

**Vehicle Research and Test Center
2006 Ford F-250 into
Front of 2002 Ford Focus
TRC Inc. Test Number: 060302**

**Prepared By:
Transportation Research Center Inc.
10820 State Route 347
East Liberty, OH 43319**

**Final Report
March 2006**

**Prepared For:
Vehicle Research and Test Center
P. O. Box 37
East Liberty, OH 43319**

Notice

Transportation Research Center Inc. does not endorse or certify products of manufacturers. The manufacturer's name appears solely to identify the test article. Transportation Research Center Inc. assumes no liability for the report or use thereof. It is responsible for the facts and the accuracy of the data presented herein. This report does not constitute a standard, specification, or regulation.

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

Table of Contents

<u>Section</u>	<u>Description</u>	<u>Page</u>
1.0	Purpose and Test Procedure	1-1
2.0	Full Frontal Collinear Test Summary	2-1
3.0	Summary of Data	3-1
4.0	Occupant, Camera and Vehicle Information	4-1
Appendix A	Photographs	A-1
Appendix B	Data Plots	B-1
Appendix C	Dummy Configuration and Performance Verification Data	C-1
Appendix D	Miscellaneous Test Information	D-1
Appendix E	INSIA Report on Structural Measurements	E-1

List of Tables

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Crash Test Summary	2-5
2	Target General Test and Vehicle Parameter Data	2-7
3	Bullet General Test and Vehicle Parameter Data	2-10
4	Post-Impact Data	2-13
5	Target Vehicle Accelerometer Locations and Data Summary	2-15
6	Bullet Vehicle Accelerometer Locations and Data Summary	2-16
7	Dummy Injury Criteria Data	3-2
8	Target Vehicle Post-Impact Dummy/Vehicle Data	3-3
9	Bullet Vehicle Post-Impact Dummy/Vehicle Data	3-4
10	Target Vehicle Dummy Measurement Data for Front Seat Occupants	4-3
11	Target Vehicle Driver Dummy THOR LX Ankle Position Angles	4-4
12	Bullet Vehicle Dummy Measurement Data for Front Seat Occupants	4-6
13	Bullet Vehicle Driver Dummy THOR LX Ankle Position Angles	4-7
14	Target Vehicle Structural Measurements	4-13
15	Target Vehicle Impacted Measurements	4-15
16	Target Vehicle Frontal Profile Measurements	4-21
17	Target Vehicle IIHS Measurements	4-24
18	Target Vehicle Bumper Measurements	4-25
19	Bullet Vehicle Structural Measurements	4-27
20	Bullet Vehicle Impacted Measurements	4-29
21	Bullet Vehicle Frontal Profile Measurement	4-35
22	Bullet Vehicle IIHS Measurements	4-38
23	Bullet Vehicle Bumper Measurements	4-39
24	Camera Information	4-42

List of Figures

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Impact Velocity Measurement System	2-14
2	Dummy Measurement Locations for Front Seat Occupants	4-2
3	Target Vehicle Seat Belt Positioning Data	4-5
4	Bullet Vehicle Seat Belt Positioning Data	4-8
5	Target Vehicle FMVSS 212 Test Data	4-9
6	Target Vehicle FMVSS 219 Test Data	4-10
7	Bullet Vehicle FMVSS 212 Test Data	4-11
8	Bullet Vehicle FMVSS 219 Test Data	4-12
9	Target Vehicle Pre-Test and Post-Test Measurement Points	4-14
10	Target Vehicle Intrusion Measurements, Door Opening Width	4-16
11	Target Vehicle Intrusion Measurements, Static Footwell Deformation	4-17
12	Target Vehicle Intrusion Measurements, Static Passenger Compartment Intrusion	4-18
13	Target Vehicle Floorboard Deformation	4-19
14	Target Vehicle Crush	4-20
15	Target Vehicle Toeboard Measurements	4-22
16	Target Vehicle Reference Photo Target Locations	4-26
17	Bullet Vehicle Pre-Test and Post-Test Measurement Points	4-28
18	Bullet Vehicle Intrusion Measurements, Door Opening Width	4-30
19	Bullet Vehicle Intrusion Measurements, Static Footwell Deformation	4-31
20	Bullet Vehicle Intrusion Measurements, Static Passenger Compartment Intrusion	4-32
21	Bullet Vehicle Floorboard Deformation	4-33
22	Bullet Vehicle Crush	4-34
23	Bullet Vehicle Toeboard Measurements	4-36
24	Bullet Vehicle Reference Photo Target Locations	4-40
25	Camera Positions	4-41

List of Photographs

<u>Description</u>	<u>Figure</u>
Pre-Test Overall - View 1	A-1
Post-Test Overall - View 1	A-2
Pre-Test Overall - View 2	A-3
Post-Test Overall - View 2	A-4
Pre-Test Overhead Wide View	A-5
Post-Test Overhead Wide View	A-6
Pre-Test Overhead Close-up View	A-7
Post-Test Overhead Close-up View	A-8
Pre-Test Overhead Target Vehicle View	A-9
Post-Test Overhead Target Vehicle View	A-10
Pre-Test Overhead Bullet Vehicle View	A-11
Post-Test Overhead Bullet Vehicle View	A-12
Pre-Test Target Vehicle Front View	A-13
Post-Test Target Vehicle Front View	A-14
Pre-Test Target Vehicle Left Front View	A-15
Post-Test Target Vehicle Left Front View	A-16
Pre-Test Target Vehicle Left Side View	A-17
Post-Test Target Vehicle Left Side View	A-18
Pre-Test Target Vehicle Left Rear View	A-19
Post-Test Target Vehicle Left Rear View	A-20
Pre-Test Target Vehicle Rear View	A-21
Post-Test Target Vehicle Rear View	A-22
Pre-Test Target Vehicle Right Rear View	A-23
Post-Test Target Vehicle Right Rear View	A-24
Pre-Test Target Vehicle Right Side View	A-25
Post-Test Target Vehicle Right Side View	A-26
Pre-Test Target Vehicle Right Front View	A-27
Post-Test Target Vehicle Right Front View	A-28

List of Photographs, Cont'd.

<u>Description</u>	<u>Figure</u>
Pre-Test Target Vehicle Engine Compartment View	A-29
Post-Test Target Vehicle Engine Compartment View	A-30
Pre-Test Target Vehicle Front Underbody View	A-31
Post-Test Target Vehicle Front Underbody View	A-32
Pre-Test Target Vehicle Front Mid Underbody View	A-33
Post-Test Target Vehicle Front Mid Underbody View	A-34
Pre-Test Target Vehicle Mid Underbody View	A-35
Post-Test Target Vehicle Mid Underbody View	A-36
Pre-Test Target Vehicle Rear Mid Underbody View	A-37
Post-Test Target Vehicle Rear Mid Underbody View	A-38
Pre-Test Target Vehicle Rear Underbody View	A-39
Post-Test Target Vehicle Rear Underbody View	A-40
Pre-Test Bullet Vehicle Front View	A-41
Post-Test Bullet Vehicle Front View	A-42
Pre-Test Bullet Vehicle Left Front View	A-43
Post-Test Bullet Vehicle Left Front View	A-44
Pre-Test Bullet Vehicle Left Side View	A-45
Post-Test Bullet Vehicle Left Side View	A-46
Pre-Test Bullet Vehicle Left Rear View	A-47
Post-Test Bullet Vehicle Left Rear View	A-48
Pre-Test Bullet Vehicle Rear View	A-49
Post-Test Bullet Vehicle Rear View	A-50
Pre-Test Bullet Vehicle Right Rear View	A-51
Post-Test Bullet Vehicle Right Rear View	A-52
Pre-Test Bullet Vehicle Right Side View	A-53
Post-Test Bullet Vehicle Right Side View	A-54
Pre-Test Bullet Vehicle Right Front View	A-55
Post-Test Bullet Vehicle Right Front View	A-56

List of Photographs, Cont'd.

<u>Description</u>	<u>Figure</u>
Pre-Test Bullet Vehicle Engine Compartment View	A-57
Post-Test Bullet Vehicle Engine Compartment View	A-58
Pre-Test Bullet Vehicle Front Underbody View	A-59
Post-Test Bullet Vehicle Front Underbody View	A-60
Pre-Test Bullet Vehicle Front Mid Underbody View	A-61
Post-Test Bullet Vehicle Front Mid Underbody View	A-62
Pre-Test Bullet Vehicle Mid Underbody - View 1	A-63
Post-Test Bullet Vehicle Mid Underbody - View 1	A-64
Pre-Test Bullet Vehicle Mid Underbody - View 2	A-65
Post-Test Bullet Vehicle Mid Underbody - View 2	A-66
Pre-Test Bullet Vehicle Rear Mid Underbody View	A-67
Post-Test Bullet Vehicle Rear Mid Underbody View	A-68
Pre-Test Bullet Vehicle Rear Underbody View	A-69
Post-Test Bullet Vehicle Rear Underbody View	A-70
Pre-Test Target Vehicle Windshield View	A-71
Post-Test Target Vehicle Windshield View	A-72
Pre-Test Target Vehicle Driver and Passenger Dummies through Windshield View	A-73
Post-Test Target Vehicle Driver and Passenger Dummies through Windshield View	A-74
Pre-Test Target Vehicle Driver Dummy - View 1	A-75
Post-Test Target Vehicle Driver Dummy - View 1	A-76
Pre-Test Target Vehicle Driver Dummy - View 2	A-77
Post-Test Target Vehicle Driver Dummy - View 2	A-78
Pre-Test Target Vehicle Driver Dummy - View 3	A-79
Pre-Test Target Vehicle Driver Dummy - View 4	A-80
Pre-Test Target Vehicle Driver Dummy Foot Position View	A-81
Pre-Test Target Vehicle Passenger Dummy - View 1	A-82
Post-Test Target Vehicle Passenger Dummy - View 1	A-83
Pre-Test Target Vehicle Passenger Dummy - View 2	A-84

List of Photographs, Cont'd.

<u>Description</u>	<u>Figure</u>
Post-Test Target Vehicle Passenger Dummy - View 2	A-85
Pre-Test Target Vehicle Passenger Dummy - View 3	A-86
Pre-Test Target Vehicle Passenger Dummy - View 4	A-87
Pre-Test Bullet Vehicle Windshield View	A-88
Post-Test Bullet Vehicle Windshield View	A-89
Pre-Test Bullet Vehicle Driver and Passenger Dummies through Windshield View	A-90
Post-Test Bullet Vehicle Driver and Passenger Dummies through Windshield View	A-91
Pre-Test Bullet Vehicle Driver Dummy - View 1	A-92
Post-Test Bullet Vehicle Driver Dummy - View 1	A-93
Pre-Test Bullet Vehicle Driver Dummy - View 2	A-94
Post-Test Bullet Vehicle Driver Dummy - View 2	A-95
Pre-Test Bullet Vehicle Driver Dummy - View 3	A-96
Post-Test Bullet Vehicle Driver Dummy - View 3	A-97
Pre-Test Bullet Vehicle Driver Dummy - View 4	A-98
Post-Test Bullet Vehicle Driver Dummy - View 4	A-99
Pre-Test Bullet Vehicle Driver Dummy Foot Position View	A-100
Post-Test Bullet Vehicle Driver Dummy Foot Position View	A-101
Pre-Test Bullet Vehicle Passenger Dummy - View 1	A-102
Post-Test Bullet Vehicle Passenger Dummy - View 1	A-103
Pre-Test Bullet Vehicle Passenger Dummy - View 2	A-104
Post-Test Bullet Vehicle Passenger Dummy - View 2	A-105
Pre-Test Bullet Vehicle Passenger Dummy - View 3	A-106
Post-Test Bullet Vehicle Passenger Dummy - View 3	A-107
Pre-Test Bullet Vehicle Passenger Dummy - View 4	A-108
Post-Test Bullet Vehicle Passenger Dummy - View 4	A-109
Post-Test Target Vehicle Driver Dummy Overall Contact View	A-110
Post-Test Target Vehicle Driver Dummy Head Contact View	A-111
Post-Test Target Vehicle Driver Floorboard Deformation View	A-112

List of Photographs, Cont'd.

<u>Description</u>	<u>Figure</u>
Post-Test Target Vehicle Driver Toeboard Deformation View	A-113
Post-Test Target Vehicle Passenger Dummy Overall Contact View	A-114
Post-Test Target Vehicle Passenger Dummy Head Contact View	A-115
Post-Test Target Vehicle Passenger Dummy Knee Contact View	A-116
Post-Test Target Vehicle Passenger Floorboard Deformation View	A-117
Post-Test Target Vehicle Passenger Toeboard Deformation View	A-118
Post-Test Target Vehicle Interior Damage - View 1	A-119
Post-Test Target Vehicle Interior Damage - View 2	A-120
Post-Test Bullet Vehicle Driver Dummy Overall Contact View	A-121
Post-Test Bullet Vehicle Driver Dummy Head Contact - View 1	A-122
Post-Test Bullet Vehicle Driver Dummy Head Contact - View 2	A-123
Post-Test Bullet Vehicle Driver Dummy Knee Contact View	A-124
Post-Test Bullet Vehicle Driver Floorboard Deformation View	A-125
Post-Test Bullet Vehicle Driver Toeboard Deformation View	A-126
Post-Test Bullet Vehicle Passenger Dummy Overall Contact View	A-127
Post-Test Bullet Vehicle Passenger Dummy Head Contact - View 1	A-128
Post-Test Bullet Vehicle Passenger Dummy Head Contact - View 2	A-129
Post-Test Bullet Vehicle Passenger Dummy Knee Contact View	A-130
Post-Test Bullet Vehicle Passenger Floorboard Deformation View	A-131
Post-Test Bullet Vehicle Passenger Toeboard Deformation View	A-132
Target Vehicle Certification and Tire Information Label View	A-133
Bullet Vehicle Certification Label View	A-134
Bullet Vehicle Tire Information Label View	A-135
Pre-Test Target Vehicle Ballast - View 1	A-136
Pre-Test Target Vehicle Ballast - View 2	A-137

Section 1.0

Purpose and Test Procedure

Purpose

This full frontal collinear vehicle-to-vehicle impact test was conducted for the National Highway Traffic Safety Administration (NHTSA) and Vehicle Research and Test Center (VRTC) by Transportation Research Center Inc. (TRC Inc.).

The test mode was defined as the bullet vehicle moving at 38.3 km/h to impact the target vehicle moving at 71.8 km/h at an impact angle of 0 degrees. The purpose of this test was to evaluate the aggressiveness of the bullet vehicle, a 2006 Ford F-250 4-door pickup truck, and the vehicle and occupant response of the target vehicle, a 2002 Ford Focus 4-door, in this vehicle-to-vehicle impact mode.

Test Procedure

This test was conducted in accordance with VRTC instructions for a full frontal collinear vehicle-to-vehicle test. Data was obtained relative to FMVSS 208, "Occupant Crash Protection" (December 18, 2001), FMVSS 212, "Windshield Mounting, and FMVSS 219 (partial), Windshield Zone Intrusion.

The target vehicle, a 2002 Ford Focus, was instrumented with eighteen (18) accelerometers to measure longitudinal, lateral and vertical axis accelerations. The driver's and passenger's airbag signals were monitored with inductive pickups, and the lap and shoulder belts were monitored for pay-in and pay-out. The vehicle's specified impact velocity range was 70.7 to 72.9 km/h.

The bullet vehicle, a 2006 Ford F-250, was instrumented with eighteen (18) accelerometers to measure longitudinal, lateral and vertical axis accelerations. The driver's and passenger's airbag signals were monitored with inductive pickups, and the lap and shoulder belts were monitored for pay-in and pay-out. The vehicle's specified impact velocity range was 37.2 to 39.4 km/h.

The bullet vehicle impacted the front of the target, at an impact angle of 0 degrees. The bullet vehicle's centerline was aligned with the target vehicle's centerline.

One (1) 50th percentile adult male Hybrid III dummy and one (1) 5th percentile adult female dummy were placed in the target vehicle's left front and right front designated seating positions, respectively. The Hybrid III 50th dummy was positioned according to the draft mid track based seating procedure while the Hybrid III 5th dummy was positioned according to NHTSA Laboratory Test Procedure TP-208-12. The driver dummy and passenger dummy were both belted and were restrained with front dual stage airbags.

The target vehicle's driver dummy was instrumented with nine (9) accelerometers in the head, plus six (6) chest and three (3) pelvis accelerometers to measure longitudinal, lateral and vertical accelerations (primary and redundant in the chest). The target vehicle's driver dummy

was also instrumented with upper and lower neck moment and force load cells, a chest deflection potentiometer, left and right femur load cells to measure moments and forces, and tibia to femur displacement potentiometers at each knee. The target vehicle's driver dummy was also equipped with THOR-LX lower legs and with upper and lower tibia load cells to measure forces and moments.

The target vehicle's passenger dummy was instrumented with an array of six (6) accelerometers in the head, plus six (6) chest, and three (3) pelvis accelerometers to measure longitudinal, lateral, and vertical accelerations (primary and redundant in the head and chest). The target vehicle's passenger dummy was also instrumented with upper and lower neck moment and force load cells, left and right femur load cells to measure axial forces, and a chest deflection potentiometer. The target vehicle's passenger dummy was also equipped with THOR-FLX lower legs, which included upper and lower tibia load cells to measure forces and moments, and a tibia to femur displacement potentiometer at each knee.

One (1) 50th percentile adult male Hybrid III dummy and one (1) 5th percentile adult female dummy were placed in the bullet vehicle's left front and right front designated seating positions, respectively. The Hybrid III 50th dummy was positioned according to the draft mid track based seating procedure while the Hybrid III 5th dummy was positioned according to NHTSA Laboratory Test Procedure TP-208-12. The driver dummy and passenger dummy were both belted and were restrained with front dual stage airbags.

The bullet vehicle driver dummy was instrumented with nine (9) accelerometers in the head, plus six (6) chest and three (3) pelvis accelerometers to measure longitudinal, lateral and vertical accelerations (primary and redundant in the chest). The bullet vehicle's driver dummy was also instrumented with upper and lower neck moment and force load cells, a chest deflection potentiometer, left and right femur load cells to measure moments and forces, and tibia to femur displacement potentiometers at each knee. The bullet vehicle's driver dummy was also equipped with THOR-LX lower legs and with upper and lower tibia load cells to measure forces and moments.

The bullet vehicle's passenger dummy was instrumented with three (3) accelerometers in the head, plus three (3) chest and three (3) pelvis accelerometers to measure longitudinal, lateral, and vertical accelerations. The bullet vehicle's passenger dummy was also instrumented with upper and lower neck moment and force load cells, left and right femur load cells to measure axial forces, and a chest deflection potentiometer.

The 294 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 nineteen (19) high-speed motion picture cameras. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera.

The test summary is presented in Section 2.0. The summary of data is presented in Section 3.0. The occupant, camera, and vehicle measurements are presented in Section 4.0. Appendix A contains the still photographic prints. Appendix B contains the dummy and vehicle data plots. Appendix C contains the dummy verification data. Appendix D contains miscellaneous test information. Appendix E contains an INSIA report that was the basis for the Structural Measurements presented in Tables 14 and 19 of this report.

Section 2.0

Full Frontal Collinear Test Summary

Test Results Summary

This 109.3 km/h 0° full frontal collinear vehicle-to-vehicle impact test was conducted by TRC Inc. on March 2, 2006.

The target test vehicle, a 2002 Ford Focus 4-door, was equipped with a 4-cylinder engine, automatic transmission, power steering, power brakes, and dual stage front airbags. The target vehicle's test weight was 1553.8 kg. The target vehicle's impact speed was 70.7 km/h. The target vehicle sustained 592 mm of static crush during the impact (measured without bumper fascia).

The bullet test vehicle, a 2006 Ford F-250 4-door pickup truck, was equipped with a 5.4-liter inline engine, automatic transmission, power steering, power brakes, and dual stage front airbags. The bullet vehicle's test weight was 2906.8 kg. The bullet vehicle's impact speed was 38.6 km/h. The bullet vehicle sustained 307 mm of static crush during the impact (measured with bumper fascia).

Injury Criteria Data Summary						
	Limits		Target Vehicle		Bullet Vehicle	
	Driver	Passenger	Driver	Passenger	Driver	Passenger
HIC (15 ms)	700	700	1023	887	225	309
HIC (36 ms)	1000	---	1500	1068	307	403
Chest 3 ms (g)	60	60	85.8	57.8	35.2	38.1
Chest Deflection (mm)	63	52	72	31	26	21
Upper Neck						
NTF	1.0	1.0	0.18	0.52	0.21	0.24
NTE	1.0	1.0	0.88	0.59	0.16	0.37
NCF	1.0	1.0	0.10	0.13	0.01	0.01
NCE	1.0	1.0	0.25	0.48	0.03	0.41
Neck Tension (N)	4170	2620	3840	1990	1120	767
Neck Compression (N)	4000	2520	568	511	99	471

Test Results Summary, Continued

Injury Criteria Data Summary, Continued						
	Limits		Target Vehicle		Bullet Vehicle	
	Driver	Passenger	Driver	Passenger	Driver	Passenger
Left Femur (N)	10000	6805	6539	4671	3594	127
Right Femur (N)	10000	6805	7175	5729	990	72
Maximum Upper TI (SAE)	0.91	0.91	1.36	1.33	0.43	N/A
Maximum Lower TI (SAE)	0.91	0.91	1.13	1.68	0.36	N/A

Data Acquisition Explanations

The target vehicle's top of engine X-axis acceleration data channel, 22ENGNTTP0000ACXA, recorded questionable data after approximately 30 milliseconds.

The target vehicle's left front brake caliper X-axis acceleration data channel, 21VEHCLE0000ACXA, exceeded full scale at approximately 71 milliseconds and recorded no useful data after that.

The target vehicle's dash center X-axis acceleration data channel, 22DASH000000ACXA, exceeded full scale at approximately 80 milliseconds recorded no useful data after that.

The bullet vehicle's top of engine X-axis acceleration data channel, 12ENGNTTP0000ACXA, exceeded full scale at approximately 47 milliseconds.

Table 1 Crash Test Summary

Test mode:	Full frontal collinear		
Test date:	03/02/06		
Test time:	14:59		
Ambient temperature:	3° C		
Target vehicle year/make/ model/body style:	2002/Ford/Focus/4-door		
Target vehicle test weight:	1553.8 kg		
Bullet vehicle year/make/ model/body style:	2006/Ford/F-250/4-door pickup truck		
Bullet vehicle test weight:	2906.8 kg		
Impact angle ¹ :	0°		
Impact velocity ² :	Target vehicle = 70.7 km/h Bullet vehicle = 38.6 km/h		
Target vehicle maximum static crush:	592 mm		
Bullet vehicle maximum static crush:	307 mm		
Total number of data channels:	294		
Number of cameras:	High-speed	19	Real-time 1
<u>Target vehicle dummies:</u>	<u>Driver #110</u>	<u>Passenger #416</u>	
Type:	Hybrid III 50th	Hybrid III 5th	
Location:	Left front	Right front	
Restraint:	3 pt. seat belt, dual stage airbag	3 pt. seat belt, dual stage airbag	
<u>Bullet vehicle dummies:</u>	<u>Driver #090</u>	<u>Passenger #070</u>	
Type:	Hybrid III 50th	Hybrid III 5th	
Location:	Left front	Right front	
Restraint:	3 pt. seat belt, dual stage airbag	3 pt. seat belt, dual stage airbag	

¹ With respect to tow track centerline.

² Speed trap measurement ($\pm .08$ km/h accuracy)

Table 1 Crash Test Summary, Continued

Target vehicle seat track position for test:

Driver: Middle; detent #9 of 17

Passenger: Full forward

Target vehicle seat back position for test:

Driver: 15.0°; measured at head restraint support post

Passenger: 14.2°; measured at head restraint support post

Target vehicle head restraint position for test:

Driver: Full up

Passenger: Full down

Target vehicle steering column

position for test: 24.4°; middle of geometric range of travel

Target vehicle D-ring position for test:

Driver: Full up

Passenger: Full down

Bullet vehicle seat track position for test:

Driver: Middle; detent #10 of 19

Passenger: Middle; detent #10 of 19 (bench seat)

Bullet vehicle seat back position for test:

Driver: 23.0°; measured at seat frame

Passenger: 23.0°; measured at seat frame (bench seat)

Bullet vehicle head restraint position for test:

Driver: Fixed

Passenger: Fixed

Bullet vehicle steering column

position for test: Middle of geometric range of travel

Bullet vehicle D-ring position for test:

Driver: Full up

Passenger: Full down

Table 2 Target General Test and Vehicle Parameter Data

Vehicle year/make/
model/body style: 2002/Ford/Focus/4-door

VIN: 1FAFP34P02W106372

Model year: 2002

Body style: 4-door

Color: Red

Engine data:

 Cylinders: 4

 Displacement 2.0 liters

 Cylinder placement: Straight

 Engine placement: Transverse

Transmission data: 3 speed, ___ manual, X automatic, X overdrive

 Final drive: X FWD, ___ RWD, ___ 4WD

Date vehicle received: 1/19/2006

Odometer reading: 184 miles

Dealer's name
and address: Vehicle provided by VRTC

Accessories:

Power steering	Yes	Automatic transmission	Yes
Power brakes	Yes	Automatic speed control	Yes
Power seats	No	Tilting steering wheel	Yes
Power windows	Yes	Telescoping steering wheel	Yes
Tinted glass	No	Air conditioning	Yes
Radio	Yes	Anti-skid brake	No
Clock	Yes	Rear window defroster	Yes
Other	None	Power door locks	Yes

Certification data from vehicle's label:

Vehicle manufactured by: Ford Motor Company

Date of manufacture: 9/01

VIN: 1FAFP34P02W106372

GVWR: 1641 kg (3620 lbs.)

GAWR: Front: 891 kg (1965 lbs.)

 Rear: 791 kg (1745 lbs.)

Table 2 Target General Test and Vehicle Parameter Data, Continued

Tires on vehicle (mfr., line, size): Front: Performance, Radial GT, P195/60R15
Rear: Fluent, Warrior, P195/60R15

Tire pressure with maximum capacity vehicle load:

Front:	35 psi	(240 kPa)
Rear:	35 psi	(240 kPa)

Spare tire (mfr., line, size): Hankook, Temp, T125/80R15

Type of seats:

Front	Bucket
Rear	Split bench

Maximum width: 1700 mm

Wheelbase: 2616 mm

Location of “Recommended Tire Pressure” label:

The label was located on the driver’s door.

Data from vehicle’s “Recommended Tire Pressure” label”:

Recommended tire size: P195/60R15

Recommended cold tire pressure:

Front:	32 psi	(221 kPa)
Rear:	32 psi	(221 kPa)

Vehicle Capacity Data:

Number of Occupants (Designated seating capacity):

Front	2
Rear	3
Total	5

Vehicle capacity weight: 327 kg (827 lbs.)

Rated cargo/luggage weight 77 kg (35 lbs.)

Test vehicle attitude:

Pre-test attitude:	LF 634 mm;	RF 636 mm;	LR 613 mm;	RR 610 mm
Post-test attitude:	LF 657 mm;	RF N/A ¹ ;	LR 637 mm;	RR 663 mm

¹ Fender was dislodged from the vehicle during the impact. Measurement could not be taken.

Table 2 Target General Test and Vehicle Parameter Data, Continued

Weight of test vehicle with required dummies and cargo weight:

Right front	407.6 kg	Right rear	368.6 kg
Left front	416.0 kg	Left rear	361.6 kg
Total front weight	823.6 kg	(53.0% of total vehicle weight)	
Total rear weight	730.2 kg	(47.0% of total vehicle weight)	
Total test weight	1553.8 kg		

Weight of ballast secured in vehicle: 11.3 kg of plate on 2nd row passenger floor, 28.1 kg of plate in rear cargo area

Components removed to meet target test weight: None

Location of Vehicle's CG: 1229 mm rearward of front wheel centerline

Fuel System Data:

Usable fuel system capacity	50 liters (from owner's manual)
Actual test volume:	46.6 liters (% of usable)

Table 3 Bullet General Test and Vehicle Parameter Data

Vehicle year/make/
model/body style: 2006/Ford/F-250/4-door pickup truck

VIN: 1FTSX215X6EA06796

Model year: 2006

Body style: 4-door pickup truck

Color: White

Engine data:

 Cylinders: 8

 Displacement 5.4 liters

 Cylinder placement: Straight

 Engine placement:

Transmission data: 3 speed, ___ manual, X automatic, X overdrive

 Final drive: ___ FWD, ___ RWD, X 4WD

Date vehicle received: 1/19/2006

Odometer reading: 359 miles

Dealer's name
and address: Vehicle provided by VRTC

Accessories:

Power steering	Yes	Automatic transmission	Yes
Power brakes	Yes	Automatic speed control	Yes
Power seats	No	Tilting steering wheel	Yes
Power windows	No	Telescoping steering wheel	No
Tinted glass	No	Air conditioning	Yes
Radio	Yes	Anti-skid brake	No
Clock	Yes	Rear window defroster	No
Other	None	Power door locks	No

Certification data from vehicle's label:

Vehicle manufactured by: Ford Motor Company

Date of manufacture: 5/05

VIN: 1FTSX215X6EA06796

GVWR: 4173 kg (9200 lbs.)

GAWR: Front: 1995 kg (4400 lbs.)

 Rear: 2766 kg (6100 lbs.)

Table 3 Bullet General Test and Vehicle Parameter Data, Continued

Tires on vehicle (mfr., line, size): BF Goodrich, Rugged Trail, LT245/75R17

Tire pressure with maximum capacity vehicle load:

Front:	80 psi	(550 kPa)
Rear:	80 psi	(550 kPa)

Spare tire (mfr., line, size): BF Goodrich, Rugged Trail, LT245/75R17

Type of seats:

Front	Bench
Rear	Bench

Maximum width: 2033 mm

Wheelbase: 3616 mm

Location of "Recommended Tire Pressure" label:

The label was located on the driver's door

Data from vehicle's "Recommended Tire Pressure" label":

Recommended tire size: LT245/75R17

Recommended cold tire pressure:

Front:	75 psi	(515 kPa)
Rear:	80 psi	(550 kPa)

Vehicle Capacity Data:

Number of Occupants (Designated seating capacity):

Front	3
Rear	3
Total	6

Vehicle capacity weight: 1235 kg (2723 lbs.)

Rated cargo/luggage weight 850 kg (1874 lbs.)

Test vehicle attitude:

Pre-test attitude:	LF 989 mm;	RF 991 mm;	LR1042 mm;	RR 1058 mm
Post-test attitude:	LF 939 mm;	RF 941 mm;	LR1031 mm;	RR 1063 mm

Table 3 Bullet General Test and Vehicle Parameter Data, Continued

Weight of test vehicle with required dummies and cargo weight:

Right front	866.0 kg	Right rear	584.8 kg
Left front	872.0 kg	Left rear	584.0 kg
Total front weight	1738.0 kg	(59.8% of total vehicle weight)	
Total rear weight	1168.8 kg	(40.2% of total vehicle weight)	
Total test weight	2906.8 kg		

Weight of ballast secured in vehicle: None

Components removed to meet target test weight: Tailgate, spare tire, taillights, rear bumper, spare tire shield, rear 1/2 of exhaust

Location of Vehicle's CG: 1454 mm rearward of front wheel centerline

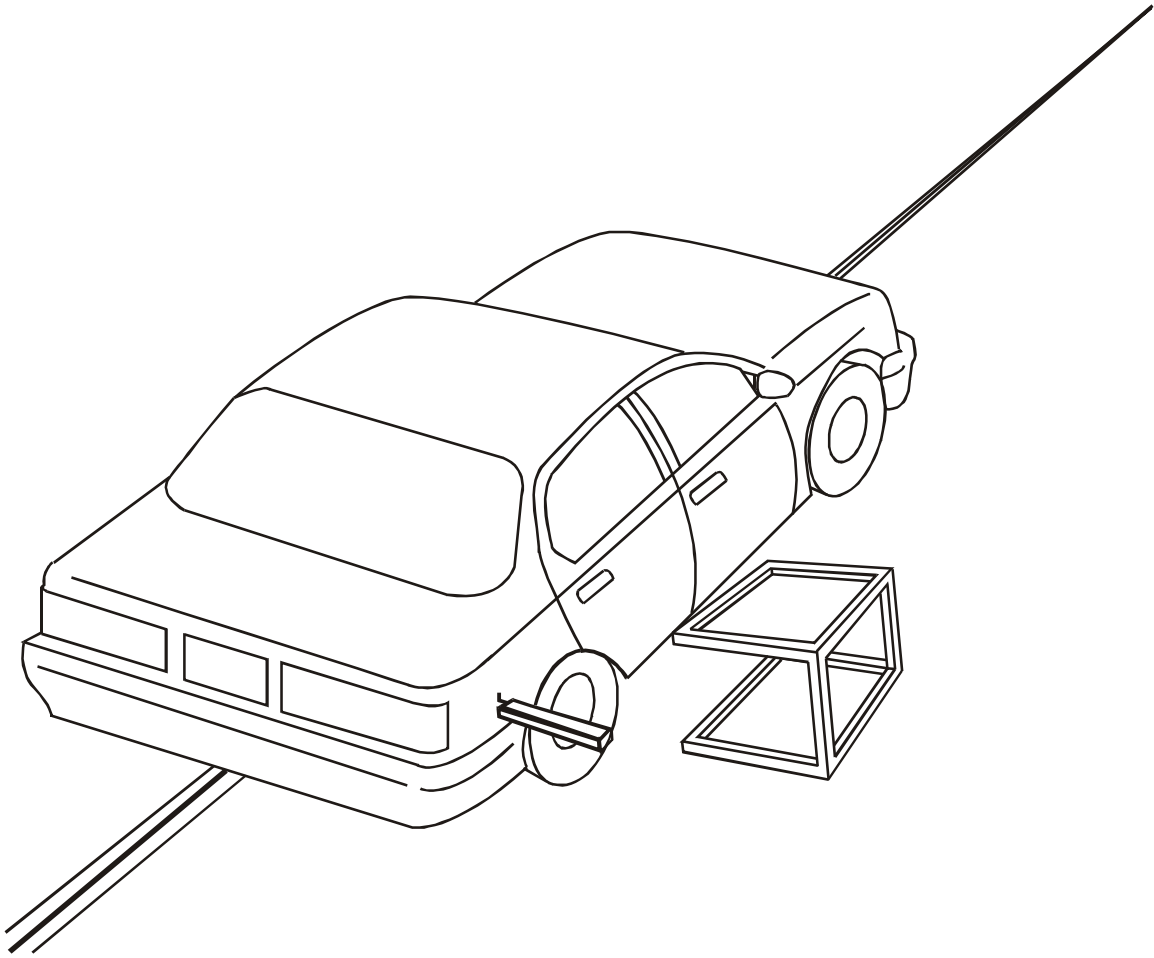
Fuel System Data:

Usable fuel system capacity	N/A
Actual test volume:	0.0 liters (% of usable)

Table 4 Post-Impact Data

Test number:	060302
Test date:	03/02/06
Test time:	14:59
Test type:	Full frontal collinear
Impact angle:	0°
Ambient temperature at impact area:	3° C
Impact velocity:	
Target vehicle:	70.7 km/h
Bullet vehicle:	38.6 km/h
Required impact velocity range:	
Target vehicle:	70.7 to 72.9 km/h
Bullet vehicle:	37.2 to 39.4 km/h
Distance from each vehicle to intended impact point:	
Entering velocity trap:	661 mm
Exiting velocity trap:	51 mm, approximately
Impact point:	0 mm offset from intended impact point (referenced to target vehicle coordinate system)

Figure 1 Impact Velocity Measurement System



The final vane clears the final emitter/receiver pair approximately 51 millimeters before impact.

The vanes have 610-millimeter spacing.

Table 5 Target Vehicle Accelerometer Data Summary

Accel. No.	Location		Positive Direction		Negative Direction	
			Max. (g)	Time (ms)	Max. (g)	Time (ms)
1	Left Rear Seat Cross-member	X	1.0	235.8	34.3	70.2
2	Right Rear Seat Cross-member	X	3.4	18.2	34.3	77.9
3	Top of Engine ¹	X	---	---	---	---
4	Bottom of Engine ¹	X	---	---	---	---
5	Right Front Brake Caliper	X	26.2	96.2	128.1	38.9
6	Left Front Brake Caliper ¹	X	---	---	---	---
7	Dash Center ¹	X	---	---	---	---
8	Toe Pan Accelerator	X	5.9	16.7	47.8	68.3
		Z	65.6	42.7	35.1	69.1
9	Toe Pan Footrest	X	2.4	127.1	39.7	30.5
		Z	37.9	43.4	26.9	83.0
10	Rear Tunnel Center	X	2.1	-18.2	36.6	65.2
11	Vehicle Center of Gravity	X	16.6	40.5	60.6	56.0
		Y	20.4	48.9	23.9	69.0
		Z	51.9	30.8	56.2	71.0
	Resultant		82.0	70.5		
12	Vehicle Rear Deck	X	8.9	107.5	42.3	78.1
		Y	4.7	34.8	6.7	48.4
		Z	15.6	103.8	19.7	67.5
	Resultant		43.0	78.1		

Reference: X: + Forward From Rear Bumper
 Y: + Rightward From Vehicle Centerline
 Z: + Downward From Ground Level

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

¹ See Data Acquisition Explanations.

Table 6 Bullet Vehicle Accelerometer Data Summary

Accel. No.	Location		Positive Direction		Negative Direction	
			Max. (g)	Time (ms)	Max. (g)	Time (ms)
1	Left Rear Seat Cross-member	X	2.9	15.9	26.5	29.2
2	Right Rear Seat Cross-member	X	5.9	17.4	29.7	29.0
3	Top of Engine ¹	X	---	---	---	---
4	Bottom of Engine	X	2.2	208.9	26.2	35.8
5	Right Front Brake Caliper	X	11.1	81.3	33.3	52.5
6	Left Front Brake Caliper	X	5.3	46.2	28.9	17.5
7	Dash Center	X	8.9	136.1	42.5	50.1
8	Toe Pan Accelerator	X	2.9	177.0	32.2	31.5
		Z	10.5	31.6	14.4	57.0
9	Toe Pan Footrest	X	2.5	178.7	30.1	31.2
		Z	6.5	80.8	14.4	54.6
10	Rear Tunnel Center	X	7.0	16.6	27.7	27.7
11	Vehicle Center of Gravity	X	1.4	177.2	32.1	29.9
		Y	4.4	69.0	1.8	95.0
		Z	14.4	104.9	22.1	65.0
	Resultant		32.6	29.8		
12	Vehicle Rear Deck	X	2.5	192.4	23.4	27.0
		Y	9.8	28.2	7.1	74.6
		Z	18.2	137.4	22.6	92.4
	Resultant		26.6	27.4		

Reference: X: + Forward From Rear Bumper
 Y: + Rightward From Vehicle Centerline
 Z: + Downward From Ground Level

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

¹ See Data Acquisition Explanations.

Section 3.0

Summary of Data

Table 7 Dummy Injury Criteria Data

	Limits		Target Vehicle		Bullet Vehicle	
	Driver	Passenger	Driver	Passenger	Driver	Passenger
HIC (15 ms) ¹	700	700	1023	887	225	309
Start time (ms)			80.56	65.44	91.68	104.96
End time (ms)			95.60	80.48	106.72	120.00
HIC (36 ms) ¹	1000	---	1500	1068	307	403
Start time (ms)			70.40	53.44	79.04	89.04
End time (ms)			105.84	83.20	114.80	125.04
Chest 3 ms (g) ²	60	60	85.8	57.8	35.2	38.1
Start time (ms)			80.01	84.09	74.69	76.78
End time (ms)			83.01	87.09	77.69	79.78
Chest Deflection (mm)	63	52	72	31	26	21
Upper Neck						
NTF	1.0	1.0	0.18	0.52	0.21	0.24
NTE	1.0	1.0	0.88	0.59	0.16	0.37
NCF	1.0	1.0	0.10	0.13	0.01	0.01
NCE	1.0	1.0	0.25	0.48	0.03	0.41
Neck Tension (N)	4170	2620	3840	1990	1120	767
Neck Compression (N)	4000	2520	568	511	99	471
Left Femur (N)	10000	6805	6539	4671	3594	127
Right Femur (N)	10000	6805	7175	5729	990	72
Maximum Upper TI (SAE)	0.91	0.91	1.36	1.33	0.43	N/A
Maximum Lower TI (SAE)	0.91	0.91	1.13	1.68	0.36	N/A

¹ As defined in FMVSS No. 208.

² Defined as equal to or exceeding 0.003 sec. duration.

Table 8 Target Vehicle Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver</u>	<u>Passenger</u>
Head	Airbag, head restraint	Airbag, head restraint
Chest	Airbag	Airbag
Abdomen	None	None
Left knee	Knee bolster	Glove box
Right knee	Knee bolster	Glove box

Door opening:

	<u>Left</u>	<u>Right</u>
Front	Tools required	Tools required
Rear	Easy	Easy

Seat movement:

	<u>Seat back failure</u>	<u>Seat shift</u>
Left Front	None	None
Right Front	None	None
Left Rear	None	None
Right Rear	None	None

Glazing damage: Windshield broken

Other notable impact effects: N/A

Table 9 Bullet Vehicle Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver</u>	<u>Passenger</u>
Head	Airbag, head restraint	Airbag, head restraint
Chest	Airbag	Airbag
Abdomen	None	None
Left knee	Knee bolster	None
Right knee	Knee bolster	None

Door opening:

	<u>Left</u>	<u>Right</u>
Front	Difficult	Easy
Rear	Easy	Easy

Seat movement:

	<u>Seat back failure</u>	<u>Seat shift</u>
Left Front	None	None
Right Front	None	None
Left Rear	N/A	N/A
Right Rear	N/A	N/A

Glazing damage: None

Other notable impact effects: None

Section 4.0

Occupant, Camera, and Vehicle Information

Figure 2 Vehicle Dummy Measurement Locations for Front Seat Occupants

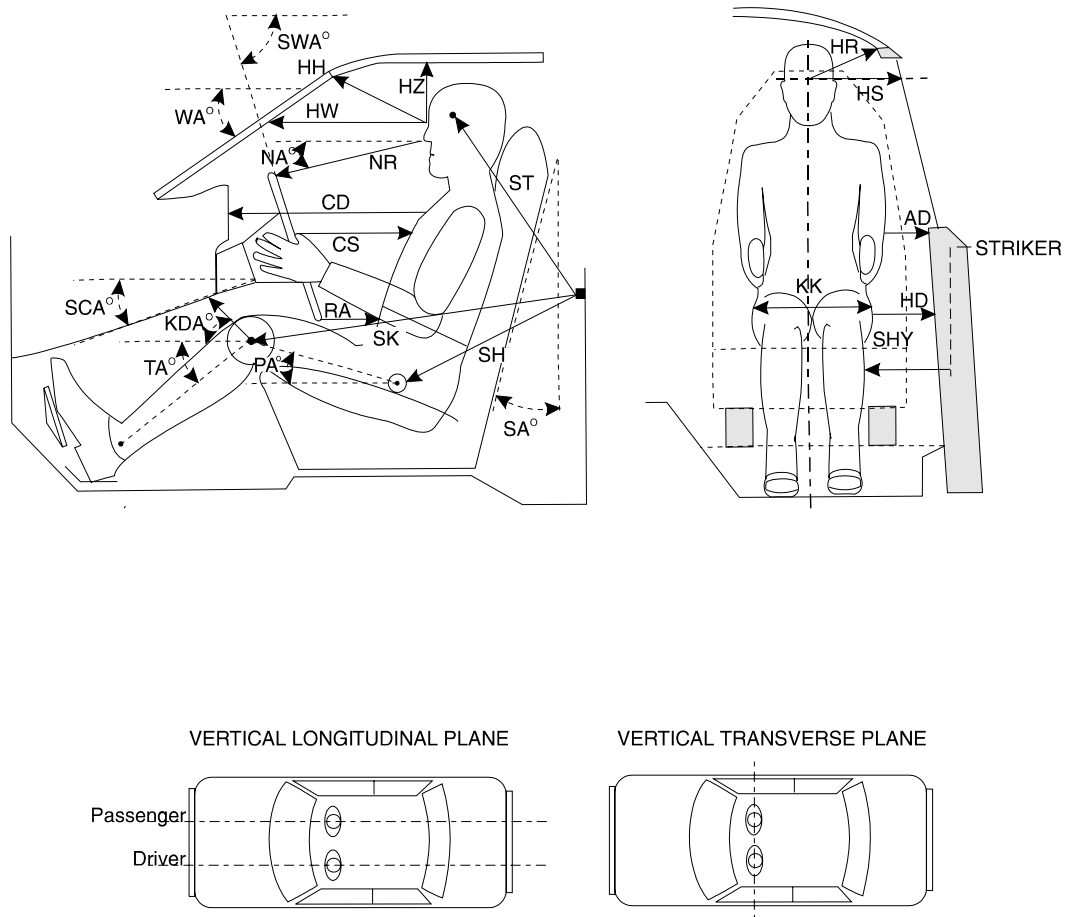


Table 10 Target Vehicle Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial #110)	Passenger (Serial #416)
WA	Windshield angle	24.5°	24.5°
SWA	Steering wheel angle	65.9°	N/A
SCA	Steering column angle	24.1°	N/A
SA	Seat back angle	16.0°	13.6°
HZ	Head to roof	212 mm	213 mm
HH	Head to header	333 mm	272 mm
HW	Head to windshield	658 mm	640 mm
HR	Head to side header	215 mm	227 mm
NR	Nose to rim	403 mm	N/A
NA	Nose to rim angle	6.7°	N/A
CD	Chest to dash	546 mm	412 mm
CS	Steering wheel to chest	323 mm	N/A
RA	Rim to abdomen	218 mm	N/A
KDL	Left knee to dash	150 mm	42 mm
KDR	Right knee to dash	139 mm	49 mm
KDA	Outboard knee to dash angle	21.6°	23.9°
PA	Pelvic angle	N/A ²	N/A ²
TA	Tibia angle	44.5°	60.7°
KK	Knee to knee	363 mm	165 mm
ST ¹	Striker to head	513 mm	494 mm
	Striker to head angle	-83.1°	-71.9°
SK ¹	Striker to knee	554 mm	689 mm
	Striker to knee angle	-2.8°	-0.2°
SH ¹	Striker to H-point	230 mm	329 mm
	Striker to H-point angle	36.3°	17.1°
SHY	Striker to H-point (Y dir.)	205 mm	249 mm
HS	Head to side window	315 mm	311 mm
HD	H-point to door	94 mm	153 mm
AD	Arm to door	93 mm	151 mm

The seat back angle (SA°) is measured relative to vertical, all other angles are measured relative to horizontal.

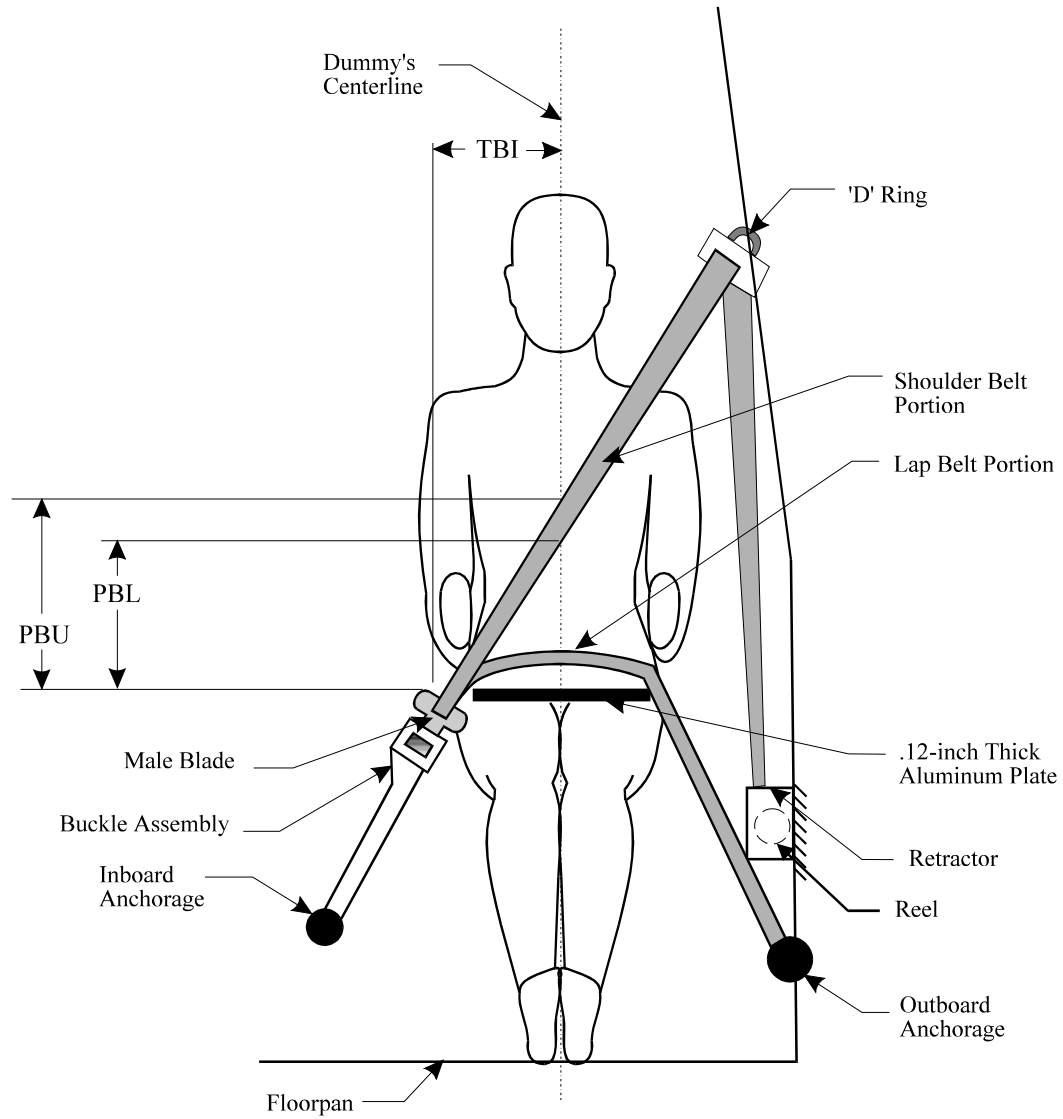
¹ A negative angle indicates the measurement point was above the striker.

² Measurement was not recorded.

Table 11 Target Vehicle Driver Dummy THOR LX Ankle Position Angles

Dummy #110		After Positioning	Pre-Launch
Right Leg			
	X	-3.53°	-3.31°
	Y	-0.05°	-0.17°
	Z	42.29°	42.43°
Left Leg			
	X	2.26°	2.11°
	Y	-4.02°	-3.63°
	Z	-47.90°	-48.58°

Figure 3 Target Vehicle Seat Belt Positioning Data



	Driver Dummy	Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge	354 mm	280 mm
PBL - Top surface of aluminum plate to belt lower edge	271 mm	180 mm
TBI - Dummy centerline to intersection of upper torso belt and lap belt	266 mm	251 mm

Table 12 Bullet Vehicle Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial # 90)	Passenger (Serial # 70)
WA	Windshield angle	33.9°	33.9°
SWA	Steering wheel angle	65.4°	N/A
SCA	Steering column angle	24.6°	N/A
SA	Seat back angle	21.3°	22.9°
HZ	Head to roof	262 mm	342 mm
HH	Head to header	495 mm	506 mm
HW	Head to windshield	713 mm	832 mm
HR	Head to side header	252 mm	339 mm
NR	Nose to rim	451 mm	N/A
NA	Nose to rim angle	11.7°	N/A
CD	Chest to dash	639 mm	604 mm
CS	Steering wheel to chest	329 mm	N/A
RA	Rim to abdomen	233 mm	N/A
KDL	Left knee to dash	165 mm	188 mm
KDR	Right knee to dash	175 mm	187 mm
KDA	Outboard knee to dash angle	21.0°	11.4°
PA	Pelvic angle	N/A ²	N/A ²
TA	Tibia angle	46.7°	74.9°
KK	Knee to knee	336 mm	167 mm
ST ¹	Striker to head	691 mm	611 mm
	Striker to head angle	73.0°	-70.1°
SK ¹	Striker to knee	744 mm	750 mm
	Striker to knee angle	-7.4°	-8.4°
SH ¹	Striker to H-point	351 mm	360 mm
	Striker to H-point angle	-2.3°	-1.4°
SHY	Striker to H-point (Y dir.)	260 mm	303 mm
HS	Head to side window	391 mm	381 mm
HD	H-point to door	222 mm	253 mm
AD	Arm to door	158 mm	211 mm

The seat back angle (SA°) is measured relative to vertical, all other angles are measured relative to horizontal.

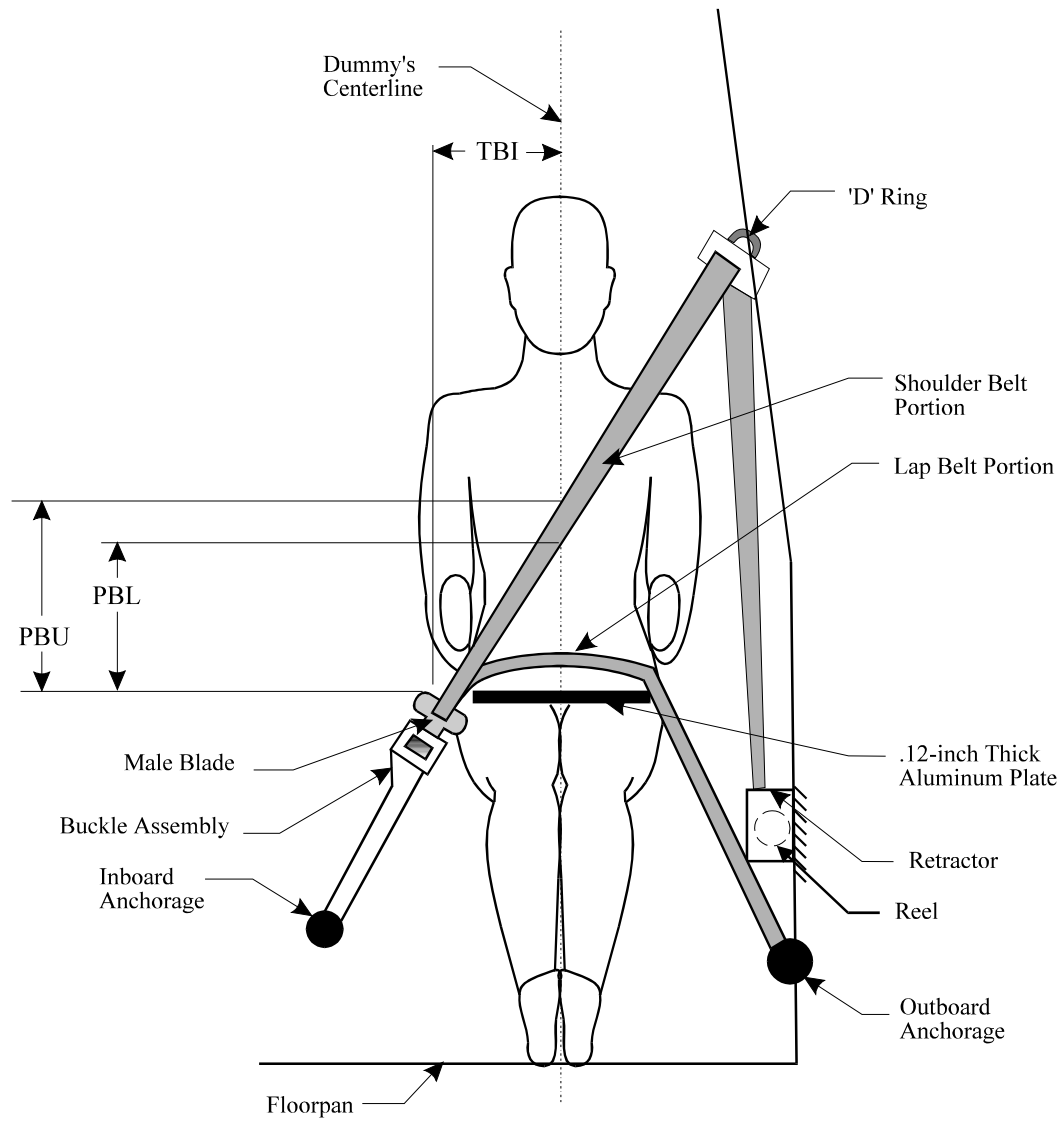
¹ A negative angle indicates the measurement point was above the striker.

² Measurement was not recorded.

Table 13 Bullet Vehicle Driver Dummy THOR LX Ankle Position Angles

Dummy #090		After Positioning	Pre-Launch
Right Leg			
	X	0.07°	1.64°
	Y	-1.20°	1.21°
	Z	42.67°	43.21°
Left Leg			
	X	-6.90°	-7.60°
	Y	3.84°	7.16°
	Z	54.59°	55.10°

Figure 4 Bullet Vehicle Seat Belt Positioning Data



	Driver Dummy	Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge	351 mm	280 mm
PBL - Top surface of aluminum plate to belt lower edge	274 mm	190 mm
TBI - Dummy centerline to intersection of upper torso belt and lap belt	253 mm	205 mm

Figure 5 Target Vehicle FMVSS 212 Test Data

Details of windshield mounting such as retention method, trim type, etc.:

Adhesive, plastic

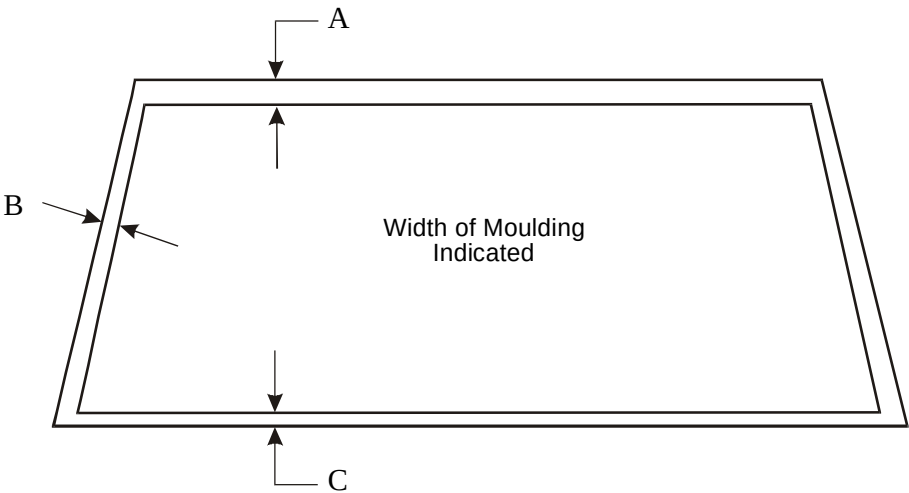
FMVSS 212 requirements: The post-test periphery retention amount must be at least 75% of the pre-test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of windshield for vehicles equipped with automatic restraint systems for front occupants.

Windshield periphery measurements:

	<u>Pre-test</u>	<u>Post-test</u>	<u>Percent retention</u>
Right side	2103 mm	N/A ¹	N/A ¹
Left side	2103 mm	N/A ¹	N/A ¹
Total	4206 mm	N/A ¹	N/A ¹

Pre-test windshield mounting material temperature: 23° C

A = 6 mm
B = 6 mm
C = 15 mm



Front view of windshield

Loss of windshield retention lengths:

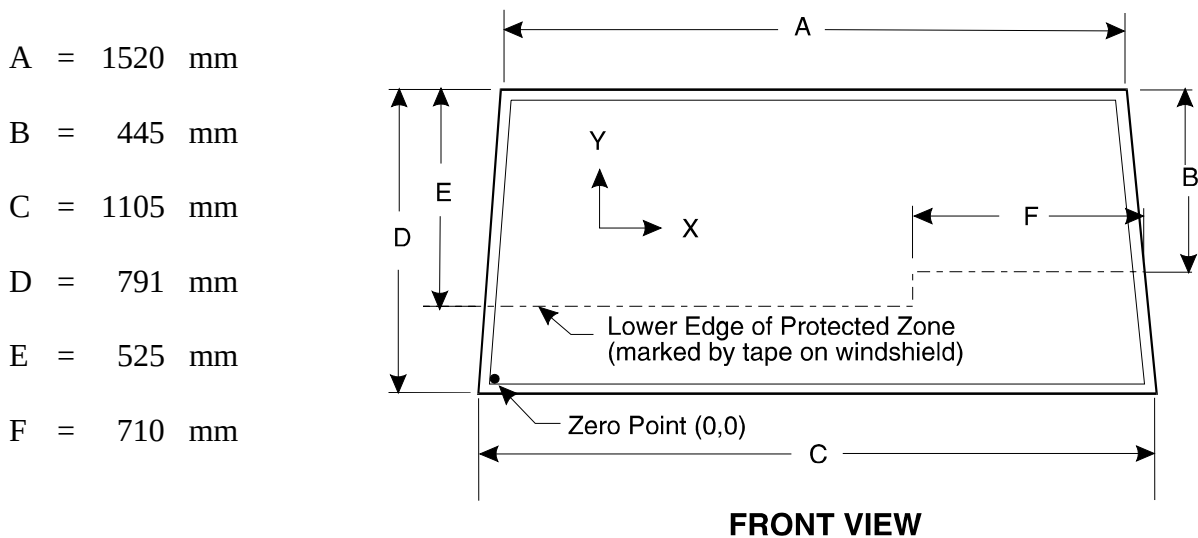
¹ Measurements not taken at the request of the customer.

Figure 6 Target Vehicle FMVSS 219 Test Data

Protected zone lower edge requirement:

The lower edge of the protected zone is determined by placing a 165-millimeter diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. Draw the locus of points on the inner surface of the windshield contactable 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, and then draw a line on the inner surface of the windshield below and 13 millimeters from the locus line. The **lower edge of the protected zone** is the longitudinal projection onto the outer surface of the windshield of this line.

Windshield measurements:



Method of adhering protected zone template to windshield:

Areas of windshield template penetration greater than 6 mm:

	Coordinates, mm	
	X	Y
1.		
2.		
3.		

Areas of windshield penetration, below the protected zone, through the inner surface of the windshield:

- 1.
- 2.
- 3.

Figure 7 Bullet Vehicle FMVSS 212 Test Data

Details of windshield mounting such as retention method, trim type, etc.:

Adhesive Molding Unknown

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 windshield for vehicles equipped with automatic restraint systems for front occupants.

Windshield periphery measurements:

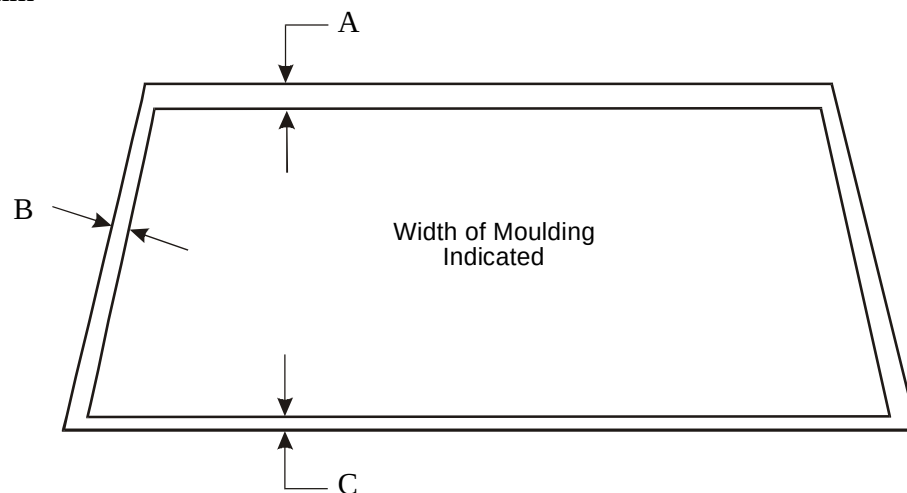
	<u>Pre-test</u>	<u>Post-test</u>	<u>Percent retention</u>
Right side	2360 mm	N/A ¹	N/A ¹
Left side	2360 mm	N/A ¹	N/A ¹
Total	4720 mm	N/A ¹	N/A ¹

Pre-test windshield mounting material temperature: 21° C

A = 25 mm

B = 25 mm

C = 15 mm



Front view of windshield

Loss of windshield retention lengths:

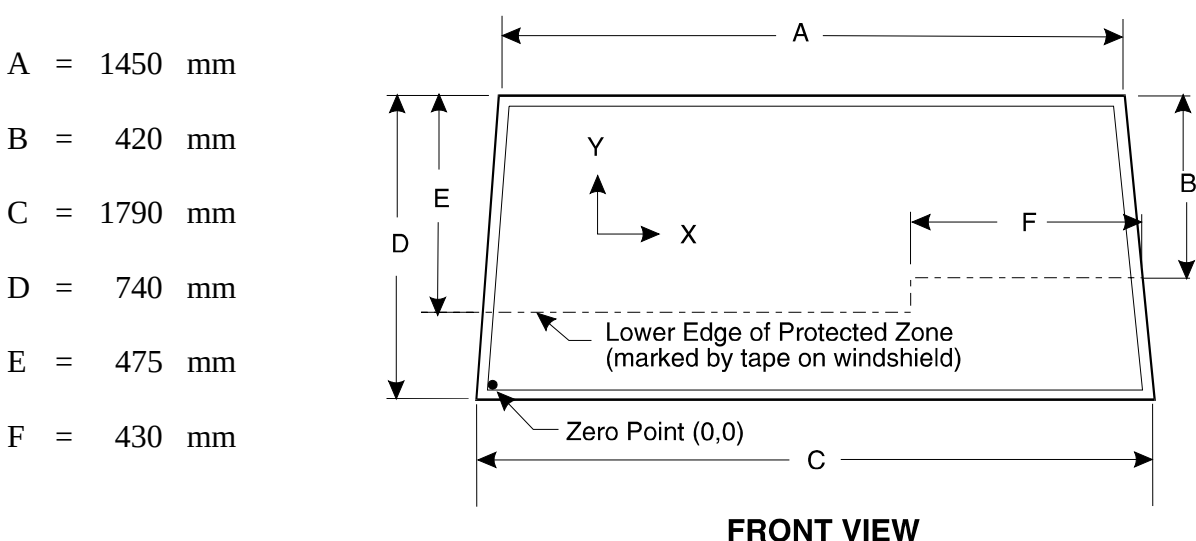
¹ Measurement not taken at the request of the customer.

Figure 8 Bullet Vehicle FMVSS 219 Test Data

Protected zone lower edge requirement:

The lower edge of the protected zone is determined by placing a 165-millimeter diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. Draw the locus of points on the inner surface of the windshield contactable 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, and then draw a line on the inner surface of the windshield below and 13 millimeters from the locus line. The **lower edge of the protected zone** is the longitudinal projection onto the outer surface of the windshield of this line.

Windshield measurements:



Method of adhering protected zone template to windshield:

Areas of windshield template penetration greater than 6 mm:

	Coordinates, mm	
	X	Y
1.		
2.		
3.		

Areas of windshield penetration, below the protected zone, through the inner surface of the windshield:

- 1.
- 2.
- 3.

Table 14 Target Vehicle Structural Measurements¹

	Elements	Pre-Test
1	Total Length	4910
2	Total Width	1700
3	Bumper Top Height	537
4	Bumper Bottom Height	384
5	Longitudinal Member Top Height	506
6	Longitudinal Member Bottom Height	396
7	Distance Between Longitudinal Members	1085
7'	Longitudinal Member Width	90
8	Engine Top Height	804
9	Engine Bottom Height	179
10	Engine and Gearbox Width	820
11	Front Bumper - Engine Distance	475
12	Front Shock Absorber Fixing Height	821
13	Bonnet Leading Edge Height	664
14	Front Shock Absorber Fixing Width	1100
15	Front Bumper - Front Axle Distance	775
16	Front Axle - A Pillar Distance	570
17	A Pillar - B Pillar Distance	950
18	B Pillar - Rear Axle Distance	1085
19	B Pillar - C Pillar Distance	870
20	Roof Sill Bottom Height	1366
21	Roof Sill Top Height	1391
22	Floor Sill Bottom Height	293
23	Floor Sill Top Height	302

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 E.

Figure 9 Target Vehicle Pre-Test And Post-Test Measurement Points

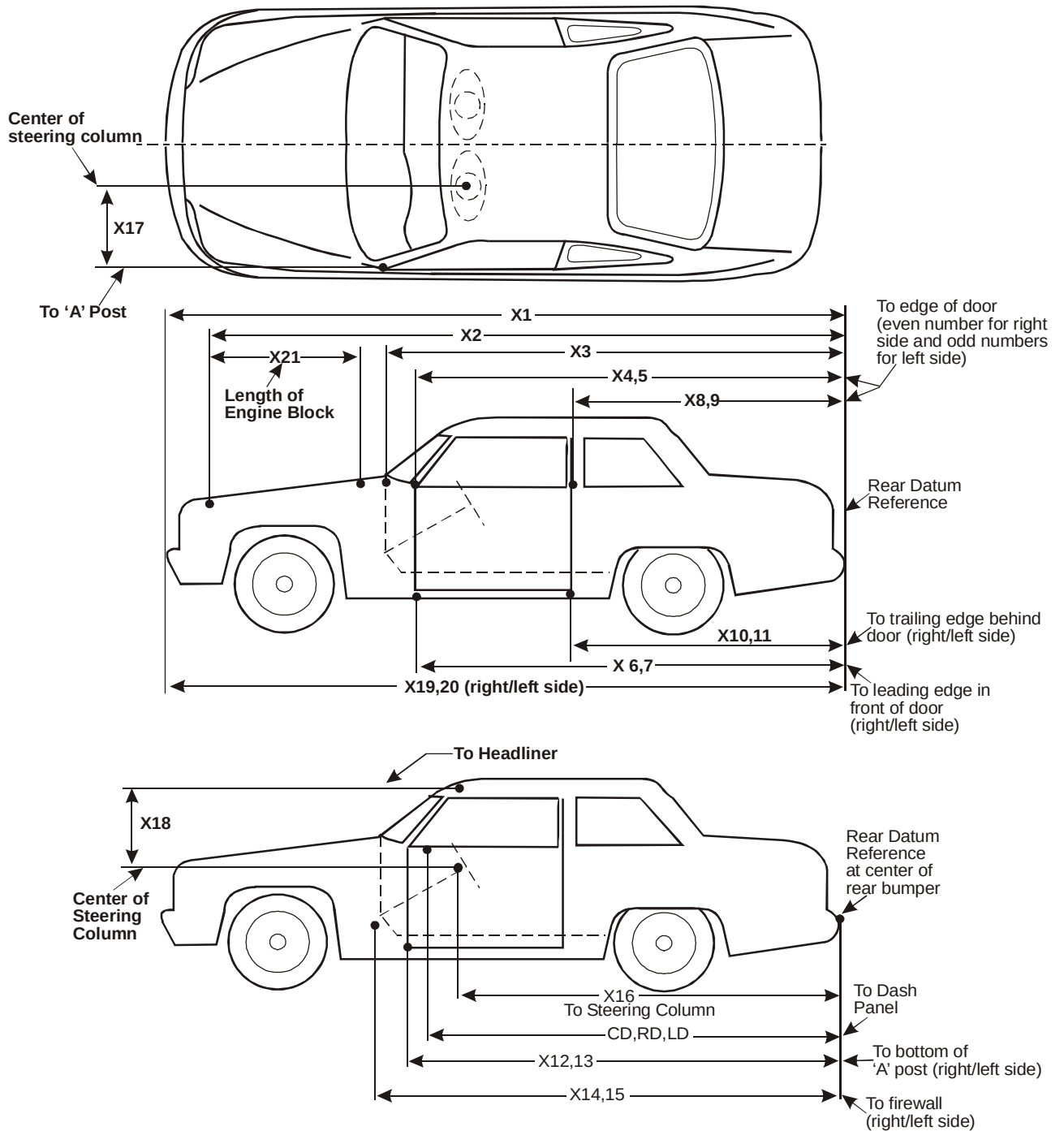


Table 15 Target Vehicle Impacted Measurements

Test number: 060302

Vehicle year/make/model/body style: 2002/Ford/Focus/4-door

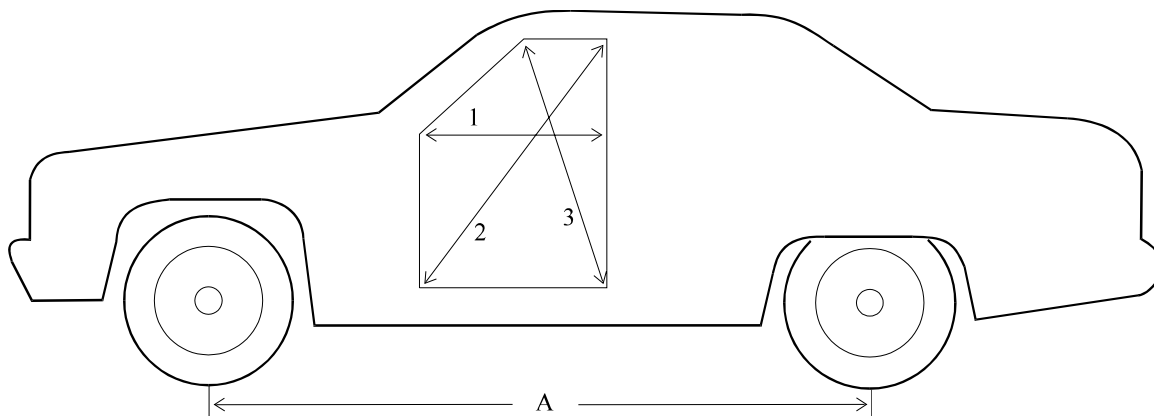
No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	4345	3875	470
X2	Rear Surface of Vehicle to Front of Engine Block	3840	3386	454
X3	Rear Surface of Vehicle to Firewall	3475	N/A ¹	N/A ¹
X4	Rear Surface of Veh. to Upper Leading Edge of Right Door	3097	N/A ¹	N/A ¹
X5	Rear Surface of Veh. to Upper Leading Edge of Left Door	3091	2974	117
X6	Rear Surface of Veh. to Lower Leading Edge of Right Door	3055	N/A ¹	N/A ¹
X7	Rear Surface of Veh. to Lower Leading Edge of Left Door	3050	2953	97
X8	Rear Surface of Veh. to Upper Trailing Edge of Right Door	2075	N/A ¹	N/A ¹
X9	Rear Surface of Veh. to Upper Trailing Edge of Left Door	2071	1970	101
X10	Rear Surface of Veh. to Lower Trailing Edge of Right Door	2075	N/A ¹	N/A ¹
X11	Rear Surface of Veh. to Lower Trailing Edge of Left Door	2070	1973	97
X12	Rear Surface of Veh. to Bottom of " A " Post on Right Side	3015	2687	328
X13	Rear Surface of Veh. to Bottom of " A " Post on Left Side	3016	2845	171
X14	Rear Surface of Vehicle to Firewall - Right Side	3475	N/A ¹	N/A ¹
X15	Rear Surface of Vehicle to Firewall - Left Side	3470	N/A ¹	N/A ¹
X16	Rear Surface of Vehicle to Steering Wheel Center	2635	2411	224
X17	Center of Steering Column to " A " Post	290	172	118
X18	Center of Steering Column to Headliner	421	556	-135
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4325	3805	520
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4325	3883	442
X21	Length of Engine Block	420	420	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	2866	2469	397
CD	Rear Surface of Vehicle to Center of Dash Panel	2879	2564	315
LD	Rear Surface of Vehicle to Left Side of Dash Panel	2869	2625	244

All distance measurements are in millimeters.

¹ Measurement point could not be located post-test.

Figure 10 Target Vehicle Intrusion Measurements

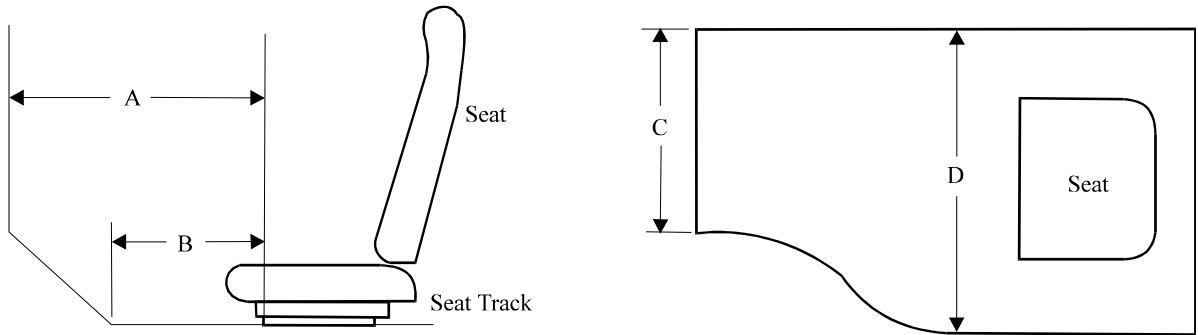
Door Opening Width



Units (mm)	Left			Right		
Measurement	1	2	3	1	2	3
Pre-Test	885 mm	1410 mm	1035 mm	885 mm	1410 mm	1030 mm
Post-Test	769 mm	1335 mm	1226 mm	625mm	1369 mm	1186 mm
Difference	116 mm	75 mm	-191 mm	260 mm	41 mm	-156 mm

Units (mm)	A = Wheelbase Left	A = Wheelbase Right
Pre-Test	2616 mm	2616 mm
Post-Test	2500 mm	2380 mm
Difference	116 mm	236 mm

Figure 11 Target Vehicle Intrusion Measurements
Static Footwell Deformation



Driver's Side

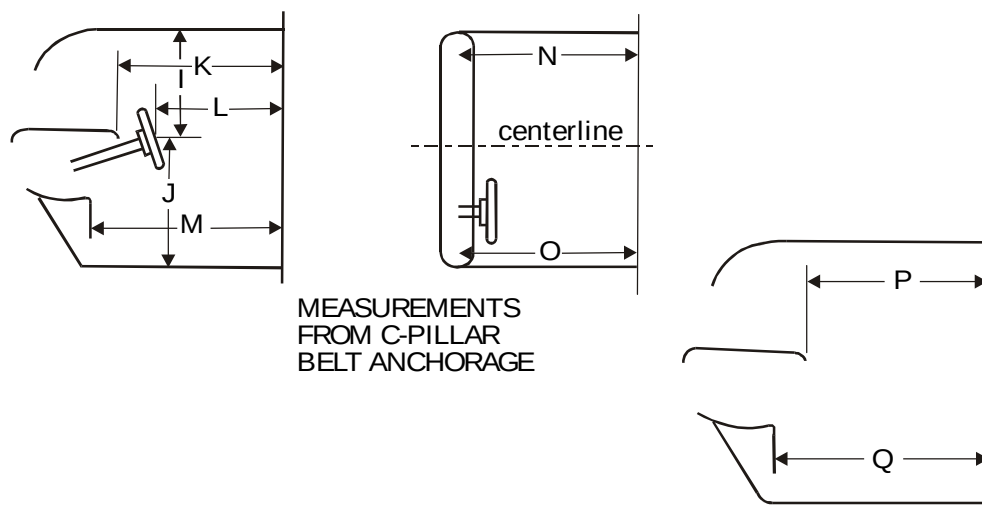
Measurement	Pre-Test	Post-Test	Difference
A	615 mm	552 mm	63 mm
B	470 mm	460 mm	10 mm
C	470 mm	453 mm	17 mm
D	460 mm	465 mm	-5 mm

Passenger's Side

Measurement	Pre-Test	Post-Test	Difference
A	610 mm	465 mm	145 mm
B	465 mm	443 mm	22 mm
C	475 mm	478 mm	-3 mm
D	475 mm	477 mm	-2 mm

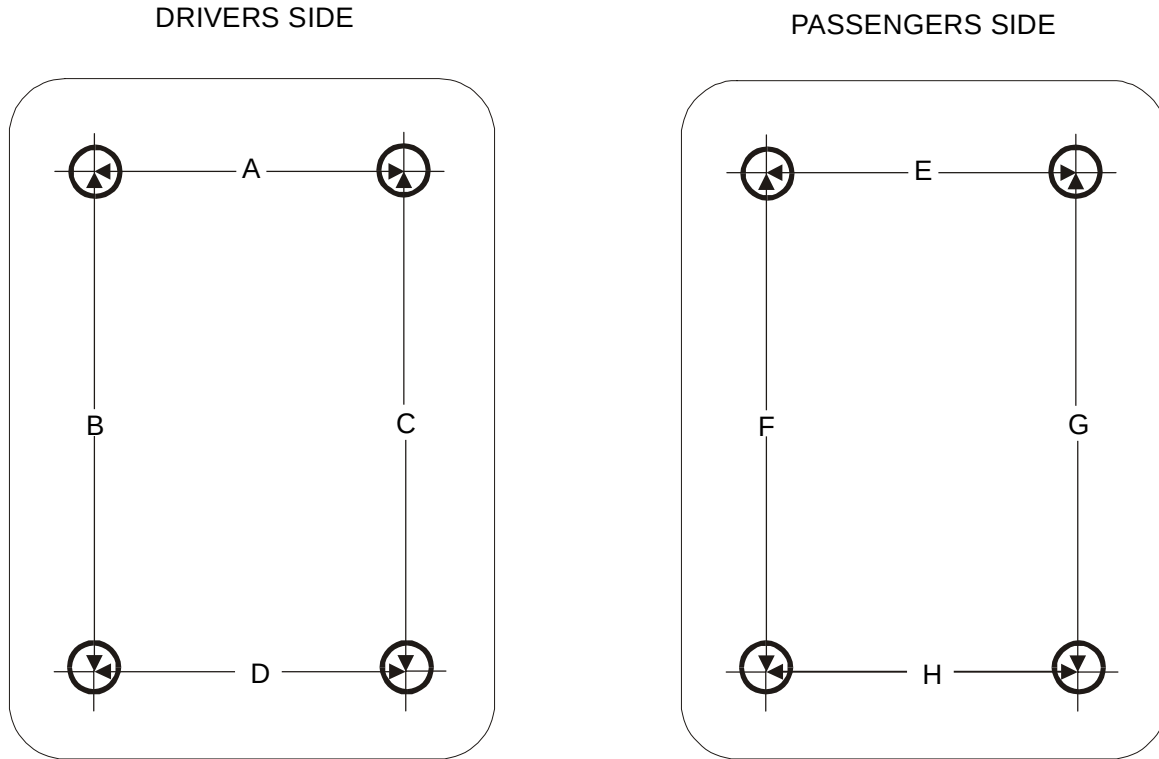
Figure 12 Target Vehicle Intrusion Measurements

Static Passenger Compartment Intrusion



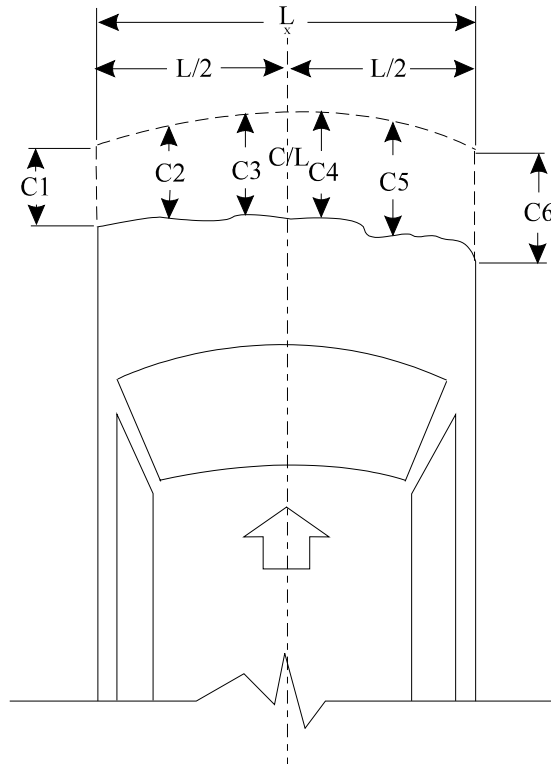
Measurement	Pre-Test	Post-Test	Difference
I	415 mm	556 mm	-141 mm
J	730 mm	758 mm	-28 mm
K (driver's side)	1874 mm	1643 mm	231 mm
L	1675 mm	1455 mm	220 mm
M (driver's side)	1981 mm	1846 mm	135 mm
N (passenger's side)	1905 mm	1584 mm	321 mm
O (driver's side)	1871 mm	1515 mm	356 mm
P (passenger's side)	1865 mm	1528 mm	337 mm
Q (passenger's side)	1981 mm	1771 mm	210 mm

Figure 13 Target Vehicle Floorboard Deformation



Measurement	Pre-Test	Post-Test	Difference
A	470 mm	453 mm	17 mm
B	395 mm	392 mm	3 mm
C	395 mm	392 mm	3 mm
D	460 mm	465 mm	-5 mm
E	475 mm	478 mm	-3 mm
F	385 mm	386 mm	-1 mm
G	410 mm	410 mm	0 mm
H	475 mm	477 mm	-2 mm

Figure 14 Vehicle Crush, continued



Notes: L is pre-test length of contact surface.
C1 through C6 are spaced equally apart.
CL is vehicle centerline.
Measured without bumper fascia.

Vehicle: 2002 Ford Focus 4-door

	Pre-test	Post-test	Crush
L	1320 mm		
C1	4325 mm	3883 mm	442 mm
C2	4345 mm	3830 mm	515 mm
C3	4345 mm	3825 mm	520 mm
C4	4345 mm	3795 mm	550 mm
C5	4345 mm	3753 mm	592 mm
C6	4325 mm	3805 mm	520 mm
CL	4345 mm	3875 mm	470 mm

Table 16 Target Vehicle Frontal Profile Measurements

Bottom of Front Bumper

Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	4325	-612	-380	3978	-572	-50	-347	40	330
2	4345	-369	-385	3945	-360	-150	-400	9	235
3	4345	-121	-390	3925	-120	-230	-420	1	160
4	4345	123	-395	3880	133	-310	-465	10	85
5	4345	369	-390	3850	372	-390	-495	3	0
6	4325	615	-387	3845	608	-459	-480	-7	-72

Top of Front Bumper

Pre-Test				Post-Test			Difference ¹		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	4325	-612	-535	3883	-622	-100	-442	-10	435
2	4345	-369	-535	3830	-362	-220	-515	7	315
3	4345	-121	-544	3825	-139	-323	-520	-18	221
4	4345	123	-546	3795	130	-409	-550	7	137
5	4345	369	-540	3753	350	-500	-592	-19	40
6	4325	615	-540	3805	585	-560	-520	-30	-20

Center of Grill

Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	4235	-610	-656	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²
2	4335	-370	-595	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²
3	4350	-120	-624	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²
4	4350	125	-617	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²
5	4335	375	-605	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²
6	4235	622	-645	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²

Front of Hood

Pre-Test				Post-Test			Difference ⁴		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	4065	-610	-758	3056	-541	-934	-1009	69	-176
2	4325	-369	-640	3135	-292	-740	-1190	77	-100
3	4335	-120	-664	3285	-136	-858	-1050	-16	-194
4	4330	125	-667	3310	106	-870	-1020	-19	-203
5	4330	370	-645	3215	350	-827	-1115	-20	-182
6	4015	640	-770	3110	602	-1048	-905	-38	-278

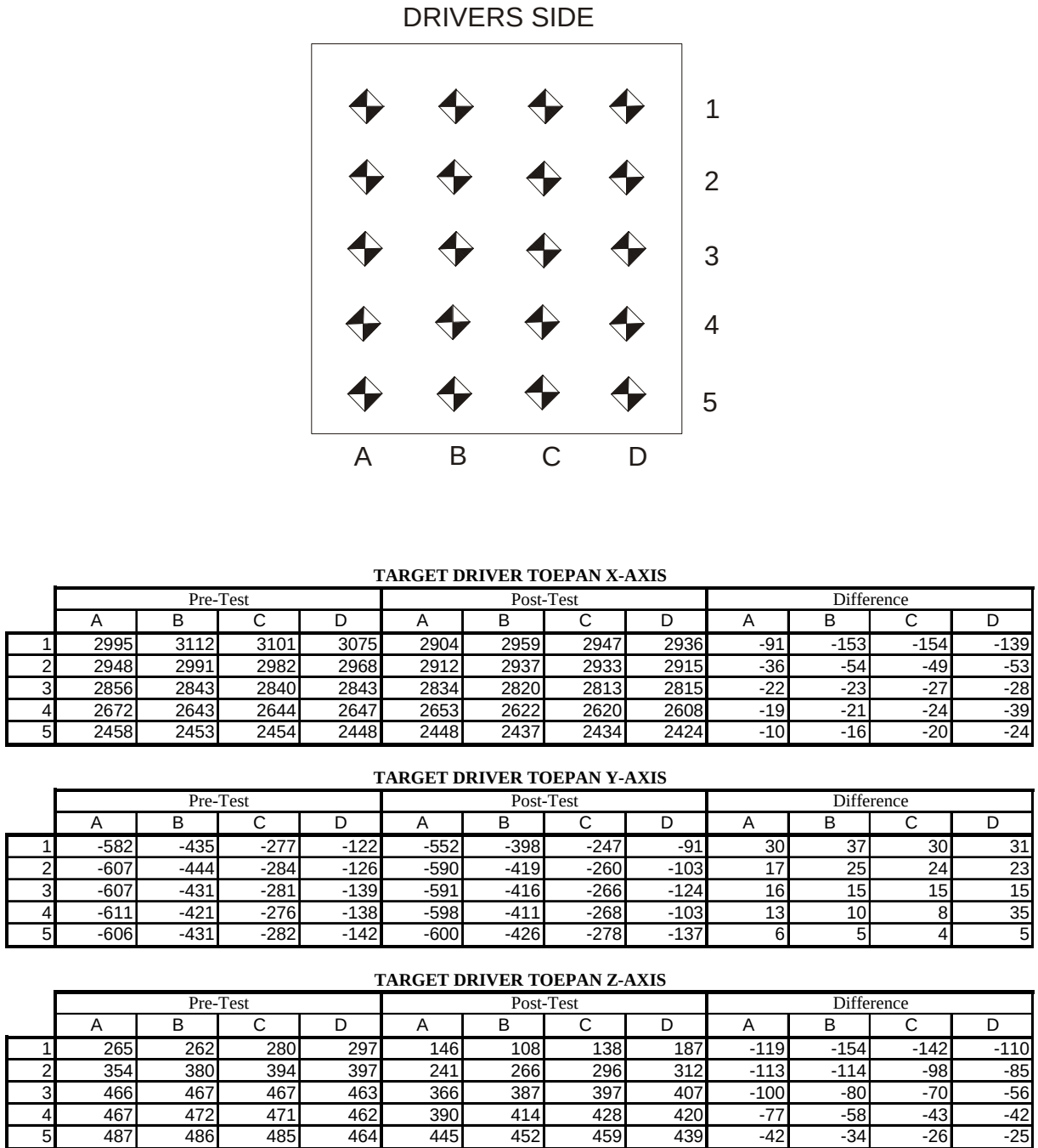
Pre- and post-test measurement reference: +X forward; +Y right; +Z down.

0,0,0 origin is center of rear bumper.

¹ Measurements 1-6, Top of Front Bumper, are included in the NHTSA Entrée database submission as Damage Profile Distance 1-6.

² Measurement point could not be located post-test.

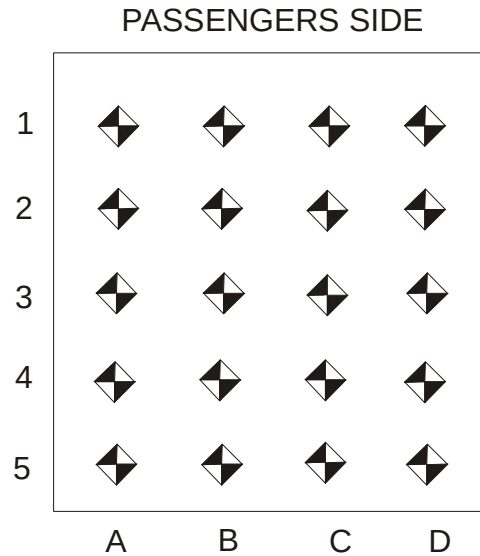
Figure 15 Target Vehicle Toeboard Measurements



Pre- and post-test measurement reference: +X forward; +Y right; +Z down.

0,0,0 origin is center of rear bumper.

Figure 15 Target Vehicle Toeboard Measurements, Continued



TARGET PASSENGER TOEPAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	3081	3107	3088	2990	2874	2896	2882	2815	-207	-211	-206	-175
2	2996	2988	2983	2951	2907	2889	2852	2850	-89	-99	-131	-101
3	2836	2841	2843	2848	2795	2799	2818	2808	-41	-42	-25	-40
4	2647	2654	2634	2632	2611	2617	2595	2598	-36	-37	-39	-34
5	2449	2439	2436	2438	2417	2403	2397	2414	-32	-36	-39	-24

TARGET PASSENGER TOEPAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	234	365	499	608	244	347	482	606	10	-18	-17	-2
2	157	337	496	622	138	336	484	628	-19	-1	-12	6
3	149	321	489	630	164	333	483	630	15	12	-6	0
4	144	311	500	627	161	318	507	623	17	7	7	-4
5	153	320	505	628	159	328	512	632	6	8	7	4

TARGET PASSENGER TOEPAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	276	266	268	267	216	135	128	168	-60	-131	-140	-99
2	376	382	378	344	316	287	260	239	-60	-95	-118	-105
3	456	464	462	462	421	410	402	370	-35	-54	-60	-92
4	459	467	469	467	425	429	413	398	-34	-38	-56	-69
5	463	481	482	481	445	454	434	450	-18	-27	-48	-31

Pre- and post-test measurement reference: +X forward; +Y right; +Z down.

0,0,0 origin is center of rear bumper.

Table 17 Target Vehicle IIHS Measurements

TARGET IIHS MEASUREMENTS

Index	Description	Pre-Test			Post-Test			Difference		
		Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	Center of Steering Wheel on the Airbag Door	2428	-341	-240	2234	-411	-276	-194	-70	-36
2	Driver's Lower Left Instrument Panel	2671	-491	10	2553	-514	-34	-118	-23	-44
3	Driver's Lower Right Instrument Panel	2661	-189	9	2527	-222	-31	-134	-33	-40
4	Brake Pedal Center	2901	-318	263	2861	-368	255	-40	-50	-8
5	Center Left Toeboard 150 mm Left of the Brake Pedal Center at Height of Brake Pedal Center	3107	-468	263	2958	-431	112	-149	37	-151
6	Toeboard Behind the Center of the Brake Pedal at Height of Brake Pedal	3111	-317	264	2936	-286	122	-175	31	-142
7	Center Right Toeboard 150 mm Right of the Brake Pedal Center at Height of Brake Pedal Center	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	Foot Rest 250 mm Left of the Brake Pedal Center at Height of Brake Pedal Center	3002	-569	264	2910	-539	142	-92	30	-122
9	Left Front Driver's Seat Mounting Bolt	2390	-587	396	2374	-582	378	-16	5	-18
10	Right Front Driver's Seat Mounting Bolt	2382	-135	373	2355	-132	353	-27	3	-20
11	Left Rear Driver's Seat Mounting Bolt	2004	-622	411	1993	-625	408	-11	-3	-3
12	Right Rear Driver's Seat Mounting Bolt	1953	-100	409	1927	-102	409	-26	-2	0
17	Exterior A-Pillar at Height of Bottom of Front Window	2823	-695	-247	2681	-719	-330	-142	-24	-83
18	Exterior B-pillar at Height of A-Pillar Measurement Location	1846	-733	-246	1845	-721	-242	-1	12	4

Table 18 Target Vehicle Bumper Measurements

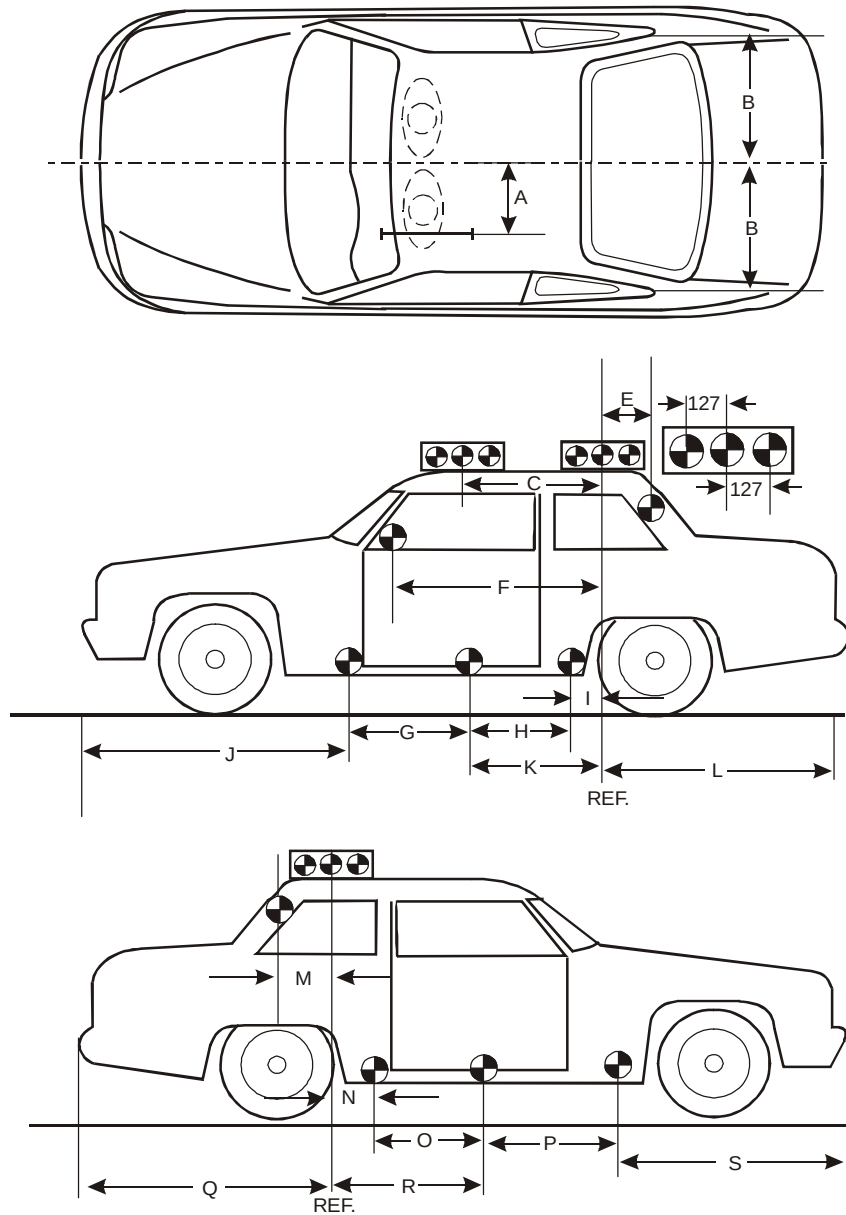
TARGET BUMPER PROFILE									
Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	4123	-603	218	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2	4144	-481	217	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
3	4144	-358	216	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
4	4144	-232	215	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
5	4144	-117	214	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
6	4144	8	213	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
7	4144	129	212	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
8	4143	252	212	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
9	4143	376	211	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
10	4143	499	210	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
11	4120	619	209	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹

Pre-test and post-test measurement references: +X, forward of rear bumper; +Y, rightward from vehicle centerline; +Z, downward from ground level.

0,0,0 origin is center of rear bumper.

¹ Bumper was detached from the vehicle during impact.

Figure 16 Target Vehicle Reference Photo Target Locations



Measurement	Pre-Test
A	Left 321 mm Right 321 mm
B	Left 573 mm Right 573 mm
C	Left 610 mm Right 610 mm
E ¹	400 mm

Measurement	Pre-Test
F	1095 mm
G	870 mm
H	900 mm
I	-315 mm
J	1176 mm
K	589 mm
L	1690 mm

Measurement	Pre-Test
M	385 mm
N	-402 mm
O	895 mm
P	880 mm
Q	1675 mm
R	595 mm
S	1175 mm

¹ The first side target is placed 600 mm from front edge of bumper, and others are at 300 mm intervals

Table 19 Bullet Vehicle Structural Measurements¹

	Elements	Pre-Test
1	Total Length	5882
2	Total Width	2033
3	Bumper Top Height	850
4	Bumper Bottom Height	569
5	Longitudinal Member Top Height	817
6	Longitudinal Member Bottom Height	716
7	Distance Between Longitudinal Members	1077
7'	Longitudinal Member Width	100
8	Engine Top Height	1430
9	Engine Bottom Height	510
10	Engine and Gearbox Width	600
11	Front Bumper - Engine Distance	869
12	Front Shock Absorber Fixing Height	1046
13	Bonnet Leading Edge Height	1358
14	Front Shock Absorber Fixing Width	1155
15	Front Bumper - Front Axle Distance	950
16	Front Axle - A Pillar Distance	770
17	A Pillar - B Pillar Distance	1100
18	B Pillar - Rear Axle Distance	1730
19	B Pillar - C Pillar Distance	600
20	Roof Sill Bottom Height	1923
21	Roof Sill Top Height	1998
22	Floor Sill Bottom Height	690
23	Floor Sill Top Height	726

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 E.

Figure 17 Bullet Pre-Test And Post-Test Measurement Points

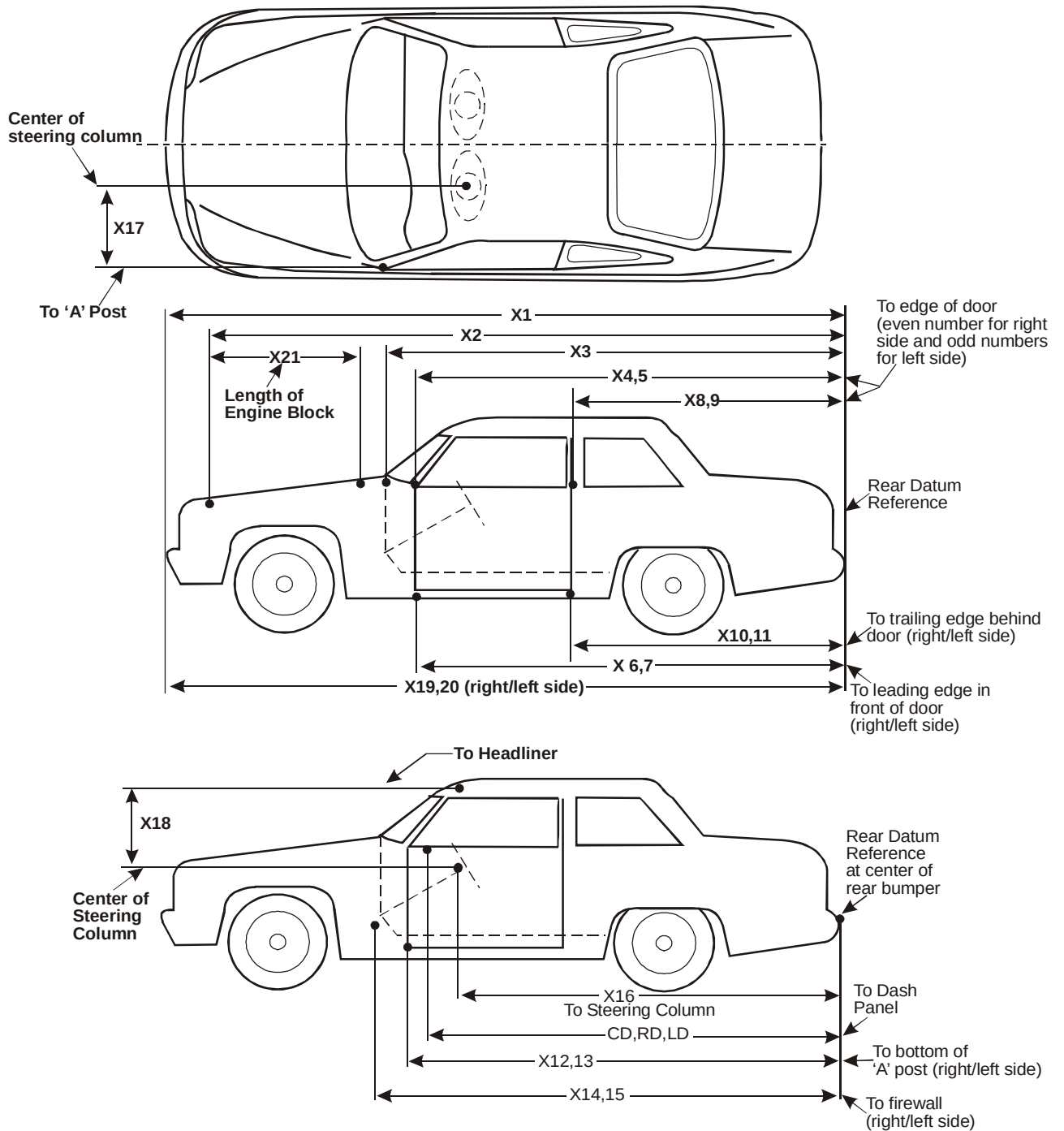


Table 20 Bullet Vehicle Impacted Measurements

Test number: 060302

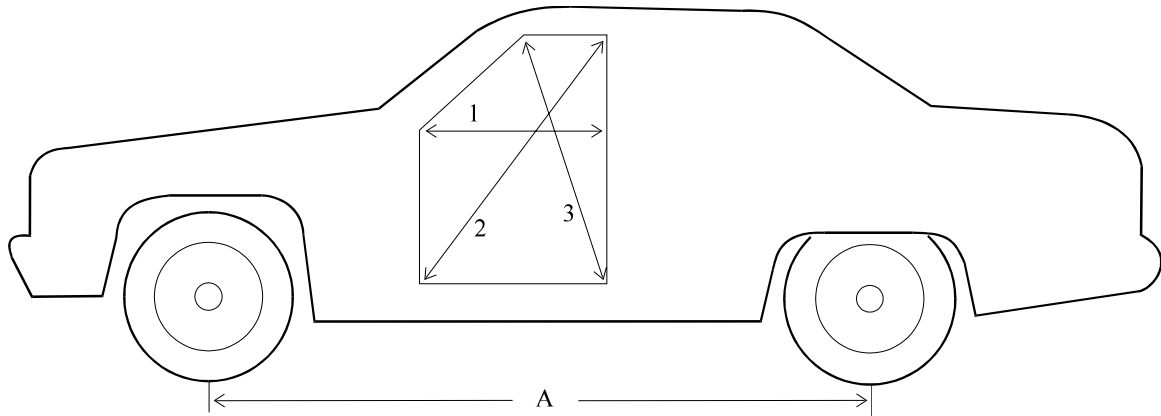
Vehicle year/make/model/body style: 2006/Ford/F-250/4-door pickup truck

No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	5882	5489	393
X2	Rear Surface of Vehicle to Front of Engine Block	4972	4992	-20
X3	Rear Surface of Vehicle to Firewall	4699	4778	-79
X4	Rear Surface of Veh. to Upper Leading Edge of Right Door	4292	4312	-20
X5	Rear Surface of Veh. to Upper Leading Edge of Left Door	4287	4330	-43
X6	Rear Surface of Veh. to Lower Leading Edge of Right Door	4167	4194	-27
X7	Rear Surface of Veh. to Lower Leading Edge of Left Door	4172	4223	-51
X8	Rear Surface of Veh. to Upper Trailing Edge of Right Door	3062	3081	-19
X9	Rear Surface of Veh. to Upper Trailing Edge of Left Door	3056	3104	-48
X10	Rear Surface of Veh. to Lower Trailing Edge of Right Door	3055	3082	-27
X11	Rear Surface of Veh. to Lower Trailing Edge of Left Door	3047	3096	-49
X12	Rear Surface of Veh. to Bottom of " A " Post on Right Side	4207	4248	-41
X13	Rear Surface of Veh. to Bottom of " A " Post on Left Side	4208	4292	-84
X14	Rear Surface of Vehicle to Firewall - Right Side	4577	4647	-70
X15	Rear Surface of Vehicle to Firewall - Left Side	4600	4667	-67
X16	Rear Surface of Vehicle to Steering Wheel Center	3772	3821	-49
X17	Center of Steering Column to " A " Post	305	312	-7
X18	Center of Steering Column to Headliner	498	498	0
X19	Rear Surface of Vehicle to Right Side of Front Bumper	5737	5657	80
X20	Rear Surface of Vehicle to Left Side of Front Bumper	5732	5627	105
X21	Length of Engine Block	600	600	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	4112	4147	-35
CD	Rear Surface of Vehicle to Center of Dash Panel	4282	4055	227
LD	Rear Surface of Vehicle to Left Side of Dash Panel	4022	4085	-63

All distance measurements are in millimeters.

Figure 18 Bullet Vehicle Intrusion Measurements

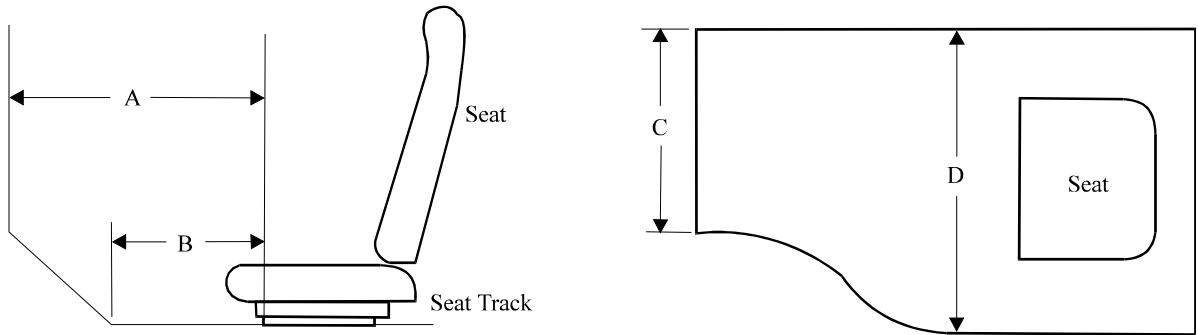
Door Opening Width



Units (mm)	Left			Right		
Measurement	1	2	3	1	2	3
Pre-Test	1136 mm	1605 mm	1370 mm	1131 mm	1605 mm	1375 mm
Post-Test	1143 mm	1586 mm	1377 mm	1135 mm	1587 mm	1383 mm
Difference	-7 mm	19 mm	-7 mm	-4 mm	18 mm	-8 mm

Units (mm)	A = Wheelbase Left	A = Wheelbase Right
Pre-Test	3616 mm	3616 mm
Post-Test	3604 mm	3590 mm
Difference	12mm	26 mm

Figure 19 Bullet Vehicle Intrusion Measurements
Static Footwell Deformation



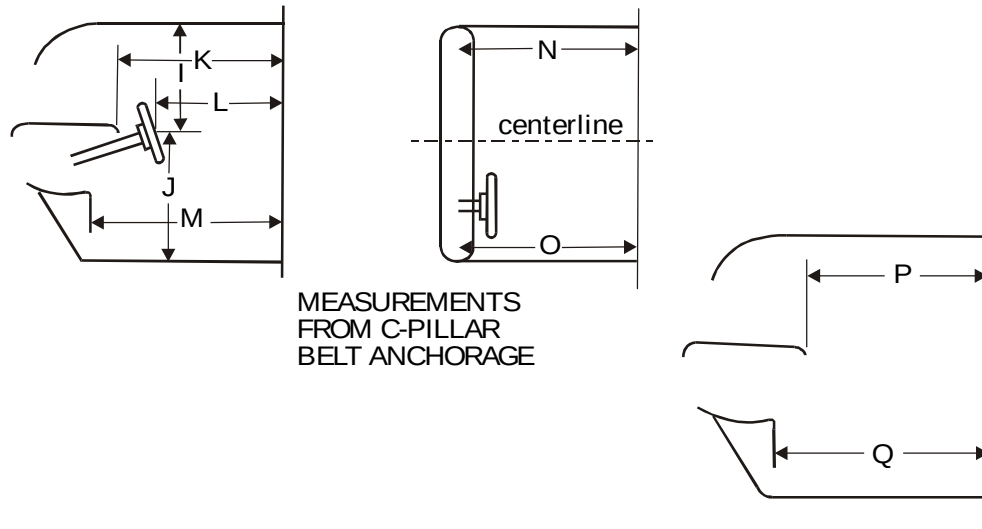
Driver's Side

Measurement	Pre-Test	Post-Test	Difference
A	815 mm	816 mm	-1 mm
B	526 mm	510 mm	16 mm
C	470 mm	471 mm	-1 mm
D	418 mm	424 mm	-6 mm

Passenger's Side

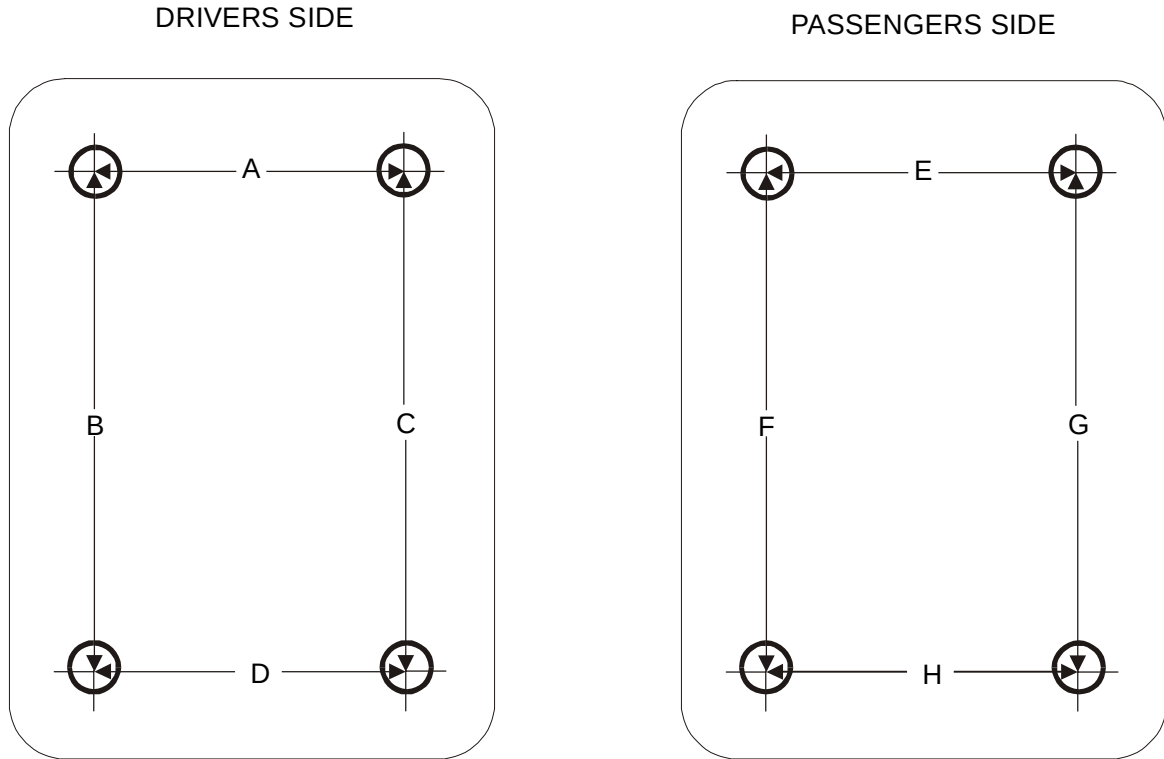
Measurement	Pre-Test	Post-Test	Difference
A	722 mm	709 mm	13 mm
B	512 mm	509 mm	3 mm
C	321 mm	323 mm	-2 mm
D	355 mm	357 mm	-2 mm

Figure 20 Bullet Vehicle Intrusion Measurements
Static Passenger Compartment Intrusion



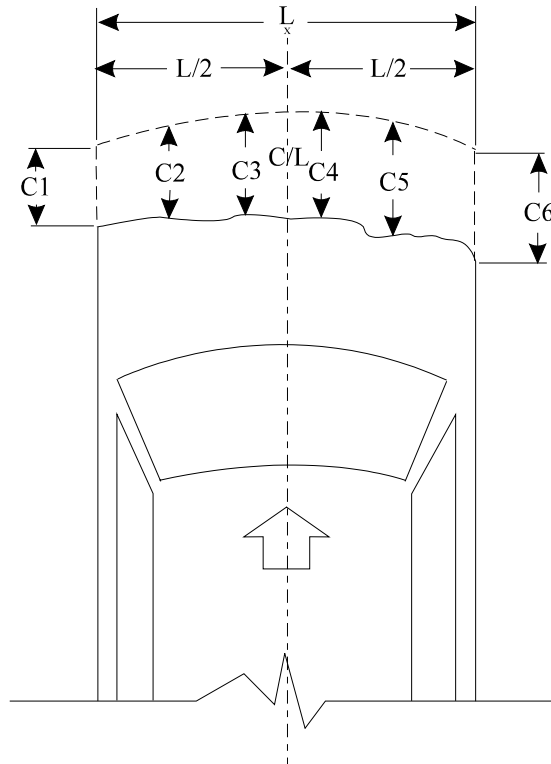
Measurement	Pre-Test	Post-Test	Difference
I	498 mm	498 mm	0 mm
J	731 mm	796 mm	-65 mm
K (driver's side)	1555 mm	1515 mm	40 mm
L	1355 mm	1344 mm	11 mm
M (driver's side)	1755 mm	1739 mm	16 mm
N (passenger's side)	1652 mm	1600 mm	52 mm
O (driver's side)	1575 mm	1537 mm	38 mm
P (passenger's side)	1630 mm	1590 mm	40 mm
Q (passenger's side)	1796 mm	1769 mm	27 mm

Figure 21 Bullet Vehicle Floorboard Deformation



Measurement	Pre-Test	Post-Test	Difference
A	470 mm	471 mm	-1 mm
B	395 mm	390 mm	5 mm
C	385 mm	385 mm	0 mm
D	418 mm	424 mm	-6 mm
E	321 mm	323 mm	-2 mm
F	375 mm	369 mm	6 mm
G	387 mm	389 mm	-2 mm
H	355 mm	357 mm	-2 mm

Figure 22 Vehicle Crush



Notes: L is pre-test length of contact surface.
C1 through C6 are spaced equally apart.
CL is vehicle centerline.
Measured with bumper fascia.

Vehicle: 2006 Ford F-250 4-door pickup truck

	Pre-test	Post-test	Crush
L	1476 mm		
C1	5732 mm	5627 mm	105 mm
C2	5837 mm	5787 mm	50 mm
C3	5867 mm	5688 mm	179 mm
C4	5857 mm	5680 mm	177 mm
C5	5837 mm	5785 mm	52 mm
C6	5737 mm	5657 mm	80 mm
CL	5882 mm	5489 mm	393 mm

Table 21 Bullet Vehicle Frontal Profile Measurements

Bottom of Front Bumper

Pre-Test				Post-Test			Difference ¹		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	5712	-755	-510	5682	-540	-475	-30	215	35
2	5812	-505	-495	5642	-447	-474	-170	58	21
3	5842	-270	-502	5535	-225	-605	-307	45	-103
4	5832	232	-504	5560	178	-610	-272	-54	-106
5	5812	479	-499	5697	395	-500	-115	-84	-1
6	5717	725	-519	5672	515	-482	-45	-210	37

Top of Front Bumper

Pre-Test				Post-Test			Difference ²		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	5732	-755	-690	5627	-522	-620	-105	233	70
2	5837	-510	-692	5787	-430	-651	-50	80	41
3	5867	-264	-694	5688	-230	-698	-179	34	-4
4	5857	228	-703	5680	203	-733	-177	-25	-30
5	5837	477	-702	5785	406	-699	-52	-71	3
6	5737	726	-701	5657	441	-645	-80	-285	56

Center of Grill

Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	5622	-770	-881	5706	-736	-825	84	34	56
2	5767	-500	-941	5735	-490	-988	-32	10	-47
3	5802	-265	-933	5687	-260	-940	-115	5	-7
4	5792	230	-944	5677	210	-972	-115	-20	-28
5	5767	473	-943	5722	446	-942	-45	-27	1
6	5622	740	-960	5666	690	-900	44	-50	60

Front of Hood

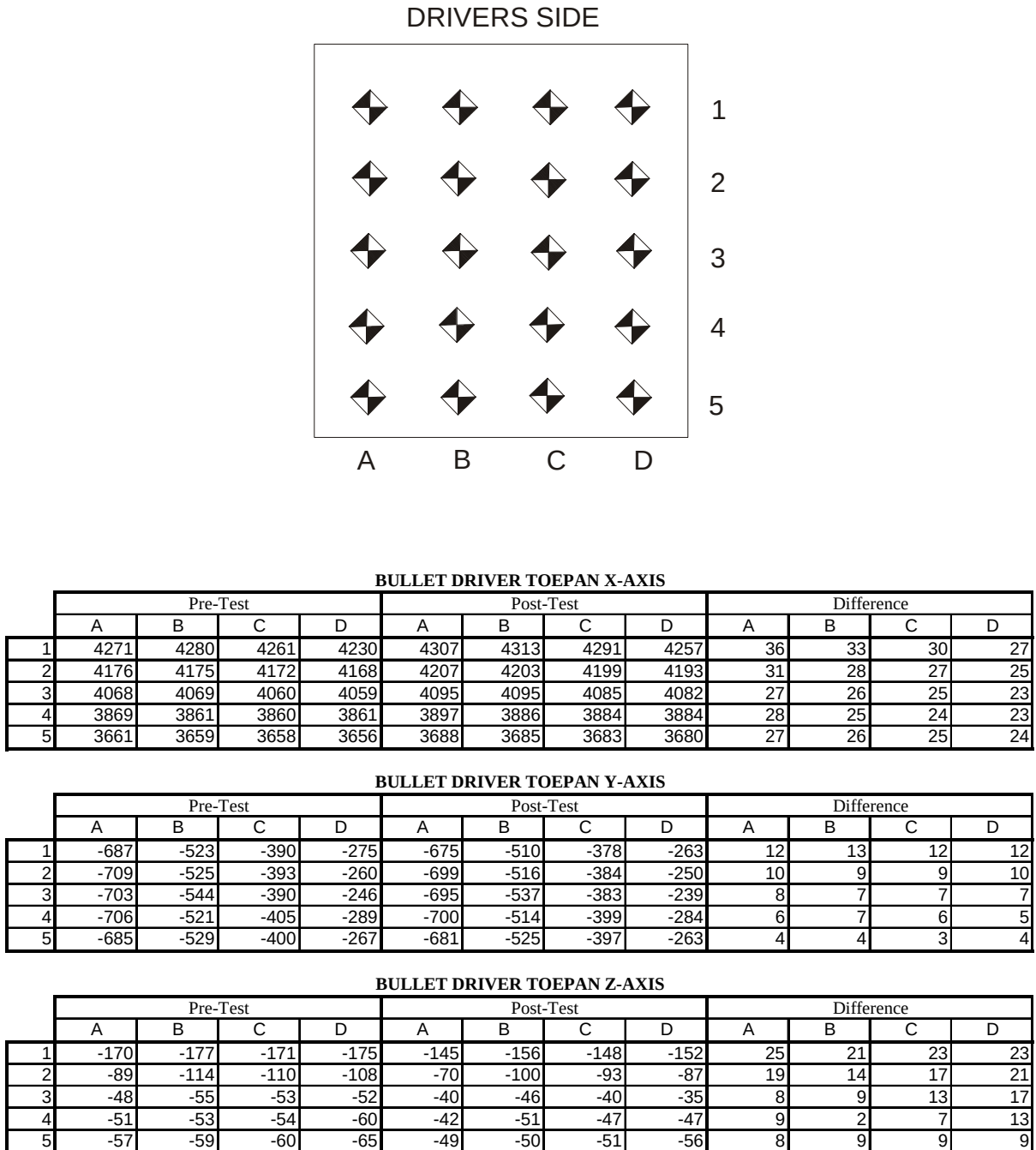
Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	5589	-765	-1141	5692	-751	-1151	103	14	-10
2	5717	-510	-1226	5802	-511	-1233	85	-1	-7
3	5747	-268	-1234	5831	-263	-1250	84	5	-16
4	5737	230	-1245	5827	229	-1254	90	-1	-9
5	5717	470	-1230	5797	471	-1252	80	1	-22
6	5589	730	-1144	5680	725	-1161	91	-5	-17

Pre- and post-test measurement reference: +X forward; +Y right; +Z down.
0,0,0 origin is center of rear bumper.

¹ Measurements 2-5, Bottom of Front Bumper, are included in the NHTSA Entrée database submission as Damage Profile Distance 2-5.

² Measurements 1, 6, Top of Front Bumper, is included in the NHTSA Entrée database submission as Damage Profile Distance 1, 6.

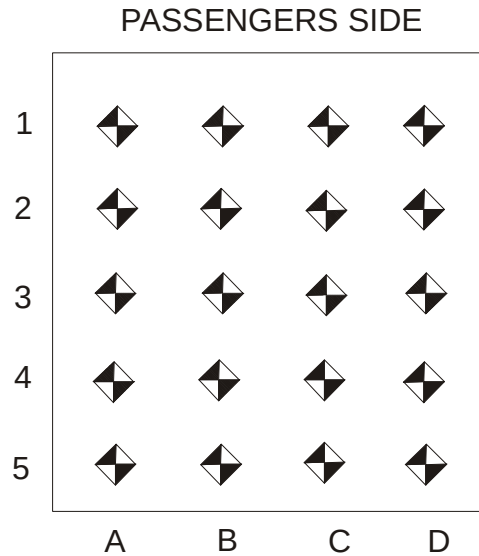
Figure 23 Bullet Vehicle Toeboard Measurements



Pre- and post-test measurement reference: +X forward; +Y right; +Z down.

0,0,0 origin is center of rear bumper.

Figure 23 Bullet Vehicle Toeboard Measurements, Continued



BULLET PASSENGER TOEPAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	4162	4273	4273	4274	4187	4298	4299	4298	25	25	26	24
2	4097	4171	4180	4176	4121	4194	4202	4199	24	23	22	23
3	4036	4052	4055	4056	4056	4072	4075	4076	20	20	20	20
4	3861	3859	3859	3843	3881	3879	3879	3863	20	20	20	20
5	3666	3666	3666	3668	3688	3687	3686	3688	22	21	20	20

BULLET PASSENGER TOEPAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	378	491	604	721	385	496	610	728	7	5	6	7
2	360	456	603	730	366	460	608	735	6	4	5	5
3	288	426	559	730	291	428	562	732	3	2	3	2
4	261	421	537	704	263	424	539	706	2	3	2	2
5	312	422	540	691	314	424	542	693	2	2	2	2

BULLET PASSENGER TOEPAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-289	-238	-240	-241	-290	-233	-232	-229	-1	5	8	12
2	-189	-151	-159	-155	-193	-150	-154	-148	-4	1	5	7
3	-71	-54	-55	-52	-78	-58	-55	-48	-7	-4	0	4
4	-54	-55	-56	-56	-65	-64	-62	-55	-11	-9	-6	1
5	-60	-58	-59	-60	-69	-65	-64	-62	-9	-7	-5	-2

Pre- and post-test measurement reference: +X forward; +Y right; +Z down.

0,0,0 origin is center of rear bumper.

Table 22 Bullet Vehicle IIHS Measurements

BULLET IIHS MEASUREMENTS

Index	Description	Pre-Test			Post-Test			Difference		
		Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	Center of Steering Wheel on the Airbag Door	3653	-472	-788	3710	-462	-787	57	10	1
2	Driver's Lower Left Instrument Panel	3899	-622	-520	3949	-612	-511	50	10	9
3	Driver's Lower Right Instrument Panel	3904	-322	-520	3952	-312	-511	48	10	9
4	Brake Pedal Center	4101	-454	-254	4137	-443	-235	36	11	19
5	Center Left Toeboard 150 mm Left of the Brake Pedal Center at Height of Brake Pedal Center	4371	-608	-252	4408	-595	-224	37	13	28
6	Toeboard Behind the Center of the Brake Pedal at Height of Brake Pedal	4395	-466	-252	4429	-452	-221	34	14	31
7	Center Right Toeboard 150 mm Right of the Brake Pedal Center at Height of Brake Pedal Center	4314	-307	-256	4346	-294	-229	32	13	27
8	Foot Rest 250 mm Left of the Brake Pedal Center at Height of Brake Pedal Center	4370	-705	-255	4408	-692	-227	38	13	28
9	Left Front Driver's Seat Mounting Bolt	3567	-612	-135	3594	-610	-124	27	2	11
10	Right Front Driver's Seat Mounting Bolt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Left Rear Driver's Seat Mounting Bolt	3157	-611	-152	3188	-610	-151	31	1	1
12	Right Rear Driver's Seat Mounting Bolt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	Exterior A-Pillar at Height of Bottom of Front Window	4046	-882	-677	4102	-870	-662	56	12	15
18	Exterior B-pillar at Height of A-Pillar Measurement Location	2966	-885	-674	3014	-881	-667	48	4	7

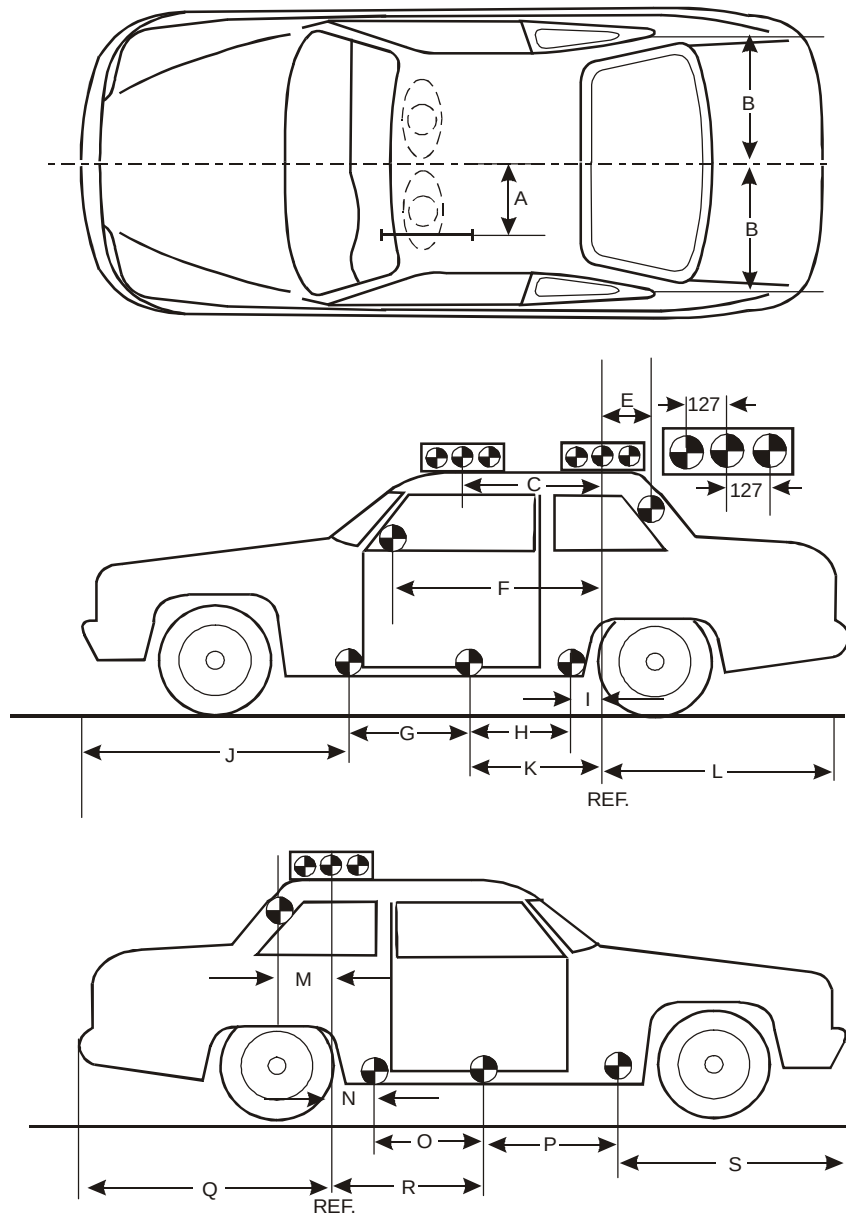
Table 23 Bullet Vehicle Bumper Measurements

BULLET BUMPER PROFILE									
Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	5285	-985	-87	5204	-866	-81	-81	119	6
2	5488	-945	-81	5386	-769	-106	-102	176	-25
3	5619	-740	-79	5482	-571	-15	-137	169	64
4	5714	-515	-80	5646	-465	-42	-68	50	38
5	5748	-274	-80	5542	-251	-89	-206	23	-9
6	5759	-8	-80	5406	-29	-102	-353	-21	-22
7	5751	220	-88	5539	145	-119	-212	-75	-31
8	5724	466	-89	5646	364	-80	-78	-102	9
9	5638	697	-91	5499	490	-23	-139	-207	68
10	5520	913	-90	5279	560	-21	-241	-353	69
11	5290	978	-95	5066	548	84	-224	-430	179

Pre-test and post-test measurement references: +X, forward of rear bumper; +Y, rightward from vehicle centerline; +Z, downward from ground level.

0,0,0 origin is center of rear bumper.

Figure 24 Bullet Vehicle Reference Photo Target Locations



Measurement	Pre-Test
A	Left 465 mm Right 465 mm
B	Left 750 mm Right 750 mm
C	Left 610 mm Right 610 mm
E ¹	270 mm

Measurement	Pre-Test
F	1222 mm
G	1253 mm
H	1250 mm
I	-863 mm
J	1352 mm
K	382 mm
L	2745 mm

Measurement	Pre-Test
M	288 mm
N	-898 mm
O	1258 mm
P	1250 mm
Q	2770 mm
R	362 mm
S	1355 mm

¹ The first side target is placed 600 mm from front edge of bumper, and others are at 300 mm intervals.

Figure 25 Camera Positions

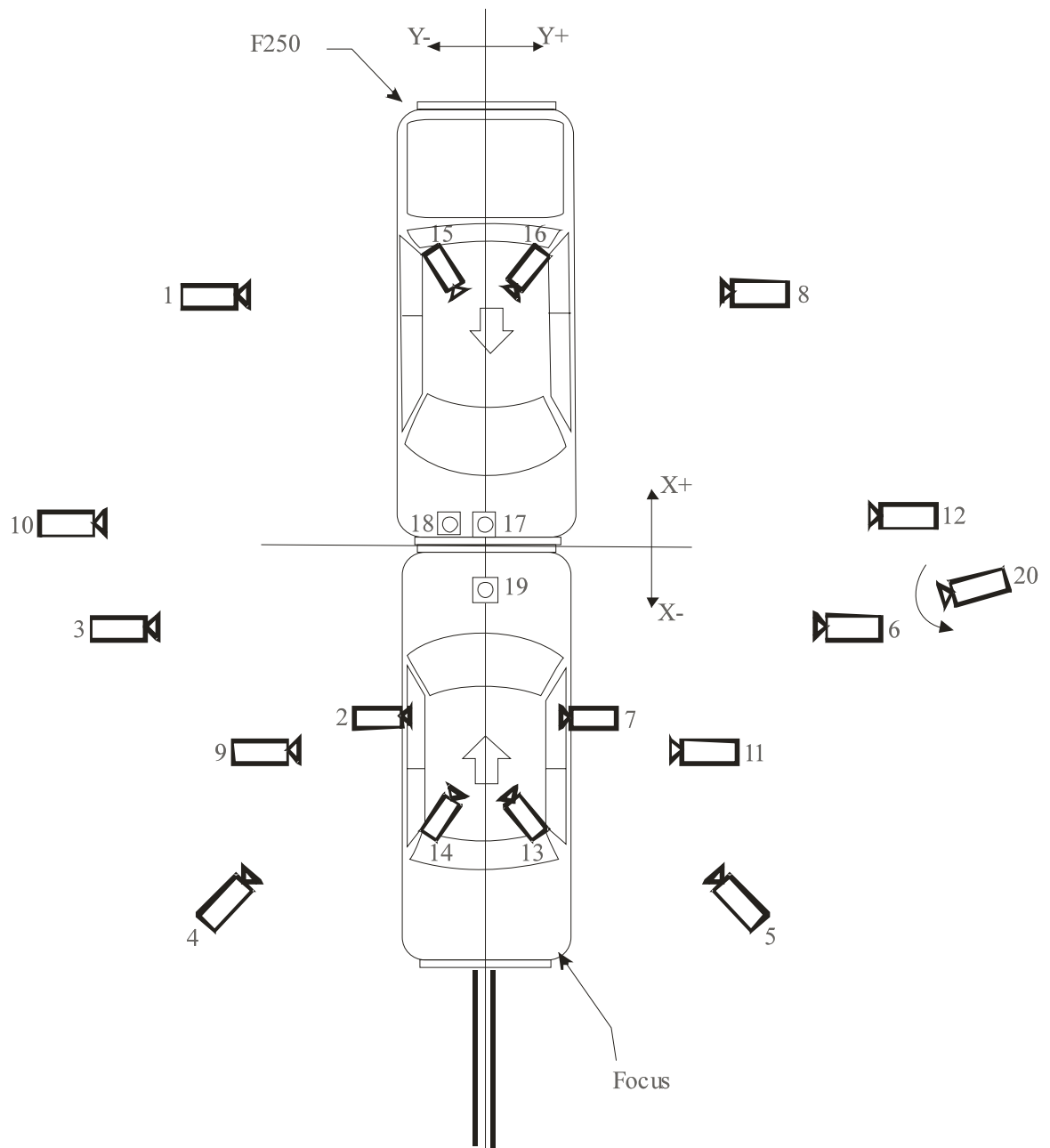


Table 24 Camera Information

Camera Number	Location	Location, mm			Angle (deg.)	Lens (mm)	Speed (fps)
		X	Y	Z			
1	Bullet vehicle passenger side	10100	-1300	-1200	N/A ¹	25	1000
2	Onboard target vehicle - driver	-3600	-4900	-1700	N/A ¹	N/A ¹	1000
3	Target vehicle left tight	0	-11600	-900	N/A ¹	50	1000
4	Target vehicle driver angled	-3600	-4900	-1700	N/A ¹	50	1000
5	Target vehicle passenger angled	-3600	5000	-1700	N/A ¹	50	1000
6	Target vehicle right tight	-900	12600	-1200	N/A ¹	50	1000
7	Onboard target vehicle - passenger	-1600	700	-1200	N/A ¹	N/A ¹	1000
8	Bullet vehicle driver side	10200	1600	-1300	N/A ¹	25	1000
9	Target vehicle driver side wide	-10000	-1500	-1200	N/A ¹	25	1000
10	Left overall wide (reference to target vehicle)	-700	11200	-1100	N/A ¹	12.5	1000
11	Target vehicle passenger side wide	-10800	2000	-1200	N/A ¹	25	1000
12	Right overall wide (reference to target vehicle)	0	11200	-1500	N/A ¹	12.5	1000
13	Onboard target vehicle - driver overshoulder	-1700	600	-1300	-5.8°	N/A ¹	1000
14	Onboard target vehicle - passenger overshoulder	-1700	-600	-1300	2.7°	N/A ¹	1000
15	Onboard bullet vehicle - driver overshoulder	2300	-700	1700	-4.2°	N/A ¹	1000
16	Onboard bullet vehicle - passenger overshoulder	2300	800	1700	7.5°	N/A ¹	1000
17	Overhead wide	0	0	N/A	-90.0°	12.5	1000
18	Overhead tight	0	0	N/A	-90.0°	50	1000
19	Underbody crush area of target vehicle	0	0	N/A	-90.0°	25	1000
20	Panning/documentary	N/A	N/A	N/A	N/A		30

+X: Forward (referenced to Target) from impact point

+Y: Rightward (referenced to Target) from impact point

+Z: Downward from ground level

¹ Measurement was not recorded.

Appendix A

Photographs



Figure A-1 Pre-Test Overall - View 1



Figure A-2 Post-Test Overall - View 1



Figure A-3 Pre-Test Overall - View 2

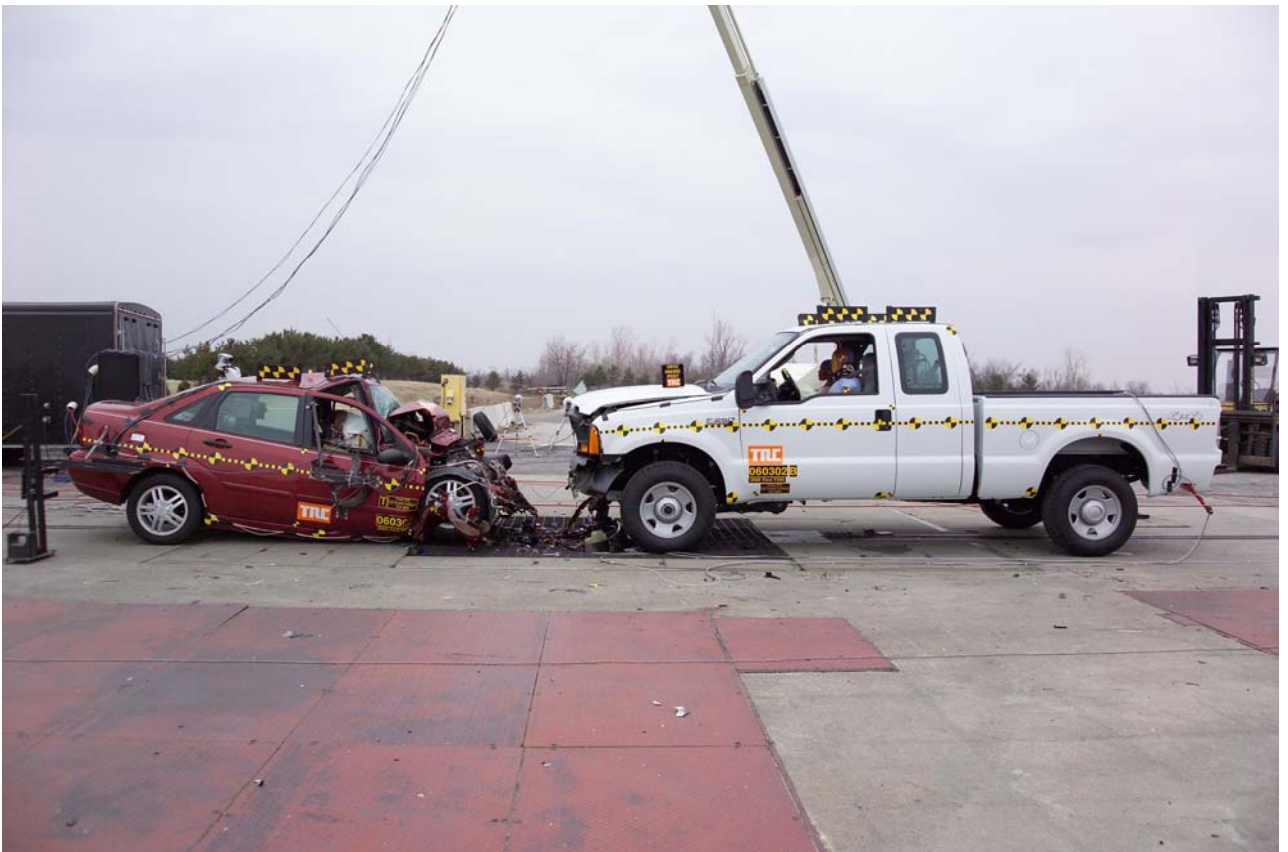


Figure A-4 Post-Test Overall - View 2



Figure A-5 Pre-Test Overhead Wide View

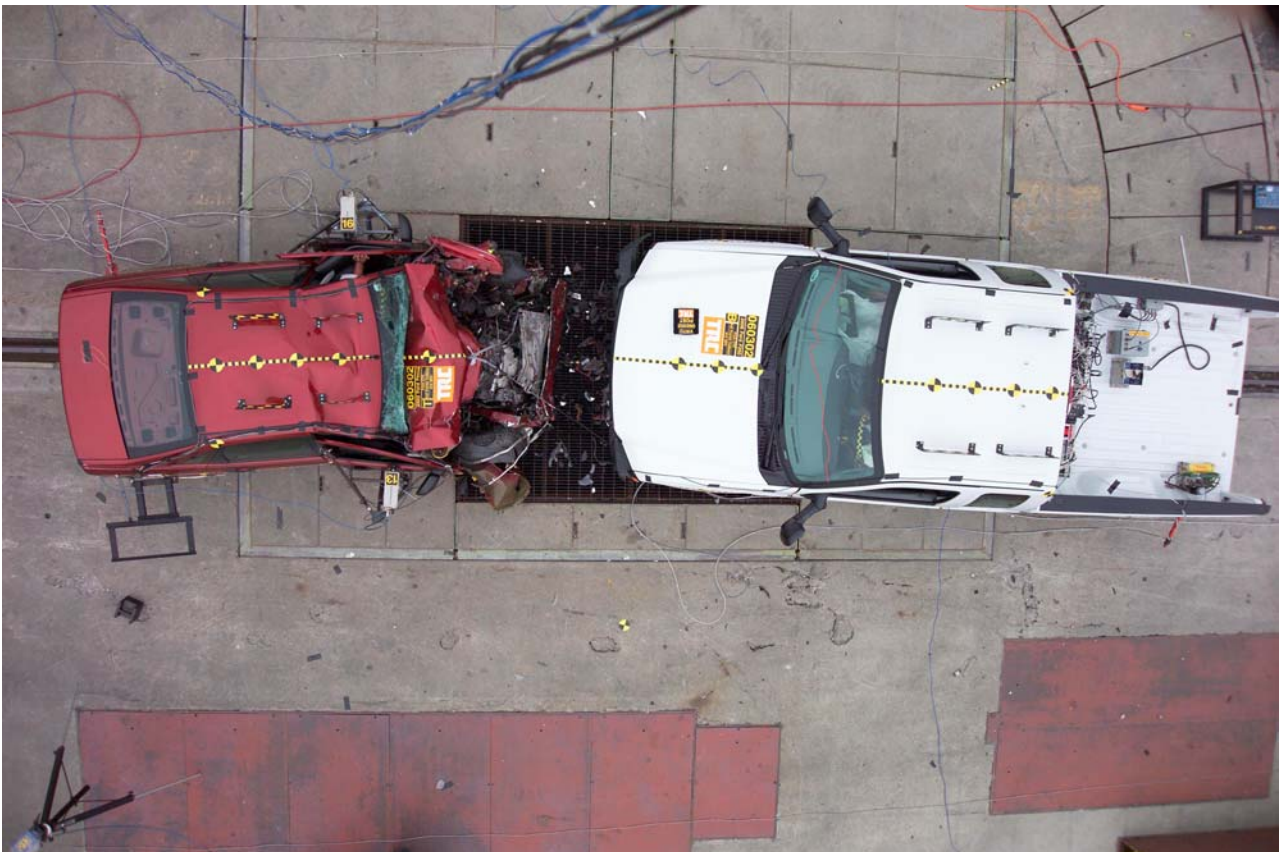


Figure A-6 Post-Test Overhead Wide View



Figure A-7 Pre-Test Overhead Close-up View

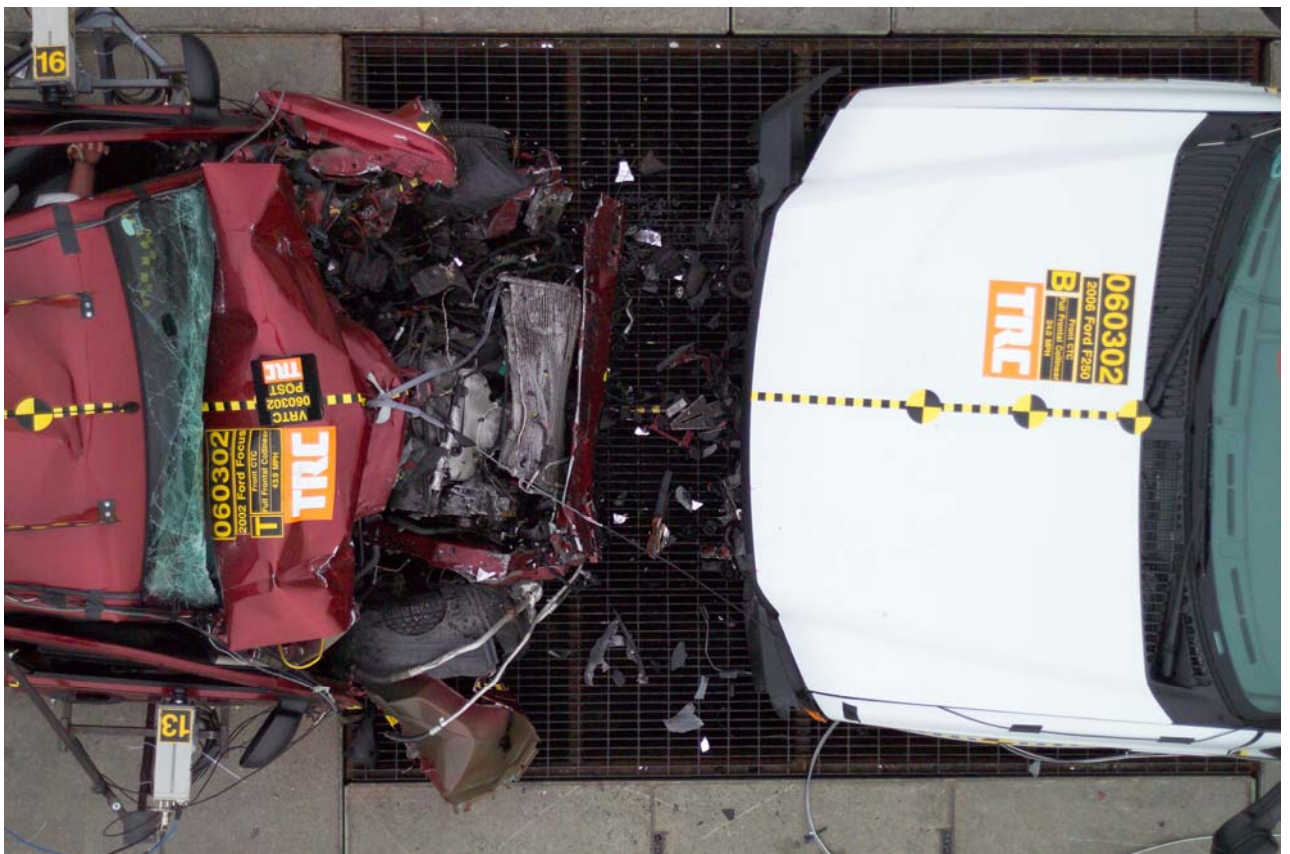


Figure A-8 Post-Test Overhead Close-up View



Figure A-9 Pre-Test Overhead Target Vehicle View

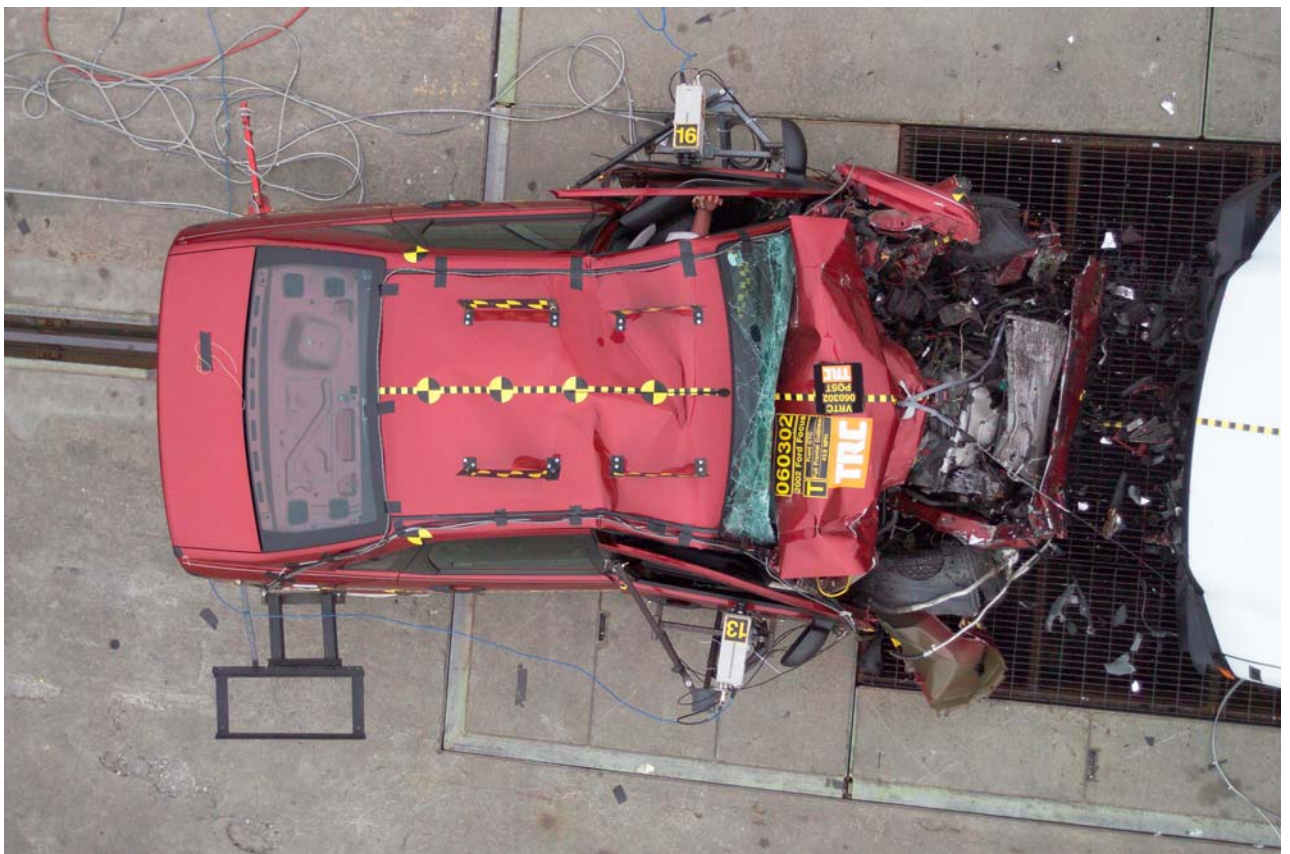


Figure A-10 Post-Test Overhead Target Vehicle View



Figure A-11 Pre-Test Overhead Bullet Vehicle View

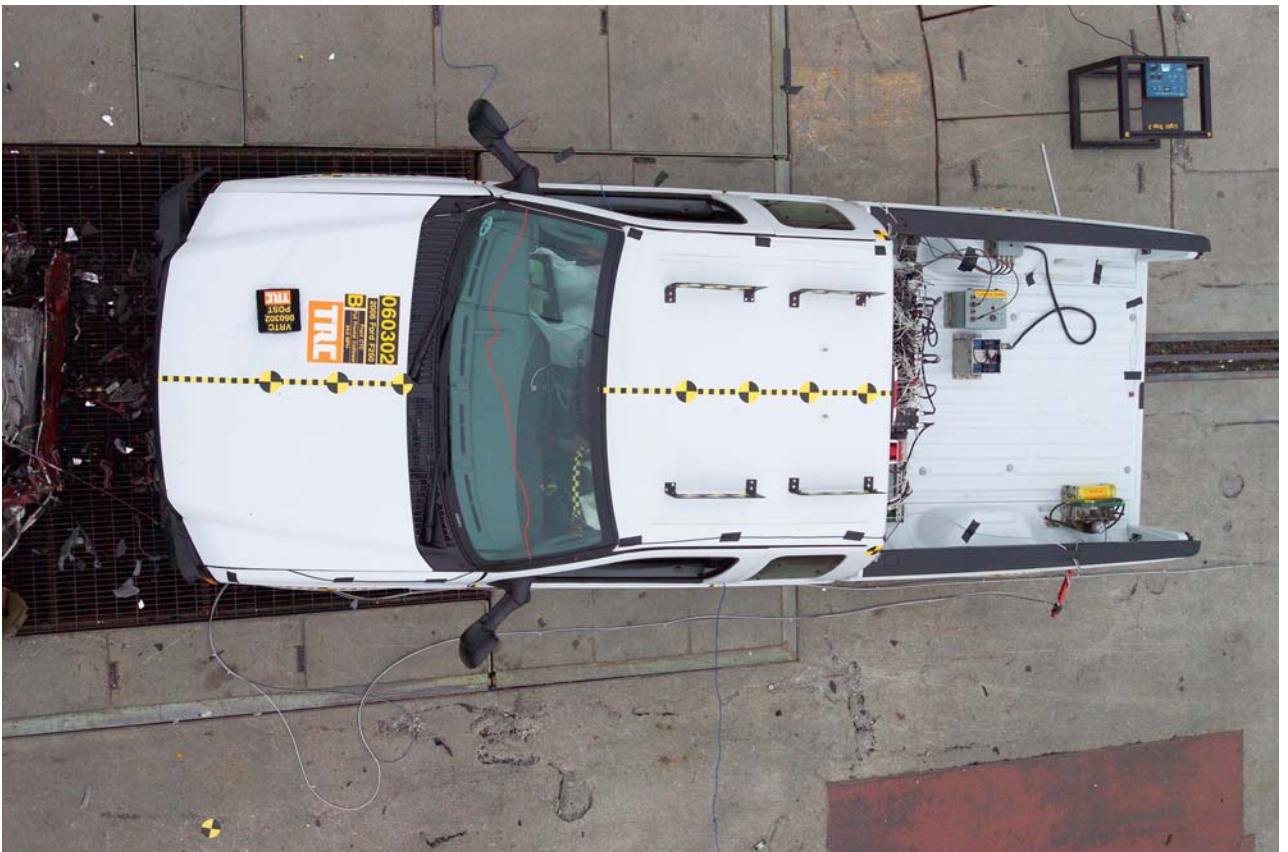


Figure A-12 Post-Test Overhead Bullet Vehicle View



Figure A-13 Pre-Test Target Vehicle Front View



Figure A-14 Post-Test Target Vehicle Front View



Figure A-15 Pre-Test Target Vehicle Left Front View



Figure A-16 Post-Test Target Vehicle Left Front View



Figure A-17 Pre-Test Target Vehicle Left Side View



Figure A-18 Post-Test Target Vehicle Left Side View



Figure A-19 Pre-Test Target Vehicle Left Rear View



Figure A-20 Post-Test Target Vehicle Left Rear View



Figure A-21 Pre-Test Target Vehicle Rear View



Figure A-22 Post-Test Target Vehicle Rear View



Figure A-23 Pre-Test Target Vehicle Right Rear View



Figure A-24 Post-Test Target Vehicle Right Rear View



Figure A-25 Pre-Test Target Vehicle Right Side View



Figure A-26 Post-Test Target Vehicle Right Side View



Figure A-27 Pre-Test Target Vehicle Right Front View



Figure A-28 Post-Test Target Vehicle Right Front View



Figure A-29 Pre-Test Target Vehicle Engine Compartment View



Figure A-30 Post-Test Target Vehicle Engine Compartment View



Figure A-31 Pre-Test Target Vehicle Front Underbody View

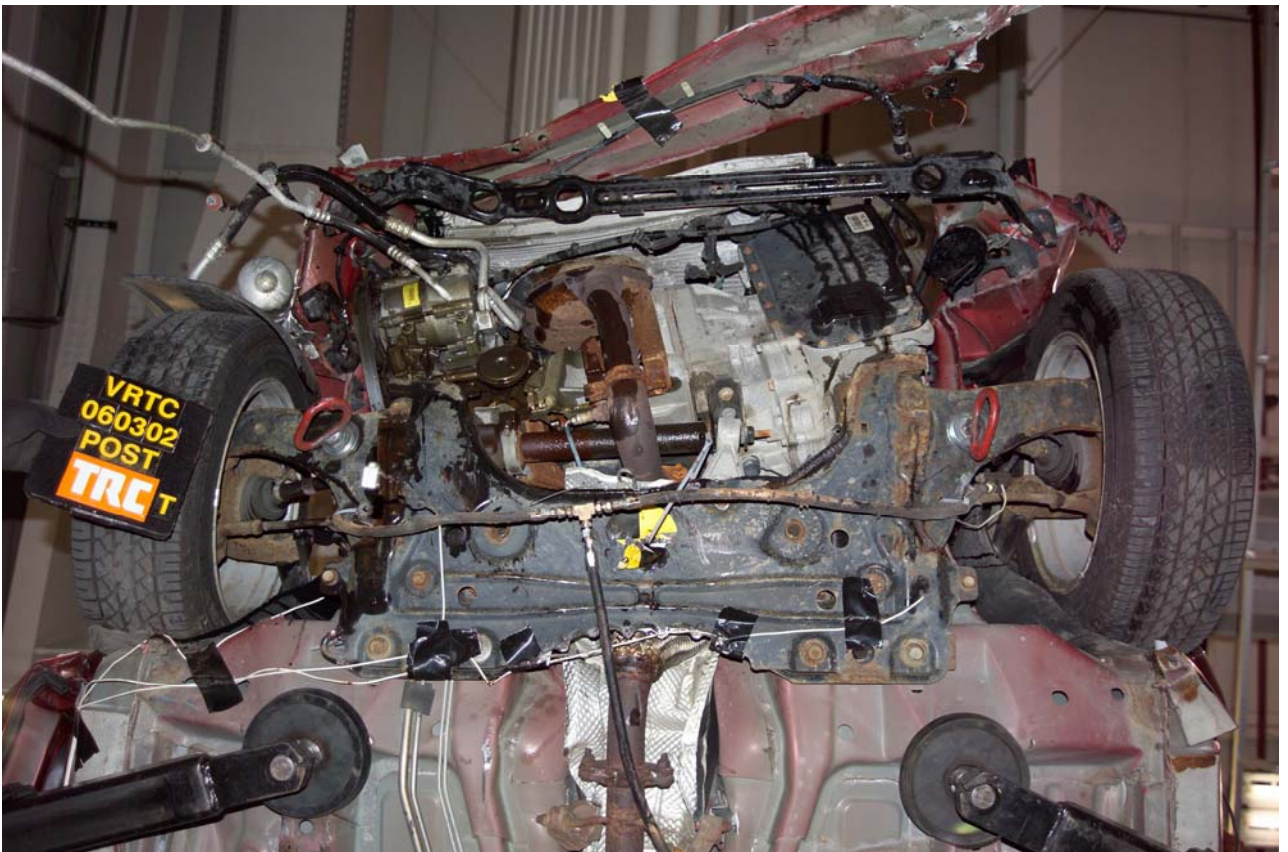


Figure A-32 Post-Test Target Vehicle Front Underbody View

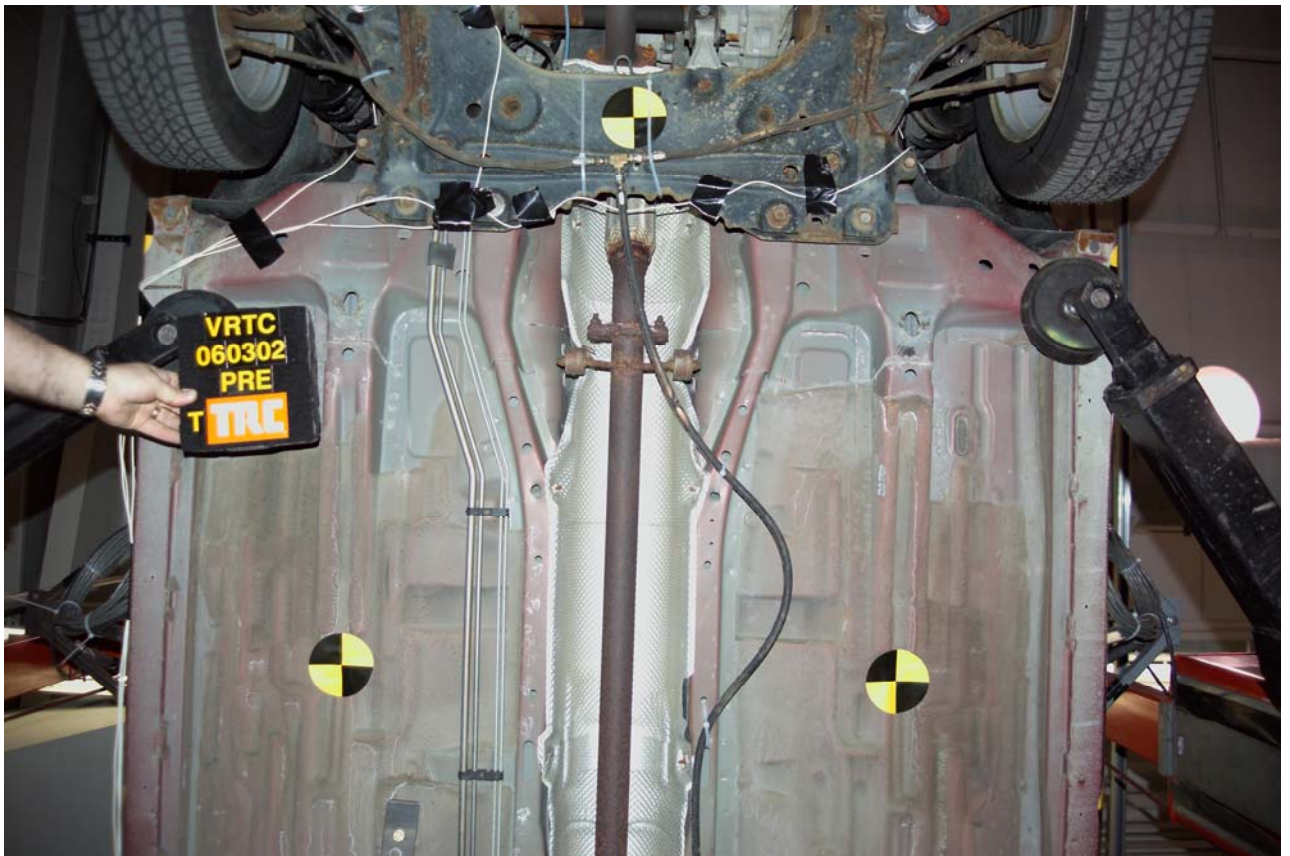


Figure A-33 Pre-Test Target Vehicle Front Mid Underbody View

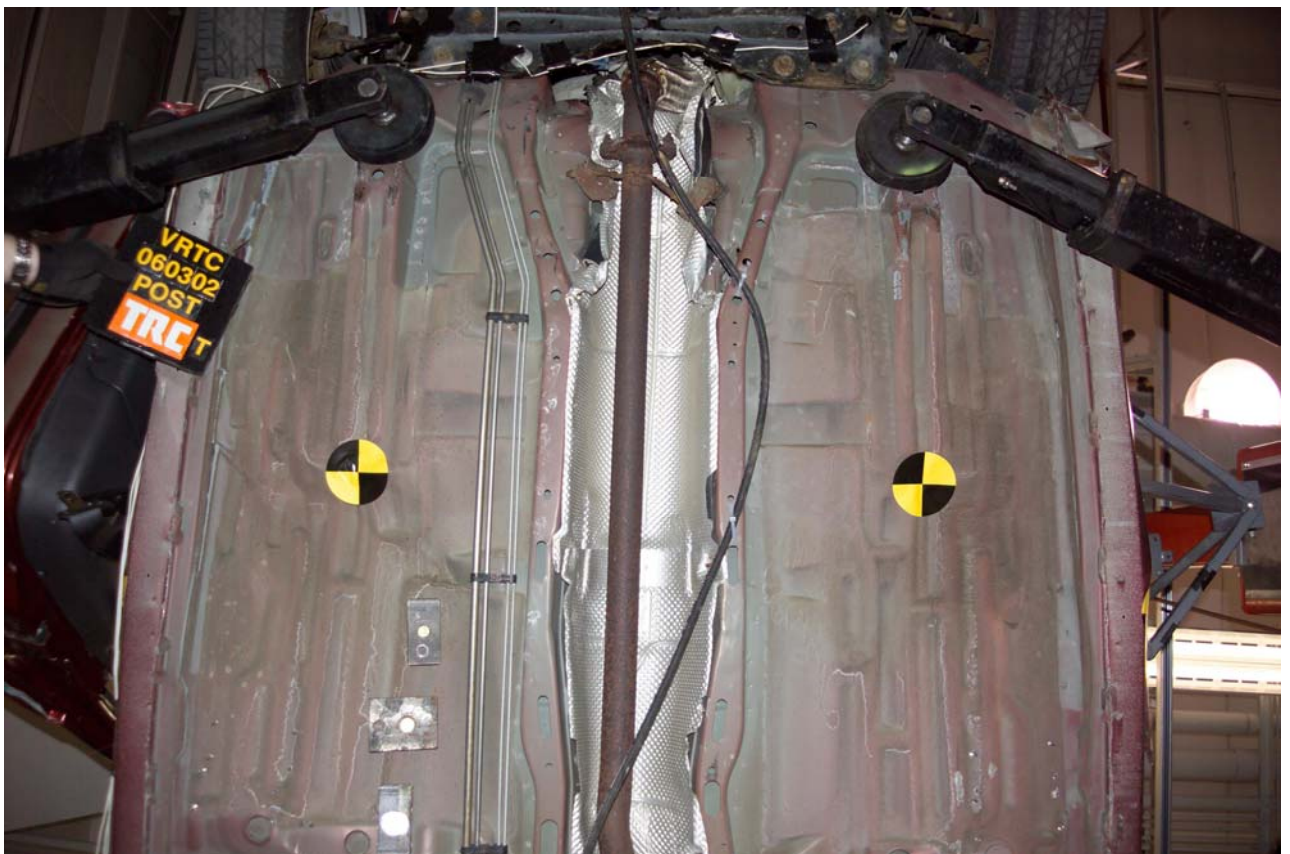


Figure A-34 Post-Test Target Vehicle Front Mid Underbody View



Figure A-35 Pre-Test Target Vehicle Mid Underbody View

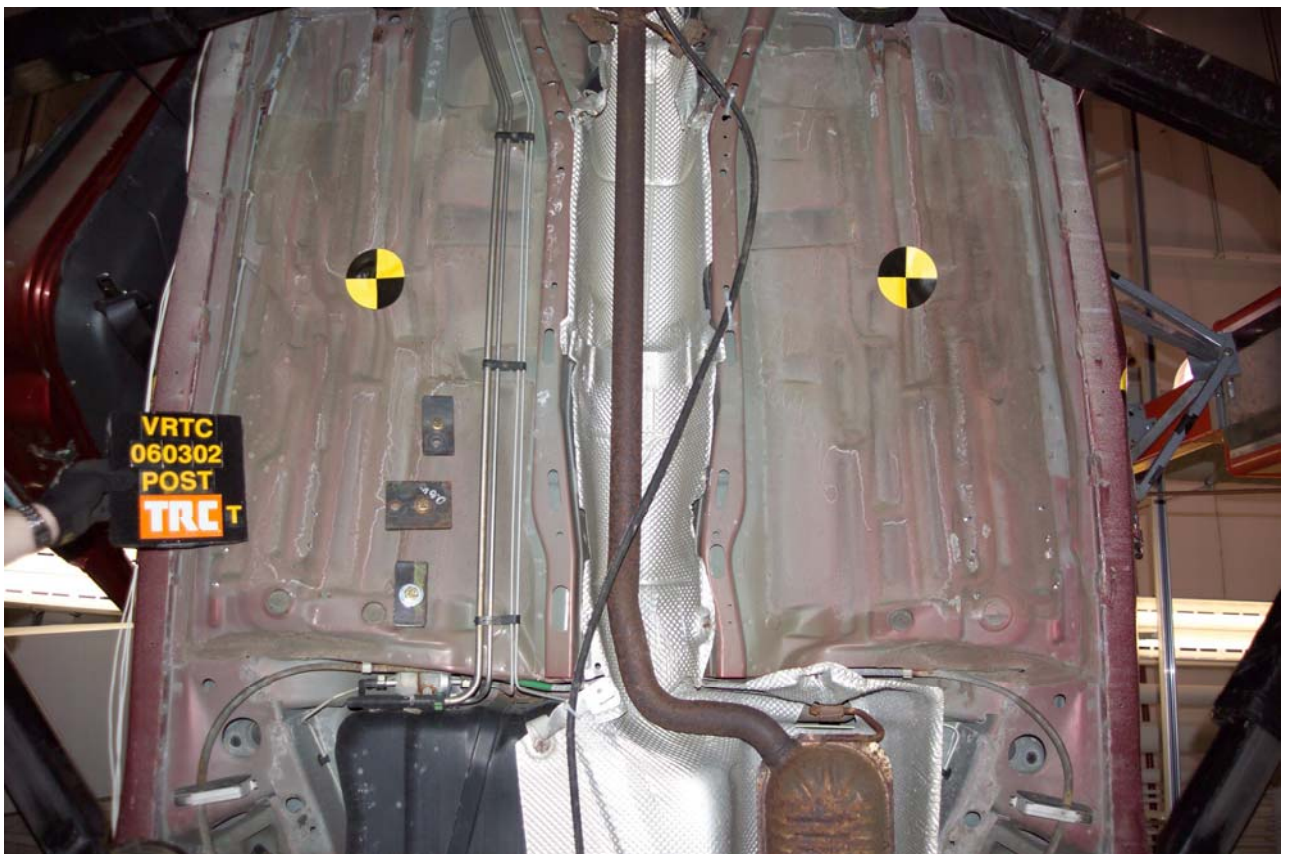


Figure A-36 Post-Test Target Vehicle Mid Underbody View

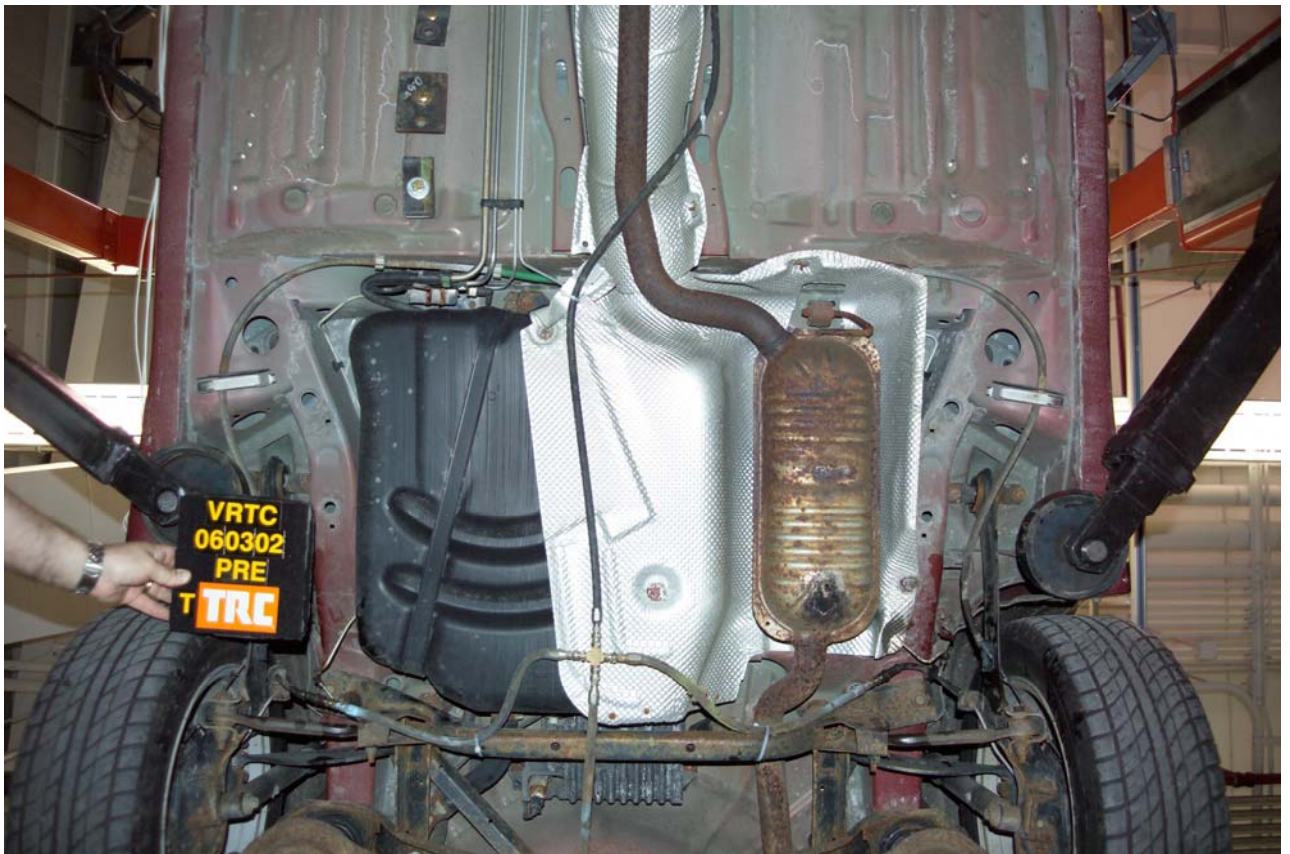


Figure A-37 Pre-Test Target Vehicle Rear Mid Underbody View

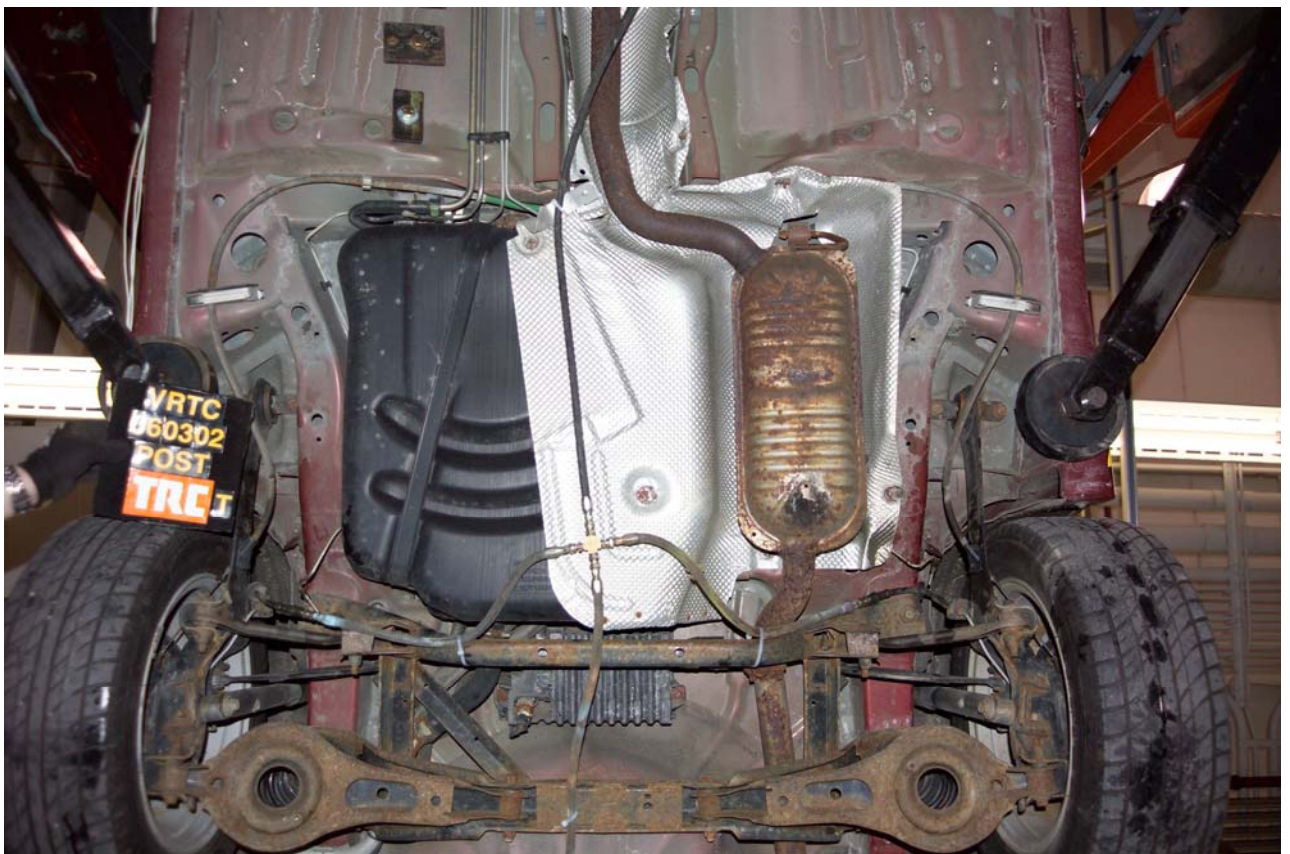


Figure A-38 Post-Test Target Vehicle Rear Mid Underbody View

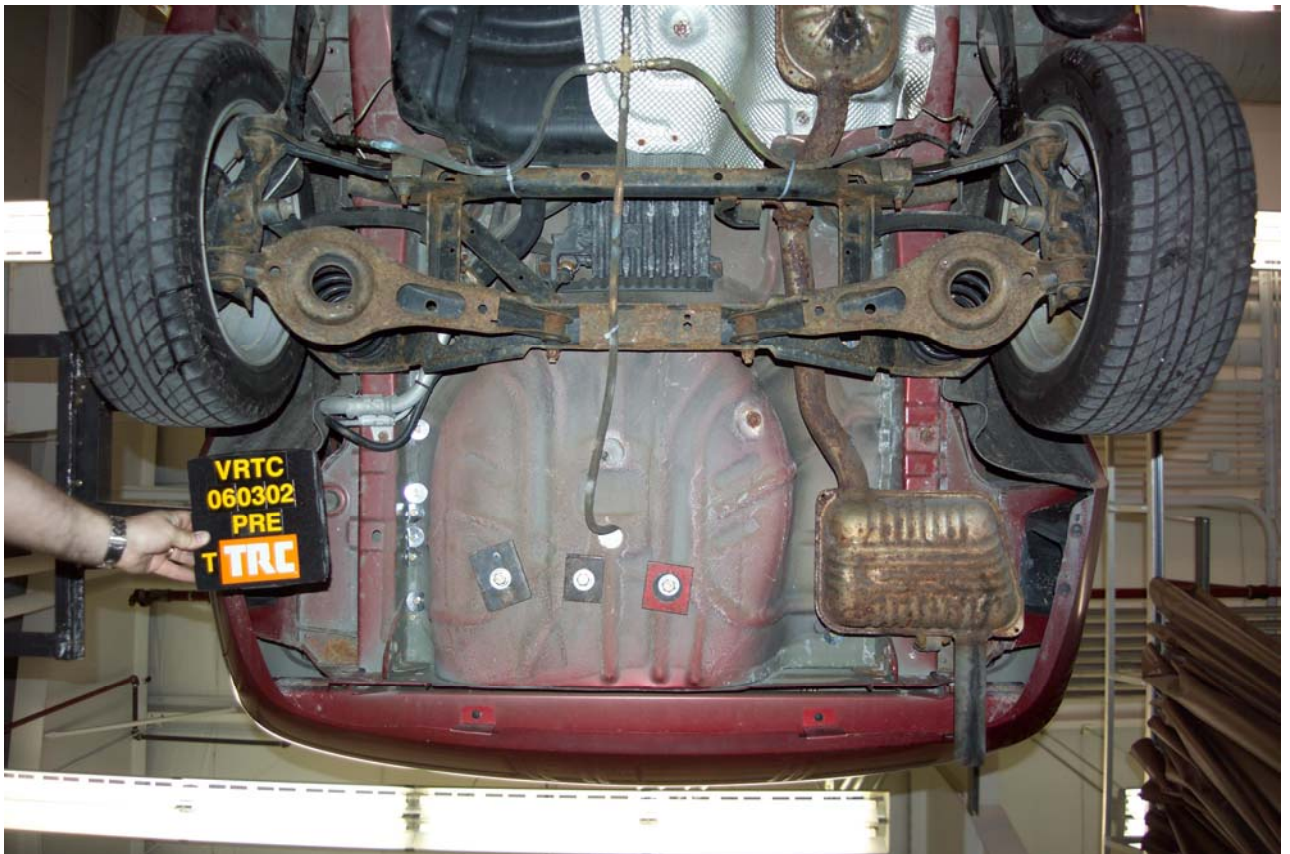


Figure A-39 Pre-Test Target Vehicle Rear Underbody View

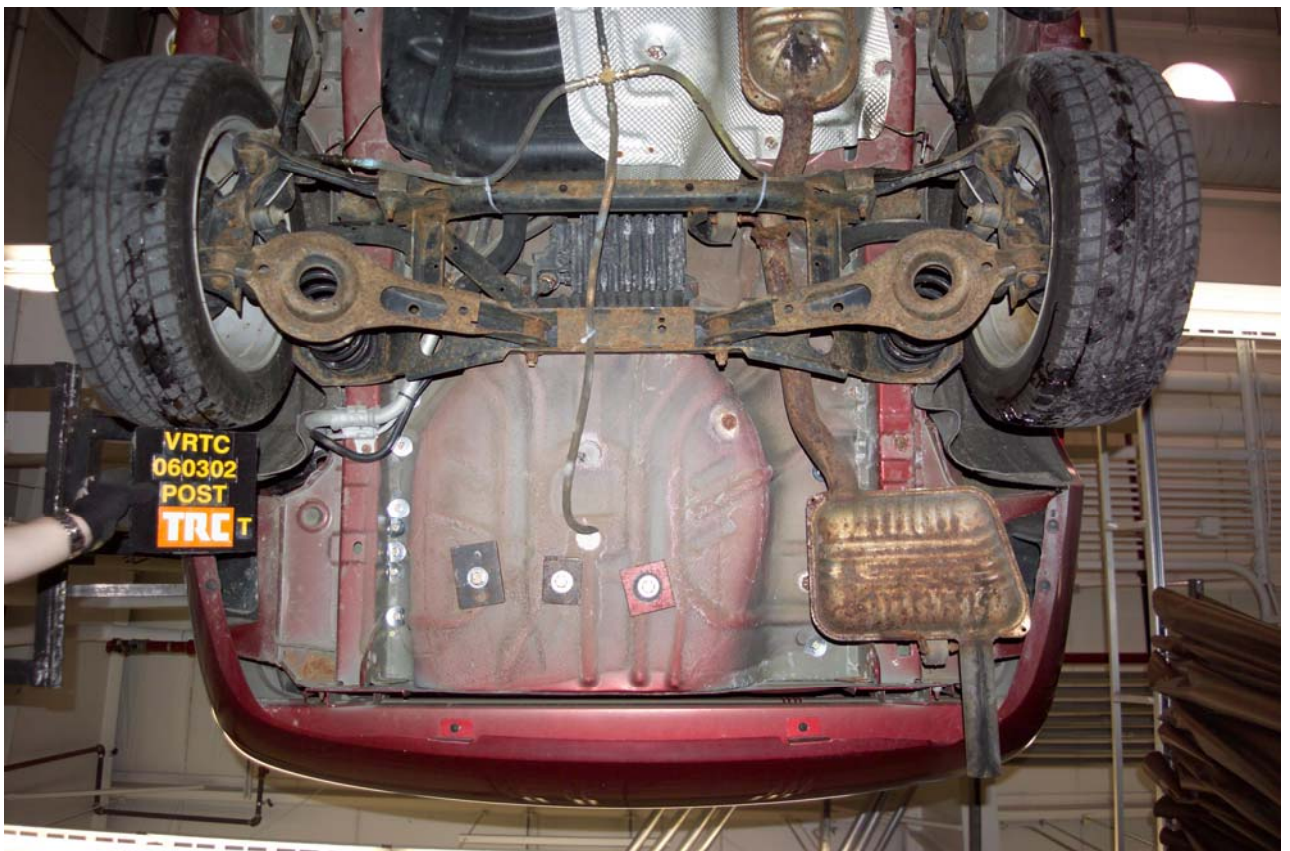


Figure A-40 Post-Test Target Vehicle Rear Underbody View



Figure A-41 Pre-Test Bullet Vehicle Front View



Figure A-42 Post-Test Bullet Vehicle Front View



Figure A-43 Pre-Test Bullet Vehicle Left Front View



Figure A-44 Post-Test Bullet Vehicle Left Front View



Figure A-45 Pre-Test Bullet Vehicle Left Side View



Figure A-46 Post-Test Bullet Vehicle Left Side View



Figure A-47 Pre-Test Bullet Vehicle Left Rear View



Figure A-48 Post-Test Bullet Vehicle Left Rear View



Figure A-49 Pre-Test Bullet Vehicle Rear View



Figure A-50 Post-Test Bullet Vehicle Rear View



Figure A-51 Pre-Test Bullet Vehicle Right Rear View



Figure A-52 Post-Test Bullet Vehicle Right Rear View



Figure A-53 Pre-Test Bullet Vehicle Right Side View



Figure A-54 Post-Test Bullet Vehicle Right Side View



Figure A-55 Pre-Test Bullet Vehicle Right Front View



Figure A-56 Post-Test Bullet Vehicle Right Front View



Figure A-57 Pre-Test Bullet Vehicle Engine Compartment View



Figure A-58 Post-Test Bullet Vehicle Engine Compartment View



Figure A-59 Pre-Test Bullet Vehicle Front Underbody View



Figure A-60 Post-Test Bullet Vehicle Front Underbody View

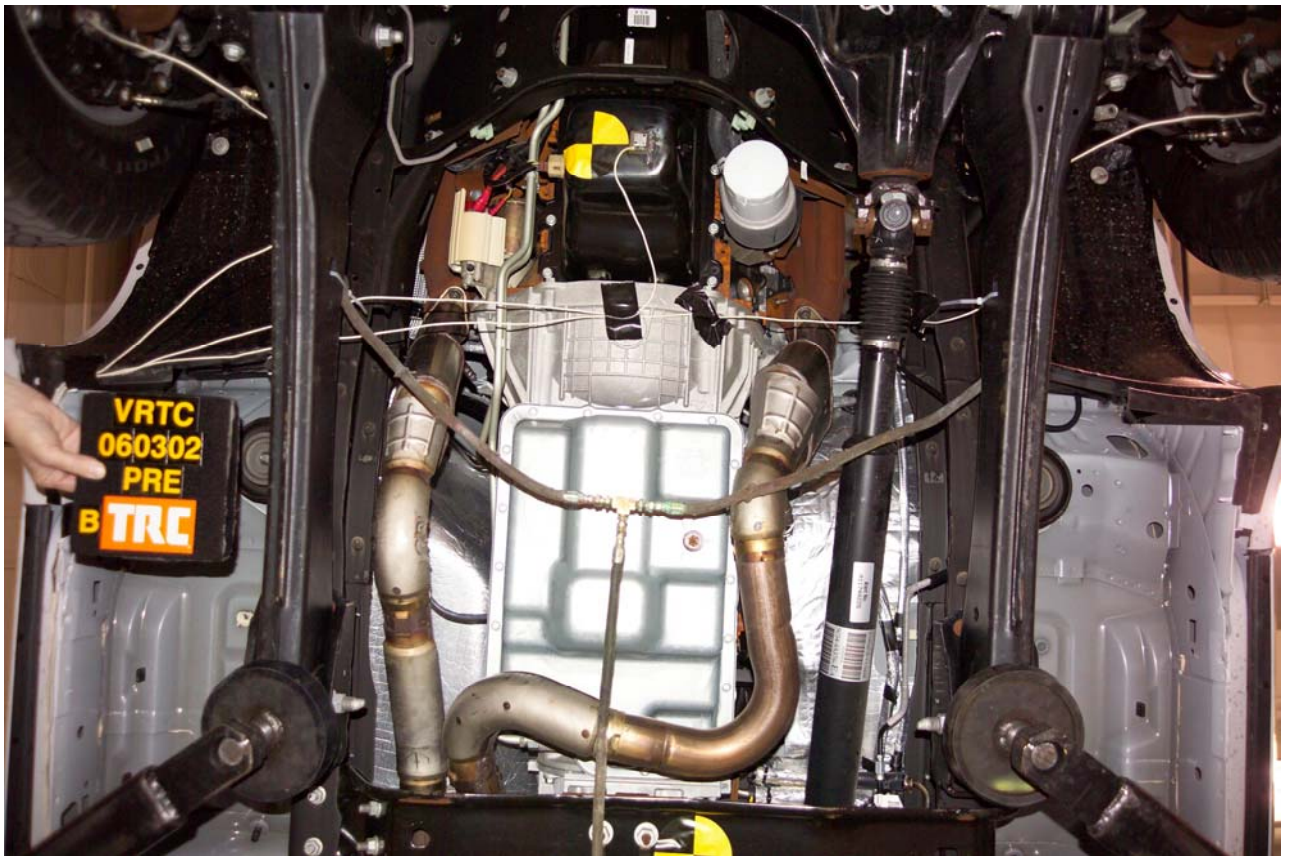


Figure A-61 Pre-Test Bullet Vehicle Front Mid Underbody View

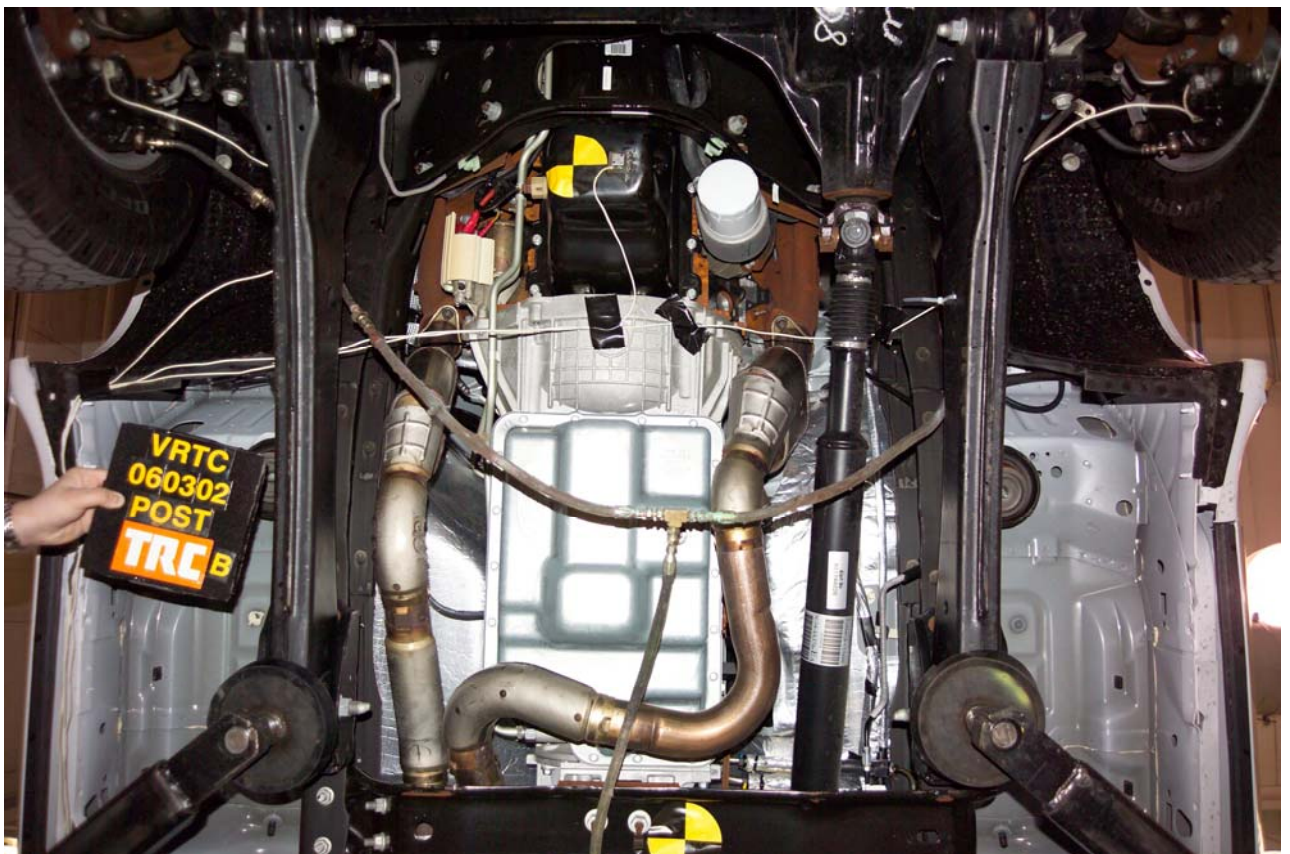


Figure A-62 Post-Test Bullet Vehicle Front Mid Underbody View



Figure A-63 Pre-Test Bullet Vehicle Mid Underbody - View 1



Figure A-64 Post-Test Bullet Vehicle Mid Underbody - View 1



Figure A-65 Pre-Test Bullet Vehicle Mid Underbody - View 2



Figure A-66 Post-Test Bullet Vehicle Mid Underbody - View 2



Figure A-67 Pre-Test Bullet Vehicle Rear Mid Underbody View

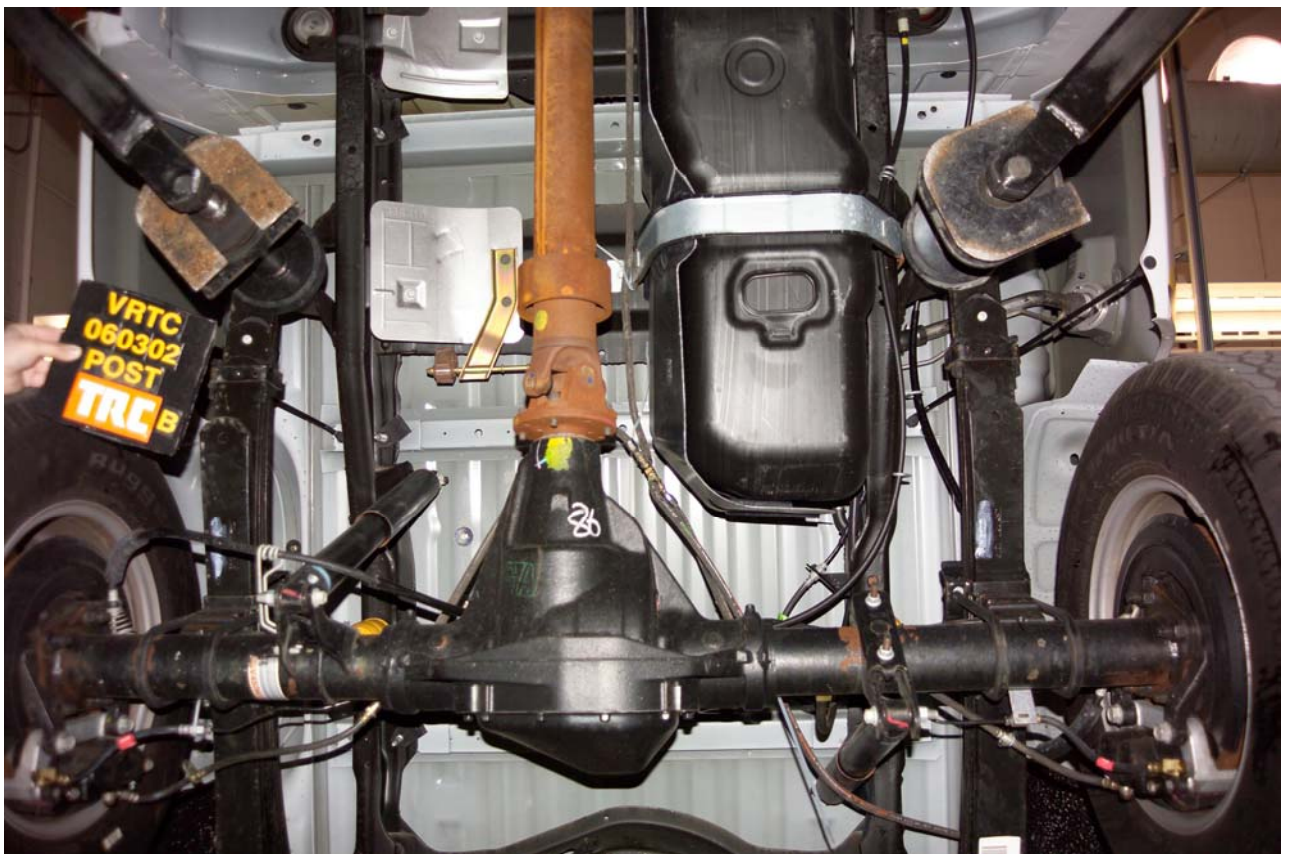


Figure A-68 Post-Test Bullet Vehicle Rear Mid Underbody View



Figure A-69 Pre-Test Bullet Vehicle Rear Underbody View



Figure A-70 Post-Test Bullet Vehicle Rear Underbody View



Figure A-71 Pre-Test Target Vehicle Windshield View



Figure A-72 Post-Test Target Vehicle Windshield View

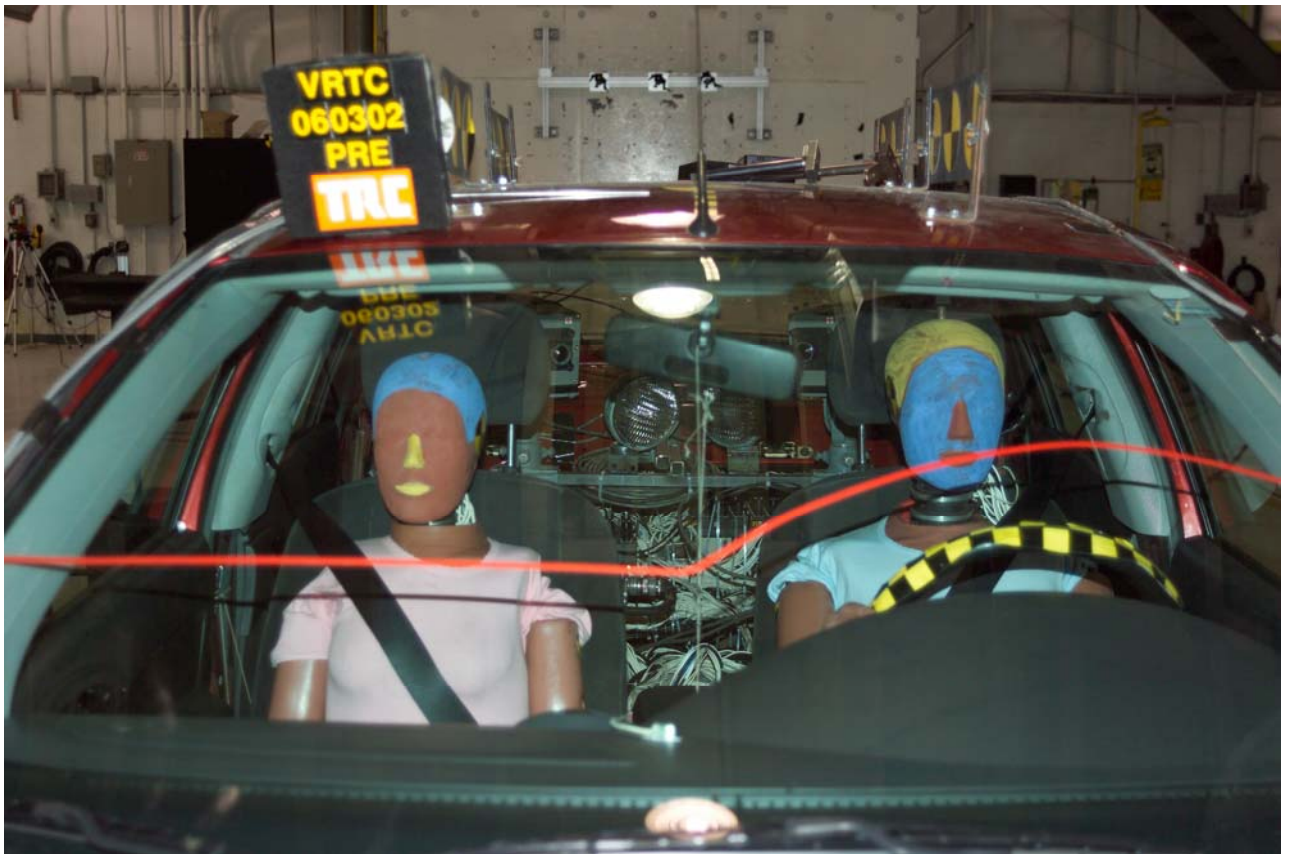


Figure A-73 Pre-Test Target Vehicle Driver and Passenger Dummies through Windshield View



Figure A-74 Post-Test Target Vehicle Driver and Passenger Dummies through Windshield View

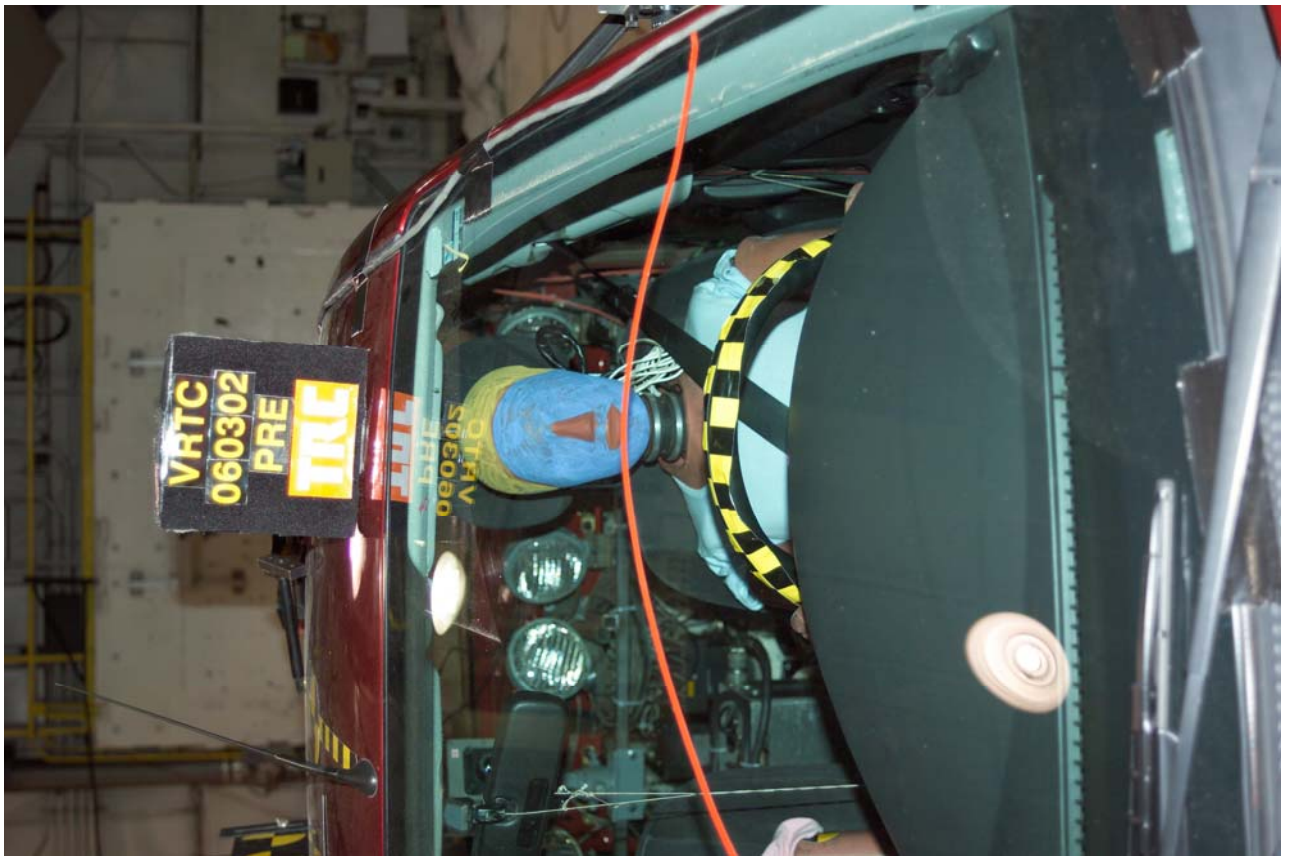


Figure A-75 Pre-Test Target Vehicle Driver Dummy - View 1

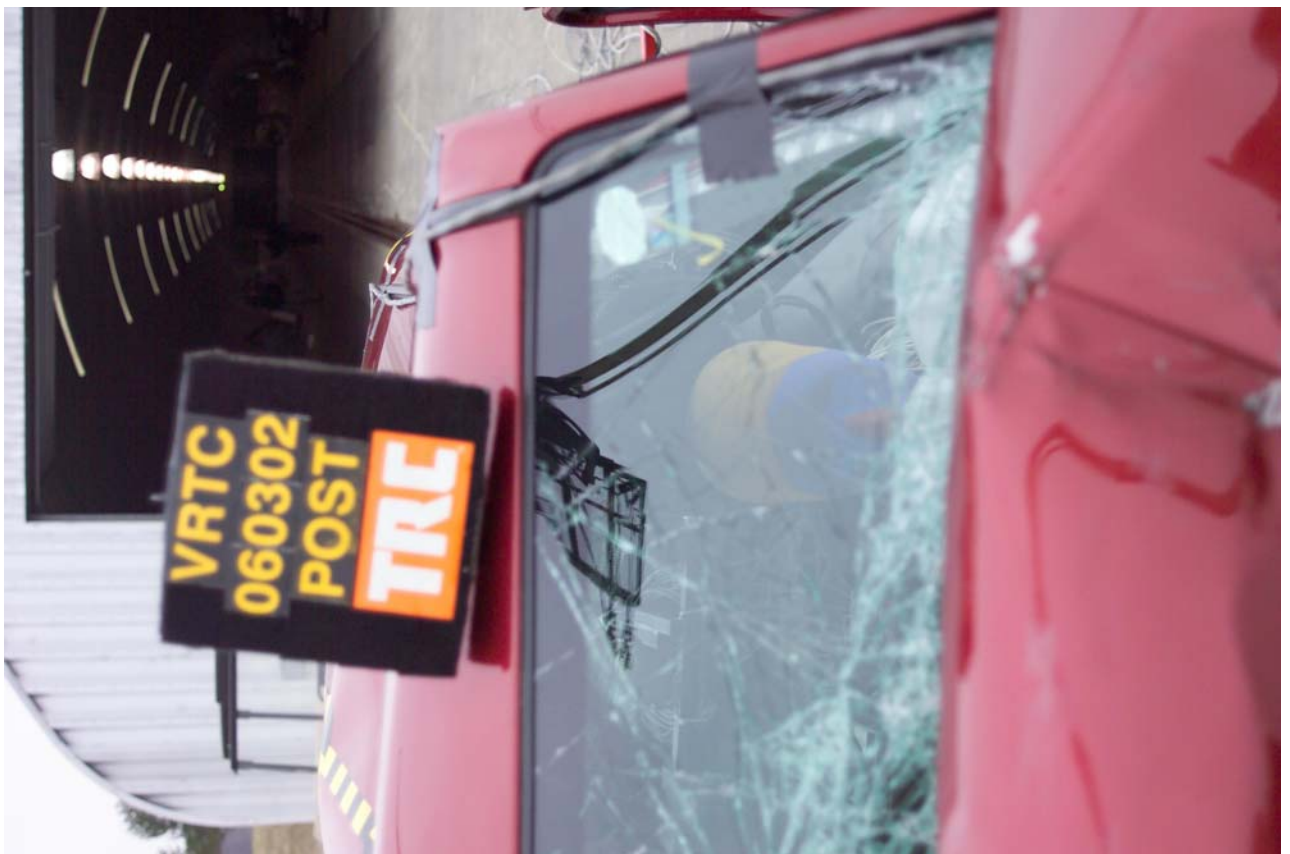


Figure A-76 Post-Test Target Vehicle Driver Dummy - View 1



Figure A-77 Pre-Test Target Vehicle Driver Dummy - View 2



Figure A-78 Post-Test Target Vehicle Driver Dummy - View 2



Figure A-79 Pre-Test Target Vehicle Driver Dummy - View 3



Figure A-80 Pre-Test Target Vehicle Driver Dummy - View 4



Figure A-81 Pre-Test Target Vehicle Driver Dummy Foot Position View

Intentionally Left Blank

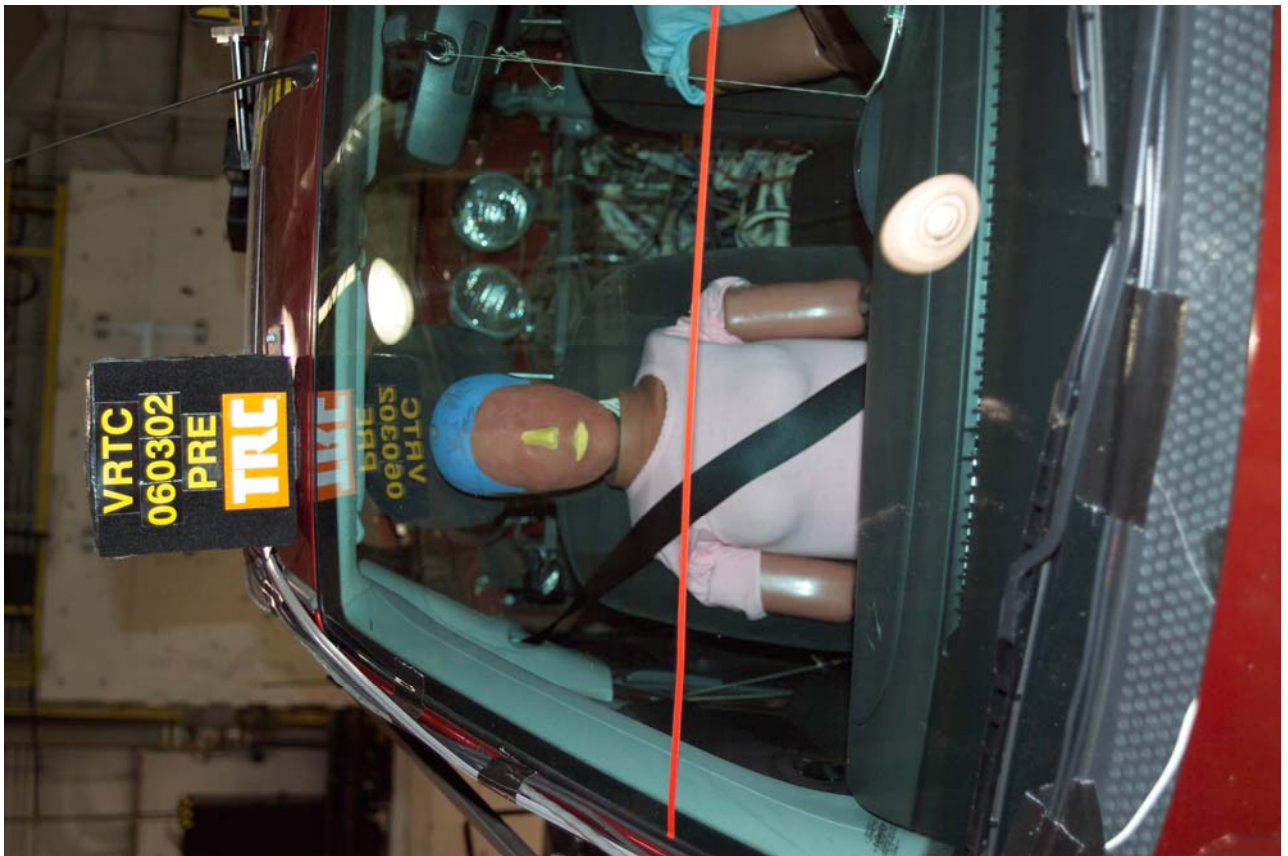


Figure A-82 Pre-Test Target Vehicle Passenger Dummy - View 1



Figure A-83 Post-Test Target Vehicle Passenger Dummy - View 1



Figure A-84 Pre-Test Target Vehicle Passenger Dummy - View 2



Figure A-85 Post-Test Target Vehicle Passenger Dummy - View 2



Figure A-86 Pre-Test Target Vehicle Passenger Dummy - View 3



Figure A-87 Pre-Test Target Vehicle Passenger Dummy - View 4



Figure A-88 Pre-Test Bullet Vehicle Windshield View



Figure A-89 Post-Test Bullet Vehicle Windshield View



Figure A-90 Pre-Test Bullet Vehicle Driver and Passenger Dummies through Windshield View



Figure A-91 Post-Test Bullet Vehicle Driver and Passenger Dummies through Windshield View



Figure A-92 Pre-Test Bullet Vehicle Driver Dummy - View 1



Figure A-93 Post-Test Bullet Vehicle Driver Dummy - View 1



Figure A-94 Pre-Test Bullet Vehicle Driver Dummy - View 2



Figure A-95 Post-Test Bullet Vehicle Driver Dummy - View 2



Figure A-96 Pre-Test Bullet Vehicle Driver Dummy - View 3



Figure A-97 Post-Test Bullet Vehicle Driver Dummy - View 3



Figure A-98 Pre-Test Bullet Vehicle Driver Dummy - View 4



Figure A-99 Post-Test Bullet Vehicle Driver Dummy - View 4



Figure A-100 Pre-Test Bullet Vehicle Driver Dummy Foot Position View



Figure A-101 Post-Test Bullet Vehicle Driver Dummy Foot Position View



Figure A-102 Pre-Test Bullet Vehicle Passenger Dummy - View 1



Figure A-103 Post-Test Bullet Vehicle Passenger Dummy - View 1



Figure A-104 Pre-Test Bullet Vehicle Passenger Dummy - View 2



Figure A-105 Post-Test Bullet Vehicle Passenger Dummy - View 2



Figure A-106 Pre-Test Bullet Vehicle Passenger Dummy - View 3



Figure A-107 Post-Test Bullet Vehicle Passenger Dummy - View 3

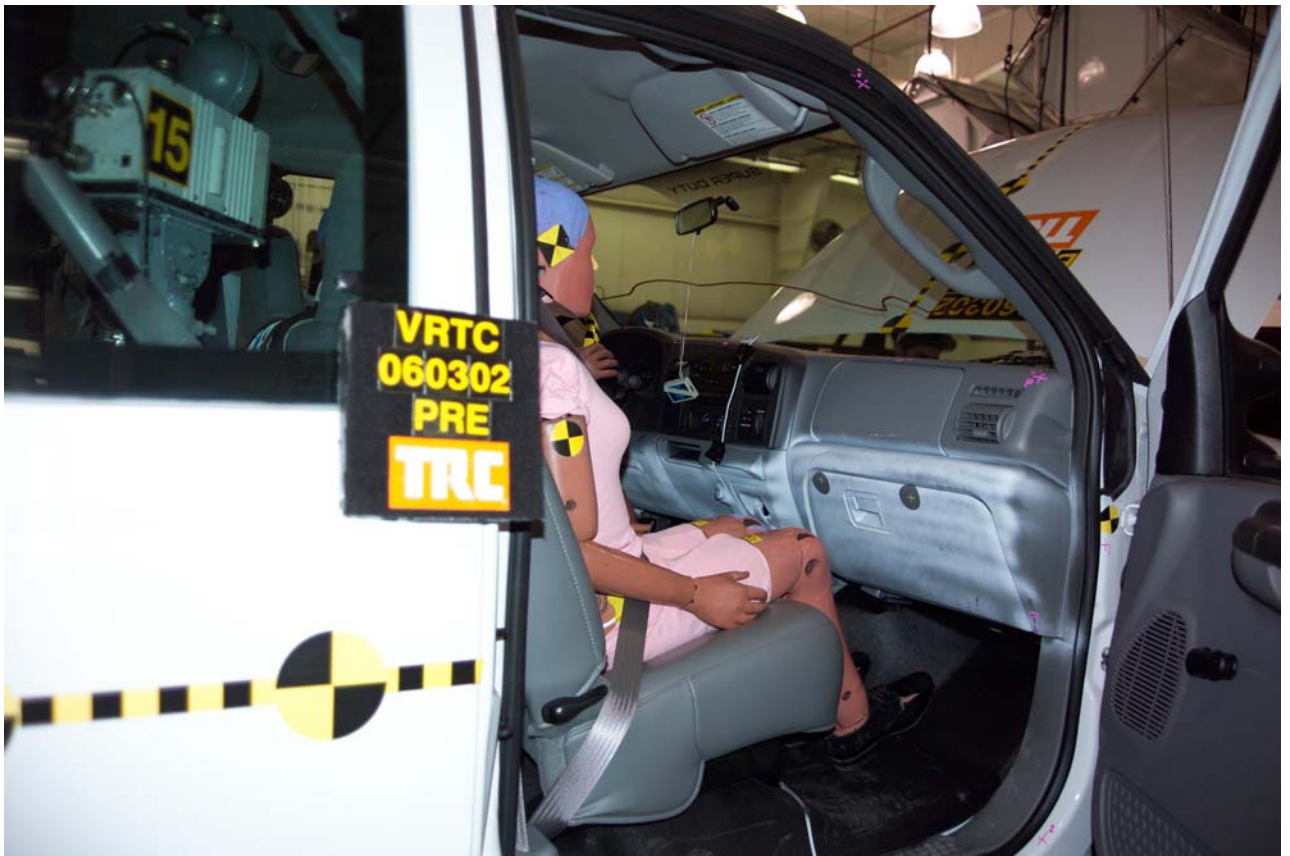


Figure A-108 Pre-Test Bullet Vehicle Passenger Dummy - View 4



Figure A-109 Post-Test Bullet Vehicle Passenger Dummy - View 4

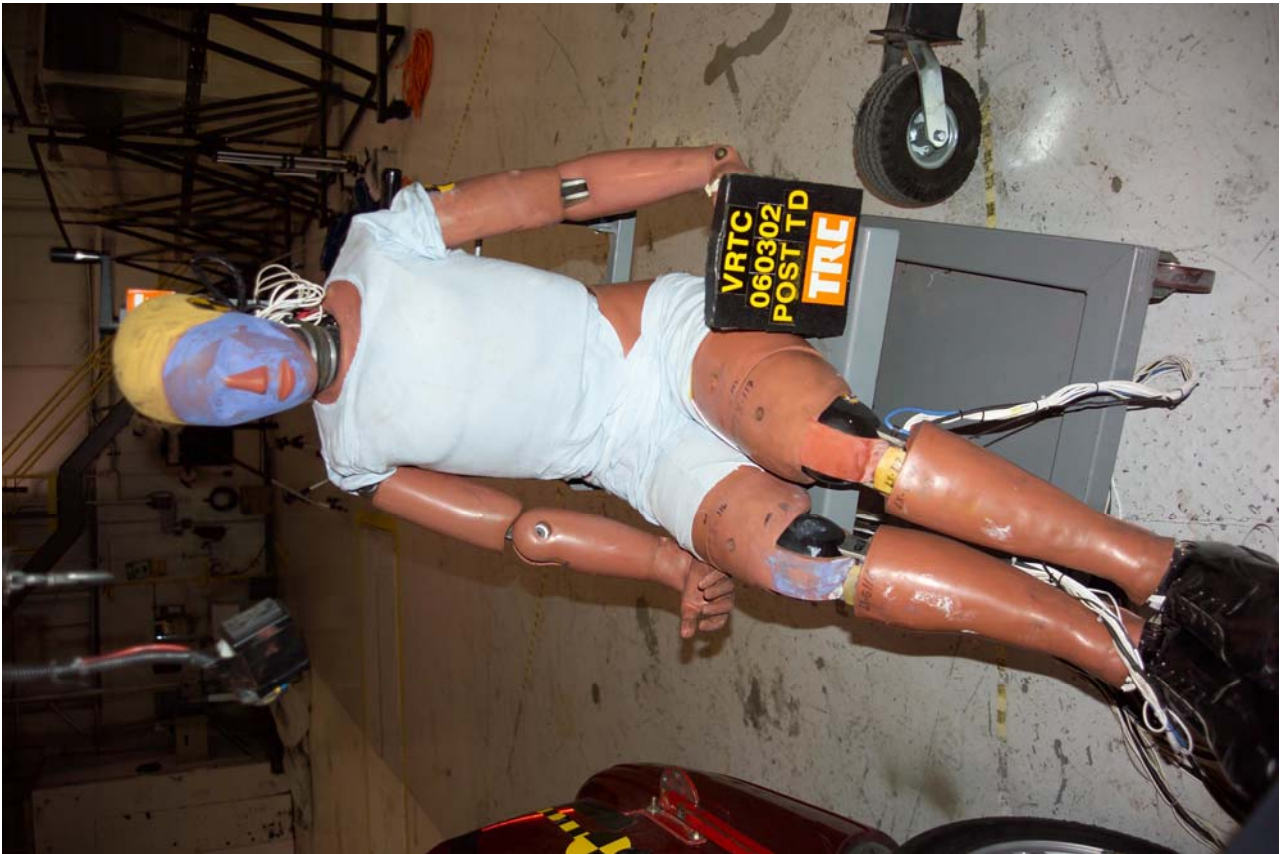


Figure A-110 Post-Test Target Vehicle Driver Dummy Overall Contact View



Figure A-111 Post-Test Target Vehicle Driver Dummy Head Contact View



Figure A-112 Post-Test Target Vehicle Driver Floorboard Deformation View



Figure A-113 Post-Test Target Vehicle Driver Toeboard Deformation View



Figure A-114 Post-Test Target Vehicle Passenger Dummy Overall Contact View



Figure A-115 Post-Test Target Vehicle Passenger Dummy Head Contact View



Figure A-116 Post-Test Target Vehicle Passenger Dummy Knee Contact View

Intentionally Left Blank



Figure A-117 Post-Test Target Vehicle Passenger Floorboard Deformation View



Figure A-118 Post-Test Target Vehicle Passenger Toeboard Deformation View



Figure A-119 Post-Test Target Vehicle Interior Damage - View 1



Figure A-120 Post-Test Target Vehicle Interior Damage - View 2

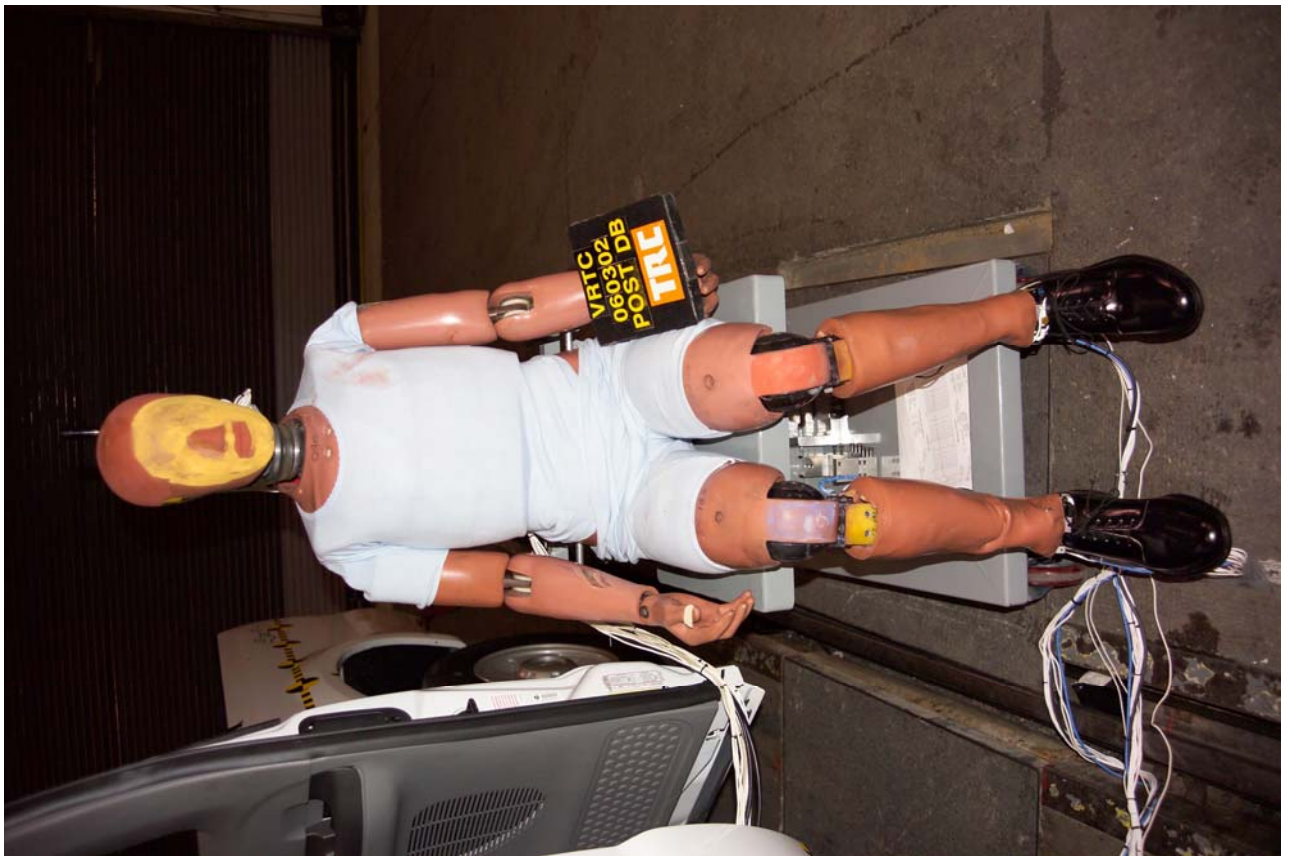


Figure A-121 Post-Test Bullet Vehicle Driver Dummy Overall Contact View



Figure A-122 Post-Test Bullet Vehicle Driver Dummy Head Contact - View 1

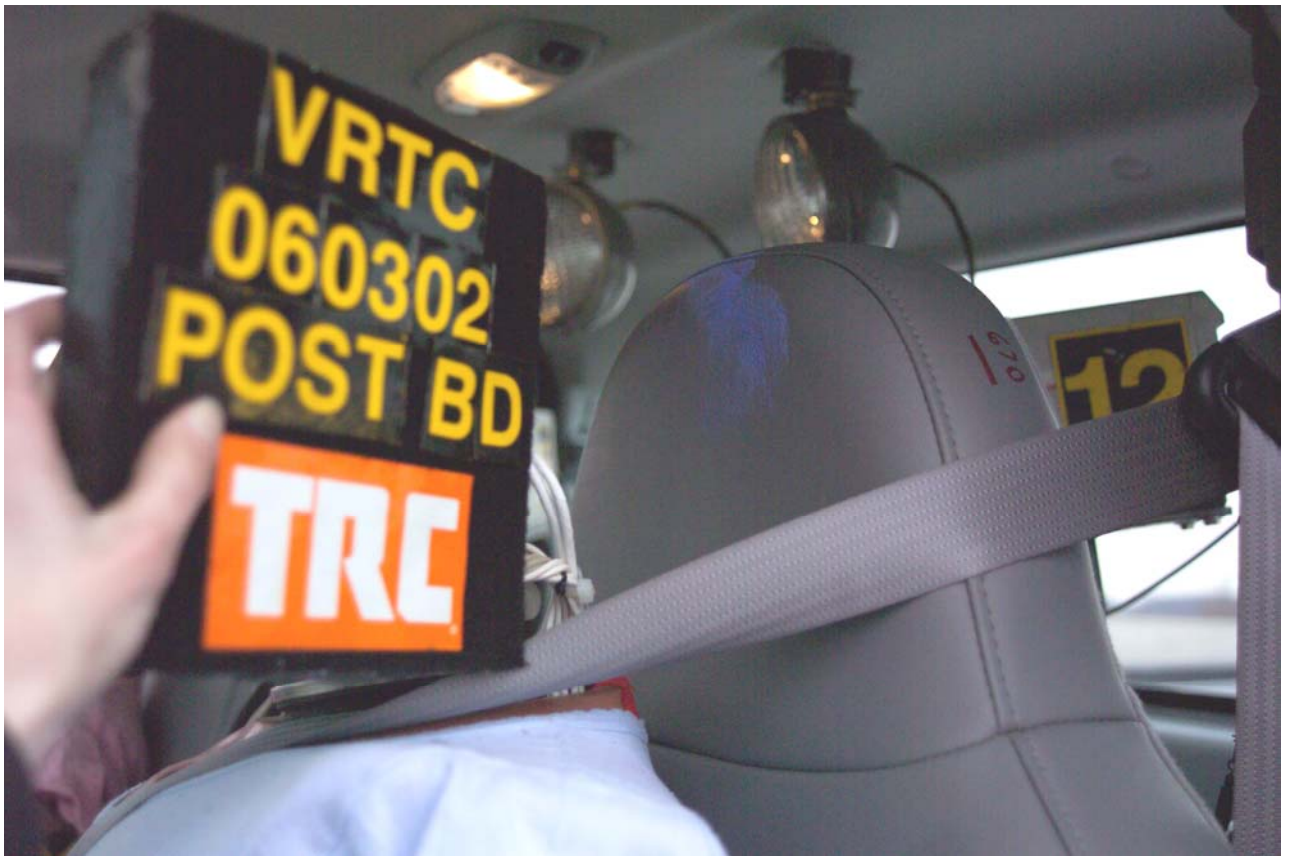


Figure A-123 Post-Test Bullet Vehicle Driver Dummy Head Contact - View 2



Figure A-124 Post-Test Bullet Vehicle Driver Dummy Knee Contact View



Figure A-125 Post-Test Bullet Vehicle Driver Floorboard Deformation View



Figure A-126 Post-Test Bullet Vehicle Driver Toeboard Deformation View



Figure A-127 Post-Test Bullet Vehicle Passenger Dummy Overall Contact View



Figure A-128 Post-Test Bullet Vehicle Passenger Dummy Head Contact - View 1

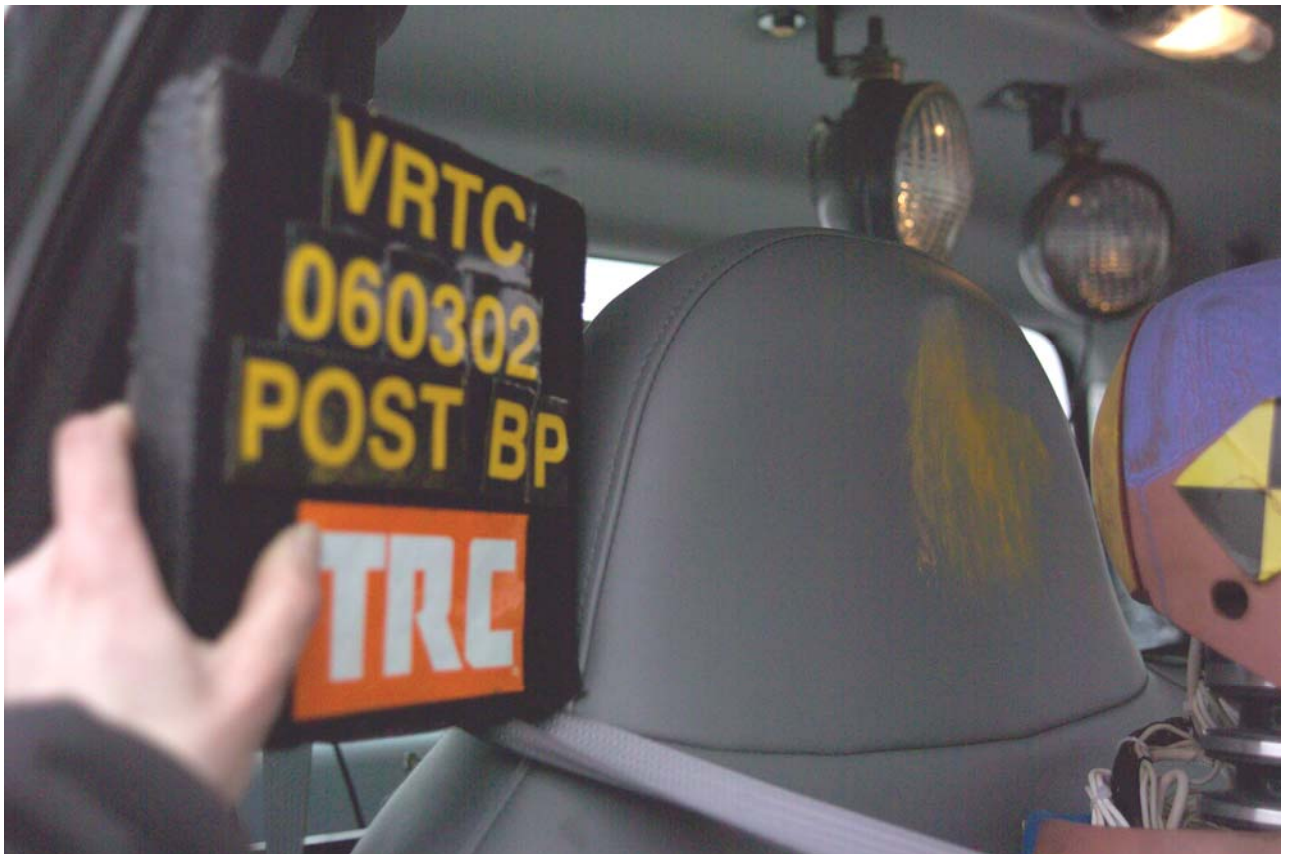


Figure A-129 Post-Test Bullet Vehicle Passenger Dummy Head Contact - View 2



Figure A-130 Post-Test Bullet Vehicle Passenger Dummy Knee Contact View



Figure A-131 Post-Test Bullet Vehicle Passenger Floorboard Deformation View



Figure A-132 Post-Test Bullet Vehicle Passenger Toeboard Deformation View



Figure A-133 Target Vehicle Certification and Tire Information Label View

Intentionally Left Blank

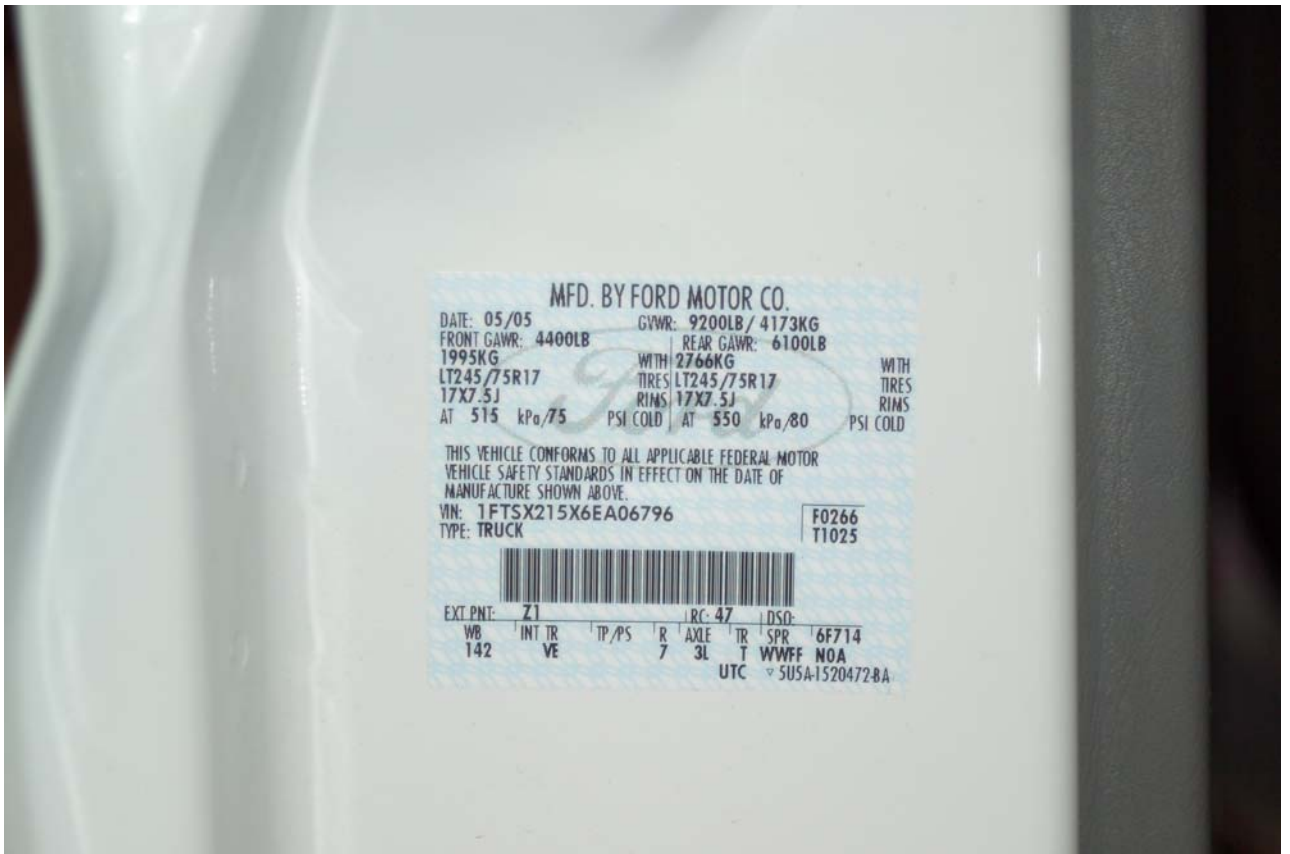


Figure A-134 Bullet Vehicle Certification Label View



Figure A-135 Bullet Vehicle Tire Information Label View



Figure A-136 Pre-Test Target Vehicle Ballast - View 1



Figure A-137 Pre-Test Target Vehicle Ballast - View 2

Appendix B

Data Plots



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

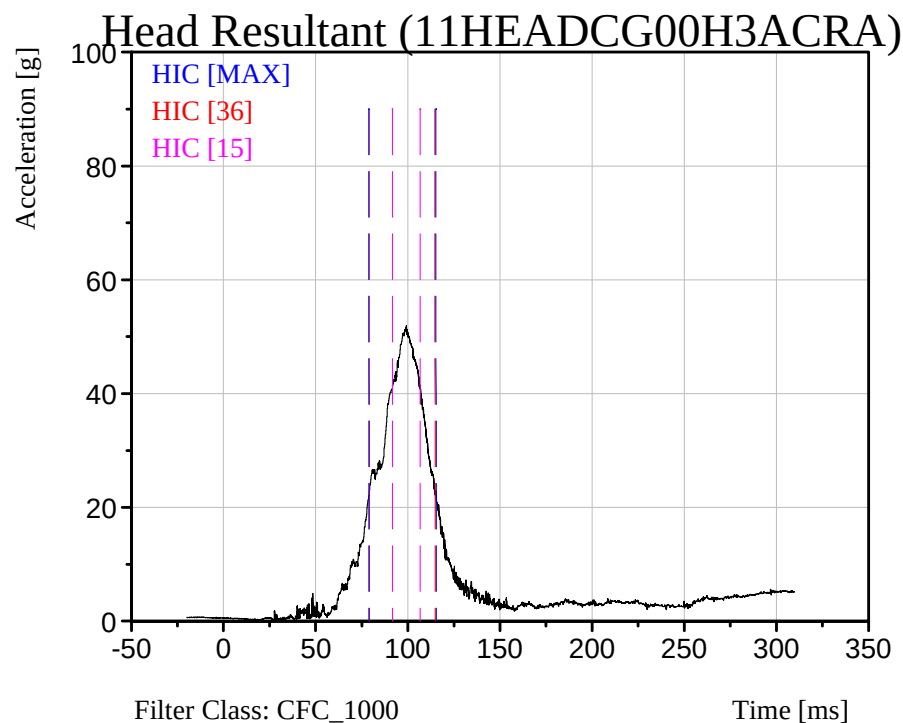
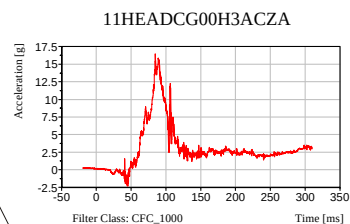
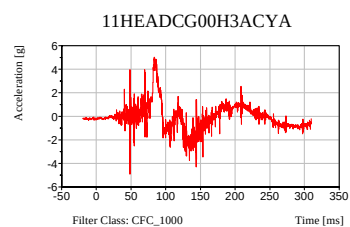
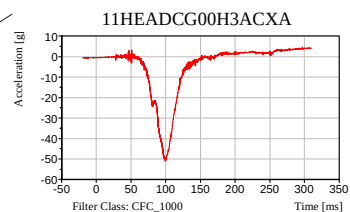
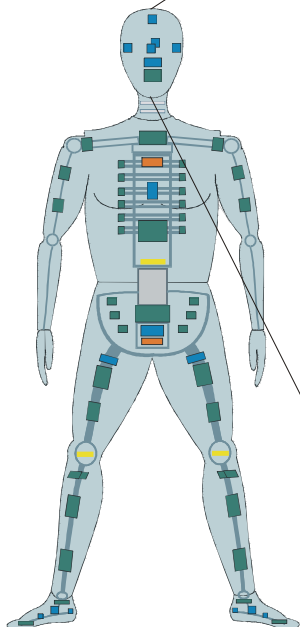
Time: 07:16

Head Injury Criterion (HIC)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy: HIII 50th Male
Seating Position:
Driver

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 307.06	78.96 ms	115.36 ms	37.16 g
HIC [36] = 307.05	79.04 ms	114.80 ms	37.42 g
HIC [15] = 225.09	91.68 ms	106.72 ms	46.75 g

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

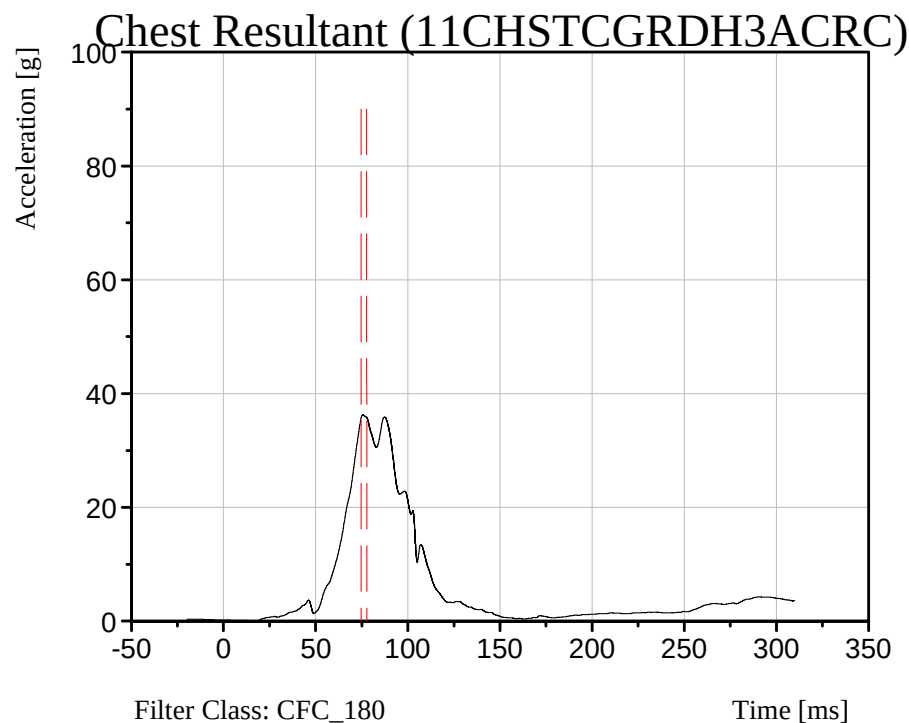
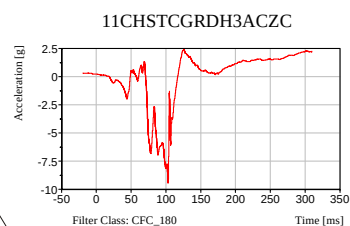
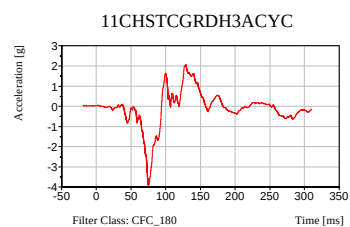
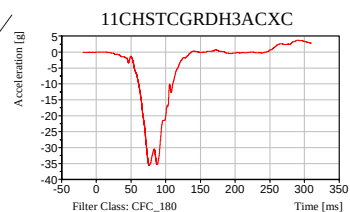
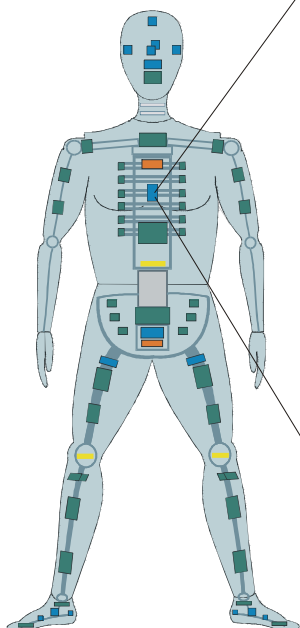
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy:HIII 50th Male
Seating Position:

Driver

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0

3 ms Duration Acceleration = 35.80 g
Chest Severity Index = 188.06

<u>T1</u> (Begin)	<u>T2</u> (End)
74.71 ms	77.71 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

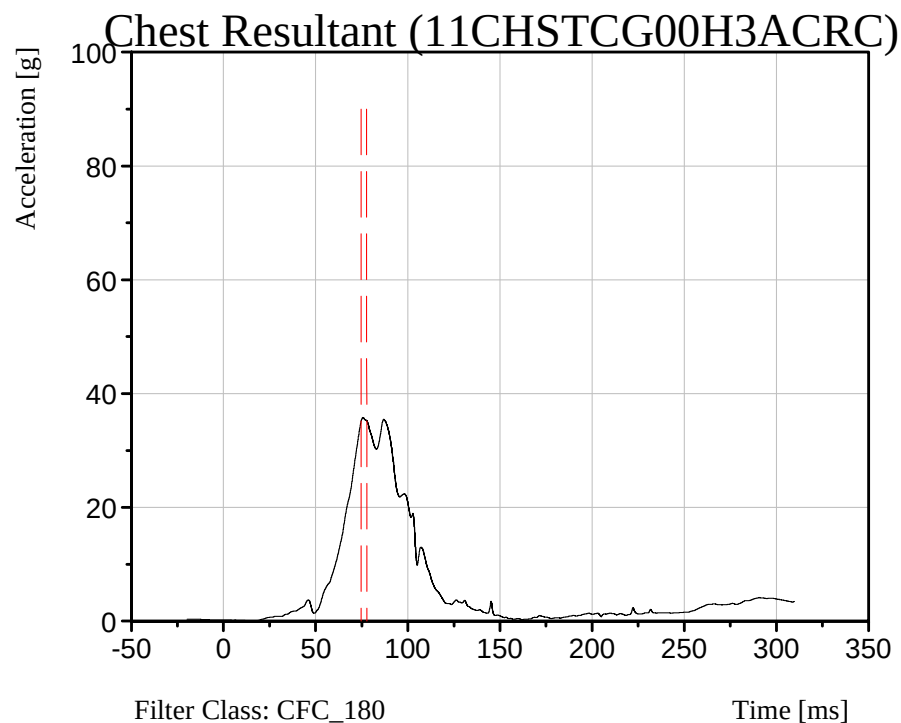
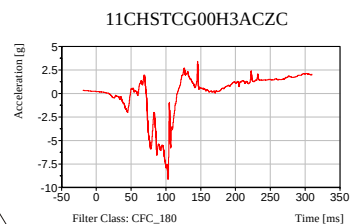
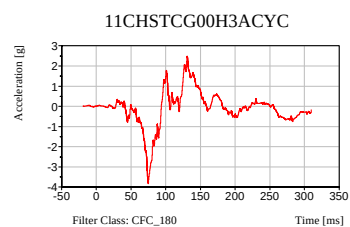
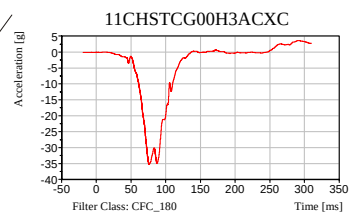
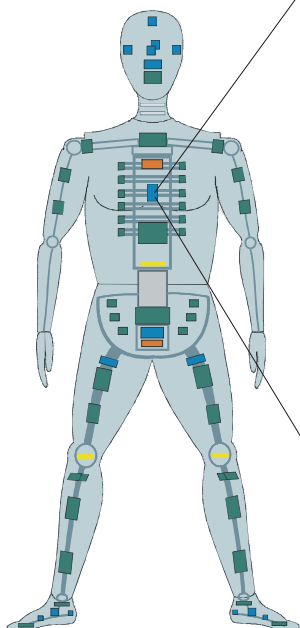
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy:HIII 50th Male
Seating Position:

Driver

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0

3 ms Duration Acceleration = 35.25 g
Chest Severity Index = 181.37

<u>T1</u> (Begin)	<u>T2</u> (End)
74.69 ms	77.69 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Chest Deflection

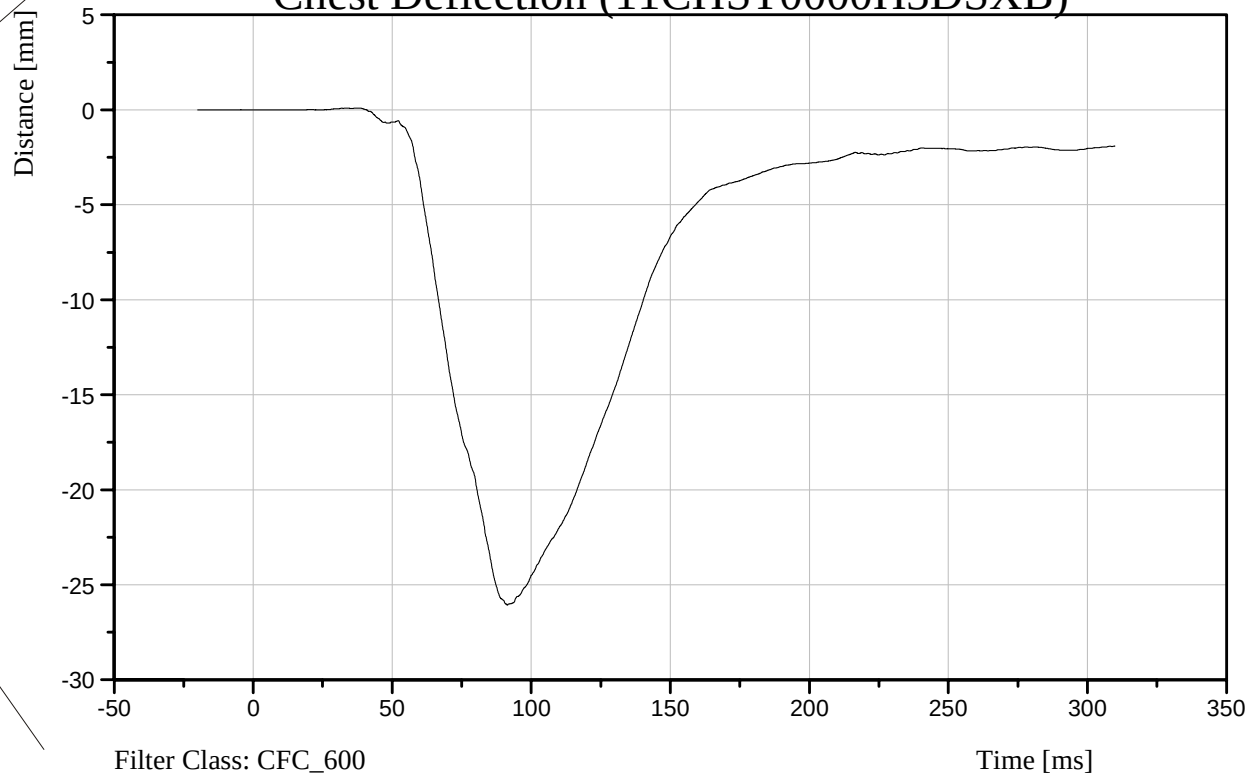
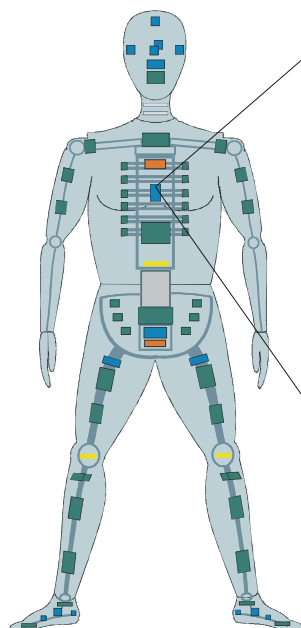
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

Chest Deflection (11CHST0000H3DSXB)



Dummy: HIII 50th Male

Seating Position:

Driver

[Max.] 0.10 mm at 36.96 ms

[Min.] -26.07 mm at 91.44 ms

ChestDeflection Source Code : Min/Max of 11CHST0000H3DSXB (CFC_600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear Neck Moment about the Occipital Condyle (NECK OM)

Date: 03/03/2006
Time: 07:16

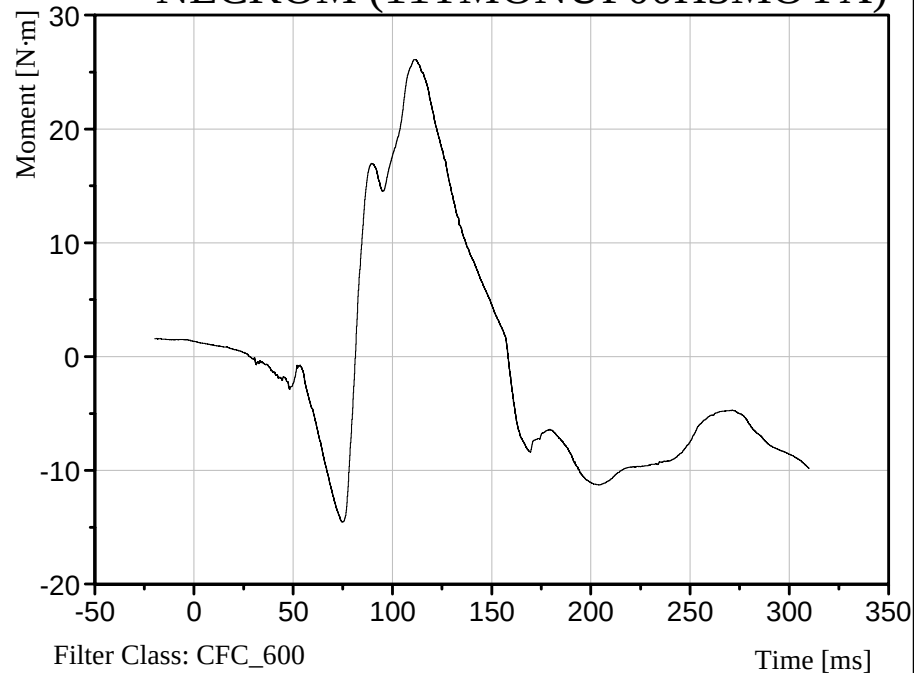
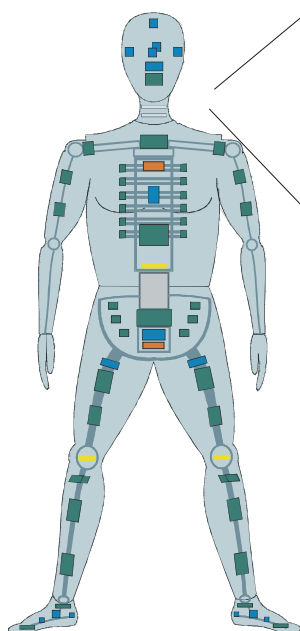
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

NECKOM (11TMONUP00H3MOYX)



Dummy: HIII 50th Male
Seating Position:

Driver

Neck OM Source Code: My - (D*Fx)

[Max.] 26.10 N·m at 110.96 ms

[Min.] -14.53 N·m at 74.80 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Neck Injury Predictor (NIJ)

Customer: VRTC

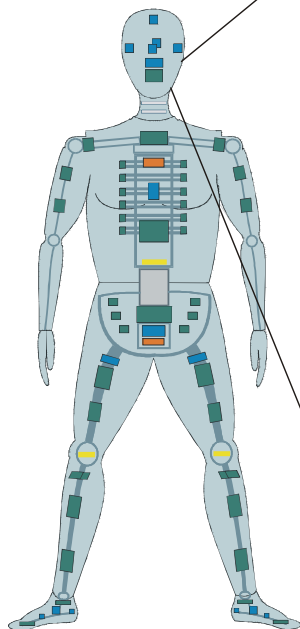
Test Orientation = Frontal

Fzc(Tension) = 6806

Fzc(Compression) = 6160

Myc(Extension) = 135

Myc(Flexion) = 310



Dummy: HIII 50th Male
Seating Position:

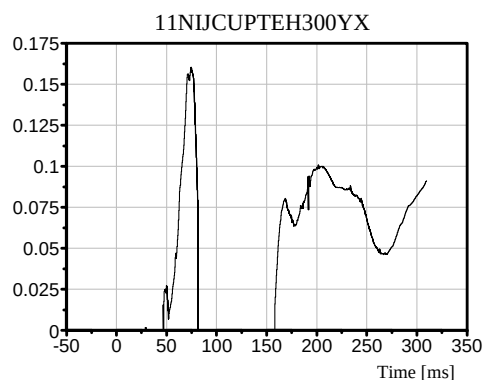
Driver

NIJ Source Code: (Fz/Fzc)+(Myc/Myc)

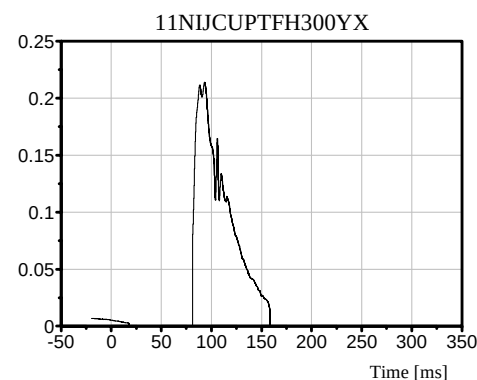


TRC Inc. Test Lab: CTF

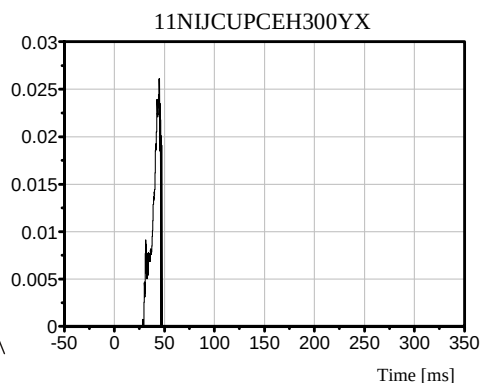
Test Number: 060302



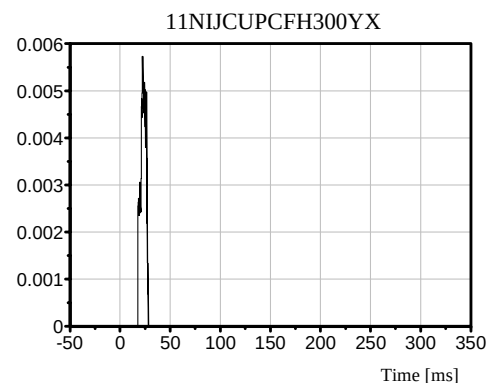
Max [NTE] 0.1604 at 74.40 ms



Max [NTF] 0.2142 at 93.28 ms



Max [NCE] 0.0261 at 44.88 ms



Max [NCF] 0.0057 at 22.32 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

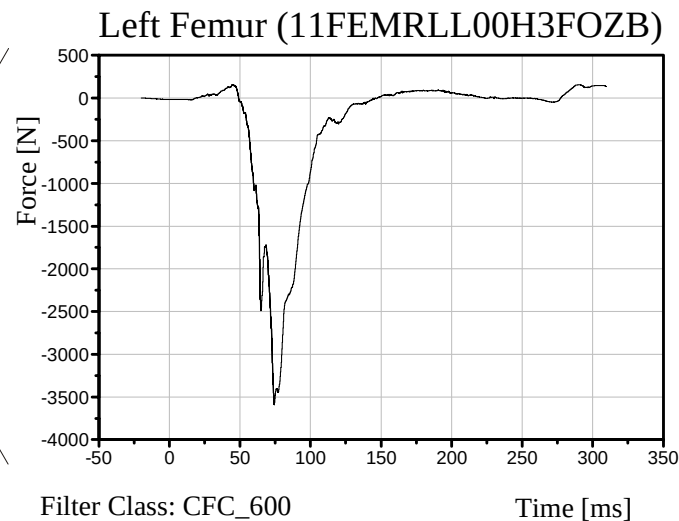
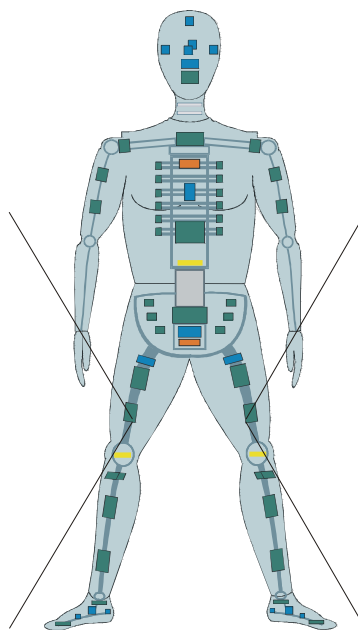
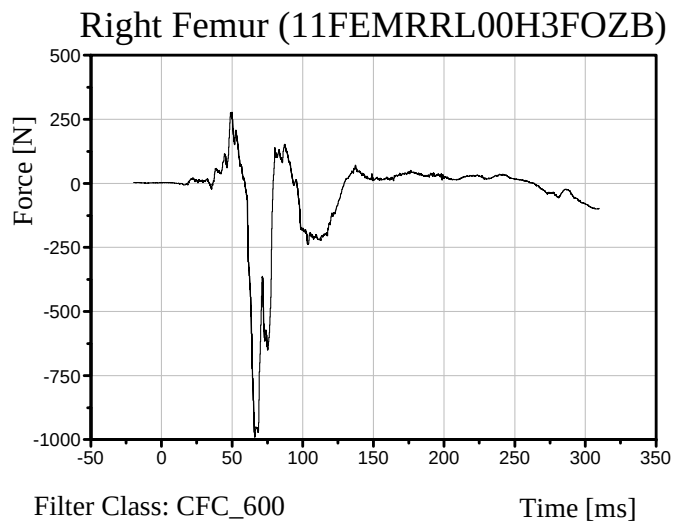
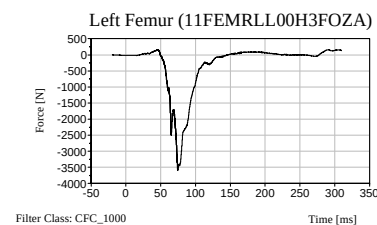
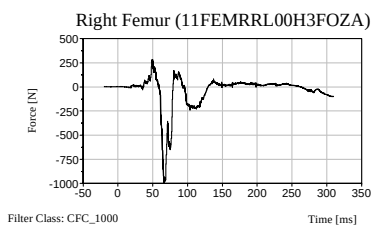
Time: 07:16

Femur Load

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Max [Tension] 277.40 N at 49.84 ms
Min [Compression] -989.56 N at 66.00 ms

Dummy: HIII 50th Male
Seating Position:
Driver

Max [Tension] 156.03 N at 291.12 ms
Min [Compression] -3,593.53 N at 74.40 ms

Femur Load Source Code : Min/Max of 11FEMRRL00H3FOZB and 11FEMRLL00H3FOZB (CFC 600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Tibia Index (TI)

Date: 03/03/2006

Time: 07:16

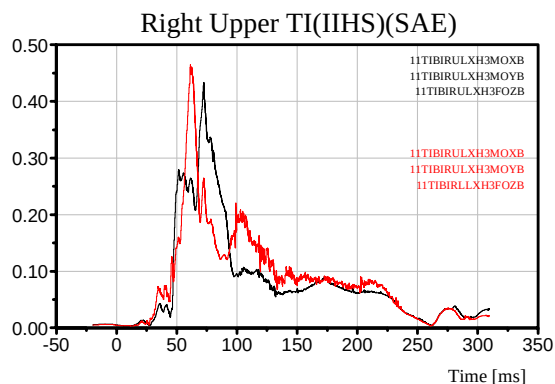
Customer: VRTC

TRC Inc. Test Lab: CTF

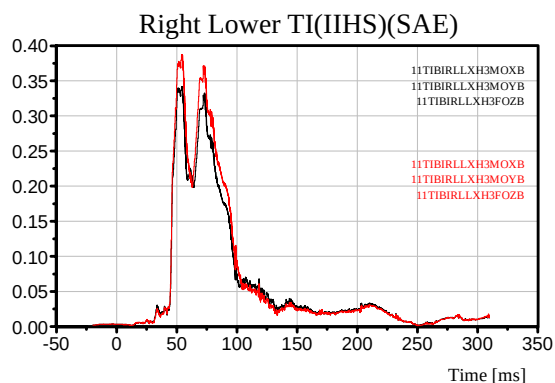
Test Number: 060302

Critical Bending Moment = 240 N·m

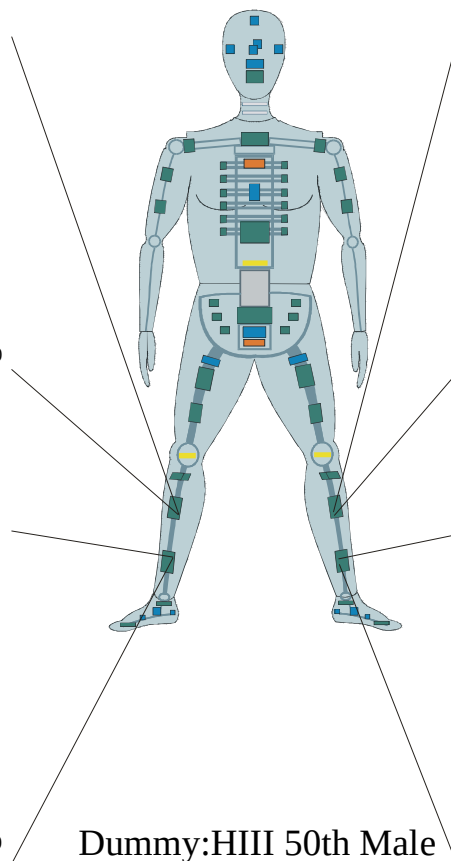
Critical Compression Force = 12000 N



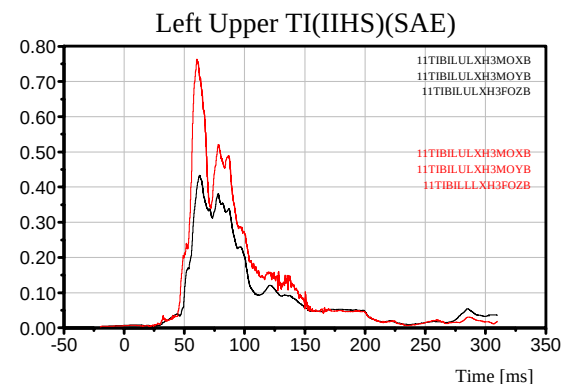
Max = 0.43 at 72.32 ms (SAE)
Max = 0.47 at 61.28 ms (IIHS)



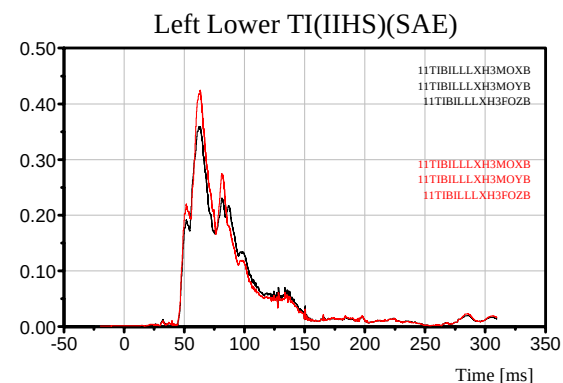
Max = 0.34 at 54.24 ms (SAE)
Max = 0.39 at 54.32 ms (IIHS)



Dummy: HIII 50th Male
Seating Position:
Driver



Max = 0.43 at 62.64 ms (SAE)
Max = 0.76 at 60.32 ms (IIHS)



Max = 0.36 at 63.28 ms (SAE)
Max = 0.42 at 63.28 ms (IIHS)

Tibia Index Source Code : Guideline 96/79/EC; SAE J1727 AUG96; and IIHS Crashworthiness Evaluation Offset Barrier Crash Test Protocol (Version X)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

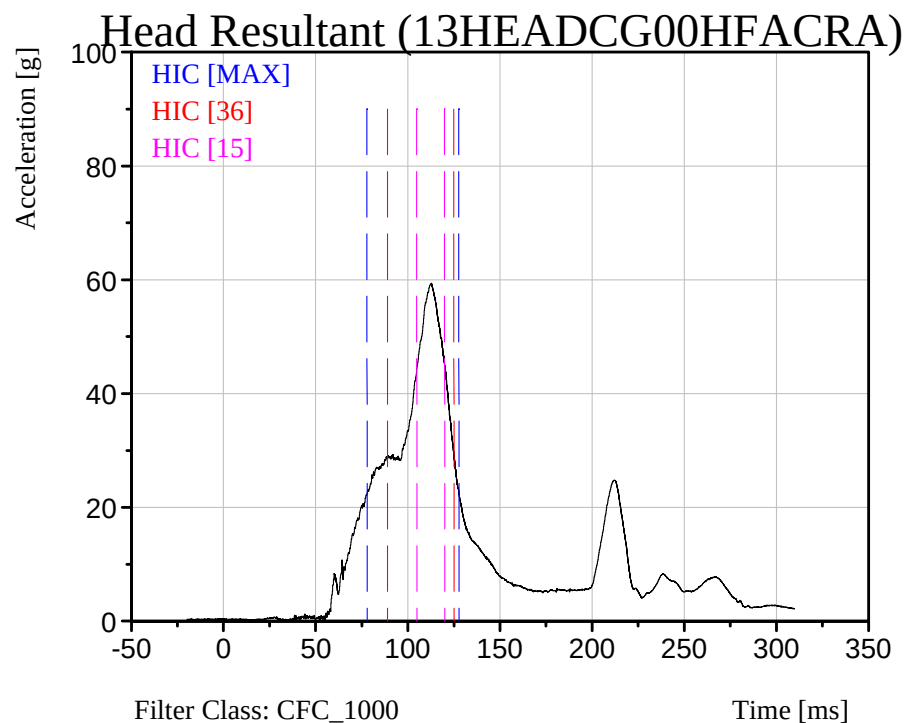
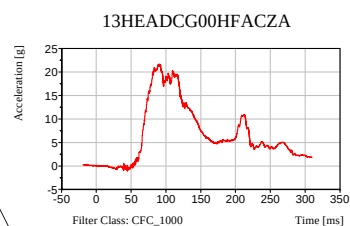
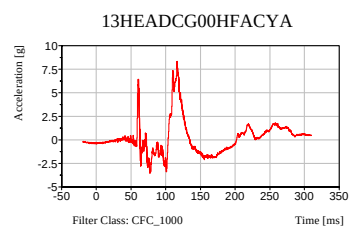
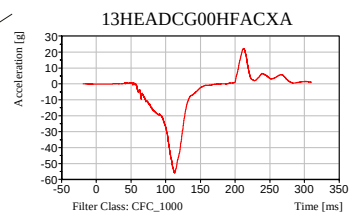
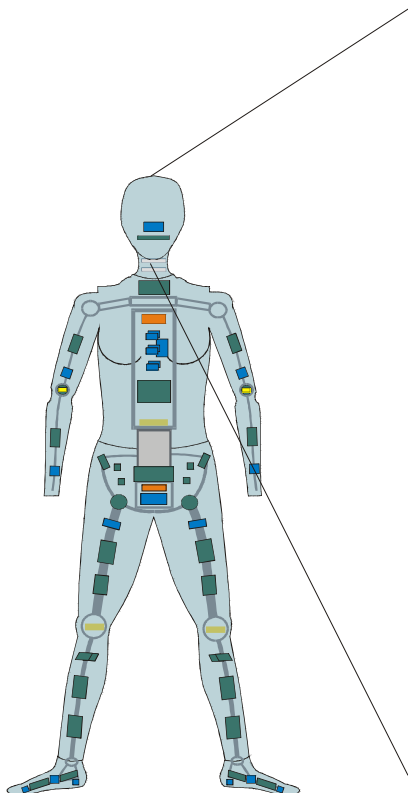
Time: 07:16

Head Injury Criterion (HIC)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 424.84	77.92 ms	127.76 ms	37.32 g
HIC [36] = 403.14	89.04 ms	125.04 ms	41.63 g
HIC [15] = 309.21	104.96 ms	120.00 ms	53.07 g

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

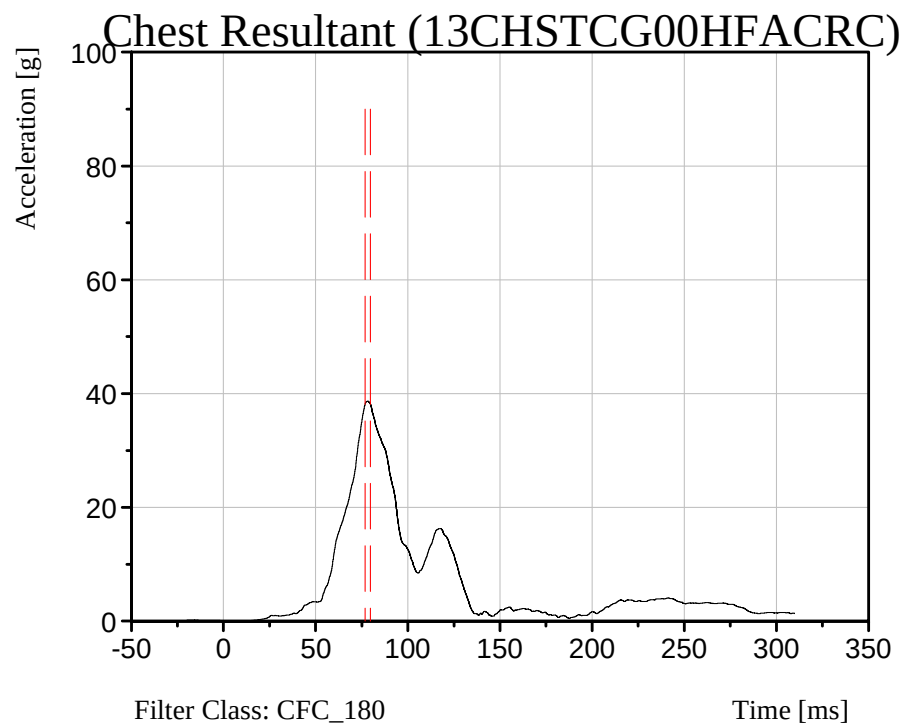
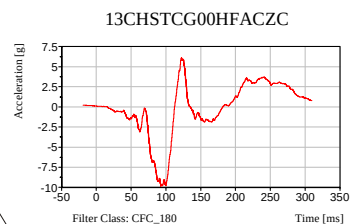
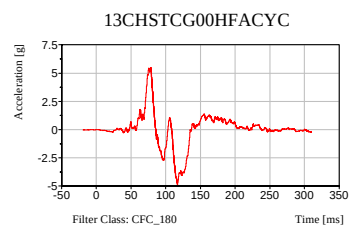
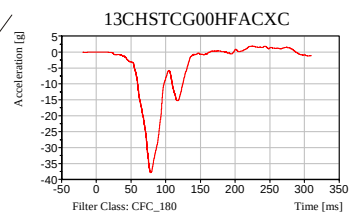
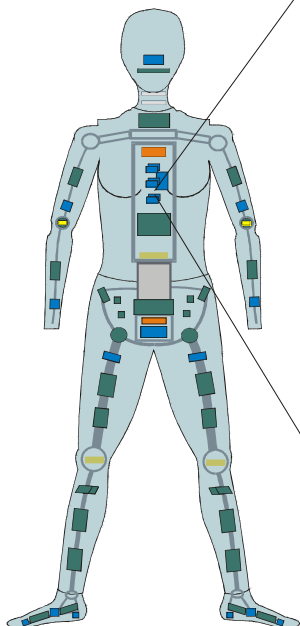
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



3 ms Duration Acceleration = 38.13 g
Chest Severity Index = 179.22

<u>T1</u> (Begin)	<u>T2</u> (End)
76.78 ms	79.78 ms

Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Chest Deflection

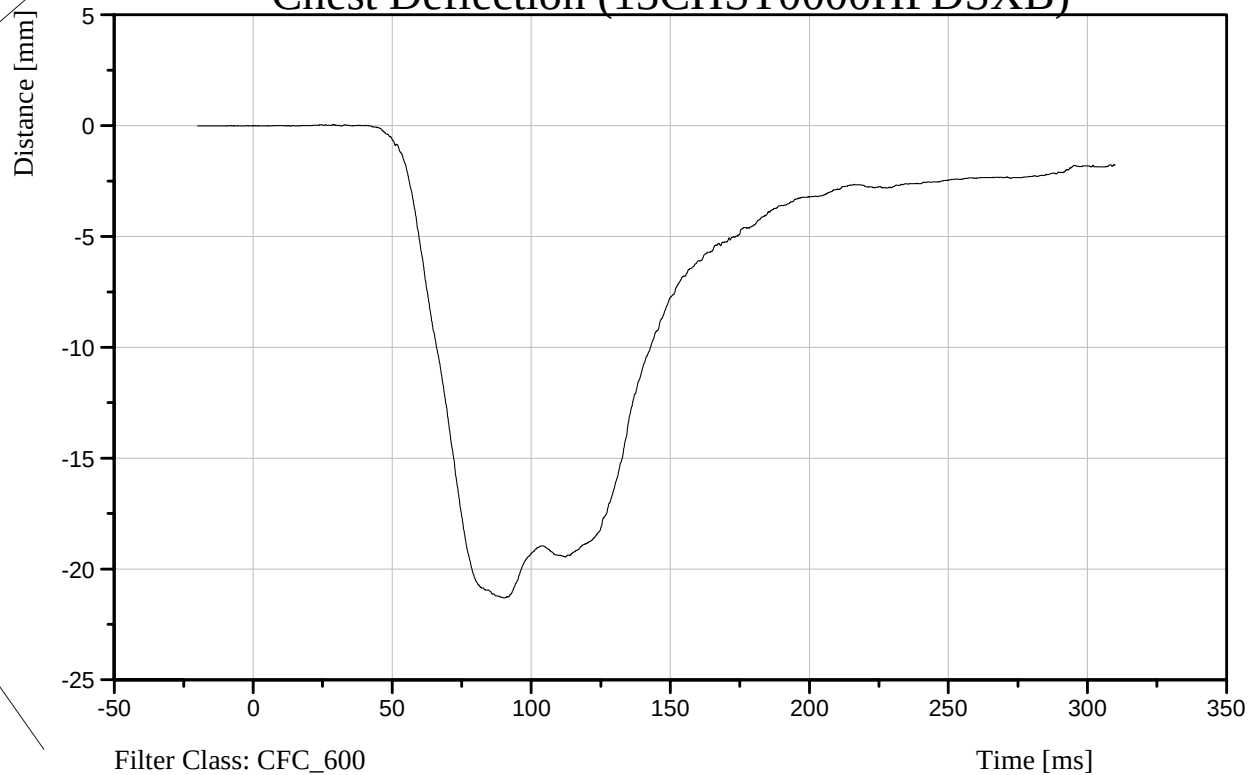
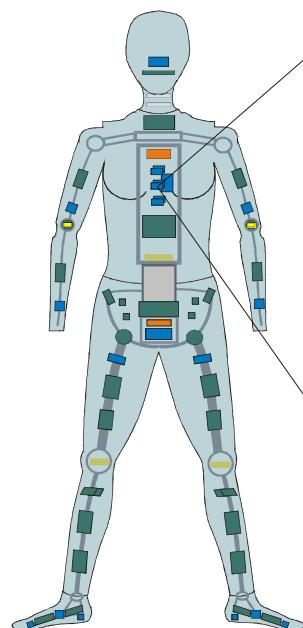
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

Chest Deflection (13CHST0000HFDSXB)



Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

[Max.] 0.05 mm at 28.88 ms

[Min.] -21.31 mm at 90.48 ms

ChestDeflection Source Code : Min/Max of 13CHST0000HFDSXB (CFC_600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear Neck Moment about the Occipital Condyle (NECK OM)

Date: 03/03/2006
Time: 07:16

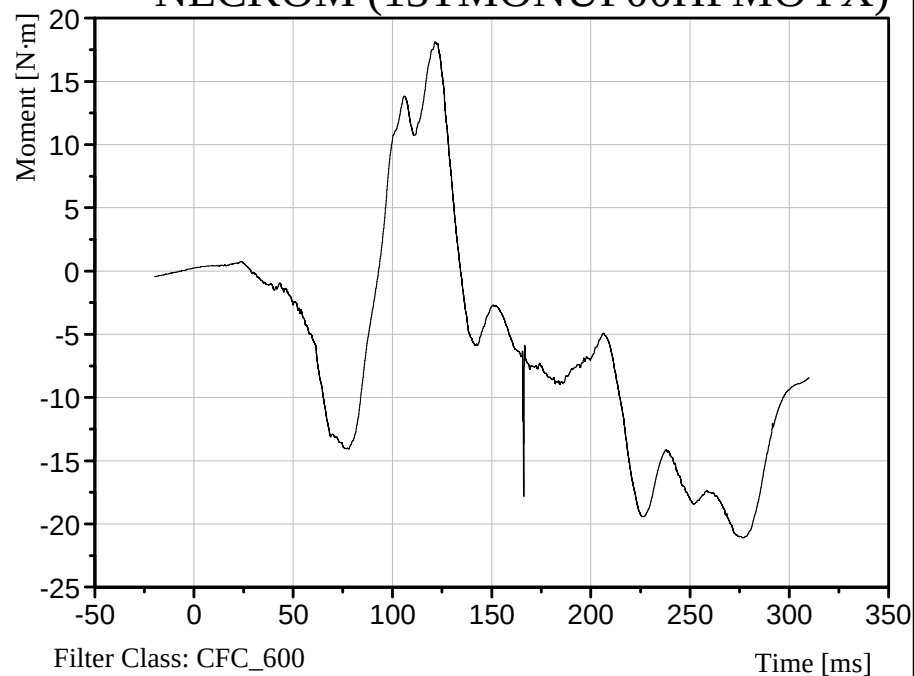
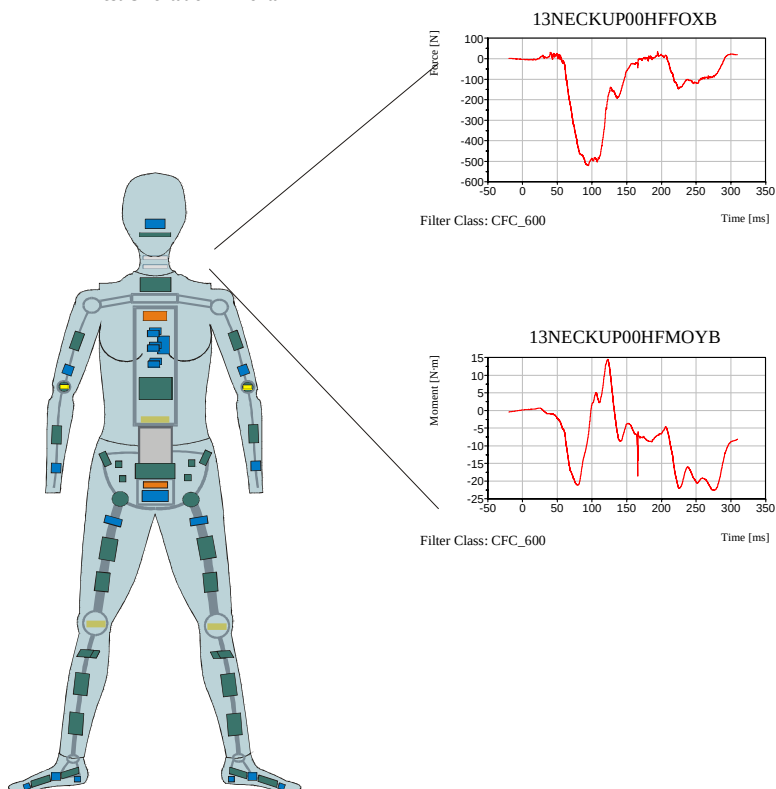
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

NECKOM (13TMONUP00HFMOYX)



Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

Neck OM Source Code: My - (D*Fx)

[Max.] 18.13 N·m at 121.36 ms

[Min.] -21.10 N·m at 276.72 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Neck Injury Predictor (NIJ)

Customer: VRTC

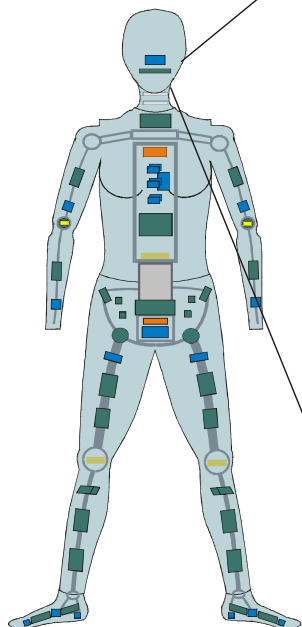
Test Orientation = Frontal

Fzc(Tension) = 4287

Fzc(Compression) = 3880

Myc(Extension) = 67

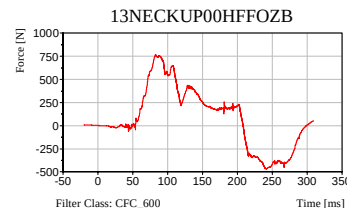
Myc(Flexion) = 155



Dummy: HIII 5th Female
Seating Position:

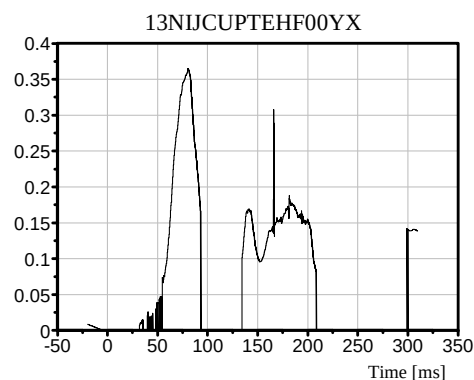
Right Front Passenger

NIJ Source Code: (Fz/Fzc)+(Myc/Myc)

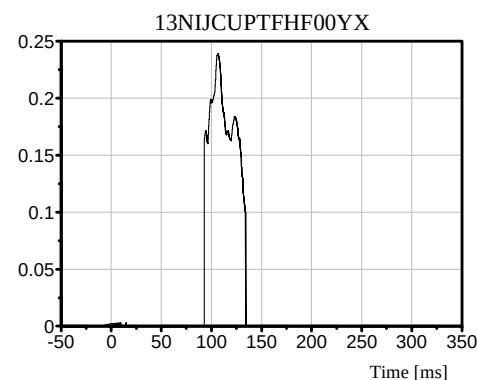


TRC Inc. Test Lab: CTF

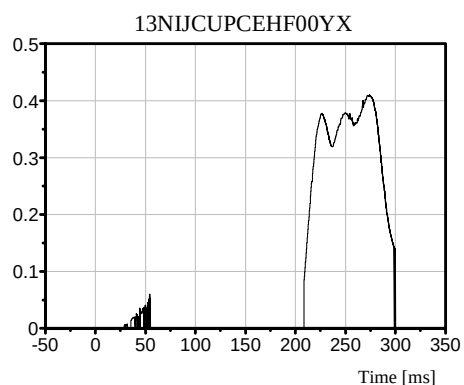
Test Number: 060302



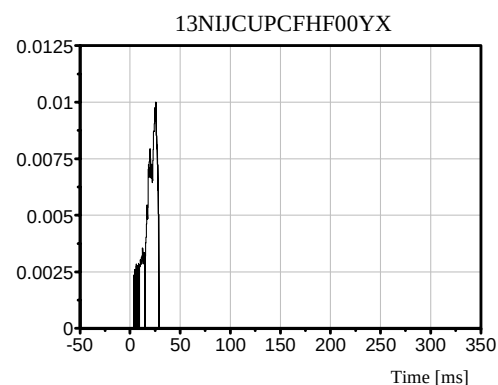
Max [NTE] 0.3651 at 80.32 ms



Max [NTF] 0.2391 at 106.56 ms



Max [NCE] 0.4108 at 274.08 ms



Max [NCF] 0.0100 at 25.52 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

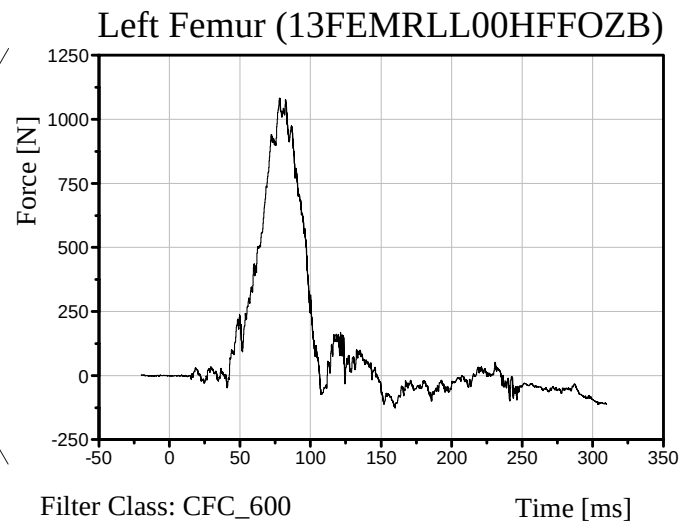
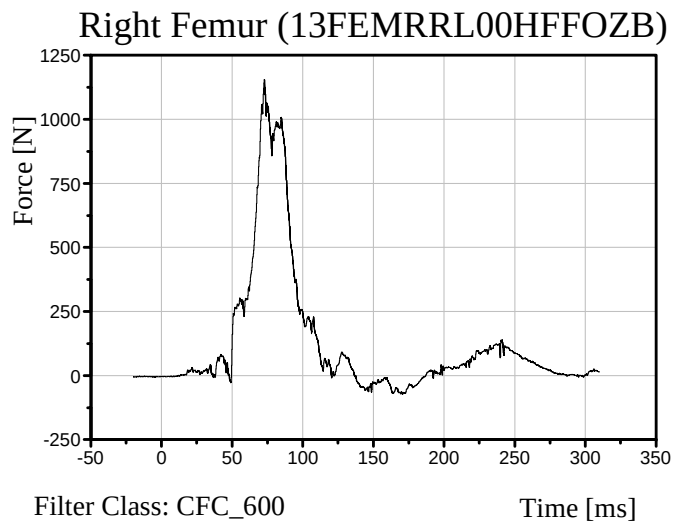
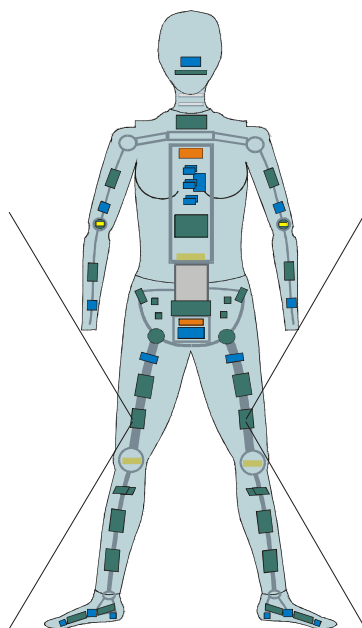
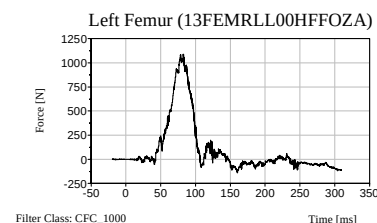
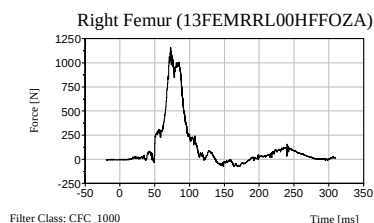
Time: 07:16

Femur Load

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Max [Tension] 1,156.11 N at 72.72 ms
Min [Compression] -72.02 N at 170.56 ms

Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

Max [Tension] 1,083.03 N at 78.24 ms
Min [Compression] -127.38 N at 160.00 ms

Femur Load Source Code : Min/Max of 13FEMRRL00HFFOZB and 13FEMRLL00HFFOZB (CFC 600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

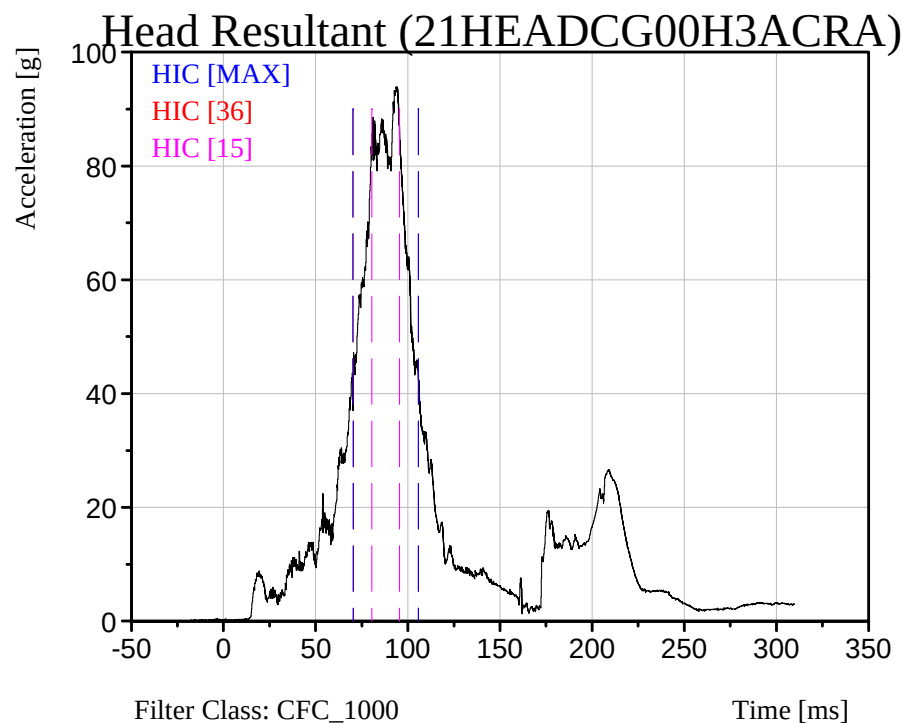
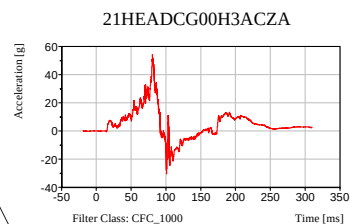
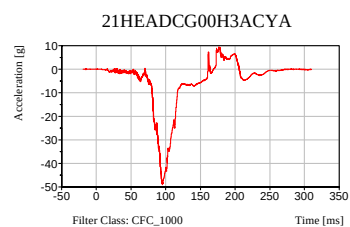
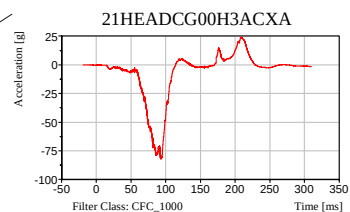
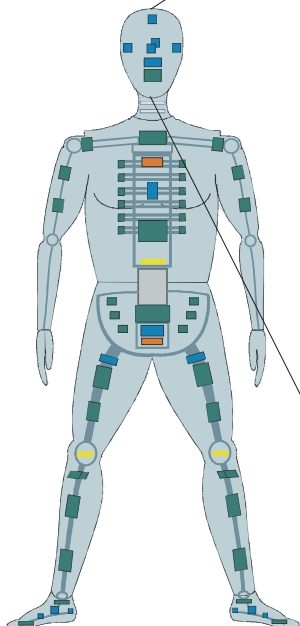
Time: 07:16

Head Injury Criterion (HIC)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy: HIII 50th Male
Seating Position:
Driver

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 1,500.11	70.40 ms	105.84 ms	70.84 g
HIC [36] = 1,500.11	70.40 ms	105.84 ms	70.84 g
HIC [15] = 1,023.04	80.56 ms	95.60 ms	85.71 g

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

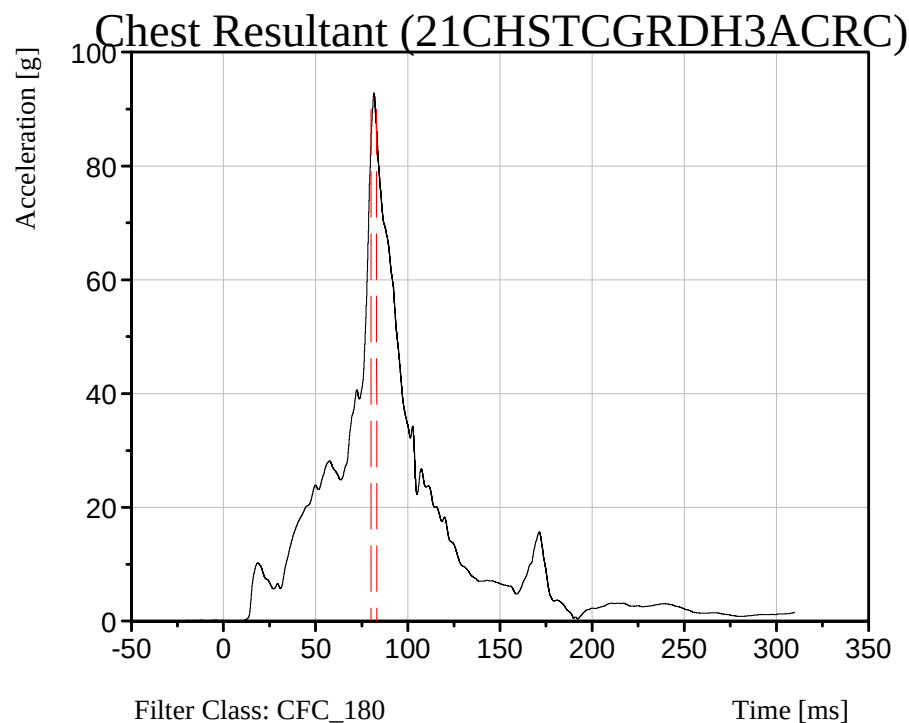
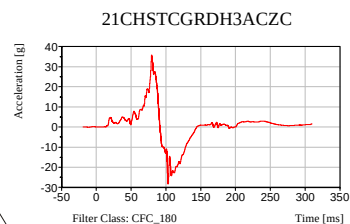
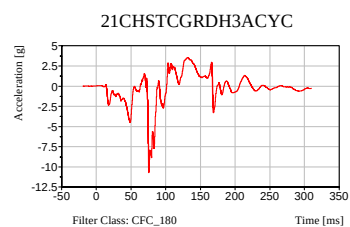
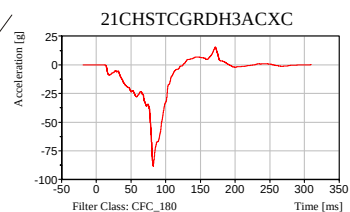
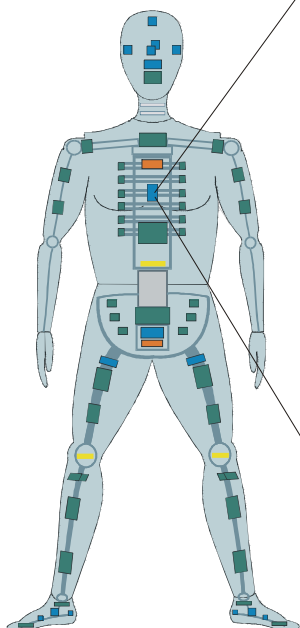
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



3 ms Duration Acceleration = 85.48 g
Chest Severity Index = 1,098.21

<u>T1</u> (Begin)	<u>T2</u> (End)
80.14 ms	83.14 ms

Dummy: HIII 50th Male
Seating Position:

Driver

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

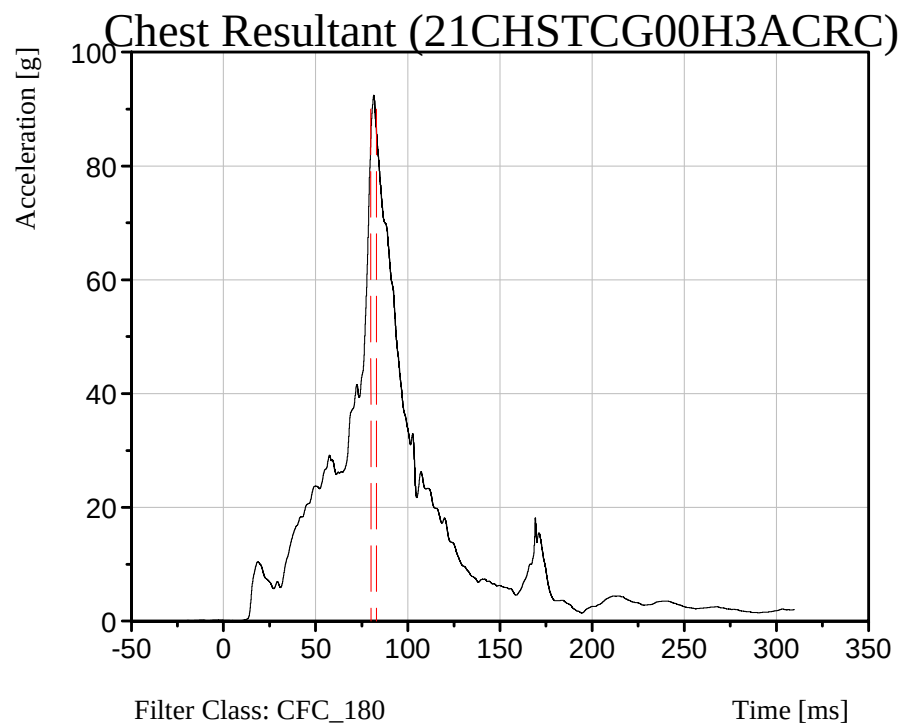
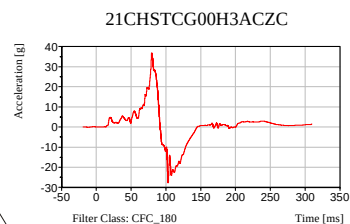
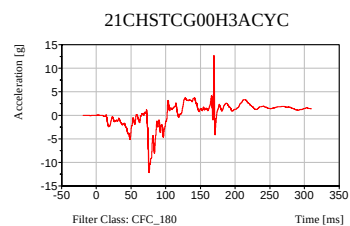
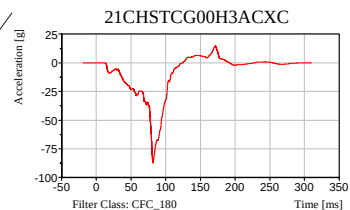
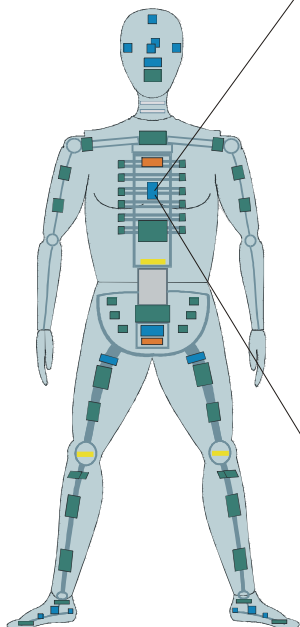
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



3 ms Duration Acceleration = 85.75 g
Chest Severity Index = 1,108.08

<u>T1</u> (Begin)	<u>T2</u> (End)
80.01 ms	83.01 ms

Dummy: HIII 50th Male
Seating Position:

Driver

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Chest Deflection

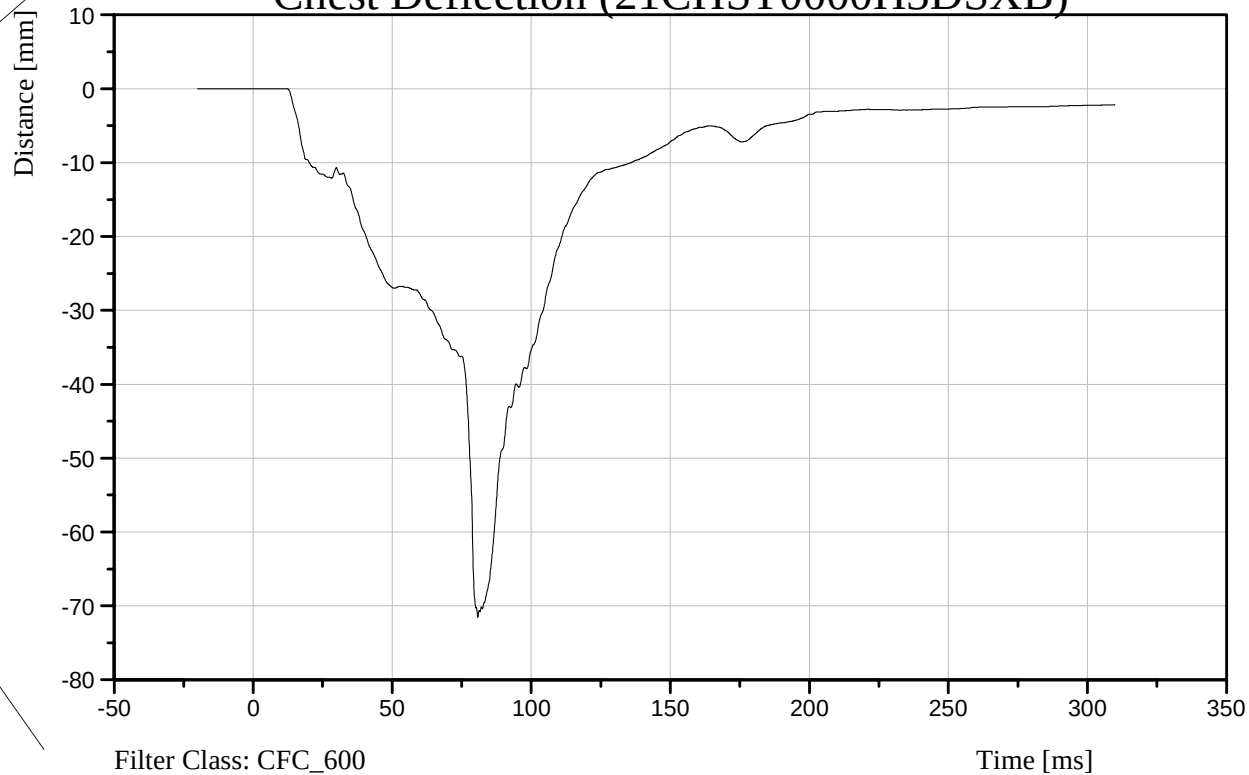
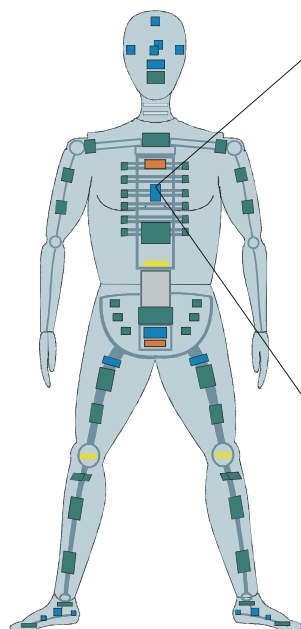
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

Chest Deflection (21CHST0000H3DSXB)



Dummy:HIII 50th Male

Seating Position:

Driver

[Max.] 0.01 mm at -9.28 ms

[Min.] -71.51 mm at 80.80 ms

ChestDeflection Source Code : Min/Max of 21CHST0000H3DSXB (CFC_600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear Neck Moment about the Occipital Condyle (NECK OM)

Date: 03/03/2006
Time: 07:16

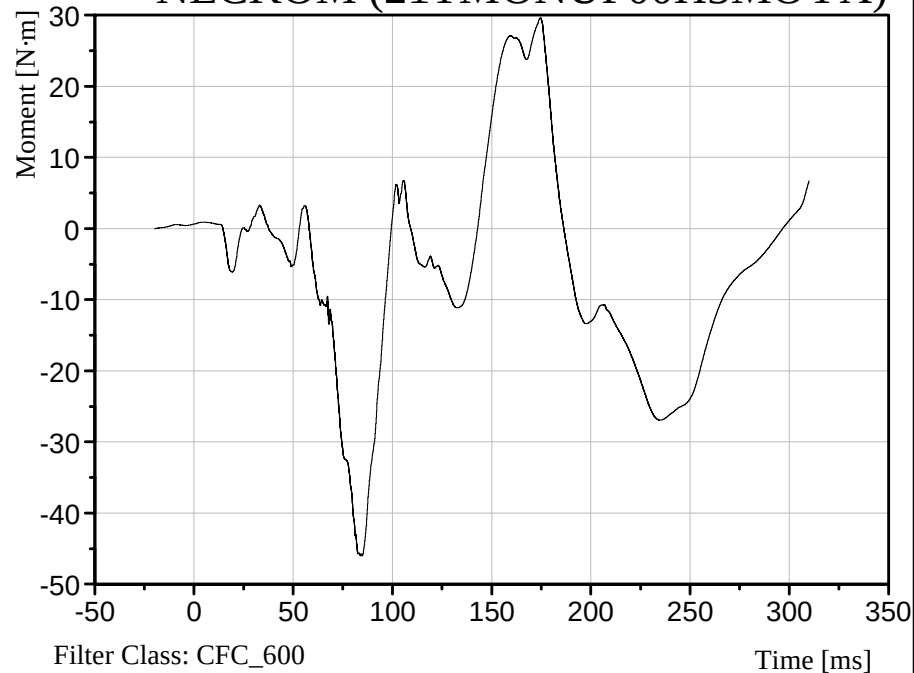
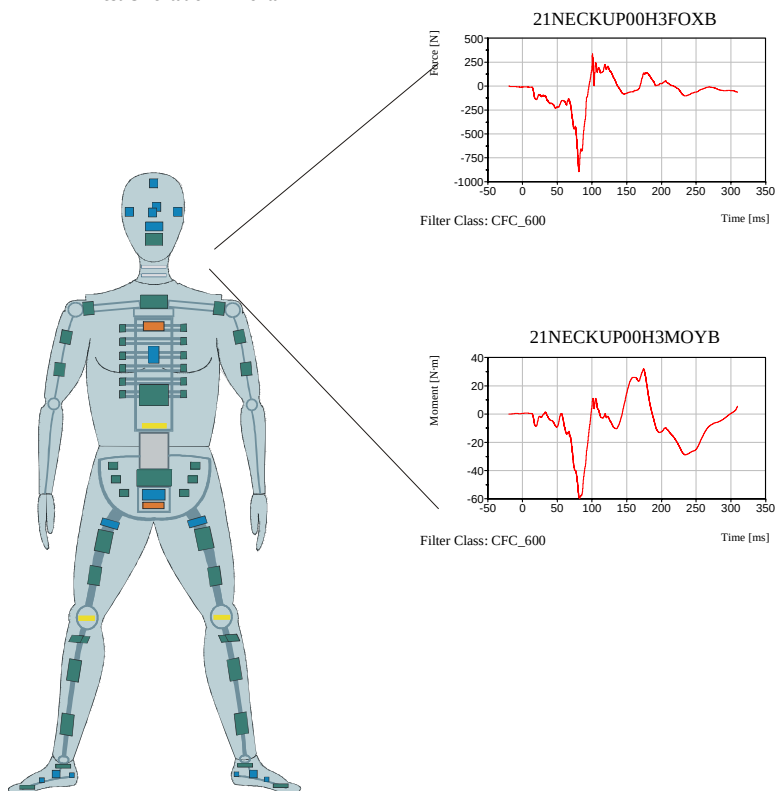
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

NECKOM (21TMONUP00H3MOYX)



Dummy: HIII 50th Male
Seating Position:

Driver

Neck OM Source Code: My - (D*Fx)

[Max.] 29.63 N·m at 174.48 ms

[Min.] -46.02 N·m at 83.92 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Neck Injury Predictor (NIJ)

Customer: VRTC

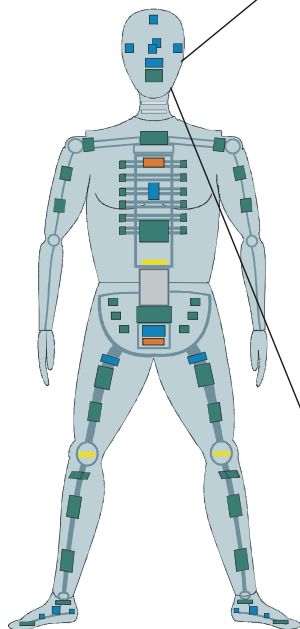
Test Orientation = Frontal

Fzc(Tension) = 6806

Fzc(Compression) = 6160

Myc(Extension) = 135

Myc(Flexion) = 310



Dummy: HIII 50th Male
Seating Position:

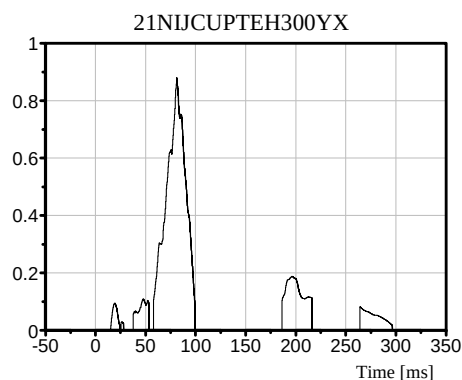
Driver

NIJ Source Code: (Fz/Fzc)+(Myc/Myc)

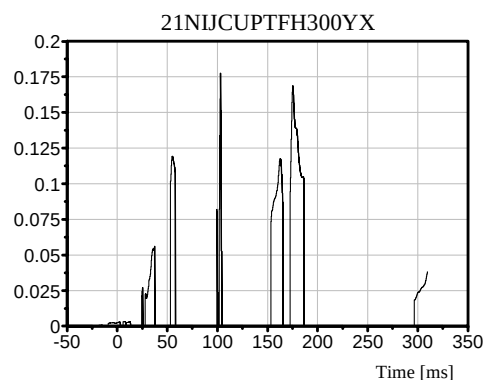


TRC Inc. Test Lab: CTF

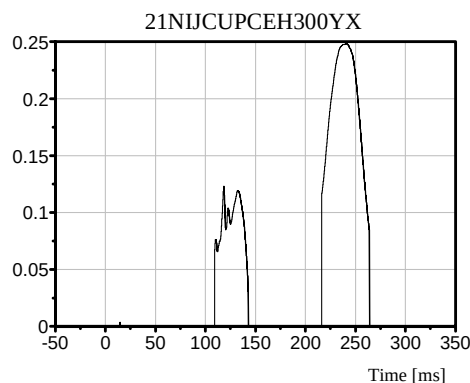
Test Number: 060302



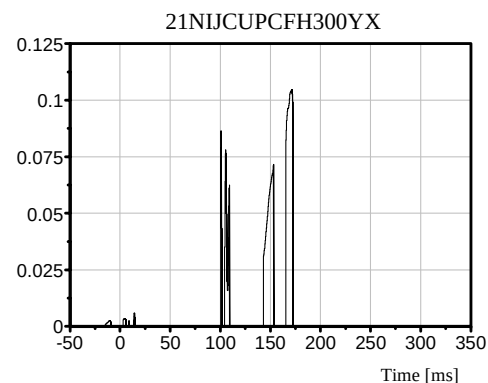
Max [NTE] 0.8801 at 81.12 ms



Max [NTF] 0.1776 at 103.04 ms



Max [NCE] 0.2487 at 241.36 ms



Max [NCF] 0.1047 at 171.52 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

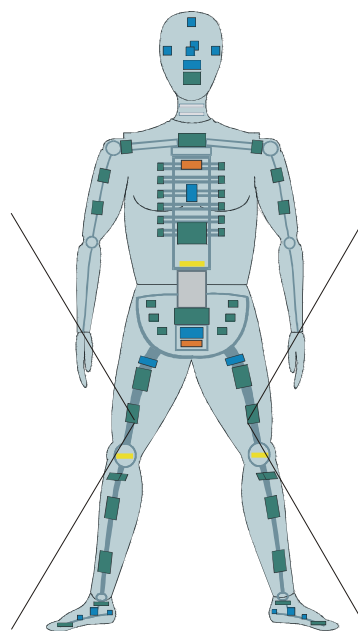
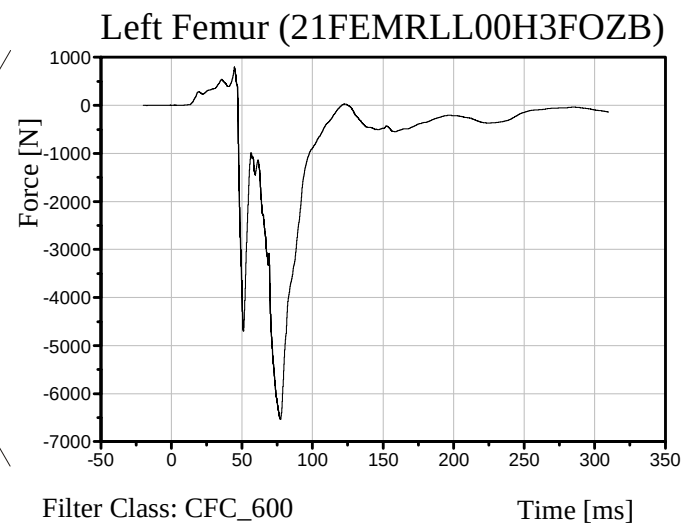
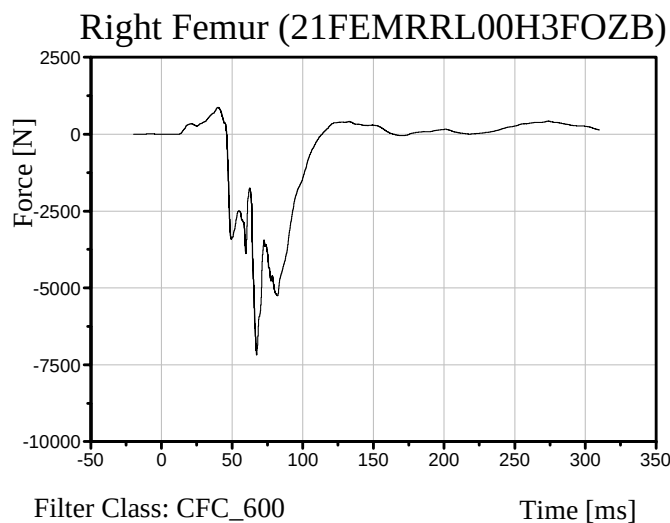
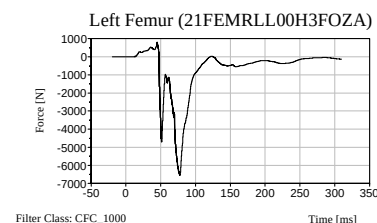
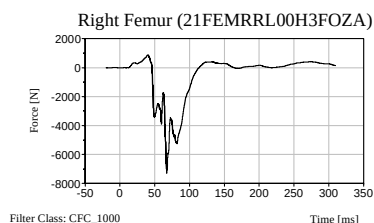
Time: 07:16

Femur Load

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Max [Tension] 873.82 N at 40.08 ms
Min [Compression] -7,175.36 N at 67.20 ms

Dummy: HIII 50th Male
Seating Position:
Driver

Max [Tension] 802.09 N at 44.72 ms
Min [Compression] -6,538.92 N at 77.36 ms

Femur Load Source Code : Min/Max of 21FEMRRL00H3FOZB and 21FEMRLL00H3FOZB (CFC 600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

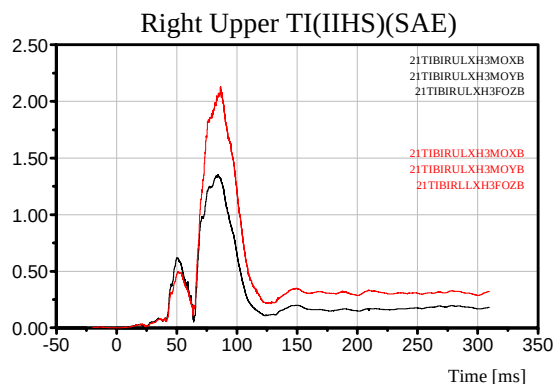
Tibia Index (TI)

Customer: VRTC

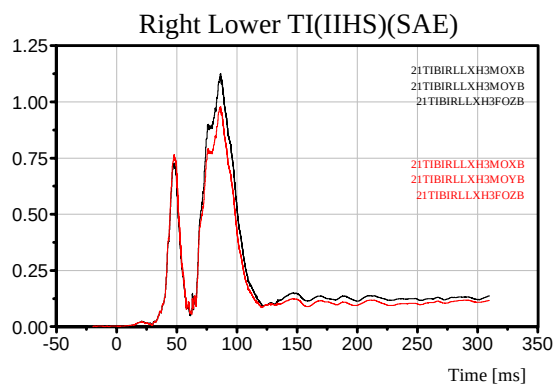
TRC Inc. Test Lab: CTF

Test Number: 060302

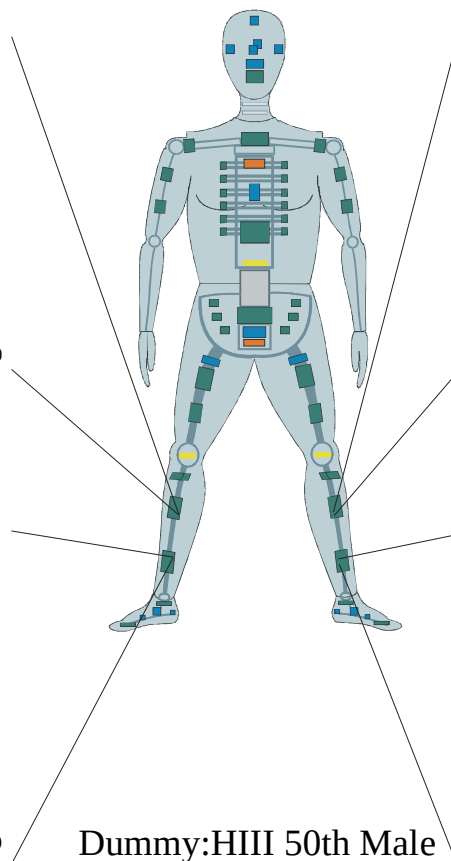
Critical Bending Moment = 240 N·m
Critical Compression Force = 12000 N



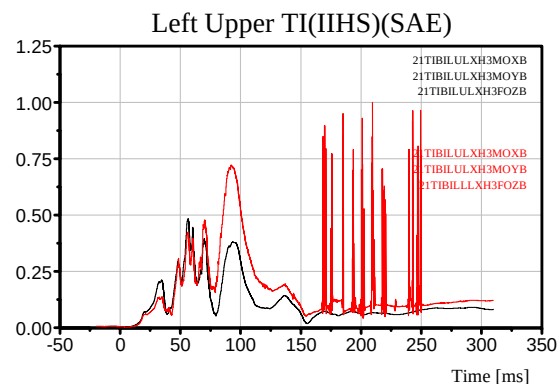
Max = 1.36 at 84.32 ms (SAE)
Max = 2.13 at 86.32 ms (IIHS)



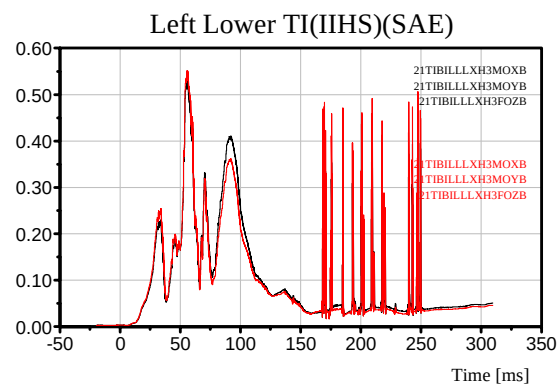
Max = 1.13 at 86.32 ms (SAE)
Max = 0.98 at 86.32 ms (IIHS)



Dummy: HIII 50th Male
Seating Position:
Driver



Max = 0.48 at 56.48 ms (SAE)
Max = 1.00 at 209.44 ms (IIHS)



Max = 0.53 at 55.36 ms (SAE)
Max = 0.55 at 56.00 ms (IIHS)

Tibia Index Source Code : Guideline 96/79/EC; SAE J1727 AUG96; and IIHS Crashworthiness Evaluation Offset Barrier Crash Test Protocol (Version X)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

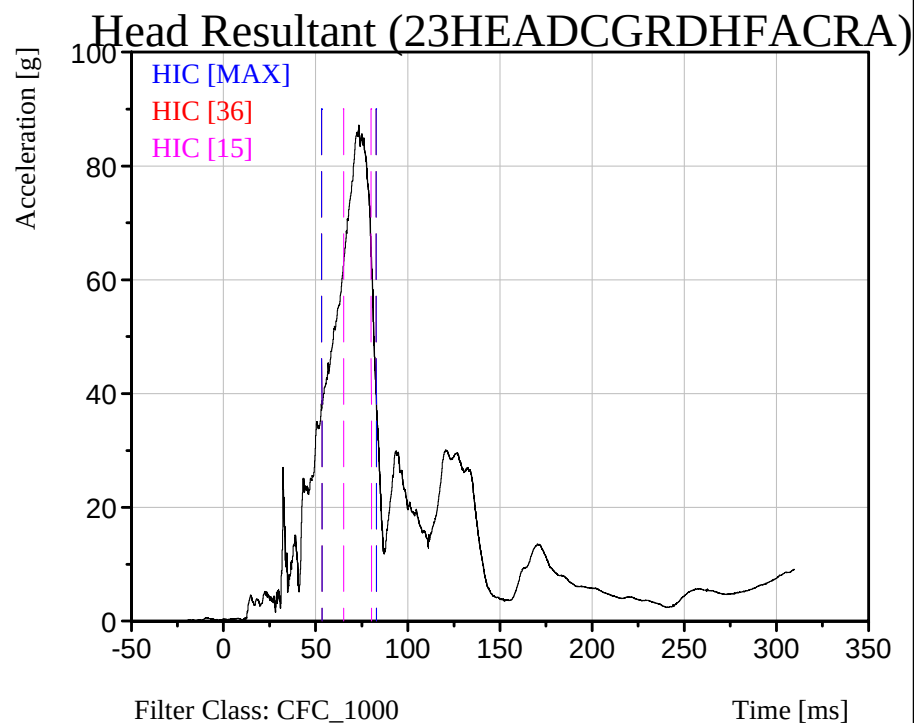
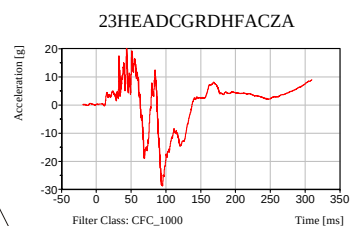
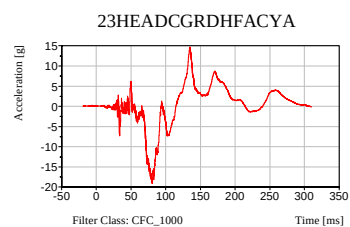
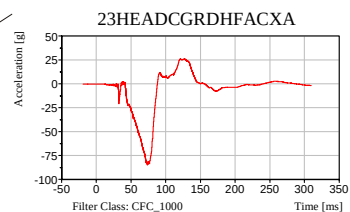
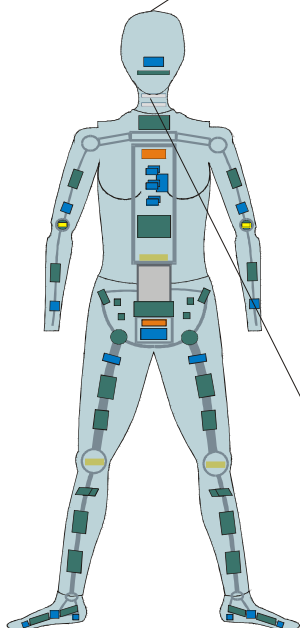
Time: 07:16

Head Injury Criterion (HIC)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16)

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 965.02	53.36 ms	82.96 ms	63.80 g
HIC [36] = 965.02	53.36 ms	82.96 ms	63.80 g
HIC [15] = 801.60	65.20 ms	80.24 ms	77.67 g



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

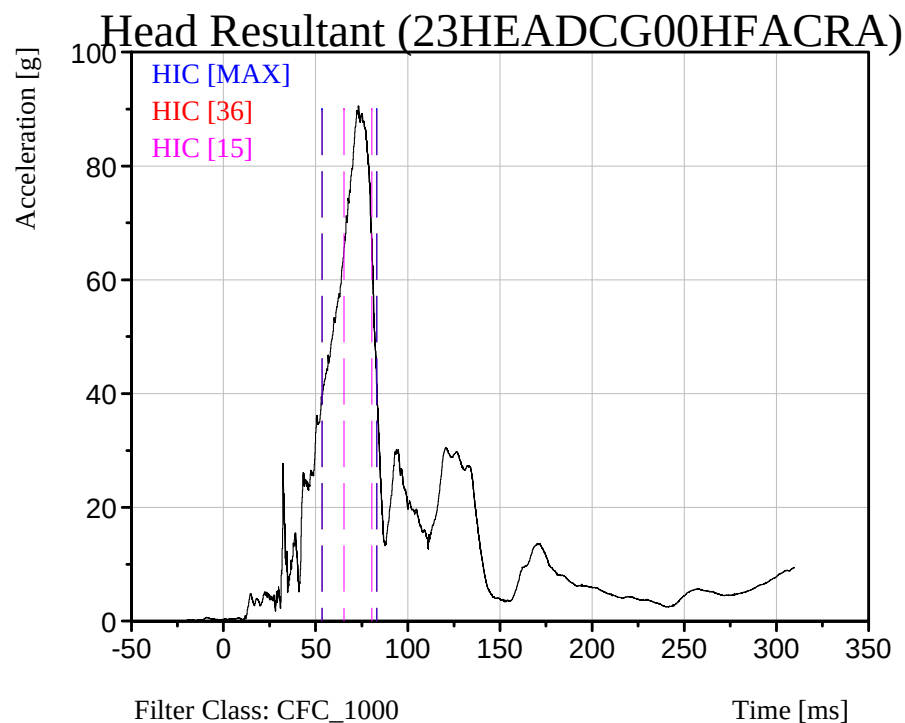
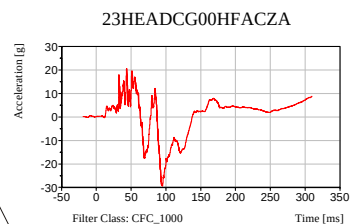
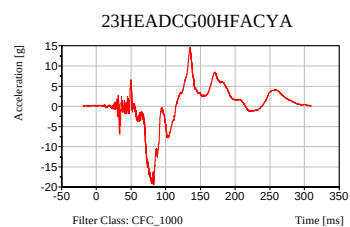
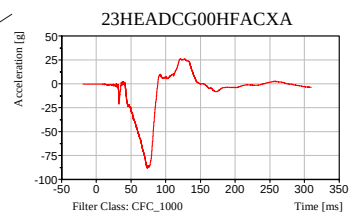
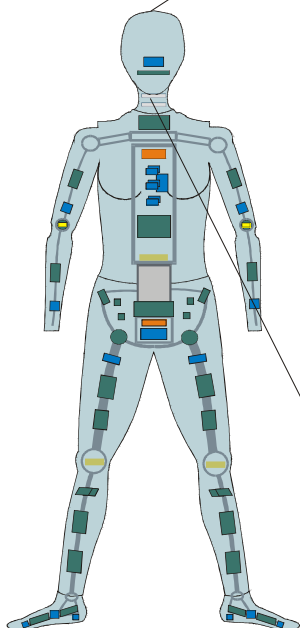
Time: 07:16

Head Injury Criterion (HIC)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Dummy:HIII 5th Female
Seating Position:
Right Front Passenger

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16)

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 1,068.27	53.44 ms	83.20 ms	66.31 g
HIC [36] = 1,068.27	53.44 ms	83.20 ms	66.31 g
HIC [15] = 887.21	65.44 ms	80.48 ms	80.89 g



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

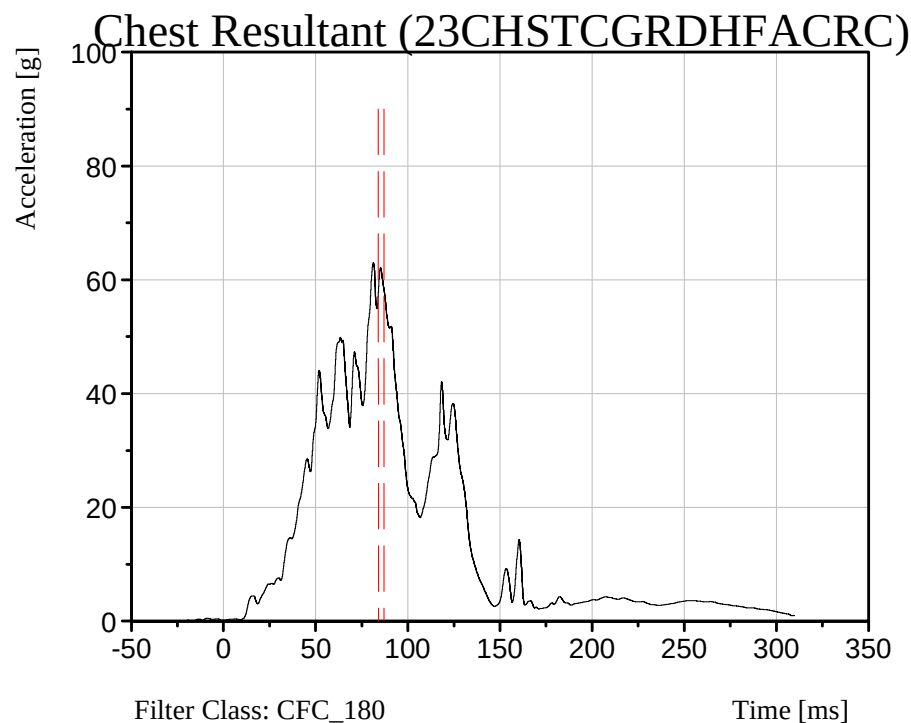
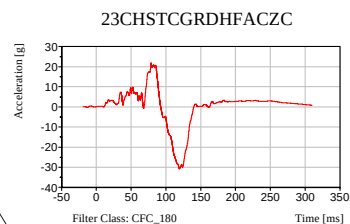
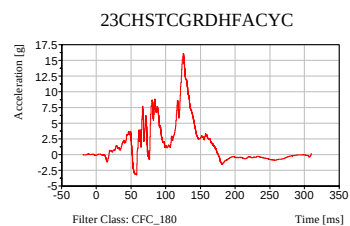
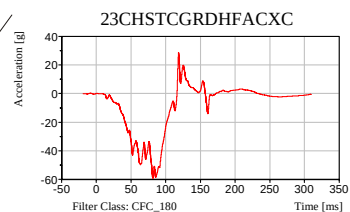
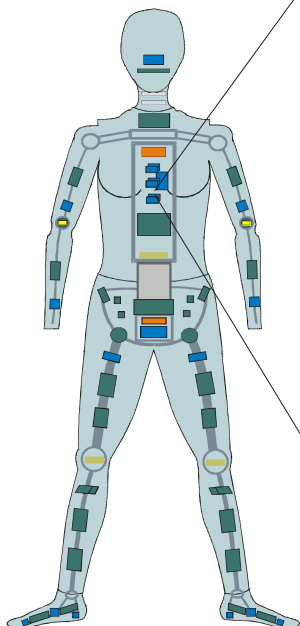
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



3 ms Duration Acceleration = 58.23 g
Chest Severity Index = 916.26

<u>T1</u> (Begin)	<u>T2</u> (End)
84.06 ms	87.06 ms

Dummy:HIII 5th Female
Seating Position:
Right Front Passenger

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

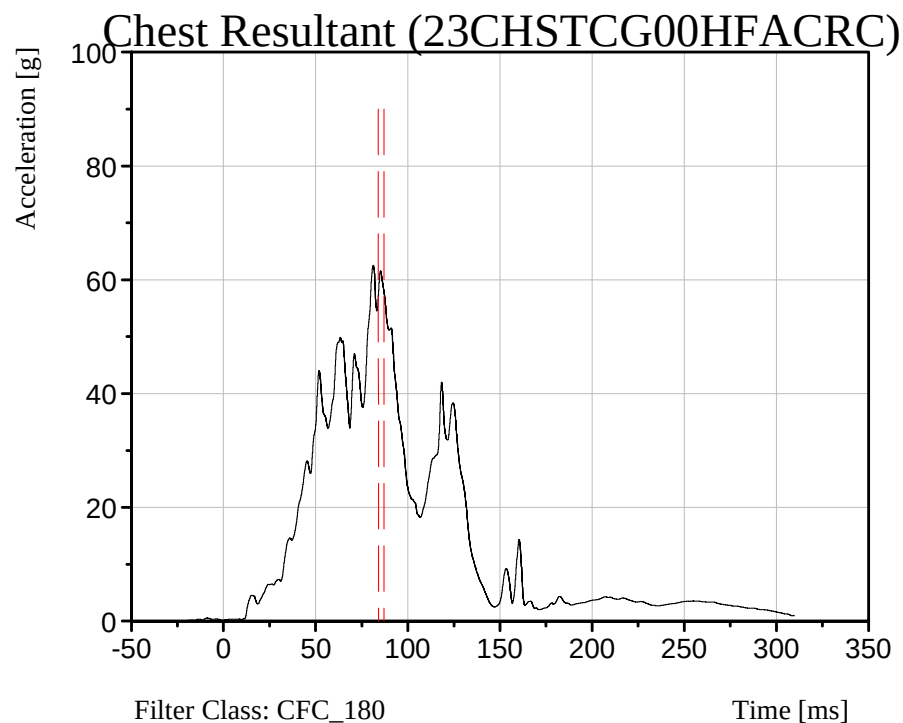
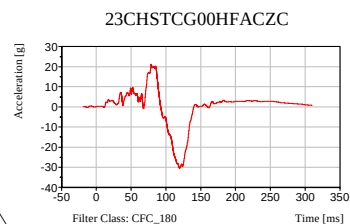
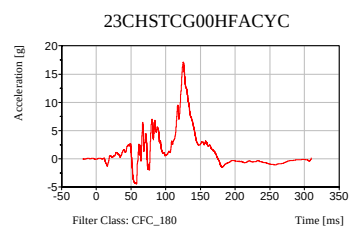
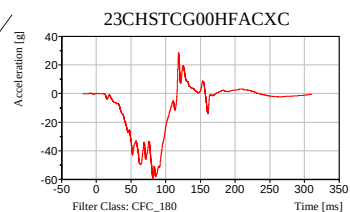
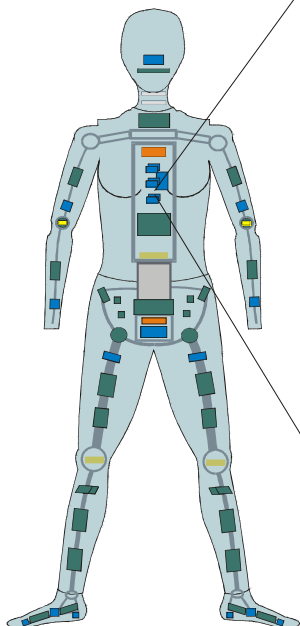
Time: 07:16

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



3 ms Duration Acceleration = 57.77 g
Chest Severity Index = 904.21

<u>T1</u> (Begin)	<u>T2</u> (End)
84.09 ms	87.09 ms

Dummy:HIII 5th Female
Seating Position:
Right Front Passenger

3 ms Duration Acceleration Source Code : vbScript w/DIADEM 9.0



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Chest Deflection

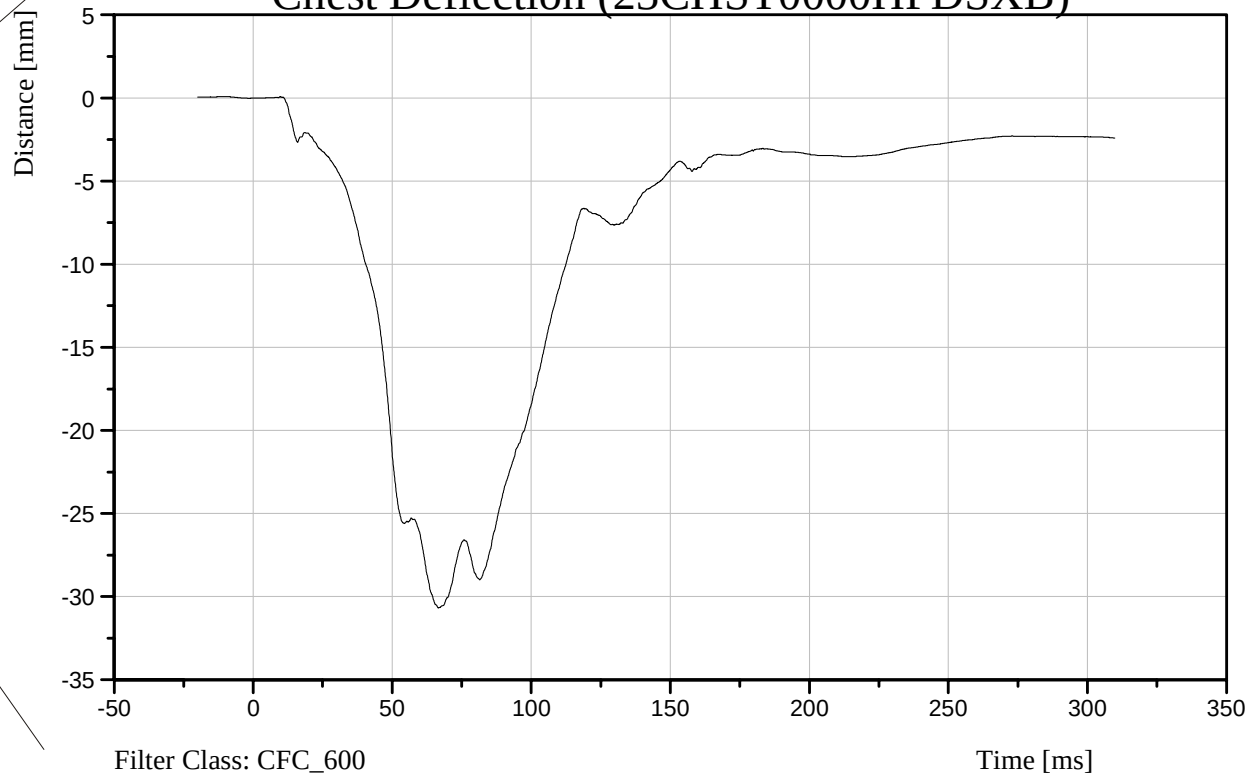
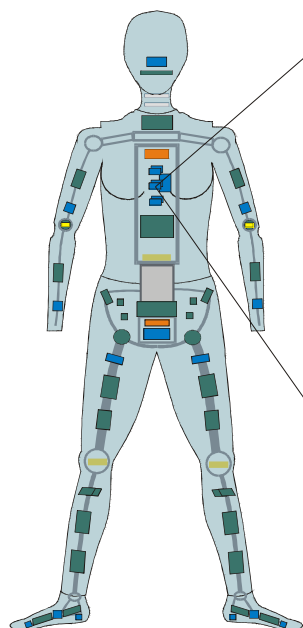
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal

Chest Deflection (23CHST0000HFDSXB)



Dummy: HIII 5th Female

Seating Position:

Right Front Passenger

[Max.] 0.08 mm at 9.76 ms

[Min.] -30.67 mm at 66.56 ms

ChestDeflection Source Code : Min/Max of 23CHST0000HFDSXB (CFC_600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear Neck Moment about the Occipital Condyle (NECK OM)

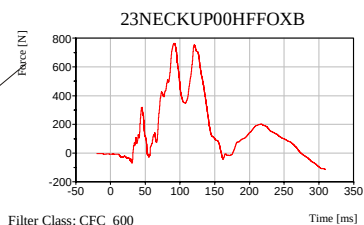
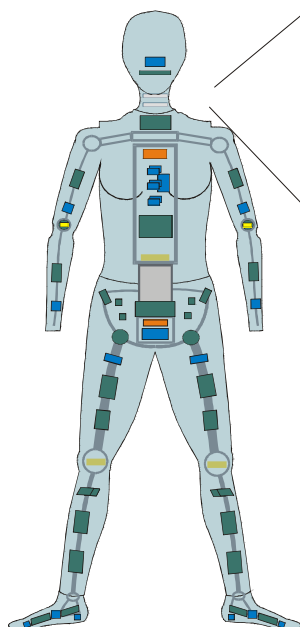
Date: 03/03/2006
Time: 07:16

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302

Test Orientation = Frontal



NECKOM (23TMONUP00HFM0YX)



Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

Neck OM Source Code: My - (D*Fx)

[Max.] 27.66 N·m at 46.16 ms

[Min.] -31.39 N·m at 133.44 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Neck Injury Predictor (NIJ)

Customer: VRTC

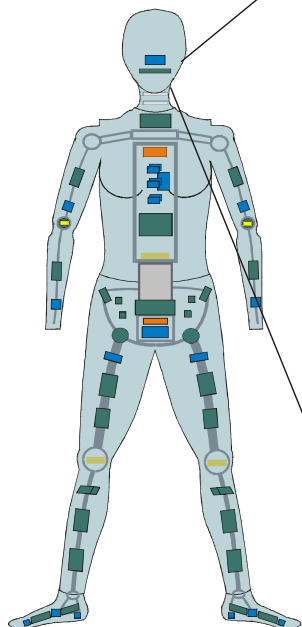
Test Orientation = Frontal

Fzc(Tension) = 4287

Fzc(Compression) = 3880

Myc(Extension) = 67

Myc(Flexion) = 155



Dummy: HIII 5th Female
Seating Position:

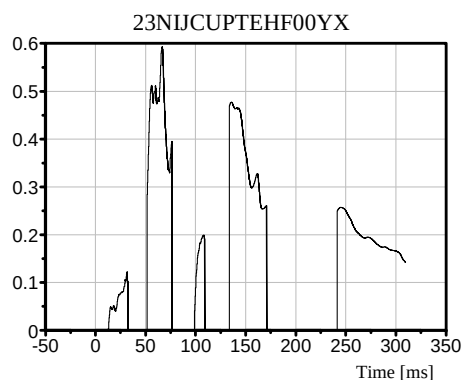
Right Front Passenger

NIJ Source Code: (Fz/Fzc)+(Myc/Myc)

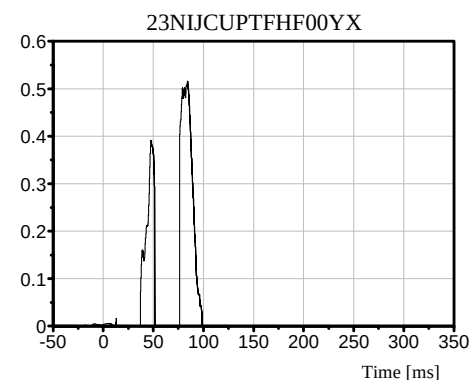


TRC Inc. Test Lab: CTF

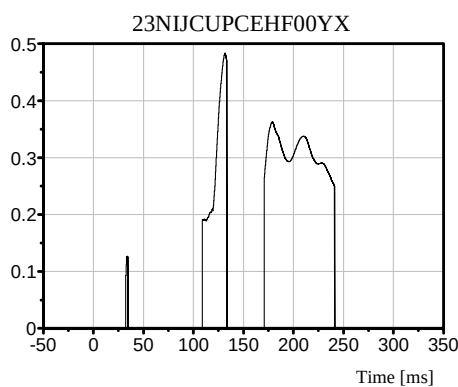
Test Number: 060302



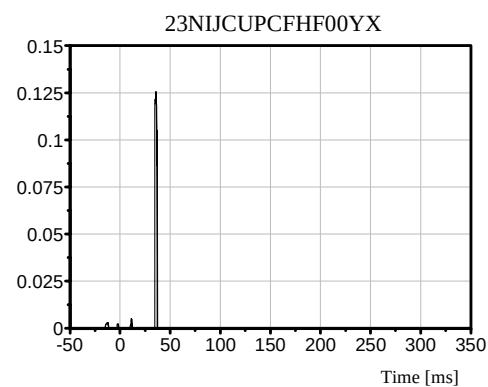
Max [NTE] 0.5928 at 66.56 ms



Max [NTF] 0.5162 at 84.08 ms



Max [NCE] 0.4839 at 131.68 ms



Max [NCF] 0.1257 at 35.68 ms



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

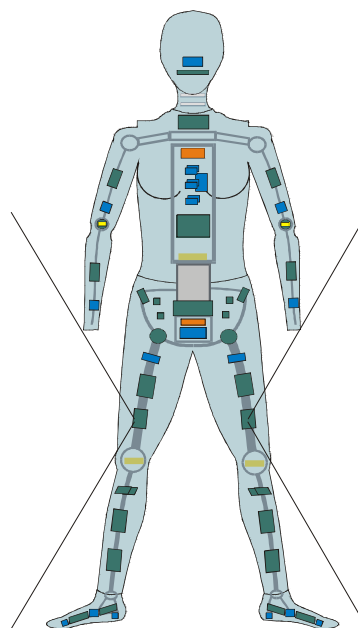
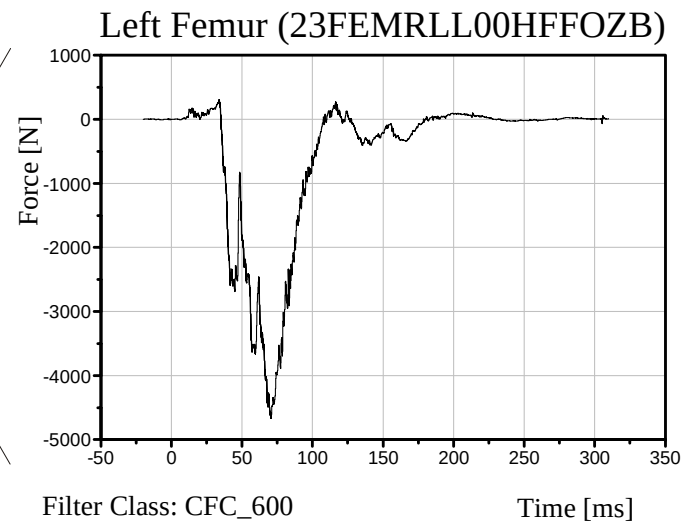
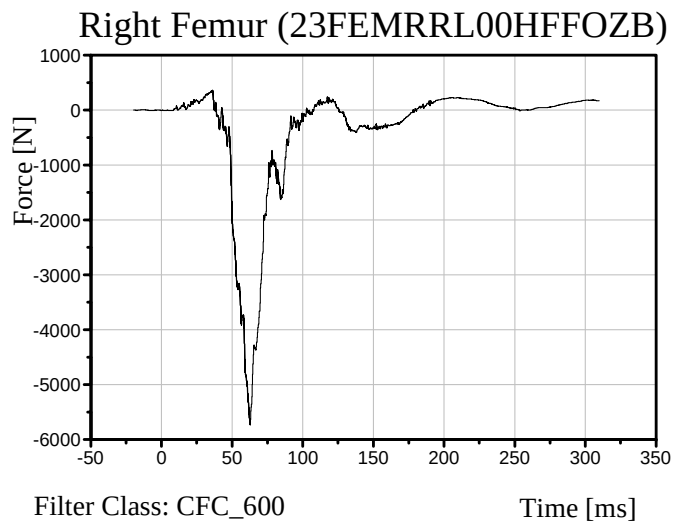
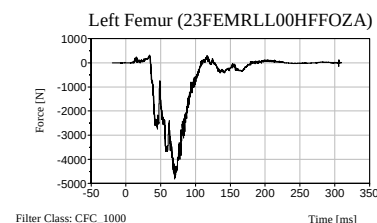
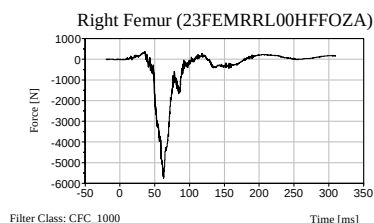
Time: 07:16

Femur Load

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060302



Max [Tension] 367.19 N at 36.08 ms
Min [Compression] -5,728.51 N at 62.64 ms

Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

Max [Tension] 313.55 N at 33.92 ms
Min [Compression] -4,670.65 N at 70.64 ms

Femur Load Source Code : Min/Max of 23FEMRRL00HFFOZB and 23FEMRLL00HFFOZB (CFC 600)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

Tibia Index (TI)

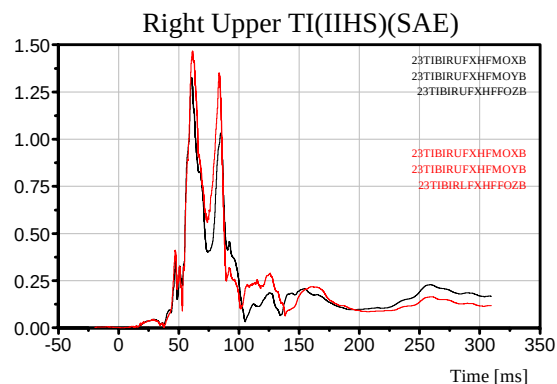
Customer: VRTC

TRC Inc. Test Lab: CTF

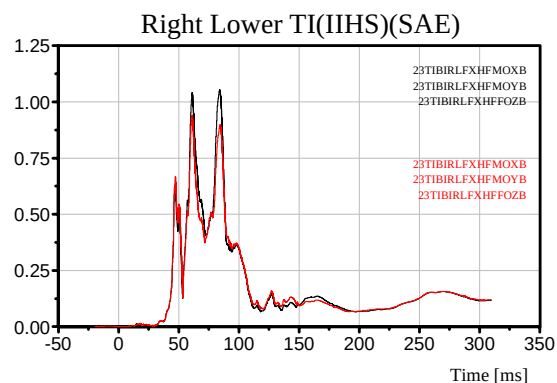
Test Number: 060302

Critical Bending Moment = 146 N·m

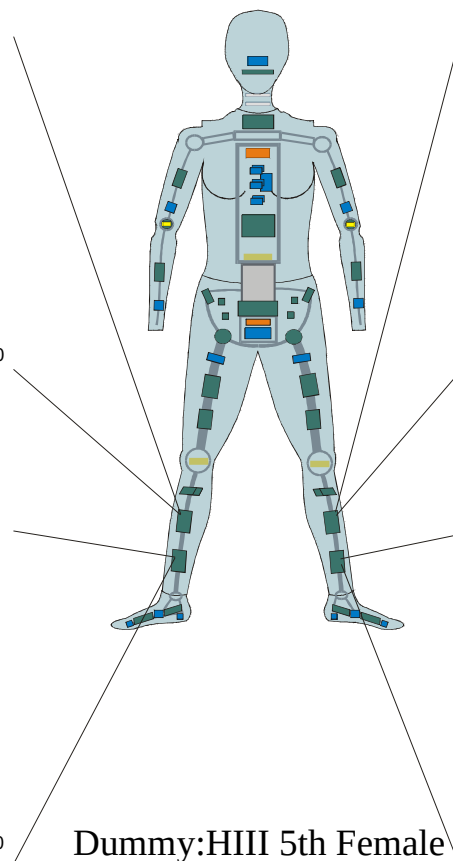
Critical Compression Force = 8600 N



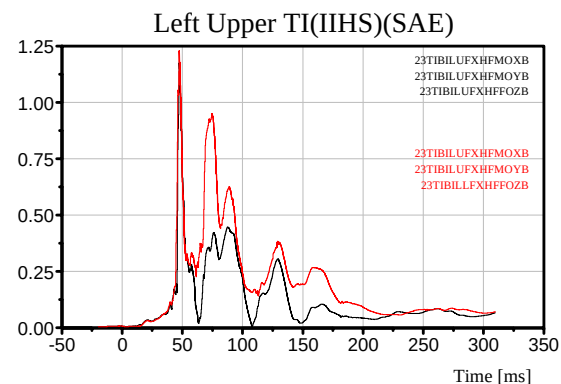
Max = 1.33 at 60.80 ms (SAE)
Max = 1.47 at 61.28 ms (IIHS)



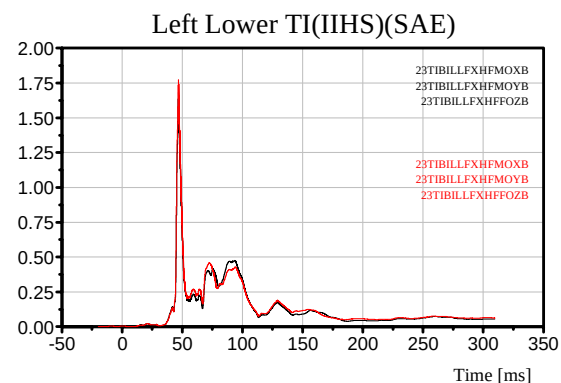
Max = 1.05 at 83.92 ms (SAE)
Max = 0.94 at 61.04 ms (IIHS)



Dummy:HIII 5th Female
Seating Position:
Right Front Passenger



Max = 1.18 at 47.52 ms (SAE)
Max = 1.23 at 47.44 ms (IIHS)



Max = 1.68 at 46.72 ms (SAE)
Max = 1.77 at 46.72 ms (IIHS)

Tibia Index Source Code : Guideline 96/79/EC; SAE J1727 AUG96; and IIHS Crashworthiness Evaluation Offset Barrier Crash Test Protocol (Version X)



2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

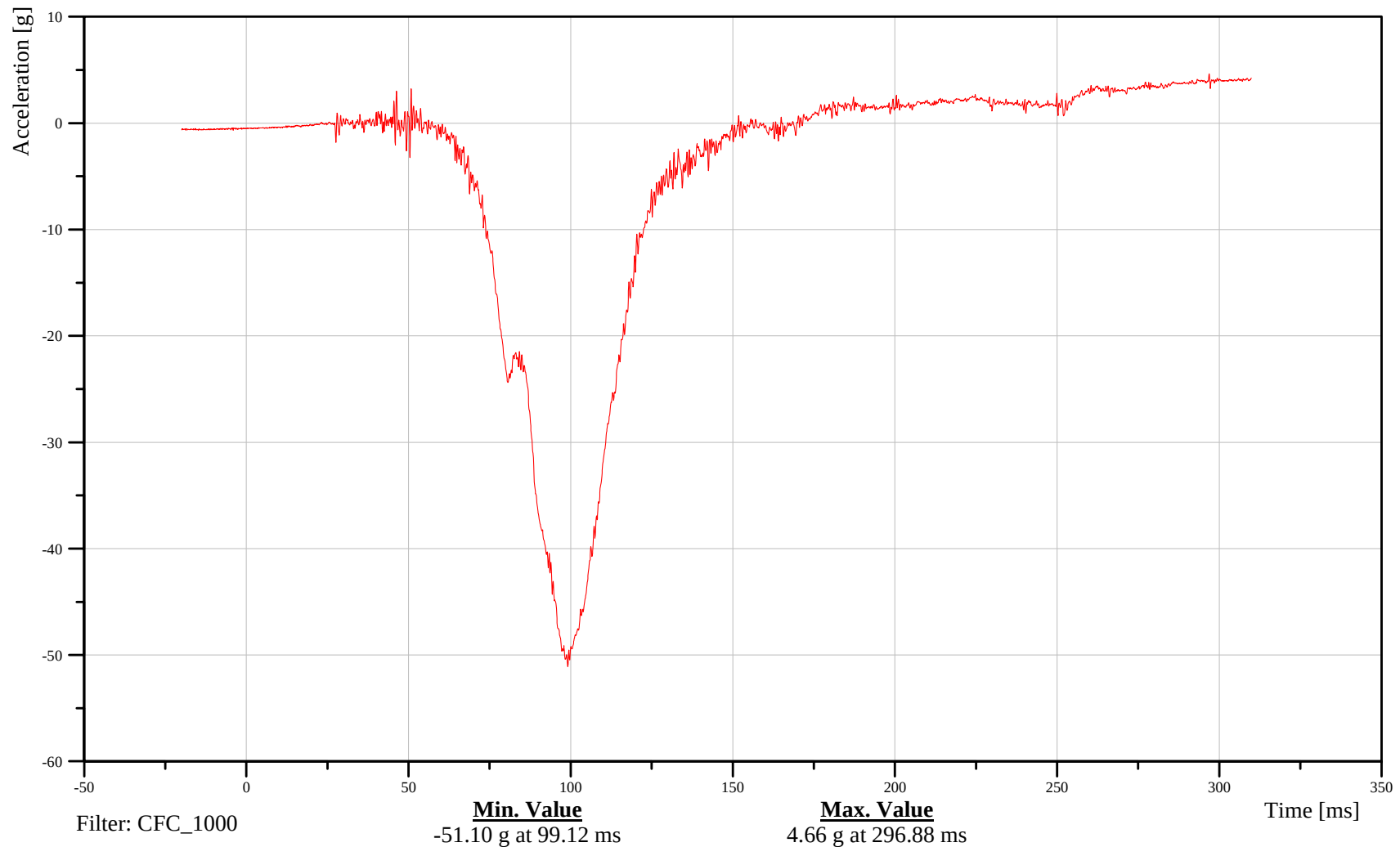
Bullet Driver Head X-Axis Acceleration

Customer: VRTC

11HEADCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

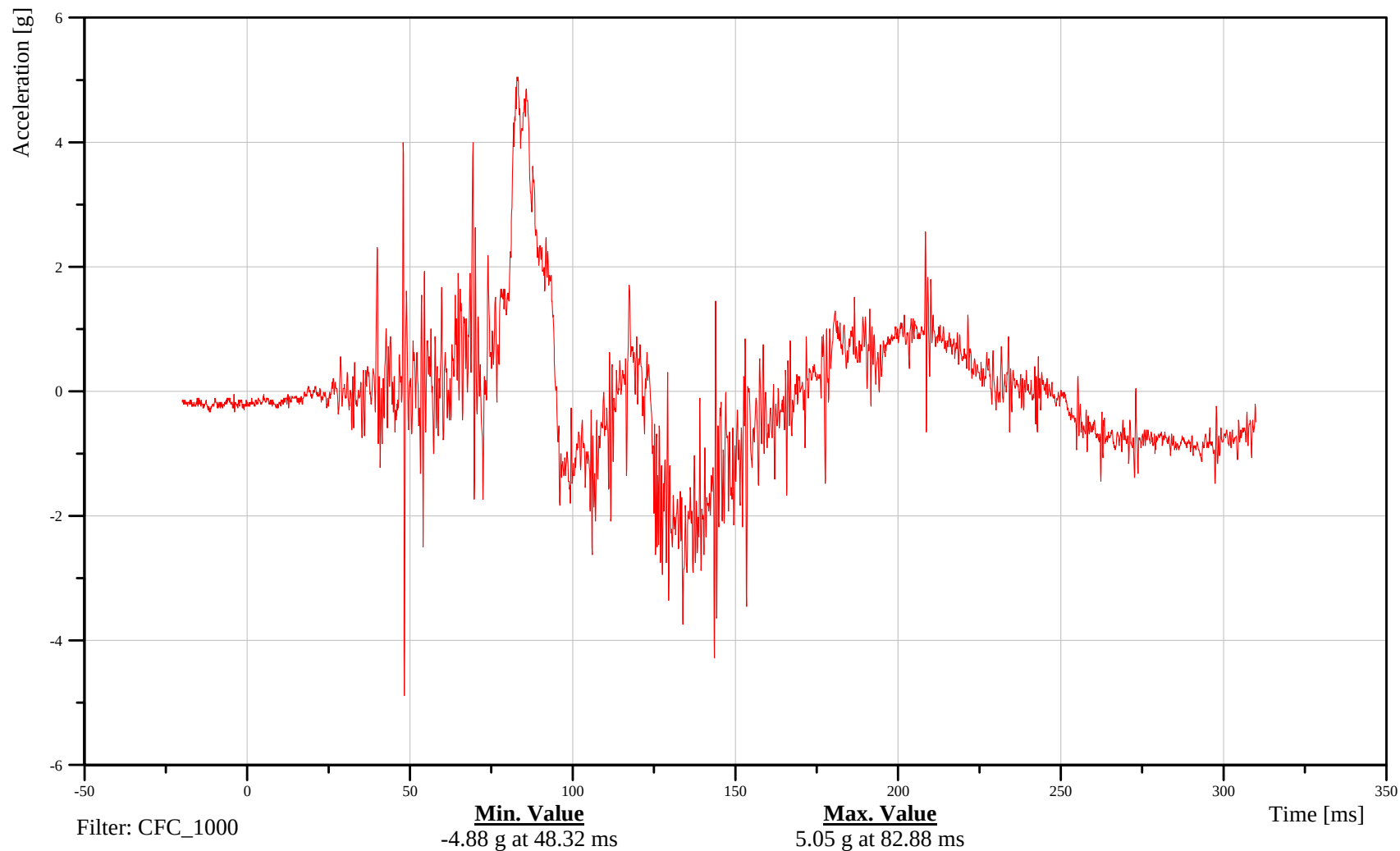
Bullet Driver Head Y-Axis Acceleration

Customer: VRTC

11HEADCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Head Z-Axis Acceleration

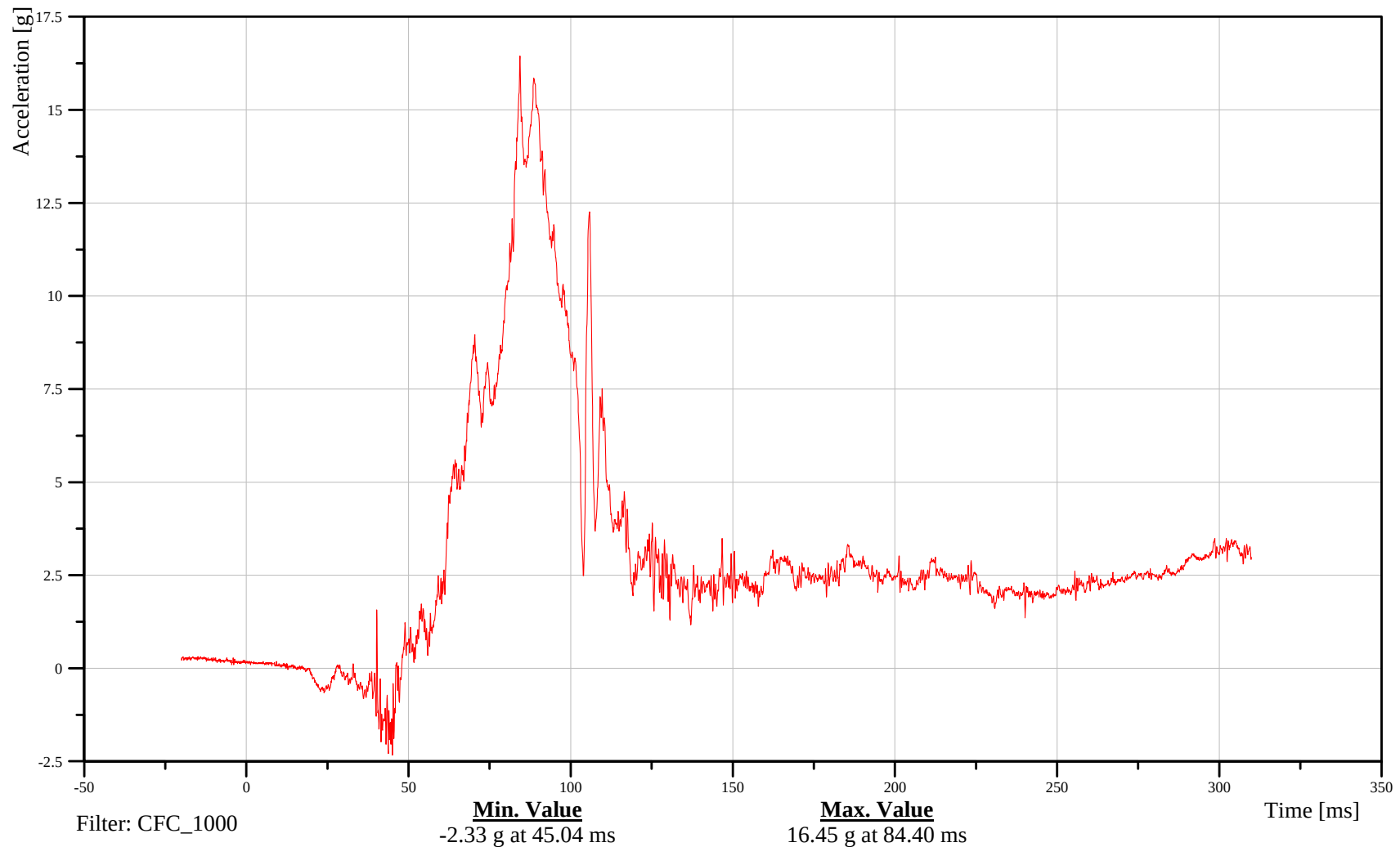
Time: 07:16

Customer: VRTC

11HEADCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

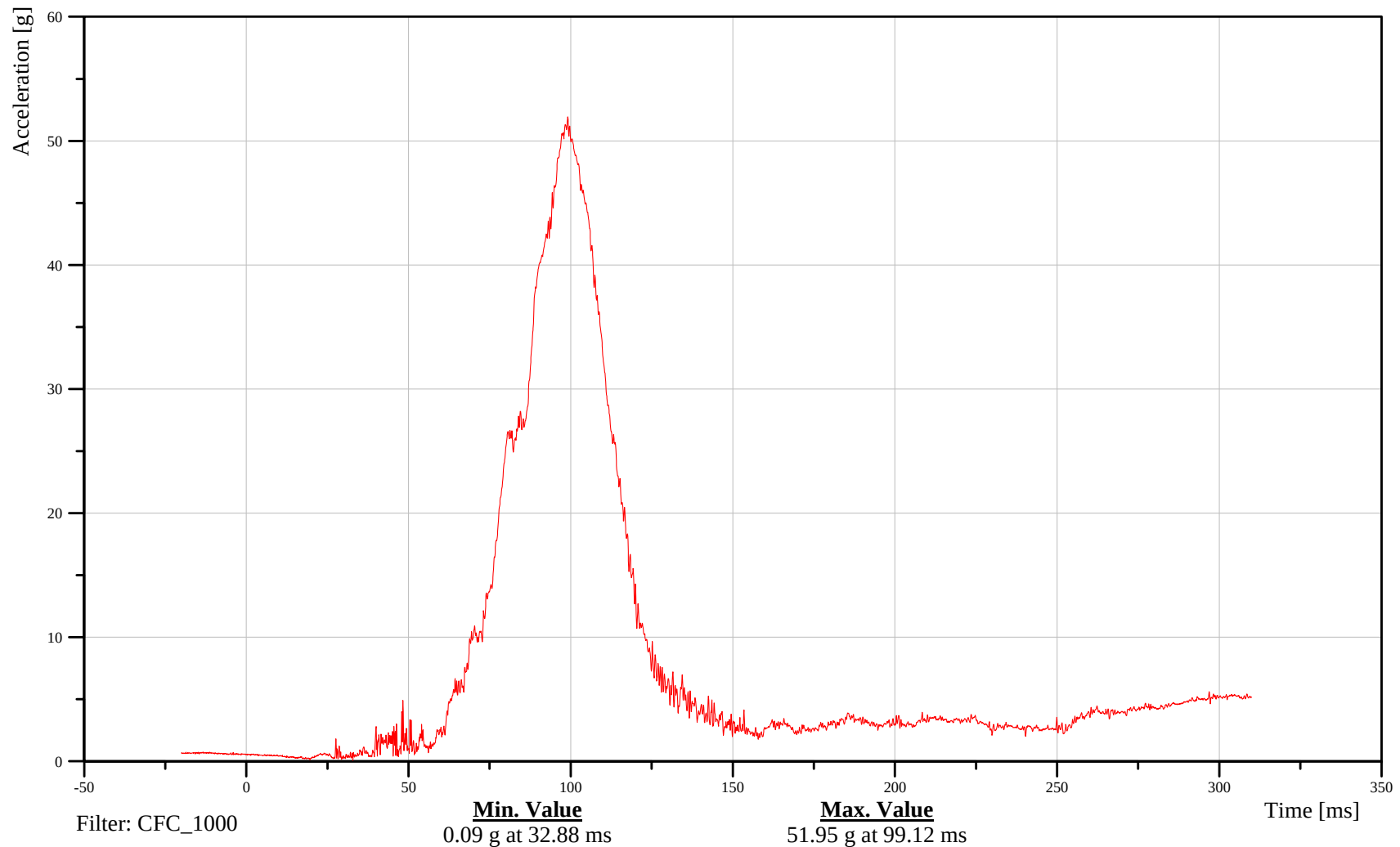
Bullet Driver Head Resultant Acceleration

Customer: VRTC

11HEADCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

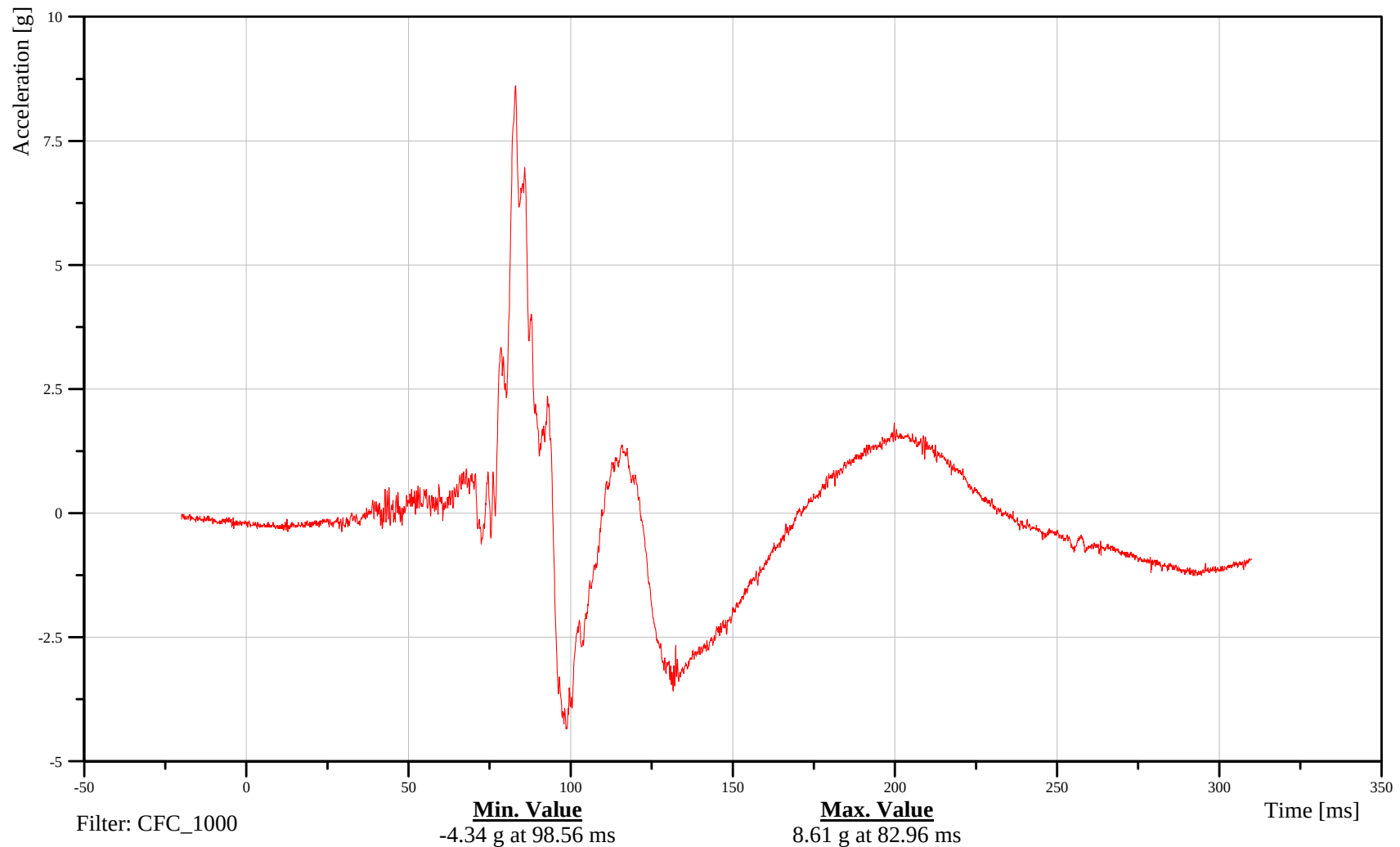
Bullet Driver Head Front Y-Axis Acceleration

Customer: VRTC

11HEADFR00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

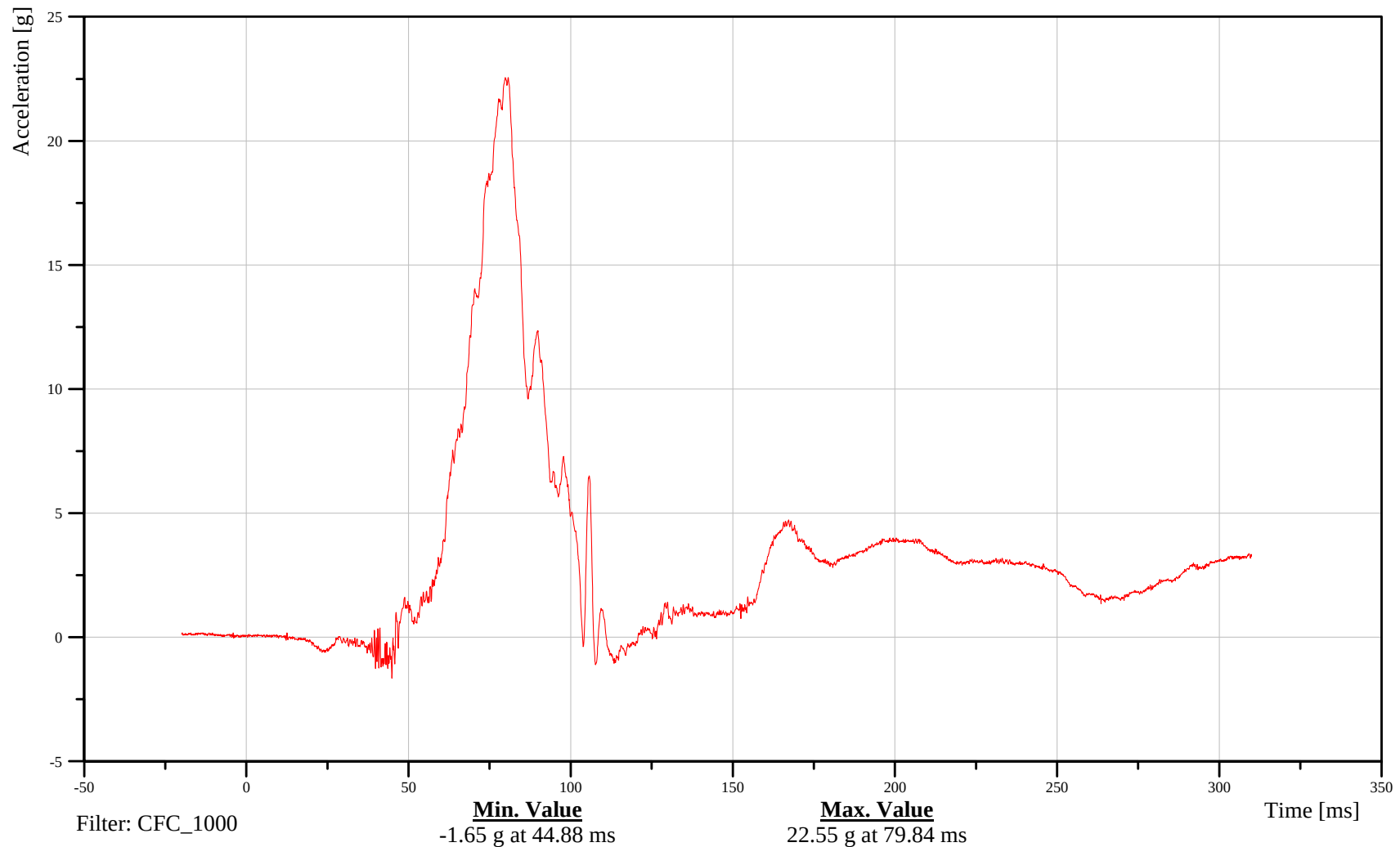
Bullet Driver Head Front Z-Axis Acceleration

Customer: VRTC

11HEADFR00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

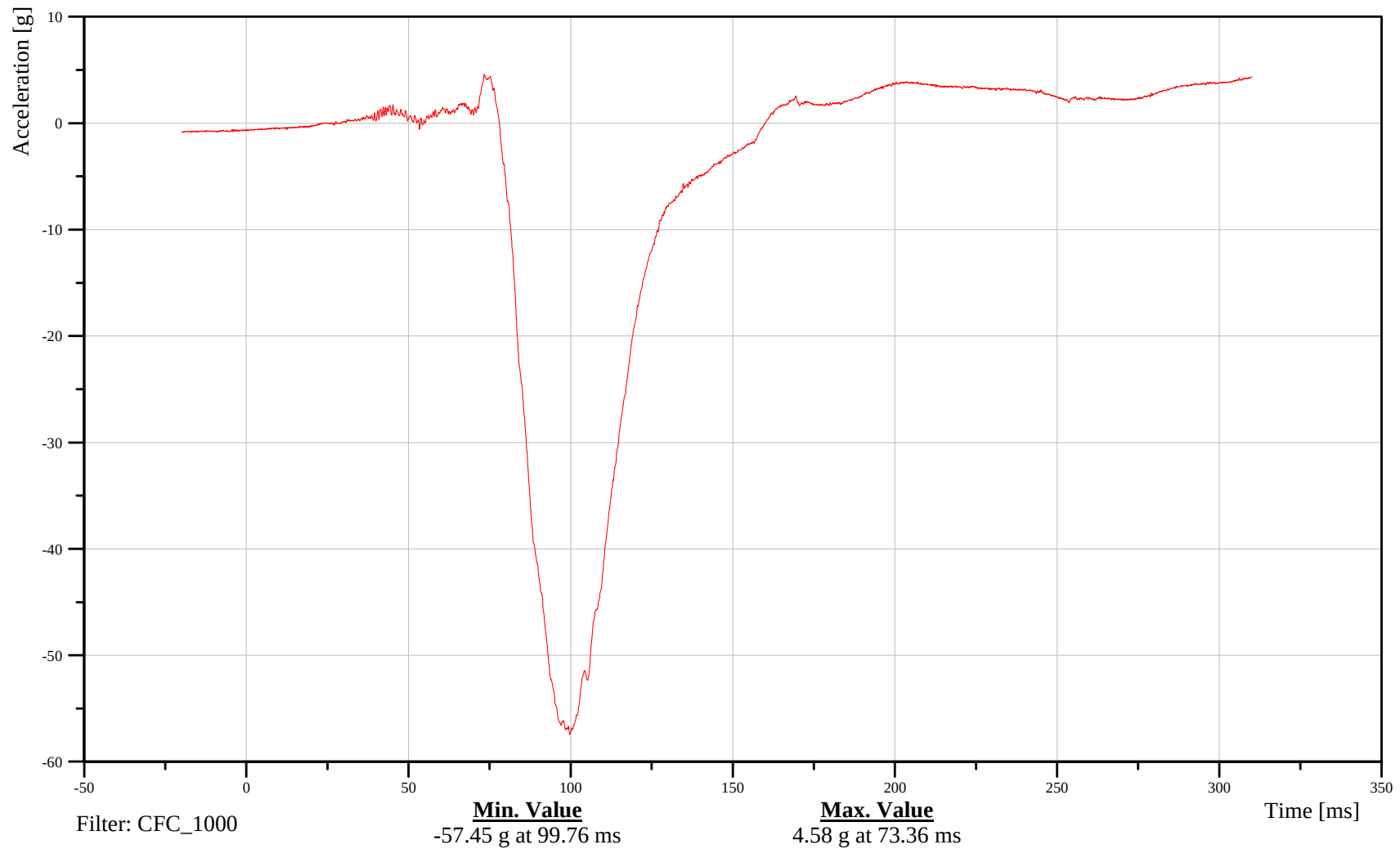
Bullet Driver Head Top X-Axis Acceleration

Customer: VRTC

11HEADUP00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

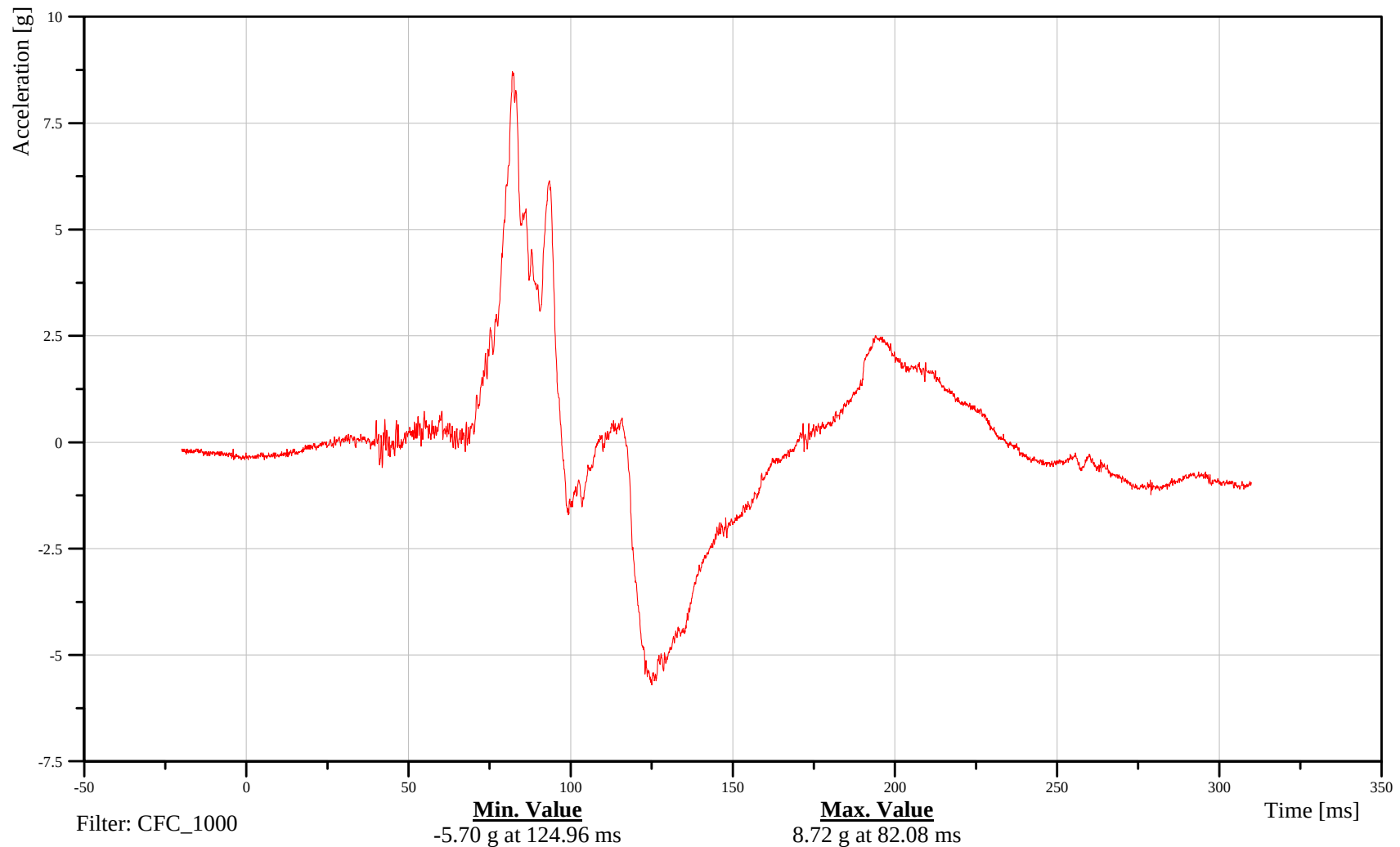
Bullet Driver Head Top Y-Axis Acceleration

Customer: VRTC

11HEADUP00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

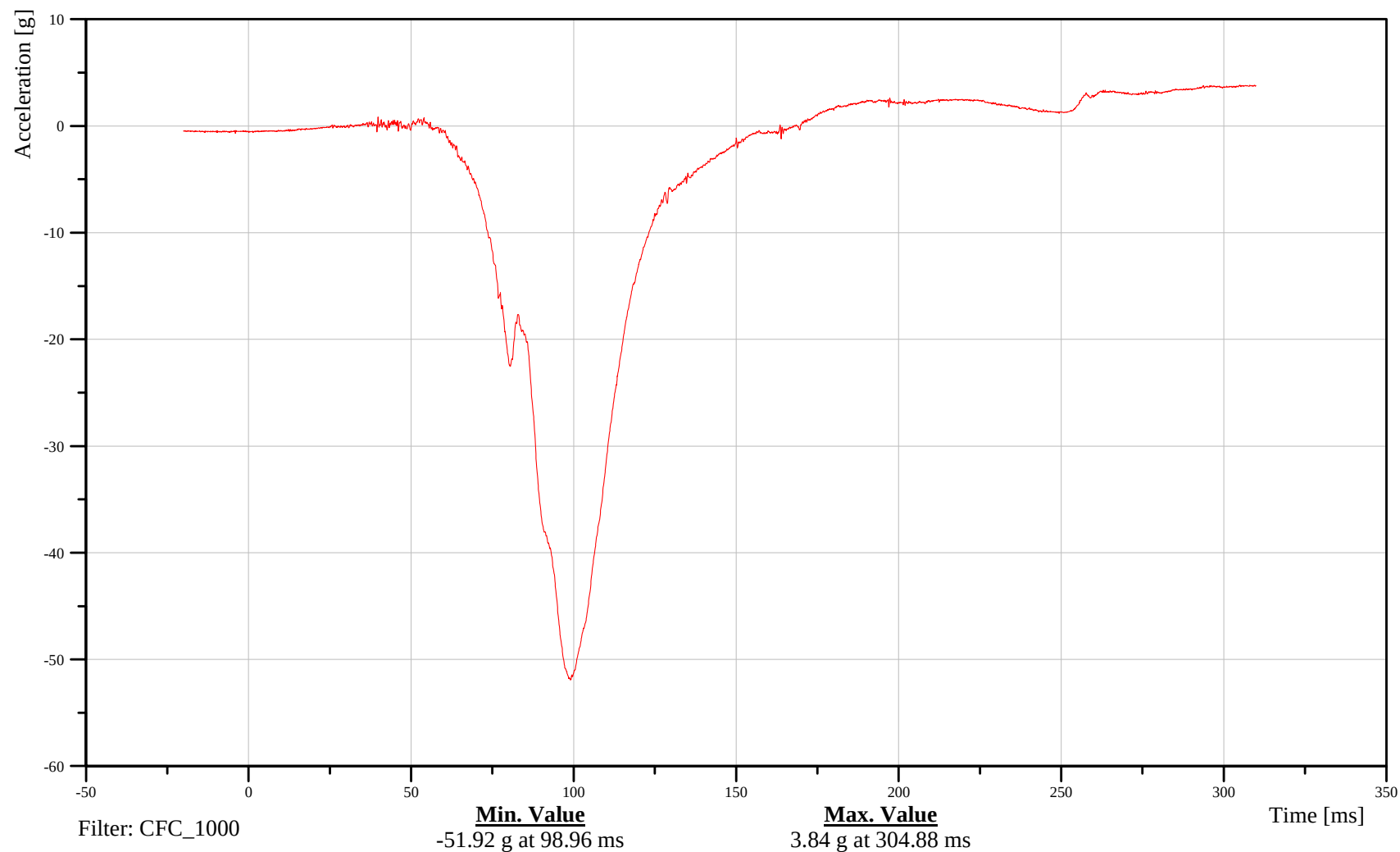
Bullet Driver Head Side X-Axis Acceleration

Customer: VRTC

11HEADLE00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Head Side Z-Axis Acceleration

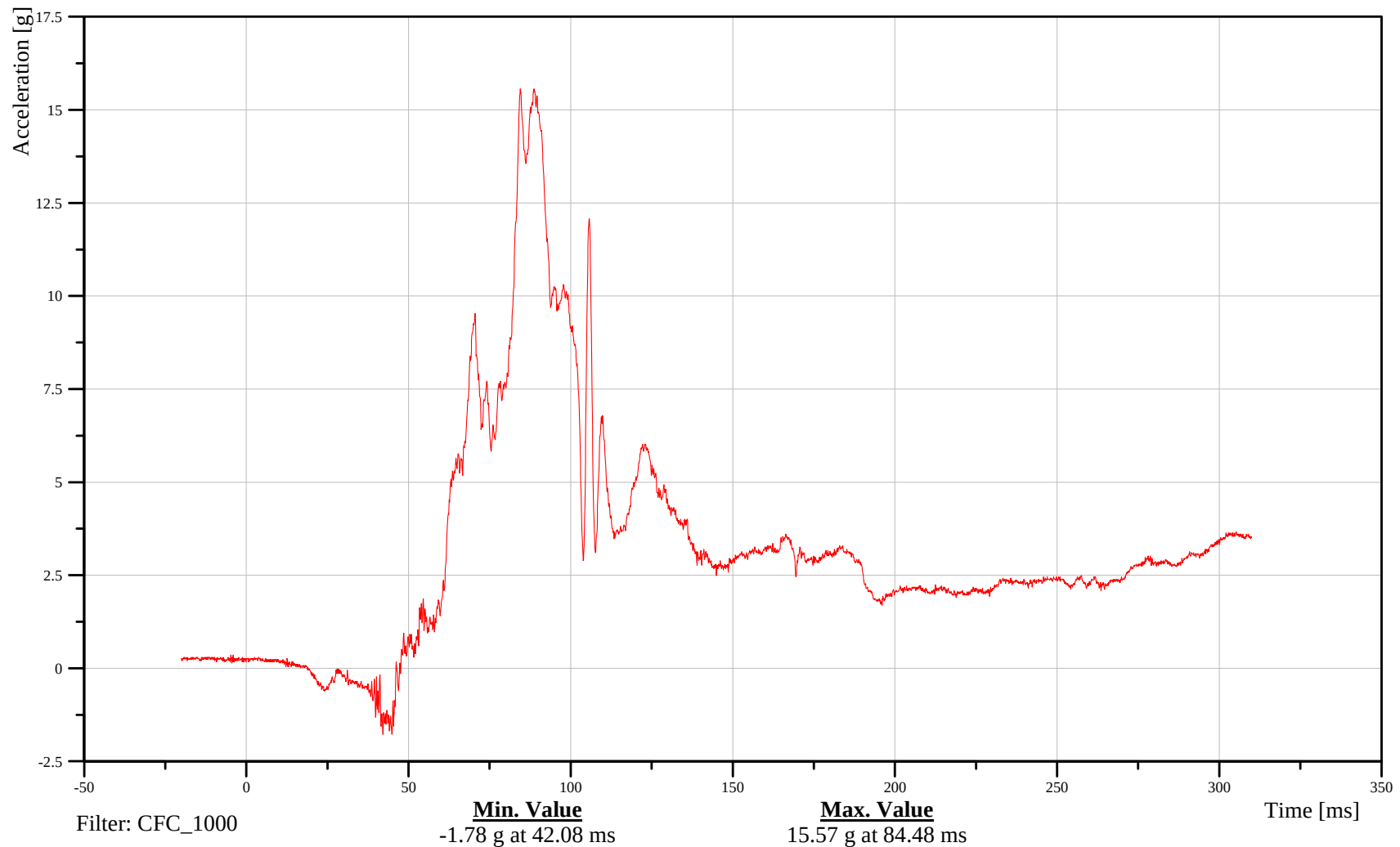
Time: 07:16

Customer: VRTC

11HEADLE00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

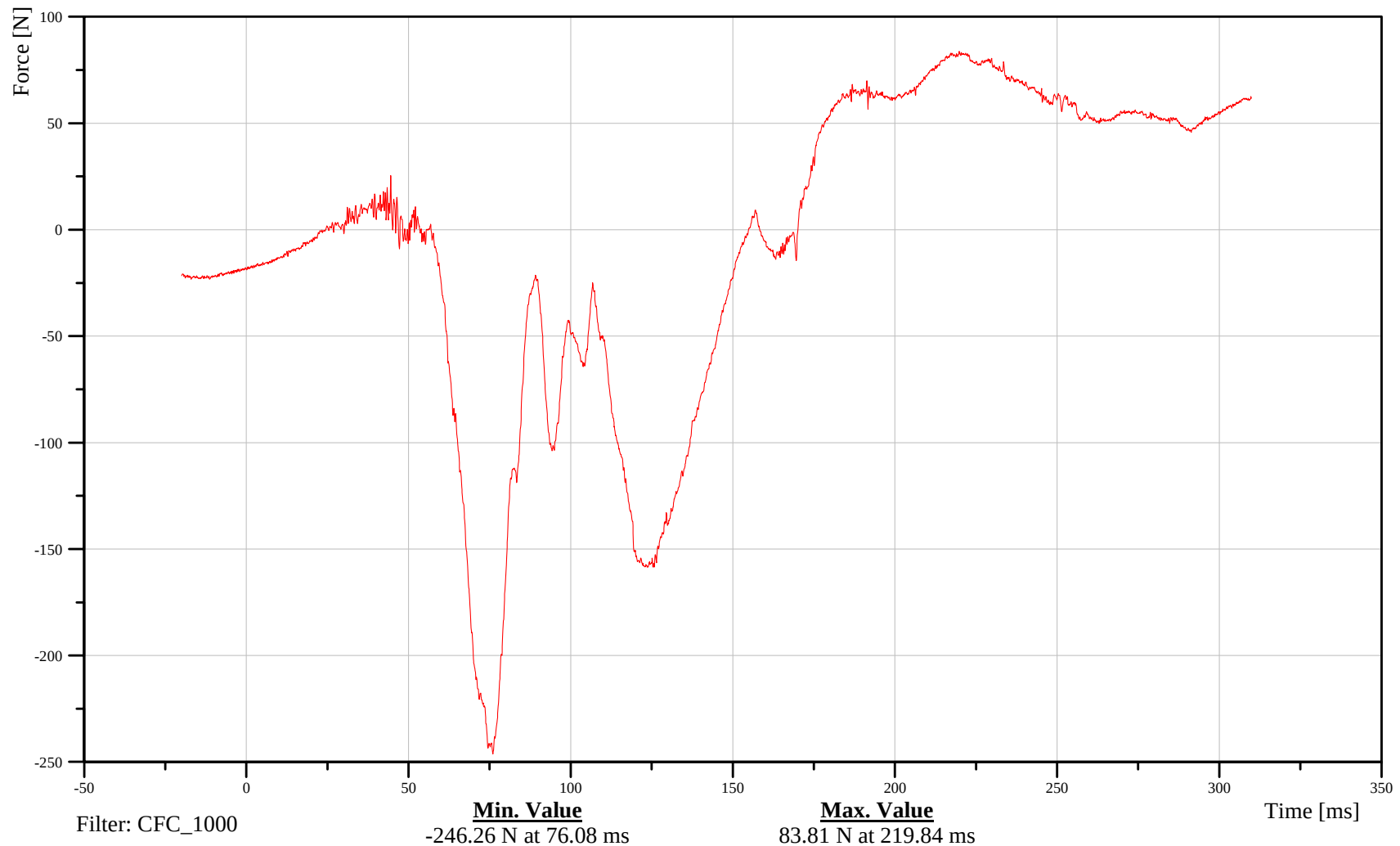
Bullet Driver Upper Neck X-Axis Force

Customer: VRTC

11NECKUP00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

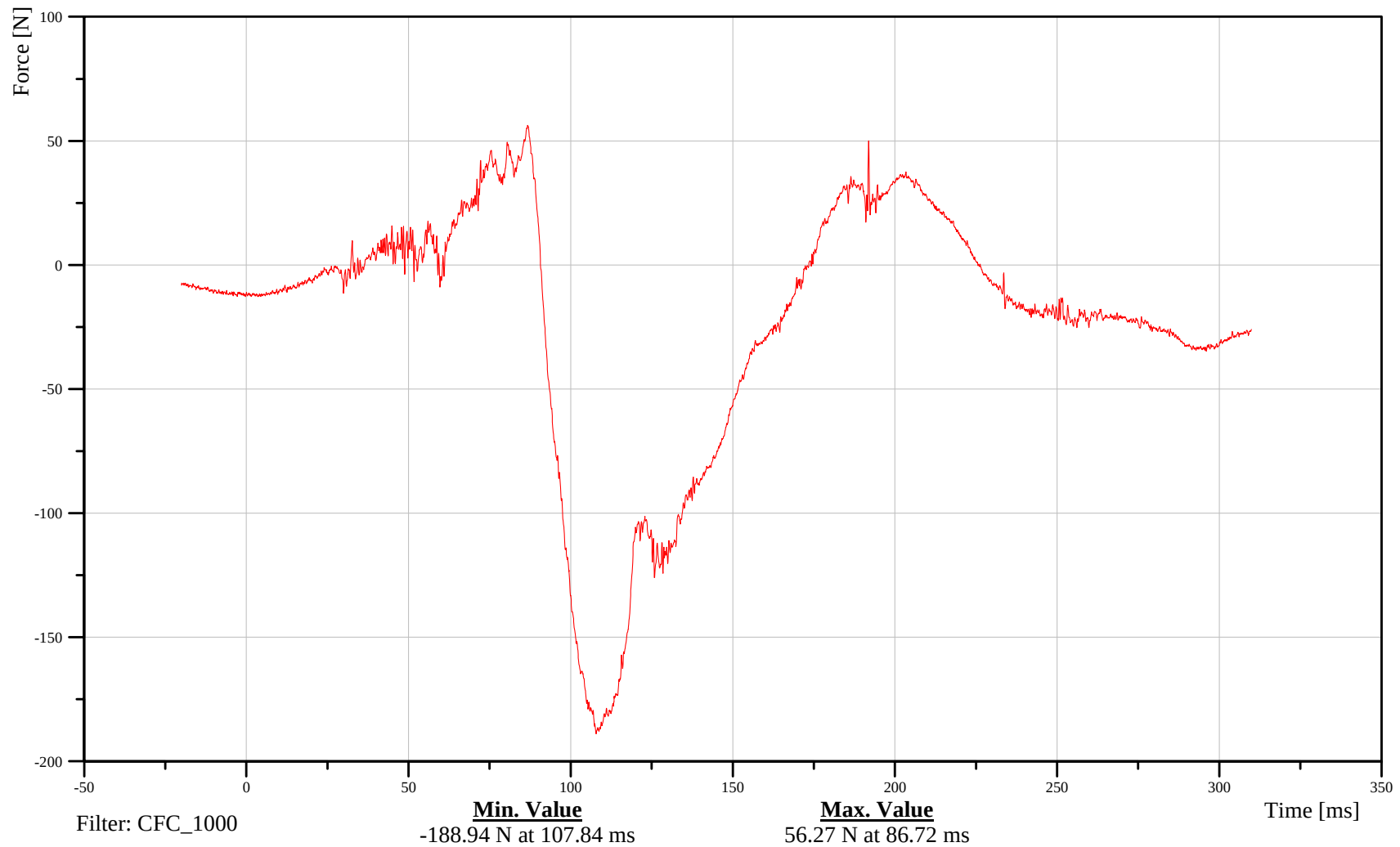
Bullet Driver Upper Neck Y-Axis Force

Customer: VRTC

11NECKUP00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

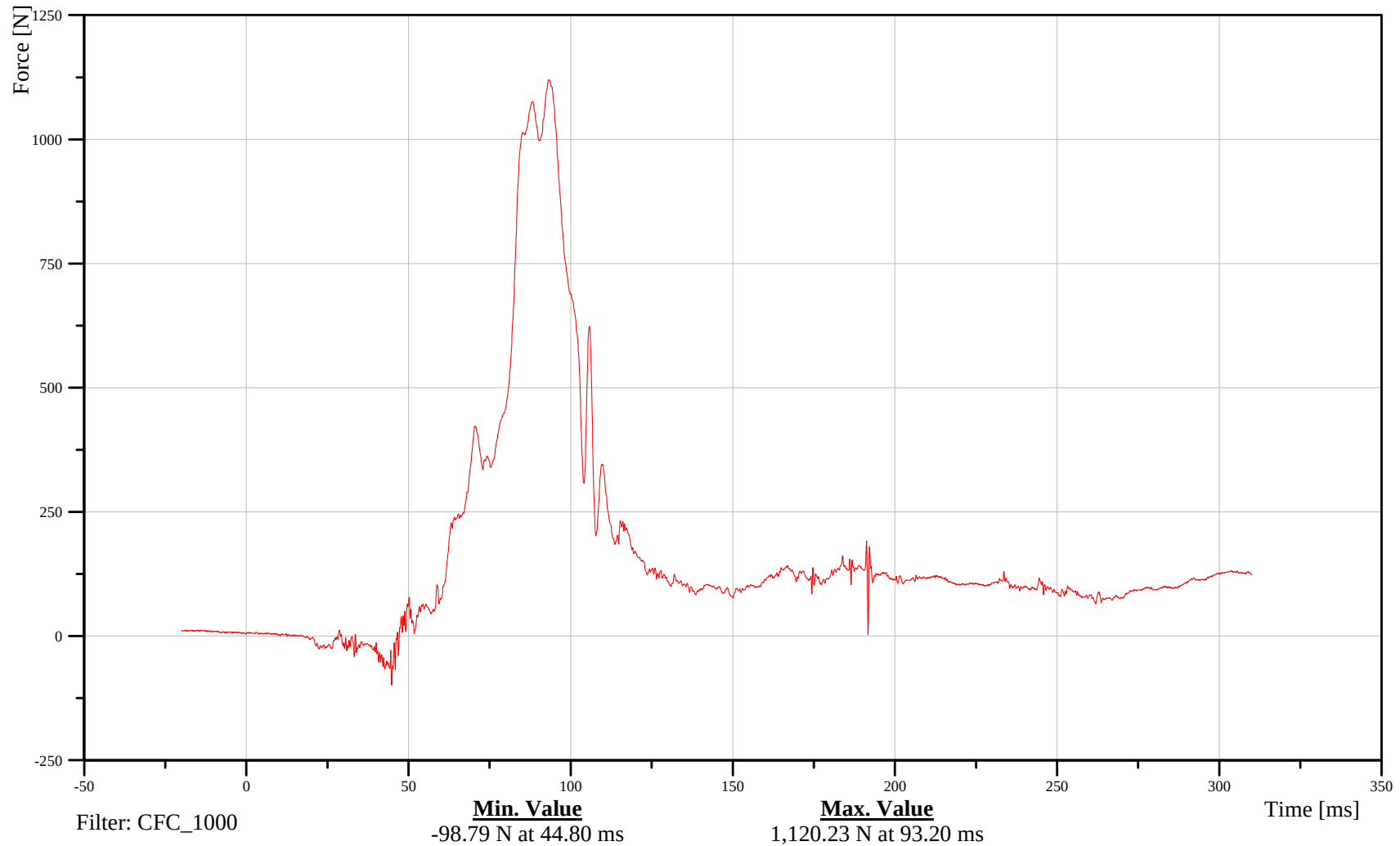
Bullet Driver Upper Neck Z-Axis Force

Customer: VRTC

11NECKUP00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

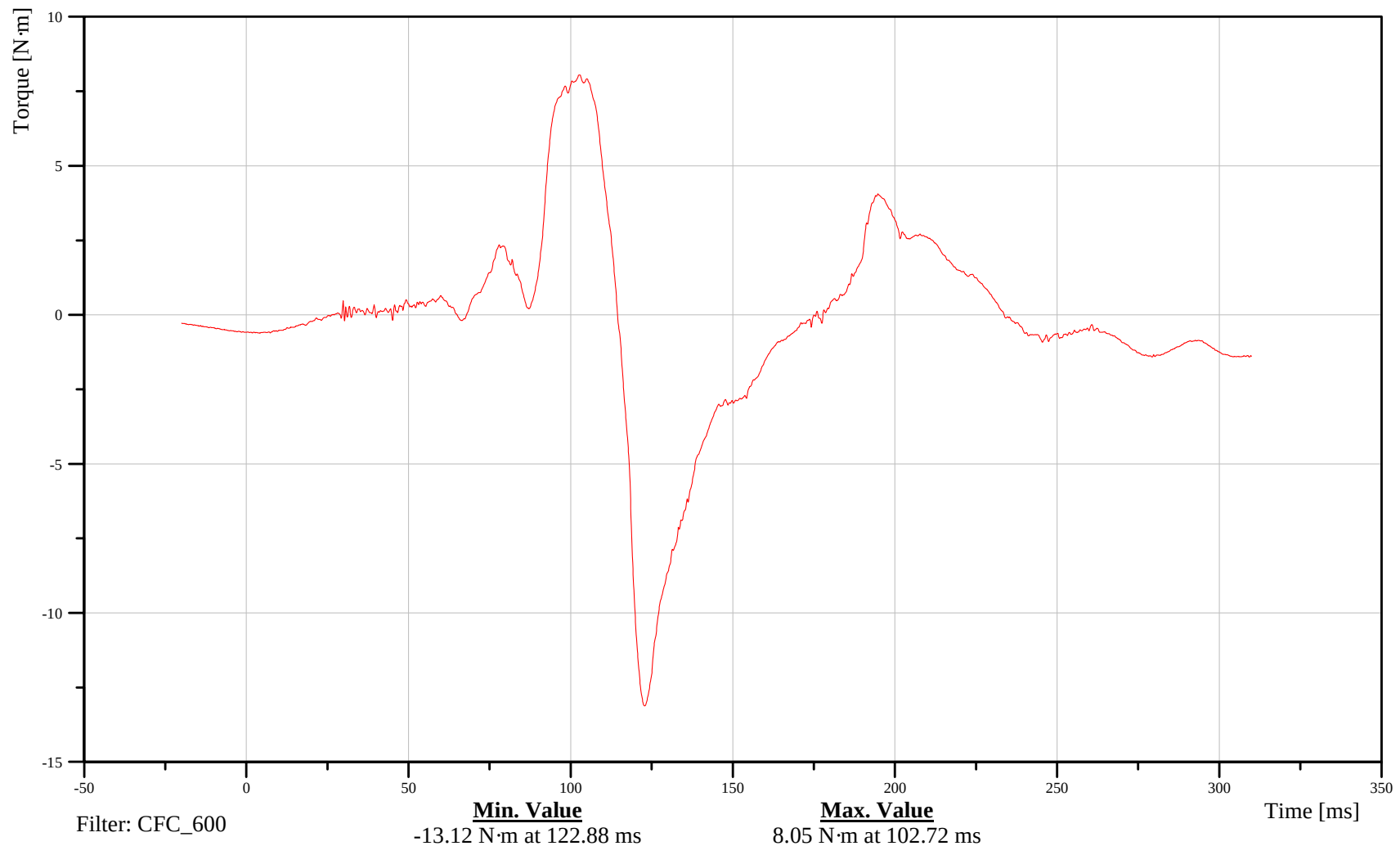
Bullet Driver Upper Neck Moment About X Axis

Customer: VRTC

11NECKUP00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

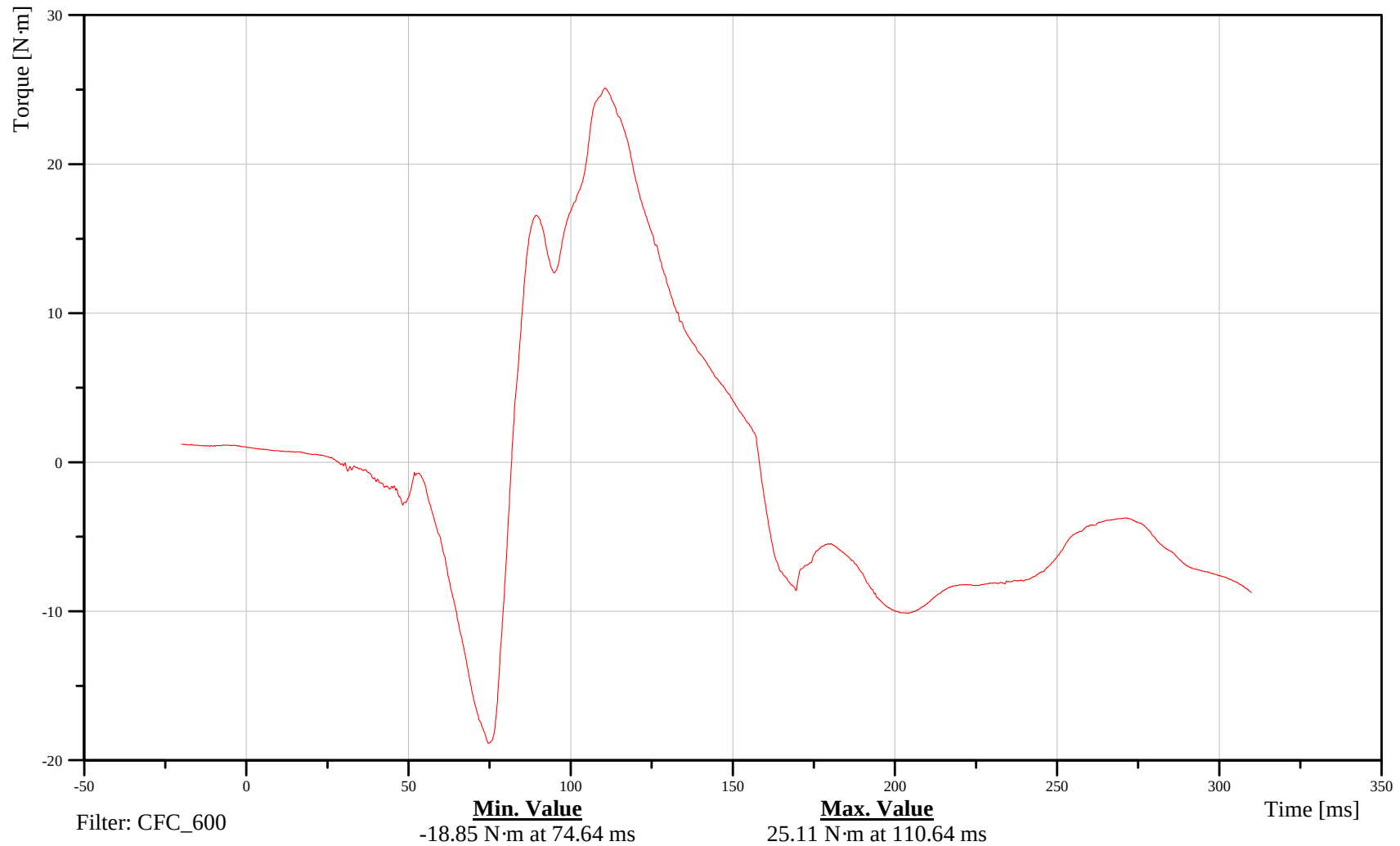
Bullet Driver Upper Neck Moment About Y Axis

Customer: VRTC

11NECKUP00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Upper Neck Moment About Z Axis

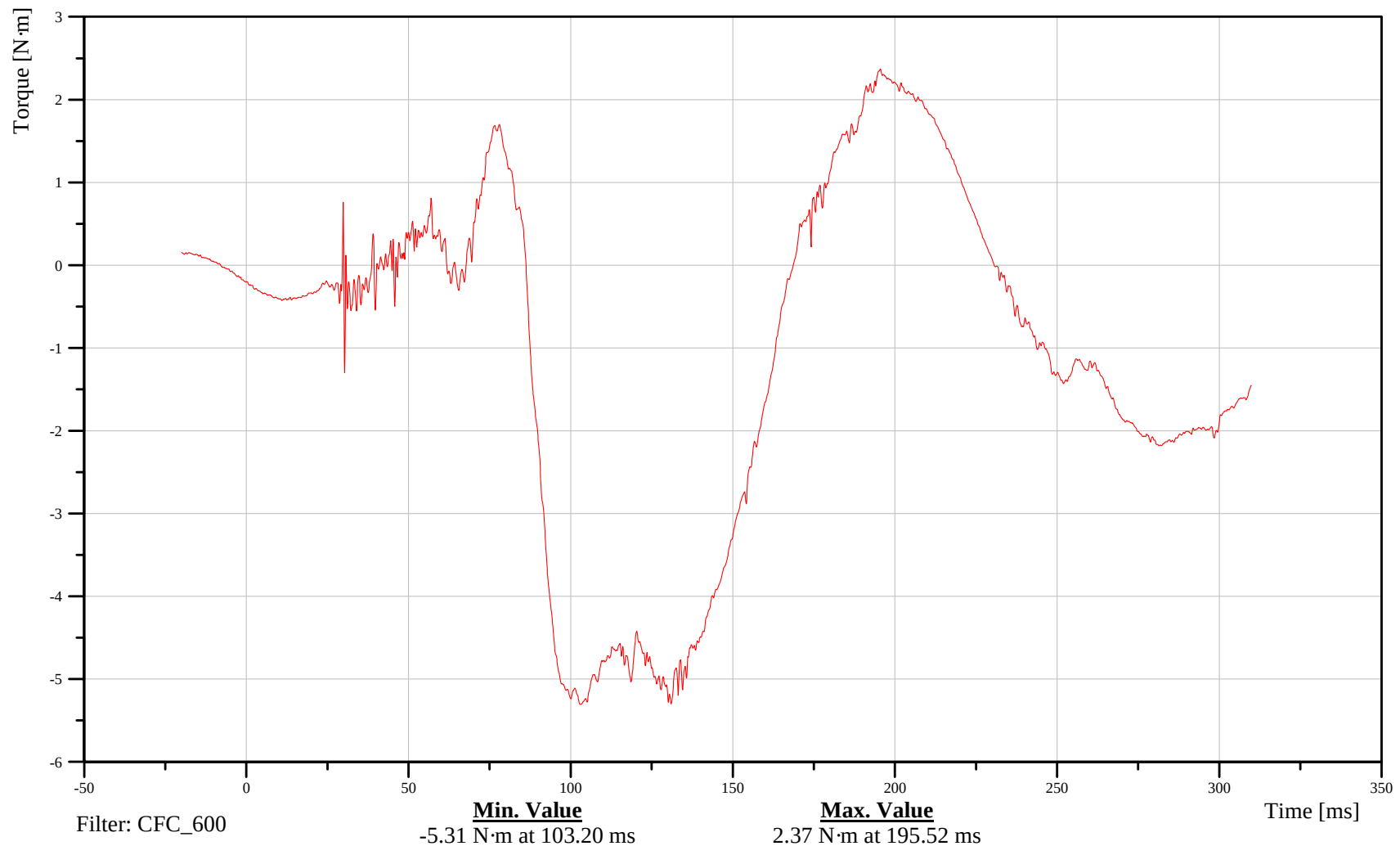
Time: 07:16

Customer: VRTC

11NECKUP00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

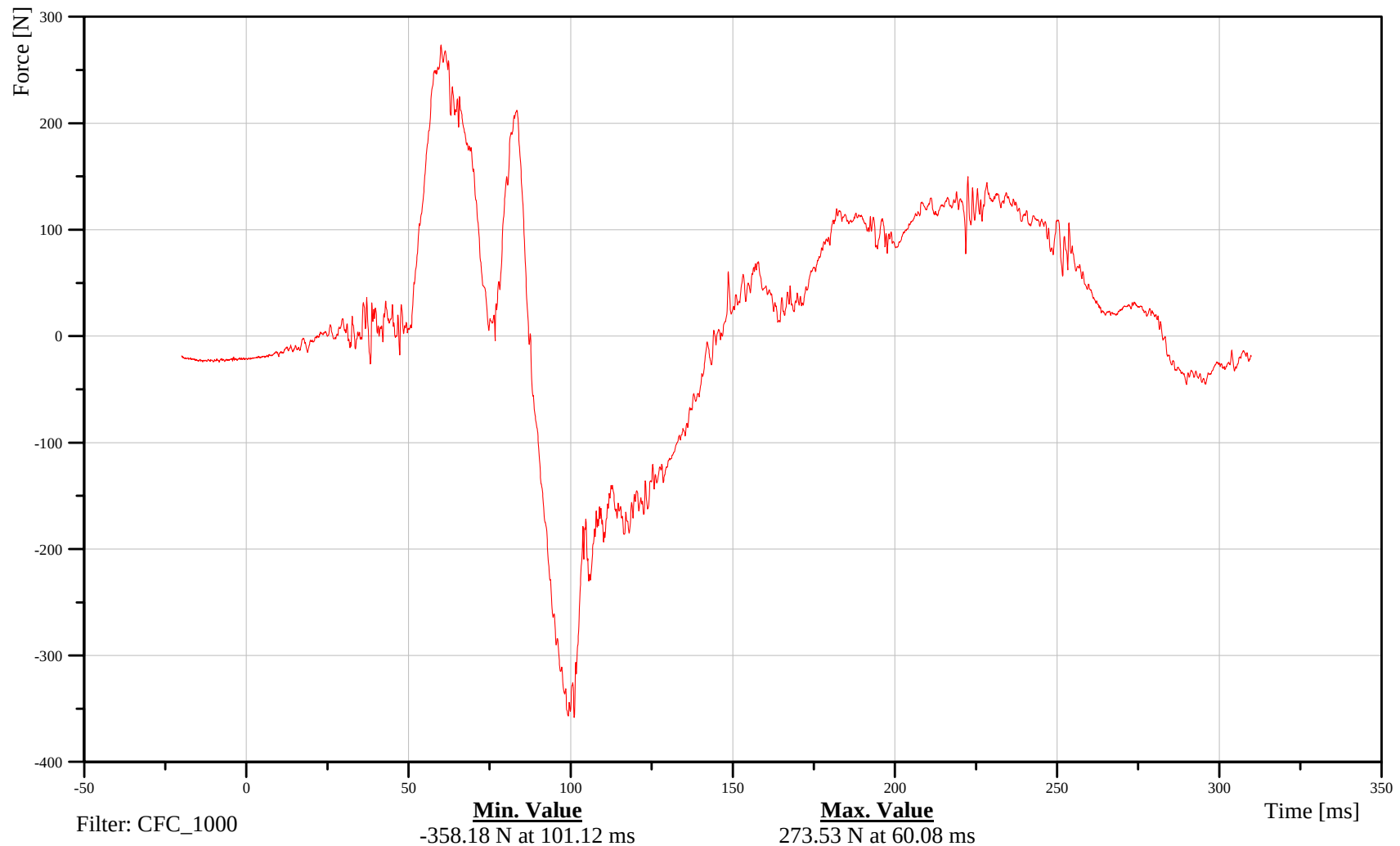
Bullet Driver Lower Neck X-Axis Force

Customer: VRTC

11NECKLO00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

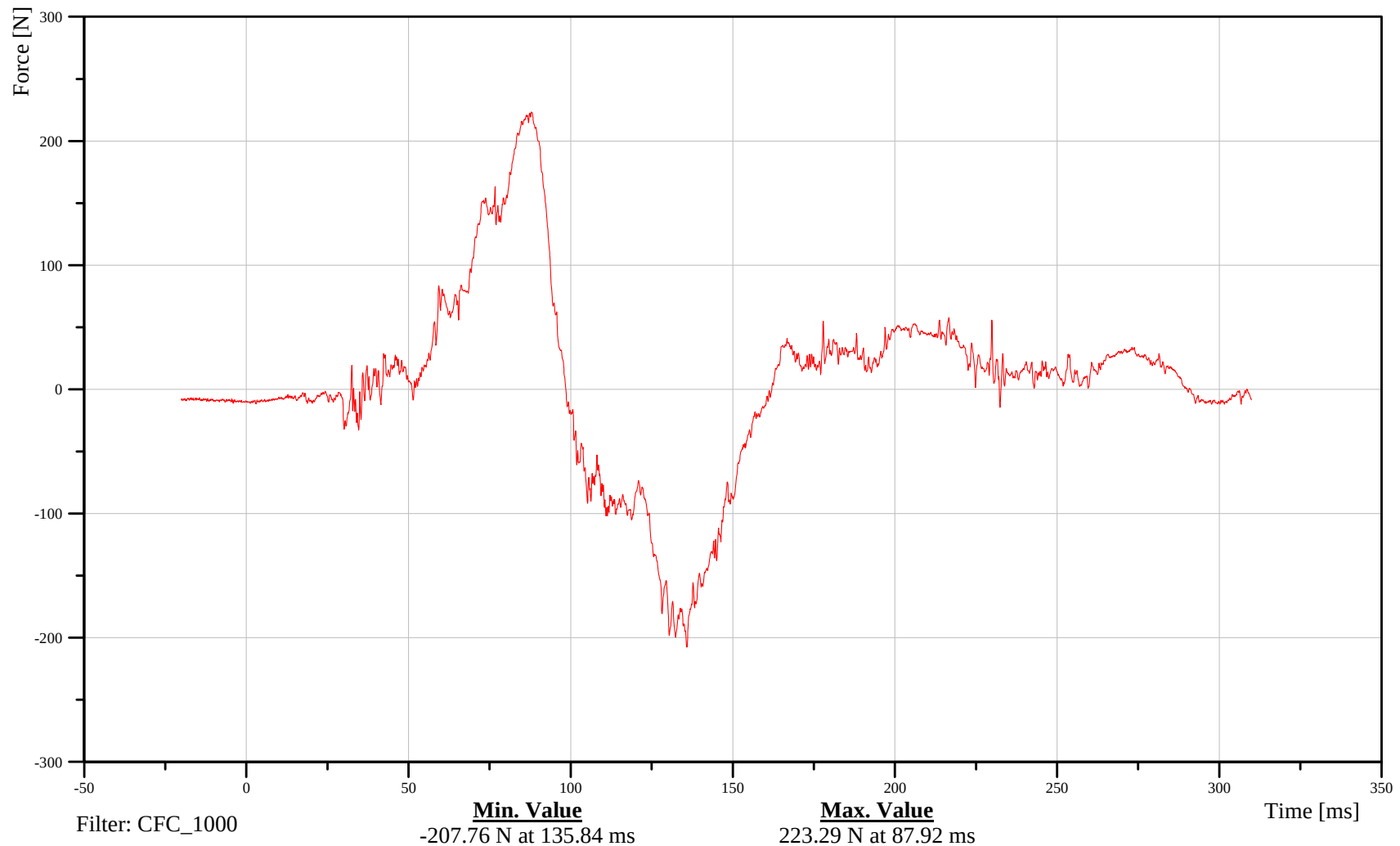
Bullet Driver Lower Neck Y-Axis Force

Customer: VRTC

11NECKLO00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

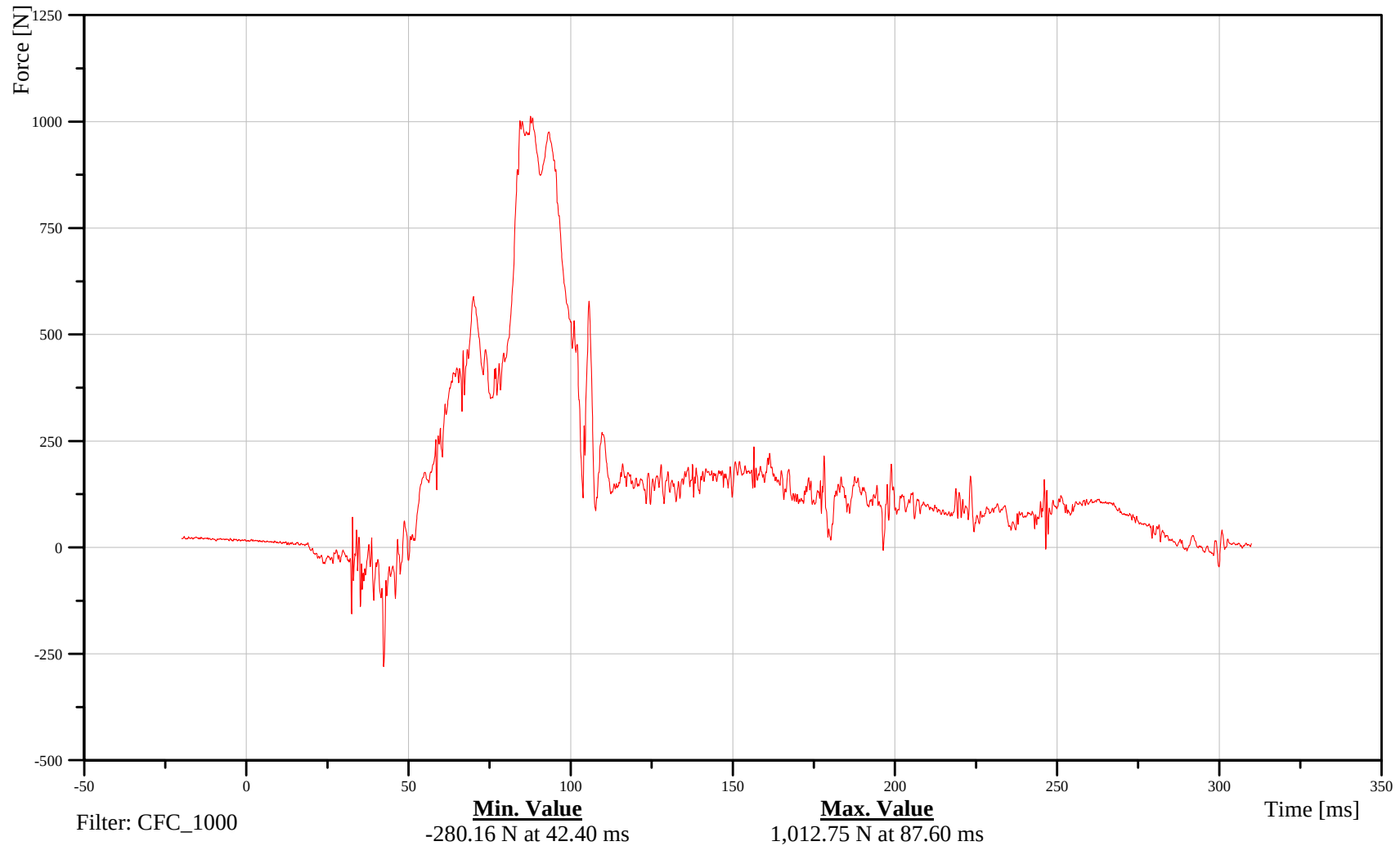
Bullet Driver Lower Neck Z-Axis Force

Customer: VRTC

11NECKLO00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Lower Neck Moment About X Axis

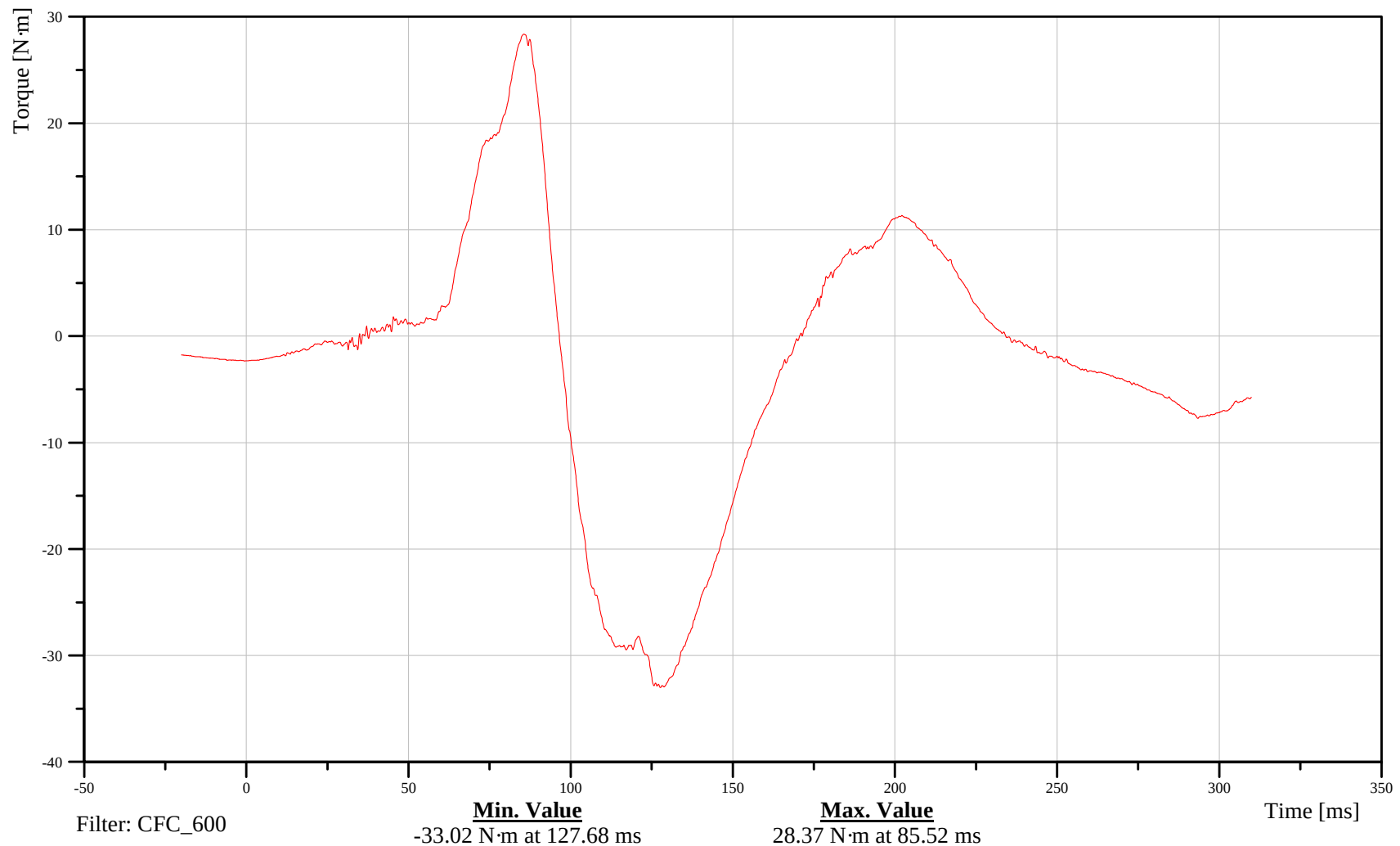
Time: 07:16

Customer: VRTC

11NECKLO00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

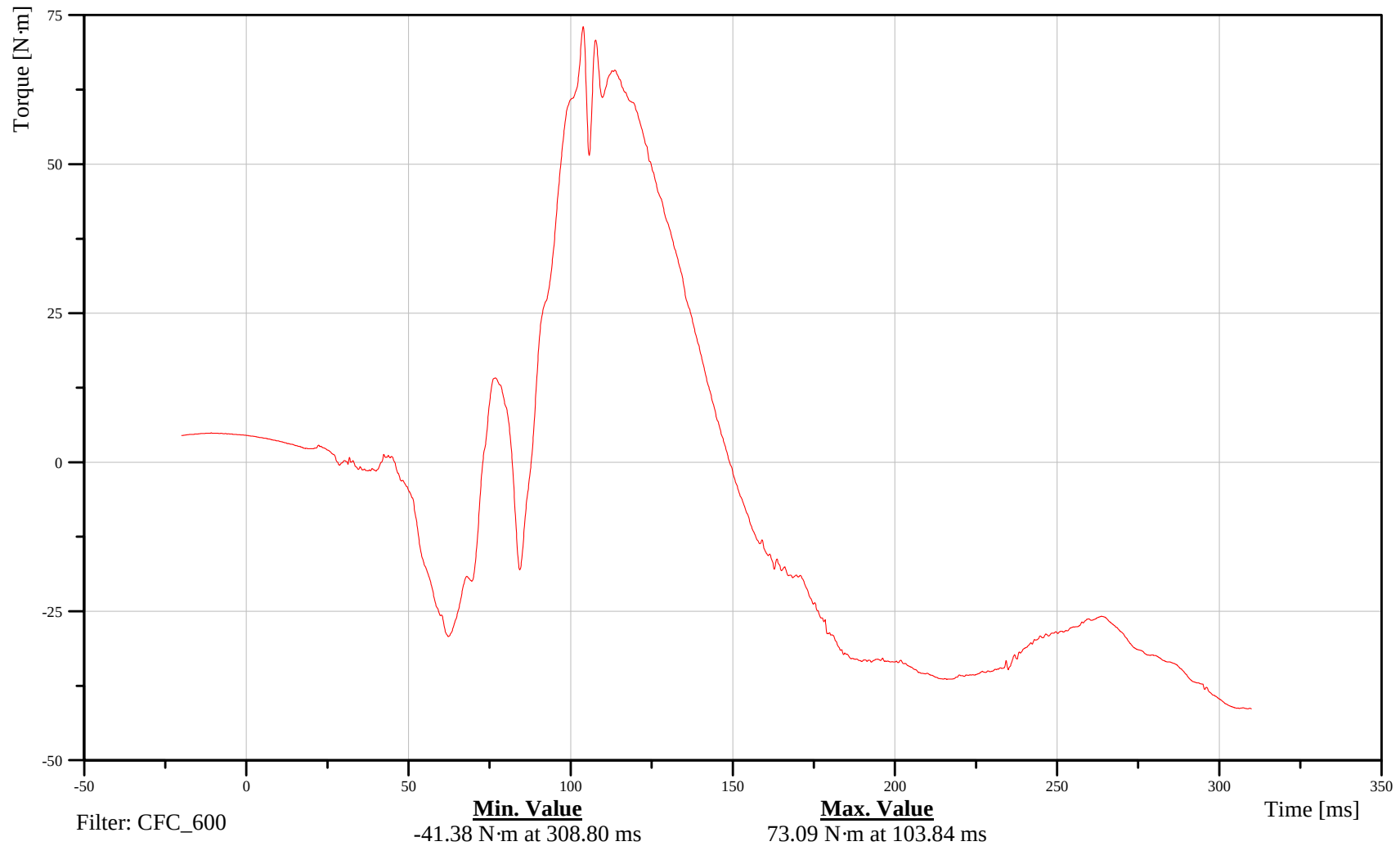
Bullet Driver Lower Neck Moment About Y Axis

Customer: VRTC

11NECKLO00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Lower Neck Moment About Z Axis

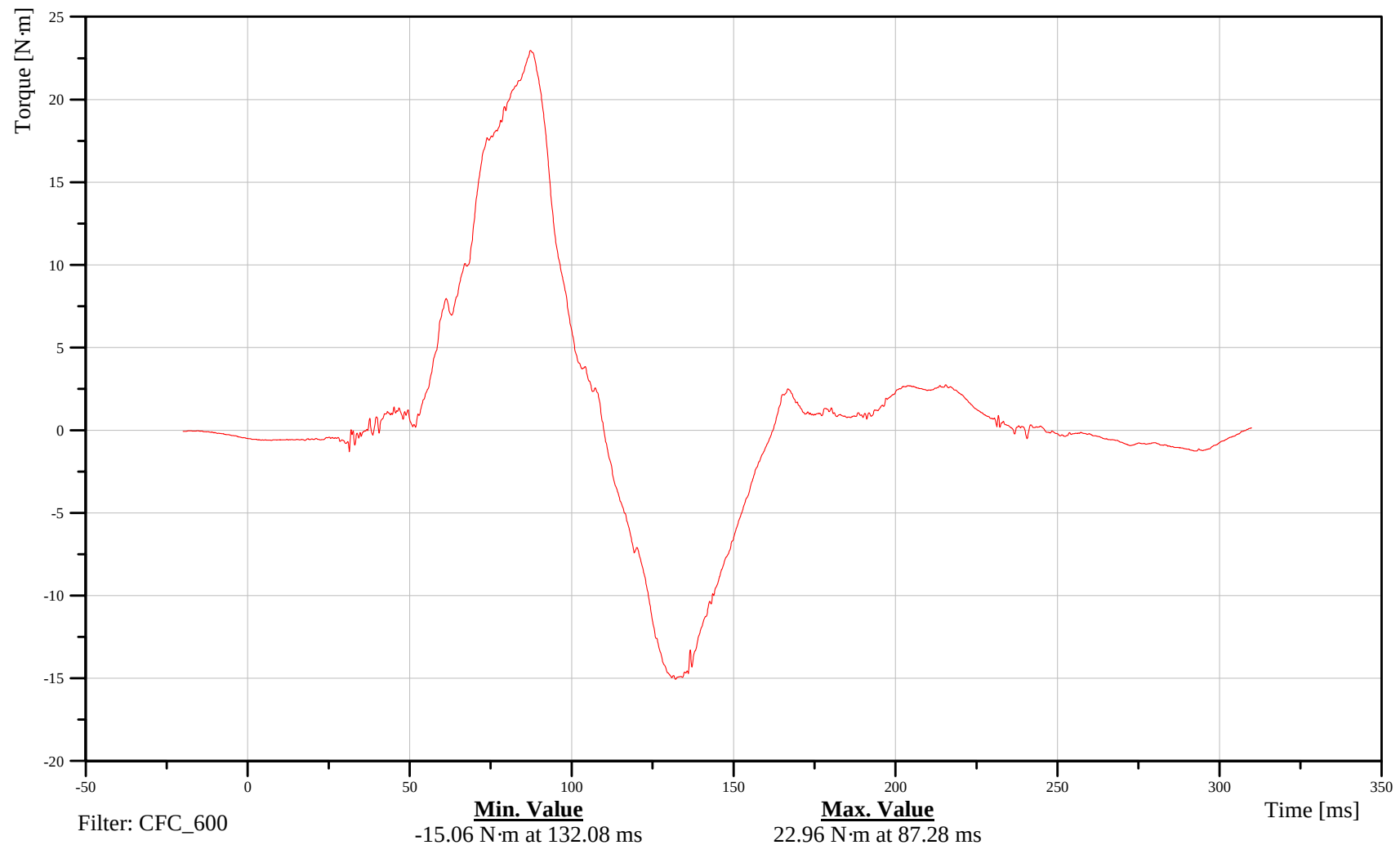
Time: 07:16

Customer: VRTC

11NECKLO00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

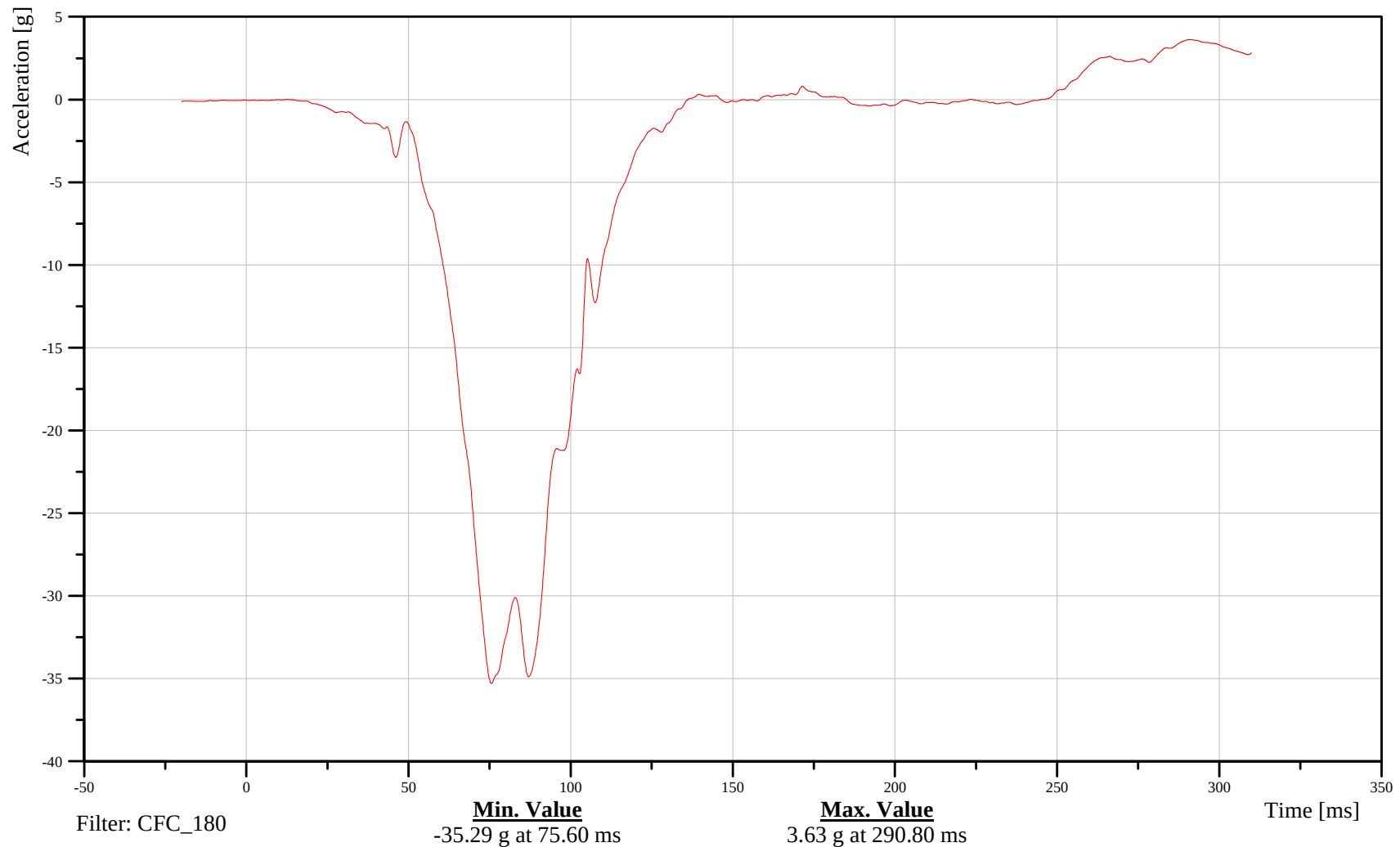
Bullet Driver Chest CG X-Axis Acceleration

Customer: VRTC

11CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

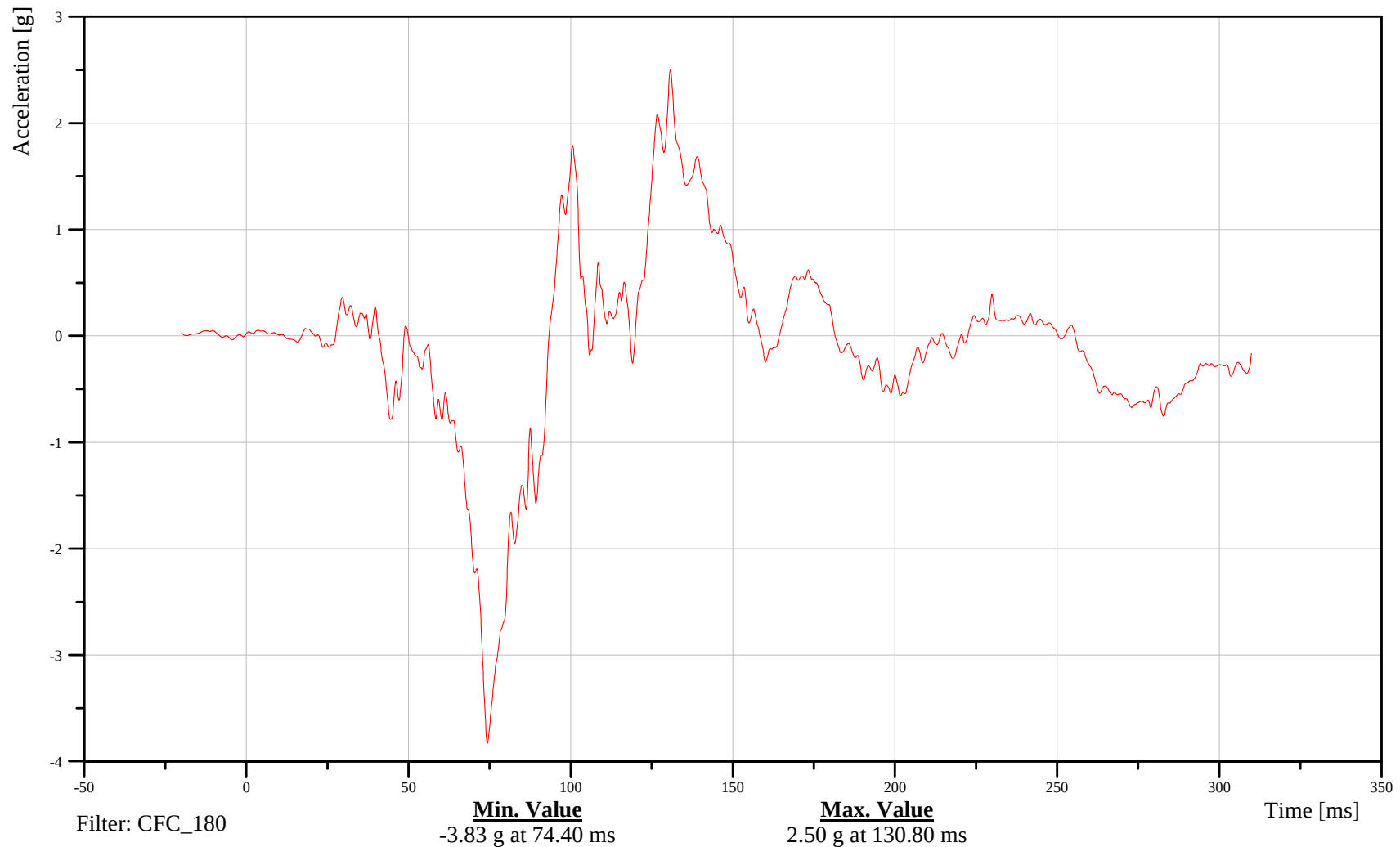
Bullet Driver Chest CG Y-Axis Acceleration

Customer: VRTC

11CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Chest CG Z-Axis Acceleration

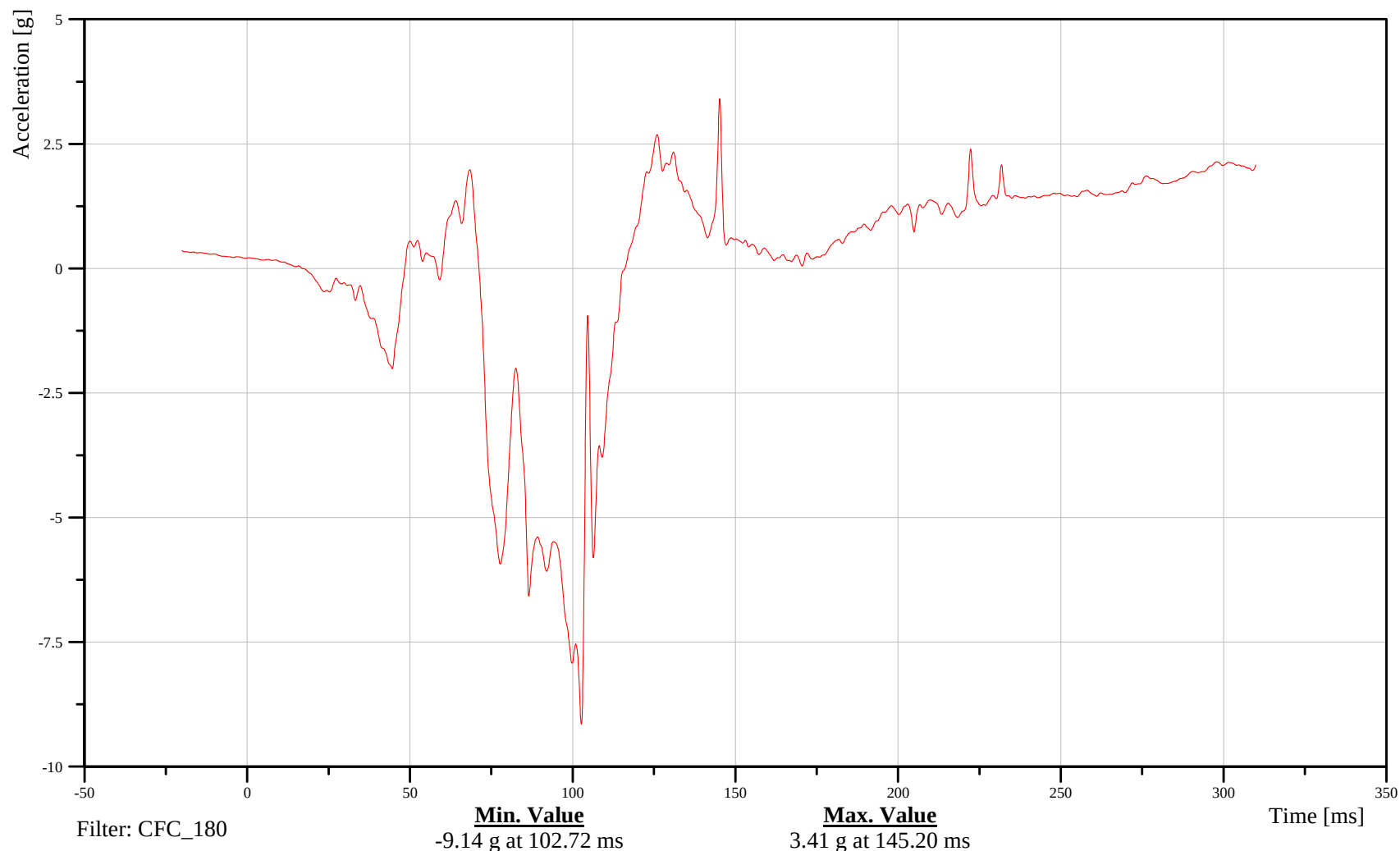
Time: 07:16

Customer: VRTC

11CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

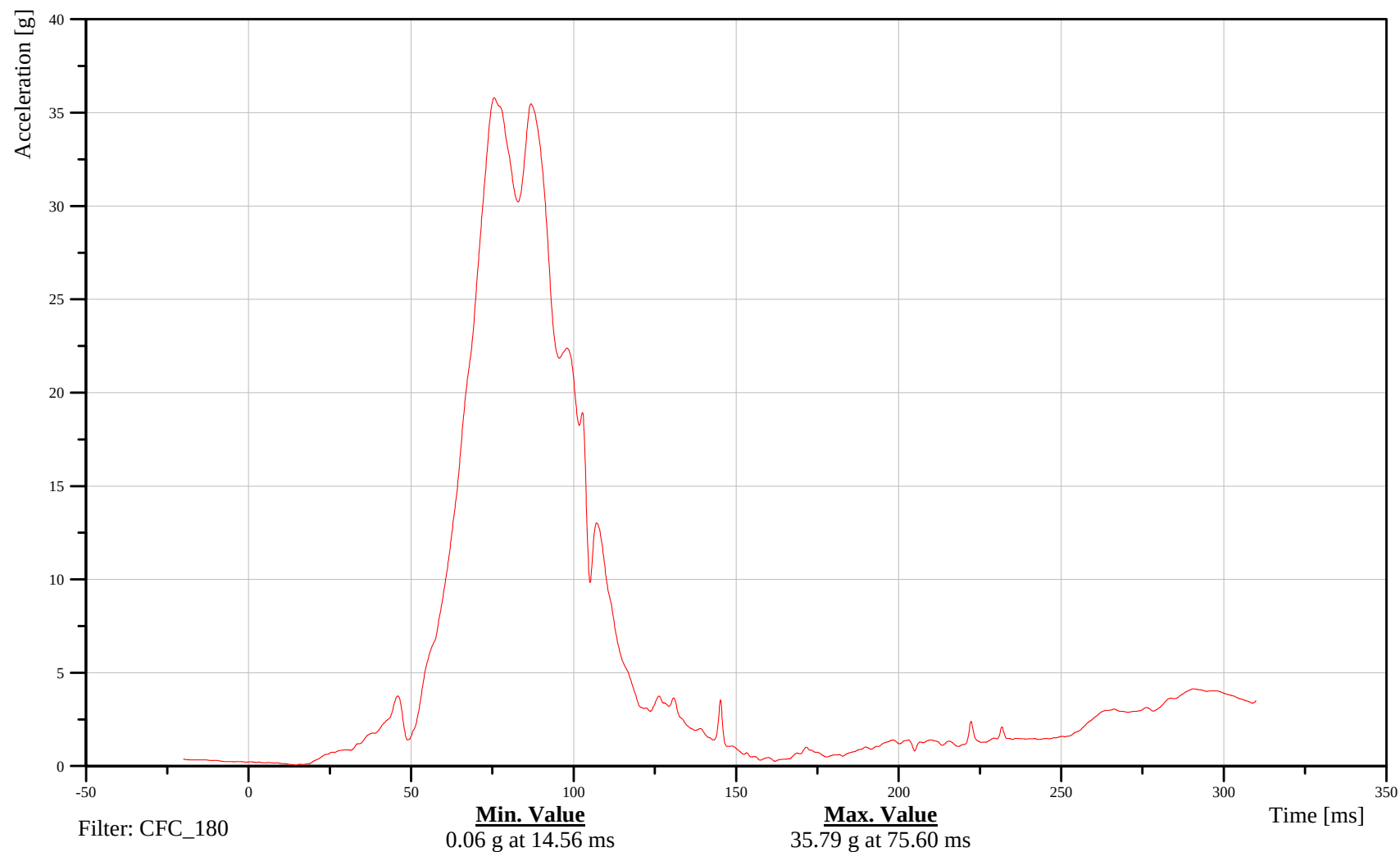
Bullet Driver Chest CG Resultant Acceleration

Customer: VRTC

11CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

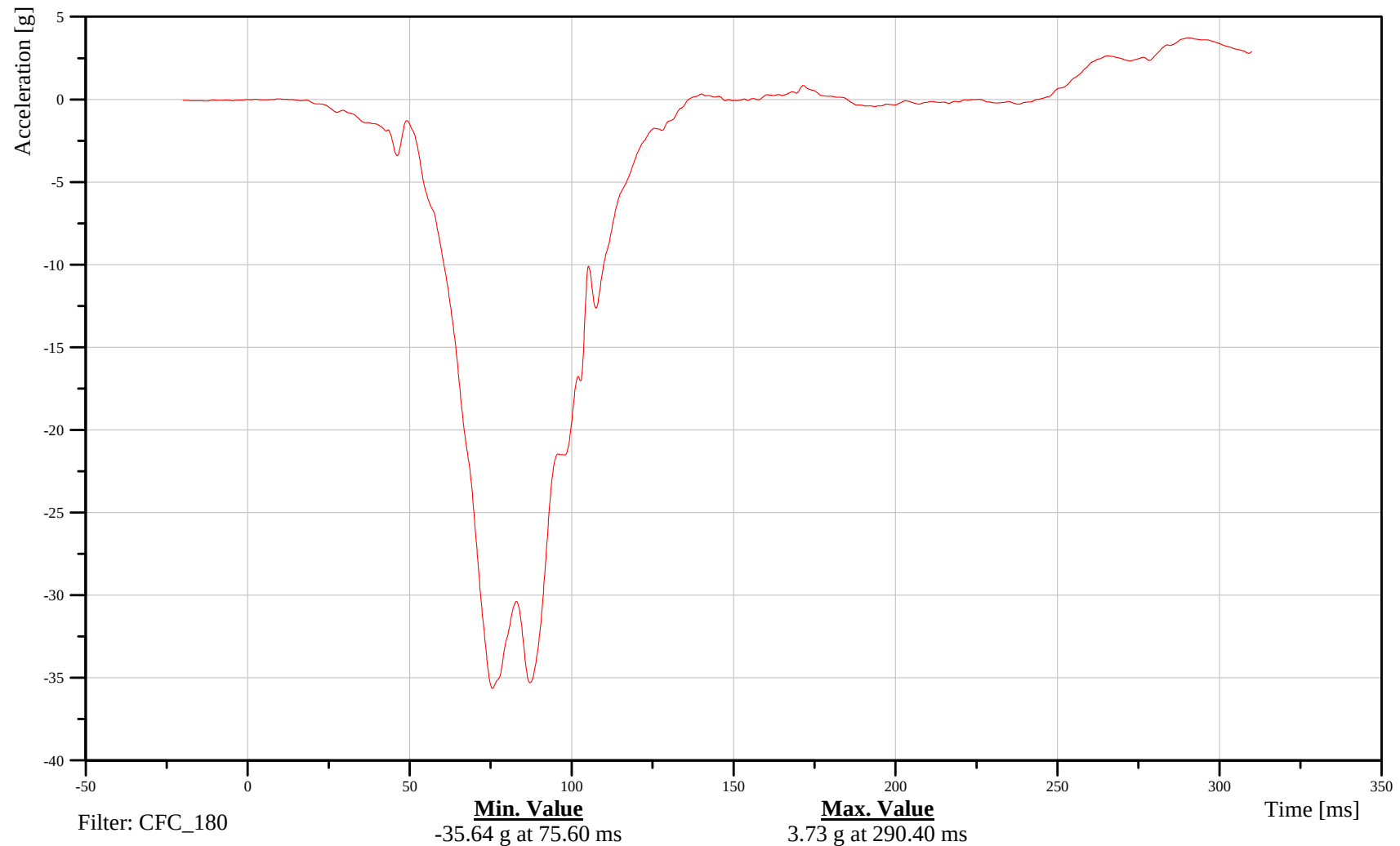
Bullet Driver Redundant Chest CG X-Axis Acceleration

Customer: VRTC

11CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

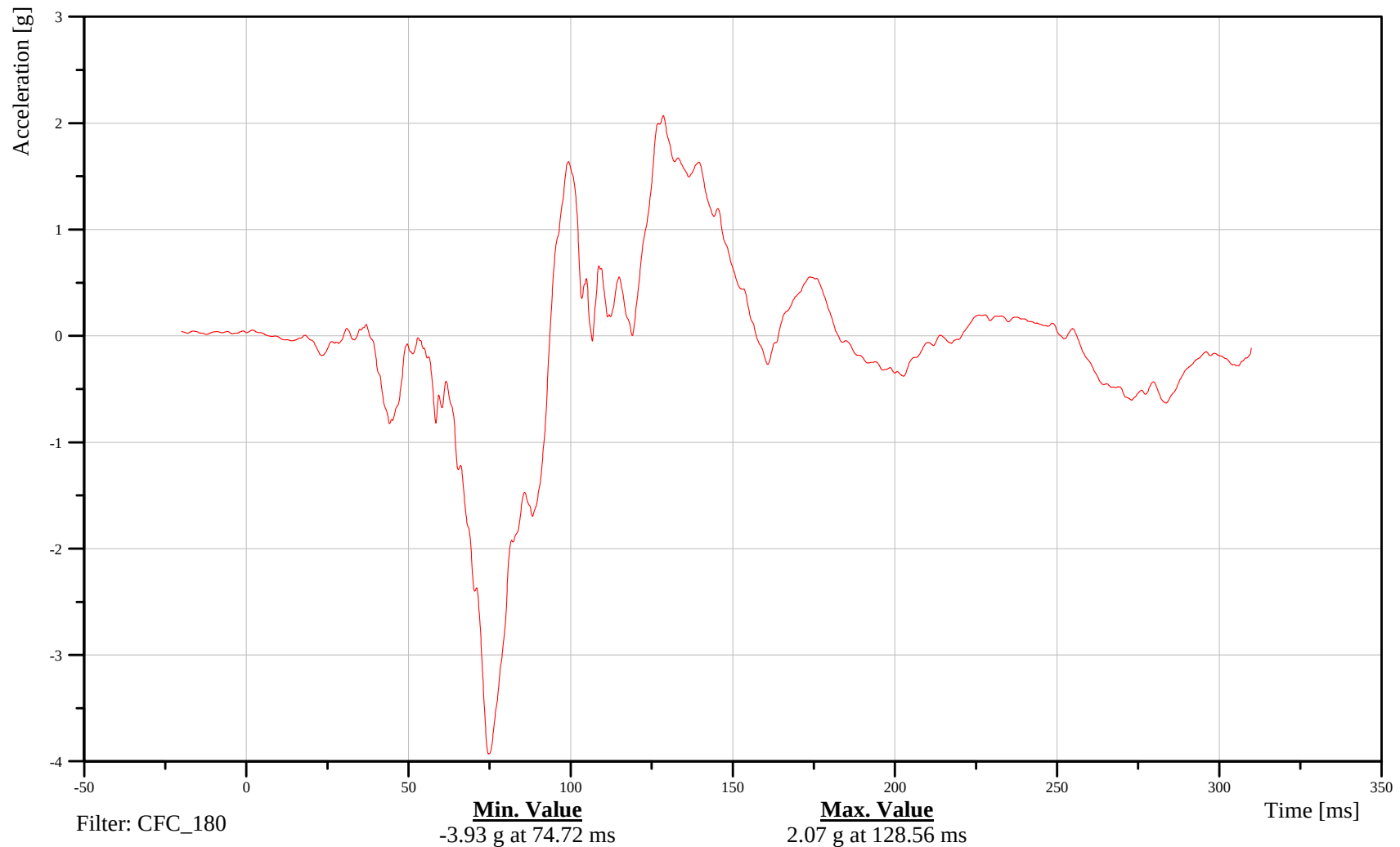
Bullet Driver Redundant Chest CG Y-Axis Acceleration

Customer: VRTC

11CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

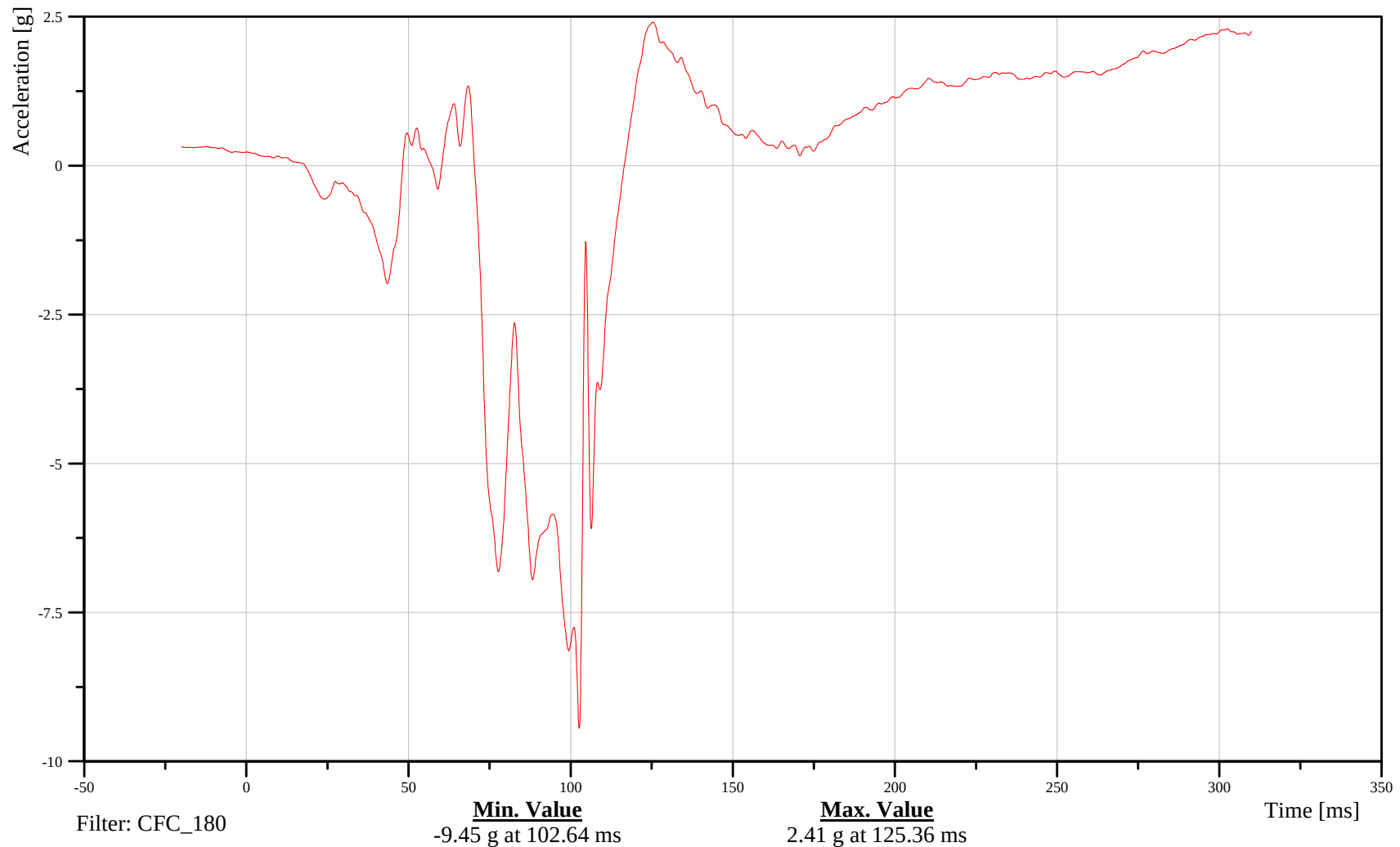
Bullet Driver Redundant Chest CG Z-Axis Acceleration

Customer: VRTC

11CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Redundant Chest CG Resultant Acceleration

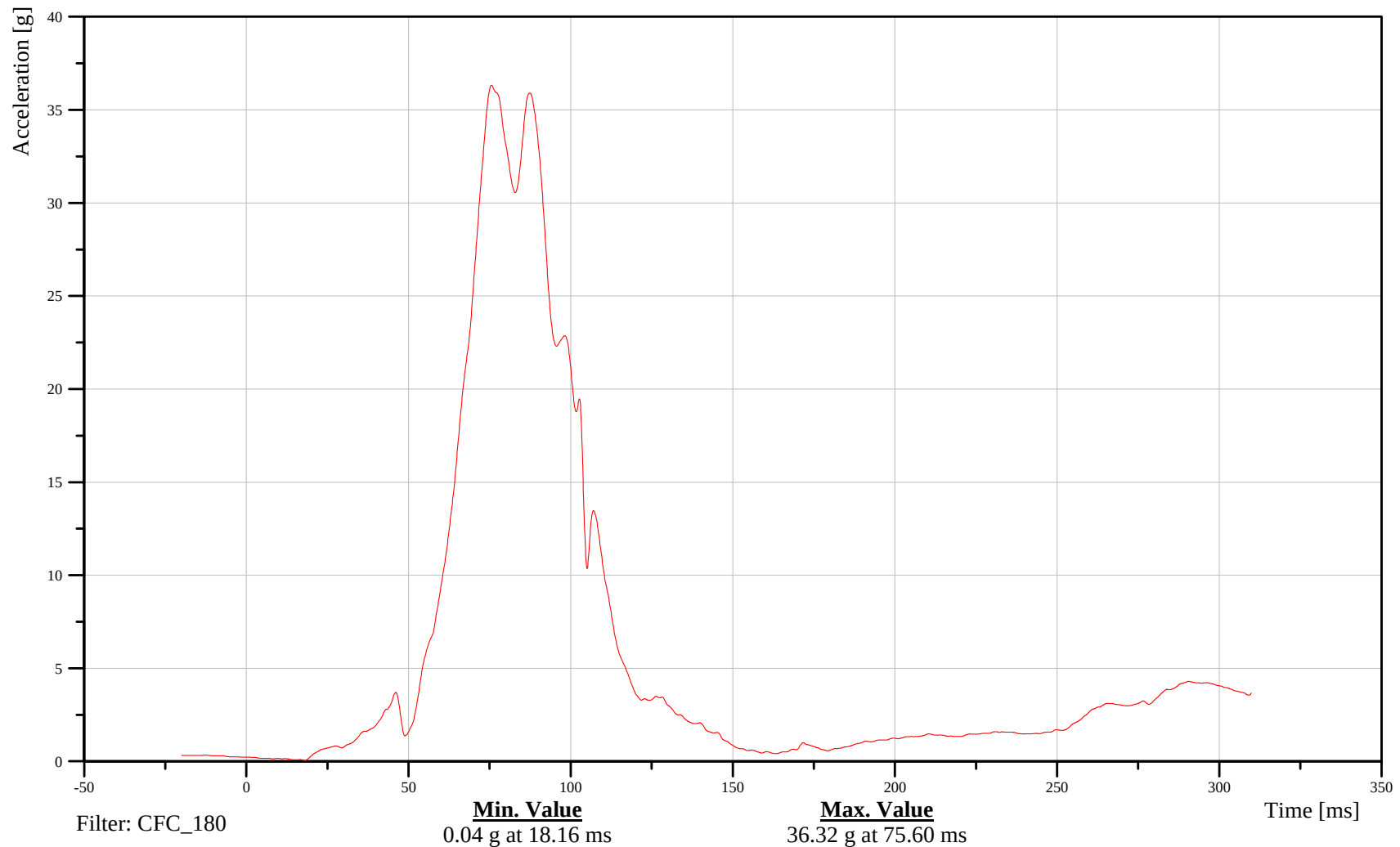
Time: 07:16

Customer: VRTC

11CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

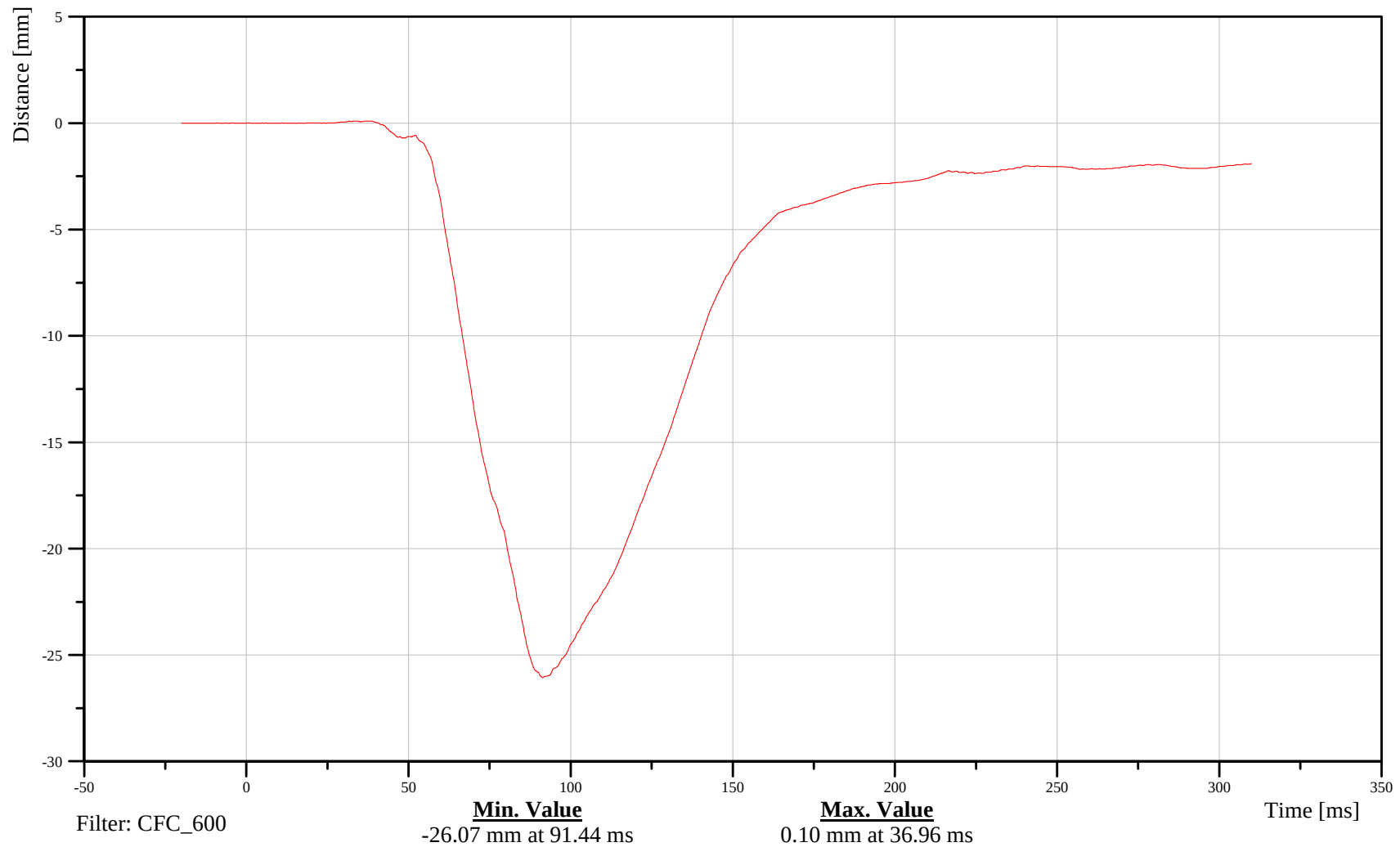
Bullet Driver Chest Displacement

Customer: VRTC

11CHST0000H3DSXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

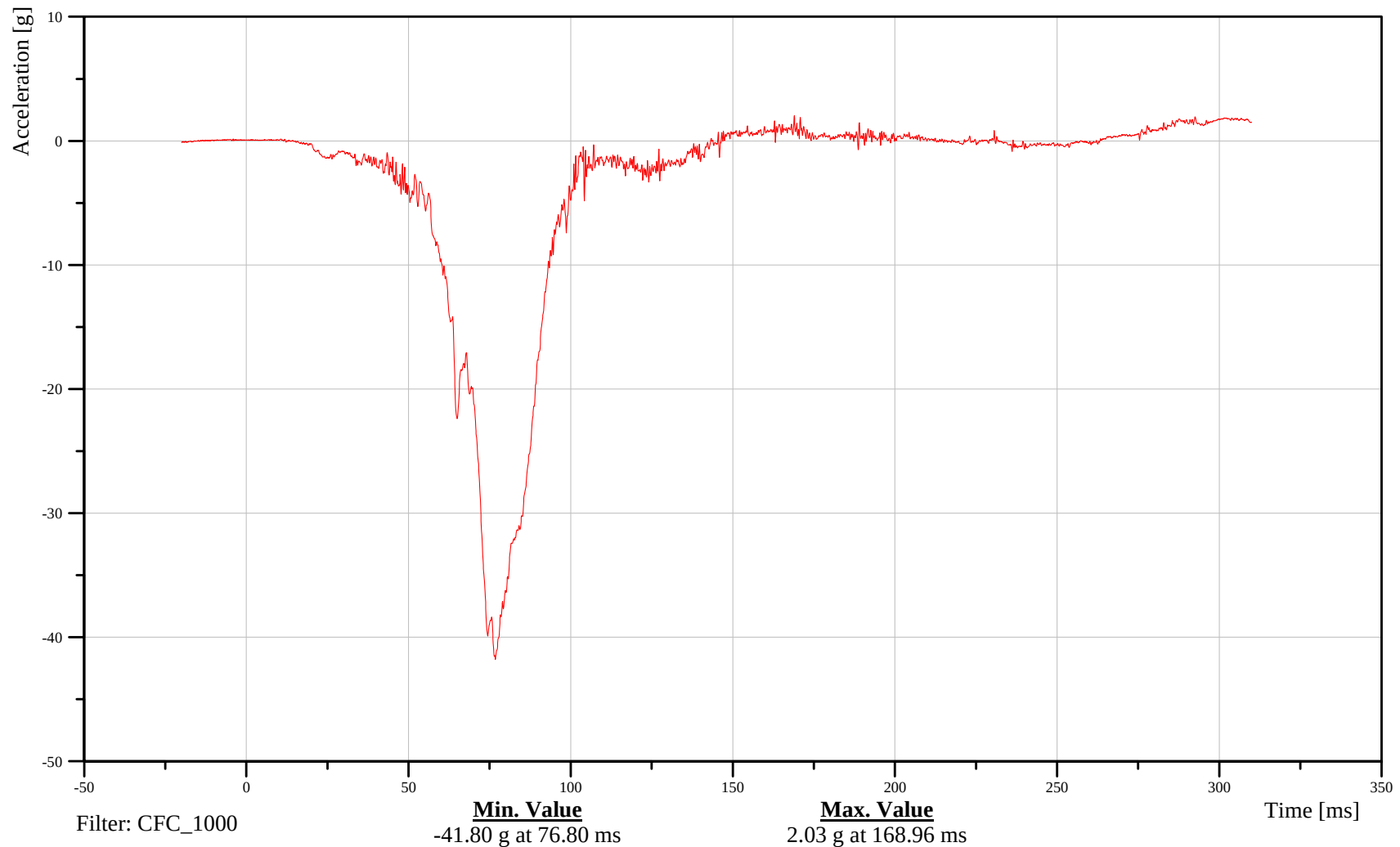
Bullet Driver Pelvis CG X-Axis Acceleration

Customer: VRTC

11PELVCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

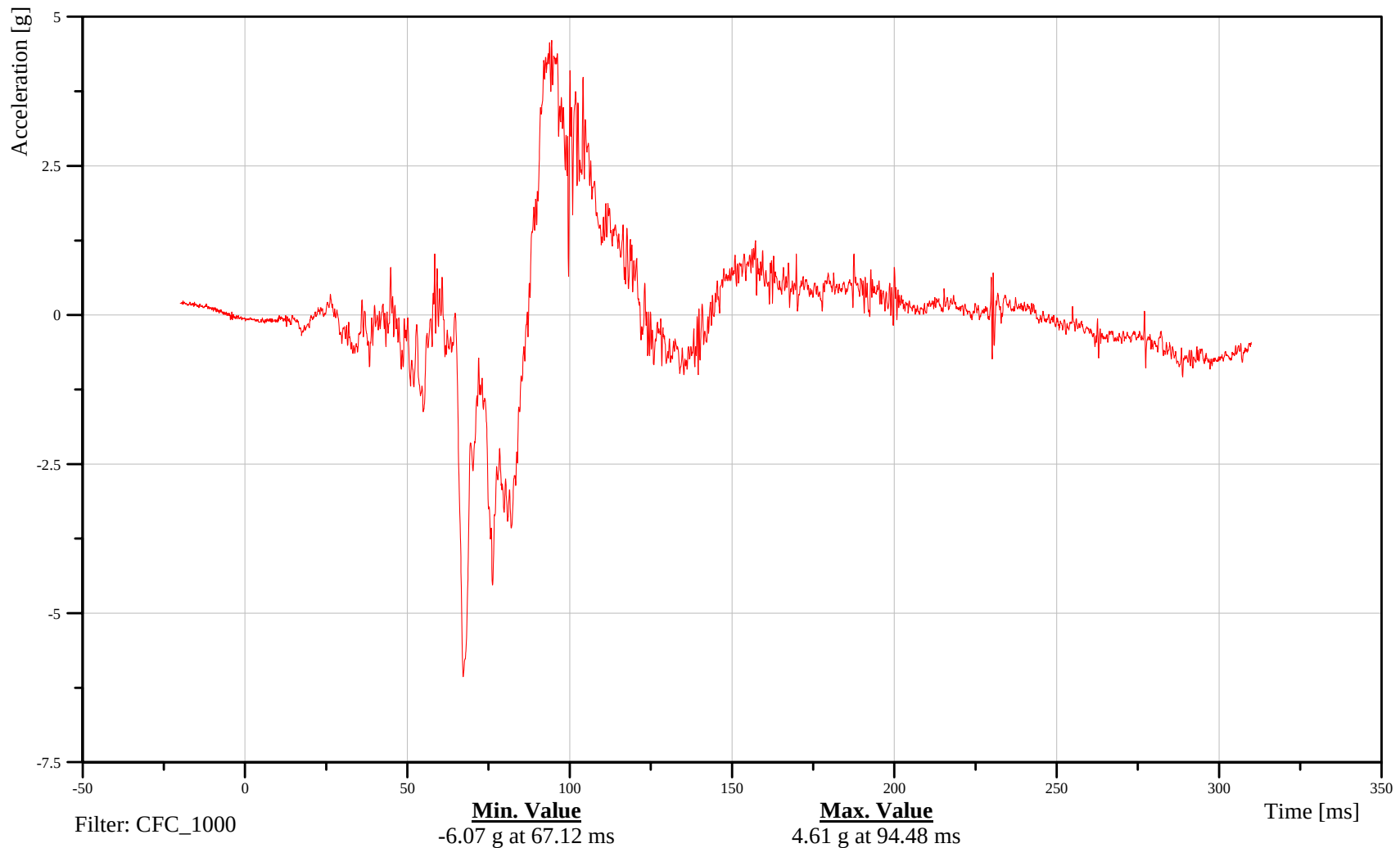
Bullet Driver Pelvis CG Y-Axis Acceleration

Customer: VRTC

11PELVCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

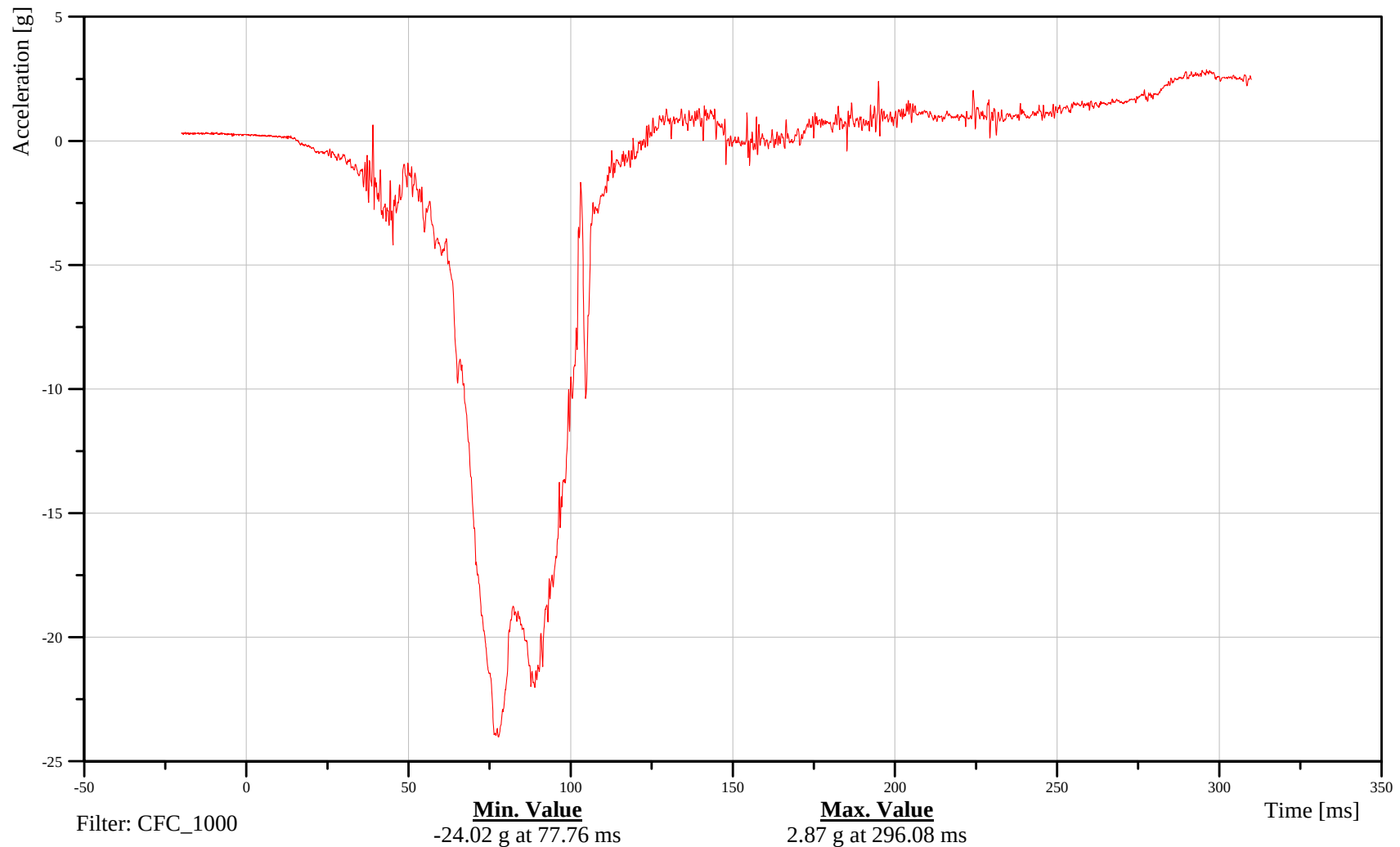
Bullet Driver Pelvis CG Z-Axis Acceleration

Customer: VRTC

11PELVCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Pelvis CG Resultant Acceleration

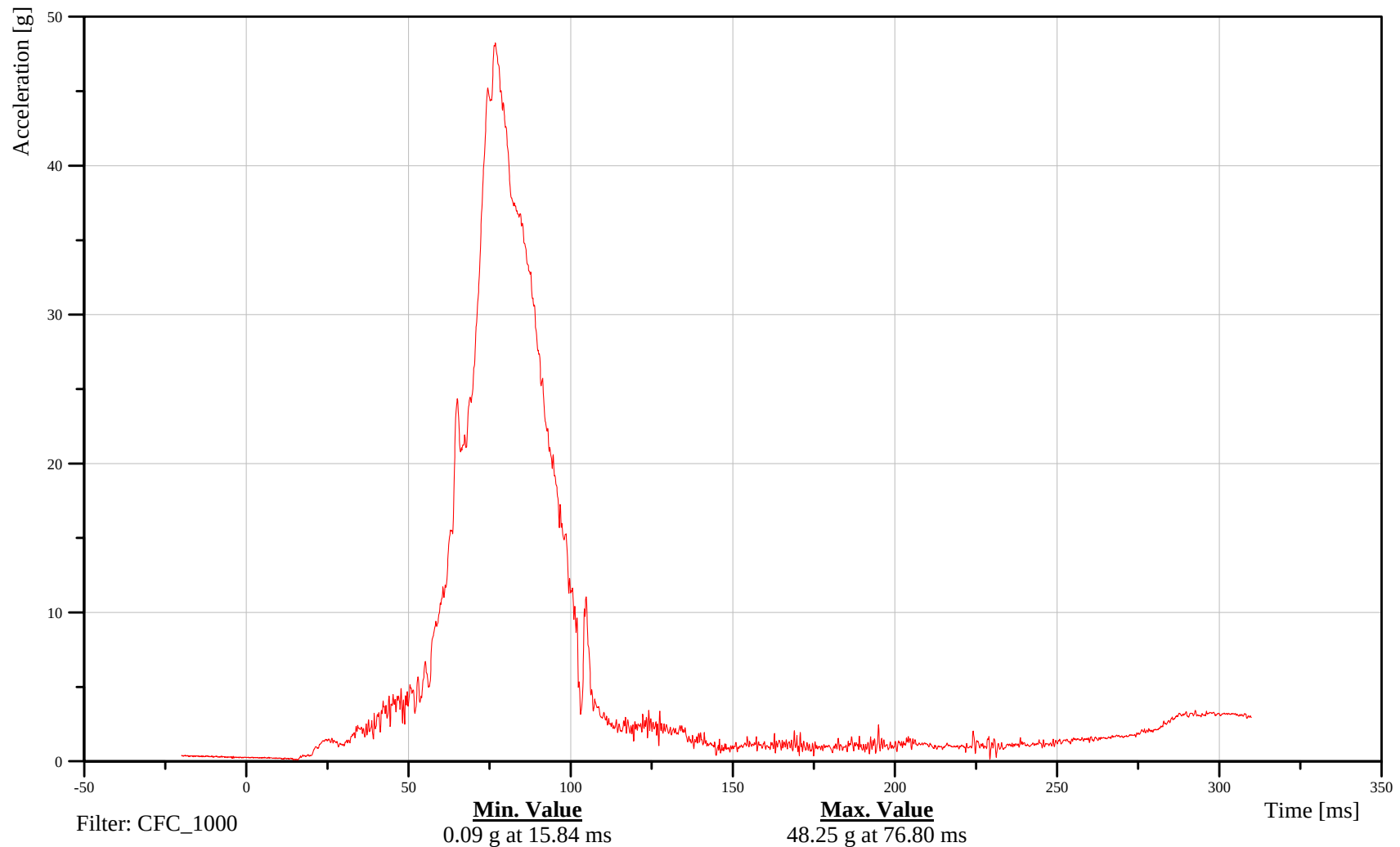
Time: 07:16

Customer: VRTC

11PELVCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Left Femur Z-Axis Force

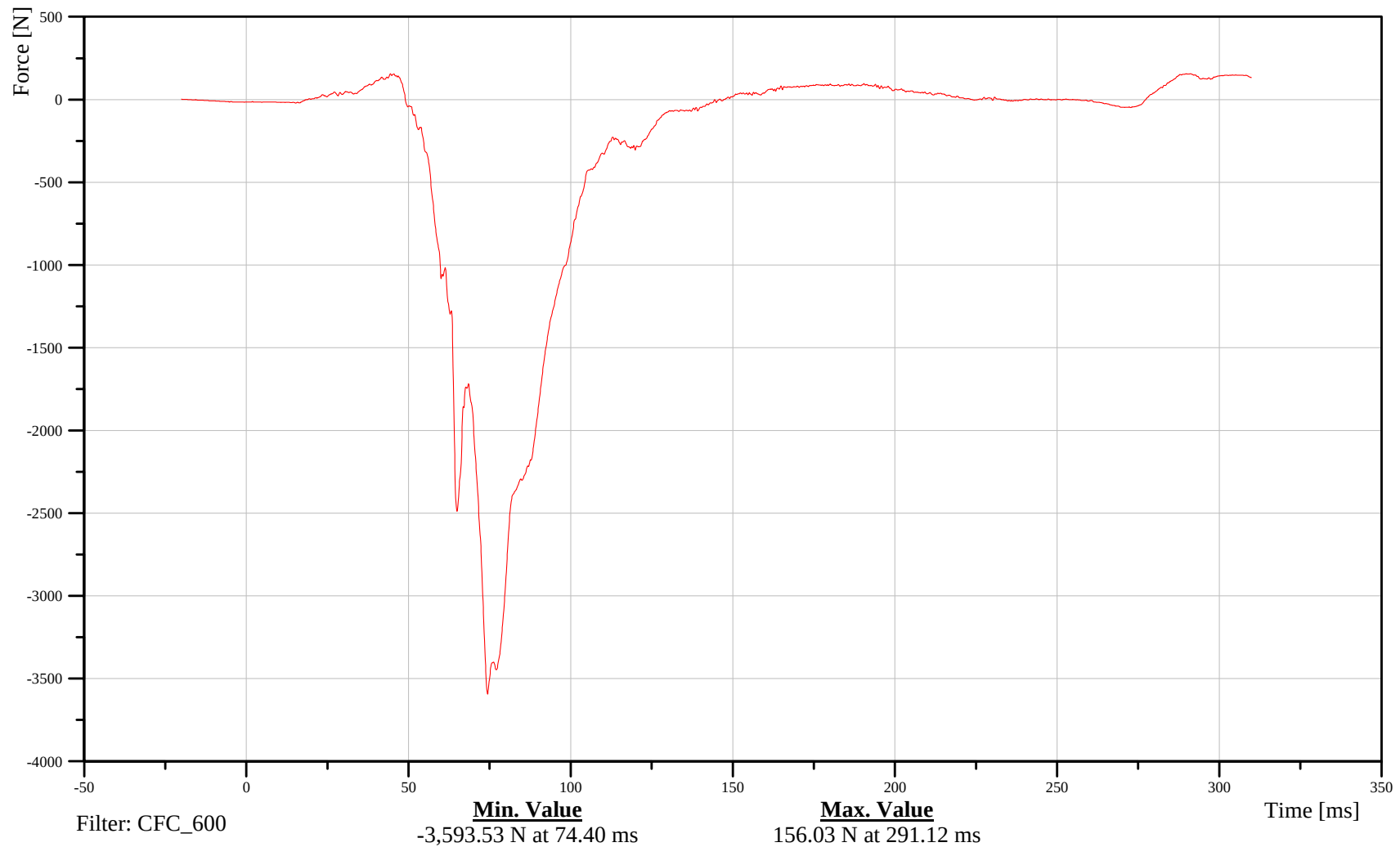
Time: 07:16

Customer: VRTC

11FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

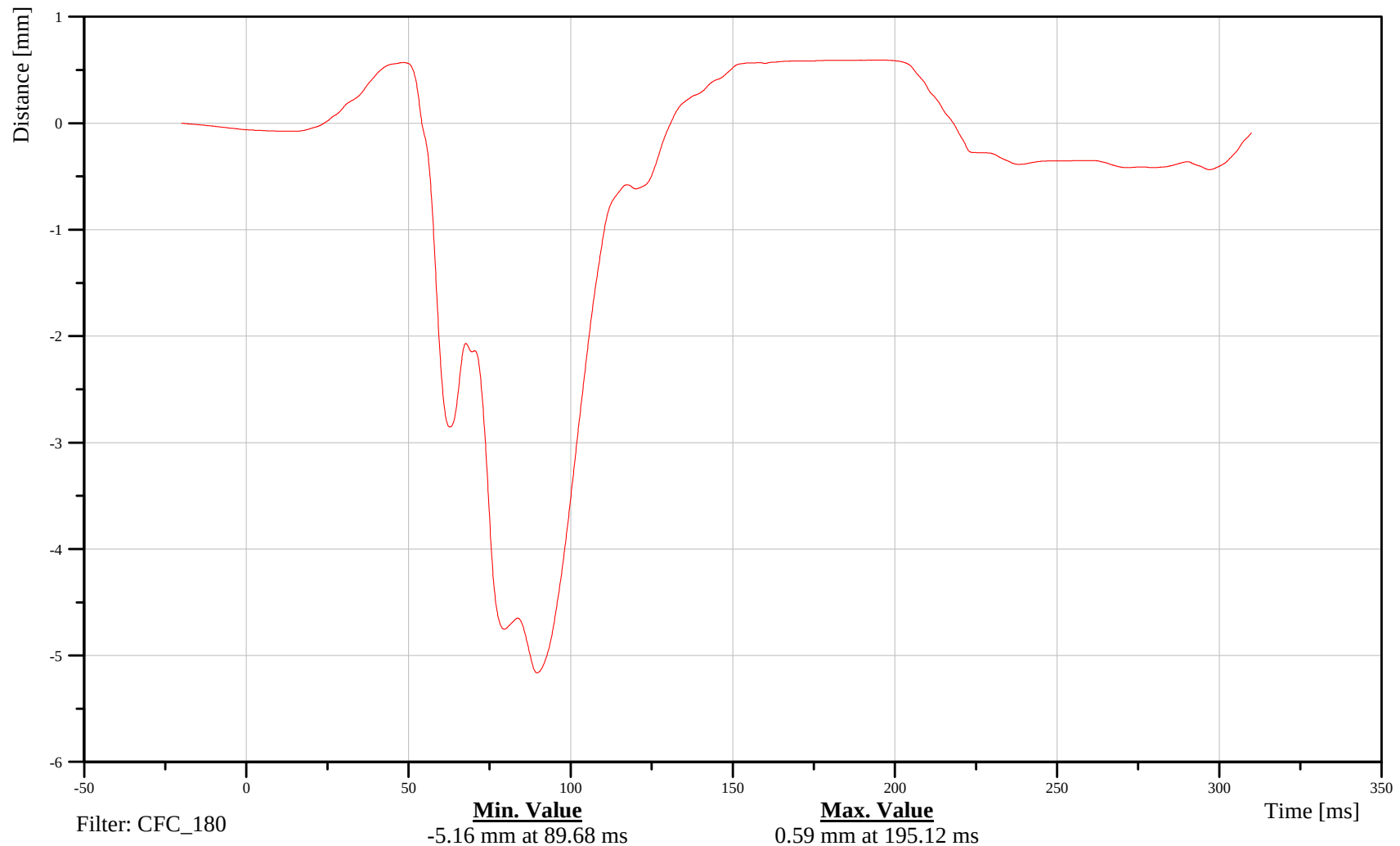
Bullet Driver Left Knee Displacement

Customer: VRTC

11KNSLLE00H3DSXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

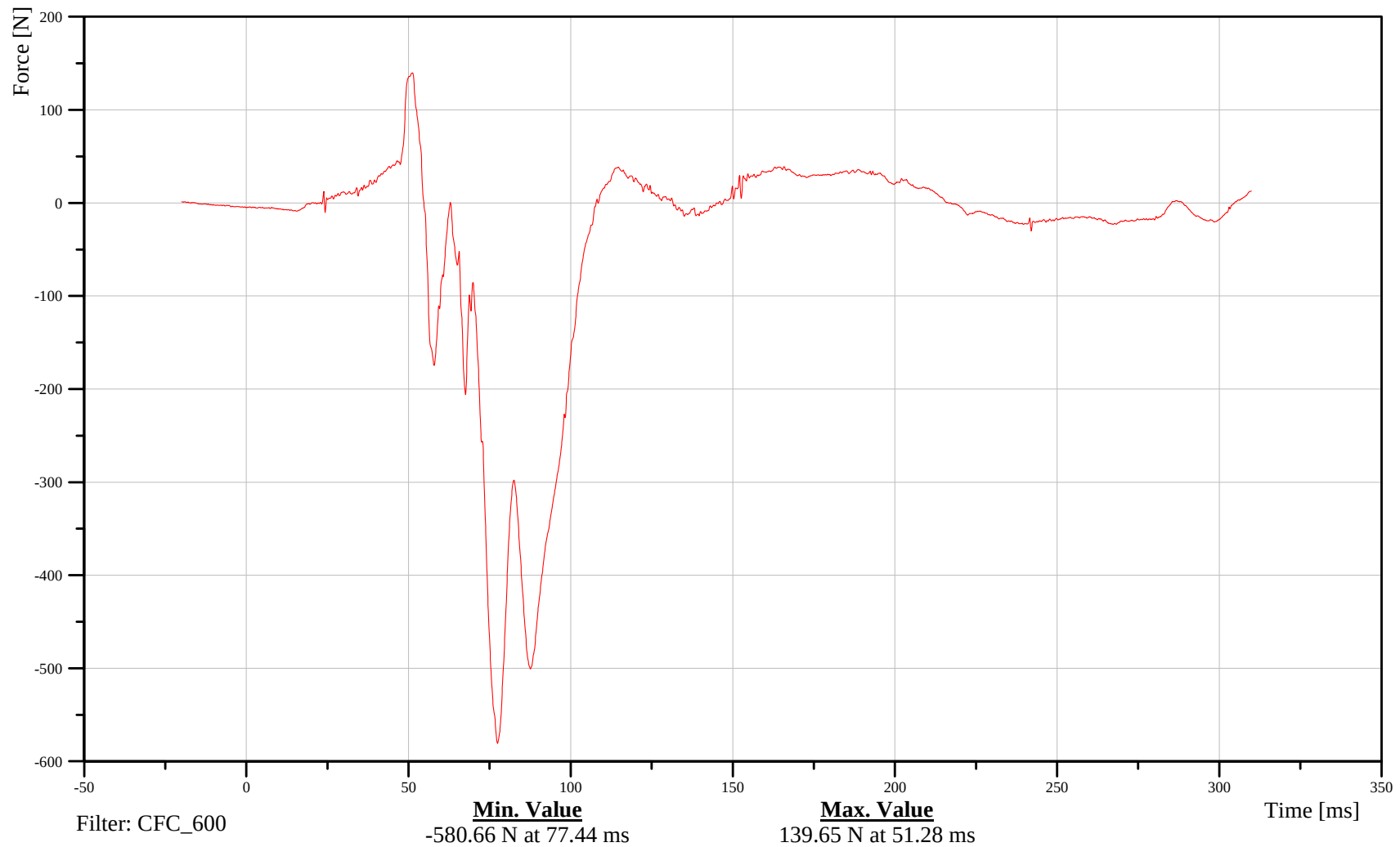
Bullet Driver Left Upper Tibia X-Axis Force

Customer: VRTC

11TIBILULXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

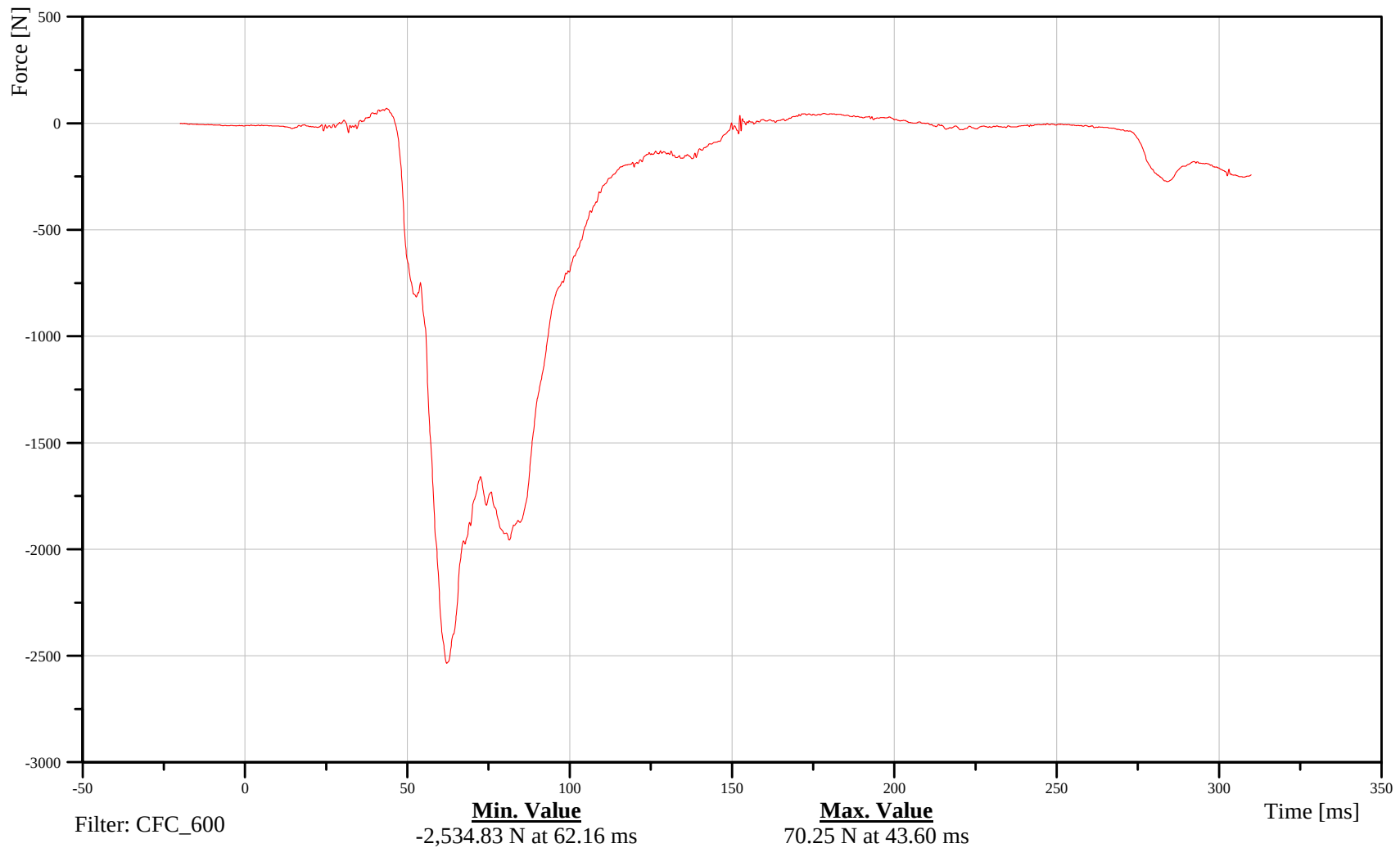
Bullet Driver Left Upper Tibia Z-Axis Force

Customer: VRTC

11TIBILULXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Left Upper Tibia Moment About X Axis

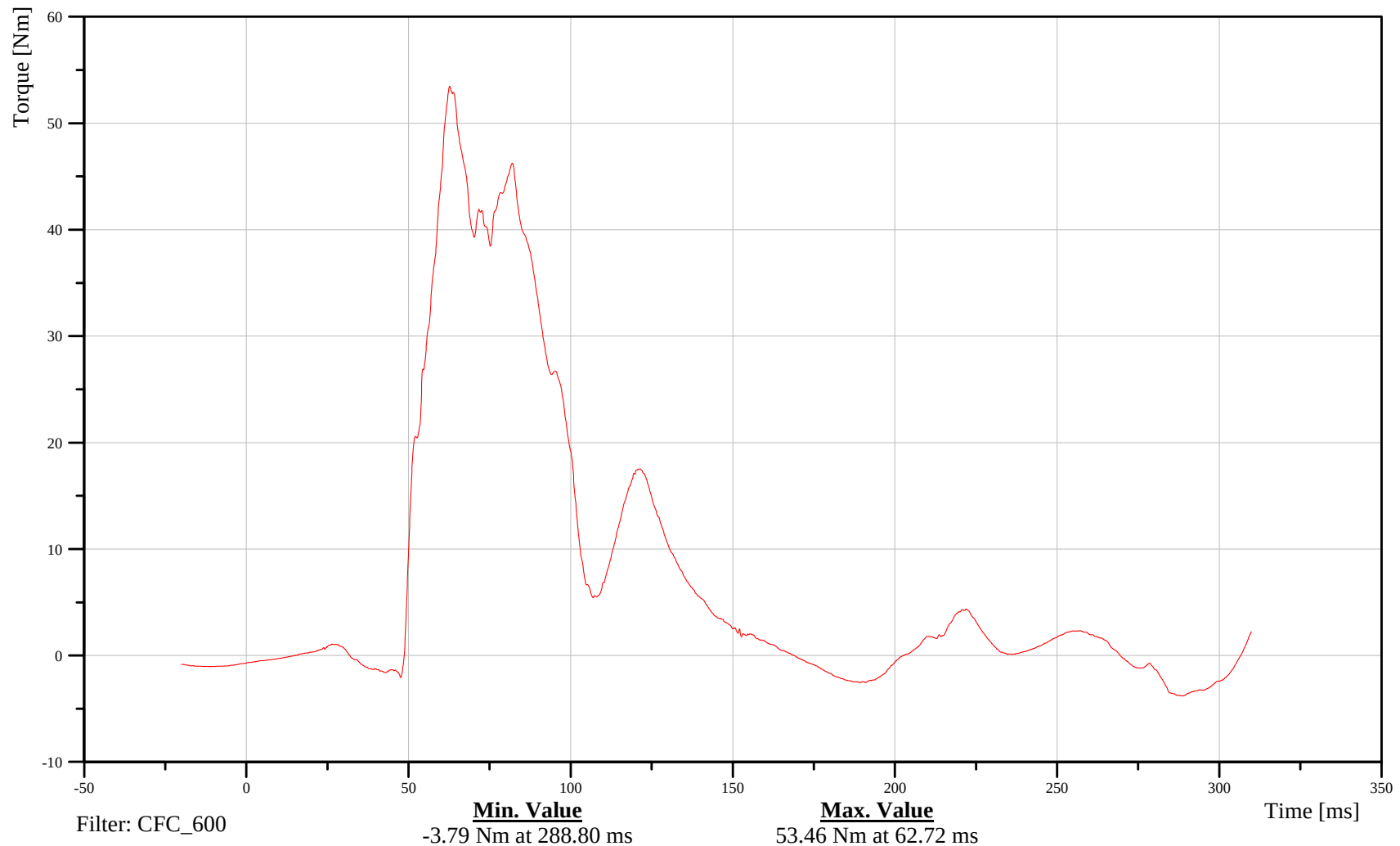
Time: 07:16

Customer: VRTC

11TIBILULXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

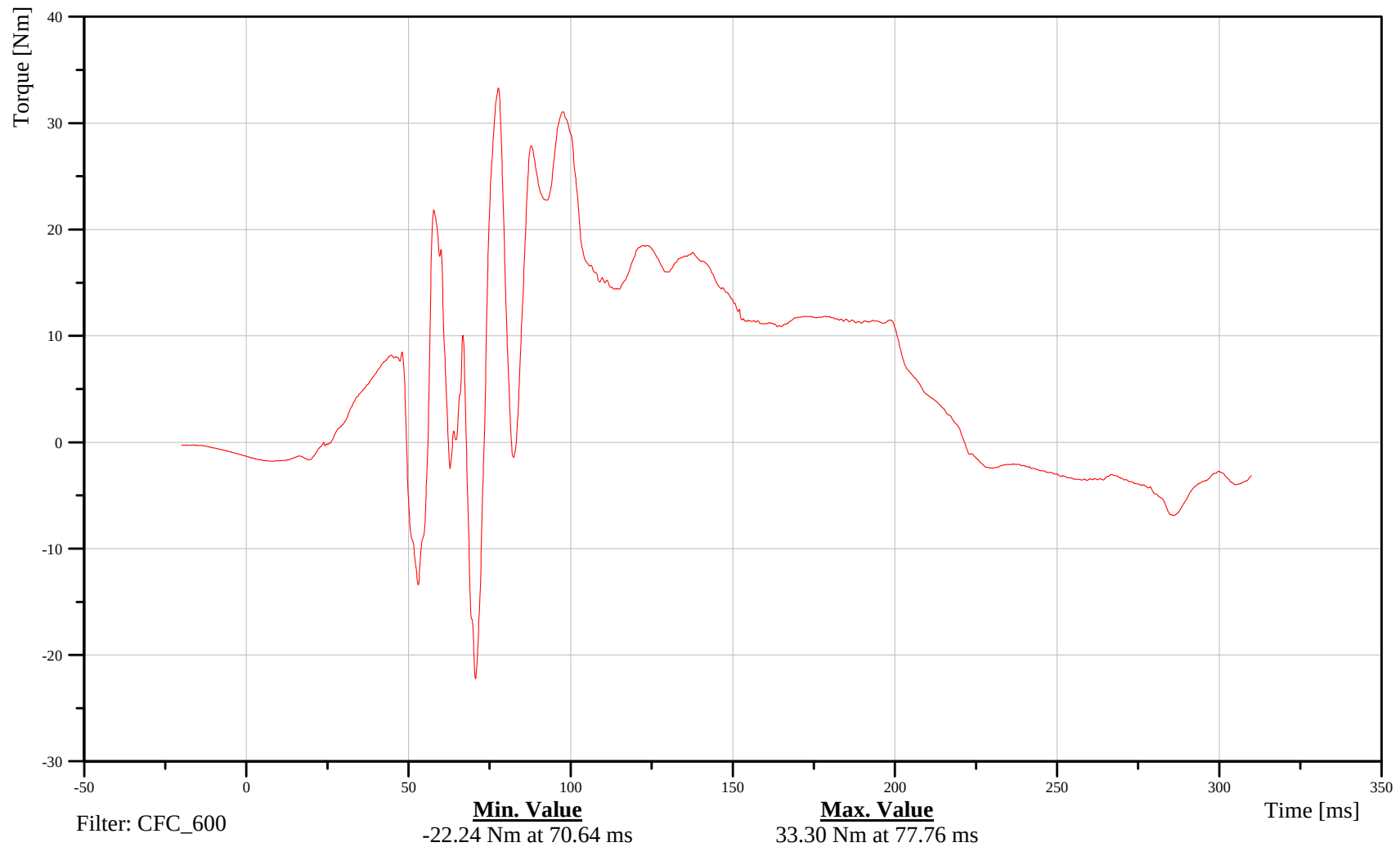
Bullet Driver Left Upper Tibia Moment About Y Axis

Customer: VRTC

11TIBILULXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

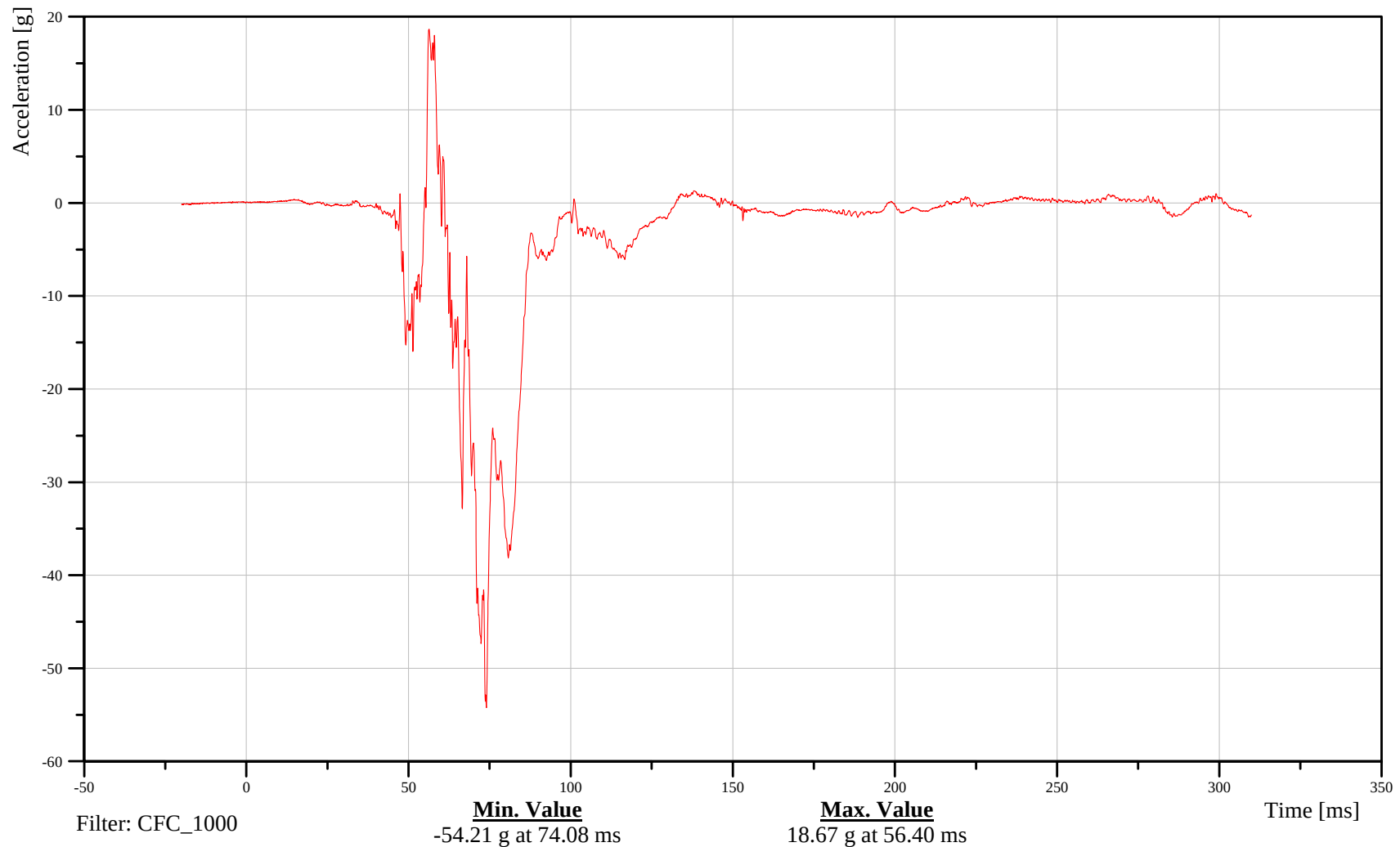
Bullet Driver Left Tibia X-Axis Acceleration

Customer: VRTC

11TIBILELXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

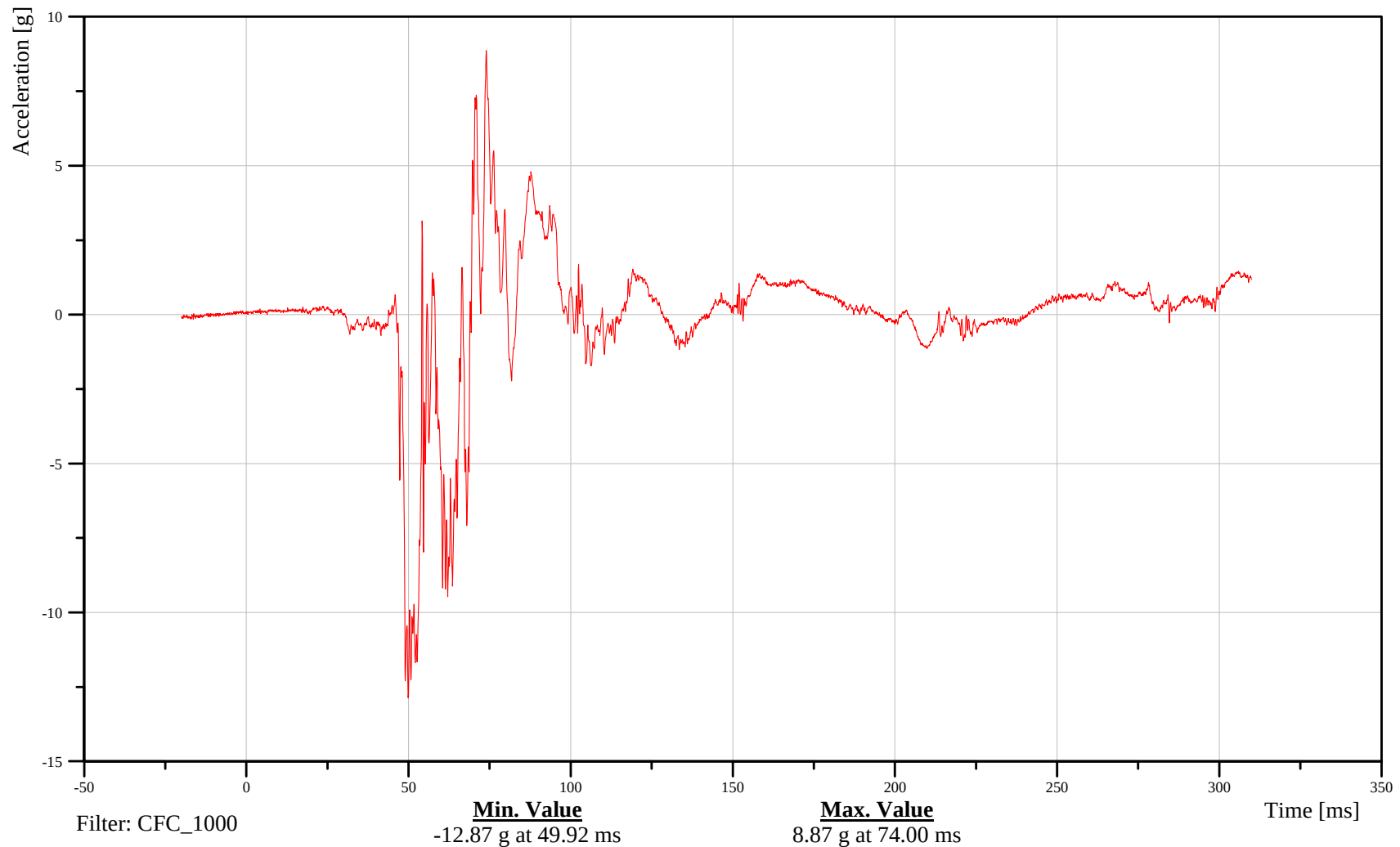
Bullet Driver Left Tibia Y-Axis Acceleration

Customer: VRTC

11TIBILELXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

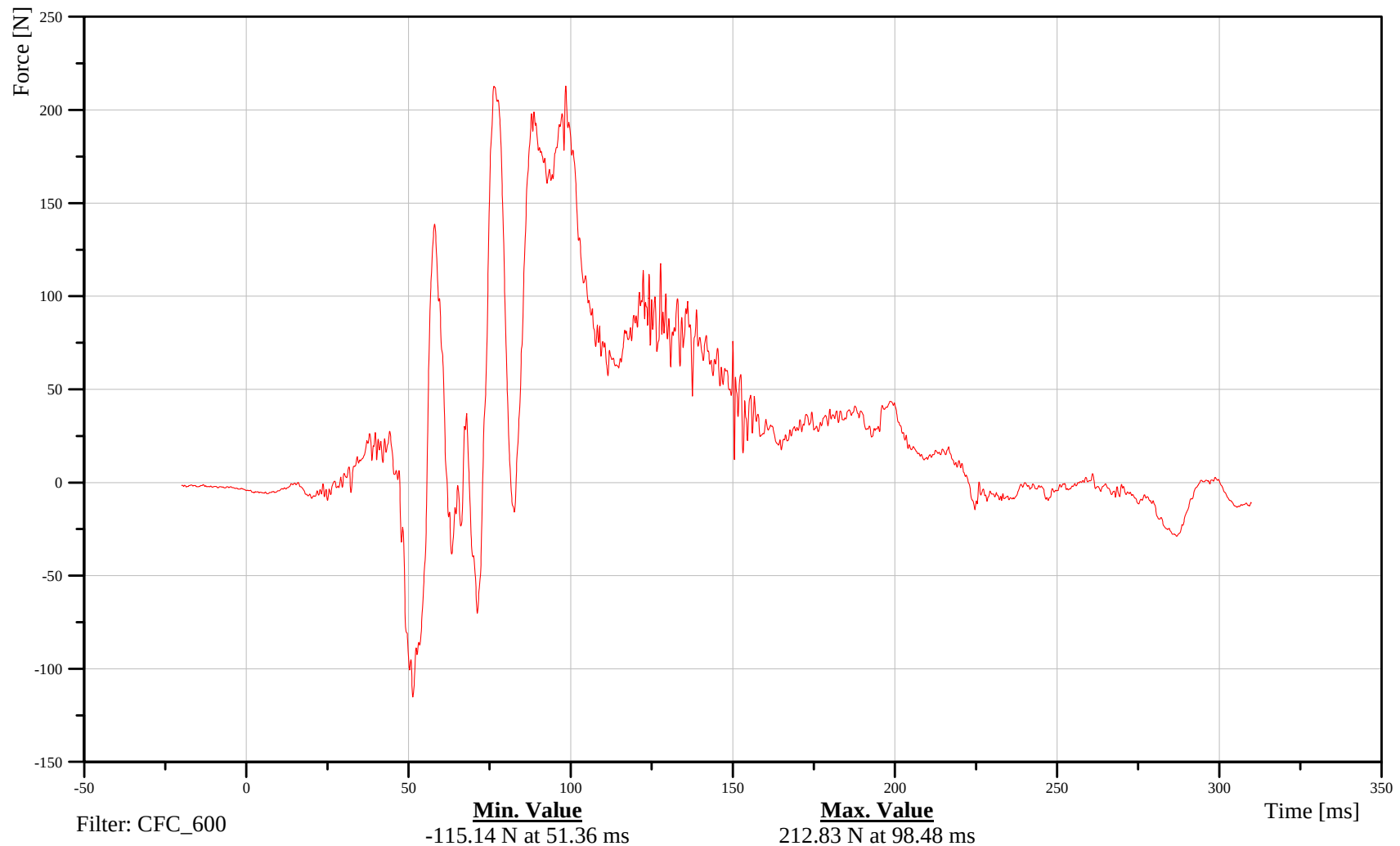
Bullet Driver Left Lower Tibia X-Axis Force

Customer: VRTC

11TIBILLXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

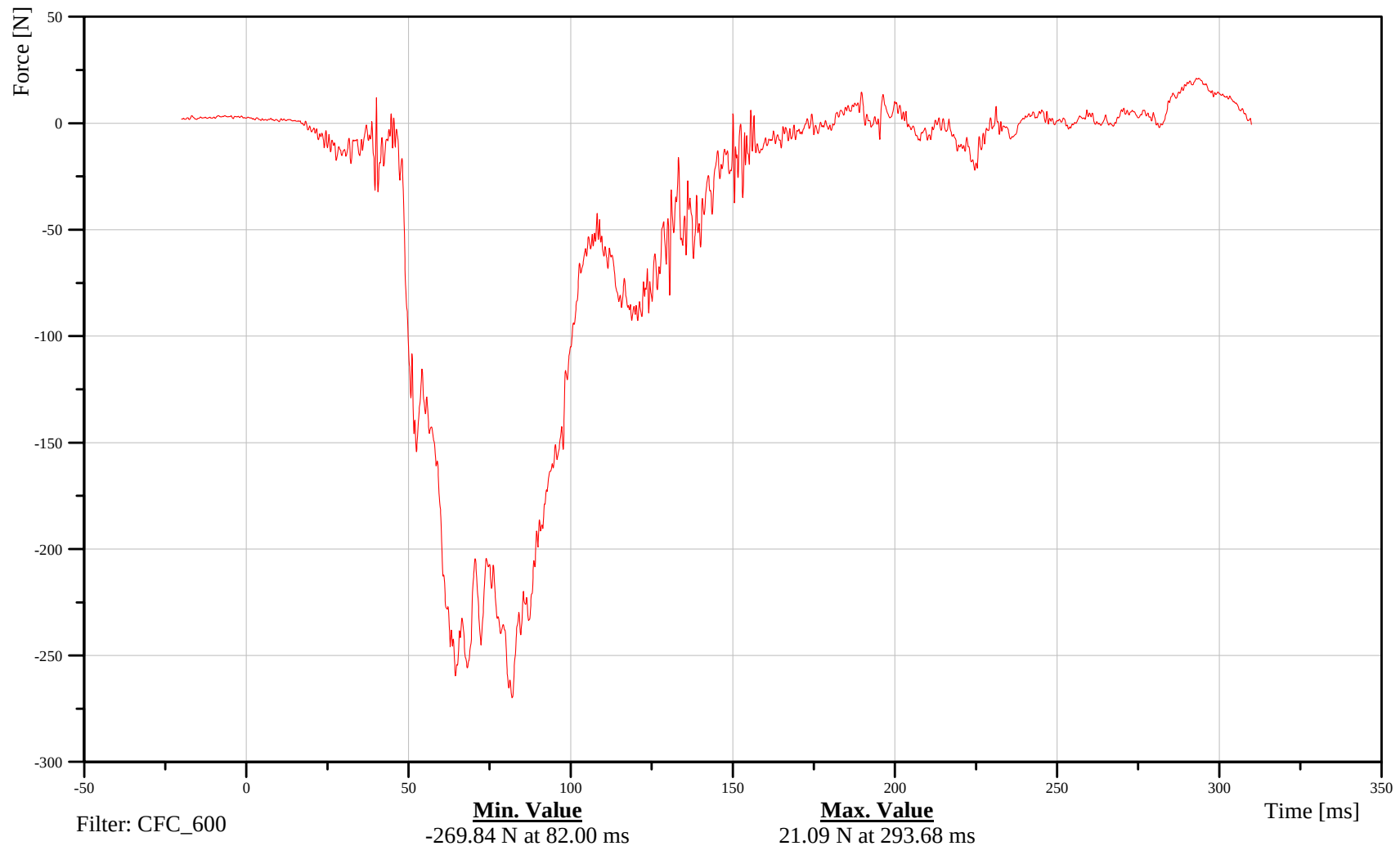
Bullet Driver Left Lower Tibia Y-Axis Force

Customer: VRTC

11TIBILLXH3FOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

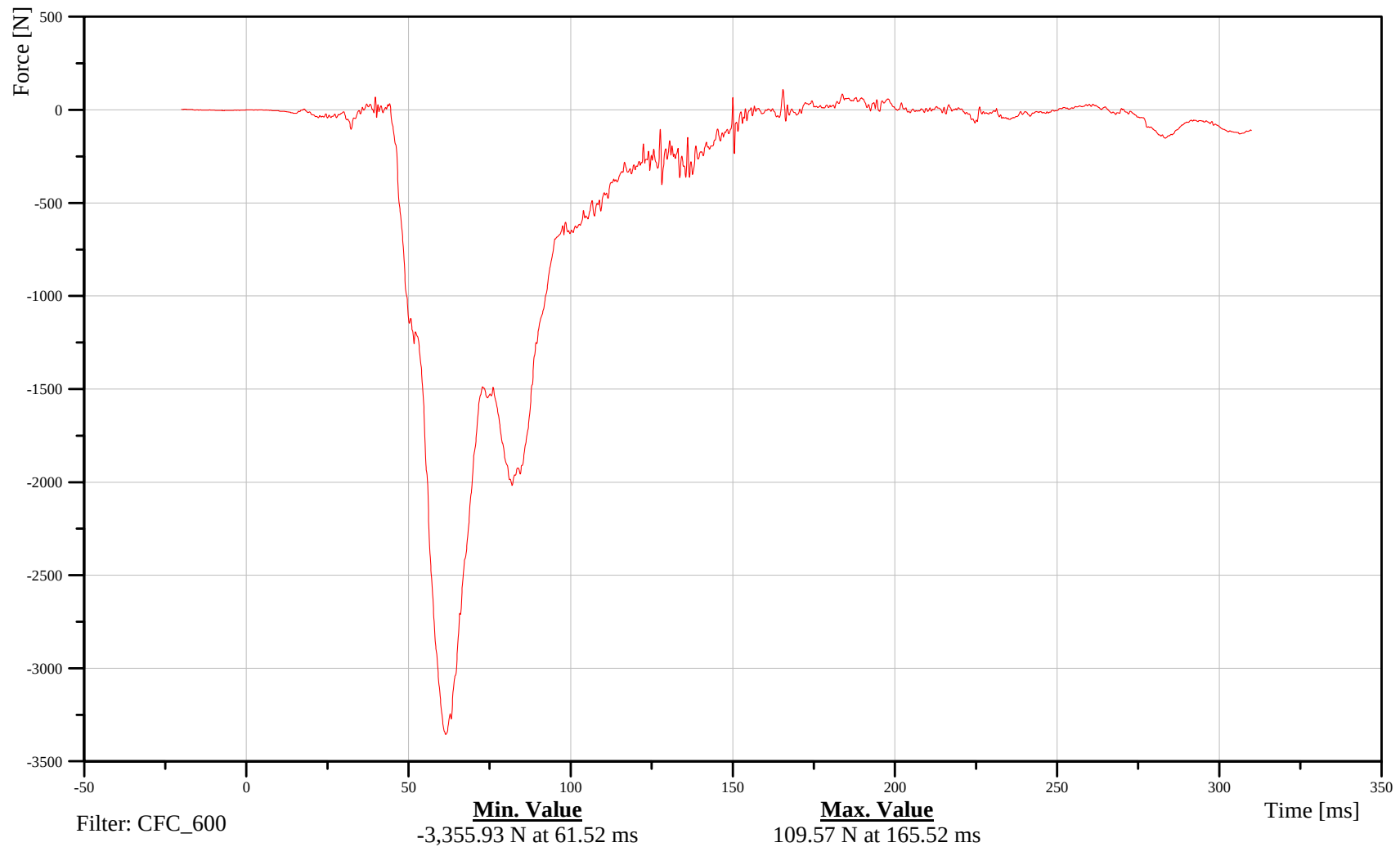
Bullet Driver Left Lower Tibia Z-Axis Force

Customer: VRTC

11TIBILLXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Left Lower Tibia Moment About X Axis

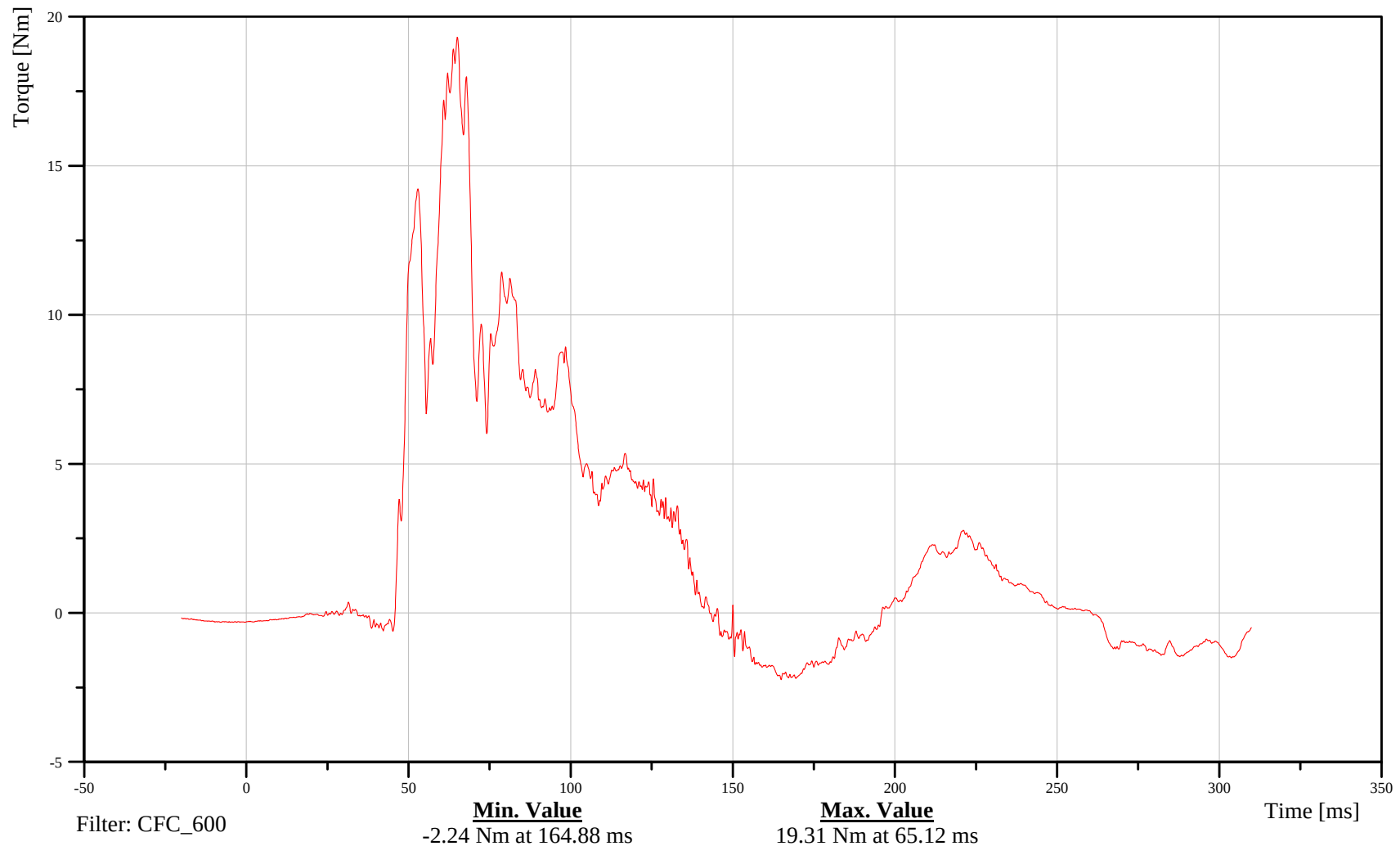
Time: 07:16

Customer: VRTC

11TIBILLXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

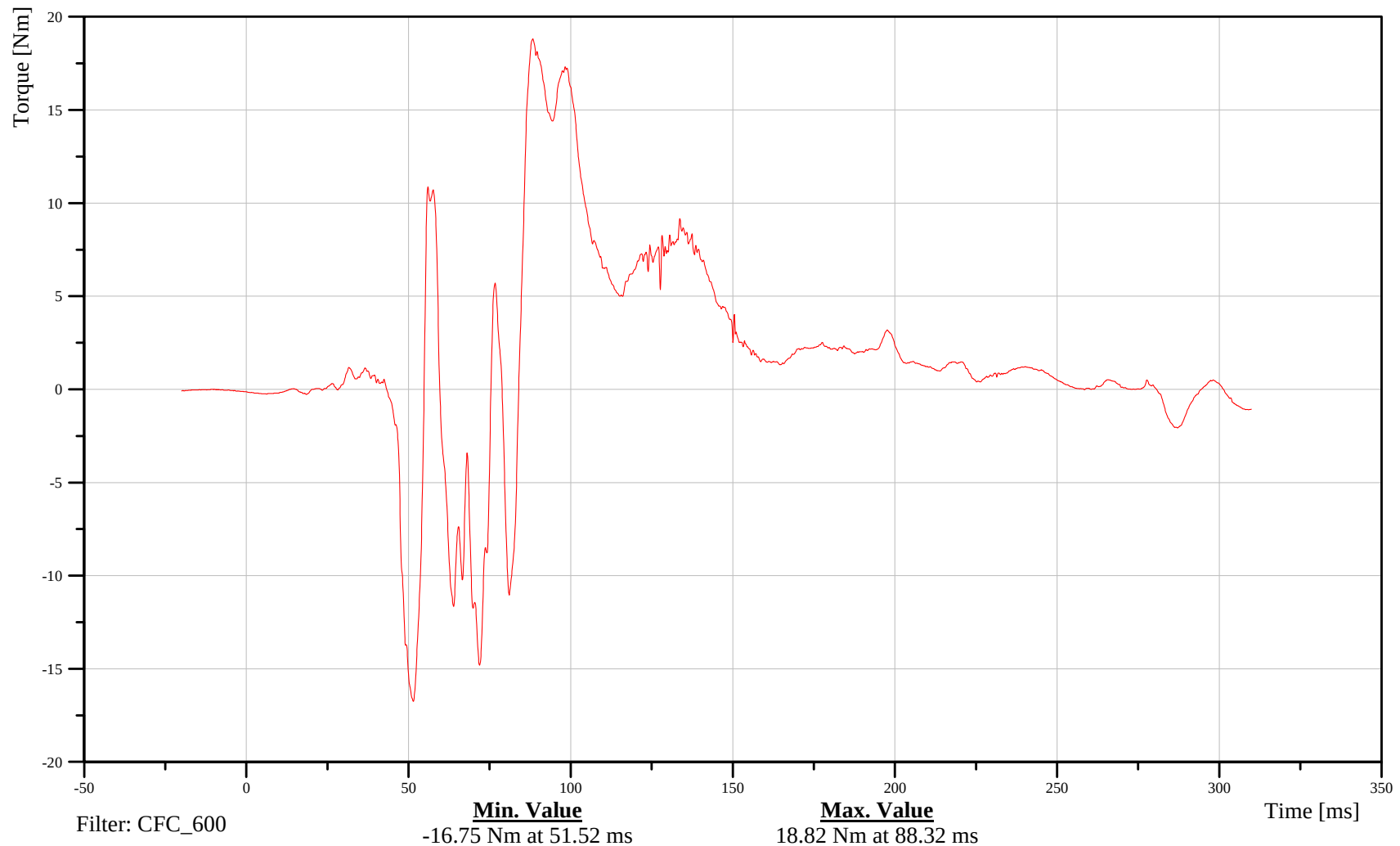
Bullet Driver Left Lower Tibia Moment About Y Axis

Customer: VRTC

11TIBILLXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

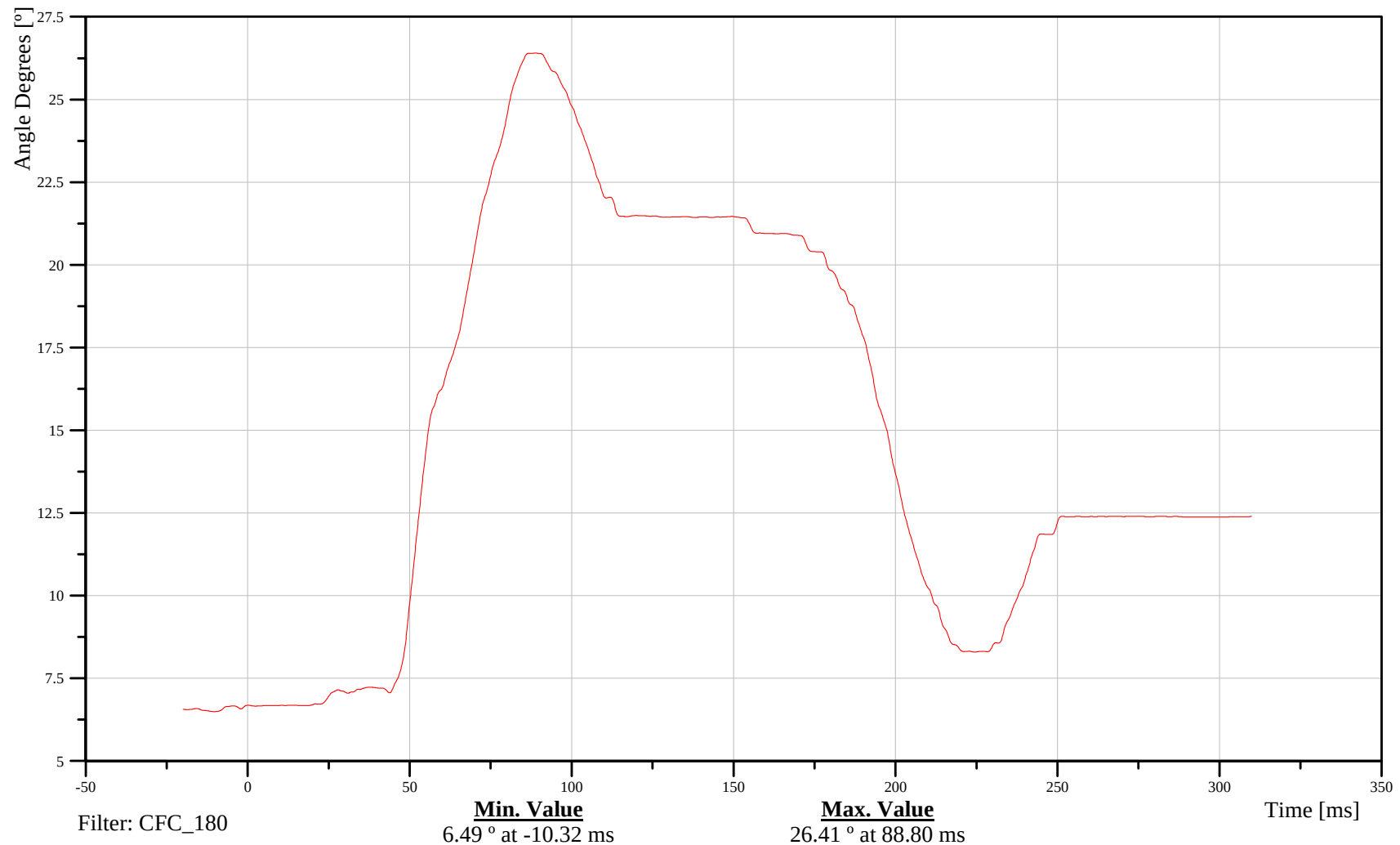
Bullet Driver Left Foot X-Axis Rotation

Customer: VRTC

11FOOTLELXH3ANXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Left Foot Y-Axis Rotation

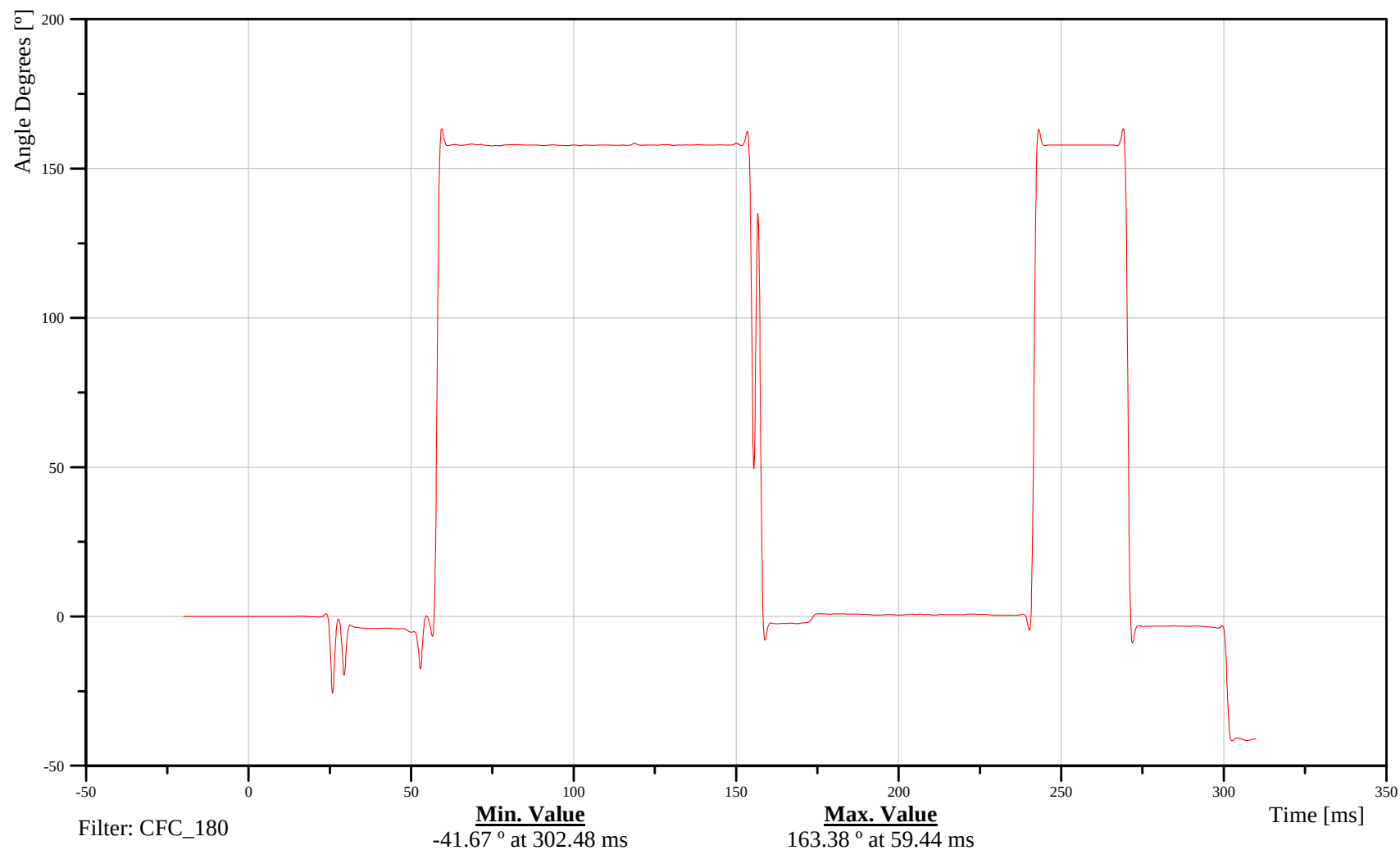
Time: 07:16

Customer: VRTC

11FOOTLELXH3ANYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

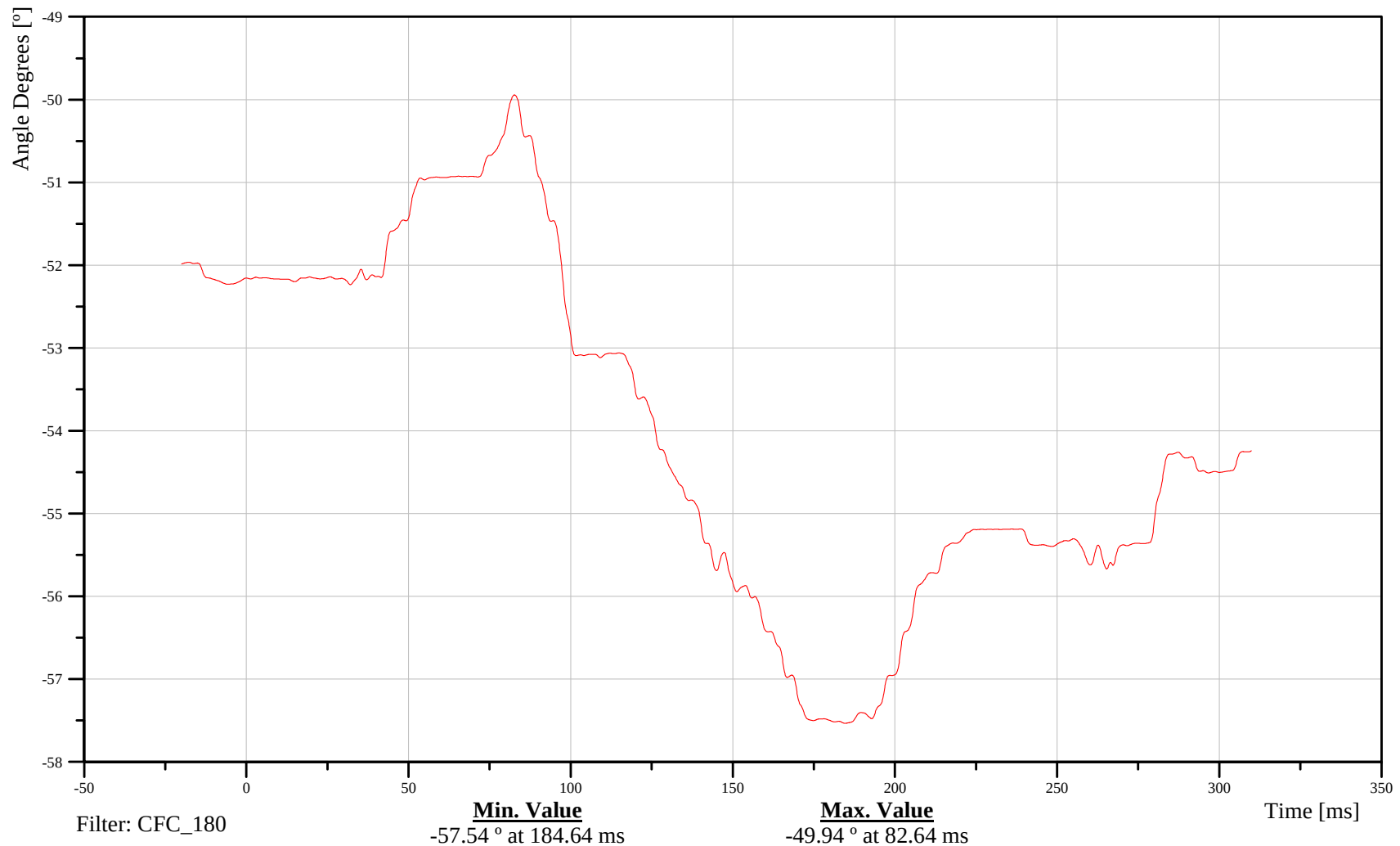
Bullet Driver Left Foot Z-Axis Rotation

Customer: VRTC

11FOOTLELXH3ANZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

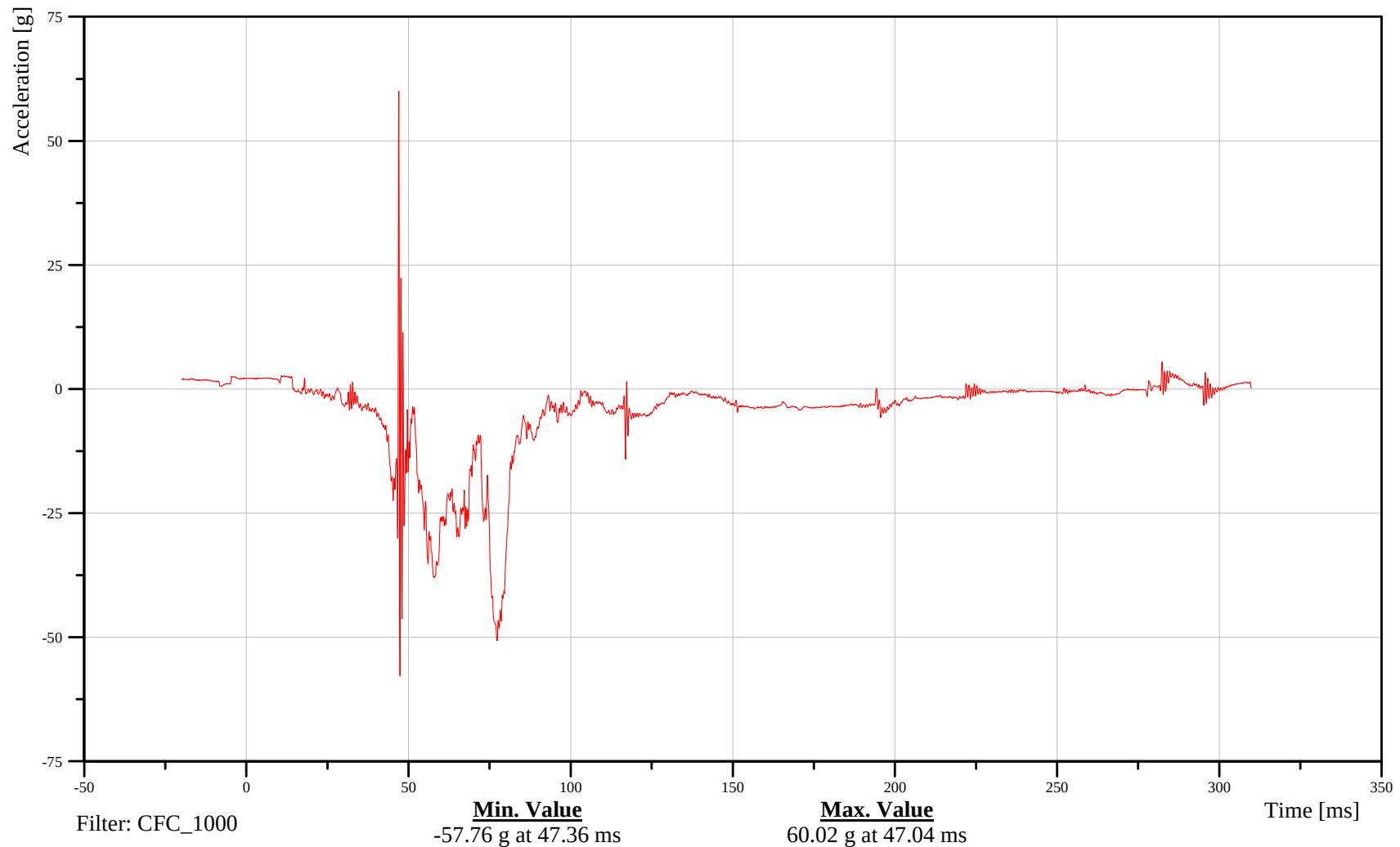
Bullet Driver Left Foot X-Axis Acceleration

Customer: VRTC

11FOOTLELXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Left Foot Y-Axis Acceleration

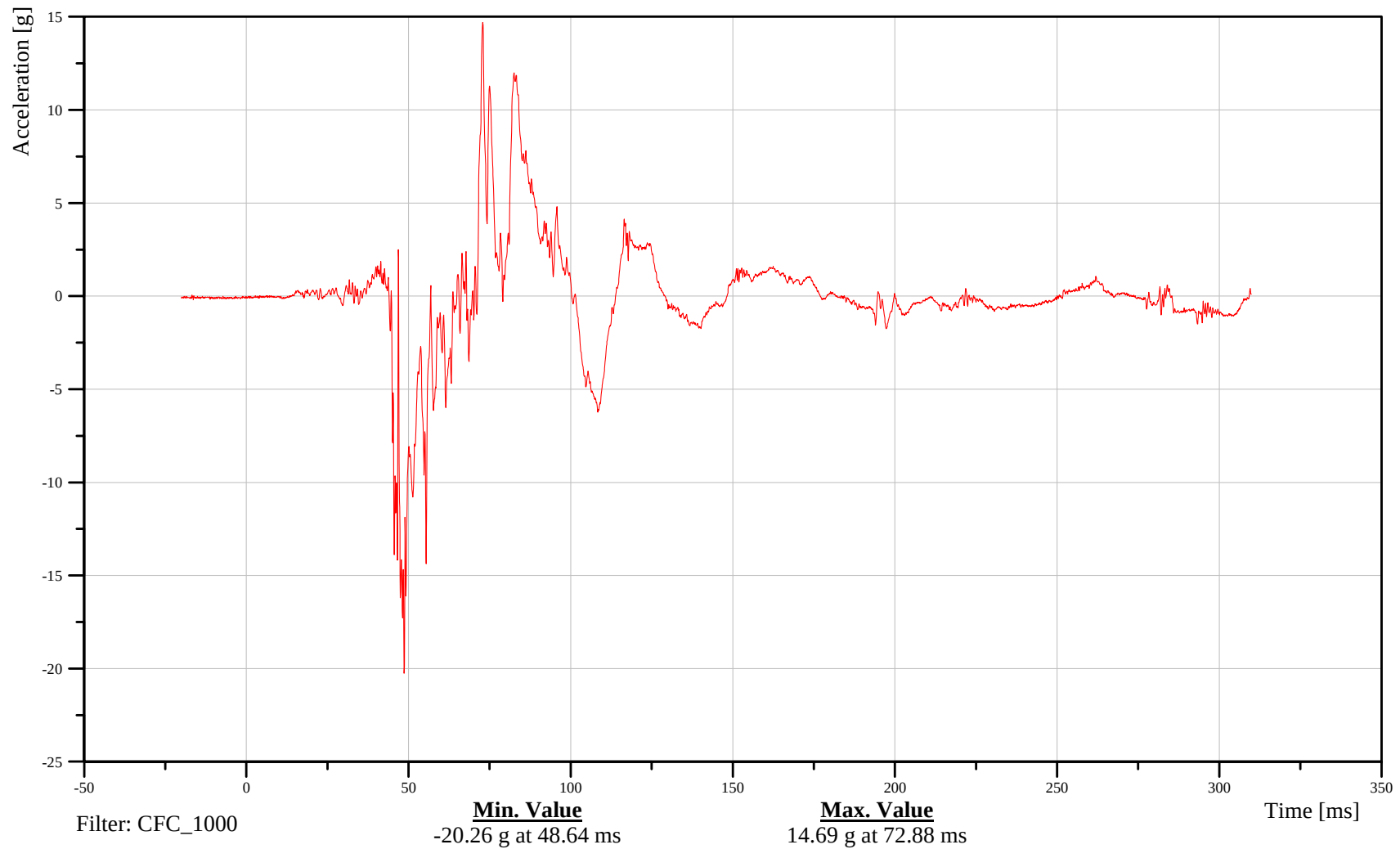
Time: 07:16

Customer: VRTC

11FOOTLELXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Left Foot Z-Axis Acceleration

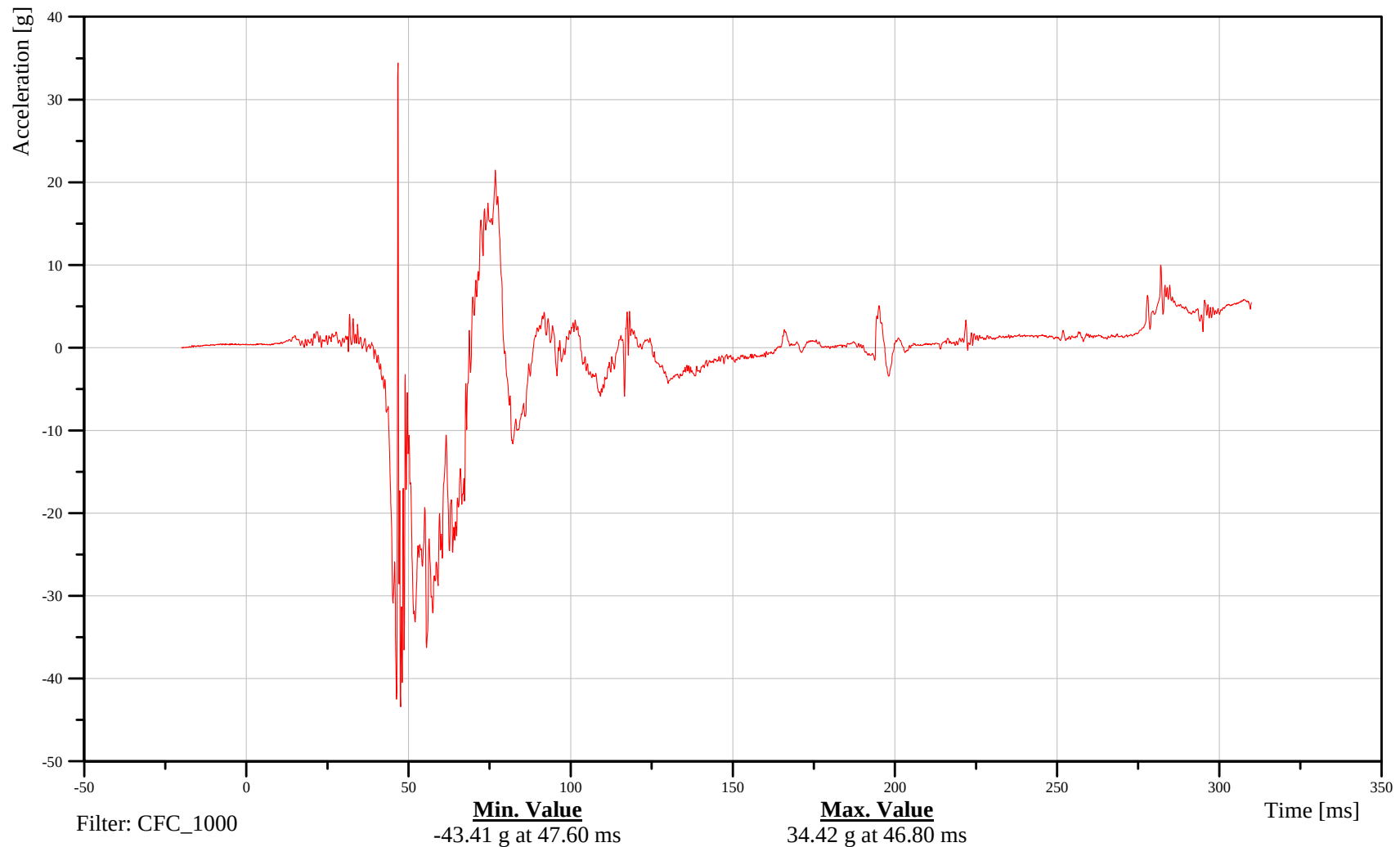
Time: 07:16

Customer: VRTC

11FOOTLELXH3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

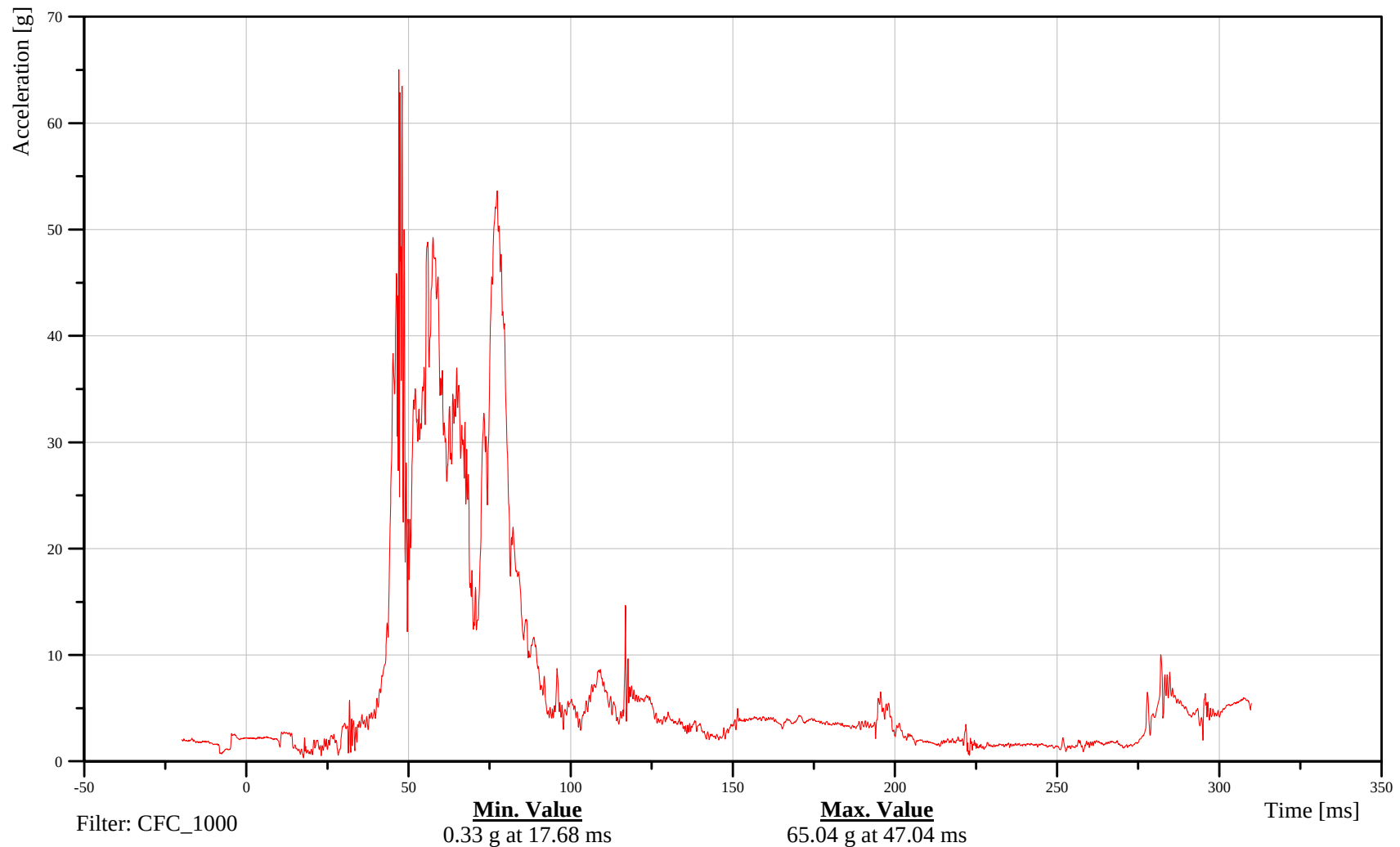
Bullet Driver Left Foot Resultant Acceleration

Customer: VRTC

11FOOTLELXH3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

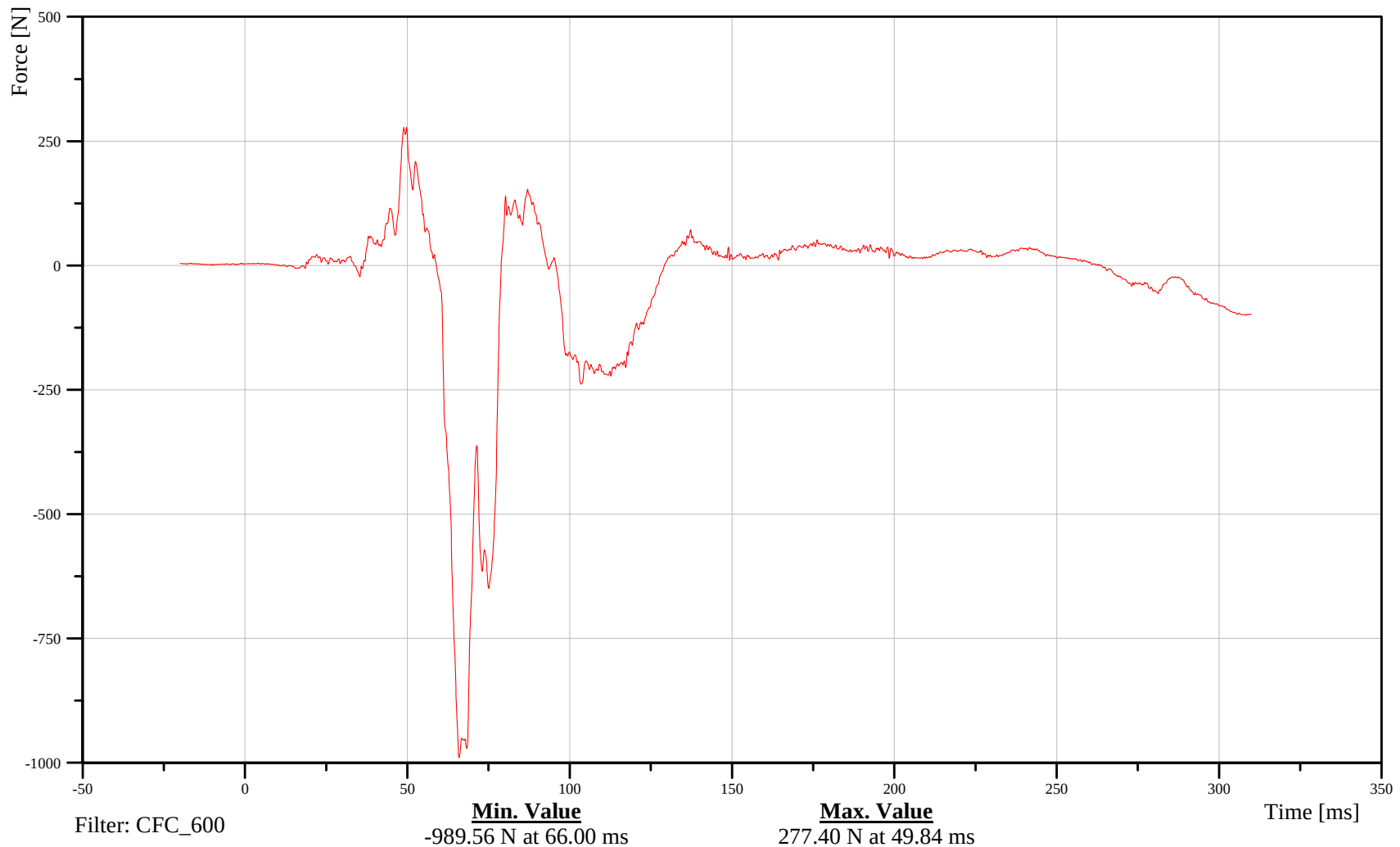
Bullet Driver Right Femur Z-Axis Force

Customer: VRTC

11FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

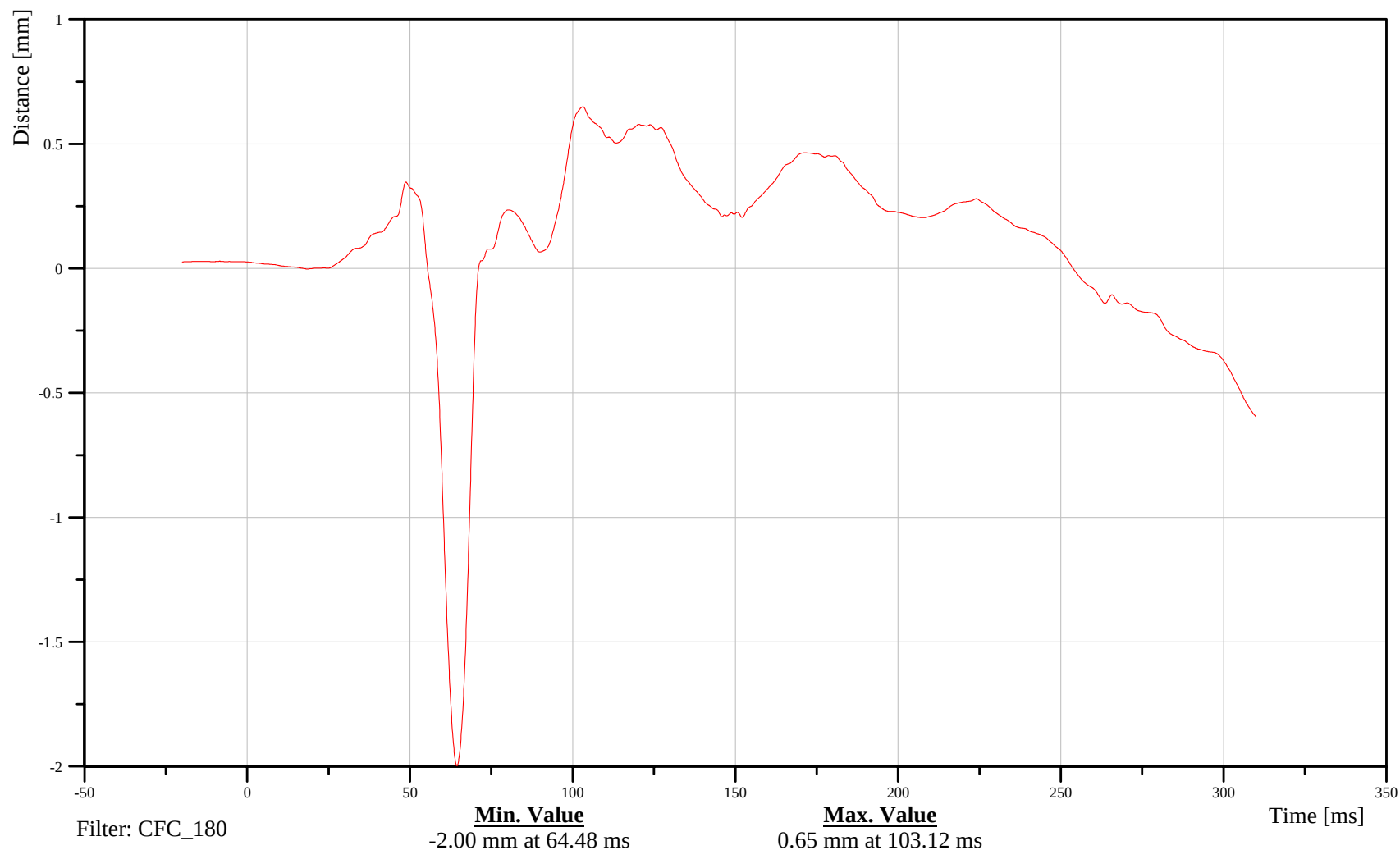
Bullet Driver Right Knee Displacement

Customer: VRTC

11KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

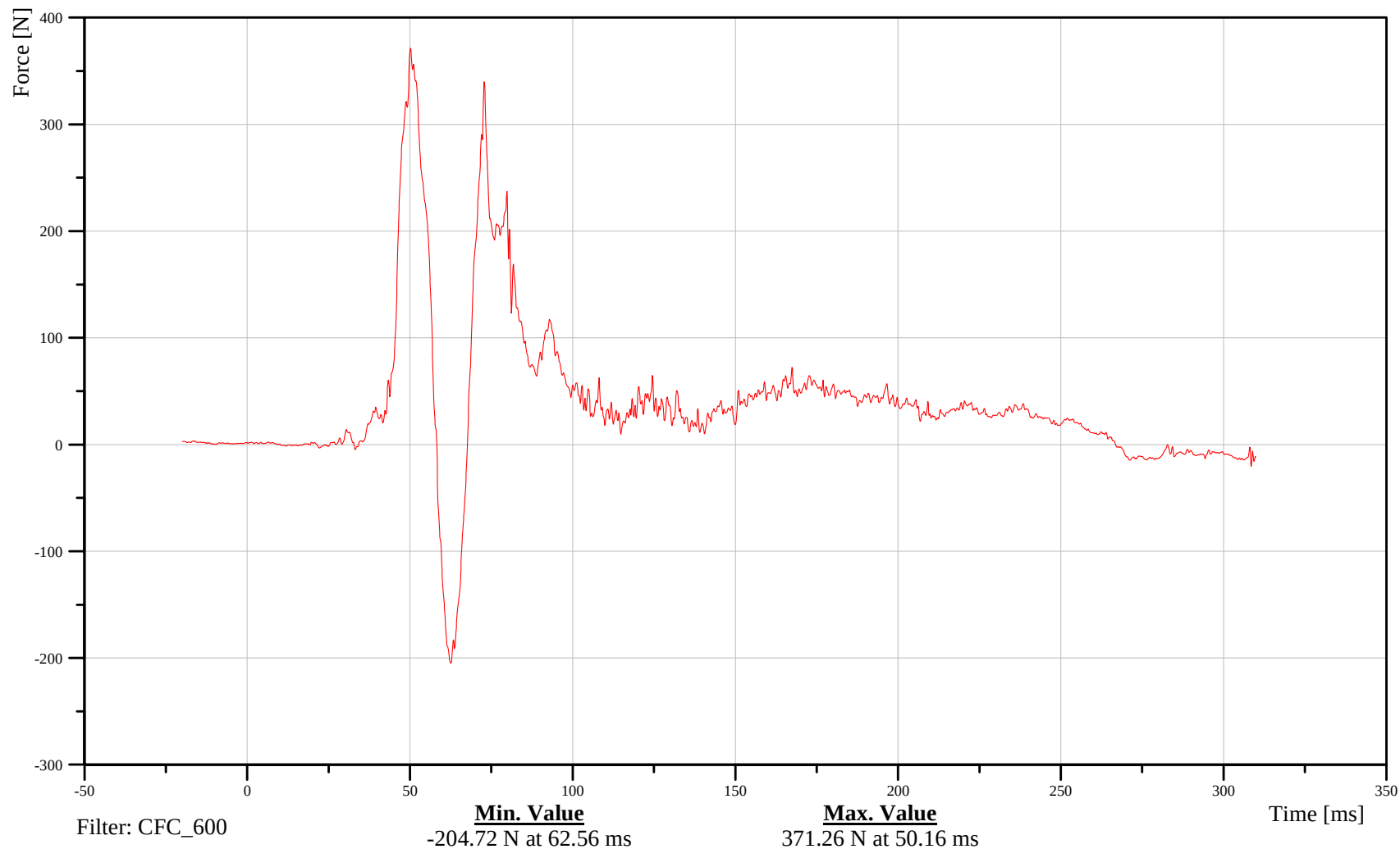
Bullet Driver Right Upper Tibia X-Axis Force

Customer: VRTC

11TIBIRULXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

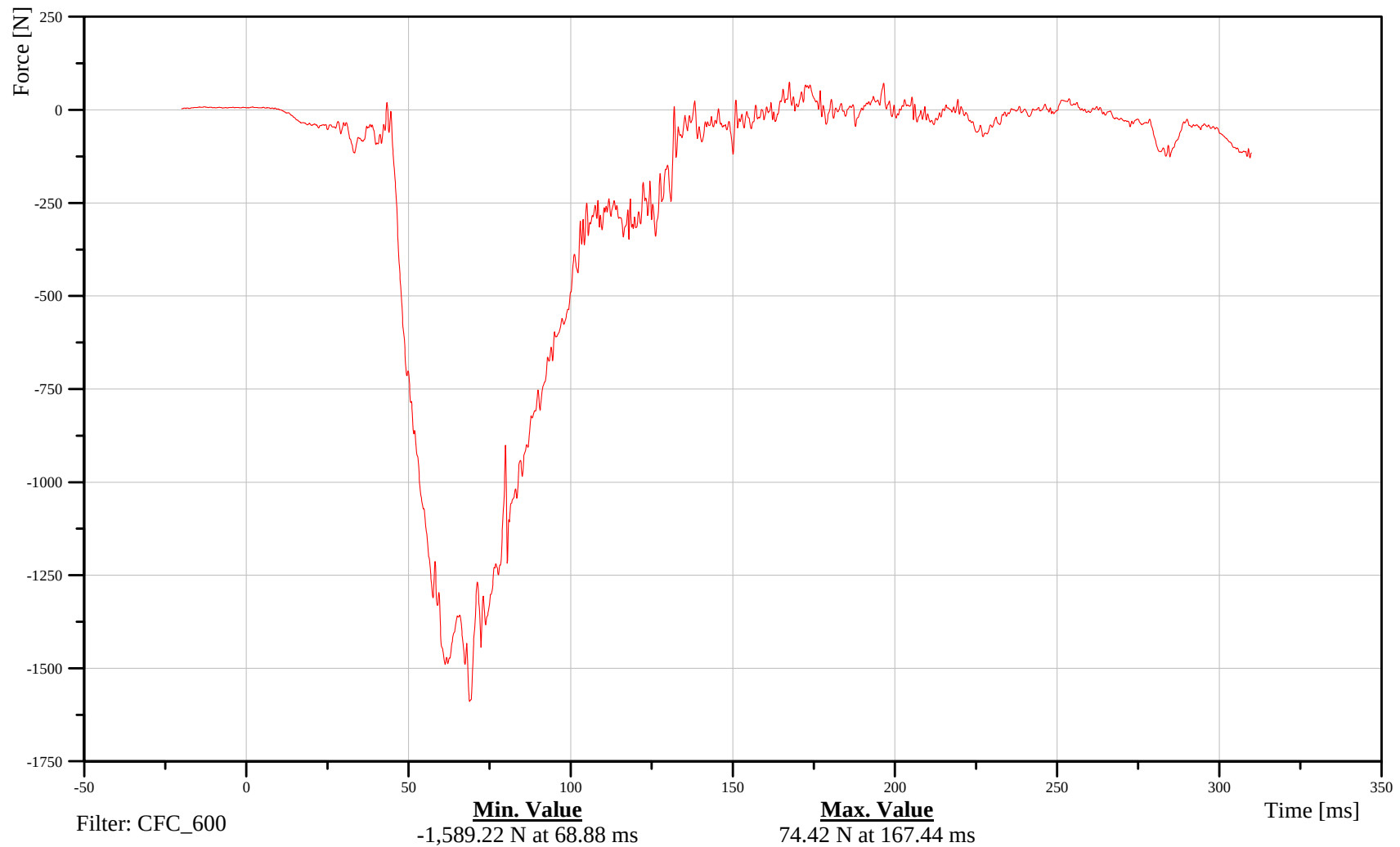
Bullet Driver Right Upper Tibia Z-Axis Force

Customer: VRTC

11TIBIRULXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Right Upper Tibia Moment About X Axis

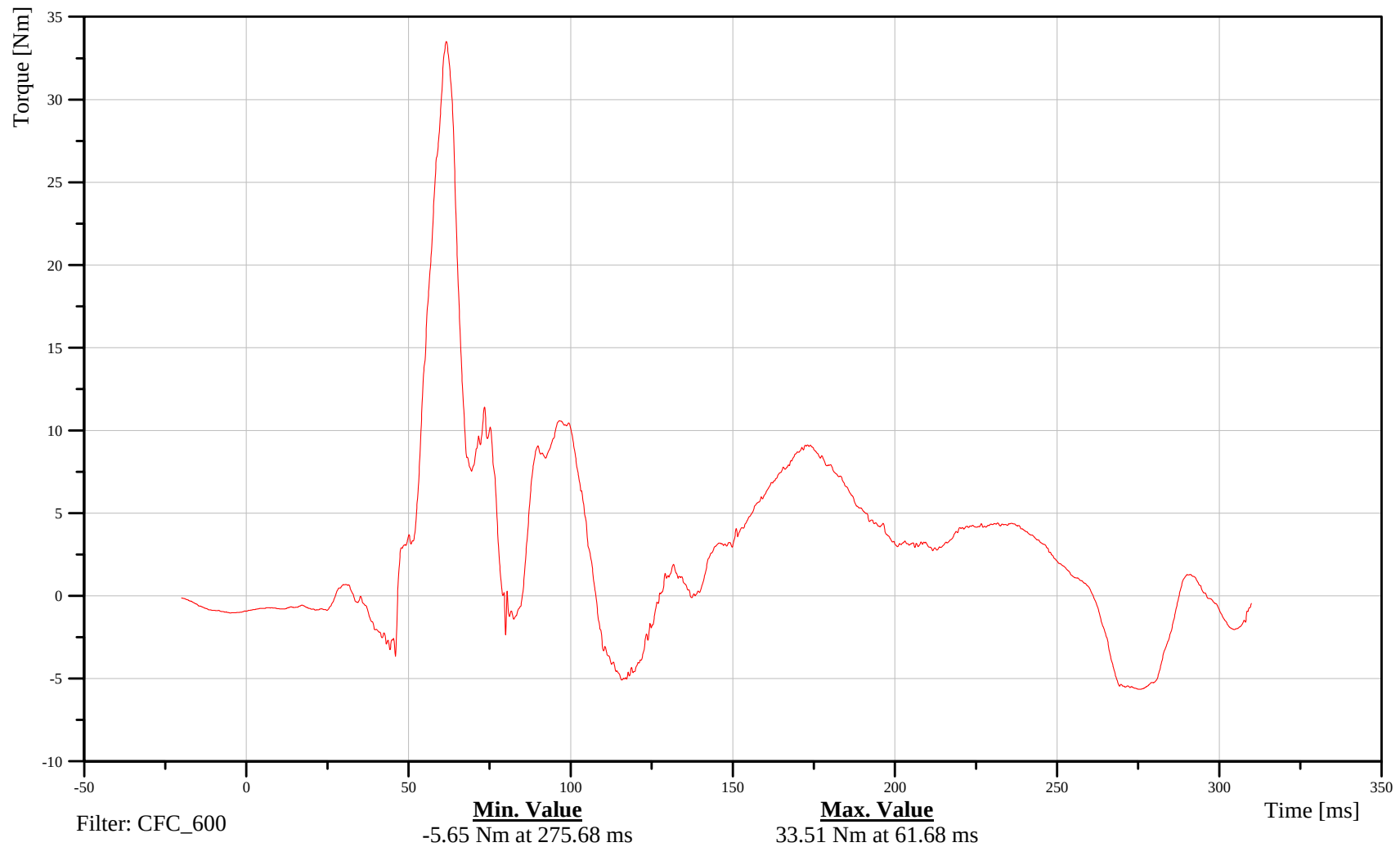
Time: 07:16

Customer: VRTC

11TIBIRULXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

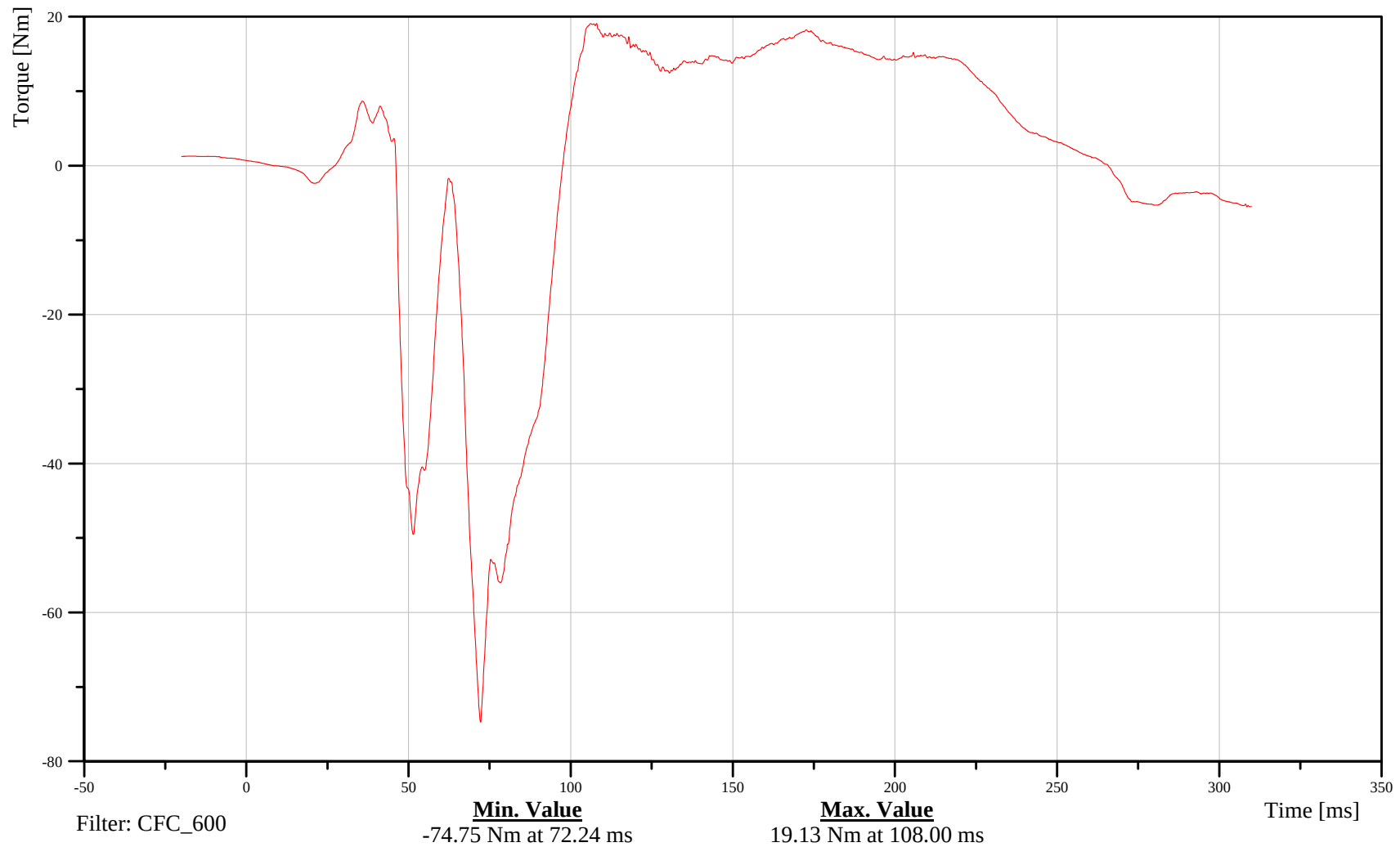
Bullet Driver Right Upper Tibia Moment About Y Axis

Customer: VRTC

11TIBIRULXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

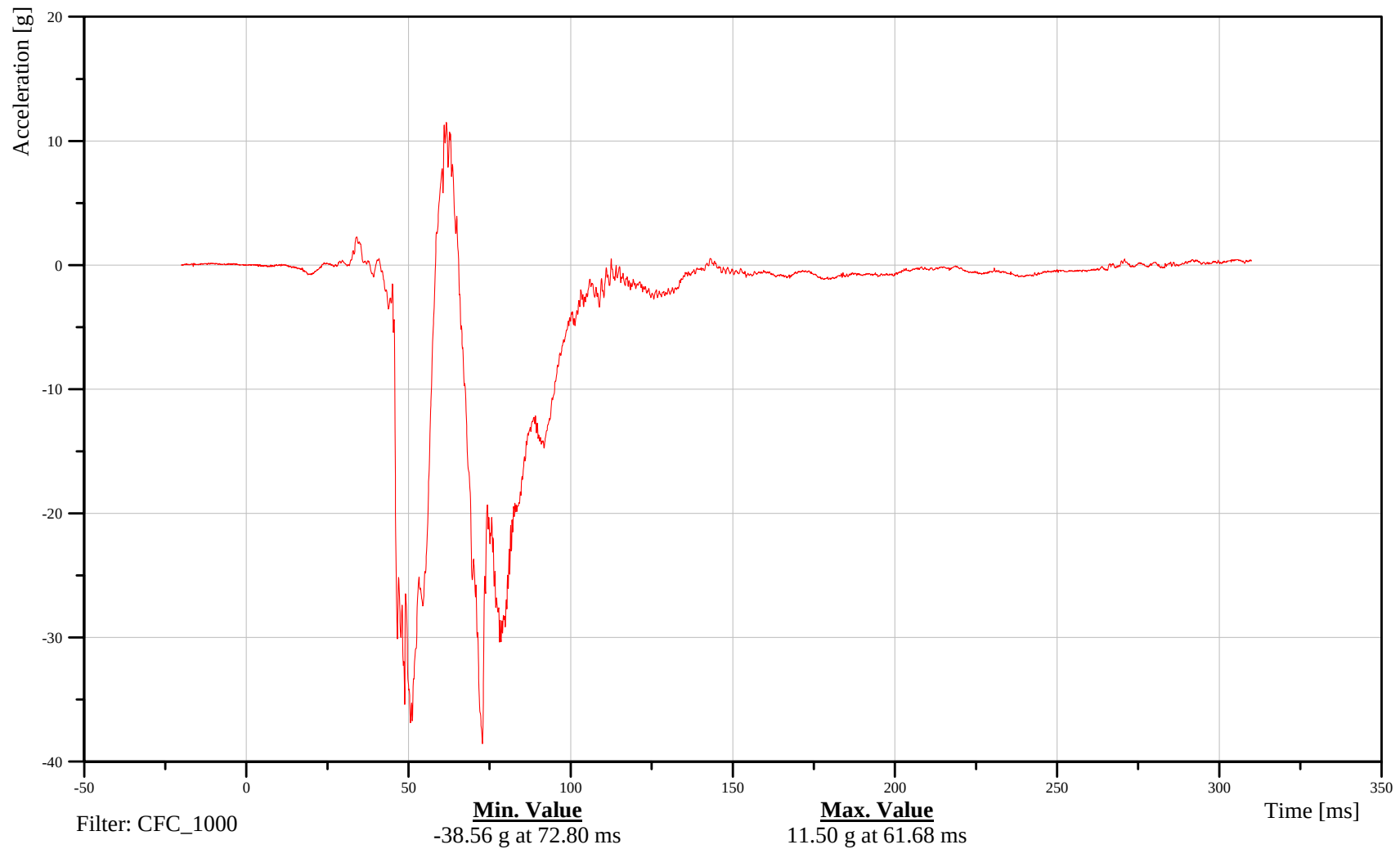
Bullet Driver Right Tibia X-Axis Acceleration

Customer: VRTC

11TIBIRILXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

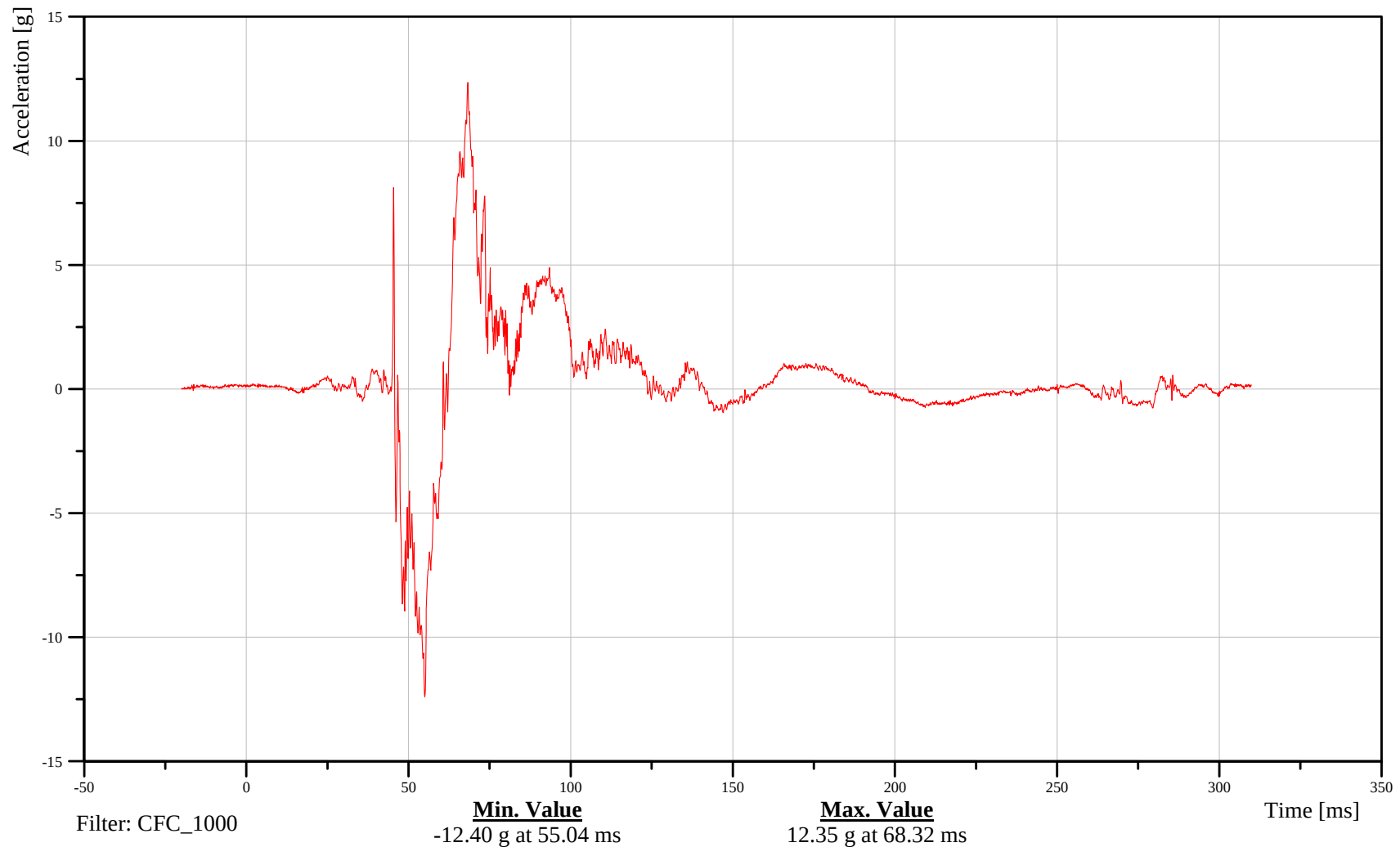
Bullet Driver Right Tibia Y-Axis Acceleration

Customer: VRTC

11TIBIRILXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

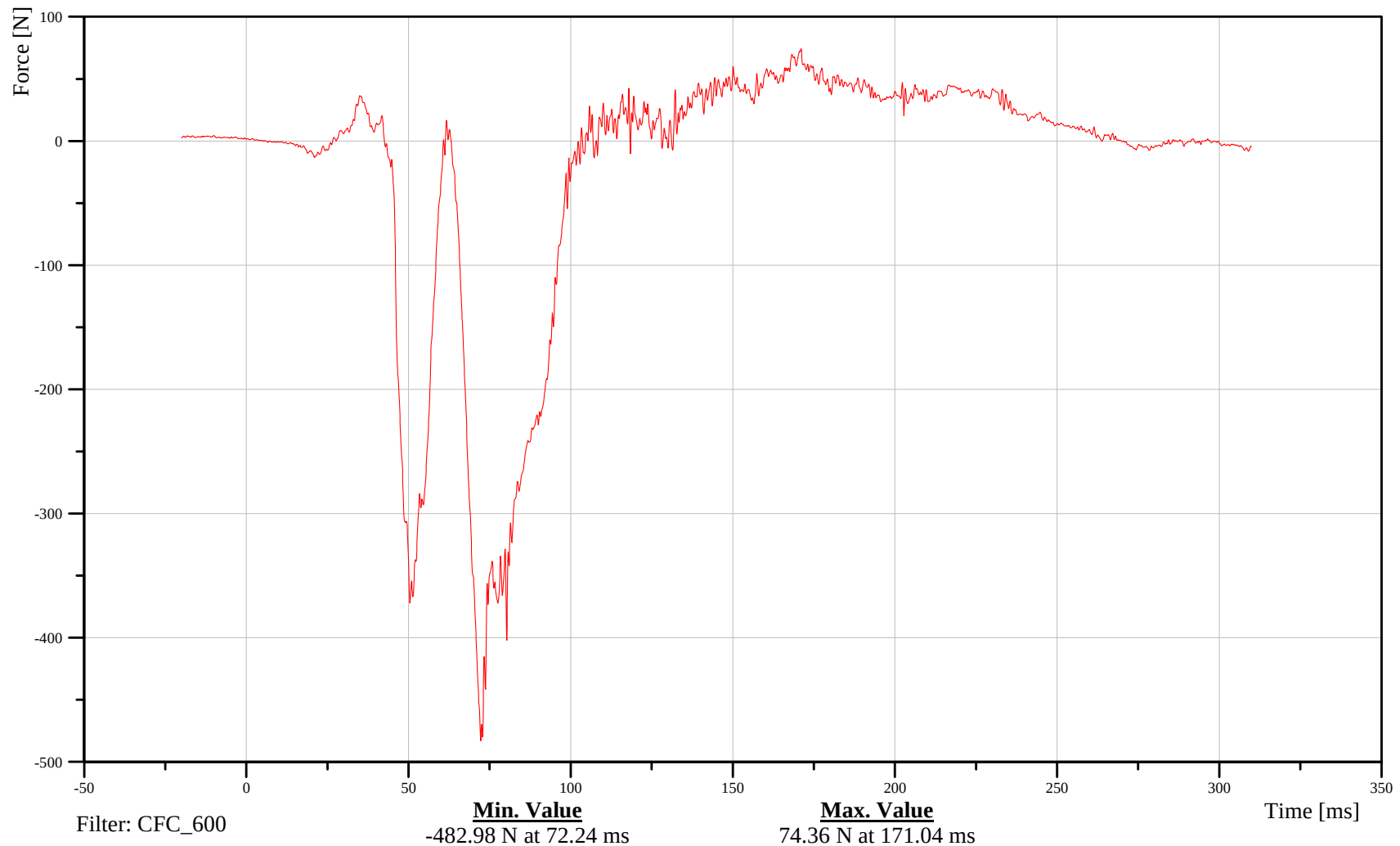
Bullet Driver Right Lower Tibia X-Axis Force

Customer: VRTC

11TIBIRLLXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

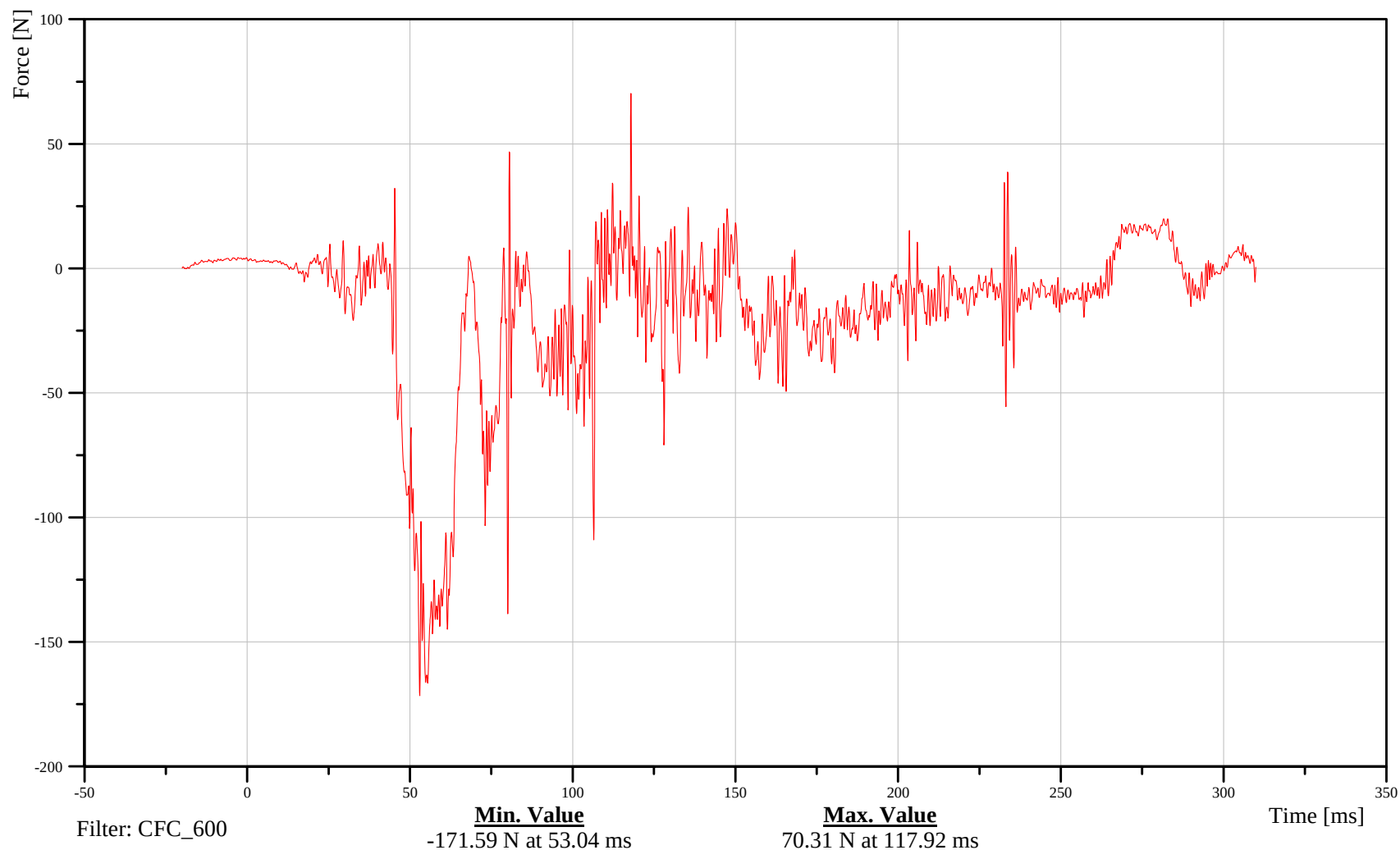
Bullet Driver Right Lower Tibia Y-Axis Force

Customer: VRTC

11TIBIRLLXH3FOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

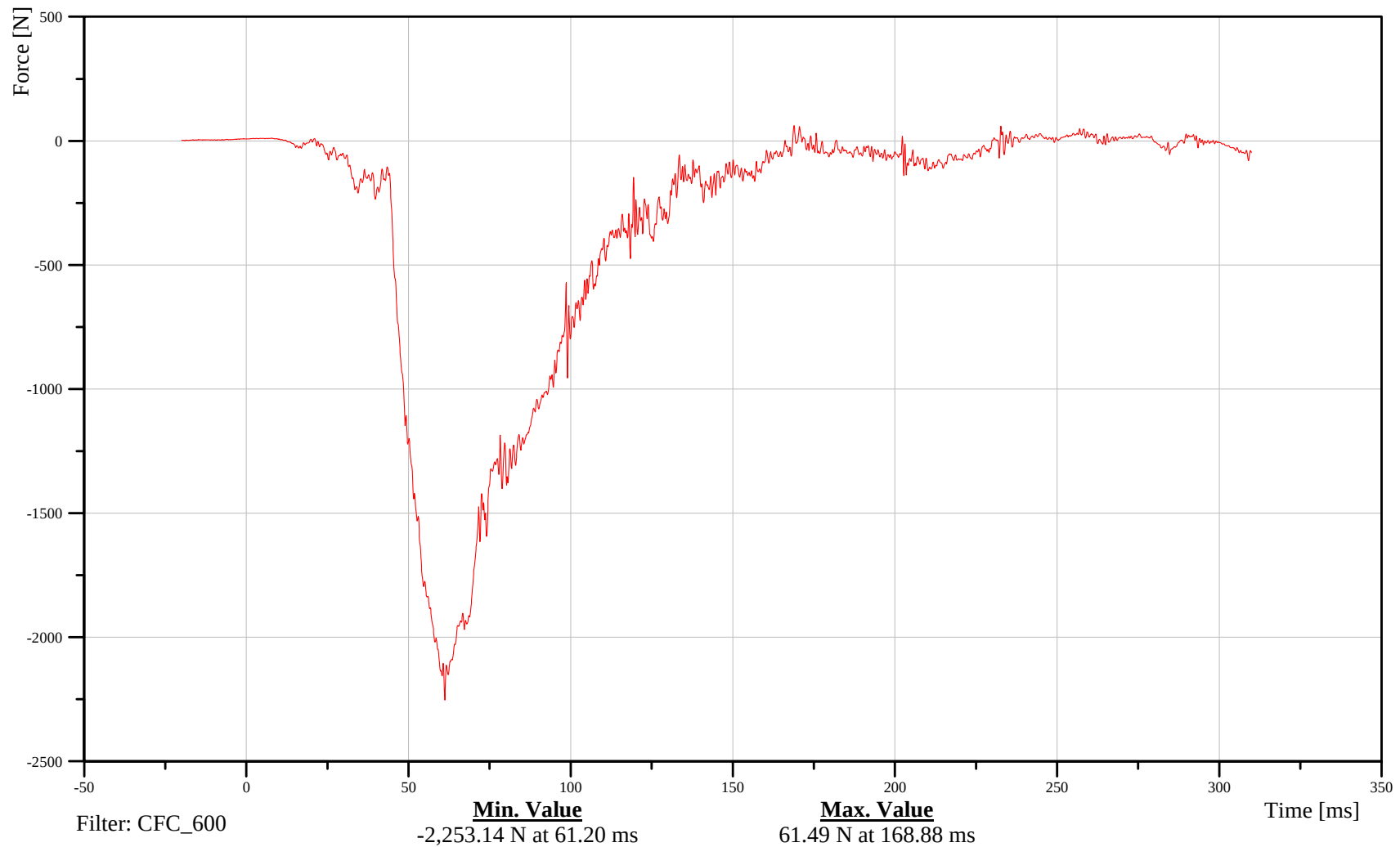
Bullet Driver Right Lower Tibia Z-Axis Force

Customer: VRTC

11TIBIRLLXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Right Lower Tibia Moment About X Axis

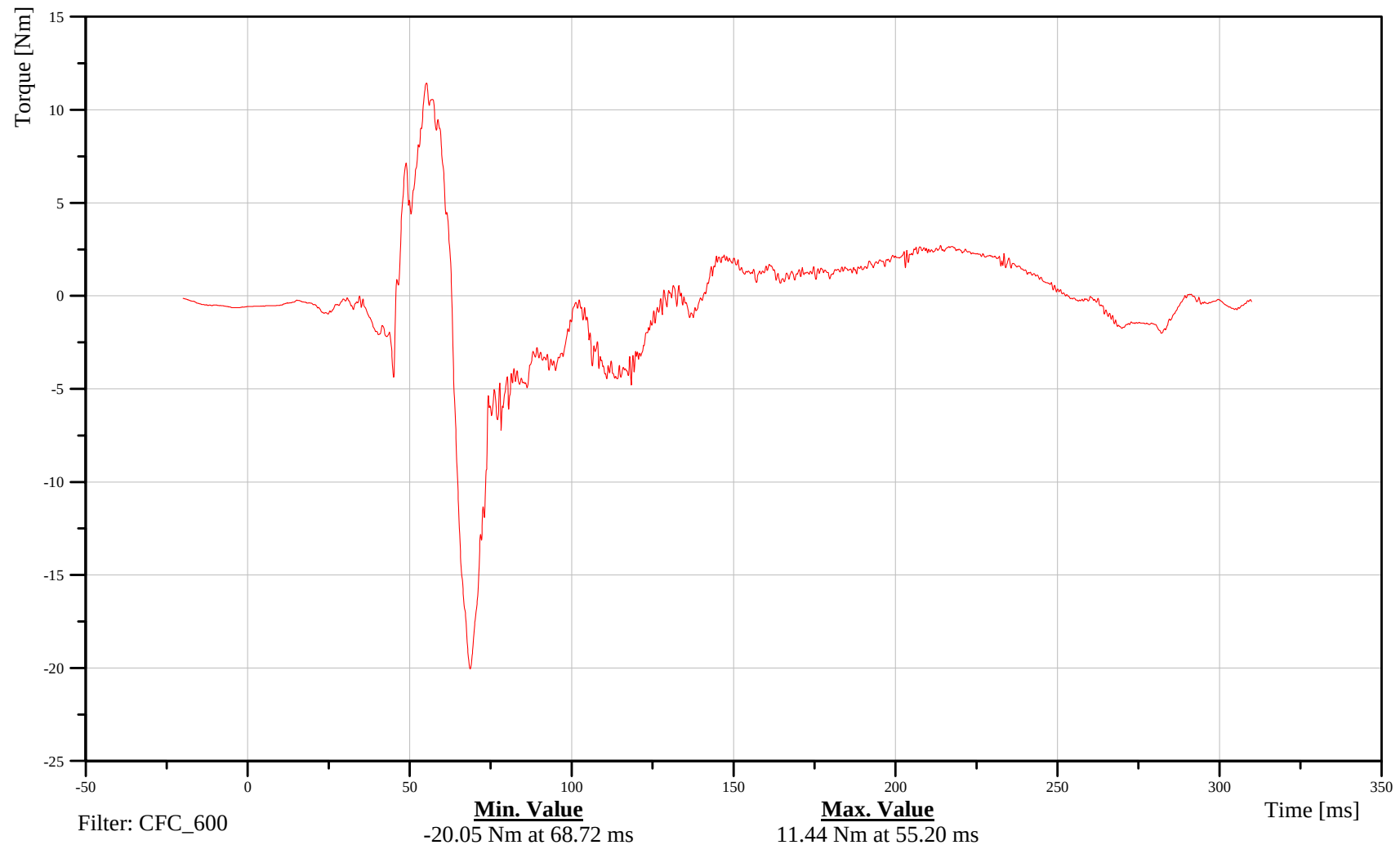
Time: 07:16

Customer: VRTC

11TIBIRLLXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

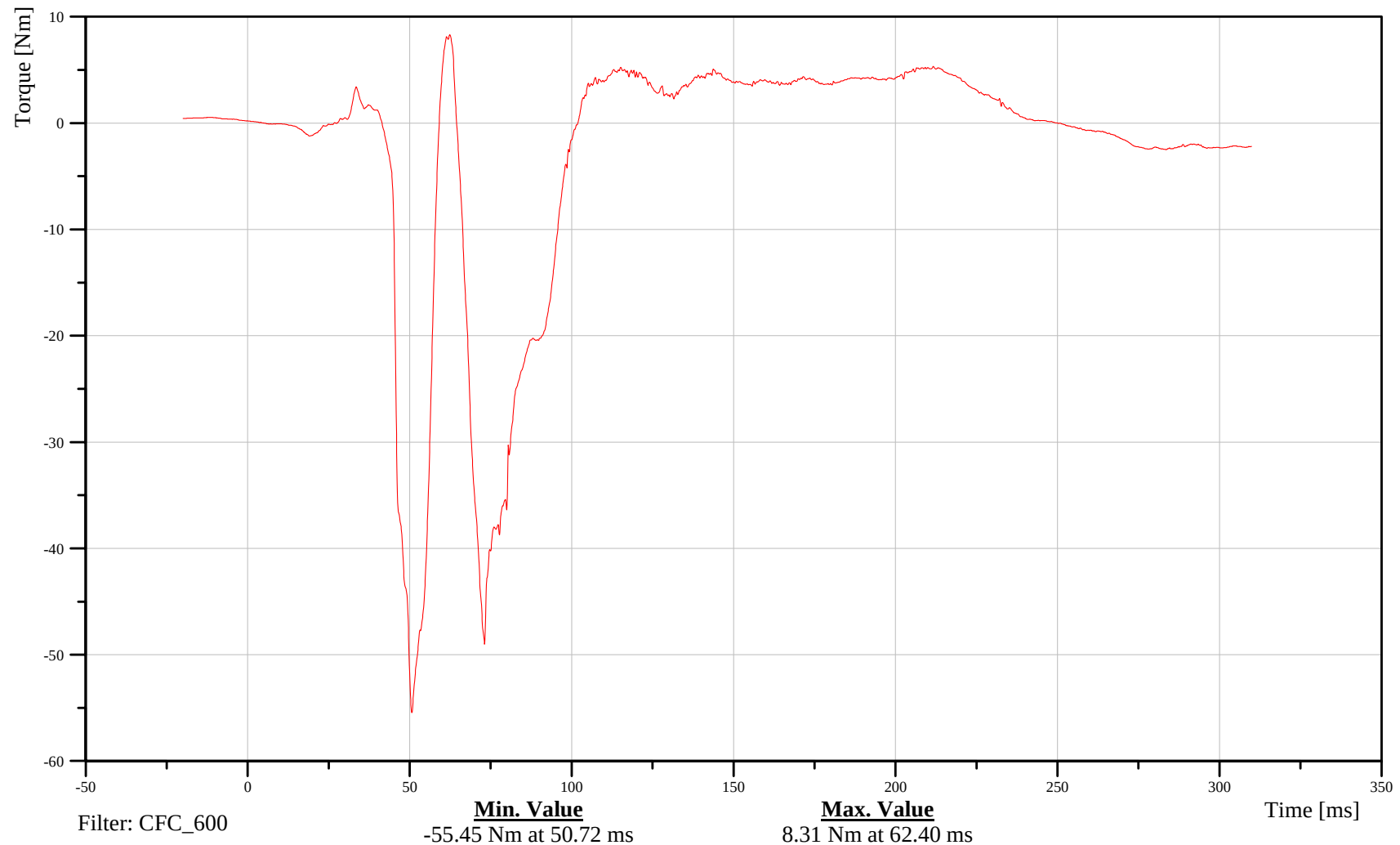
Bullet Driver Right Lower Tibia Moment About Y Axis

Customer: VRTC

11TIBIRLLXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Right Foot X-Axis Rotation

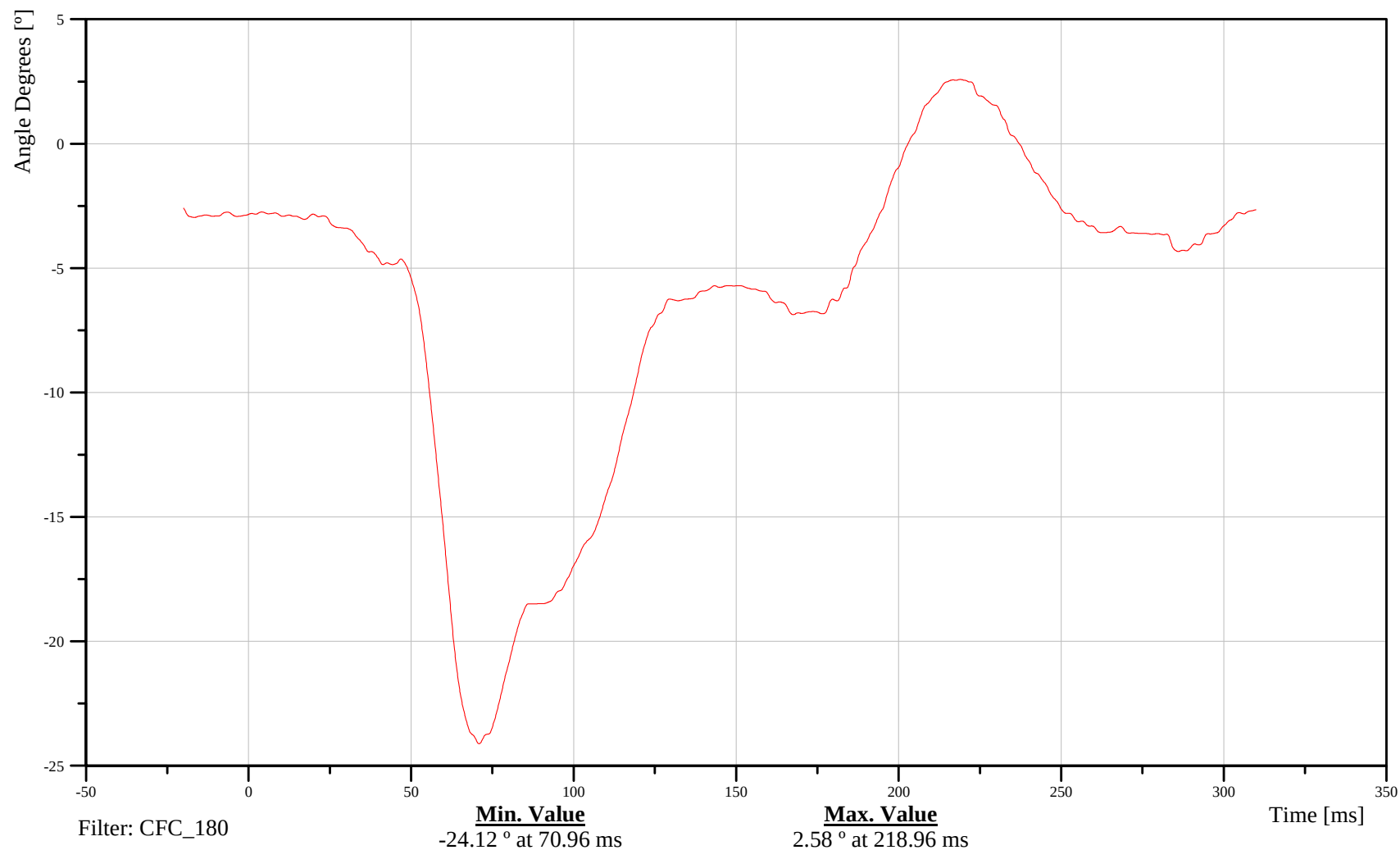
Time: 07:16

Customer: VRTC

11FOOTRILXH3ANXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

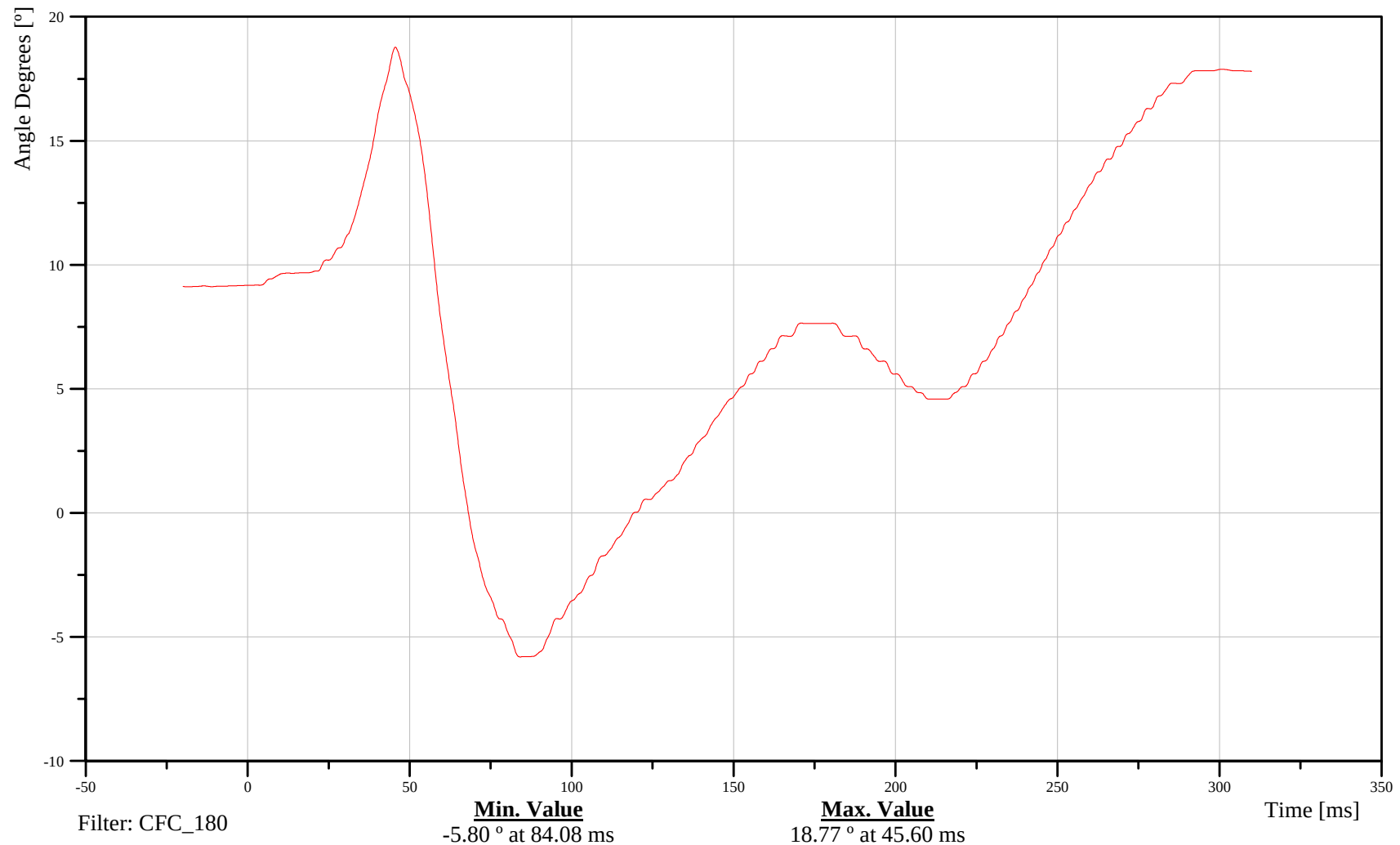
Bullet Driver Right Foot Y-Axis Rotation

Customer: VRTC

11FOOTRILXH3ANYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

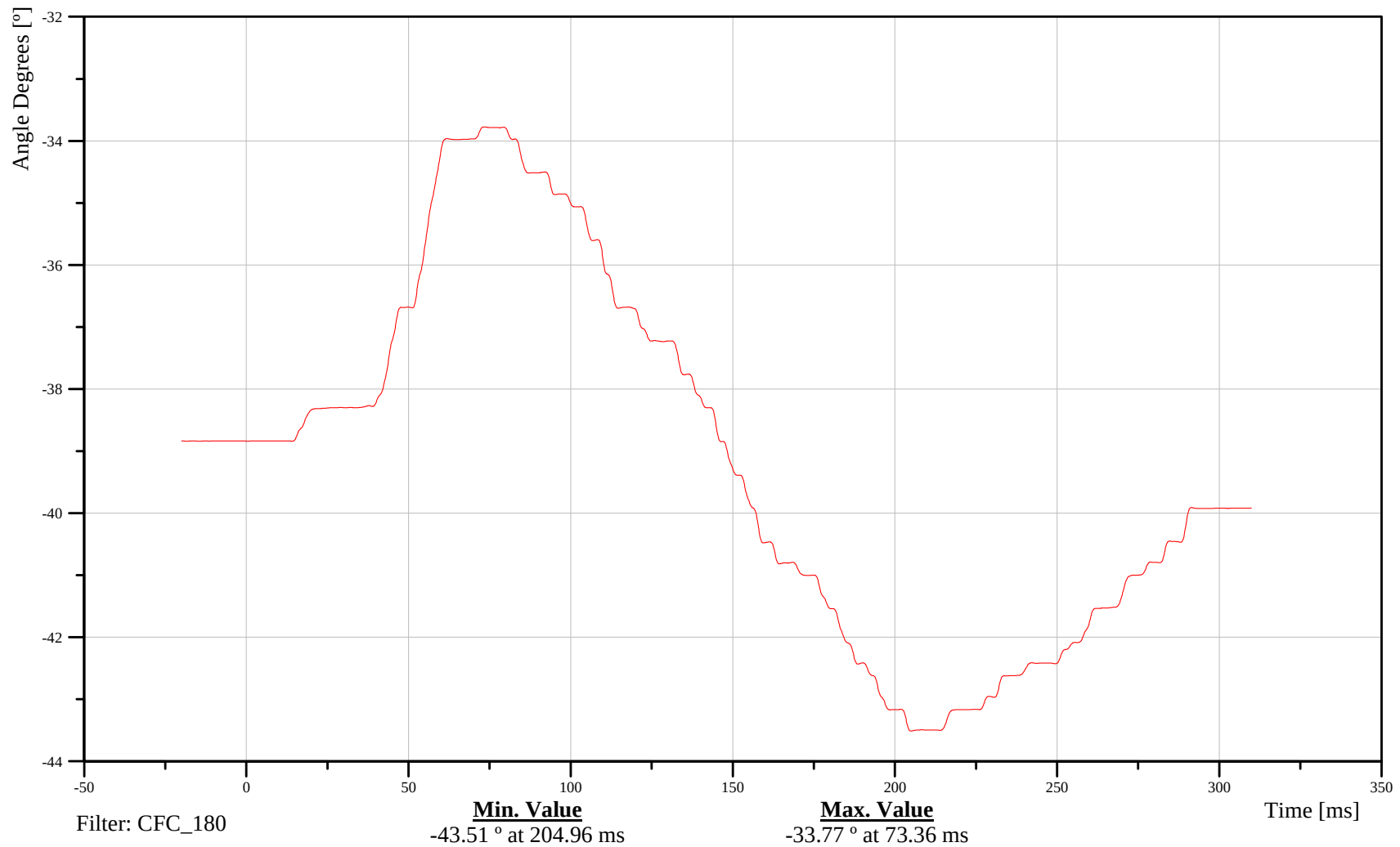
Bullet Driver Right Foot Z-Axis Rotation

Customer: VRTC

11FOOTRILXH3ANZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Driver Right Foot X-Axis Acceleration

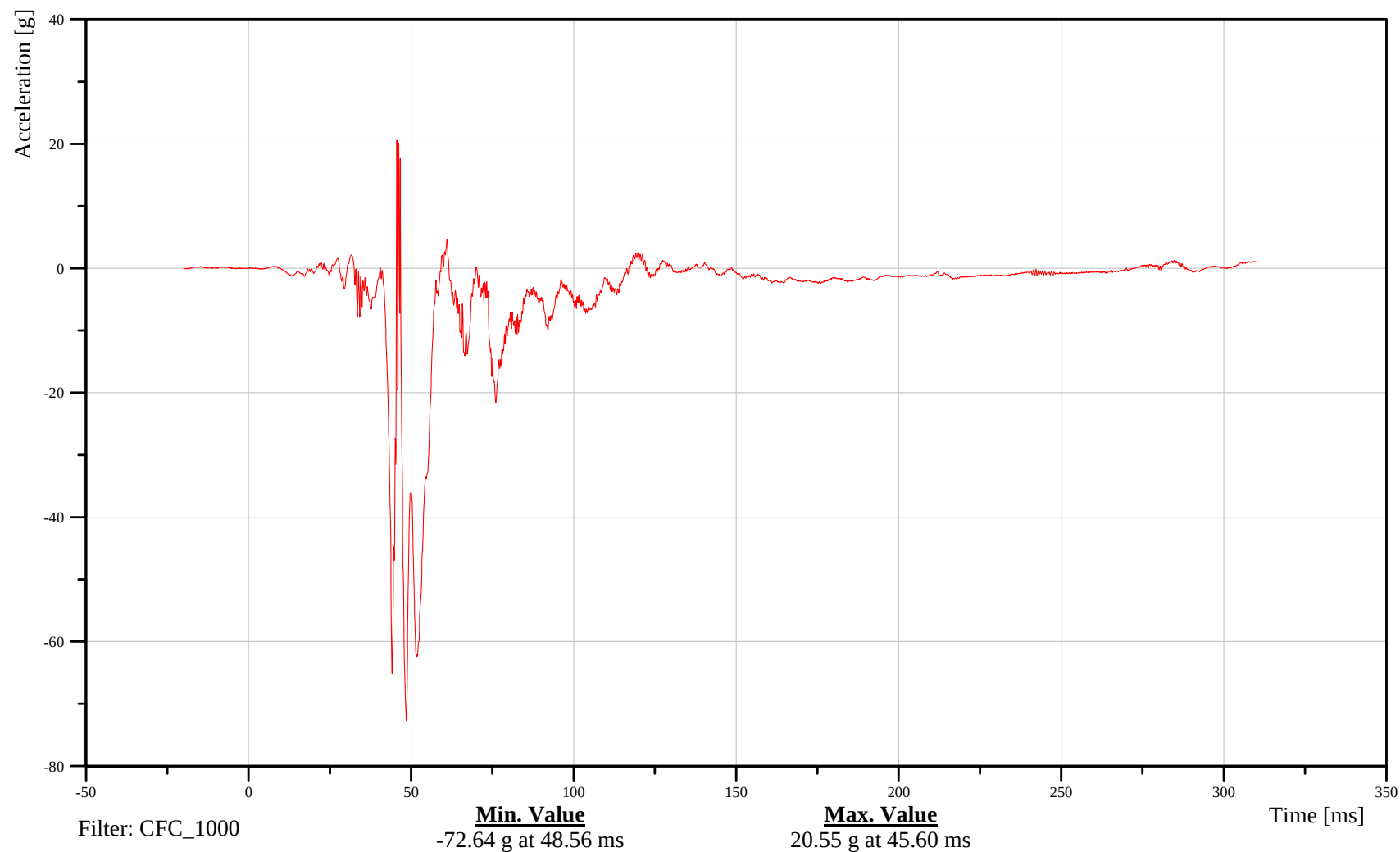
Time: 07:16

Customer: VRTC

11FOOTRILXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

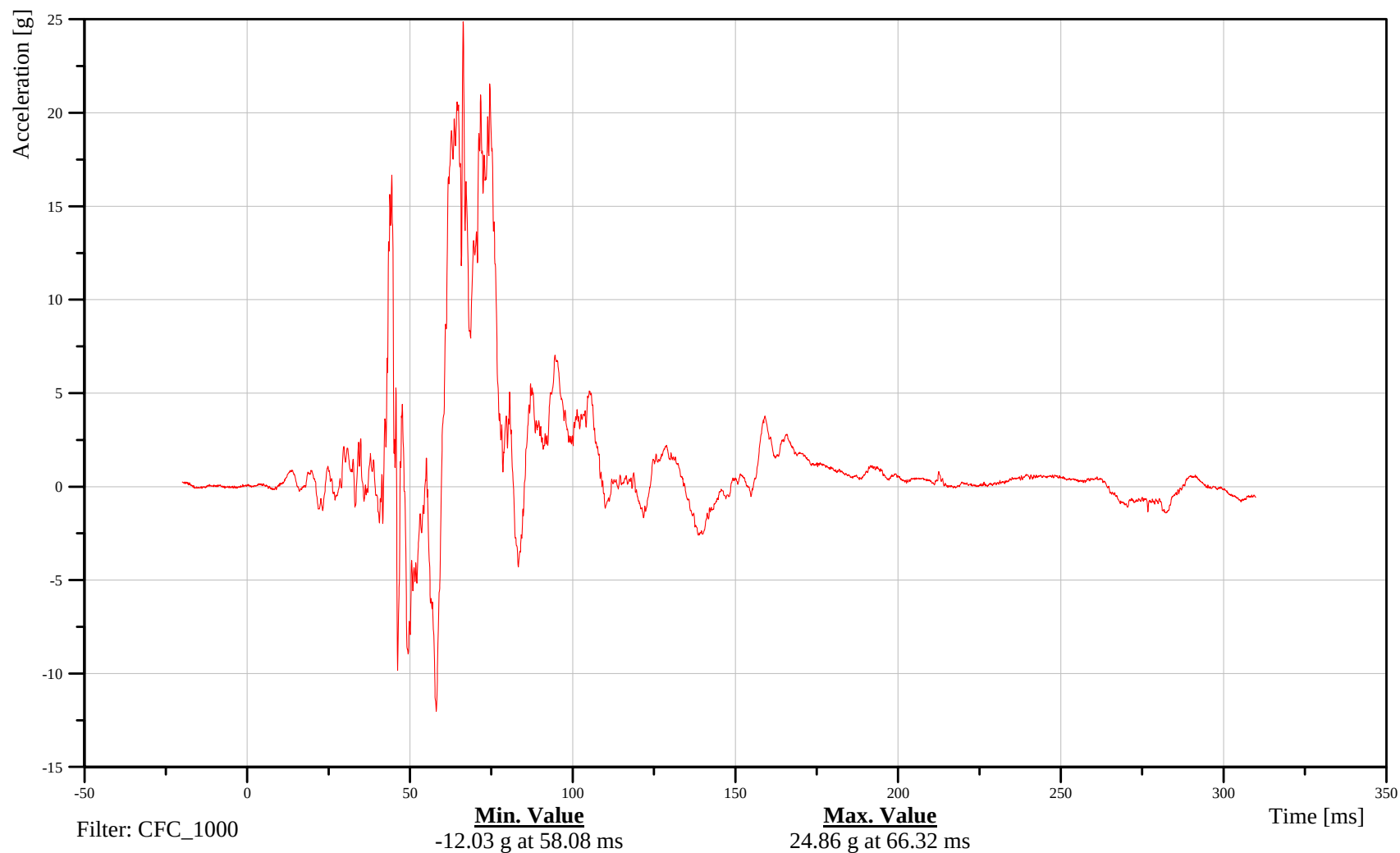
Bullet Driver Right Foot Y-Axis Acceleration

Customer: VRTC

11FOOTRILXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

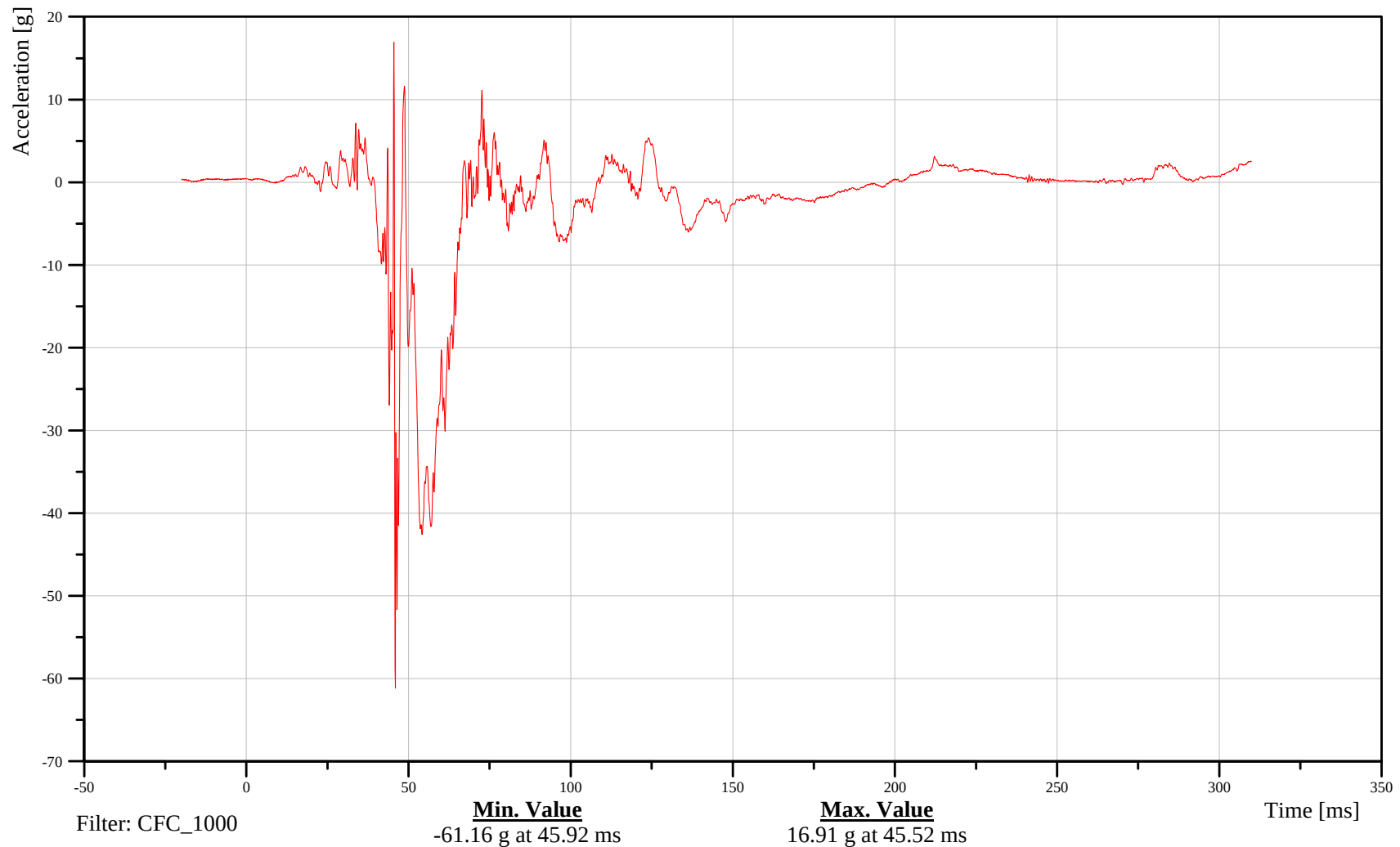
Bullet Driver Right Foot Z-Axis Acceleration

Customer: VRTC

11FOOTRILXH3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

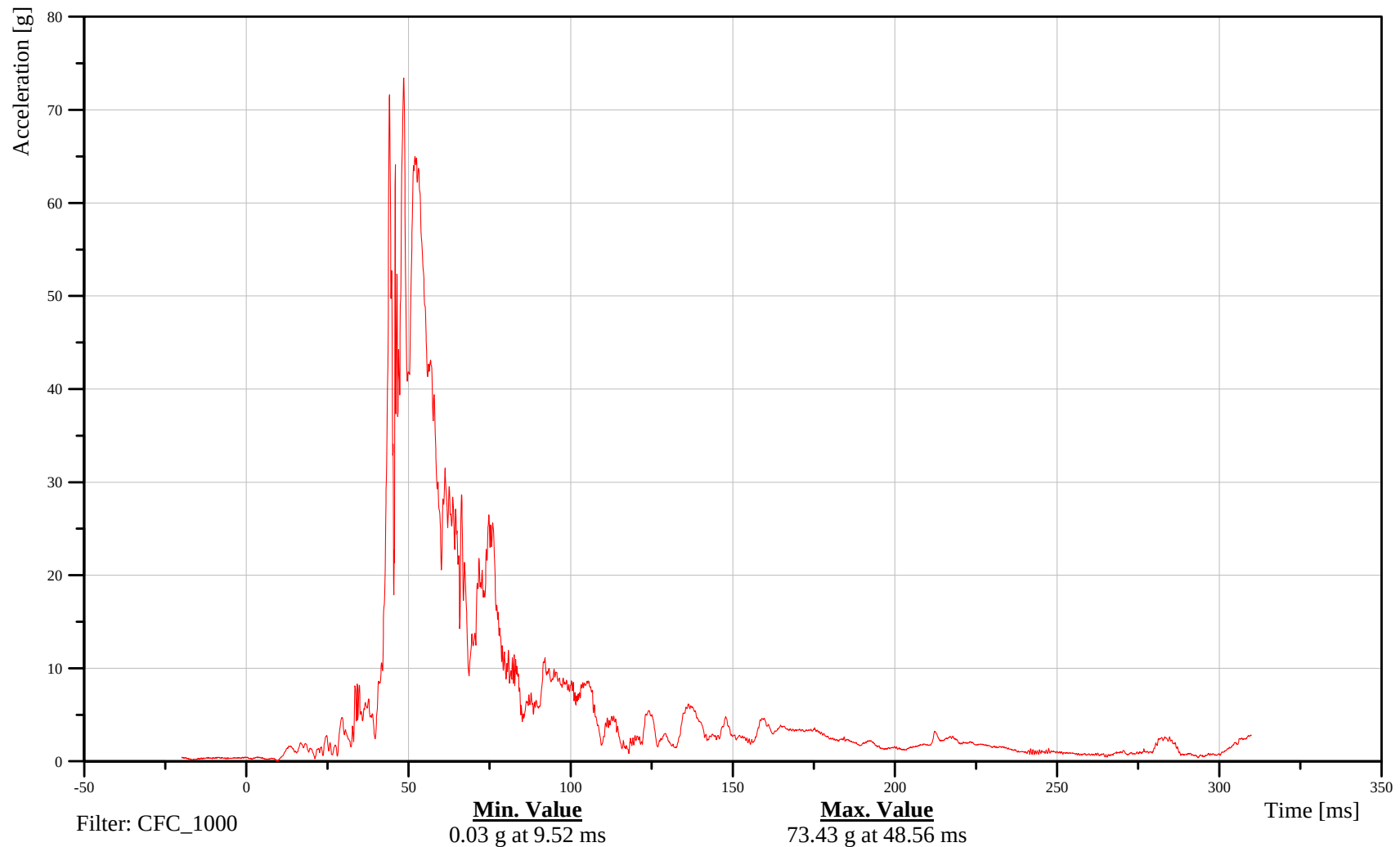
Bullet Driver Right Foot Resultant Acceleration

Customer: VRTC

11FOOTRILXH3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

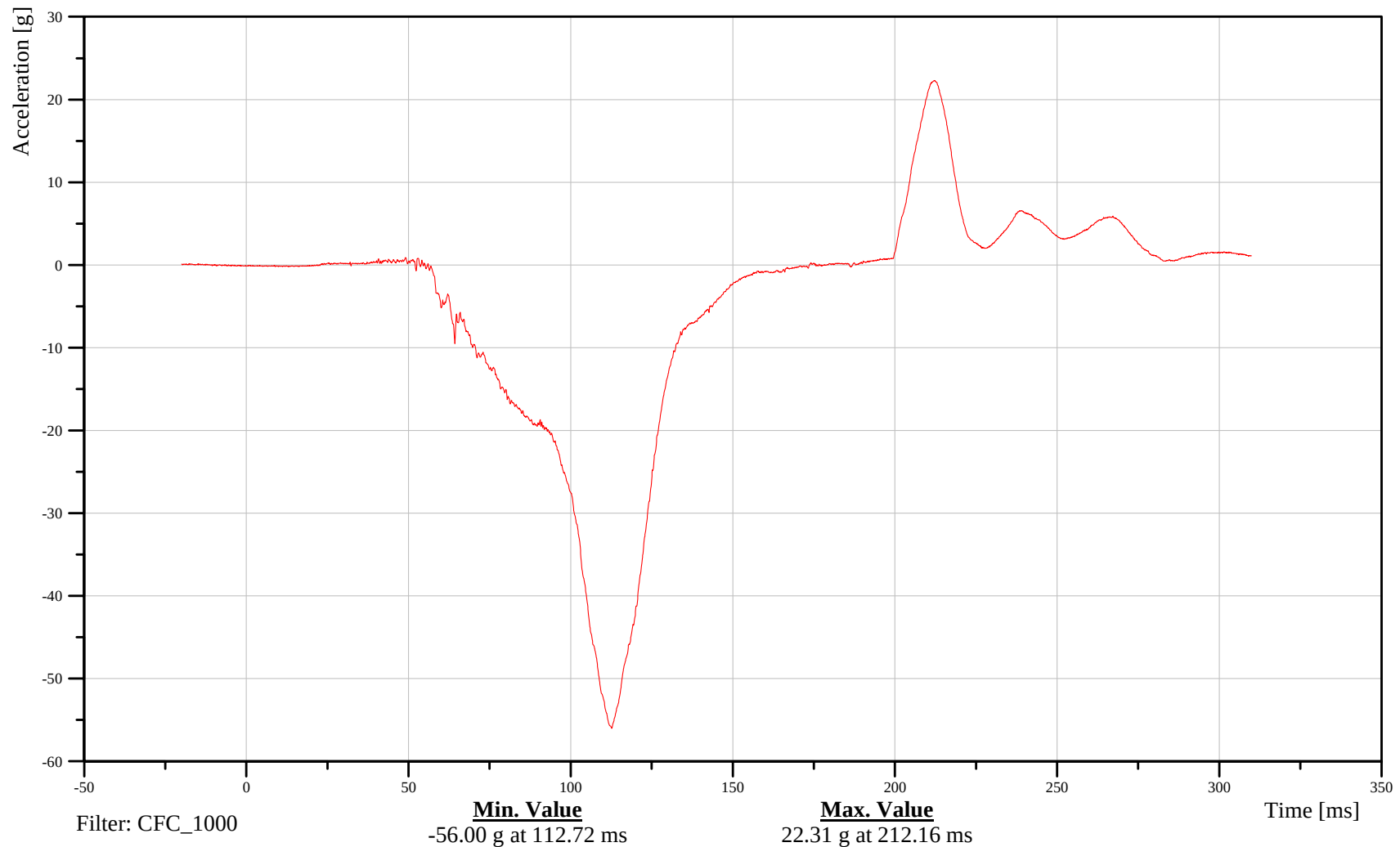
Bullet Passenger Head CG X-Axis Acceleration

Customer: VRTC

13HEADCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Head CG Y-Axis Acceleration

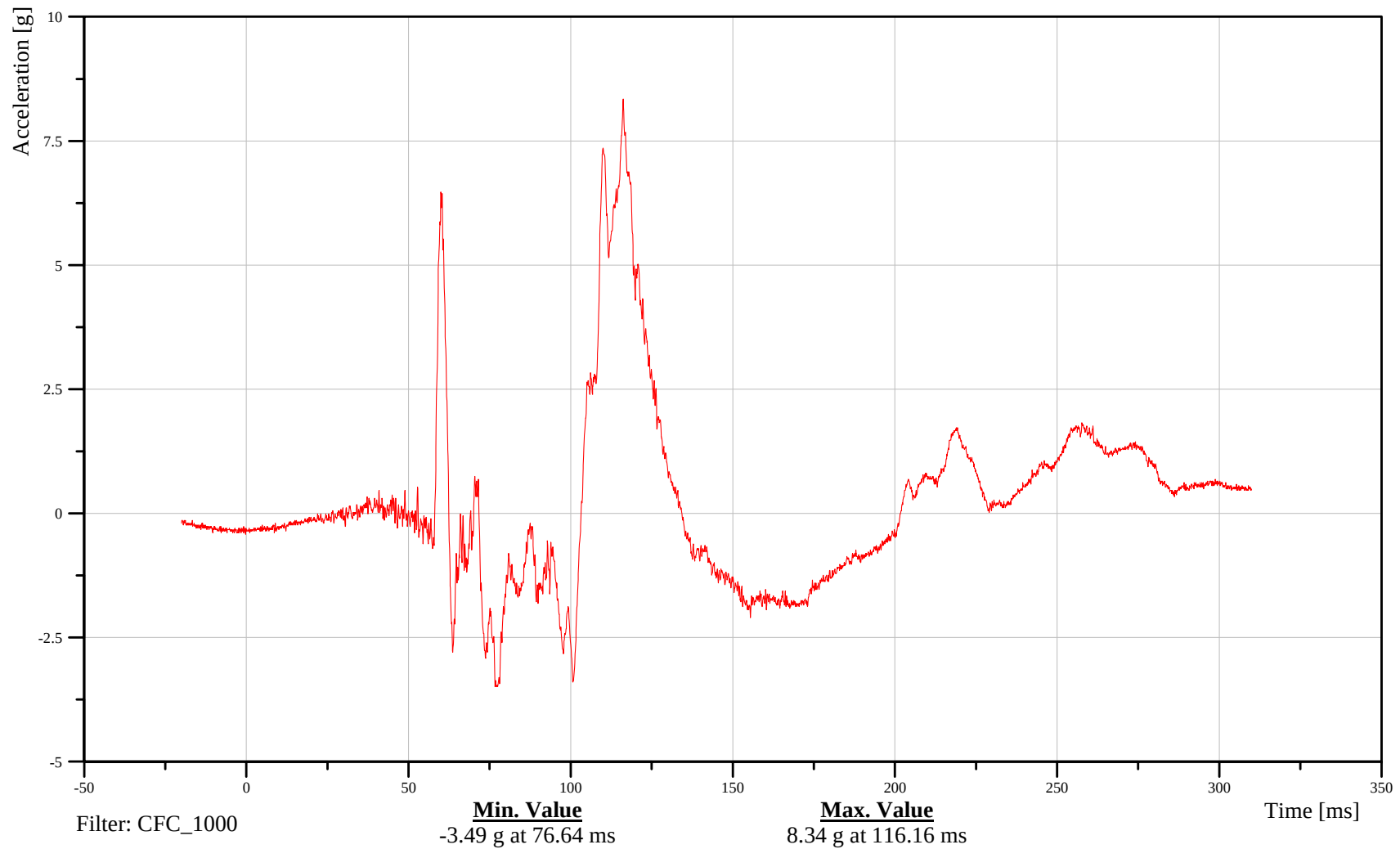
Time: 07:16

Customer: VRTC

13HEADCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Head CG Z-Axis Acceleration

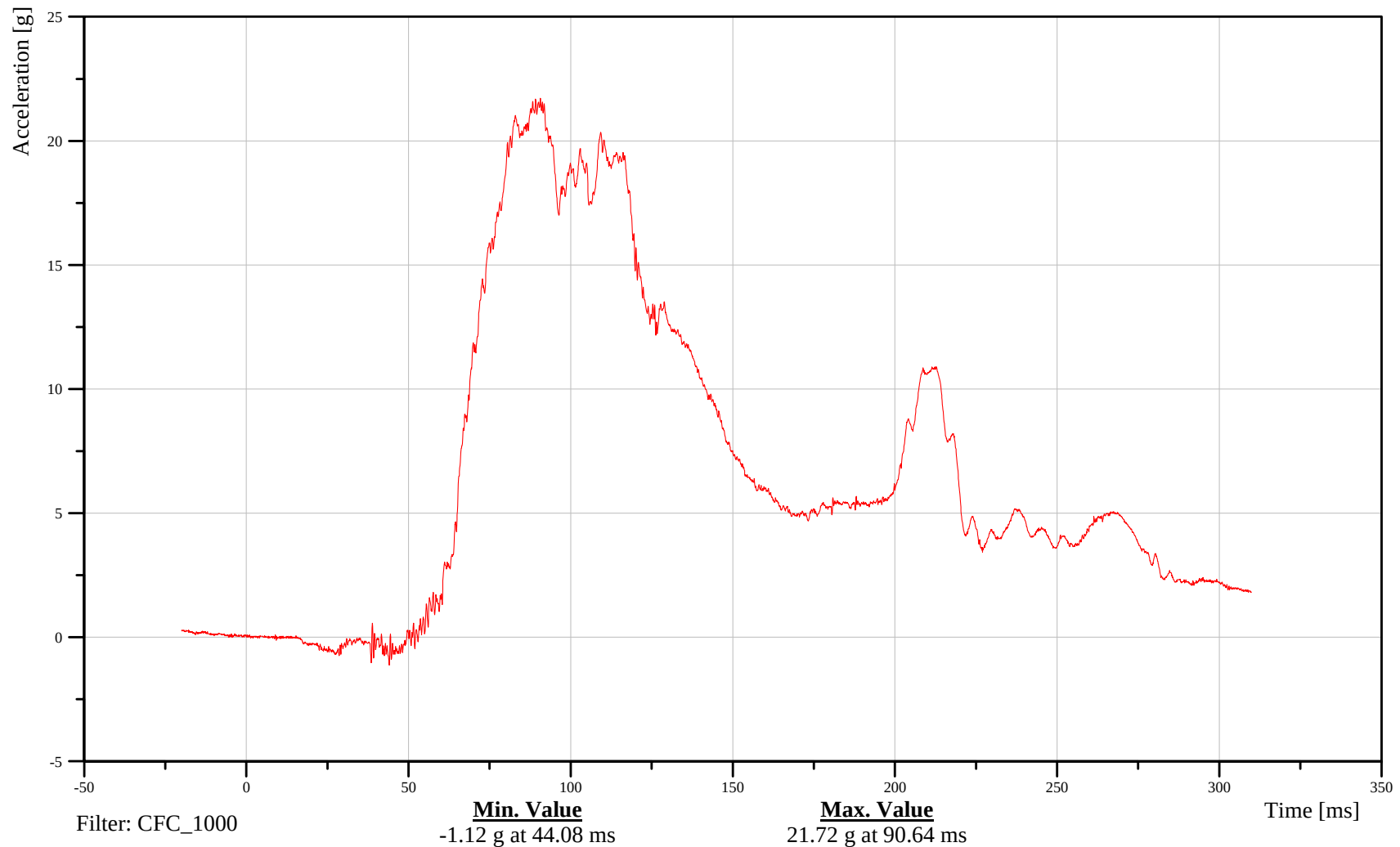
Time: 07:16

Customer: VRTC

13HEADCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

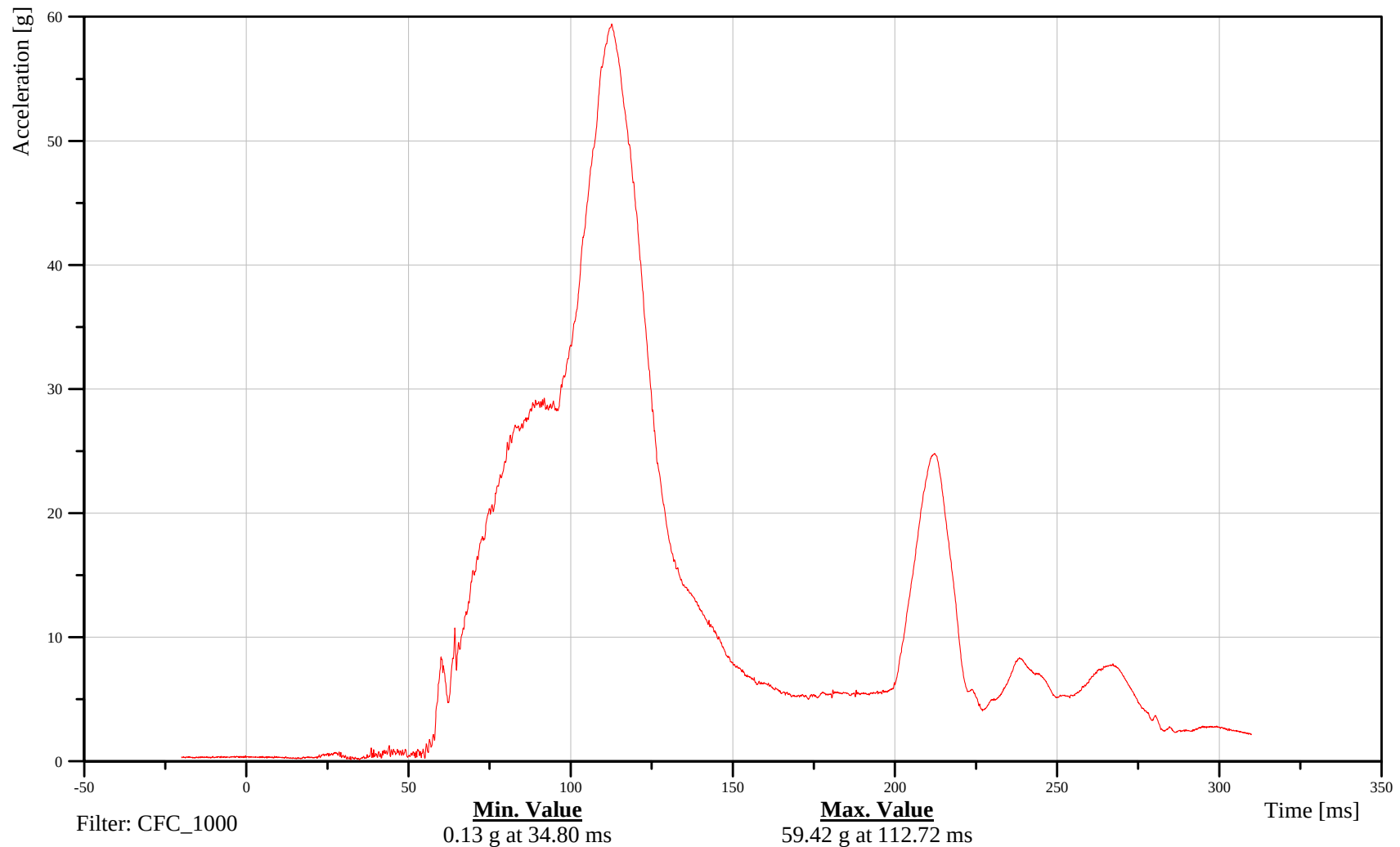
Bullet Passenger Head CG Resultant Acceleration

Customer: VRTC

13HEADCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Head Side X-Axis Acceleration

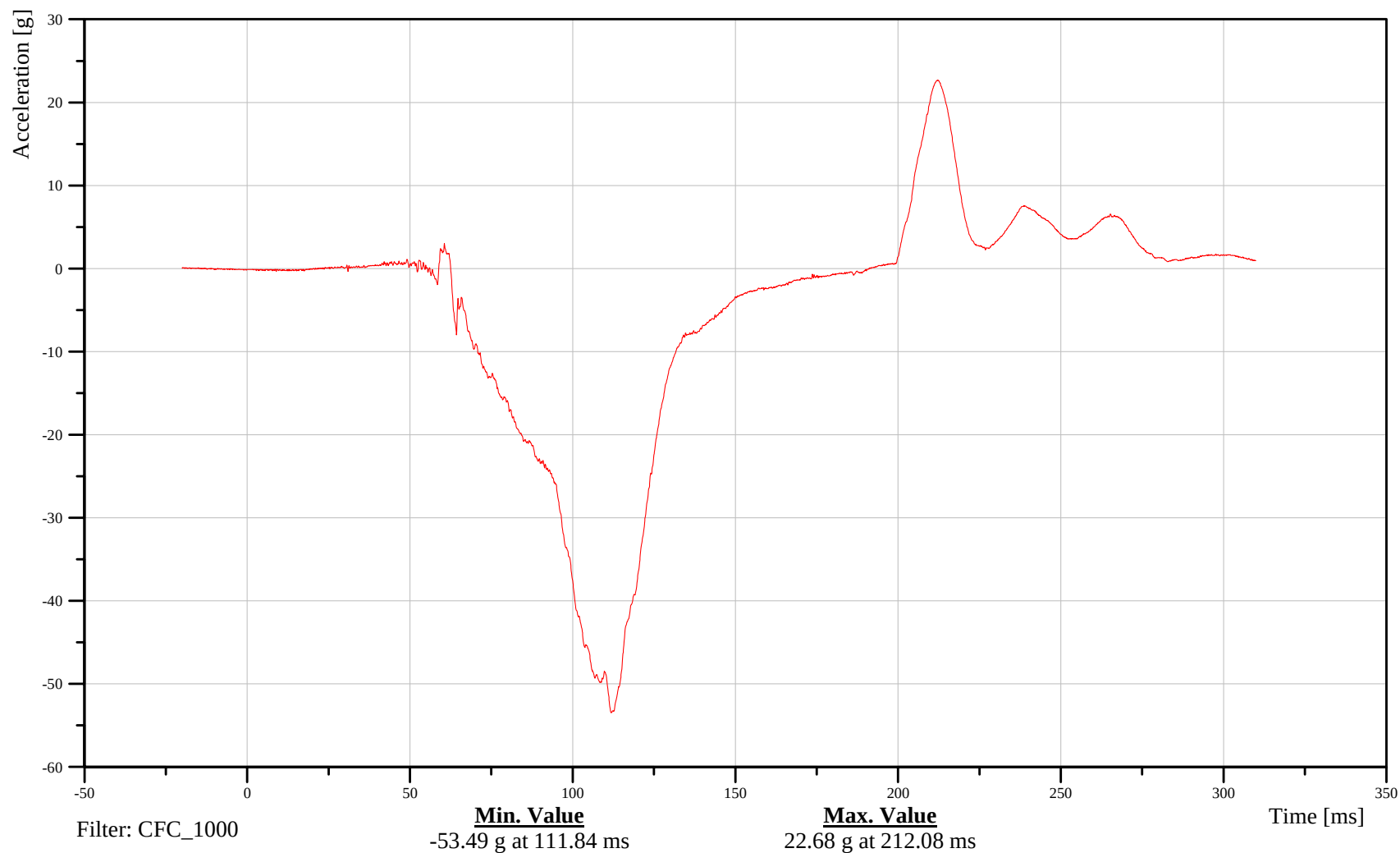
Time: 07:16

Customer: VRTC

13HEADLE00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

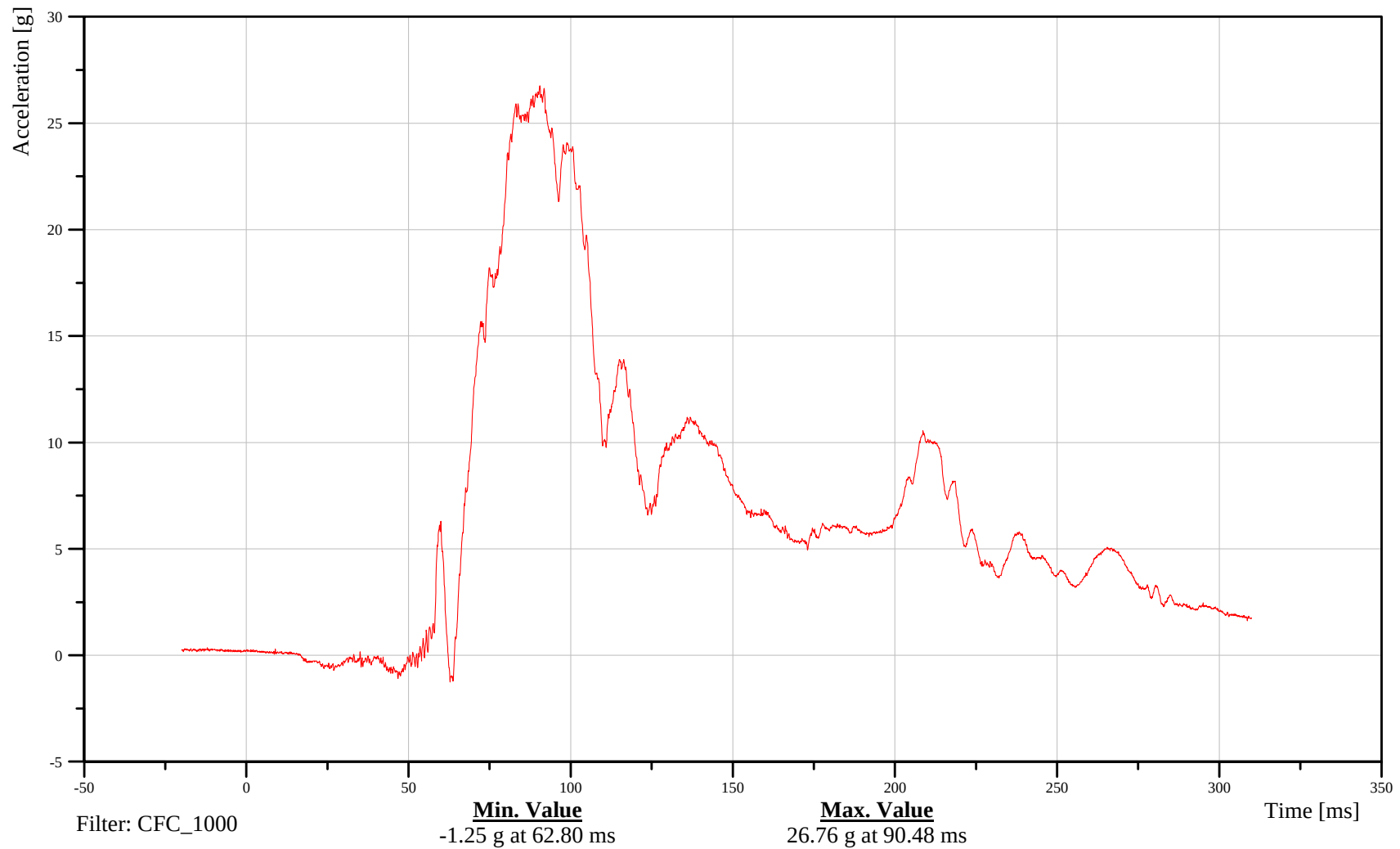
Bullet Passenger Head Side Z-Axis Acceleration

Customer: VRTC

13HEADLE00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Head Front Y-Axis Acceleration

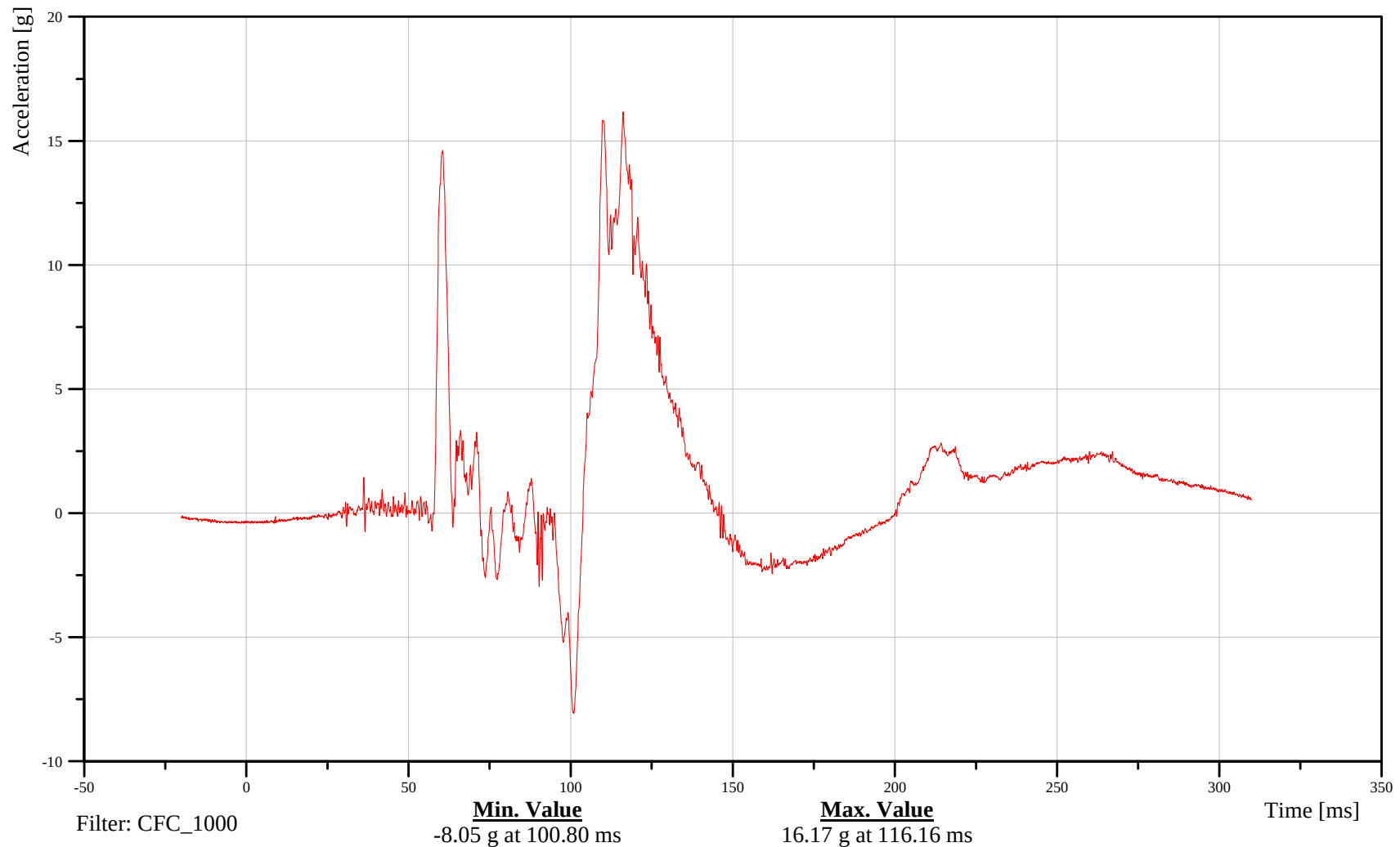
Time: 07:16

Customer: VRTC

13HEADFR00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Head Front Z-Axis Acceleration

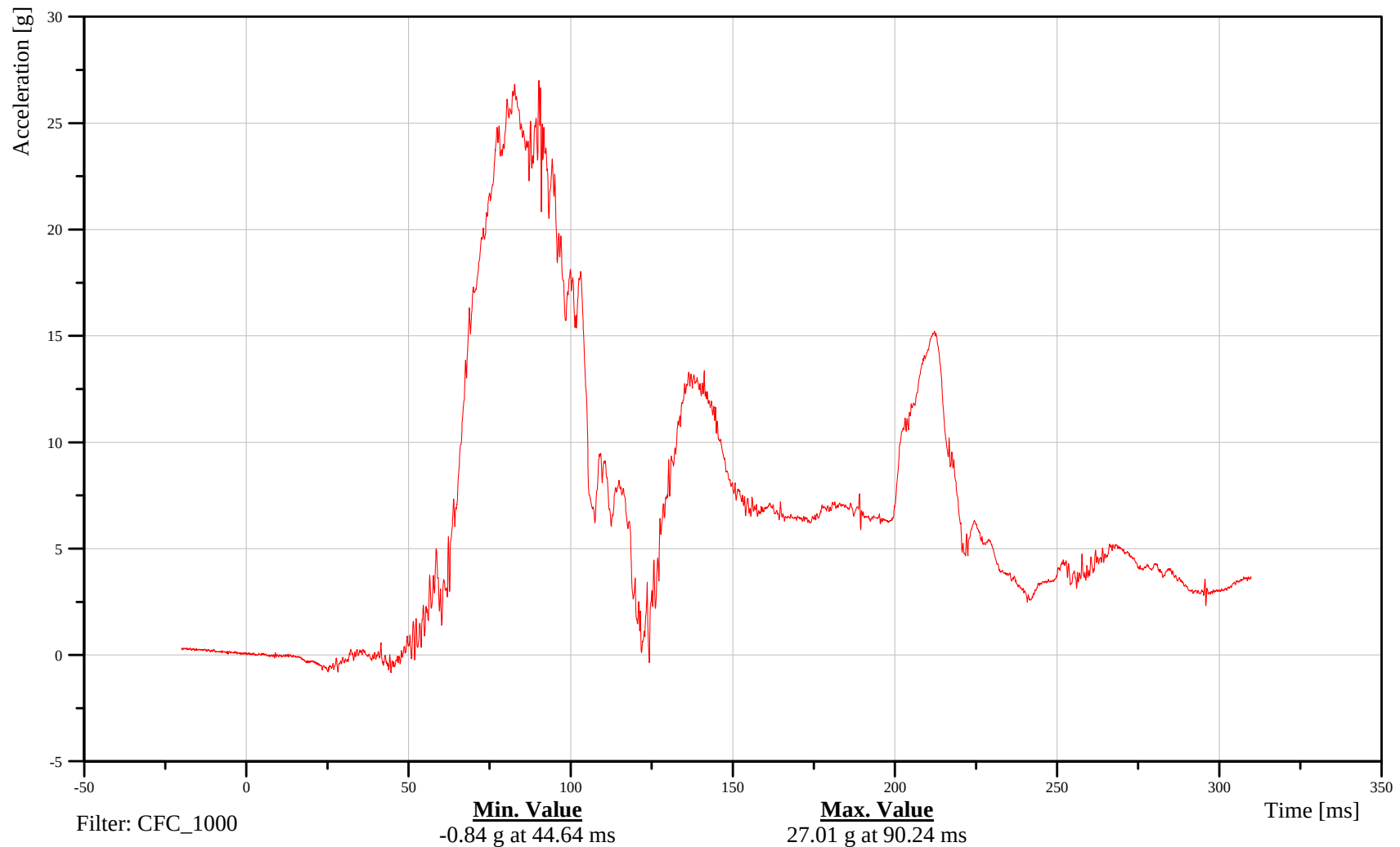
Time: 07:16

Customer: VRTC

13HEADFR00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

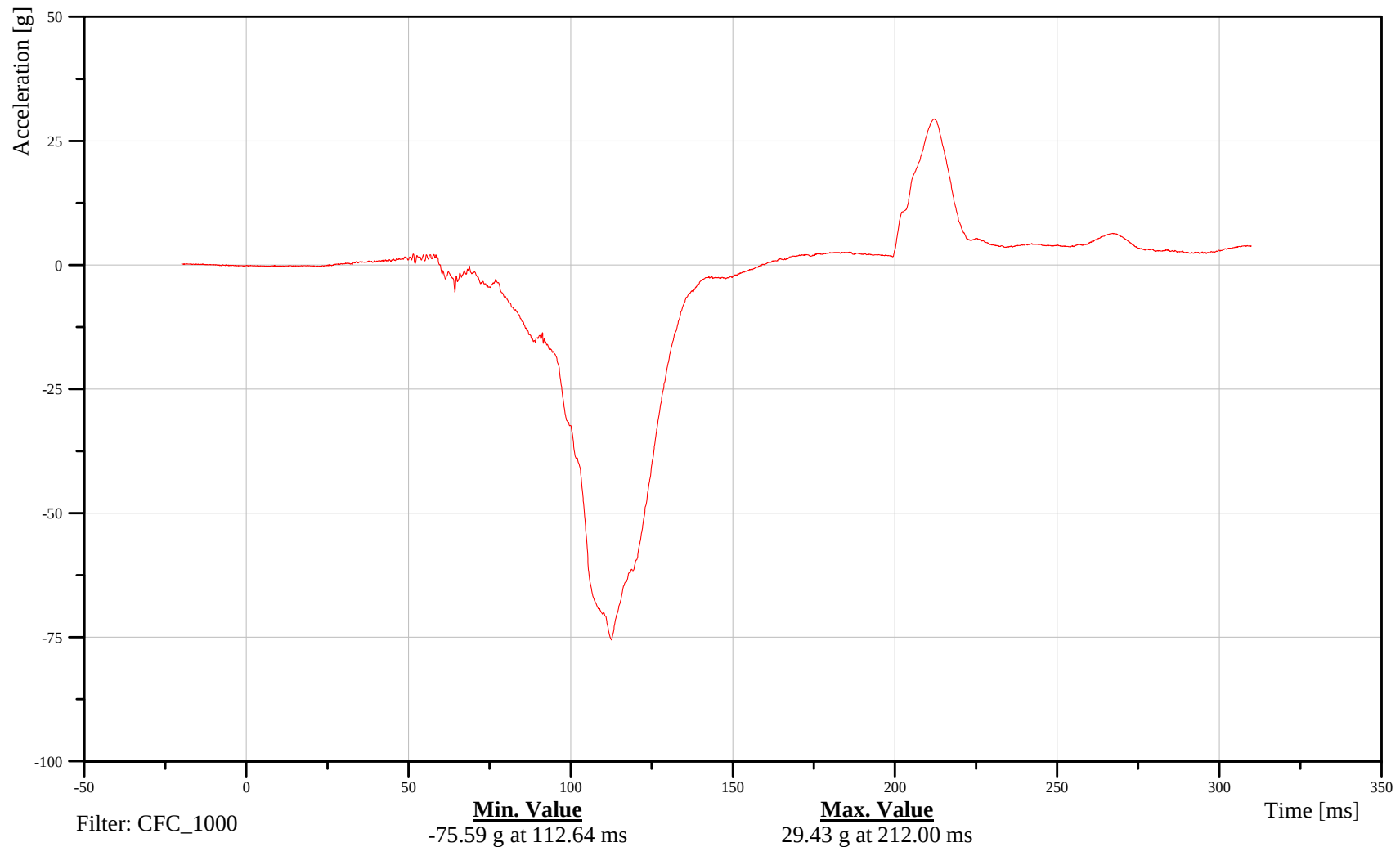
Bullet Passenger Head Top X-Axis Acceleration

Customer: VRTC

13HEADUP00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

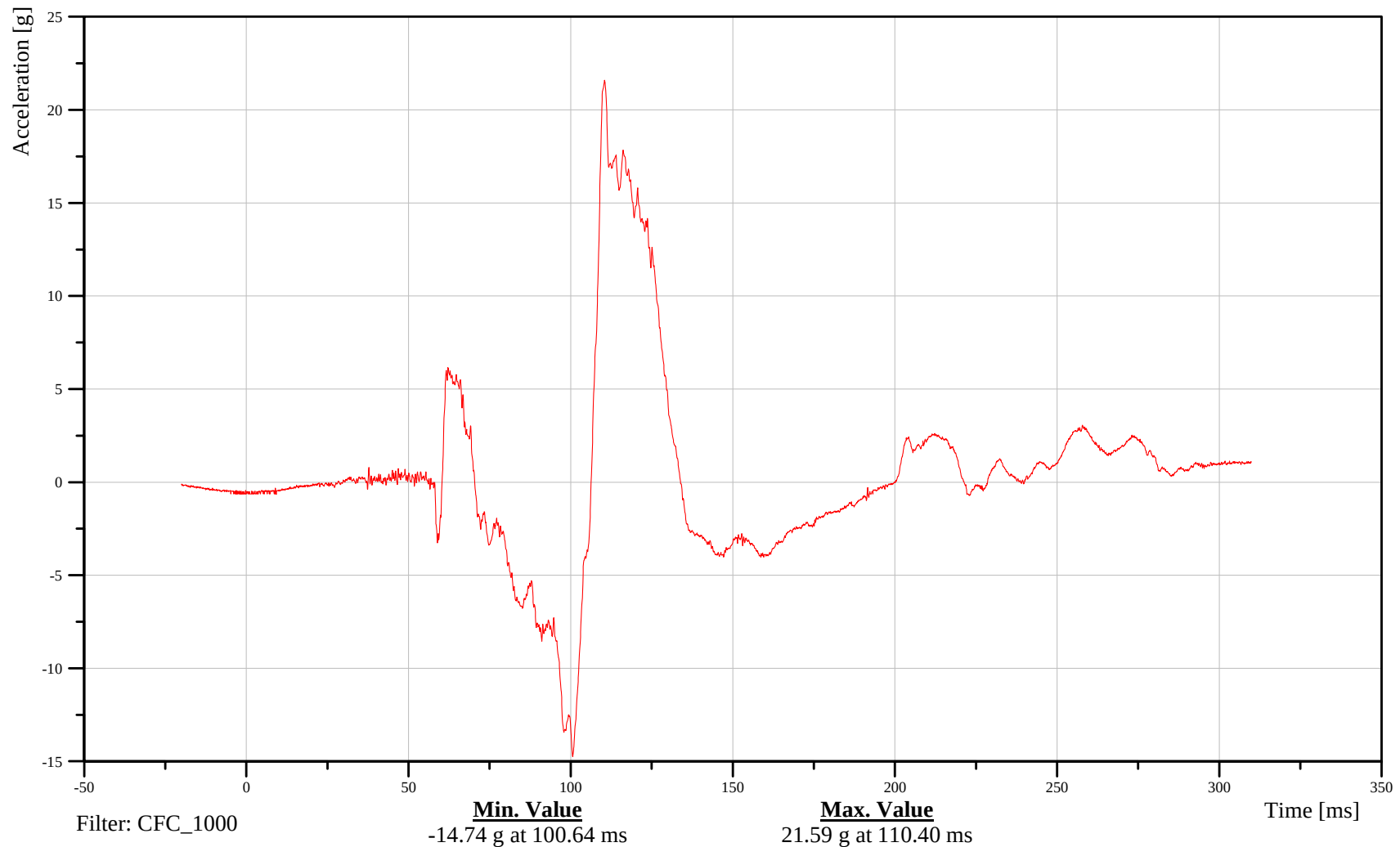
Bullet Passenger Head Top Y-Axis Acceleration

Customer: VRTC

13HEADUP00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

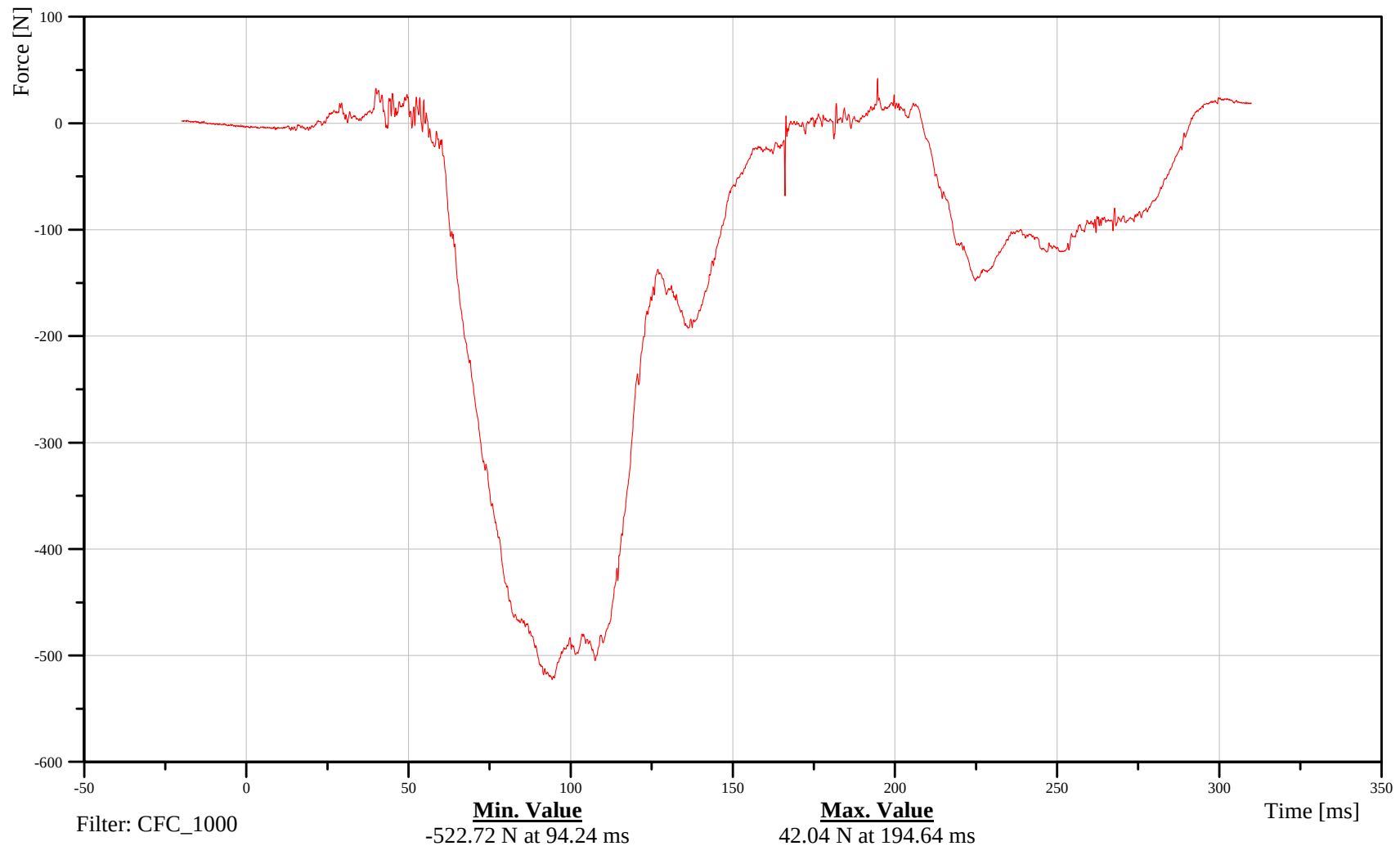
Bullet Passenger Upper Neck X-Axis Force

Customer: VRTC

13NECKUP00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

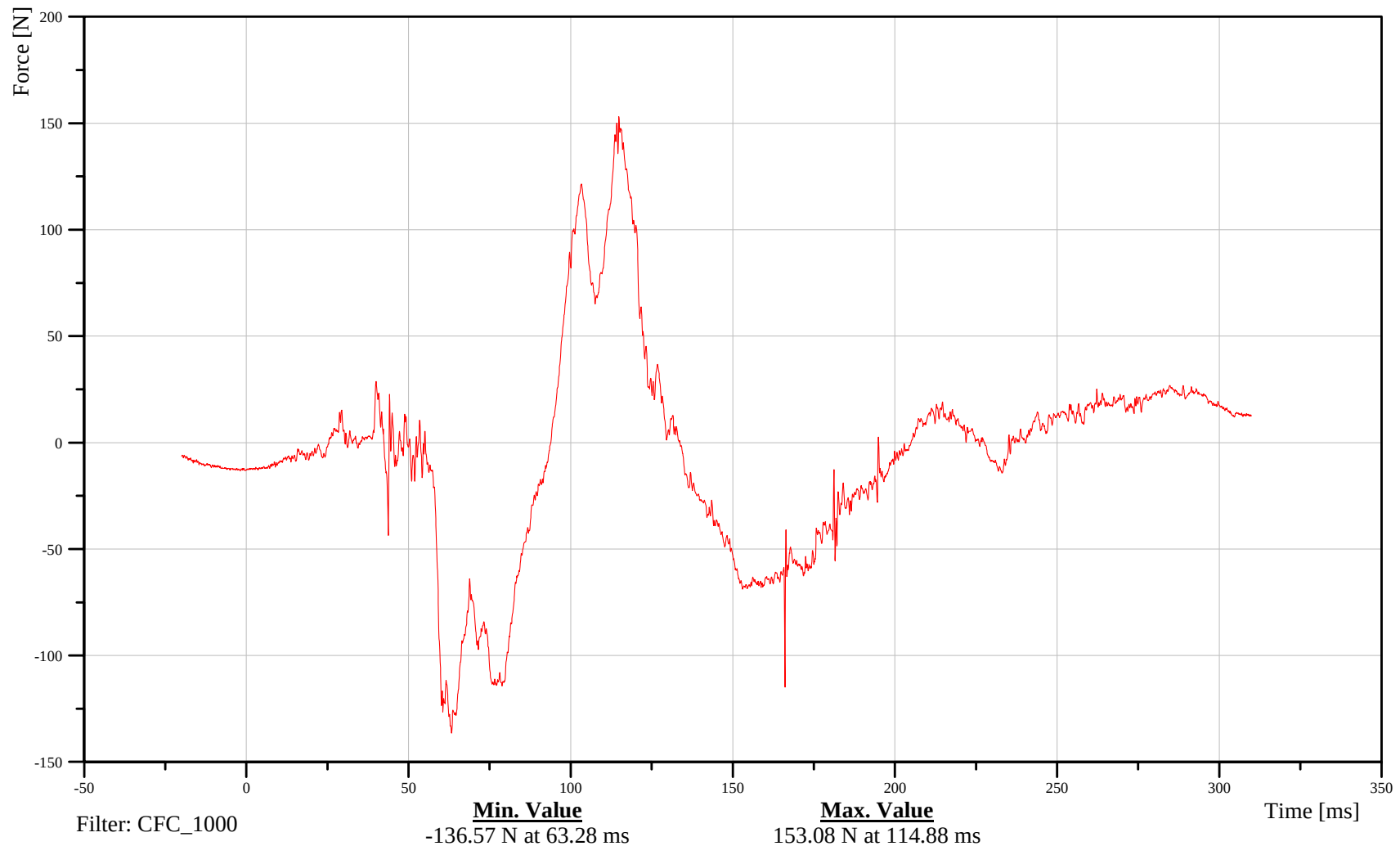
Bullet Passenger Upper Neck Y-Axis Force

Customer: VRTC

13NECKUP00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

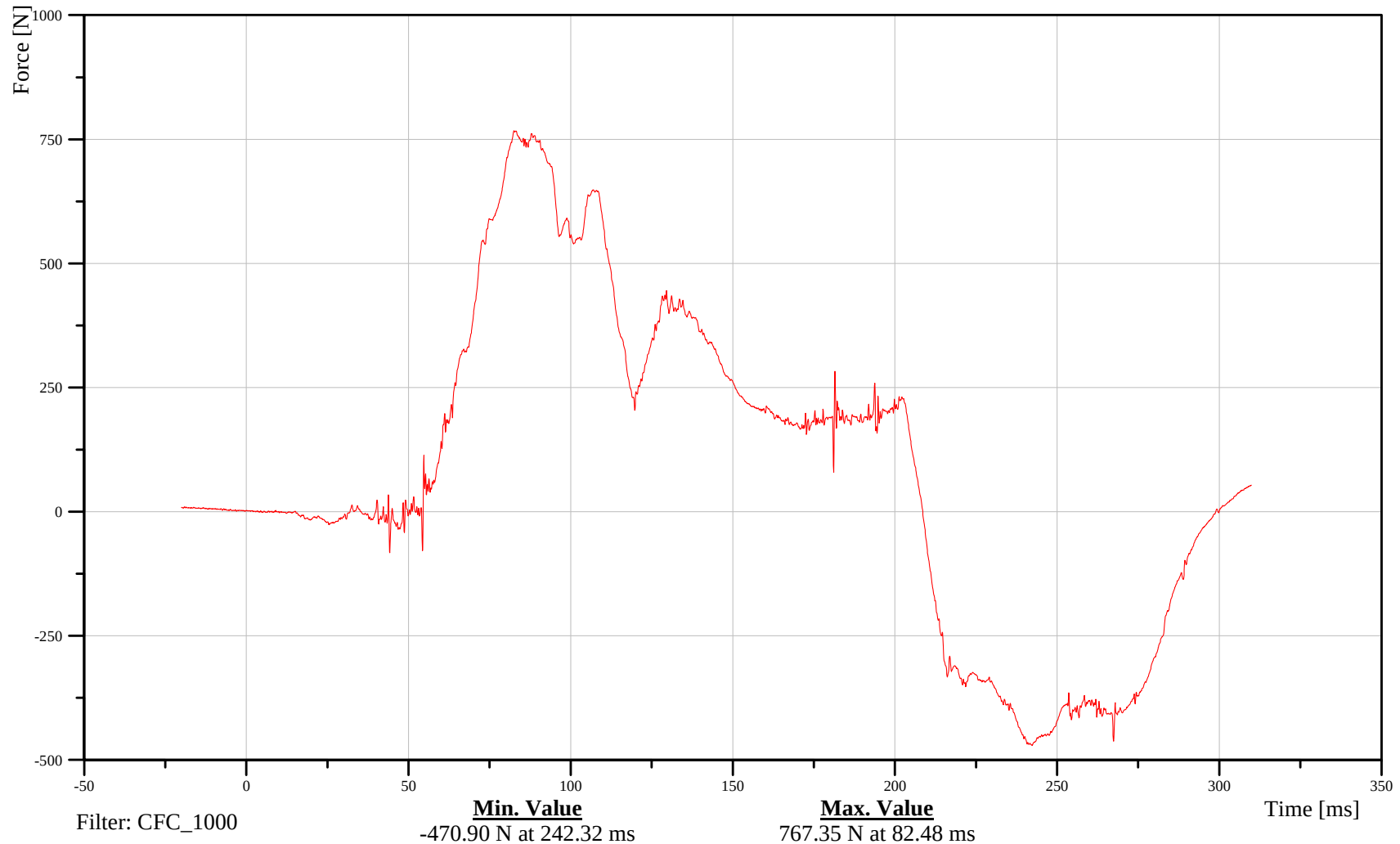
Bullet Passenger Upper Neck Z-Axis Force

Customer: VRTC

13NECKUP00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

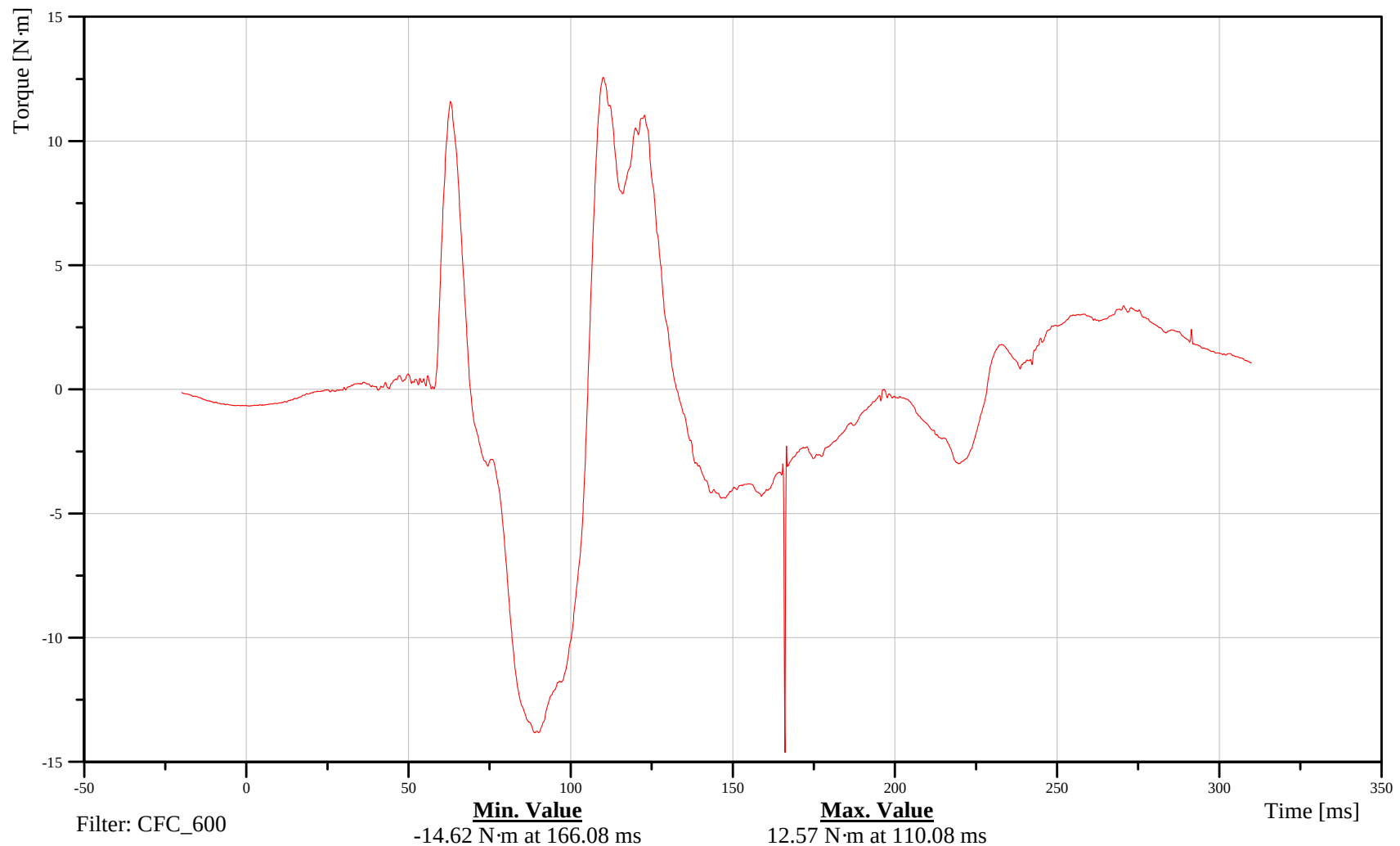
Bullet Passenger Upper Neck Moment About X Axis

Customer: VRTC

13NECKUP00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

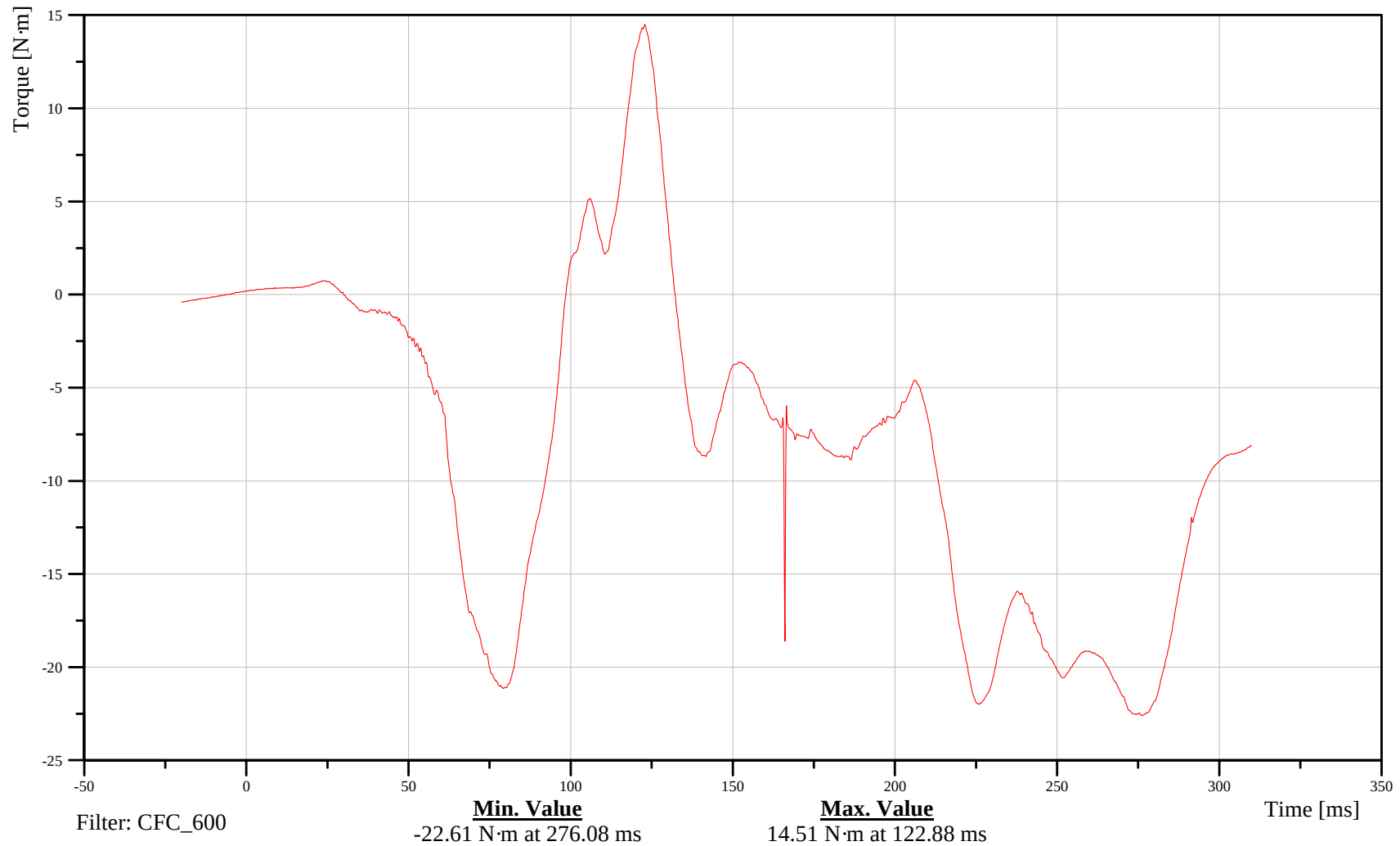
Bullet Passenger Upper Neck Moment About Y Axis

Customer: VRTC

13NECKUP00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

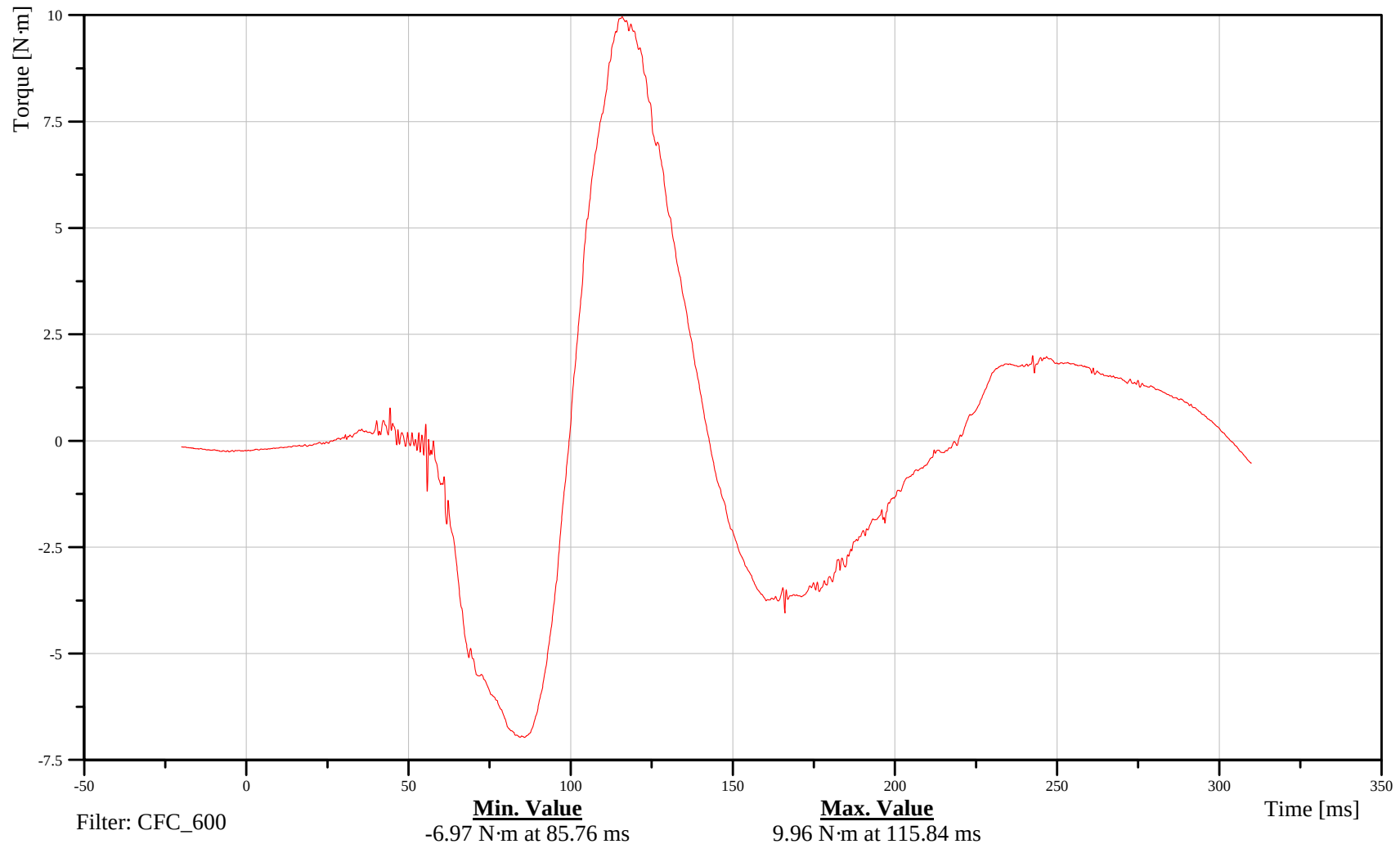
Bullet Passenger Upper Neck Moment About Z Axis

Customer: VRTC

13NECKUP00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

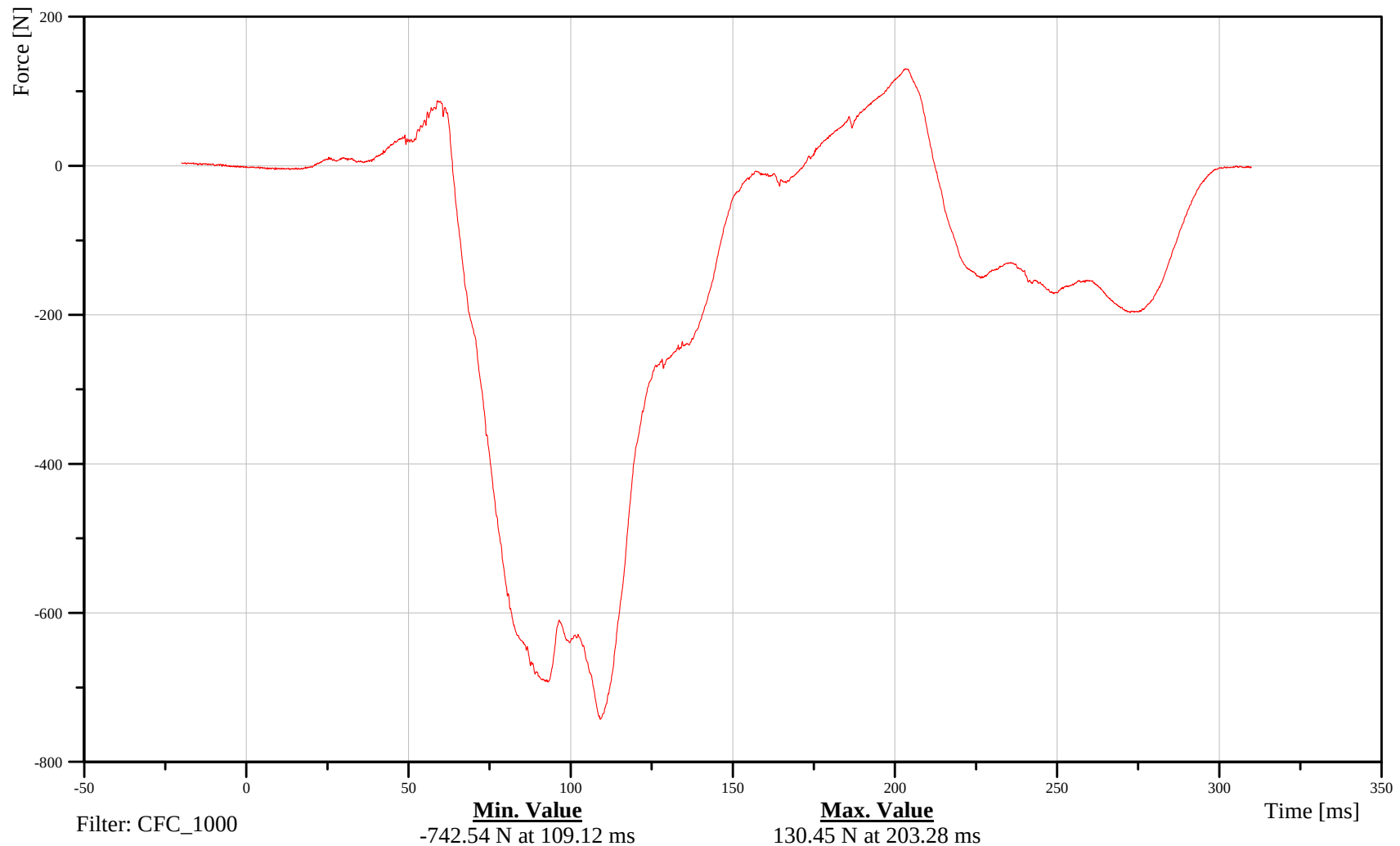
Bullet Passenger Lower Neck X-Axis Force

Customer: VRTC

13NECKLO00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

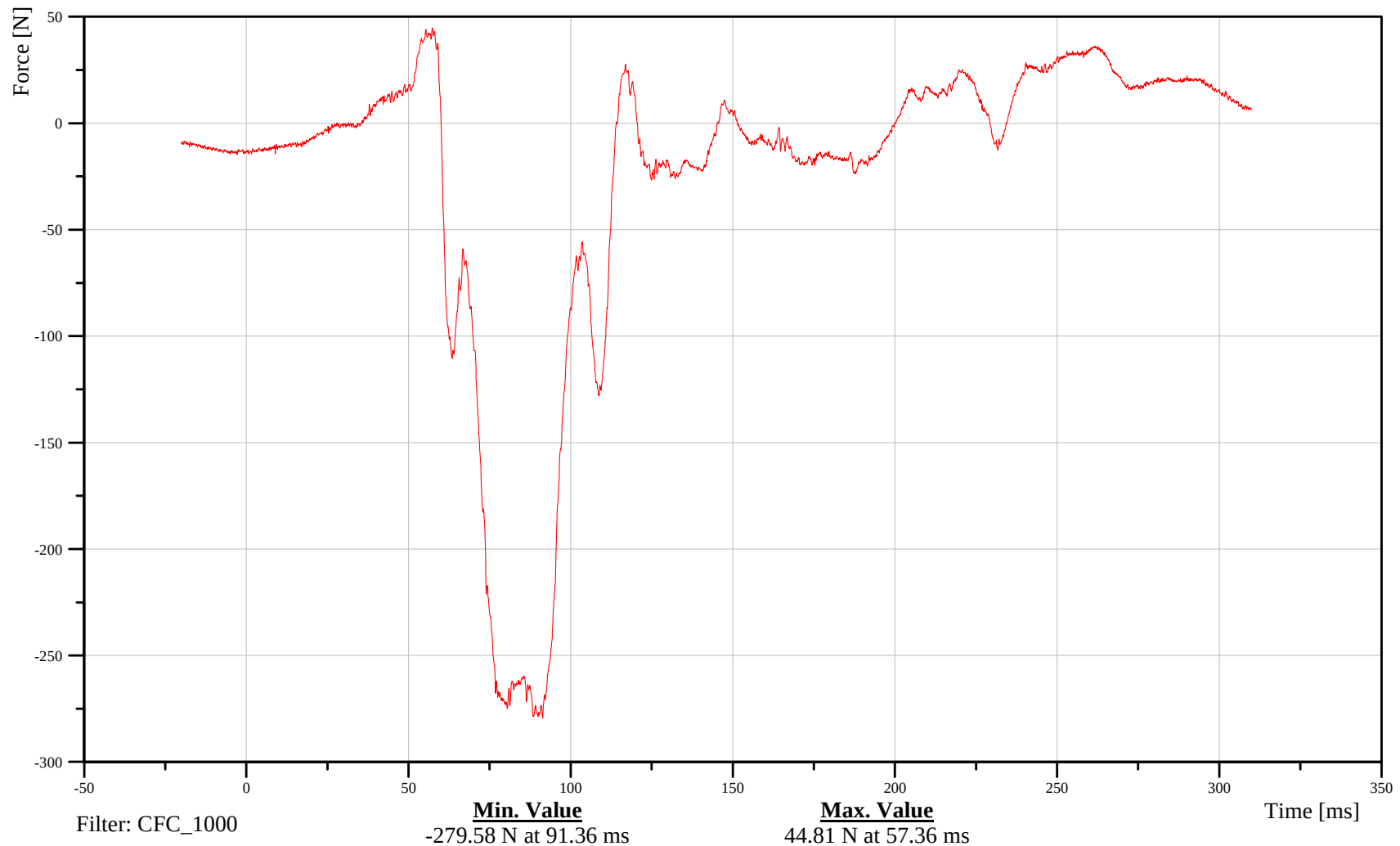
Bullet Passenger Lower Neck Y-Axis Force

Customer: VRTC

13NECKLO00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

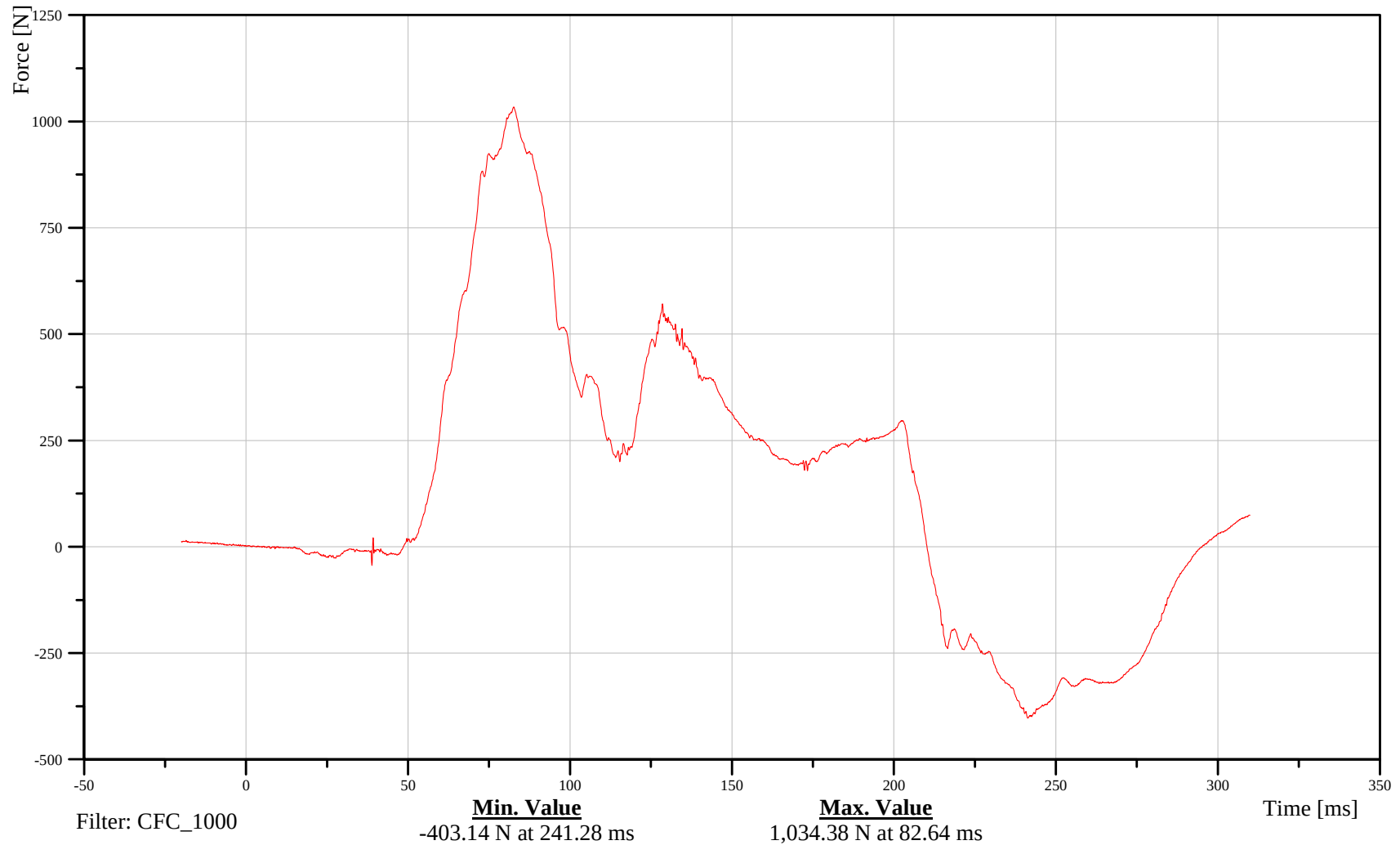
Bullet Passenger Lower Neck Z-Axis Force

Customer: VRTC

13NECKLO00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

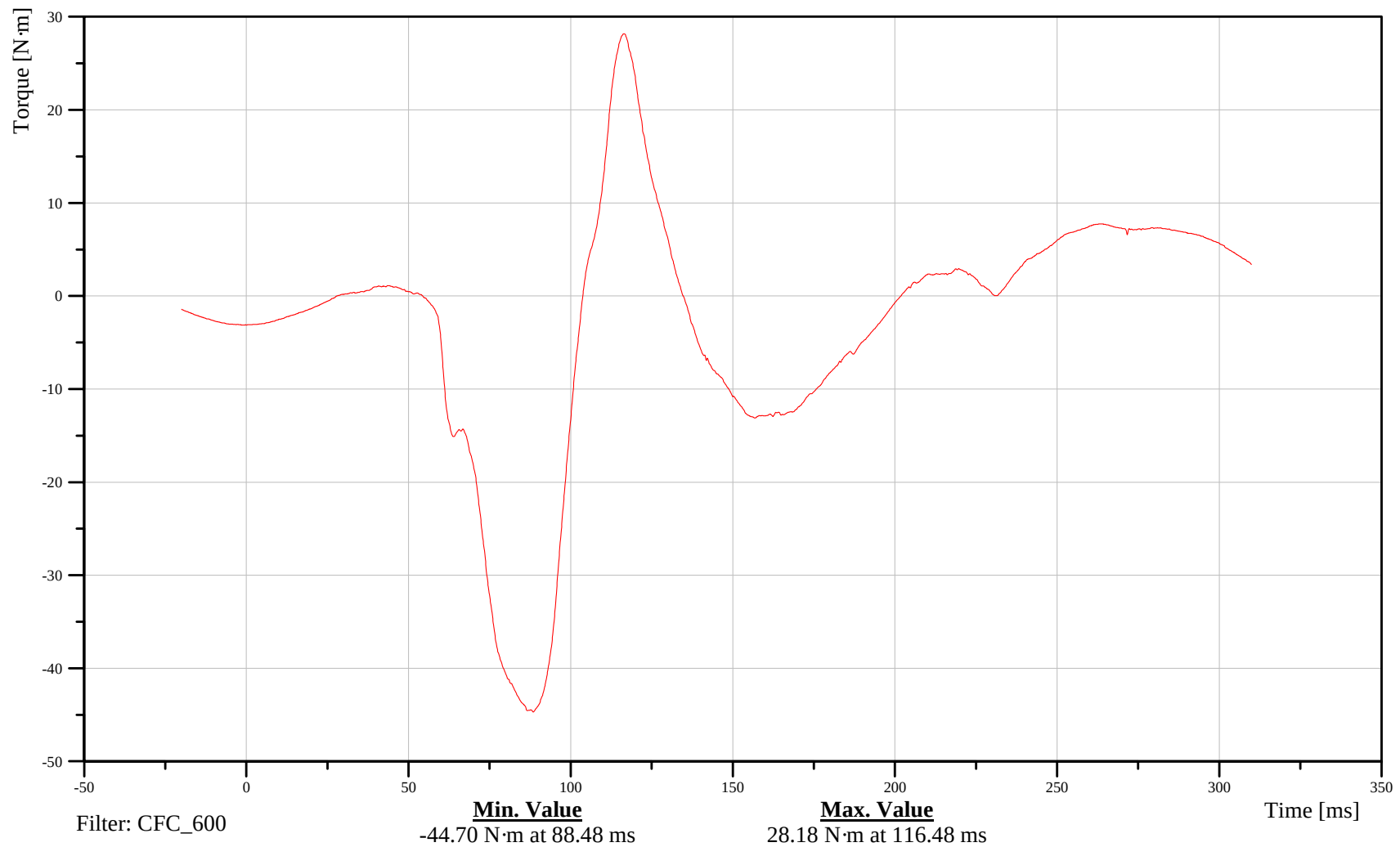
Bullet Passenger Lower Neck Moment About X Axis

Customer: VRTC

13NECKLO00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

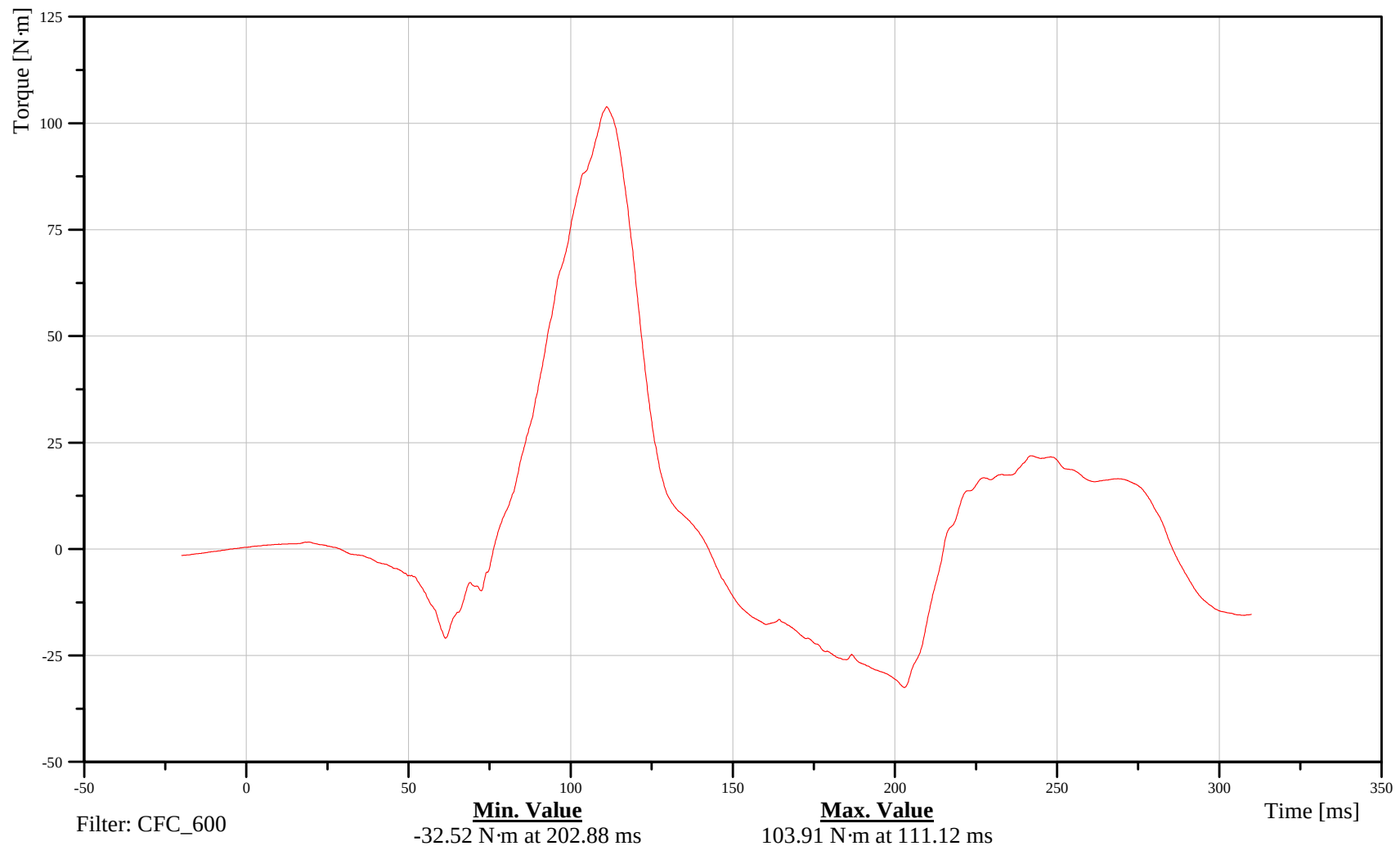
Bullet Passenger Lower Neck Moment About Y Axis

Customer: VRTC

13NECKLO00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

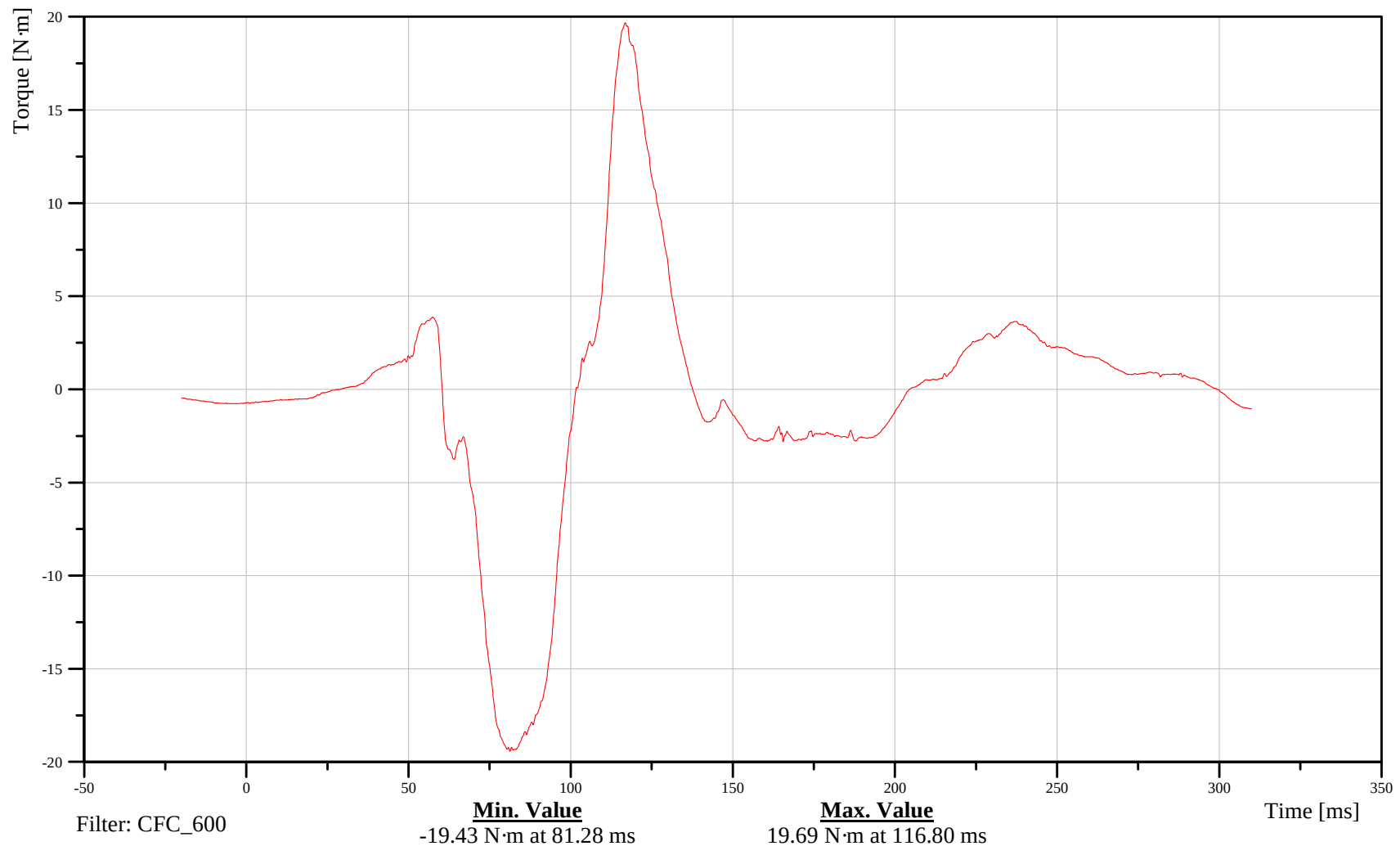
Bullet Passenger Lower Neck Moment About Z Axis

Customer: VRTC

13NECKLO00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

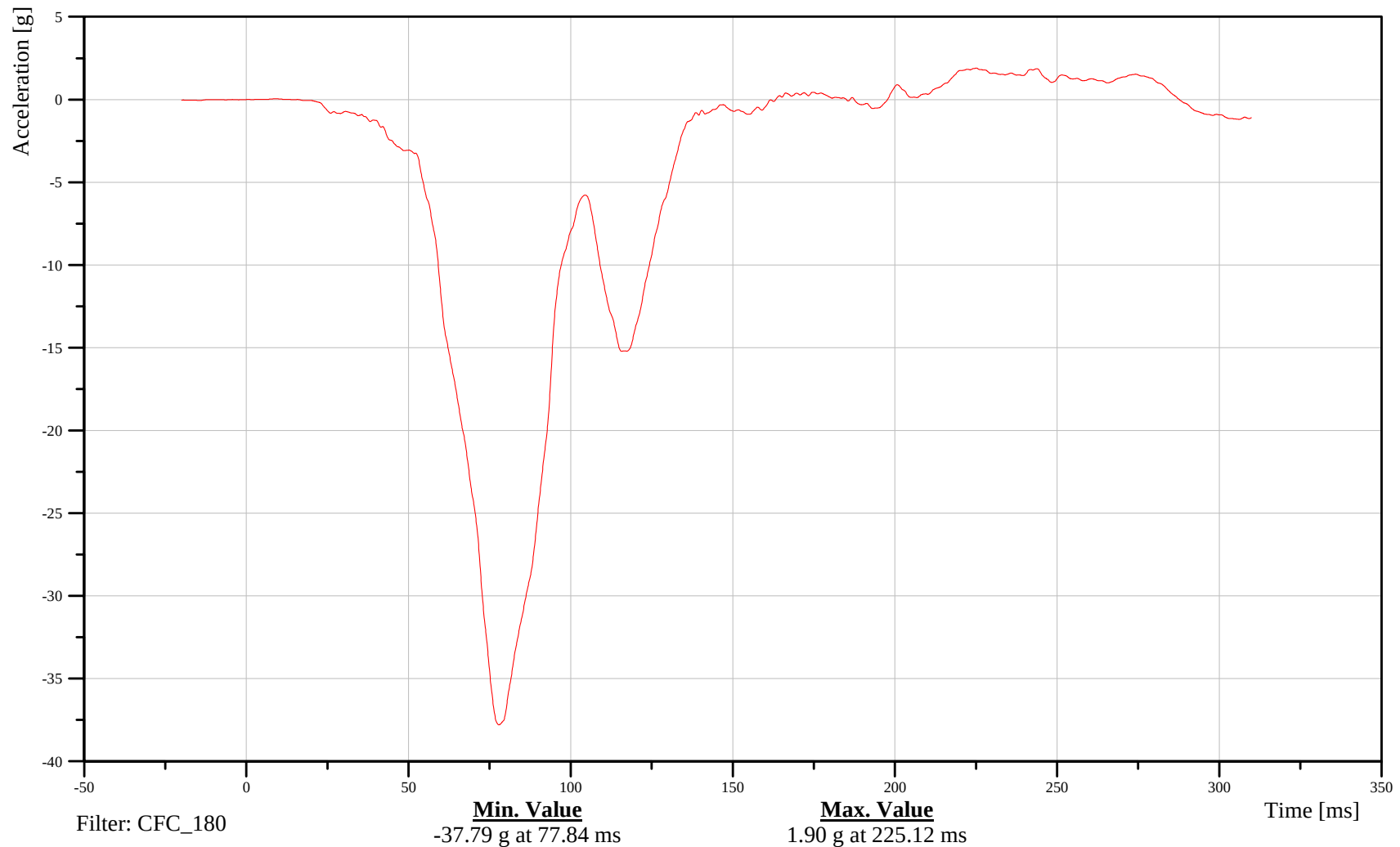
Bullet Passenger Chest CG X-Axis Acceleration

Customer: VRTC

13CHSTCG00HFACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Chest CG Y-Axis Acceleration

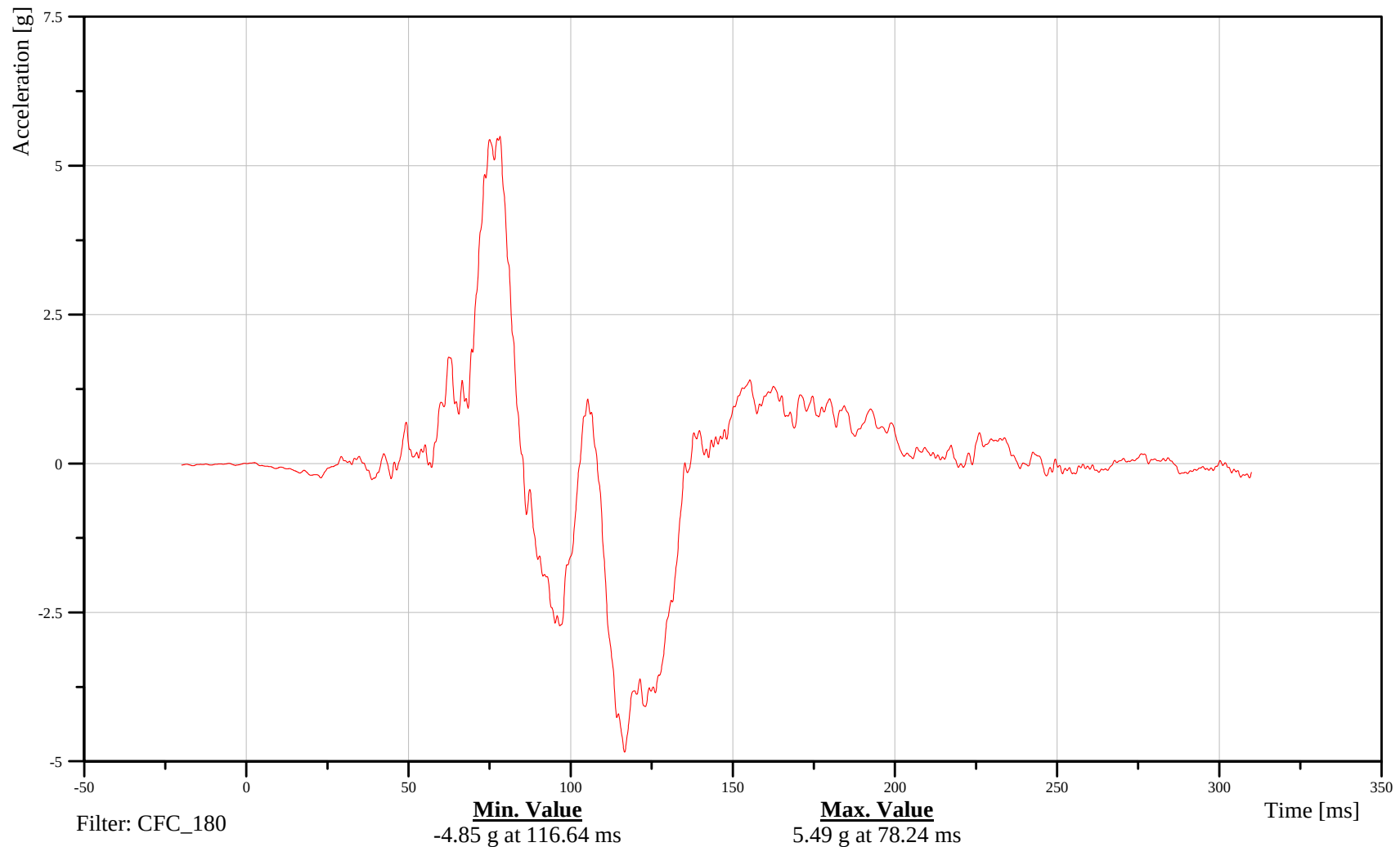
Time: 07:16

Customer: VRTC

13CHSTCG00HFACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

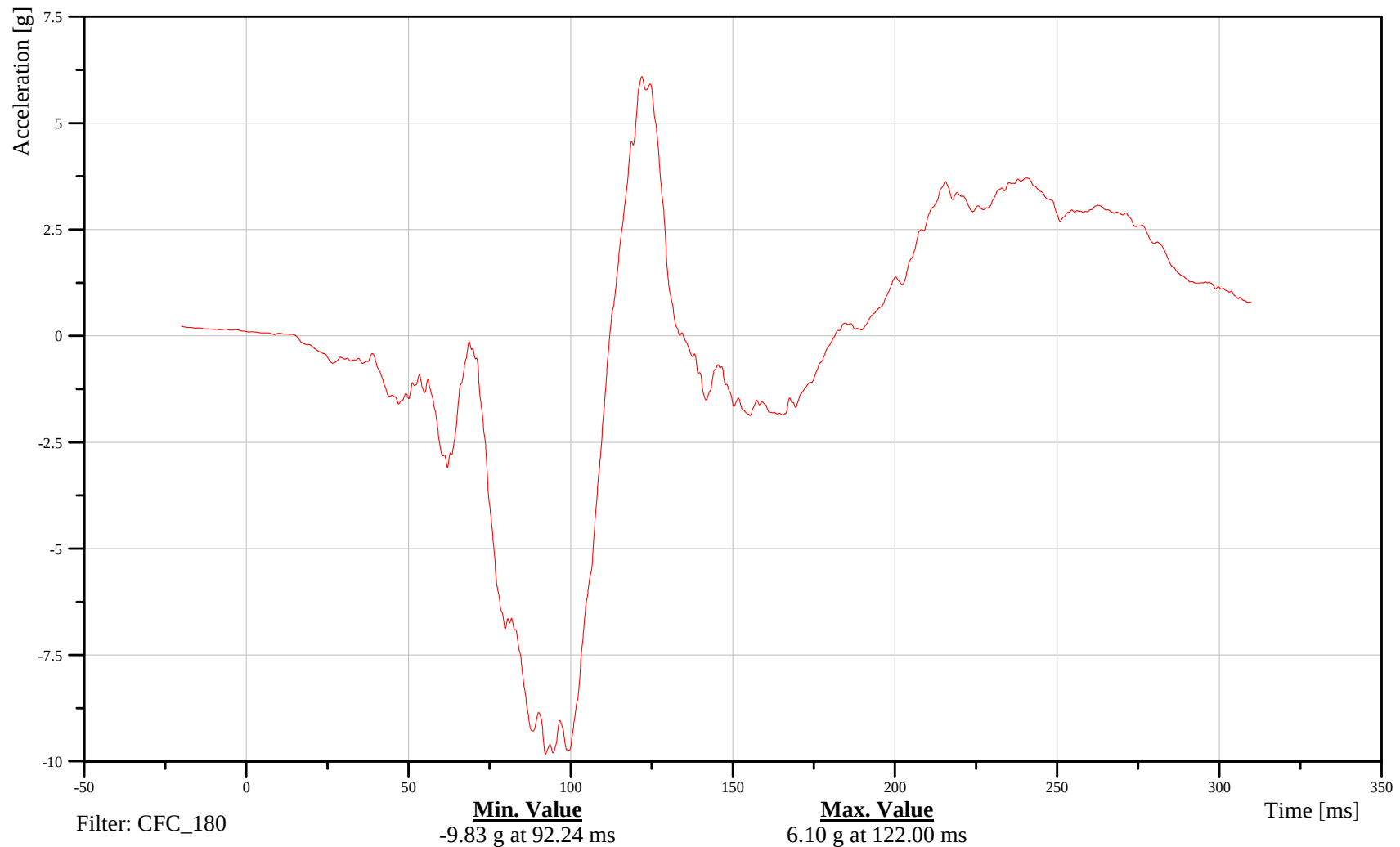
Bullet Passenger Chest CG Z-Axis Acceleration

Customer: VRTC

13CHSTCG00HFACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

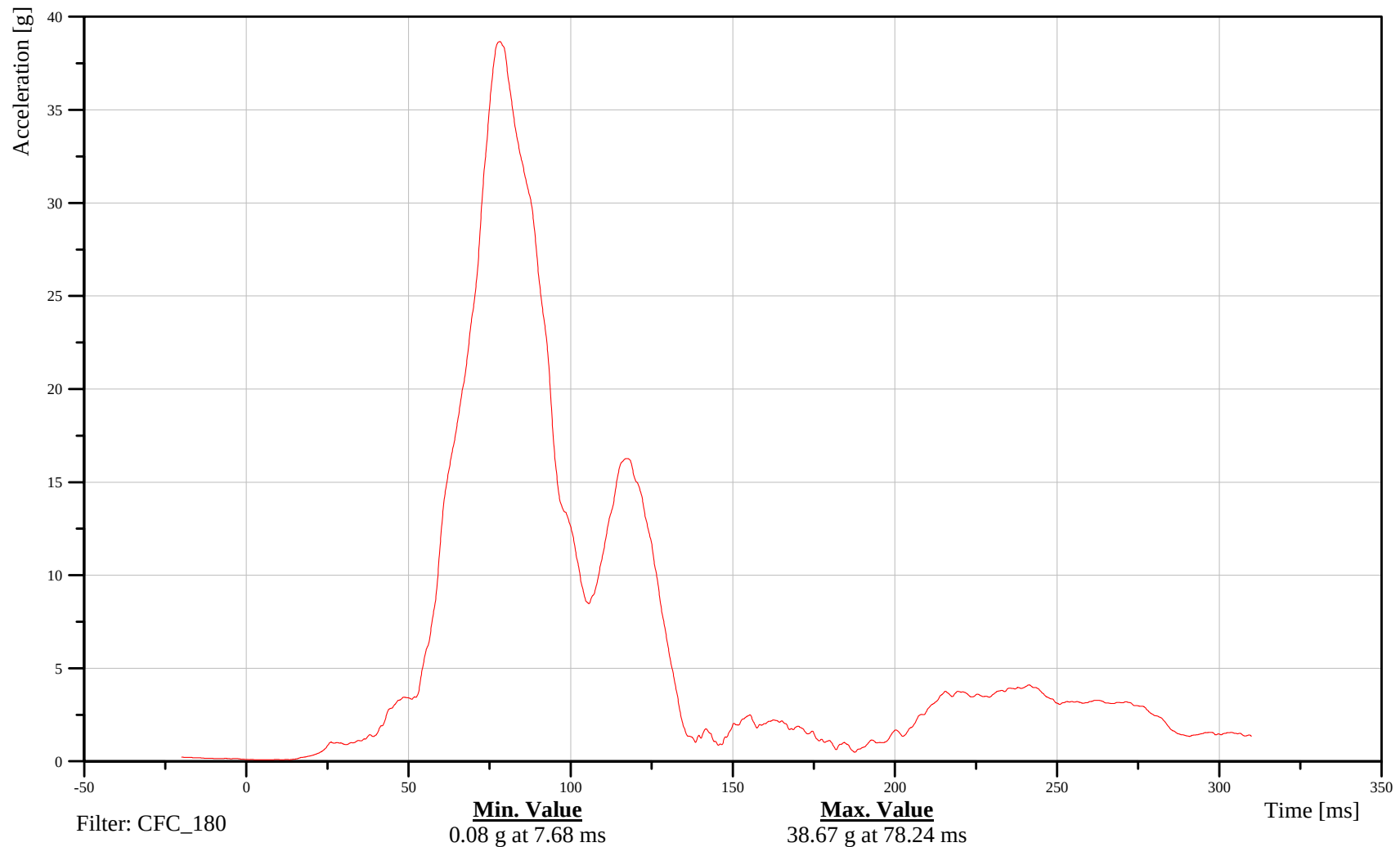
Bullet Passenger Chest CG Resultant Acceleration

Customer: VRTC

13CHSTCG00HFACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

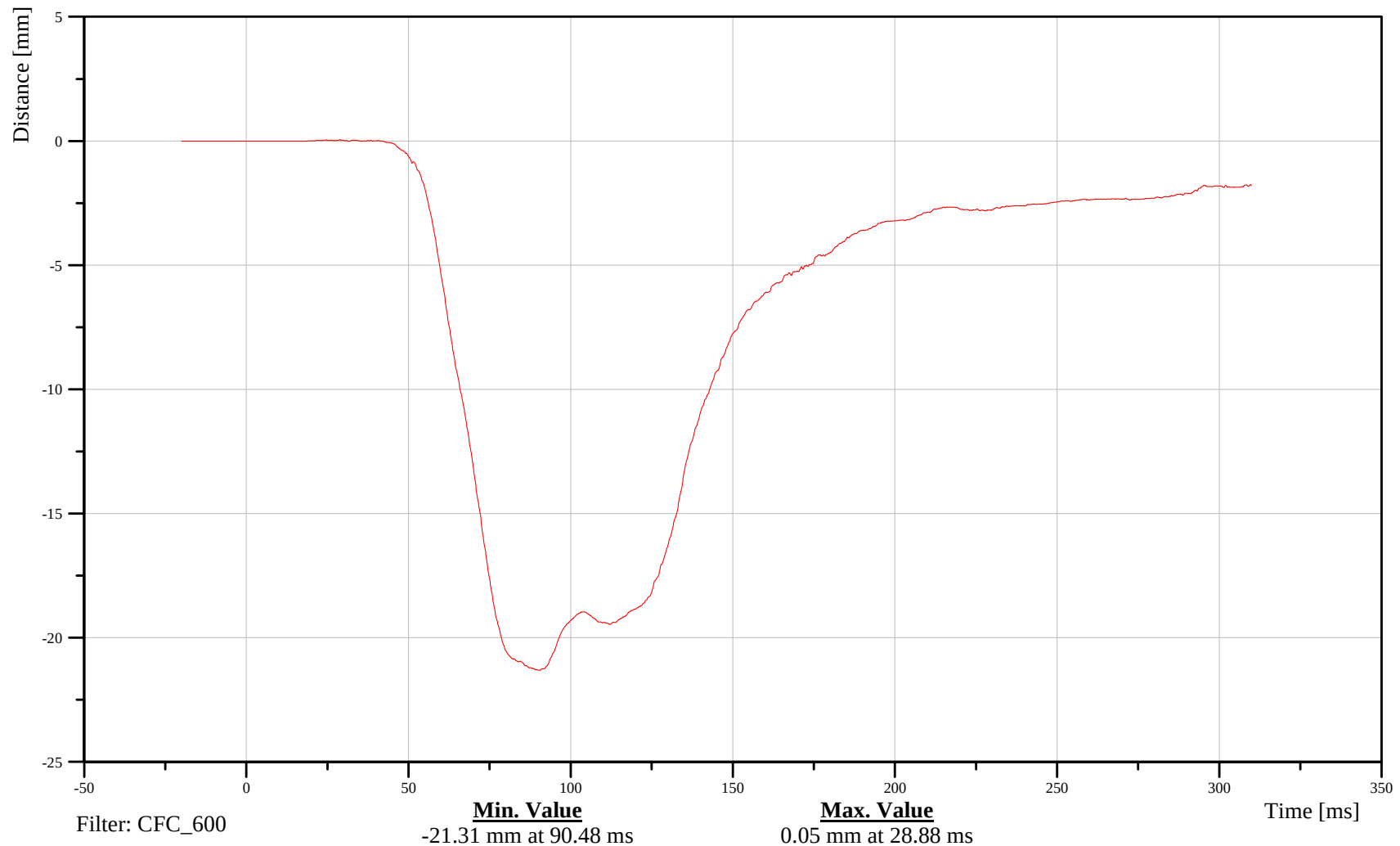
Bullet Passenger Chest Displacement

Customer: VRTC

13CHST0000HFDSXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Pelvis CG X-Axis Acceleration

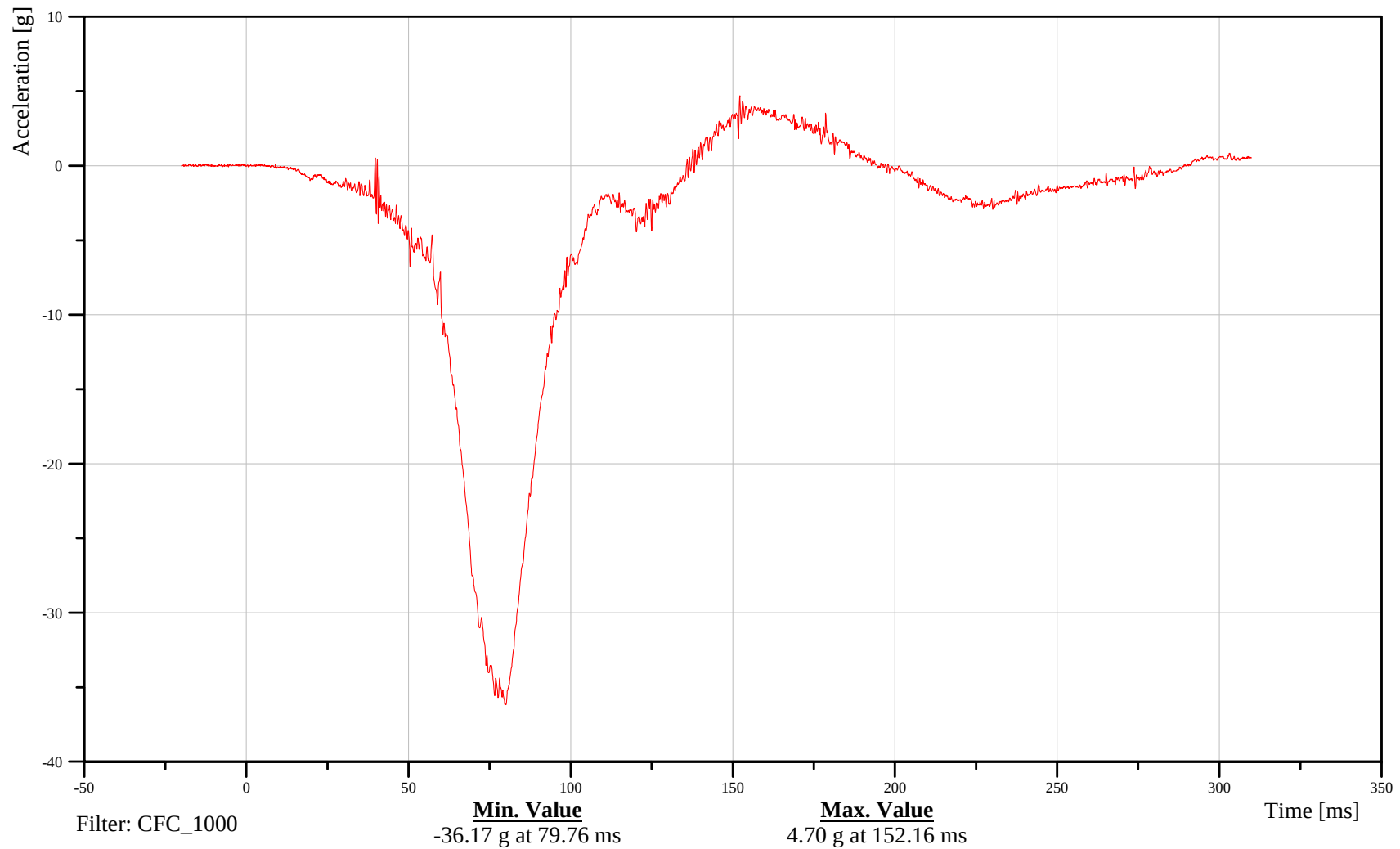
Time: 07:16

Customer: VRTC

13PELVCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

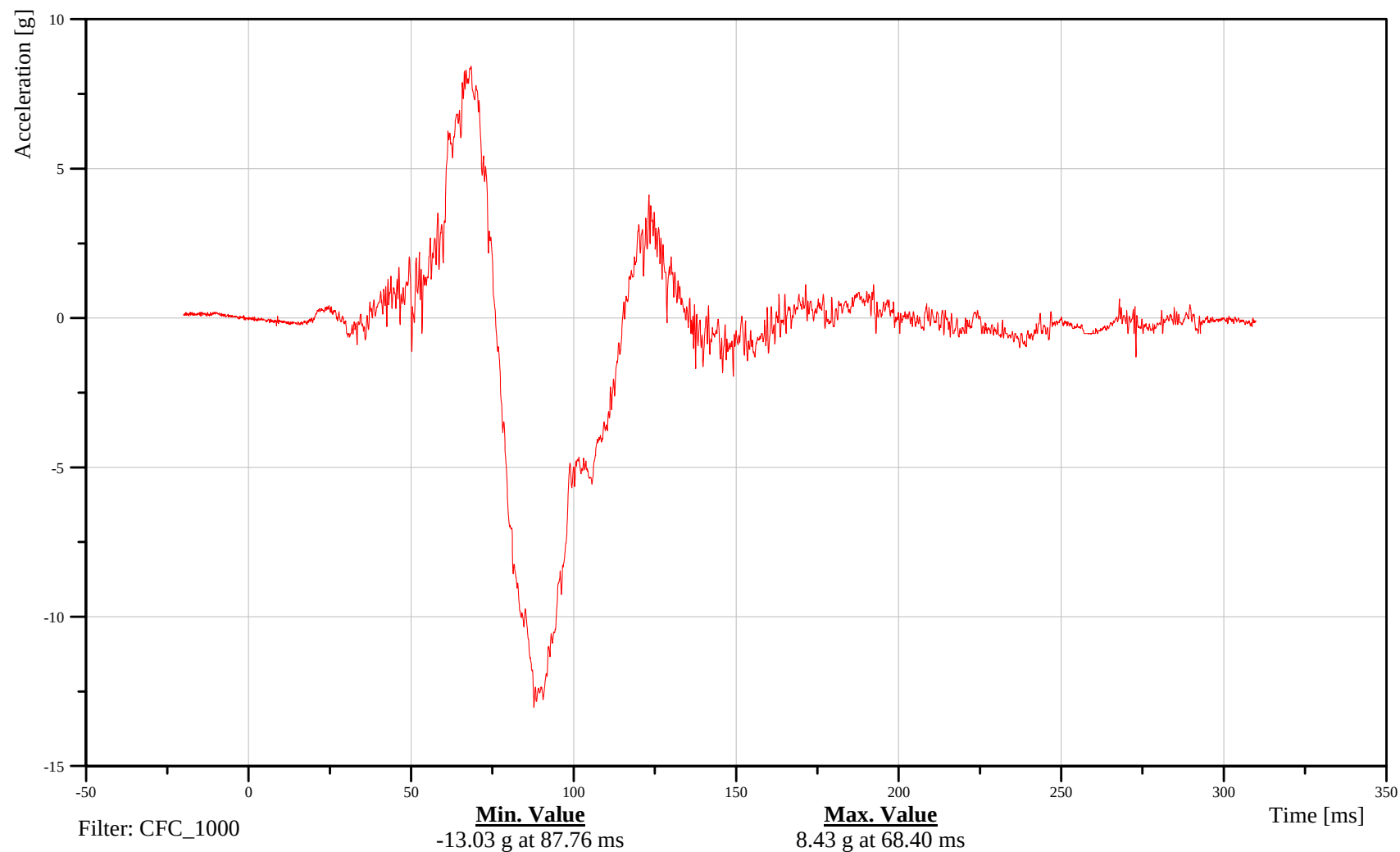
Bullet Passenger Pelvis CG Y-Axis Acceleration

Customer: VRTC

13PELVCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

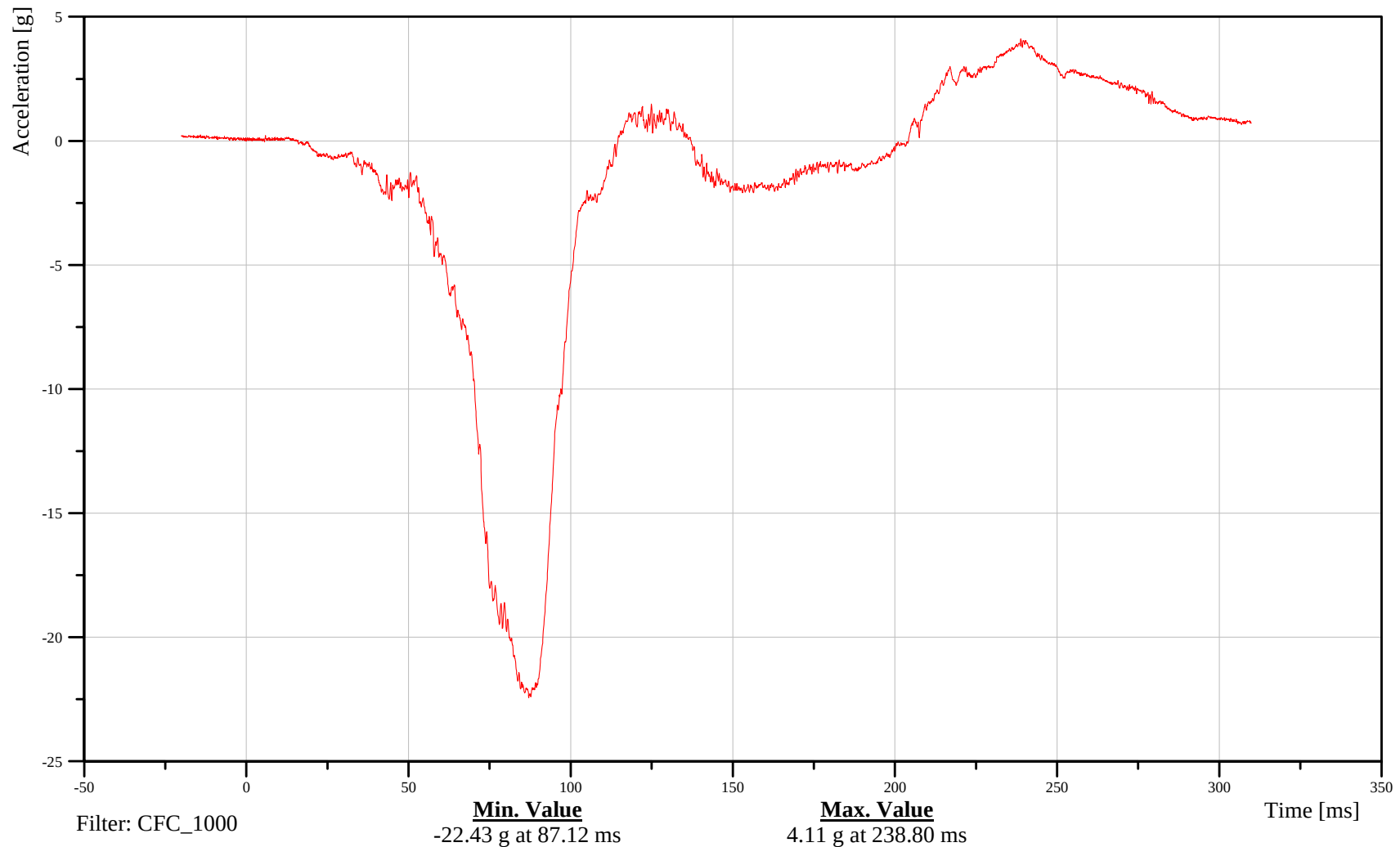
Bullet Passenger Pelvis CG Z-Axis Acceleration

Customer: VRTC

13PELVCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

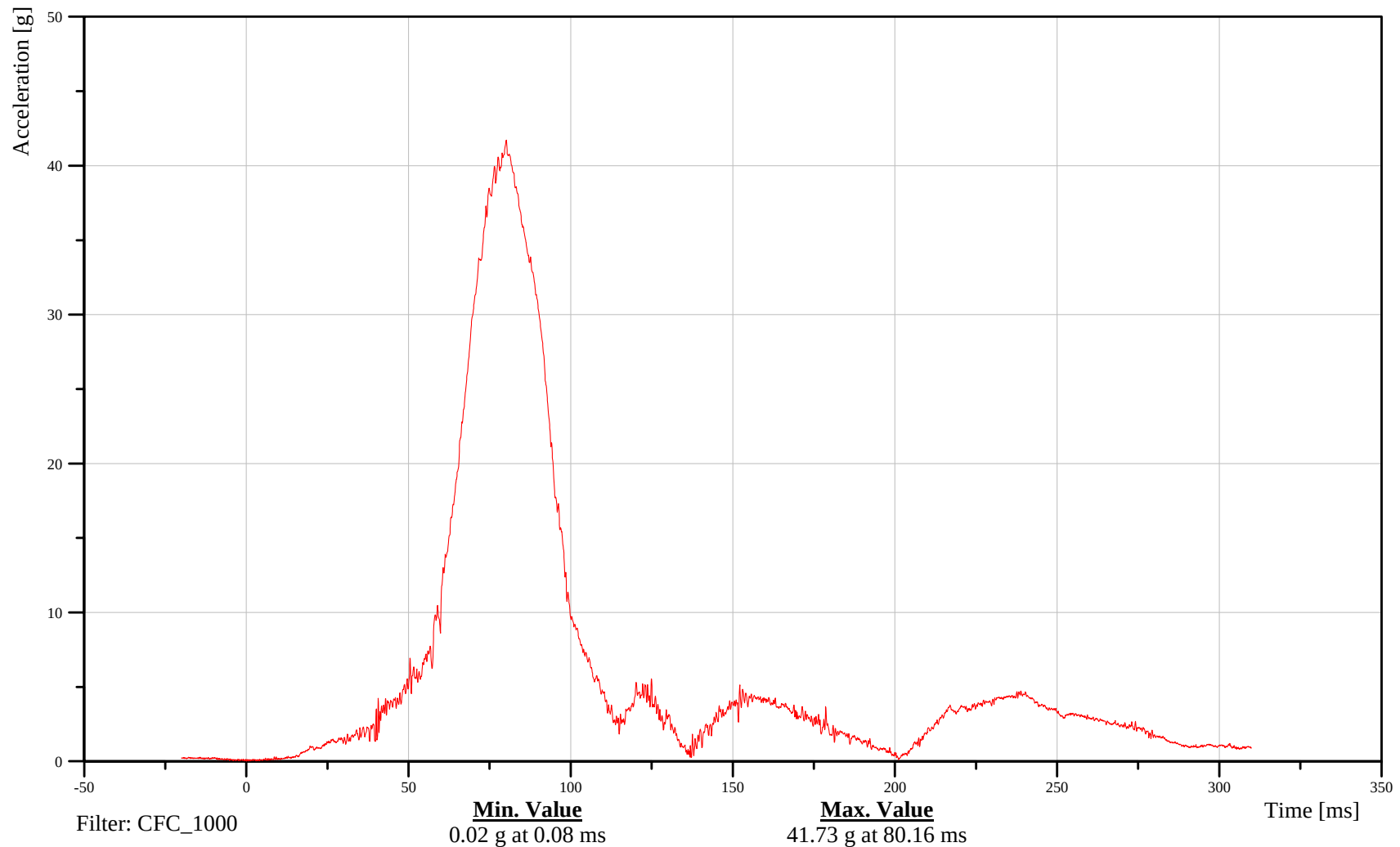
Bullet Passenger Pelvis CG Resultant Acceleration

Customer: VRTC

13PELVCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Passenger Left Femur Z-Axis Force

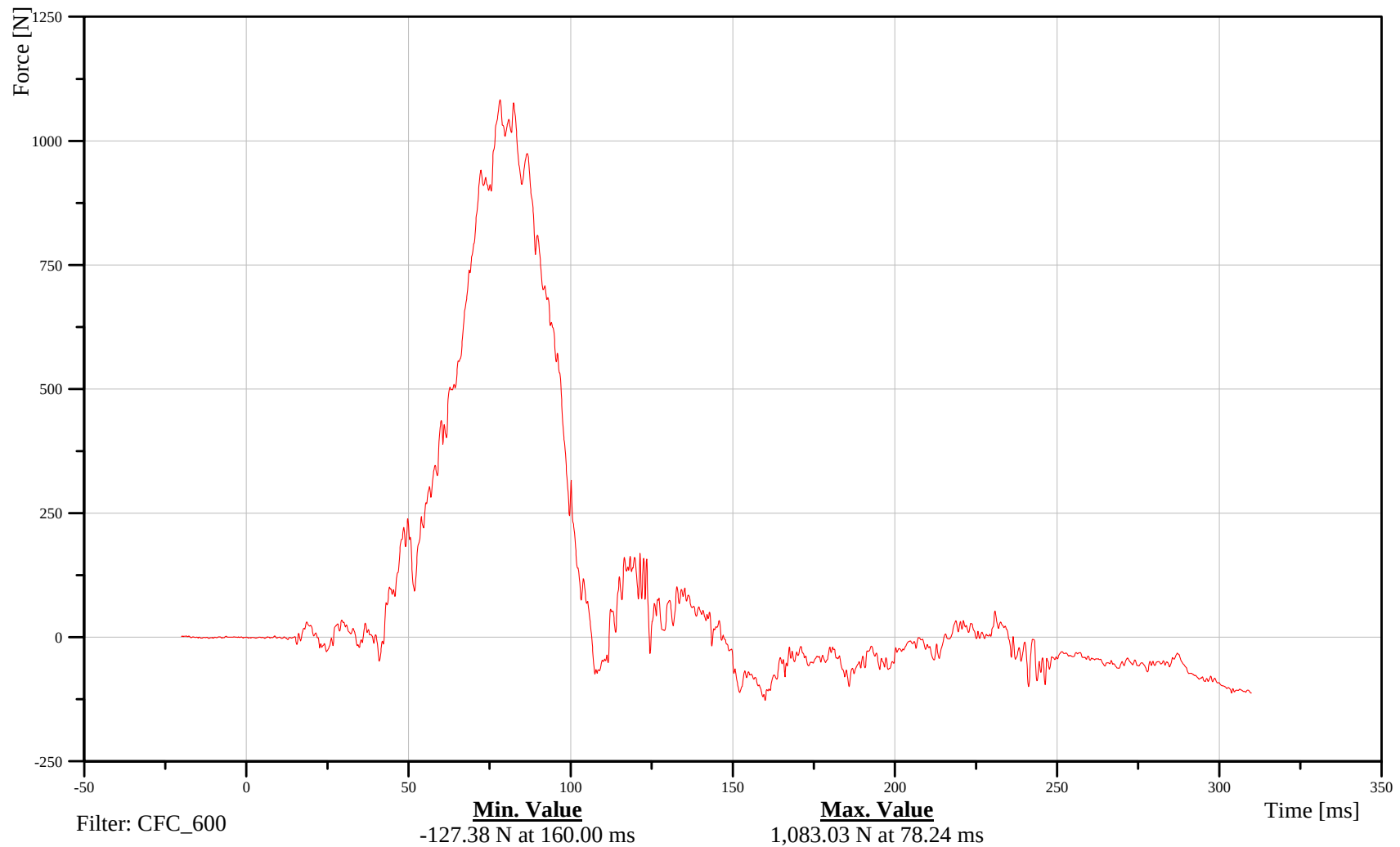
Time: 07:16

Customer: VRTC

13FEMRLL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

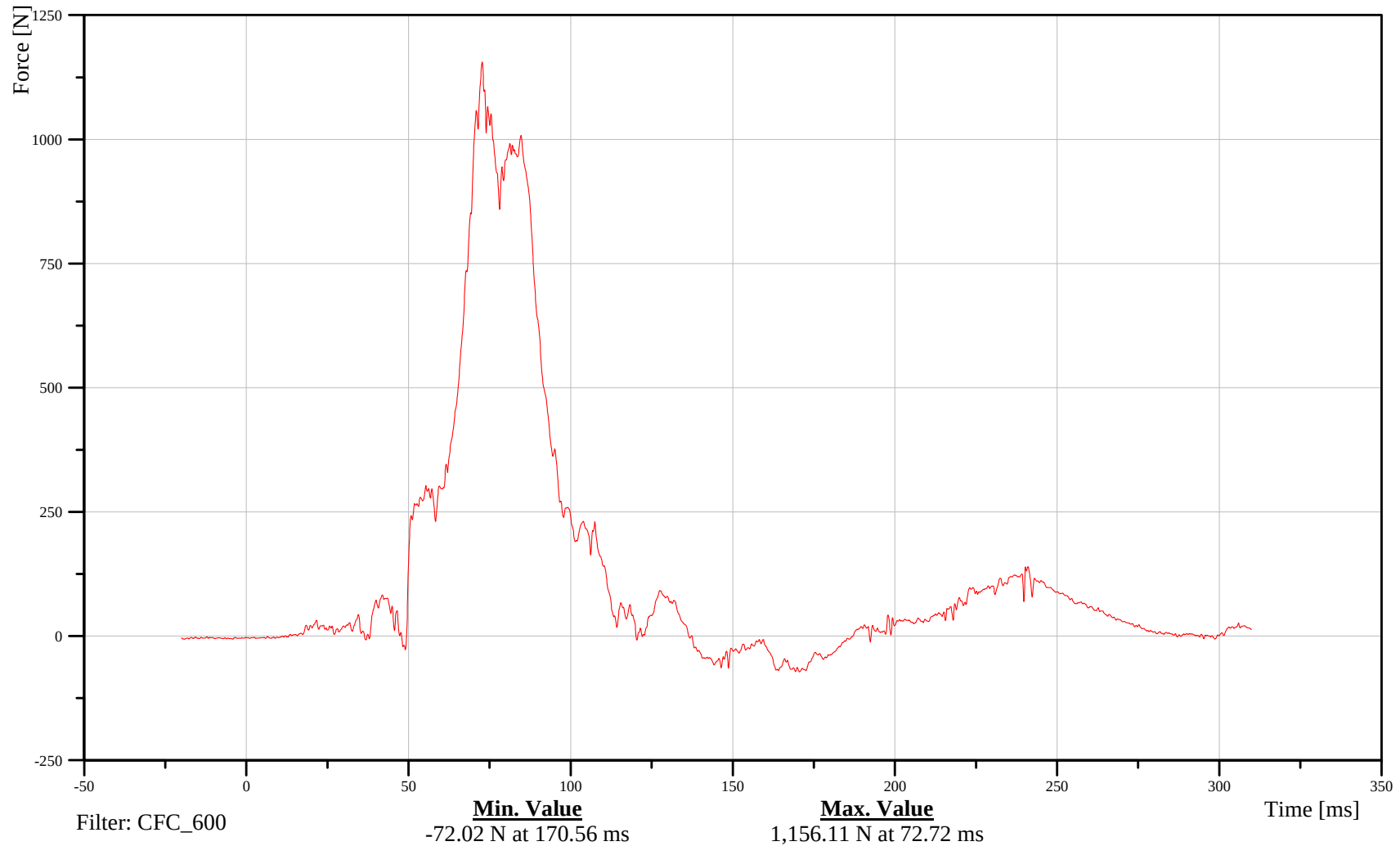
Bullet Passenger Right Femur Z-Axis Force

Customer: VRTC

13FEMRRL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Vehicle Left Rear Seat Crossmember X-Axis Acceleration

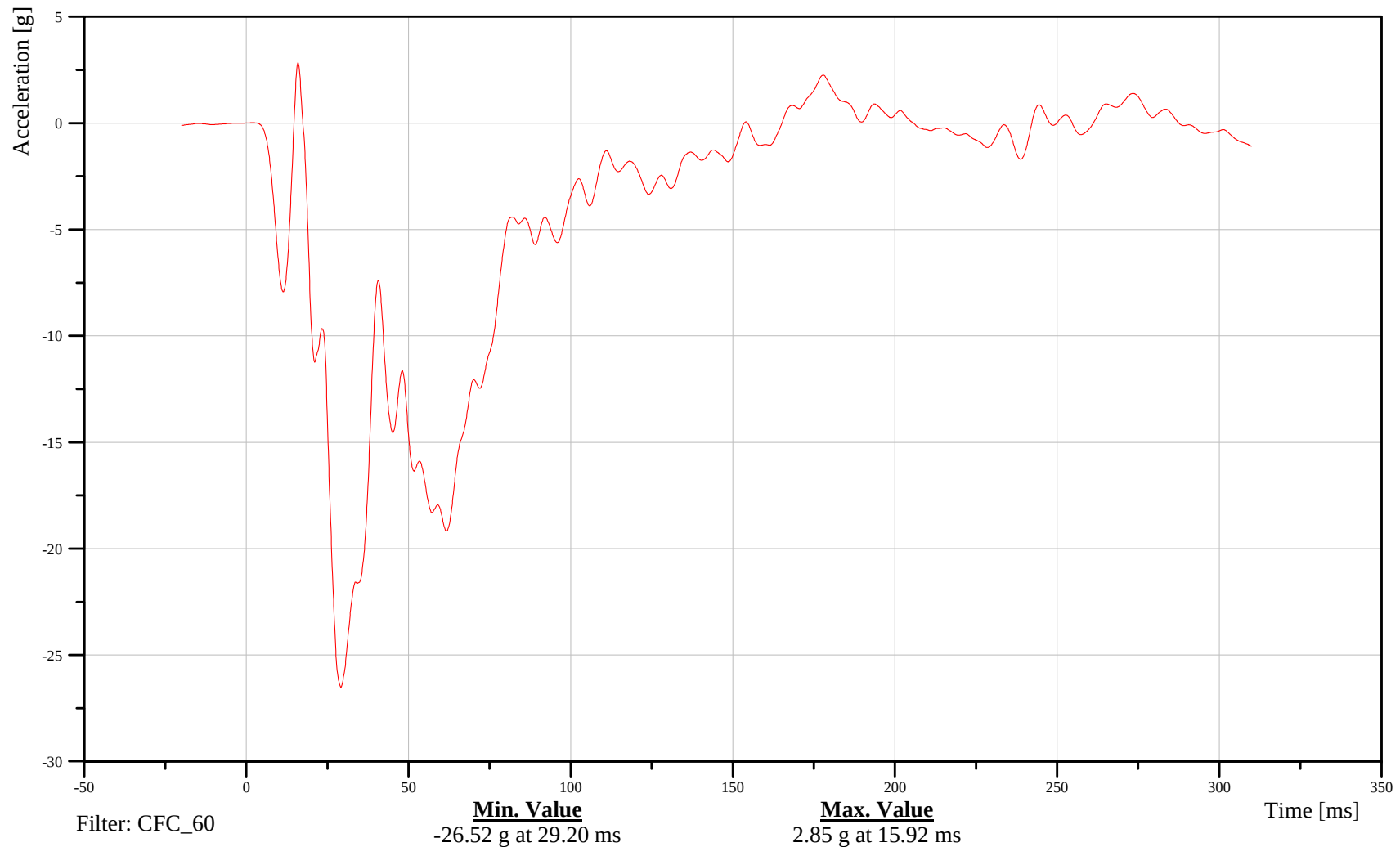
Time: 07:16

Customer: VRTC

14CRME000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

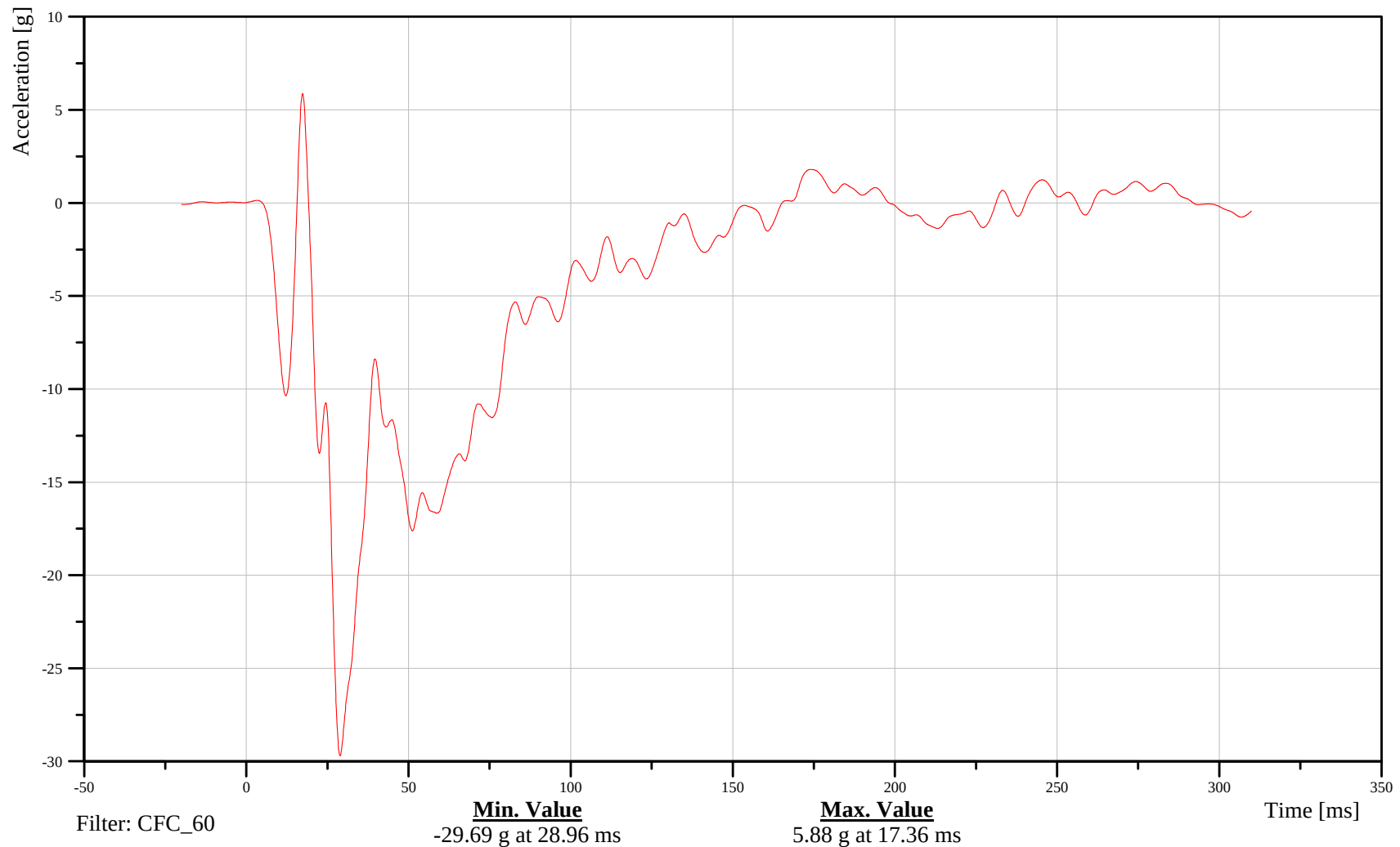
Bullet Vehicle Right Rear Seat Crossmember X-Axis Acceleration

Customer: VRTC

16CRME000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

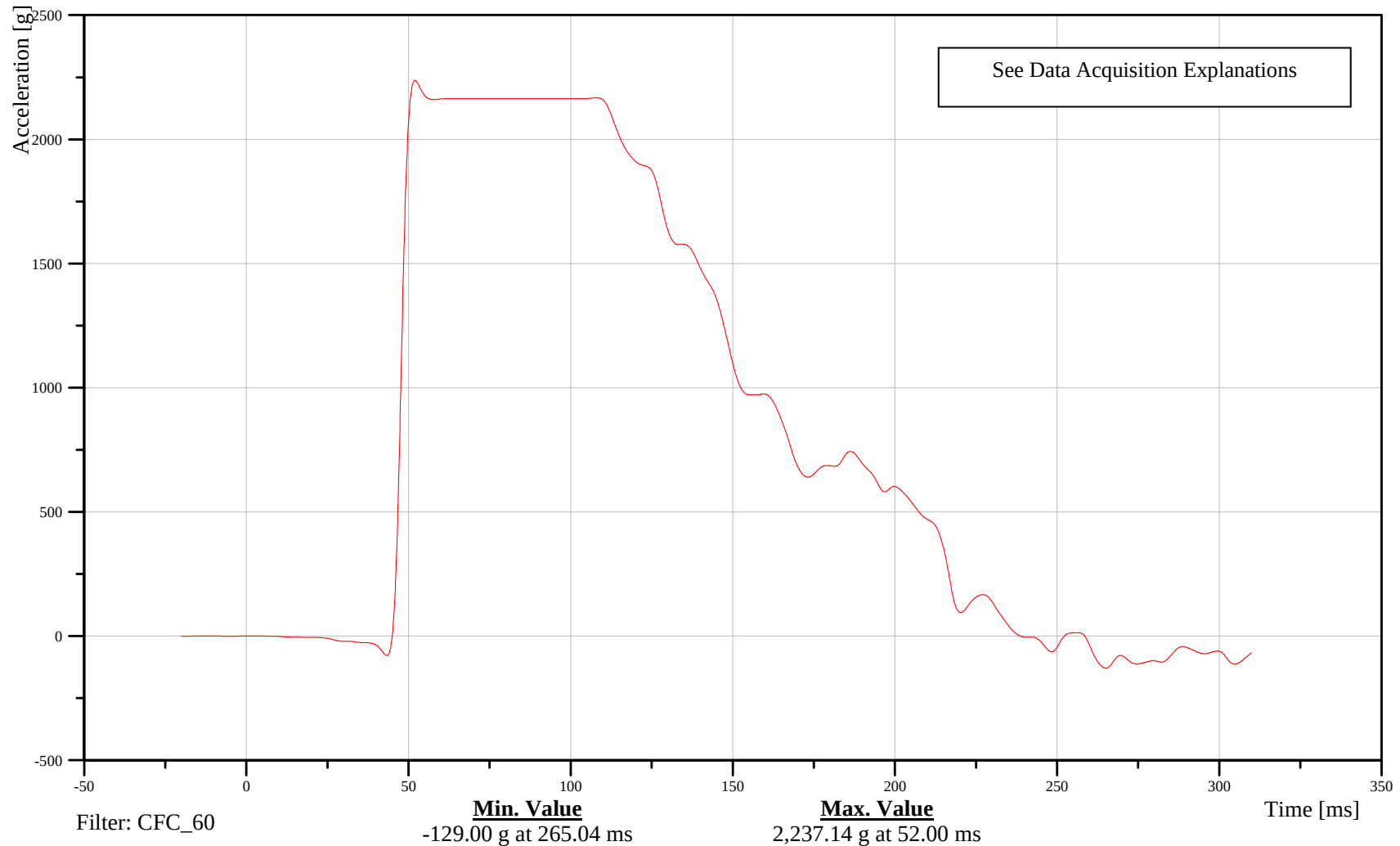
Bullet Vehicle Top of Engine X-Axis Acceleration

Customer: VRTC

12ENGNTTP0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

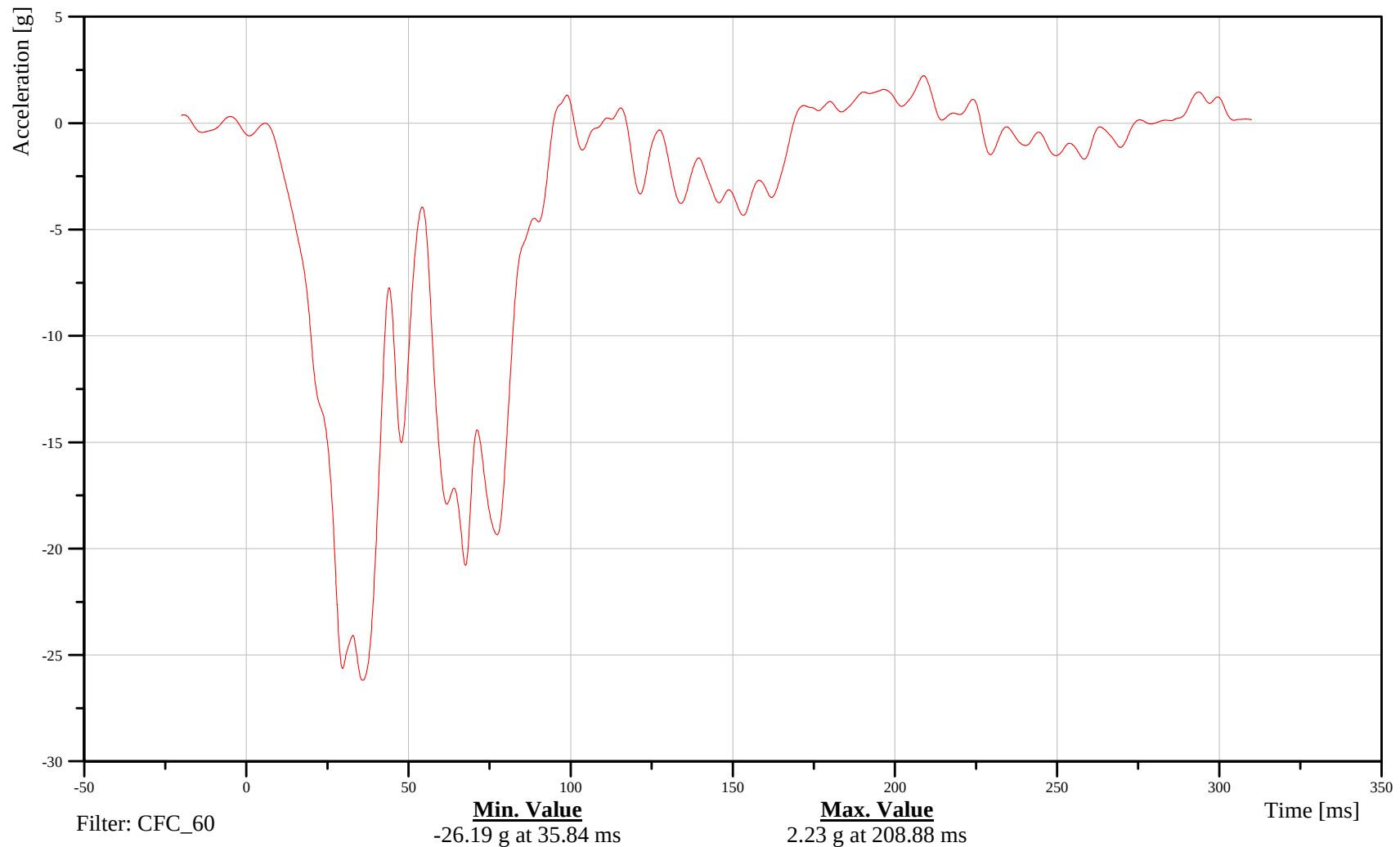
Bullet Vehicle Bottom of Engine X-Axis Acceleration

Customer: VRTC

12ENGNBO0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

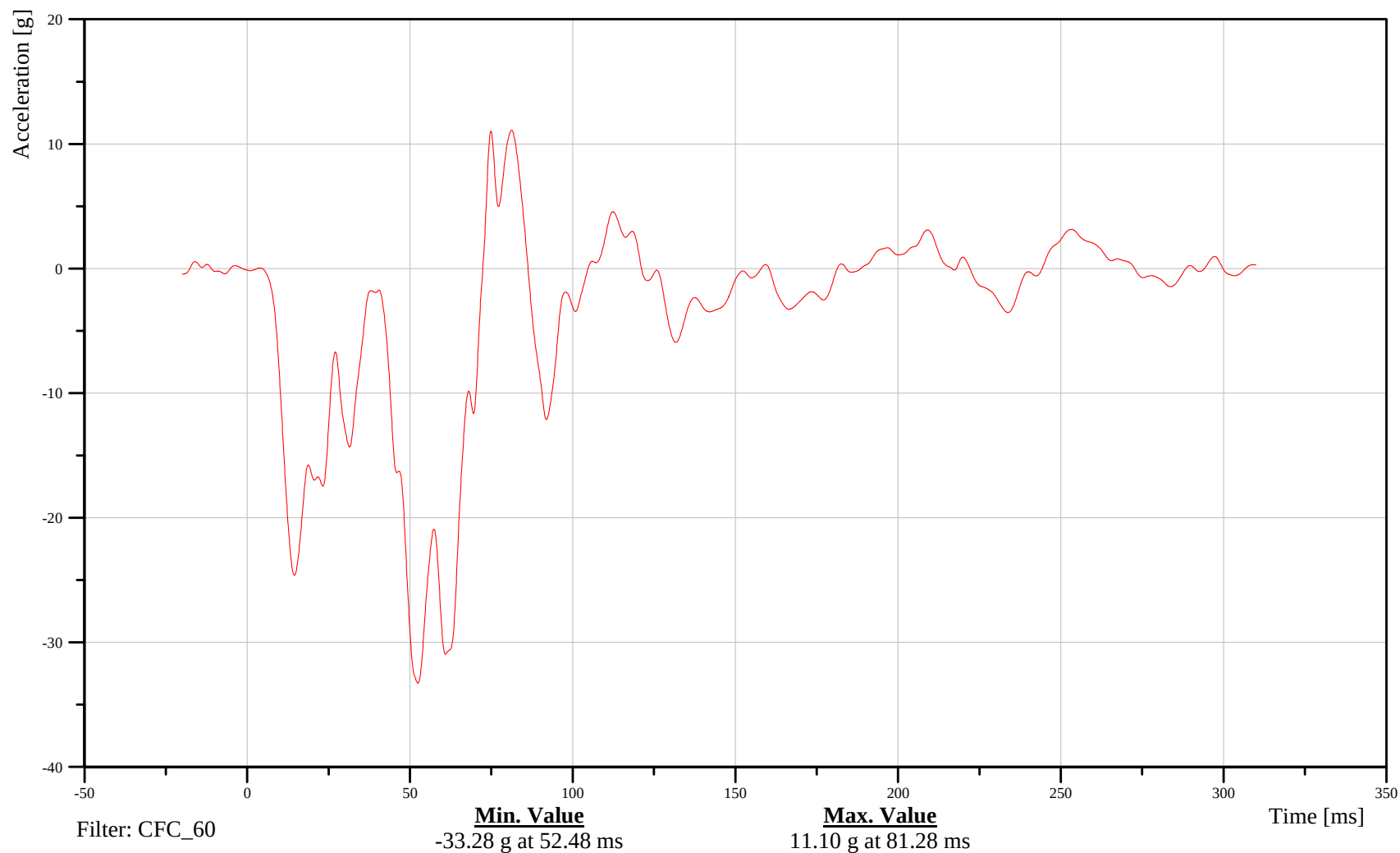
Bullet Vehicle Right Front Brake Caliper X-Axis Acceleration

Customer: VRTC

13VEHCRI0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Vehicle Left Front Brake Caliper X-Axis Acceleration

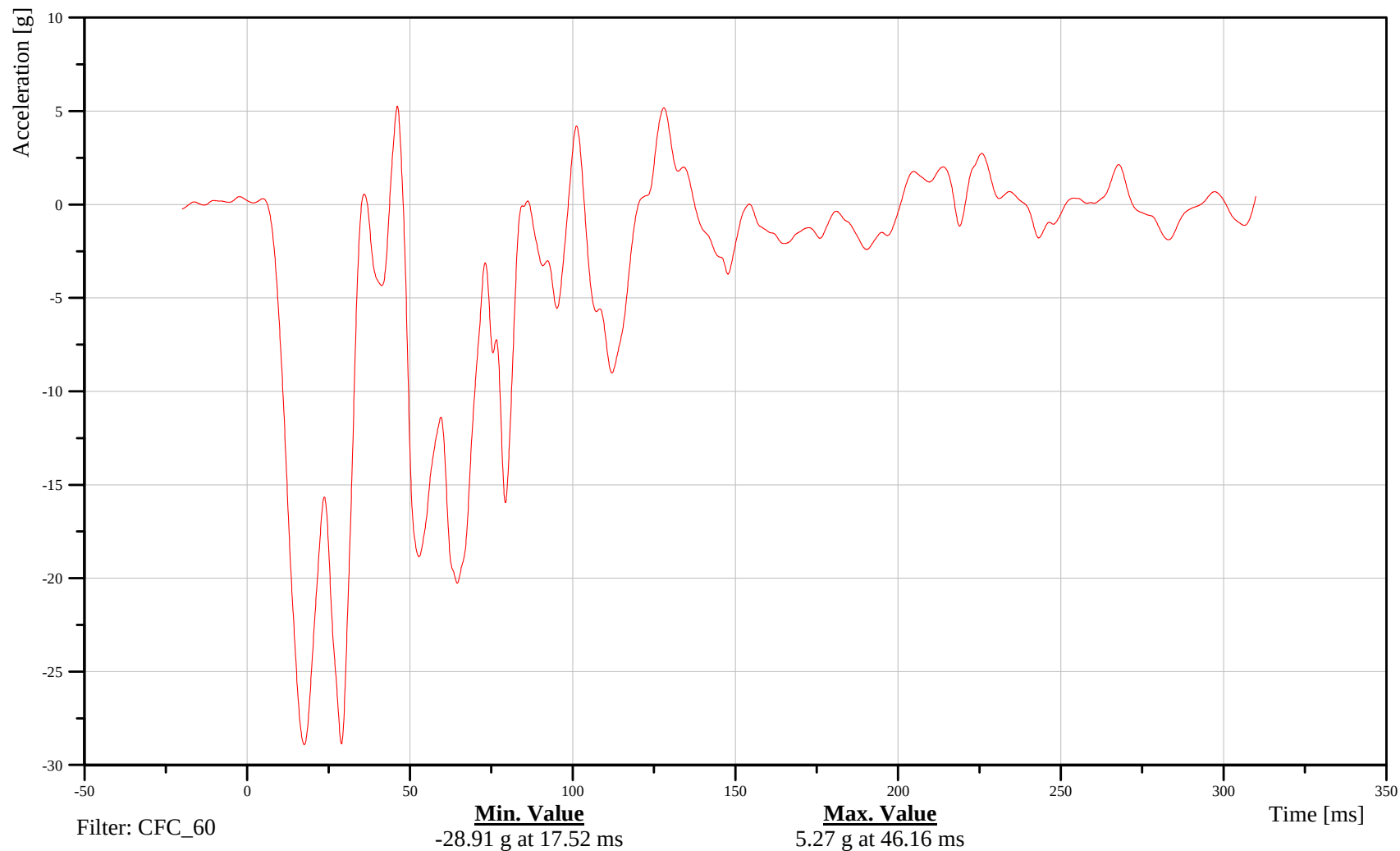
Time: 07:16

Customer: VRTC

11VEHICLE0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

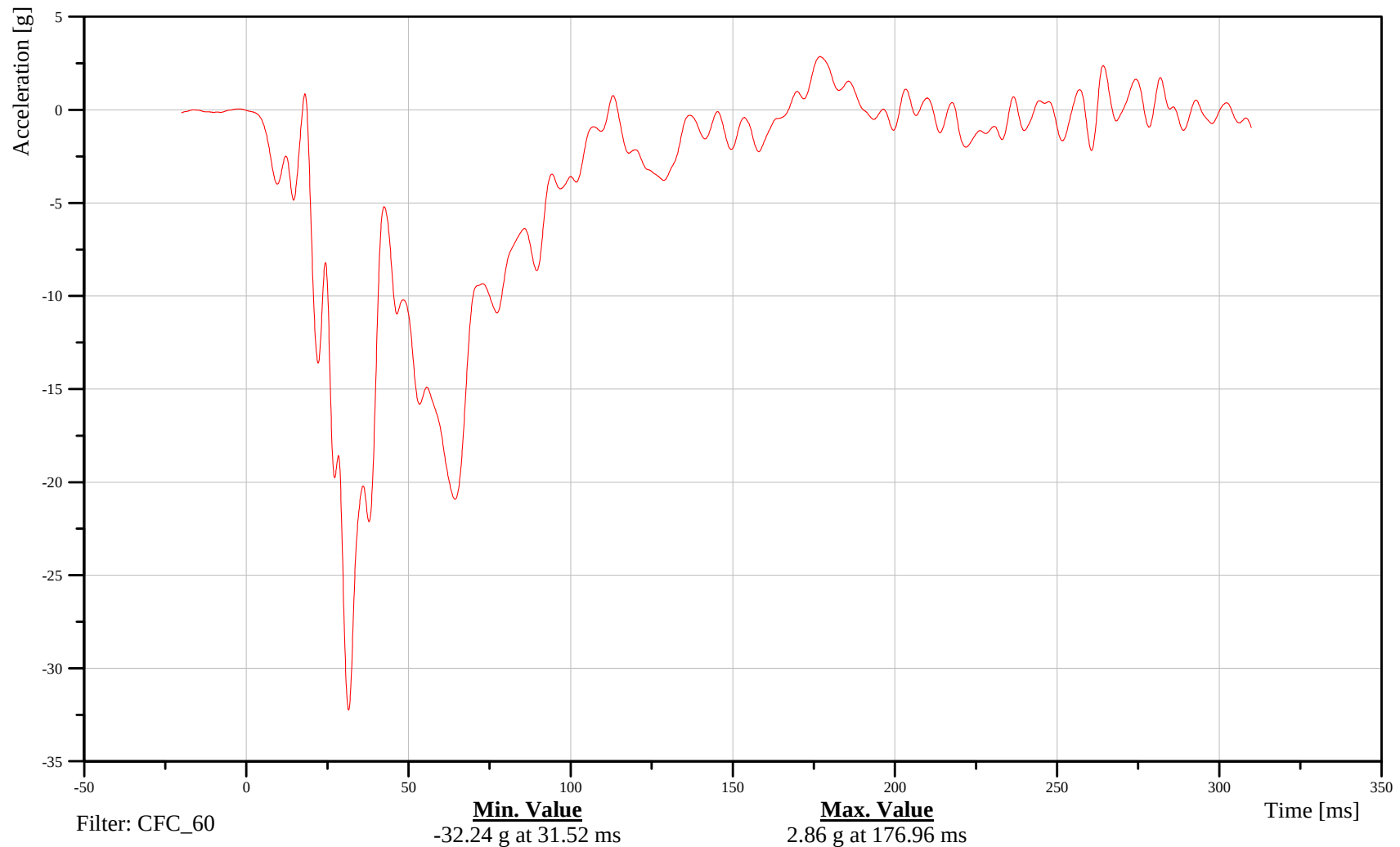
Bullet Vehicle Toe Pan Accelerator X-Axis Acceleration

Customer: VRTC

11PEAC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

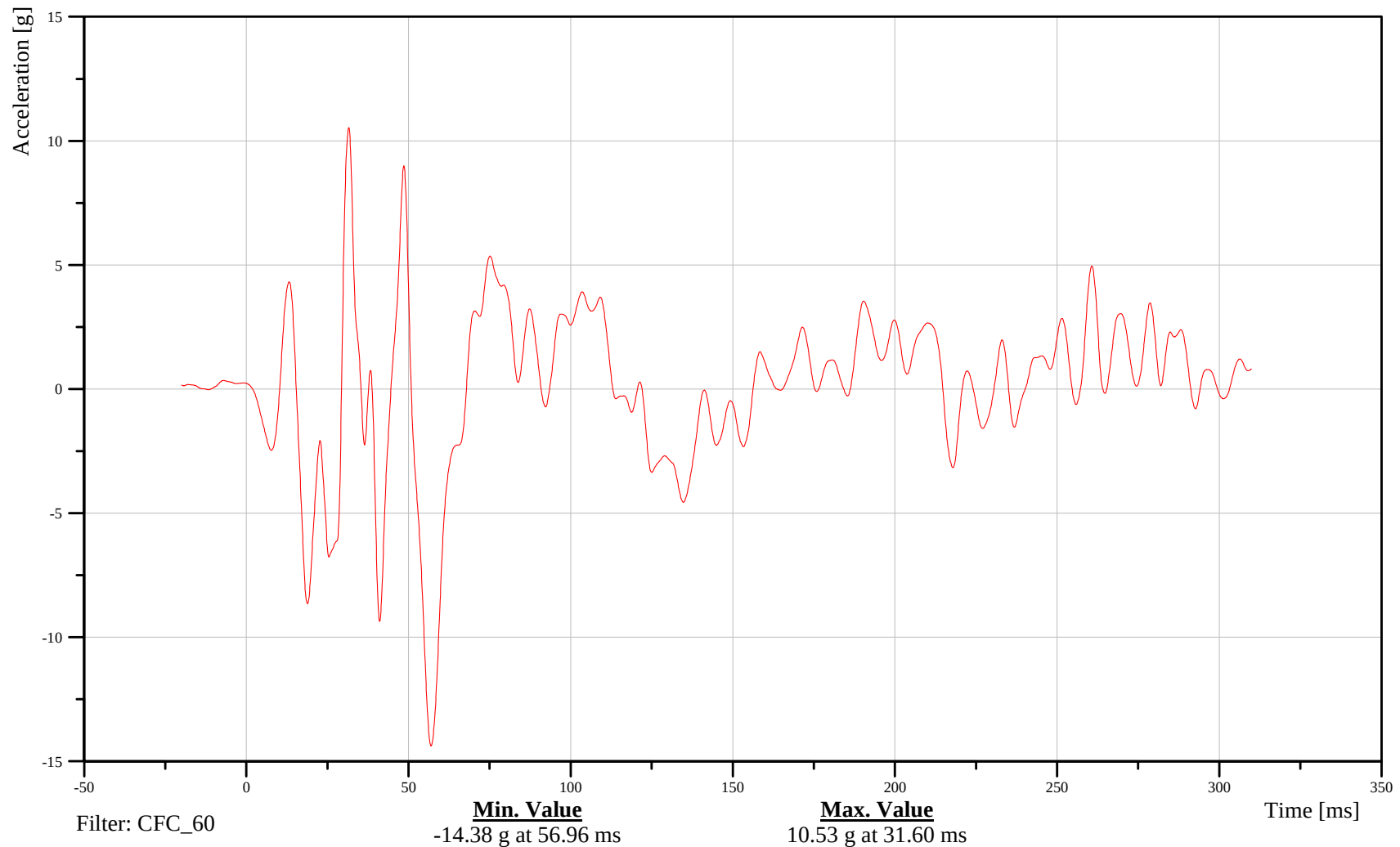
Bullet Vehicle Toe Pan Accelerator Z-Axis Acceleration

Customer: VRTC

11PEAC000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

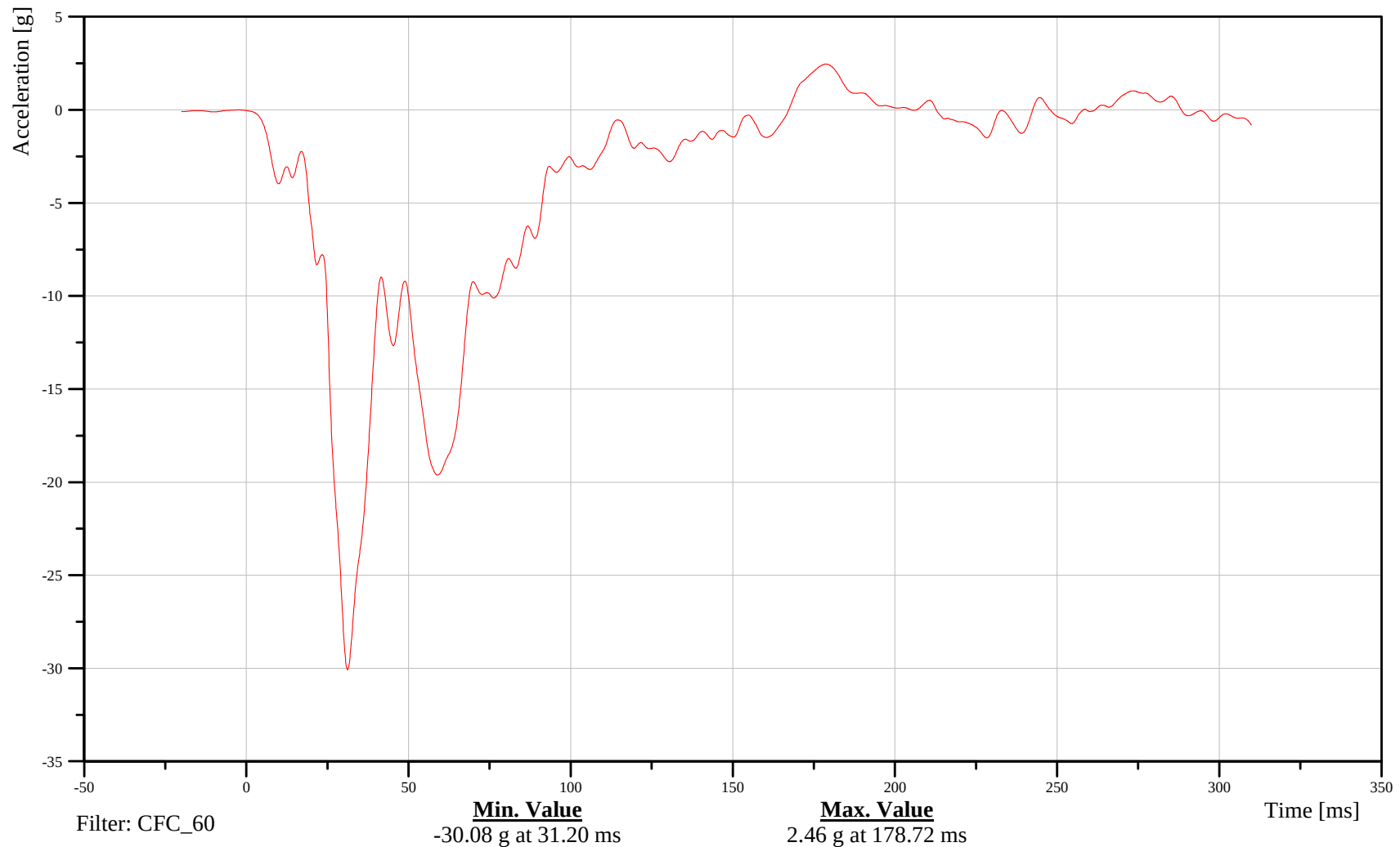
Bullet Vehicle Toe Pan Footrest X-Axis Acceleration

Customer: VRTC

11VEHC000001ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

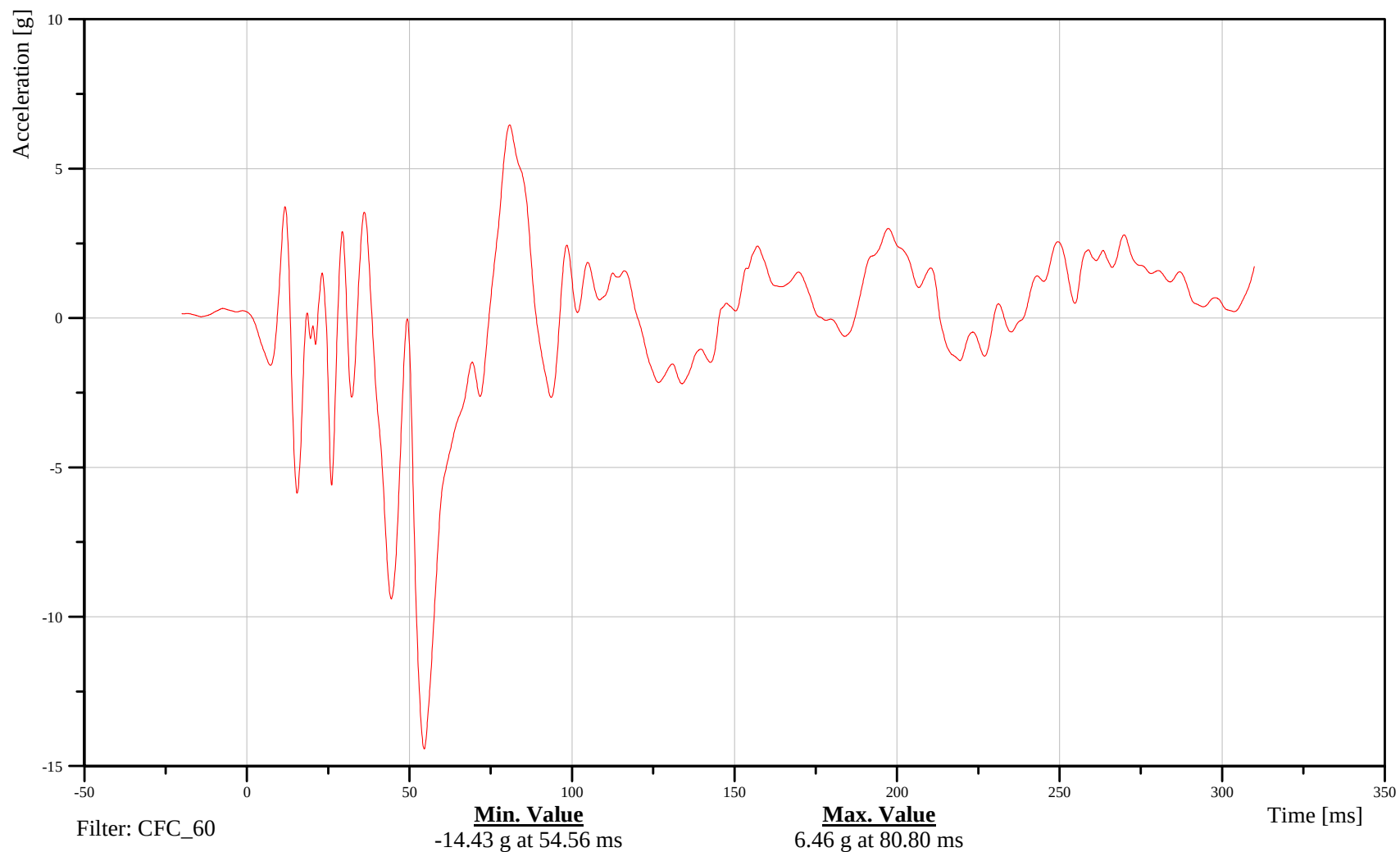
Bullet Vehicle Toe Pan Footrest Z-Axis Acceleration

Customer: VRTC

11VEHC000001ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

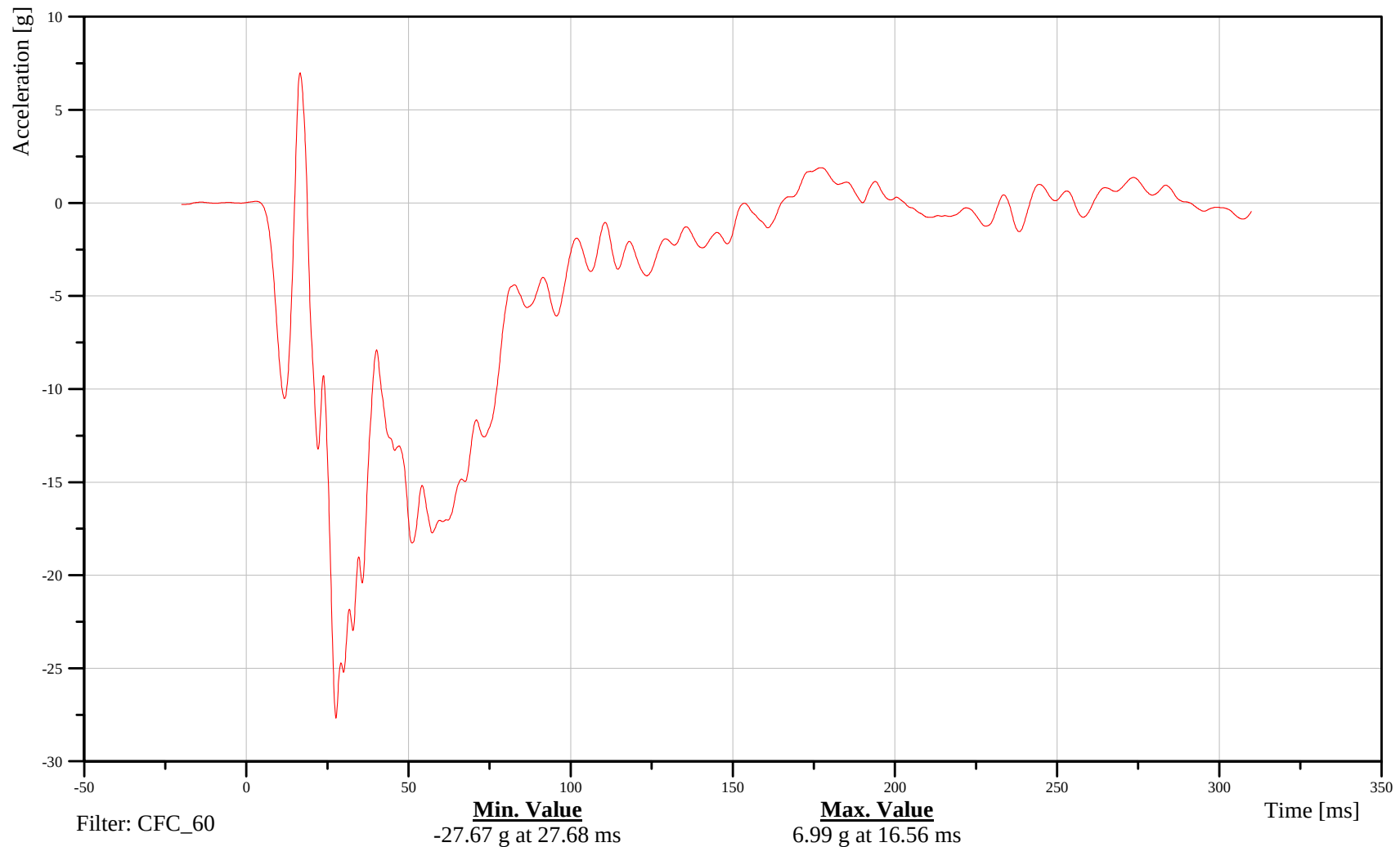
Bullet Vehicle Rear Tunnel Center X-Axis Acceleration

Customer: VRTC

15TUNNCY0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

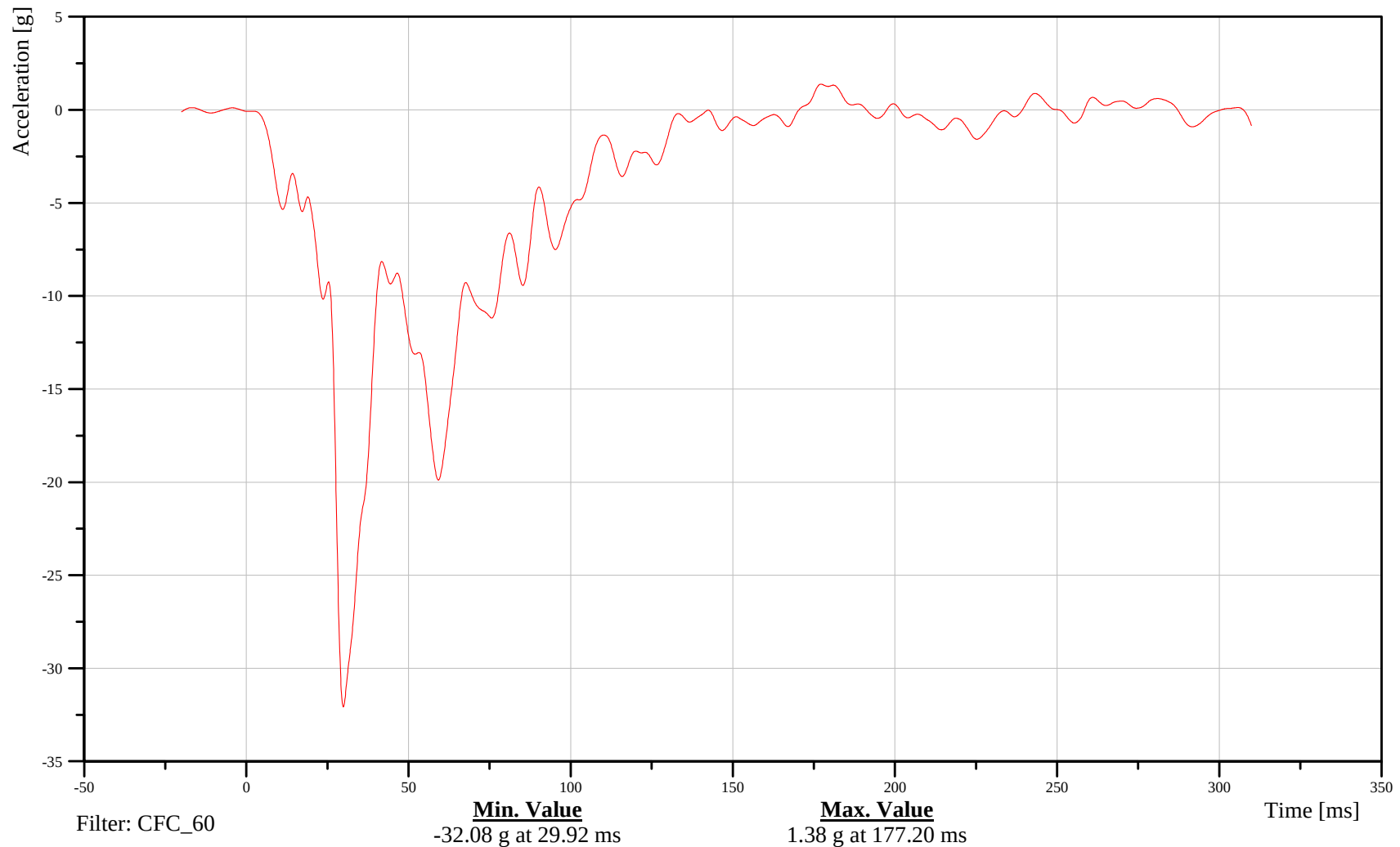
Bullet Vehicle CG X-Axis Acceleration

Customer: VRTC

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

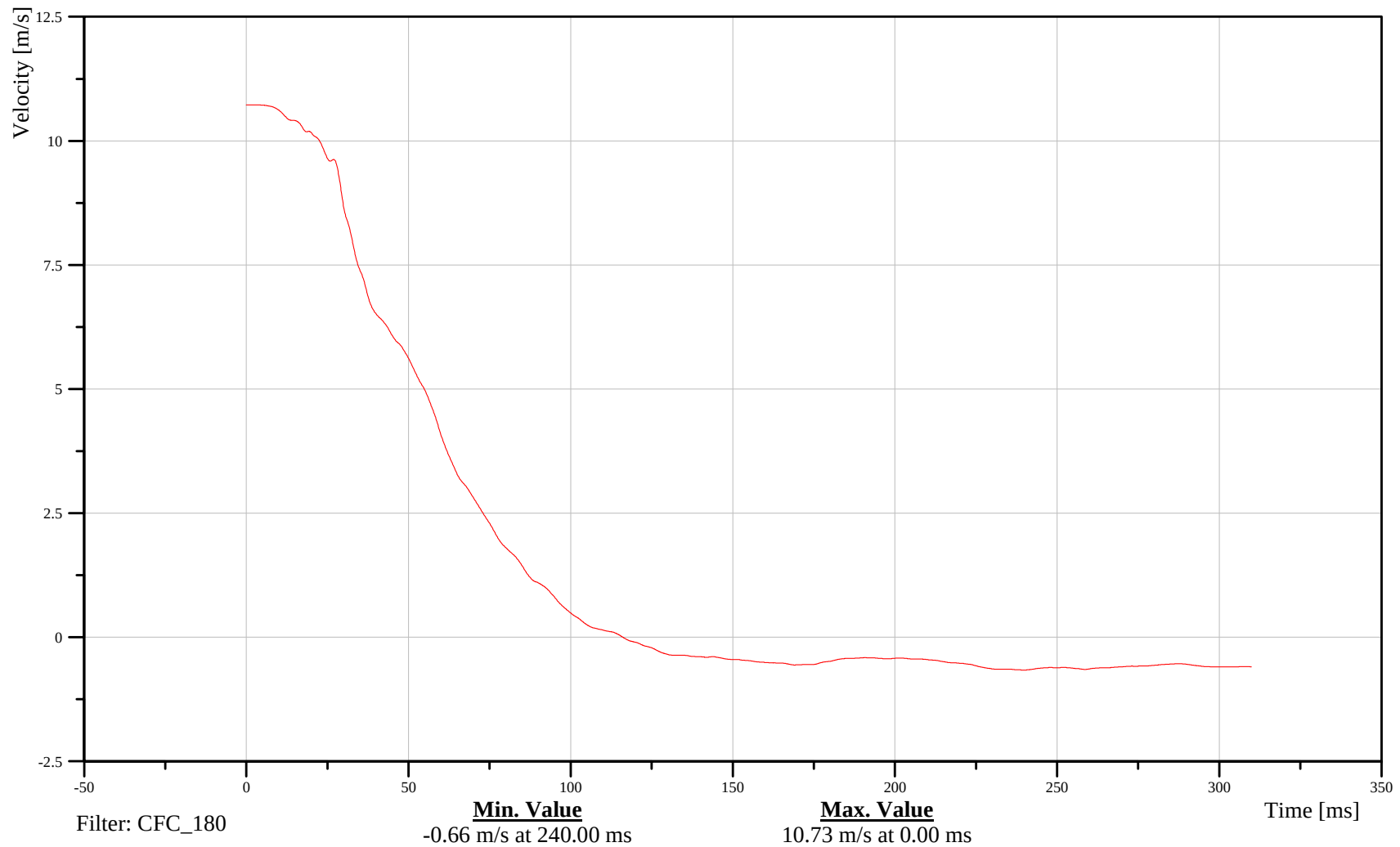
Bullet Vehicle CG X-Axis Velocity

Customer: VRTC

10VEHCCG0000VEXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Bullet Vehicle CG X-Axis Displacement

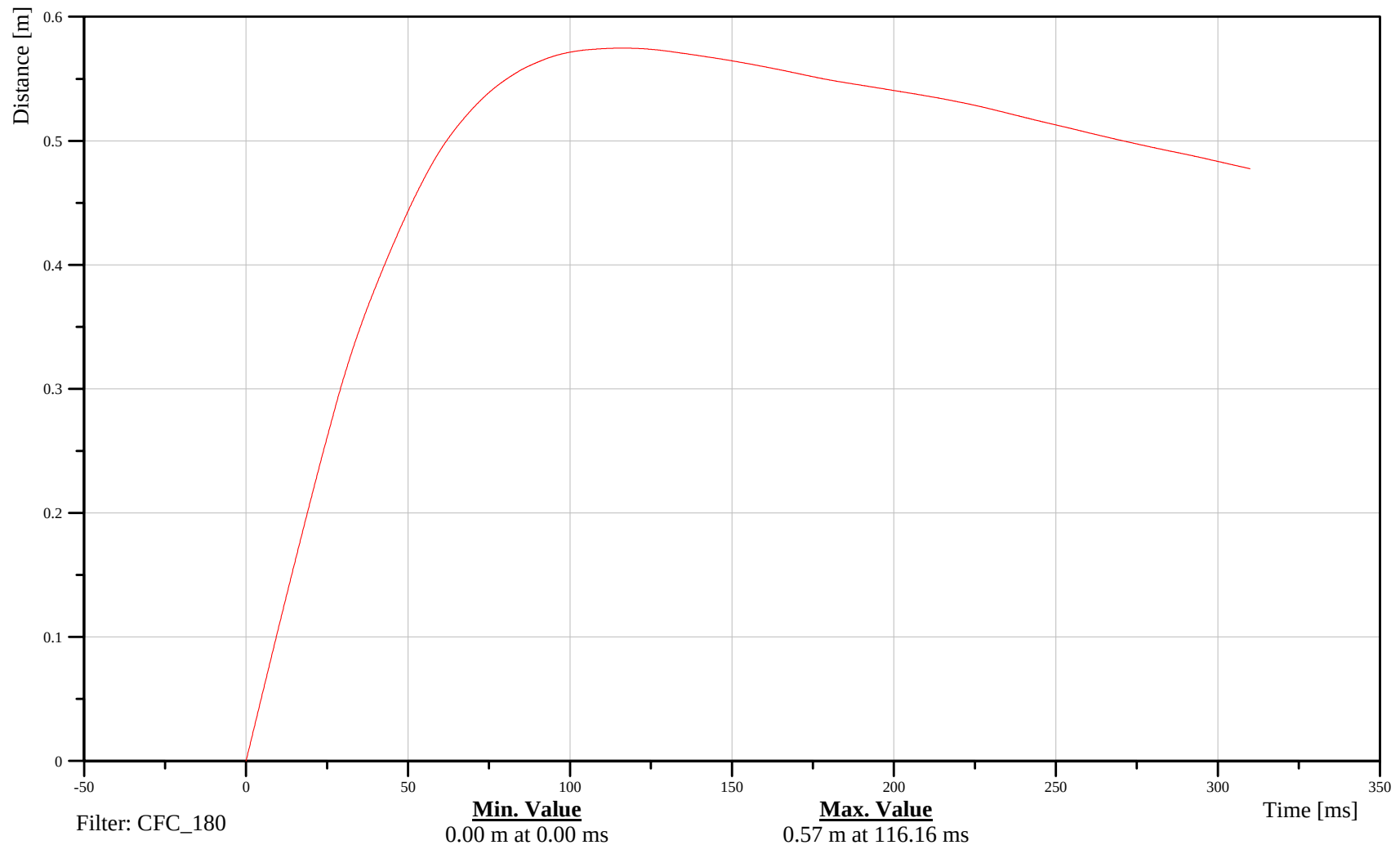
Time: 07:16

Customer: VRTC

10VEHCCG0000DCXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

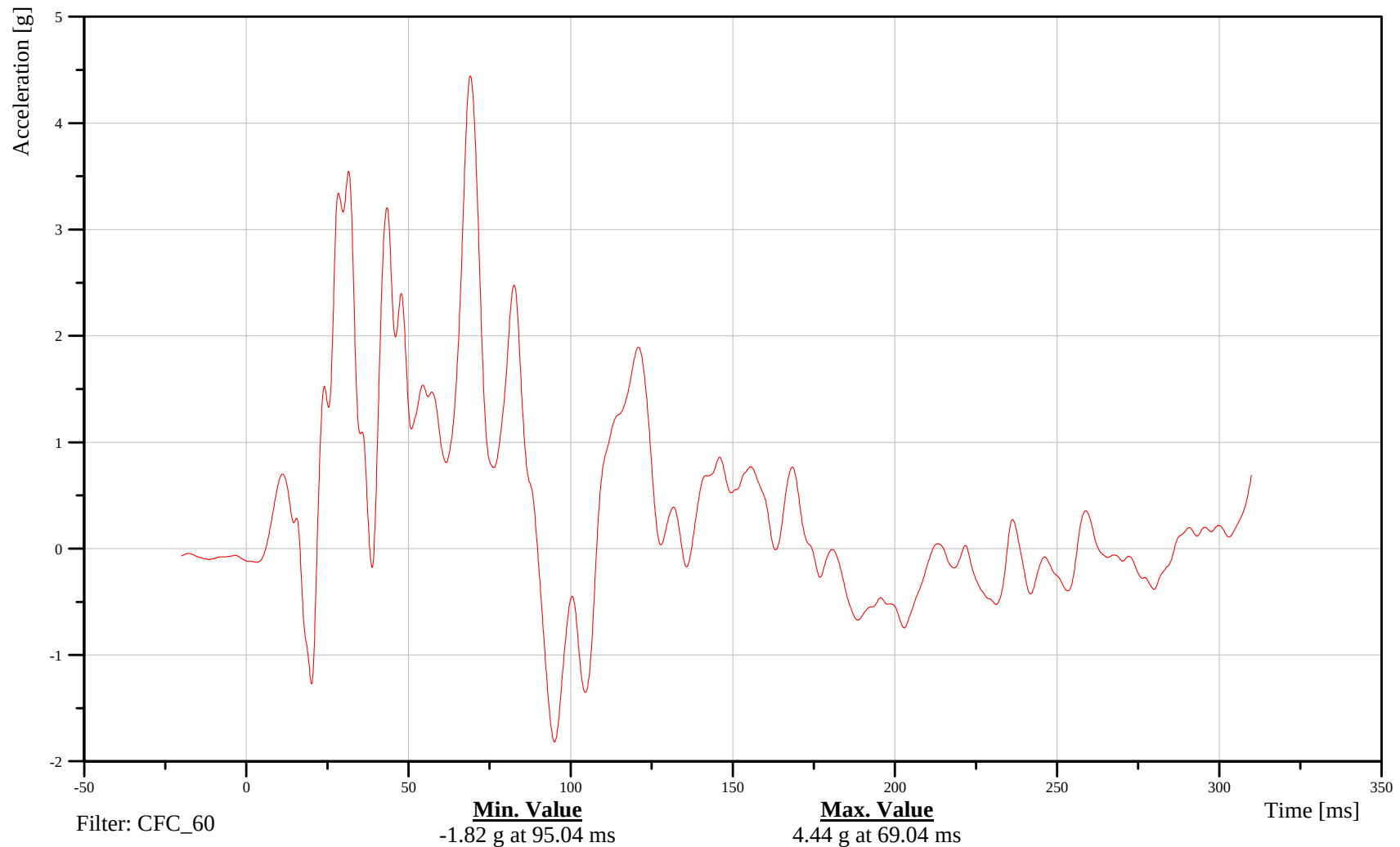
Bullet Vehicle CG Y-Axis Acceleration

Customer: VRTC

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

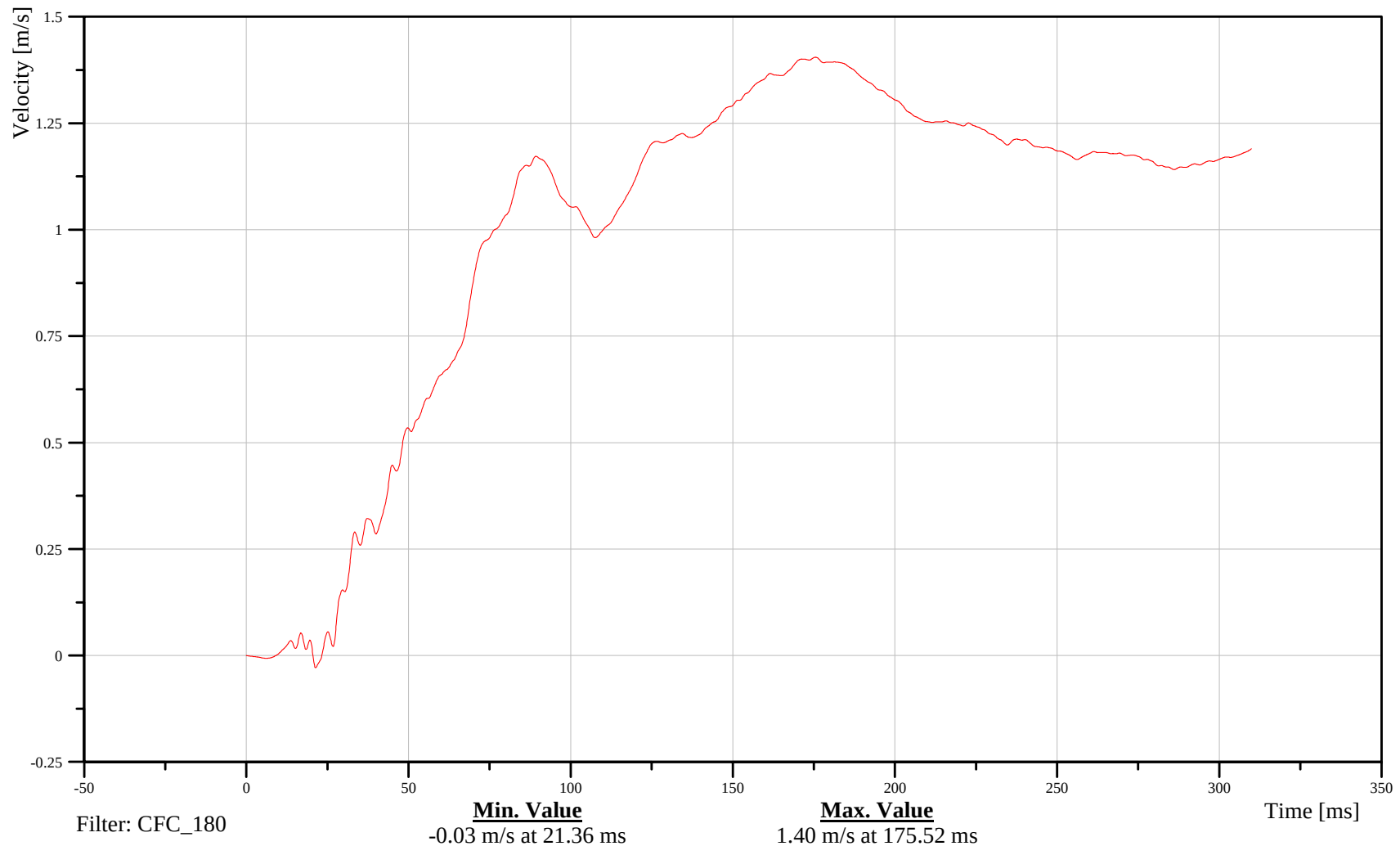
Bullet Vehicle CG Y-Axis Velocity

Customer: VRTC

10VEHCCG0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

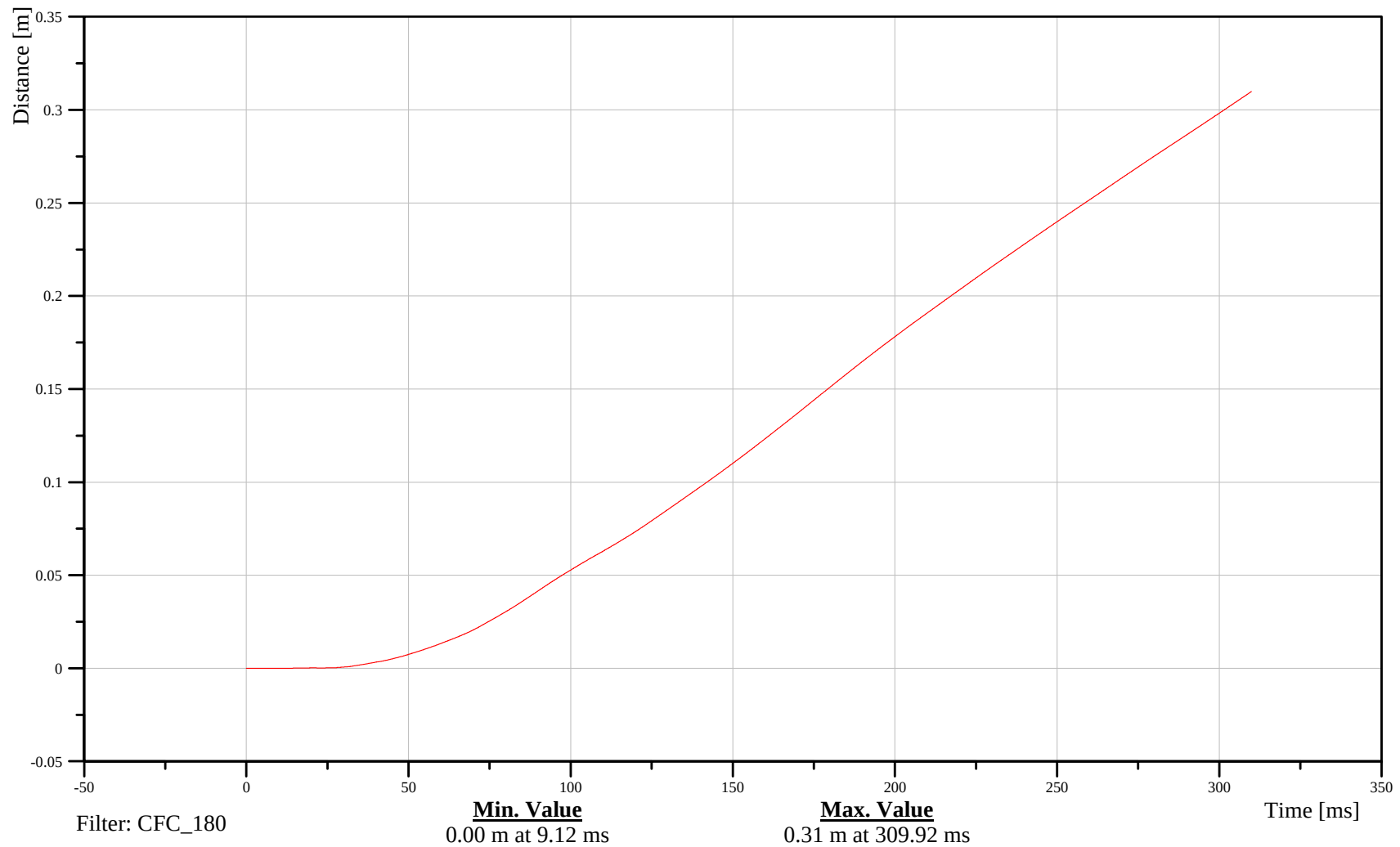
Bullet Vehicle CG Y-Axis Displacement

Customer: VRTC

10VEHCCG0000DCYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

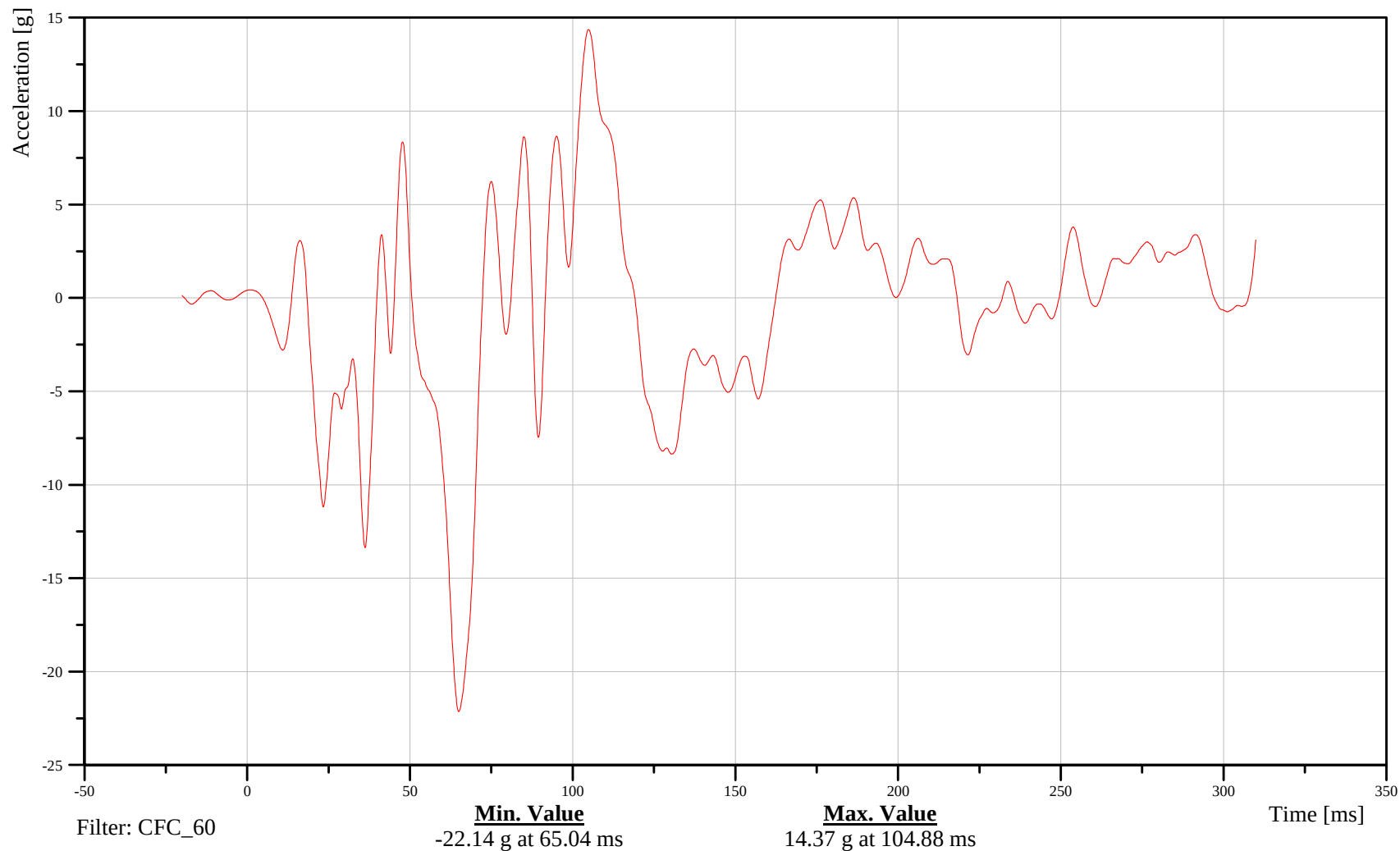
Bullet Vehicle CG Z-Axis Acceleration

Customer: VRTC

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

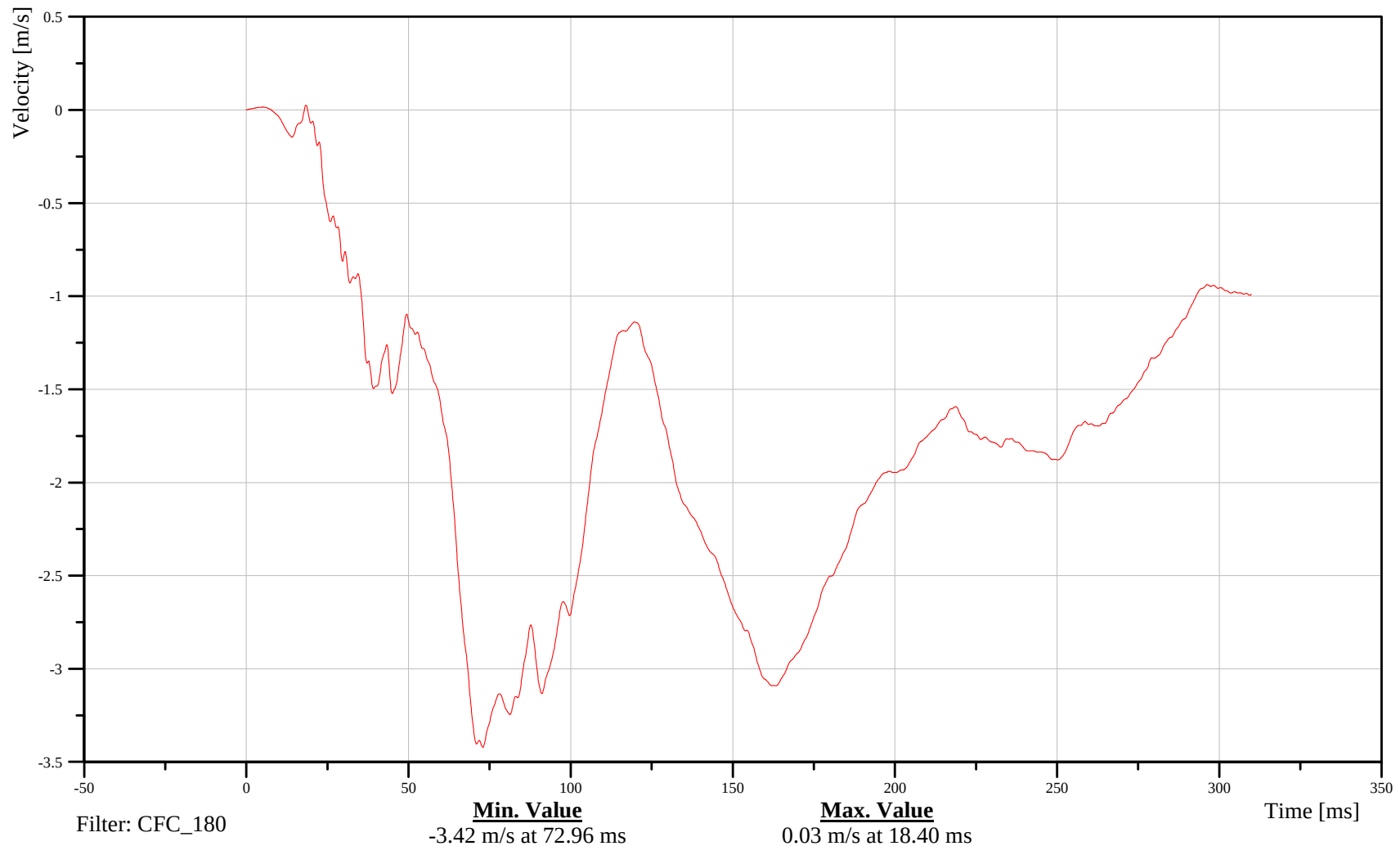
Bullet Vehicle CG Z-Axis Velocity

Customer: VRTC

10VEHCCG0000VEZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

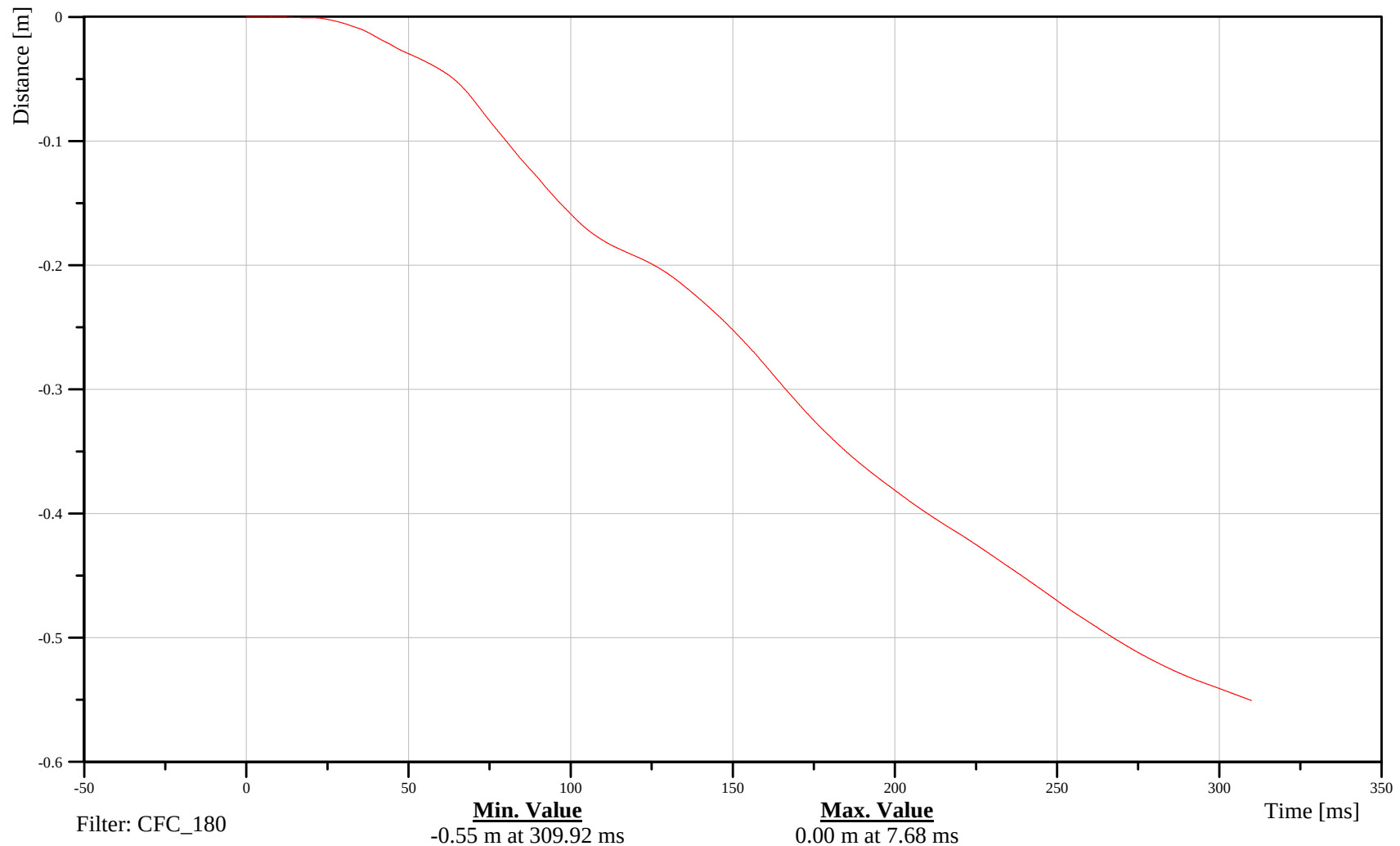
Bullet Vehicle CG Z-Axis Displacement

Customer: VRTC

10VEHCCG0000DCZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

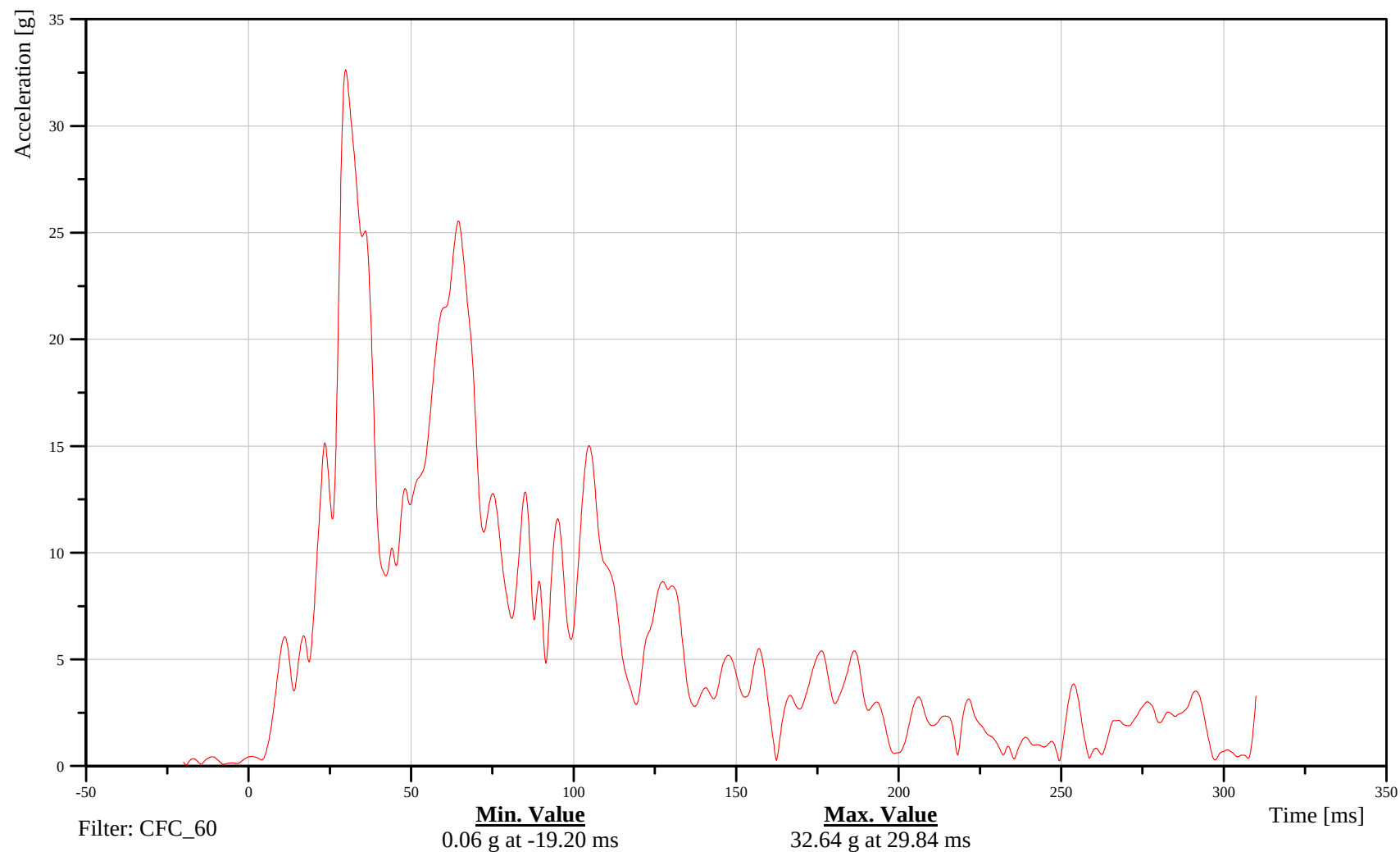
Bullet Vehicle CG Resultant Acceleration

Customer: VRTC

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

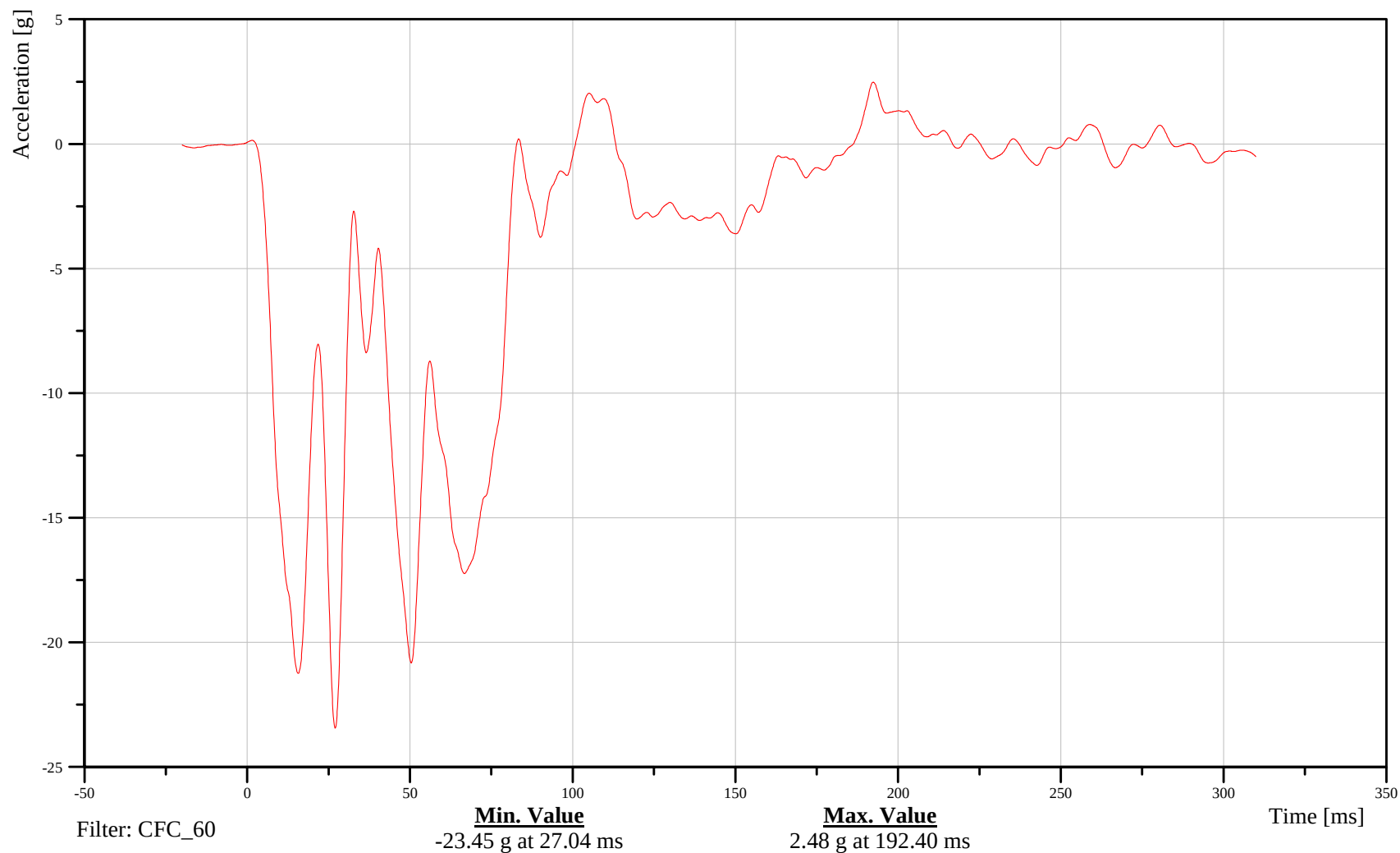
Bullet Vehicle Rear Deck X-Axis Acceleration

Customer: VRTC

18VEHC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

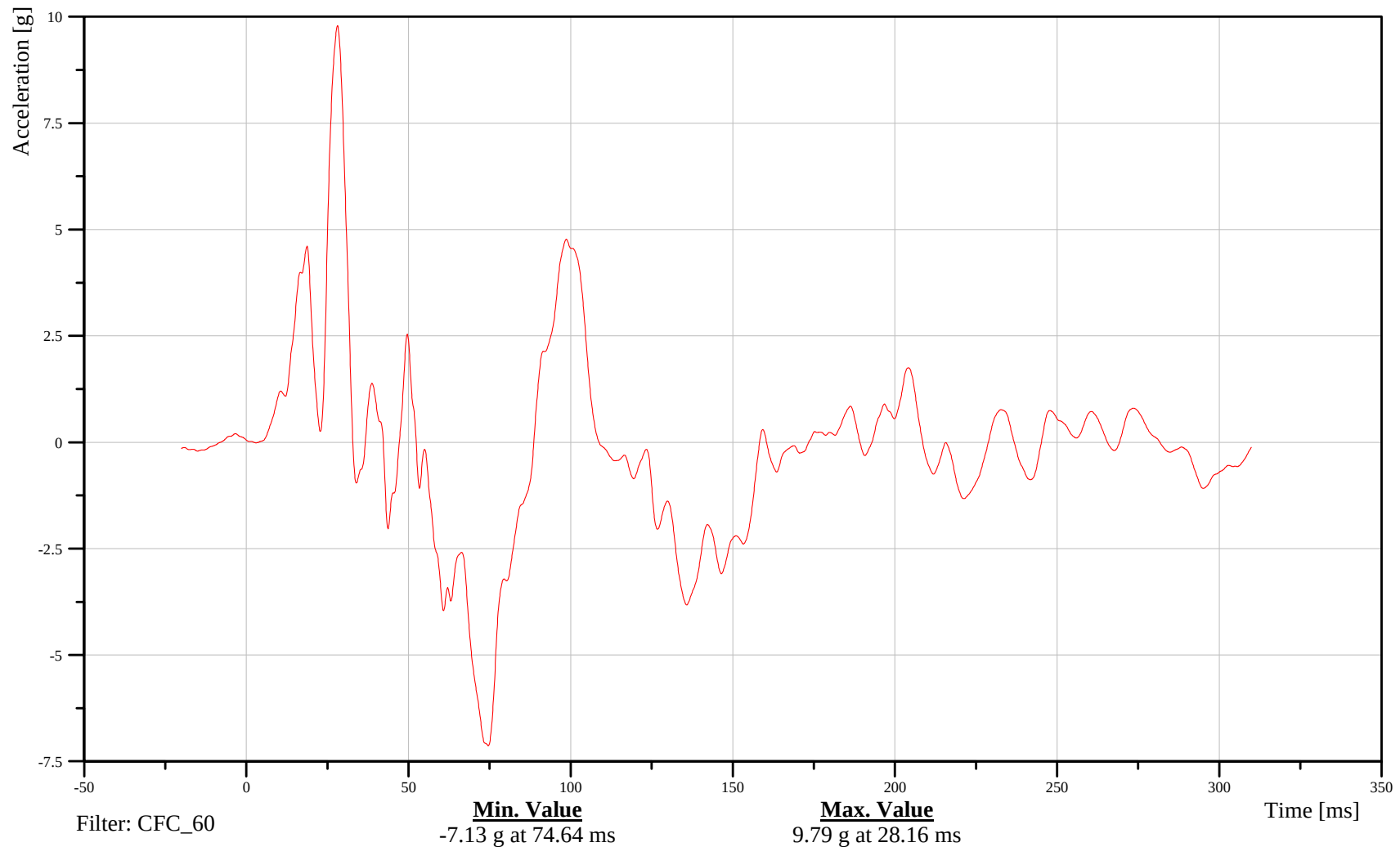
Bullet Vehicle Rear Deck Y-Axis Acceleration

Customer: VRTC

18VEHC000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

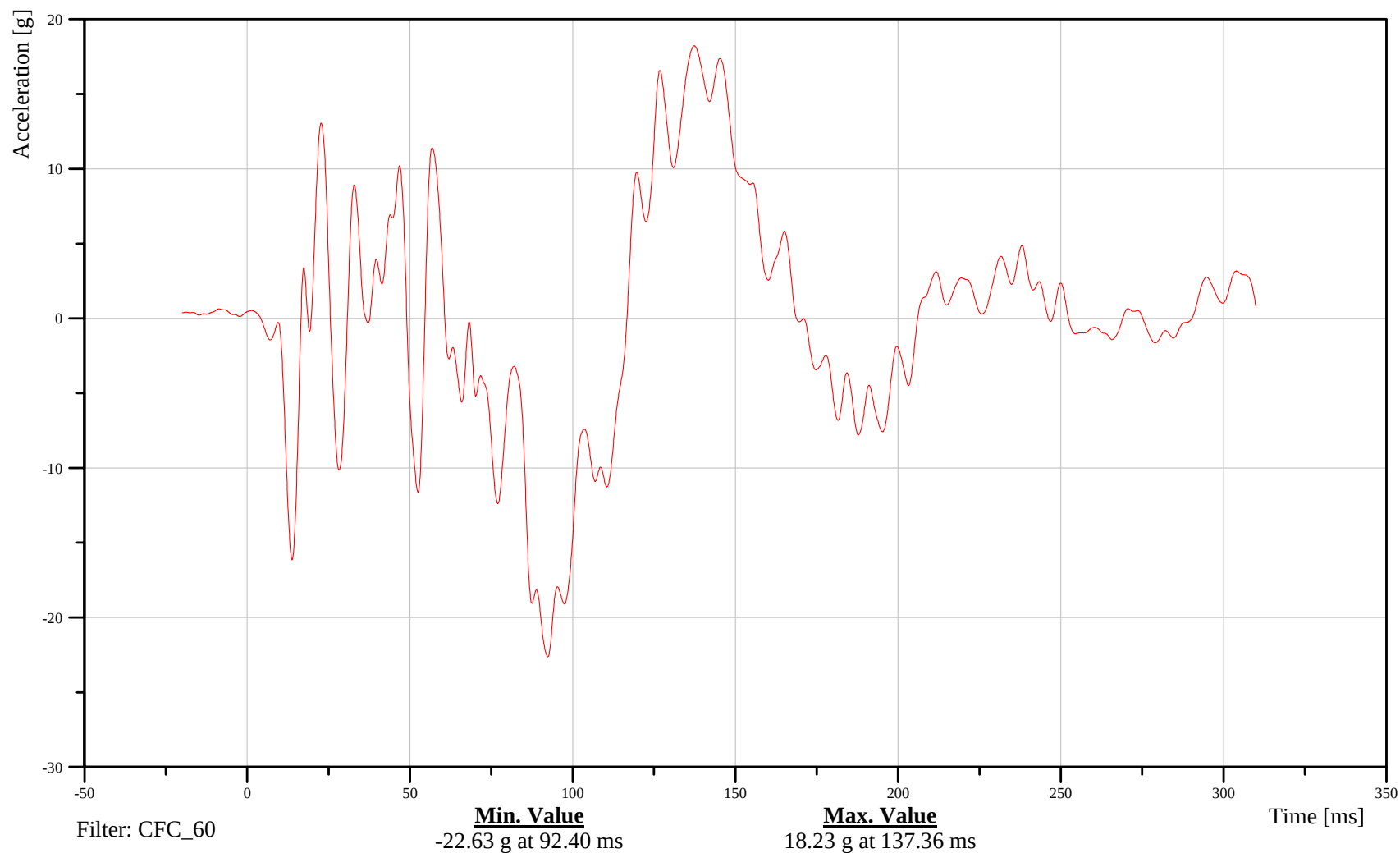
Bullet Vehicle Rear Deck Z-Axis Acceleration

Customer: VRTC

18VEHC000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

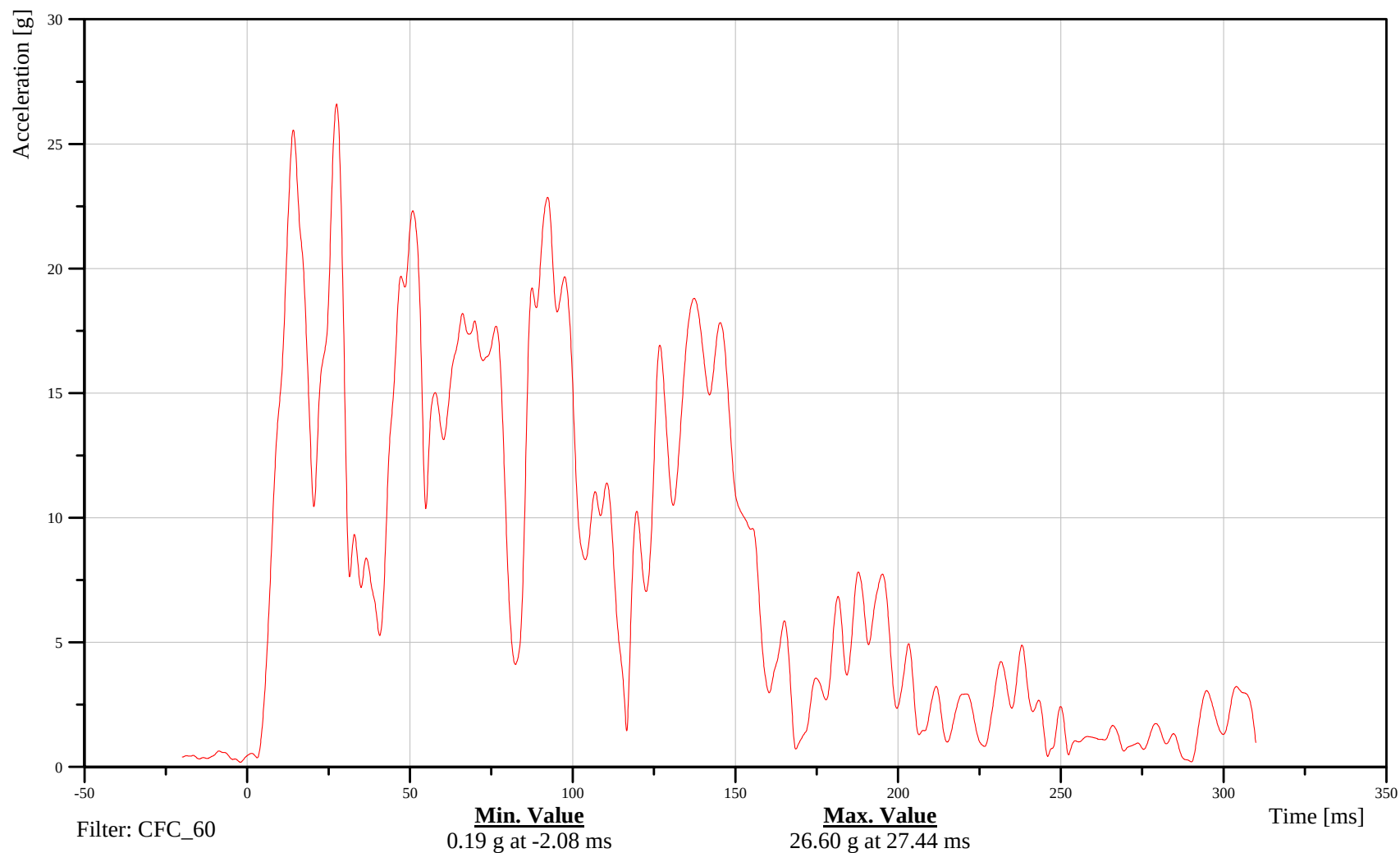
Bullet Vehicle Rear Deck Resultant Acceleration

Customer: VRTC

18VEHC000000ACRD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

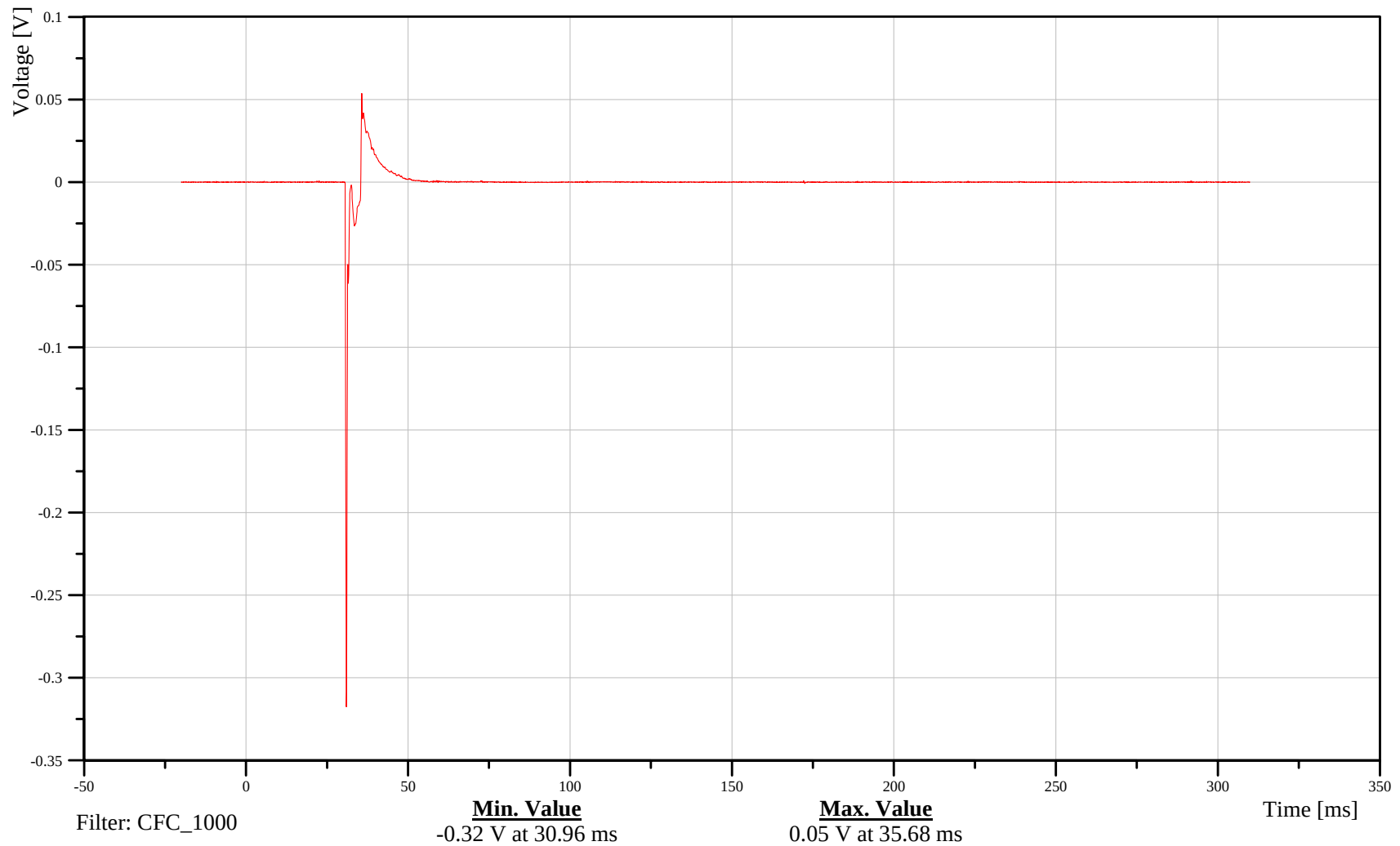
Bullet Vehicle Driver Airbag - Primary

Customer: VRTC

11AIRBFR0100EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

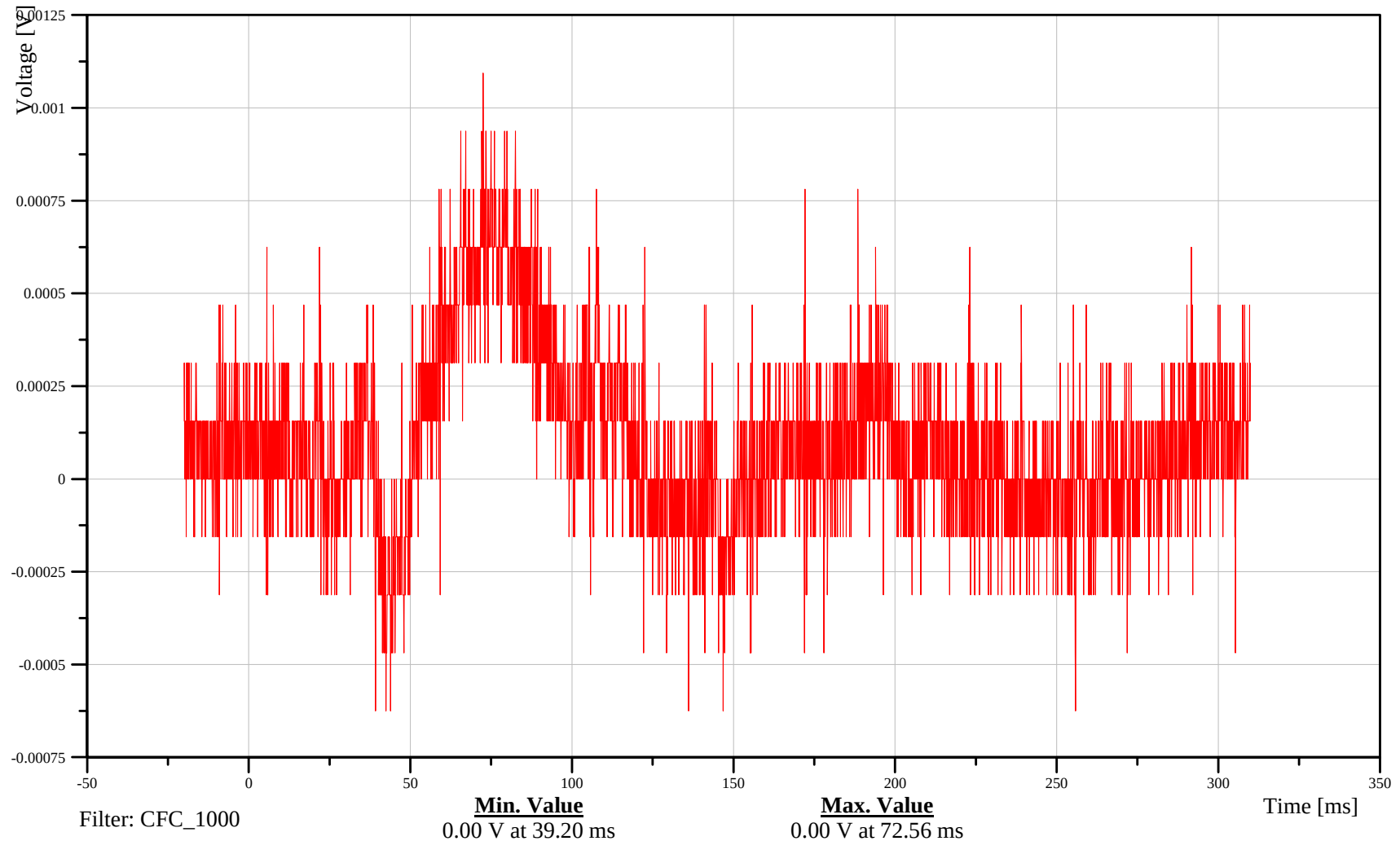
Bullet Vehicle Driver Airbag - Secondary

Customer: VRTC

11AIRBFR0200EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

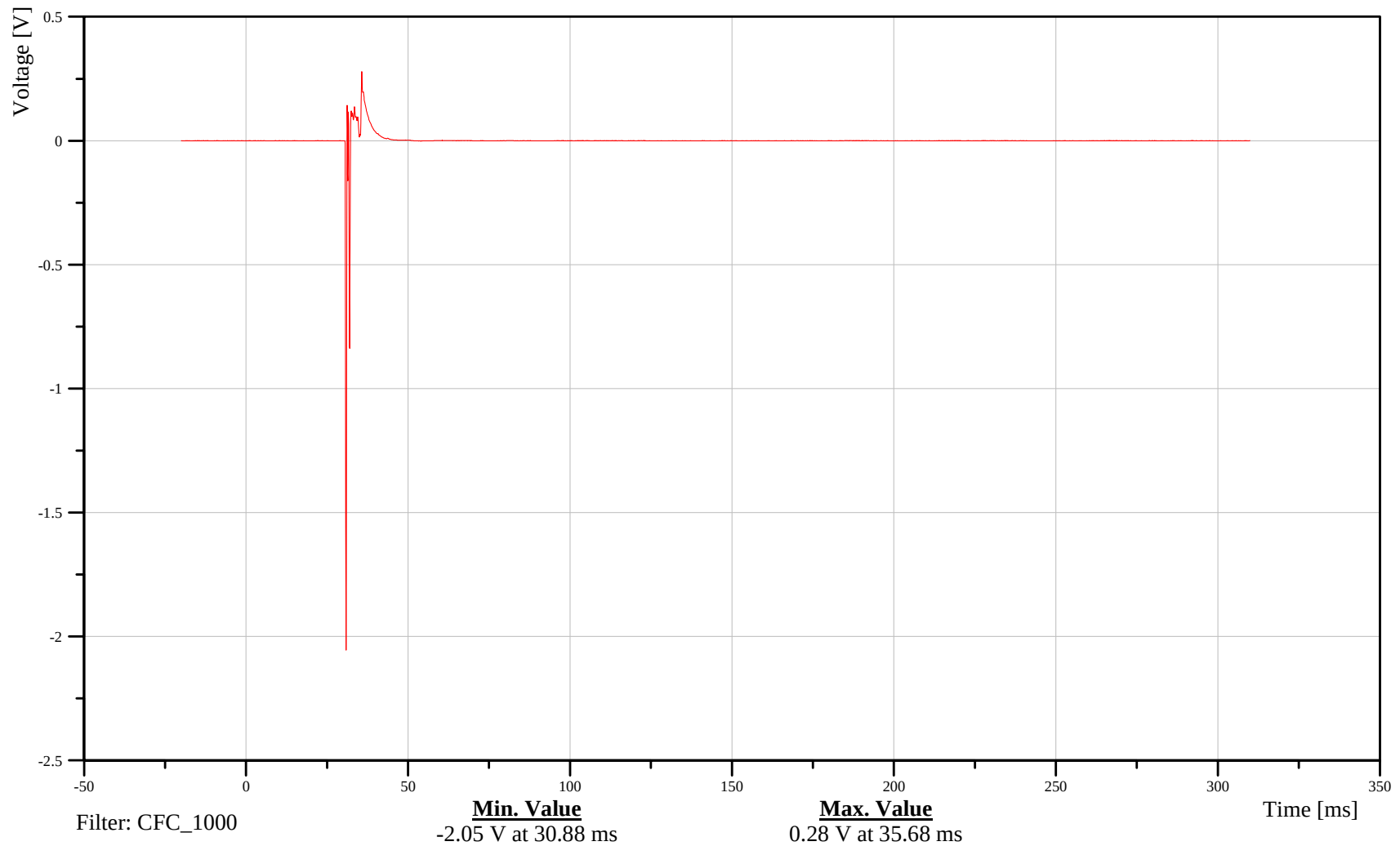
Bullet Vehicle Passenger Airbag - Primary

Customer: VRTC

13AIRBFR0100EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

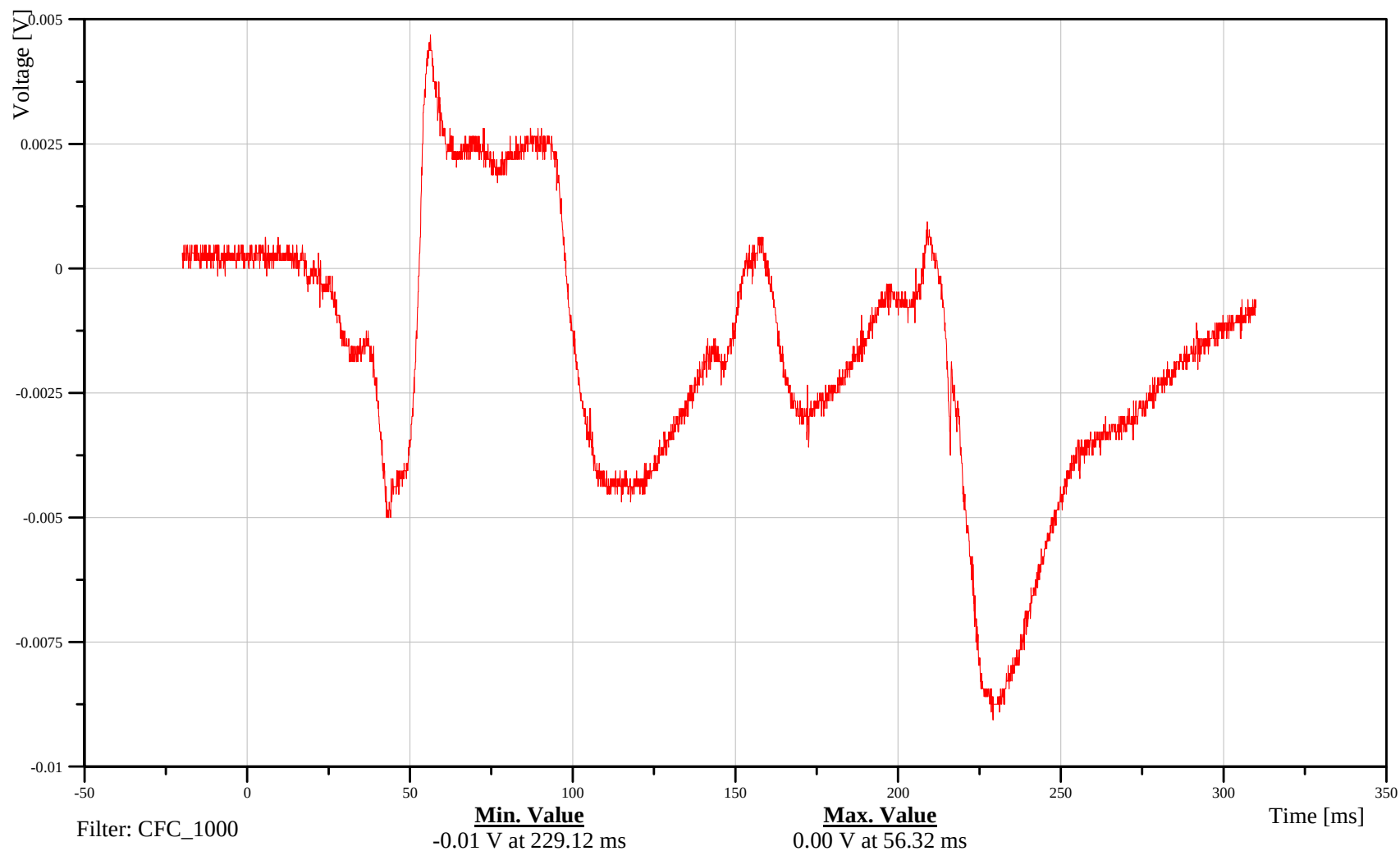
Bullet Vehicle Passenger Airbag - Secondary

Customer: VRTC

13AIRBFR0200EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

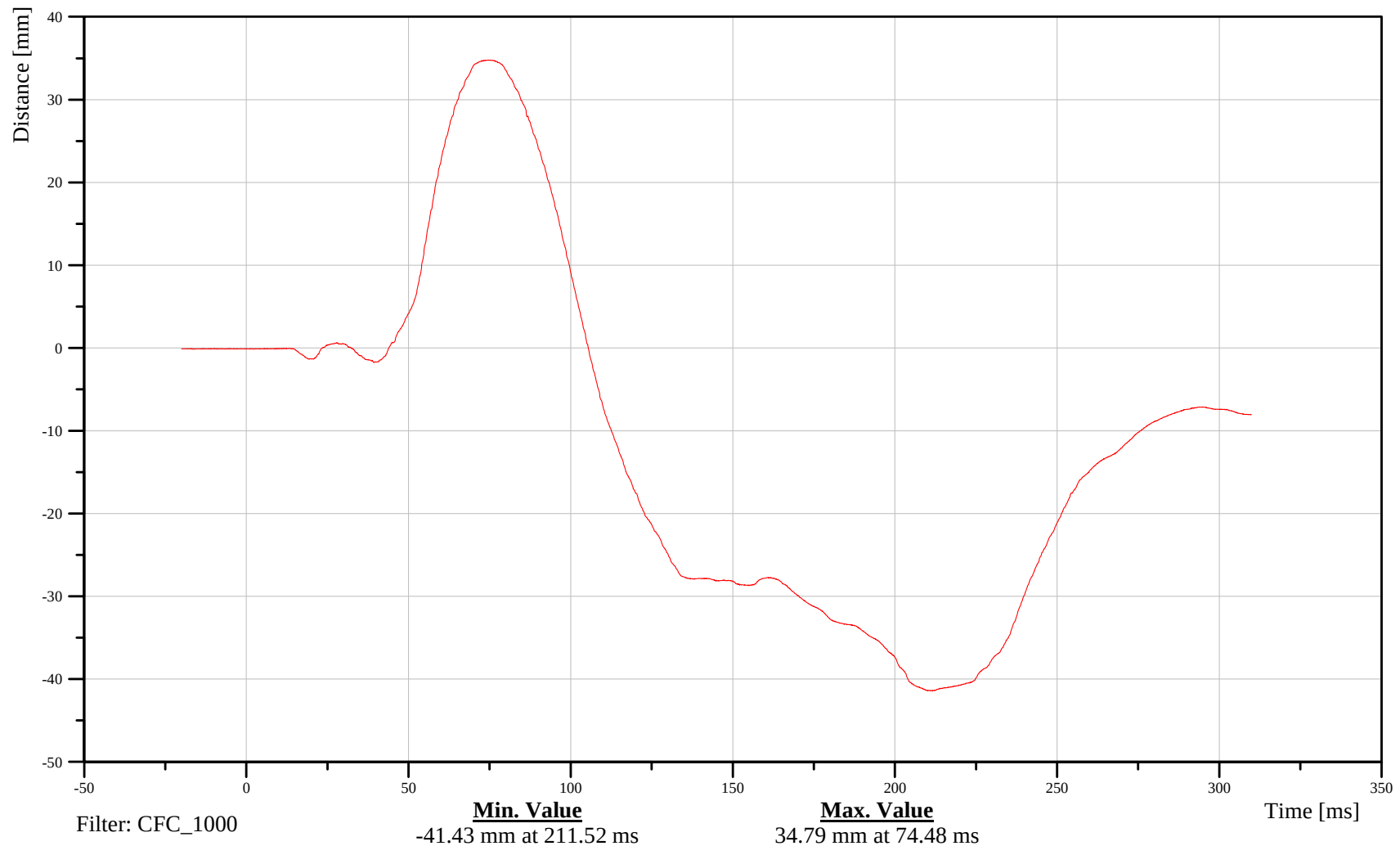
Bullet Vehicle Driver lap belt spool

Customer: VRTC

11SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

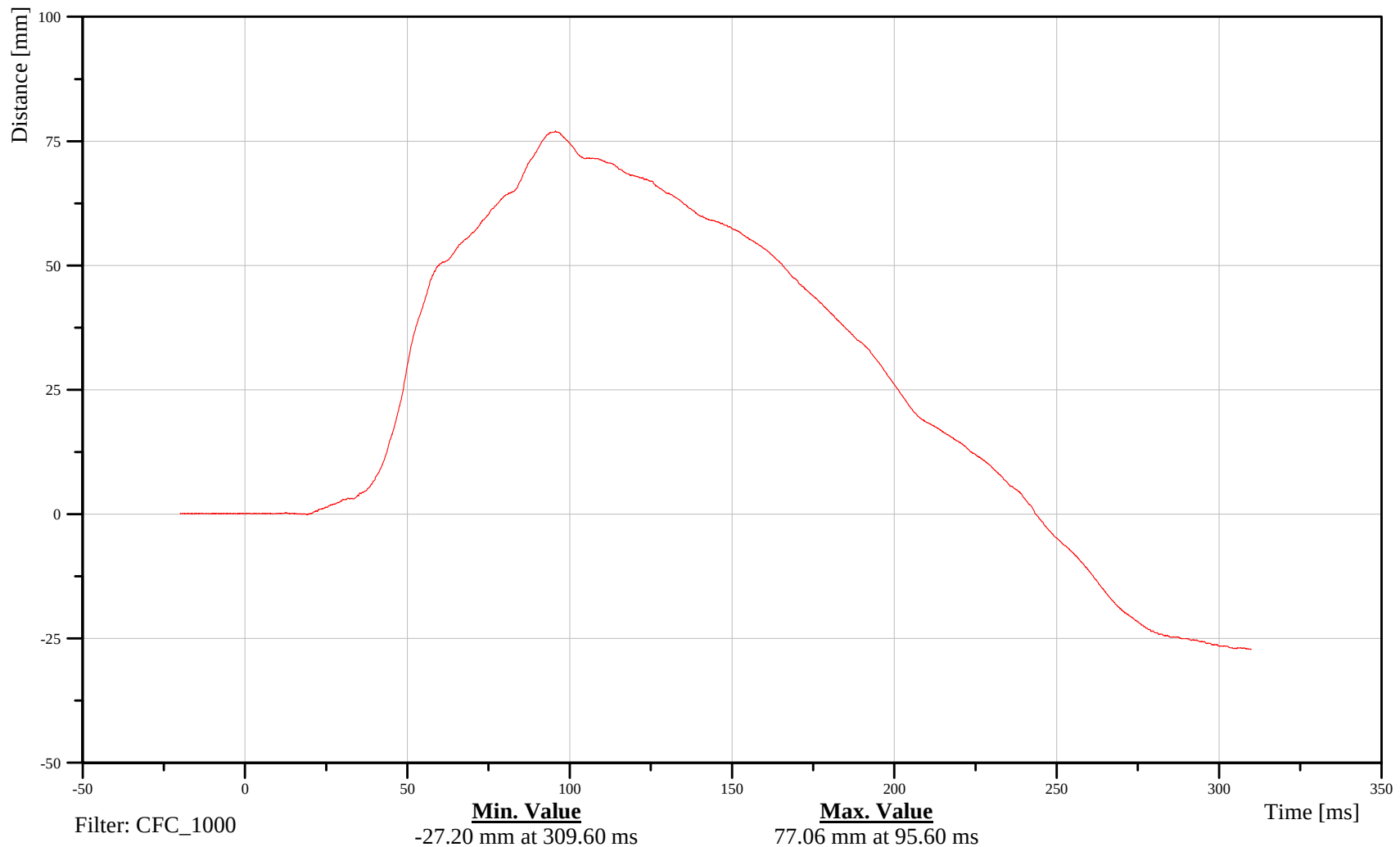
Bullet Vehicle Driver shoulder belt spool and retraction

Customer: VRTC

11SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

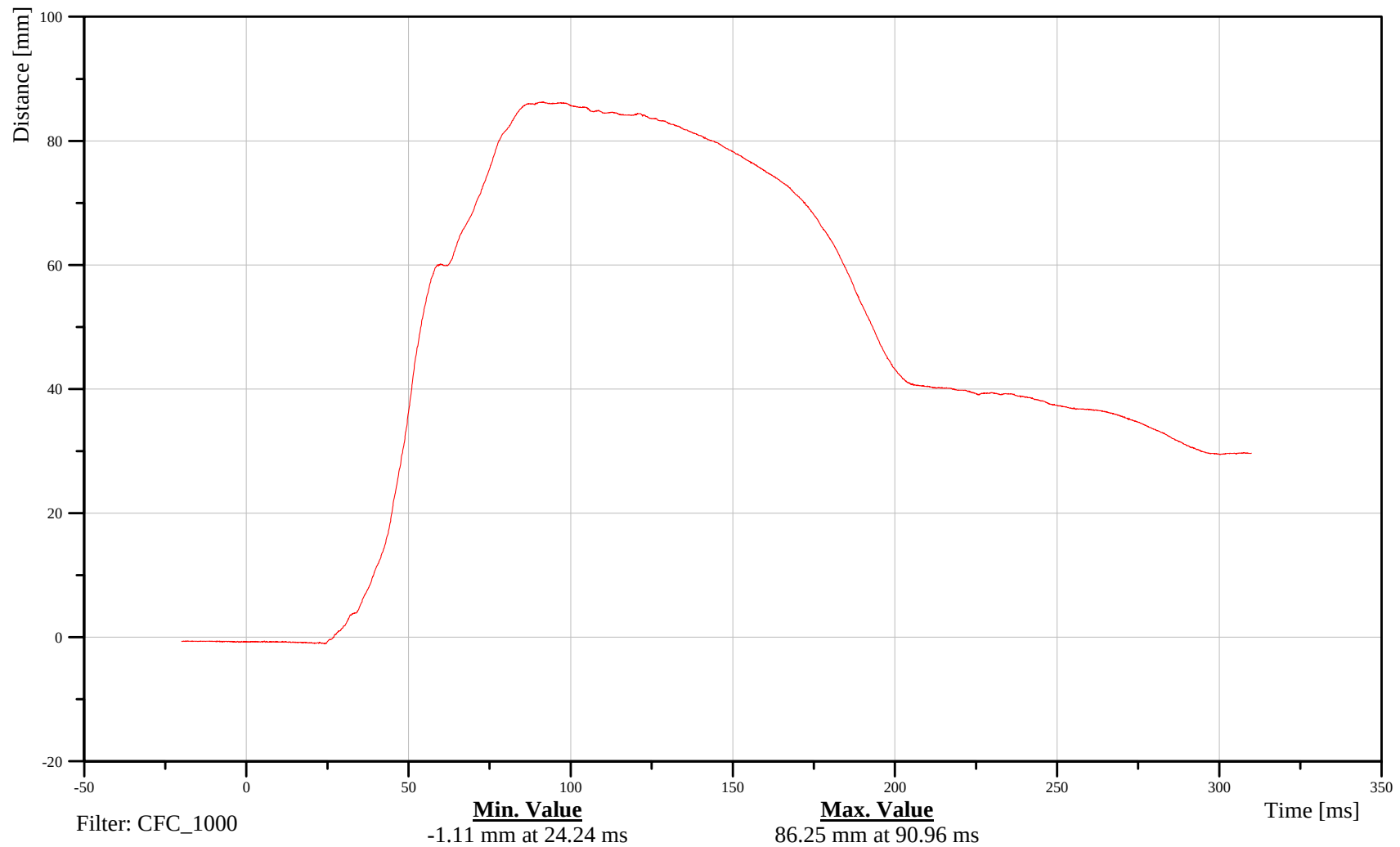
Bullet Vehicle RF Pass shoulder belt spool and retraction

Customer: VRTC

13SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Bullet Vehicle IP Center

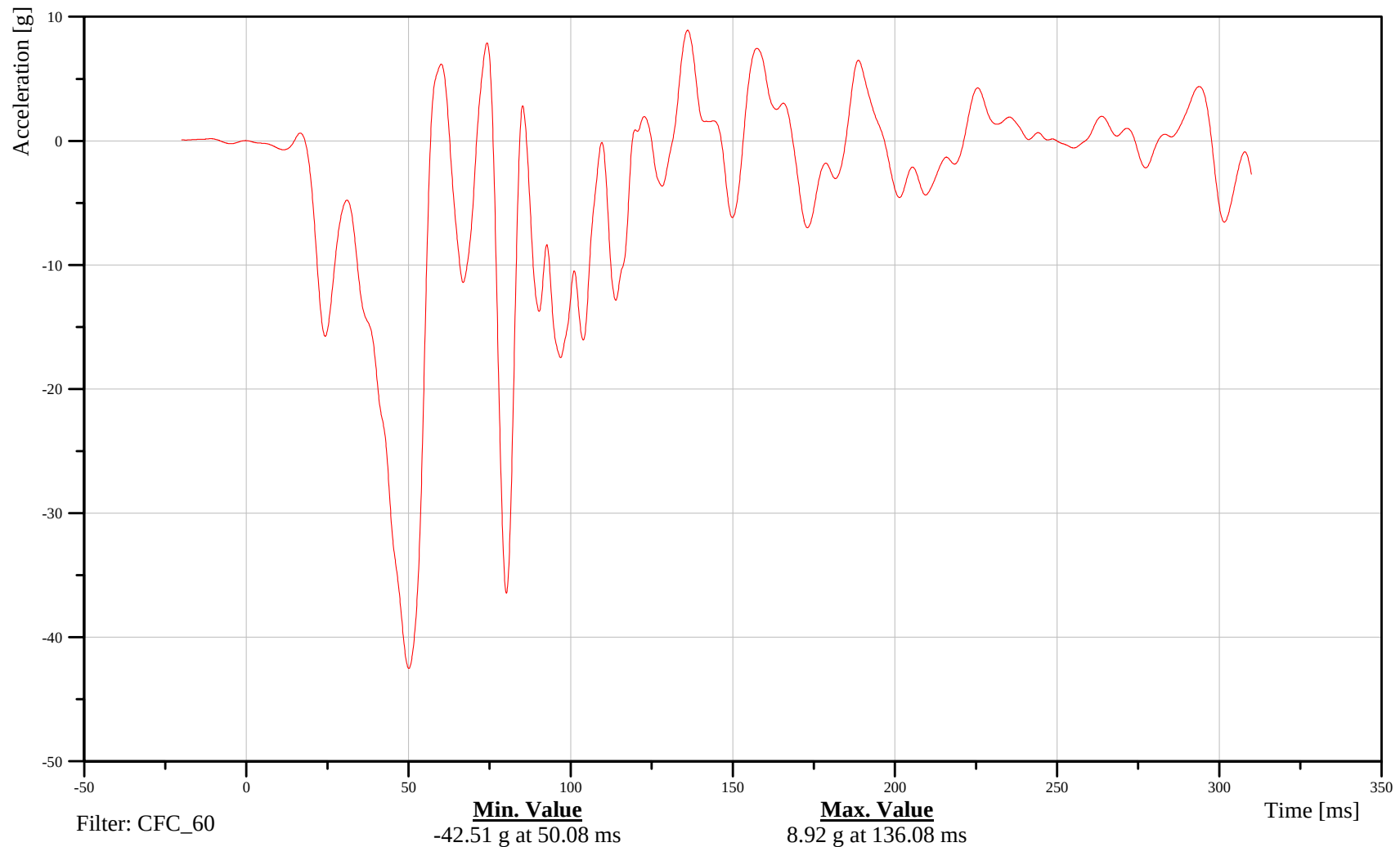
Date: 03/03/2006
Time: 07:16

Customer: VRTC

12DASH000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

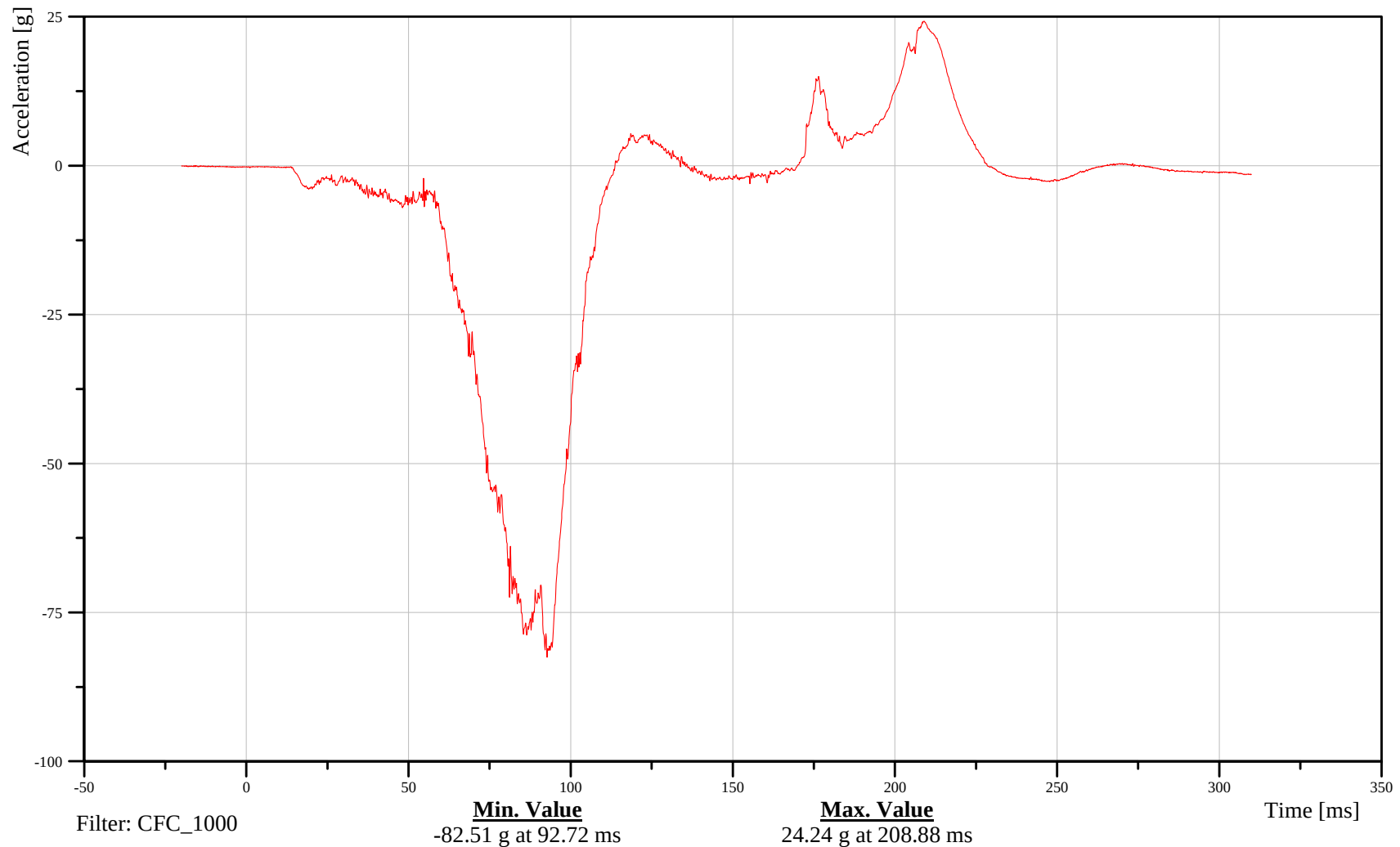
Target Driver Head X-Axis Acceleration

Customer: VRTC

21HEADCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

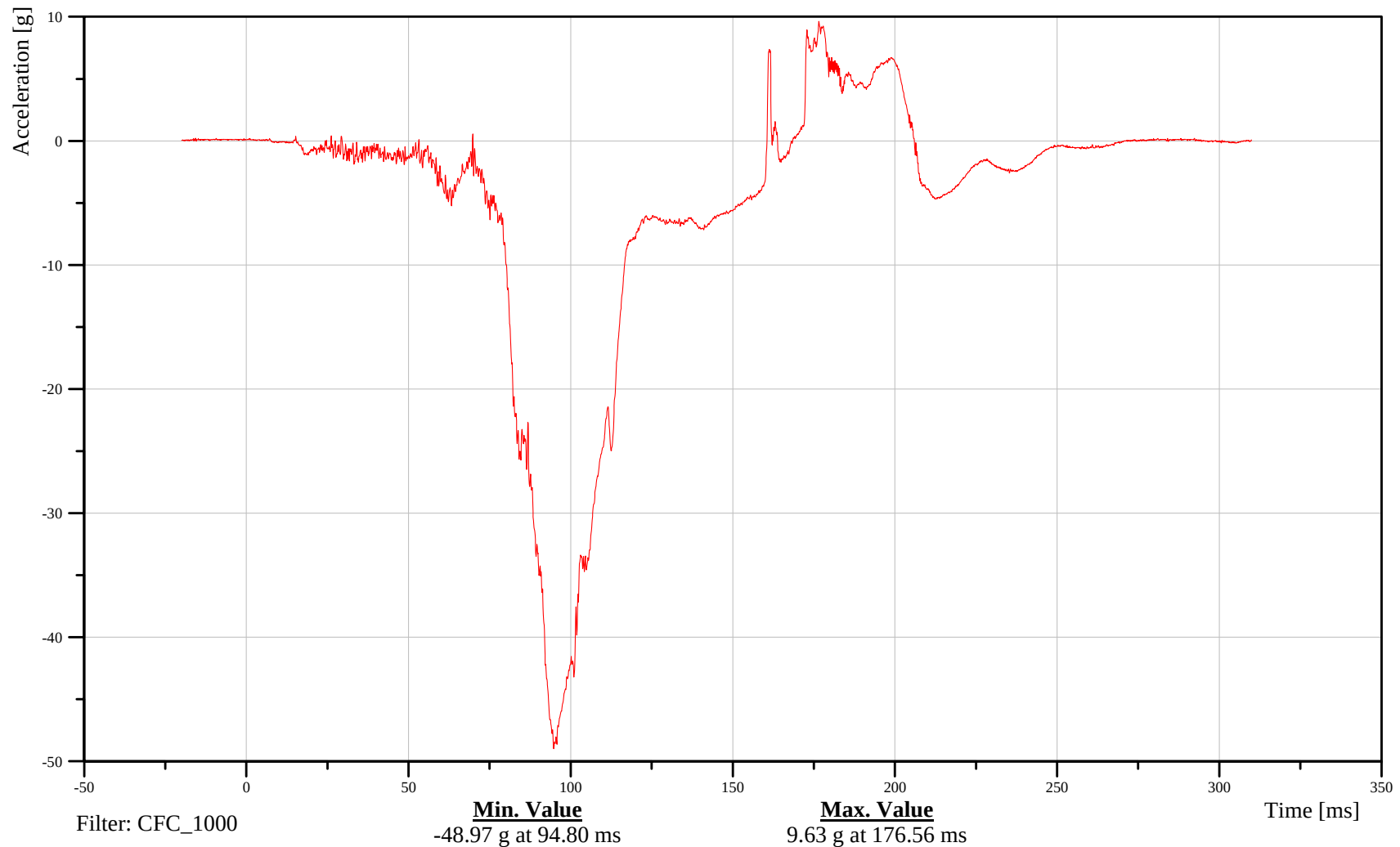
Target Driver Head Y-Axis Acceleration

Customer: VRTC

21HEADCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

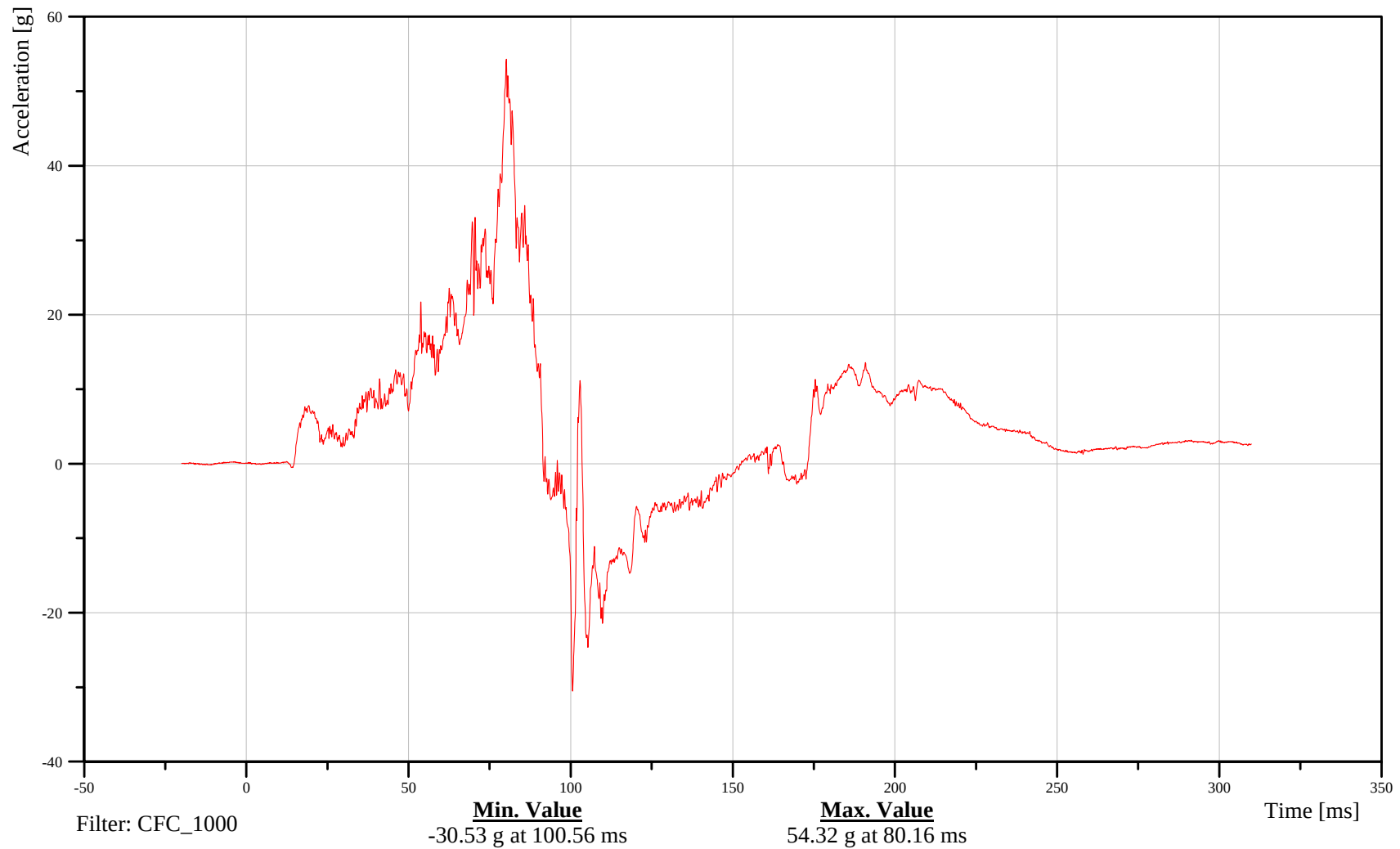
Target Driver Head Z-Axis Acceleration

Customer: VRTC

21HEADCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

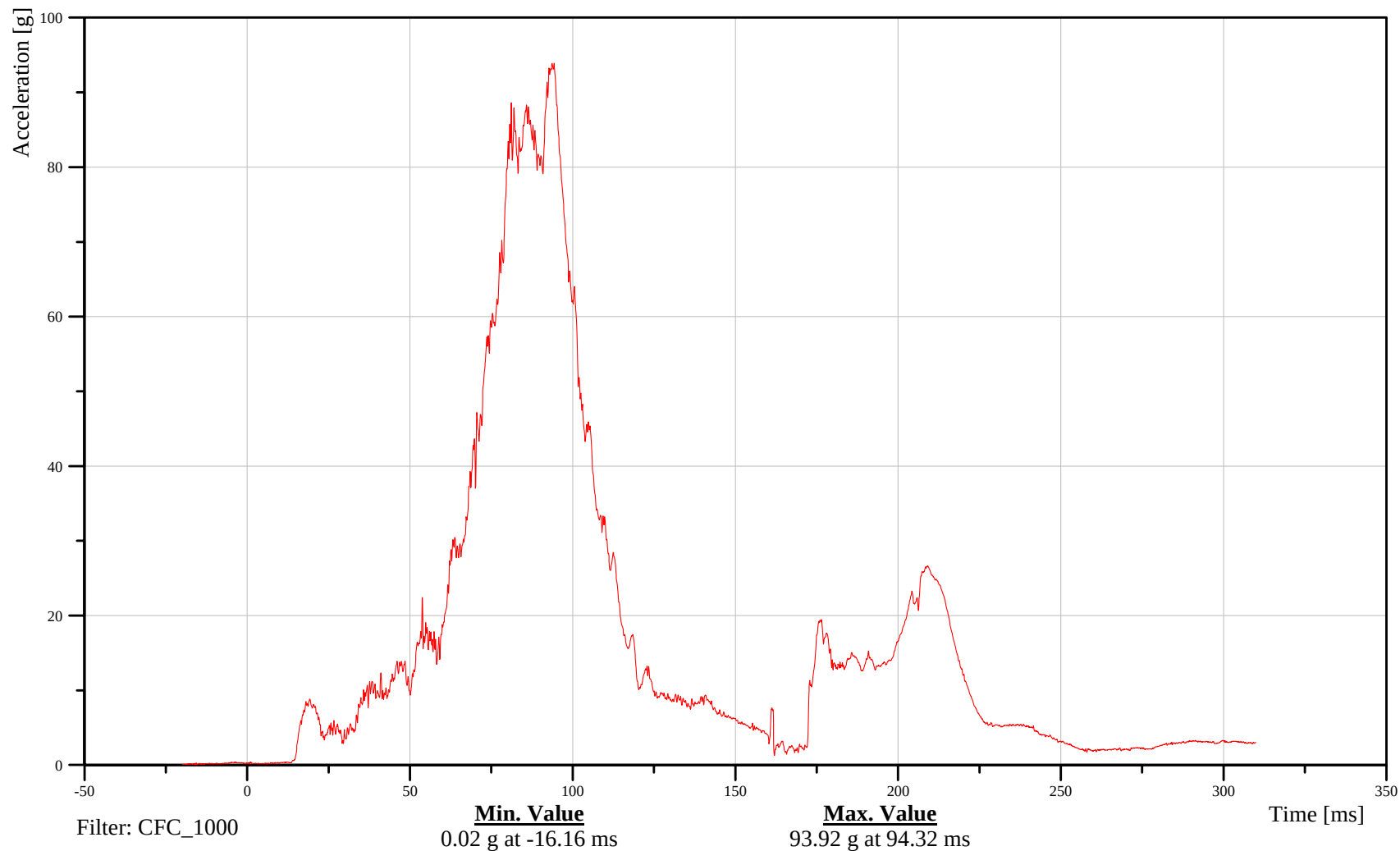
Target Driver Head Resultant Acceleration

Customer: VRTC

21HEADCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

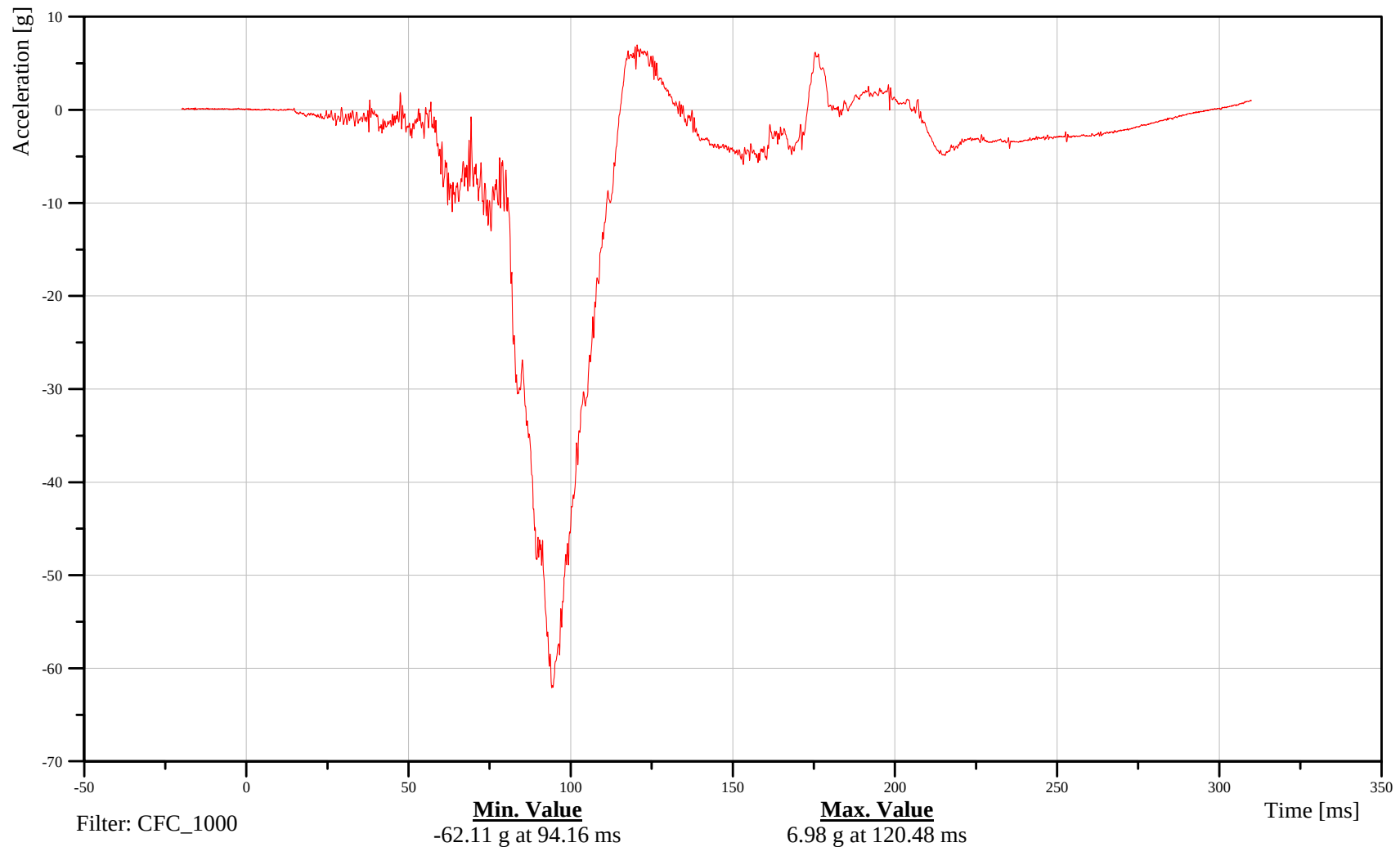
Target Driver Head Front Y-Axis Acceleration

Customer: VRTC

21HEADFR00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

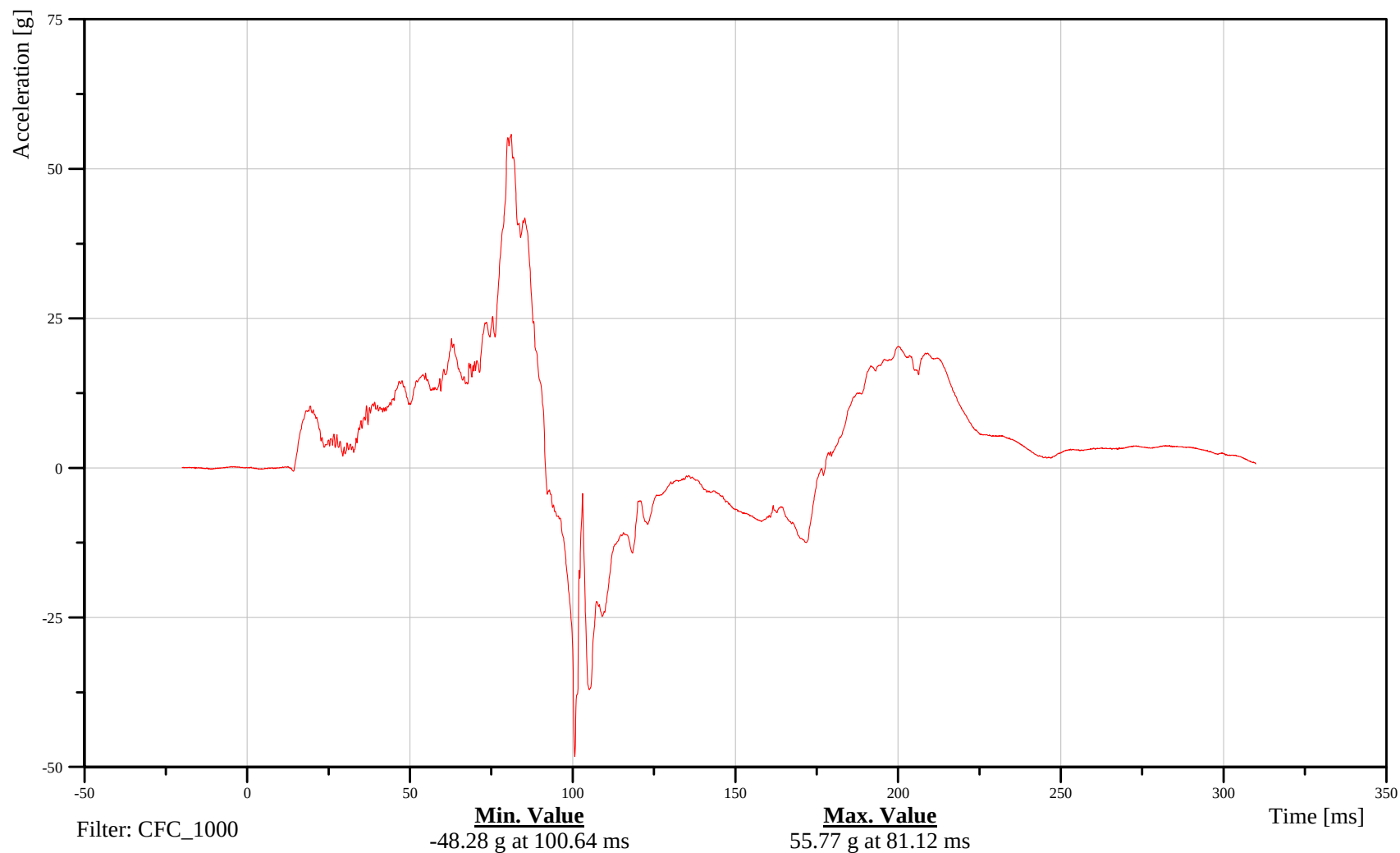
Target Driver Head Front Z-Axis Acceleration

Customer: VRTC

21HEADFR00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

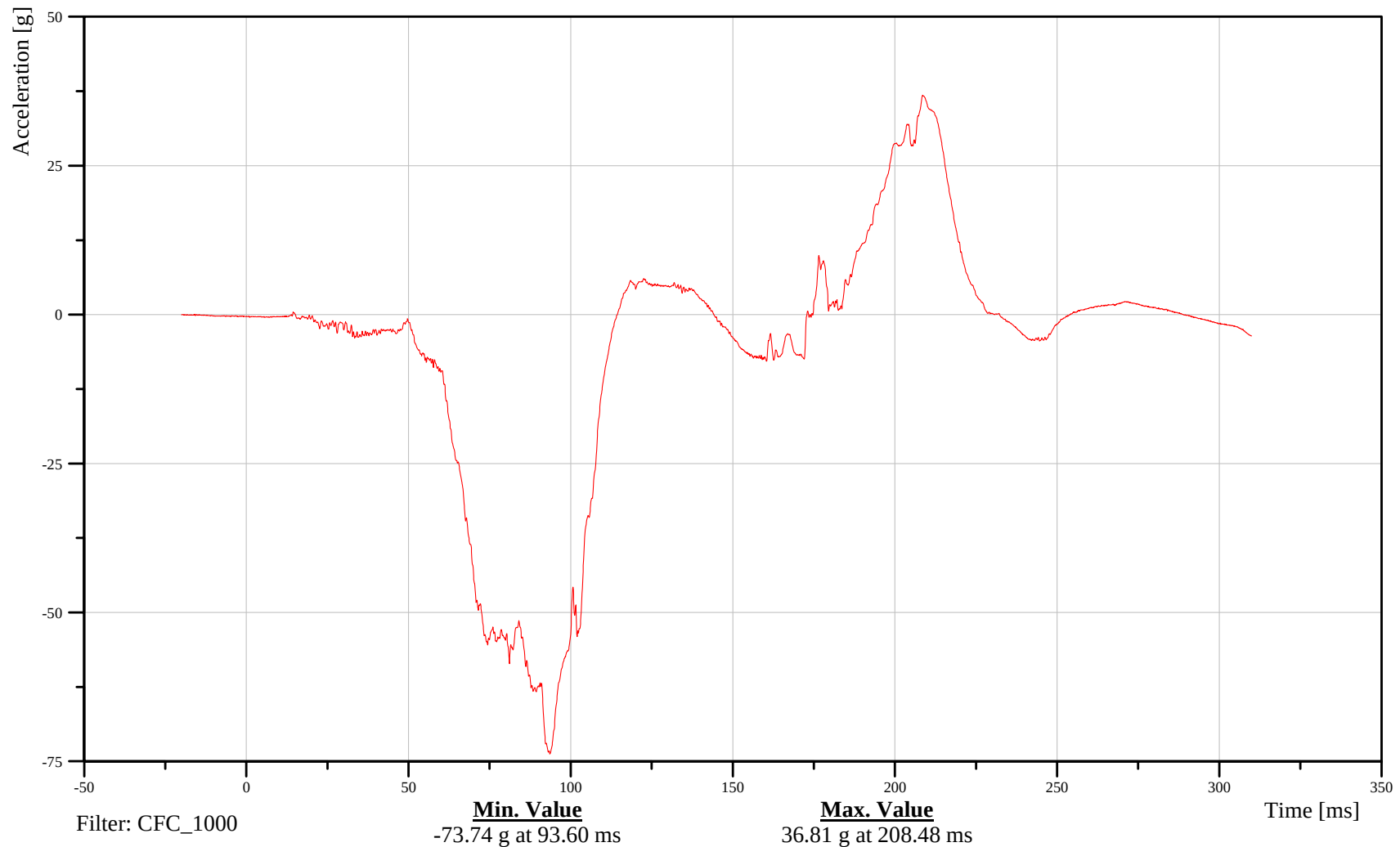
Target Driver Head Top X-Axis Acceleration

Customer: VRTC

21HEADUP00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

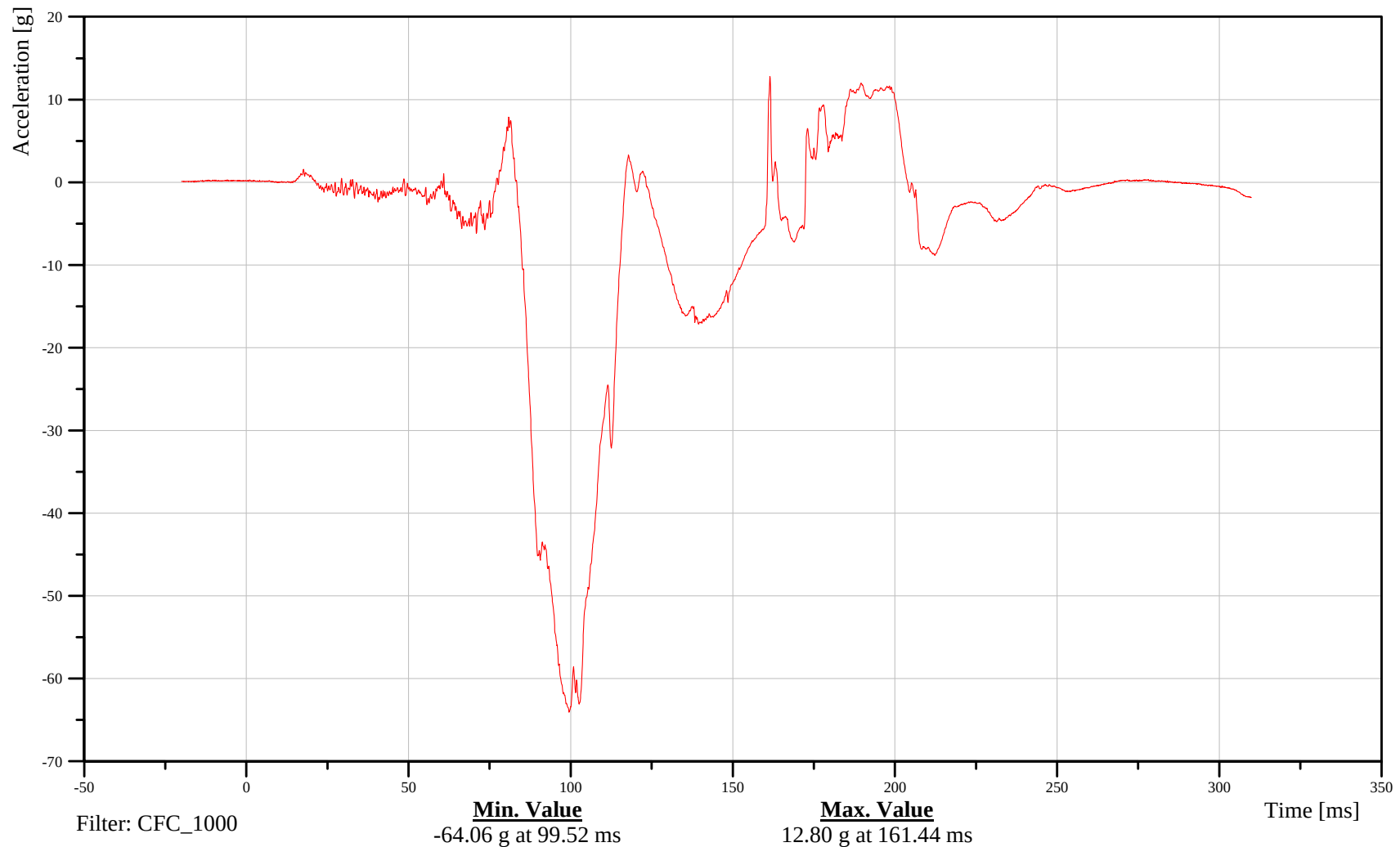
Target Driver Head Top Y-Axis Acceleration

Customer: VRTC

21HEADUP00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

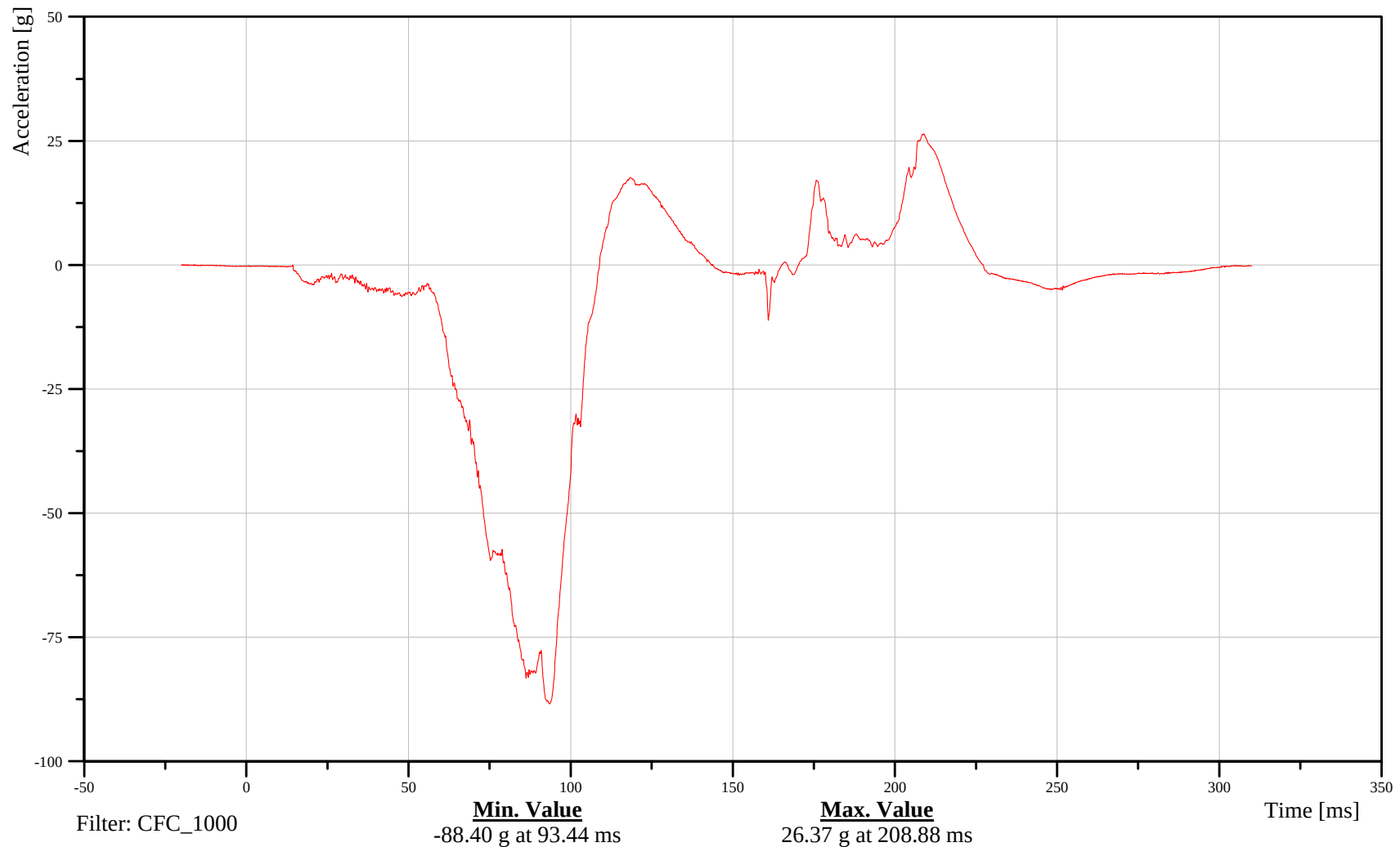
Target Driver Head Side X-Axis Acceleration

Customer: VRTC

21HEADLE00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

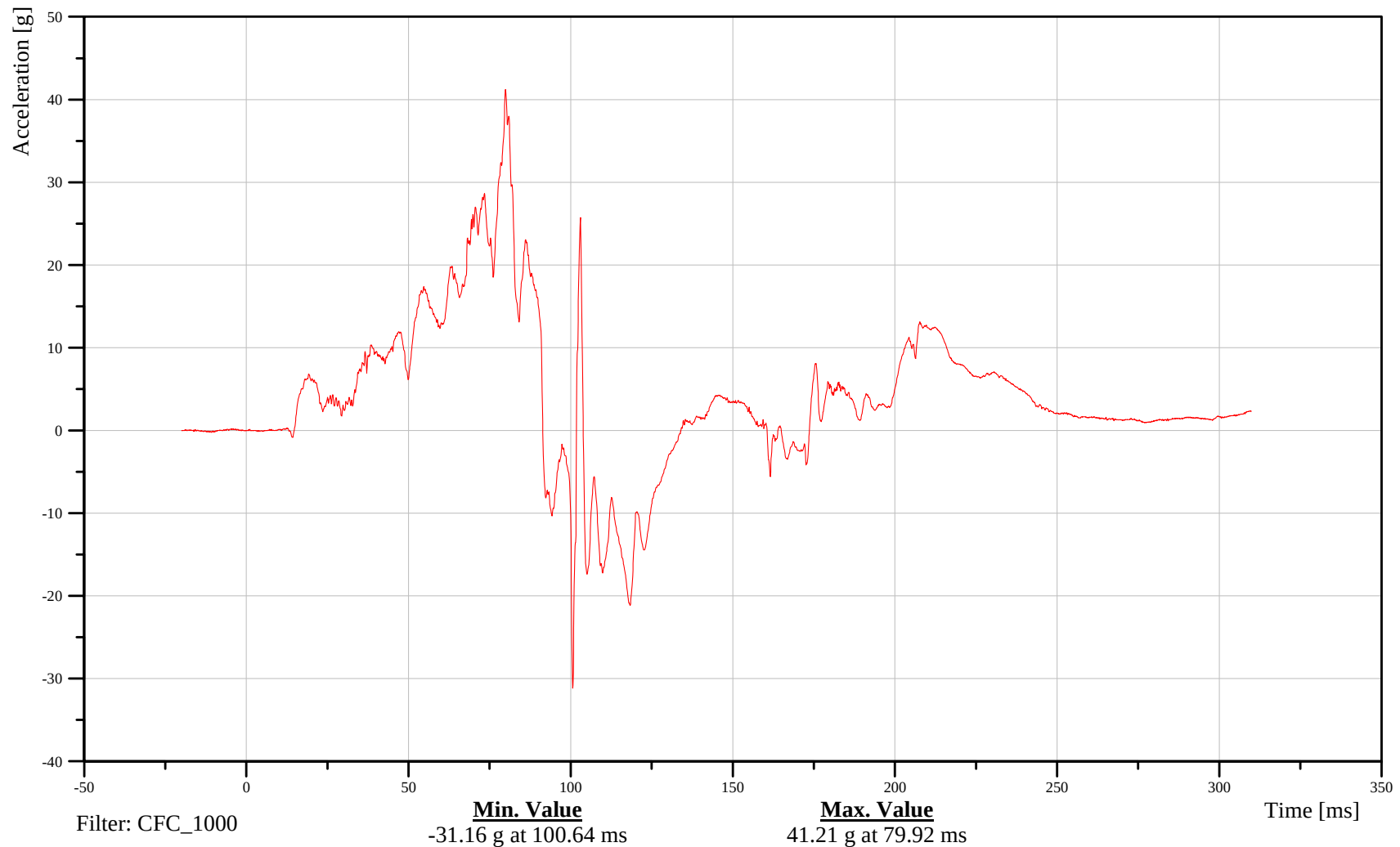
Target Driver Head Side Z-Axis Acceleration

Customer: VRTC

21HEADLE00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

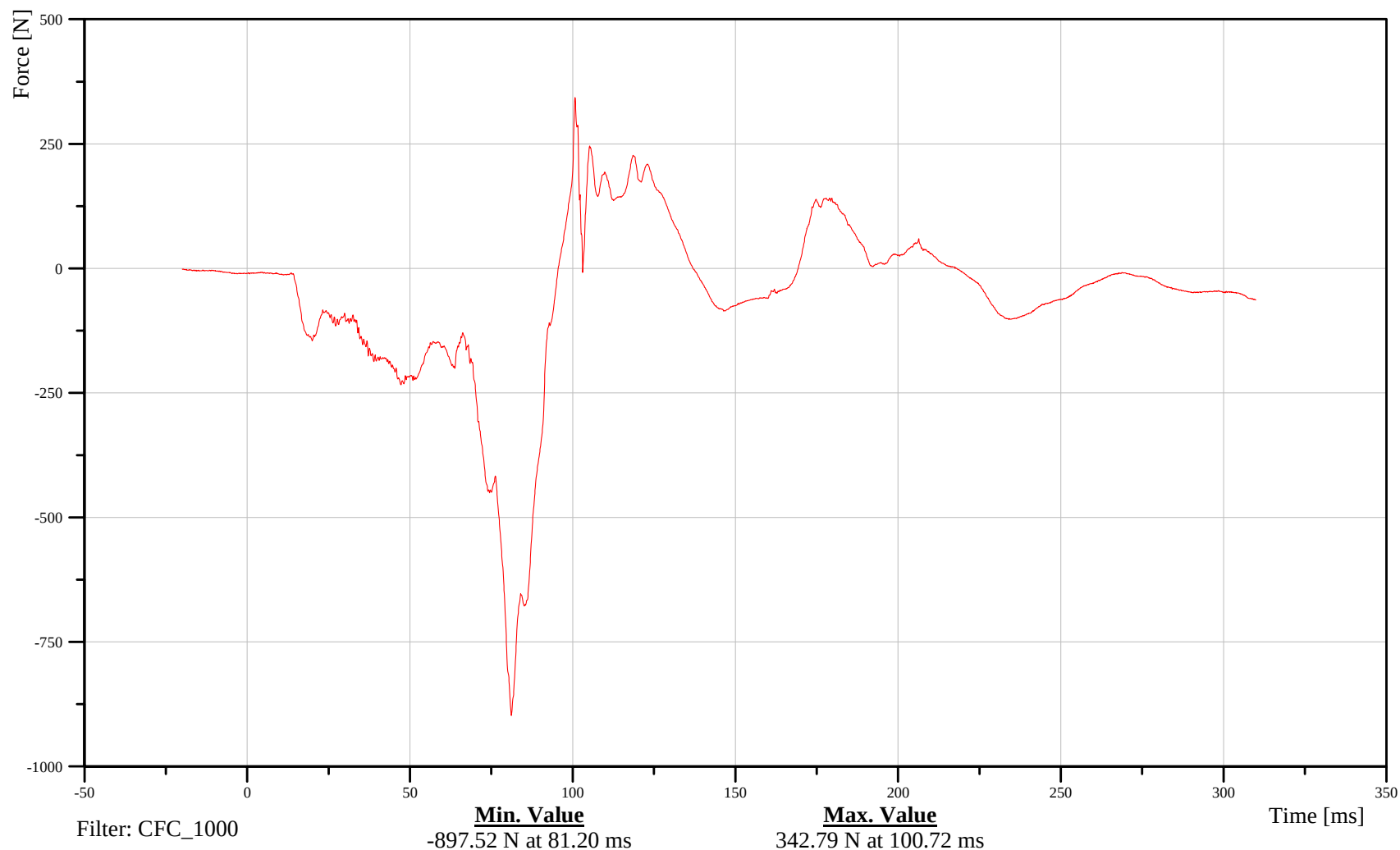
Target Driver Upper Neck X-Axis Force

Customer: VRTC

21NECKUP00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

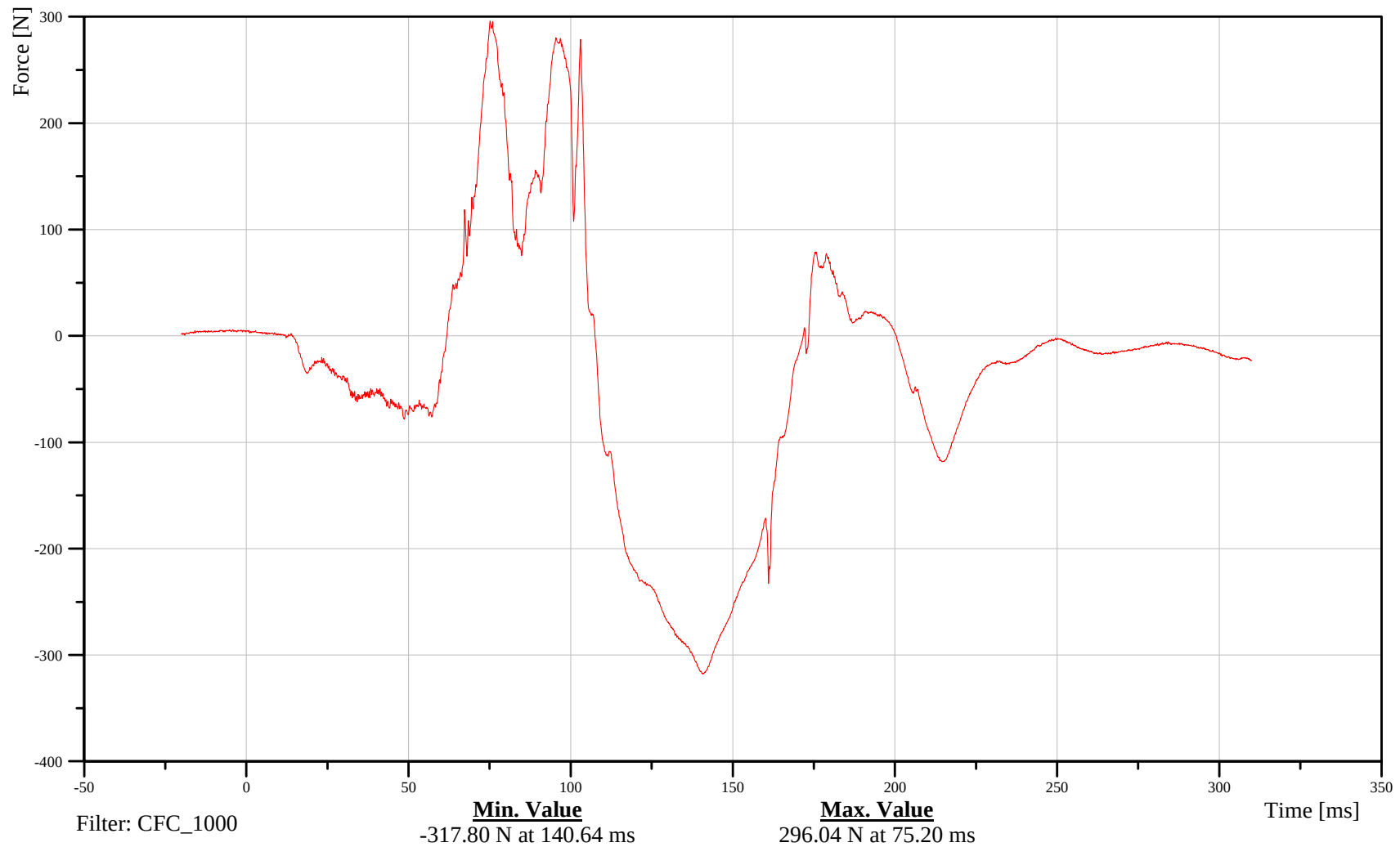
Target Driver Upper Neck Y-Axis Force

Customer: VRTC

21NECKUP00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

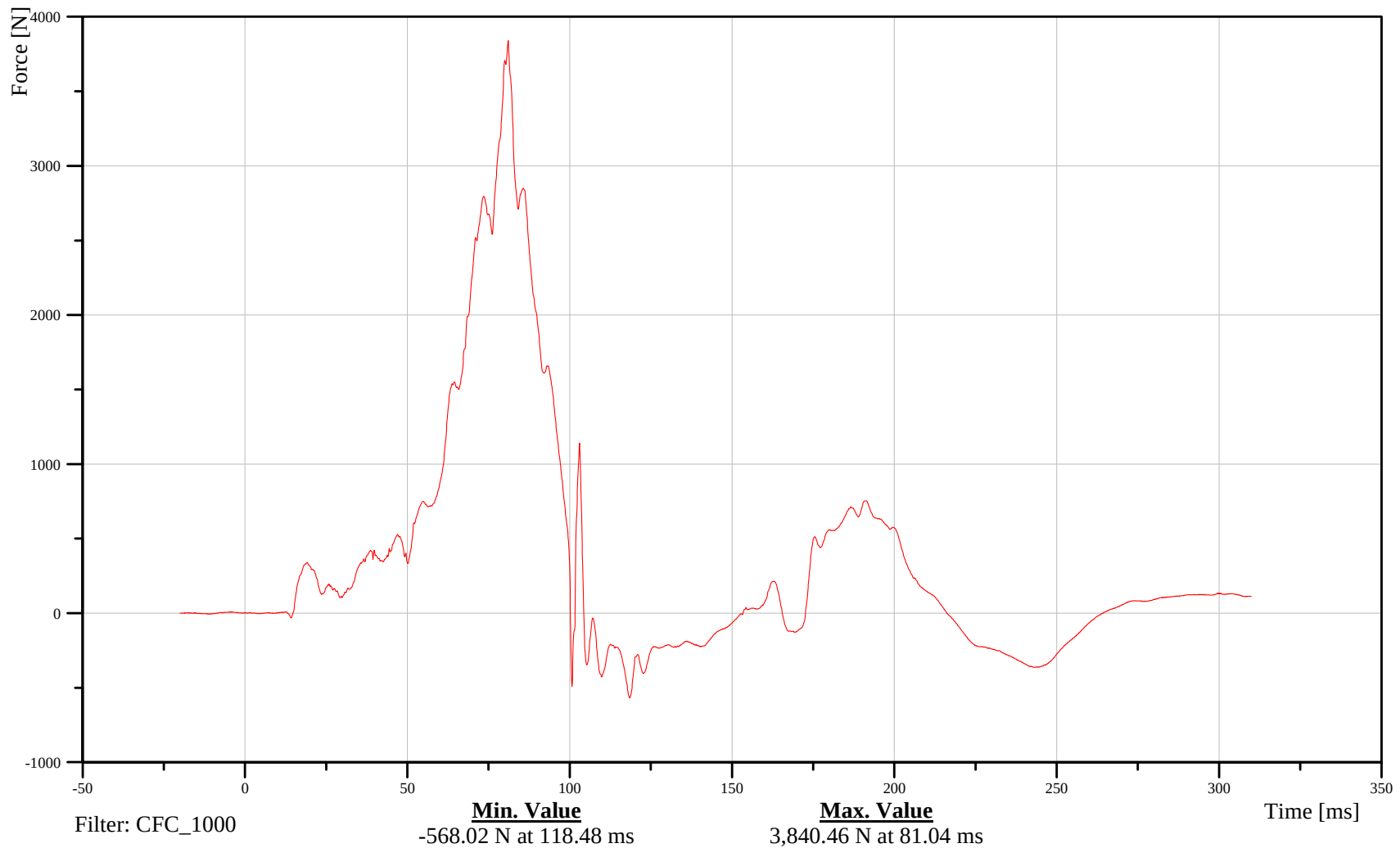
Target Driver Upper Neck Z-Axis Force

Customer: VRTC

21NECKUP00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

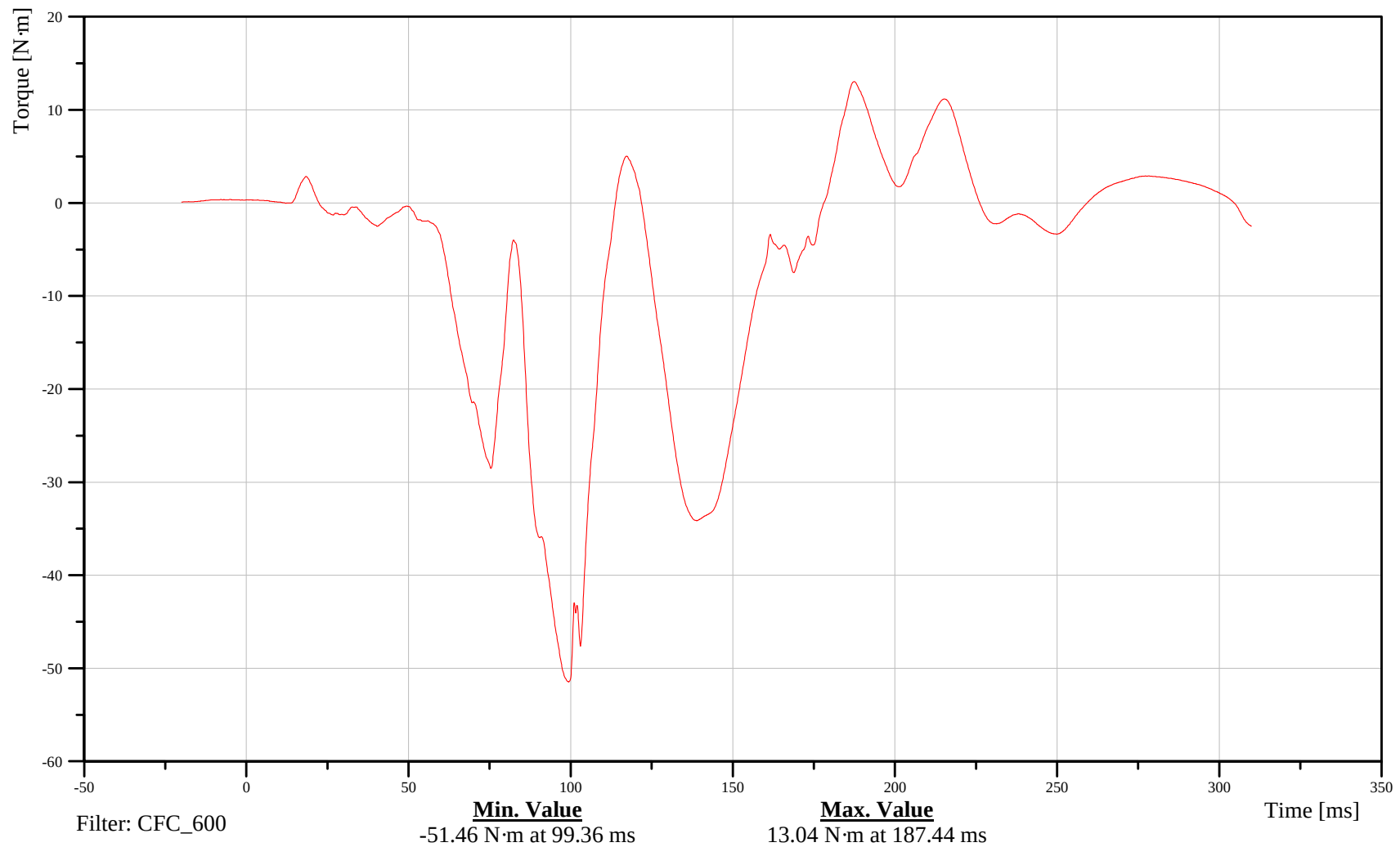
Target Driver Upper Neck Moment About X Axis

Customer: VRTC

21NECKUP00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

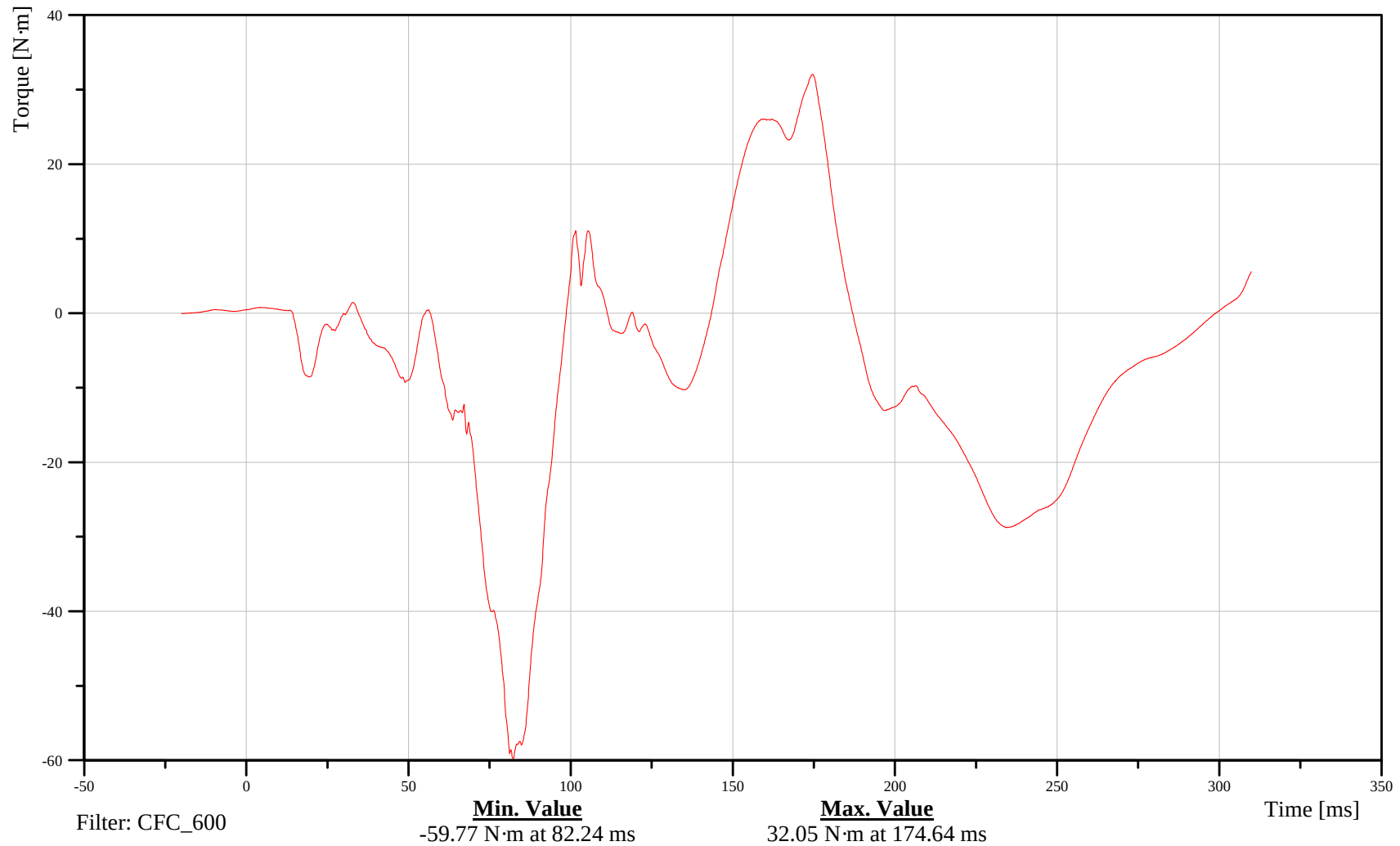
Target Driver Upper Neck Moment About Y Axis

Customer: VRTC

21NECKUP00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

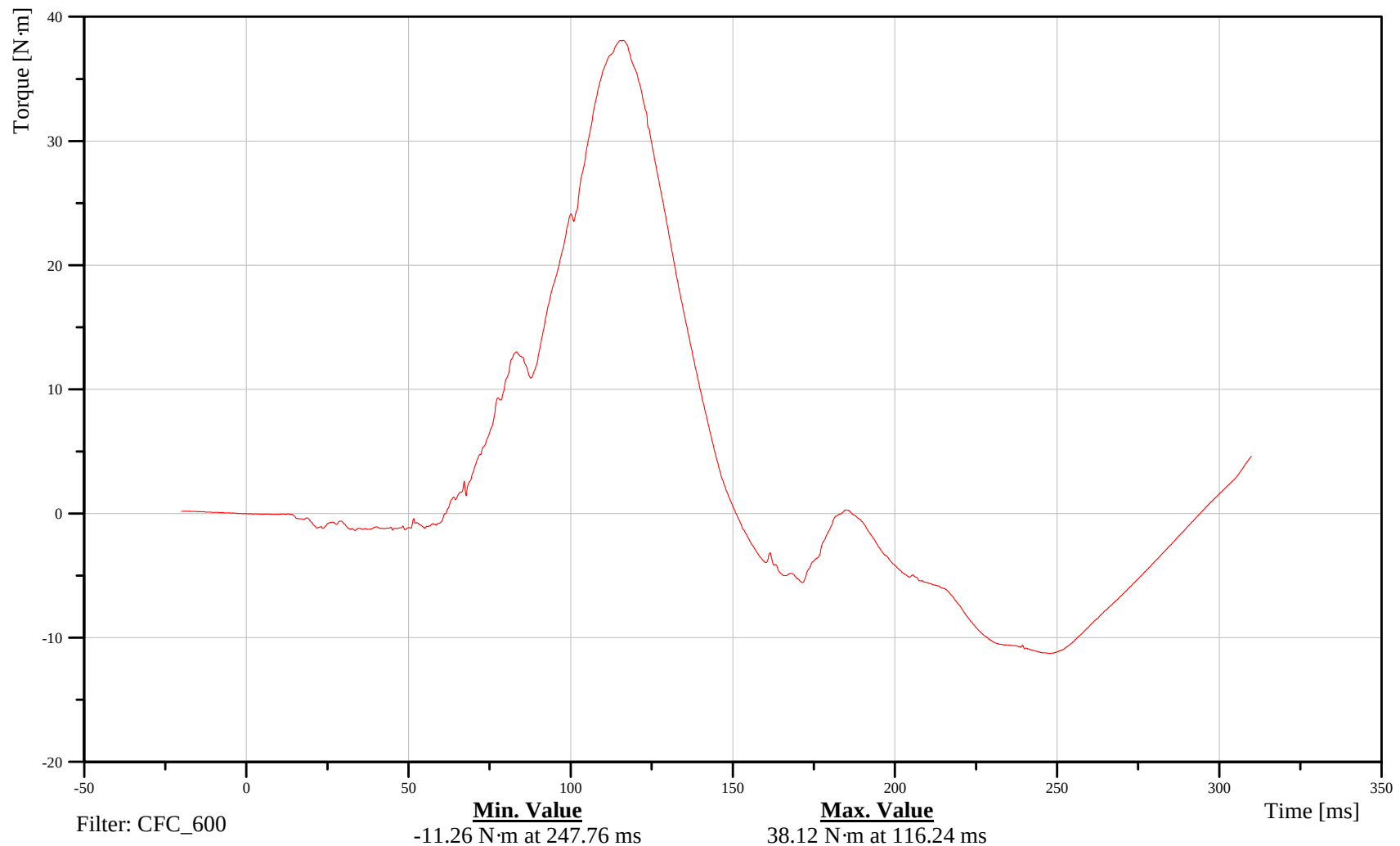
Target Driver Upper Neck Moment About Z Axis

Customer: VRTC

21NECKUP00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

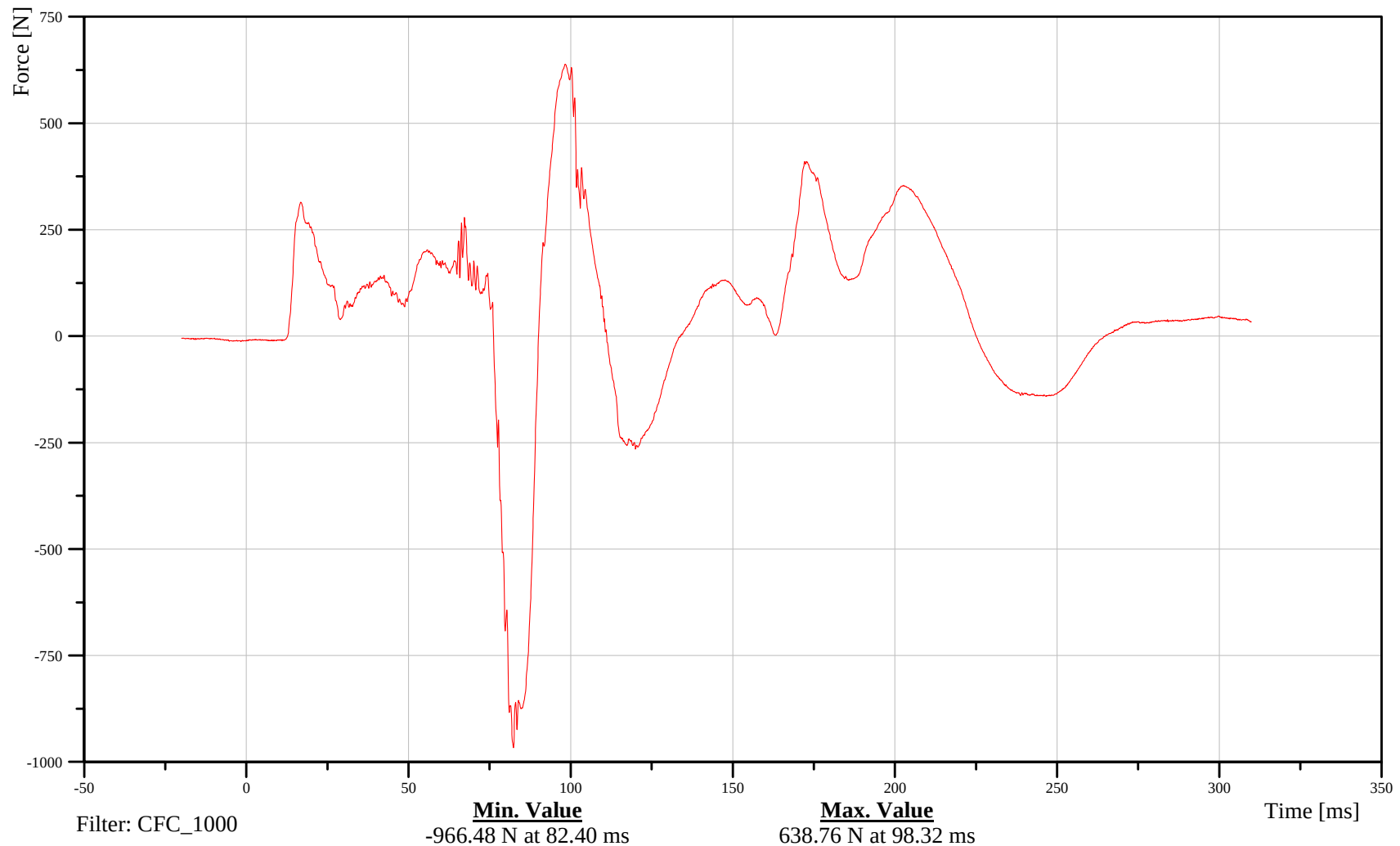
Target Driver Lower Neck X-Axis Force

Customer: VRTC

21NECKLO00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

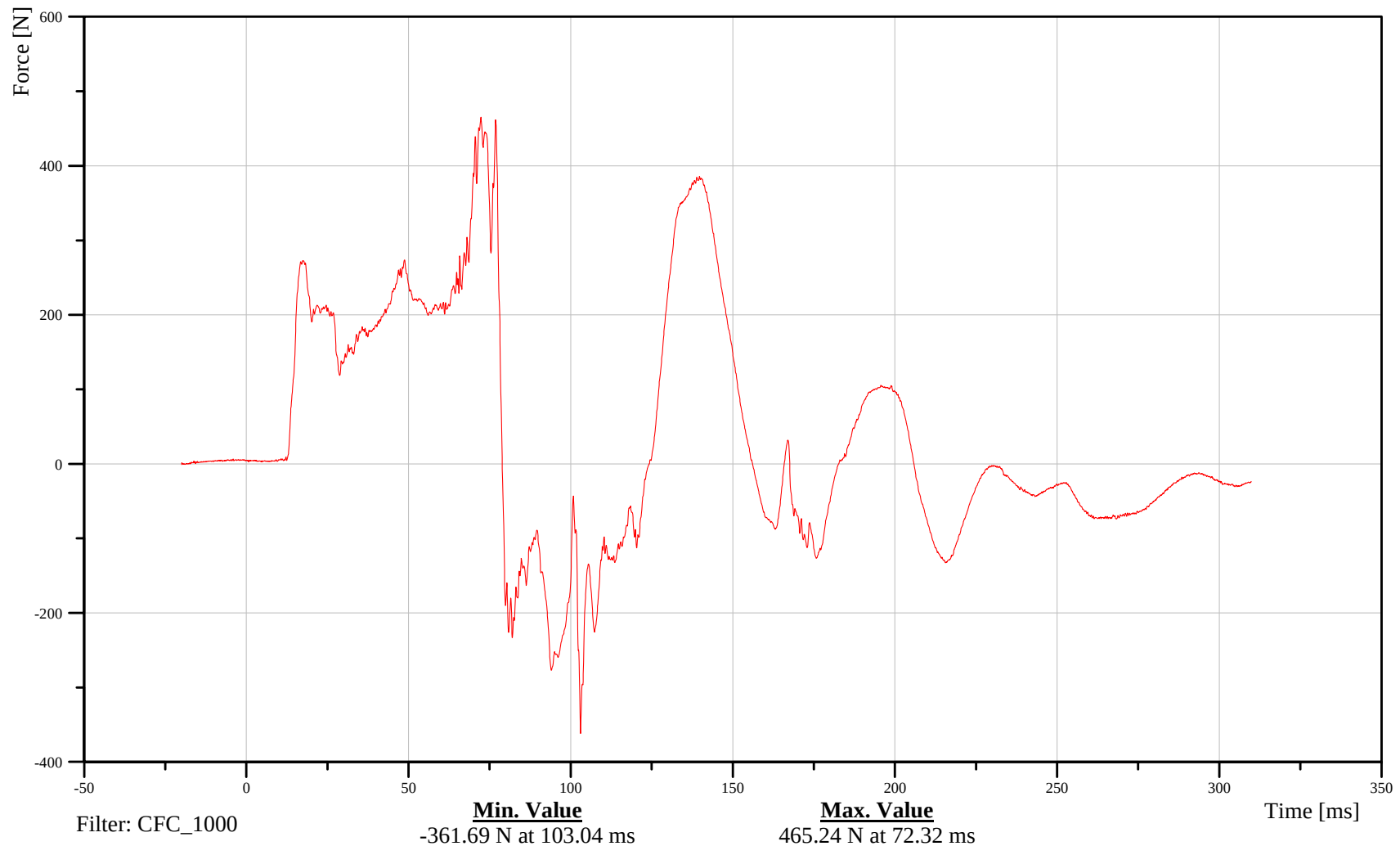
Target Driver Lower Neck Y-Axis Force

Customer: VRTC

21NECKLO00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

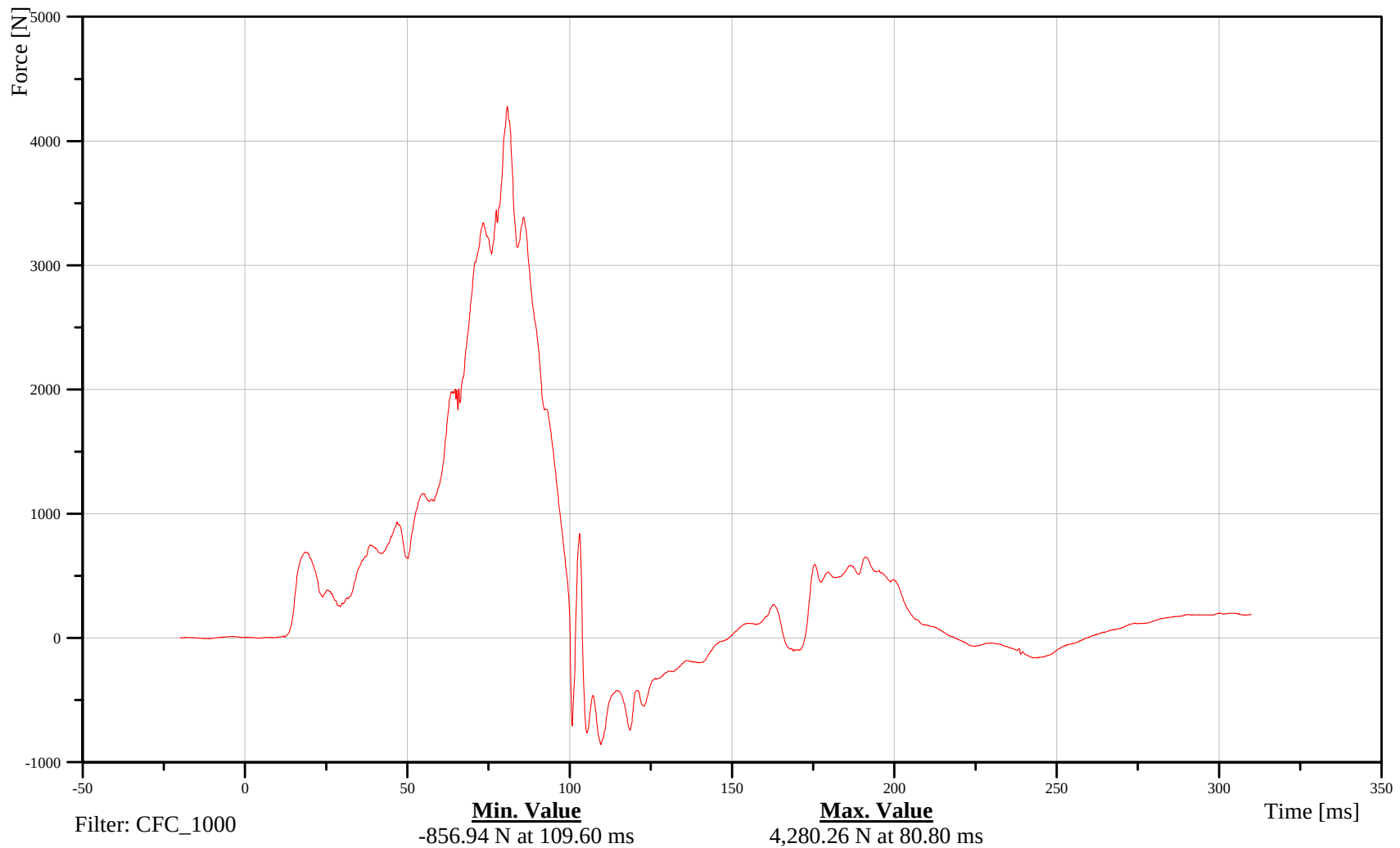
Target Driver Lower Neck Z-Axis Force

Customer: VRTC

21NECKLO00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

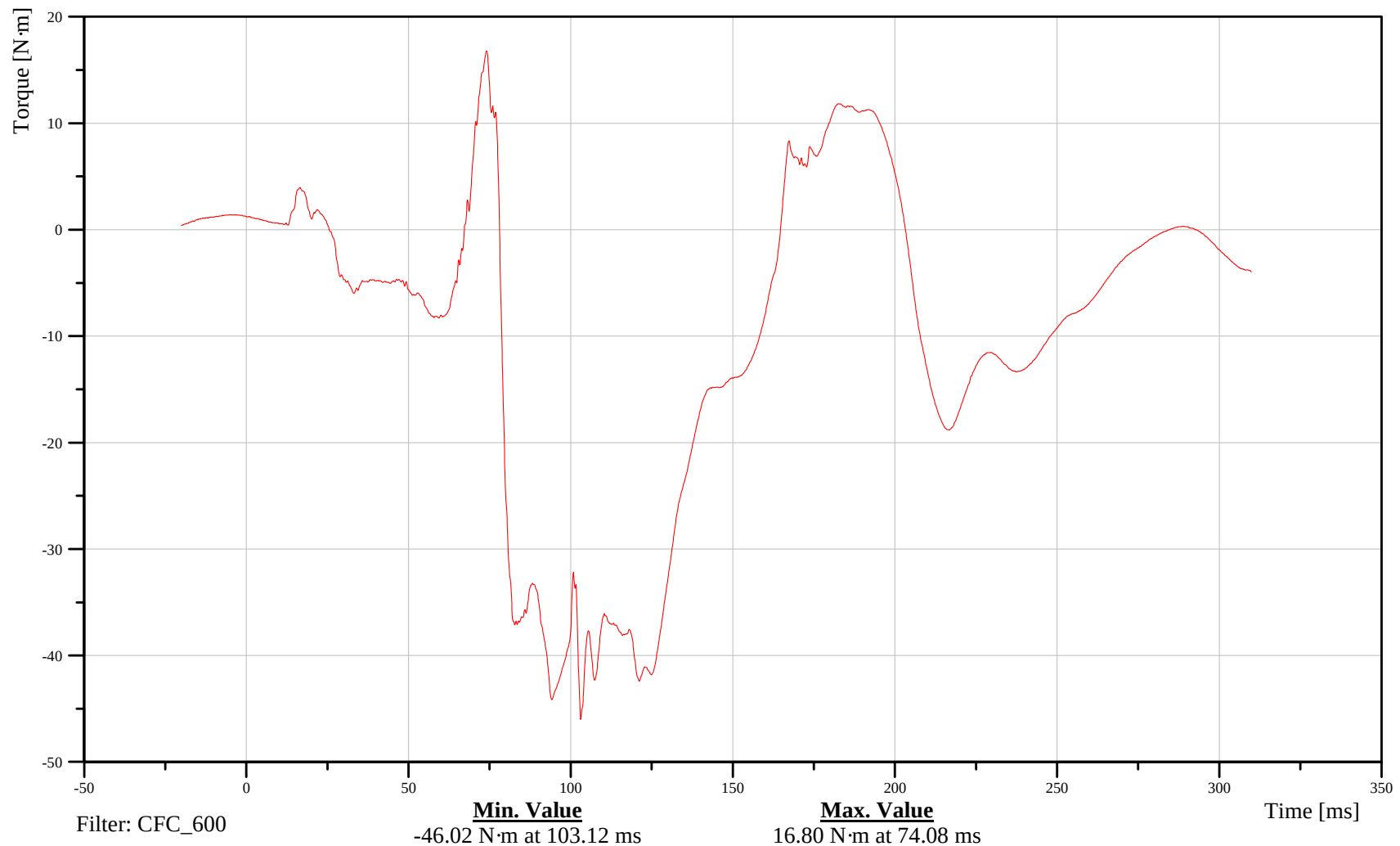
Target Driver Lower Neck Moment About X Axis

Customer: VRTC

21NECKLO00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

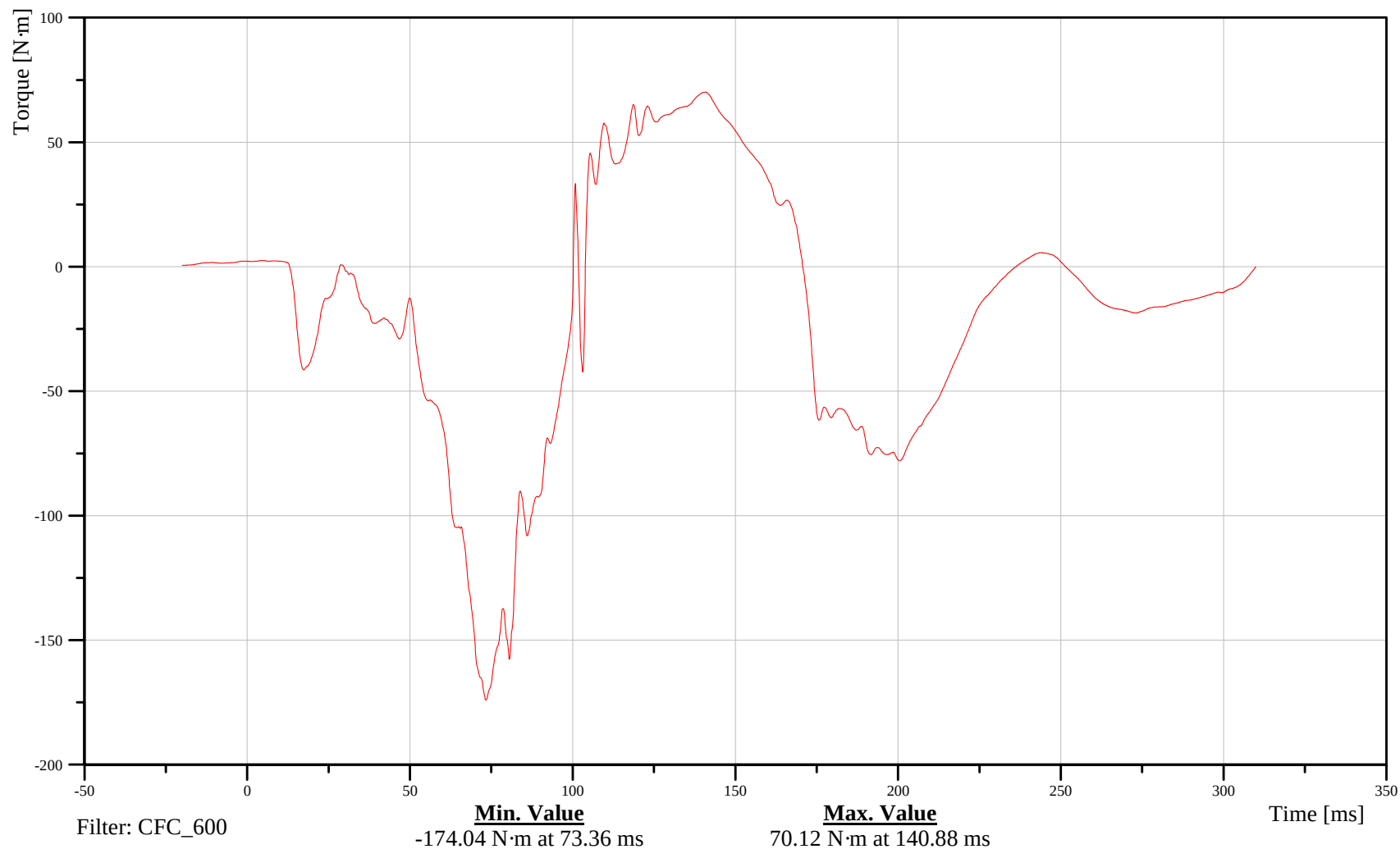
Target Driver Lower Neck Moment About Y Axis

Customer: VRTC

21NECKLO00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

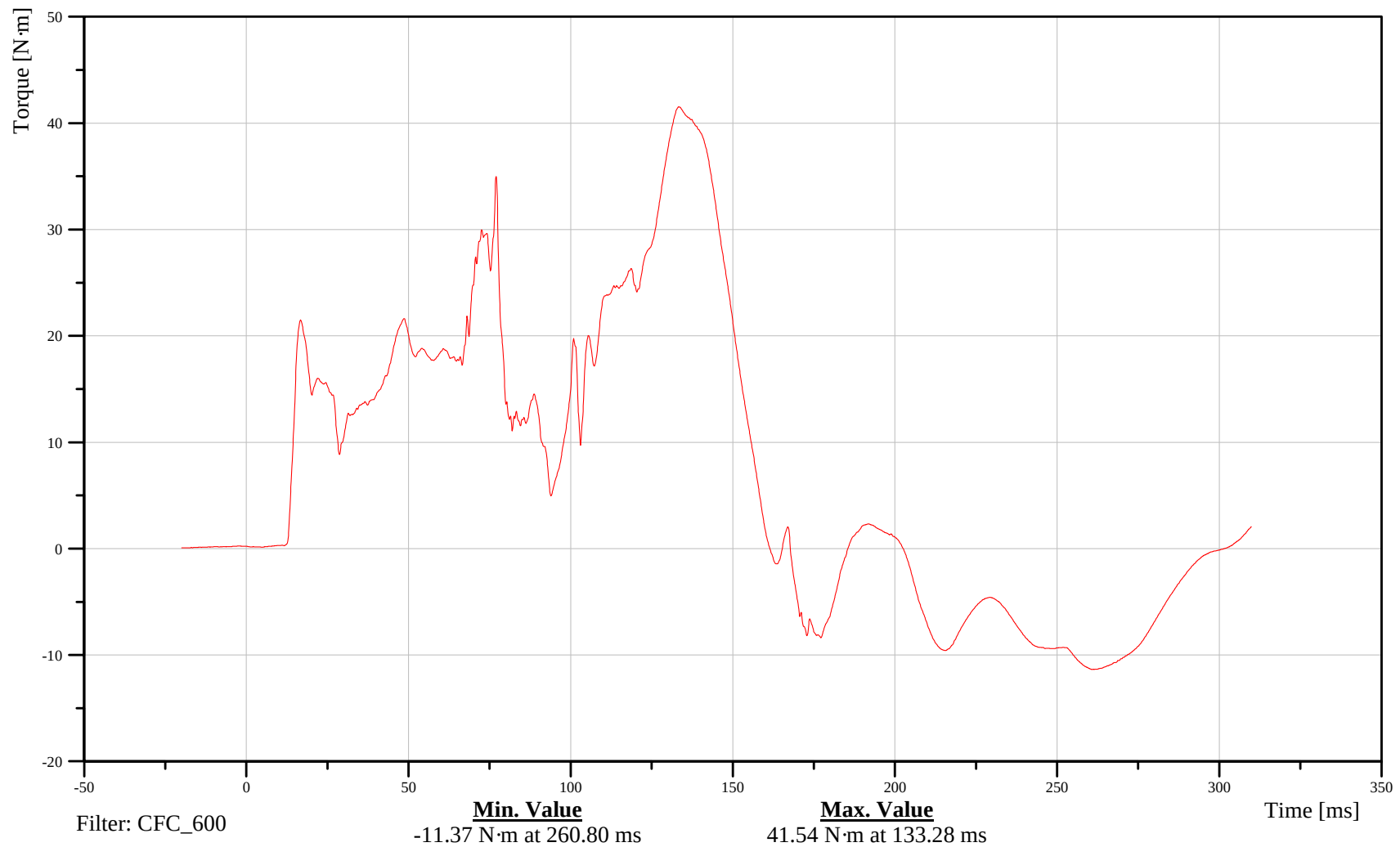
Target Driver Lower Neck Moment About Z Axis

Customer: VRTC

21NECKLO00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

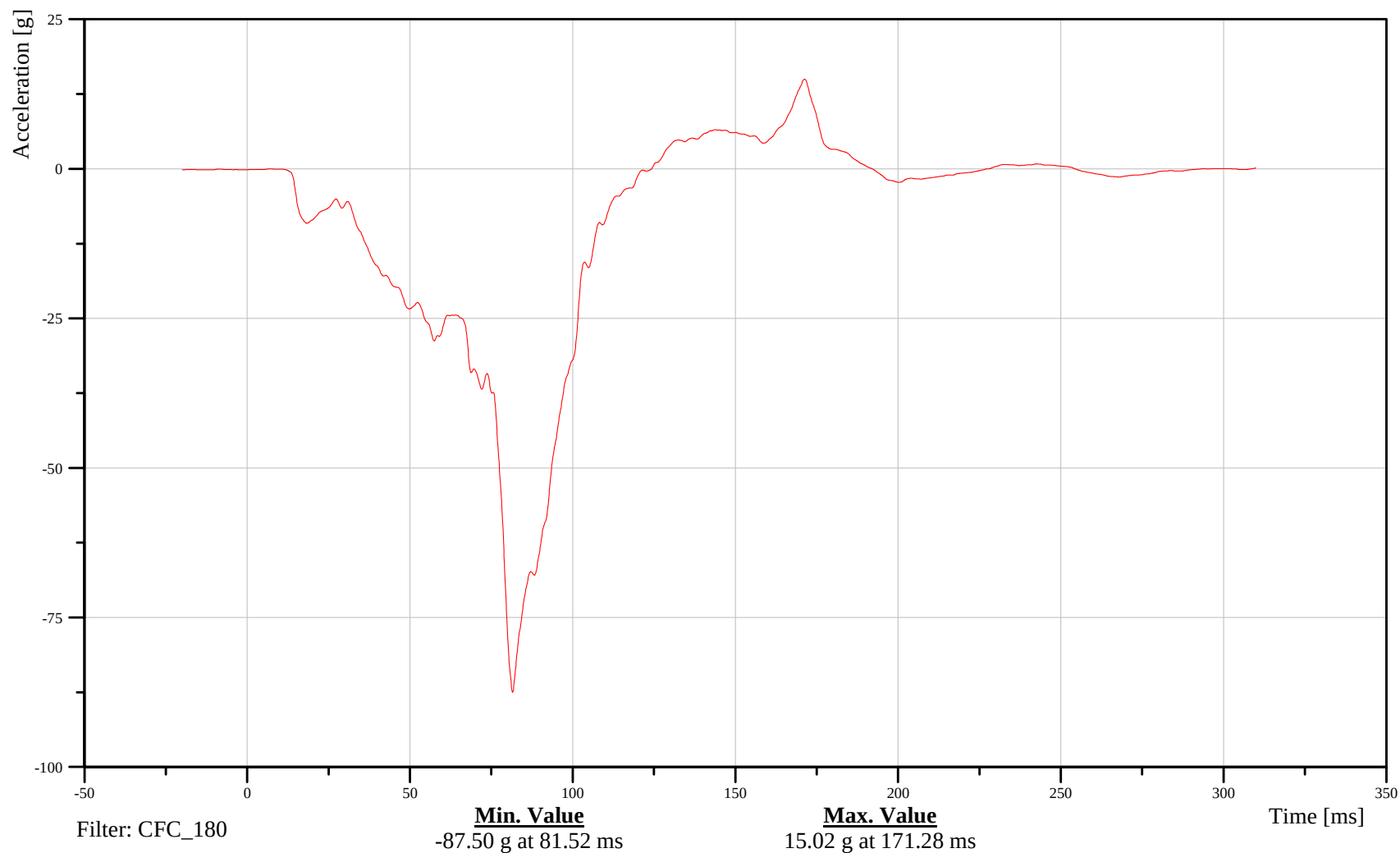
Target Driver Chest CG X-Axis Acceleration

Customer: VRTC

21CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

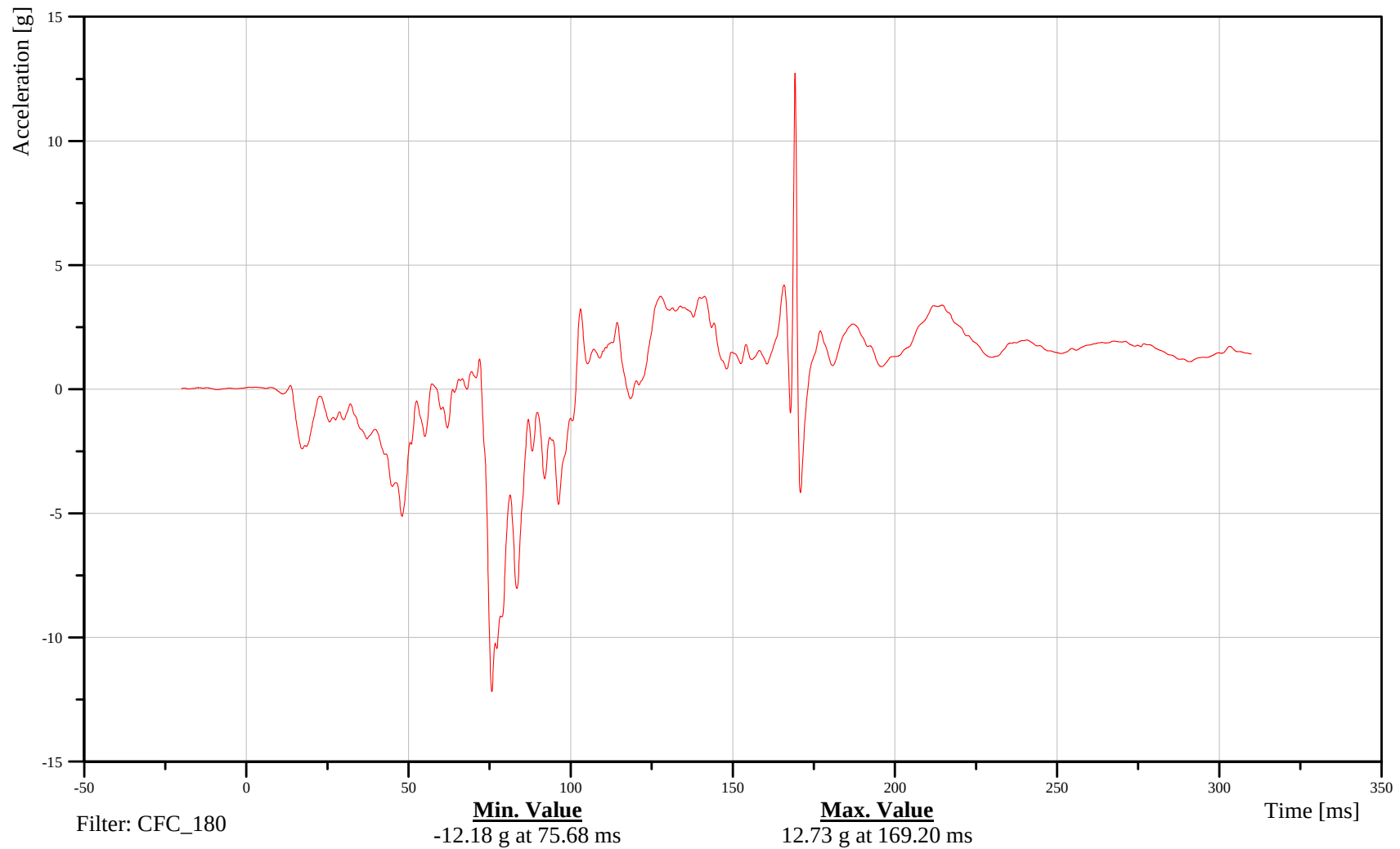
Target Driver Chest CG Y-Axis Acceleration

Customer: VRTC

21CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

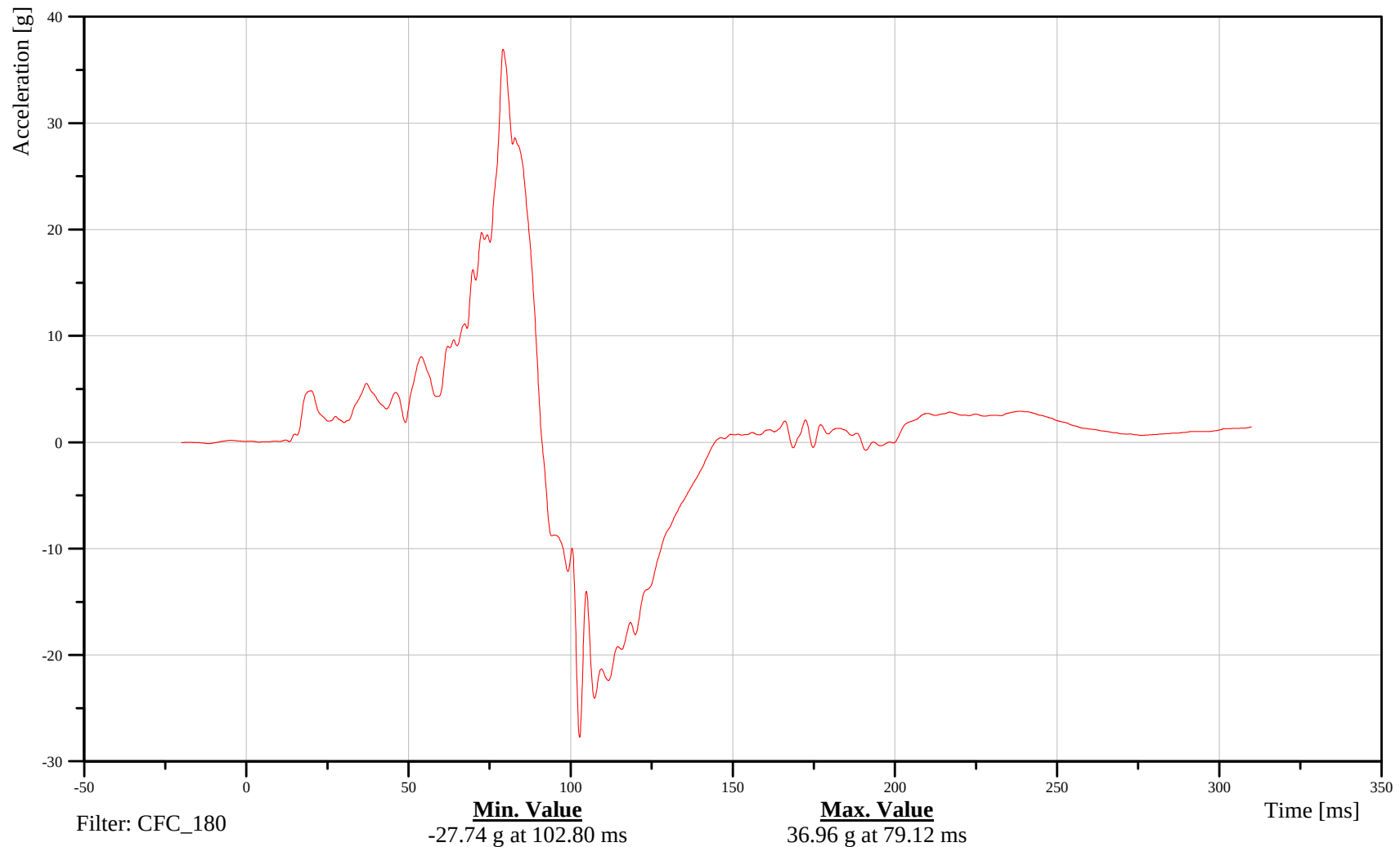
Target Driver Chest CG Z-Axis Acceleration

Customer: VRTC

21CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Driver Chest CG Resultant Acceleration

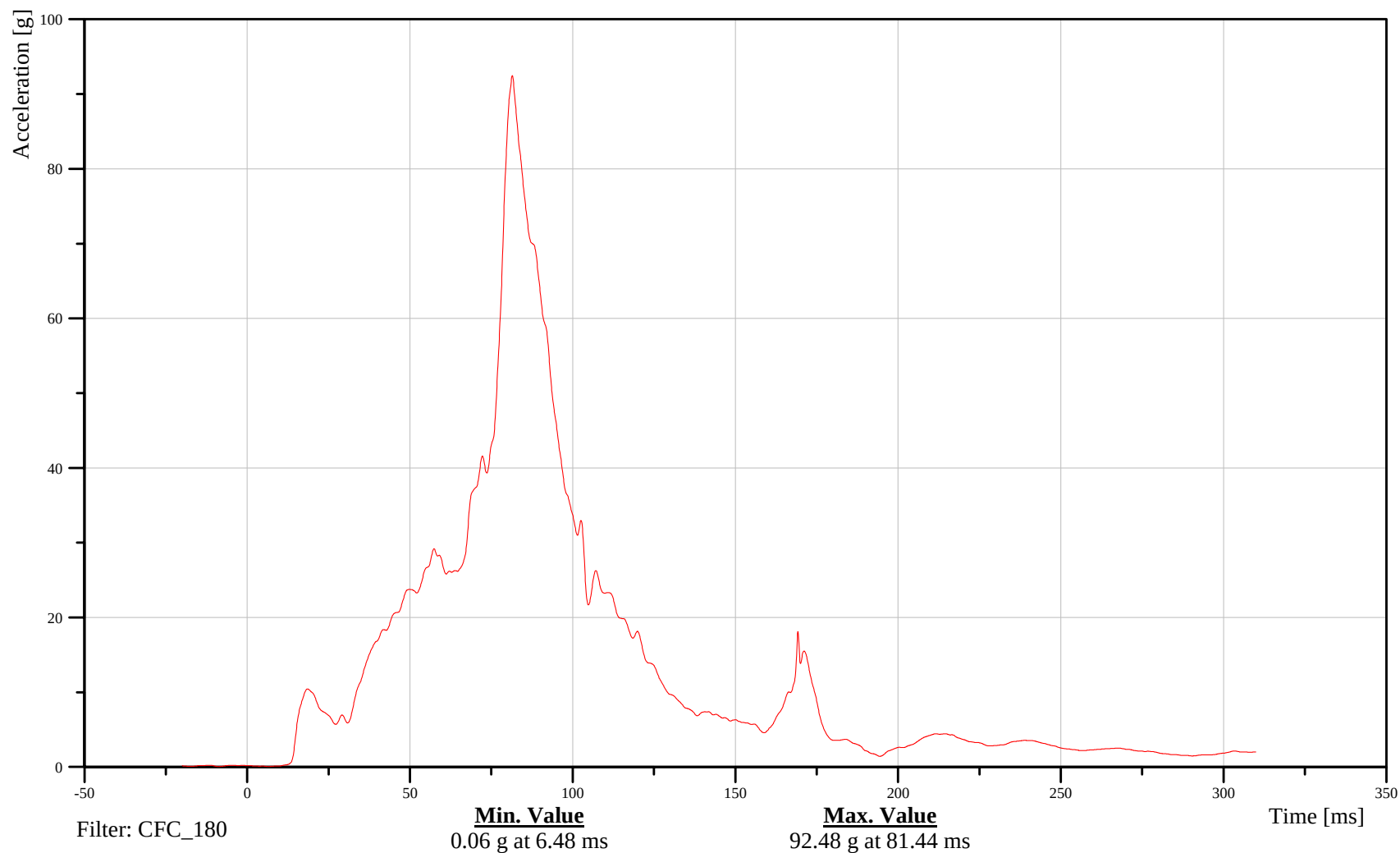
Time: 07:16

Customer: VRTC

21CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

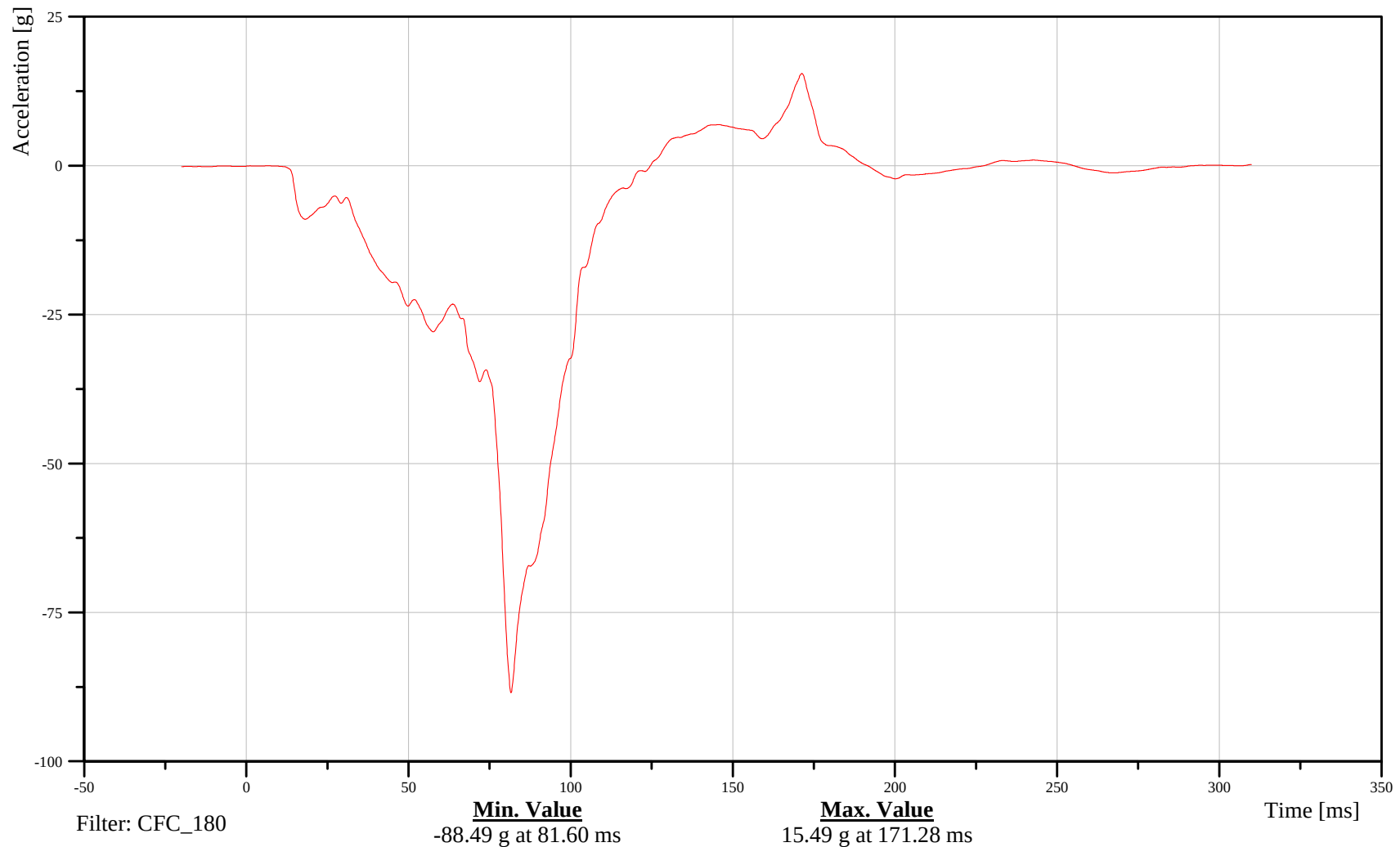
Target Driver Redundant Chest CG X-Axis Acceleration

Customer: VRTC

21CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

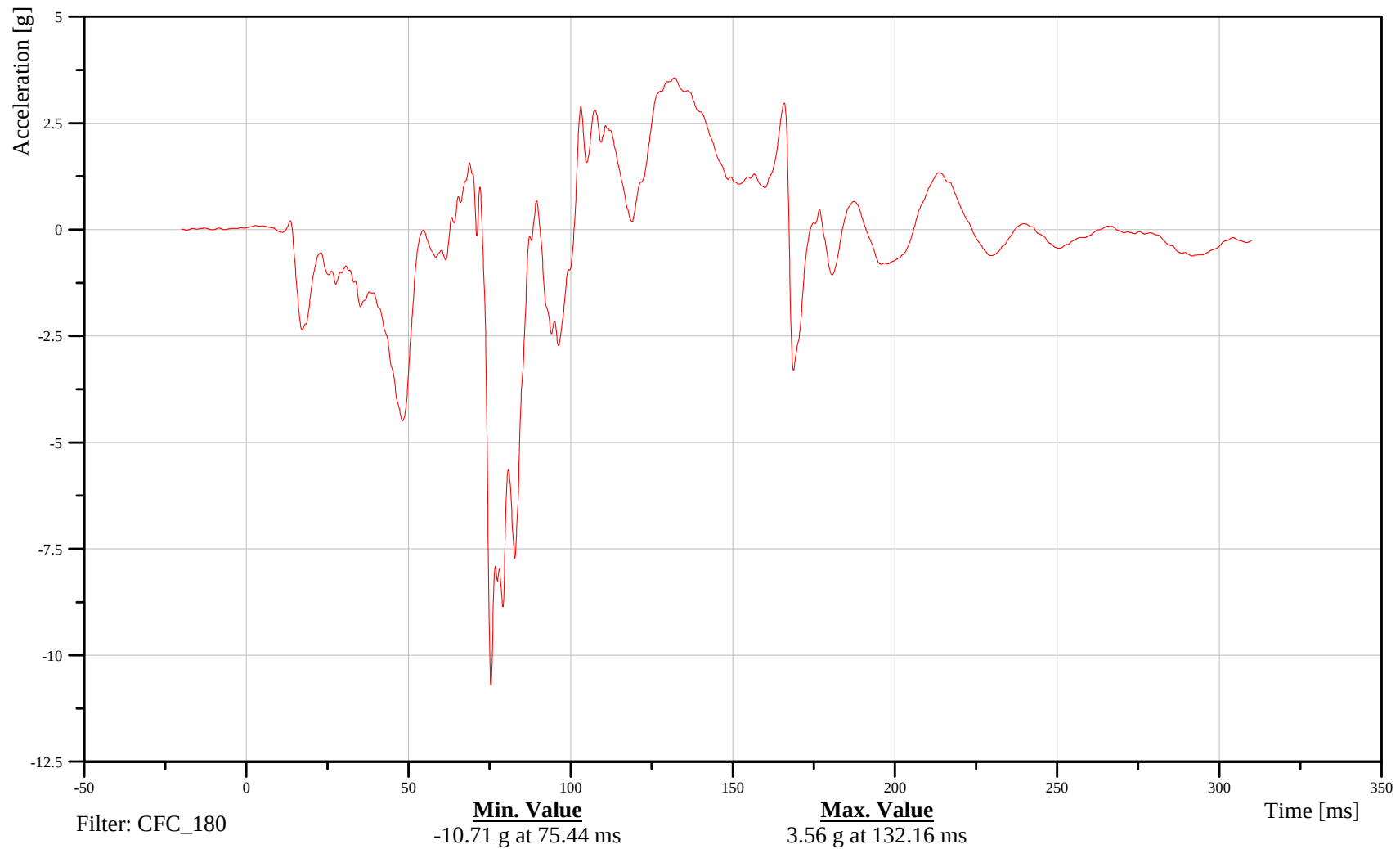
Target Driver Redundant Chest CG Y-Axis Acceleration

Customer: VRTC

21CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

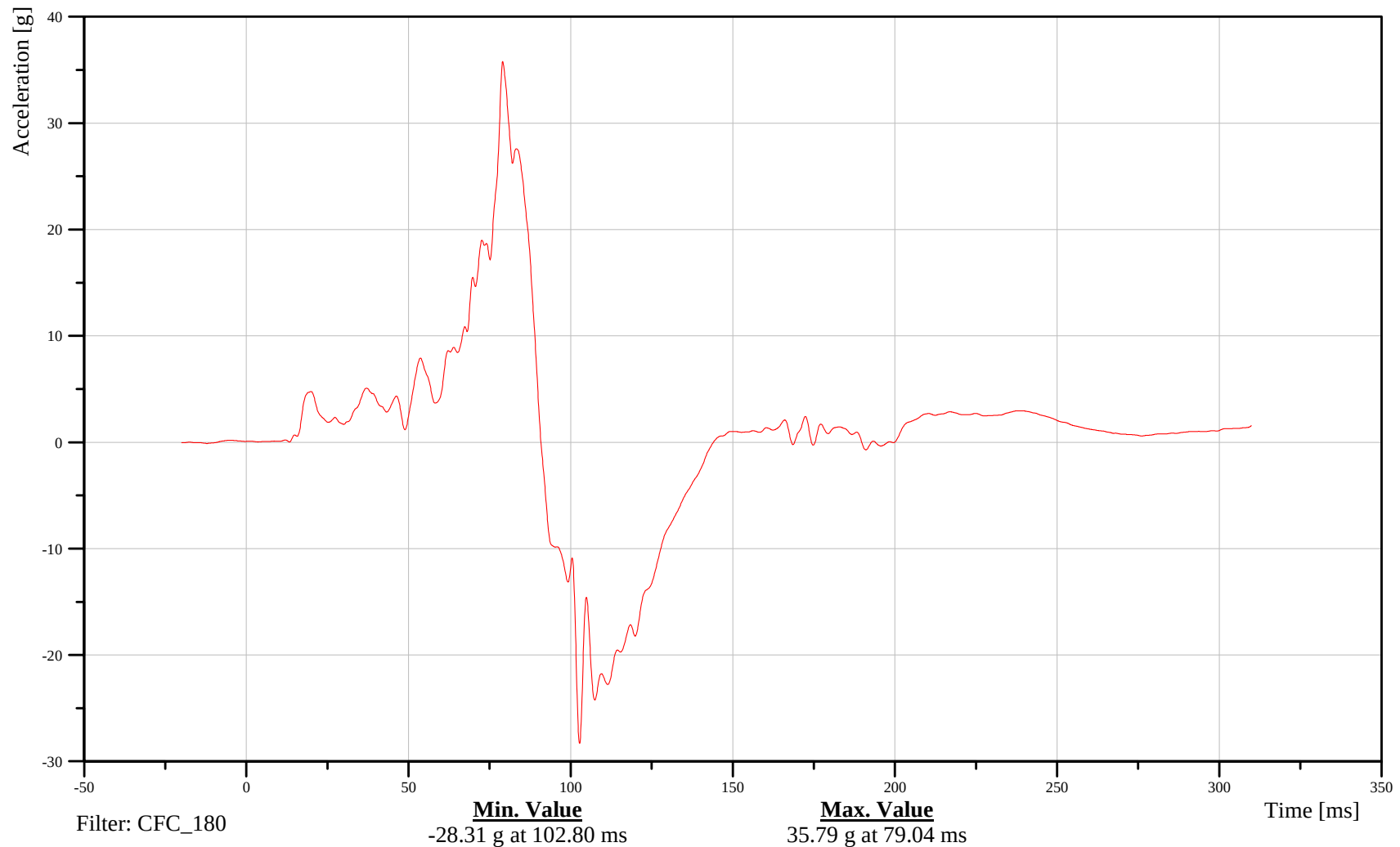
Target Driver Redundant Chest CG Z-Axis Acceleration

Customer: VRTC

21CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

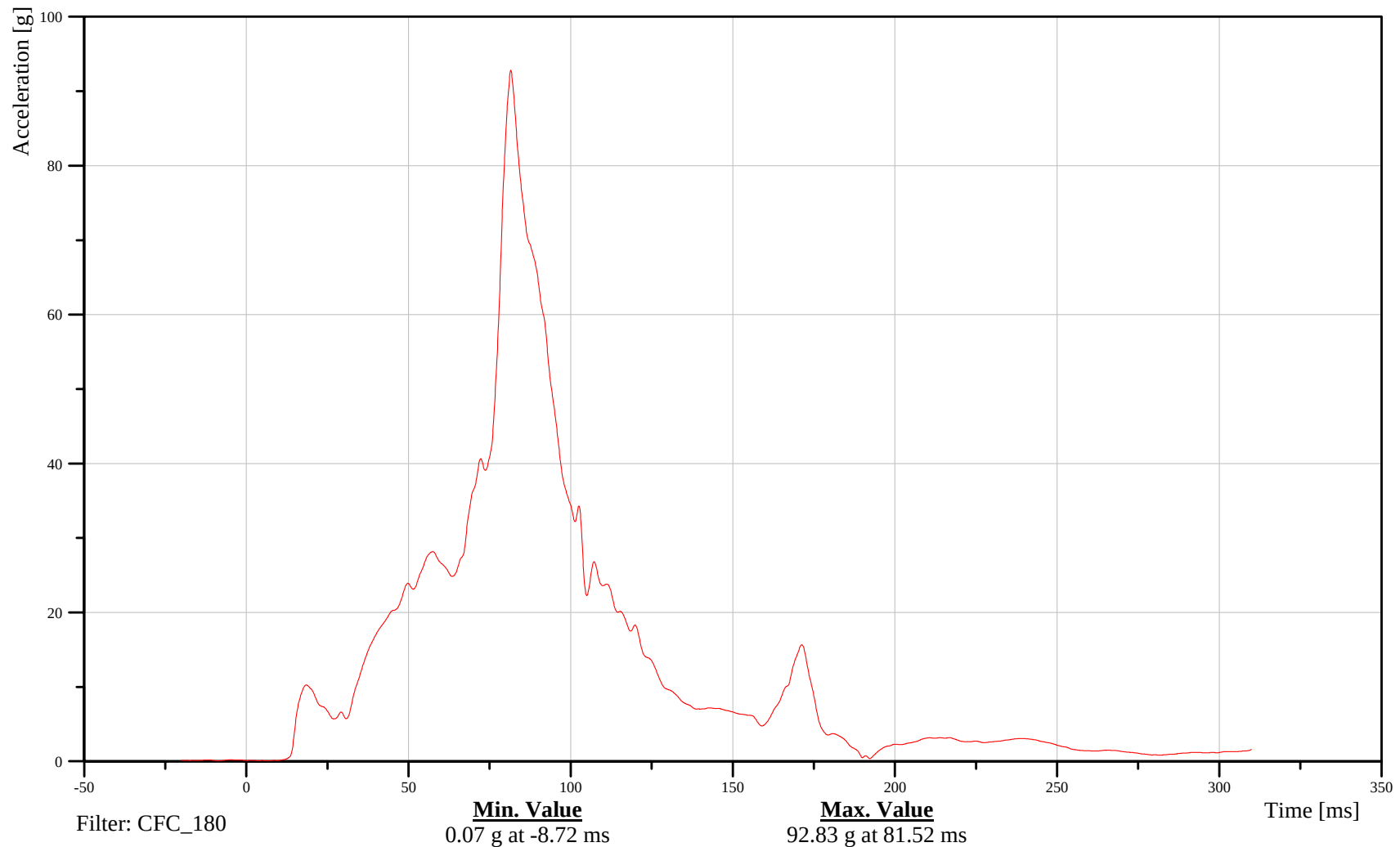
Target Driver Redundant Chest CG Resultant Acceleration

Customer: VRTC

21CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

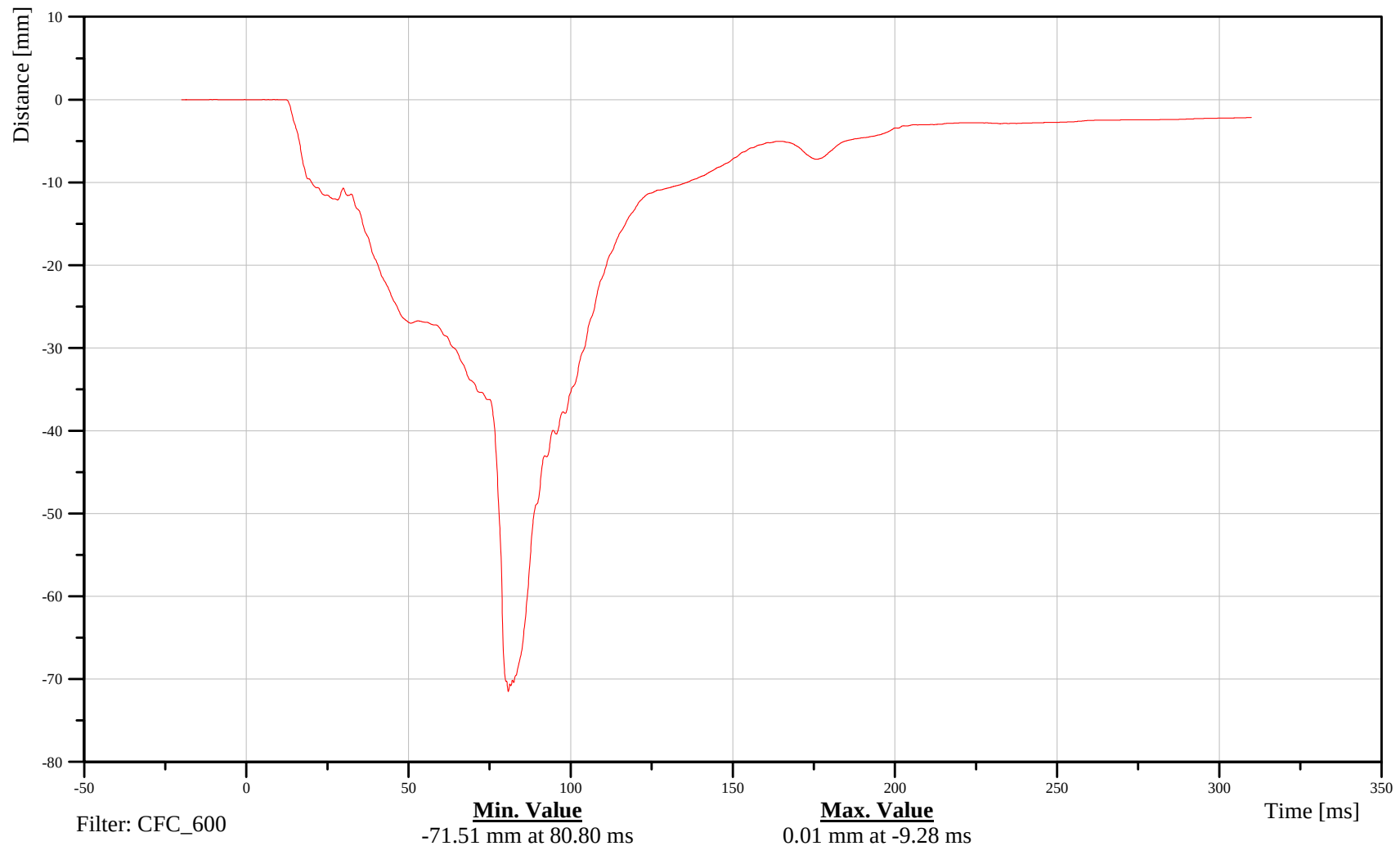
Target Driver Chest Displacement

Customer: VRTC

21CHST0000H3DSXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

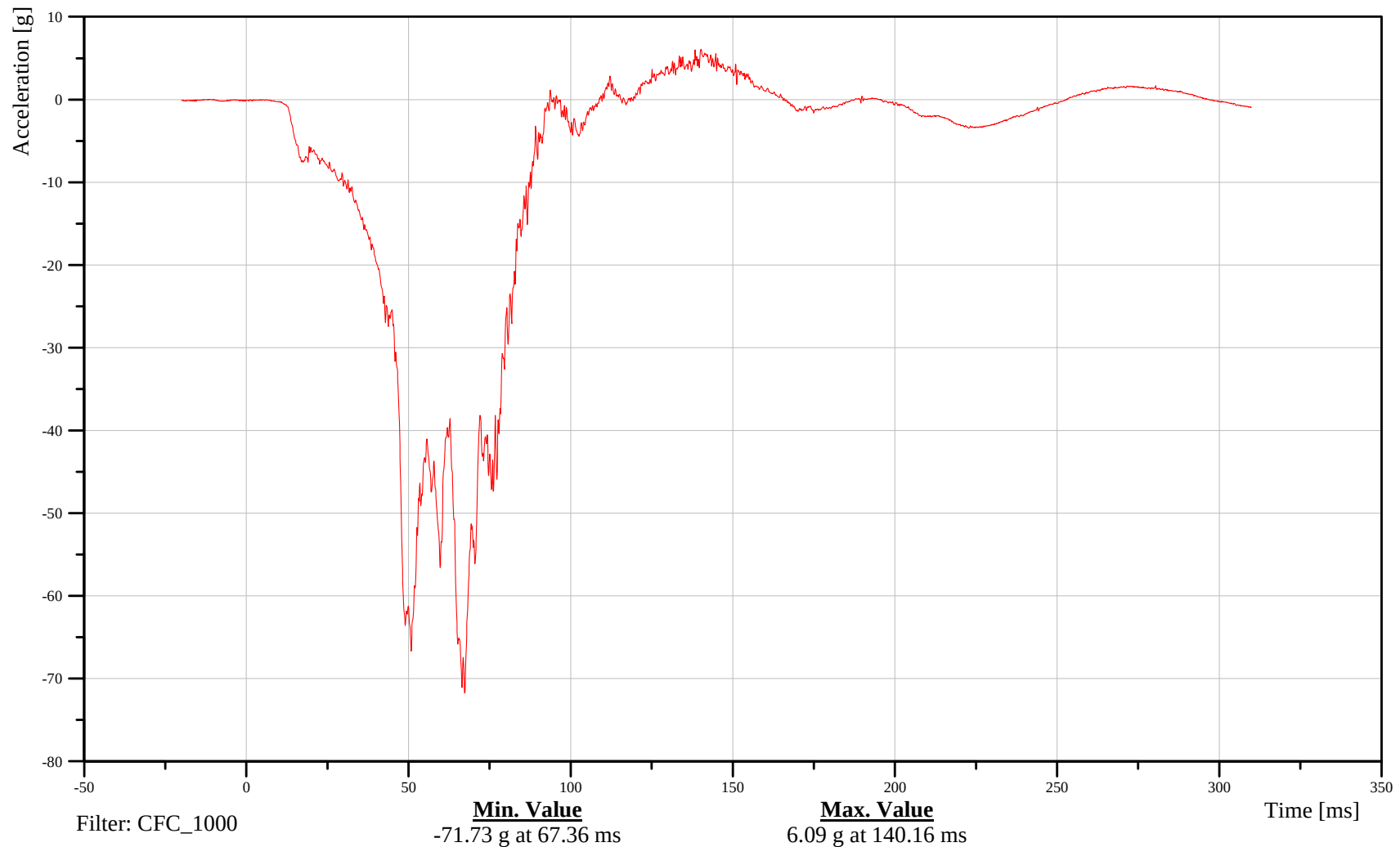
Target Driver Pelvis CG X-Axis Acceleration

Customer: VRTC

21PELVCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

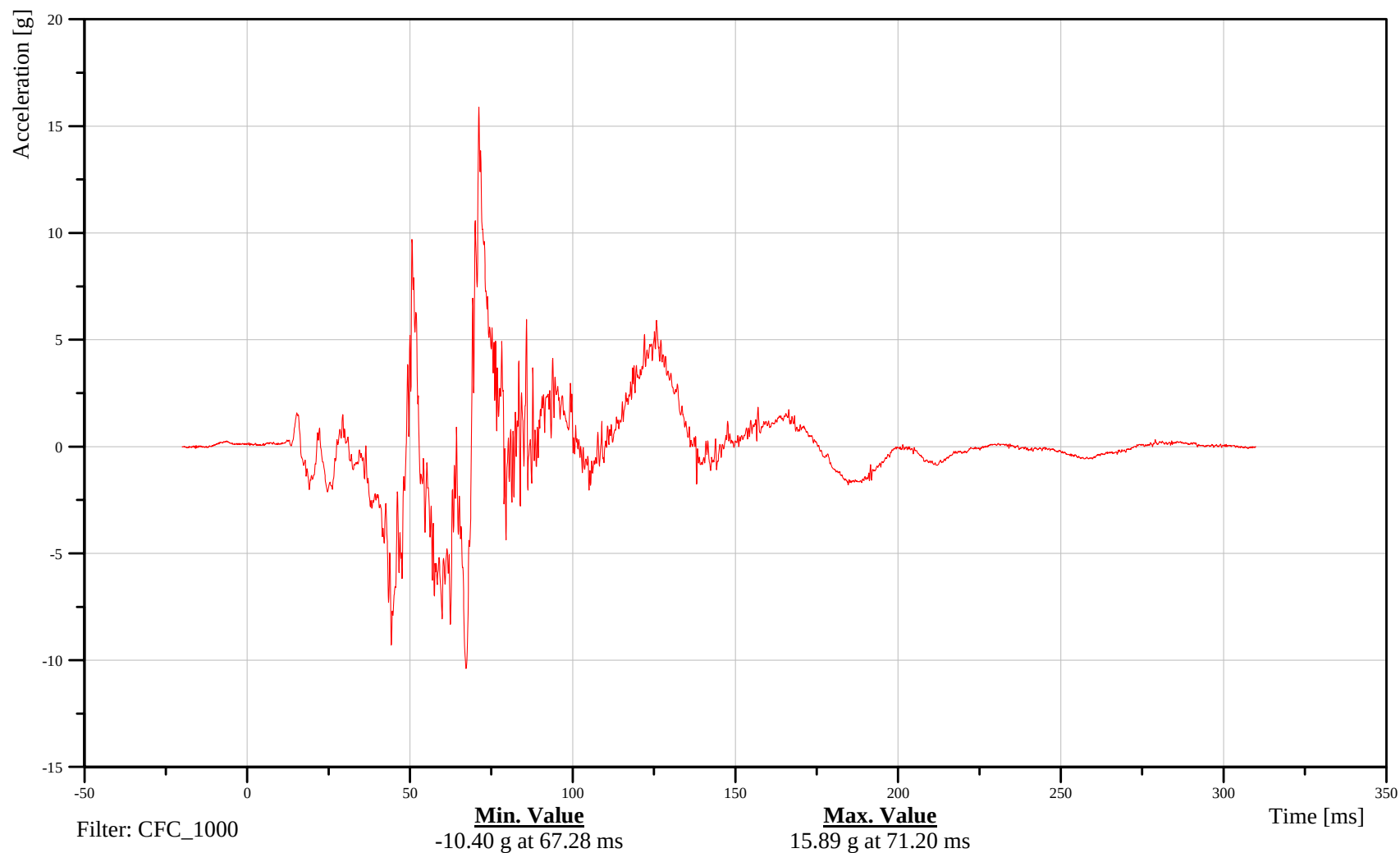
Target Driver Pelvis CG Y-Axis Acceleration

Customer: VRTC

21PELVCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

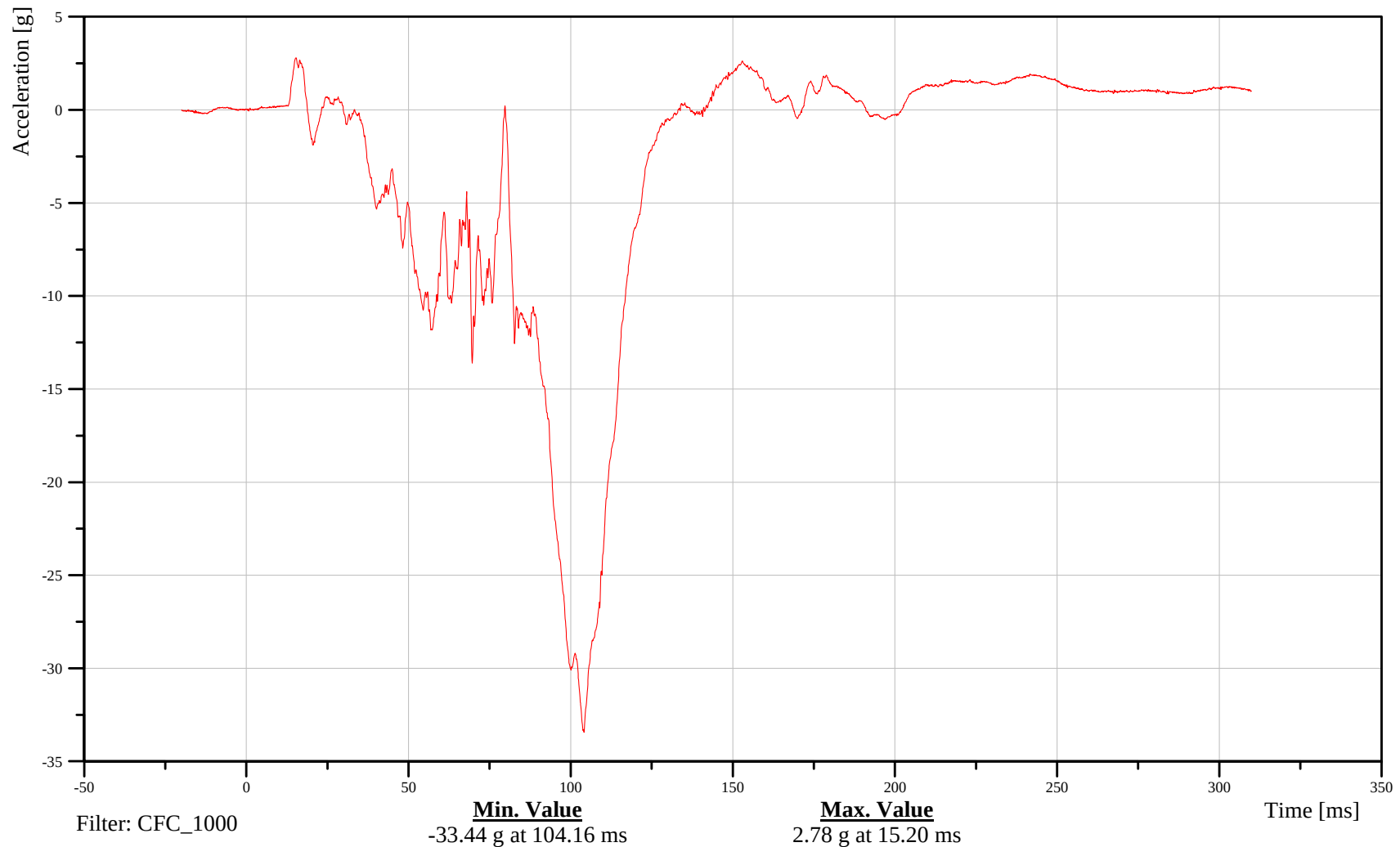
Target Driver Pelvis CG Z-Axis Acceleration

Customer: VRTC

21PELVCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Driver Pelvis CG Resultant Acceleration

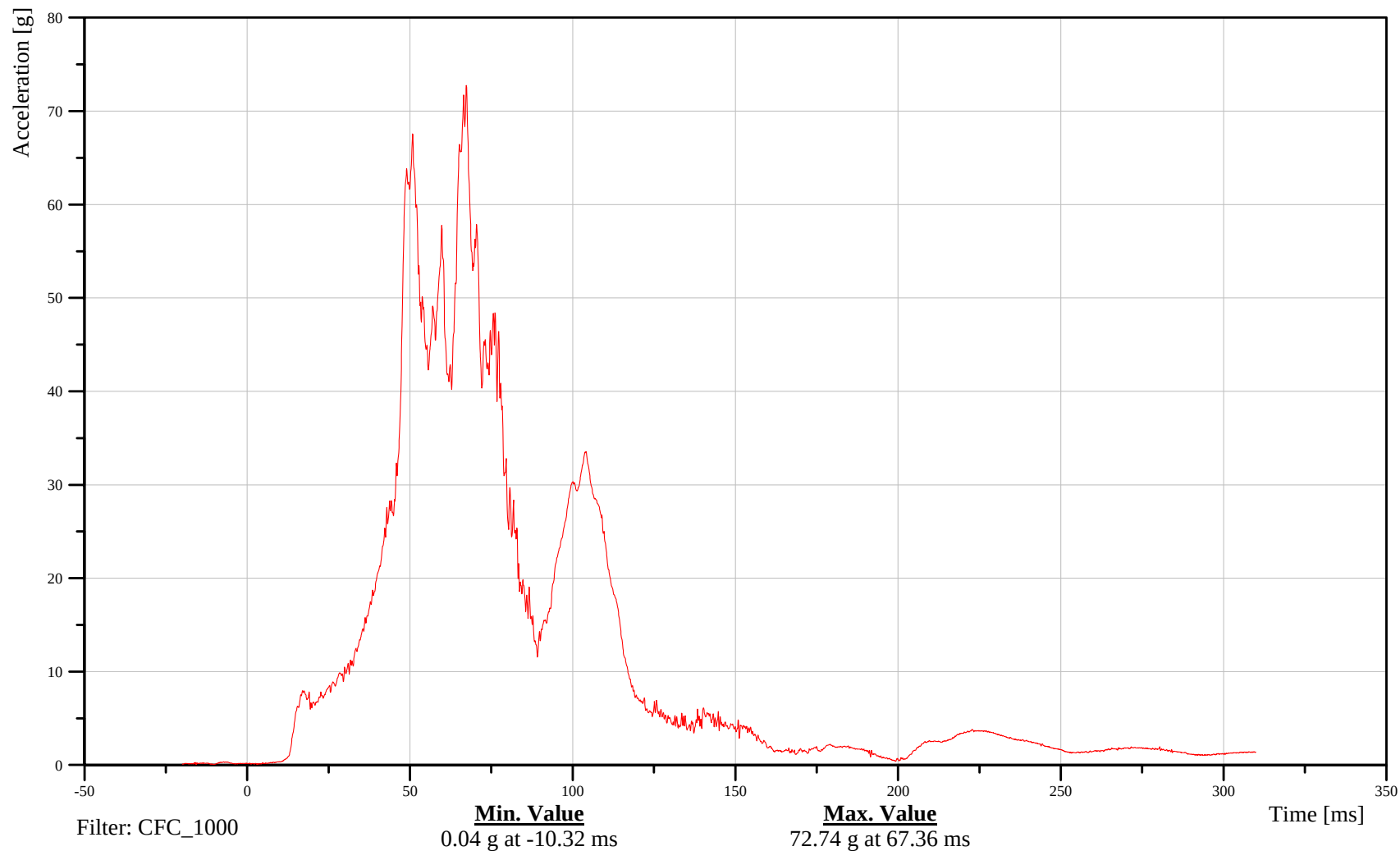
Time: 07:16

Customer: VRTC

21PELVCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

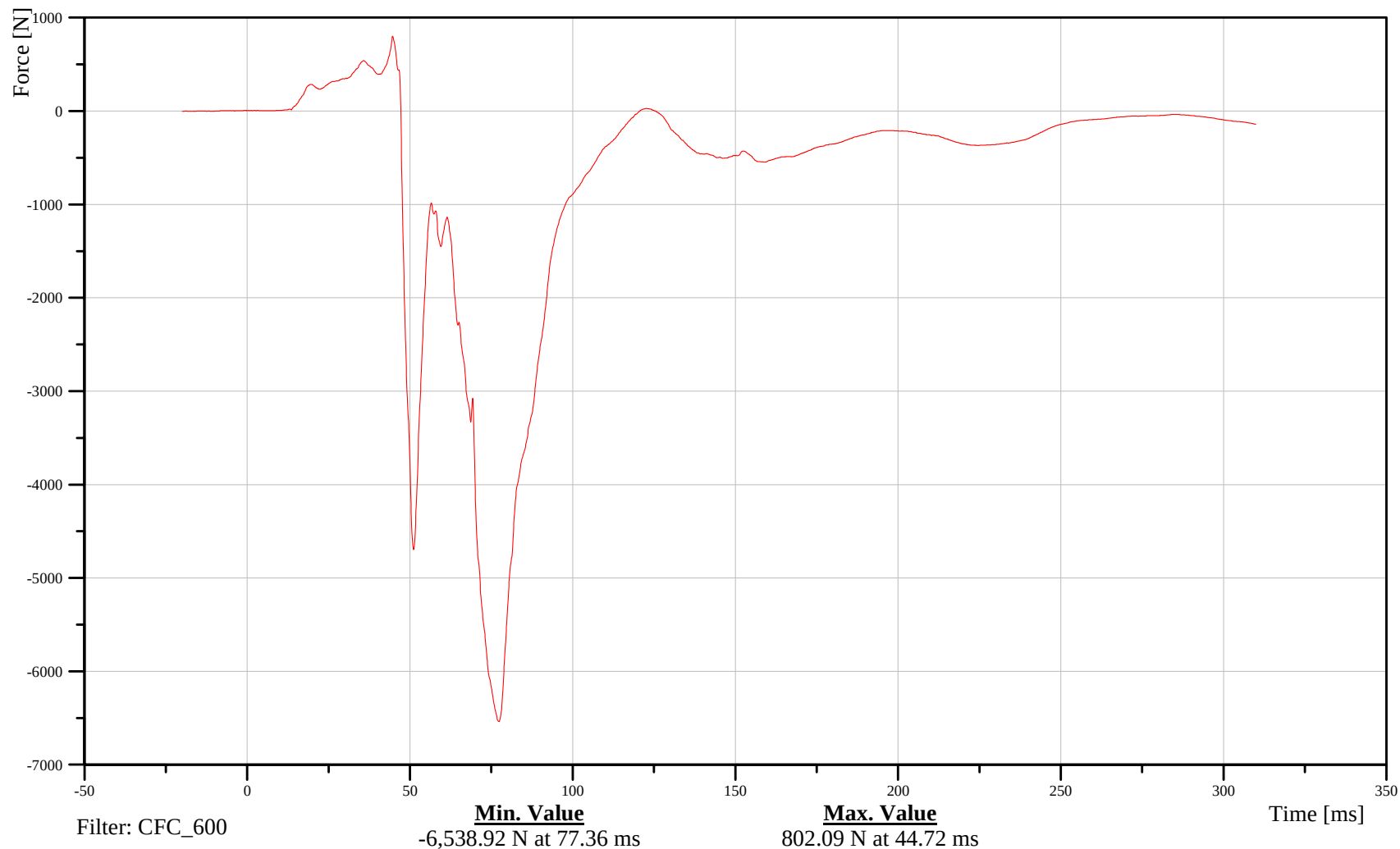
Target Driver Left Femur Z-Axis Force

Customer: VRTC

21FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

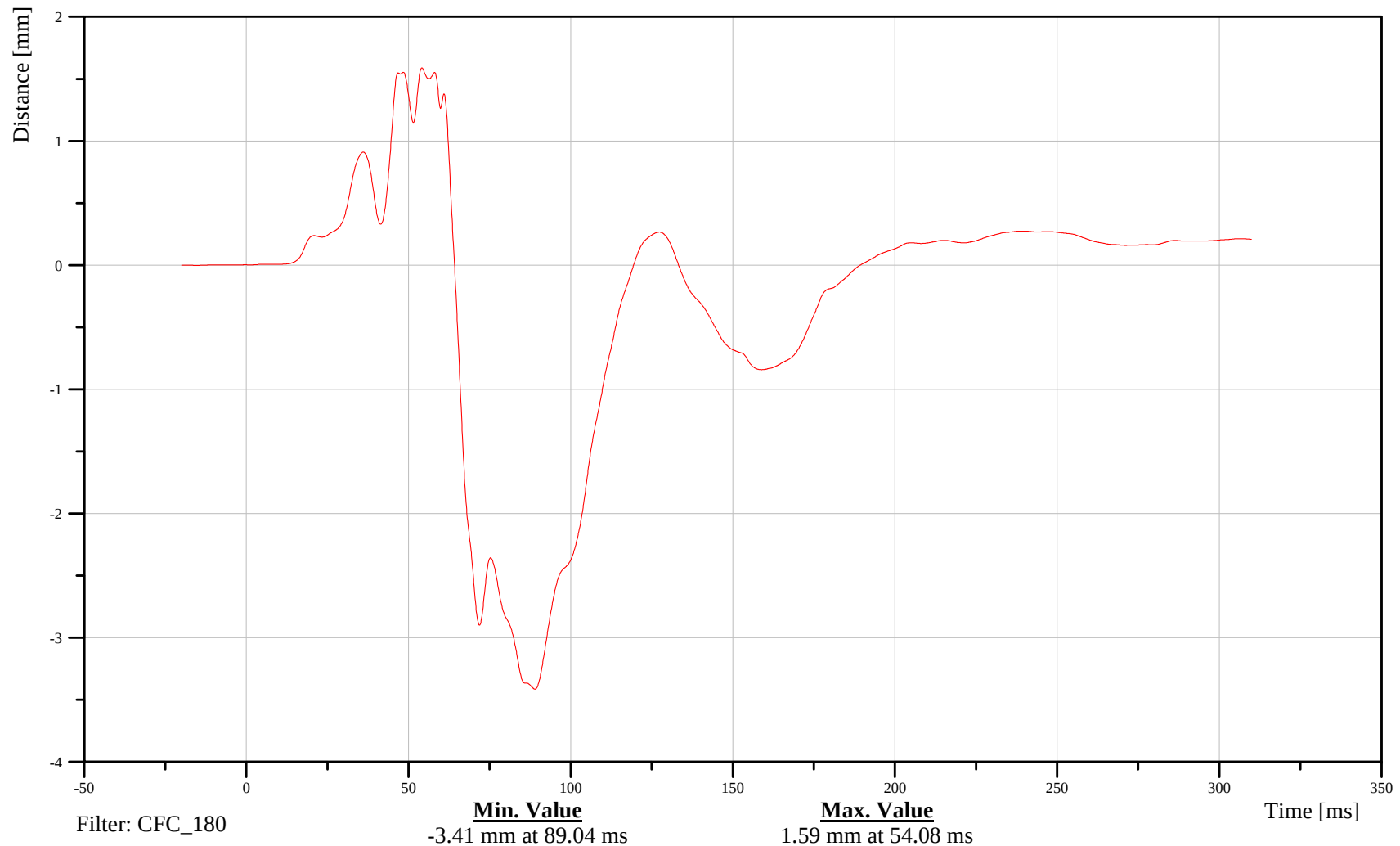
Target Driver Left Knee Displacement

Customer: VRTC

21KNSLLE00H3DSXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

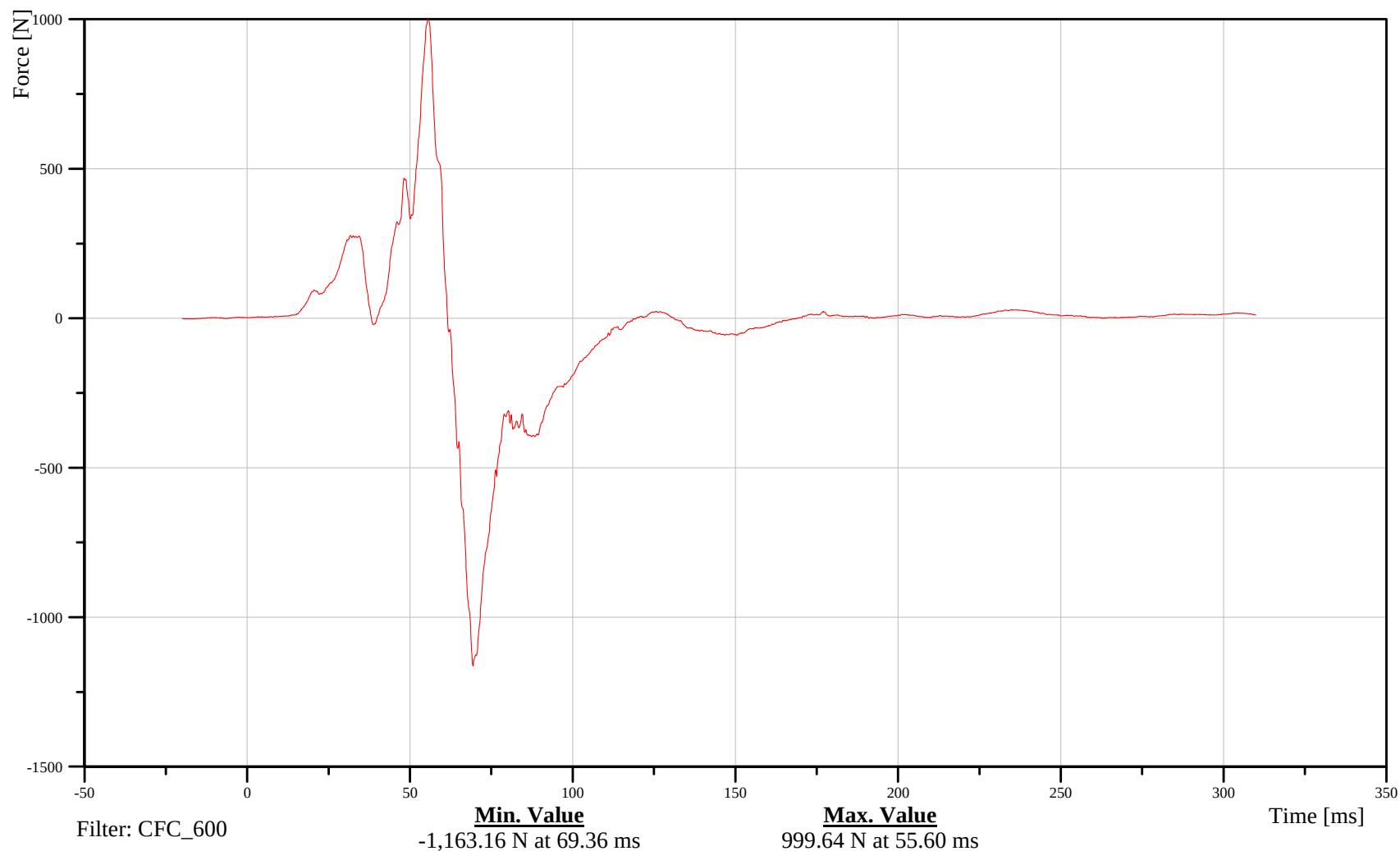
Target Driver Left Upper Tibia X-Axis Force

Customer: VRTC

21TIBILULXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

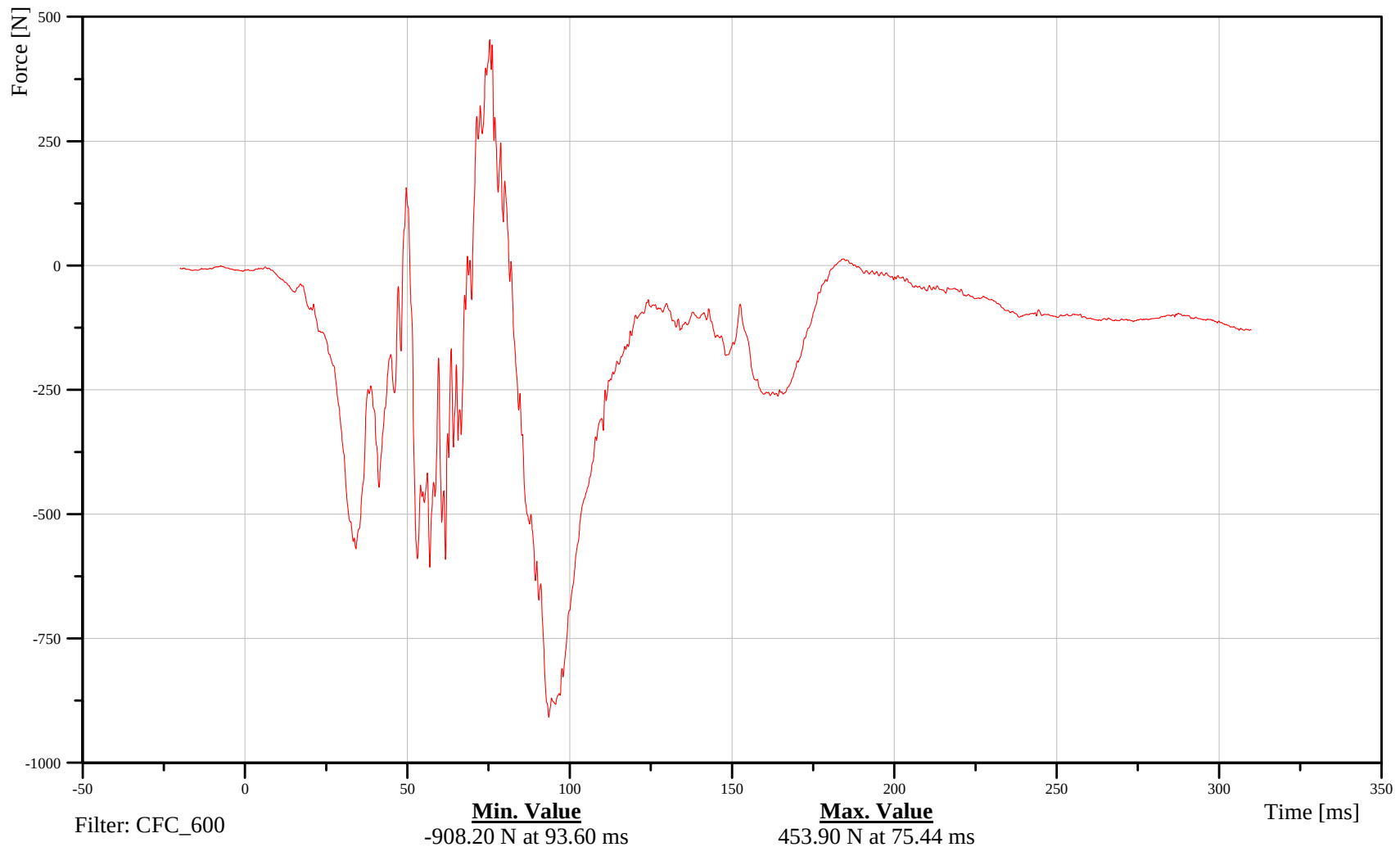
Target Driver Left Upper Tibia Z-Axis Force

Customer: VRTC

21TIBILULXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

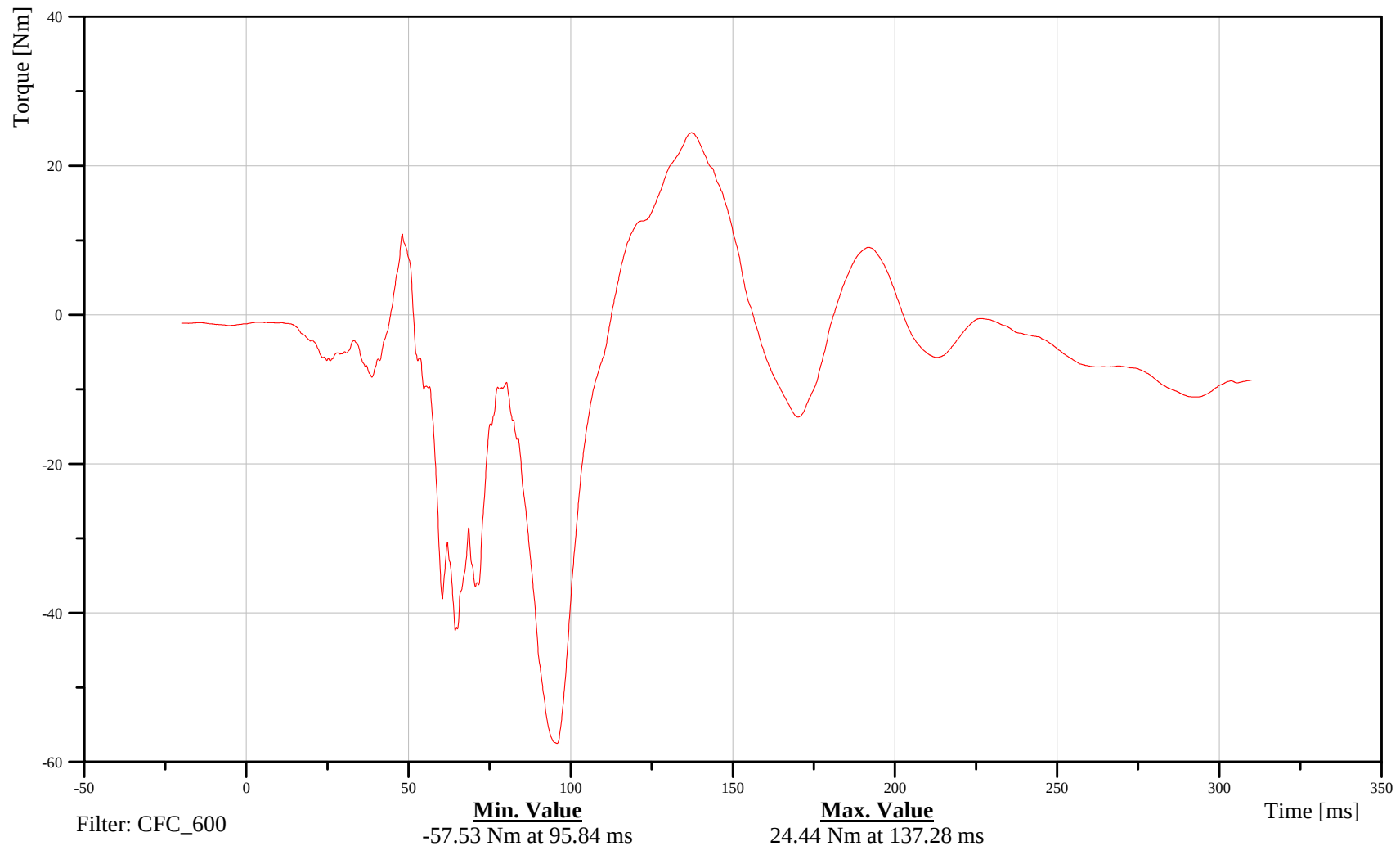
Target Driver Left Upper Tibia Moment About X Axis

Customer: VRTC

21TIBILULXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

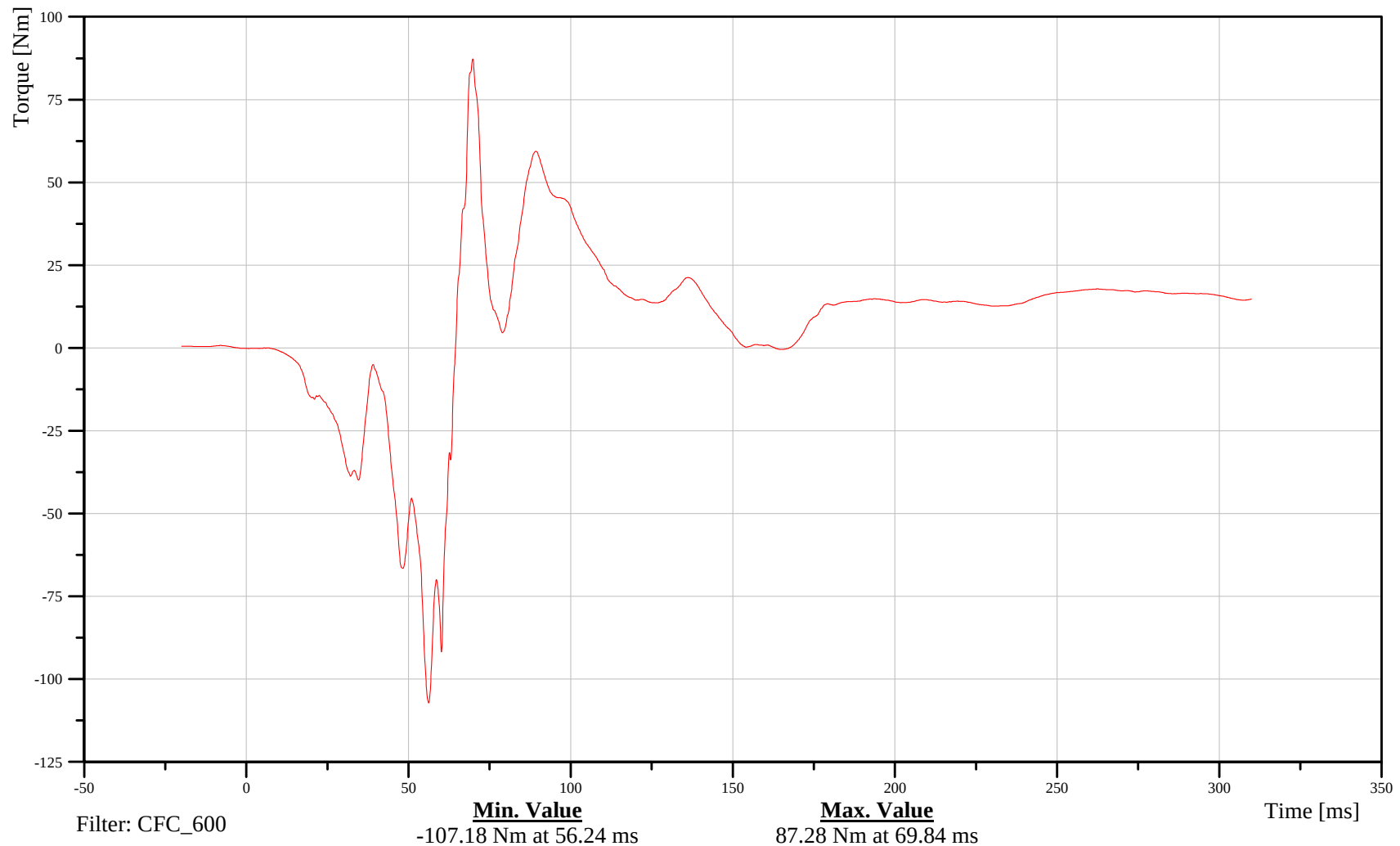
Target Driver Left Upper Tibia Moment About Y Axis

Customer: VRTC

21TIBILULXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

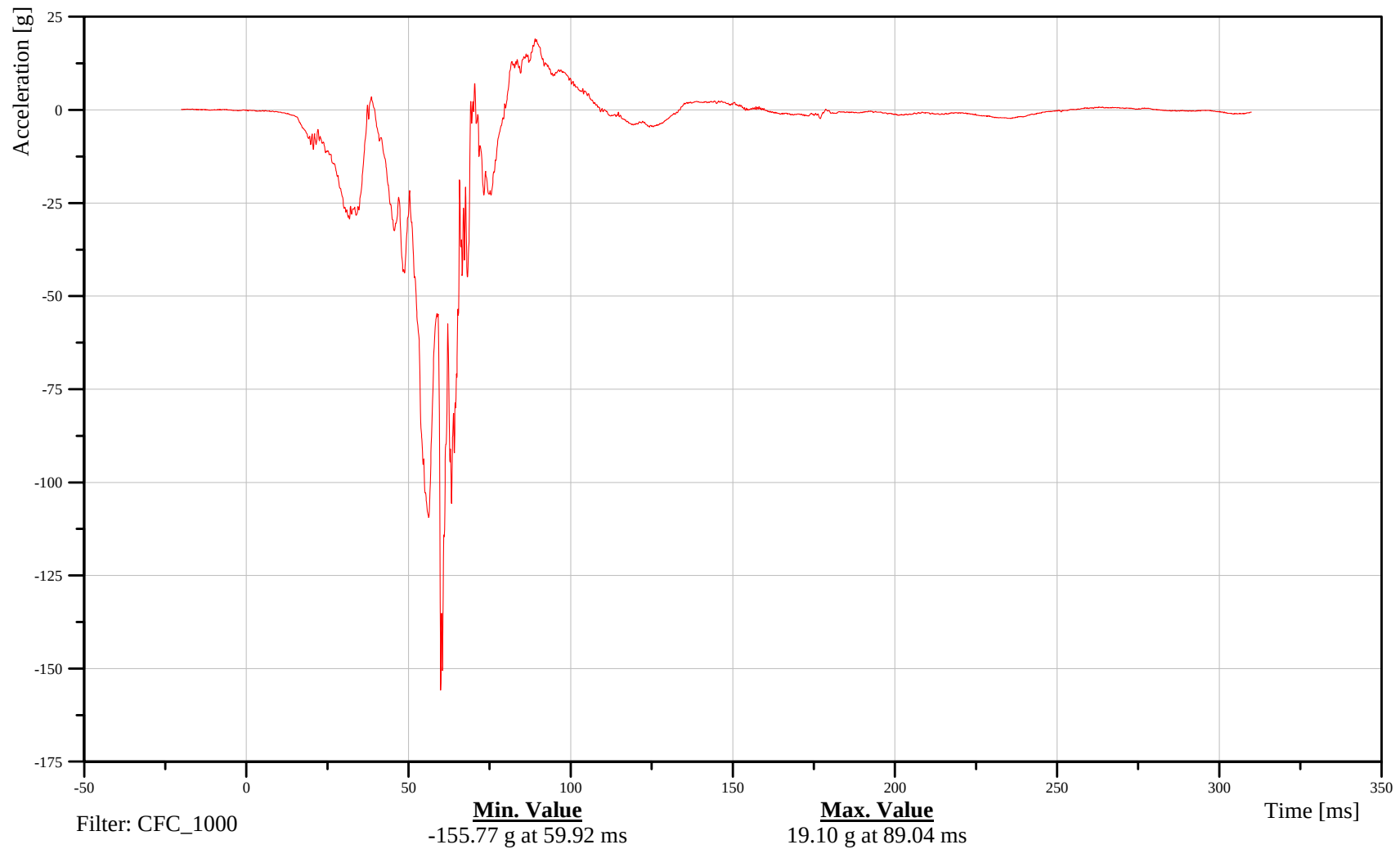
Target Driver Left Tibia X-Axis Acceleration

Customer: VRTC

21TIBILELXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

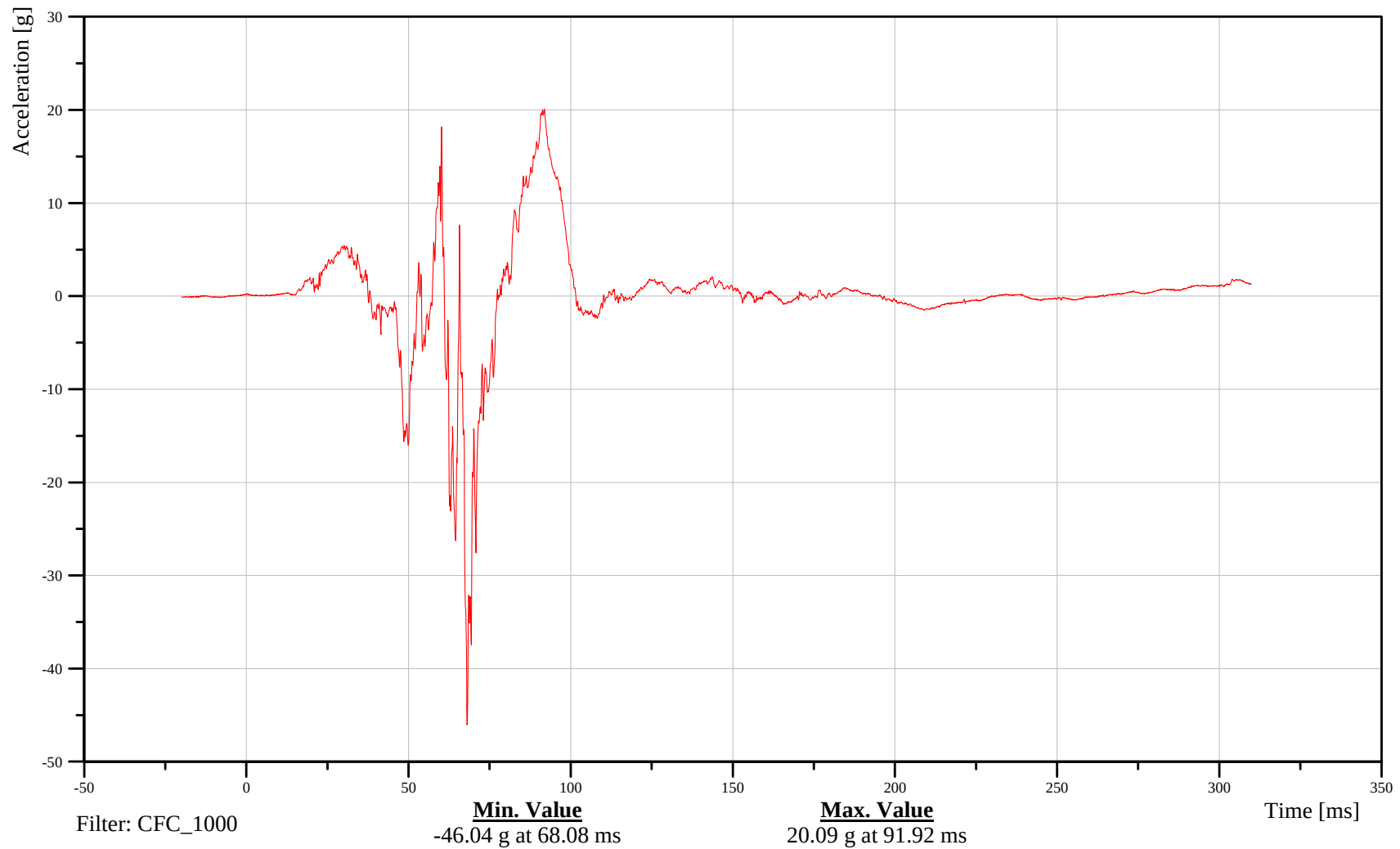
Target Driver Left Tibia Y-Axis Acceleration

Customer: VRTC

21TIBILELXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

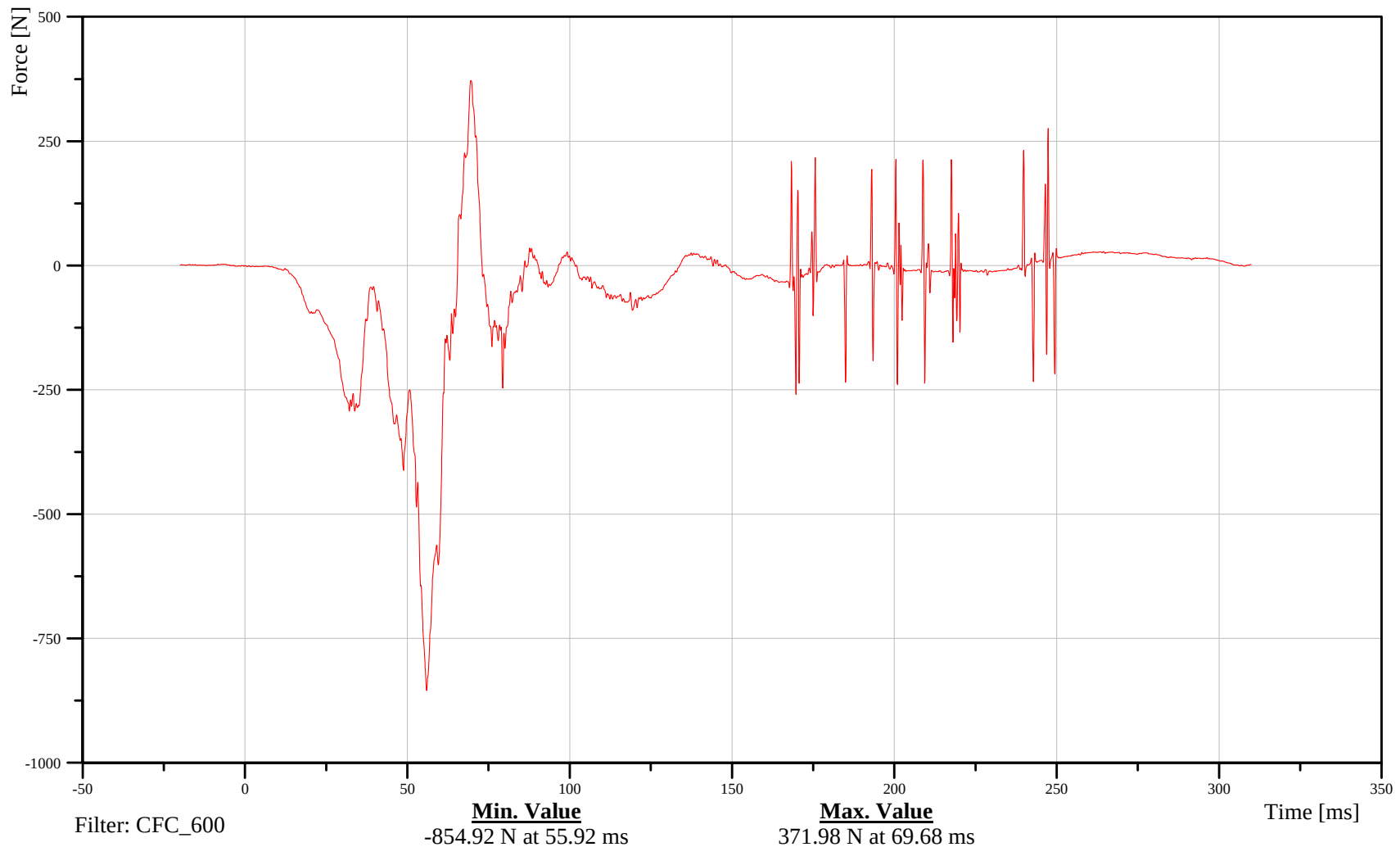
Target Driver Left Lower Tibia X-Axis Force

Customer: VRTC

21TIBILLXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

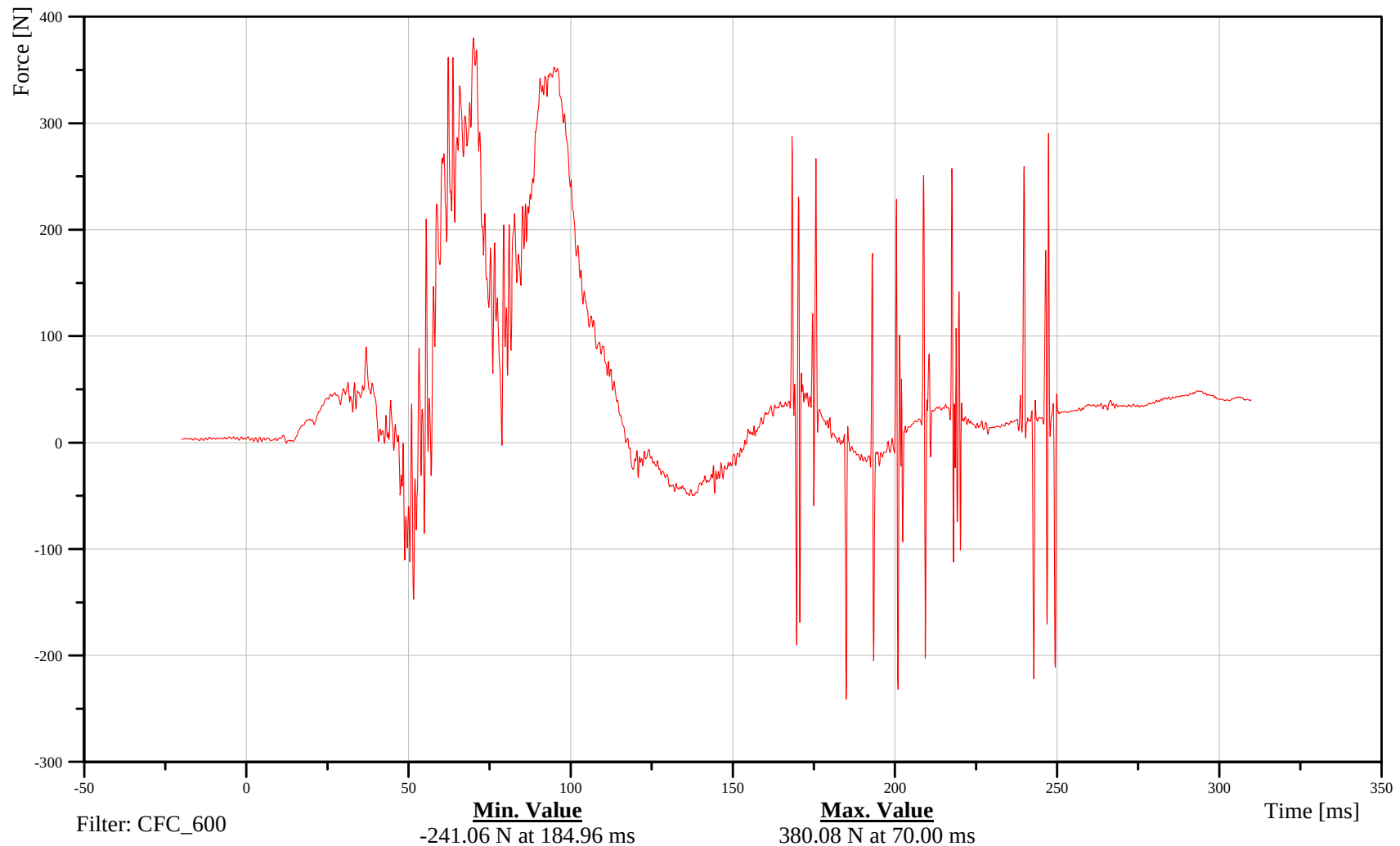
Target Driver Left Lower Tibia Y-Axis Force

Customer: VRTC

21TIBILLXH3FOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

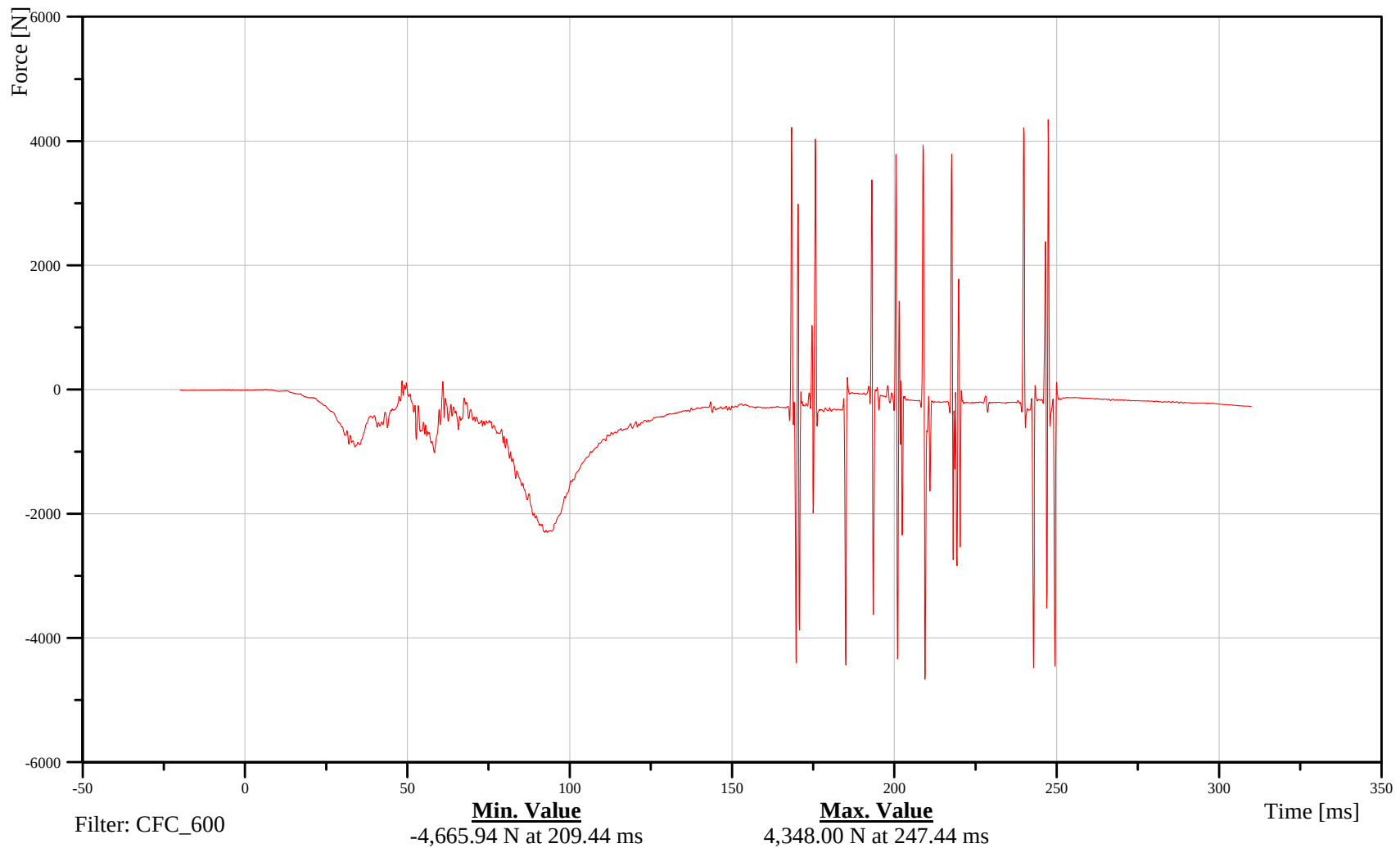
Target Driver Left Lower Tibia Z-Axis Force

Customer: VRTC

21TIBILLXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

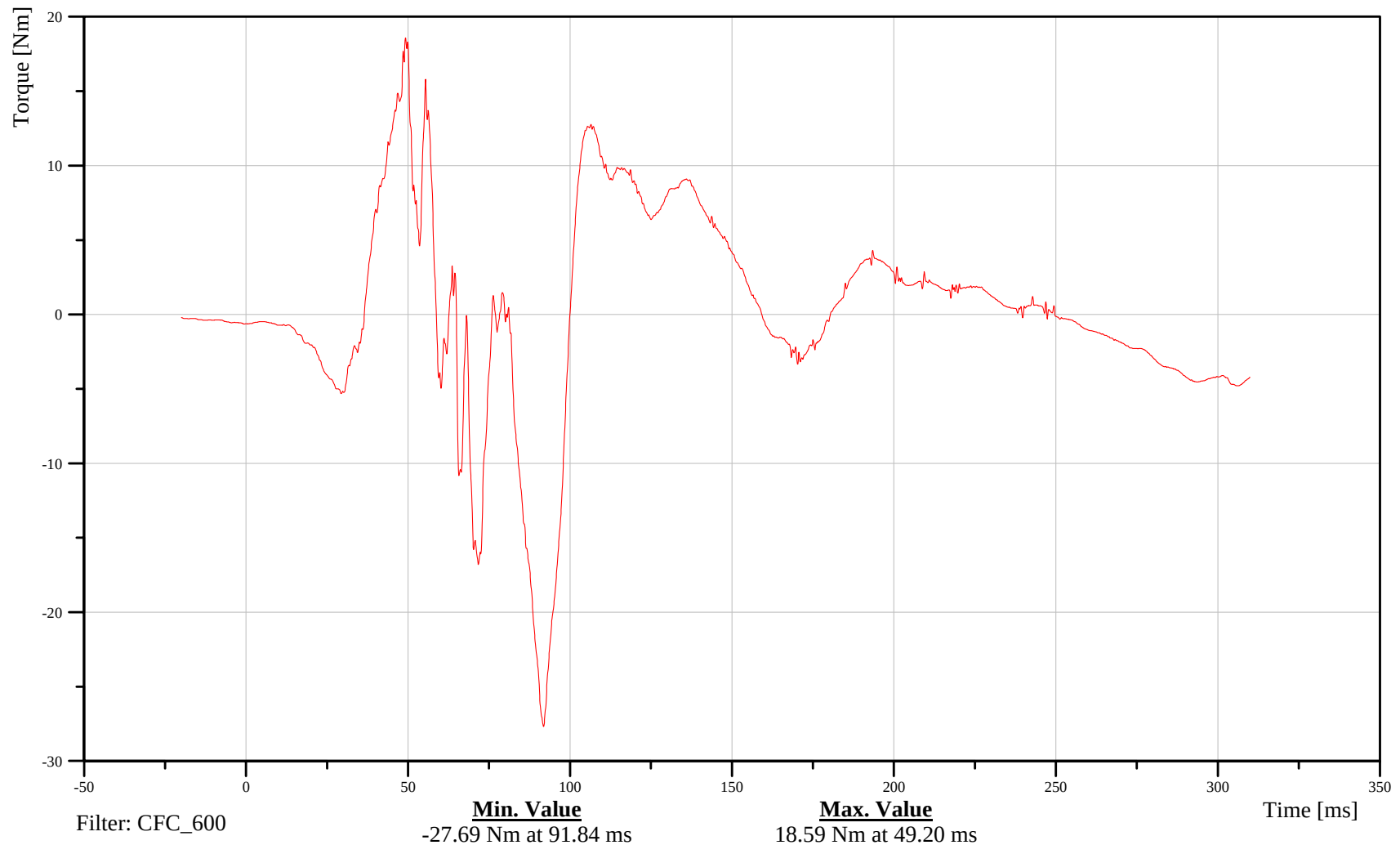
Target Driver Left Lower Tibia Moment About X Axis

Customer: VRTC

21TIBILLXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

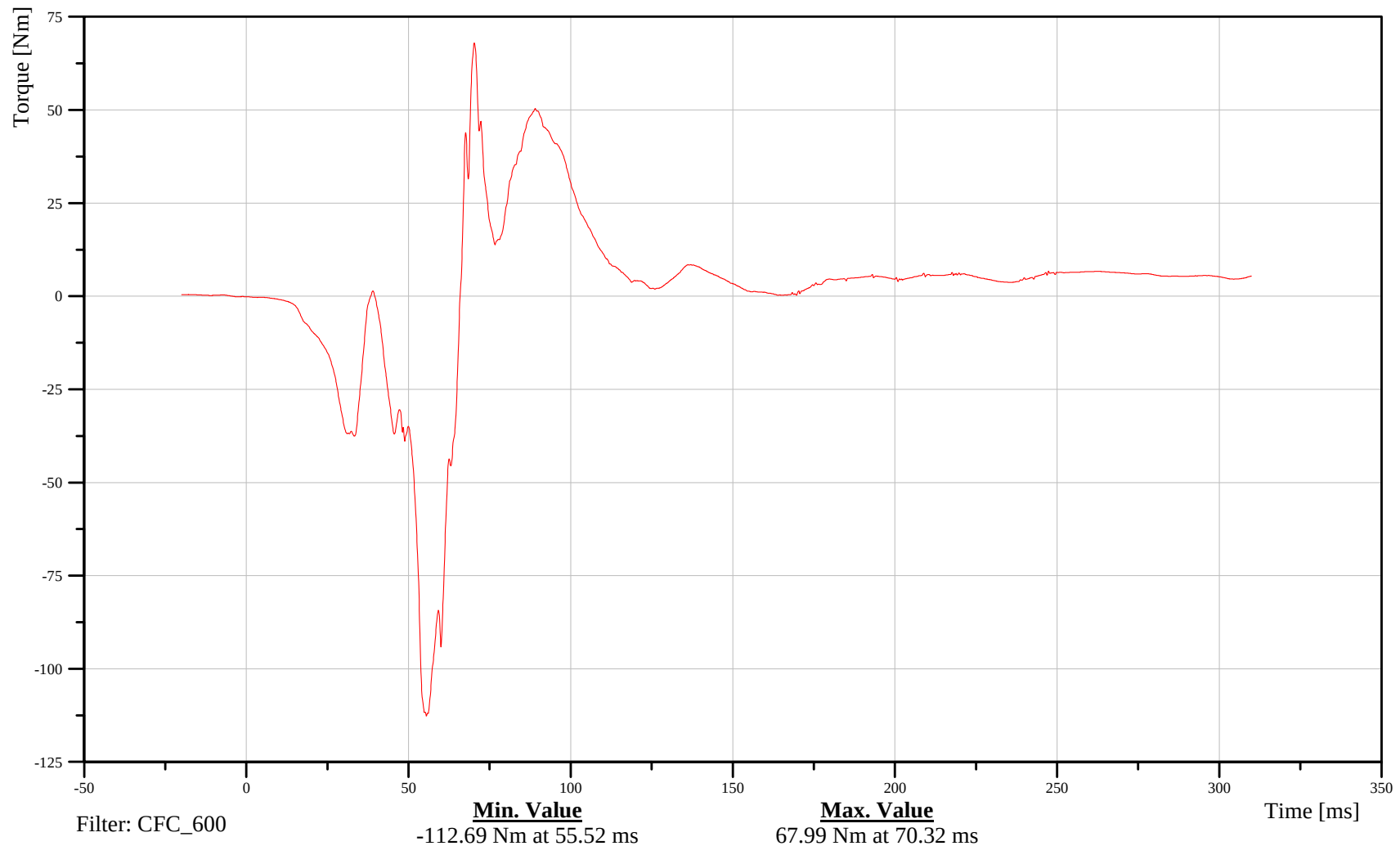
Target Driver Left Lower Tibia Moment About Y Axis

Customer: VRTC

21TIBILLXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

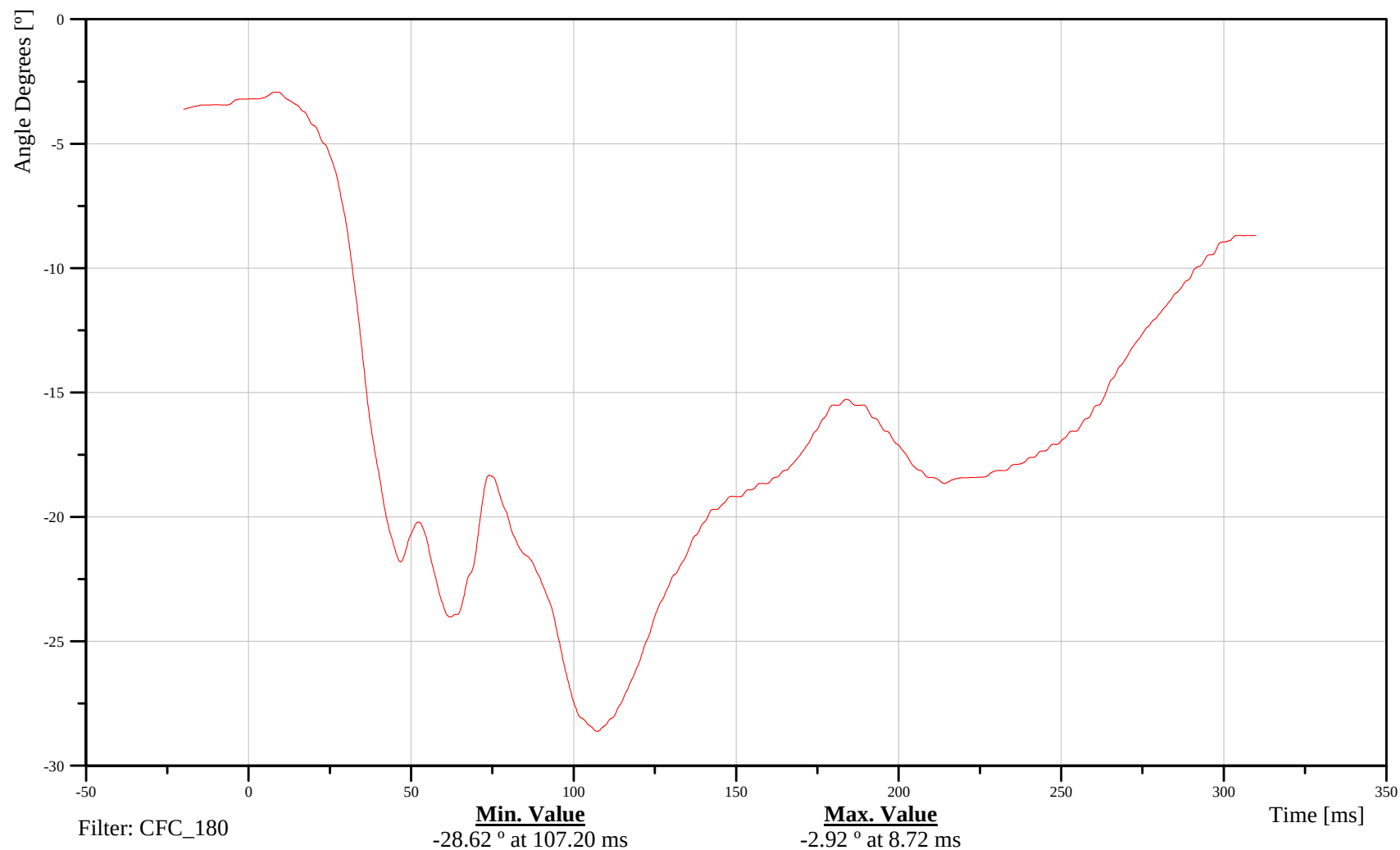
Target Driver Left Foot X-Axis Rotation

Customer: VRTC

21FOOTLELXH3ANXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

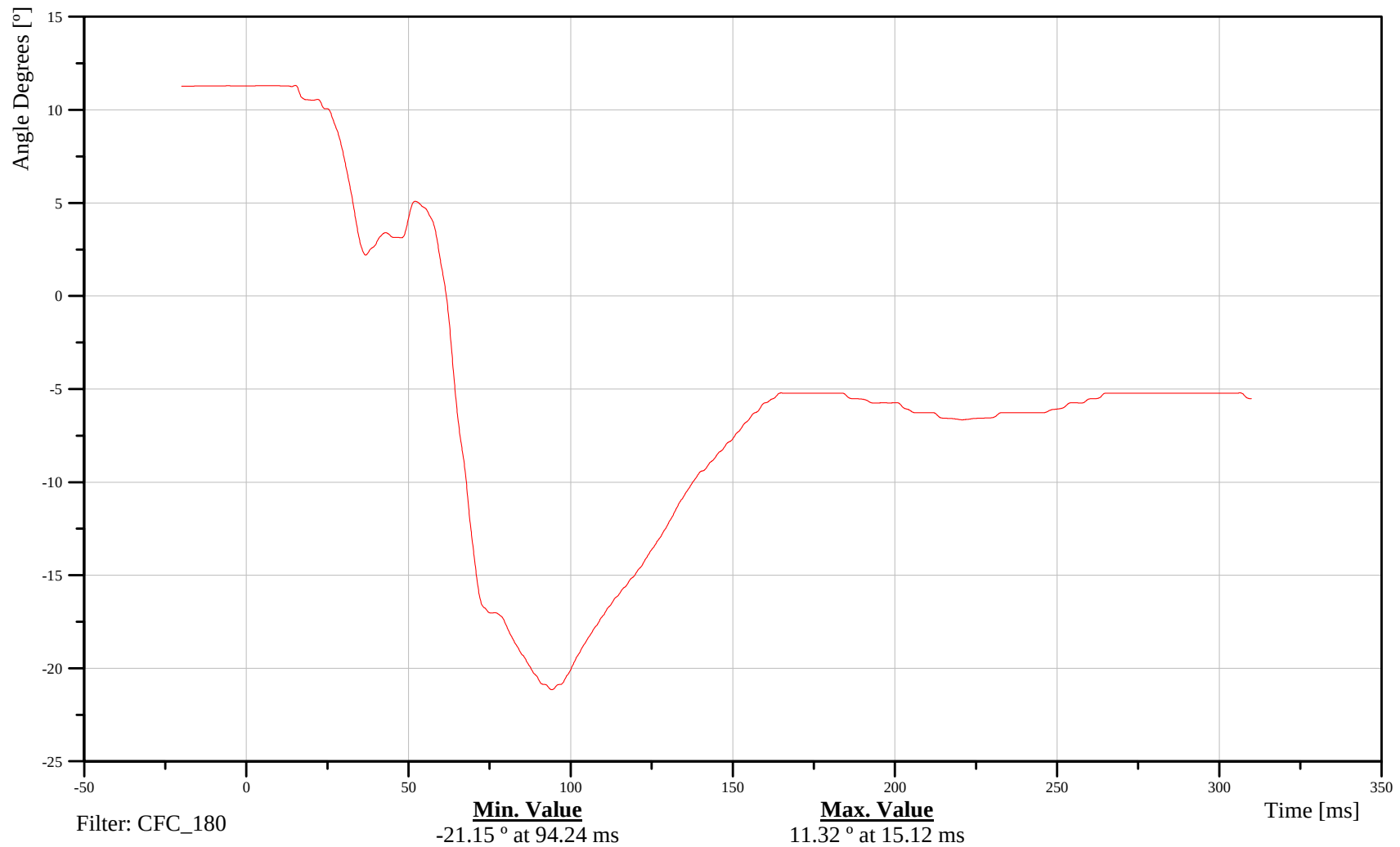
Target Driver Left Foot Y-Axis Rotation

Customer: VRTC

21FOOTLELXH3ANYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

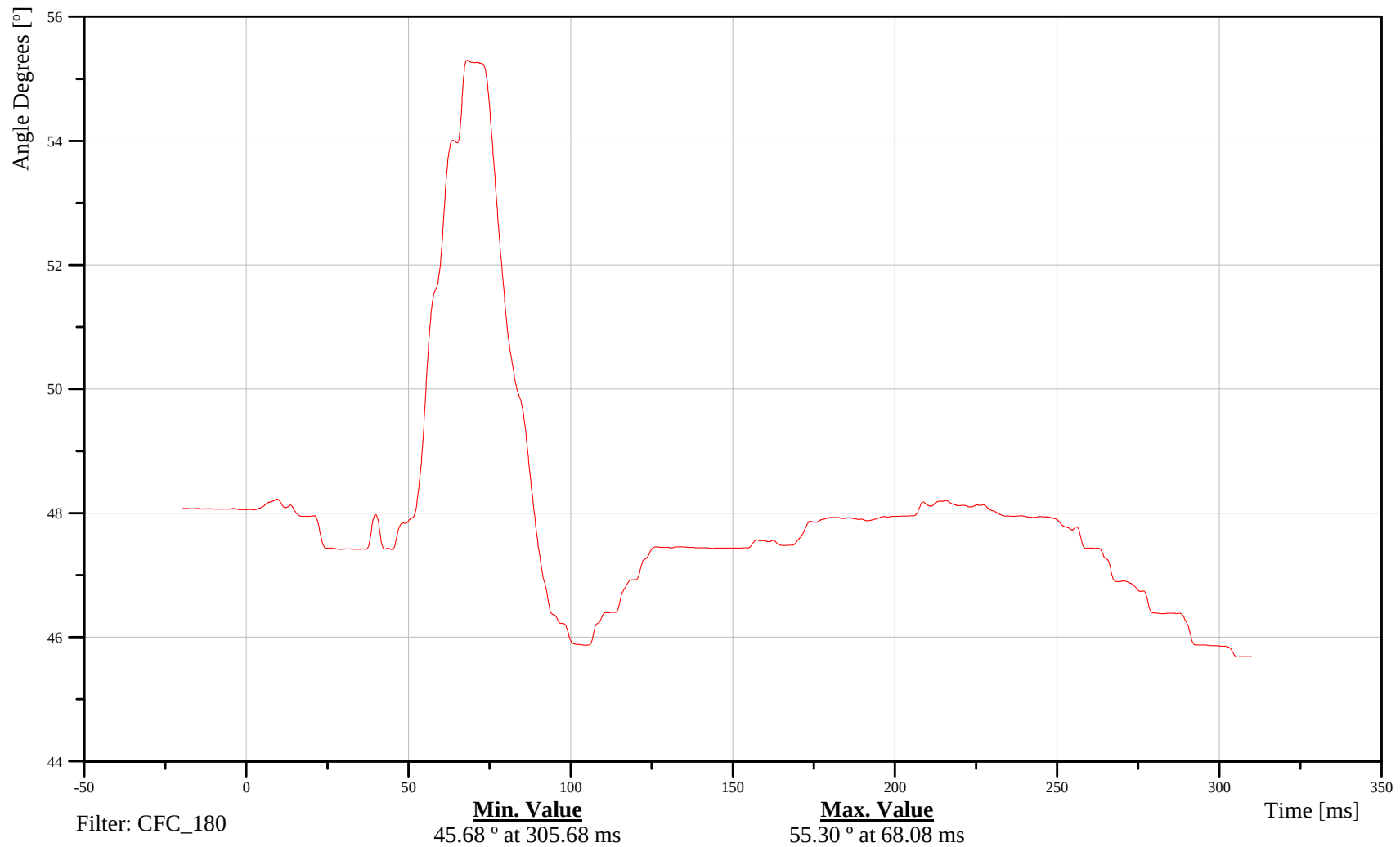
Target Driver Left Foot Z-Axis Rotation

Customer: VRTC

21FOOTLELXH3ANZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

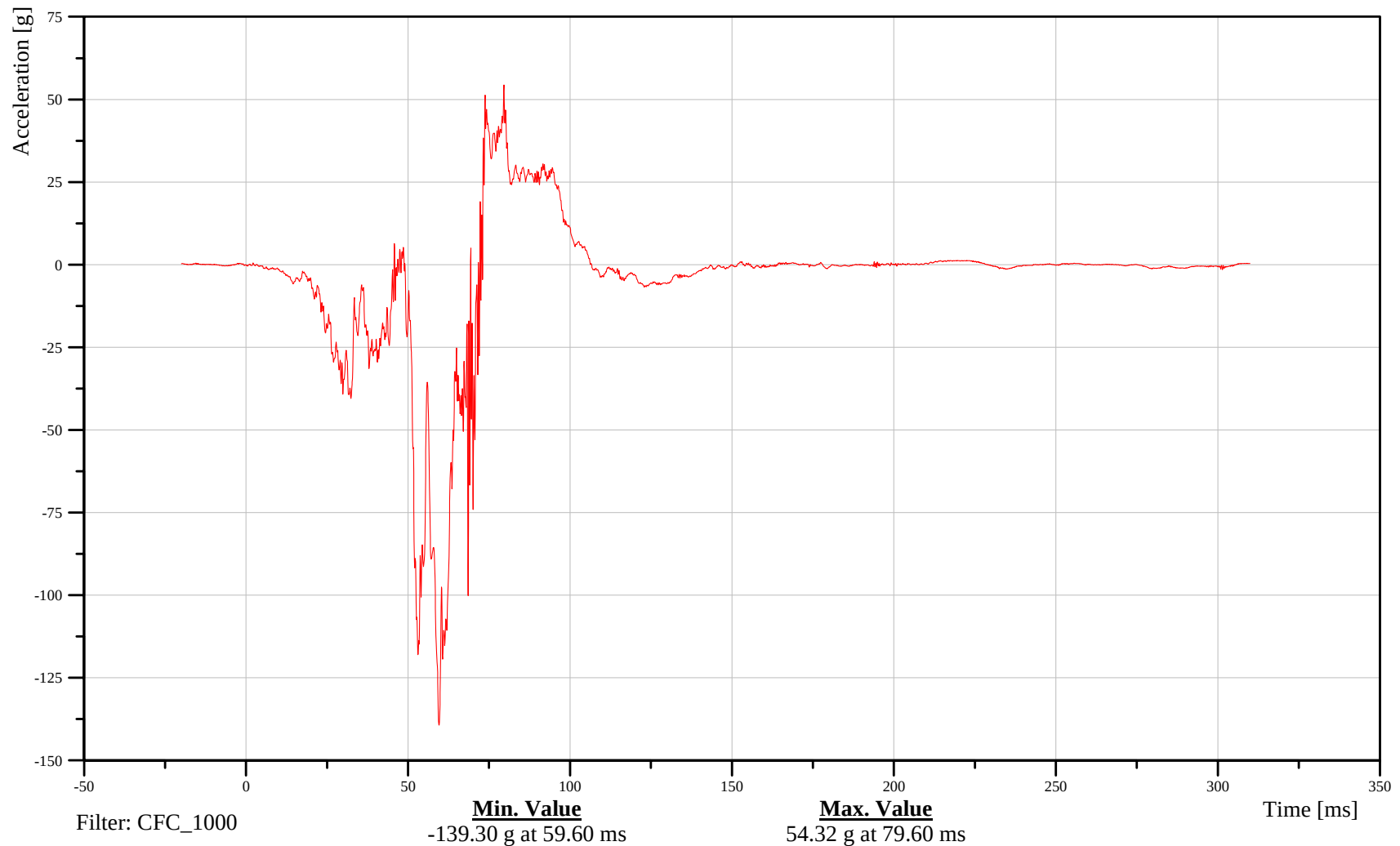
Target Driver Left Foot X-Axis Acceleration

Customer: VRTC

21FOOTLELXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

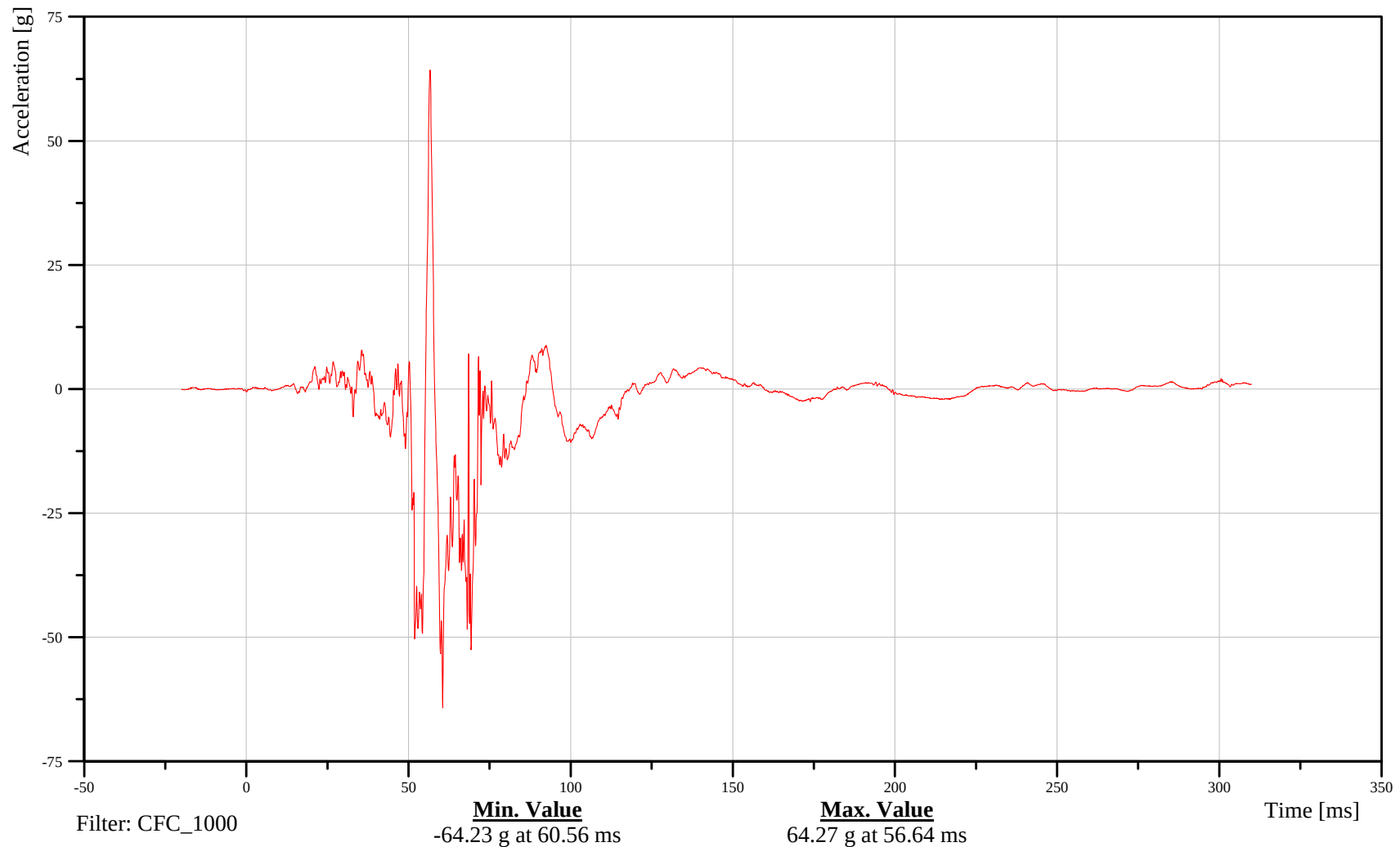
Target Driver Left Foot Y-Axis Acceleration

Customer: VRTC

21FOOTLELXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

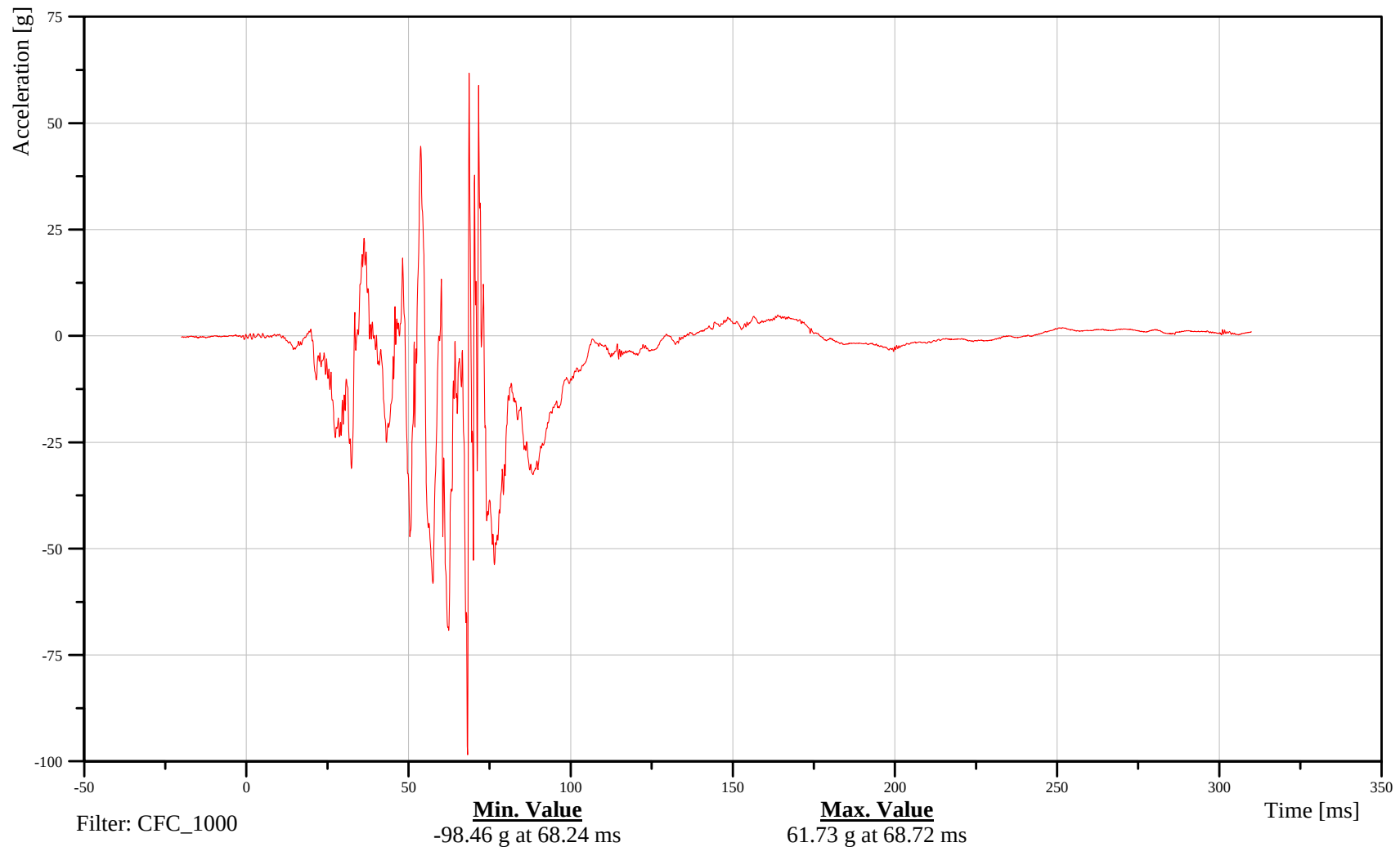
Target Driver Left Foot Z-Axis Acceleration

Customer: VRTC

21FOOTLELXH3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

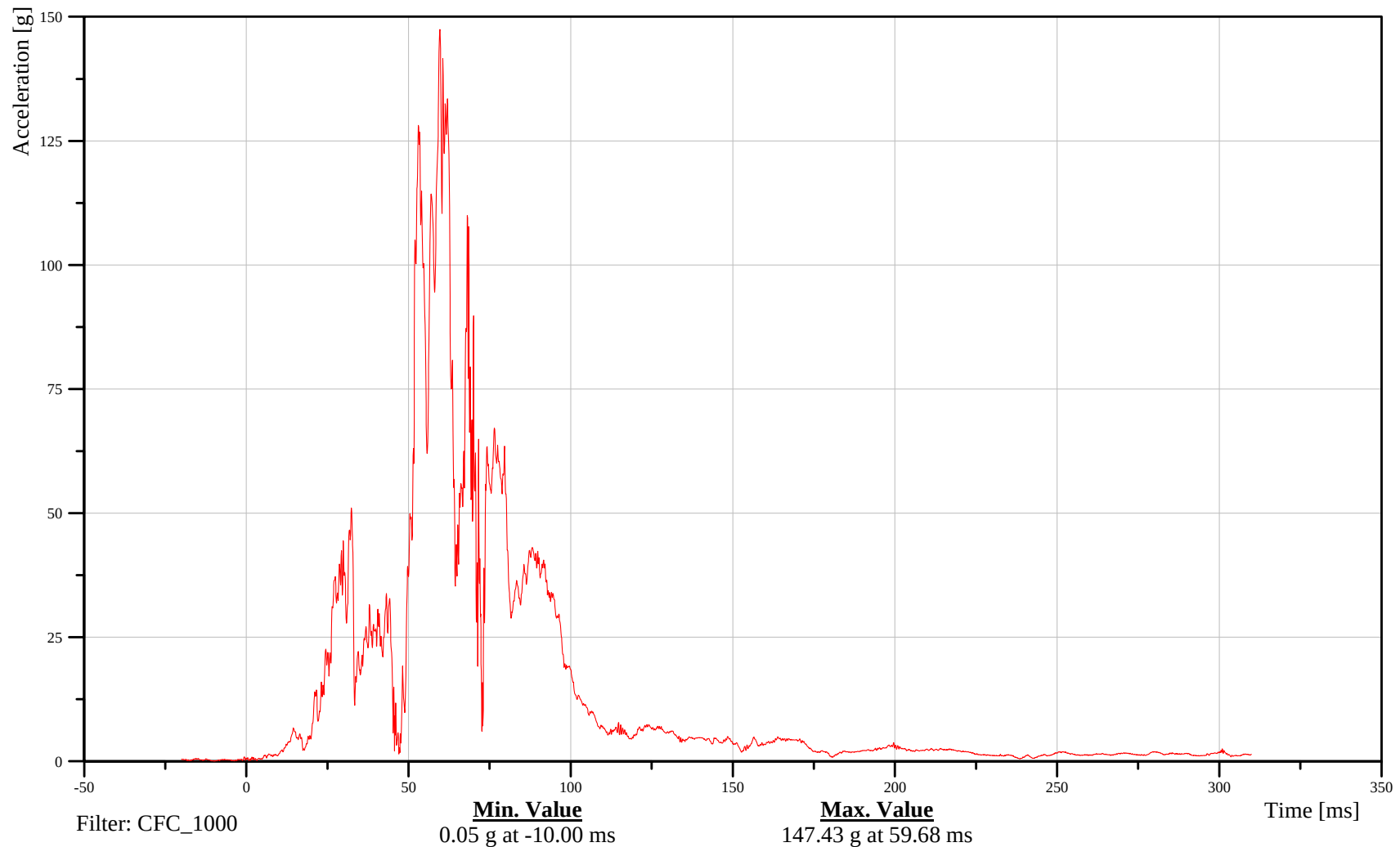
Target Driver Left Foot Resultant Acceleration

Customer: VRTC

21FOOTLELXH3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

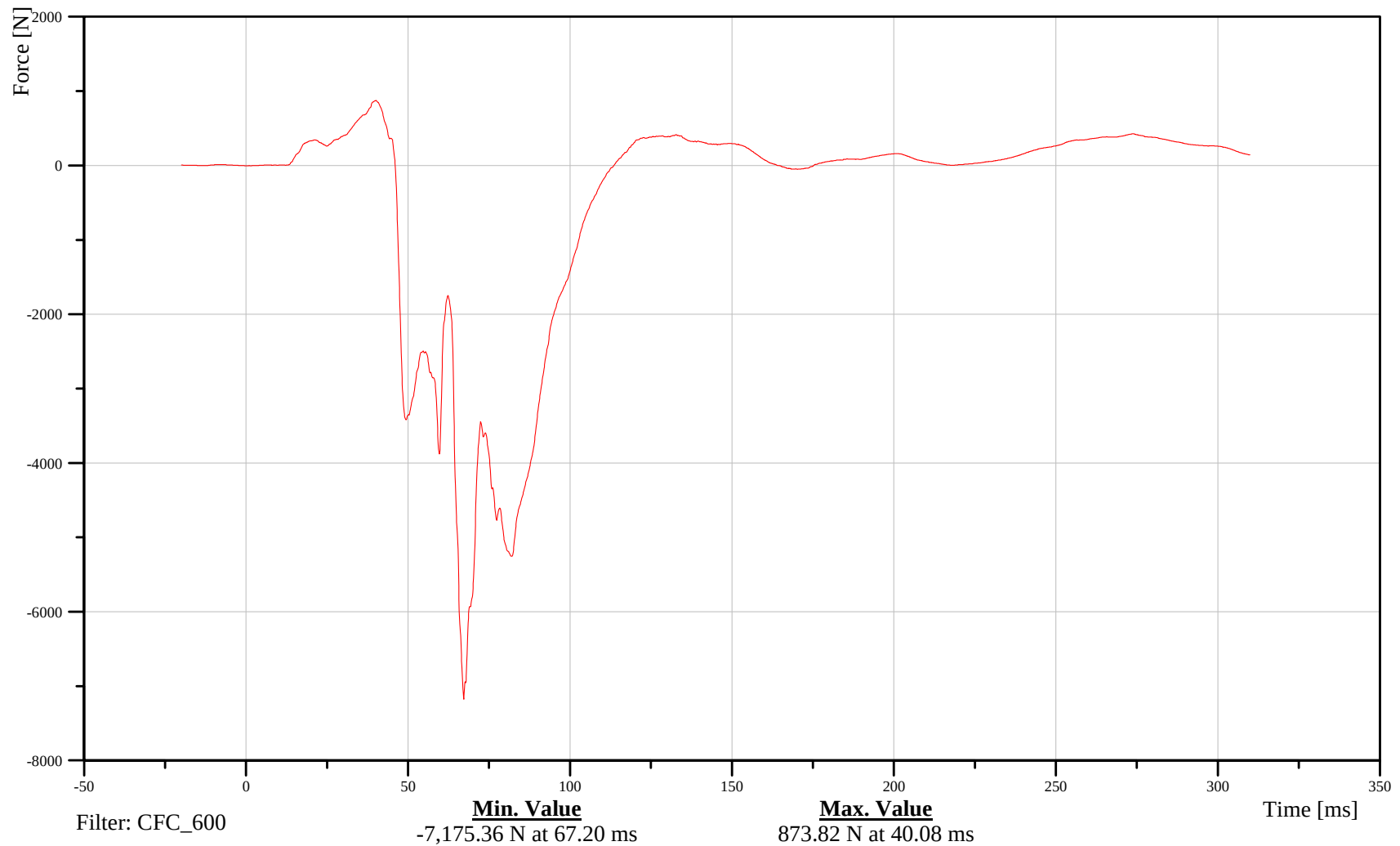
Target Driver Right Femur Z-Axis Force

Customer: VRTC

21FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

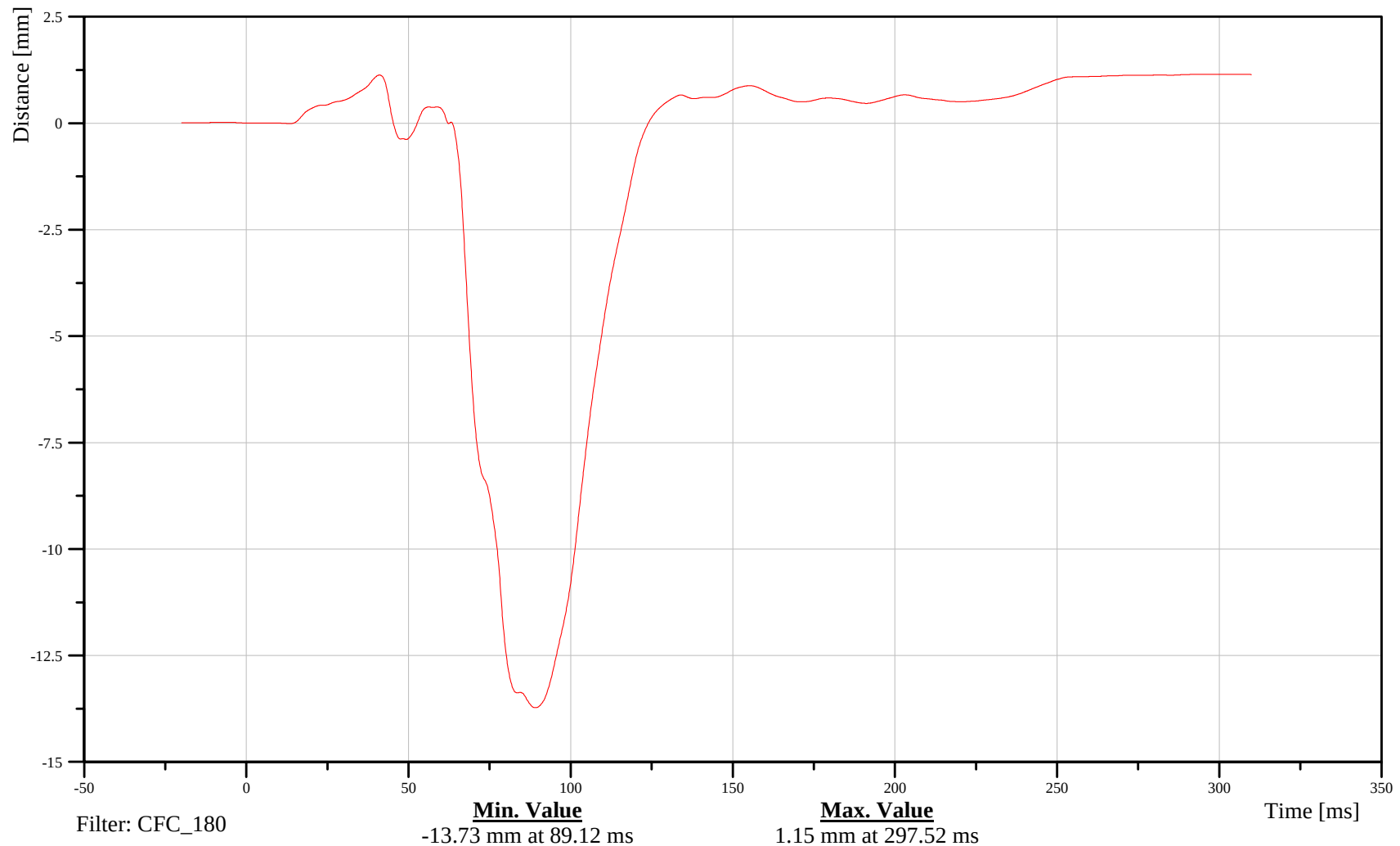
Target Driver Right Knee Displacement

Customer: VRTC

21KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Driver Right Upper Tibia X-Axis Force

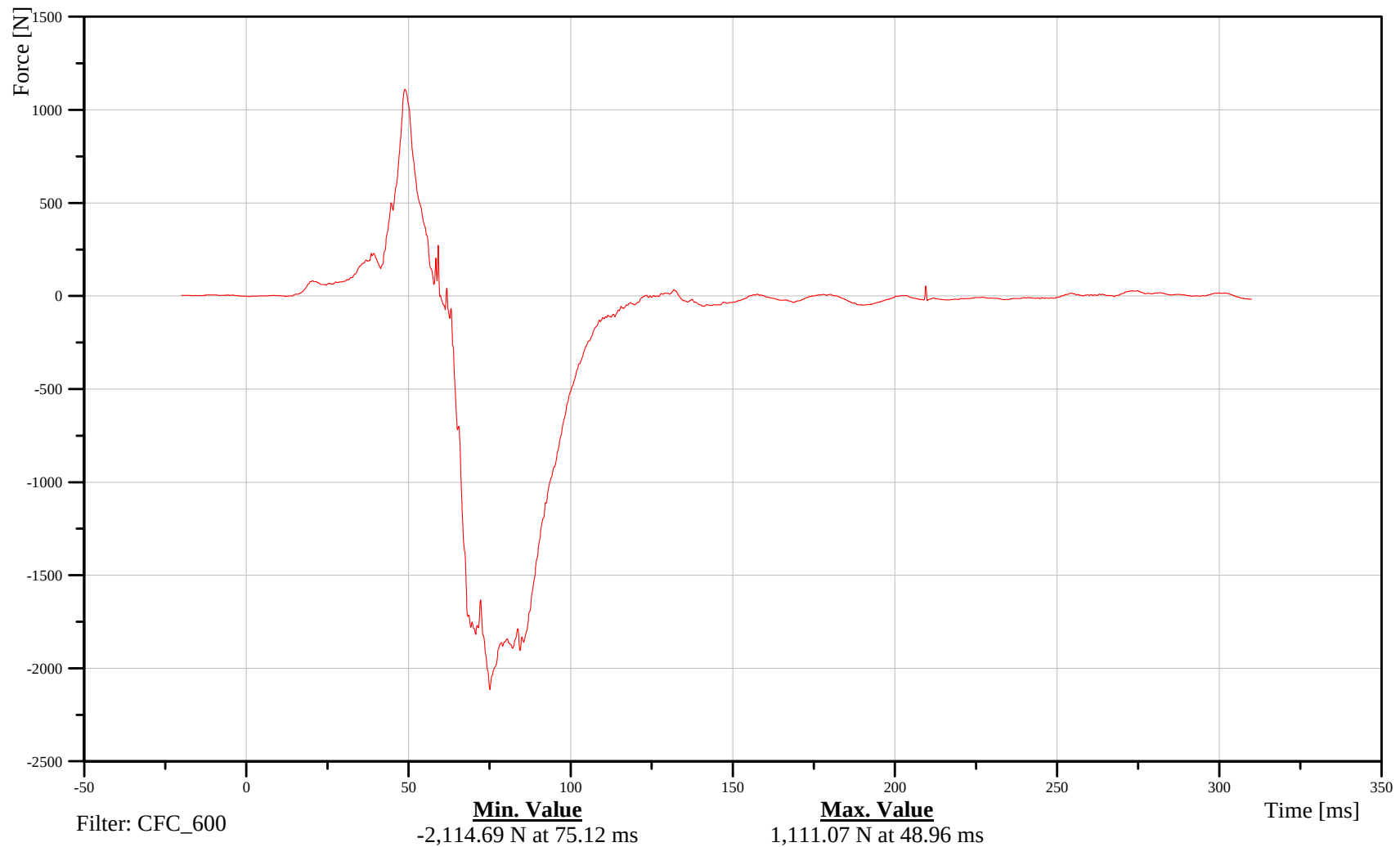
Time: 07:16

Customer: VRTC

21TIBIRULXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

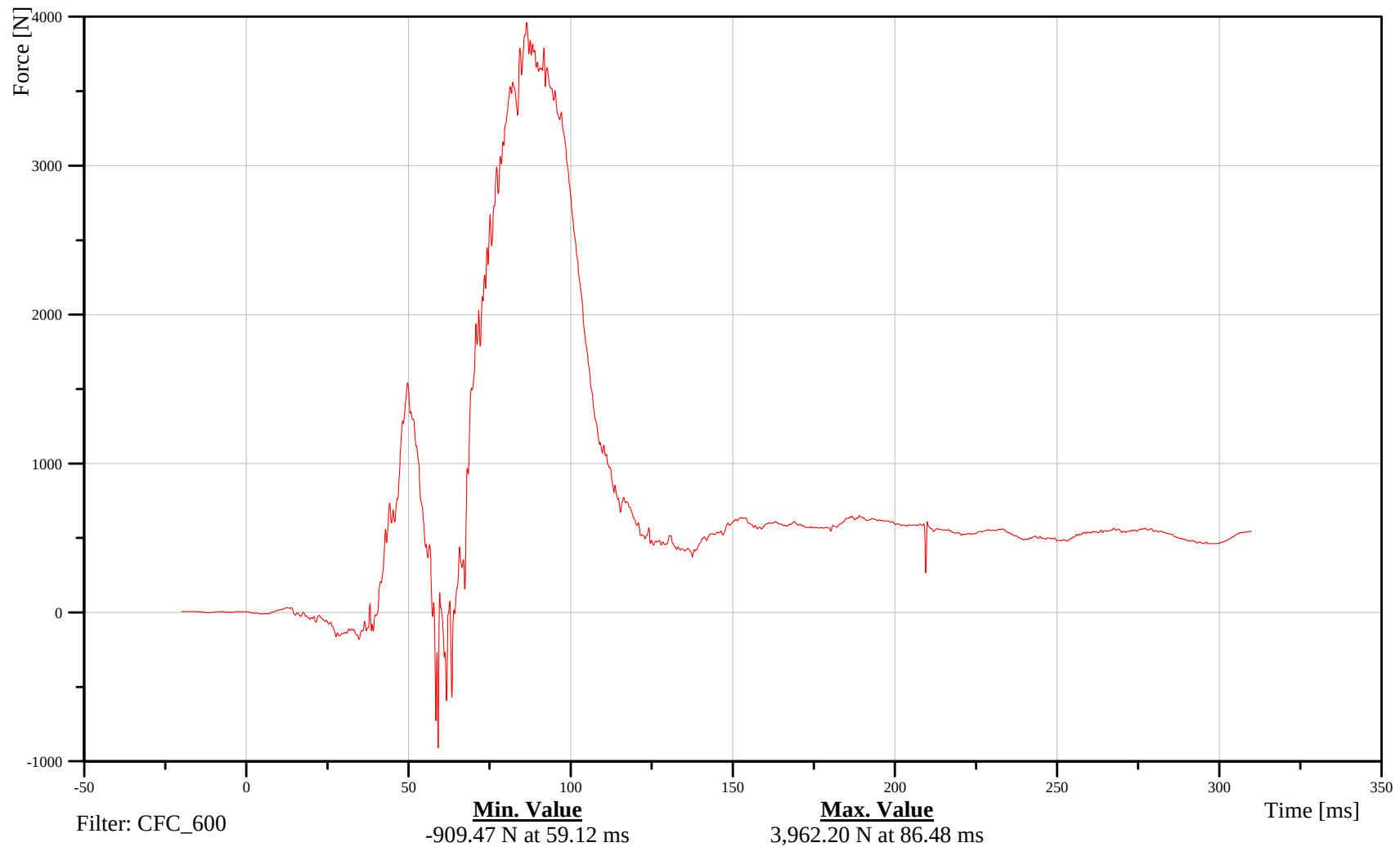
Target Driver Right Upper Tibia Z-Axis Force

Customer: VRTC

21TIBIRULXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Driver Right Upper Tibia Moment About X Axis

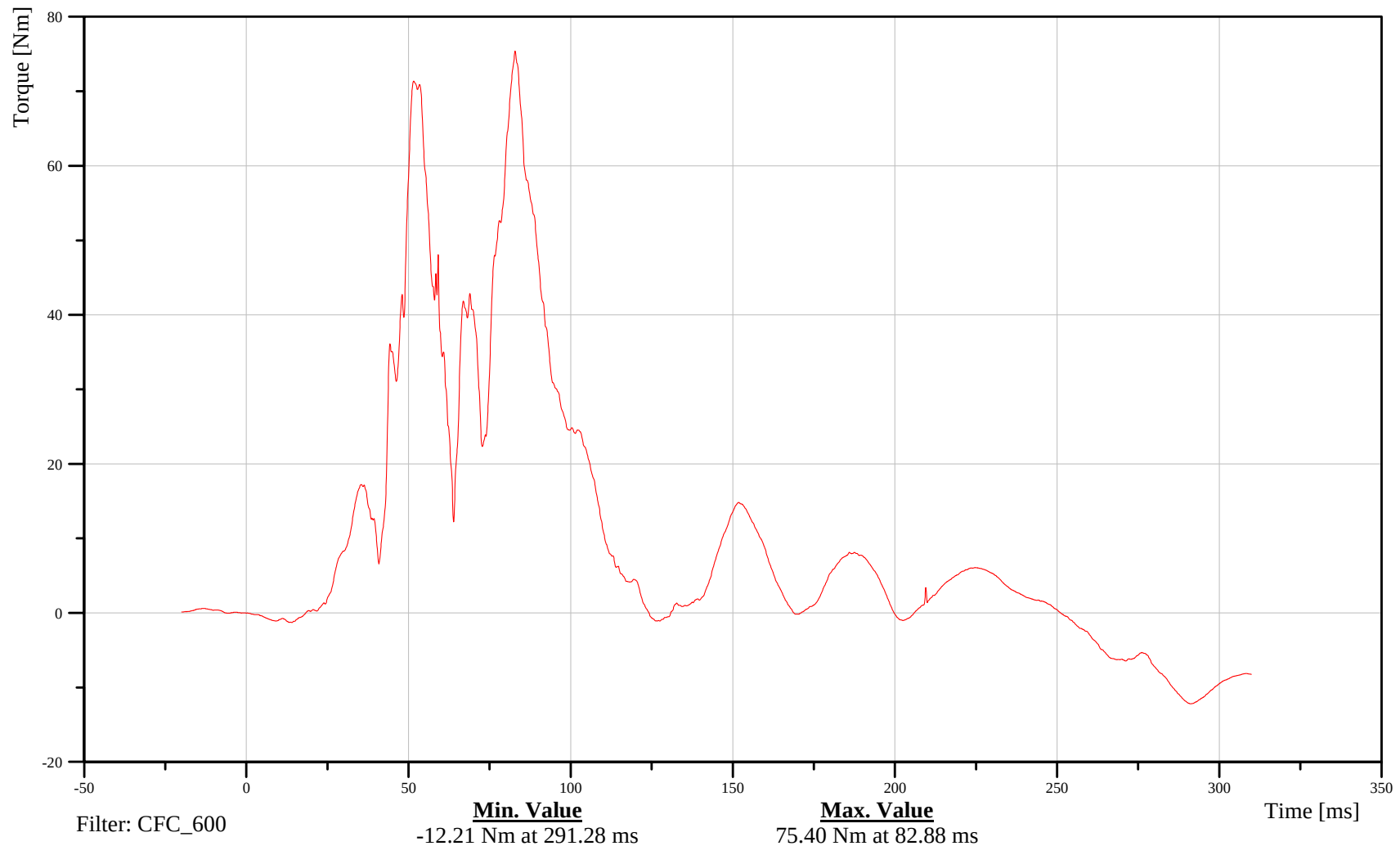
Time: 07:16

Customer: VRTC

21TIBIRULXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

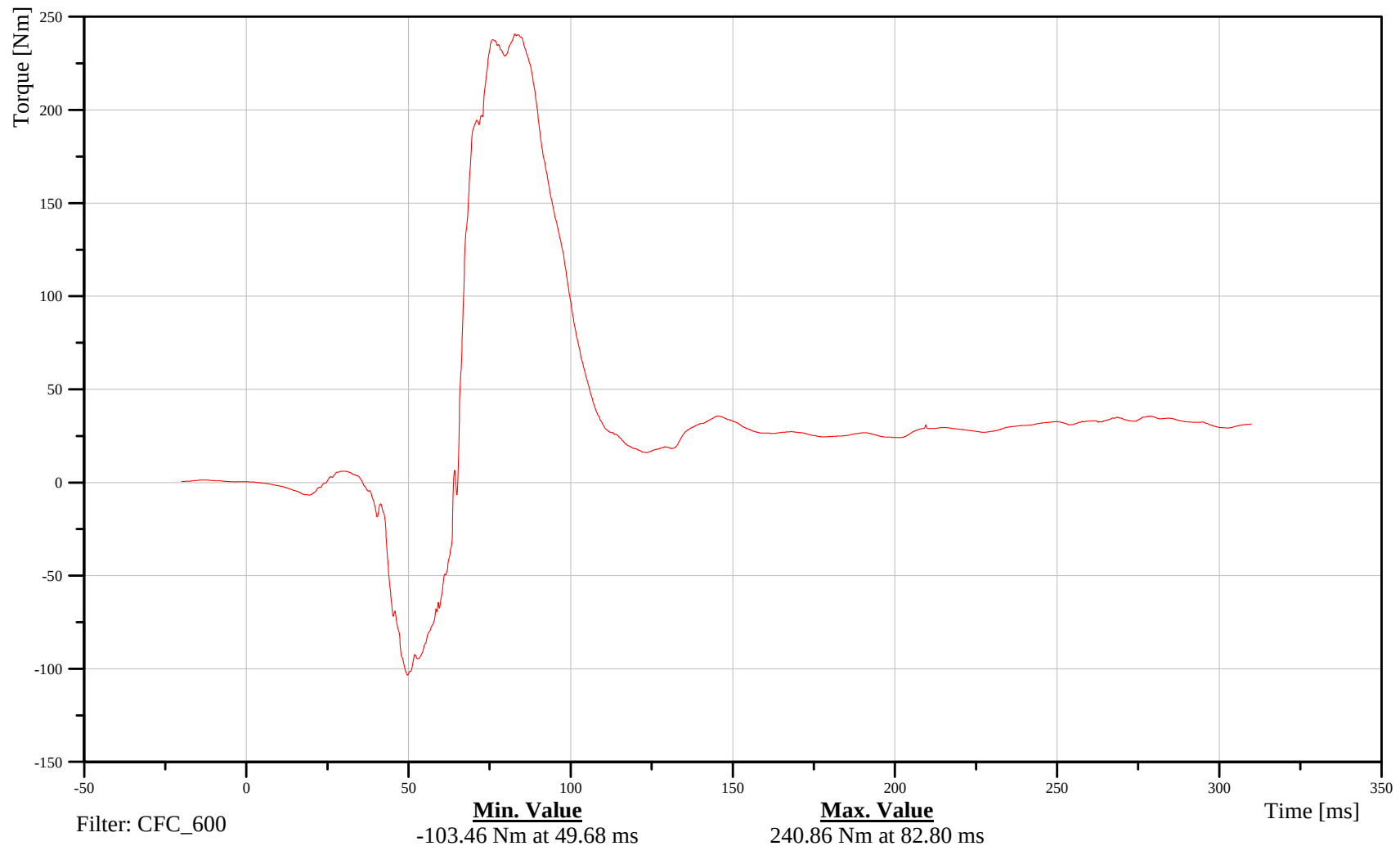
Target Driver Right Upper Tibia Moment About Y Axis

Customer: VRTC

21TIBIRULXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

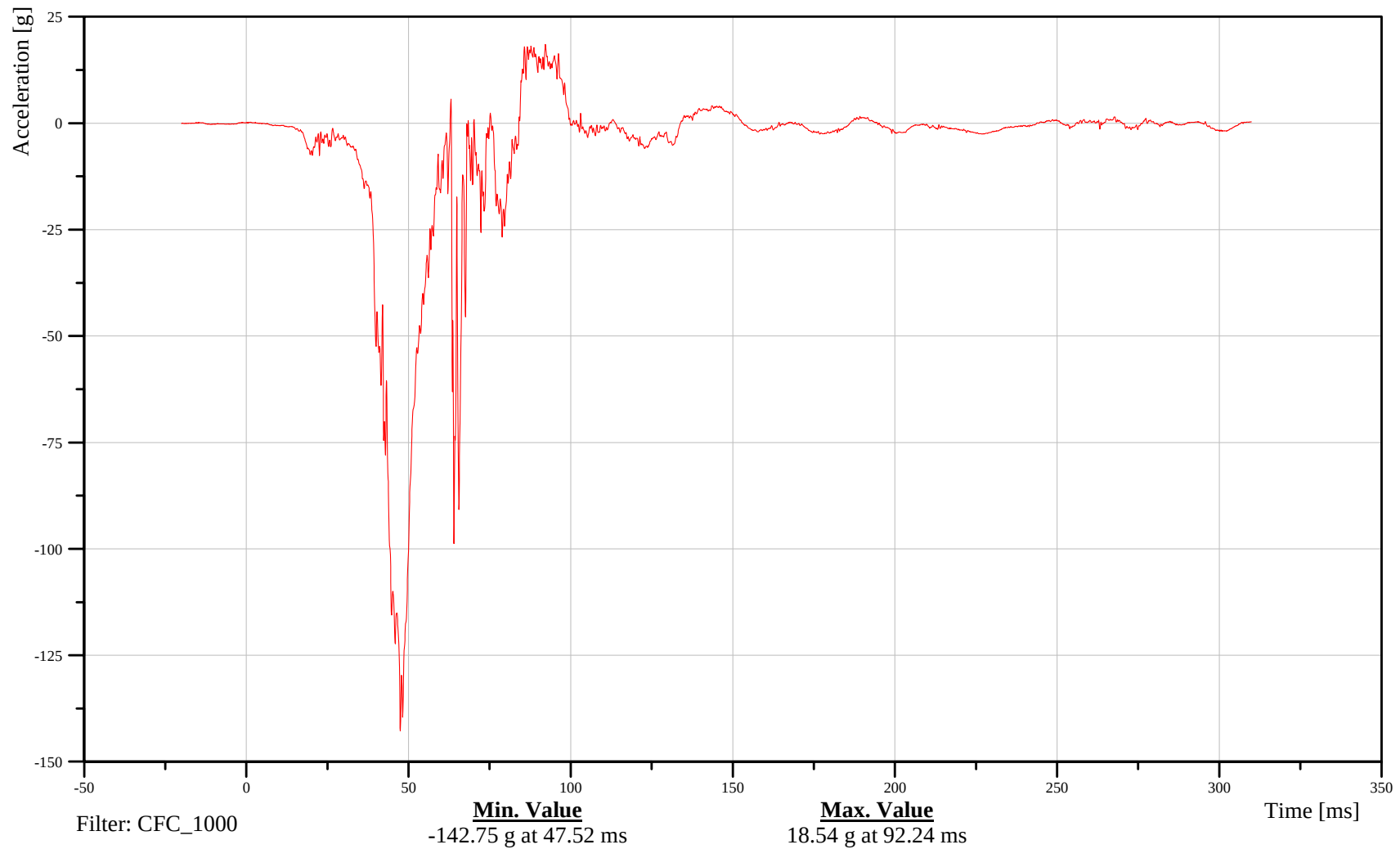
Target Driver Right Tibia X-Axis Acceleration

Customer: VRTC

21TIBIRILXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

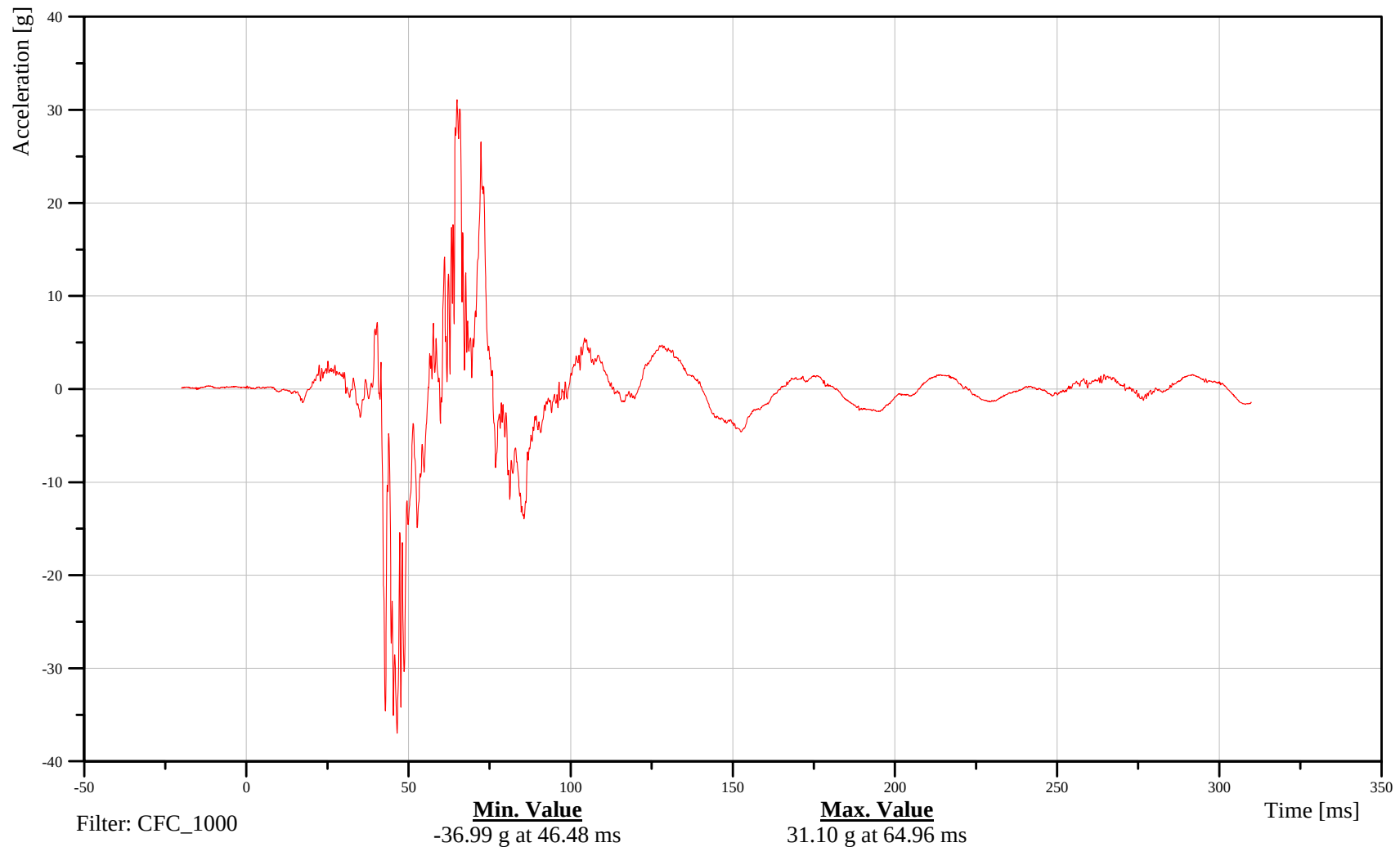
Target Driver Right Tibia Y-Axis Acceleration

Customer: VRTC

21TIBIRILXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

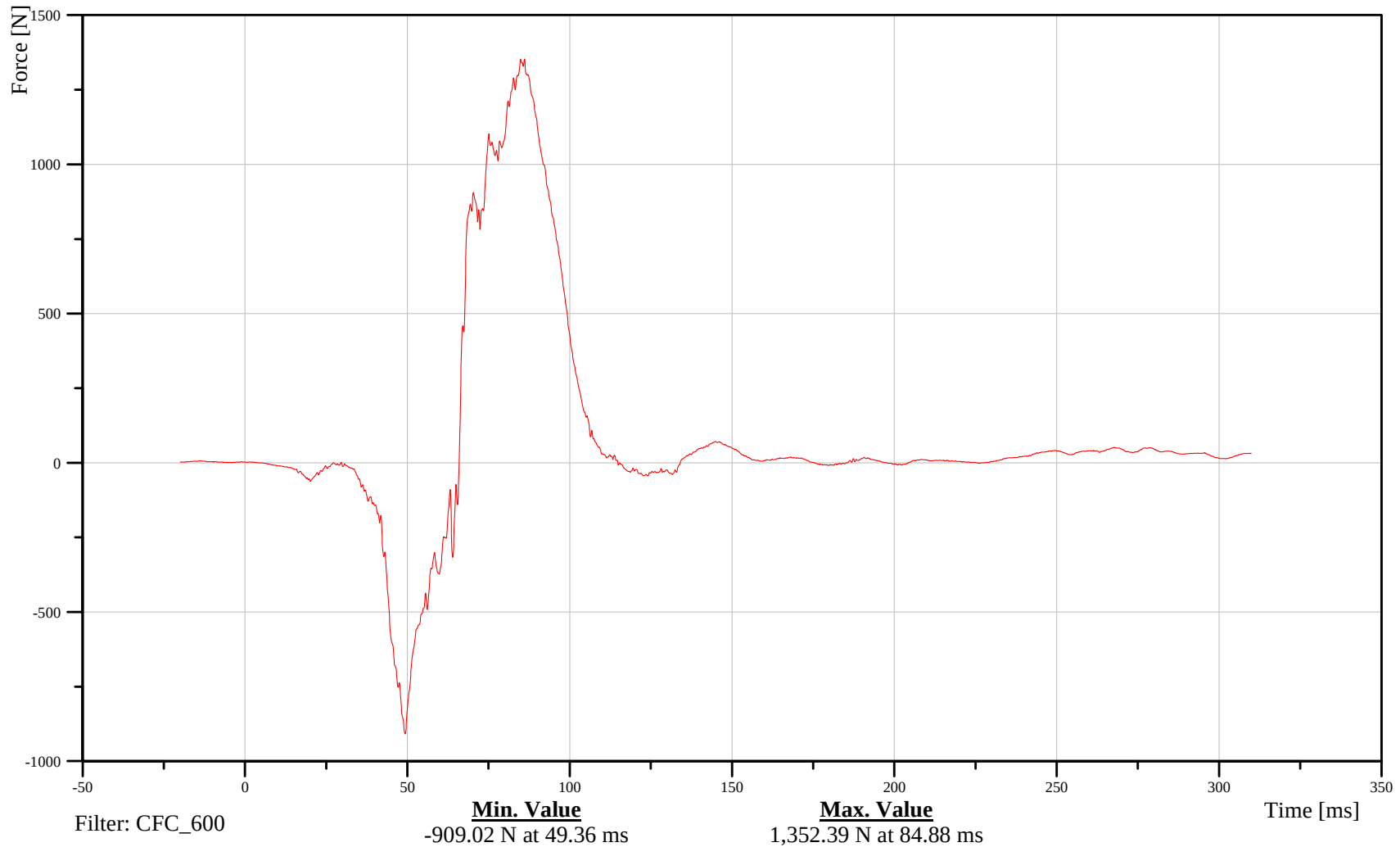
Target Driver Right Lower Tibia X-Axis Force

Customer: VRTC

21TIBIRLLXH3FOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

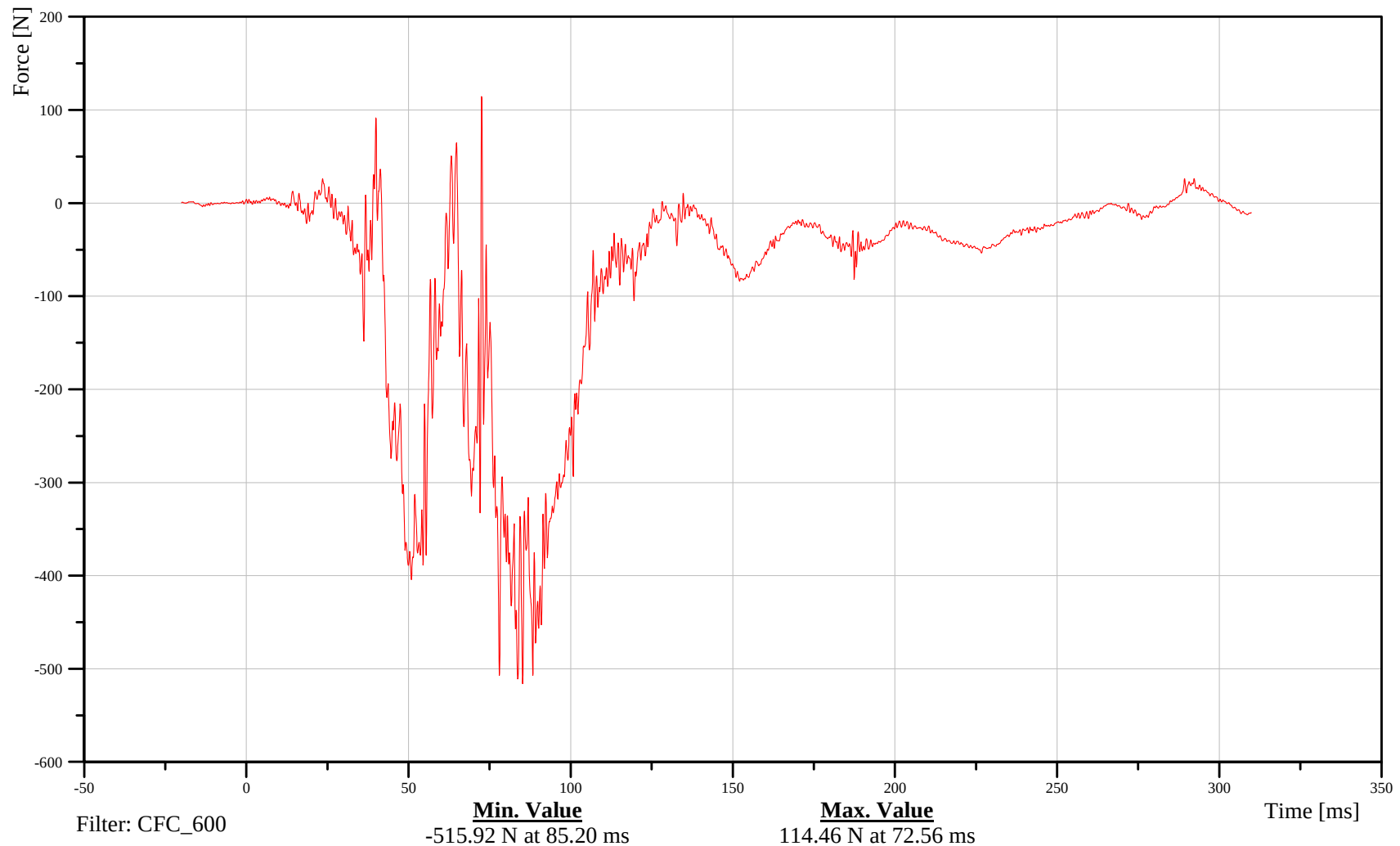
Target Driver Right Lower Tibia Y-Axis Force

Customer: VRTC

21TIBIRLLXH3FOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

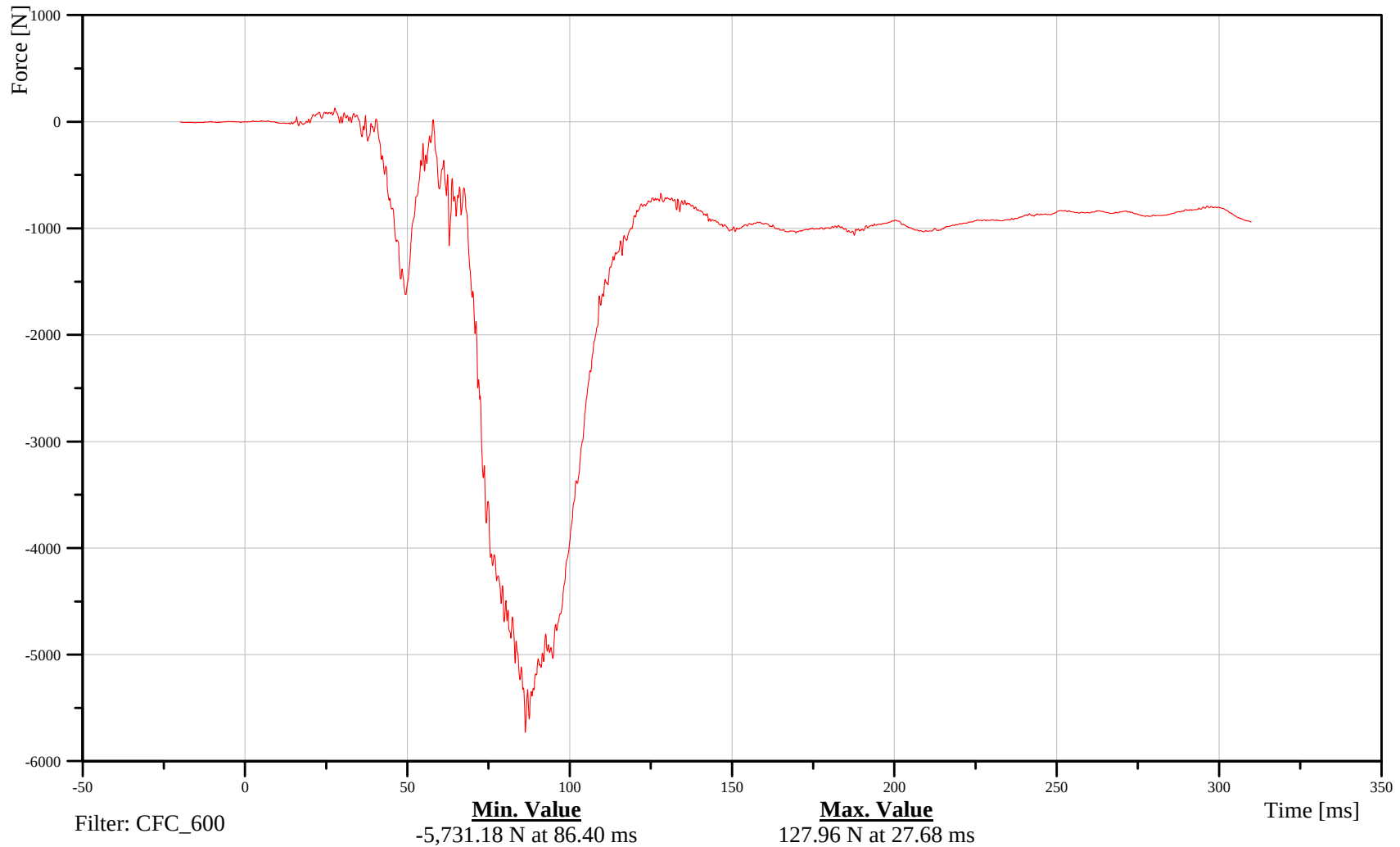
Target Driver Right Lower Tibia Z-Axis Force

Customer: VRTC

21TIBIRLLXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

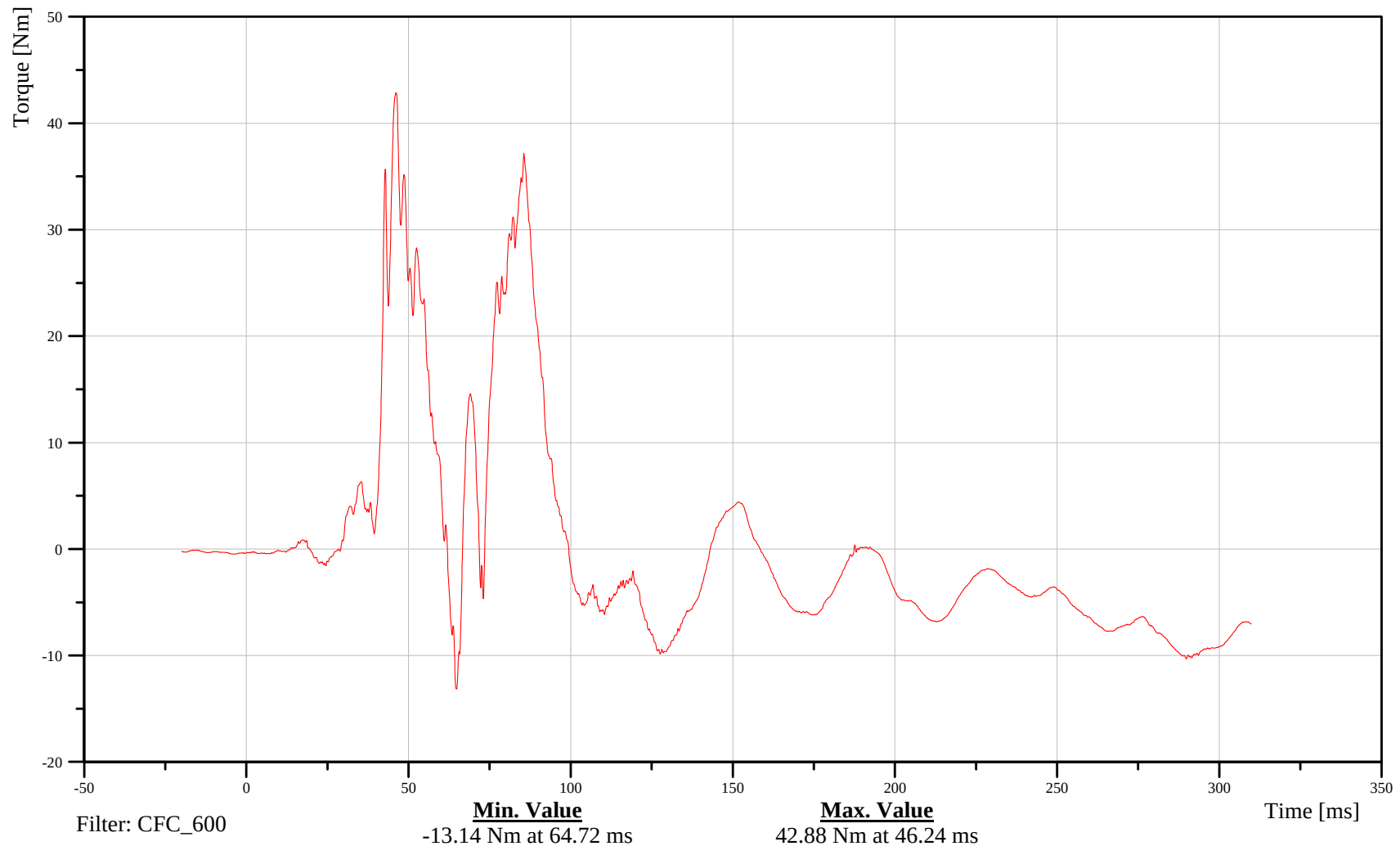
Target Driver Right Lower Tibia Moment About X Axis

Customer: VRTC

21TIBIRLLXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

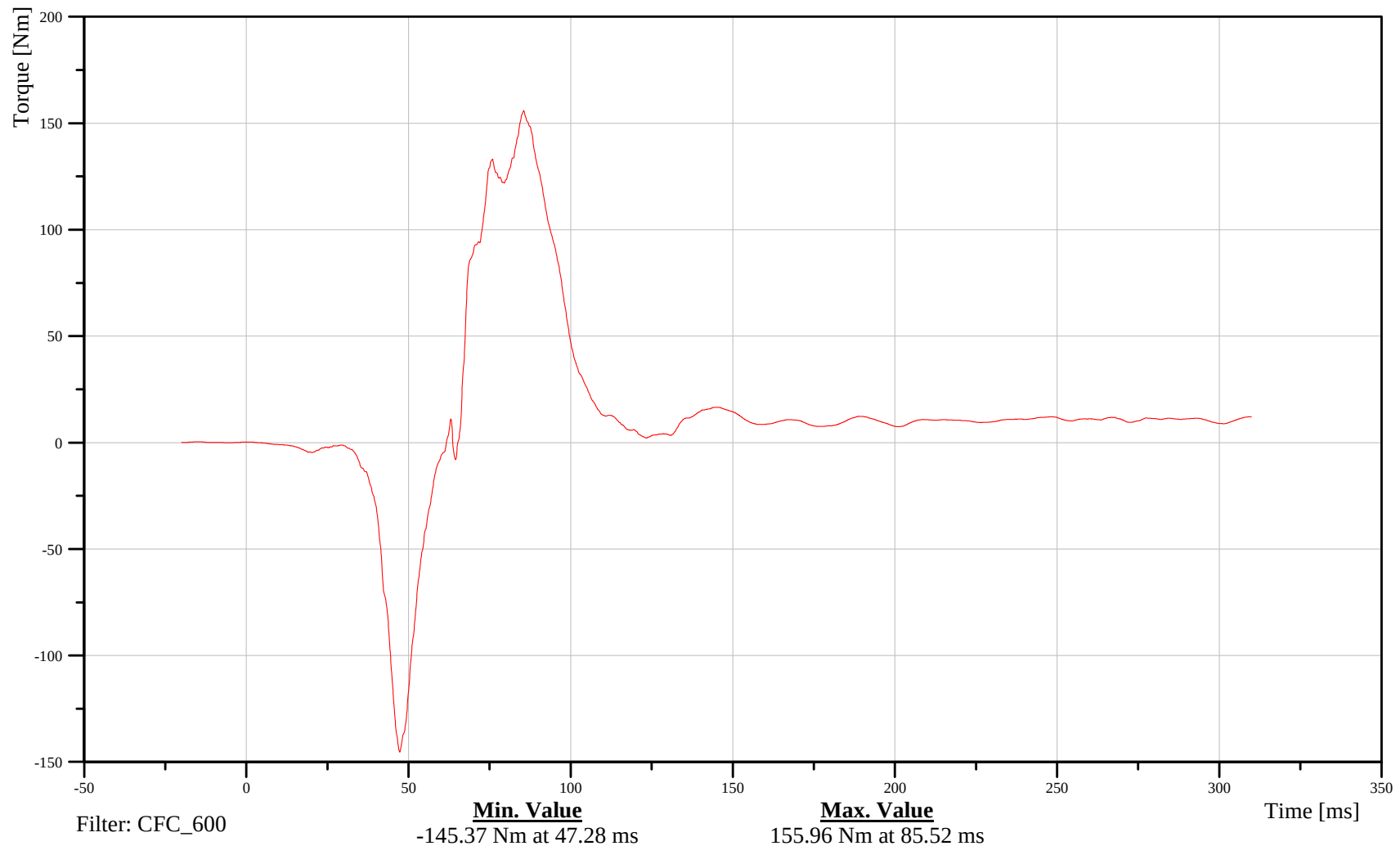
Target Driver Right Lower Tibia Moment About Y Axis

Customer: VRTC

21TIBIRLLXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

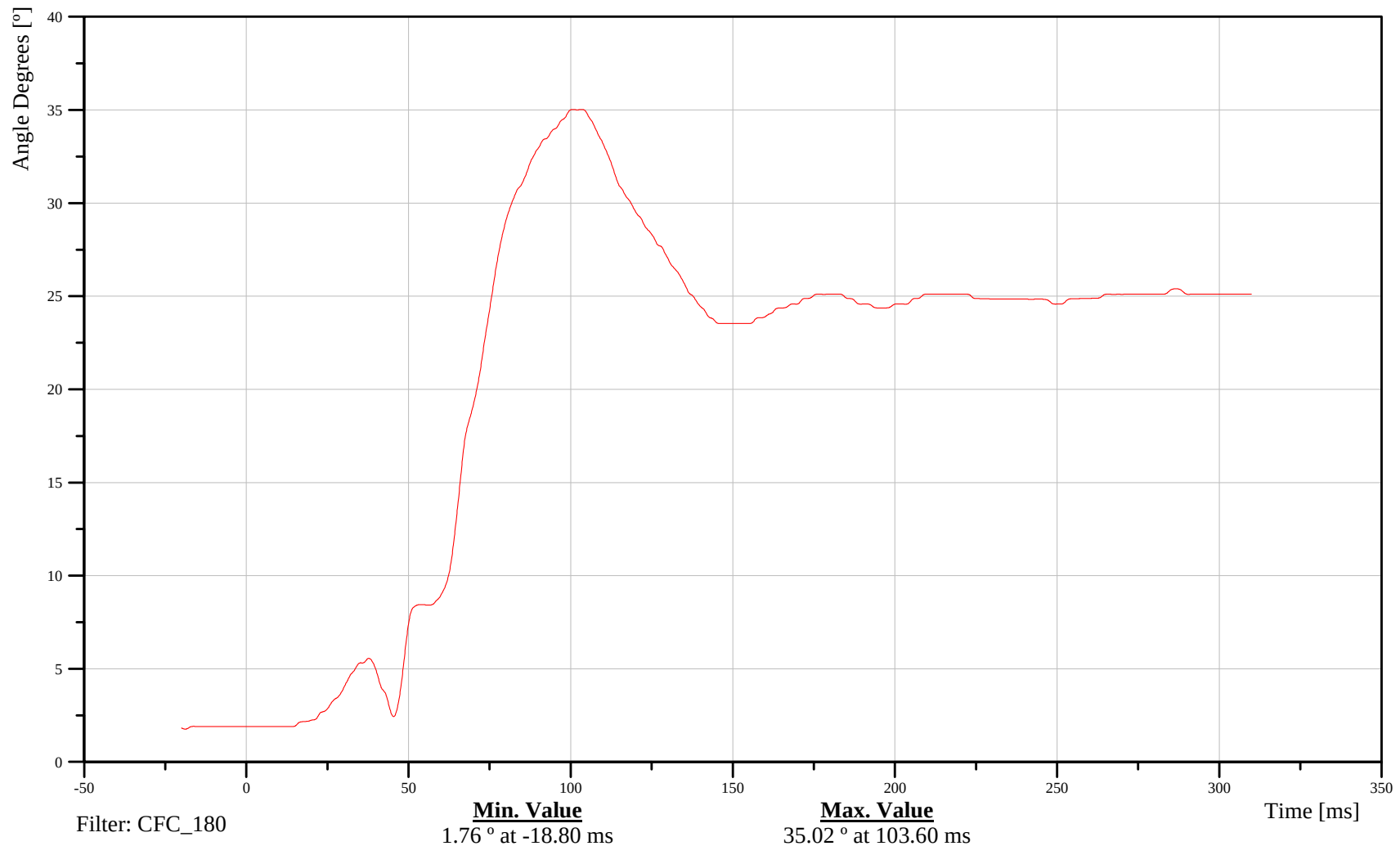
Target Driver Right Foot X-Axis Rotation

Customer: VRTC

21FOOTRILXH3ANXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

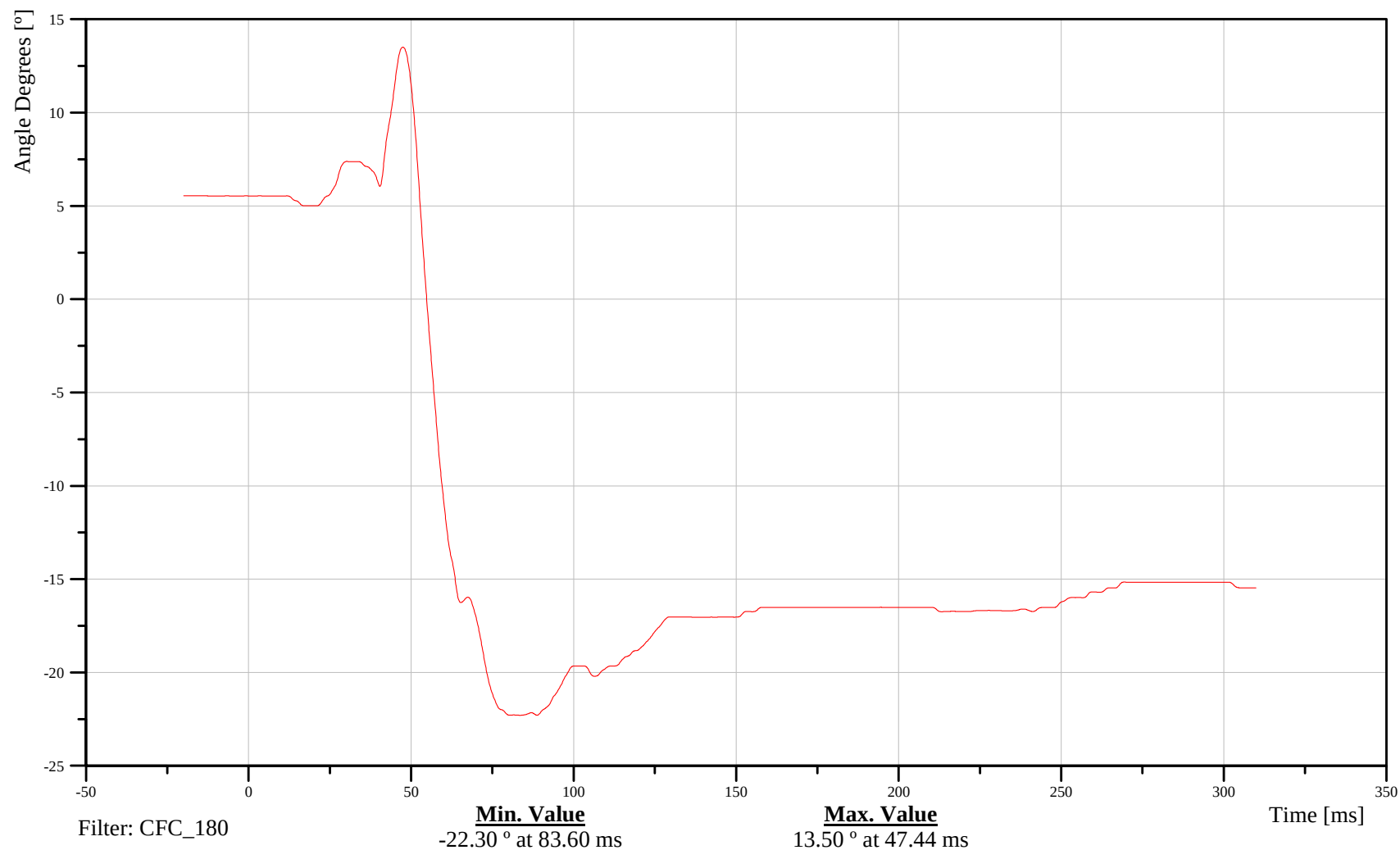
Target Driver Right Foot Y-Axis Rotation

Customer: VRTC

21FOOTRILXH3ANYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

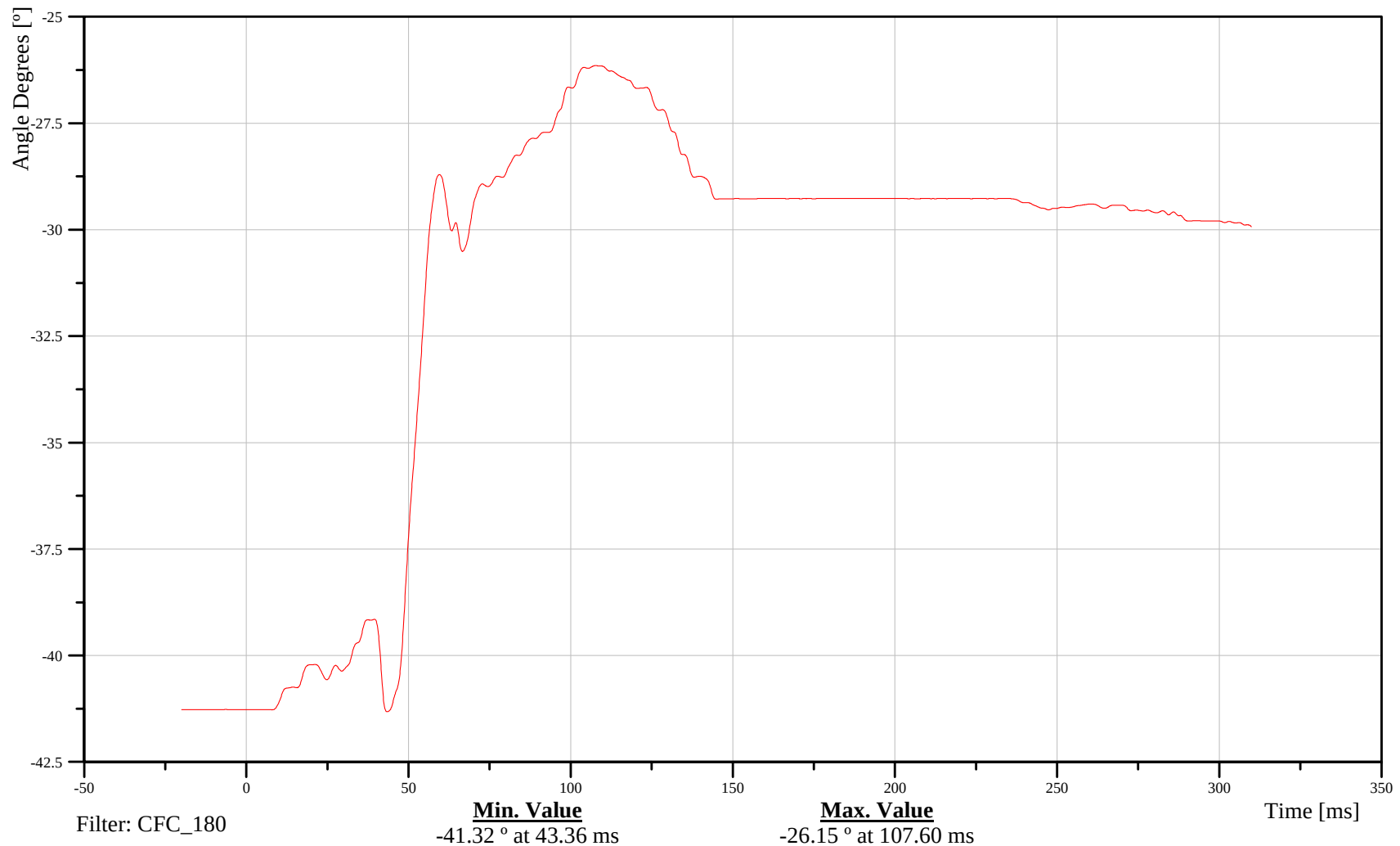
Target Driver Right Foot Z-Axis Rotation

Customer: VRTC

21FOOTRILXH3ANZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

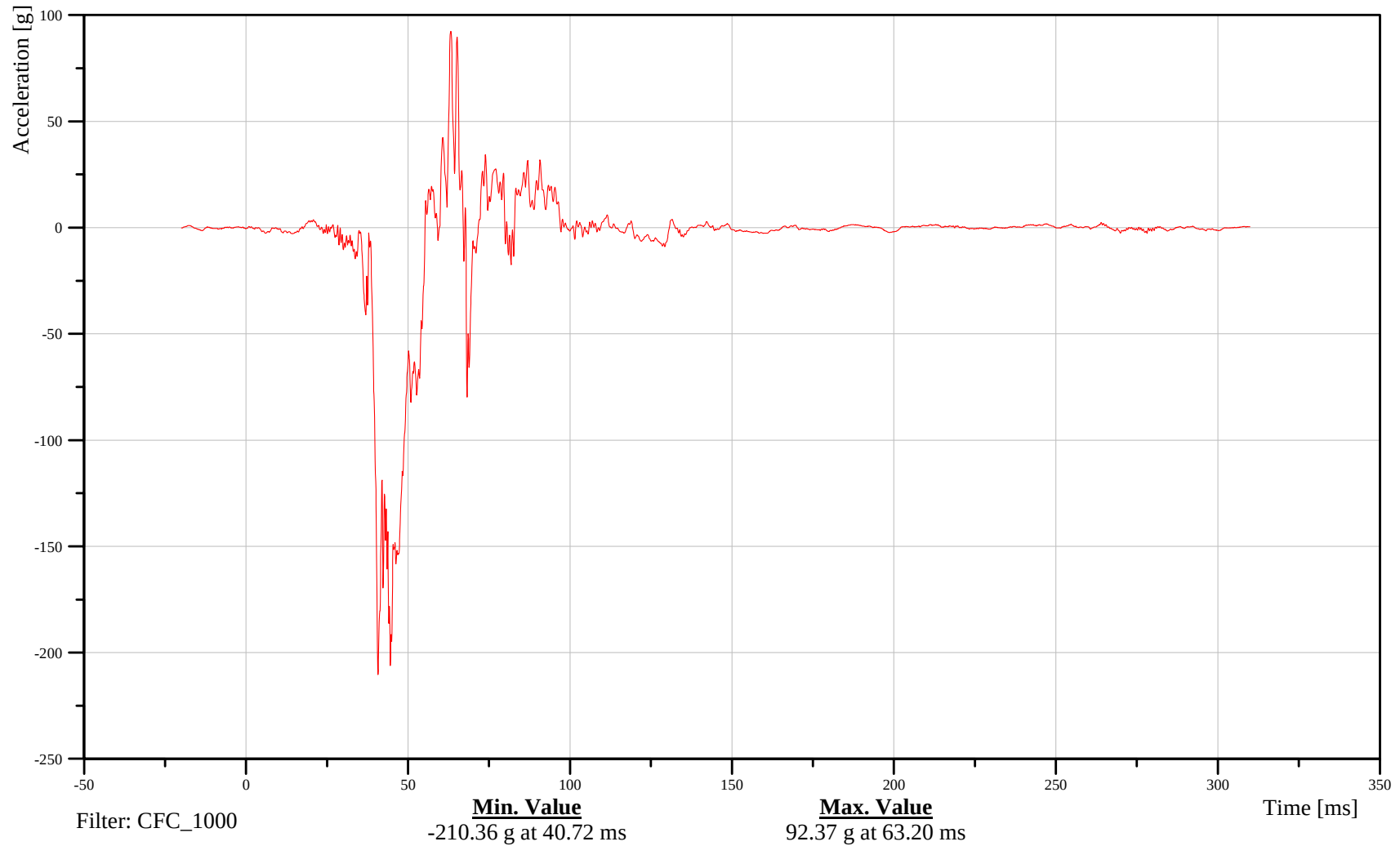
Target Driver Right Foot X-Axis Acceleration

Customer: VRTC

21FOOTRILXH3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

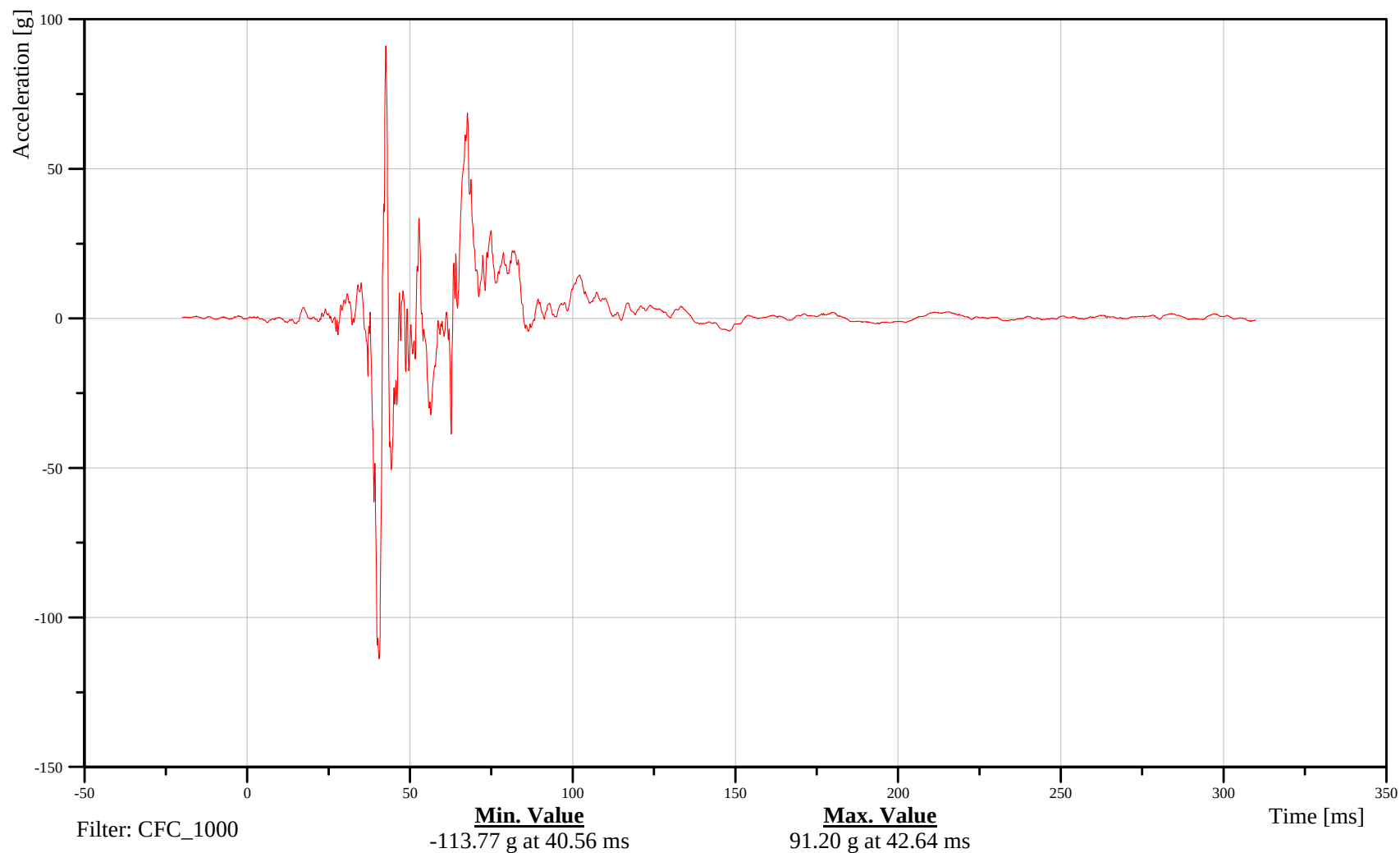
Target Driver Right Foot Y-Axis Acceleration

Customer: VRTC

21FOOTRILXH3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

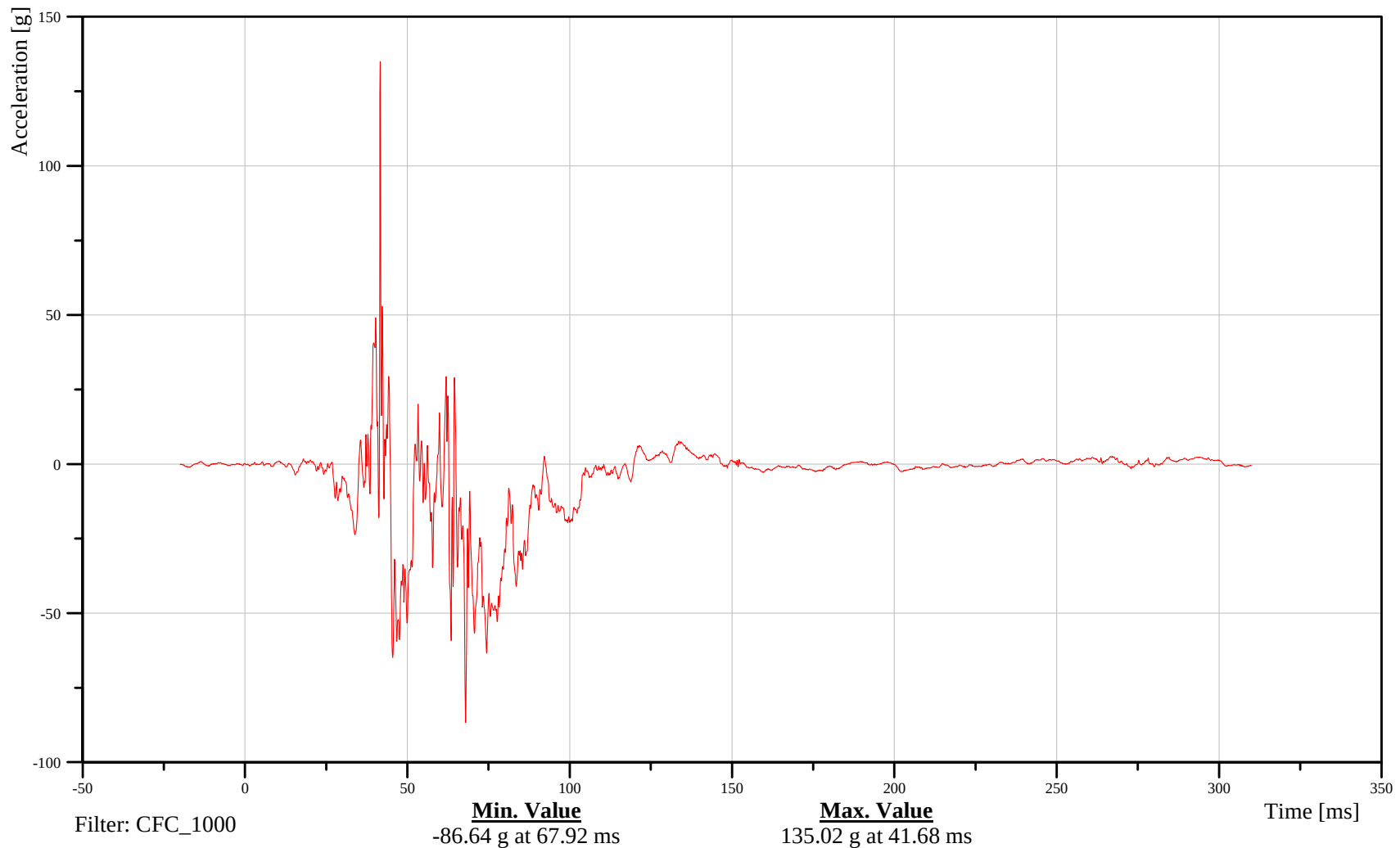
Target Driver Right Foot Z-Axis Acceleration

Customer: VRTC

21FOOTRILXH3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Driver Right Foot Resultant Acceleration

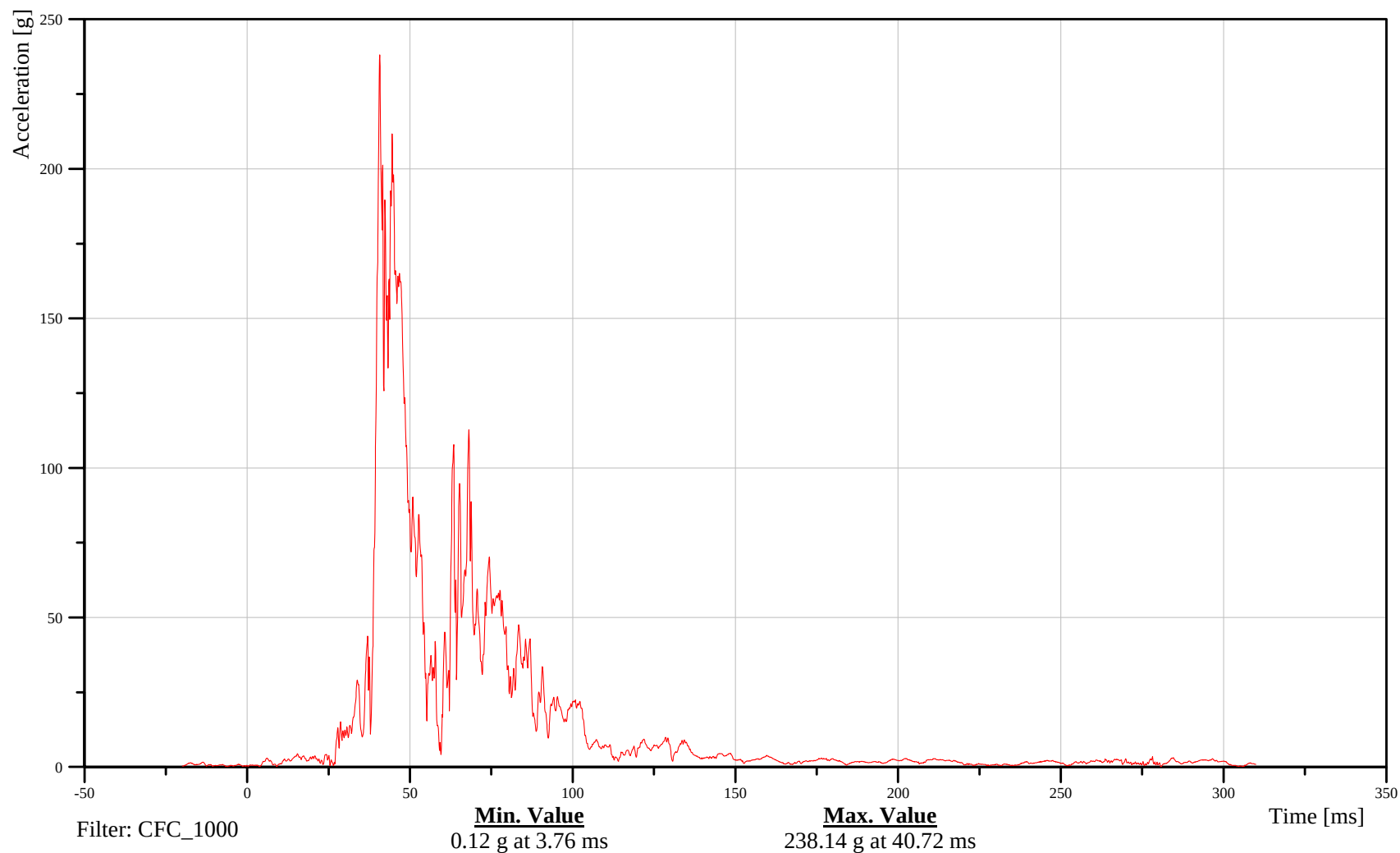
Time: 07:16

Customer: VRTC

21FOOTRILXH3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

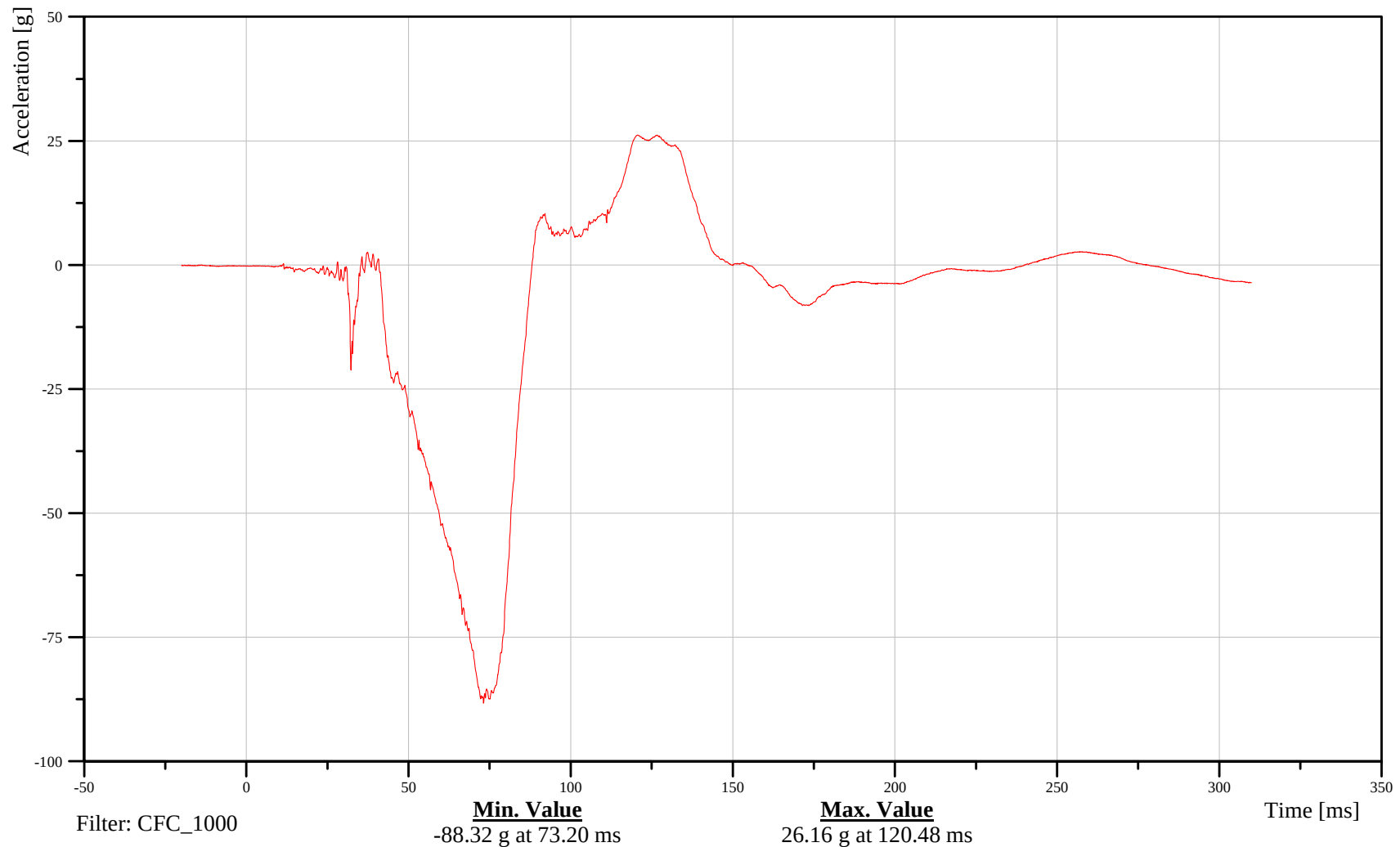
Target Passenger Head CG X-Axis Acceleration

Customer: VRTC

23HEADCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

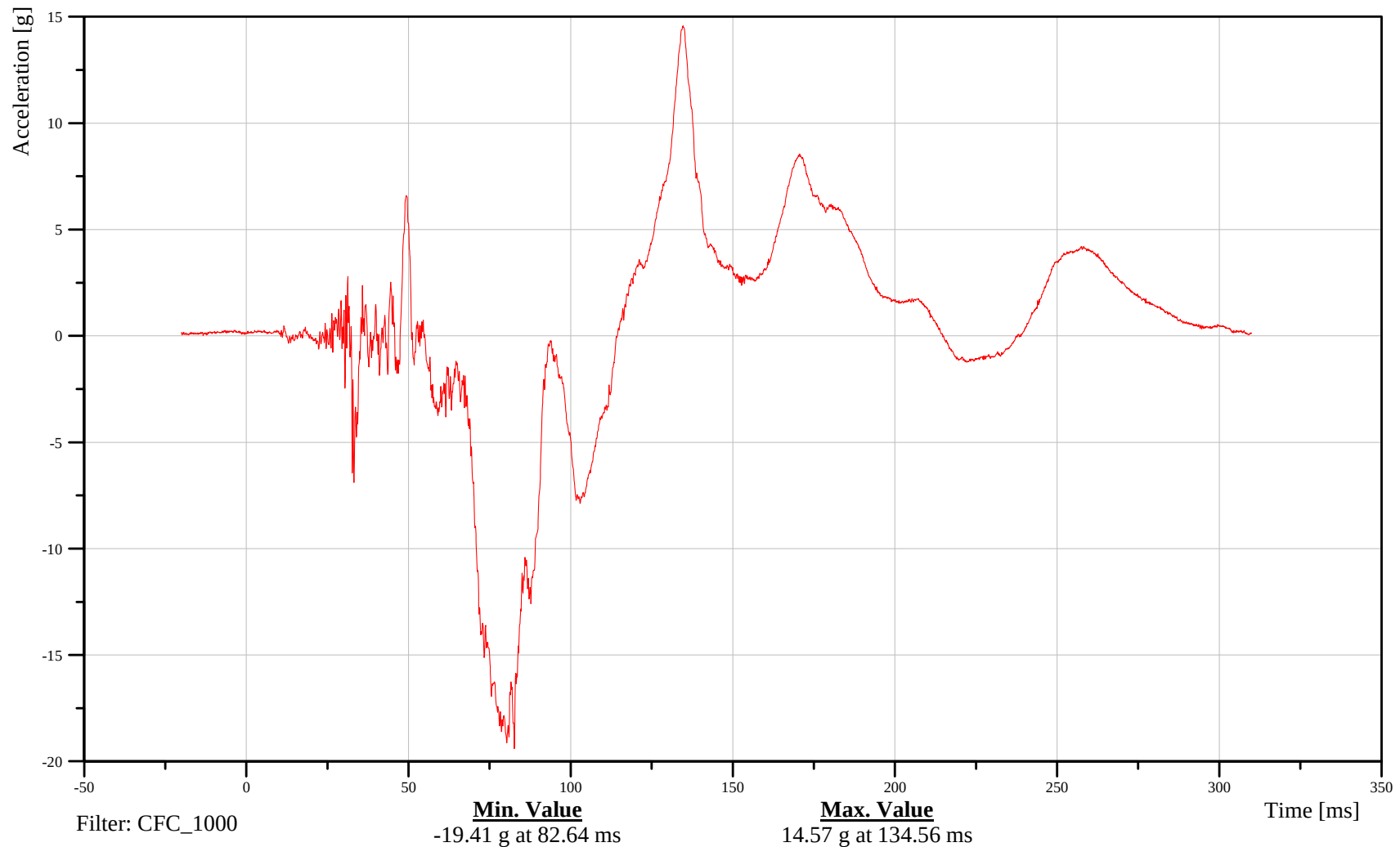
Target Passenger Head CG Y-Axis Acceleration

Customer: VRTC

23HEADCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

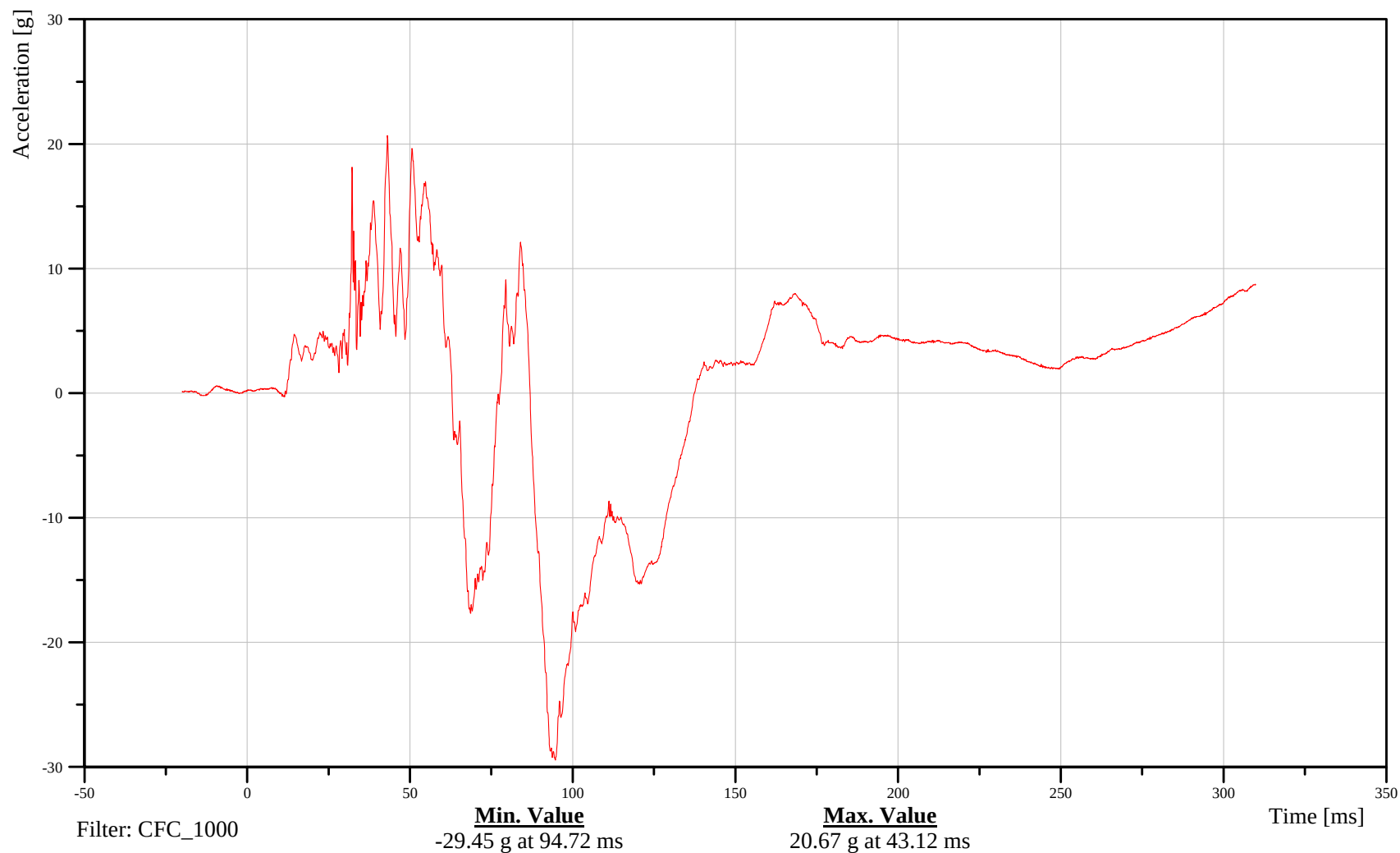
Target Passenger Head CG Z-Axis Acceleration

Customer: VRTC

23HEADCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

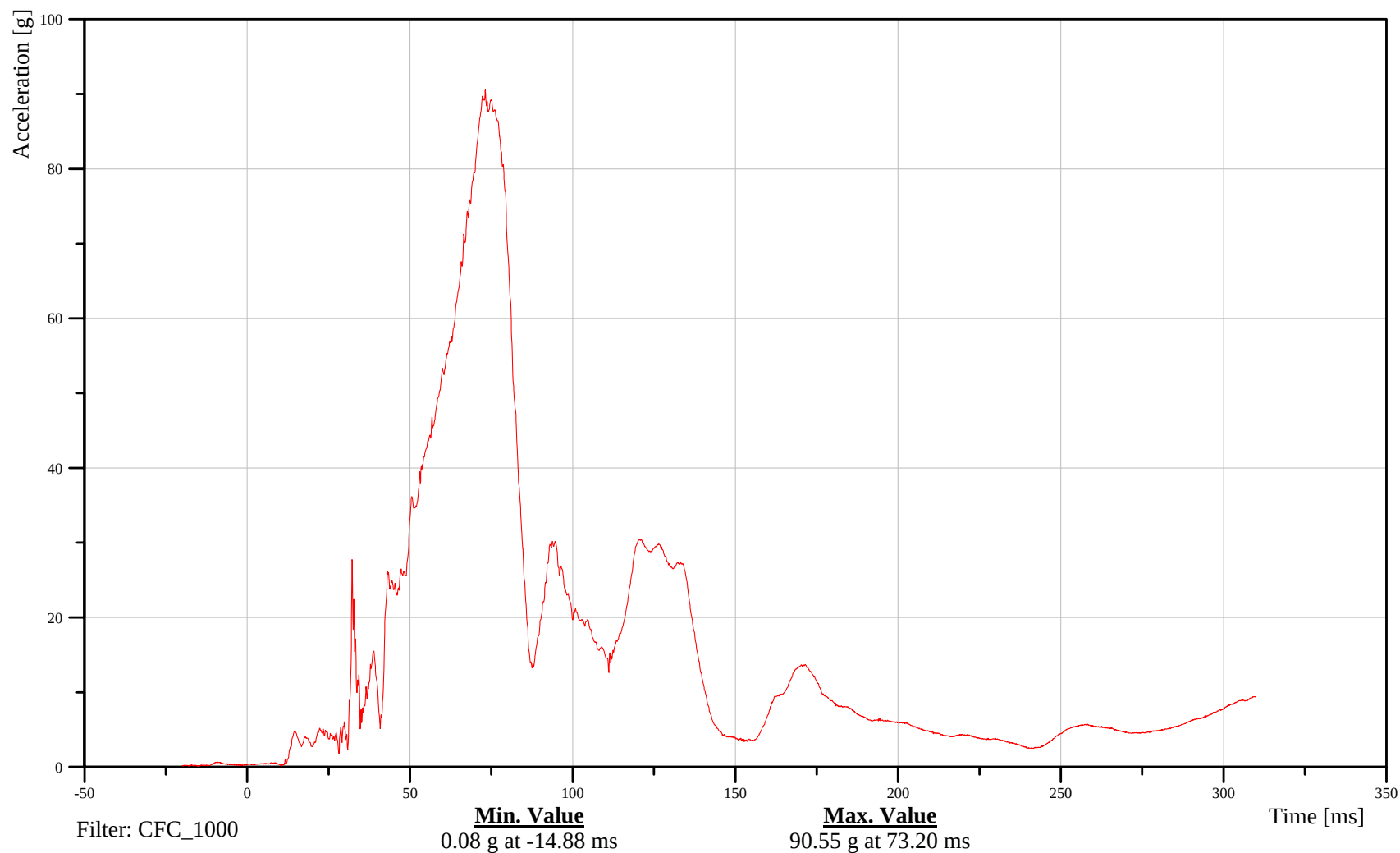
Target Passenger Head CG Resultant Acceleration

Customer: VRTC

23HEADCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

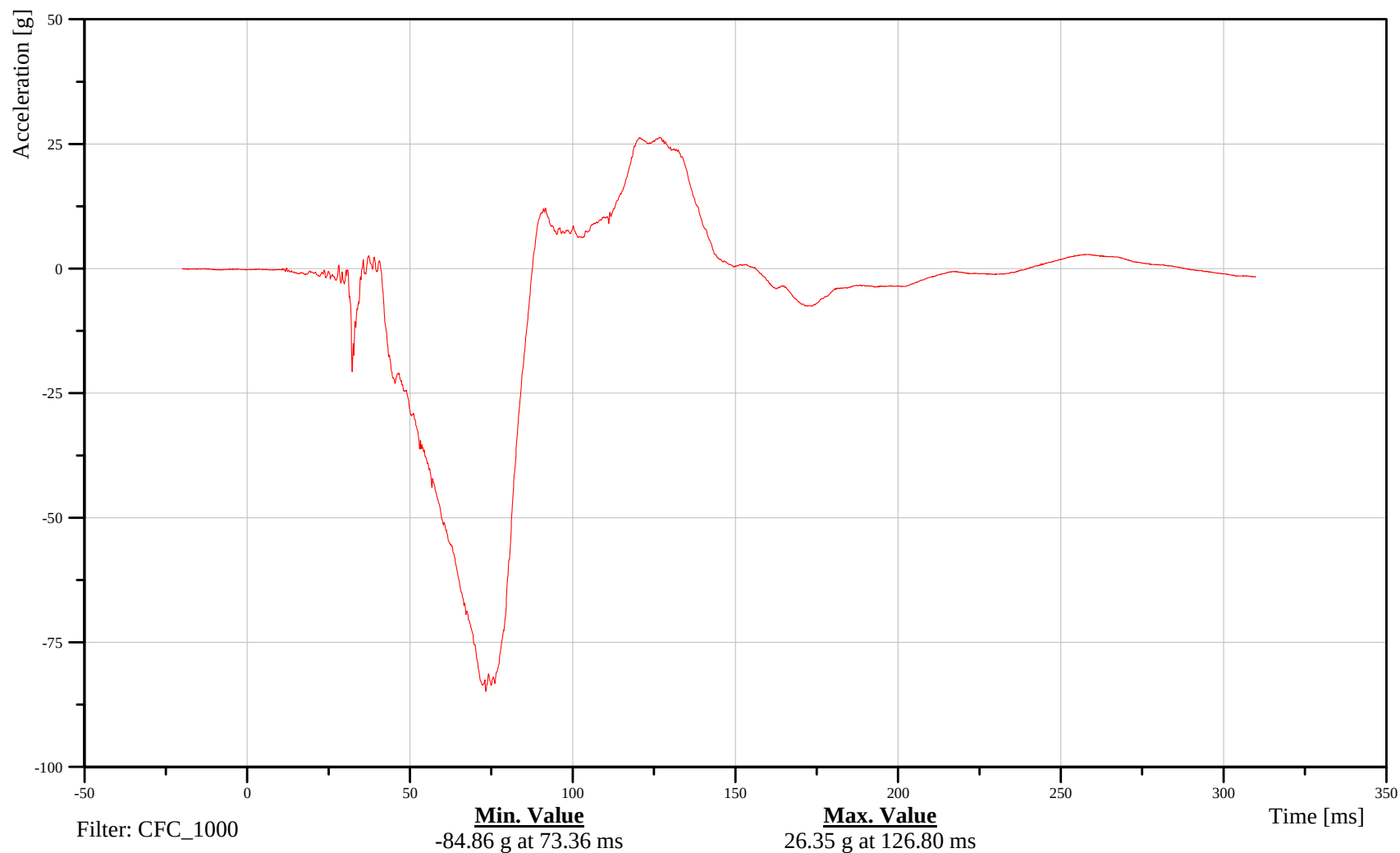
Target Passenger Redundant Head CG X-Axis Acceleration

Customer: VRTC

23HEADCGRDHFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Passenger Redundant Head CG Y-Axis Acceleration

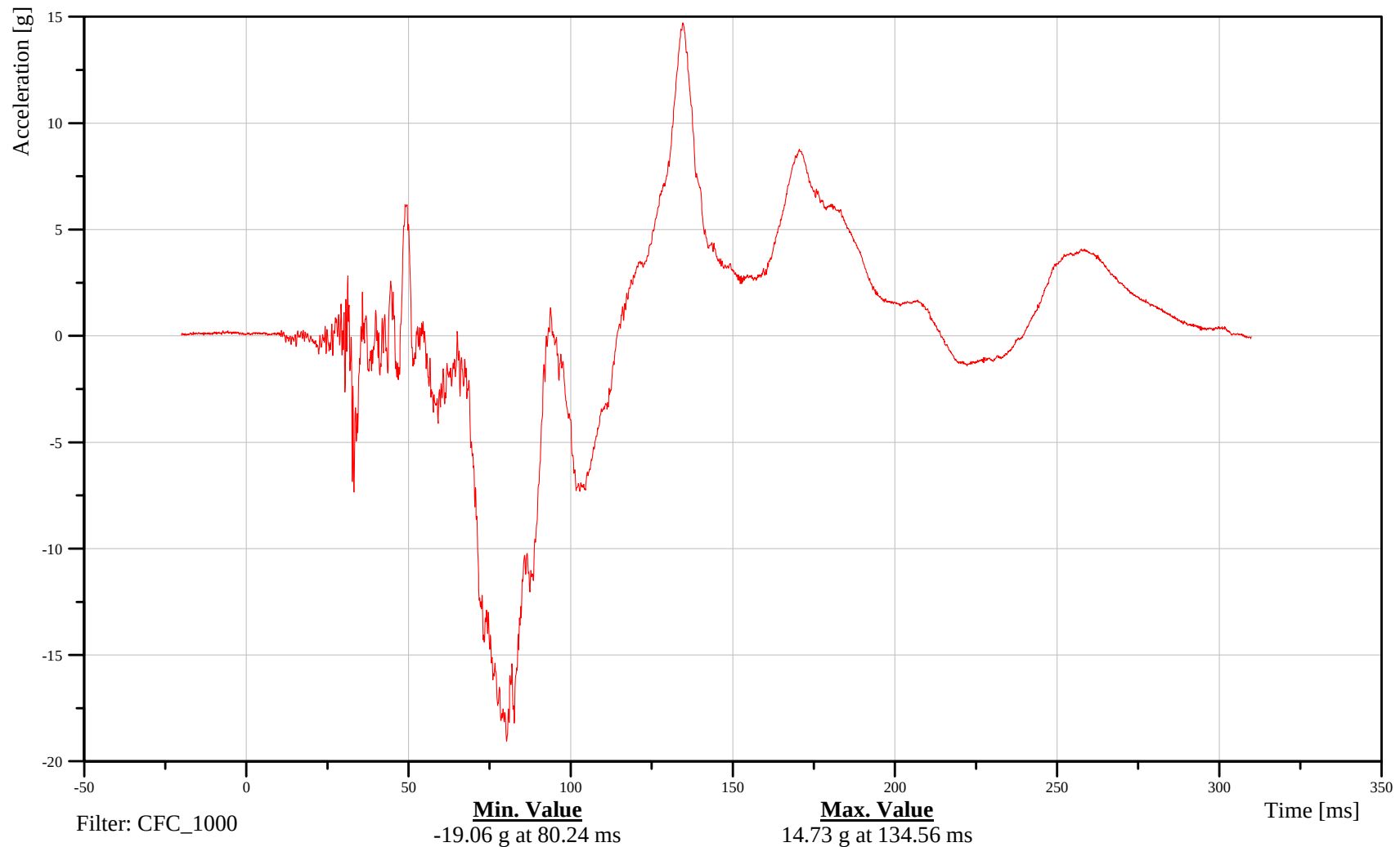
Time: 07:16

Customer: VRTC

23HEADCGRDHFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

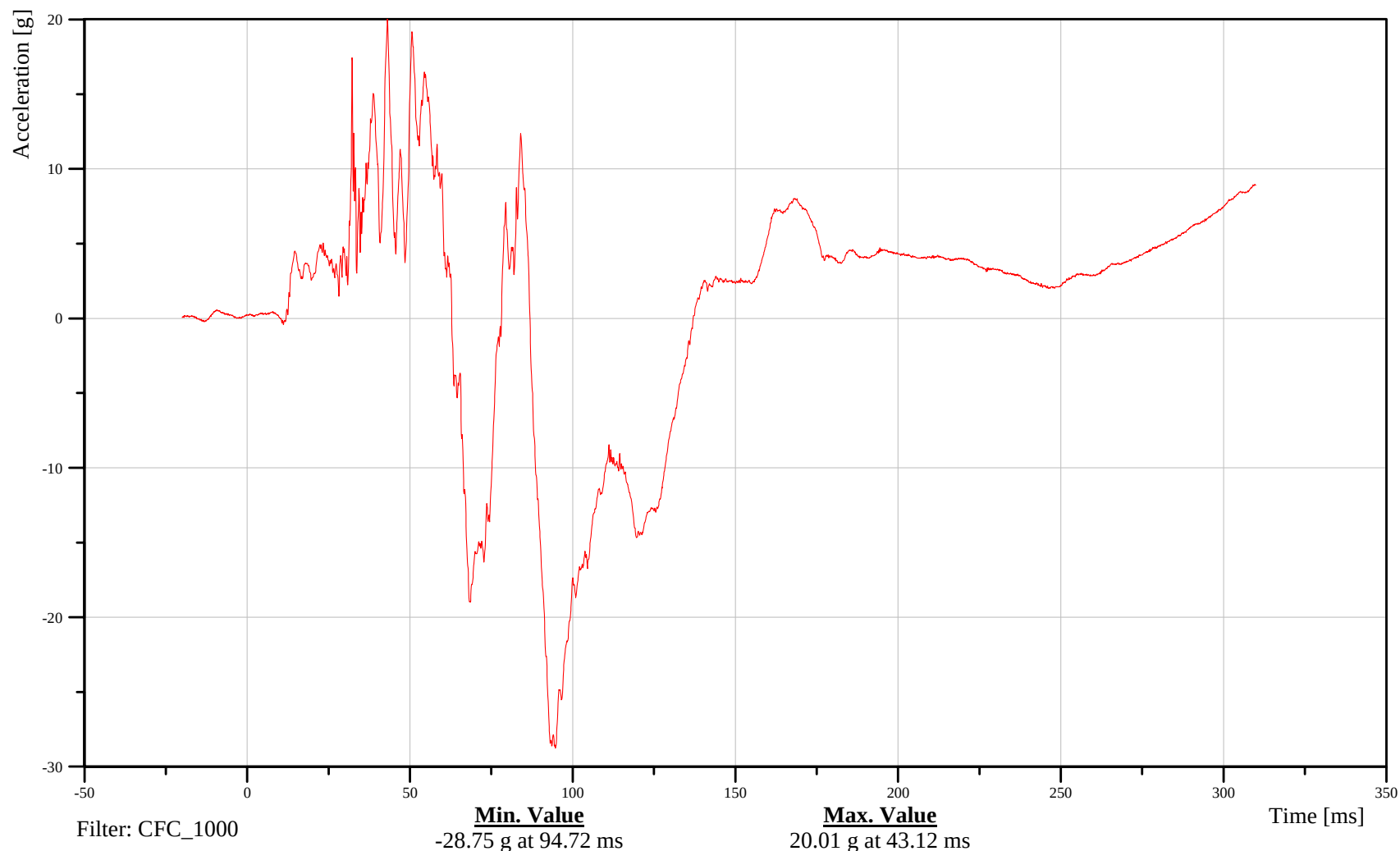
Target Passenger Redundant Head CG Z-Axis Acceleration

Customer: VRTC

23HEADCGRDHFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

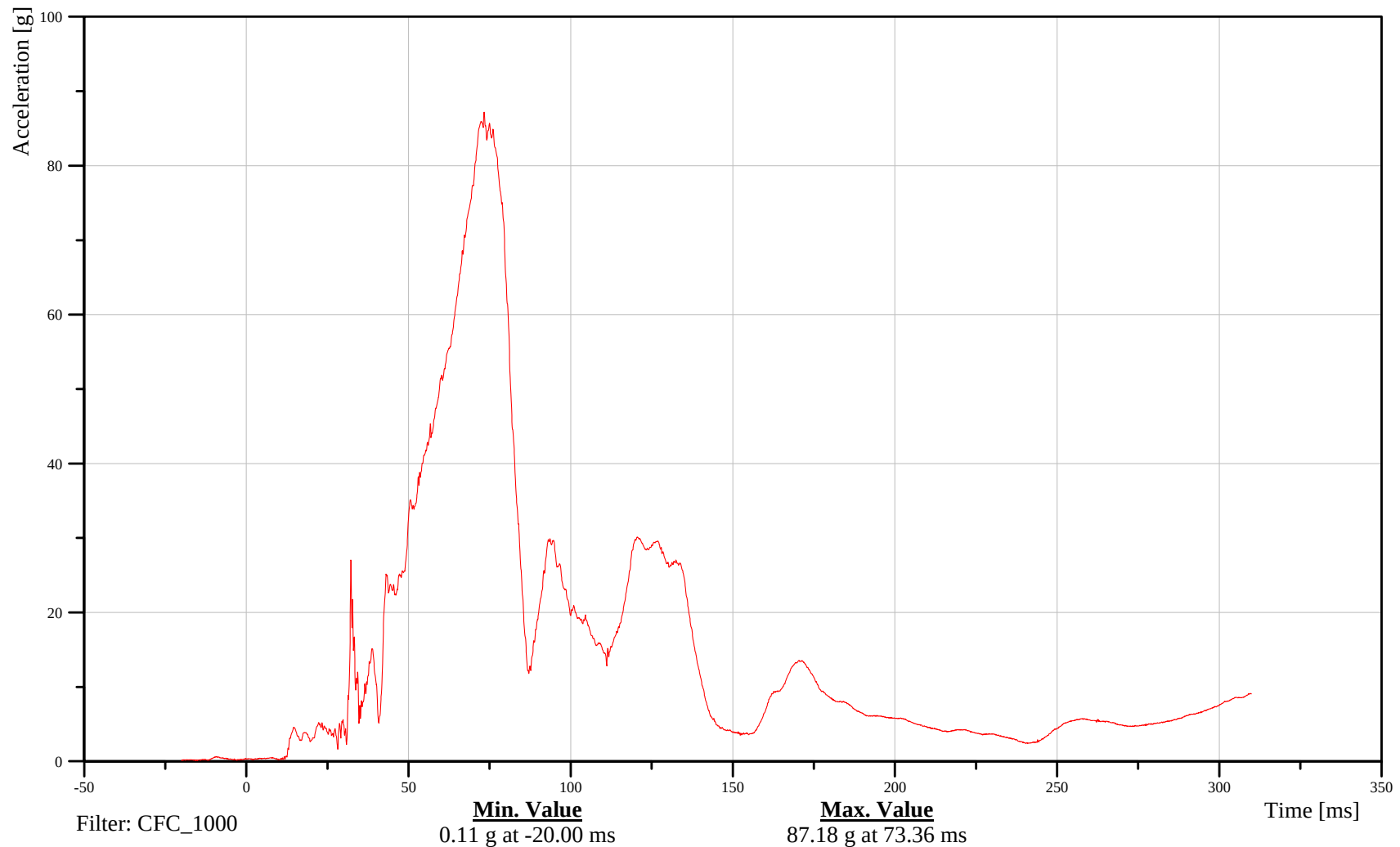
Target Passenger Redundant Head CG Resultant Acceleration

Customer: VRTC

23HEADCGRDHFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

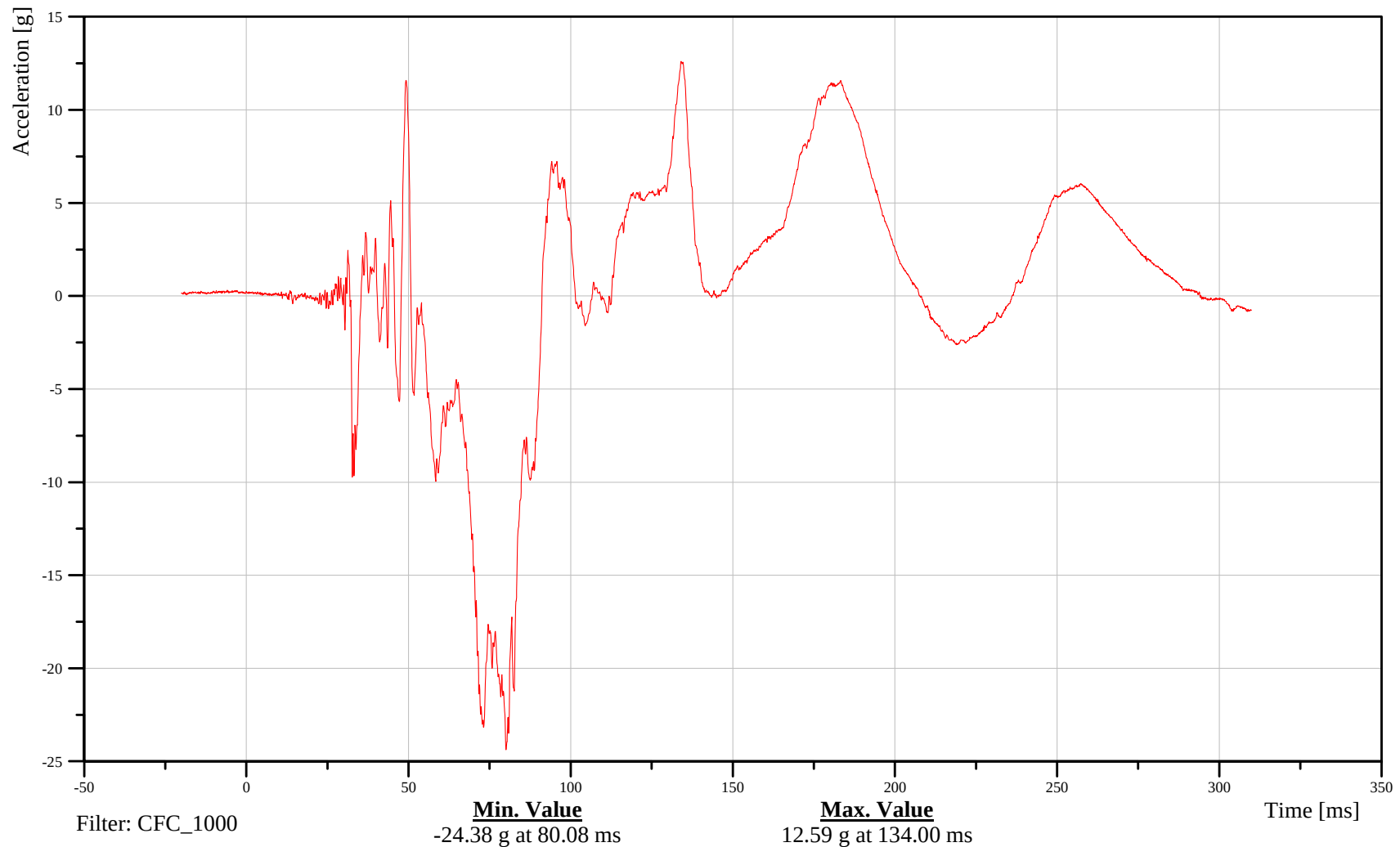
Target Passenger Head Front Y-Axis Acceleration

Customer: VRTC

23HEADFR00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

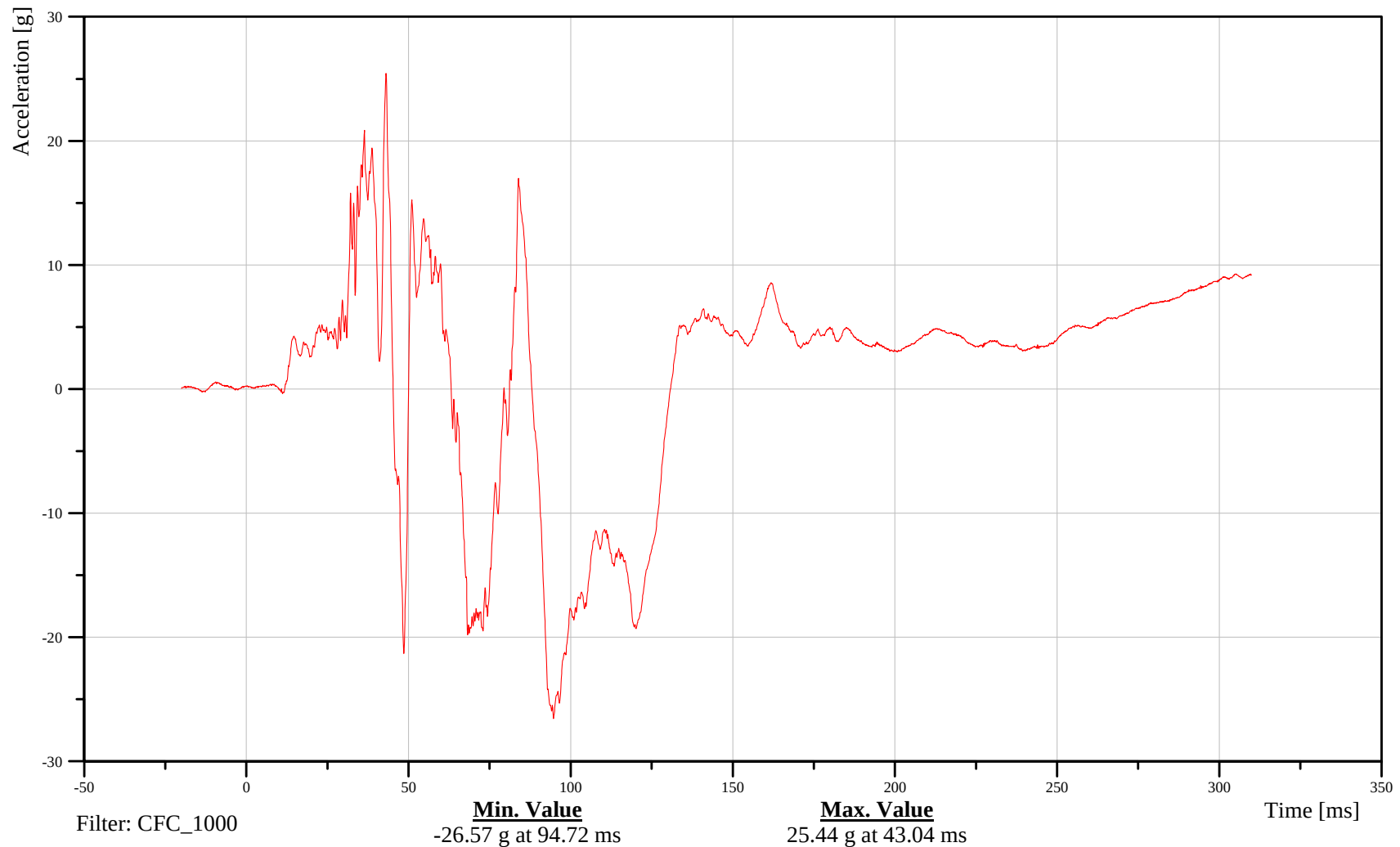
Target Passenger Head Front Z-Axis Acceleration

Customer: VRTC

23HEADFR00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

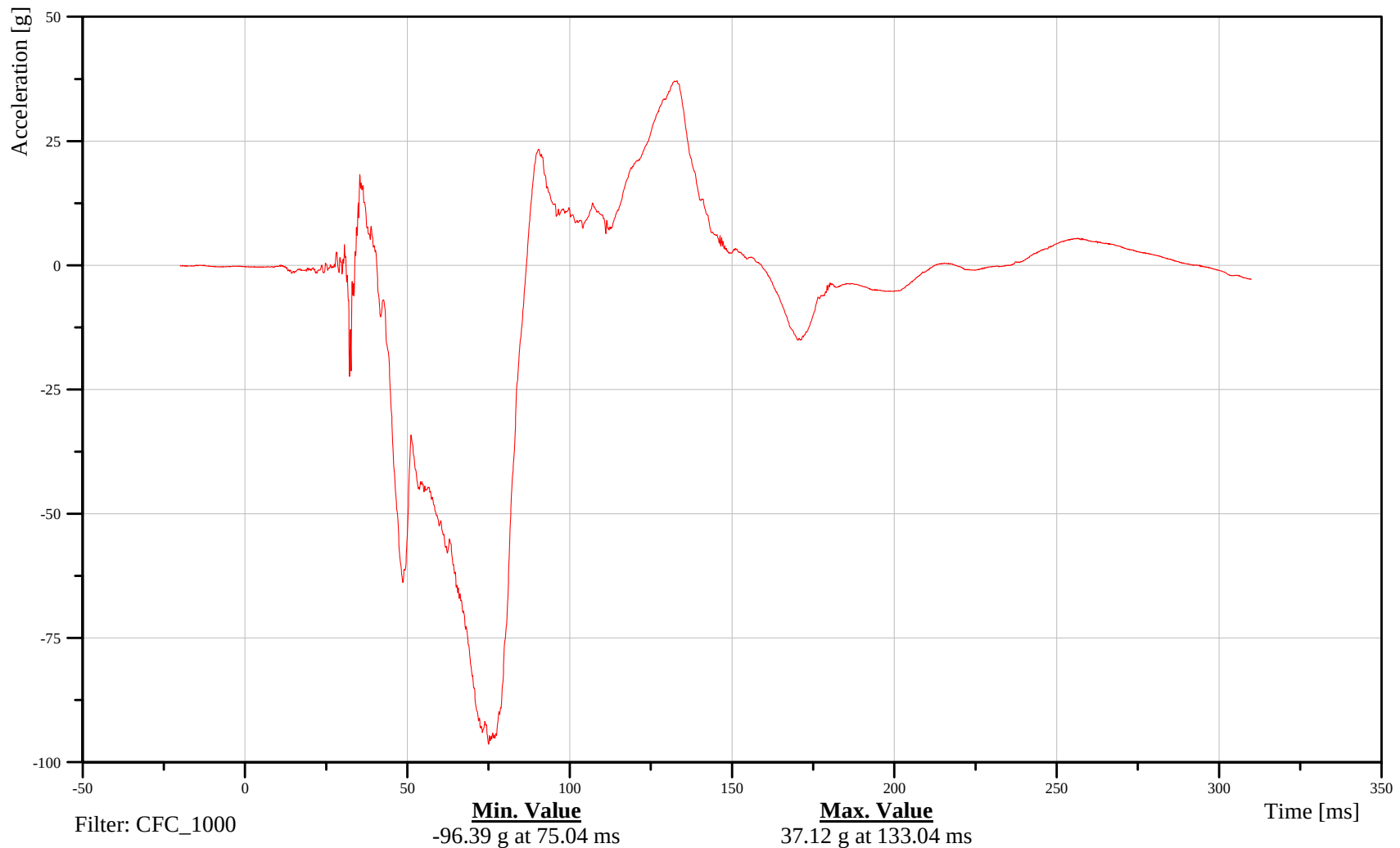
Target Passenger Head Top X-Axis Acceleration

Customer: VRTC

23HEADUP00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

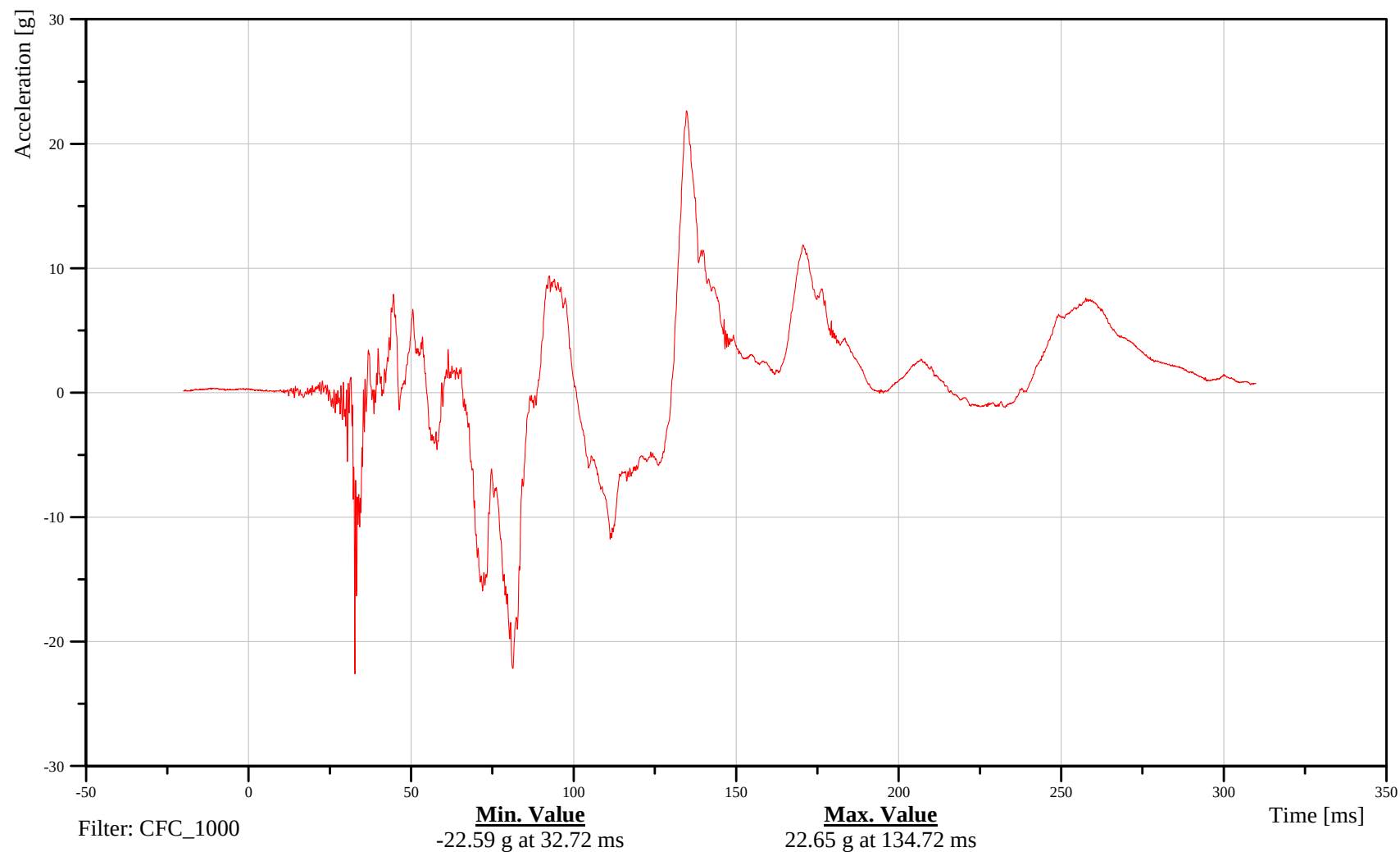
Target Passenger Head Top Y-Axis Acceleration

Customer: VRTC

23HEADUP00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Passenger Head Side X-Axis Acceleration

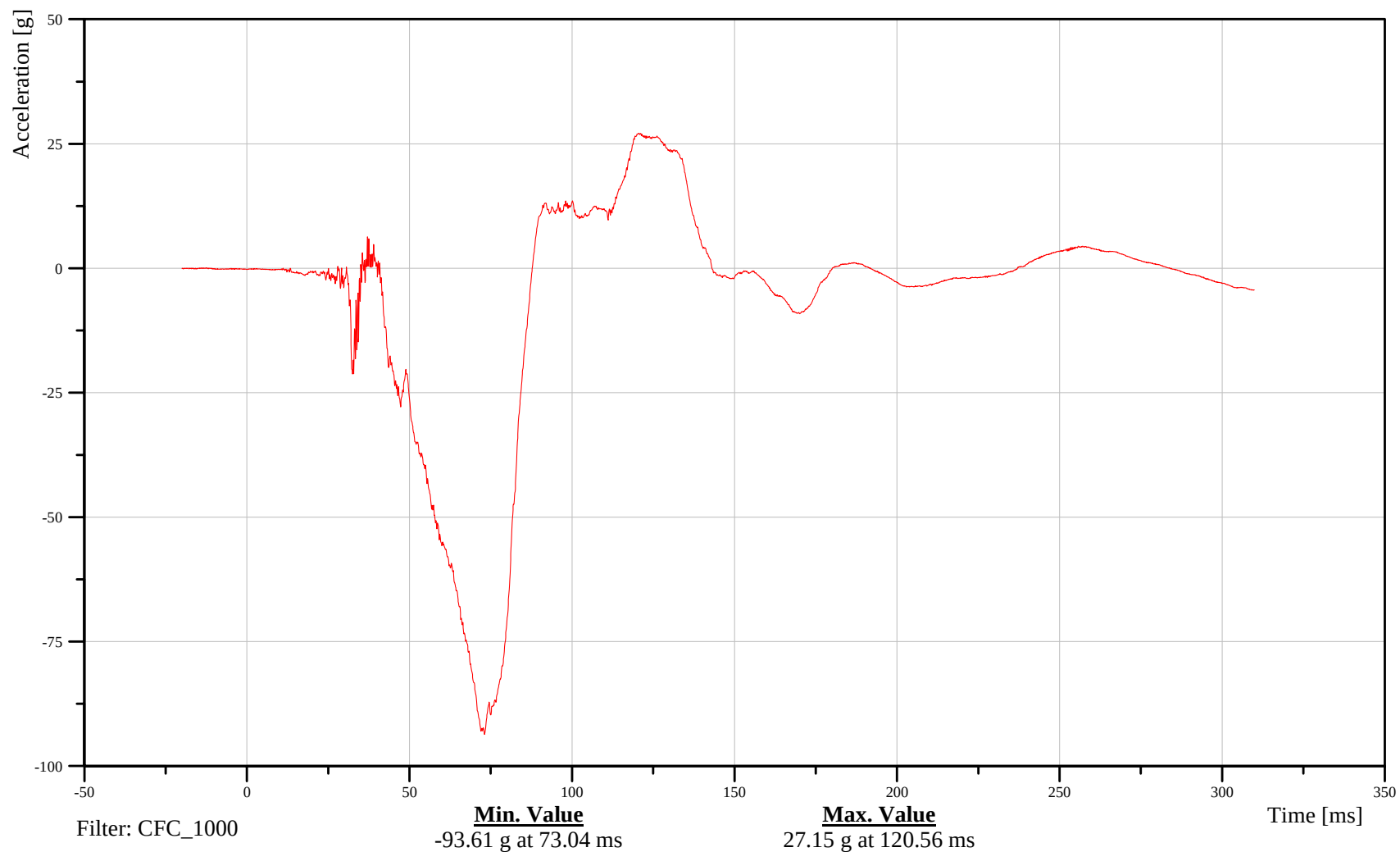
Time: 07:16

Customer: VRTC

23HEADLE00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

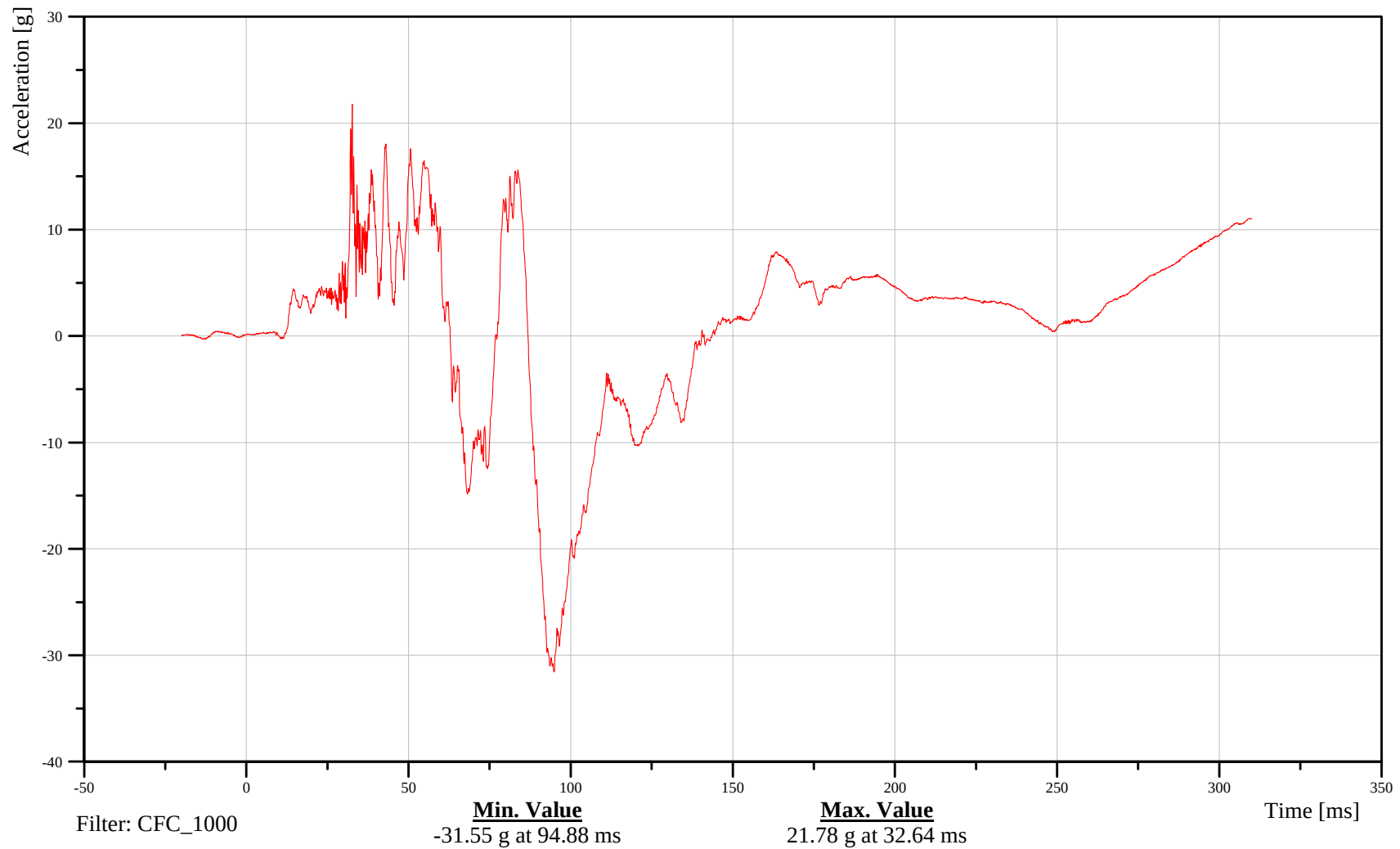
Target Passenger Head Side Z-Axis Acceleration

Customer: VRTC

23HEADLE00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

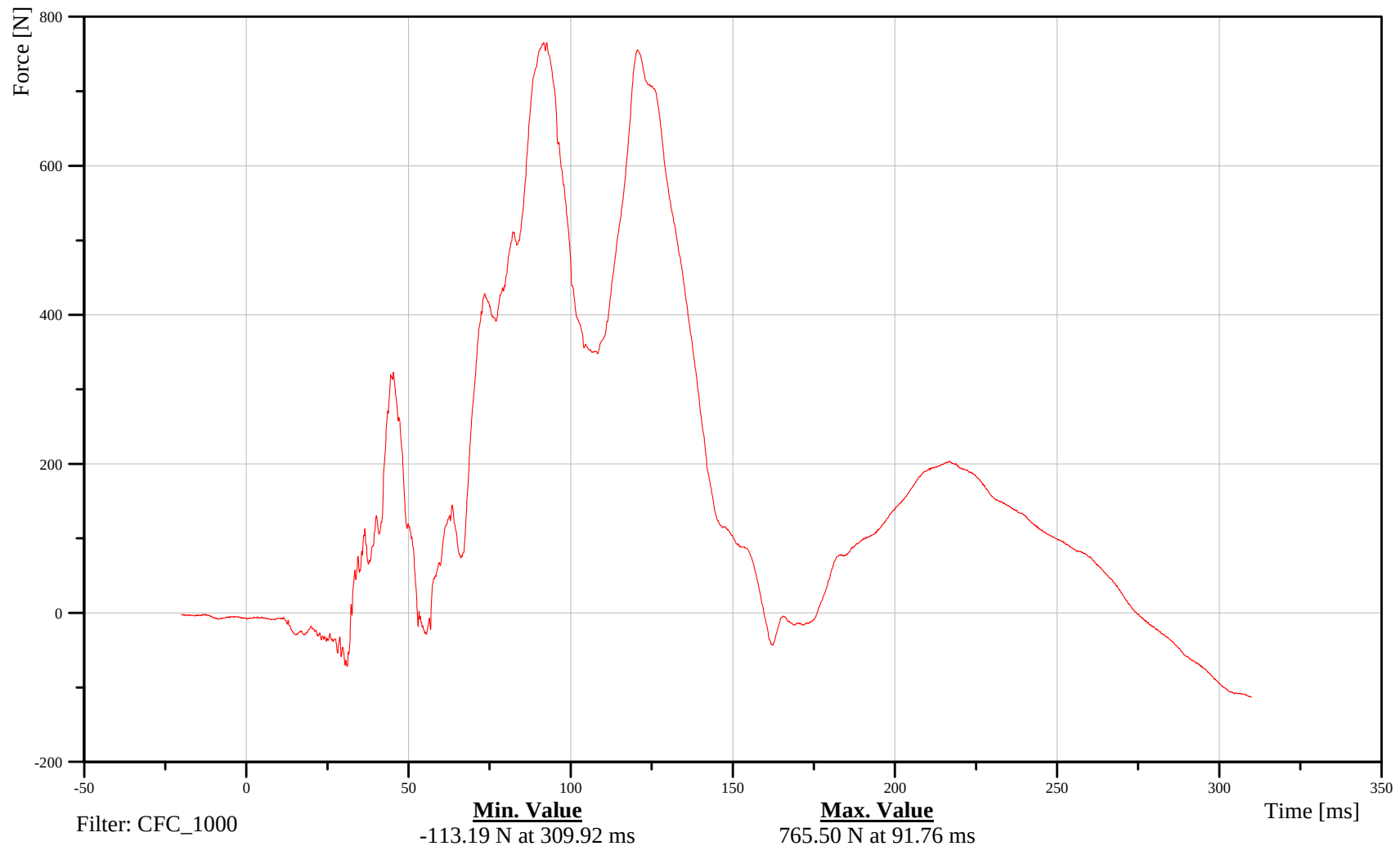
Target Passenger Upper Neck X-Axis Force

Customer: VRTC

23NECKUP00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

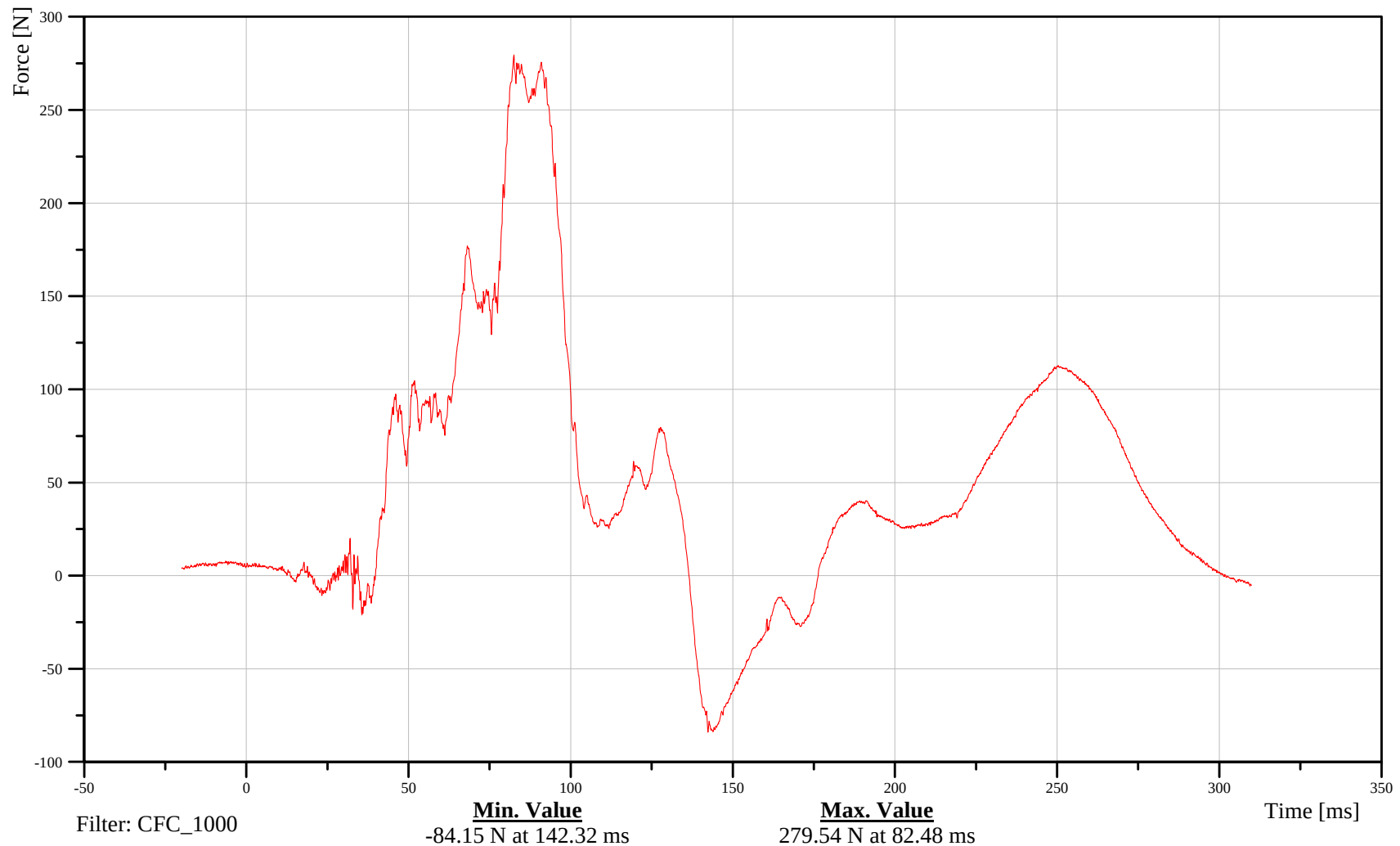
Target Passenger Upper Neck Y-Axis Force

Customer: VRTC

23NECKUP00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

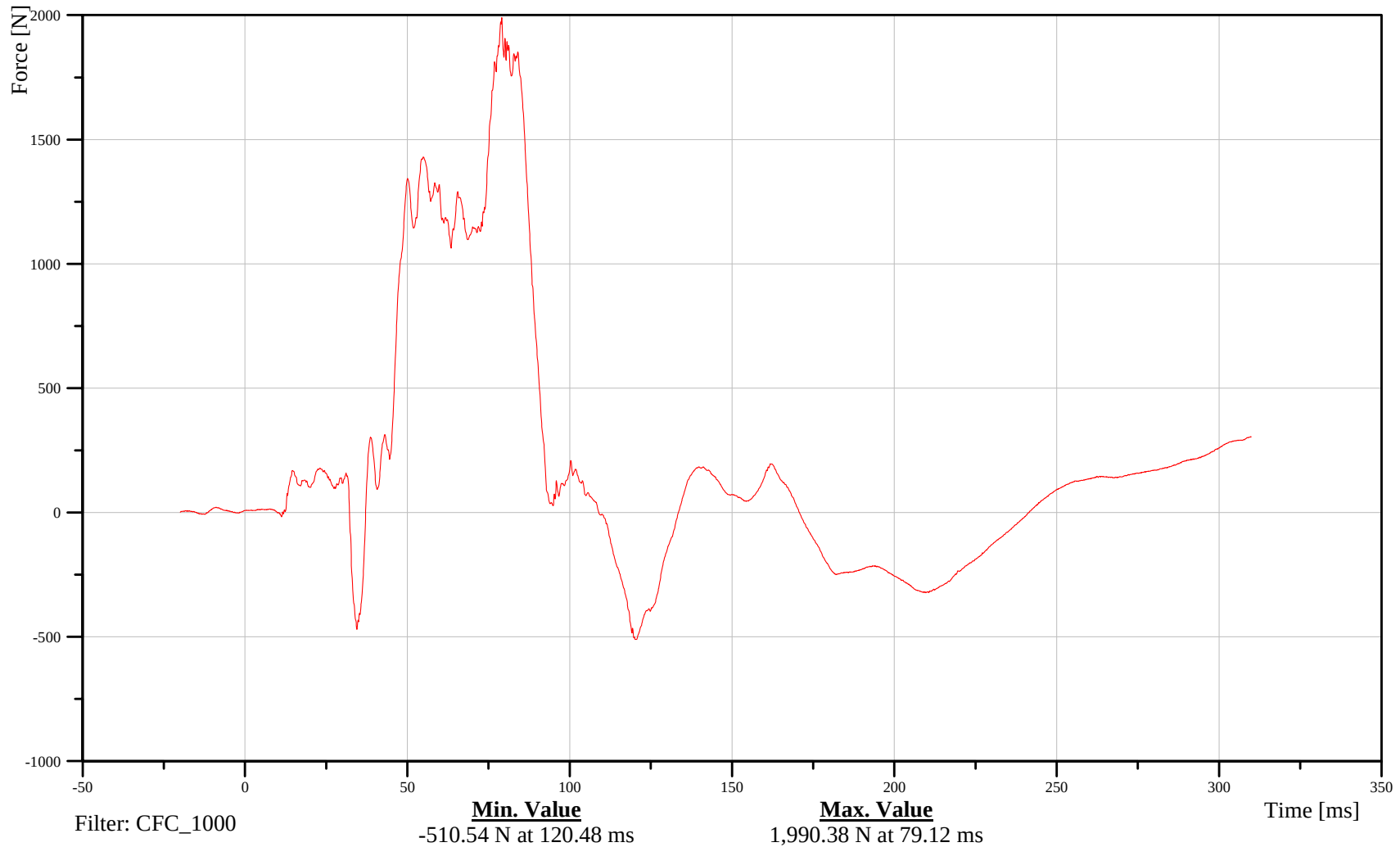
Target Passenger Upper Neck Z-Axis Force

Customer: VRTC

23NECKUP00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

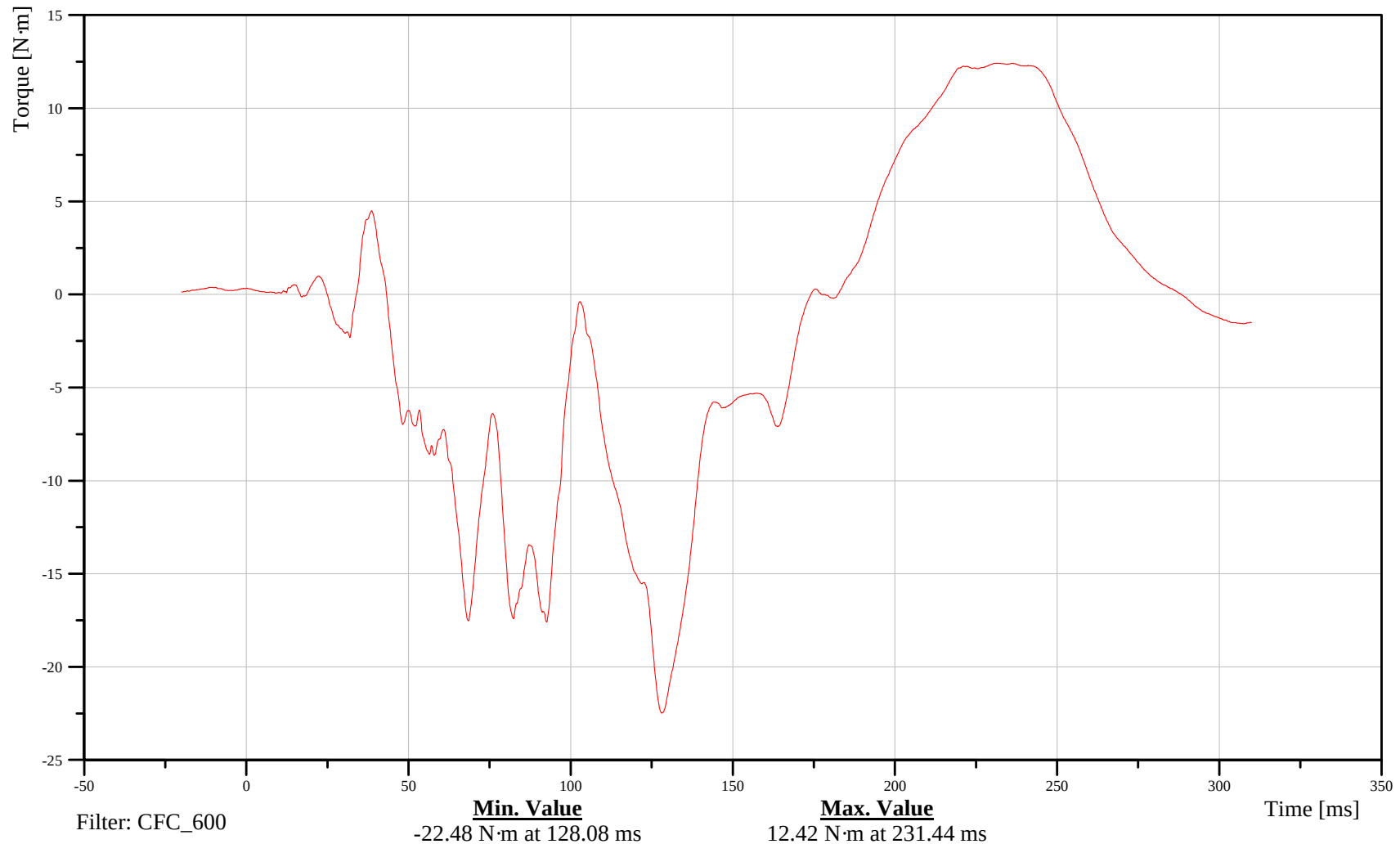
Target Passenger Upper Neck Moment About X Axis

Customer: VRTC

23NECKUP00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

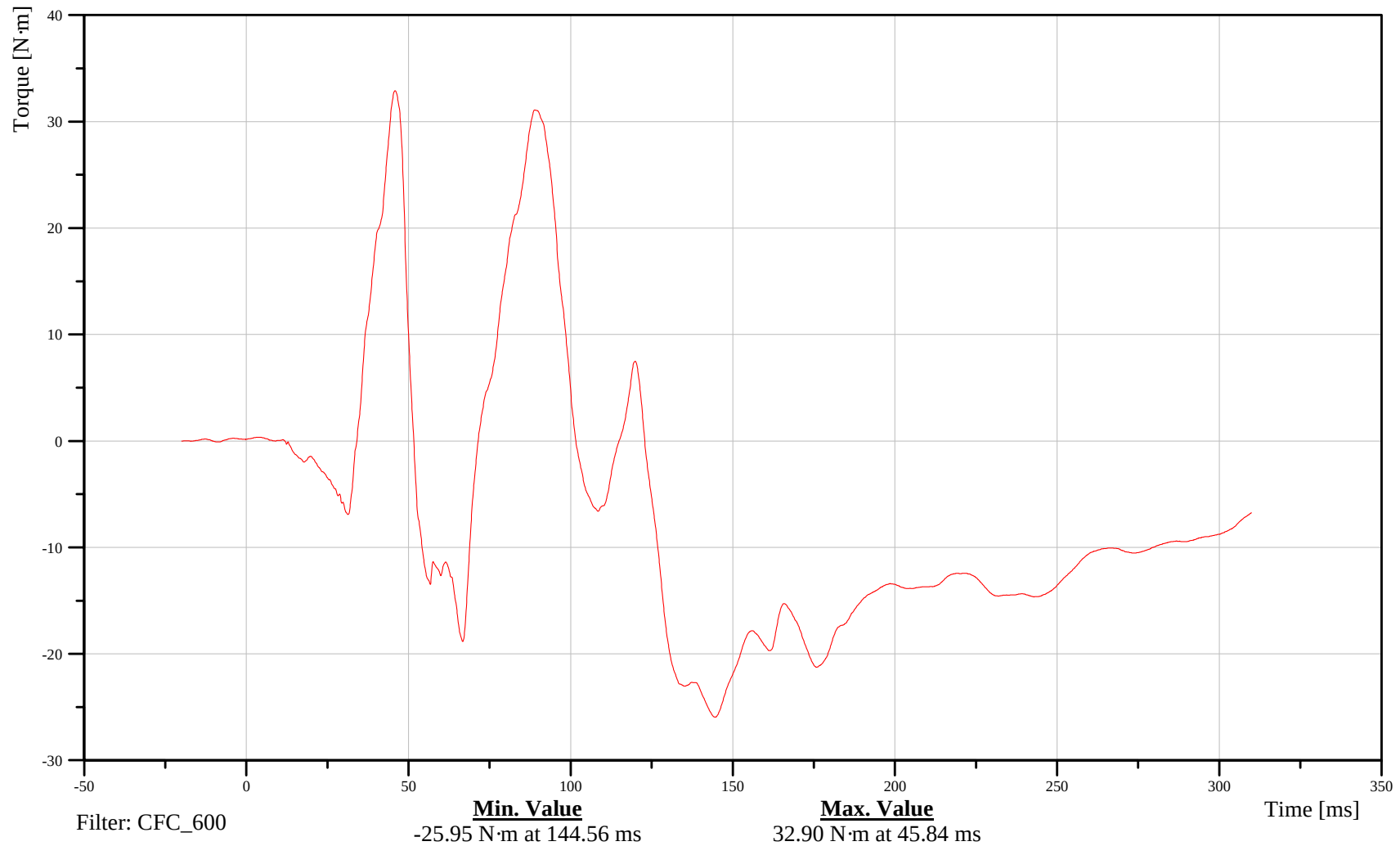
Target Passenger Upper Neck Moment About Y Axis

Customer: VRTC

23NECKUP00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

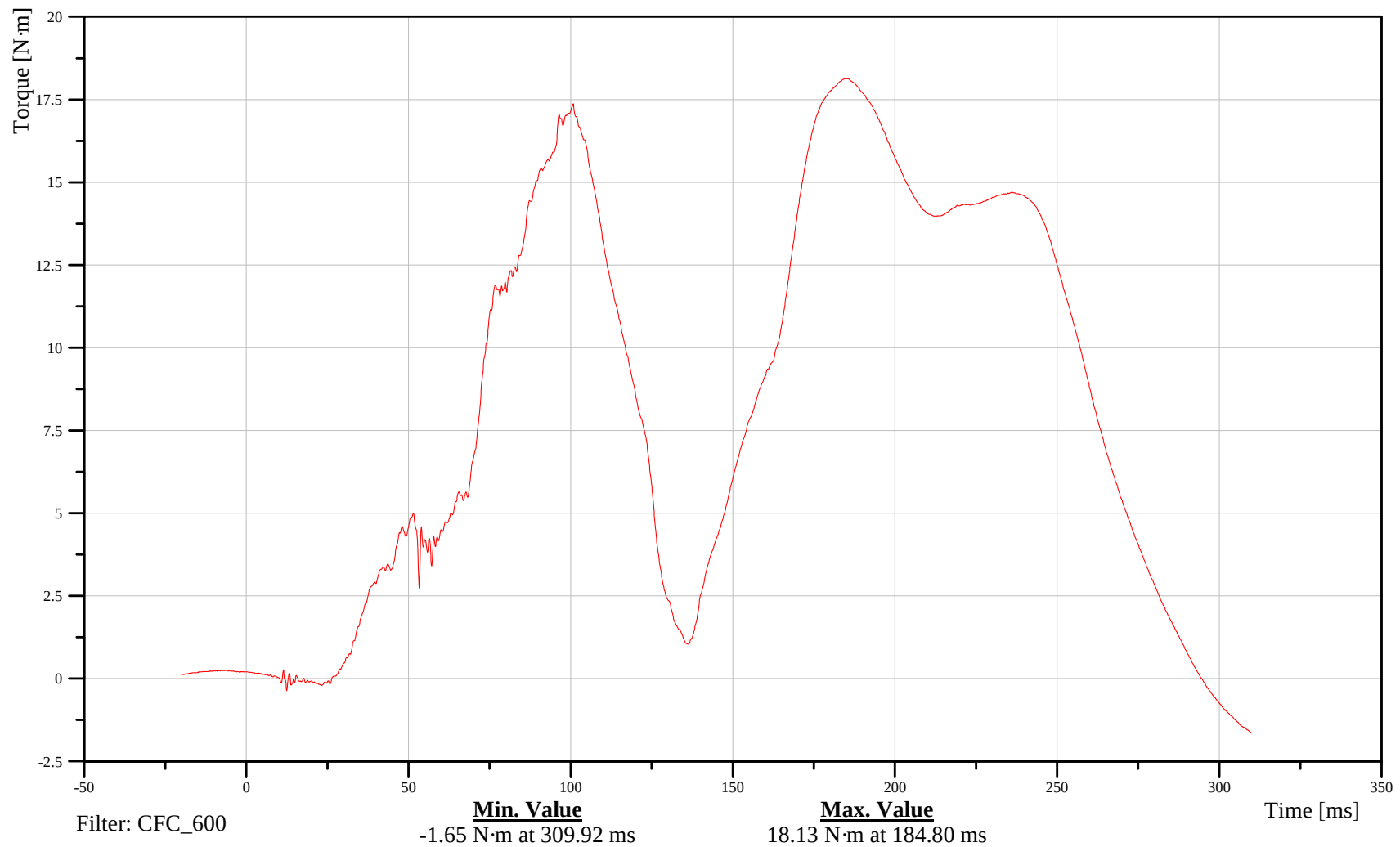
Target Passenger Upper Neck Moment About Z Axis

Customer: VRTC

23NECKUP00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

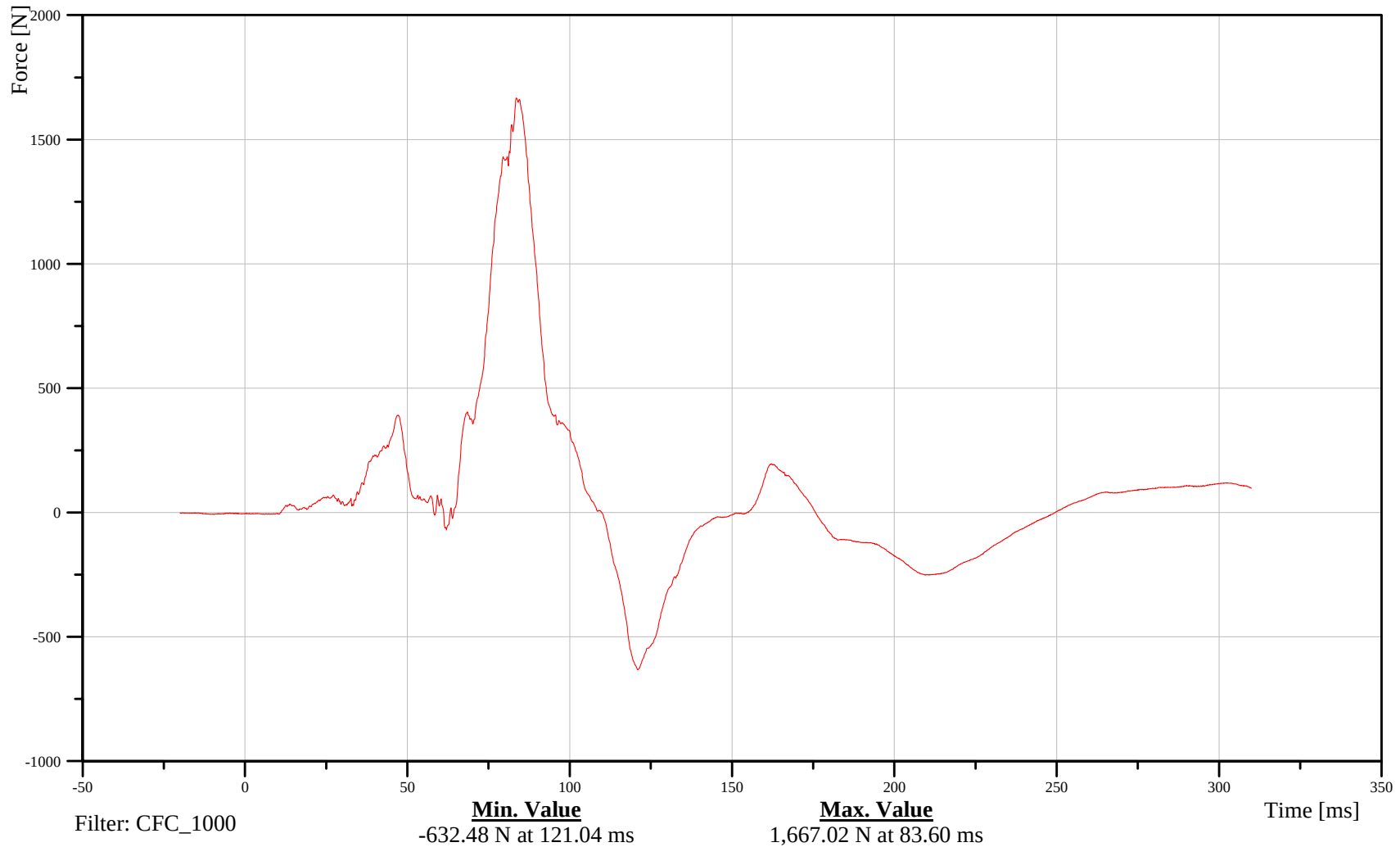
Target Passenger Lower Neck X-Axis Force

Customer: VRTC

23NECKLO00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

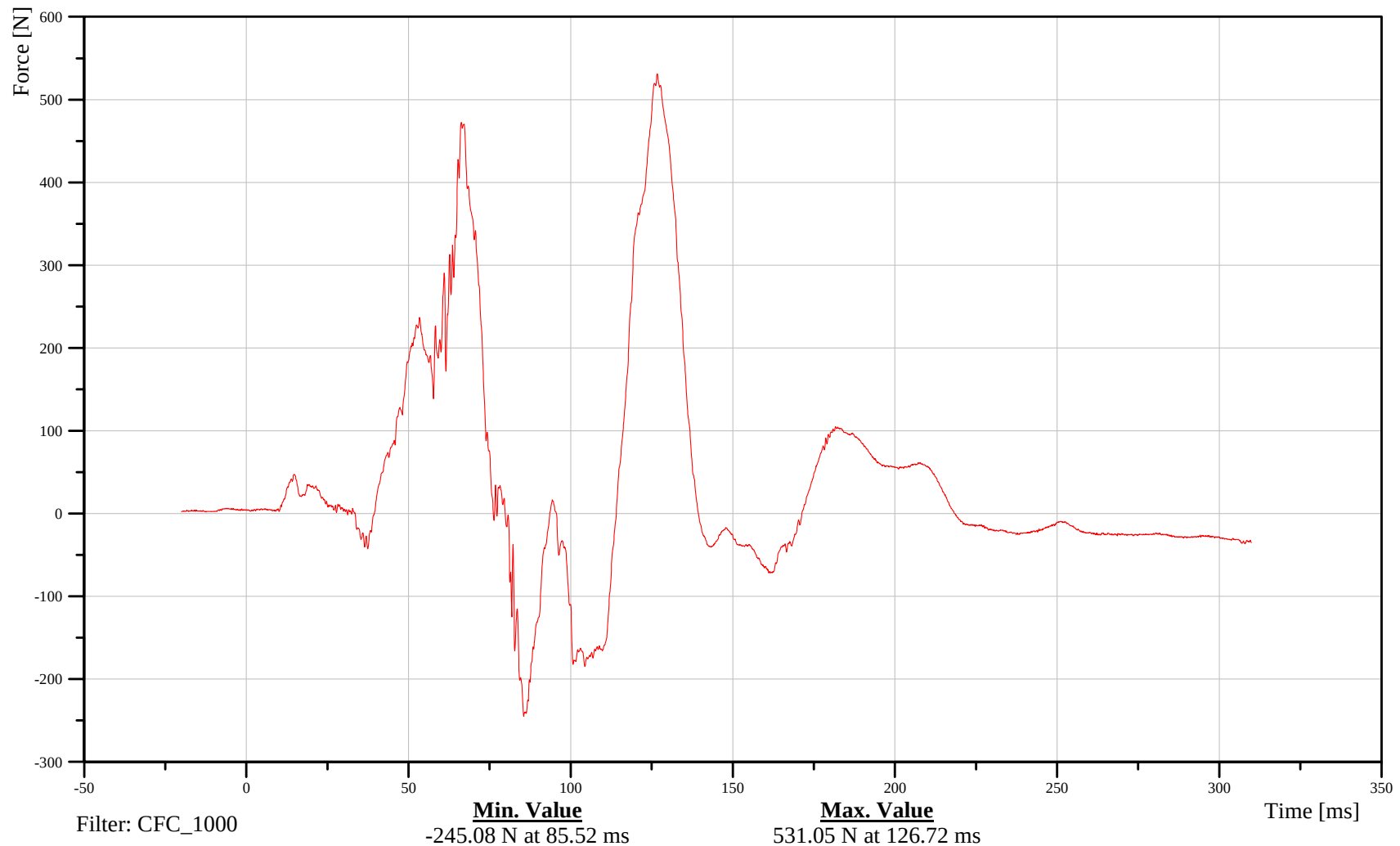
Target Passenger Lower Neck Y-Axis Force

Customer: VRTC

23NECKLO00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

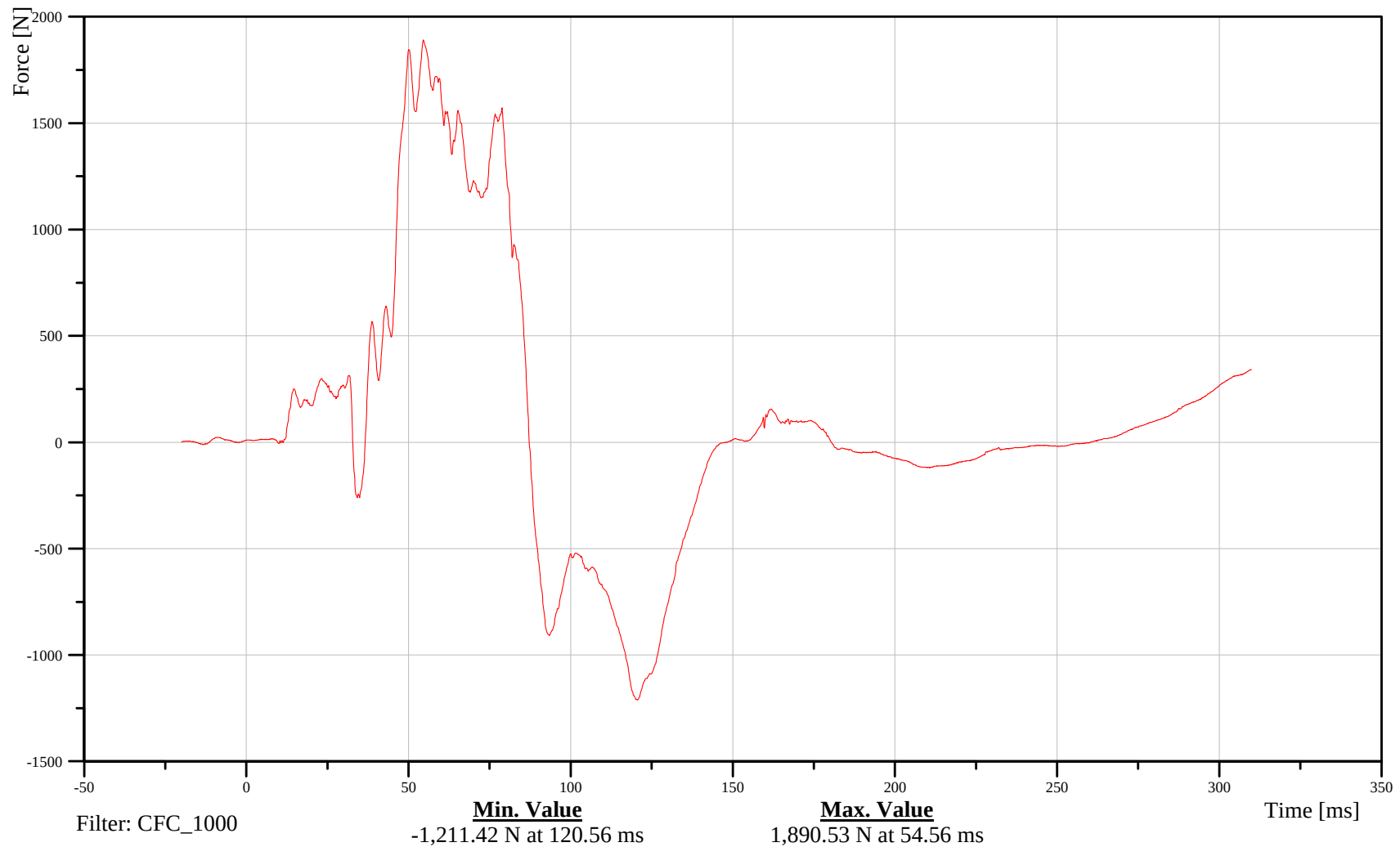
Target Passenger Lower Neck Z-Axis Force

Customer: VRTC

23NECKLO00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

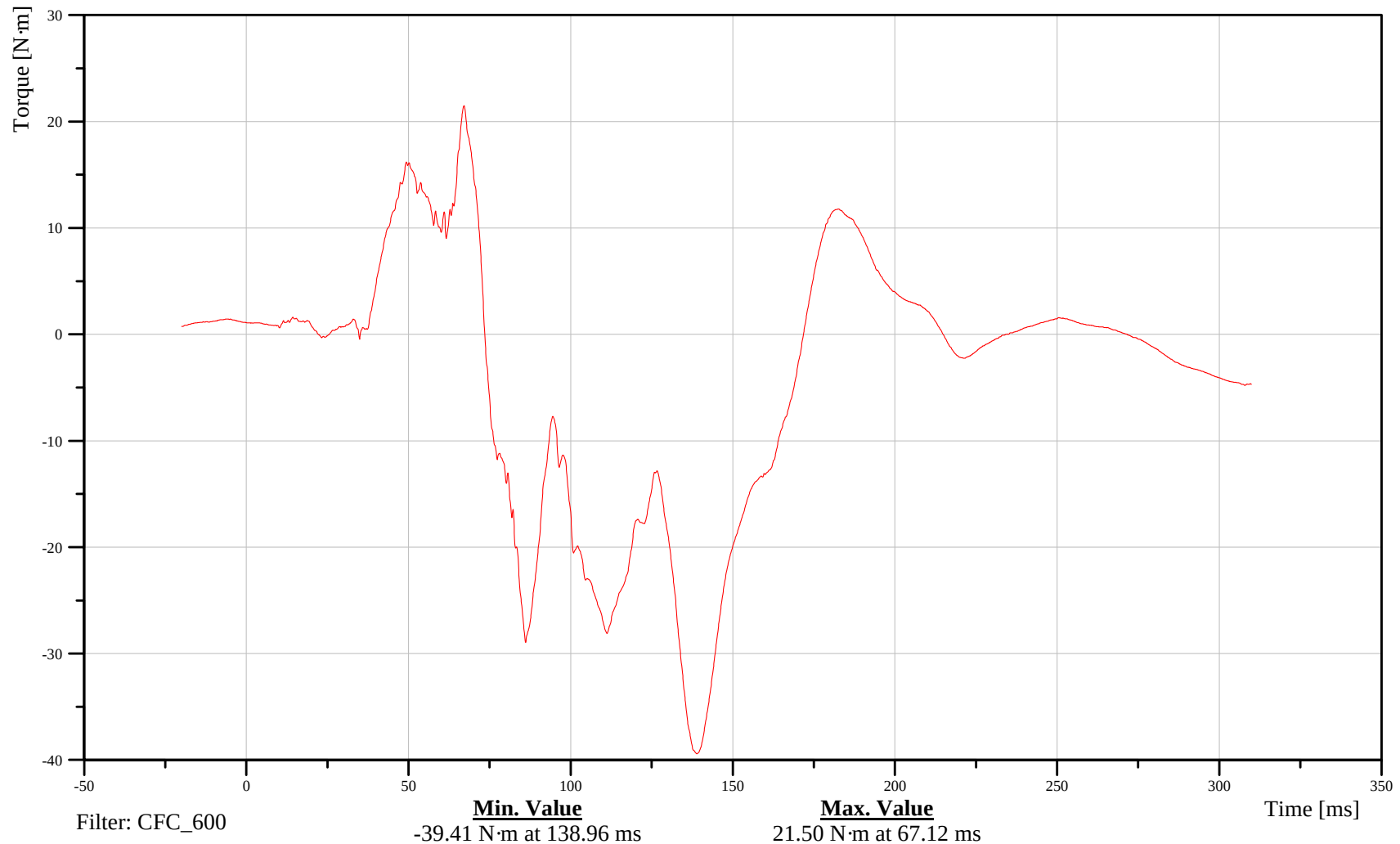
Target Passenger Lower Neck Moment About X Axis

Customer: VRTC

23NECKLO00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

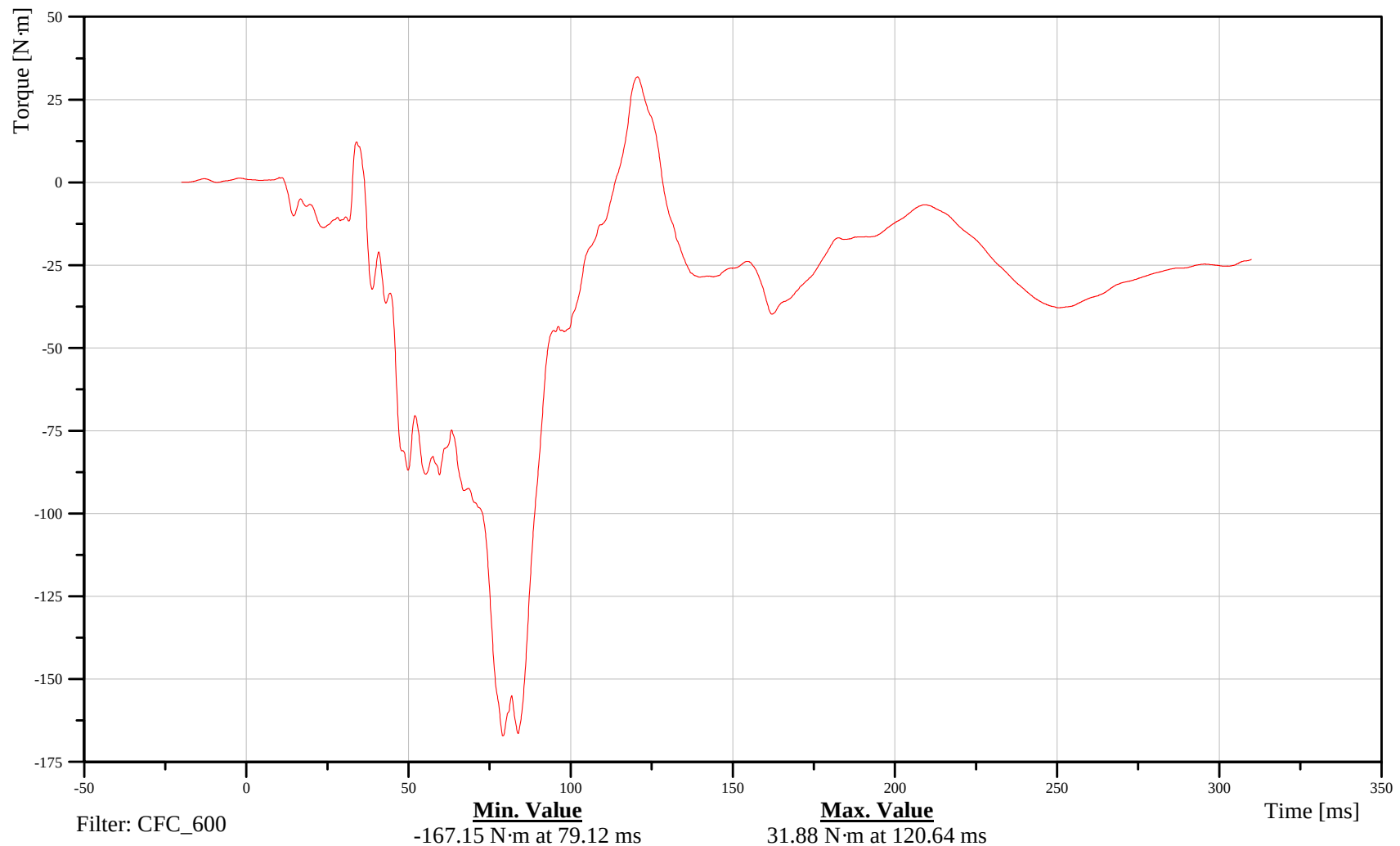
Target Passenger Lower Neck Moment About Y Axis

Customer: VRTC

23NECKLO00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

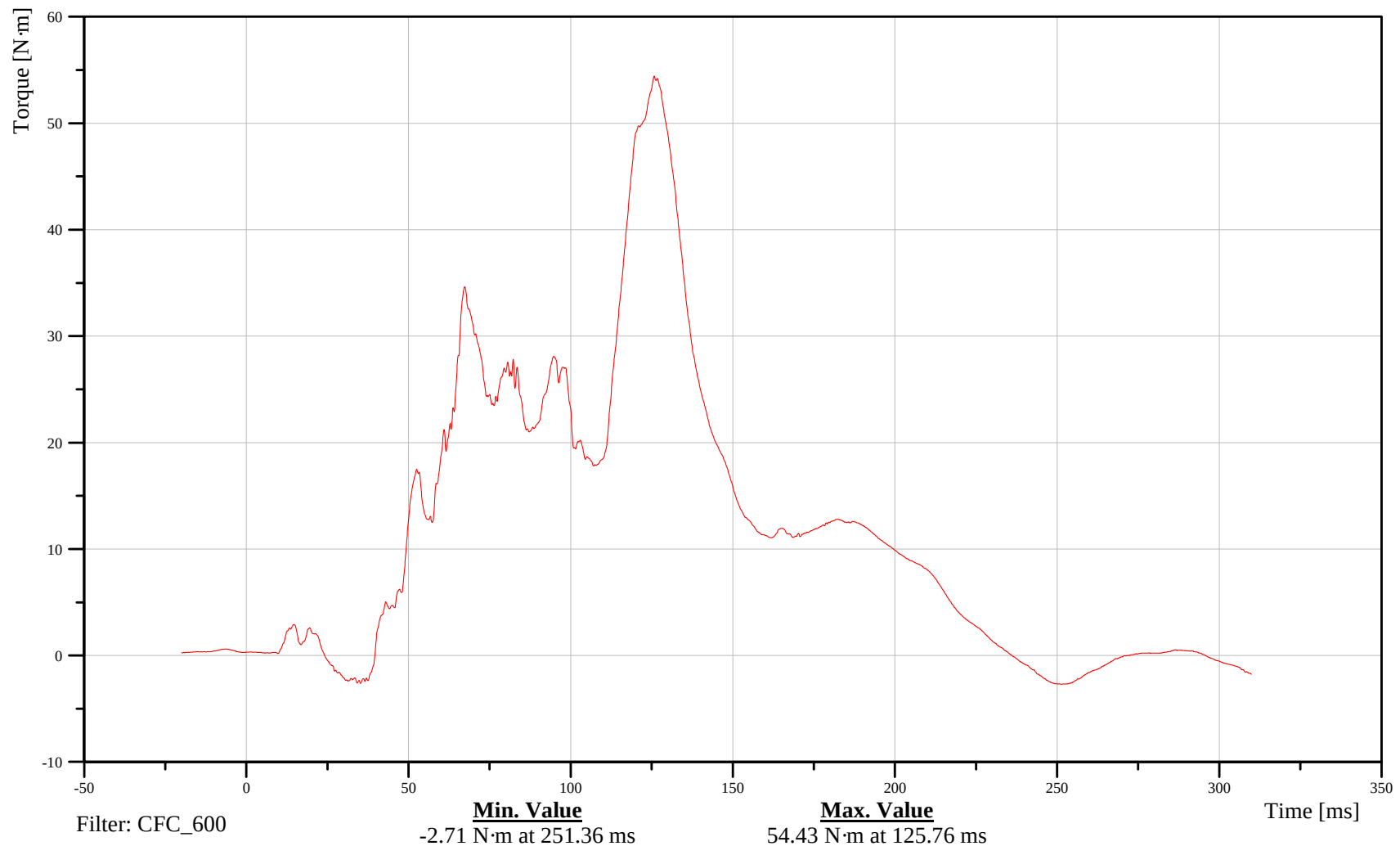
Target Passenger Lower Neck Moment About Z Axis

Customer: VRTC

23NECKLO00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

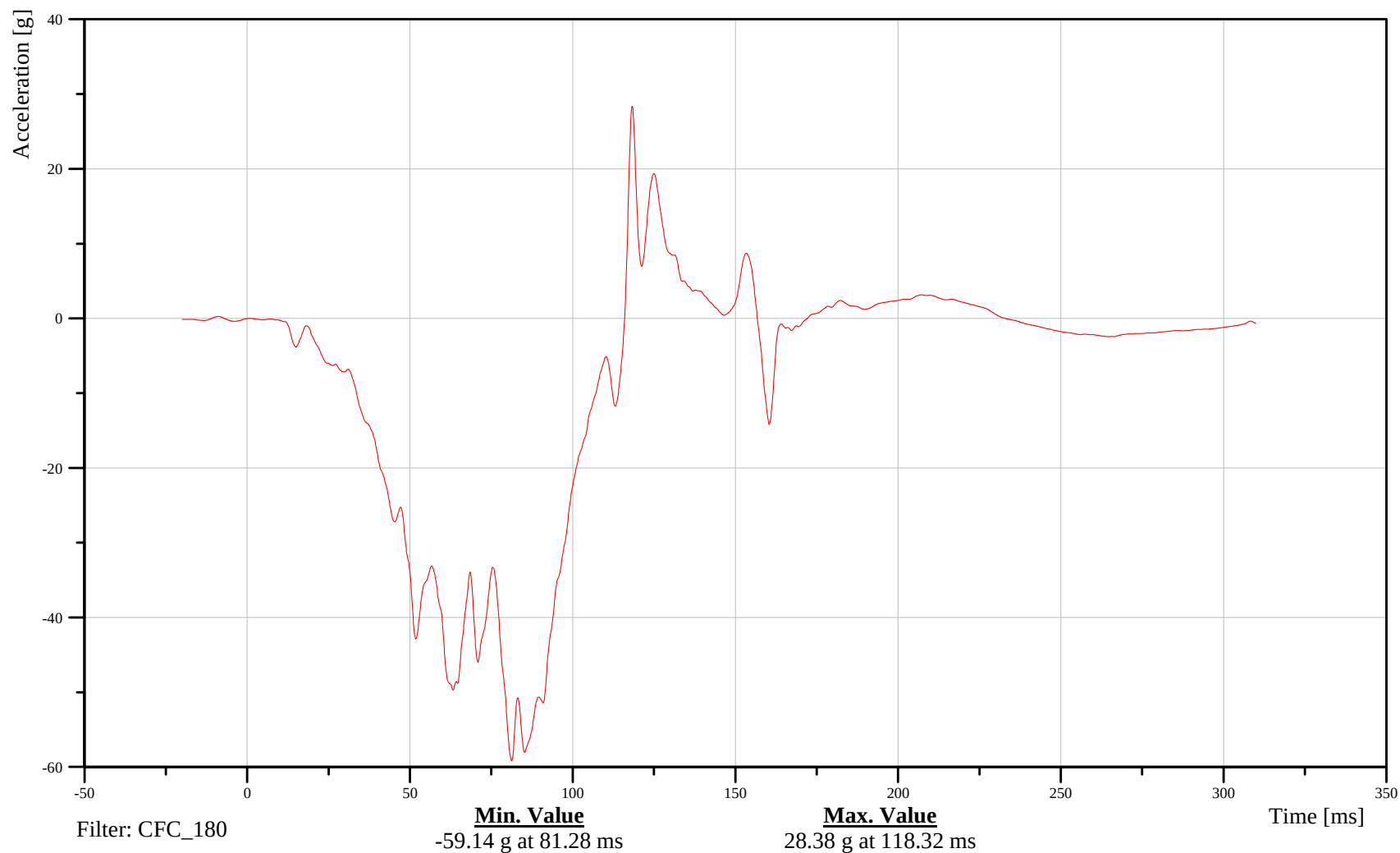
Target Passenger Chest CG X-Axis Acceleration

Customer: VRTC

23CHSTCG00HFACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Passenger Chest CG Y-Axis Acceleration

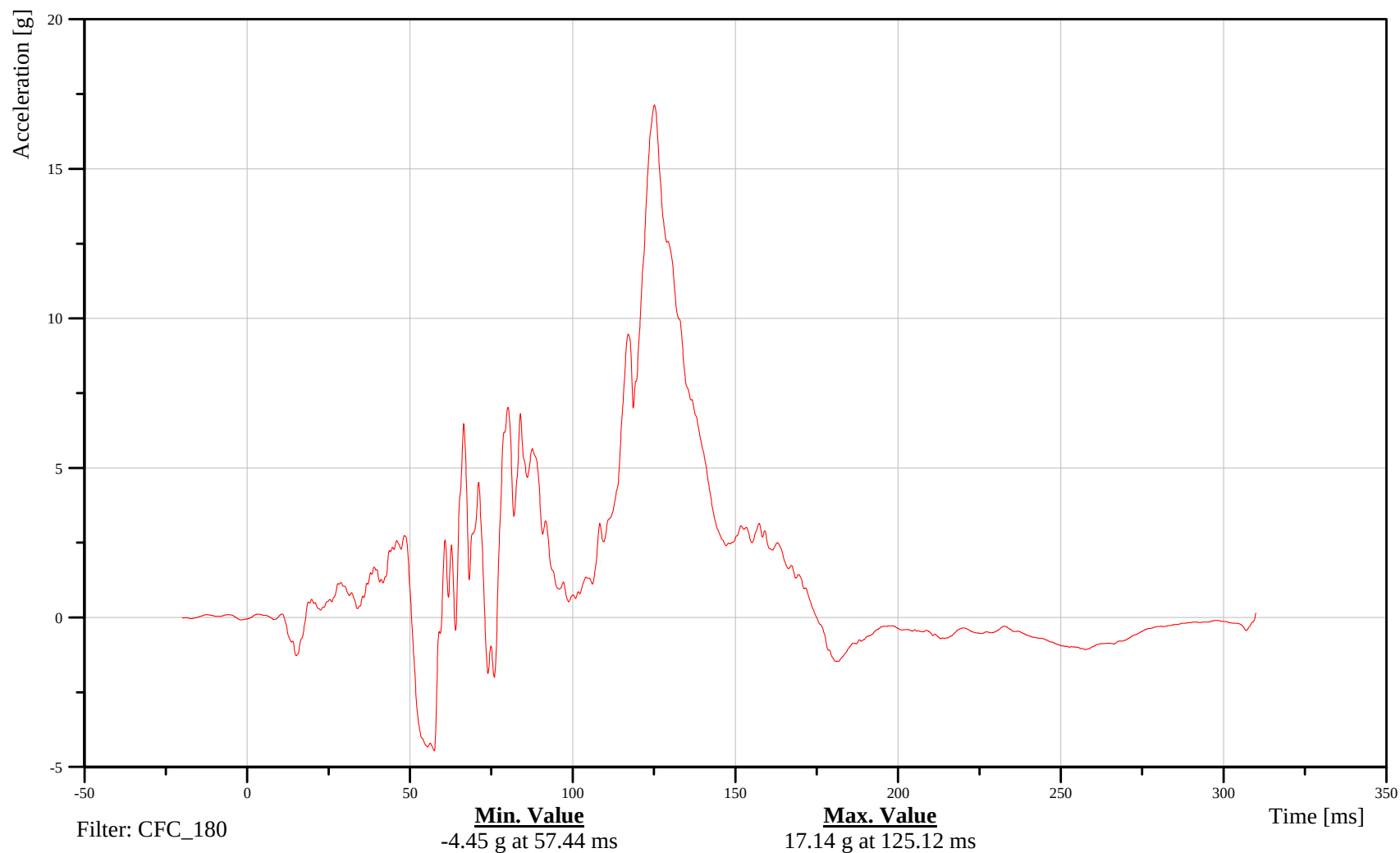
Time: 07:16

Customer: VRTC

23CHSTCG00HFACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

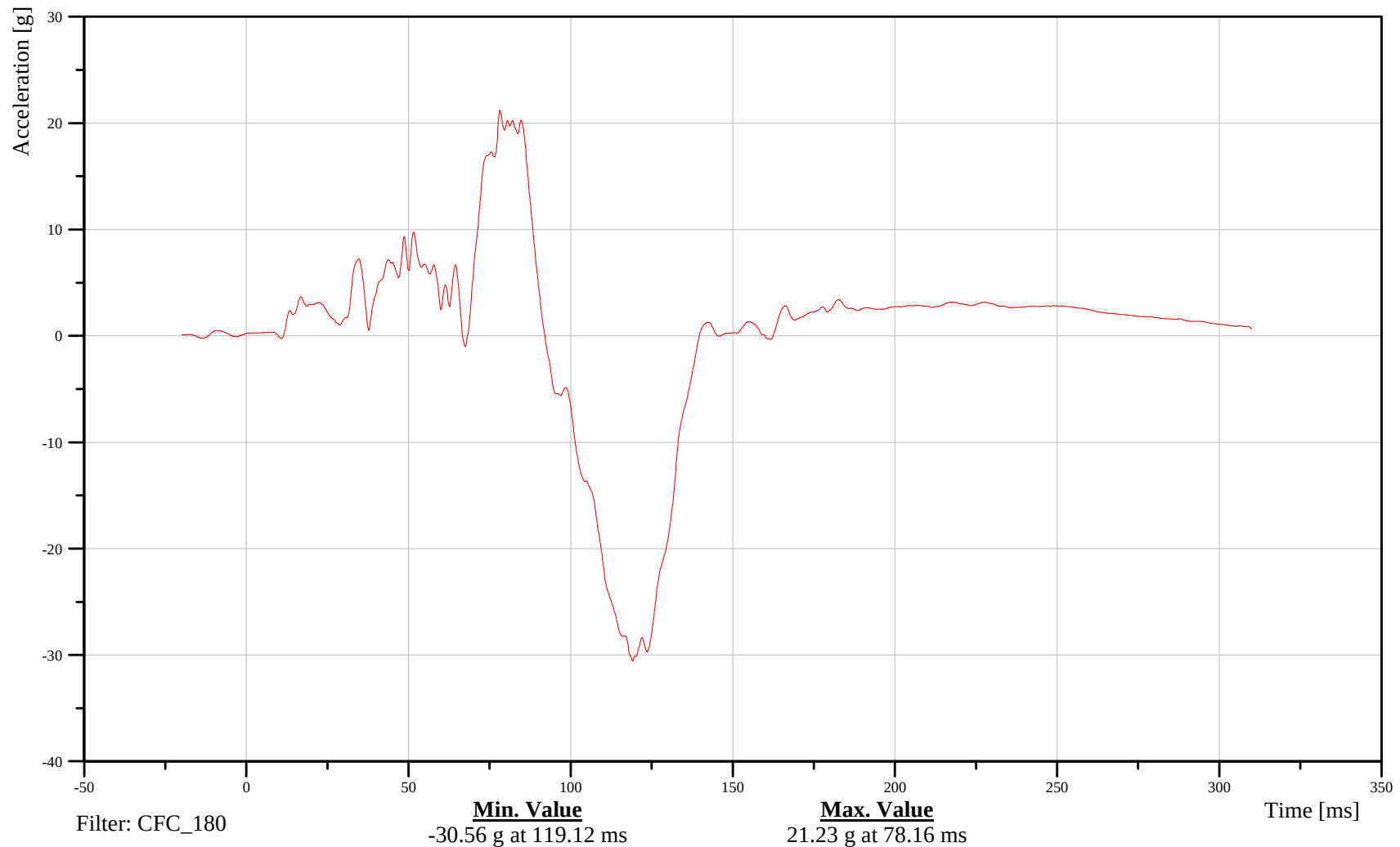
Target Passenger Chest CG Z-Axis Acceleration

Customer: VRTC

23CHSTCG00HFACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

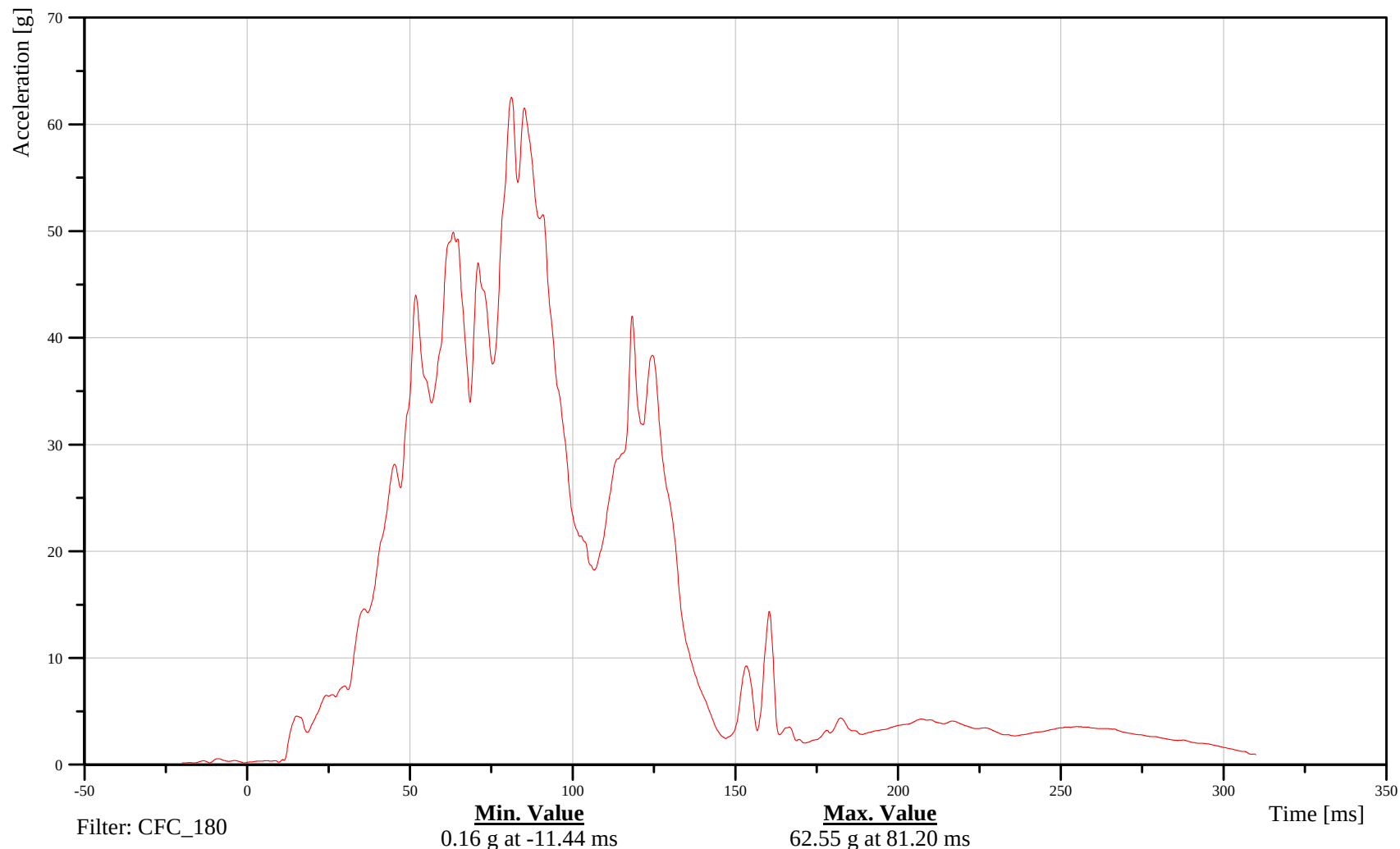
Target Passenger Chest CG Resultant Acceleration

Customer: VRTC

23CHSTCG00HFACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

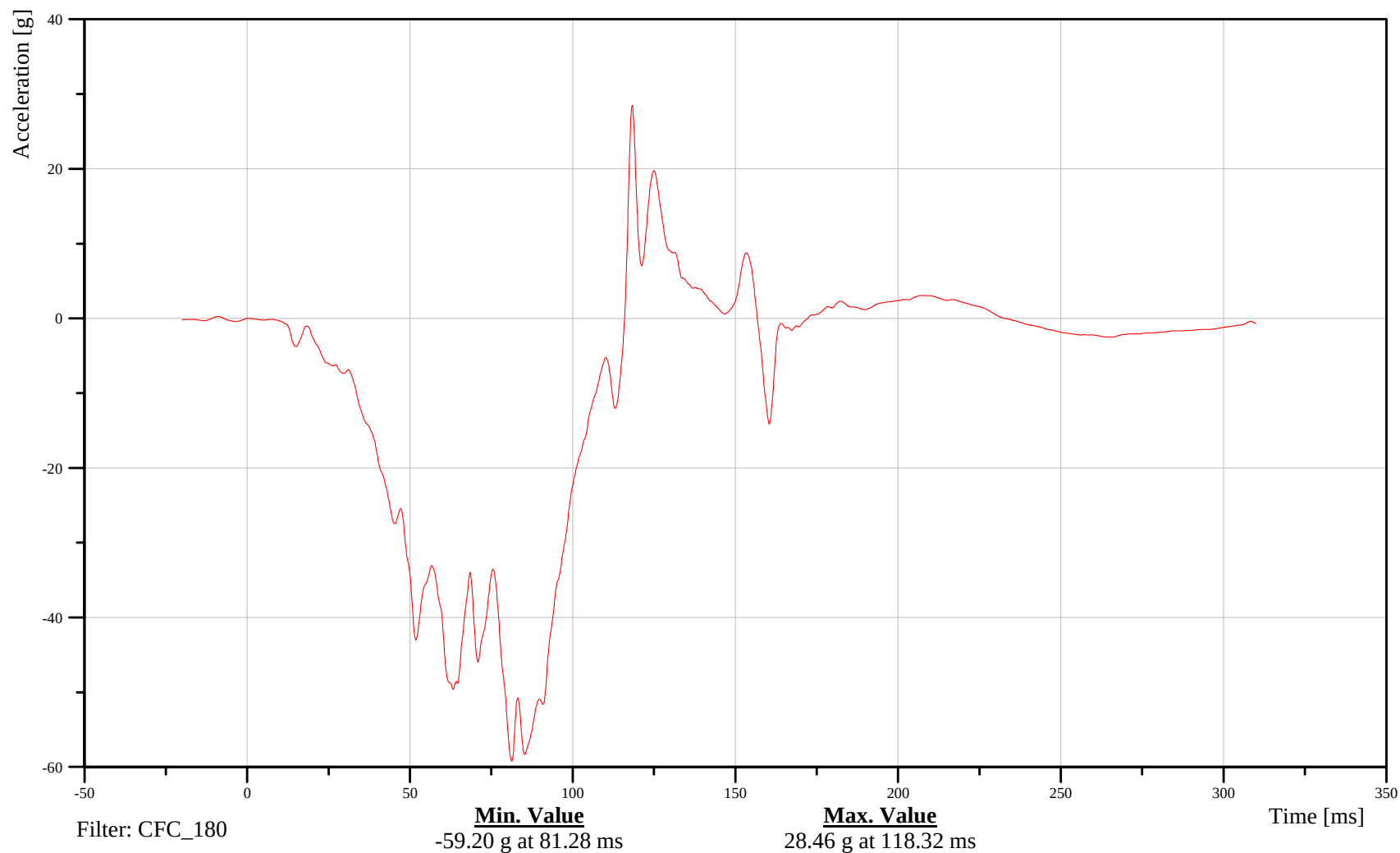
Target Passenger Redundant Chest CG X-Axis Acceleration

Customer: VRTC

23CHSTCGRDHFACXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Passenger Redundant Chest CG Y-Axis Acceleration

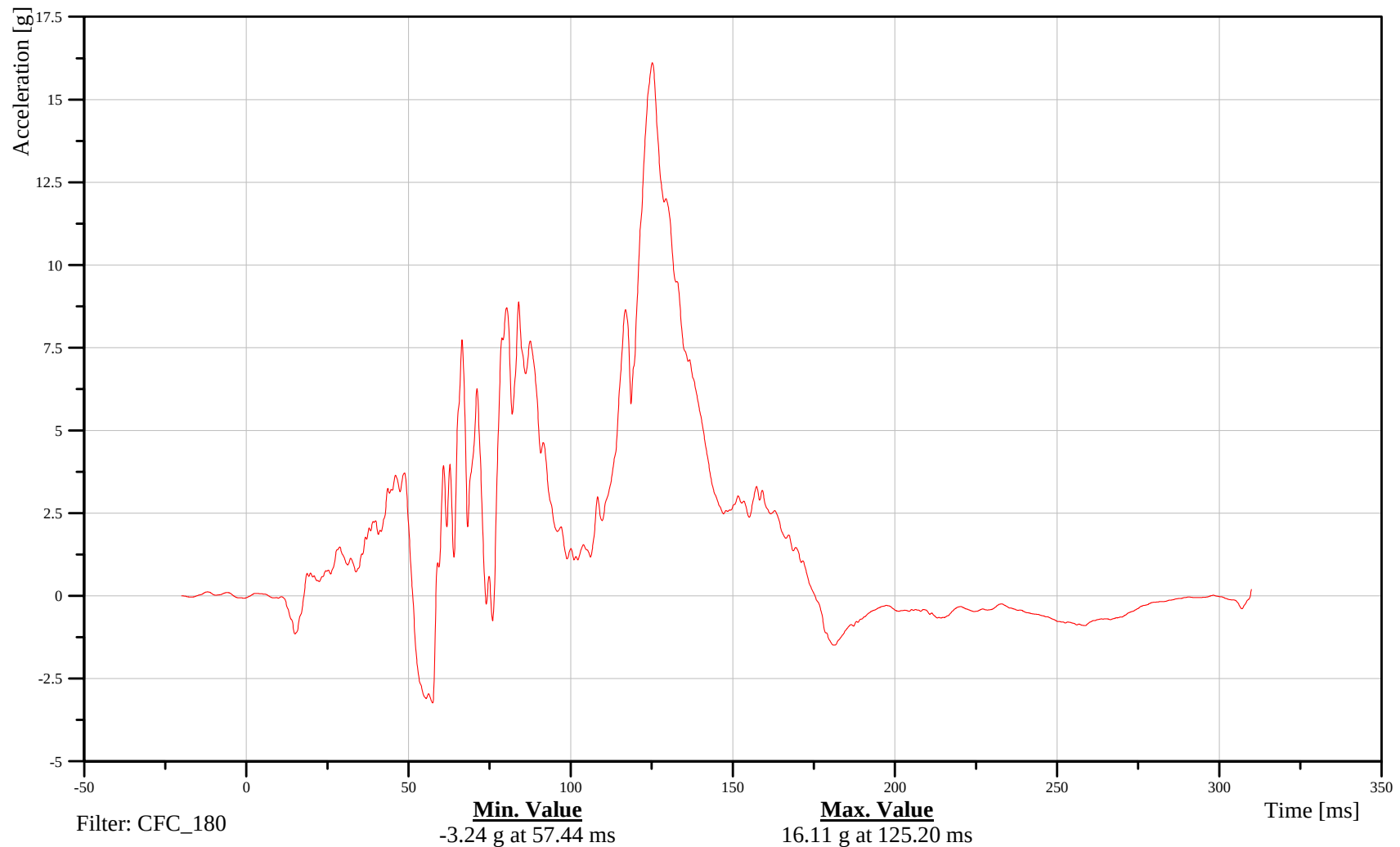
Time: 07:16

Customer: VRTC

23CHSTCGRDHFACYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Passenger Redundant Chest CG Z-Axis Acceleration

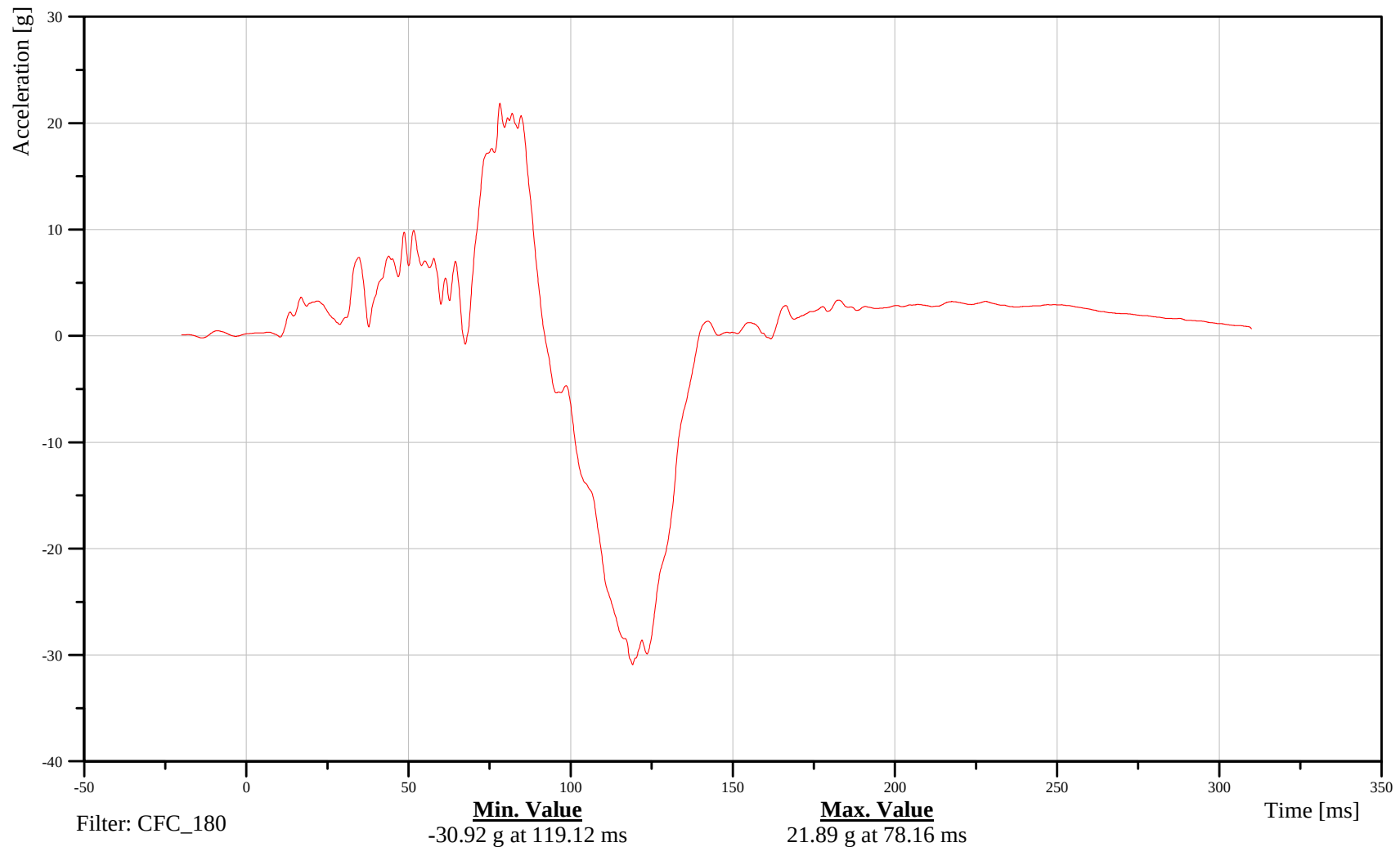
Time: 07:16

Customer: VRTC

23CHSTCGRDHFACZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

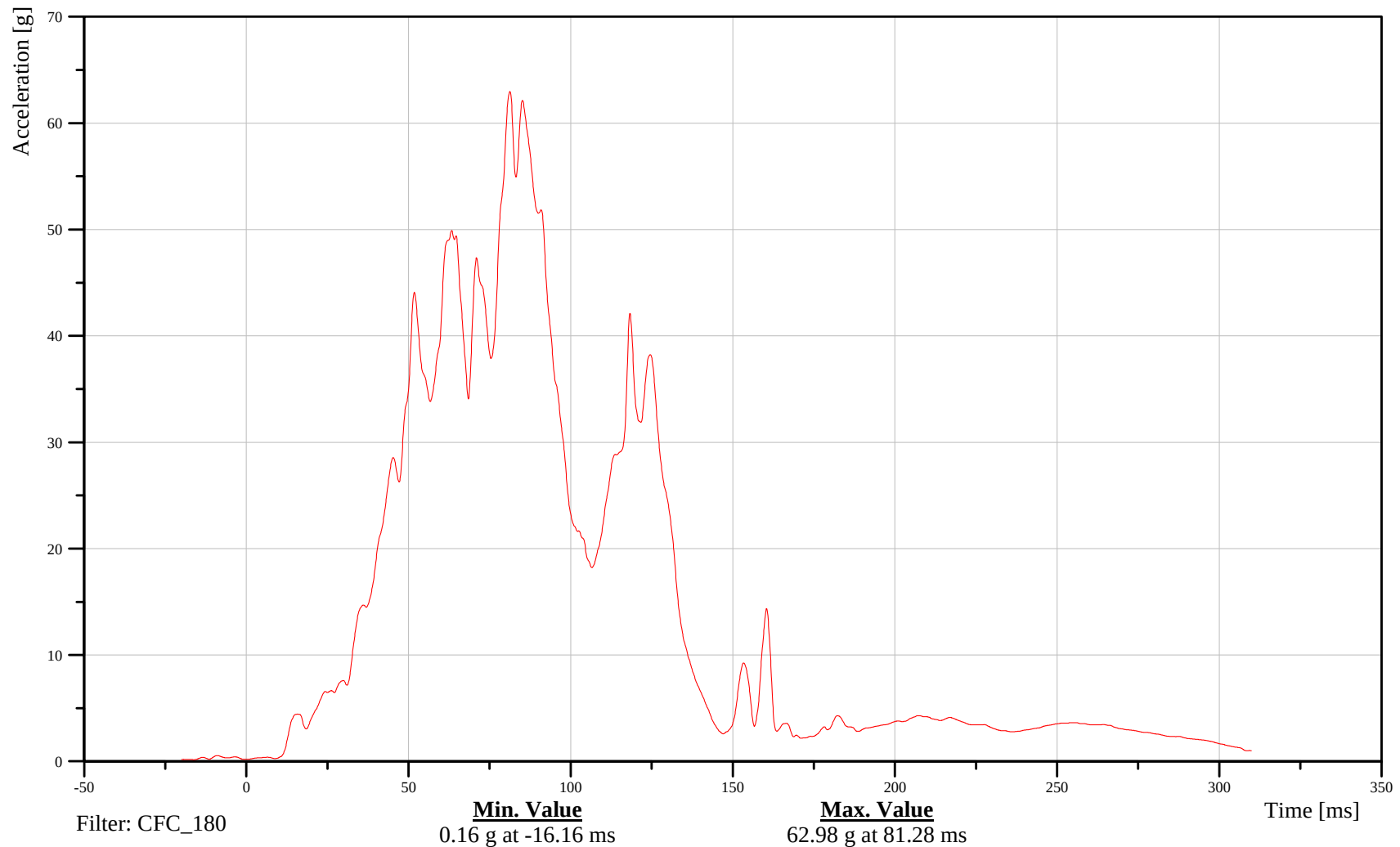
Target Passenger Redundant Chest CG Resultant Acceleration

Customer: VRTC

23CHSTCGRDHFACRC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

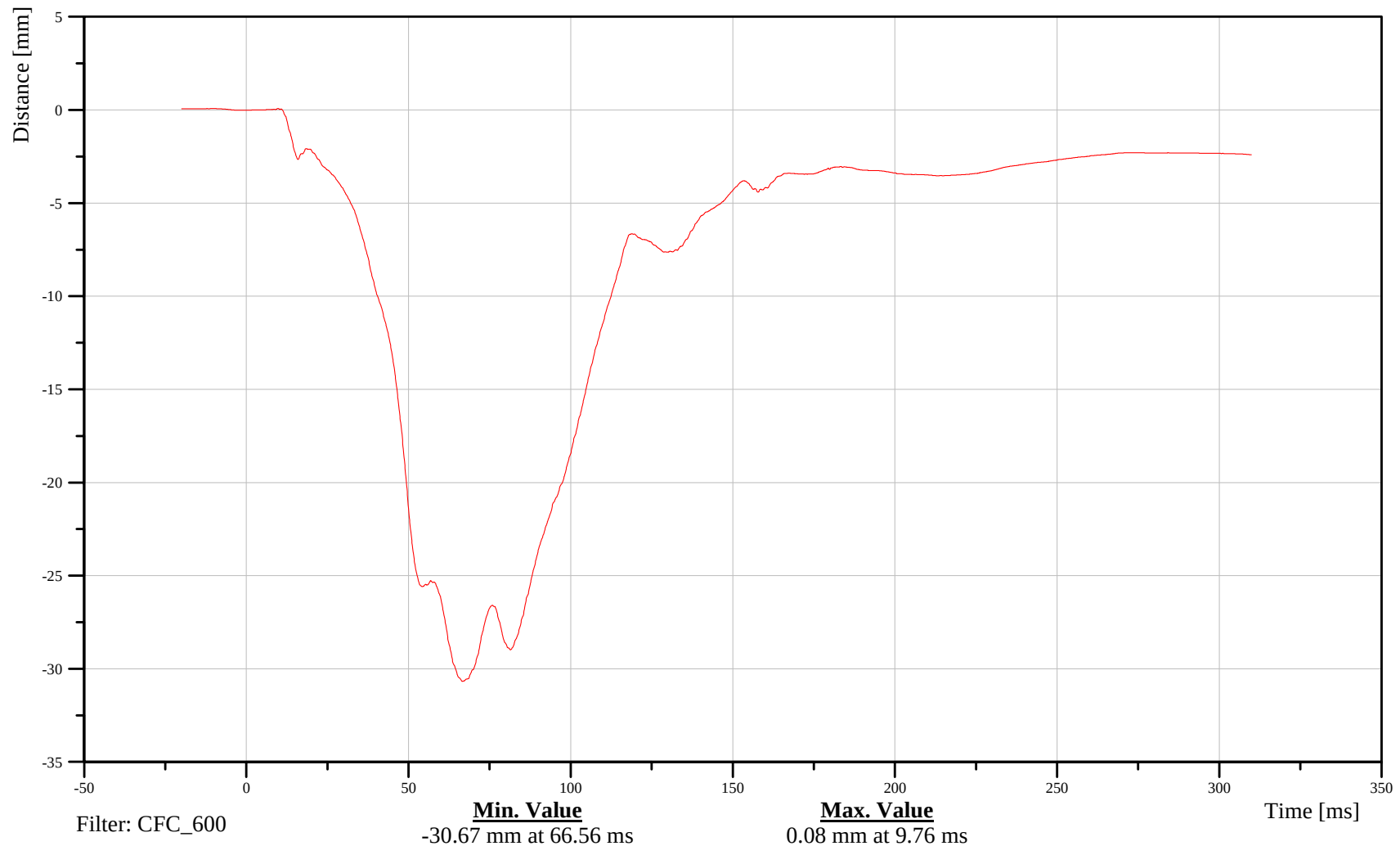
Target Passenger Chest Displacement

Customer: VRTC

23CHST0000HFDSXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

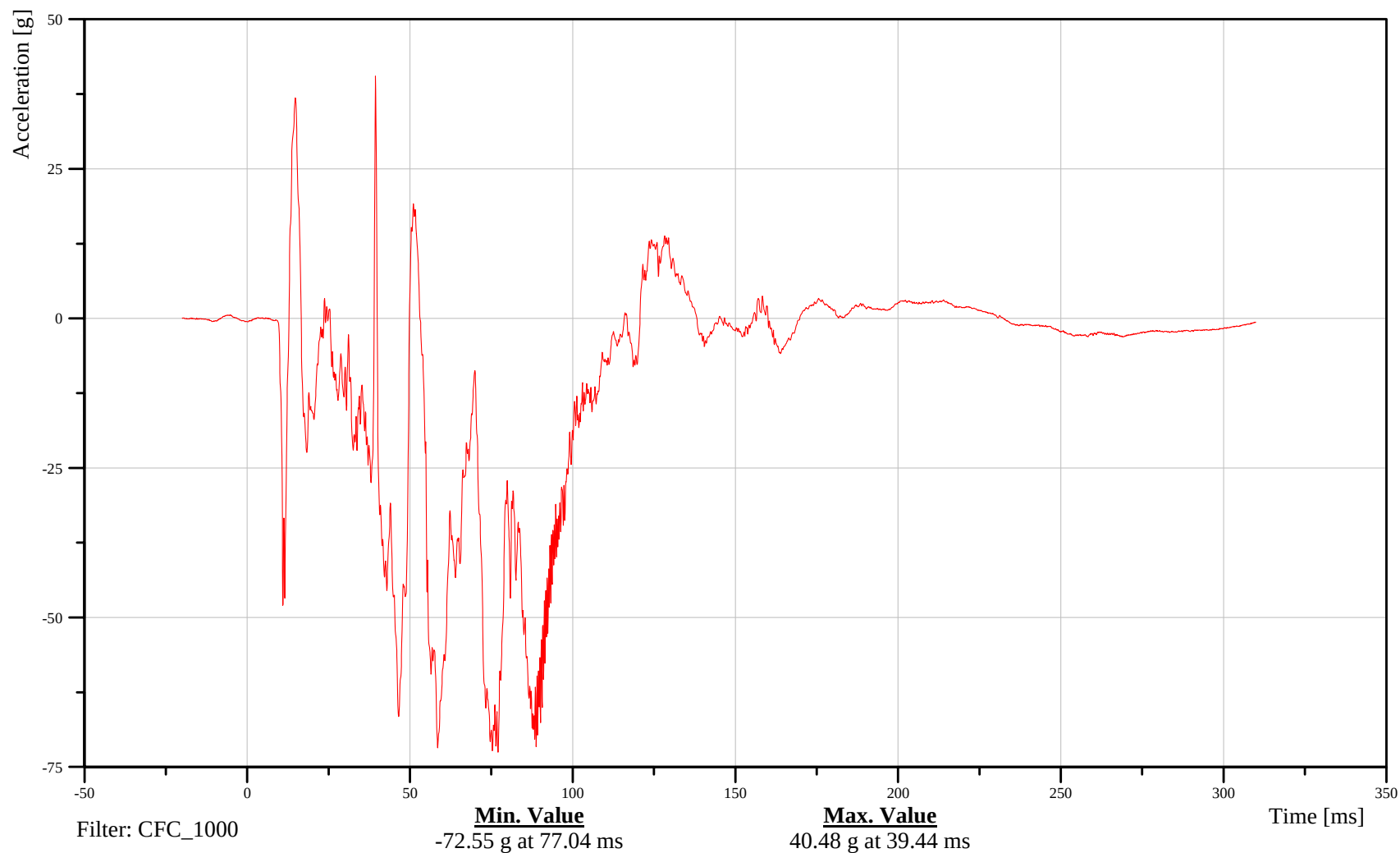
Target Passenger Sternum Upper X-Axis Acceleration

Customer: VRTC

23STRNUP00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

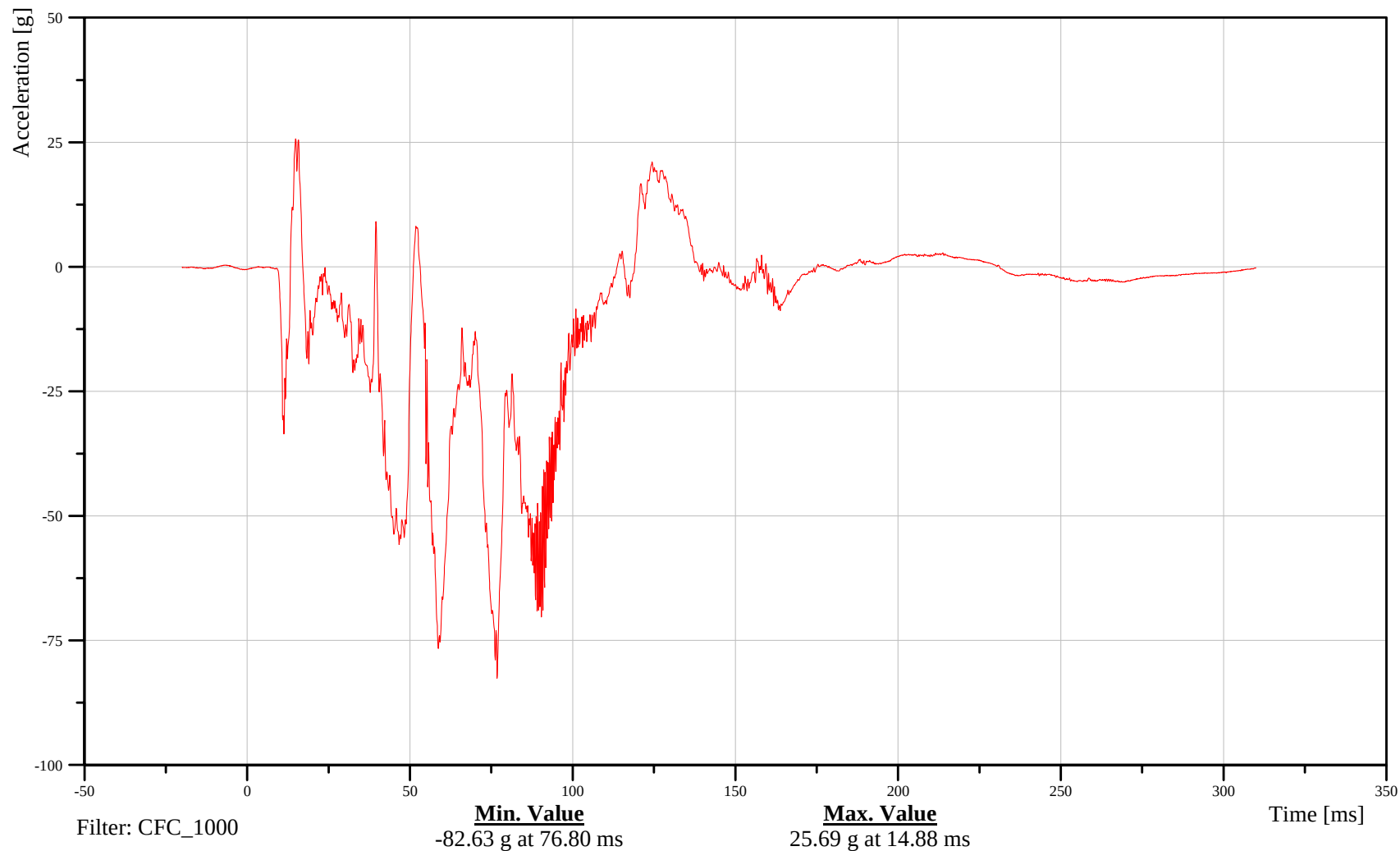
Target Passenger Sternum Mid X-Axis Acceleration

Customer: VRTC

23STRNMI00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

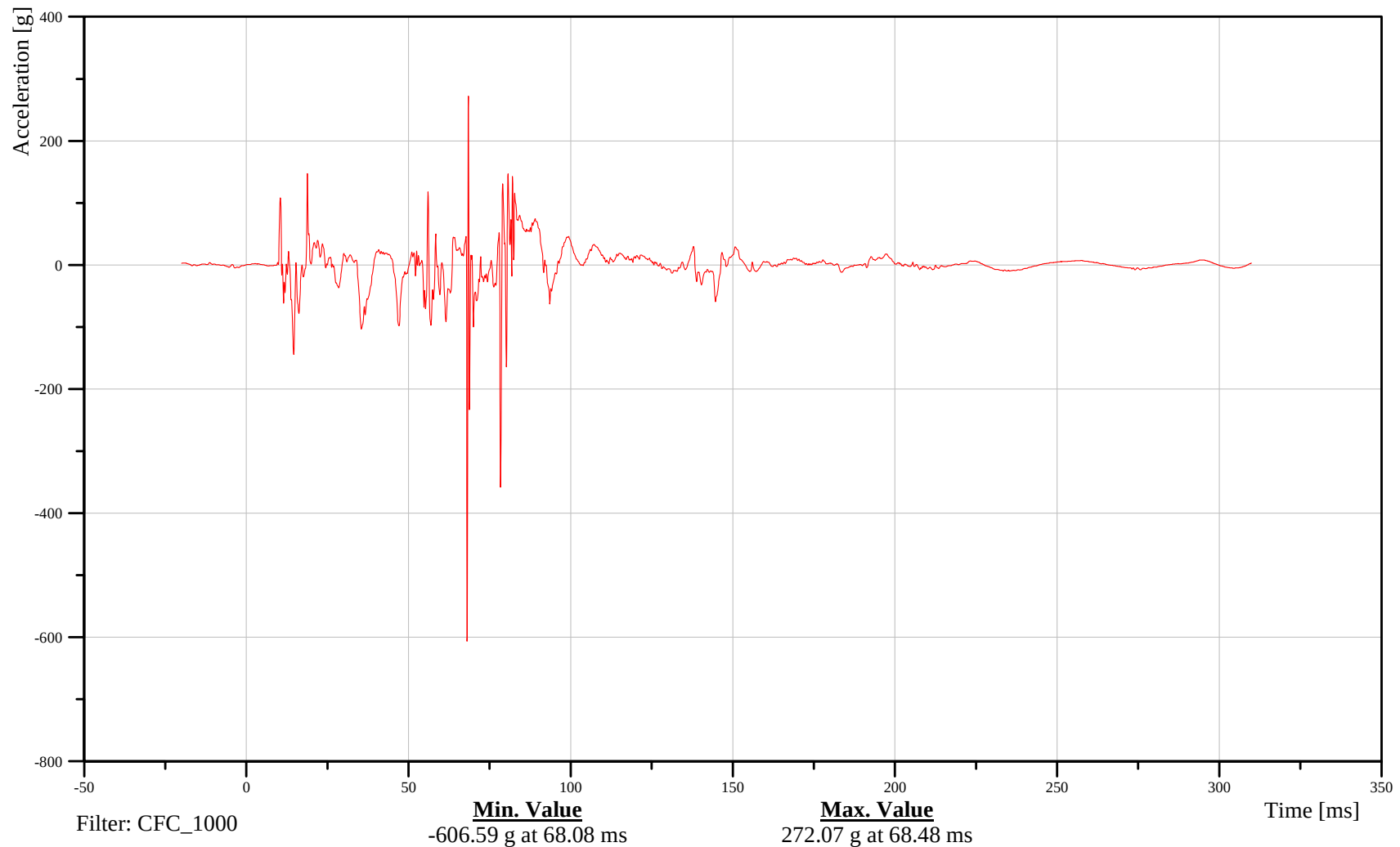
Target Passenger Sternum Lower X-Axis Acceleration

Customer: VRTC

23STRNLO00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

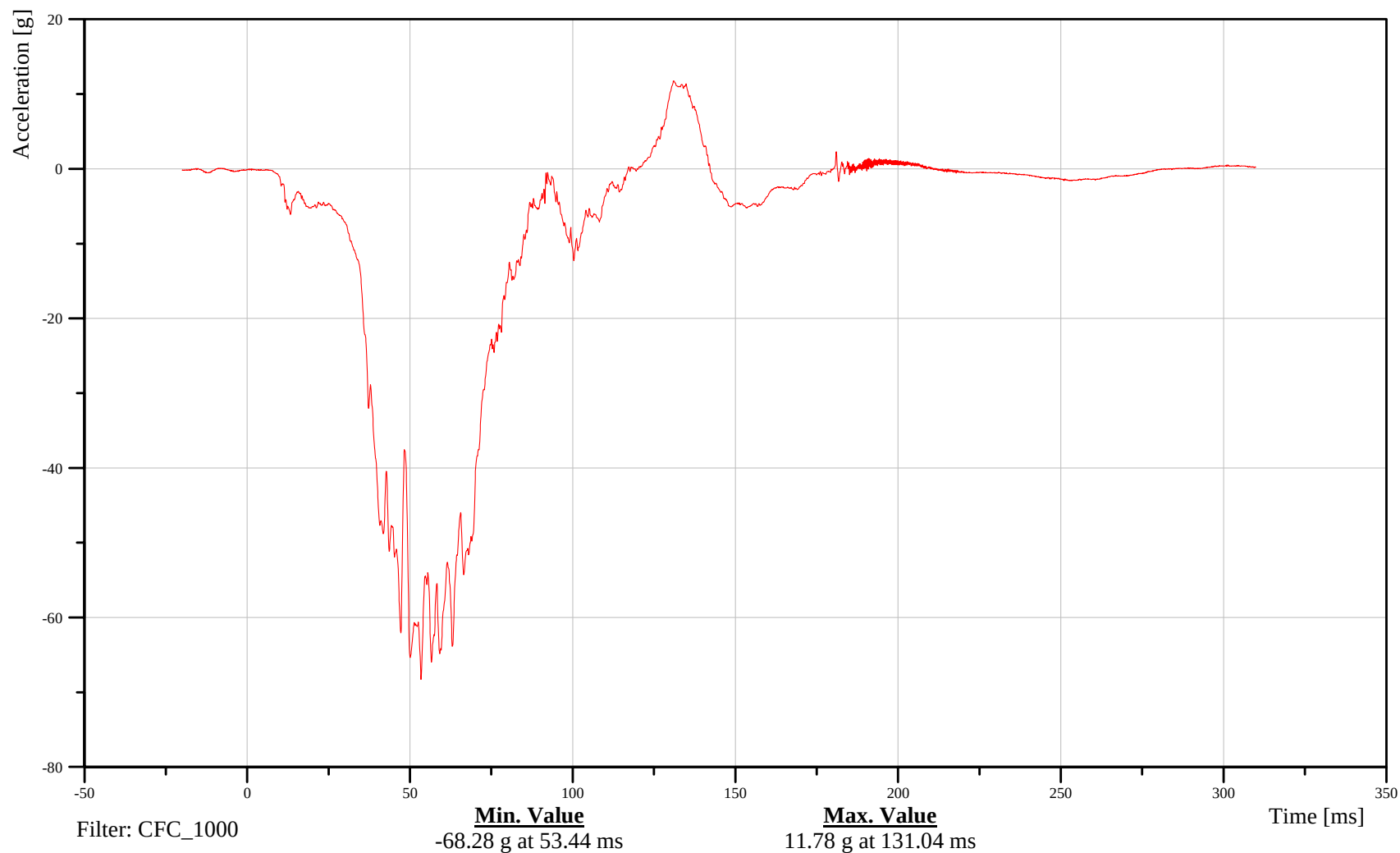
Target Passenger Pelvis CG X-Axis Acceleration

Customer: VRTC

23PELVCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

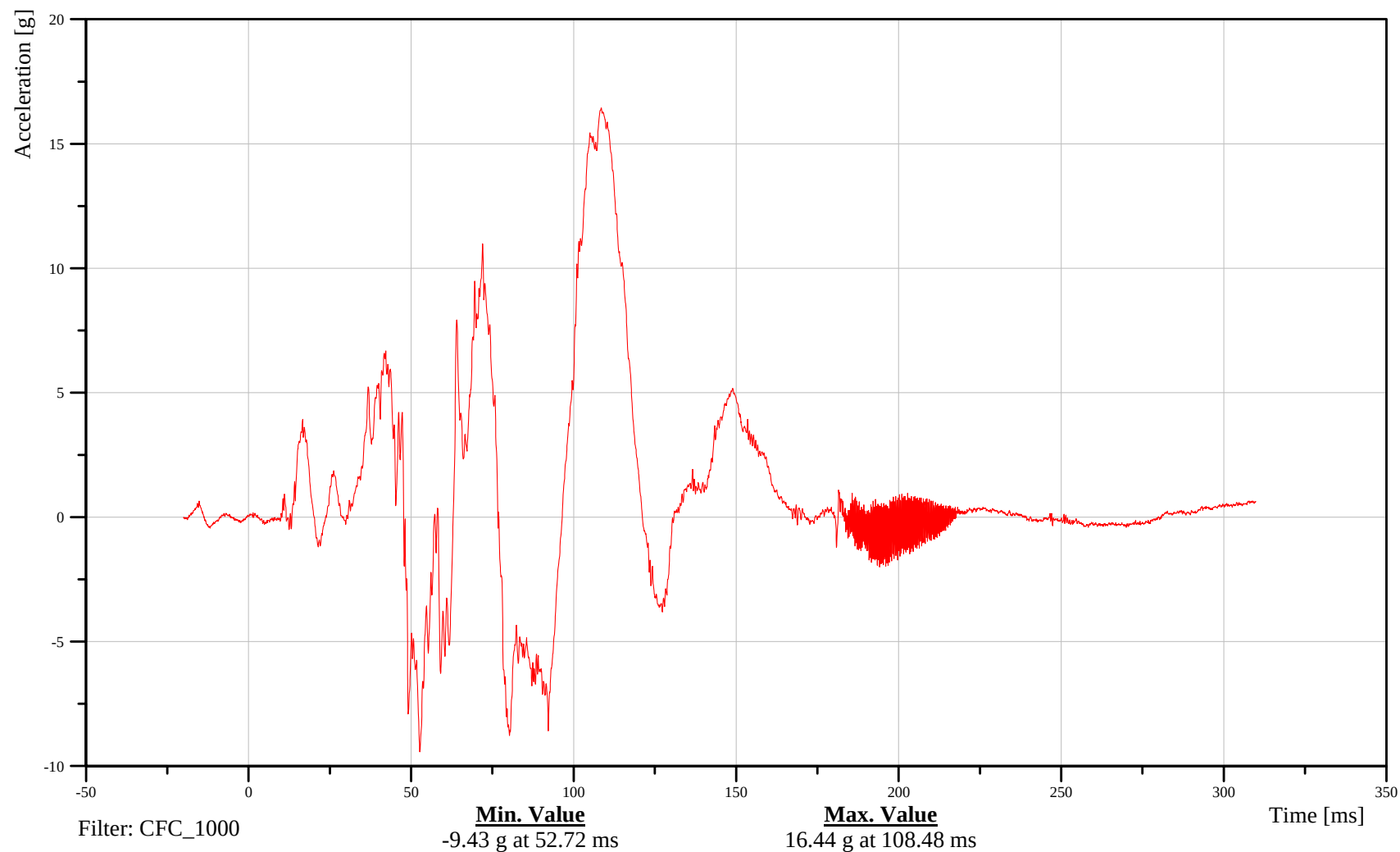
Target Passenger Pelvis CG Y-Axis Acceleration

Customer: VRTC

23PELVCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

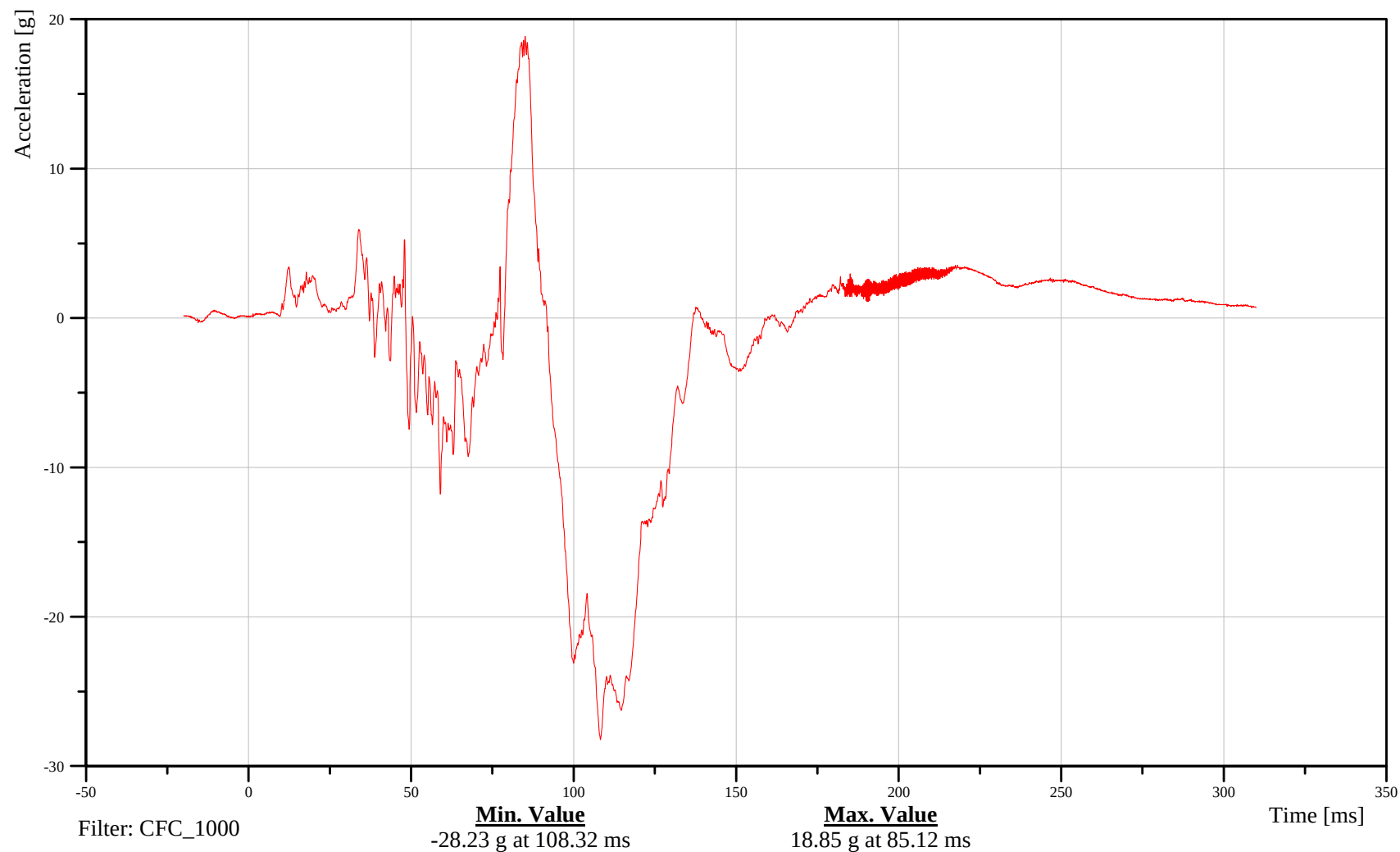
Target Passenger Pelvis CG Z-Axis Acceleration

Customer: VRTC

23PELVCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

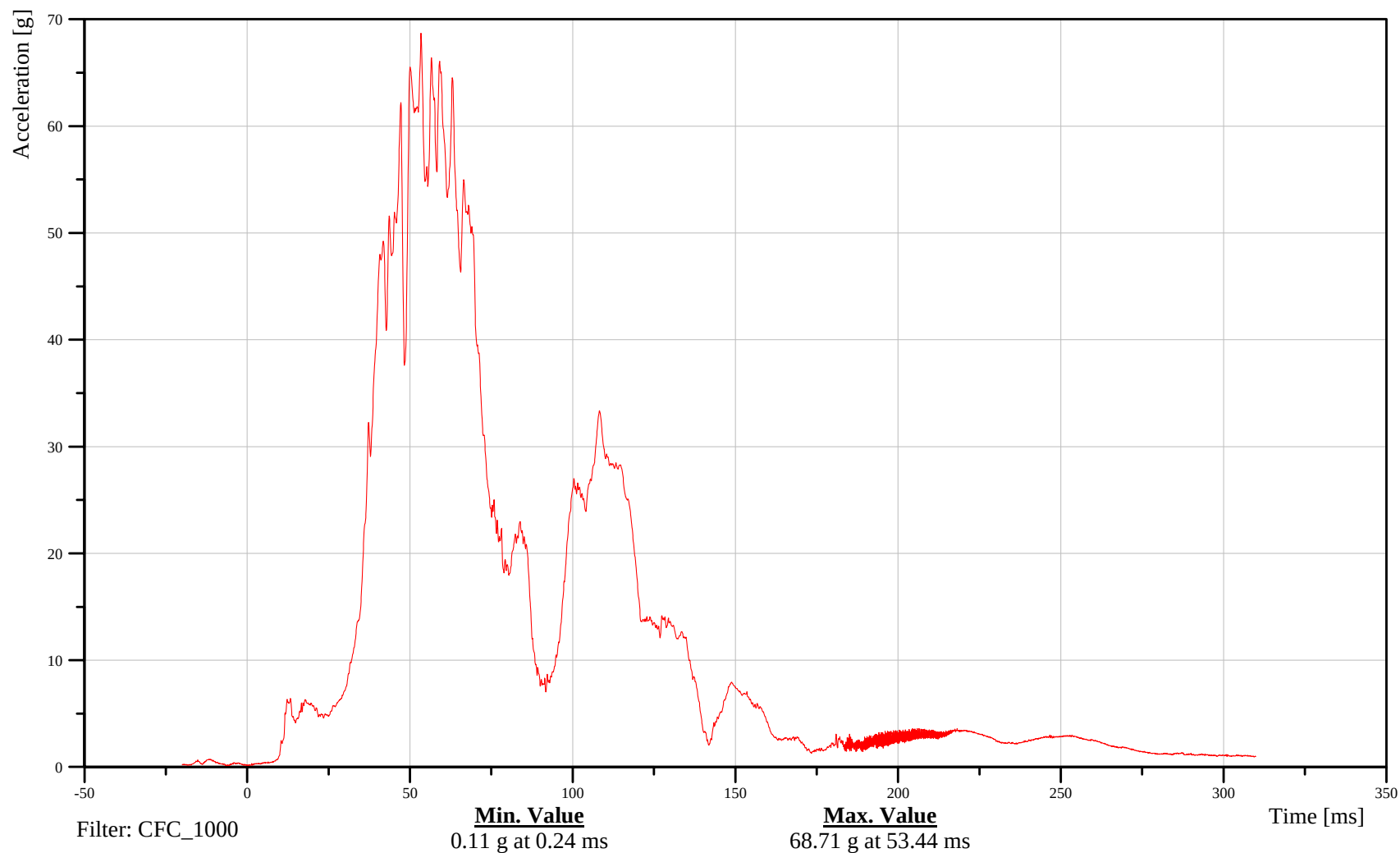
Target Passenger Pelvis CG Resultant Acceleration

Customer: VRTC

23PELVCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

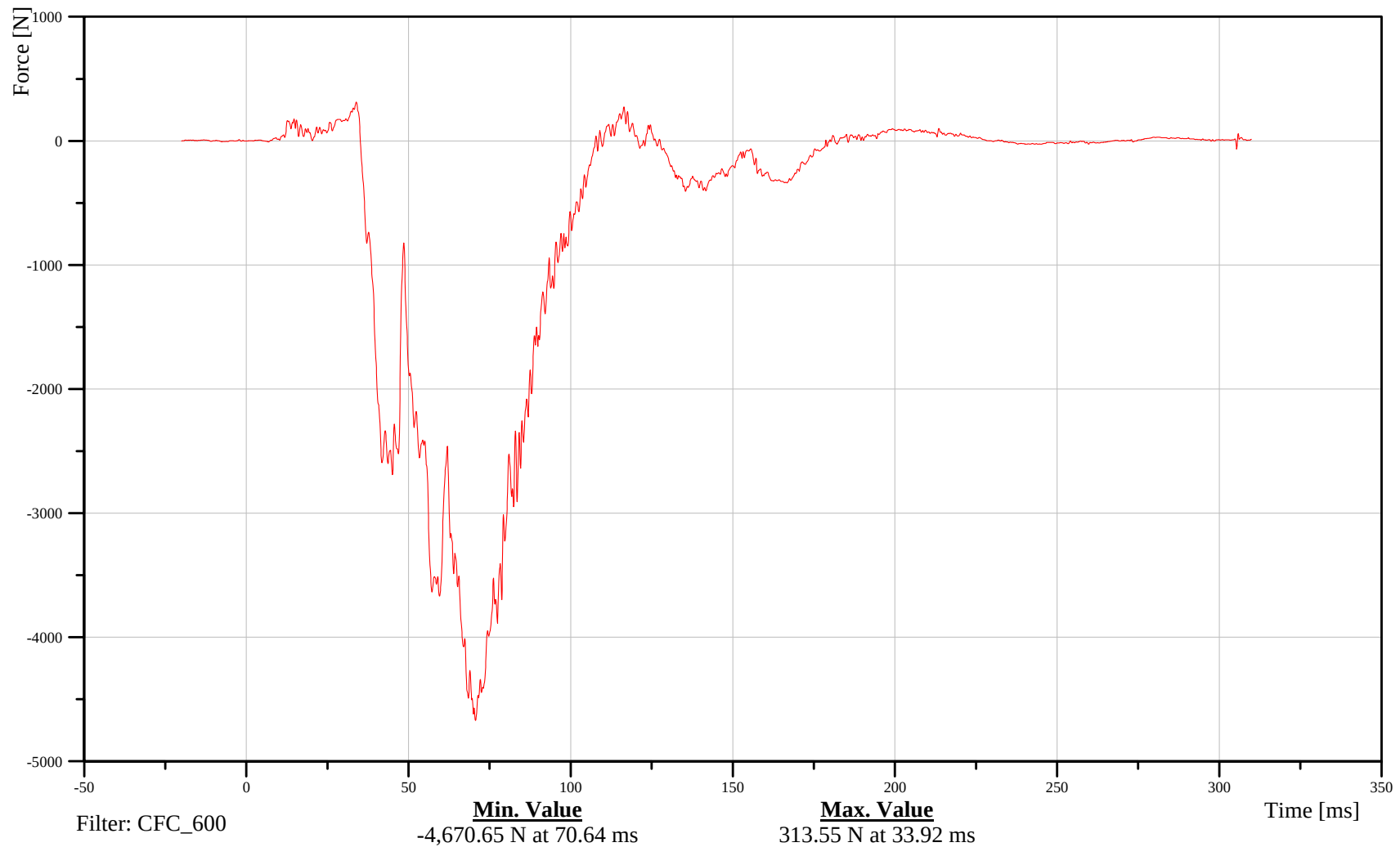
Target Passenger Left Femur Z-Axis Force

Customer: VRTC

23FEMRLL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

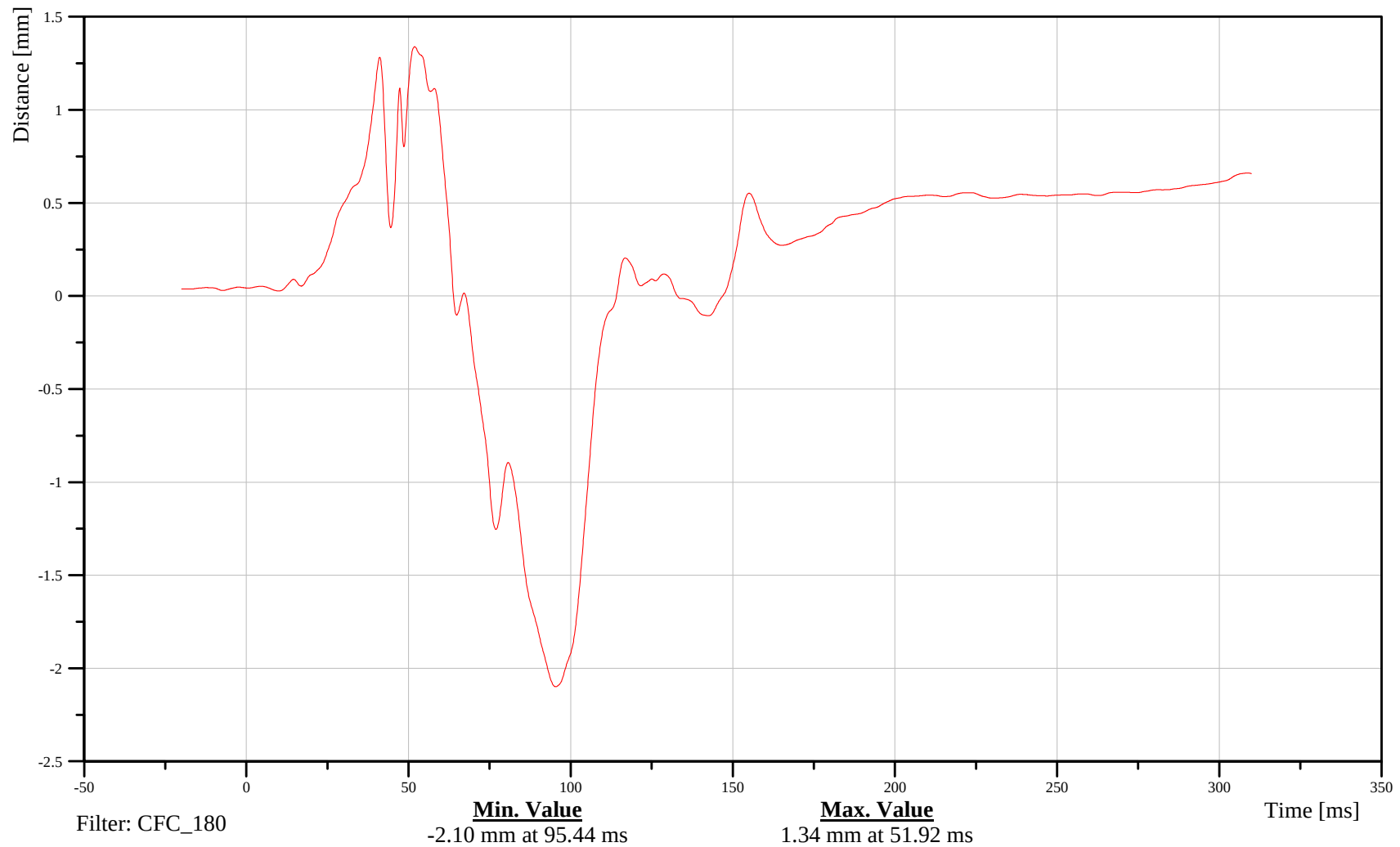
Target Passenger Left Knee Displacement

Customer: VRTC

23KNSLLE00HFDSXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

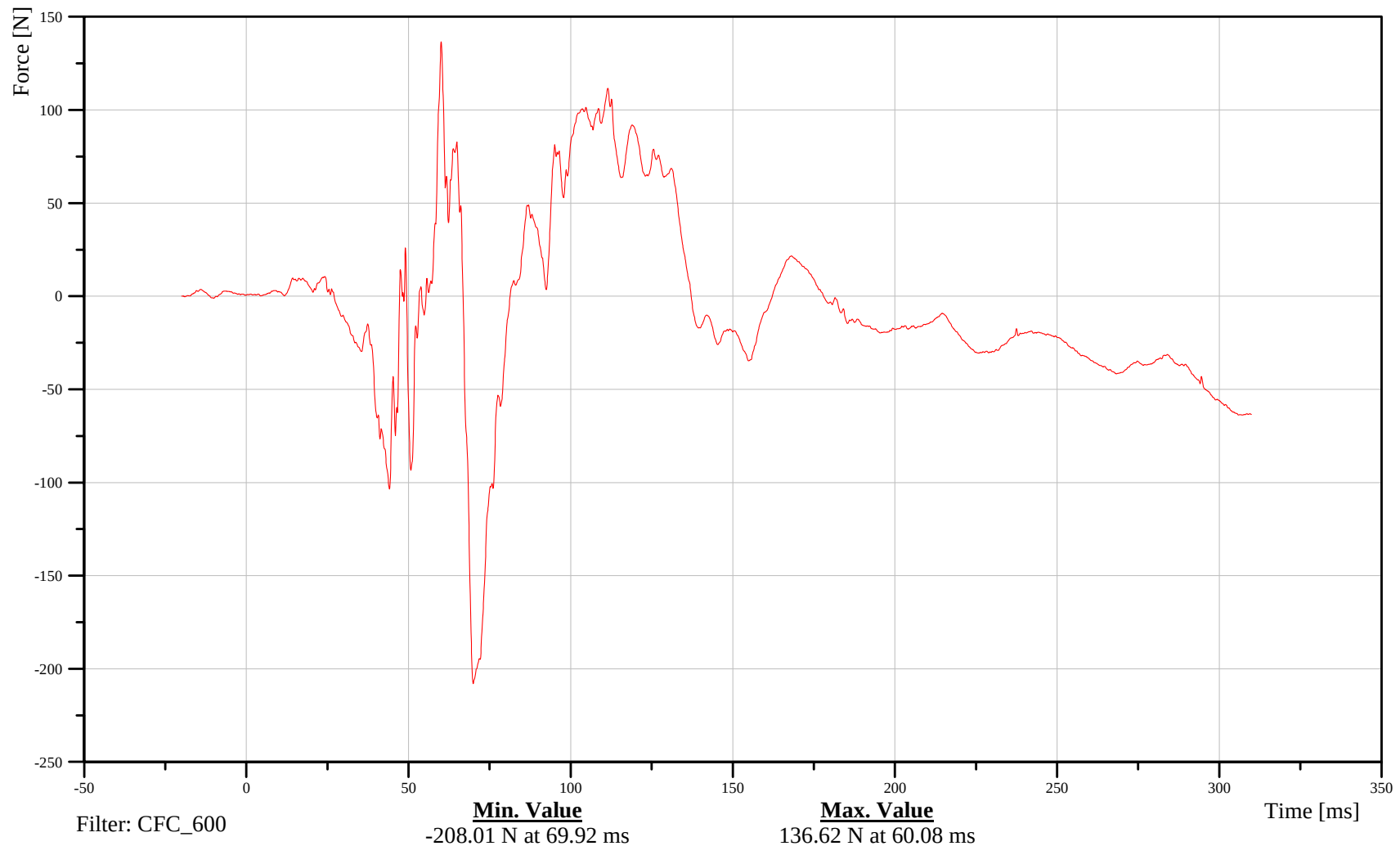
Target Passenger Left Upper Tibia X-Axis Force

Customer: VRTC

23TIBILUFXHFFOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

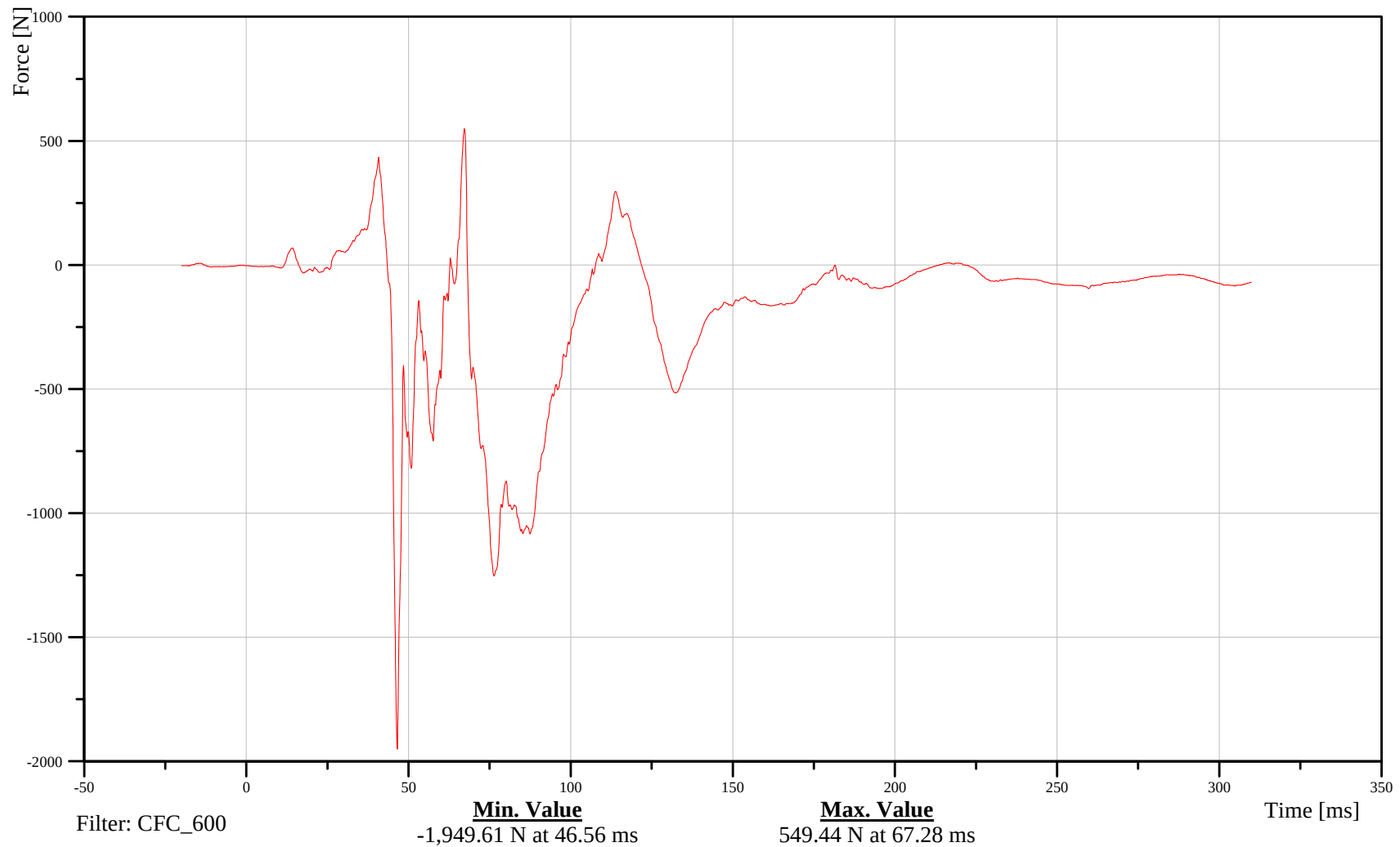
Target Passenger Left Upper Tibia Z-Axis Force

Customer: VRTC

23TIBILUFXHFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

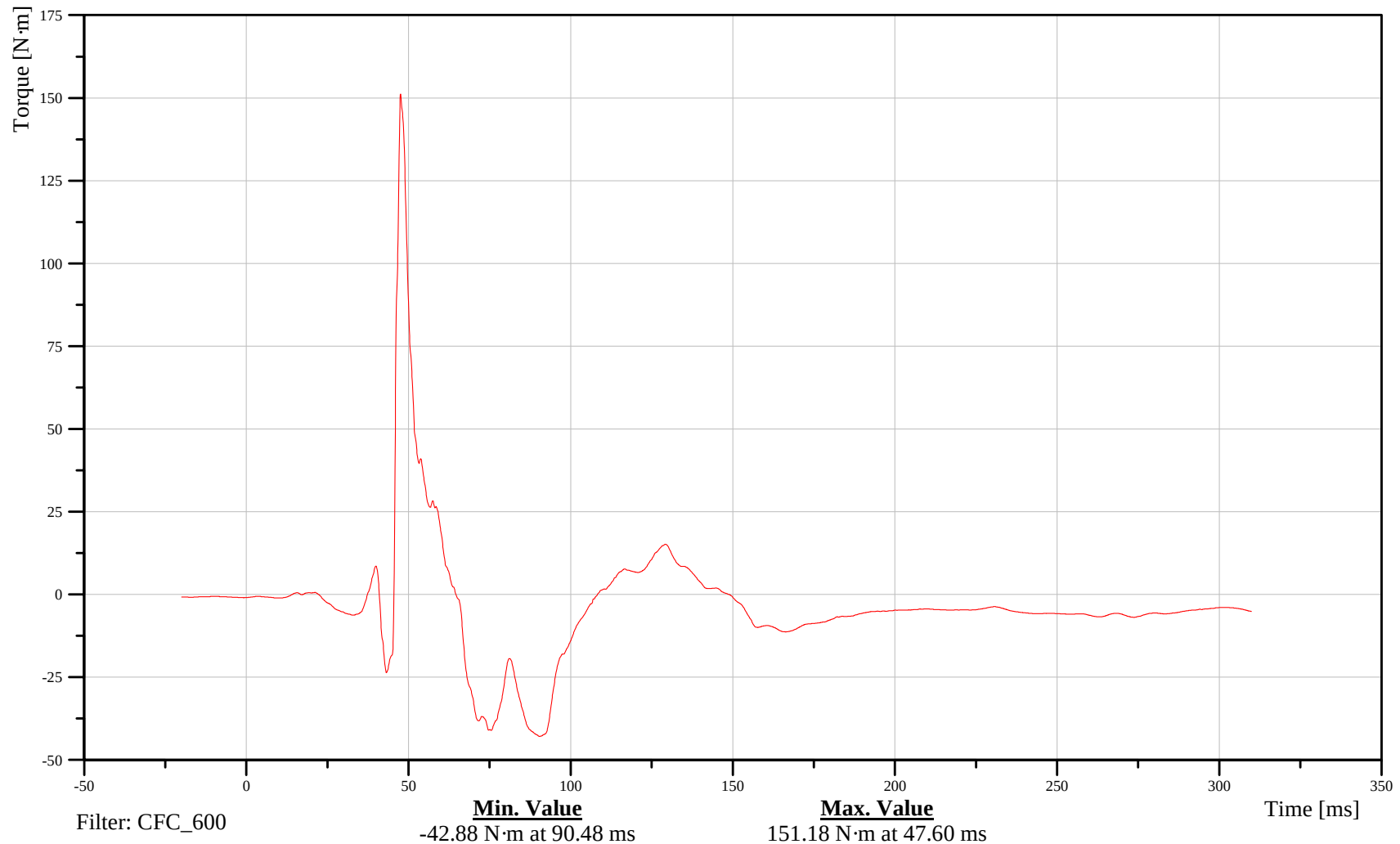
Target Passenger Left Upper Tibia Moment About X Axis

Customer: VRTC

23TIBILUFXHFM0XB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

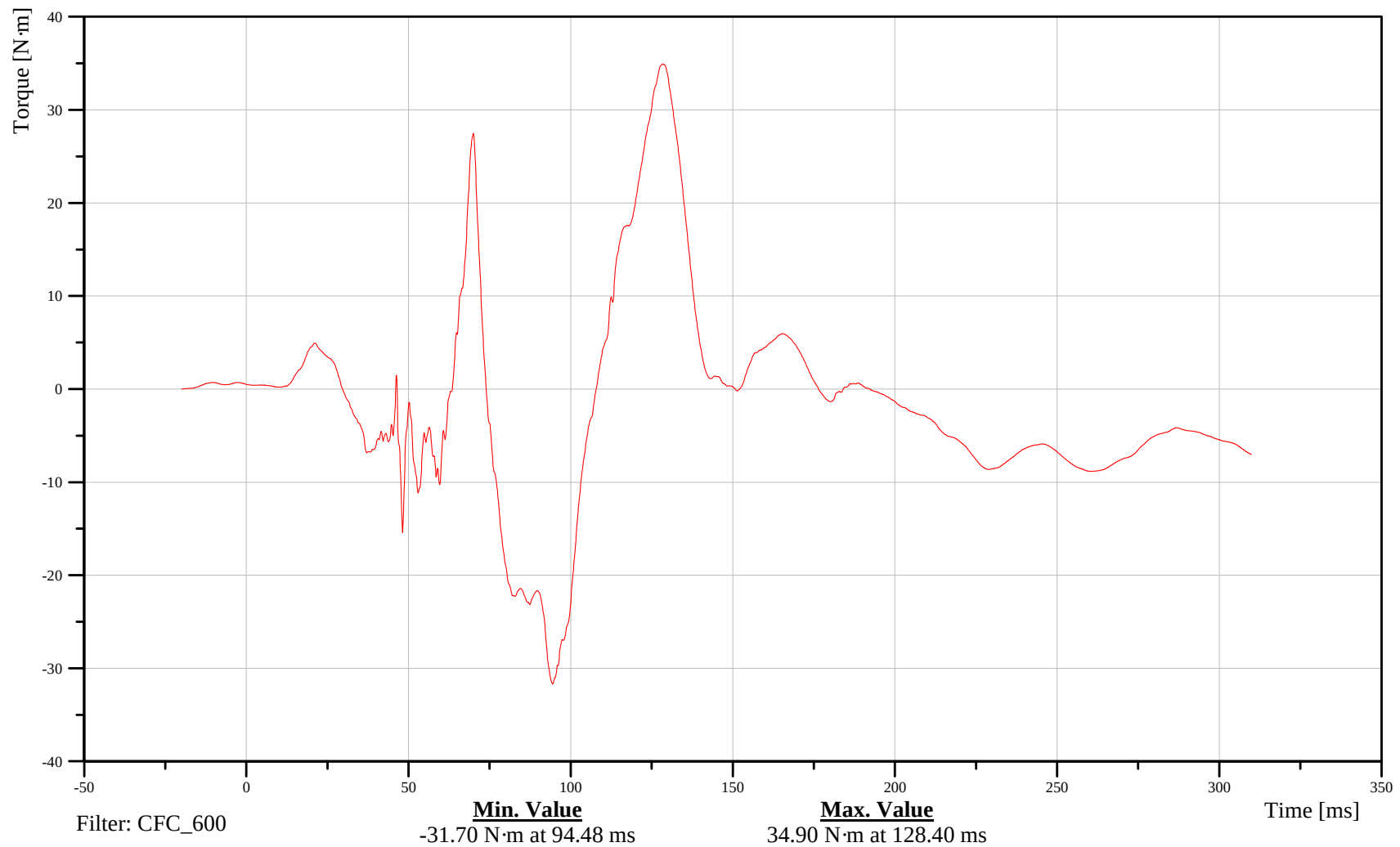
Target Passenger Left Upper Tibia Moment About Y Axis

Customer: VRTC

23TIBILUFXHFM0YB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

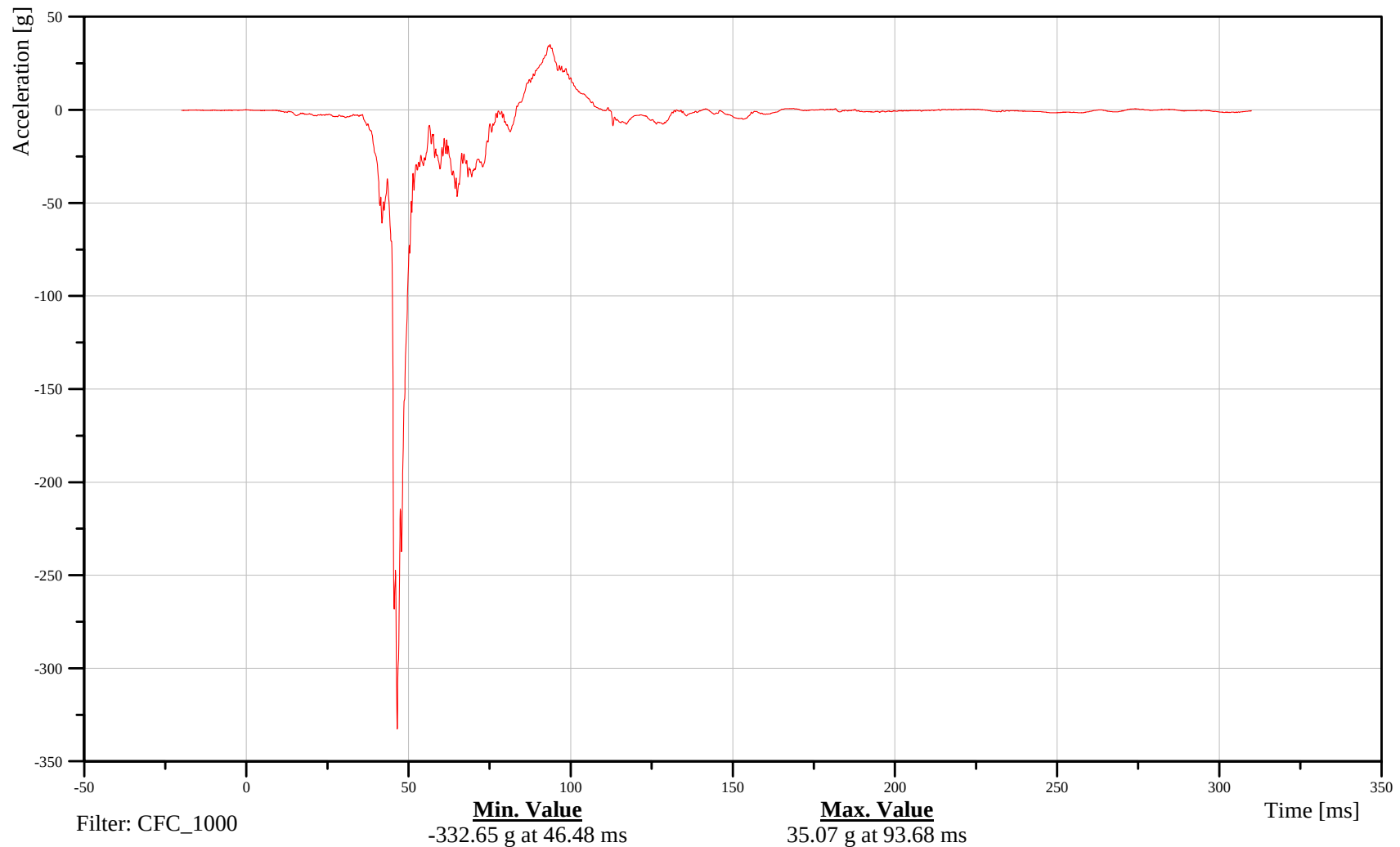
Target Passenger Left Tibia X-Axis Acceleration

Customer: VRTC

23TIBILEFXHFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

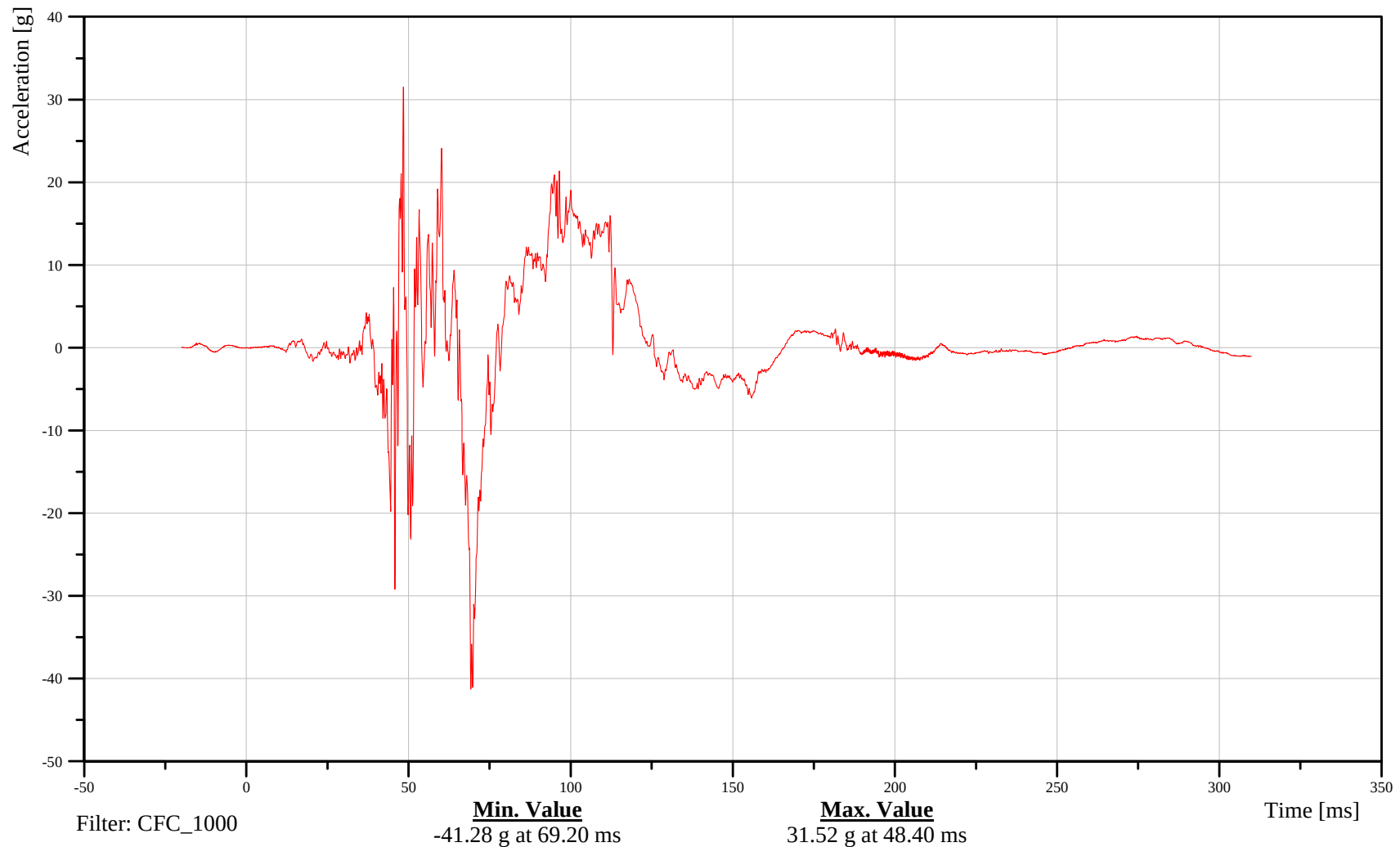
Target Passenger Left Tibia Y-Axis Acceleration

Customer: VRTC

23TIBILEFXHFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

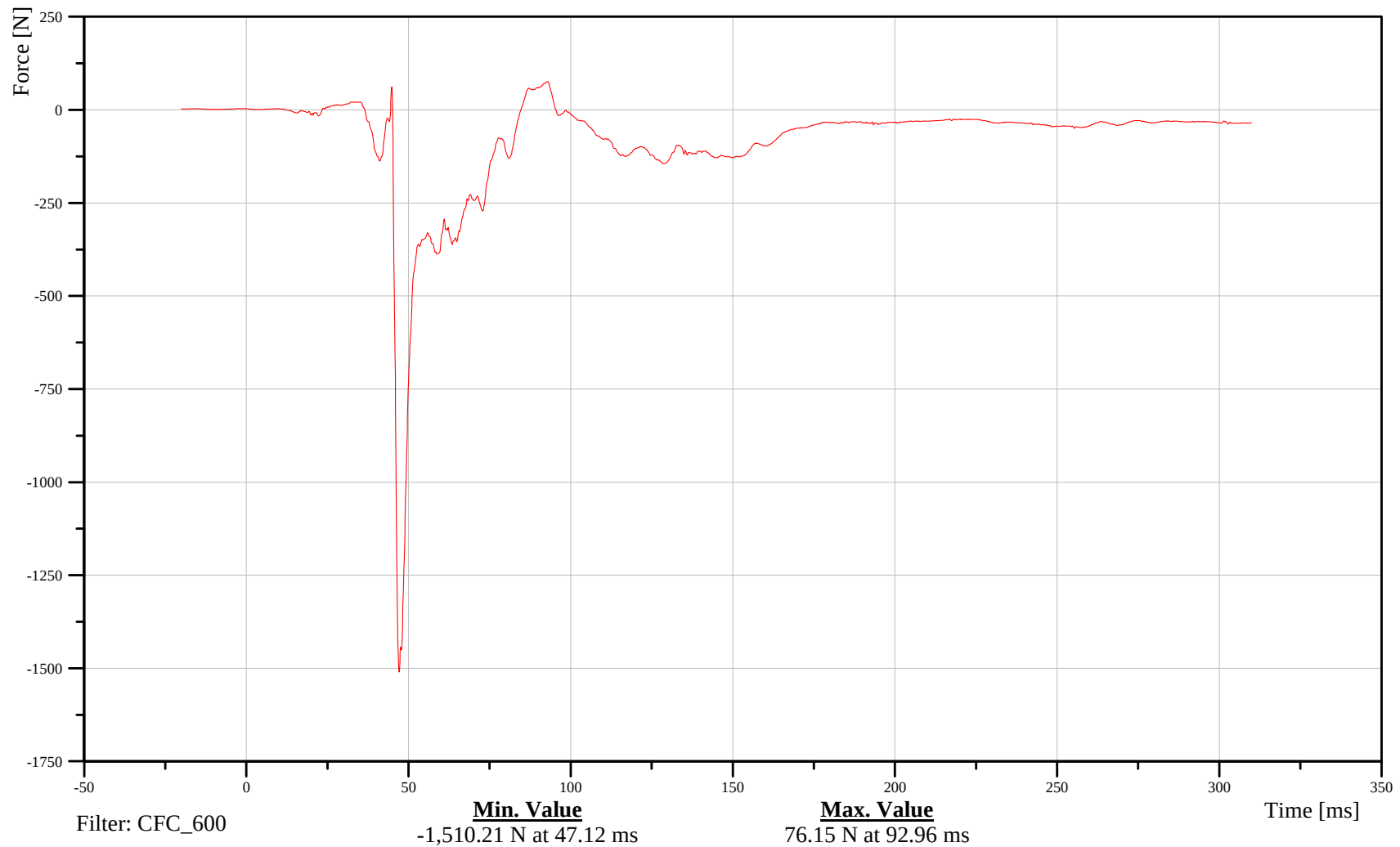
Target Passenger Left Lower Tibia X-Axis Force

Customer: VRTC

23TIBILLFXHFFOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

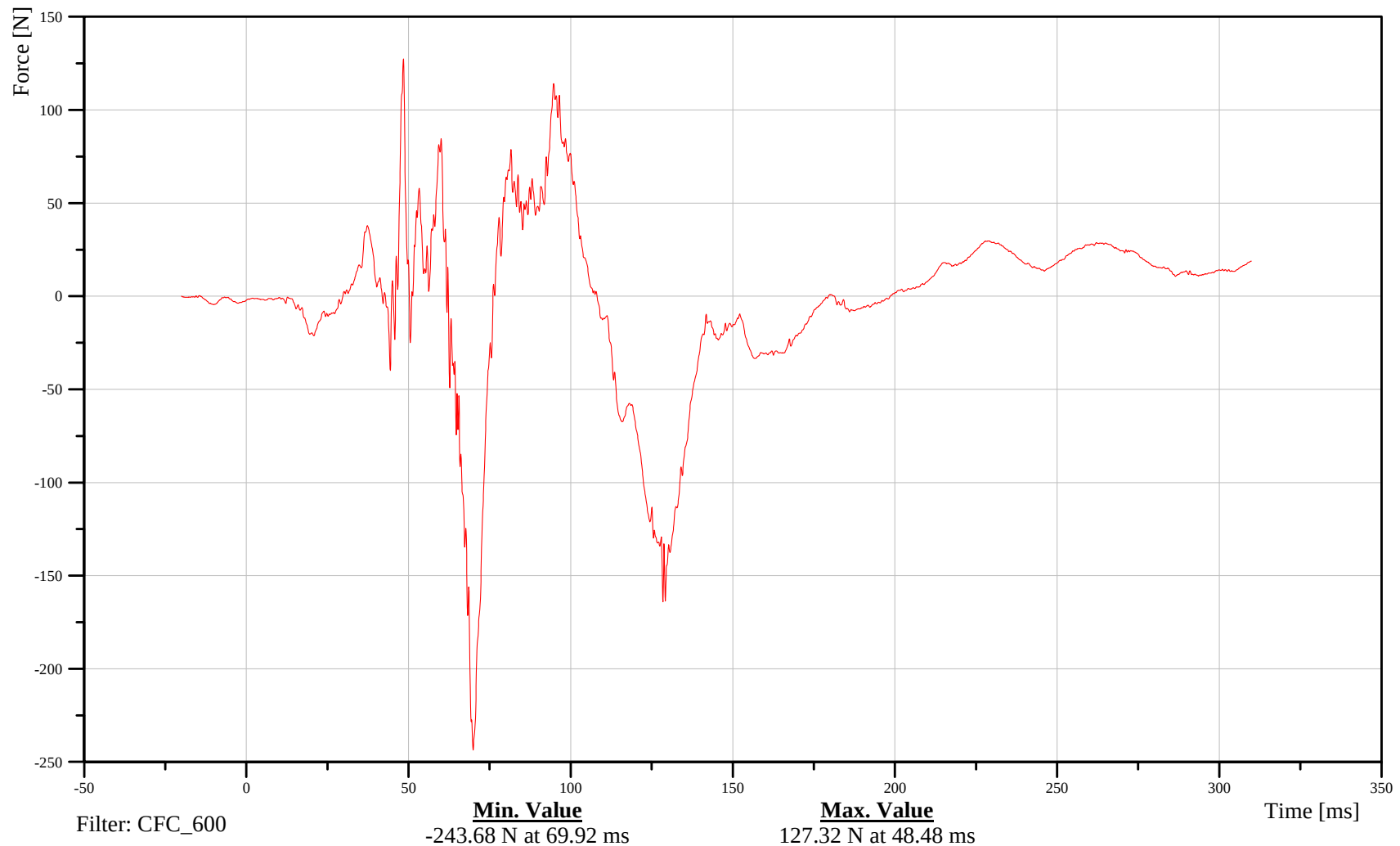
Target Passenger Left Lower Tibia Y-Axis Force

Customer: VRTC

23TIBILLFXHFFOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

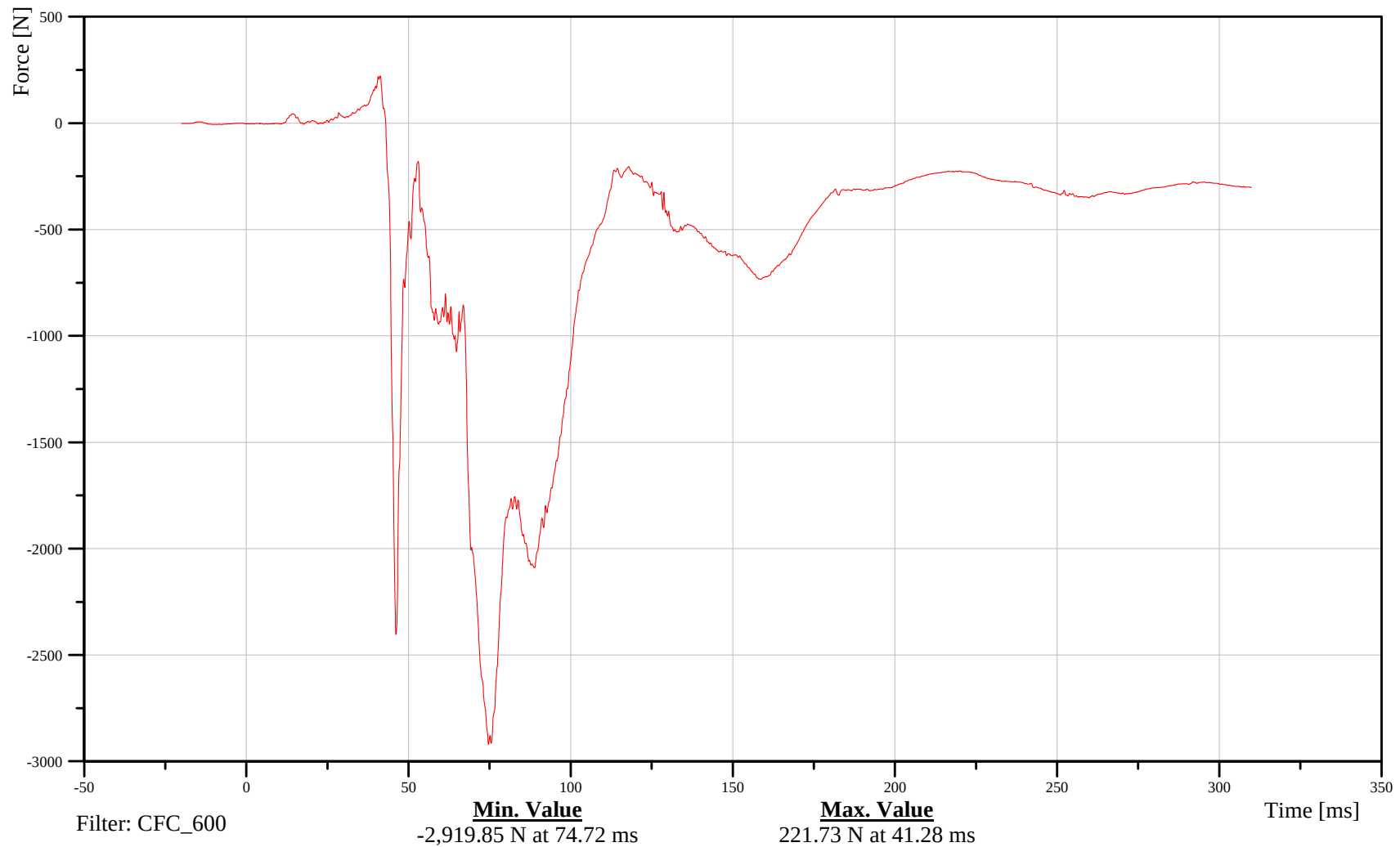
Target Passenger Left Lower Tibia Z-Axis Force

Customer: VRTC

23TIBILLFXHFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

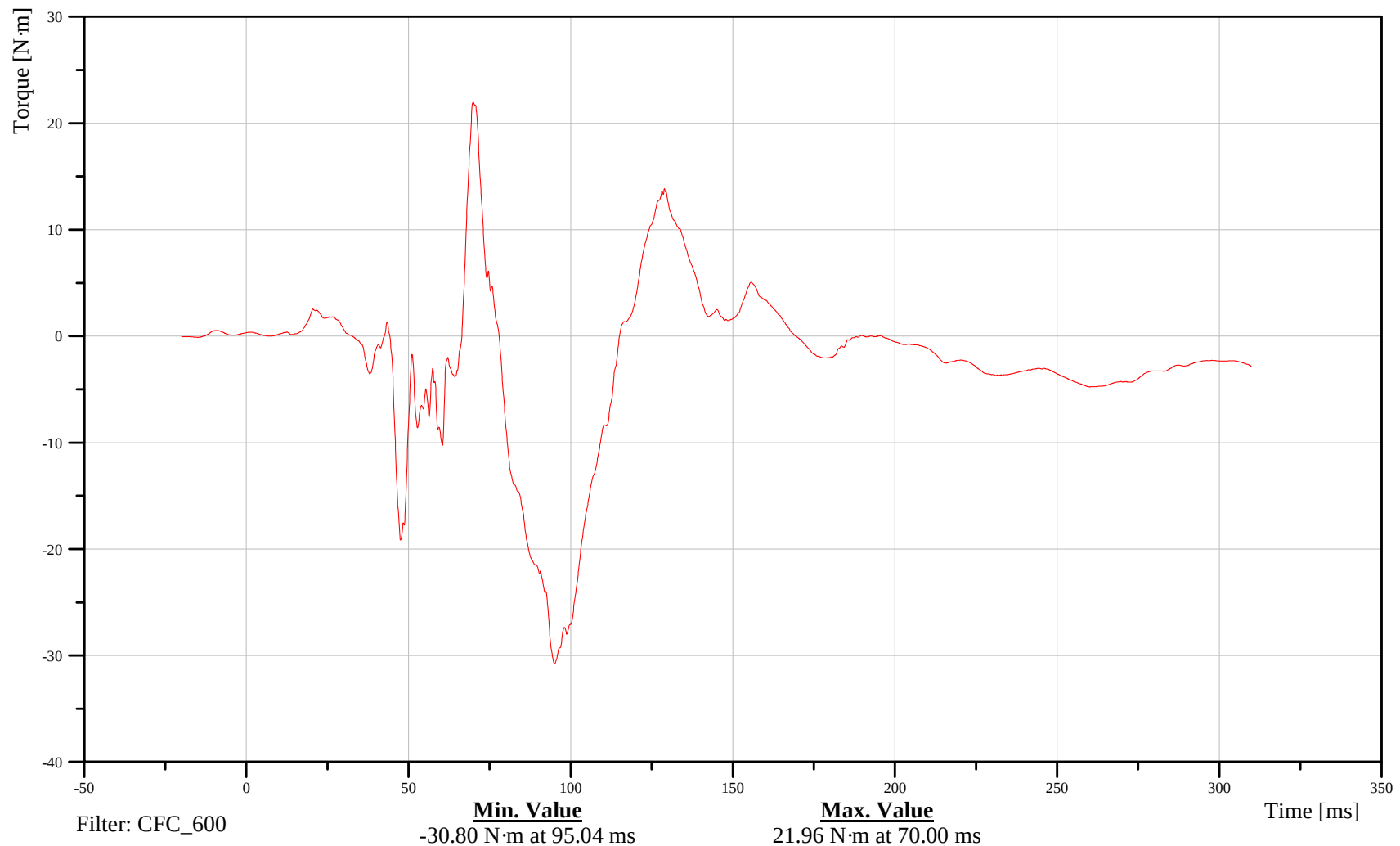
Target Passenger Left Lower Tibia Moment About X Axis

Customer: VRTC

23TIBILLFXHFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

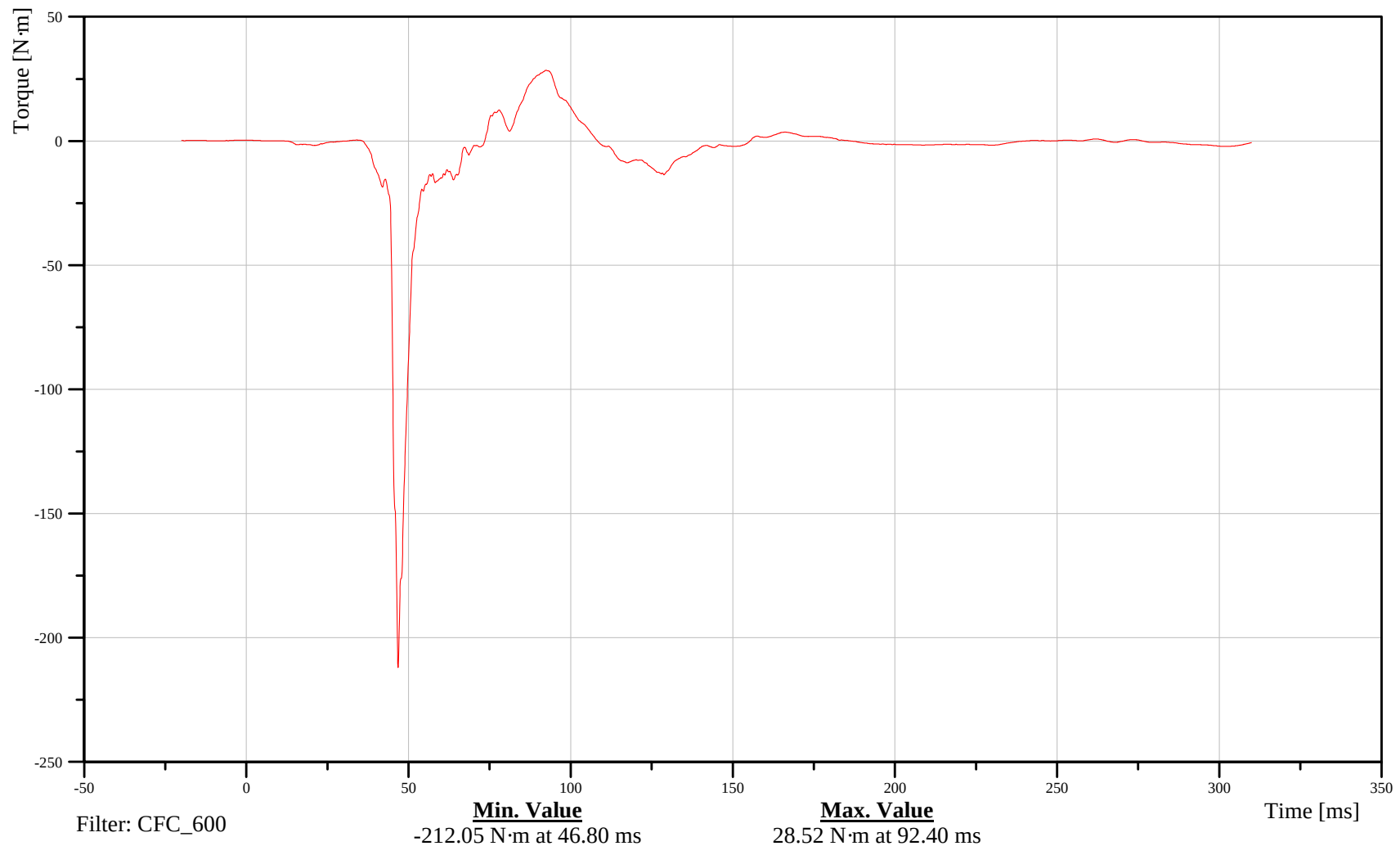
Target Passenger Left Lower Tibia Moment About Y Axis

Customer: VRTC

23TIBILLFXHFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

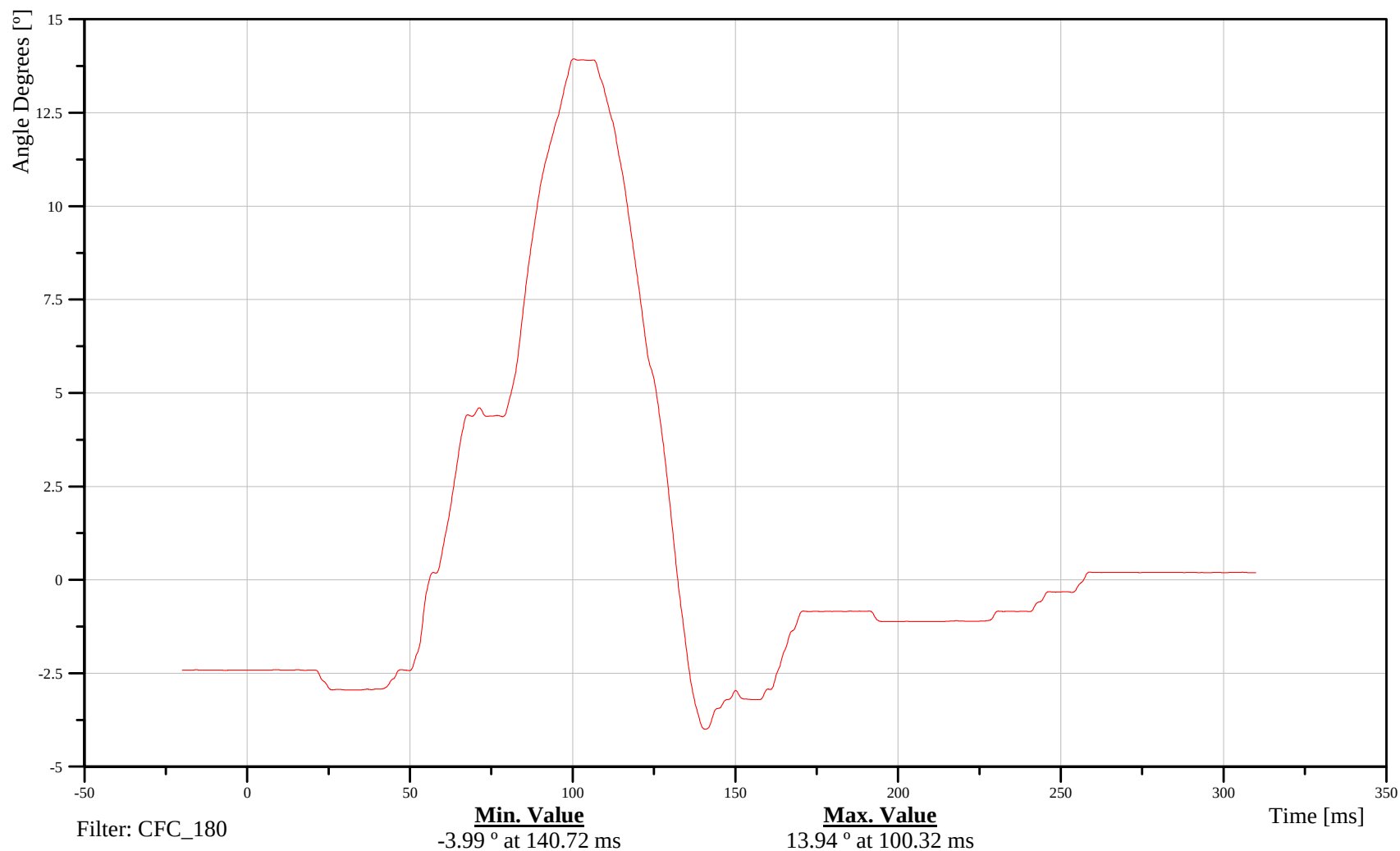
Target Passenger Left Foot X-Axis Rotation

Customer: VRTC

23FOOTLEFXHFANXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

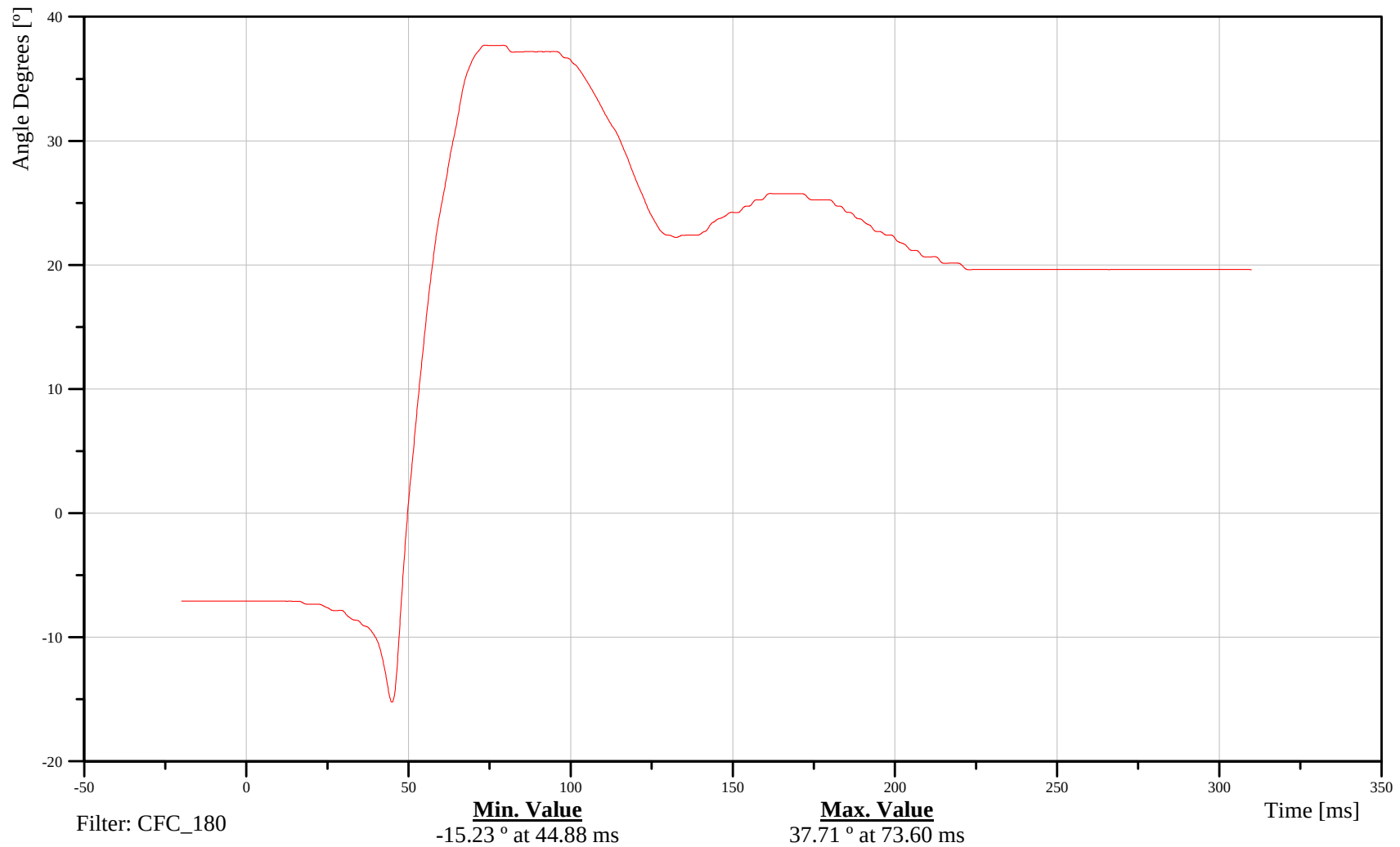
Target Passenger Left Foot Y-Axis Rotation

Customer: VRTC

23FOOTLEFXHFANYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

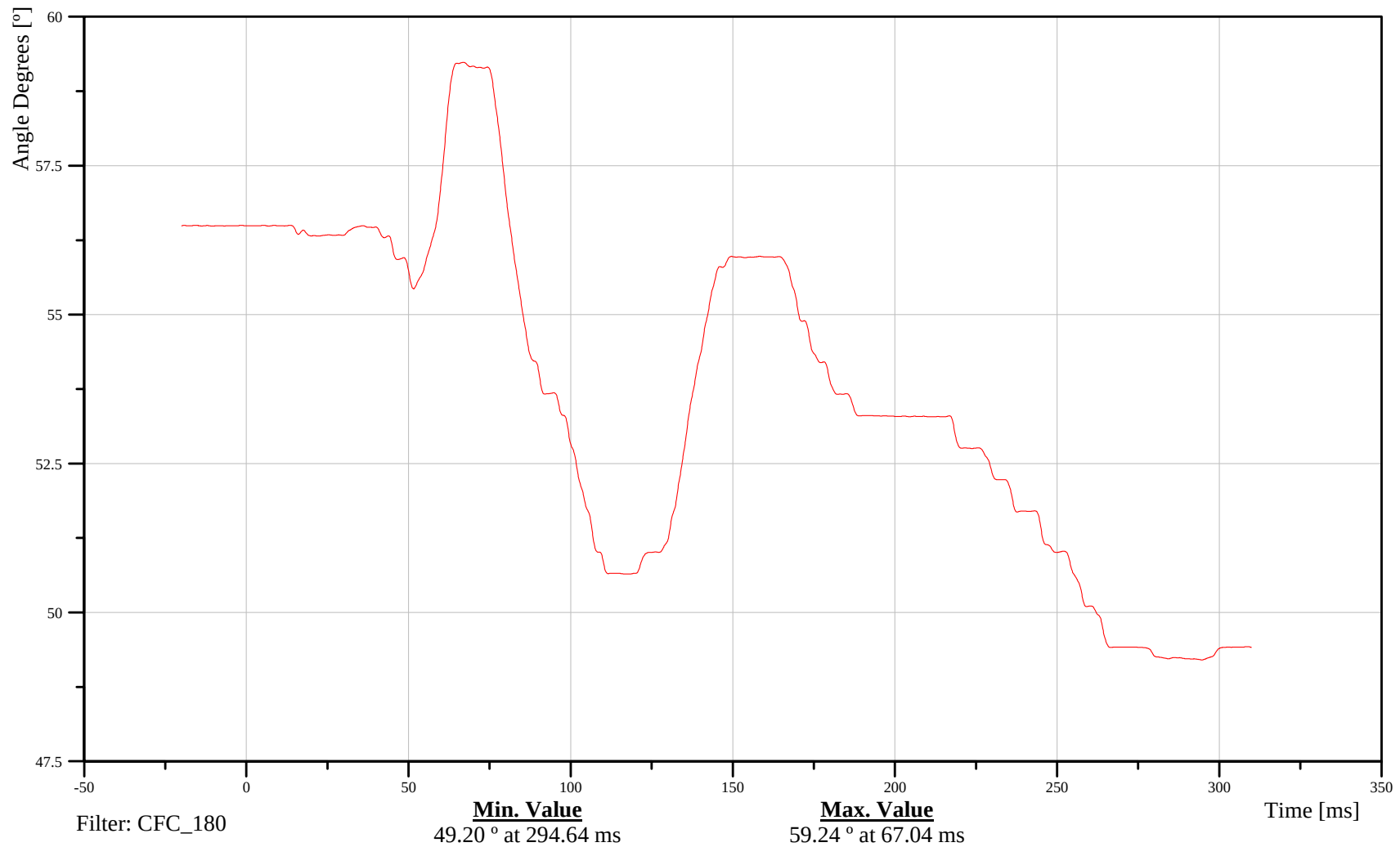
Target Passenger Left Foot Z-Axis Rotation

Customer: VRTC

23FOOTLEFXHFANZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

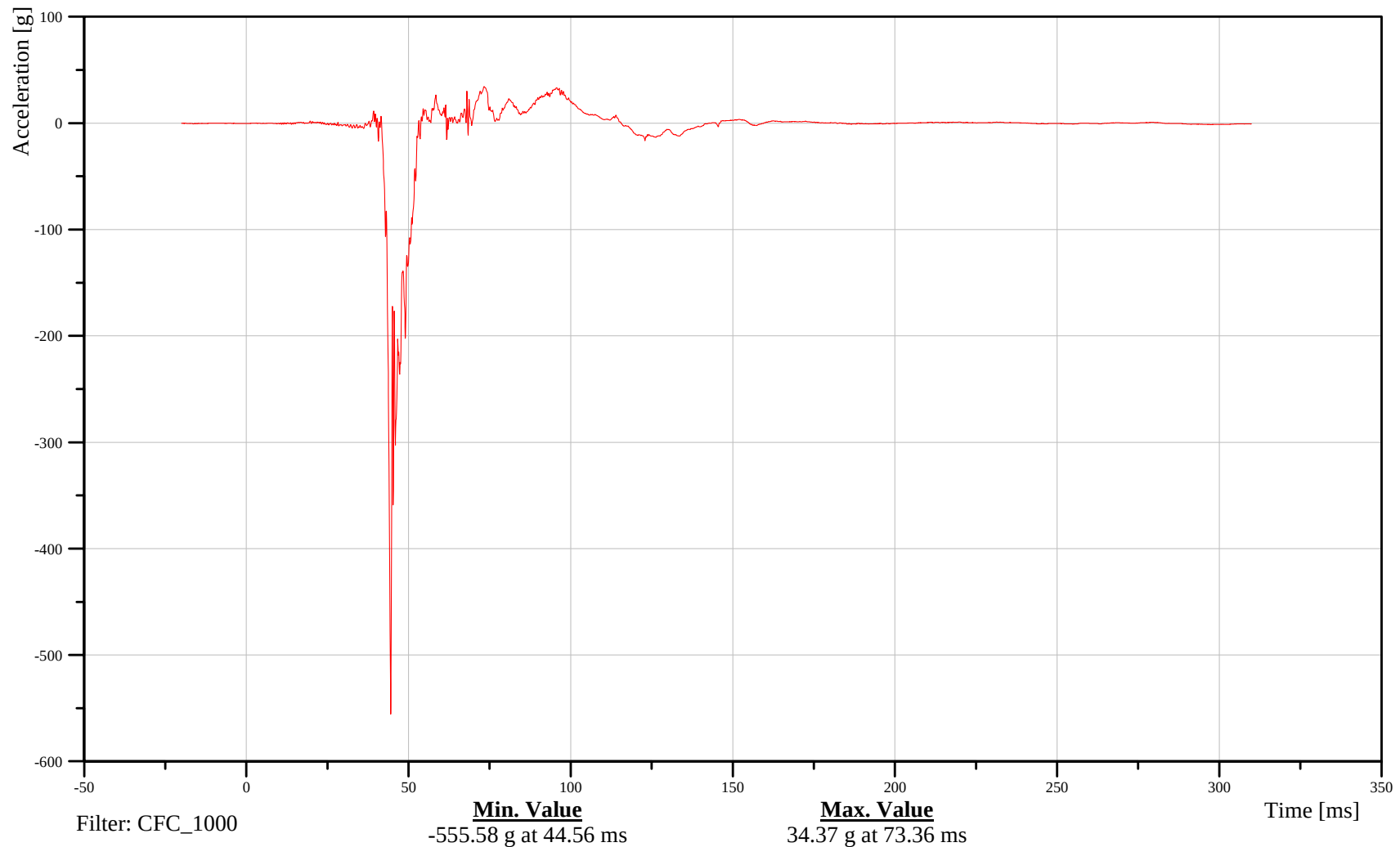
Target Passenger Left Foot X-Axis Acceleration

Customer: VRTC

23FOOTLEFXHFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

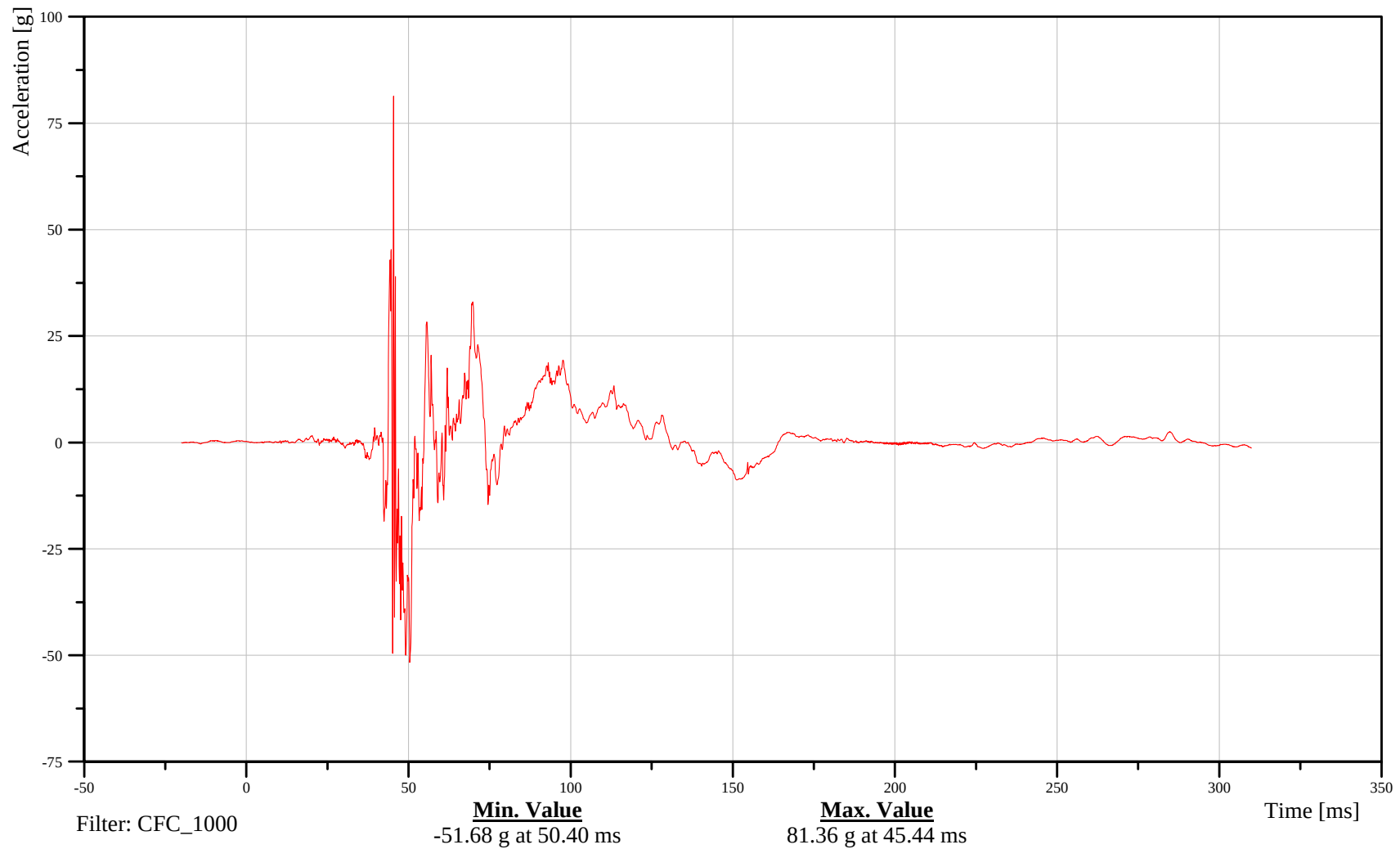
Target Passenger Left Foot Y-Axis Acceleration

Customer: VRTC

23FOOTLEFXHFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

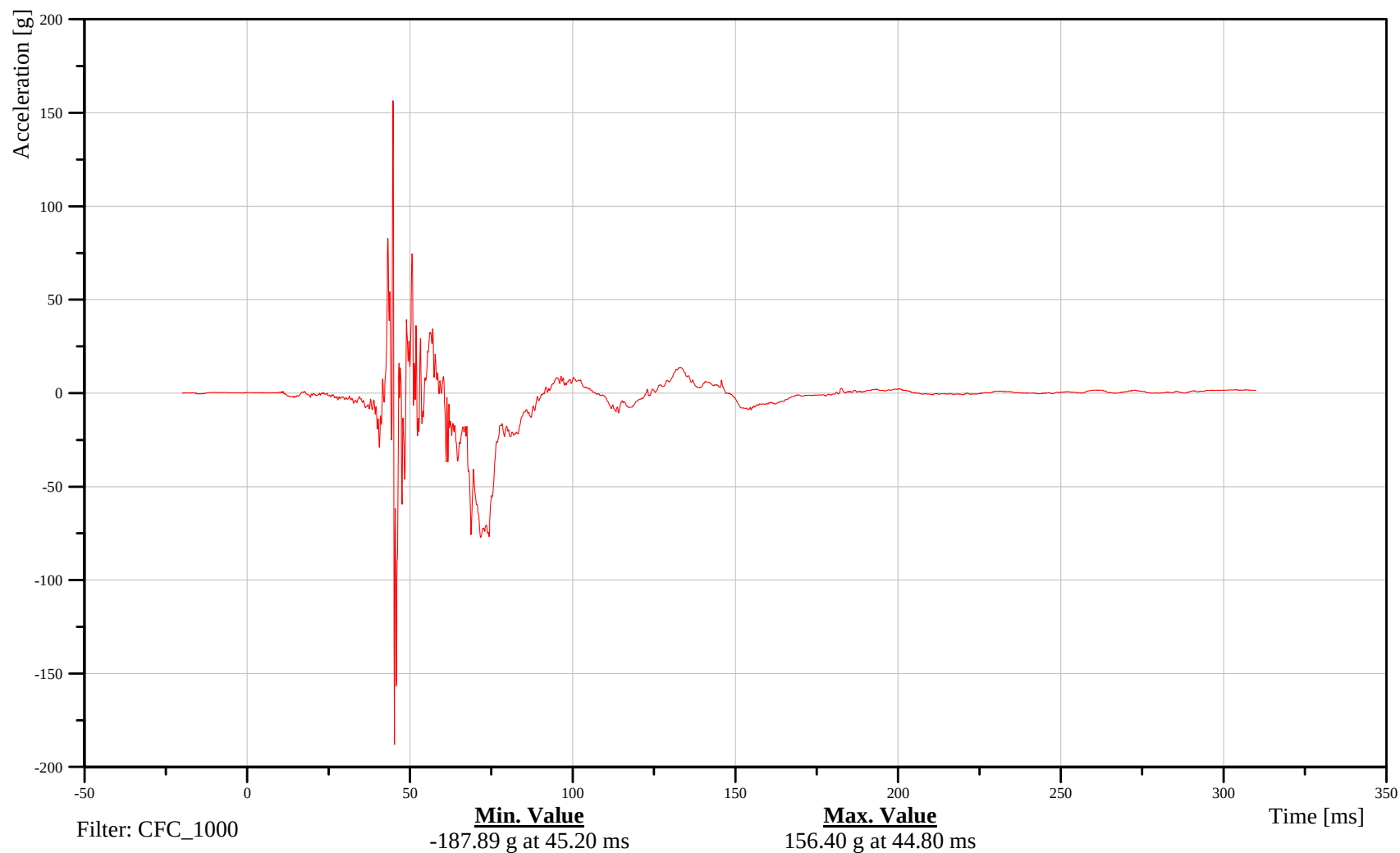
Target Passenger Left Foot Z-Axis Acceleration

Customer: VRTC

23FOOTLEFXHFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

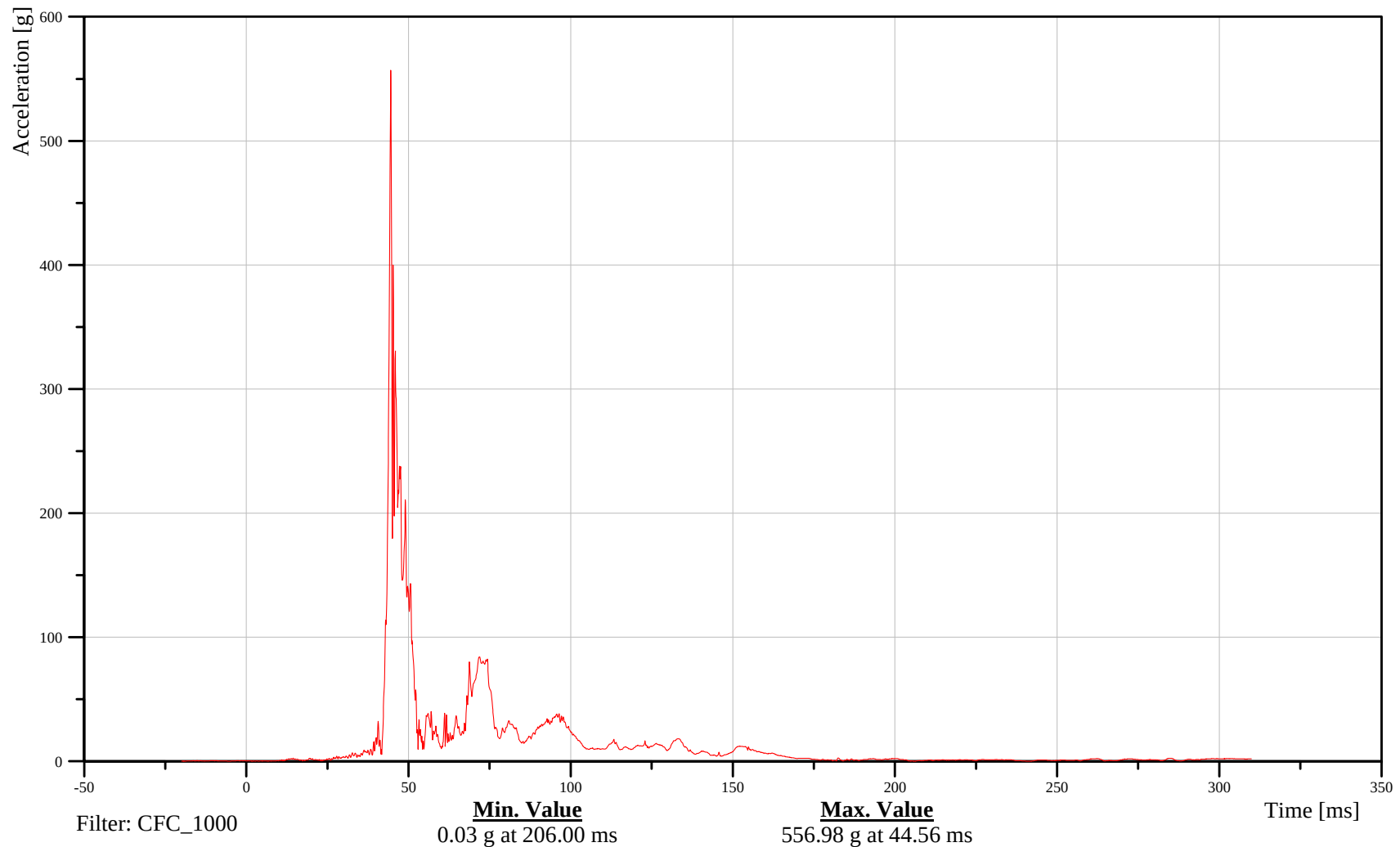
Target Passenger Left Foot Resultant Acceleration

Customer: VRTC

23FOOTLEFXHFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

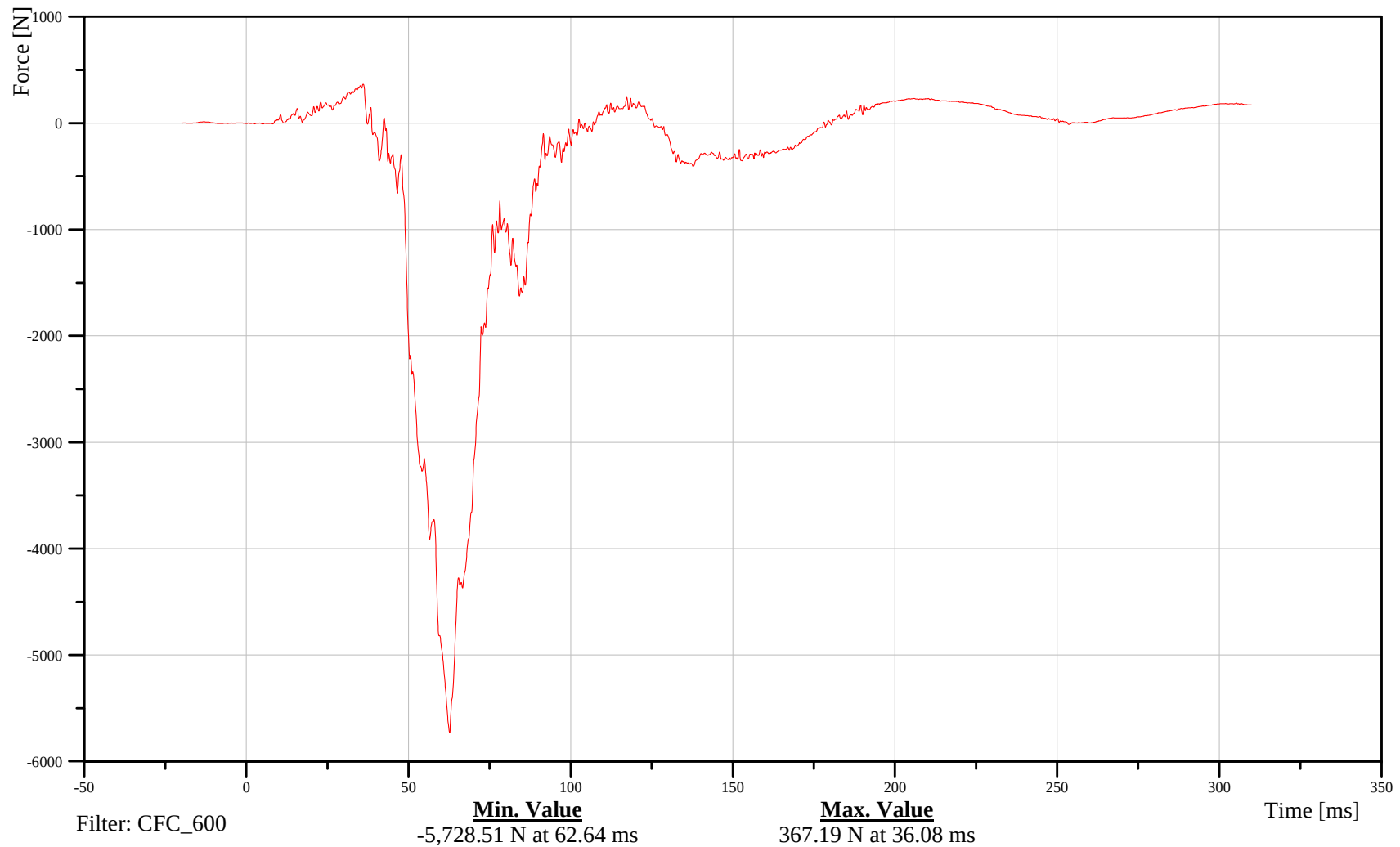
Target Passenger Right Femur Z-Axis Force

Customer: VRTC

23FEMRRL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

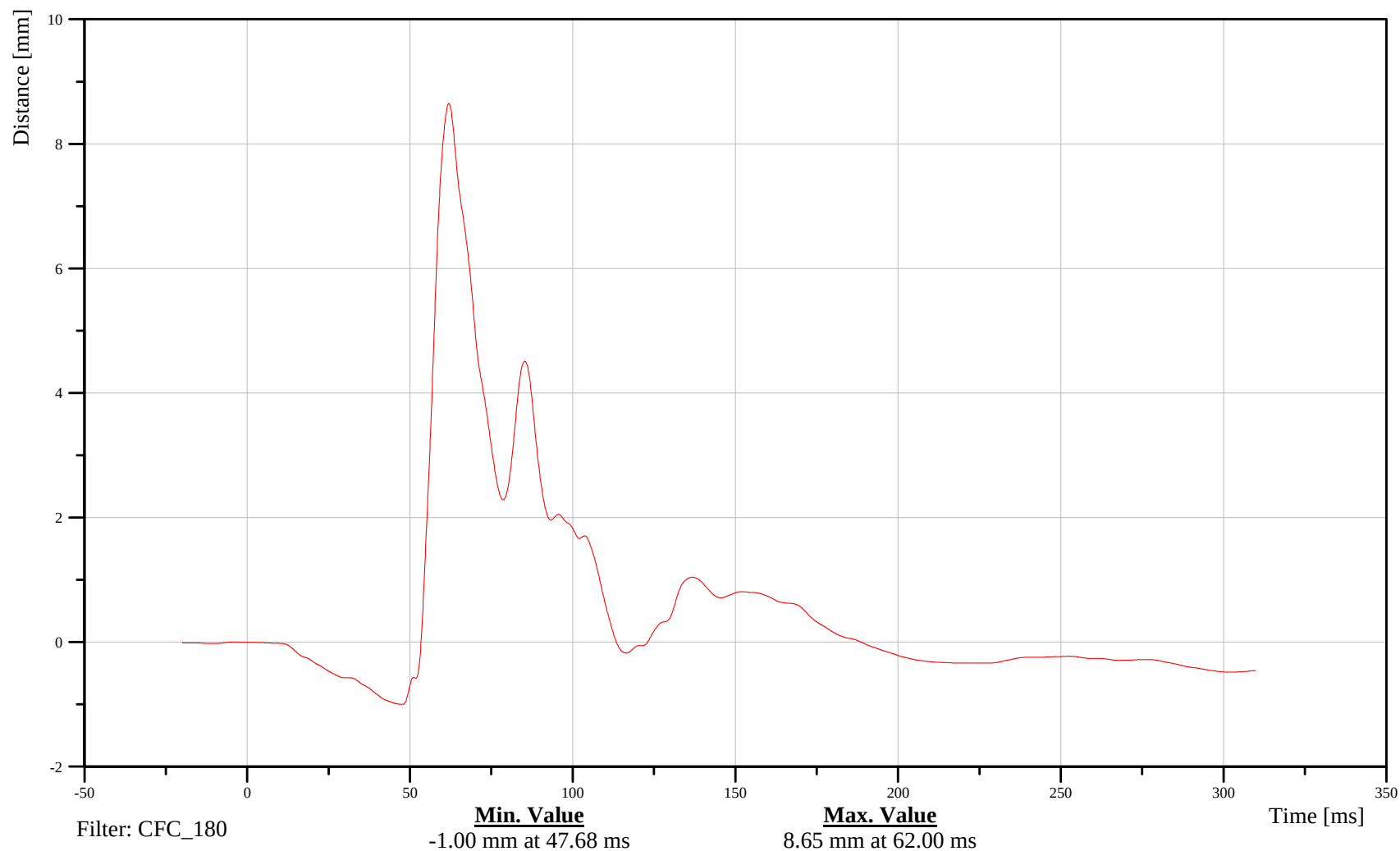
Target Passenger Right Knee Displacement

Customer: VRTC

23KNSLRI00HFDSXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

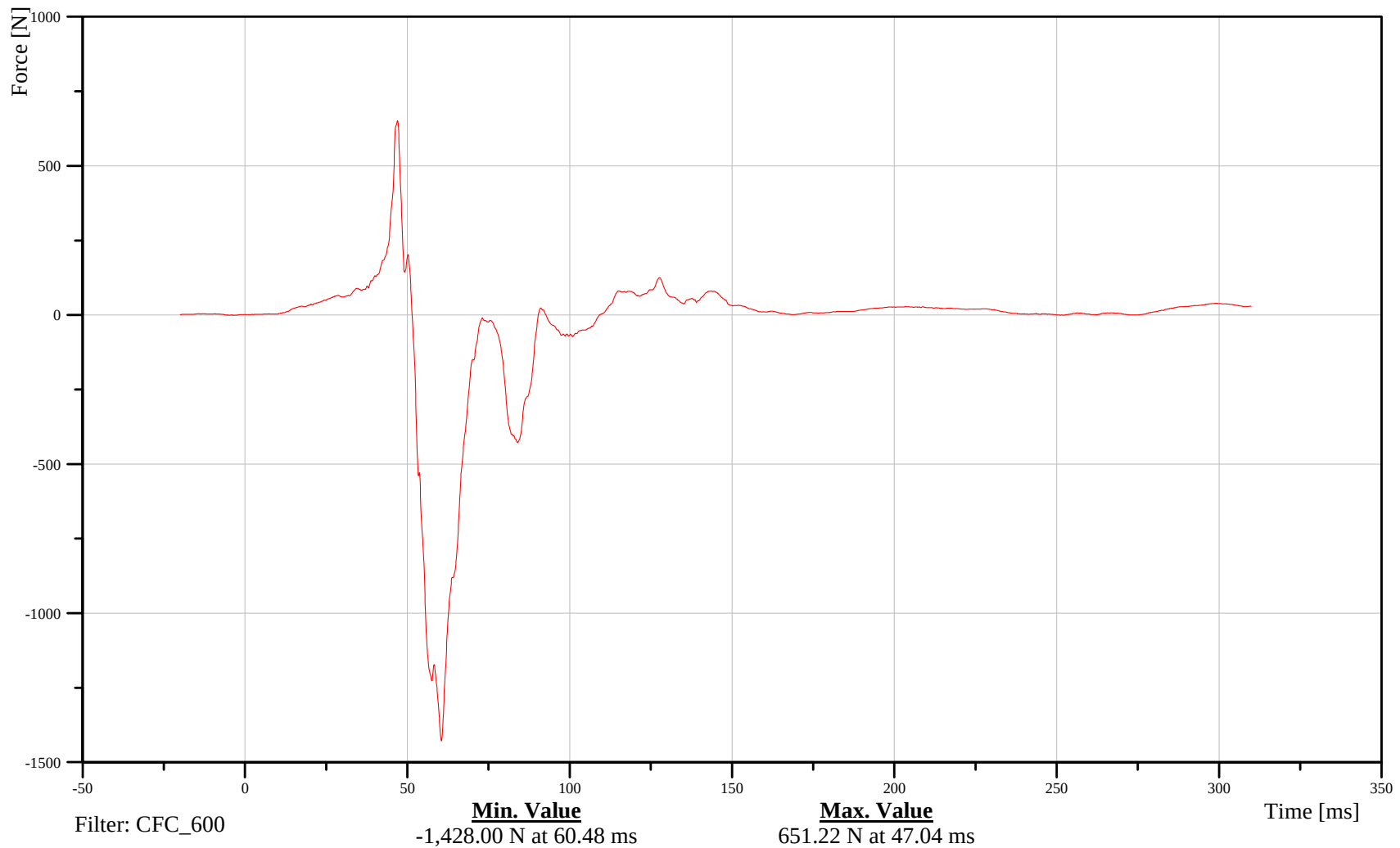
Target Passenger Right Upper Tibia X-Axis Force

Customer: VRTC

23TIBIRUFXHFFOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

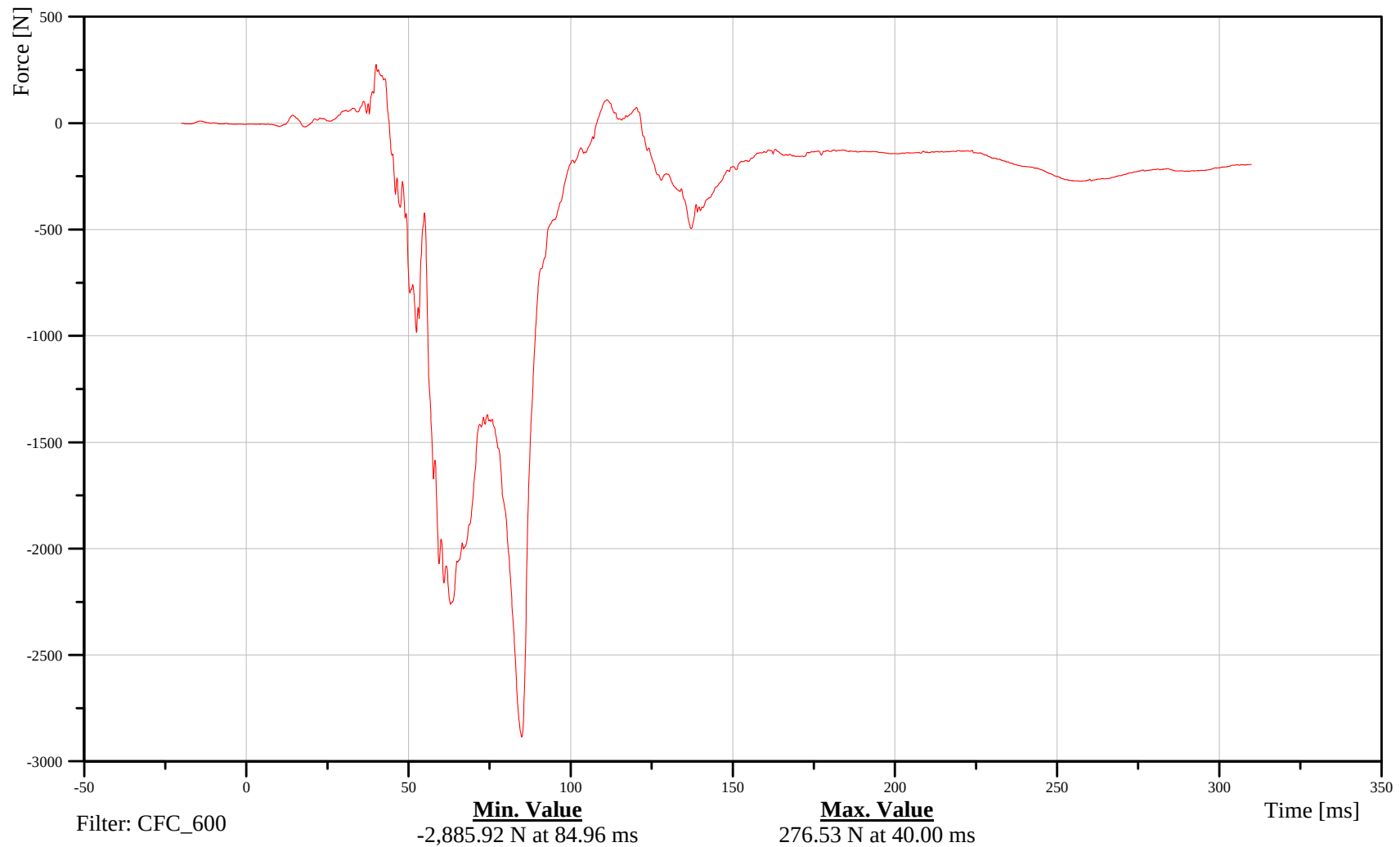
Target Passenger Right Upper Tibia Z-Axis Force

Customer: VRTC

23TIBIRUFXHFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

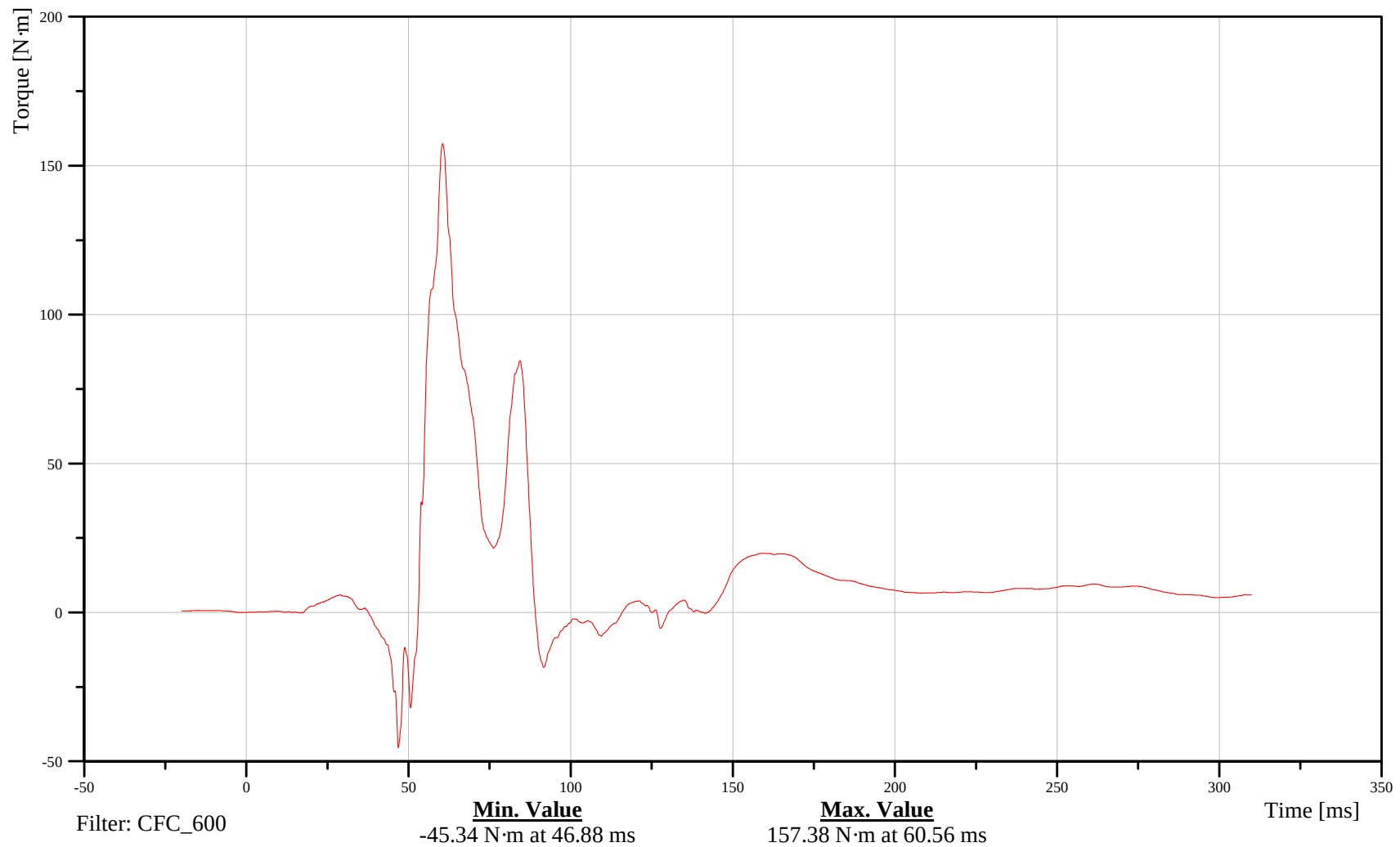
Target Passenger Right Upper Tibia Moment About X Axis

Customer: VRTC

23TIBIRUFXHFM0XB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Target Passenger Right Upper Tibia Moment About Y Axis

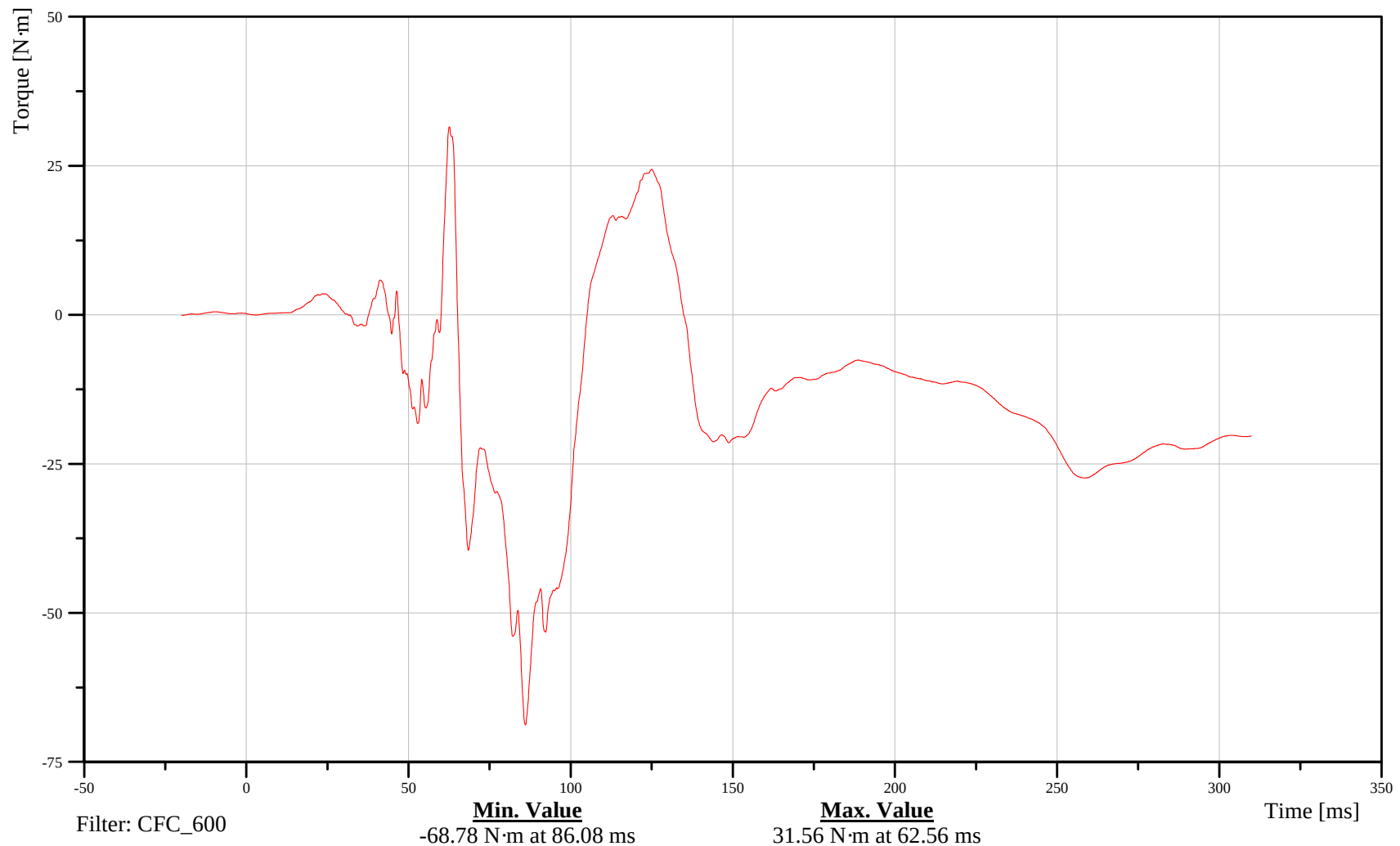
Time: 07:16

Customer: VRTC

23TIBIRUFXHFM0YB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

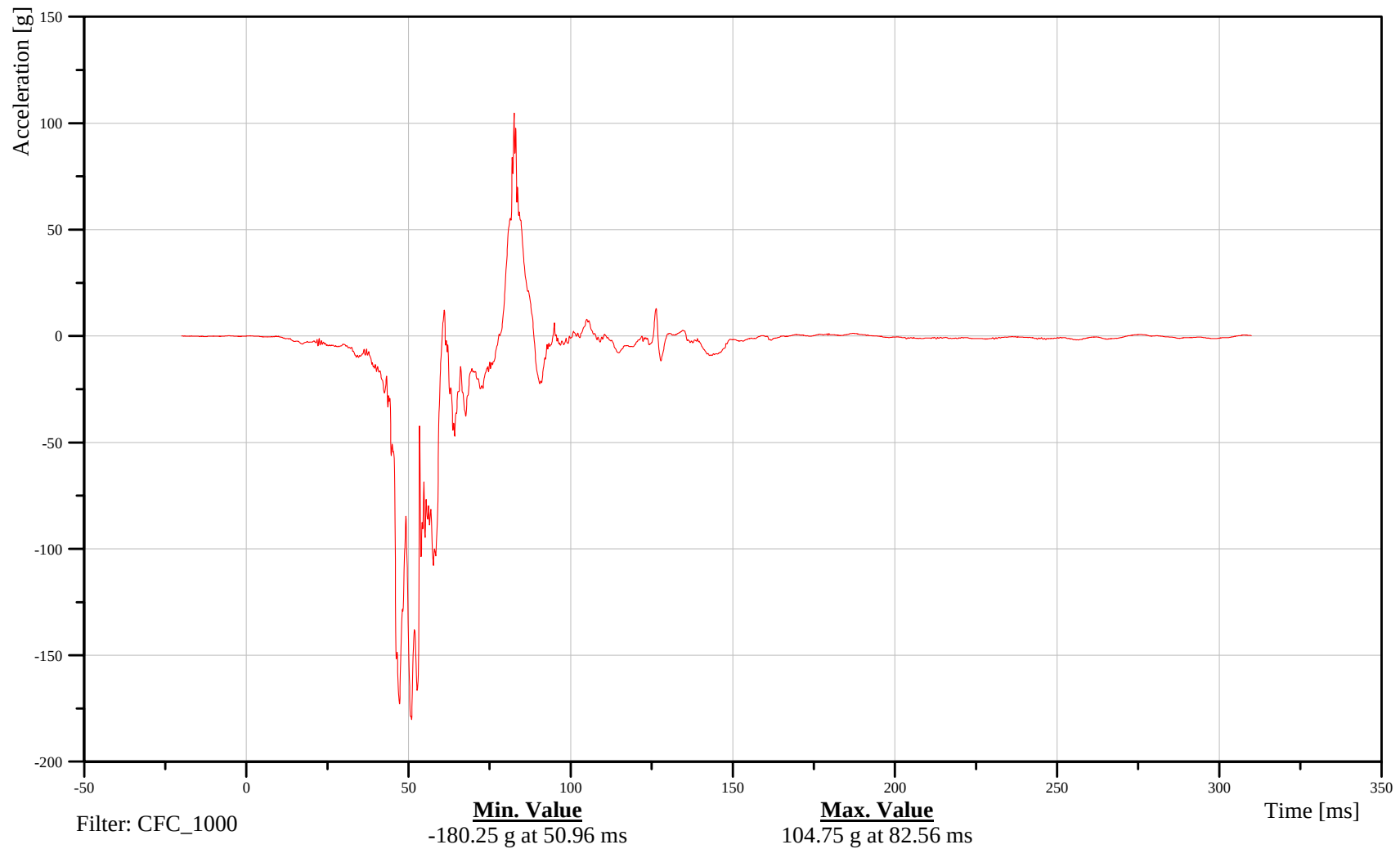
Target Passenger Right Tibia X-Axis Acceleration

Customer: VRTC

23TIBIRIFXHFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

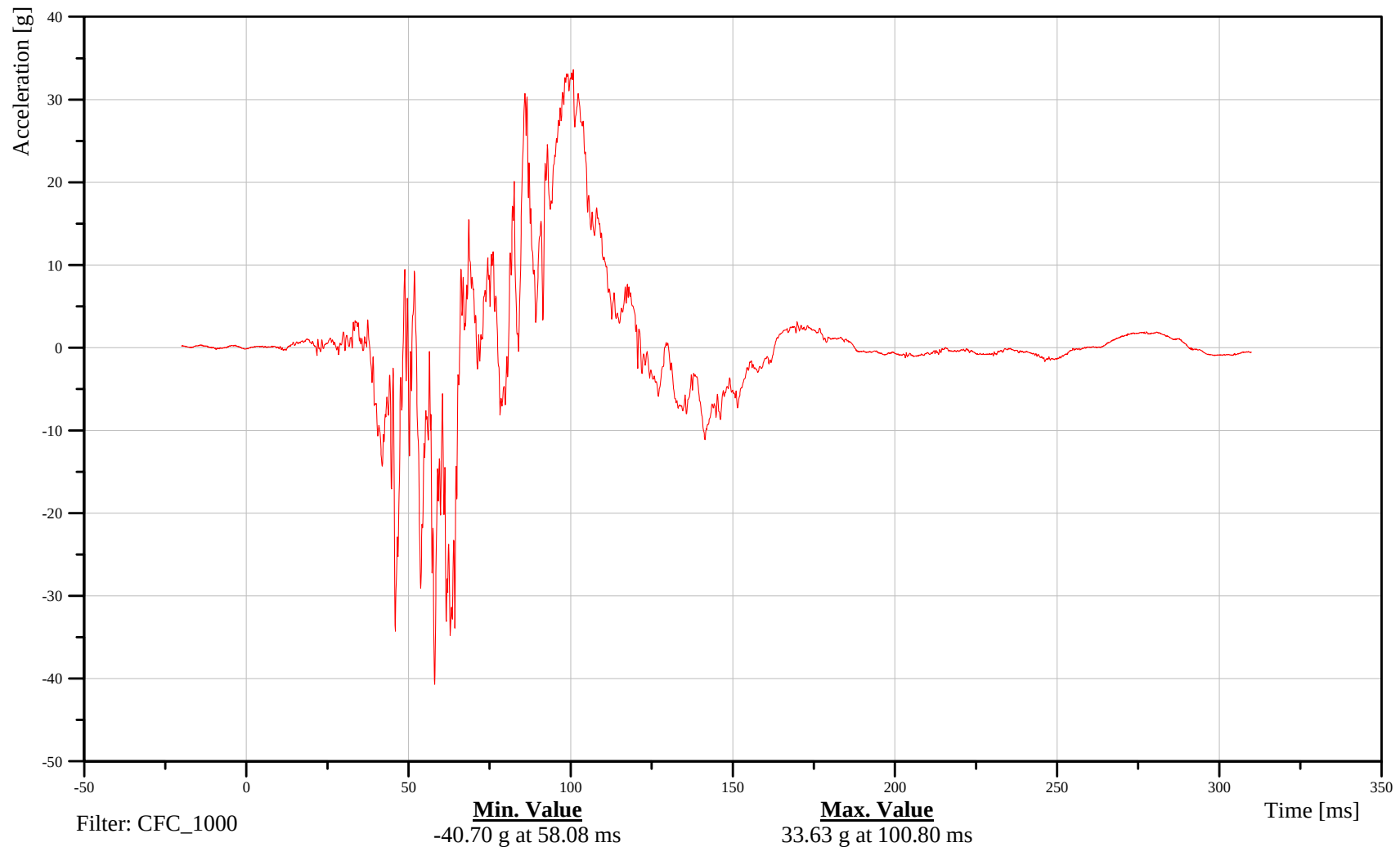
Target Passenger Right Tibia Y-Axis Acceleration

Customer: VRTC

23TIBIRIFXHFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

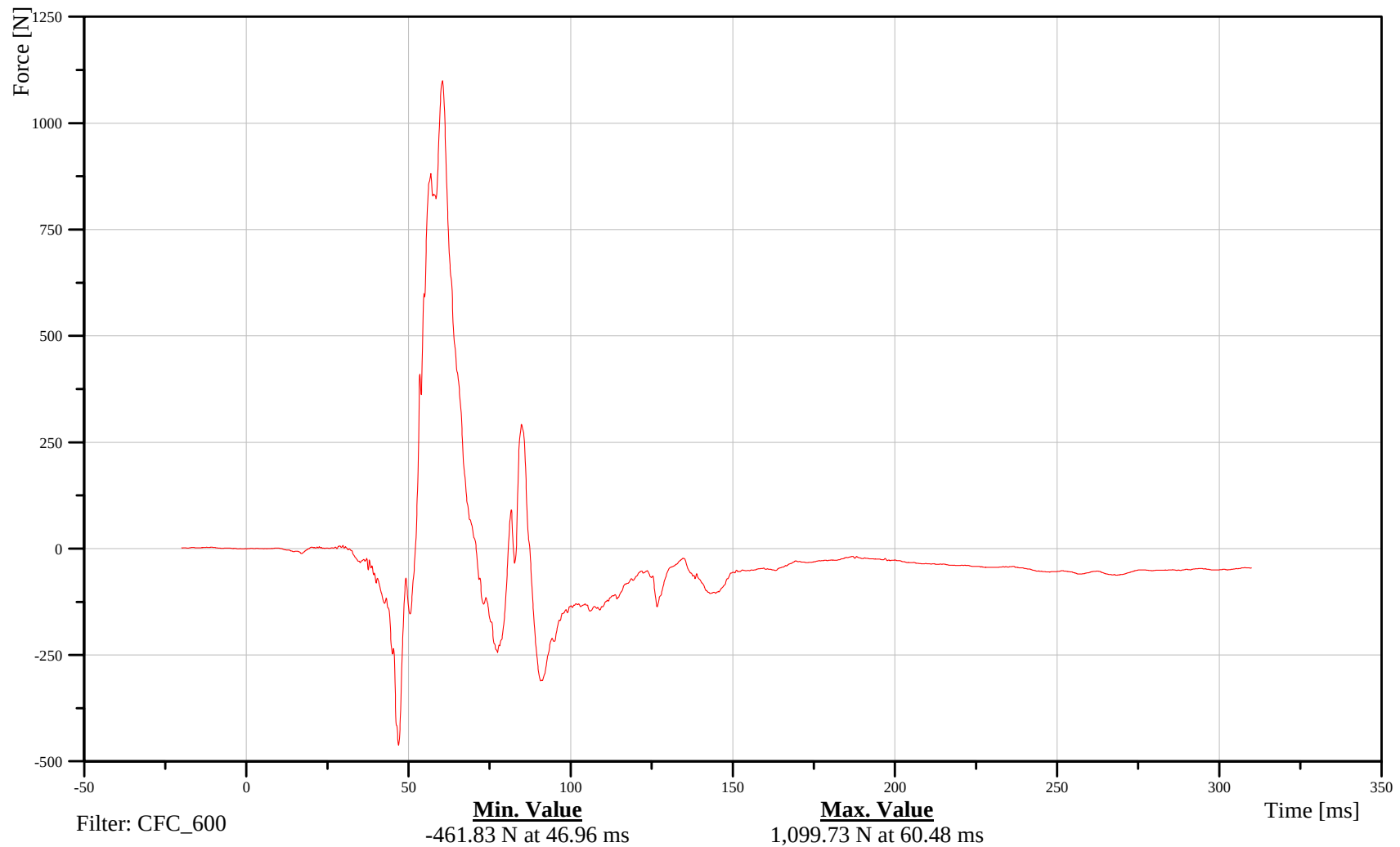
Target Passenger Right Lower Tibia X-Axis Force

Customer: VRTC

23TIBIRLFXHFFOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

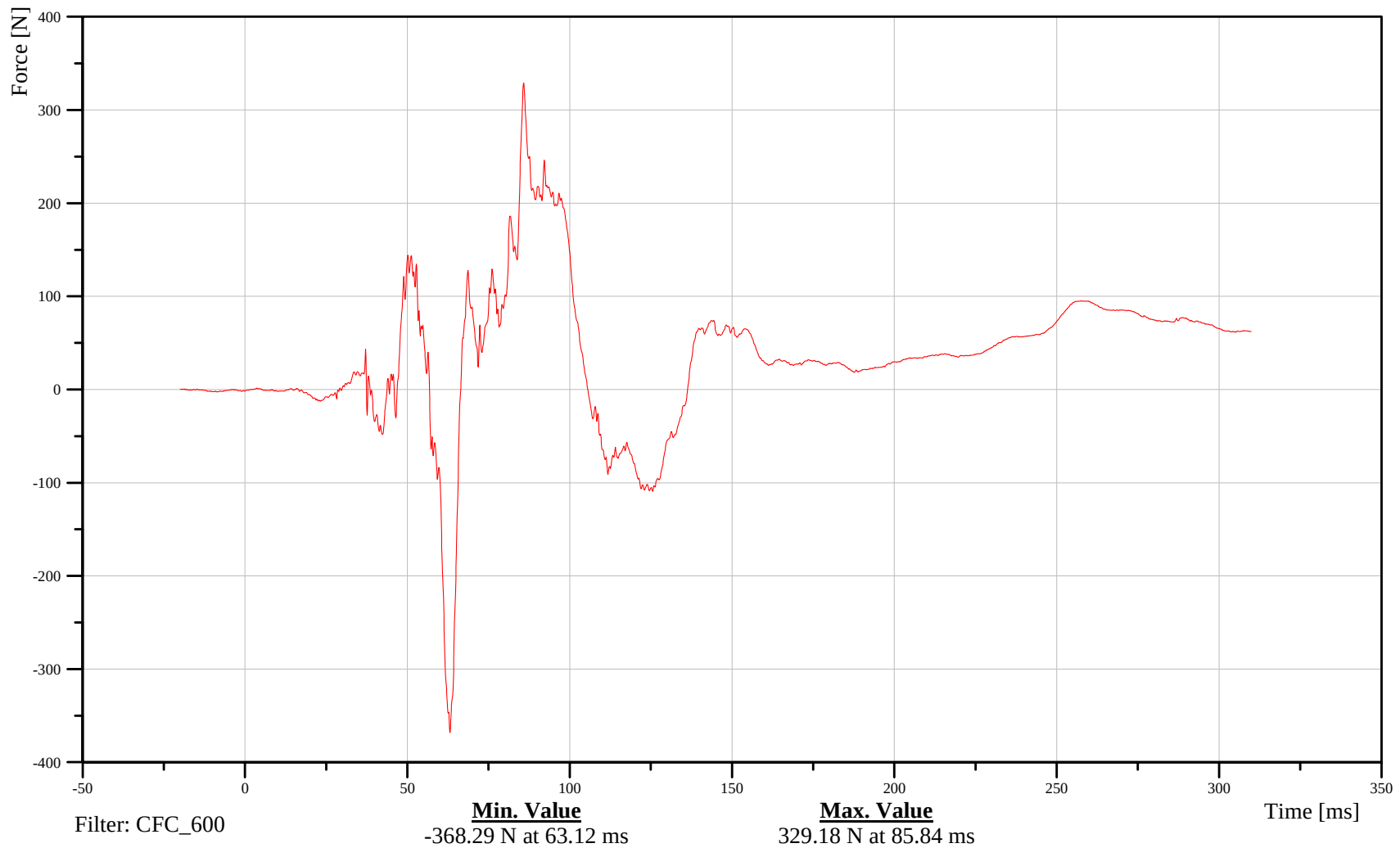
Target Passenger Right Lower Tibia Y-Axis Force

Customer: VRTC

23TIBIRLFXHFFOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

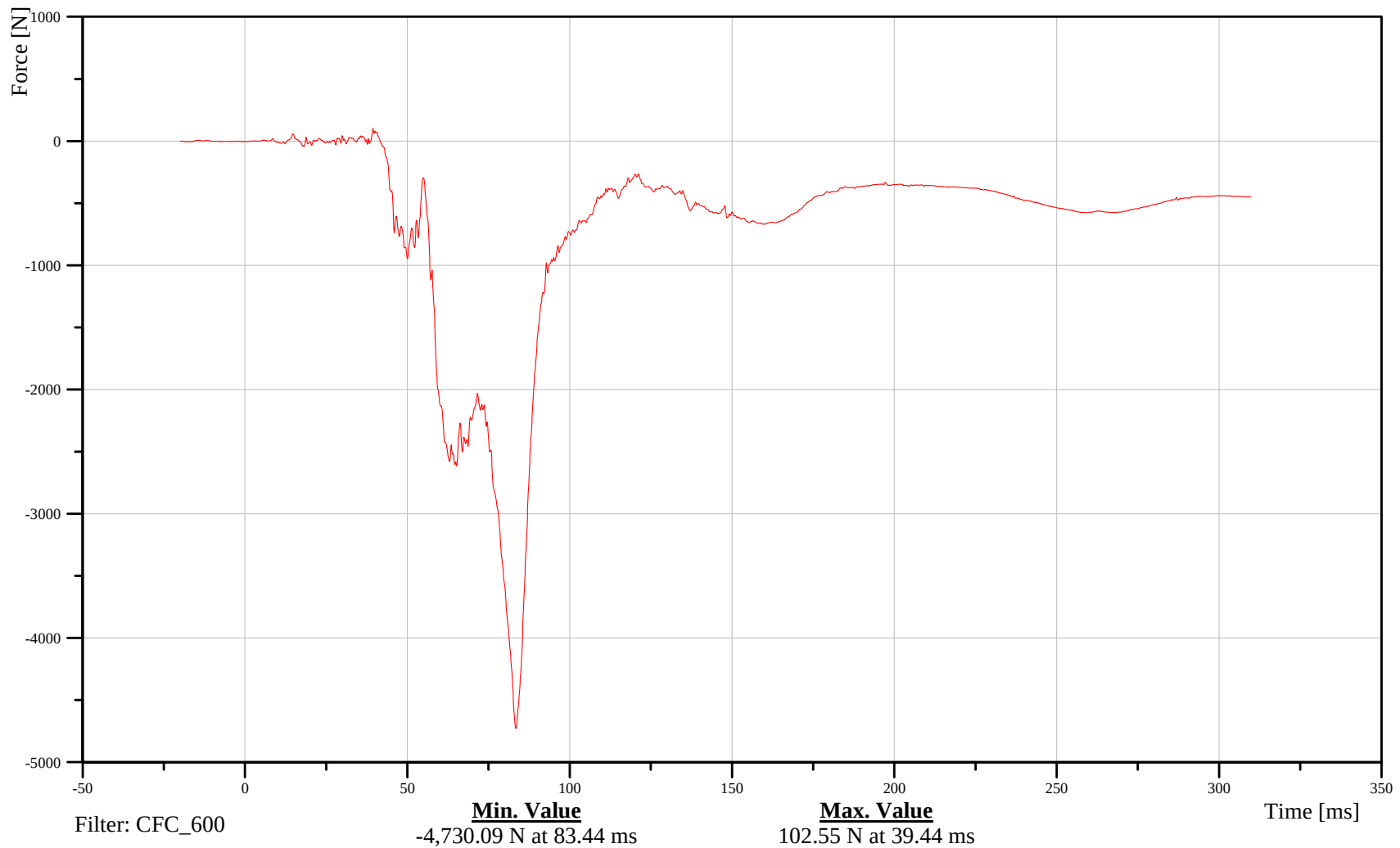
Target Passenger Right Lower Tibia Z-Axis Force

Customer: VRTC

23TIBIRLFXHFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

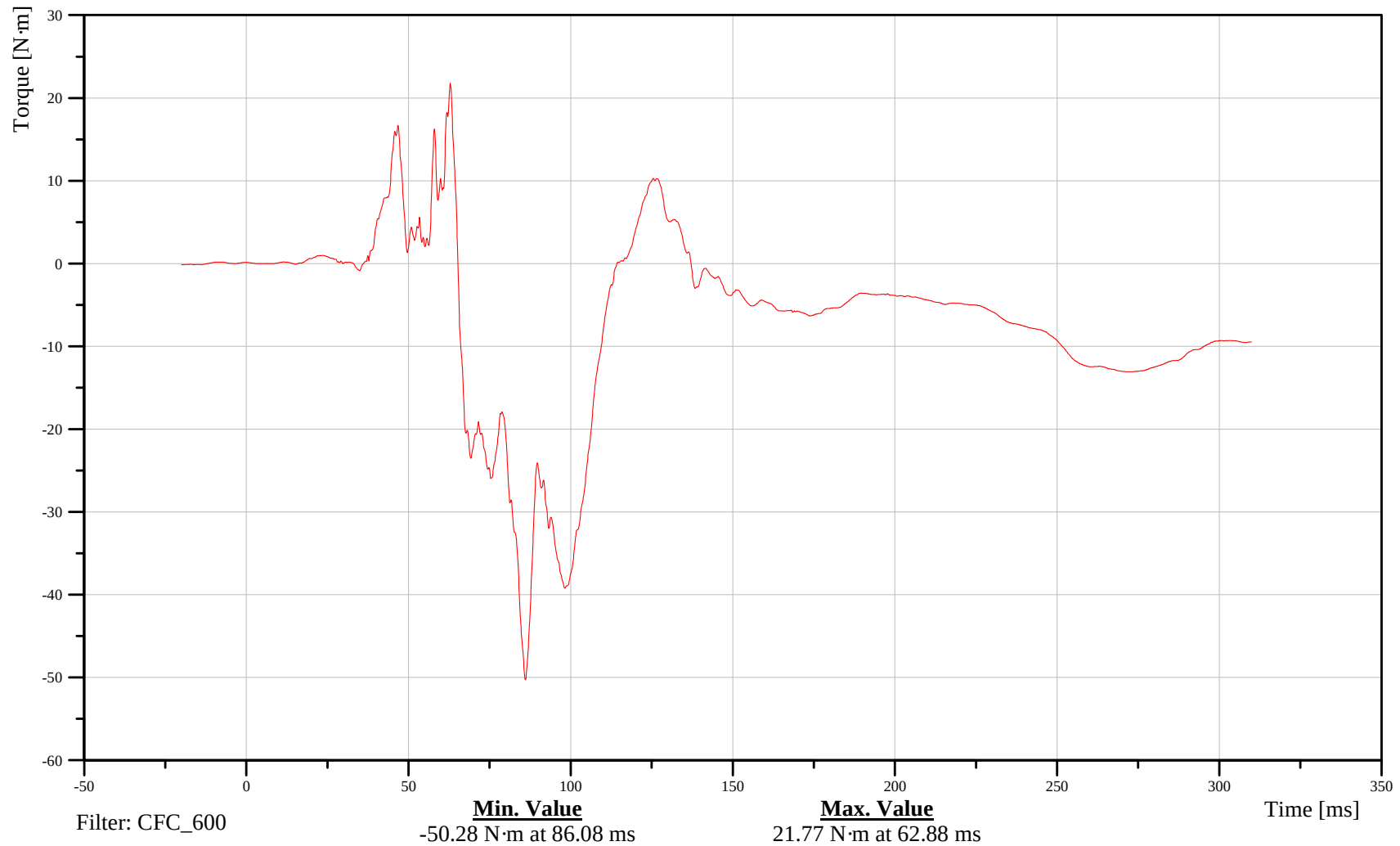
Target Passenger Right Lower Tibia Moment About X Axis

Customer: VRTC

23TIBIRLFXHFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

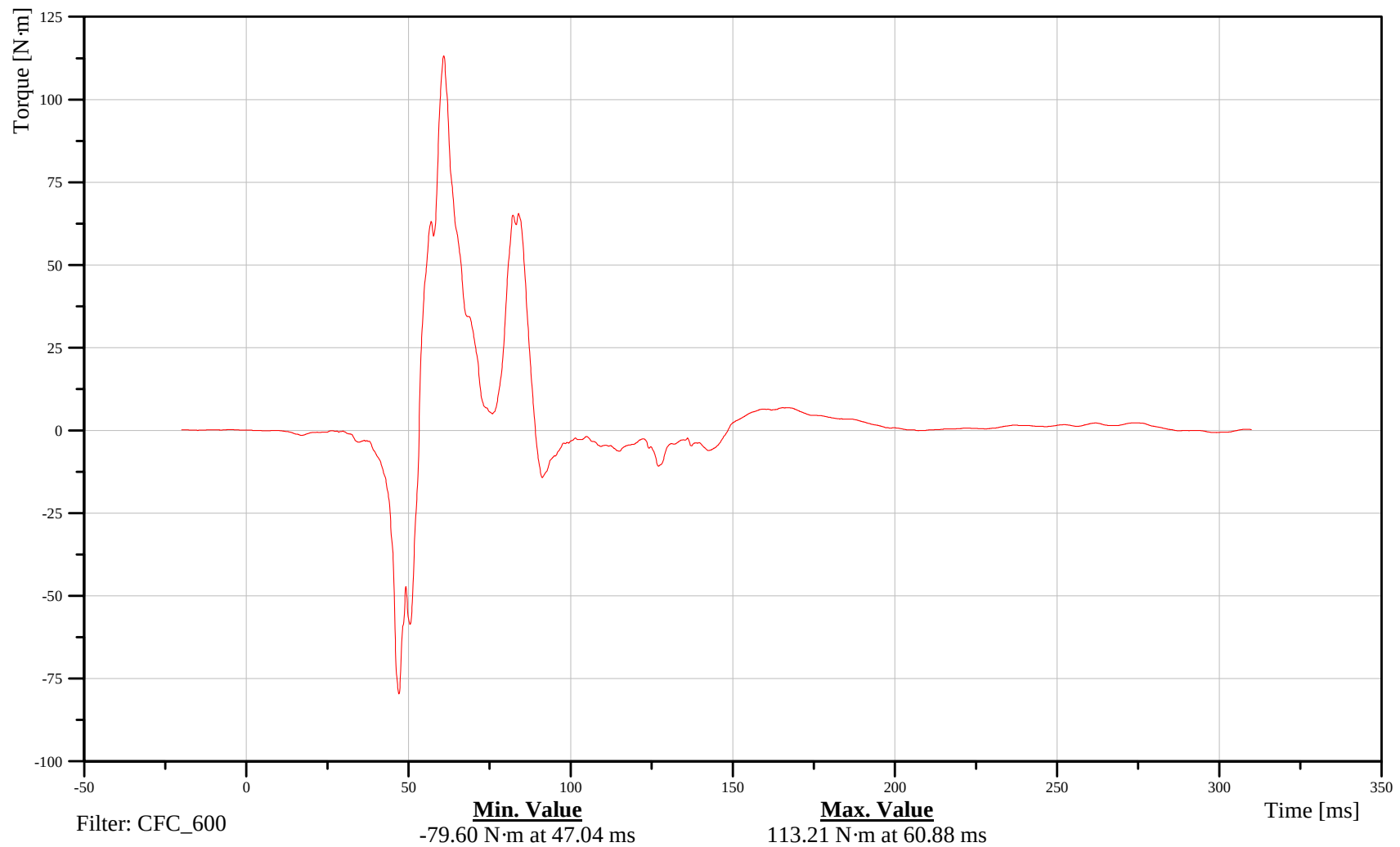
Target Passenger Right Lower Tibia Moment About Y Axis

Customer: VRTC

23TIBIRLFXHFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

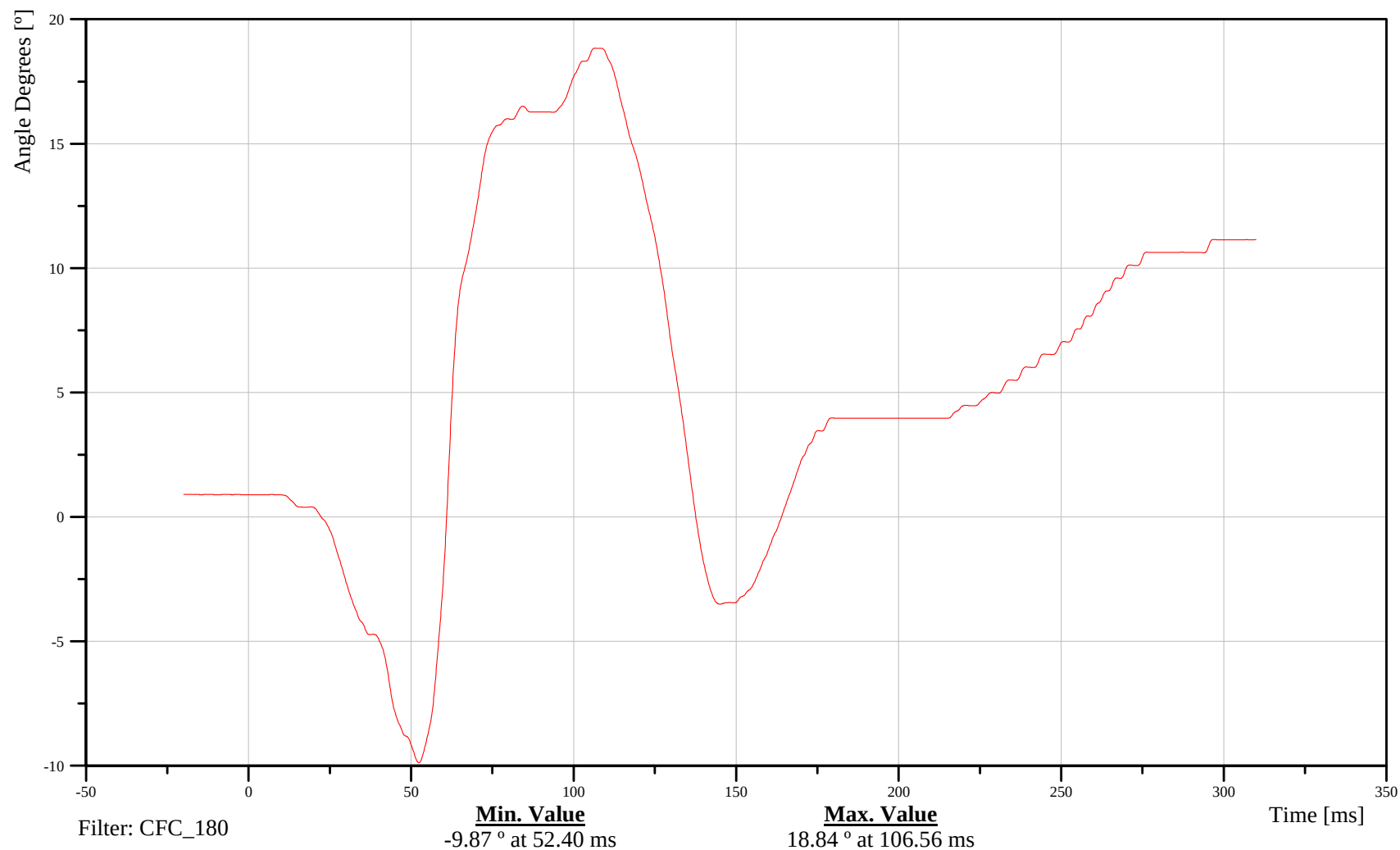
Target Passenger Right Foot X-Axis Rotation

Customer: VRTC

23FOOTRIFXHFANXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

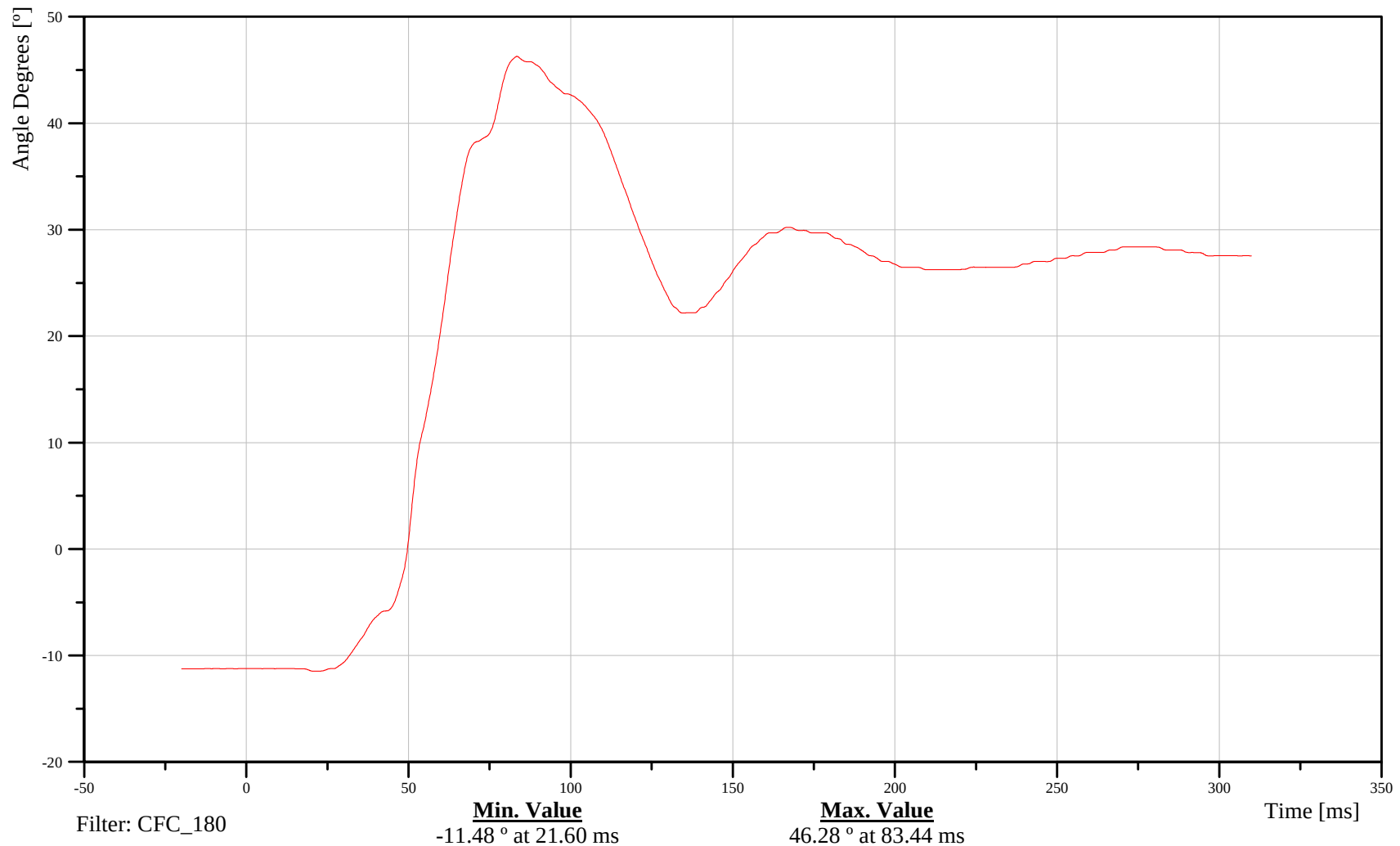
Target Passenger Right Foot Y-Axis Rotation

Customer: VRTC

23FOOTRIFXHFANYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

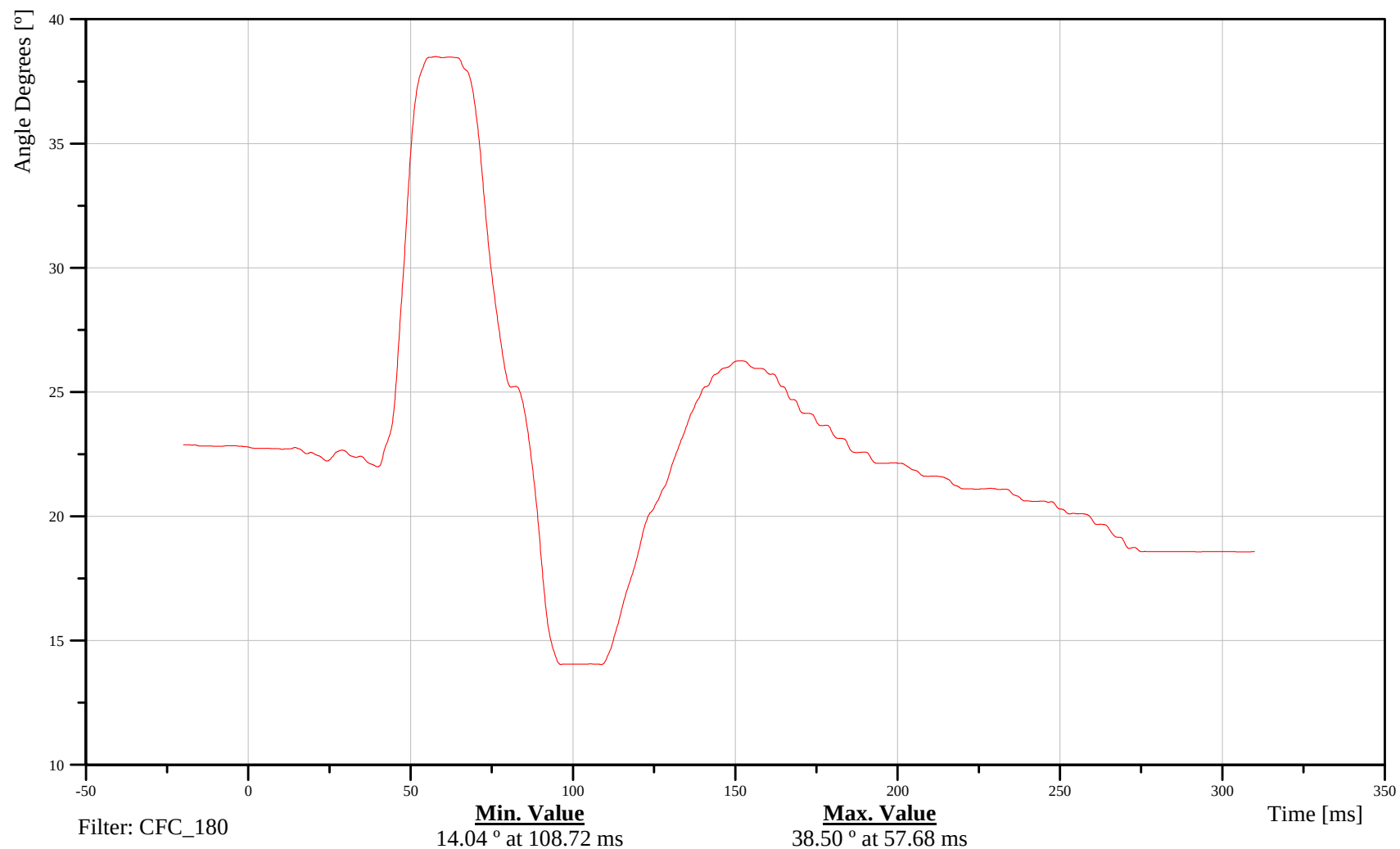
Target Passenger Right Foot Z-Axis Rotation

Customer: VRTC

23FOOTRIFXHFANZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

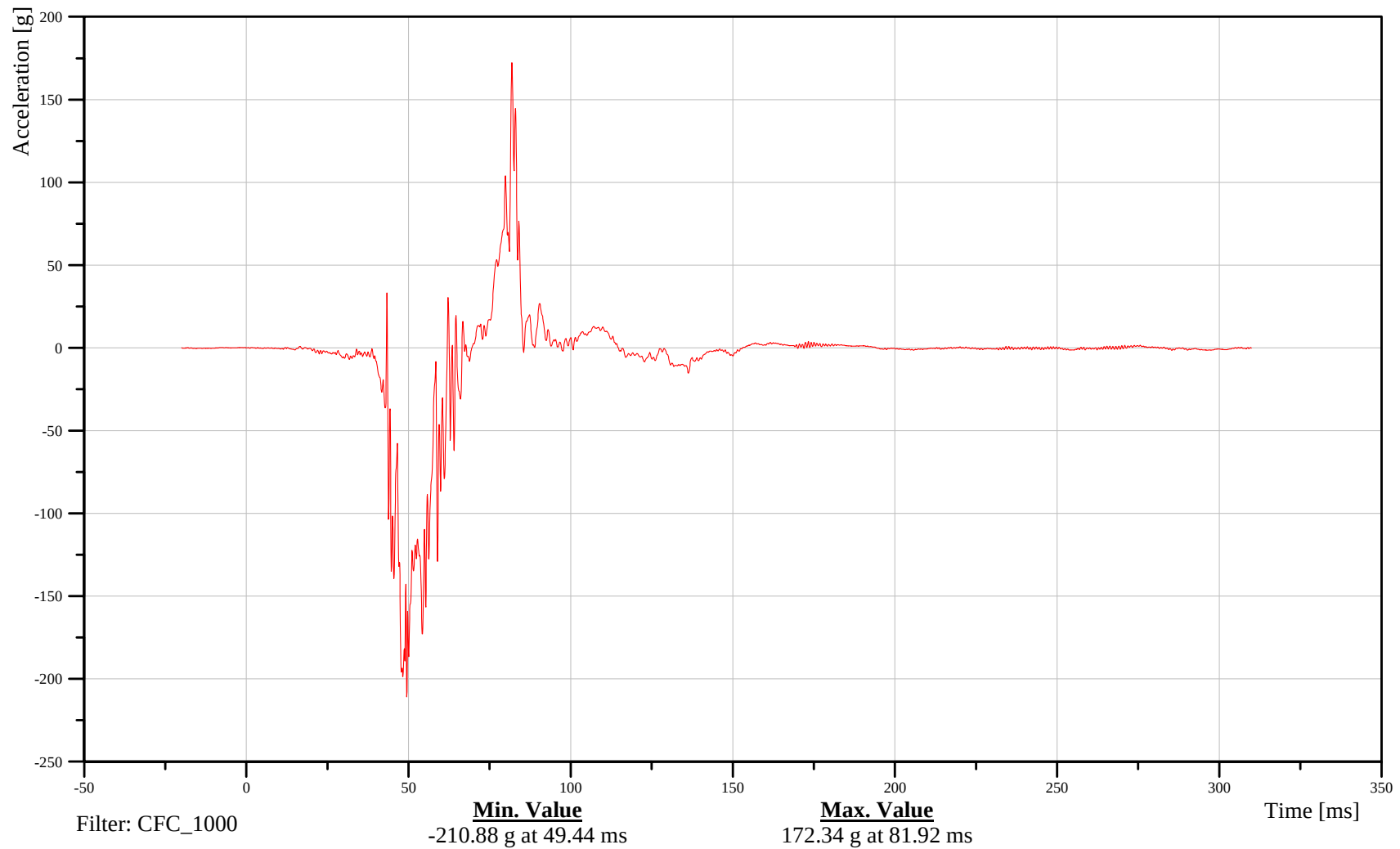
Target Passenger Right Foot X-Axis Acceleration

Customer: VRTC

23FOOTRIFXHFACXA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

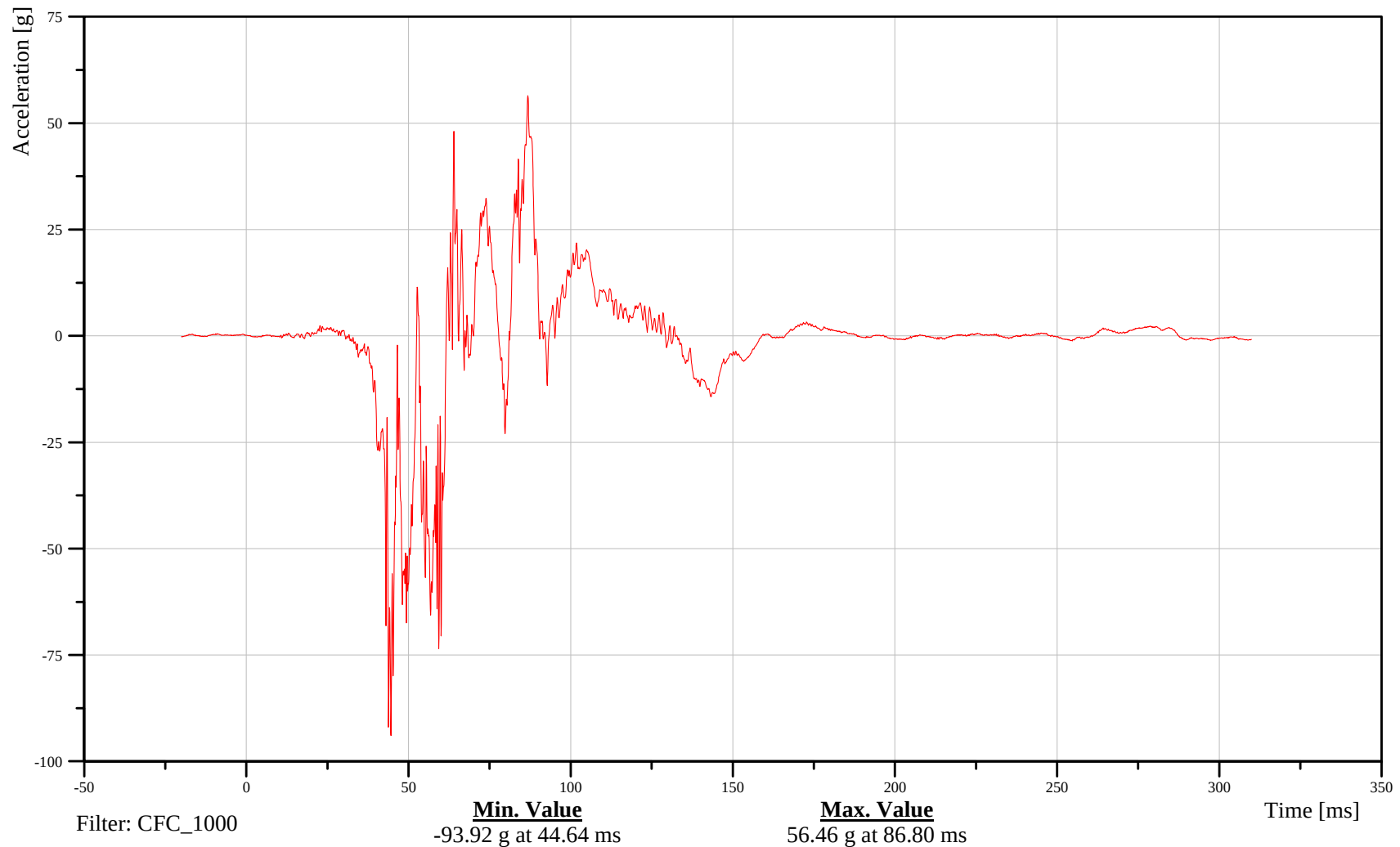
Target Passenger Right Foot Y-Axis Acceleration

Customer: VRTC

23FOOTRIFXHFACYA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

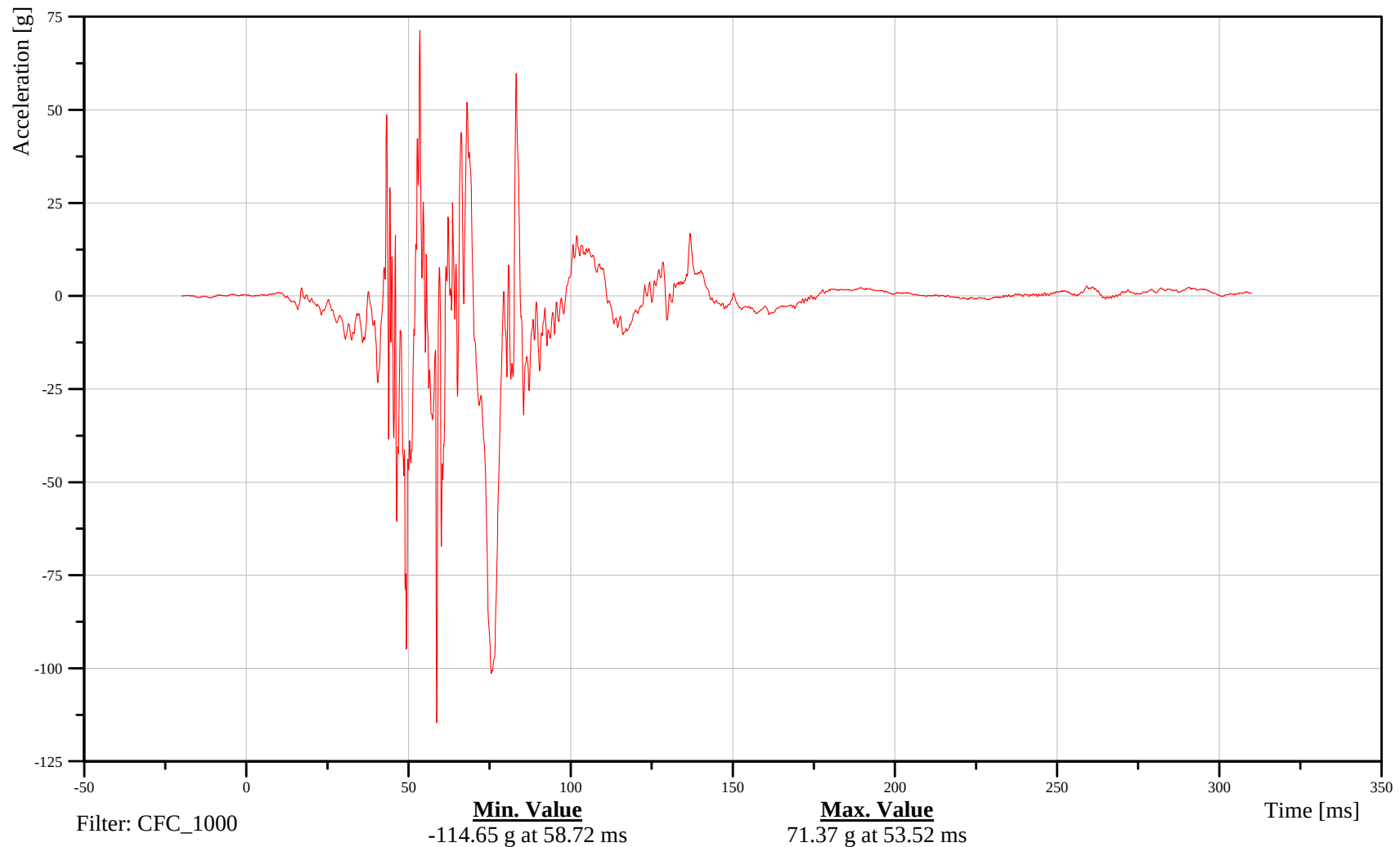
Target Passenger Right Foot Z-Axis Acceleration

Customer: VRTC

23FOOTRIFXHFACZA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

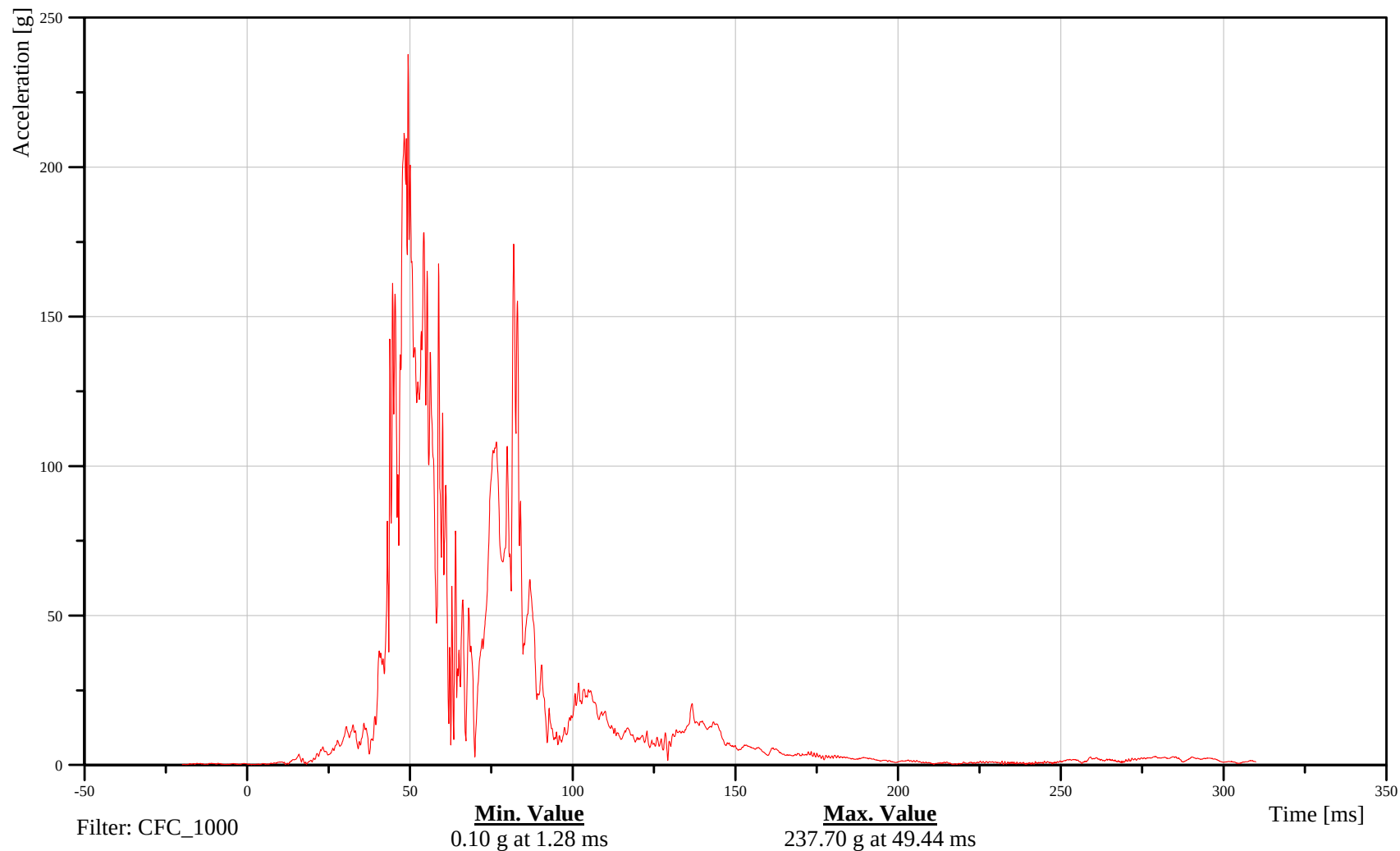
Target Passenger Right Foot Resultant Acceleration

Customer: VRTC

23FOOTRIFXHFACRA

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

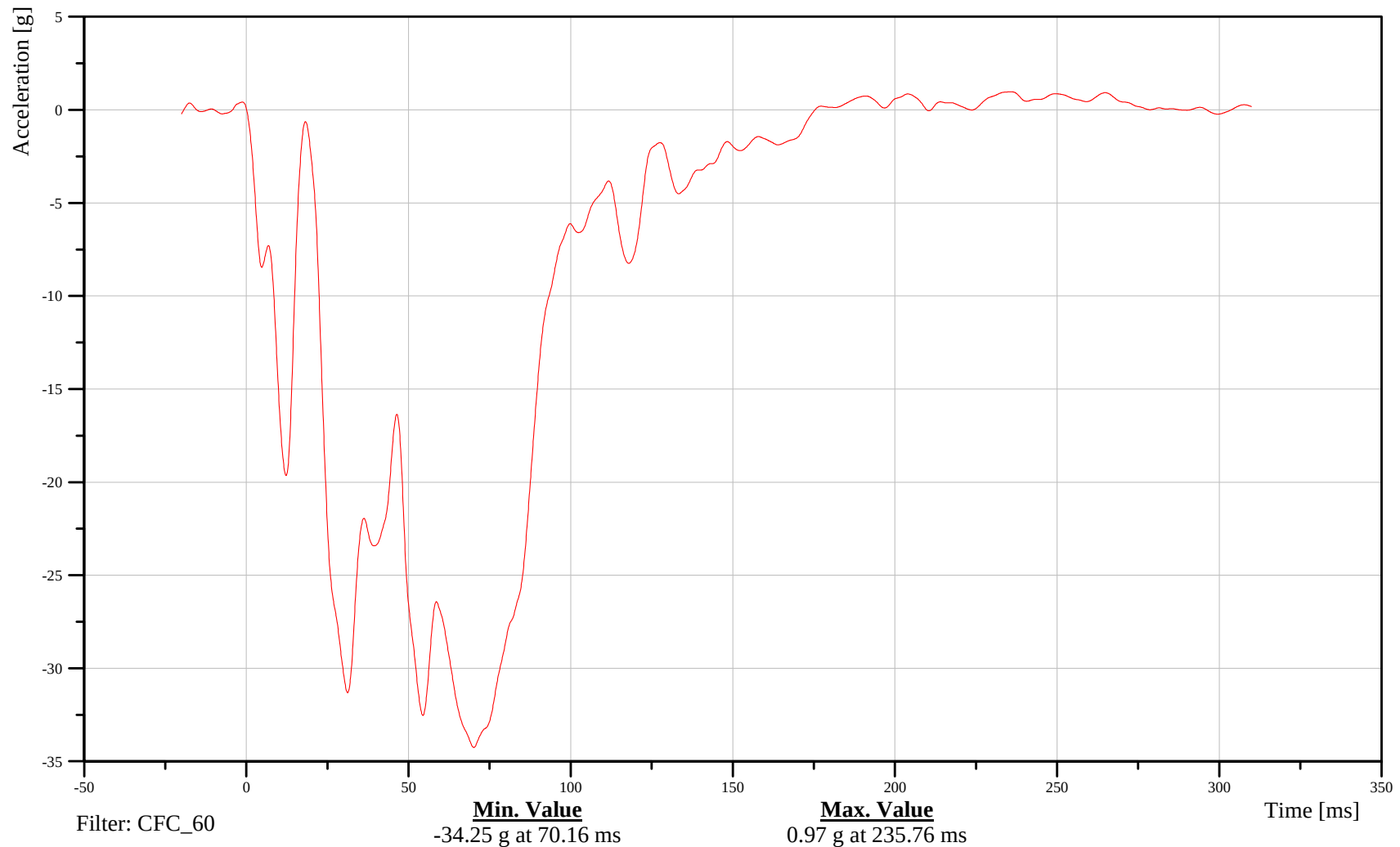
Target Vehicle Left Rear Seat Crossmember X-Axis Acceleration

Customer: VRTC

24CRME000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

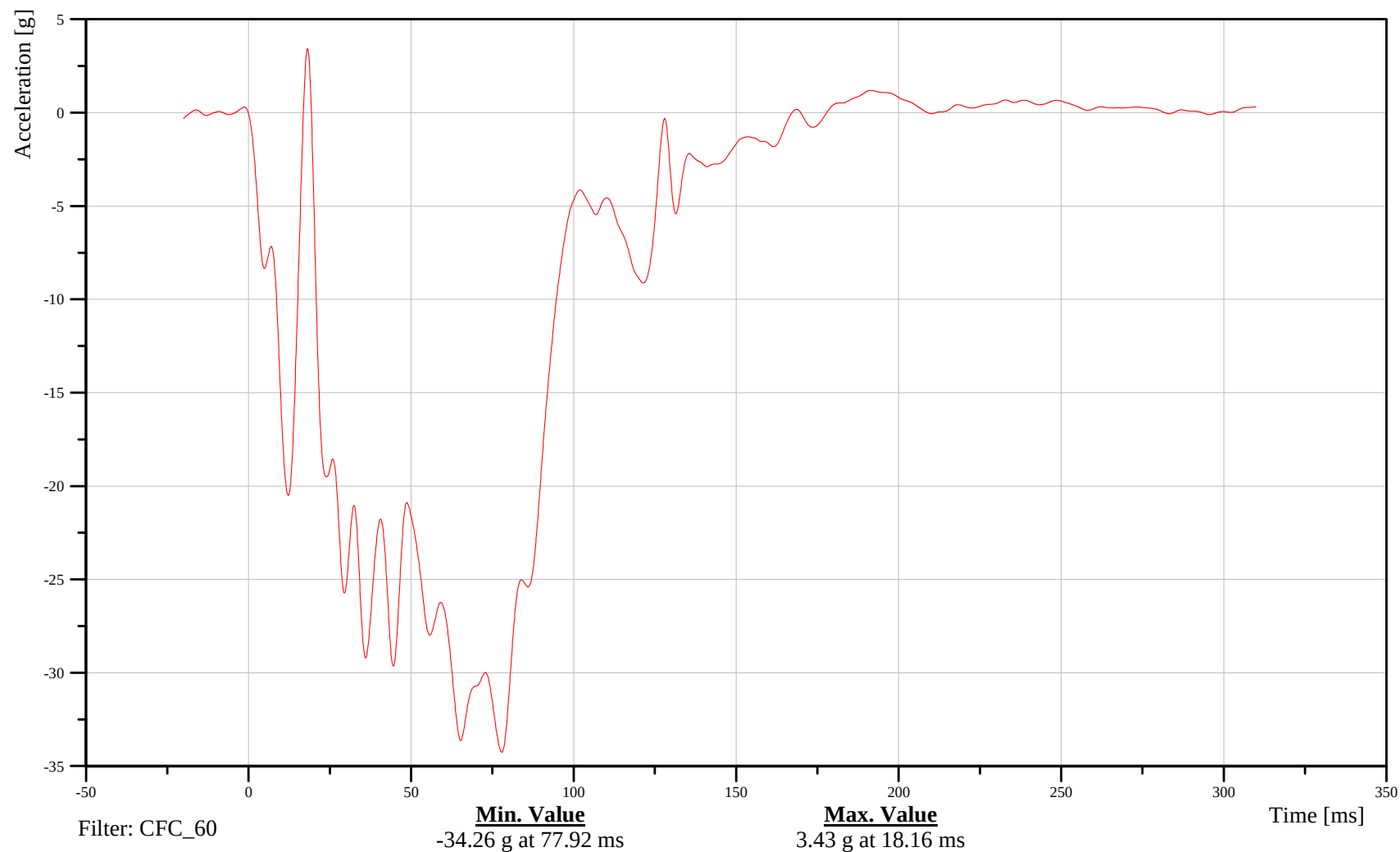
Target Vehicle Right Rear Seat Crossmember X-Axis Acceleration

Customer: VRTC

26CRME000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

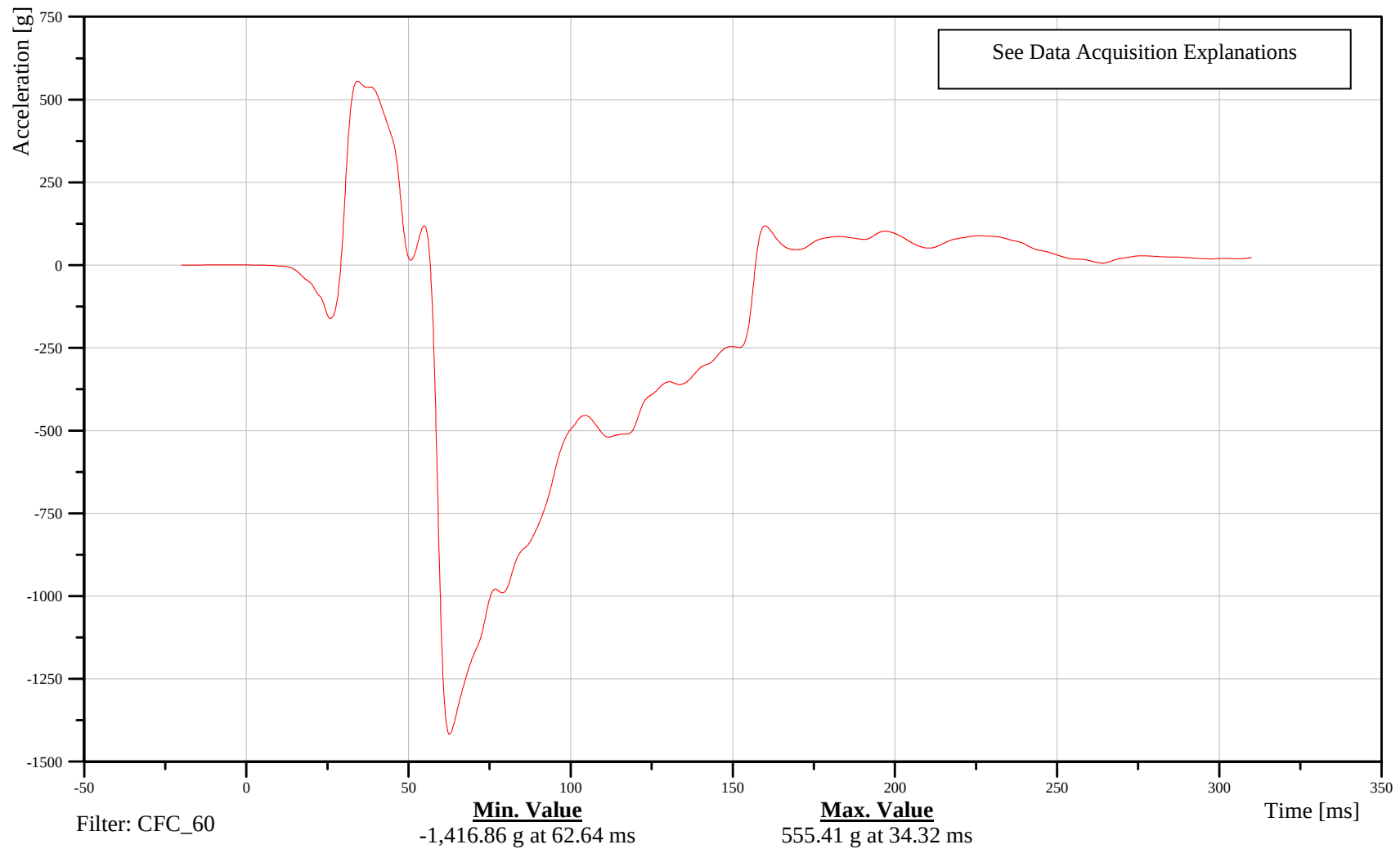
Target Vehicle Top of Engine X-Axis Acceleration

Customer: VRTC

22ENGNTTP0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

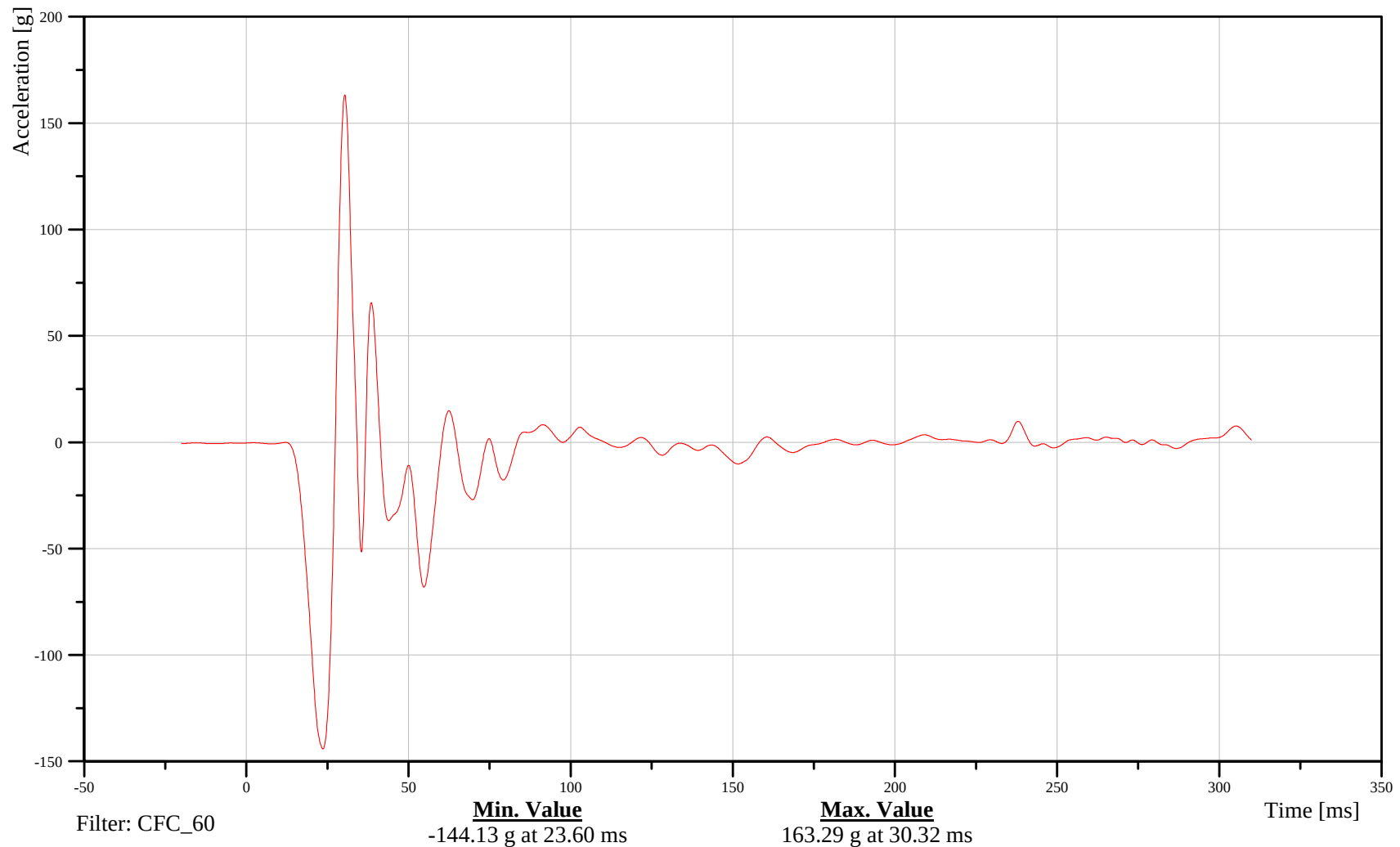
Target Vehicle Bottom of Engine X-Axis Acceleration

Customer: VRTC

22ENG NBO0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

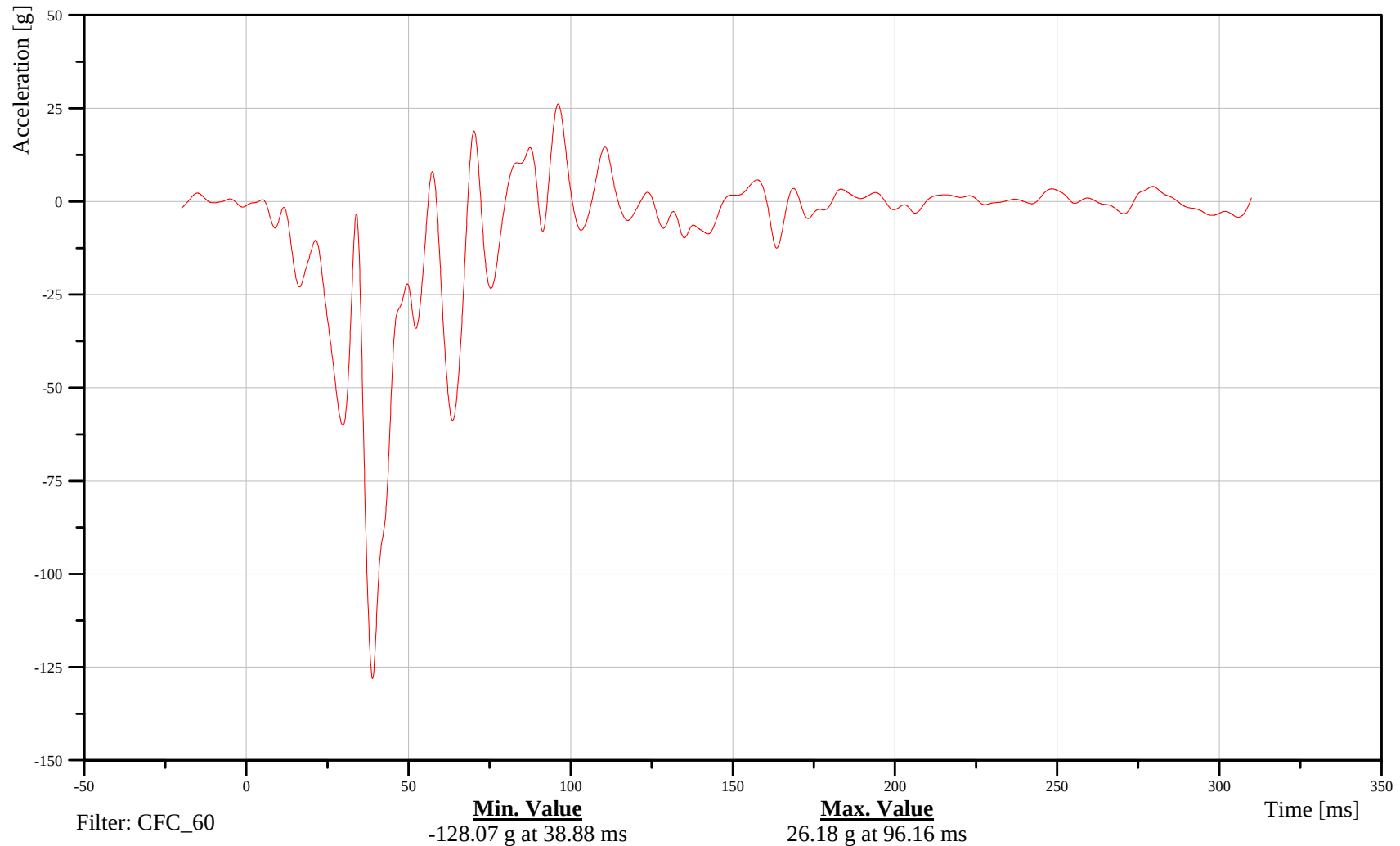
Target Vehicle Right Front Brake Caliper X-Axis Acceleration

Customer: VRTC

23VEHCRI0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

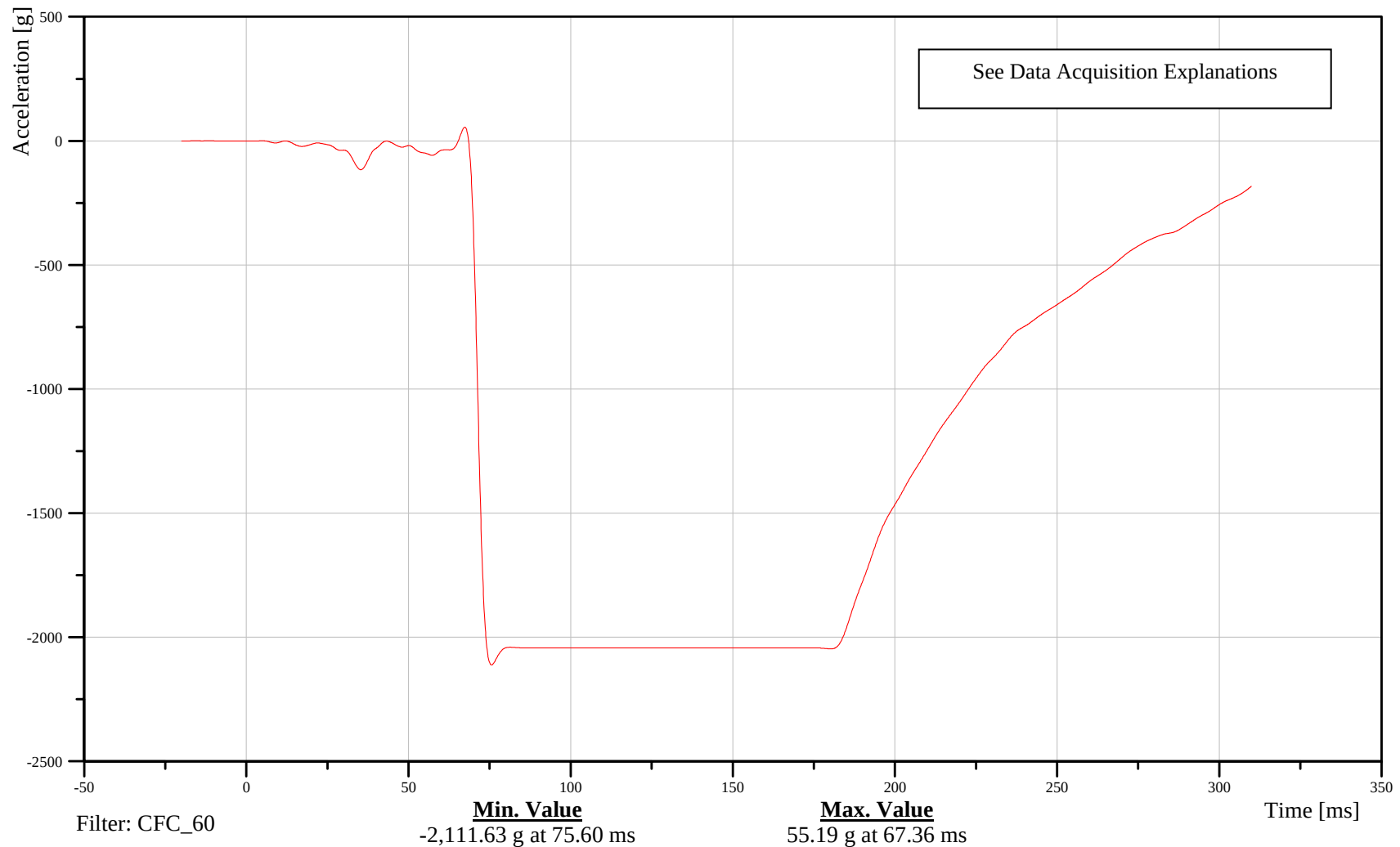
Target Vehicle Left Front Brake Caliper X-Axis Acceleration

Customer: VRTC

21VEHICLE0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

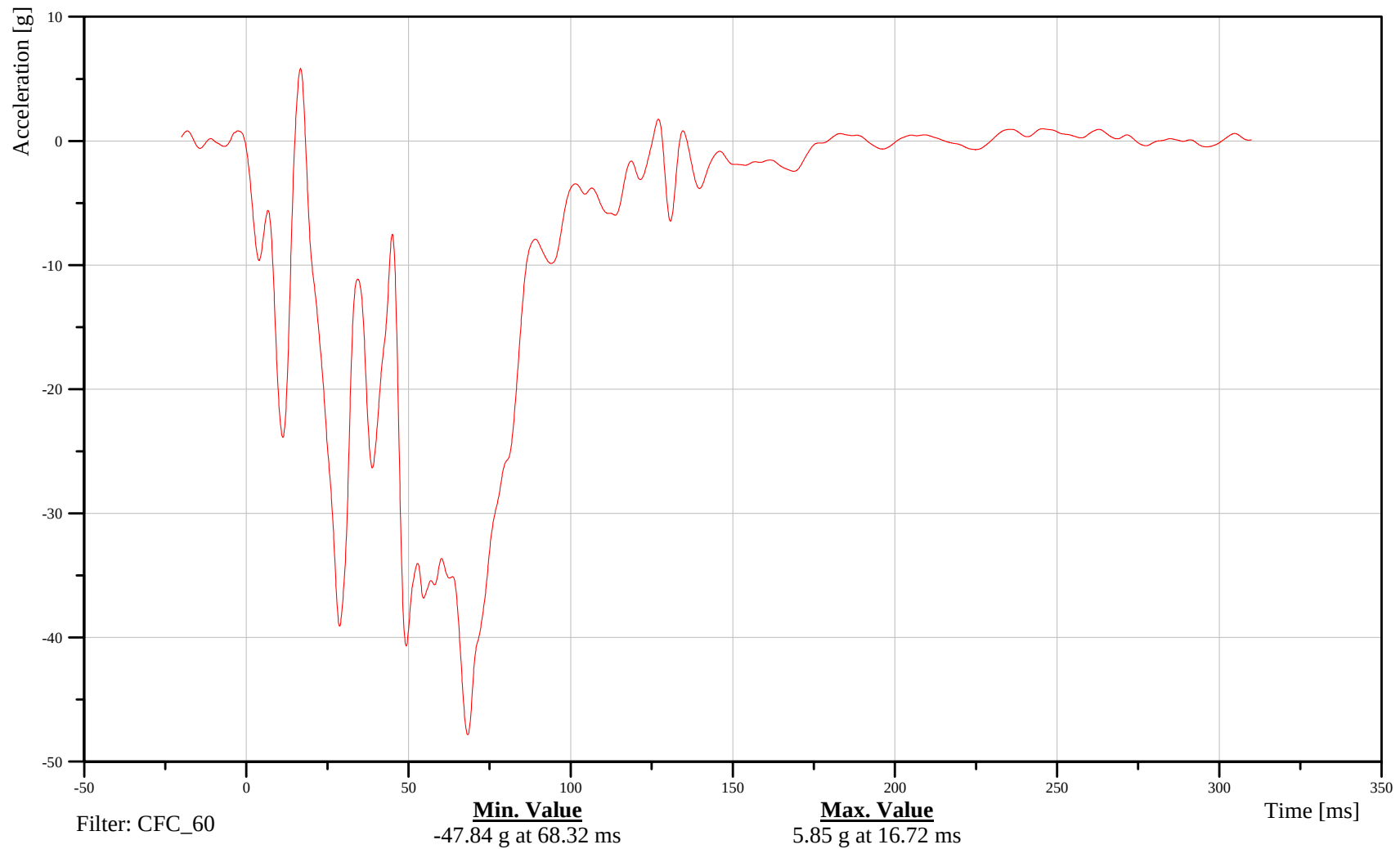
Target Vehicle Toe Pan Accelerator X-Axis Acceleration

Customer: VRTC

21PEAC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

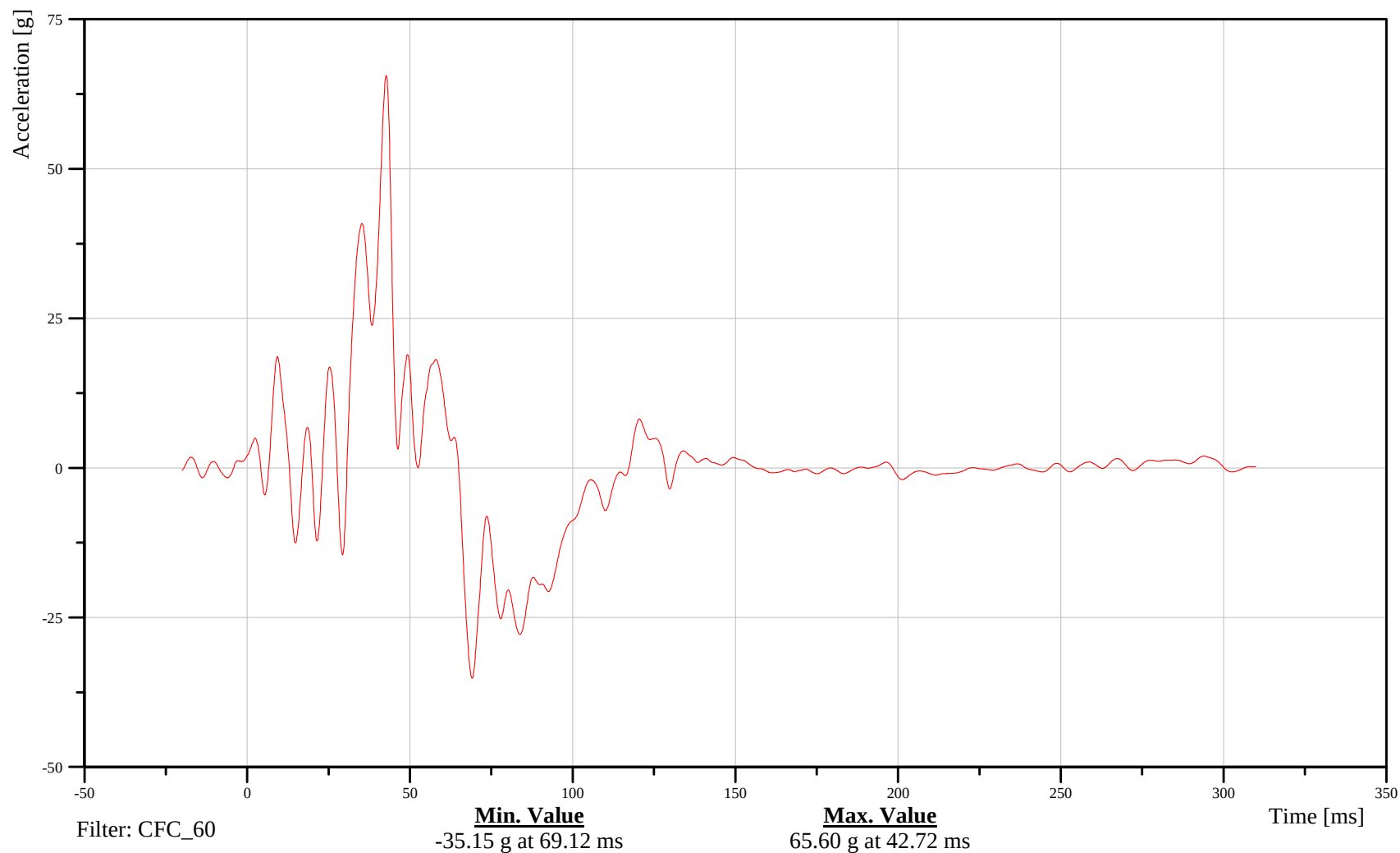
Target Vehicle Toe Pan Accelerator Z-Axis Acceleration

Customer: VRTC

21PEAC000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

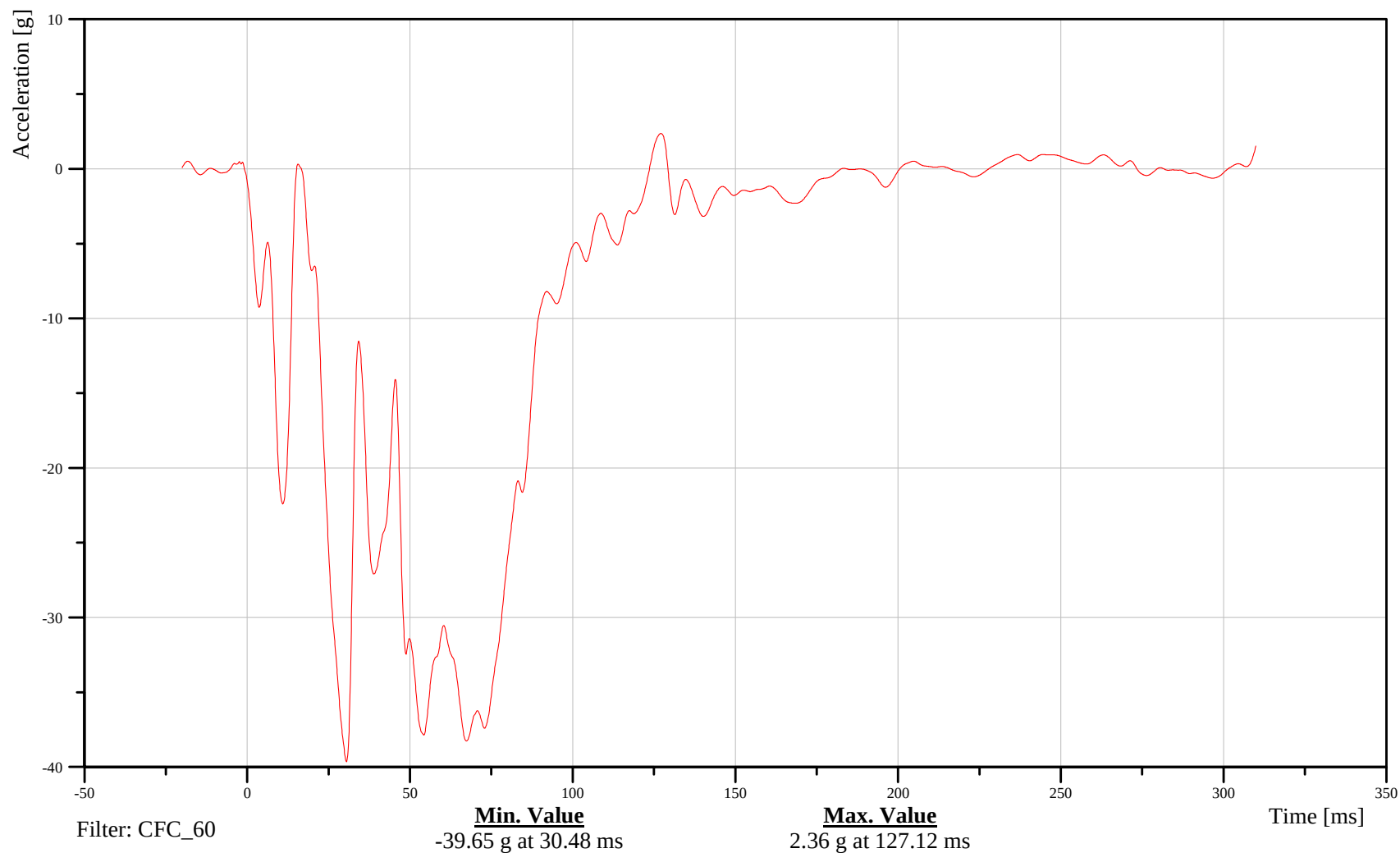
Target Vehicle Toe Pan Footrest X-Axis Acceleration

Customer: VRTC

21VEHC000001ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

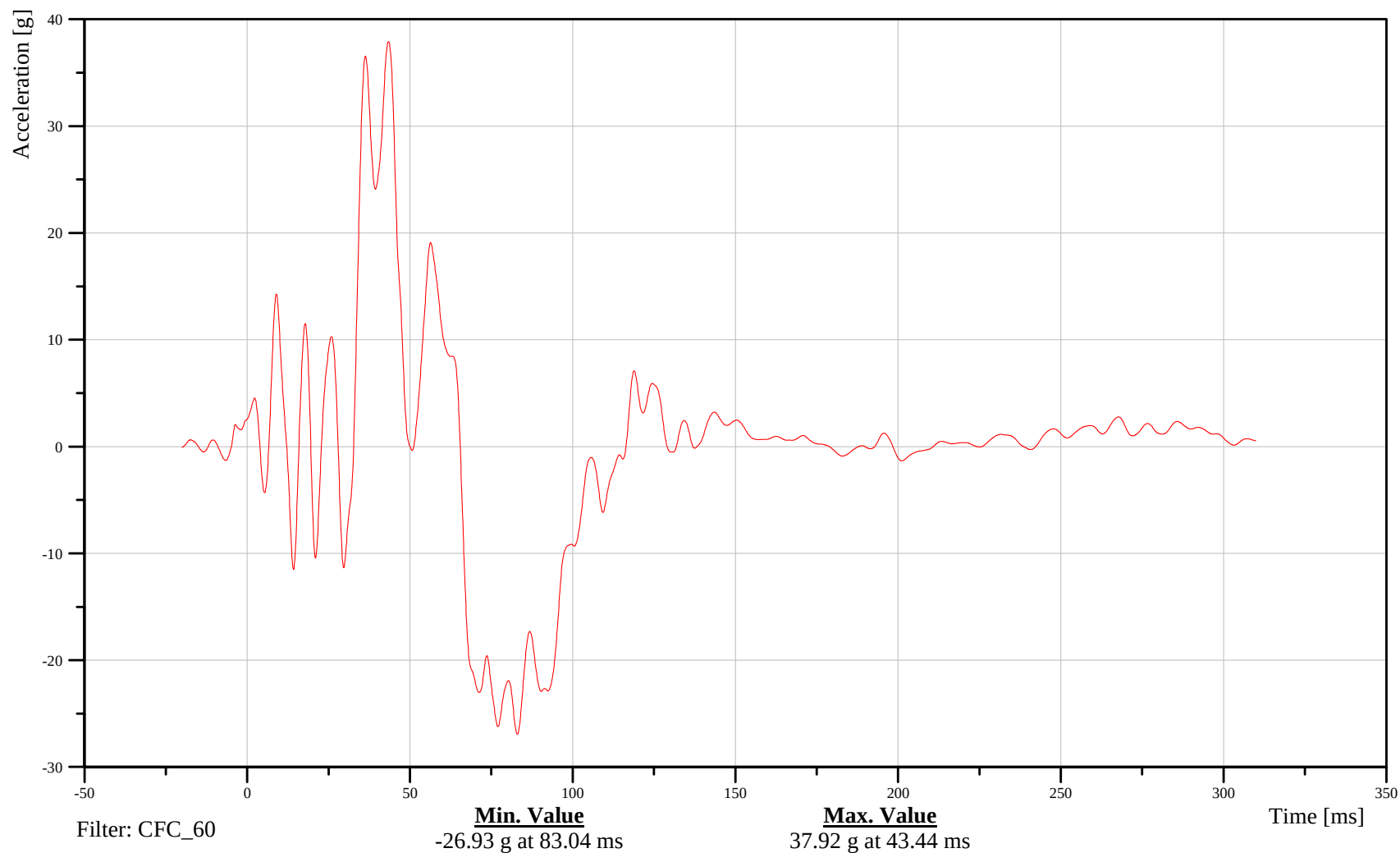
Target Vehicle Toe Pan Footrest Z-Axis Acceleration

Customer: VRTC

21VEHC000001ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

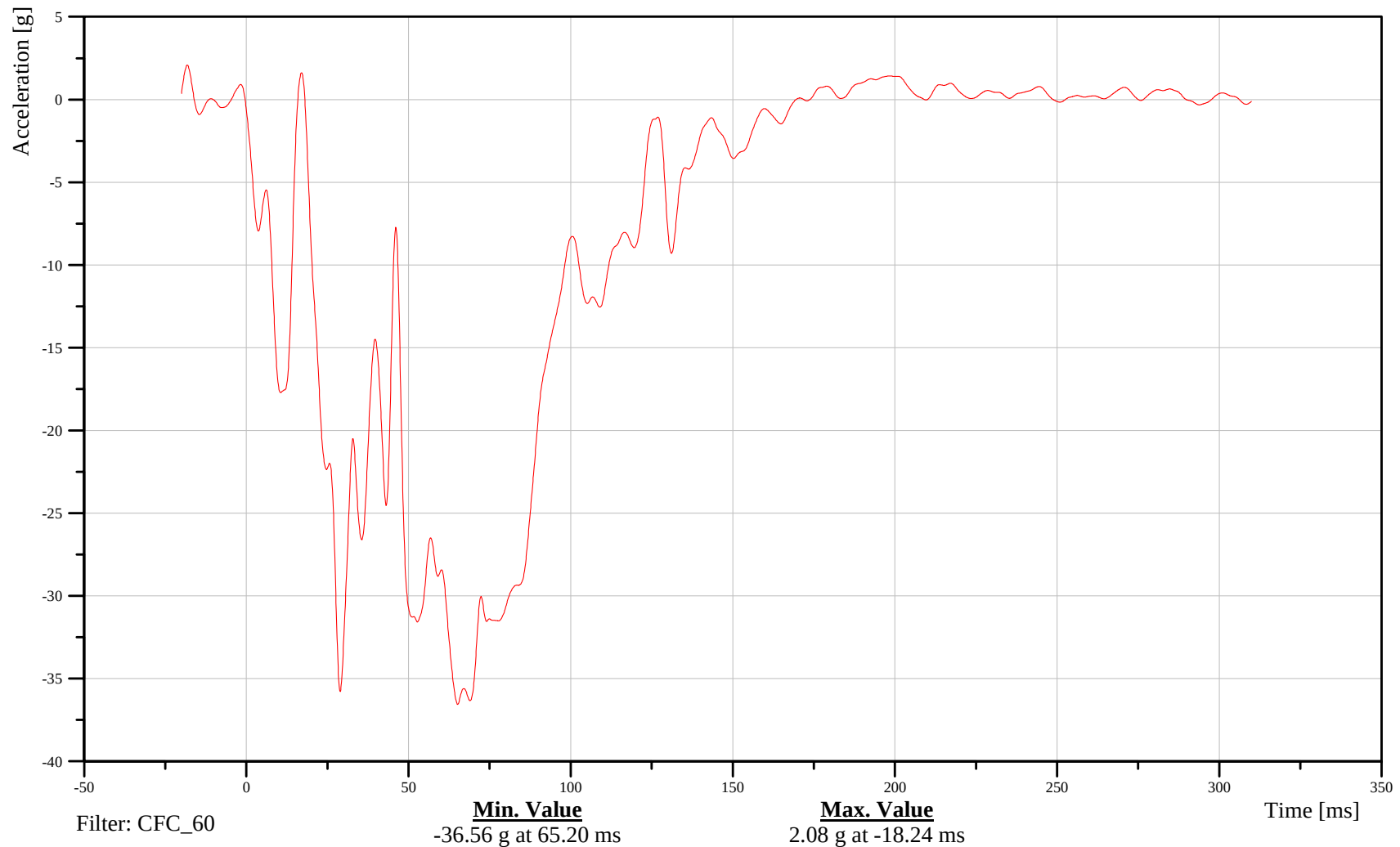
Target Vehicle Rear Tunnel Center X-Axis Acceleration

Customer: VRTC

25TUNNCY0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

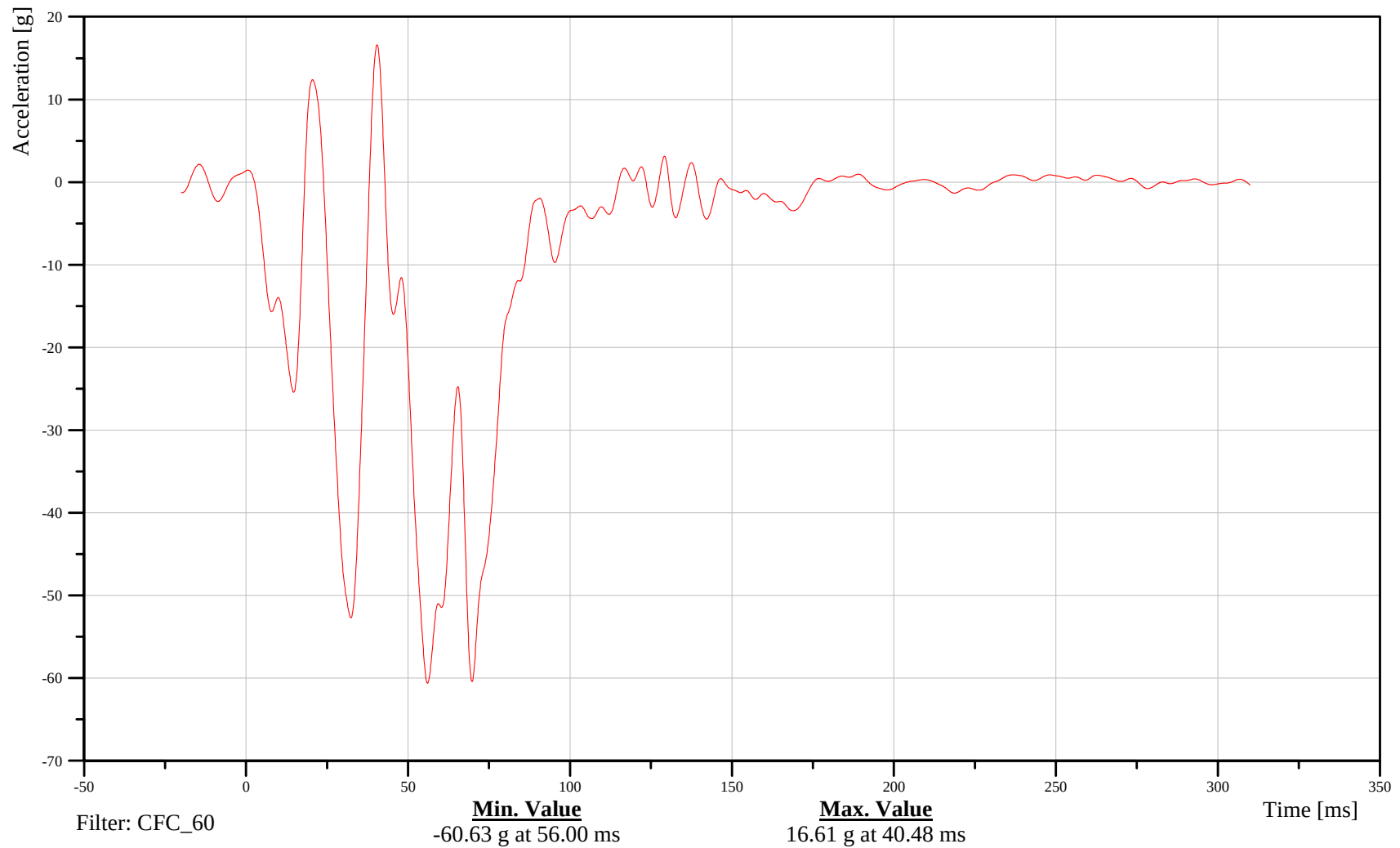
Target Vehicle CG X-Axis Acceleration

Customer: VRTC

20VEHCCG0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

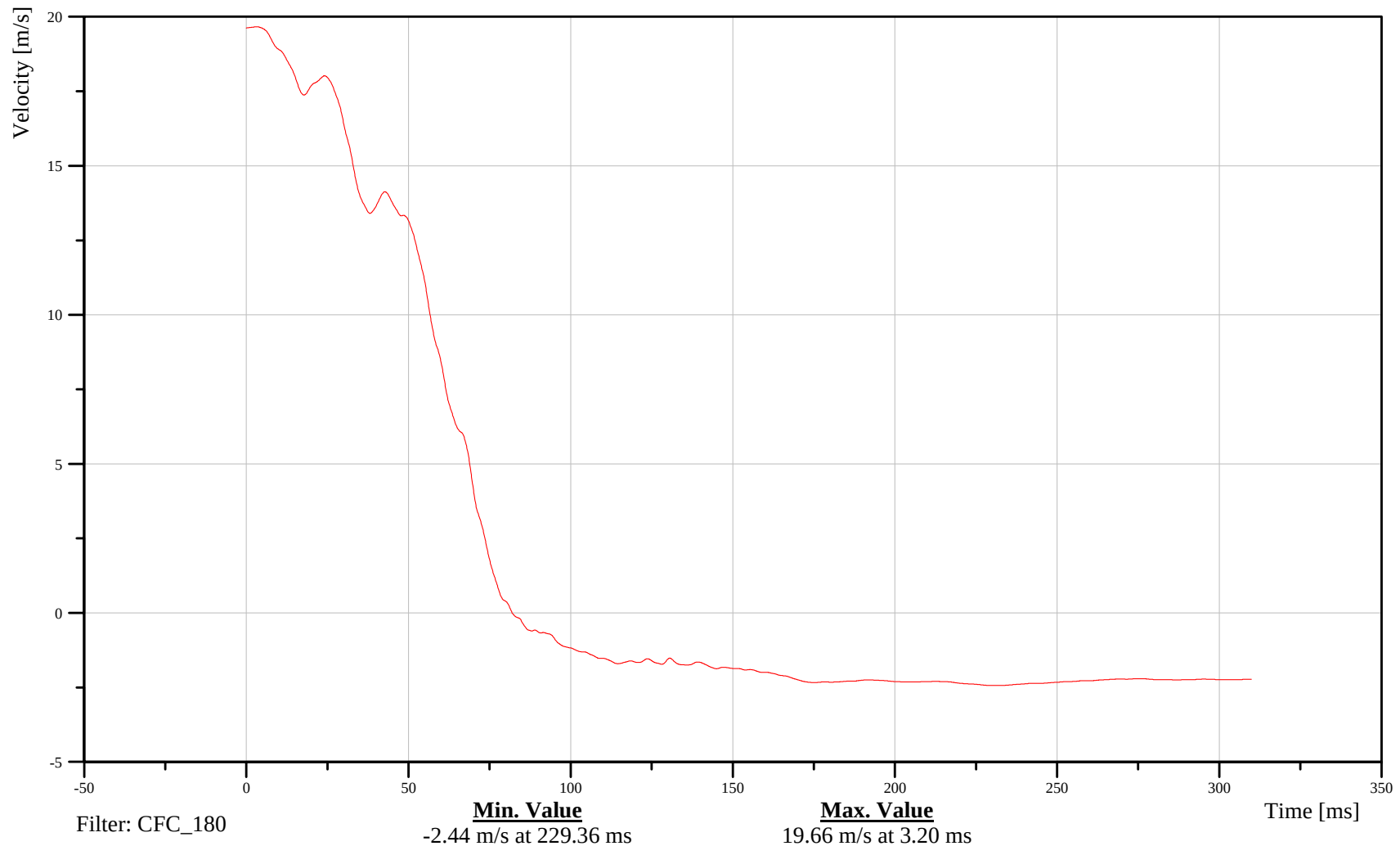
Target Vehicle CG X-Axis Velocity

Customer: VRTC

20VEHCCG0000VEXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

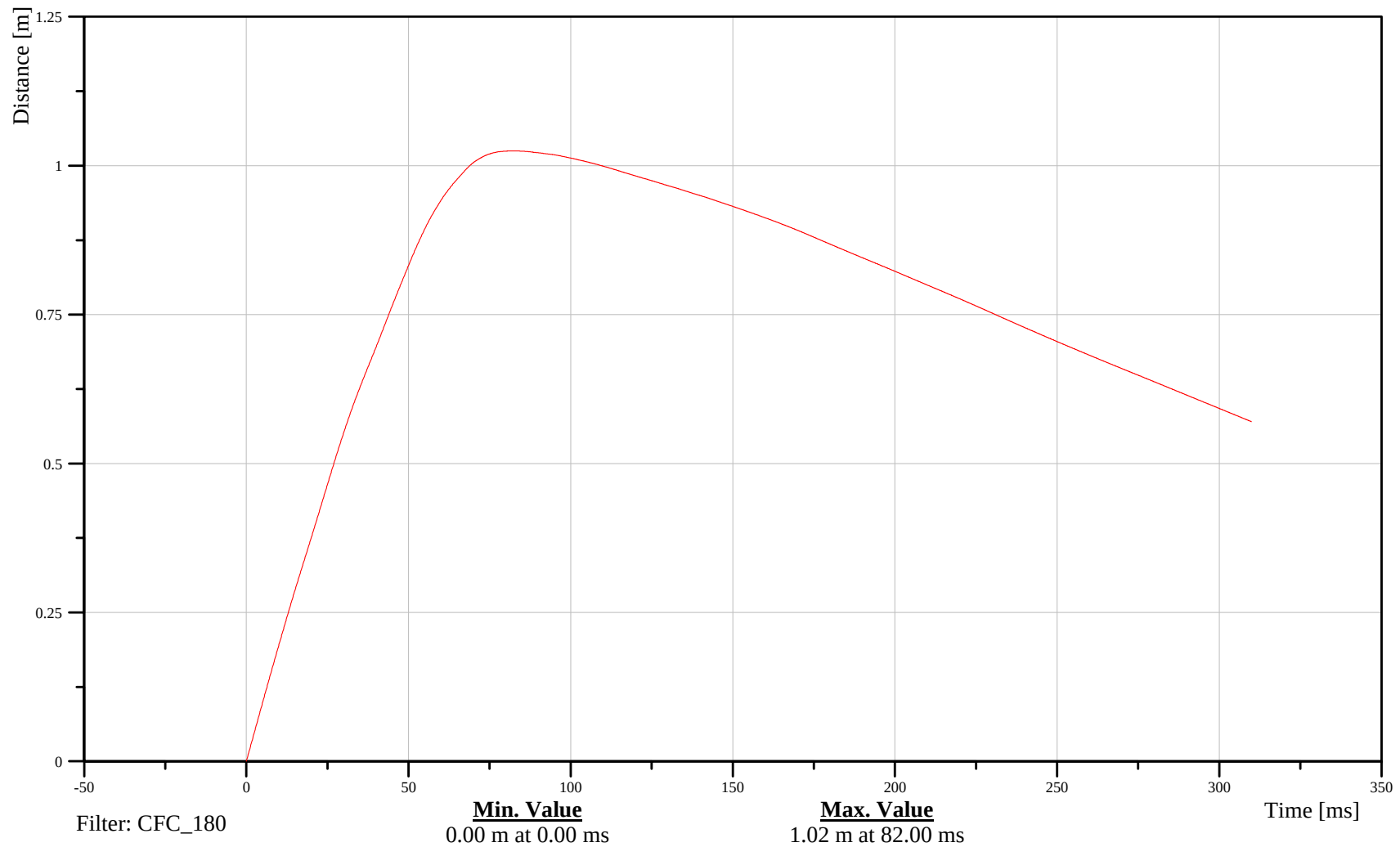
Target Vehicle CG X-Axis Displacement

Customer: VRTC

20VEHCCG0000DCXC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

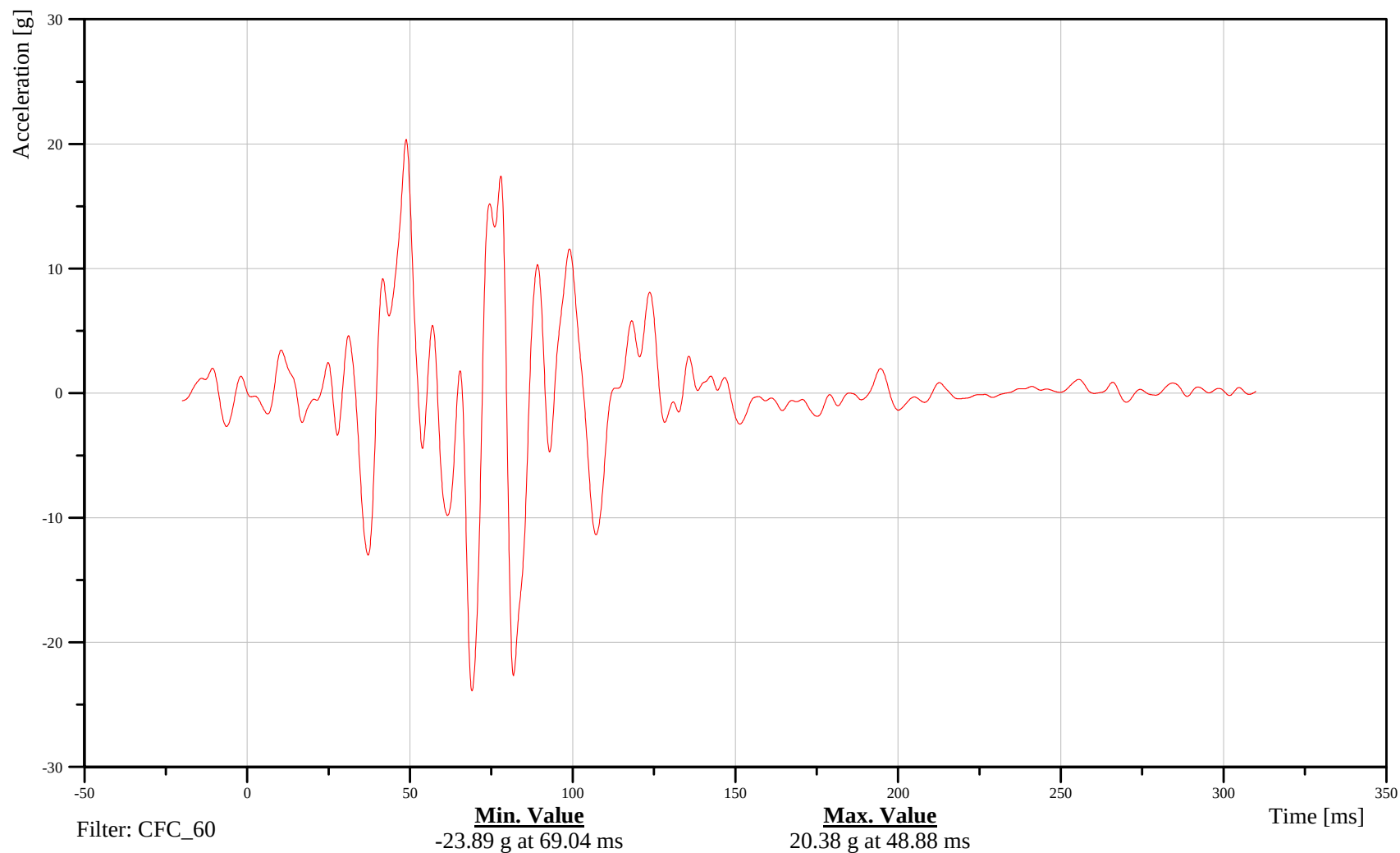
Target Vehicle CG Y-Axis Acceleration

Customer: VRTC

20VEHCCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

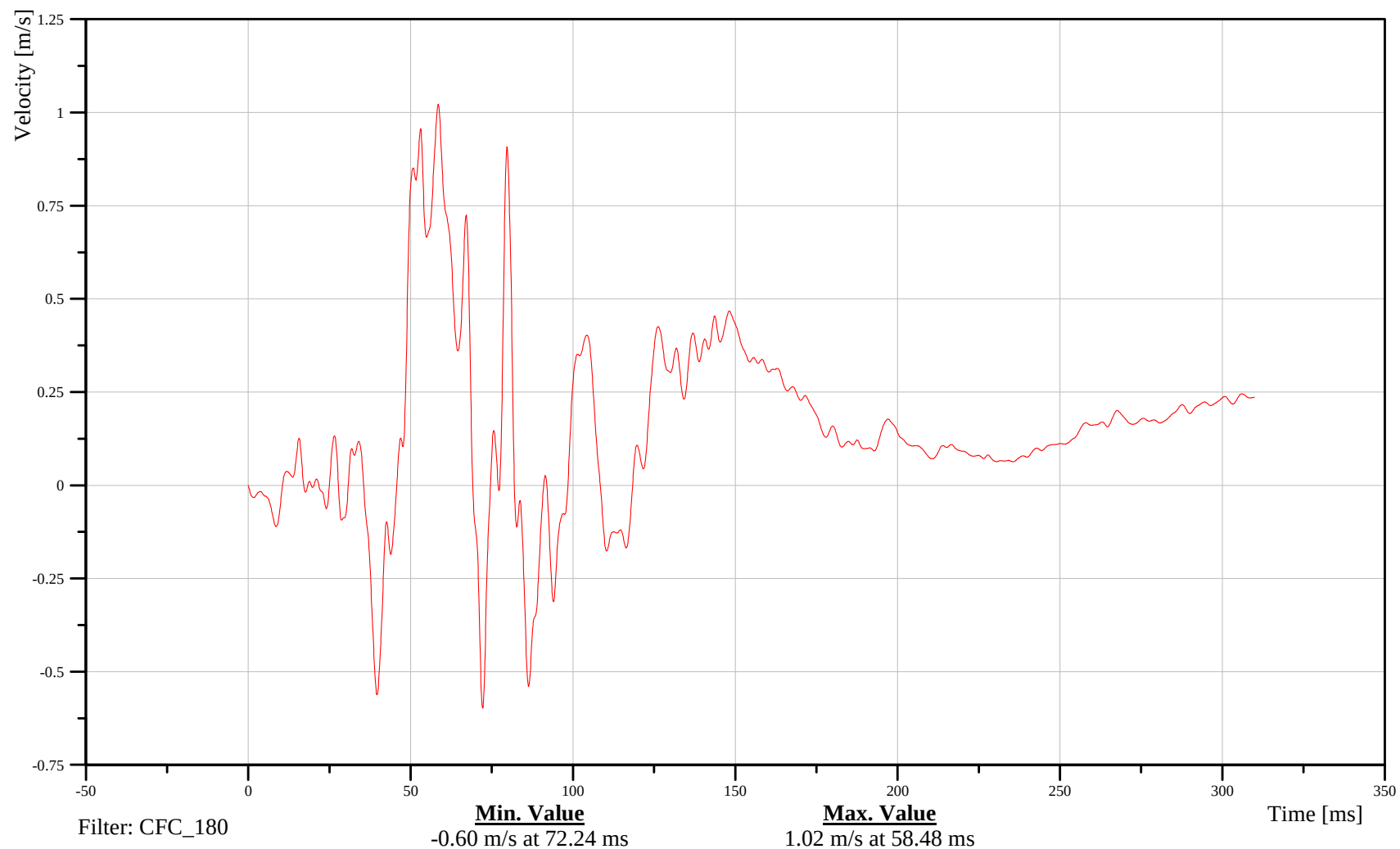
Target Vehicle CG Y-Axis Velocity

Customer: VRTC

20VEHCCG0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

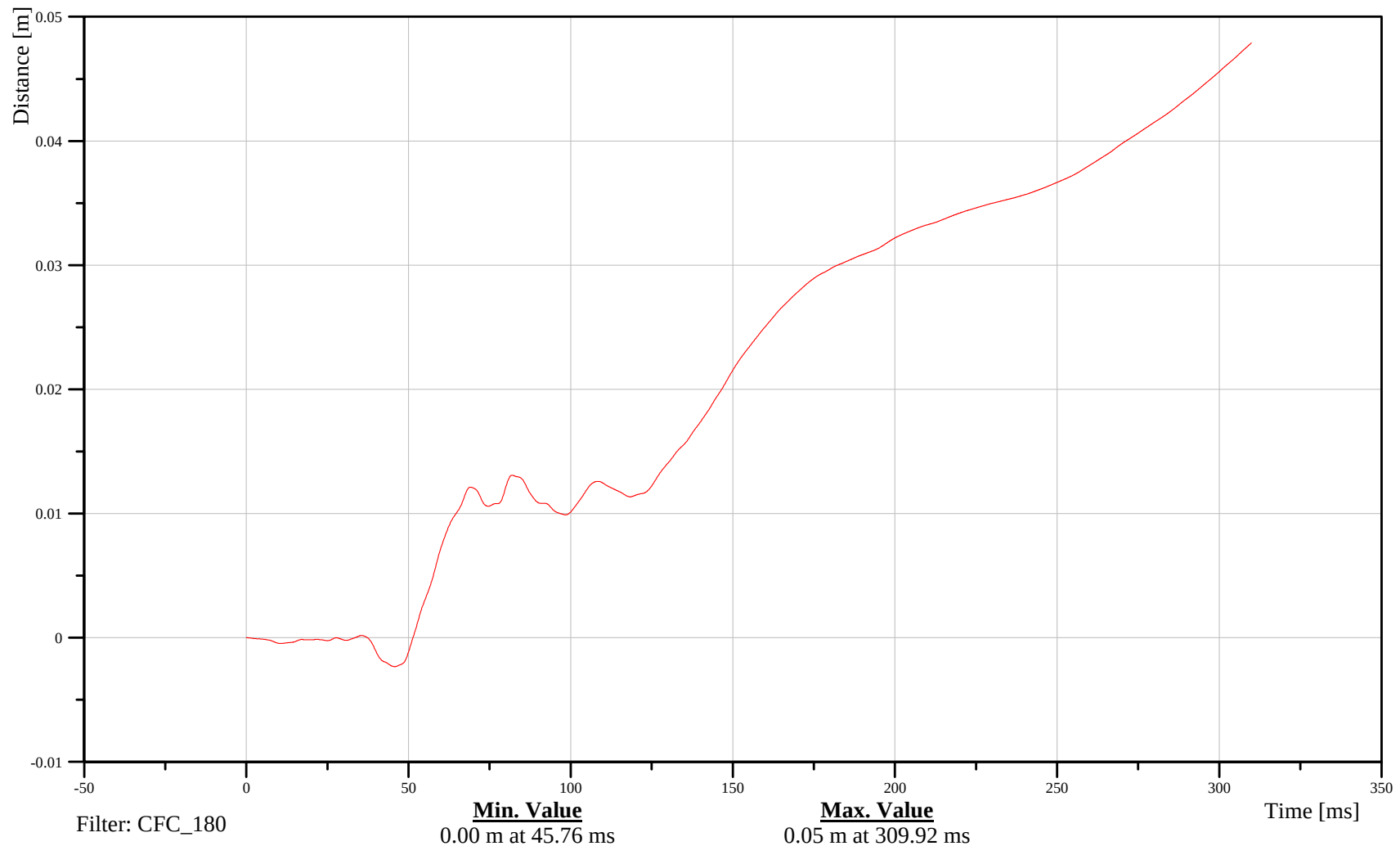
Target Vehicle CG Y-Axis Displacement

Customer: VRTC

20VEHCCG0000DCYC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

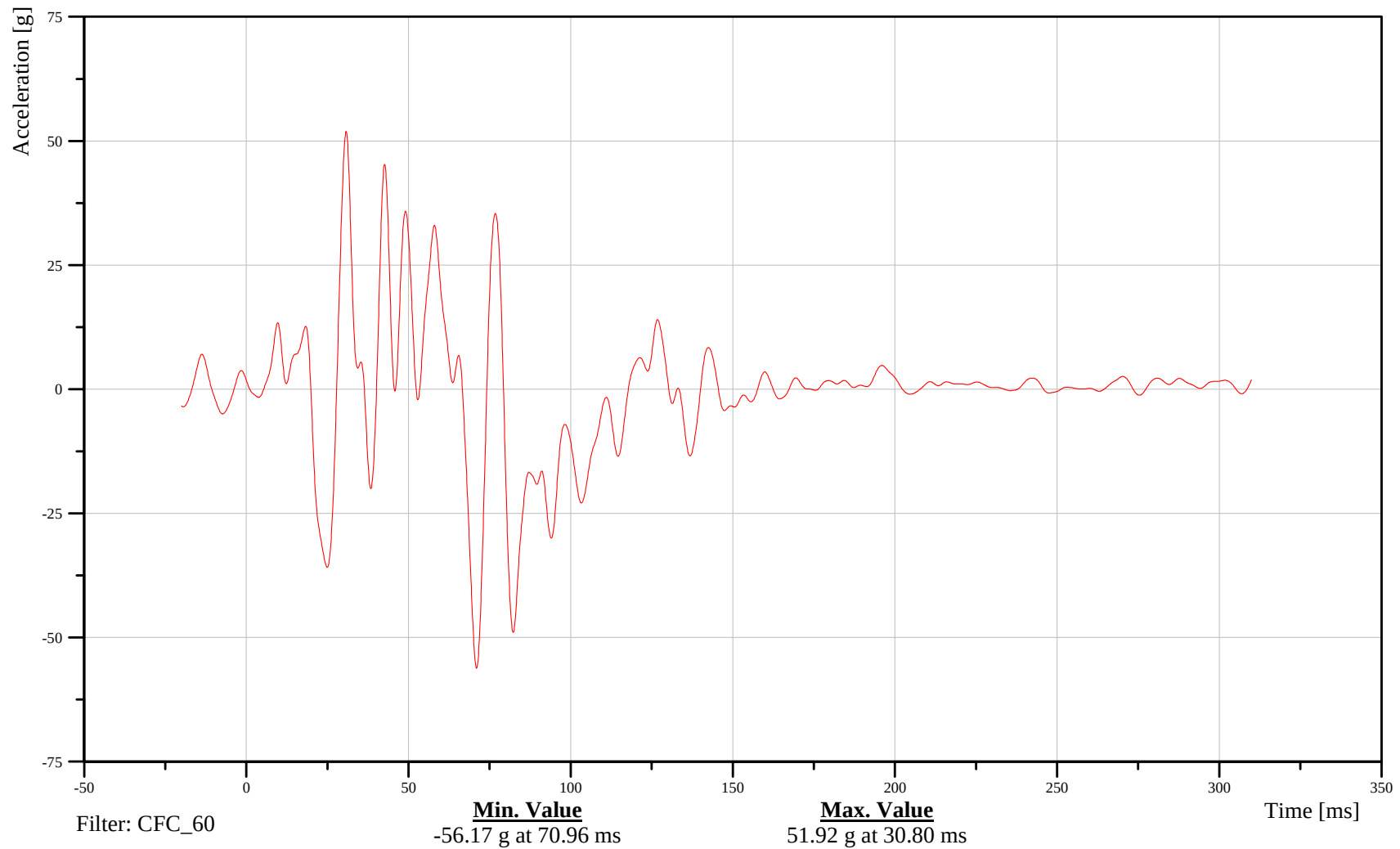
Target Vehicle CG Z-Axis Acceleration

Customer: VRTC

20VEHCCG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

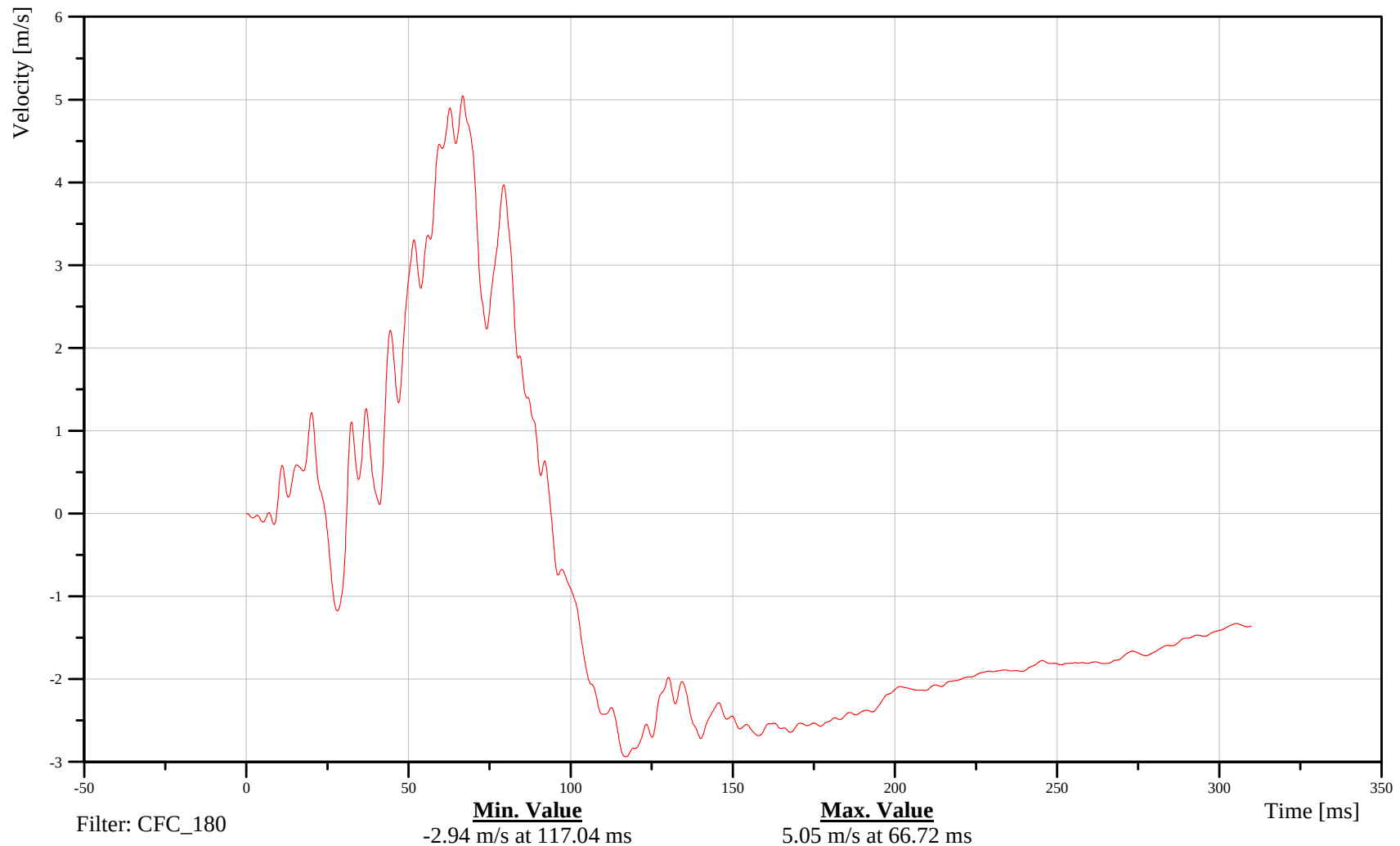
Target Vehicle CG Z-Axis Velocity

Customer: VRTC

20VEHCCG0000VEZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

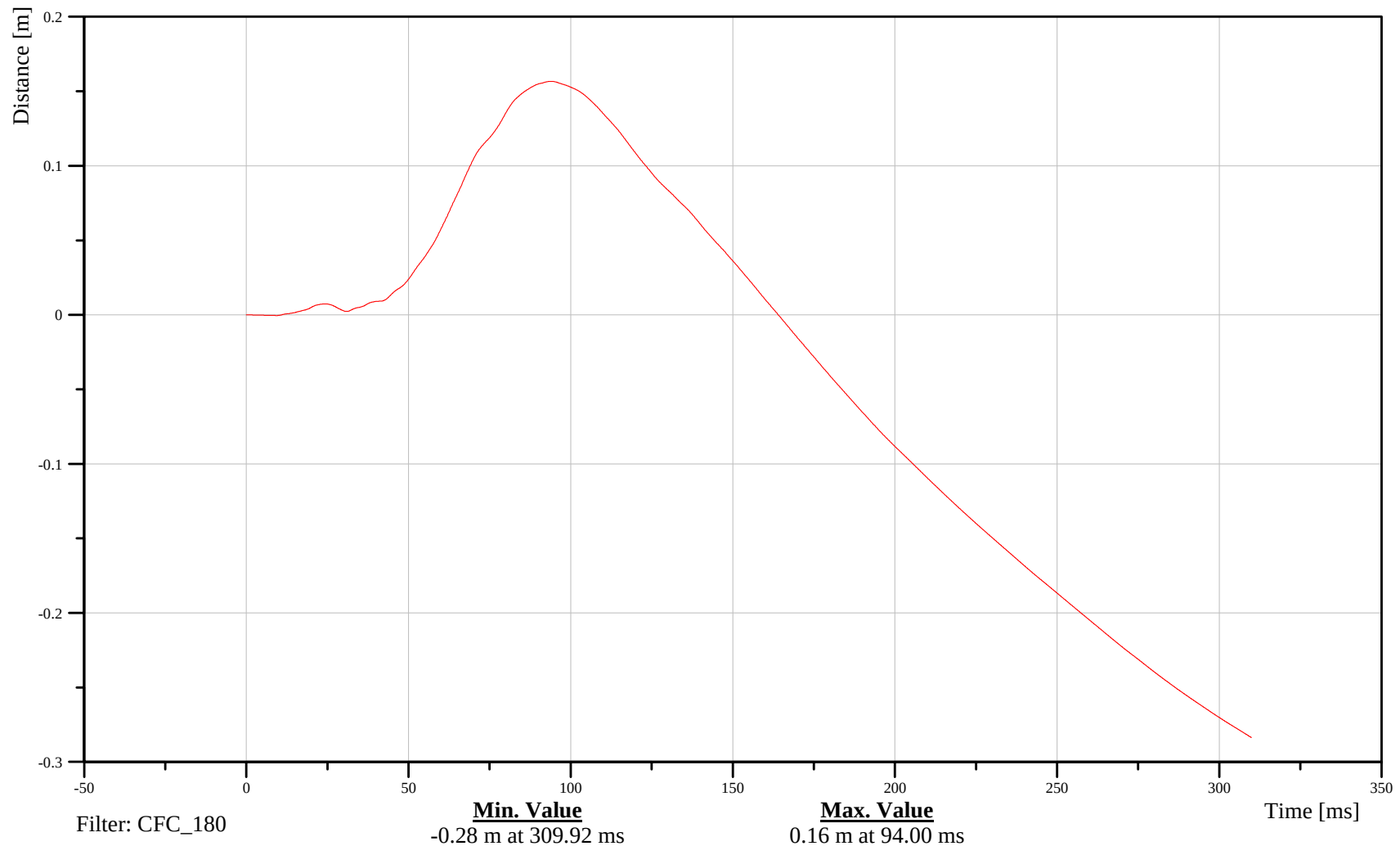
Target Vehicle CG Z-Axis Displacement

Customer: VRTC

20VEHCCG0000DCZC

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

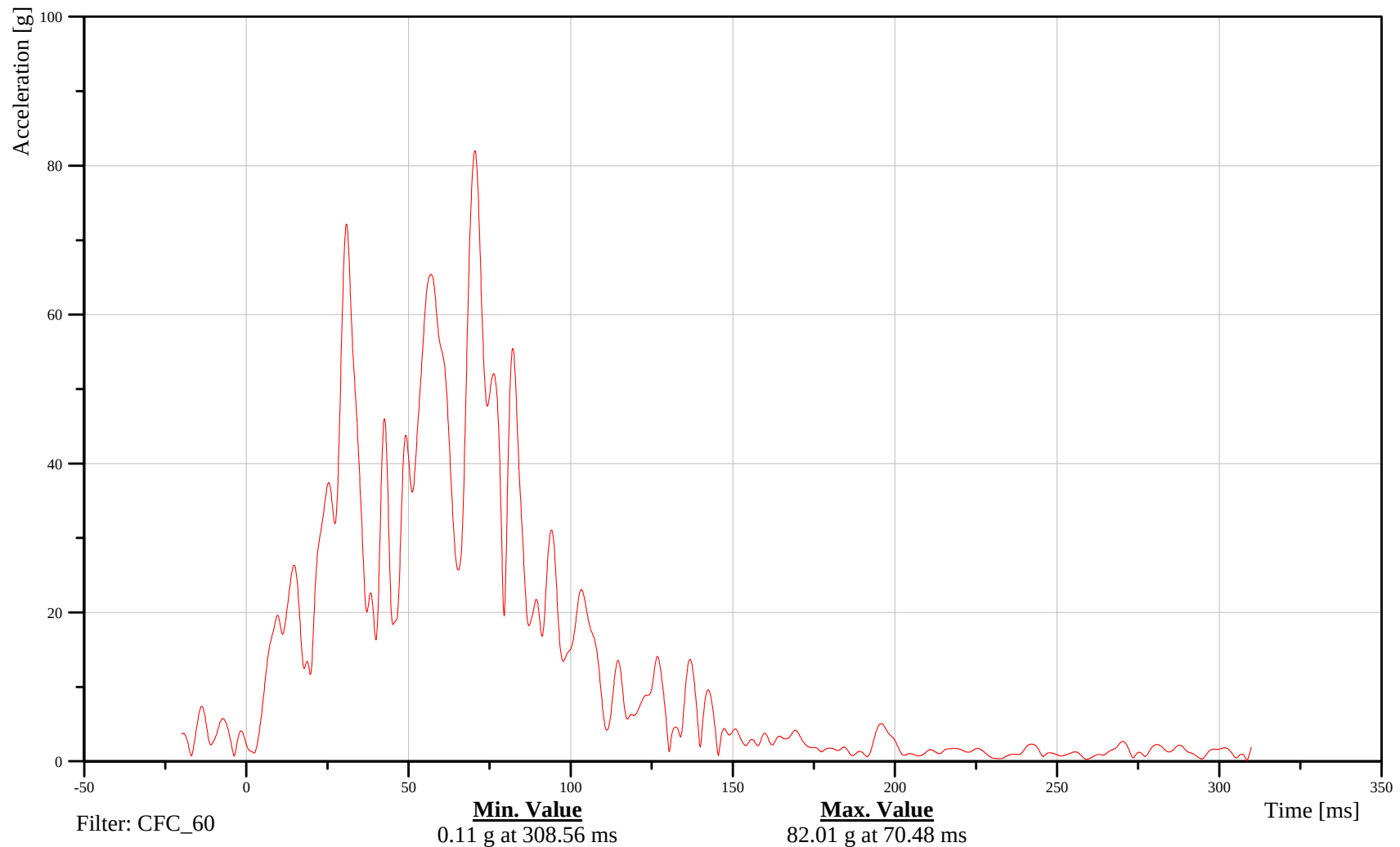
Target Vehicle CG Resultant Acceleration

Customer: VRTC

20VEHCCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

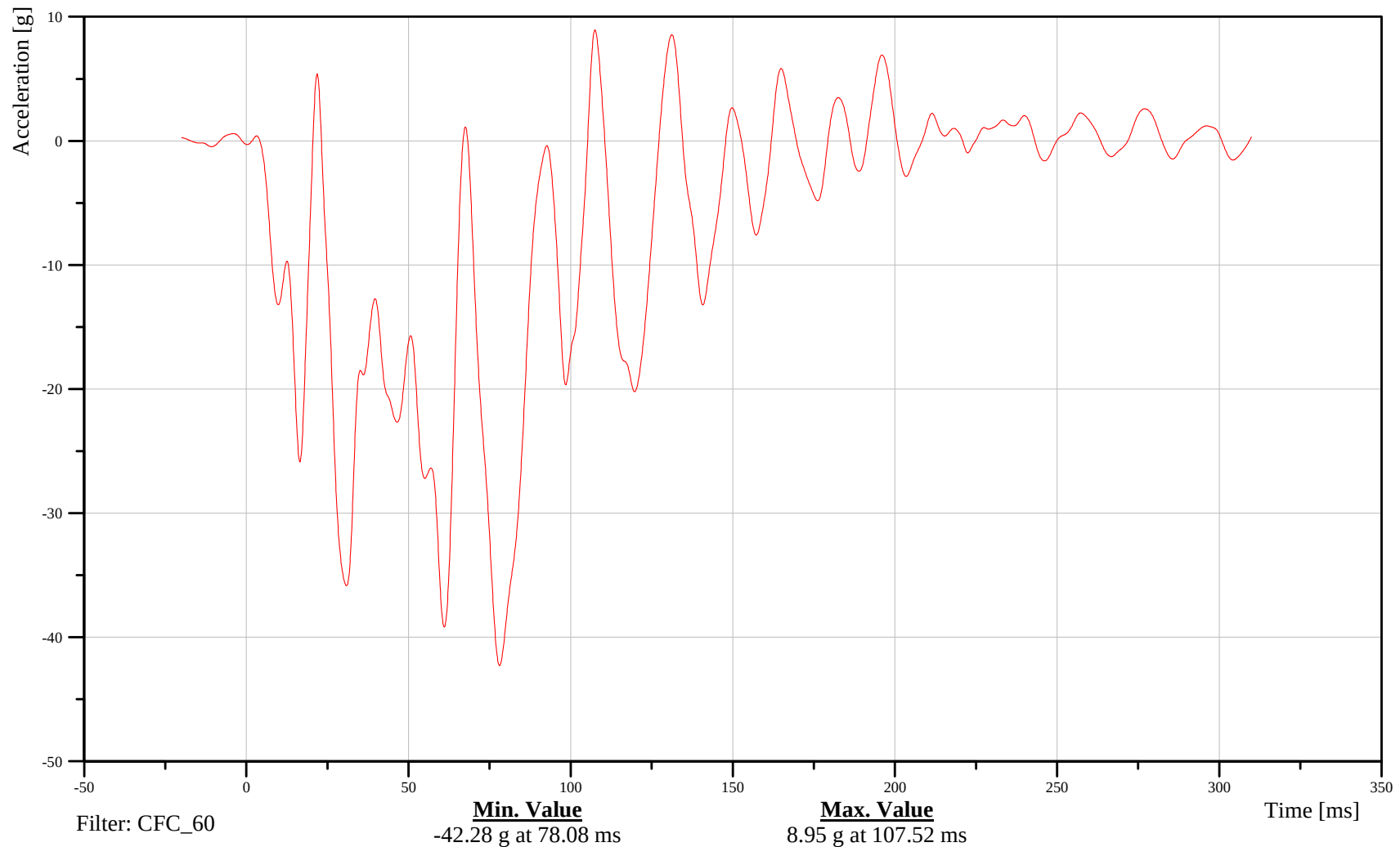
Target Vehicle Rear Deck X-Axis Acceleration

Customer: VRTC

28VEHC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

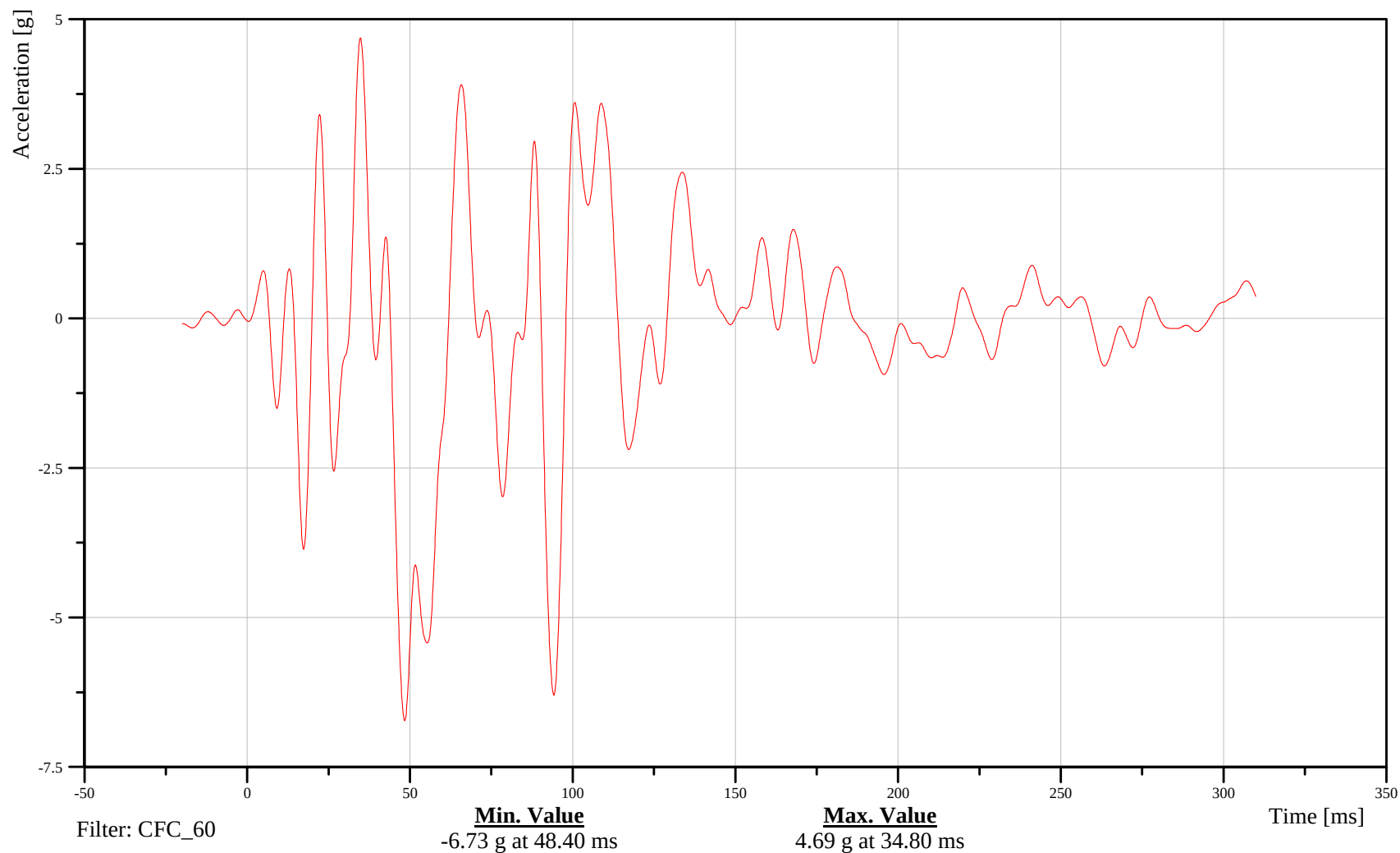
Target Vehicle Rear Deck Y-Axis Acceleration

Customer: VRTC

28VEHC000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

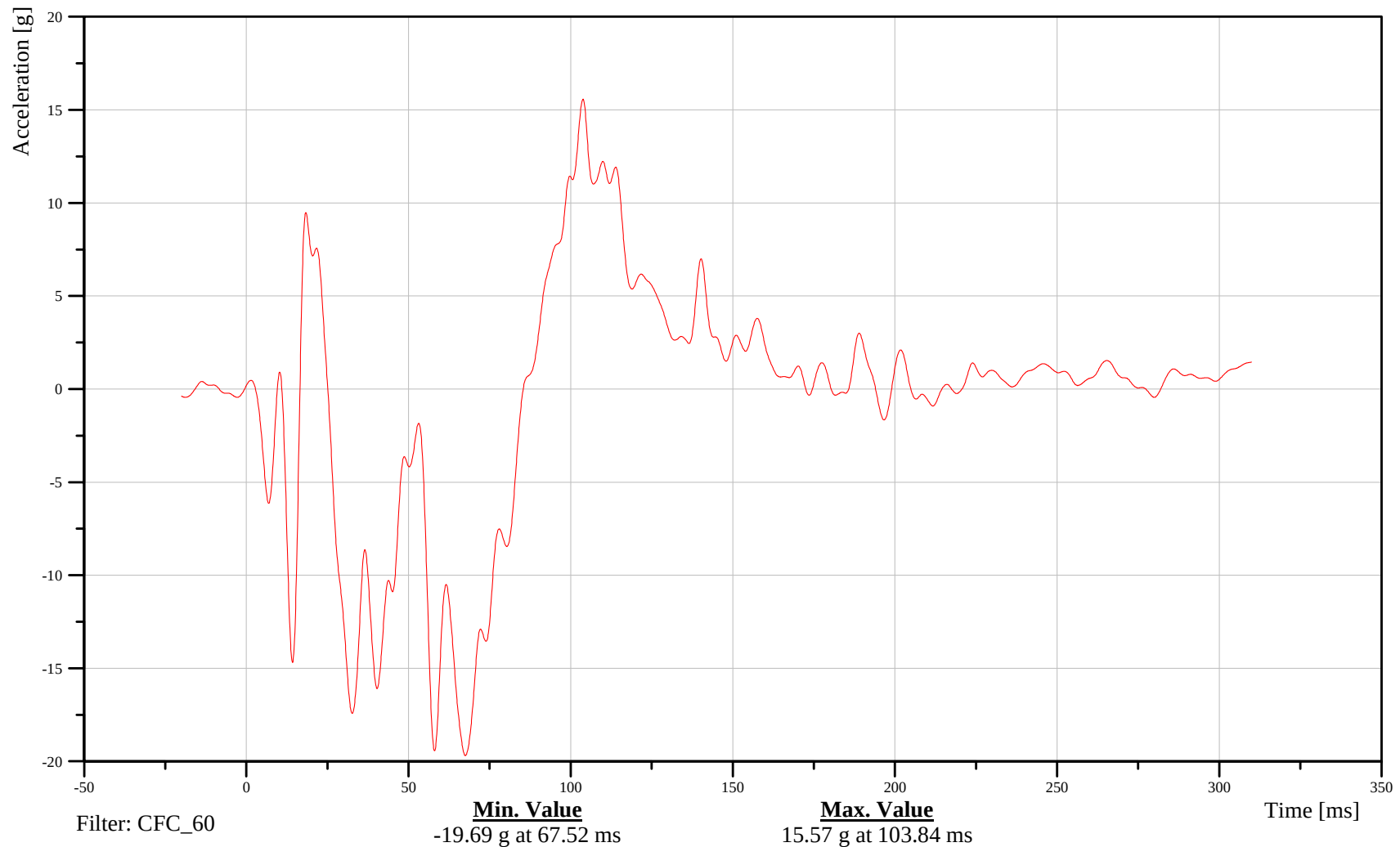
Target Vehicle Rear Deck Z-Axis Acceleration

Customer: VRTC

28VEHC000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

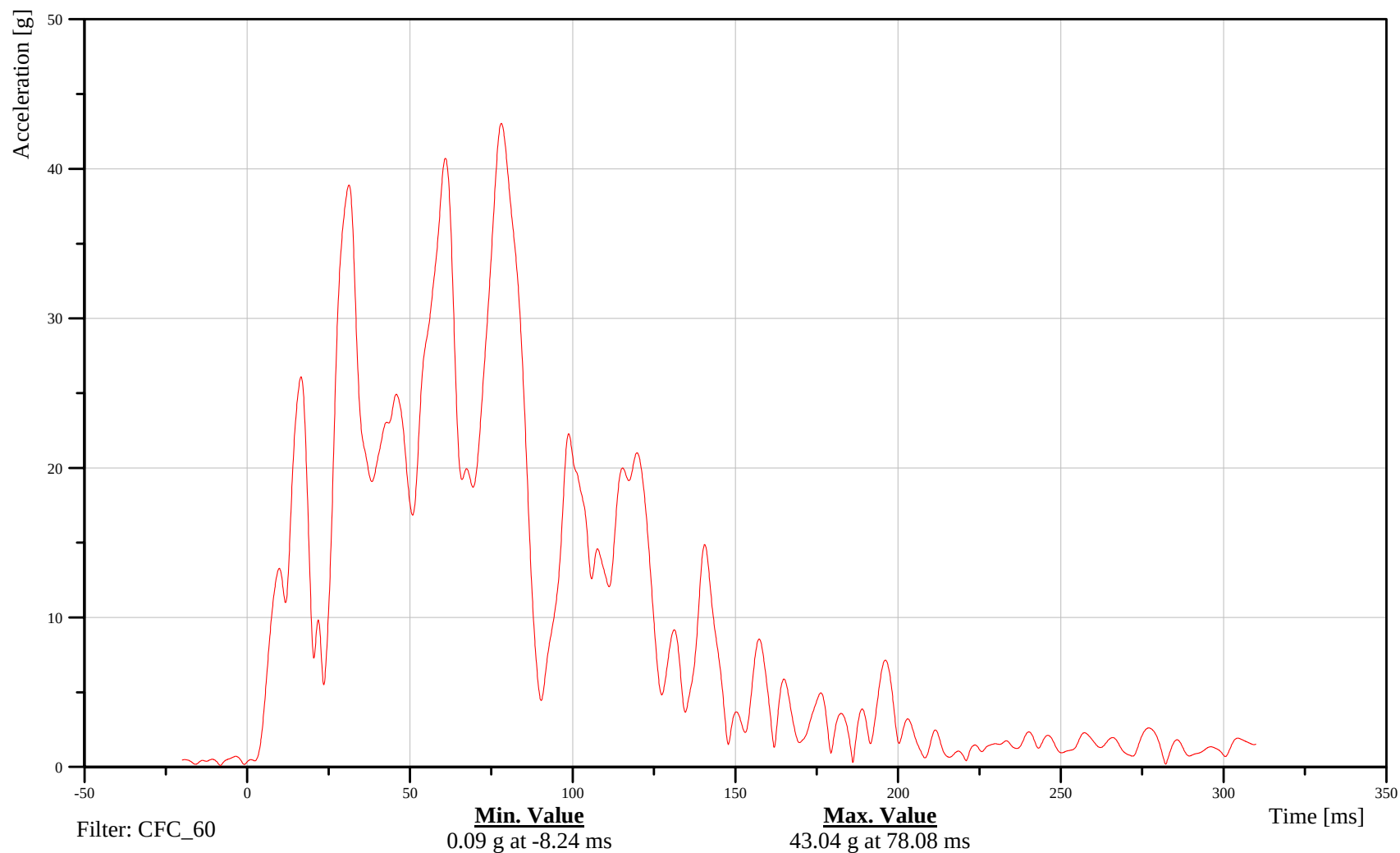
Target Vehicle Rear Deck Resultant Acceleration

Customer: VRTC

28VEHC000000ACRD

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

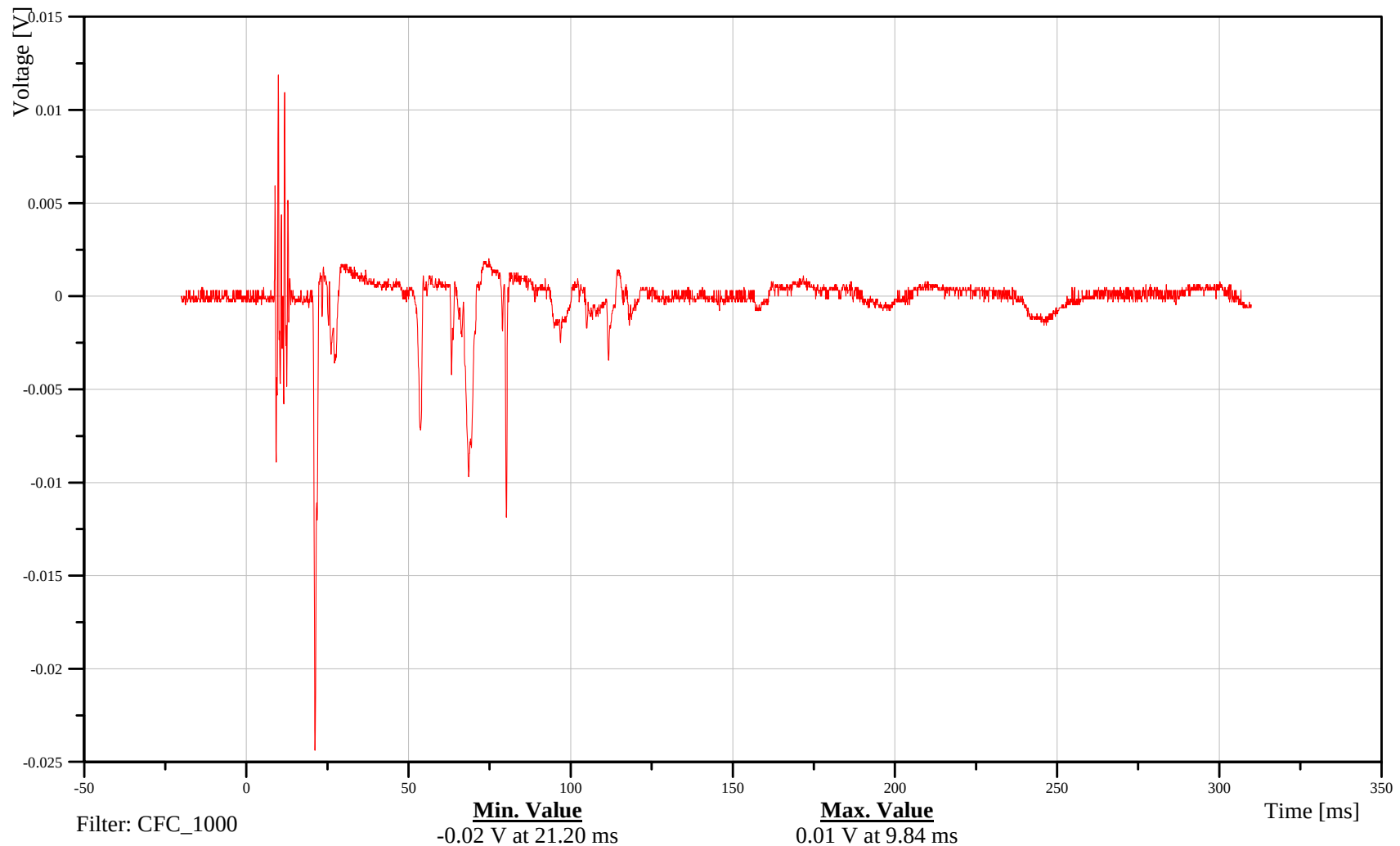
Target Vehicle Driver Airbag - Primary

Customer: VRTC

21AIRBFR0100EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

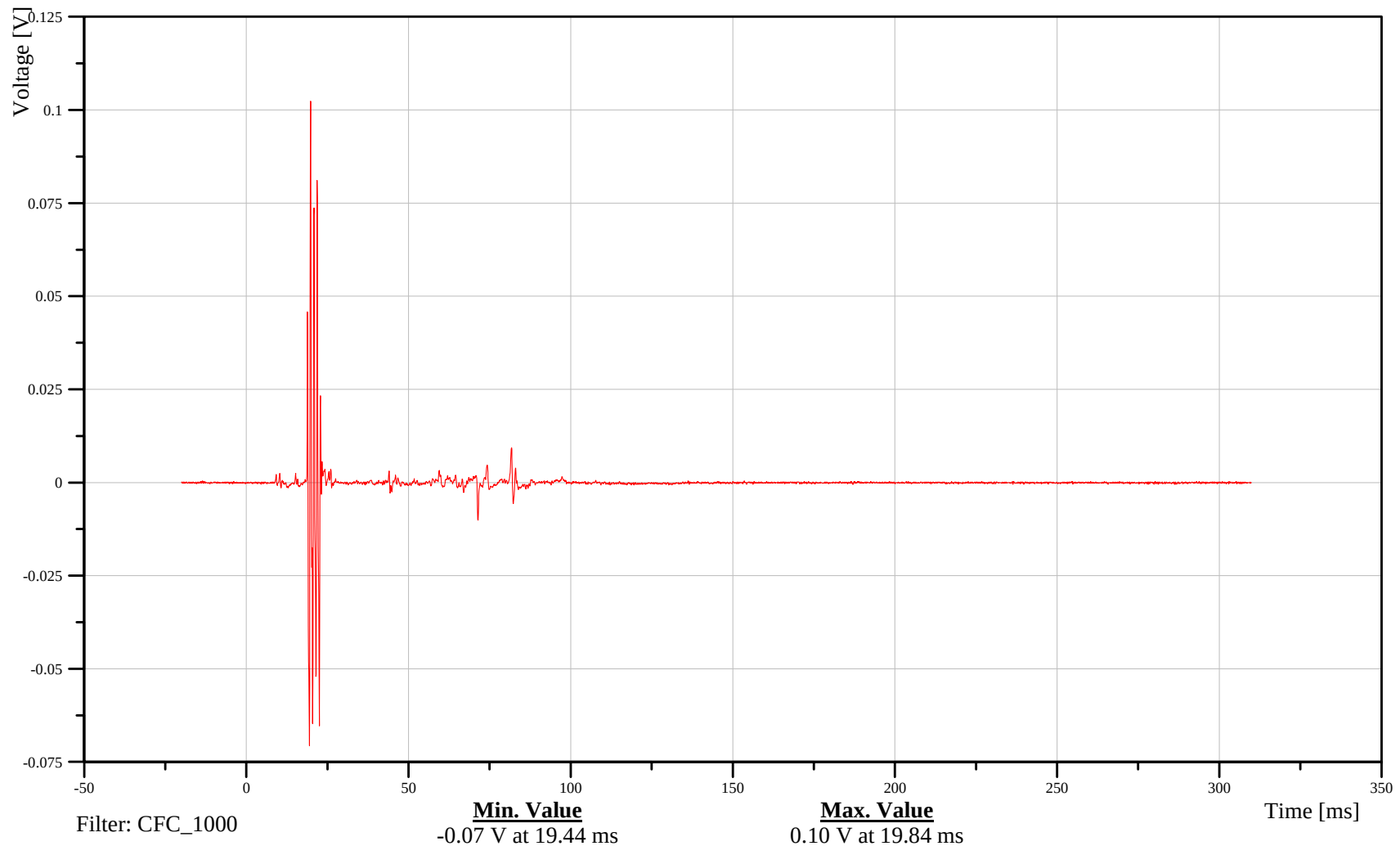
Target Vehicle Driver Airbag - Secondary

Customer: VRTC

21AIRBFR0200EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

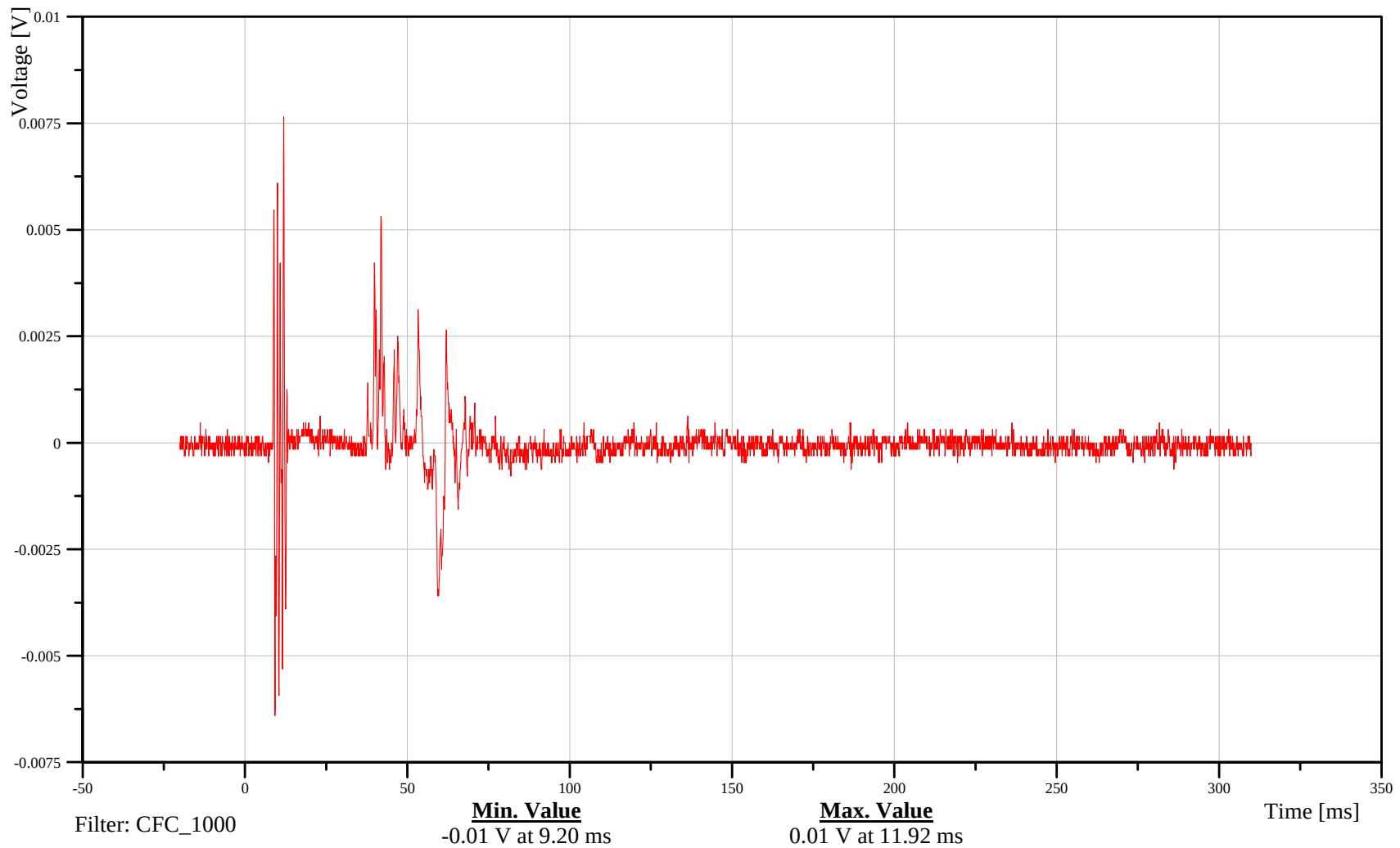
Target Vehicle Passenger Airbag - Primary

Customer: VRTC

23AIRBFR0100EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

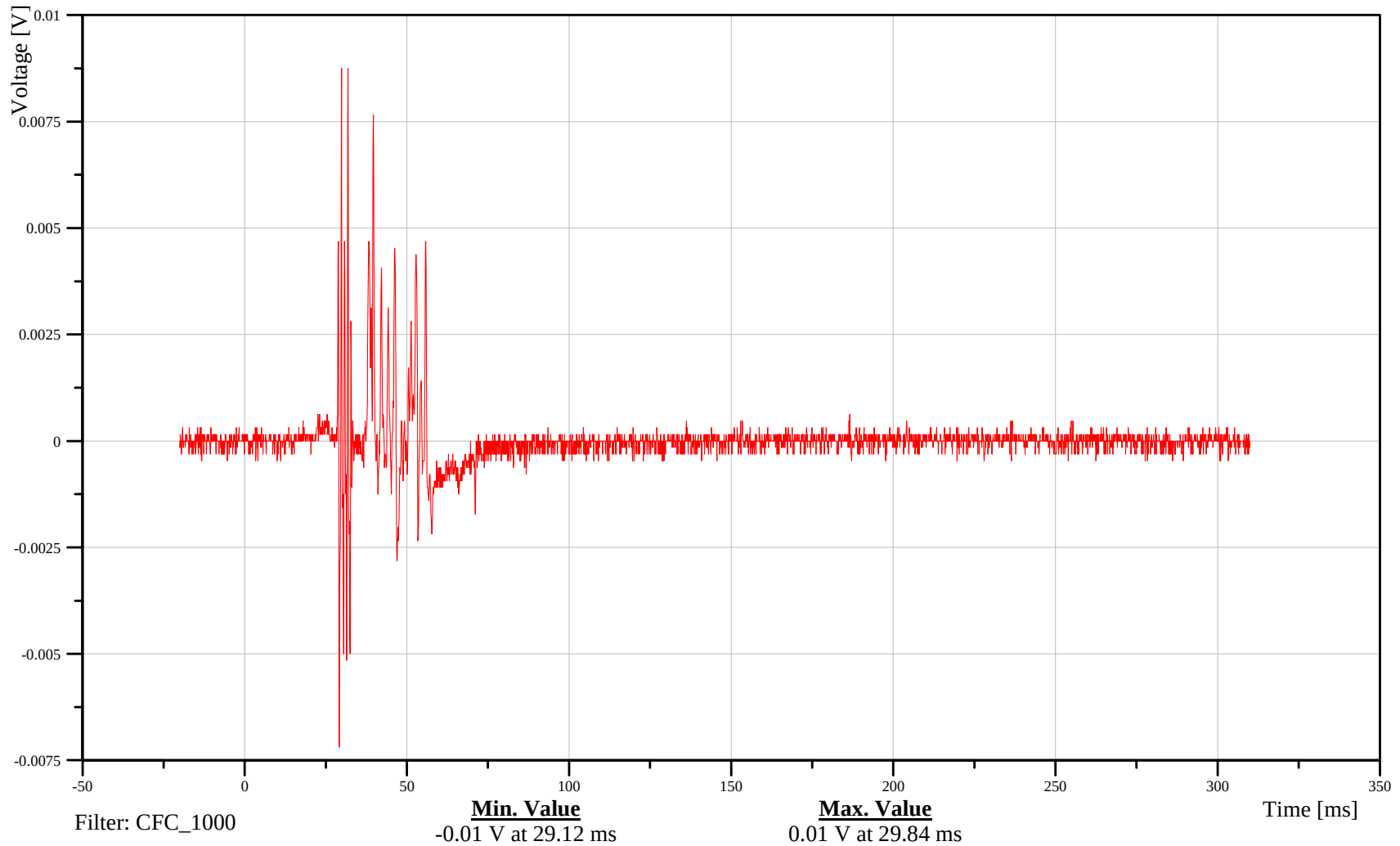
Target Vehicle Passenger Airbag - Secondary

Customer: VRTC

23AIRBFR0200EV0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

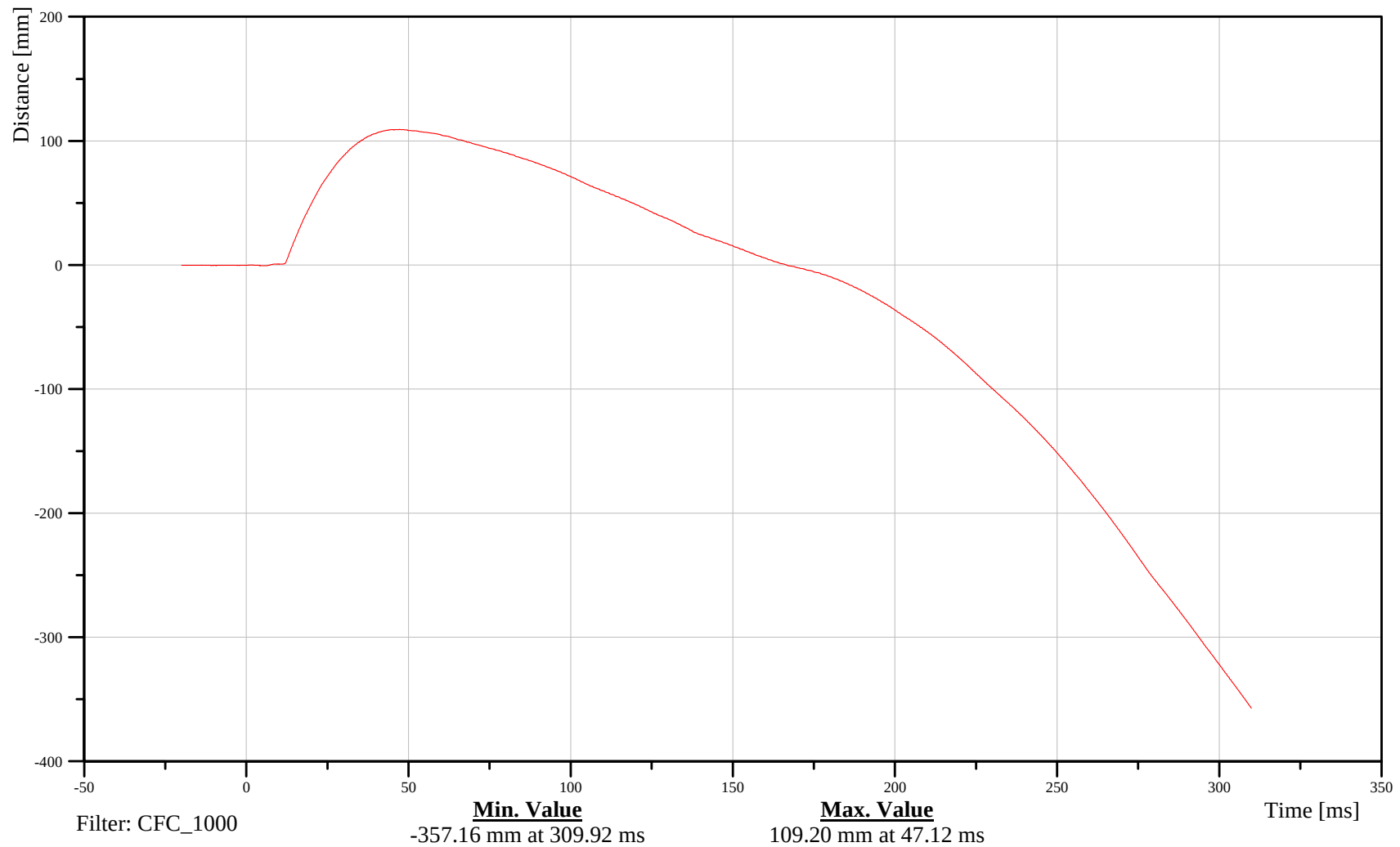
Target Vehicle Driver Lap Belt Spool

Customer: VRTC

21SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006

Time: 07:16

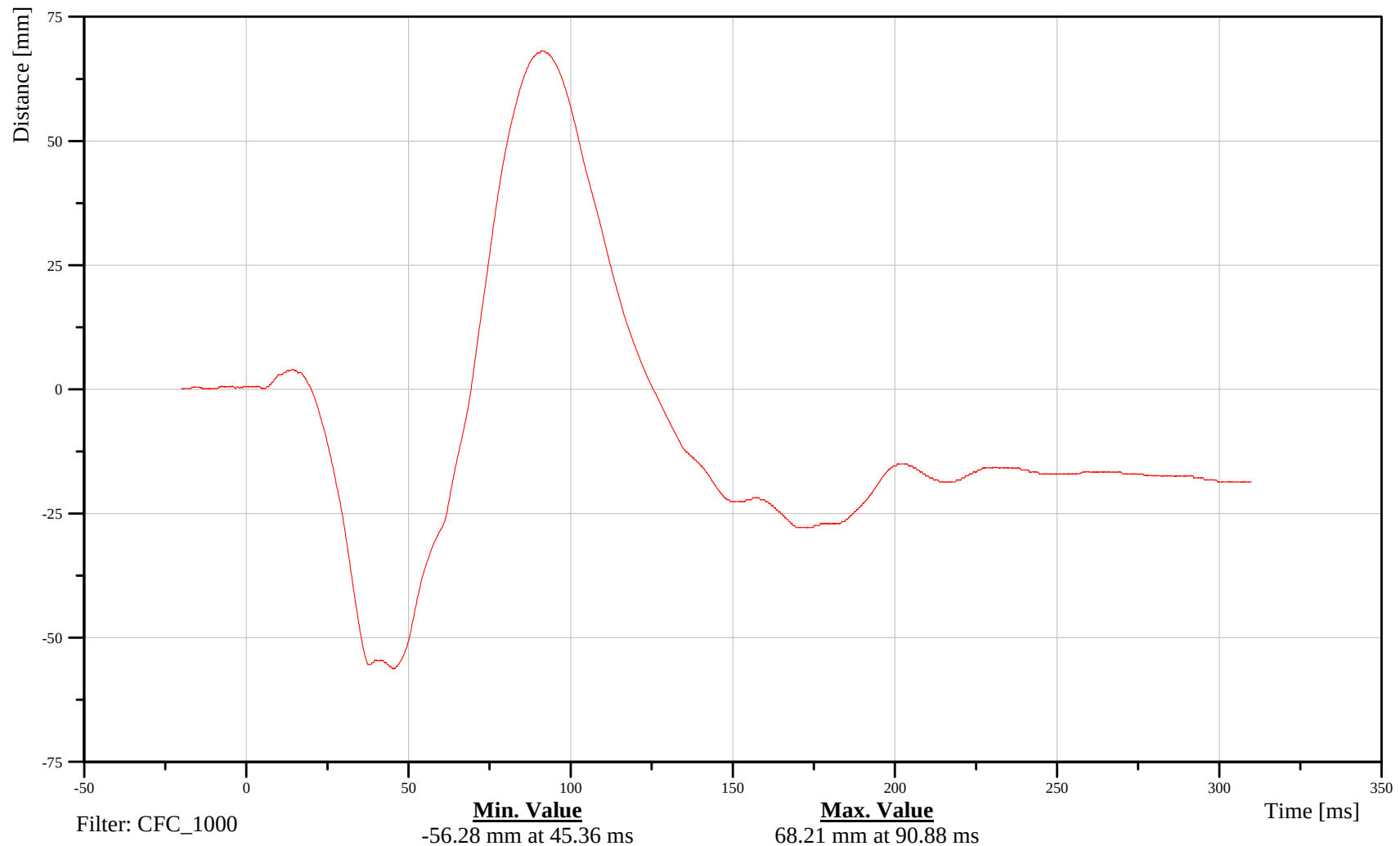
Target Vehicle Driver Shoulder Belt Spool and Retraction

Customer: VRTC

21SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

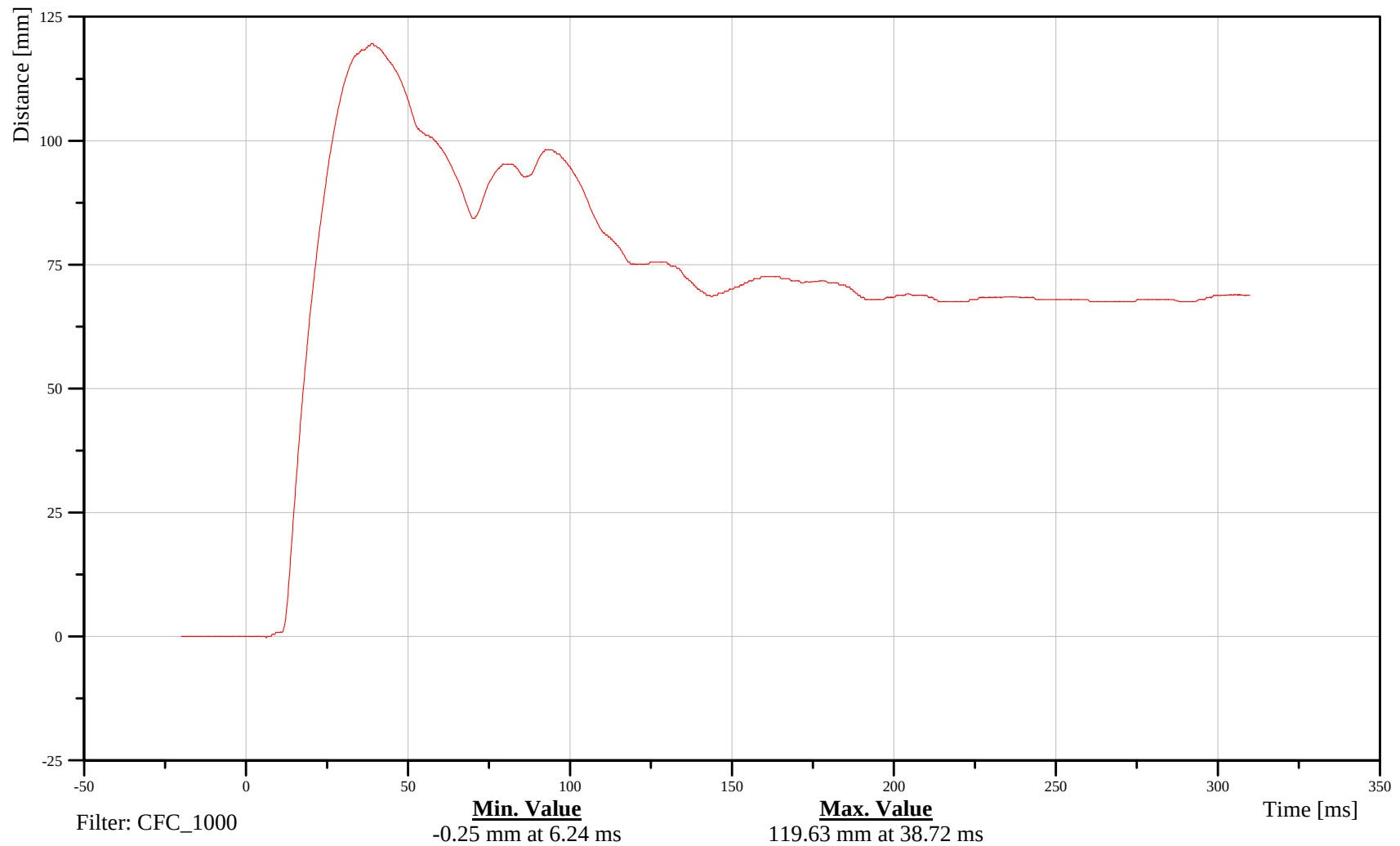
Target Vehicle RF Pass Lap Belt Spool

Customer: VRTC

23SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

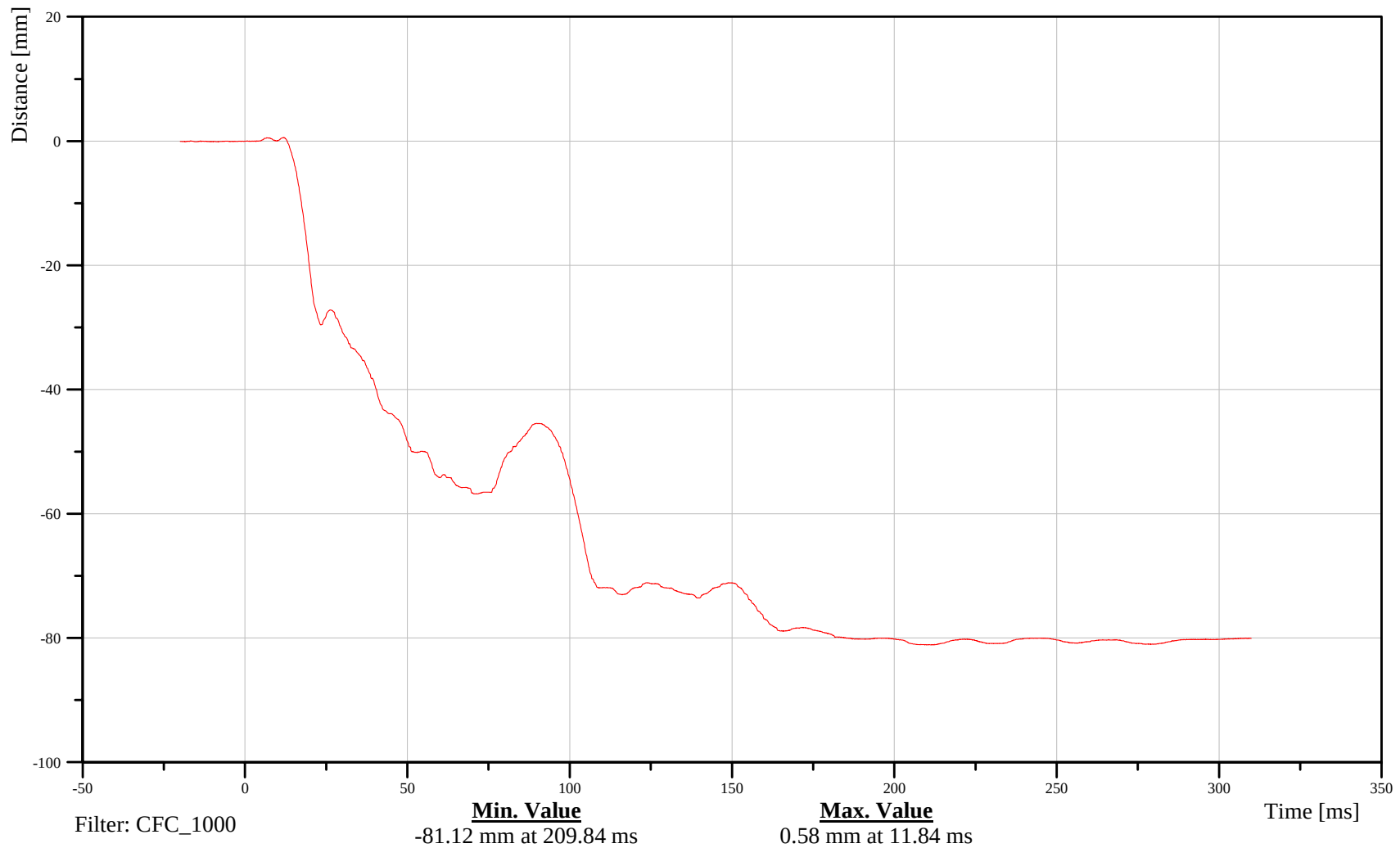
Target Vehicle RF Pass Shoulder Belt Spool and Retraction

Customer: VRTC

23SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060302





2006 Ford F250 into 2002 Ford Focus Full Frontal Collinear

Date: 03/03/2006
Time: 07:16

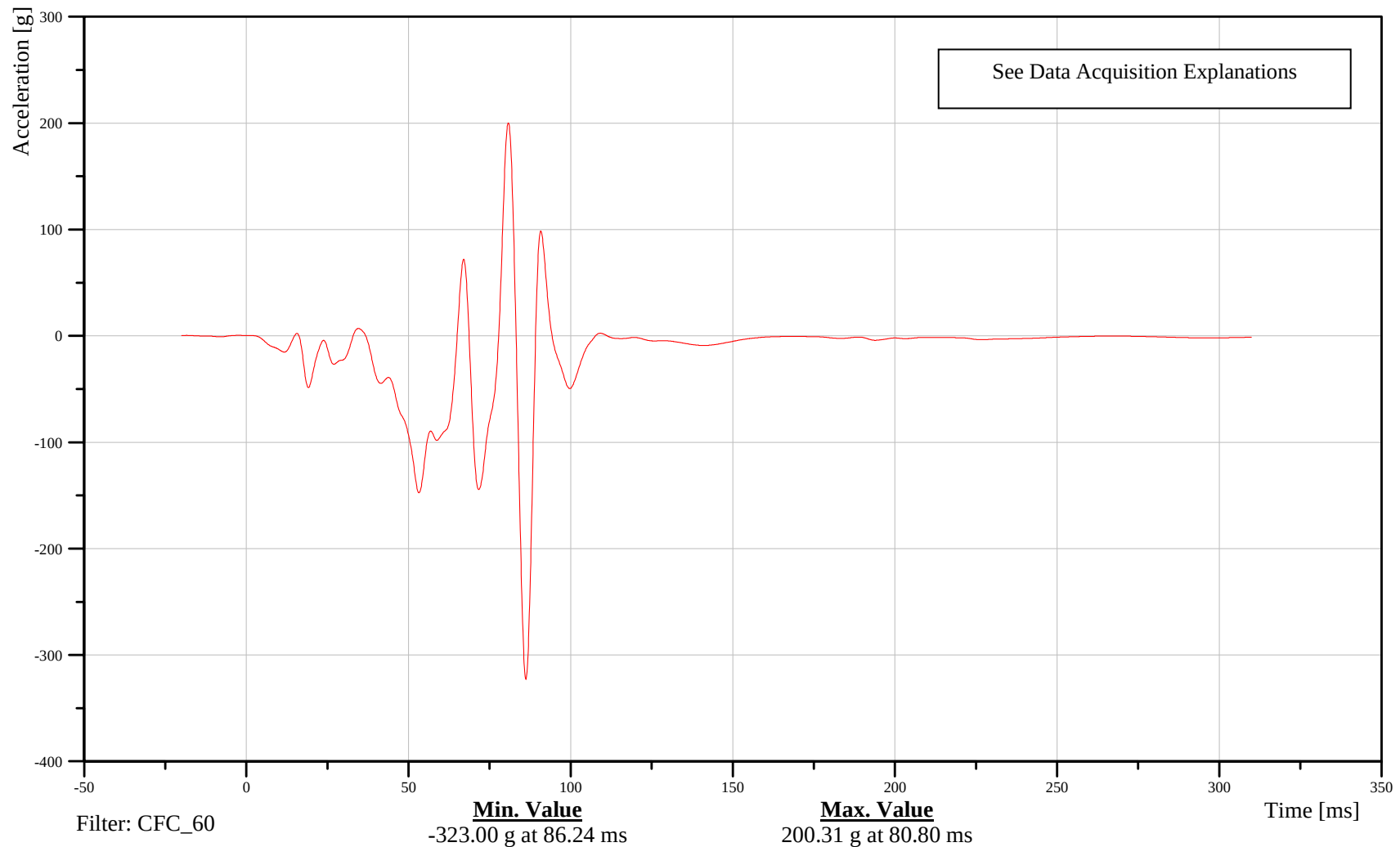
Target Vehicle IP Center

Customer: VRTC

22DASH000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060302



Appendix C

Dummy Configuration and Performance Verification Data

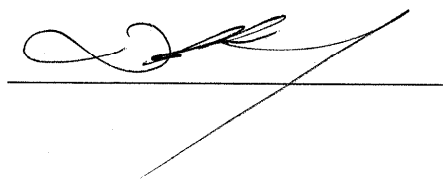
Pre-Test Dummy Configuration and Performance Verification Data

Target Vehicle Driver Dummy S/N: 110

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 110 w/ THOR-LX Calibration No. 20

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	883	Yes
B	Shoulder Pivot Height	505.5 - 520.7	513	Yes
C	H-Point Height	83.8 - 88.9	88	Yes
D	H-Point From Seatback	134.6 - 139.7	138	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	92	Yes
F	Thigh Clearance	139.7 - 154.9	151	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	208	Yes
K	Buttock Knee Length	579.1 - 604.5	601	Yes
L	Popliteal Height	429.3 - 454.7	440	Yes
M	Knee Pivot Height	485.1 - 500.4	498	Yes
N	Buttock Popliteal Length	452.1 - 477.5	471	Yes
O	Chest Depth	213.4 - 228.6	221	Yes
P	Foot Length	251.5 - 266.7	253	Yes
V	Shoulder Breadth	421.6 - 436.9	425	Yes
W	Foot Breadth	91.4 - 106.7	97	Yes
Y	Chest Circumference	970.3 - 1000.8	979	Yes
Z	Waist Circumference	835.7 - 866.1	860	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	228	Yes

Technician



Approved



Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 110 Certification No. 20-1

Test Date: 02/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	45 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	255.0 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	2.1 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

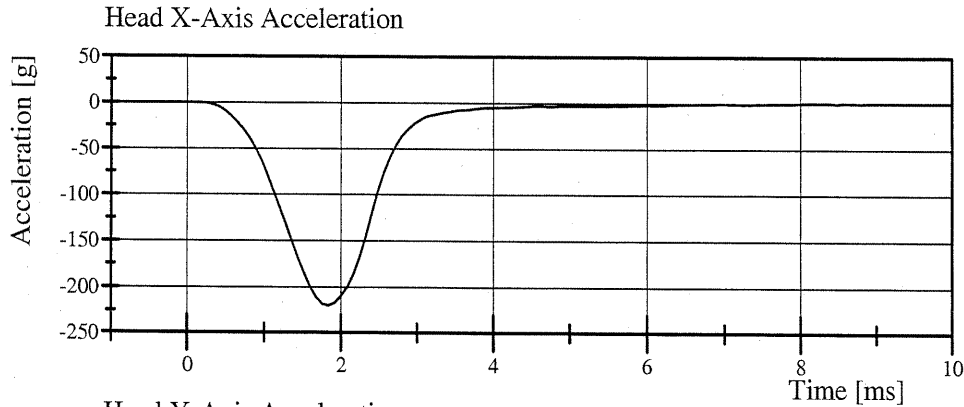


Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 110 Certification No. 20-1

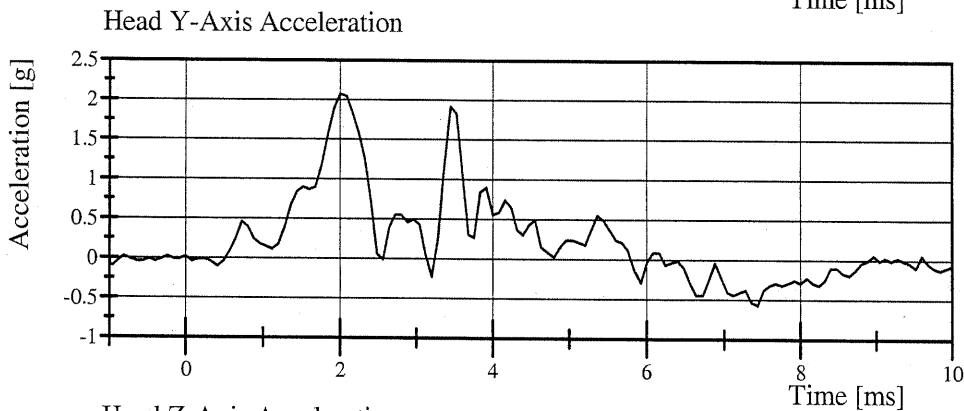
Test Date: 02/16/2006



Filter Class: CFC_1000

Max: 0.6 g at 9.4 ms

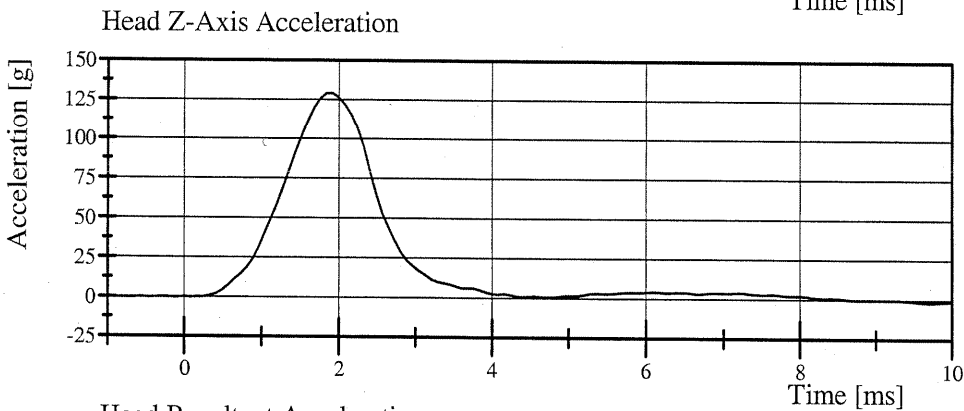
Min: -219.7 g at 1.8 ms



Filter Class: CFC_1000

Max: 2.1 g at 2.0 ms

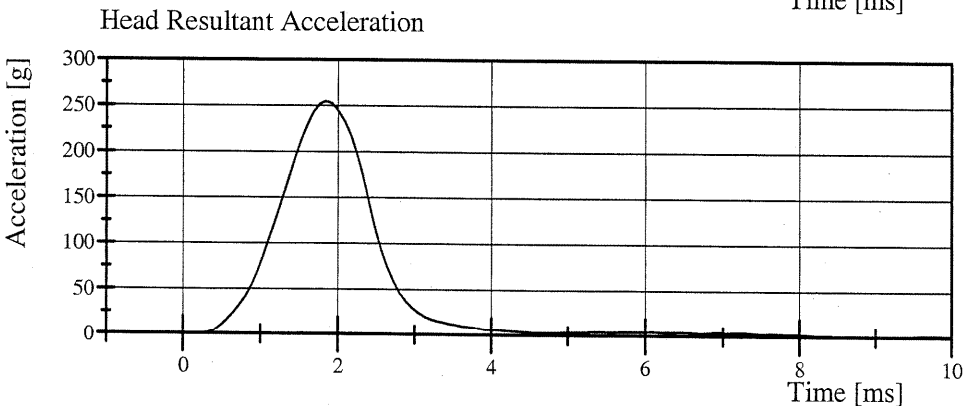
Min: -0.6 g at 7.4 ms



Filter Class: CFC_1000

Max: 129.4 g at 1.8 ms

Min: -1.7 g at 9.8 ms



Filter Class: CFC_1000

Max: 255.0 g at 1.8 ms

Min: 0.0 g at -0.7 ms

Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 110 Certification No. 20-1

Test Date: 02/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.913 m/s	Yes
Pendulum Acceleration Decay			
Crossing -5g	34 - 42 ms	41.1 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-22.68 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-22.16 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-14.39 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-14.39 g	Yes
Total Head D-Plane Rotation			
Peak	(-64) - (-78) °	-65.6 °	Yes
Time of Peak	57 - 64 ms	60.8 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	96.9 N·m	Yes
Time of Peak	47 - 58 ms	53.7 ms	Yes
Total Neck Occipital Condyles Moment			
Decay to 0 N·m	97 - 107 ms	101.8 ms	Yes

Test meets specifications.

Comments:

Technician



Approved



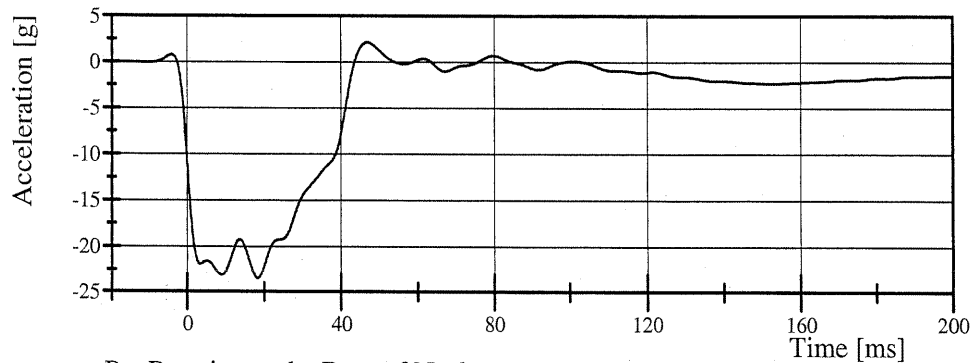
Transportation Research Center Inc.

Neck Flexion

HIH 50th Serial No. 110 Certification No. 20-1

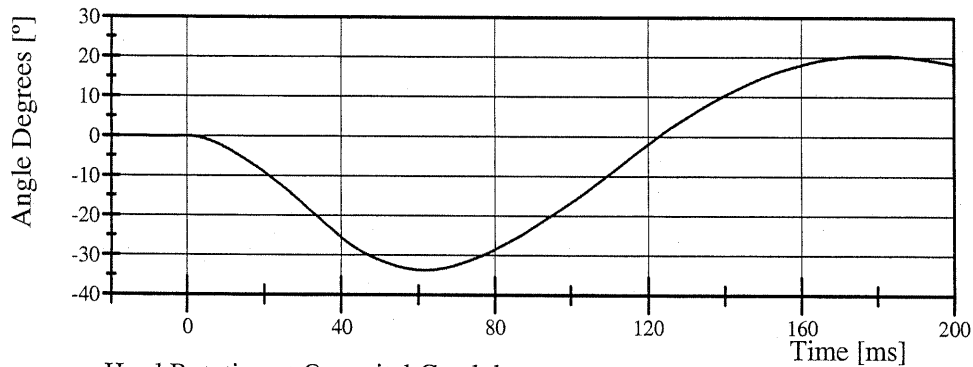
Test Date: 02/17/2006

Pendulum Acceleration



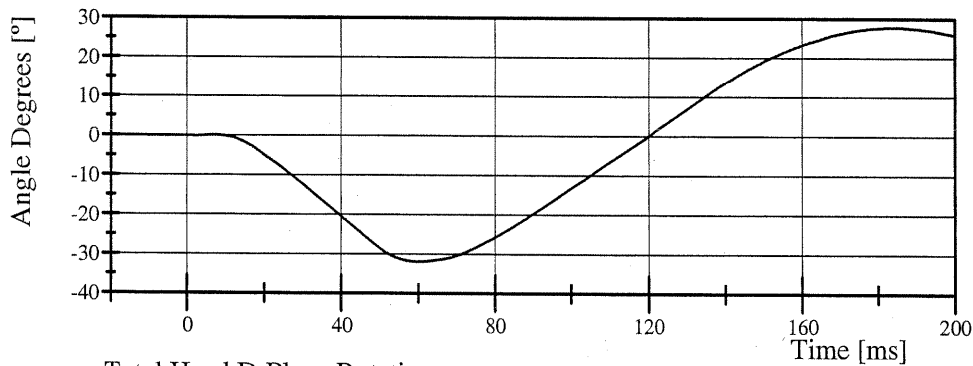
Filter Class: CFC_60
Max: 2.1 g at 46.7 ms
Min: -23.5 g at 18.2 ms

Pot Rotation at the Base of Neck



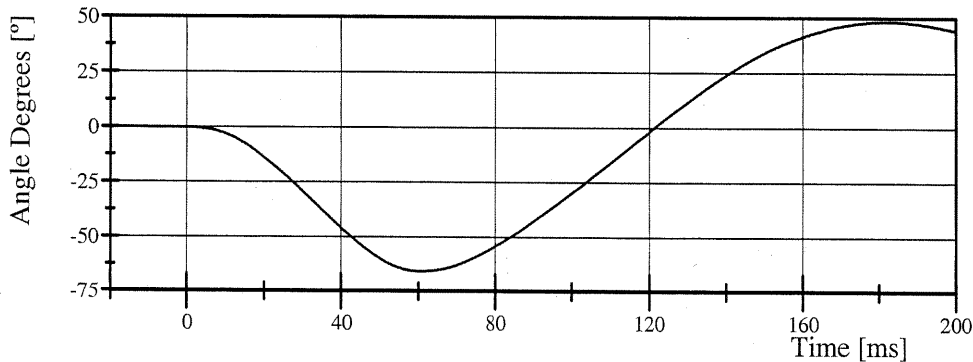
Filter Class: CFC_60
Max: 20.5 ° at 179.2 ms
Min: -33.7 ° at 61.8 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 27.9 ° at 184.2 ms
Min: -31.9 ° at 60.2 ms

Total Head D-Plane Rotation



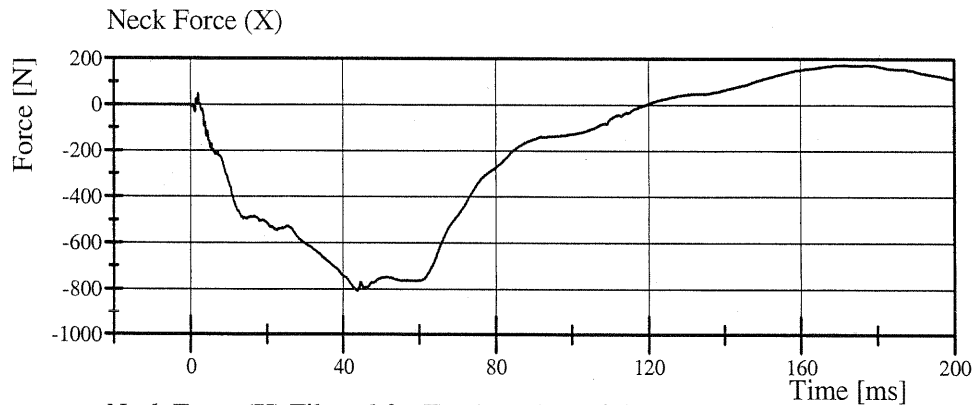
Filter Class: CFC_60
Max: 48.3 ° at 182.6 ms
Min: -65.6 ° at 60.8 ms

Transportation Research Center Inc.

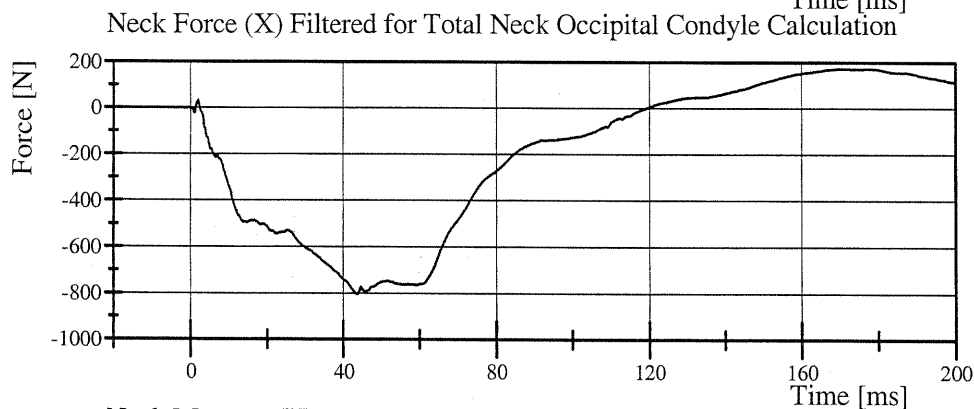
Neck Flexion

HIII 50th Serial No. 110 Certification No. 20-1

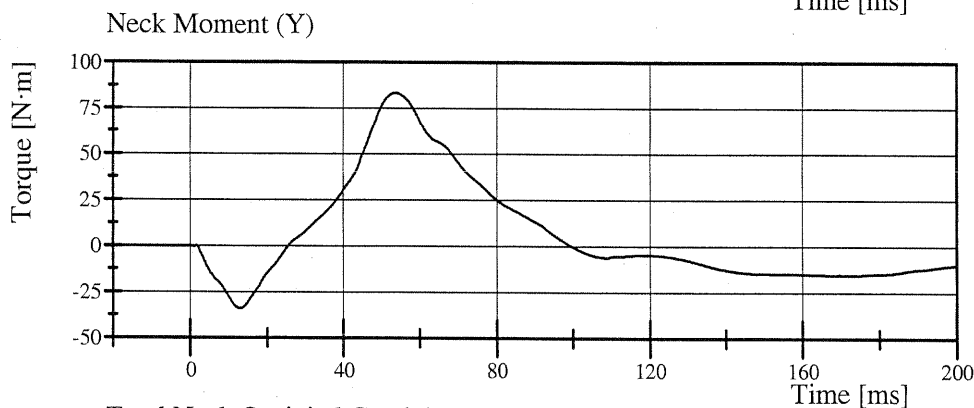
Test Date: 02/17/2006



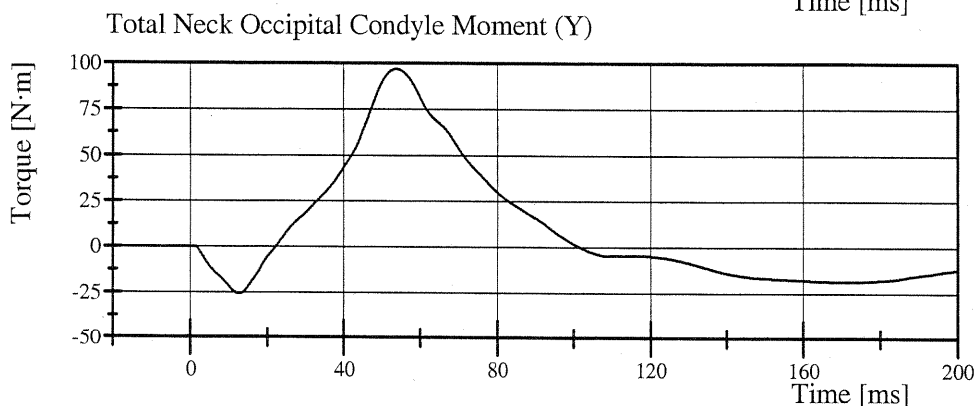
Filter Class: CFC_1000
Max: 174.5 N at 171.4 ms
Min: -805.8 N at 43.7 ms



Filter Class: CFC_600
Max: 174.0 N at 171.5 ms
Min: -805.0 N at 43.7 ms



Filter Class: CFC_600
Max: 83.5 N·m at 53.6 ms
Min: -33.9 N·m at 13.2 ms



Filter Class: CFC_600
Max: 96.9 N·m at 53.7 ms
Min: -25.6 N·m at 12.4 ms

Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 110 Certification No. 20-1

Test Date: 02/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.982 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	43.5 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	18.14 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	15.81 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	14.12 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	14.12 g	Yes
Total Head D-Plane Rotation Peak	81 - 106 °	90.5 °	Yes
Time of Peak	72 - 82 ms	78.5 ms	Yes
Total Head D-Plane Rotation Decay to 0°	147 - 174 ms	160.2 ms	Yes
Total Neck Occipital Condyles Moment Peak	(-53) - (-80) N·m	-65.0 N·m	Yes
Time of Peak	65 - 79 ms	73.2 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	120 - 148 ms	144.4 ms	Yes

Test meets specifications.

Comments:

Technician



Approved

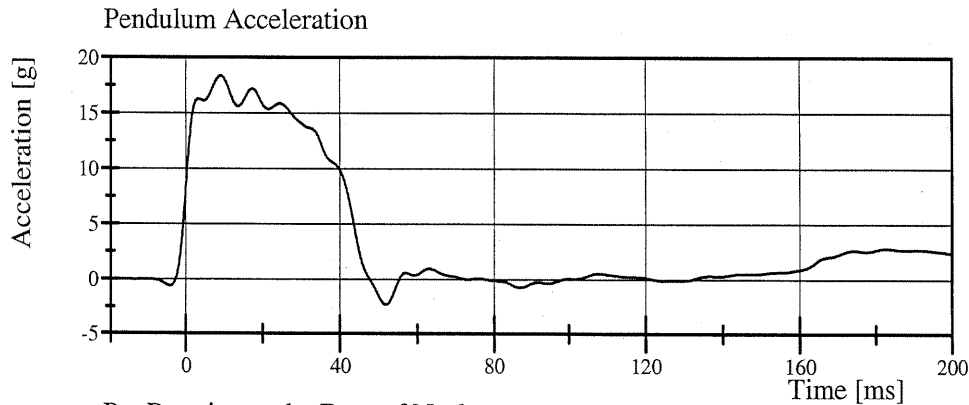


Transportation Research Center Inc.

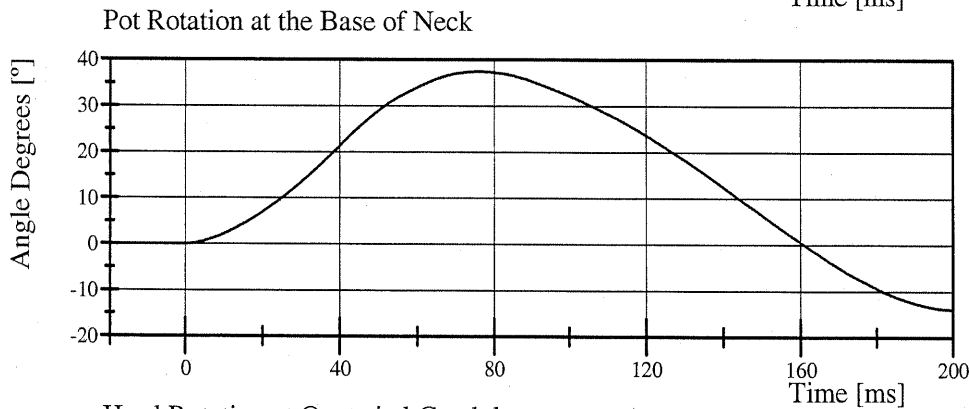
Neck Extension

HIII 50th Serial No. 110 Certification No. 20-1

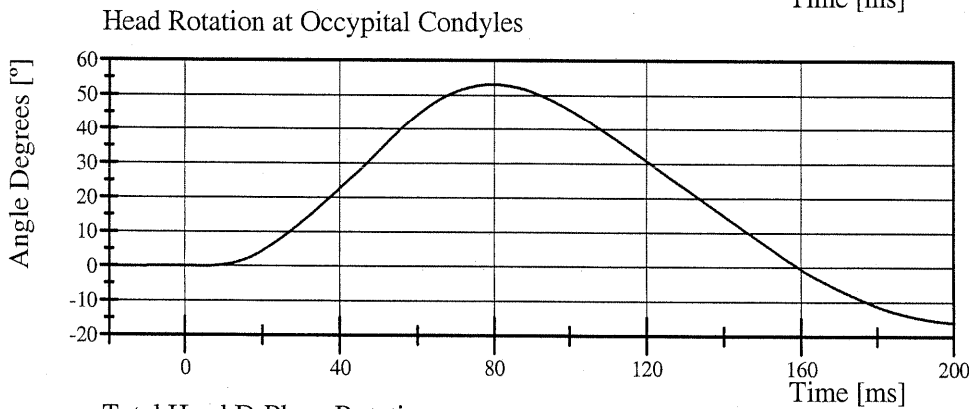
Test Date: 02/17/2006



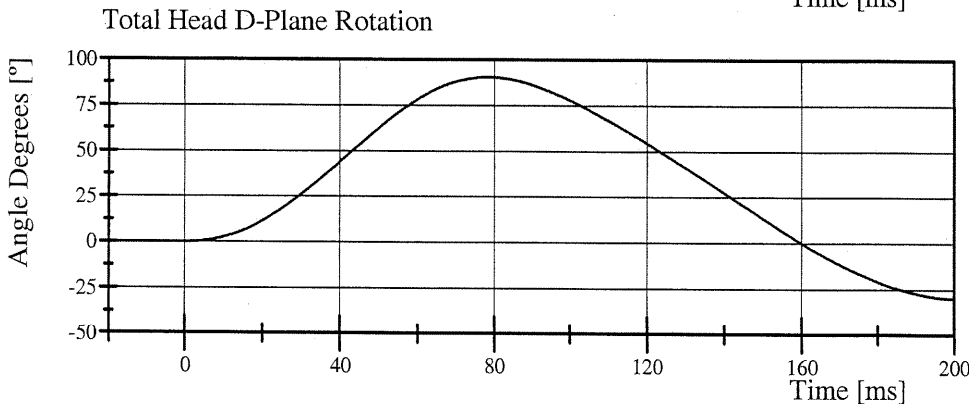
Filter Class: CFC_60
Max: 18.4 g at 9.1 ms
Min: -2.3 g at 51.8 ms



Filter Class: CFC_60
Max: 37.4 ° at 76.0 ms
Min: -14.0 ° at 200.0 ms



Filter Class: CFC_60
Max: 53.1 ° at 79.6 ms
Min: -15.9 ° at 200.0 ms



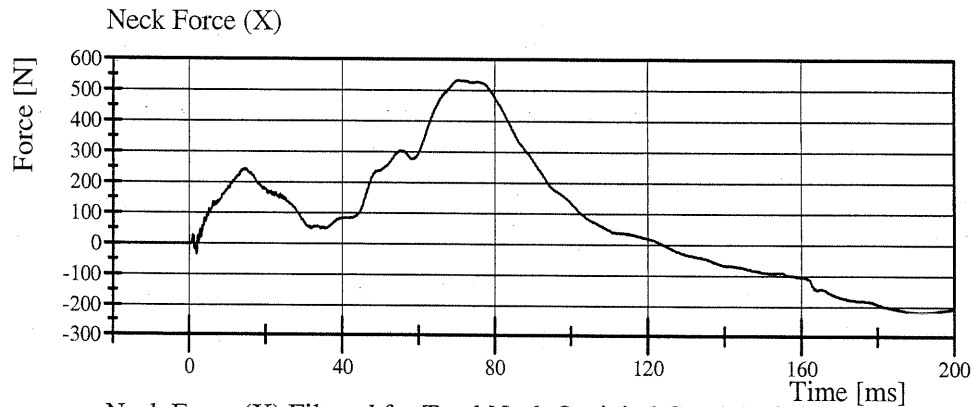
Filter Class: CFC_60
Max: 90.5 ° at 78.5 ms
Min: -29.8 ° at 200.0 ms

Transportation Research Center Inc.

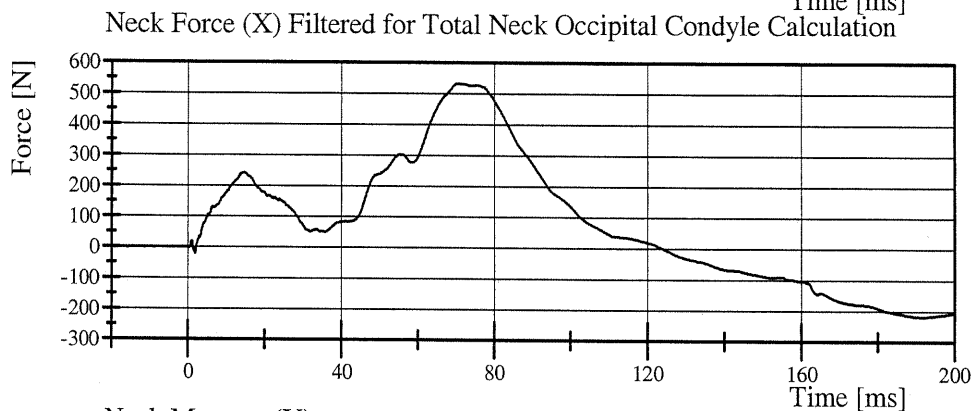
Neck Extension

HIH 50th Serial No. 110 Certification No. 20-1

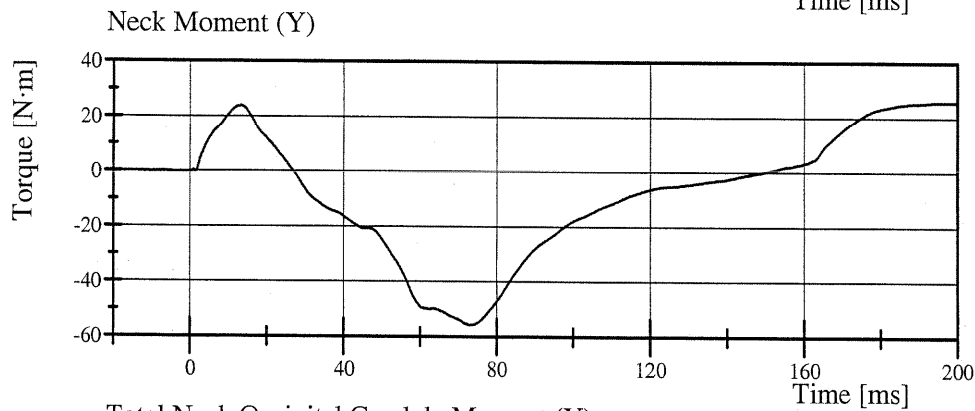
Test Date: 02/17/2006



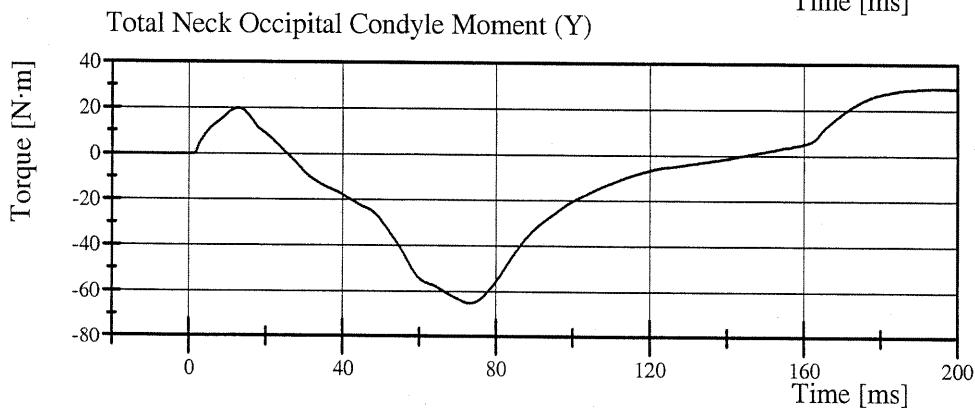
Filter Class: CFC_1000
Max: 533.4 N at 70.2 ms
Min: -219.1 N at 191.8 ms



Filter Class: CFC_600
Max: 533.0 N at 70.3 ms
Min: -218.6 N at 191.8 ms



Filter Class: CFC_600
Max: 25.9 N·m at 196.3 ms
Min: -55.7 N·m at 73.4 ms



Filter Class: CFC_600
Max: 29.6 N·m at 196.2 ms
Min: -65.0 N·m at 73.2 ms

Transportation Research Center Inc.

Front Thorax

HHH 50th Serial No. 110 Certification No. 21-1

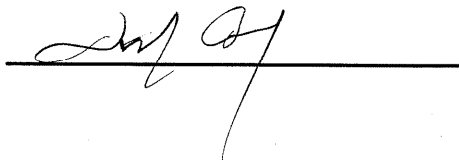
Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.641 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,795.1 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-66.05 mm	Yes
Internal Hysteresis	65 - 85 %	72.8 %	Yes

Test meets specifications.

Comments:

Technician



Approved



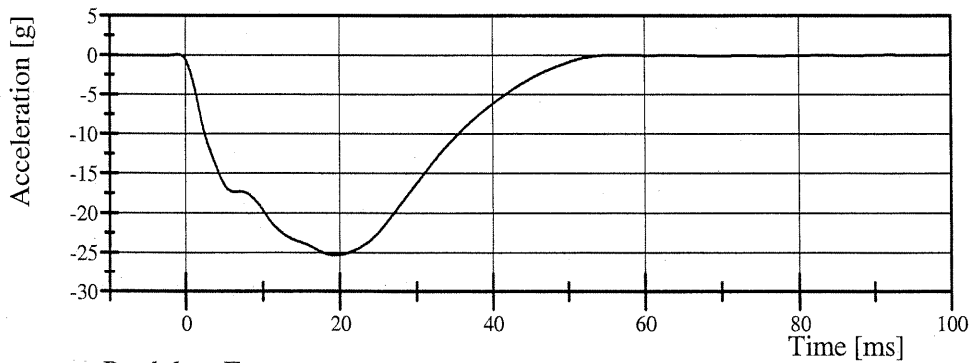
Transportation Research Center Inc.

Front Thorax

HHH 50th Serial No. 110 Certification No. 21-1

Test Date: 02/23/2006

Pendulum Acceleration

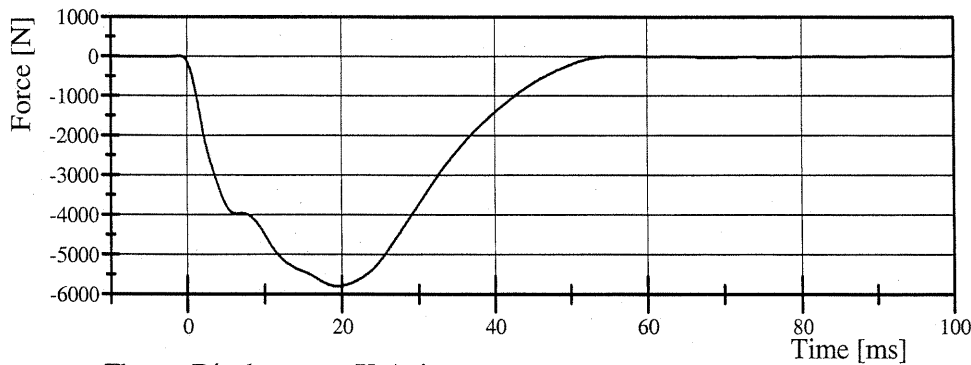


Filter Class: CFC_180

Max: 0.1 g at -1.0 ms

Min: -25.3 g at 19.4 ms

Pendulum Force

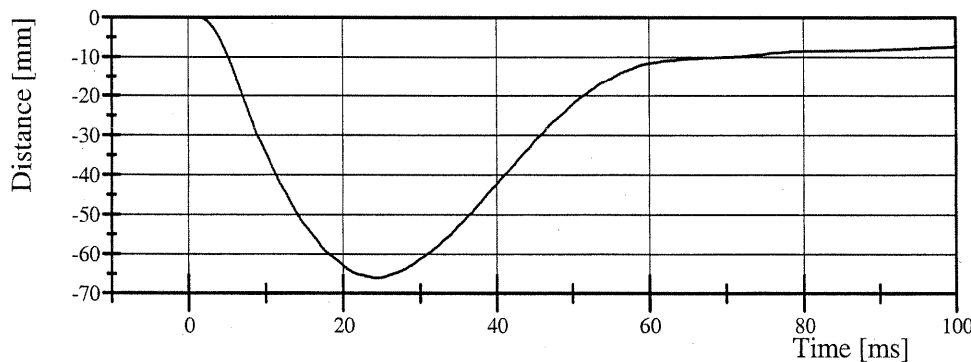


Filter Class: CFC_180

Max: 15.8 N at -1.0 ms

Min: -5,795.1 N at 19.4 ms

Thorax Displacement X-Axis

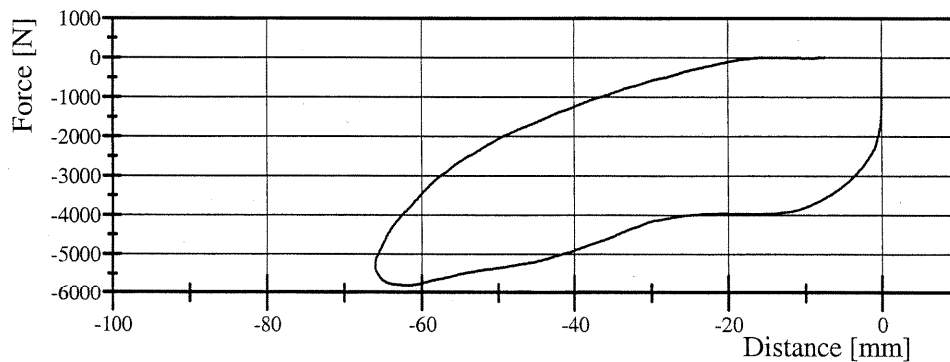


Filter Class: CFC_600

Max: 0.0 mm at -7.2 ms

Min: -66.0 mm at 24.4 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180

Max: 15.8 N at 0.0 mm

Min: -5,795.1 N at -61.8 mm

Applied Safety Technologies Corp.

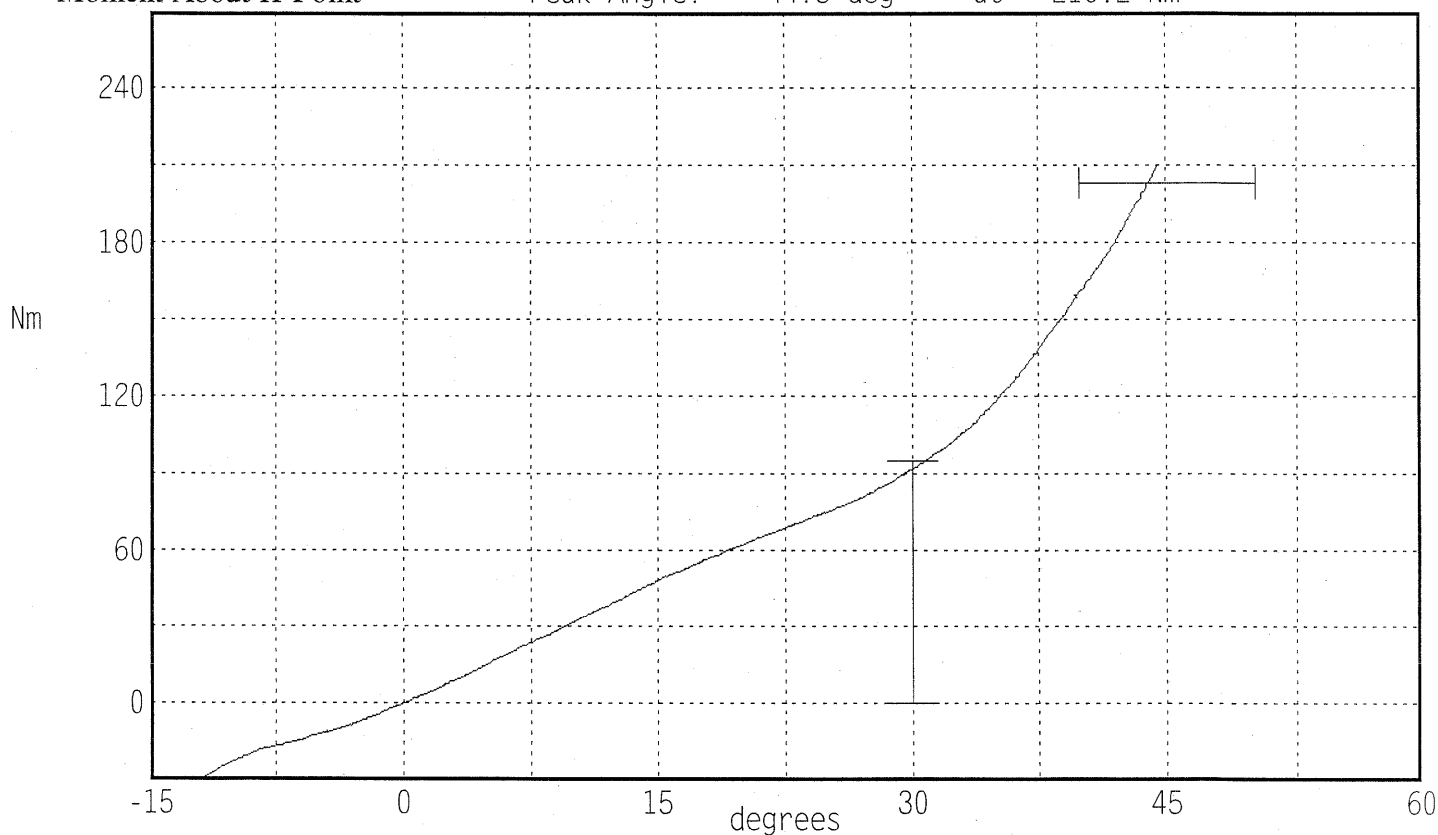
Hybrid III Hip Range of Motion

Serial Number: 110L
Test Number: 110C20
Comments:

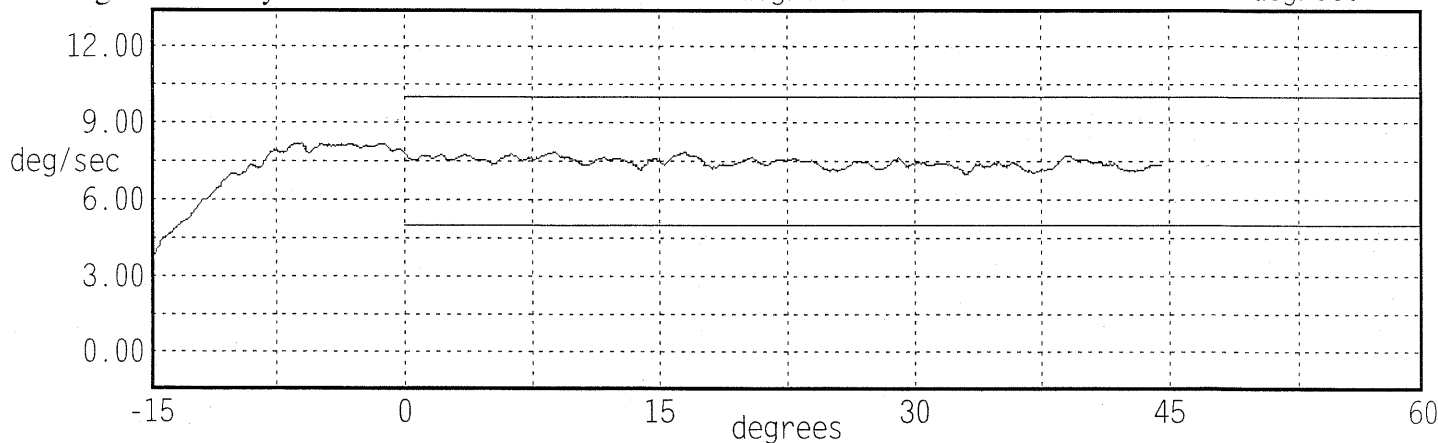
Date: 02/16/2006
Time: 16:03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.4 °C Pass
Humidity	10 - 70	44 % Pass
Moment at 30 deg	<= 94.9	91.7 Nm Pass
Angle at 203 Nm	40.0 - 50.0	44.0 deg Pass
Average Velocity	5.0 - 10.0	7.4 deg/sec Pass

Moment About H-Point
Peak Moment: 210.2 Nm at 44.5 deg
Peak Angle: 44.5 deg at 210.2 Nm



Angular Velocity
Max: 7.8 deg/sec
Min: 7.0 deg/sec



Applied Safety Technologies Corp.

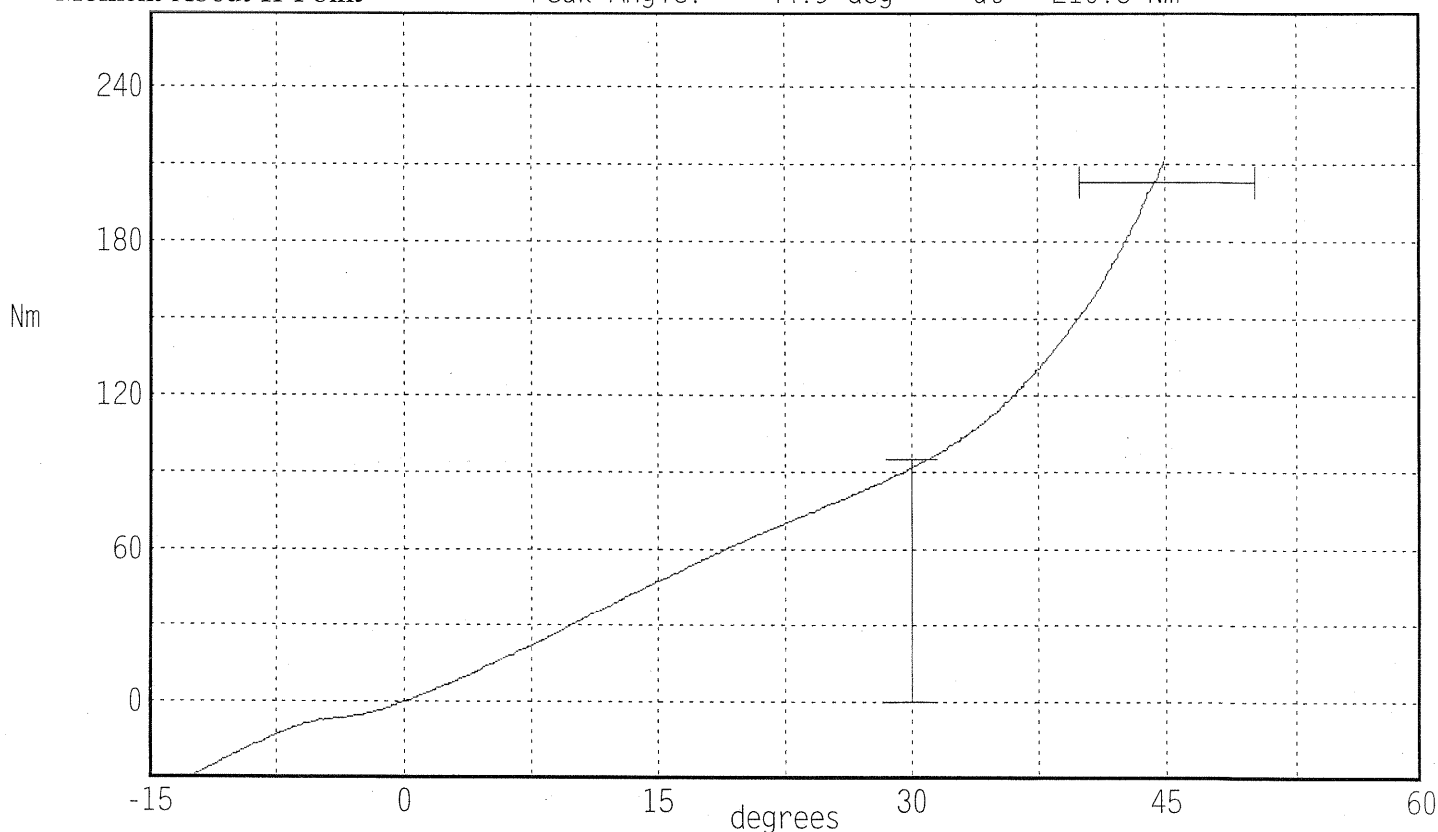
Hybrid III Hip Range of Motion

Serial Number: 110R
Test Number: 110C20
Comments:

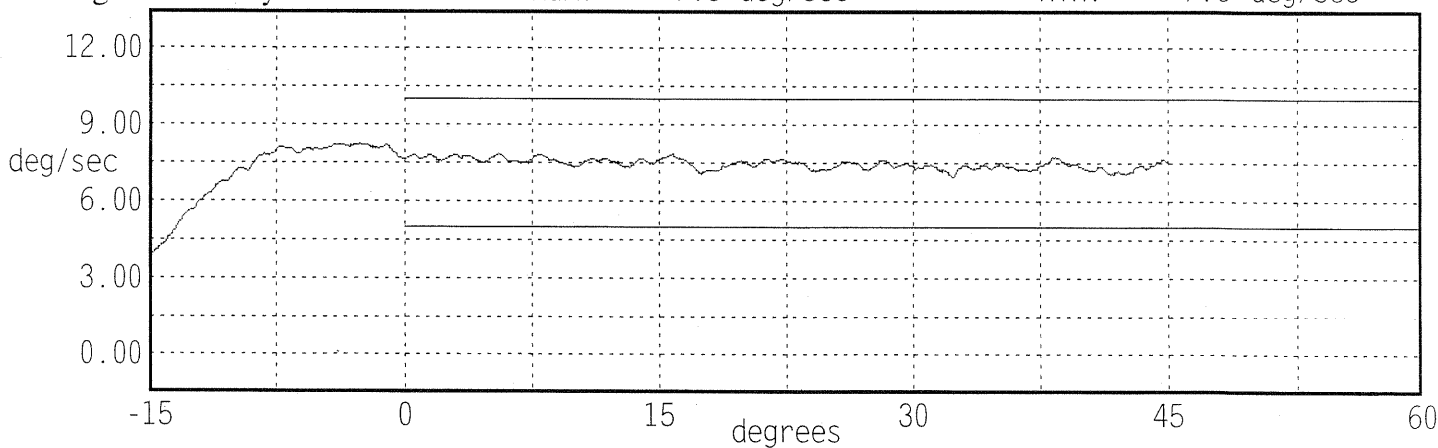
Date: 02/16/2006
Time: 16:12

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.4 °C Pass
Humidity	10 - 70	44 % Pass
Moment at 30 deg	<= 94.9	91.7 Nm Pass
Angle at 203 Nm	40.0 - 50.0	44.5 deg Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec Pass

Moment About H-Point
Peak Moment: 210.8 Nm at 44.9 deg
Peak Angle: 44.9 deg at 210.8 Nm



Angular Velocity
Max: 7.8 deg/sec
Min: 7.0 deg/sec



Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 3-1

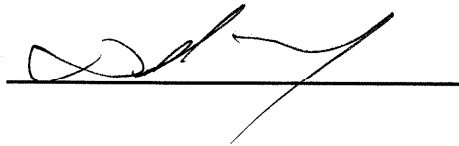
Test Date: 02/21/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.110 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,543.32 N	Yes

Test meets specifications.

Comments:

Technician



Approved

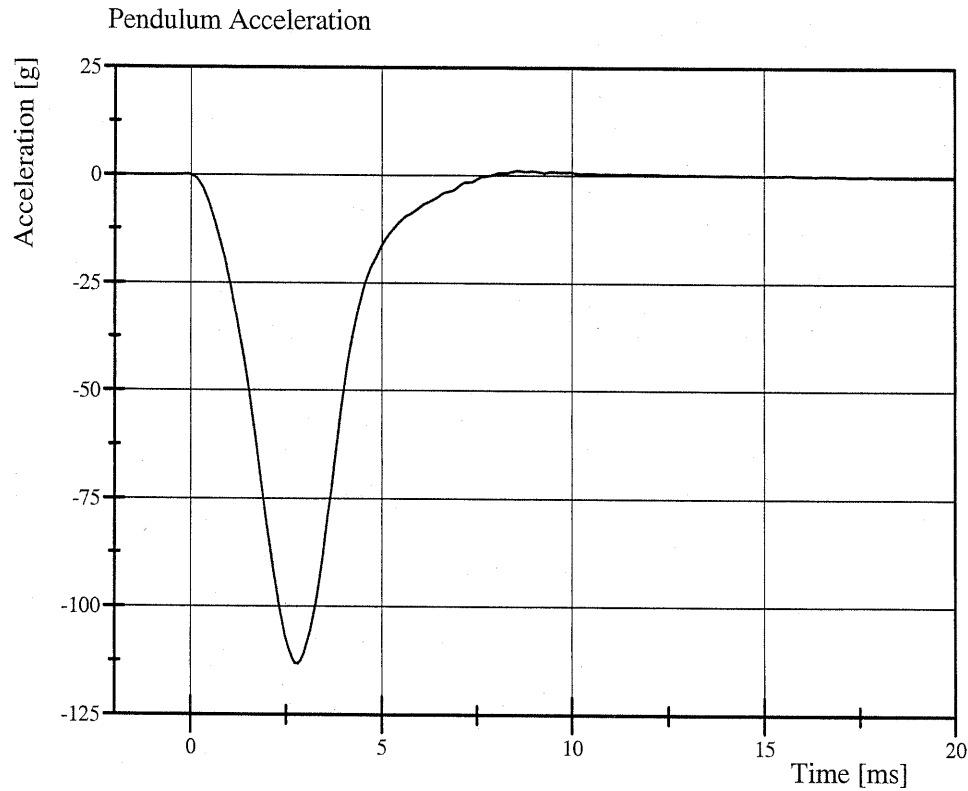


Transportation Research Center Inc.

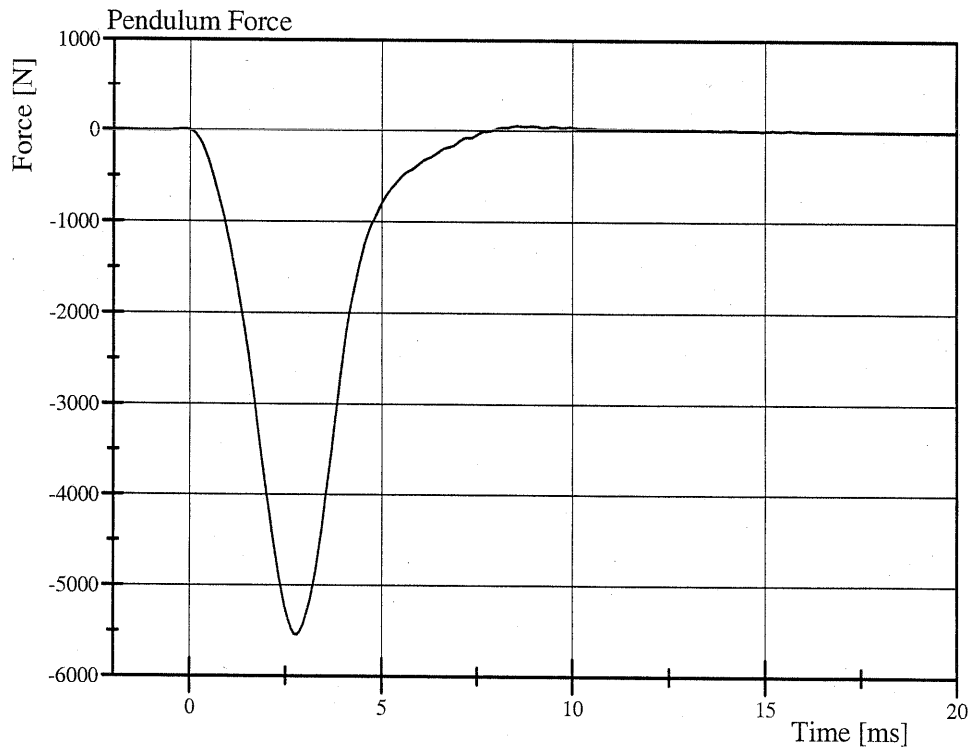
Left Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 3-1

Test Date: 02/21/2006



Filter Class: CFC_600
Max: 1.1 g at 8.6 ms
Min: -113.3 g at 2.8 ms



Filter Class: CFC_600
Max: 53.3 N at 8.6 ms
Min: -5,543.3 N at 2.8 ms

Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 3-1

Test Date: 02/21/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.111 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,535.74 N	Yes

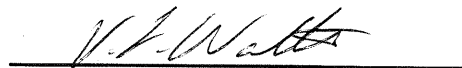
Test meets specifications.

Comments:

Technician



Approved

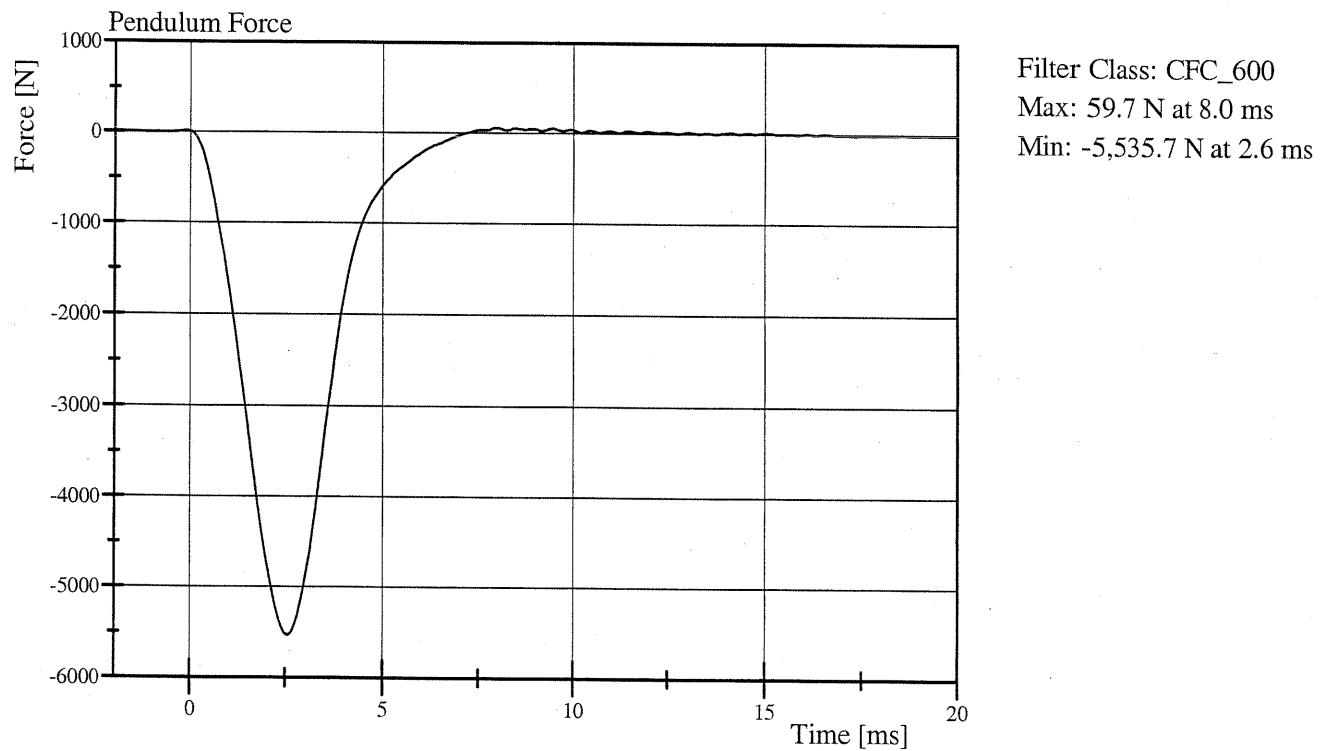
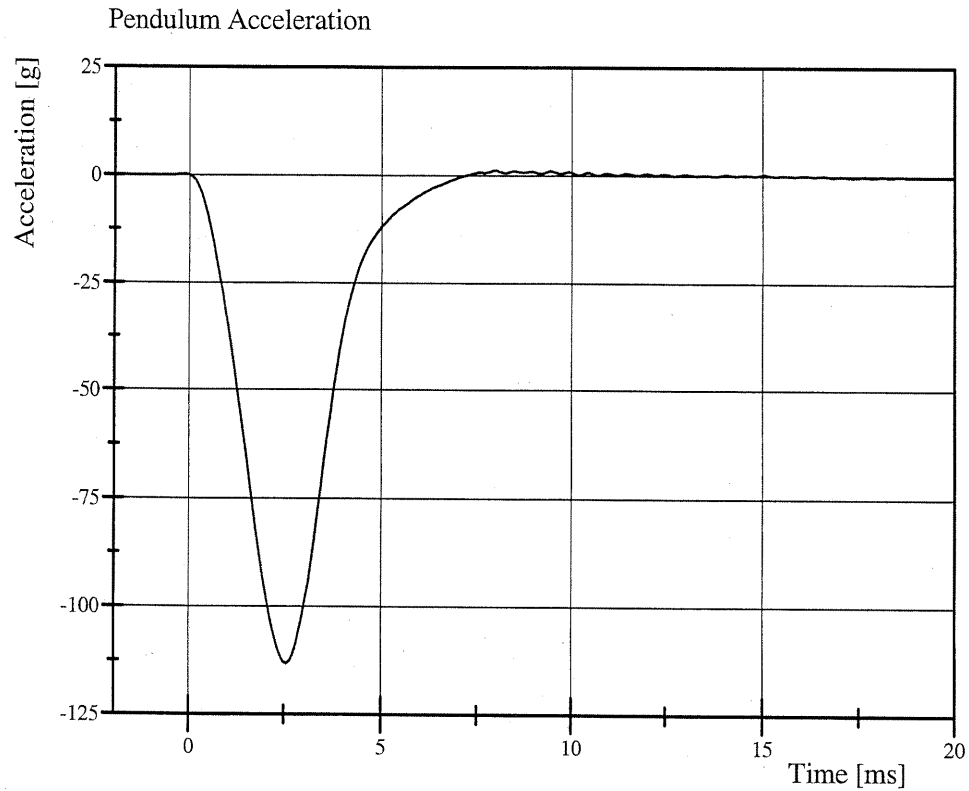


Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 3-1

Test Date: 02/21/2006



Transportation Research Center Inc.

Left Knee Slider

HIII 50th Serial No. LX116117 Certification No. 3-1

Test Date: 02/21/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.737 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,485.8 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,903.1 N	Yes

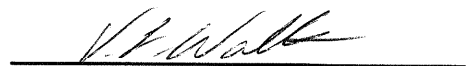
Test meets specifications.

Comments:

Technician



Approved



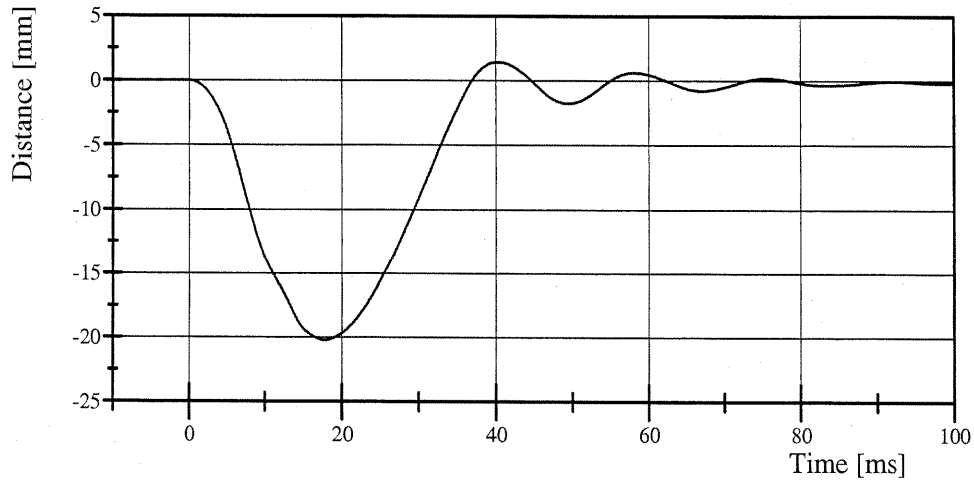
Transportation Research Center Inc.

Left Knee Slider

HIII 50th Serial No. LX116117 Certification No. 3-1

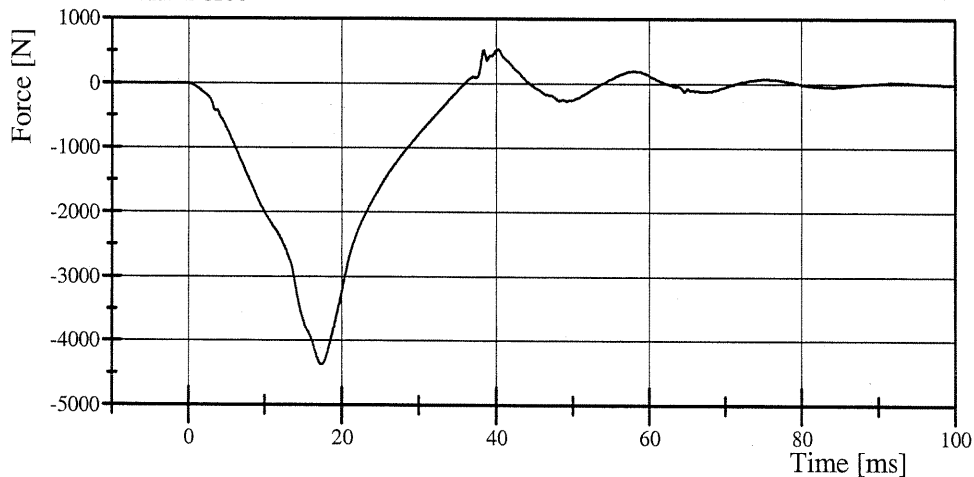
Test Date: 02/21/2006

Knee Slider Displacement



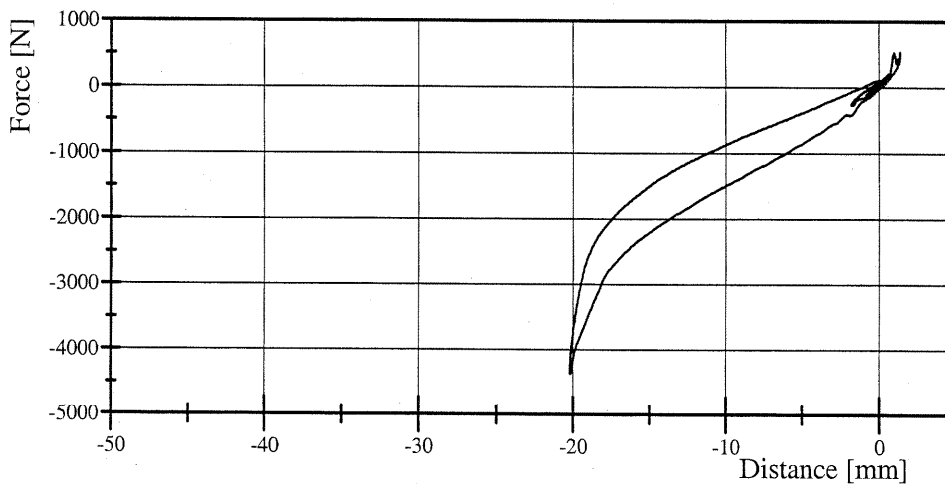
Filter Class: CFC_180
Max: 1.4 mm at 40.2 ms
Min: -20.2 mm at 17.8 ms

Femur Force



Filter Class: CFC_600
Max: 529.0 N at 40.2 ms
Min: -4,369.1 N at 17.4 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 529.0 N at 1.4 mm
Min: -4,369.1 N at -20.2 mm

Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX116117 Certification No. 3-1

Test Date: 02/21/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.739 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,499.1 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,954.3 N	Yes

Test meets specifications.

Comments:

Technician



Approved



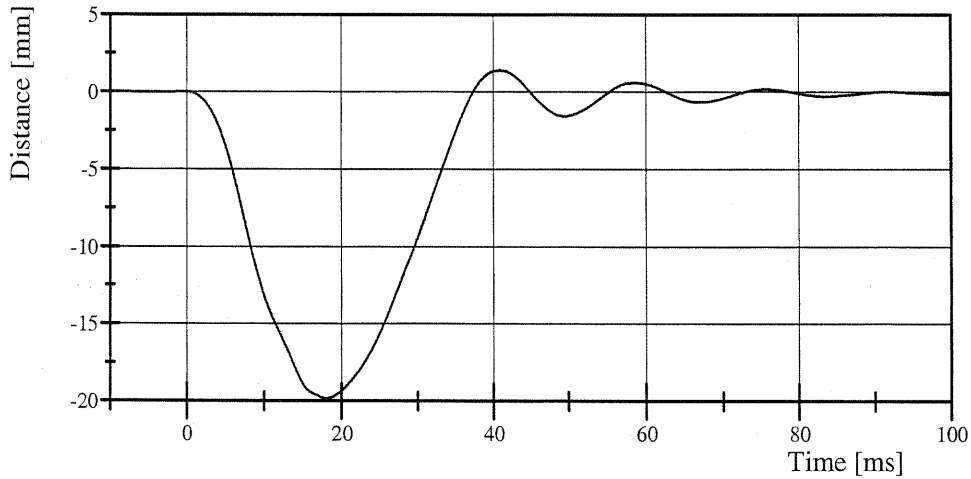
Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX116117 Certification No. 3-1

Test Date: 02/21/2006

Knee Slider Displacement

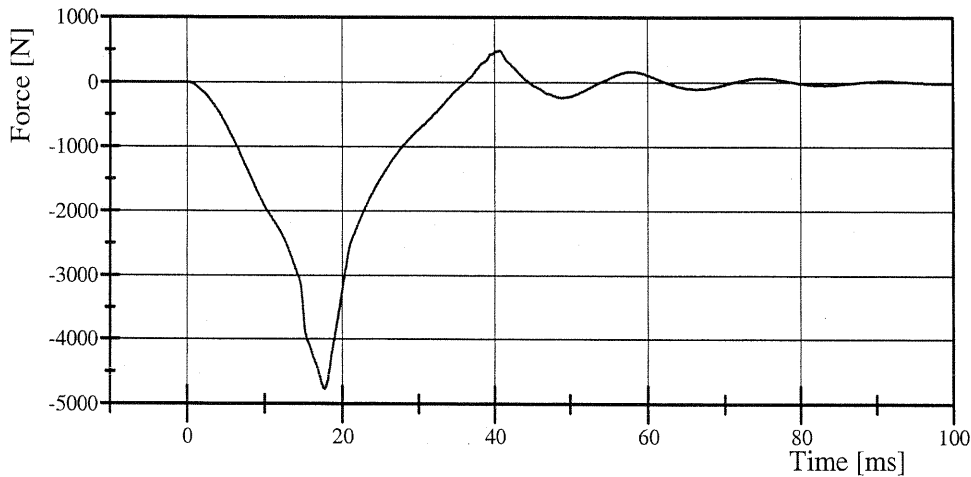


Filter Class: CFC_180

Max: 1.4 mm at 40.9 ms

Min: -19.8 mm at 18.1 ms

Femur Force

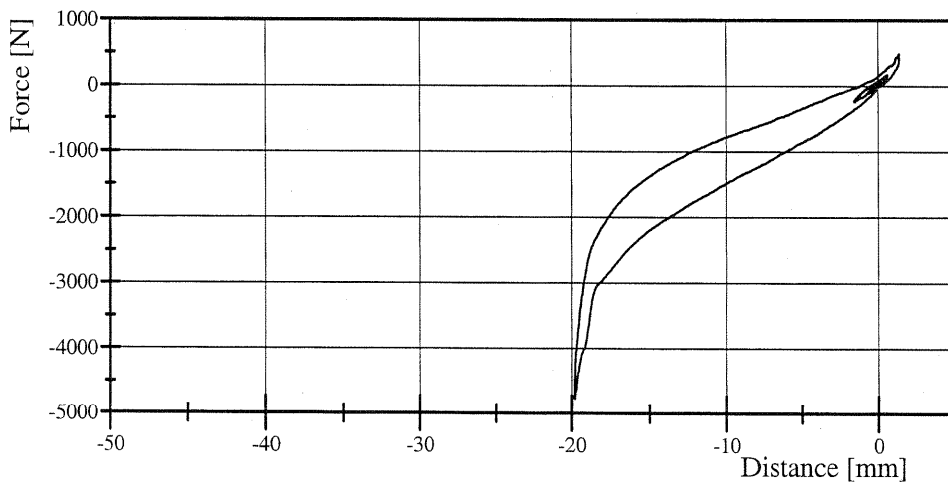


Filter Class: CFC_600

Max: 487.5 N at 40.7 ms

Min: -4,768.0 N at 17.8 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600

Max: 487.5 N at 1.4 mm

Min: -4,768.0 N at -19.8 mm

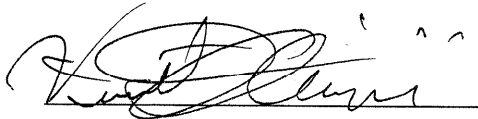
Post-Test Dummy Configuration and Performance Verification Data

Target Vehicle Driver Dummy S/N: 110

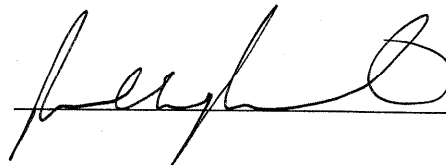
Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 110 w/ THOR-LX Calibration No. 22

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	884	Yes
B	Shoulder Pivot Height	505.5 - 520.7	515	Yes
C	H-Point Height	83.8 - 88.9	88	Yes
D	H-Point From Seatback	134.6 - 139.7	137	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	92	Yes
F	Thigh Clearance	139.7 - 154.9	151	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	208	Yes
K	Buttock Knee Length	579.1 - 604.5	601	Yes
L	Popliteal Height	429.3 - 454.7	440	Yes
M	Knee Pivot Height	485.1 - 500.4	498	Yes
N	Buttock Popliteal Length	452.1 - 477.5	471	Yes
O	Chest Depth	213.4 - 228.6	220	Yes
P	Foot Length	251.5 - 266.7	253	Yes
V	Shoulder Breadth	421.6 - 436.9	425	Yes
W	Foot Breadth	91.4 - 106.7	97	Yes
Y	Chest Circumference	970.3 - 1000.8	981	Yes
Z	Waist Circumference	835.7 - 866.1	860	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	228	Yes

Technician



Approved



Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 110 Certification No. 22-1

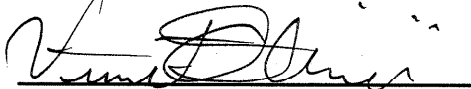
Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	260.7 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	2.7 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

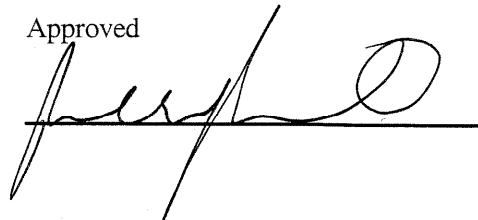
Test meets specifications.

Comments:

Technician



Approved

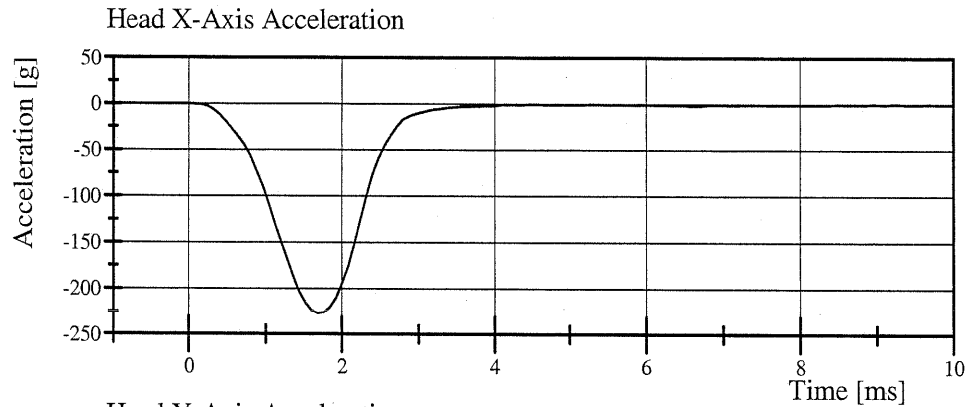


Transportation Research Center Inc.

Front Head Drop

HIH 50th Serial No. 110 Certification No. 22-1

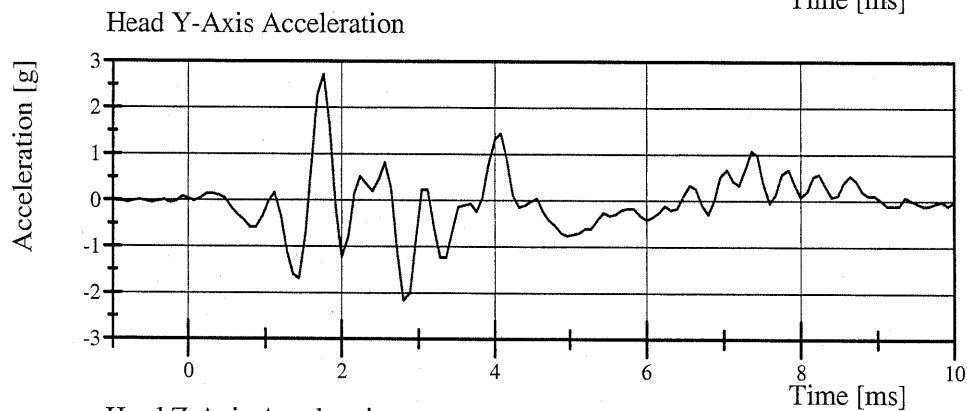
Test Date: 03/08/2006



Filter Class: CFC_1000

Max: 0.1 g at -1.0 ms

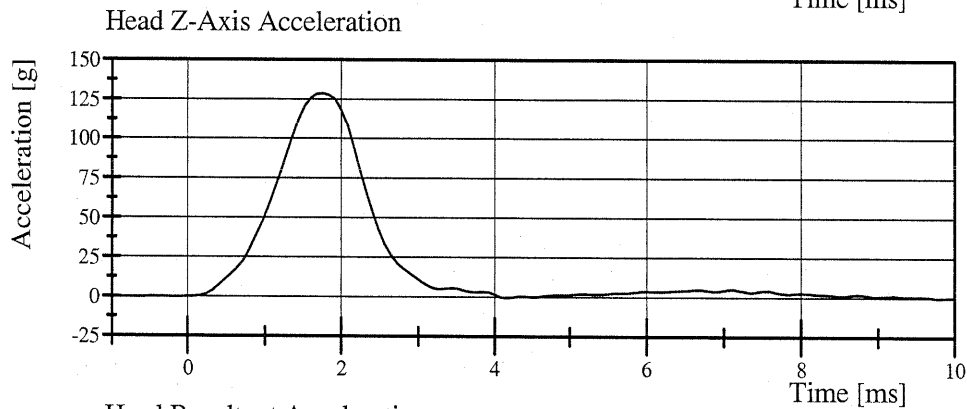
Min: -227.0 g at 1.7 ms



Filter Class: CFC_1000

Max: 2.7 g at 1.8 ms

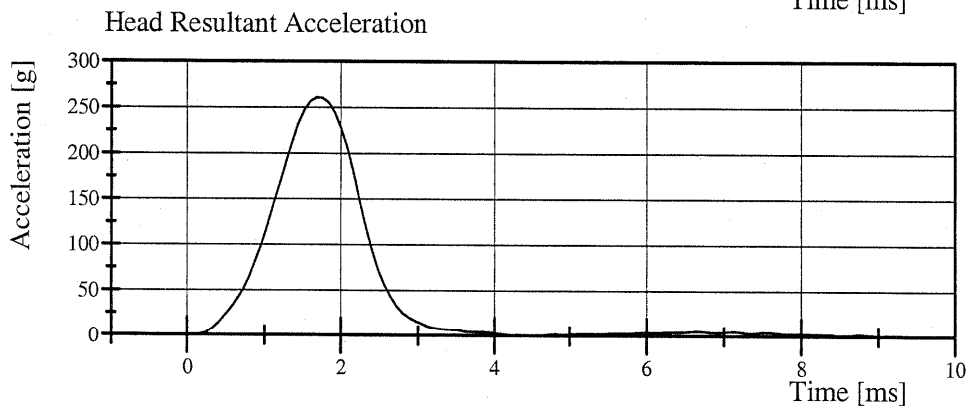
Min: -2.2 g at 2.8 ms



Filter Class: CFC_1000

Max: 128.8 g at 1.8 ms

Min: -0.7 g at 4.2 ms



Filter Class: CFC_1000

Max: 260.7 g at 1.7 ms

Min: 0.0 g at -1.0 ms

Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 110 Certification No. 22-1

Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.644 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,797.3 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-67.05 mm	Yes
Internal Hysteresis	65 - 85 %	72.9 %	Yes

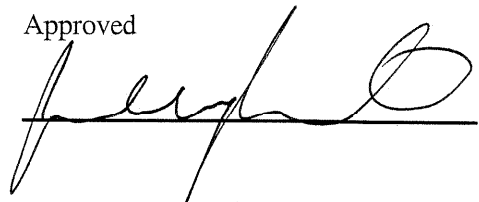
Test meets specifications.

Comments:

Technician



Approved



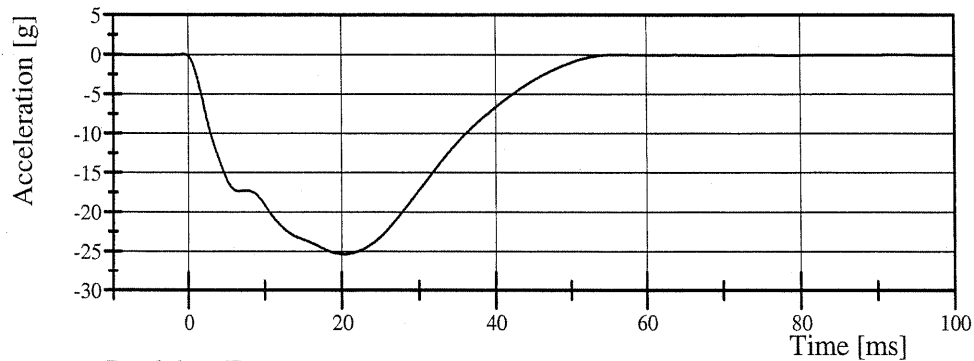
Transportation Research Center Inc.

Front Thorax

HHH 50th Serial No. 110 Certification No. 22-1

Test Date: 03/08/2006

Pendulum Acceleration

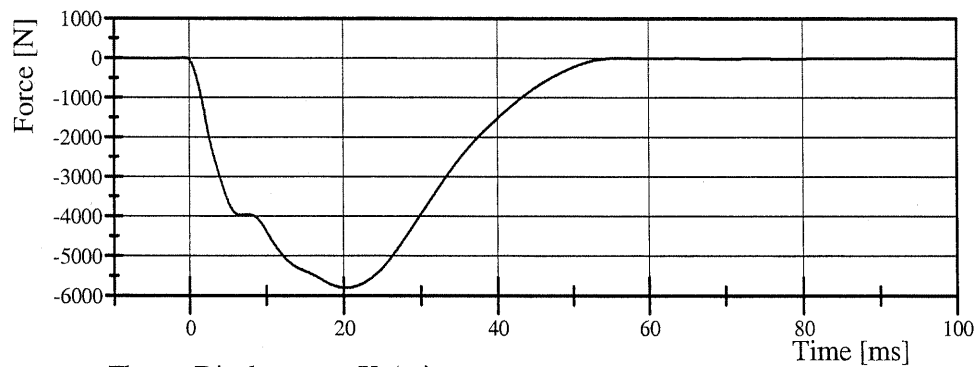


Filter Class: CFC_180

Max: 0.1 g at -0.7 ms

Min: -25.3 g at 20.3 ms

Pendulum Force

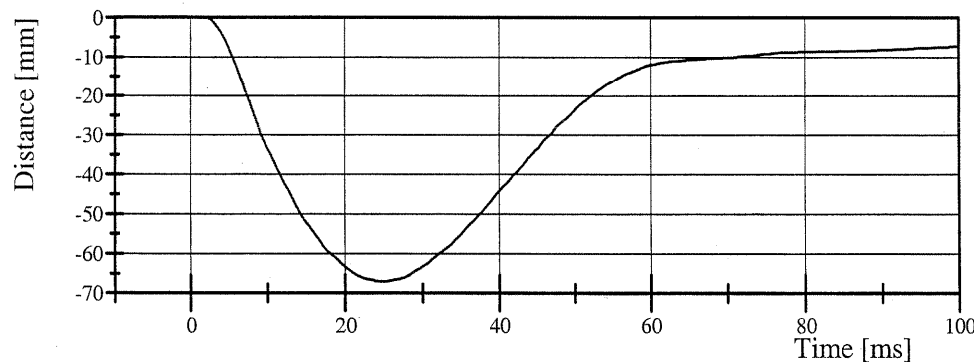


Filter Class: CFC_180

Max: 12.9 N at -0.7 ms

Min: -5,797.3 N at 20.3 ms

Thorax Displacement X-Axis

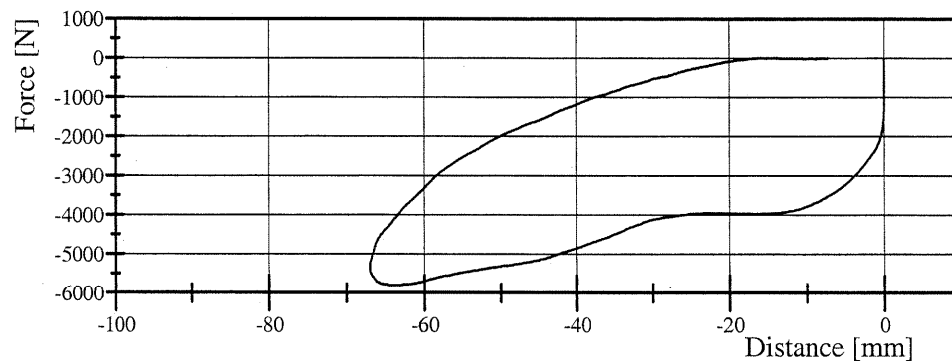


Filter Class: CFC_600

Max: 0.0 mm at -2.2 ms

Min: -67.0 mm at 24.7 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180

Max: 12.9 N at 0.0 mm

Min: -5,797.3 N at -63.9 mm

Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 4-1

Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	33 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.096 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,288.17 N	Yes

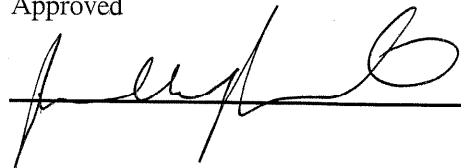
Test meets specifications.

Comments:

Technician



Approved

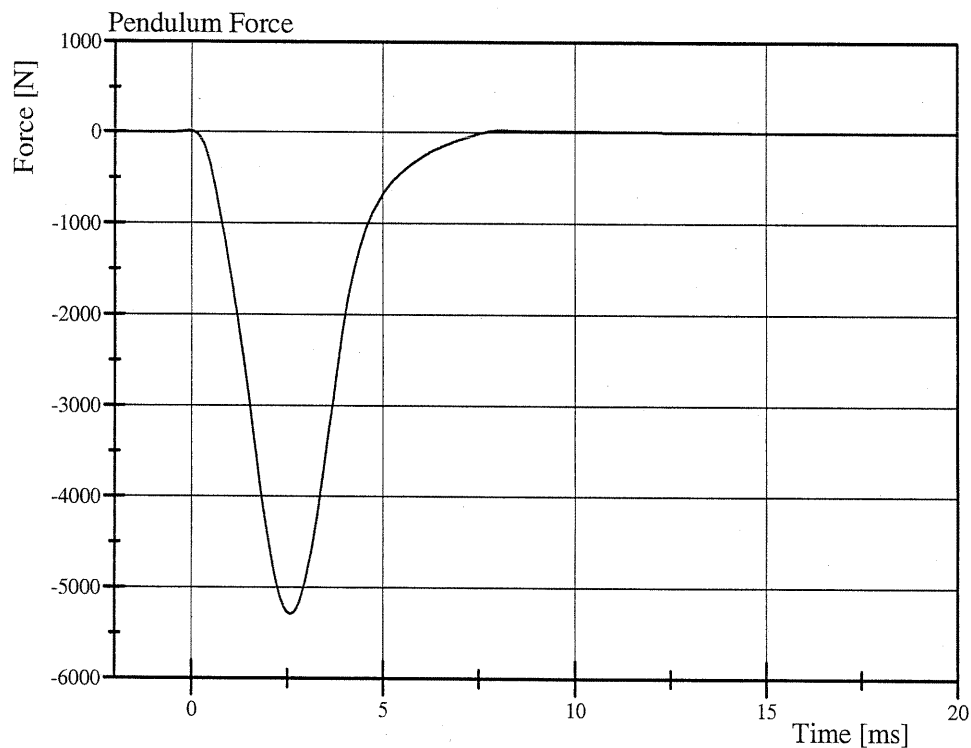
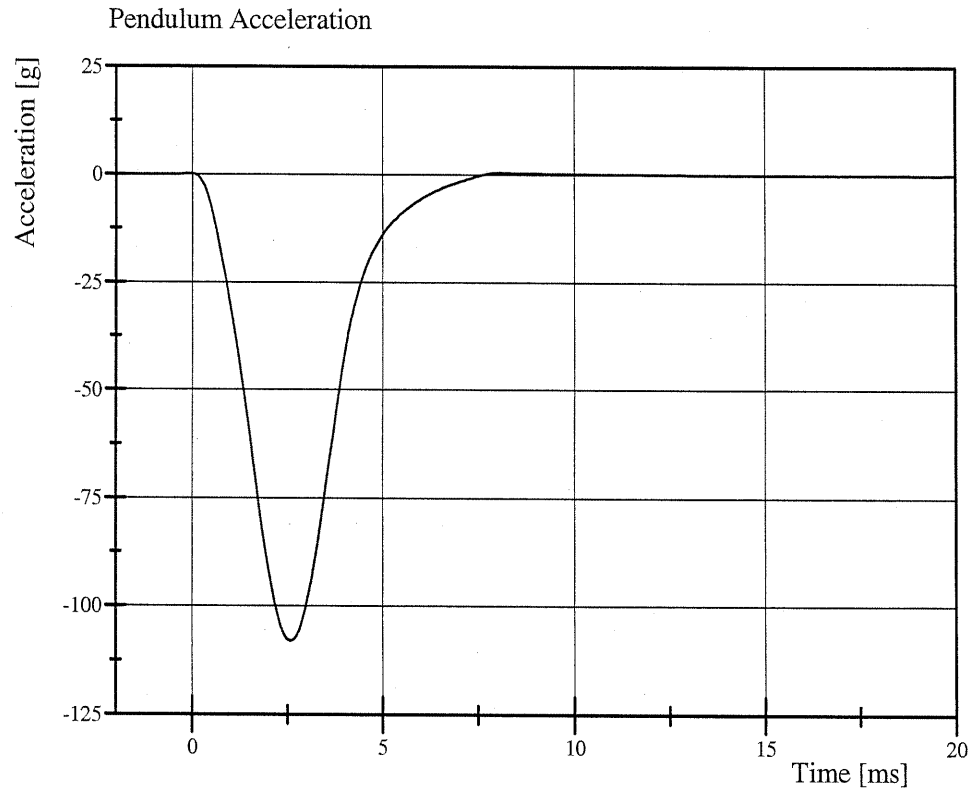


Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 4-1

Test Date: 03/08/2006



Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX116117 Certification No. 4-1

Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.721 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,469.8 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,861.2 N	Yes

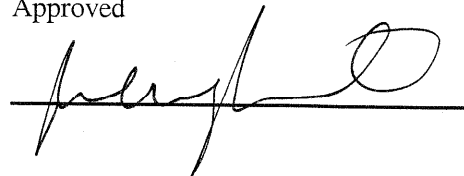
Test meets specifications.

Comments:

Technician



Approved



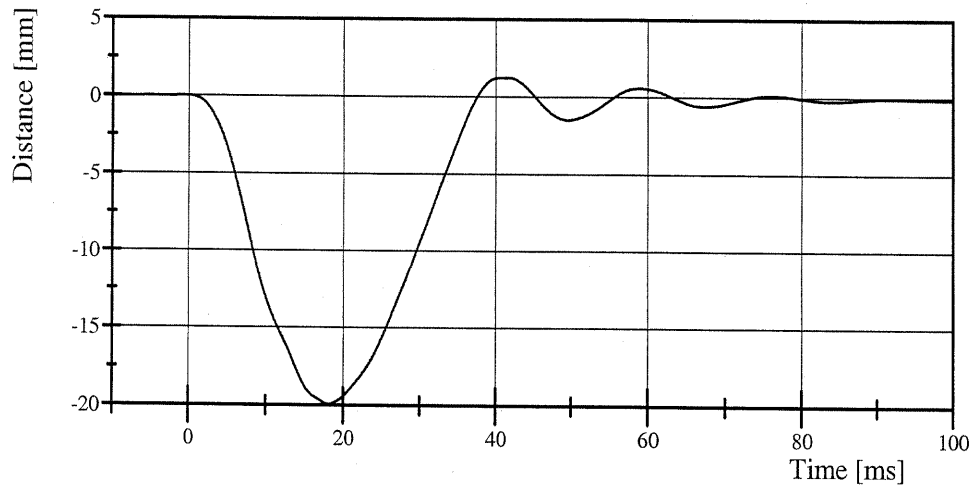
Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX116117 Certification No. 4-1

Test Date: 03/08/2006

Knee Slider Displacement

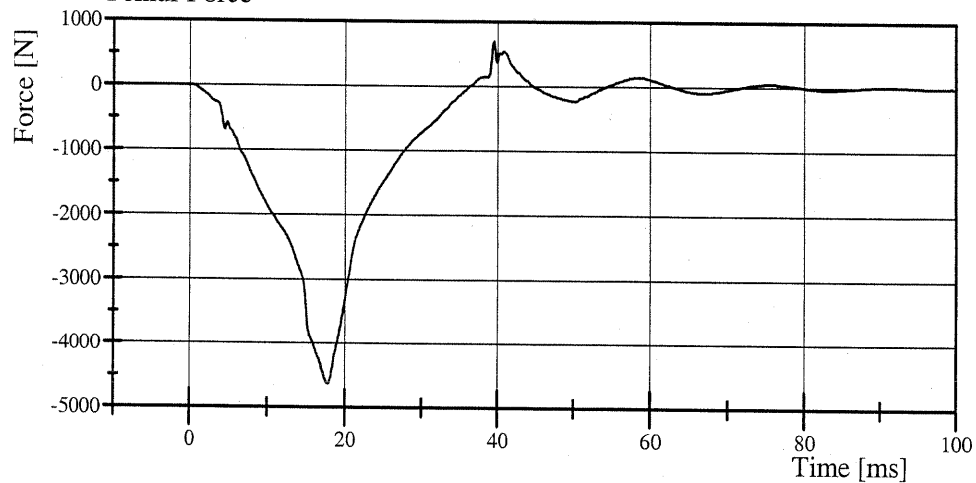


Filter Class: CFC_180

Max: 1.2 mm at 41.4 ms

Min: -19.9 mm at 18.1 ms

Femur Force

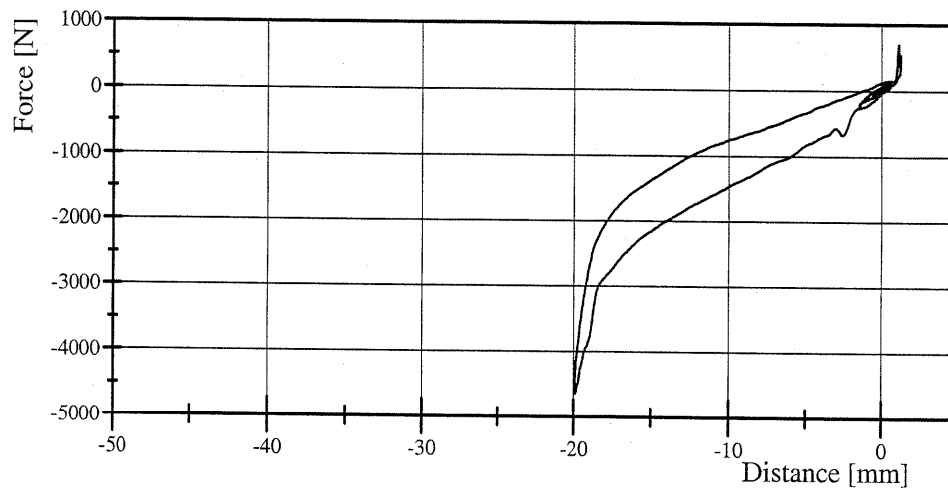


Filter Class: CFC_600

Max: 696.4 N at 39.5 ms

Min: -4,631.9 N at 17.8 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600

Max: 696.4 N at 1.1 mm

Min: -4,631.9 N at -19.9 mm

Pre-Test Dummy Configuration and Performance Verification Data

Target Vehicle Passenger Dummy S/N: 416

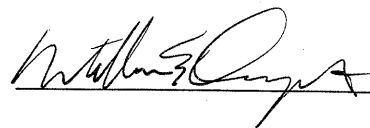
Transportation Research Center Inc.
5720 HIII 5th Female Dummy
External Dimensions
Serial No. 416 Calibration No. 33
With Thor FLX Legs

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	778	Yes
B	Shoulder Pivot Height	431.8 - 457.2	451	Yes
C	Hip Pivot Height	81.3 - 86.3	84	Yes
D	Hip Pivot from Backline	144.8 - 149.8	148	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	78	Yes
F	Thigh Clearance	119.4 - 134.6	125	Yes
G	Back of Elbow to Wrist Pivot	243.9 - 259.1	250	Yes
H	Head Back to Backline	43.2 - 48.2	44	Yes
I	Shoulder to Elbow Length	276.8 - 297.2	285	Yes
J	Elbow Rest Height	182.8 - 203.2	193	Yes
K	Buttock Knee Length	520.7 - 546.1	532	Yes
L	Popliteal Height	355.6 - 376.0	359	Yes
M	Knee Pivot Height	393.7 - 419.1	404	Yes
N	Buttock Popliteal Height	414.0 - 439.4	424	Yes
O	Chest Depth without Jacket	175.3 - 190.5	185	Yes
P	Foot Length	218.5 - 233.7	221	Yes
R	Buttock to Knee Pivot Length	457.2 - 482.6	475	Yes
S	Head Breadth	137.1 - 147.3	143	Yes
T	Head Depth	177.8 - 188.0	182	Yes
U	Hip Breadth	299.7 - 314.9	305	Yes
V	Shoulder Breadth	350.5 - 365.7	362	Yes
W	Foot Breadth	78.8 - 94.0	88	Yes
X	Head Circumference	528.3 - 548.7	535	Yes
Y	Chest Circumference with Jacket	850.9 - 881.3	868	Yes
Z	Waist Circumference	759.5 - 789.9	771	Yes
AA	Reference Location for Chest Circumference	332.7 - 358.1	340	Yes
BB	Reference Location for Waist Circumference	160.0 - 170.2	165	Yes

Technician



Approved



Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 416 Certification No. 33-1

Test Date: 02/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	271.9 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-2.7 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

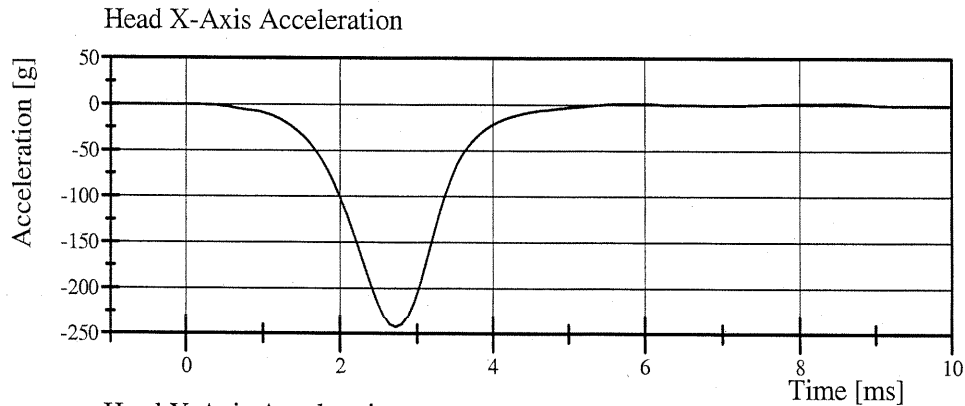


Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 416 Certification No. 33-1

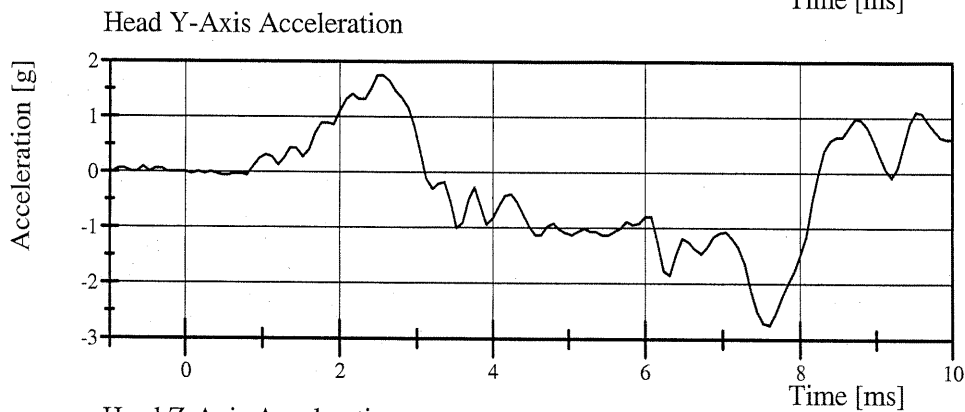
Test Date: 02/10/2006



Filter Class: CFC_1000

Max: 1.9 g at 8.6 ms

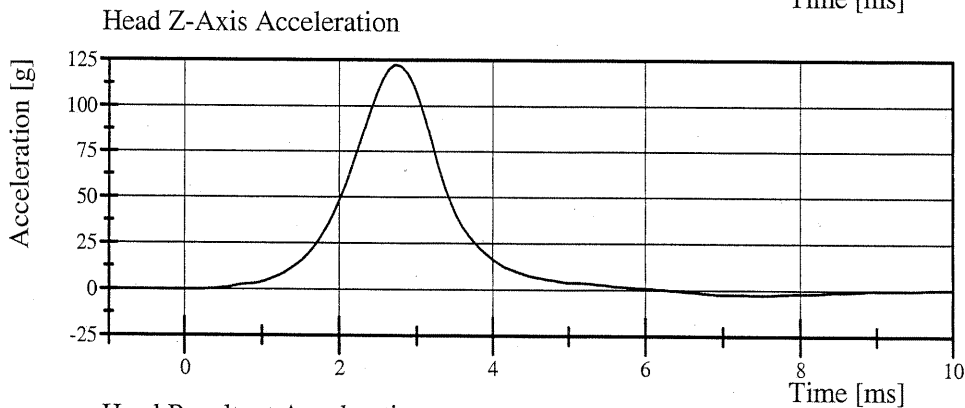
Min: -242.8 g at 2.7 ms



Filter Class: CFC_1000

Max: 1.8 g at 2.5 ms

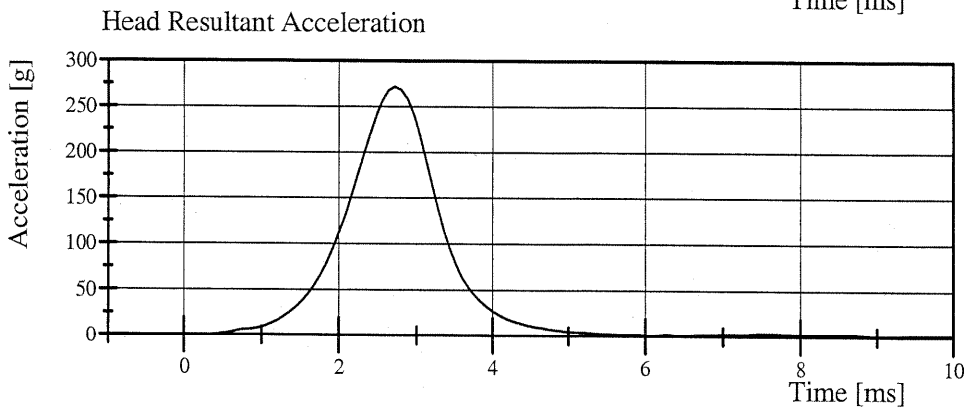
Min: -2.7 g at 7.6 ms



Filter Class: CFC_1000

Max: 122.5 g at 2.7 ms

Min: -2.6 g at 7.4 ms



Filter Class: CFC_1000

Max: 271.9 g at 2.7 ms

Min: 0.1 g at 0.2 ms

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 33-3

Test Date: 2/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	37 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	7.038 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	(-2.1) - (-2.5) m/s	-2.42 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	(-4.0) - (-5.0) m/s	-4.75 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	(-5.8) - (-7.0) m/s	-6.83 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-78.8 °	Yes
Total Neck Occipital Condyles Moment Between -77° and -91° Rotation	69 - 83 N·m	73.3 N·m	Yes
Total Neck Occipital Condyles Moment Decay to 10 N·m	80 - 100 ms	85.0 ms	Yes

Test meets specifications.

Comments:

Pre-test; new nodding blocks and new neck serial #696.

Technician



Approved



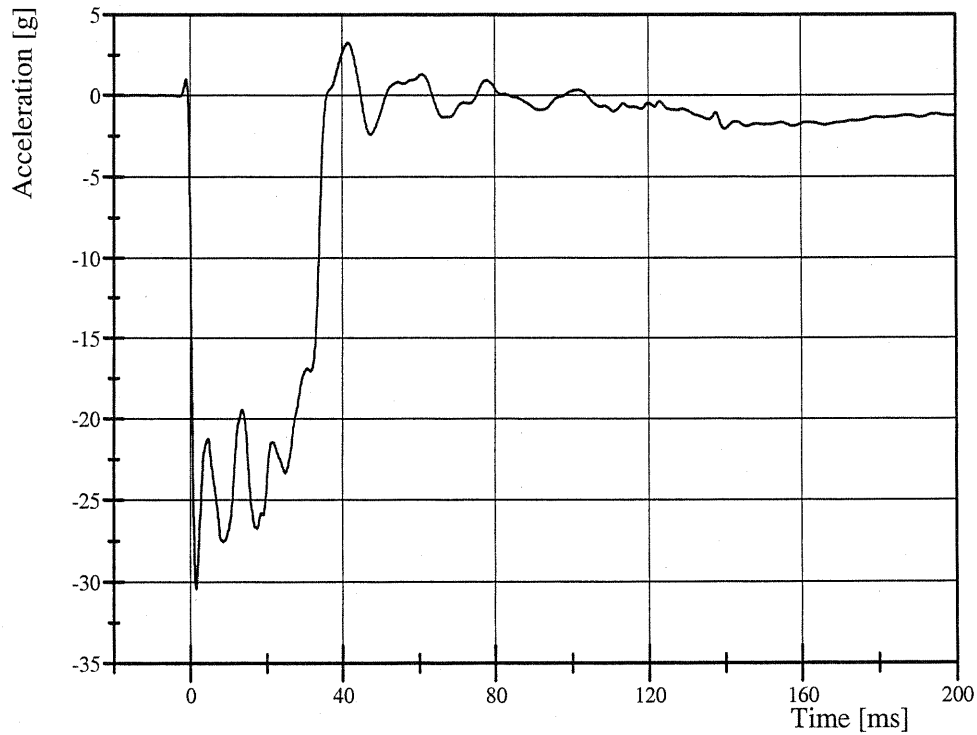
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 33-3

Test Date: 2/16/2006

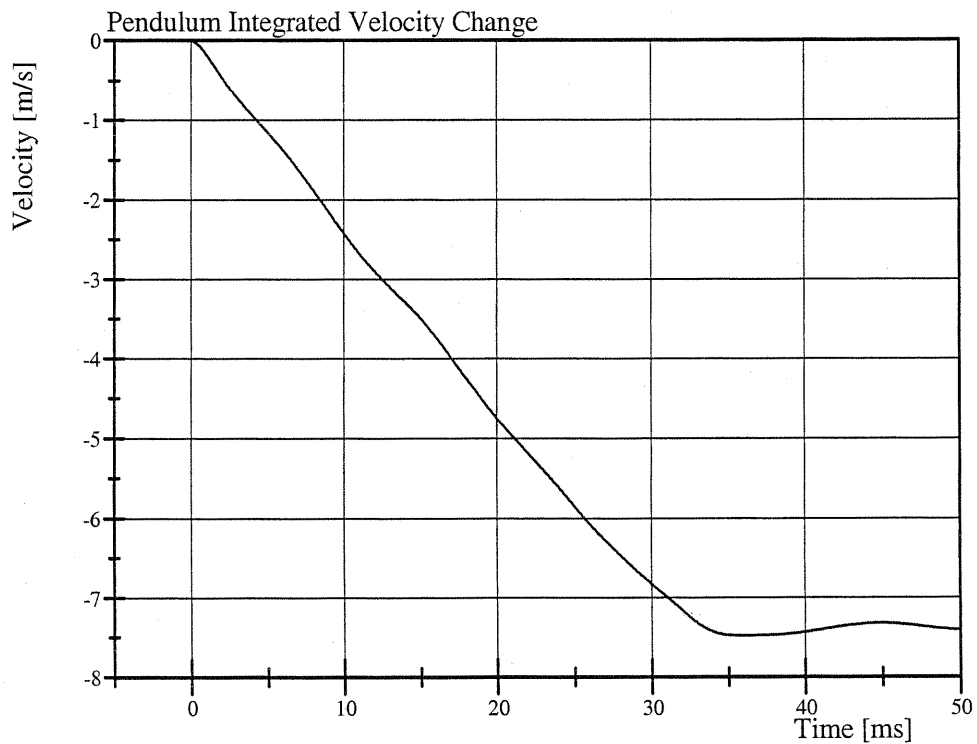
Pendulum Acceleration



Filter Class: CFC_180

Max: 3.3 g at 41.6 ms

Min: -30.4 g at 1.5 ms



Filter Class: CFC_180

Max: 0.0 m/s at 0.0 ms

Min: -7.5 m/s at 35.9 ms

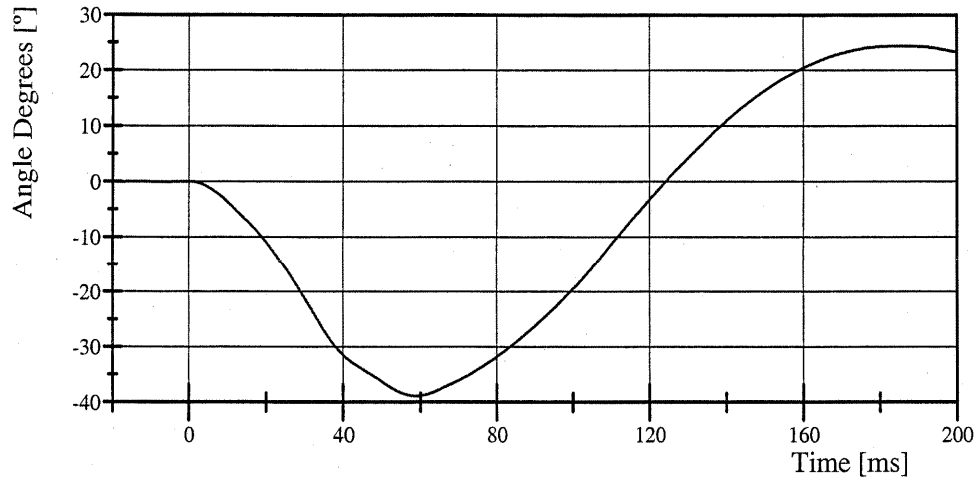
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 33-3

Test Date: 2/16/2006

Pot Rotation at the Base of Neck

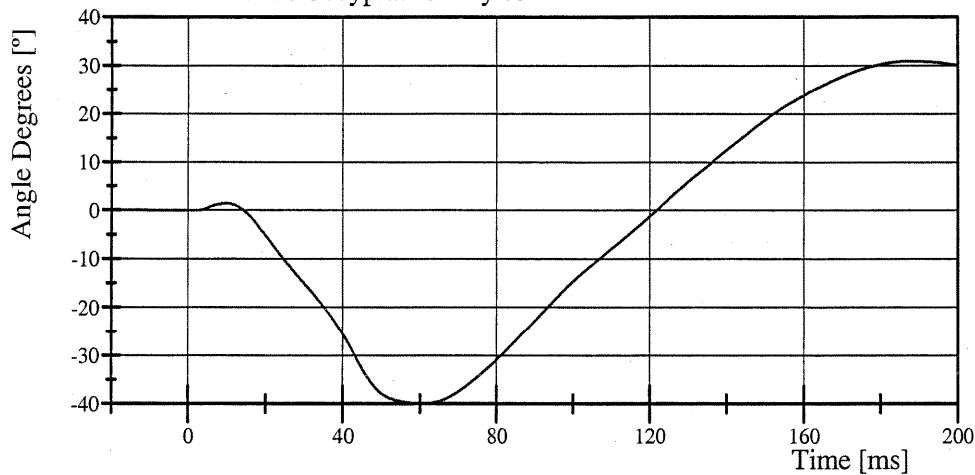


Filter Class: CFC_60

Max: 24.4 ° at 185.8 ms

Min: -38.9 ° at 59.0 ms

Head Rotation at Occypital Condyles

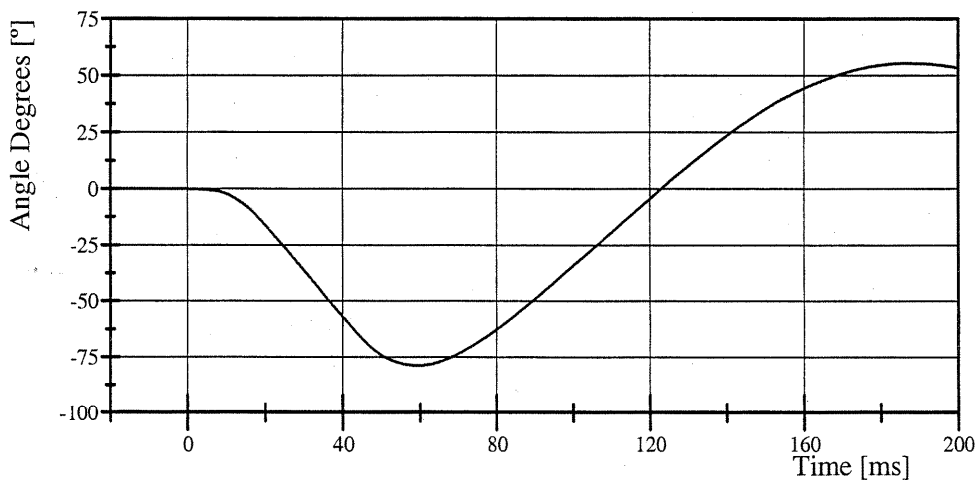


Filter Class: CFC_60

Max: 30.9 ° at 186.7 ms

Min: -40.0 ° at 60.6 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 55.3 ° at 186.4 ms

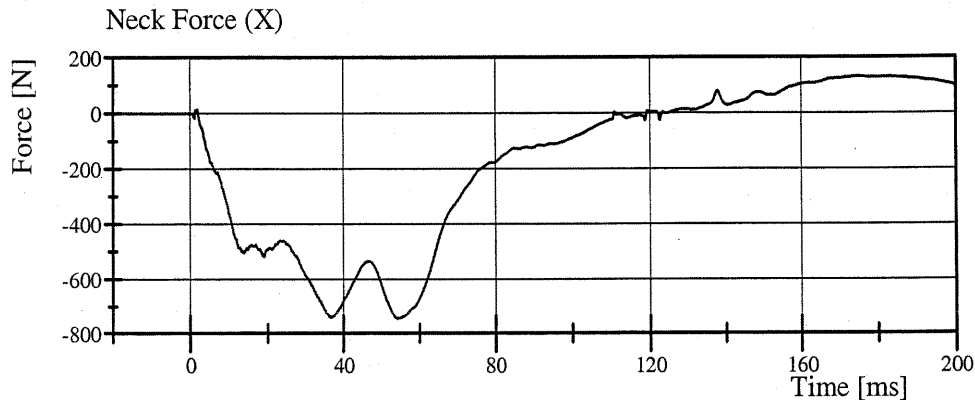
Min: -78.8 ° at 59.6 ms

Transportation Research Center Inc.

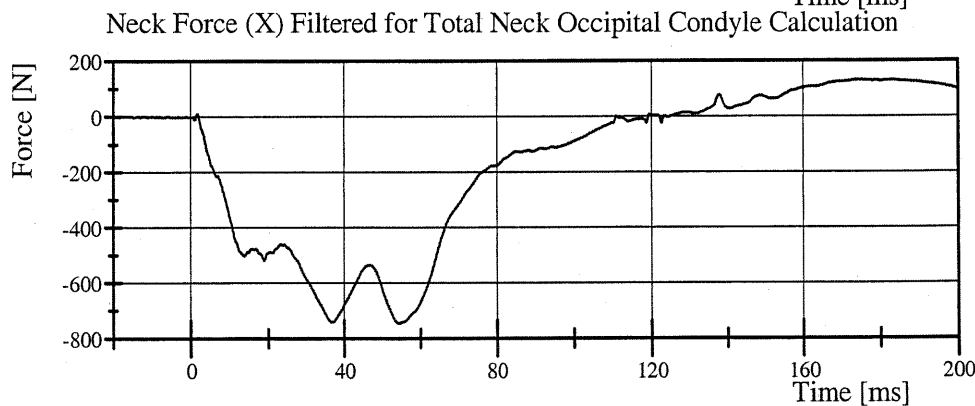
Neck Flexion

HHH 5th Serial No. 416 Certification No. 33-3

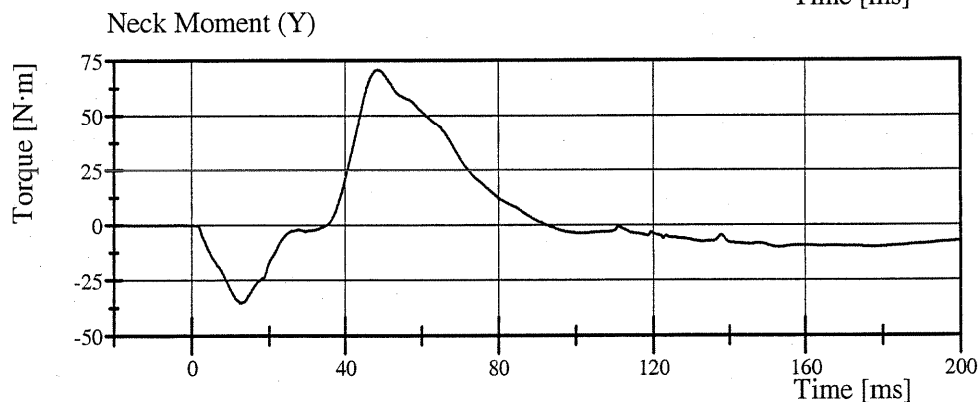
Test Date: 2/16/2006



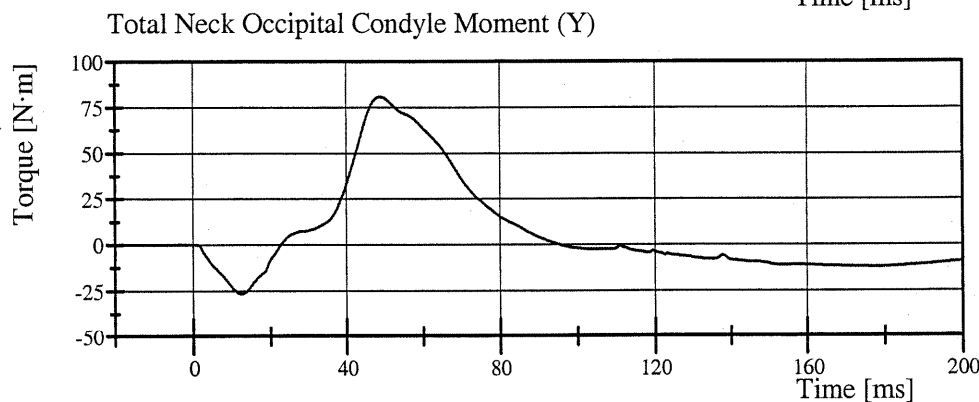
Filter Class: CFC_1000
Max: 131.8 N at 174.3 ms
Min: -745.8 N at 54.2 ms



Filter Class: CFC_600
Max: 131.7 N at 174.5 ms
Min: -745.4 N at 54.2 ms



Filter Class: CFC_600
Max: 70.8 N·m at 48.5 ms
Min: -35.1 N·m at 12.6 ms



Filter Class: CFC_600
Max: 80.9 N·m at 48.9 ms
Min: -26.5 N·m at 12.6 ms

Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 33-4

Test Date: 2/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	39 %	Yes
Pendulum Velocity	(-5.95) - (-6.19) m/s	-6.060 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	1.5 - 1.9 m/s	1.88 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	3.1 - 3.9 m/s	3.73 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	4.6 - 5.6 m/s	5.43 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	106.2 °	Yes
Total Neck Occipital Condyles Moment Between 99° and 114° Rotation	(-53) - (-65) N·m	-53.1 N·m	Yes
Total Neck Occipital Condyles Moment Decay to -10 N·m	94 - 114 ms	101.8 ms	Yes

Test meets specifications.

Comments:

Pre-test; new nodding blocks and new neck serial #696.

Technician



Approved



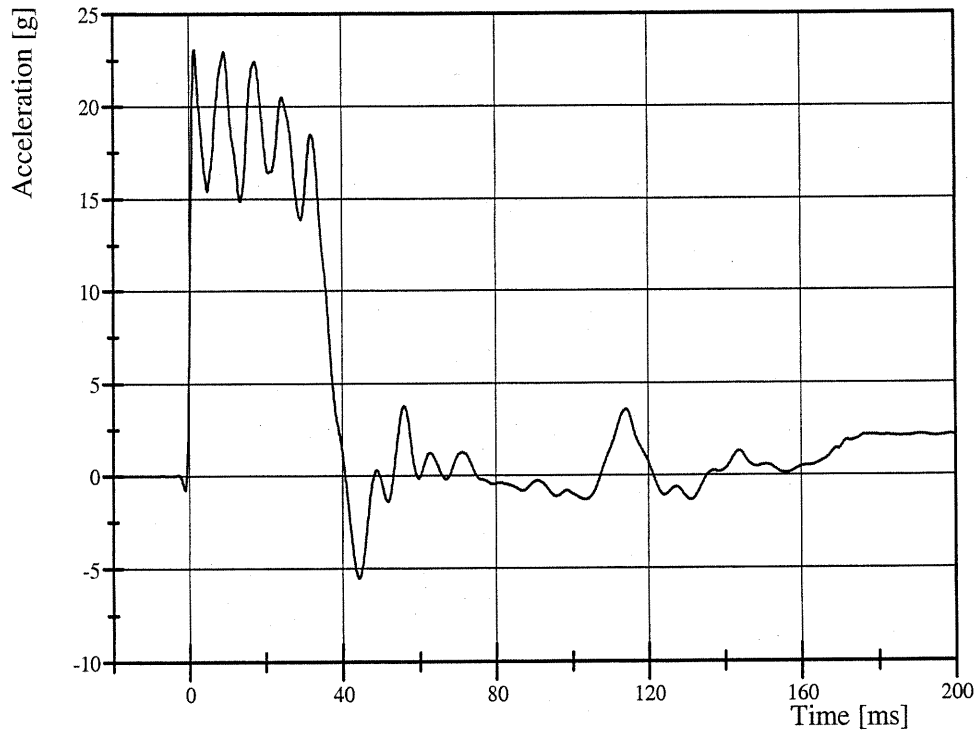
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 33-4

Test Date: 2/16/2006

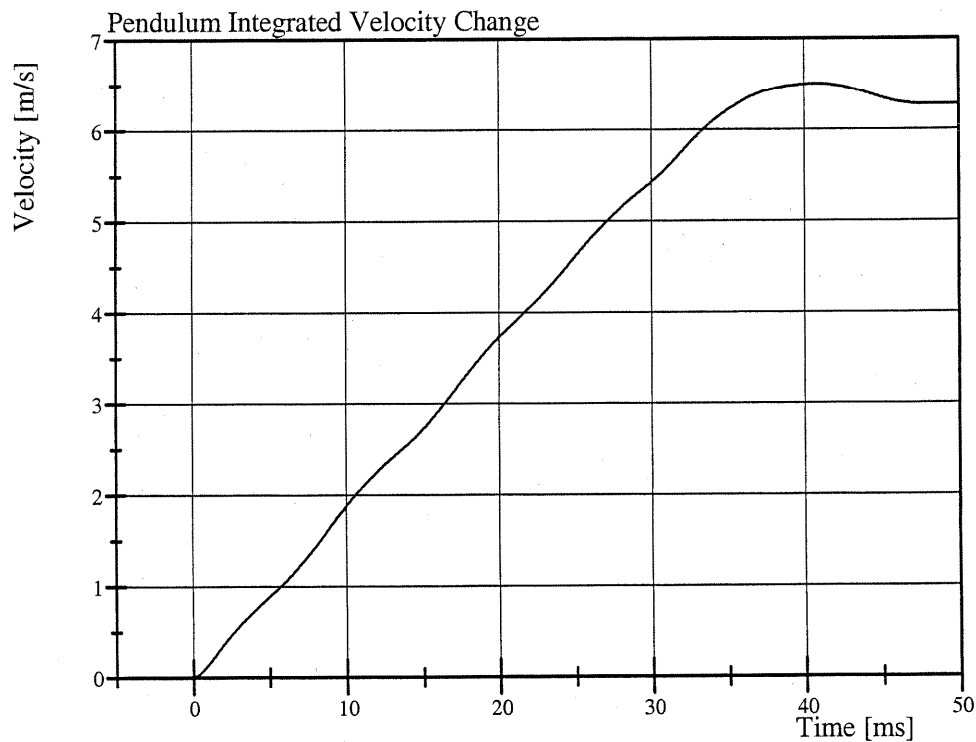
Pendulum Acceleration



Filter Class: CFC_180

Max: 23.1 g at 1.4 ms

Min: -5.5 g at 44.3 ms



Filter Class: CFC_180

Max: 6.5 m/s at 40.8 ms

Min: 0.0 m/s at 0.0 ms

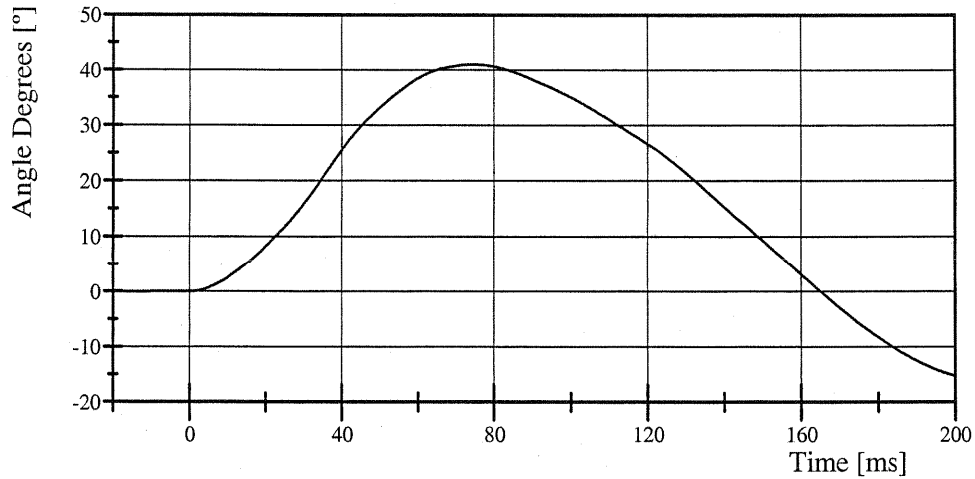
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 33-4

Test Date: 2/16/2006

Pot Rotation at the Base of Neck

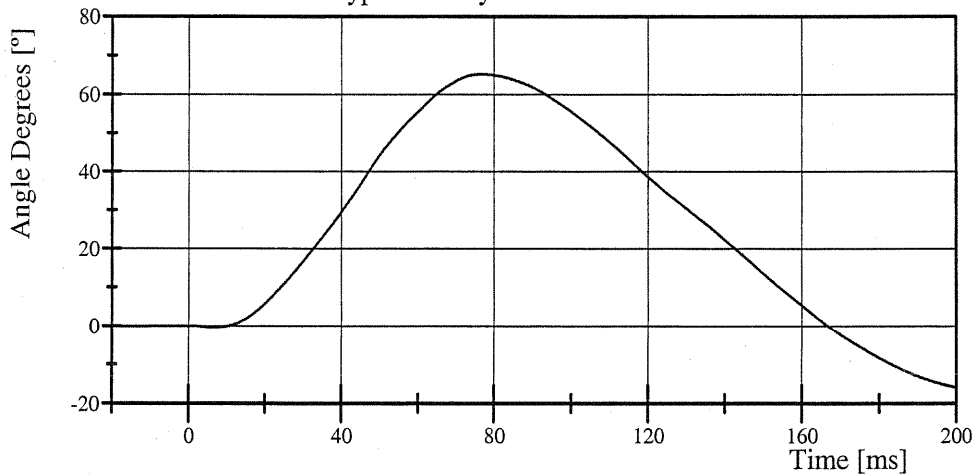


Filter Class: CFC_60

Max: 41.0 ° at 74.3 ms

Min: -15.2 ° at 200.0 ms

Head Rotation at Occypital Condyles

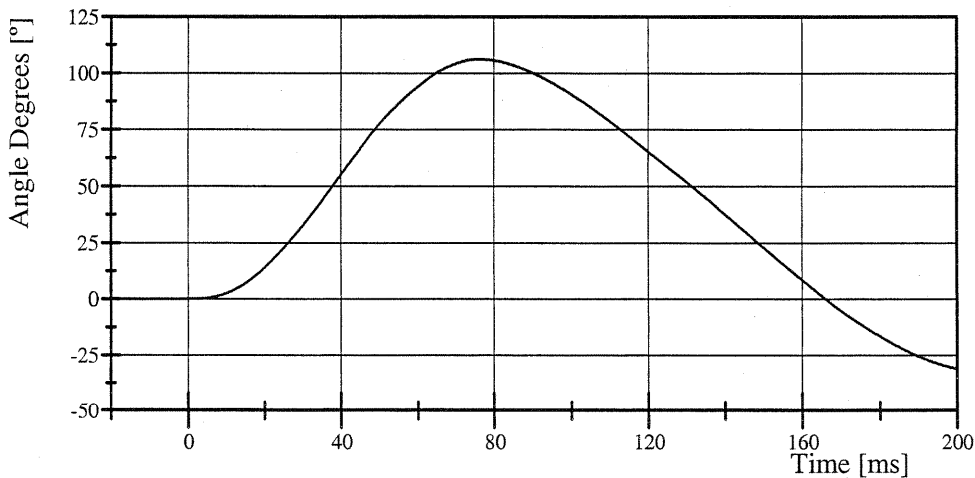


Filter Class: CFC_60

Max: 65.2 ° at 77.0 ms

Min: -15.9 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 106.2 ° at 76.1 ms

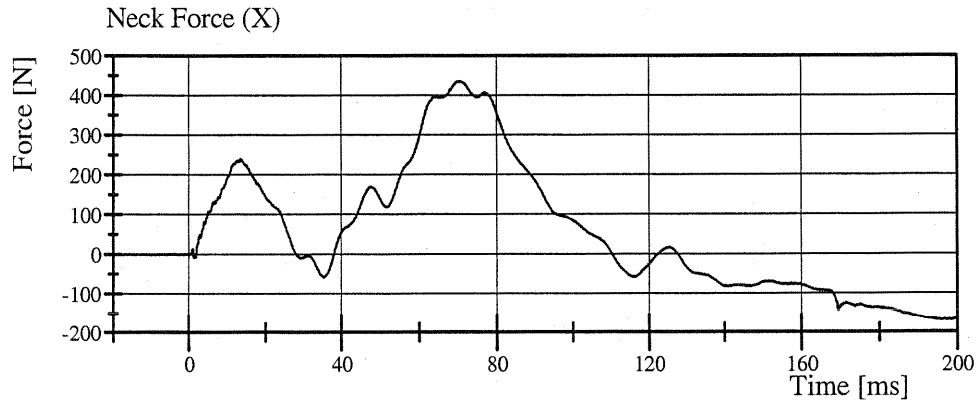
Min: -31.1 ° at 200.0 ms

Transportation Research Center Inc.

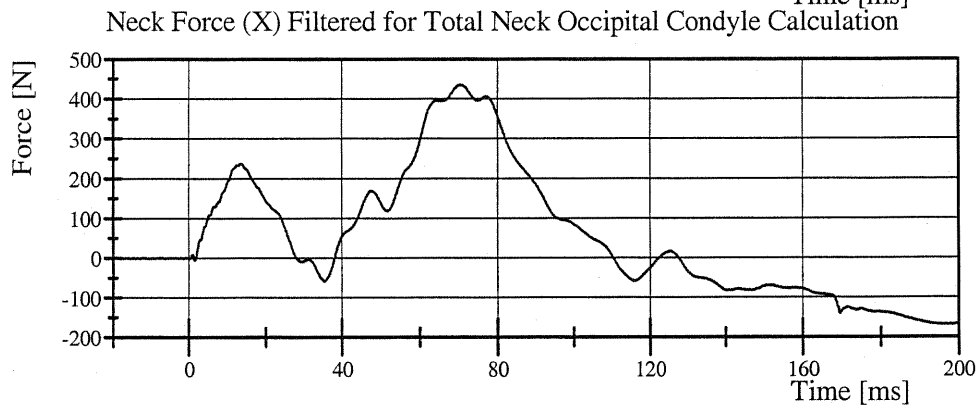
Neck Extension

HIII 5th Serial No. 416 Certification No. 33-4

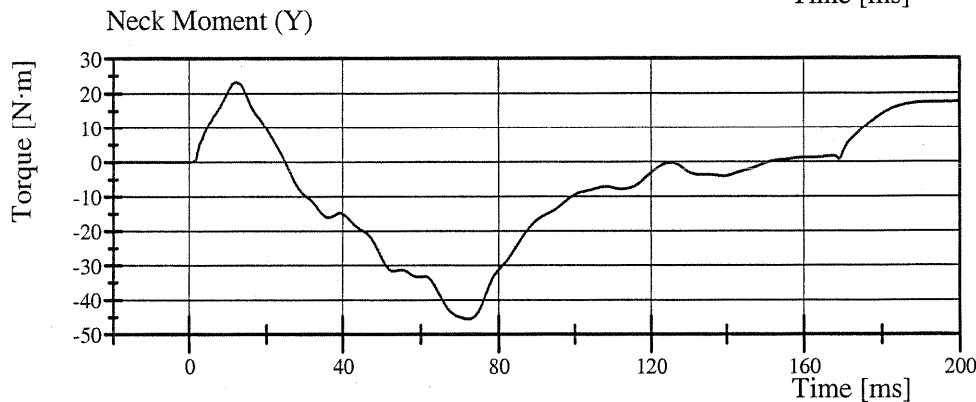
Test Date: 2/16/2006



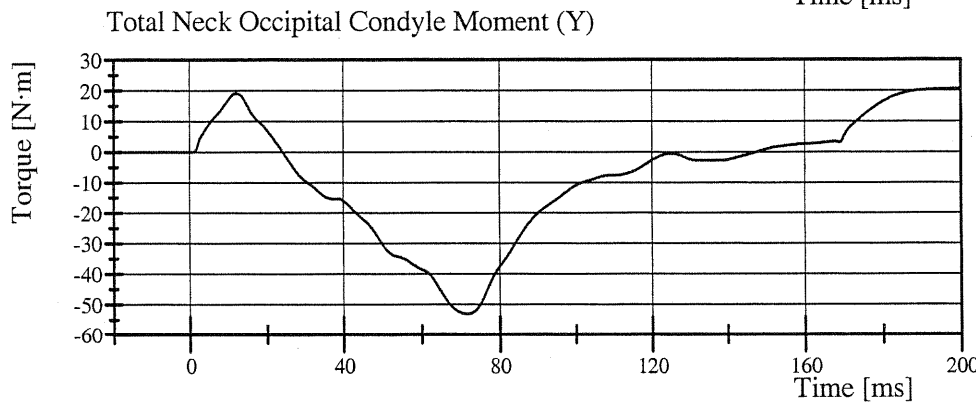
Filter Class: CFC_1000
Max: 435.1 N at 70.1 ms
Min: -169.1 N at 196.2 ms



Filter Class: CFC_600
Max: 435.1 N at 70.2 ms
Min: -168.7 N at 196.0 ms



Filter Class: CFC_600
Max: 23.2 N·m at 12.2 ms
Min: -45.5 N·m at 72.3 ms



Filter Class: CFC_600
Max: 20.7 N·m at 200.0 ms
Min: -53.1 N·m at 71.6 ms

Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 416 Certification No. 34-1

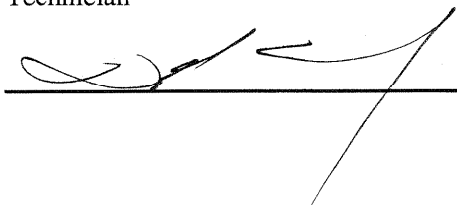
Test Date: 2/24/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.625 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,300.7 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	$\geq$ (-4,600) N	-4180.6 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-55.2 mm	Yes
Internal Hysteresis	69 - 85 %	71.7 %	Yes

Test meets specifications.

Comments:

Technician



Approved

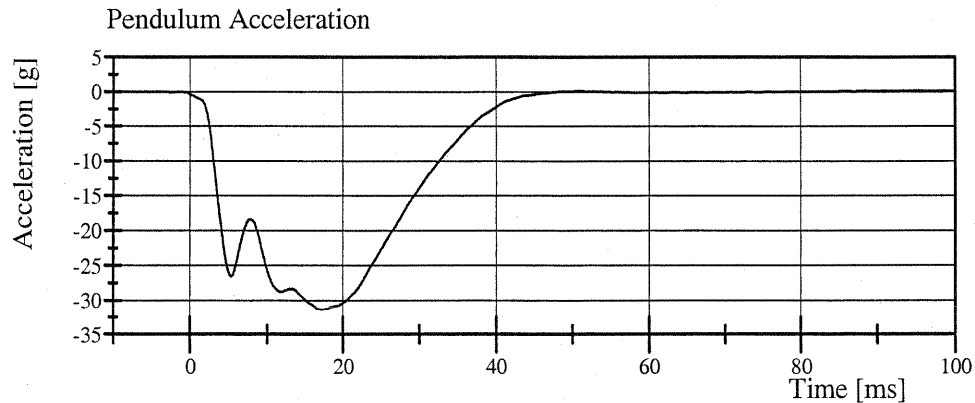


Transportation Research Center Inc.

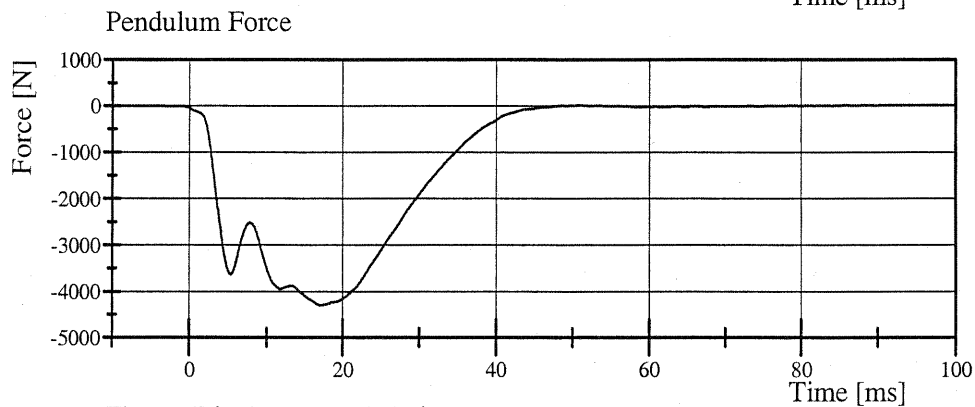
Front Thorax

HIII 5th Serial No. 416 Certification No. 34-1

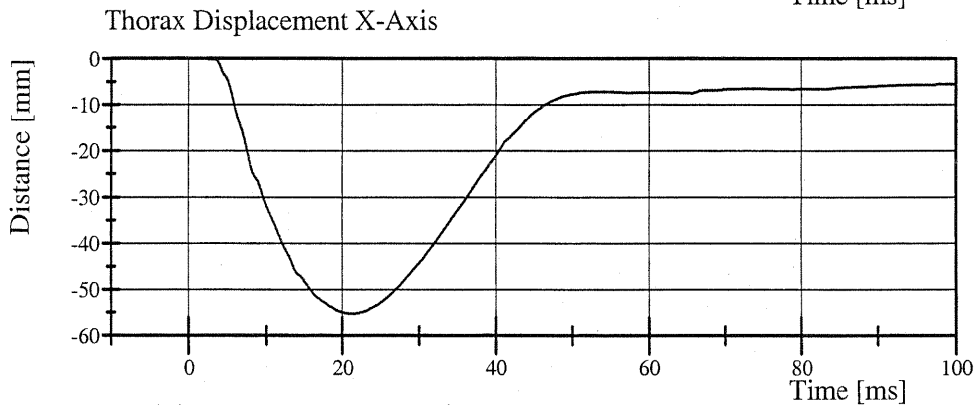
Test Date: 2/24/2006



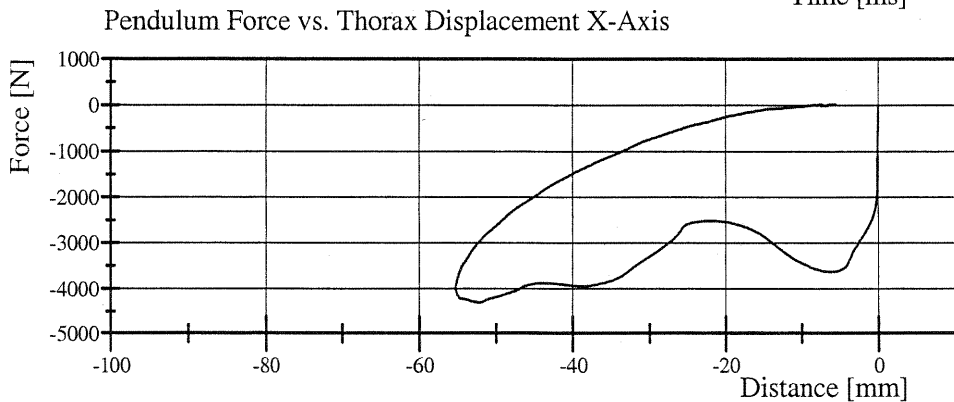
Filter Class: CFC_180
Max: 0.2 g at 98.3 ms
Min: -31.4 g at 17.1 ms



Filter Class: CFC_180
Max: 22.4 N at 98.3 ms
Min: -4,300.7 N at 17.1 ms



Filter Class: CFC_600
Max: 0.0 mm at -8.5 ms
Min: -55.2 mm at 21.3 ms



Filter Class: CFC_180
Max: 22.4 N at -5.6 mm
Min: -4,300.7 N at -52.2 mm

TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

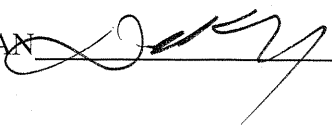
CAL DATE: 09-Feb-06

TRC, INC. TEST NO: 416C33TF4 572 O SN416 TORSO FLEX CAL 33

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6 – 22.2° C	21.5° C
RELATIVE HUMIDITY	10 – 70 %	25 %
INITIAL ANGLE OF UNSUPPORTRED DUMMY	<= 20° REFERENCED TO VERTICAL	19.6°
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	320 – 390 N	363.4 N
RETURN ANGLE		23.6°
DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE	+/- 8 ° OF INTIAL ANGLE	4.0 °
RATE	0.5° - 1.5°/sec	0.95 °/sec

TEST MEETS SPECIFICATIONS

Comments:

TECHNICIAN 

Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 5th Serial No. 416 Certification No. 34-1

Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.123 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,611.0 N	Yes

Test meets specifications.

Comments:

Technician



Approved

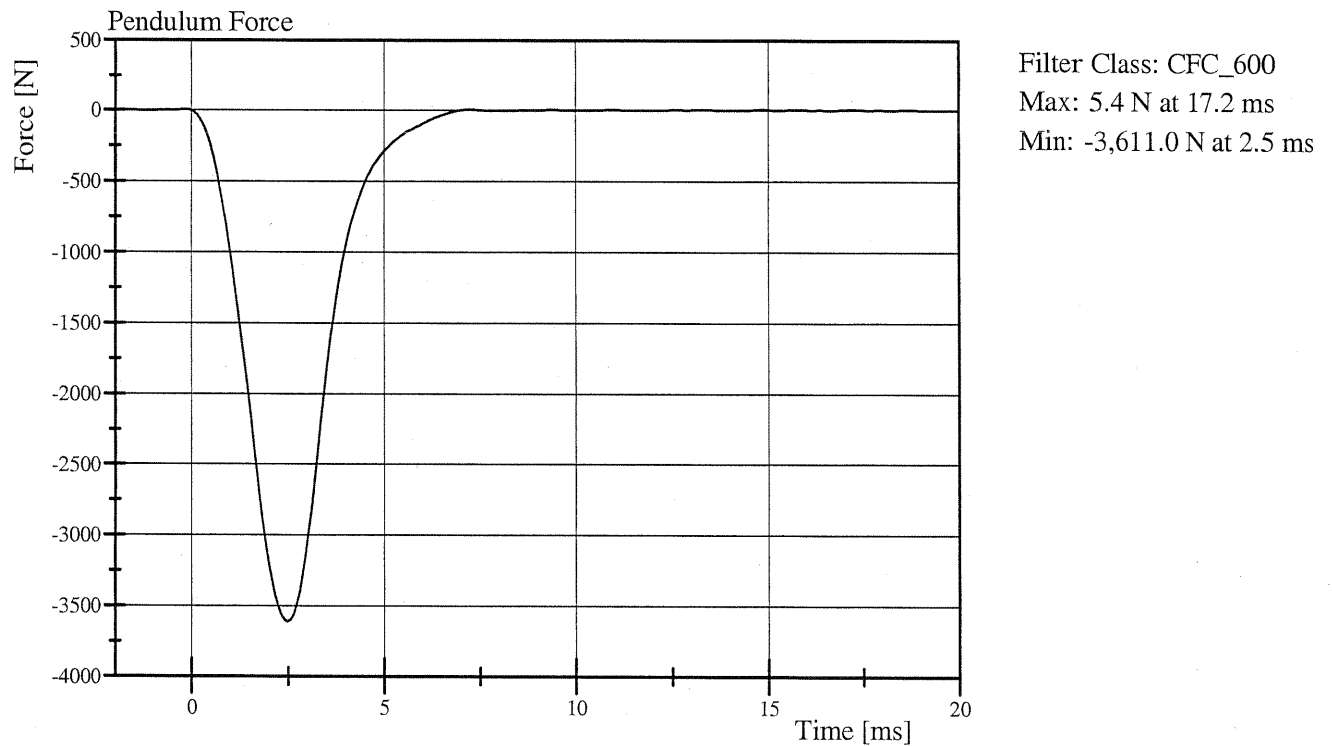
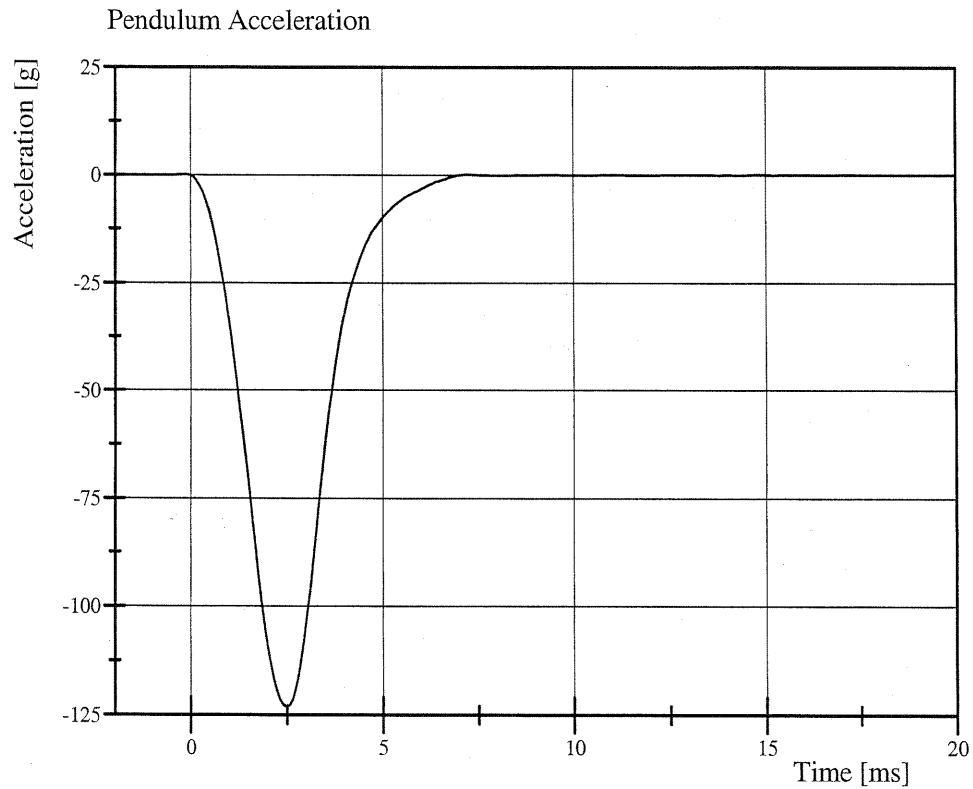


Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 5th Serial No. 416 Certification No. 34-1

Test Date: 02/23/2006



Transportation Research Center Inc.

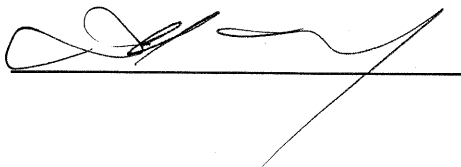
Right Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 34-2
Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.125 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,545.5 N	Yes

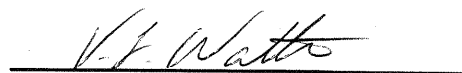
Test meets specifications.

Comments:

Technician

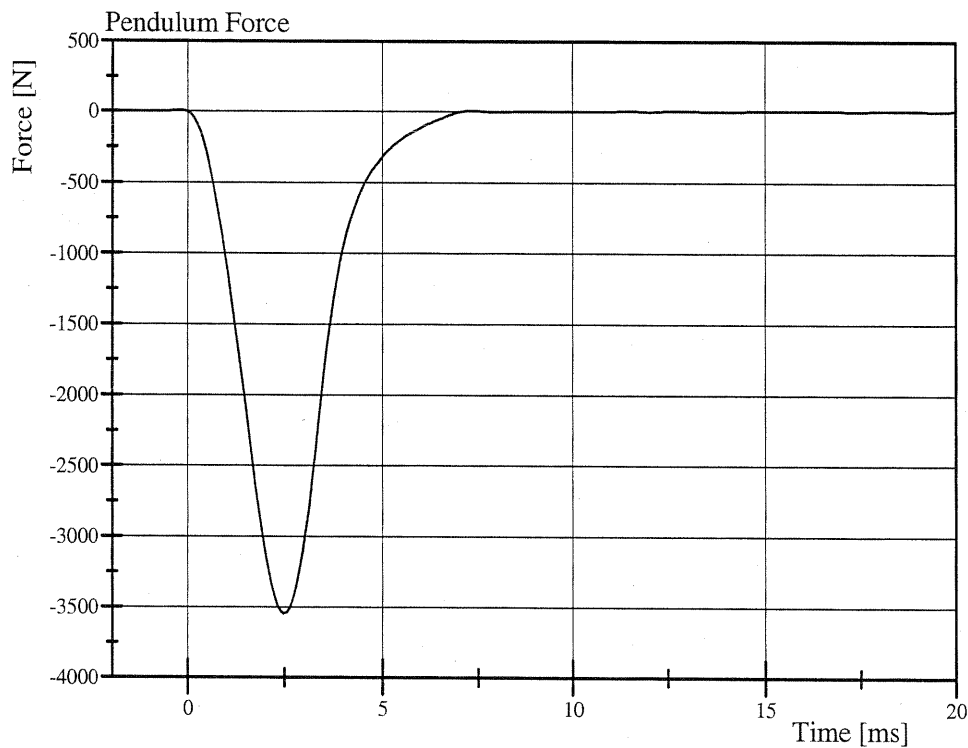
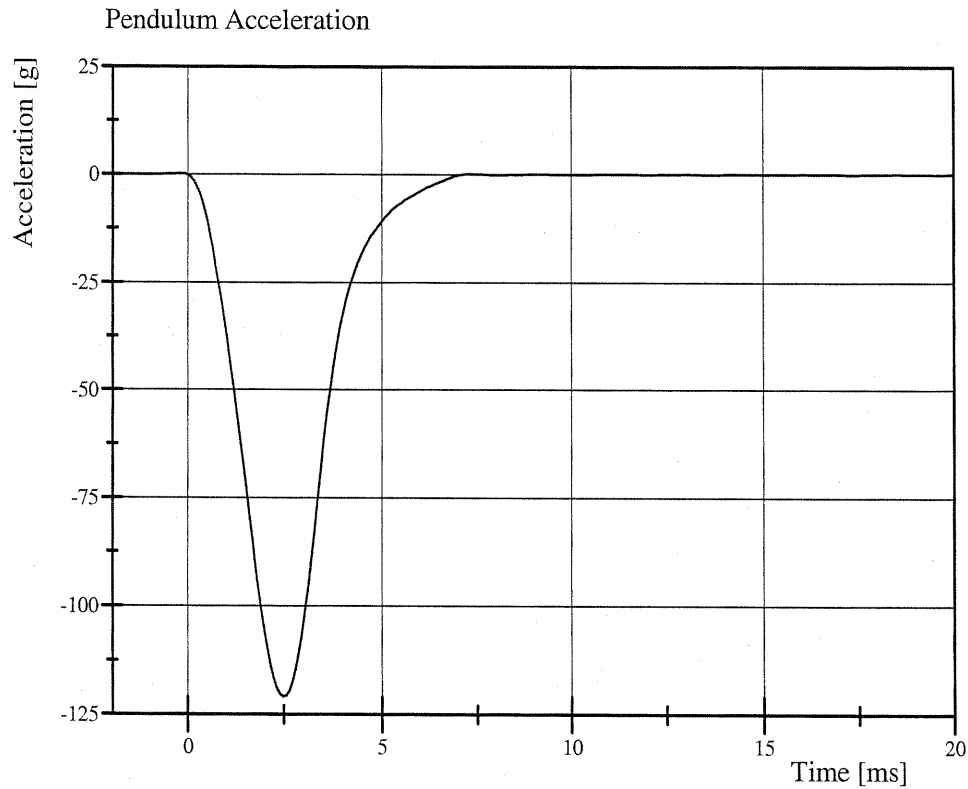


Approved



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 34-2
Test Date: 02/23/2006



Transportation Research Center Inc.

Left Knee Slider

HIII 5th Serial No. 416 Certification No. 34-1

Test Date: 02/21/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	26 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.765 m/s	Yes
Peak Deflection	(-12.7) - (-15.5) mm	-12.98 mm	Yes

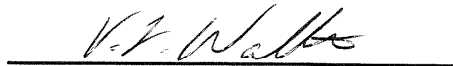
Test meets specifications.

Comments:

Technician



Approved

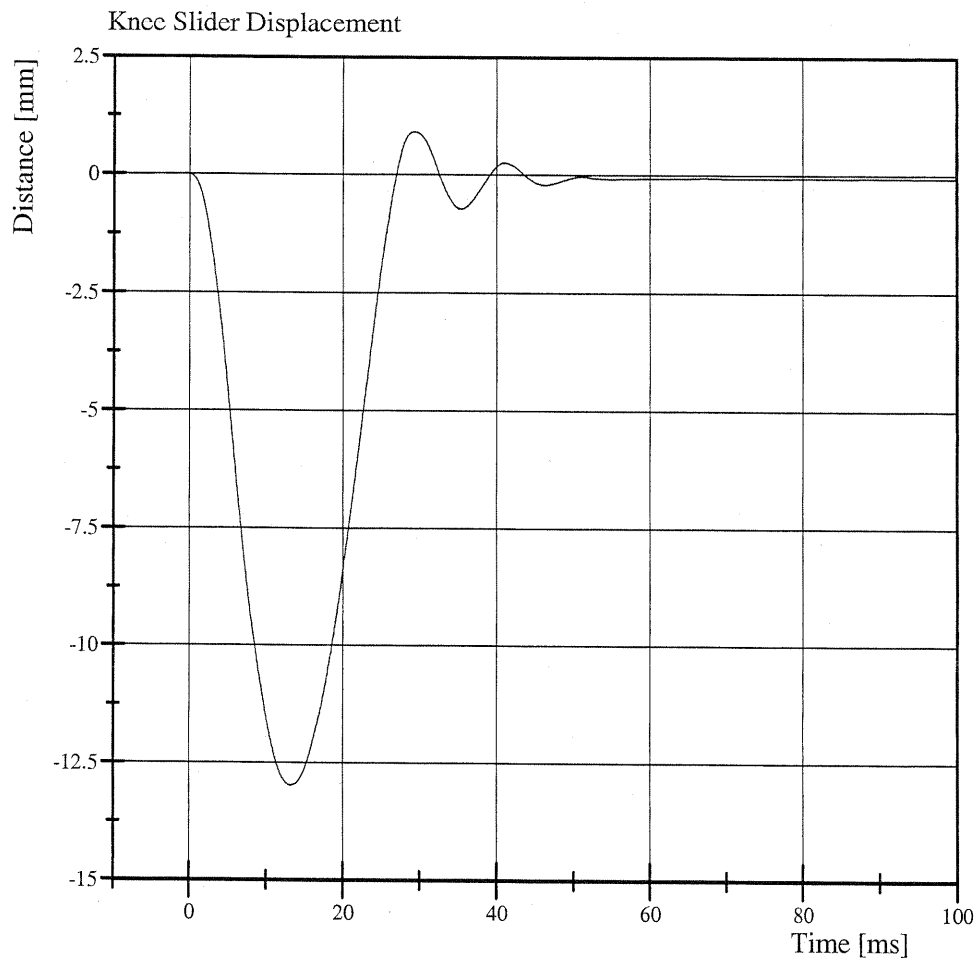


Transportation Research Center Inc.

Left Knee Slider

HIII 5th Serial No. 416 Certification No. 34-1

Test Date: 02/21/2006



Filter Class: CFC_180

Max: 0.9 mm at 29.4 ms

Min: -13.0 mm at 13.2 ms



Transportation Research Center Inc.

Right Knee Slider

HIII 5th Serial No. 416 Certification No. 34-2

Test Date: 02/21/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.765 m/s	Yes
Peak Deflection	(-12.7) - (-15.5) mm	-12.91 mm	Yes

Test meets specifications.

Comments:

Technician



Approved

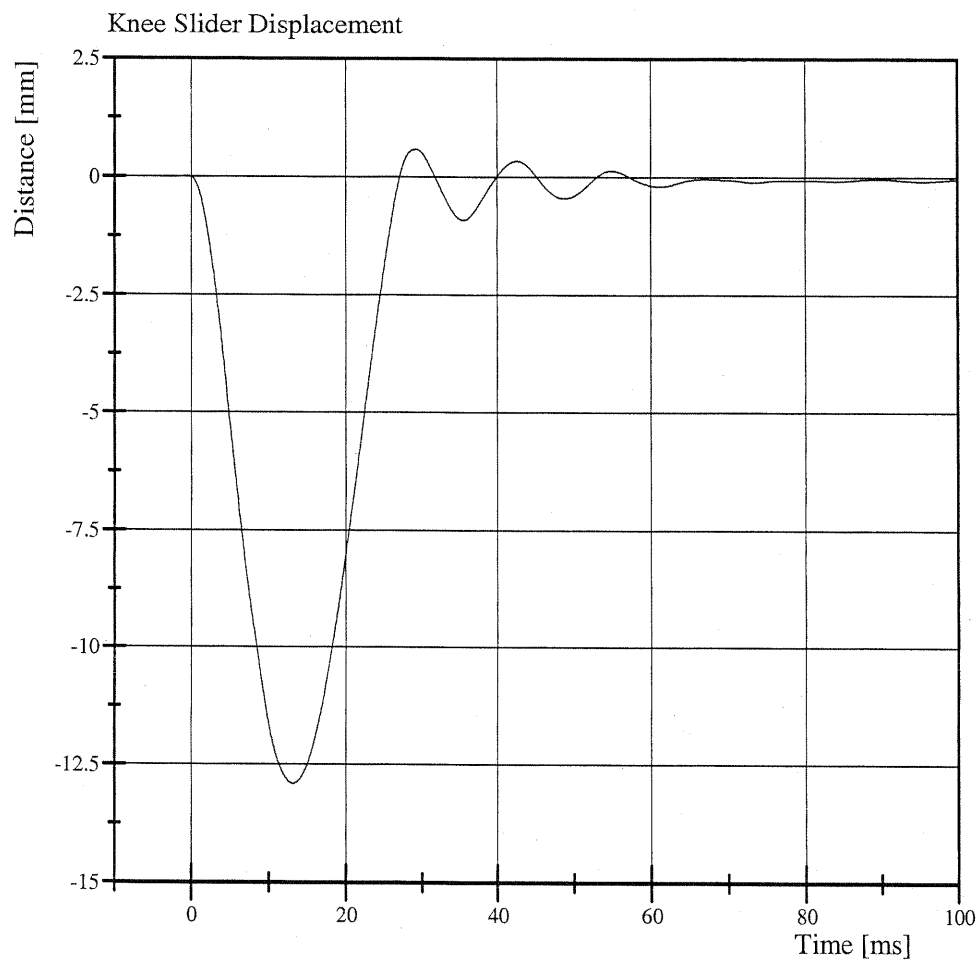


Transportation Research Center Inc.

Right Knee Slider

HIII 5th Serial No. 416 Certification No. 34-2

Test Date: 02/21/2006



Filter Class: CFC_180

Max: 0.6 mm at 29.2 ms

Min: -12.9 mm at 13.1 ms

Post-Test Dummy Configuration and Performance Verification Data

Target Vehicle Passenger Dummy S/N: 416

Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 416 Certification No. 35-1

Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	271.2 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	4.6 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

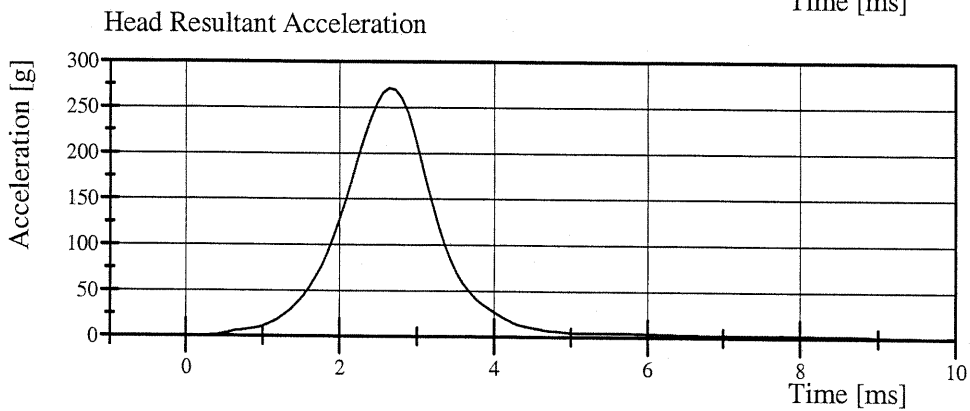
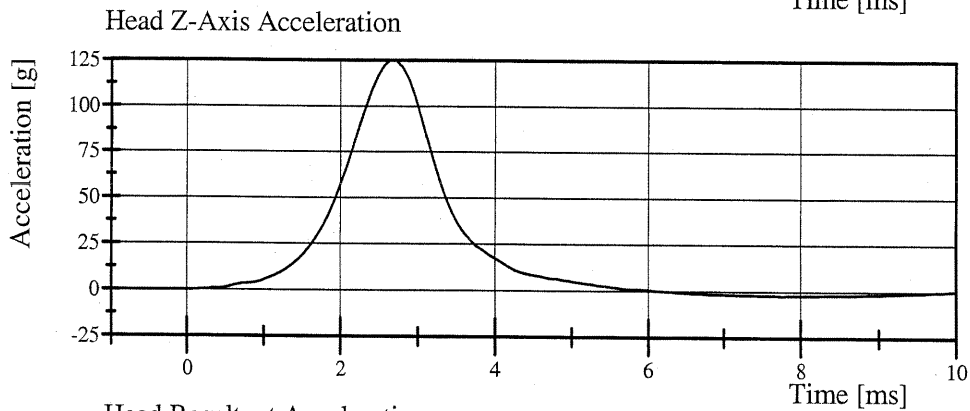
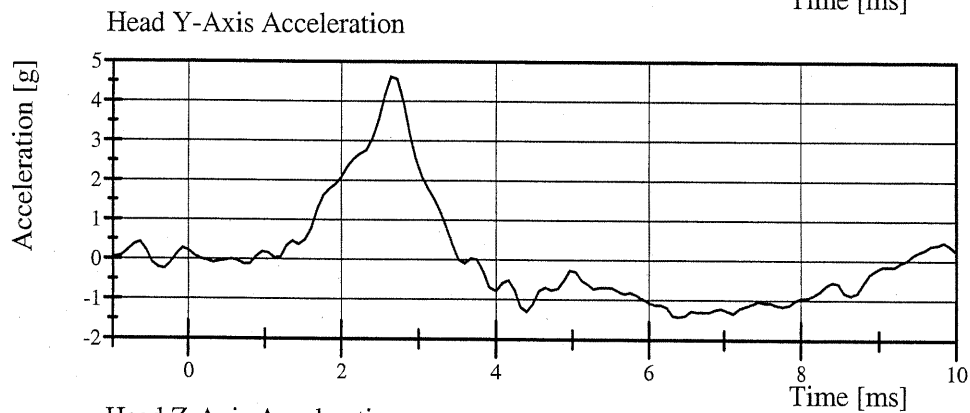
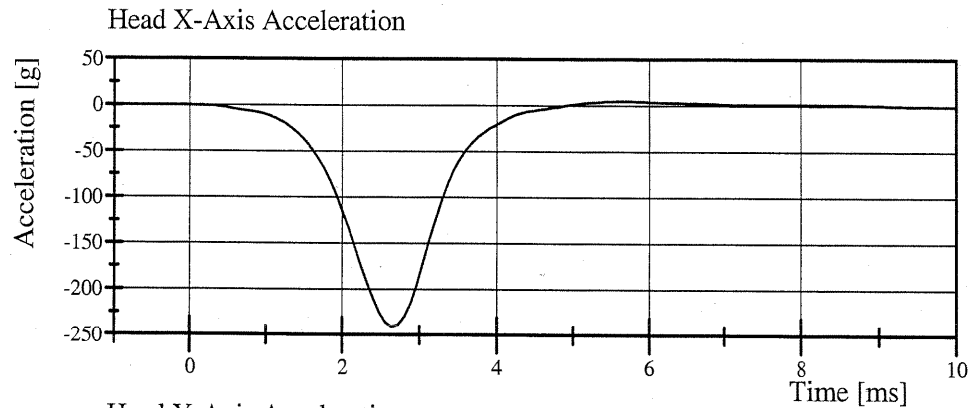


Transportation Research Center Inc.

Front Head Drop

HIH 5th Serial No. 416 Certification No. 35-1

Test Date: 03/08/2006



Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 416 Certification No. 35-1

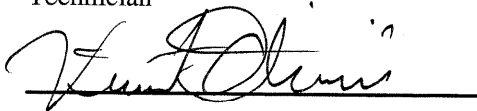
Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.618 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,107.9 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	$\geq$ (-4,600) N	-3,861.1 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-57.0 mm	Yes
Internal Hysteresis	69 - 85 %	71.3 %	Yes

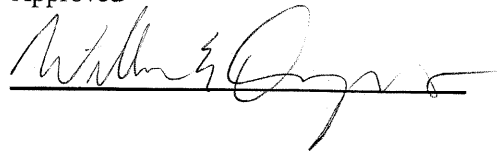
Test meets specifications.

Comments:

Technician



Approved



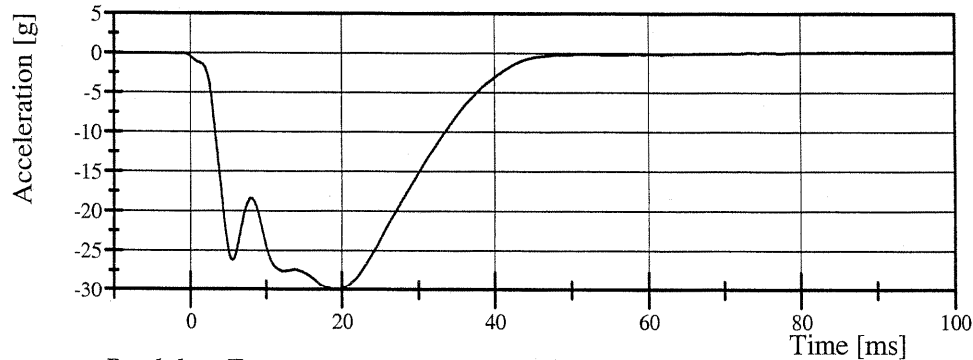
Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 416 Certification No. 35-1

Test Date: 03/08/2006

Pendulum Acceleration

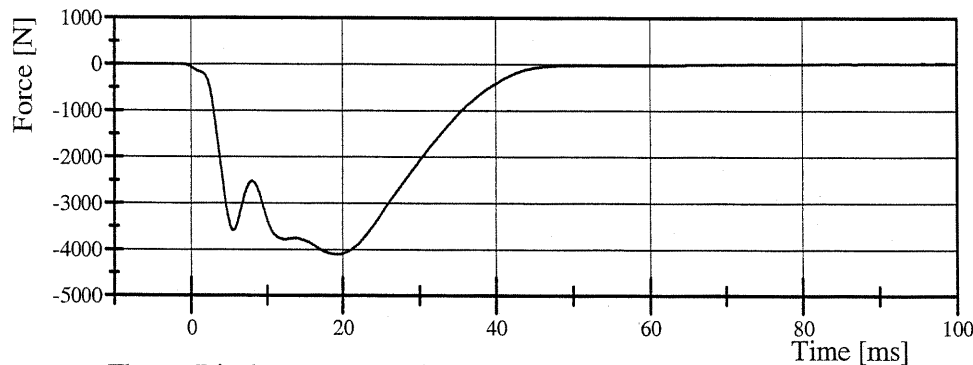


Filter Class: CFC_180

Max: 0.2 g at 98.1 ms

Min: -30.0 g at 19.4 ms

Pendulum Force

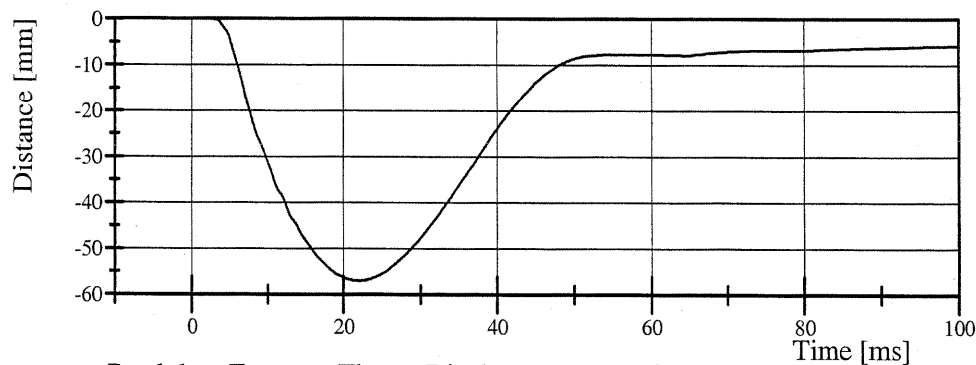


Filter Class: CFC_180

Max: 24.8 N at 98.1 ms

Min: -4,107.9 N at 19.4 ms

Thorax Displacement X-Axis

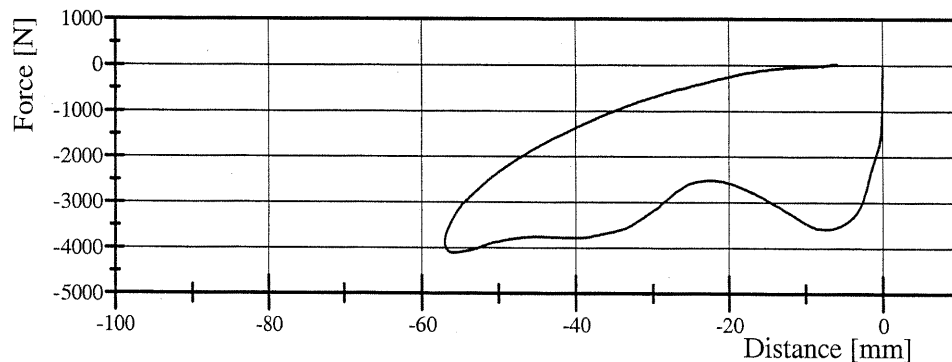


Filter Class: CFC_600

Max: 0.0 mm at -3.9 ms

Min: -57.0 mm at 22.1 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180

Max: 24.8 N at -5.8 mm

Min: -4,107.9 N at -55.8 mm

Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 5th Serial No. 416 Certification No. 35-1

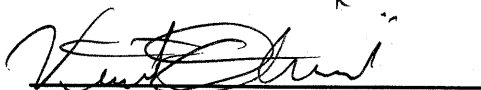
Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.149 m/s	No
Peak Femur Force	(-3,450) - (-4,060) N	-3,368.5 N	No

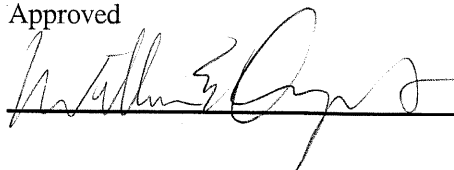
Test does not meet specifications.

Comments:

Technician

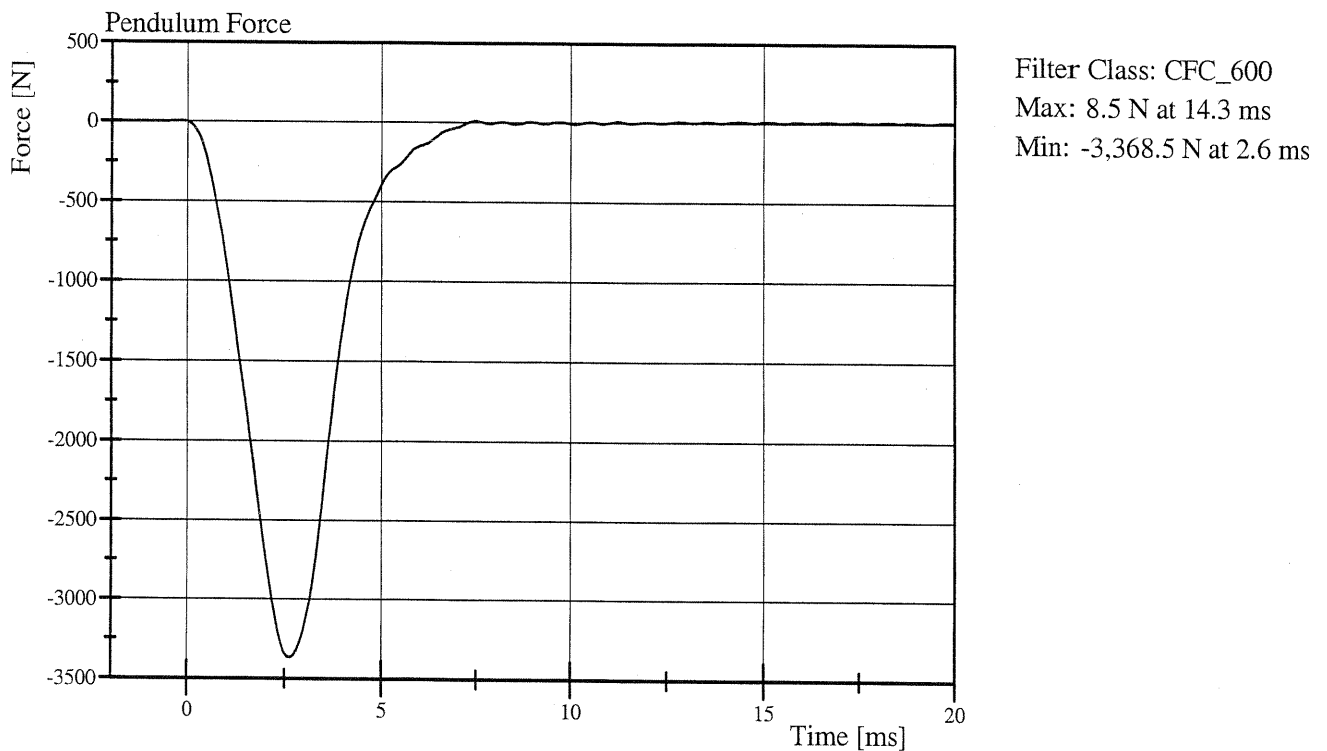
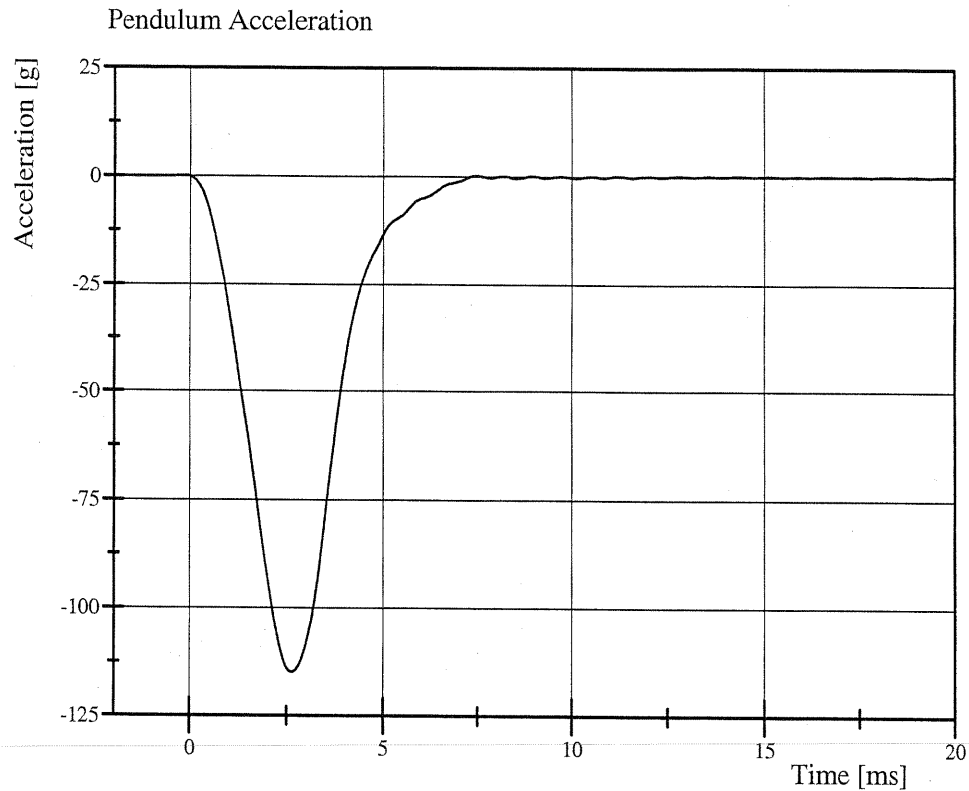


Approved



Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 35-1
Test Date: 03/08/2006



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 35-1
Test Date: 03/08/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.126 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,061.0 N	No

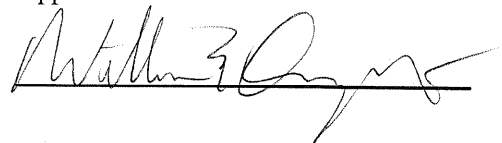
Test does not meet specifications.

Comments:

Technician

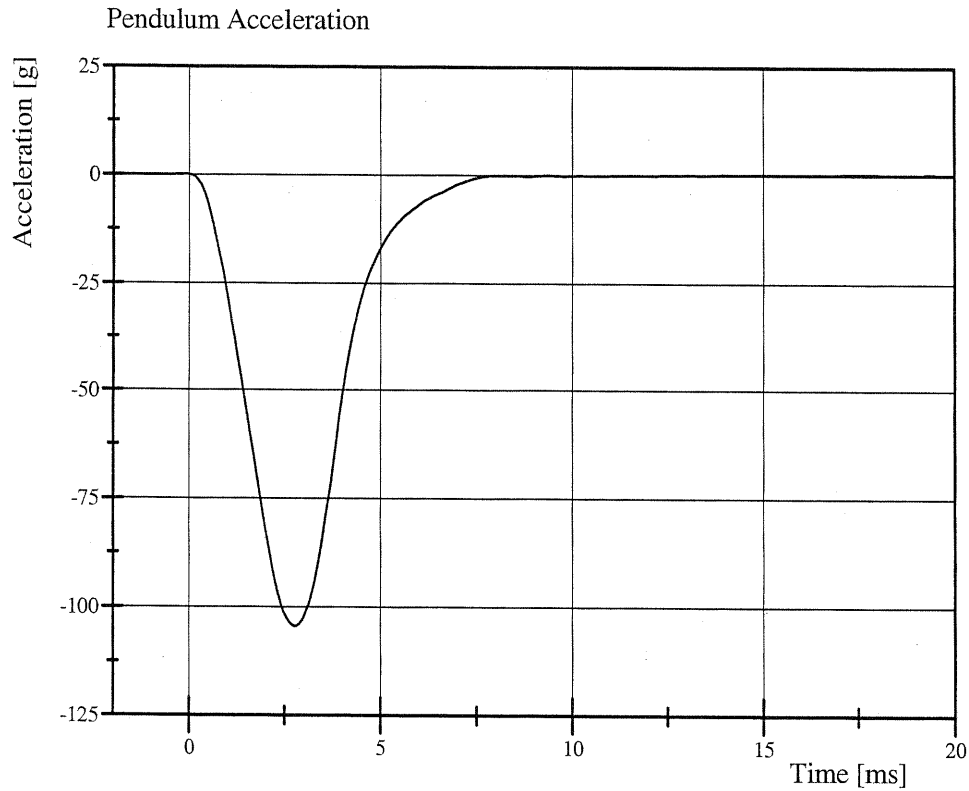


Approved

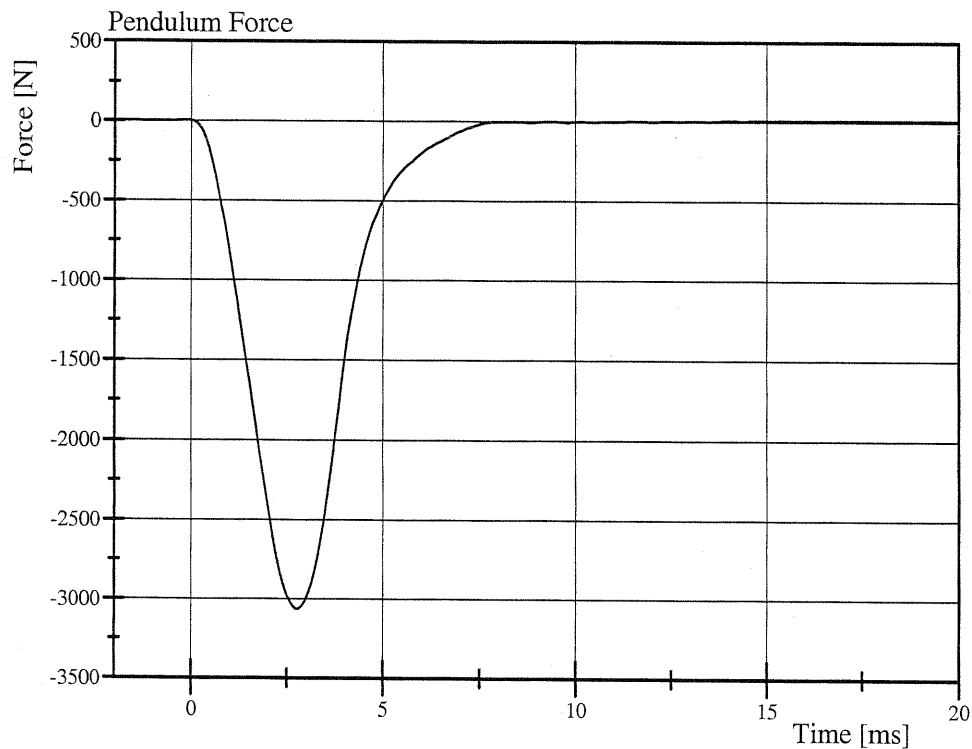


Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 35-1
Test Date: 03/08/2006



Filter Class: CFC_600
Max: 0.3 g at 17.7 ms
Min: -104.4 g at 2.8 ms



Filter Class: CFC_600
Max: 9.7 N at 17.7 ms
Min: -3,061.0 N at 2.8 ms

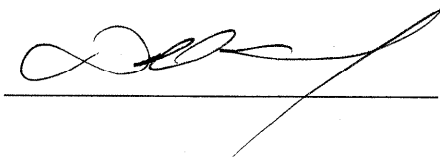
Pre-Test Dummy Configuration and Performance Verification Data

Bullet Vehicle Driver Dummy S/N: 090

NHTSA/VRTC
572E HIII 50th Male Dummy
External Dimensions
Serial No. 090 w/ THOR-LX legs Calibration No. 53

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	882	Yes
B	Shoulder Pivot Height	505.5 - 520.7	508	Yes
C	H-Point Height	83.8 - 88.9	86	Yes
D	H-Point From Seatback	134.6 - 139.7	136	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	89	Yes
F	Thigh Clearance	139.7 - 154.9	151	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	294	Yes
H	Skull Cap To Backline	40.6 - 45.7	43	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	341	Yes
J	Elbow Rest Height	190.5 - 210.8	204	Yes
K	Buttock Knee Length	579.1 - 604.5	600	Yes
L	Popliteal Height	429.3 - 454.7	445	Yes
M	Knee Pivot Height	485.1 - 500.4	495	Yes
N	Buttock Popliteal Length	452.1 - 477.5	467	Yes
O	Chest Depth	213.4 - 228.6	220	Yes
P	Foot Length	251.5 - 266.7	253	Yes
V	Shoulder Breadth	421.6 - 436.9	430	Yes
W	Foot Breadth	91.4 - 106.7	98	Yes
Y	Chest Circumference	970.3 - 1000.8	991	Yes
Z	Waist Circumference	835.7 - 866.1	855	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	229	Yes

Technician



Approved



Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 090 Certification No. 53-1

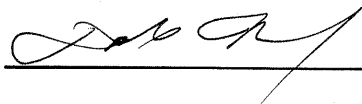
Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	240.3 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	2.2 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

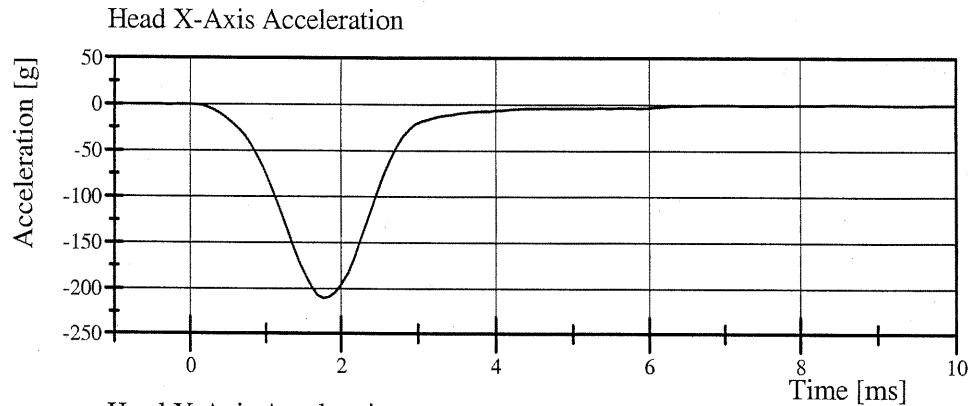


Transportation Research Center Inc.

Front Head Drop

HIH 50th Serial No. 090 Certification No. 53-1

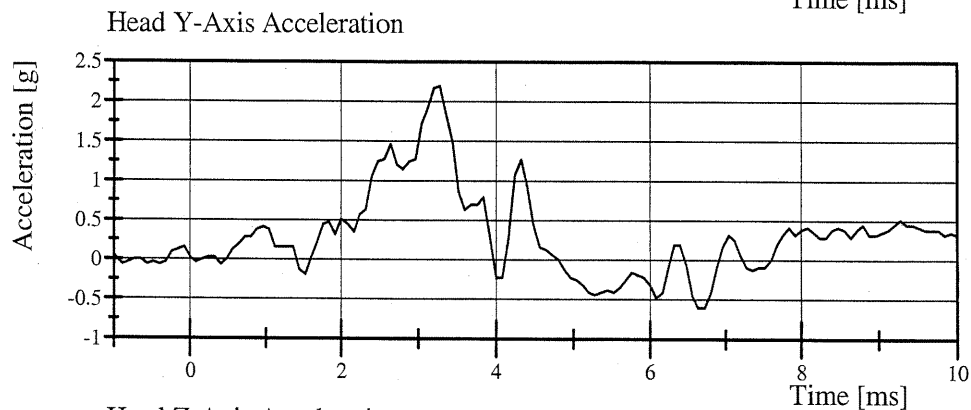
Test Date: 02/23/2006



Filter Class: CFC_1000

Max: 0.2 g at -0.6 ms

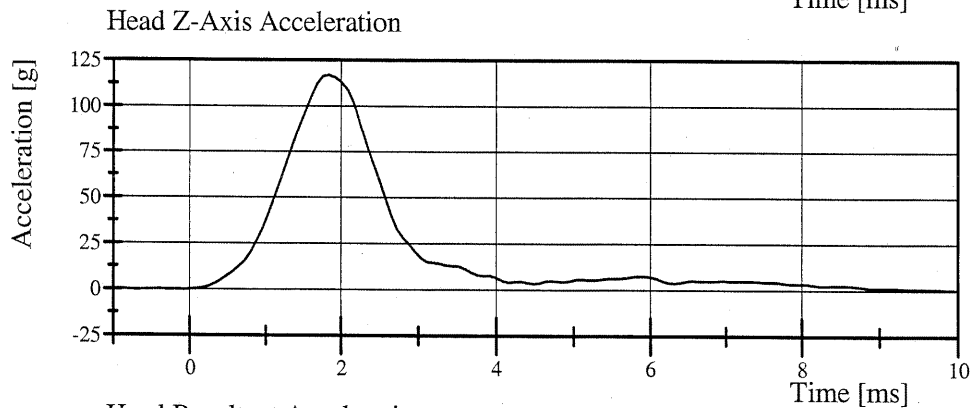
Min: -210.2 g at 1.8 ms



Filter Class: CFC_1000

Max: 2.2 g at 3.3 ms

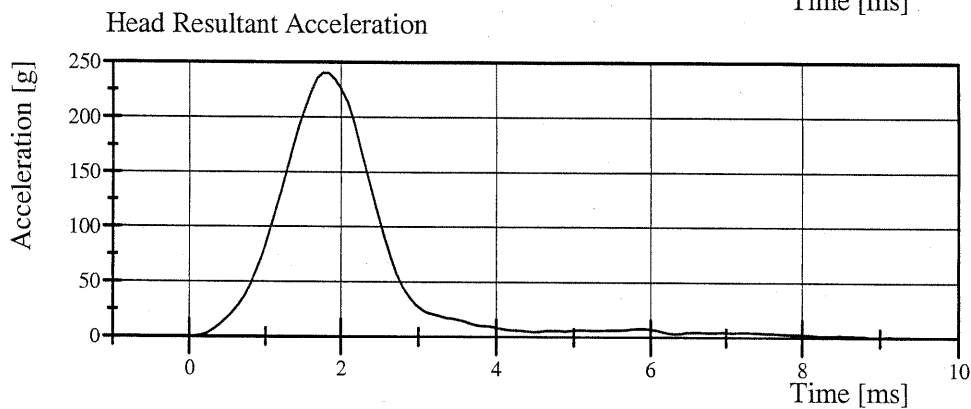
Min: -0.6 g at 6.6 ms



Filter Class: CFC_1000

Max: 117.0 g at 1.8 ms

Min: -0.2 g at -0.7 ms



Filter Class: CFC_1000

Max: 240.3 g at 1.8 ms

Min: 0.1 g at -0.8 ms

Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 090 Certification No. 53-1

Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.927 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	37.2 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-23.10 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-21.88 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-17.70 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-17.70 g	Yes
Total Head D-Plane Rotation Peak	(-64) - (-78) °	-71.7 °	Yes
Time of Peak	57 - 64 ms	59.4 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	118.5 ms	Yes
Total Neck Occipital Condyles Moment Peak	88 - 108 N·m	101.5 N·m	Yes
Time of Peak	47 - 58 ms	49.2 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	97 - 107 ms	101.2 ms	Yes

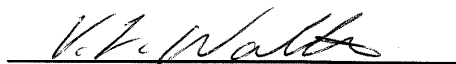
Test meets specifications.

Comments:

Technician



Approved

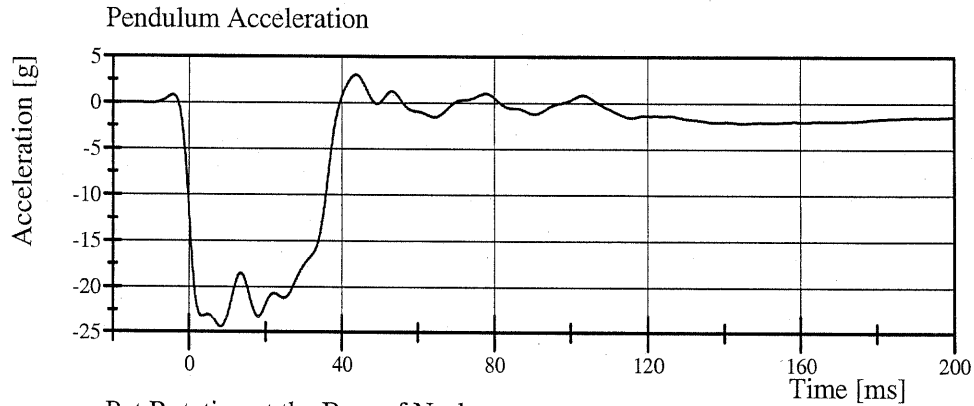


Transportation Research Center Inc.

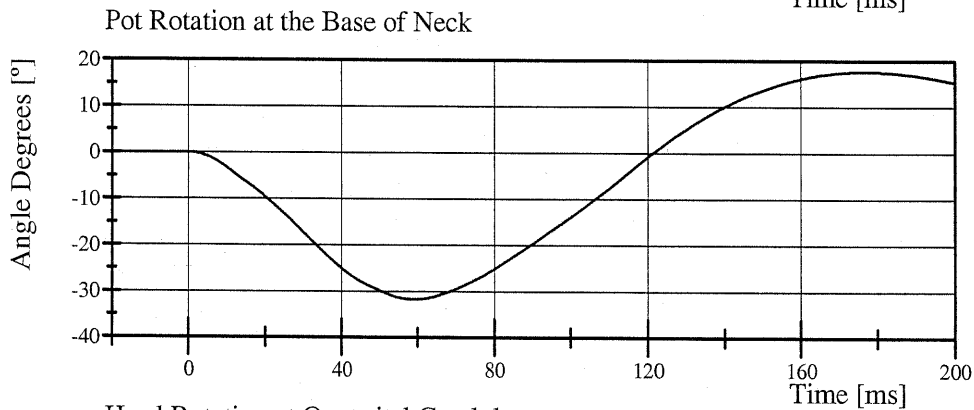
Neck Flexion

HIII 50th Serial No. 090 Certification No. 53-1

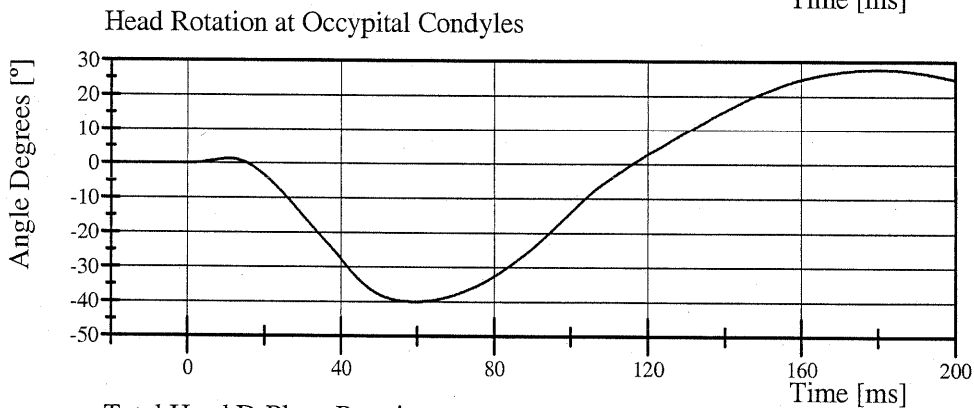
Test Date: 02/23/2006



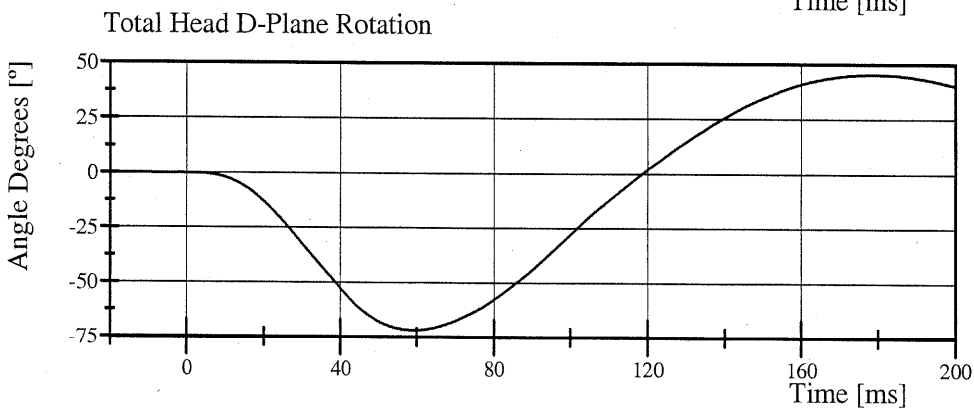
Filter Class: CFC_60
Max: 3.0 g at 43.8 ms
Min: -24.4 g at 8.2 ms



Filter Class: CFC_60
Max: 17.7 ° at 176.9 ms
Min: -31.7 ° at 59.3 ms



Filter Class: CFC_60
Max: 27.7 ° at 180.4 ms
Min: -40.0 ° at 59.6 ms



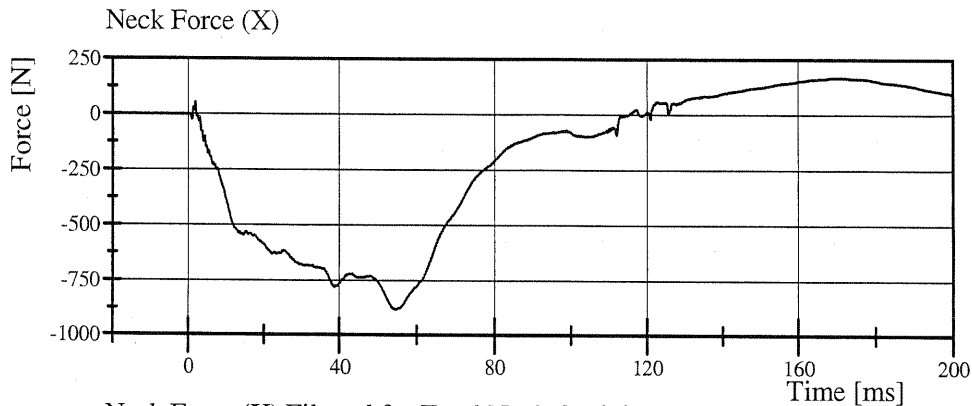
Filter Class: CFC_60
Max: 45.4 ° at 178.7 ms
Min: -71.7 ° at 59.4 ms

Transportation Research Center Inc.

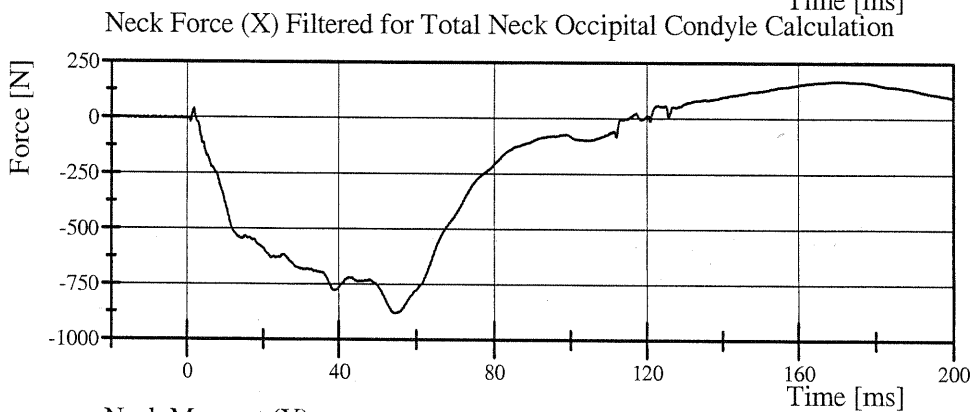
Neck Flexion

HIII 50th Serial No. 090 Certification No. 53-1

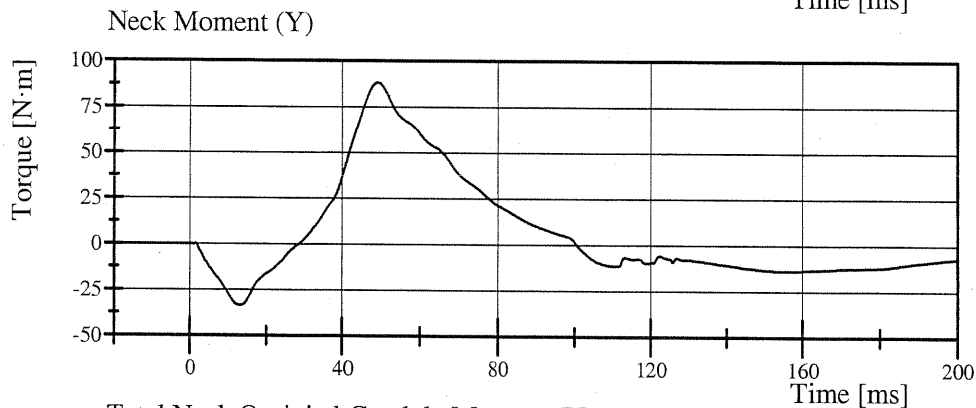
Test Date: 02/23/2006



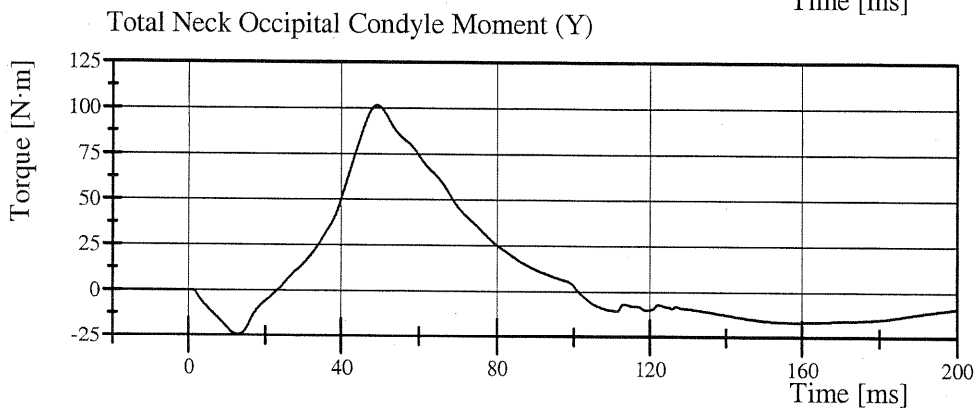
Filter Class: CFC_1000
Max: 169.6 N at 172.2 ms
Min: -879.2 N at 54.4 ms



Filter Class: CFC_600
Max: 169.0 N at 170.6 ms
Min: -879.0 N at 54.5 ms



Filter Class: CFC_600
Max: 88.4 N·m at 49.1 ms
Min: -33.6 N·m at 13.3 ms



Filter Class: CFC_600
Max: 101.5 N·m at 49.2 ms
Min: -24.2 N·m at 12.9 ms

Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 090 Certification No. 53-1

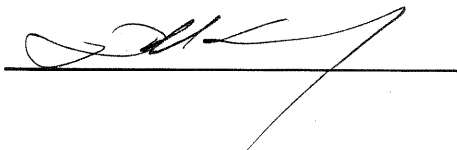
Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.989 m/s	Yes
Pendulum Acceleration Decay			
Crossing 5g	38 - 46 ms	45.5 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	17.96 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	15.71 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	12.94 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	12.94 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	95.0 °	Yes
Time of Peak	72 - 82 ms	79.8 ms	Yes
Total Head D-Plane Rotation			
Decay to 0°	147 - 174 ms	164.1 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-53) - (-80) N·m	-61.0 N·m	Yes
Time of Peak	65 - 79 ms	74.8 ms	Yes
Total Neck Occipital Condyles Moment			
Decay to 0 N·m	120 - 148 ms	146.6 ms	Yes

Test meets specifications.

Comments:

Technician



Approved

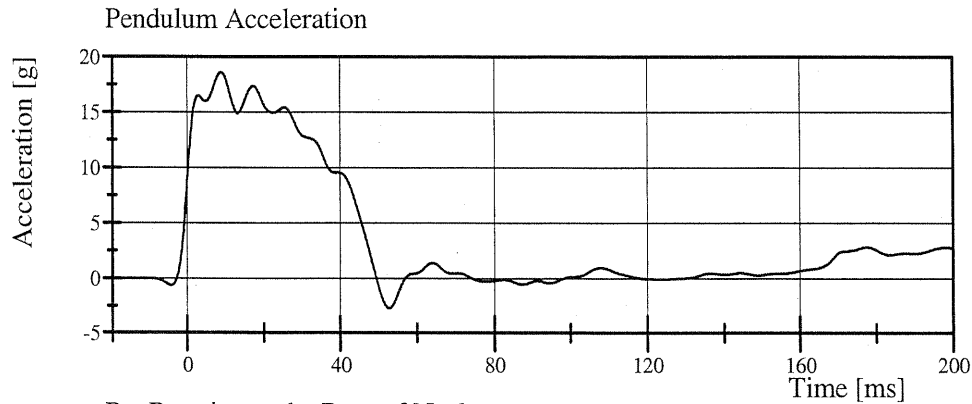


Transportation Research Center Inc.

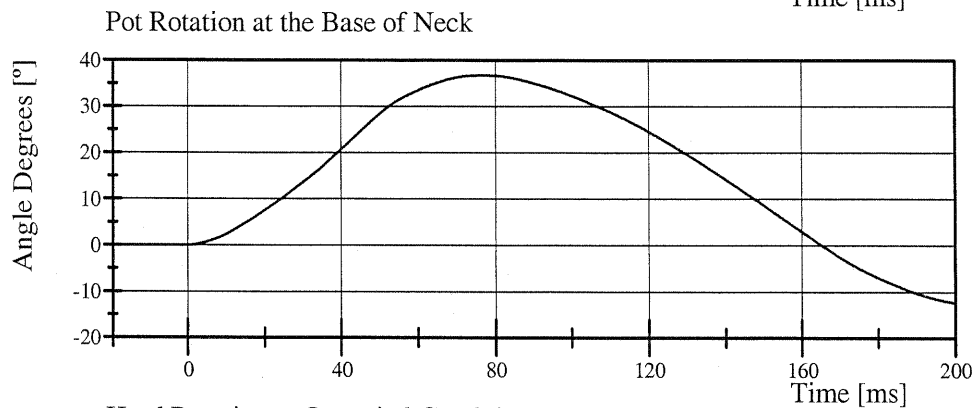
Neck Extension

HIII 50th Serial No. 090 Certification No. 53-1

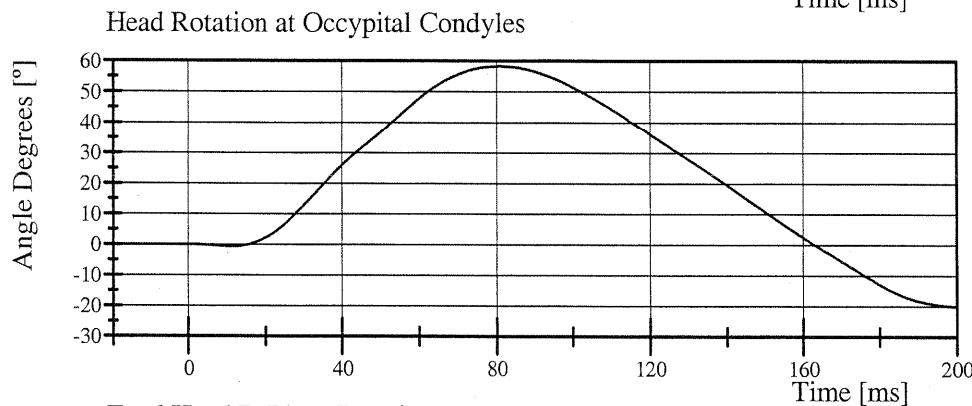
Test Date: 02/23/2006



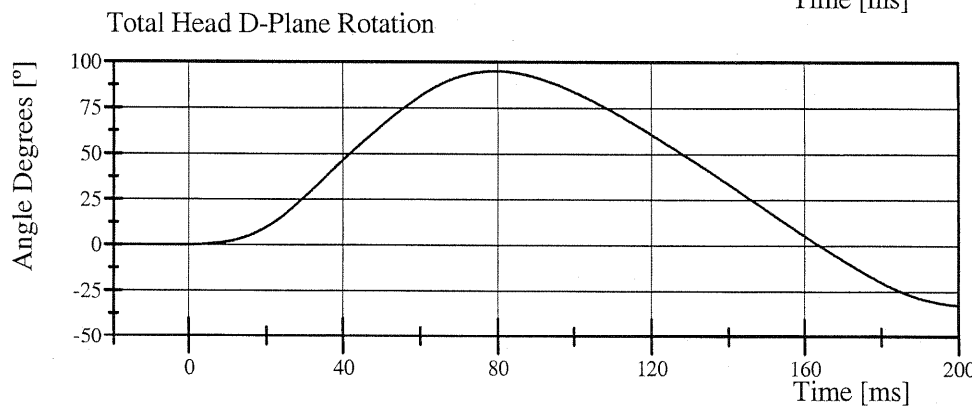
Filter Class: CFC_60
Max: 18.6 g at 8.8 ms
Min: -2.7 g at 52.8 ms



Filter Class: CFC_60
Max: 36.8 ° at 77.1 ms
Min: -12.3 ° at 200.0 ms



Filter Class: CFC_60
Max: 58.3 ° at 81.0 ms
Min: -20.1 ° at 200.0 ms



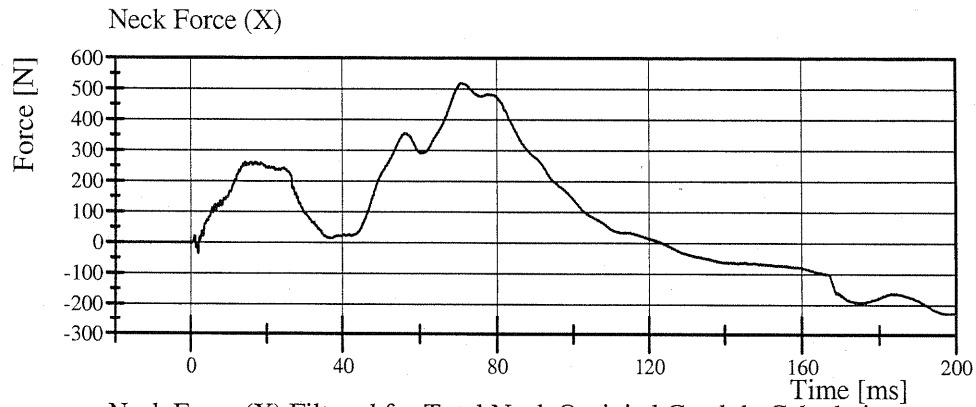
Filter Class: CFC_60
Max: 95.0 ° at 79.8 ms
Min: -32.4 ° at 200.0 ms

Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 090 Certification No. 53-1

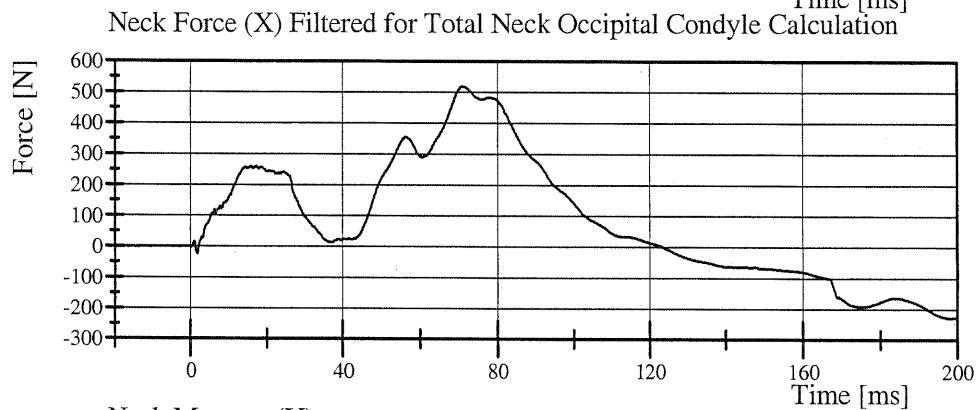
Test Date: 02/23/2006



Filter Class: CFC_1000

Max: 519.0 N at 71.1 ms

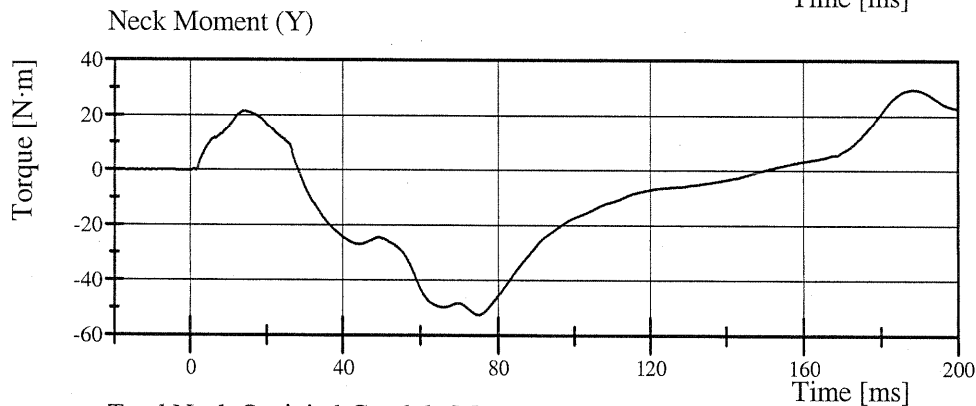
Min: -228.9 N at 198.2 ms



Filter Class: CFC_600

Max: 518.6 N at 71.0 ms

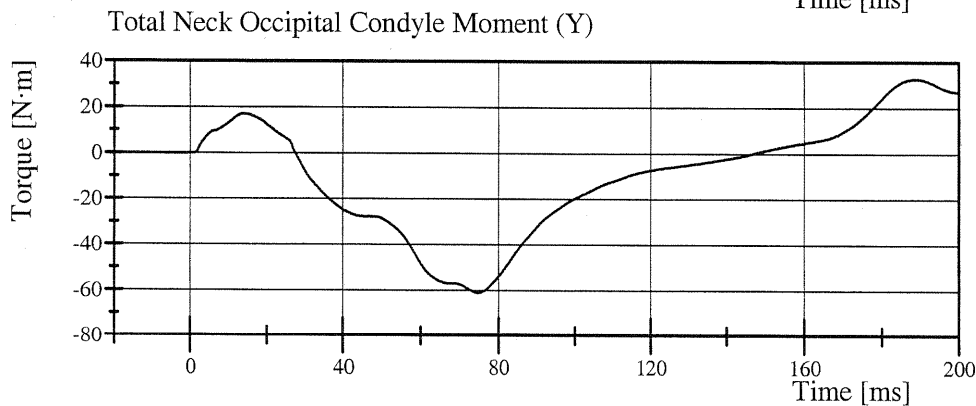
Min: -228.5 N at 198.3 ms



Filter Class: CFC_600

Max: 29.6 N·m at 188.2 ms

Min: -52.5 N·m at 75.0 ms



Filter Class: CFC_600

Max: 32.7 N·m at 189.2 ms

Min: -61.0 N·m at 74.8 ms

Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 090 Certification No. 53-1

Test Date: 02/23/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.622 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,850.1 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-69.35 mm	Yes
Internal Hysteresis	65 - 85 %	74.2 %	Yes

Test meets specifications.

Comments:

Technician



Approved

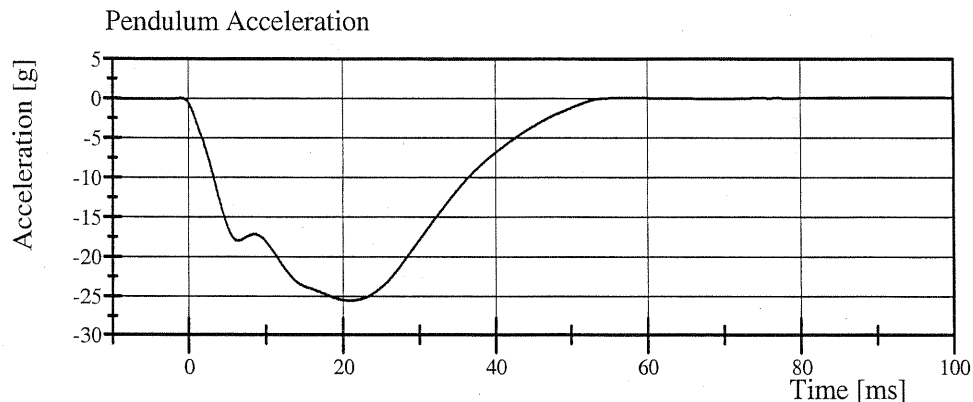


Transportation Research Center Inc.

Front Thorax

HIH 50th Serial No. 090 Certification No. 53-1

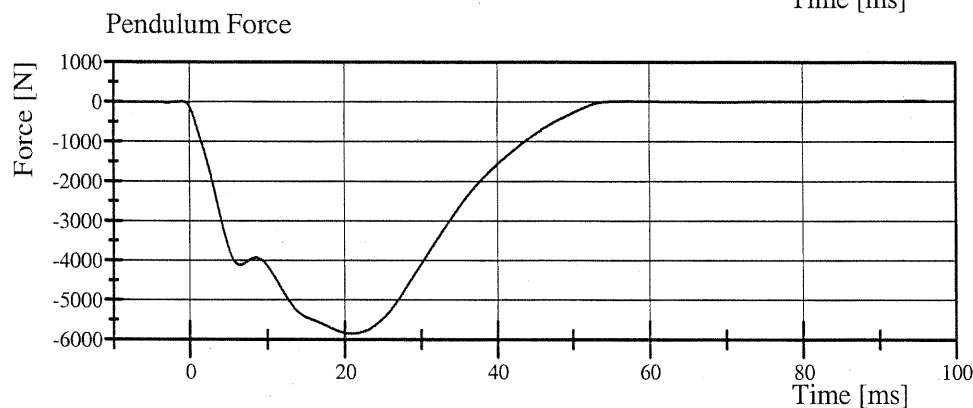
Test Date: 02/23/2006



Filter Class: CFC_180

Max: 0.1 g at 94.0 ms

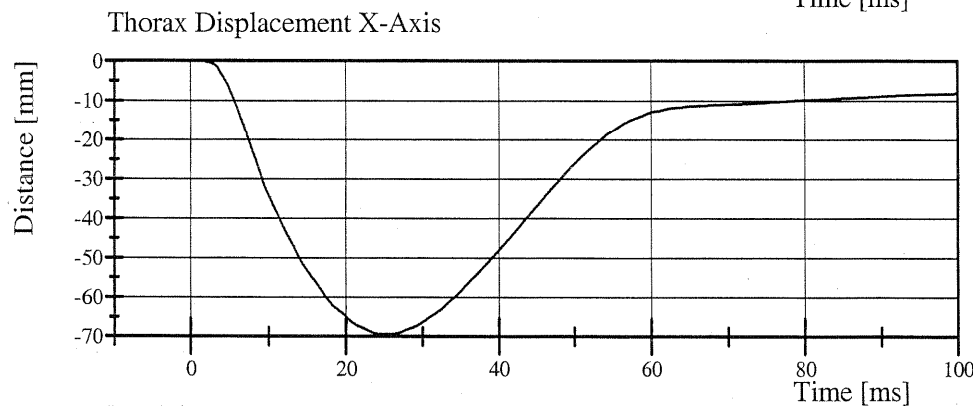
Min: -25.5 g at 20.9 ms



Filter Class: CFC_180

Max: 32.0 N at 94.0 ms

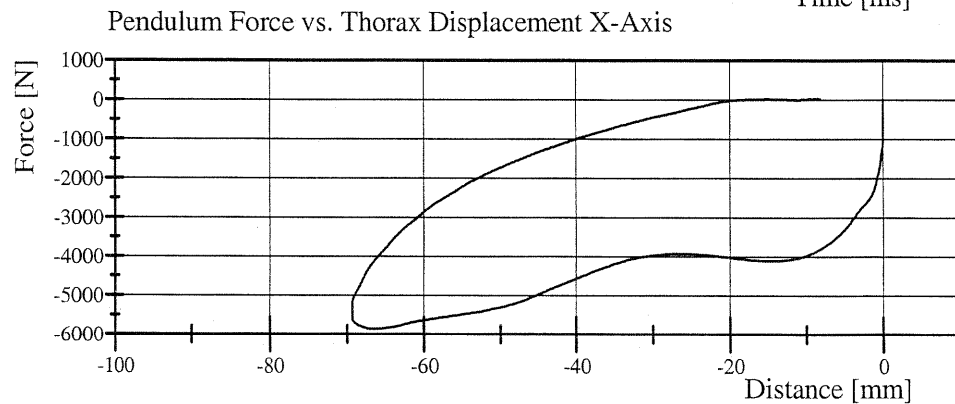
Min: -5,850.1 N at 20.9 ms



Filter Class: CFC_600

Max: 0.0 mm at -6.8 ms

Min: -69.3 mm at 24.5 ms



Filter Class: CFC_180

Max: 32.0 N at -8.5 mm

Min: -5,850.1 N at -66.5 mm

Applied Safety Technologies Corp.

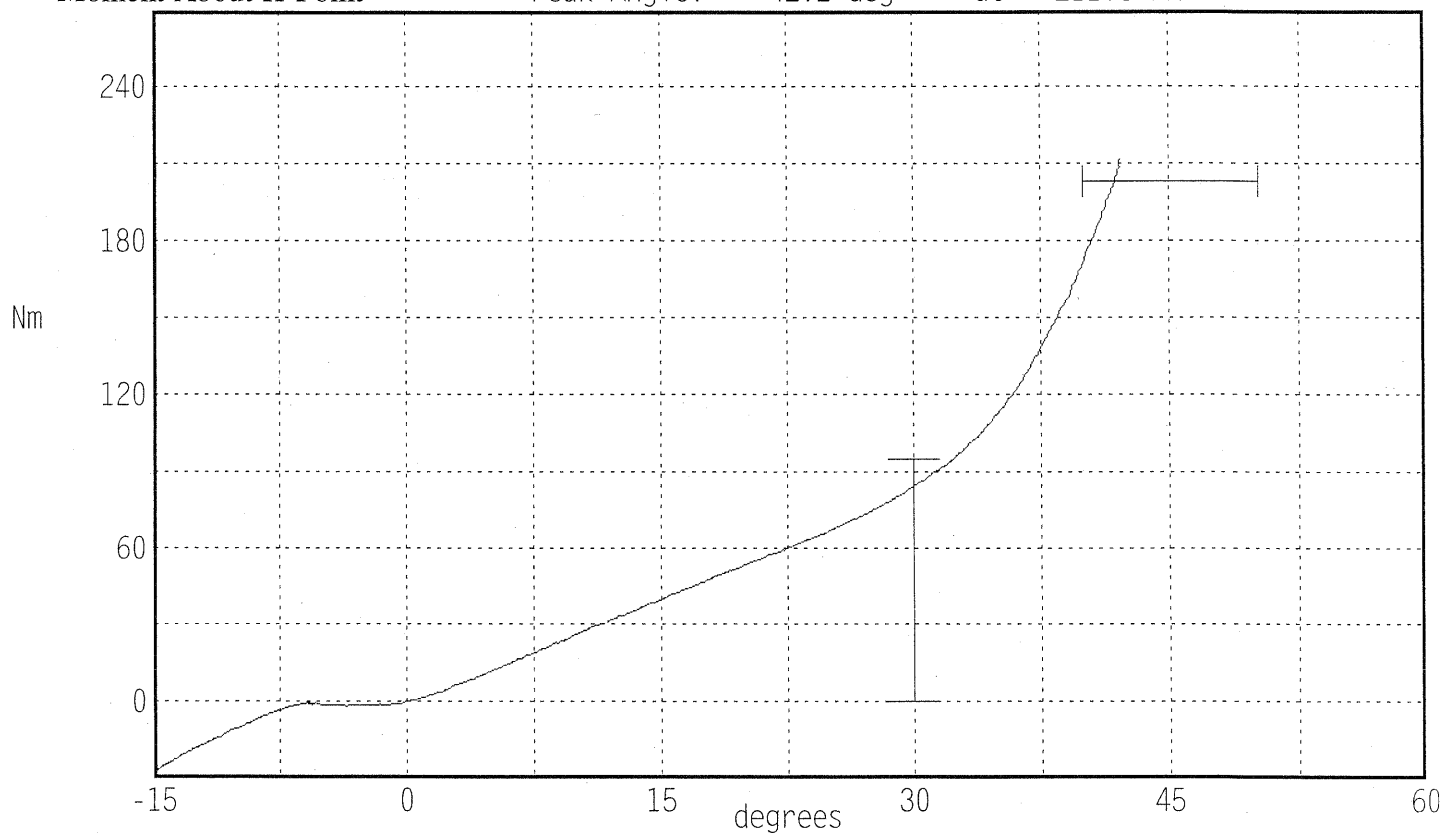
Hybrid III Hip Range of Motion

Serial Number: 090L
Test Number: 090C54
Comments:

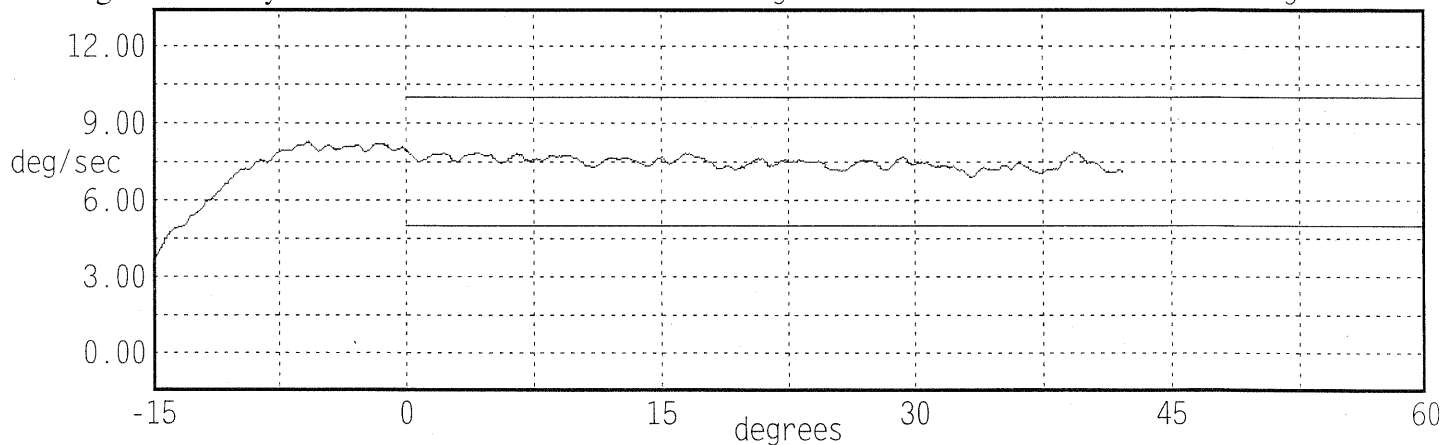
Date: 02/23/2006
Time: 14:32

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.2 °C Pass
Humidity	10 - 70	31 % Pass
Moment at 30 deg	<= 94.9	84.4 Nm Pass
Angle at 203 Nm	40.0 - 50.0	41.8 deg Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec Pass

Moment About H-Point
Peak Moment: 211.3 Nm at 42.2 deg
Peak Angle: 42.2 deg at 211.3 Nm



Angular Velocity Max: 8.0 deg/sec Min: 6.9 deg/sec



Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

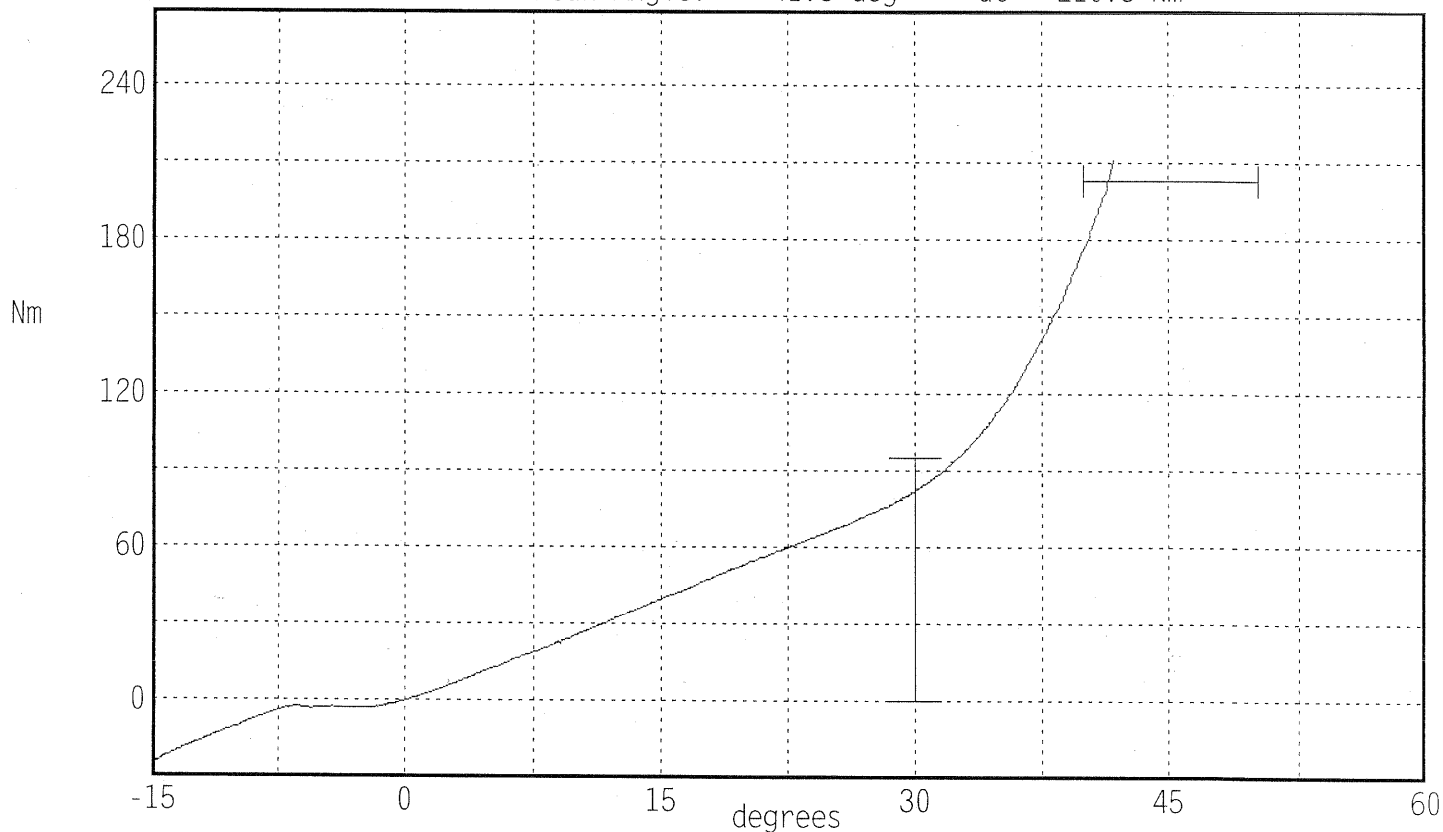
Serial Number: 090R
Test Number: 090C54
Comments:

Date: 02/23/2006
Time: 14:28

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.2 °C Pass
Humidity	10 - 70	31 % Pass
Moment at 30 deg	<= 94.9	82.2 Nm Pass
Angle at 203 Nm	40.0 - 50.0	41.5 deg Pass
Average Velocity	5.0 - 10.0	7.4 deg/sec Pass

Peak Moment: 210.8 Nm at 41.8 deg
Peak Angle: 41.8 deg at 210.8 Nm

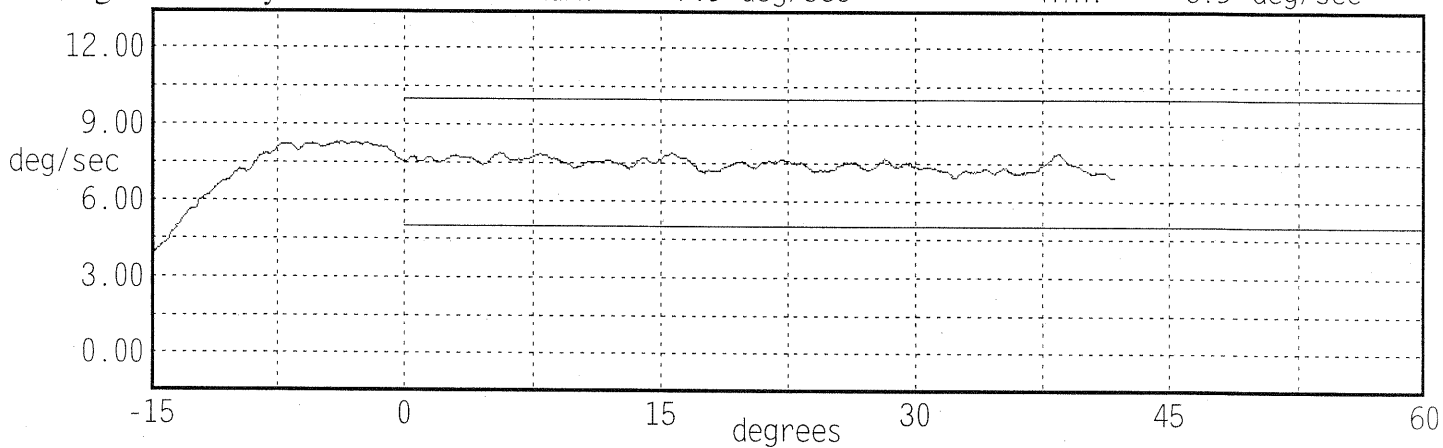
Moment About H-Point



Angular Velocity

Max: 7.9 deg/sec

Min: 6.9 deg/sec



Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 50th Serial No. LX103104 Certification No. 2-1

Test Date: 02/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	45 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.100 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,255.08 N	Yes

Test meets specifications.

Comments:

Technician



Approved

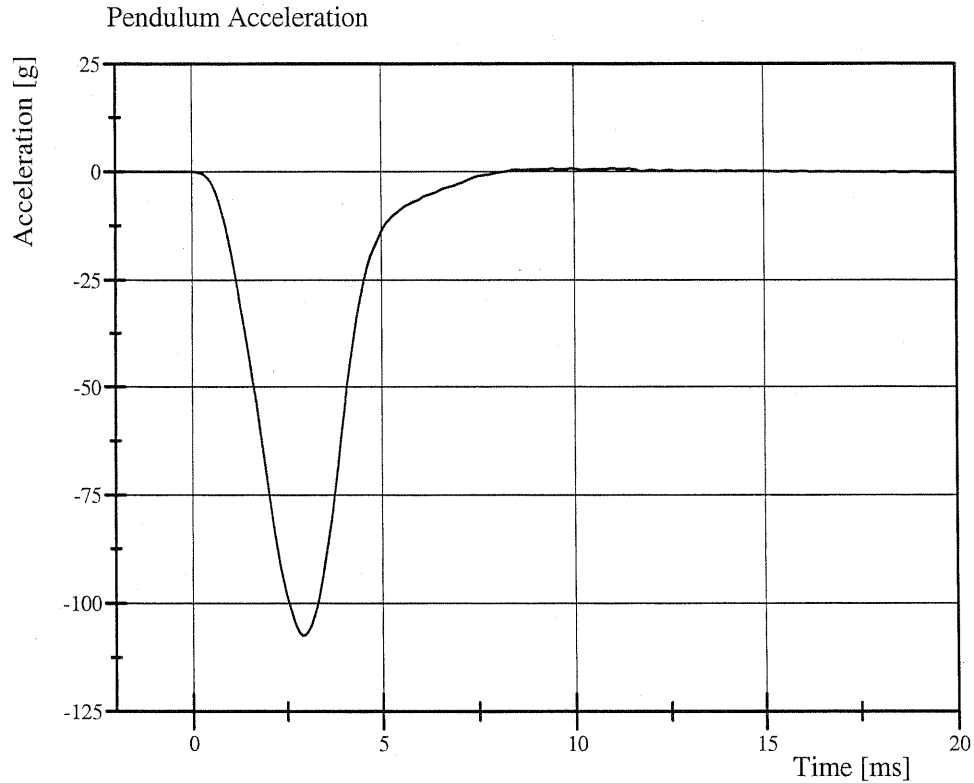


Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 50th Serial No. LX103104 Certification No. 2-1

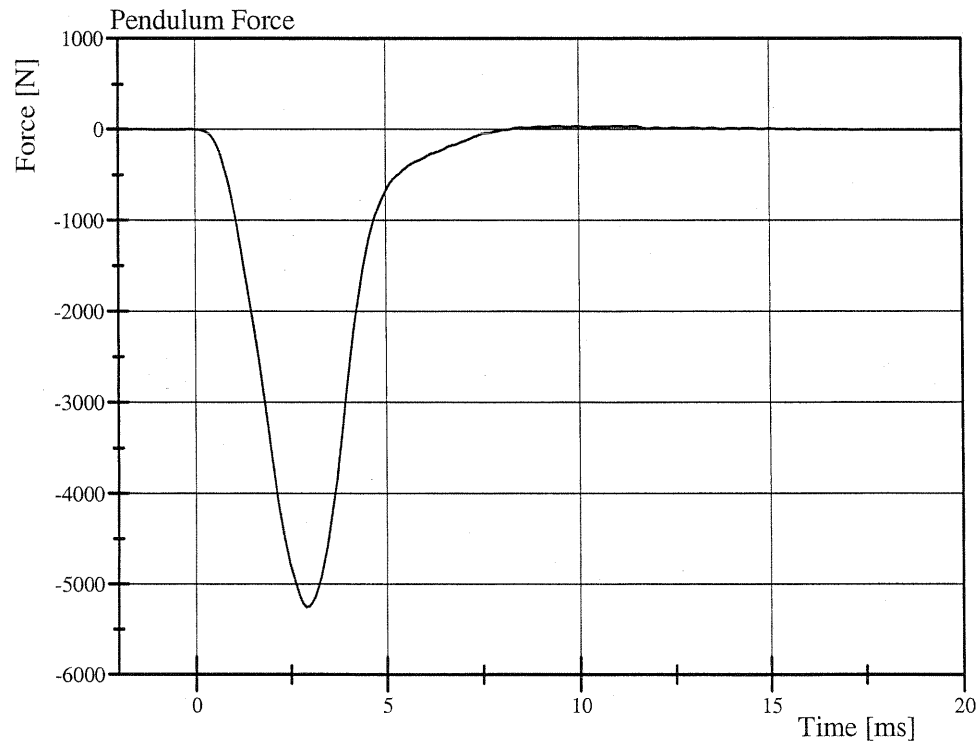
Test Date: 02/16/2006



Filter Class: CFC_600

Max: 0.7 g at 10.0 ms

Min: -107.4 g at 2.9 ms



Filter Class: CFC_600

Max: 34.1 N at 10.0 ms

Min: -5,255.1 N at 2.9 ms

Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX103104 Certification No. 2-4

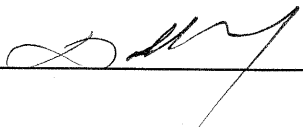
Test Date: 02/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.091 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,736.09 N	Yes

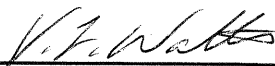
Test meets specifications.

Comments:

Technician



Approved

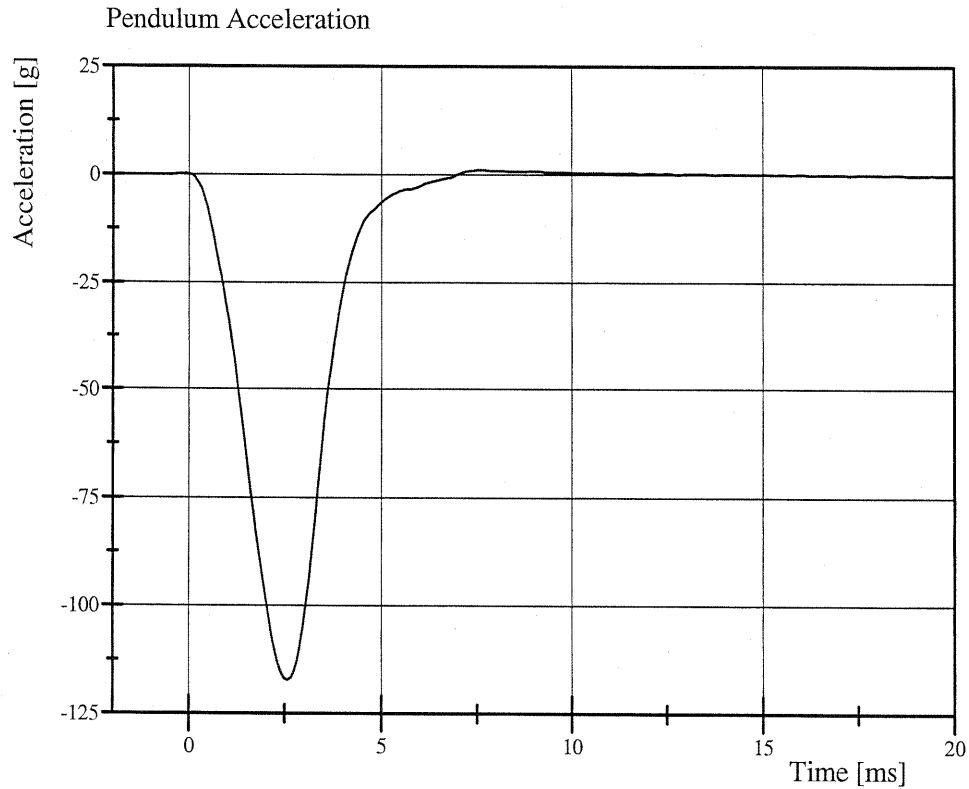


Transportation Research Center Inc.

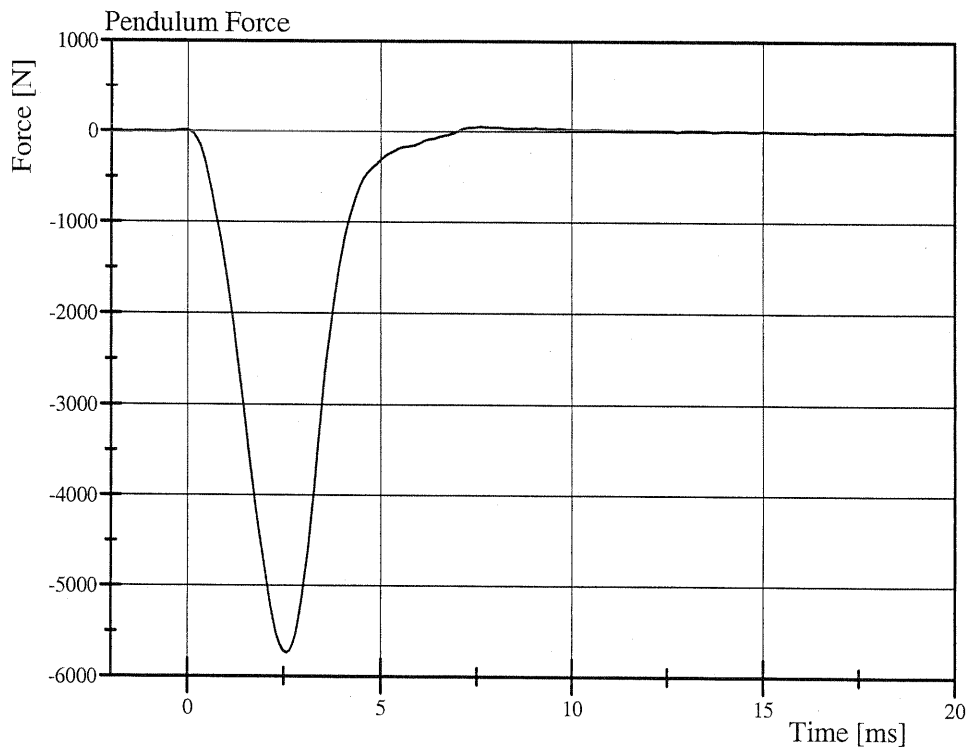
Right Knee Femur Response Test

HIII 50th Serial No. LX103104 Certification No. 2-4

Test Date: 02/17/2006



Filter Class: CFC_600
Max: 1.1 g at 7.6 ms
Min: -117.2 g at 2.6 ms



Filter Class: CFC_600
Max: 53.4 N at 7.6 ms
Min: -5,736.1 N at 2.6 ms

Transportation Research Center Inc.

Left Knee Slider

HIII 50th Serial No. LX103104 Certification No. 2-1

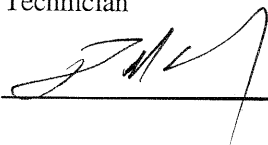
Test Date: 02/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	29 %	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	-1,443.1 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,709.6 N	Yes

Test meets specifications.

Comments:

Technician



Approved



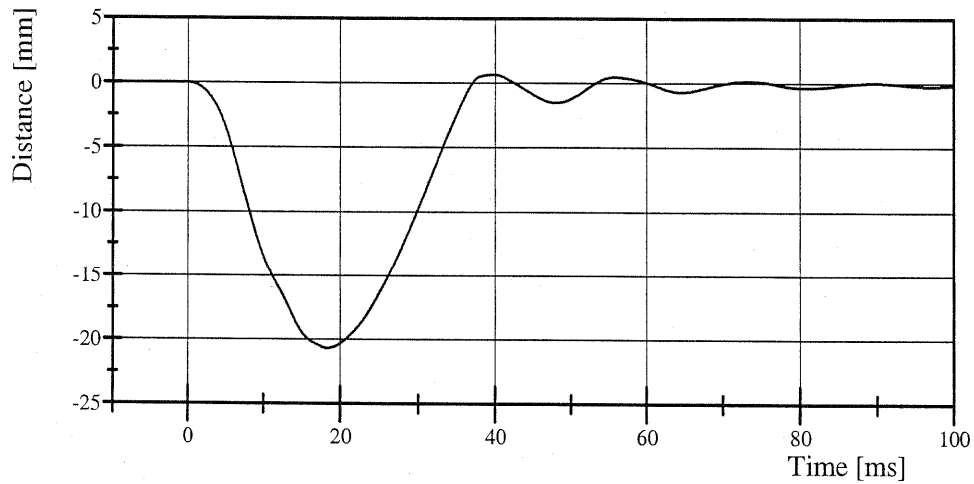
Transportation Research Center Inc.

Left Knee Slider

HIII 50th Serial No. LX103104 Certification No. 2-1

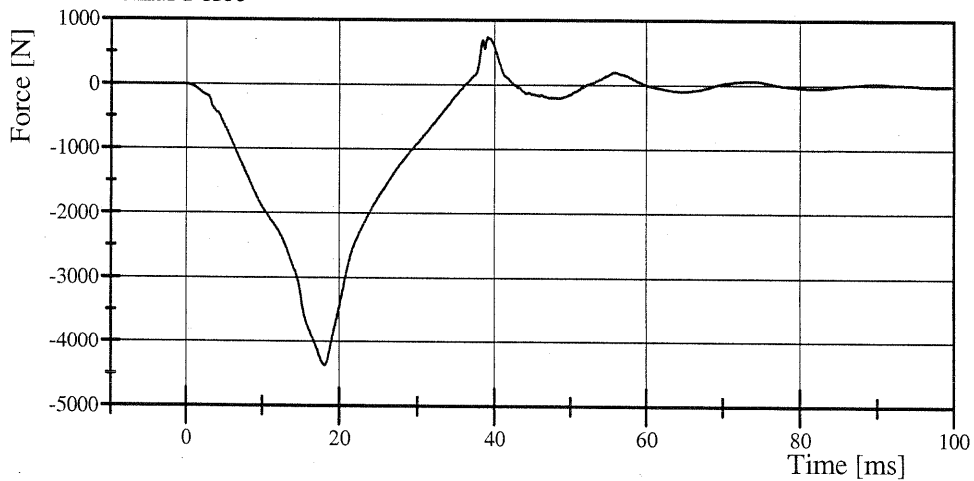
Test Date: 02/17/2006

Knee Slider Displacement



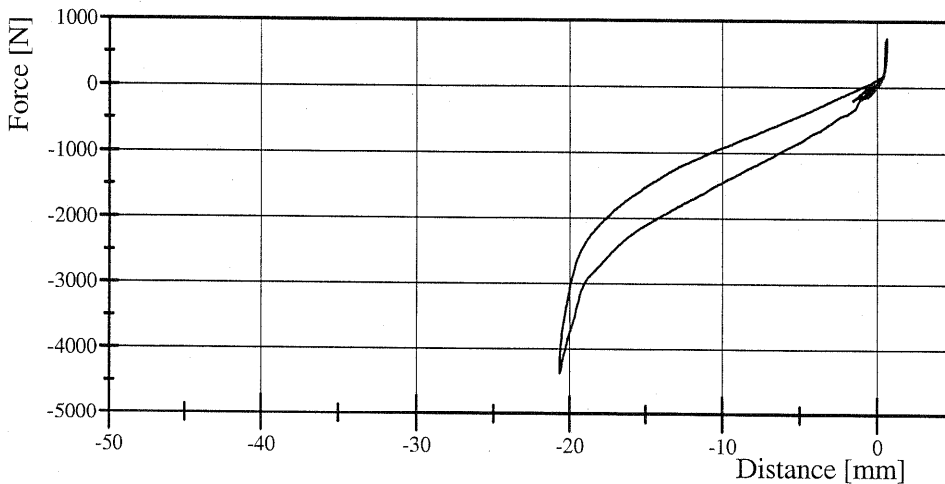
Filter Class: CFC_180
Max: 0.6 mm at 39.8 ms
Min: -20.7 mm at 18.4 ms

Femur Force



Filter Class: CFC_600
Max: 737.0 N at 39.1 ms
Min: -4,366.8 N at 18.1 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600
Max: 737.0 N at 0.6 mm
Min: -4,366.8 N at -20.7 mm

Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX103104 Certification No. 2-1

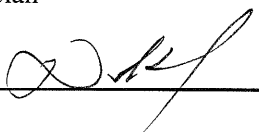
Test Date: 02/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.728 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,465.9 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,708.6 N	Yes

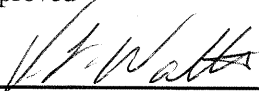
Test meets specifications.

Comments:

Technician



Approved

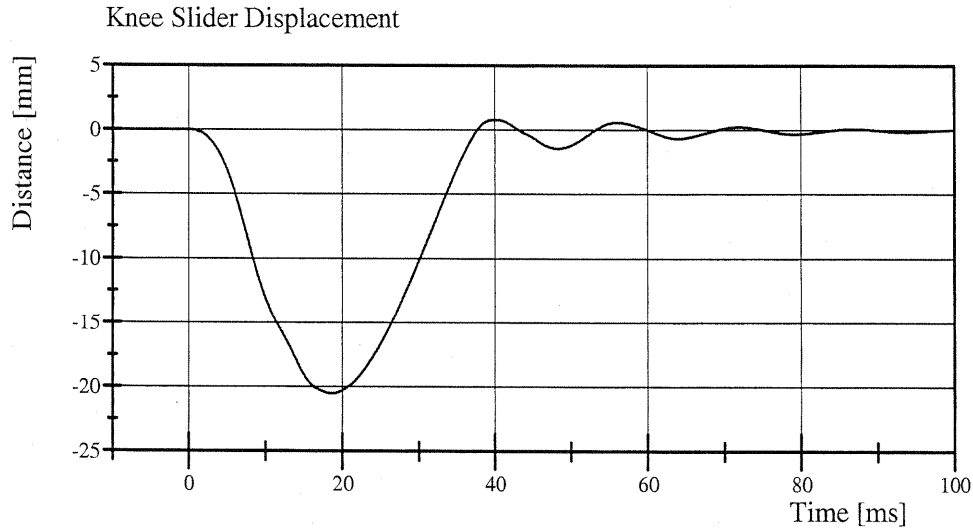


Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX103104 Certification No. 2-1

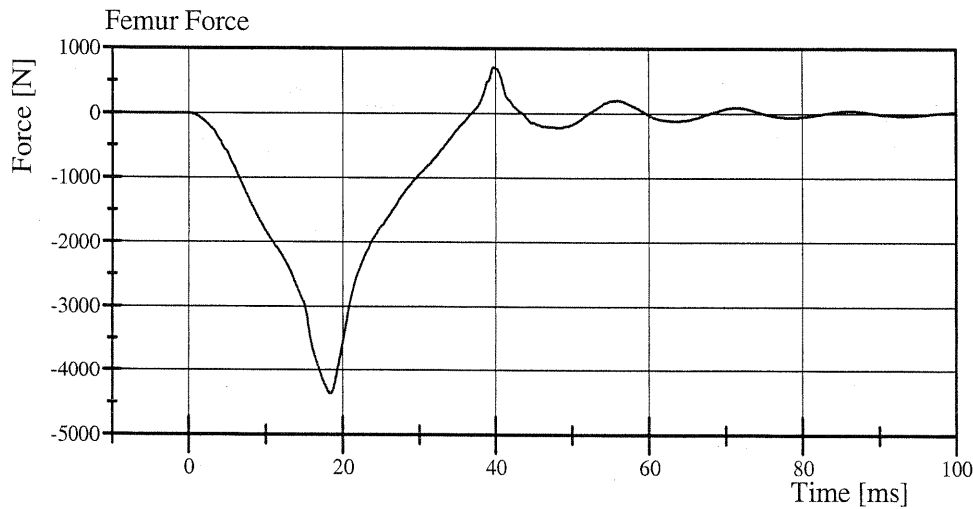
Test Date: 02/17/2006



Filter Class: CFC_180

Max: 0.8 mm at 40.2 ms

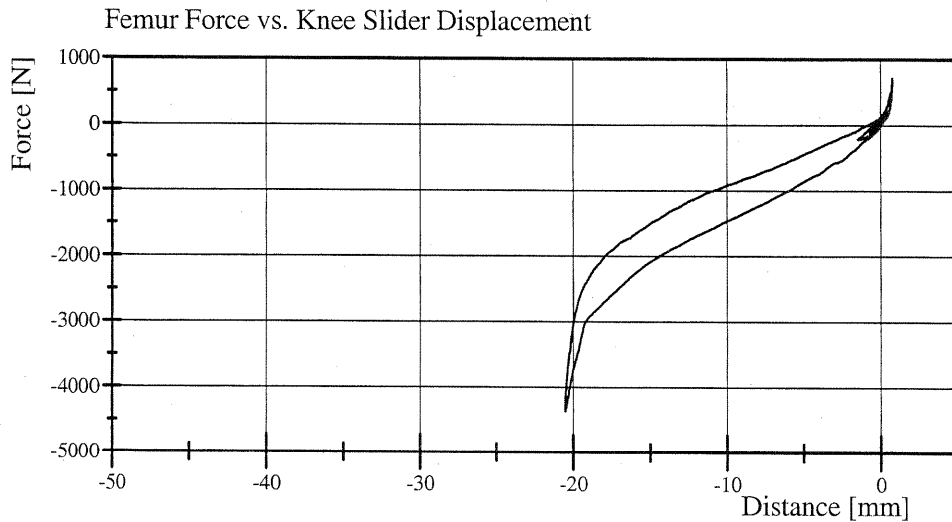
Min: -20.5 mm at 18.6 ms



Filter Class: CFC_600

Max: 711.8 N at 39.8 ms

Min: -4,361.1 N at 18.4 ms



Filter Class: CFC_600

Max: 711.8 N at 0.8 mm

Min: -4,361.1 N at -20.5 mm

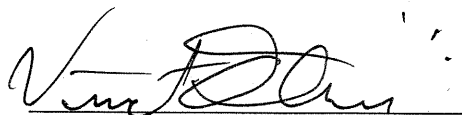
Pre-Test Dummy Configuration and Performance Verification Data

Bullet Vehicle Passenger Dummy S/N: 070

Transportation Research Center Inc.
5720 HIII 5th Female Dummy
External Dimensions
Serial No. 070 Calibration No. 13

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	785	Yes
B	Shoulder Pivot Height	431.8 - 457.2	449	Yes
C	Hip Pivot Height	81.3 - 86.3	86	Yes
D	Hip Pivot from Backline	144.8 - 149.8	147	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	75	Yes
F	Thigh Clearance	119.4 - 134.6	126	Yes
G	Back of Elbow to Wrist Pivot	243.9 - 259.1	253	Yes
H	Head Back to Backline	43.2 - 48.2	44	Yes
I	Shoulder to Elbow Length	276.8 - 297.2	289	Yes
J	Elbow Rest Height	182.8 - 203.2	191	Yes
K	Buttock Knee Length	520.7 - 546.1	532	Yes
L	Popliteal Height	355.6 - 376.0	360	Yes
M	Knee Pivot Height	393.7 - 419.1	403	Yes
N	Buttock Popliteal Length	414.0 - 439.4	418	Yes
O	Chest Depth without Jacket	175.3 - 190.5	186	Yes
P	Foot Length	218.5 - 233.7	221	Yes
R	Buttock to Knee Pivot Length	457.2 - 482.6	475	Yes
S	Head Breadth	137.1 - 147.3	141	Yes
T	Head Depth	177.8 - 188.0	184	Yes
U	Hip Breadth	299.7 - 314.9	309	Yes
V	Shoulder Breadth	350.5 - 365.7	357	Yes
W	Foot Breadth	78.8 - 94.0	88	Yes
X	Head Circumference	528.3 - 548.7	539	Yes
Y	Chest Circumference with Jacket	850.9 - 881.3	870	Yes
Z	Waist Circumference	759.5 - 789.9	781	Yes
AA	Reference Location for Chest Circumference	332.7 - 358.1	350	Yes
BB	Reference Location for Waist Circumference	160.0 - 170.2	165	Yes

Technician



Approved



Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 070 Certification No. 13-1

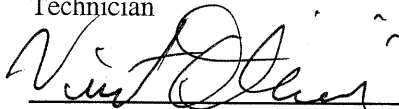
Test Date: 02/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	254.6 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-4.3 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

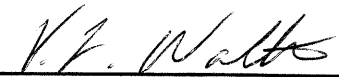
Test meets specifications.

Comments:

Technician



Approved

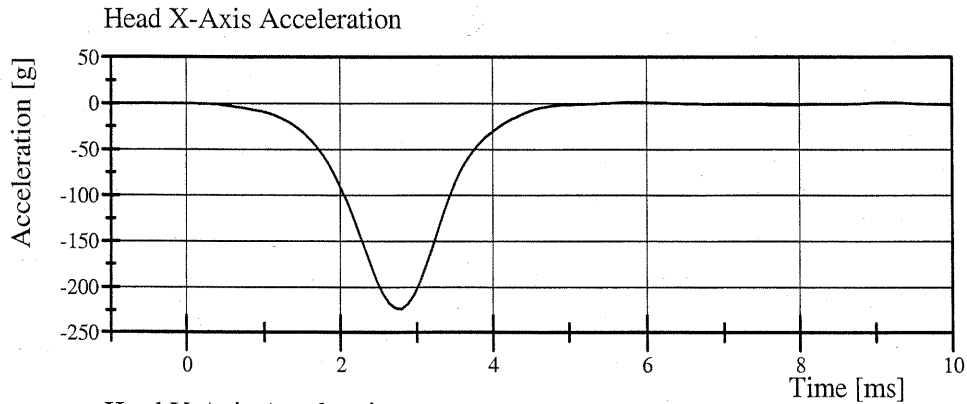


Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 070 Certification No. 13-1

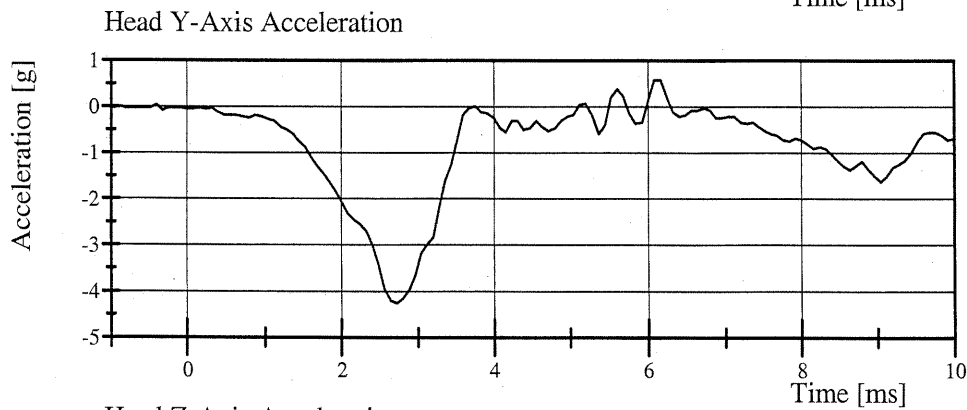
Test Date: 02/10/2006



Filter Class: CFC_1000

Max: 1.2 g at 5.8 ms

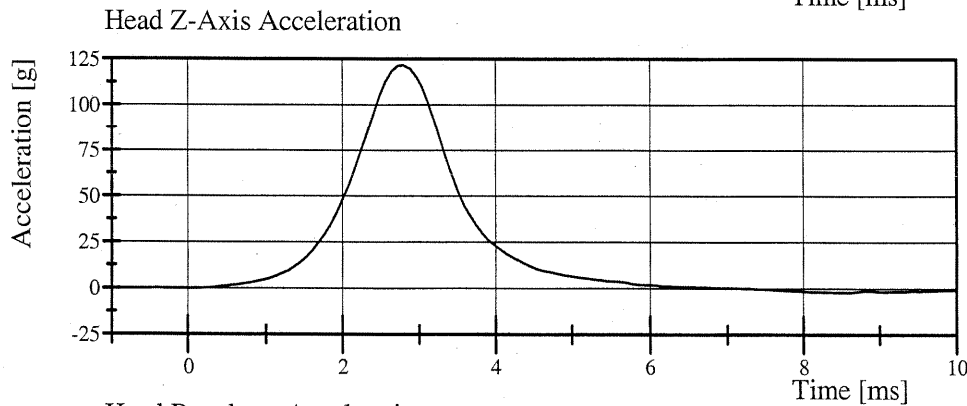
Min: -223.5 g at 2.8 ms



Filter Class: CFC_1000

Max: 0.6 g at 6.1 ms

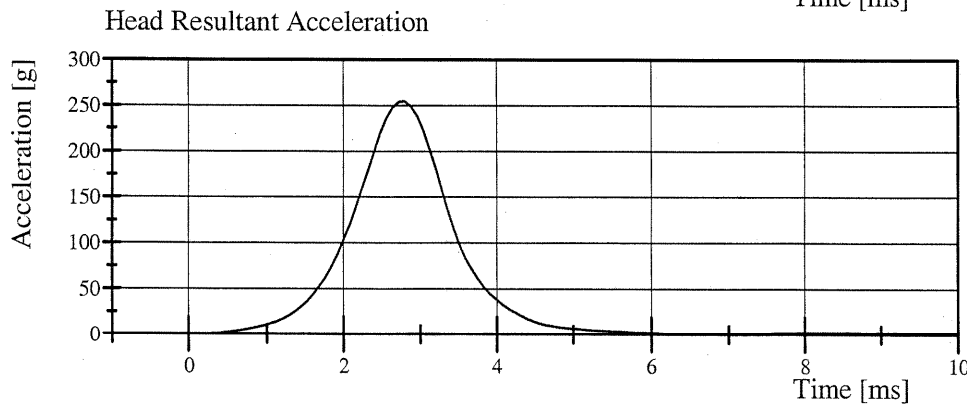
Min: -4.3 g at 2.7 ms



Filter Class: CFC_1000

Max: 121.8 g at 2.8 ms

Min: -2.2 g at 8.6 ms



Filter Class: CFC_1000

Max: 254.6 g at 2.8 ms

Min: 0.0 g at -0.6 ms

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 13-10

Test Date: 2/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	7.034 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	(-2.1) - (-2.5) m/s	-2.39 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	(-4.0) - (-5.0) m/s	-4.68 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	(-5.8) - (-7.0) m/s	-6.72 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-78.4 °	Yes
Total Neck Occipital Condyles Moment Between -77° and -91° Rotation	69 - 83 N·m	72.4 N·m	Yes
Total Neck Occipital Condyles Moment Decay to 10 N·m	80 - 100 ms	87.6 ms	Yes

Test meets specifications.

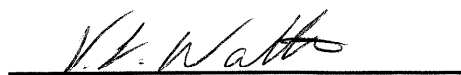
Comments:

Pre-test: new neck serial # 1953.

Technician



Approved

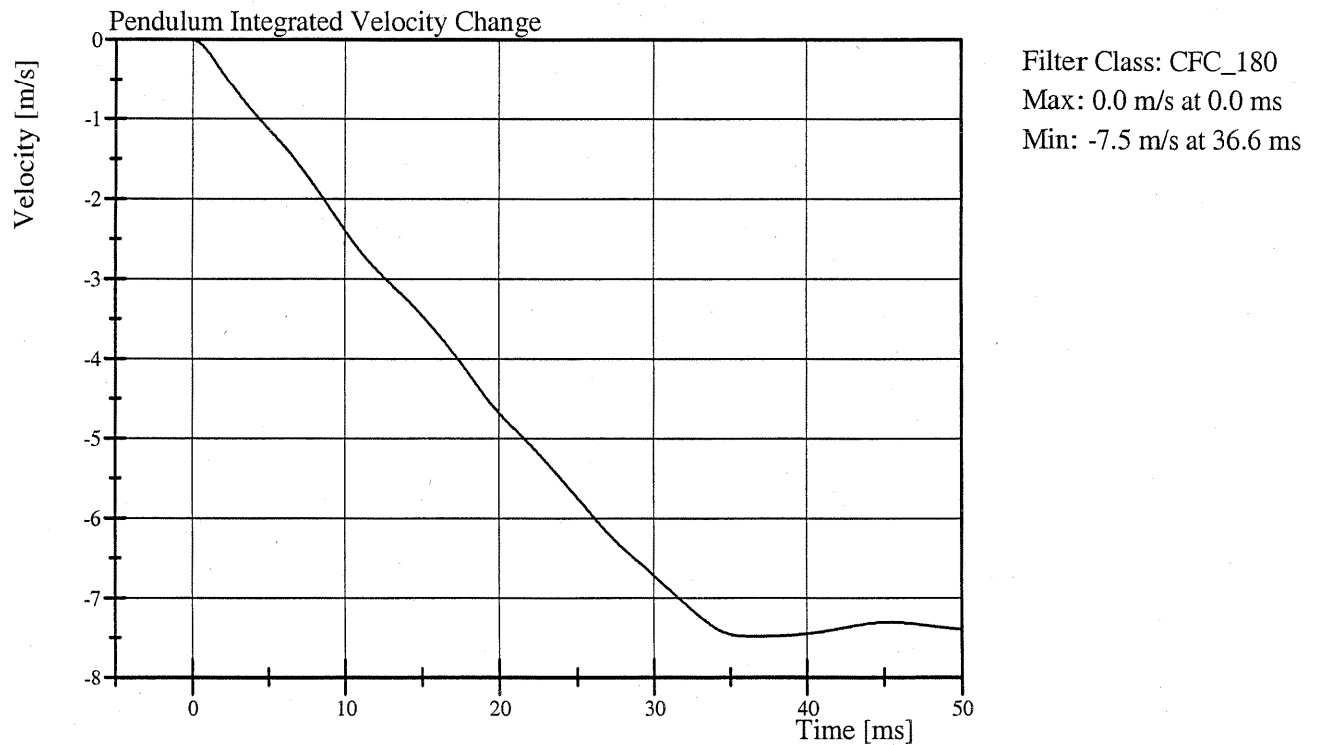
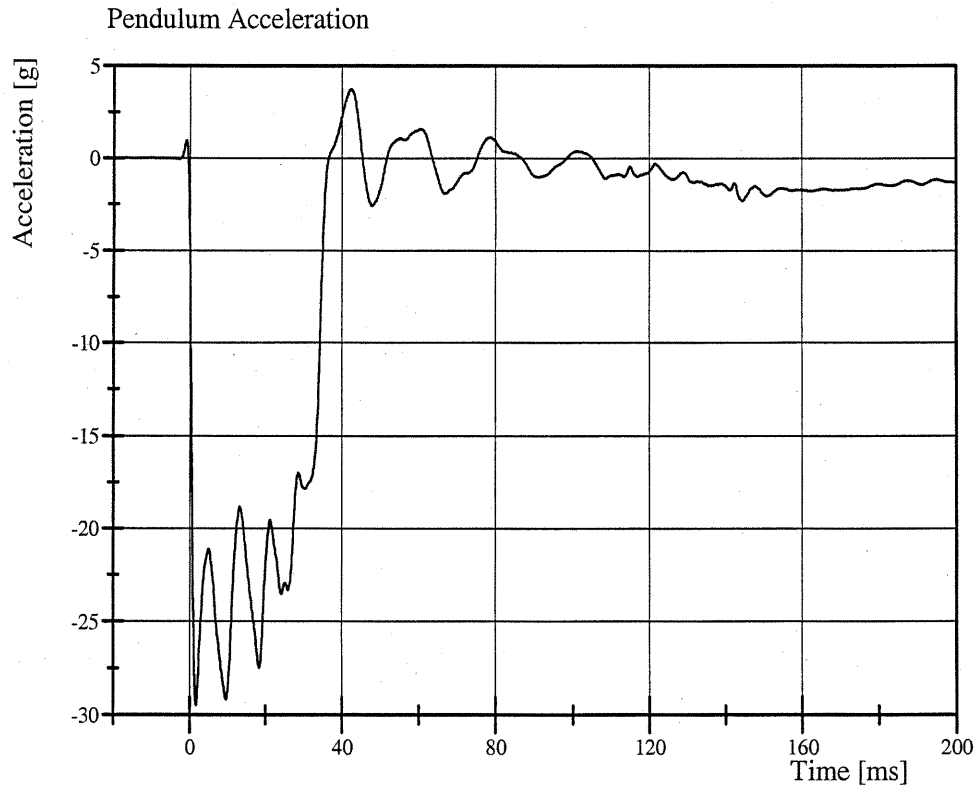


Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 13-10

Test Date: 2/17/2006



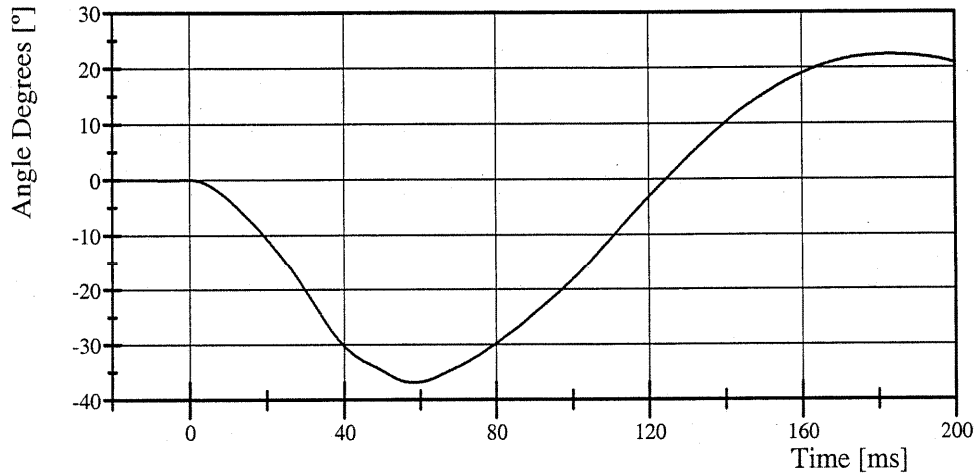
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 13-10

Test Date: 2/17/2006

Pot Rotation at the Base of Neck

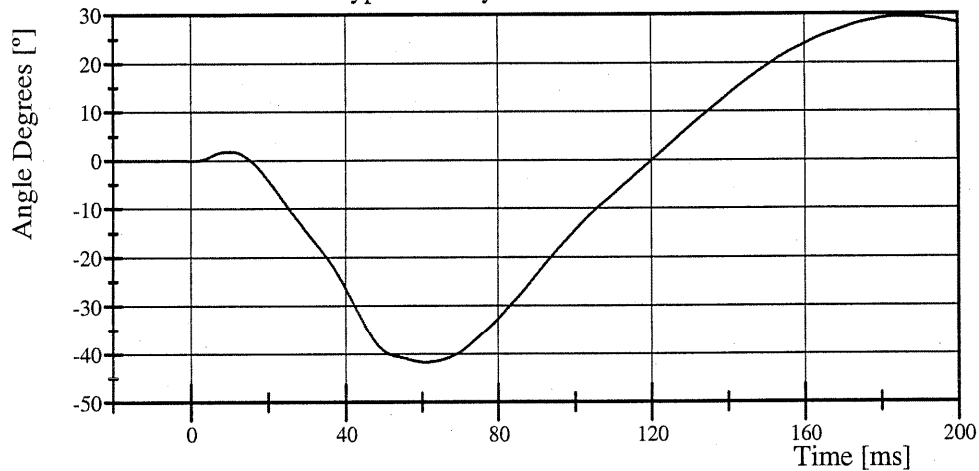


Filter Class: CFC_60

Max: 22.4 ° at 183.1 ms

Min: -36.8 ° at 58.2 ms

Head Rotation at Occypital Condyles

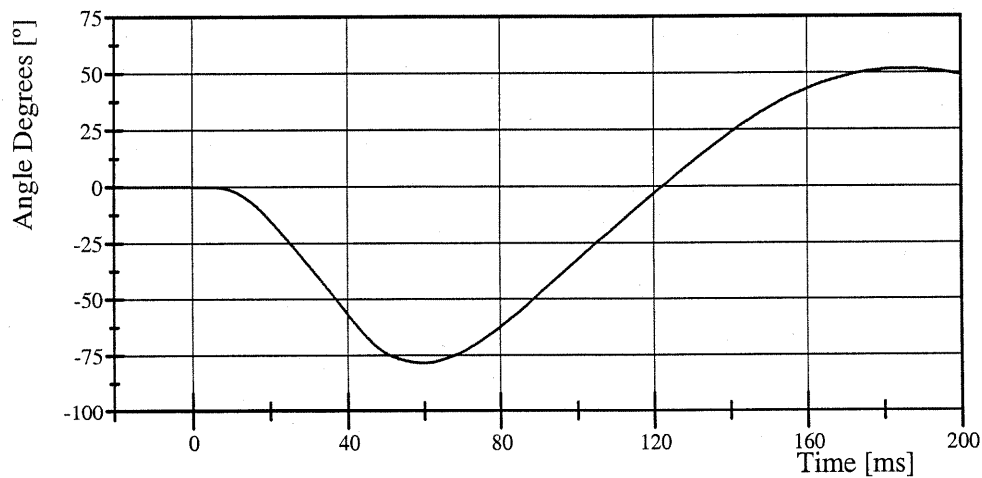


Filter Class: CFC_60

Max: 29.4 ° at 187.0 ms

Min: -41.7 ° at 61.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 51.8 ° at 184.6 ms

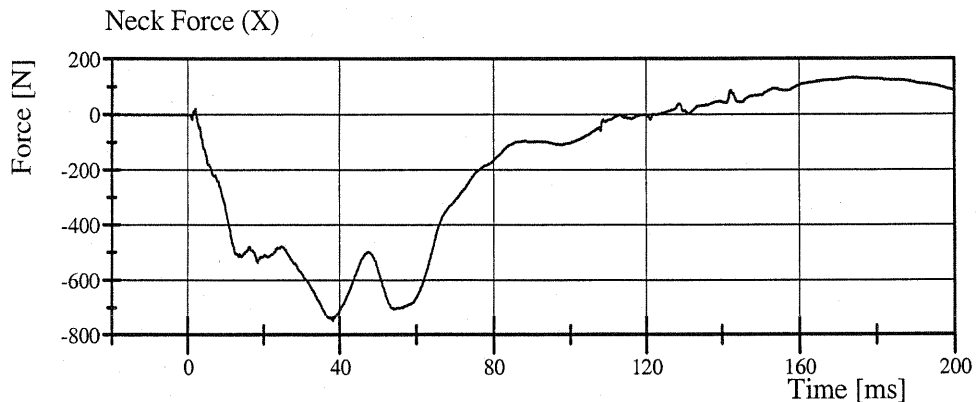
Min: -78.4 ° at 59.8 ms

Transportation Research Center Inc.

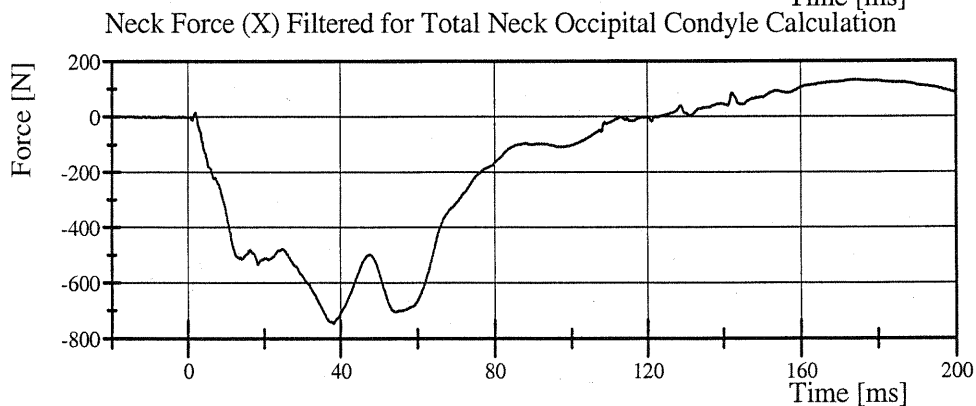
Neck Flexion

HIII 5th Serial No. 070 Certification No. 13-10

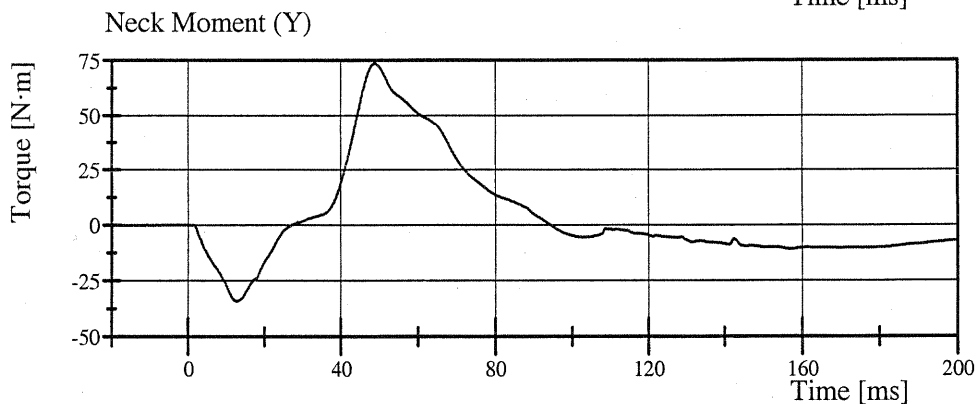
Test Date: 2/17/2006



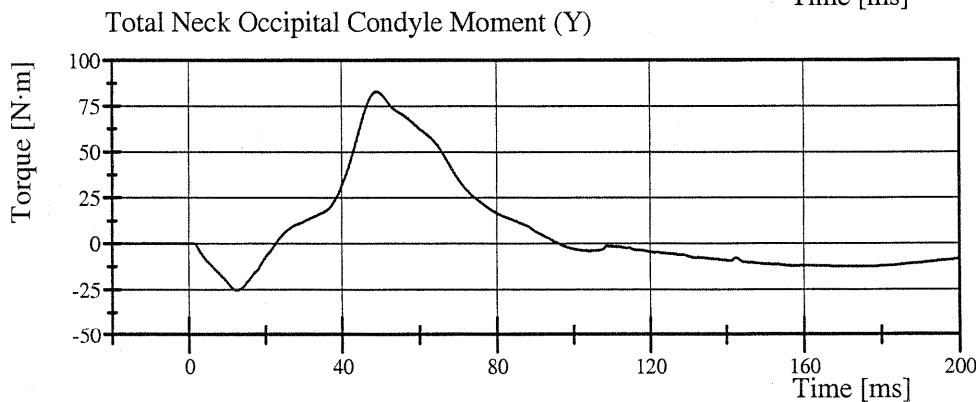
Filter Class: CFC_1000
Max: 133.1 N at 173.8 ms
Min: -749.5 N at 38.1 ms



Filter Class: CFC_600
Max: 133.0 N at 175.0 ms
Min: -744.8 N at 38.0 ms



Filter Class: CFC_600
Max: 73.6 N·m at 48.9 ms
Min: -34.2 N·m at 12.6 ms



Filter Class: CFC_600
Max: 82.9 N·m at 49.1 ms
Min: -25.2 N·m at 12.5 ms

Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 13-1

Test Date: 2/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Pendulum Velocity	(-5.95) - (-6.19) m/s	-6.042 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	1.5 - 1.9 m/s	1.82 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	3.1 - 3.9 m/s	3.55 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	4.6 - 5.6 m/s	5.18 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	104.8 °	Yes
Total Neck Occipital Condyles Moment Between 99° and 114° Rotation	(-53) - (-65) N·m	-55.9 N·m	Yes
Total Neck Occipital Condyles Moment Decay to -10 N·m	94 - 114 ms	104.7 ms	Yes

Test meets specifications.

Comments:

Pre-test: new neck serial # 1953.

Technician



Approved

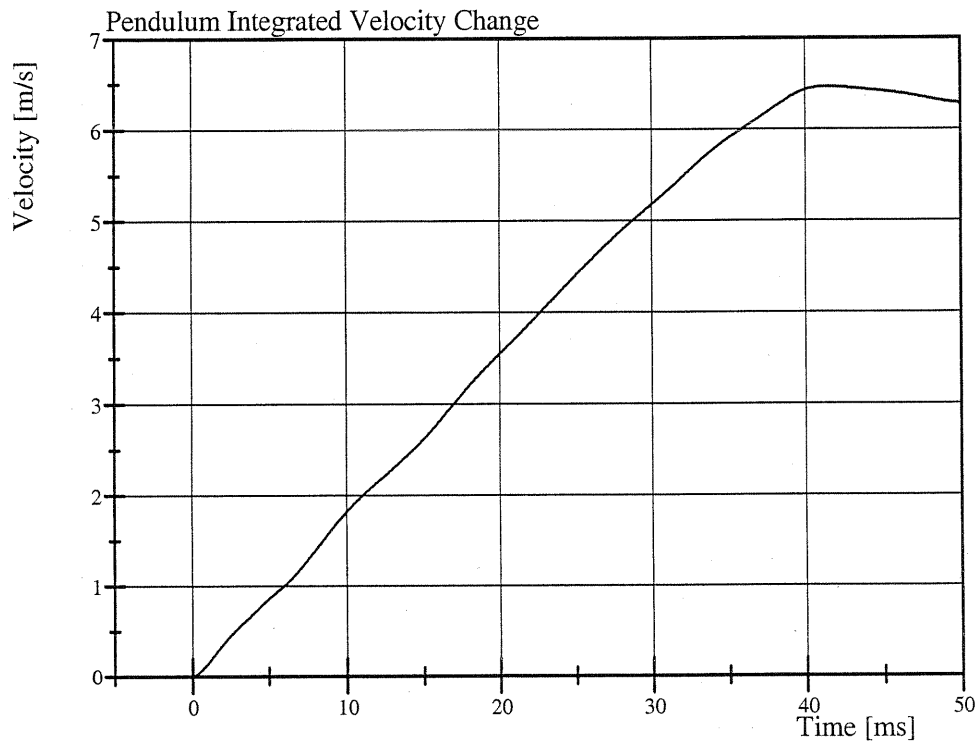
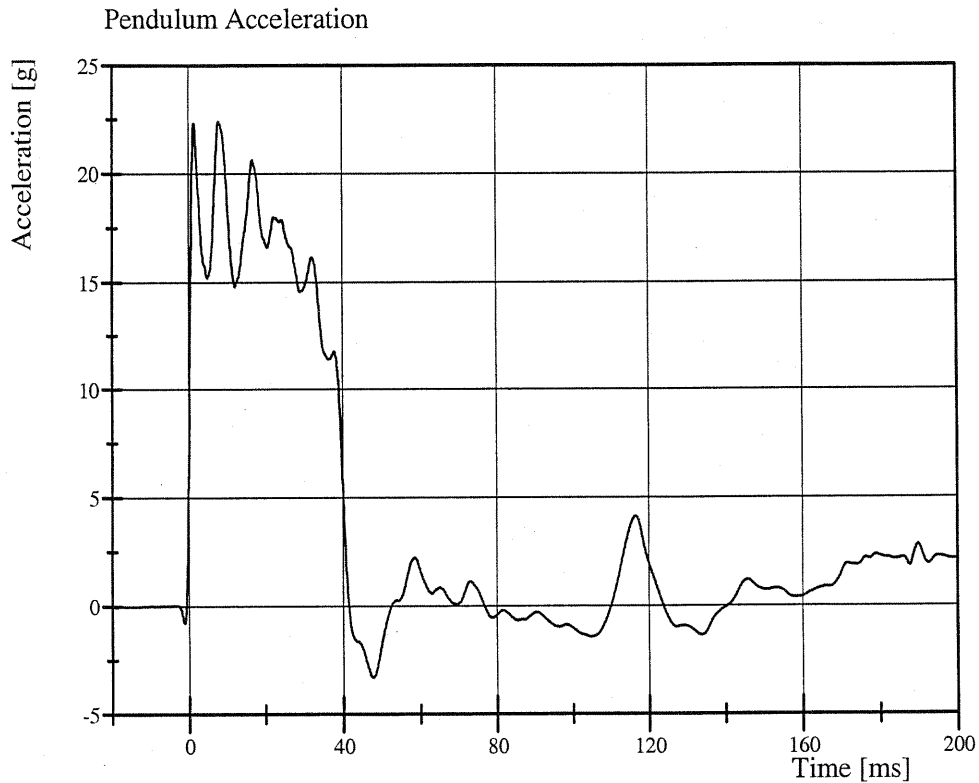


Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 13-1

Test Date: 2/17/2006



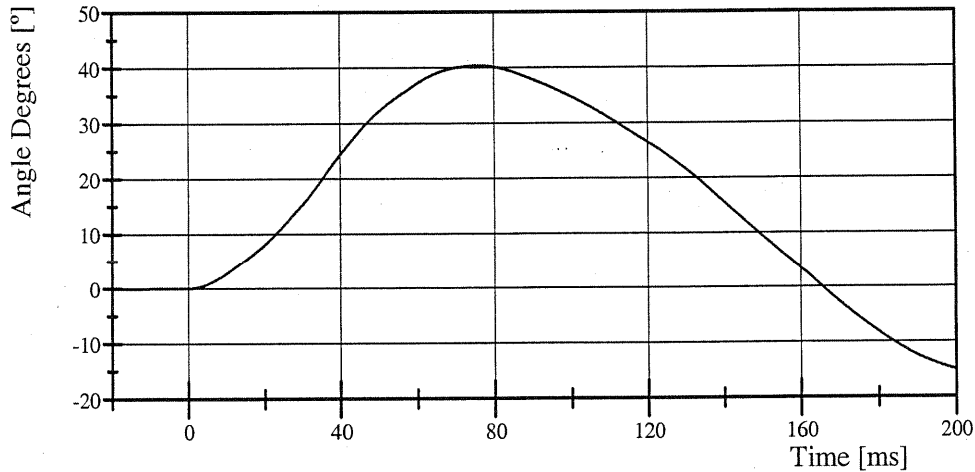
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 13-1

Test Date: 2/17/2006

Pot Rotation at the Base of Neck

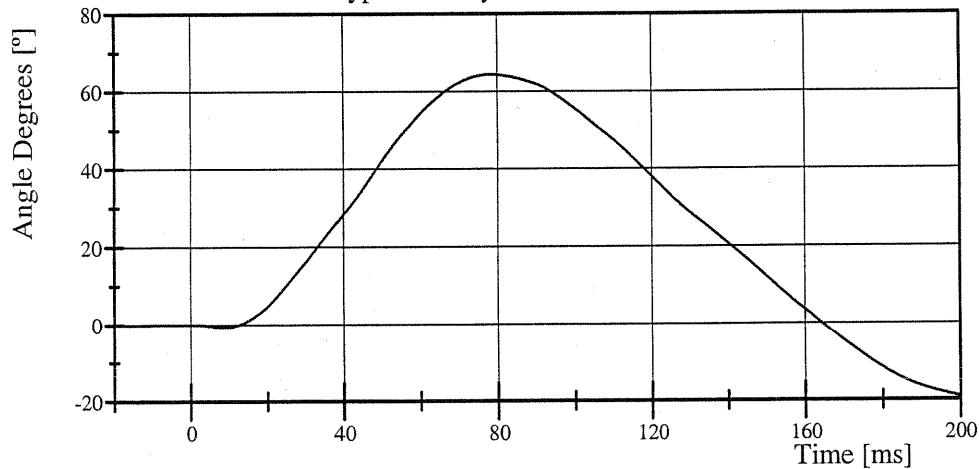


Filter Class: CFC_60

Max: 40.4 ° at 76.0 ms

Min: -15.0 ° at 200.0 ms

Head Rotation at Occypital Condyles

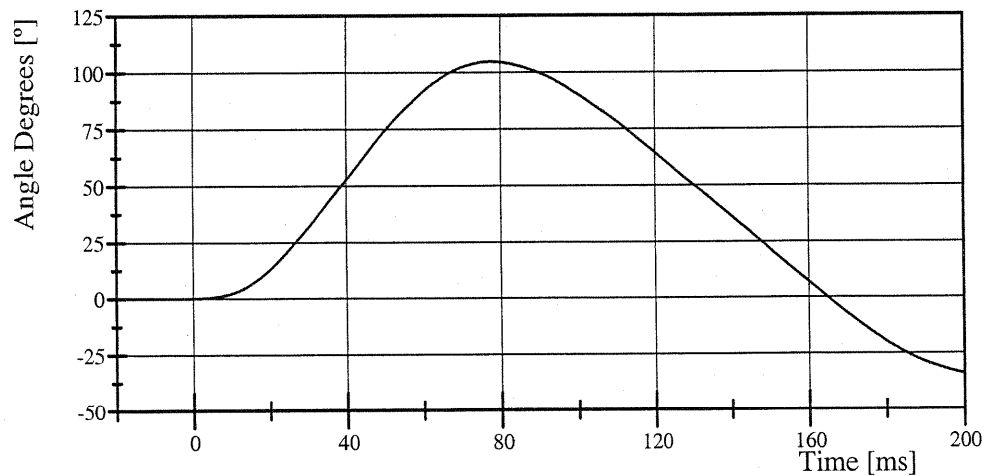


Filter Class: CFC_60

Max: 64.4 ° at 78.4 ms

Min: -19.1 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 104.8 ° at 77.4 ms

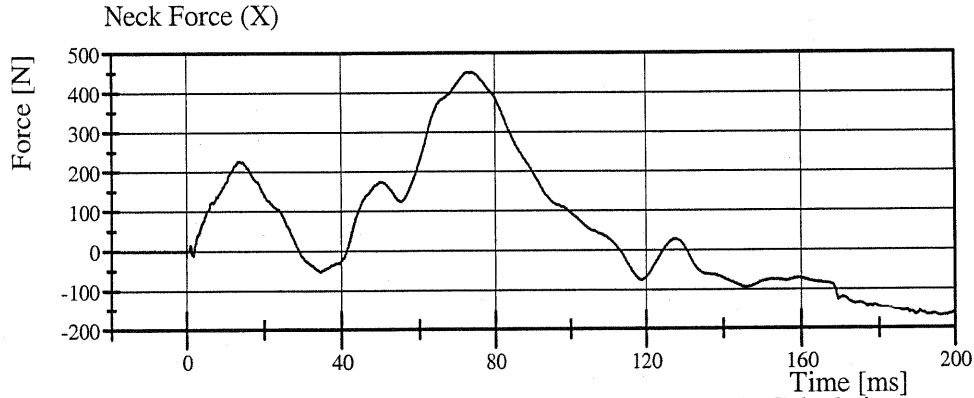
Min: -34.1 ° at 200.0 ms

Transportation Research Center Inc.

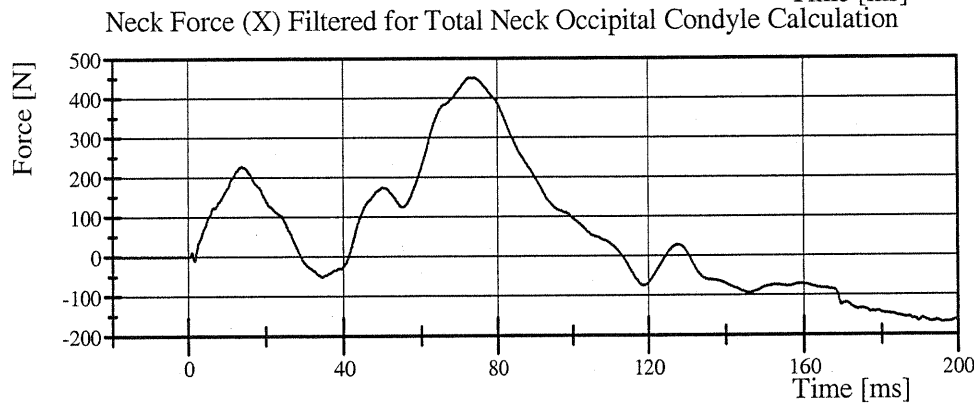
Neck Extension

HIII 5th Serial No. 070 Certification No. 13-1

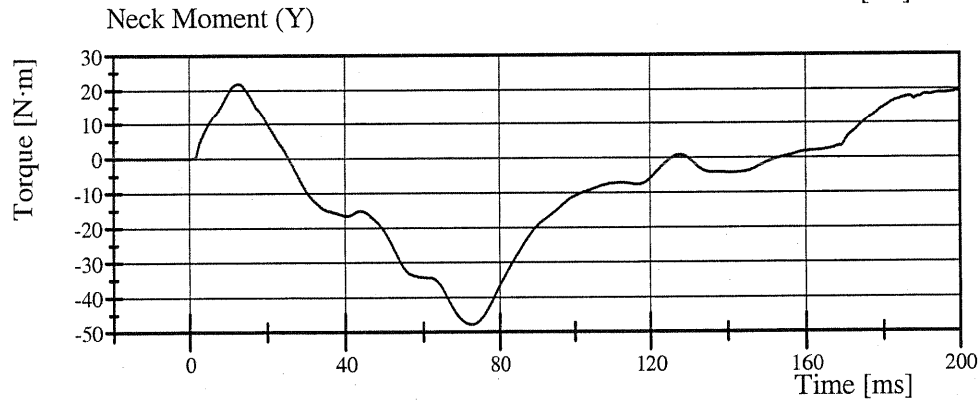
Test Date: 2/17/2006



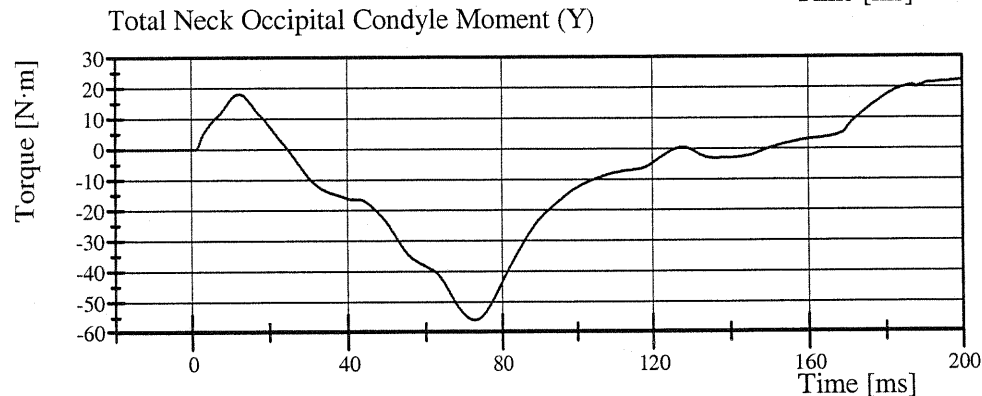
Filter Class: CFC_1000
Max: 452.3 N at 73.8 ms
Min: -169.5 N at 196.2 ms



Filter Class: CFC_600
Max: 451.8 N at 73.8 ms
Min: -168.9 N at 196.1 ms



Filter Class: CFC_600
Max: 21.8 N·m at 12.5 ms
Min: -47.8 N·m at 72.8 ms



Filter Class: CFC_600
Max: 22.3 N·m at 200.0 ms
Min: -55.9 N·m at 72.8 ms

Transportation Research Center Inc.

Front Thorax

HHH 5th Serial No. 070 Certification No. 13-1

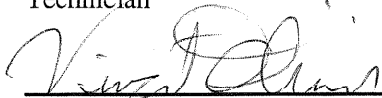
Test Date: 2/14/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.662 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,145.7 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	>= (-4,600) N	-4,148.6 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-52.8 mm	Yes
Internal Hysteresis	69 - 85 %	74.3 %	Yes

Test meets specifications.

Comments:

Technician



Approved



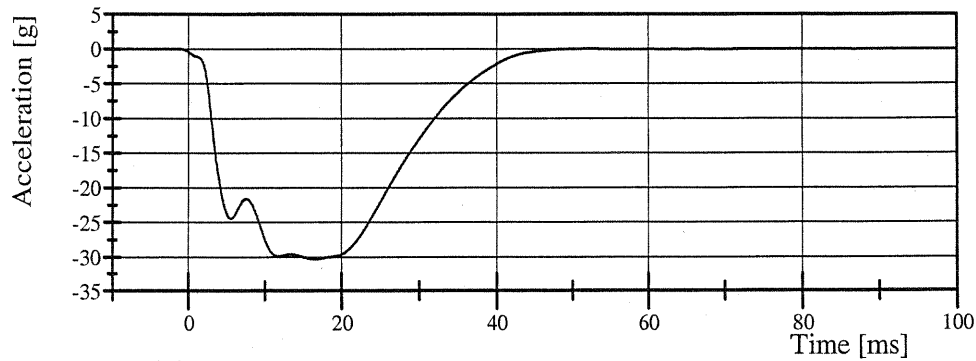
Transportation Research Center Inc.

Front Thorax

HIH 5th Serial No. 070 Certification No. 13-1

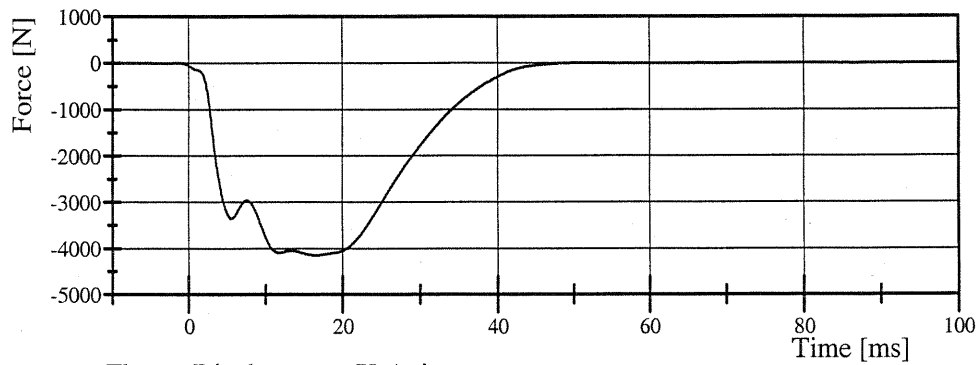
Test Date: 2/14/2006

Pendulum Acceleration



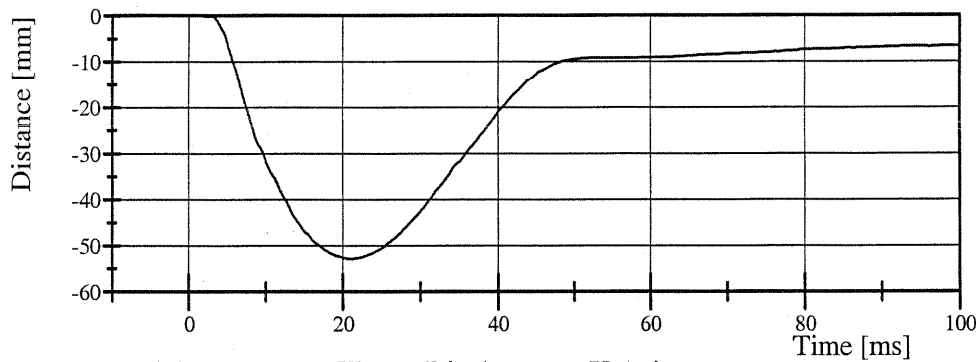
Filter Class: CFC_180
Max: 0.0 g at 52.0 ms
Min: -30.3 g at 16.6 ms

Pendulum Force



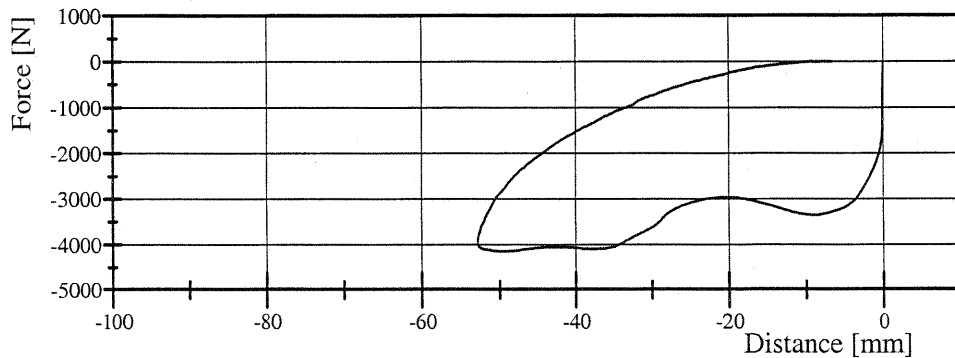
Filter Class: CFC_180
Max: 4.6 N at 52.0 ms
Min: -4,148.6 N at 16.6 ms

Thorax Displacement X-Axis



Filter Class: CFC_600
Max: 0.0 mm at -8.8 ms
Min: -52.8 mm at 21.2 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180
Max: 4.6 N at -9.2 mm
Min: -4,148.6 N at -49.5 mm

TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

CAL DATE: 10-Feb-06

TRC, INC. TEST NO: 070C13TF3 572 O SN070 TORSO FLEX CAL 13

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6 – 22.2° C	21.0° C
RELATIVE HUMIDITY	10 – 70 %	27 %
INITIAL ANGLE OF UNSUPPORTED DUMMY	<= 20° REFERENCED TO VERTICAL	18.4 °
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	320 – 390 N	368.2 N
RETURN ANGLE		21.1 °
DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE	+/- 8 ° OF INTIAL ANGLE	2.7 °
RATE	0.5° - 1.5°/sec	0.99 °/sec

TEST MEETS SPECIFICATIONS

Comments: Spine Torque @ 12 in-lbs

TECHNICIAN



Transportation Research Center Inc.

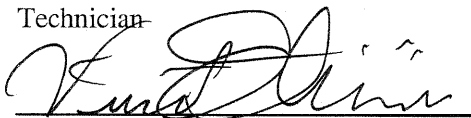
Left Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 13-2
Test Date: 02/13/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.109 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,655.3 N	Yes

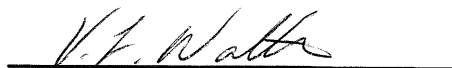
Test meets specifications.

Comments:

Technician

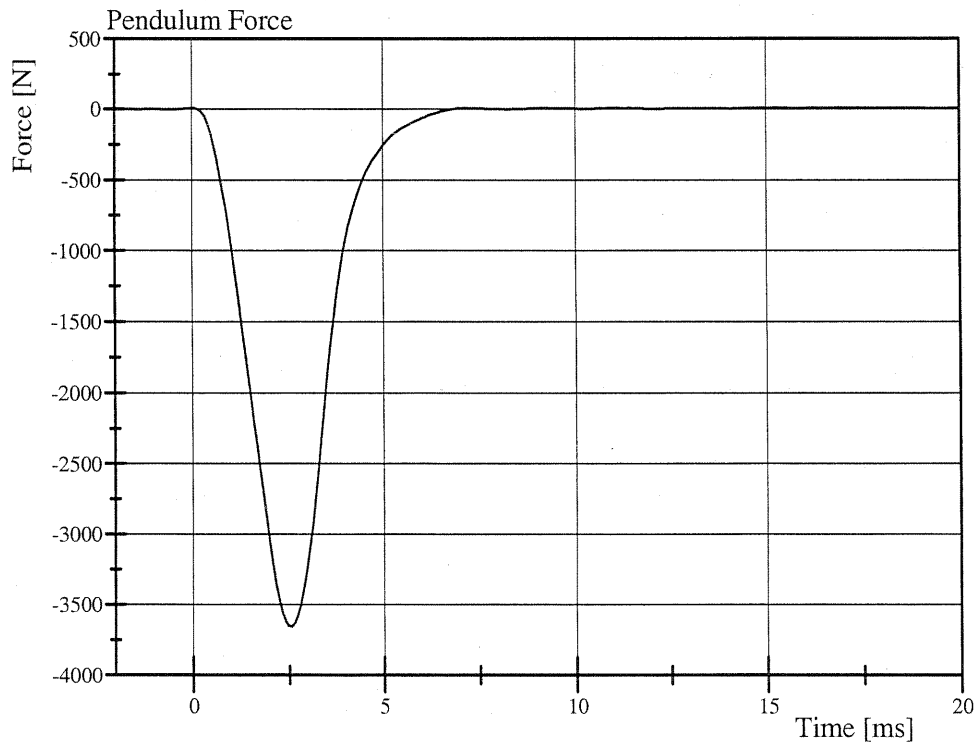
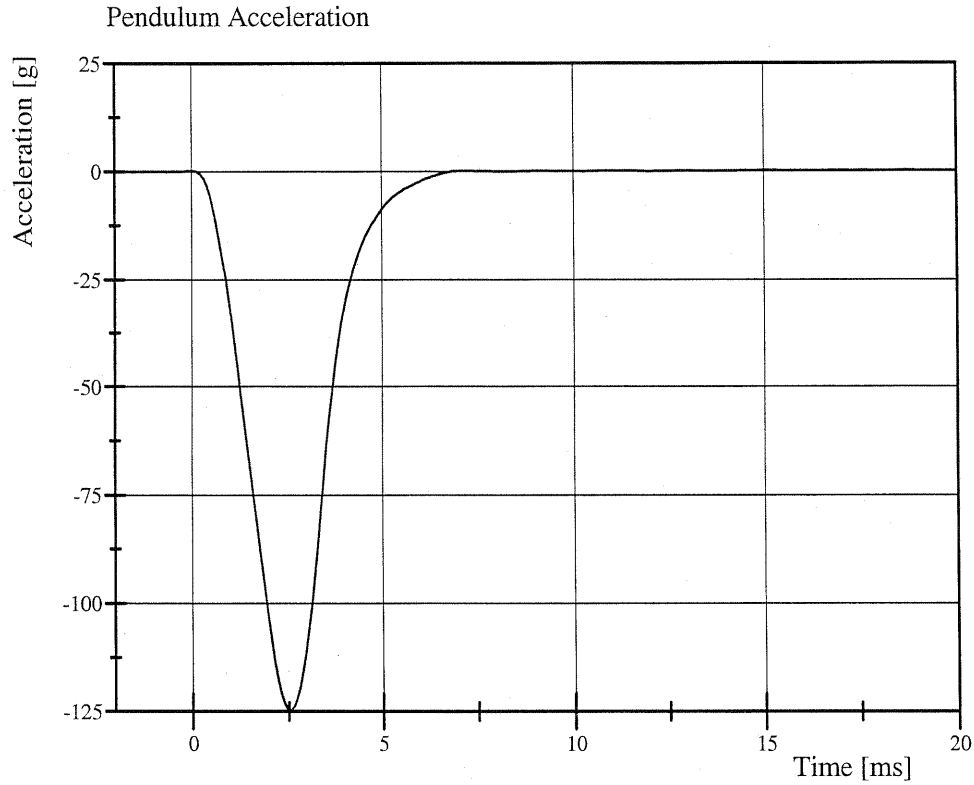


Approved



Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 13-2
Test Date: 02/13/2006



Transportation Research Center Inc.

Right Knee Femur Response Test

HIH 5th Serial No. 070 Certification No. 13-1

Test Date: 02/09/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	26 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.095 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,580.5 N	Yes

Test meets specifications.

Comments:

Technician

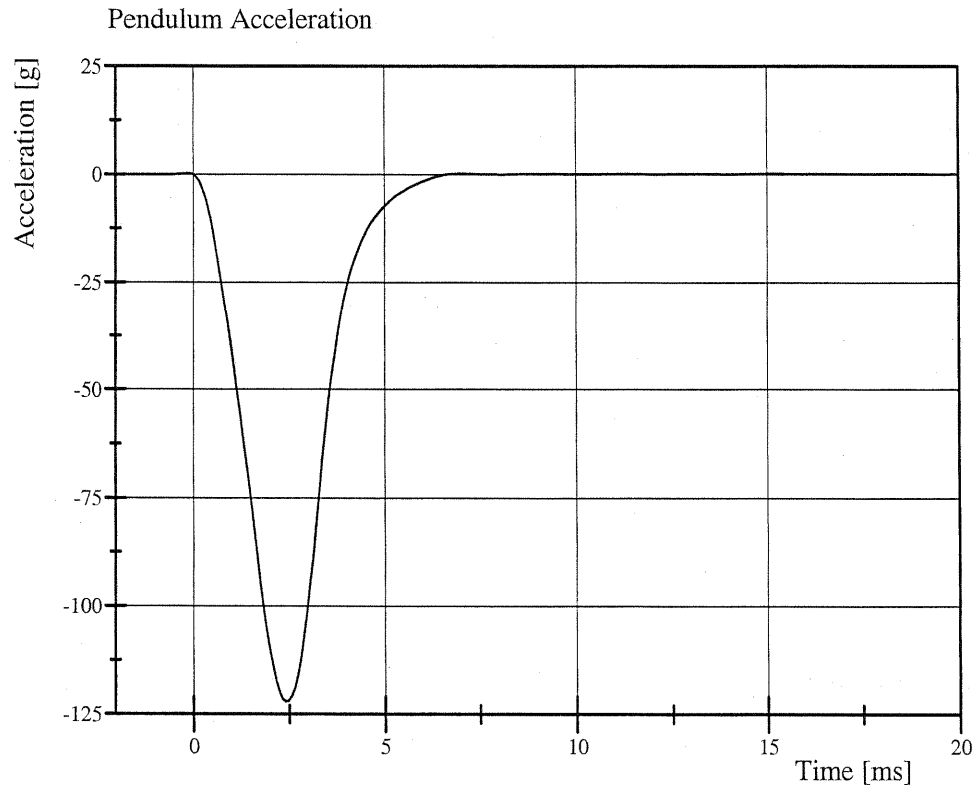


Approved

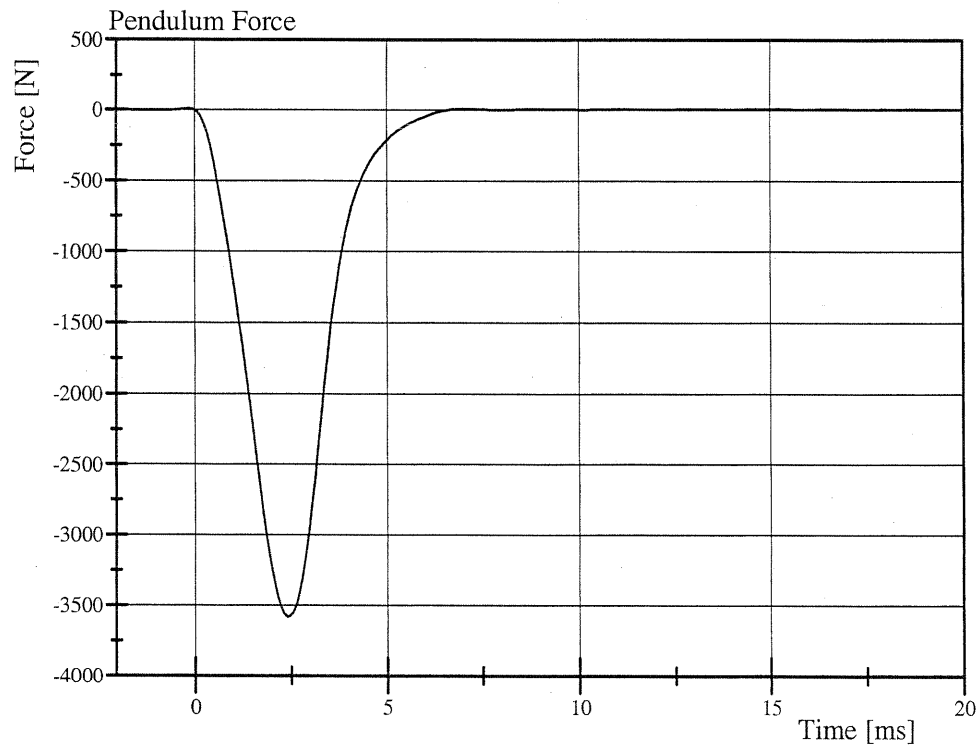


Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 13-1
Test Date: 02/09/2006



Filter Class: CFC_600
Max: 0.3 g at -0.2 ms
Min: -122.1 g at 2.4 ms



Filter Class: CFC_600
Max: 7.9 N at -0.2 ms
Min: -3,580.5 N at 2.4 ms

Appendix D

Test Equipment and Instrumentation Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers:

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

Potentiometers:

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

Rotation potentiometers:

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

Load cells:

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

Neck load cells:

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

Tibia load cells:

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

Frequency Response Classes
SAE J211 MAR95

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

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

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
1	Trig D1	20ZERO000000EV00	TARGET EVENT		1 Logic	+	Bipolar	
2	J36743	21HEADCG00H3ACXA	Head Accel X	1000	g	+	Forward	1-110 HIII 50th FTSS.001
3	99102-F15	21HEADCG00H3ACYA	Head Accel Y	1000	g	-	Left	1-110 HIII 50th FTSS.002
4	J19227	21HEADCG00H3ACZA	Head Accel Z	1000	g	-	Up	1-110 HIII 50th FTSS.003
5	J27490	21HEADFR00H3ACYA	Head (FT) Accel Y	1000	g	-	Left	1-110 HIII 50th FTSS.004
6	03E03E21-M21	21HEADFR00H3ACZA	Head (FT) Accel Z	1000	g	-	Up	1-110 HIII 50th FTSS.005
7	00L13-F14	21HEADUP00H3ACXA	Head (TP) Accel X	1000	g	+	Forward	1-110 HIII 50th FTSS.006
8	99H12-F08	21HEADUP00H3ACYA	Head (TP) Accel Y	1000	g	-	Left	1-110 HIII 50th FTSS.007
9	03E03E20-N01	21HEADLE00H3ACXA	Head (LT) Accel X	1000	g	+	Forward	1-110 HIII 50th FTSS.008
10	03D03D16-F14	21HEADLE00H3ACZA	Head (LT) Accel Z	1000	g	-	Up	1-110 HIII 50th FTSS.009
11	1716A-1039-FX	21NECKUP00H3FOXA	Neck Force X	8896.4	N	-	Head forward, chest rearward	1-110 HIII 50th FTSS.010
12	1716A-1039-FY	21NECKUP00H3FOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	1-110 HIII 50th FTSS.011
13	1716A-1039-FZ	21NECKUP00H3FOZA	Neck Force Z	13344	N	+	Head upward, chest downward	1-110 HIII 50th FTSS.012
14	1716A-1039-MX	21NECKUP00H3MOXA	Neck Moment X	282	N-m	-	Right ear toward right shoulder	1-110 HIII 50th FTSS.013
15	1716A-1039-MY	21NECKUP00H3MOYA	Neck Moment Y	282	N-m	+	Chin toward sternum	1-110 HIII 50th FTSS.014
16	1716A-1039-MZ	21NECKUP00H3MOZA	Neck Moment Z	282	N-m	+	Chin toward left shoulder	1-110 HIII 50th FTSS.015
17	1794A-215-FX	21NECKLO00H3FOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	1-110 HIII 50th FTSS.016
18	1794A-215-FY	21NECKLO00H3FOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	1-110 HIII 50th FTSS.017
19	1794A-215-FZ	21NECKLO00H3FOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	1-110 HIII 50th FTSS.018
20	1794A-215-MX	21NECKLO00H3MOXA	Neck Lower Moment X	452	N-m	-	Right ear toward right shoulder	1-110 HIII 50th FTSS.019
21	1794A-215-MY	21NECKLO00H3MOYA	Neck Lower Moment Y	452	N-m	+	Chin toward sternum	1-110 HIII 50th FTSS.020
22	1794A-215-MZ	21NECKLO00H3MOZA	Neck Lower Moment Z	452	N-m	+	Chin toward left shoulder	1-110 HIII 50th FTSS.021
23	AJ534	21CHSTCG00H3ACXA	Chest Accel X	1000	g	+	Forward	1-110 HIII 50th FTSS.022
24	J17976	21CHSTCG00H3ACYA	Chest Accel Y	1000	g	-	Left	1-110 HIII 50th FTSS.023
25	J32884	21CHSTCG00H3ACZA	Chest Accel Z	1000	g	-	Up	1-110 HIII 50th FTSS.024
26	02102110-N15	21CHSTCGRDH3ACXA	Chest Accel X Red.	1000	g	-	Rearward	1-110 HIII 50th FTSS.025

D-5

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
27	02D02C21-N02	21CHSTCGRDH3ACYA	Chest Accel Y Red.	1000	g	-	Left	1-110 HIII 50th FTSS.026
28	98H10-F18	21CHSTCGRDH3ACZA	Chest Accel Z Red.	1000	g	-	Up	1-110 HIII 50th FTSS.027
29	CST110	21CHST0000H3DSXA	Chest Deflection X	100	mm	-	Rearward	1-110 HIII 50th FTSS.028
30	J23803	21PELVCG00H3ACXA	Pelvis Accel X	600	g	-	Rearward	1-110 HIII 50th FTSS.029
31	J32180	21PELVCG00H3ACYA	Pelvis Accel Y	600	g	-	Left	1-110 HIII 50th FTSS.030
32	J20556	21PELVCG00H3ACZA	Pelvis Accel Z	600	g	-	Up	1-110 HIII 50th FTSS.031
33	2121A-1396	21FEMRLL00H3FOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	1-110 HIII 50th FTSS.032
34	2121A-1397	21FEMRRL00H3FOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	1-110 HIII 50th FTSS.033
35	150-0121VL-14696	21KNSLLE00H3DSXA	Left Knee Displacement X	21.8	mm	-	Hold femur in place, tibia	1-LX116-117.001
36	4353J-97-FX	21TIBILULXH3FOXA	Left Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	1-LX116-117.002
37	4353J-97-FZ	21TIBILULXH3FOZA	Left Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX116-117.003
38	4353J-97-MX	21TIBILULXH3MOXA	Left Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.004
39	4353J-97-MY	21TIBILULXH3MOYA	Left Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.005
40	02I02110-N28	21TIBILELXH3ACXA	Left Tibia Accel X	1000	g	+	Forward	1-LX116-117.006
41	01G25-N01	21TIBILELXH3ACYA	Left Tibia Accel Y	1000	g	+	Right	1-LX116-117.007
42	4929J-80-FX	21TIBILLLXH3FOXA	Left Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	1-LX116-117.008
43	4929J-80-FY	21TIBILLLXH3FOYA	Left Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	1-LX116-117.009
44	4929J-80-FZ	21TIBILLLXH3FOZA	Left Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX116-117.010
45	4929J-80-MX	21TIBILLLXH3MOXA	Left Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.011
46	4929J-80-MY	21TIBILLLXH3MOYA	Left Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.012
47	PD210-4B-60	21FOOTLELXH3ANXA	Left Foot Angular Dis. X LX117X	166.2	°	+	Eversion	1-LX116-117.013
48	PD210-4B-61	21FOOTLELXH3ANYA	Left Foot Angular Dis. Y LX117Y	165.4	°	+	Dorsiflexion	1-LX116-117.014
49	PD210-4B-62	21FOOTLELXH3ANZA	Left Foot Angular Dis. Z LX117Z	165.2	°	+	Internal rotation	1-LX116-117.015
50	02A04-A24	21FOOTLELXH3ACXA	Left Foot Accel X	1000	g	+	Forward	1-LX116-117.016
51	03E03E18-F22	21FOOTLELXH3ACYA	Left Foot Accel Y	1000	g	+	Right	1-LX116-117.017
52	03E03E20-N06	21FOOTLELXH3ACZA	Left Foot Accel Z	1000	g	+	Down	1-LX116-117.018

D-6

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
53	150-0121VL-14672	21KNSLRIO0H3DSXA	Right Knee Displacement X	21.8	mm	-	Hold femur in place, tibia	1-LX116-117.019
54	4353J-79-FX	21TIBIRULXH3FOXA	Right Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	1-LX116-117.020
55	4353J-79-FZ	21TIBIRULXH3FOZA	Right Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX116-117.021
56	4353J-79-MX	21TIBIRULXH3MOXA	Right Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.022
57	4353J-79-MY	21TIBIRULXH3MOYA	Right Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.023
58	J32157	21TIBIRILXH3ACXA	Right Tibia Accel X	1000	g	+	Forward	1-LX116-117.024
59	P16171	21TIBIRILXH3ACYA	Right Tibia Accel Y	1000	g	+	Right	1-LX116-117.025
60	4929J-79-FX	21TIBIRLLXH3FOXA	Right Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	1-LX116-117.026
61	4929J-79-FY	21TIBIRLLXH3FOYA	Right Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	1-LX116-117.027
62	4929J-79-FZ	21TIBIRLLXH3FOZA	Right Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX116-117.028
63	4929J-79-MX	21TIBIRLLXH3MOXA	Right Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.029
64	4929J-79-MY	21TIBIRLLXH3MOYA	Right Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.030
65	PD210-4B-338	21FOOTRILXH3ANXA	Right Foot Angular Dis. X LX116X	164	°	+	Inversion	1-LX116-117.031
66	PD210-4B-58	21FOOTRILXH3ANYA	Right Foot Angular Dis. Y LX116Y	165	°	+	Dorsiflexion	1-LX116-117.032
67	PD210-4B-339	21FOOTRILXH3ANZA	Right Foot Angular Dis. Z LX116Z	165	°	+	External rotation	1-LX116-117.033
68	04J04J07-M01	21FOOTRILXH3ACXA	Right Foot Accel X	1000	g	+	Forward	1-LX116-117.034
69	02I02I16-A20	21FOOTRILXH3ACYA	Right Foot Accel Y	1000	g	+	Right	1-LX116-117.035
70	P49870	21FOOTRILXH3ACZA	Right Foot Accel Z	1000	g	+	Down	
71	03E03E20-N20	23HEADCG00HFACXA	Head Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.001
72	02A18-N10	23HEADCG00HFACYA	Head Accel Y	1000	g	-	Left	3-416 HIII 5th FTSS.002
73	02A09-F15	23HEADCG00HFACZA	Head Accel Z	1000	g	-	Up	3-416 HIII 5th FTSS.003
74	01L26-F02	23HEADCGRDHFACXA	Head Accel Red X	1000	g	-	Rearward	3-416 HIII 5th FTSS.004
75	02A09-F13	23HEADCGRDHFACYA	Head Accel Red Y	1000	g	-	Left	3-416 HIII 5th FTSS.005
76	02A16-A06	23HEADCGRDHFACZA	Head Accel Red Z	1000	g	-	Up	3-416 HIII 5th FTSS.006
77	02A18-N04	23HEADFR00HFACYA	Head (FT) Accel Y	1000	g	-	Left	3-416 HIII 5th FTSS.007
78	02A18-N20	23HEADFR00HFACZA	Head (FT) Accel Z	1000	g	-	Up	3-416 HIII 5th FTSS.008
79	03F03F09-N05	23HEADUP00HFACXA	Head (TP) Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.009
80	98H14-K10	23HEADUP00HFACYA	Head (TP) Accel Y	1000	g	-	Left	3-416 HIII 5th FTSS.010

D-7

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
81	02A16-A19	23HEADLE00HFACXA	Head (LT) Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.011
82	02A16-A22	23HEADLE00HFACZA	Head (LT) Accel Z	1000	g	-	Up	3-416 HIII 5th FTSS.012
83	IF-205-161-FX	23NECKUP00HFFOXA	Neck Force X	8896	N	-	Head forward, chest rearward	3-416 HIII 5th FTSS.013
84	IF-205-161-FY	23NECKUP00HFFOYA	Neck Force Y	8896	N	+	Head leftward, chest rightward	3-416 HIII 5th FTSS.014
85	IF-205-161-FZ	23NECKUP00HFFOZA	Neck Force Z	13344	N	+	Head upward, chest downward	3-416 HIII 5th FTSS.015
86	IF-205-161-MX	23NECKUP00HFMOXA	Neck Moment X	282	N-m	-	Right ear toward right shoulder	3-416 HIII 5th FTSS.016
87	IF-205-161-MY	23NECKUP00HFMOYA	Neck Moment Y	282	N-m	+	Chin toward sternum	3-416 HIII 5th FTSS.017
88	IF-205-161-MZ	23NECKUP00HFMOZA	Neck Moment Z	282	N-m	+	Chin toward left shoulder	3-416 HIII 5th FTSS.018
89	3251-108-FX	23NECKLO00HFFOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	3-416 HIII 5th FTSS.019
90	3251-108-FY	23NECKLO00HFFOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	3-416 HIII 5th FTSS.020
91	3251-108-FZ	23NECKLO00HFFOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	3-416 HIII 5th FTSS.021
92	3251-108-MX	23NECKLO00HFMOXA	Neck Lower Moment X	452	N-m	-	Right ear toward right shoulder	3-416 HIII 5th FTSS.022
93	3251-108-MY	23NECKLO00HFMOYA	Neck Lower Moment Y	452	N-m	+	Chin toward sternum	3-416 HIII 5th FTSS.023
94	3251-108-MZ	23NECKLO00HFMOZA	Neck Lower Moment Z	339	N-m	+	Chin toward left shoulder	3-416 HIII 5th FTSS.024
95	02A16-A04	23CHSTCG00HFACXA	Chest Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.025
96	C02B19-F02	23CHSTCG00HFACYA	Chest Accel Y	1000	g	-	Left	3-416 HIII 5th FTSS.026
97	C02B19-F06	23CHSTCG00HFACZA	Chest Accel Z	1000	g	-	Up	3-416 HIII 5th FTSS.027
98	B02A25-N08	23CHSTCGRDHFACXA	Chest Accel Red X	1000	g	-	Rearward	3-416 HIII 5th FTSS.028
99	03E03E19-N02	23CHSTCGRDHFACYA	Chest Accel Red Y	1000	g	-	Left	3-416 HIII 5th FTSS.029
100	C02B19-F04	23CHSTCGRDHFACZA	Chest Accel Red Z	1000	g	-	Up	3-416 HIII 5th FTSS.030
101	B02A09-F08	23STRNUP00HFACXA	Sternum Upper Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.031
102	02A16-A05	23STRNMI00HFACXA	Sternum Mid Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.032
103	03F03F09-N18	23STRNLO00HFACXA	Sternum Lower Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.033
104	14CB1-2897-416	23CHST0000HFDSXA	Chest Deflection X 516	100	mm	+	Forward	3-416 HIII 5th FTSS.034
105	C02B19-F03	23PELVCG00HFACXA	Pelvis Accel X	1000	g	-	Rearward	3-416 HIII 5th FTSS.035
106	02A16-A27	23PELVCG00HFACYA	Pelvis Accel Y	1000	g	-	Left	3-416 HIII 5th FTSS.036

D-8

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
107	C02B19-F01	23PELVCG00HFACZA	Pelvis Accel Z	1000	g	-	Up	3-416 HIII 5th FTSS.037
108	2430-736	23FEMRLL00HFFOZA	Left Femur Force Z #8	13344	N	+	Knee forward, pelvis rearward	3-416 HIII 5th FTSS.038
109	2430-742	23FEMRRL00HFFOZA	Right Femur Force Z 507	13344	N	+	Knee forward, pelvis rearward	3-416 HIII 5th FTSS.057
110	150-0121VR-22653	23KNSLLE00HFDSXA	Left Knee Displacement	40	mm	-	Rearward	3-416 HIII 5th FTSS.039
111	4825J-91-FX	23TIBILUFXHFFOXA	Left Upper Tibia Force X	8896.4	N	+	Ankle forward, knee rearward	3-416 HIII 5th FTSS.040
112	4825J-91-FZ	23TIBILUFXHFFOZA	Left Upper Tibia Force Z	8896.4	N	+	Tibia downward, femur upward	3-416 HIII 5th FTSS.041
113	4825J-91-MX	23TIBILUFXHFMOMA	Left Upper Tibia Moment X	282.4	N-m	+	Ankle leftward, hold knee in place	3-416 HIII 5th FTSS.042
114	4825J-91-MY	23TIBILUFXHFMOMA	Left Upper Tibia Moment Y	282.4	N-m	+	Ankle forward, bottom of knee clevis rearward	3-416 HIII 5th FTSS.043
115	99H30-Z01	23TIBILEFXHFACXA	Left Tibia Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.044
116	99108-F26	23TIBILEFXHFACYA	Left Tibia Accel Y	1000	g	+	Right	3-416 HIII 5th FTSS.045
117	4826J-92-FX	23TIBILLFXHFFOXA	Left Lower Tibia Force X	8896.4	N	+	Ankle forward, knee rearward	3-416 HIII 5th FTSS.046
118	4826J-92-FY	23TIBILLFXHFFOYA	Left Lower Tibia Force Y	8896.4	N	+	Ankle rightward, knee leftward	3-416 HIII 5th FTSS.047
119	4826J-92-FZ	23TIBILLFXHFFOZA	Left Lower Tibia Force Z	8896.4	N	+	Ankle downward, knee upward	3-416 HIII 5th FTSS.048
120	4826J-92-MX	23TIBILLFXHFMOXA	Left Lower Tibia Moment X	282.4	N-m	+	Ankle leftward, hold knee in place	3-416 HIII 5th FTSS.049
121	4826J-92-MY	23TIBILLFXHFMOYA	Left Lower Tibia Moment Y	282.4	N-m	+	Ankle forward, bottom of knee clevis rearward	3-416 HIII 5th FTSS.050
122	PD210-4B-AK-044	23FOOTLEFXHFANXA	Left Foot Disp. X FLX102X	318	°	-	Left side down	3-416 HIII 5th FTSS.051
123	PD210-4B-AK-043	23FOOTLEFXHFANYA	Left Foot Disp. Y FLX102Y	318	°	-	Nose down	3-416 HIII 5th FTSS.052
124	PD210-4B-265	23FOOTLEFXHFANZA	Left Foot Disp. Z FLX102Z	318	°	-	Front turned left	3-416 HIII 5th FTSS.053
125	02102105-F13	23FOOTLEFXHFACXA	Left Foot Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.054
126	03E03E21-M10	23FOOTLEFXHFACYA	Left Foot Accel Y	1000	g	+	Right	3-416 HIII 5th FTSS.055
127	03F03E29-N16	23FOOTLEFXHFACZA	Left Foot Accel Z	1000	g	+	Down	3-416 HIII 5th FTSS.056
128	150-0121VL-030583	23KNSLR100HFDSXA	Right Knee Displacement	22.1	mm	-	Rearward	3-416 HIII 5th FTSS.058
129	4825J-90-FX	23TIBIRUFXHFFOXA	Right Upper Tibia Force X	8896.4	N	+	Ankle forward, knee rearward	3-416 HIII 5th FTSS.059

D-9

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
130	4825J-90-FZ	23TIBIRUFXHFFOZA	Right Upper Tibia Force Z	8896.4	N	+	Tibia downward, femur upward	3-416 HIII 5th FTSS.060
131	4825J-90-MX	23TIBIRUFXHFMOMA	Right Upper Tibia Moment X	282.4	N-m	+	Ankle leftward, hold knee in place	3-416 HIII 5th FTSS.061
132	4825J-90-MY	23TIBIRUFXHFMOMA	Right Upper Tibia Moment Y	282.4	N-m	+	Ankle forward, bottom of knee clevis rearward	3-416 HIII 5th FTSS.062
133	98H10-F05	23TIBIRIFXHFACXA	Right Tibia Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.063
134	J35987	23TIBIRIFXHFACYA	Right Tibia Accel Y	1000	g	+	Right	3-416 HIII 5th FTSS.064
135	4826J-93-FX	23TIBIRLFXHFFOXA	Right Lower Tibia Force X	8896.4	N	+	Ankle forward, knee rearward	3-416 HIII 5th FTSS.065
136	4826J-93-FY	23TIBIRLFXHFFOYA	Right Lower Tibia Force Y	8896.4	N	+	Ankle rightward, knee leftward	3-416 HIII 5th FTSS.066
137	4826J-93-FZ	23TIBIRLFXHFFOZA	Right Lower Tibia Force Z	8896.4	N	+	Ankle downward, knee upward	3-416 HIII 5th FTSS.067
138	4826J-93-MX	23TIBIRLFXHFMOMA	Right Lower Tibia Moment X	282.4	N-m	+	Ankle leftward, hold knee in place	3-416 HIII 5th FTSS.068
139	4826J-93-MY	23TIBIRLFXHFMOMA	Right Lower Tibia Moment Y	282.4	N-m	+	Ankle forward, bottom of knee clevis rearward	3-416 HIII 5th FTSS.069
140	PD210-4B-AK-029	23FOOTRIFXHFANXA	Right Foot Disp. X FLX101X	318	°	-	Left side down	3-416 HIII 5th FTSS.070
141	PD210-4B-AK-030	23FOOTRIFXHFANYA	Right Foot Disp. Y FLX101Y	318	°	+	Nose up	3-416 HIII 5th FTSS.071
142	PD210-4B-345	23FOOTRIFXHFANZA	Right Foot Disp. Z FLX101Z	318	°	-	Front turned left	3-416 HIII 5th FTSS.072
143	02102110-N18	23FOOTRIFXHFACXA	Right Foot Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.073
144	00L13-F29	23FOOTRIFXHFACYA	Right Foot Accel Y	1000	g	+	Right	3-416 HIII 5th FTSS.074
145	01G25-N08	23FOOTRIFXHFACZA	Right Foot Accel Z	1000	g	+	Down	3-416 HIII 5th FTSS.075
146	P49579	24CRME000000ACXA	Left Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
147	P49678	26CRME000000ACXA	Right Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
148	P38644	22ENGNTPO000ACXA	Top of Engine X-axis Acceleration	2000	g	+	Forward	
149	P42044	22ENGNB00000ACXA	Bottom of Engine X-axis Acceleration	2000	g	+	Forward	
150	P49762	23VEHCRI0000ACXA	Right Front Brake Caliper X-axis acceleration	2000	g	+	Forward	
151	P49710	21VEHCLE0000ACXA	Left Front Brake Caliper X-axis acceleration	2000	g	+	Forward	
152	P49959	22DASH000000ACXA	Dash Center X-axis acceleration	1500	g	+	Forward	
153	P50416	21PEAC000000ACXA	Toe Pan Accelerator x-axis acceleration	2000	g	+	Forward	
154	P50412	21PEAC000000ACZA	Toe Pan Accelerator z-axis acceleration	2000	g	-	Up	
155	P50408	21VEHC000001ACXA	Toe Pan footrest x-axis acceleration	2000	g	+	Forward	
156	P50415	21VEHC000001ACZA	Toe Pan footrest z-axis acceleration	2000	g	-	Up	
157	P49922	25TUNNCY0000ACXA	Rear Tunnel center x-axis acceleration	1000	g	+	Forward	

D-10

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
158	P49698	20VEHCCG0000ACXA	Vehicle CG X-axis acceleration	1500	g	+	Forward	
159	P49692	20VEHCCG0000ACYA	Vehicle CG Y-axis acceleration	1500	g	-	Left	
160	P49741	20VEHCCG0000ACZA	Vehicle CG Z-axis acceleration	1500	g	-	Up	
161	P46892	28VEHC000000ACXA	Vehicle rear deck X-axis acceleration	1000	g	+	Forward	
162	P47429	28VEHC000000ACYA	Vehicle rear deck Y-axis acceleration	1000	g	+	Right	
163	P47403	28VEHC000000ACZA	Vehicle rear deck Z-axis acceleration	1000	g	-	Up	
164	K1506282A	21SEBA0000B5DS0A	Driver lap belt spool	635	mm	+	Bipolar	
165	A60897	21SEBA0000B3DS0A	Driver shoulder belt spool and retraction	1270	mm	+	Bipolar	
166	A37490	23SEBA0000B5DS0A	RF Pass lap belt spool	635	mm	+	Bipolar	
167	14672	23SEBA0000B3DS0A	RF Pass shoulder belt spool and retraction	635	mm	+	Bipolar	
168	ABFire1	21AIRBFR0100EV0A	DRIV. FRONT AIRBAG1 IND	5	V	+	Bipolar	
169	ABFire2	21AIRBFR0200EV0A	DRIV. FRONT AIRBAG2 IND	5	V	+	Bipolar	
170	ABFire3	23AIRBFR0100EV0A	PASS. FRONT AIRBAG1 IND	5	V	+	Bipolar	
171	ABFire4	23AIRBFR0200EV0A	PASS. FRONT AIRBAG2 IND	5	V	+	Bipolar	

Channel Report Test Number 060302

D-12

060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
1	Trig D1	10ZERO000000EV00	BULLET EVENT		1 Logic	+	Bipolar	
2	J32101	11HEADCG00H3ACXA	Head Accel X	1000	g	+	Forward	1-090 HIII 50th Alderson.001
3	AJ4J6	11HEADCG00H3ACYA	Head Accel Y	1000	g	-	Left	1-090 HIII 50th Alderson.002
4	DW83J	11HEADCG00H3ACZA	Head Accel Z	1000	g	-	Up	1-090 HIII 50th Alderson.003
5	98H14-K15	11HEADFR00H3ACYA	Head (FT) Accel Y	1000	g	-	Left	1-090 HIII 50th Alderson.004
6	03F03E29-N01	11HEADFR00H3ACZA	Head (FT) Accel Z	1000	g	-	Up	1-090 HIII 50th Alderson.005
7	02I02I10-N04	11HEADUP00H3ACXA	Head (TP) Accel X	1000	g	+	Forward	1-090 HIII 50th Alderson.006
8	98H10-F02	11HEADUP00H3ACYA	Head (TP) Accel Y	1000	g	-	Left	1-090 HIII 50th Alderson.007
9	03G03F23-M09	11HEADLE00H3ACXA	Head (LT) Accel X	1000	g	+	Forward	1-090 HIII 50th Alderson.008
10	05G20-L24	11HEADLE00H3ACZA	Head (LT) Accel Z	1000	g	-	Up	1-090 HIII 50th Alderson.009
11	1716A-810-FX	11NECKUP00H3FOXA	Neck Force X	8896.4	N	-	Head forward, chest rearward	1-090 HIII 50th Alderson.010
12	1716A-810-FY	11NECKUP00H3FOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	1-090 HIII 50th Alderson.011
13	1716A-810-FZ	11NECKUP00H3FOZA	Neck Force Z	13344	N	+	Head upward, chest downward	1-090 HIII 50th Alderson.012
14	1716A-810-MX	11NECKUP00H3MOXA	Neck Moment X	282	N-m	-	Right ear toward right shoulder	1-090 HIII 50th Alderson.013
15	1716A-810-MY	11NECKUP00H3MOYA	Neck Moment Y	282	N-m	+	Chin toward sternum	1-090 HIII 50th Alderson.014
16	1716A-810-MZ	11NECKUP00H3MOZA	Neck Moment Z	282	N-m	+	Chin toward left shoulder	1-090 HIII 50th Alderson.015
17	1794A-0121-FX	11NECKLO00H3FOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	1-090 HIII 50th Alderson.016
18	1794A-0121-FY	11NECKLO00H3FOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	1-090 HIII 50th Alderson.017
19	1794A-0121-FZ	11NECKLO00H3FOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	1-090 HIII 50th Alderson.018
20	1794A-0121-MX	11NECKLO00H3MOXA	Neck Lower Moment X	452	N-m	-	Right ear toward right shoulder	1-090 HIII 50th Alderson.019
21	1794A-0121-MY	11NECKLO00H3MOYA	Neck Lower Moment Y	452	N-m	+	Chin toward sternum	1-090 HIII 50th Alderson.020
22	1794A-0121-MZ	11NECKLO00H3MOZA	Neck Lower Moment Z	452	N-m	+	Chin toward left shoulder	1-090 HIII 50th Alderson.021
23	P16155	11CHSTCG00H3ACXA	Chest Accel X	1000	g	+	Forward	1-090 HIII 50th Alderson.022
24	J27430	11CHSTCG00H3ACYA	Chest Accel Y	1000	g	-	Left	1-090 HIII 50th Alderson.023
25	J13739	11CHSTCG00H3ACZA	Chest Accel Z	1000	g	-	Up	1-090 HIII 50th Alderson.024
26	B02A25-N09	11CHSTCGRDH3ACXA	Chest Accel X Red.	1000	g	-	Rearward	1-090 HIII 50th Alderson.025

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
27	03E03E20-N17	11CHSTCGRDH3ACYA	Chest Accel Y Red.	1000	g	-	Left	1-090 HIII 50th Alderson.026
28	00L13-F05	11CHSTCGRDH3ACZA	Chest Accel Z Red.	1000	g	-	Up	1-090 HIII 50th Alderson.027
29	CST090	11CHST0000H3DSXA	Chest Deflection X	100	mm	+	Forward	1-090 HIII 50th Alderson.028
30	AGR67	11PELVCG00H3ACXA	Pelvis Accel X	600	g	-	Rearward	1-090 HIII 50th Alderson.029
31	J29023	11PELVCG00H3ACYA	Pelvis Accel Y	600	g	-	Left	1-090 HIII 50th Alderson.030
32	ACCT5	11PELVCG00H3ACZA	Pelvis Accel Z	600	g	-	Up	1-090 HIII 50th Alderson.031
33	2121A-1420	11FEMRLL00H3FOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	1-090 HIII 50th Alderson.032
34	2121A-1421	11FEMRRL00H3FOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	1-090 HIII 50th Alderson.033
35	150-0121VR-13739	11KNSLLE00H3DSXA	Left Knee Displacement X	40	mm	-	Hold femur in place, tibia rearward	1-LX103-104.001
36	4353J-76-FX	11TIBILULXH3FOXA	Left Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	1-LX103-104.002
37	4353J-76-FZ	11TIBILULXH3FOZA	Left Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX103-104.003
38	4353J-76-MX	11TIBILULXH3MOXA	Left Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX103-104.004
39	4353J-76-MY	11TIBILULXH3MOYA	Left Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, bottom of knee clevis rearward	1-LX103-104.005
40	05G20-L15	11TIBILELXH3ACXA	Left Tibia Accel X	1000	g	+	Forward	1-LX103-104.006
41	05H31-Z06	11TIBILELXH3ACYA	Left Tibia Accel Y	1000	g	+	Right	1-LX103-104.007
42	4929J-77-FX	11TIBILLLXH3FOXA	Left Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	1-LX103-104.008
43	4929J-77-FY	11TIBILLLXH3FOYA	Left Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	1-LX103-104.009
44	4929J-77-FZ	11TIBILLLXH3FOZA	Left Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX103-104.010
45	4929J-77-MX	11TIBILLLXH3MOXA	Left Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX103-104.011
46	4929J-77-MY	11TIBILLLXH3MOYA	Left Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, bottom of knee clevis rearward	1-LX103-104.012
47	PD210-4B-118	11FOOTLELXH3ANXA	Left Foot Angular Dis. X LX104X	318	°	+	Eversion	1-LX103-104.013

D-13

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
48	PD210-4B-229	11FOOTLELXH3ANYA	Left Foot Angular Dis. Y LX104Y	318	°	+	Dorsiflexion	1-LX103-104.014
49	PD210-4B-224	11FOOTLELXH3ANZA	Left Foot Angular Dis. Z LX104Z	318	°	+	Internal rotation	1-LX103-104.015
50	05I07-Z32	11FOOTLELXH3ACXA	Left Foot Accel X	1000	g	+	Forward	1-LX103-104.016
51	05H31-Z09	11FOOTLELXH3ACYA	Left Foot Accel Y	1000	g	+	Right	1-LX103-104.017
52	98H10-F07	11FOOTLELXH3ACZA	Left Foot Accel Z	1000	g	+	Down	1-LX103-104.018
53	150-0121VL-13723	11KNSLRIO0H3DSXA	Right Knee Displacement X	40	mm	-	Hold femur in place, tibia rearward	1-LX103-104.019
54	4353J-75-FX	11TIBIRULXH3FOXA	Right Upper Tibia Force X	11120	N	+	Tibia forward, knee rearward	1-LX103-104.020
55	4353J-75-FZ	11TIBIRULXH3FOZA	Right Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX103-104.021
56	4353J-75-MX	11TIBIRULXH3MOXA	Right Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX103-104.022
57	4353J-75-MY	11TIBIRULXH3MOYA	Right Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX103-104.023
58	05H10-M16	11TIBIRILXH3ACXA	Right Tibia Accel X	1000	g	+	Forward	1-LX103-104.024
59	05H31-Z02	11TIBIRILXH3ACYA	Right Tibia Accel Y	1000	g	+	Right	1-LX103-104.025
60	4929J-76-FX	11TIBIRLLXH3FOXA	Right Lower Tibia Force X	11120	N	+	Ankle forward, knee rearward	1-LX103-104.026
61	4929J-76-FY	11TIBIRLLXH3FOYA	Right Lower Tibia Force Y	11120	N	+	Ankle rightward, knee leftward	1-LX103-104.027
62	4929J-76-FZ	11TIBIRLLXH3FOZA	Right Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX103-104.028
63	4929J-76-MX	11TIBIRLLXH3MOXA	Right Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX103-104.029
64	4929J-76-MY	11TIBIRLLXH3MOYA	Right Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX103-104.030
65	PD210-4B-37	11FOOTRILXH3ANXA	Right Foot Angular Dis. X AK037X	165.4	°	+	Inversion	1-LX103-104.031
66	PD210-4B-225	11FOOTRILXH3ANYA	Right Foot Angular Dis. Y AK225Y	164	°	+	Dorsiflexion	1-LX103-104.032
67	PD210-4B-39	11FOOTRILXH3ANZA	Right Foot Angular Dis. Z AK039Z	165	°	+	External rotation	1-LX103-104.033
68	05I07-Z14	11FOOTRILXH3ACXA	Right Foot Accel X	1000	g	+	Forward	1-LX103-104.034
69	05H25-L18	11FOOTRILXH3ACYA	Right Foot Accel Y	1000	g	+	Right	1-LX103-104.035
70	05I13-X01	11FOOTRILXH3ACZA	Right Foot Accel Z	1000	g	+	Down	1-LX103-104.036

D-14

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
71	98H13-F03	13HEADCG00HFACXA	Head Accel X	1000	g	+	Forward	3-070 HIII 5th Denton.001
72	03E03E21-M01	13HEADCG00HFACYA	Head Accel Y	1000	g	-	Left	3-070 HIII 5th Denton.002
73	02I02I05-F15	13HEADCG00HFACZA	Head Accel Z	1000	g	-	Up	3-070 HIII 5th Denton.003
74	03E03E20-N08	13HEADLE00HFACXA	Head (LT) Accel X	1000	g	+	Forward	3-070 HIII 5th Denton.004
75	01G19-F03	13HEADLE00HFACZA	Head (LT) Accel Z	1000	g	-	Up	3-070 HIII 5th Denton.005
76	ACC62	13HEADFR00HFACYA	Head (FT) Accel Y	1000	g	-	Left	3-070 HIII 5th Denton.006
77	ACCC9	13HEADFR00HFACZA	Head (FT) Accel Z	1000	g	-	Up	3-070 HIII 5th Denton.007
78	01J02-F03	13HEADUP00HFACXA	Head (TP) Accel X	1000	g	+	Forward	3-070 HIII 5th Denton.008
79	02I02I10-N01	13HEADUP00HFACYA	Head (TP) Accel Y	1000	g	-	Left	3-070 HIII 5th Denton.009
80	1716AJ-1563-FX	13NECKUP00HFFOXA	Neck Force X	8896.4	N	+	Head rearward, chest forward	3-070 HIII 5th Denton.010
81	1716AJ-1563-FY	13NECKUP00HFFOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	3-070 HIII 5th Denton.011
82	1716AJ-1563-FZ	13NECKUP00HFFOZA	Neck Force Z	13344	N	+	Head upward, chest downward	3-070 HIII 5th Denton.012
83	1716AJ-1563-MX	13NECKUP00HFMOXA	Neck Moment X	282	N-m	+	Left ear toward left shoulder	3-070 HIII 5th Denton.013
84	1716AJ-1563-MY	13NECKUP00HFMOYA	Neck Moment Y	282	N-m	+	Chin toward sternum	3-070 HIII 5th Denton.014
85	1716AJ-1563-MZ	13NECKUP00HFMOZA	Neck Moment Z	282	N-m	+	Chin toward left shoulder	3-070 HIII 5th Denton.015
86	3251-107-FX	13NECKLO00HFFOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	3-070 HIII 5th Denton.016
87	3251-107-FY	13NECKLO00HFFOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	3-070 HIII 5th Denton.017
88	3251-107-FZ	13NECKLO00HFFOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	3-070 HIII 5th Denton.018
89	3251-107-MX	13NECKLO00HFMOXA	Neck Lower Moment X	452	N-m	-	Right ear toward right shoulder	3-070 HIII 5th Denton.019
90	3251-107-MY	13NECKLO00HFMOYA	Neck Lower Moment Y	452	N-m	+	Chin toward sternum	3-070 HIII 5th Denton.020
91	3251-107-MZ	13NECKLO00HFMOZA	Neck Lower Moment Z	339	N-m	+	Chin toward left shoulder	3-070 HIII 5th Denton.021
92	AAJY4	13CHSTCG00HFACXA	Chest Accel X	1000	g	+	Forward	3-070 HIII 5th Denton.022
93	AKAA4	13CHSTCG00HFACYA	Chest Accel Y	1000	g	-	Left	3-070 HIII 5th Denton.023
94	ACC63	13CHSTCG00HFACZA	Chest Accel Z	1000	g	-	Up	3-070 HIII 5th Denton.024
95	14CB1-2897-070	13CHST0000HFDSXA	Chest Deflection X	100	mm	+	Forward	3-070 HIII 5th Denton.025
96	AGN83	13PELVCG00HFACXA	Pelvis Accel X	1000	g	-	Rearward	3-070 HIII 5th Denton.026

D-15

060302

Channel Report Test Number 060302

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
97	J35770	13PELVCG00HFACYA	Pelvis Accel Y	1000	g	-	Left	3-070 HIII 5th Denton.027
98	J20014	13PELVCG00HFACZA	Pelvis Accel Z	1000	g	-	Up	3-070 HIII 5th Denton.028
99	IF-625-140-FZ	13FEMRLL00HFFOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	3-070 HIII 5th Denton.029
100	IF-625-141-FZ	13FEMRRL00HFFOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	3-070 HIII 5th Denton.030
101	P50439	14CRME000000ACXA	Left Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
102	P50458	16CRME000000ACXA	Right Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
103	P49734	12ENGNTTP0000ACXA	Top of Engine X-axis Acceleration	2000	g	+	Forward	
104	P49791	12ENGNB000000ACXA	Bottom of Engine X-axis Acceleration	2000	g	-	Rearward	
105	P46521	13VEHCRI0000ACXA	Right Front Brake Caliper X-axis acceleration	2000	g	+	Forward	
106	P49405	11VEHCLE0000ACXA	Left Front Brake Caliper X-axis acceleration	2000	g	+	Forward	
107	P50433	12DASH000000ACXA	Dash Center X-axis acceleration	1500	g	+	Forward	
108	P50488	11PEAC000000ACXA	Toe Pan Accelerator x-axis acceleration	2000	g	+	Forward	
109	P50456	11PEAC000000ACZA	Toe Pan Accelerator z-axis acceleration	2000	g	-	Up	
110	P48952	11VEHC000001ACXA	Toe Pan footrest x-axis acceleration	2000	g	+	Forward	
111	P45970	11VEHC000001ACZA	Toe Pan footrest z-axis acceleration	2000	g	-	Up	
112	P49994	15TUNNCY0000ACXA	Rear Tunnel center x-axis acceleration	1000	g	+	Forward	
113	P50486	10VEHCCG0000ACXA	Vehicle CG X-axis acceleration	1500	g	+	Forward	
114	P50417	10VEHCCG0000ACYA	Vehicle CG Y-axis acceleration	1500	g	-	Left	
115	P50404	10VEHCCG0000ACZA	Vehicle CG Z-axis acceleration	1500	g	-	Up	
116	P50443	18VEHC000000ACXA	Vehicle rear deck X-axis acceleration	1000	g	+	Forward	
117	P50447	18VEHC000000ACYA	Vehicle rear deck Y-axis acceleration	1000	g	-	Left	
118	P50440	18VEHC000000ACZA	Vehicle rear deck Z-axis acceleration	1000	g	-	Up	
119	K1506281A	11SEBA0000B5DS0A	Driver lap belt spool	635	mm	+	Bipolar	
120	A23305	11SEBA0000B3DS0A	Driver shoulder belt spool and retraction	1250	mm	+	Bipolar	
121	A23306	13SEBA0000B3DS0A	RF Pass shoulder belt spool and retraction	1270	mm	+	Bipolar	
122	ABFire1	11AIRBFR0100EV0A	DRIV. FRONT AIRBAG1 IND	5	V	+	Bipolar	
123	ABFire2	11AIRBFR0200EV0A	DRIV. FRONT AIRBAG2 IND	5	V	+	Bipolar	
124	ABFire3	13AIRBFR0100EV0A	PASS. FRONT AIRBAG1 IND	5	V	+	Bipolar	
125	ABFire4	13AIRBFR0200EV0A	PASS. FRONT AIRBAG2 IND	5	V	+	Bipolar	

D-16

060302

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
1	11HEADCG00H3ACXA	Bullet Driver Head X-Axis Acceleration	1000	+	yes	1000
2	11HEADCG00H3ACYA	Bullet Driver Head Y-Axis Acceleration	1000	+	yes	1000
3	11HEADCG00H3ACZA	Bullet Driver Head Z-Axis Acceleration	1000	+	yes	1000
3A	11HEADCG00H3ACRA	Bullet Driver Head Resultant Acceleration	1000			
4	11HEADFR00H3ACYA	Bullet Driver Head Front Y-Axis Acceleration	1000	+	yes	1000
5	11HEADFR00H3ACZA	Bullet Driver Head Front Z-Axis Acceleration	1000	+	yes	1000
6	11HEADUP00H3ACXA	Bullet Driver Head Top X-Axis Acceleration	1000	+	yes	1000
7	11HEADUP00H3ACYA	Bullet Driver Head Top Y-Axis Acceleration	1000	+	yes	1000
8	11HEADLE00H3ACXA	Bullet Driver Head Side X-Axis Acceleration	1000	+	yes	1000
9	11HEADLE00H3ACZA	Bullet Driver Head Side Z-Axis Acceleration	1000	+	yes	1000
10	11NECKUP00H3FOXA	Bullet Driver Upper Neck X-Axis Force	1000	+	yes	8896.4
11	11NECKUP00H3FOYA	Bullet Driver Upper Neck Y-Axis Force	1000	+	yes	8896.4
12	11NECKUP00H3FOZA	Bullet Driver Upper Neck Z-Axis Force	1000	+	yes	13344
13	11NECKUP00H3MOXA	Bullet Driver Upper Neck Moment About X Axis	600	+	yes	282
14	11NECKUP00H3MOYA	Bullet Driver Upper Neck Moment About Y Axis	600	+	yes	282
15	11NECKUP00H3MOZA	Bullet Driver Upper Neck Moment About Z Axis	600	+	yes	282
16	11NECKLO00H3FOXA	Bullet Driver Lower Neck X-Axis Force	1000	+	yes	13344
17	11NECKLO00H3FOYA	Bullet Driver Lower Neck Y-Axis Force	1000	+	yes	13344
18	11NECKLO00H3FOZA	Bullet Driver Lower Neck Z-Axis Force	1000	+	yes	13344
19	11NECKLO00H3MOXA	Bullet Driver Lower Neck Moment About X Axis	600	+	yes	452
20	11NECKLO00H3MOYA	Bullet Driver Lower Neck Moment About Y Axis	600	+	yes	452
21	11NECKLO00H3MOZA	Bullet Driver Lower Neck Moment About Z Axis	600	+	yes	452
22	11CHSTCG00H3ACXA	Bullet Driver Chest CG X-Axis Acceleration	180	+	yes	1000
23	11CHSTCG00H3ACYA	Bullet Driver Chest CG Y-Axis Acceleration	180	+	yes	1000
24	11CHSTCG00H3ACZA	Bullet Driver Chest CG Z-Axis Acceleration	180	+	yes	1000
24A	11CHSTCG00H3ACRA	Bullet Driver Chest CG Resultant Acceleration	180			
25	11CHSTCGRDH3ACXA	Bullet Driver Redundant Chest CG X-Axis Acceleration	180	+	yes	1000
26	11CHSTCGRDH3ACYA	Bullet Driver Redundant Chest CG Y-Axis Acceleration	180	+	yes	1000
27	11CHSTCGRDH3ACZA	Bullet Driver Redundant Chest CG Z-Axis Acceleration	180	+	yes	1000
27A	11CHSTCGRDH3ACRA	Bullet Driver Redundant Chest CG Resultant Acceleration	180			
28	11CHST0000H3DSXA	Bullet Driver Chest Displacement	600	+	yes	100
29	11PELVCG00H3ACXA	Bullet Driver Pelvis CG X-Axis Acceleration	1000	+	yes	600
30	11PELVCG00H3ACYA	Bullet Driver Pelvis CG Y-Axis Acceleration	1000	+	yes	600
31	11PELVCG00H3ACZA	Bullet Driver Pelvis CG Z-Axis Acceleration	1000	+	yes	600
31A	11PELVCG00H3ACRA	Bullet Driver Pelvis CG Resultant Acceleration	1000			

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
32	11FEMRL00H3FOZA	Bullet Driver Left Femur Z-Axis Force	600	+	yes	13344
33	11KNSLLE00H3DSXA	Bullet Driver Left Knee Displacement	180	+	yes	40
34	11TIBILULXH3FOXA	Bullet Driver Left Upper Tibia X-Axis Force	600	+	yes	11120
35	11TIBILULXH3FOZA	Bullet Driver Left Upper Tibia Z-Axis Force	600	+	yes	11120
36	11TIBILULXH3MOXA	Bullet Driver Left Upper Tibia Moment About X Axis	600	+	yes	395.4
37	11TIBILULXH3MOYA	Bullet Driver Left Upper Tibia Moment About Y Axis	600	+	yes	395.4
38	11TIBILELXH3ACXA	Bullet Driver Left Tibia X-Axis Acceleration	1000	+	yes	1000
39	11TIBILELXH3ACYA	Bullet Driver Left Tibia Y-Axis Acceleration	1000	+	yes	1000
40	11TIBILLXH3FOXA	Bullet Driver Left Lower Tibia X-Axis Force	600	+	yes	11120
41	11TIBILLXH3FOYA	Bullet Driver Left Lower Tibia Y-Axis Force	600	+	yes	11120
42	11TIBILLXH3FOZA	Bullet Driver Left Lower Tibia Z-Axis Force	600	+	yes	11120
43	11TIBILLXH3MOXA	Bullet Driver Left Lower Tibia Moment About X Axis	600	+	yes	395.4
44	11TIBILLXH3MOYA	Bullet Driver Left Lower Tibia Moment About Y Axis	600	+	yes	395.4
45	11FOOTLELXH3ANXA	Bullet Driver Left Foot X-Axis Rotation	180	+	no	318
46	11FOOTLELXH3ANYA	Bullet Driver Left Foot Y-Axis Rotation	180	+	no	318
47	11FOOTLELXH3ANZA	Bullet Driver Left Foot Z-Axis Rotation	180	+	no	318
48	11FOOTLELXH3ACXA	Bullet Driver Left Foot X-Axis Acceleration	1000	+	yes	1000
49	11FOOTLELXH3ACYA	Bullet Driver Left Foot Y-Axis Acceleration	1000	+	yes	1000
50	11FOOTLELXH3ACZA	Bullet Driver Left Foot Z-Axis Acceleration	1000	+	yes	1000
50A	11FOOTLELXH3ACRA	Bullet Driver Left Foot Resultant Acceleration	1000			
51	11FEMRRL00H3FOZA	Bullet Driver Right Femur Z-Axis Force	600	+	yes	13344
52	11KNSLRI00H3DSXA	Bullet Driver Right Knee Displacement	180	+	yes	40
53	11TIBIRULXH3FOXA	Bullet Driver Right Upper Tibia X-Axis Force	600	+	yes	11120
54	11TIBIRULXH3FOZA	Bullet Driver Right Upper Tibia Z-Axis Force	600	+	yes	11120
55	11TIBIRULXH3MOXA	Bullet Driver Right Upper Tibia Moment About X Axis	600	+	yes	395.4
56	11TIBIRULXH3MOYA	Bullet Driver Right Upper Tibia Moment About Y Axis	600	+	yes	395.4
57	11TIBIRILXH3ACXA	Bullet Driver Right Tibia X-Axis Acceleration	1000	+	yes	1000
58	11TIBIRILXH3ACYA	Bullet Driver Right Tibia Y-Axis Acceleration	1000	+	yes	1000
59	11TIBIRLLXH3FOXA	Bullet Driver Right Lower Tibia X-Axis Force	600	+	yes	11120
60	11TIBIRLLXH3FOYA	Bullet Driver Right Lower Tibia Y-Axis Force	600	+	yes	11120
61	11TIBIRLLXH3FOZA	Bullet Driver Right Lower Tibia Z-Axis Force	600	+	yes	11120
62	11TIBIRLLXH3MOXA	Bullet Driver Right Lower Tibia Moment About X Axis	600	+	yes	395.4
63	11TIBIRLLXH3MOYA	Bullet Driver Right Lower Tibia Moment About Y Axis	600	+	yes	395.4
64	11FOOTRILXH3ANXA	Bullet Driver Right Foot X-Axis Rotation	180	+	no	165.4
65	11FOOTRILXH3ANYA	Bullet Driver Right Foot Y-Axis Rotation	180	+	no	164

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
66	11FOOTRILXH3ANZA	Bullet Driver Right Foot Z-Axis Rotation	180	+	no	165
67	11FOOTRILXH3ACXA	Bullet Driver Right Foot X-Axis Acceleration	1000	+	yes	1000
68	11FOOTRILXH3ACYA	Bullet Driver Right Foot Y-Axis Acceleration	1000	+	yes	1000
69	11FOOTRILXH3ACZA	Bullet Driver Right Foot Z-Axis Acceleration	1000	+	yes	1000
69A	11FOOTRILXH3ACRA	Bullet Driver Right Foot Resultant Acceleration	1000			
70	13HEADCG00HFACXA	Bullet Passenger Head CG X-Axis Acceleration	1000	+	yes	1000
71	13HEADCG00HFACYA	Bullet Passenger Head CG Y-Axis Acceleration	1000	+	yes	1000
72	13HEADCG00HFACZA	Bullet Passenger Head CG Z-Axis Acceleration	1000	+	yes	1000
72A	13HEADCG00HFACRA	Bullet Passenger Head CG Resultant Acceleration	1000			
73	13HEADLE00HFACXA	Bullet Passenger Head Side X-Axis Acceleration	1000	+	yes	1000
74	13HEADLE00HFACZA	Bullet Passenger Head Side Z-Axis Acceleration	1000	+	yes	1000
75	13HEADFR00HFACYA	Bullet Passenger Head Front Y-Axis Acceleration	1000	+	yes	1000
76	13HEADFR00HFACZA	Bullet Passenger Head Front Z-Axis Acceleration	1000	+	yes	1000
77	13HEADUP00HFACXA	Bullet Passenger Head Top X-Axis Acceleration	1000	+	yes	1000
78	13HEADUP00HFACYA	Bullet Passenger Head Top Y-Axis Acceleration	1000	+	yes	1000
79	13NECKUP00HFFOXA	Bullet Passenger Upper Neck X-Axis Force	1000	+	yes	8896.4
80	13NECKUP00HFFOYA	Bullet Passenger Upper Neck Y-Axis Force	1000	+	yes	8896.4
81	13NECKUP00HFFOZA	Bullet Passenger Upper Neck Z-Axis Force	1000	+	yes	13344
82	13NECKUP00HFMOXA	Bullet Passenger Upper Neck Moment About X Axis	600	+	yes	282
83	13NECKUP00HFMOYA	Bullet Passenger Upper Neck Moment About Y Axis	600	+	yes	282
84	13NECKUP00HFMOZA	Bullet Passenger Upper Neck Moment About Z Axis	600	+	yes	282
85	13NECKLO00HFFOXA	Bullet Passenger Lower Neck X-Axis Force	1000	+	yes	13344
86	13NECKLO00HFFOYA	Bullet Passenger Lower Neck Y-Axis Force	1000	+	yes	13344
87	13NECKLO00HFFOZA	Bullet Passenger Lower Neck Z-Axis Force	1000	+	yes	13344
88	13NECKLO00HFMOXA	Bullet Passenger Lower Neck Moment About X Axis	600	+	yes	452
89	13NECKLO00HFMOYA	Bullet Passenger Lower Neck Moment About Y Axis	600	+	yes	452
90	13NECKLO00HFMOZA	Bullet Passenger Lower Neck Moment About Z Axis	600	+	yes	339
91	13CHSTCG00HFACXA	Bullet Passenger Chest CG X-Axis Acceleration	180	+	yes	1000
92	13CHSTCG00HFACYA	Bullet Passenger Chest CG Y-Axis Acceleration	180	+	yes	1000
93	13CHSTCG00HFACZA	Bullet Passenger Chest CG Z-Axis Acceleration	180	+	yes	1000
93A	13CHSTCG00HFACRA	Bullet Passenger Chest CG Resultant Acceleration	180			
94	13CHST0000HFDSXA	Bullet Passenger Chest Displacement	600	+	yes	100
95	13PELVCG00HFACXA	Bullet Passenger Pelvis CG X-Axis Acceleration	1000	+	yes	1000
96	13PELVCG00HFACYA	Bullet Passenger Pelvis CG Y-Axis Acceleration	1000	+	yes	1000
97	13PELVCG00HFACZA	Bullet Passenger Pelvis CG Z-Axis Acceleration	1000	+	yes	1000

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
97A	13PELVCG00HFACRA	Bullet Passenger Pelvis CG Resultant Acceleration	1000			
98	13FEMRLL00HFFOZA	Bullet Passenger Left Femur Z-Axis Force	600	+	yes	13344
99	13FEMRRL00HFFOZA	Bullet Passenger Right Femur Z-Axis Force	600	+	yes	13344
100	14CRME000000ACXA	Bullet Vehicle Left Rear Seat Crossmember X-Axis Acceleration	60	+	yes	1000
101	16CRME000000ACXA	Bullet Vehicle Right Rear Seat Crossmember X-Axis Acceleration	60	+	yes	1000
102	12ENGNTPO0000ACXA	Bullet Vehicle Top of Engine X-Axis Acceleration	60	+	yes	2000
103	12ENGNB00000ACXA	Bullet Vehicle Bottom of Engine X-Axis Acceleration	60	+	yes	2000
104	13VEHCRI0000ACXA	Bullet Vehicle Right Front Brake Caliper X-Axis Acceleration	60	+	yes	2000
105	11VEHCLE0000ACXA	Bullet Vehicle Left Front Brake Caliper X-Axis Acceleration	60	+	yes	2000
106	11PEAC000000ACXA	Bullet Vehicle Toe Pan Accelerator X-Axis Acceleration	60	+	yes	2000
107	11PEAC000000ACZA	Bullet Vehicle Toe Pan Accelerator Z-Axis Acceleration	60	+	yes	2000
108	11VEHC000001ACXA	Bullet Vehicle Toe Pan Footrest X-Axis Acceleration	60	+	yes	2000
109	11VEHC000001ACZA	Bullet Vehicle Toe Pan Footrest Z-Axis Acceleration	60	+	yes	2000
110	15TUNNCY0000ACXA	Bullet Vehicle Rear Tunnel Center X-Axis Acceleration	60	+	yes	1000
111	10VEHCCG0000ACXA	Bullet Vehicle CG X-Axis Acceleration	60	+	yes	1500
111A	10VEHCCG0000VEXA	Bullet Vehicle CG X-Axis Velocity	180			
111B	10VEHCCG0000DCXA	Bullet Vehicle CG X-Axis Displacement	180			
112	10VEHCCG0000ACYA	Bullet Vehicle CG Y-Axis Acceleration	60	+	yes	1500
112A	10VEHCCG0000VEYA	Bullet Vehicle CG Y-Axis Velocity	180			
112B	10VEHCCG0000DCYA	Bullet Vehicle CG Y-Axis Displacement	180			
113	10VEHCCG0000ACZA	Bullet Vehicle CG Z-Axis Acceleration	60	+	yes	1500
113A	10VEHCCG0000VEZA	Bullet Vehicle CG Z-Axis Velocity	180			
113B	10VEHCCG0000DCZA	Bullet Vehicle CG Z-Axis Displacement	180			
113C	10VEHCCG0000ACRA	Bullet Vehicle CG Resultant Acceleration	60			
114	18VEHC000000ACXA	Bullet Vehicle Rear Deck X-Axis Acceleration	60	+	yes	1000
115	18VEHC000000ACYA	Bullet Vehicle Rear Deck Y-Axis Acceleration	60	+	yes	1000
116	18VEHC000000ACZA	Bullet Vehicle Rear Deck Z-Axis Acceleration	60	+	yes	1000
116A	18VEHC000000ACRA	Bullet Vehicle Rear Deck Resultant Acceleration	60			
117	11AIRBFR0100EV0A	Bullet Vehicle Driver Airbag - Primary	1000	+	no	5
118	11AIRBFR0200EV0A	Bullet Vehicle Driver Airbag - Secondary	1000	+	no	5
119	13AIRBFR0100EV0A	Bullet Vehicle Passenger Airbag - Primary	1000	+	no	5
120	13AIRBFR0200EV0A	Bullet Vehicle Passenger Airbag - Secondary	1000	+	no	5
121	11SEBA0000B5DS0A	Bullet Vehicle Driver lap belt spool	1000	+	yes	635
122	11SEBA0000B3DS0A	Bullet Vehicle Driver shoulder belt spool and retraction	1000	+	yes	1250
123	13SEBA0000B3DS0A	Bullet Vehicle RF Pass shoulder belt spool and retraction	1000	+	yes	1270

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter	Class	Flip	Zero	Full Scale
124	12DASH000000ACXA	Bullet Vehicle IP Center	60		+	yes	1500
125	21HEADCG00H3ACXA	Target Driver Head X-Axis Acceleration	1000		+	yes	1000
126	21HEADCG00H3ACYA	Target Driver Head Y-Axis Acceleration	1000		+	yes	1000
127	21HEADCG00H3ACZA	Target Driver Head Z-Axis Acceleration	1000		+	yes	1000
127A	21HEADCG00H3ACRA	Target Driver Head Resultant Acceleration	1000				
128	21HEADFR00H3ACYA	Target Driver Head Front Y-Axis Acceleration	1000		+	yes	1000
129	21HEADFR00H3ACZA	Target Driver Head Front Z-Axis Acceleration	1000		+	yes	1000
130	21HEADUP00H3ACXA	Target Driver Head Top X-Axis Acceleration	1000		+	yes	1000
131	21HEADUP00H3ACYA	Target Driver Head Top Y-Axis Acceleration	1000		+	yes	1000
132	21HEADLE00H3ACXA	Target Driver Head Side X-Axis Acceleration	1000		+	yes	1000
133	21HEADLE00H3ACZA	Target Driver Head Side Z-Axis Acceleration	1000		+	yes	1000
134	21NECKUP00H3FOXA	Target Driver Upper Neck X-Axis Force	1000		+	yes	8896.4
135	21NECKUP00H3FOYA	Target Driver Upper Neck Y-Axis Force	1000		+	yes	8896.4
136	21NECKUP00H3FOZA	Target Driver Upper Neck Z-Axis Force	1000		+	yes	13344
137	21NECKUP00H3MOXA	Target Driver Upper Neck Moment About X Axis	600		+	yes	282
138	21NECKUP00H3MOYA	Target Driver Upper Neck Moment About Y Axis	600		+	yes	282
139	21NECKUP00H3MOZA	Target Driver Upper Neck Moment About Z Axis	600		+	yes	282
140	21NECKLO00H3FOXA	Target Driver Lower Neck X-Axis Force	1000		+	yes	13344
141	21NECKLO00H3FOYA	Target Driver Lower Neck Y-Axis Force	1000		+	yes	13344
142	21NECKLO00H3FOZA	Target Driver Lower Neck Z-Axis Force	1000		+	yes	13344
143	21NECKLO00H3MOXA	Target Driver Lower Neck Moment About X Axis	600		+	yes	452
144	21NECKLO00H3MOYA	Target Driver Lower Neck Moment About Y Axis	600		+	yes	452
145	21NECKLO00H3MOZA	Target Driver Lower Neck Moment About Z Axis	600		+	yes	452
146	21CHSTCG00H3ACXA	Target Driver Chest CG X-Axis Acceleration	180		+	yes	1000
147	21CHSTCG00H3ACYA	Target Driver Chest CG Y-Axis Acceleration	180		+	yes	1000
148	21CHSTCG00H3ACZA	Target Driver Chest CG Z-Axis Acceleration	180		+	yes	1000
148A	21CHSTCG00H3ACRA	Target Driver Chest CG Resultant Acceleration	180				
149	21CHSTCGRDH3ACXA	Target Driver Redundant Chest CG X-Axis Acceleration	180		+	yes	1000
150	21CHSTCGRDH3ACYA	Target Driver Redundant Chest CG Y-Axis Acceleration	180		+	yes	1000
151	21CHSTCGRDH3ACZA	Target Driver Redundant Chest CG Z-Axis Acceleration	180		+	yes	1000
151A	21CHSTCGRDH3ACRA	Target Driver Redundant Chest CG Resultant Acceleration	180				
152	21CHST0000H3DSXA	Target Driver Chest Displacement	600		+	yes	100
153	21PELVCG00H3ACXA	Target Driver Pelvis CG X-Axis Acceleration	1000		+	yes	600
154	21PELVCG00H3ACYA	Target Driver Pelvis CG Y-Axis Acceleration	1000		+	yes	600
155	21PELVCG00H3ACZA	Target Driver Pelvis CG Z-Axis Acceleration	1000		+	yes	600

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
155A	21PELVCG00H3ACRA	Target Driver Pelvis CG Resultant Acceleration	1000			
156	21FEMRLL00H3FOZA	Target Driver Left Femur Z-Axis Force	600	+	yes	13344
157	21KNSLLE00H3DSXA	Target Driver Left Knee Displacement	180	+	yes	21.8
158	21TIBILULXH3FOXA	Target Driver Left Upper Tibia X-Axis Force	600	+	yes	11120
159	21TIBILULXH3FOZA	Target Driver Left Upper Tibia Z-Axis Force	600	+	yes	11120
160	21TIBILULXH3MOXA	Target Driver Left Upper Tibia Moment About X Axis	600	+	yes	395.4
161	21TIBILULXH3MOYA	Target Driver Left Upper Tibia Moment About Y Axis	600	+	yes	395.4
162	21TIBILELXH3ACXA	Target Driver Left Tibia X-Axis Acceleration	1000	+	yes	1000
163	21TIBILELXH3ACYA	Target Driver Left Tibia Y-Axis Acceleration	1000	+	yes	1000
164	21TIBILLXH3FOXA	Target Driver Left Lower Tibia X-Axis Force	600	+	yes	11120
165	21TIBILLXH3FOYA	Target Driver Left Lower Tibia Y-Axis Force	600	+	yes	11120
166	21TIBILLXH3FOZA	Target Driver Left Lower Tibia Z-Axis Force	600	+	yes	11120
167	21TIBILLXH3MOXA	Target Driver Left Lower Tibia Moment About X Axis	600	+	yes	395.4
168	21TIBILLXH3MOYA	Target Driver Left Lower Tibia Moment About Y Axis	600	+	yes	395.4
169	21FOOTLELXH3ANXA	Target Driver Left Foot X-Axis Rotation	180	+	no	166.2
170	21FOOTLELXH3ANYA	Target Driver Left Foot Y-Axis Rotation	180	+	no	165.4
171	21FOOTLELXH3ANZA	Target Driver Left Foot Z-Axis Rotation	180	+	no	165.2
172	21FOOTLELXH3ACXA	Target Driver Left Foot X-Axis Acceleration	1000	+	yes	1000
173	21FOOTLELXH3ACYA	Target Driver Left Foot Y-Axis Acceleration	1000	+	yes	1000
174	21FOOTLELXH3ACZA	Target Driver Left Foot Z-Axis Acceleration	1000	+	yes	1000
174A	21FOOTLELXH3ACRA	Target Driver Left Foot Resultant Acceleration	1000			
175	21FEMRRL00H3FOZA	Target Driver Right Femur Z-Axis Force	600	+	yes	13344
176	21KNSLRI00H3DSXA	Target Driver Right Knee Displacement	180	+	yes	21.8
177	21TIBIRULXH3FOXA	Target Driver Right Upper Tibia X-Axis Force	600	+	yes	11120
178	21TIBIRULXH3FOZA	Target Driver Right Upper Tibia Z-Axis Force	600	+	yes	11120
179	21TIBIRULXH3MOXA	Target Driver Right Upper Tibia Moment About X Axis	600	+	yes	395.4
180	21TIBIRULXH3MOYA	Target Driver Right Upper Tibia Moment About Y Axis	600	+	yes	395.4
181	21TIBIRILXH3ACXA	Target Driver Right Tibia X-Axis Acceleration	1000	+	yes	1000
182	21TIBIRILXH3ACYA	Target Driver Right Tibia Y-Axis Acceleration	1000	+	yes	1000
183	21TIBIRLLXH3FOXA	Target Driver Right Lower Tibia X-Axis Force	600	+	yes	11120
184	21TIBIRLLXH3FOYA	Target Driver Right Lower Tibia Y-Axis Force	600	+	yes	11120
185	21TIBIRLLXH3FOZA	Target Driver Right Lower Tibia Z-Axis Force	600	+	yes	11120
186	21TIBIRLLXH3MOXA	Target Driver Right Lower Tibia Moment About X Axis	600	+	yes	395.4
187	21TIBIRLLXH3MOYA	Target Driver Right Lower Tibia Moment About Y Axis	600	+	yes	395.4
188	21FOOTRILXH3ANXA	Target Driver Right Foot X-Axis Rotation	180	+	no	164

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
189	21FOOTRILXH3ANYA	Target Driver Right Foot Y-Axis Rotation	180	+	no	165
190	21FOOTRILXH3ANZA	Target Driver Right Foot Z-Axis Rotation	180	+	no	165
191	21FOOTRILXH3ACXA	Target Driver Right Foot X-Axis Acceleration	1000	+	yes	1000
192	21FOOTRILXH3ACYA	Target Driver Right Foot Y-Axis Acceleration	1000	+	yes	1000
193	21FOOTRILXH3ACZA	Target Driver Right Foot Z-Axis Acceleration	1000	+	yes	1000
193A	21FOOTRILXH3ACRA	Target Driver Right Foot Resultant Acceleration	1000			
194	23HEADCG00HFACXA	Target Passenger Head CG X-Axis Acceleration	1000	+	yes	1000
195	23HEADCG00HFACYA	Target Passenger Head CG Y-Axis Acceleration	1000	+	yes	1000
196	23HEADCG00HFACZA	Target Passenger Head CG Z-Axis Acceleration	1000	+	yes	1000
196A	23HEADCG00HFACRA	Target Passenger Head CG Resultant Acceleration	1000			
197	23HEADCGRDHFACXA	Target Passenger Redundant Head CG X-Axis Acceleration	1000	+	yes	1000
198	23HEADCGRDHFACYA	Target Passenger Redundant Head CG Y-Axis Acceleration	1000	+	yes	1000
199	23HEADCGRDHFACZA	Target Passenger Redundant Head CG Z-Axis Acceleration	1000	+	yes	1000
199A	23HEADCGRDHFACRA	Target Passenger Redundant Head CG Resultant Acceleration	1000			
200	23HEADFR00HFACYA	Target Passenger Head Front Y-Axis Acceleration	1000	+	yes	1000
201	23HEADFR00HFACZA	Target Passenger Head Front Z-Axis Acceleration	1000	+	yes	1000
202	23HEADUP00HFACXA	Target Passenger Head Top X-Axis Acceleration	1000	+	yes	1000
203	23HEADUP00HFACYA	Target Passenger Head Top Y-Axis Acceleration	1000	+	yes	1000
204	23HEADLE00HFACXA	Target Passenger Head Side X-Axis Acceleration	1000	+	yes	1000
205	23HEADLE00HFACZA	Target Passenger Head Side Z-Axis Acceleration	1000	+	yes	1000
206	23NECKUP00HFFOXA	Target Passenger Upper Neck X-Axis Force	1000	+	yes	8896
207	23NECKUP00HFFOYA	Target Passenger Upper Neck Y-Axis Force	1000	+	yes	8896
208	23NECKUP00HFFOZA	Target Passenger Upper Neck Z-Axis Force	1000	+	yes	13344
209	23NECKUP00HFMOXA	Target Passenger Upper Neck Moment About X Axis	600	+	yes	282
210	23NECKUP00HFMOYA	Target Passenger Upper Neck Moment About Y Axis	600	+	yes	282
211	23NECKUP00HFMOZA	Target Passenger Upper Neck Moment About Z Axis	600	+	yes	282
212	23NECKLO00HFFOXA	Target Passenger Lower Neck X-Axis Force	1000	+	yes	13344
213	23NECKLO00HFFOYA	Target Passenger Lower Neck Y-Axis Force	1000	+	yes	13344
214	23NECKLO00HFFOZA	Target Passenger Lower Neck Z-Axis Force	1000	+	yes	13344
215	23NECKLO00HFMOXA	Target Passenger Lower Neck Moment About X Axis	600	+	yes	452
216	23NECKLO00HFMOYA	Target Passenger Lower Neck Moment About Y Axis	600	+	yes	452
217	23NECKLO00HFMOZA	Target Passenger Lower Neck Moment About Z Axis	600	+	yes	339
218	23CHSTCG00HFACXA	Target Passenger Chest CG X-Axis Acceleration	180	+	yes	1000
219	23CHSTCG00HFACYA	Target Passenger Chest CG Y-Axis Acceleration	180	+	yes	1000
220	23CHSTCG00HFACZA	Target Passenger Chest CG Z-Axis Acceleration	180	+	yes	1000

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
220A	23CHSTCG00HFACRA	Target Passenger Chest CG Resultant Acceleration	180			
221	23CHSTCGRDHFACXA	Target Passenger Redundant Chest CG X-Axis Acceleration	180	+	yes	1000
222	23CHSTCGRDHFACYA	Target Passenger Redundant Chest CG Y-Axis Acceleration	180	+	yes	1000
223	23CHSTCGRDHFACZA	Target Passenger Redundant Chest CG Z-Axis Acceleration	180	+	yes	1000
223A	23CHSTCGRDHFACRA	Target Passenger Redundant Chest CG Resultant Acceleration	180			
224	23CHST0000HFDSXA	Target Passenger Chest Displacement	600	+	yes	100
225	23STRNUP00HFACXA	Target Passenger Sternum Upper X-Axis Acceleration	1000	+	yes	1000
226	23STRNMI00HFACXA	Target Passenger Sternum Mid X-Axis Acceleration	1000	+	yes	1000
227	23STRNLO00HFACXA	Target Passenger Sternum Lower X-Axis Acceleration	1000	+	yes	1000
228	23PELVCG00HFACXA	Target Passenger Pelvis CG X-Axis Acceleration	1000	+	yes	1000
229	23PELVCG00HFACYA	Target Passenger Pelvis CG Y-Axis Acceleration	1000	+	yes	1000
230	23PELVCG00HFACZA	Target Passenger Pelvis CG Z-Axis Acceleration	1000	+	yes	1000
230A	23PELVCG00HFACRA	Target Passenger Pelvis CG Resultant Acceleration	1000			
231	23FEMRL00HFFOZA	Target Passenger Left Femur Z-Axis Force	600	+	yes	13344
232	23KNSLLE00HFDSXA	Target Passenger Left Knee Displacement	180	+	yes	40
233	23TIBILUFXHFFOXA	Target Passenger Left Upper Tibia X-Axis Force	600	+	yes	8896.4
234	23TIBILUFXHFFOZA	Target Passenger Left Upper Tibia Z-Axis Force	600	+	yes	8896.4
235	23TIBILUFXHFMOMA	Target Passenger Left Upper Tibia Moment About X Axis	600	+	yes	282.4
236	23TIBILUFXHFMOMA	Target Passenger Left Upper Tibia Moment About Y Axis	600	+	yes	282.4
237	23TIBILEFXHFACXA	Target Passenger Left Tibia X-Axis Acceleration	1000	+	yes	1000
238	23TIBILEFXHFACYA	Target Passenger Left Tibia Y-Axis Acceleration	1000	+	yes	1000
239	23TIBILLFXHFFOXA	Target Passenger Left Lower Tibia X-Axis Force	600	+	yes	8896.4
240	23TIBILLFXHFFOMA	Target Passenger Left Lower Tibia Y-Axis Force	600	+	yes	8896.4
241	23TIBILLFXHFFOZA	Target Passenger Left Lower Tibia Z-Axis Force	600	+	yes	8896.4
242	23TIBILLFXHFMOMA	Target Passenger Left Lower Tibia Moment About X Axis	600	+	yes	282.4
243	23TIBILLFXHFMOMA	Target Passenger Left Lower Tibia Moment About Y Axis	600	+	yes	282.4
244	23FOOTLEFXHFANXA	Target Passenger Left Foot X-Axis Rotation	180	+	no	318
245	23FOOTLEFXHFANYA	Target Passenger Left Foot Y-Axis Rotation	180	+	no	318
246	23FOOTLEFXHFANZA	Target Passenger Left Foot Z-Axis Rotation	180	+	no	318
247	23FOOTLEFXHFACXA	Target Passenger Left Foot X-Axis Acceleration	1000	+	yes	1000
248	23FOOTLEFXHFACYA	Target Passenger Left Foot Y-Axis Acceleration	1000	+	yes	1000
249	23FOOTLEFXHFACZA	Target Passenger Left Foot Z-Axis Acceleration	1000	+	yes	1000
249A	23FOOTLEFXHFACRA	Target Passenger Left Foot Resultant Acceleration	1000			
250	23FEMRRL00HFFOZA	Target Passenger Right Femur Z-Axis Force	600	+	yes	13344
251	23KNSLRI00HFDSXA	Target Passenger Right Knee Displacement	180	+	yes	22.1

Command File Test Number 060302

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
252	23TIBIRUFXHFFOXA	Target Passenger Right Upper Tibia X-Axis Force	600	+	yes	8896.4
253	23TIBIRUFXHFFOZA	Target Passenger Right Upper Tibia Z-Axis Force	600	+	yes	8896.4
254	23TIBIRUFXHFMOMA	Target Passenger Right Upper Tibia Moment About X Axis	600	+	yes	282.4
255	23TIBIRUFXHFMOMA	Target Passenger Right Upper Tibia Moment About Y Axis	600	+	yes	282.4
256	23TIBIRIFXHFACXA	Target Passenger Right Tibia X-Axis Acceleration	1000	+	yes	1000
257	23TIBIRIFXHFACYA	Target Passenger Right Tibia Y-Axis Acceleration	1000	+	yes	1000
258	23TIBIRLFXHFFOXA	Target Passenger Right Lower Tibia X-Axis Force	600	+	yes	8896.4
259	23TIBIRLFXHFFOYA	Target Passenger Right Lower Tibia Y-Axis Force	600	+	yes	8896.4
260	23TIBIRLFXHFFOZA	Target Passenger Right Lower Tibia Z-Axis Force	600	+	yes	8896.4
261	23TIBIRLFXHFMOMA	Target Passenger Right Lower Tibia Moment About X Axis	600	+	yes	282.4
262	23TIBIRLFXHFMOMA	Target Passenger Right Lower Tibia Moment About Y Axis	600	+	yes	282.4
263	23FOOTRIFXHFANXA	Target Passenger Right Foot X-Axis Rotation	180	+	no	318
264	23FOOTRIFXHFANYA	Target Passenger Right Foot Y-Axis Rotation	180	+	no	318
265	23FOOTRIFXHFANZA	Target Passenger Right Foot Z-Axis Rotation	180	+	no	318
266	23FOOTRIFXHFACXA	Target Passenger Right Foot X-Axis Acceleration	1000	+	yes	1000
267	23FOOTRIFXHFACYA	Target Passenger Right Foot Y-Axis Acceleration	1000	+	yes	1000
268	23FOOTRIFXHFACZA	Target Passenger Right Foot Z-Axis Acceleration	1000	+	yes	1000
268A	23FOOTRIFXHFACRA	Target Passenger Right Foot Resultant Acceleration	1000			
269	24CRME000000ACXA	Target Vehicle Left Rear Seat Crossmember X-Axis Acceleration	60	+	yes	1000
270	26CRME000000ACXA	Target Vehicle Right Rear Seat Crossmember X-Axis Acceleration	60	+	yes	1000
271	22ENGNTPO0000ACXA	Target Vehicle Top of Engine X-Axis Acceleration	60	+	yes	2000
272	22ENGNB00000ACXA	Target Vehicle Bottom of Engine X-Axis Acceleration	60	+	yes	2000
273	23VEHCRI0000ACXA	Target Vehicle Right Front Brake Caliper X-Axis Acceleration	60	+	yes	2000
274	21VEHCLE0000ACXA	Target Vehicle Left Front Brake Caliper X-Axis Acceleration	60	+	yes	2000
275	21PEAC000000ACXA	Target Vehicle Toe Pan Accelerator X-Axis Acceleration	60	+	yes	2000
276	21PEAC000000ACZA	Target Vehicle Toe Pan Accelerator Z-Axis Acceleration	60	+	yes	2000
277	21VEHC000001ACXA	Target Vehicle Toe Pan Footrest X-Axis Acceleration	60	+	yes	2000
278	21VEHC000001ACZA	Target Vehicle Toe Pan Footrest Z-Axis Acceleration	60	+	yes	2000
279	25TUNNCY0000ACXA	Target Vehicle Rear Tunnel Center X-Axis Acceleration	60	+	yes	1000
280	20VEHCCG0000ACXA	Target Vehicle CG X-Axis Acceleration	60	+	yes	1500
280A	20VEHCCG0000VEXA	Target Vehicle CG X-Axis Velocity	180			
280B	20VEHCCG0000DCXA	Target Vehicle CG X-Axis Displacement	180			
281	20VEHCCG0000ACYA	Target Vehicle CG Y-Axis Acceleration	60	+	yes	1500
281A	20VEHCCG0000VEYA	Target Vehicle CG Y-Axis Velocity	180			
281B	20VEHCCG0000DCYA	Target Vehicle CG Y-Axis Displacement	180			

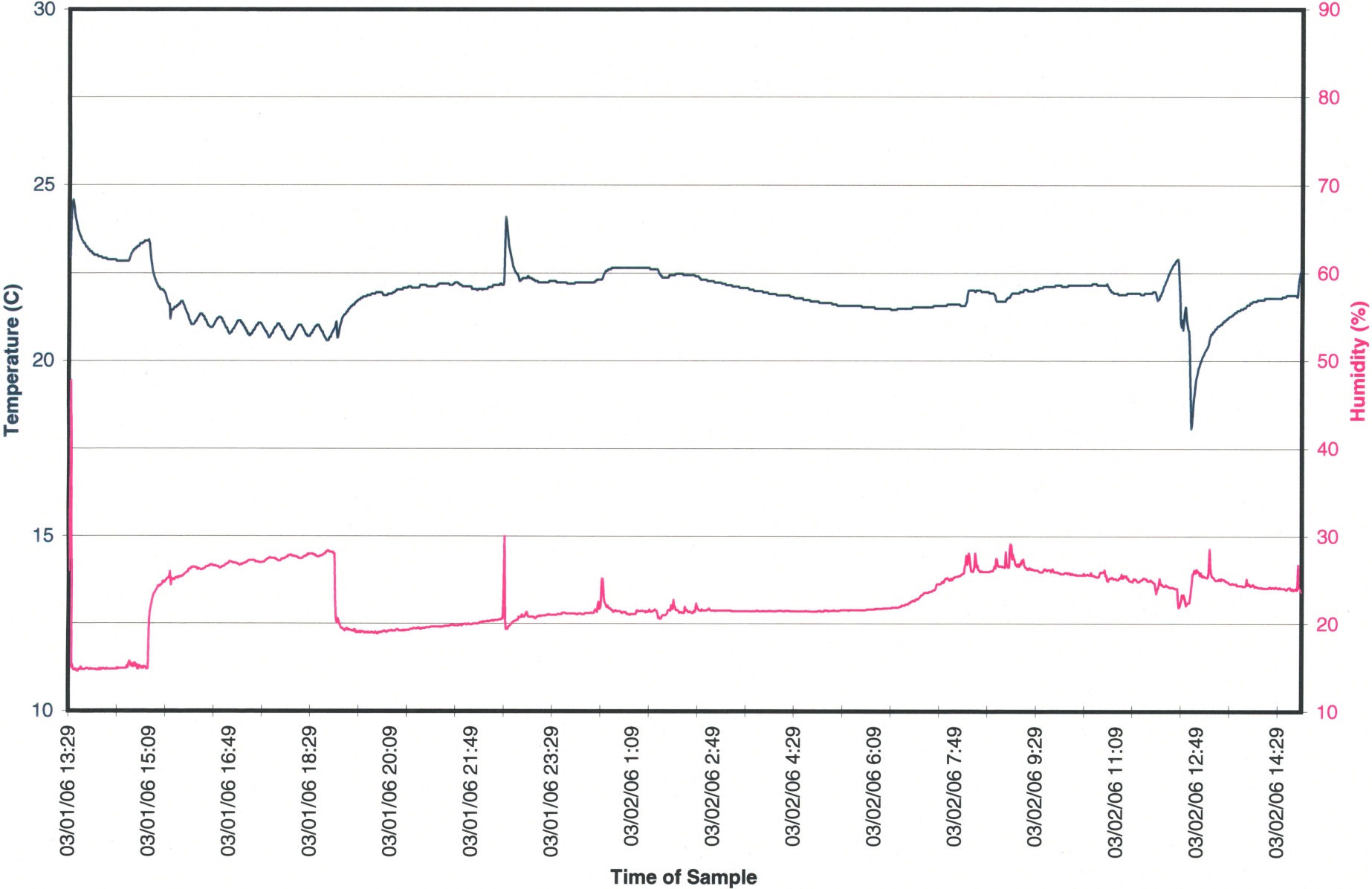
Command File Test Number 060302

Channel Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
282 20VEHCCG0000ACZA	Target Vehicle CG Z-Axis Acceleration	60	+	yes	1500
282A 20VEHCCG0000VEZA	Target Vehicle CG Z-Axis Velocity	180			
282B 20VEHCCG0000DCZA	Target Vehicle CG Z-Axis Displacement	180			
282C 20VEHCCG0000ACRA	Target Vehicle CG Resultant Acceleration	60			
283 28VEHC000000ACXA	Target Vehicle Rear Deck X-Axis Acceleration	60	+	yes	1000
284 28VEHC000000ACYA	Target Vehicle Rear Deck Y-Axis Acceleration	60	+	yes	1000
285 28VEHC000000ACZA	Target Vehicle Rear Deck Z-Axis Acceleration	60	+	yes	1000
285A 28VEHC000000ACRA	Target Vehicle Rear Deck Resultant Acceleration	60			
286 21AIRBFR0100EV0A	Target Vehicle Driver Airbag - Primary	1000	+	no	5
287 21AIRBFR0200EV0A	Target Vehicle Driver Airbag - Secondary	1000	+	no	5
288 23AIRBFR0100EV0A	Target Vehicle Passenger Airbag - Primary	1000	+	no	5
289 23AIRBFR0200EV0A	Target Vehicle Passenger Airbag - Secondary	1000	+	no	5
290 21SEBA0000B5DS0A	Target Vehicle Driver Lap Belt Spool	1000	+	yes	635
291 21SEBA0000B3DS0A	Target Vehicle Driver Shoulder Belt Spool and Retraction	1000	+	yes	1270
292 23SEBA0000B5DS0A	Target Vehicle RF Pass Lap Belt Spool	1000	+	yes	635
293 23SEBA0000B3DS0A	Target Vehicle RF Pass Shoulder Belt Spool and Retraction	1000	+	yes	635
294 22DASH000000ACXA	Target Vehicle IP Center	60	+	yes	1500

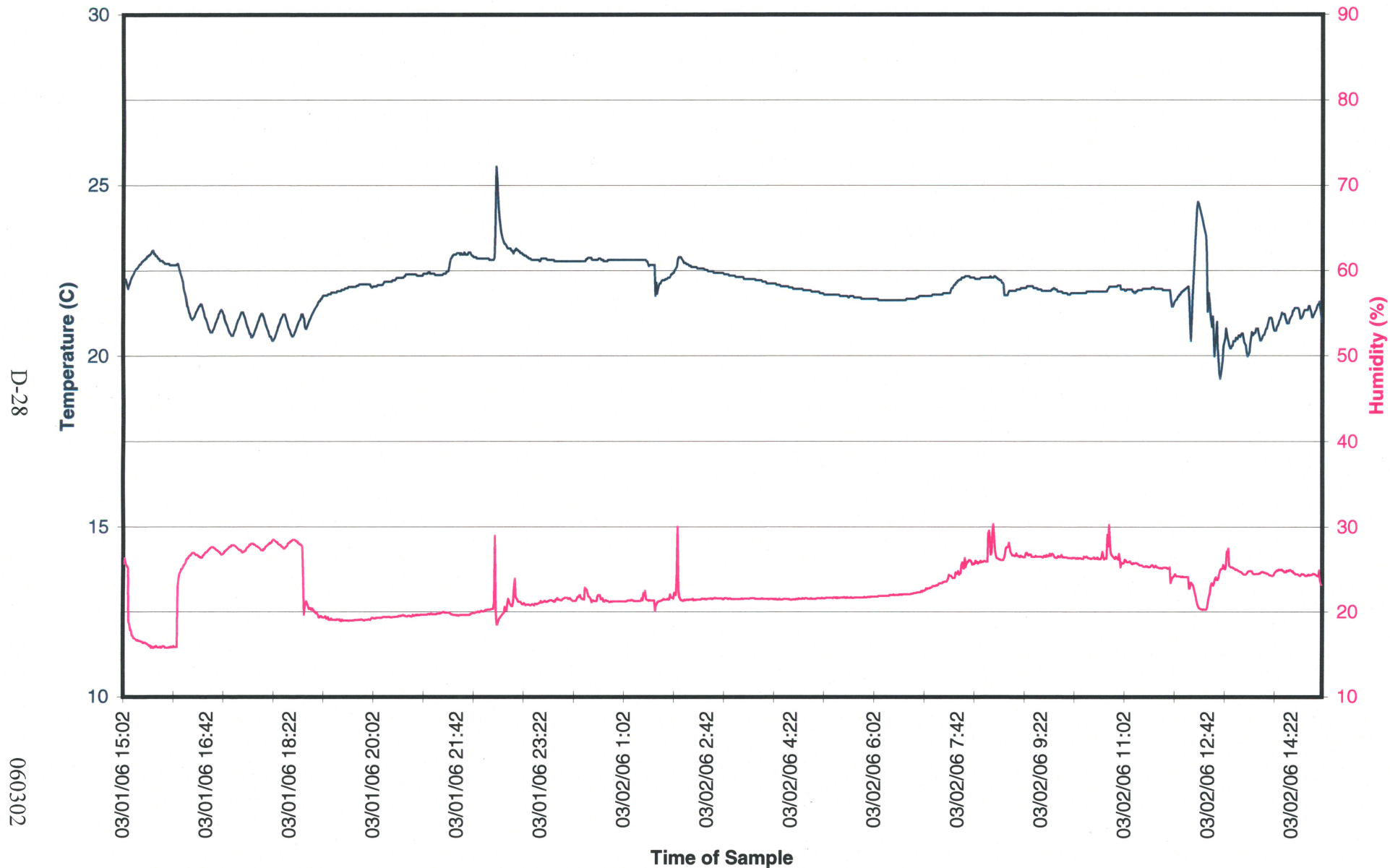
FULL FRONTAL COLLINEAR 2002 FORD FOCUS

D-27

060302



FULL FRONTAL COLLINEAR 2006 FORD F-250



Appendix E

INSIA Report on Structural Measurements



STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

**APARICIO IZQUIERDO, FRANCISCO
PÁEZ AYUSO, FRANCISCO JAVIER**

**INSIA
Carretera de Valencia, km. 7
Campus Sur de la Universidad Politécnica de Madrid
28031 – MADRID – (SPAIN)**

March, 1999

REPORT DOCUMENTATION PAGE**Title:**

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

Author(s):

Aparicio Izquierdo, Francisco
Páez Ayuso, Francisco Javier

Performing Organisation name and address:

INSIA – University Institute for Automobile Research
Carretera de Valencia, Km. 7 – Campus Sur de la Universidad Politécnica de Madrid
28031 – Madrid – Spain

Supplementary notes:

Under contract to:

THE EUROPEAN COMMUNITY

Project: “Improvement of Crash Compatibility between Cars”

Contract N°: 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.

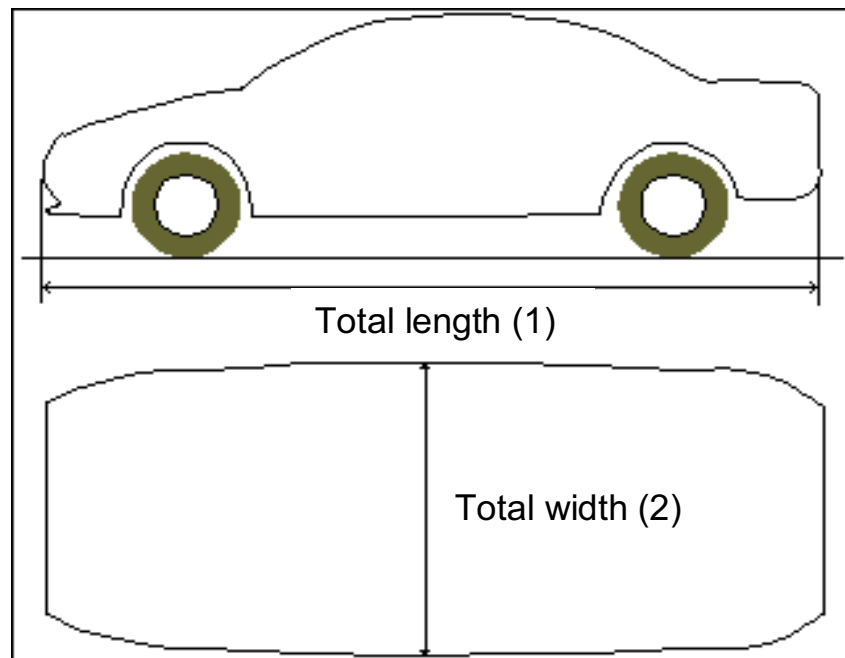


Figure 1.- Definition of the main resistant elements. General dimensions.

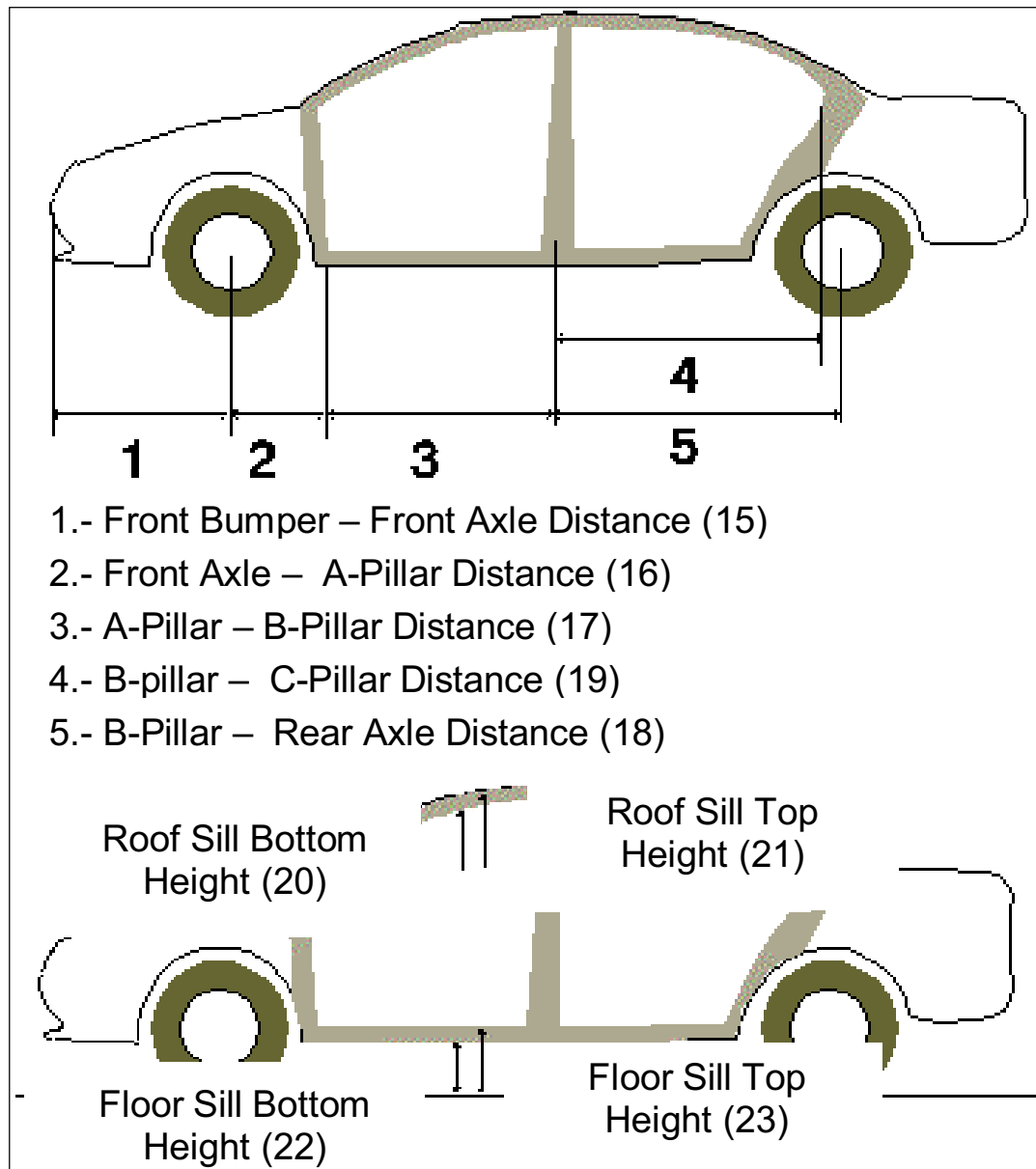


Figure 2.- Definition of the main resistant elements. Side elements.

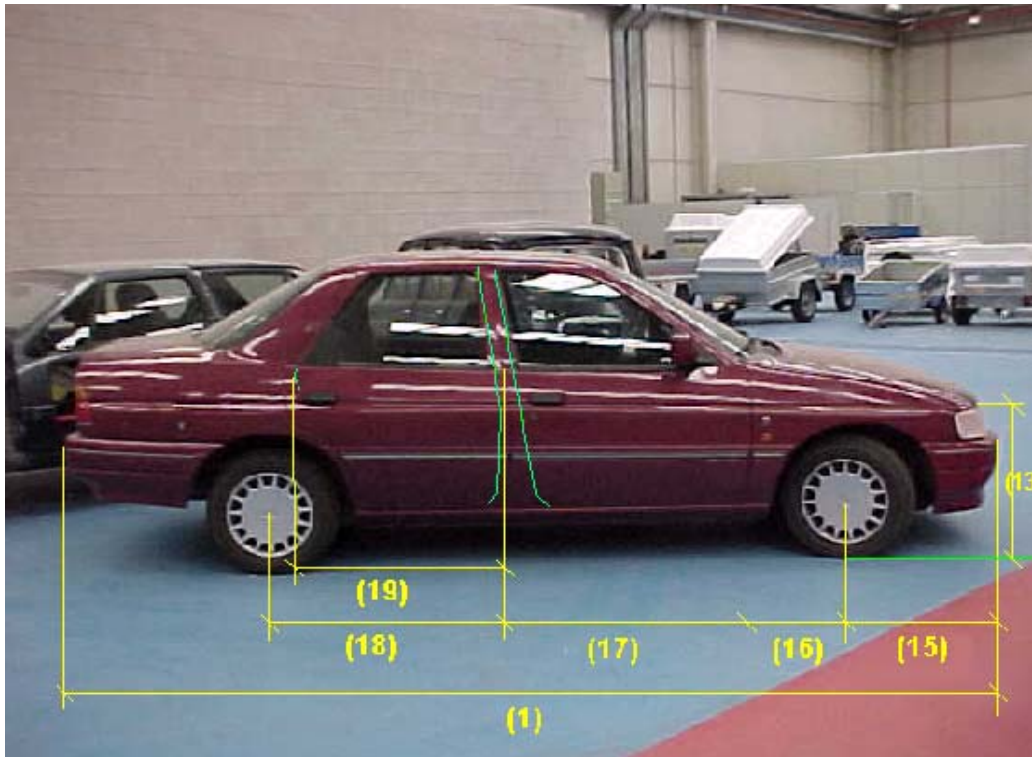


Figure 3.-
Measurements of
the side resistant
elements (outer).

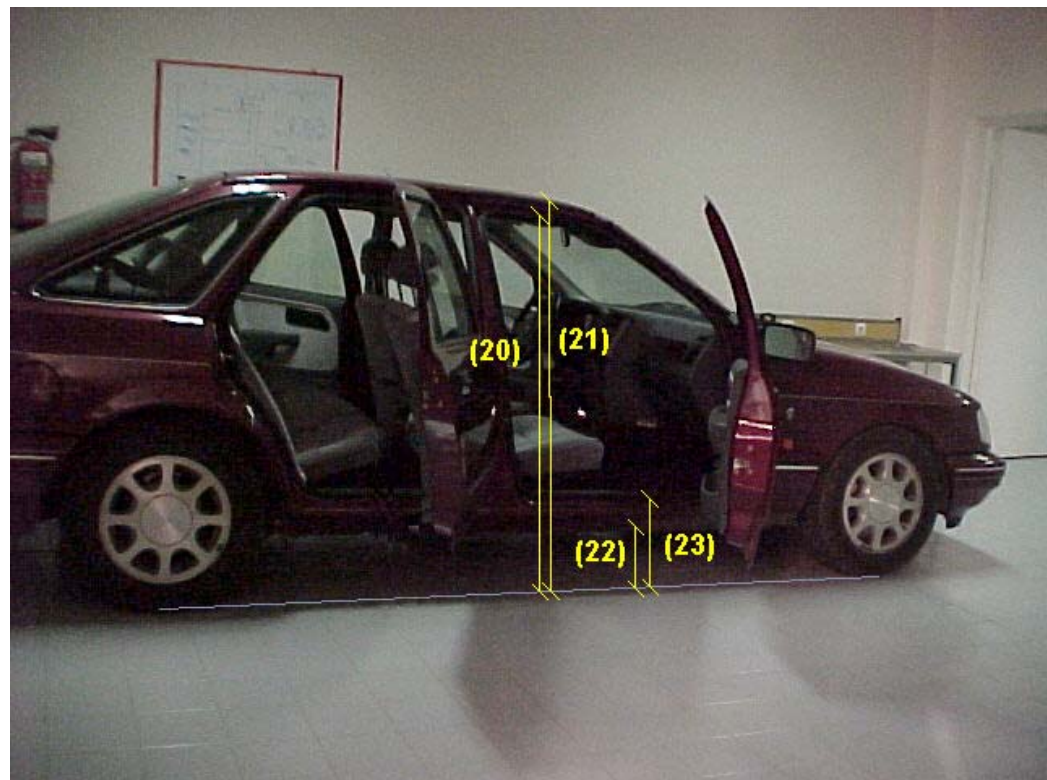


Figure 4.- Measurements
of the side resistant
elements (inner).

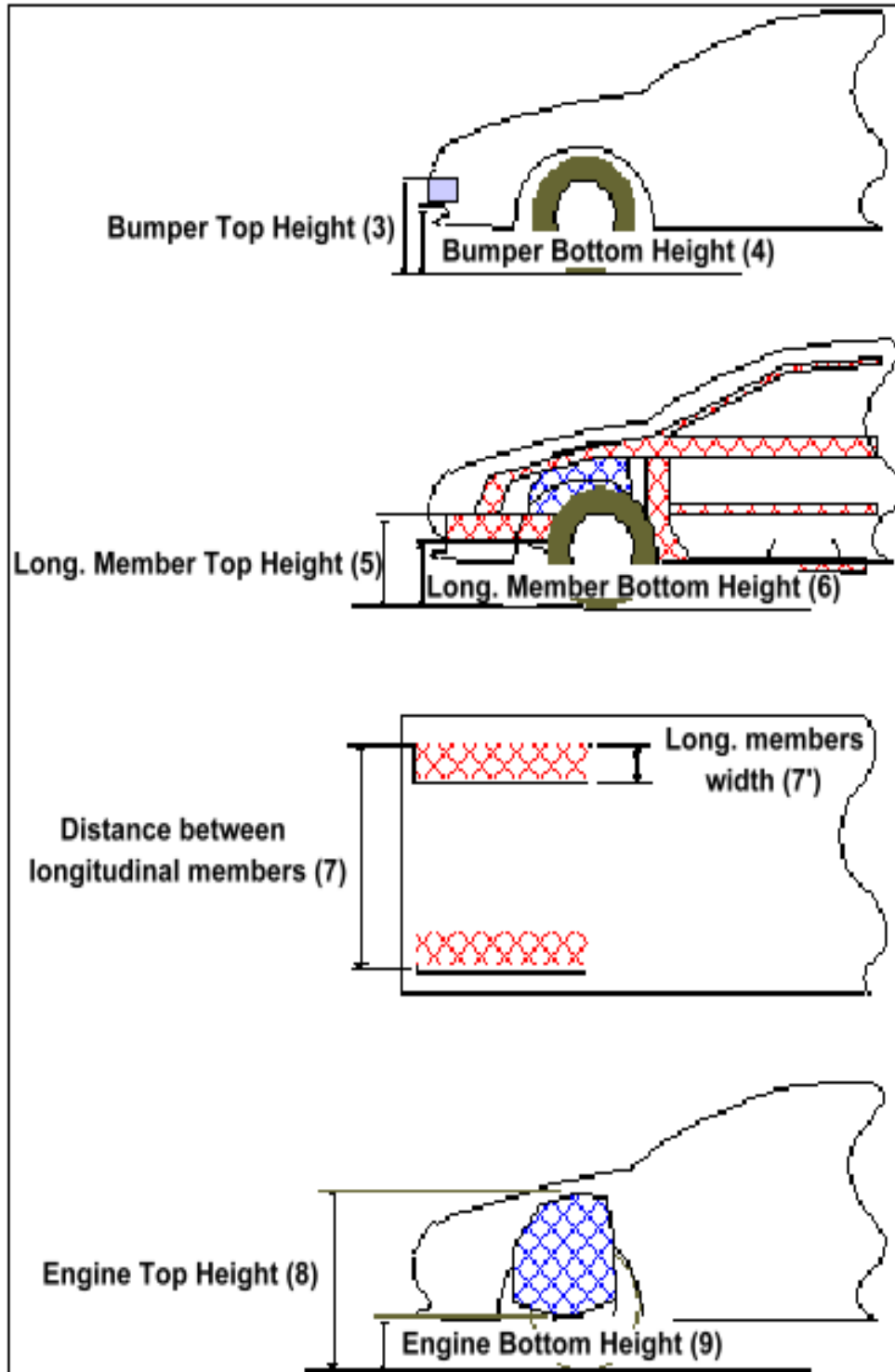


Figure 5.- Definition of the main resistant elements. Front elements.

Figure 6.-
Measurements of the
main resistant elements.
Front elements 1.

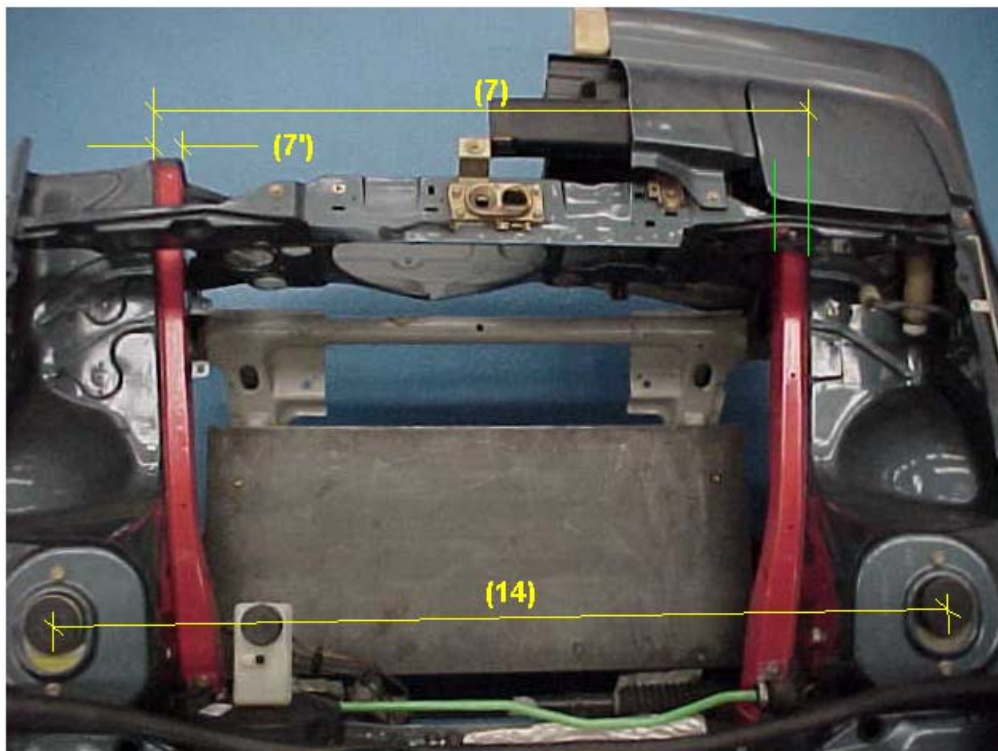
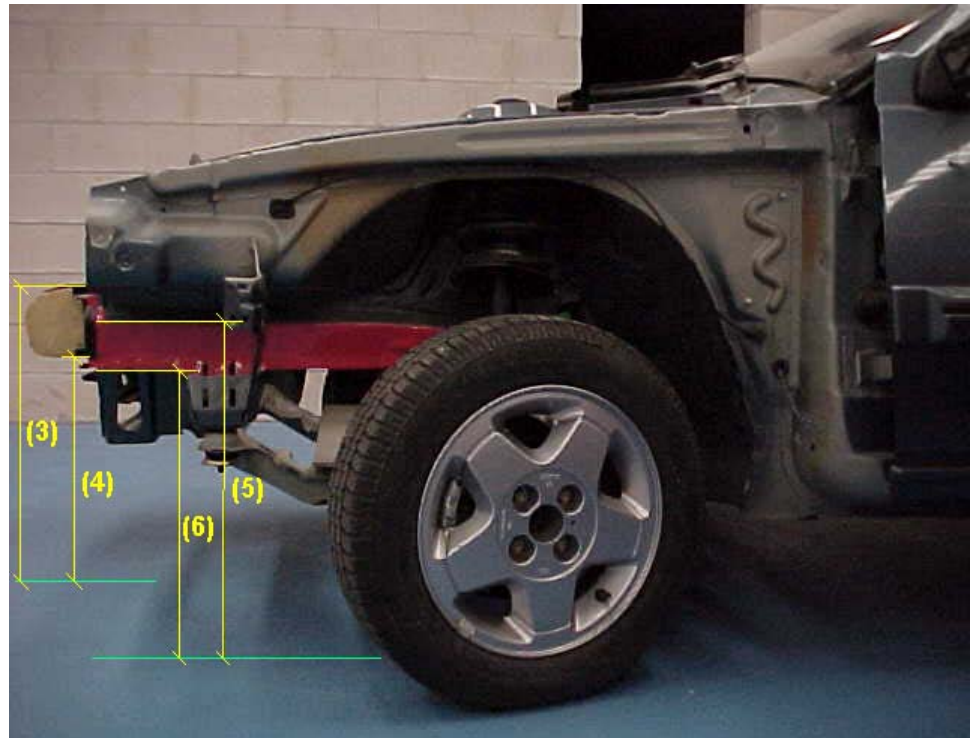


Figure 7.-
Measurements
of the main
resistant
elements. Front
elements 2.

Figure 8.-
Measurements of
the main resistant
elements. Front
elements 3.

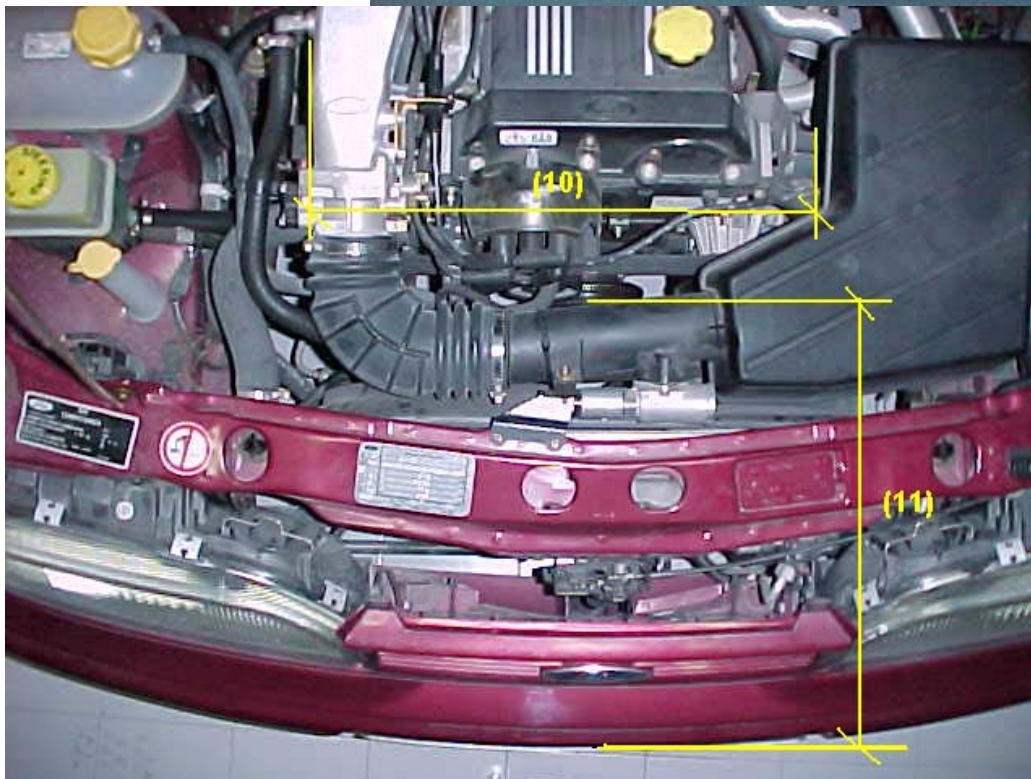
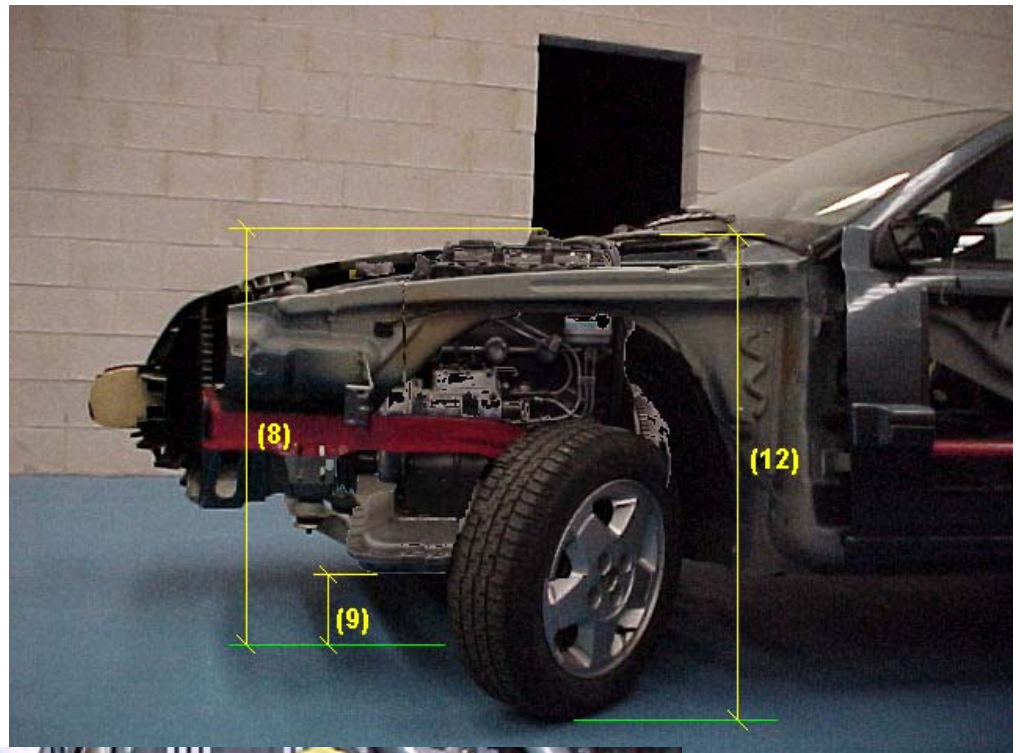


Figure 9.-
Definition of
the main
resistant
elements. Front
elements
(Longitudinal
engine).



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.