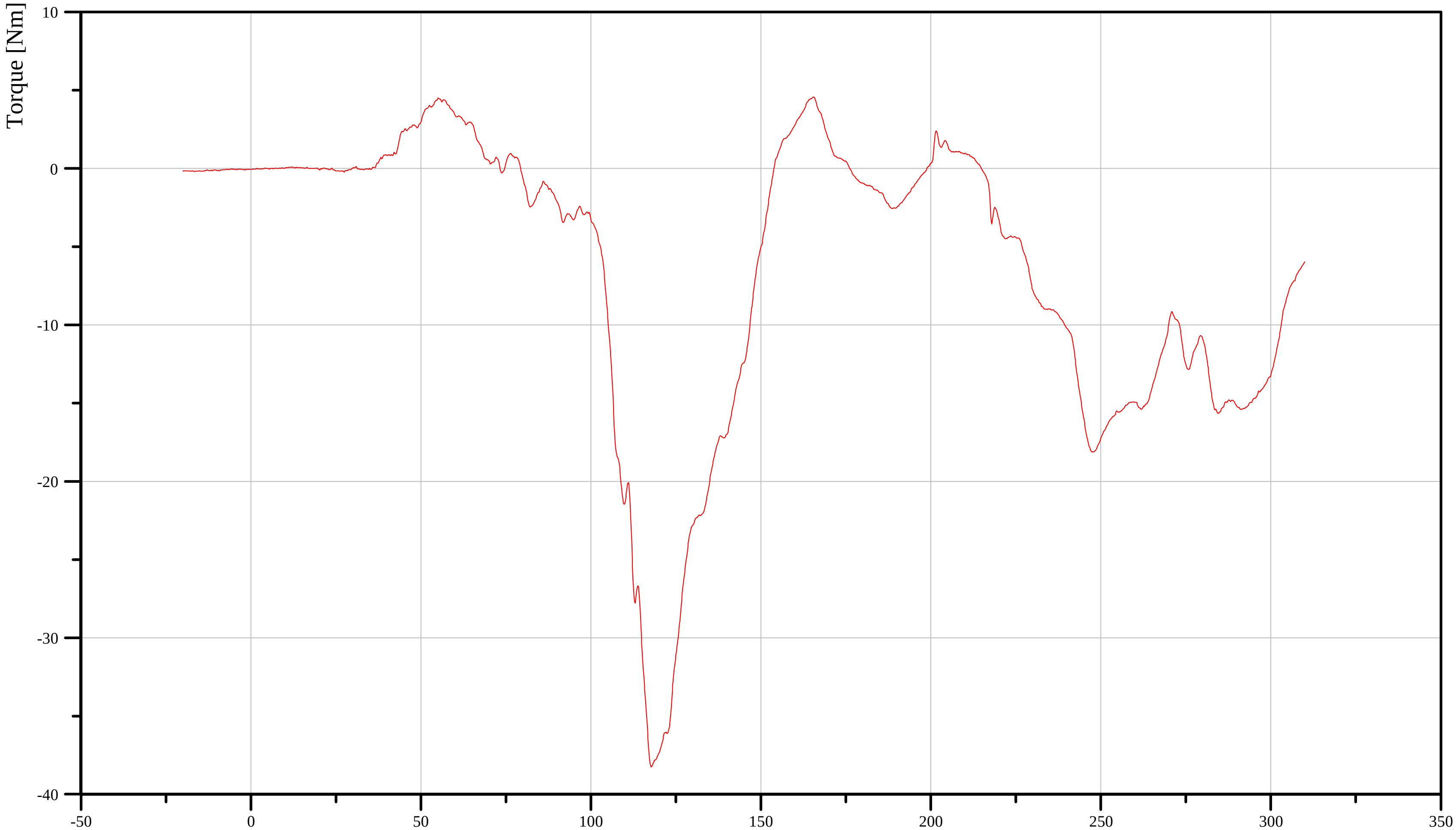
Driver Right Lower Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-38.25 Nm at 117.76 ms

Max. Value
4.57 Nm at 165.44 ms

TRC

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

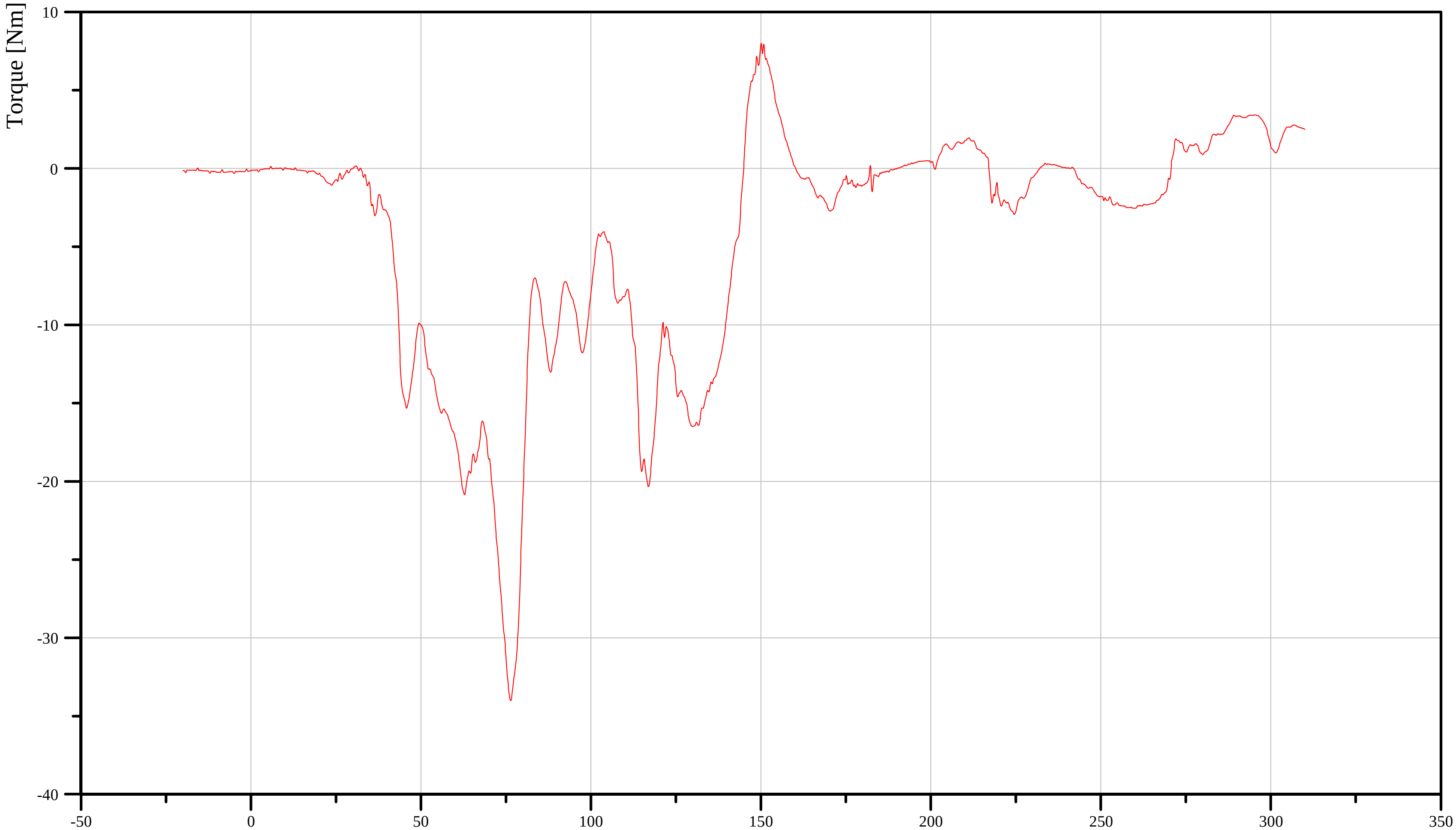
Driver Right Lower Tibia Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11TIBIRLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-34.02 Nm at 76.40 ms

Max. Value
8.00 Nm at 150.08 ms

070126

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

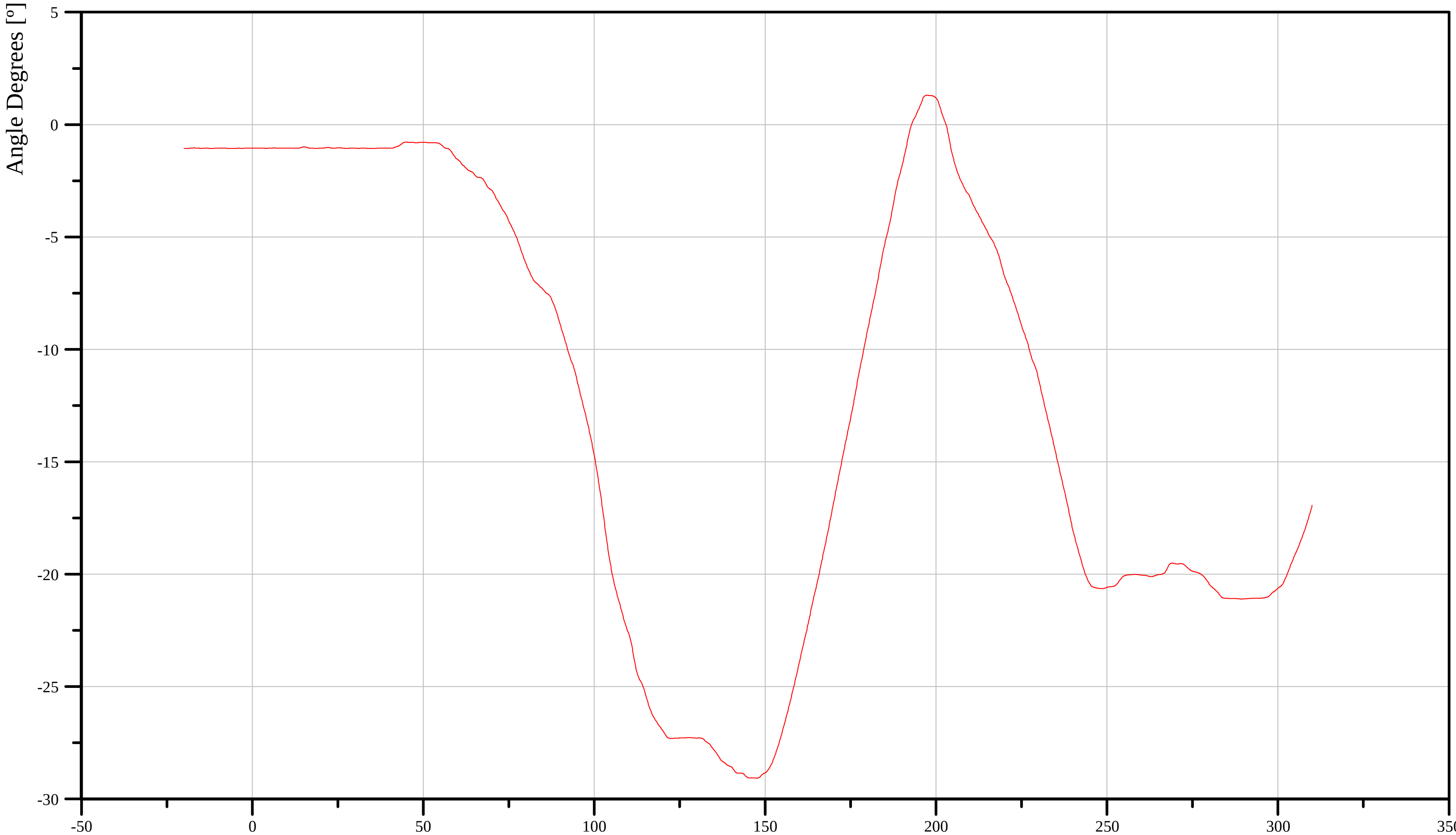
Driver Right Foot X-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-29.07 ° at 147.52 ms

Max. Value
1.30 ° at 197.28 ms

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

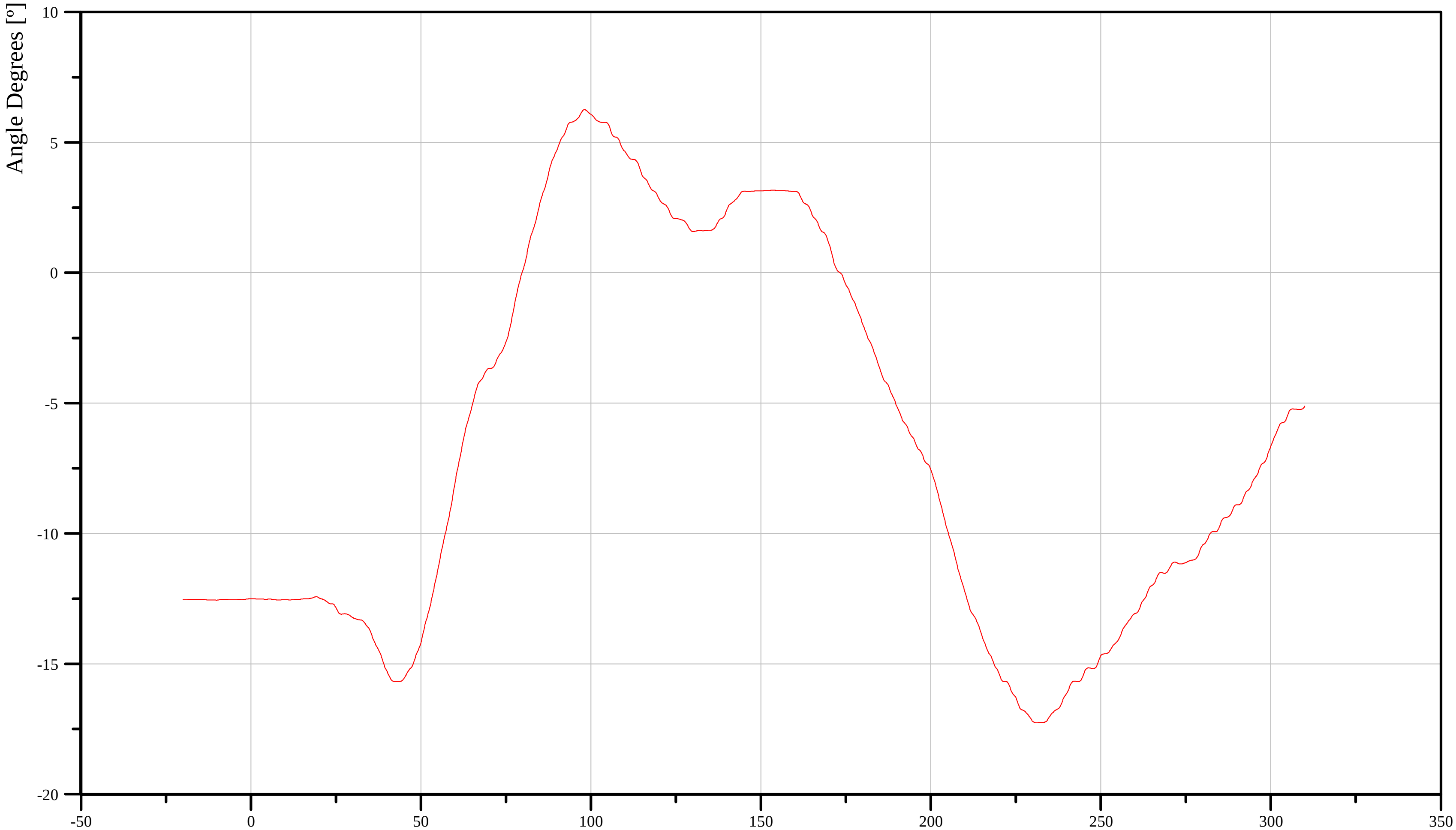
Driver Right Foot Y-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-17.25 ° at 231.04 ms

Max. Value
6.26 ° at 98.16 ms

B-84

070126

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

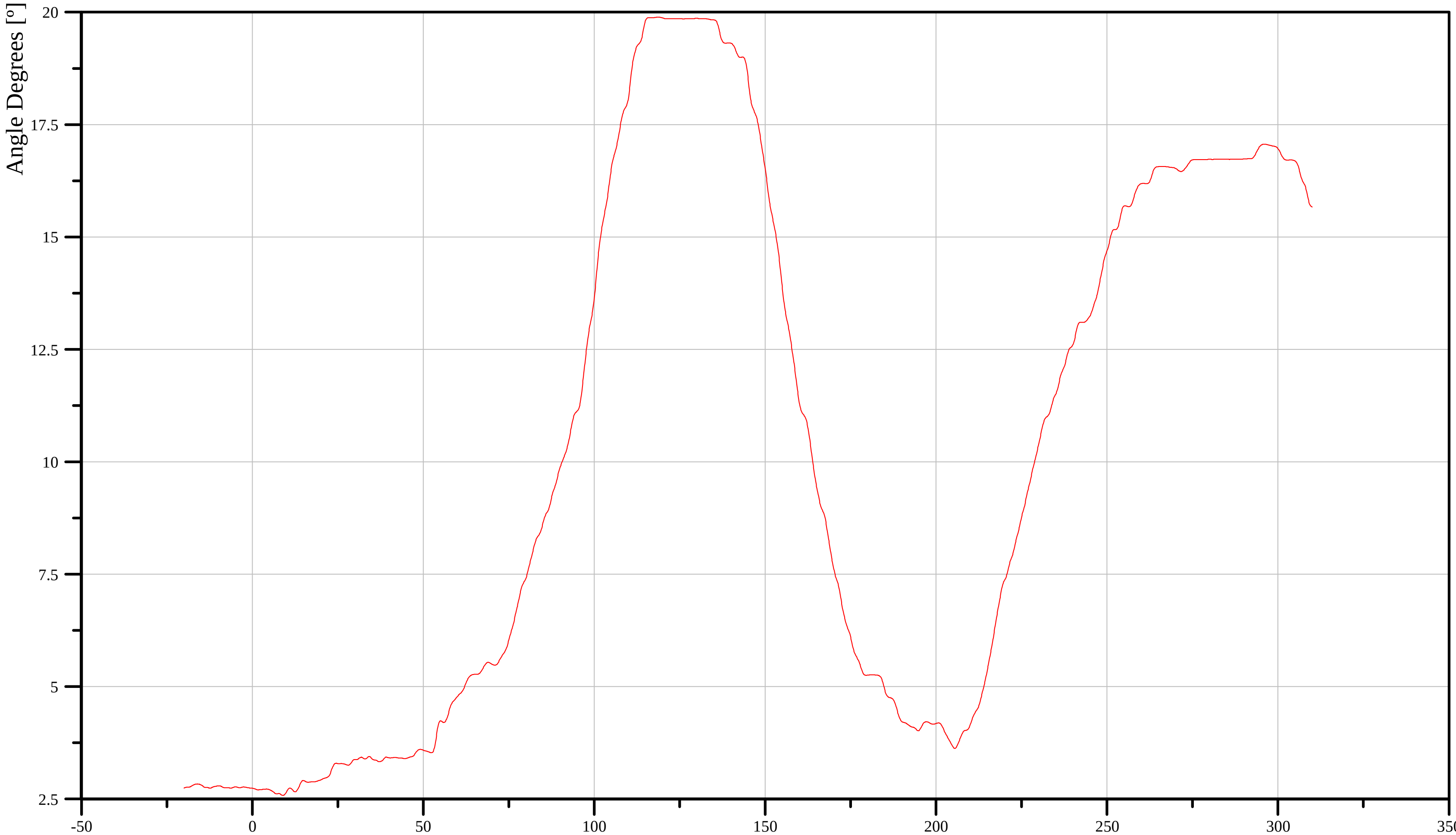
Driver Right Foot Z-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
2.58 ° at 8.96 ms

Max. Value
19.89 ° at 118.64 ms

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

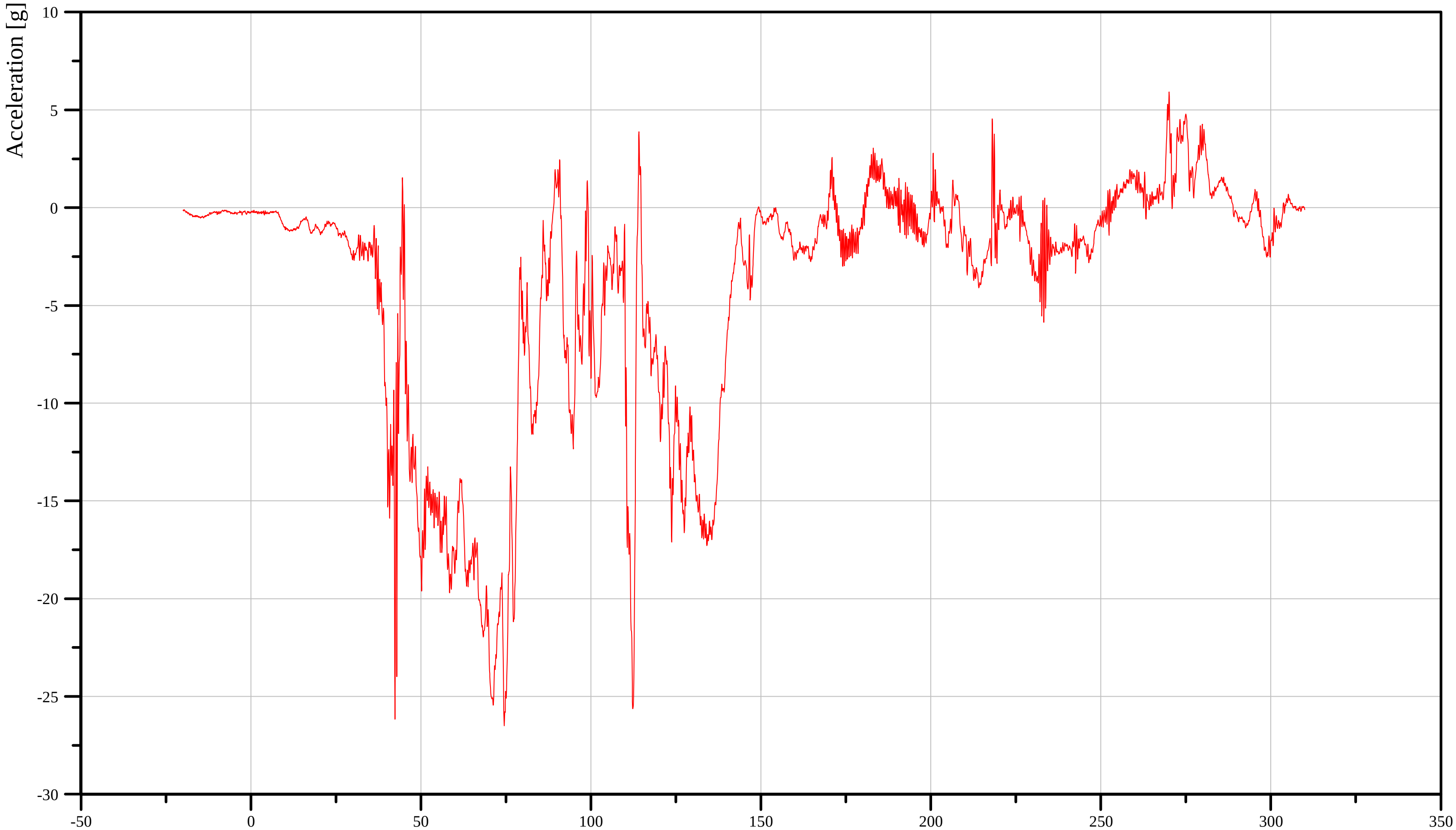
Driver Right Foot X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-26.50 g at 74.48 ms

Max. Value
5.92 g at 270.08 ms

070126

TRC

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

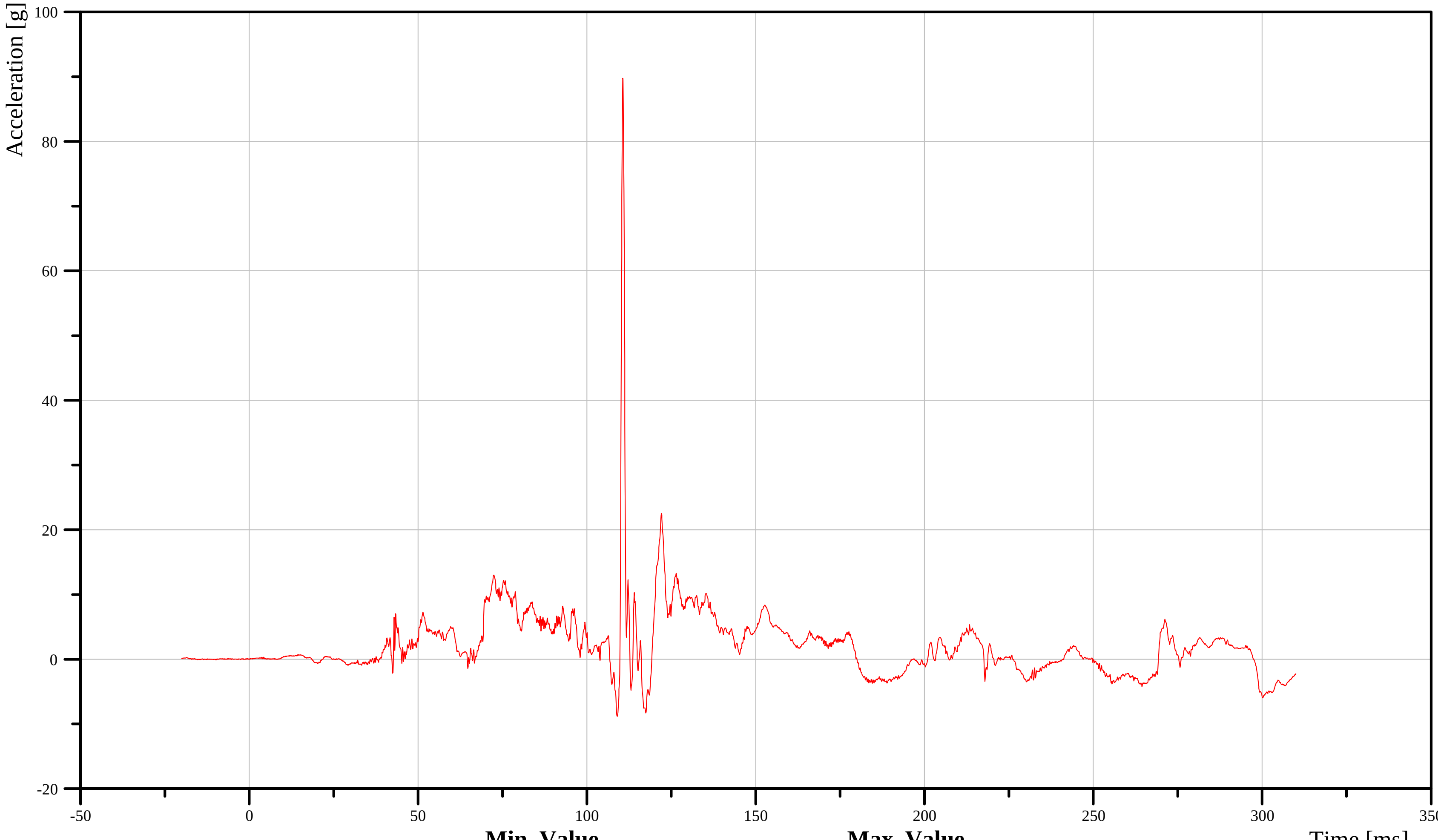
Driver Right Foot Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-8.82 g at 109.04 ms

Max. Value
89.78 g at 110.64 ms

070126

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

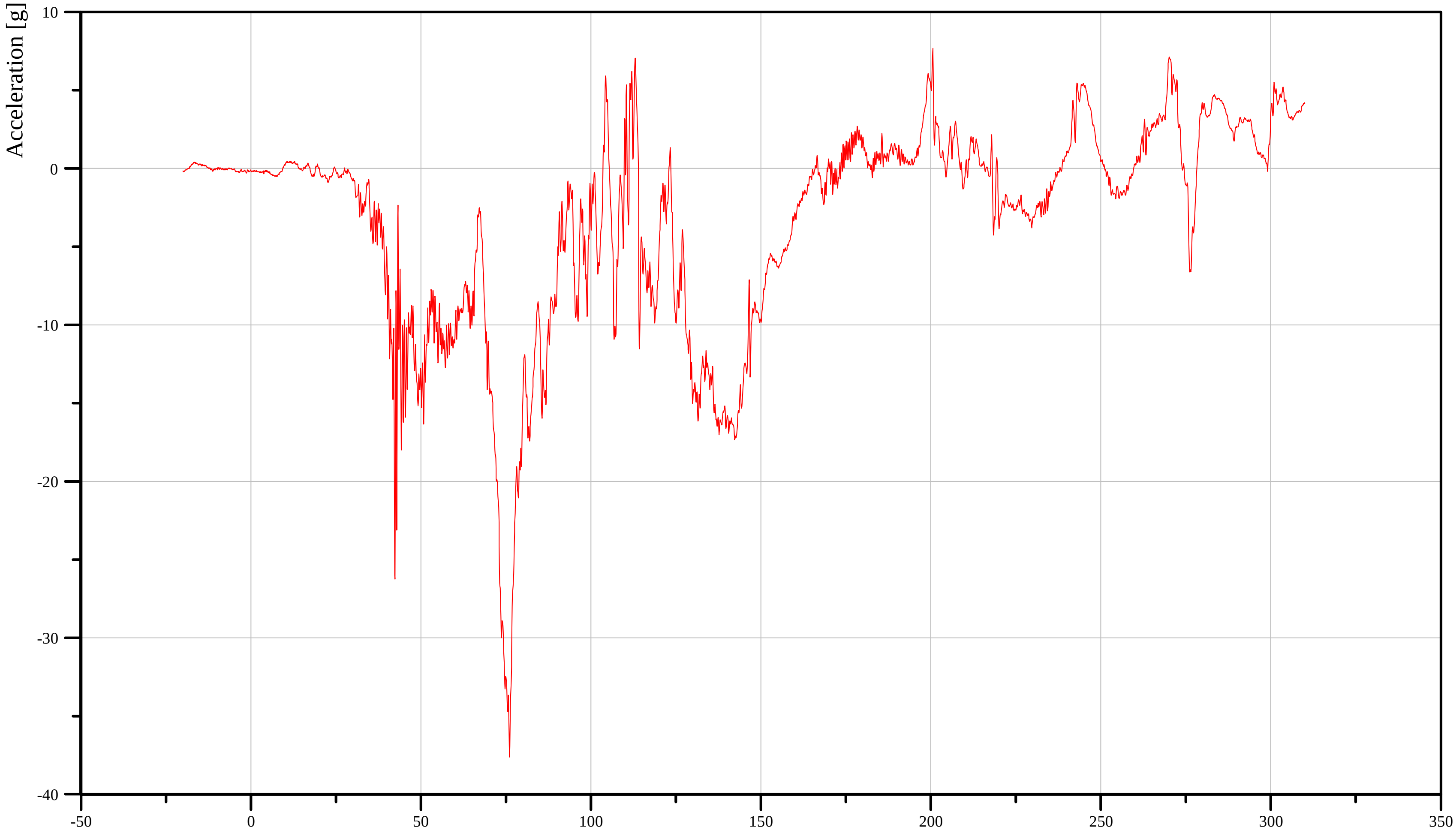
Driver Right Foot Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-37.62 g at 76.08 ms

Max. Value
7.69 g at 200.56 ms

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

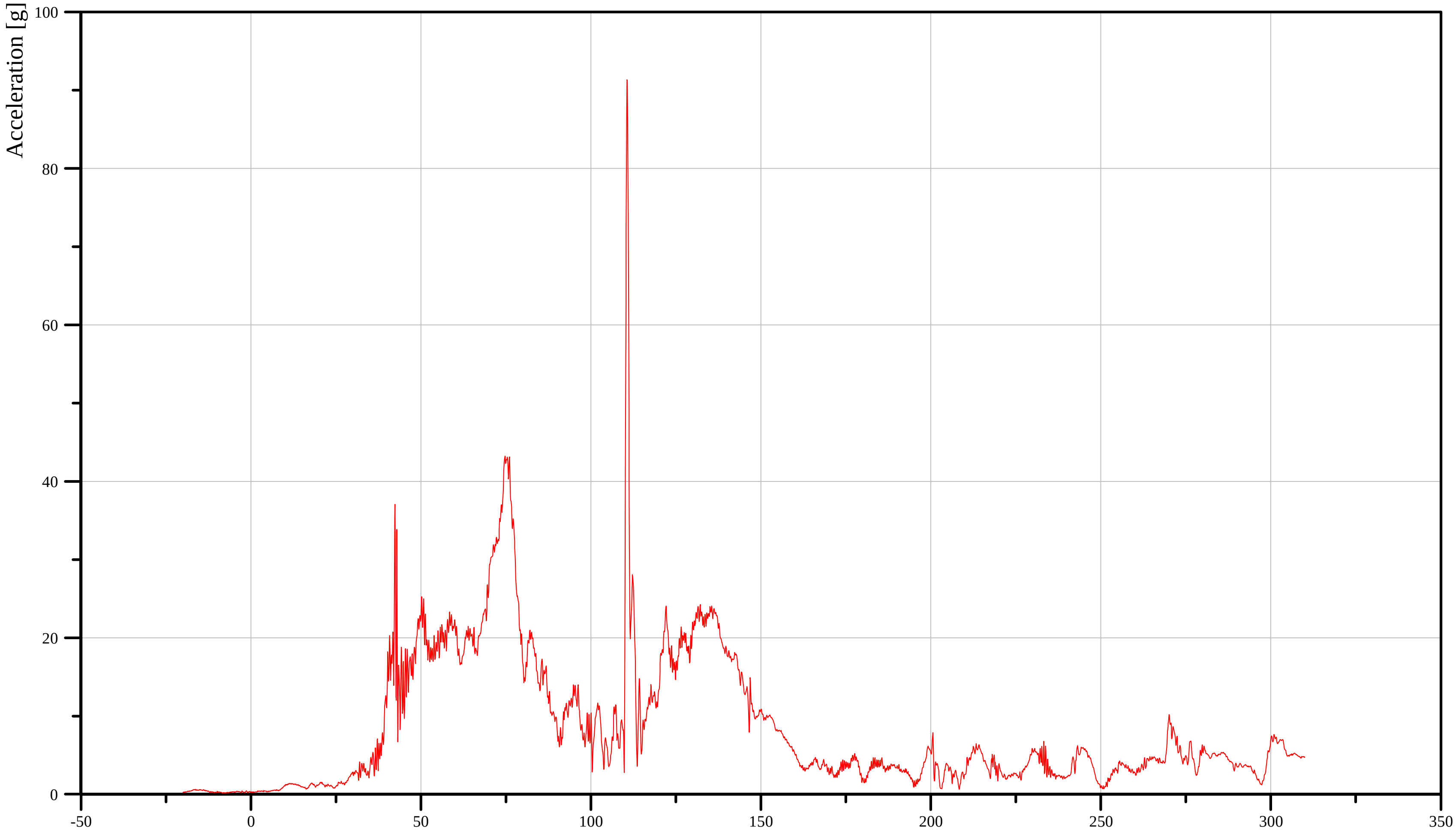
Driver Right Foot Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11FOOTRILXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.13 g at -7.68 ms

Max. Value
91.36 g at 110.64 ms

070126

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

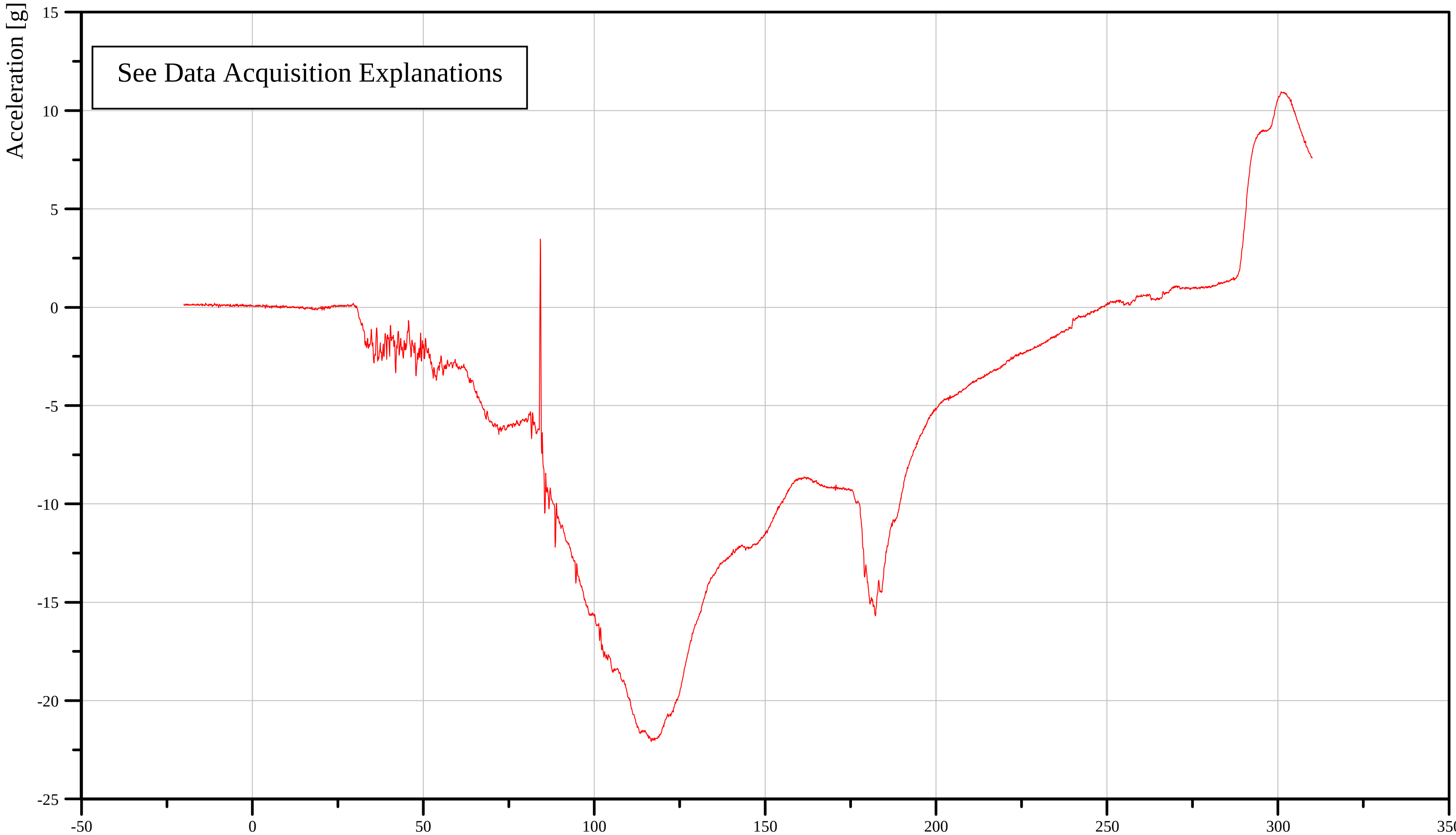
Passenger Head X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-22.07 g at 116.64 ms

Max. Value
10.96 g at 300.96 ms

B-90

070126

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

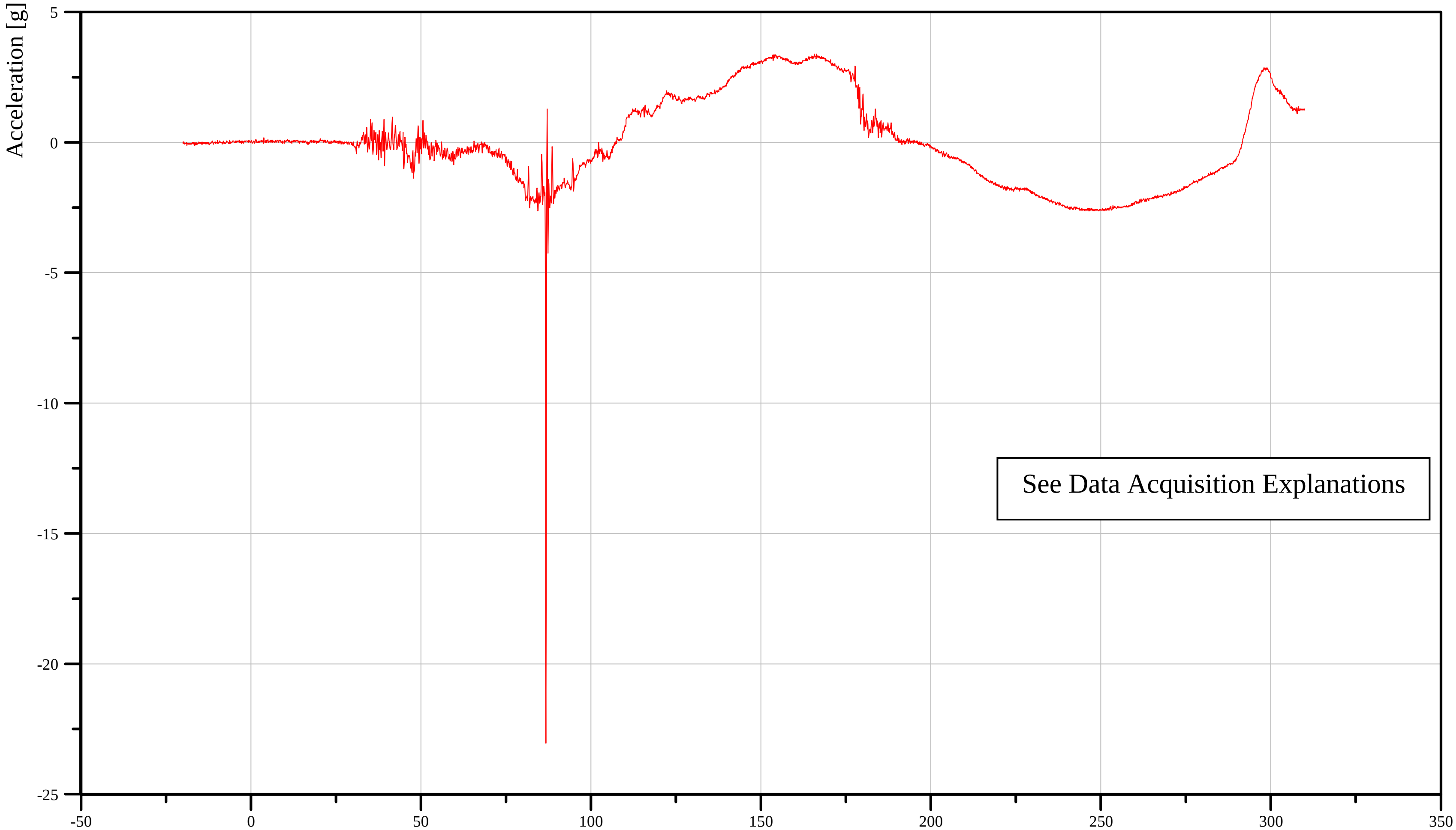
Passenger Head Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-23.05 g at 86.80 ms

Max. Value
3.39 g at 165.68 ms

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

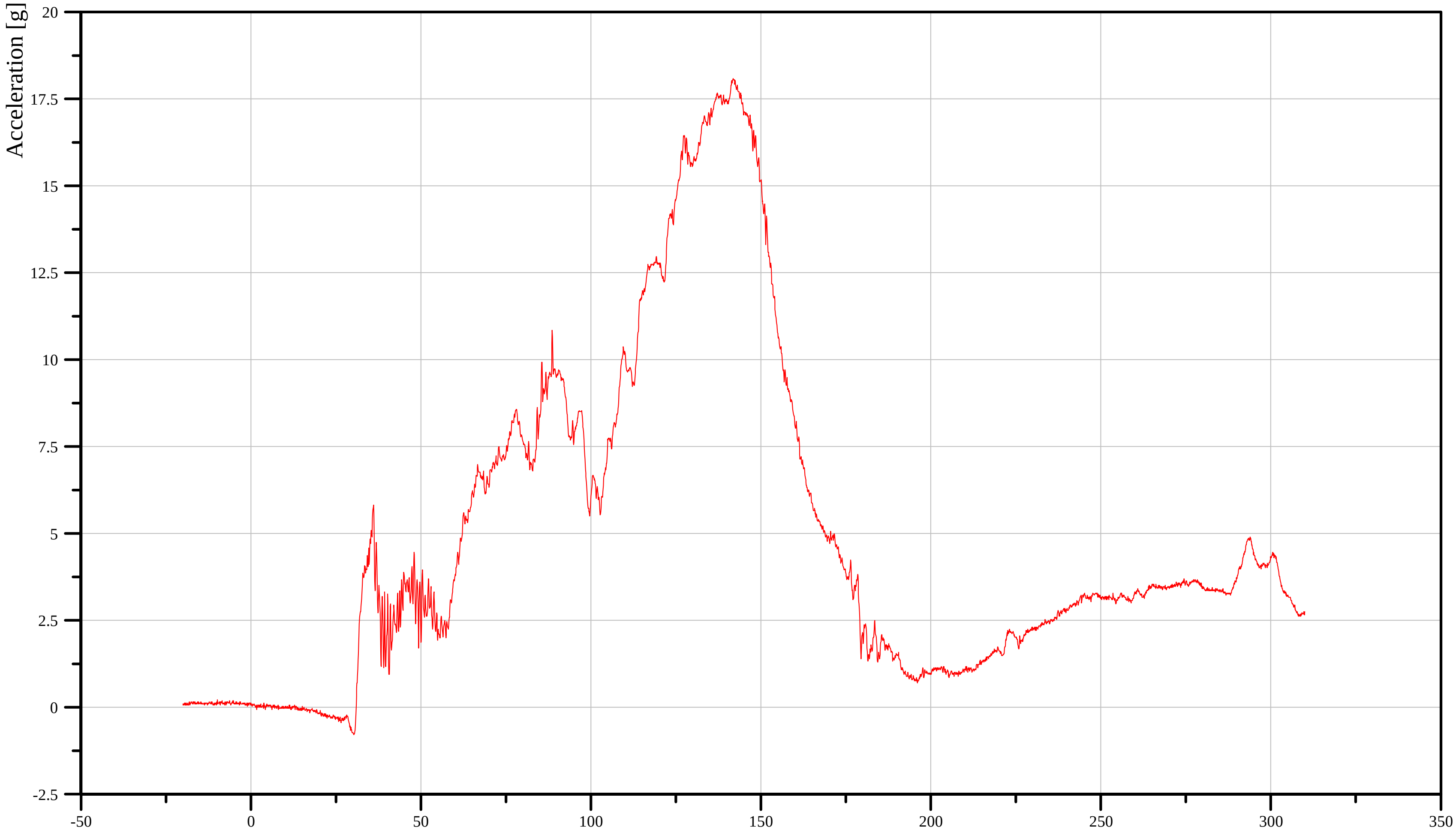
Passenger Head Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-0.79 g at 30.32 ms

Max. Value
18.09 g at 141.84 ms

B-92

070126

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

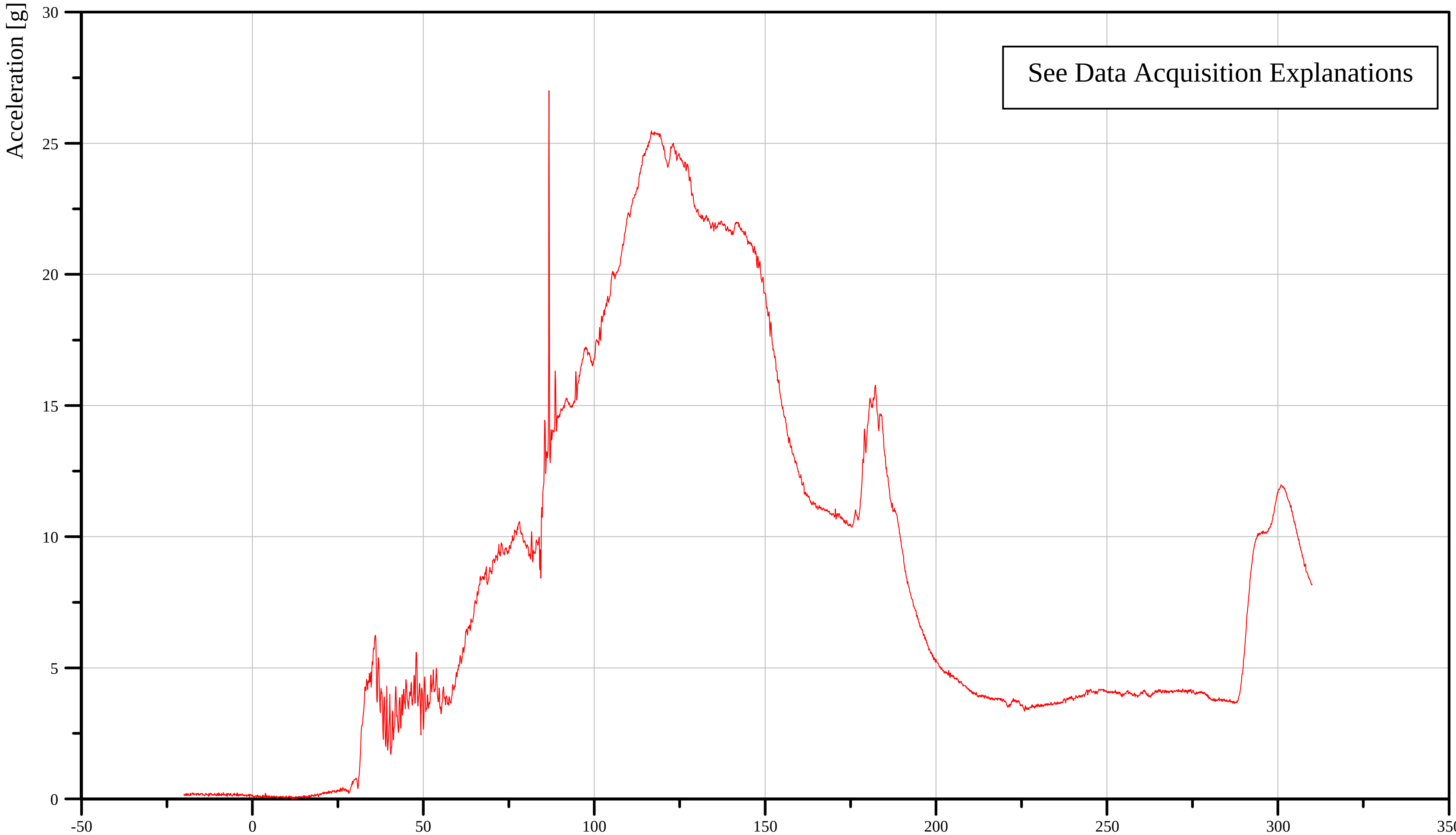
Passenger Head Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCG00H3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.01 g at 11.76 ms

Max. Value
27.01 g at 86.80 ms

070126

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

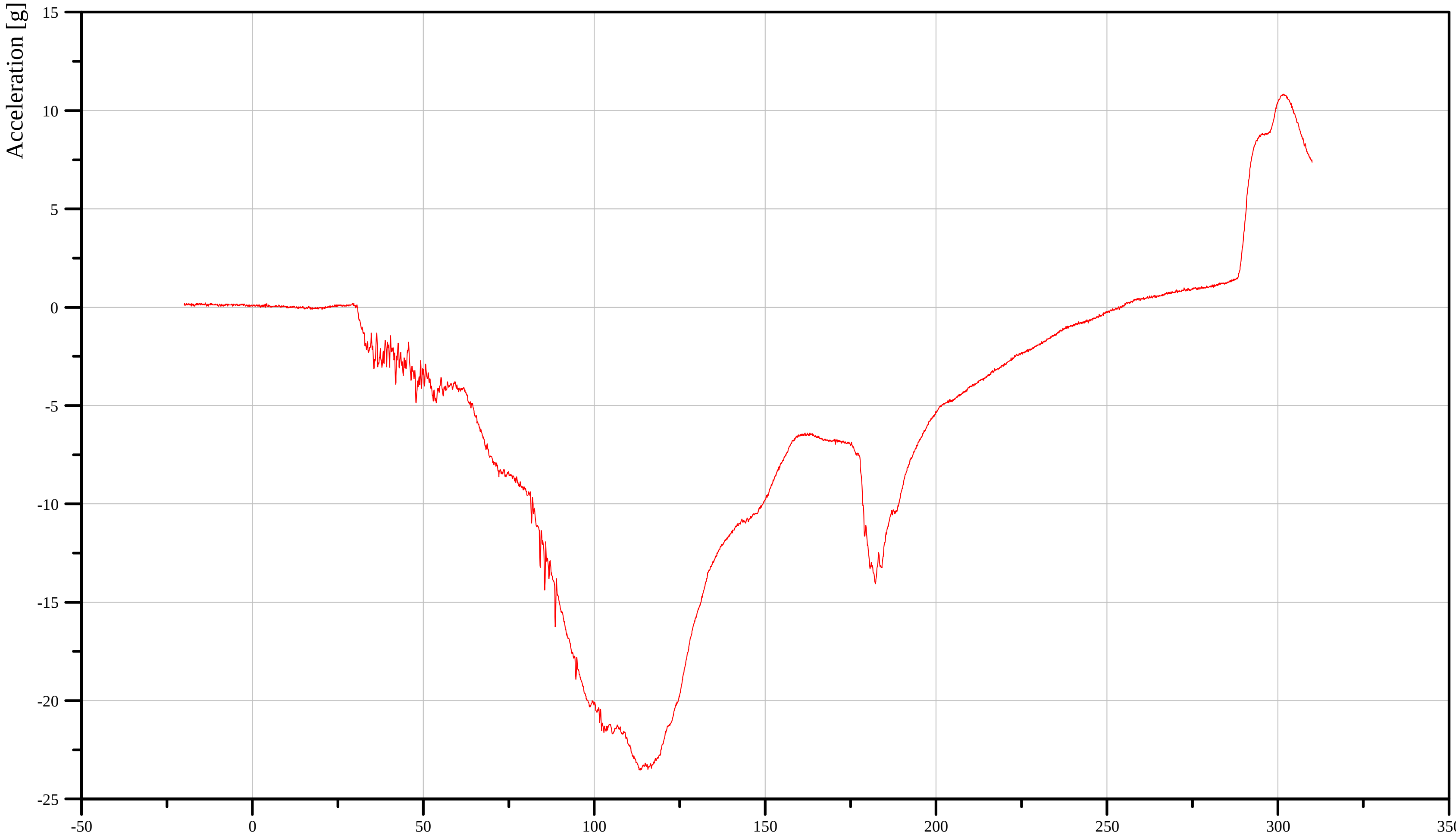
Passenger Head X-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCGRDH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-23.53 g at 113.20 ms

Max. Value
10.84 g at 301.68 ms

B-94

070126

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

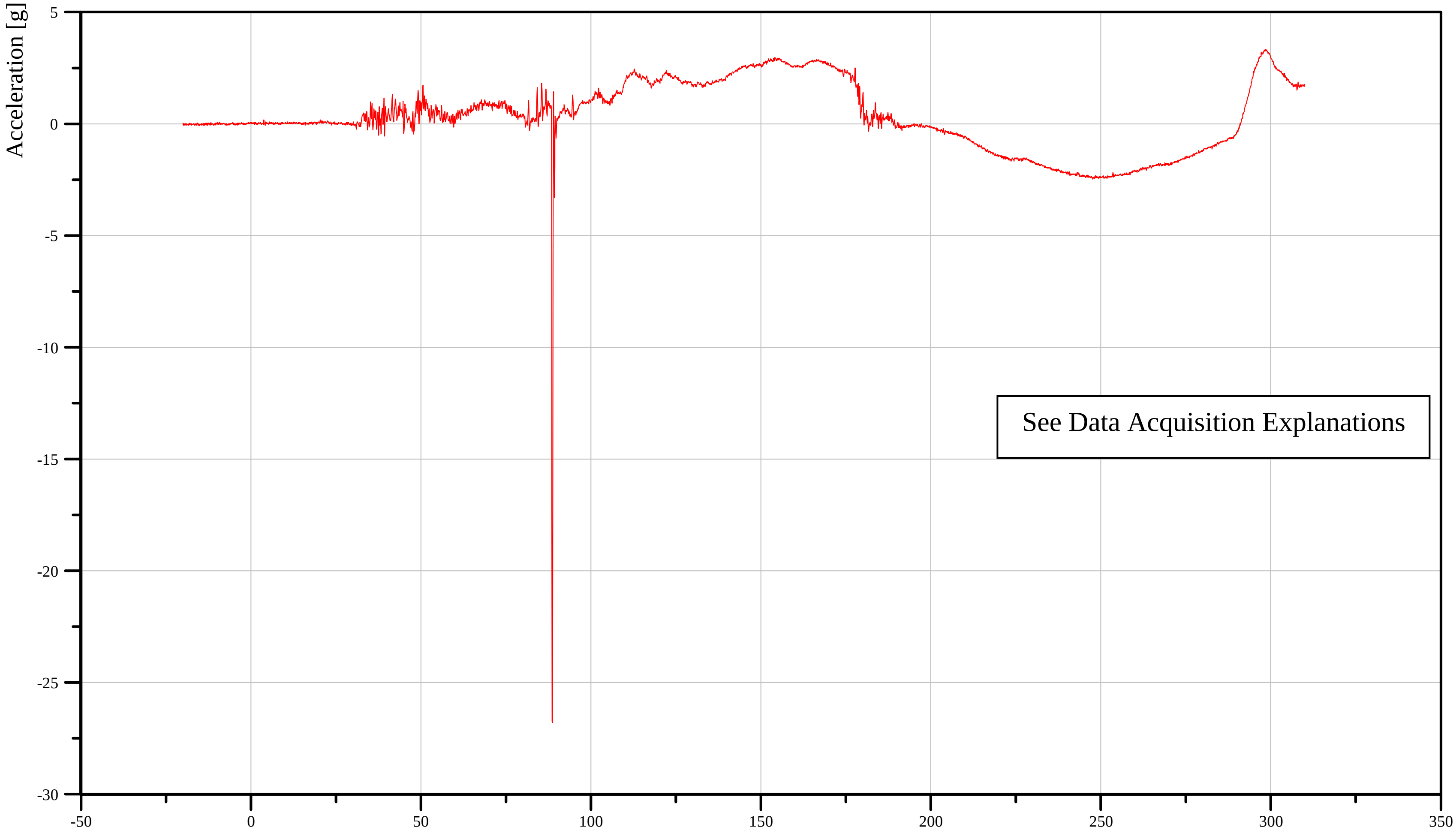
Passenger Head Y-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCGRDH3ACYA

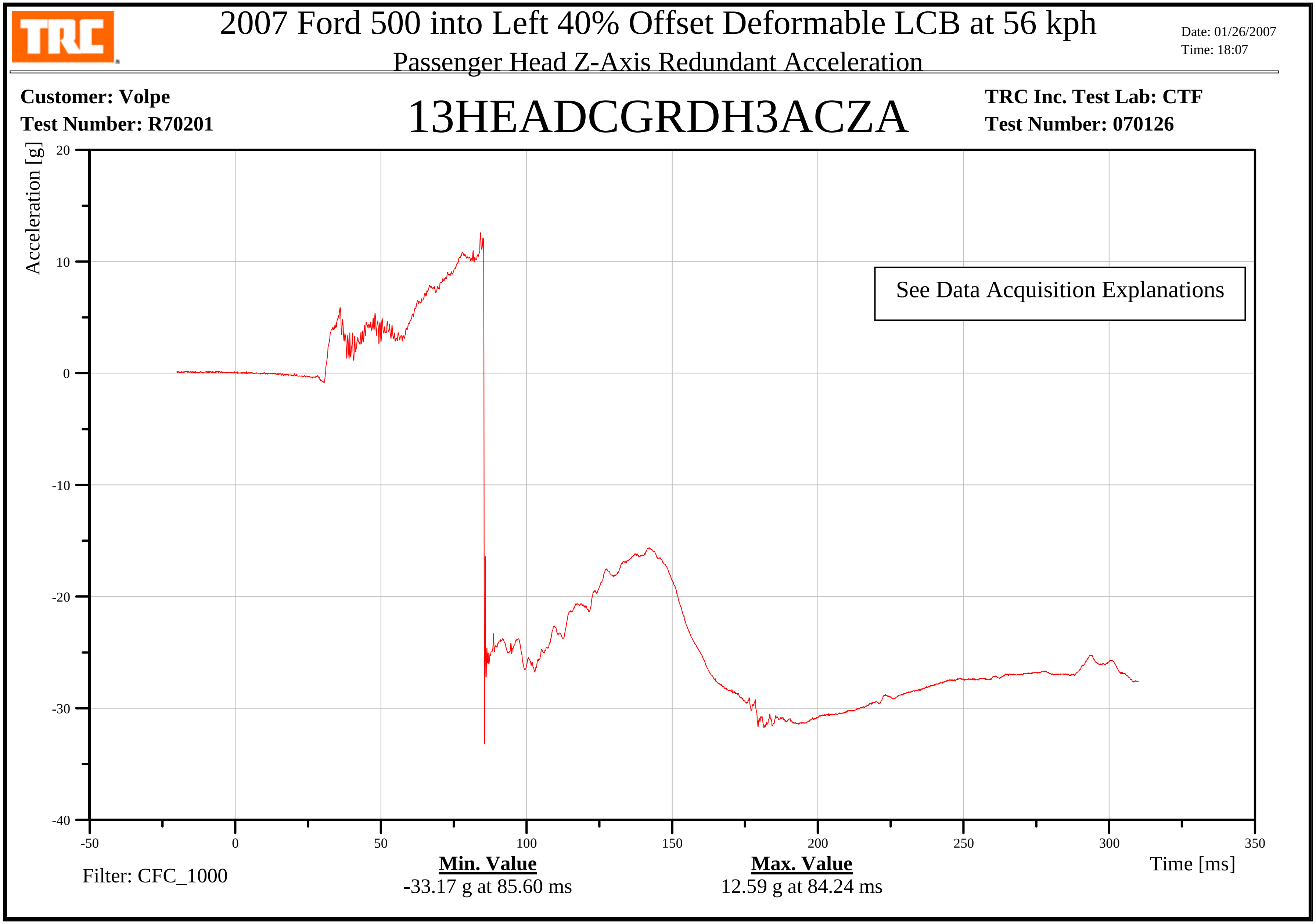
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-26.79 g at 88.72 ms

Max. Value
3.34 g at 298.48 ms



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Head Z-Axis Redundant Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13HEADCGRDH3ACZA
TRC Inc. Test Lab: CTF
Test Number: 070126
Acceleration [g]
20
10
0
-10
-20
-30
-40
See Data Acquisition Explanations
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_1000
Min. Value
-33.17 g at 85.60 ms
Max. Value
12.59 g at 84.24 ms

070126

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

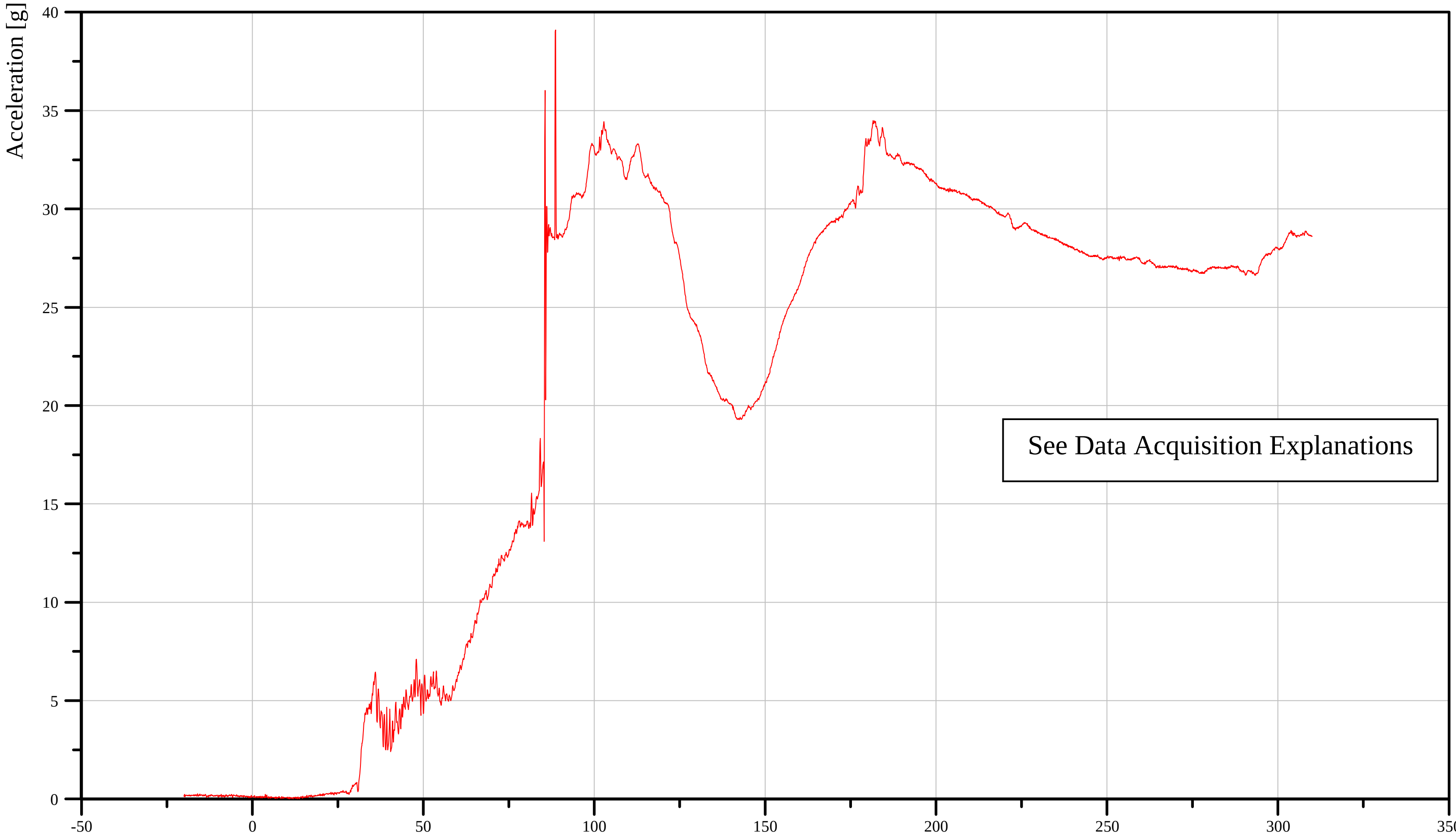
Passenger Head Redundant Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADCGRDH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.01 g at 10.80 ms

Max. Value
39.09 g at 88.72 ms

070126

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

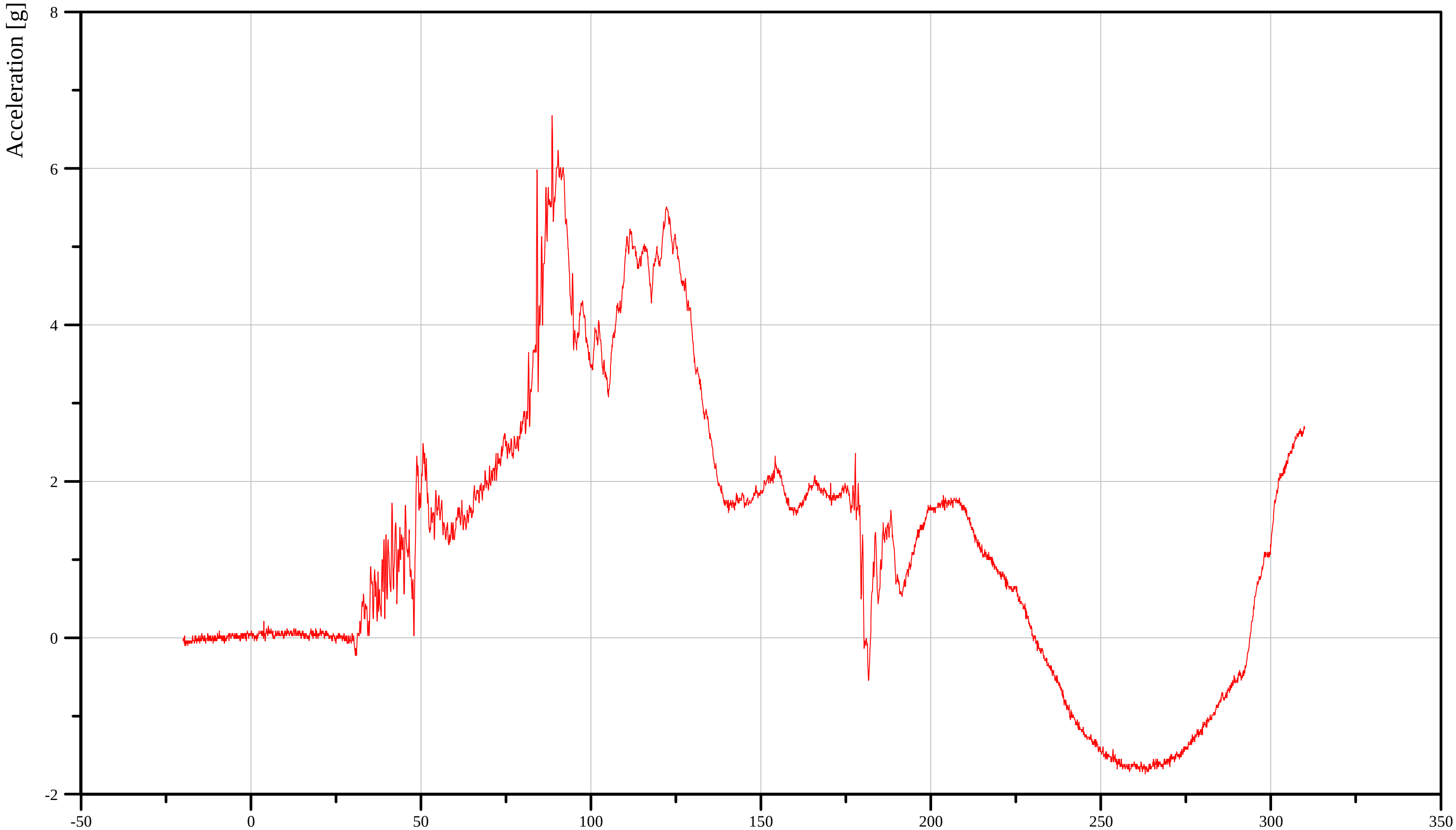
Passenger Head (FT) Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADFR00H3ACYA

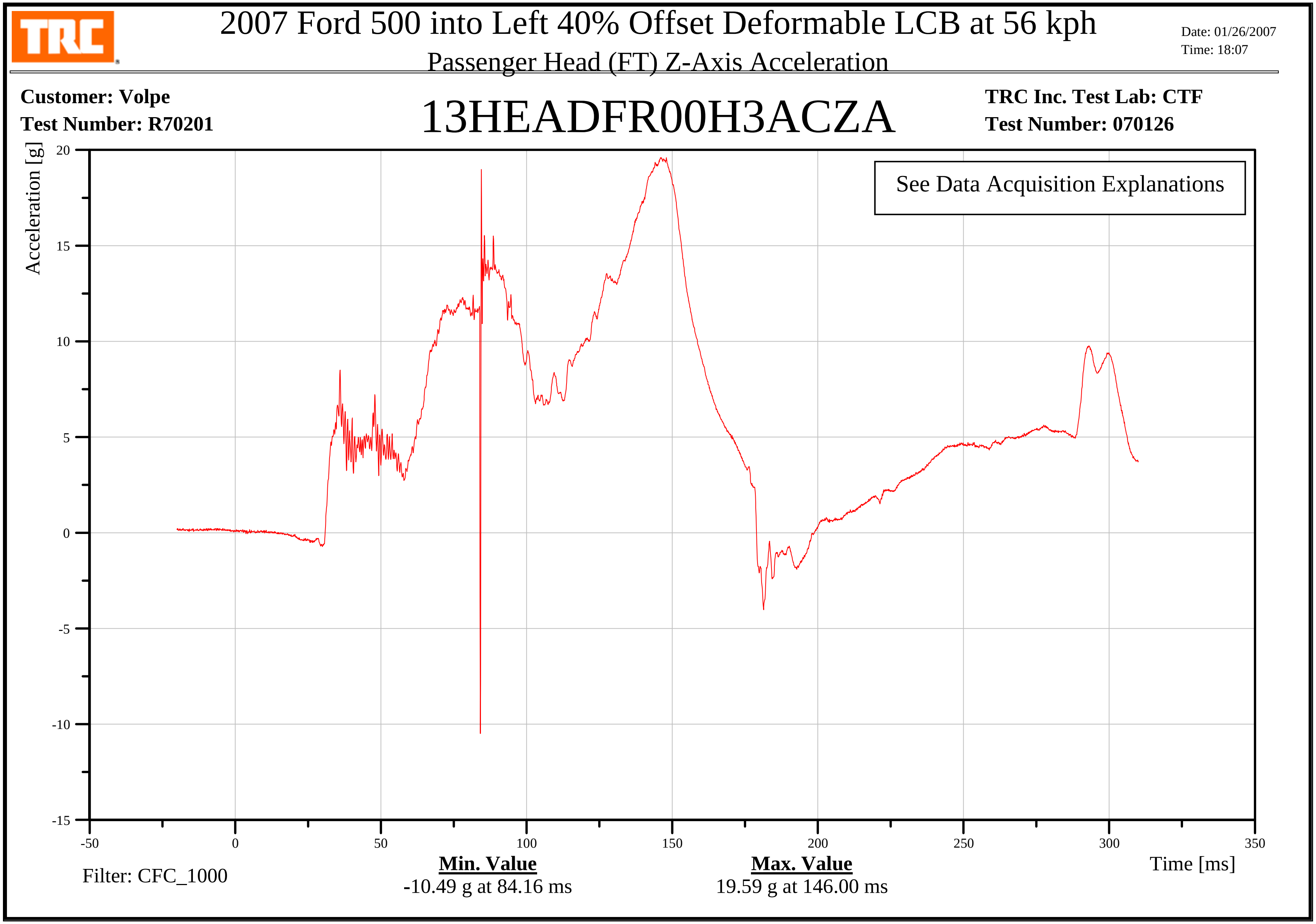
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-1.74 g at 263.04 ms

Max. Value
6.68 g at 88.64 ms



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Head (FT) Z-Axis Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13HEADFR00H3ACZA
TRC Inc. Test Lab: CTF
Test Number: 070126
See Data Acquisition Explanations
Acceleration [g]
20
15
10
5
0
-5
-10
-15
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_1000
Min. Value
-10.49 g at 84.16 ms
Max. Value
19.59 g at 146.00 ms

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

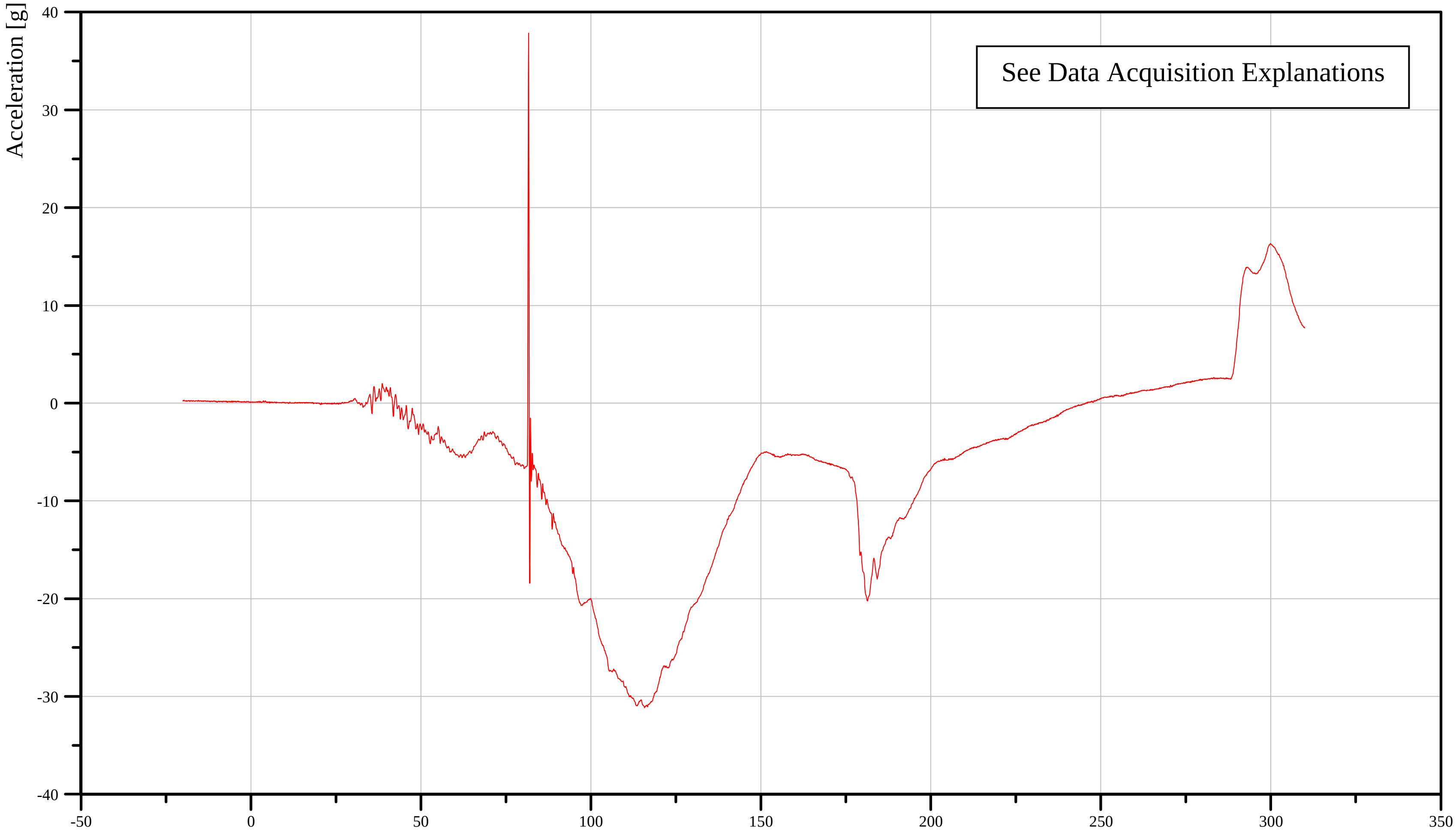
Passenger Head (TP) X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADUP00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-31.16 g at 115.76 ms

Max. Value
37.86 g at 81.68 ms

070126

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

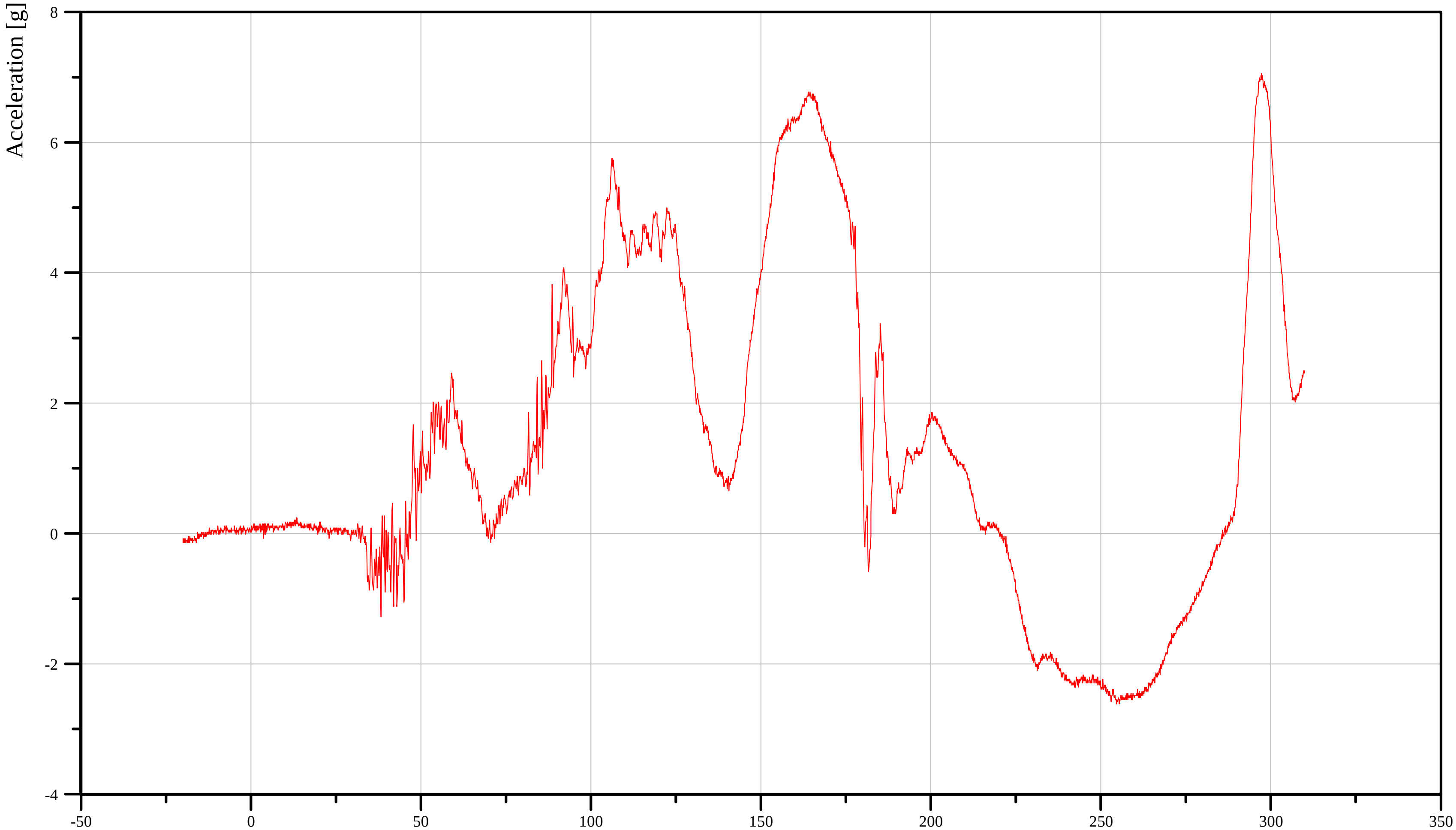
Passenger Head (TP) Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADUP00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-2.61 g at 254.64 ms

Max. Value
7.06 g at 297.28 ms

B-101

070126

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

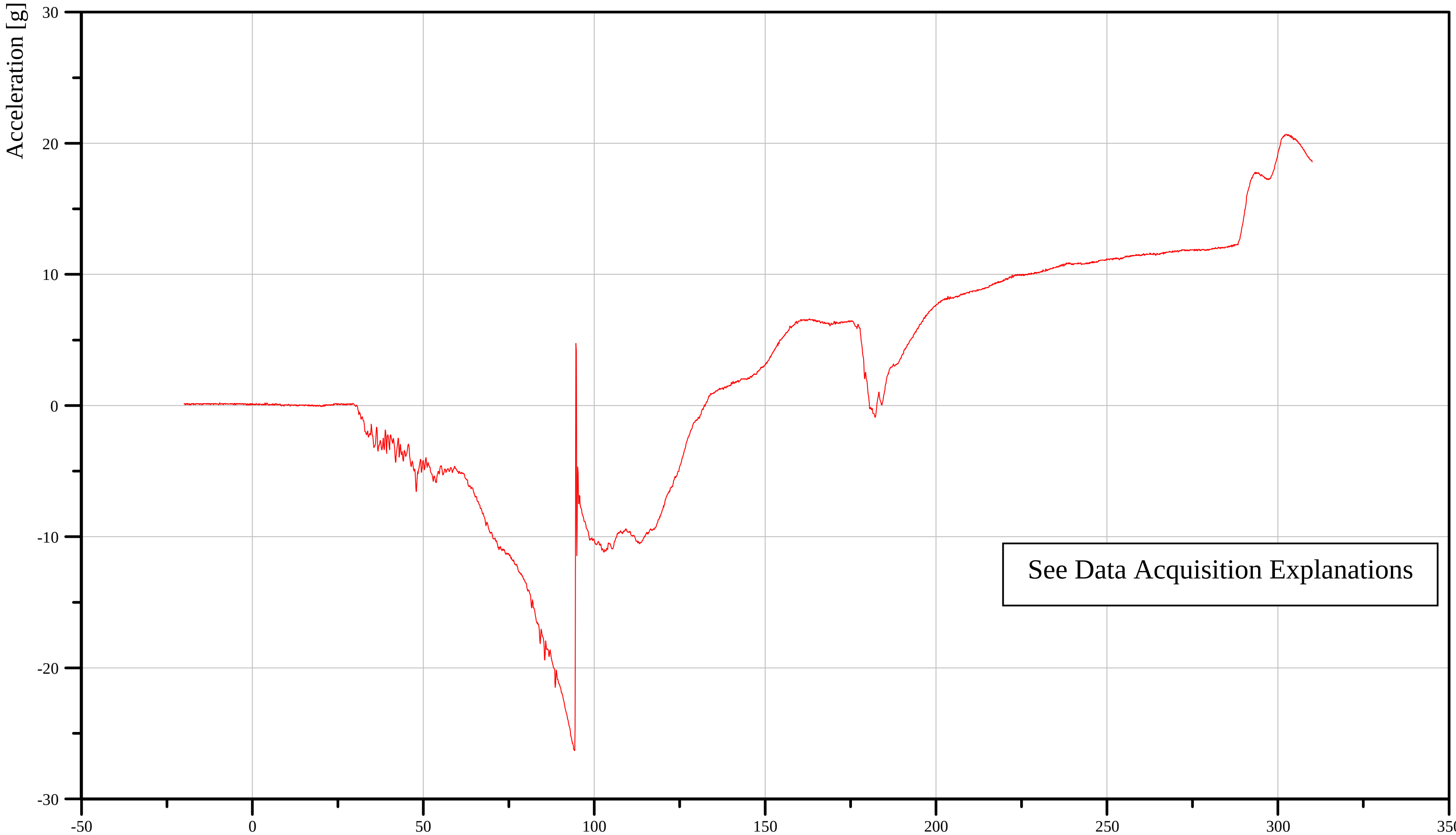
Passenger Head (LT) X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADLE00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-26.31 g at 94.24 ms

Max. Value
20.69 g at 302.32 ms

070126

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

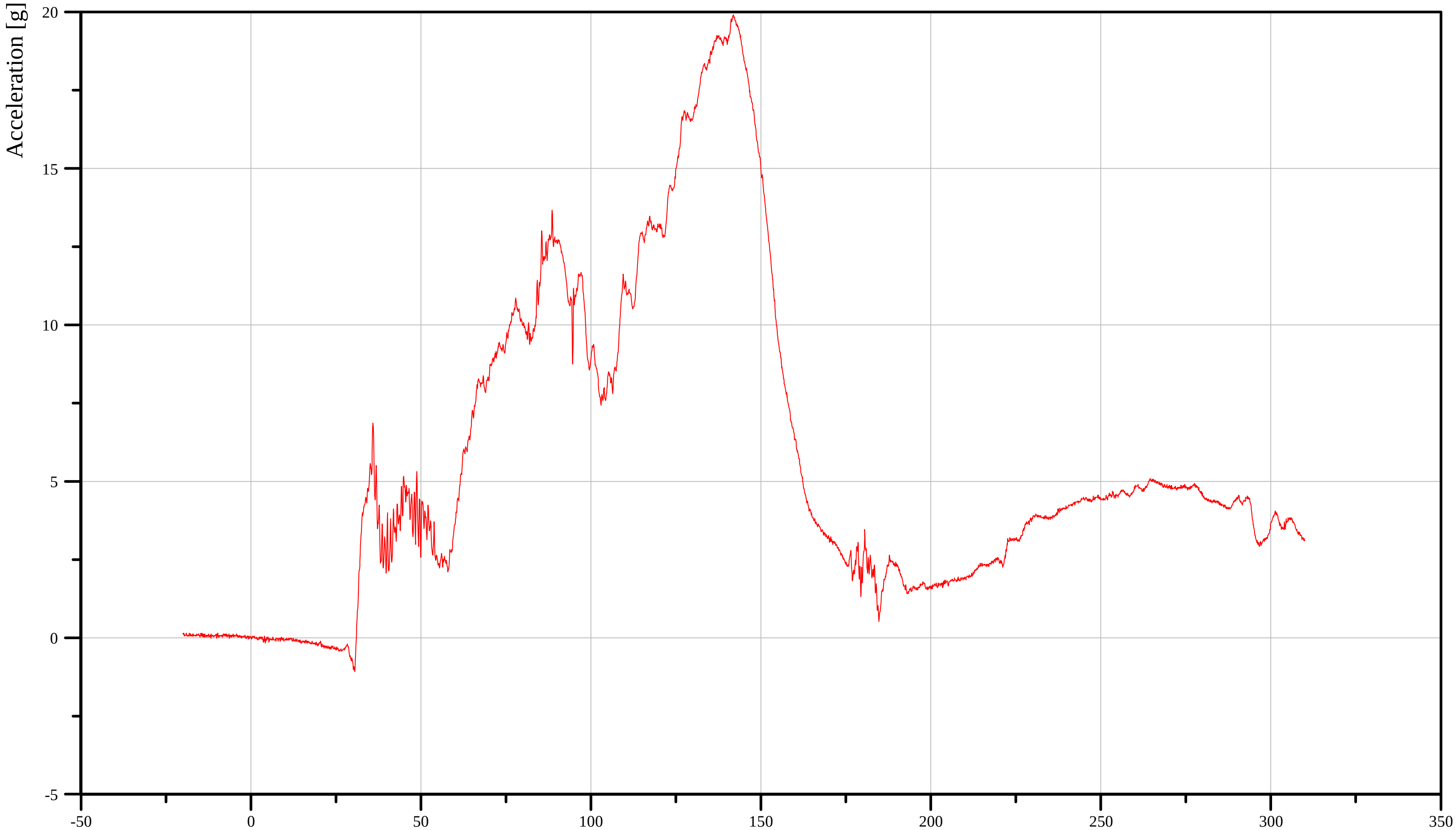
Passenger Head (LT) Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13HEADLE00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-1.08 g at 30.56 ms

Max. Value
19.91 g at 141.92 ms

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

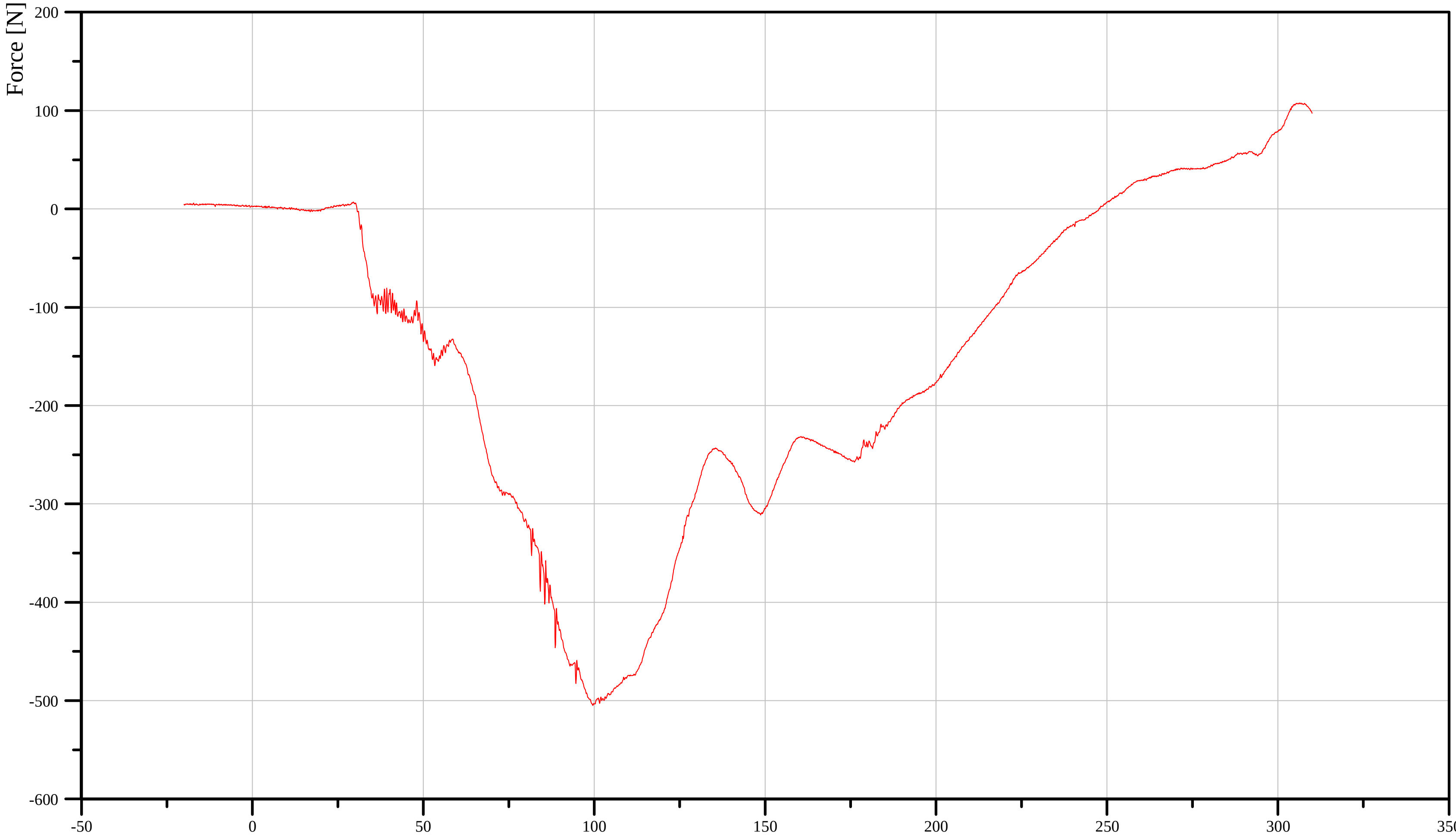
Passenger Upper Neck X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKUP00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-504.84 N at 99.60 ms

Max. Value
107.74 N at 306.32 ms

B-104

070126

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

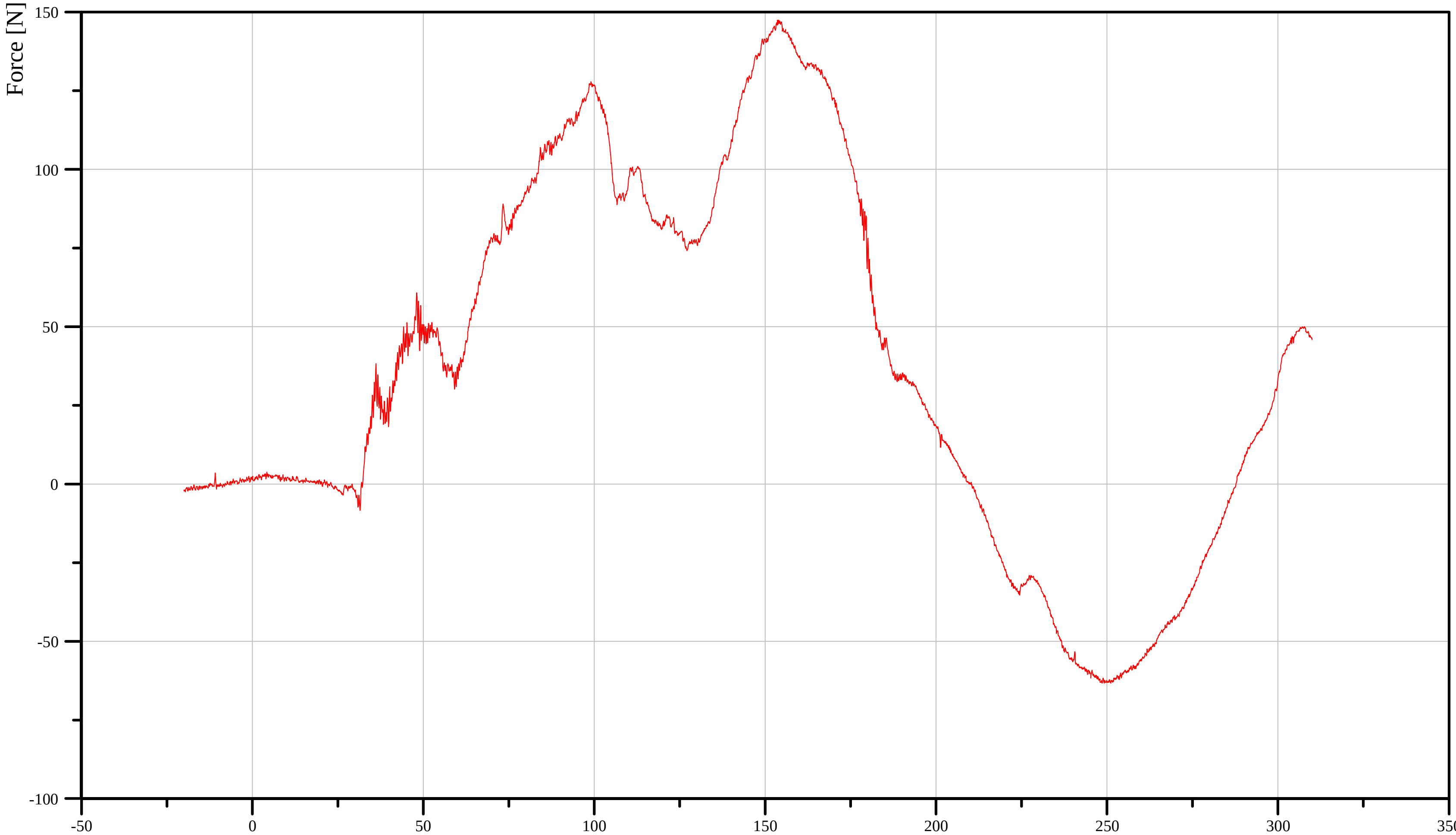
Passenger Upper Neck Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKUP00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-63.29 N at 248.56 ms

Max. Value
147.47 N at 153.60 ms

070126

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

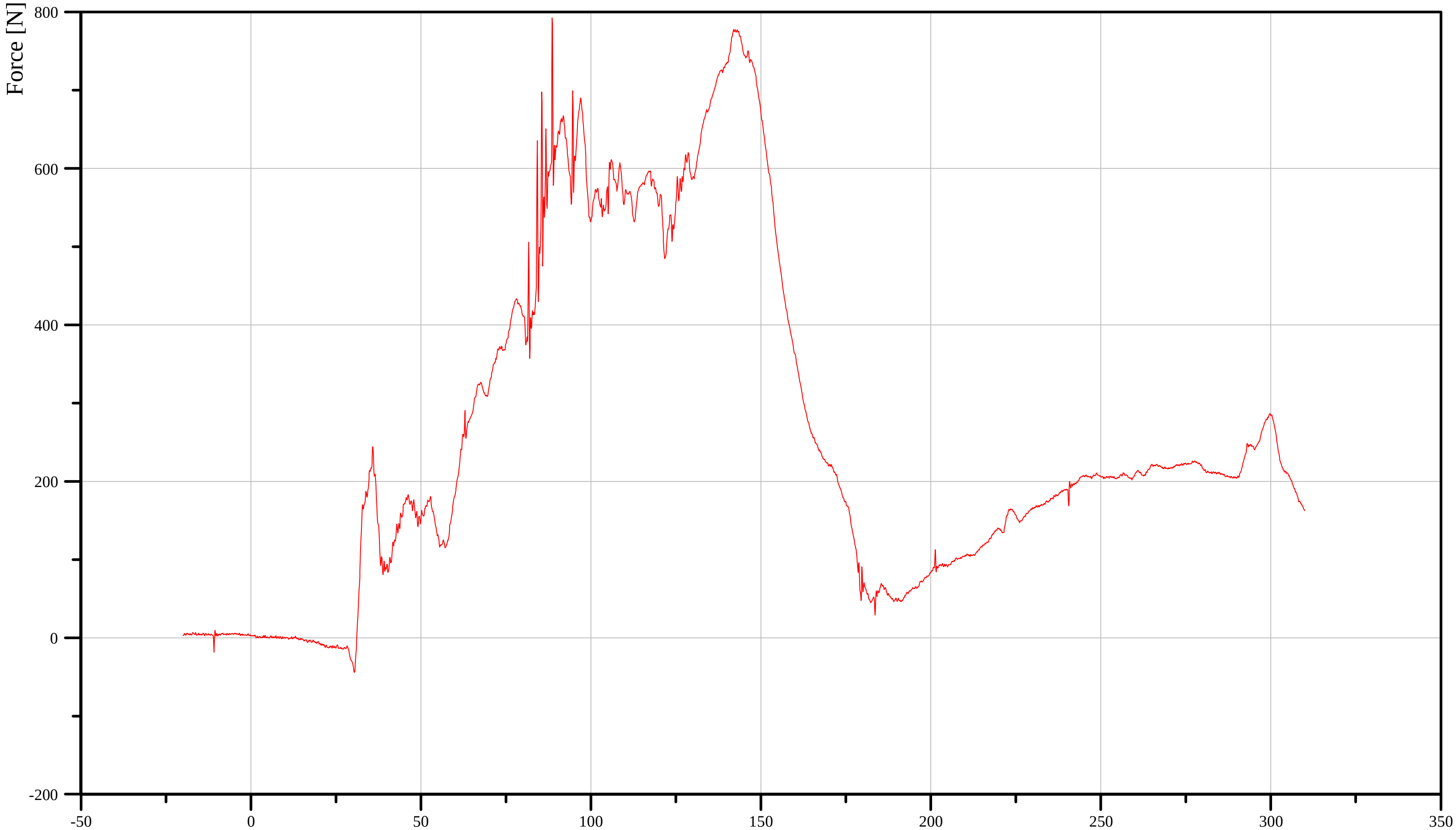
Passenger Upper Neck Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKUP00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-43.98 N at 30.40 ms

Max. Value
792.57 N at 88.64 ms

070126

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

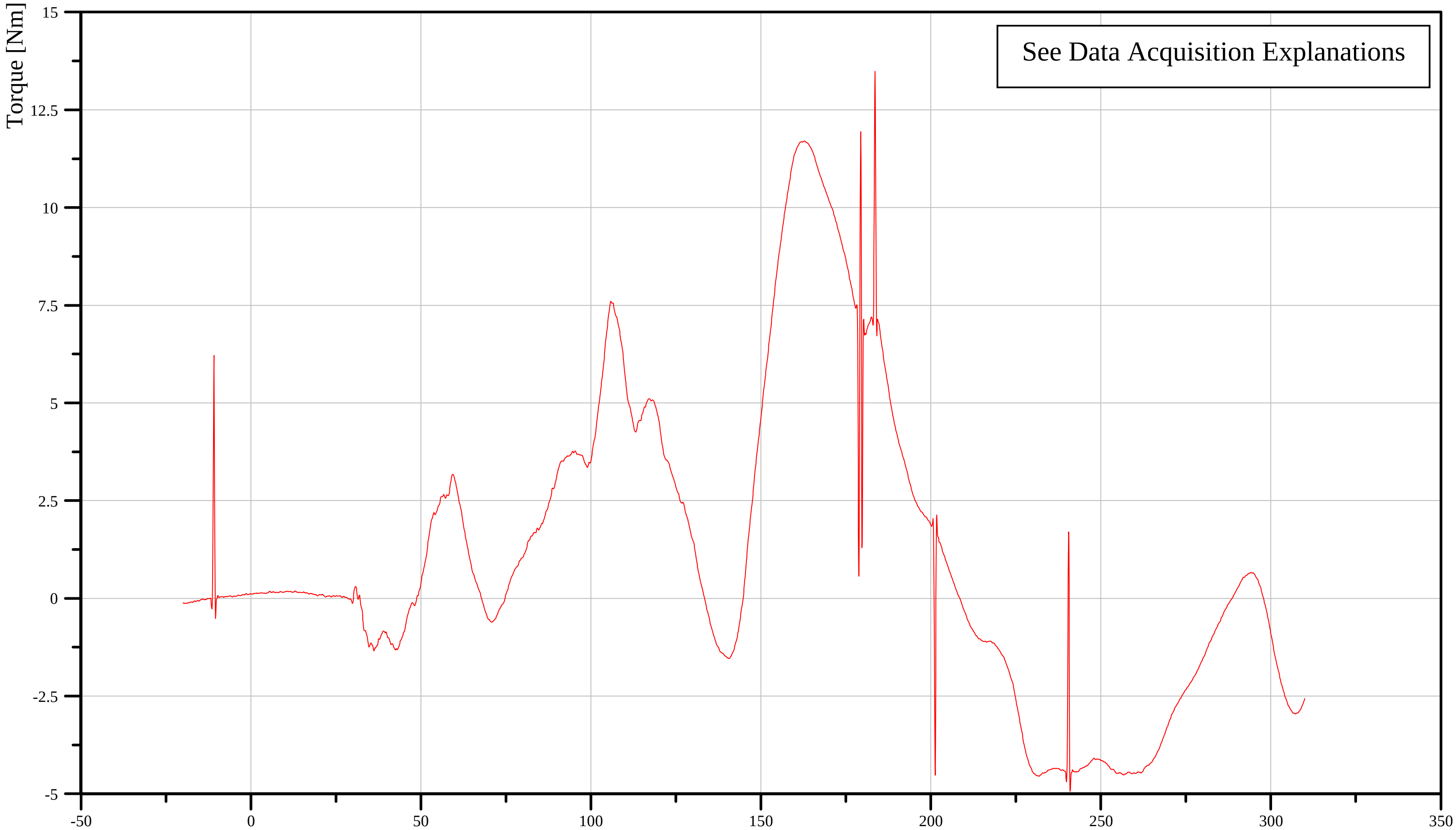
Passenger Upper Neck Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKUP00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-4.93 Nm at 240.96 ms

Max. Value
13.48 Nm at 183.60 ms

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

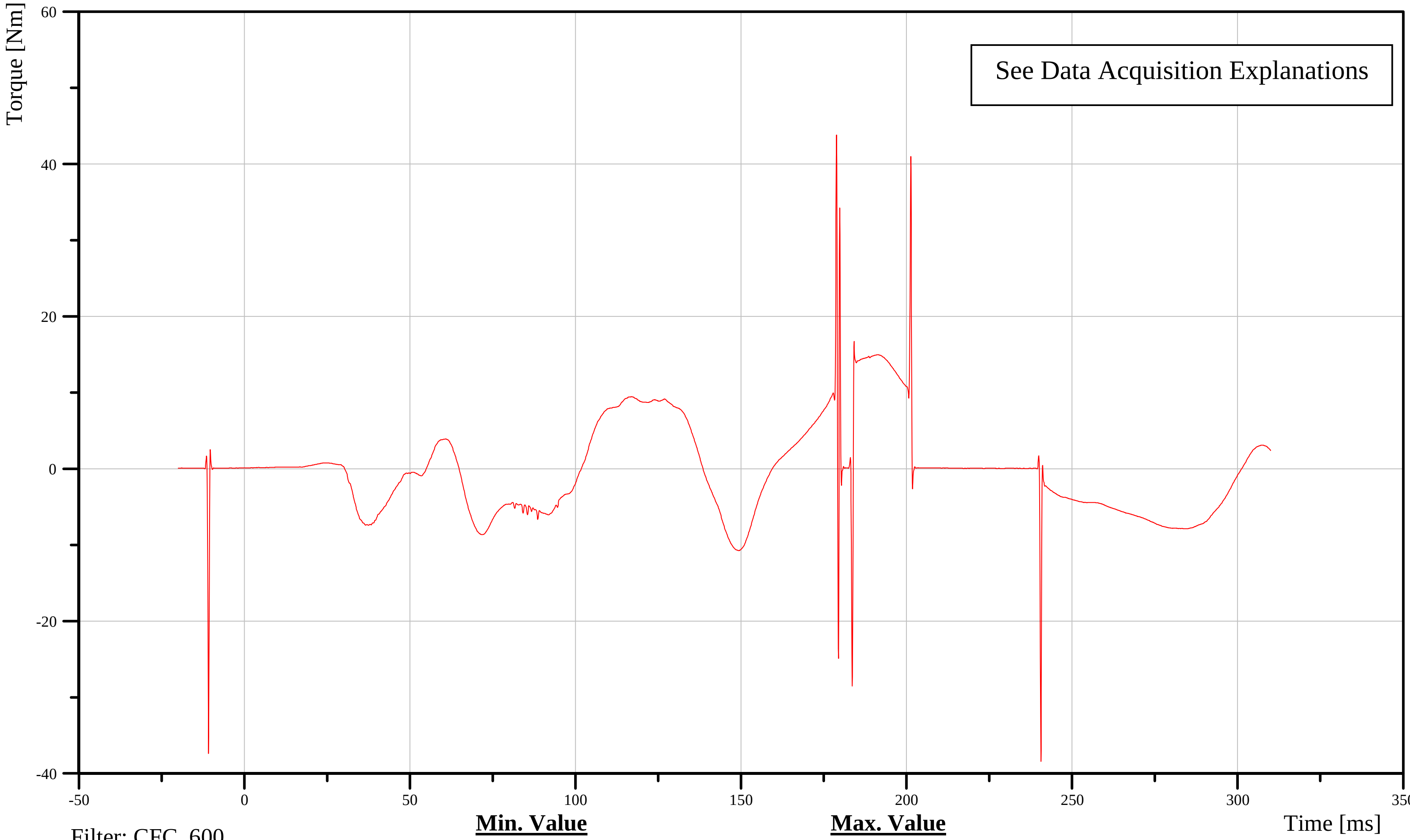
Date: 01/26/2007
Time: 18:07

Passenger Upper Neck Moment About Y Axis

Customer: Volpe
Test Number: R70201

13NECKUP00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-38.42 Nm at 240.56 ms

Max. Value
43.82 Nm at 178.88 ms

070126

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

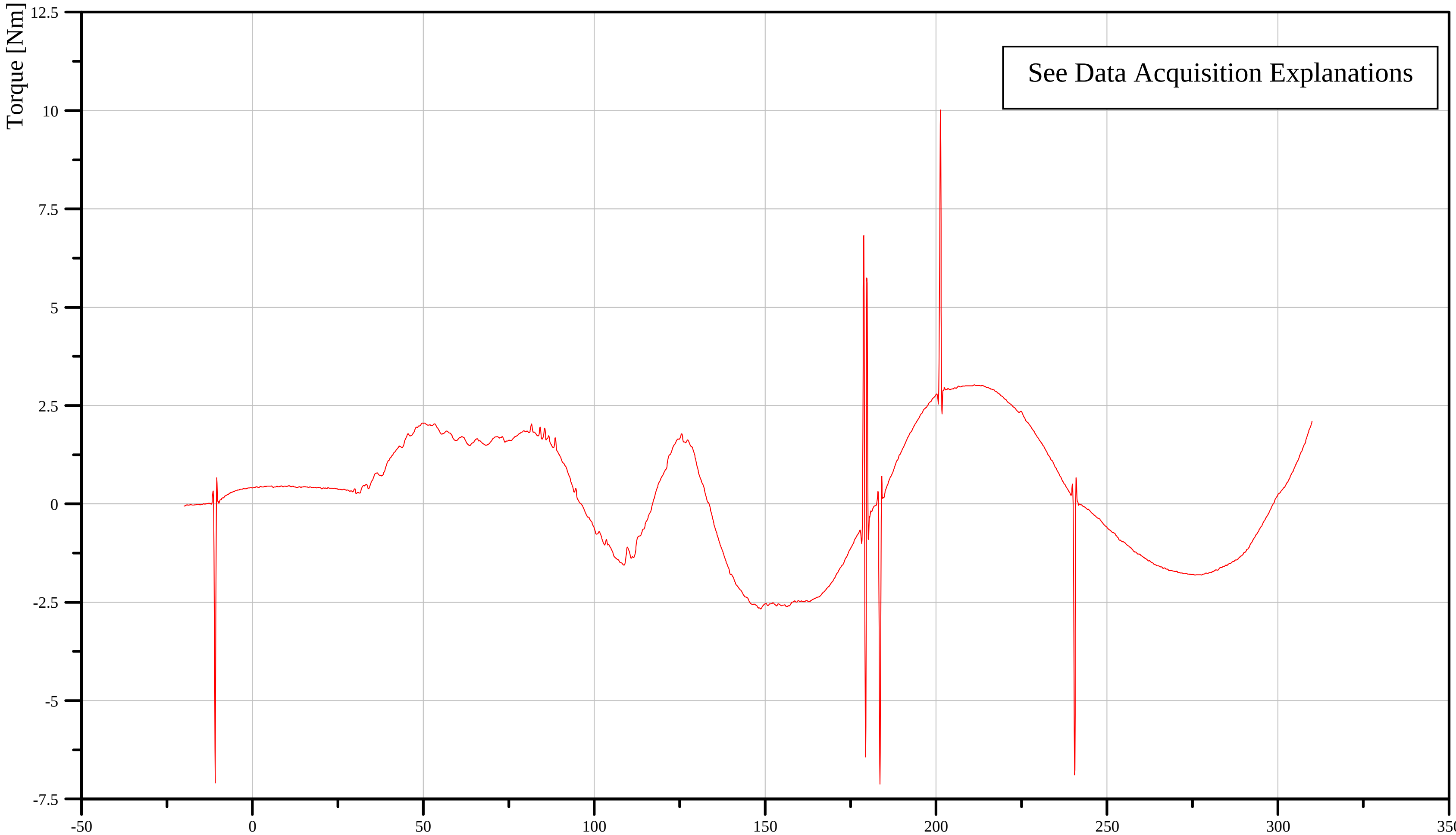
Passenger Upper Neck Moment About Z Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKUP00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-7.12 Nm at 183.60 ms

Max. Value
10.01 Nm at 201.28 ms

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

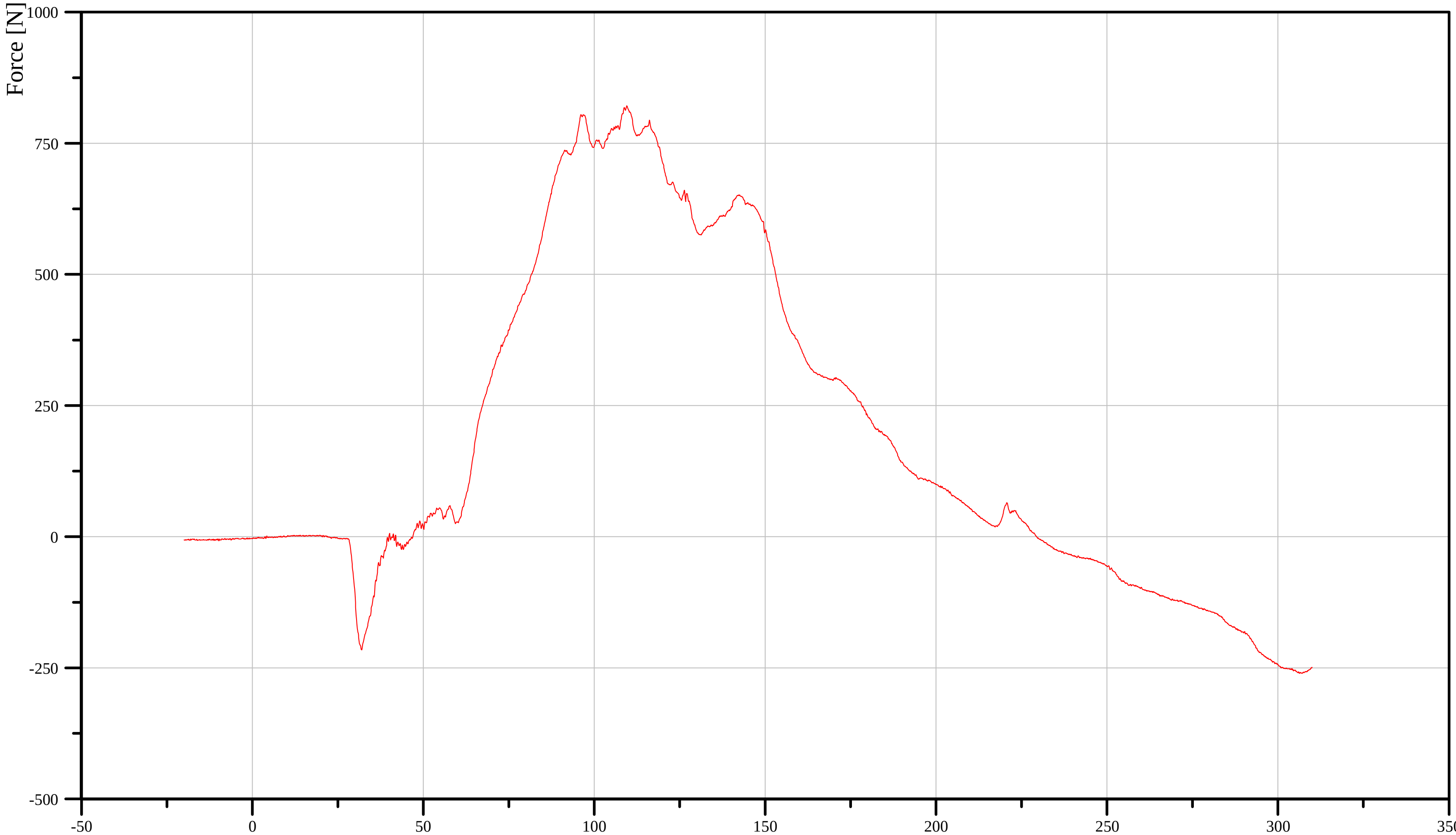
Passenger Lower Neck X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKLO00H3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-260.50 N at 306.96 ms

Max. Value
821.64 N at 109.52 ms

070126

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

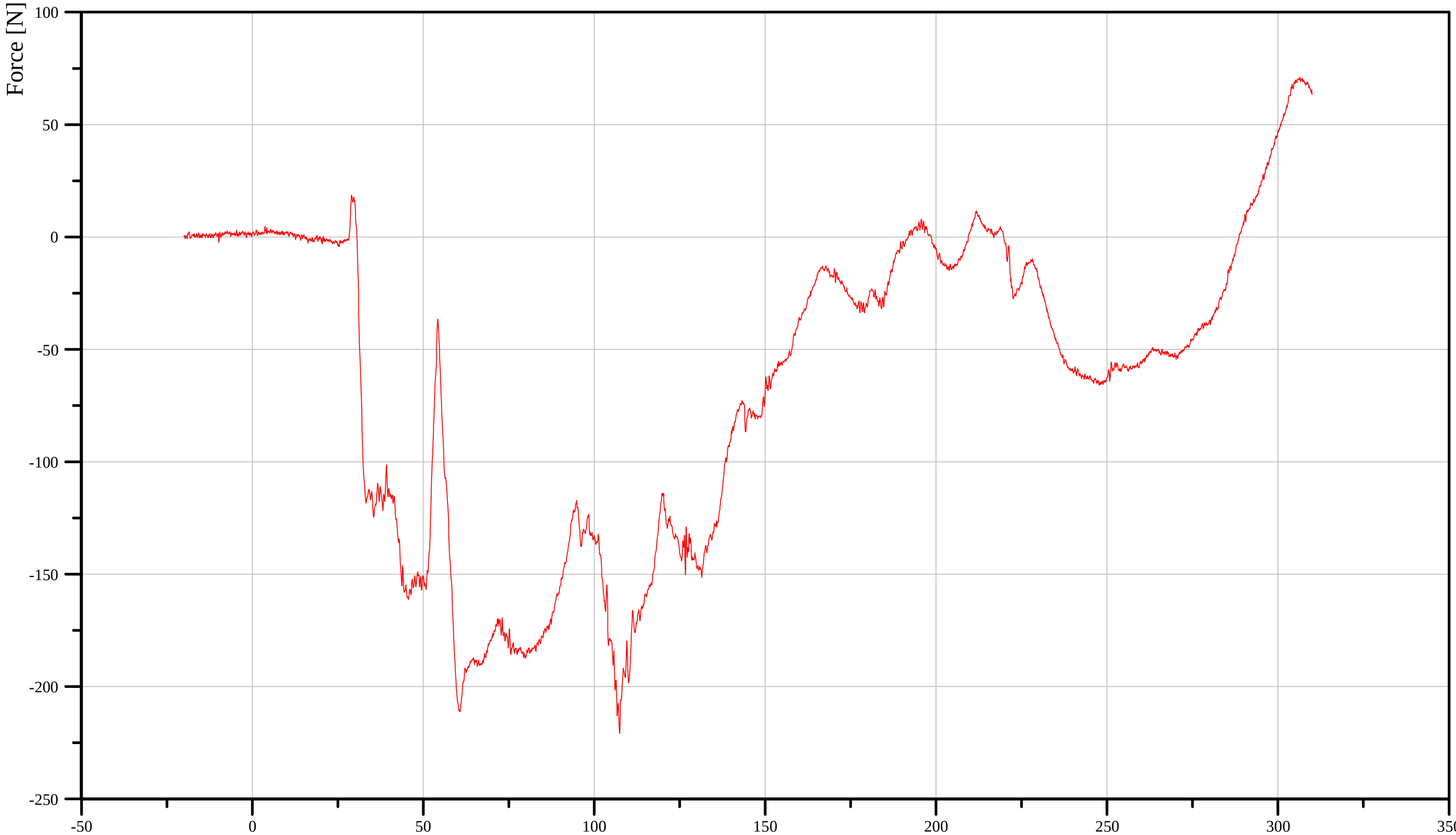
Passenger Lower Neck Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKLO00H3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-220.78 N at 107.44 ms

Max. Value
71.11 N at 306.40 ms

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

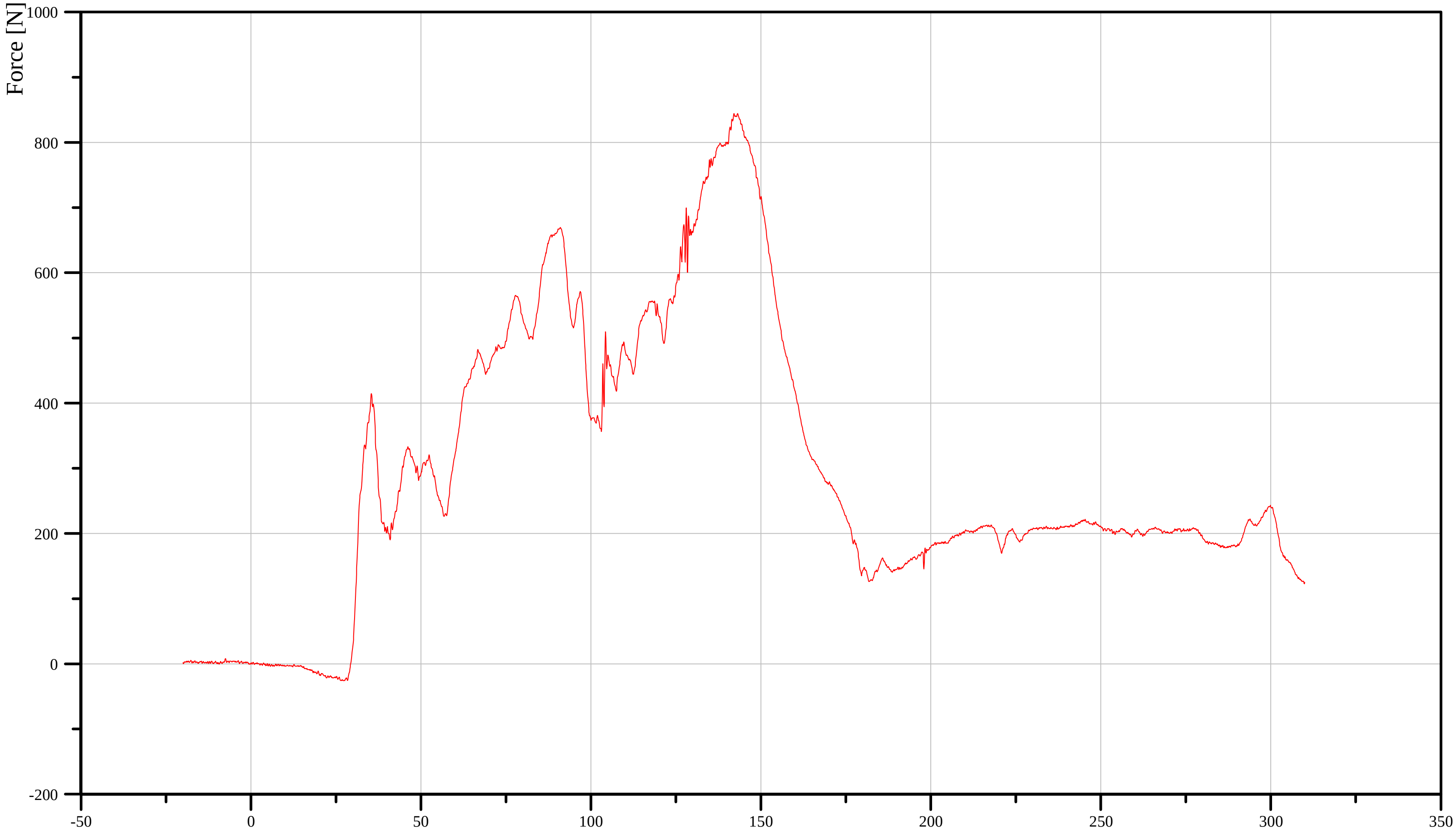
Passenger Lower Neck Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKLO00H3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-25.82 N at 26.56 ms

Max. Value
844.53 N at 142.08 ms

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

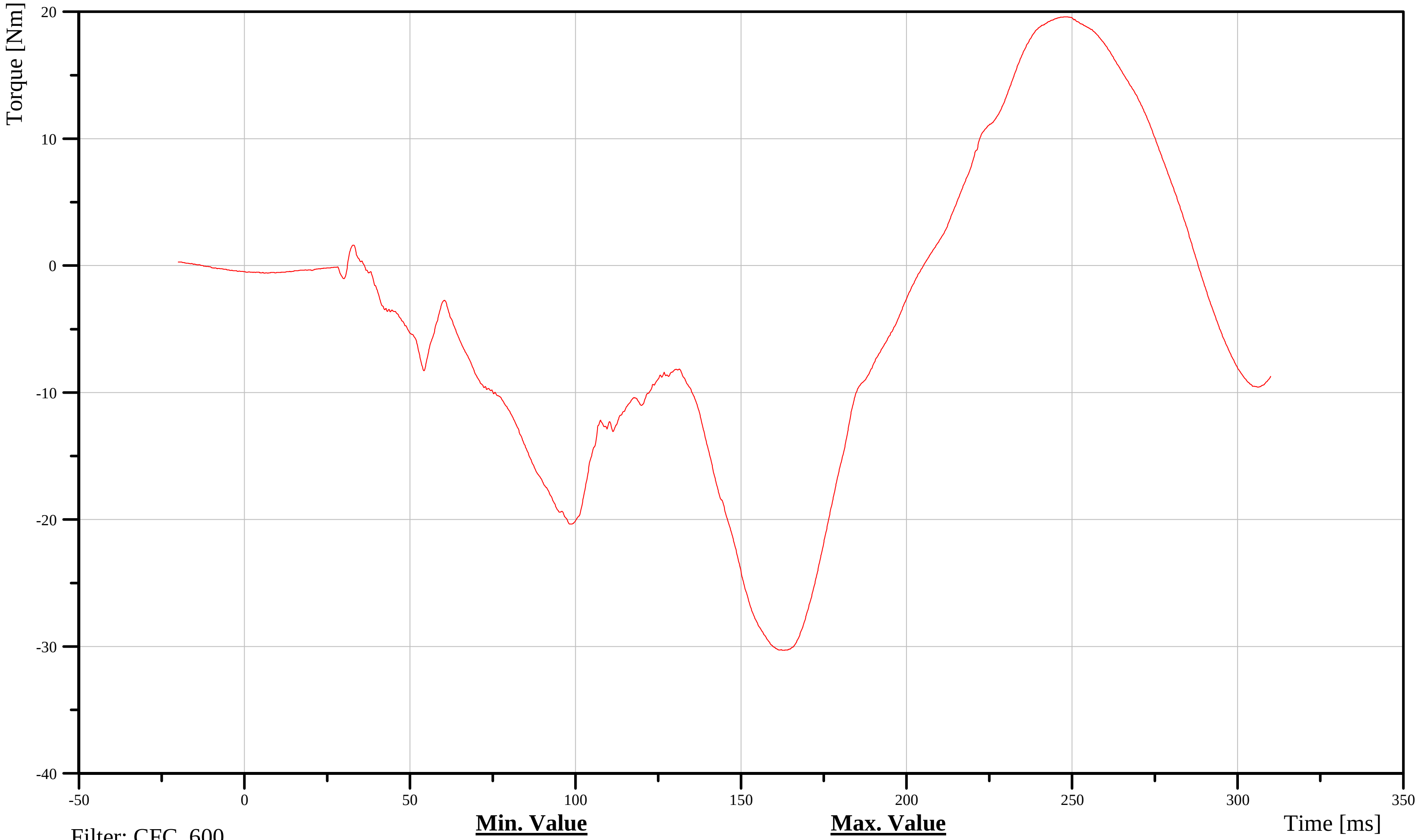
Passenger Lower Neck Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKLO00H3MOXB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-30.30 Nm at 162.64 ms

Max. Value
19.60 Nm at 247.68 ms

070126

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

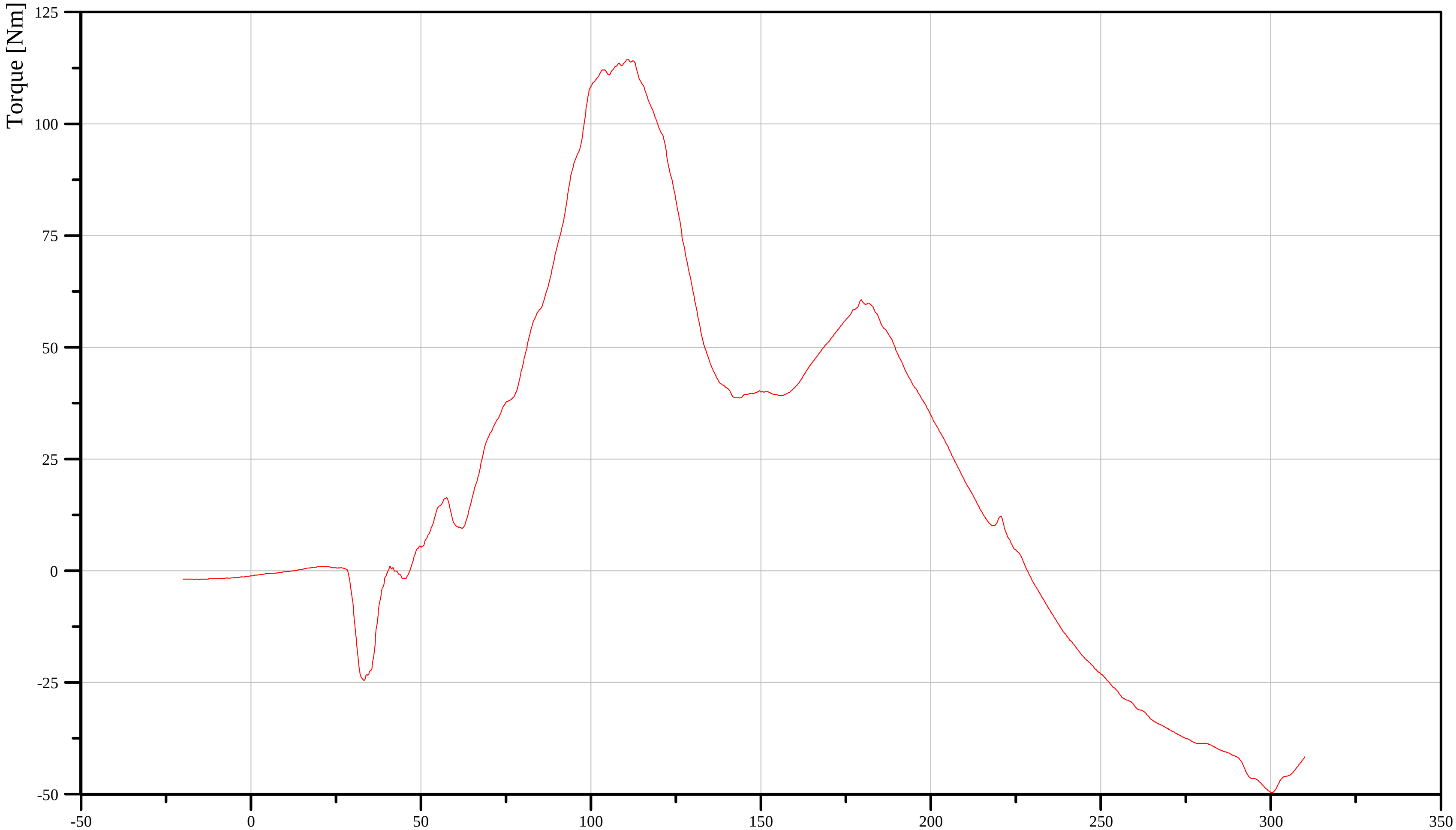
Passenger Lower Neck Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKLO00H3MOYB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-49.63 Nm at 300.40 ms

Max. Value
114.47 Nm at 110.88 ms

B-114

070126

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

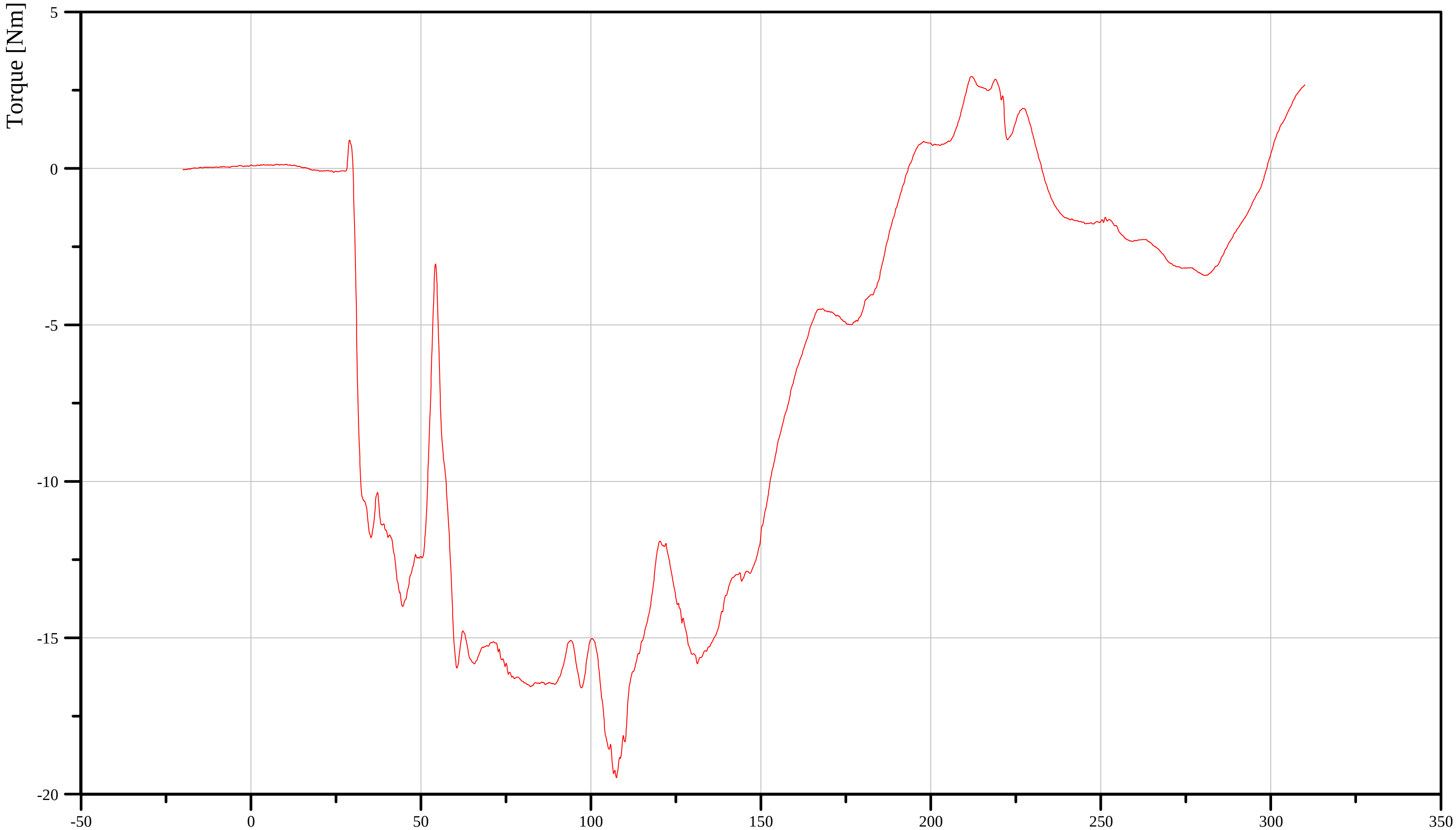
Passenger Lower Neck Moment About Z Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13NECKLO00H3MOZB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-19.47 Nm at 107.52 ms

Max. Value
2.94 Nm at 211.92 ms

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

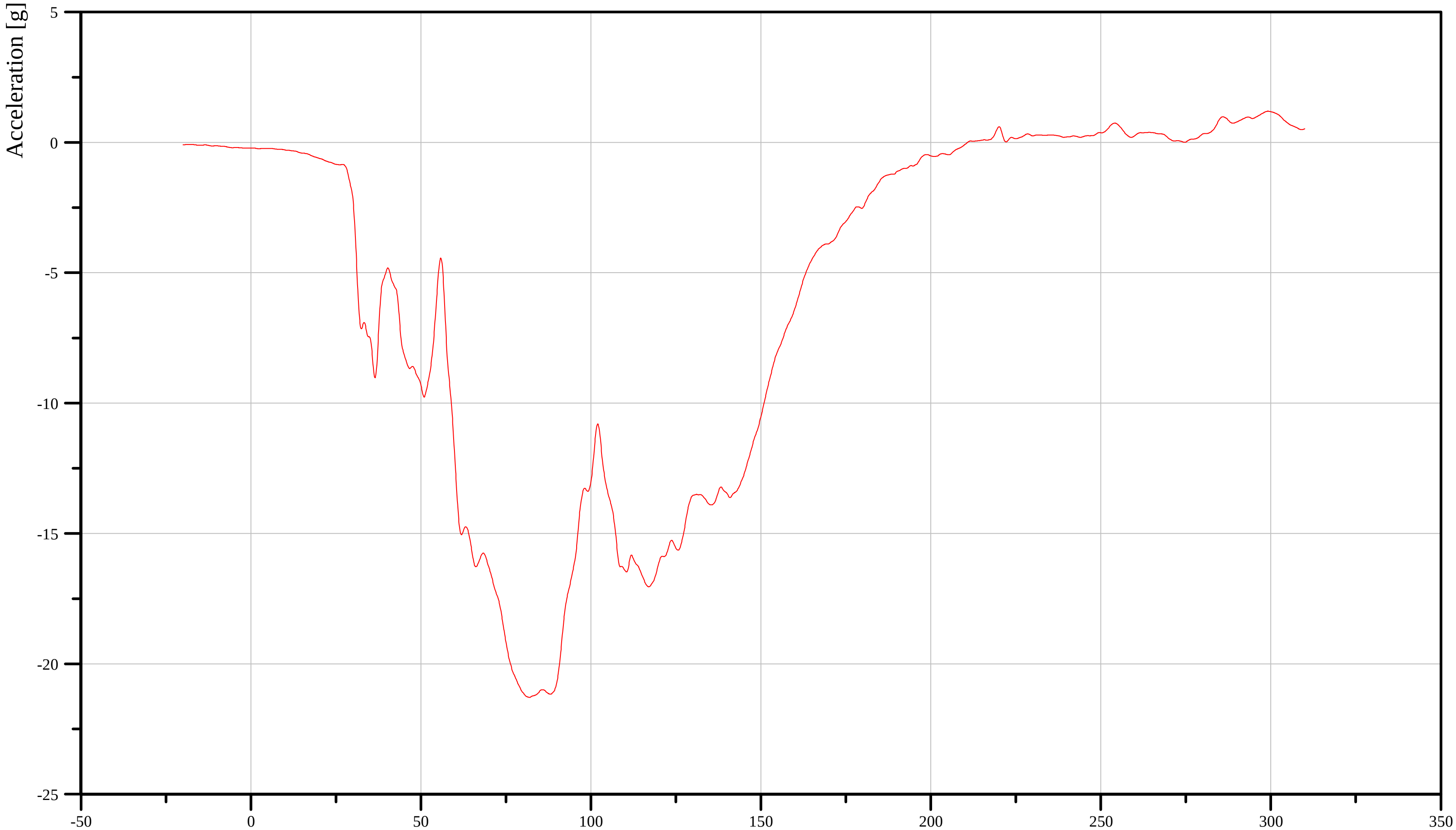
Passenger Chest X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-21.28 g at 81.92 ms

Max. Value
1.20 g at 299.12 ms

070126

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

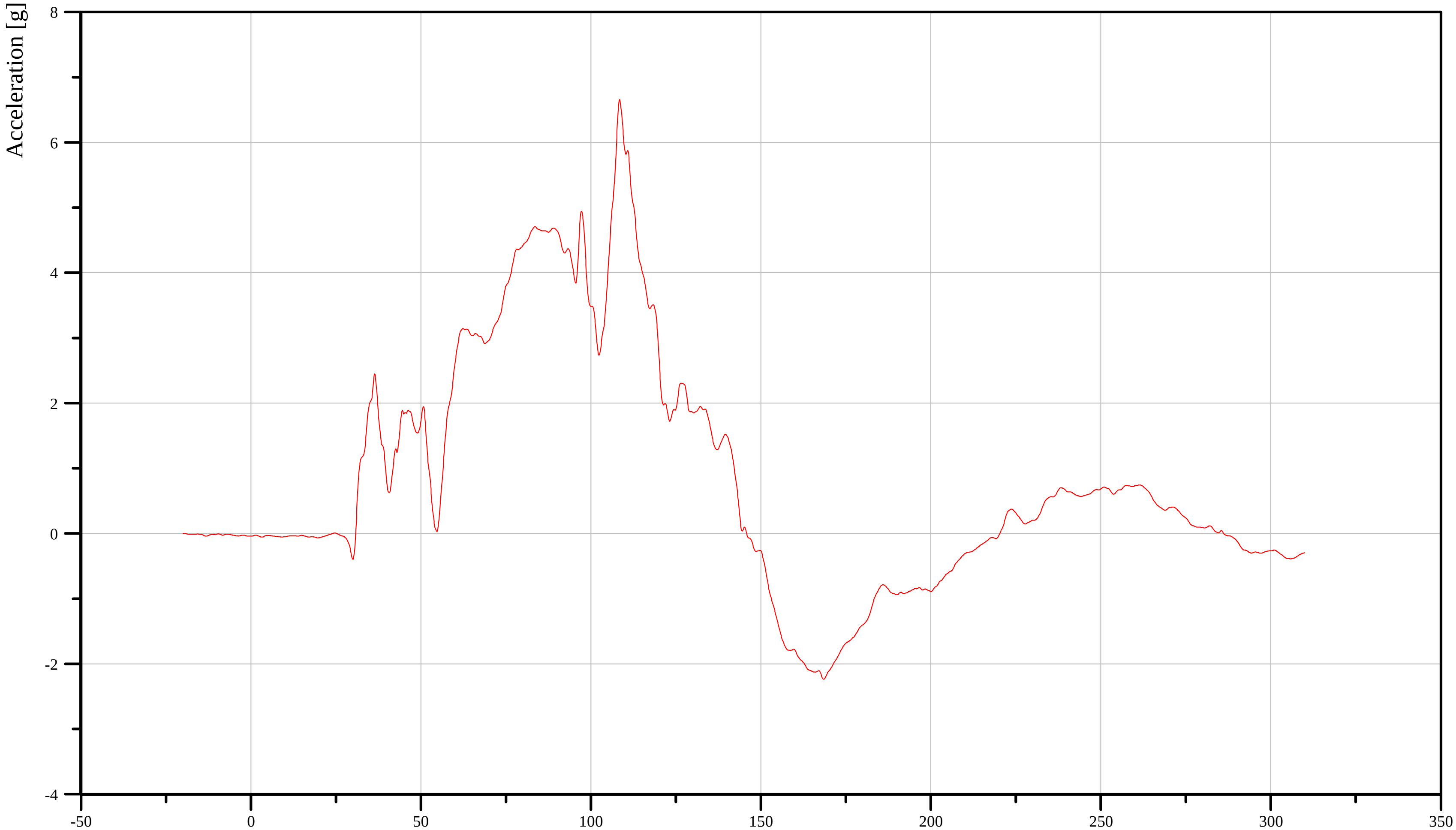
Passenger Chest Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF
Test Number: 070126

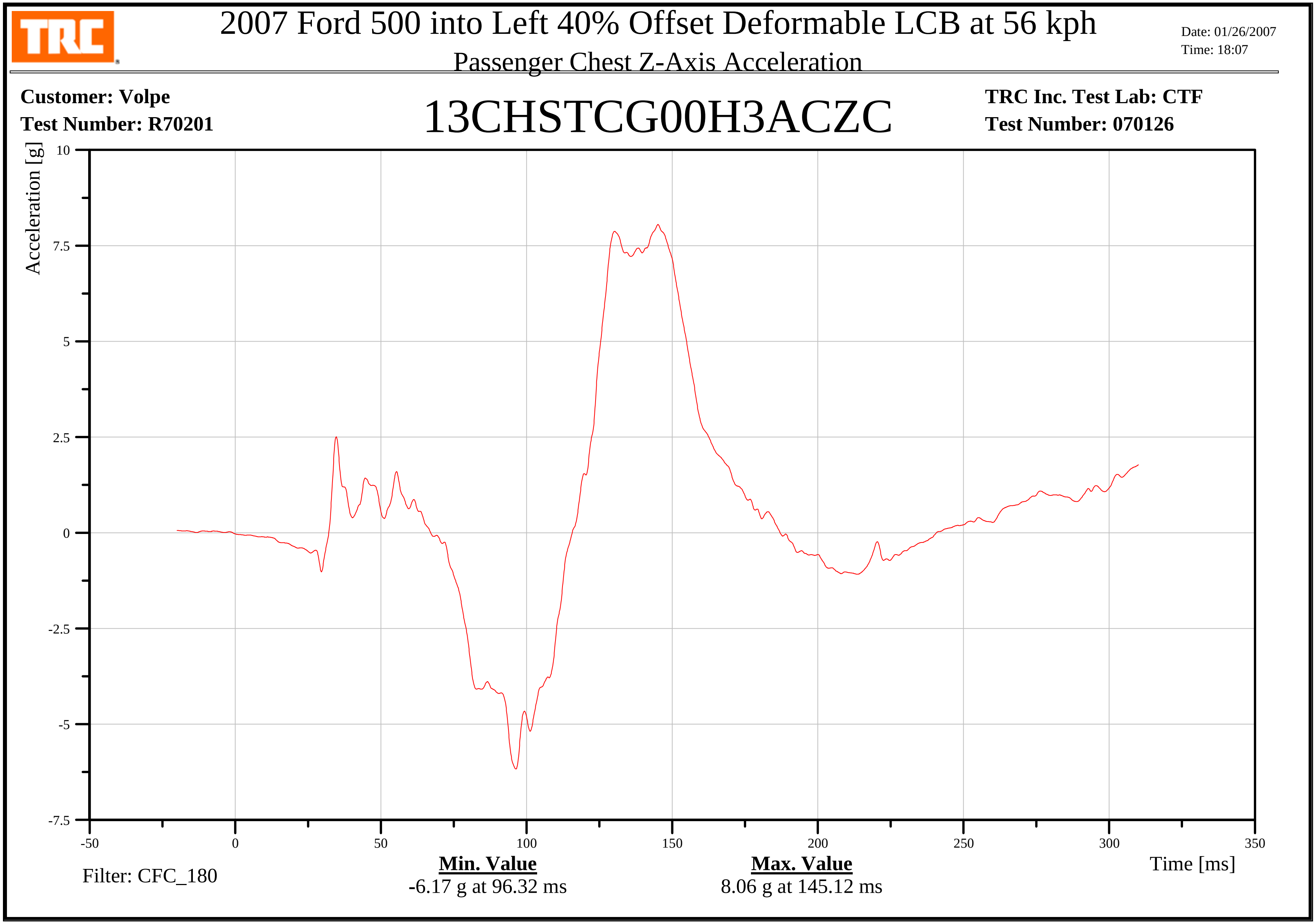


Filter: CFC_180

Min. Value
-2.23 g at 168.48 ms

Max. Value
6.66 g at 108.40 ms

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Chest Z-Axis Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13CHSTCG00H3ACZC
TRC Inc. Test Lab: CTF
Test Number: 070126
Acceleration [g]
10
7.5
5
2.5
0
-2.5
-5
-7.5
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_180
Min. Value
-6.17 g at 96.32 ms
Max. Value
8.06 g at 145.12 ms

B-118

070126

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

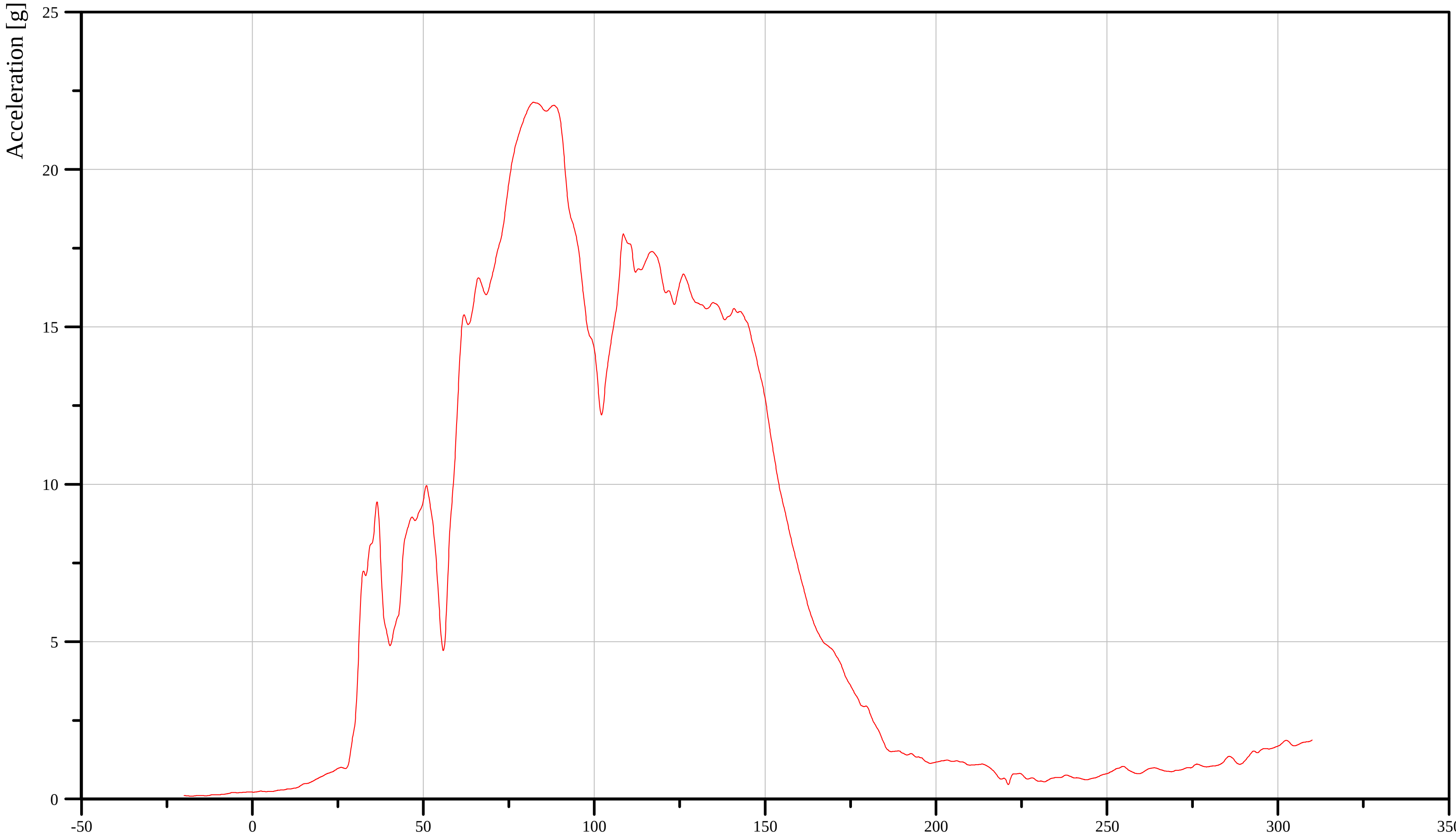
Passenger Chest Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
0.09 g at -17.76 ms

Max. Value
22.14 g at 82.24 ms

070126

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

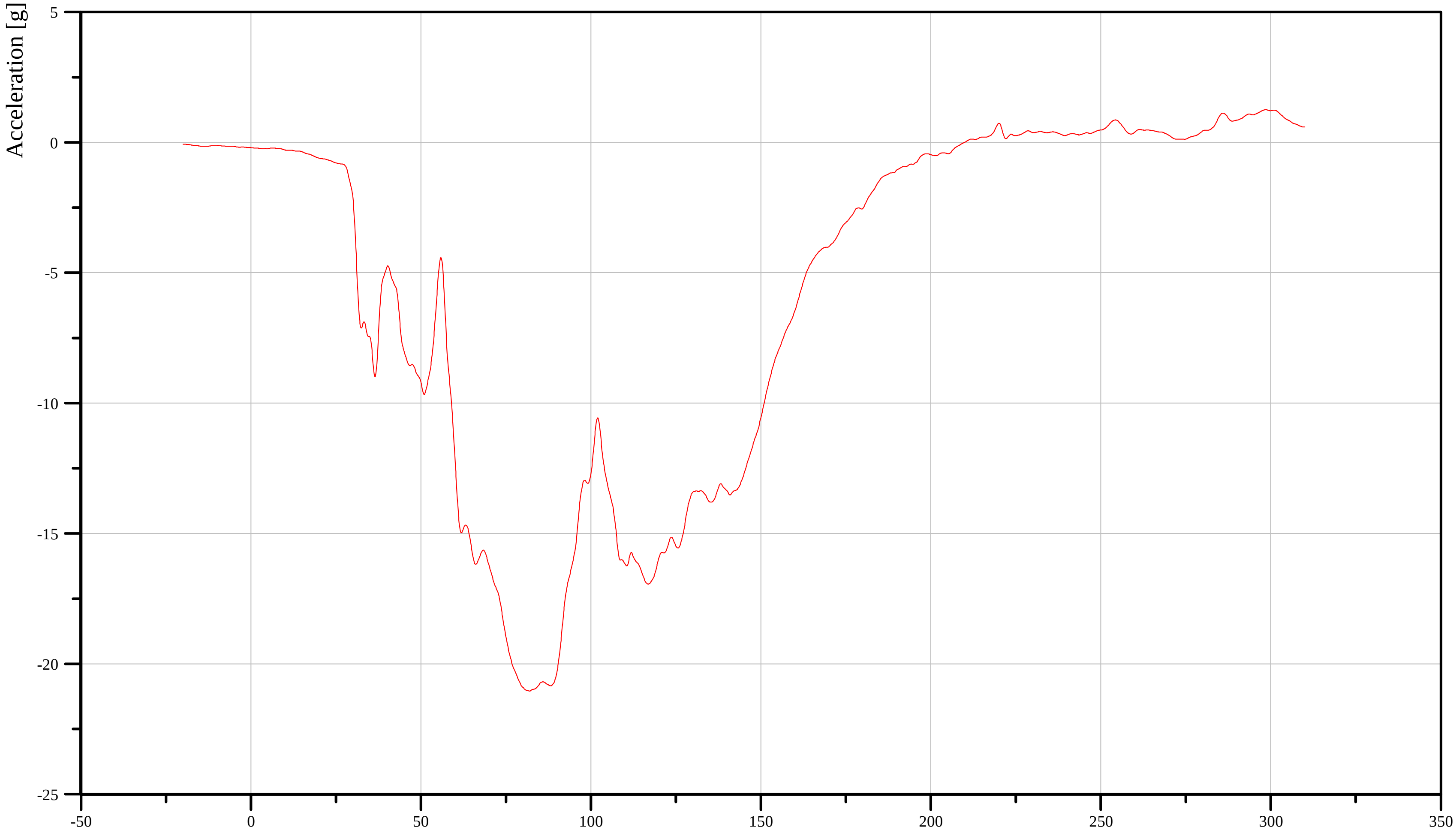
Passenger Chest X-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF
Test Number: 070126

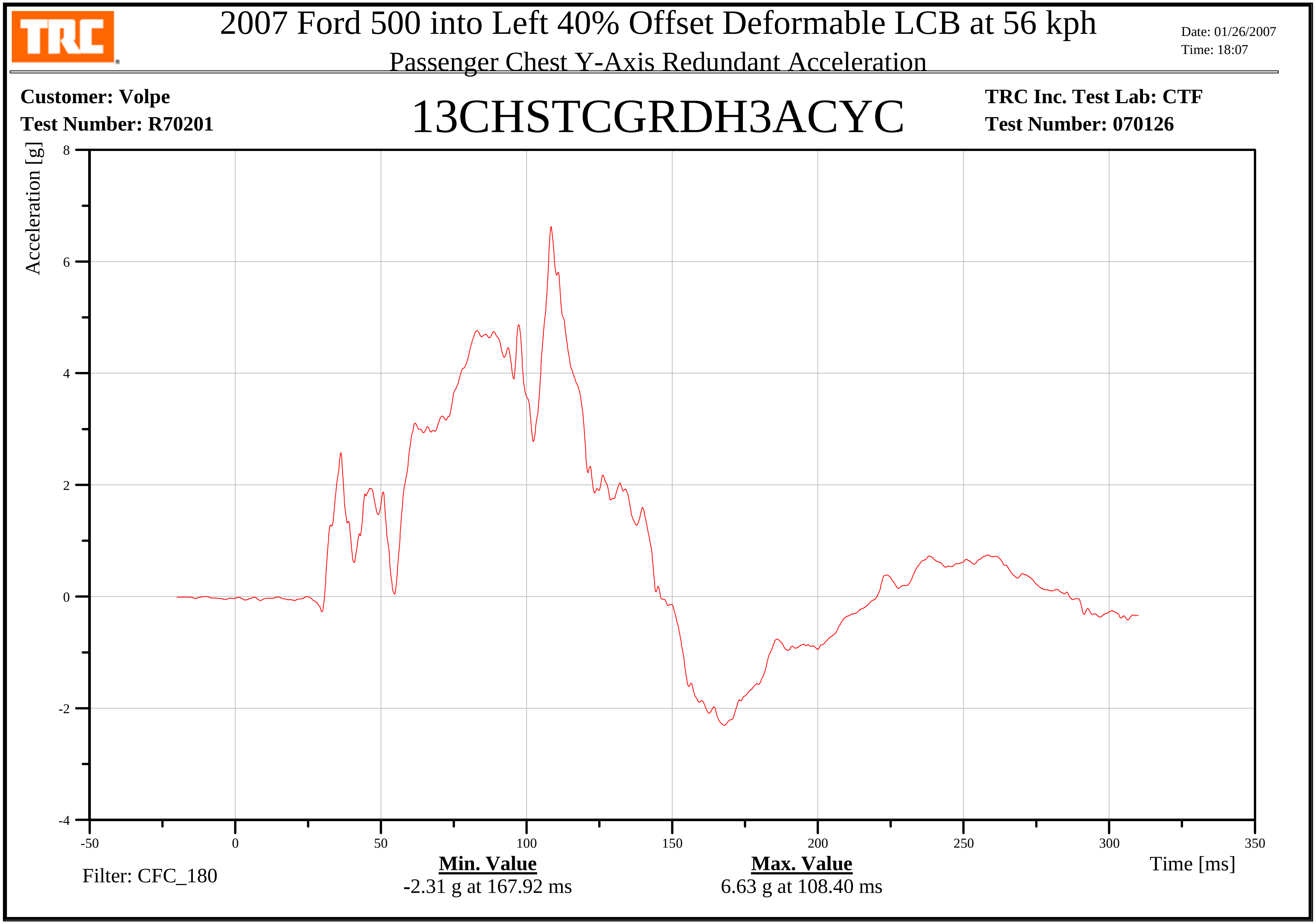


Filter: CFC_180

Min. Value
-21.04 g at 82.00 ms

Max. Value
1.26 g at 298.48 ms

070126



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Chest Y-Axis Redundant Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13CHSTCGRDH3ACYC
TRC Inc. Test Lab: CTF
Test Number: 070126
Acceleration [g]
8
6
4
2
0
-2
-4
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_180
Min. Value
-2.31 g at 167.92 ms
Max. Value
6.63 g at 108.40 ms

B-121

070126

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

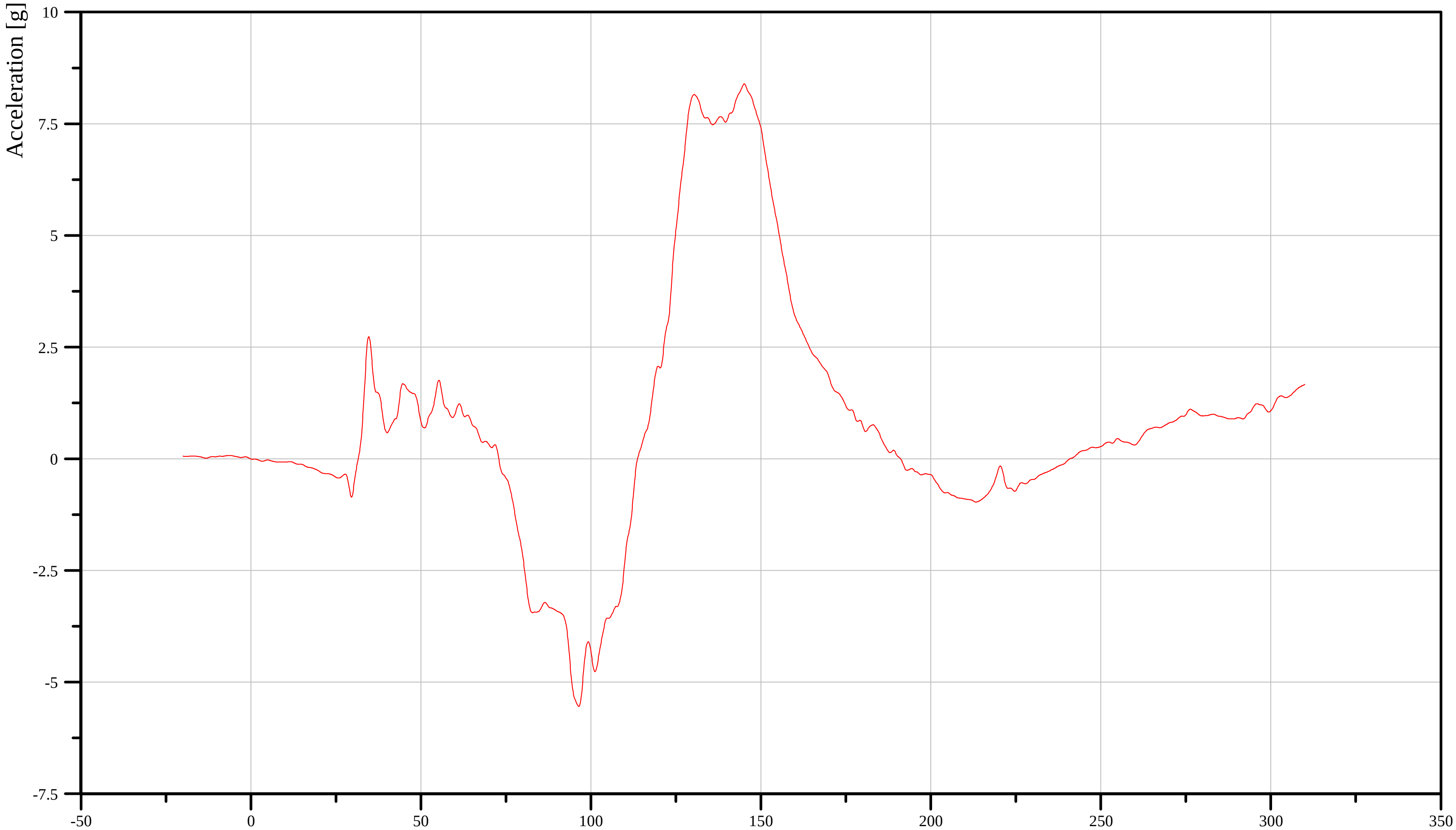
Passenger Chest Z-Axis Redundant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-5.54 g at 96.48 ms

Max. Value
8.40 g at 145.12 ms

B-122

070126

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

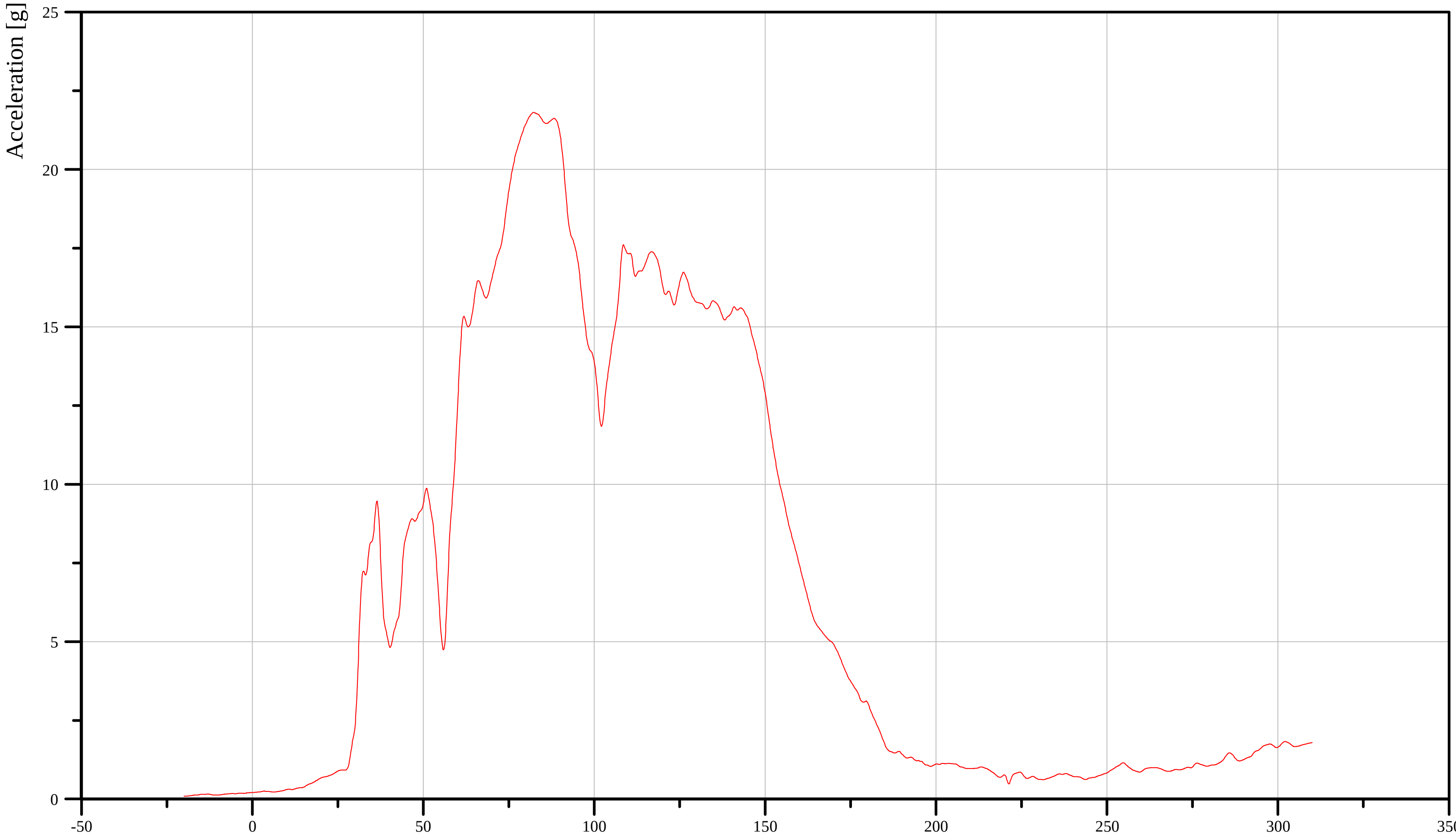
Passenger Chest Redundant Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
0.09 g at -19.52 ms

Max. Value
21.82 g at 82.24 ms

070126

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

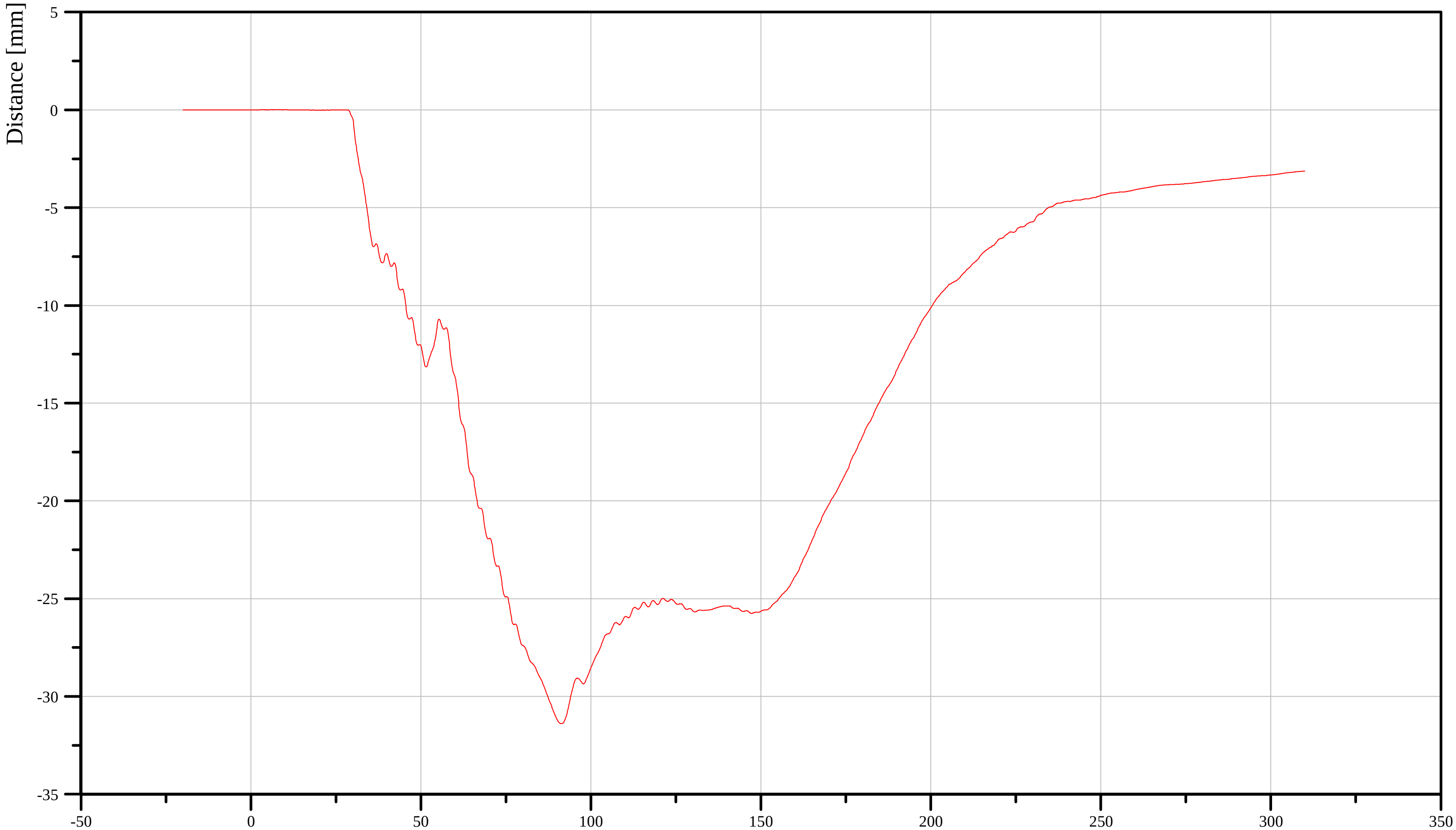
Passenger Chest Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13CHST0000H3DSXB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-31.39 mm at 91.28 ms

Max. Value
0.01 mm at 3.60 ms

B-124

070126

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

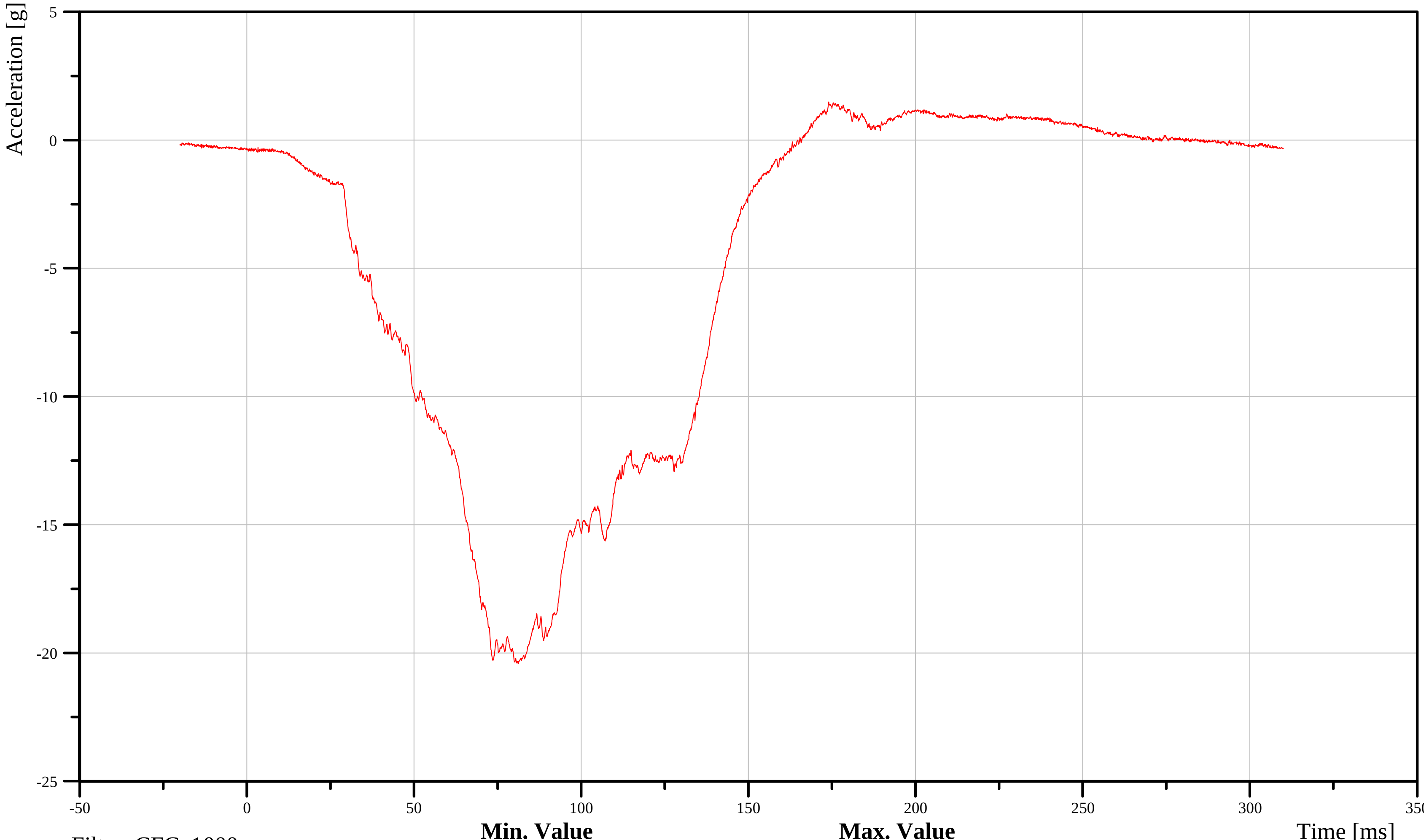
Date: 01/26/2007
Time: 18:07

Passenger Pelvis X-Axis Acceleration

Customer: Volpe
Test Number: R70201

13PELVCG00H3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-20.42 g at 81.12 ms

Max. Value
1.49 g at 174.00 ms

070126

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

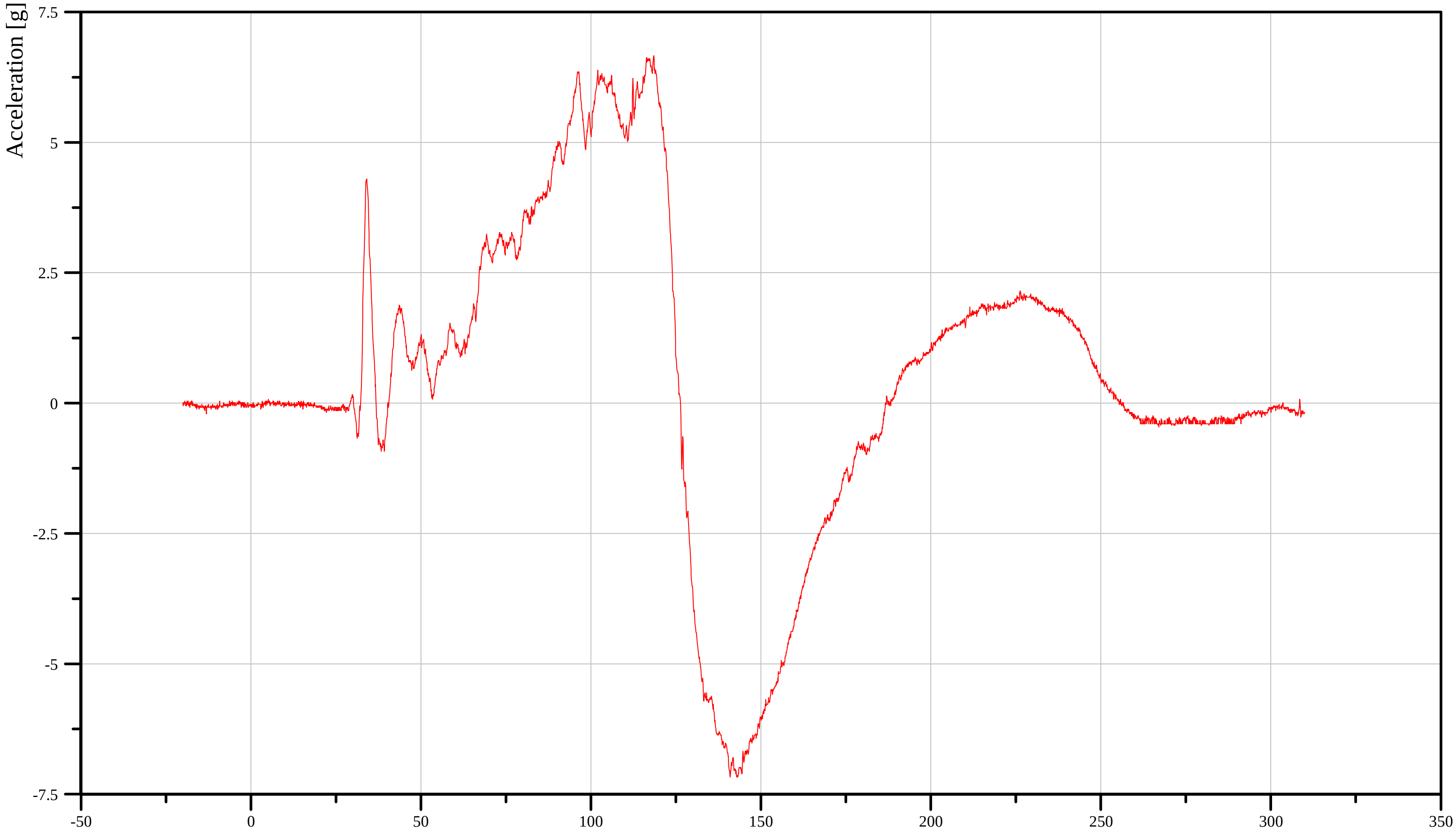
Passenger Pelvis Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13PELVCG00H3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-7.17 g at 140.96 ms

Max. Value
6.66 g at 118.48 ms

B-126

070126

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

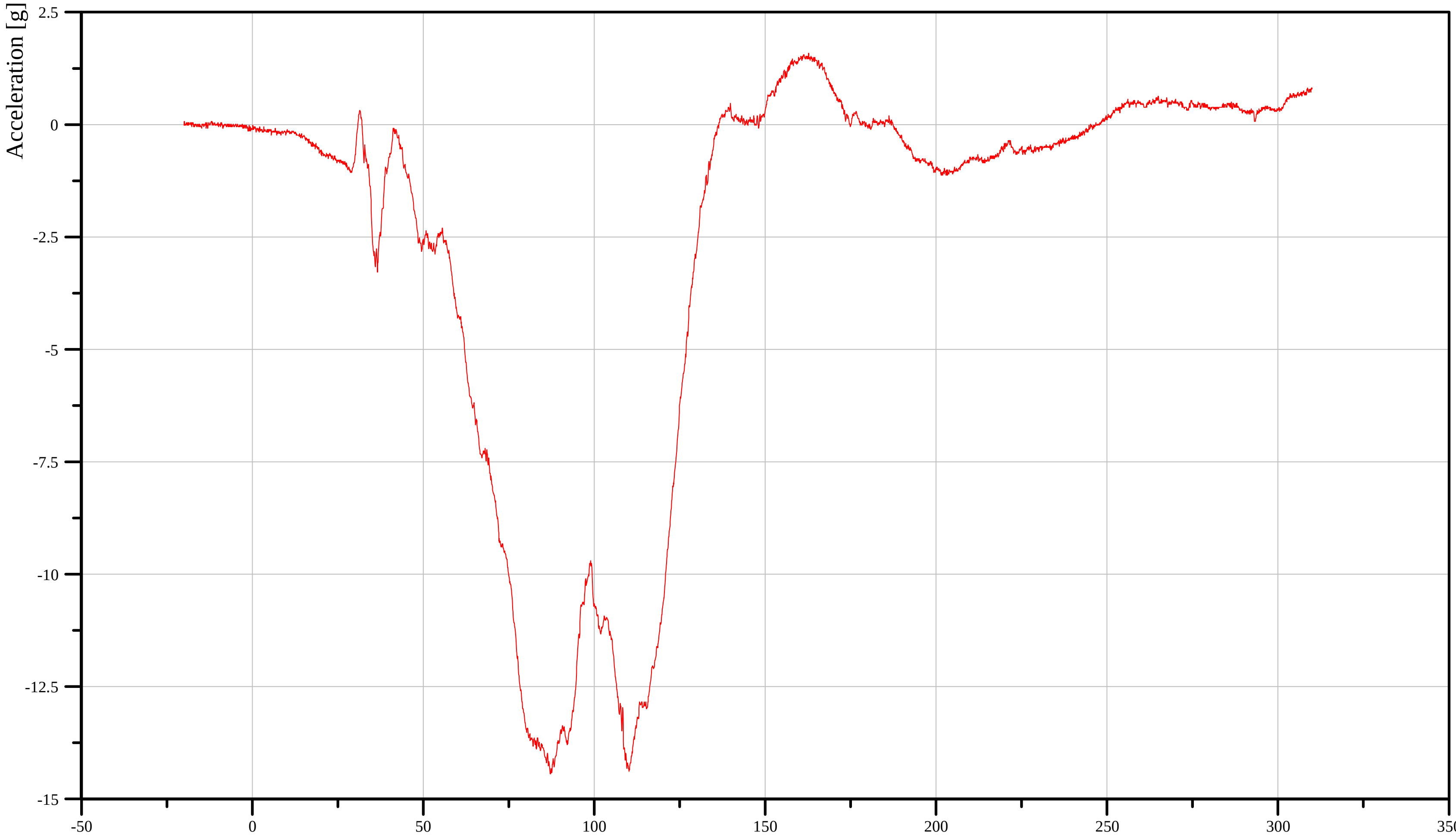
Passenger Pelvis Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13PELVCG00H3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-14.44 g at 87.12 ms

Max. Value
1.58 g at 162.72 ms

B-127

070126

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

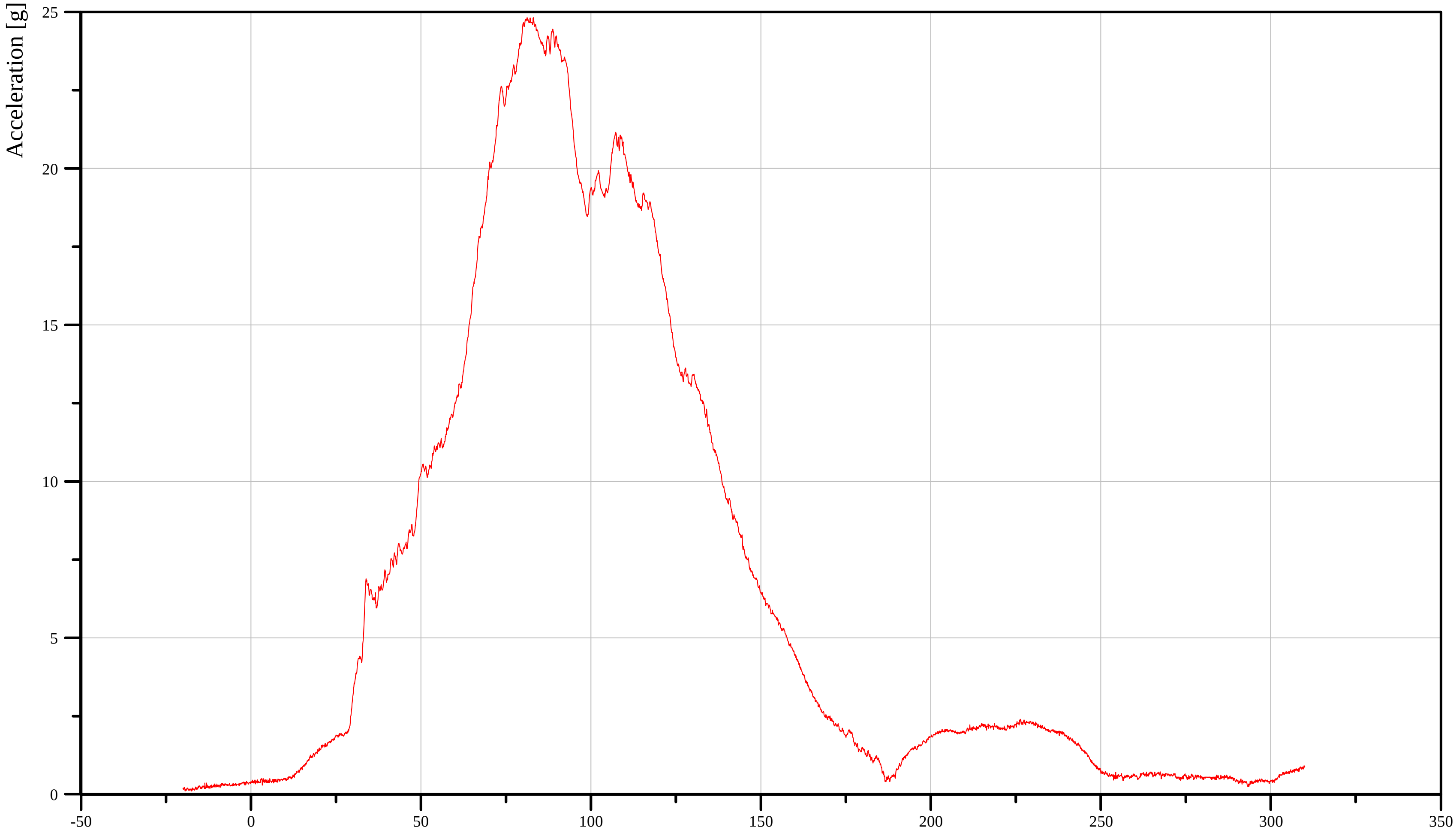
Passenger Pelvis Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13PELVCG00H3ACRA

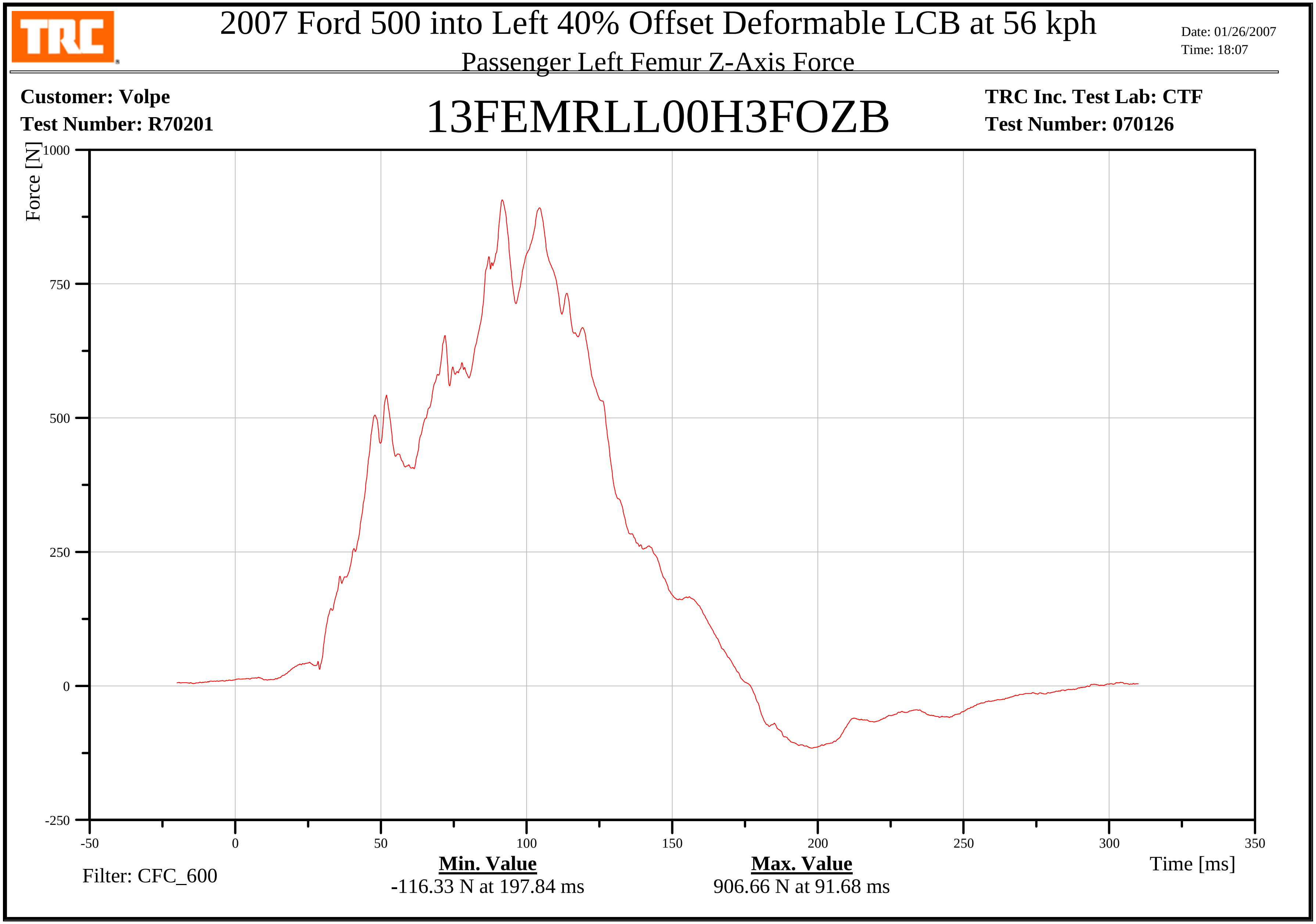
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.10 g at -19.36 ms

Max. Value
24.82 g at 81.28 ms



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Left Femur Z-Axis Force
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13FEMRLL00H3FOZB
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
1000
750
500
250
0
-250
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-116.33 N at 197.84 ms
Max. Value
906.66 N at 91.68 ms

B-129

070126

TRC

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

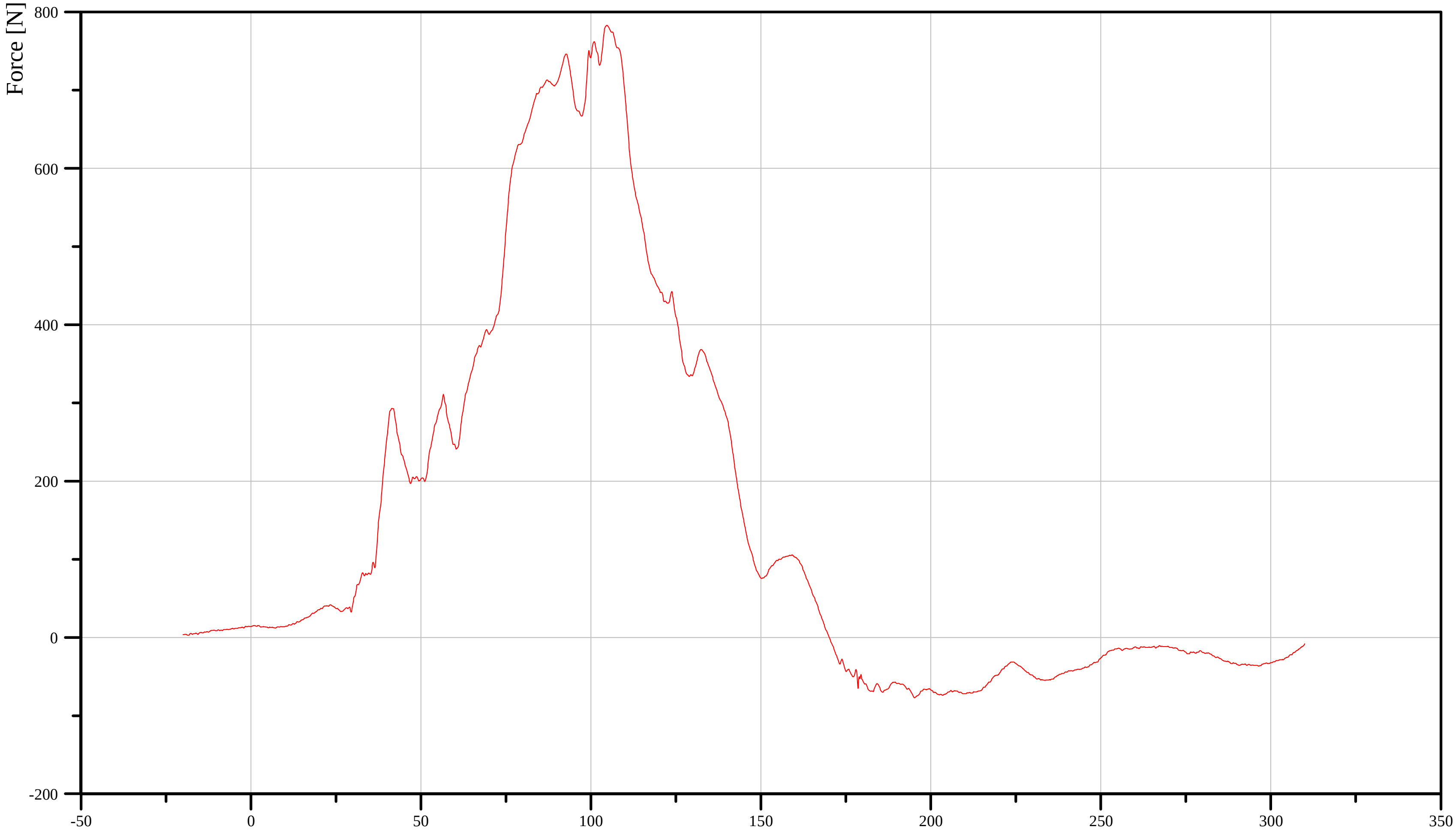
Passenger Right Femur Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-77.10 N at 195.20 ms

Max. Value
783.17 N at 104.64 ms

B-130

070126

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

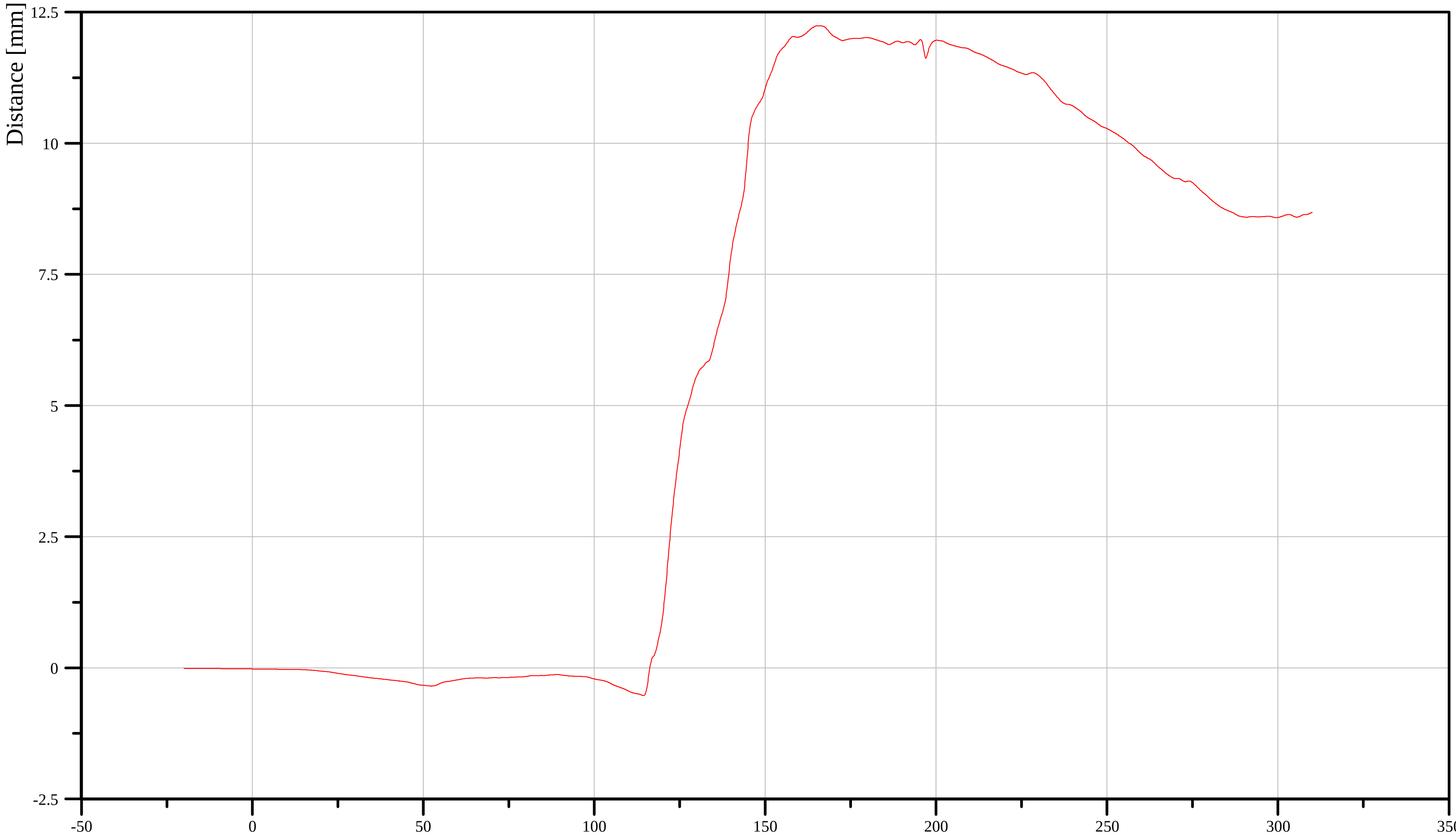
Passenger Left Knee Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13KNSLLE00H3DSXC

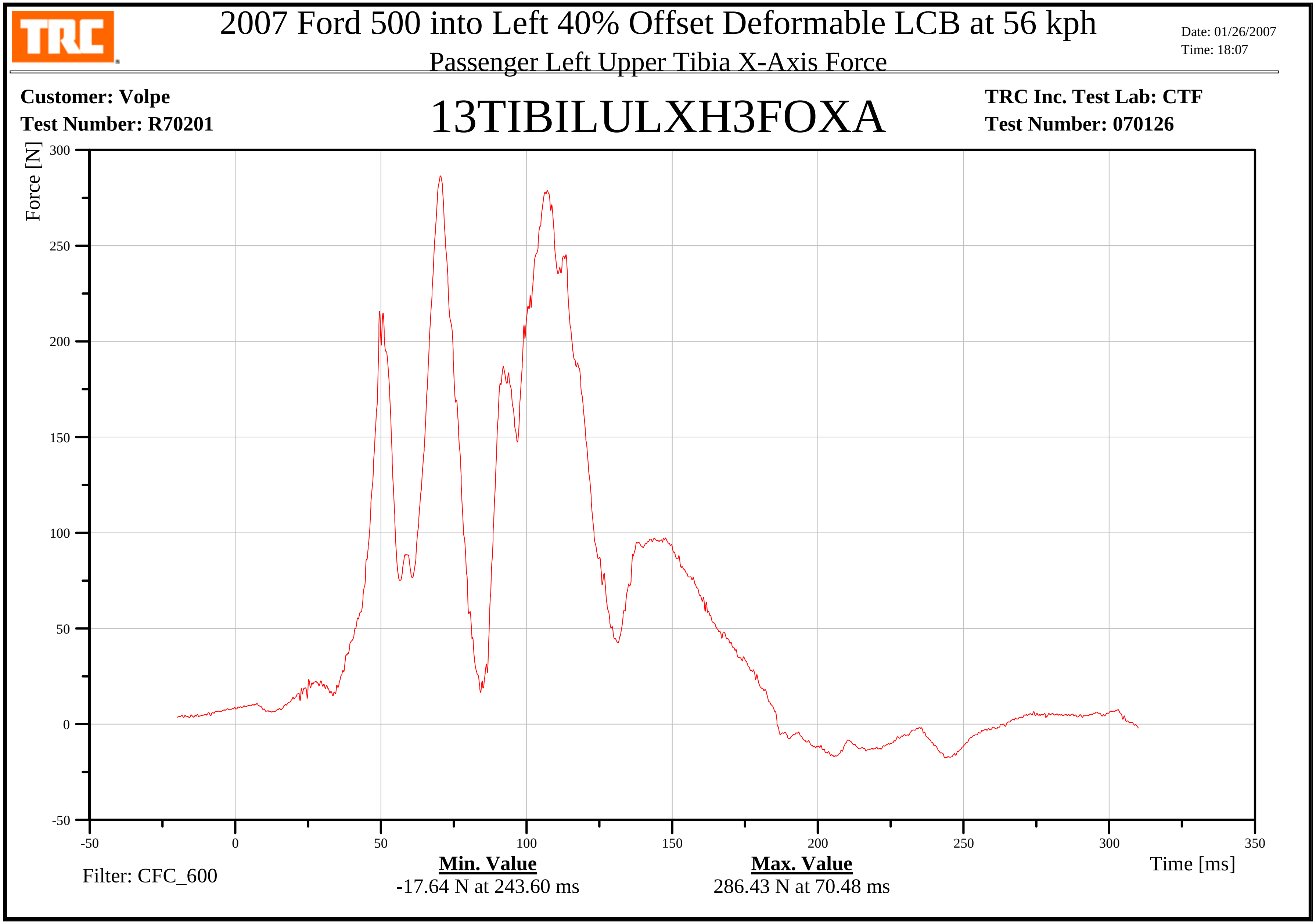
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-0.53 mm at 114.40 ms

Max. Value
12.24 mm at 165.36 ms



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Left Upper Tibia X-Axis Force
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13TIBILULXH3FOXA
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
300
250
200
150
100
50
0
-50
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-17.64 N at 243.60 ms
Max. Value
286.43 N at 70.48 ms

070126

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

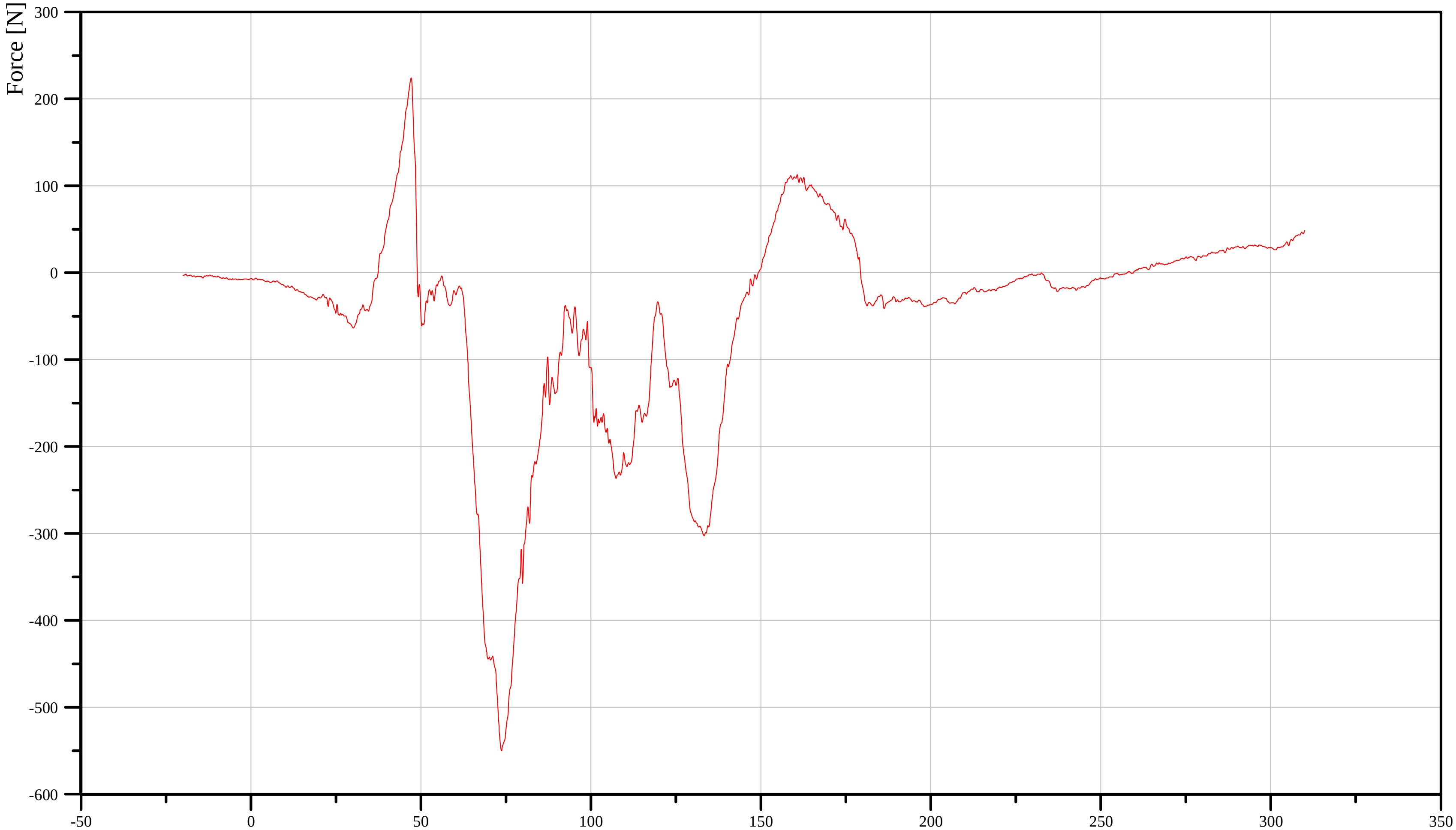
Passenger Left Upper Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-550.14 N at 73.68 ms

Max. Value
224.07 N at 47.12 ms

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

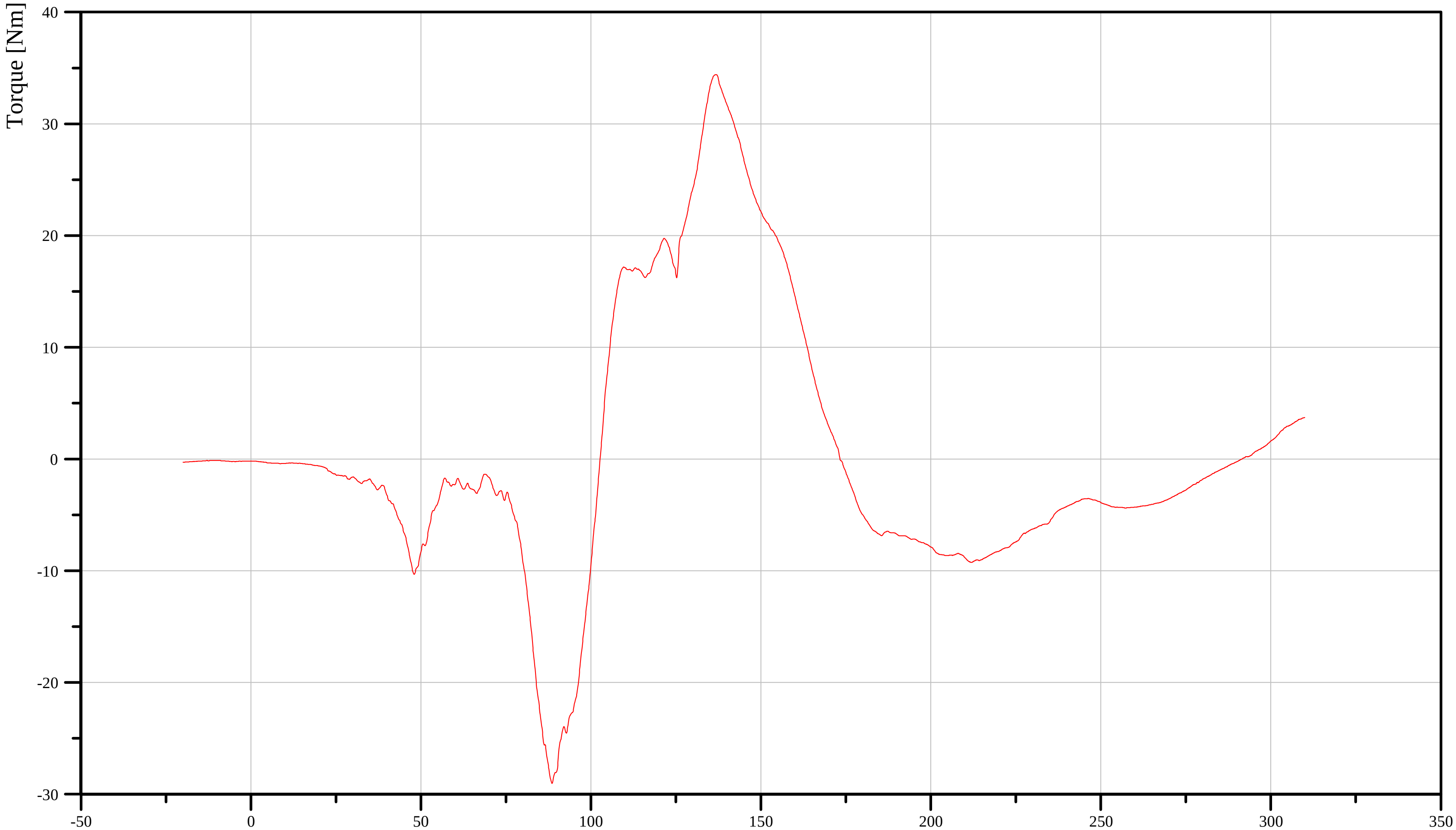
Passenger Left Upper Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-29.03 Nm at 88.56 ms

Max. Value
34.41 Nm at 136.80 ms

070126

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

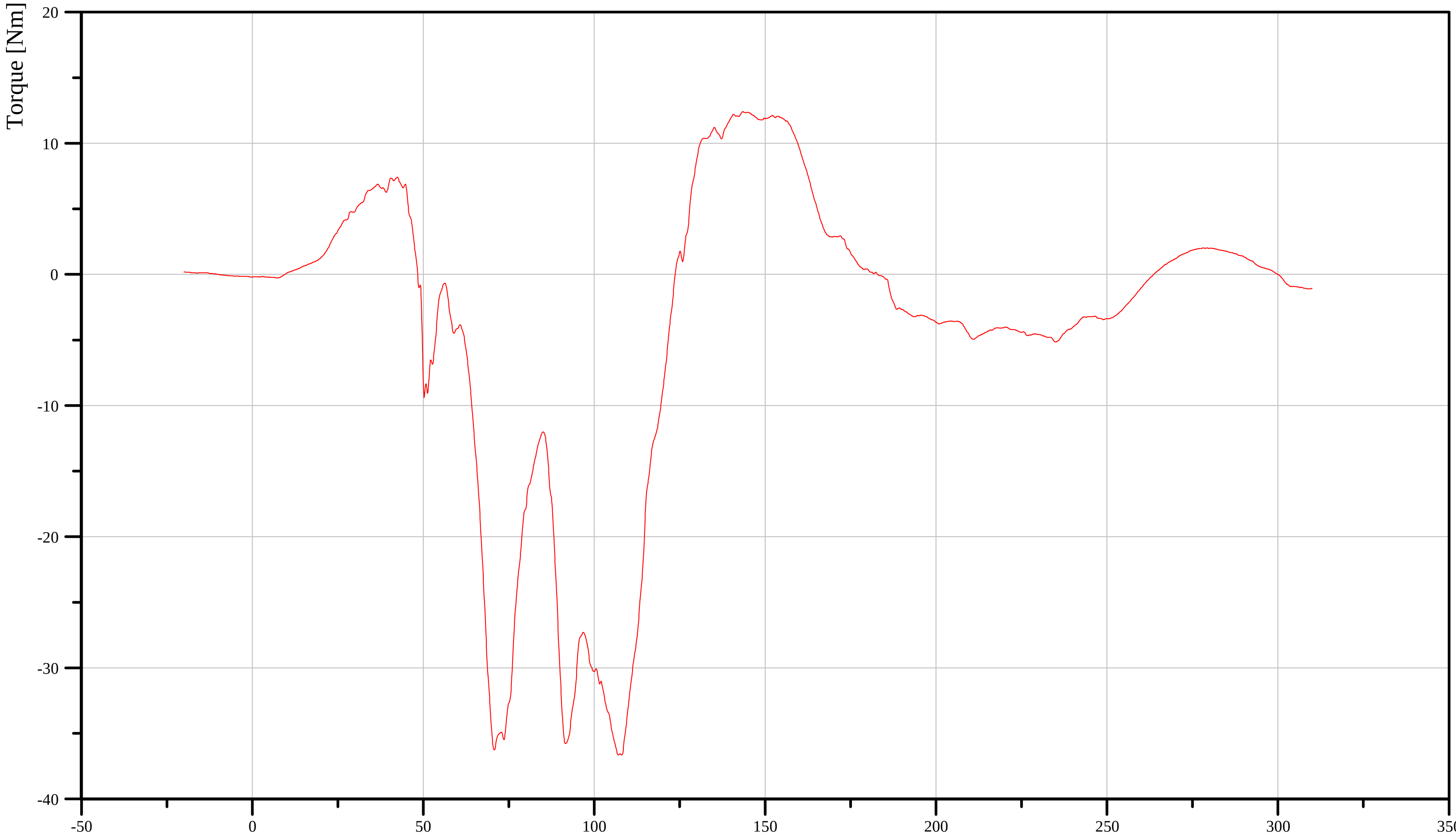
Passenger Left Upper Tibia Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-36.63 Nm at 108.08 ms

Max. Value
12.40 Nm at 143.52 ms

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

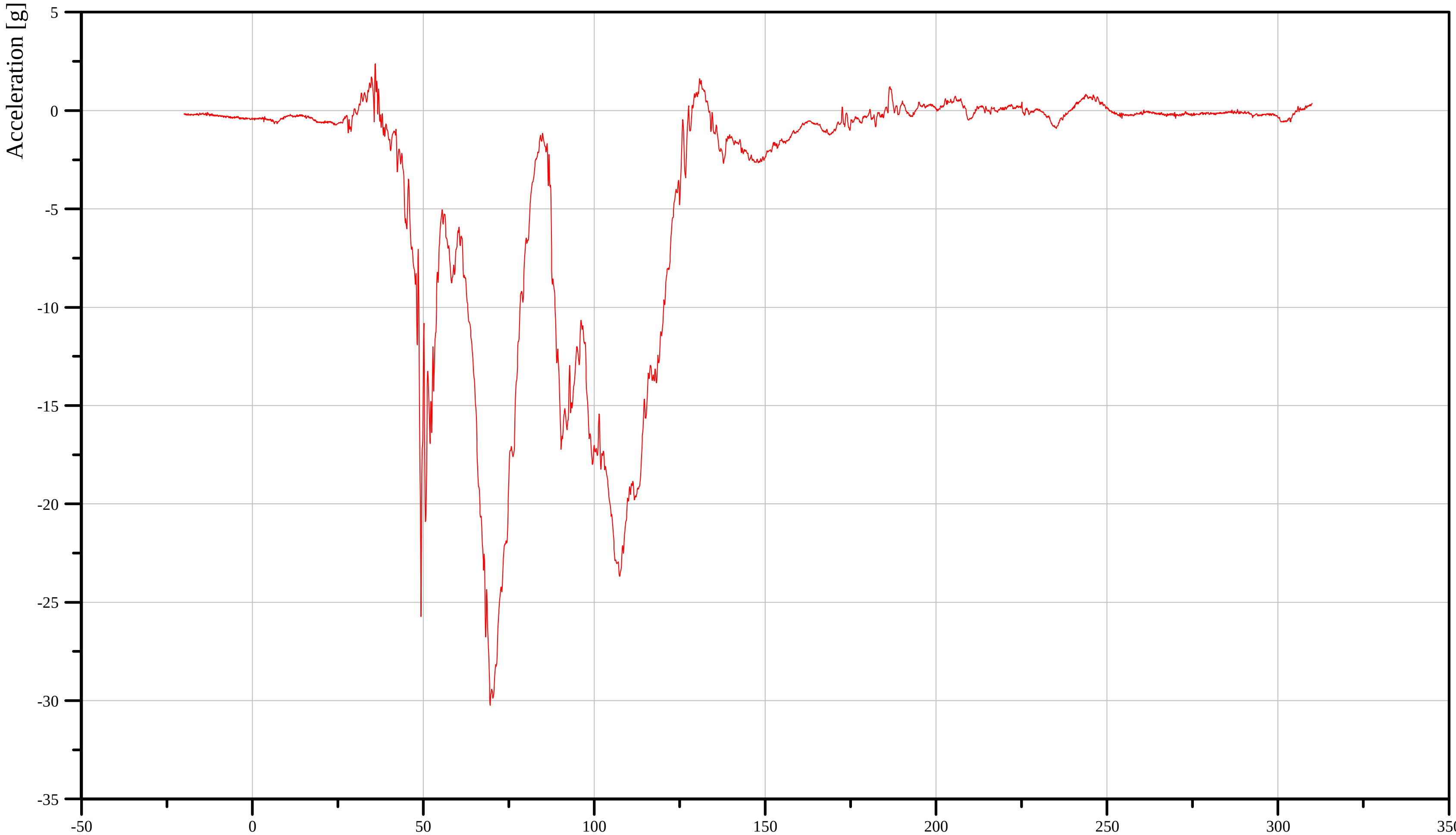
Passenger Left Tibia X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-30.25 g at 69.60 ms

Max. Value
2.37 g at 36.00 ms

B-136

070126

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

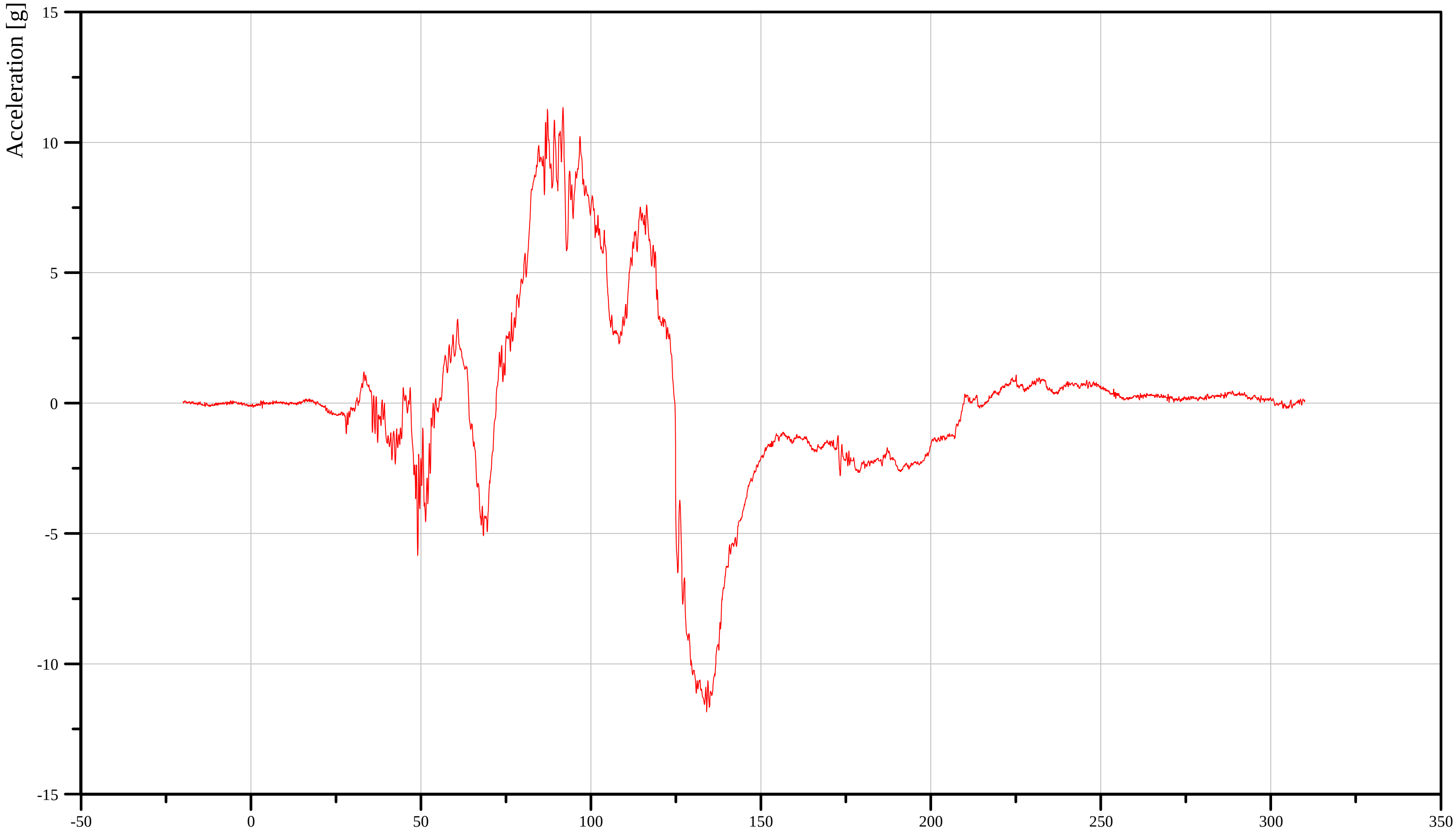
Passenger Left Tibia Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-11.85 g at 134.08 ms

Max. Value
11.34 g at 91.76 ms

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

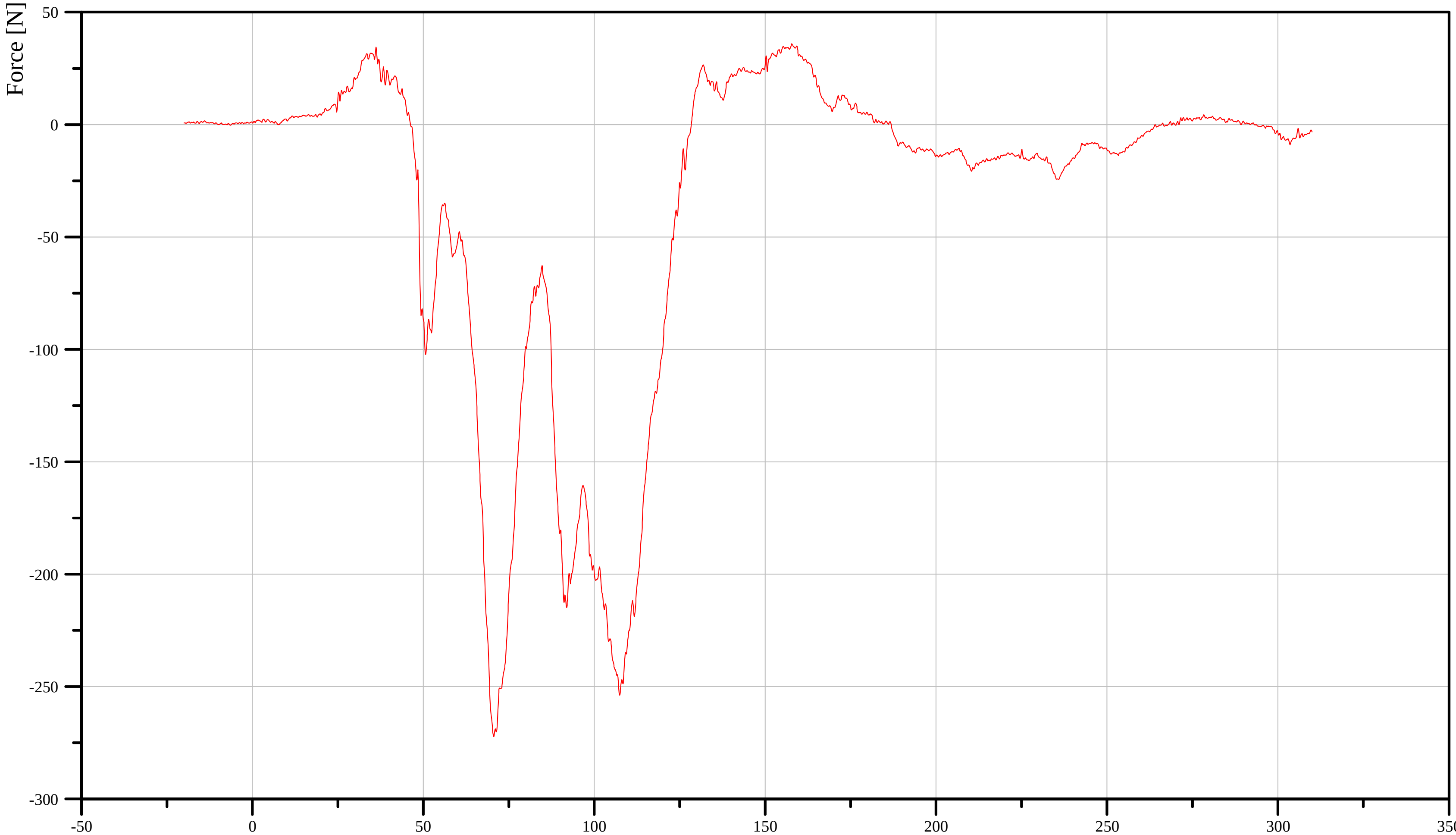
Passenger Left Lower Tibia X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-272.21 N at 70.64 ms

Max. Value
35.90 N at 157.84 ms

070126

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

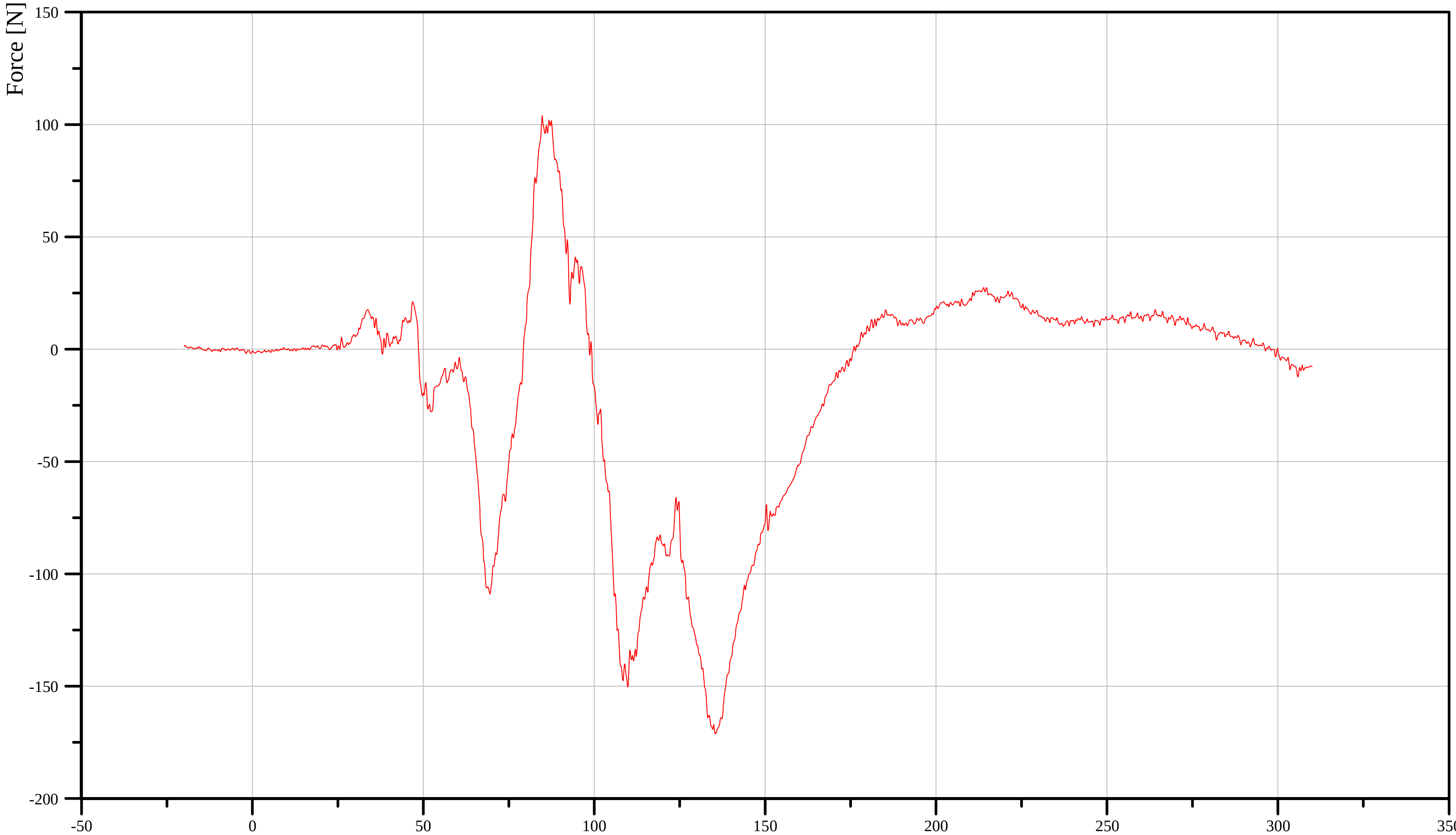
Passenger Left Lower Tibia Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILLLXH3FOYA

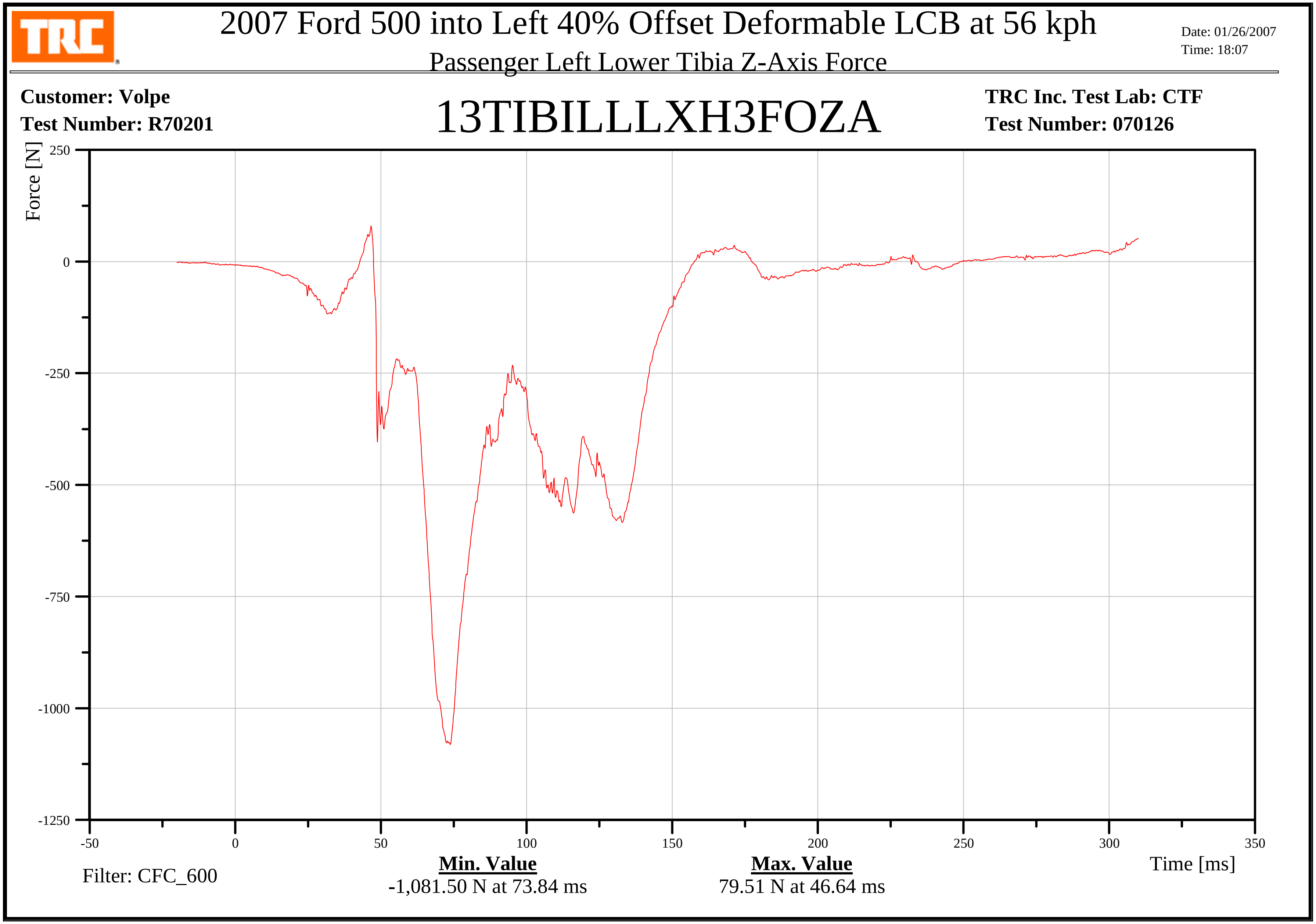
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-171.21 N at 135.44 ms

Max. Value
104.00 N at 84.80 ms



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Left Lower Tibia Z-Axis Force
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13TIBILLLXH3FOZA
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
250
0
-250
-500
-750
-1000
-1250
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-1,081.50 N at 73.84 ms
Max. Value
79.51 N at 46.64 ms

B-140

070126

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

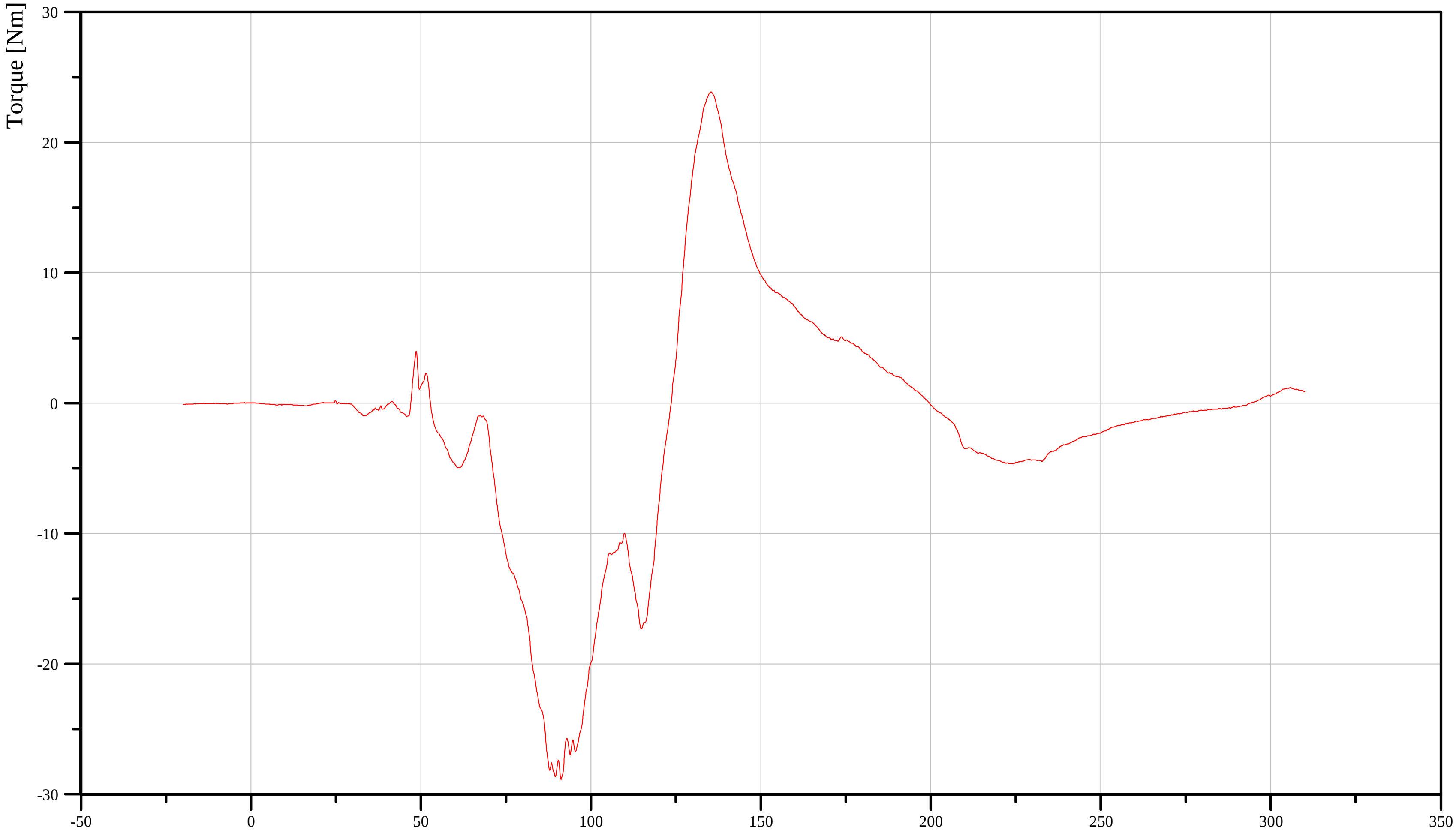
Passenger Left Lower Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-28.87 Nm at 91.20 ms

Max. Value
23.88 Nm at 135.36 ms

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

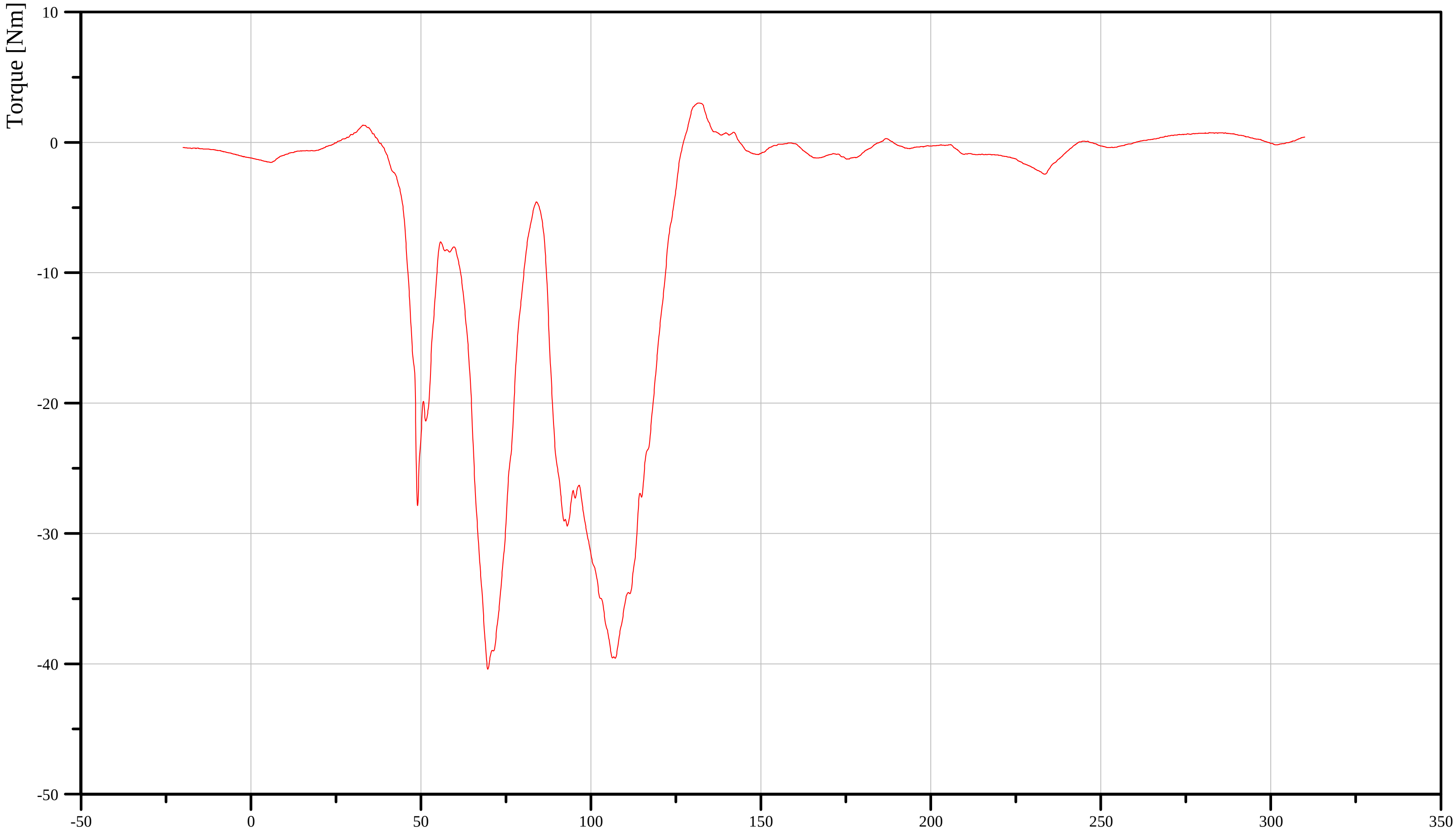
Passenger Left Lower Tibia Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBILLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-40.41 Nm at 69.68 ms

Max. Value
3.02 Nm at 131.52 ms

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

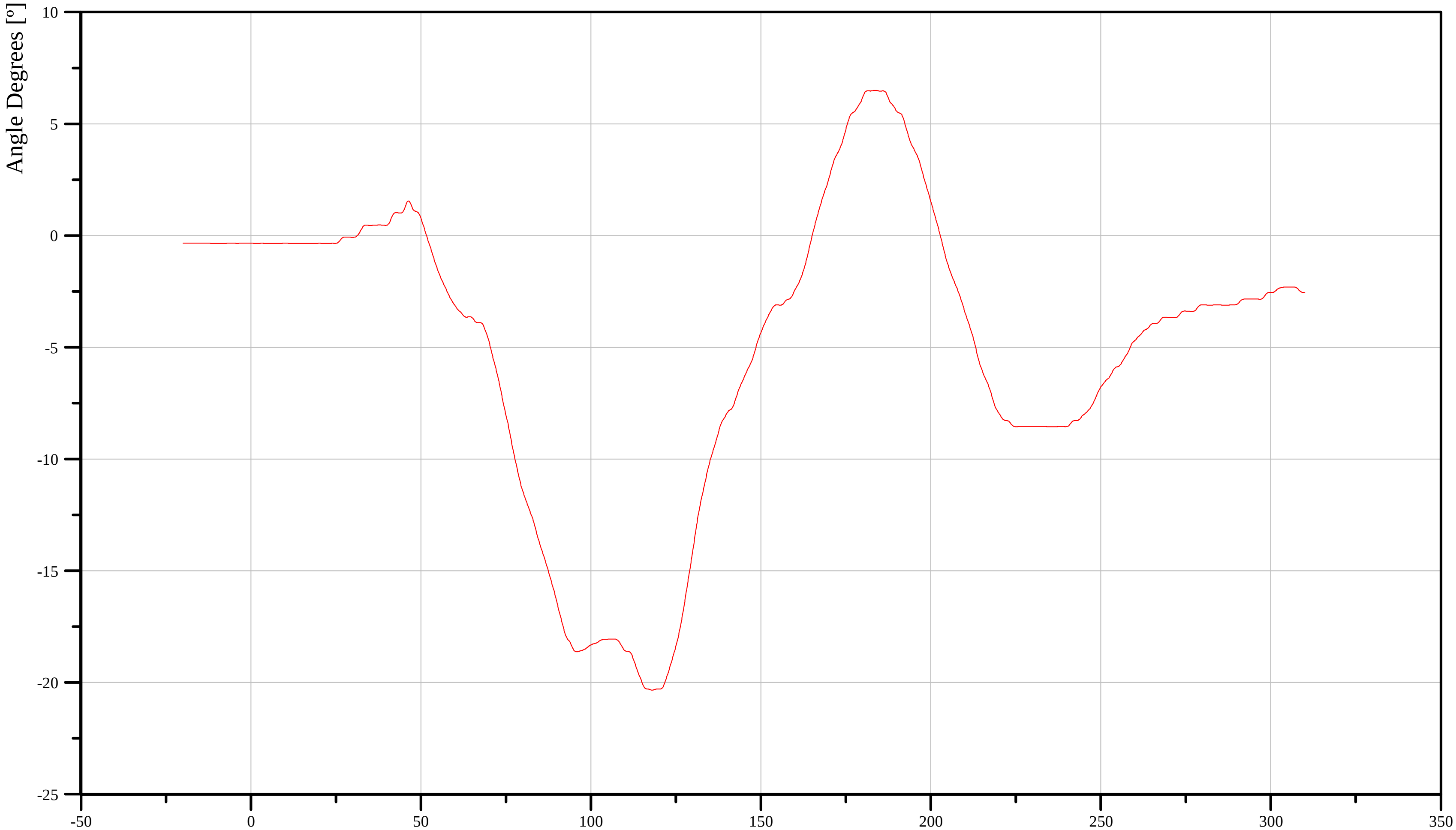
Passenger Left Foot X-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-20.34 ° at 118.08 ms

Max. Value
6.50 ° at 183.60 ms

B-143

070126

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

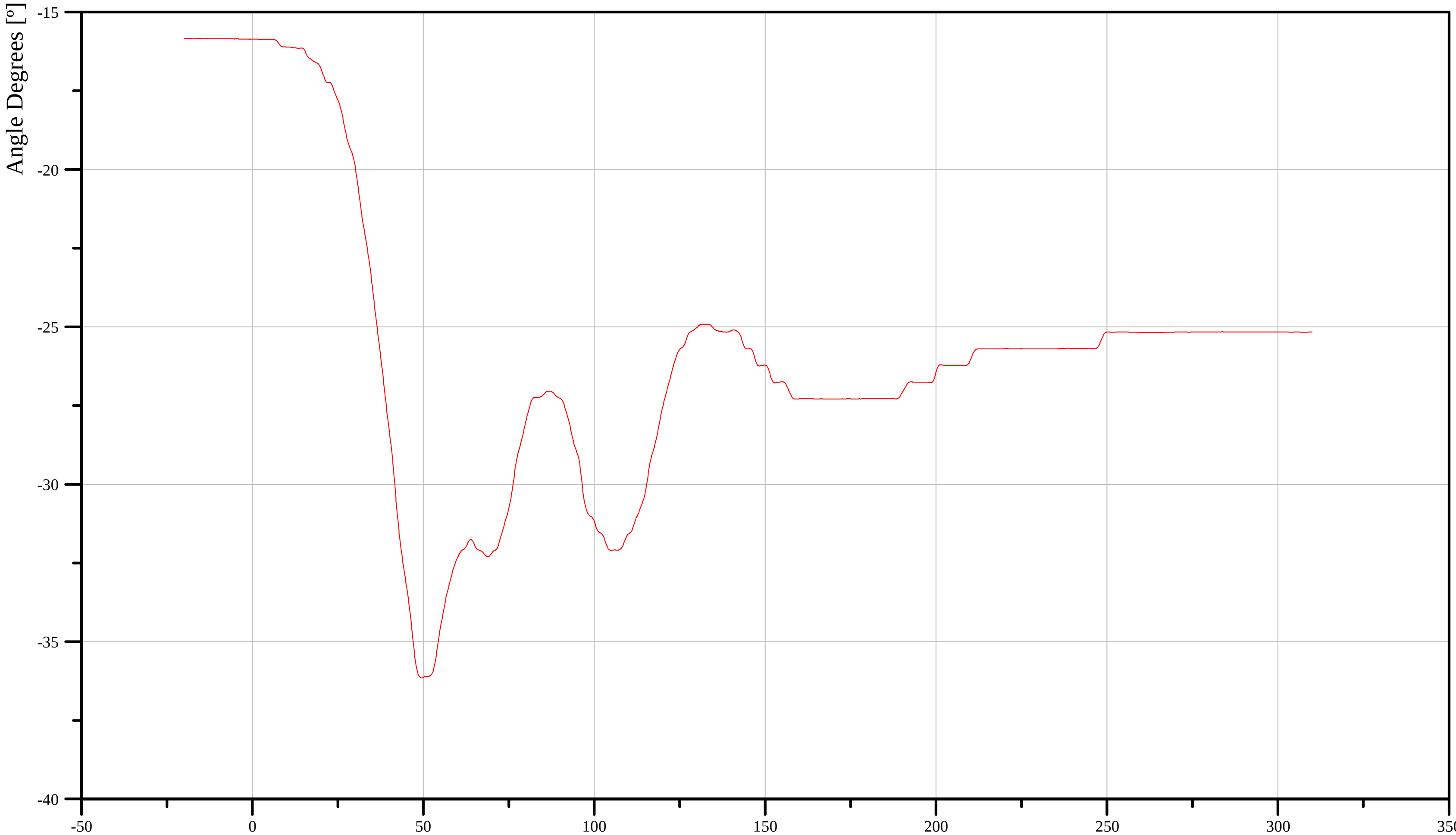
Date: 01/26/2007
Time: 18:07

Passenger Left Foot Y-Axis Rotation

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

<u>Min. Value</u>
-36.15 º at 49.52 ms

<u>Max. Value</u>
-15.84 º at -19.36 ms

B-144

070126

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

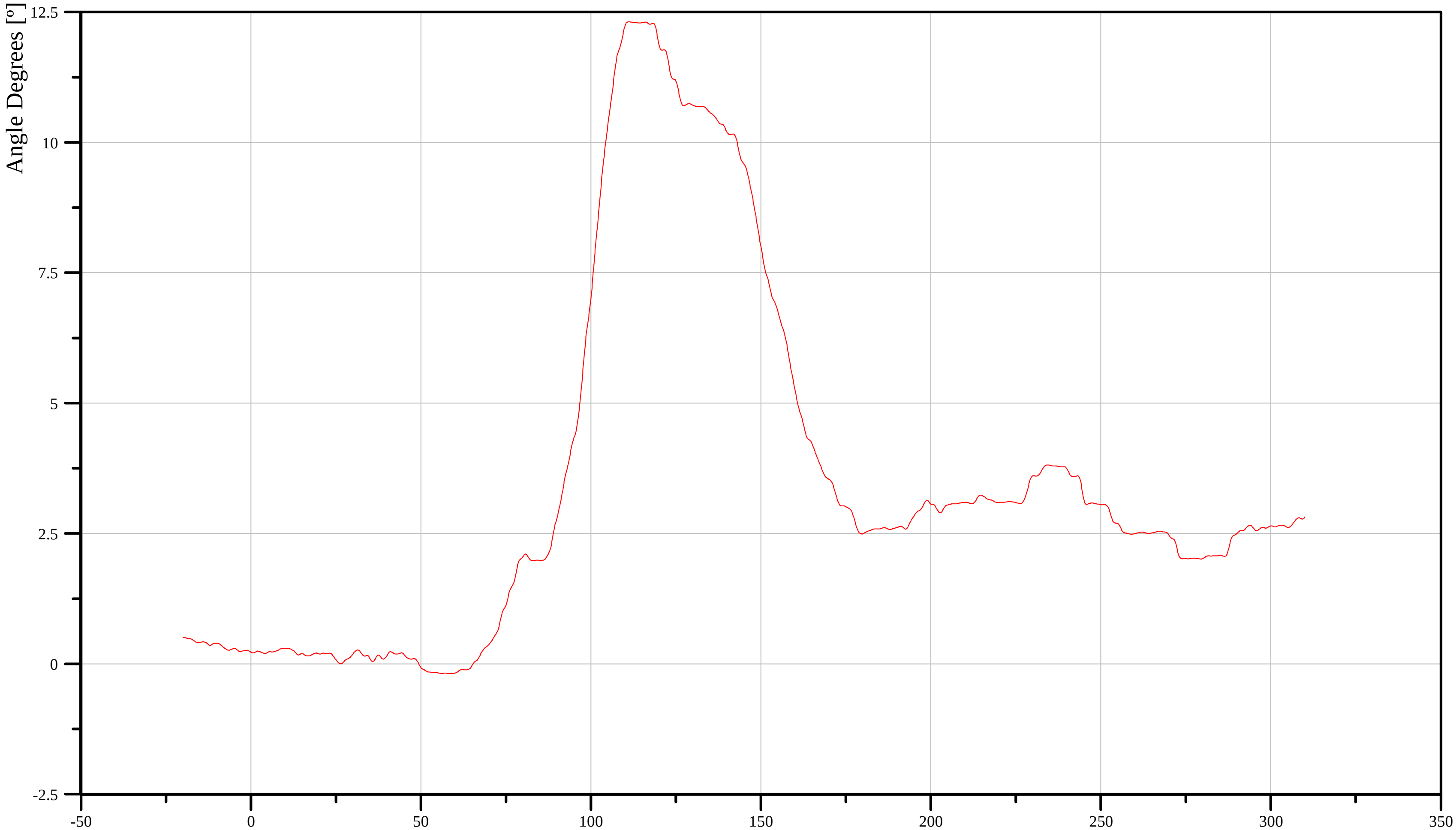
Passenger Left Foot Z-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-0.18 ° at 56.00 ms

Max. Value
12.31 ° at 111.20 ms

070126

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

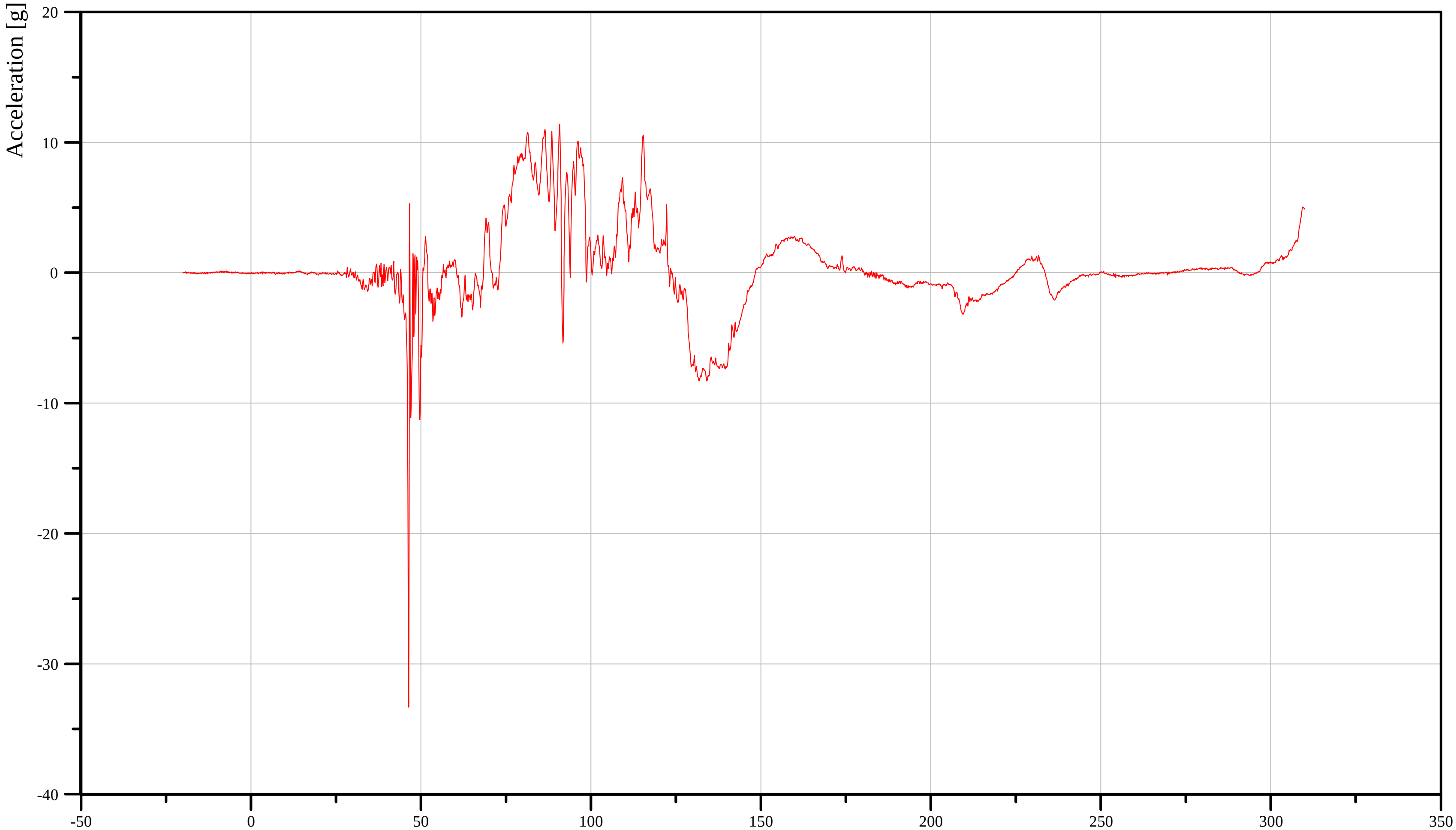
Passenger Left Foot X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-33.33 g at 46.40 ms

Max. Value
11.39 g at 90.80 ms

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

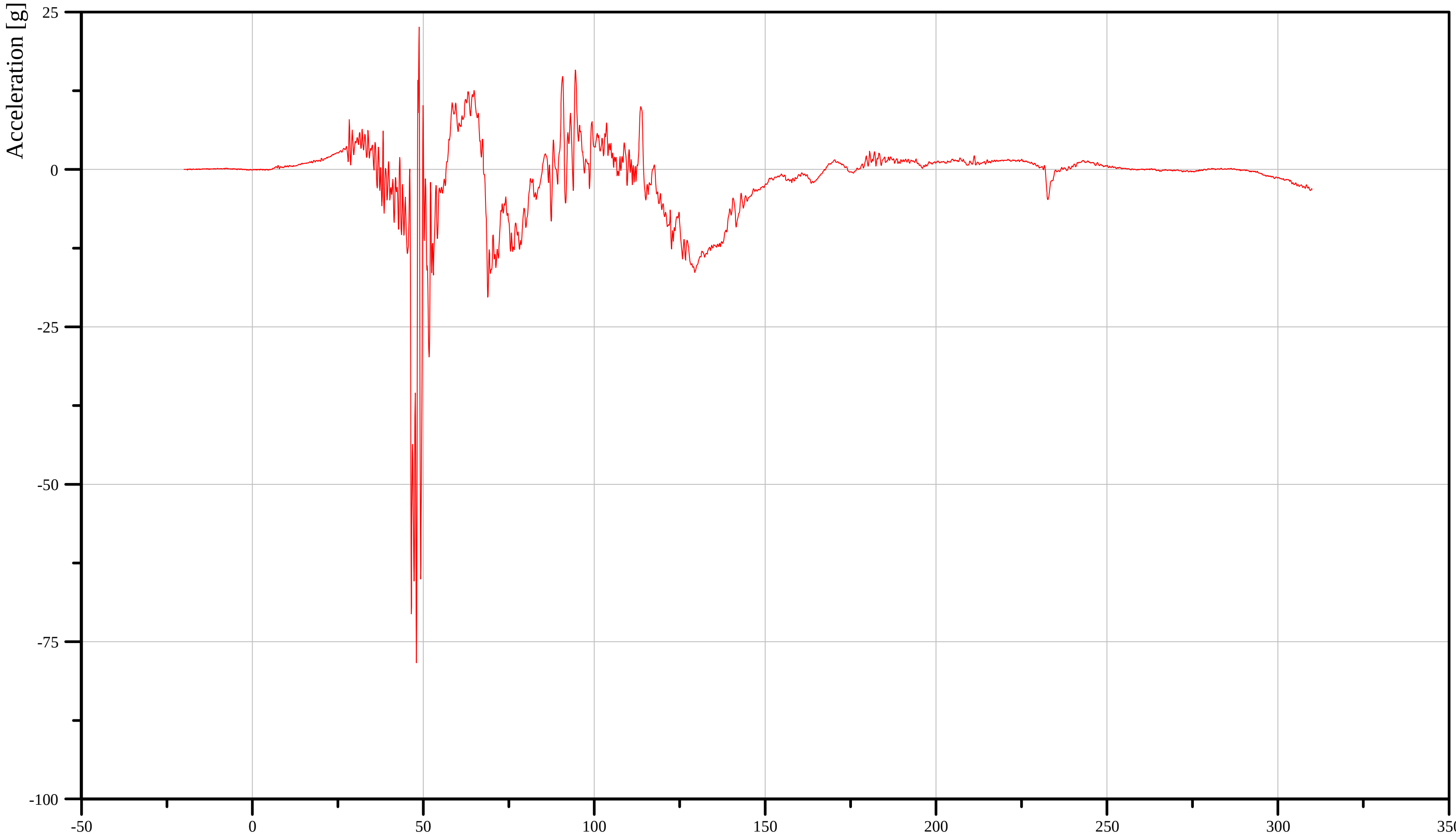
Passenger Left Foot Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-78.35 g at 48.00 ms

Max. Value
22.62 g at 48.80 ms

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

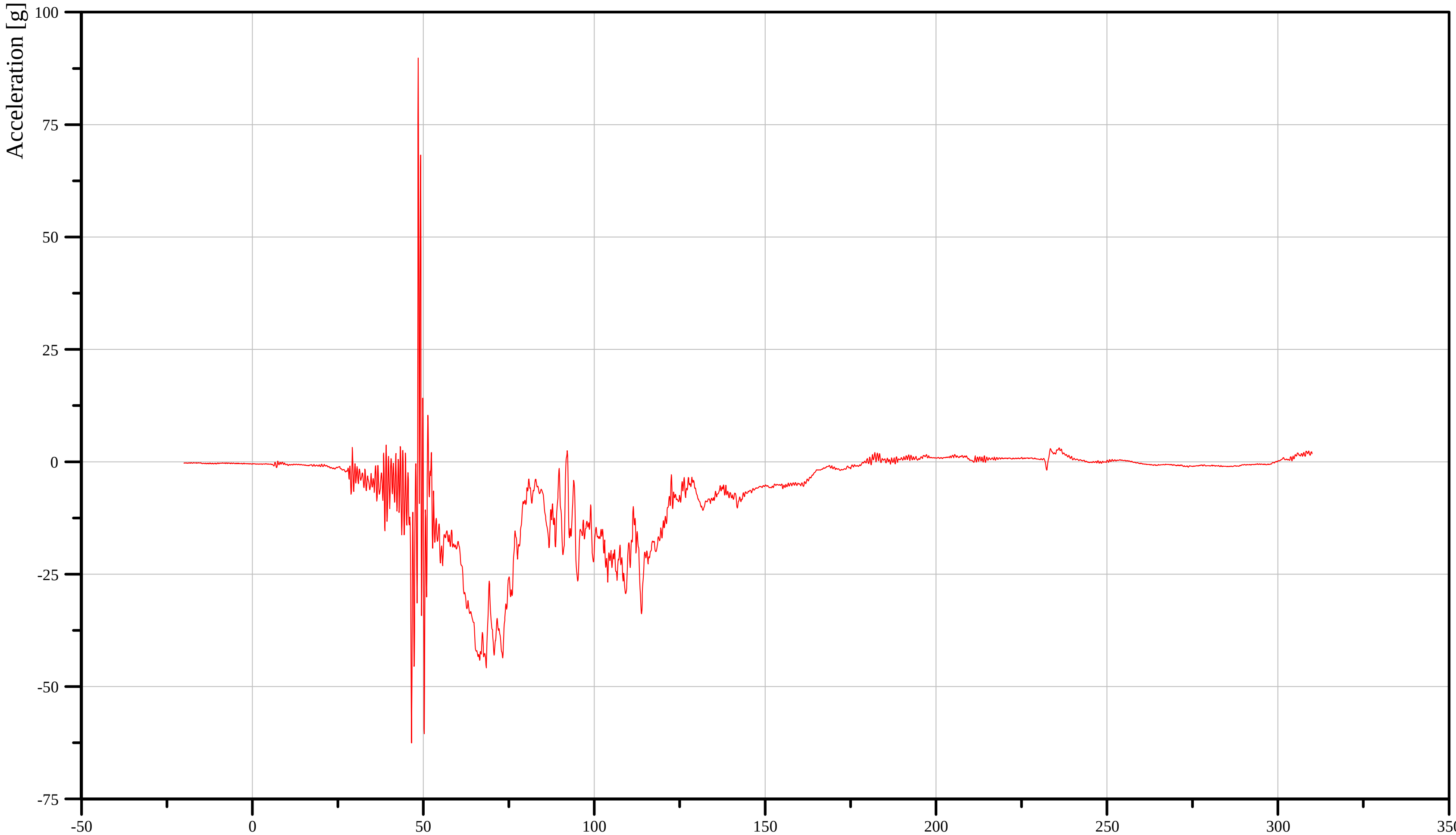
Passenger Left Foot Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-62.51 g at 46.56 ms

Max. Value
89.81 g at 48.56 ms

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

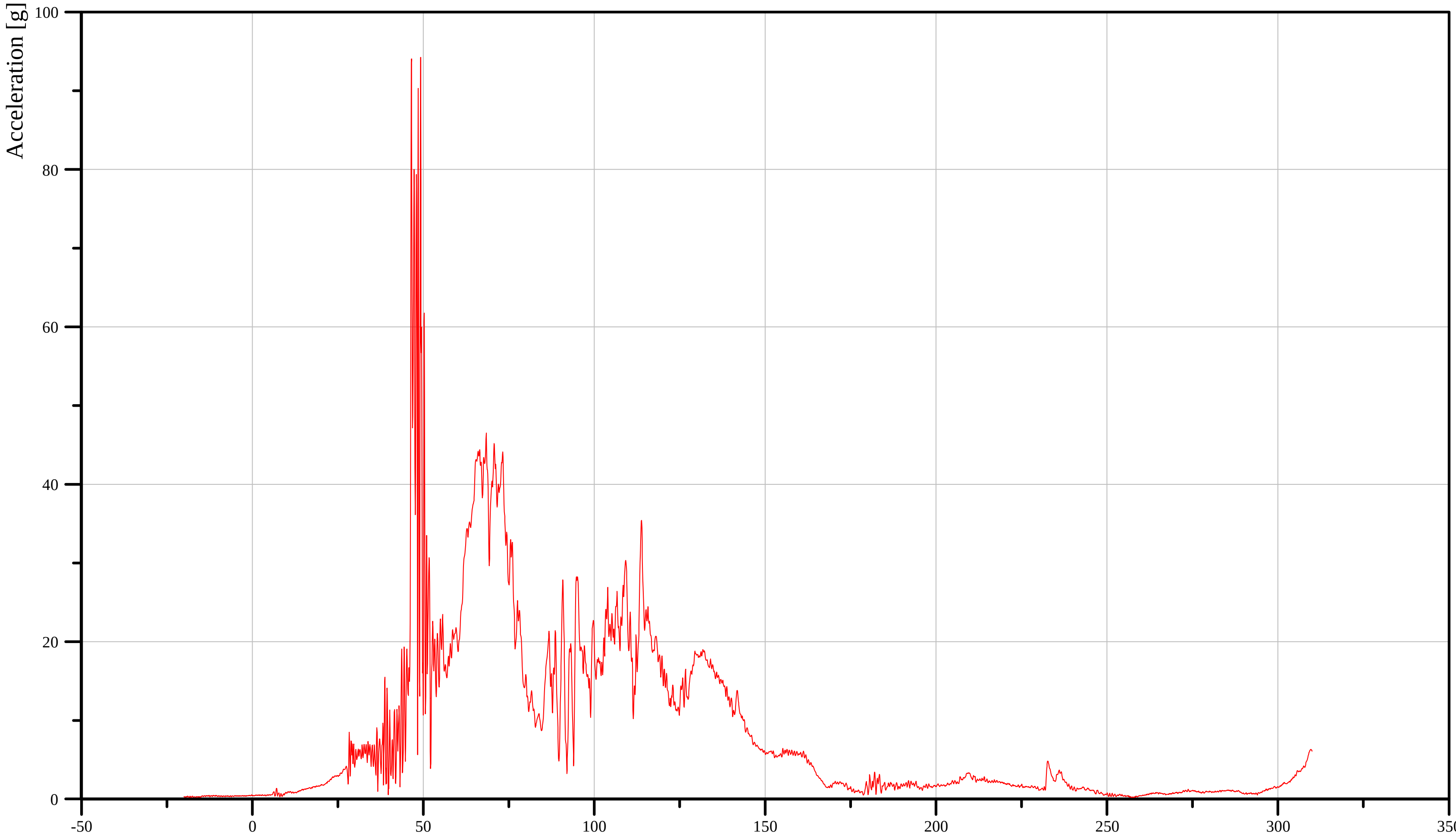
Passenger Left Foot Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTLELXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.21 g at 256.96 ms

Max. Value
94.25 g at 49.20 ms

070126

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

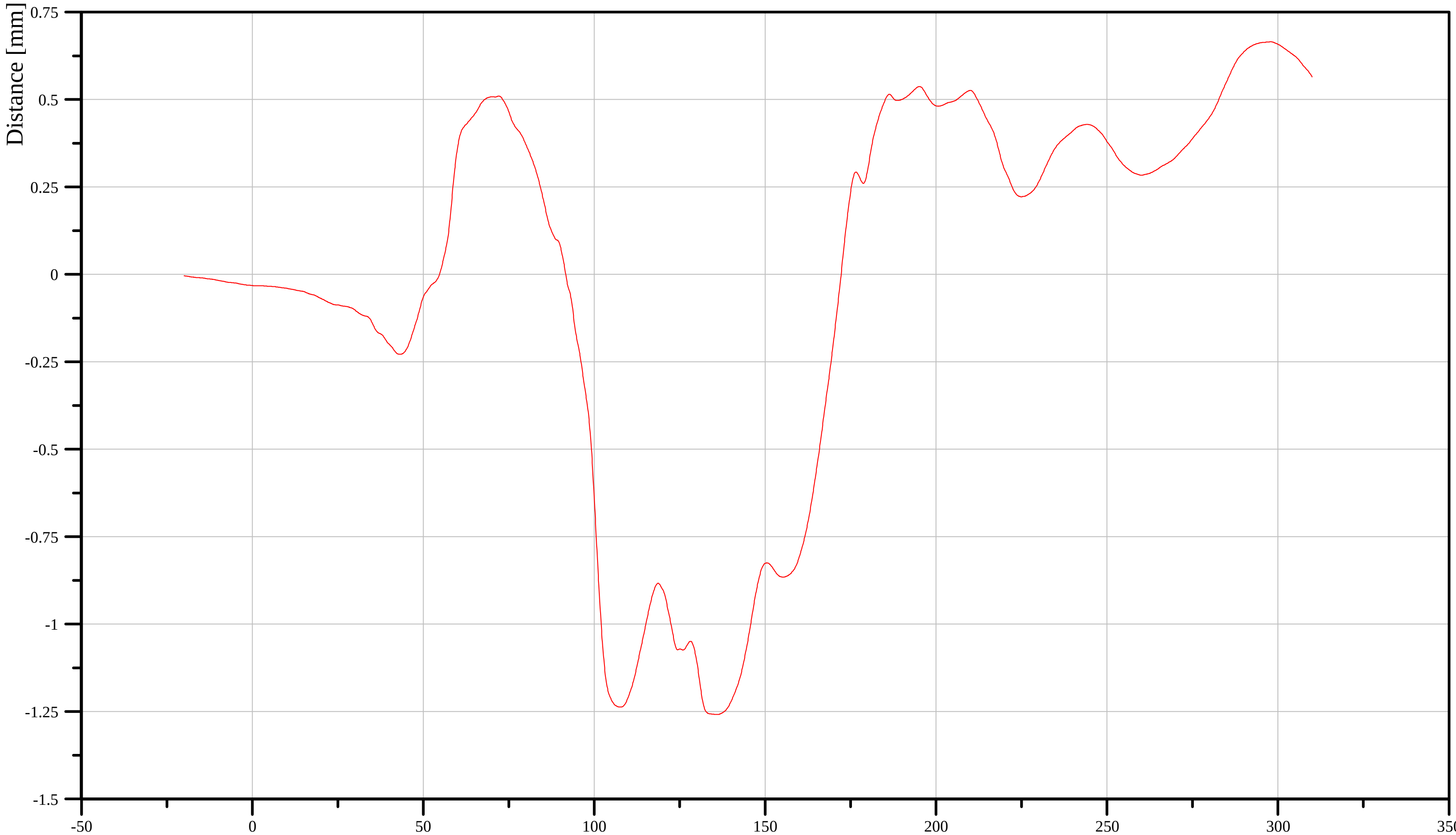
Passenger Right Knee Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-1.26 mm at 136.00 ms

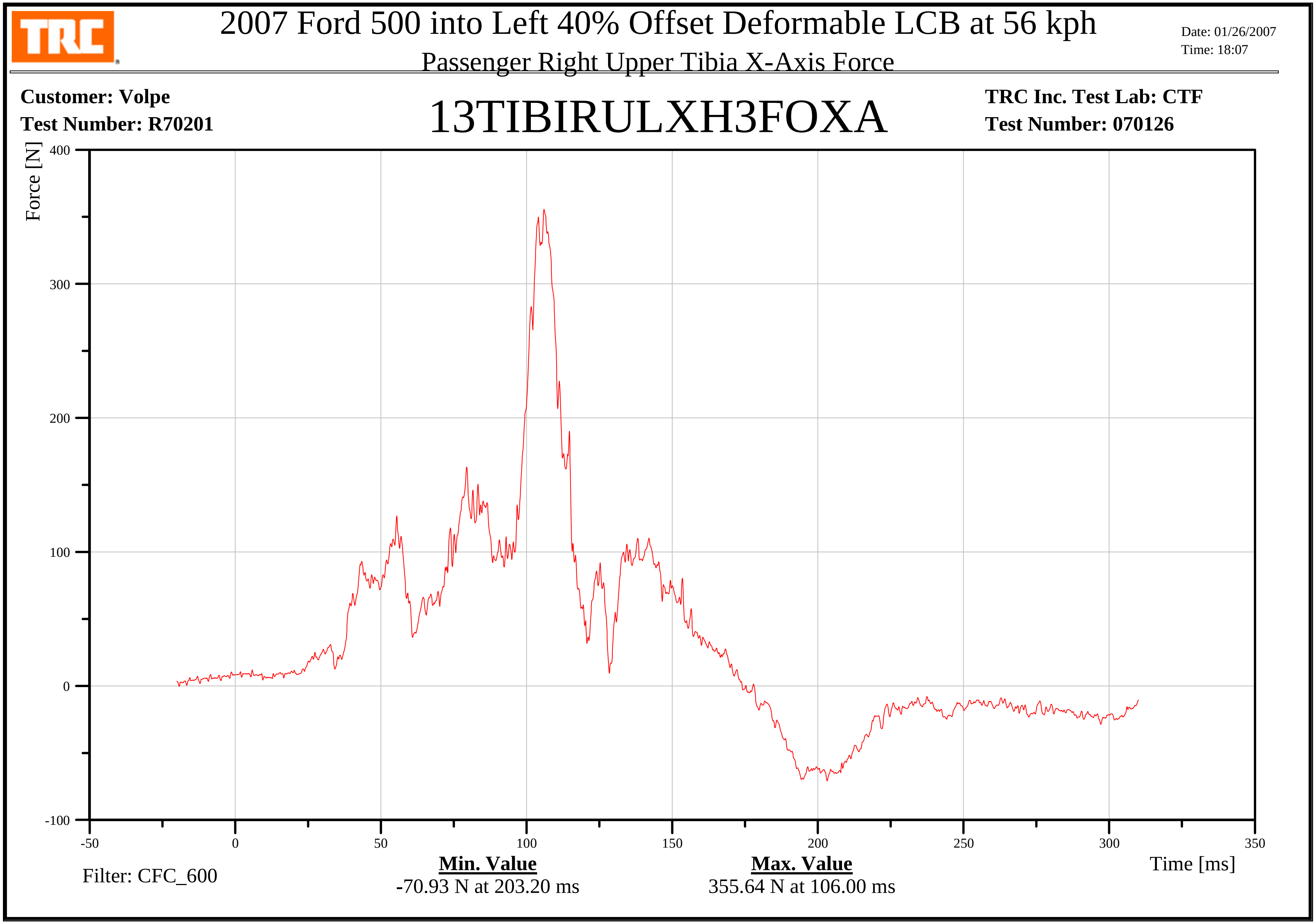
Max. Value
0.67 mm at 297.92 ms

B-150

070126

B-151

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Passenger Right Upper Tibia X-Axis Force
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
13TIBIRULXH3FOXA
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
400
300
200
100
0
-100
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_600
Min. Value
-70.93 N at 203.20 ms
Max. Value
355.64 N at 106.00 ms

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

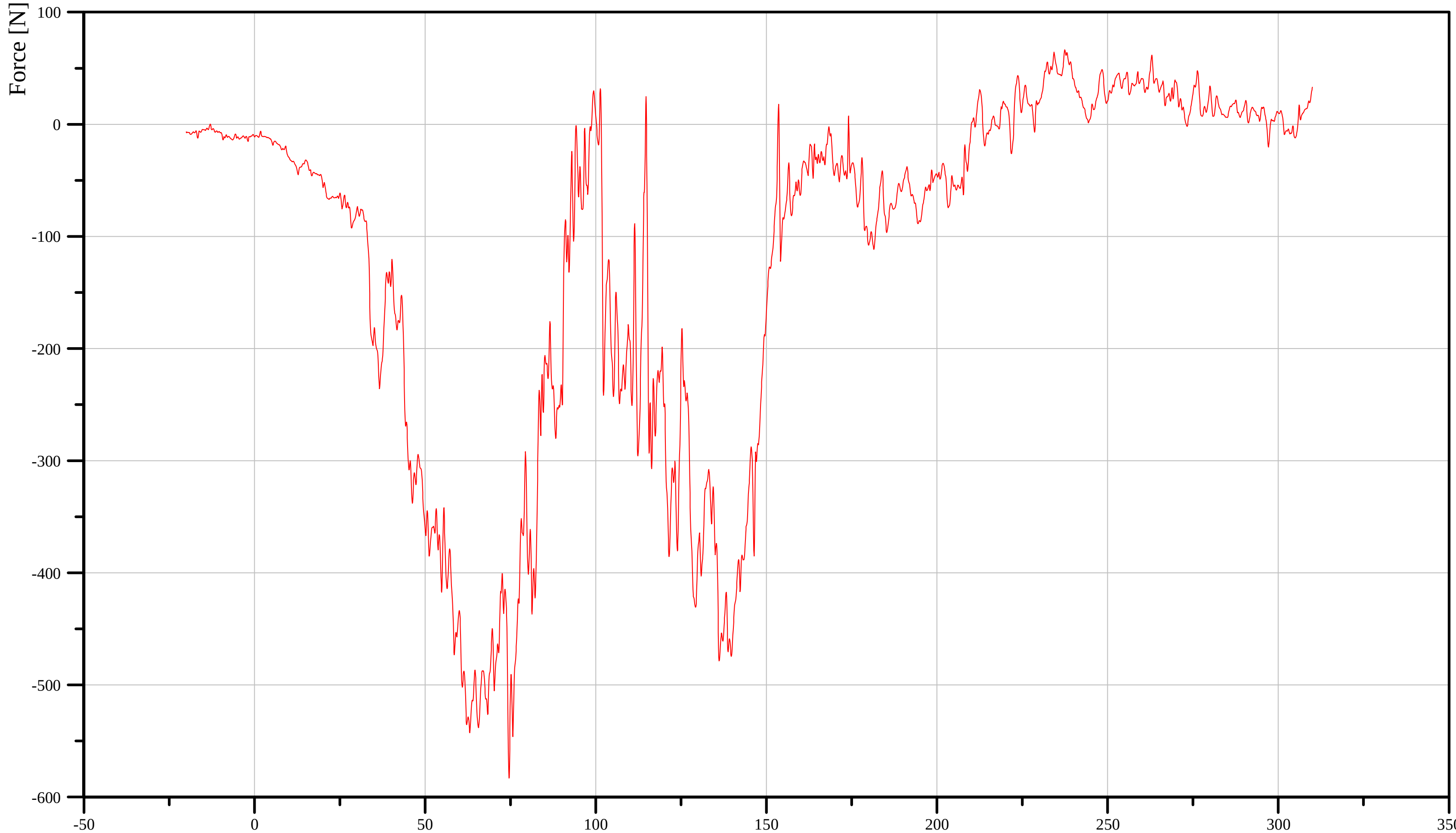
Passenger Right Upper Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRULXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-583.12 N at 74.56 ms

Max. Value
66.34 N at 237.44 ms

Time [ms]

B-152

070126

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

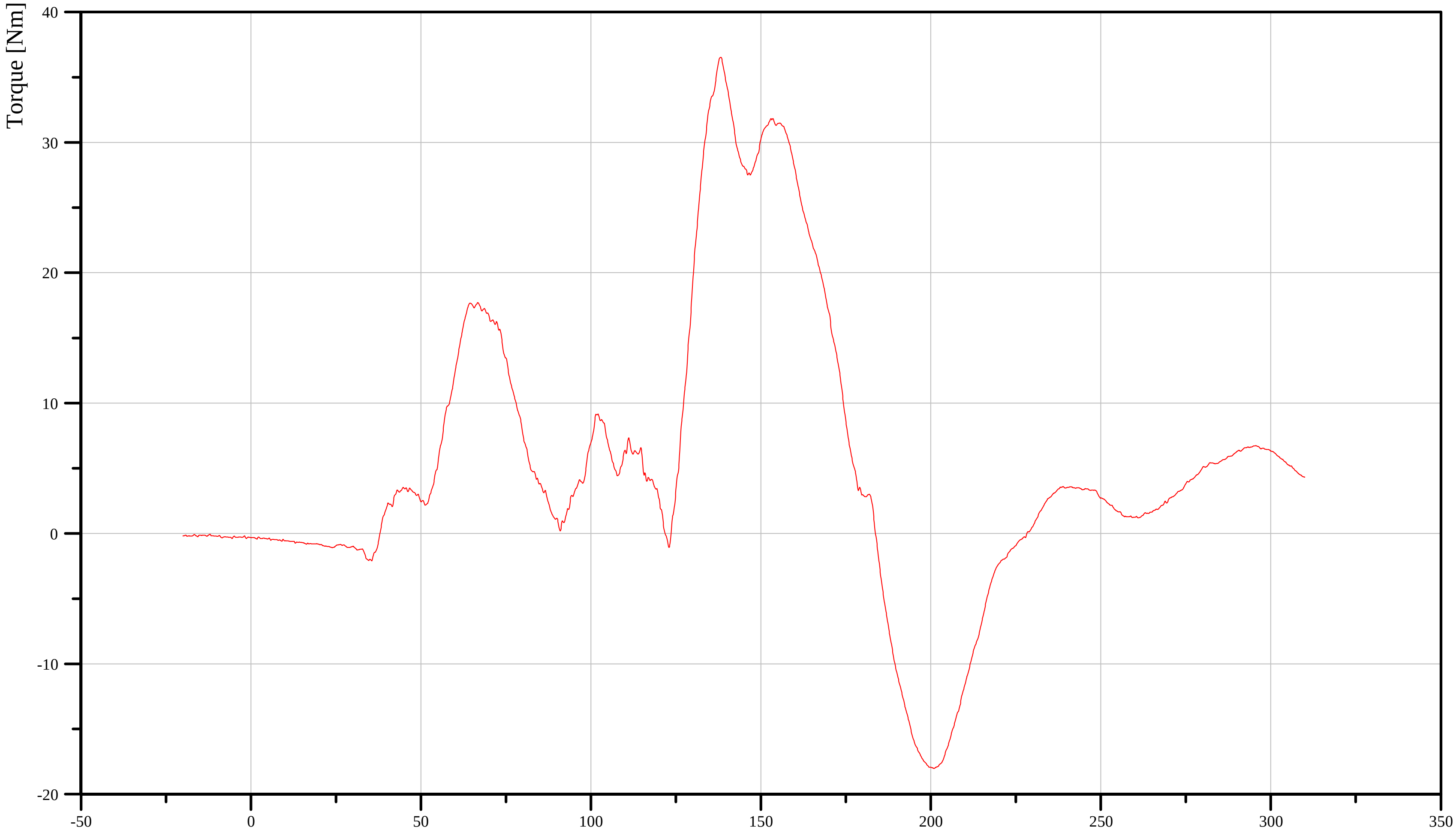
Passenger Right Upper Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRULXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-18.03 Nm at 200.88 ms

Max. Value
36.54 Nm at 138.24 ms

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

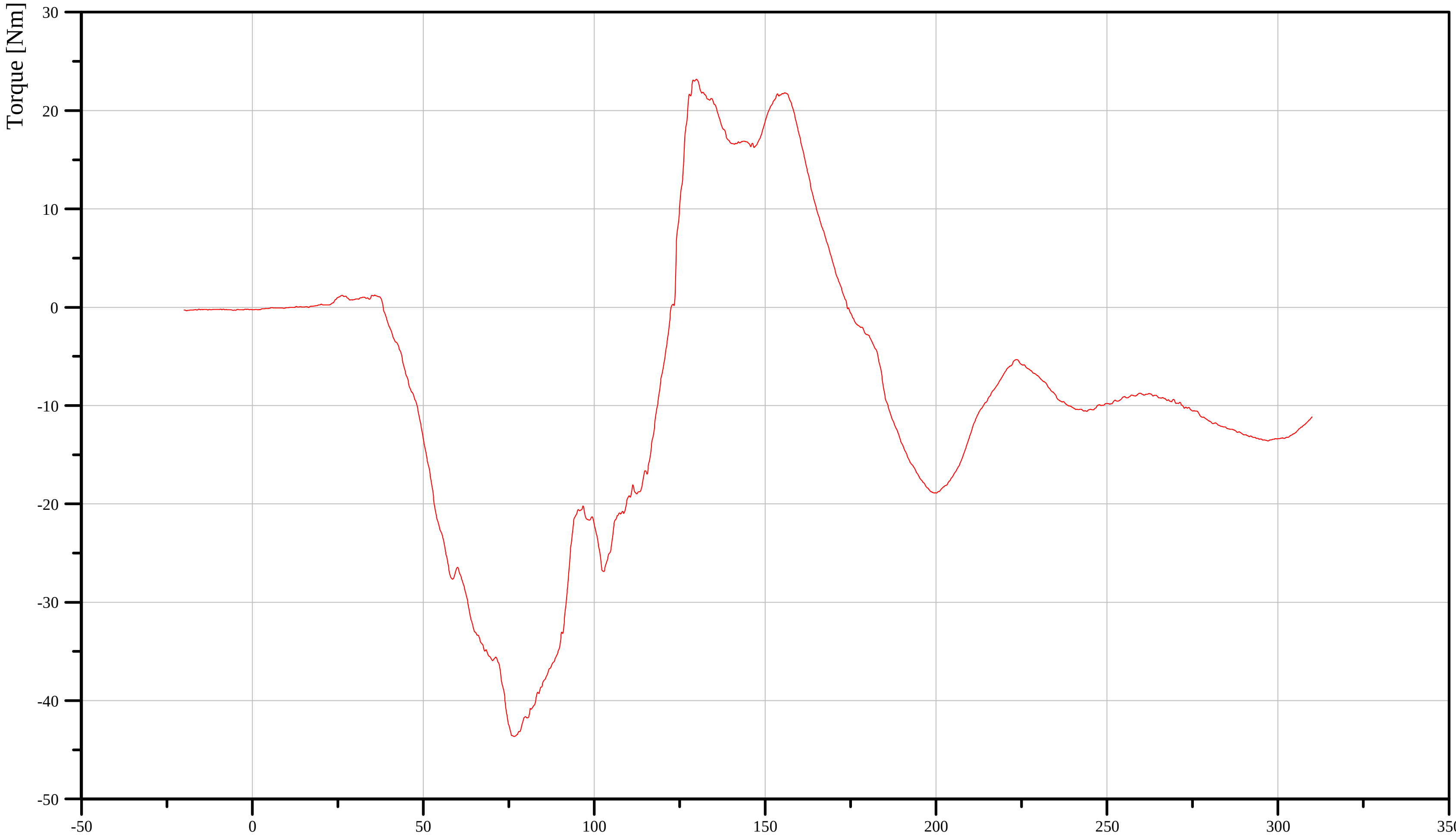
Passenger Right Upper Tibia Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRULXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-43.63 Nm at 76.48 ms

Max. Value
23.18 Nm at 129.92 ms

070126

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

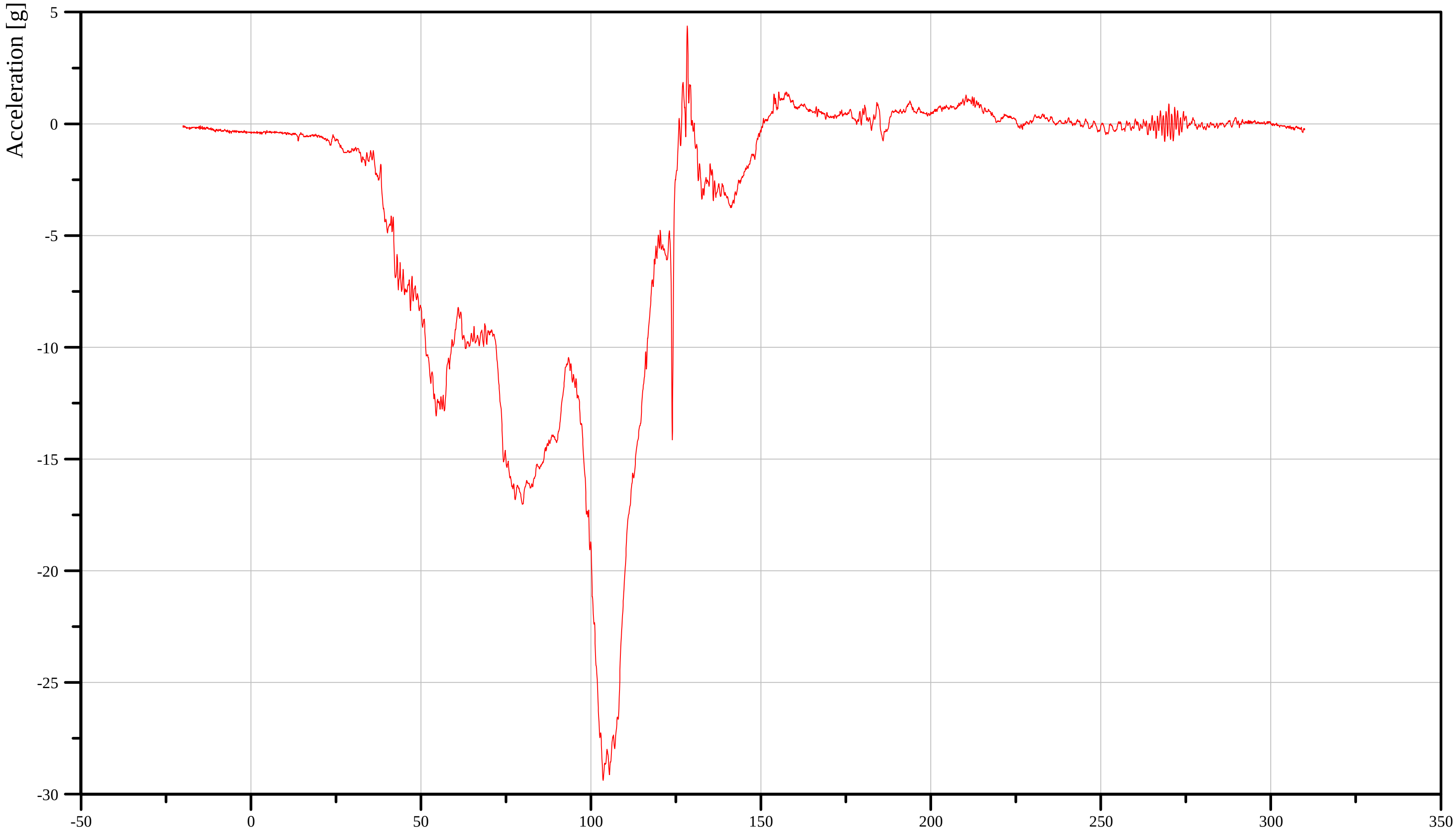
Passenger Right Tibia X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-29.37 g at 103.60 ms

Max. Value
4.37 g at 128.32 ms

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

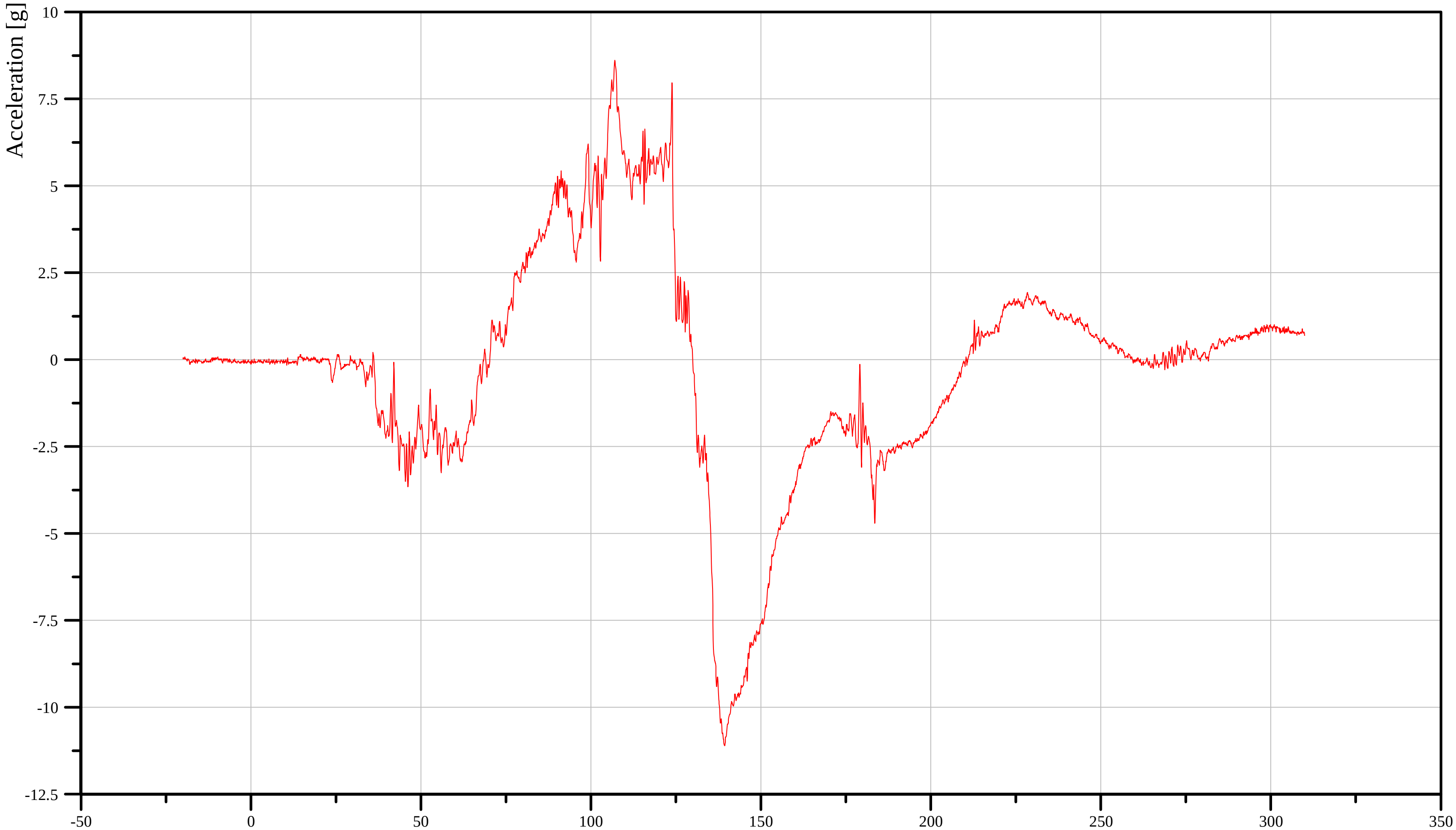
Passenger Right Tibia Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-11.10 g at 139.28 ms

Max. Value
8.61 g at 107.04 ms

B-156

070126

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

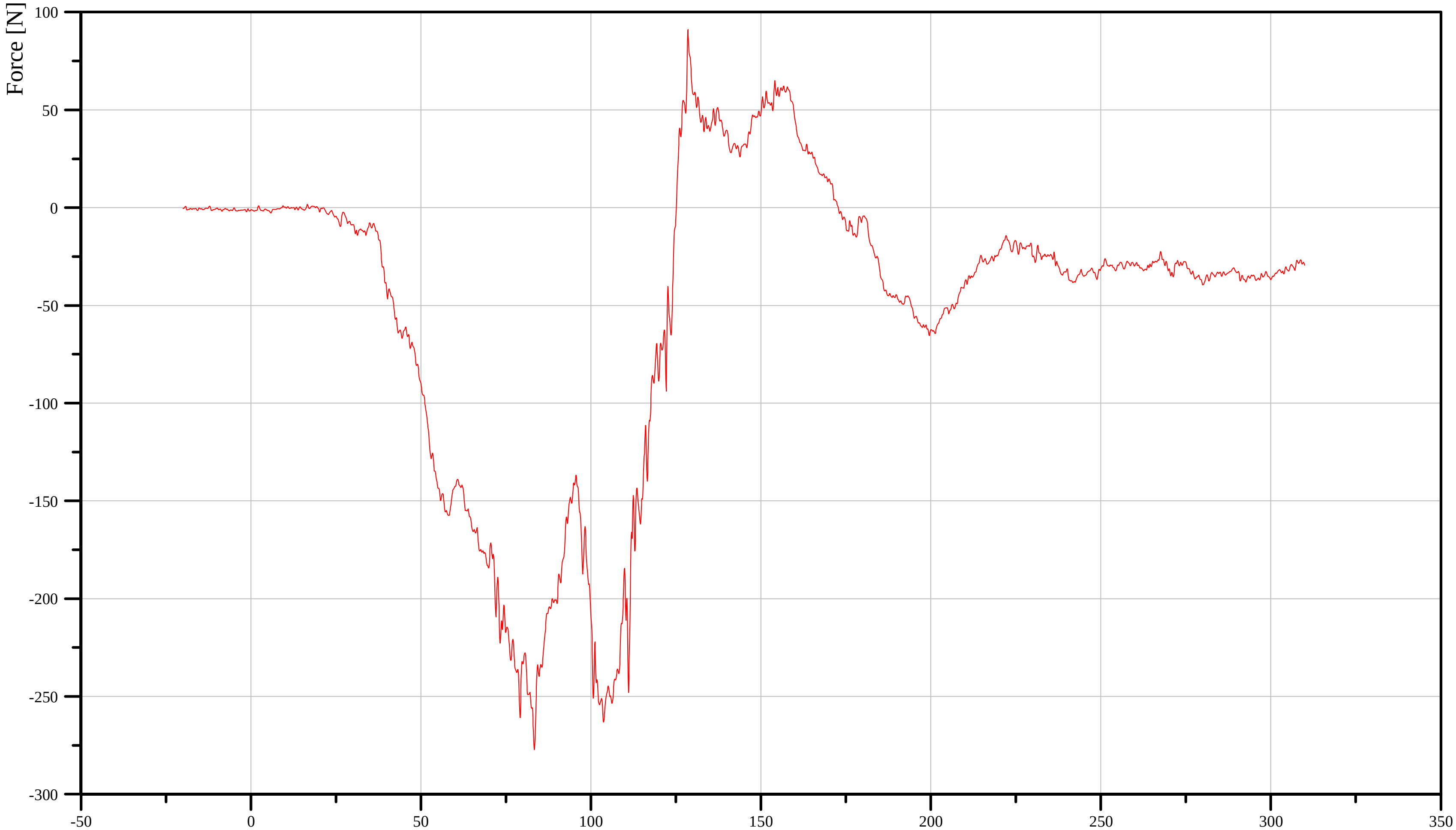
Passenger Right Lower Tibia X-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRLLXH3FOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-277.18 N at 83.36 ms

Max. Value
91.04 N at 128.56 ms

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

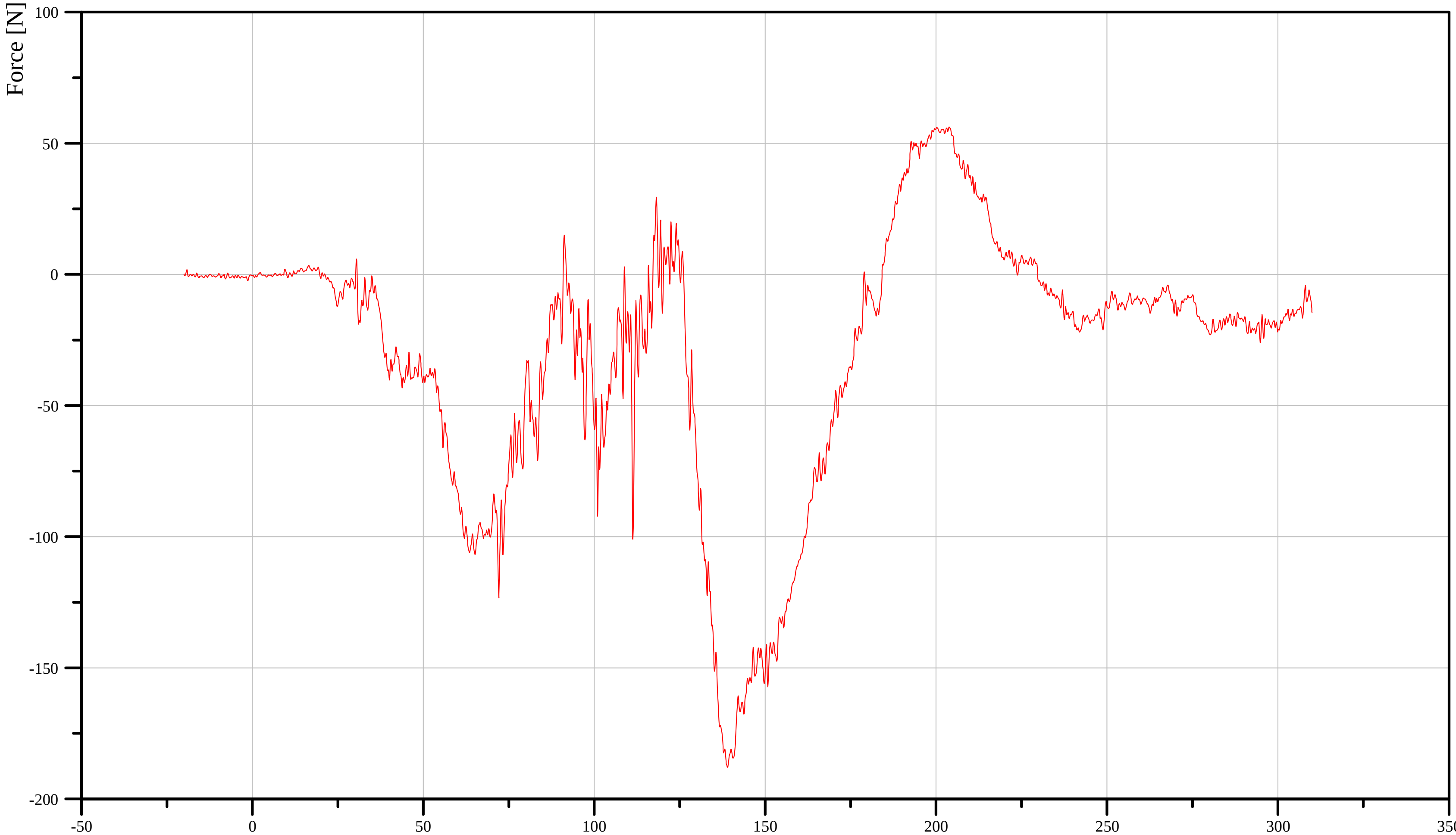
Passenger Right Lower Tibia Y-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRLLXH3FOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-187.86 N at 139.04 ms

Max. Value
56.18 N at 203.84 ms

070126

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

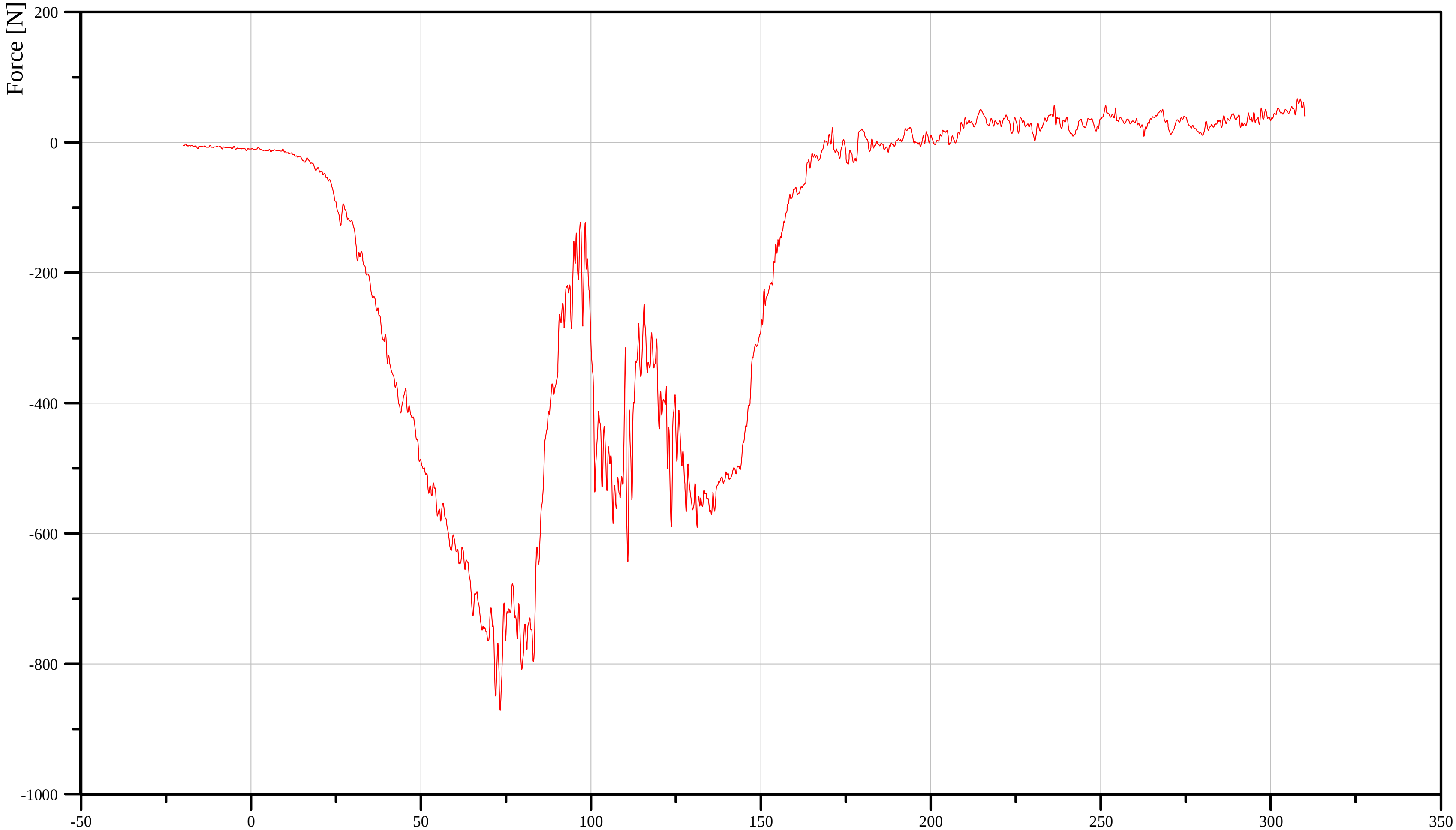
Passenger Right Lower Tibia Z-Axis Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRLLXH3FOZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-871.26 N at 73.36 ms

Max. Value
67.17 N at 307.76 ms

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

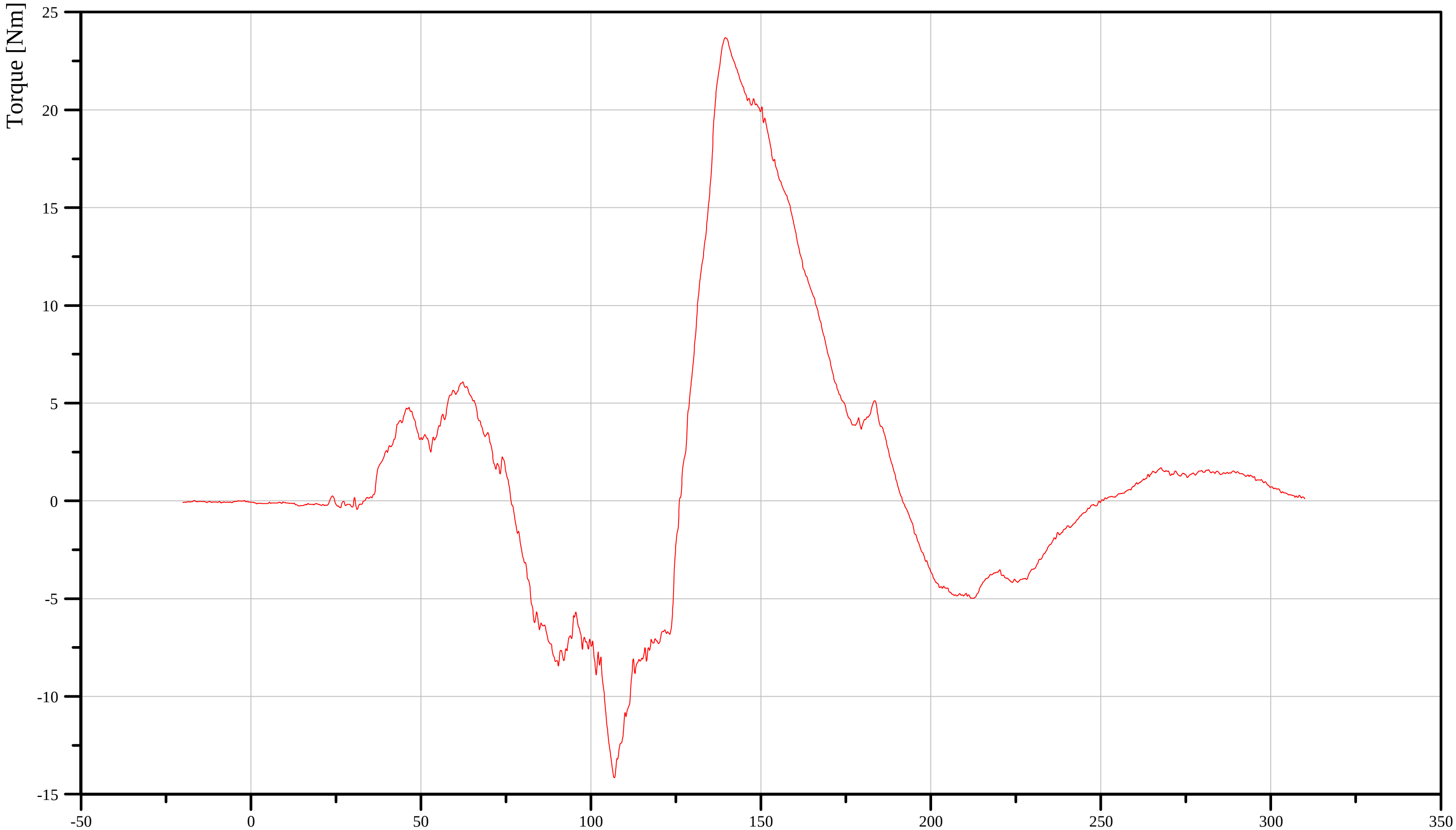
Passenger Right Lower Tibia Moment About X Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRLLXH3MOXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-14.15 Nm at 106.96 ms

Max. Value
23.69 Nm at 139.52 ms

B-160

070126

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

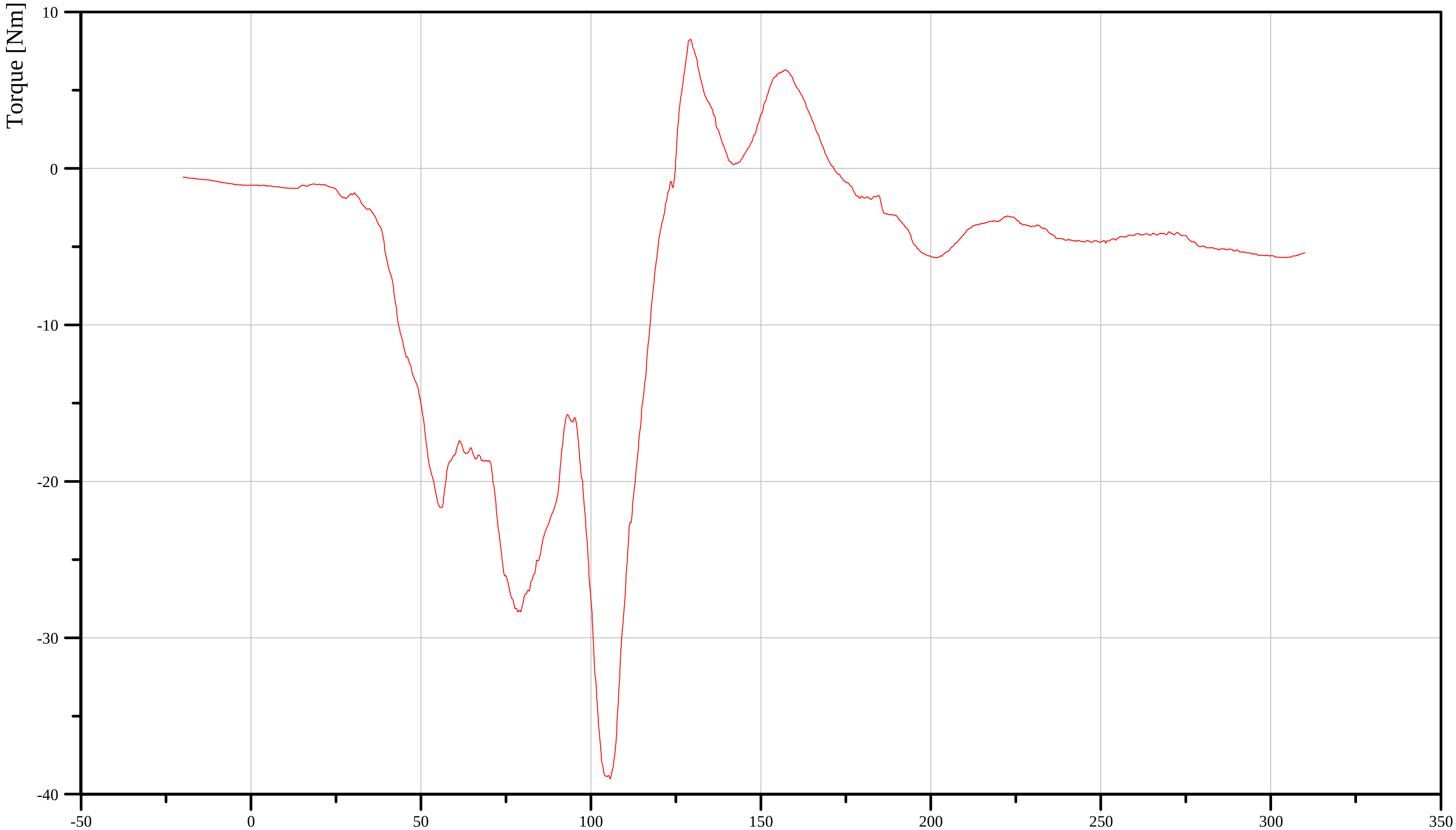
Passenger Right Lower Tibia Moment About Y Axis

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13TIBIRLLXH3MOYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_600

Min. Value
-39.02 Nm at 105.68 ms

Max. Value
8.26 Nm at 129.36 ms

B-161

070126

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

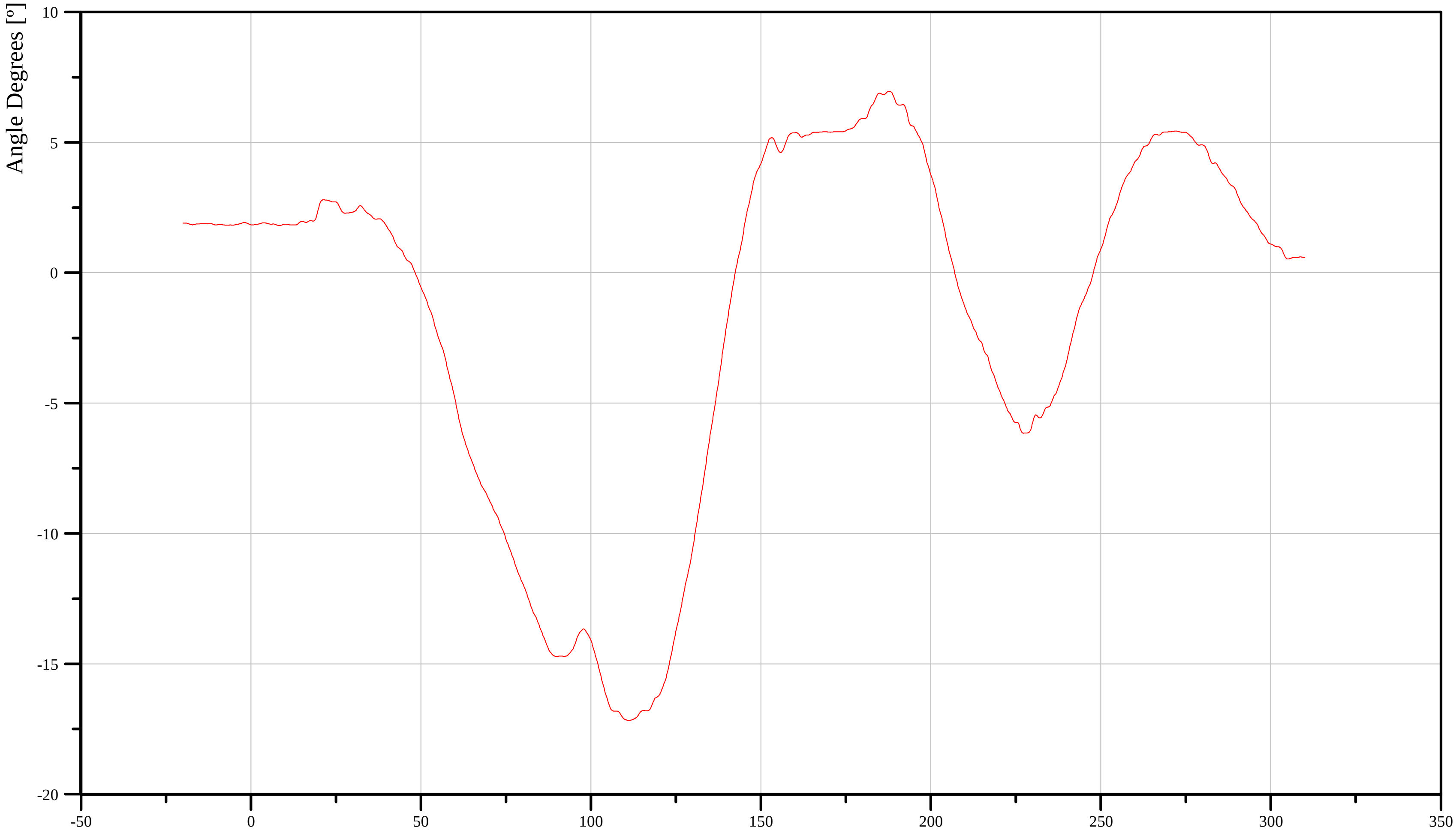
Passenger Right Foot X-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ANXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-17.17 ° at 111.20 ms

Max. Value
6.96 ° at 187.76 ms

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

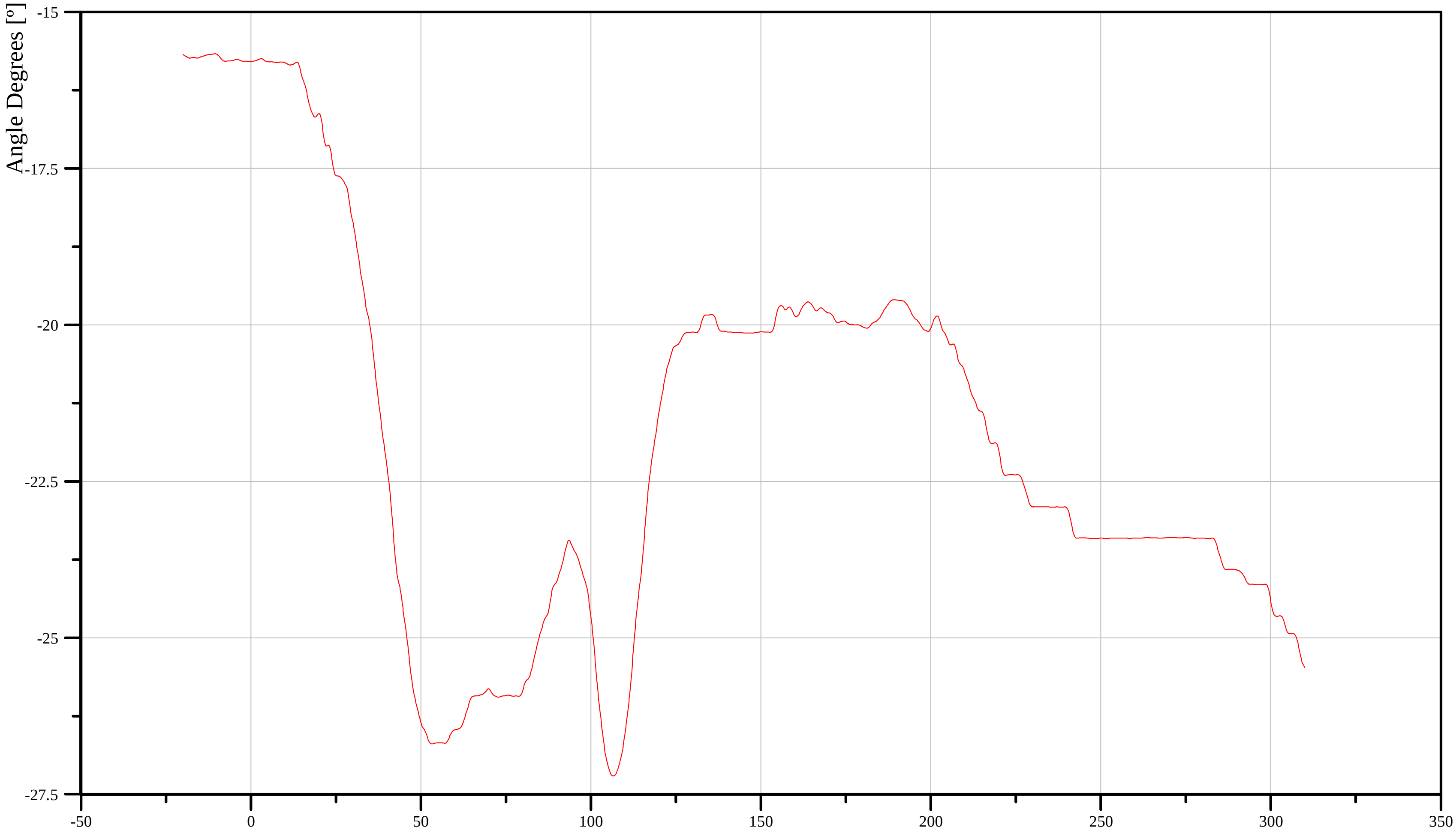
Passenger Right Foot Y-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ANYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-27.21 ° at 106.56 ms

Max. Value
-15.67 ° at -10.56 ms

B-163

070126

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

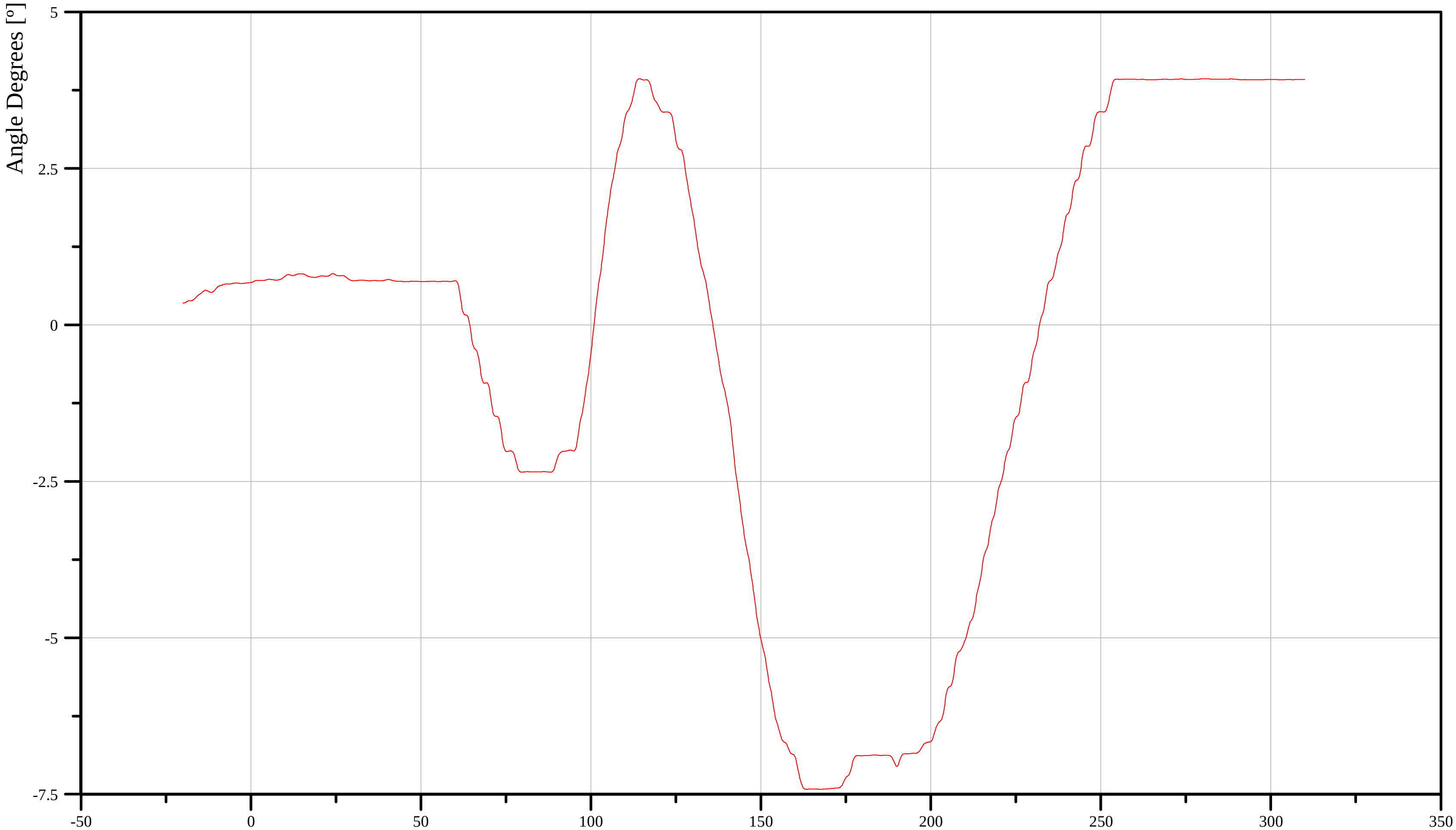
Passenger Right Foot Z-Axis Rotation

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ANZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-7.42 ° at 163.28 ms

Max. Value
3.93 ° at 114.16 ms

070126

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

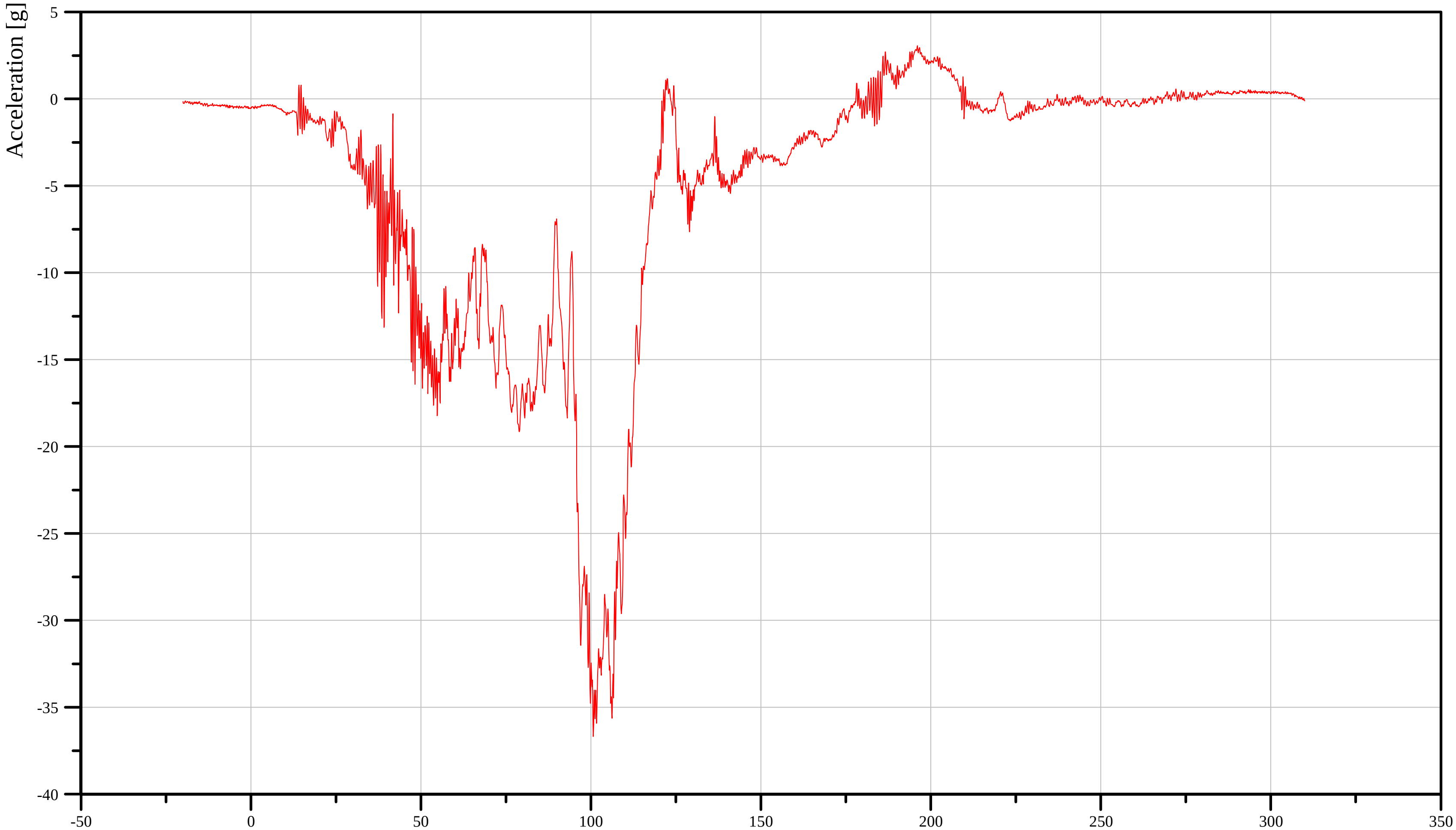
Passenger Right Foot X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ACXA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-36.68 g at 100.72 ms

Max. Value
3.06 g at 196.00 ms

B-165

070126

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

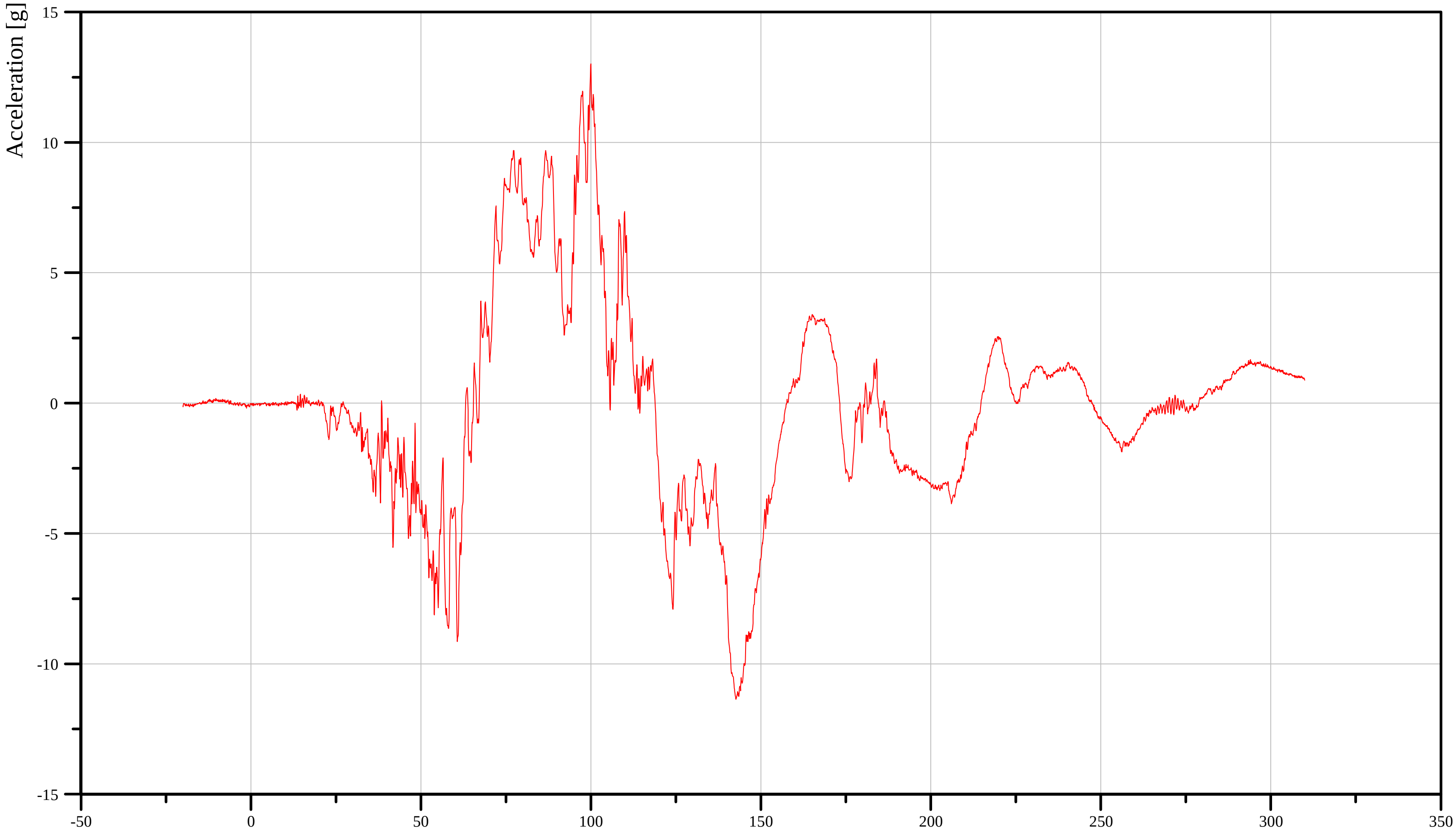
Passenger Right Foot Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ACYA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-11.35 g at 142.64 ms

Max. Value
13.01 g at 100.00 ms

TRC

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

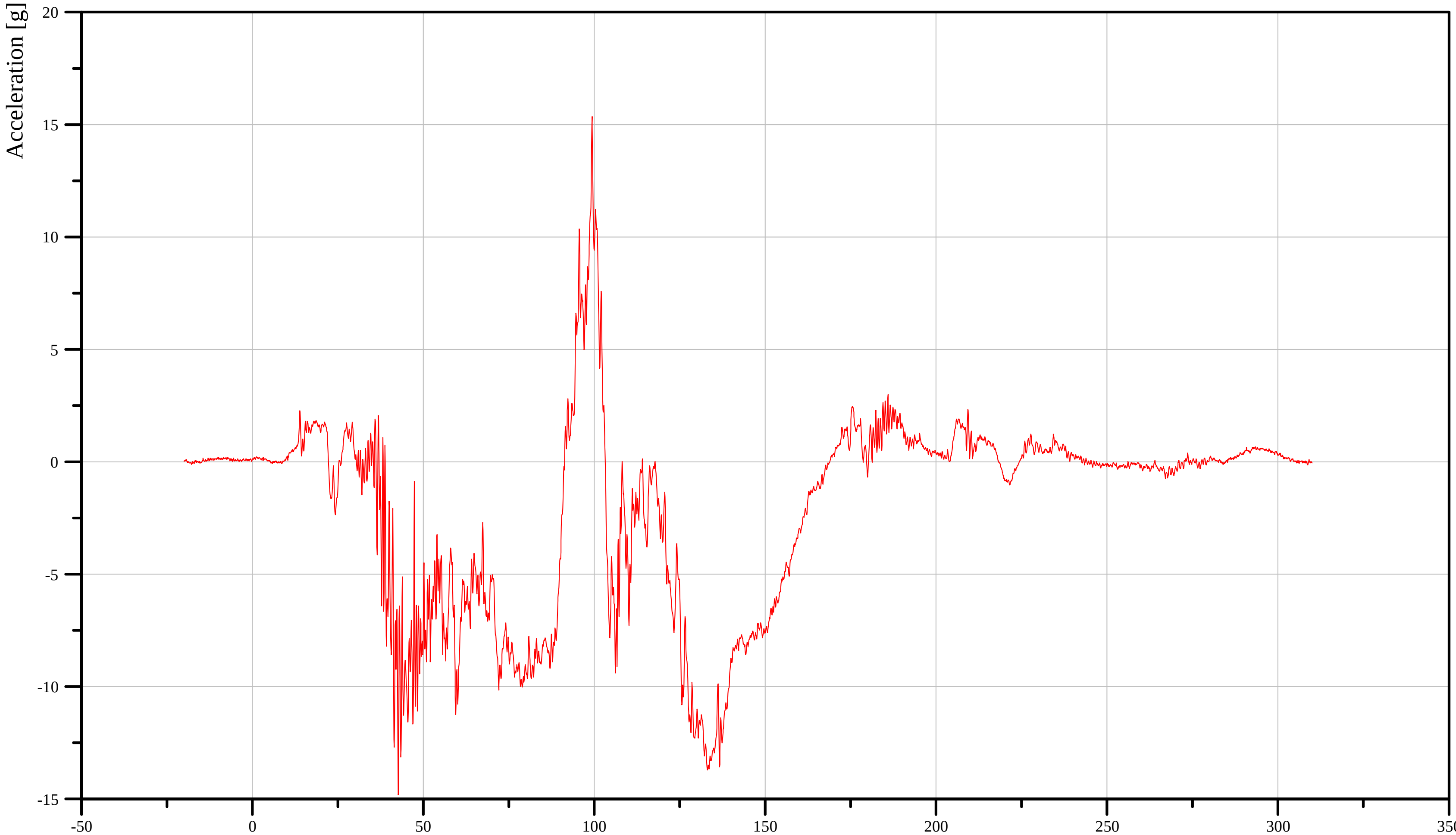
Passenger Right Foot Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ACZA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-14.81 g at 42.64 ms

Max. Value
15.36 g at 99.36 ms

B-167

070126

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

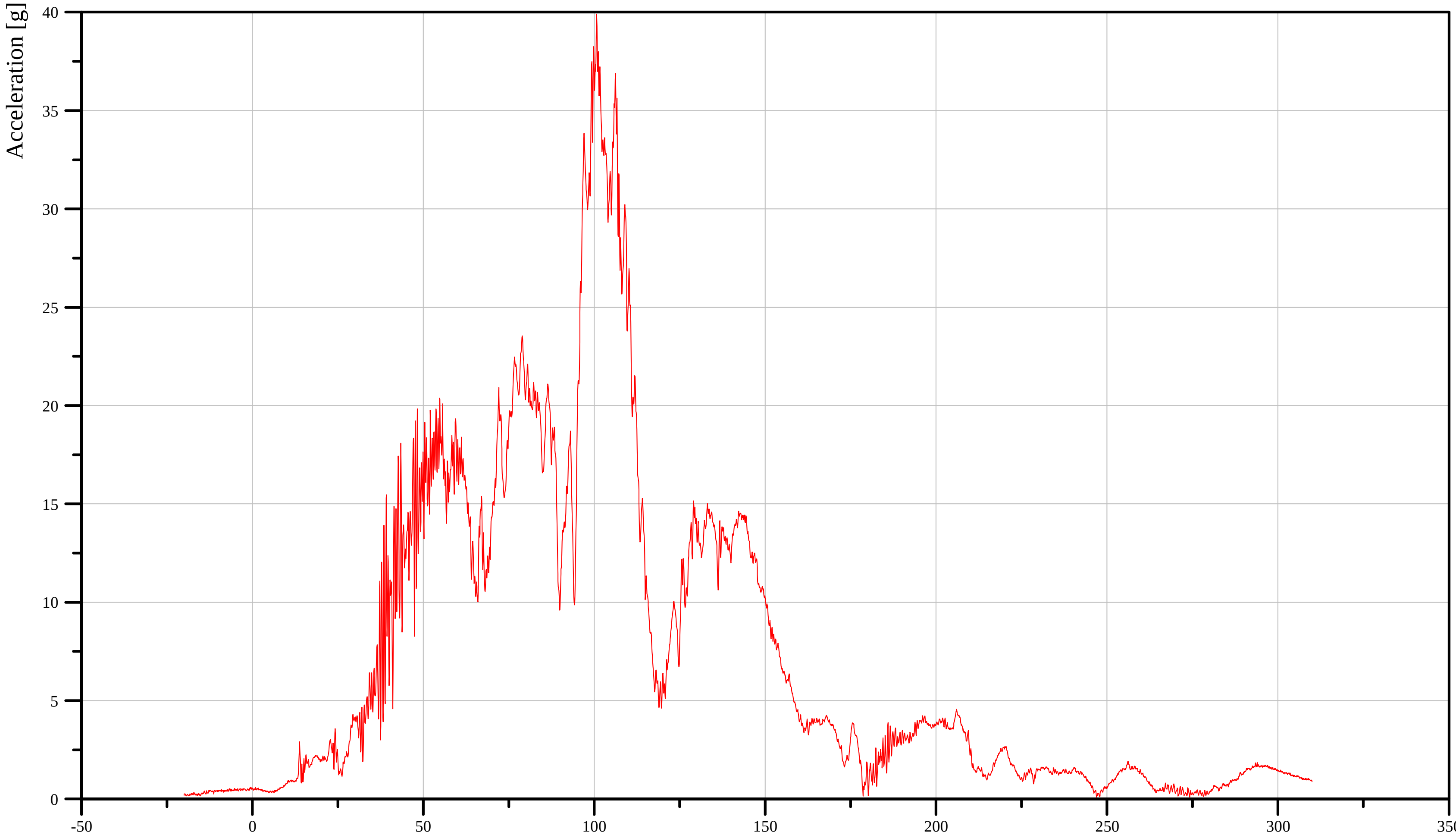
Passenger Right Foot Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13FOOTRILXH3ACRA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
0.10 g at 246.96 ms

Max. Value
39.91 g at 100.72 ms

B-168

070126

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

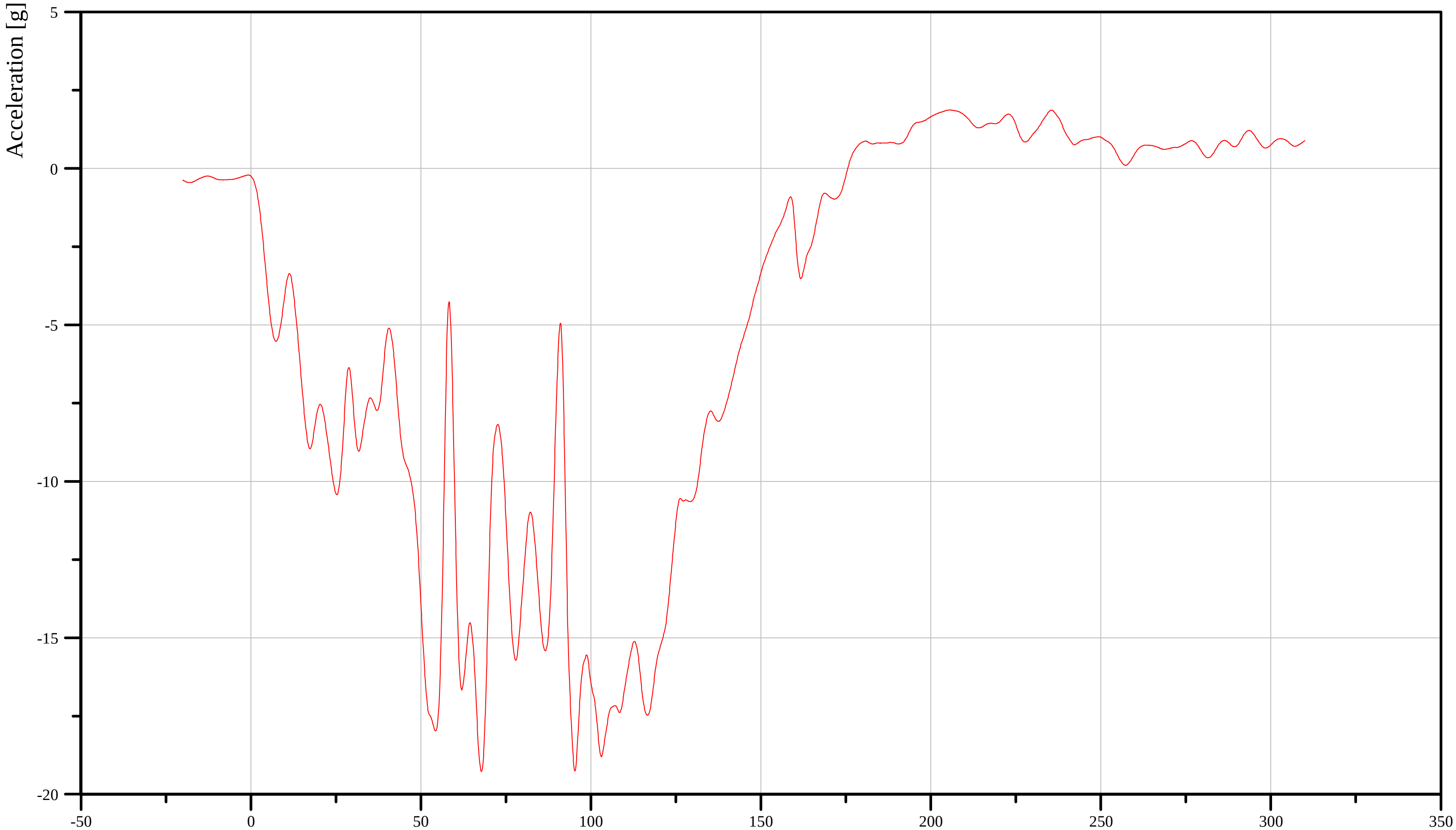
Left Rear Seat Cross-Member X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

14CRME000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-19.27 g at 67.84 ms

Max. Value
1.87 g at 205.76 ms

B-169

070126

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

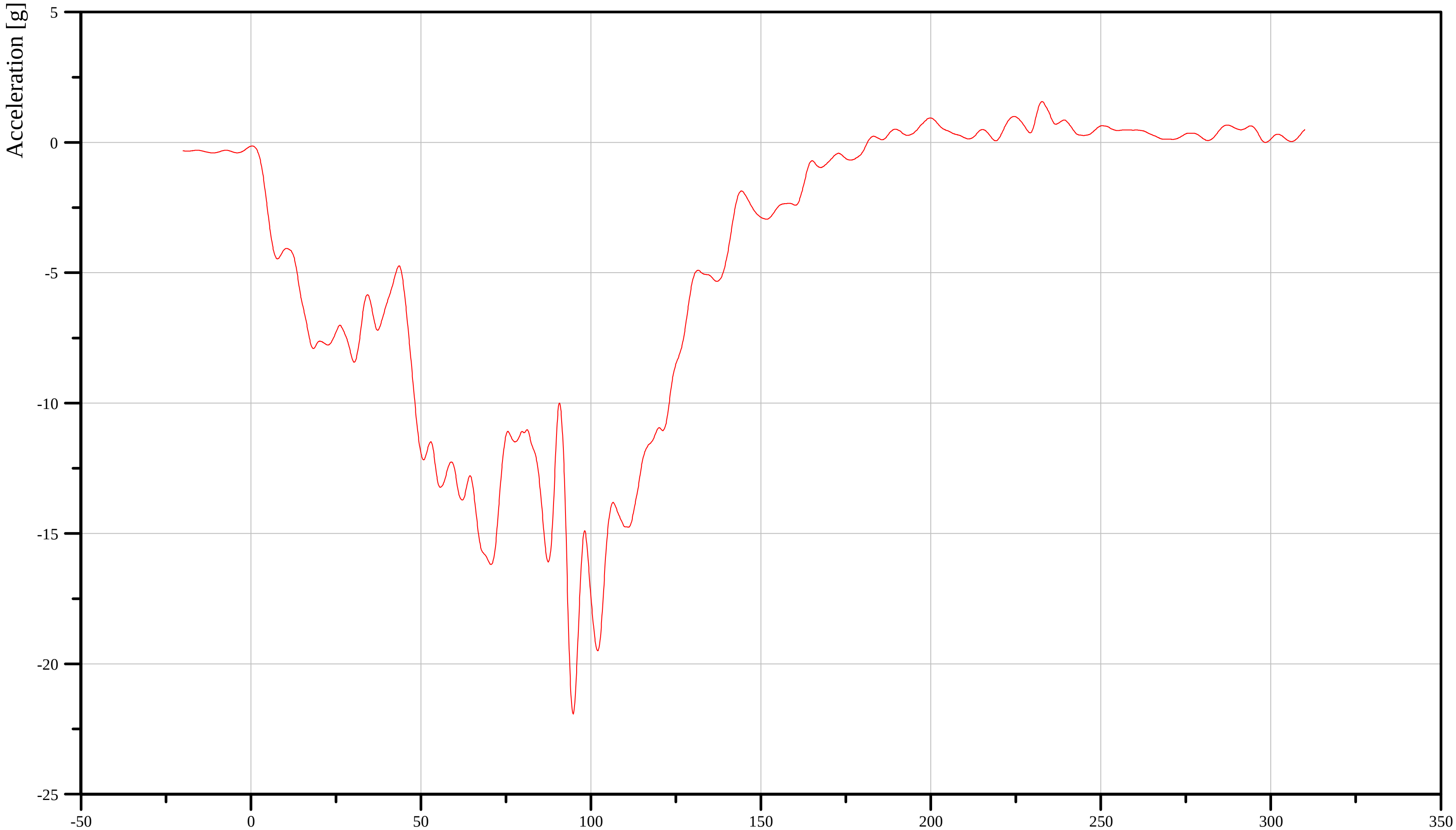
Right Rear Seat Cross-Member X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

16CRME000000ACXD

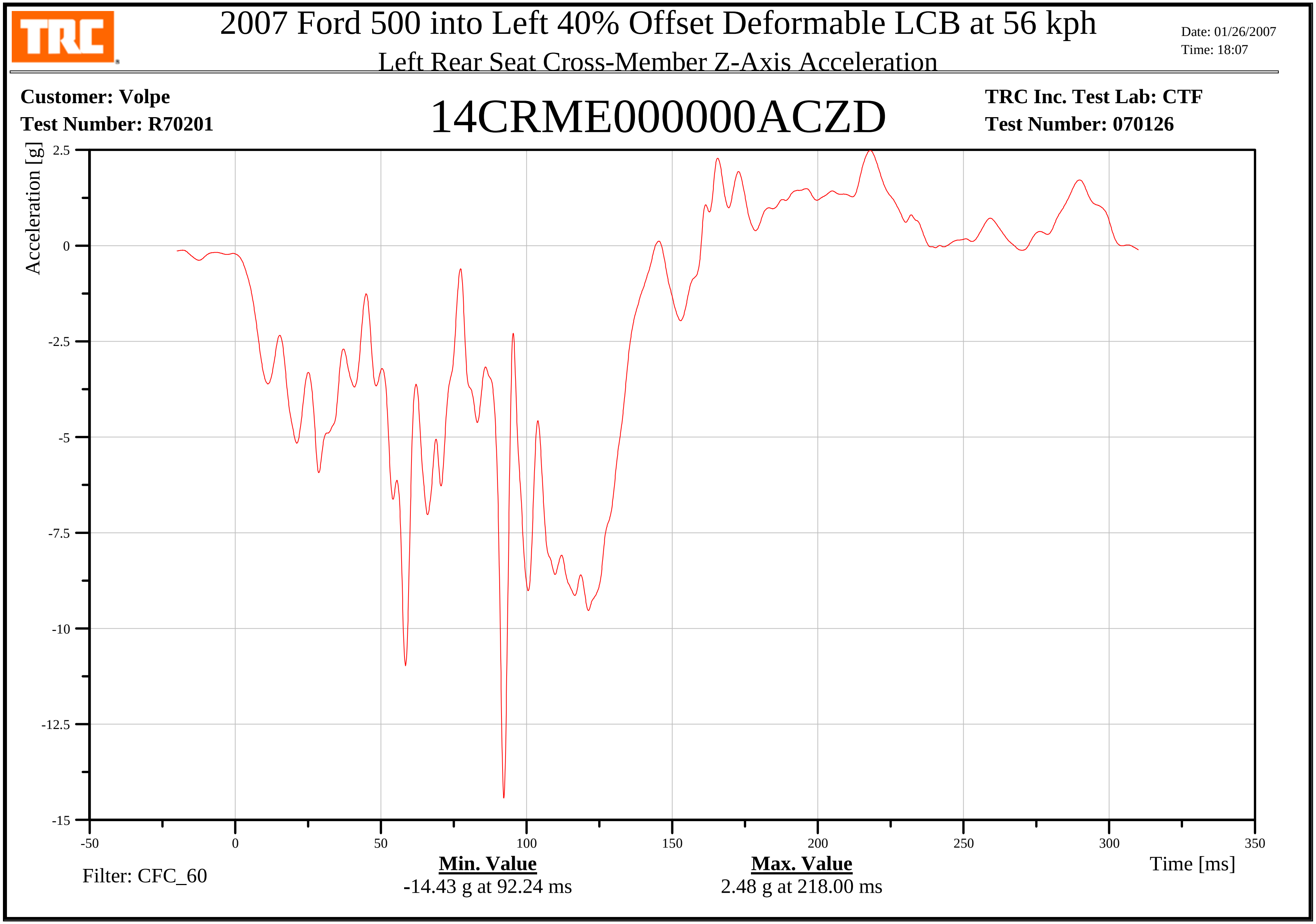
TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-21.92 g at 94.80 ms

Max. Value
1.57 g at 232.72 ms



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Left Rear Seat Cross-Member Z-Axis Acceleration
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
14CRME000000ACZD
TRC Inc. Test Lab: CTF
Test Number: 070126
Acceleration [g]
2.5
0
-2.5
-5
-7.5
-10
-12.5
-15
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-14.43 g at 92.24 ms
Max. Value
2.48 g at 218.00 ms

B-171

070126

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

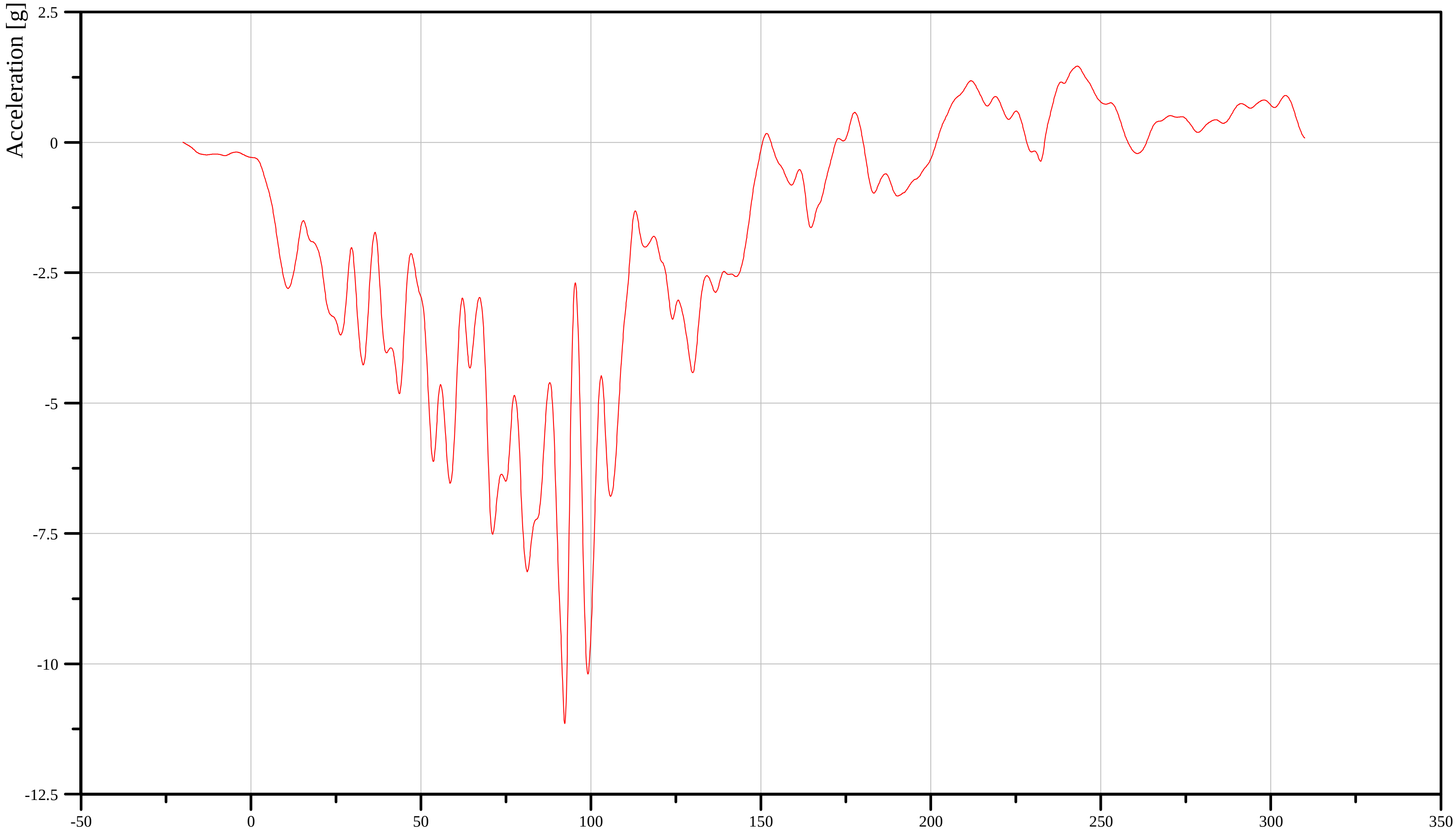
Right Rear Seat Cross-Member Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

16CRME000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-11.14 g at 92.32 ms

Max. Value
1.46 g at 243.04 ms

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

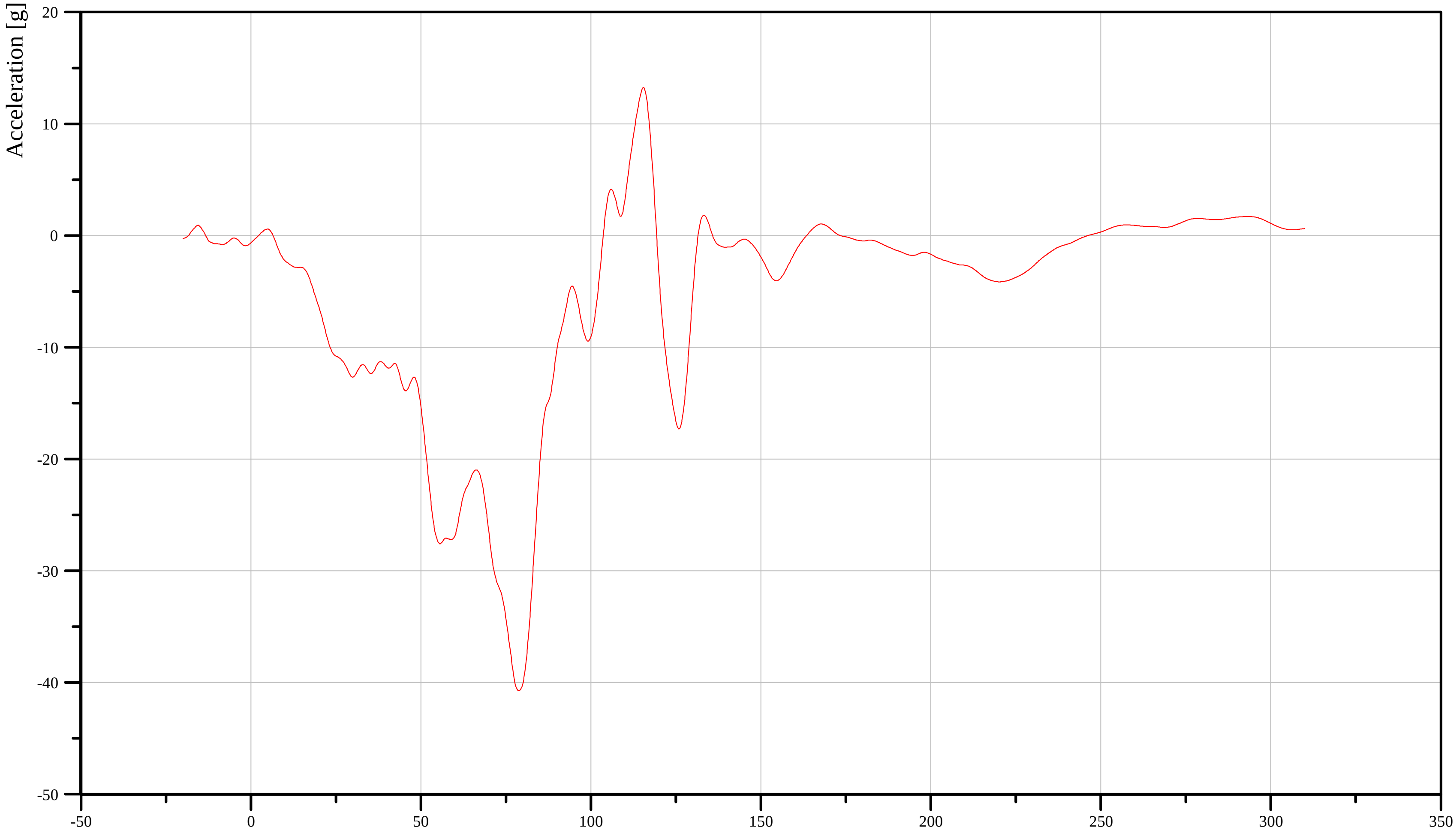
Top of Engine Block X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

12ENGNTP0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-40.71 g at 78.80 ms

Max. Value
13.24 g at 115.44 ms

B-173

070126

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

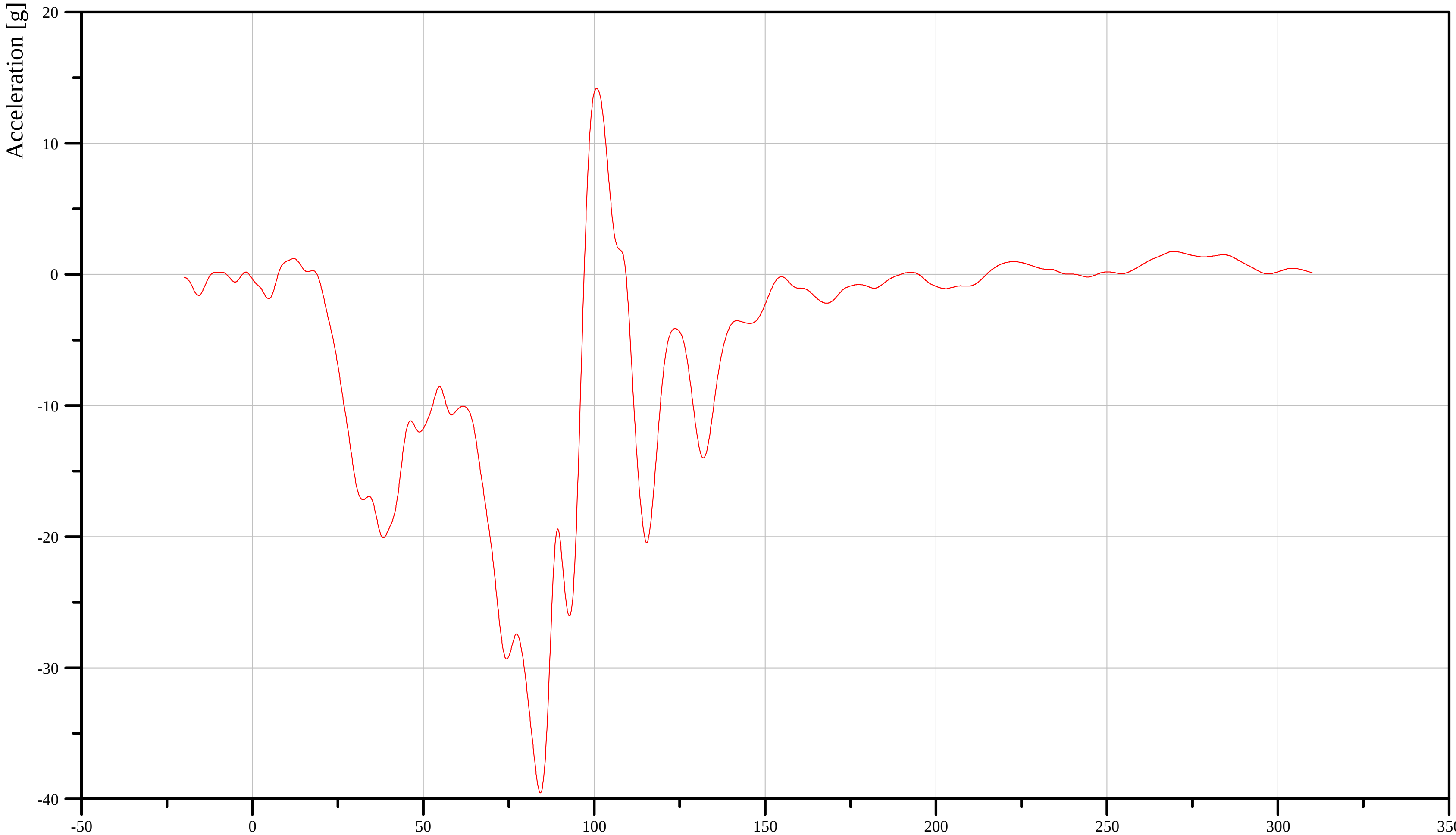
Bottom of Engine Block X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

12ENGNBO0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-39.53 g at 84.24 ms

Max. Value
14.17 g at 100.72 ms

070126

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

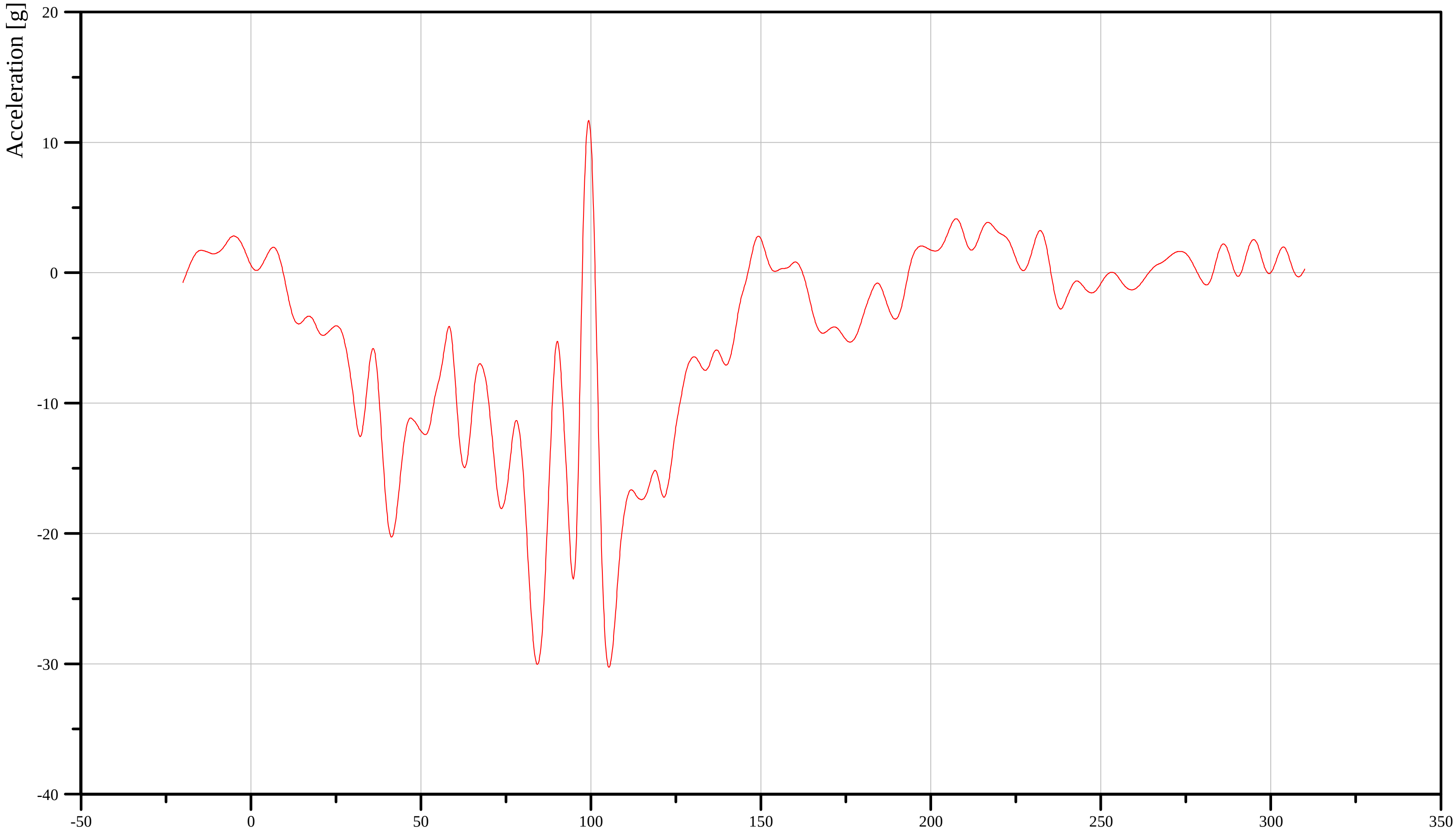
Right Brake Caliper X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13VEHCRI0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-30.25 g at 105.28 ms

Max. Value
11.70 g at 99.36 ms

070126

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

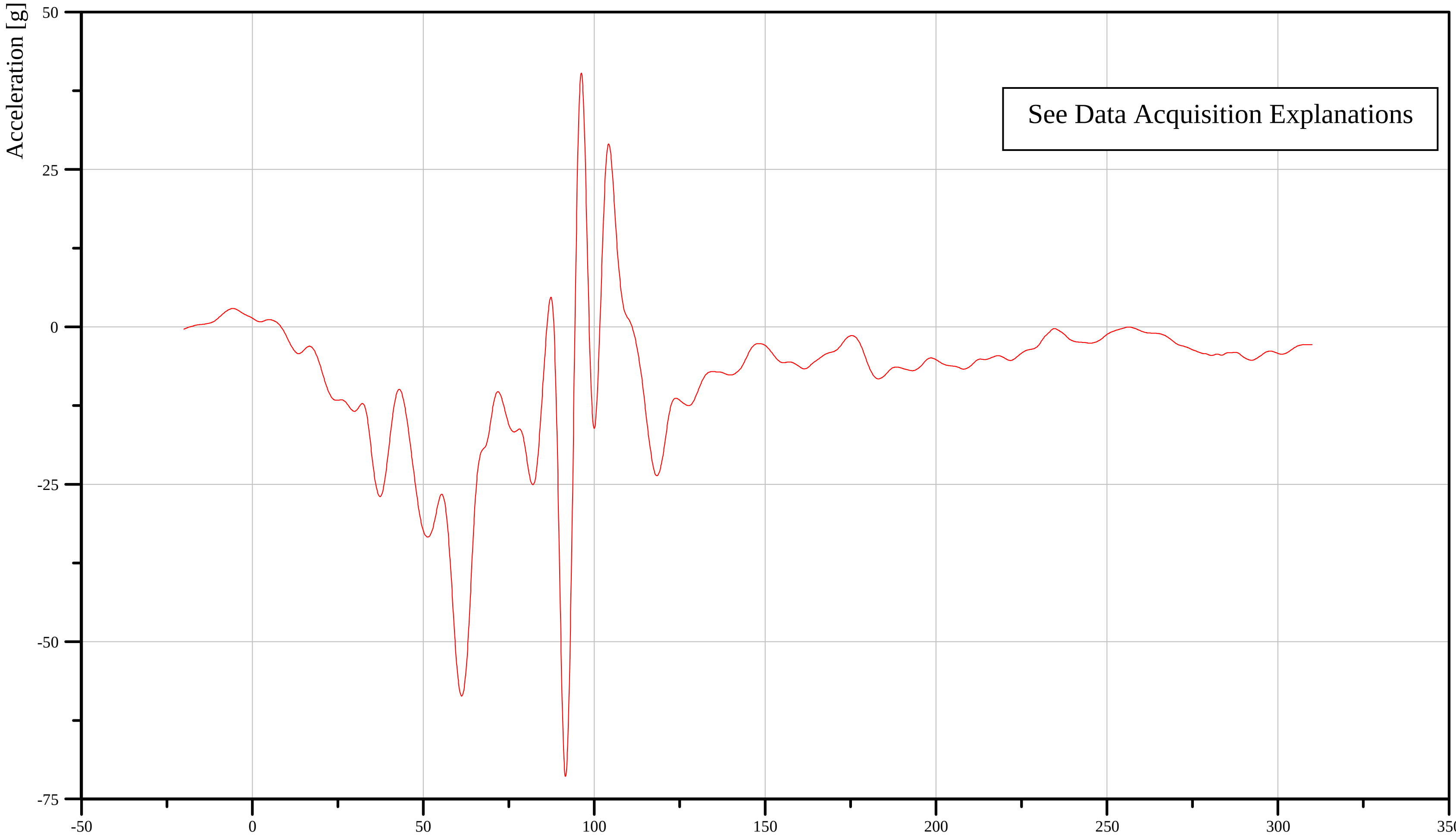
Date: 01/26/2007
Time: 18:07

Left Brake Caliper X-Axis Acceleration

Customer: Volpe
Test Number: R70201

11VEHCLE0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-71.40 g at 91.60 ms

Max. Value
40.32 g at 96.24 ms

B-176

070126

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

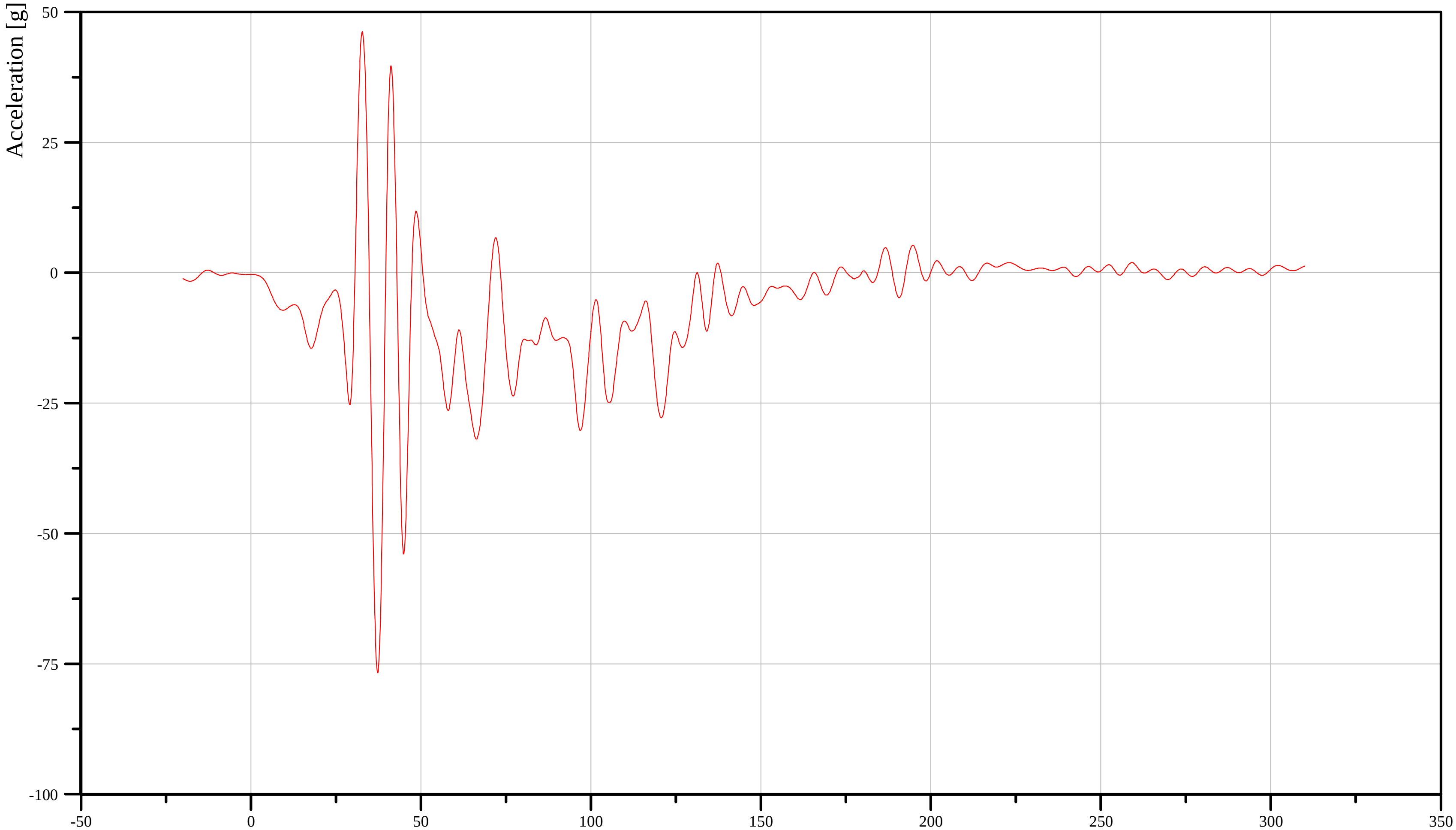
Instrument Panel X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

12DASH000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-76.72 g at 37.28 ms

Max. Value
46.22 g at 32.72 ms

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

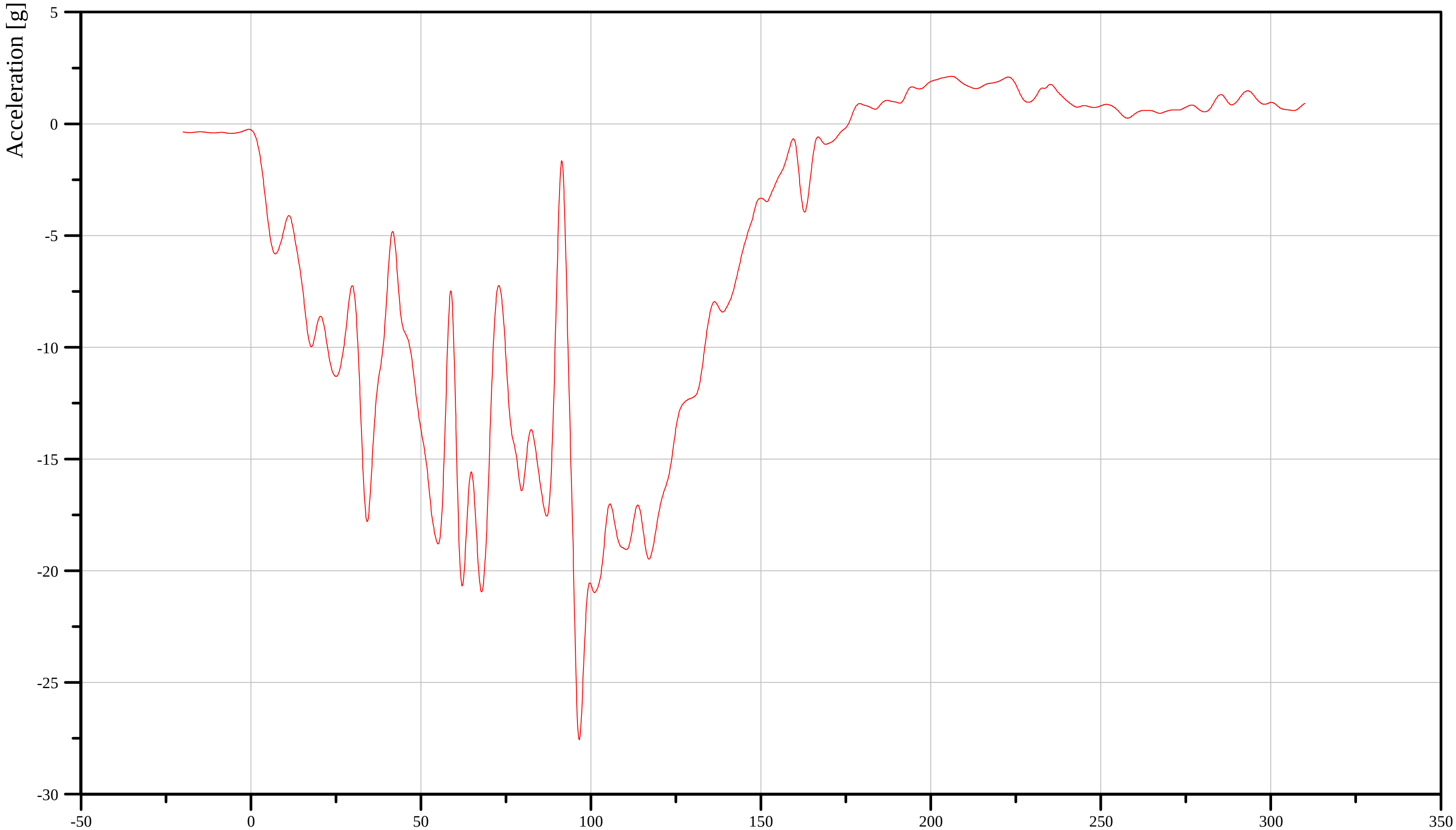
Left Side Driver Mid Seat Track X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11SETR000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-27.57 g at 96.56 ms

Max. Value
2.13 g at 206.08 ms

070126

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

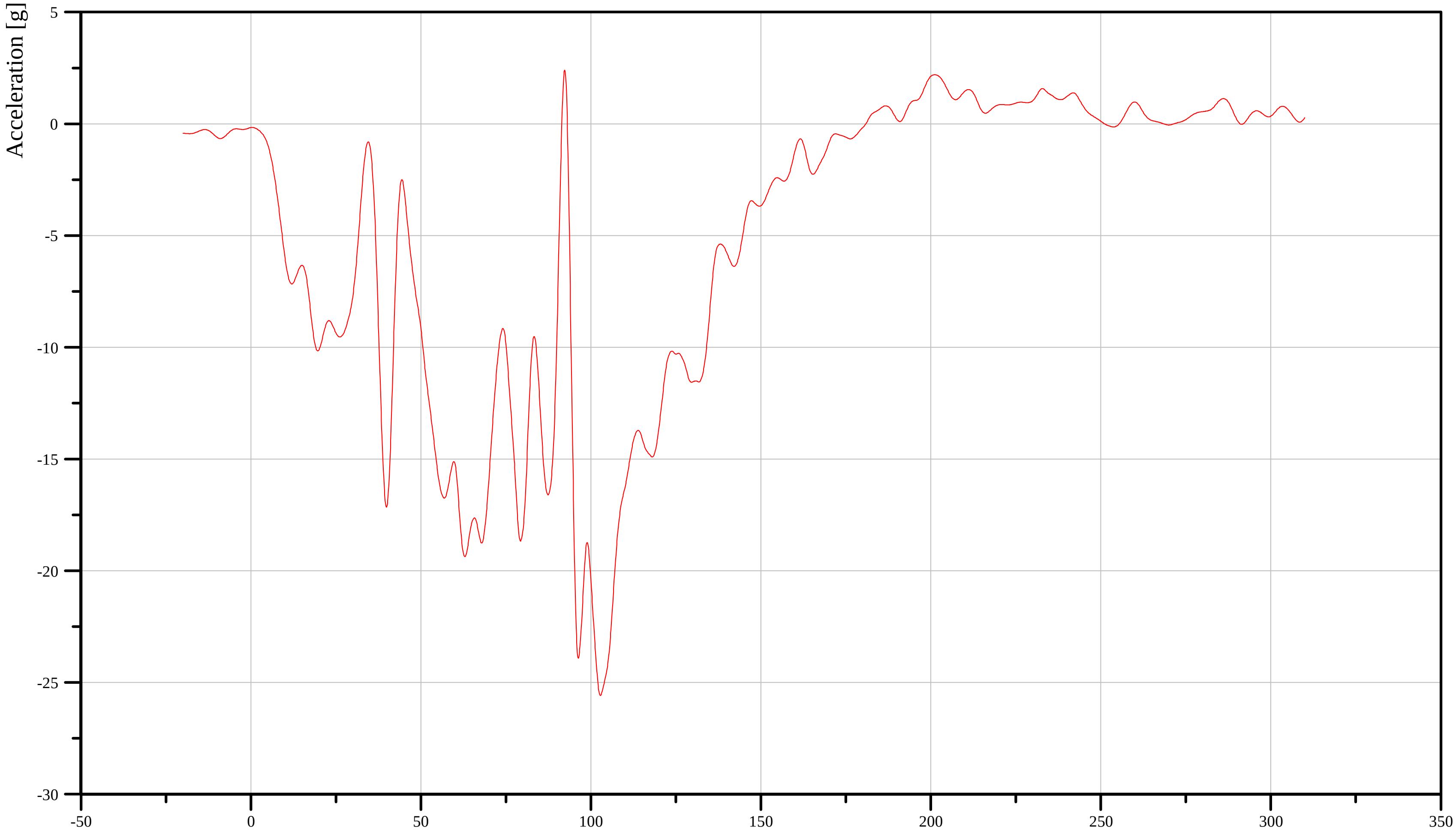
Vehicle CG X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-25.58 g at 102.80 ms

Max. Value
2.40 g at 92.32 ms

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

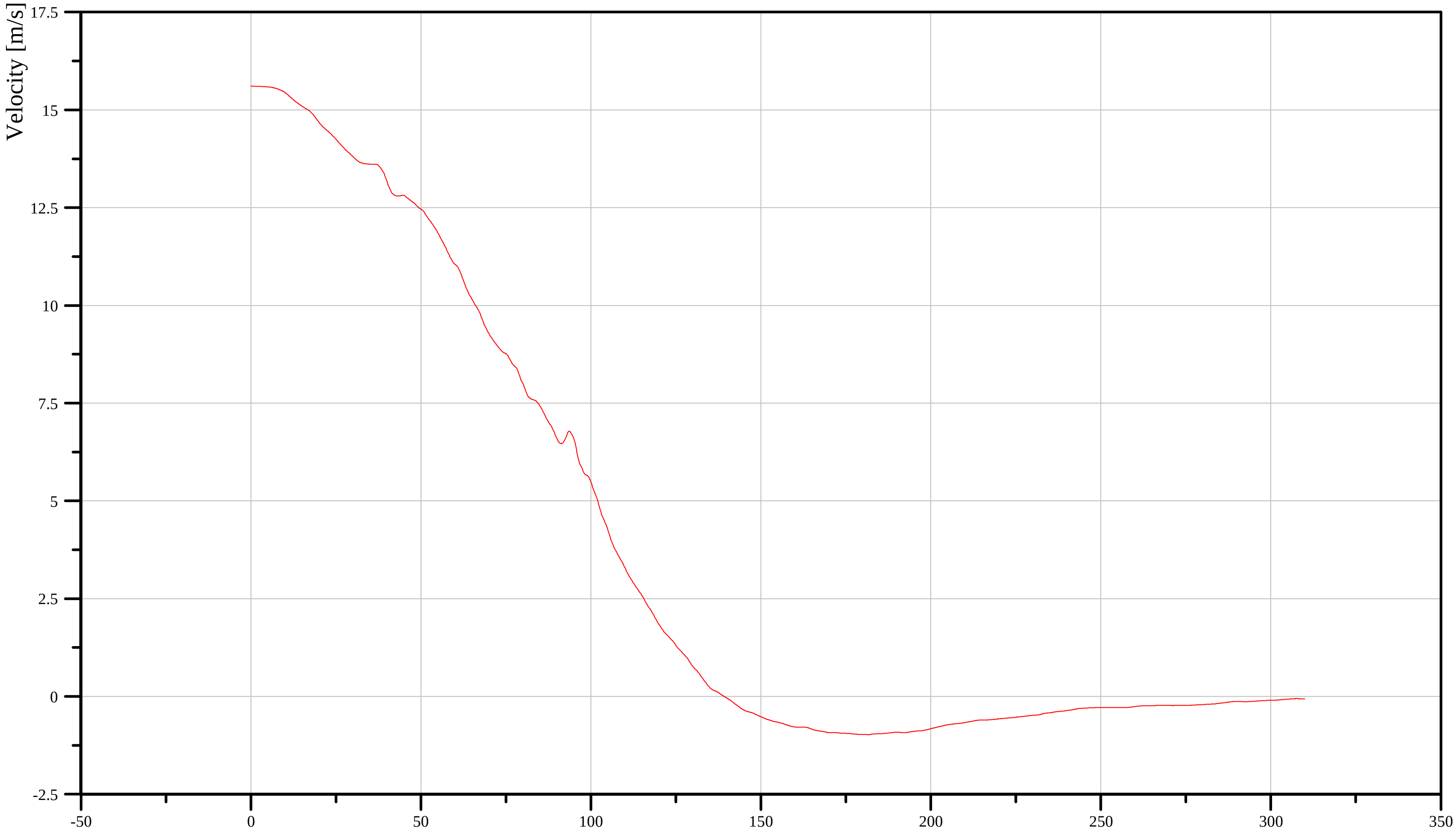
Vehicle CG X-Axis Velocity

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-0.97 m/s at 181.60 ms

Max. Value
15.61 m/s at 0.00 ms

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

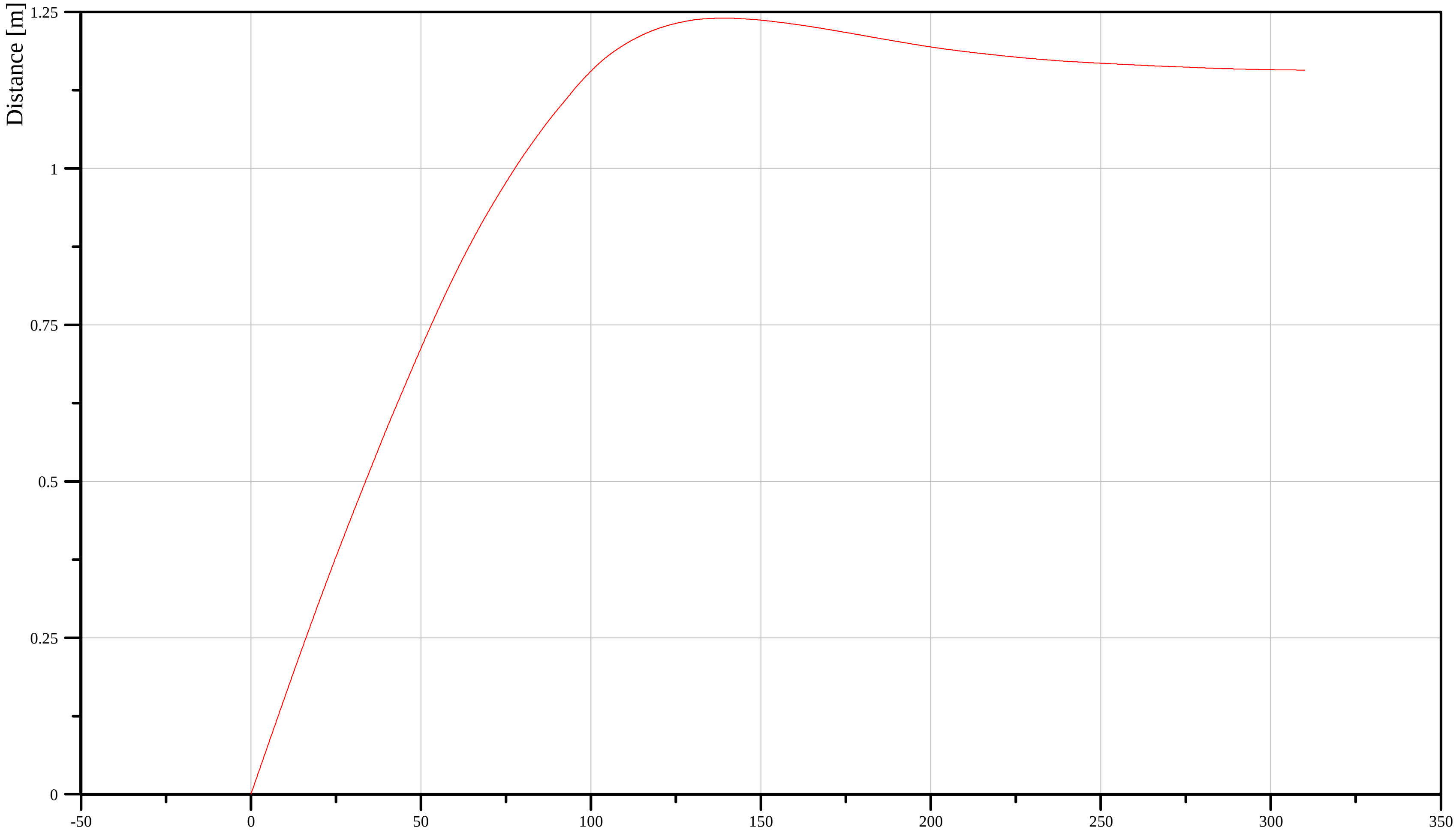
Vehicle CG X-Axis Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000DCXC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
0.00 m at 0.00 ms

Max. Value
1.24 m at 139.20 ms

070126

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

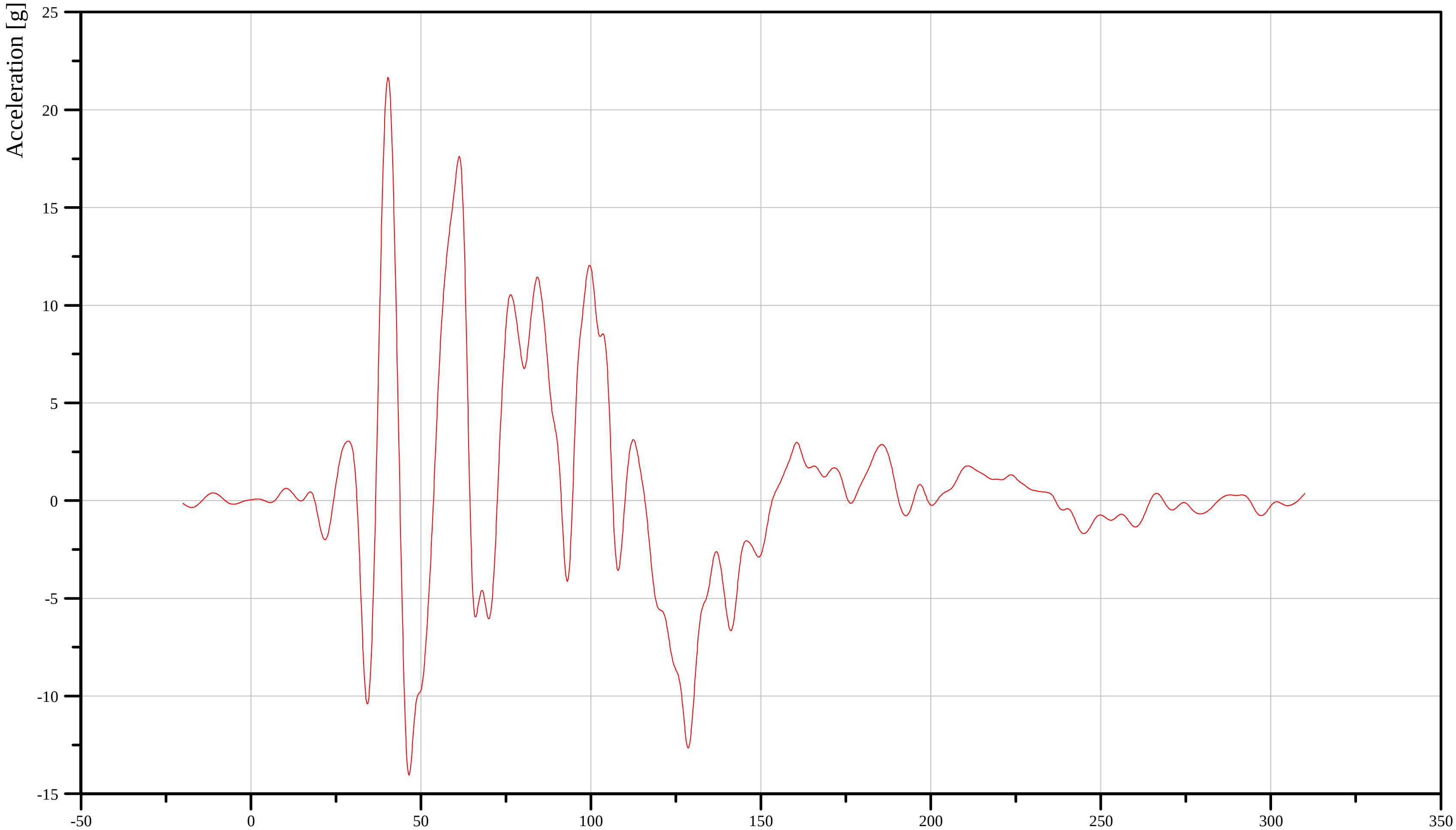
Vehicle CG Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070126

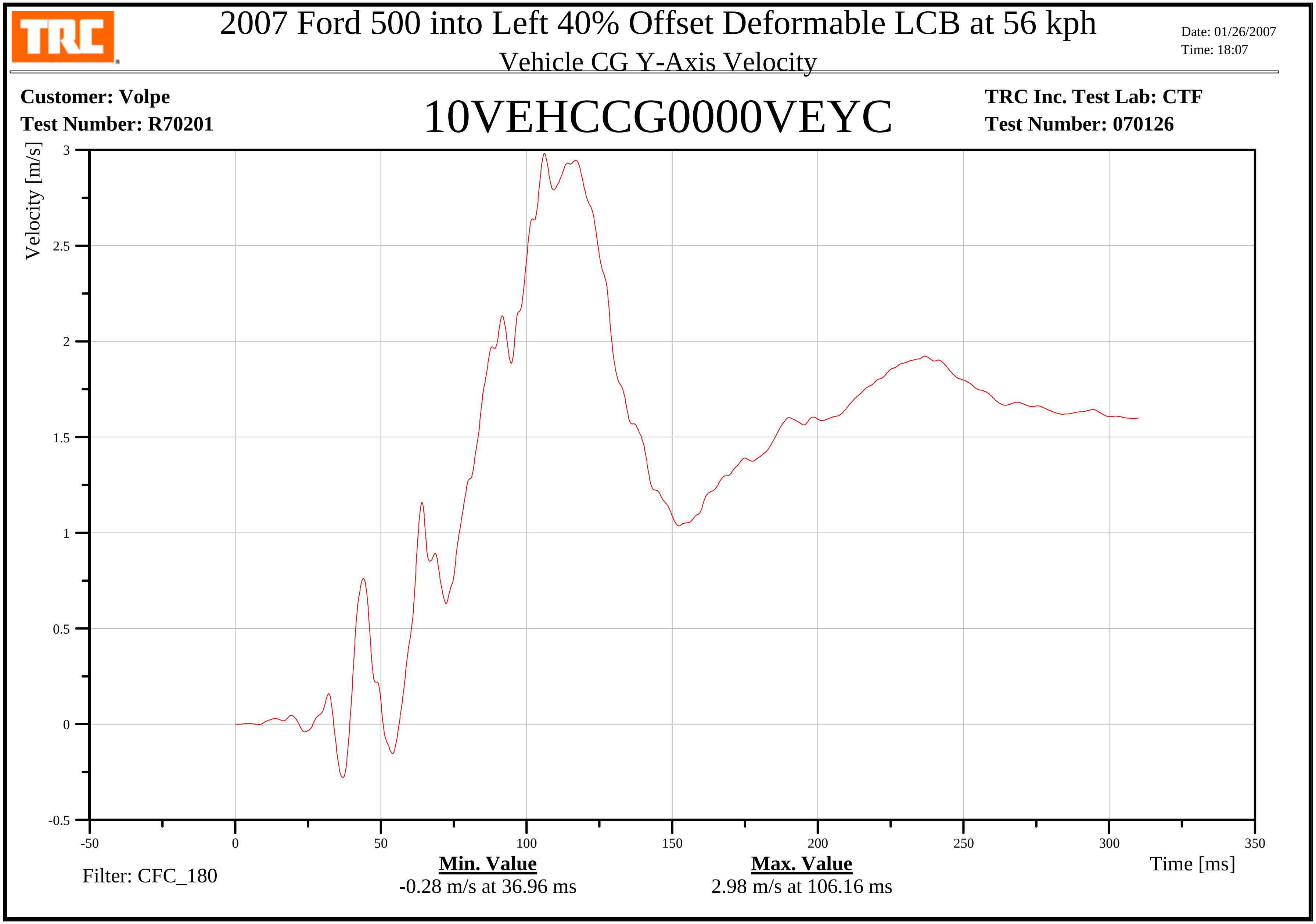


Filter: CFC_60

Min. Value
-14.04 g at 46.48 ms

Max. Value
21.66 g at 40.32 ms

070126



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Vehicle CG Y-Axis Velocity
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
10VEHCCG0000VEYC
TRC Inc. Test Lab: CTF
Test Number: 070126
Velocity [m/s]
Time [ms]
Filter: CFC_180
Min. Value
-0.28 m/s at 36.96 ms
Max. Value
2.98 m/s at 106.16 ms

B-183

070126

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

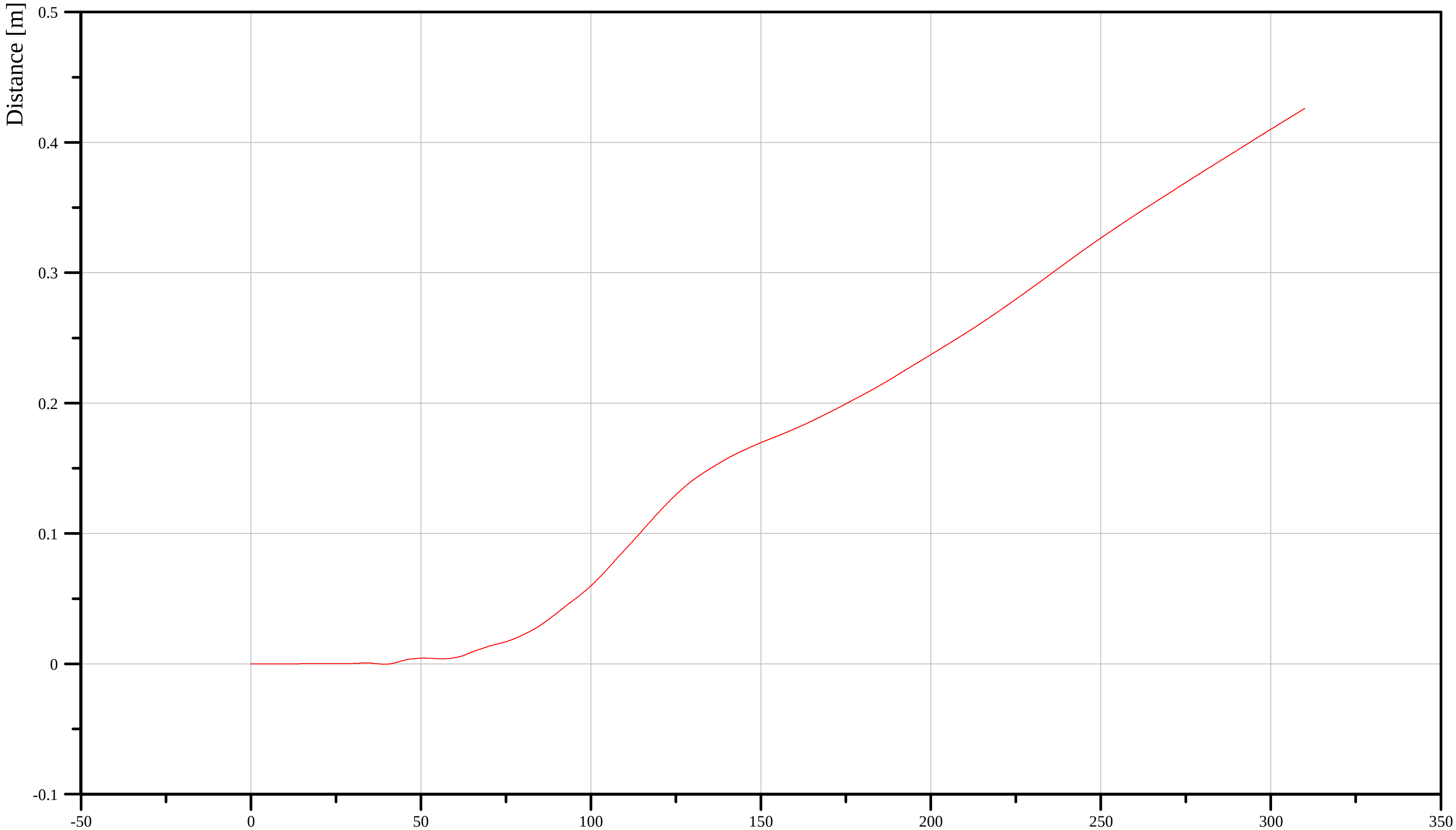
Vehicle CG Y-Axis Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
0.00 m at 39.36 ms

Max. Value
0.43 m at 310.00 ms

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

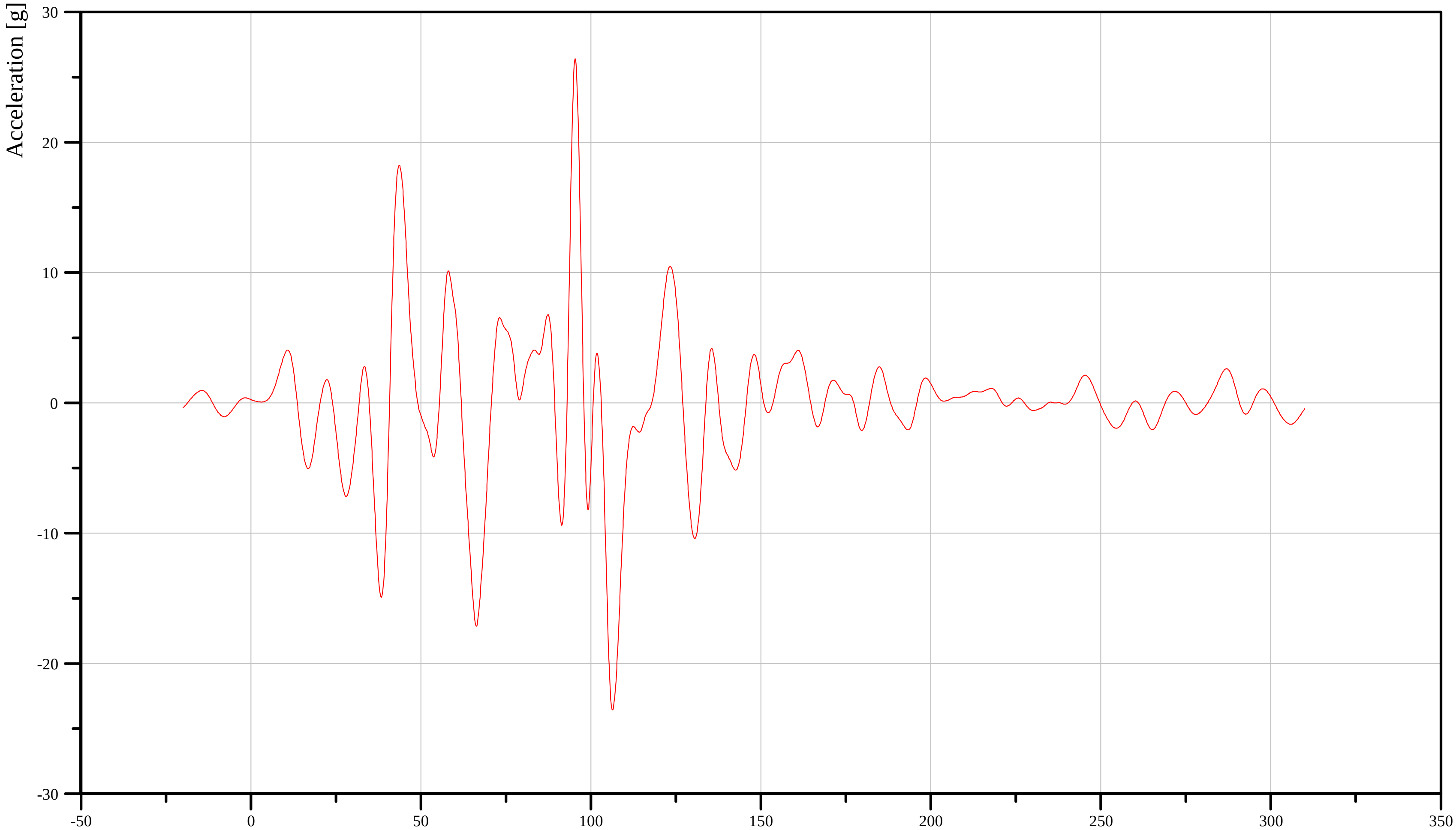
Vehicle CG Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070126

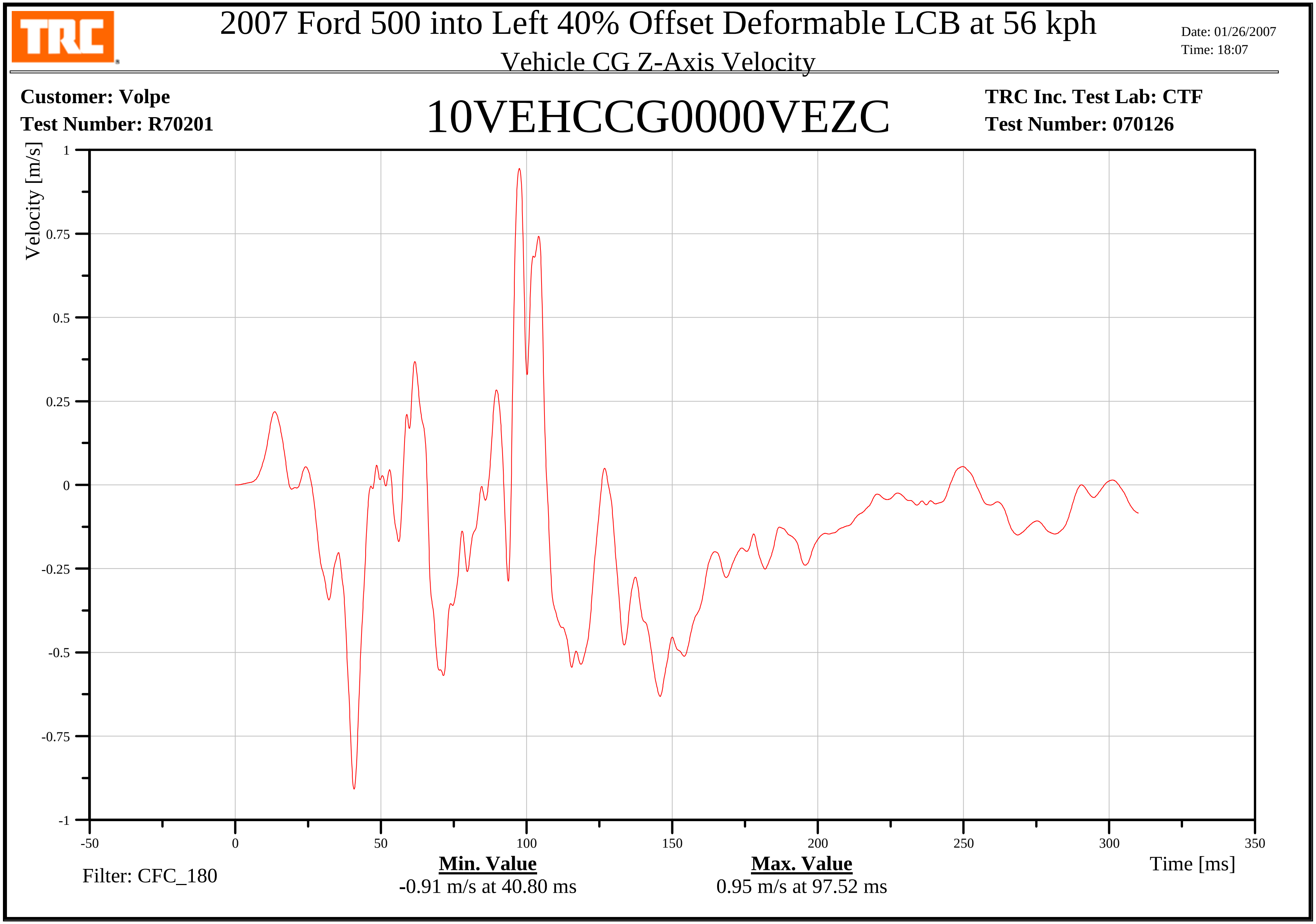


Filter: CFC_60

Min. Value
-23.56 g at 106.40 ms

Max. Value
26.41 g at 95.36 ms

070126


TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Vehicle CG Z-Axis Velocity
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
10VEHCCG0000VEZC
TRC Inc. Test Lab: CTF
Test Number: 070126
Velocity [m/s]
1
0.75
0.5
0.25
0
-0.25
-0.5
-0.75
-1
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_180
Min. Value
-0.91 m/s at 40.80 ms
Max. Value
0.95 m/s at 97.52 ms

B-186

070126

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

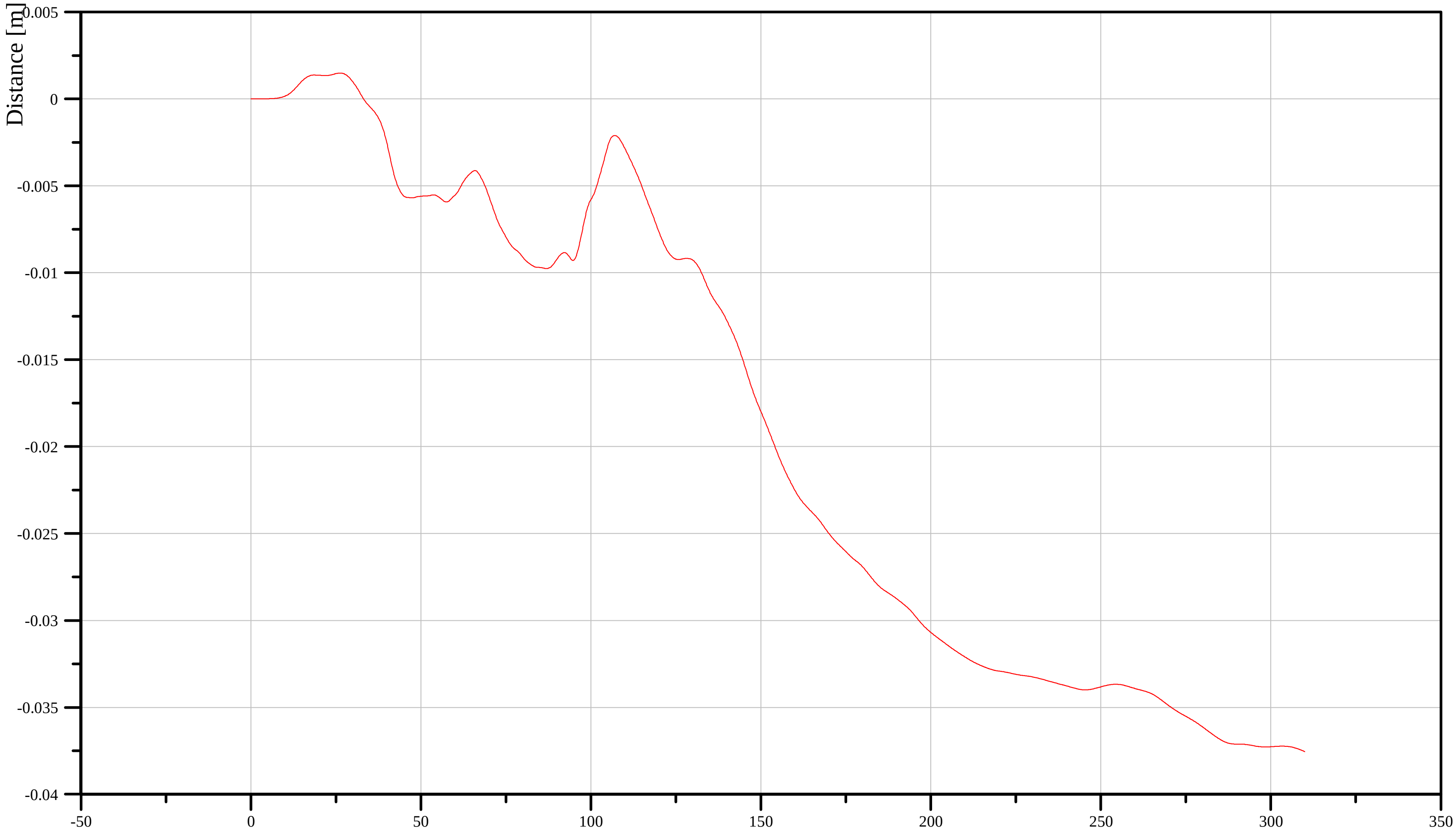
Vehicle CG Z-Axis Displacement

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000DCZC

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_180

Min. Value
-0.04 m at 310.00 ms

Max. Value
0.00 m at 26.24 ms

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

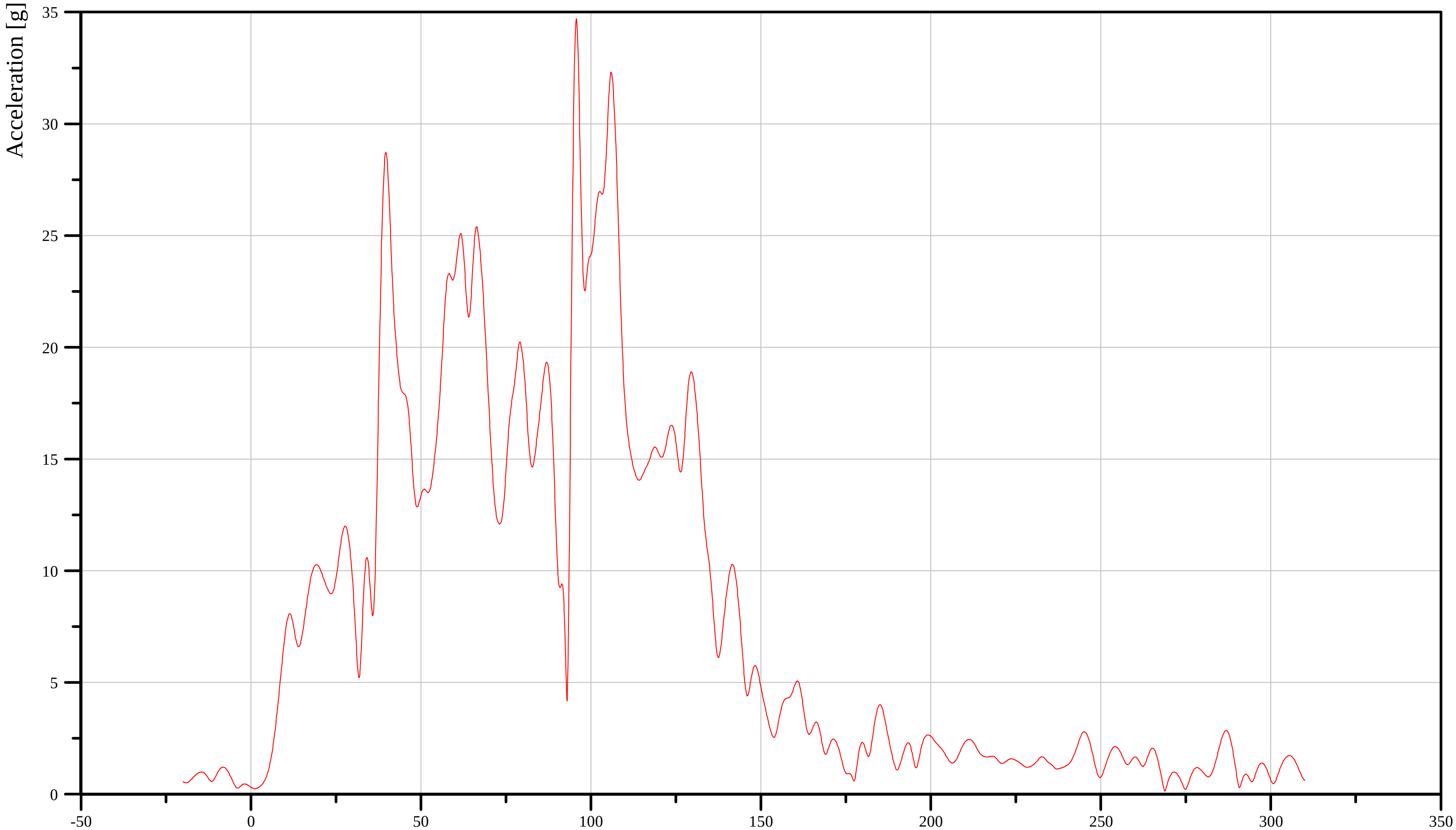
Vehicle CG Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
0.14 g at 268.80 ms

Max. Value
34.70 g at 95.76 ms

B-188

070126

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

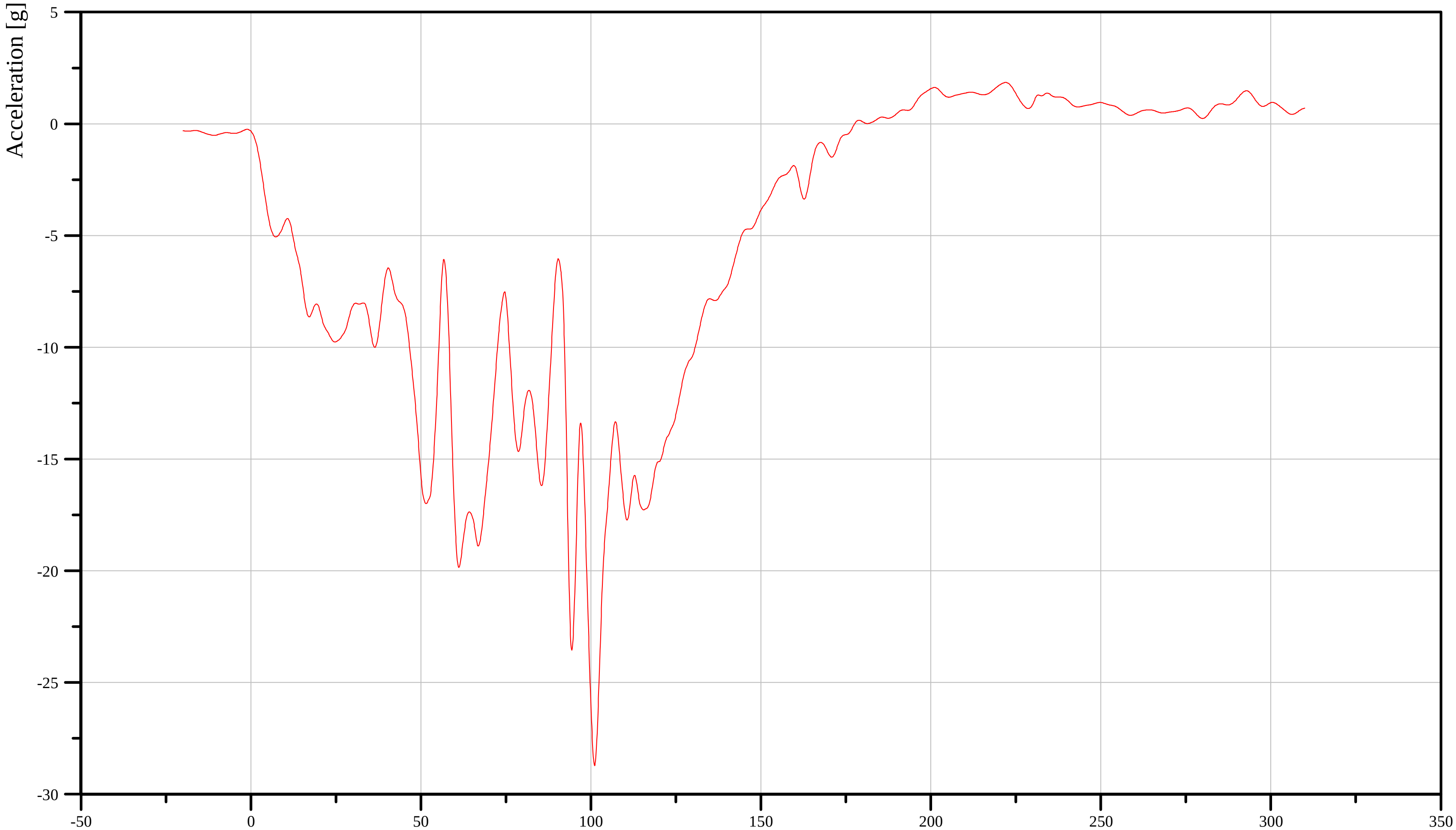
Under Accel Pedal (Centered) X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEAC000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-28.72 g at 101.12 ms

Max. Value
1.85 g at 222.00 ms

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

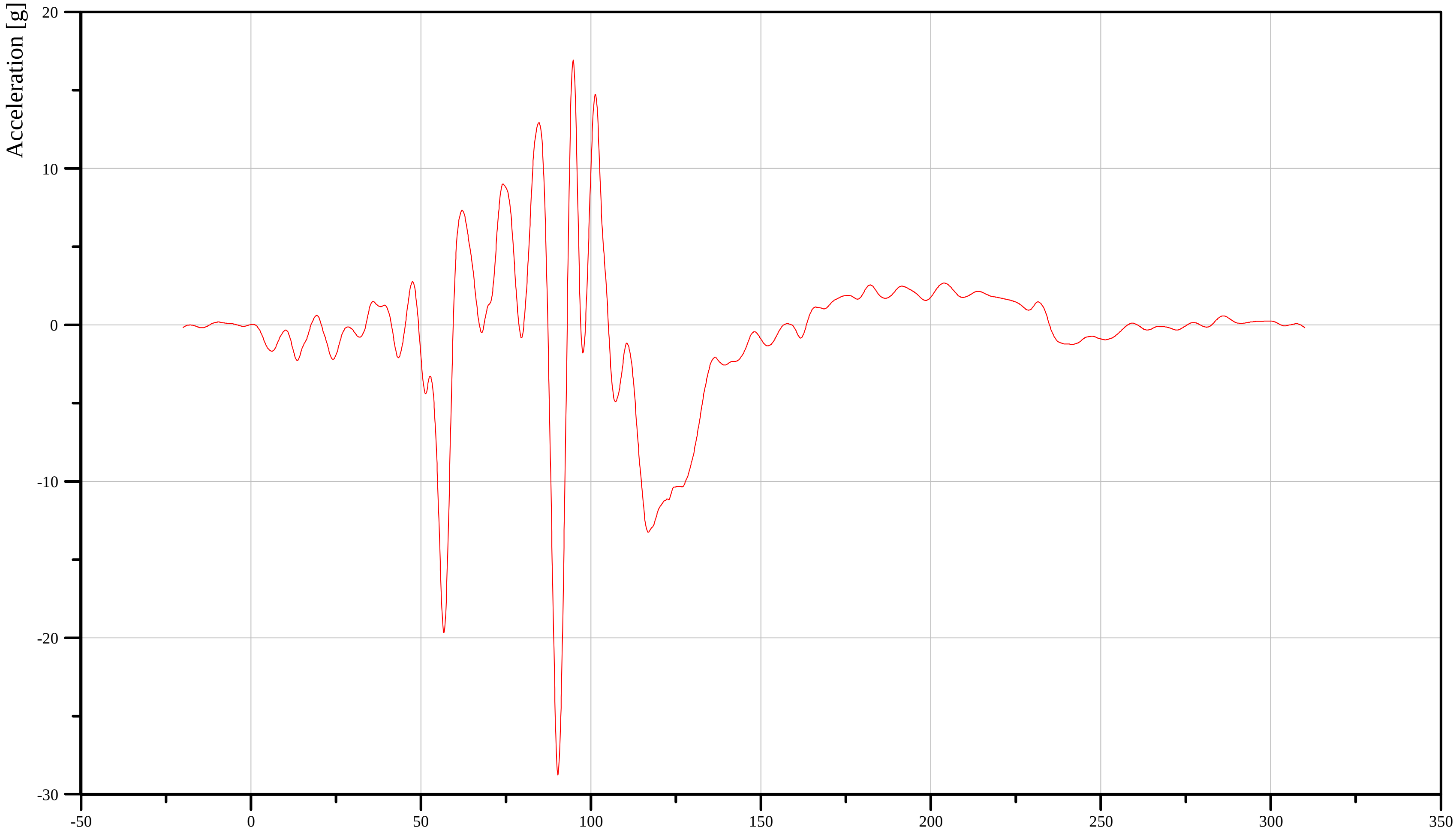
Under Accel Pedal (Centered) Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEAC000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-28.76 g at 90.32 ms

Max. Value
16.94 g at 94.80 ms

070126

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

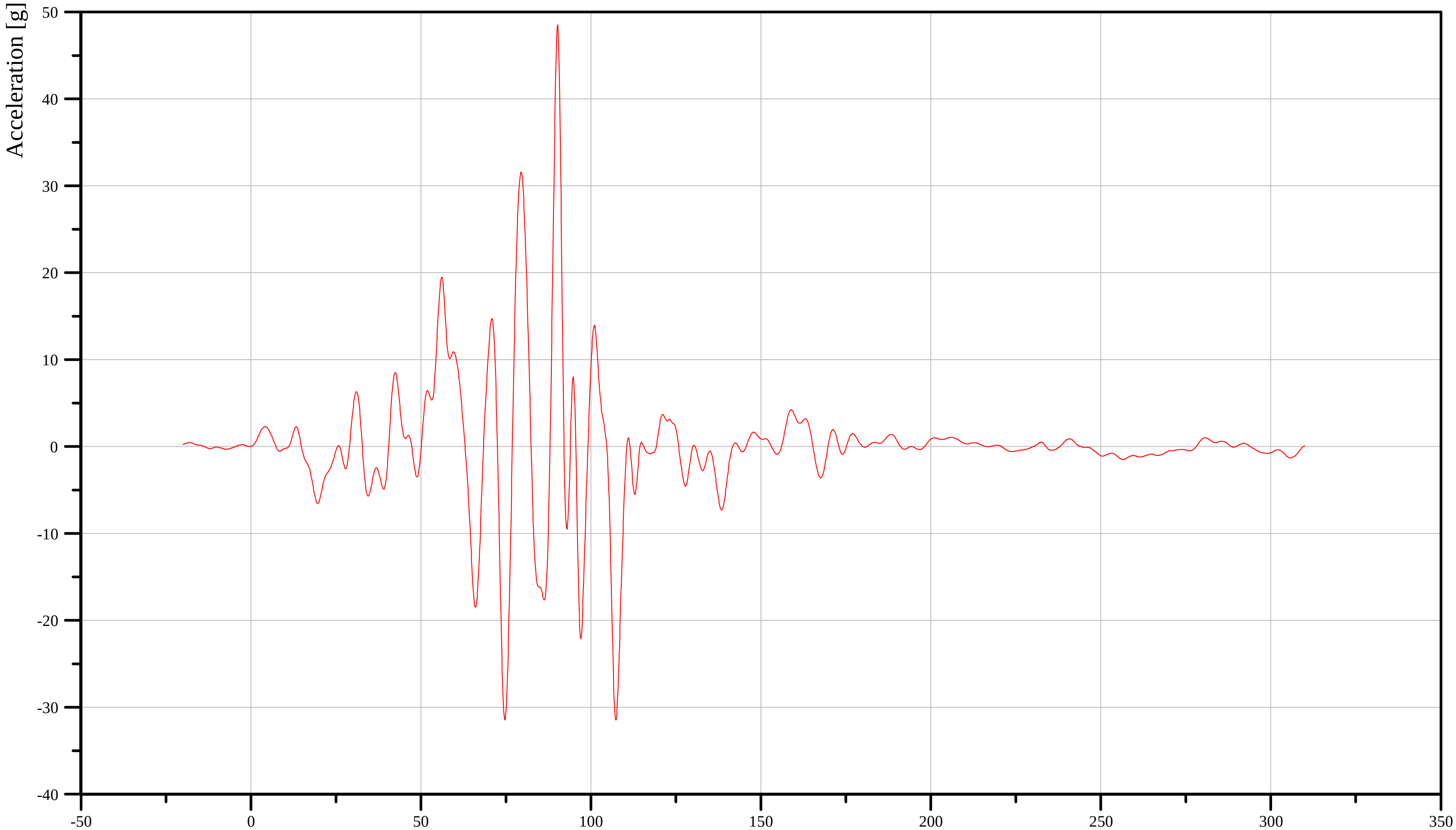
Under Accel Pedal (Centered) Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEAC000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-31.47 g at 107.36 ms

Max. Value
48.52 g at 90.24 ms

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

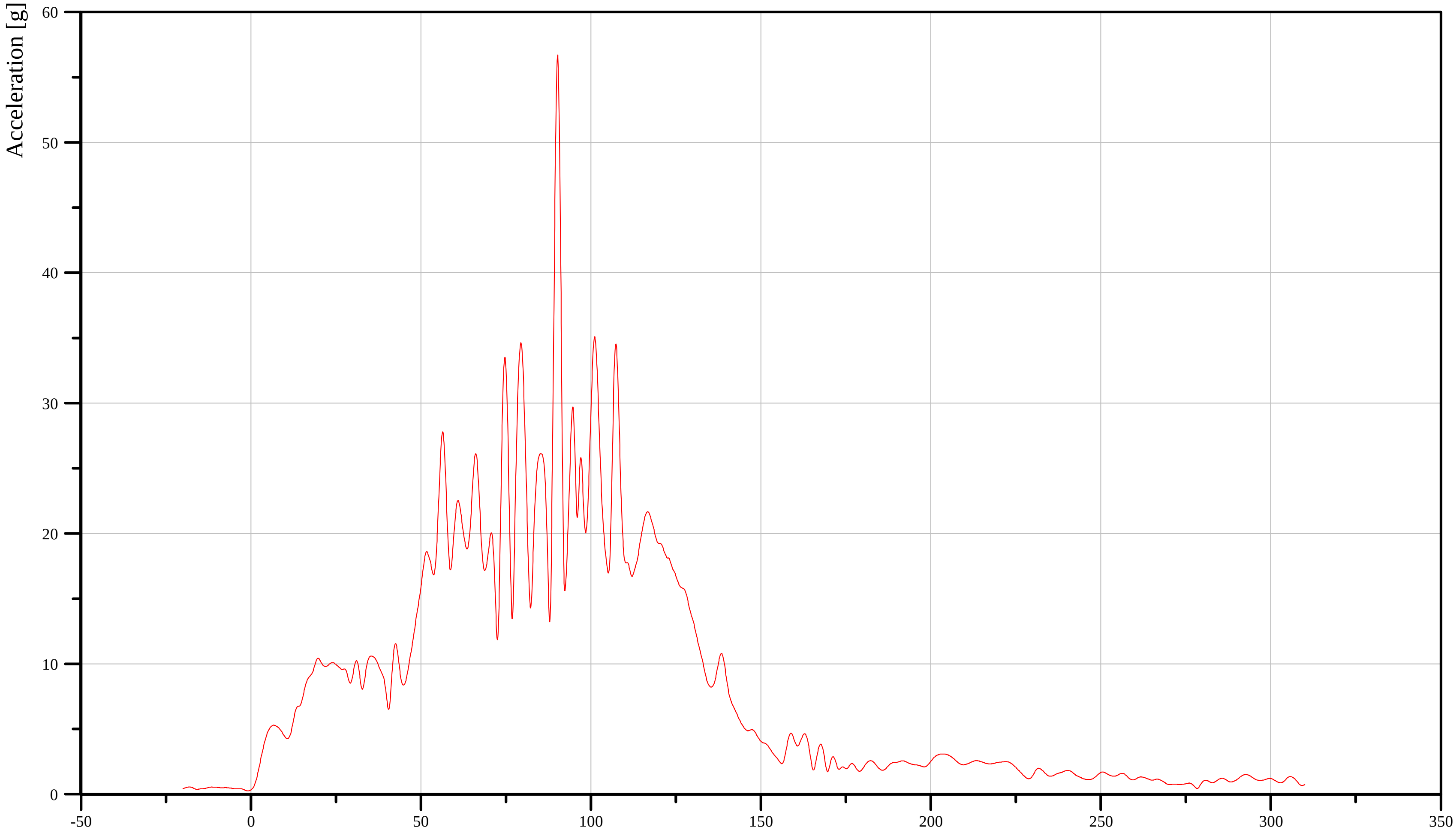
Under Accel Pedal (Centered) Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEAC000000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
0.26 g at -0.88 ms

Max. Value
56.72 g at 90.24 ms

070126

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

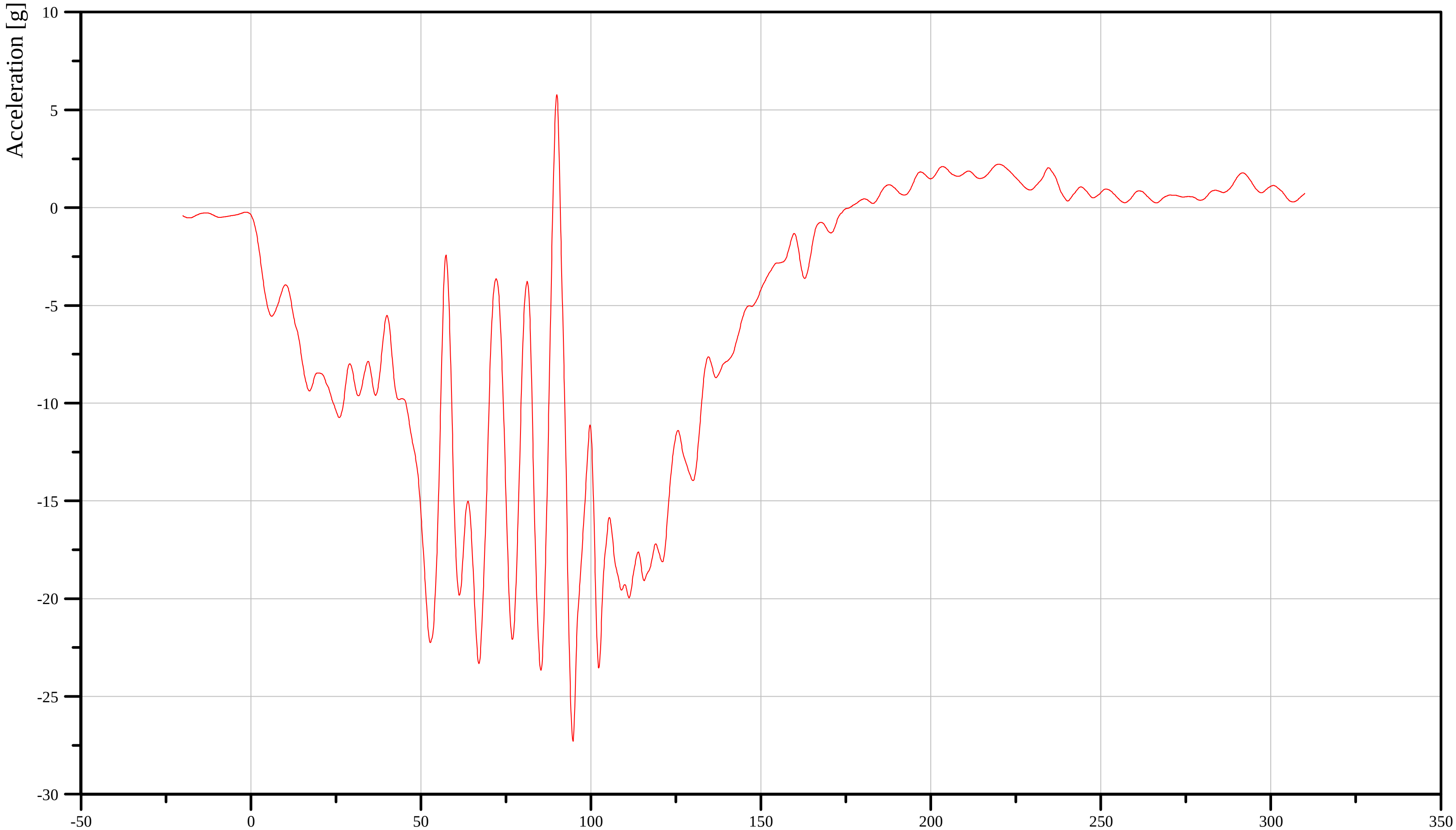
Under Brake Pedal (Centered) X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEBR000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-27.29 g at 94.72 ms

Max. Value
5.78 g at 90.00 ms

B-193

070126

TRC

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

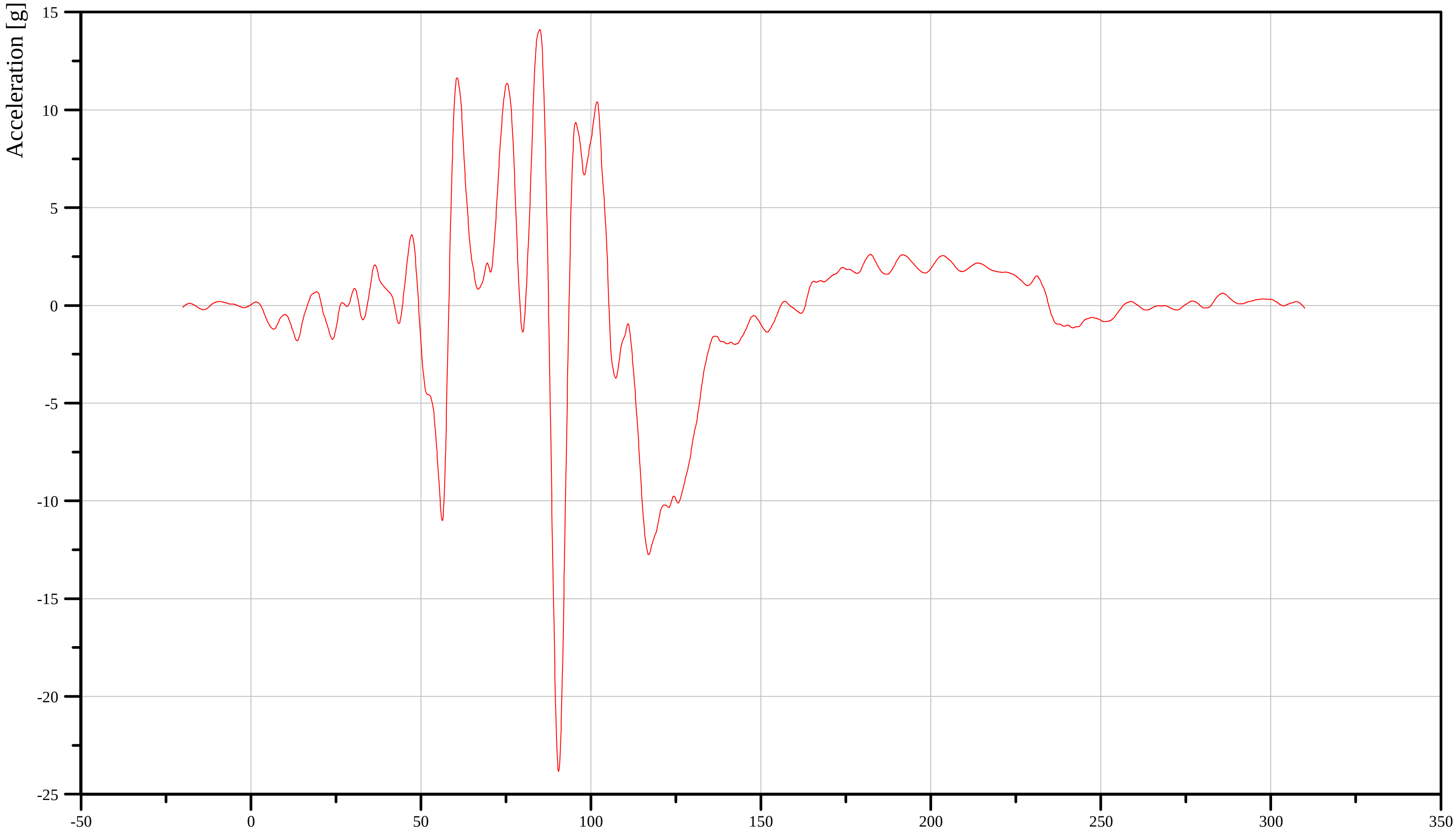
Under Brake Pedal (Centered) Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEBR000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-23.83 g at 90.48 ms

Max. Value
14.11 g at 84.96 ms

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

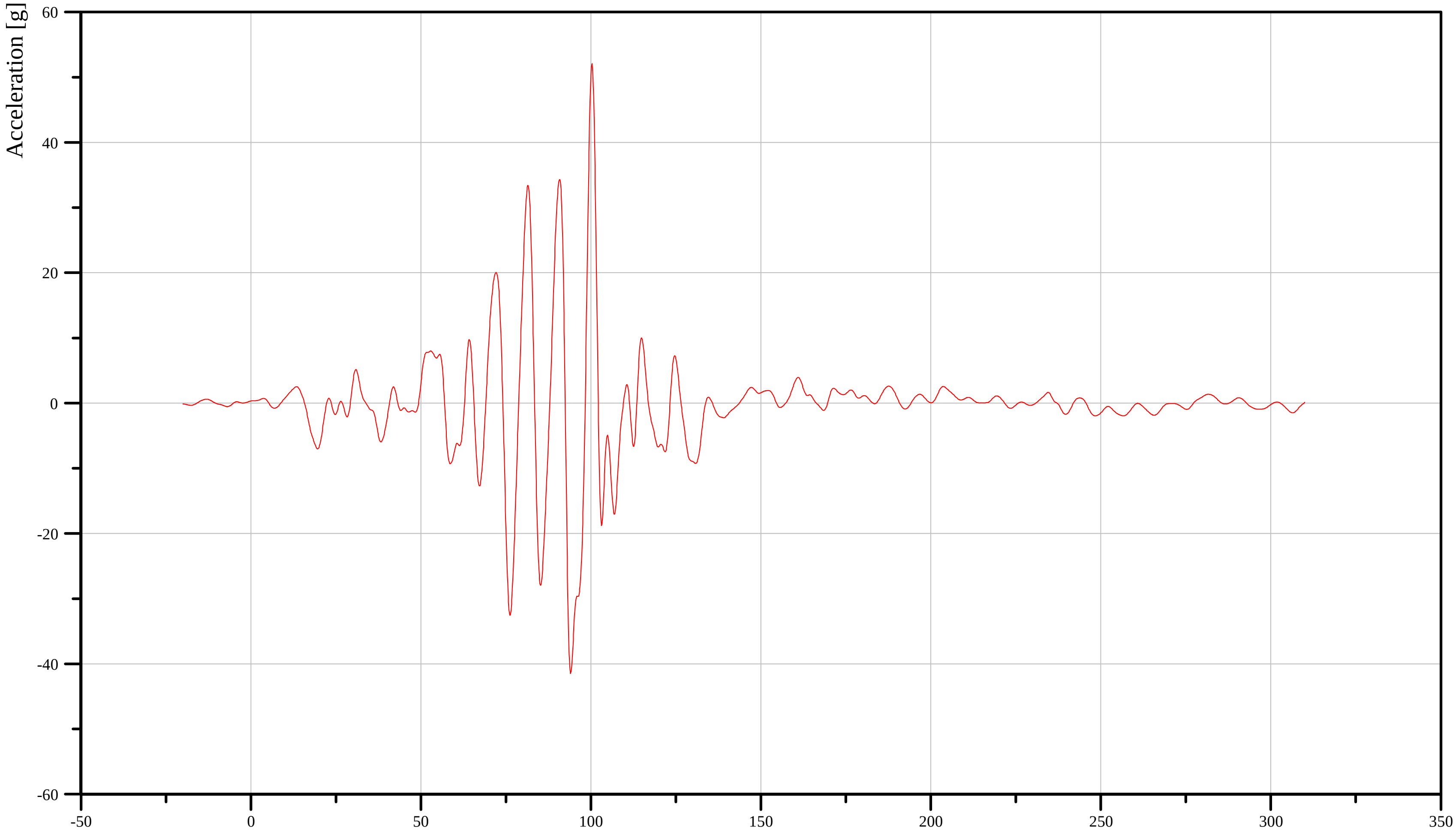
Under Brake Pedal (Centered) Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEBR000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-41.45 g at 94.00 ms

Max. Value
52.09 g at 100.32 ms

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

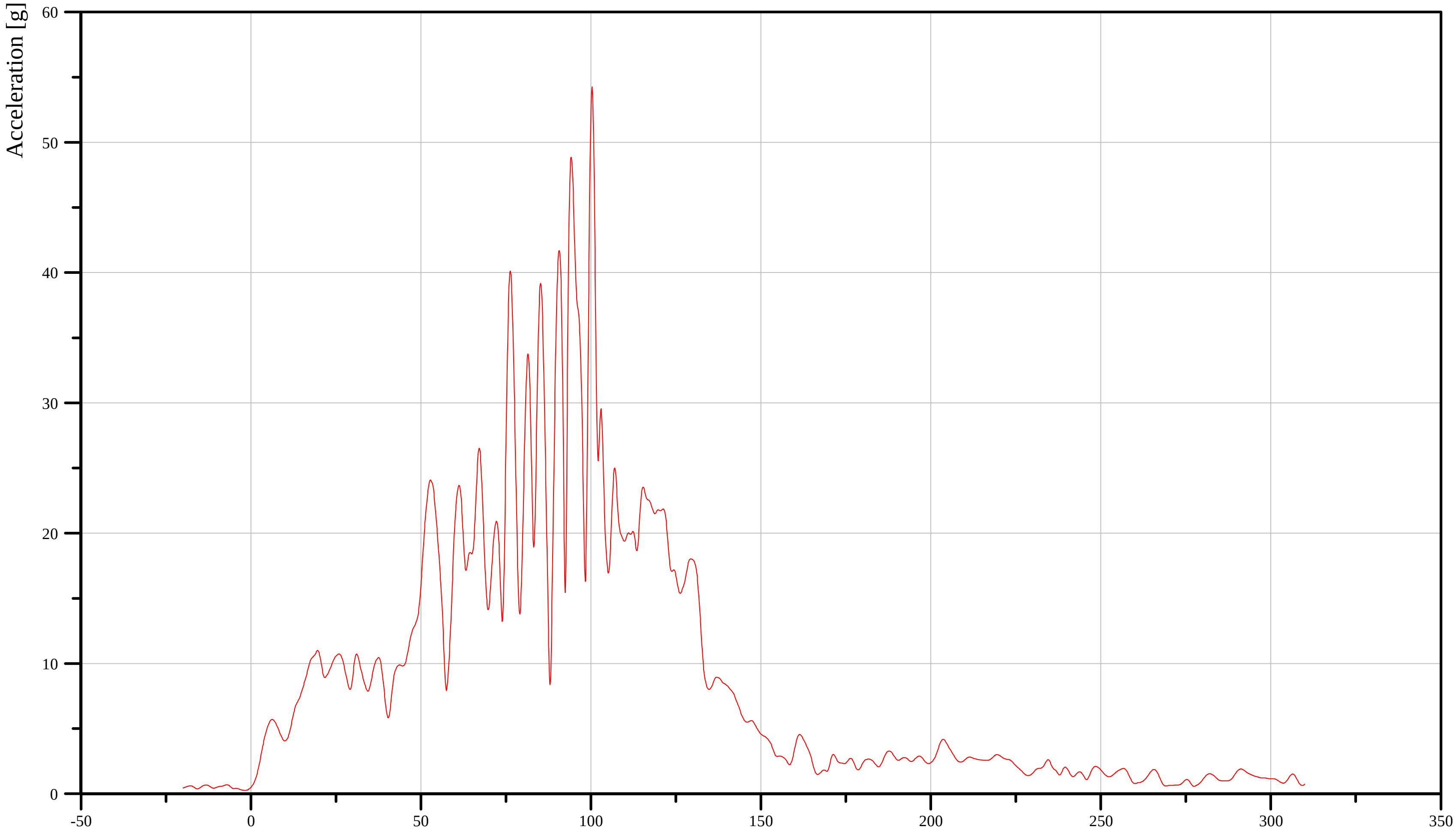
Under Brake Pedal (Centered) Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11PEBR000000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
0.27 g at -1.68 ms

Max. Value
54.27 g at 100.32 ms

B-196

070126

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

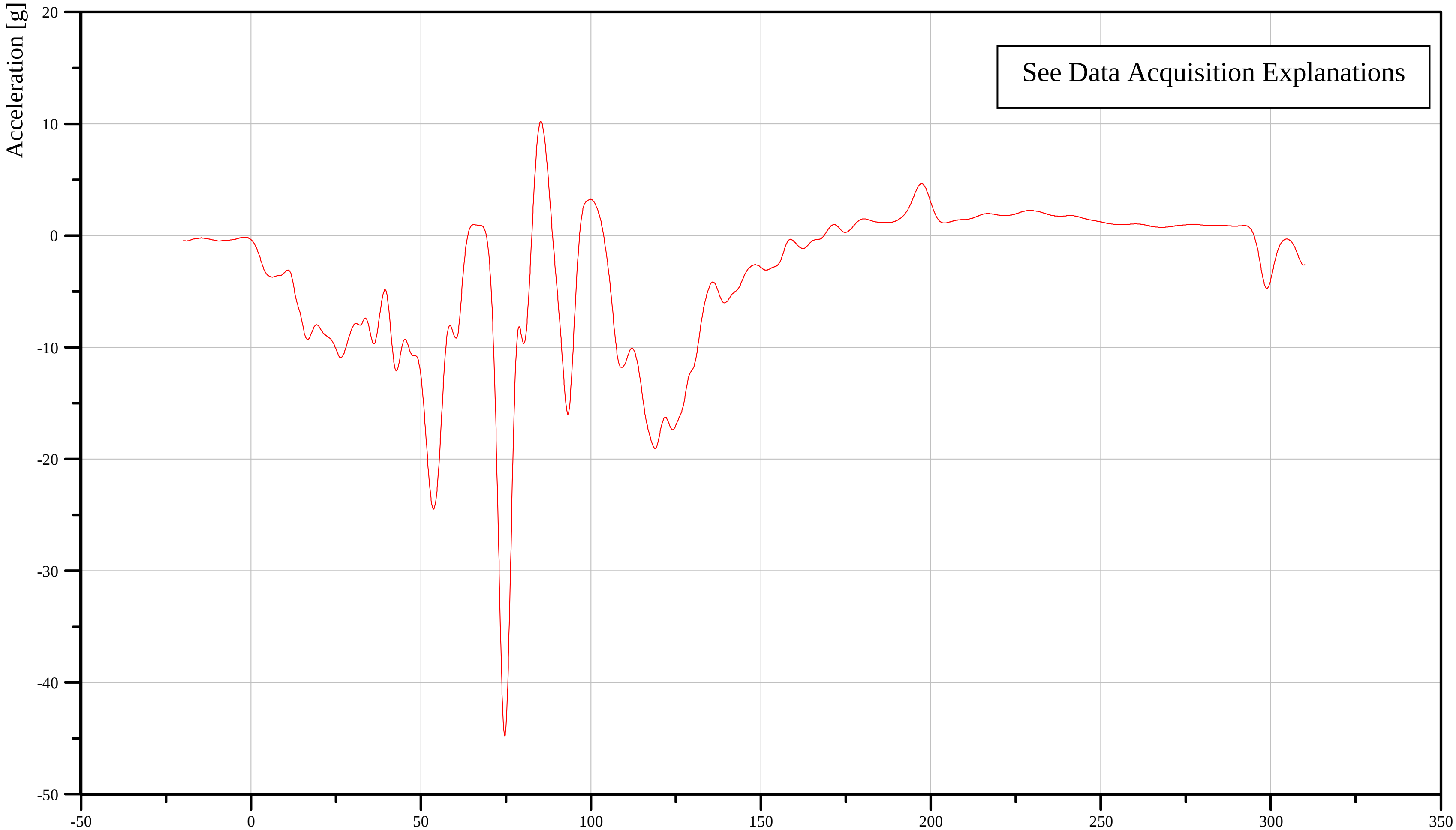
Outside Footrest X-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11VEHC000001ACXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-44.77 g at 74.72 ms

Max. Value
10.21 g at 85.28 ms

B-197

070126

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

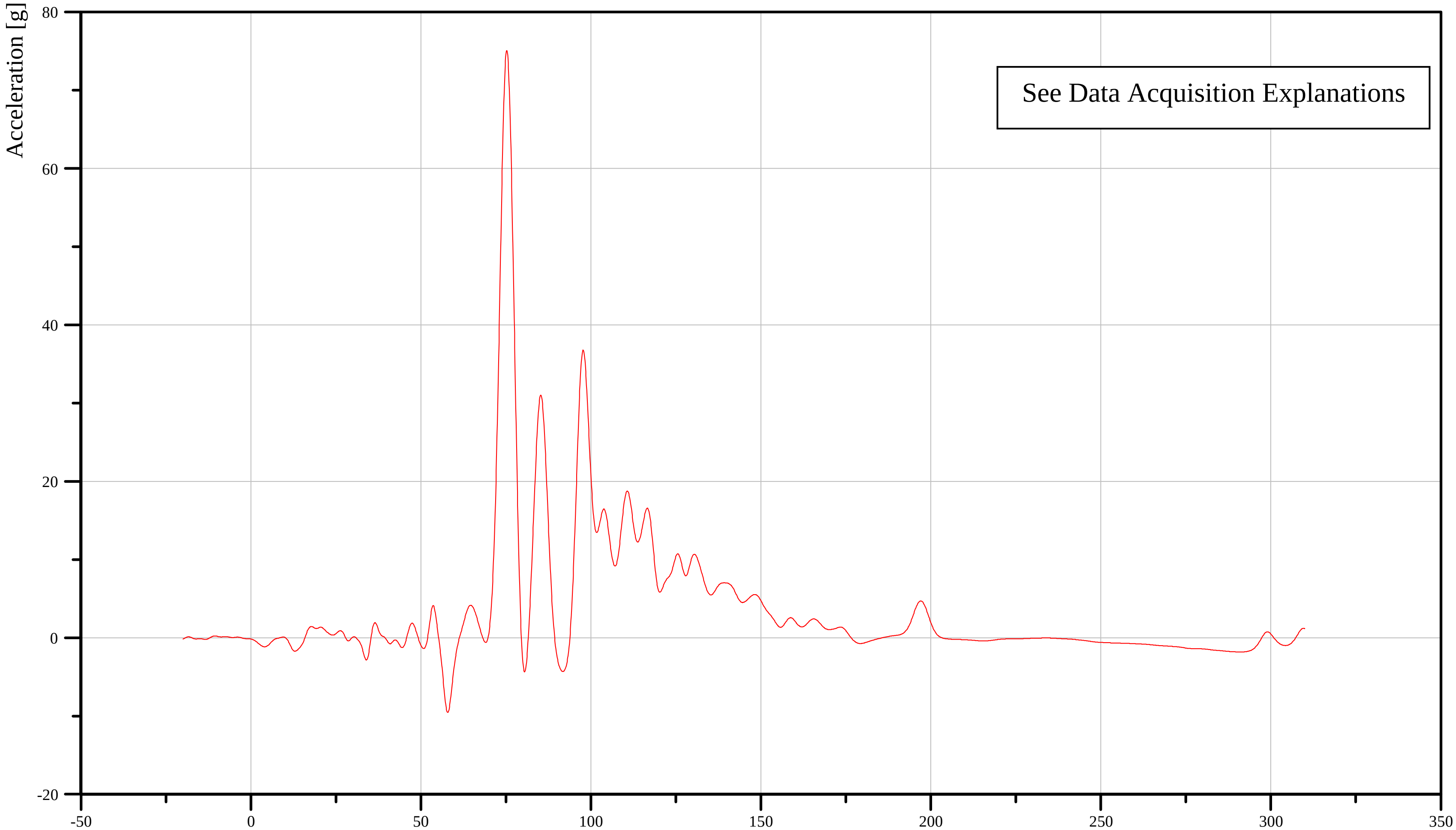
Outside Footrest Y-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11VEHC000001ACYD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-9.53 g at 57.92 ms

Max. Value
75.11 g at 75.28 ms

070126

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

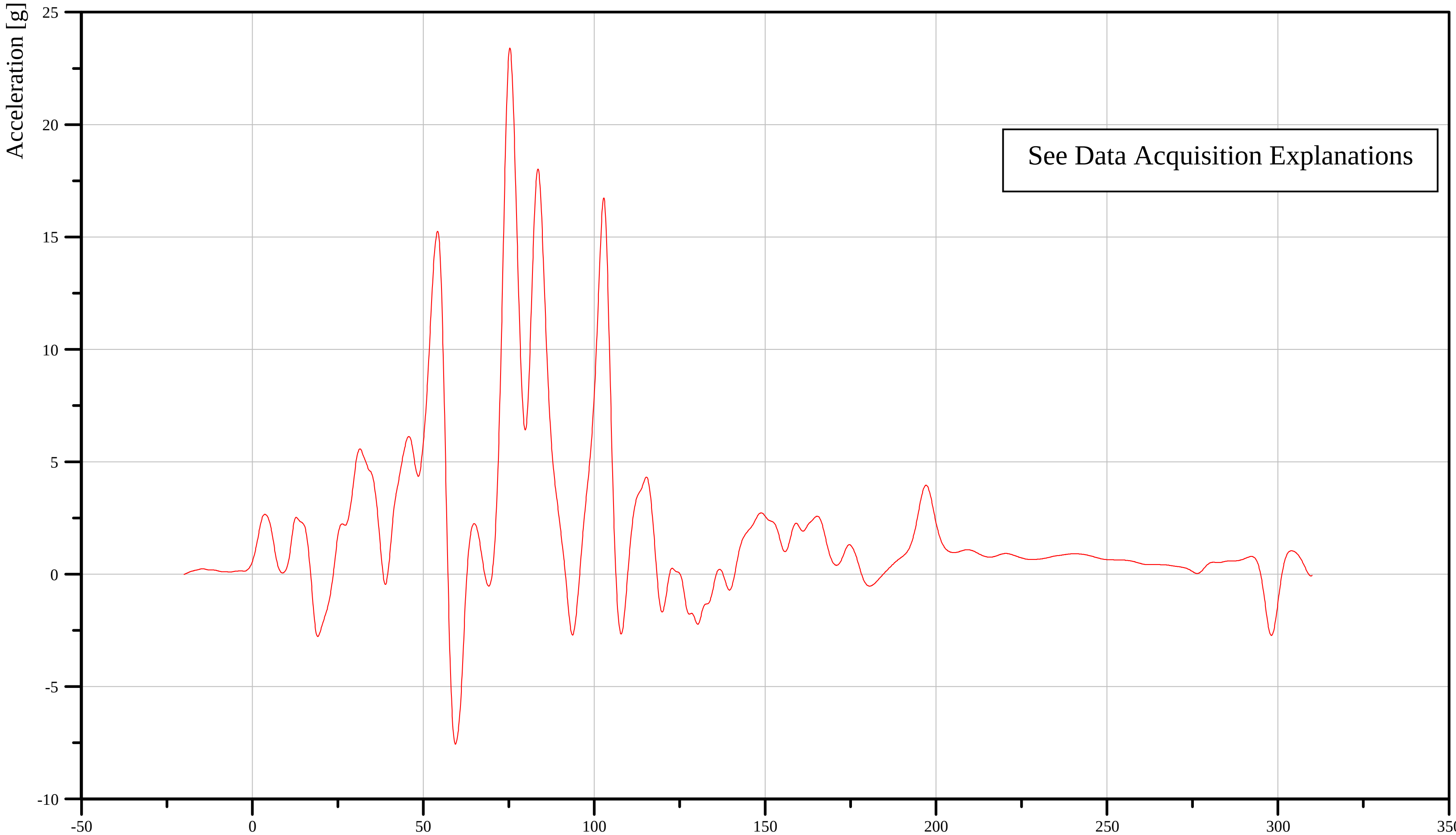
Outside Footrest Z-Axis Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11VEHC000001ACZD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-7.56 g at 59.44 ms

Max. Value
23.41 g at 75.36 ms

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

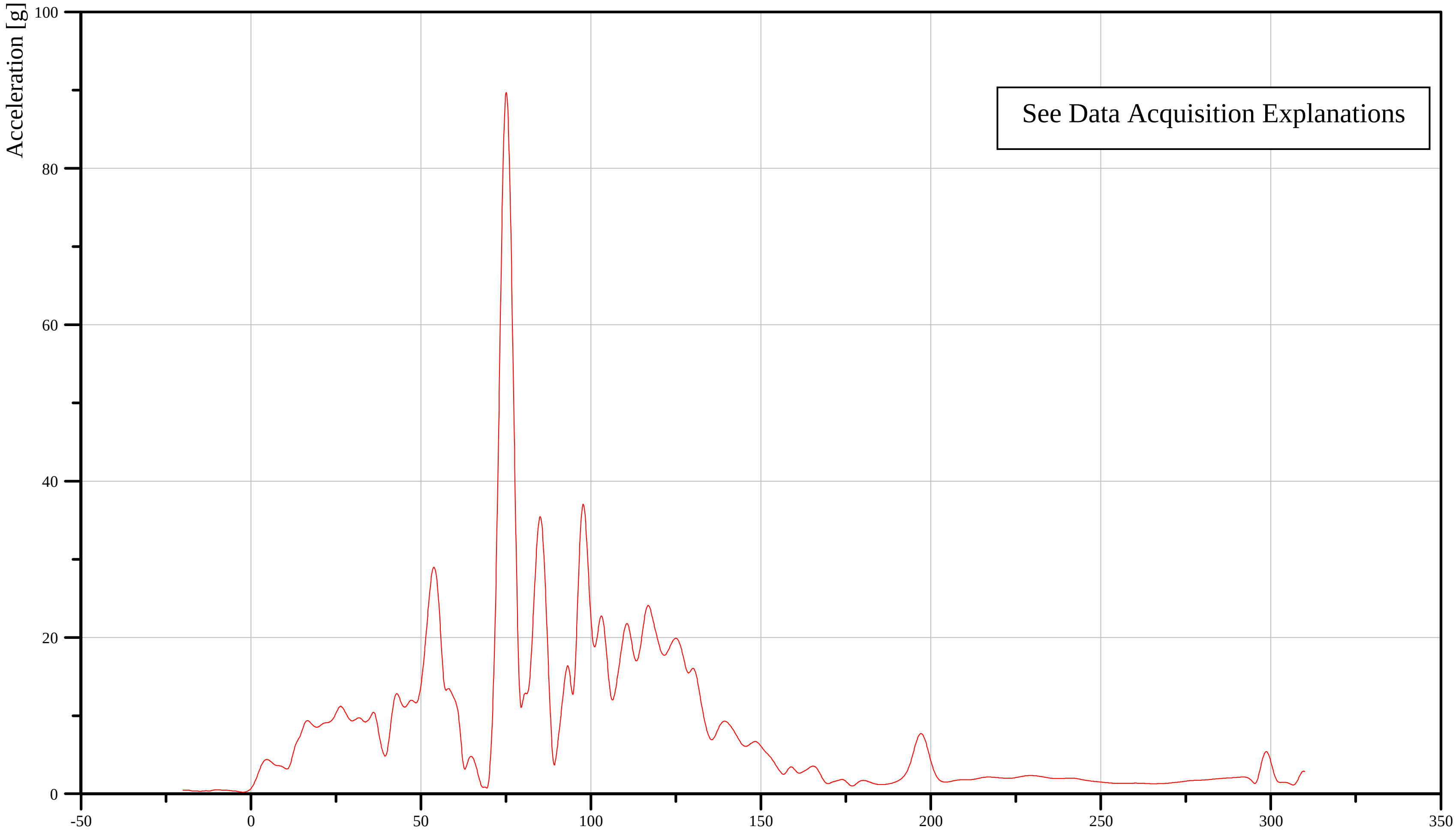
Outside Footrest Resultant Acceleration

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11VEHC000001ACRD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
0.21 g at -2.32 ms

Max. Value
89.72 g at 75.12 ms

B-200

070126

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

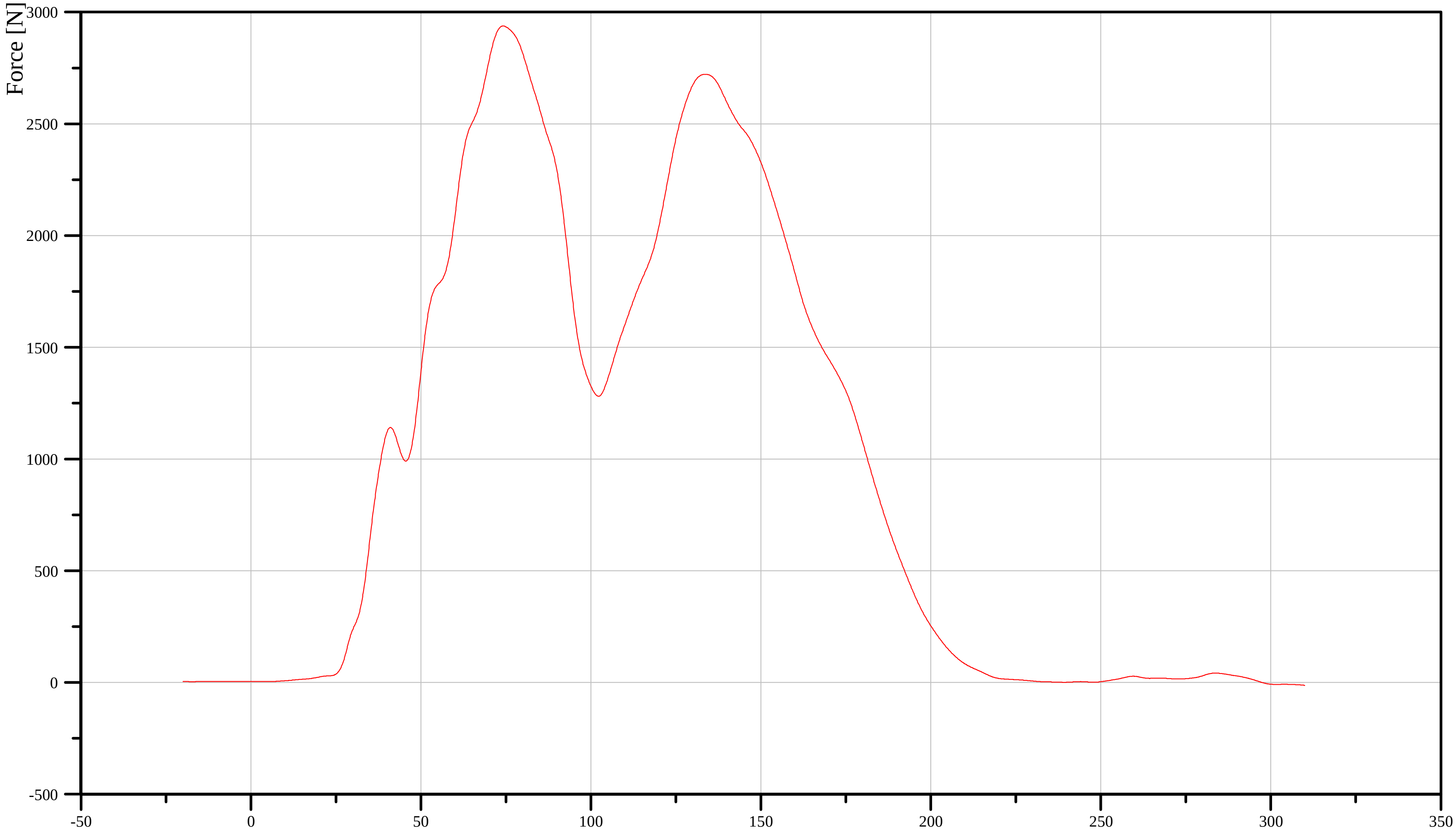
Driver Lap Belt Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11SEBE0000B5FOOA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-12.71 N at 310.00 ms

Max. Value
2,937.70 N at 74.16 ms

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

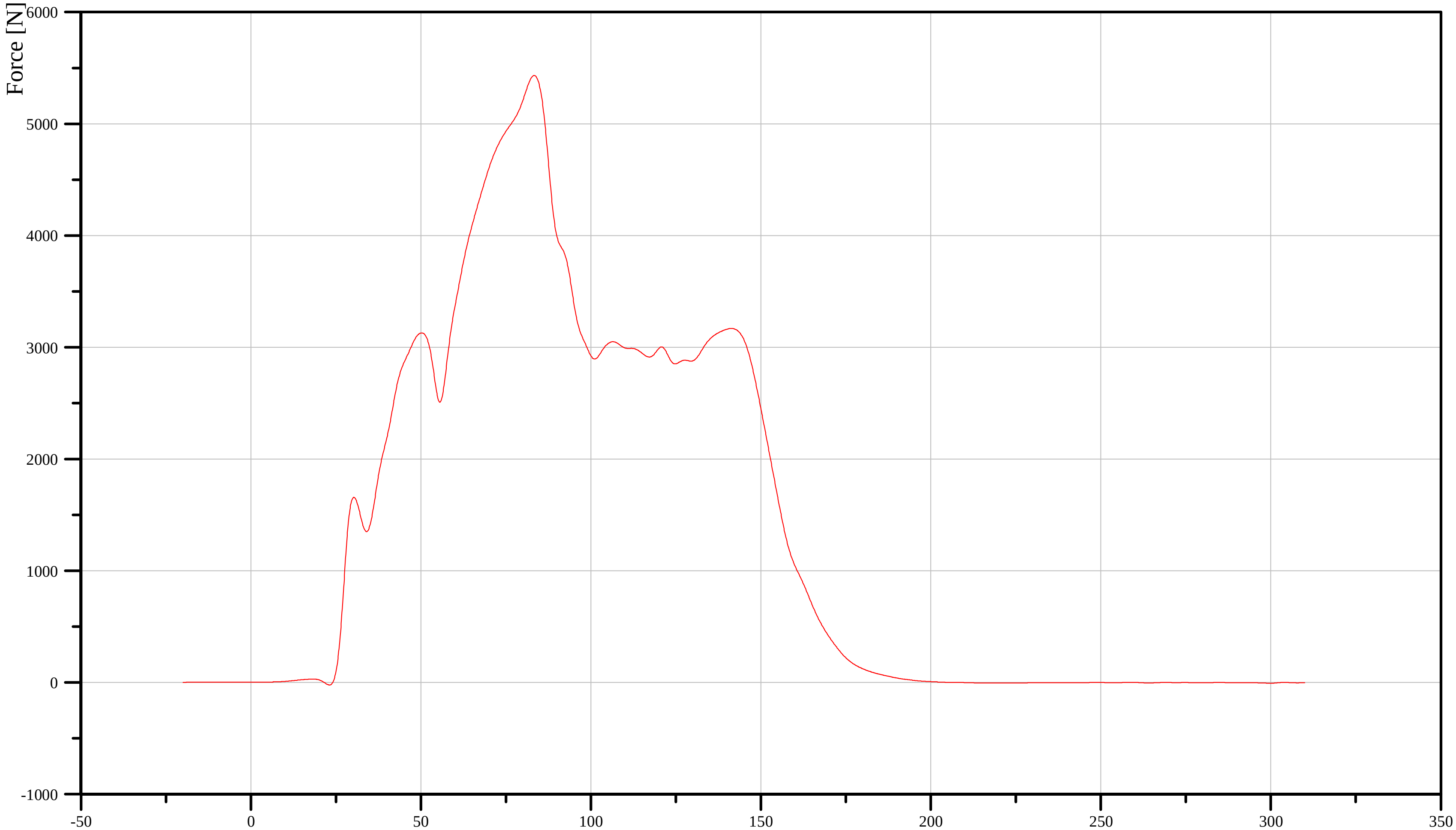
Driver Shoulder Belt Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11SEBE0000B3FOOA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-22.30 N at 23.12 ms

Max. Value
5,432.58 N at 83.36 ms

B-202

070126

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

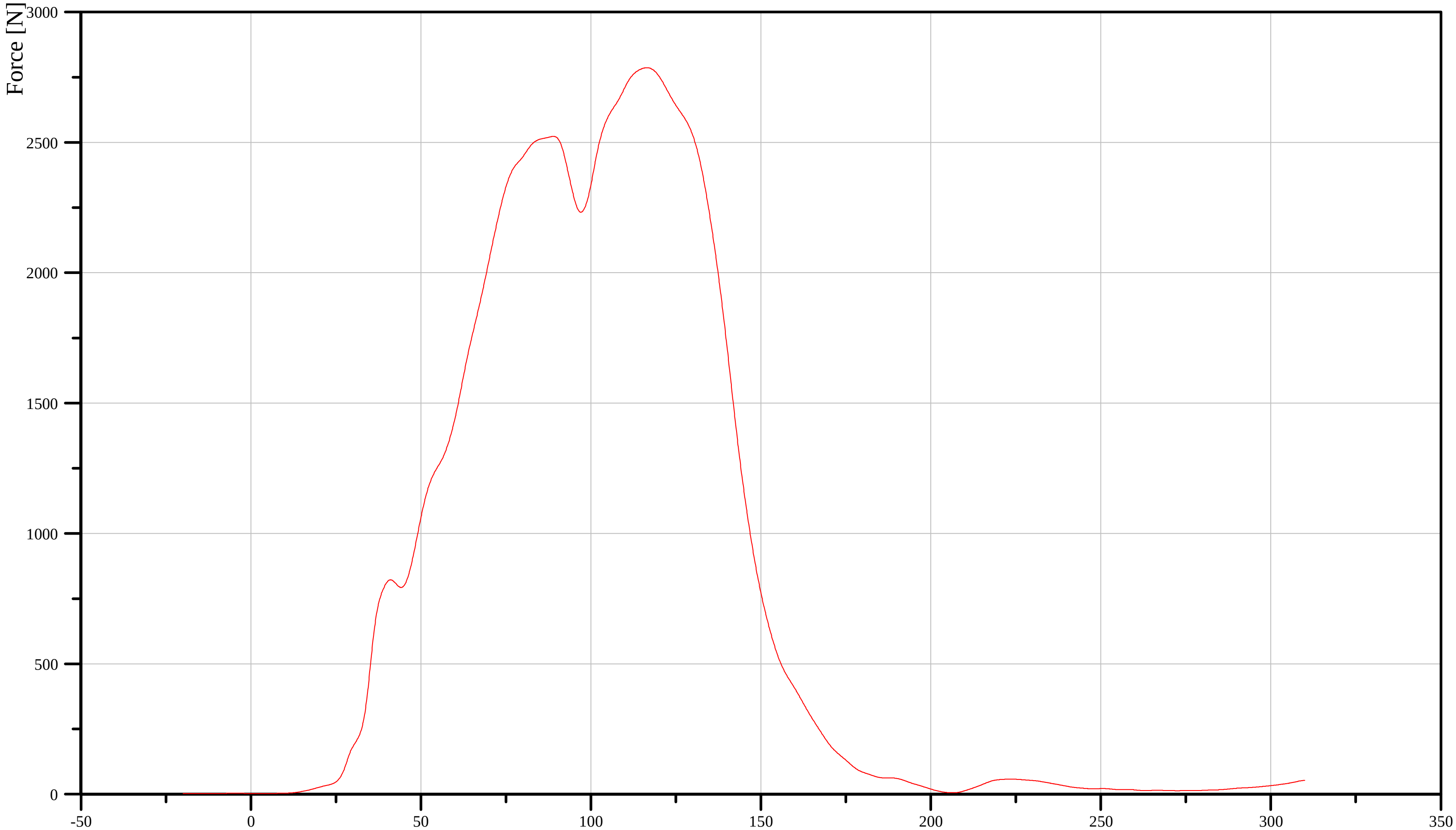
Passenger Lap Belt Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13SEBE0000B5FOOA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
2.98 N at -20.00 ms

Max. Value
2,786.83 N at 116.48 ms

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

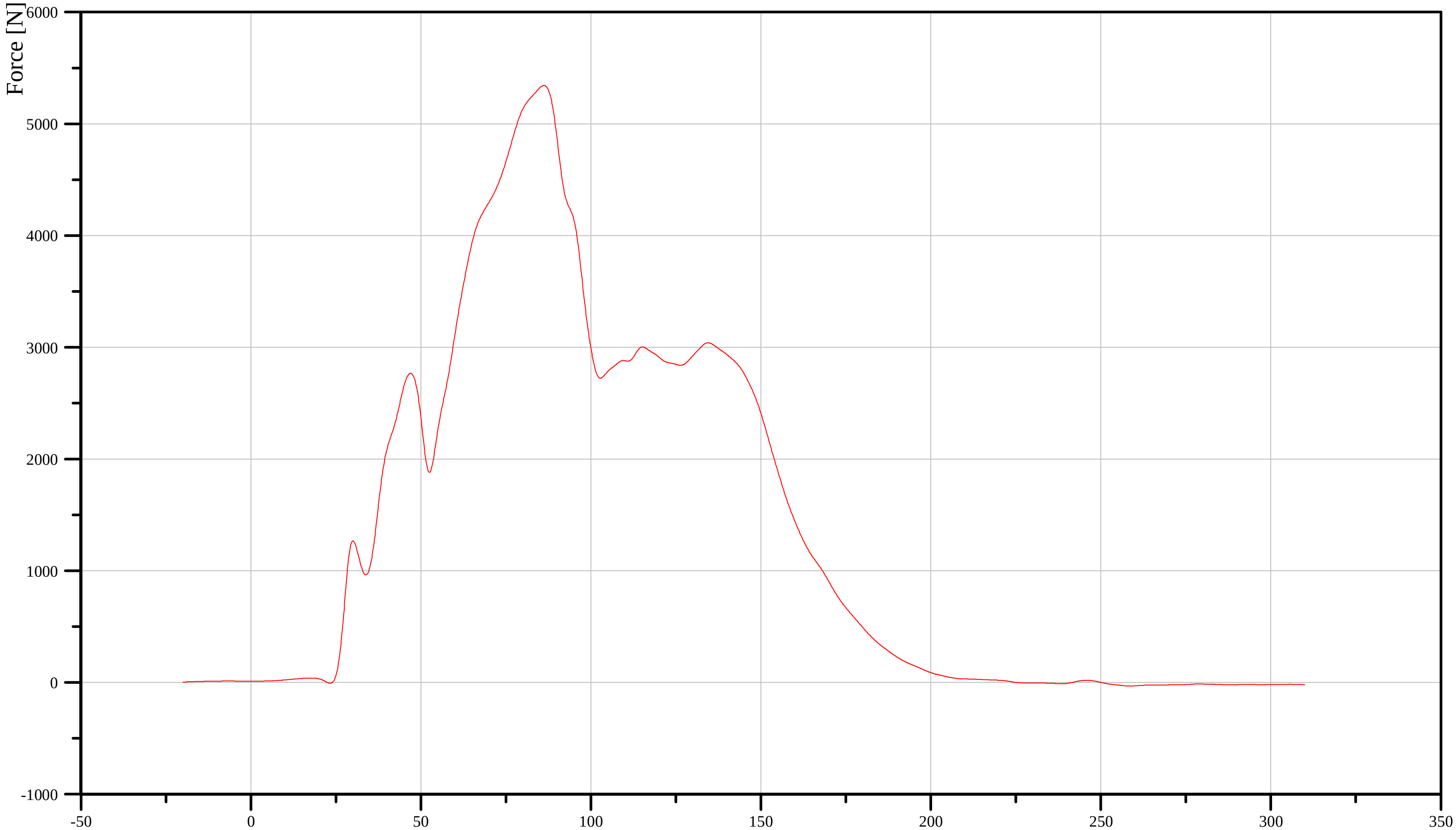
Passenger Shoulder Belt Force

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13SEBE0000B3FOOA

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-31.06 N at 258.48 ms

Max. Value
5,342.95 N at 86.16 ms

B-204

070126

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

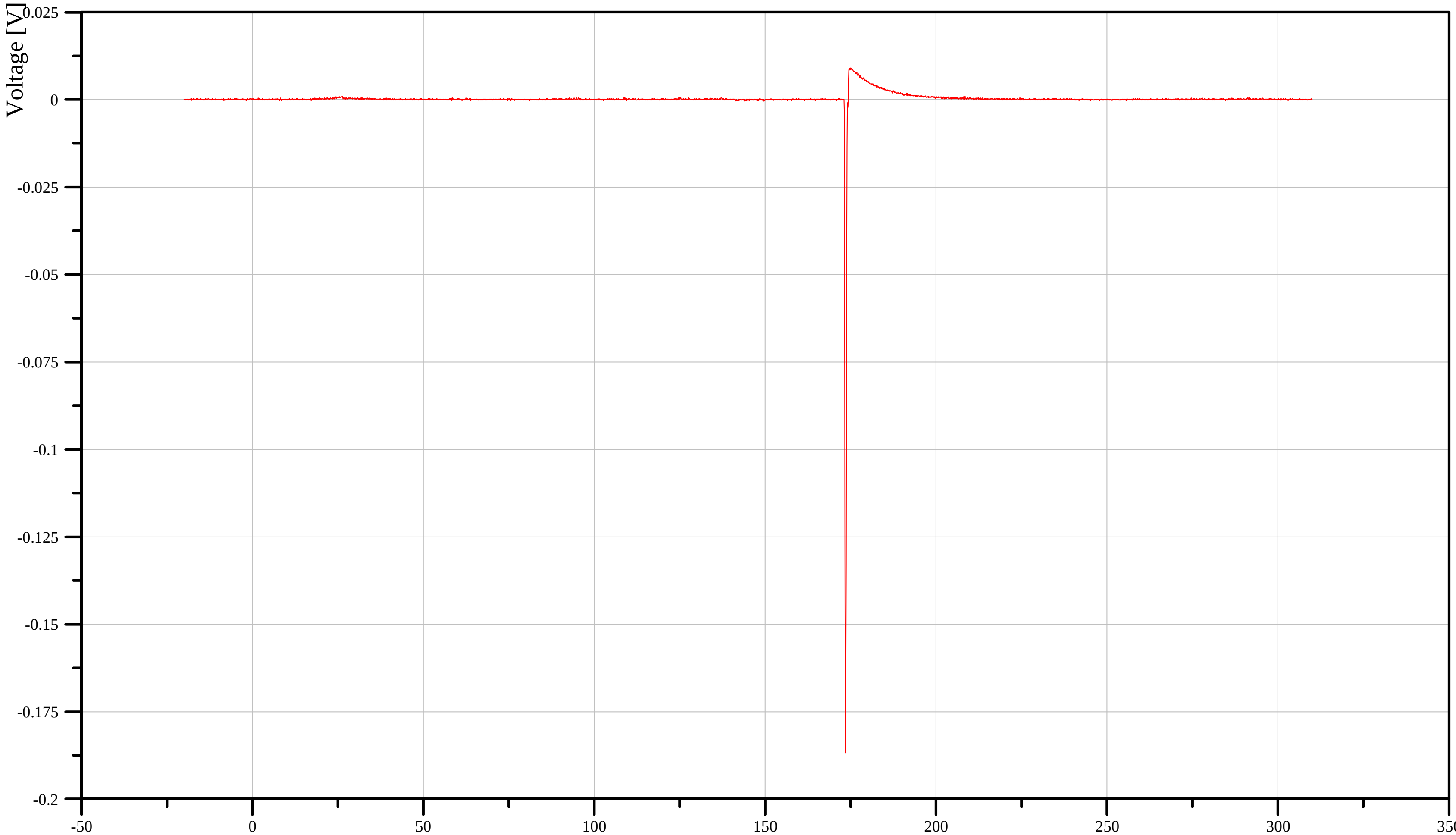
Driver Front Airbag 1 Inductor

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11AIRBFR0100EV0A

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-0.19 V at 173.52 ms

Max. Value
0.01 V at 174.56 ms

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

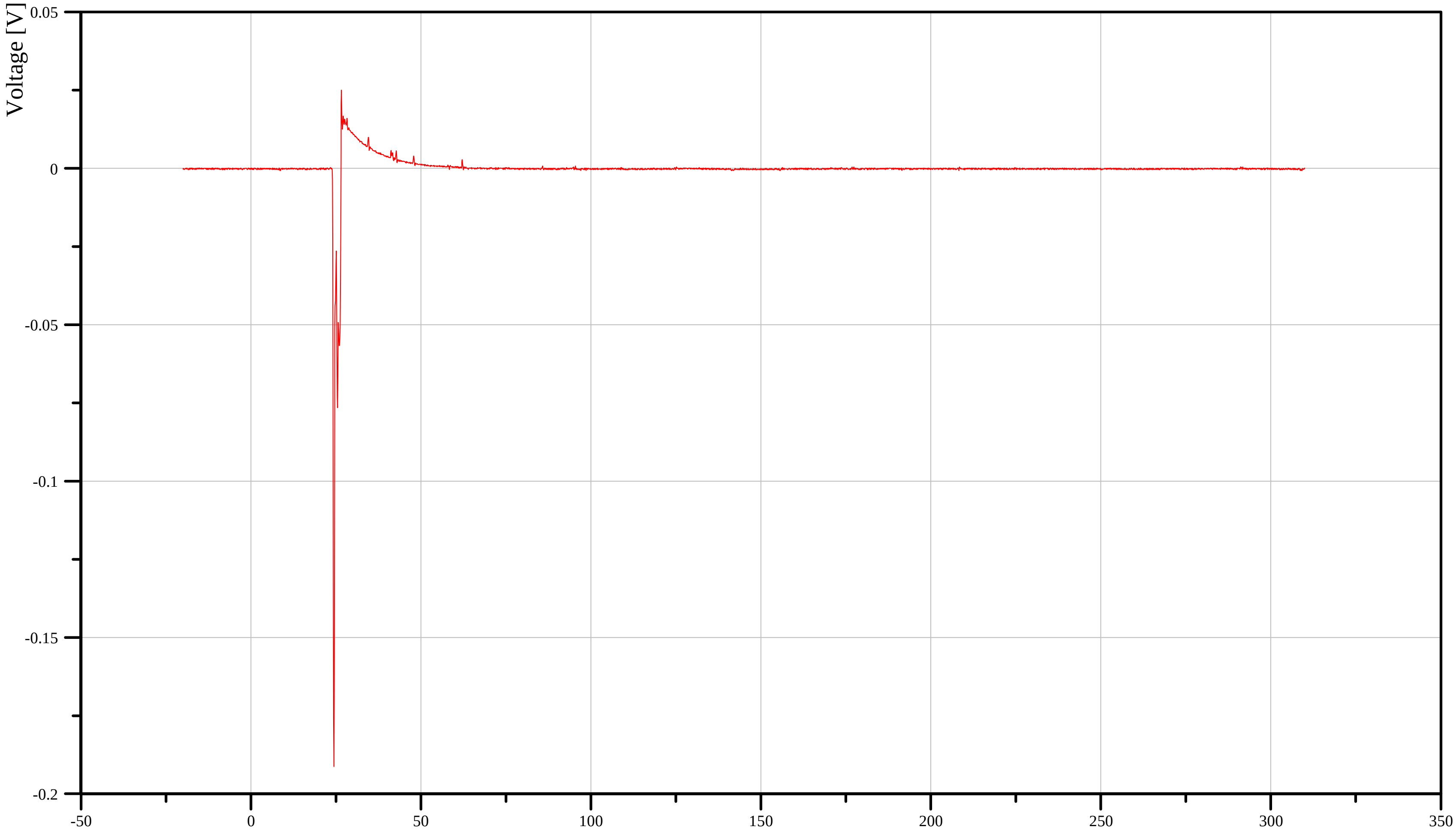
Driver Front Airbag 2 Inductor

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11AIRBFR0200EV0A

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-0.19 V at 24.40 ms

Max. Value
0.02 V at 26.64 ms

B-206

070126

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

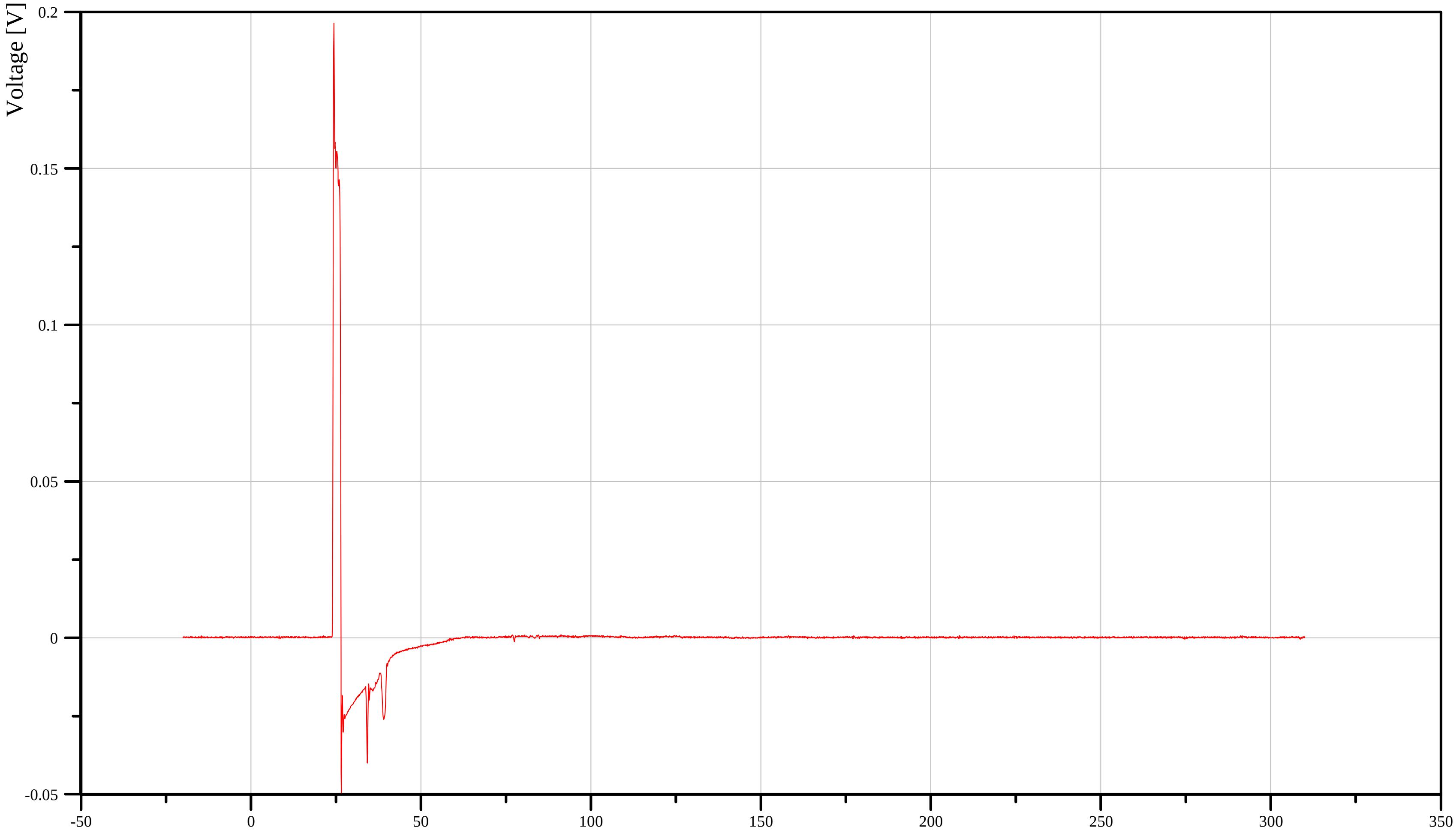
Passenger Front Airbag 1 Inductor

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13AIRBFR0100EV0A

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-0.05 V at 26.64 ms

Max. Value
0.20 V at 24.40 ms

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

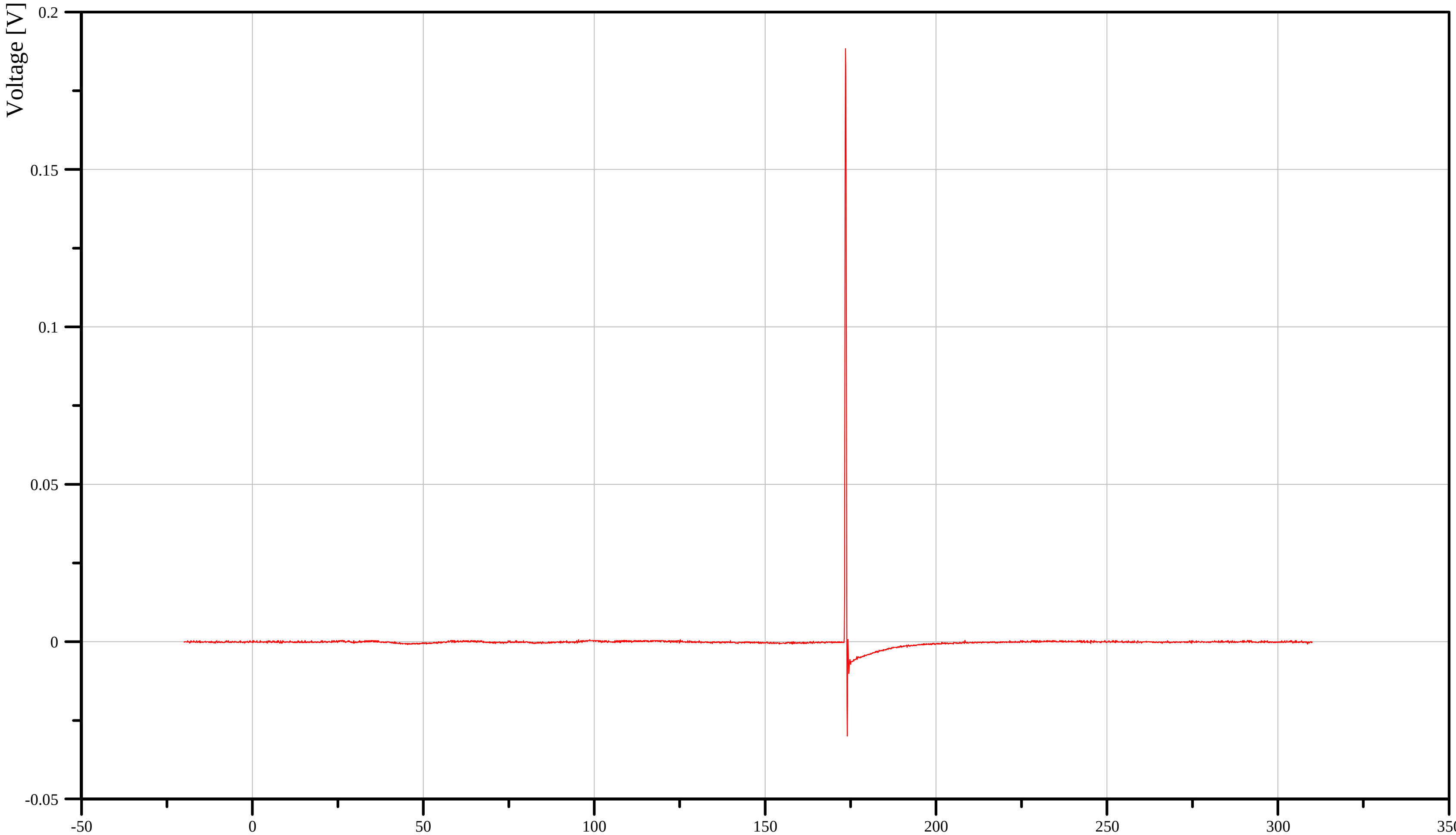
Passenger Front Airbag 2 Inductor

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

13AIRBFR0200EV0A

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_1000

Min. Value
-0.03 V at 174.00 ms

Max. Value
0.19 V at 173.52 ms

070126

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

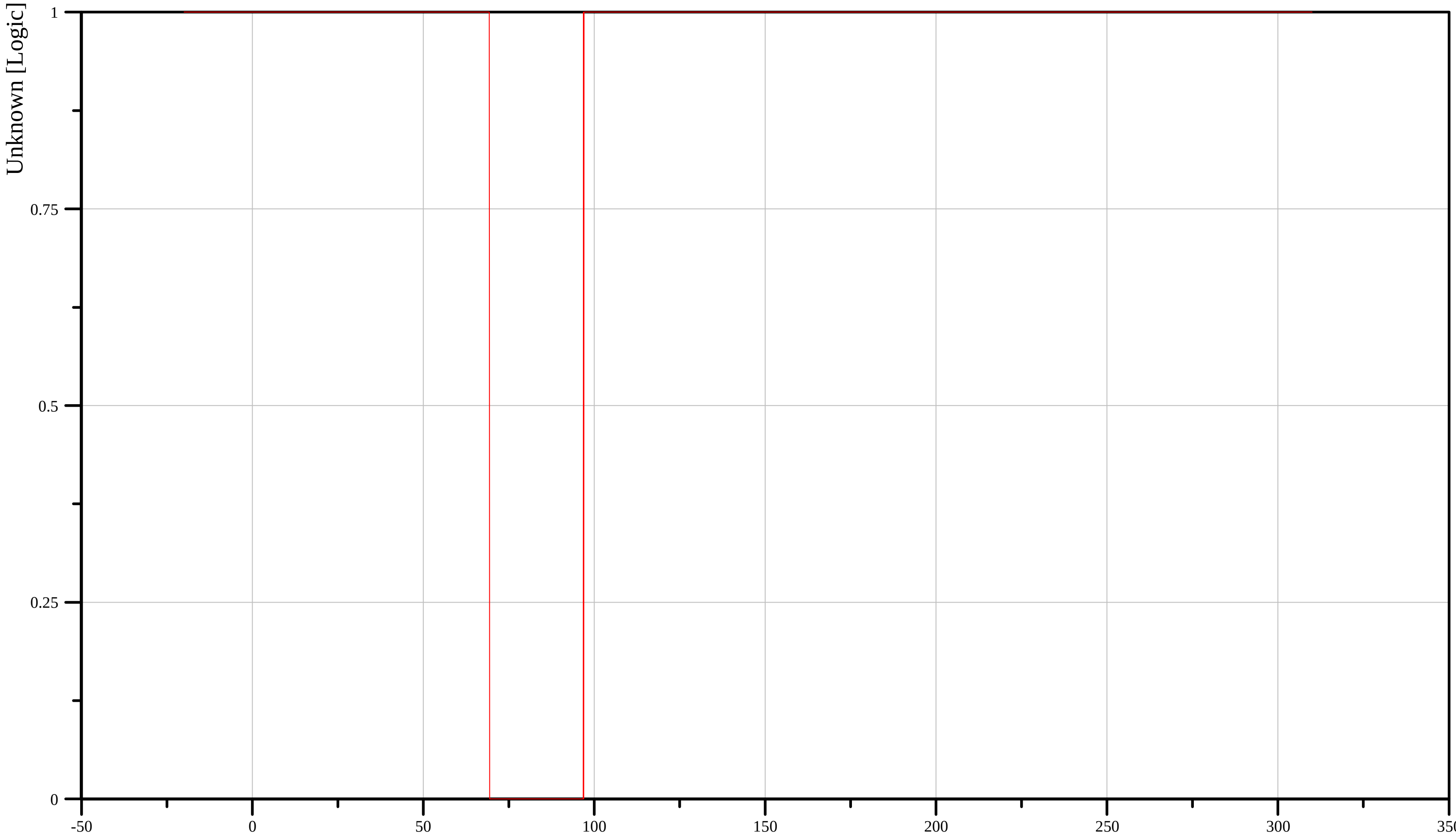
Driver Left Knee Contact Switch

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CONT000003VO00

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: Unfiltered

Min. Value
0.00 Logic at 69.36 ms

Max. Value
1.00 Logic at -20.00 ms

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

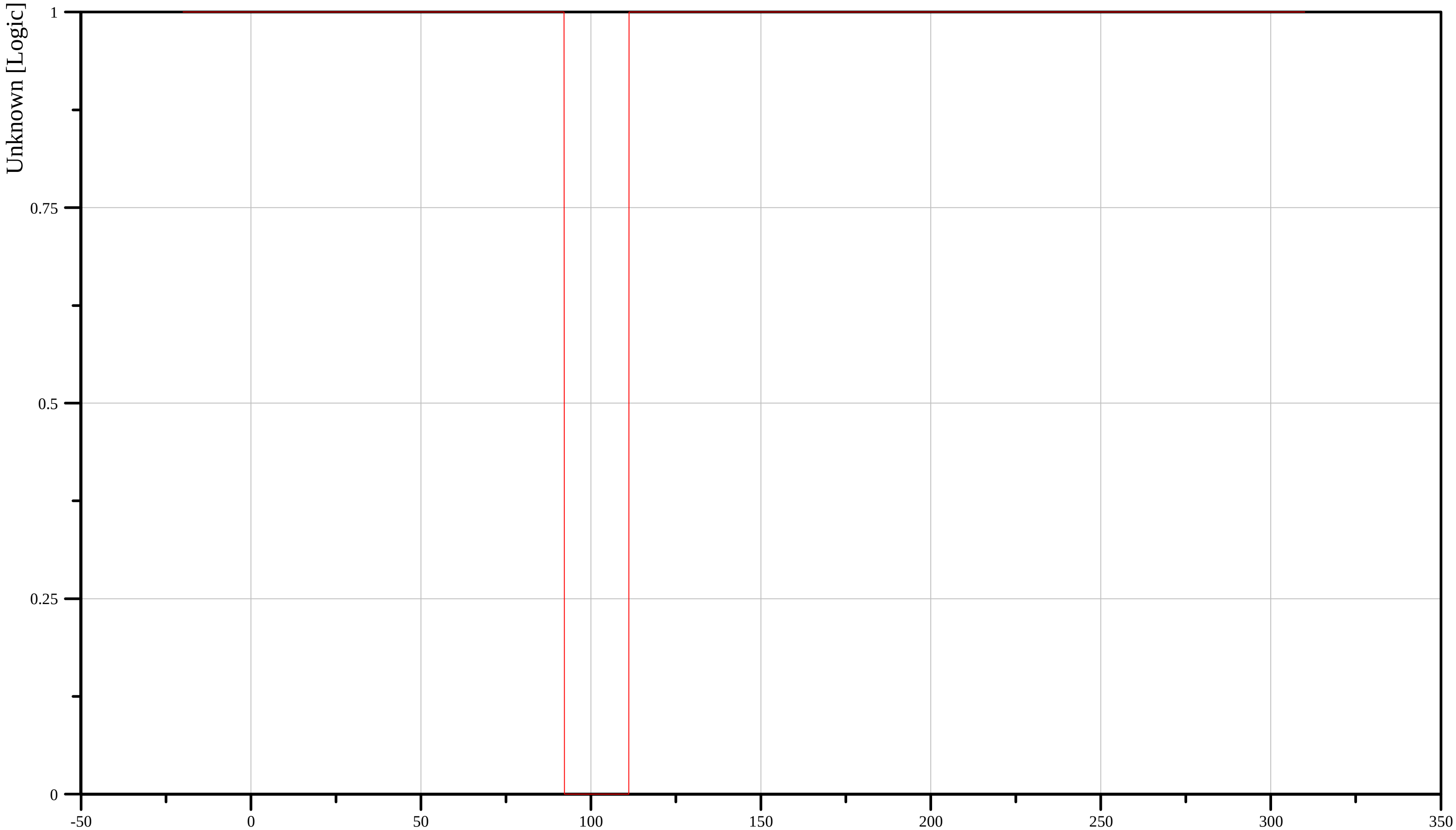
Driver Right Knee Contact Switch

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

11CONT000004VO00

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: Unfiltered

Min. Value
0.00 Logic at 92.24 ms

Max. Value
1.00 Logic at -20.00 ms

070126

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

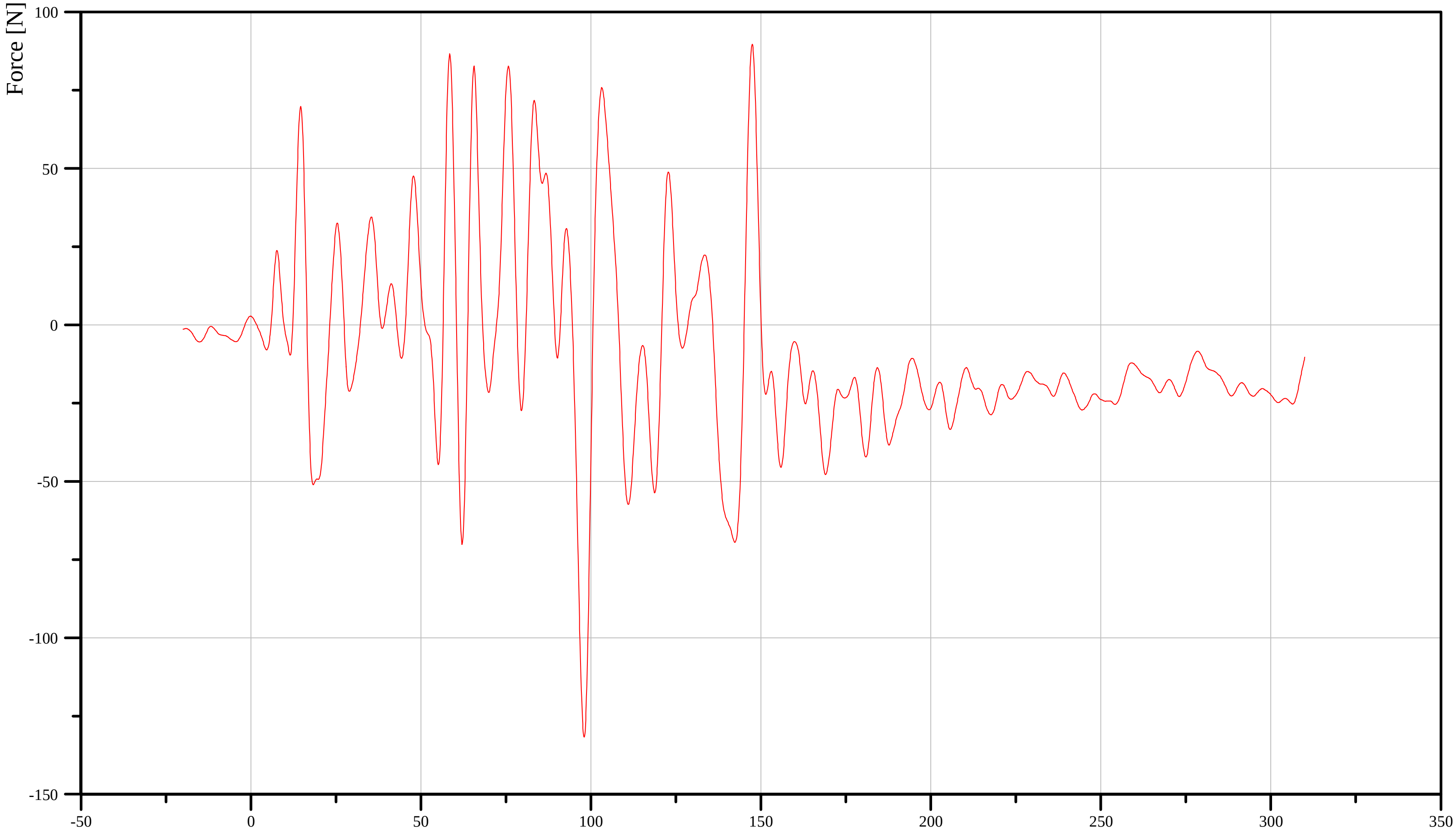
Load Cell Row 1 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000001FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126

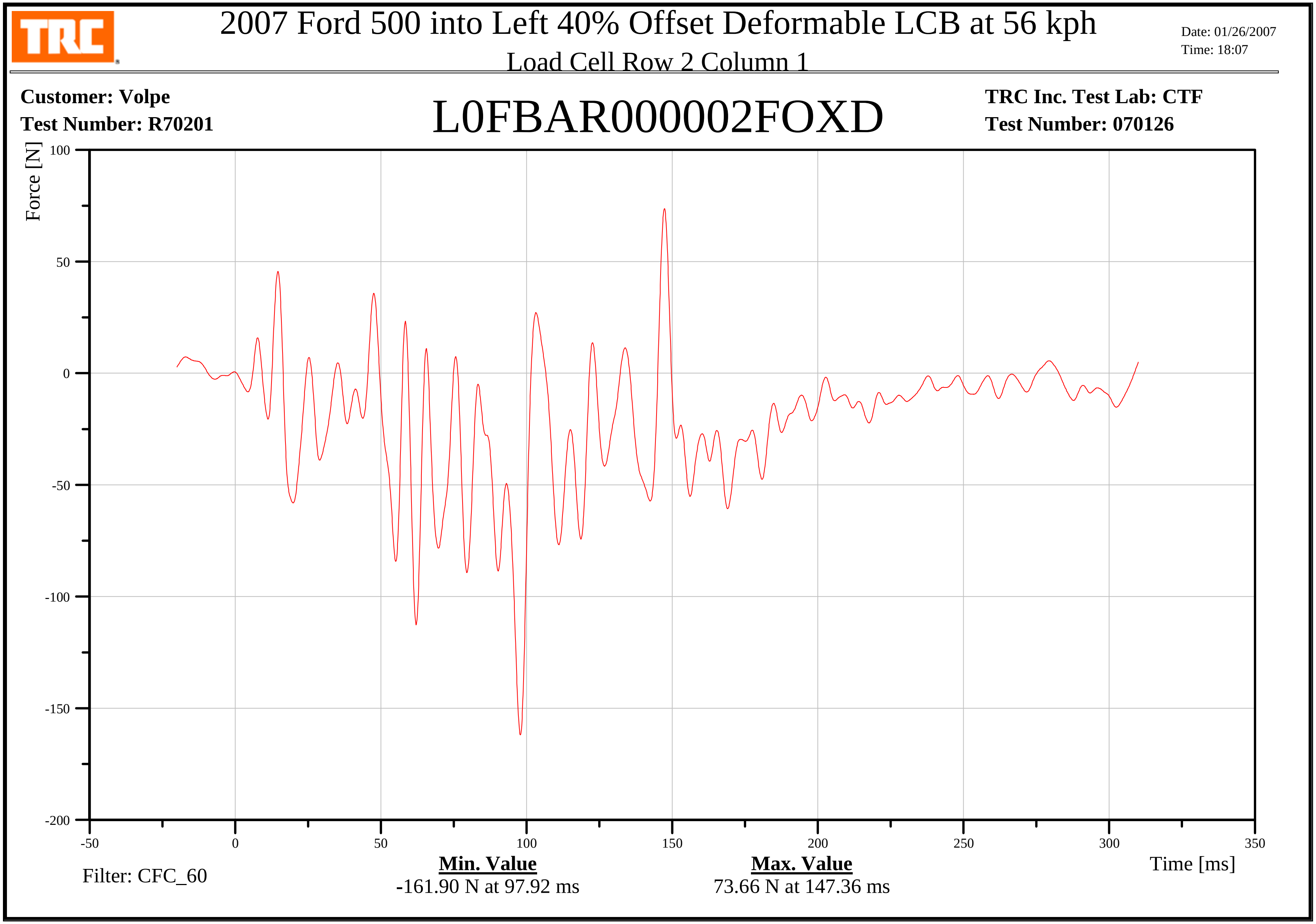


Filter: CFC_60

Min. Value
-131.75 N at 98.00 ms

Max. Value
89.73 N at 147.44 ms

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 2 Column 1
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000002FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
100
50
0
-50
-100
-150
-200
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-161.90 N at 97.92 ms
Max. Value
73.66 N at 147.36 ms

B-212

070126

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

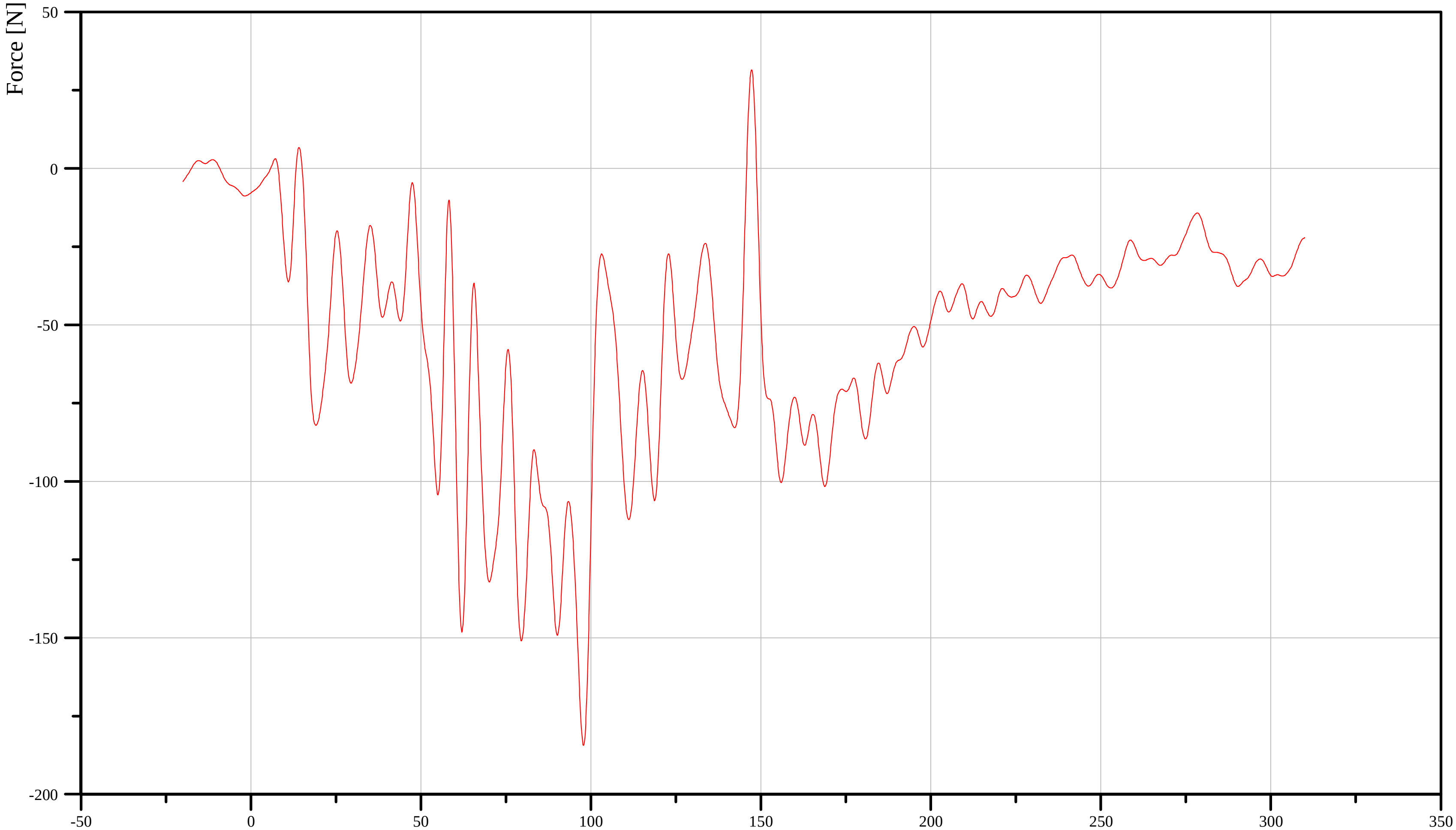
Load Cell Row 3 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000003FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-184.38 N at 97.84 ms

Max. Value
31.53 N at 147.28 ms

B-213

070126

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

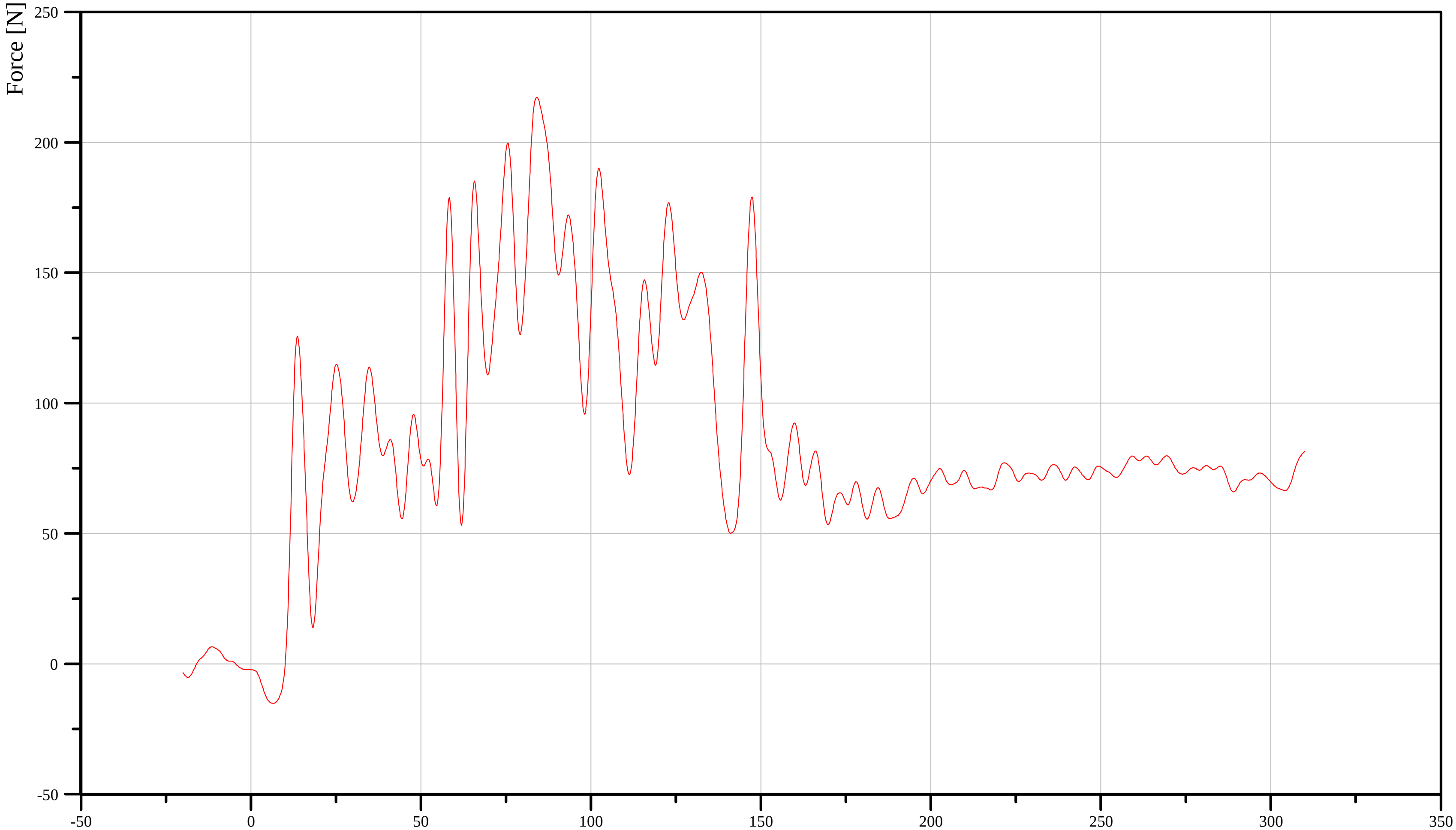
Load Cell Row 4 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000004FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-15.18 N at 6.56 ms

Max. Value
217.31 N at 84.08 ms

070126

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

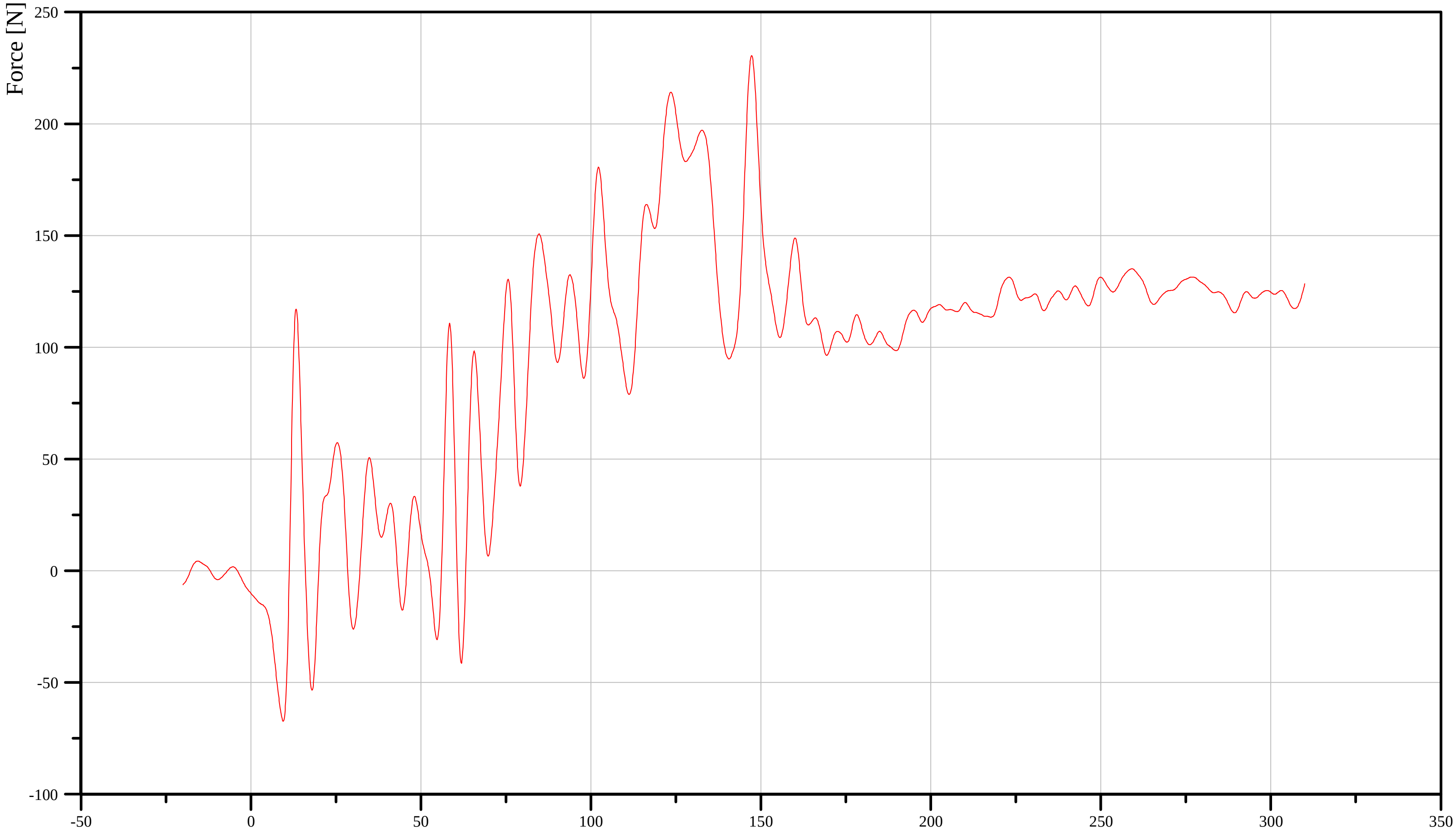
Load Cell Row 5 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000005FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-67.31 N at 9.52 ms

Max. Value
230.50 N at 147.28 ms

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

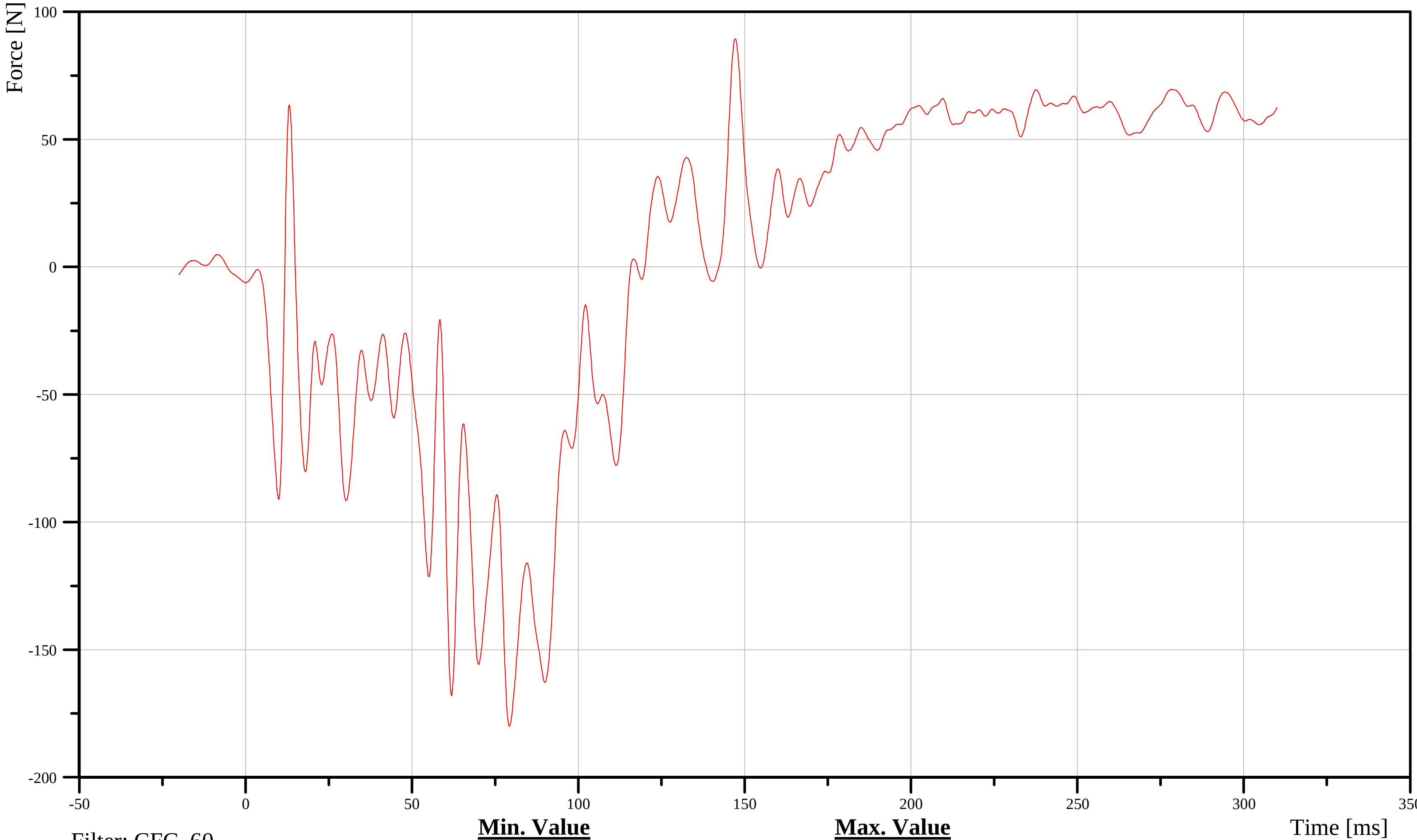
Load Cell Row 6 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000006FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-179.97 N at 79.28 ms

Max. Value
89.44 N at 147.12 ms

070126

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

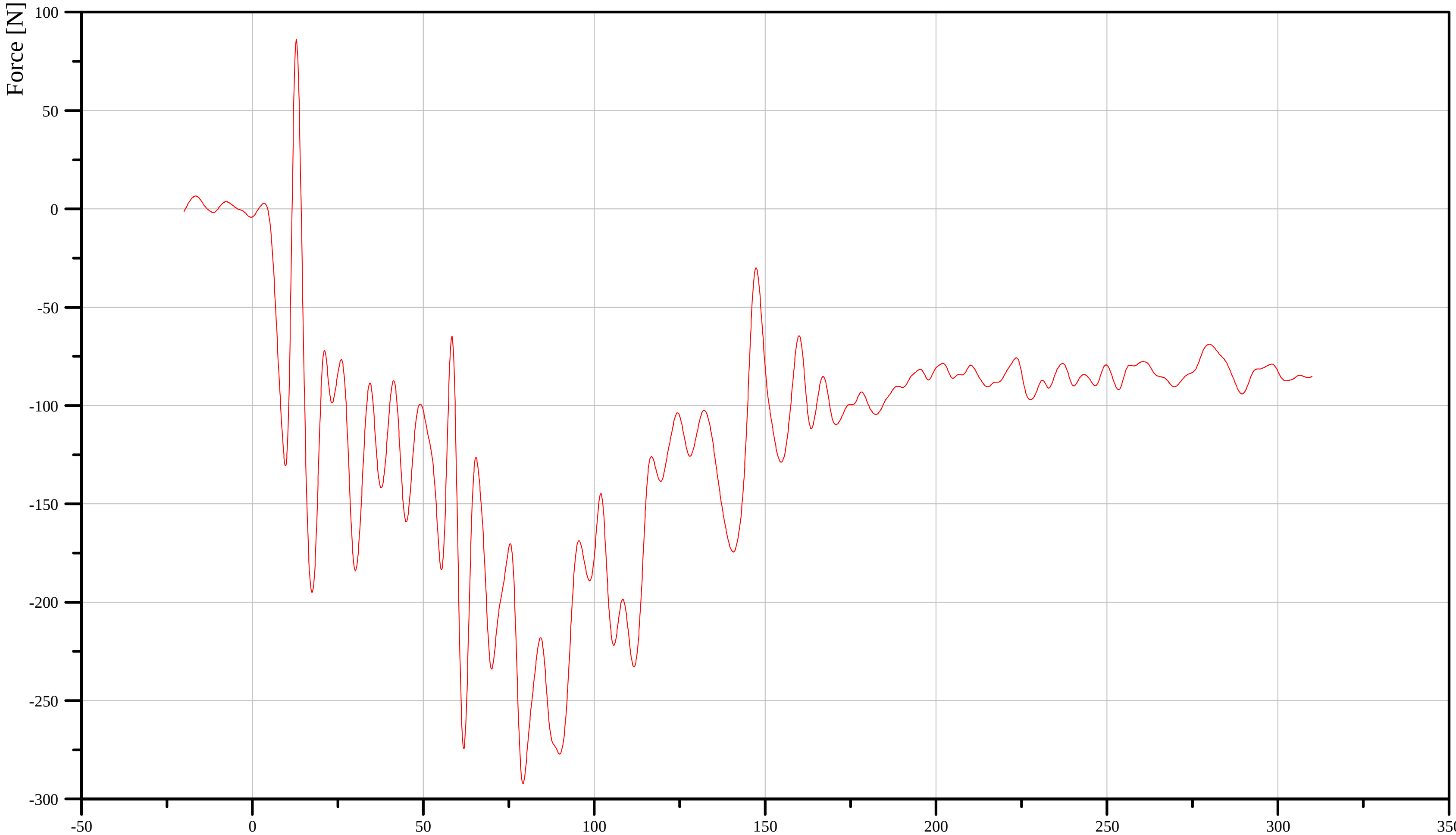
Load Cell Row 7 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000007FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-292.20 N at 79.20 ms

Max. Value
86.27 N at 12.88 ms

B-217

070126

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

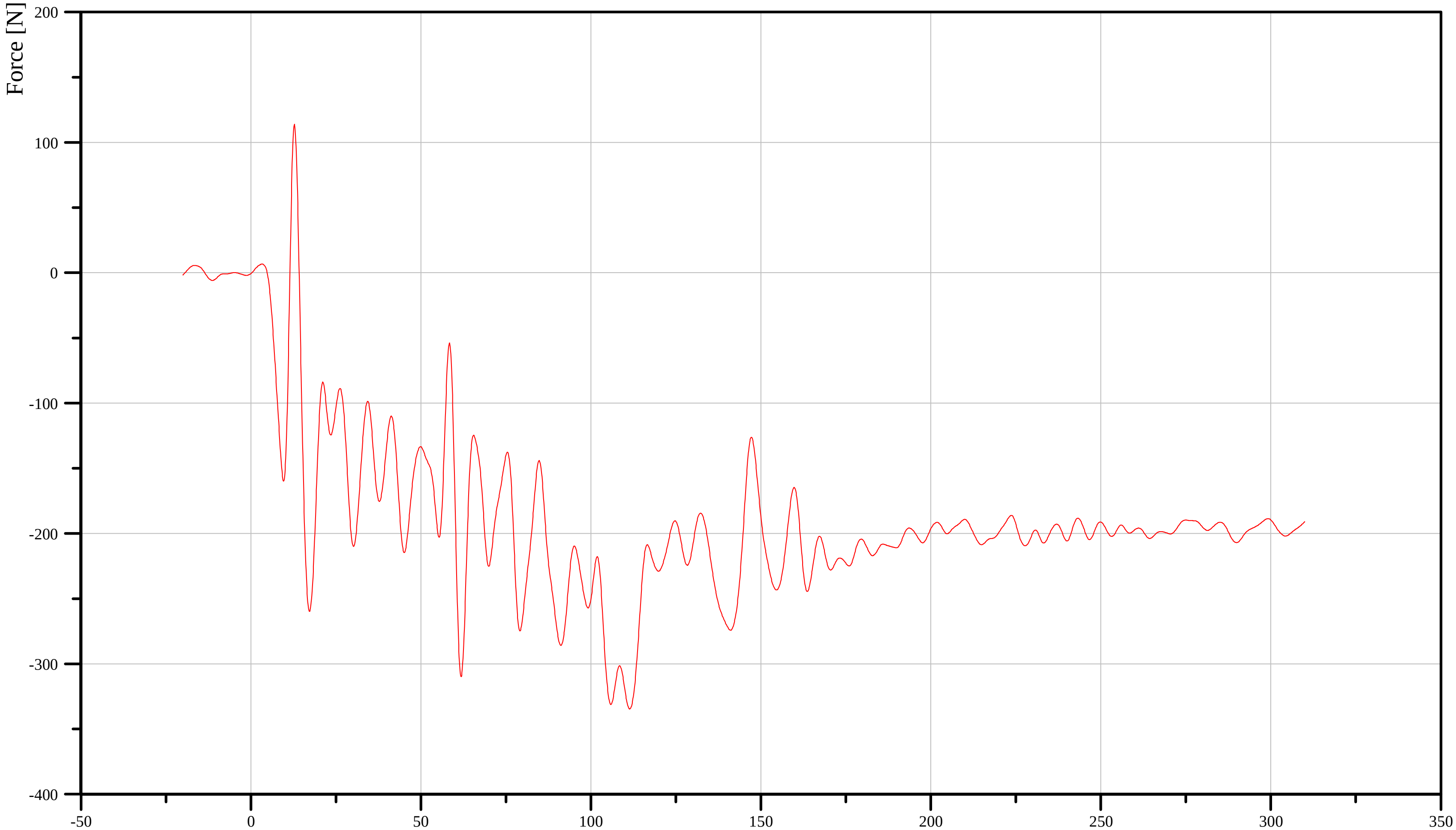
Load Cell Row 8 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000008FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-334.55 N at 111.44 ms

Max. Value
113.93 N at 12.80 ms

TRC

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

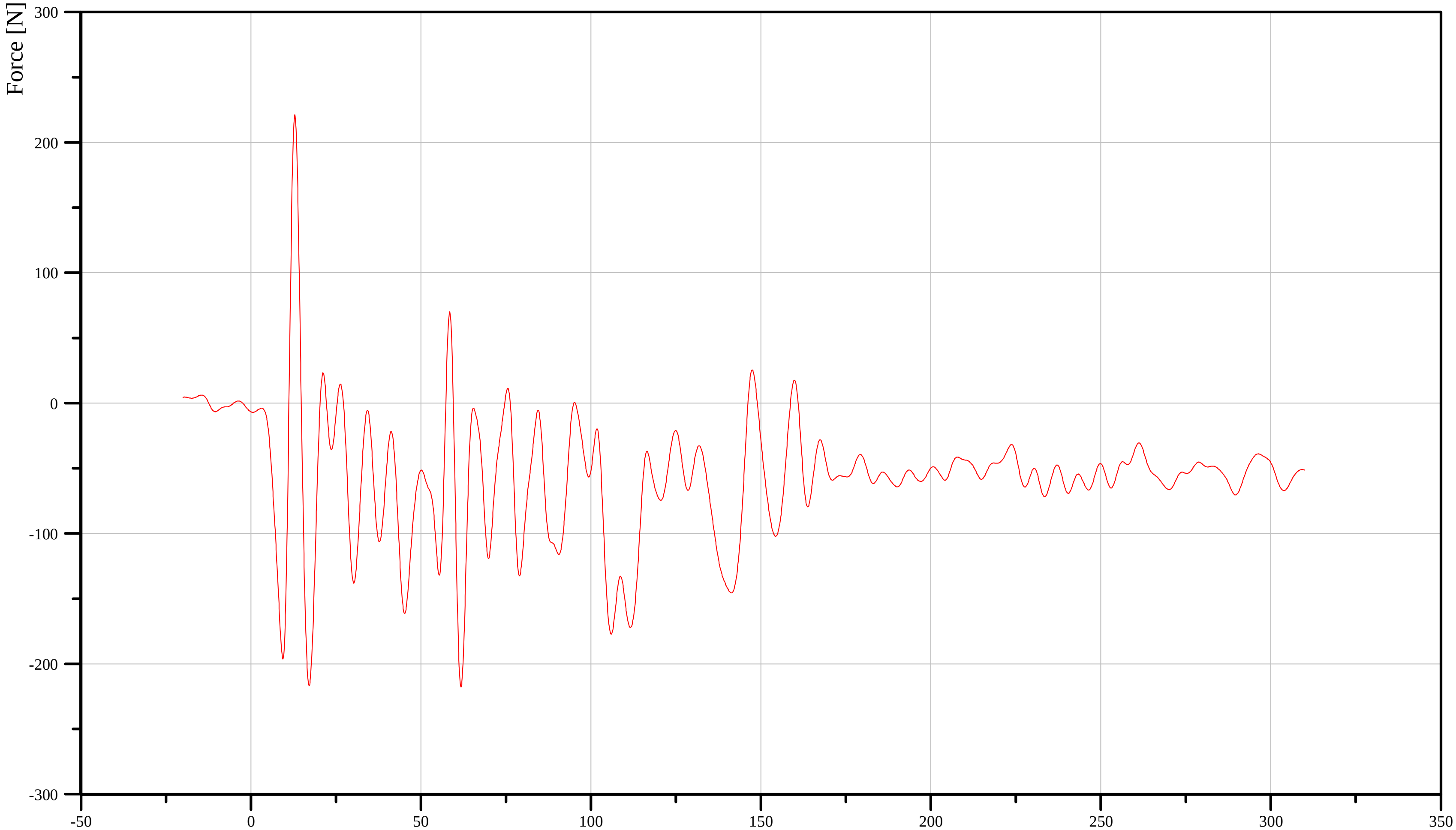
Load Cell Row 9 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000009FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-217.68 N at 61.84 ms

Max. Value
221.21 N at 12.96 ms

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

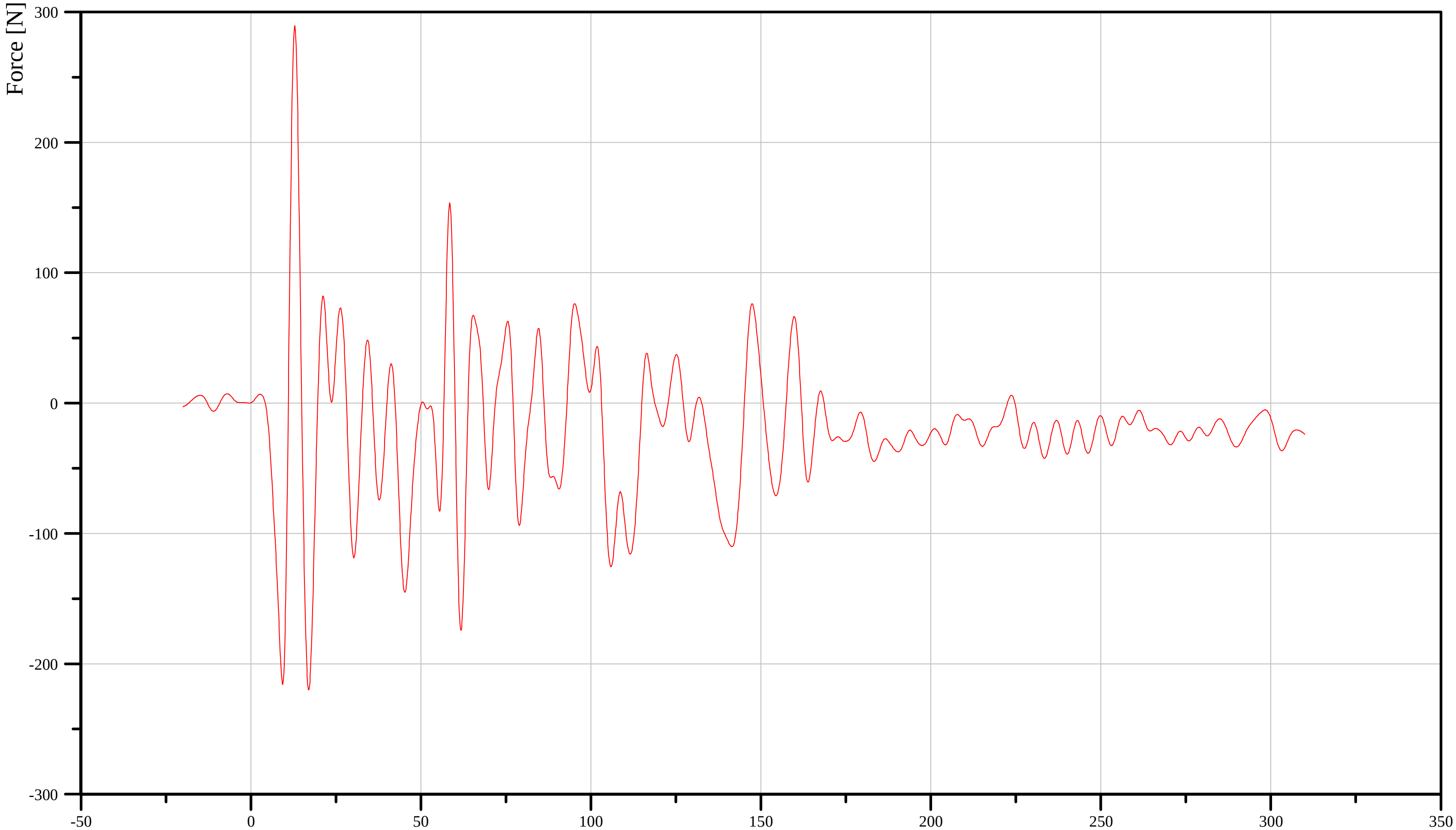
Load Cell Row 10 Column 1

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000010FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-219.99 N at 17.04 ms

Max. Value
289.59 N at 12.88 ms

B-220

070126

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

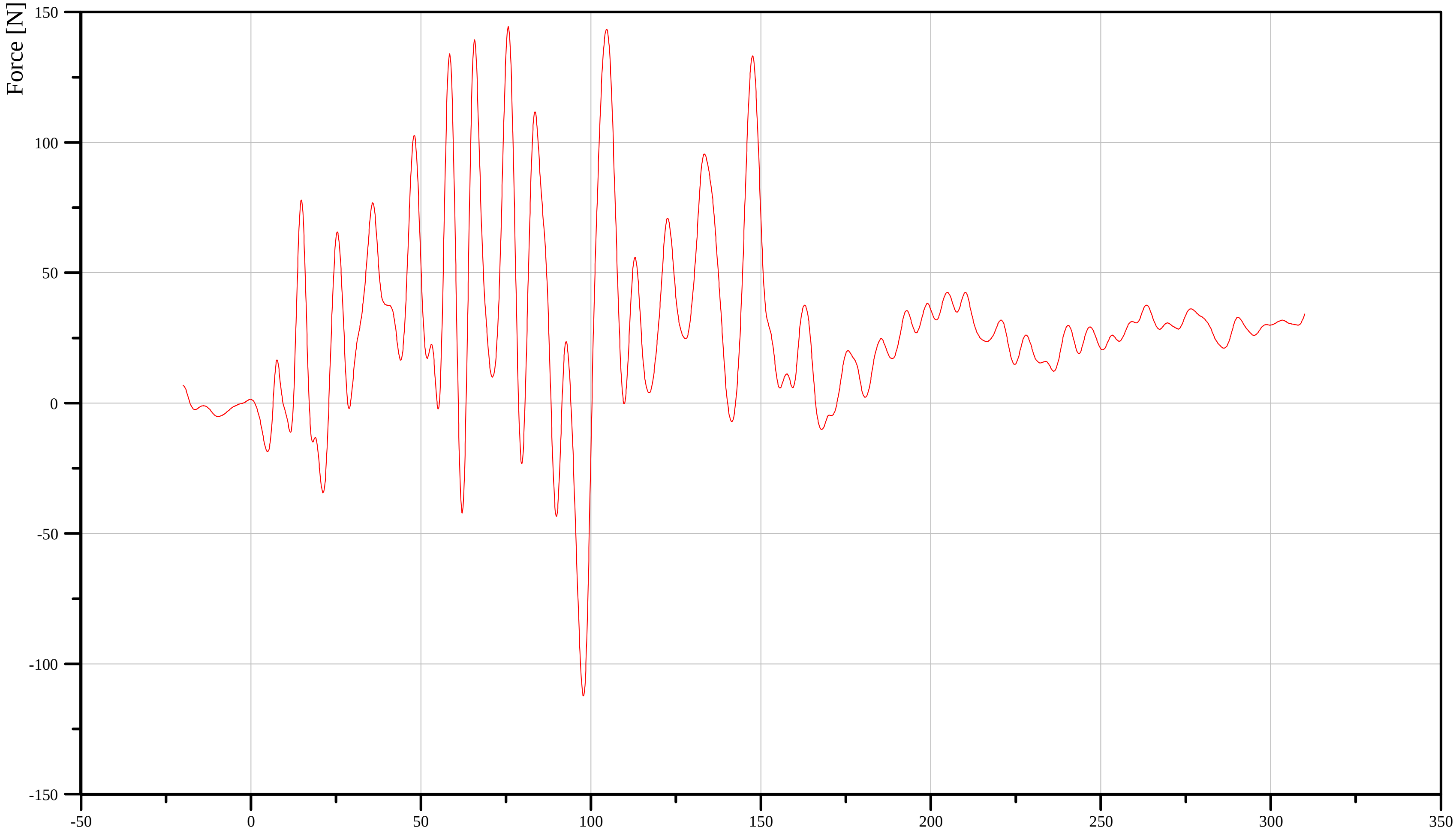
Load Cell Row 1 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000011FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



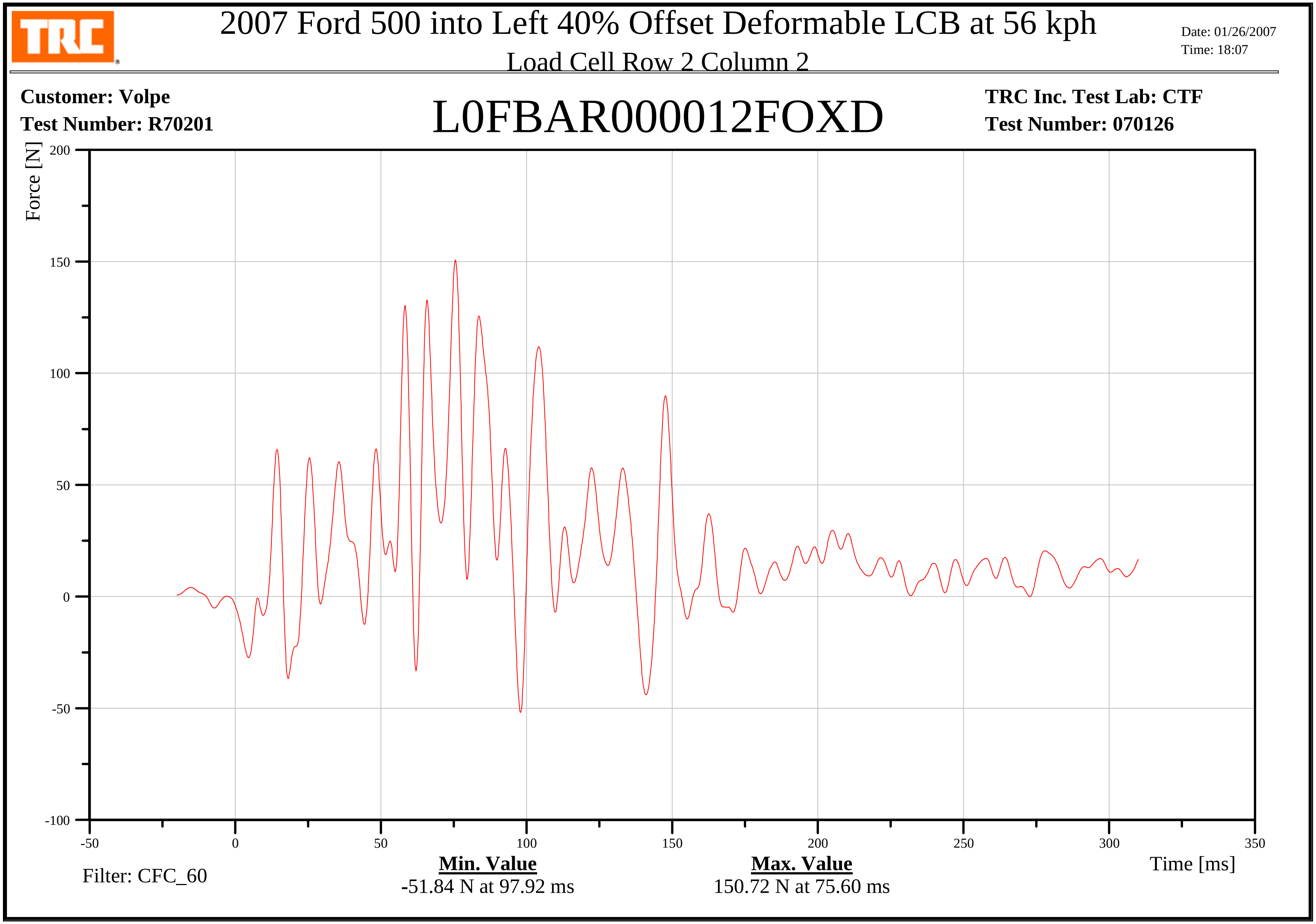
Filter: CFC_60

Min. Value
-112.30 N at 97.84 ms

Max. Value
144.42 N at 75.68 ms

B-221

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 2 Column 2
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000012FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
200
150
100
50
0
-50
-100
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-51.84 N at 97.92 ms
Max. Value
150.72 N at 75.60 ms

B-222

070126

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

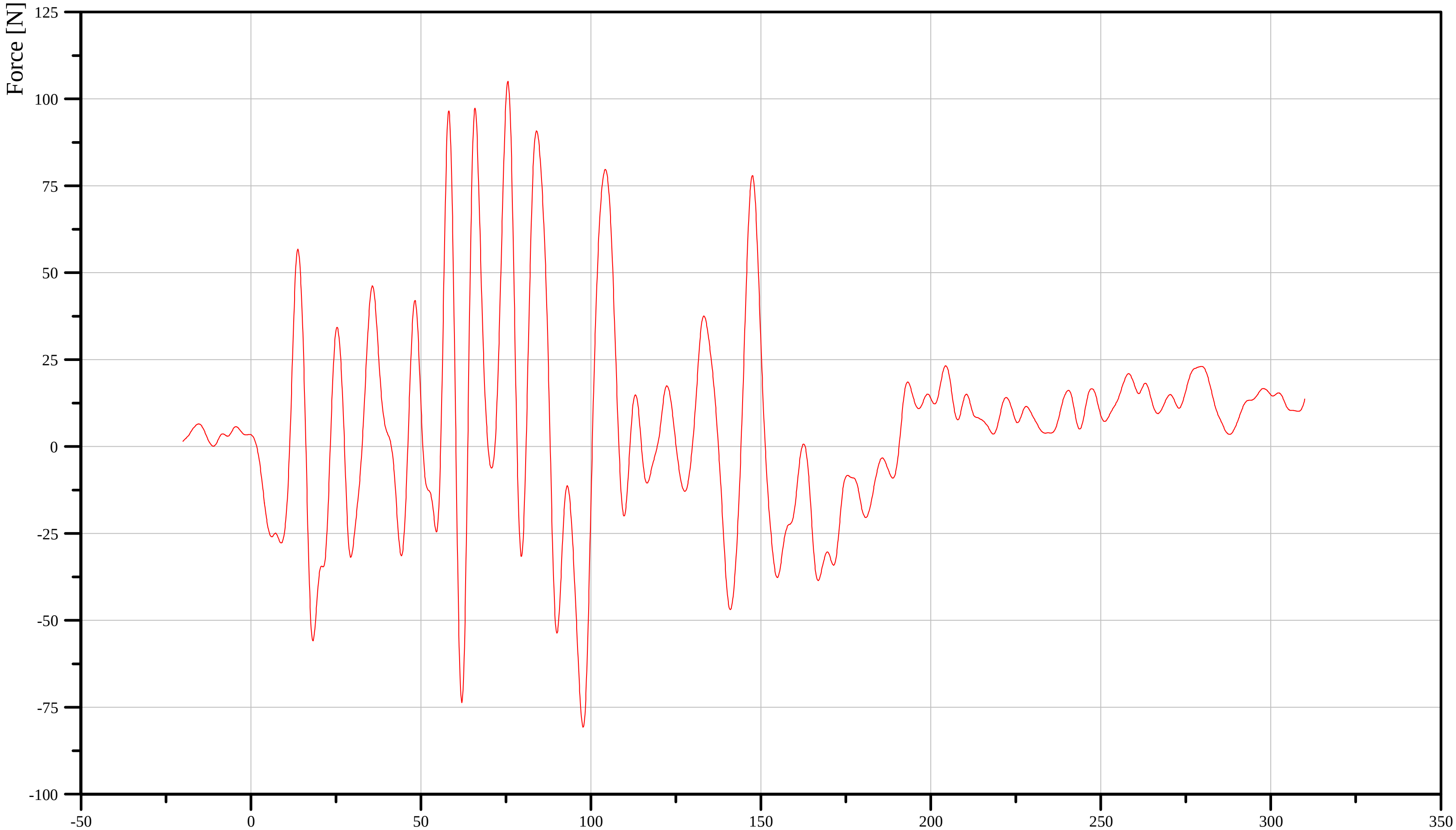
Load Cell Row 3 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000013FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-80.74 N at 97.76 ms

Max. Value
105.07 N at 75.60 ms

070126

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

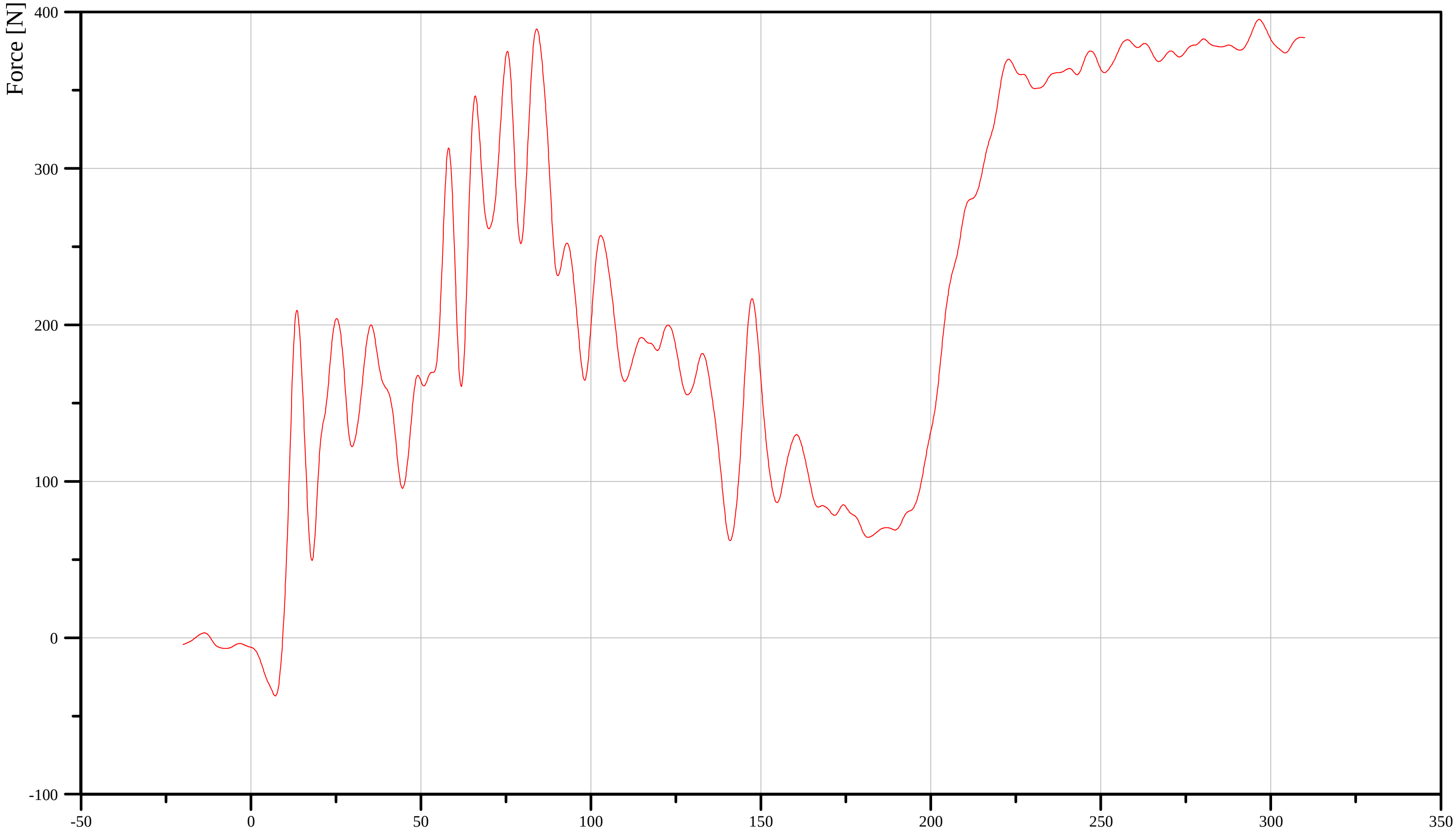
Load Cell Row 4 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000014FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-37.09 N at 7.20 ms

Max. Value
395.29 N at 296.56 ms

070126

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

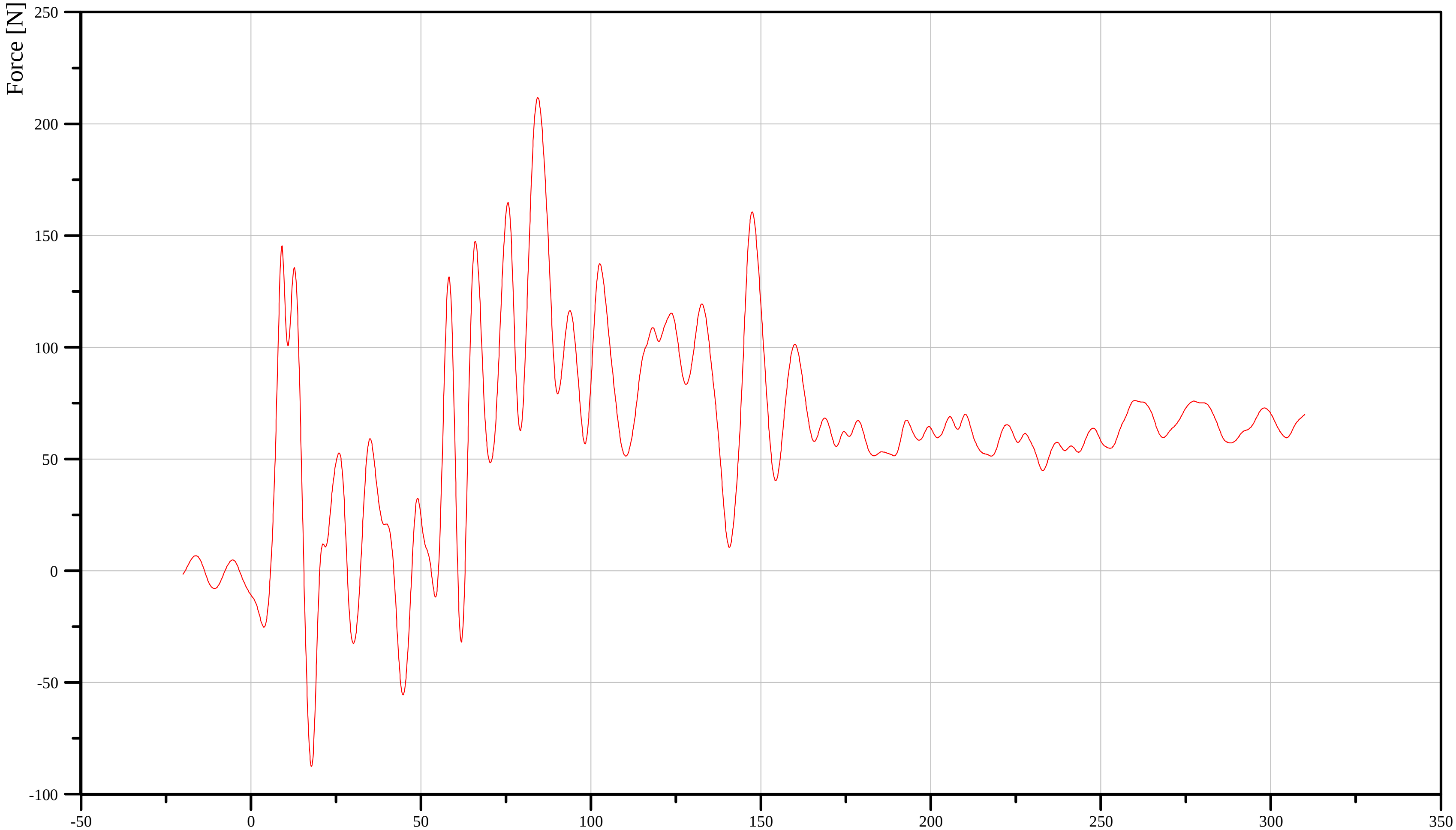
Load Cell Row 5 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000015FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-87.53 N at 17.84 ms

Max. Value
211.70 N at 84.40 ms

070126

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

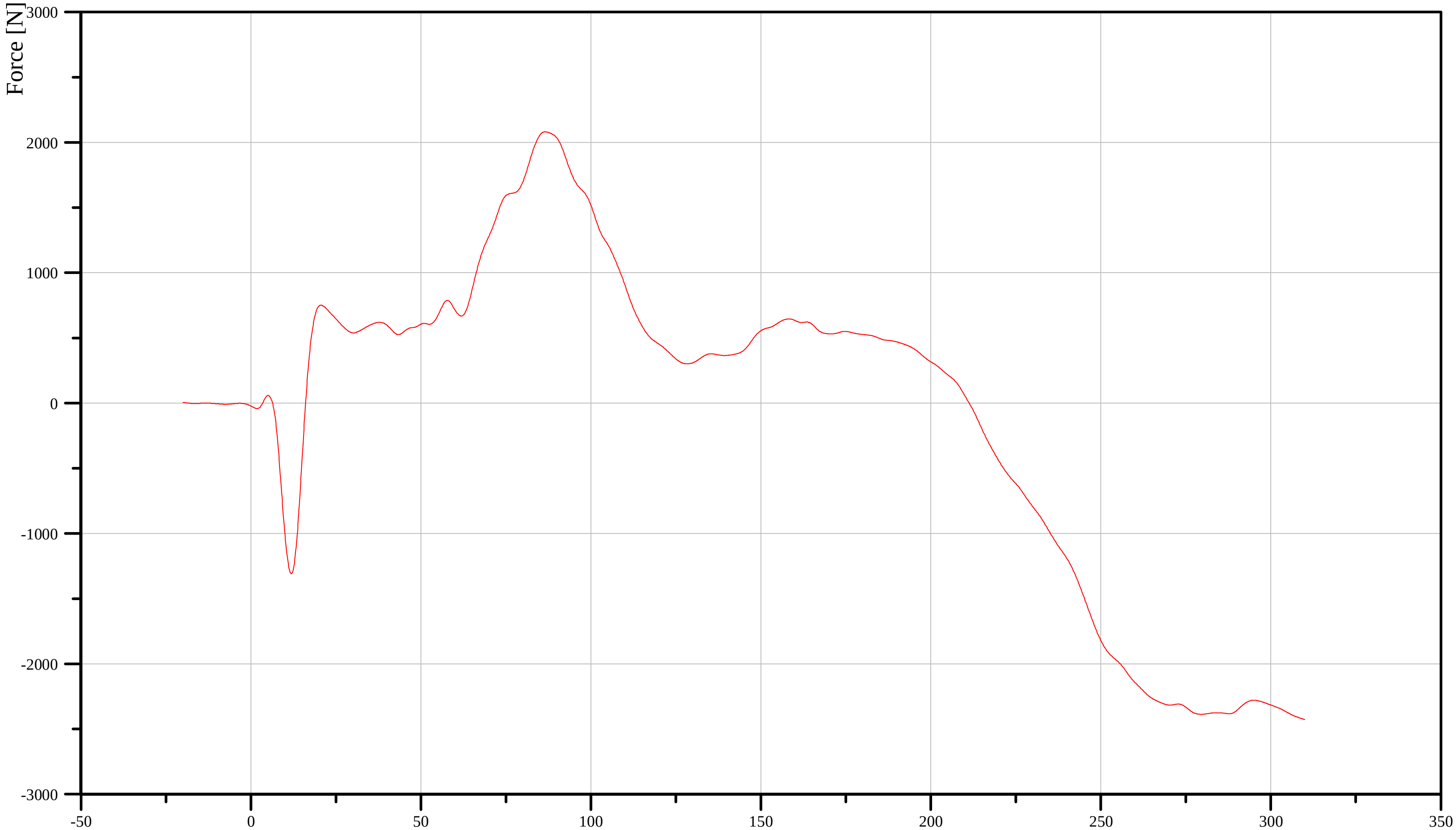
Load Cell Row 6 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000016FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-2,426.46 N at 310.00 ms

Max. Value
2,081.71 N at 86.48 ms

B-226

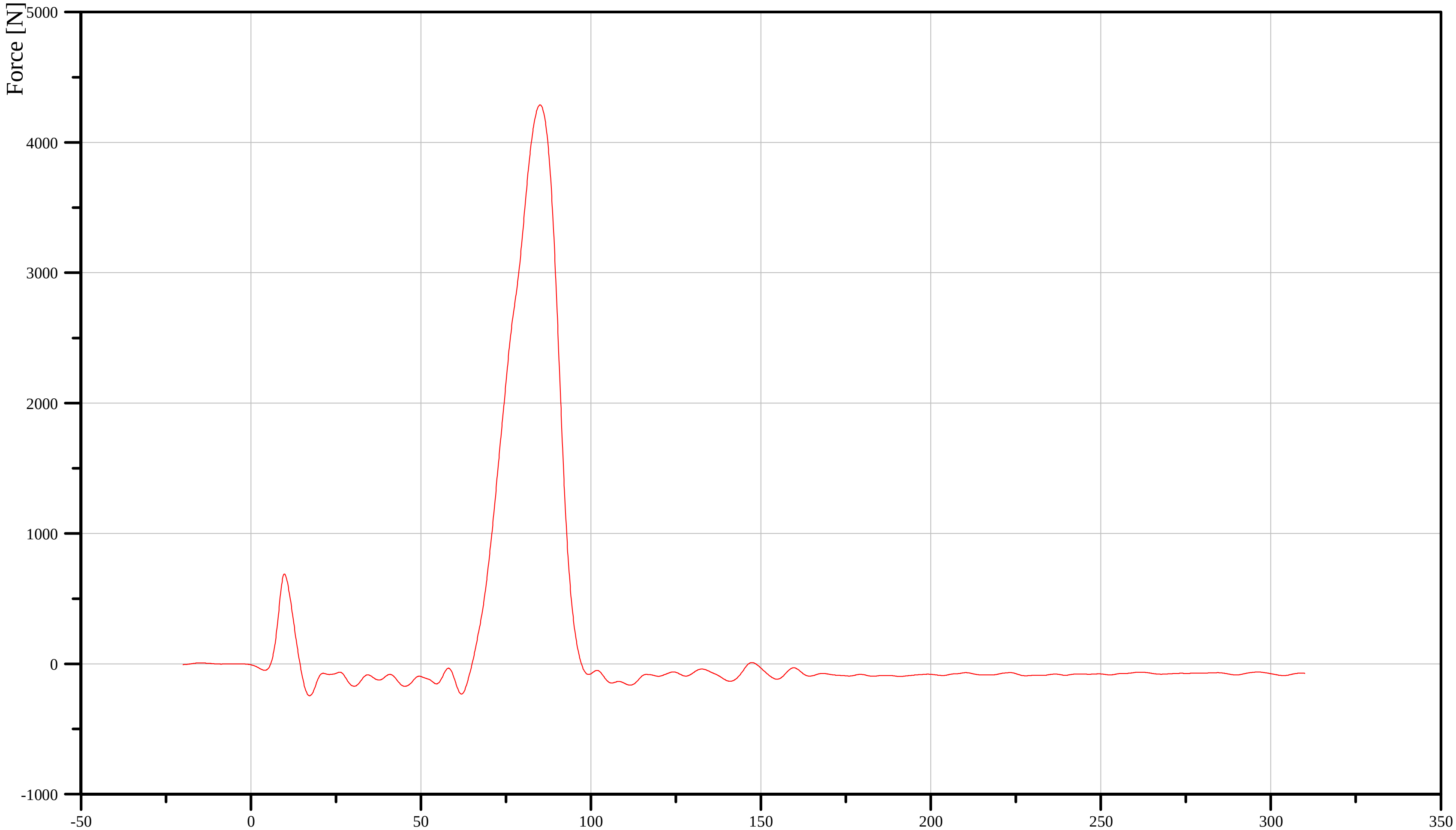
070126

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000017FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-244.21 N at 17.28 ms

Max. Value
4,288.14 N at 85.04 ms

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

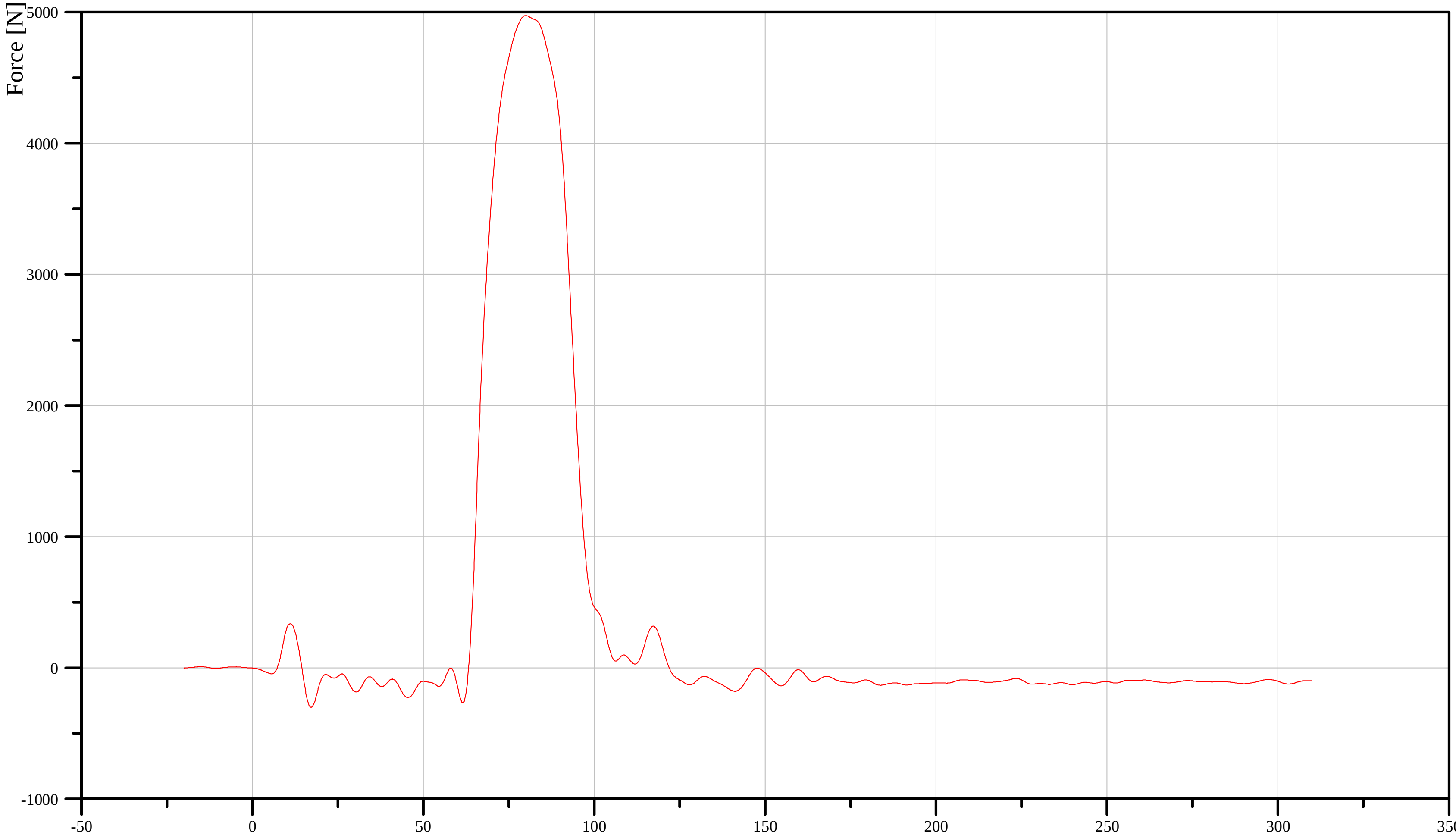
Load Cell Row 8 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000018FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-300.68 N at 17.20 ms

Max. Value
4,973.95 N at 79.92 ms

B-228

070126

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

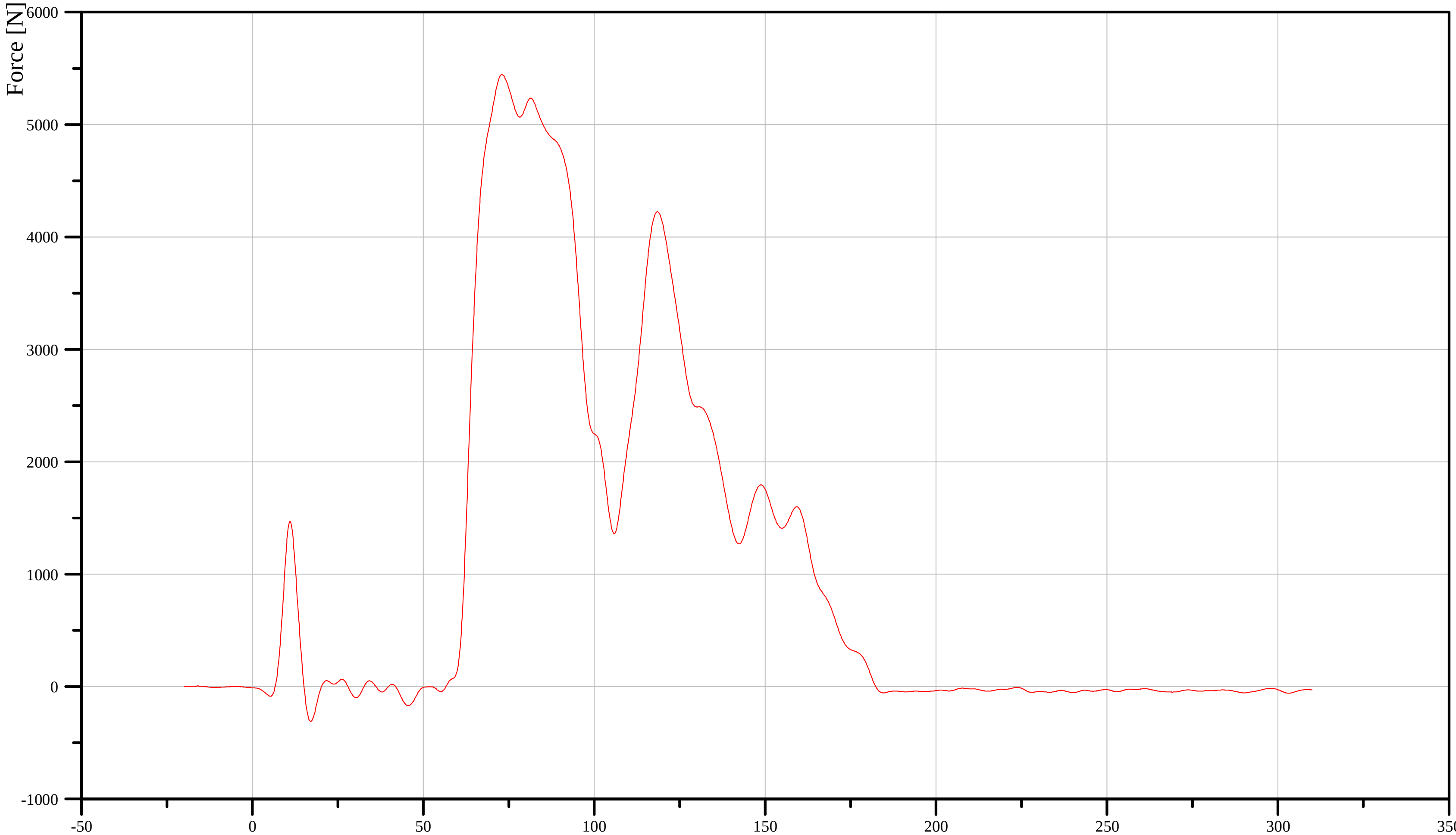
Load Cell Row 9 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000019FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-310.35 N at 17.12 ms

Max. Value
5,445.31 N at 73.04 ms

070126

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

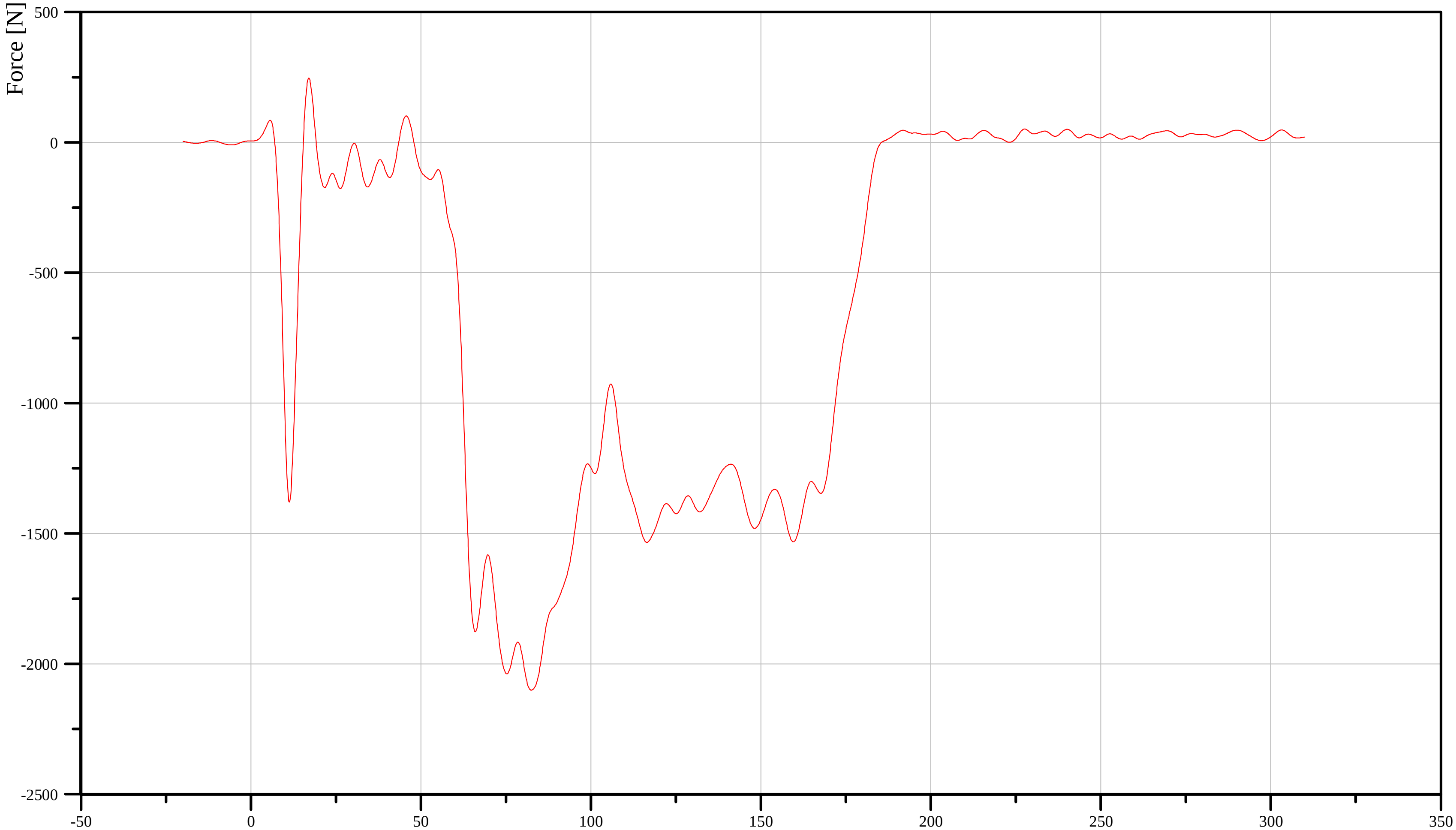
Load Cell Row 10 Column 2

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000020FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-2,100.84 N at 82.48 ms

Max. Value
246.86 N at 17.04 ms

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

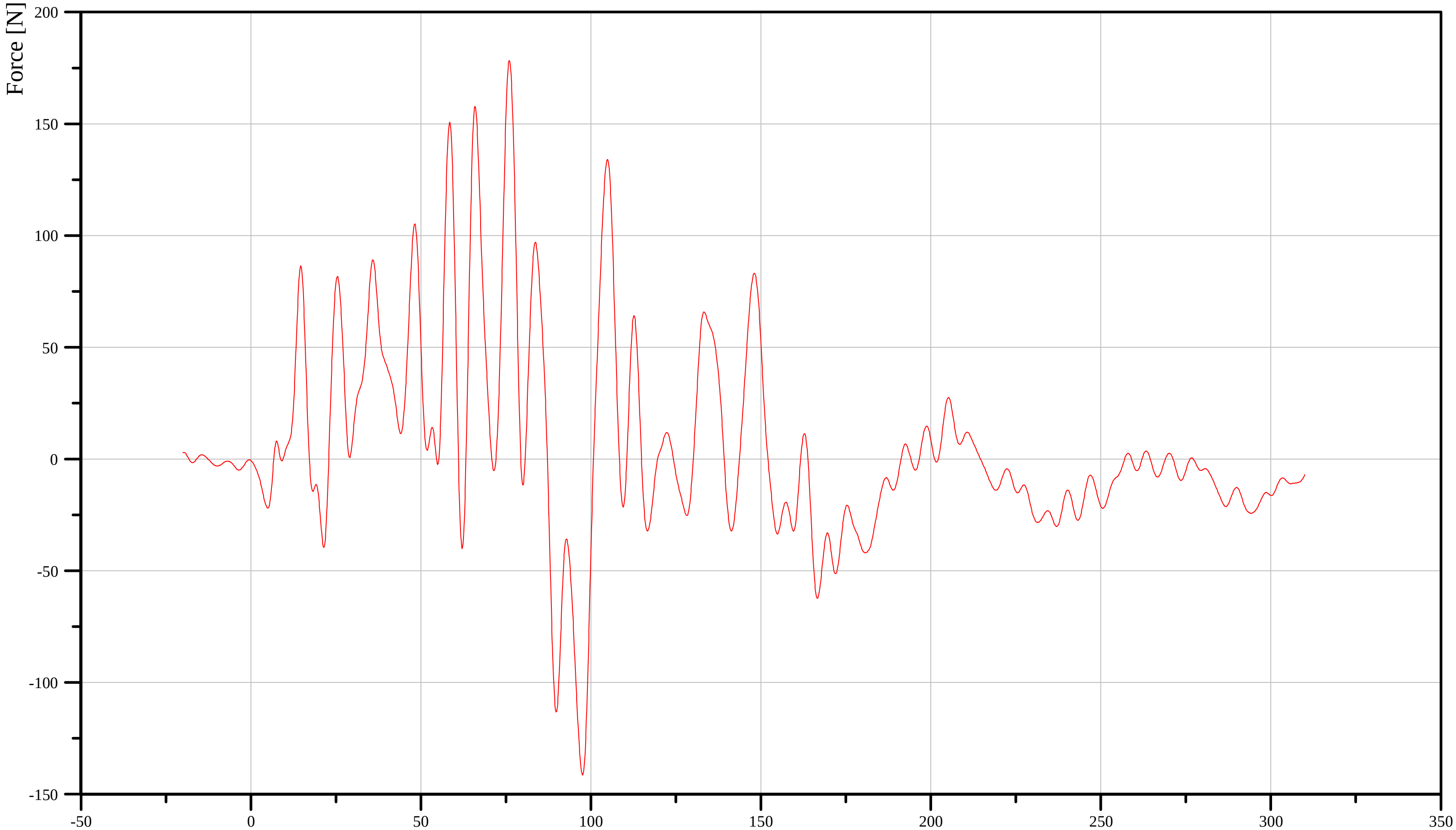
Load Cell Row 1 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000021FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-141.41 N at 97.60 ms

Max. Value
178.32 N at 76.00 ms

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

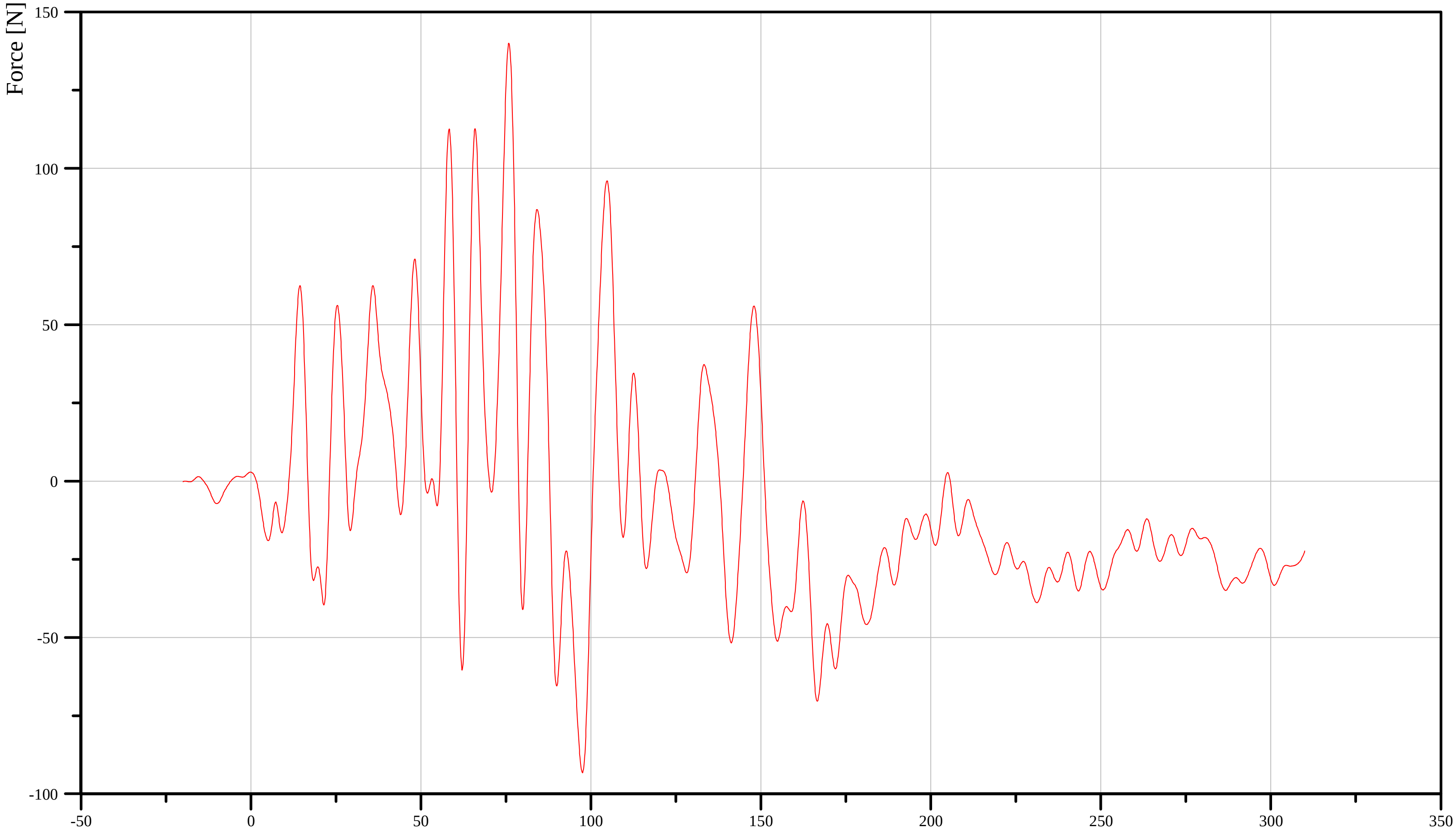
Load Cell Row 2 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000022FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-93.26 N at 97.52 ms

Max. Value
140.06 N at 75.84 ms

070126

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

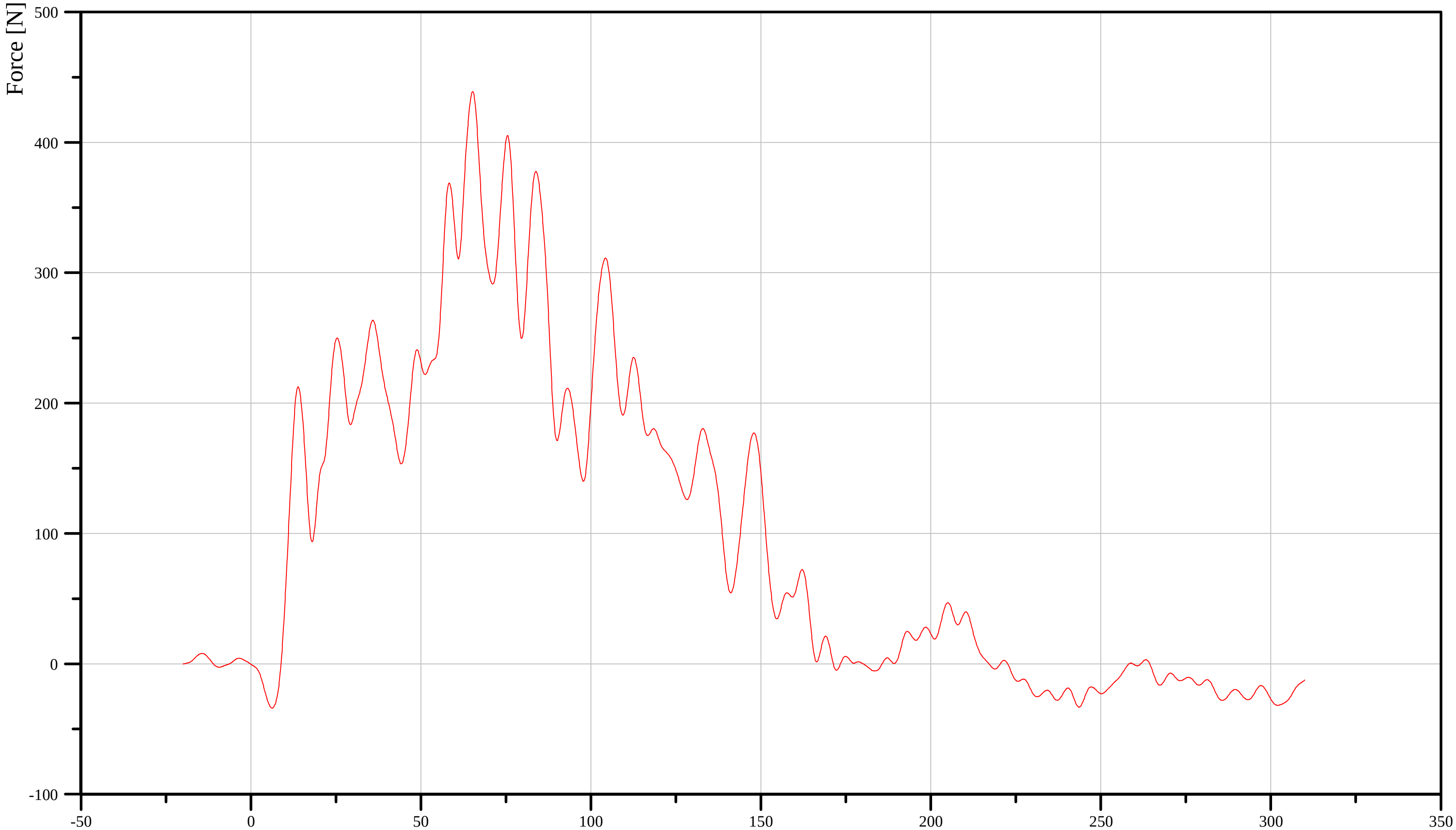
Load Cell Row 3 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000023FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-33.93 N at 6.24 ms

Max. Value
438.97 N at 65.20 ms

070126

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

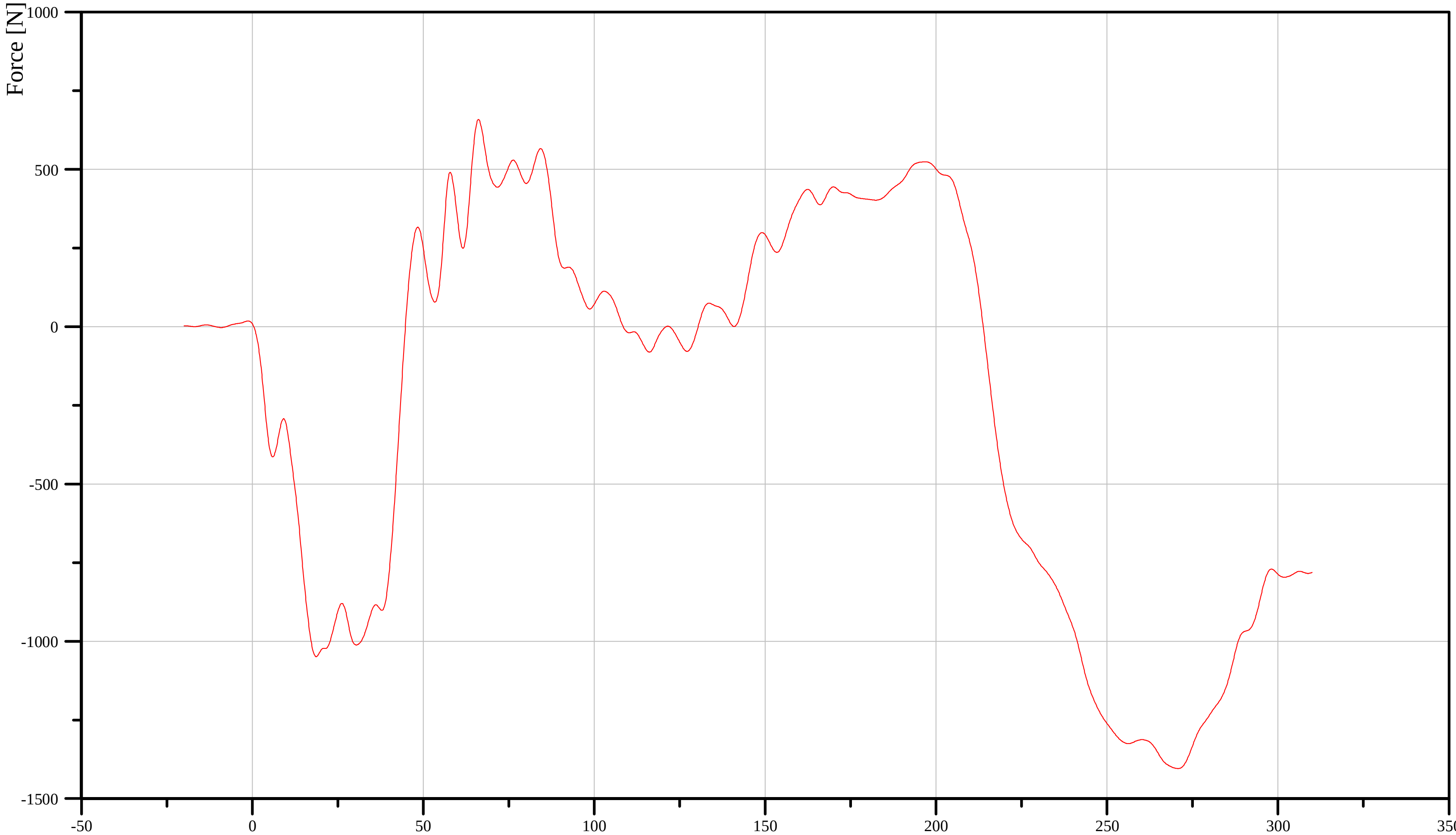
Load Cell Row 4 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000024FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-1,404.61 N at 270.72 ms

Max. Value
658.67 N at 66.16 ms

070126

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

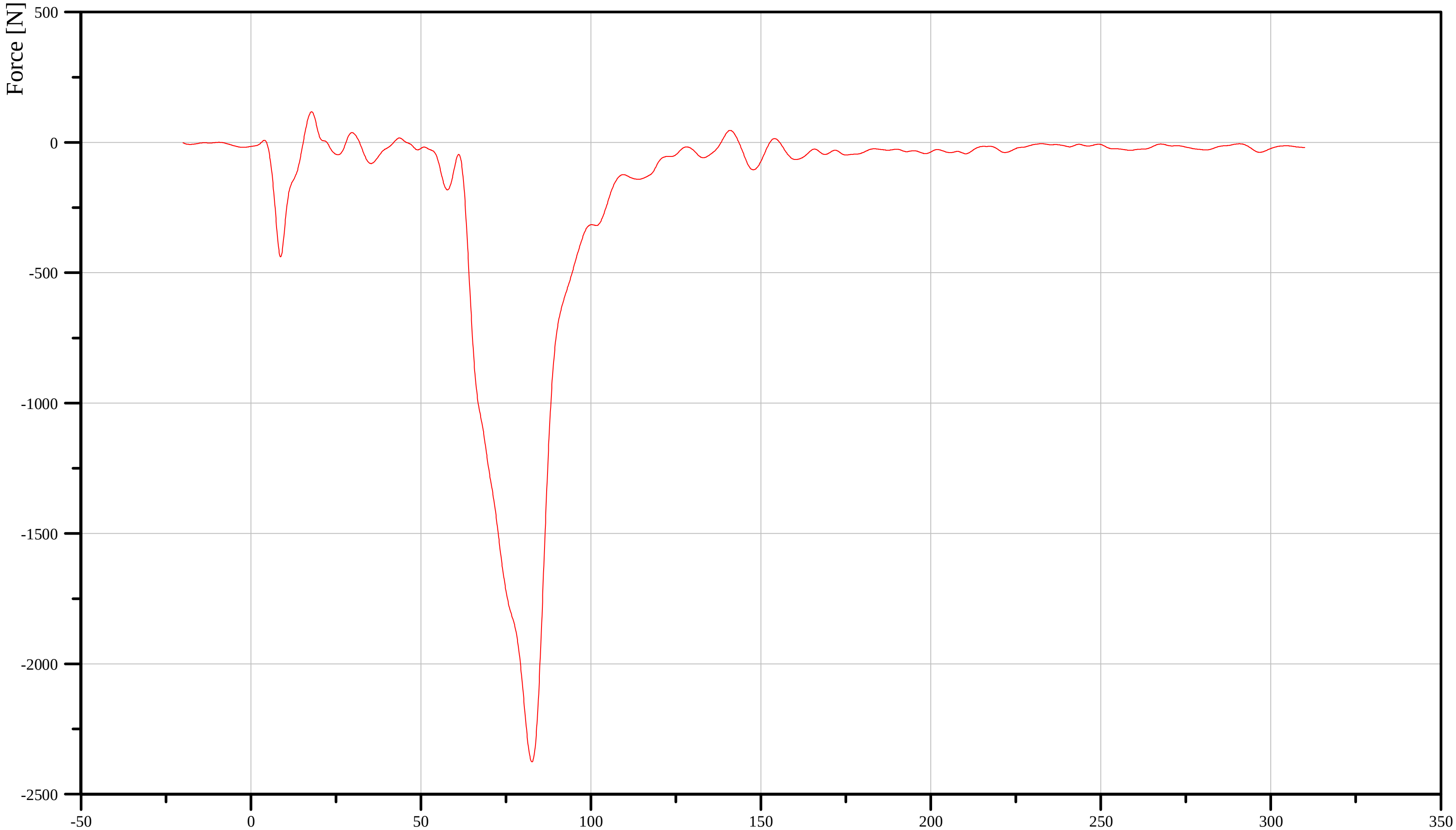
Load Cell Row 5 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000025FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-2,375.45 N at 82.64 ms

Max. Value
117.54 N at 17.84 ms

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

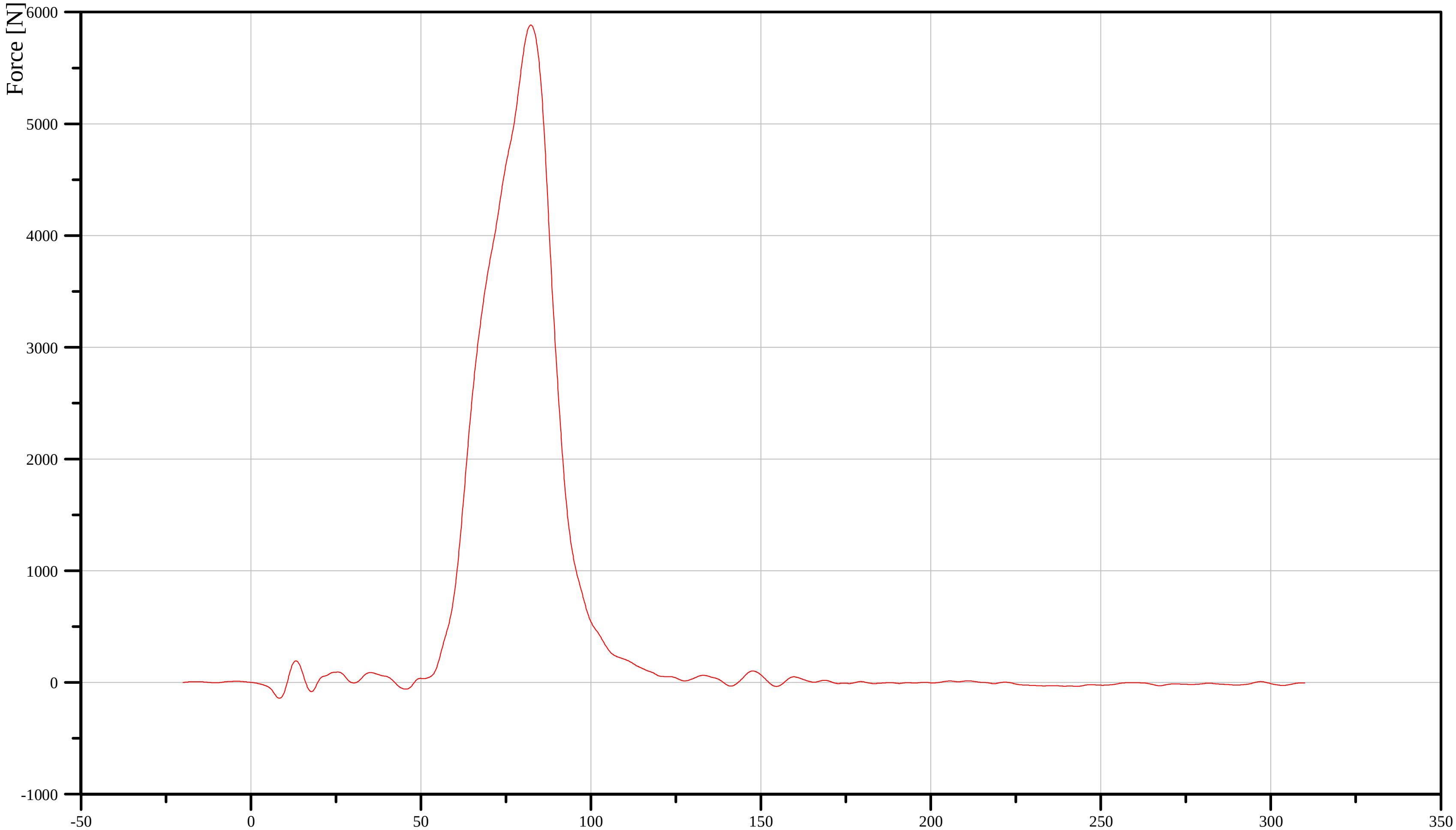
Load Cell Row 6 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000026FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126

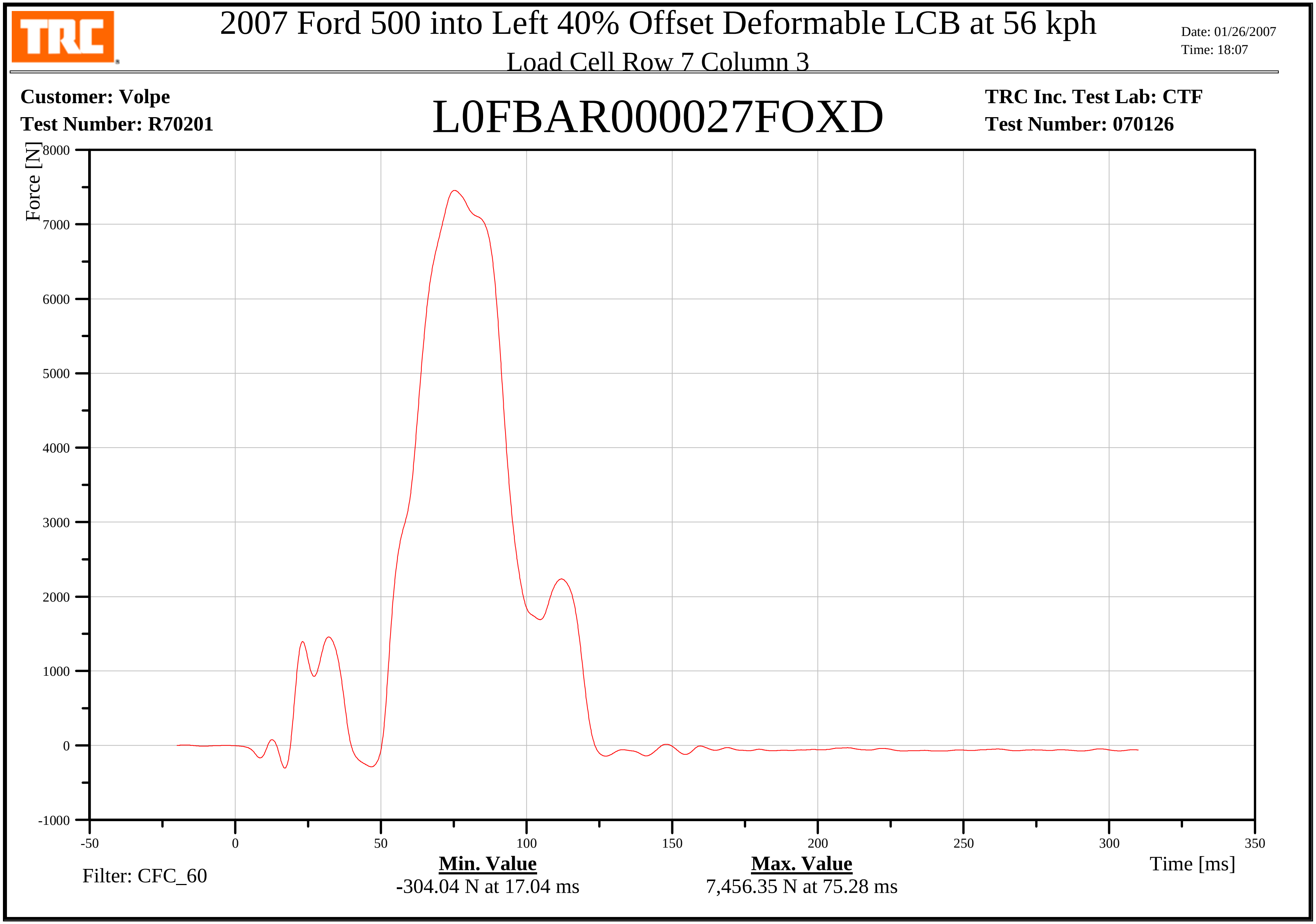


Filter: CFC_60

Min. Value
-140.80 N at 8.40 ms

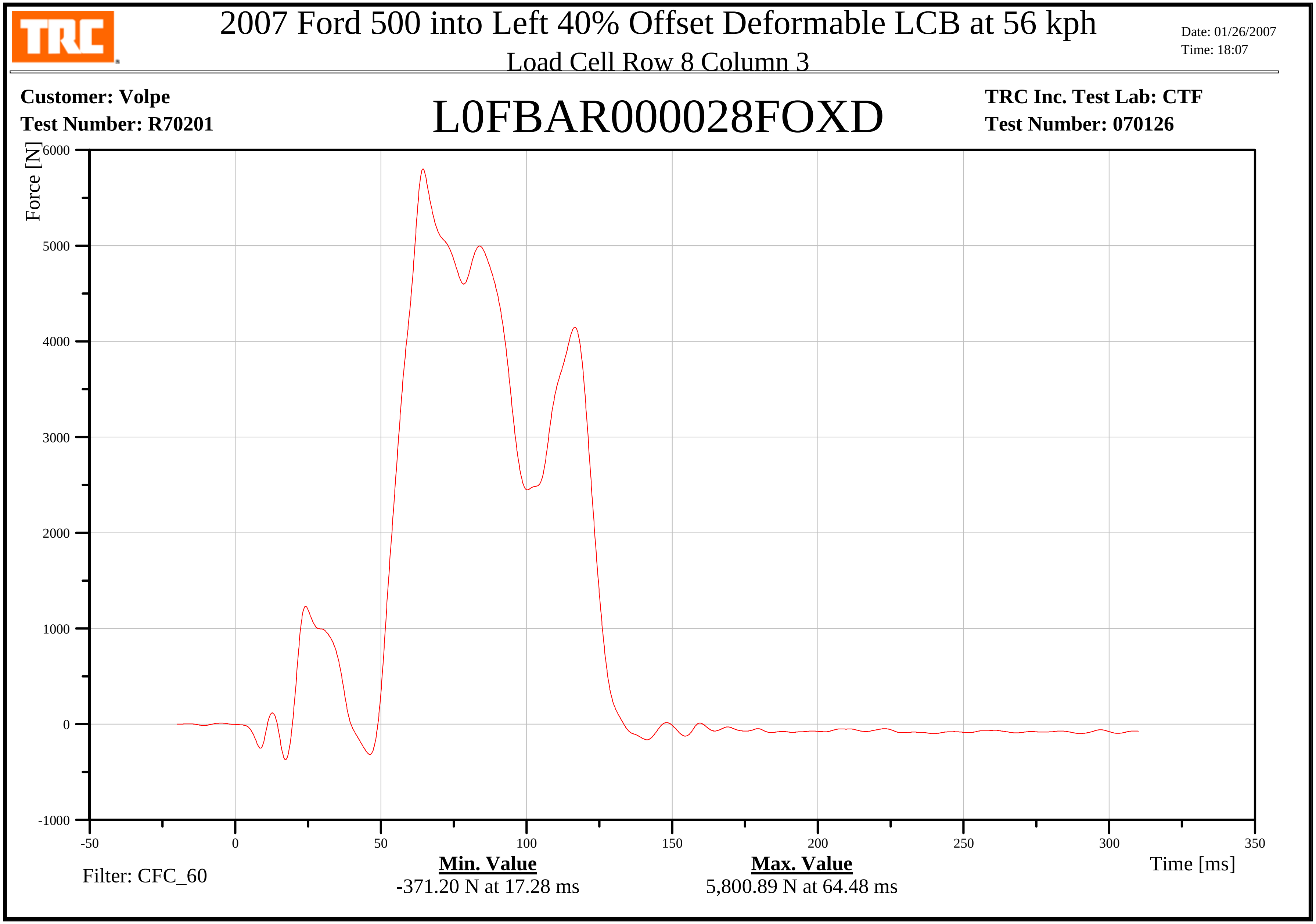
Max. Value
5,884.00 N at 82.32 ms

070126


TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 7 Column 3
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000027FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
8000
7000
6000
5000
4000
3000
2000
1000
0
-1000
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-304.04 N at 17.04 ms
Max. Value
7,456.35 N at 75.28 ms

B-237

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 8 Column 3
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000028FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
6000
5000
4000
3000
2000
1000
0
-1000
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-371.20 N at 17.28 ms
Max. Value
5,800.89 N at 64.48 ms

070126

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

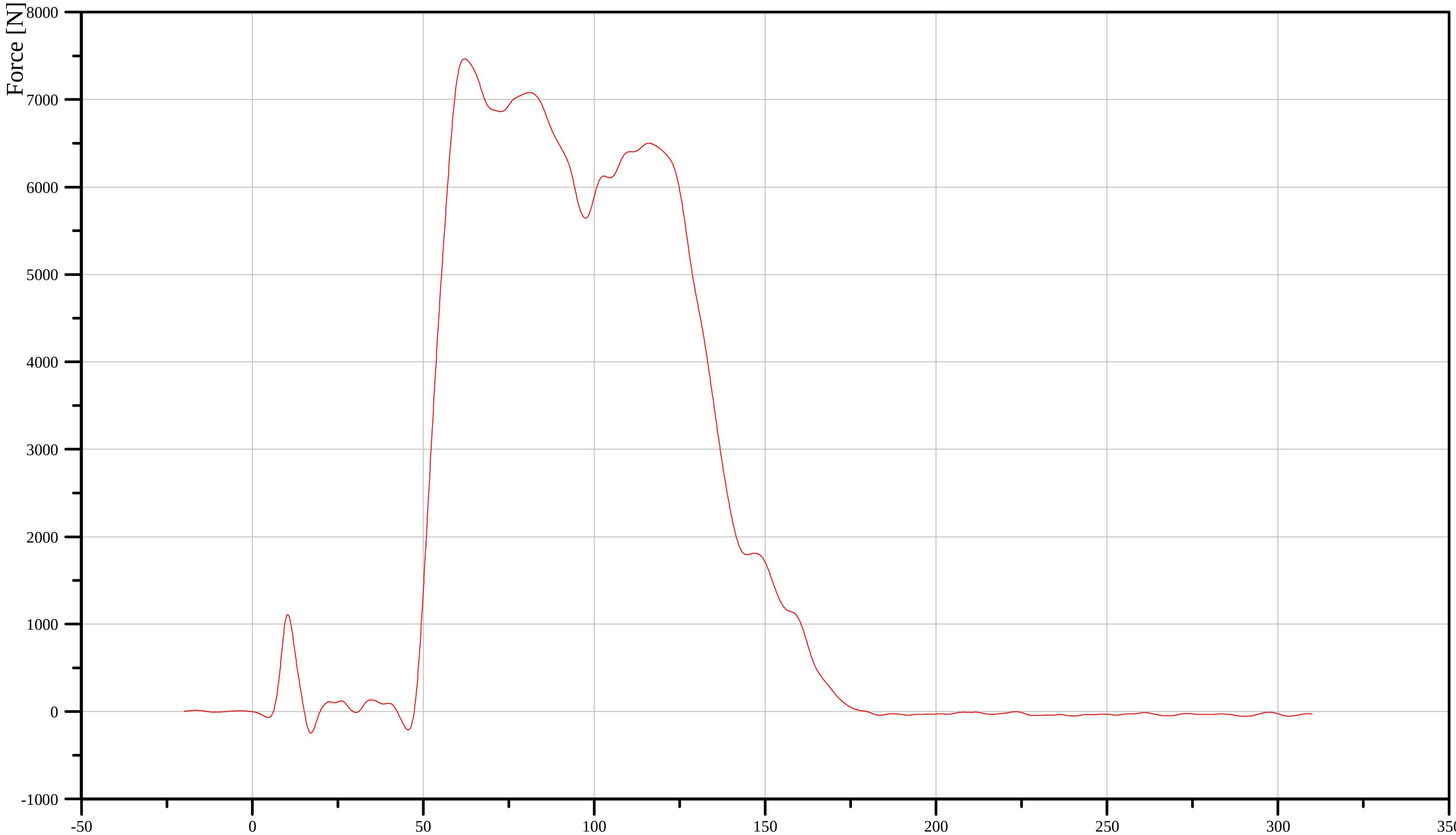
Load Cell Row 9 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000029FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-245.08 N at 17.12 ms

Max. Value
7,465.34 N at 62.08 ms

B-239

070126

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

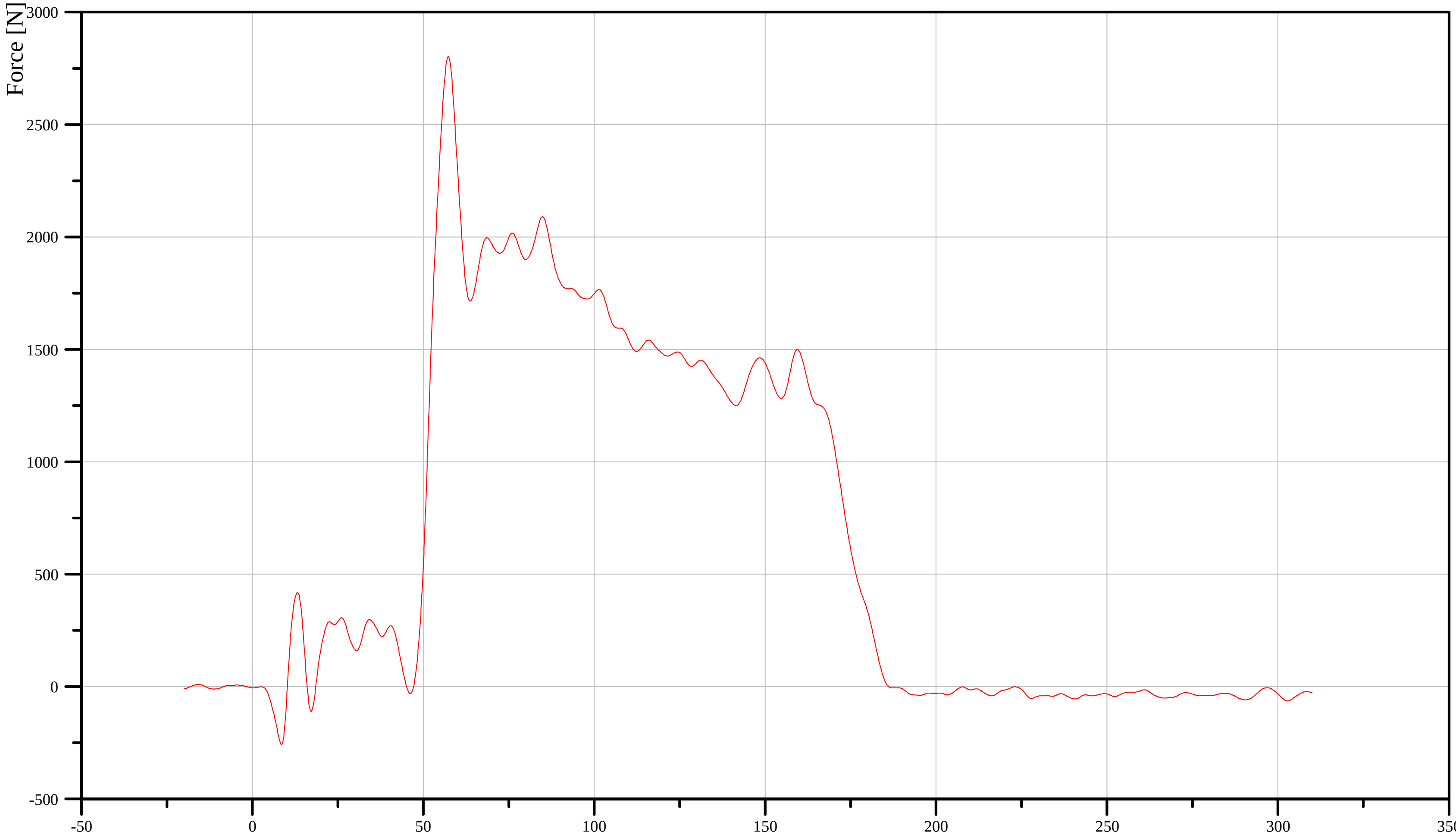
Load Cell Row 10 Column 3

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000030FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-257.08 N at 8.56 ms

Max. Value
2,803.11 N at 57.36 ms

070126

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

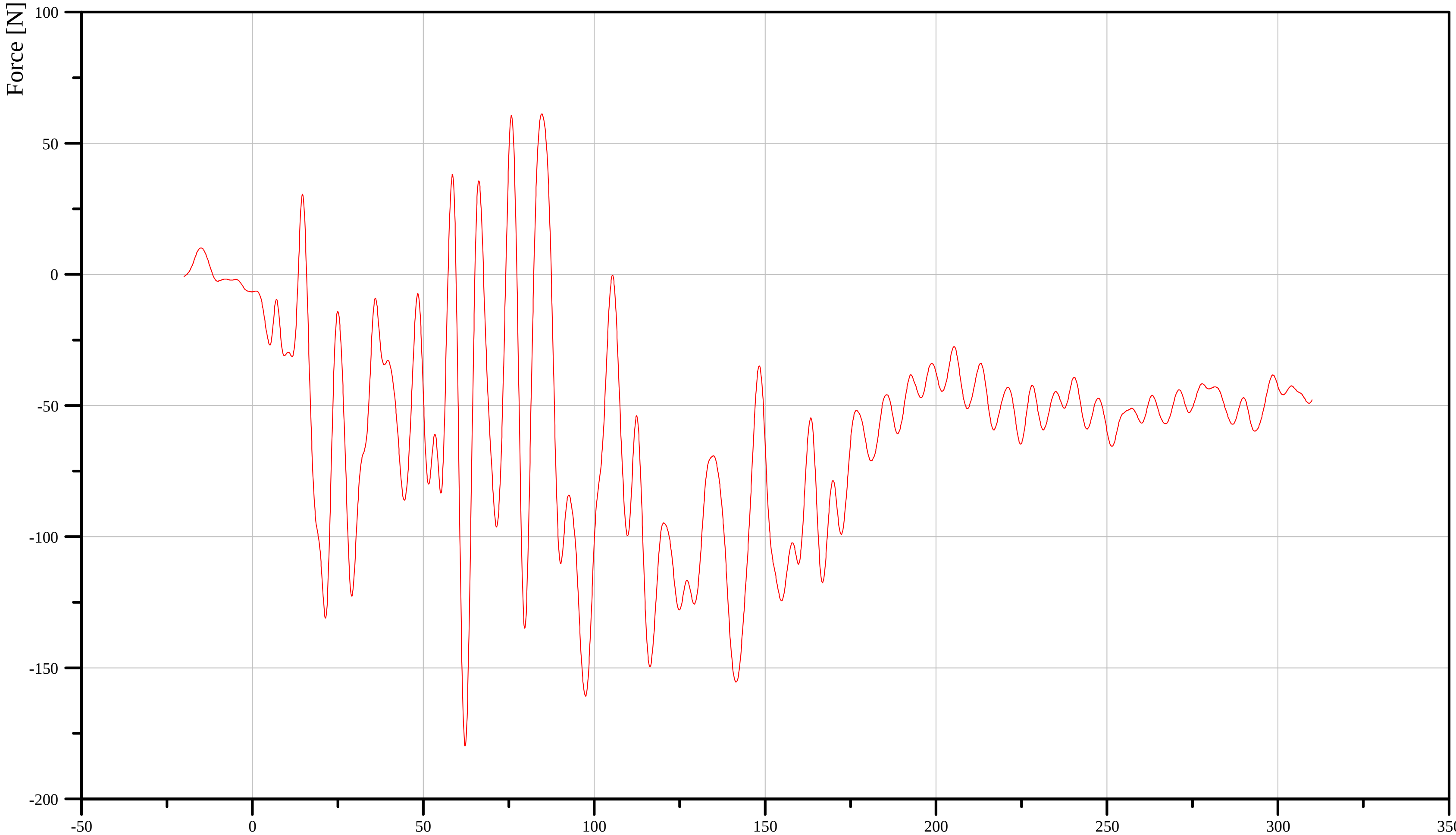
Load Cell Row 1 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000031FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-179.83 N at 62.24 ms

Max. Value
61.23 N at 84.64 ms

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

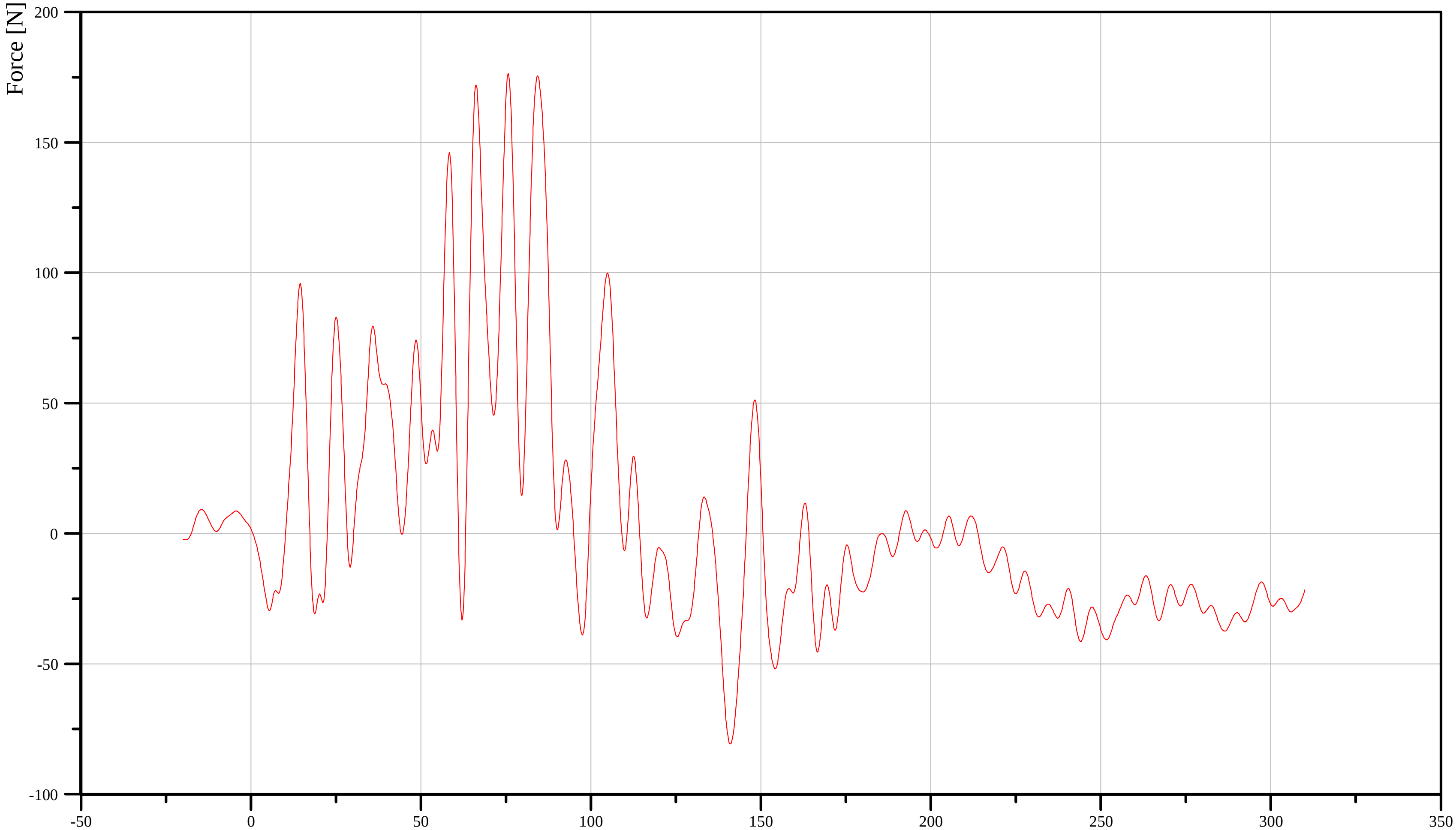
Load Cell Row 2 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000032FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-80.72 N at 141.04 ms

Max. Value
176.50 N at 75.68 ms

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

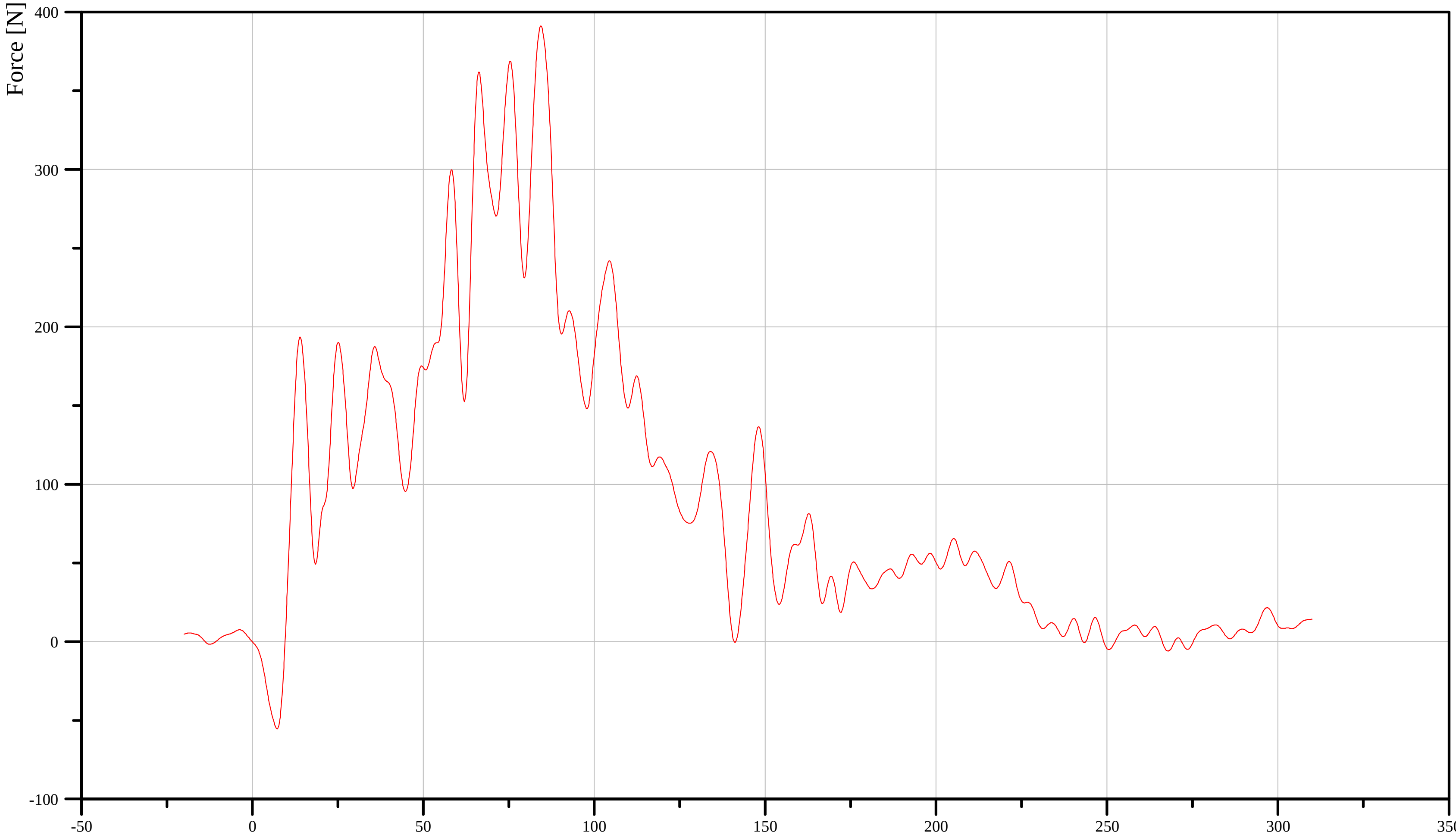
Load Cell Row 3 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000033FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-55.48 N at 7.28 ms

Max. Value
391.23 N at 84.40 ms

B-243

070126

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

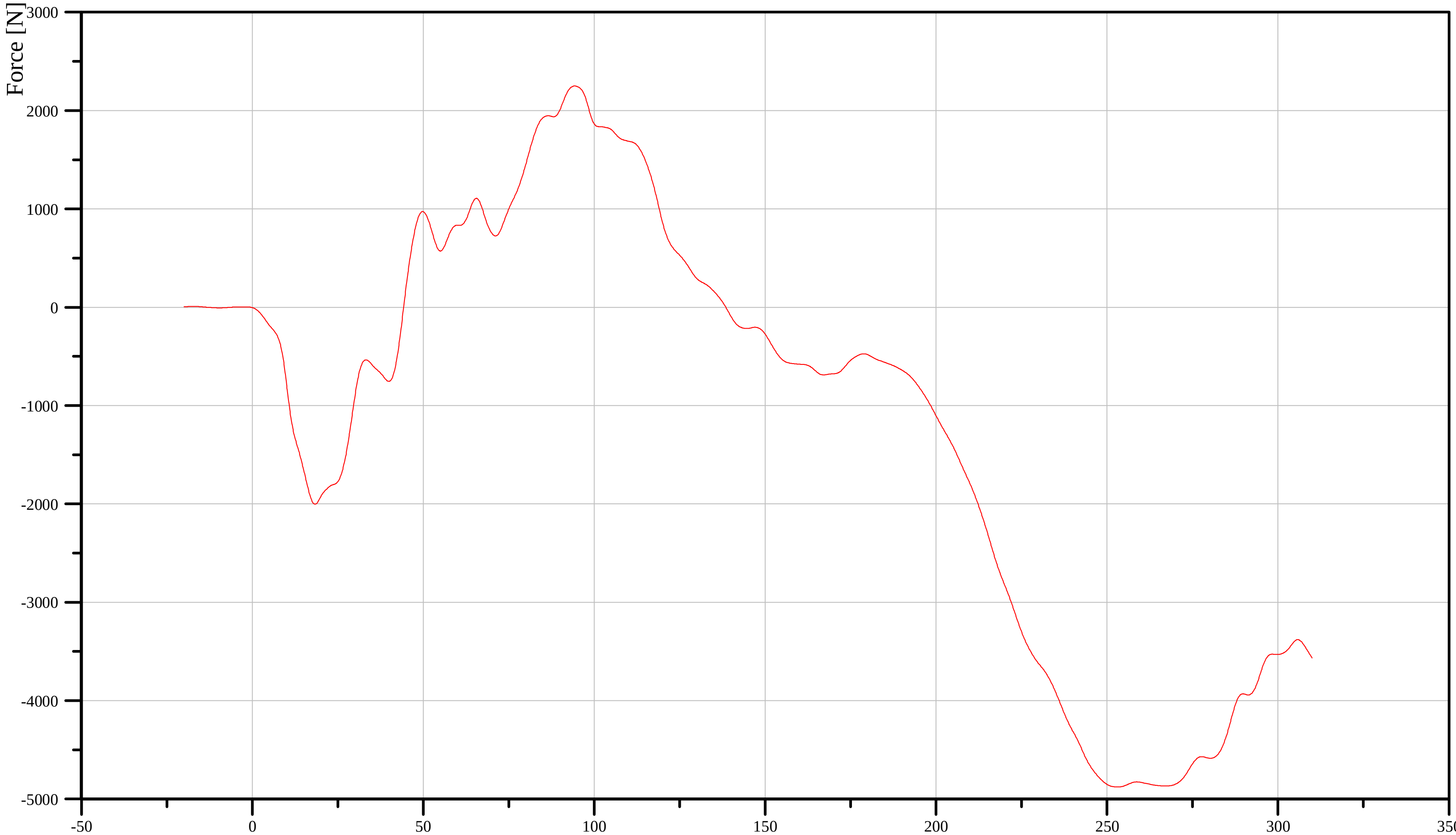
Load Cell Row 4 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000034FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-4,877.78 N at 253.12 ms

Max. Value
2,249.16 N at 94.32 ms

B-244

070126

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

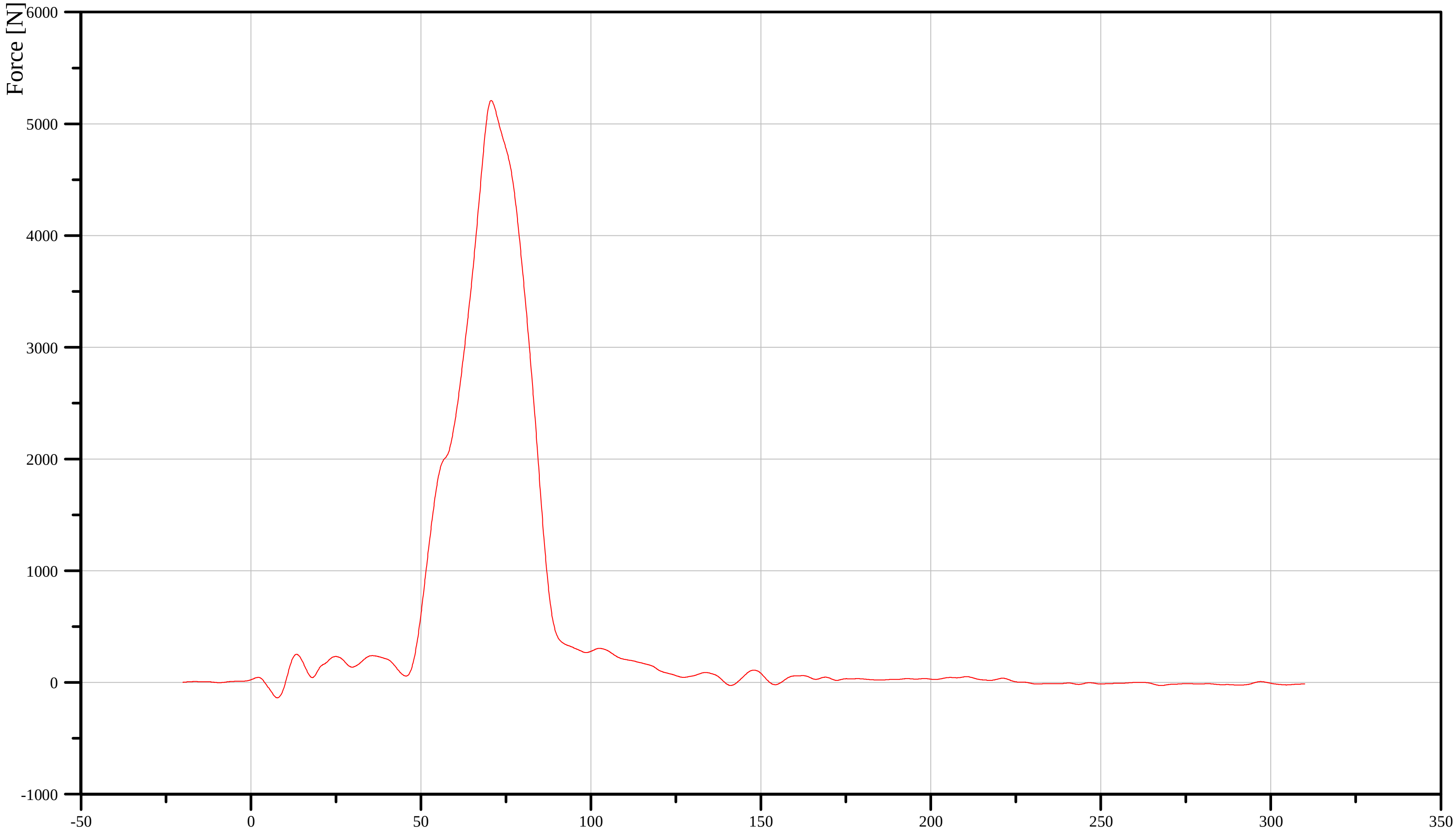
Load Cell Row 5 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000035FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-136.73 N at 7.76 ms

Max. Value
5,208.42 N at 70.72 ms

B-245

070126

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

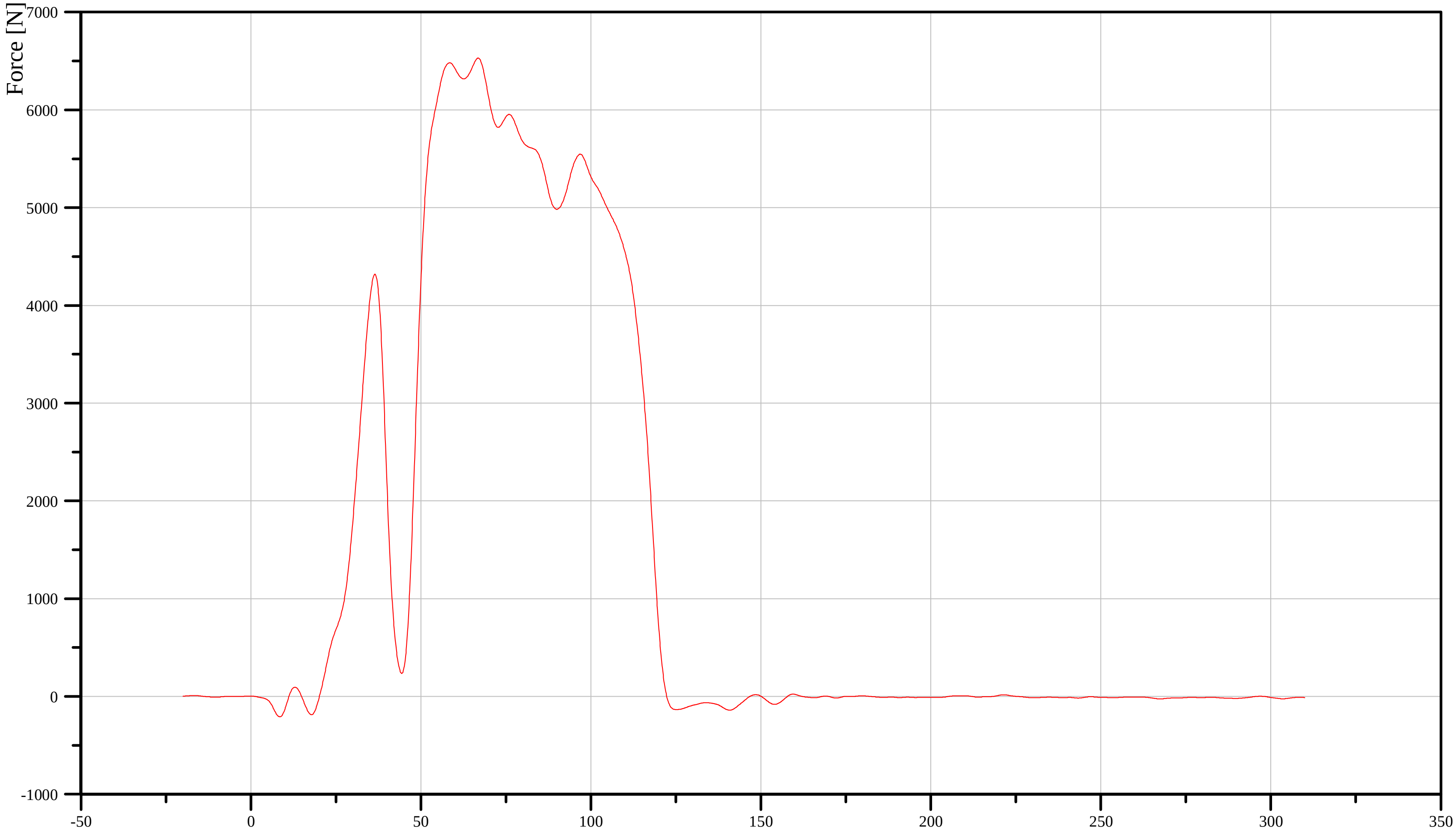
Load Cell Row 6 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000036FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-207.35 N at 8.48 ms

Max. Value
6,529.81 N at 66.88 ms

B-246

070126

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

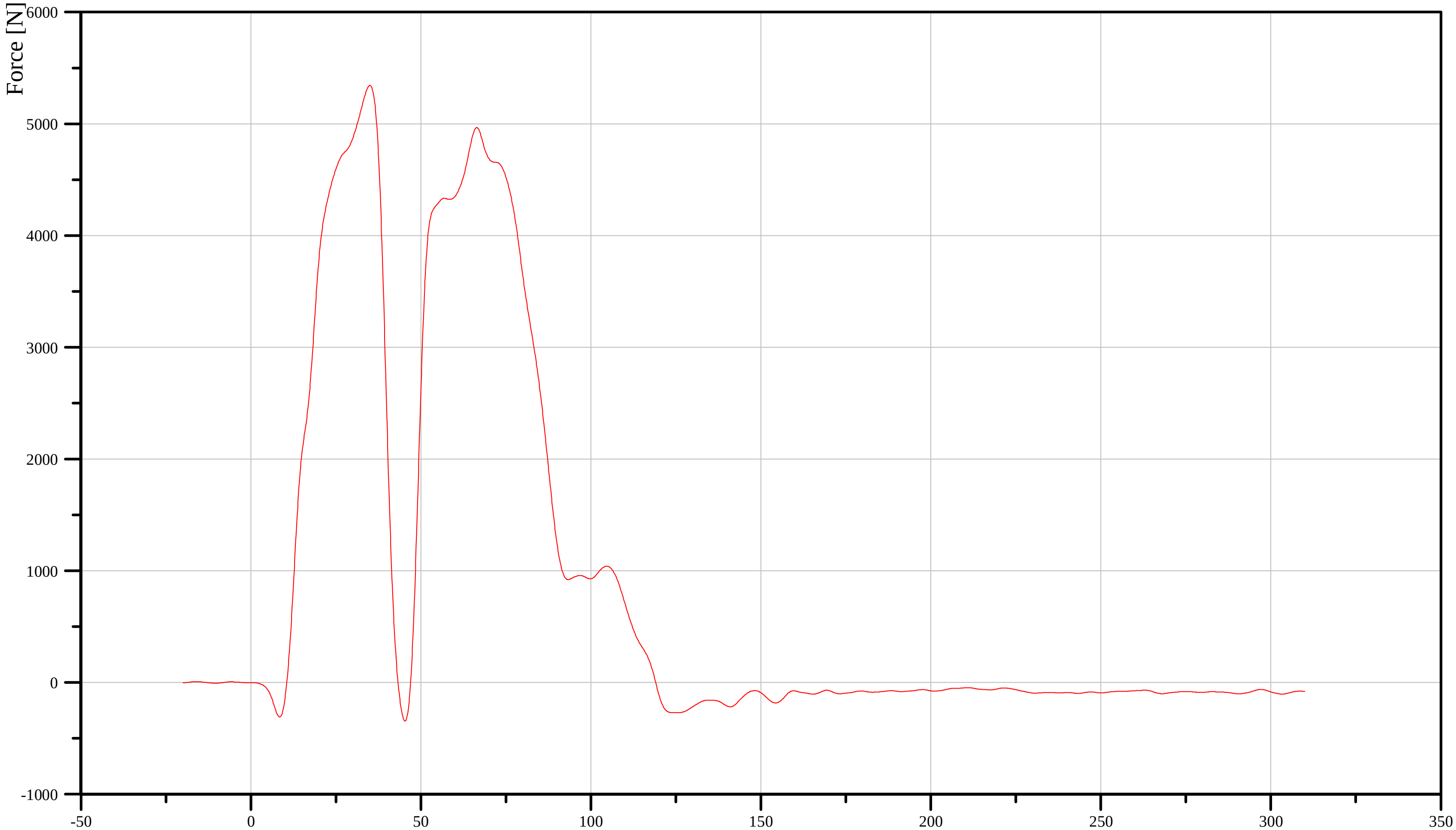
Load Cell Row 7 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000037FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-344.88 N at 45.36 ms

Max. Value
5,343.56 N at 34.96 ms

B-247

070126

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

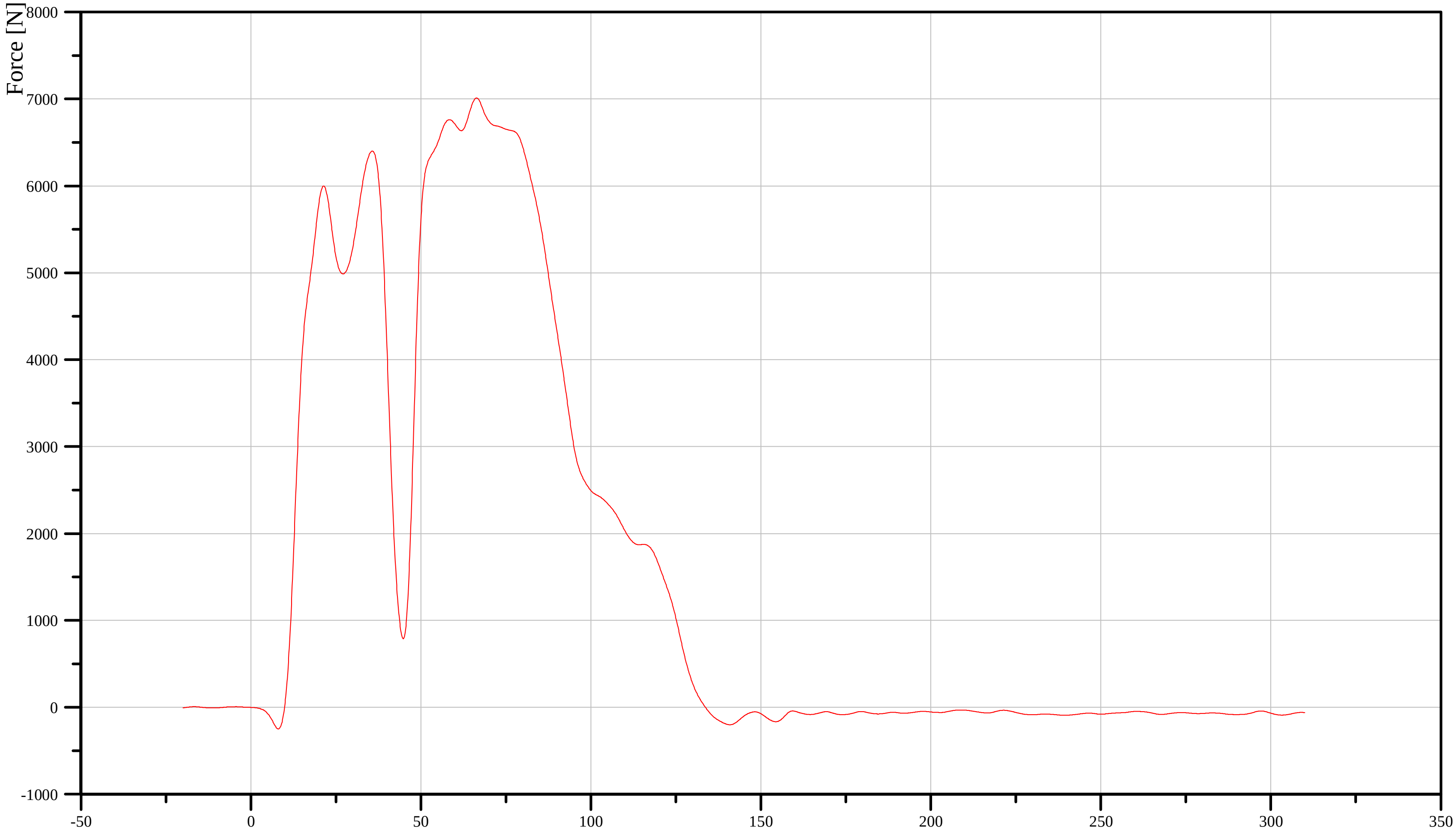
Load Cell Row 8 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000038FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-248.62 N at 8.08 ms

Max. Value
7,011.50 N at 66.40 ms

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

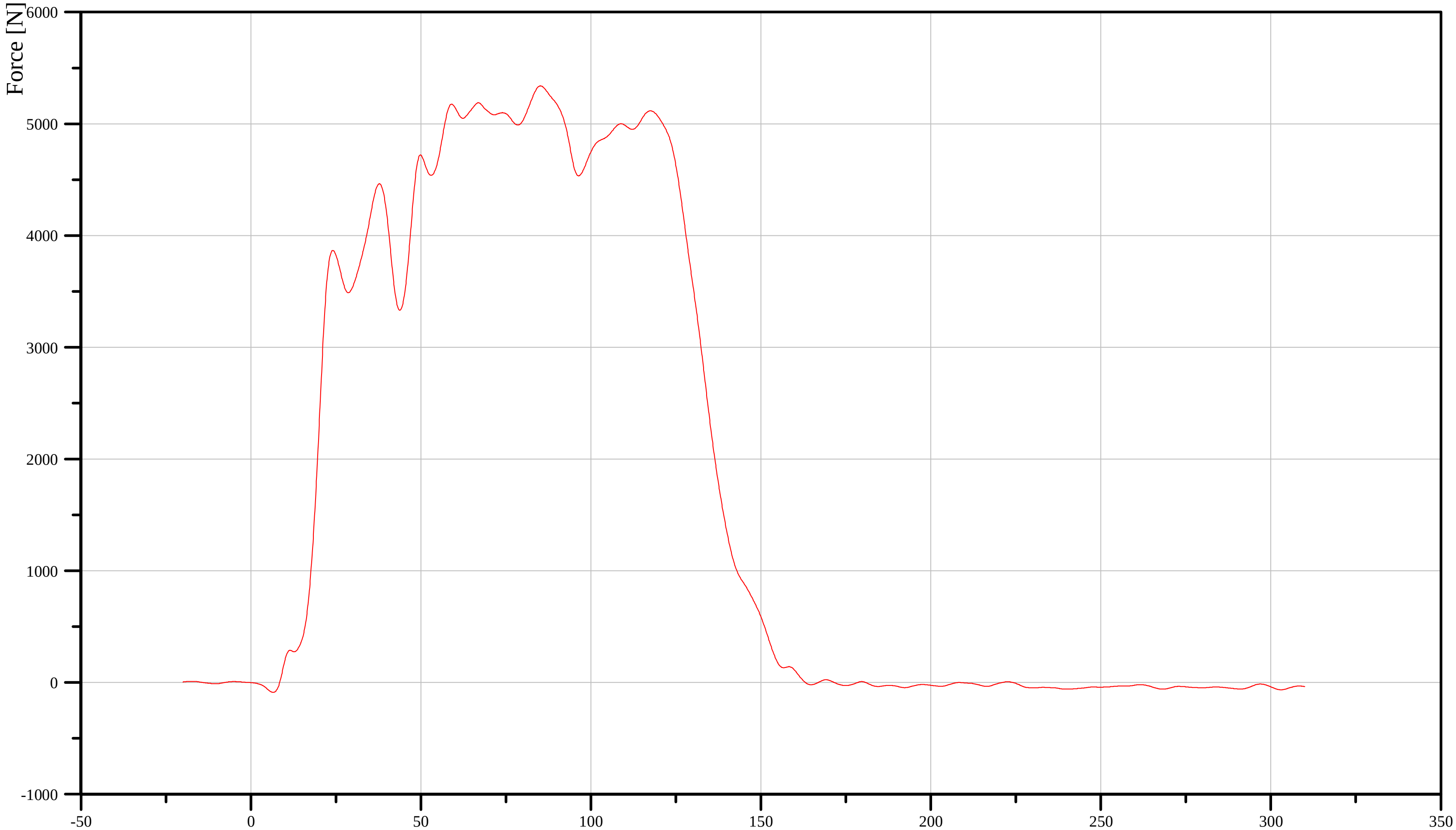
Load Cell Row 9 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000039FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-87.46 N at 6.56 ms

Max. Value
5,339.83 N at 85.12 ms

070126

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

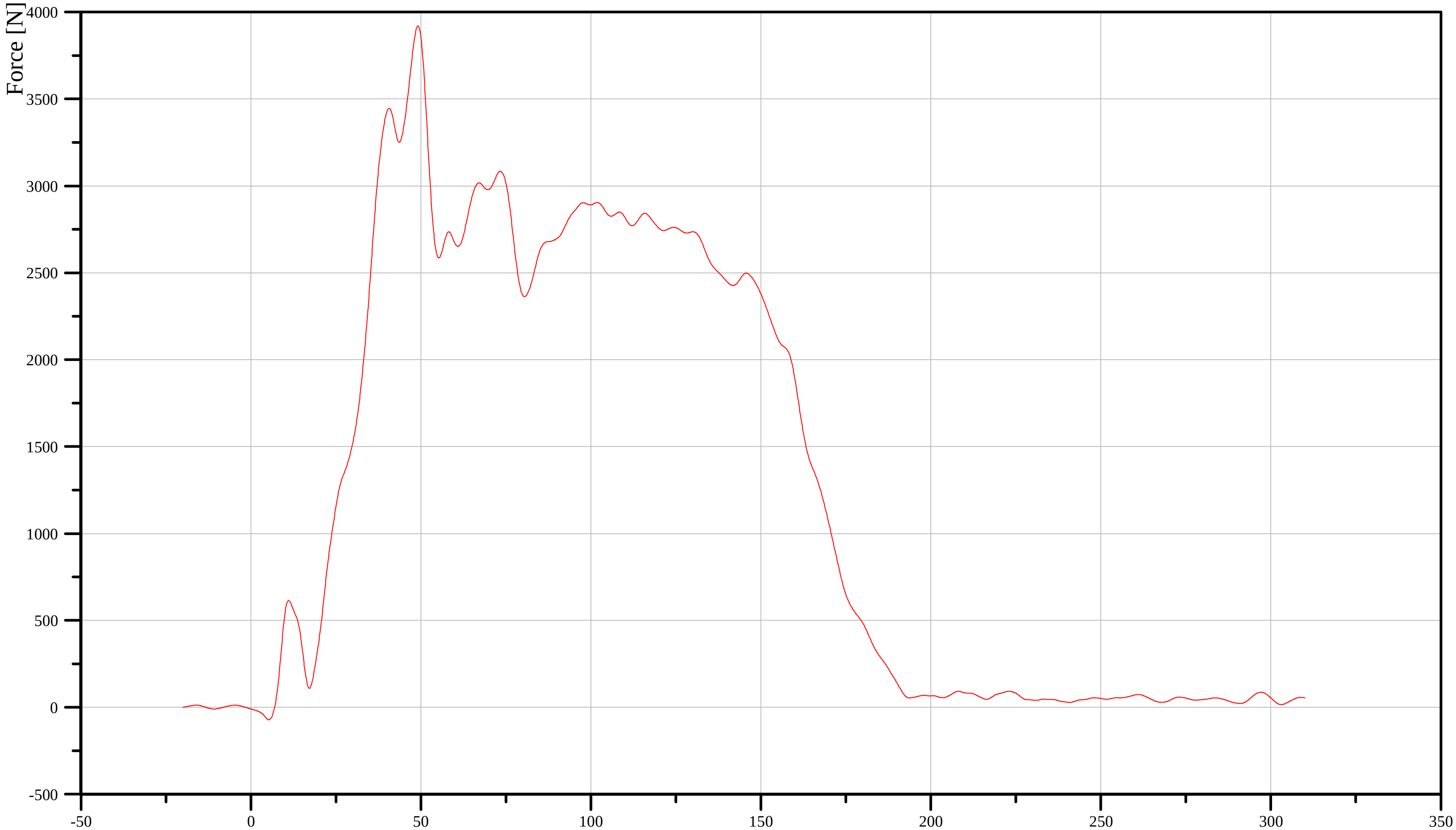
Load Cell Row 10 Column 4

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000040FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-71.96 N at 5.28 ms

Max. Value
3,920.36 N at 49.12 ms

B-250

070126

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

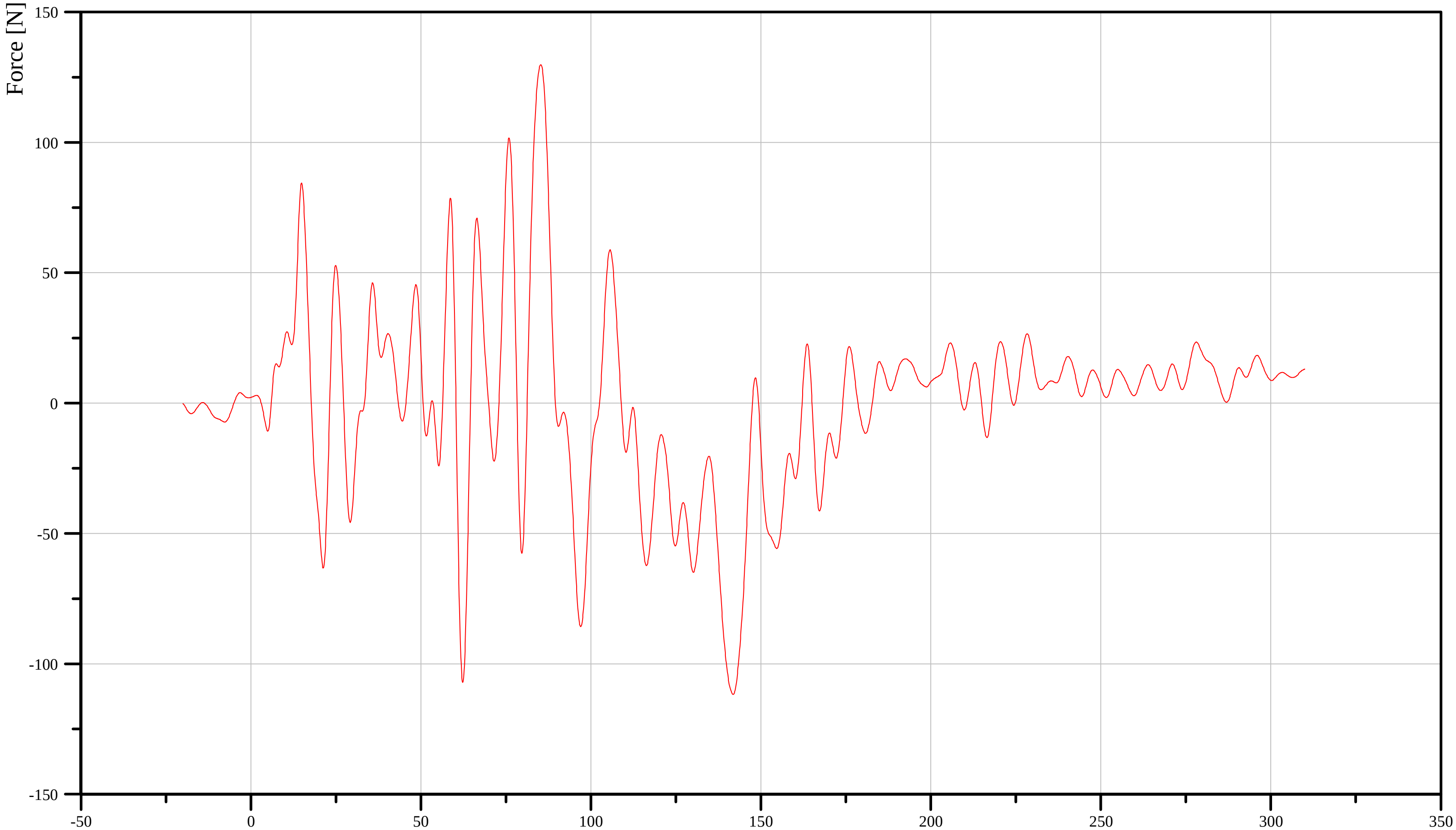
Load Cell Row 1 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000041FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-111.67 N at 141.84 ms

Max. Value
129.83 N at 85.28 ms

B-251

070126

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

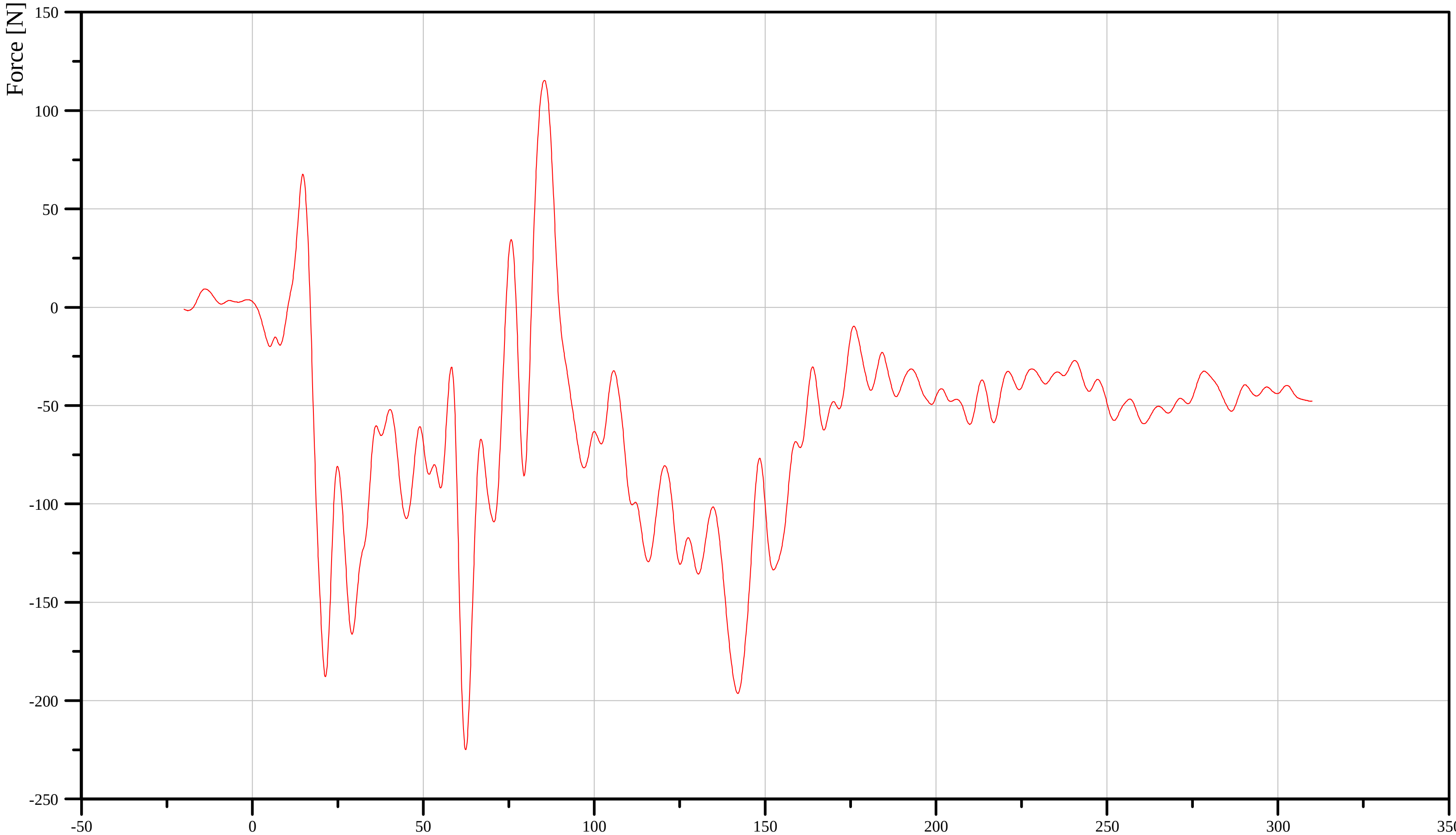
Load Cell Row 2 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000042FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Time [ms]

Filter: CFC_60

Min. Value
-224.95 N at 62.40 ms

Max. Value
115.32 N at 85.44 ms

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

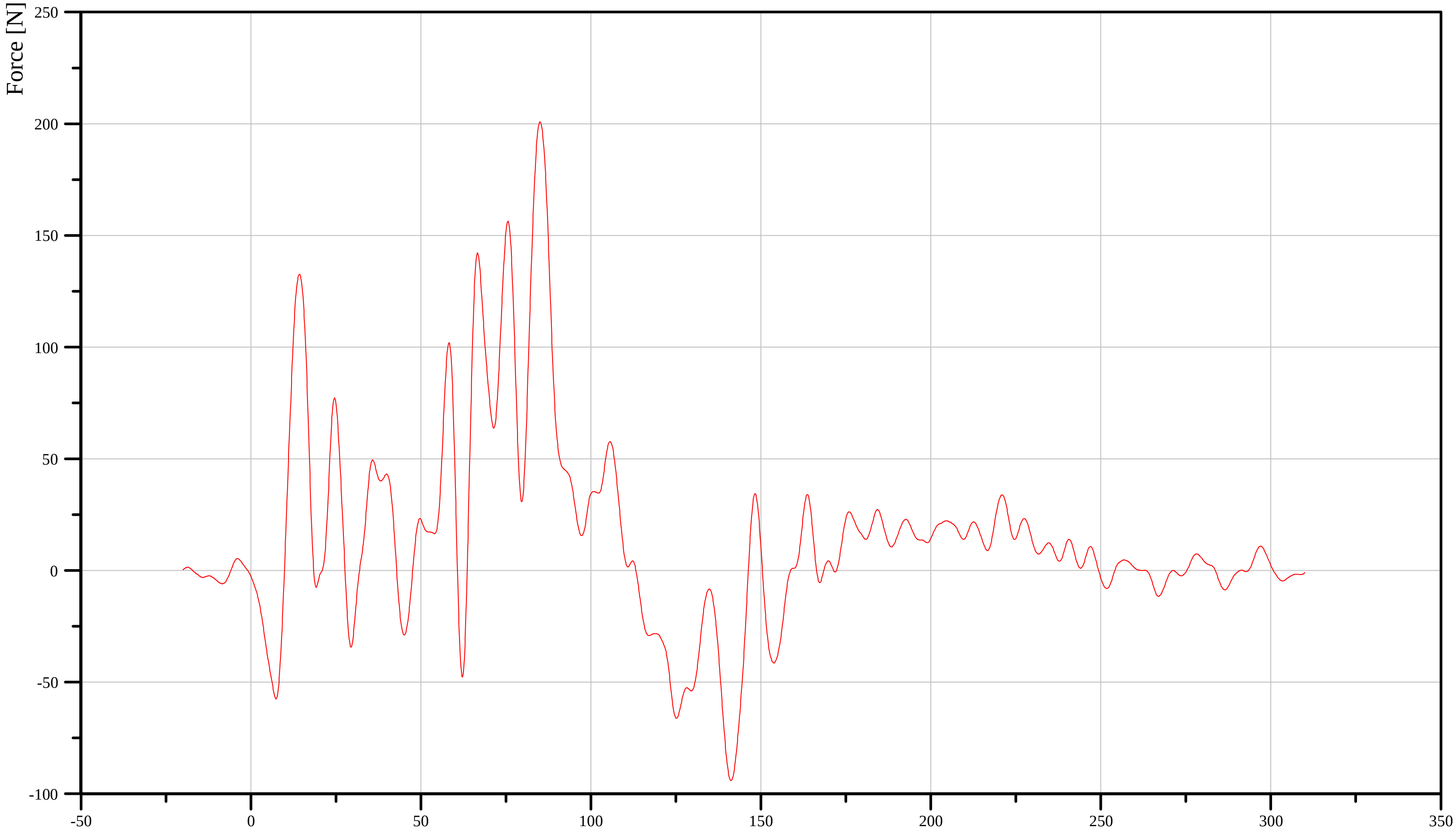
Load Cell Row 3 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000043FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-94.10 N at 141.20 ms

Max. Value
200.84 N at 85.04 ms

070126

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

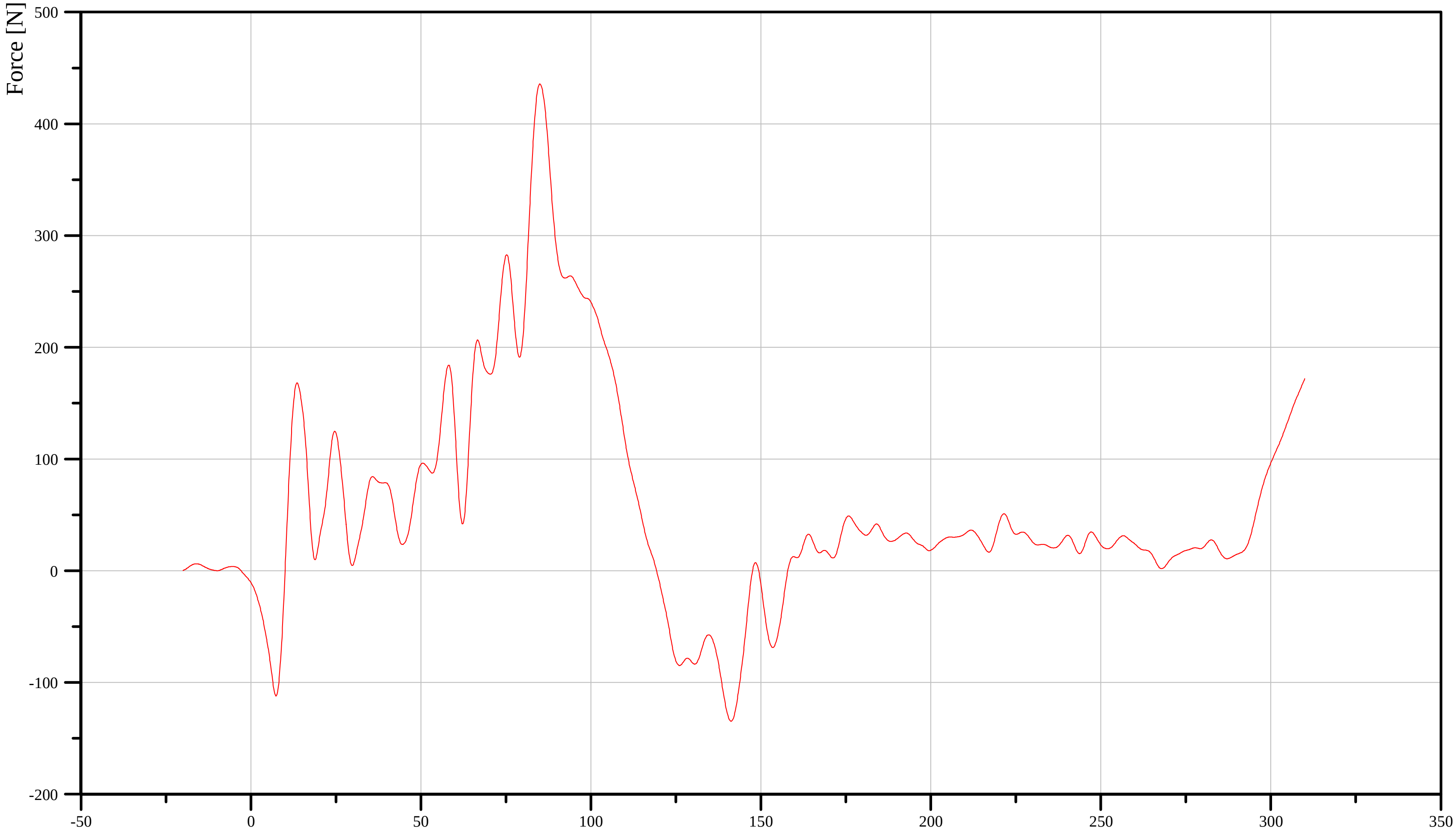
Load Cell Row 4 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000044FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-134.63 N at 141.20 ms

Max. Value
435.70 N at 84.96 ms

B-254

070126

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

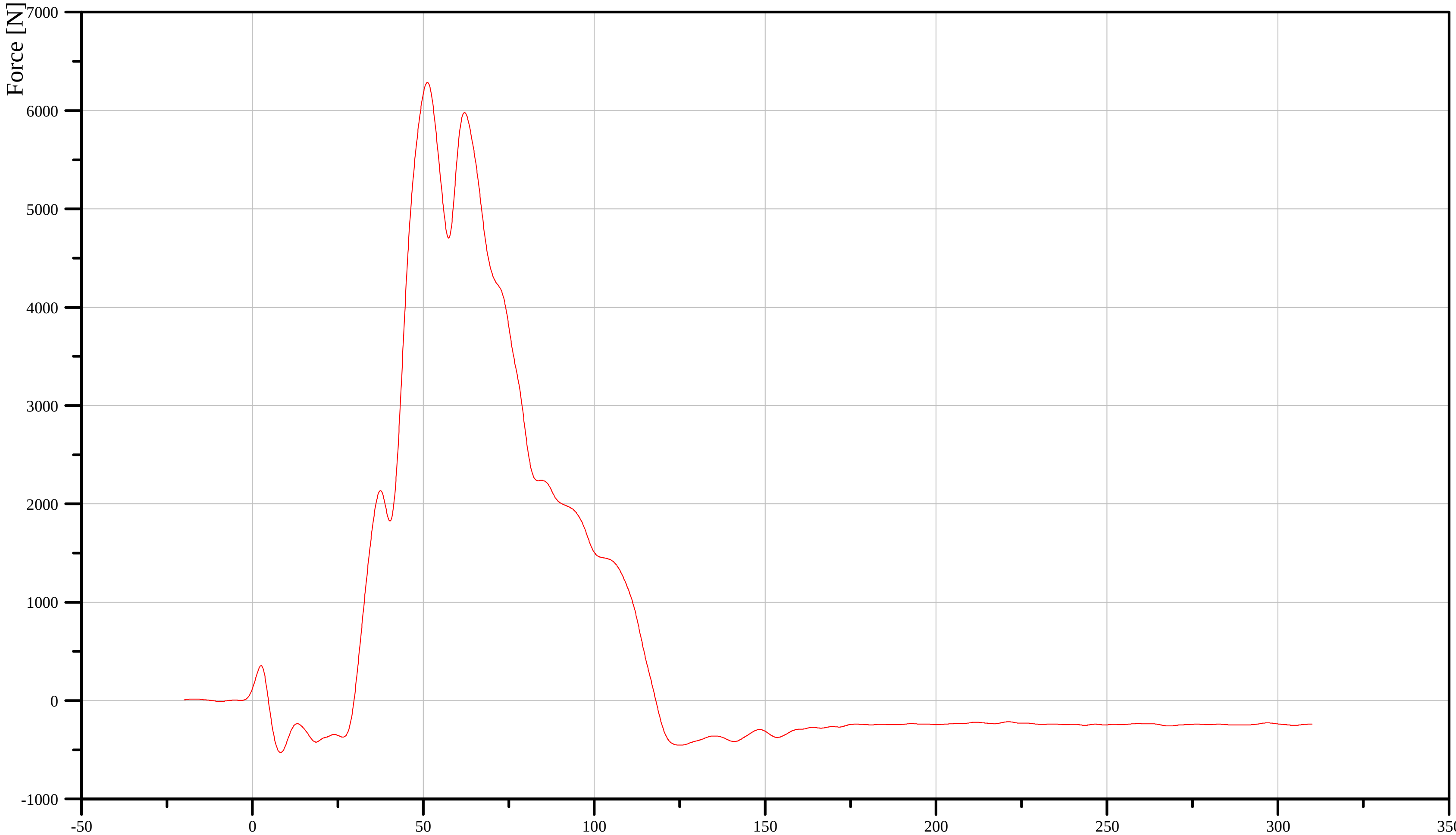
Load Cell Row 5 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000045FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-527.43 N at 8.24 ms

Max. Value
6,284.80 N at 51.20 ms

B-255

070126

B-256

070126

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

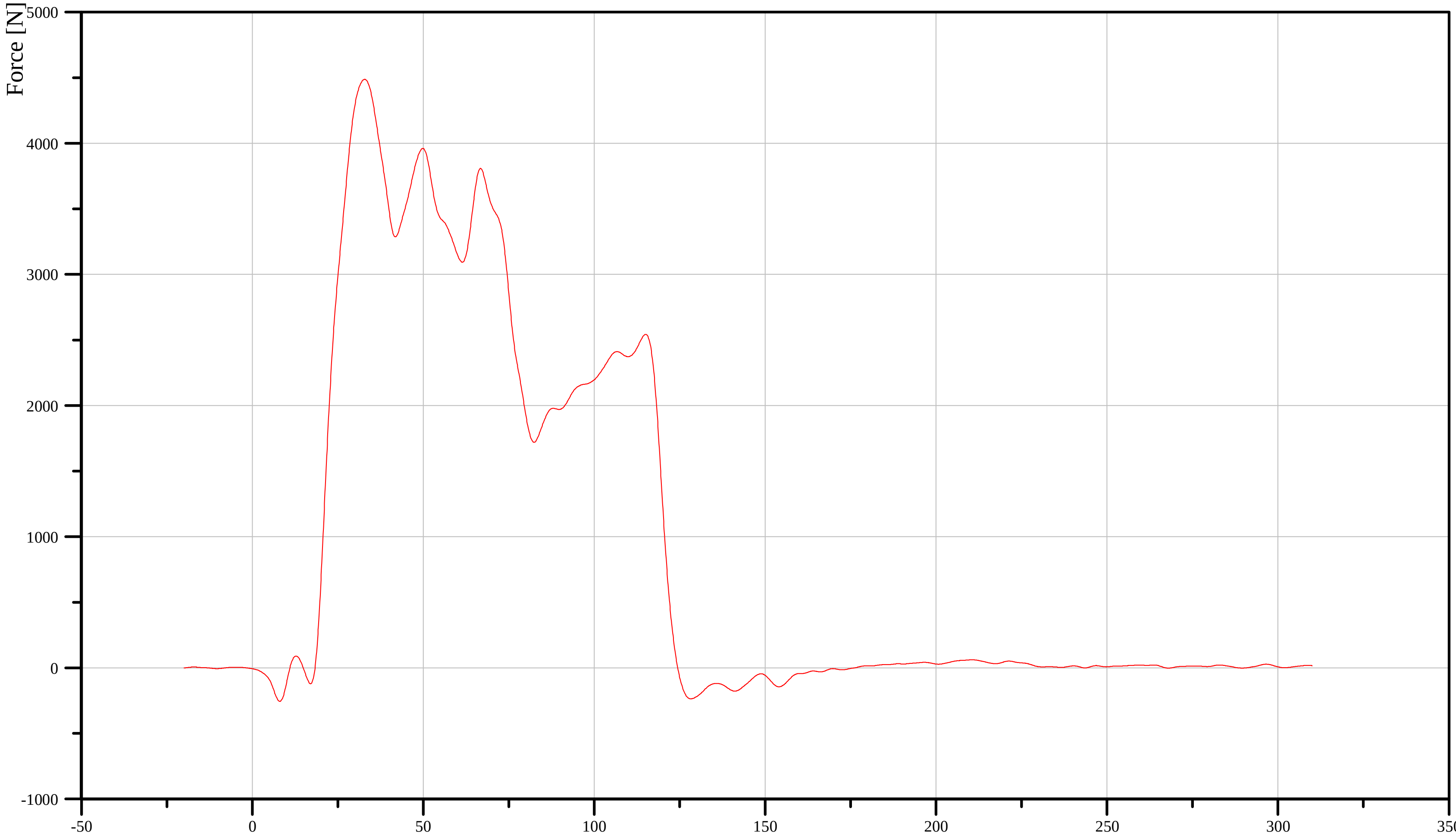
Load Cell Row 6 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000046FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Time [ms]

Filter: CFC_60

Min. Value
-254.85 N at 8.00 ms

Max. Value
4,488.00 N at 32.88 ms

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

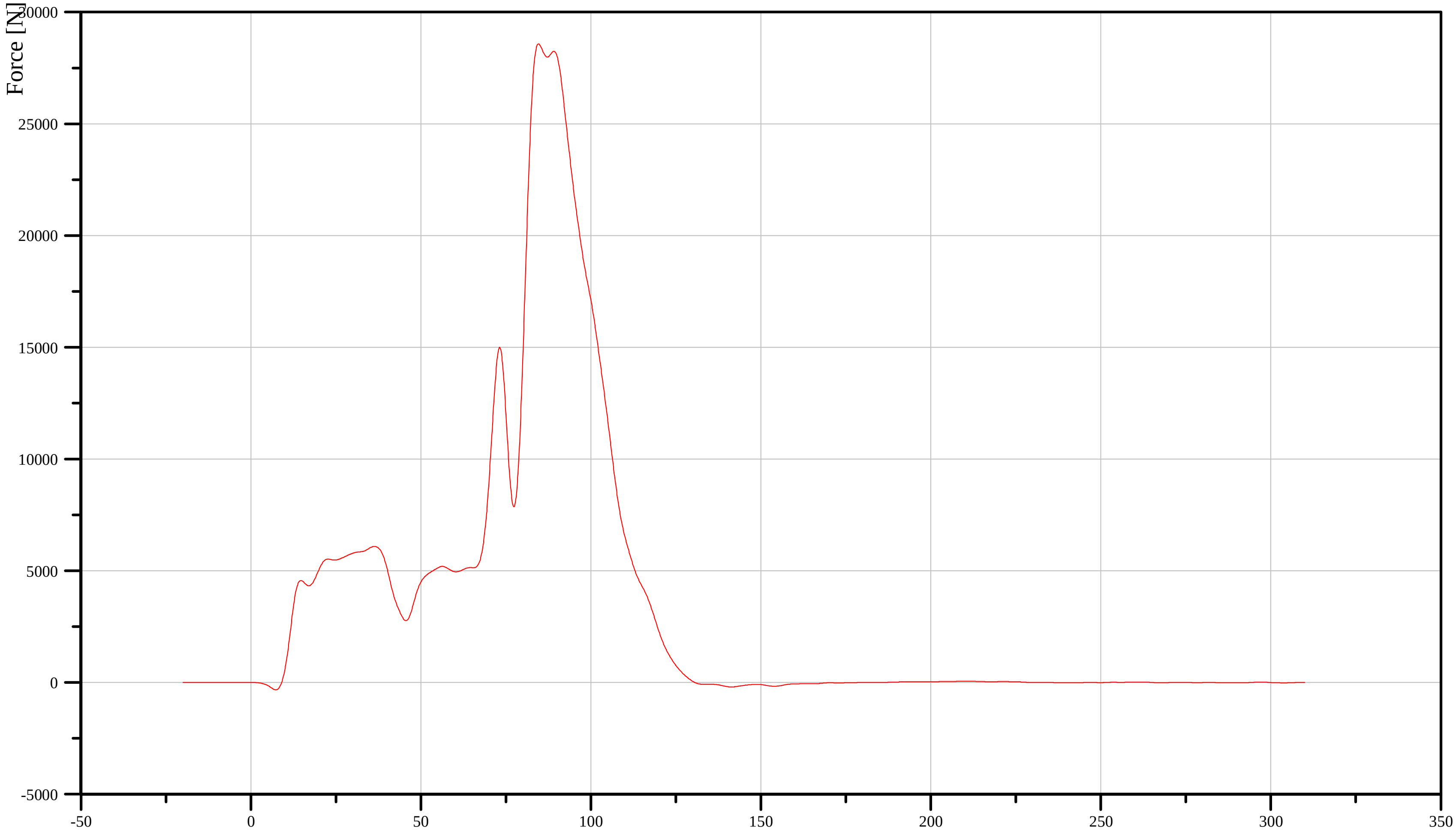
Load Cell Row 7 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000047FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-326.93 N at 7.36 ms

Max. Value
28,577.99 N at 84.56 ms

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

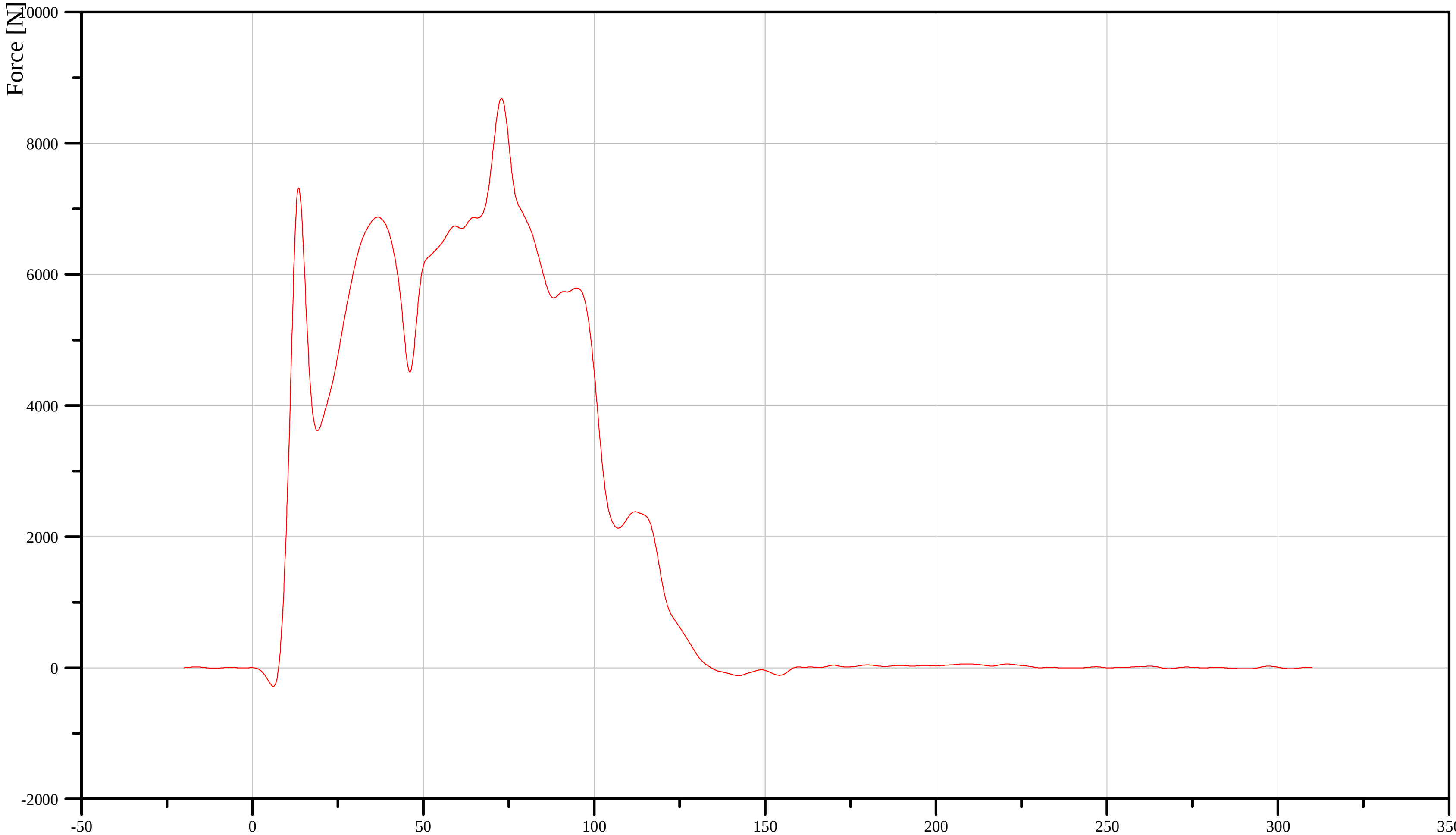
Load Cell Row 8 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000048FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-281.05 N at 6.16 ms

Max. Value
8,684.87 N at 72.88 ms

B-258

070126

TRC

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

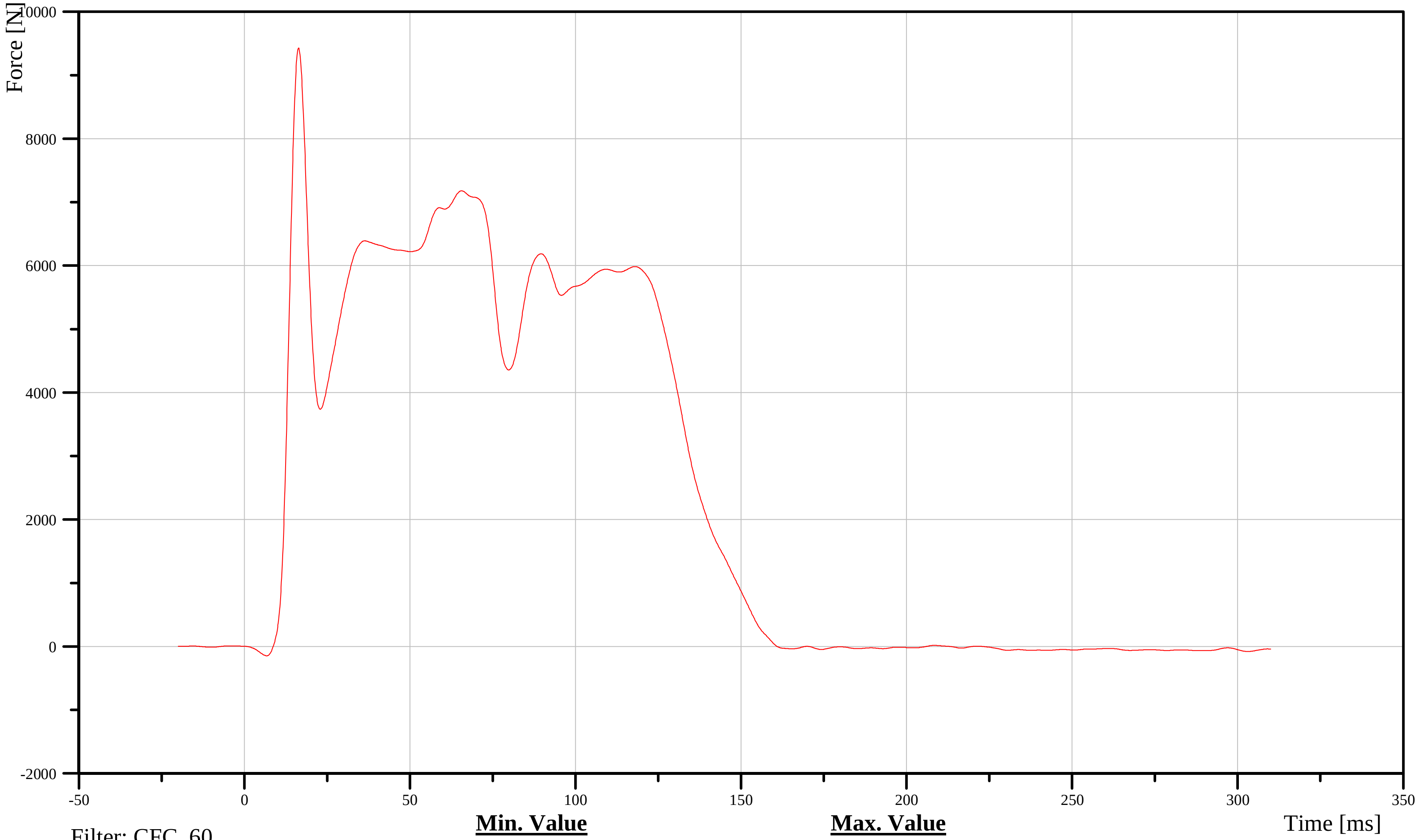
Load Cell Row 9 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000049FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-146.54 N at 6.72 ms

Max. Value
9,430.86 N at 16.40 ms

B-259

070126

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

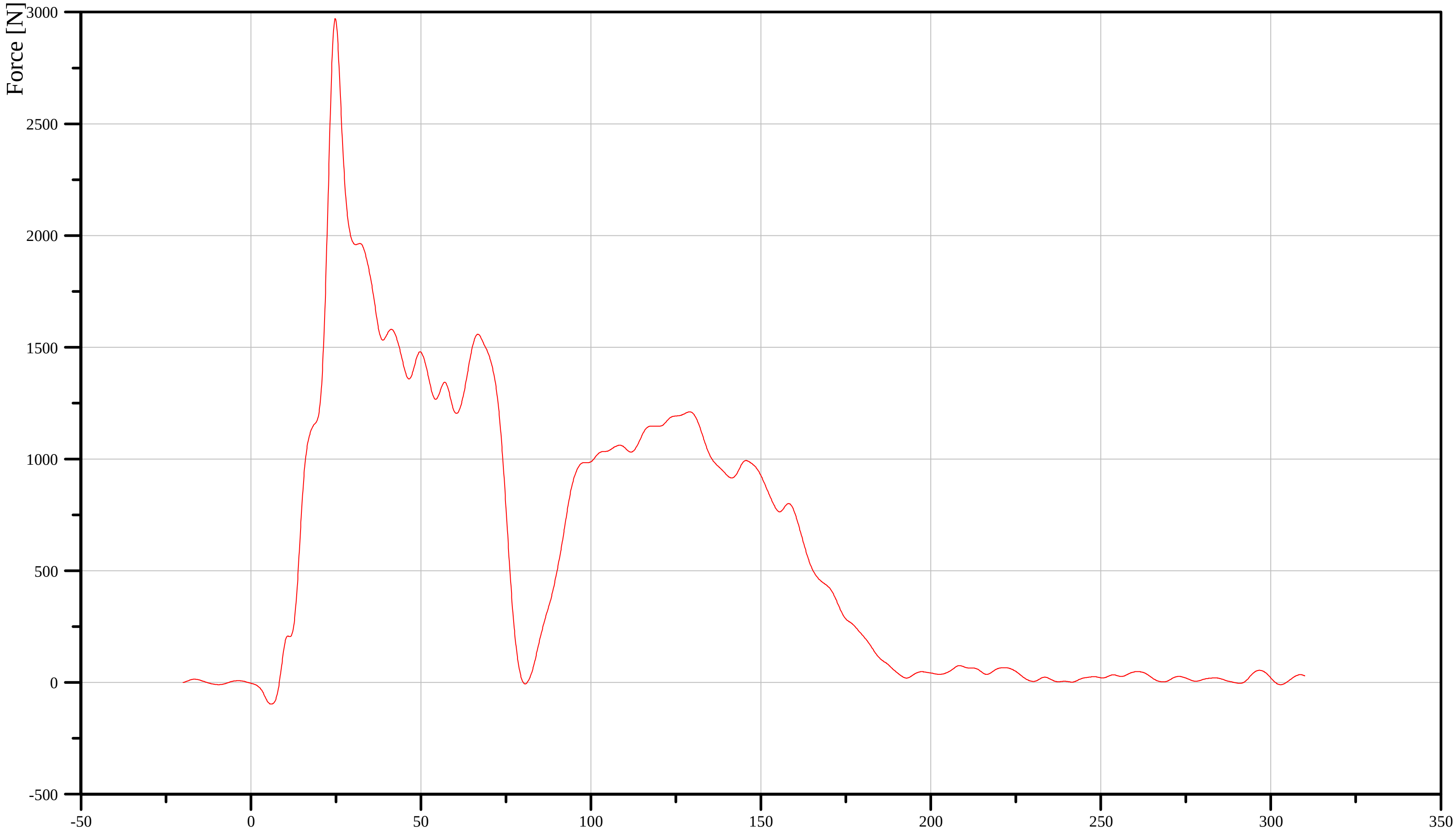
Load Cell Row 10 Column 5

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000050FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-96.27 N at 6.00 ms

Max. Value
2,971.30 N at 24.80 ms

B-260

070126

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

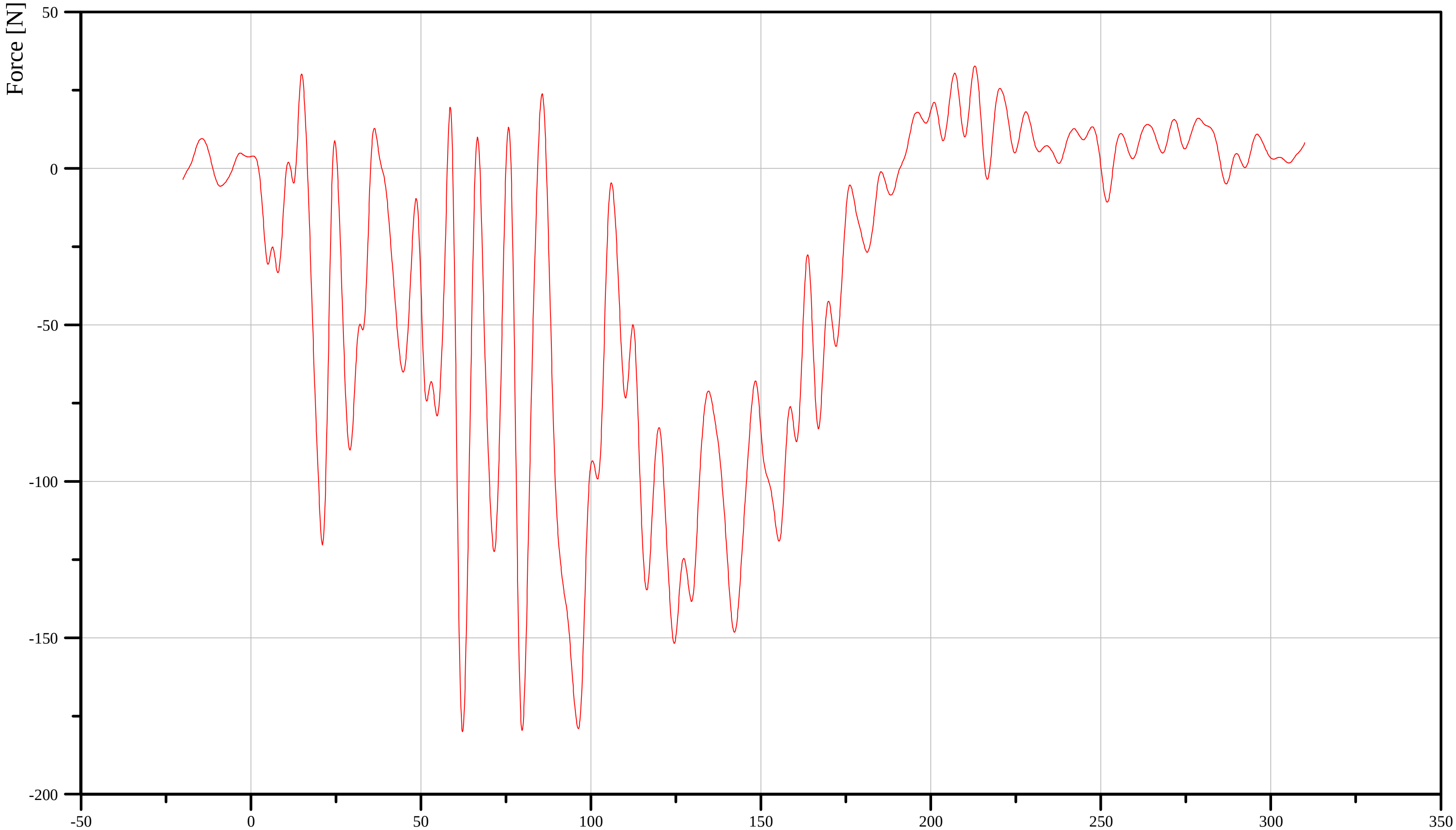
Load Cell Row 1 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000051FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



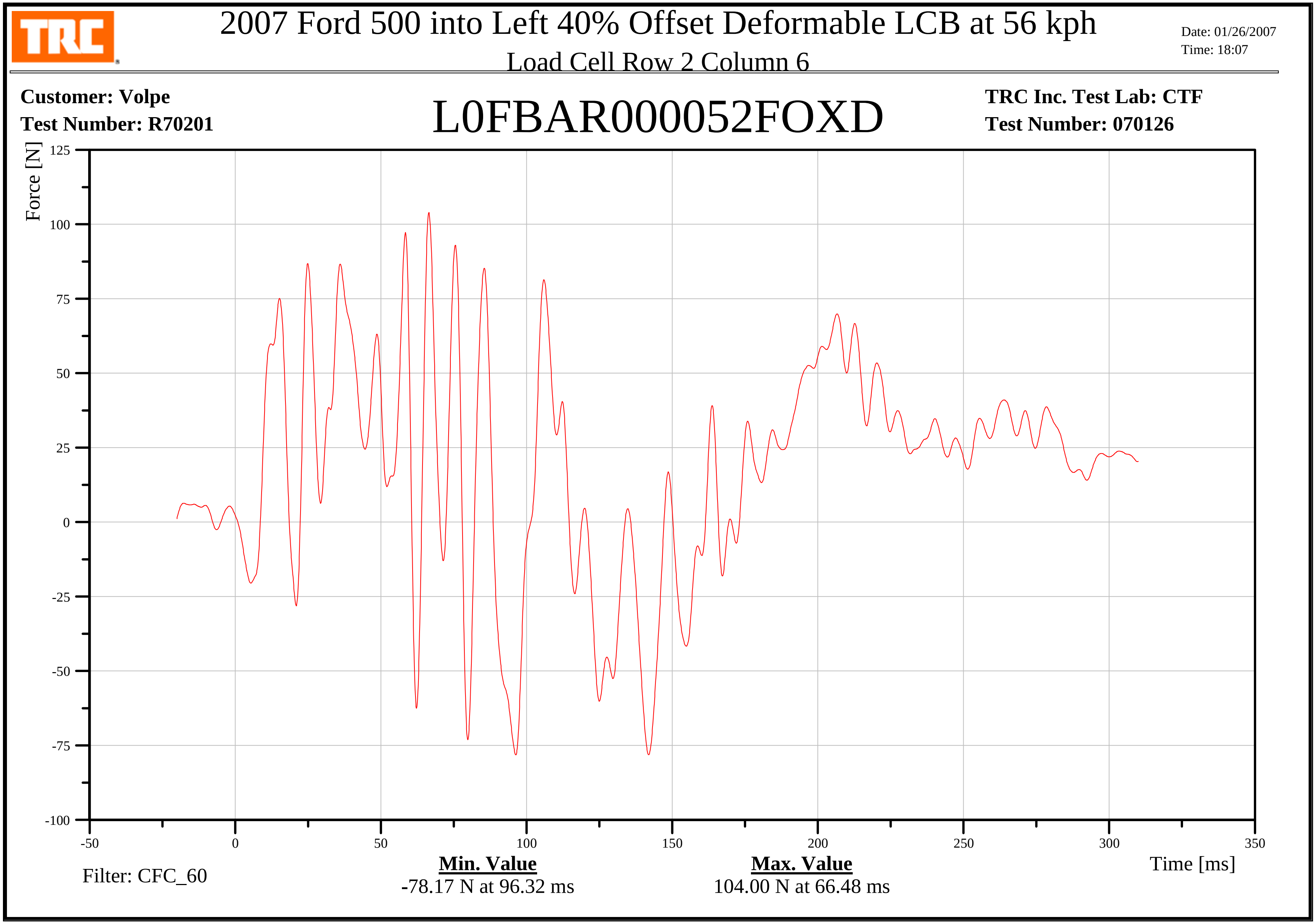
Filter: CFC_60

Min. Value
-180.02 N at 62.24 ms

Max. Value
32.78 N at 212.96 ms

B-261

070126



2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 2 Column 6
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000052FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
Time [ms]
Filter: CFC_60
Min. Value
-78.17 N at 96.32 ms
Max. Value
104.00 N at 66.48 ms

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

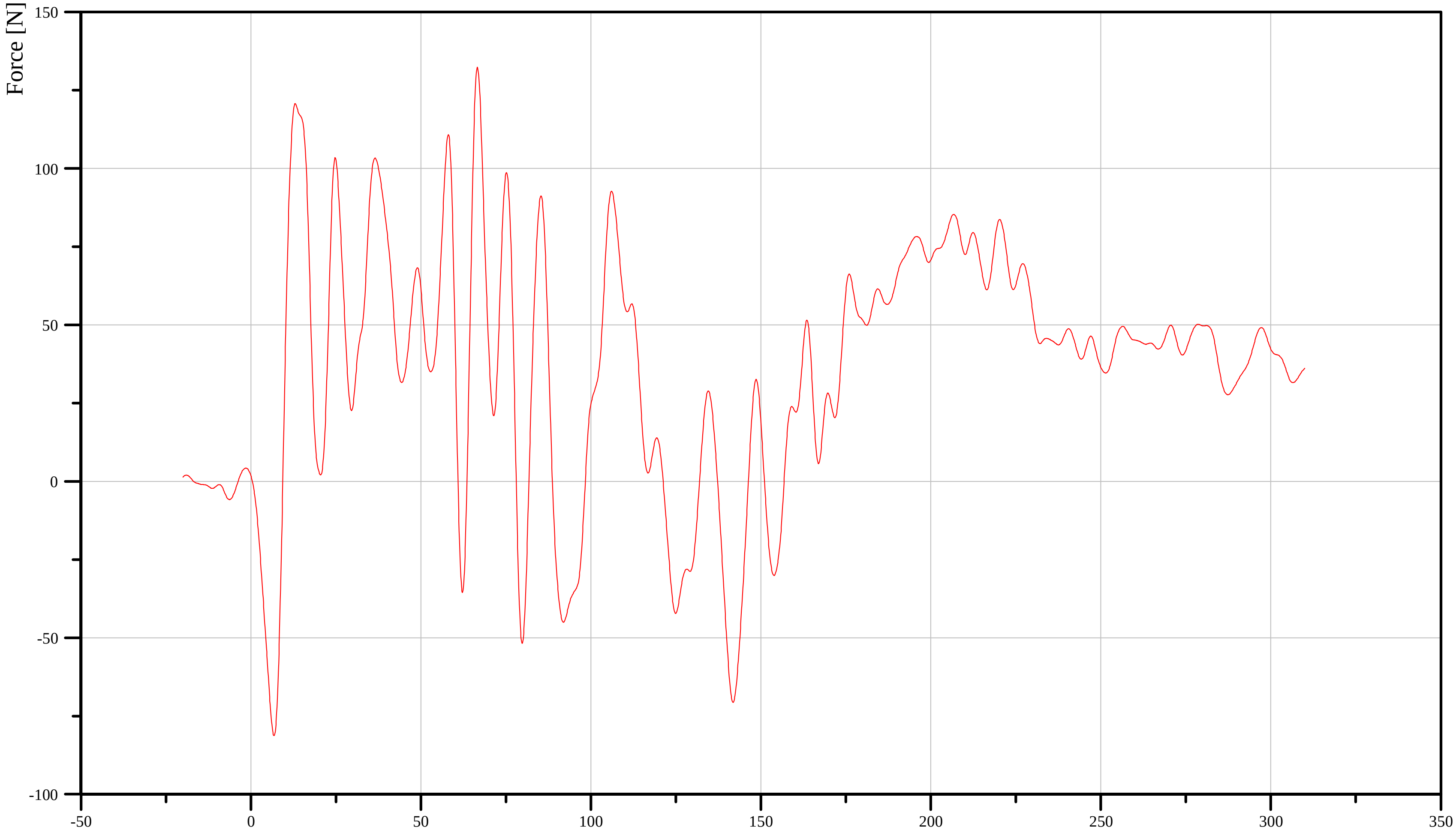
Load Cell Row 3 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000053FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-81.28 N at 6.80 ms

Max. Value
132.37 N at 66.64 ms

070126

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

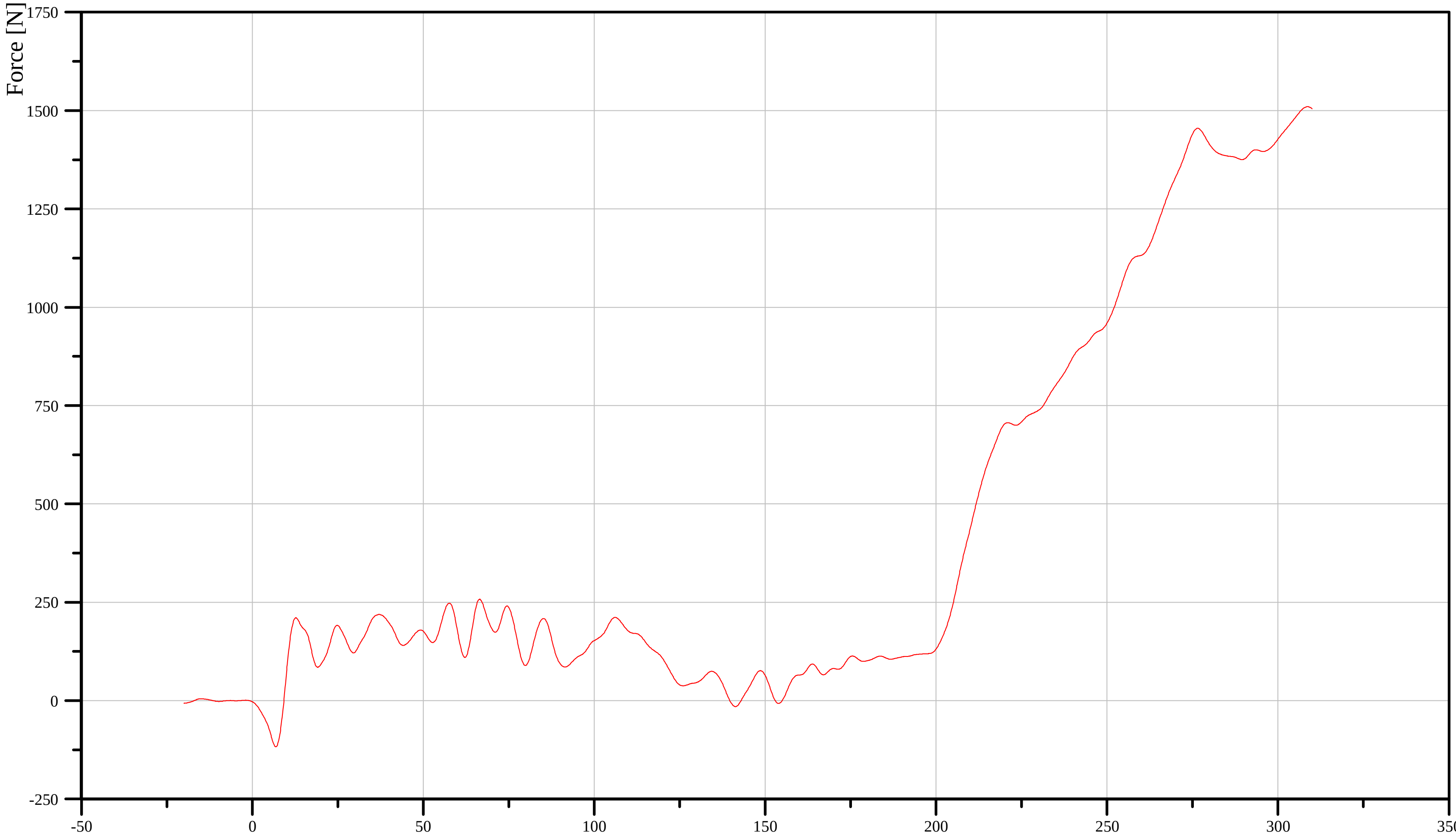
Load Cell Row 4 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000054FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-117.19 N at 6.88 ms

Max. Value
1,509.66 N at 308.64 ms

070126

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

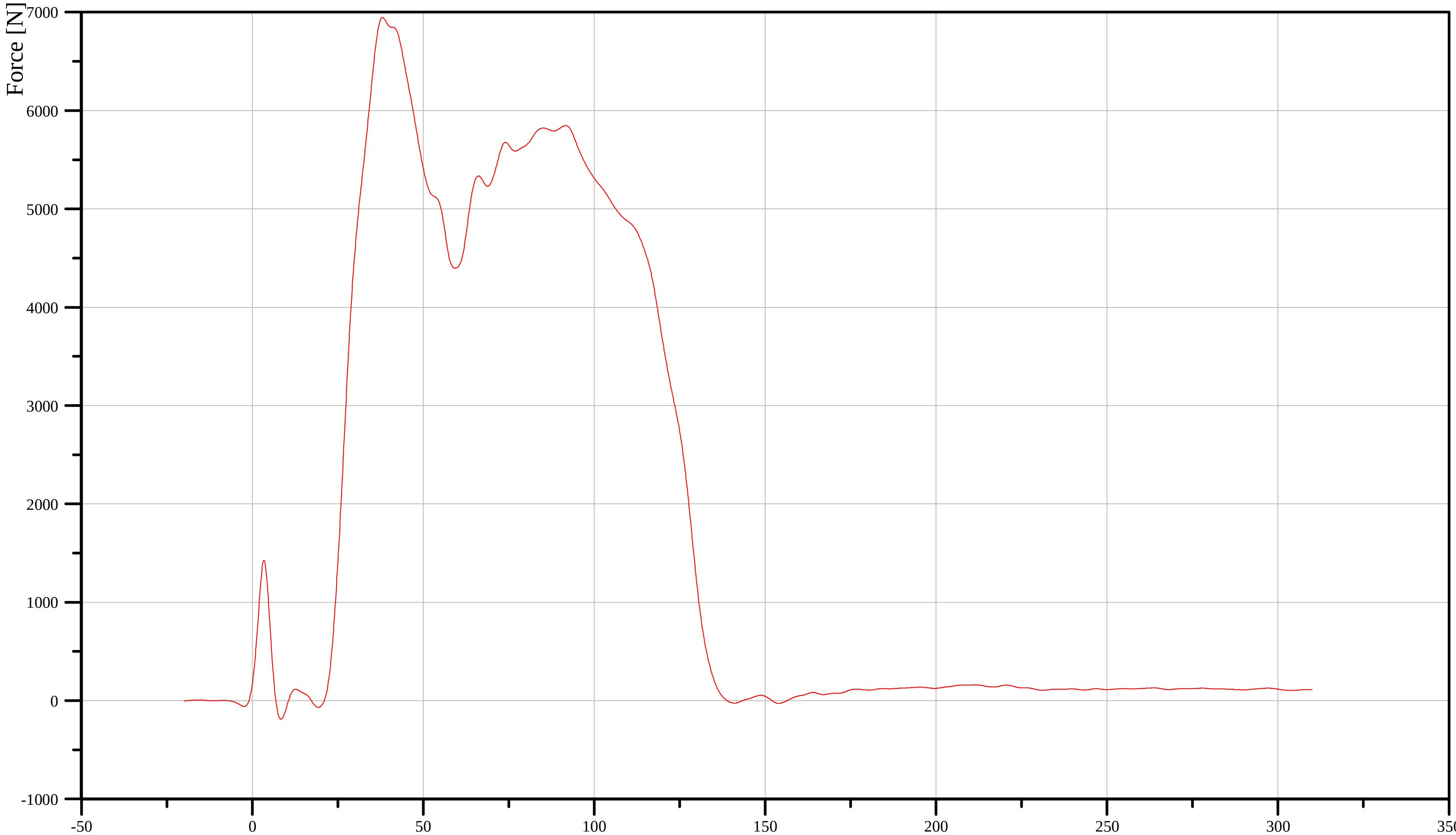
Load Cell Row 5 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000055FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-187.77 N at 8.40 ms

Max. Value
6,945.88 N at 38.08 ms

B-265

070126

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

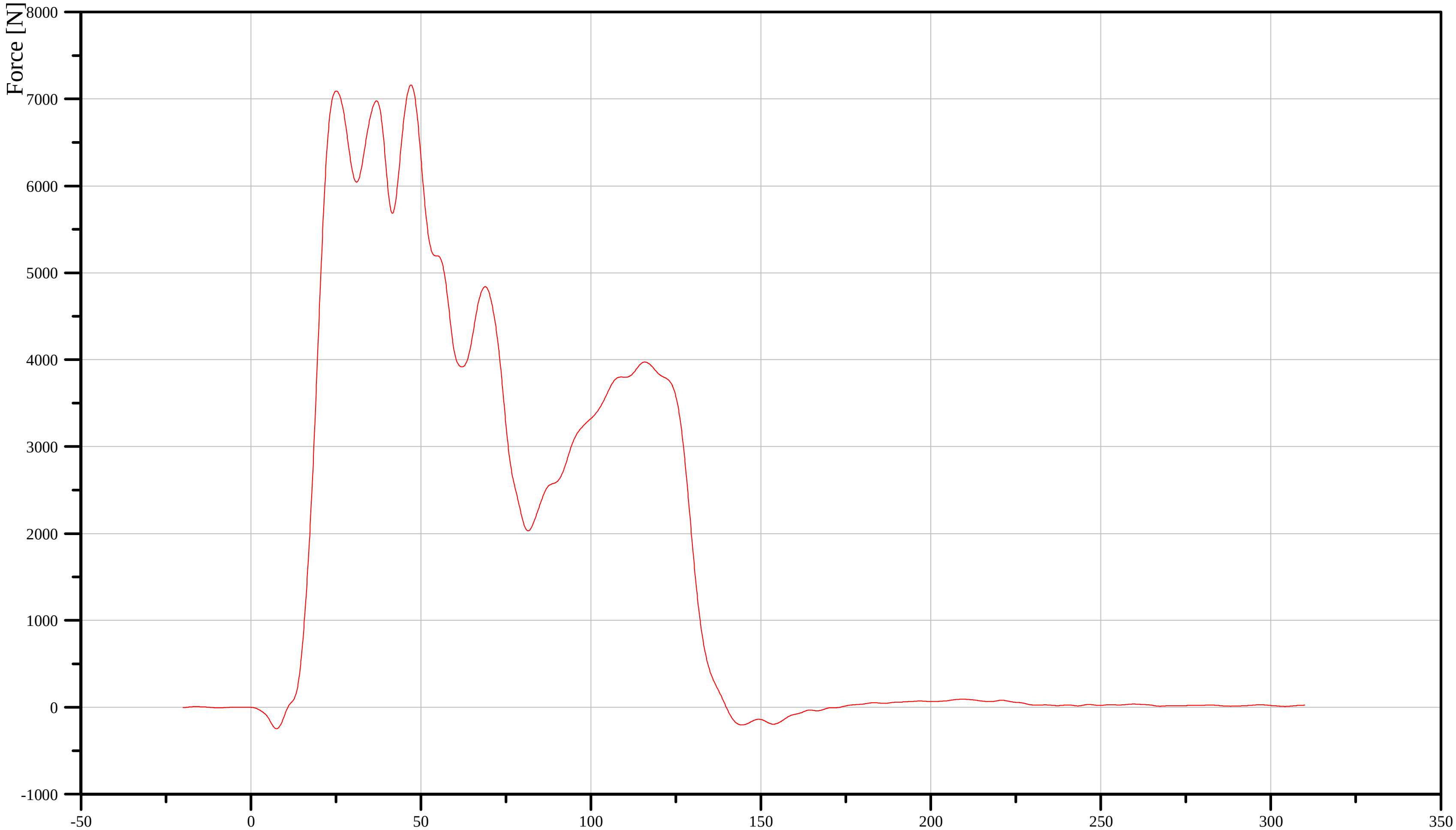
Load Cell Row 6 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000056FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



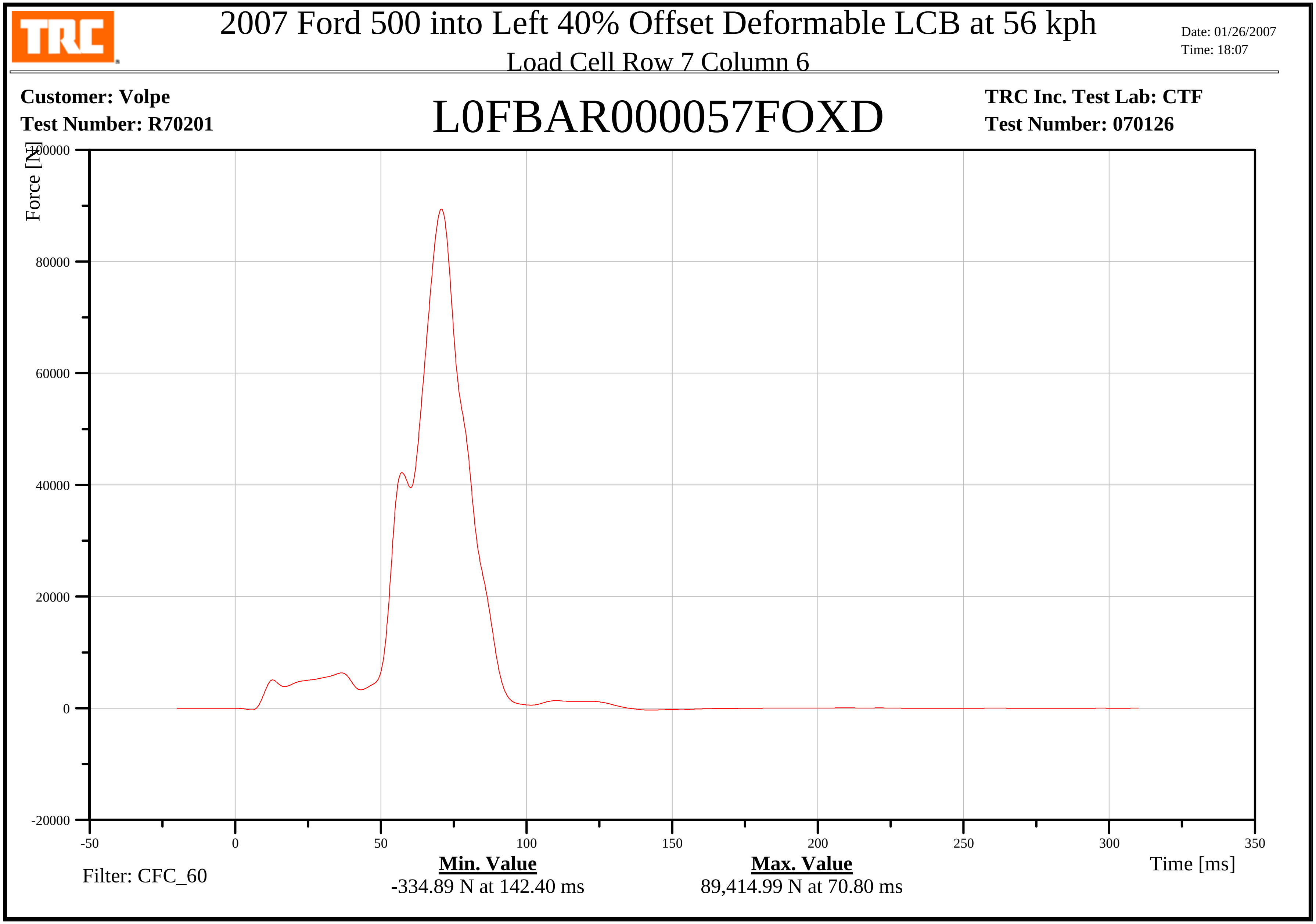
Filter: CFC_60

Min. Value
-246.00 N at 7.52 ms

Max. Value
7,161.11 N at 47.12 ms

B-266

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 7 Column 6
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000057FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
100000
80000
60000
40000
20000
0
-20000
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-334.89 N at 142.40 ms
Max. Value
89,414.99 N at 70.80 ms

B-267

070126

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

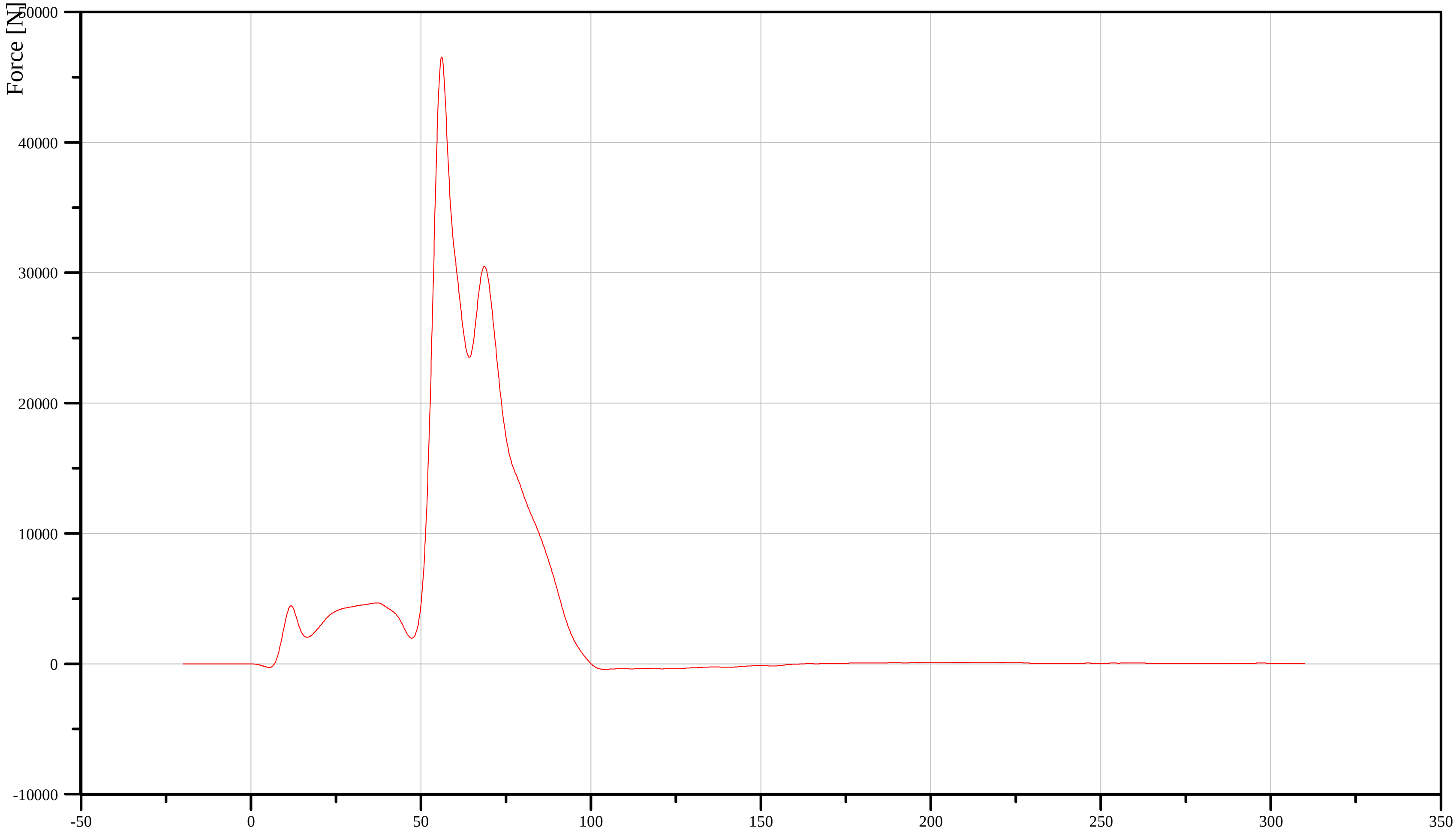
Load Cell Row 8 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000058FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-414.25 N at 104.08 ms

Max. Value
46,543.96 N at 56.08 ms

070126

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

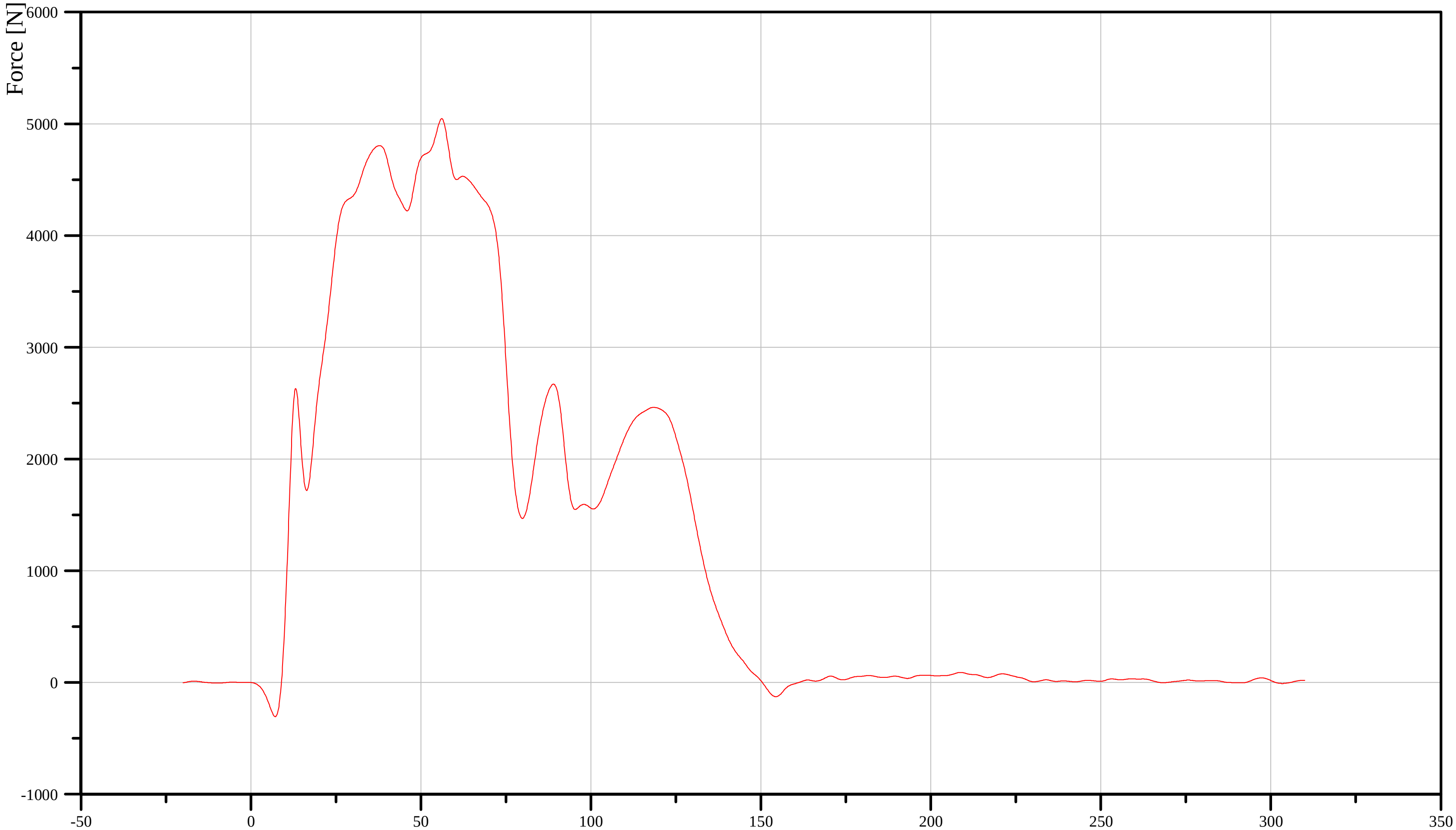
Load Cell Row 9 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000059FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-305.85 N at 7.20 ms

Max. Value
5,046.03 N at 56.16 ms

B-269

070126

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

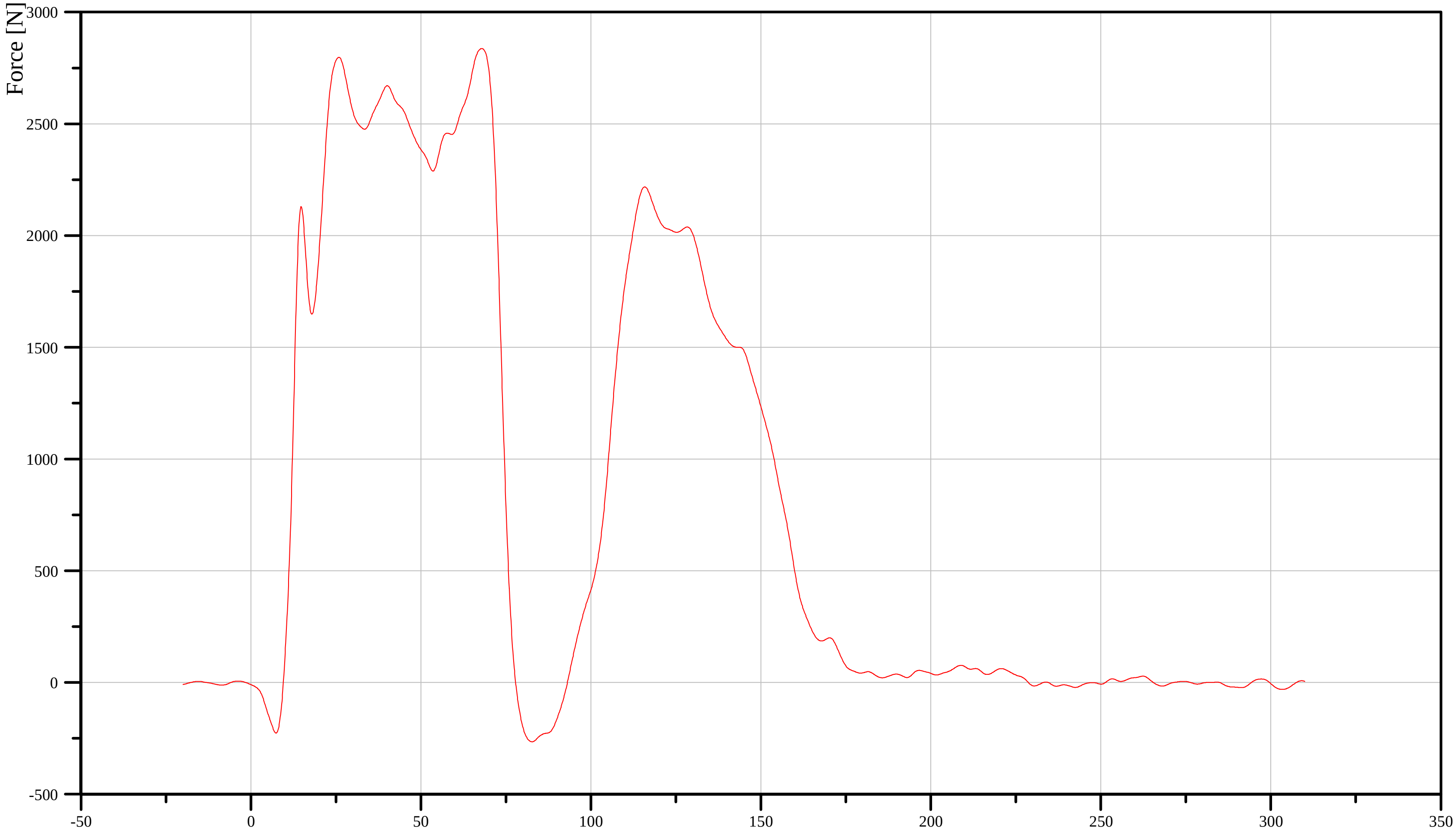
Load Cell Row 10 Column 6

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000060FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-265.03 N at 82.72 ms

Max. Value
2,836.96 N at 67.92 ms

B-270

070126

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

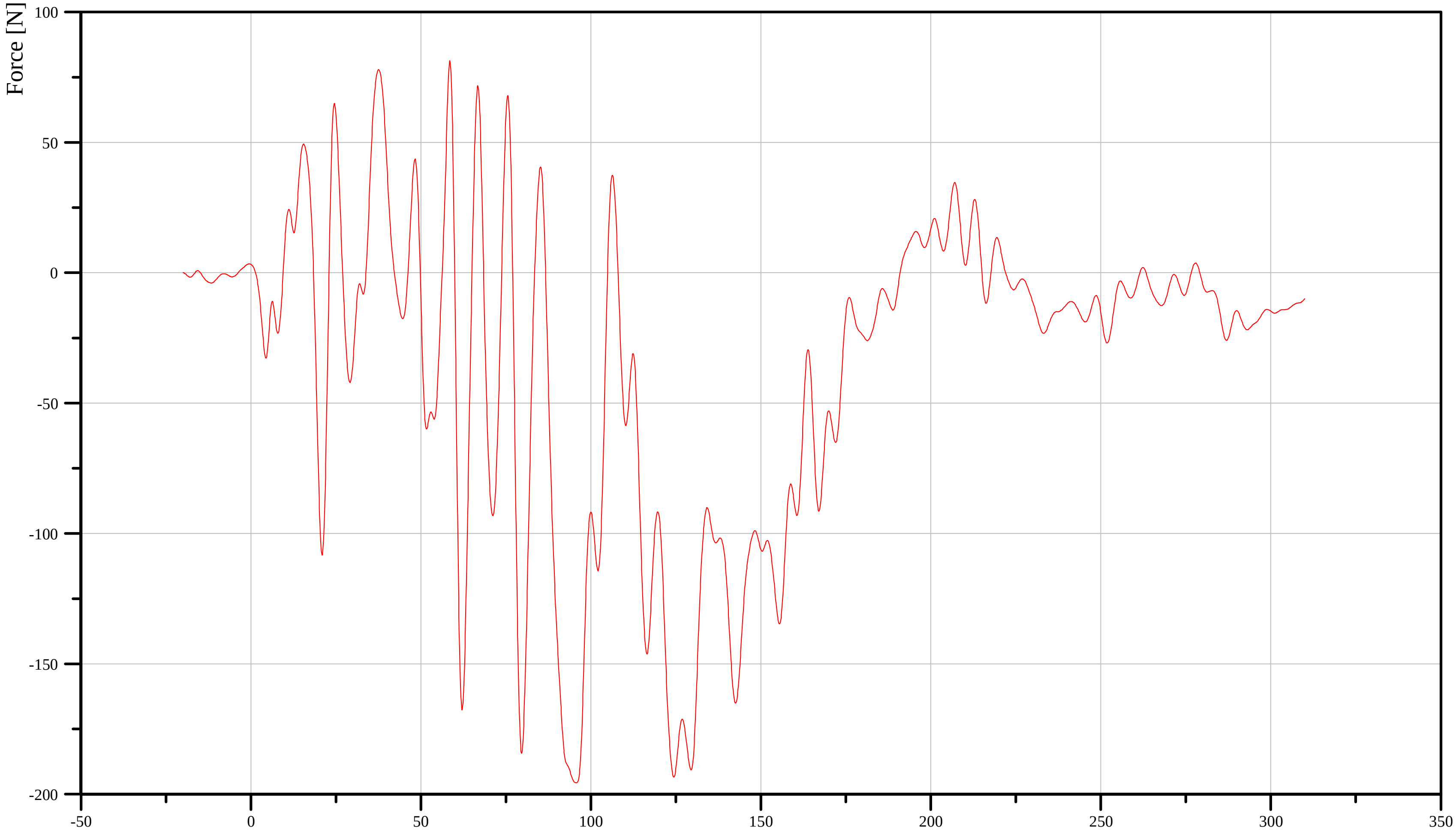
Load Cell Row 1 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000061FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-195.61 N at 95.68 ms

Max. Value
81.37 N at 58.48 ms

070126

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

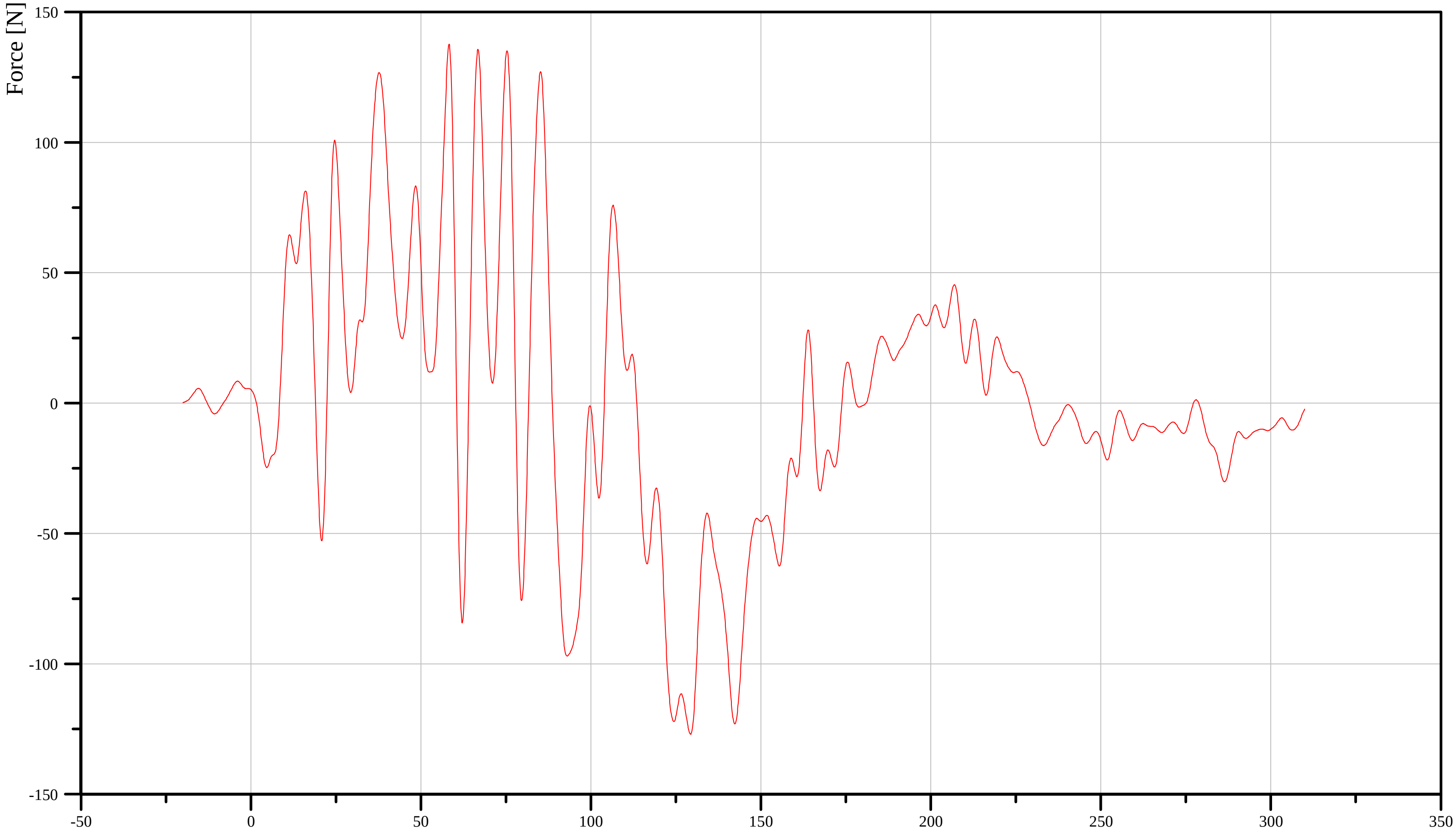
Load Cell Row 2 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000062FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-126.98 N at 129.36 ms

Max. Value
137.70 N at 58.32 ms

070126

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

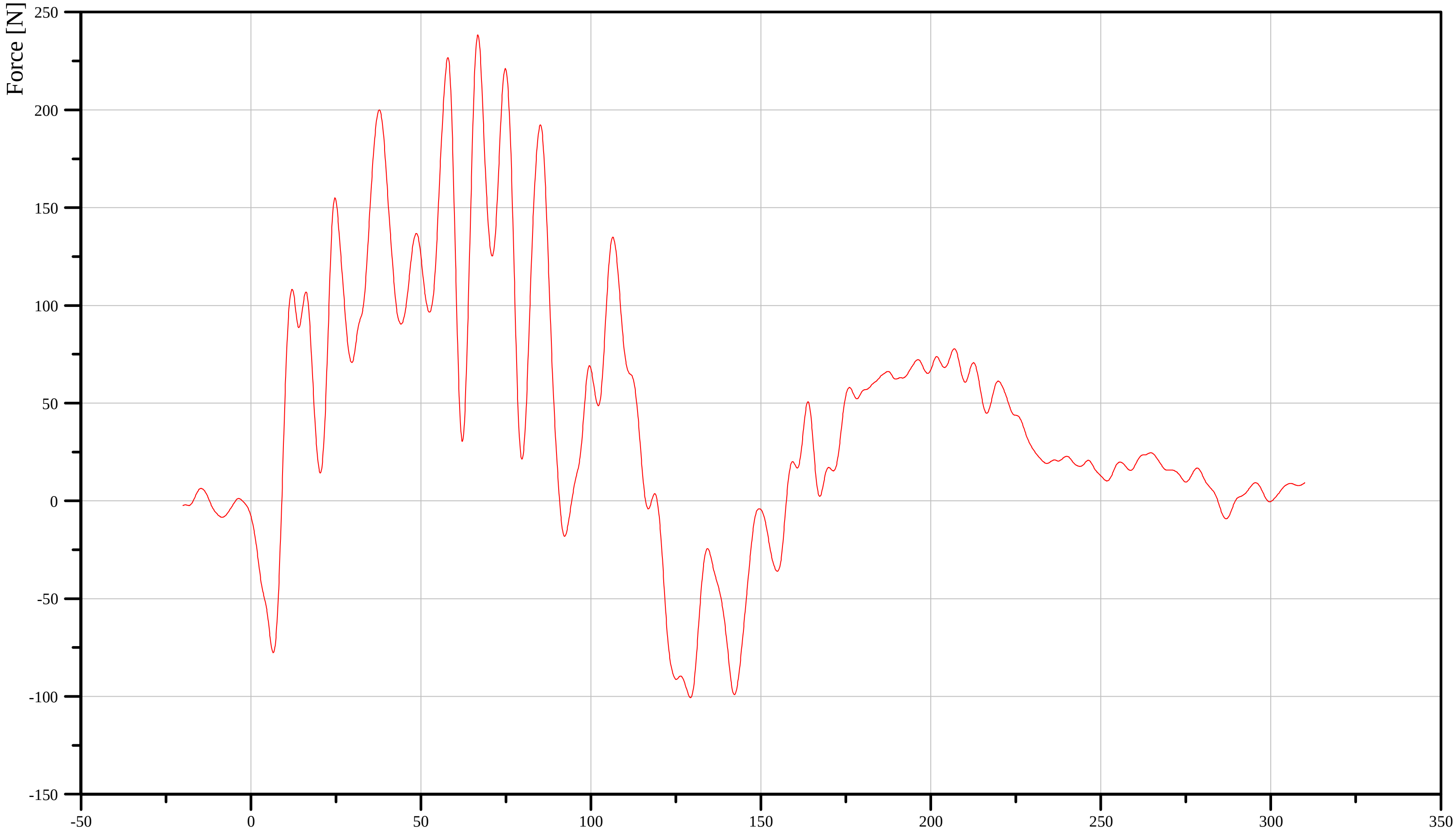
Load Cell Row 3 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000063FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-100.62 N at 129.28 ms

Max. Value
238.25 N at 66.80 ms

B-274

070126

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

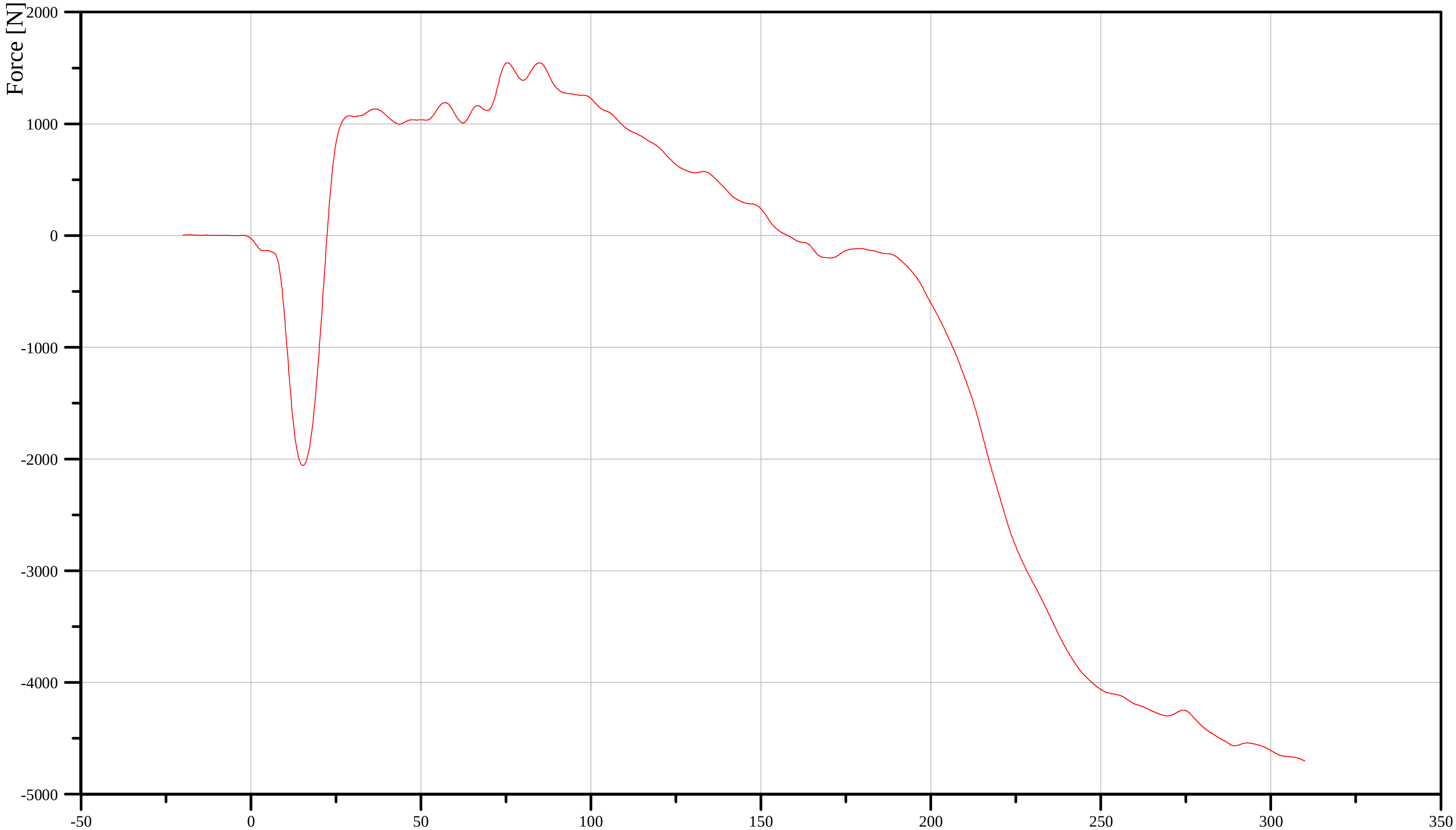
Load Cell Row 4 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000064FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-4,702.21 N at 310.00 ms

Max. Value
1,546.62 N at 75.44 ms

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

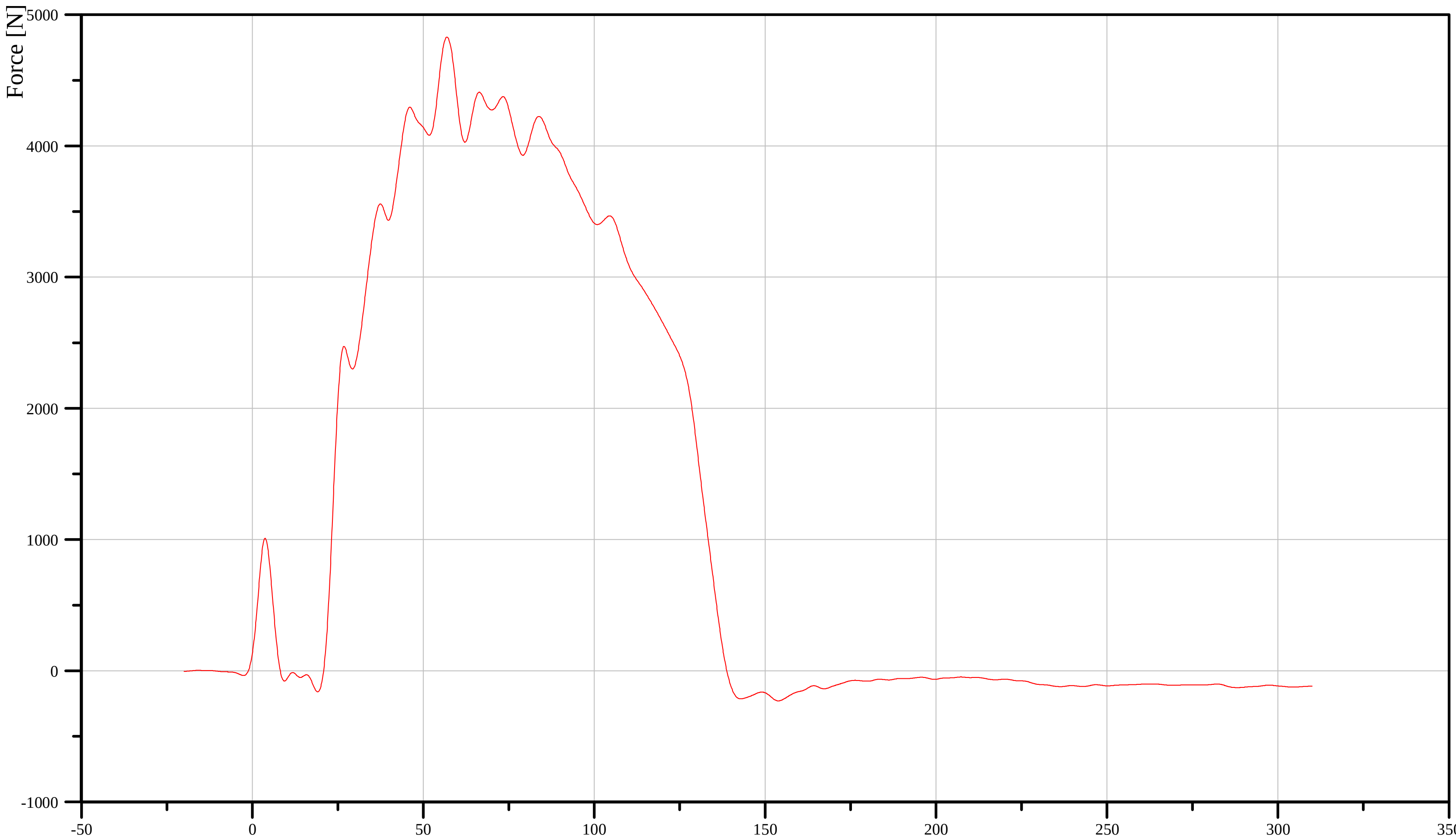
Load Cell Row 5 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000065FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



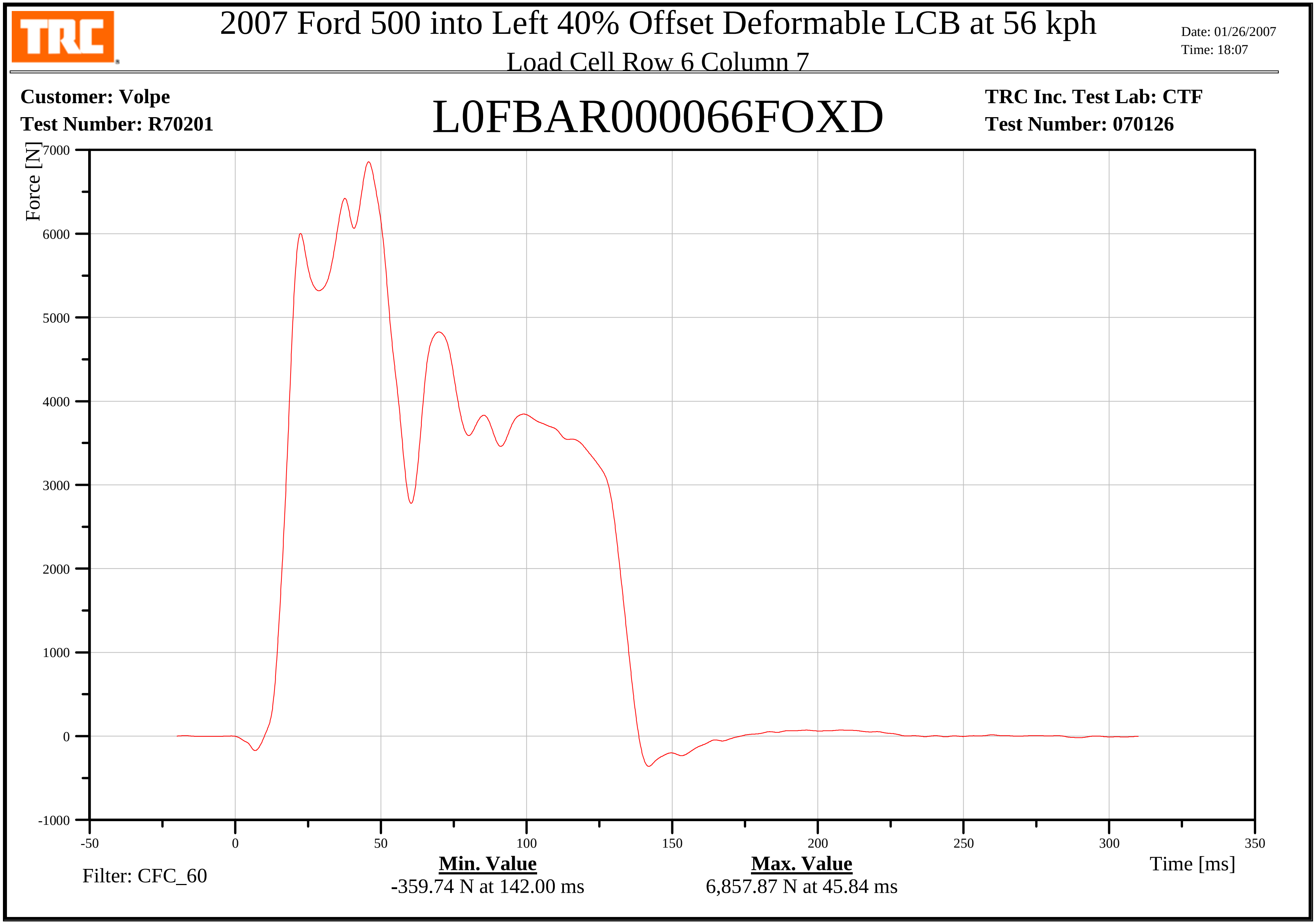
Filter: CFC_60

Min. Value
-229.05 N at 153.84 ms

Max. Value
4,829.55 N at 56.88 ms

B-275

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 6 Column 7
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000066FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
7000
6000
5000
4000
3000
2000
1000
0
-1000
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-359.74 N at 142.00 ms
Max. Value
6,857.87 N at 45.84 ms

B-276

070126

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

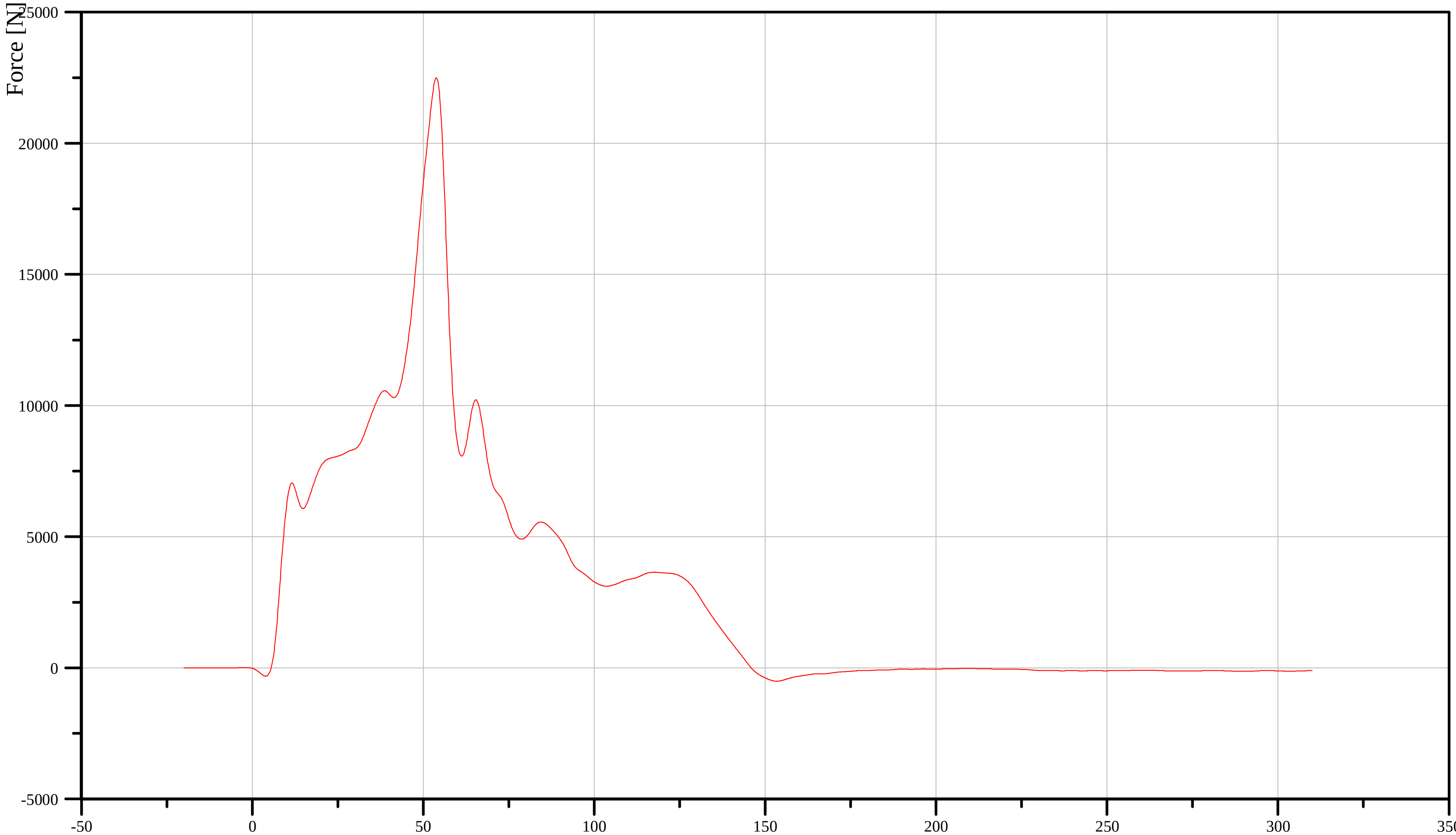
Load Cell Row 7 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000067FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-509.75 N at 153.44 ms

Max. Value
22,500.78 N at 53.84 ms

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

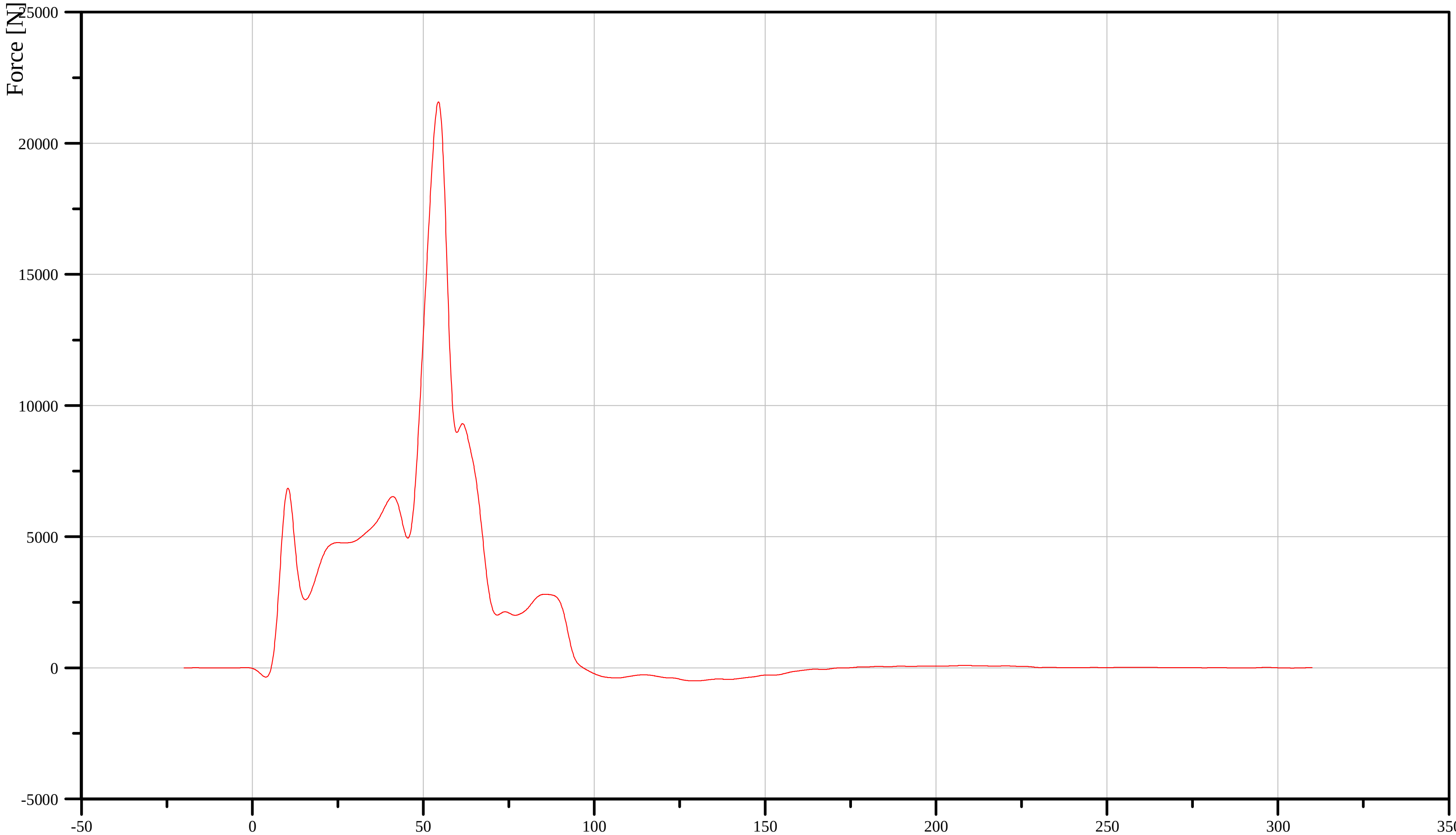
Load Cell Row 8 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000068FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-497.26 N at 129.60 ms

Max. Value
21,582.40 N at 54.40 ms

B-278

070126

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

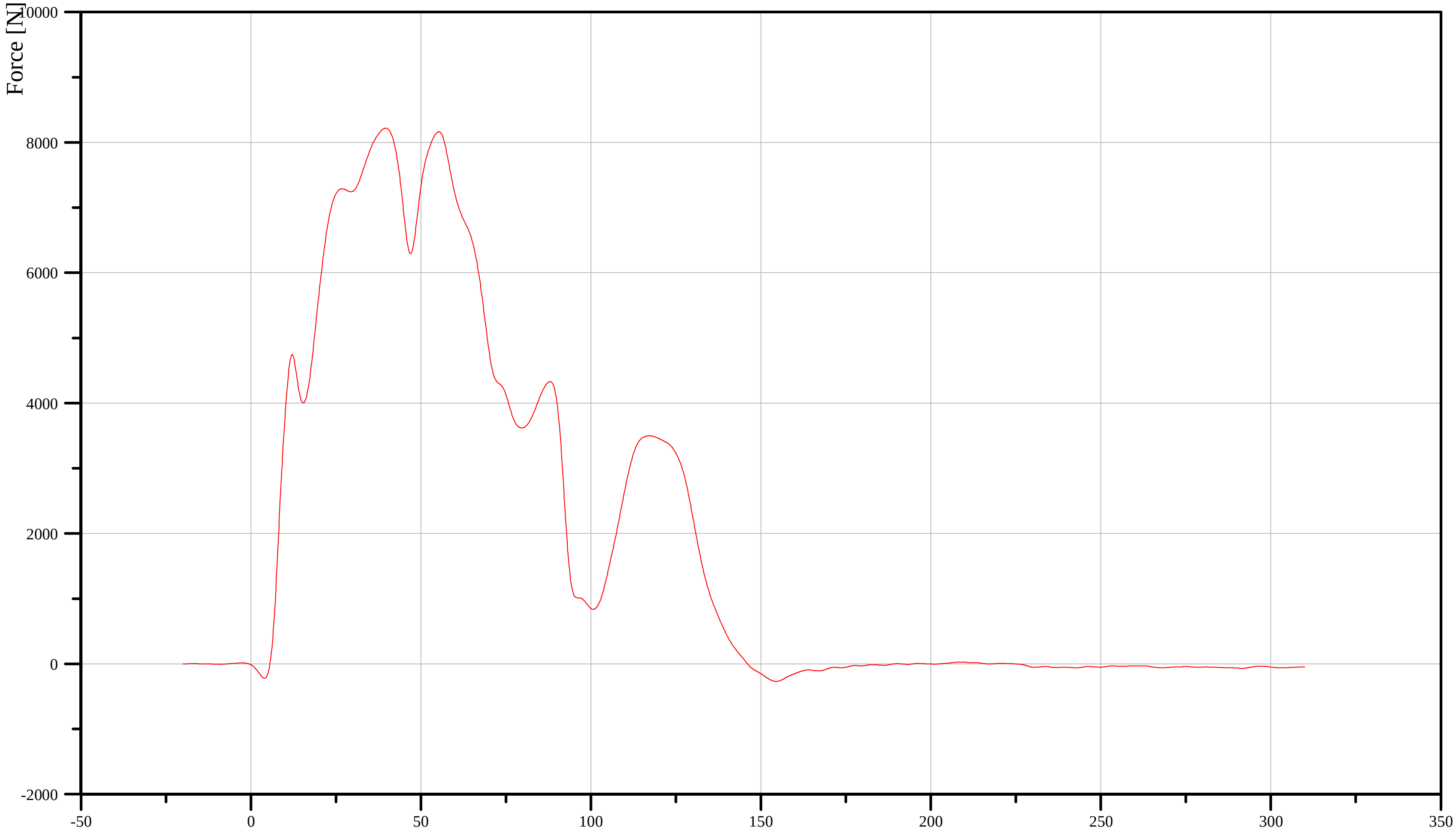
Load Cell Row 9 Column 7

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000069FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



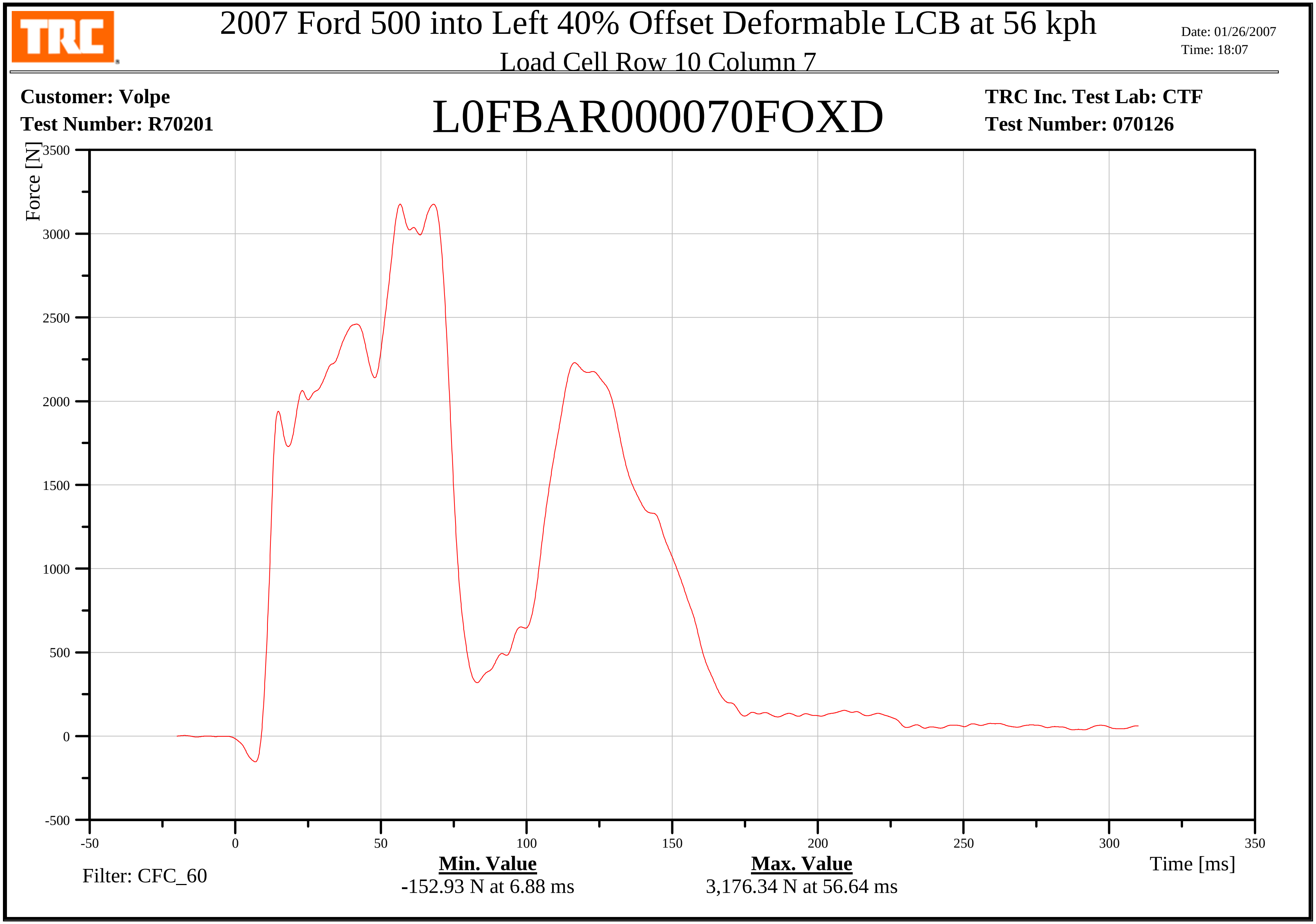
Filter: CFC_60

Min. Value
-268.89 N at 154.48 ms

Max. Value
8,220.42 N at 39.68 ms

B-279

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 10 Column 7
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000070FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
3500
3000
2500
2000
1500
1000
500
0
-500
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-152.93 N at 6.88 ms
Max. Value
3,176.34 N at 56.64 ms

B-280

070126

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

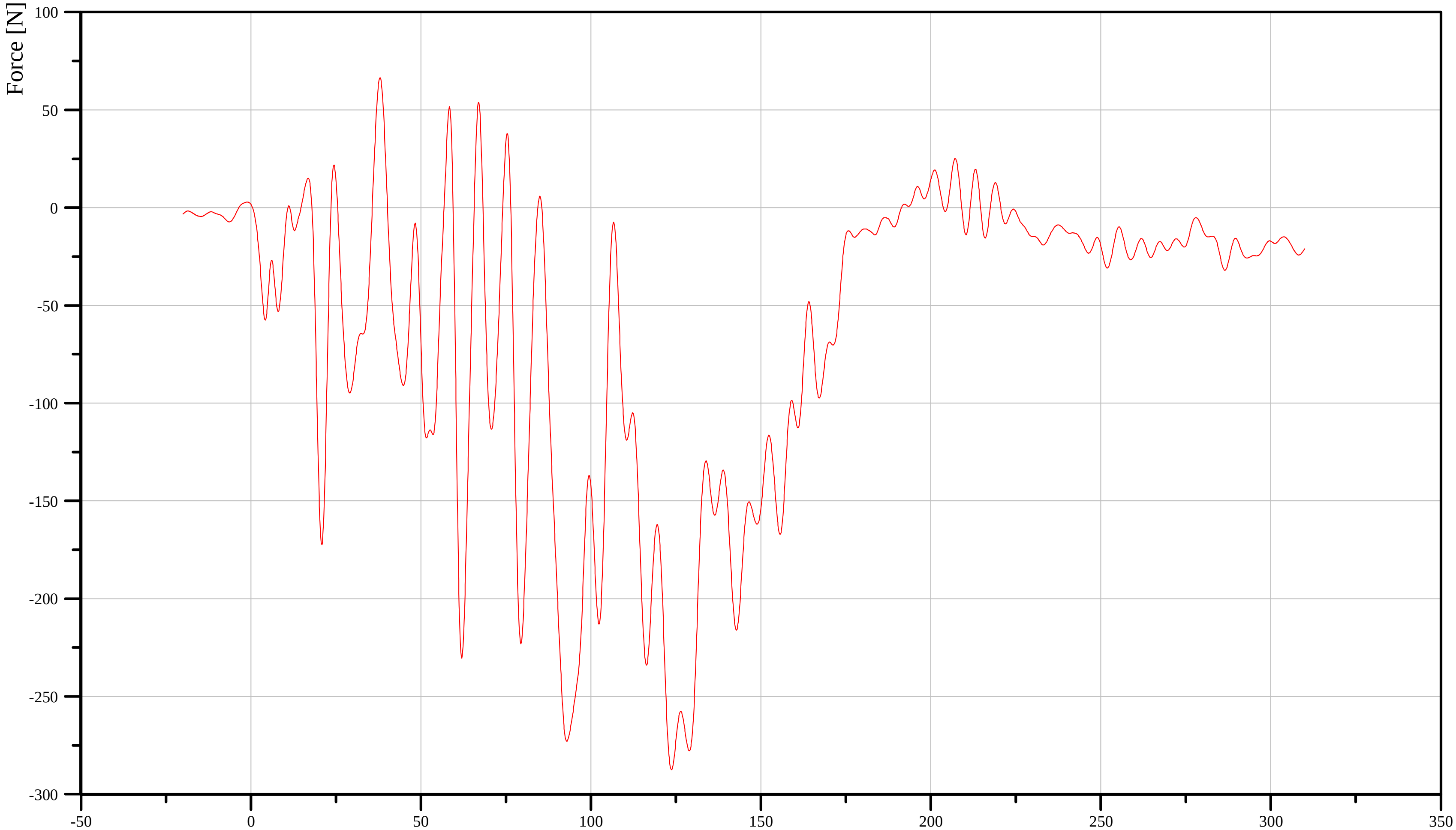
Load Cell Row 1 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000071FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-287.40 N at 123.76 ms

Max. Value
66.40 N at 38.00 ms

B-281

070126

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

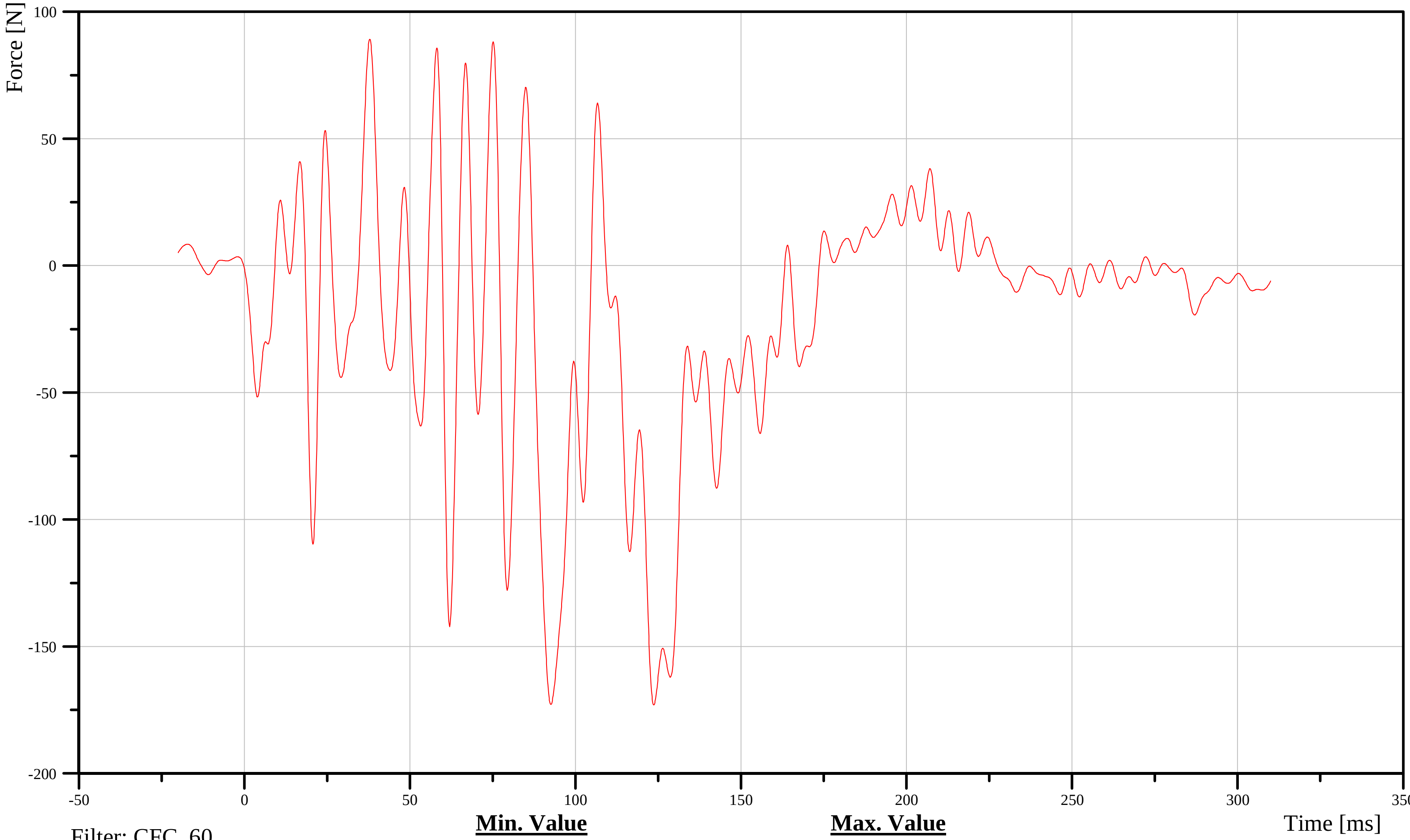
Load Cell Row 2 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000072FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-173.02 N at 123.68 ms

Max. Value
89.23 N at 37.92 ms

070126

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

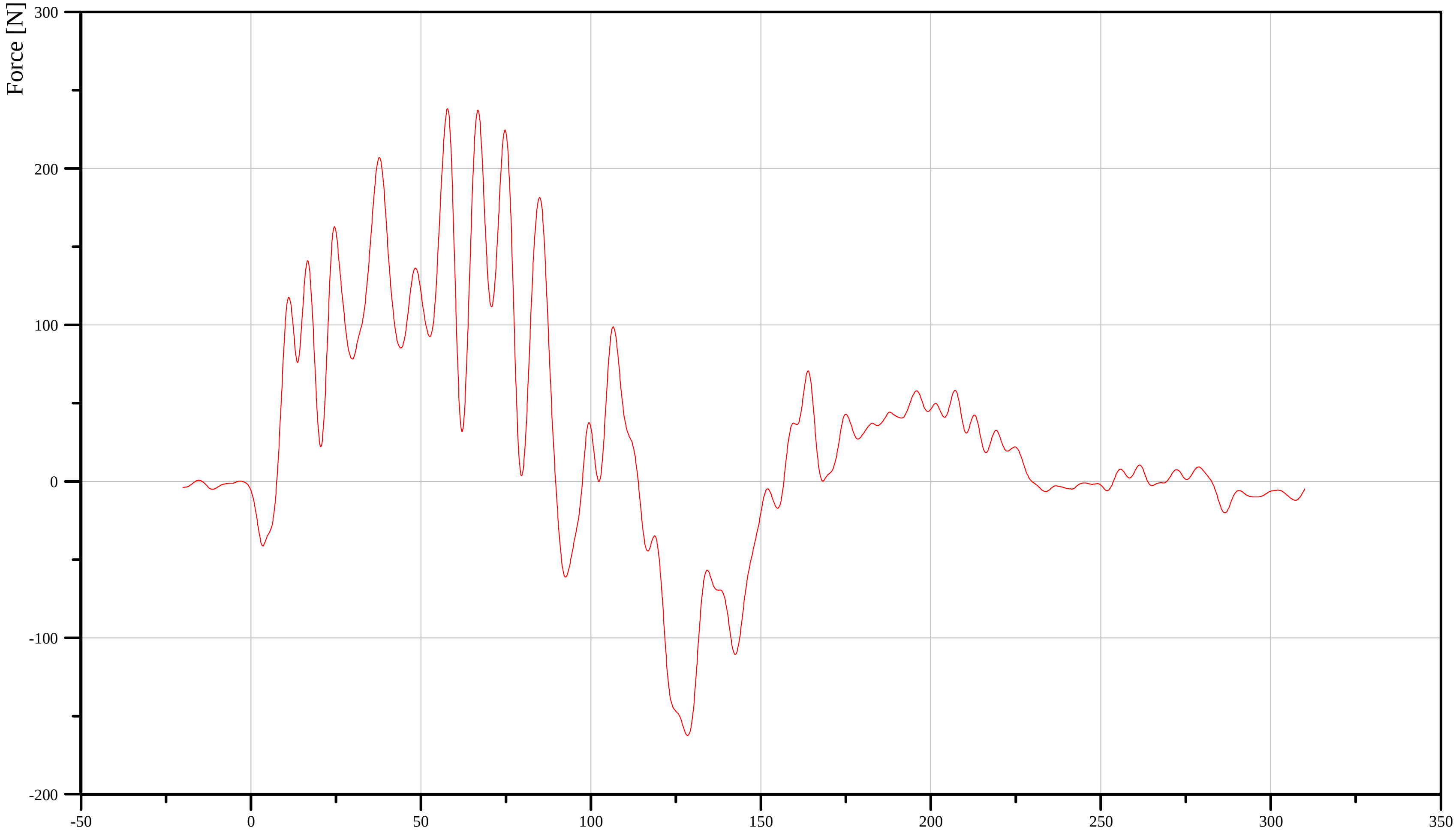
Load Cell Row 3 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000073FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-162.40 N at 128.48 ms

Max. Value
238.23 N at 57.84 ms

070126

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

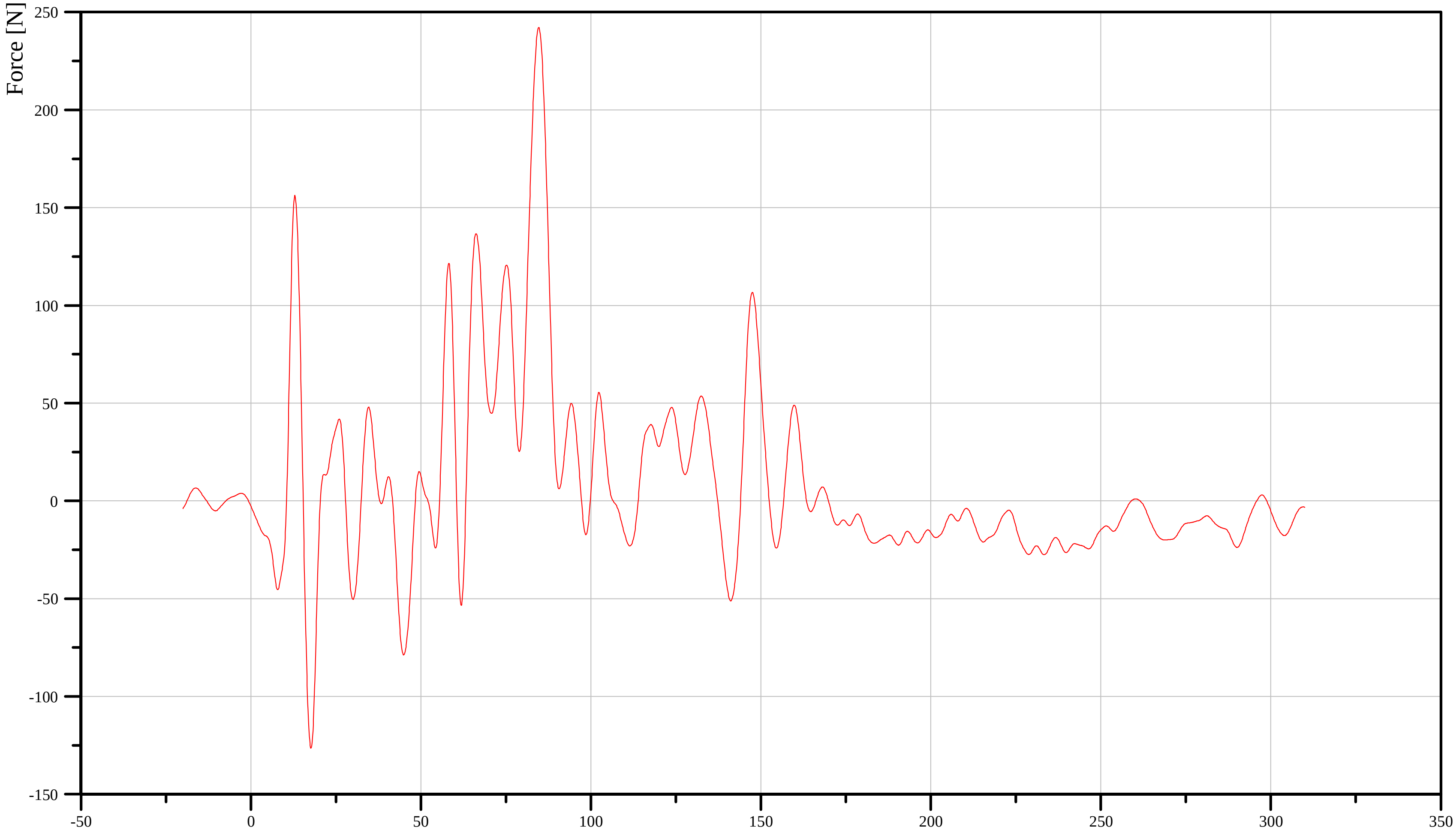
Load Cell Row 4 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000074FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-126.47 N at 17.68 ms

Max. Value
242.18 N at 84.64 ms

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

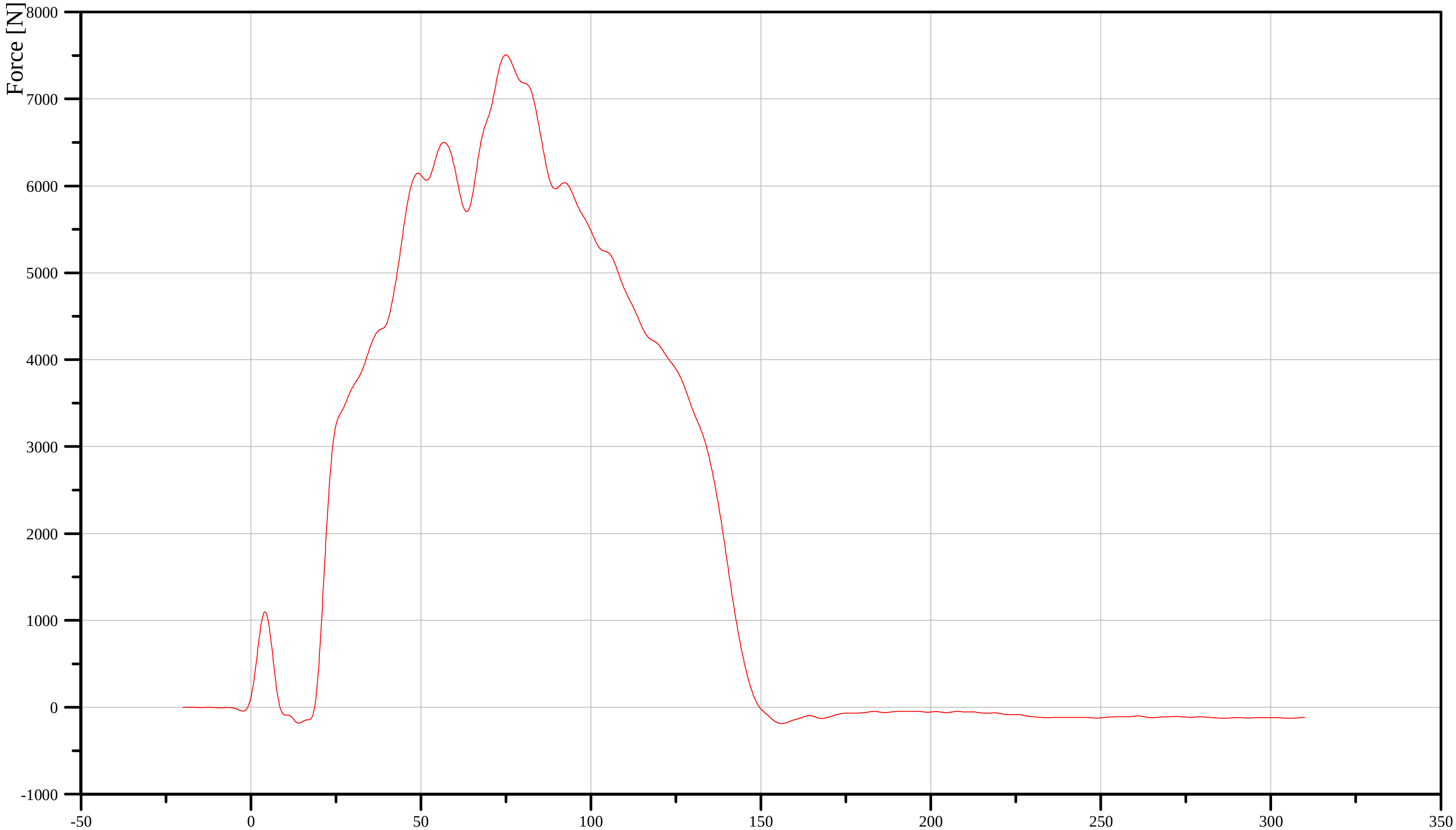
Load Cell Row 5 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000075FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-186.63 N at 156.16 ms

Max. Value
7,507.61 N at 74.96 ms

B-285

070126

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

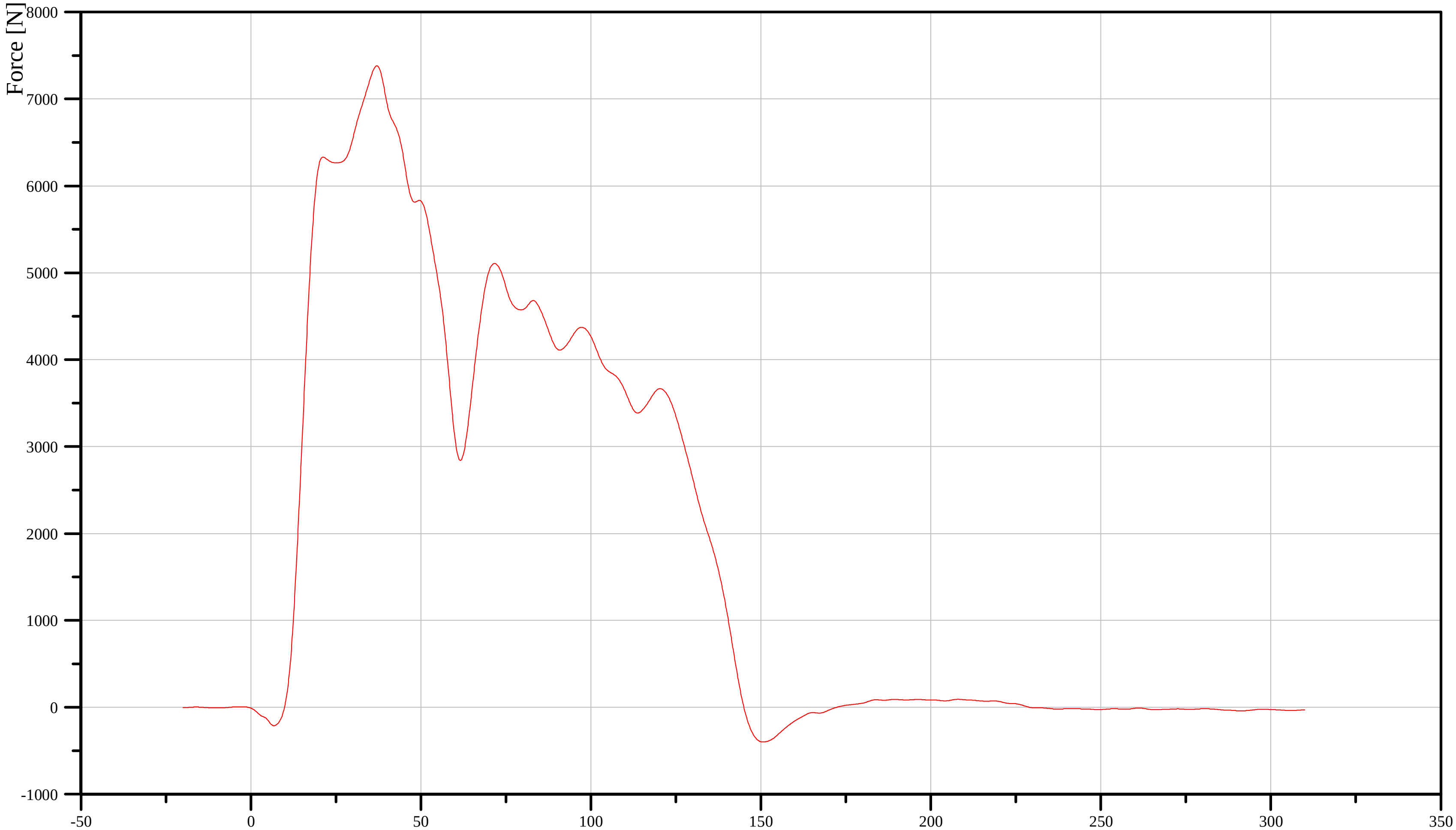
Load Cell Row 6 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000076FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-398.48 N at 150.64 ms

Max. Value
7,382.81 N at 37.04 ms

B-286

070126

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

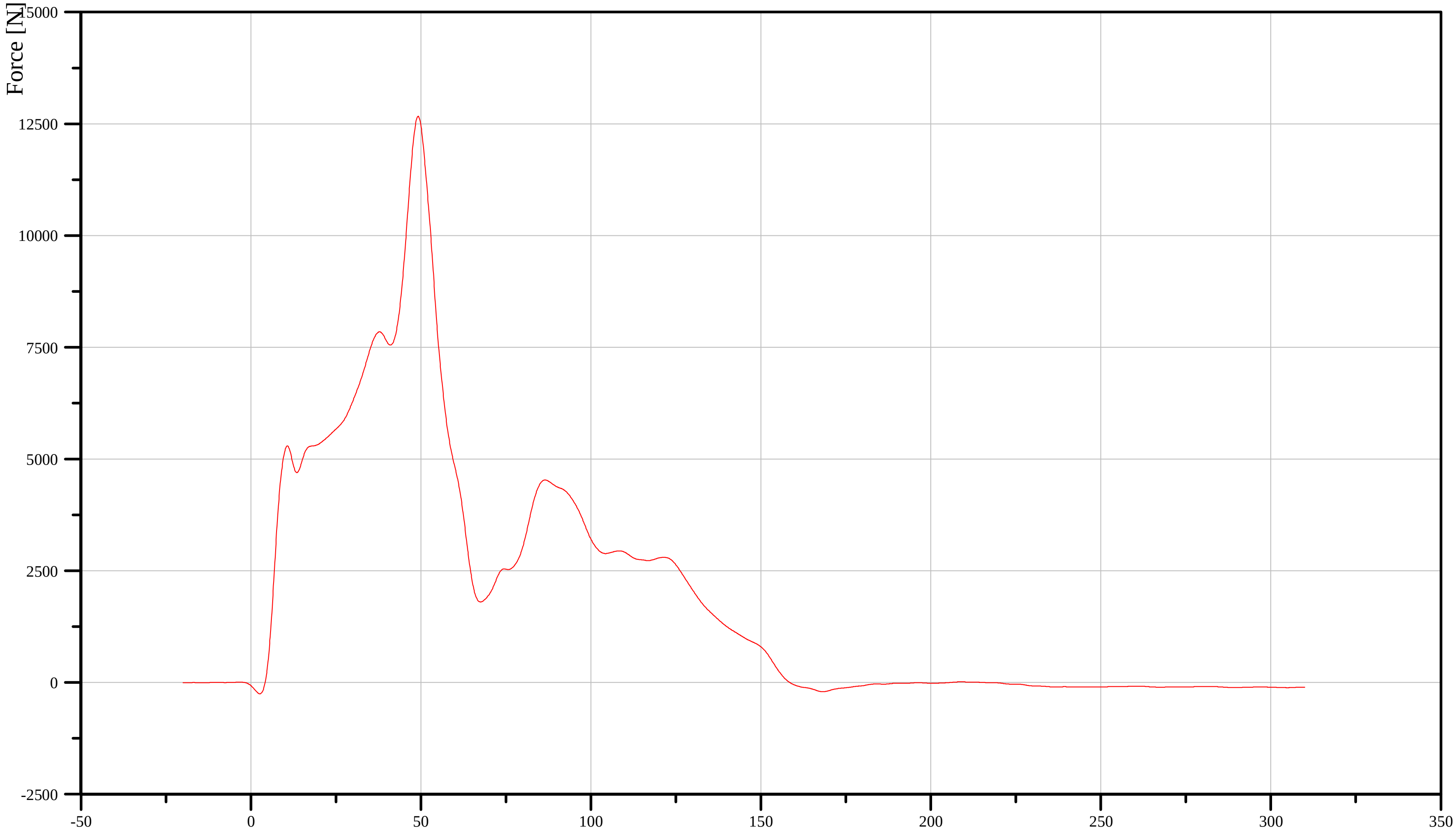
Load Cell Row 7 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000077FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-253.56 N at 2.64 ms

Max. Value
12,668.31 N at 49.20 ms

070126

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

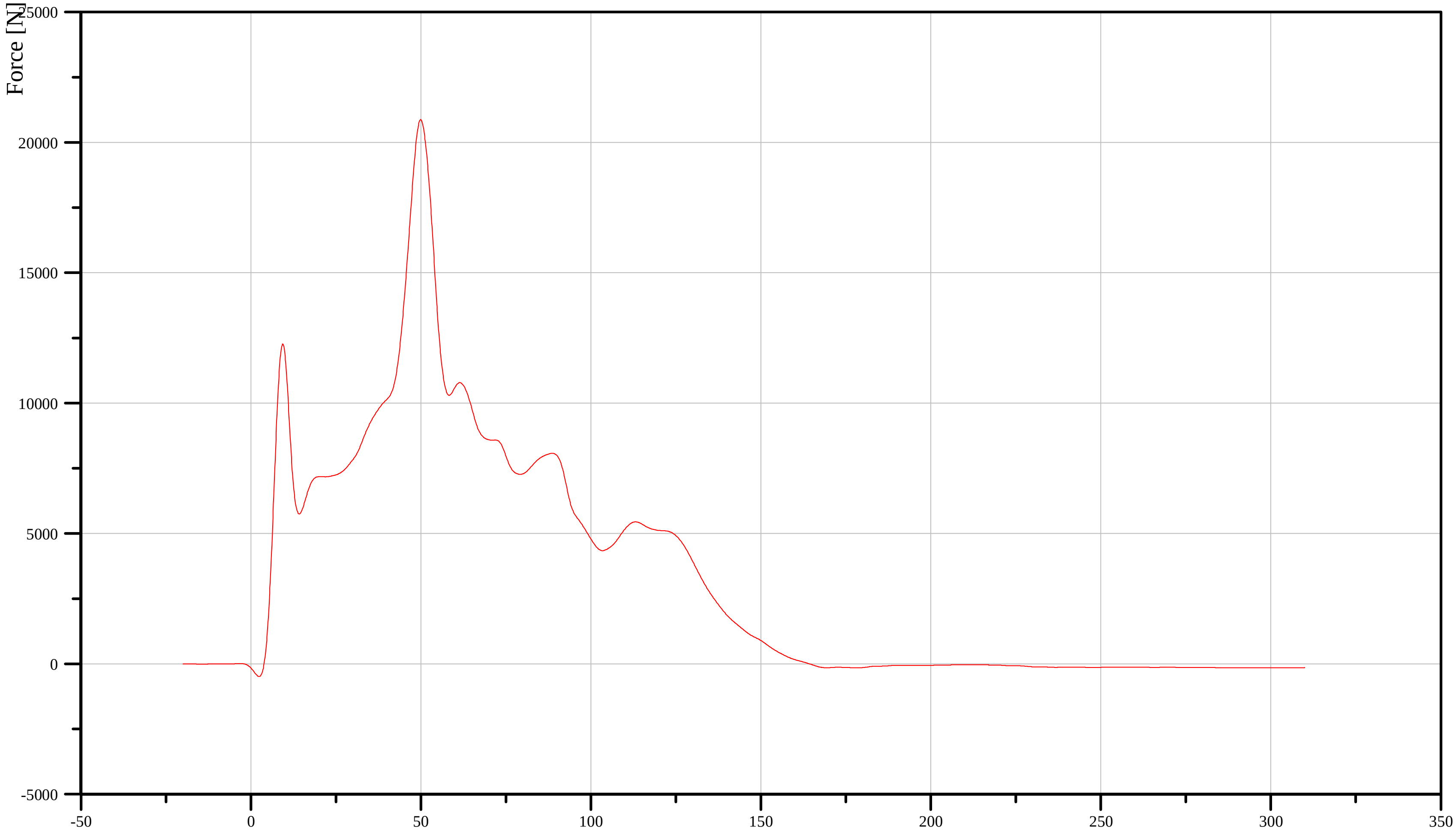
Load Cell Row 8 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000078FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-485.82 N at 2.40 ms

Max. Value
20,876.42 N at 49.92 ms

B-288

070126

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

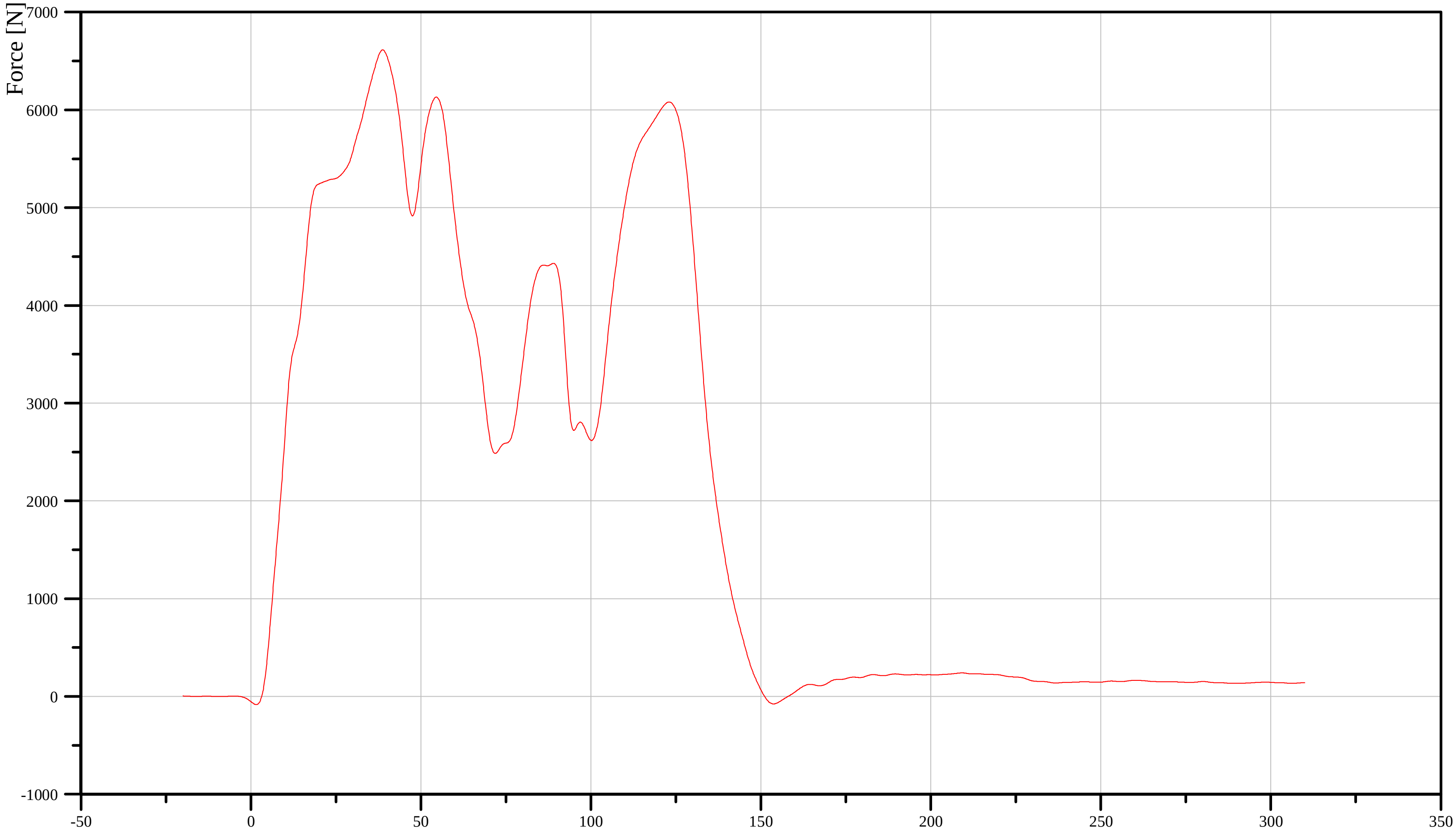
Load Cell Row 9 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000079FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-83.07 N at 1.60 ms

Max. Value
6,613.16 N at 38.72 ms

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

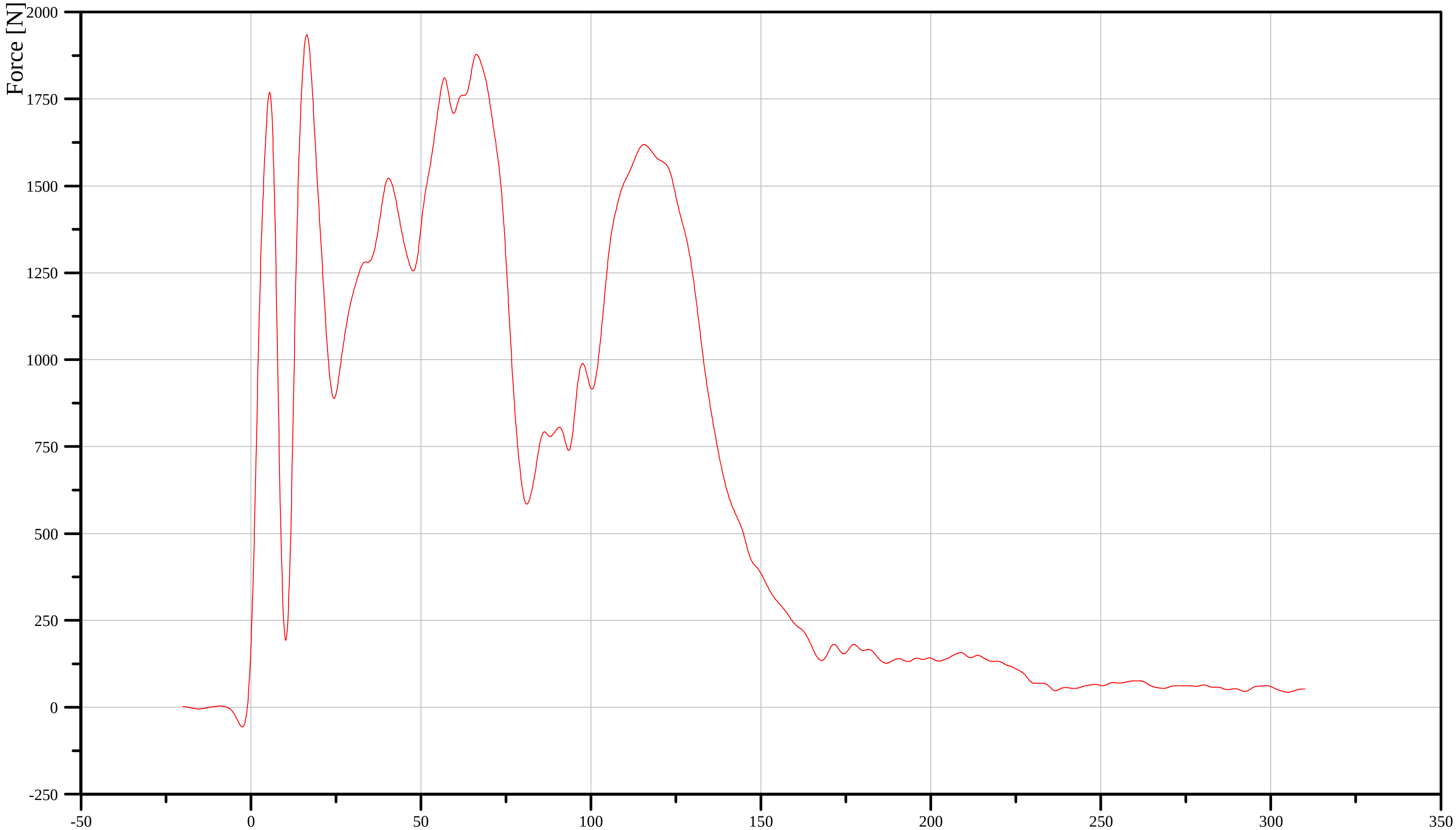
Load Cell Row 10 Column 8

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000080FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-56.41 N at -2.48 ms

Max. Value
1,934.96 N at 16.48 ms

B-290

070126

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

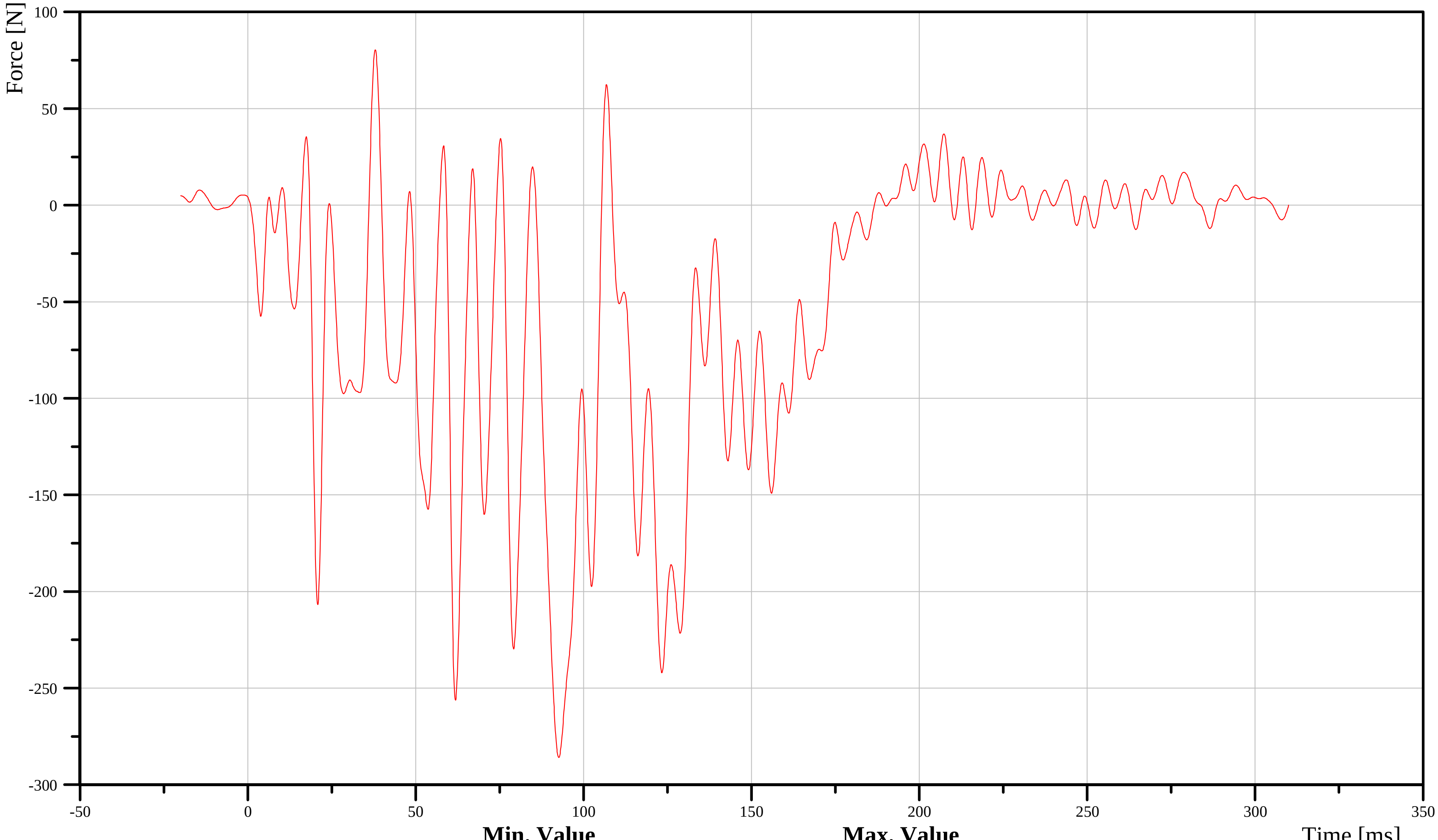
Load Cell Row 1 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000081FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-285.81 N at 92.64 ms

Max. Value
80.36 N at 38.00 ms

070126

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

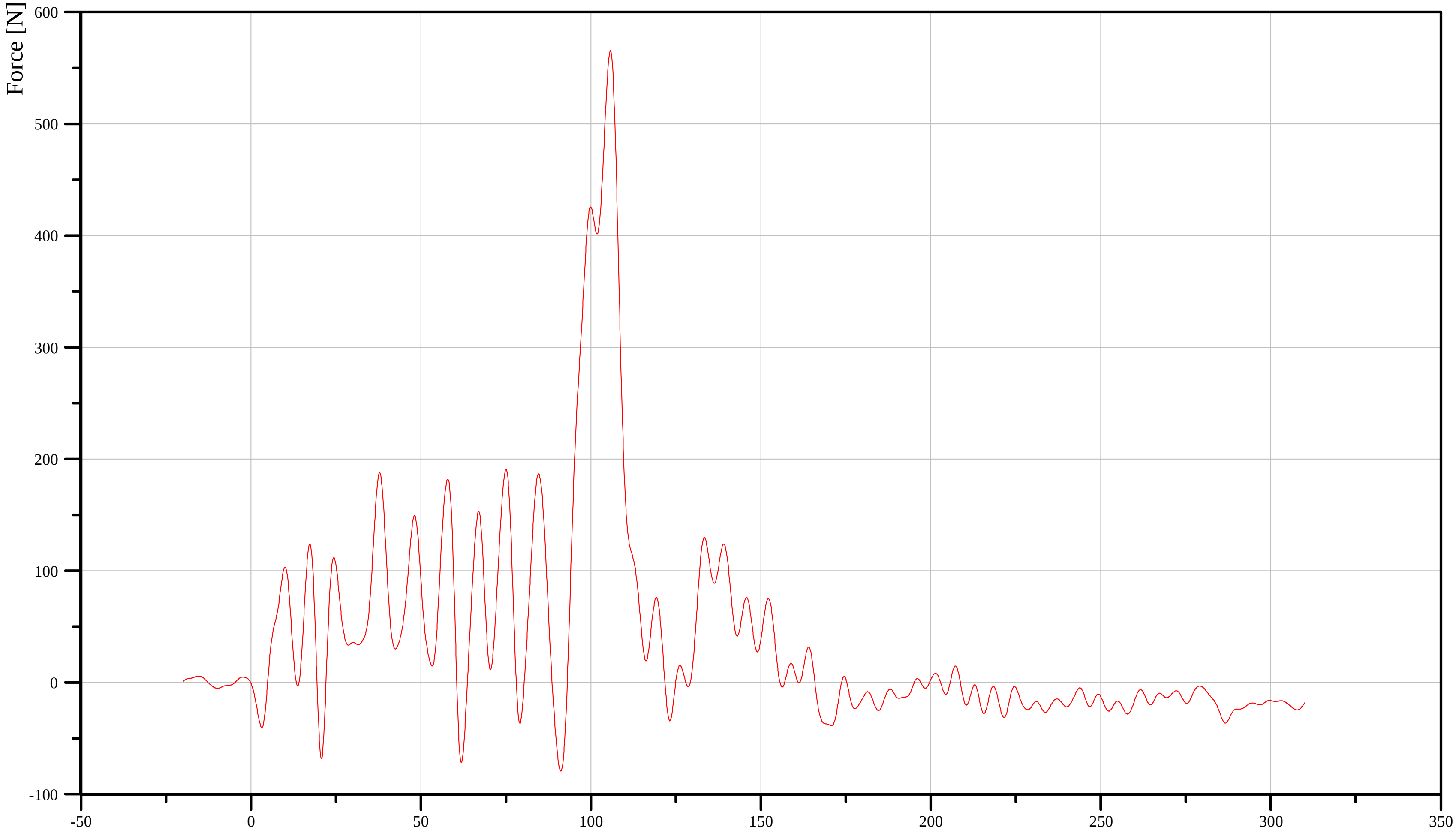
Load Cell Row 2 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000082FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-79.36 N at 91.12 ms

Max. Value
565.61 N at 105.76 ms

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

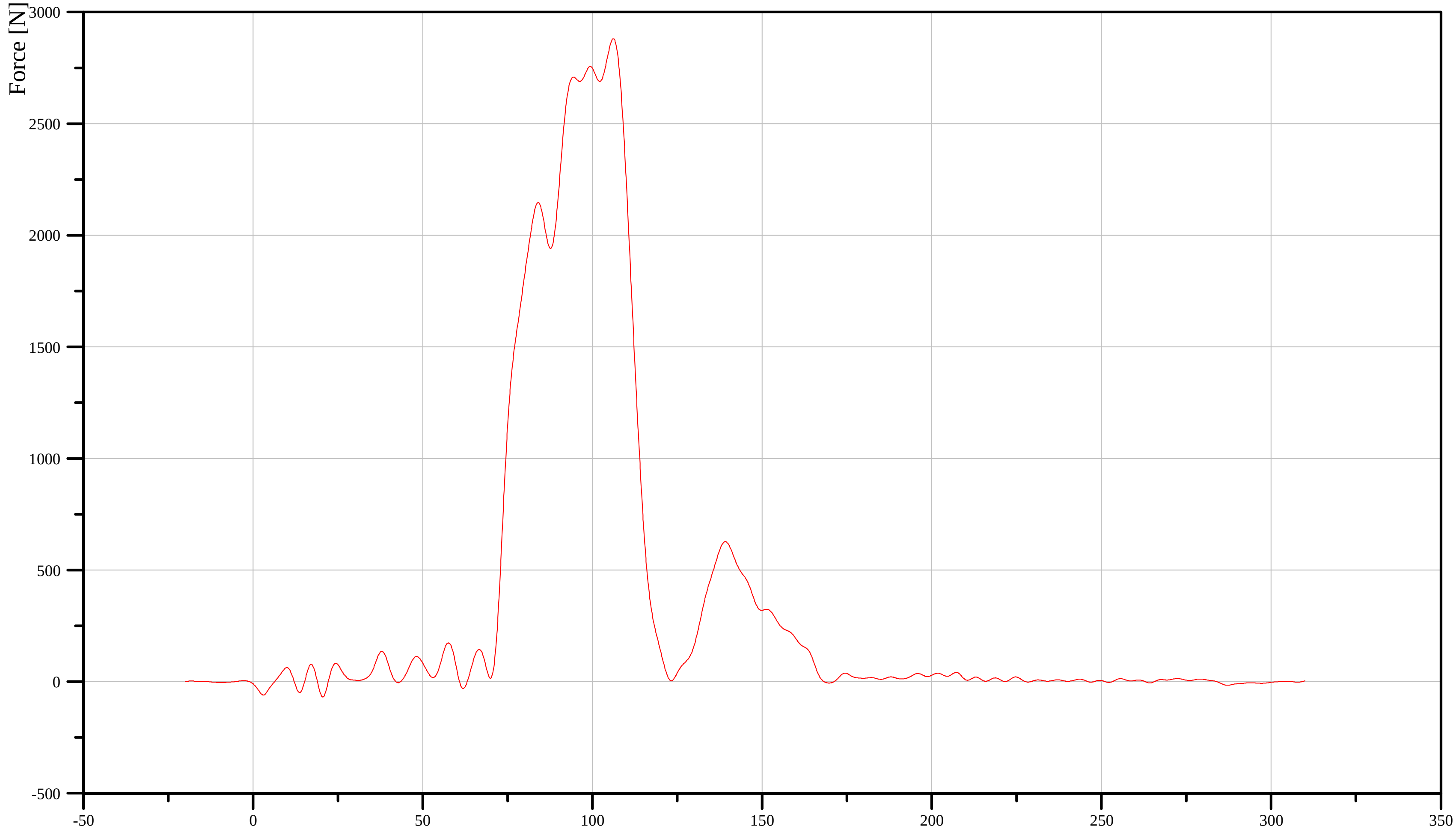
Load Cell Row 3 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000083FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-68.41 N at 20.56 ms

Max. Value
2,881.05 N at 106.16 ms

B-293

070126

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

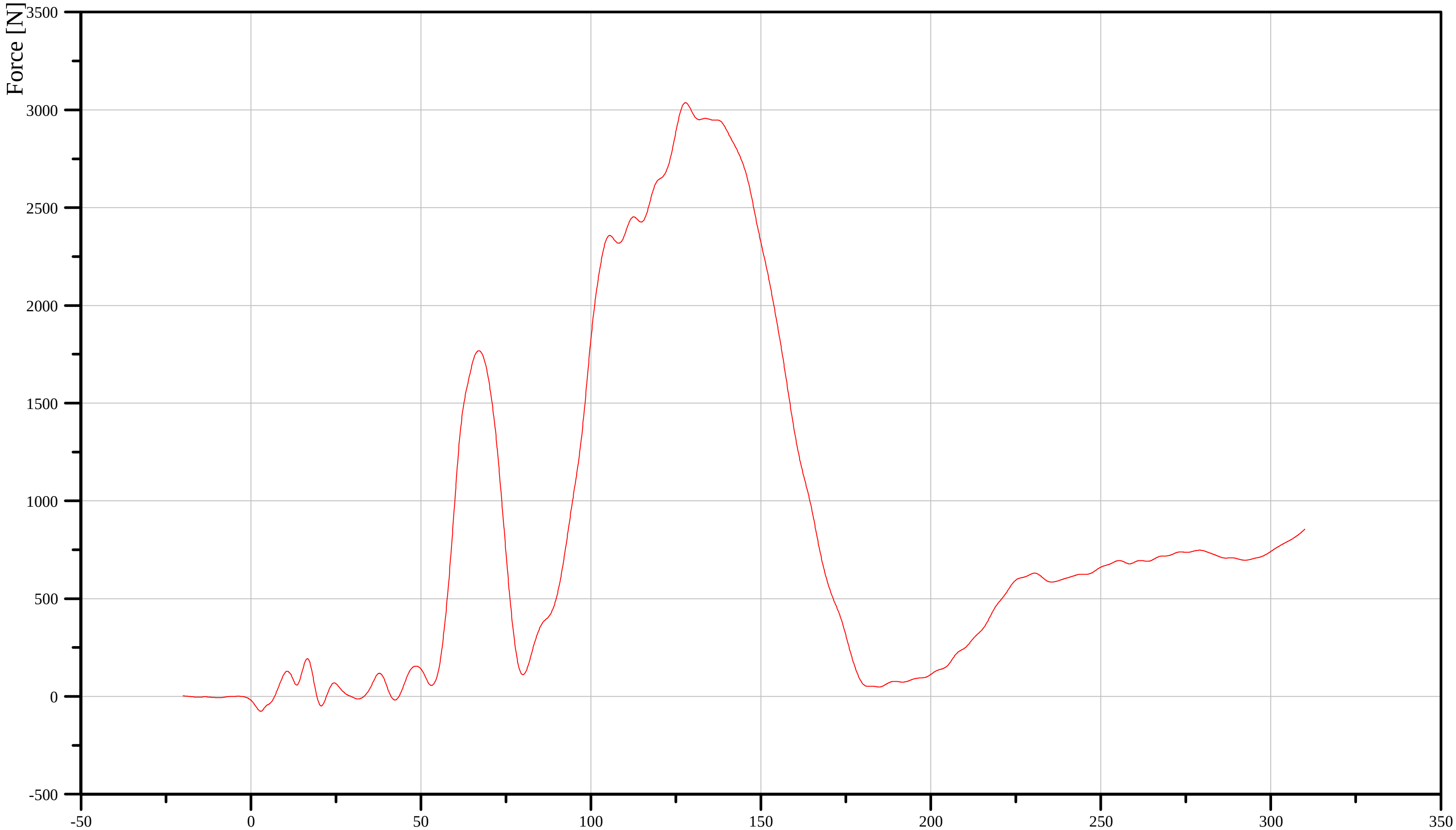
Load Cell Row 4 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000084FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-75.62 N at 2.88 ms

Max. Value
3,036.71 N at 127.84 ms

B-294

070126

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

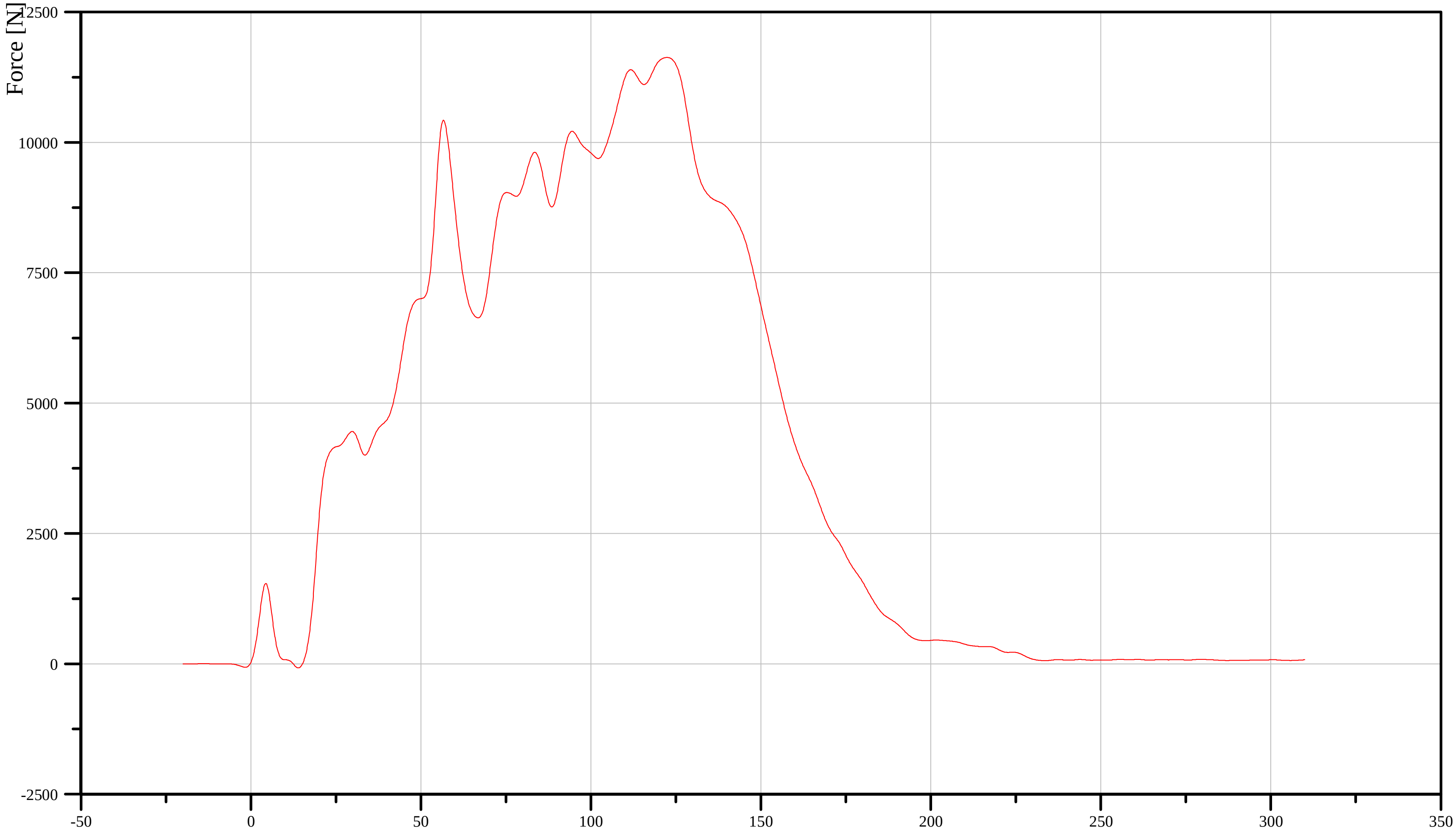
Load Cell Row 5 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000085FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-76.41 N at 13.92 ms

Max. Value
11,630.97 N at 122.40 ms

TRC

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

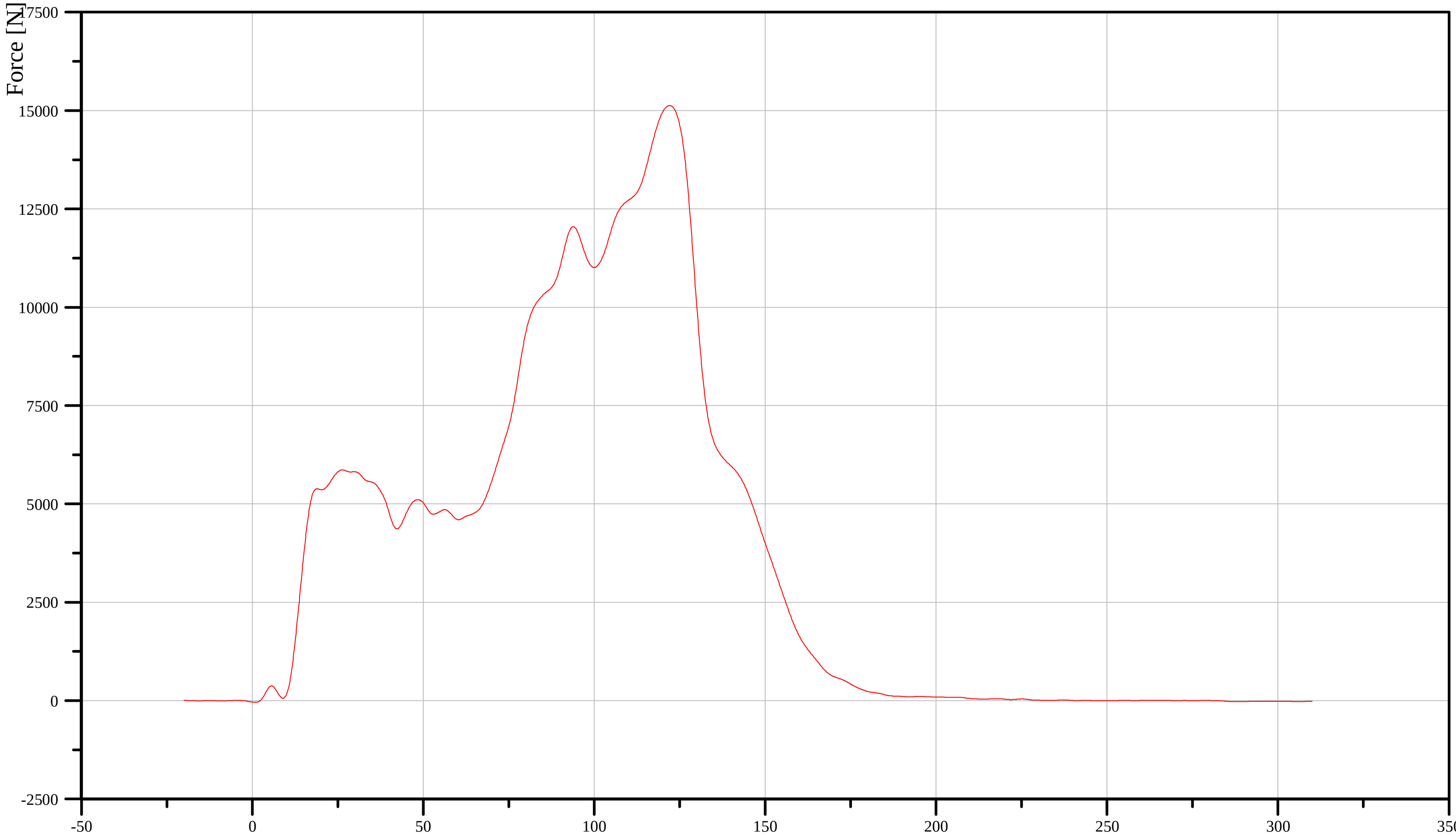
Load Cell Row 6 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000086FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-40.78 N at 0.80 ms

Max. Value
15,126.06 N at 122.08 ms

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

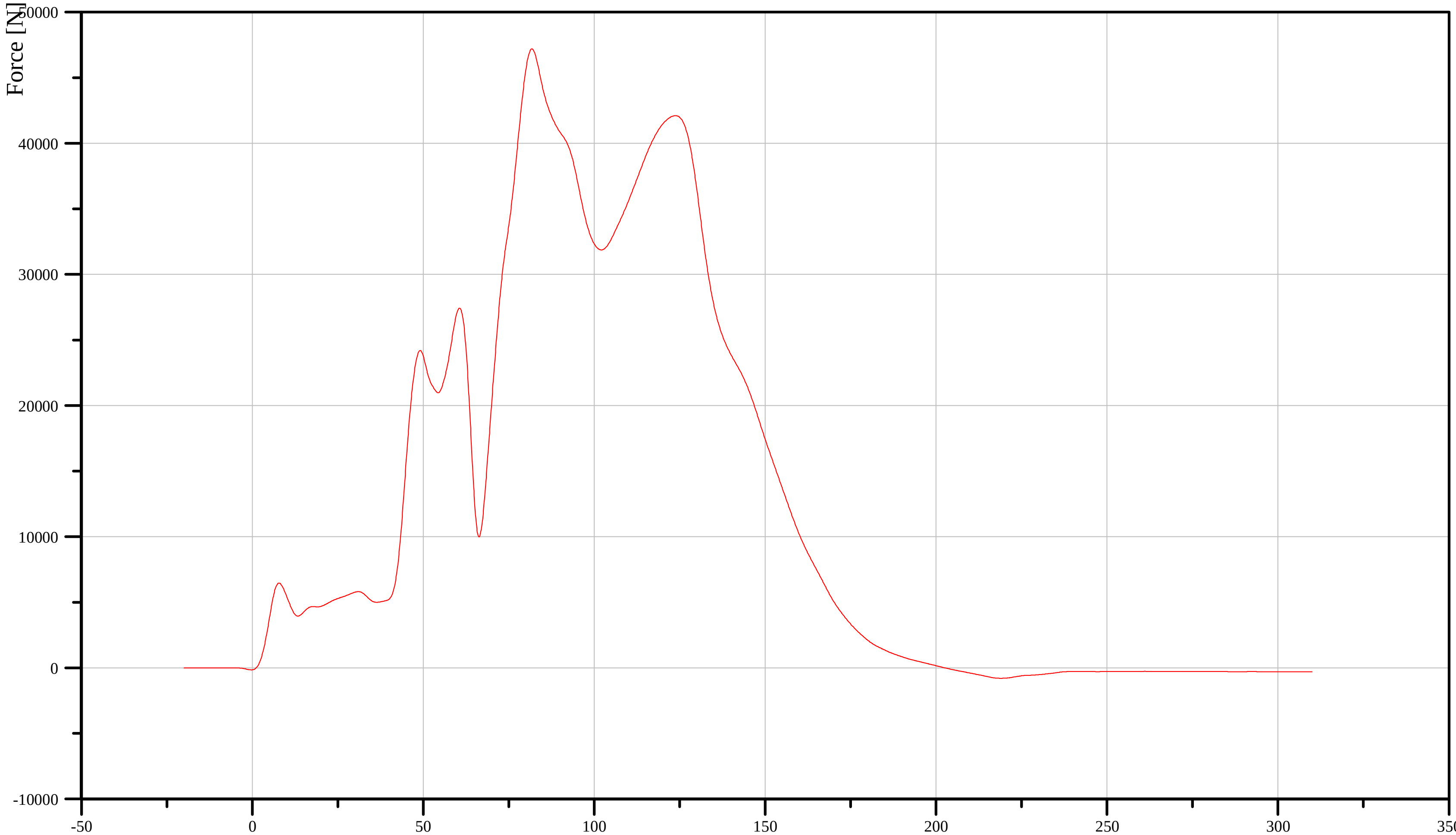
Load Cell Row 7 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000087FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Filter: CFC_60

Min. Value
-791.83 N at 218.88 ms

Max. Value
47,198.27 N at 81.76 ms

070126

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

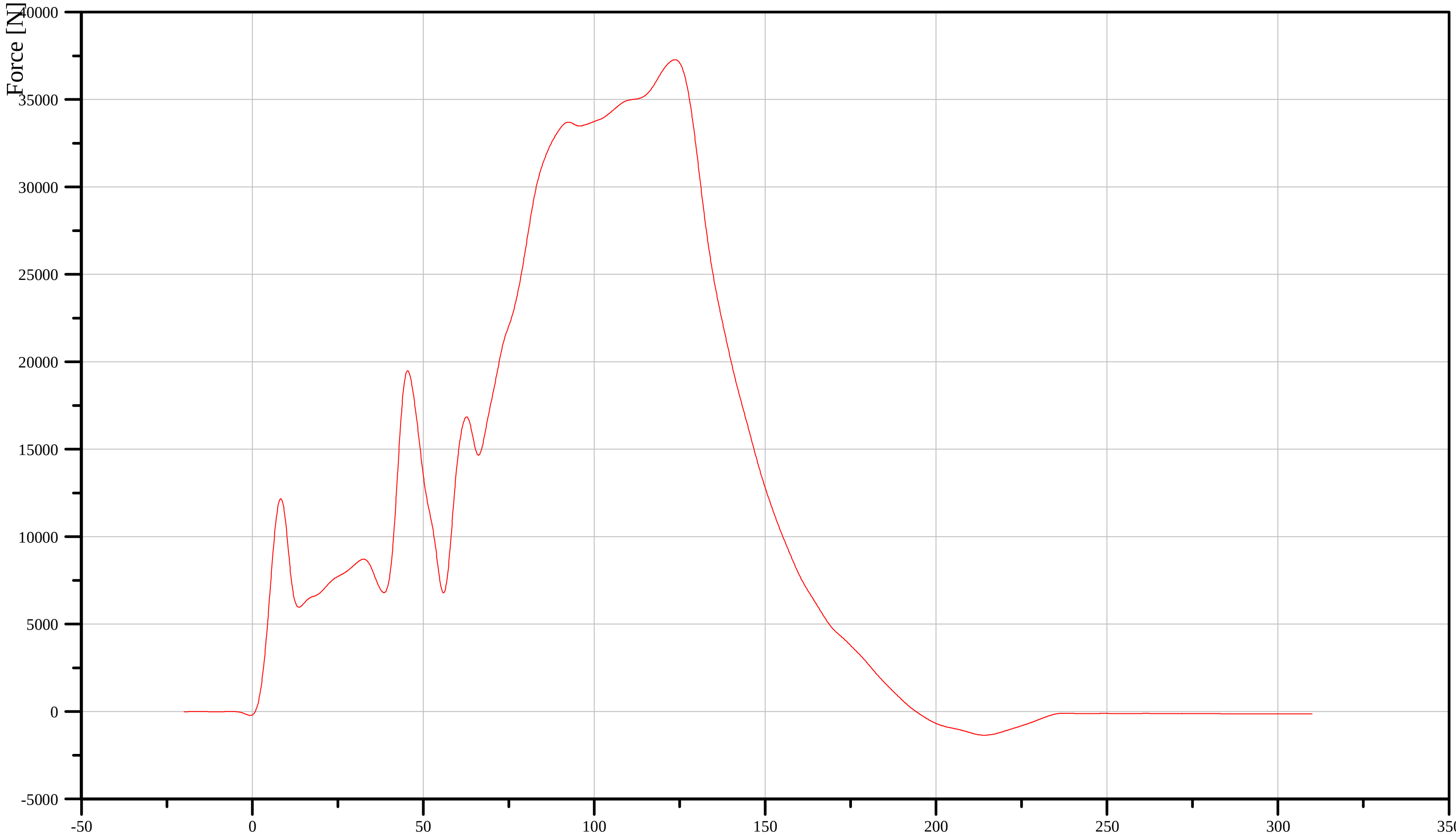
Load Cell Row 8 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000088FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



Time [ms]

Filter: CFC_60

Min. Value
-1,347.21 N at 214.00 ms

Max. Value
37,284.38 N at 123.60 ms

B-298

070126

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

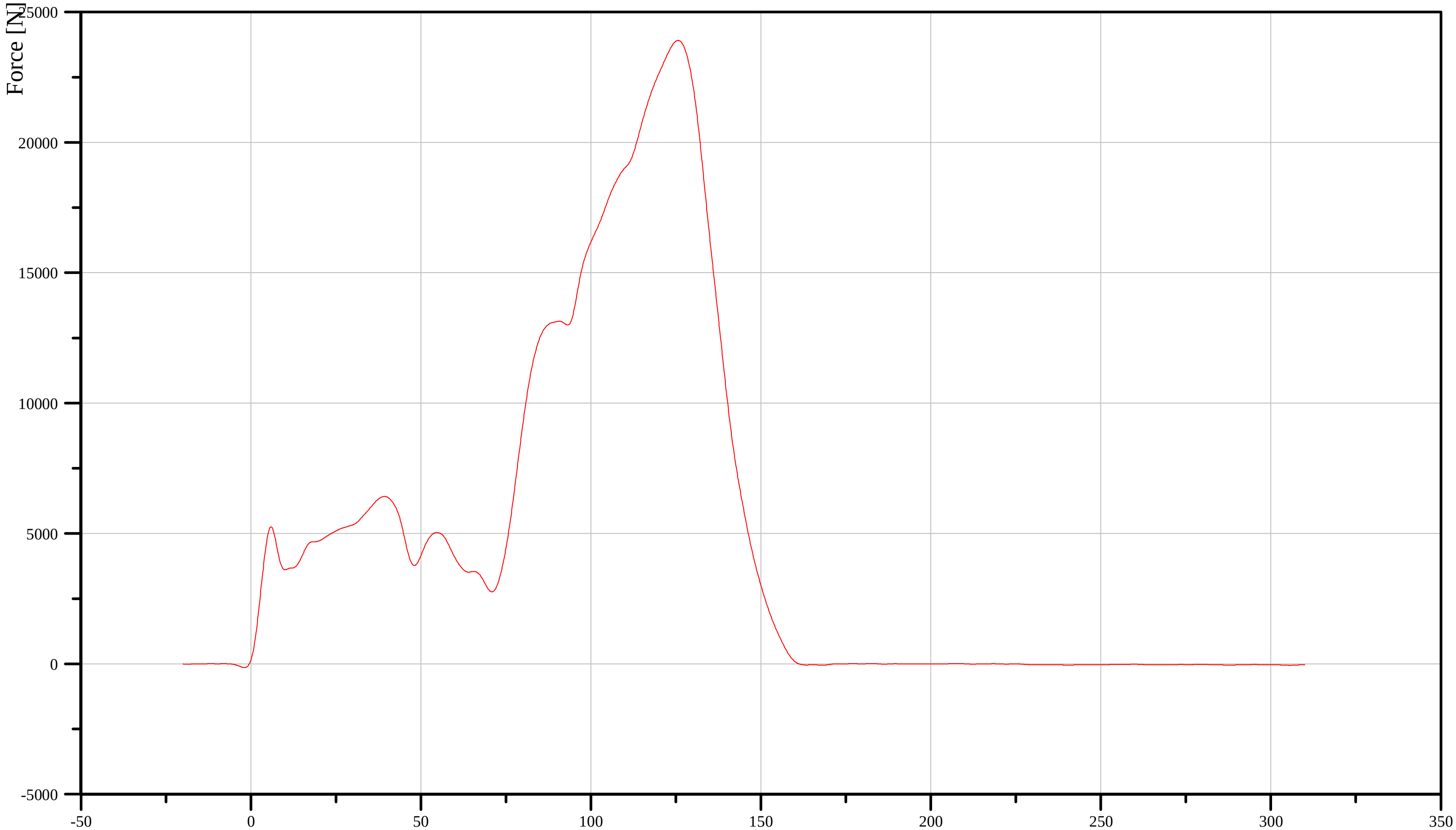
Load Cell Row 9 Column 9

Date: 01/26/2007
Time: 18:07

Customer: Volpe
Test Number: R70201

L0FBAR000089FOXD

TRC Inc. Test Lab: CTF
Test Number: 070126



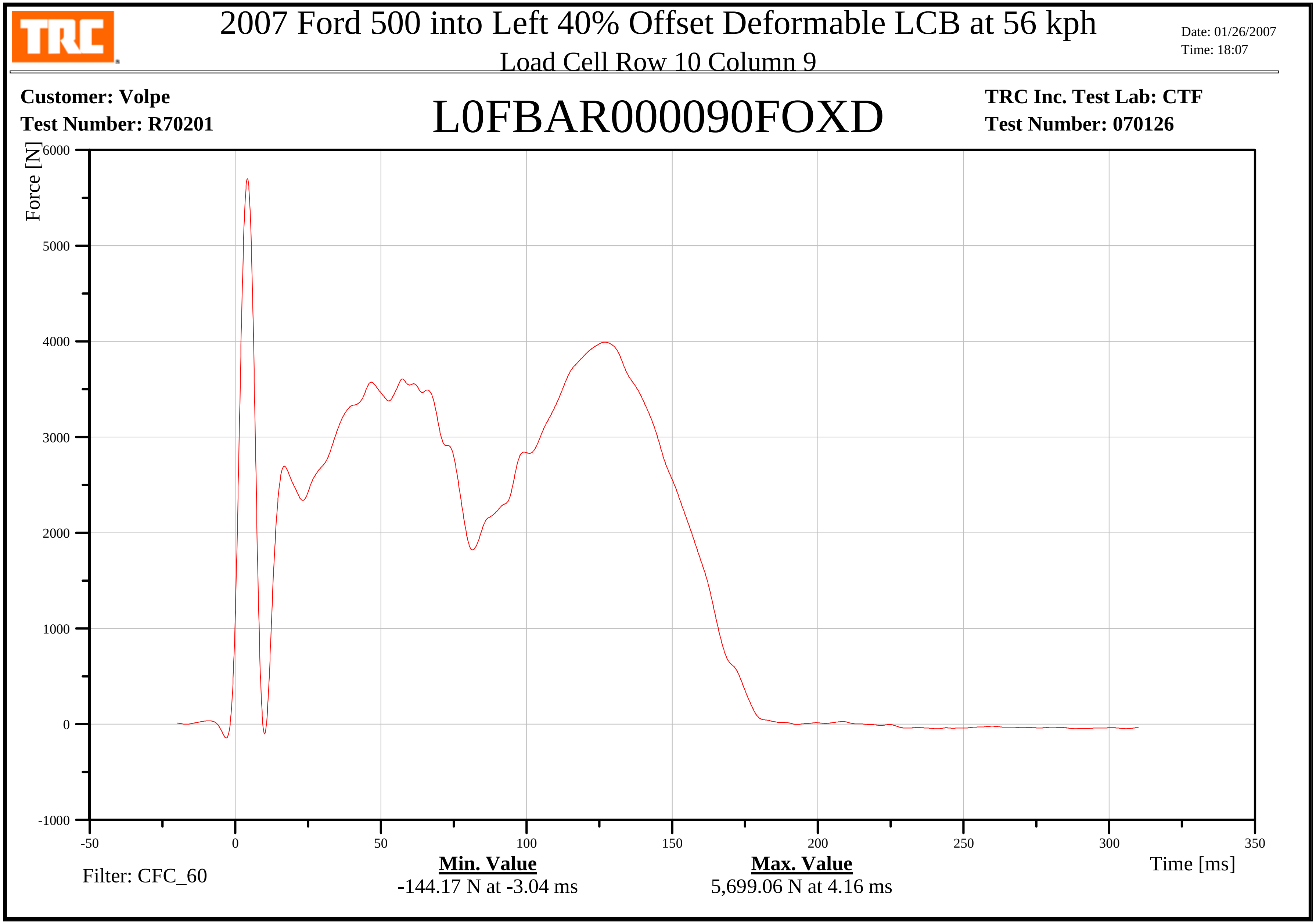
Filter: CFC_60

Min. Value
-141.51 N at -1.92 ms

Max. Value
23,914.45 N at 125.68 ms

B-299

070126



TRC
2007 Ford 500 into Left 40% Offset Deformable LCB at 56 kph
Load Cell Row 10 Column 9
Date: 01/26/2007
Time: 18:07
Customer: Volpe
Test Number: R70201
L0FBAR000090FOXD
TRC Inc. Test Lab: CTF
Test Number: 070126
Force [N]
6000
5000
4000
3000
2000
1000
0
-1000
-50
0
50
100
150
200
250
300
350
Time [ms]
Filter: CFC_60
Min. Value
-144.17 N at -3.04 ms
Max. Value
5,699.06 N at 4.16 ms

B-300

070126

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

Robert Bonawitz

Approved

Ron Stones

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

Robert Boraunds

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.24.2006 14:47:44 610

TRC

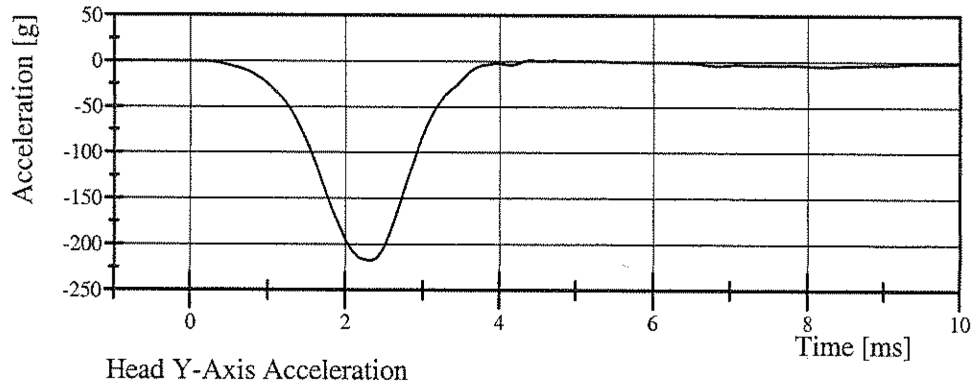
Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 202 Certification No. 19-1

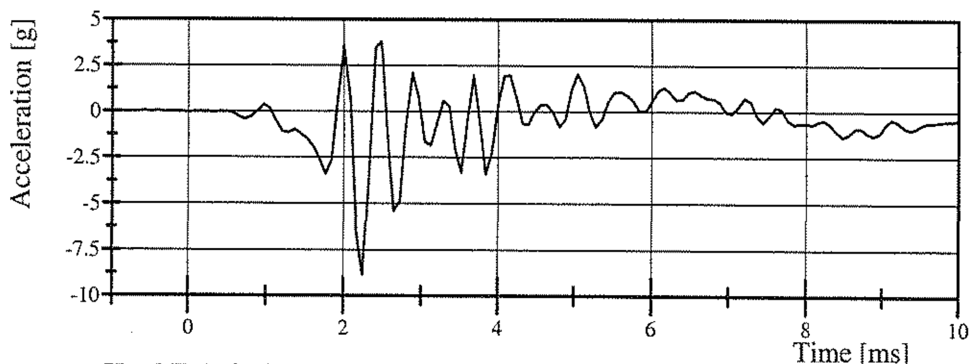
Test Date: 10/24/2006

Head X-Axis Acceleration



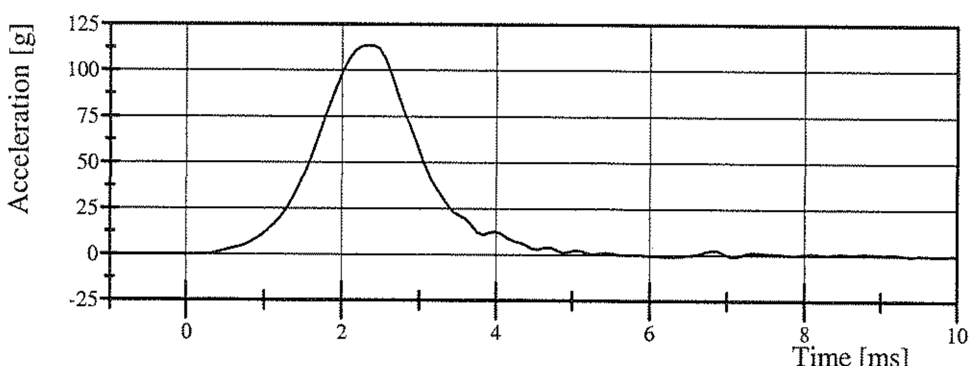
Filter Class: CFC_1000
Max: 1.3 g at 4.4 ms
Min: -218.0 g at 2.3 ms

Head Y-Axis Acceleration



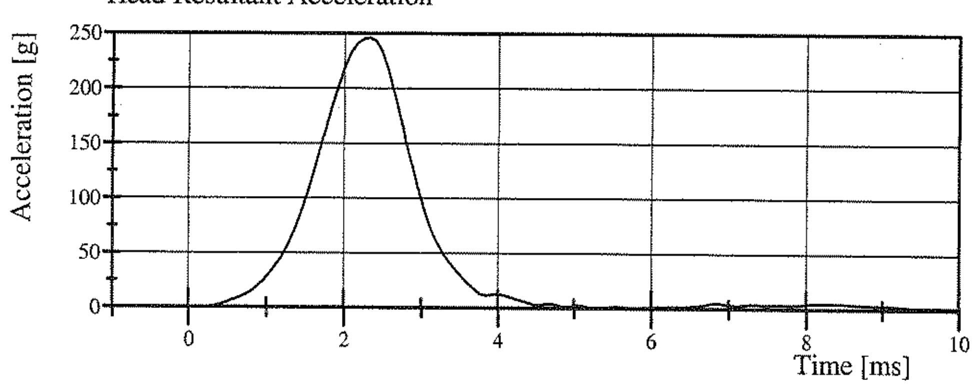
Filter Class: CFC_1000
Max: 3.8 g at 2.5 ms
Min: -8.9 g at 2.2 ms

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
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
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 Bernardo

Approved Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.26.2006 08:45:44 550

TRC

070126

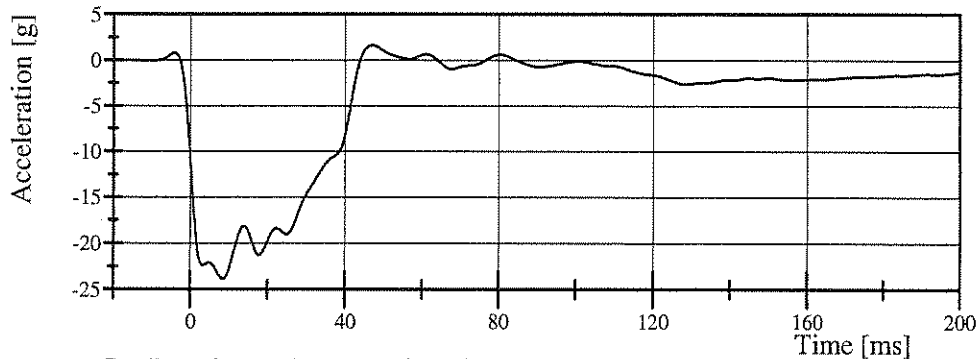
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 202 Certification No. 19-13

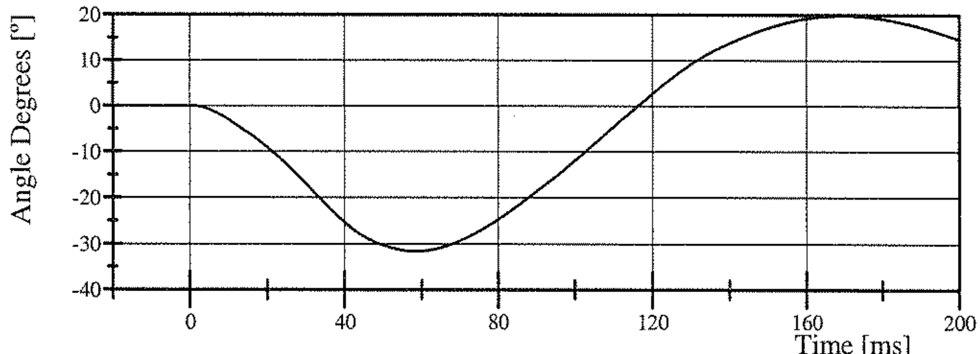
Test Date: 10/26/2006

Pendulum Acceleration



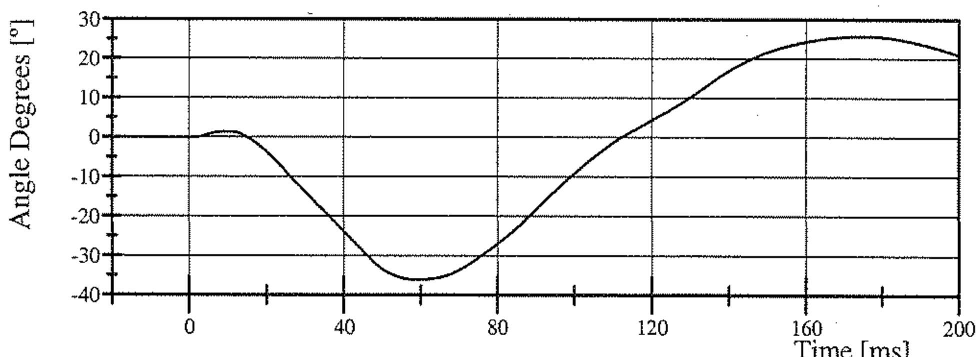
Filter Class: CFC_60
Max: 1.6 g at 46.9 ms
Min: -23.9 g at 8.4 ms

Pot Rotation at the Base of Neck



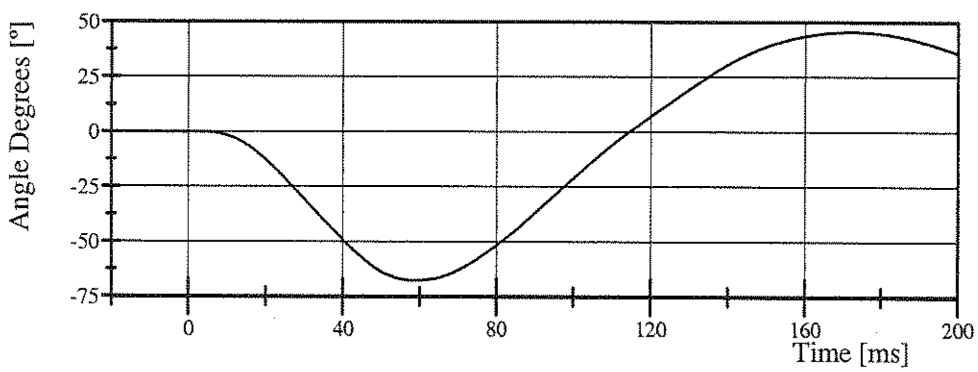
Filter Class: CFC_60
Max: 19.9 ° at 169.9 ms
Min: -31.6 ° at 58.6 ms

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

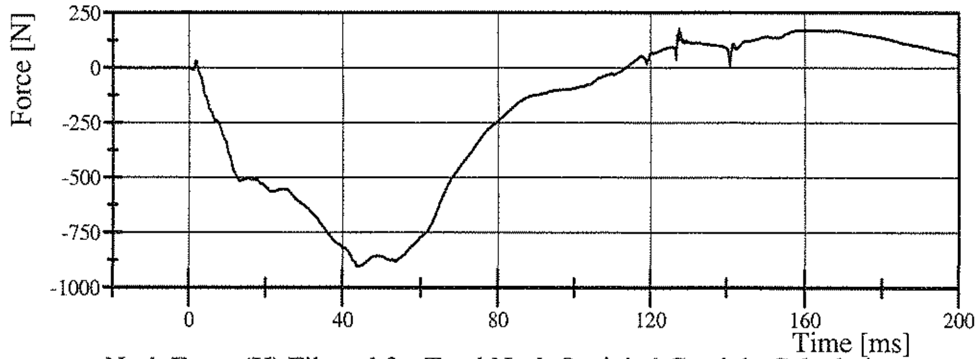
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 202 Certification No. 19-13

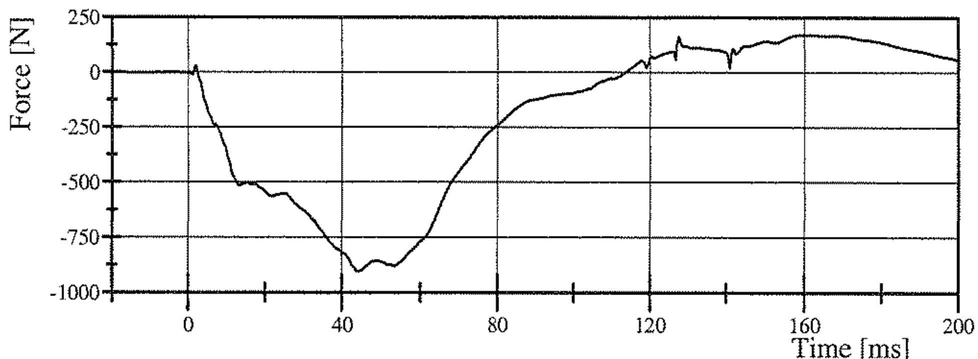
Test Date: 10/26/2006

Neck Force (X)



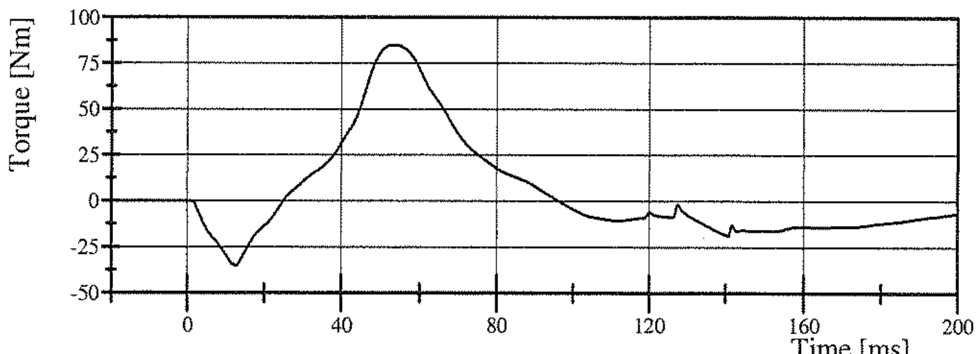
Filter Class: CFC_1000
Max: 178.1 N at 127.5 ms
Min: -903.4 N at 44.2 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



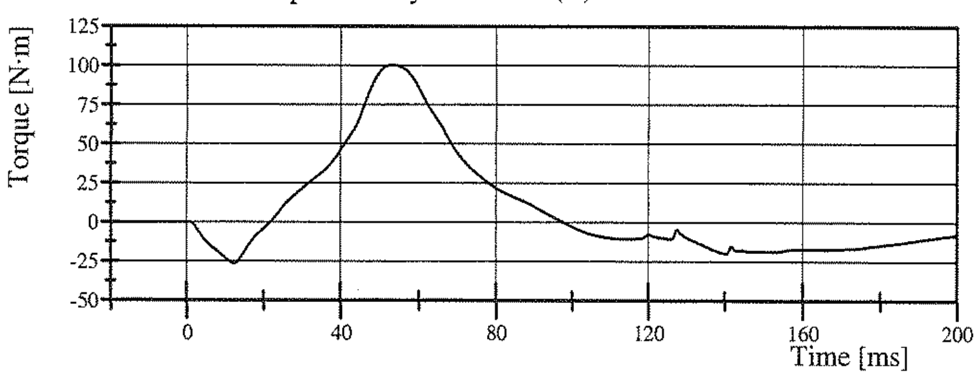
Filter Class: CFC_600
Max: 171.5 N at 161.5 ms
Min: -903.2 N at 44.2 ms

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

Robert Borawski

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

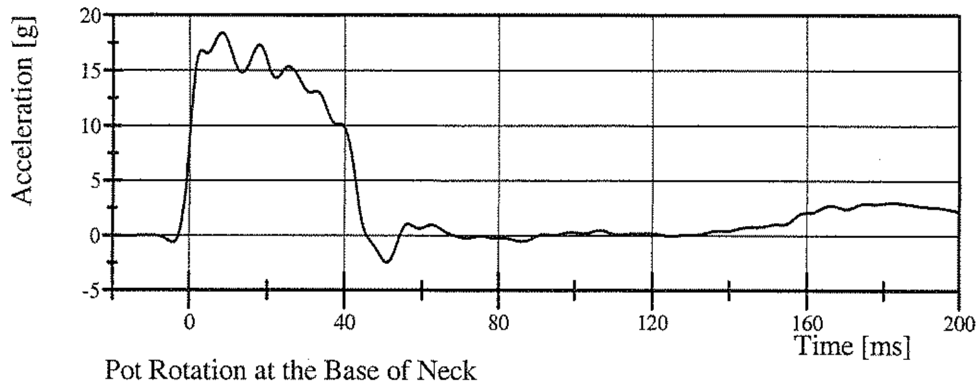
10.26.2006 15:56:40 1186

TRC

Transportation Research Center Inc.

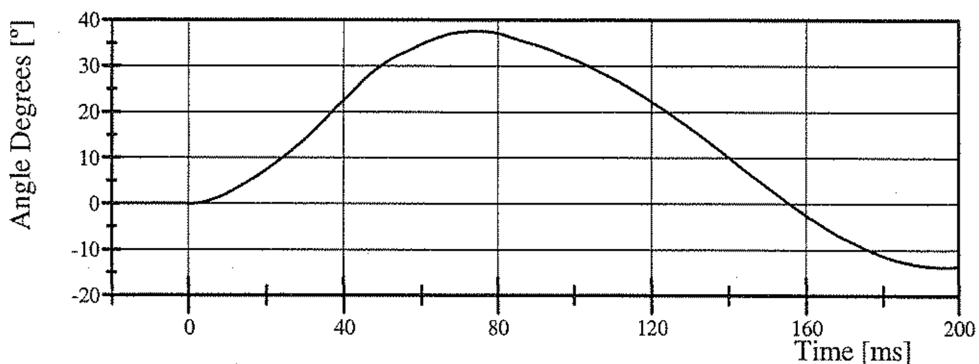
Neck Extension
HIII 50th Serial No. 202 Certification No. 19-10
Test Date: 10/26/2006

Pendulum Acceleration



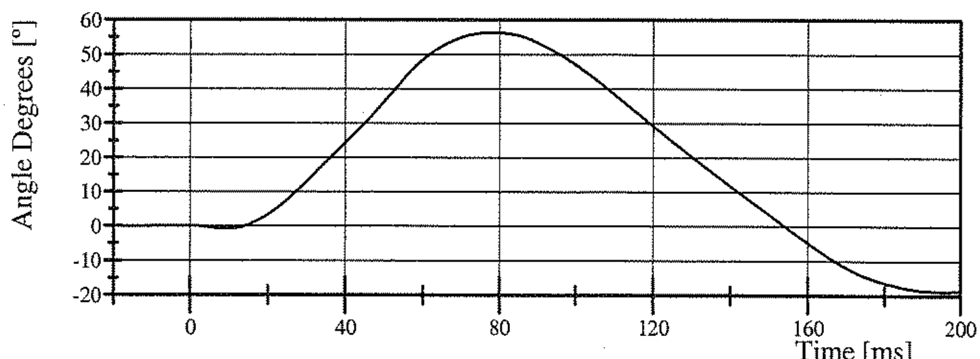
Filter Class: CFC_60
Max: 18.4 g at 8.3 ms
Min: -2.5 g at 50.9 ms

Pot Rotation at the Base of Neck



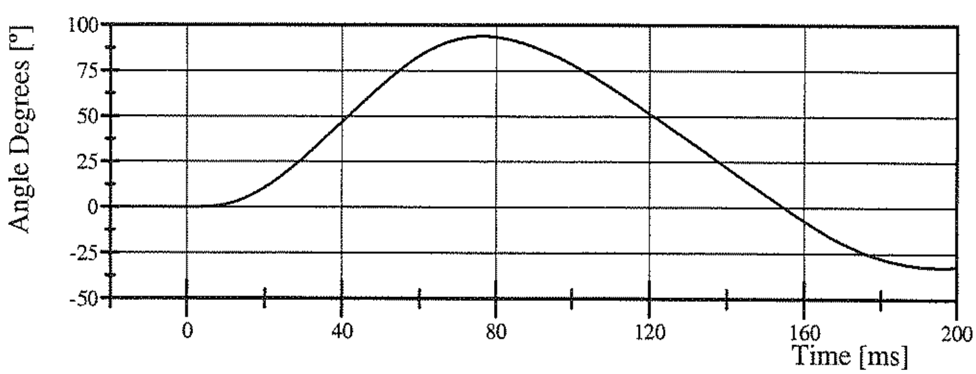
Filter Class: CFC_60
Max: 37.6 ° at 74.6 ms
Min: -13.7 ° at 196.8 ms

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

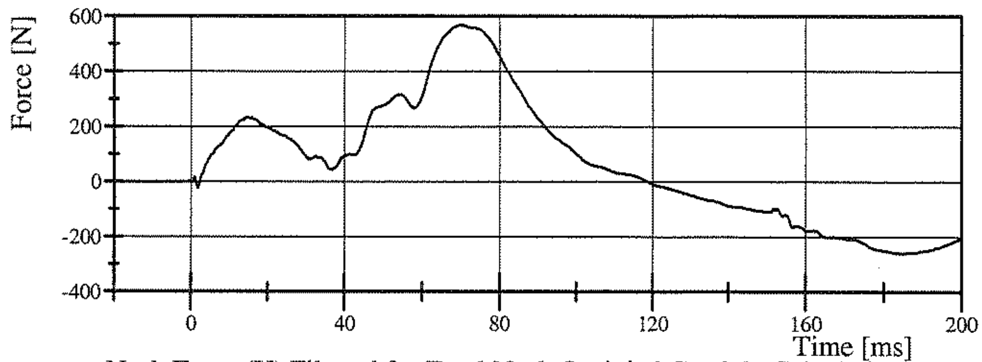


Filter Class: CFC_60
Max: 93.9 ° at 76.6 ms
Min: -32.5 ° at 196.5 ms

Transportation Research Center Inc.

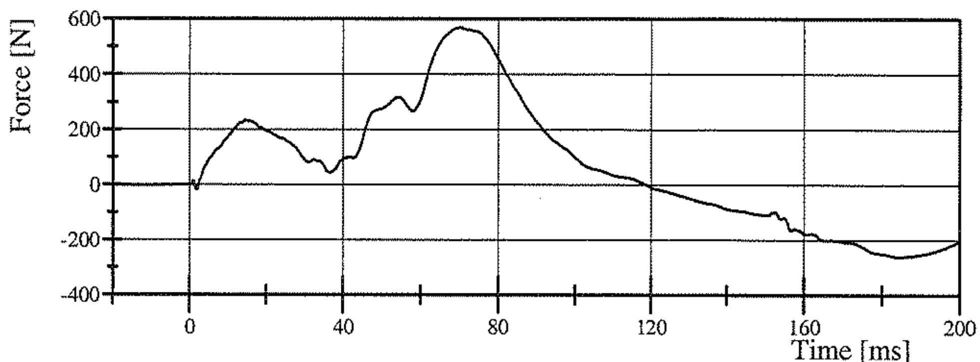
Neck Extension
HIII 50th Serial No. 202 Certification No. 19-10
Test Date: 10/26/2006

Neck Force (X)



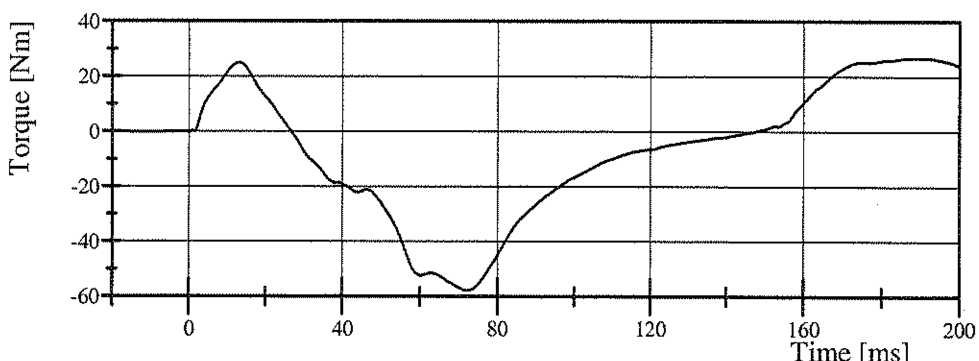
Filter Class: CFC_1000
Max: 569.9 N at 70.1 ms
Min: -259.5 N at 184.8 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



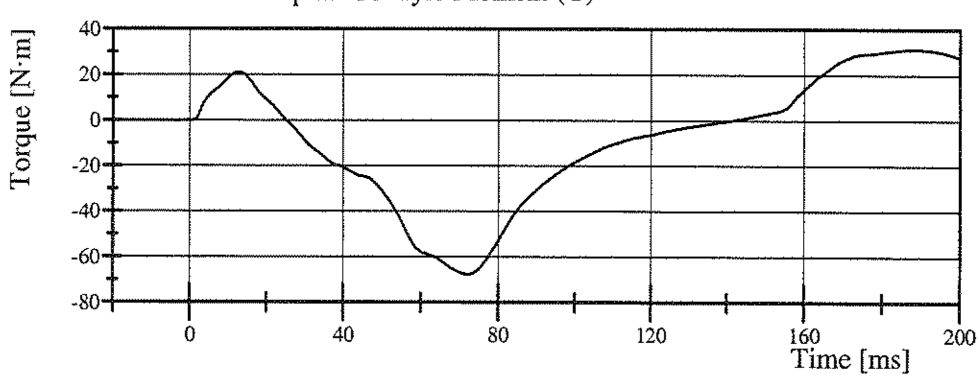
Filter Class: CFC_600
Max: 569.2 N at 70.1 ms
Min: -259.2 N at 184.9 ms

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

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.26.2006 15:57:02 1186

TRC

070126

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 Borawdo

Approved

Ron Stoner

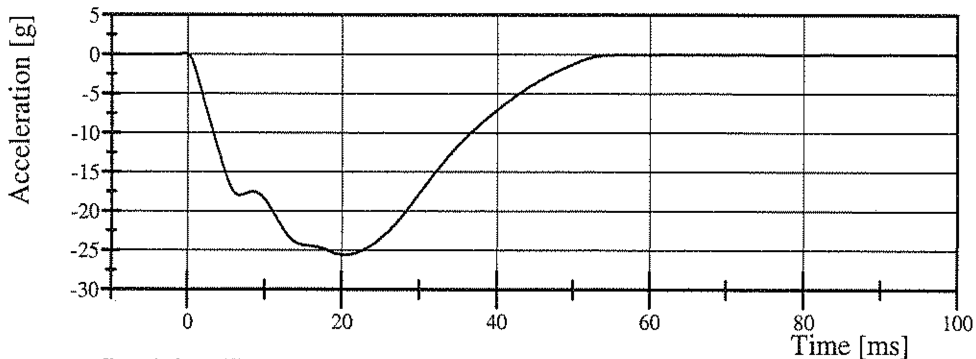
Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 202 Certification No. 19-6

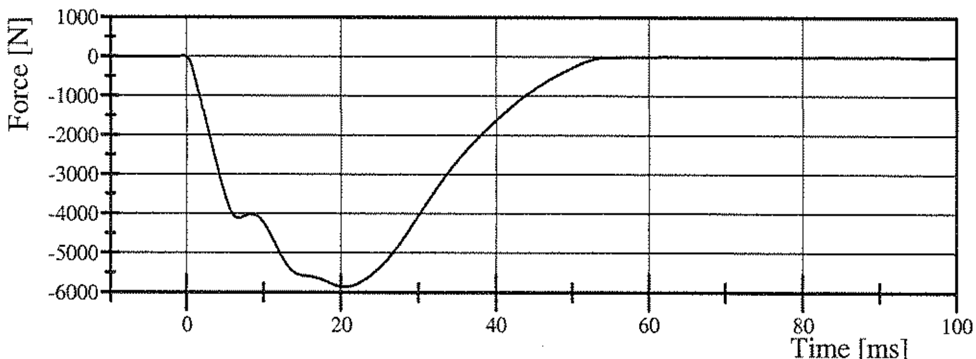
Test Date: 10/30/2006

Pendulum Acceleration



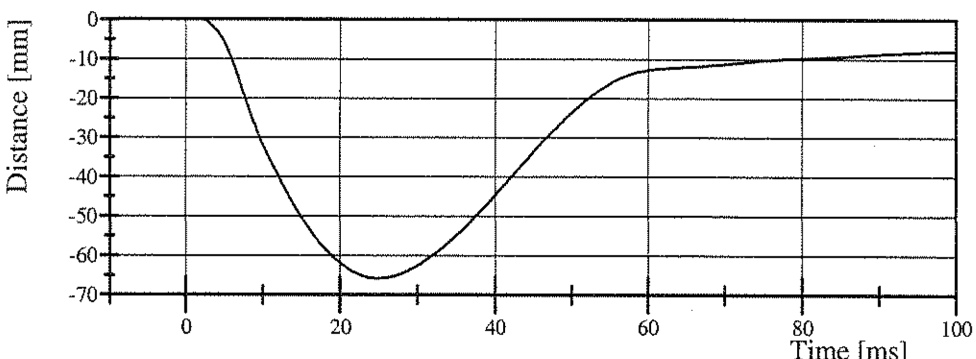
Filter Class: CFC_180
Max: 0.1 g at -0.4 ms
Min: -25.6 g at 20.5 ms

Pendulum Force



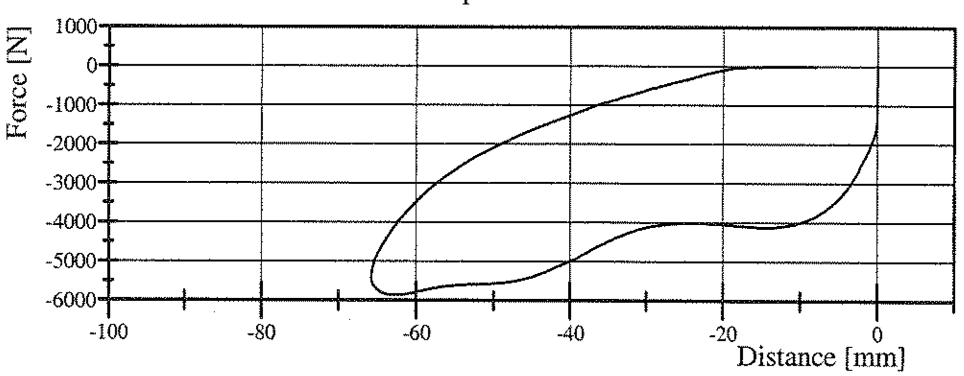
Filter Class: CFC_180
Max: 21.3 N at -0.4 ms
Min: -5,856.6 N at 20.5 ms

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

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

10.30.2006 12:54:11 1573

070126

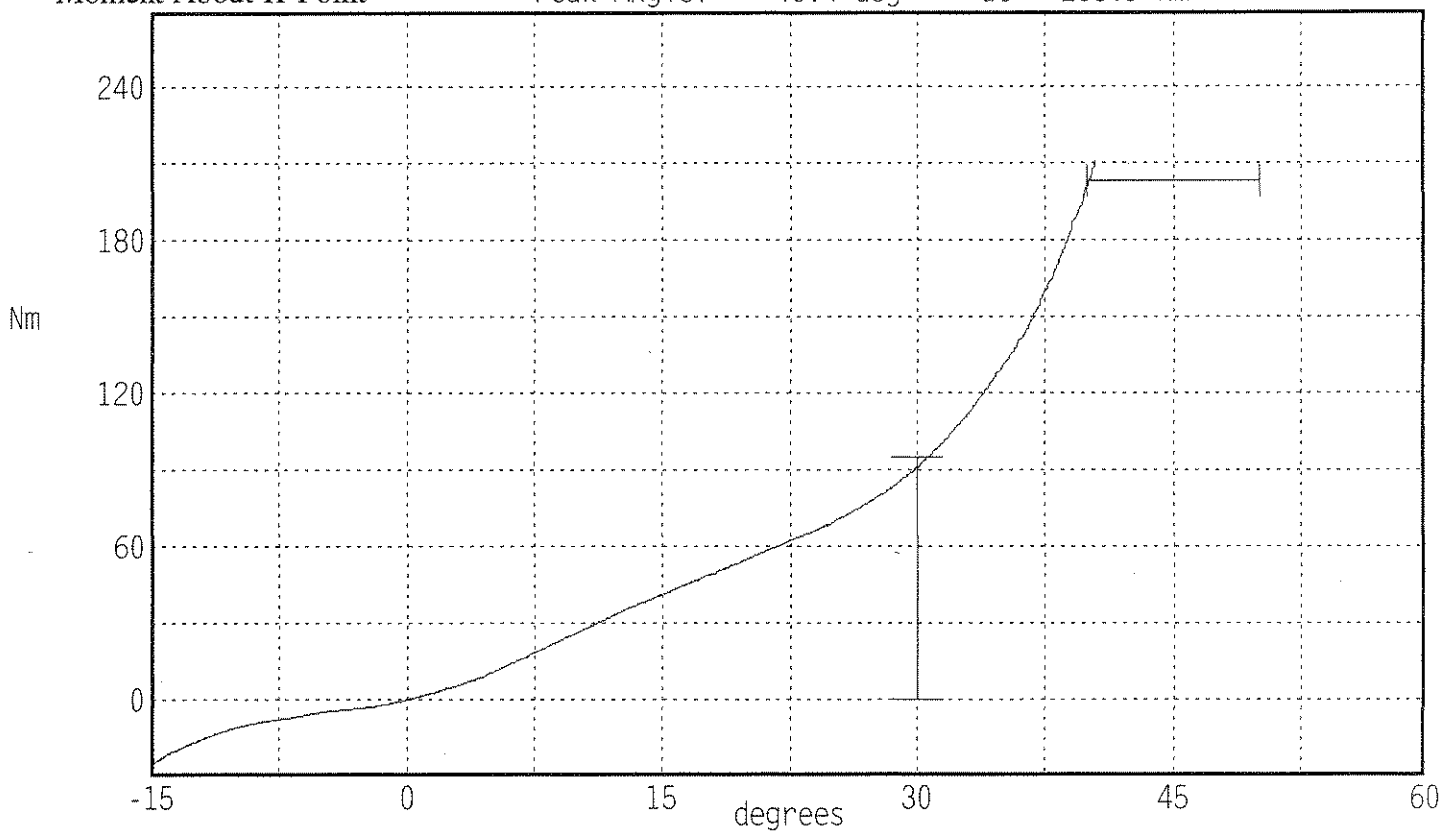
Applied Safety Technologies Corp.
Hybrid III Hip Range of Motion

Serial Number: 202C19 Date: 10/25/2006
Test Number: 202L Time: 15:15
Comments:

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

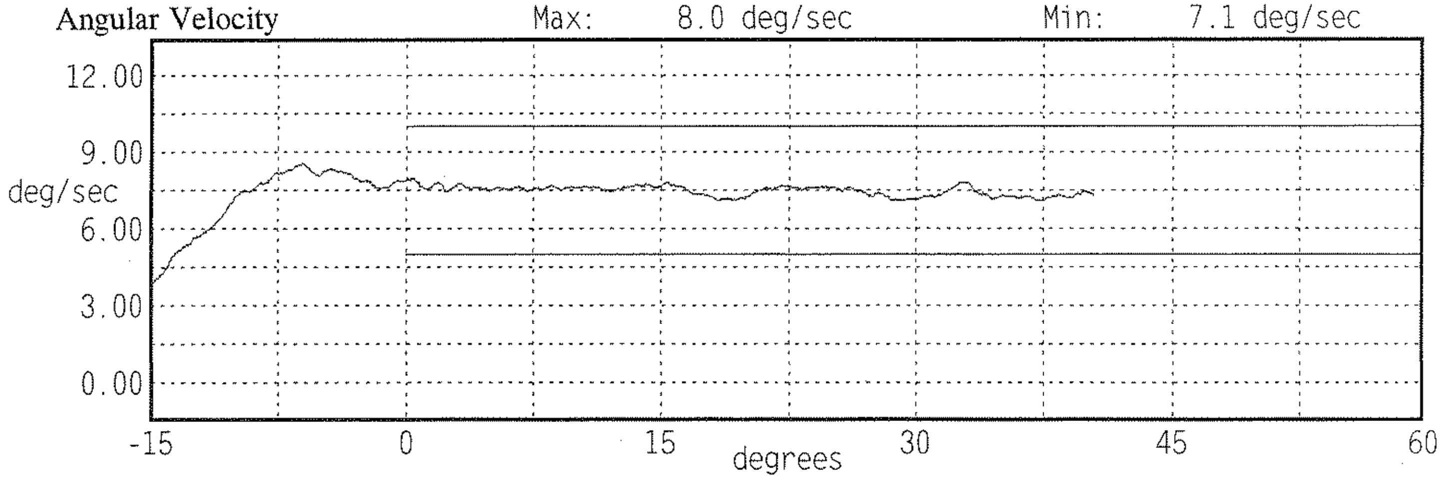
Moment About H-Point

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



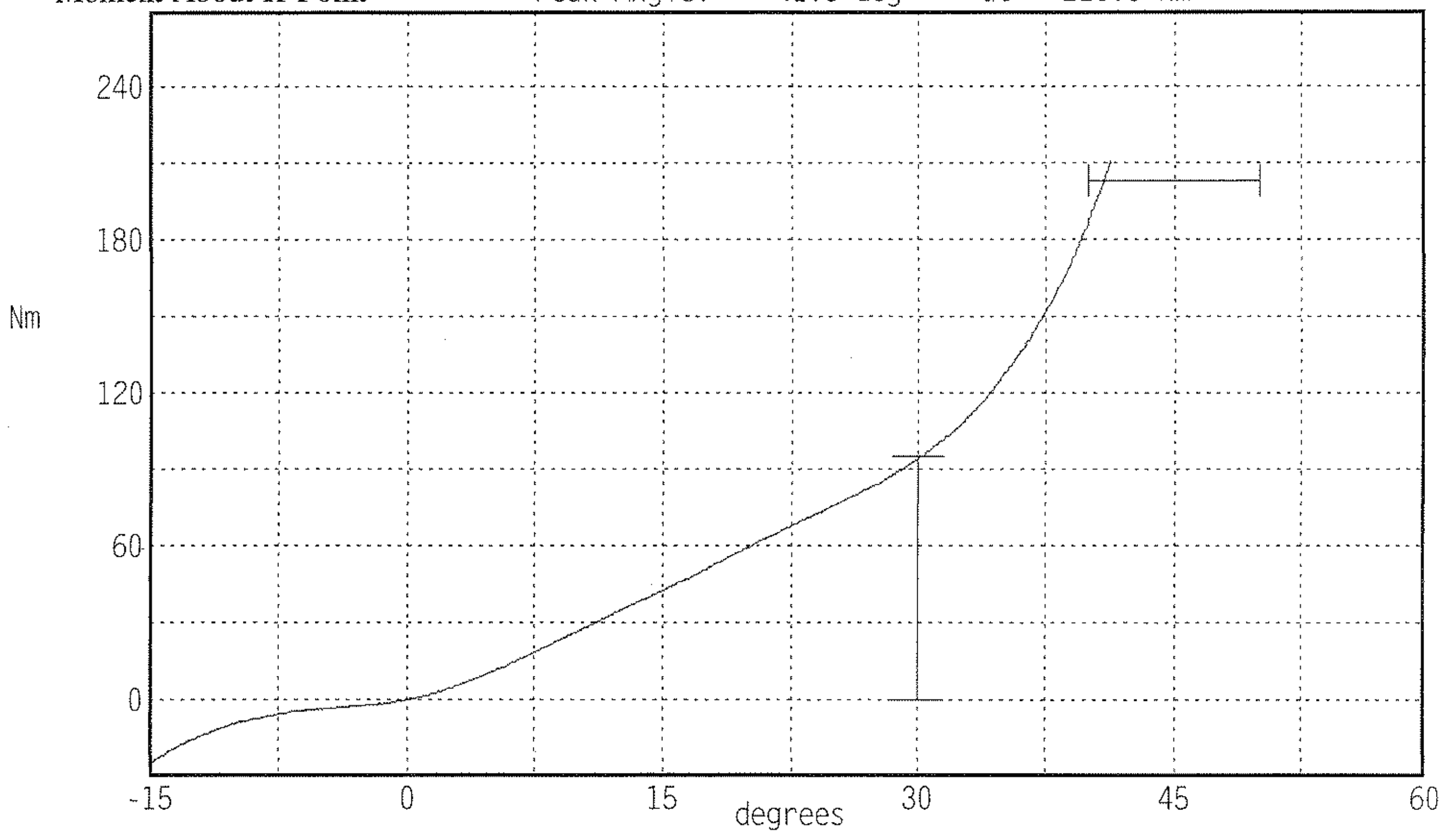
070126

Applied Safety Technologies Corp.
Hybrid III Hip Range of Motion

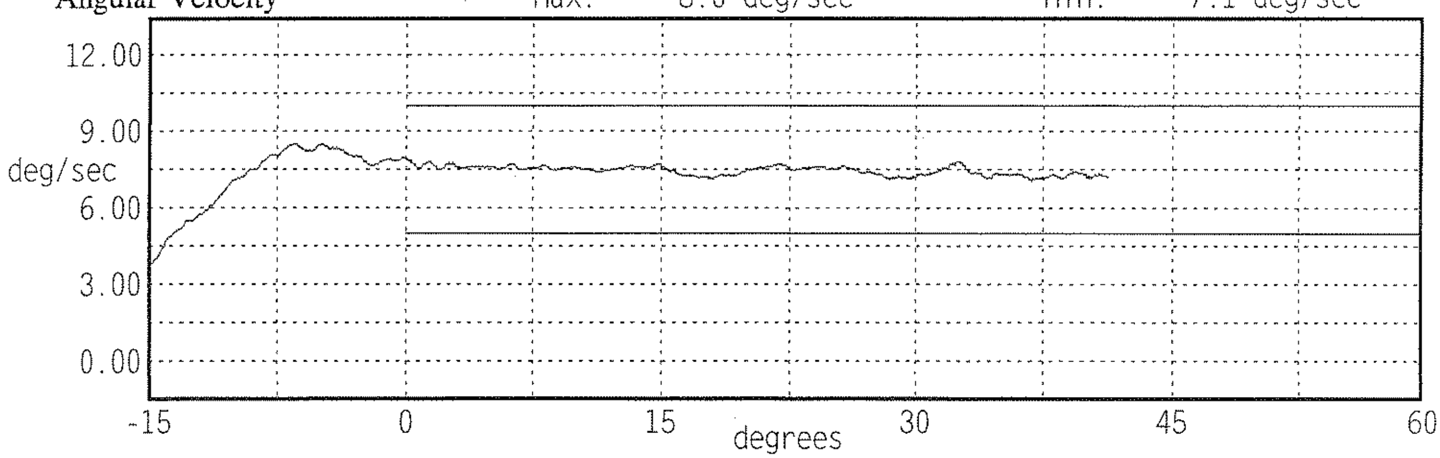
Serial Number:	202C19	Date:	10/25/2006
Test Number:	202R	Time:	15:23
Comments:			

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

Peak Moment: 210.5 Nm at 41.3 deg
Moment About H-Point Peak Angle: 41.3 deg at 210.5 Nm



Angular Velocity Max: 8.0 deg/sec Min: 7.1 deg/sec



070126

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 Berardis

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.27.2006 12:59:11 1704

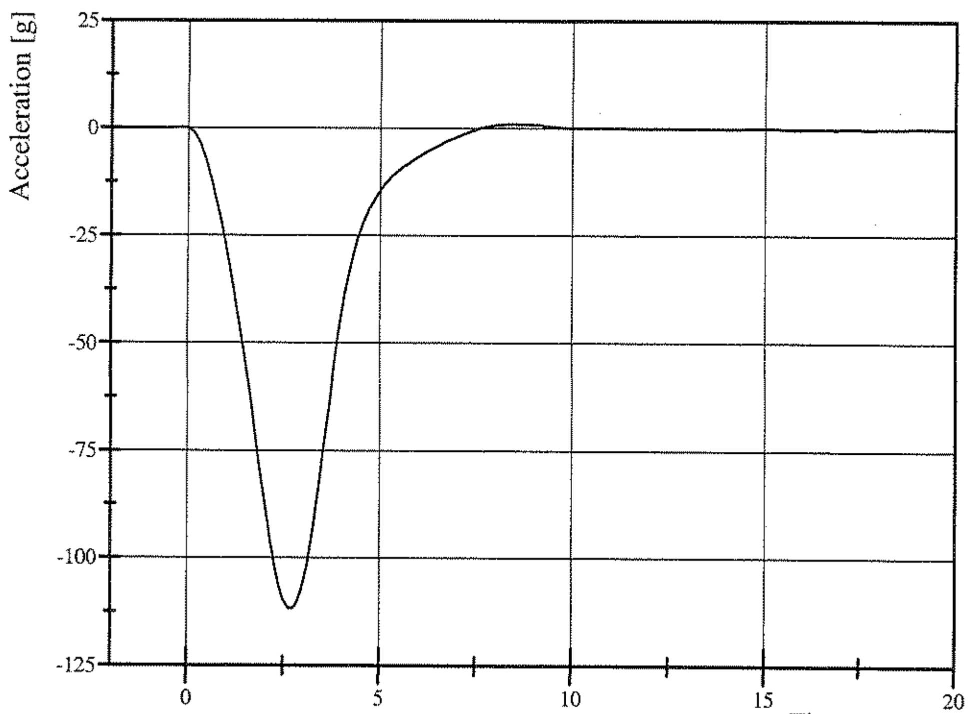
TRC

070126

Transportation Research Center Inc.

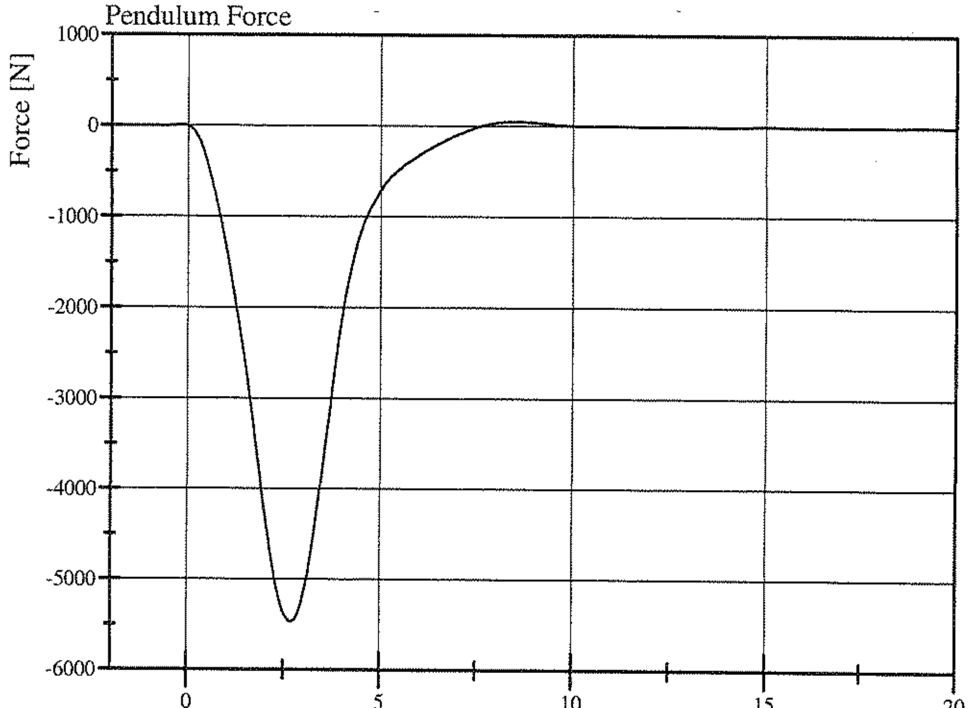
Left Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 19-2
Test Date: 10/27/2006

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

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.27.2006 12:59:24 1704

070126

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

Robert Berardi

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

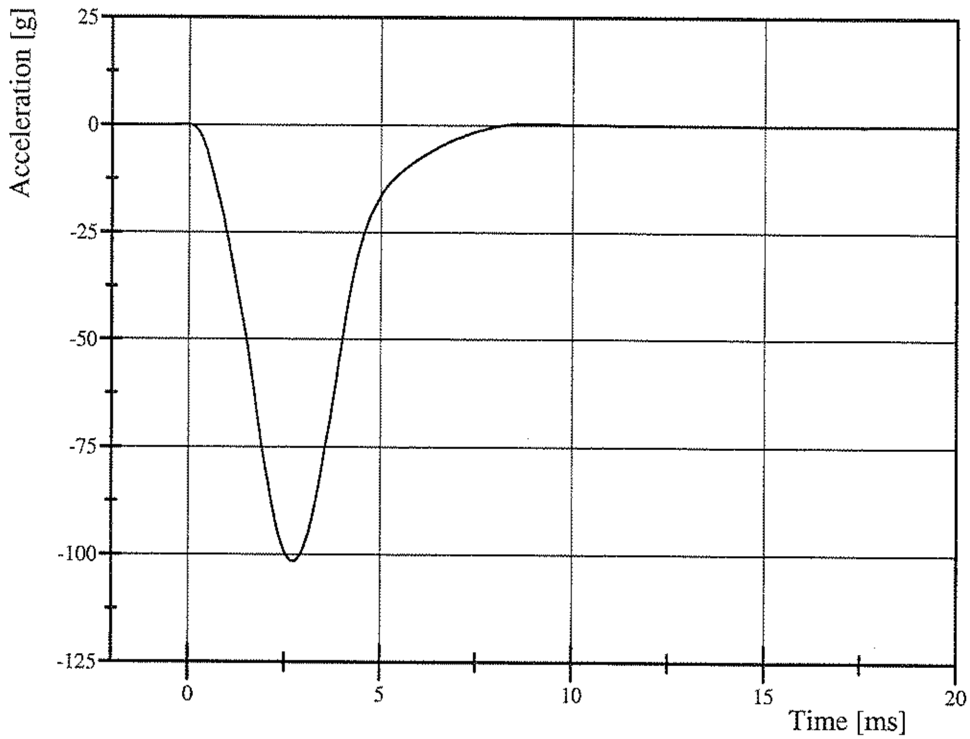
10.27.2006 12:36:11 1705

070126

Transportation Research Center Inc.

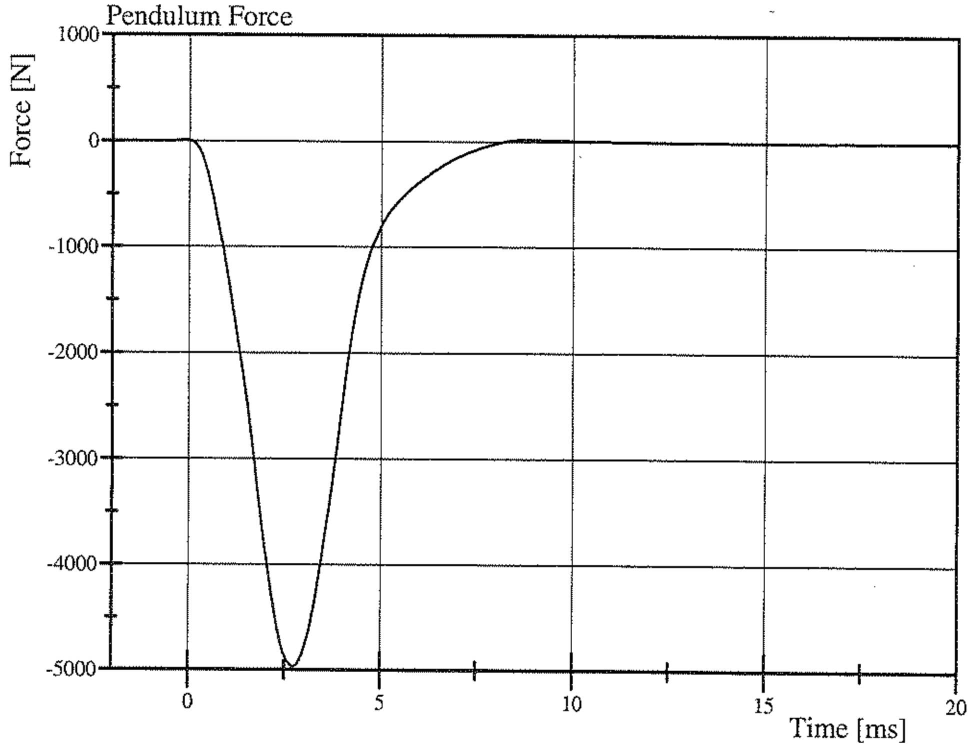
Right Knee Femur Response Test
HIII 50th Serial No. 202 Certification No. 19-2
Test Date: 10/27/2006

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

070126

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

Robert Berardo

Approved

Ron Stoner

Specification Source: SAE User's Manual with Polarity in Accordance with J211

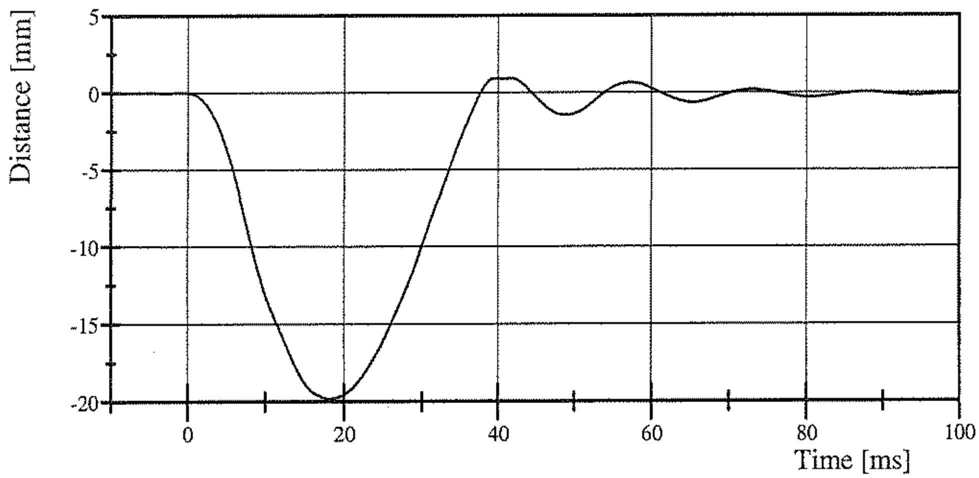
10.31.2006 15:28:44 1448

070126

Transportation Research Center Inc.

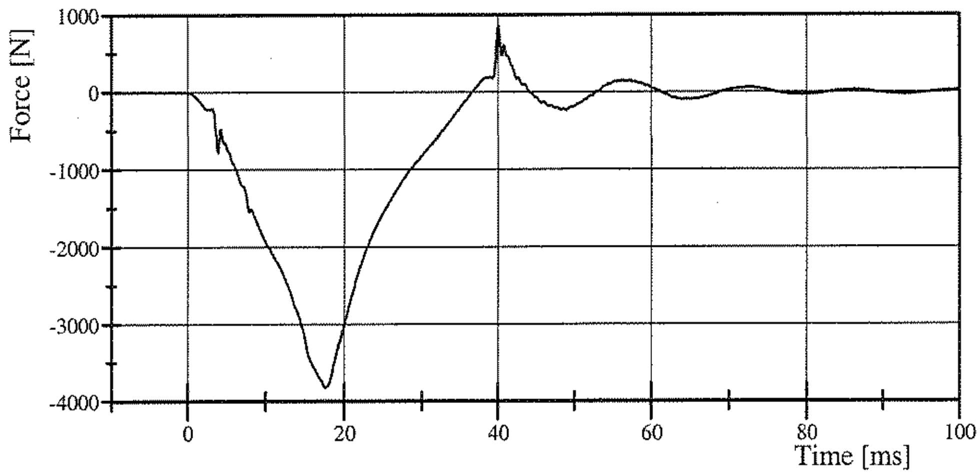
Left Knee Slider
HIII 50th Serial No. 202 Certification No. 19-4
Test Date: 10/31/2006

Knee Slider Displacement



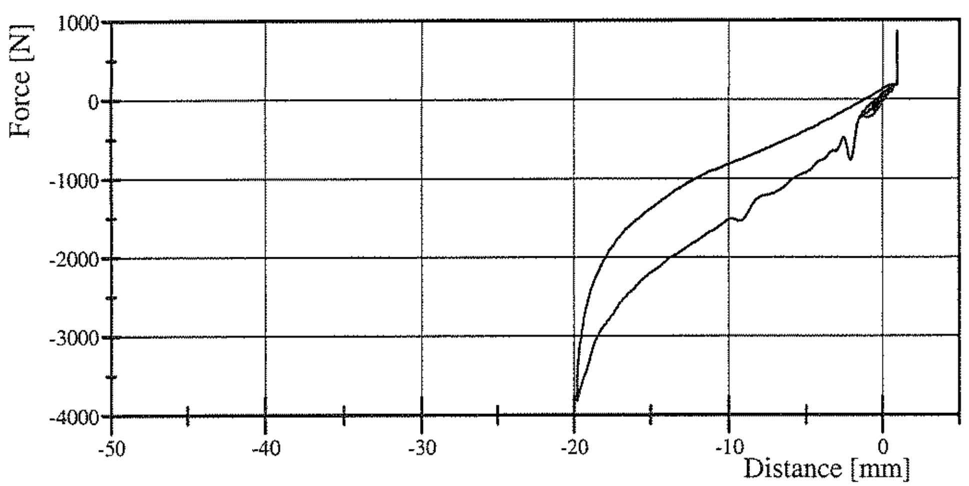
Filter Class: CFC_180
Max: 0.9 mm at 41.8 ms
Min: -19.8 mm at 18.2 ms

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

Specification Source: SAE User's Manual with Polarity in Accordance with J211

10.31.2006 15:29:07 1448

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

TRC

070126

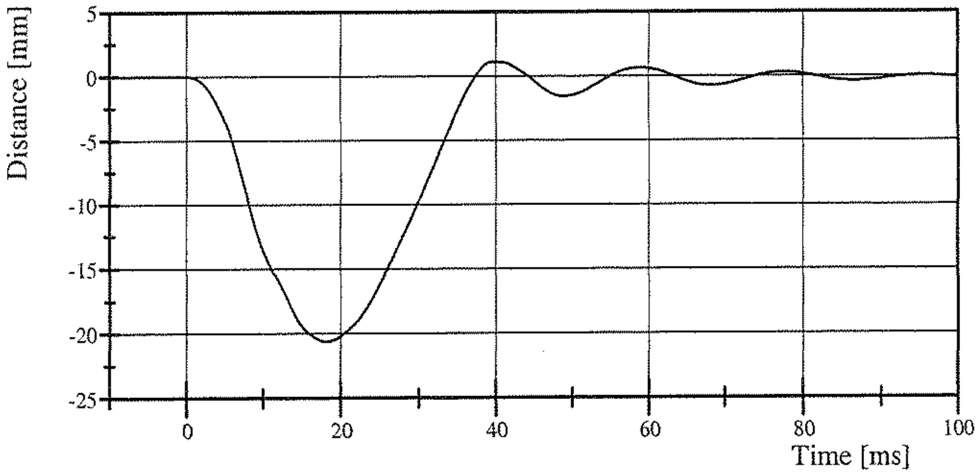
Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. 202 Certification No. 19-3

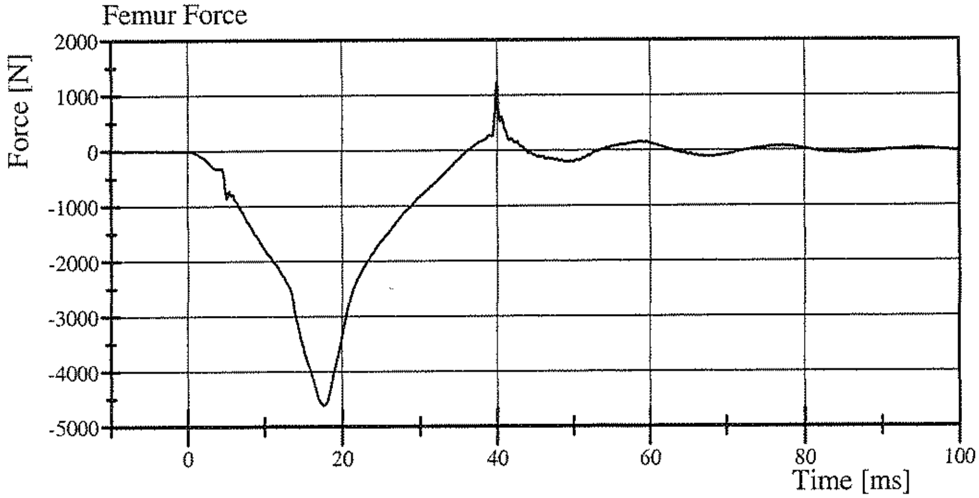
Test Date: 10/27/2006

Knee Slider Displacement



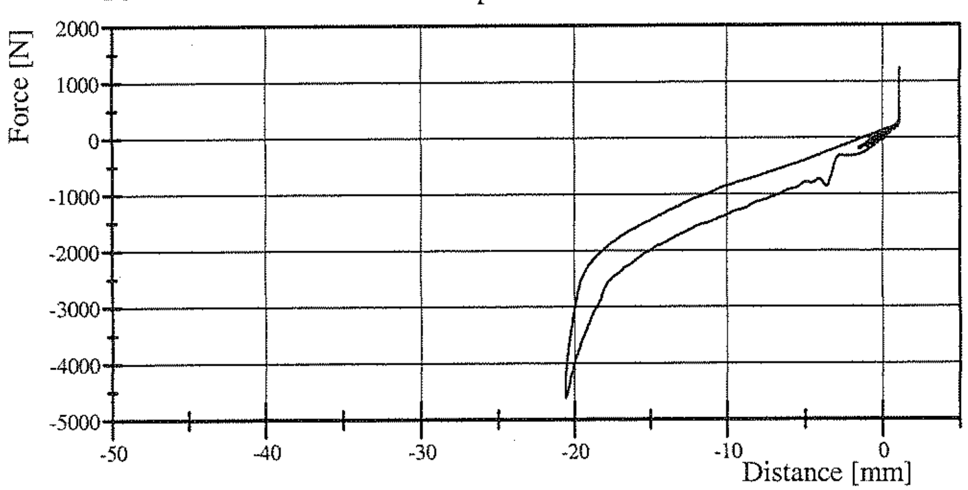
Filter Class: CFC_180
Max: 1.1 mm at 39.8 ms
Min: -20.6 mm at 18.2 ms

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

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 626-5200 • Fax(419) 626-5335 • 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** JmR

Approved By: ________

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 626-5200 • Fax(419) 626-6335 • 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

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

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**

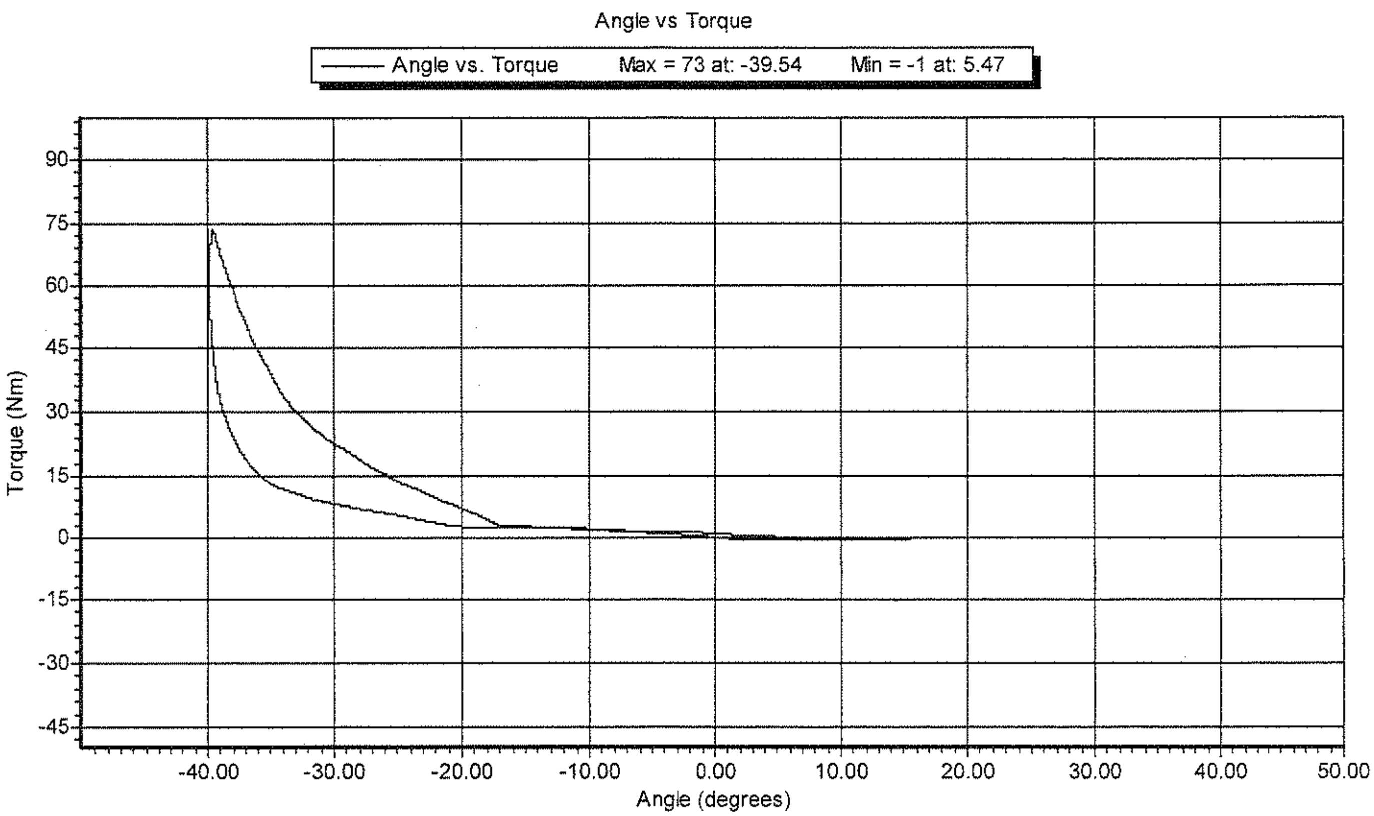
Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

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

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-6335 • 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**

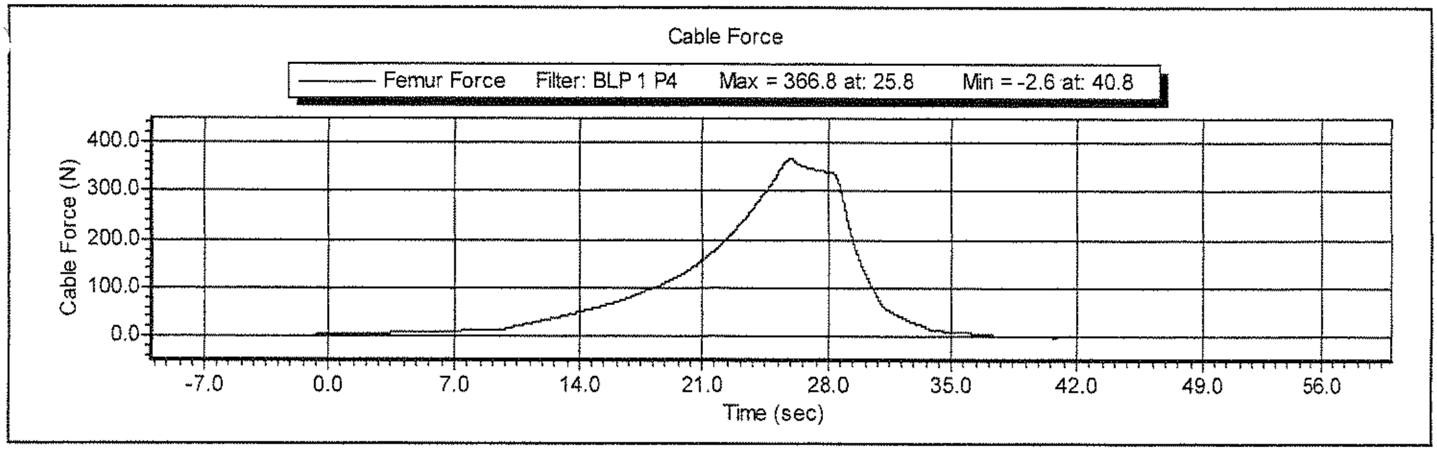


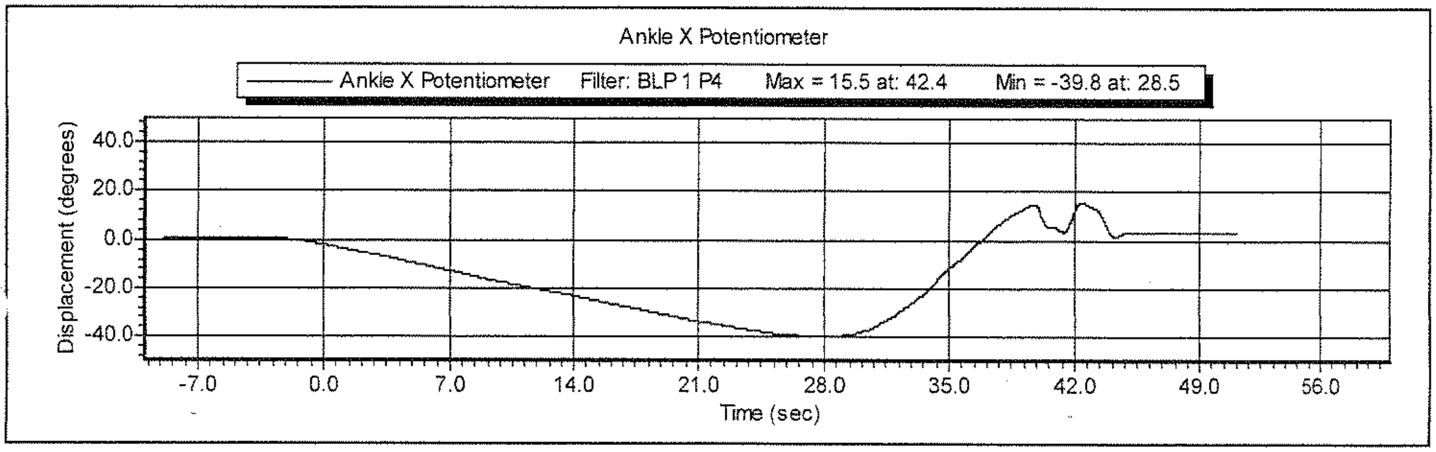
DENTON

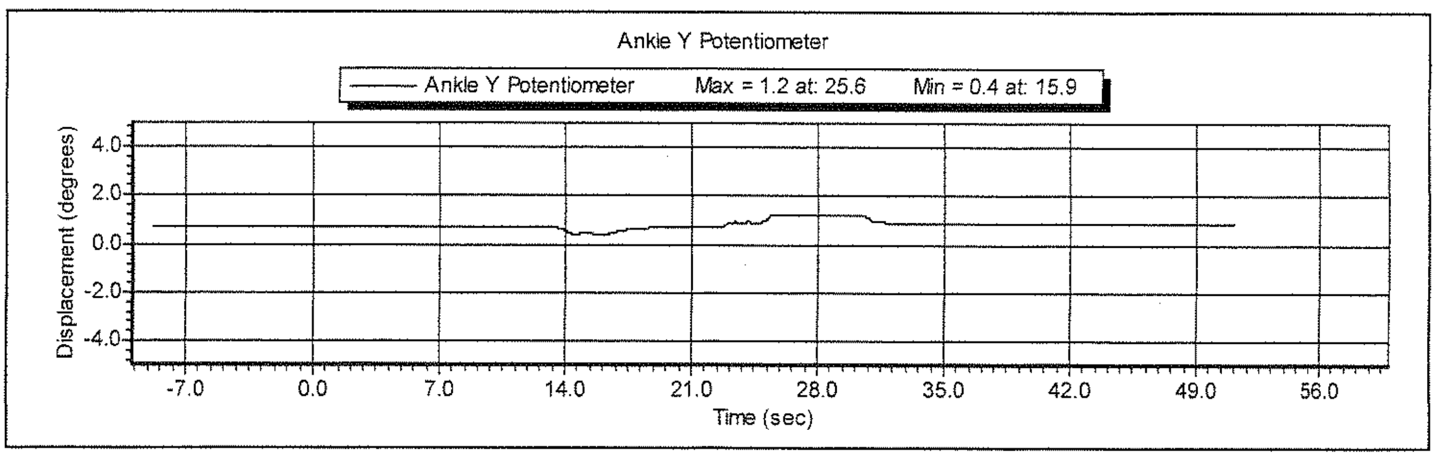
DENTON ATD, INC.

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



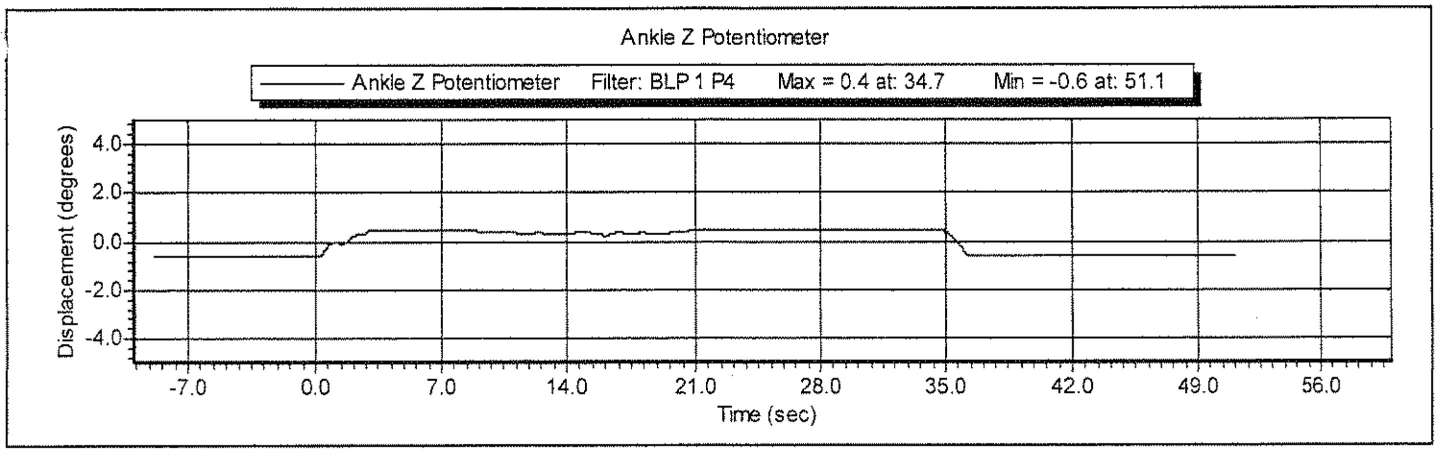


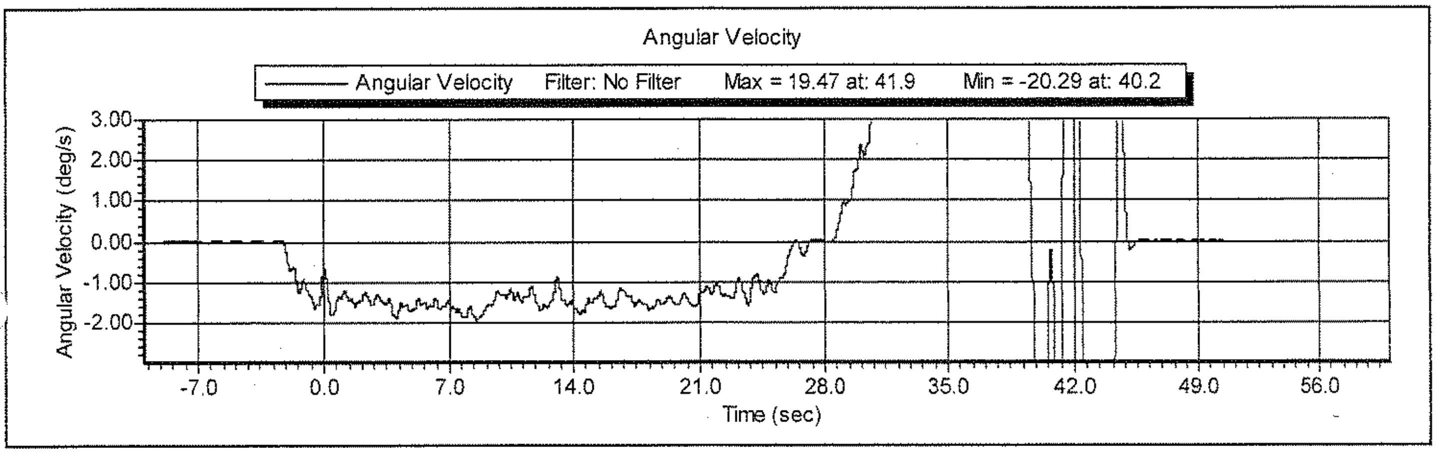


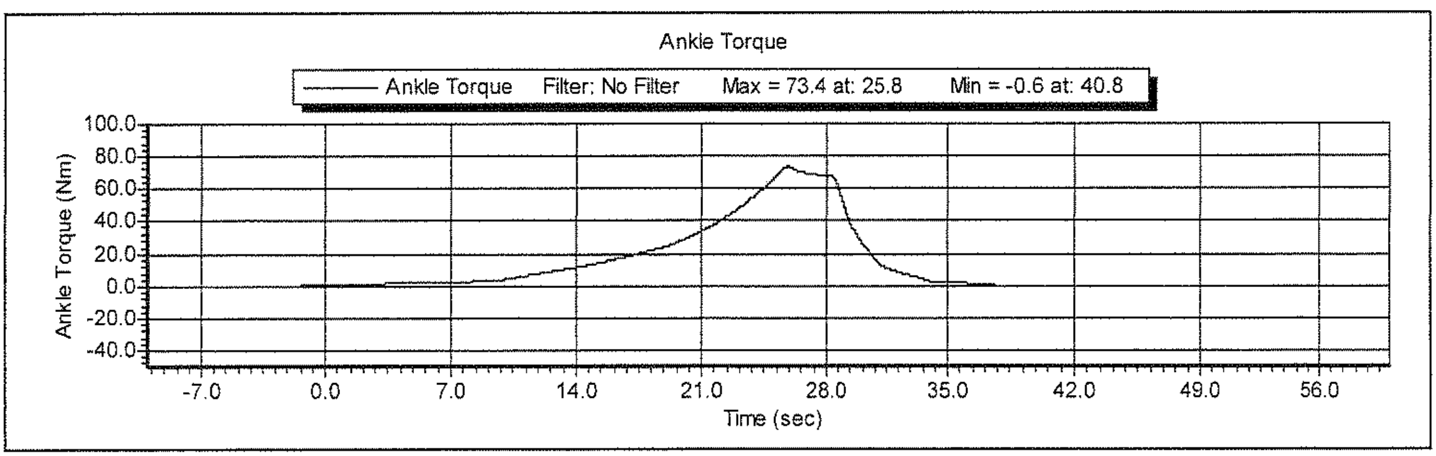
Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 626-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PV0046-1** Test Time: **4:42:47 PM** Test Date: **9/21/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-6200 • 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:

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.

CV32

070126

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

REFERENCE EQUIPMENT

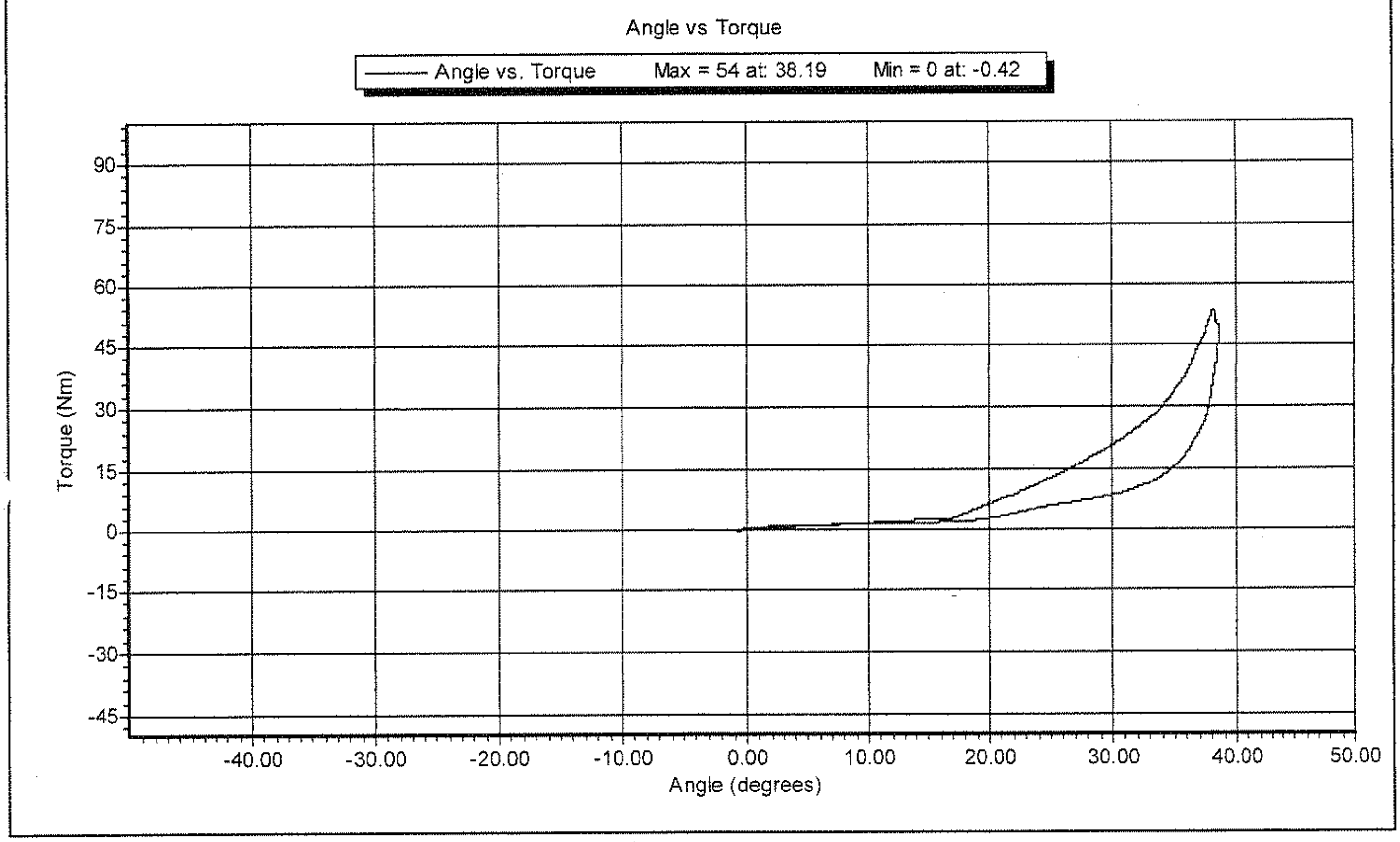
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

Test ID: **PW0046-1** Test Time: **4:52:01 PM** Test Date: **9/21/2006**

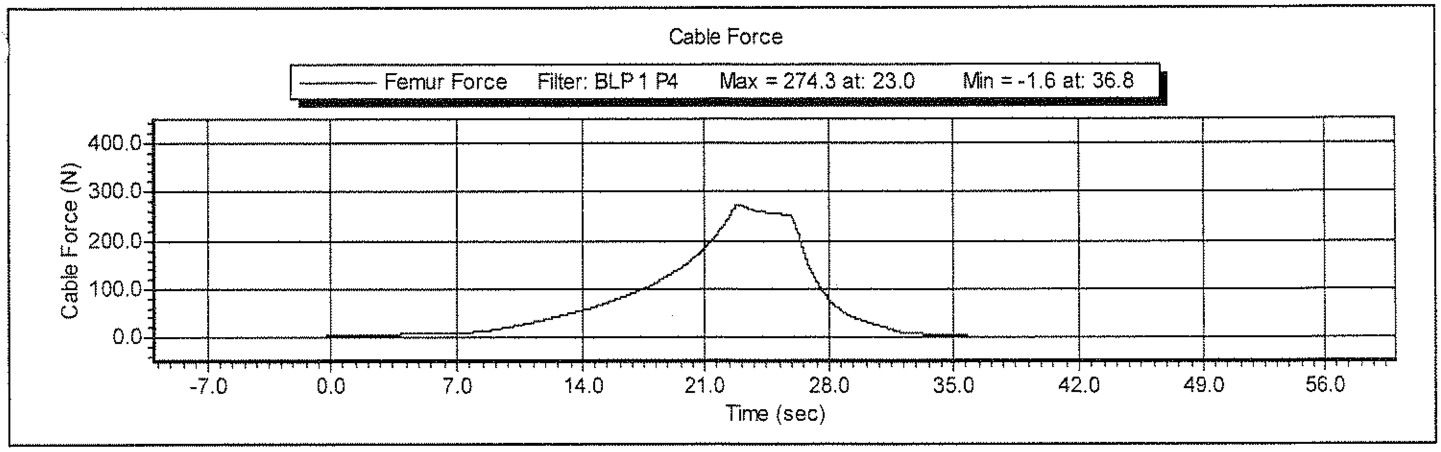
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

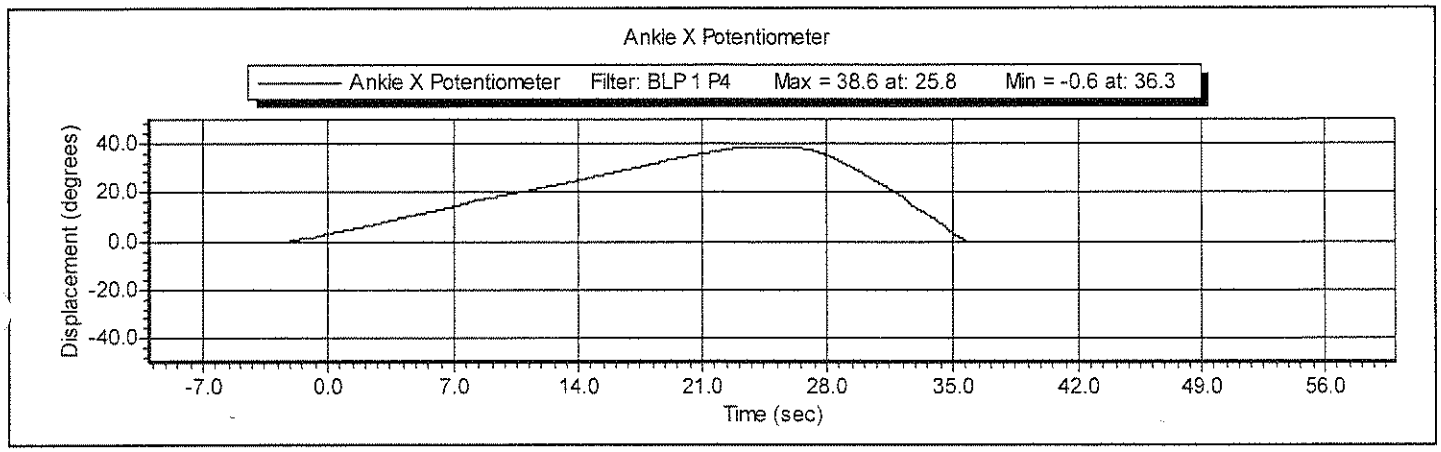
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

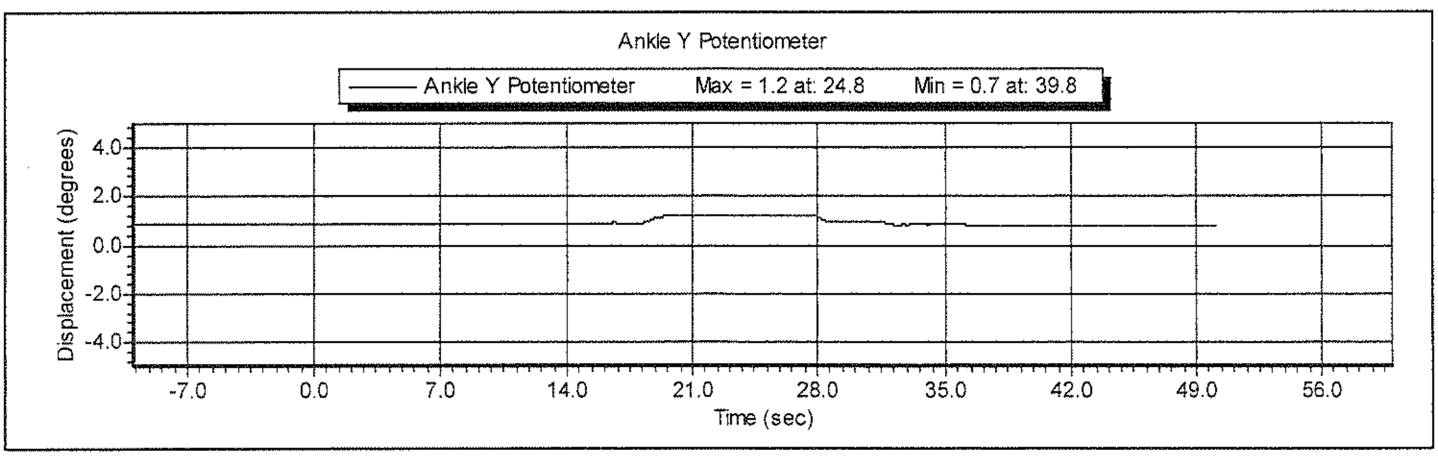
Test Name:	Inversion/Eversion	Revision:	10/1/2001
Sub Test Name:		Spec Type:	NHTSA
Dummy Type:	THOR LX		
Dummy Serial Number:			
Test ID:	PW0046-1	Test Date:	9/21/2006
Test Number:	1	Test Time:	4:52:01 PM



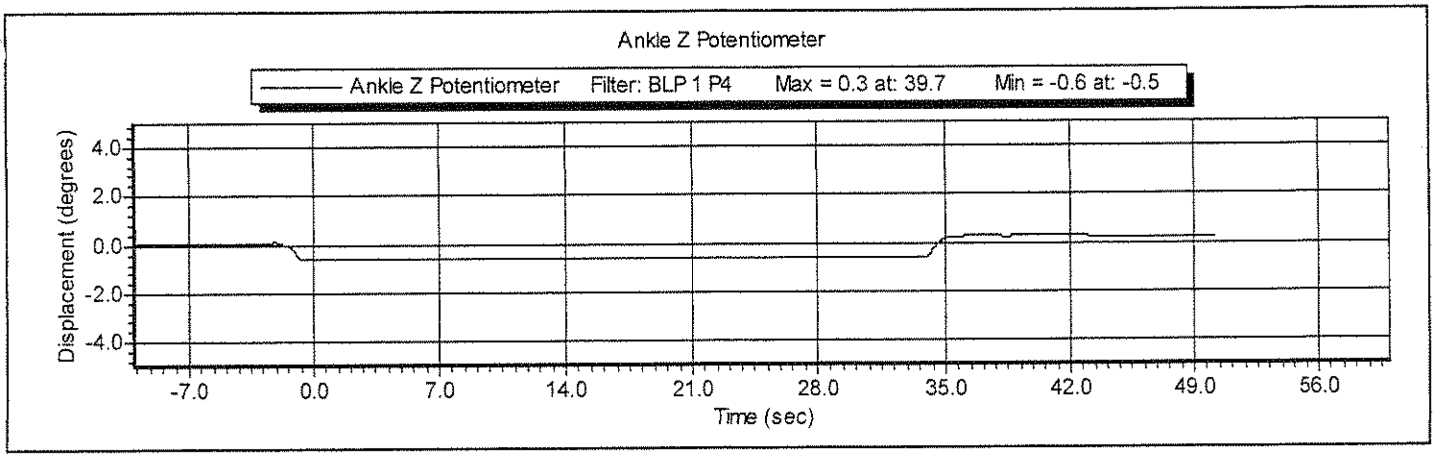
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax(419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

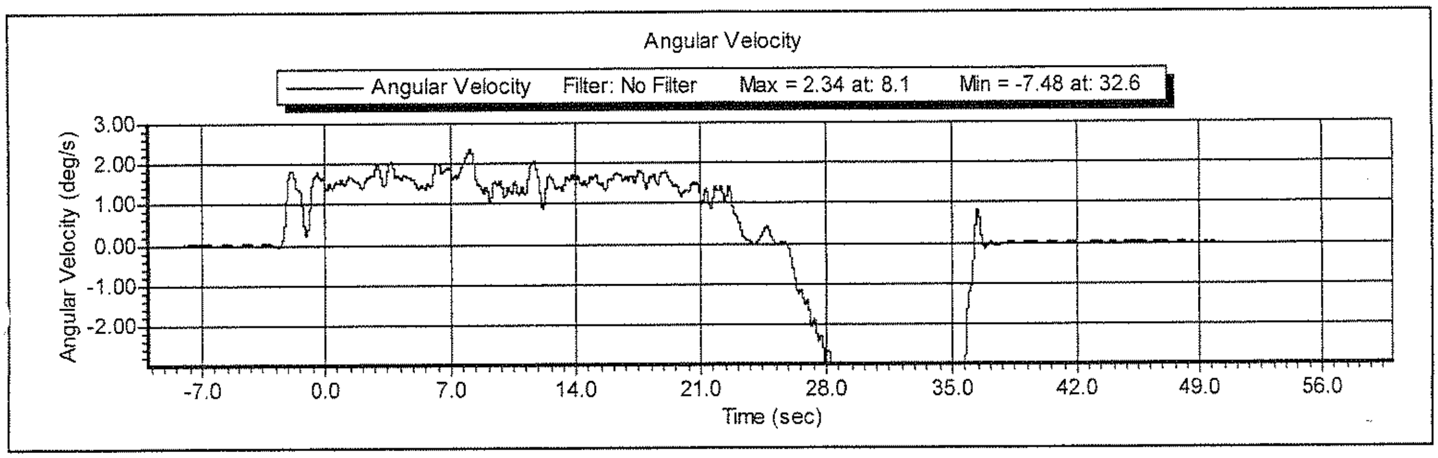


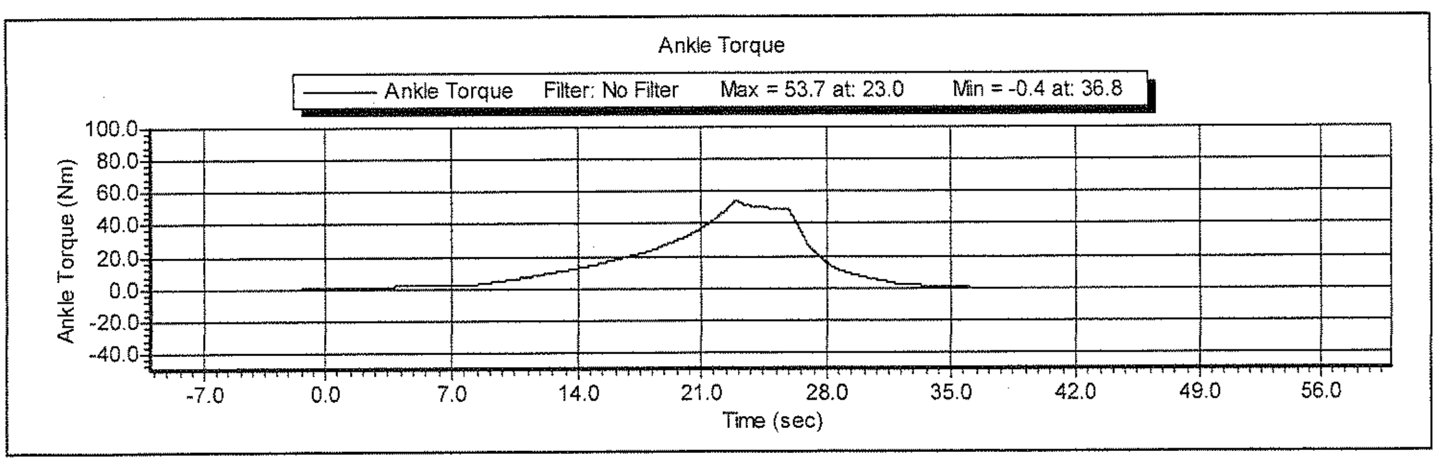




Test ID: **PW0046-1** Test Time: **4:52:01 PM** Test Date: **9/21/2006**







Test ID: **PW0046-1** Test Time: **4:52:01 PM** Test Date: **9/21/2006**

 LabPaqII Version: 1.3.4.0 C-36 070126

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 626-5200 • Fax (419) 626-5335 • 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**

 LabPaq Version: 1.3.4.0 C037

 070126

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

REFERENCE EQUIPMENT

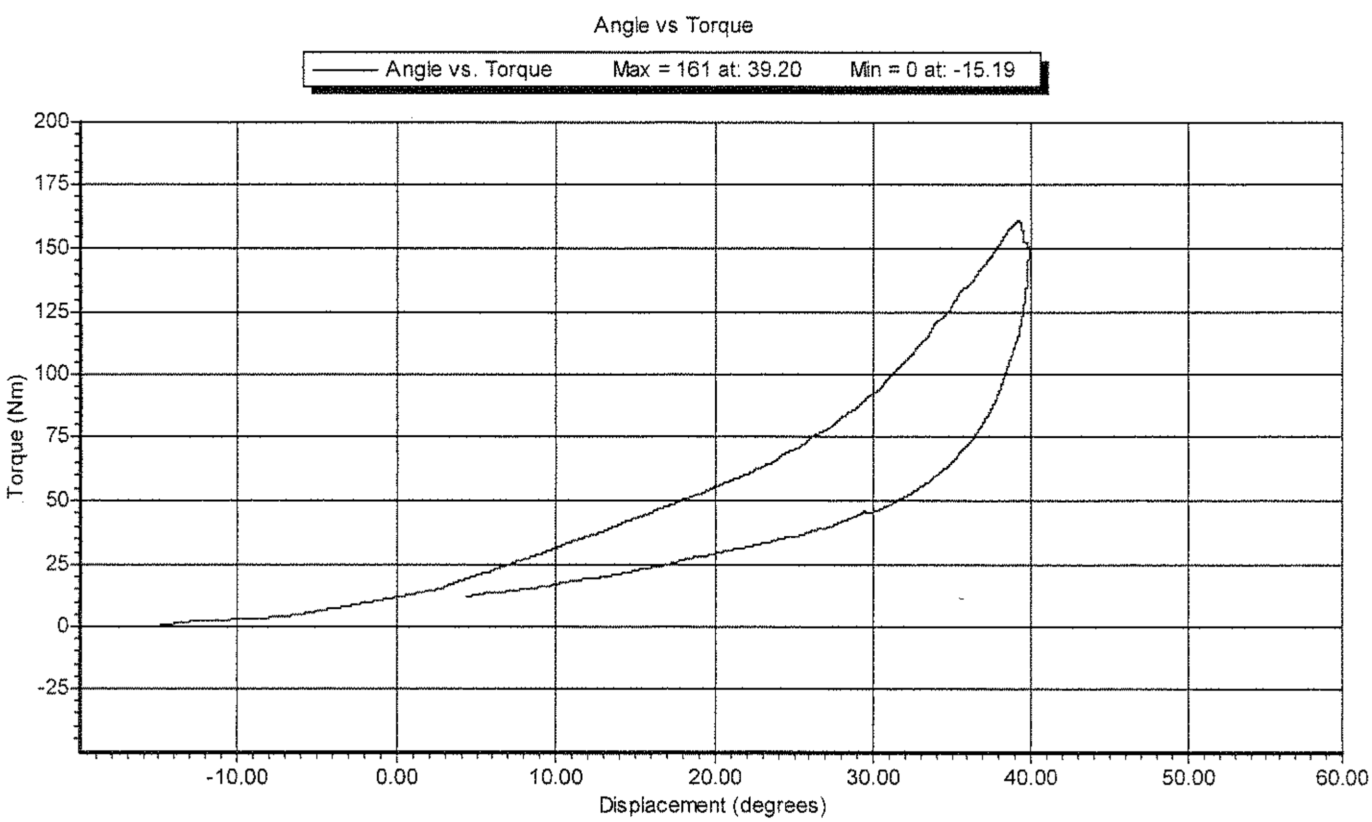
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

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.

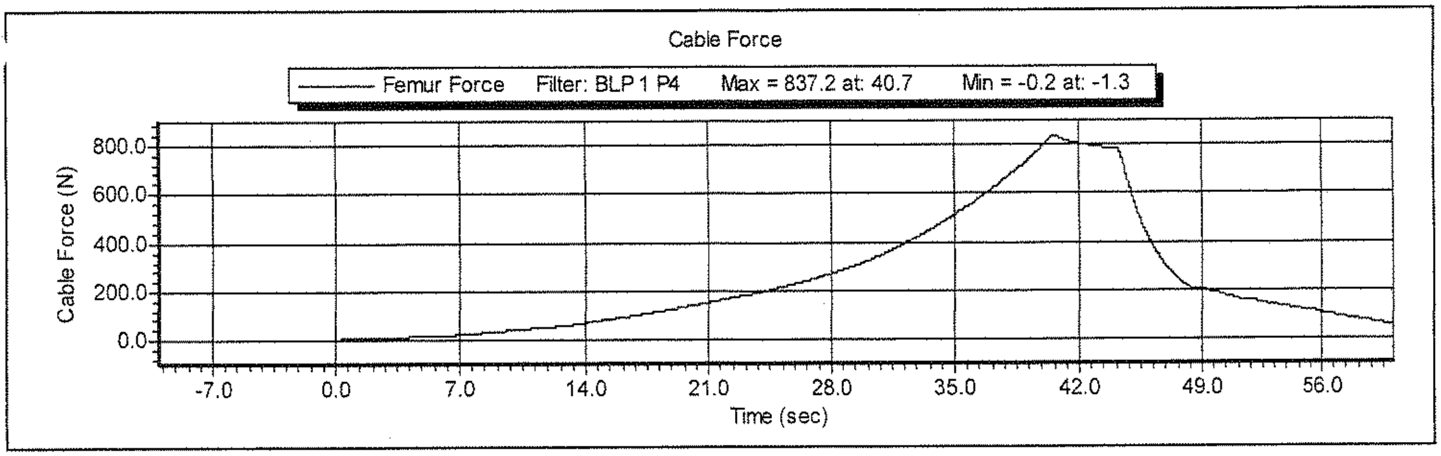
DENTON
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

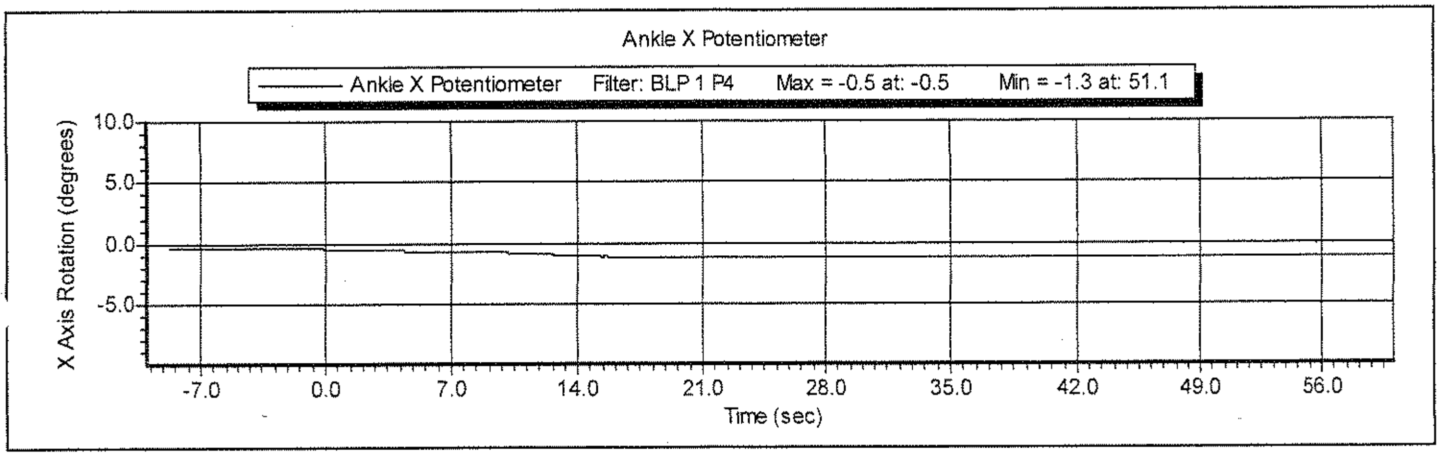
Test Name:	**Dorsi-Flexion with Achilles Tendon**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PY0046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**5:04:12 PM**

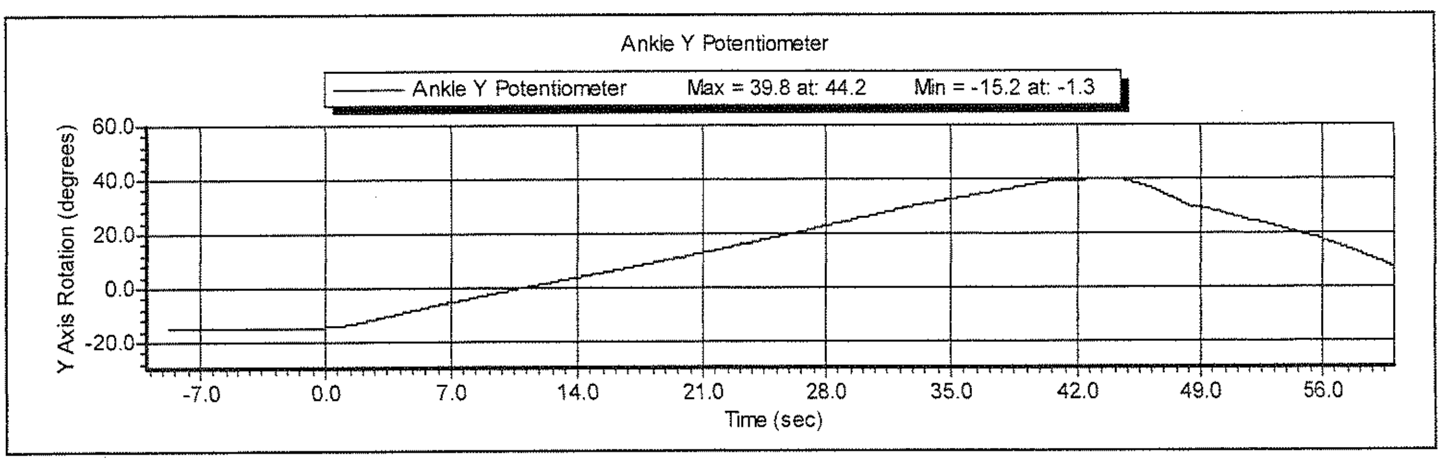


DENTON

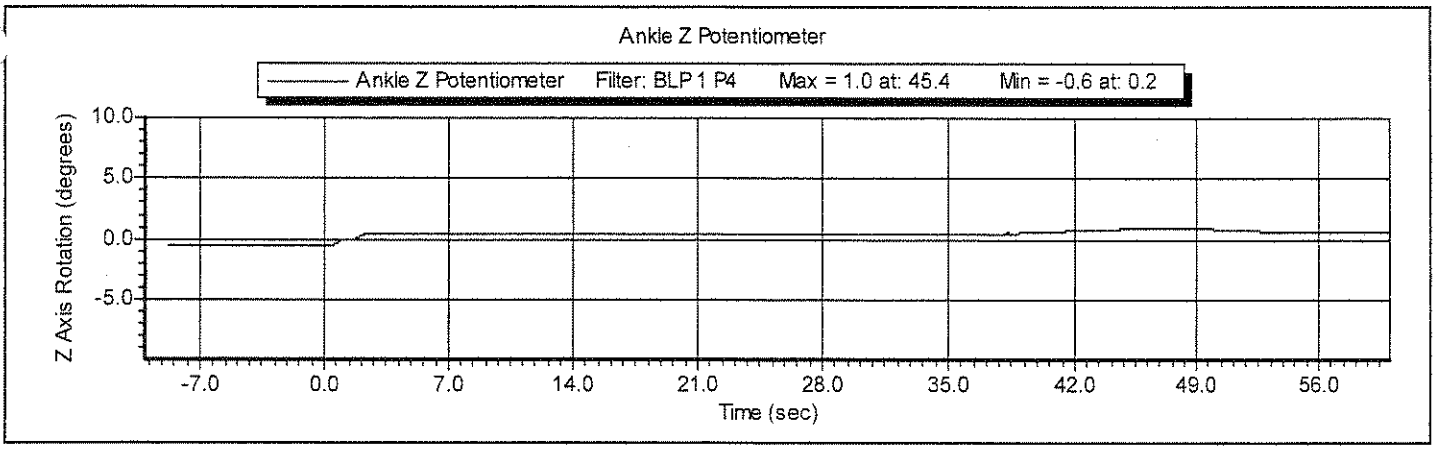
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

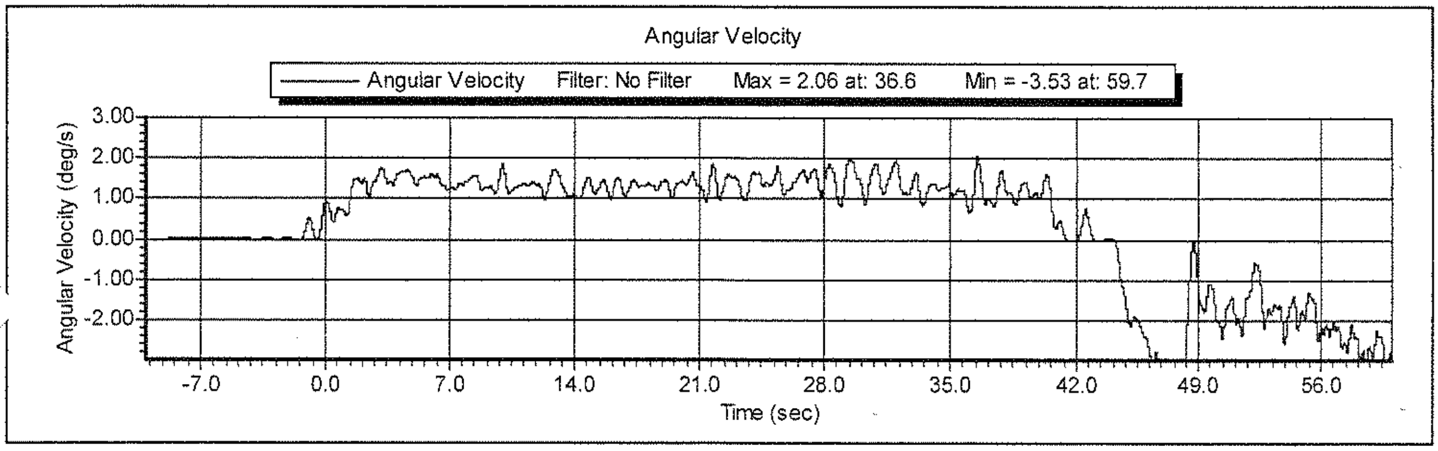


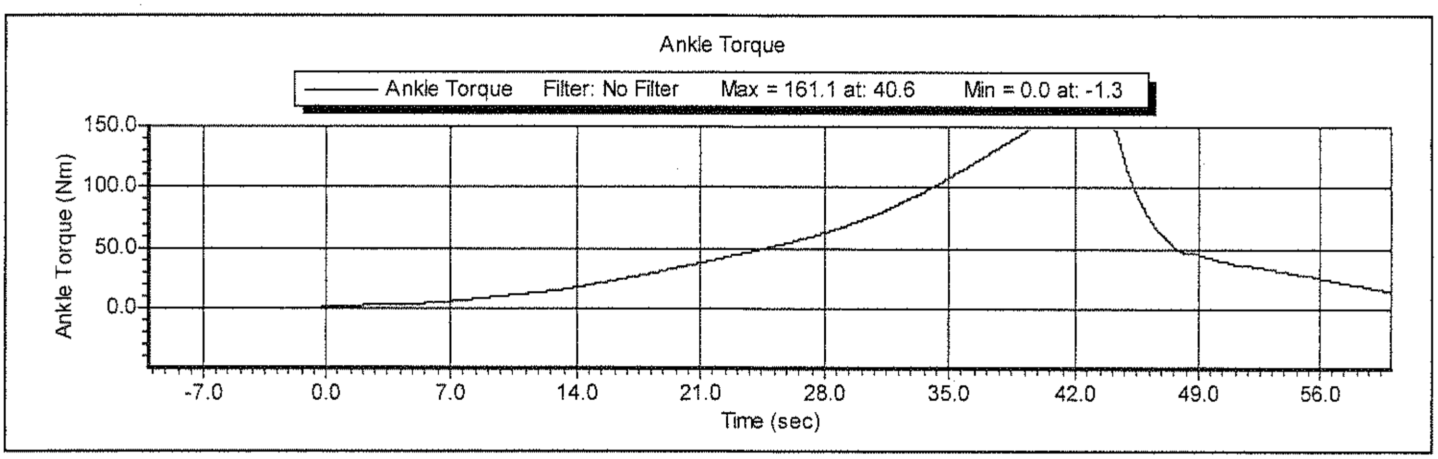




Test ID: **PY0046-1** Test Time: **5:04:12 PM** Test Date: **9/21/2006**







Test ID: **PY0046-1** Test Time: **5:04:12 PM** Test Date: **9/21/2006**

070126

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:	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:

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

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**

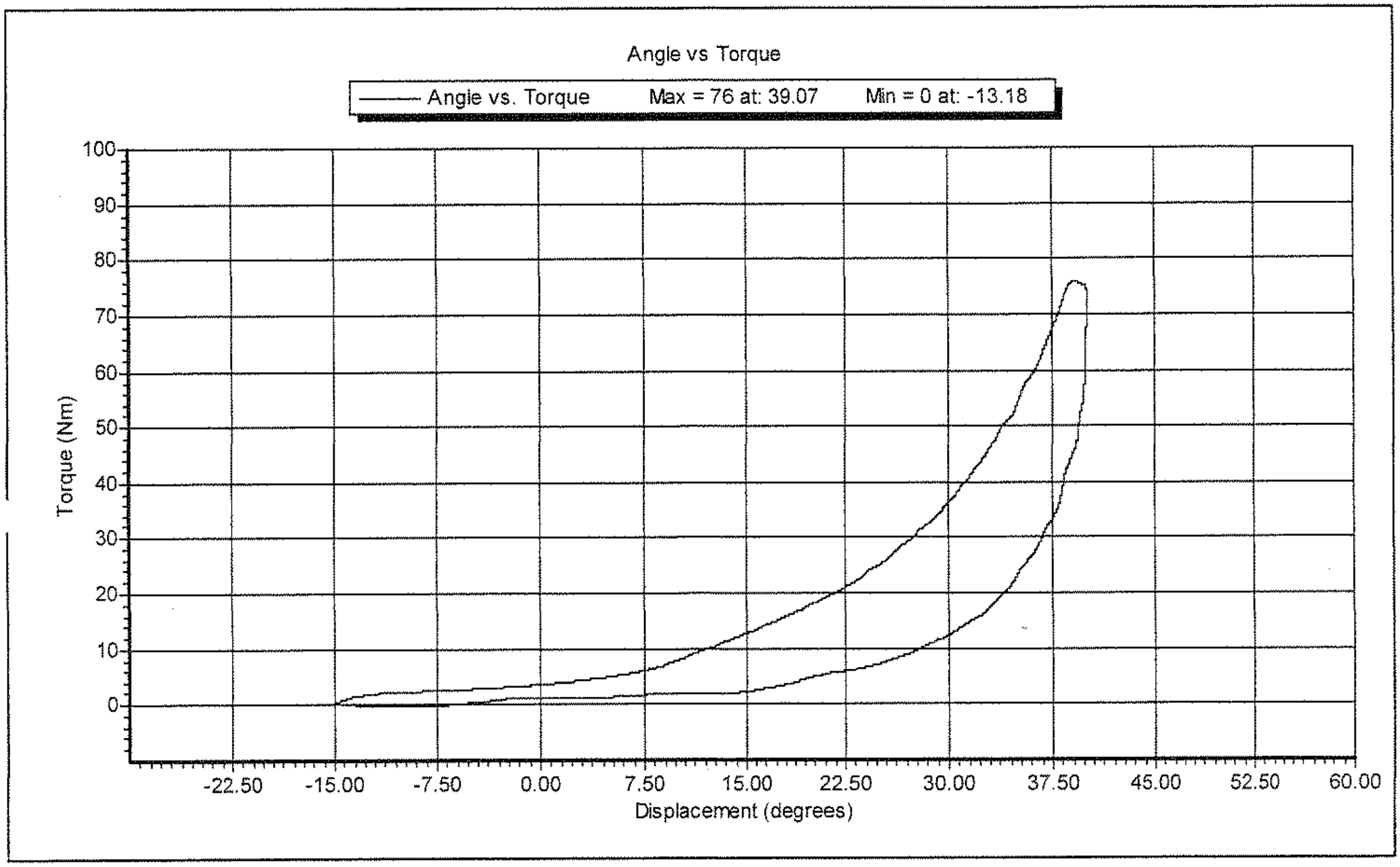
Test ID: **PX0046-1**   Test Time: **5:53:51 PM**   Test Date: **9/21/2006**

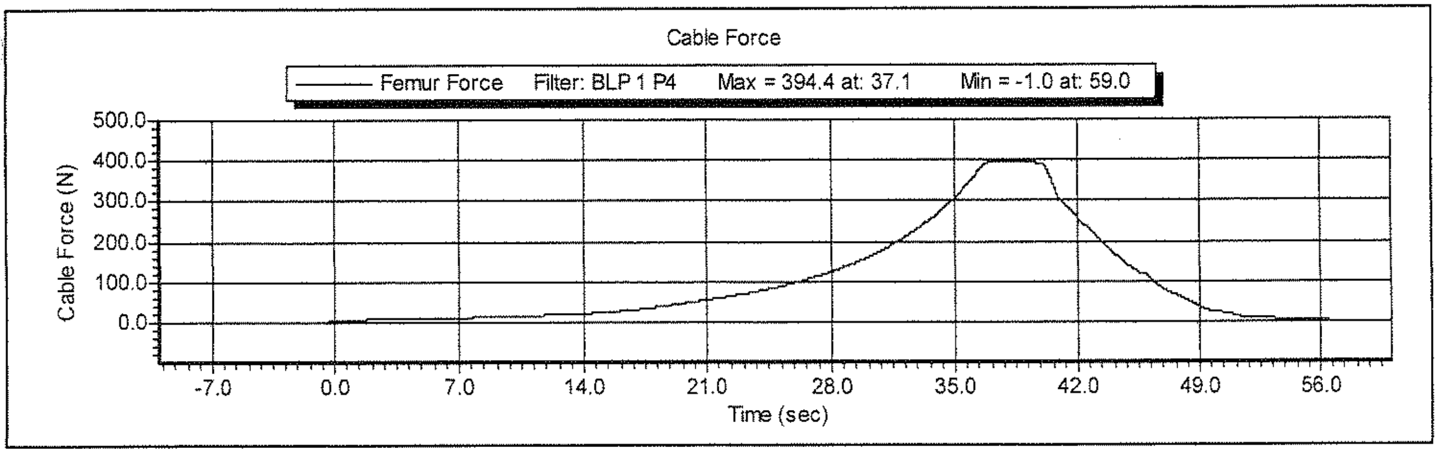
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

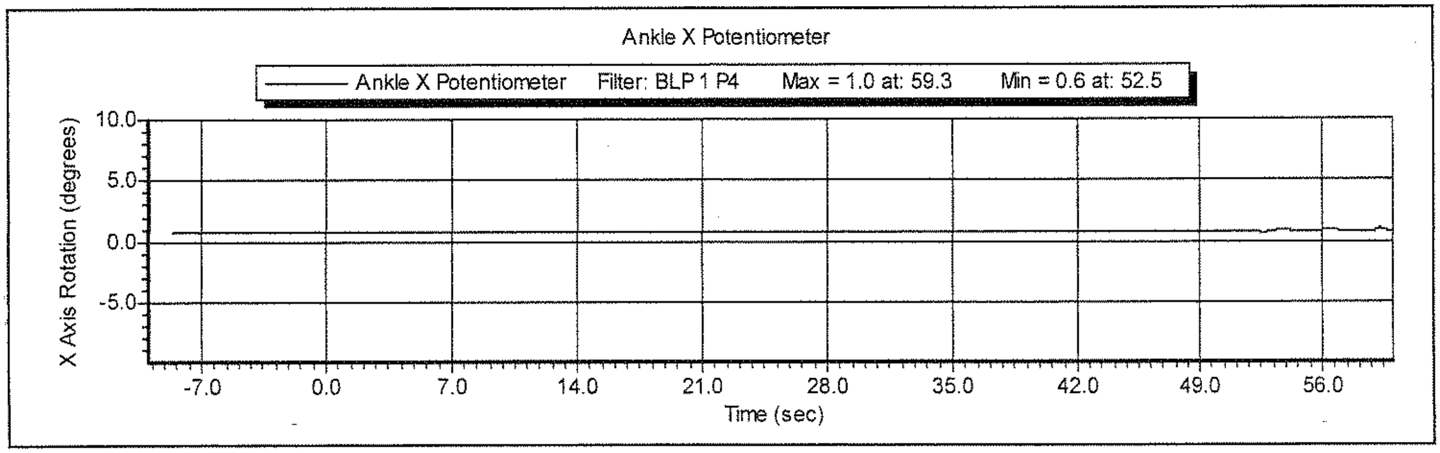
DENTON

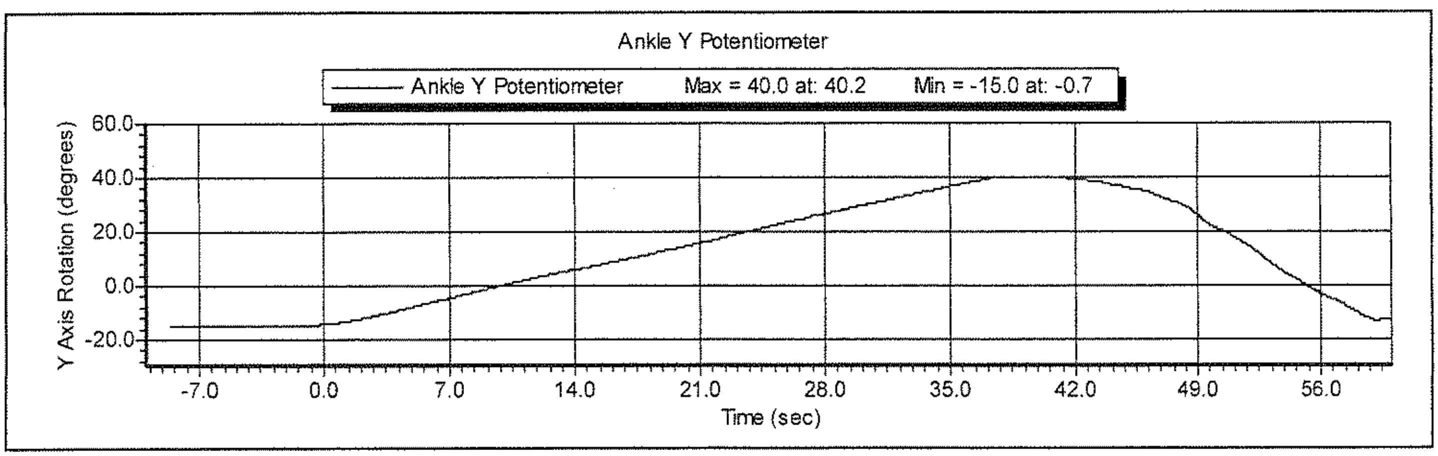
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

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



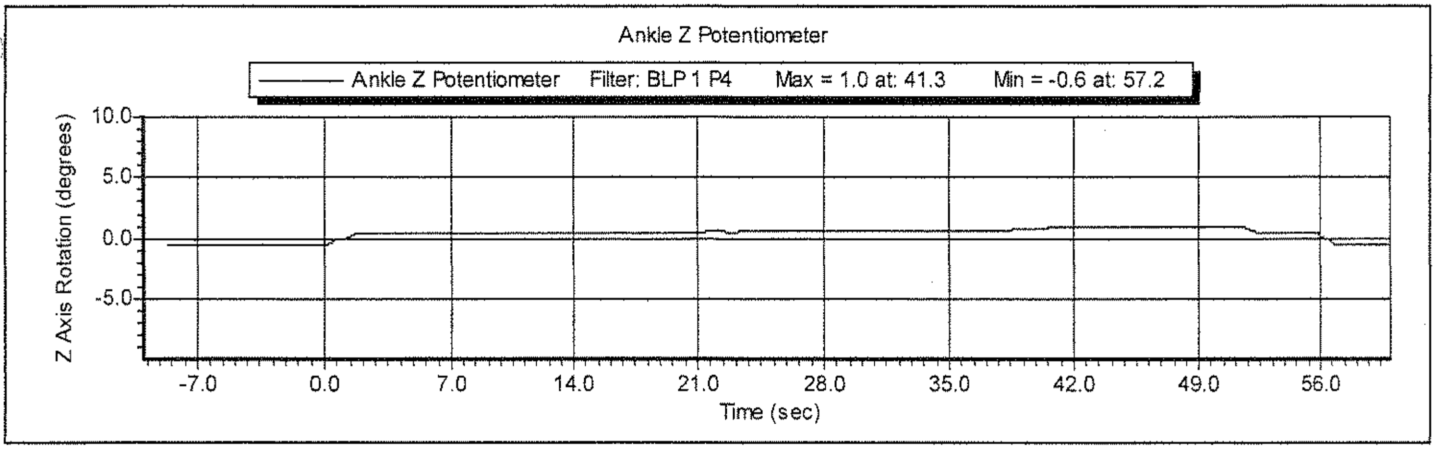

Cable Force
Femur Force Filter: BLP 1 P4 Max = 394.4 at: 37.1 Min = -1.0 at: 59.0
Cable Force (N)
500.0
400.0
300.0
200.0
100.0
0.0
-7.0
0.0
7.0
14.0
21.0
28.0
35.0
42.0
49.0
56.0
Time (sec)

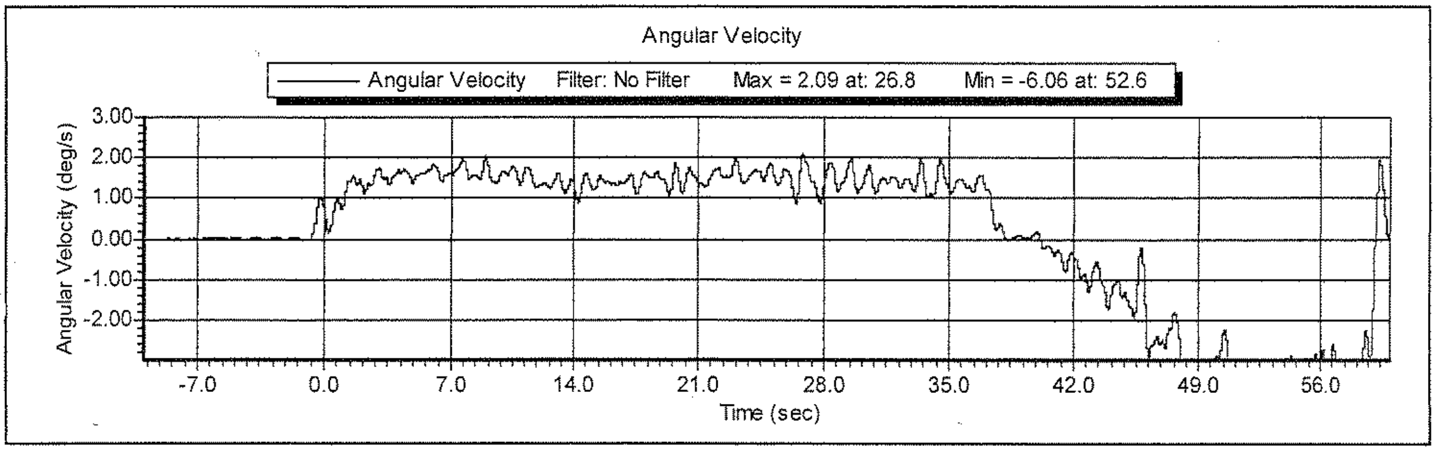

Ankle X Potentiometer
Ankle X Potentiometer Filter: BLP 1 P4 Max = 1.0 at: 59.3 Min = 0.6 at: 52.5
X Axis Rotation (degrees)
10.0
5.0
0.0
-5.0
-7.0
0.0
7.0
14.0
21.0
28.0
35.0
42.0
49.0
56.0
Time (sec)

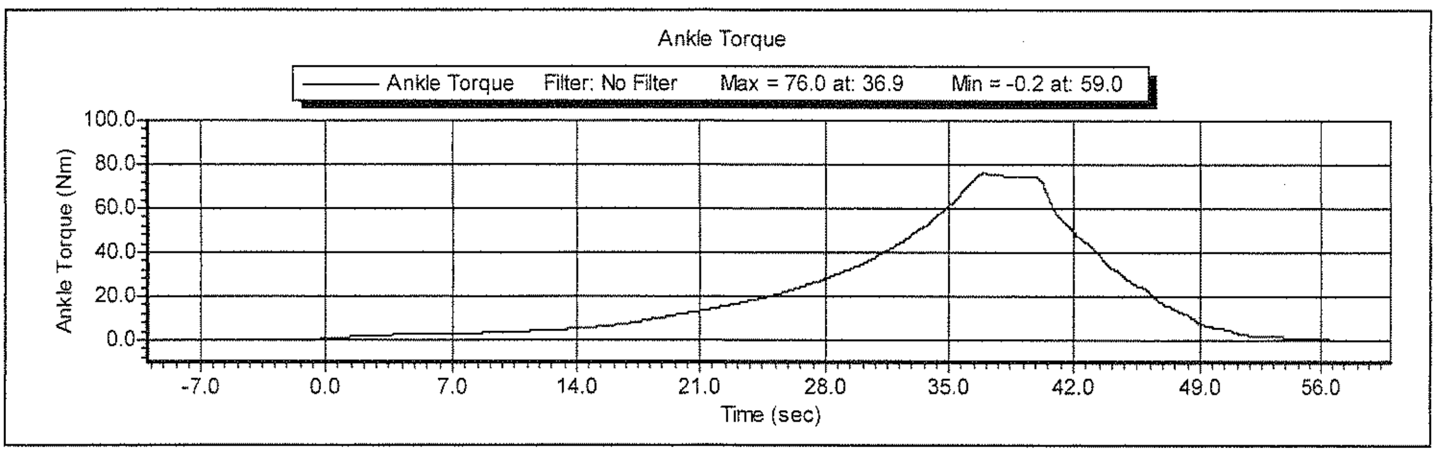

Ankle Y Potentiometer
Ankle Y Potentiometer Max = 40.0 at: 40.2 Min = -15.0 at: -0.7
Y Axis Rotation (degrees)
60.0
40.0
20.0
0.0
-20.0
-7.0
0.0
7.0
14.0
21.0
28.0
35.0
42.0
49.0
56.0
Time (sec)

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PX0046-1** Test Time: **5:53:51 PM** Test Date: **9/21/2006**

 LabPaqII Version: 1.3.4.0 C-46 070126

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

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

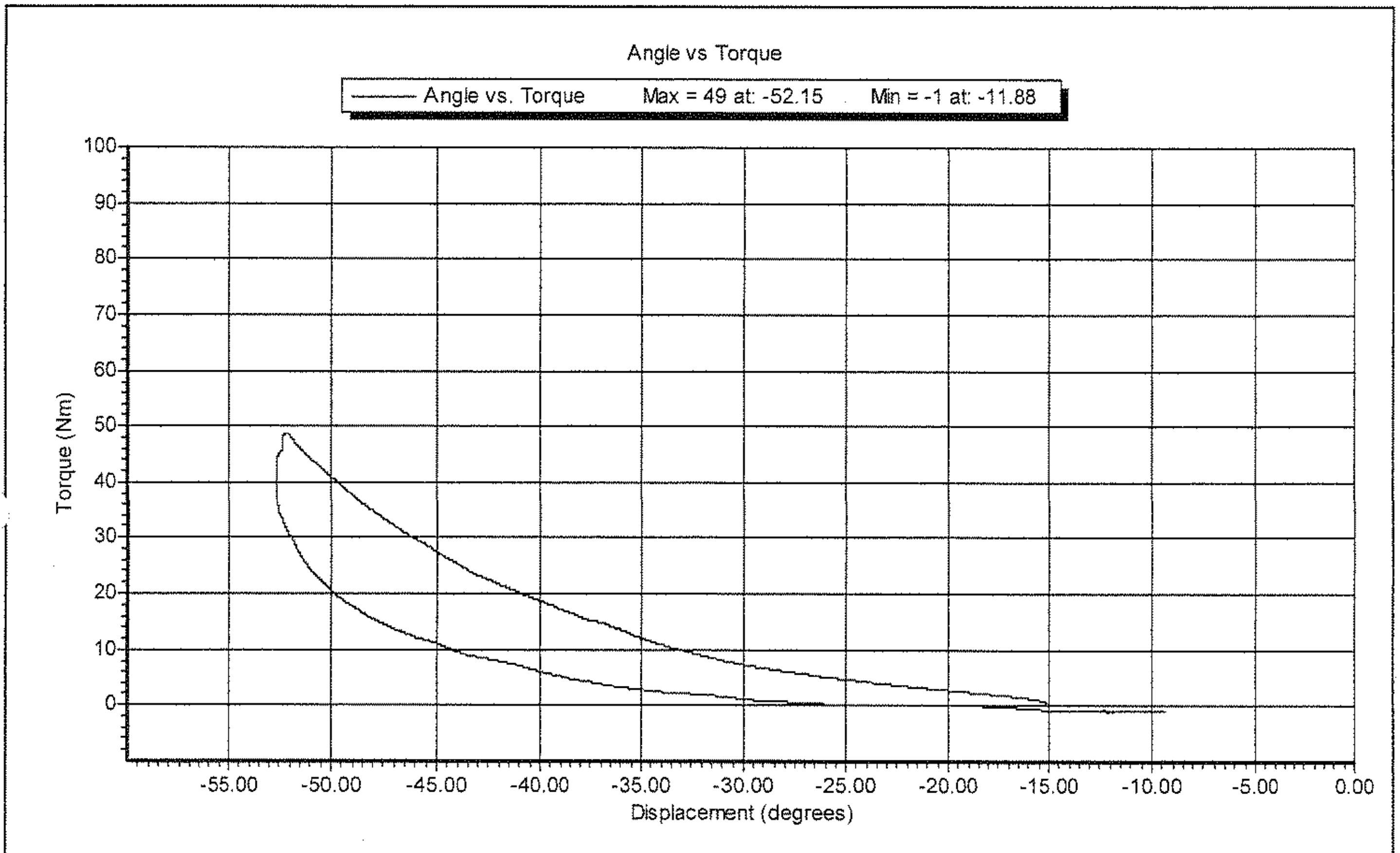
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0525**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0524**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0523**	**9/13/2006**

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.

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

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**

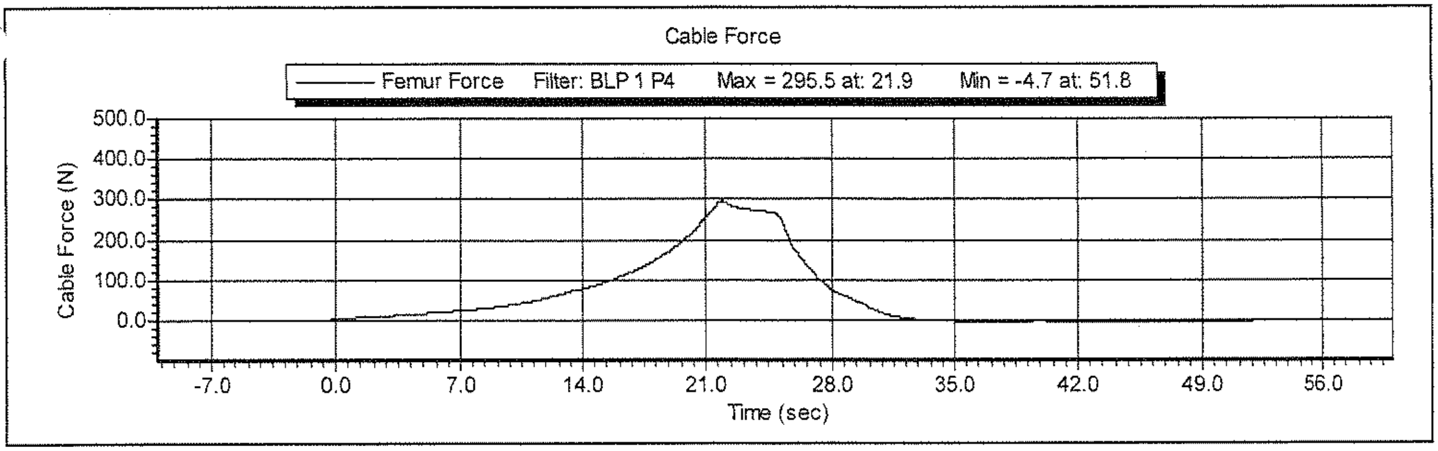


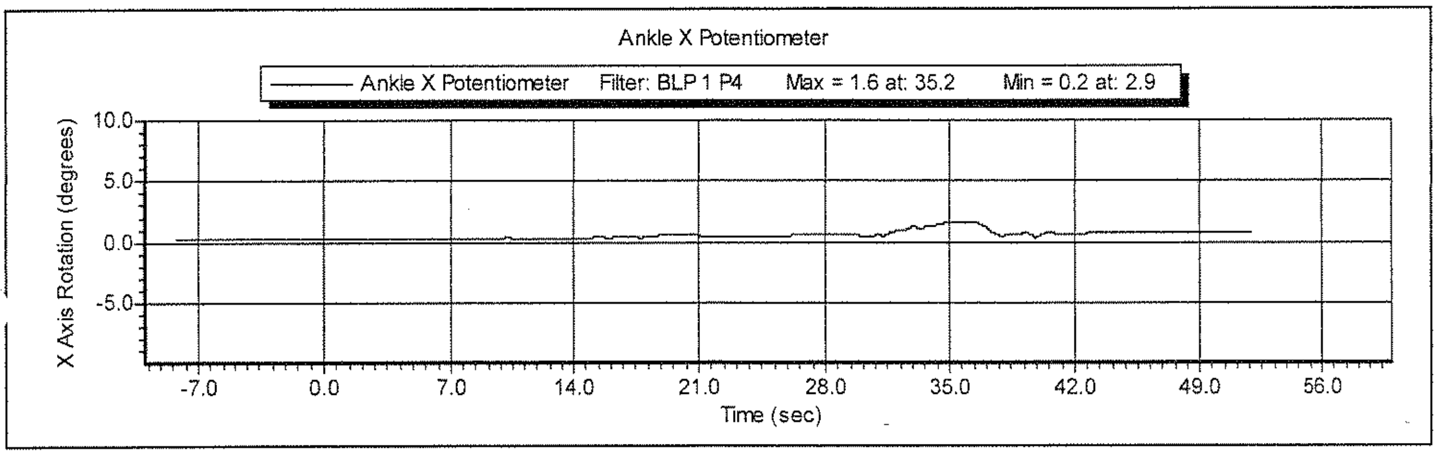
DENTON

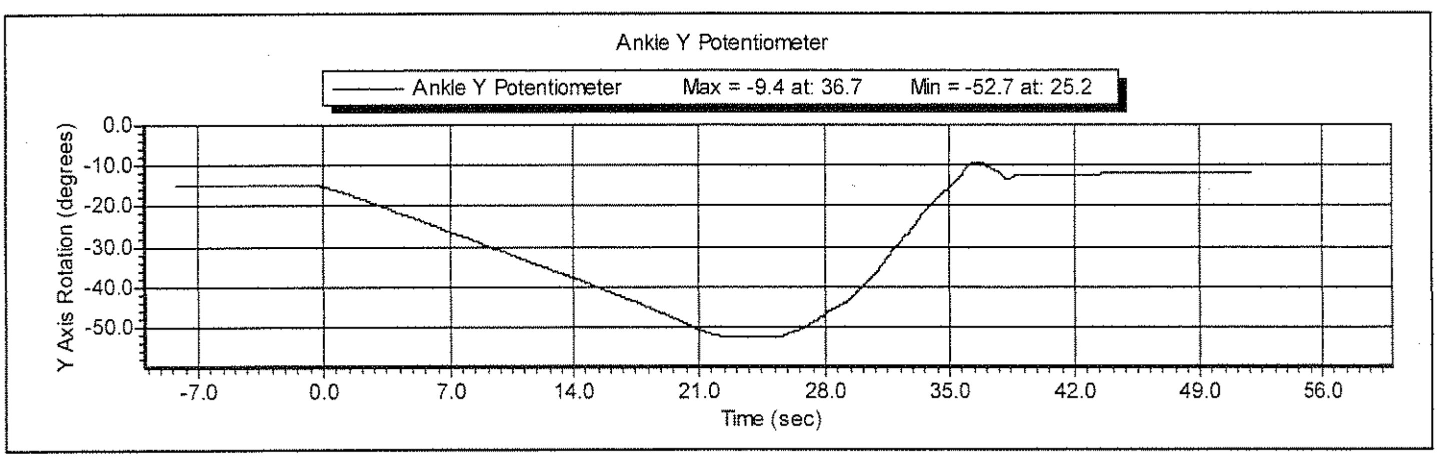
DENTON ATD, INC.

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







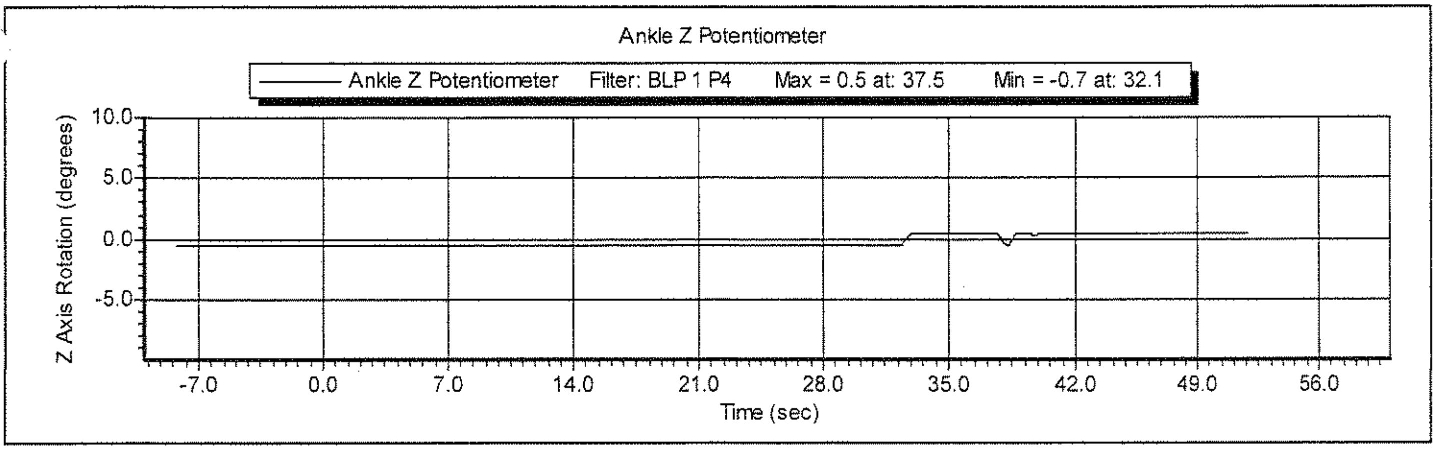
Test ID: **PZ0046-1** Test Time: **5:23:06 PM** Test Date: **9/21/2006**

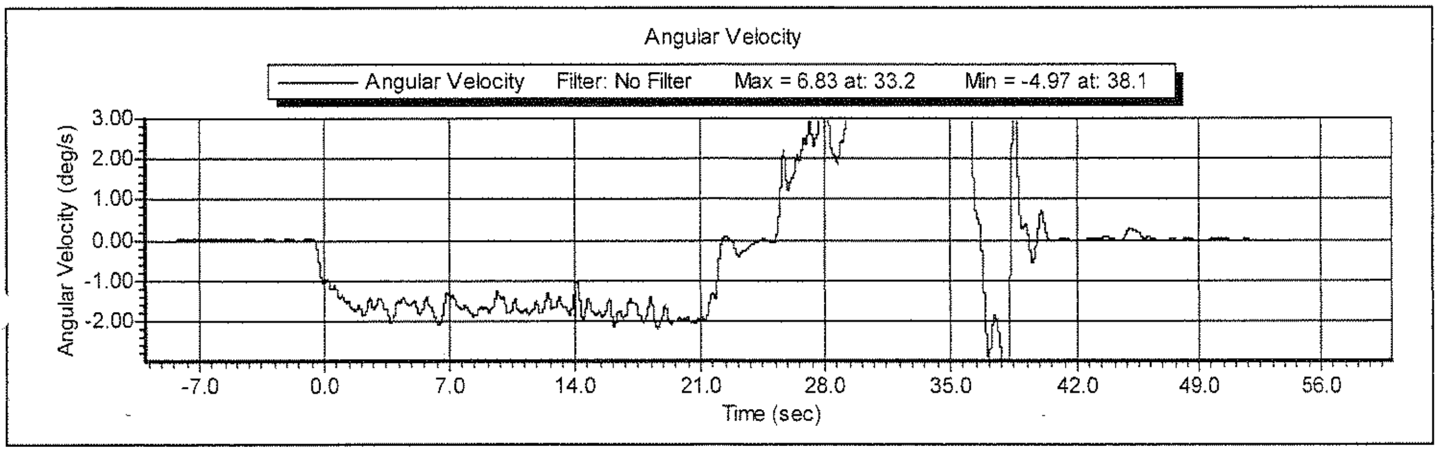
DENTON

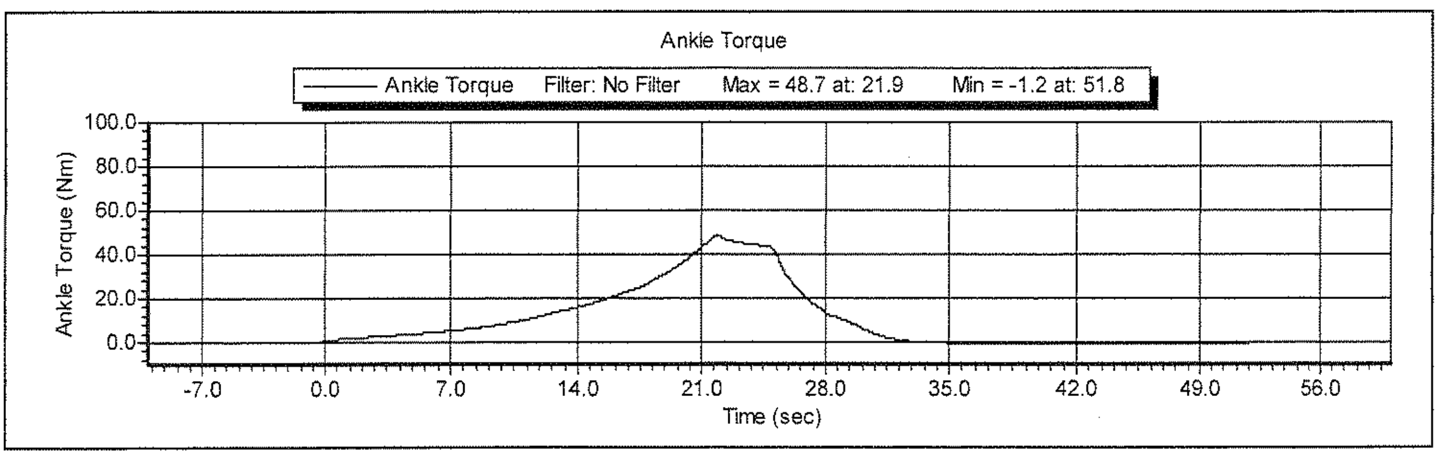
DENTON ATD, INC.

10317 U.S. Highway 250 North • Milan, OH 44846-9570

Tel (419) 625-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PZ0046-1** Test Time: **5:23:06 PM** Test Date: **9/21/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax(419) 625-6335 • 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** J.R.

Approved By: [signature]

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.

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax(419) 625-6335 • 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**

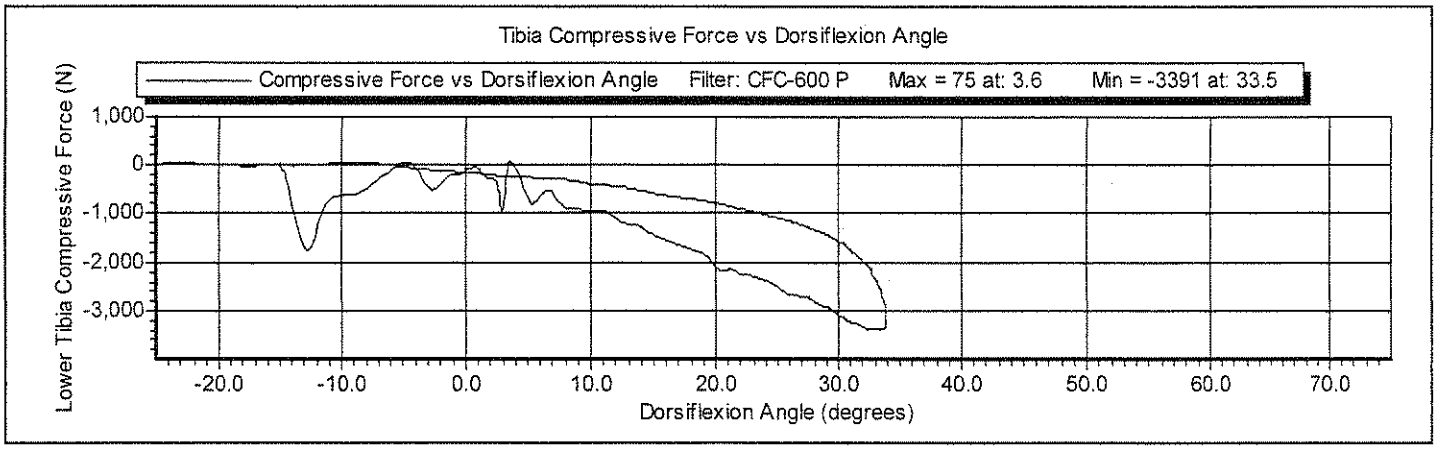
Test ID: **P10046-1** Test Time: **3:52:26 PM** Test Date: **9/21/2006**

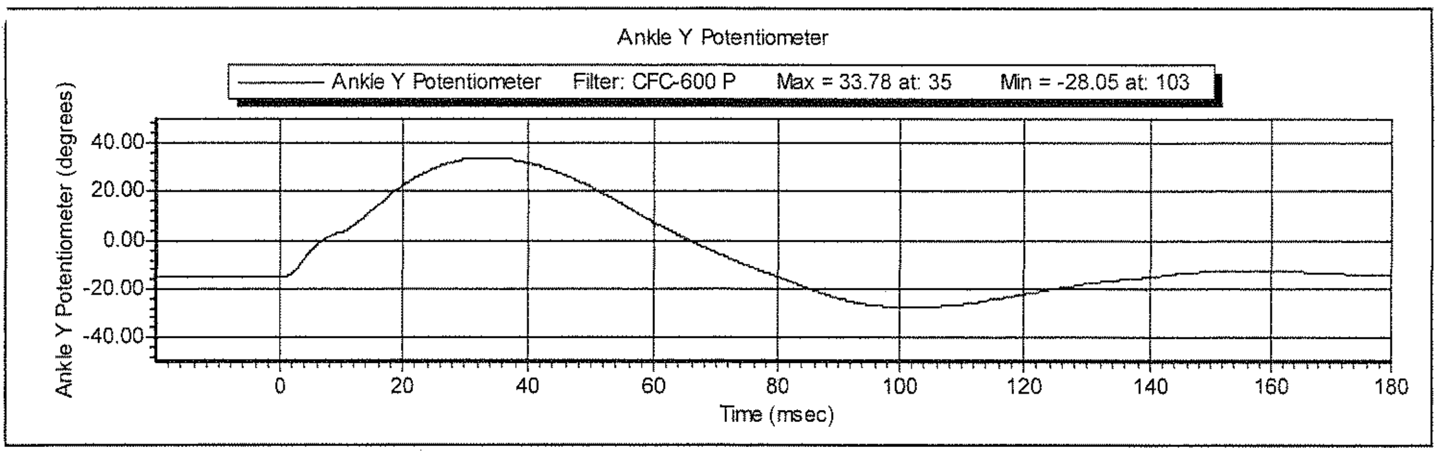
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.

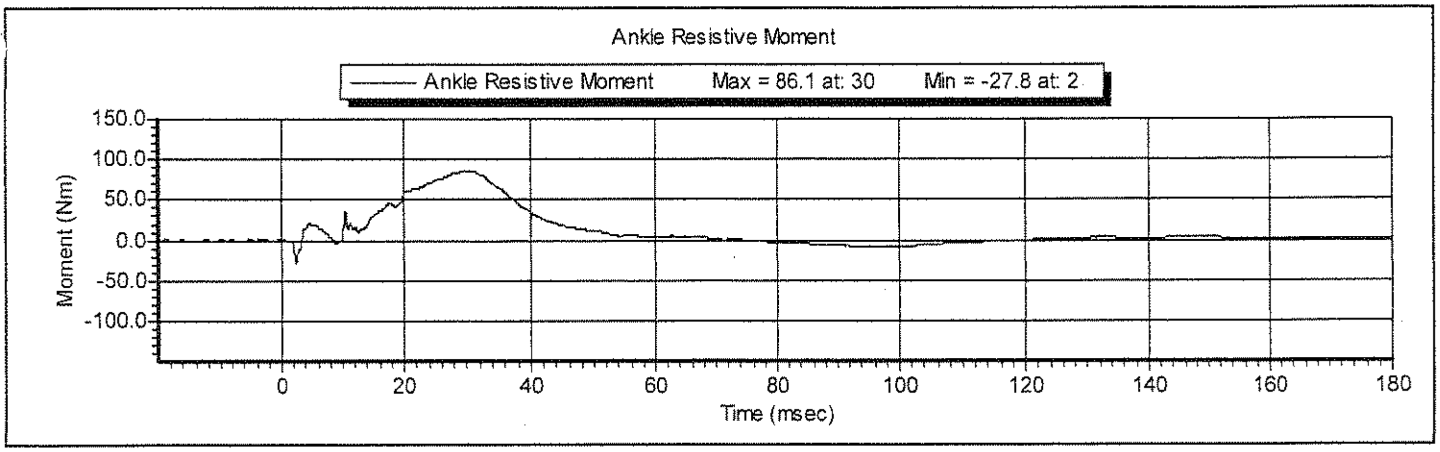
DENTON

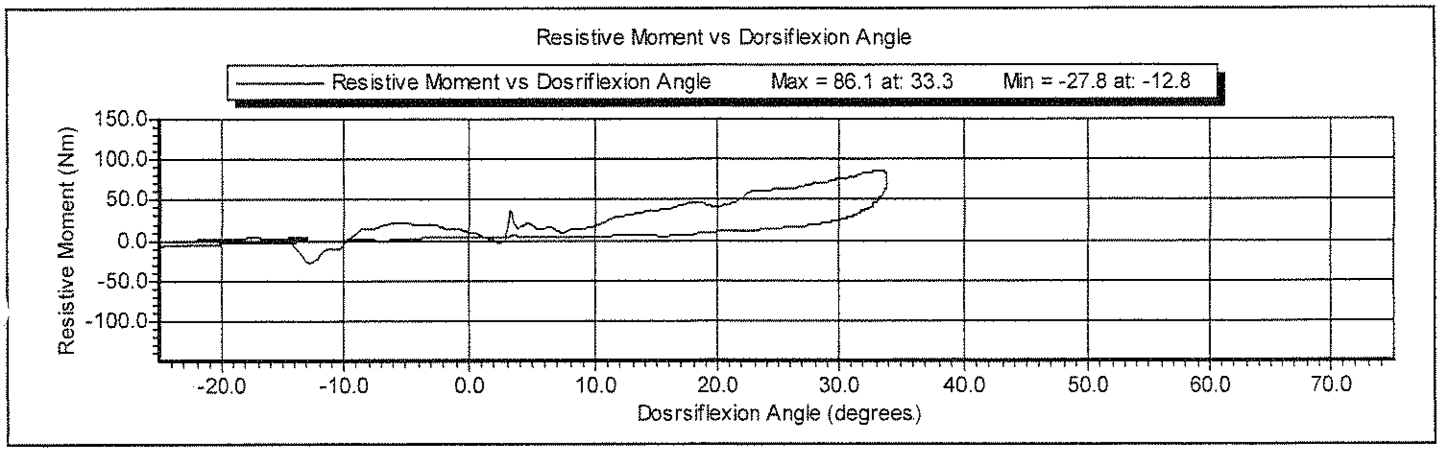
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

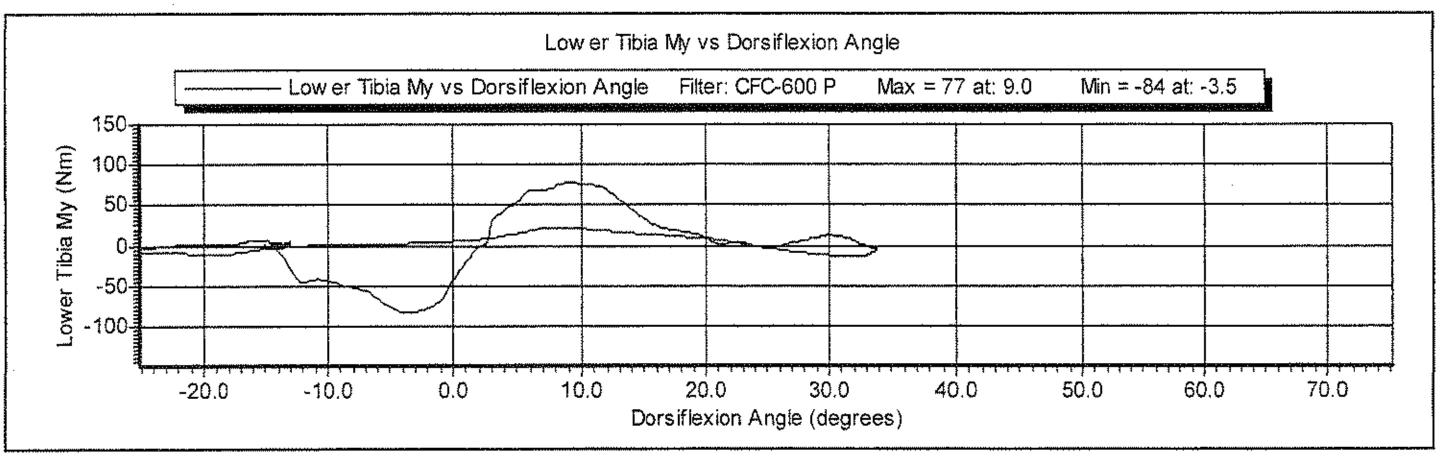
Test Name:	**Ball of Foot**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**P10046-1**	Test Date:	**9/21/2006**
Test Number:	**1**	Test Time:	**3:52:26 PM**











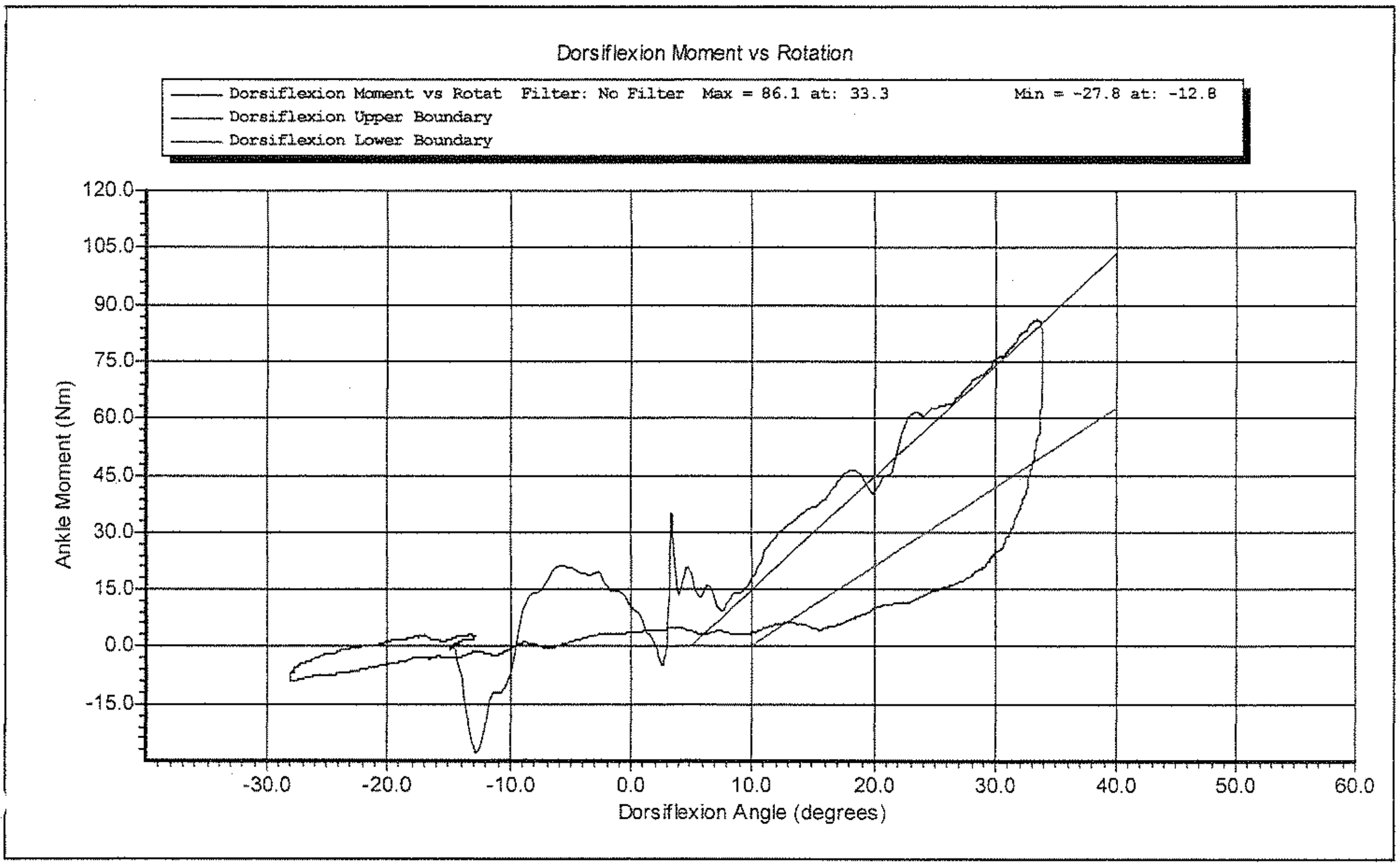
Test ID: **P10046-1** Test Time: **3:52:26 PM** Test Date: **9/21/2006**

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



Test ID: **P10046-1** Test Time: **3:52:26 PM** Test Date: **9/21/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 825-5200 • Fax (419) 825-5335 • 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.
 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

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

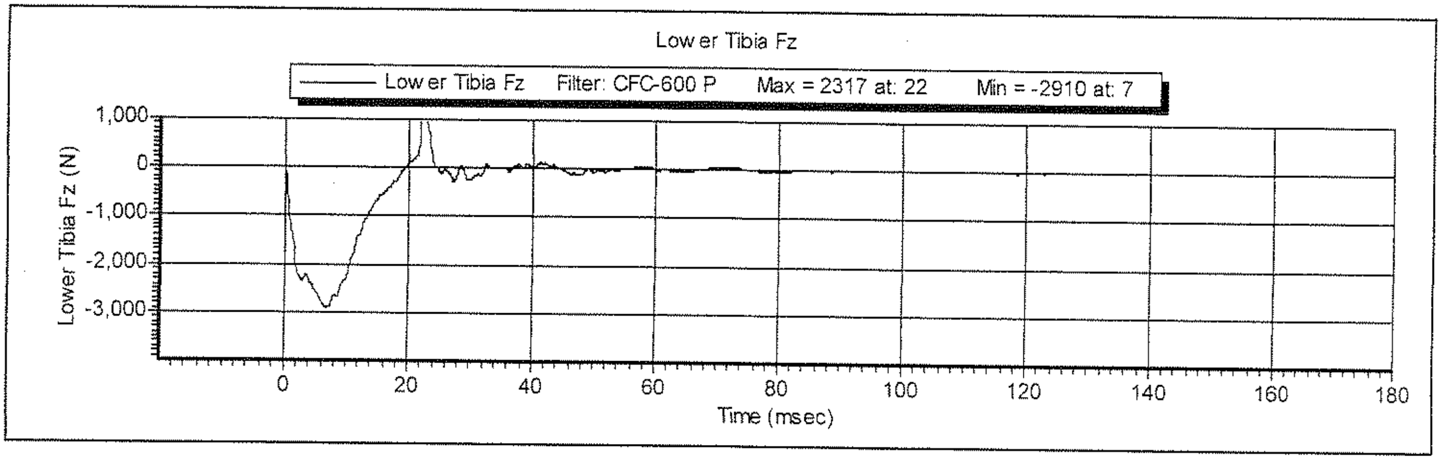
Test ID: **P20046-3** Test Time: **3:03:32 PM** Test Date: **9/21/2006**

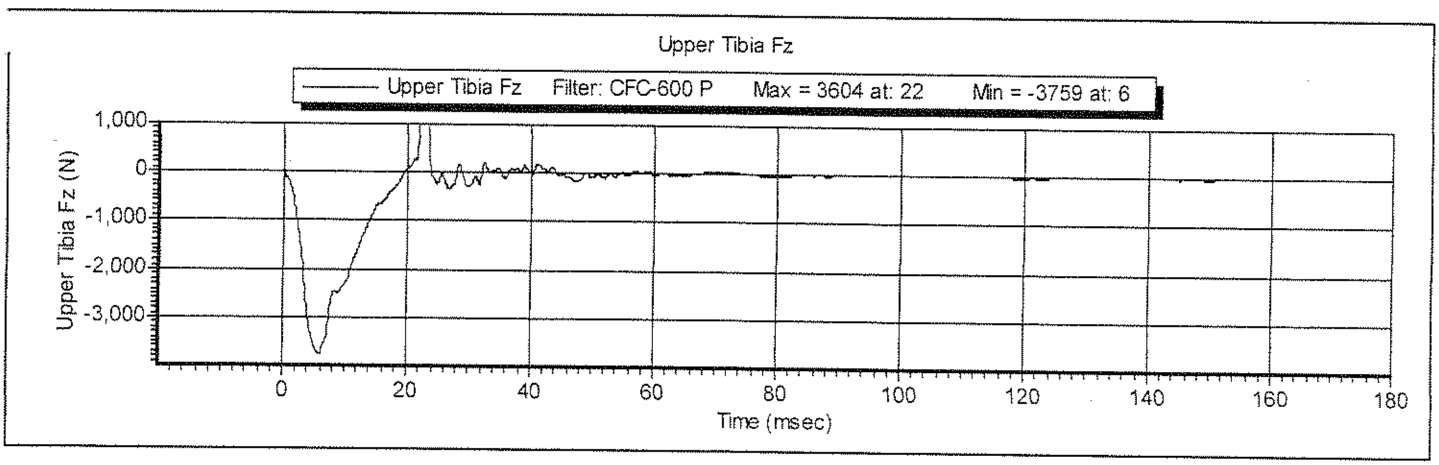
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

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

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



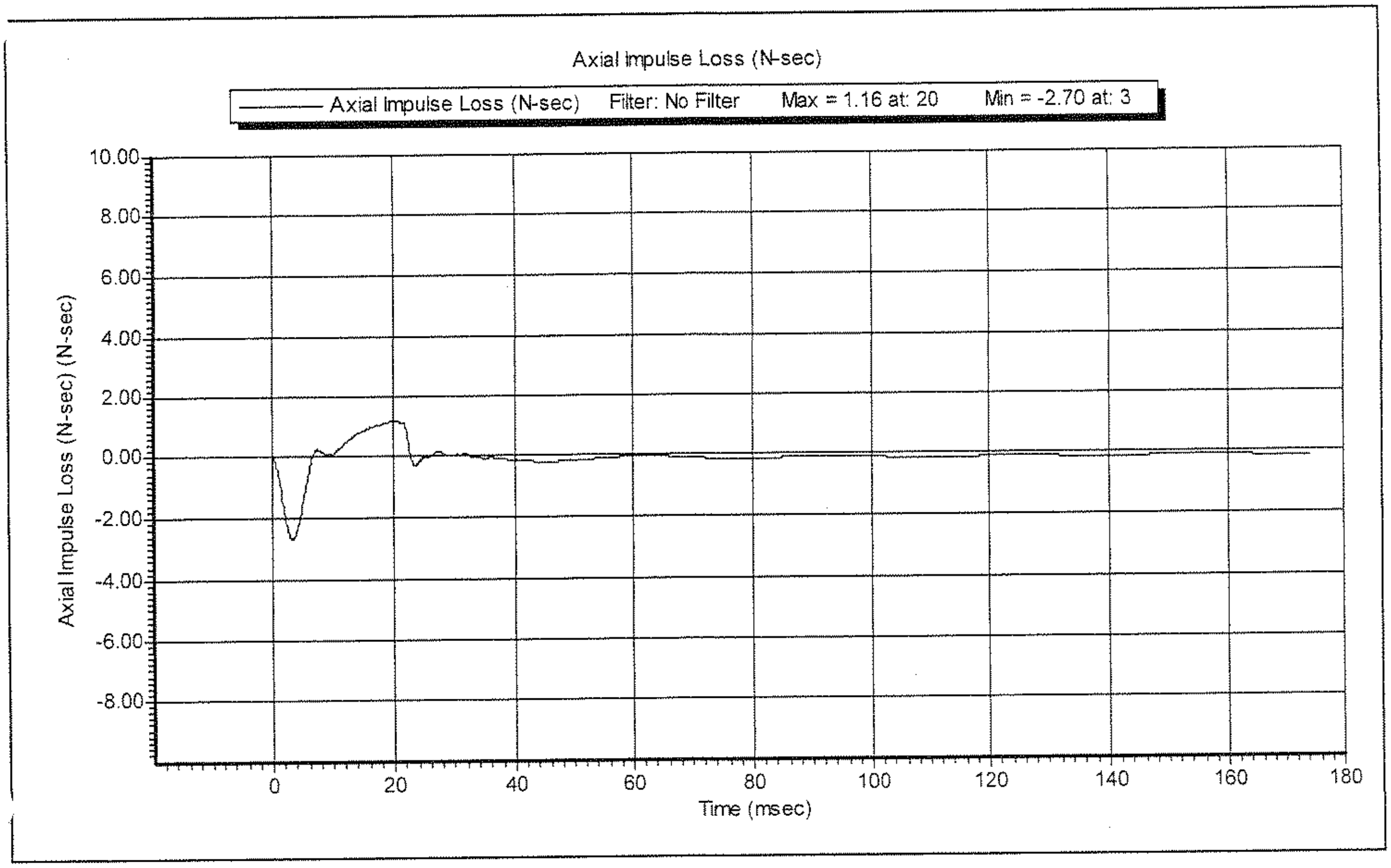


DENTON

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



Test ID: **P20046-3** Test Time: **3:03:32 PM** Test Date: **9/21/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5935 • 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**

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

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

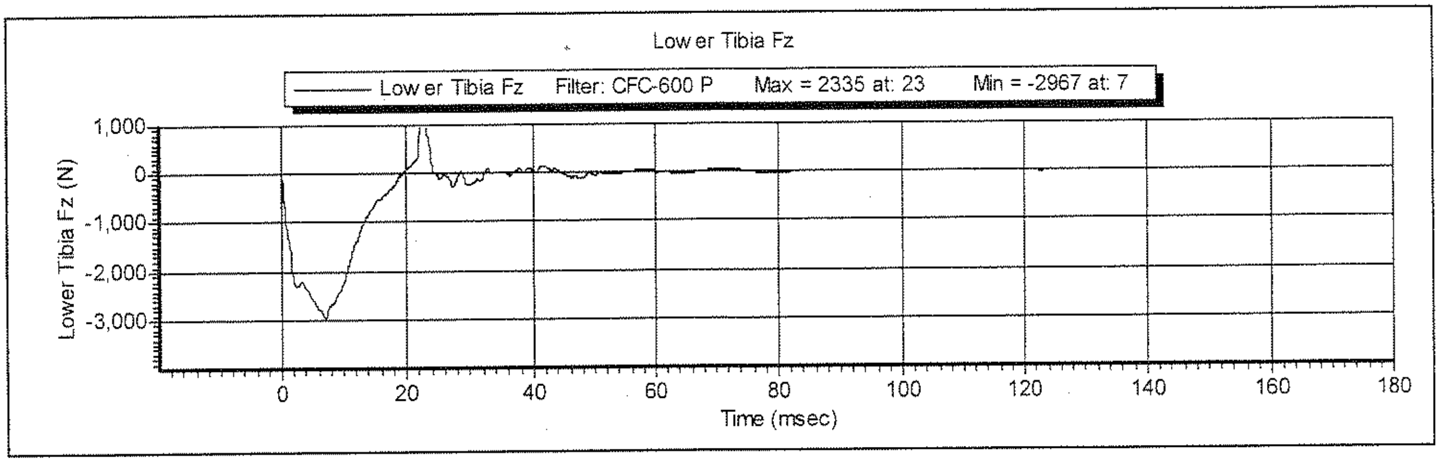
Test ID: **P20046-4** Test Time: **3:34:44 PM** Test Date: **9/21/2006**

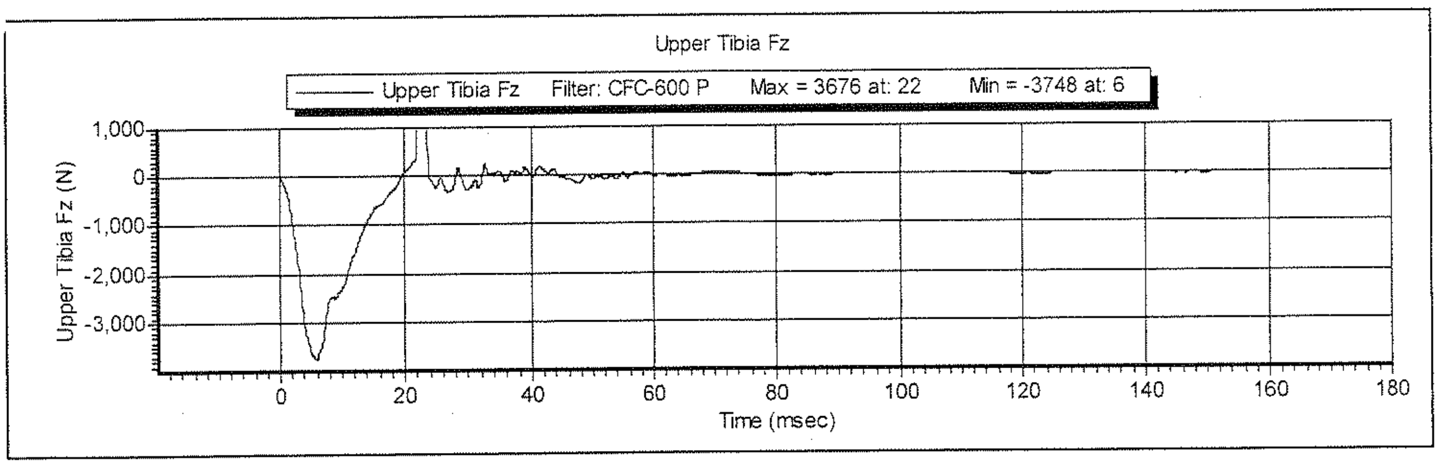
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.
Note: This report shall not be reproduced, except in full, without the written consent of Denton ATD, Inc.

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 626-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com

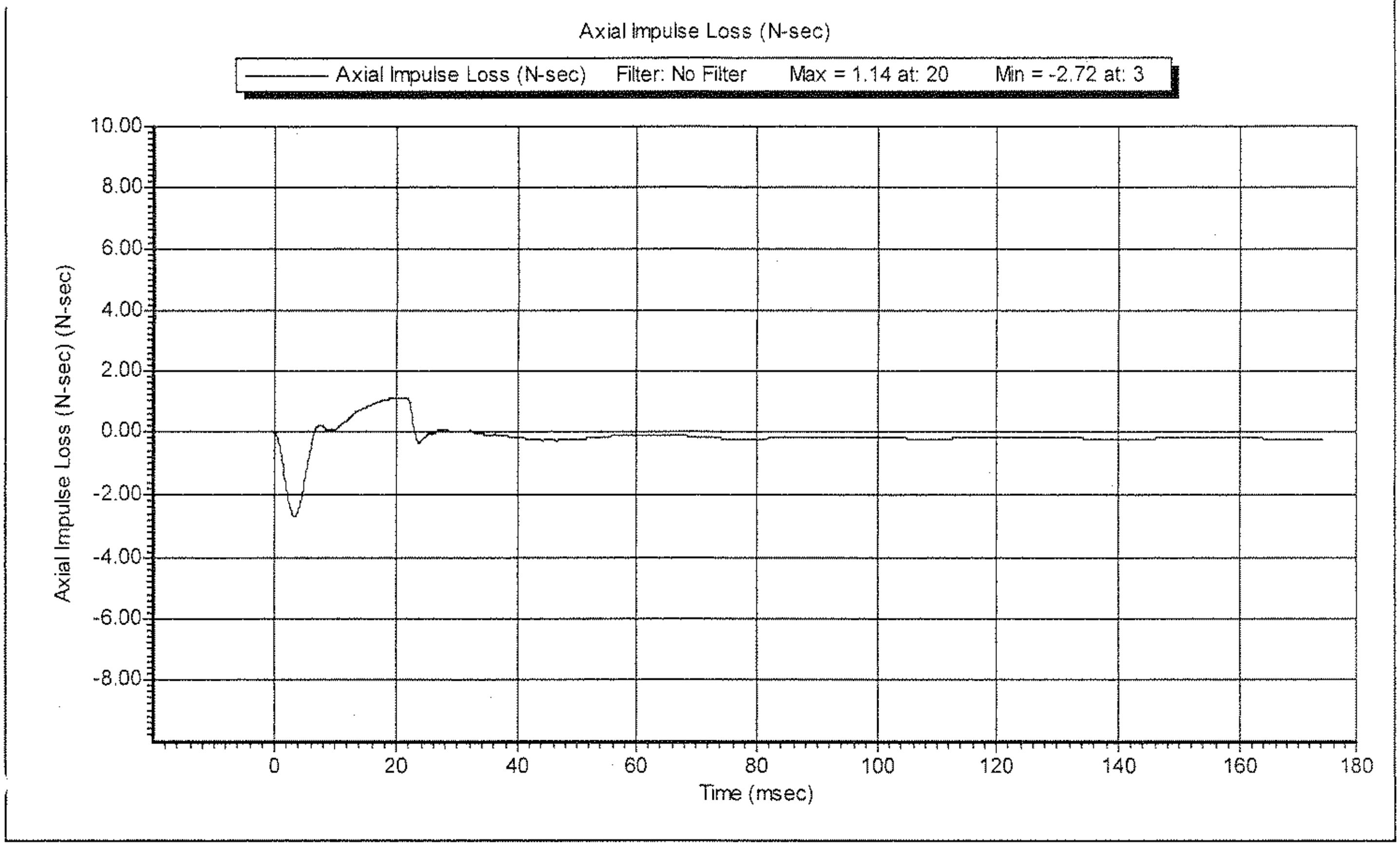
Test Name:	Heel of Foot	Revision:	10/1/2001
Sub Test Name:		Spec Type:	NHTSA
Dummy Type:	THOR LX		
Dummy Serial Number:			
Test ID:	P20046-4	Test Date:	9/21/2006
Test Number:	4	Test Time:	3:34:44 PM





DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P20046-4** Test Time: **3:34:44 PM** Test Date: **9/21/2006**

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:	**7921-0528**	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** JM.R

Approved By:

Test ID: **7921-0528** Test Time: **10:30:06 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

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** JmR

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

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.

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:	**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**

C-68

070126

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-6335 • email: info@dentonatd.com • www.dentonatd.com

VERIFICATION REPORT

REFERENCE EQUIPMENT

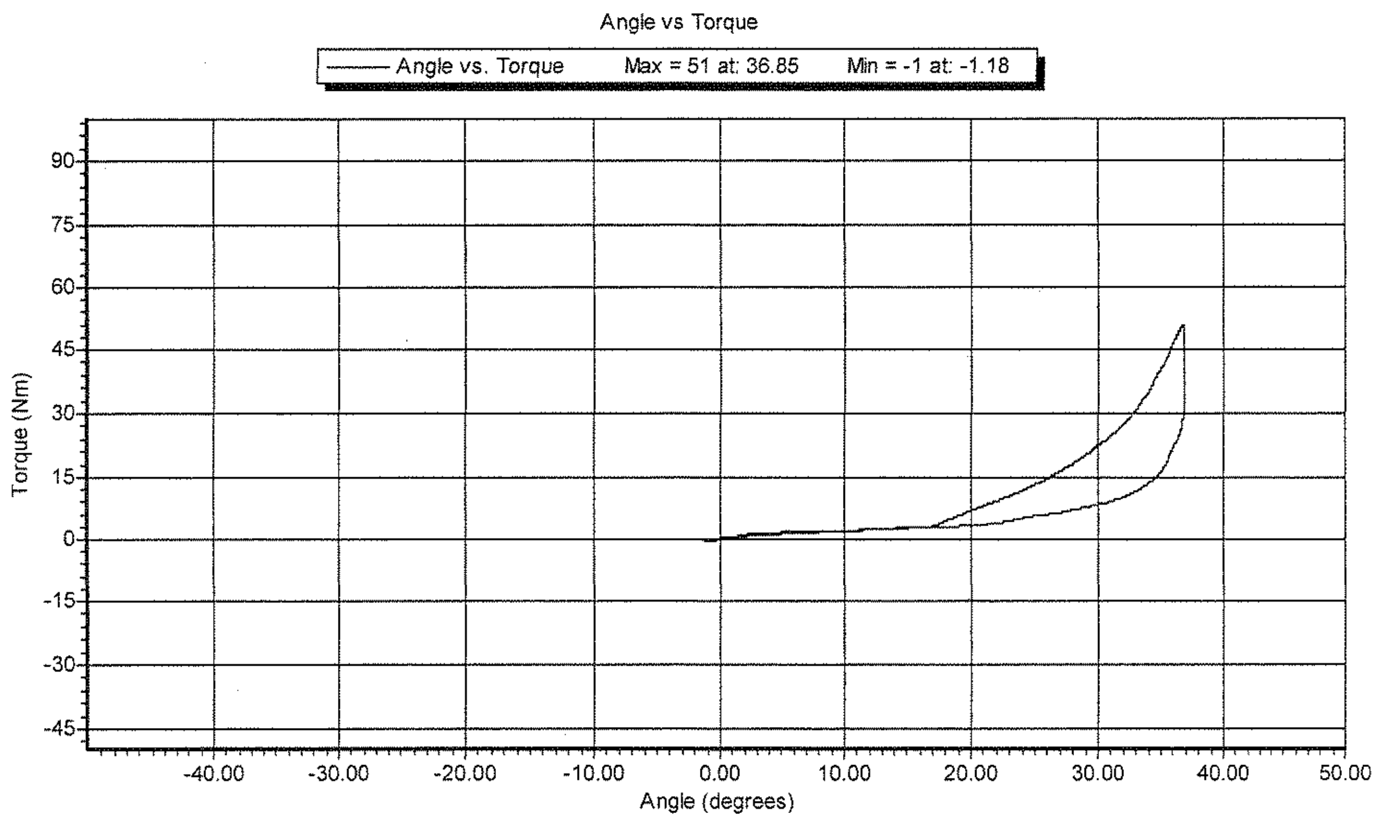
Manufacturer	Model	Serial Number	Calibration Date
OMEGA	**STC-250**	**G46804**	**3/1/2006**
DentonATD	**T1AKM060**	**7921-0528**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0526**	**9/13/2006**
DentonATD	**T1AKM060**	**7921-0527**	**9/13/2006**

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
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**

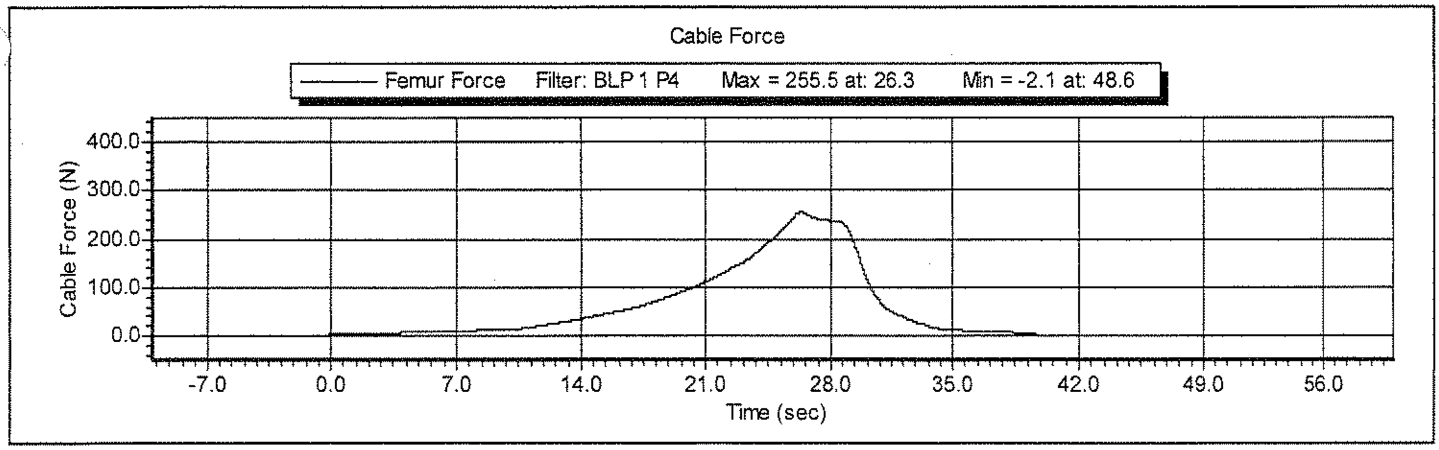


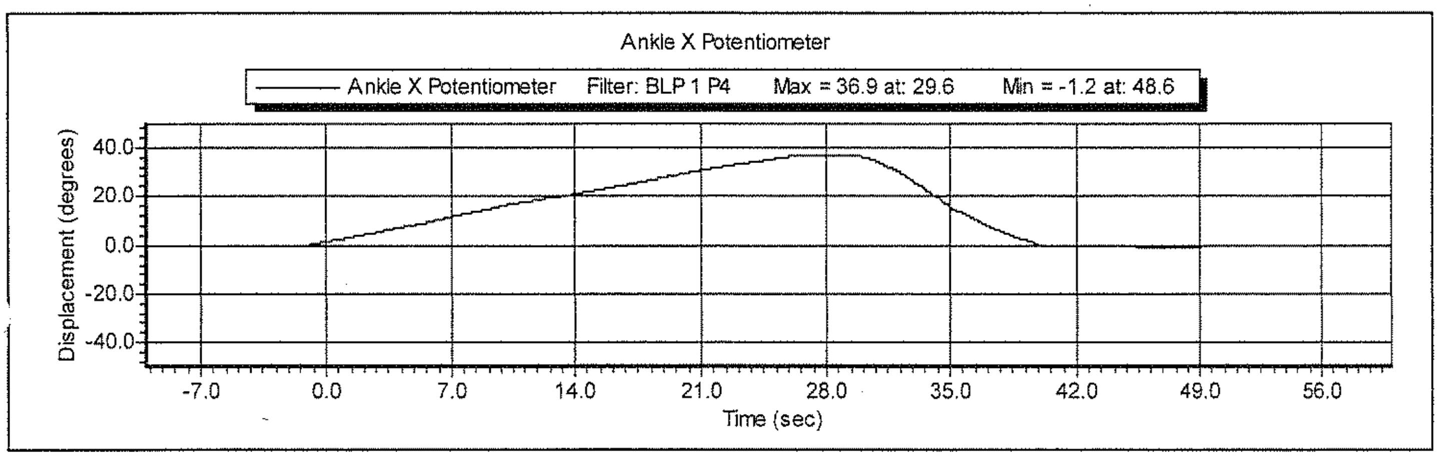
DENTON

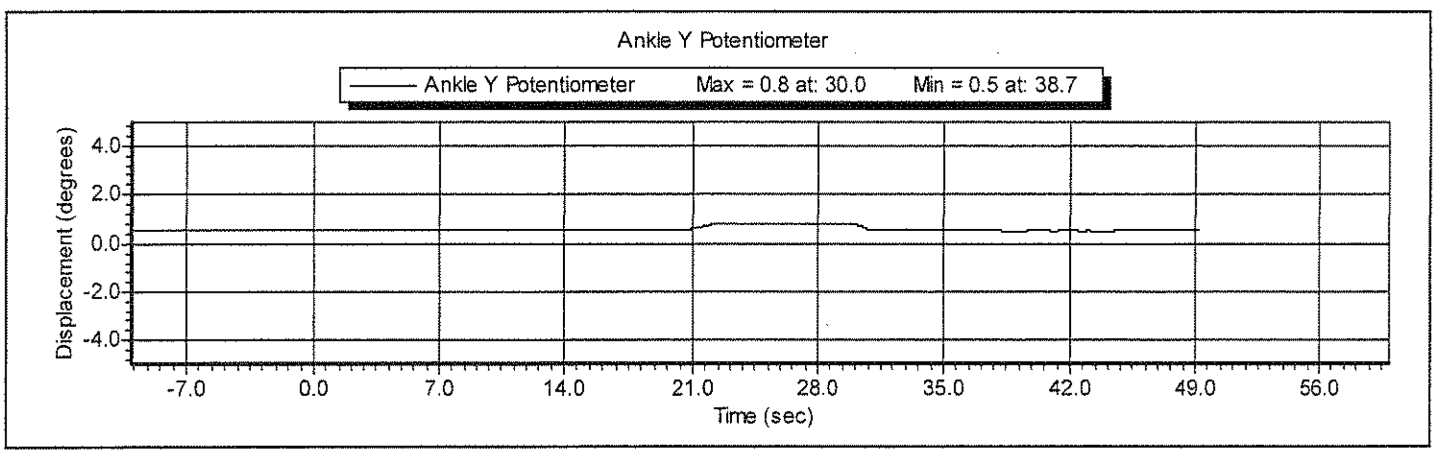
DENTON ATD, INC.

10317 U.S. Highway 250 North • Milan, OH 44846-9570

Tel (419) 625-5200 • Fax (419) 625-6335 • email: info@dentonatd.com • www.dentonatd.com







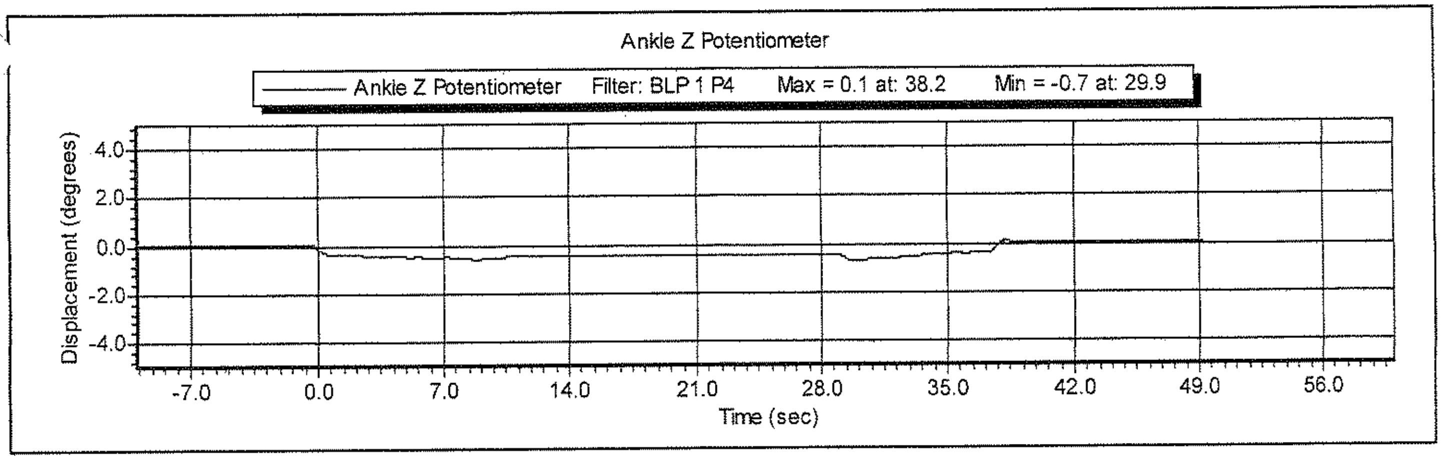
Test ID: **PV0045-1** Test Time: **4:20:10 PM** Test Date: **9/20/2006**

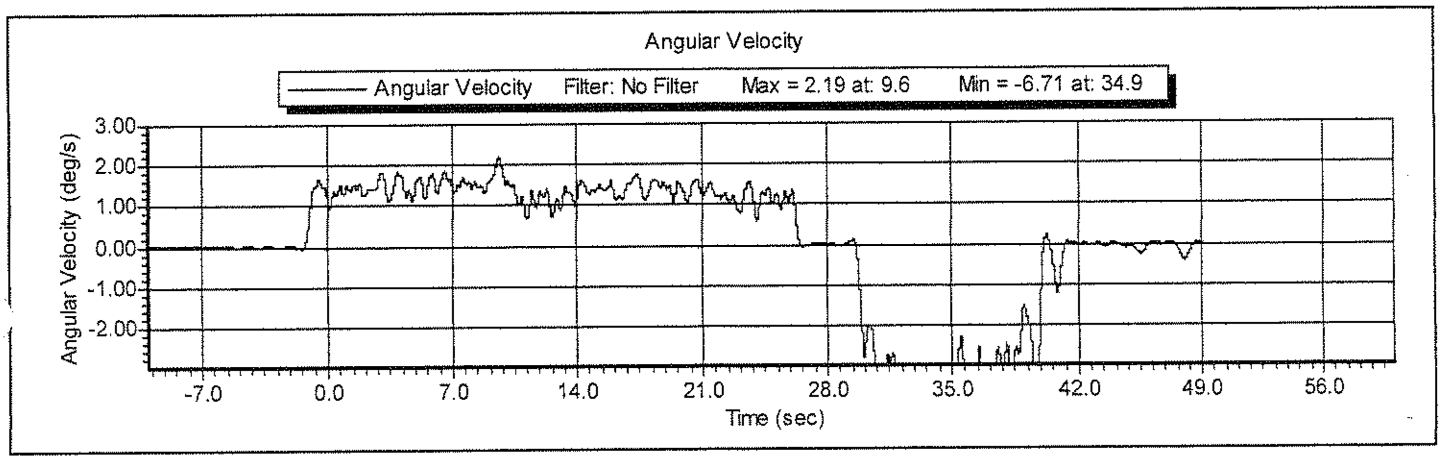
DENTON

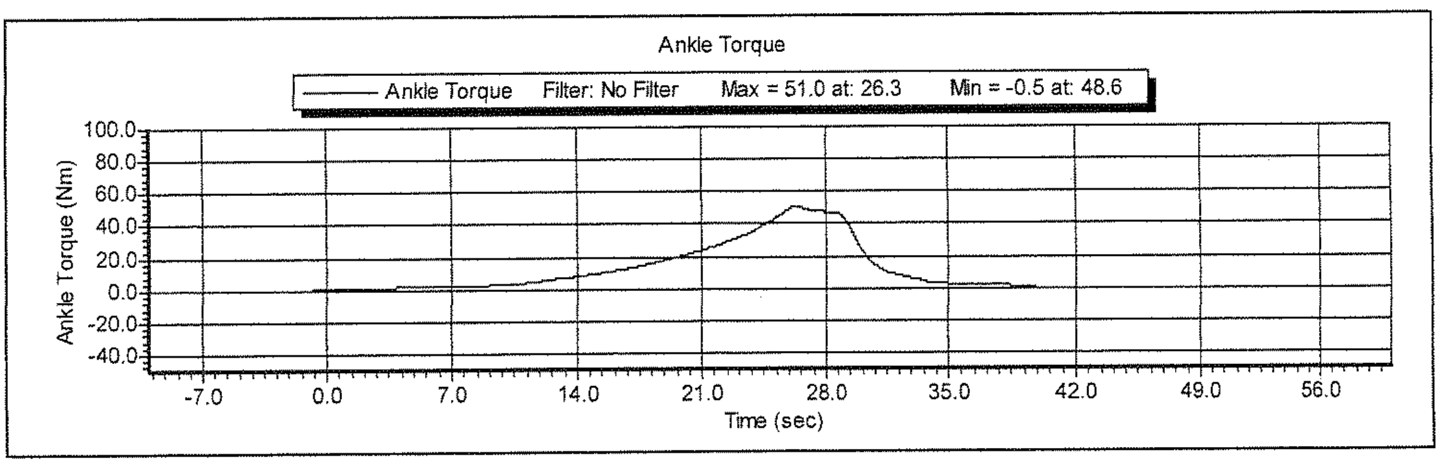
DENTON ATD, INC.

10317 U.S. Highway 250 North • Milan, OH 44846-9570

Tel (419) 626-5200 • Fax(419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PV0045-1** Test Time: **4:20:10 PM** Test Date: **9/20/2006**

 LabPaqII Version: 1.3.4.0 C-72 070126

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:	**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** JmR

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.

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**

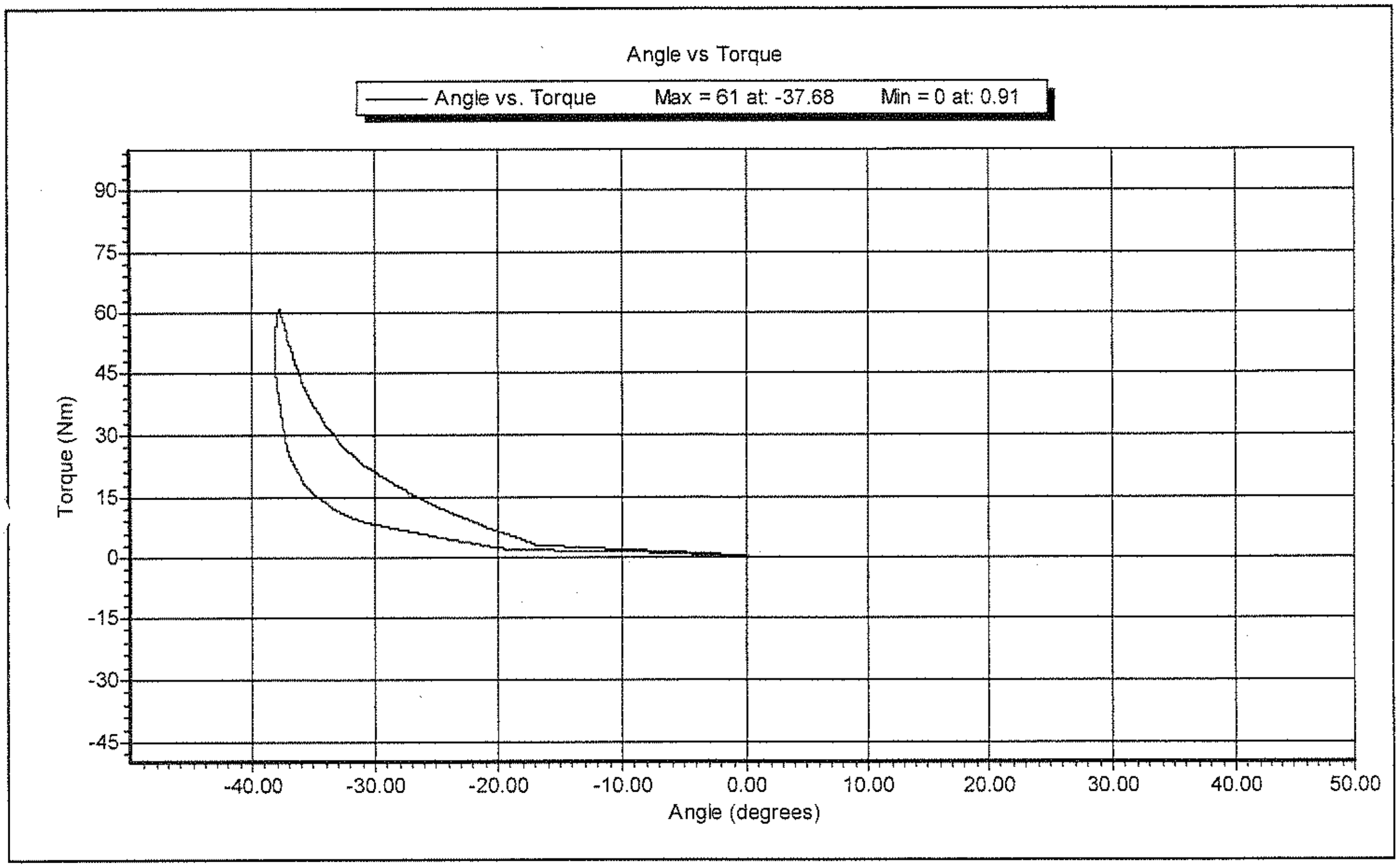
Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

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

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**

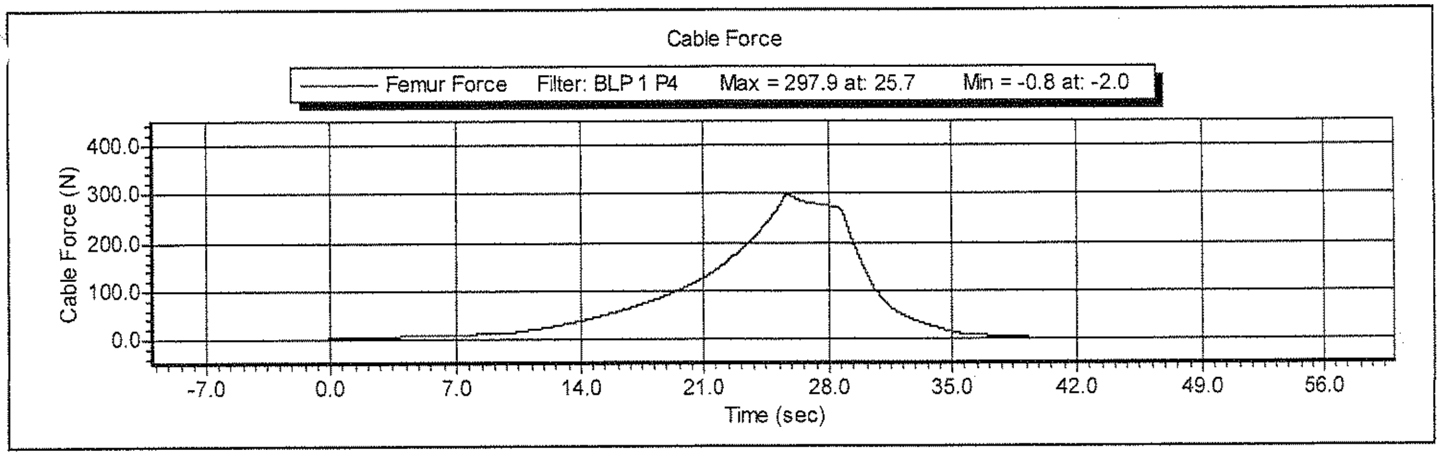


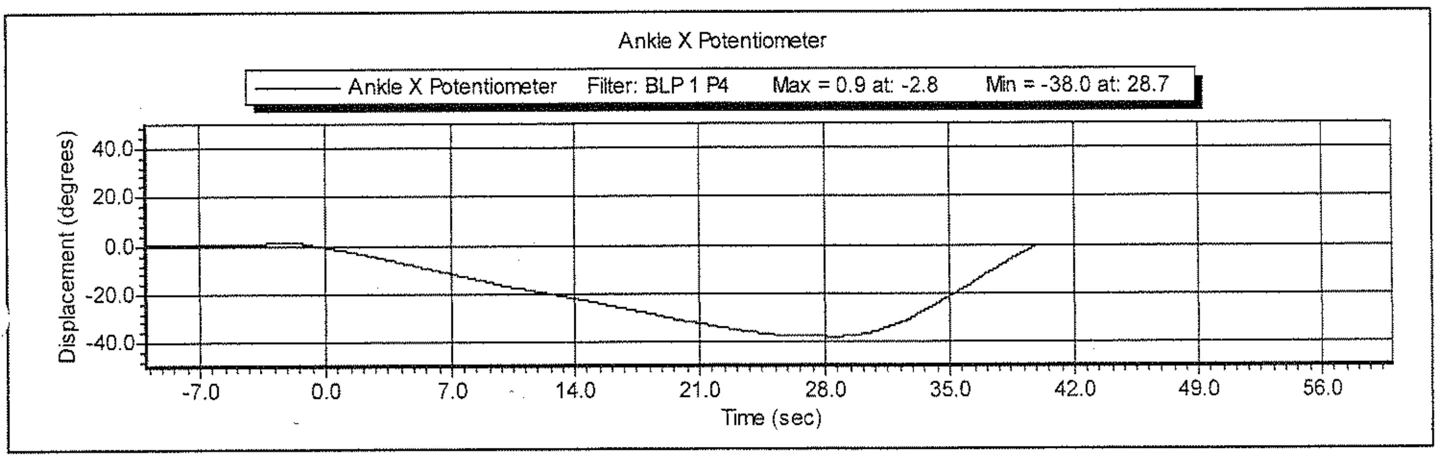
DENTON

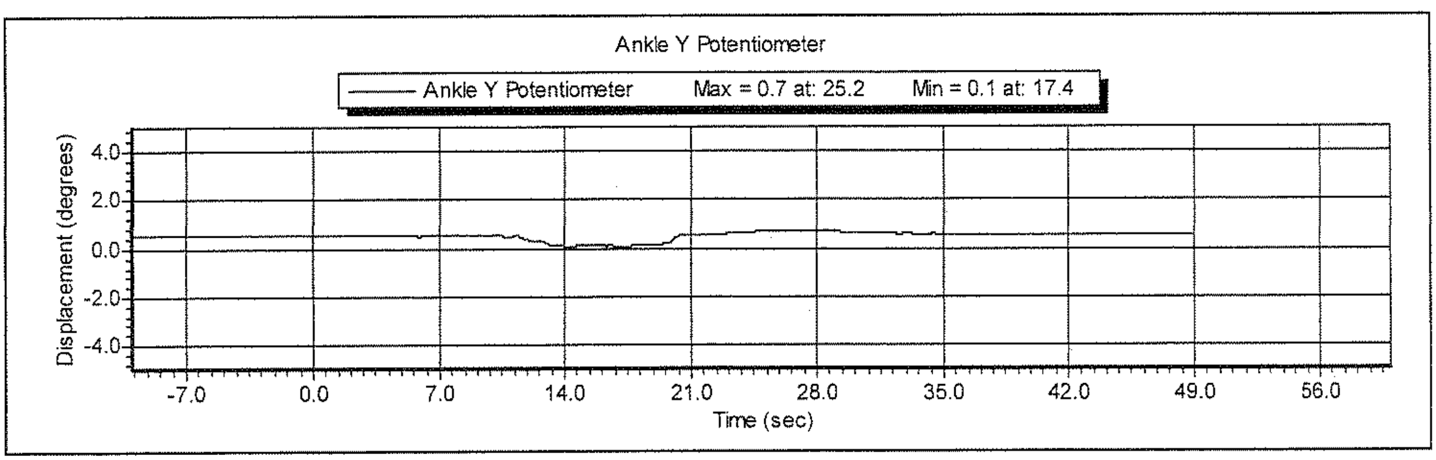
DENTON ATD, INC.

10317 U.S. Highway 250 North • Milan, OH 44846-9570

Tel (419) 625-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







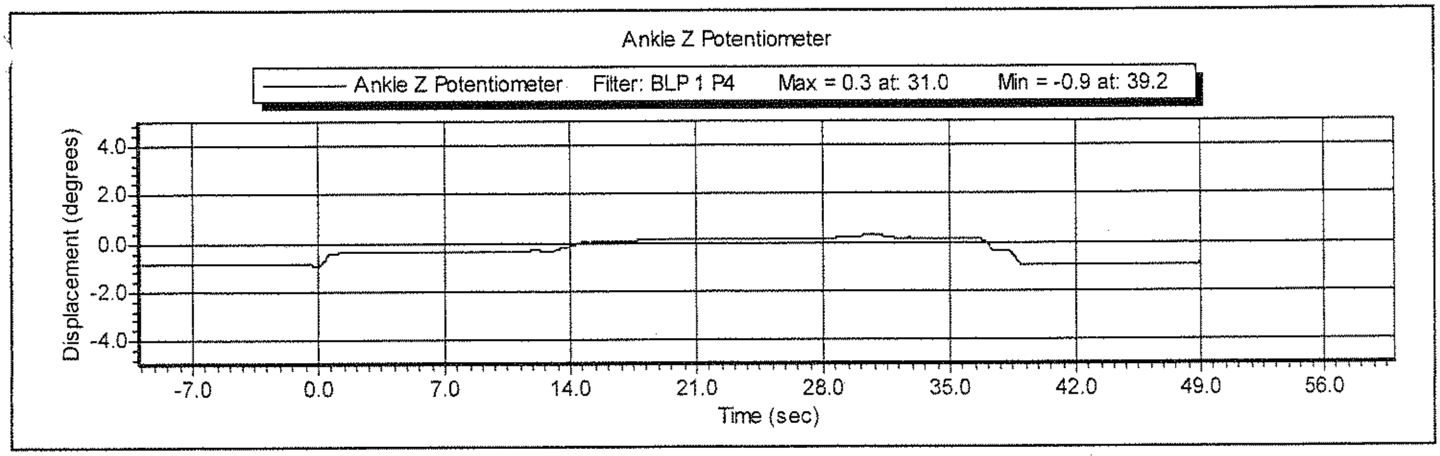
Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

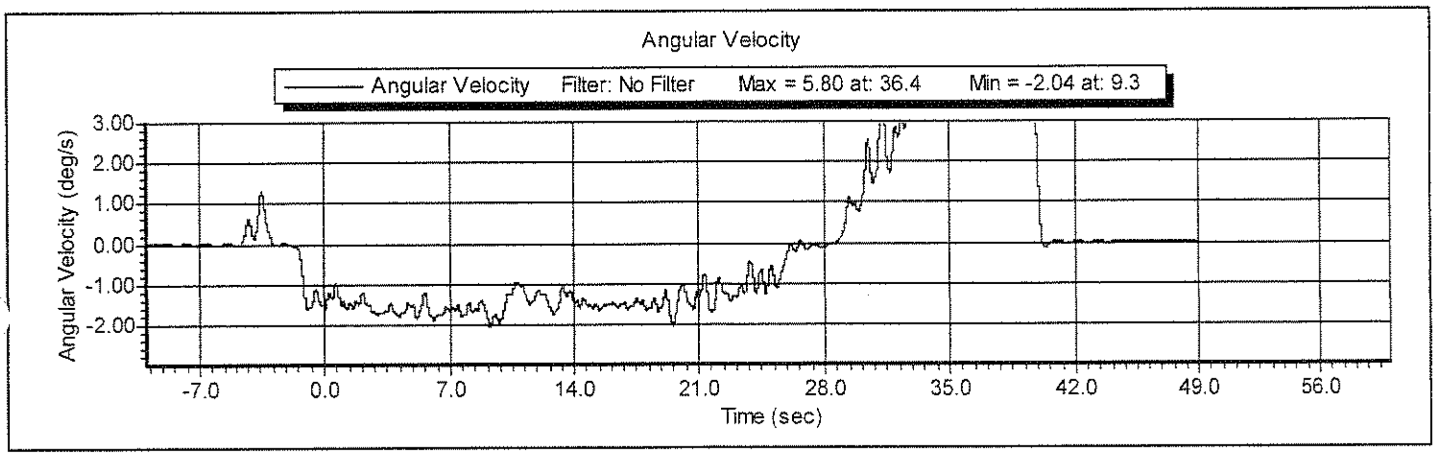
DENTON

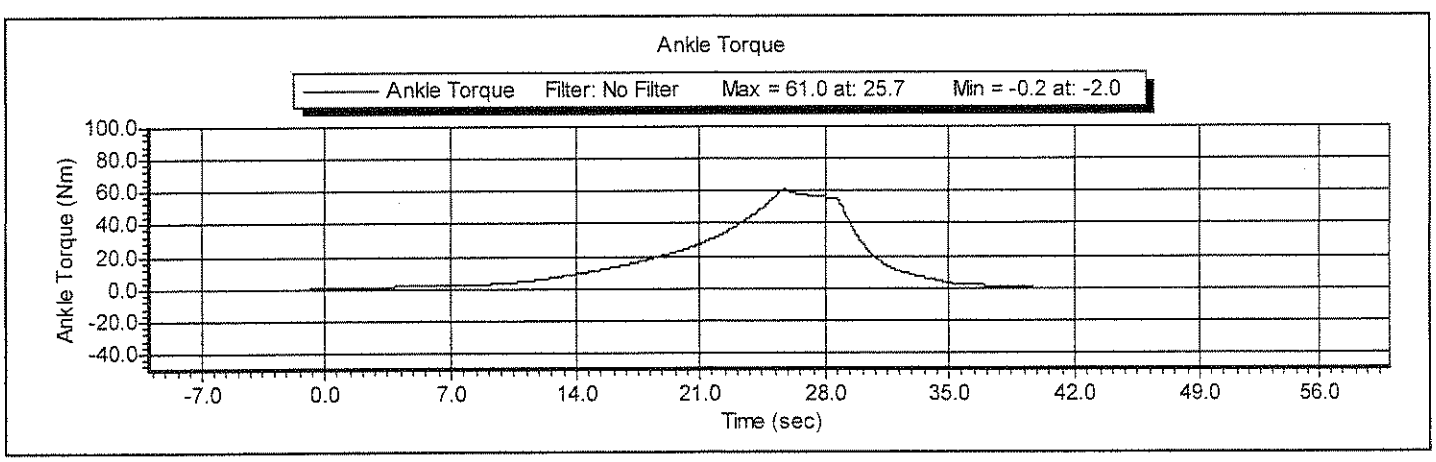
DENTON ATD, INC.

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







Test ID: **PW0045-1** Test Time: **4:29:17 PM** Test Date: **9/20/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax(419) 625-6335 • 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:

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

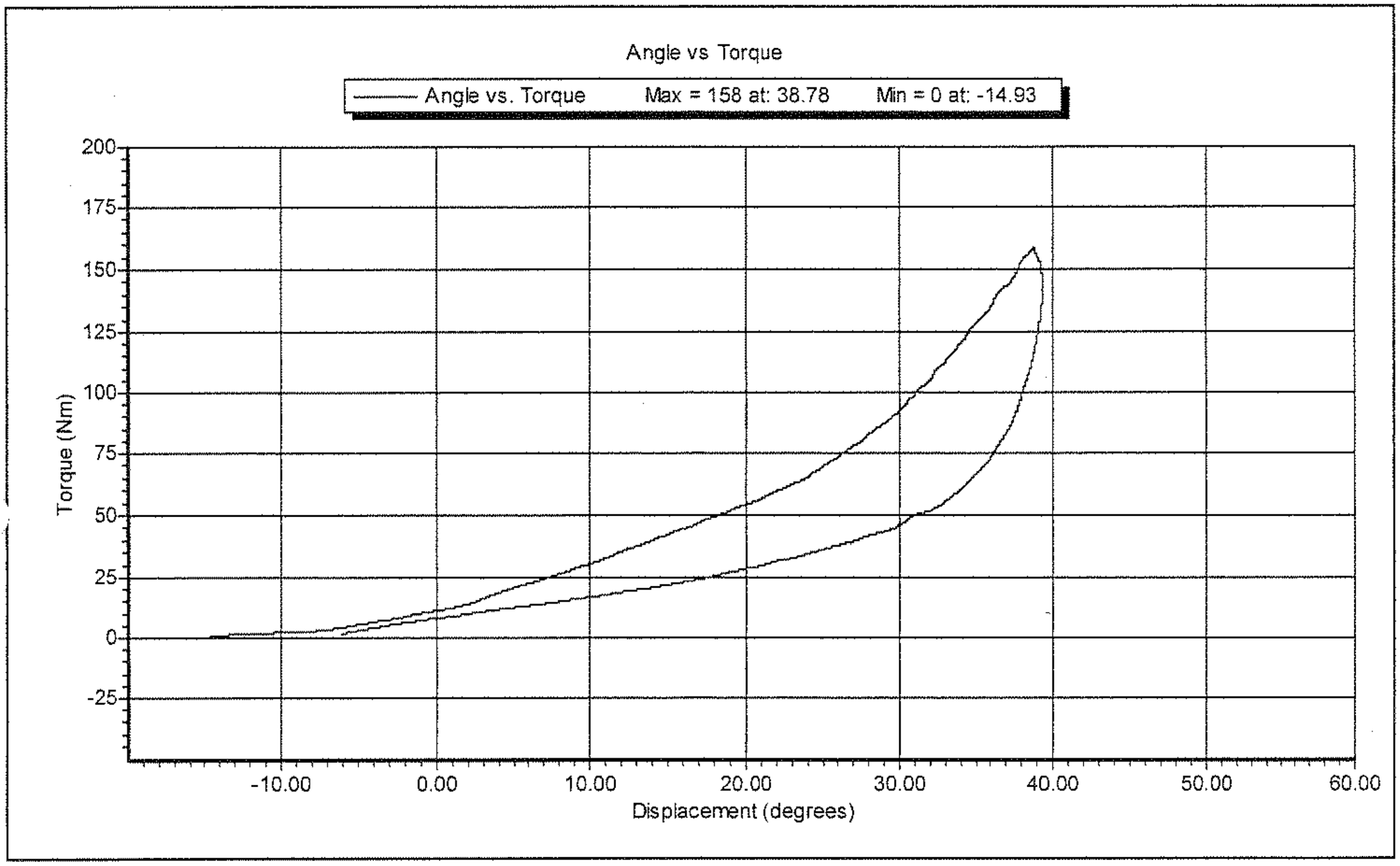
REFERENCE EQUIPMENT

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.

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**

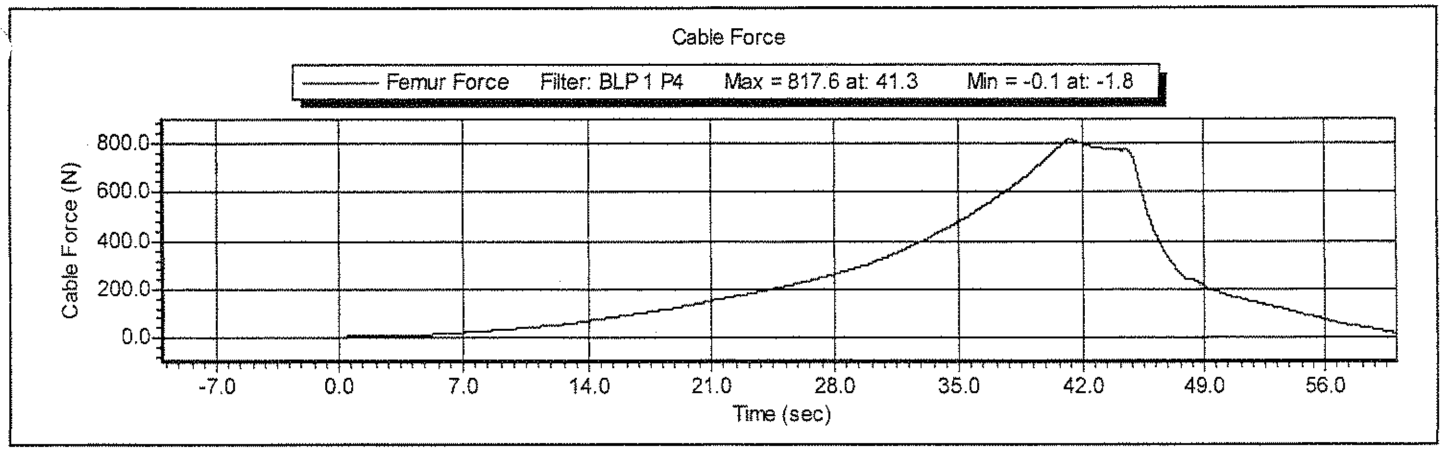


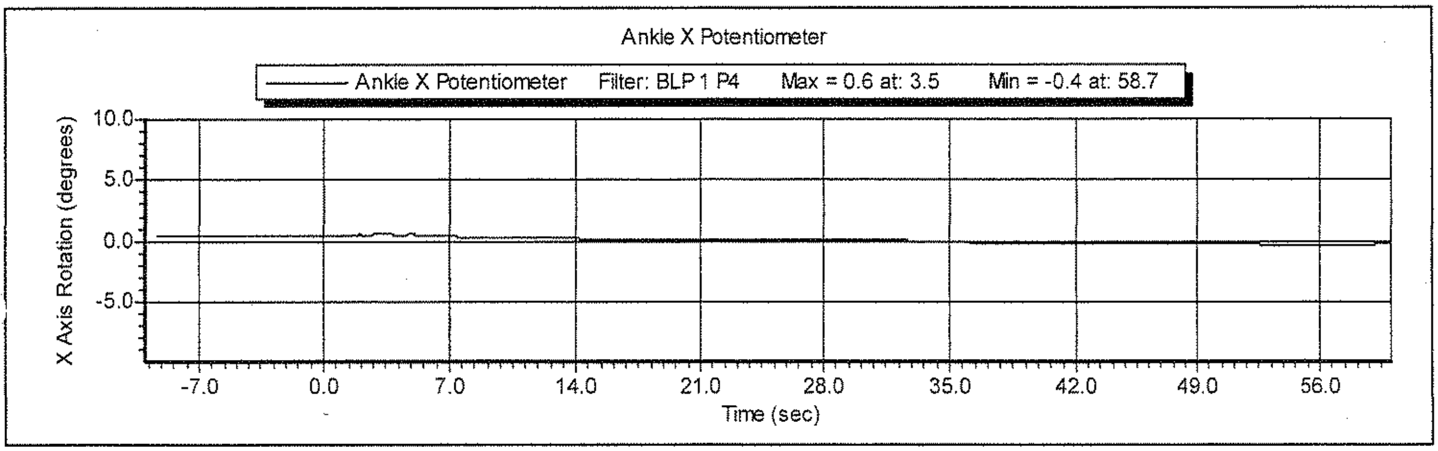
DENTON

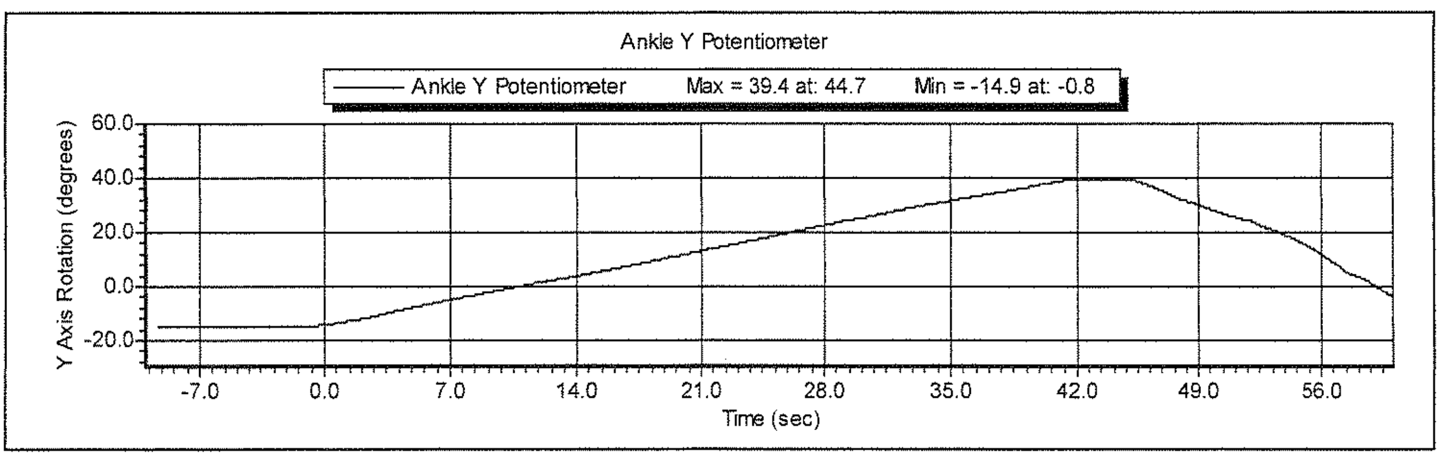
DENTON ATD, INC.

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





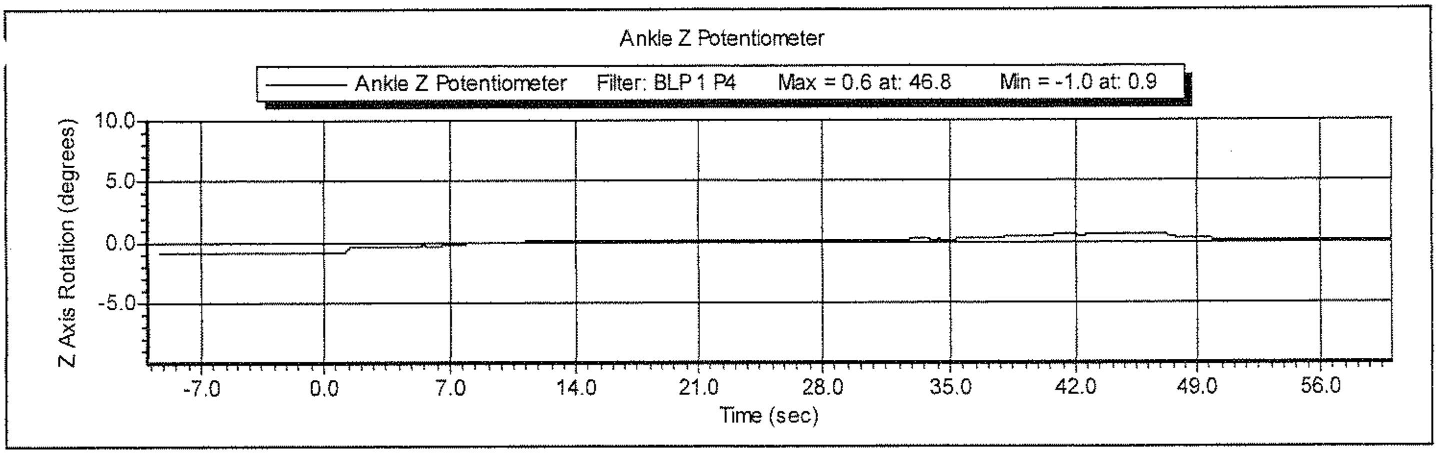


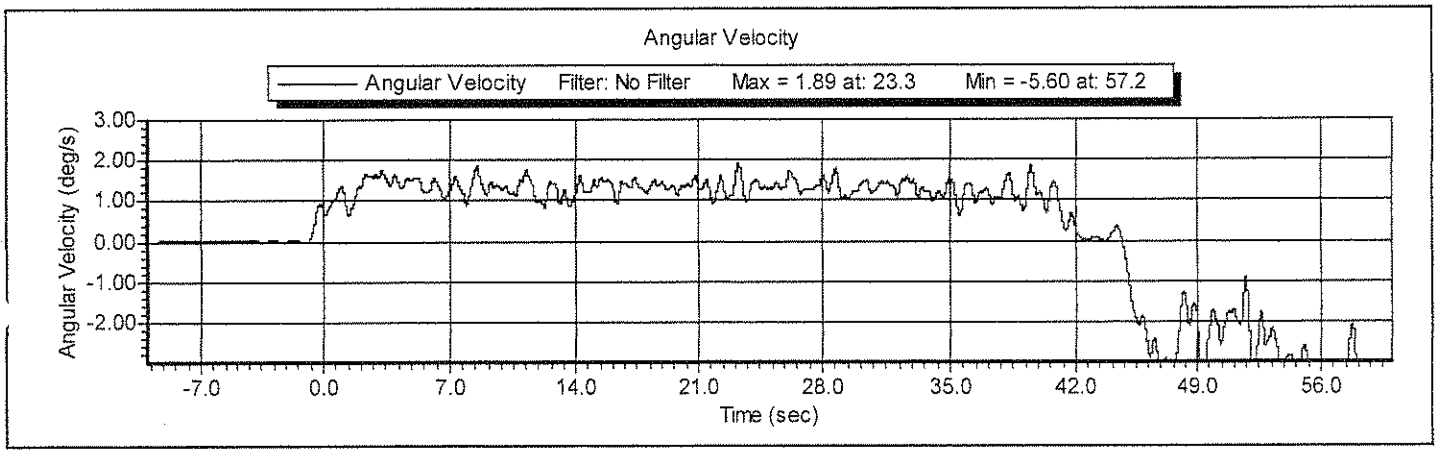
Test ID: **PY0045-1** Test Time: **4:38:49 PM** Test Date: **9/20/2006**

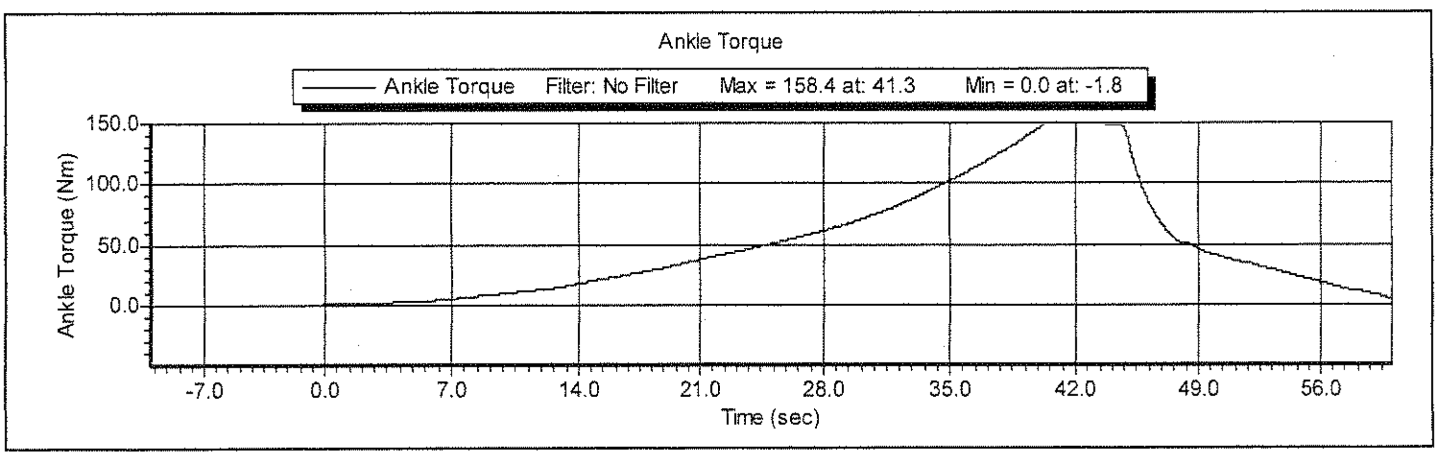
070126

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-6200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PY0045-1** Test Time: **4:38:49 PM** Test Date: **9/20/2006**

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:	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:

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

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-6200 • 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**

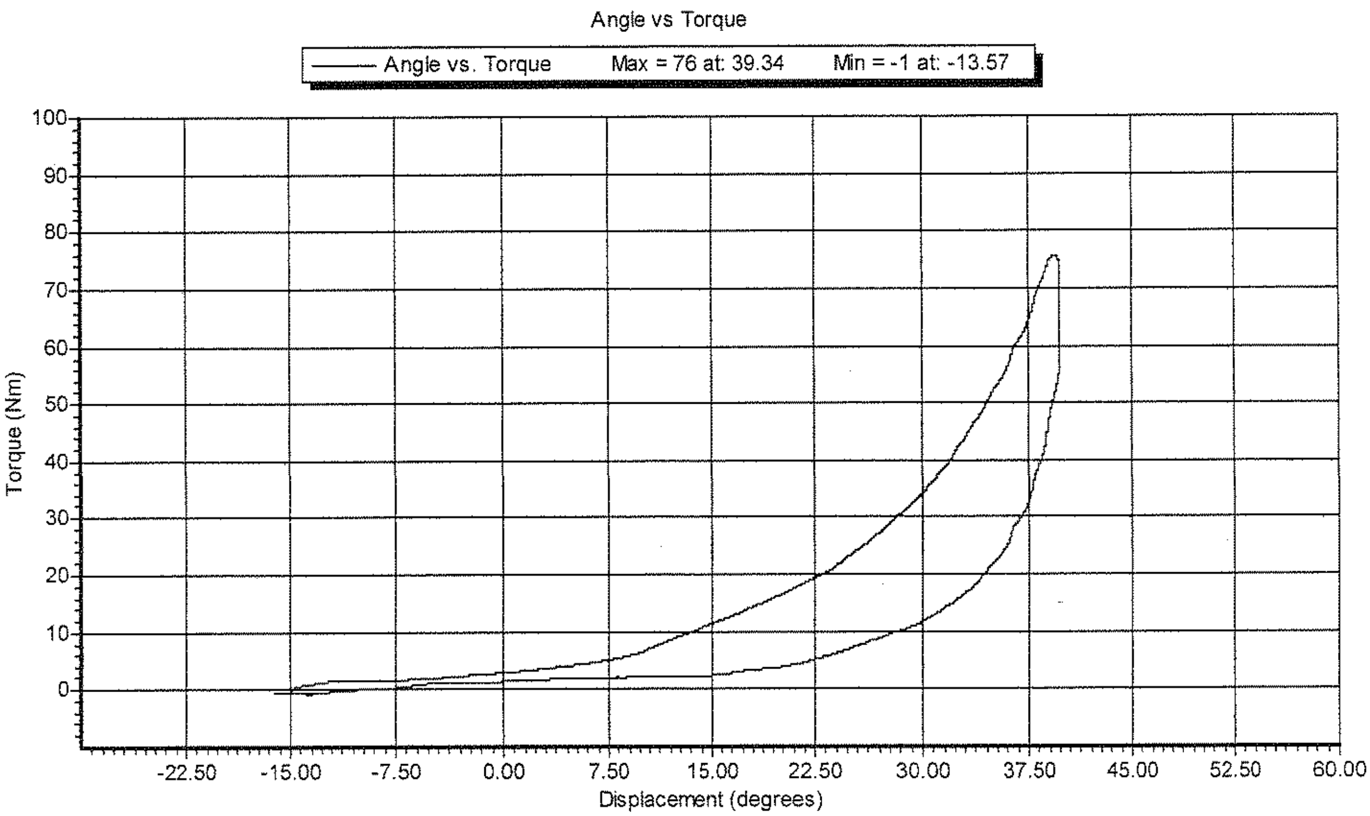
Test ID: **PX0045-1** Test Time: **5:12:18 PM** Test Date: **9/20/2006**

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

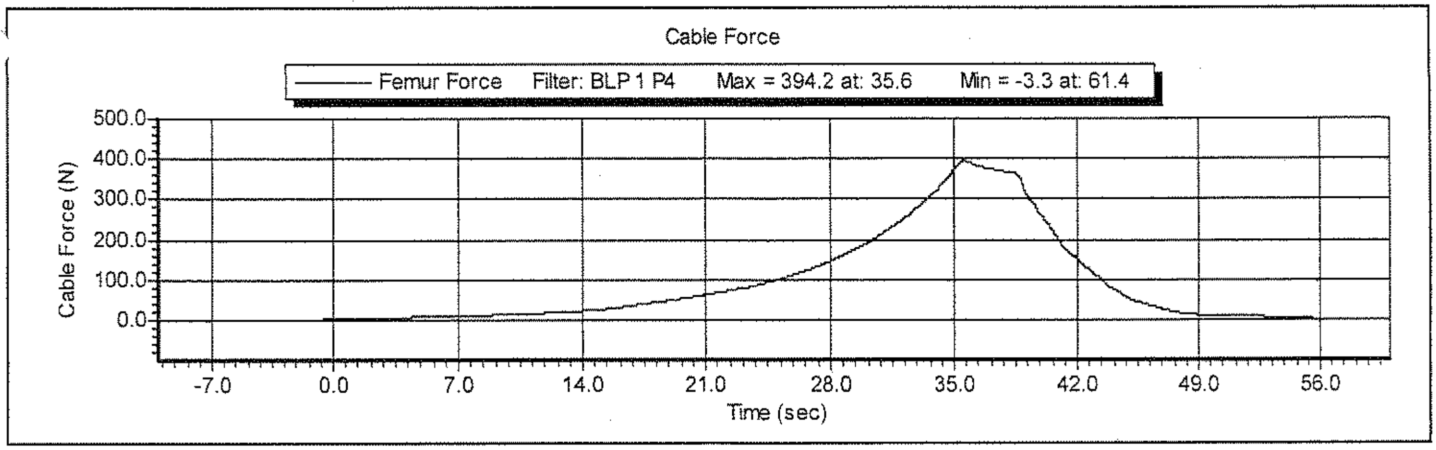
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 626-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com

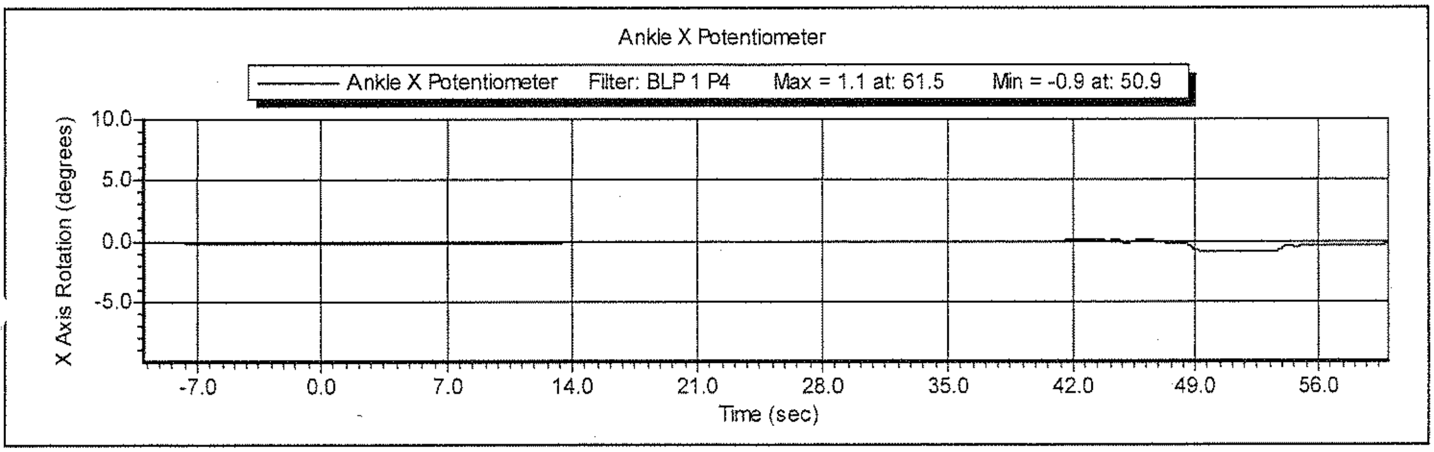
Test Name:	Dorsi-Flexion without Achilles Tendon	Revision:	10/1/2001
Sub Test Name:		Spec Type:	NHTSA
Dummy Type:	THOR LX		
Dummy Serial Number:			
Test ID:	PX0045-1	Test Date:	9/20/2006
Test Number:	1	Test Time:	5:12:18 PM

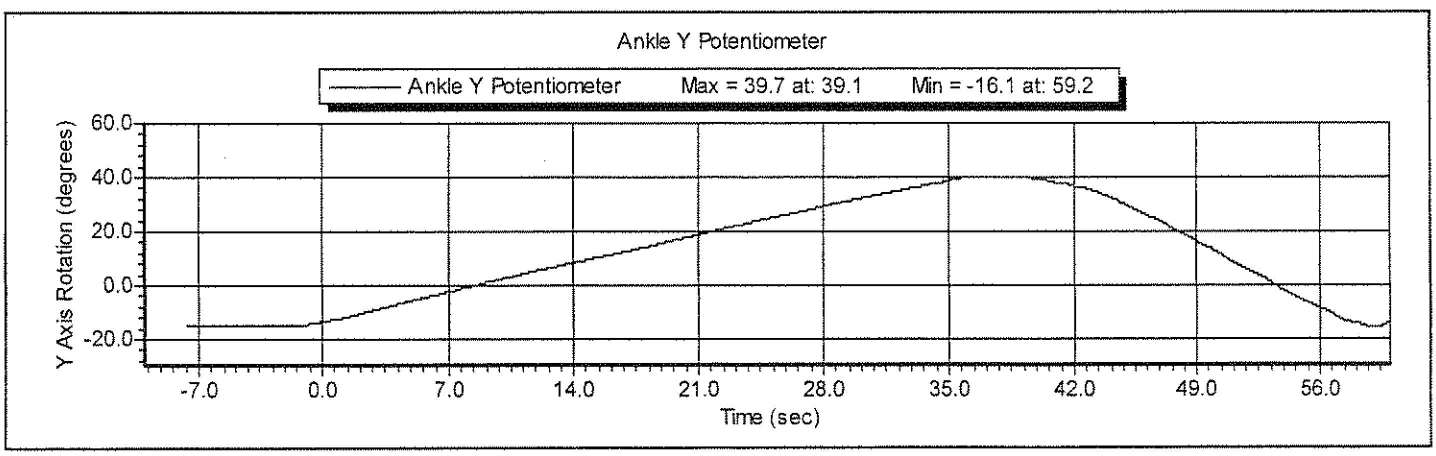


DENTON

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







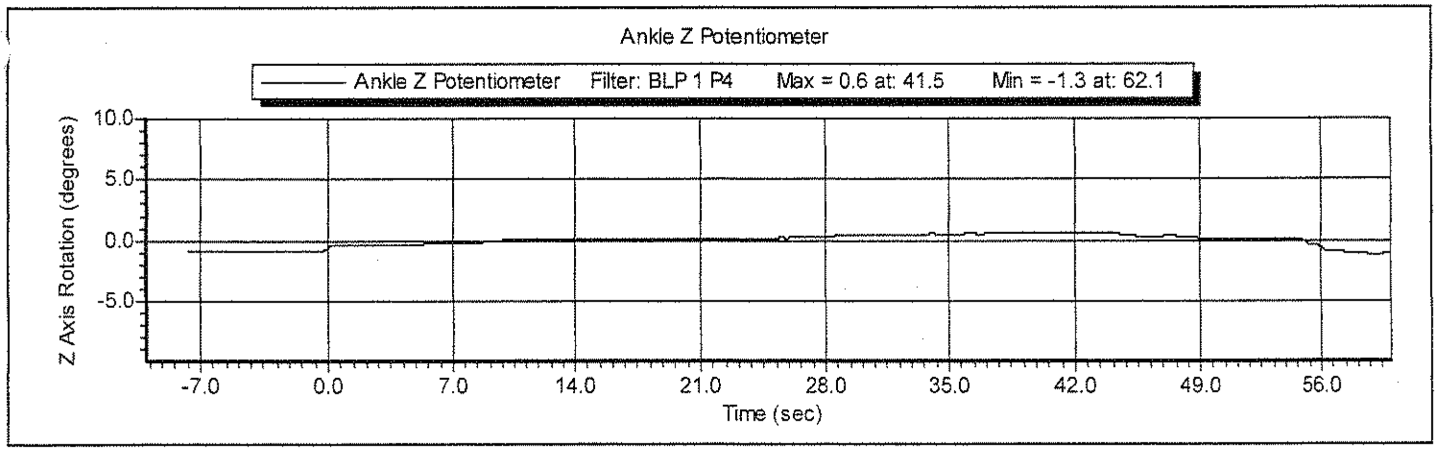
Test ID: **PX0045-1** Test Time: **5:12:18 PM** Test Date: **9/20/2006**

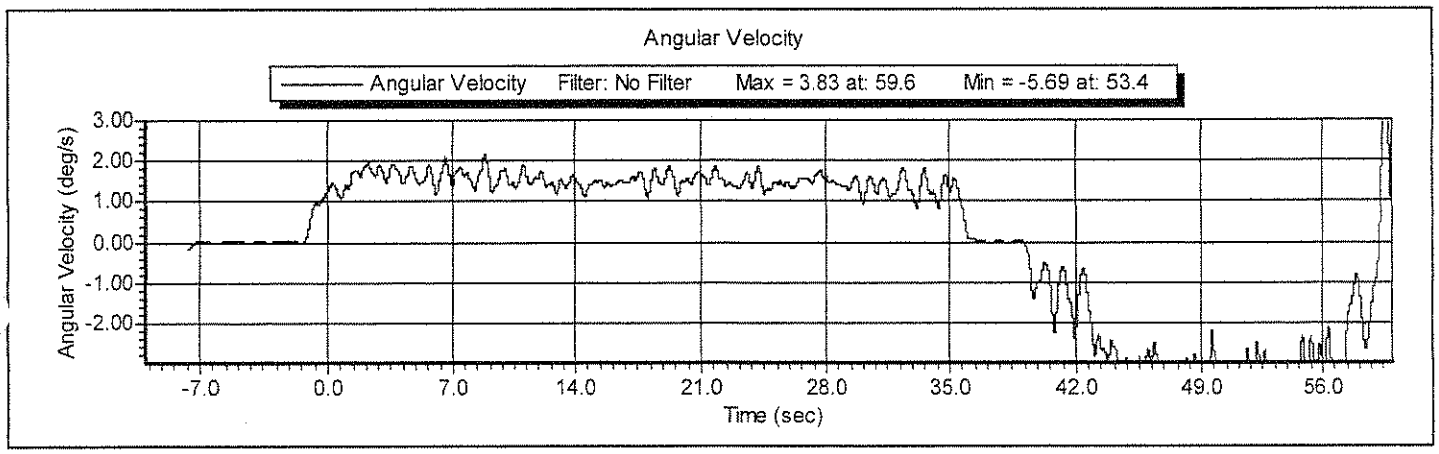
DENTON

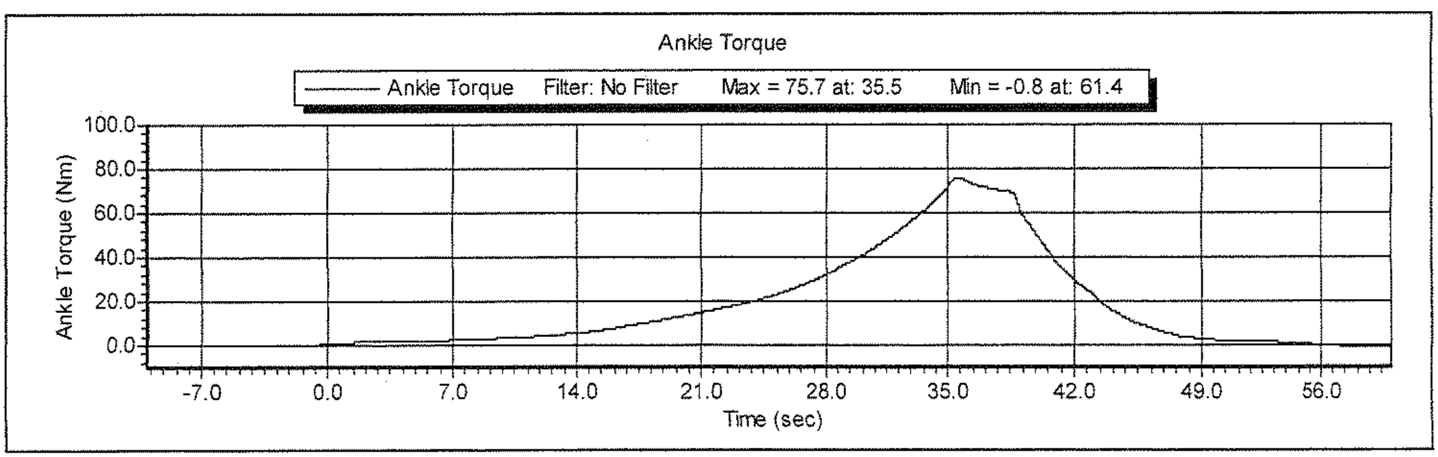
DENTON ATD, INC.

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







Test ID: **PX0045-1** Test Time: **5:12:18 PM** Test Date: **9/20/2006**

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:	**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:

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

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**

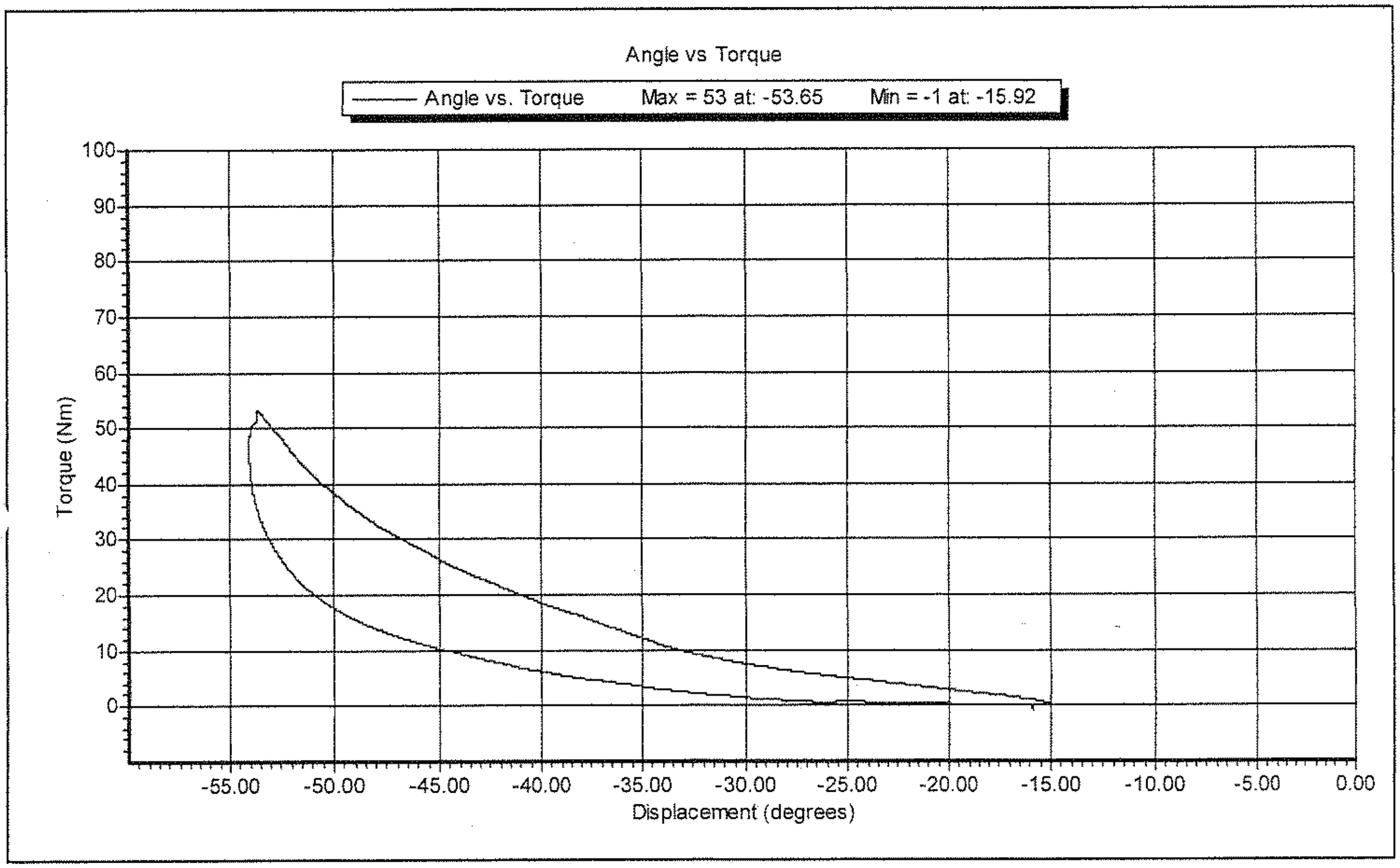
Test ID: **PZ0045-1** Test Time: **4:50:04 PM** Test Date: **9/20/2006**

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

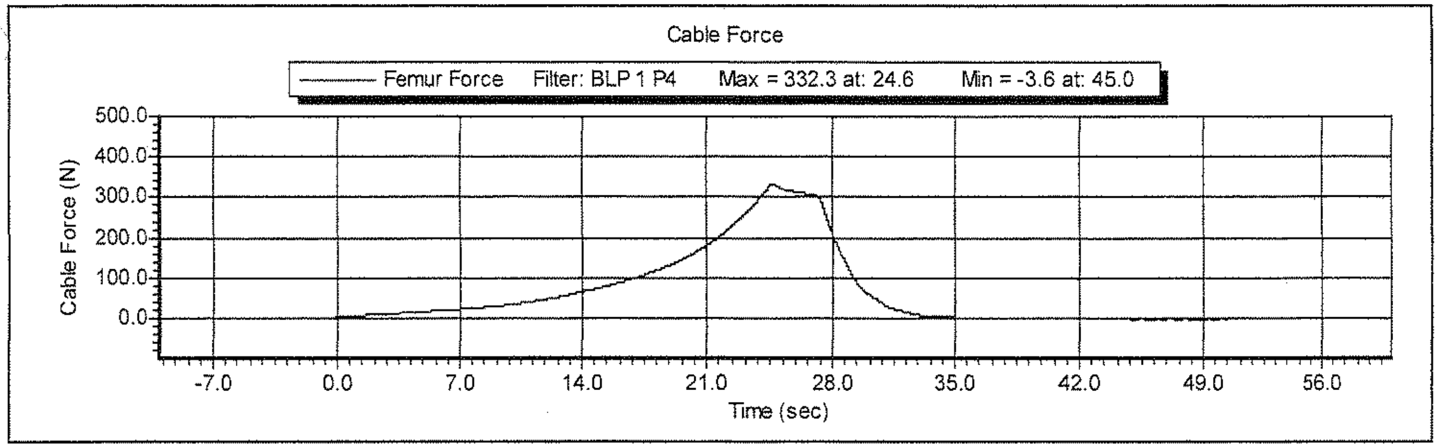
DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax(419) 625-5335 • email: info@dentonatd.com • www.dentonatd.com

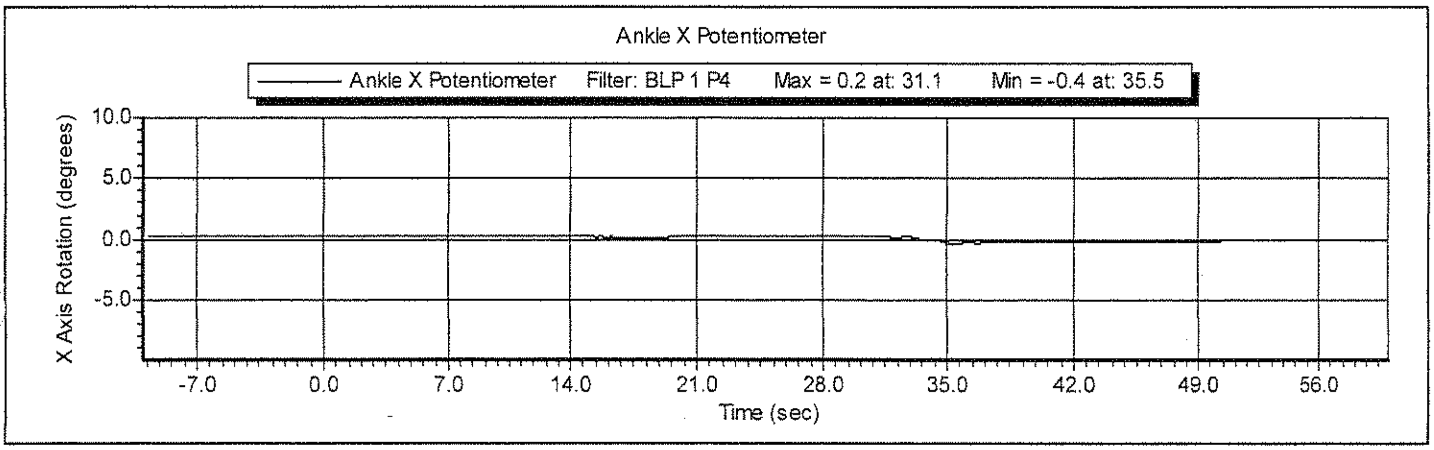
Test Name:	**Plantar-Flexion**	Revision:	**10/1/2001**
Sub Test Name:		Spec Type:	**NHTSA**
Dummy Type:	**THOR LX**		
Dummy Serial Number:			
Test ID:	**PZ0045-1**	Test Date:	**9/20/2006**
Test Number:	**1**	Test Time:	**4:50:04 PM**

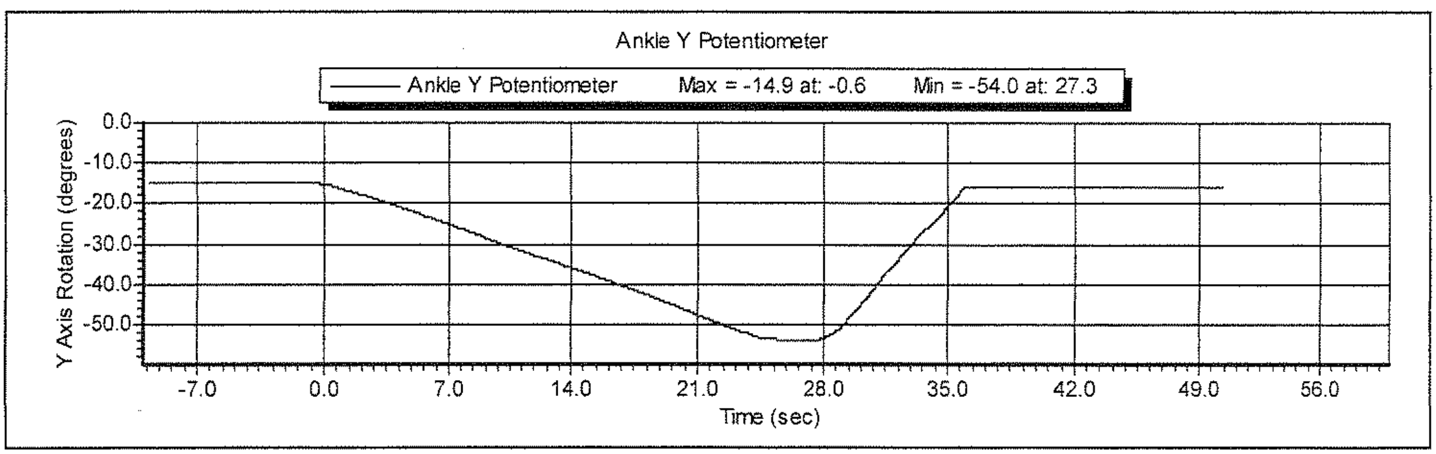


DENTON

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







Test ID: **PZ0045-1** Test Time: **4:50:04 PM** Test Date: **9/20/2006**

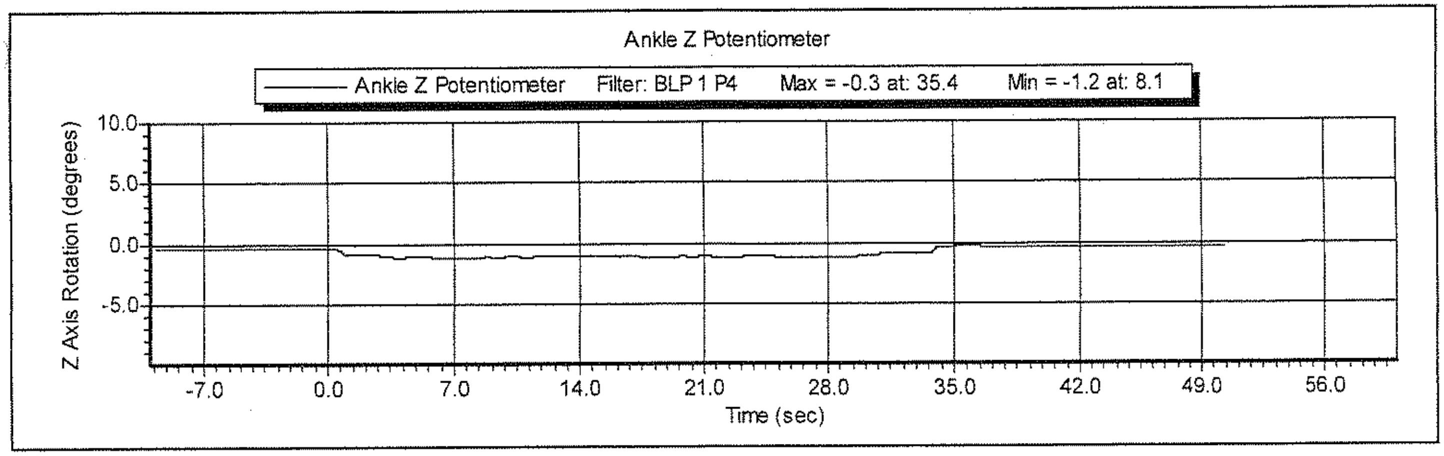
070126

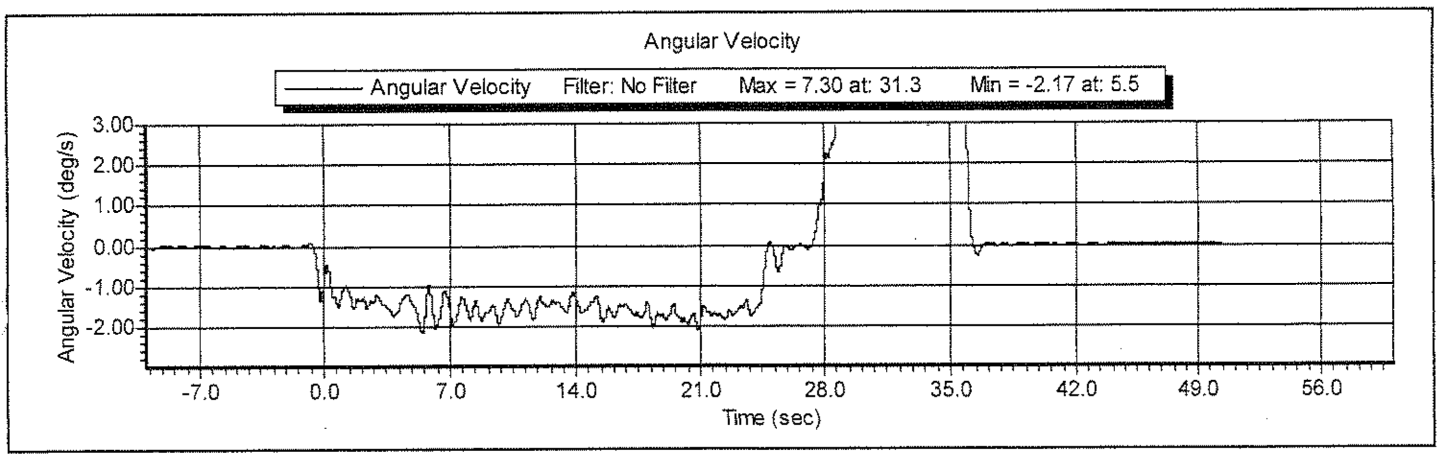
DENTON

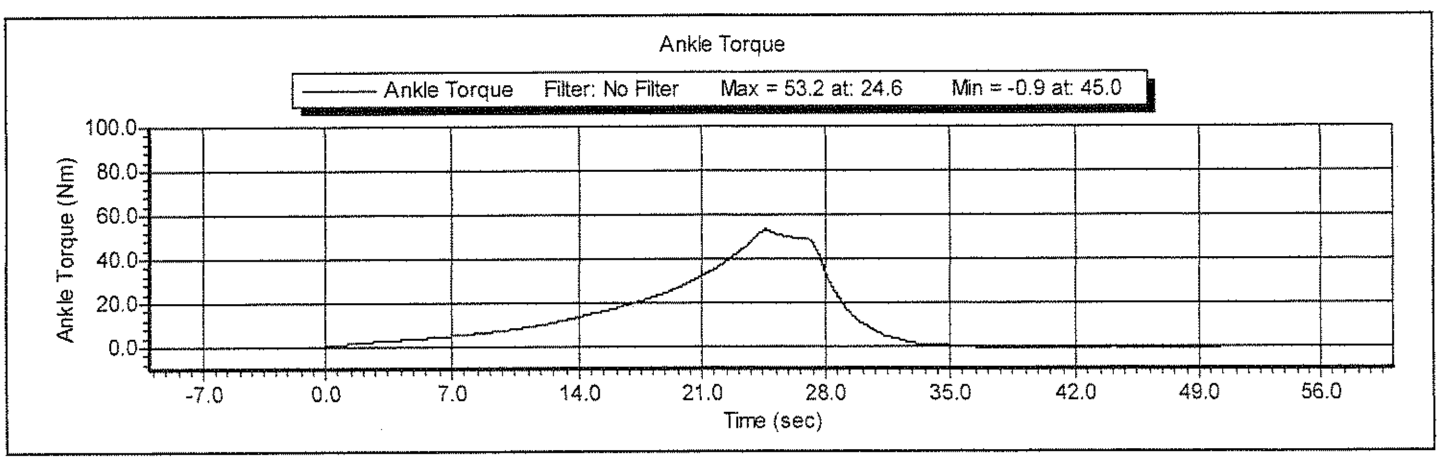
DENTON ATD, INC.

10317 U.S. Highway 250 North • Milan, OH 44846-9570

Tel (419) 626-5200 • Fax (419) 626-5335 • email: info@dentonatd.com • www.dentonatd.com







Test ID: **PZ0045-1** Test Time: **4:50:04 PM** Test Date: **9/20/2006**

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-6335 • 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:

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

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

VERIFICATION REPORT

REFERENCE EQUIPMENT

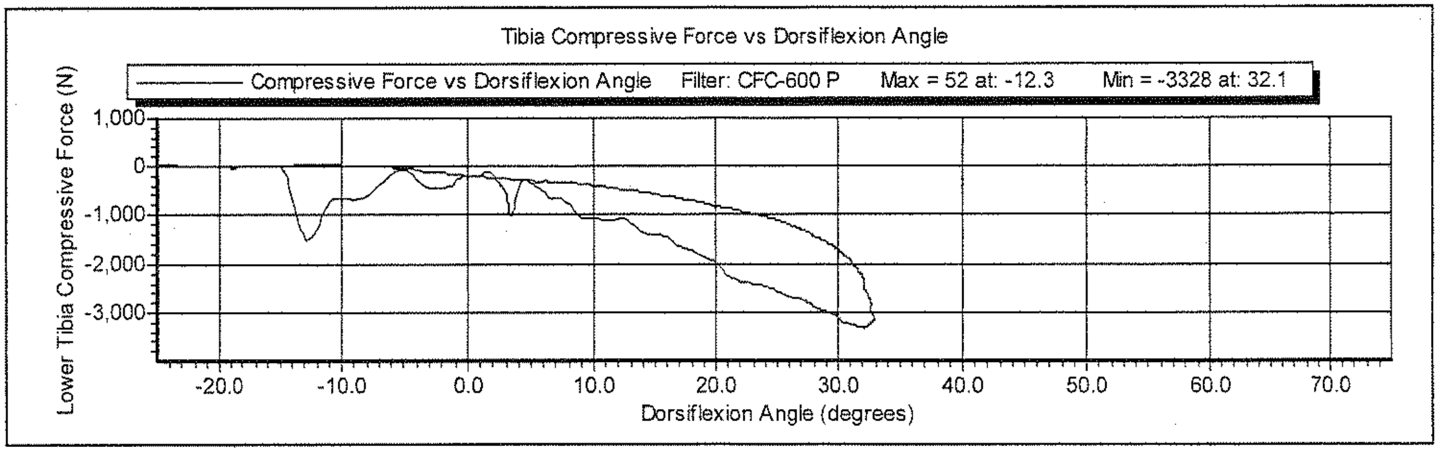
Manufacturer	Model	Serial Number	Calibration Date
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
Denton	4929J	103	1/9/2006
DentonATD	T1AKM060	7921-0528	9/13/2006
DentonATD	T1AKM060	7921-0526	9/13/2006
DentonATD	T1AKM060	7921-0527	9/13/2006
Endevco	7264-2000	J40071	11/2/2005

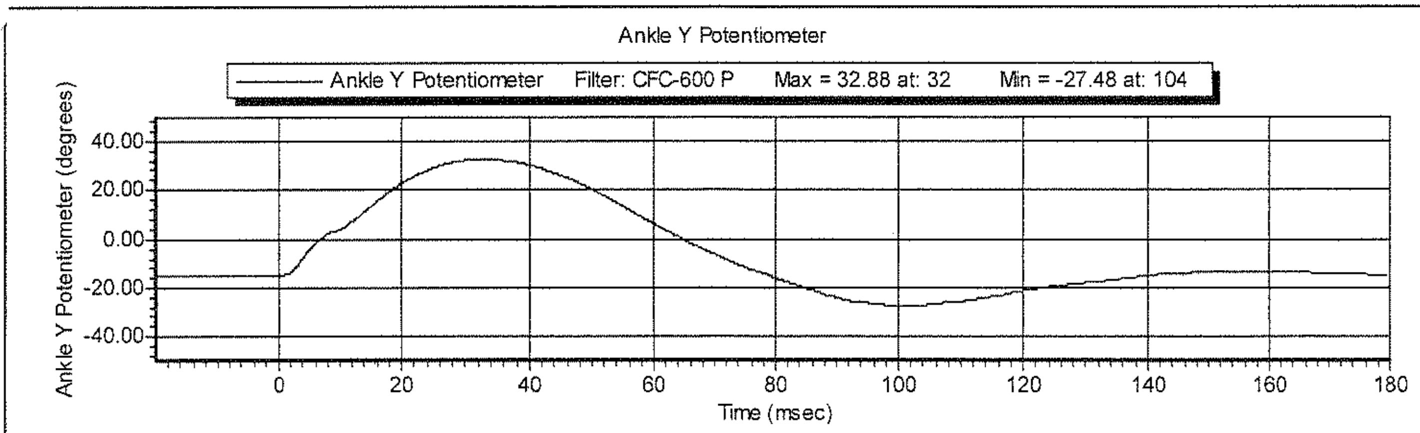
Test ID: **P10045-1** Test Time: **7:20:50 PM** Test Date: **9/19/2006**

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

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**



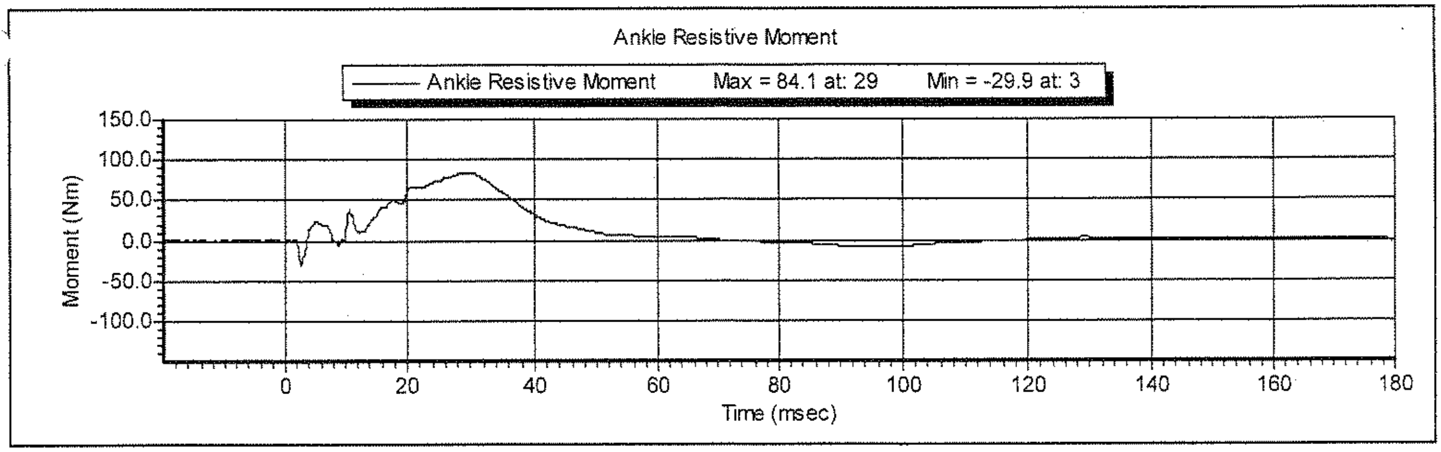


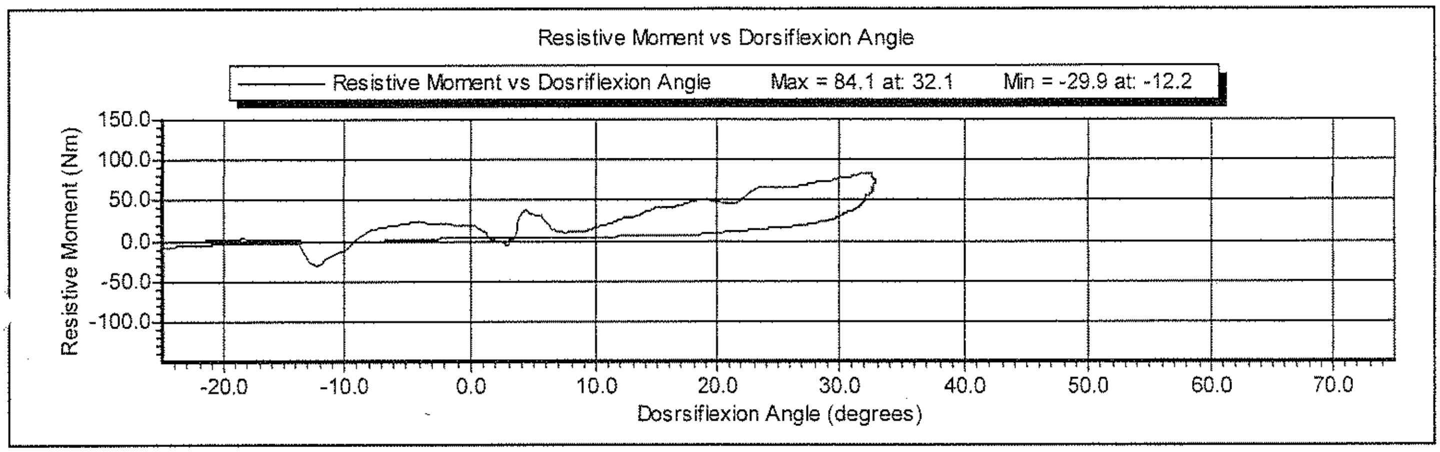
DENTON

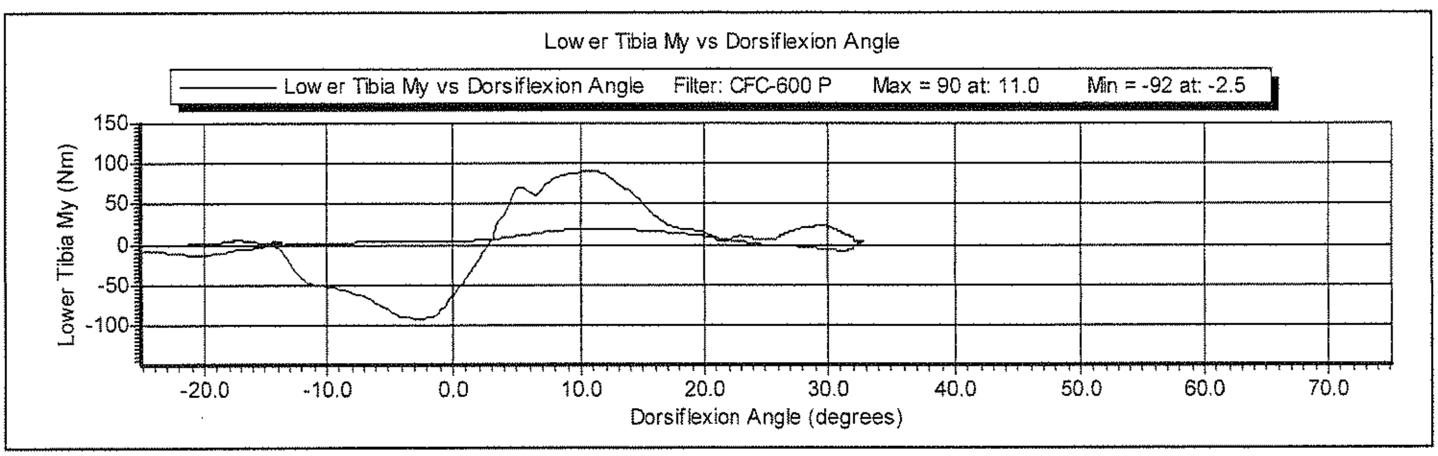
DENTON ATD, INC.

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

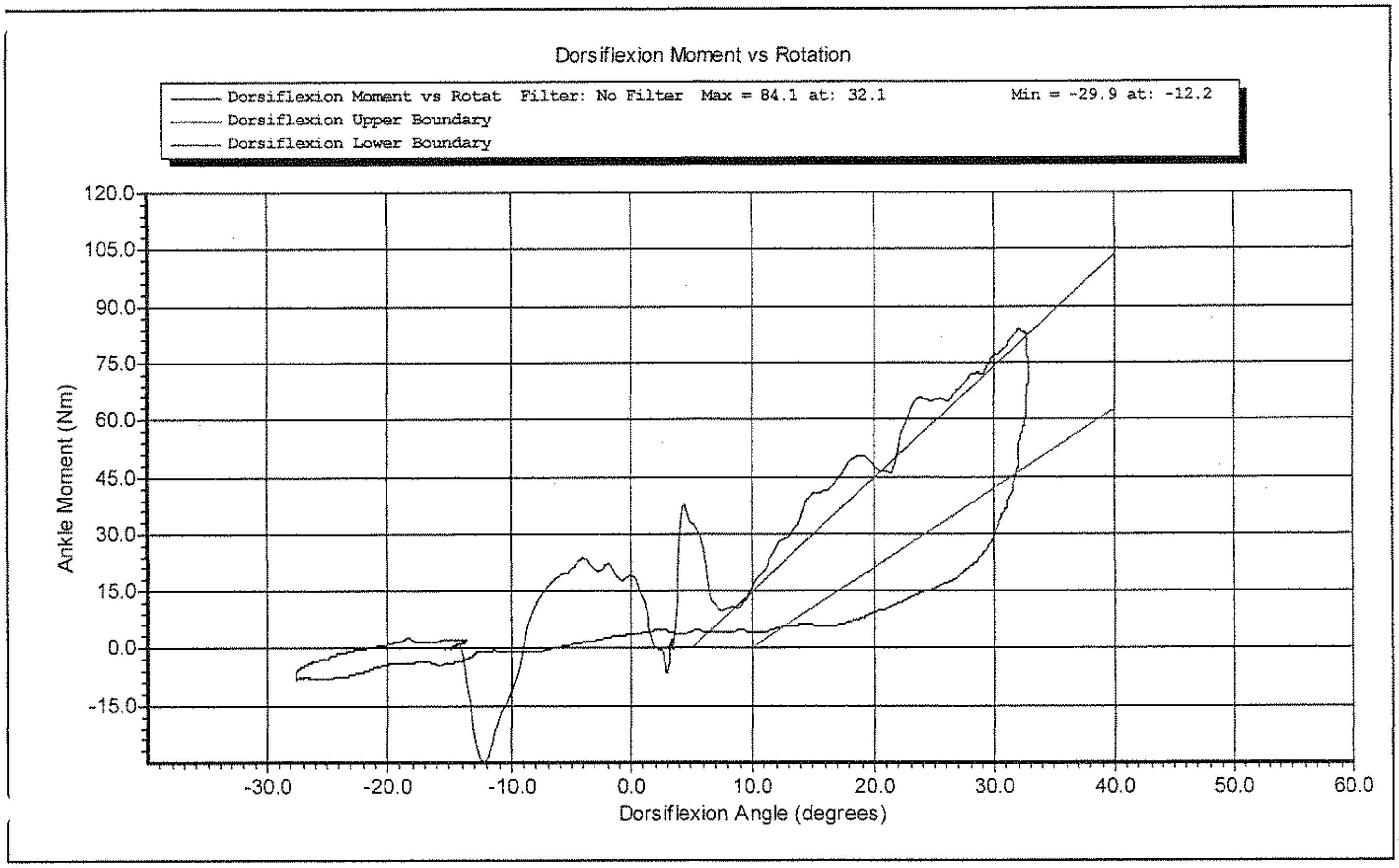






Test ID: **P10045-1** Test Time: **7:20:50 PM** Test Date: **9/19/2006**

 LabPaqII Version: 1.3.4.0 C-96


Dorsiflexion Moment vs Rotation
Dorsiflexion Moment vs Rotat Filter: No Filter Max = 84.1 at: 32.1 Min = -29.9 at: -12.2
Dorsiflexion Upper Boundary
Dorsiflexion Lower Boundary
Ankle Moment (Nm)
120.0
105.0
90.0
75.0
60.0
45.0
30.0
15.0
0.0
-15.0
-30.0
-20.0
-10.0
0.0
10.0
20.0
30.0
40.0
50.0
60.0
Dorsiflexion Angle (degrees)

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:	**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:

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

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

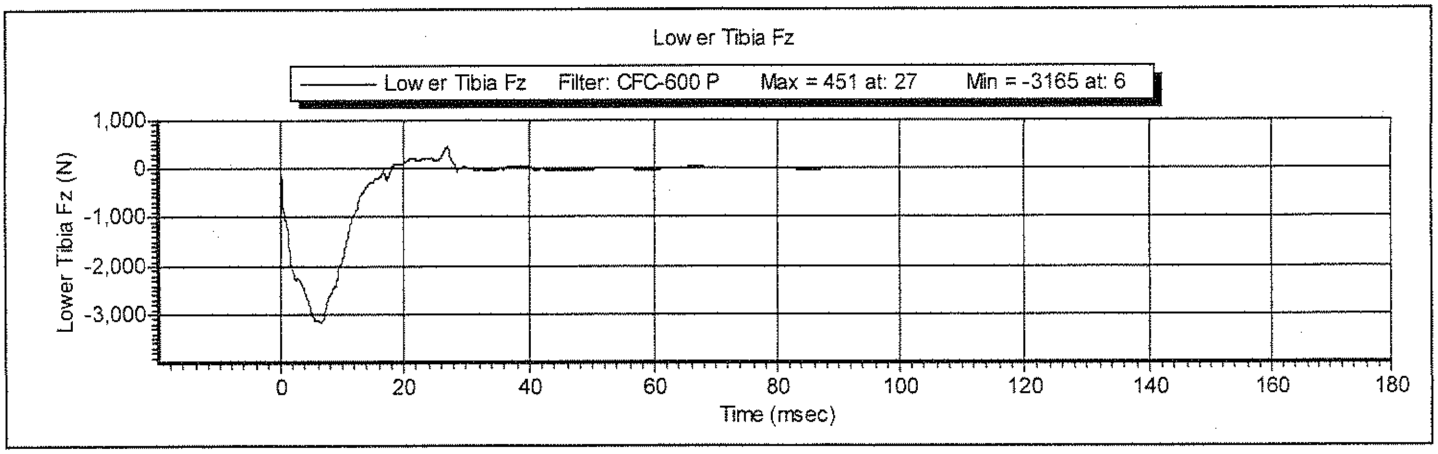
Test ID: **P20045-3** Test Time: **8:51:34 PM** Test Date: **9/19/2006**

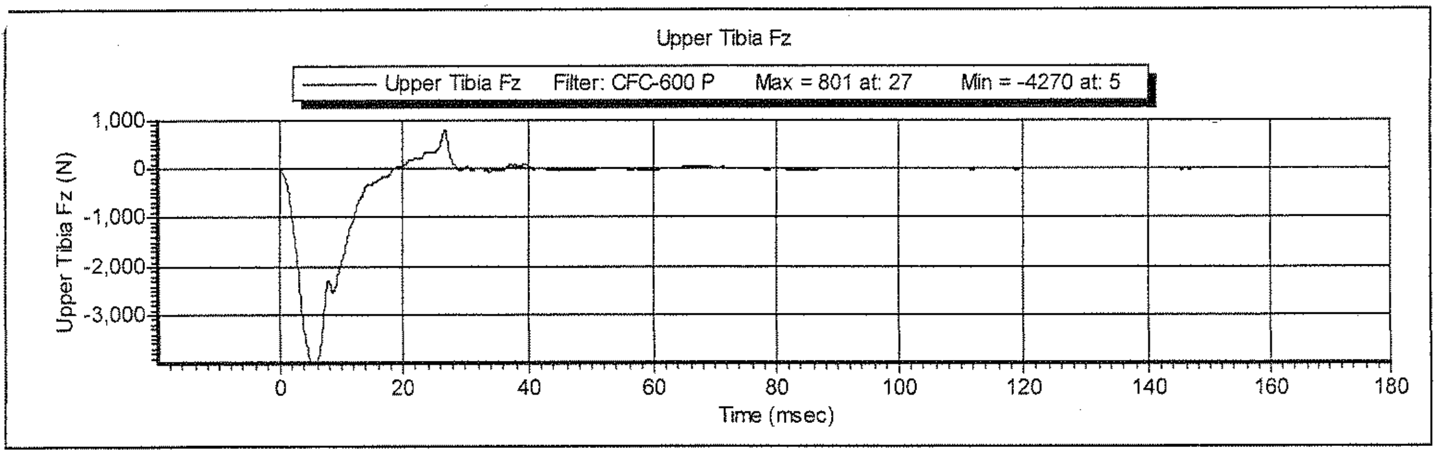
Note: Denton ATD, Inc. certifies that all equipment used to perform the measurements expressed in this report is traceable to NIST and to the world wide governing agencies prescribing this test.

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

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**



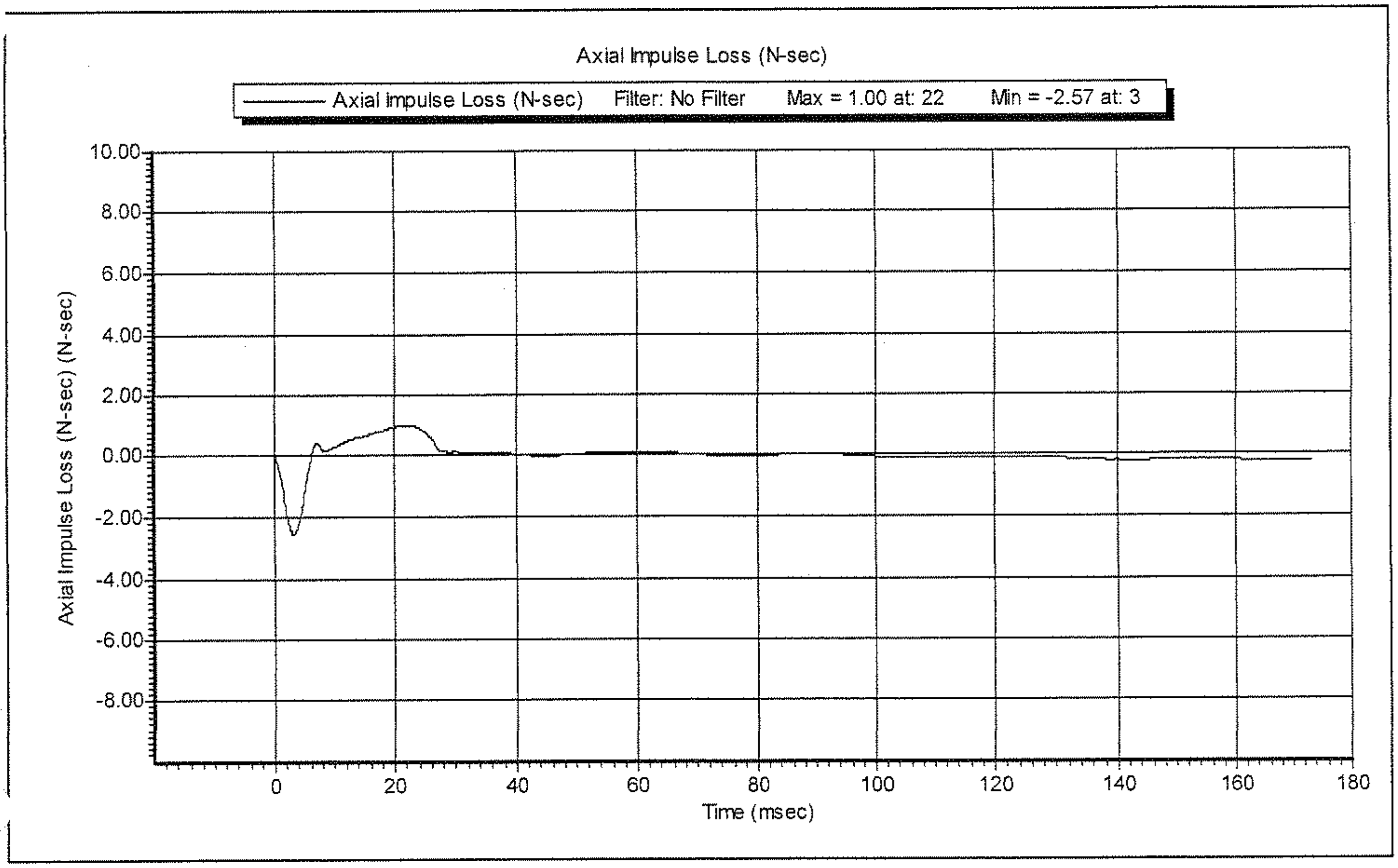


 C100

 070126

DENTON

DENTON ATD, INC.
10317 U.S. Highway 250 North • Milan, OH 44846-9570
Tel (419) 625-5200 • Fax (419) 625-5336 • email: info@dentonatd.com • www.dentonatd.com



Test ID: **P20045-3** Test Time: **8:51:34 PM** Test Date: **9/19/2006**

TRANSPORTATION RESEARCH CENTER INC.

Hybrid III Dummy

(5^{th} %, 50^{th} %, 95^{th} %, 10 YO and 6YO)

Test Date: 01/26/07

Type: 50%   S/N: 202   Mfg.: ASTC

Proj./Seg. No.: 20040479/ 1020   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		*
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: 01/25/07

Post Test Inspection Completed By: J. Clarridge   Date: 01/29/07

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. 19

Symbol	Description	Specification mm	Results mm	Pass
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	136	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	90	Yes
F	Thigh Clearance	139.7 - 154.9	147	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	334	Yes
J	Elbow Rest Height	190.5 - 210.8	198	Yes
K	Buttock Knee Length	579.1 - 604.5	591	Yes
L	Popliteal Height	429.3 - 454.7	440	Yes
M	Knee Pivot Height	485.1 - 500.4	495	Yes
N	Buttock Popliteal Length	452.1 - 477.5	470	Yes
O	Chest Depth	213.4 - 228.6	220	Yes
P	Foot Length	251.5 - 266.7	252	Yes
V	Shoulder Breadth	421.6 - 436.9	431	Yes
W	Foot Breadth	91.4 - 106.7	102	Yes
Y	Chest Circumference	970.3 - 1000.8	993	Yes
Z	Waist Circumference	835.7 - 866.1	858	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 Bernard

Approved

Ron Stoner

TRC 070126

Revised 3/13/3003

Transportation Research Center Inc.

Front Head Drop
HIII 50th Serial No. 206 Certification No. 19-1
Test Date: 10/09/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	261.7 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	10.2 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

10.09.2006 10:14:22 614

070126

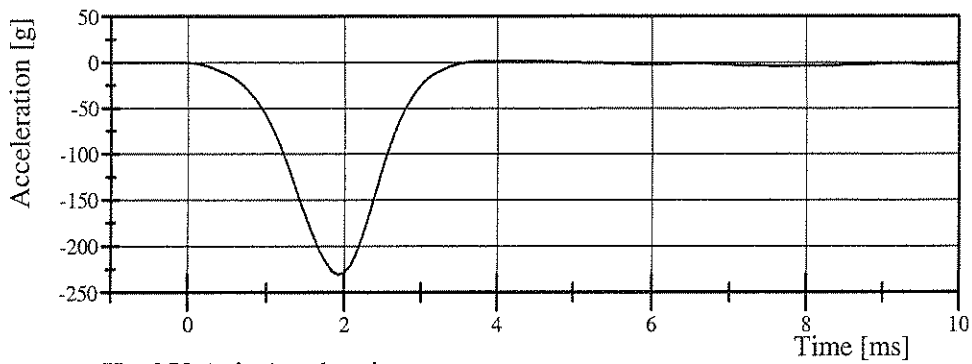
Transportation Research Center Inc.

Front Head Drop

HIII 50th   Serial No. 206 Certification No. 19-1

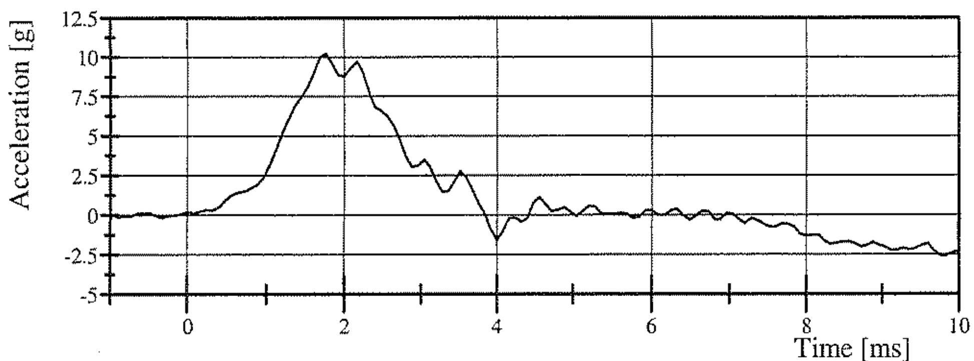
Test Date: 10/09/2006

Head X-Axis Acceleration



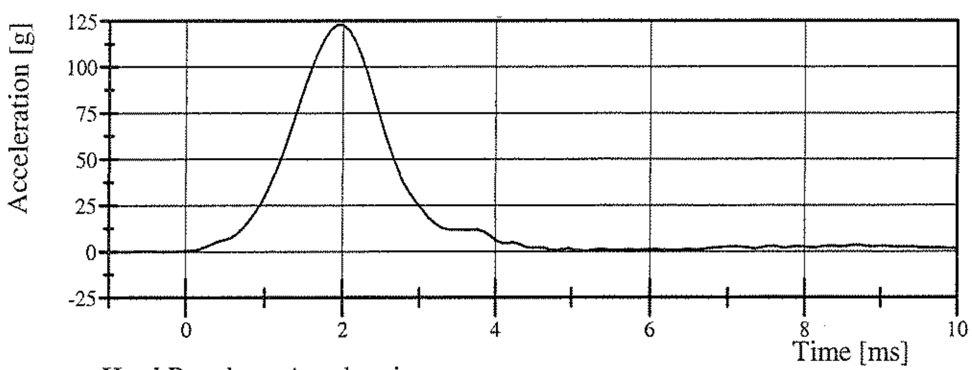
Filter Class: CFC_1000
Max: 2.0 g at 4.2 ms
Min: -230.9 g at 1.9 ms

Head Y-Axis Acceleration



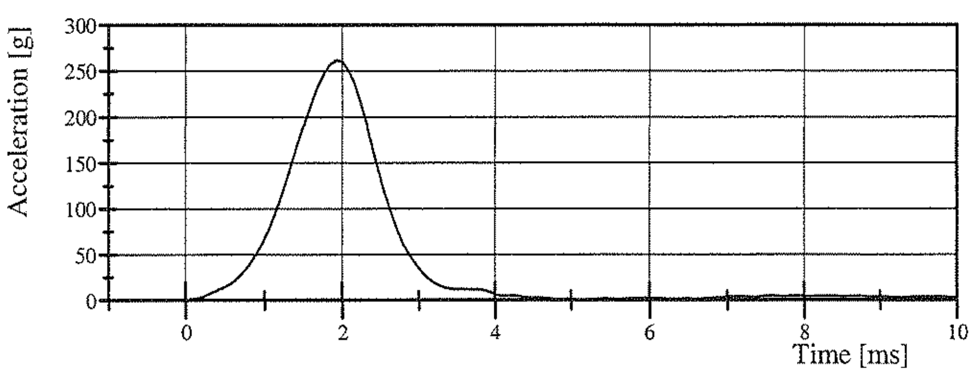
Filter Class: CFC_1000
Max: 10.2 g at 1.8 ms
Min: -2.6 g at 9.8 ms

Head Z-Axis Acceleration



Filter Class: CFC_1000
Max: 123.0 g at 1.9 ms
Min: -0.0 g at -0.9 ms

Head Resultant Acceleration



Filter Class: CFC_1000
Max: 261.7 g at 1.9 ms
Min: 0.1 g at -0.2 ms

Transportation Research Center Inc.

Neck Extension
HIII 50th Serial No. 206 Certification No. 19-2
Test Date: 10/09/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	55 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.974 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	40.6 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	19.33 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	17.18 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	14.43 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	14.43 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	94.9 °	Yes
Time of Peak	72 - 82 ms	76.4 ms	Yes
Total Head D-Plane Rotation Decay to 0°	147 - 174 ms	156.6 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-53) - (-80) N·m	-70.6 N·m	Yes
Time of Peak	65 - 79 ms	71.8 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	120 - 148 ms	142.6 ms	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.09.2006 13:22:39 1185

070126

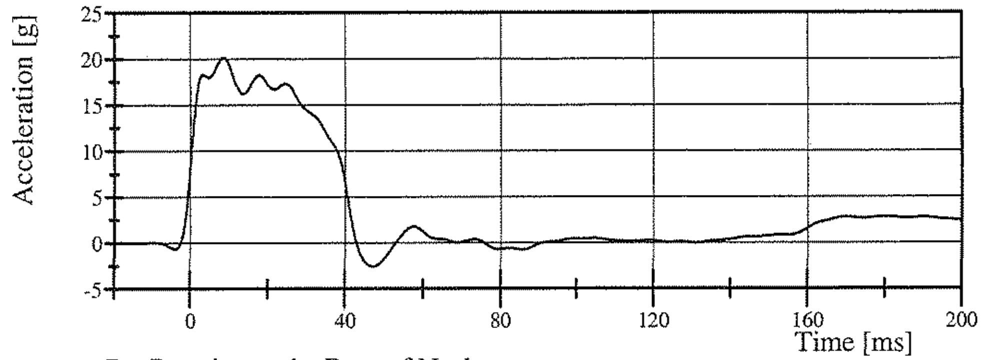
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 206 Certification No. 19-2

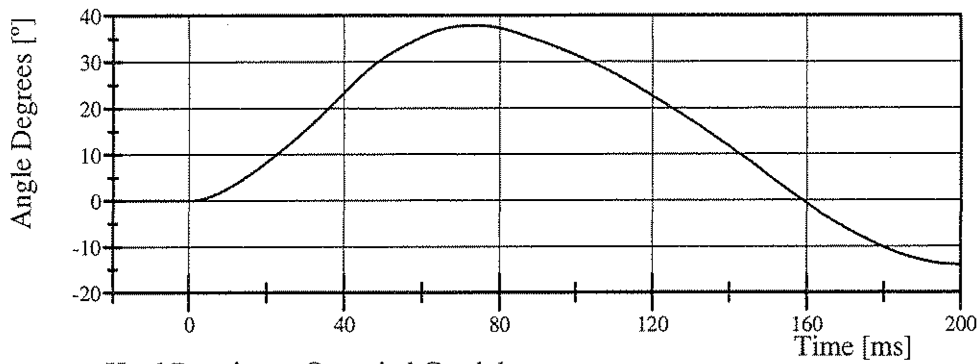
Test Date: 10/09/2006

Pendulum Acceleration



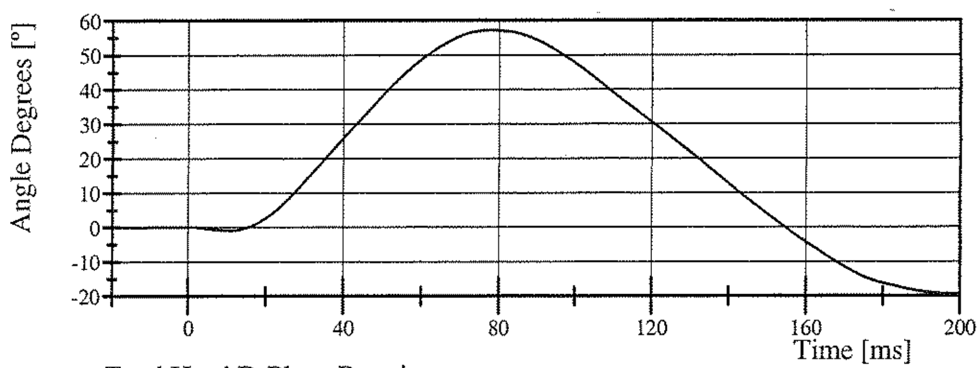
Filter Class: CFC_60
Max: 20.2 g at 8.6 ms
Min: -2.6 g at 47.2 ms

Pot Rotation at the Base of Neck



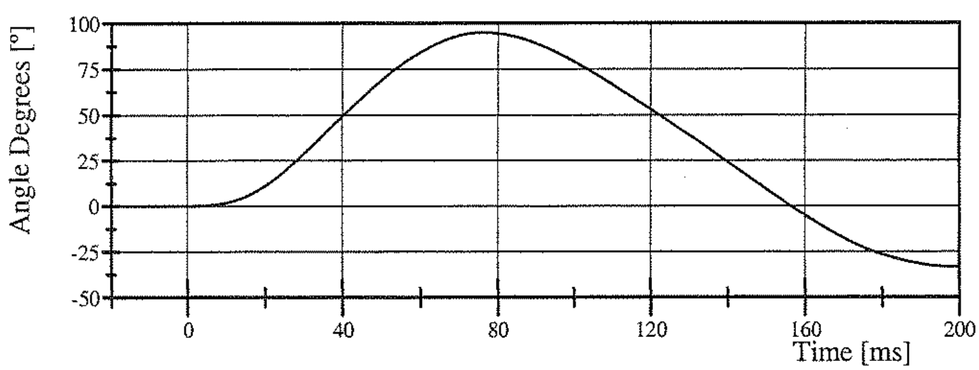
Filter Class: CFC_60
Max: 37.8 ° at 73.1 ms
Min: -14.0 ° at 200.0 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 57.2 ° at 77.9 ms
Min: -19.4 ° at 199.3 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 94.9 ° at 76.4 ms
Min: -33.4 ° at 199.8 ms

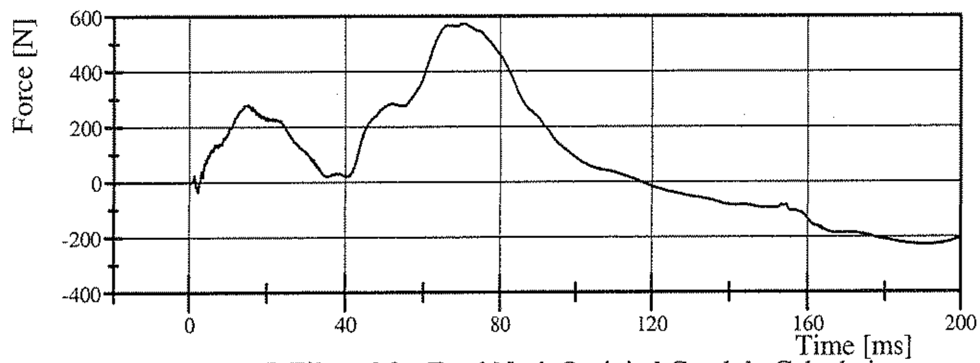
Transportation Research Center Inc.

Neck Extension

HIII 50th   Serial No. 206 Certification No. 19-2

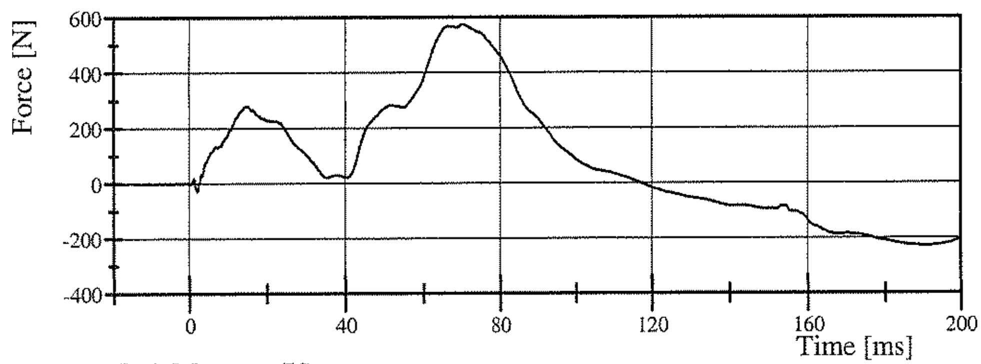
Test Date: 10/09/2006

Neck Force (X)



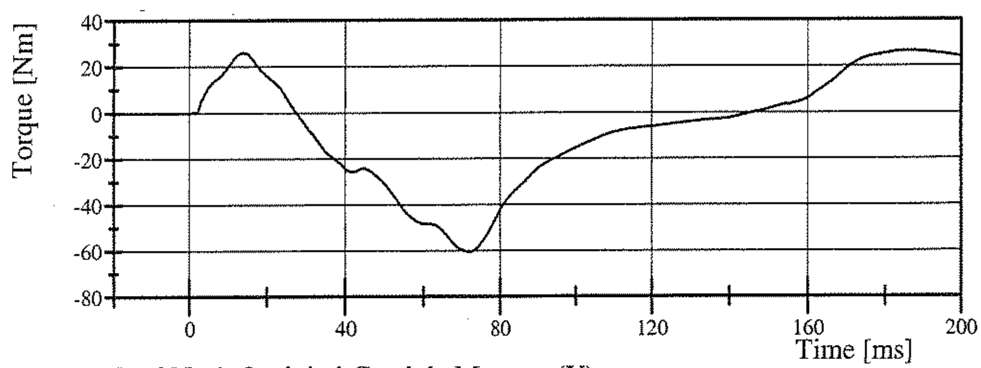
Filter Class: CFC_1000
Max: 573.6 N at 70.2 ms
Min: -229.5 N at 190.9 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



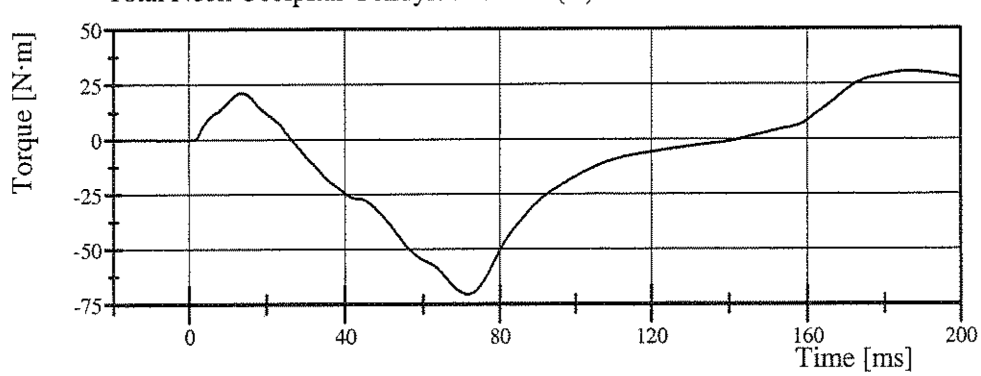
Filter Class: CFC_600
Max: 573.6 N at 70.3 ms
Min: -229.0 N at 191.0 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 26.6 Nm at 185.8 ms
Min: -60.6 Nm at 71.8 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 30.6 N·m at 185.8 ms
Min: -70.6 N·m at 71.8 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.09.2006 13:23:07 1185

070126

Transportation Research Center Inc.

Neck Flexion
HIII 50th   Serial No. 206 Certification No. 19-2
Test Date: 10/09/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.933 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	40.7 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-23.19 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-20.55 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-14.67 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-14.67 g	Yes
Total Head D-Plane Rotation			
Peak	(-64) - (-78) °	-70.2 °	Yes
Time of Peak	57 - 64 ms	60.3 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	120.6 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	88 - 108 N·m	97.0 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	99.9 ms	Yes

Test meets specifications.

Comments:

Technician
Rent Barnd

Approved
Ron Stone

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.09.2006 12:23:17 1103

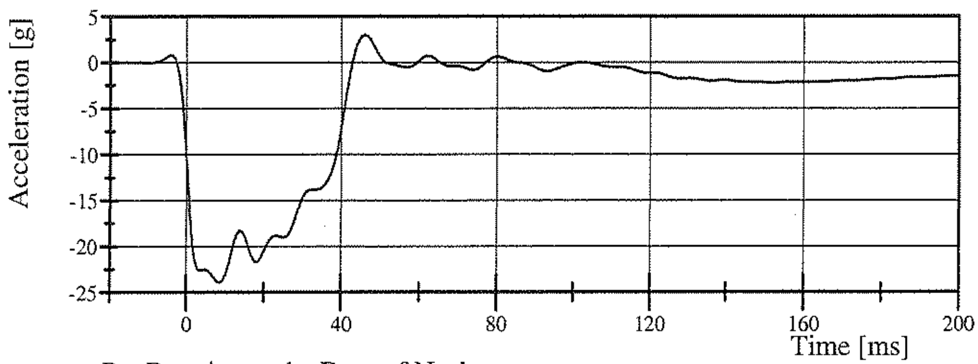
TRC

070126

Transportation Research Center Inc.

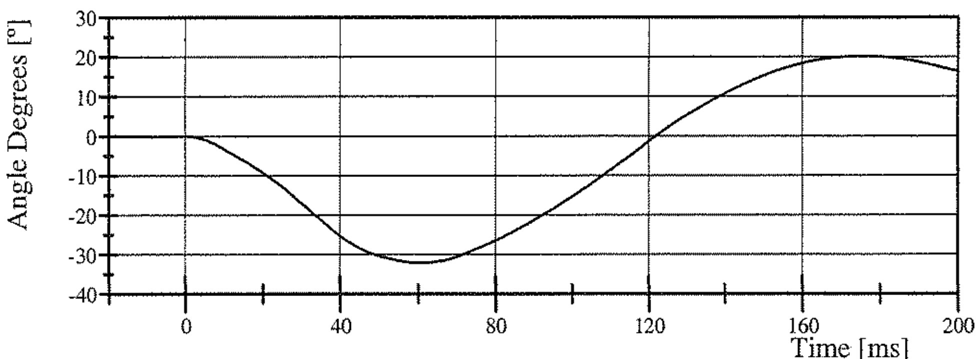
Neck Flexion
HIII 50th Serial No. 206 Certification No. 19-2
Test Date: 10/09/2006

Pendulum Acceleration



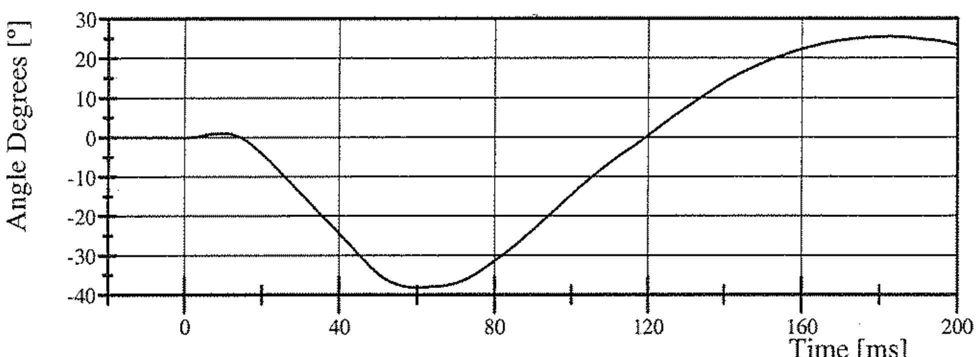
Filter Class: CFC_60
Max: 3.0 g at 45.9 ms
Min: -23.9 g at 8.6 ms

Pot Rotation at the Base of Neck



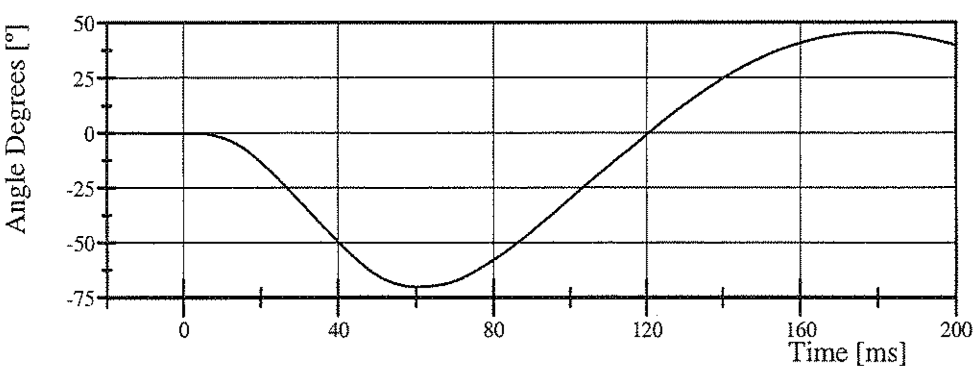
Filter Class: CFC_60
Max: 20.2 ° at 176.2 ms
Min: -32.1 ° at 60.6 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 25.5 ° at 182.6 ms
Min: -38.1 ° at 60.1 ms

Total Head D-Plane Rotation

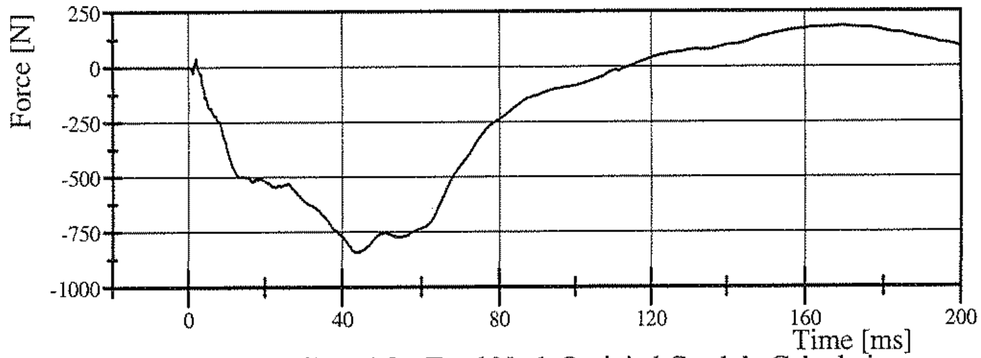


Filter Class: CFC_60
Max: 45.5 ° at 179.7 ms
Min: -70.2 ° at 60.3 ms

Transportation Research Center Inc.

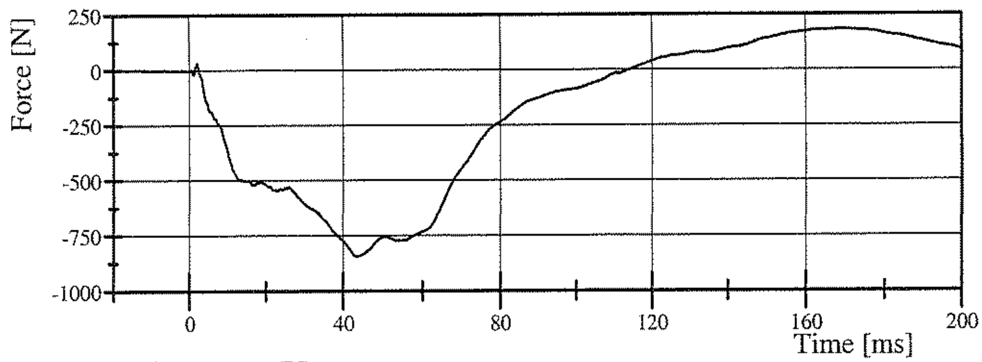
Neck Flexion
HIII 50th Serial No. 206 Certification No. 19-2
Test Date: 10/09/2006

Neck Force (X)



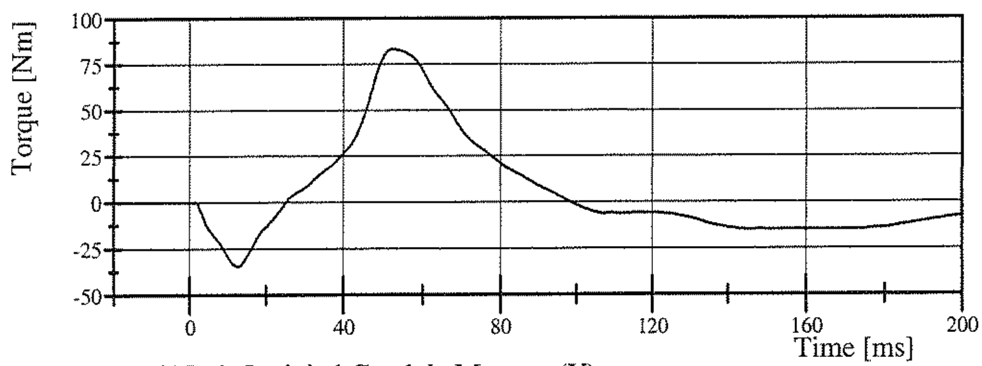
Filter Class: CFC_1000
Max: 183.7 N at 170.2 ms
Min: -844.4 N at 43.7 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



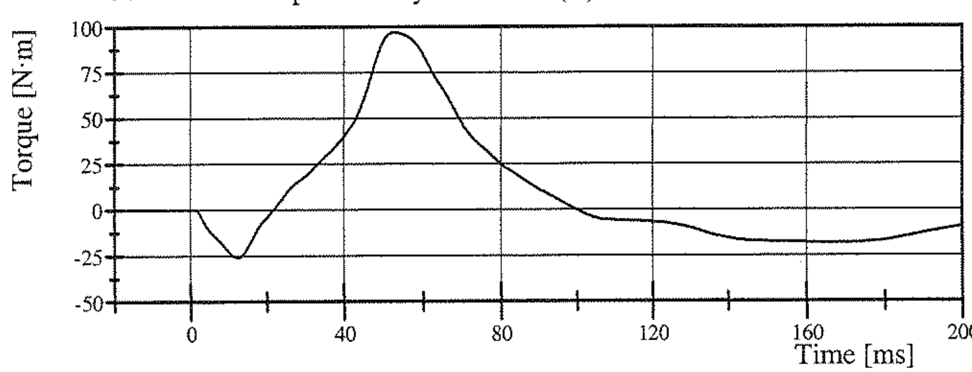
Filter Class: CFC_600
Max: 183.4 N at 170.2 ms
Min: -843.8 N at 43.6 ms

Neck Moment (Y)



Filter Class: CFC_600
Max: 83.5 Nm at 52.5 ms
Min: -34.5 Nm at 12.6 ms

Total Neck Occipital Condyle Moment (Y)



Filter Class: CFC_600
Max: 97.0 N·m at 52.6 ms
Min: -25.9 N·m at 12.5 ms

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.09.2006 12:23:37 1103

070126

Transportation Research Center Inc.

Front Thorax

HIII 50th   Serial No. 206 Certification No. 19-1

Test Date: 10/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.623 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,823.4 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-67.37 mm	Yes
Internal Hysteresis	65 - 85 %	71.9 %	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

10.10.2006 13:15:28 1582

070126

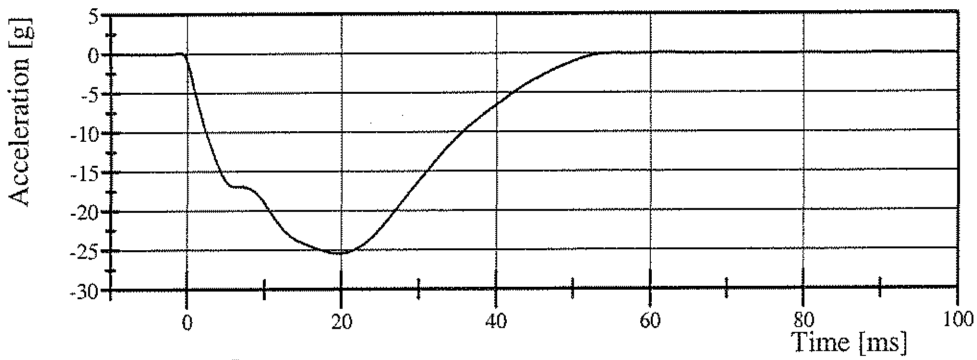
Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 206 Certification No. 19-1

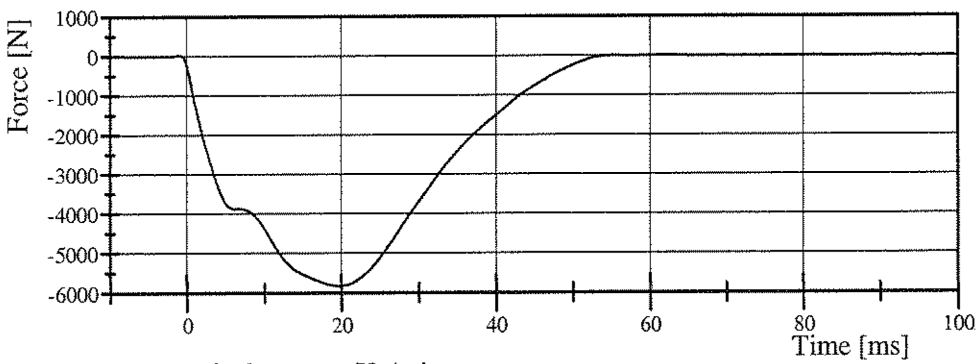
Test Date: 10/10/2006

Pendulum Acceleration



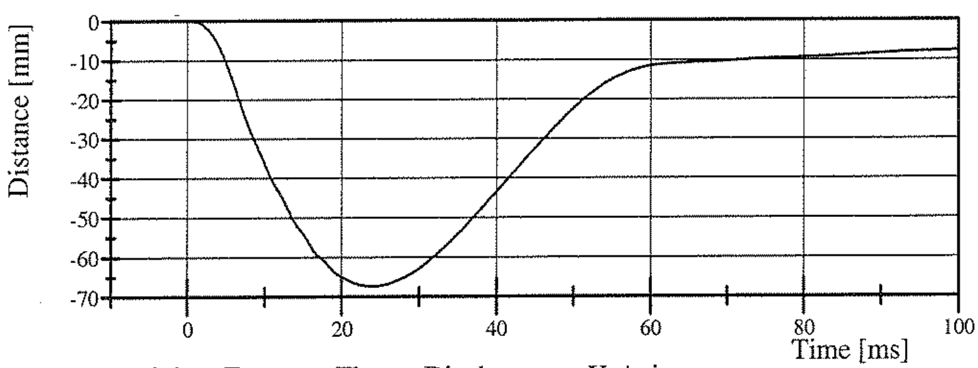
Filter Class: CFC_180
Max: 0.1 g at -1.0 ms
Min: -25.4 g at 19.7 ms

Pendulum Force



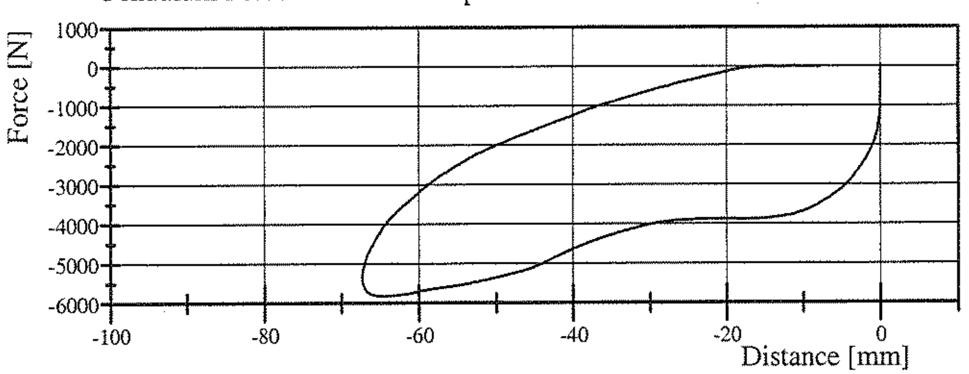
Filter Class: CFC_180
Max: 26.5 N at -1.0 ms
Min: -5,823.4 N at 19.7 ms

Thorax Displacement X-Axis



Filter Class: CFC_600
Max: 0.0 mm at -8.9 ms
Min: -67.4 mm at 24.0 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180
Max: 26.5 N at -0.0 mm
Min: -5,823.4 N at -64.6 mm

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

10.10.2006 13:15:56 1582

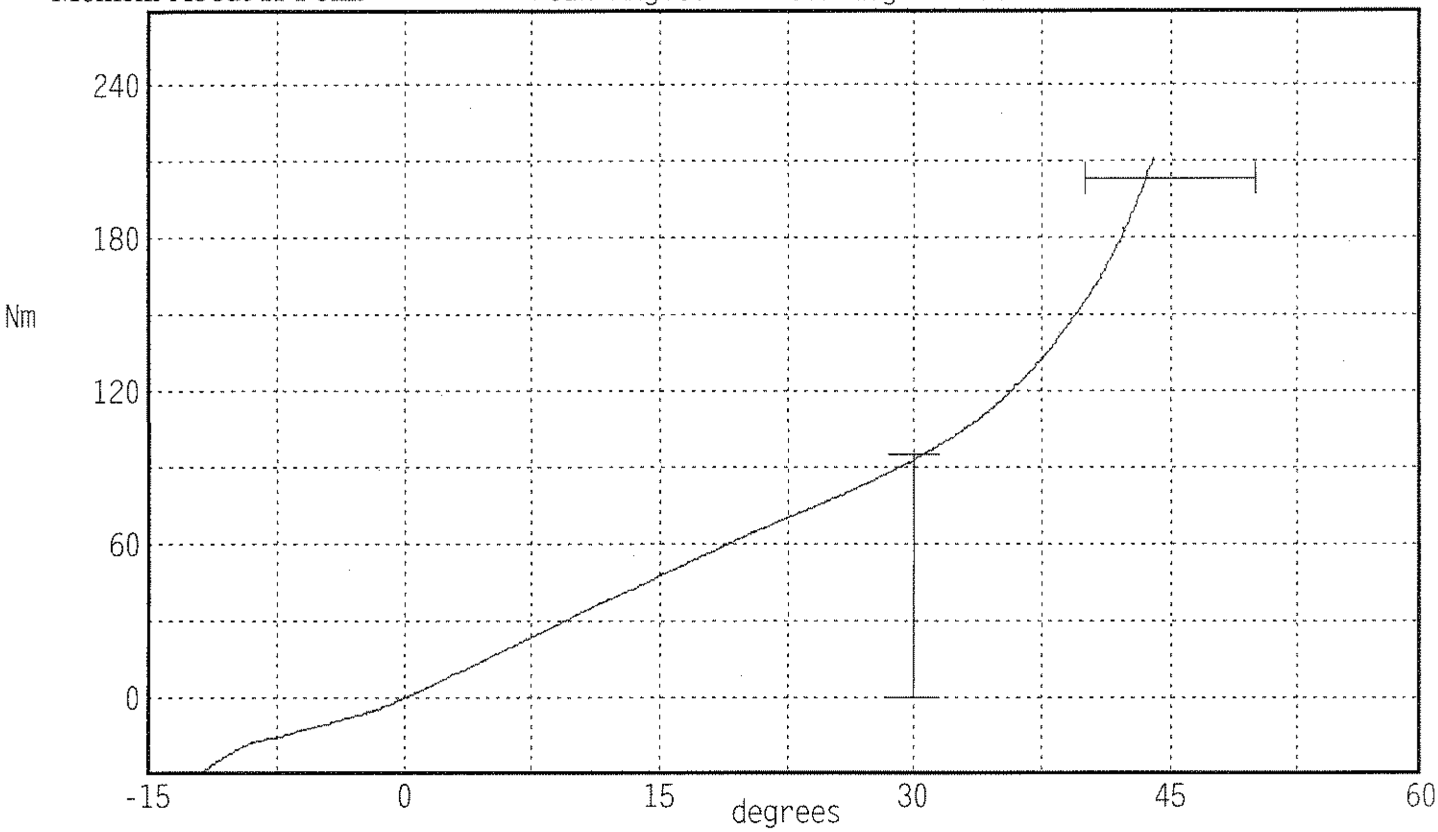
070126

Applied Safety Technologies Corp.
Hybrid III Hip Range of Motion

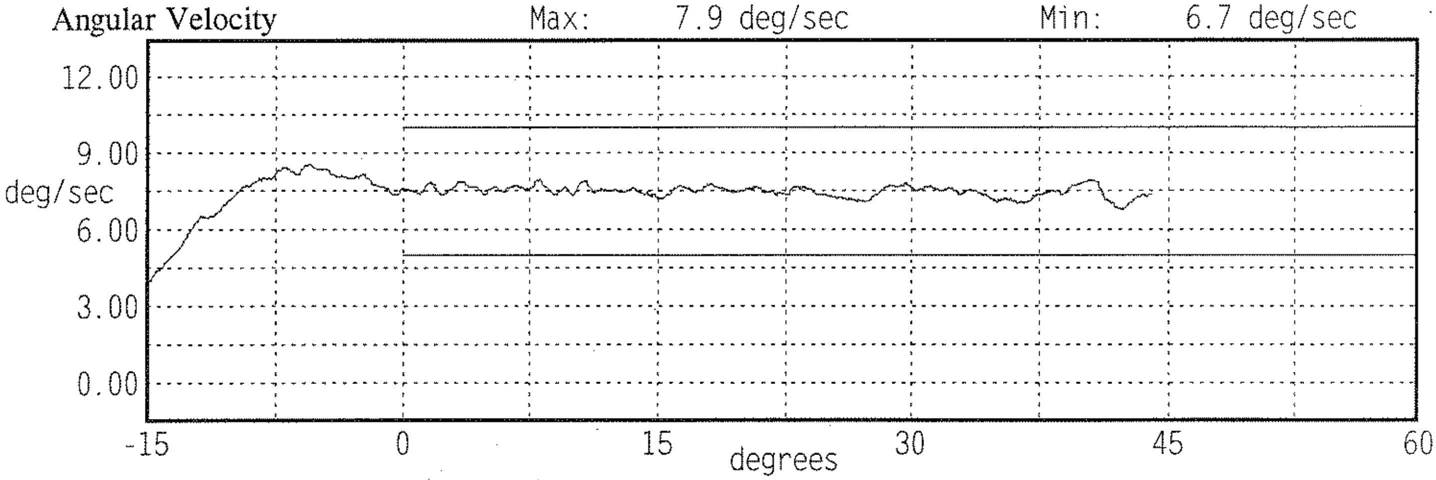
Serial Number: 206L Date: 10/06/2006
Test Number: 206C19 Time: 15:58
Comments:

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.1	°C	Pass
Humidity	10 - 70	36	%	Pass
Moment at 30 deg	<= 94.9	93.1	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	43.6	deg	Pass
Average Velocity	5.0 - 10.0	7.5	deg/sec	Pass

Moment About H-Point Peak Moment: 210.8 Nm at 43.9 deg
Peak Angle: 43.9 deg at 210.8 Nm



Angular Velocity Max: 7.9 deg/sec Min: 6.7 deg/sec



070126

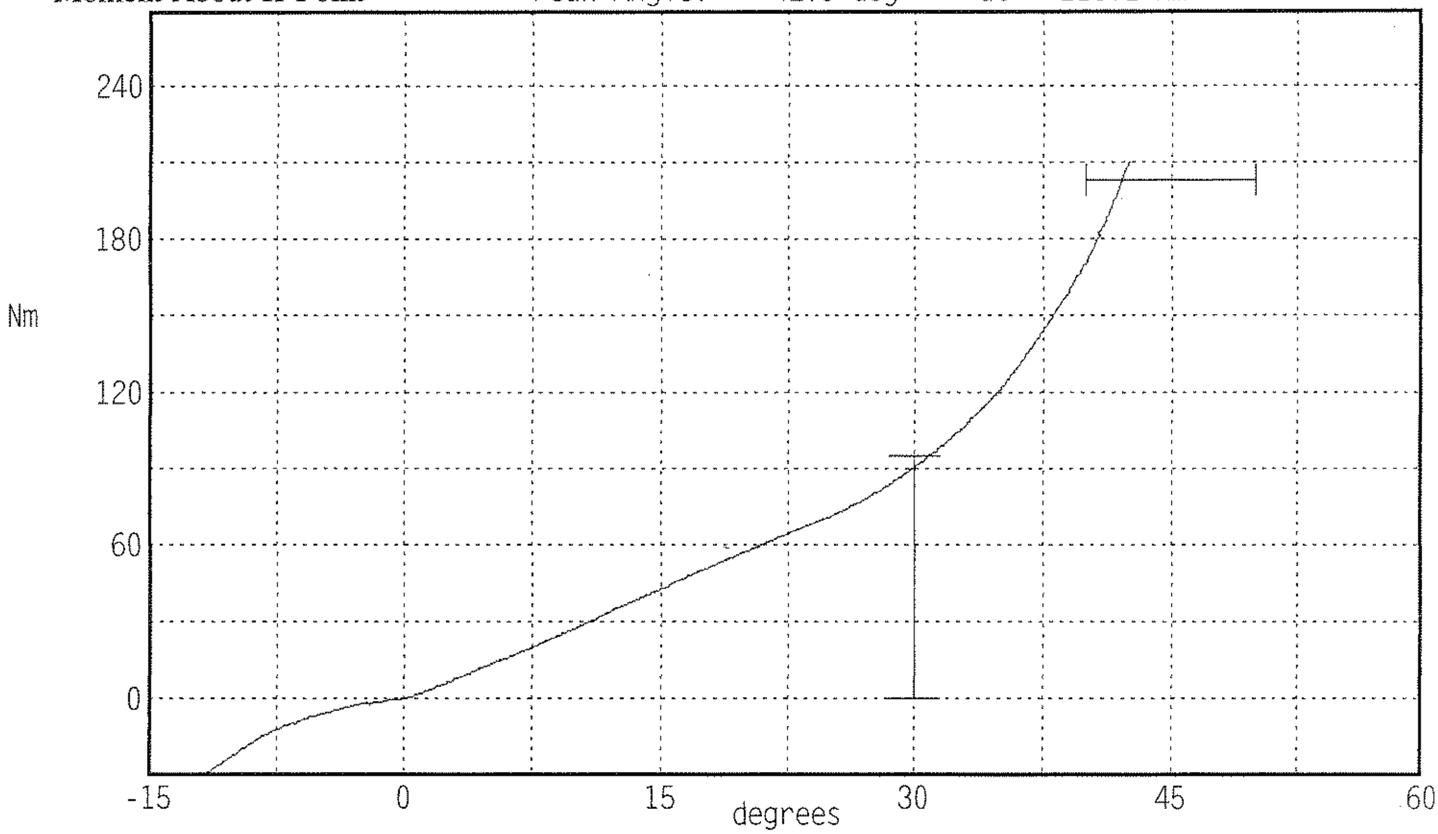
Applied Safety Technologies Corp.
Hybrid III Hip Range of Motion

Serial Number:	206R	Date:	10/06/2006
Test Number:	206C19	Time:	16:50
Comments:			

TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.0	°C	Pass
Humidity	10 - 70	37	%	Pass
Moment at 30 deg	<= 94.9	90.4	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	42.1	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

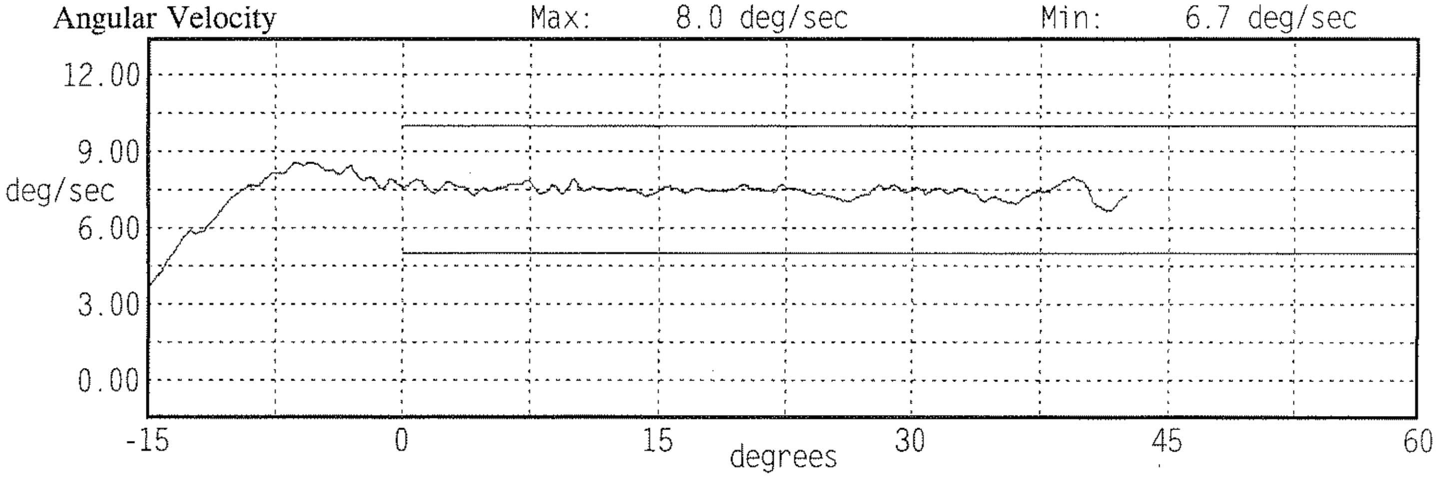
Moment About H-Point

Peak Moment: 210.1 Nm at 42.5 deg
Peak Angle: 42.5 deg at 210.1 Nm



Angular Velocity

Max: 8.0 deg/sec Min: 6.7 deg/sec



070126

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 4-2
Test Date: 10/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	43 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.082 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,485.67 N	Yes

Test meets specifications.

Comments:

Technician

Approved

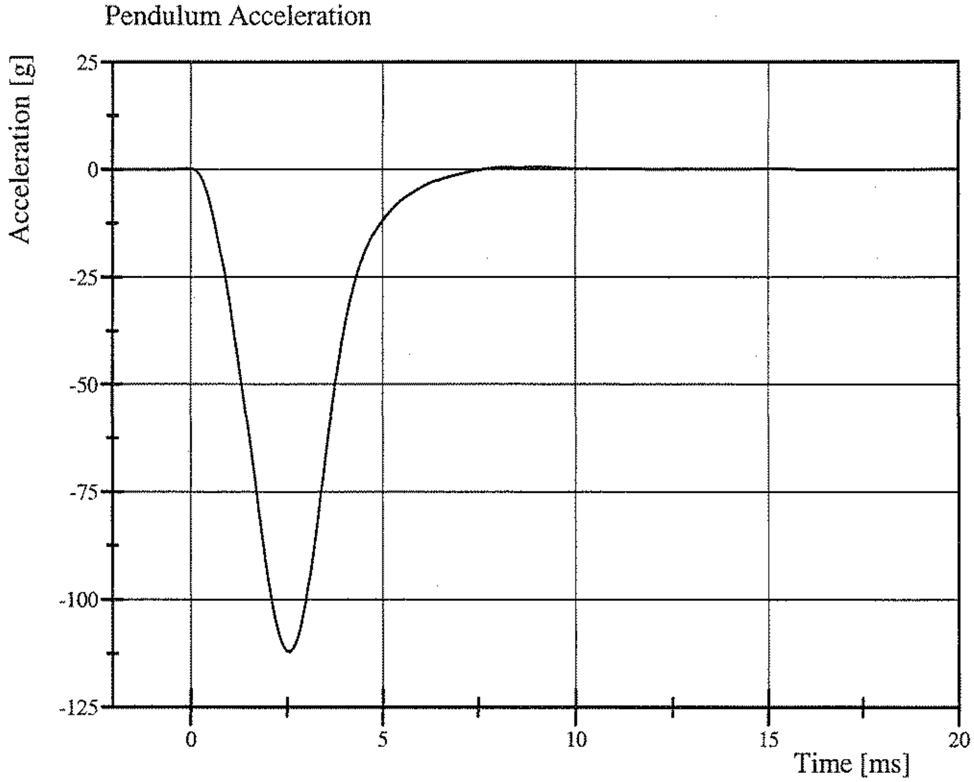
Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

10.30.2006 14:13:41 1683

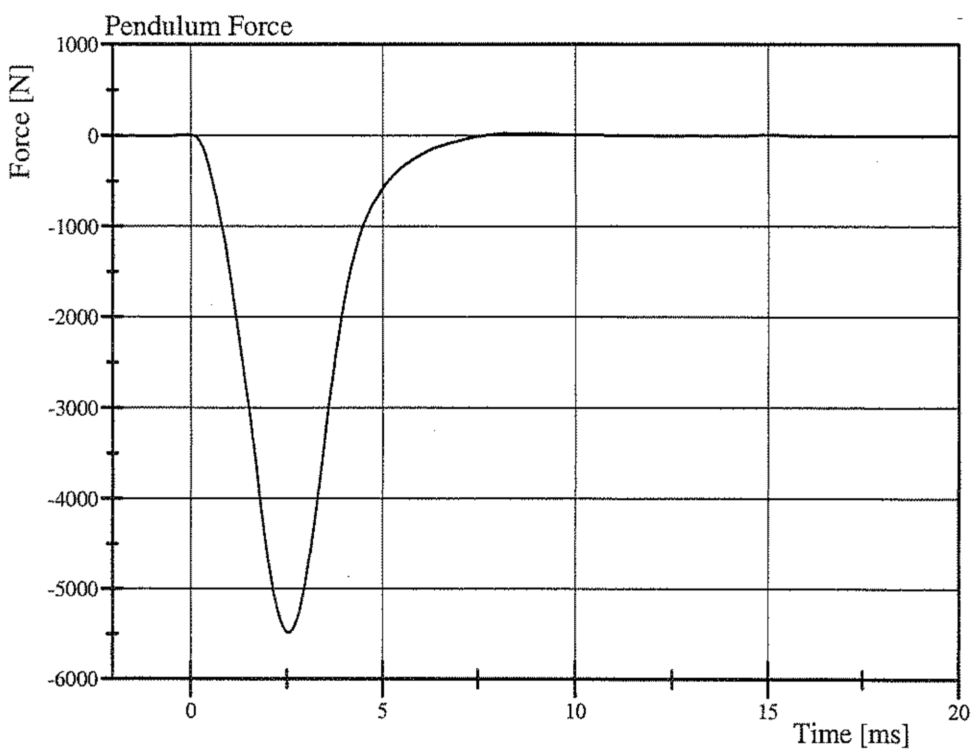
070126

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 4-2
Test Date: 10/30/2006



Filter Class: CFC_600
Max: 0.5 g at 9.1 ms
Min: -112.1 g at 2.6 ms



Filter Class: CFC_600
Max: 25.4 N at 9.1 ms
Min: -5,485.7 N at 2.6 ms

Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 4-2
Test Date: 10/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	41 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.102 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,563.56 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

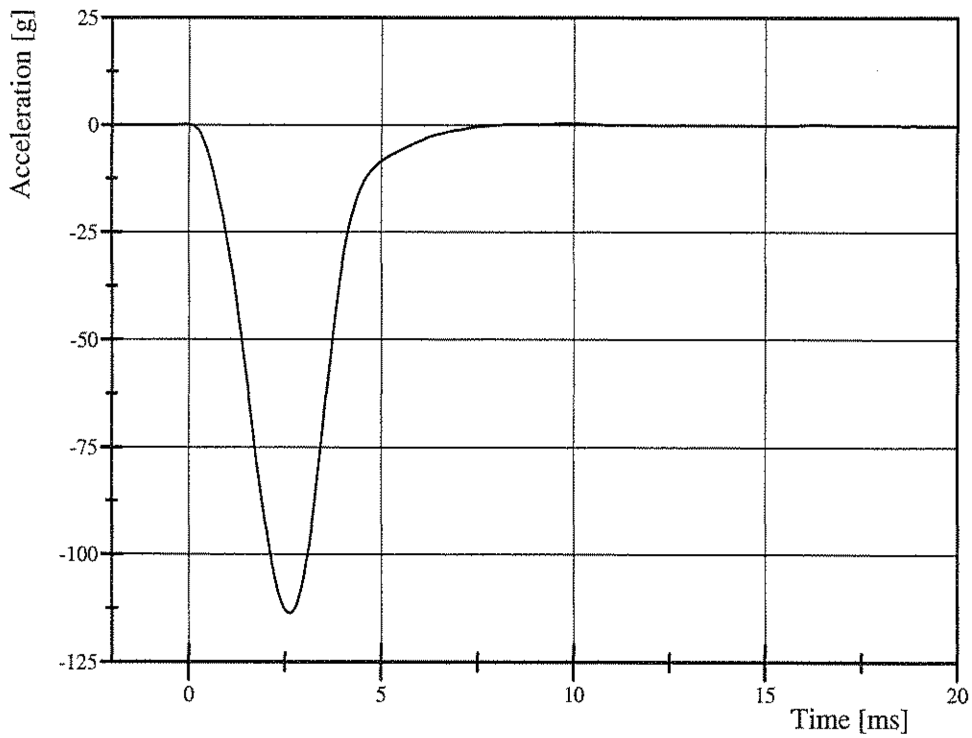
10.30.2006 14:27:24 1681

070126

Transportation Research Center Inc.

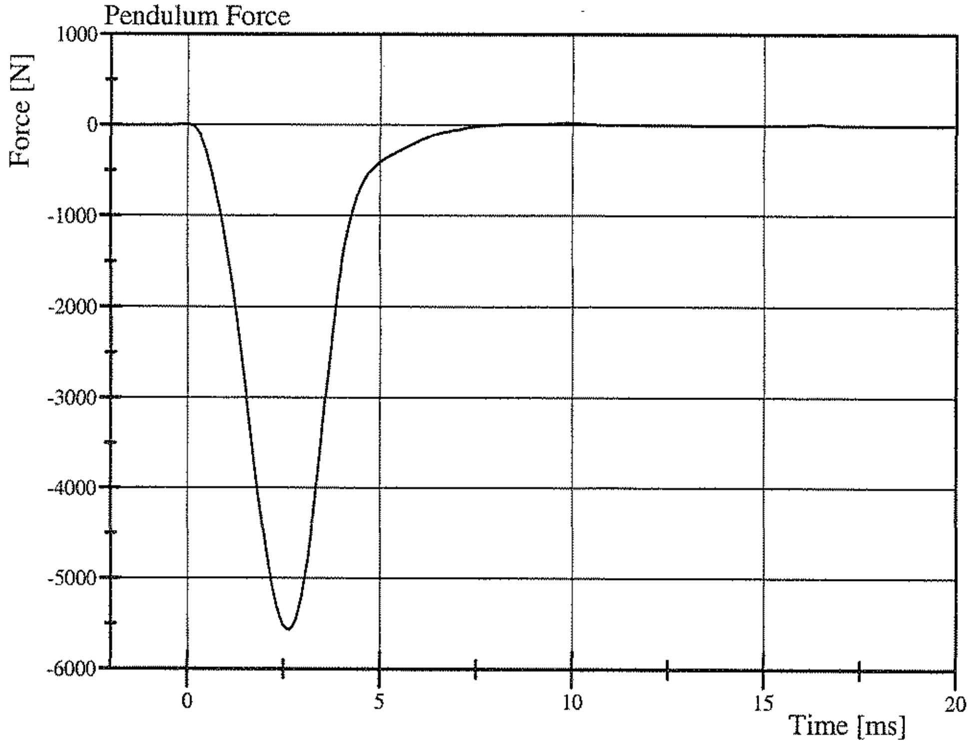
Right Knee Femur Response Test
HIII 50th Serial No. LX103104 Certification No. 4-2
Test Date: 10/30/2006

Pendulum Acceleration



Filter Class: CFC_600
Max: 0.4 g at 9.8 ms
Min: -113.7 g at 2.6 ms

Pendulum Force



Filter Class: CFC_600
Max: 22.0 N at 9.8 ms
Min: -5,563.6 N at 2.6 ms

Transportation Research Center Inc.

Left Knee Slider

HIII 50th Serial No. LX103104 Certification No. 4-1

Test Date: 10/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.726 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,623.7 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-3,069.2 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: SAE User's Manual with Polarity in Accordance with J211

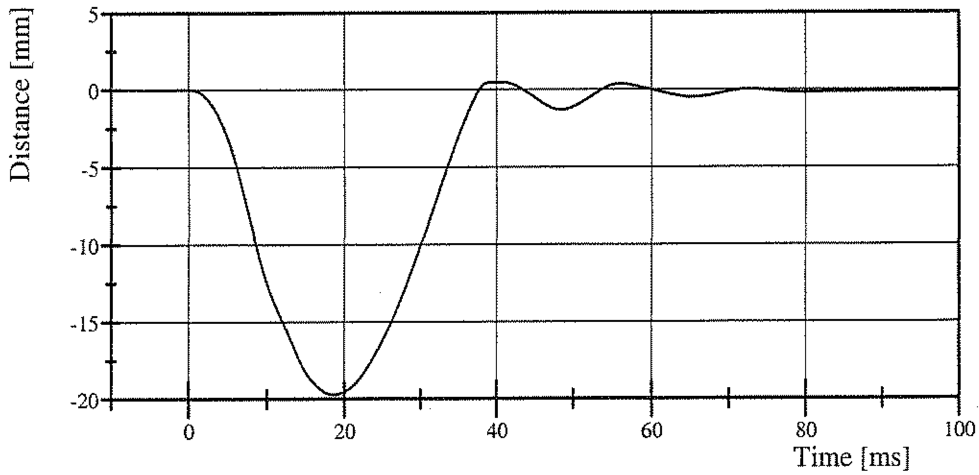
10.30.2006 12:52:56 1463

TRC

Transportation Research Center Inc.

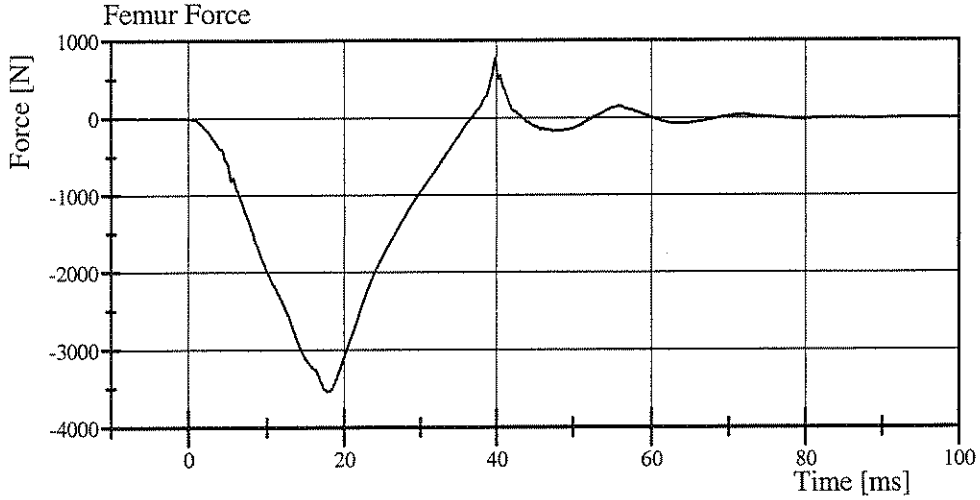
Left Knee Slider
HIII 50th Serial No. LX103104 Certification No. 4-1
Test Date: 10/30/2006

Knee Slider Displacement



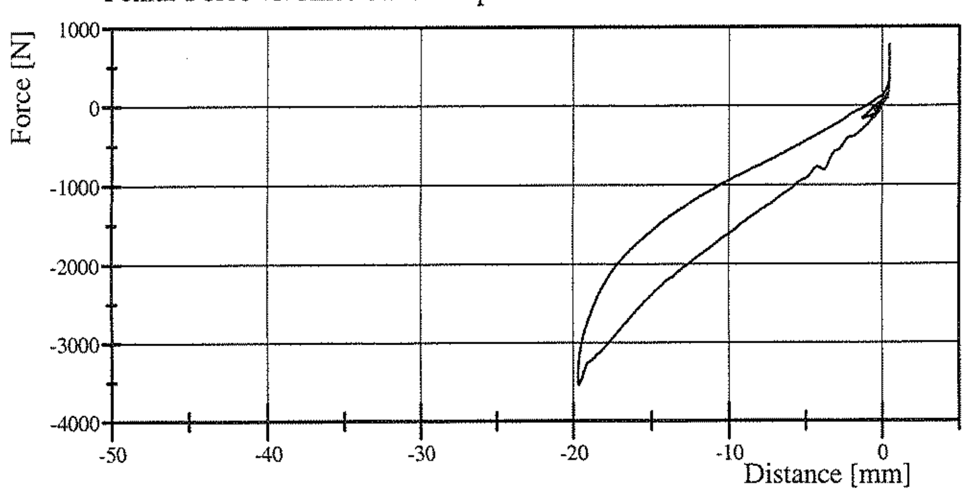
Filter Class: CFC_180
Max: 0.5 mm at 40.4 ms
Min: -19.7 mm at 18.6 ms

Femur Force



Filter Class: CFC_600
Max: 773.8 N at 39.8 ms
Min: -3,534.1 N at 17.9 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 773.8 N at 0.5 mm
Min: -3,534.1 N at -19.7 mm

Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX103104 Certification No. 4-1

Test Date: 10/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	38 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.725 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,571.3 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,907.1 N	Yes

Test meets specifications.

Comments:

Technician

Approved

Specification Source: SAE User's Manual with Polarity in Accordance with J211

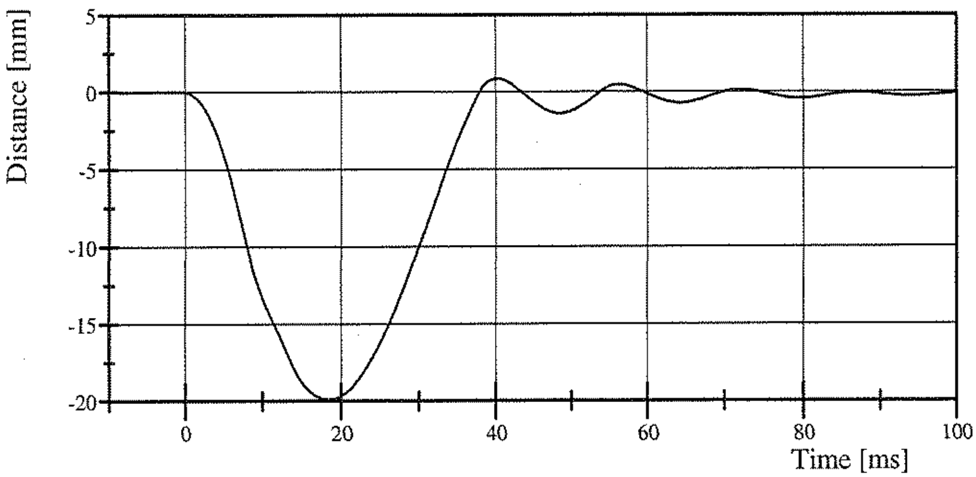
10.30.2006 10:23:42 1470

070126

Transportation Research Center Inc.

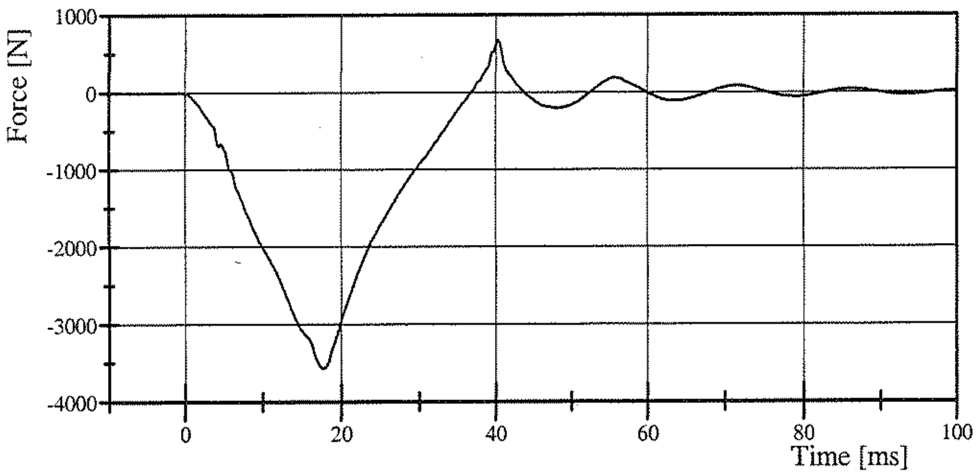
Right Knee Slider
HIII 50th Serial No. LX103104 Certification No. 4-1
Test Date: 10/30/2006

Knee Slider Displacement



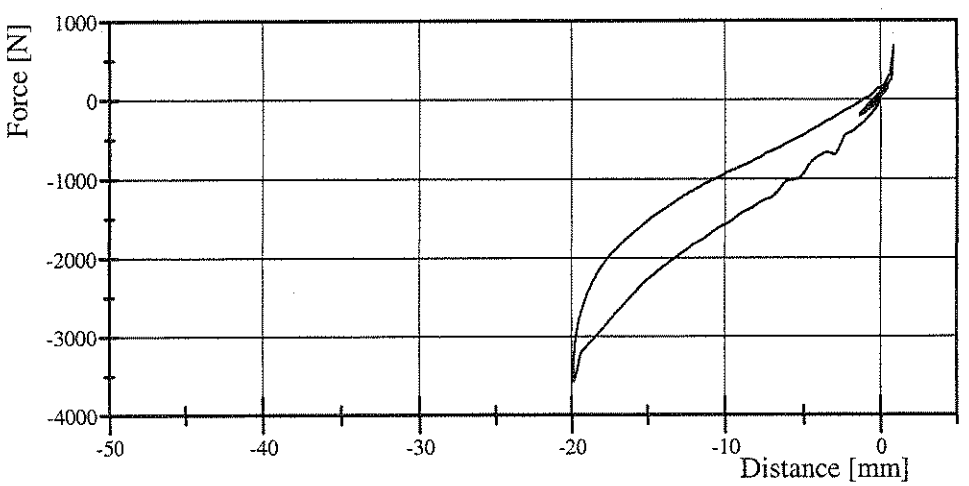
Filter Class: CFC_180
Max: 0.9 mm at 40.2 ms
Min: -19.9 mm at 18.4 ms

Femur Force



Filter Class: CFC_600
Max: 675.1 N at 40.2 ms
Min: -3,566.6 N at 17.8 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 675.1 N at 0.9 mm
Min: -3,566.6 N at -19.8 mm

Specification Source: SAE User's Manual with Polarity in Accordance with J211 10.30.2006 10:24:03 1470

070126

Post-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 mm	Results mm	Pass
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

Charles Hall

Approved

Ron Stoner

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 ºC	21.7 ºC	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

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

02.01.2007 13:02:51 611

070126

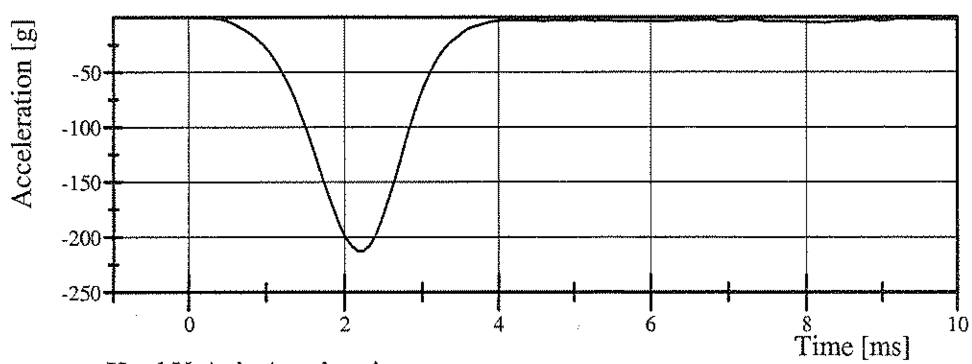
Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 206 Certification No. 20-14

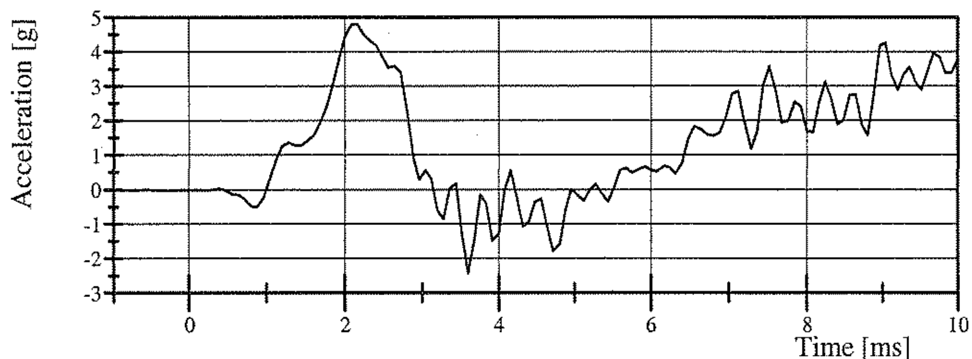
Test Date: 2/1/2007

Head X-Axis Acceleration



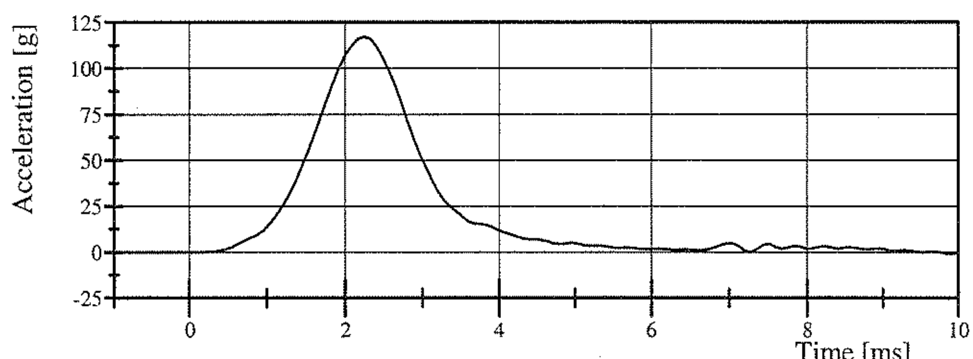
Filter Class: CFC_1000
Max: -0.0 g at -1.0 ms
Min: -212.4 g at 2.2 ms

Head Y-Axis Acceleration



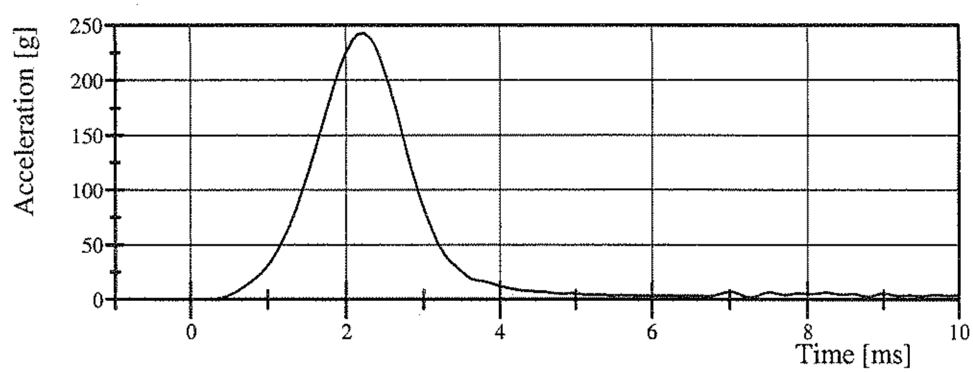
Filter Class: CFC_1000
Max: 4.8 g at 2.1 ms
Min: -2.4 g at 3.6 ms

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

070126

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

Robert Bond

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

01.30.2007 13:31:34 1104

TRC

070126

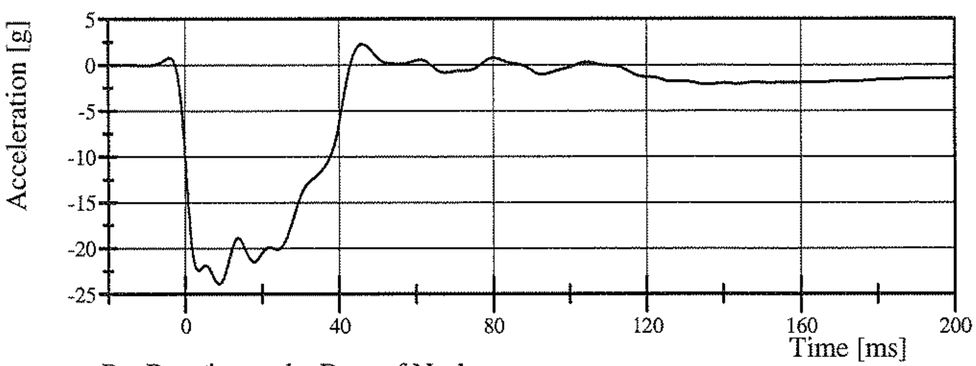
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 206 Certification No. 20-3

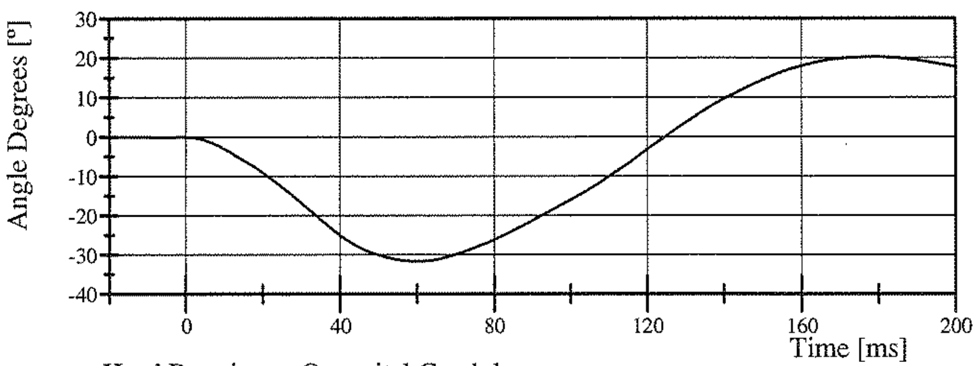
Test Date: 1/30/2007

Pendulum Acceleration



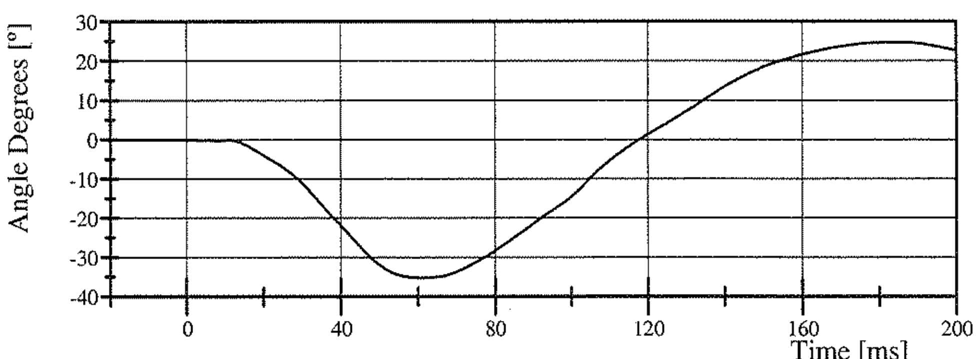
Filter Class: CFC_60
Max: 2.3 g at 45.9 ms
Min: -23.9 g at 8.8 ms

Pot Rotation at the Base of Neck



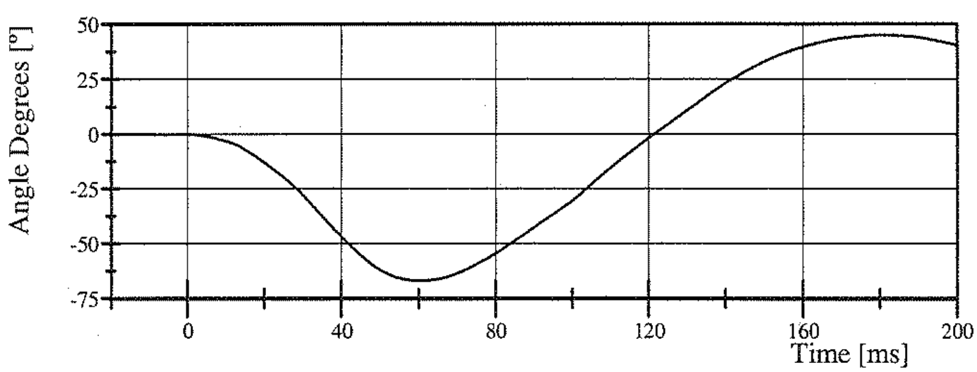
Filter Class: CFC_60
Max: 20.3 ° at 178.6 ms
Min: -31.7 ° at 60.1 ms

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

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

01.30.2007 13:31:41 1104

TRC

070126

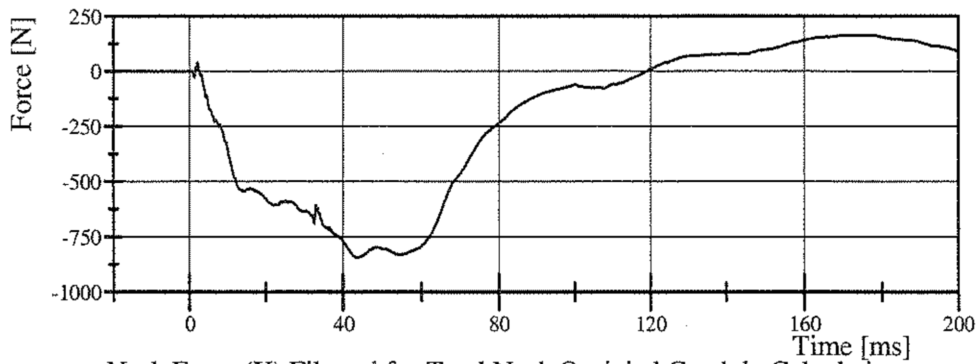
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 206 Certification No. 20-3

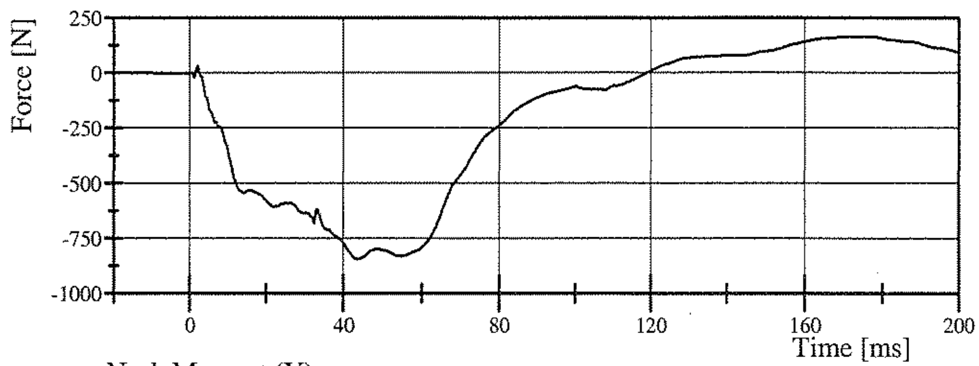
Test Date: 1/30/2007

Neck Force (X)



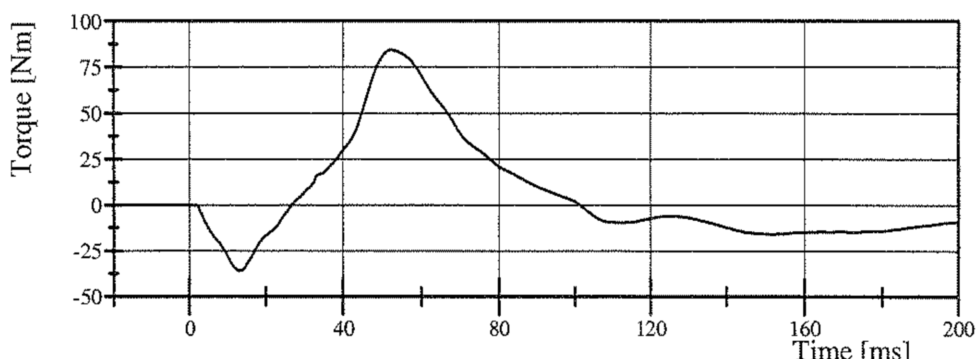
Filter Class: CFC_1000
Max: 164.5 N at 176.6 ms
Min: -844.0 N at 43.6 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



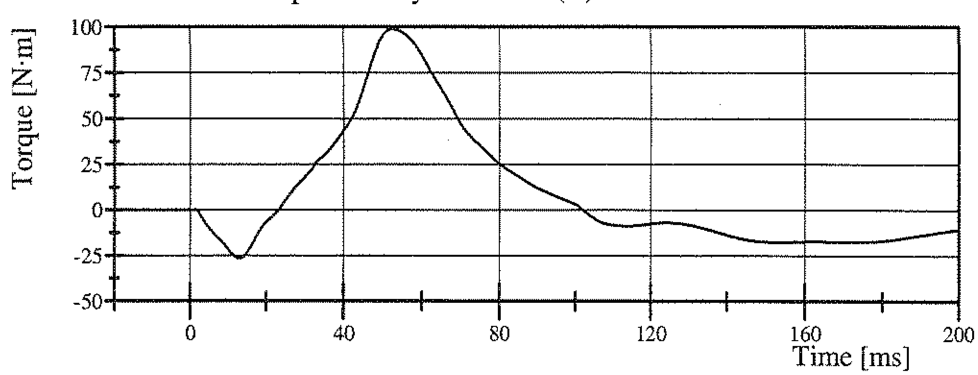
Filter Class: CFC_600
Max: 164.3 N at 176.6 ms
Min: -844.0 N at 43.7 ms

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

Robert Bocanelli

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

01.30.2007 14:39:42 1185

TRC

070126

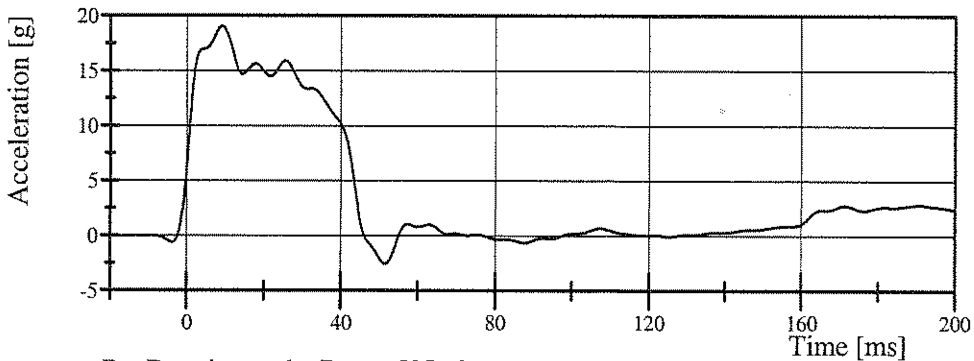
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 206 Certification No. 20-2

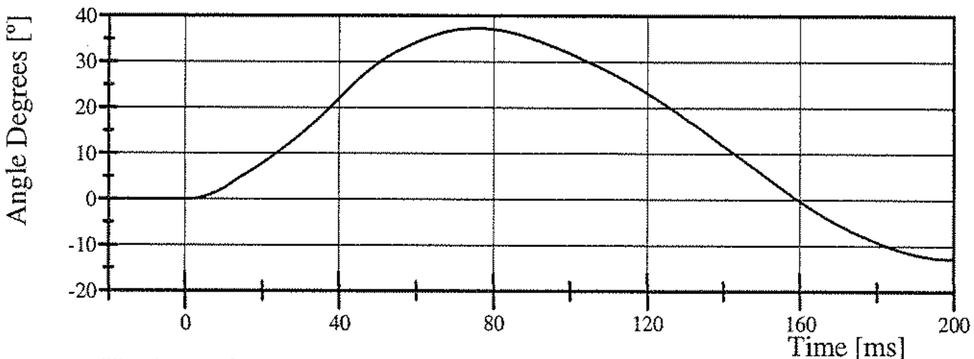
Test Date: 1/30/2007

Pendulum Acceleration



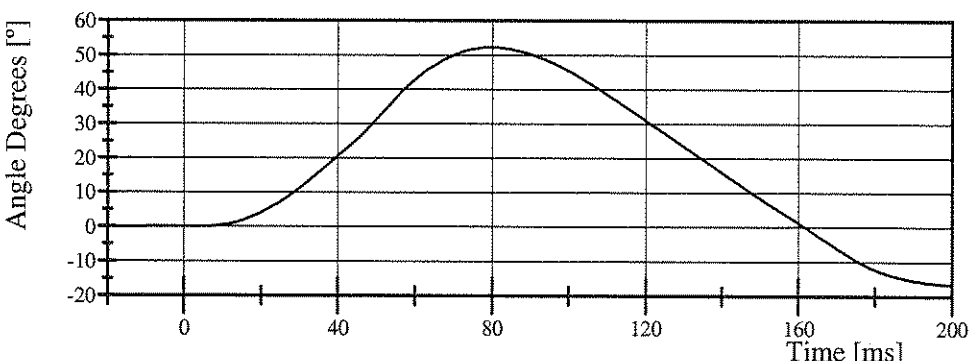
Filter Class: CFC_60
Max: 19.1 g at 9.0 ms
Min: -2.5 g at 51.6 ms

Pot Rotation at the Base of Neck



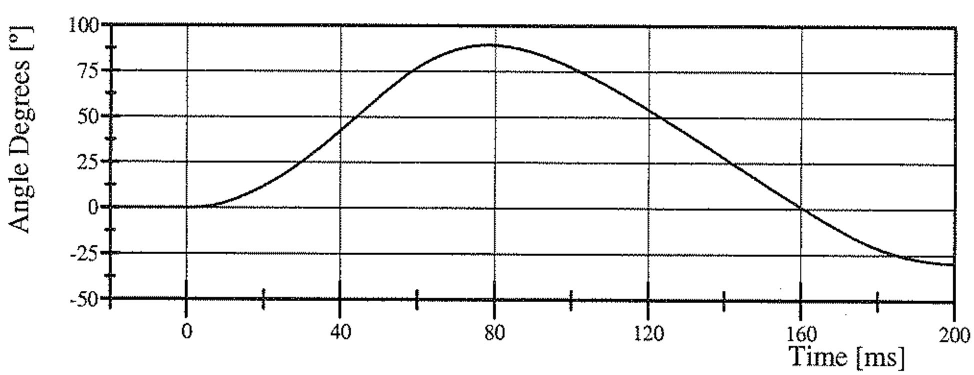
Filter Class: CFC_60
Max: 37.3 ° at 75.9 ms
Min: -12.9 ° at 200.0 ms

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

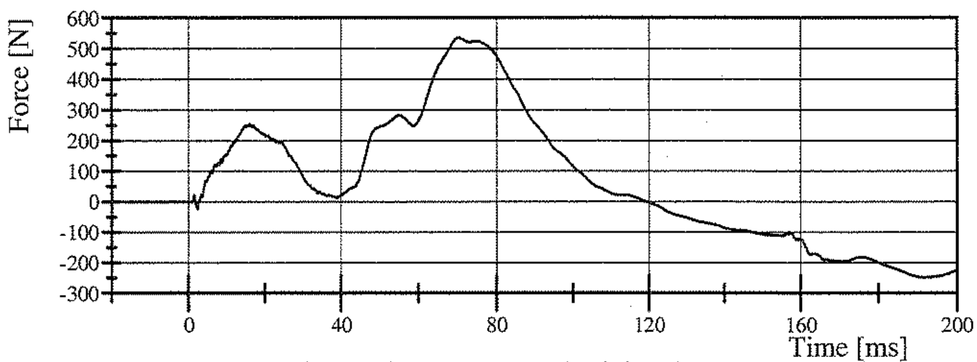
Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 206 Certification No. 20-2

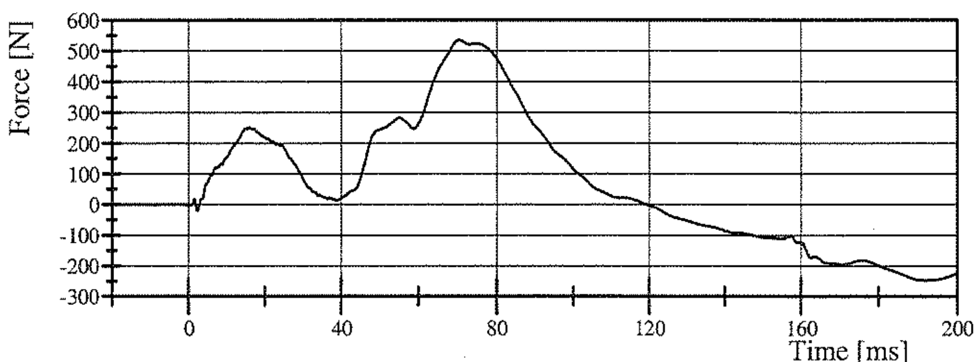
Test Date: 1/30/2007

Neck Force (X)



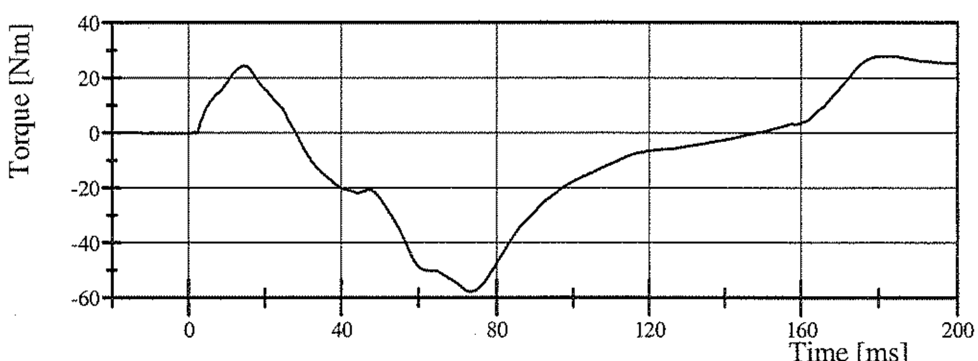
Filter Class: CFC_1000
Max: 535.8 N at 70.6 ms
Min: -248.0 N at 191.7 ms

Neck Force (X) Filtered for Total Neck Occipital Condyle Calculation



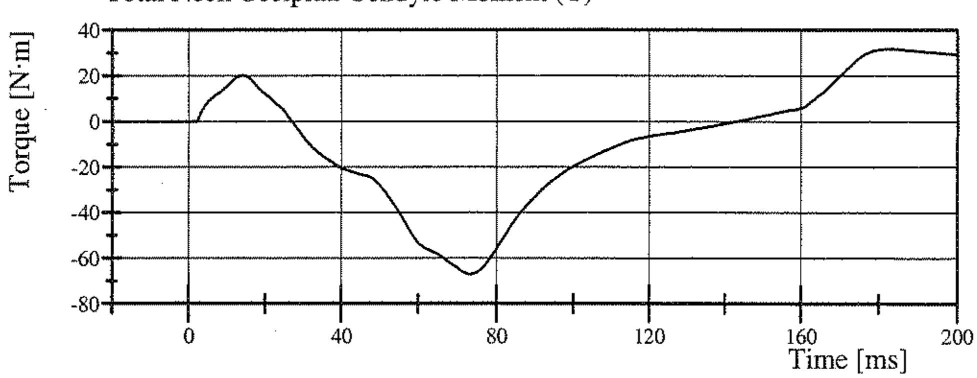
Filter Class: CFC_600
Max: 535.8 N at 70.5 ms
Min: -247.7 N at 191.8 ms

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

Robert Bernard

Approved

Ron Stoner

Specification Source: CFR49 Part 572 Subpart P
with Polarity in accordance with J211

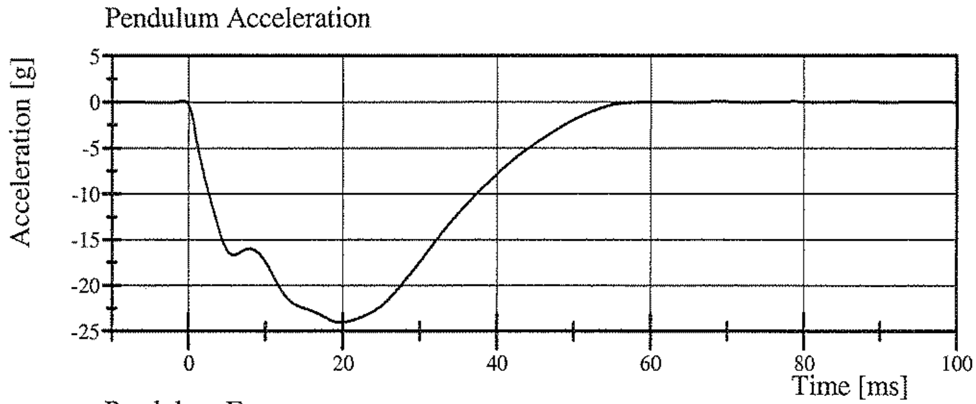
02.06.2007 10:42:06 1586

TRC

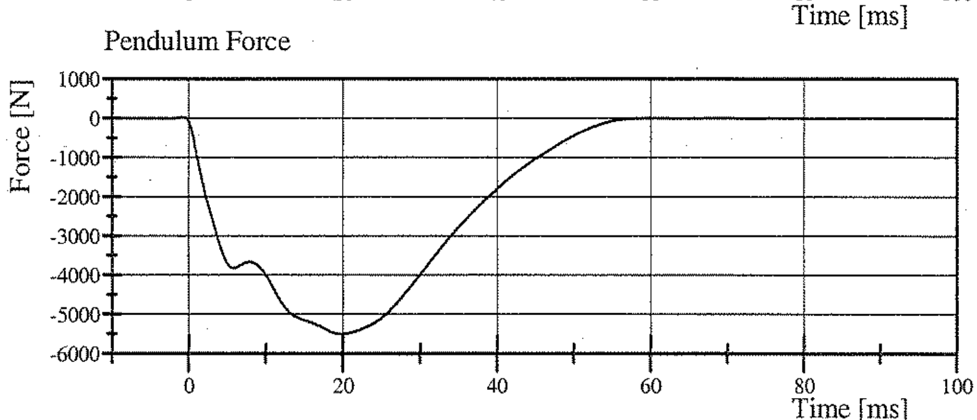
070126

Transportation Research Center Inc.

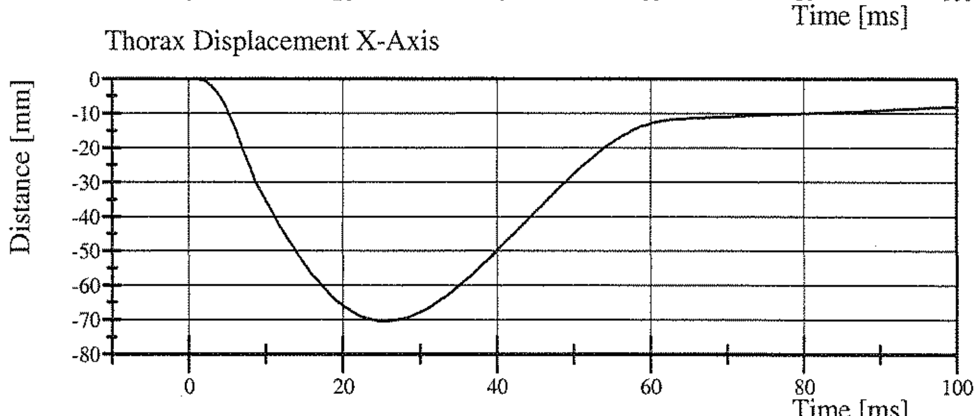
Front Thorax
HIII 50th Serial No. 206 Certification No. 20-11
Test Date: 2/6/2007



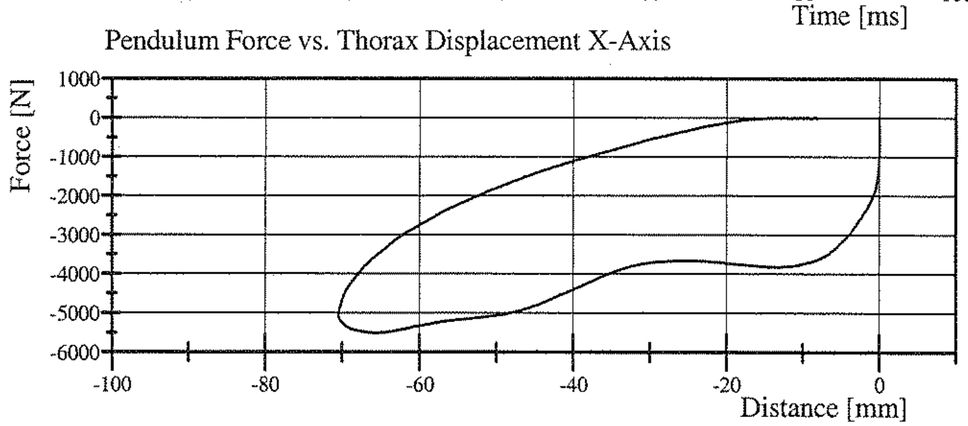
Filter Class: CFC_180
Max: 0.1 g at -0.7 ms
Min: -24.0 g at 19.8 ms



Filter Class: CFC_180
Max: 29.6 N at -0.7 ms
Min: -5,501.7 N at 19.8 ms



Filter Class: CFC_600
Max: 0.0 mm at -5.5 ms
Min: -70.5 mm at 25.3 ms



Filter Class: CFC_180
Max: 29.6 N at -0.0 mm
Min: -5,501.7 N at -65.7 mm

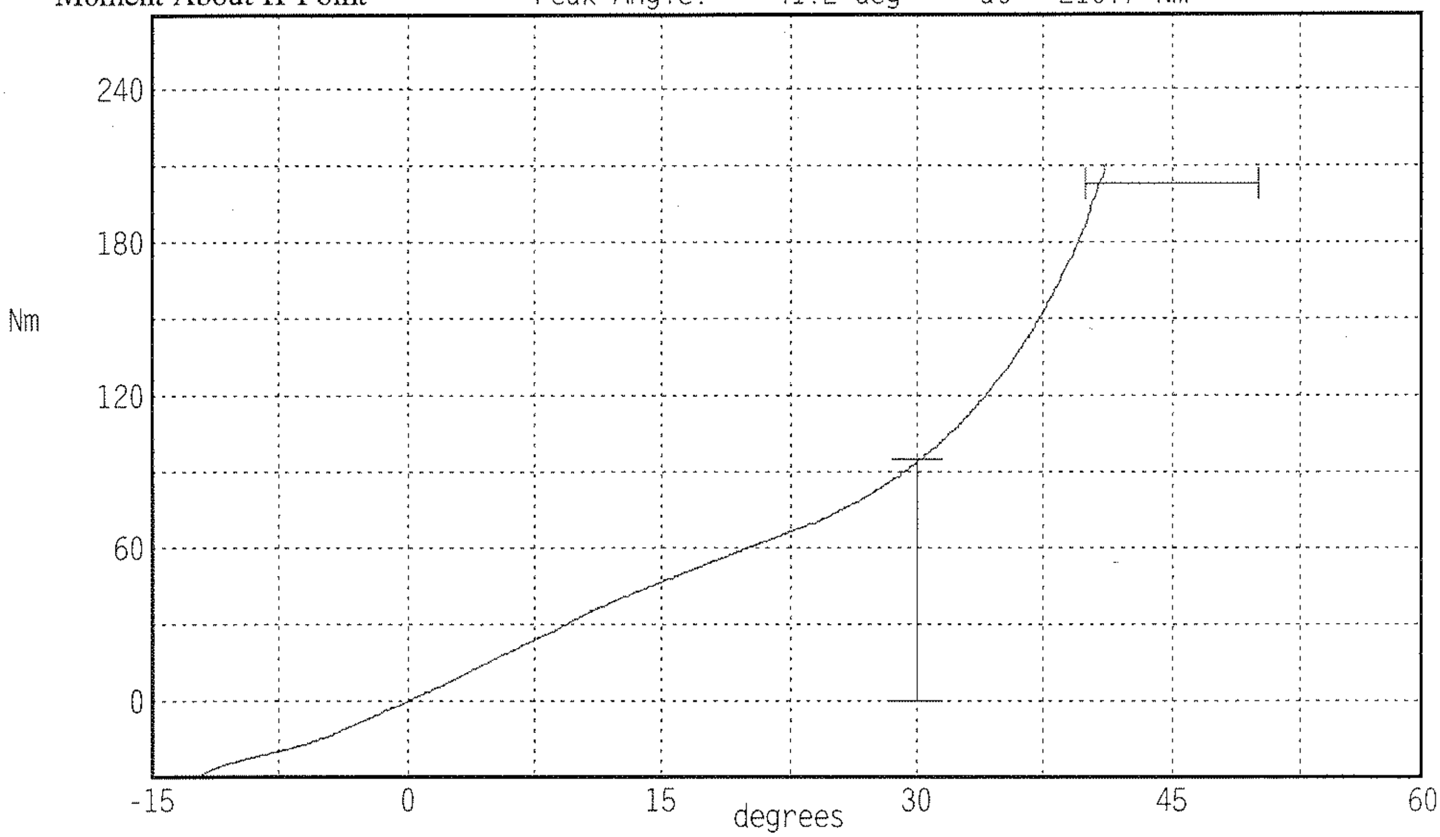
Applied Safety Technologies Corp.
Hybrid III Hip Range of Motion

Serial Number:	206L	Date:	01/30/2007
Test Number:	206C20	Time:	10:11
Comments:			

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

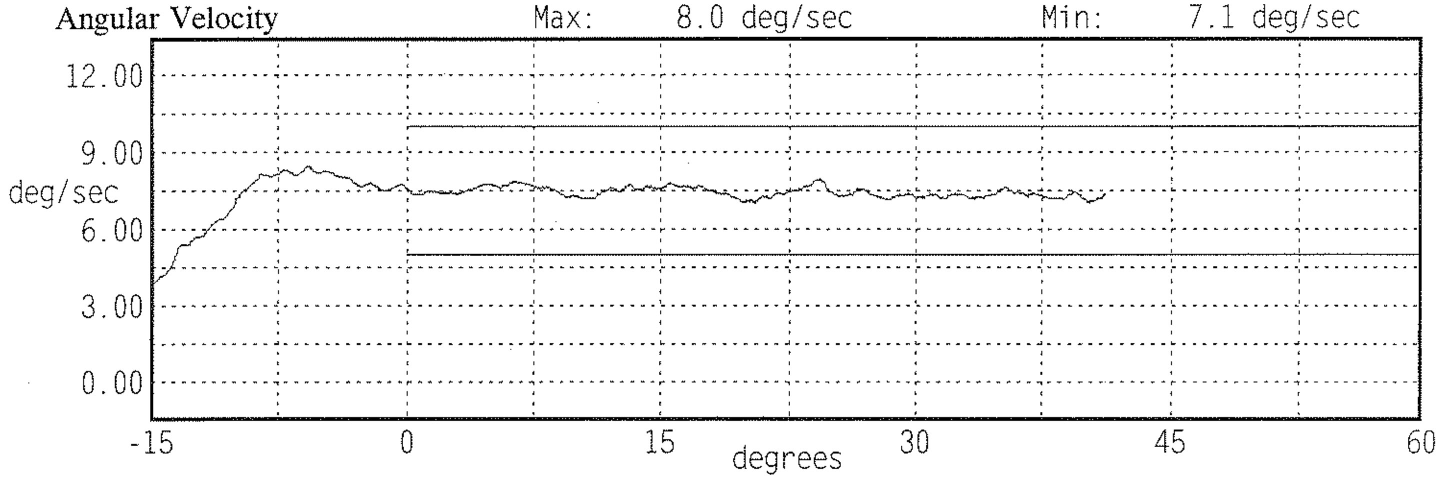
Moment About H-Point

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



070126

Applied Safety Technologies Corp.
Hybrid III Hip Range of Motion

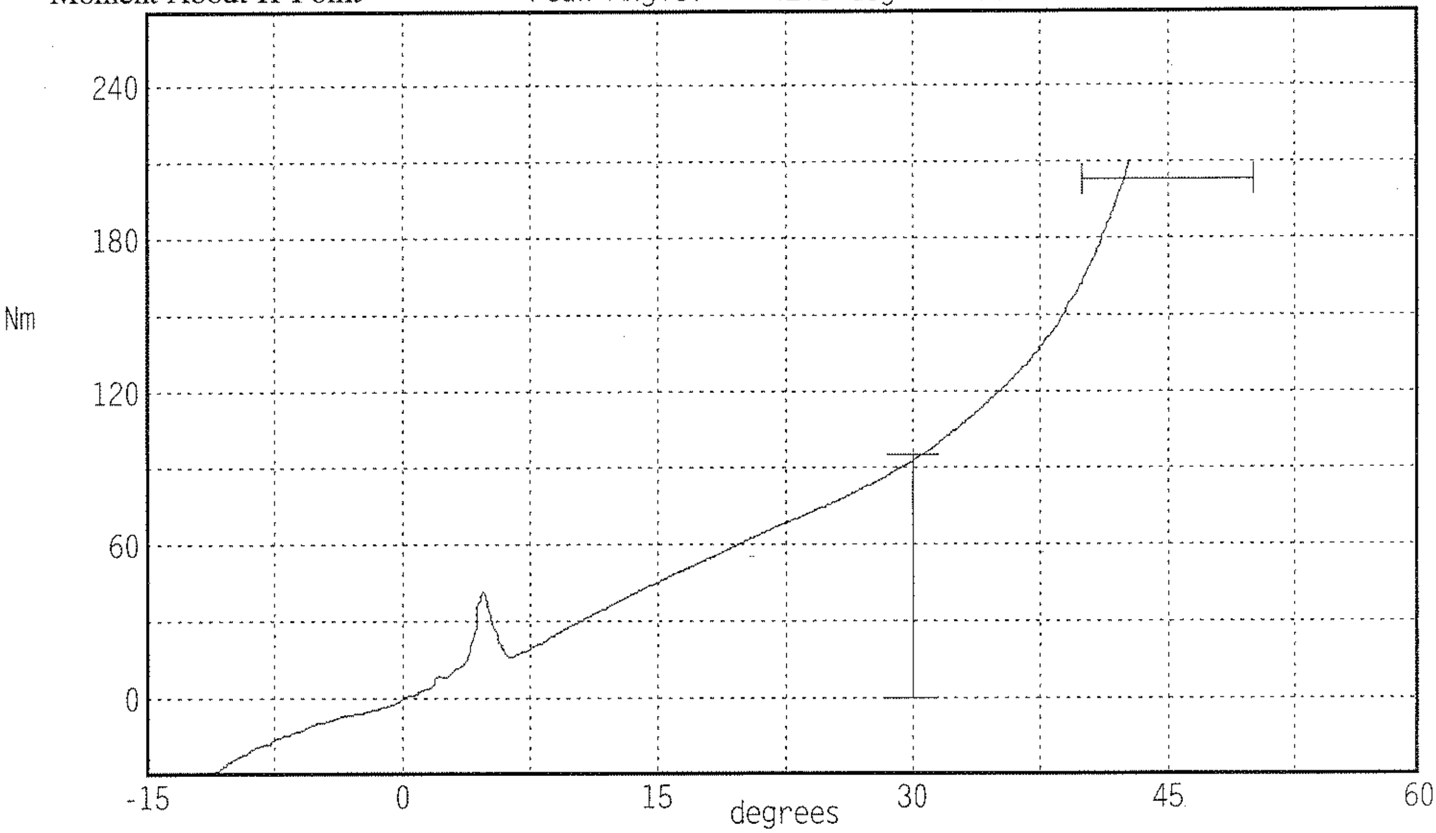
Serial Number: 206R
Test Number: 206C20
Comments:

Date: 01/30/2007
Time: 12:06

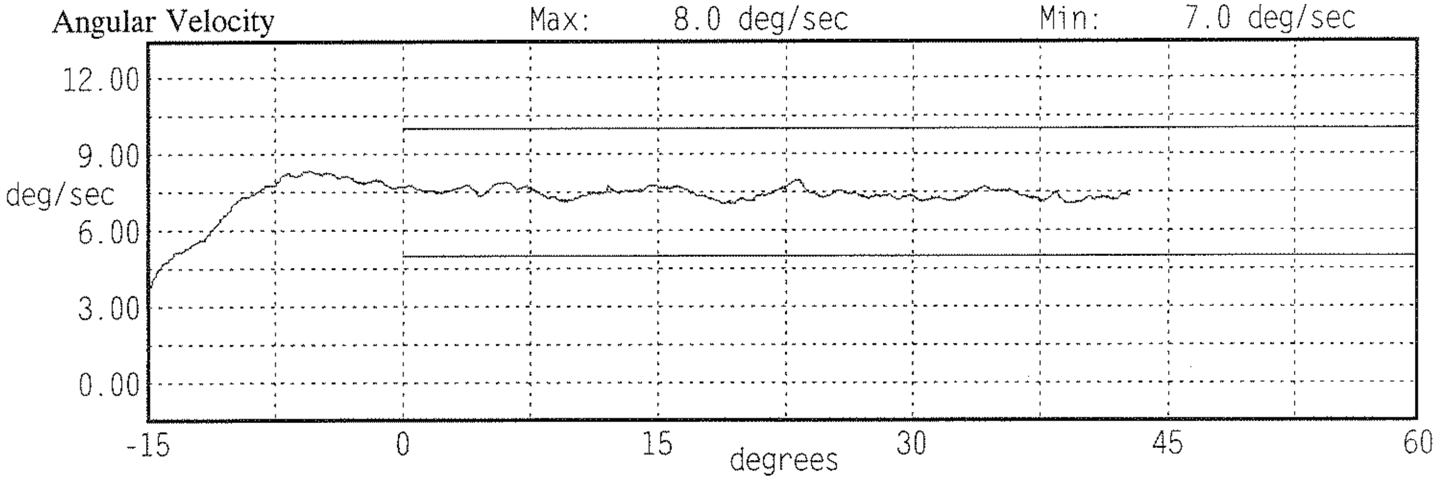
TEST PARAMETER	SPECIFICATION	TEST RESULTS		
Temperature	18.9 - 25.6	21.4	°C	Pass
Humidity	10 - 70	26	%	Pass
Moment at 30 deg	<= 94.9	92.6	Nm	Pass
Angle at 203 Nm	40.0 - 50.0	42.6	deg	Pass
Average Velocity	5.0 - 10.0	7.4	deg/sec	Pass

Peak Moment: 210.2 Nm at 42.8 deg
Peak Angle: 42.8 deg at 210.2 Nm

Moment About H-Point



Angular Velocity Max: 8.0 deg/sec Min: 7.0 deg/sec



070126

TRANSPORTATION RESEARCH CENTER INC.

Hybrid III Dummy
(5^{th} %, 50^{th} %, 95^{th} %, 10 YO and 6YO)

Test Date: 01/26/07

Type: 50% S/N: 206 Mfg.: ASTC

Proj./Seg. No.: 20040479/ 1020 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		*
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 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: 01/25/07

Post Test Inspection Completed By: J. Clarridge Date: 01/29/07

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 50^{th} 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 50^{th} 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 50^{th} 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 070126

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 forward	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 070126

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 070126

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	05H25-L17	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 070126

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 forward	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-026735	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 070126

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	°	+	Dorsiflexion	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 leftward, 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 070126

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	°	+	Dorsiflexion	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	P54236	14CRME000000ACXA	Left Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
147	P50852	16CRME000000ACXA	Right Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
148	P49959	14CRME000000ACZA	Left Rear Seat Cross-member Z-axis Acceleration`	1000	g	-	Upward	
149	P47386	16CRME000000ACZA	Right Rear Seat Cross-member Z-axis Acceleration	1000	g	-	Upward	
150	p54295	12ENGNTP0000ACXA	Top of Engine Block X-axis acceleration	1500	g	+	Forward	
151	P46918	12ENGNBO0000ACXA	Bottom of Engine Block X-axis acceleration	1500	g	-	Rearward	
152	P48547	13VEHCRI0000ACXA	Right Brake Caliper X-axis Acceleration	1500	g	-	Rearward	
153	P47014	11VEHCLE0000ACXA	Left Brake Caliper X-axis Acceleration	1500	g	+	Forward	
154	p48546	12DASH000000ACXA	Instrumnet Pannel X-axis Acceleration	1500	g	-	Rearward	
155	P50443	11SETR000000ACXA	Left Side Driver Mid Seat Track X-axis Acceleration	1000	g	+	Forward	
156	P46607	10VEHCCG0000ACXA	Vehicle CG X-axis acceleration	1000	g	+	Forward	
157	P48631	10VEHCCG0000ACYA	Vehicle CG Y-axis acceleration	1000	g	-	Leftward	
158	p47385	10VEHCCG0000ACZA	Vehicle CG Z-axis acceleration	1000	g	-	Upward	
159	P46965	11PEAC000000ACXA	Under Accel Pedal X-axis Acceleration (Z5)	1000	g	-	Rearward	
160	P50827	11PEAC000000ACYA	Under Accel Pedal Y-axis Acceleration (Z2)	1000	g	-	Leftward	
161	P50395	11PEAC000000ACZA	Under Accel Pedal Z-axis Acceleration (Z8)	1000	g	+	Downward	
162	P50812	11PEBR000000ACXA	Under Brake Pedal X-axis Acceleration	1000	g	-	Rearward	
163	P49691	11PEBR000000ACYA	Under Brake Pedal Y-axis Acceleration	1000	g	-	Leftward	
164	p50891	11PEBR000000ACZA	Under Brake Pedal Z-axis Acceleration	1000	g	+	Downward	
165	P50918	11VEHC000001ACXA	Outside Footrest X-axis Acceleration	1000	g	+	Forward	
166	P54224	11VEHC000001ACYA	Outside Footrest Y-axis Acceleration	1000	g	-	Leftward	
167	P49699	11VEHC000001ACZA	Outside Footrest Z-axis Acceleration	1000	g	-	Upward	
168	3419T-1140738	11SEBE0000B5FOOA	Driver lap belt	13500	N	+	Tension	
169	3419-832	11SEBE0000B3FOOA	Driver shoulder belt	13500	N	+	Tension	
170	3419T-1136019	13SEBE0000B5FOOA	Passenger lap belt	13500	N	+	Tension	
171	3419T-1136020	13SEBE0000B3FOOA	Passenger shoulder belt	13500	N	+	Tension	
172	ABFire1	11AIRBFR0100EV0A	DRIV. FRONT AIRBAG1 IND (IP 30)	5	V	+	Bipolar	
173	ABFire2	11AIRBFR0200EV0A	DRIV. FRONT AIRBAG2 IND (IP 55)	5	V	+	Bipolar	
174	ABFire3	13AIRBFR0100EV0A	PASS. FRONT AIRBAG1 IND (IP 50)	5	V	+	Bipolar	
175	ABFire4	13AIRBFR0200EV0A	PASS. FRONT AIRBAG2 IND (IP 51)	5	V	+	Bipolar	
176	Bit.02	11CONT000003VO00	Driver left knee contact switch	1	Logic	+	Bipolar	
177	Bit.03	11CONT000004VO00	Driver right knee contact switch	1	Logic	+	Bipolar	

Channel Report Test Number 070126

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
37	476830019	L0FBAR000037FOXA	Load Cell Row 7 Column 4	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.037

Channel Report Test Number 070126

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
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 (109) (72)	222411	N	+	Tension force	0-Barrier VRTC 90 channel Offset.072
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

Channel Report Test Number 070126

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
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 070126

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 070126

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 070126

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 070126

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 070126

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	1500
150	12ENGNBO0000ACXA	Bottom of Engine Block X-Axis Acceleration	60	+	yes	1500
151	13VEHCRI0000ACXA	Right Brake Caliper X-Axis Acceleration	60	+	yes	1500
152	11VEHCLE0000ACXA	Left Brake Caliper X-Axis Acceleration	60	+	yes	1500
153	12DASH000000ACXA	Instrument Panel X-Axis Acceleration	60	+	yes	1500
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 070126

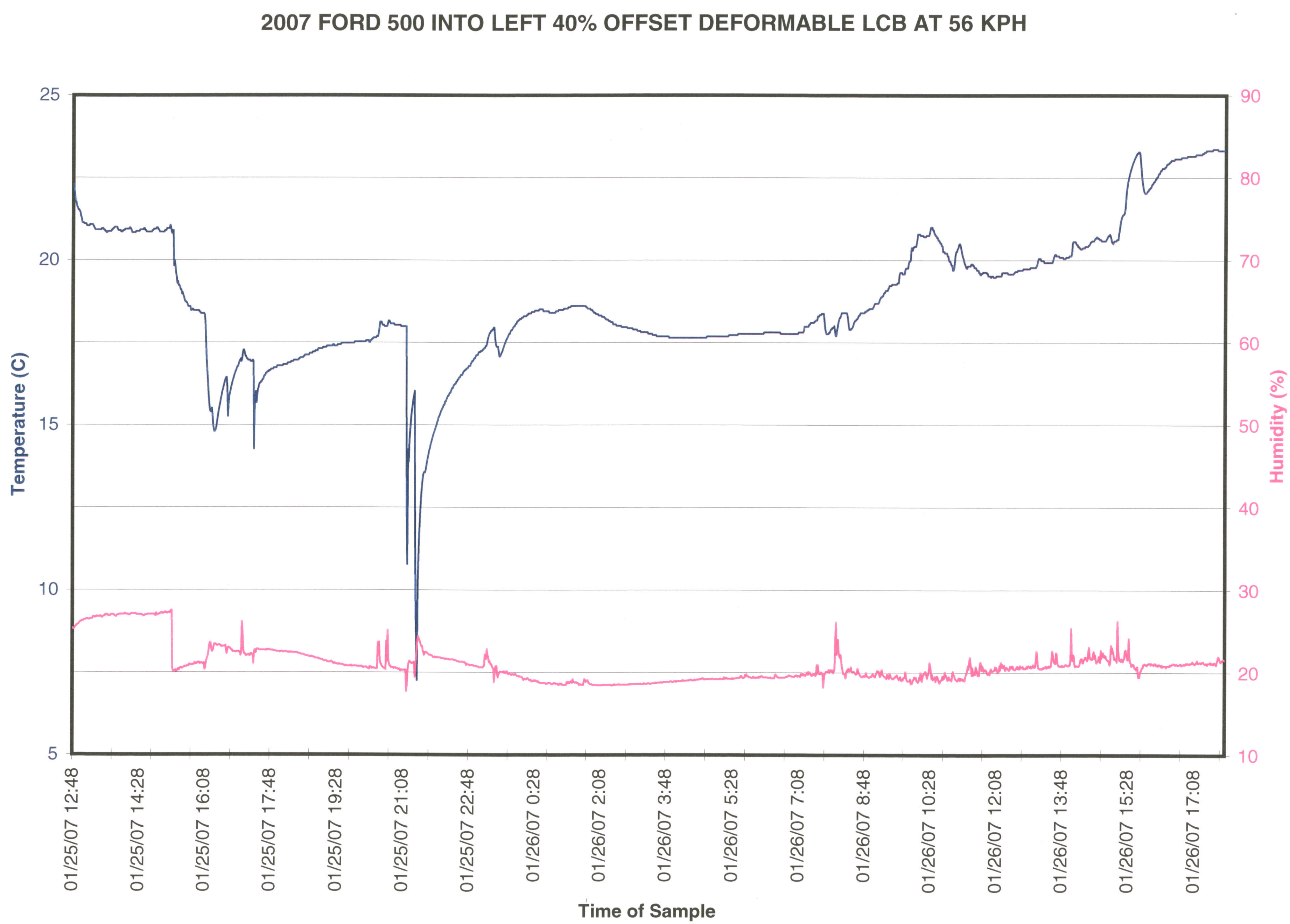
Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
163A	11PEBR000000ACRA	Under Brake Pedal (Centered) Resultant Acceleration	60			
164	11VEHC000001ACXA	Outside Footrest X-Axis Acceleration	60	+	yes	1000
165	11VEHC000001ACYA	Outside Footrest Y-Axis Acceleration	60	+	yes	1000
166	11VEHC000001ACZA	Outside Footrest Z-Axis Acceleration	60	+	yes	1000
166A	11VEHC000001ACRA	Outside Footrest Resultant Acceleration	60			
167	11SEBE0000B5FOOA	Driver Lap Belt Force	60	+	yes	13500
168	11SEBE0000B3FOOA	Driver Shoulder Belt Force	60	+	yes	13500
169	13SEBE0000B5FOOA	Passenger Lap Belt Force	60	+	yes	13500
170	13SEBE0000B3FOOA	Passenger Shoulder Belt Force	60	+	yes	13500
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	11CONT000003VO00	Driver Left Knee Contact Switch	0	+	no	1
176	11CONT000004VO00	Driver Right Knee Contact Switch	0	+	no	1
177	L0FBAR000001FOXA	Load Cell Row 1 Column 1	60	+	yes	222411
178	L0FBAR000002FOXA	Load Cell Row 2 Column 1	60	+	yes	222411
179	L0FBAR000003FOXA	Load Cell Row 3 Column 1	60	+	yes	222411
180	L0FBAR000004FOXA	Load Cell Row 4 Column 1	60	+	yes	222411
181	L0FBAR000005FOXA	Load Cell Row 5 Column 1	60	+	yes	222411
182	L0FBAR000006FOXA	Load Cell Row 6 Column 1	60	+	yes	222411
183	L0FBAR000007FOXA	Load Cell Row 7 Column 1	60	+	yes	222411
184	L0FBAR000008FOXA	Load Cell Row 8 Column 1	60	+	yes	222411
185	L0FBAR000009FOXA	Load Cell Row 9 Column 1	60	+	yes	222411
186	L0FBAR000010FOXA	Load Cell Row 10 Column 1	60	+	yes	222411
187	L0FBAR000011FOXA	Load Cell Row 1 Column 2	60	+	yes	222411
188	L0FBAR000012FOXA	Load Cell Row 2 Column 2	60	+	yes	222411
189	L0FBAR000013FOXA	Load Cell Row 3 Column 2	60	+	yes	222411
190	L0FBAR000014FOXA	Load Cell Row 4 Column 2	60	+	yes	222411
191	L0FBAR000015FOXA	Load Cell Row 5 Column 2	60	+	yes	222411
192	L0FBAR000016FOXA	Load Cell Row 6 Column 2	60	+	yes	222411
193	L0FBAR000017FOXA	Load Cell Row 7 Column 2	60	+	yes	222411
194	L0FBAR000018FOXA	Load Cell Row 8 Column 2	60	+	yes	222411
195	L0FBAR000019FOXA	Load Cell Row 9 Column 2	60	+	yes	222411
196	L0FBAR000020FOXA	Load Cell Row 10 Column 2	60	+	yes	222411
197	L0FBAR000021FOXA	Load Cell Row 1 Column 3	60	+	yes	222411
198	L0FBAR000022FOXA	Load Cell Row 2 Column 3	60	+	yes	222411

Command File Test Number 070126

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
199	L0FBAR000023FOXA	Load Cell Row 3 Column 3	60	+	yes	222411
200	L0FBAR000024FOXA	Load Cell Row 4 Column 3	60	+	yes	222411
201	L0FBAR000025FOXA	Load Cell Row 5 Column 3	60	+	yes	222411
202	L0FBAR000026FOXA	Load Cell Row 6 Column 3	60	+	yes	222411
203	L0FBAR000027FOXA	Load Cell Row 7 Column 3	60	+	yes	222411
204	L0FBAR000028FOXA	Load Cell Row 8 Column 3	60	+	yes	222411
205	L0FBAR000029FOXA	Load Cell Row 9 Column 3	60	+	yes	222411
206	L0FBAR000030FOXA	Load Cell Row 10 Column 3	60	+	yes	222411
207	L0FBAR000031FOXA	Load Cell Row 1 Column 4	60	+	yes	222411
208	L0FBAR000032FOXA	Load Cell Row 2 Column 4	60	+	yes	222411
209	L0FBAR000033FOXA	Load Cell Row 3 Column 4	60	+	yes	222411
210	L0FBAR000034FOXA	Load Cell Row 4 Column 4	60	+	yes	222411
211	L0FBAR000035FOXA	Load Cell Row 5 Column 4	60	+	yes	222411
212	L0FBAR000036FOXA	Load Cell Row 6 Column 4	60	+	yes	222411
213	L0FBAR000037FOXA	Load Cell Row 7 Column 4	60	+	yes	222411
214	L0FBAR000038FOXA	Load Cell Row 8 Column 4	60	+	yes	222411
215	L0FBAR000039FOXA	Load Cell Row 9 Column 4	60	+	yes	222411
216	L0FBAR000040FOXA	Load Cell Row 10 Column 4	60	+	yes	222411
217	L0FBAR000041FOXA	Load Cell Row 1 Column 5	60	+	yes	222411
218	L0FBAR000042FOXA	Load Cell Row 2 Column 5	60	+	yes	222411
219	L0FBAR000043FOXA	Load Cell Row 3 Column 5	60	+	yes	222411
220	L0FBAR000044FOXA	Load Cell Row 4 Column 5	60	+	yes	222411
221	L0FBAR000045FOXA	Load Cell Row 5 Column 5	60	+	yes	222411
222	L0FBAR000046FOXA	Load Cell Row 6 Column 5	60	+	yes	222411
223	L0FBAR000047FOXA	Load Cell Row 7 Column 5	60	+	yes	222411
224	L0FBAR000048FOXA	Load Cell Row 8 Column 5	60	+	yes	222411
225	L0FBAR000049FOXA	Load Cell Row 9 Column 5	60	+	yes	222411
226	L0FBAR000050FOXA	Load Cell Row 10 Column 5	60	+	yes	222411
227	L0FBAR000051FOXA	Load Cell Row 1 Column 6	60	+	yes	222411
228	L0FBAR000052FOXA	Load Cell Row 2 Column 6	60	+	yes	222411
229	L0FBAR000053FOXA	Load Cell Row 3 Column 6	60	+	yes	222411
230	L0FBAR000054FOXA	Load Cell Row 4 Column 6	60	+	yes	222411
231	L0FBAR000055FOXA	Load Cell Row 5 Column 6	60	+	yes	222411
232	L0FBAR000056FOXA	Load Cell Row 6 Column 6	60	+	yes	222411
233	L0FBAR000057FOXA	Load Cell Row 7 Column 6	60	+	yes	222411
234	L0FBAR000058FOXA	Load Cell Row 8 Column 6	60	+	yes	222411
235	L0FBAR000059FOXA	Load Cell Row 9 Column 6	60	+	yes	222411

Command File Test Number 070126

Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
236	L0FBAR000060FOXA	Load Cell Row 10 Column 6	60	+	yes	222411
237	L0FBAR000061FOXA	Load Cell Row 1 Column 7	60	+	yes	222411
238	L0FBAR000062FOXA	Load Cell Row 2 Column 7	60	+	yes	222411
239	L0FBAR000063FOXA	Load Cell Row 3 Column 7	60	+	yes	222411
240	L0FBAR000064FOXA	Load Cell Row 4 Column 7	60	+	yes	222411
241	L0FBAR000065FOXA	Load Cell Row 5 Column 7	60	+	yes	222411
242	L0FBAR000066FOXA	Load Cell Row 6 Column 7	60	+	yes	222411
243	L0FBAR000067FOXA	Load Cell Row 7 Column 7	60	+	yes	222411
244	L0FBAR000068FOXA	Load Cell Row 8 Column 7	60	+	yes	222411
245	L0FBAR000069FOXA	Load Cell Row 9 Column 7	60	+	yes	222411
246	L0FBAR000070FOXA	Load Cell Row 10 Column 7	60	+	yes	222411
247	L0FBAR000071FOXA	Load Cell Row 1 Column 8	60	+	yes	222411
248	L0FBAR000072FOXA	Load Cell Row 2 Column 8	60	+	yes	222411
249	L0FBAR000073FOXA	Load Cell Row 3 Column 8	60	+	yes	222411
250	L0FBAR000074FOXA	Load Cell Row 4 Column 8	60	+	yes	222411
251	L0FBAR000075FOXA	Load Cell Row 5 Column 8	60	+	yes	222411
252	L0FBAR000076FOXA	Load Cell Row 6 Column 8	60	+	yes	222411
253	L0FBAR000077FOXA	Load Cell Row 7 Column 8	60	+	yes	222411
254	L0FBAR000078FOXA	Load Cell Row 8 Column 8	60	+	yes	222411
255	L0FBAR000079FOXA	Load Cell Row 9 Column 8	60	+	yes	222411
256	L0FBAR000080FOXA	Load Cell Row 10 Column 8	60	+	yes	222411
257	L0FBAR000081FOXA	Load Cell Row 1 Column 9	60	+	yes	222411
258	L0FBAR000082FOXA	Load Cell Row 2 Column 9	60	+	yes	222411
259	L0FBAR000083FOXA	Load Cell Row 3 Column 9	60	+	yes	222411
260	L0FBAR000084FOXA	Load Cell Row 4 Column 9	60	+	yes	222411
261	L0FBAR000085FOXA	Load Cell Row 5 Column 9	60	+	yes	222411
262	L0FBAR000086FOXA	Load Cell Row 6 Column 9	60	+	yes	222411
263	L0FBAR000087FOXA	Load Cell Row 7 Column 9	60	+	yes	222411
264	L0FBAR000088FOXA	Load Cell Row 8 Column 9	60	+	yes	222411
265	L0FBAR000089FOXA	Load Cell Row 9 Column 9	60	+	yes	222411
266	L0FBAR000090FOXA	Load Cell Row 10 Column 9	60	+	yes	222411


2007 FORD 500 INTO LEFT 40% OFFSET DEFORMABLE LCB AT 56 KPH
Temperature (C)
Humidity (%)
25
20
15
10
5
90
80
70
60
50
40
30
20
10
01/25/07 12:48
01/25/07 14:28
01/25/07 16:08
01/25/07 17:48
01/25/07 19:28
01/25/07 21:08
01/25/07 22:48
01/26/07 0:28
01/26/07 2:08
01/26/07 3:48
01/26/07 5:28
01/26/07 7:08
01/26/07 8:48
01/26/07 10:28
01/26/07 12:08
01/26/07 13:48
01/26/07 15:28
01/26/07 17:08
Time of Sample

E-22

070126

www.fordvehicles.com

VEHICLE DESCRIPTION

FIVE HUNDRED

2007 SEL FWD
5-PASSENGER
3.0L 4V V6 DURATEC ENGINE
AUTO 6-SPEED TRANSMISSION

VIN 1FAFP24147G **103403**

EXTERIOR
BLACK CLEARCOAT
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

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

INTERIOR POWER PACKAGE	240.00
.POWER DRIVER SEAT RECLINER	
.NON-MEMORY ADJUSTABLE PEDALS	
INTERIOR CONVENIENCE PACKAGE	595.00
.AM/FM/CDX6 MP3 RADIO	
.DUAL AUTO A/C	
.AUTO HEADLAMP ON/OFF DELAY	
TOTAL VEHICLE & OPTION	23530.00
DESTINATION & DELIVERY	700.00
TOTAL BEFORE DISCOUNTS	24230.00
SAFETY PACKAGE ADJ-STD	505.00
TOTAL SAVINGS	505.00

TOTAL MSRP $ 23725.00

1FAFP24147G103403

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.

Fuel Economy Information

DOE EPA

For more information see WWW.FUELECONOMY.GOV

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.

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.

E-23

070126

CERTIFICATE OF CONFORMITY

CELLBOND

Certificate No. **28917**
Serial No. **GI088**

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

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...

company registration
England 1944904

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

Cellbond Offices
United Kingdom
United States of America

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.

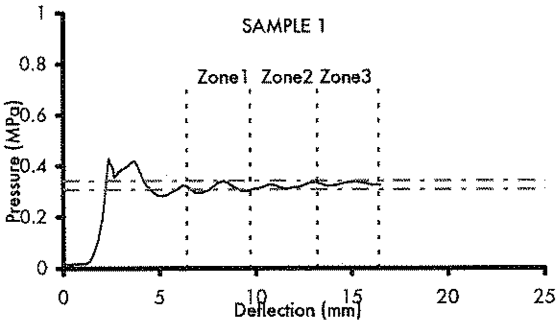
RESULT: PASSED

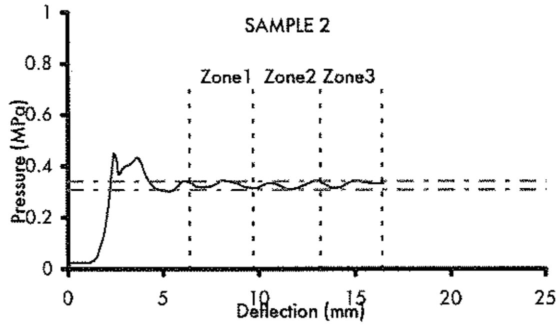
EEVC DEFORMABLE FRONTAL BARRIER
MAIN BLOCK

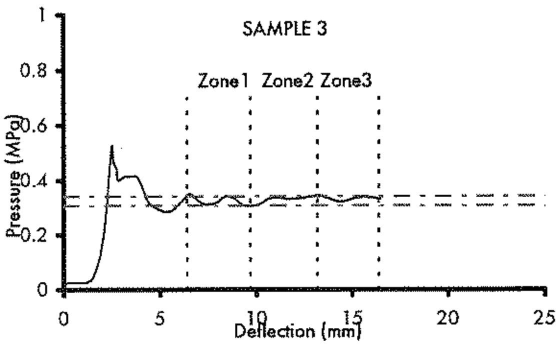
Honeycomb Type: 1.8 3/4 3003
Higher Acceptable Crush Strength Limit: 0.342 MPa
Lower Acceptable Crush Strength Limit: 0.308 MPa

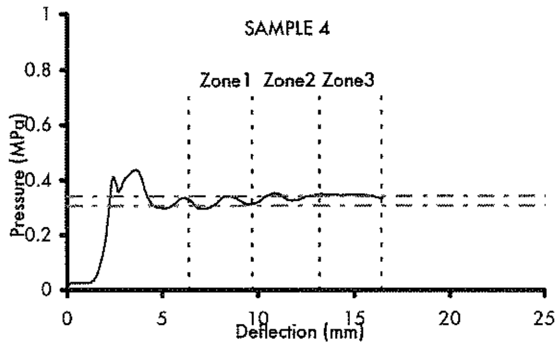
Section 1: 6.4 - 9.7mm
Section 2: 9.7 - 13.2mm
Section 3: 13.2 - 16.5mm
Speed: 6.35 mm/min

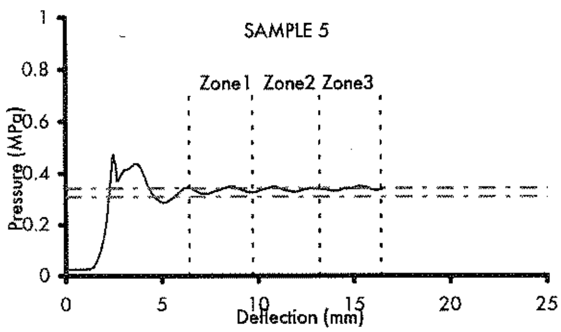
Test No: 17904-8 GR No: CHC0303205GH Block No: N/A

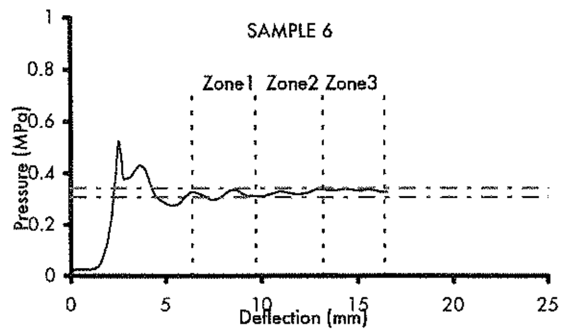


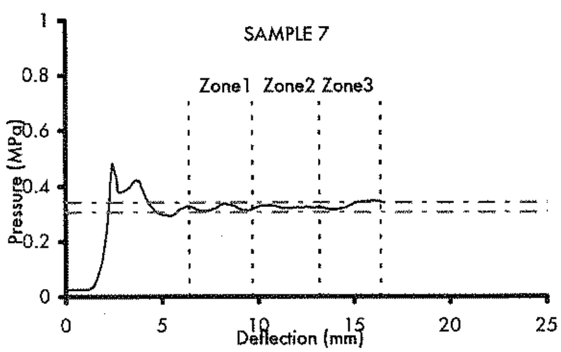


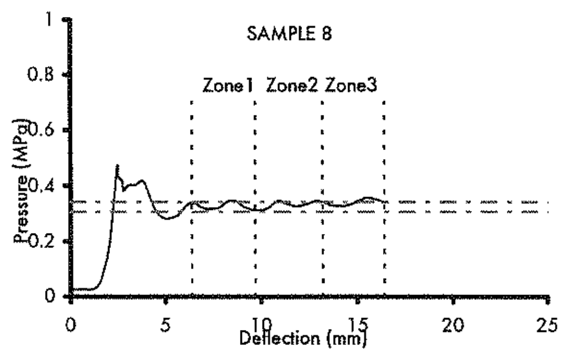












CELLBOND

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.

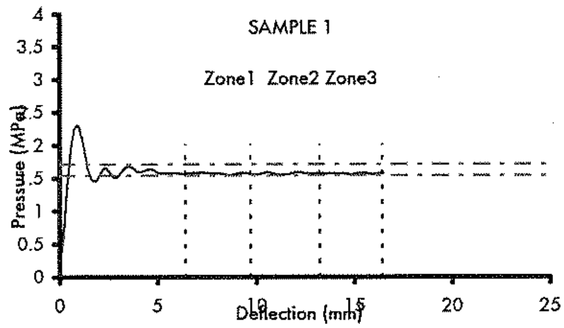
RESULT: PASSED

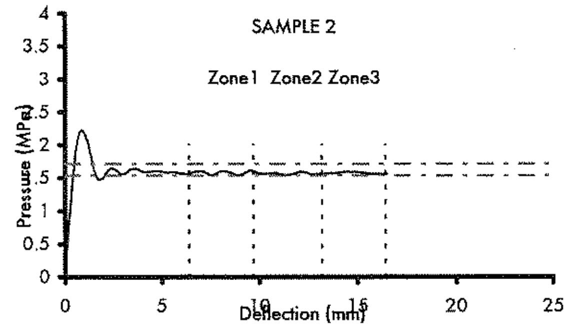
EEVC DEFORMABLE FRONTAL BARRIER
BUMPER

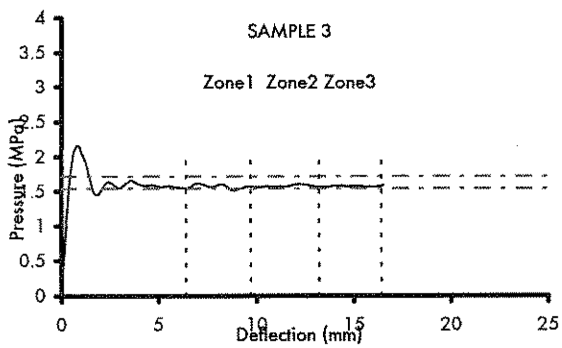
Honeycomb Type: 5.2 1/4 3003
Higher Acceptable Crush Strength Limit: 1.711 MPa
Lower Acceptable Crush Strength Limit: 1.540 MPa

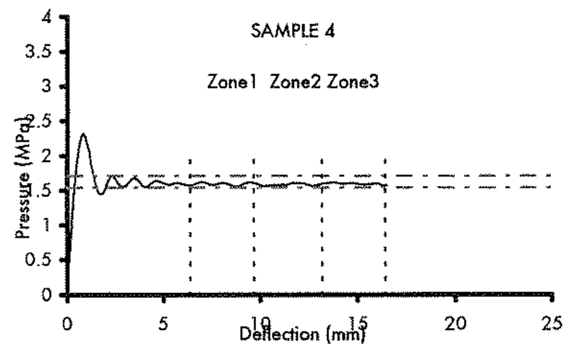
Section 1: 6.4 - 9.7mm
Section 2: 9.7 - 13.2mm
Section 3: 13.2 - 16.5mm
Speed: 6.35 mm/min

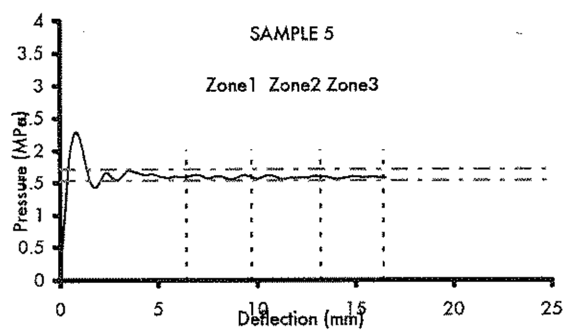
Test No: 17546-8 GR No: CHC0511042GF Block No: N/A

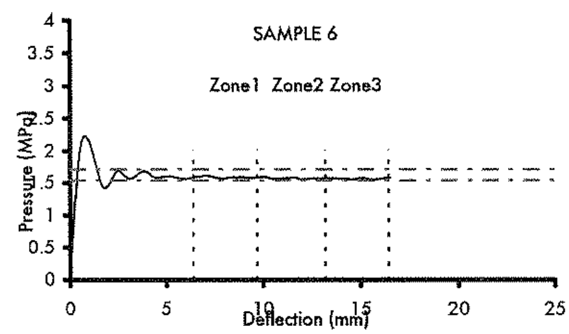


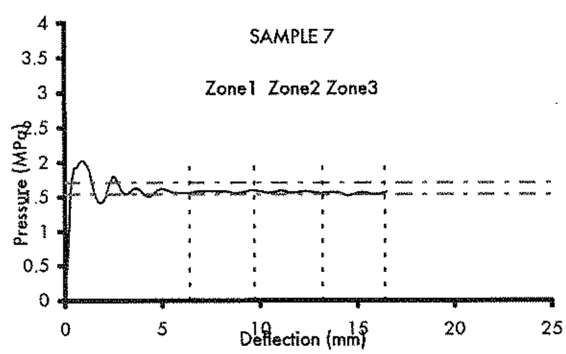


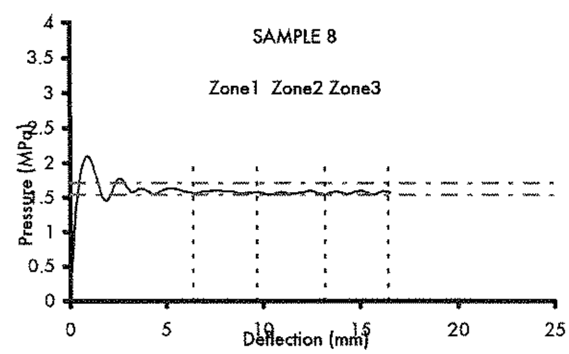








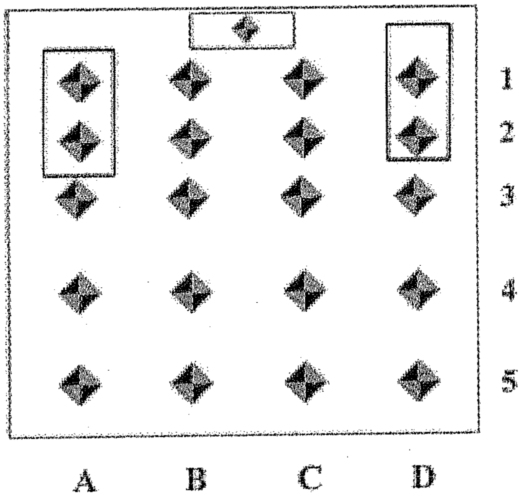


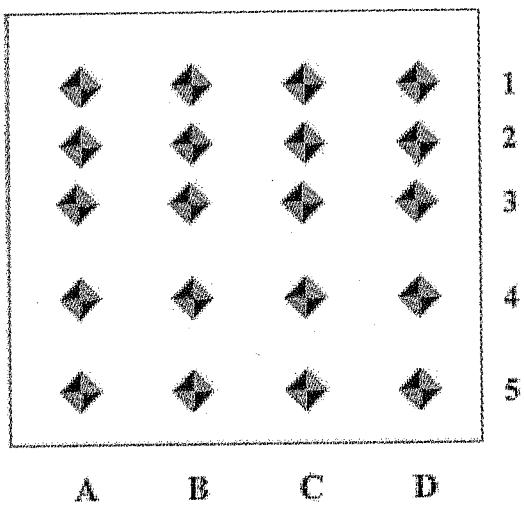


Procedure For Vehicle Interior Intrusion Measurements

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.





Driver Side

Passenger Side

Figure E1. Toe Pan Intrusion Points

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 the x-z plane 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 for three pre-test and three post-test measurements in the test report. The data shall be submitted in ENTRÉE format:

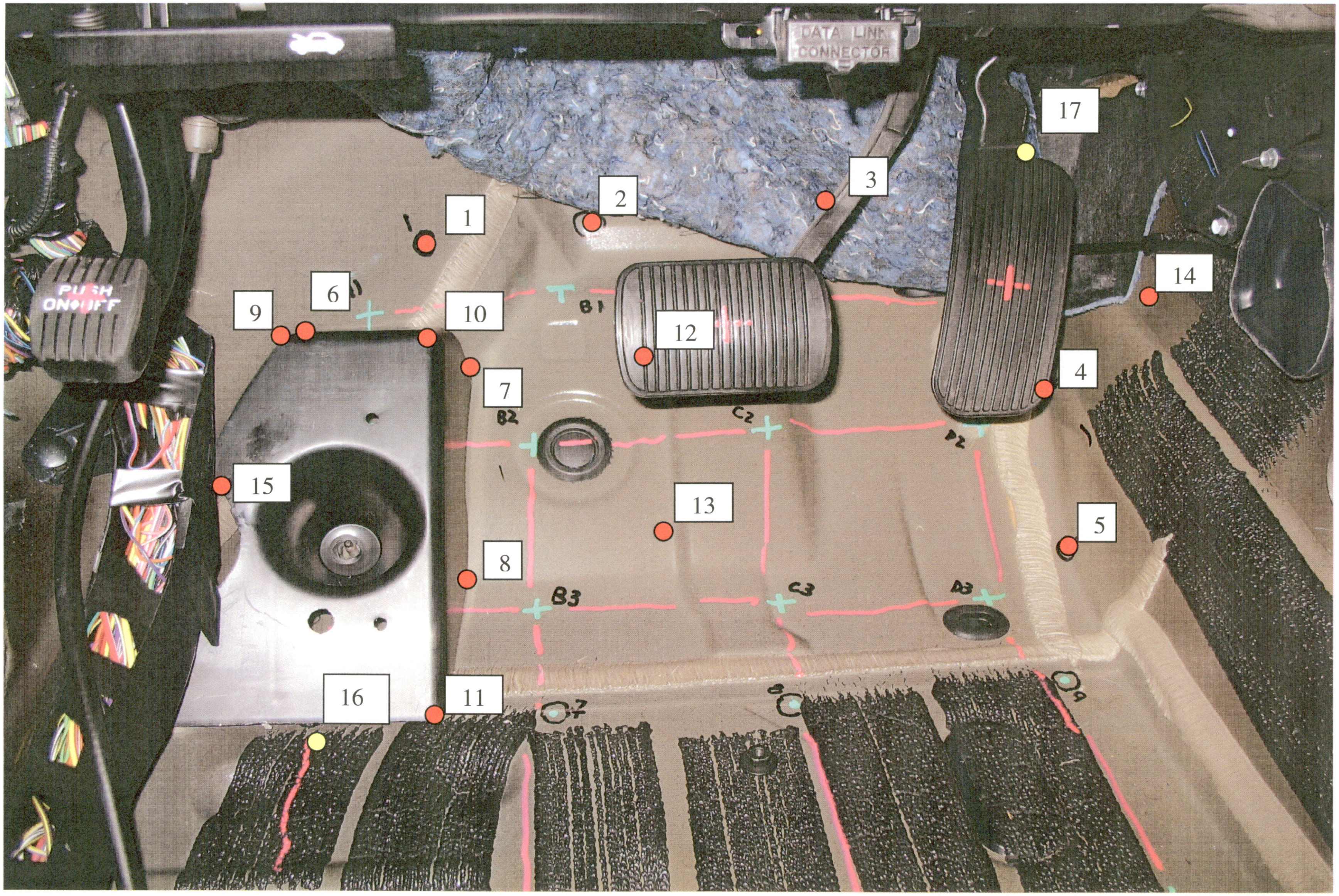
Notes: (1) If no data is taken for one of the coordinate systems please leave blank - do not put a zero.
(2) VEHNO denotes Vehicle Number
(3) TSTREF denotes Test Reference Number
(4) Table E2 defines IPLOC.
(5) Table E3 defines measurement format.

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
C2
D2
B3
C3
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

UPM

INSIA

Compatibility Project
EEVC - WG15

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.

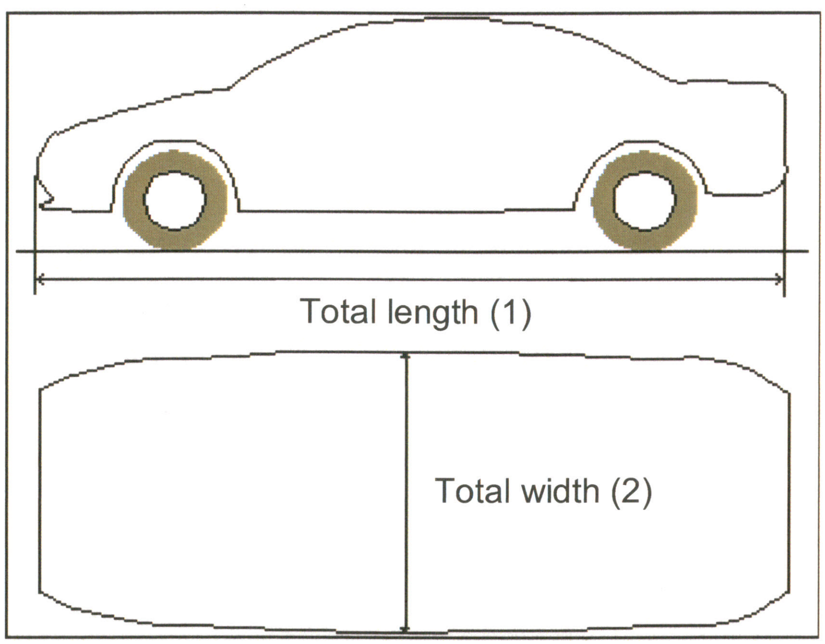


Figure 1.- Definition of the main resistant elements. General dimensions.

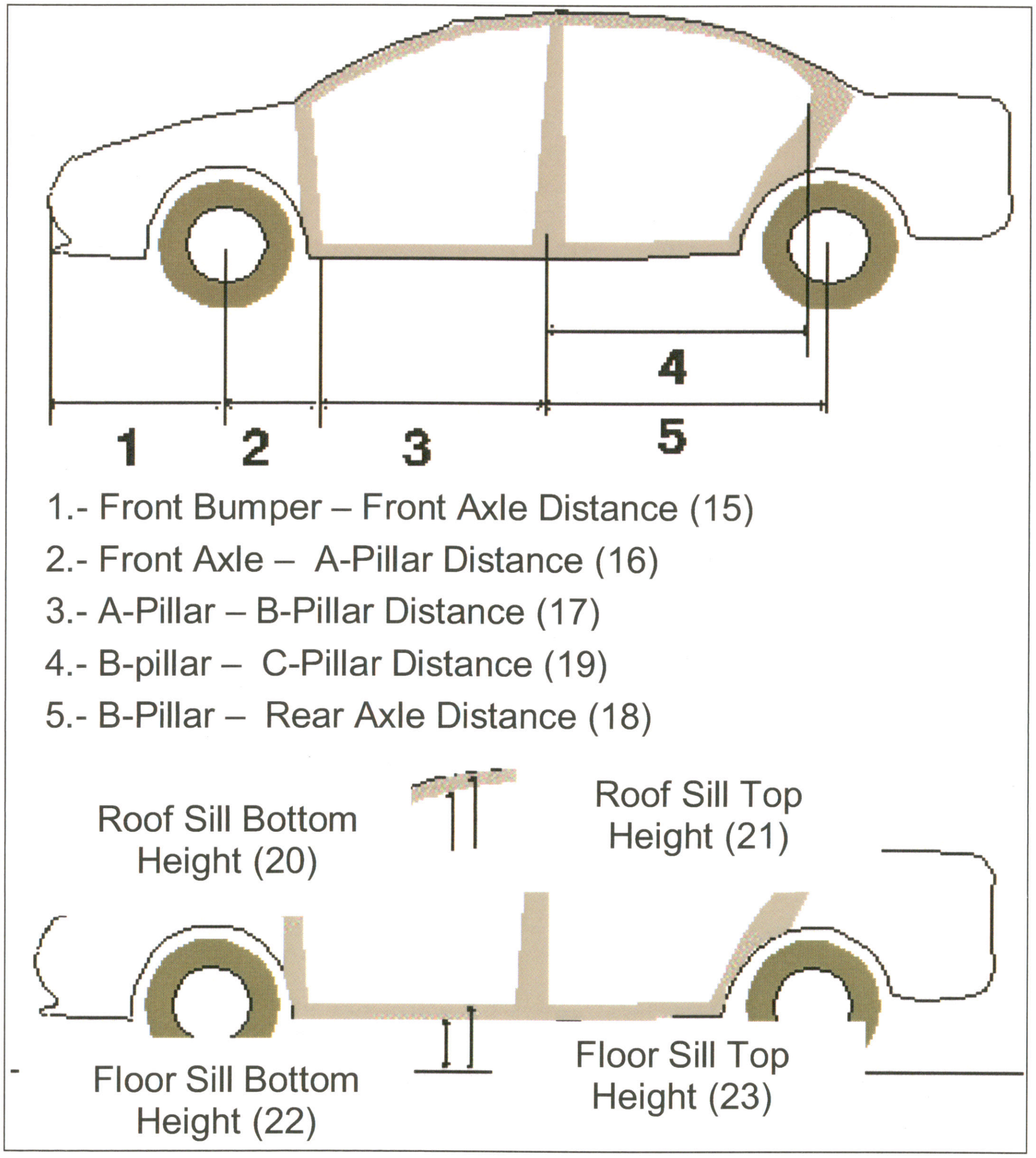


Figure 2.- Definition of the main resistant elements. Side elements.

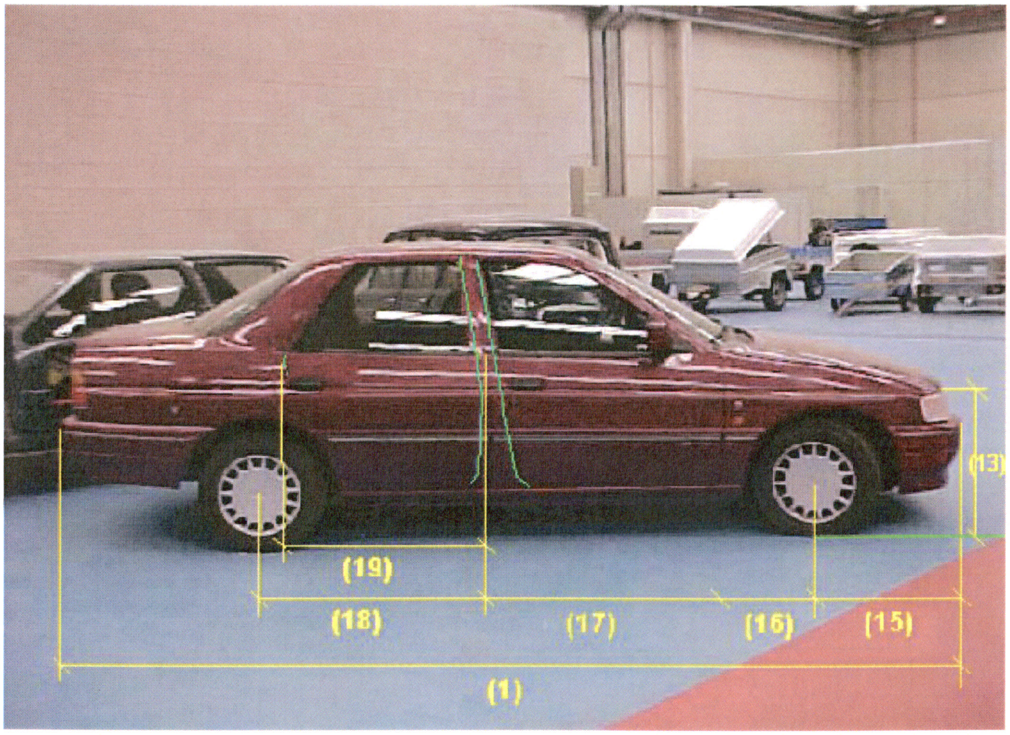


Figure 3.- Measurements of the side resistant elements (outer).

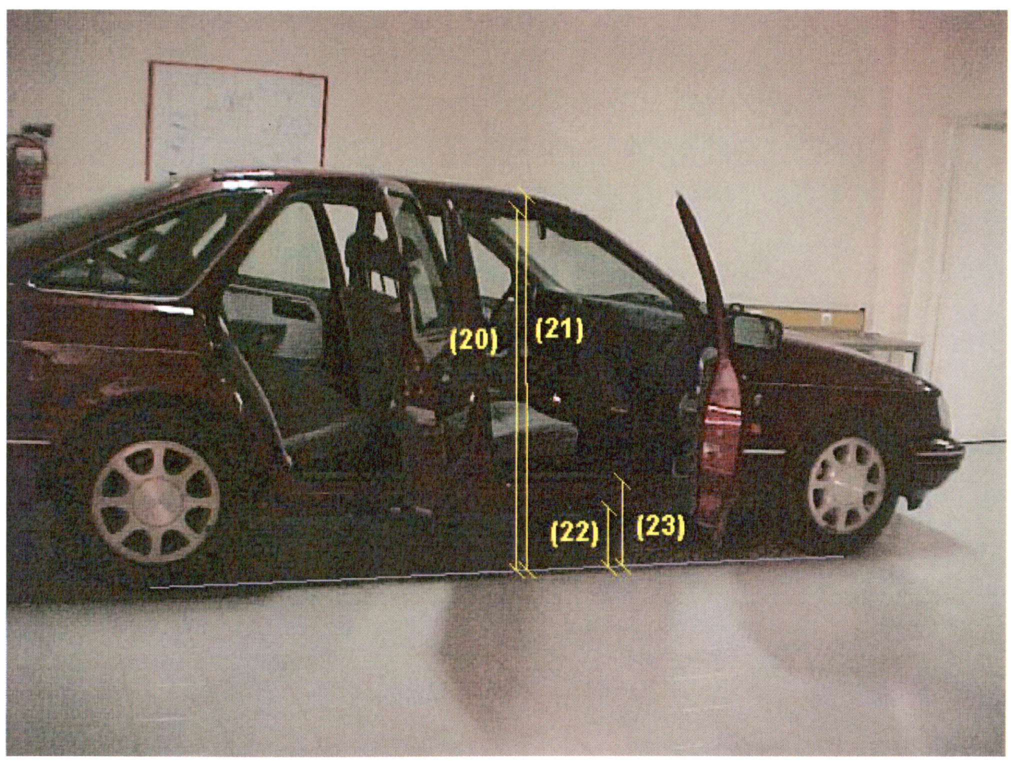


Figure 4.- Measurements of the side resistant elements (inner).

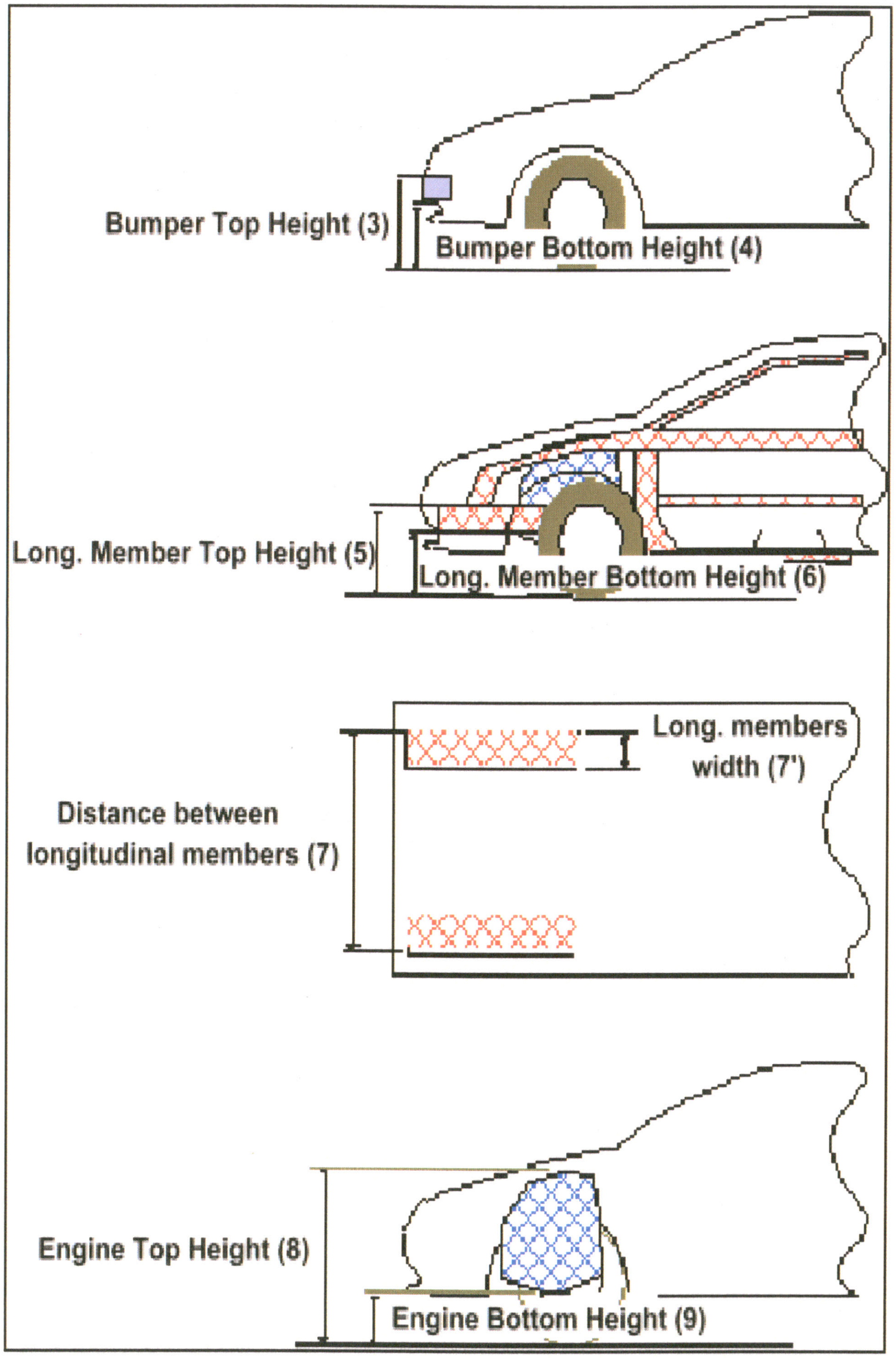


Figure 5.- Definition of the main resistant elements. Front elements.

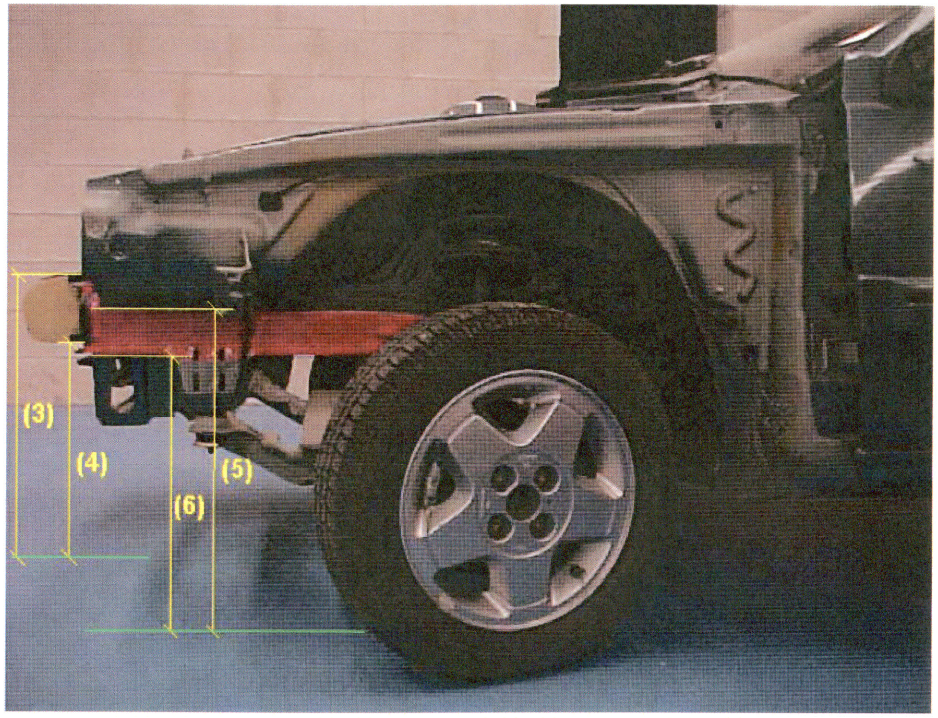


Figure 6.- Measurements of the main resistant elements. Front elements 1.

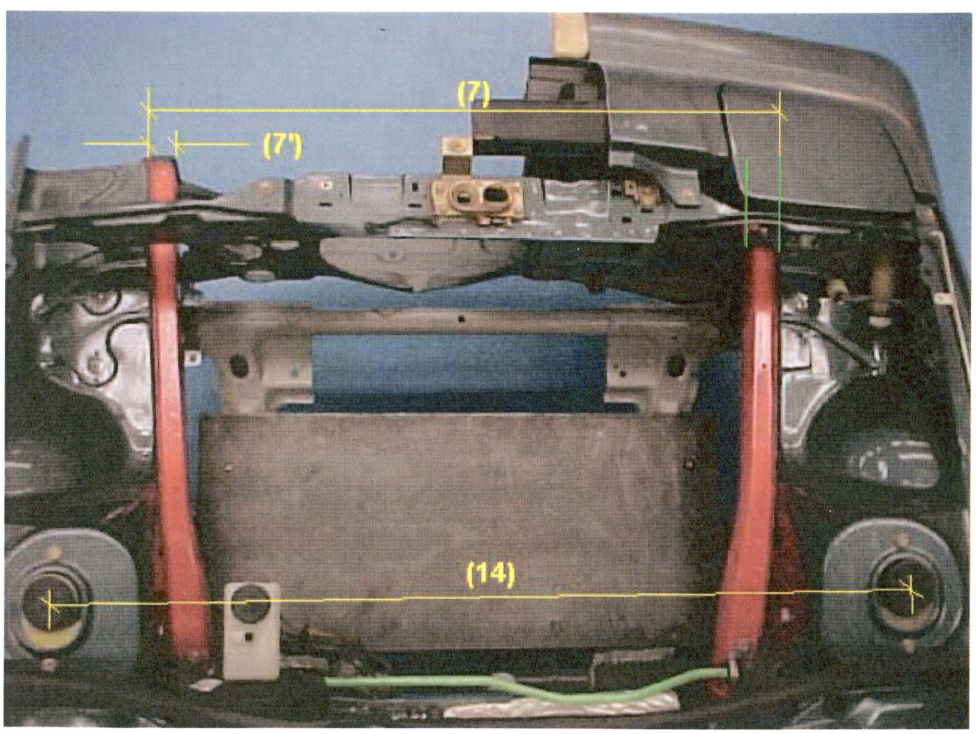


Figure 7.- Measurements of the main resistant elements. Front elements 2.

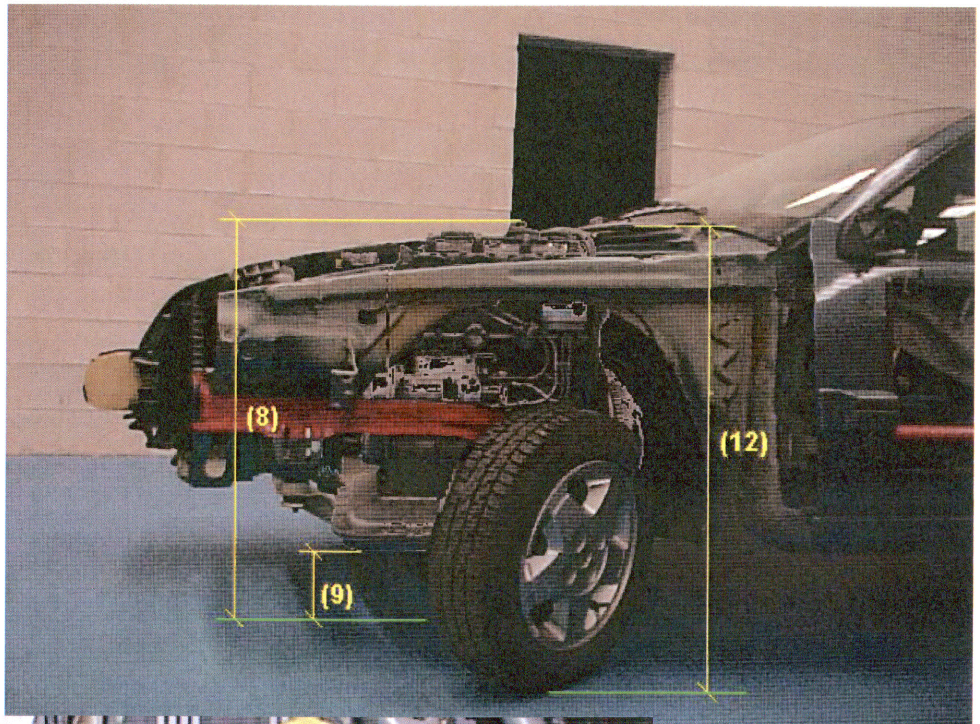


Figure 8.- Measurements of the main resistant elements. Front elements 3.

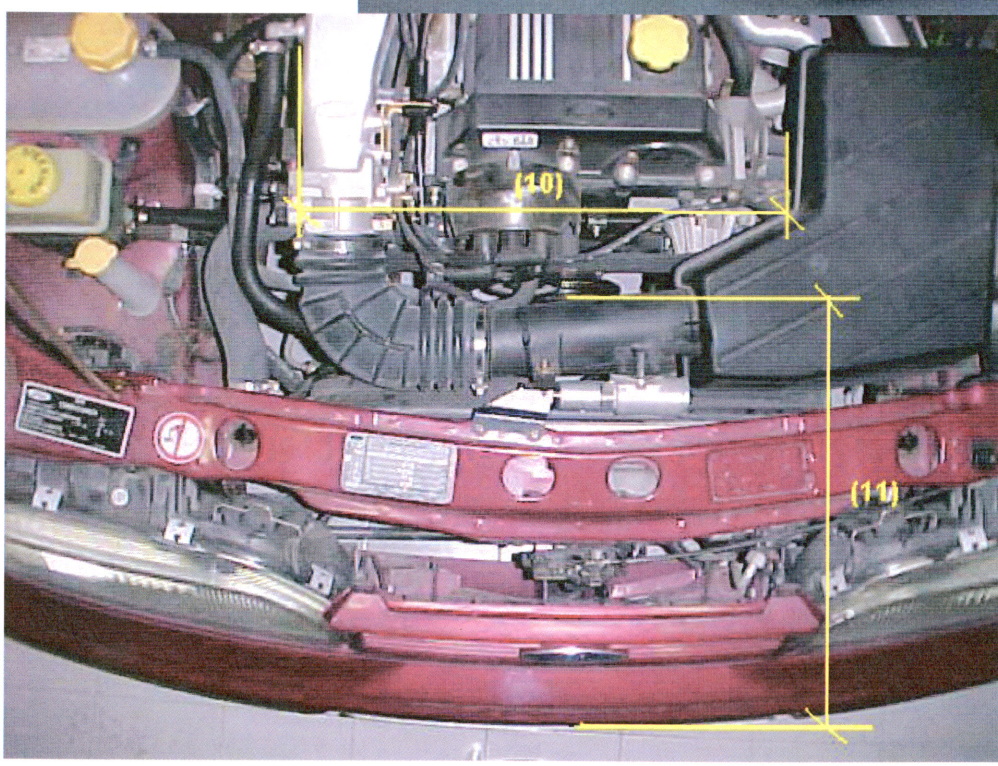


Figure 9.- Definition of the main resistant elements. Front elements (Longitudinal engine).

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.