

**Vehicle Research and Test Center
2005 Chrysler Town & Country LX 4-door MPV into a
Flat Frontal Load Cell Barrier
TRC Inc. Test Number: 060518-2**

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Section 1.0

Purpose and Test Procedure

Purpose

This flat frontal load cell barrier 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 vehicle moving at 35 mph (56.4 km/h) striking the flat frontal load cell barrier at an impact angle of 0 degrees. The purpose of this test was to evaluate the vehicle and occupant response of the subject vehicle, a 2005 Chrysler Town & Country LX 4-door MPV, in the flat frontal load cell barrier impact mode.

Test Procedure

This test was conducted in accordance with VRTC instructions for a flat frontal load cell barrier impact 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 subject vehicle, a 2005 Chrysler Town & Country LX 4-door MPV, was instrumented with eighteen (18) accelerometers to measure longitudinal, lateral and vertical axis accelerations. The driver's and right front 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 55.5 to 57.1 km/h.

One (1) 50th percentile adult male Hybrid III dummy and one (1) 5th percentile adult female dummy were placed in the vehicle's left front and right front designated seating positions, respectively. One (1) 50th percentile adult male Hybrid III dummy and one (1) 5th percentile adult female dummy were also placed in the vehicle's 2nd row right and left designated seating positions, respectively. The dummies were positioned according to NHTSA Laboratory Test Procedure TP-208-12. The driver dummy and right front passenger dummy were both belted and were restrained with front dual stage airbags. The left and right rear passenger dummies were restrained with 3 pt. seat belts.

The 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 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 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, and foot rotation potentiometers.

The vehicle's right front passenger dummy was instrumented with an array of twelve (12) 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 vehicle's right front 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, upper, middle and lower sternum accelerometers, and a chest deflection potentiometer. The vehicle's right front passenger dummy was also equipped with THOR-FLX lower legs, which included a tibia to femur displacement potentiometer at each knee, and foot rotation potentiometers.

The vehicle's left rear passenger dummy was instrumented with an array of three (3) accelerometers in the head, and chest to measure longitudinal, lateral, and vertical accelerations. The vehicle's left rear 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 vehicle's right rear passenger 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 (redundant in the chest). The vehicle's right rear passenger 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 axial forces, and tibia to femur displacement potentiometers at each knee.

The 320 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 fourteen (14) 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 data is presented in Section 2.0. The summaries of data are 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 Table 12 of this report.

Section 2.0

Flat Frontal Load Cell Barrier Test Summary

Test Results Summary

This 56.4 km/h flat frontal load cell barrier impact test was conducted by TRC Inc. on May 18, 2006.

The subject test vehicle, a 2005 Chrysler Town & Country LX 4-door MPV, was equipped 3.3-liter transverse engine, automatic transmission, power steering, power brakes, and dual stage front airbags. The vehicle's test weight was 2353.9 kg. The vehicle's impact speed was 56.4 km/h.

Injury Criteria Data Summary			
	Limits Hybrid III 50th	Driver	Right Rear Passenger
HIC (15 ms)	700	264	364
HIC (36 ms)	1000	415	595
Chest 3 ms (g)	60	38.4	54.3
Chest Deflection (mm)	63	32	42
Upper Neck			
NTF	1.0	0.28	0.48
NTE	1.0	0.17	0.82
NCF	1.0	0.07	0.00
NCE	1.0	0.13	0.04
Neck Tension (N)	4170	1135	2540
Neck Compression (N)	4000	129	247
Left Femur (N)	10000	2040	1677
Right Femur (N)	10000	1904	1022
Maximum Left Upper TI (SAE)	0.91	0.43	N/A
Maximum Right Upper TI (SAE)	0.91	0.62	N/A
Maximum Left Lower TI (SAE)	0.91	0.30	N/A
Maximum Right Lower TI (SAE)	0.91	1.05	N/A

Test Results Summary, Continued

Injury Criteria Data Summary, Continued			
	Limits Hybrid III 5th	Right Front Passenger	Left Rear Passenger
HIC (15 ms)	700	294	945
HIC (36 ms)	---	375	1567
Chest 3 ms (g)	60	46.8	46.4
Chest Deflection (mm)	52	32	45
Upper Neck			
NTF	1.0	0.33	0.77
NTE	1.0	0.40	0.94
NCF	1.0	0.18	0.00
NCE	1.0	0.27	0.27
Neck Tension (N)	2620	875	2867
Neck Compression (N)	2520	249	44
Left Femur (N)	6805	3327	252
Right Femur (N)	6805	2143	188

Data Acquisition Explanations

The left rear passenger dummy's lower neck Y-axis force data channel, 14NECKLO00HFFOYA, recorded questionable data throughout the test.

The right rear passenger dummy's lower neck X-axis force data channel, 16NECKLO00H3F0XA, recorded questionable data as the data channel did not return to zero.

The vehicle's top of engine X-axis acceleration data channel, 12ENGNTTP0000ACXA, exceeded full scale after approximately 40 milliseconds.

The vehicle's right front brake caliper X-axis acceleration data channel, 13VEHCRI0000AXCA, recorded questionable data after approximately 64 milliseconds.

The vehicle's center of gravity X-axis acceleration data channel, 10VEHCCG0000ACXA, exceeded full scale after approximately 46 milliseconds. The velocity, displacement and resultant were also affected.

The vehicle's passenger front airbag primary inductive pickup data channel, 13AIRBFR0100EV0A, did not record a fire signal.

The vehicle's passenger front airbag secondary inductive pickup data channel, 13AIRBFR0200EV0A, did not record a fire signal.

Table 1 Crash Test Summary

Test mode:	Flat Frontal Barrier
Test date:	05/18/06
Test time:	17:50
Ambient temperature:	21.1° C
Year/make/model/body style:	2005/Chrysler/Town & Country LX/4-door MPV
Test weight:	2353.9 kg
Impact angle ¹ :	0°
Impact velocity ² :	Primary = 56.4 km/h Secondary = 56.4 km/h
Total number of data channels:	320
Number of cameras:	
High-speed:	14
Real-time:	1

<u>Dummies:</u>	<u>Driver #090</u>	<u>Right Front Passenger #416</u>
Type:	Hybrid III 50th	Hybrid III 5th
Location:	Left front	Right front
Restraint:	3 pt. seat belt, dual stage airbag, knee bolster airbag	3 pt. seat belt, dual stage airbag
	<u>Left Rear Passenger #070</u>	<u>Right Rear Passenger #110</u>
Type:	Hybrid III 5th	Hybrid III 50th
Location:	2 nd row left	2 nd row right
Restraint:	3 pt. seat belt	3 pt. seat belt

¹ With respect to tow track centerline.

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

Table 1 Crash Test Summary, Continued

Seat track positions for test:

Driver:	Middle; 110 mm out of 220 mm full travel
Right front passenger:	Full forward; detent # 1 of 23
Left rear passenger:	Full forward; detent # 1 of 11
Right rear passenger:	Middle; detent # 6 of 11

Seat back positions for test:

Driver:	14.5° measured at head restraint support post
Right front passenger:	12.9° measured at head restraint support post
Left rear passenger:	20.3° measured at head restraint support post
Right rear passenger:	19.8° measured at head restraint support post

Head restraint positions for test:

Driver:	Full up
Right front passenger:	Full down
Left rear passenger:	1 detent down from full up; detent # 2 of 6
Right rear passenger:	Full up

Steering column position for test: 33.8°; middle of geometric range of travel

D-ring positions for test:

Driver:	Full up
Passenger:	Full down
Left rear passenger:	Full down
Right rear passenger:	Full up

Table 2 General Test and Vehicle Parameter Data

Year/make/model/body style:	2005/Chrysler/Town & Country LX/4-door MPV
VIN:	2C4GP44R55R456602
Model year:	2005
Body style:	4-door MPV
Color:	White
Engine data:	
Cylinders:	6
Displacement	3.3 liters
Type:	V
Placement:	Transverse
Transmission data:	<u> 3 </u> speed, <u> </u> manual, <u> X </u> automatic, <u> </u> overdrive
Final drive:	<u> X </u> FWD, <u> </u> RWD, <u> </u> 4WD
Date vehicle received:	05/15/06
Odometer reading:	29,542 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	Yes	Tilting steering wheel	Yes
Power windows	Yes	Telescoping steering wheel	No
Tinted glass	Yes	Air conditioning	Yes
Radio	Yes	Anti-skid brake	Yes
Clock	Yes	Rear window defroster	Yes
Other	None	Power door locks	Yes

Certification data from vehicle's label:

Vehicle manufactured by:	DaimlerChrysler Corporation
Date of manufacture:	02/05
VIN:	2C4GP44R55R456602
GVWR:	5700 lbs. (2586 kg)
GAWR: Front:	2850 lbs. (2850 kg)
Rear:	2950 lbs. (2950 kg)

Table 2 General Test and Vehicle Parameter Data, Continued

Tires on vehicle (mfr., line, size): Goodyear, Integrity, P215/70R15

Tire pressure with maximum capacity vehicle load:

Front: 44 psi (300 kPa)

Rear: 44 psi (300 kPa)

Spare tire (mfr., line, size): N/A

Type of seats:

Front Bucket

Rear Bucket

Maximum width: 1940 mm

Wheelbase: 3030 mm

Location of "Recommended Tire Pressure" label:

Driver B-pillar

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

Recommended tire size: 215/70R15

Recommended cold tire pressure: Front: 36 psi (250 kPa)

Rear: 36 psi (250 kPa)

Seating capacity: Front: 2

Mid: 2

Rear: 3

Total: 7

Vehicle capacity weight: 1150 lbs. (521 kg)

Rated cargo/luggage weight: 97 lbs. (44 kg)

Test vehicle attitude:

Delivered attitude: LF 775 mm; RF 780 mm; LR 769 mm; RR 773 mm

Pre-test attitude: LF 740 mm; RF 744 mm; LR 710 mm; RR 698 mm

Post-test attitude: LF 817 mm; RF 761 mm; LR 737 mm; RR 697 mm

Table 2 General Test and Vehicle Parameter Data Continued

Weight of test vehicle as received (with maximum fluids):

Right front	520.5 kg	Right rear	423.5 kg
Left front	560.0 kg	Left rear	427.0 kg
Total front weight	1080.5 kg	(56.0 % of total vehicle weight)	
Total rear weight	850.5 kg	(44.0 % of total vehicle weight)	
Total delivered weight	1931.0 kg		

Weight of test vehicle with required dummies and cargo:

Right front	572.2 kg	Right rear	596.6 kg
Left front	593.6 kg	Left rear	591.5 kg
Total front weight	1165.8 kg	(49.5% of total vehicle weight)	
Total rear weight	1188.1 kg	(50.5% of total vehicle weight)	
Total test weight	2353.9 kg	(At target test weight)	

Weight of ballast secured in vehicle: 84.8 kg

Components removed to meet target test weight: None

Location of Vehicle's CG: 1529 mm rearward of front wheel centerline

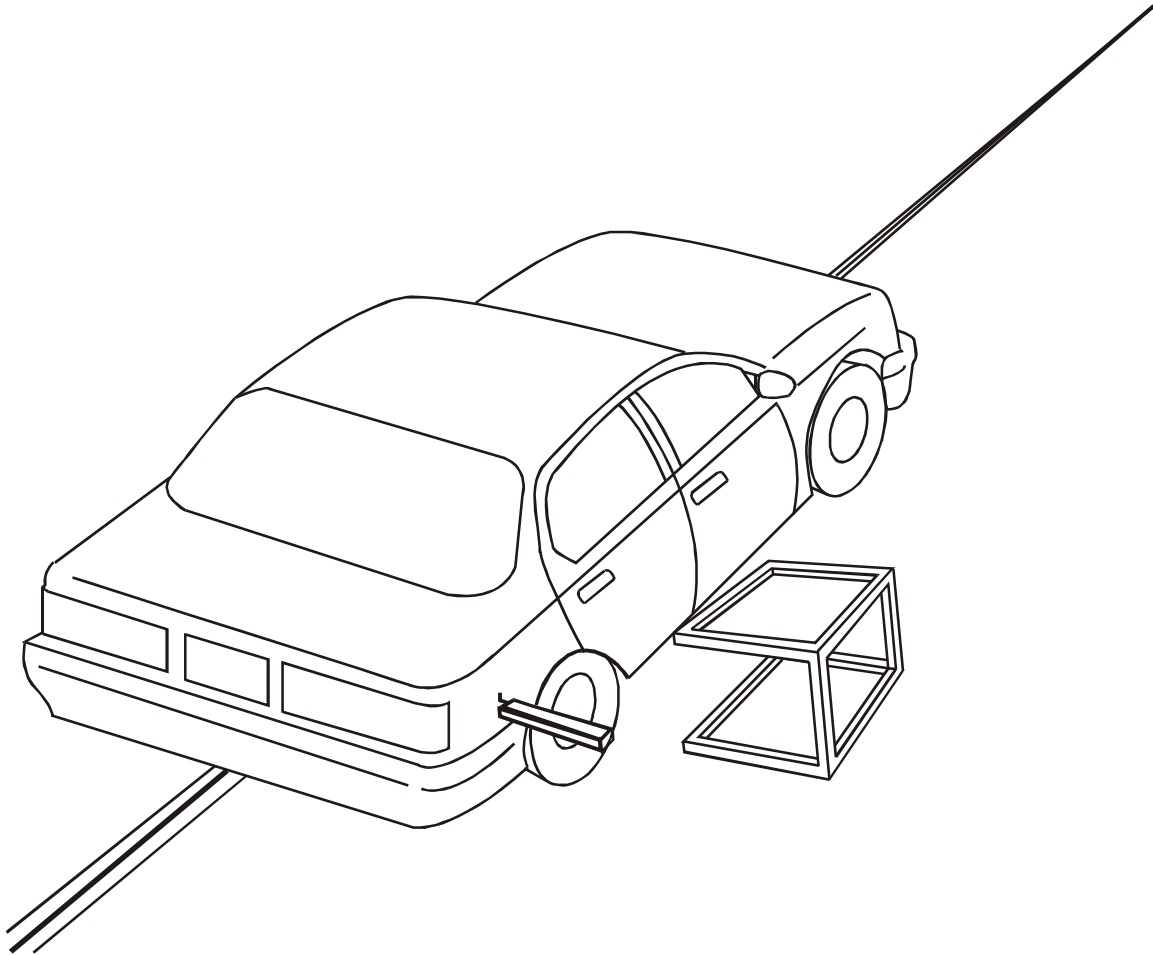
Fuel System Data:

Usable fuel system capacity	76.1 liters (from owner's manual)
Actual test volume:	70.8 liters (93% of usable)

Table 3 Post-Impact Data

Test number:	060518-2
Test date:	05/18/06
Test time:	17:50
Test type:	Flat frontal load cell barrier
Impact angle:	0°
Ambient temperature at impact area: 21.1° C	
Impact velocity:	
Primary:	56.4 km/h
Secondary	56.4 km/h
Required impact velocity range:	55.5 to 57.1 km/h
Impact accuracy:	
Vertical:	Vehicle 7 mm down
Horizontal:	Vehicle 6 mm left
Distance from vehicle to barrier:	
Entering velocity trap:	660 mm
Exiting velocity trap:	50 mm, approximately

Figure 1 Impact Velocity Measurement System



The vane clears the final emitter/receiver pair approximately 50 millimeters before impact.

The emitter/receiver pairs have 610-millimeter spacing.

Table 4 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	2.2	142.0	42.9	62.2
2	Right Rear Seat Cross-member	X	1.7	141.0	38.2	39.2
3	Top of Engine ¹	X	---	---	---	---
4	Bottom of Engine	X	51.2	38.4	139.0	30.5
5	Right Front Brake Caliper ¹	X	---	---	---	---
6	Left Front Brake Caliper	X	57.2	56.8	165.1	36.5
7	Dash Center	X	80.4	32.3	79.7	46.9
8	Toe Pan Accelerator	X	2.7	74.0	51.2	65.8
		Z	63.3	36.7	35.2	22.1
9	Toe Pan Footrest	X	2.6	141.4	39.7	61.1
		Z	29.0	49.1	26.3	75.2
10	Rear Tunnel Center	X	2.0	143.7	35.6	38.8
11	Vehicle Center of Gravity ¹	X	---	---	---	---
		Y	12.2	45.6	17.2	39.8
		Z	21.5	45.9	33.2	49.9
	Resultant		---	---		
12	Vehicle Rear Deck	X	5.8	124.6	45.6	42.5
		Y	8.6	55.8	5.7	96.2
		Z	16.2	47.4	12.8	63.0
	Resultant		46.8	42.5		

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 5 Dummy Injury Criteria Data

	Limits Hybrid III 50th	Driver	Right Rear Passenger
HIC (15 ms)	700	264	364
Start time (ms)		70.2	78.3
End time (ms)		85.3	93.4
HIC (36 ms)	1000	415	595
Start time (ms)		63.8	104.1
End time (ms)		99.8	140.1
Chest 3 ms (g)	60	38.4	54.3
Start time (ms)		82.3	79.5
End time (ms)		85.9	82.5
Chest Deflection (mm)	63	32	42
Upper Neck			
NTF	1.0	0.28	0.48
NTE	1.0	0.17	0.82
NCF	1.0	0.07	0.00
NCE	1.0	0.13	0.04
Neck Tension (N)	4170	1135	2540
Neck Compression (N)	4000	129	247
Left Femur (N)	10000	2040	1677
Right Femur (N)	10000	1904	1022
Maximum Left Upper TI (SAE)	0.91	0.43	N/A
Maximum Right Upper TI (SAE)	0.91	0.62	N/A
Maximum Left Lower TI (SAE)	0.91	0.30	N/A
Maximum Right Lower TI (SAE)	0.91	1.05	N/A

¹ As defined in FMVSS No. 208.

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

Table 5 Dummy Injury Criteria Data, Continued

	Limits Hybrid III 5th	Right Front Passenger	Left Rear Passenger
HIC (15 ms)	700	294	945
Start time (ms)		58.7	86.8
End time (ms)		73.8	101.8
HIC (36 ms)	---	375	1567
Start time (ms)		55.5	73.4
End time (ms)		84.2	109.4
Chest 3 ms (g)	60	46.8	46.4
Start time (ms)		73.2	69.4
End time (ms)		76.2	72.4
Chest Deflection (mm)	52	32	45
Upper Neck			
NTF	1.0	0.33	0.77
NTE	1.0	0.40	0.94
NCF	1.0	0.18	0.00
NCE	1.0	0.27	0.27
Neck Tension (N)	2620	875	2867
Neck Compression (N)	2520	249	44
Left Femur (N)	6805	3327	252
Right Femur (N)	6805	2143	188

¹ As defined in FMVSS No. 208.

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

Table 6 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

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

Door opening:

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

Table 6 Post-Impact Dummy/Vehicle Data, Continued

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:

Right rear passenger D-ring failed during test (adjustment mechanism separated).

Section 4.0

Occupant, Camera, and Vehicle Information

Figure 2 Dummy Measurement Locations for Front Seat Occupants

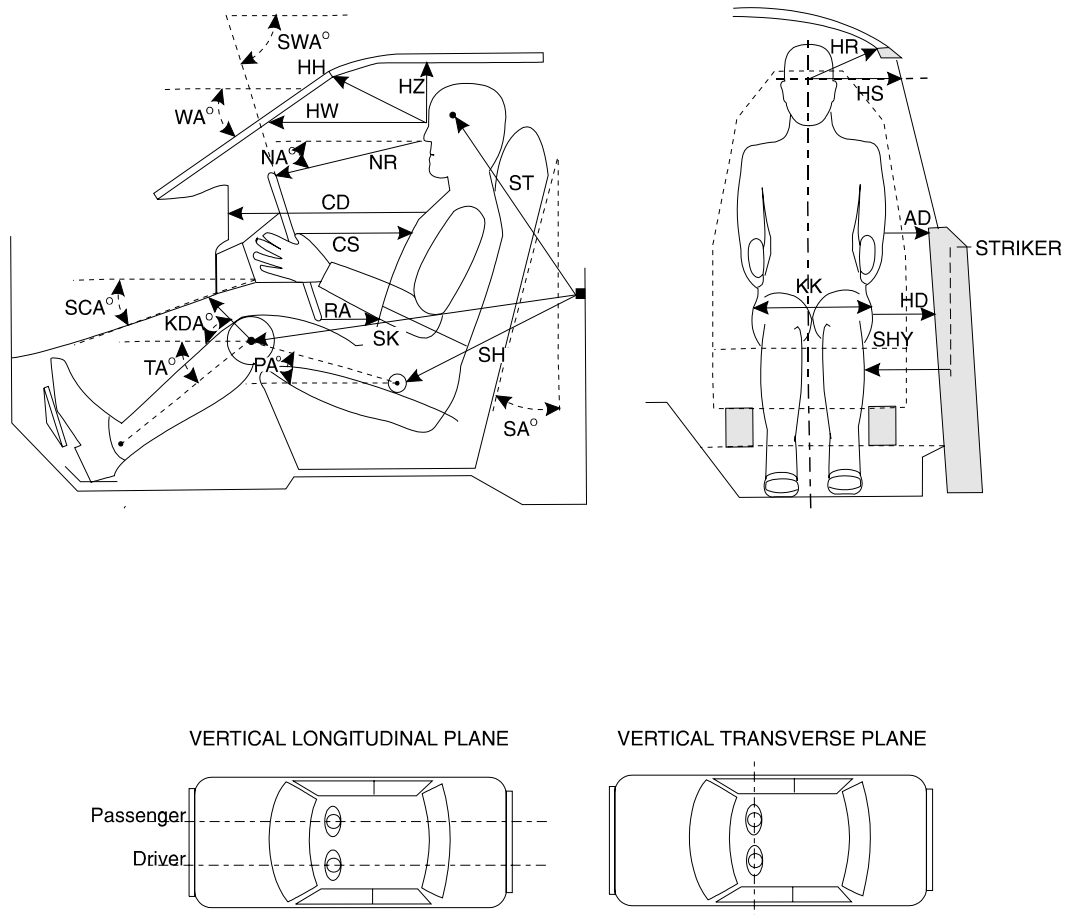


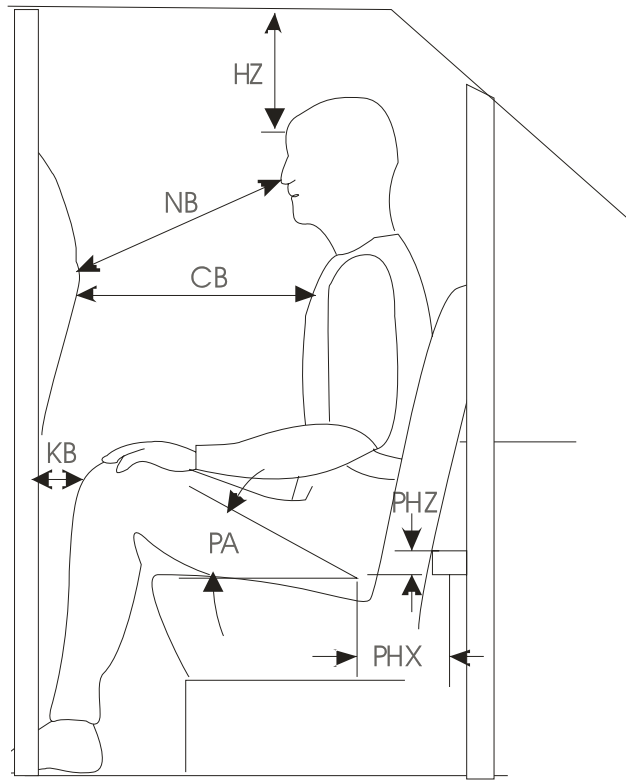
Table 7 Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial #090)	Passenger (Serial #416)
WA	Windshield angle	25.4°	25.4°
SWA	Steering wheel angle	64.7°	N/A
SCA	Steering column angle	25.6°	N/A
SA	Seat back angle	14.6°	10.2°
HZ	Head to roof	247 mm	248 mm
HH	Head to header	393 mm	317 mm
HW	Head to windshield	728 mm	701 mm
HR	Head to side header	213 mm	239 mm
NR	Nose to rim	421 mm	N/A
NA	Nose to rim angle	10.2°	N/A
CD	Chest to dash	619 mm	476 mm
CS	Steering wheel to chest	300 mm	N/A
RA	Rim to abdomen	187 mm	N/A
KDL	Left knee to dash	178 mm	79 mm
KDR	Right knee to dash	167 mm	78 mm
KDA	Outboard knee to dash angle	22.6°	3.7°
PA	Pelvic angle	25.8°	23.3°
TA	Tibia angle	48.2°	73.5°
KK	Knee to knee	375 mm	161 mm
ST ¹	Striker to head	637 mm	616 mm
	Striker to head angle	-84.0°	-71.4°
SK ¹	Striker to knee	596 mm	739 mm
	Striker to knee angle	-11.3°	-10.7°
SH ¹	Striker to H-point	206 mm	344 mm
	Striker to H-point angle	5.4°	-3.5°
SHY	Striker to H-point (Y dir.)	146 mm	155 mm
HS	Head to side window	323 mm	331 mm
HD	H-point to door	68 mm	71 mm
AD	Arm to door	156 mm	192 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.

Figure 3 Dummy Measurement Data For Rear Seat Occupants



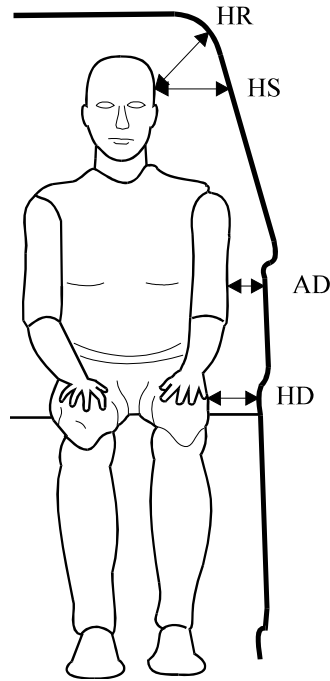
Left Side View

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

Measurement	Left Rear Passenger #070	Right Rear Passenger #110
HZ	336	245
NB	571	741
CB	554	727
KBL(KBA°)	252/3.9°	432/4.0°
KBR(KBA°)	251/2.1°	434/4.7°
PA°	19.7°	25.6°
PHX	206	190
PHZ	88	88

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

Figure 3 Dummy Measurement Data For Rear Seat Occupants, Continued

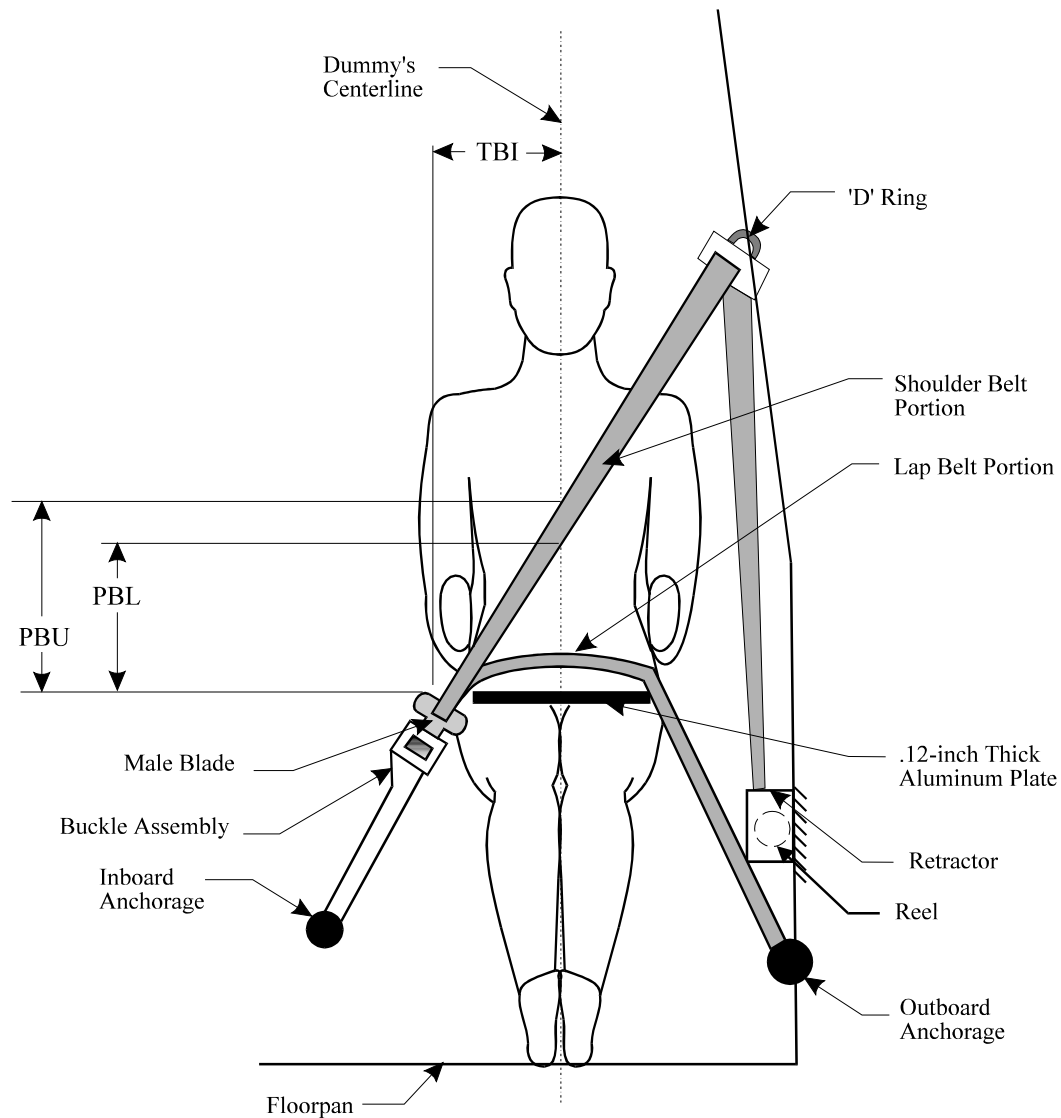


Note: All measurements are in millimeters with tolerance of ± 3 mm

Measurement	Left Rear Passenger #070	Right Rear Passenger #110
HR	305	232
HS	432	376
AD	Upper: 246	Upper: 188
HD	198	203

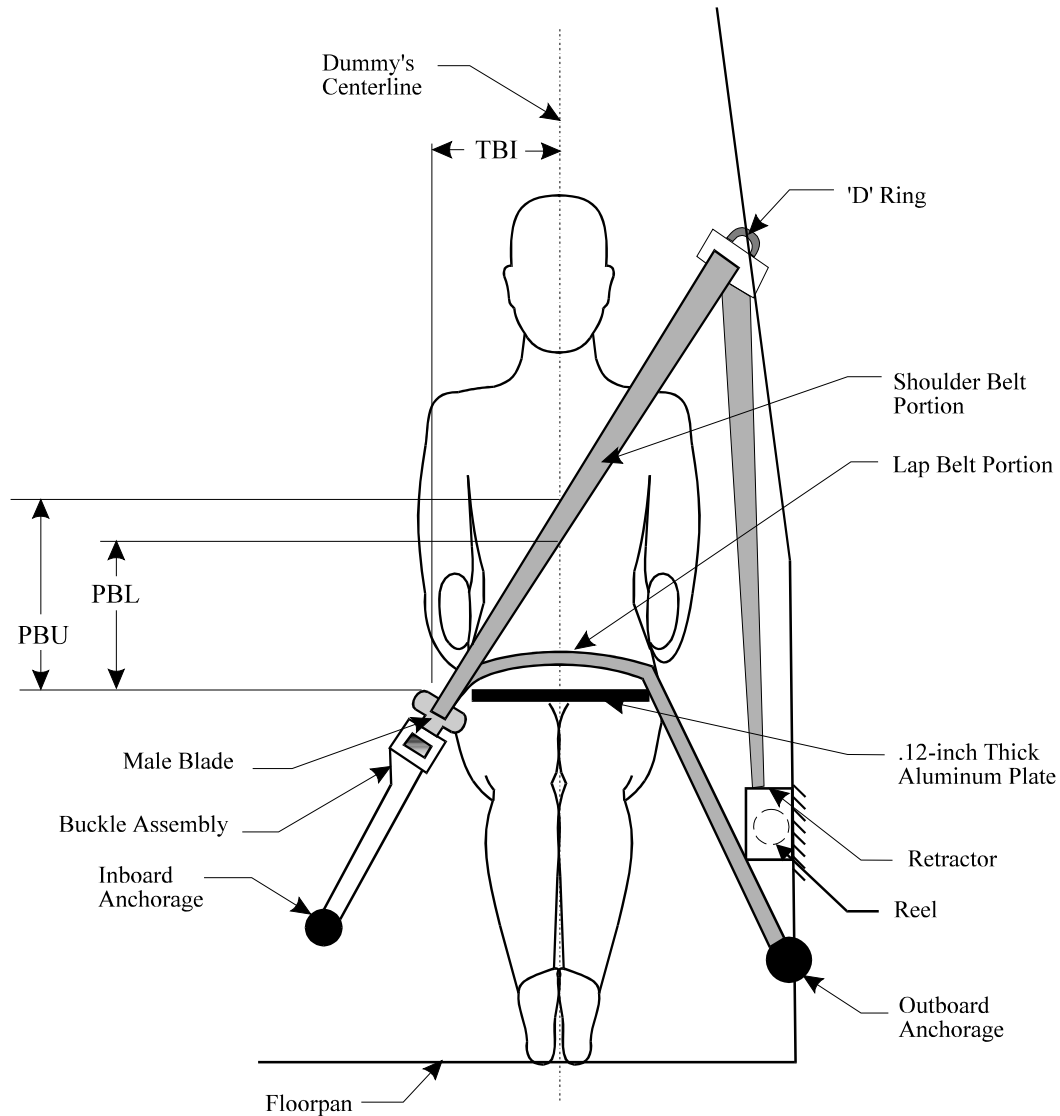
* Upper measurement is taken laterally at center of the upper rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

Figure 4 Seat Belt Positioning Data



	Driver Dummy	Right Front Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge	340 mm	280 mm
PBL - Top surface of aluminum plate to belt lower edge	265 mm	200 mm
TBI - Dummy centerline to intersection of upper torso belt and lap belt	290 mm	295 mm
Dummy centerline to outer edge of belt at chest flesh top	110 mm	140 mm
Dummy centerline to inner edge of belt at chest flesh top	52 mm	80 mm

Figure 4 Seat Belt Positioning Data, Continued



	Left Rear Passenger Dummy	Right Rear Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge	290 mm	300 mm
PBL - Top surface of aluminum plate to belt lower edge	200 mm	200 mm
TBI - Dummy centerline to intersection of upper torso belt and lap belt	260 mm	280 mm
Dummy centerline to outer edge of belt at chest flesh top	150 mm	120 mm
Dummy centerline to inner edge of belt at chest flesh top	90 mm	60 mm

Figure 5 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:

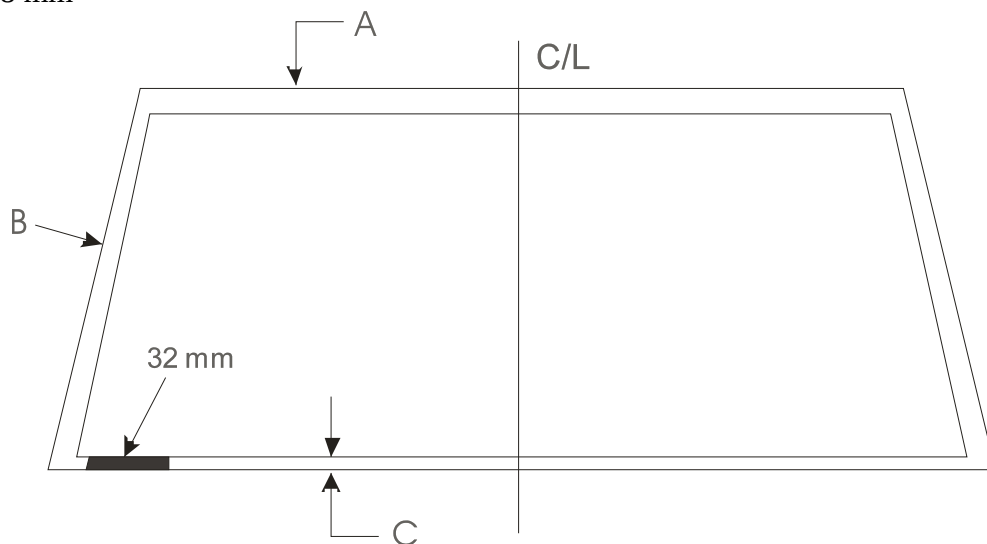
	<u>Pre-test</u>	<u>Post-test</u>	<u>Percent retention</u>
Right side	2355 mm	2323 mm	98.6 %
Left side	2355 mm	2355 mm	100.0 %
Total	4710 mm	4678 mm	99.3 %

Pre-test windshield mounting material temperature: N/A

A = 8 mm

B = 8 mm

C = 18 mm



Front view of windshield

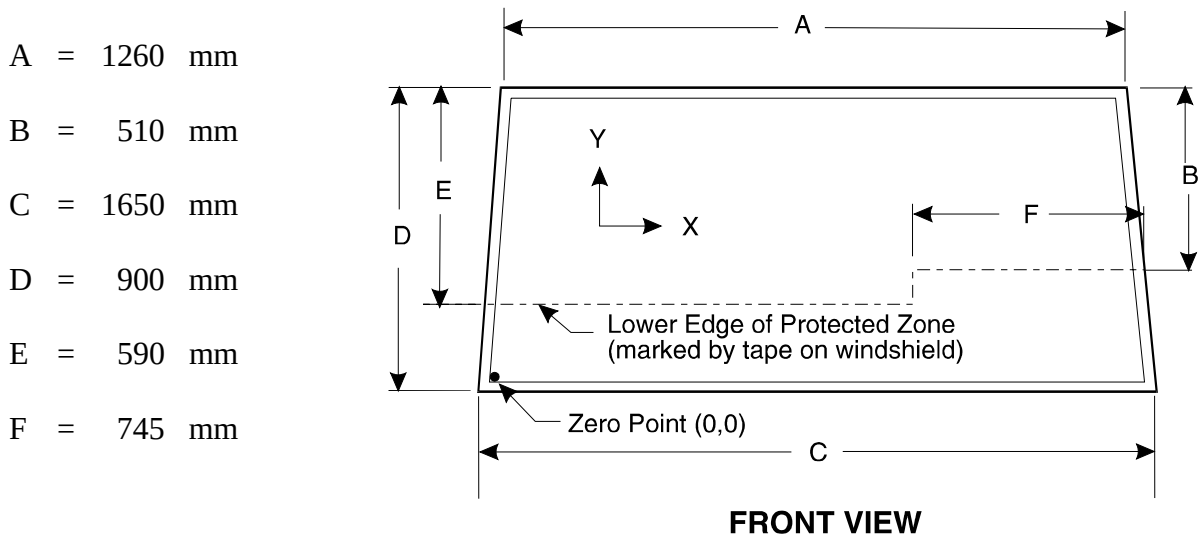
Loss of windshield retention lengths: 32 mm along bottom right

Figure 6 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: N/A

Areas of windshield template penetration greater than 6 mm: None

Coordinates, mm		
	X	Y
1.	None	None
2.		
3.		

Areas of windshield penetration, below the protected zone, through the inner surface of the windshield: None

1.	None	None
2.		
3.		

Table 8 Structural Measurements¹

	Elements	Pre-Test
1	Total Length	5080
2	Total Width	1940
3	Bumper Top Height	522
4	Bumper Bottom Height	425
5	Longitudinal Member Top Height	530
6	Longitudinal Member Bottom Height	393
7	Distance Between Longitudinal Members	1133
7'	Longitudinal Member Width	80
8	Engine Top Height	898
9	Engine Bottom Height	174
10	Engine and Gearbox Width	890
11	Front Bumper - Engine Distance	468
12	Front Shock Absorber Fixing Height	890
13	Bonnet Leading Edge Height	790
14	Front Shock Absorber Fixing Width	1240
15	Front Bumper - Front Axle Distance	940
16	Front Axle - A Pillar Distance	530
17	A Pillar - B Pillar Distance	975
18	B Pillar - Rear Axle Distance	1530
19	B Pillar - C Pillar Distance	1000
20	Roof Sill Bottom Height	1494
21	Roof Sill Top Height	1546
22	Floor Sill Bottom Height	323
23	Floor Sill Top Height	367

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 7 Pre-Test And Post-Test Measurement Points

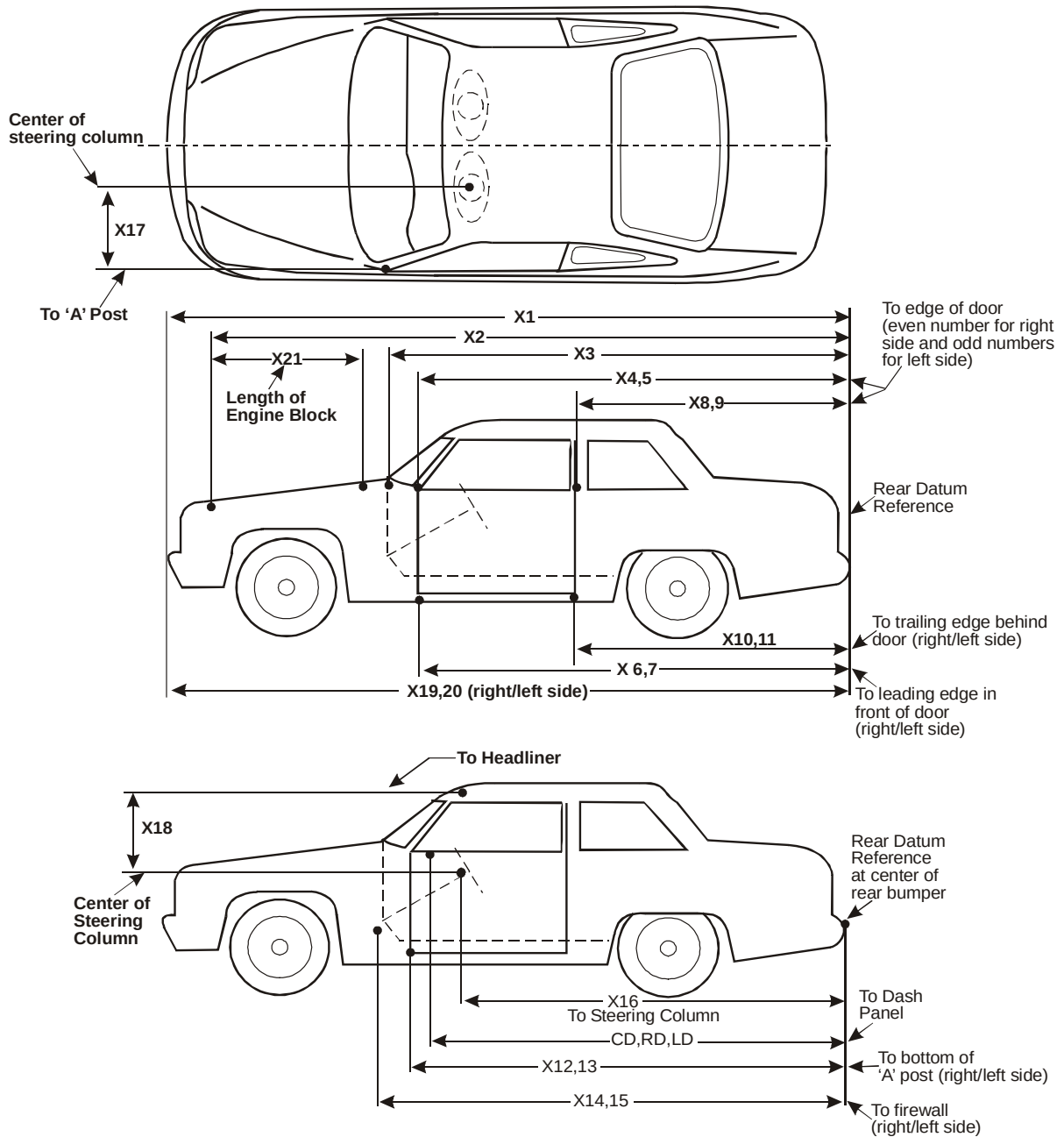


Table 9 Impacted Vehicle Measurements

Test number: 060518-2

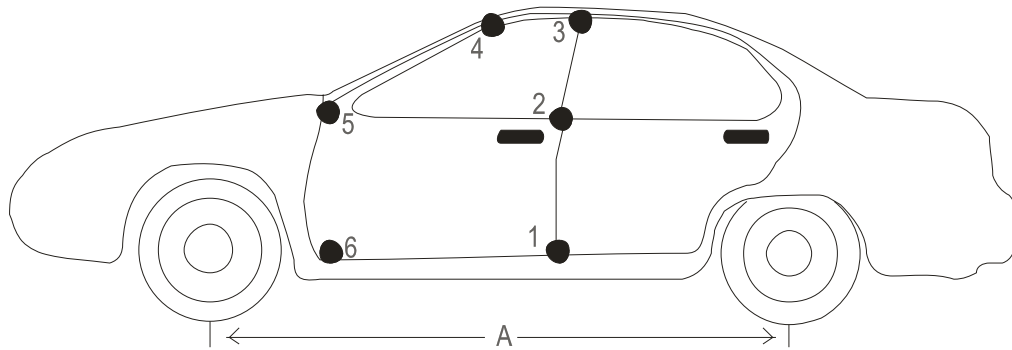
Vehicle year/make/model/body style: 2005/Chrysler/Town & Country LX/4-door MPV

No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	5080	4550	530
X2	Rear Surface of Vehicle to Front of Engine Block	4470	4280	190
X3	Rear Surface of Vehicle to Firewall	4315	4260	55
X4	Rear Surface of Veh. to Upper Leading Edge of Right Door	3648	3651	-3
X5	Rear Surface of Veh. to Upper Leading Edge of Left Door	3655	3646	9
X6	Rear Surface of Veh. to Lower Leading Edge of Right Door	3620	3617	3
X7	Rear Surface of Veh. to Lower Leading Edge of Left Door	3627	3627	0
X8	Rear Surface of Veh. to Upper Trailing Edge of Right Door	2660	2665	-5
X9	Rear Surface of Veh. to Upper Trailing Edge of Left Door	2665	2660	5
X10	Rear Surface of Veh. to Lower Trailing Edge of Right Door	2659	2661	-2
X11	Rear Surface of Veh. to Lower Trailing Edge of Left Door	2670	2666	4
X12	Rear Surface of Veh. to Bottom of " A " Post on Right Side	3645	3648	-3
X13	Rear Surface of Veh. to Bottom of " A " Post on Left Side	3645	3654	-9
X14	Rear Surface of Vehicle to Firewall - Right Side	4172	4185	-13
X15	Rear Surface of Vehicle to Firewall - Left Side	4175	4185	-10
X16	Rear Surface of Vehicle to Steering Wheel Center	3215	3224	-9
X17	Center of Steering Column to " A " Post	310	361	-51
X18	Center of Steering Column to Headliner	470	488	-18
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4917	4684	233
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4915	4571	344
X21	Length of Engine Block	450	450	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3625	3535	90
CD	Rear Surface of Vehicle to Center of Dash Panel	3460	3431	29
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3515	3512	3

All distance measurements are in millimeters.

Figure 8 Vehicle Intrusion Measurements

Door Opening Width

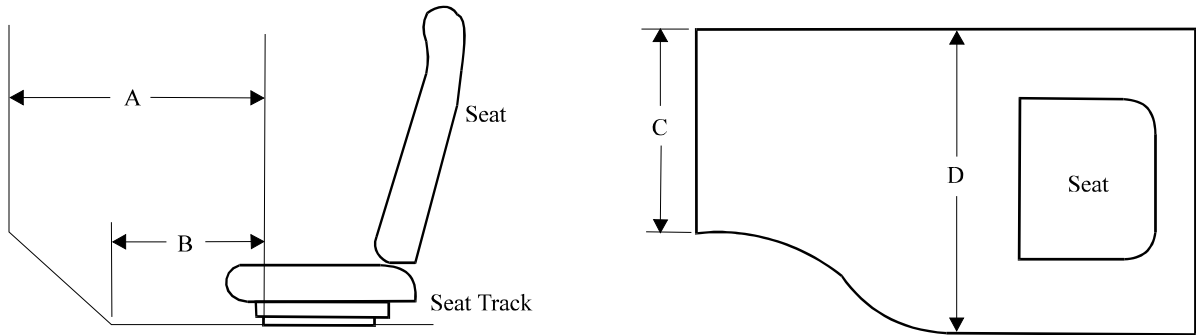


Driver's Side									
Point Location	Pre-Test (mm)			Post-Test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3599	-815	103	3590	-815	118	-9	0	15
2	2667	-845	-307	2663	-843	-305	-4	2	2
3	3167	-656	-1023	3165	-655	-1020	-2	1	3
4	2670	-639	-1100	2669	-637	-1099	-1	2	1
5	3640	-809	-307	3626	-812	-294	-14	-3	13
6	2756	-836	90	2748	-836	94	-8	0	4

Passenger's Side									
Point Location	Pre-Test (mm)			Post-Test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3586	808	118	3581	801	145	-5	-7	27
2	2668	842	-301	2667	838	-290	-1	-4	11
3	3151	680	-1028	3149	679	-1016	-2	-1	12
4	2664	668	-1095	2663	667	-1087	-1	-1	8
5	3639	817	-300	3627	815	-275	-12	-2	25
6	2752	832	94	2749	830	106	-3	-2	12

Units (mm)	A = Wheelbase Left	A = Wheelbase Right
Pre-Test	3030 mm	3030 mm
Post-Test	2877 mm	2892 mm
Difference	153 mm	138 mm

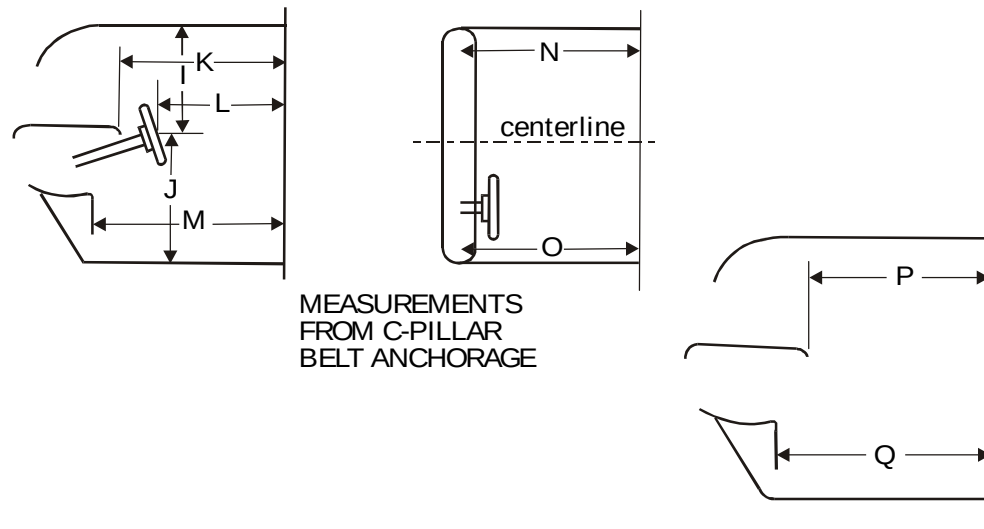
Figure 9 Vehicle Intrusion Measurements
Static Footwell Deformation



Driver's Side			
Measurement	Pre-Test (mm)	Post-Test (mm)	Difference (mm)
A	616	463	-153
B	526	449	-77
C	309	288	-21
D	393	390	-3

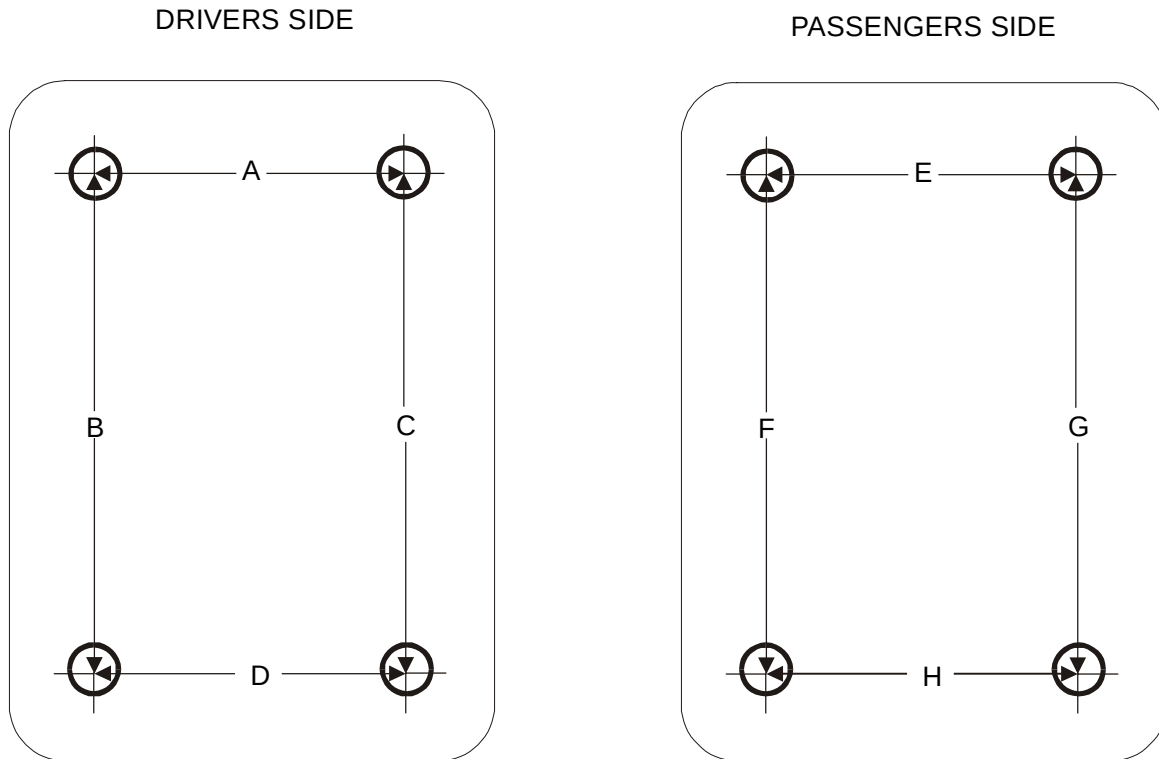
Passenger's Side			
Measurement	Pre-Test (mm)	Post-Test (mm)	Difference (mm)
A	629	453	-176
B	436	340	-96
C	396	399	3
D	415	407	-8

Figure 10 Vehicle Intrusion Measurements
Static Passenger Compartment Intrusion



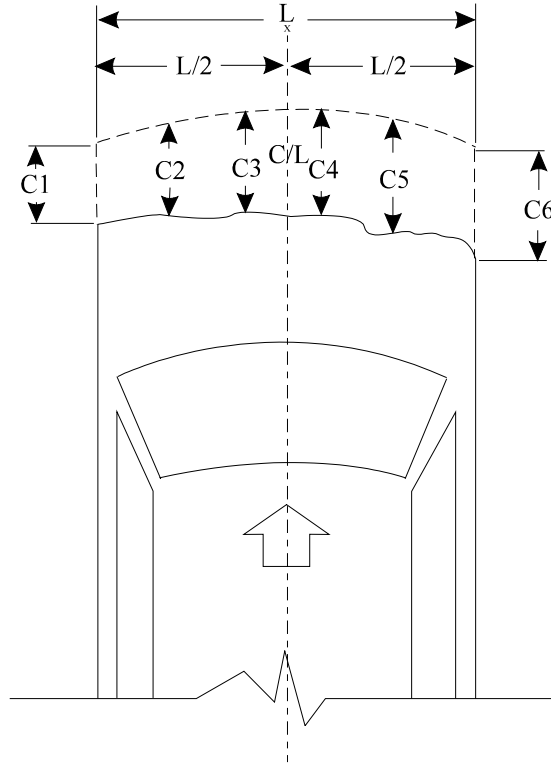
Measurement	Pre-Test	Post-Test	Difference
I	472 mm	500 mm	-28 mm
J	665 mm	690 mm	-25 mm
K (driver's side)	1850 mm	1840 mm	10 mm
L	1602 mm	1614 mm	-12 mm
M (driver's side)	1955 mm	1960 mm	-5 mm
N (passenger's side)	1955 mm	1990 mm	-35 mm
O (driver's side)	1882 mm	1885 mm	-3 mm
P (passenger's side)	1862 mm	1831 mm	31 mm
Q (passenger's side)	1955 mm	1975 mm	-20 mm

Figure 11 Vehicle Floorboard Deformation



Measurement	Pre-Test (mm)	Post-Test (mm)	Difference (mm)
A	339	313	-26
B	526	449	-77
C	476	335	-141
D	393	390	-3
E	381	368	-13
F	436	340	-96
G	484	458	-26
H	415	407	-8

Figure 12 Vehicle Crush



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

Vehicle: 2005 Chrysler Town & Country LX
Measured to bumper fascia:

Location	Pre-test	Post-test	Difference
L	1423 mm		
C1	4915 mm	4571 mm	344 mm
C2	5030 mm	4546 mm	484 mm
C3	5075 mm	4592 mm	483 mm
C4	5075 mm	4675 mm	400 mm
C5	5020 mm	4723 mm	297 mm
C6	4917 mm	4684 mm	233 mm
CL	5080 mm	4550 mm	530 mm

Table 10 Frontal Profile Measurements

Bottom of Front Bumper

Pre-Test				Post-Test			Difference		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4921	-672	98	4511	-680	157	-410	-8	59
2	5028	-416	105	4494	-413	147	-534	3	42
3	5074	-134	110	4570	-144	138	-504	-10	28
4	5074	144	111	4635	127	136	-439	-17	25
5	5025	421	114	4650	407	142	-375	-14	28
6	4917	677	114	4610	684	152	-307	7	38

Top of Front Bumper

Pre-Test				Post-Test			Difference ¹		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4928	-680	-66	4512	-703	-5	-416	-23	61
2	5039	-417	-53	4487	-418	-8	-552	-1	45
3	5089	-137	-35	4535	-142	-4	-554	-5	31
4	5088	143	-32	4612	131	-8	-476	-12	24
5	5038	423	-49	4656	411	-20	-382	-12	29
6	4929	685	-47	4612	691	-9	-317	6	38

Center of Grill

Pre-Test				Post-Test			Difference ²		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4837	-660	-189	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴
2	4995	-422	-182	4448	-437	-140	-547	-15	42
3	5037	-139	-175	4465	-134	-111	-572	5	64
4	5037	146	-172	4449	150	-117	-588	4	55
5	5000	417	-170	4623	418	-142	-377	1	28
6	4837	672	-163	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴

Front of Hood

Pre-Test				Post-Test			Difference ³		
Index	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm	X, mm	Y, mm	Z, mm
1	4765	-651	-318	4398	-648	-369	-367	3	-51
2	4908	-413	-309	4422	-404	-251	-486	9	58
3	4953	-134	-306	4404	-125	-216	-549	9	90
4	4951	143	-303	4407	150	-219	-544	7	84
5	4906	419	-301	4403	426	-257	-503	7	44
6	4764	658	-307	4392	669	-378	-372	11	-71

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

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

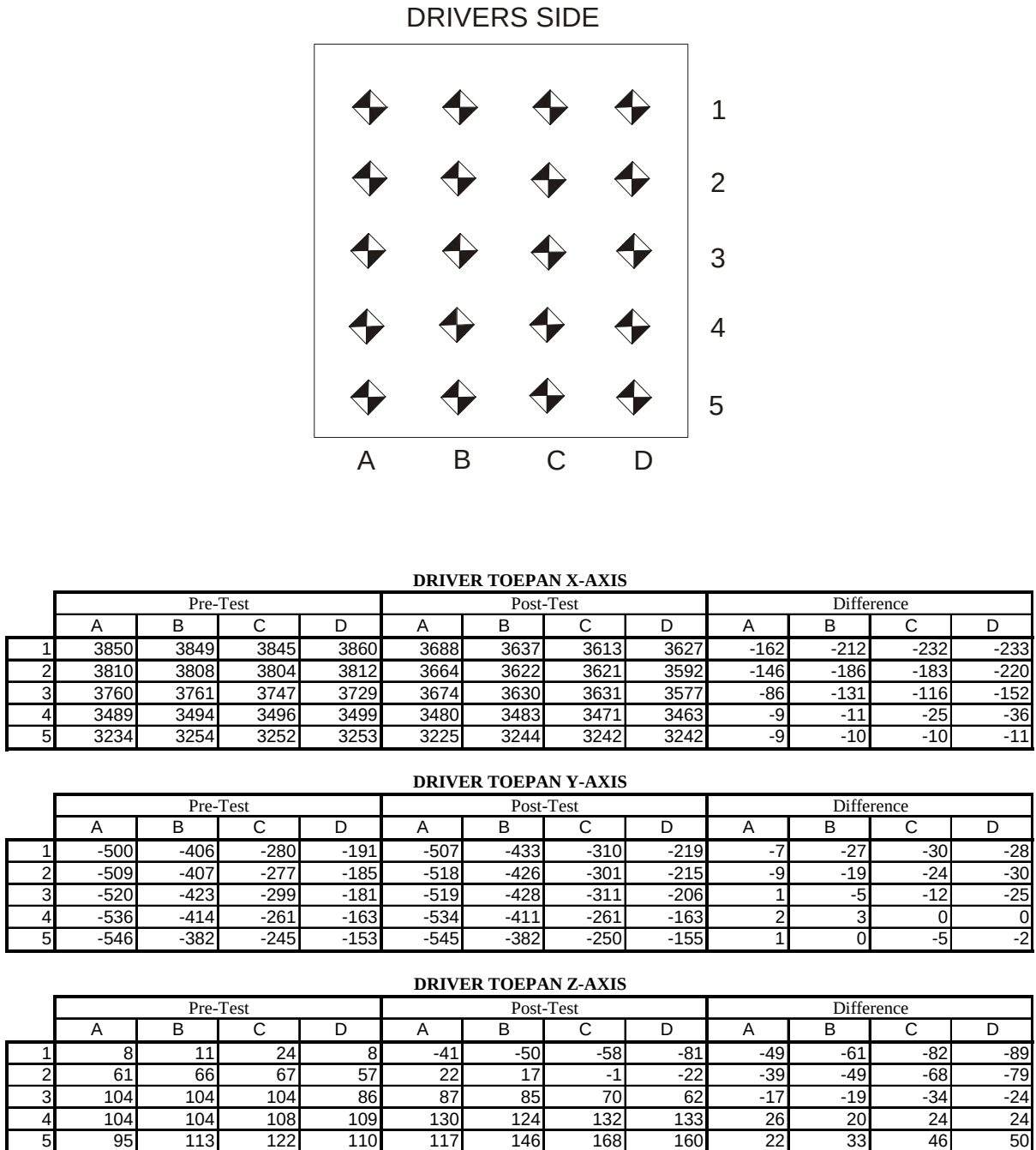
¹ Measurements 1, 2, Top of Front Bumper, are included in the NHTSA Entrée database submission as Damage Profile Distances 1, 2.

² Measurements 3, 4, Center of Grill, are included in the NHTSA Entrée database submission as Damage Profile Distances 3, 4.

³ Measurements 5, 6, Front of Hood, are included in the NHTSA Entrée database submission as Damage Profile Distances 5, 6.

⁴ Measurement point could not be located post-test.

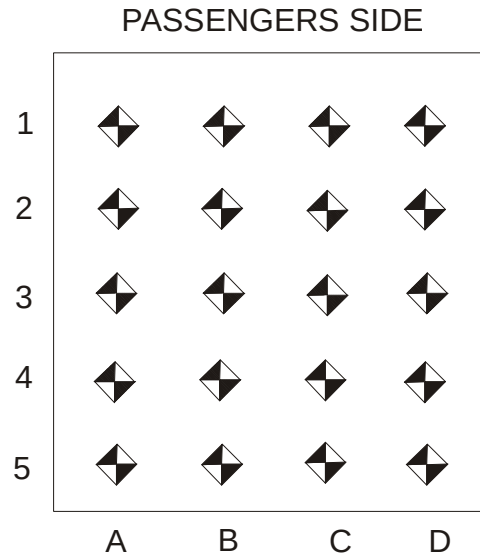
Figure 13 Vehicle Toeboard Measurements



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

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

Figure 13 Vehicle Toeboard Measurements, Continued



PASSENGER TOEPAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	3884	3882	3846	3772	3697	3670	3716	3716	-187	-212	-130	-56
2	3810	3828	3804	3743	3669	3646	3680	3692	-141	-182	-124	-51
3	3691	3705	3733	3711	3584	3599	3642	3678	-107	-106	-91	-33
4	3463	3462	3464	3450	3430	3445	3453	3442	-33	-17	-11	-8
5	3255	3249	3248	3227	3244	3238	3239	3220	-11	-11	-9	-7

PASSENGER TOEPAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	272	405	538	668	274	405	522	673	2	0	-16	5
2	271	408	537	668	274	410	530	675	3	2	-7	7
3	284	401	548	665	287	406	545	656	3	5	-3	-9
4	194	297	424	592	193	293	415	581	-1	-4	-9	-11
5	177	285	423	592	176	282	420	583	-1	-3	-3	-9

PASSENGER TOEPAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-25	-26	-44	-75	-61	-69	-61	-67	-36	-43	-17	8
2	39	41	17	-11	31	13	1	0	-8	-28	-16	11
3	101	108	108	118	133	135	103	129	32	27	-5	11
4	96	98	99	108	144	148	169	155	48	50	70	47
5	101	114	93	101	161	172	150	141	60	58	57	40

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

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

Table 11 IIHS Measurements

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	3217	-388	-594	3211	-405	-568	-6	-17	26	
2	Driver's Lower Left Instrument Panel	3539	-537	-365	3493	-540	-333	-46	-3	32	
3	Driver's Lower Right Instrument Panel	3537	-237	-364	3492	-246	-323	-45	-9	41	
4	Brake Pedal Center	3682	-384	-87	3543	-445	-157	-139	-61	-70	
5	Center Left Toeboard 150 mm Left of the Brake Pedal Center at Height of Brake Pedal Center	3911	-529	-80	3767	-509	-115	-144	20	-35	
6	Toeboard Behind the Center of the Brake Pedal at Height of Brake Pedal	3944	-385	-88	3724	-388	-152	-220	-3	-64	
7	Center Right Toeboard 150 mm Right of the Brake Pedal Center at Height of Brake Pedal Center	3942	-216	-82	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
8	Foot Rest 250 mm Left of the Brake Pedal Center at Height of Brake Pedal Center	3787	-632	-87	3734	-649	-90	-53	-17	-3	
9	Left Front Driver's Seat Mounting Bolt	3151	-601	80	3142	-597	100	-9	4	20	
10	Right Front Driver's Seat Mounting Bolt	3153	-230	83	3143	-228	126	-10	2	43	
11	Left Rear Driver's Seat Mounting Bolt	2842	-606	14	2838	-600	22	-4	6	8	
12	Right Rear Driver's Seat Mounting Bolt	2842	-226	19	2846	-219	26	4	7	7	
17	Exterior A-Pillar at Height of Bottom of Front Window	3615	-826	-537	3602	-823	-523	-13	3	14	
18	Exterior B-pillar at Height of A-Pillar Measurement Location	2688	-859	-536	2685	-853	-532	-3	6	4	

¹ Measurement point could not be located post-test.

Table 12 Bumper Measurements

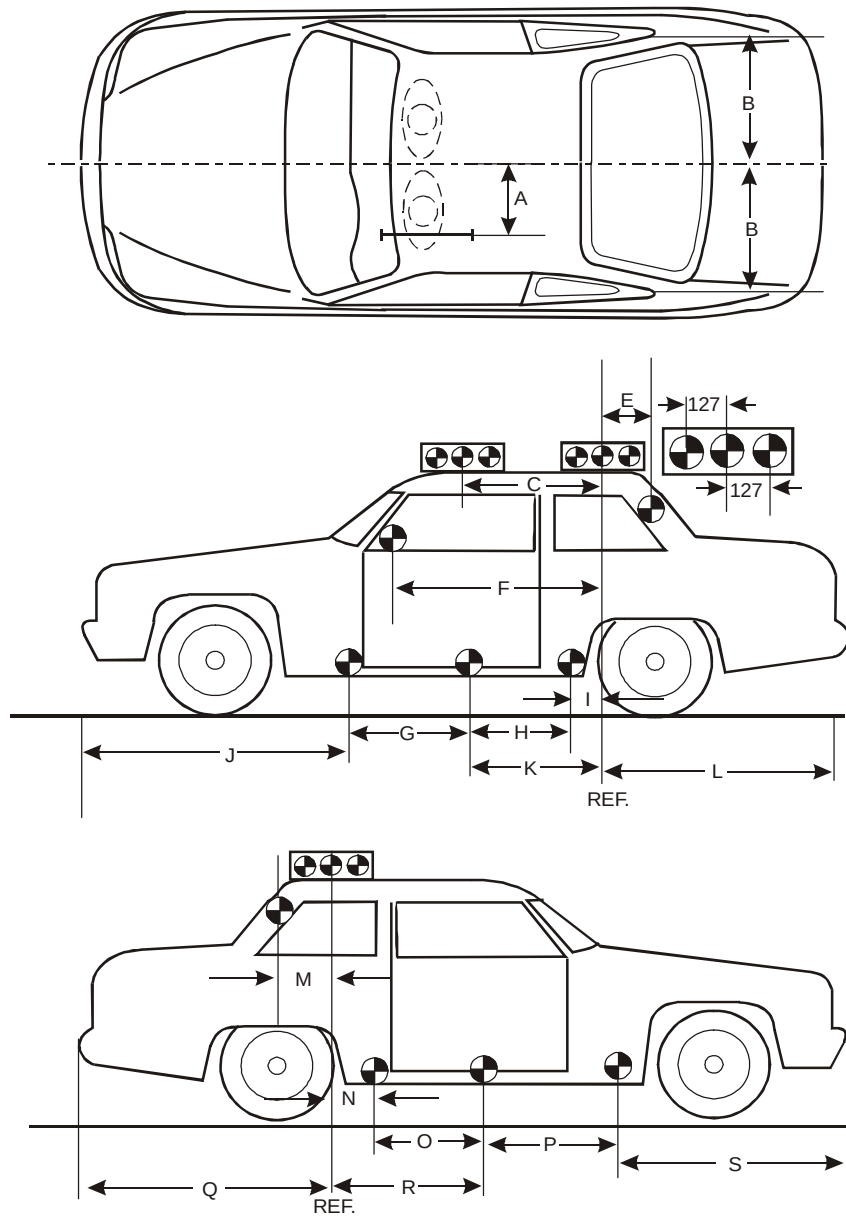
				BUMPER PROFILE					
Pre-Test				Post-Test			Difference		
Index	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm	Xmm	Ymm	Zmm
1	4924	-615	30	4405	-603	110	519	-12	-80
2	4987	-507	28	4415	-478	104	572	-29	-76
3	4999	-384	34	4400	-370	105	599	-15	-70
4	5012	-265	36	4384	-251	103	628	-14	-68
5	5019	-129	37	4377	-116	102	642	-13	-65
6	5022	1	38	4360	12	101	662	-11	-63
7	5020	132	38	4366	140	98	654	-9	-60
8	5013	258	40	4370	266	99	643	-8	-59
9	5001	379	40	4369	387	98	632	-9	-59
10	4988	509	40	4371	506	99	617	3	-59
11	4926	616	42	4352	628	101	574	-12	-59

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.

Measurements taken to bumper beam.

Figure 14 Reference Photo Target Locations



Measurement	Pre-Test	Measurement	Pre-Test	Measurement	Pre-Test
A	Left 437 mm Right 450 mm	F	880 mm	M	790 mm
B	Left 650 mm Right 650 mm	G	980 mm	N	-795 mm
C	Left 610 mm Right 610 mm	H	1070 mm	O	7059 mm
E	778 mm	I	-760 mm	P	990 mm
		J	1288 mm	Q	2350 mm
		K	312 mm	R	272 mm
		L	2335 mm	S	1305 mm

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

Figure 15 Camera Positions

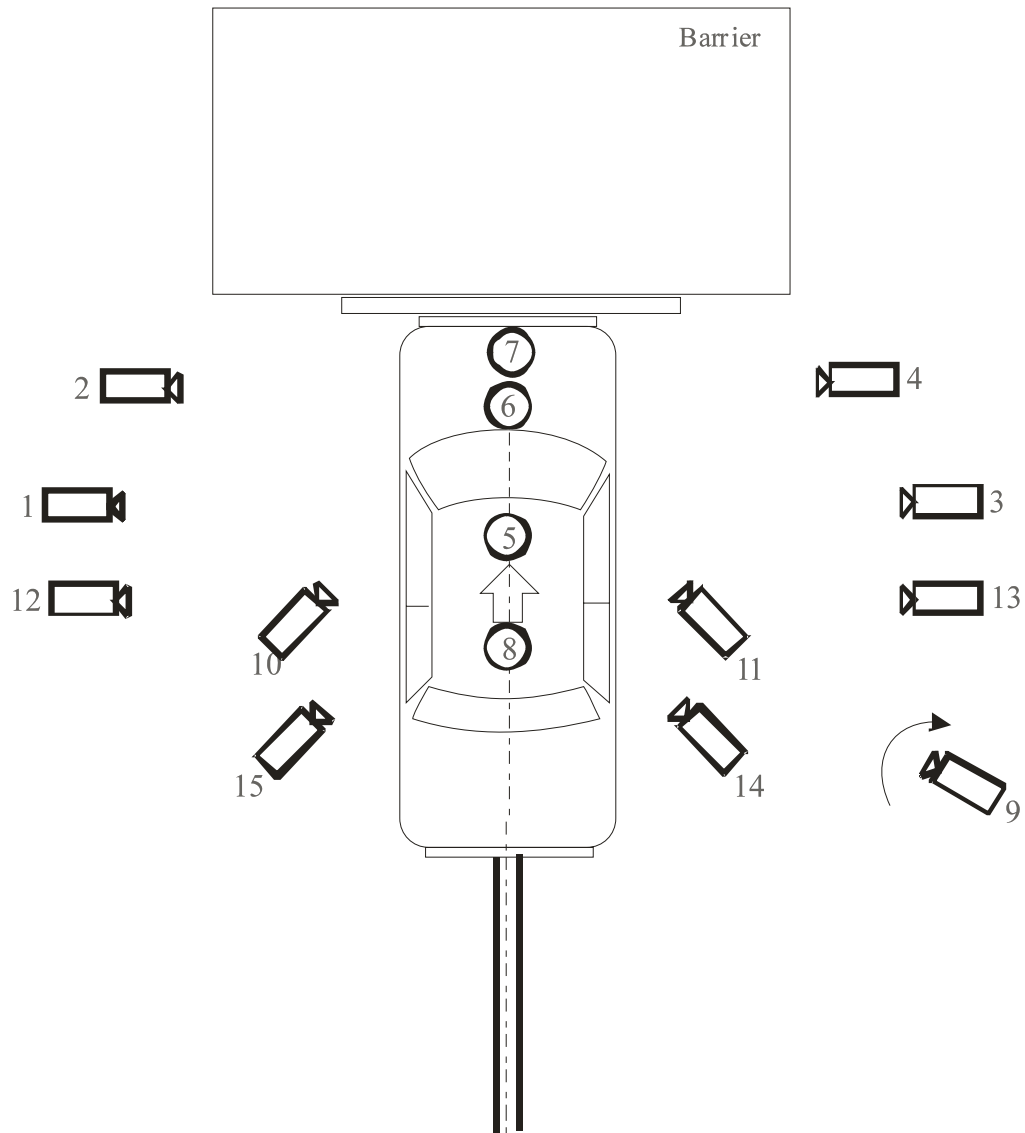


Table 13 Camera Information

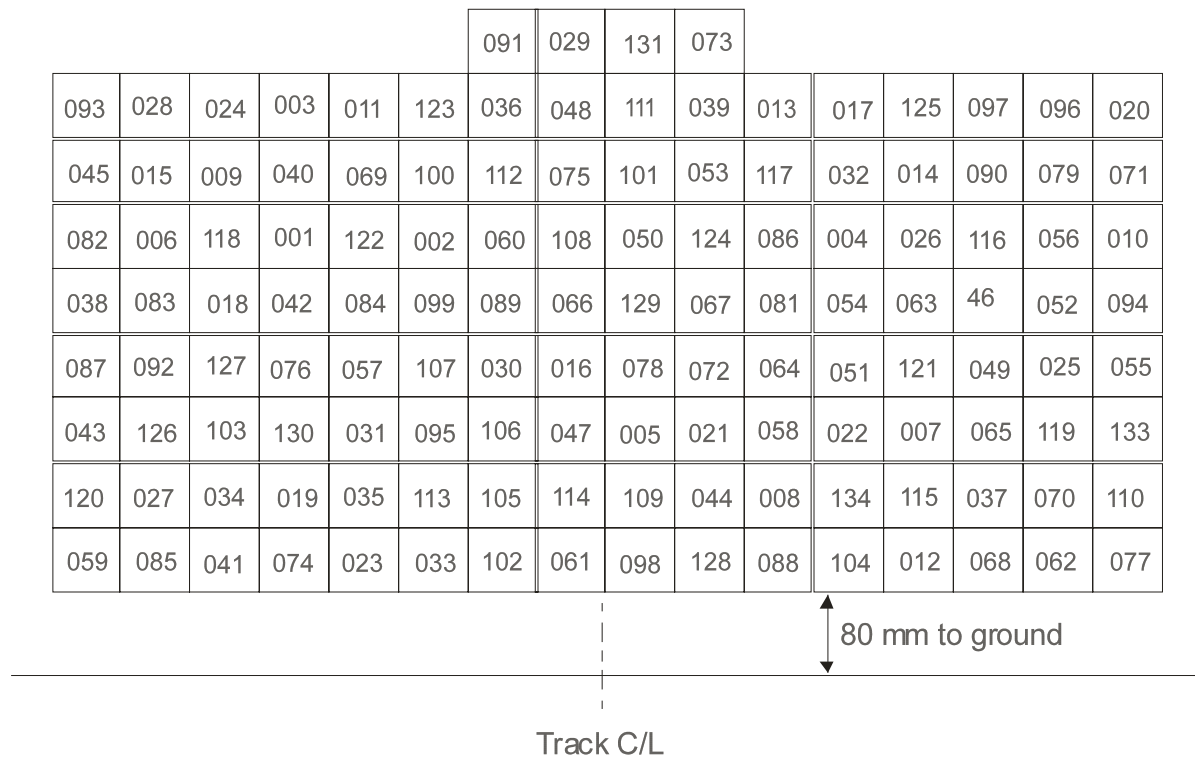
Camera Number	Location	Location, mm			Angle (deg.)	Lens (mm)	Speed (fps)
		X	Y	Z			
1	Left wide	-2600	-8780	-1320	-1.2°	25	1000
2	Left tight	-1300	-9580	-1160	-1.2°	50	1000
3	Right wide	-2220	8900	-1240	-1.4°	25	1000
4	Right tight	-720	9050	-1050	-0.9°	50	1000
5	Overhead wide	-1250	0	-5650	-90.0°	10	1000
6	Overhead tight	0	0	-5650	-90.0°	50	1000
7	Underbody crush area	0	0	420	-90.0°	25	1000
8	Underbody wide	-2600	0	470	-90.0°	12.5	1000
9	Panning/documentary	N/A	N/A	N/A	N/A	Zoom	30
10	Driver angled	-5040	-3880	-1880	-9.0°	25	1000
11	Right front passenger angled	-5350	3100	-1870	-10.8°	25	1000
12	Left rear passenger	-2850	-8680	-1240	0.3°	25	1000
13	Right rear passenger	-2570	8700	-1230	0.1°	50	1000
14	Right rear passenger angled	-5000	3220	-1600	-5.0°	25	1000
15	Left rear passenger angled	-5200	-3960	-1600	-5.5°	25	1000

+X: Forward from impact point

+Y: Rightward from impact point

+Z: Downward from ground level

Figure 16 Barrier Load Cell Locations



LOAD CELL SERIAL NUMBERS

Appendix A

Photographs



Figure A-1 Pre-Test Overhead View



Figure A-2 Post-Test Overhead View

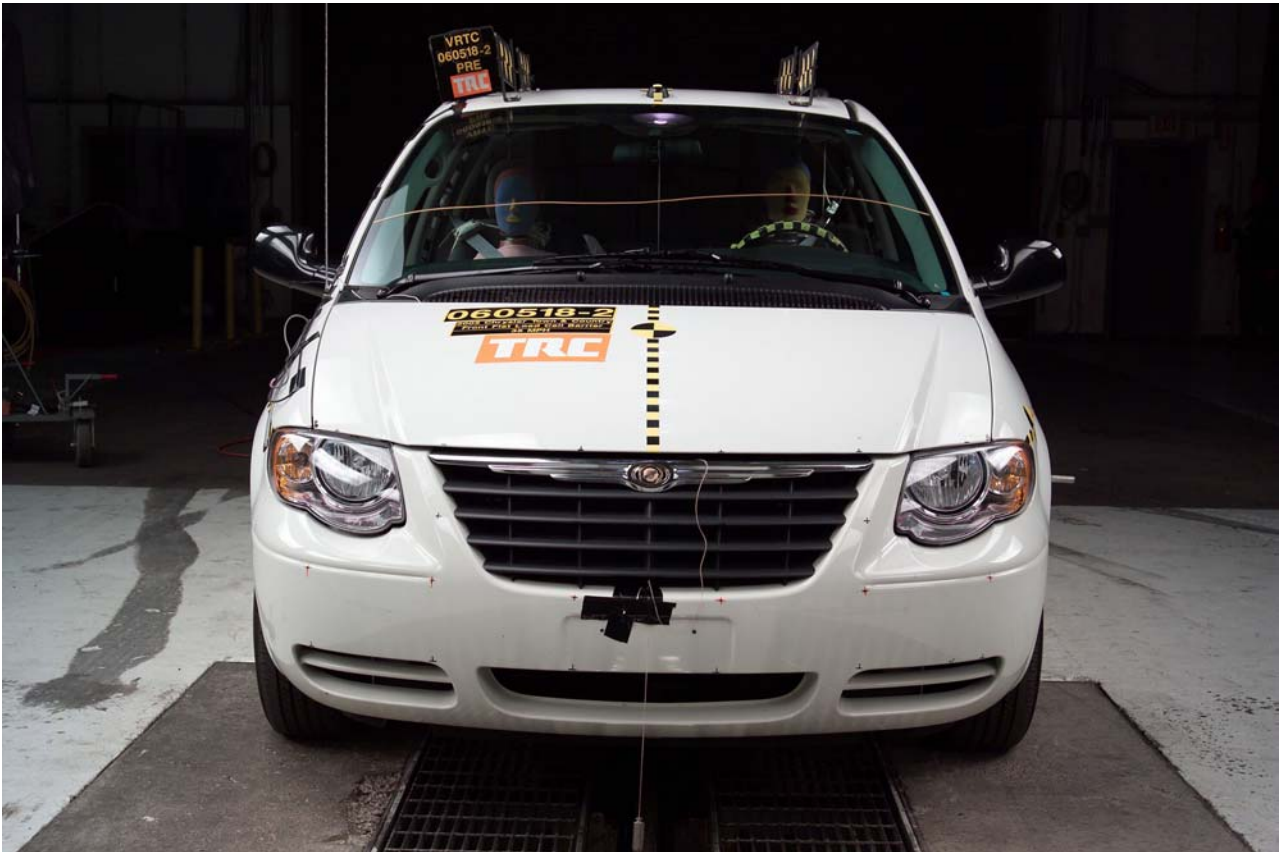


Figure A-3 Pre-Test Front View



Figure A-4 Post-Test Front View



Figure A-5 Pre-Test Left Front View



Figure A-6 Post-Test Left Front View



Figure A-7 Pre-Test Left Side View



Figure A-8 Post-Test Left Side View



Figure A-9 Pre-Test Left Rear View



Figure A-10 Post-Test Left Rear View



Figure A-11 Pre-Test Rear View



Figure A-12 Post-Test Rear View



Figure A-13 Pre-Test Right Rear View



Figure A-14 Post-Test Right Rear View



Figure A-15 Pre-Test Right Side View



Figure A-16 Post-Test Right Side View



Figure A-17 Pre-Test Right Front View



Figure A-18 Post-Test Right Front View



Figure A-19 Pre-Test Engine Compartment View

Intentionally Left Blank



Figure A-20 Pre-Test Front Underbody View

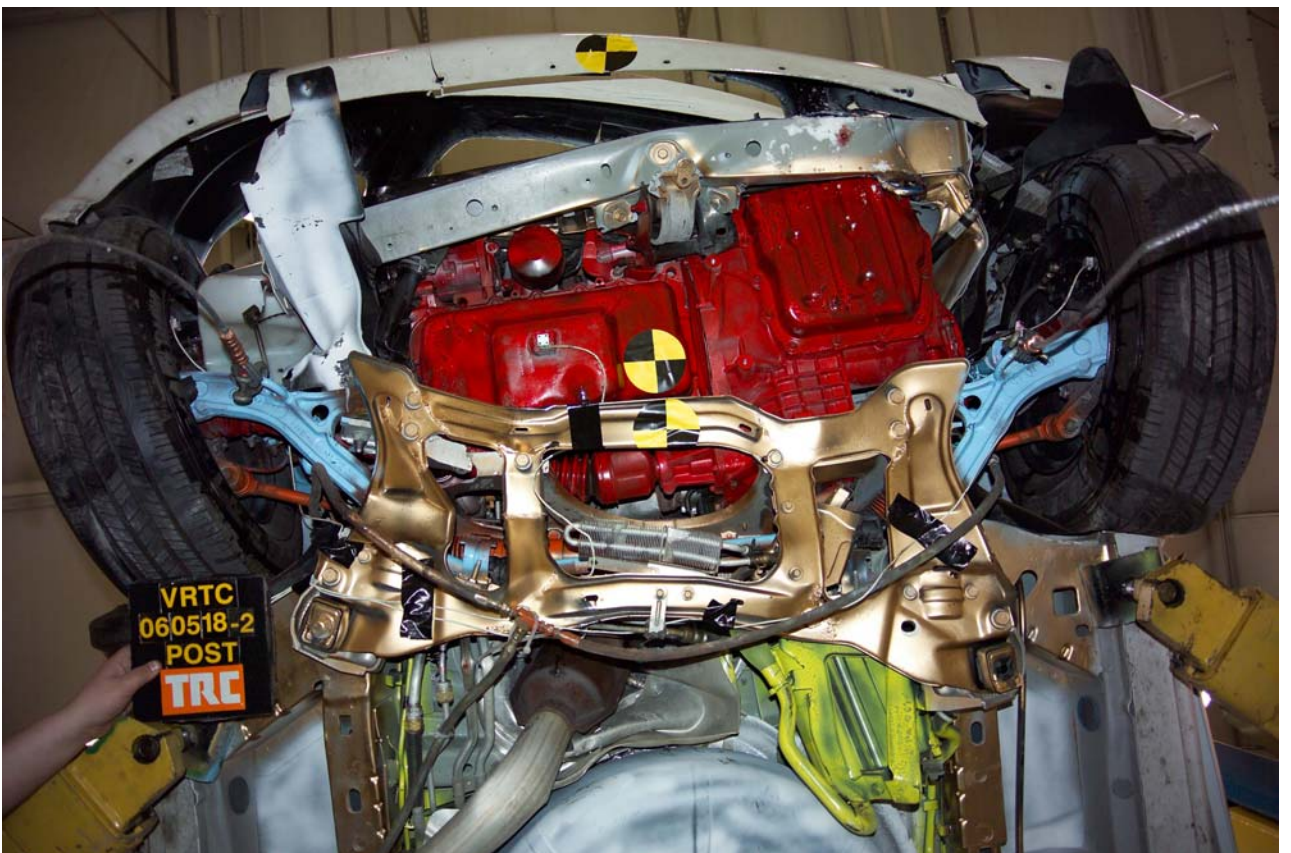


Figure A-21 Post-Test Front Underbody View

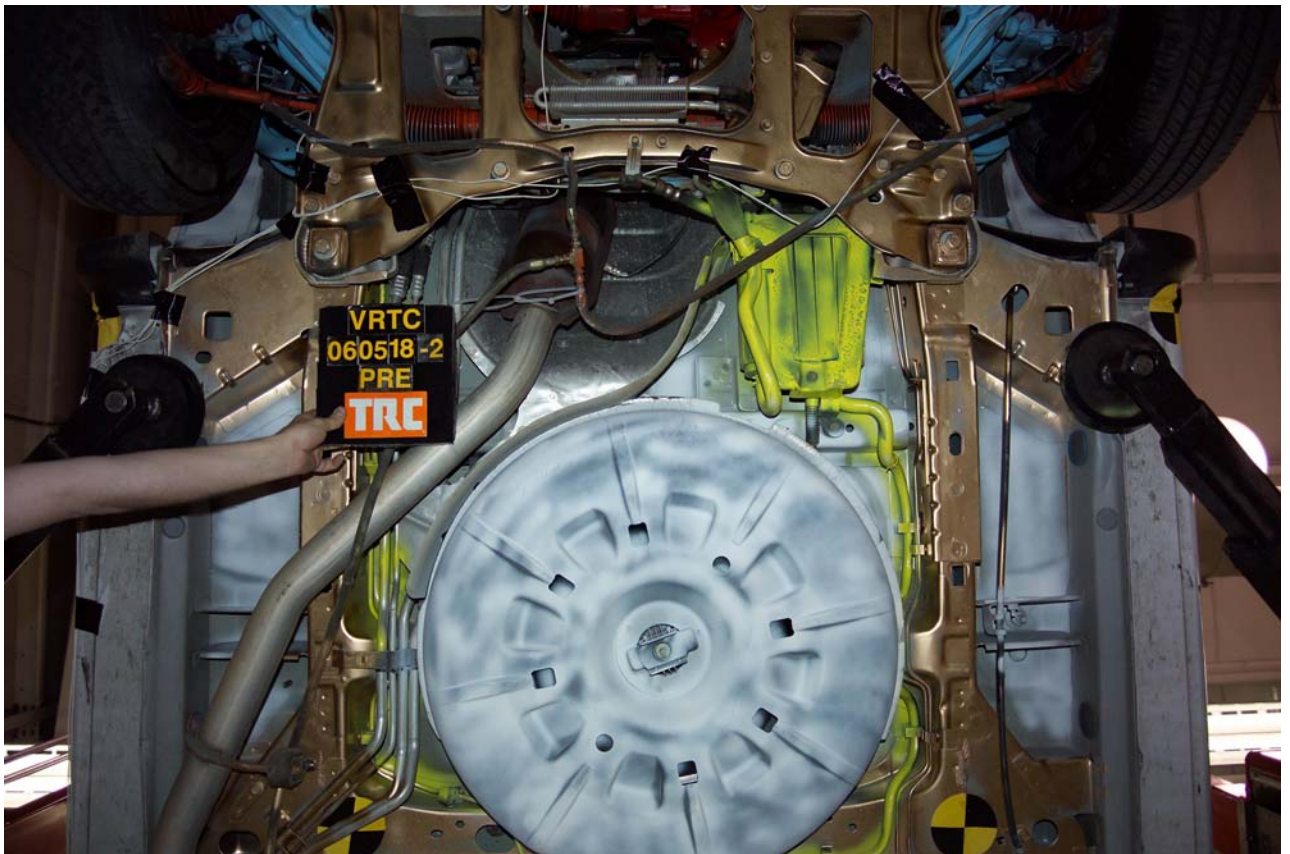


Figure A-22 Pre-Test Mid Front Underbody View

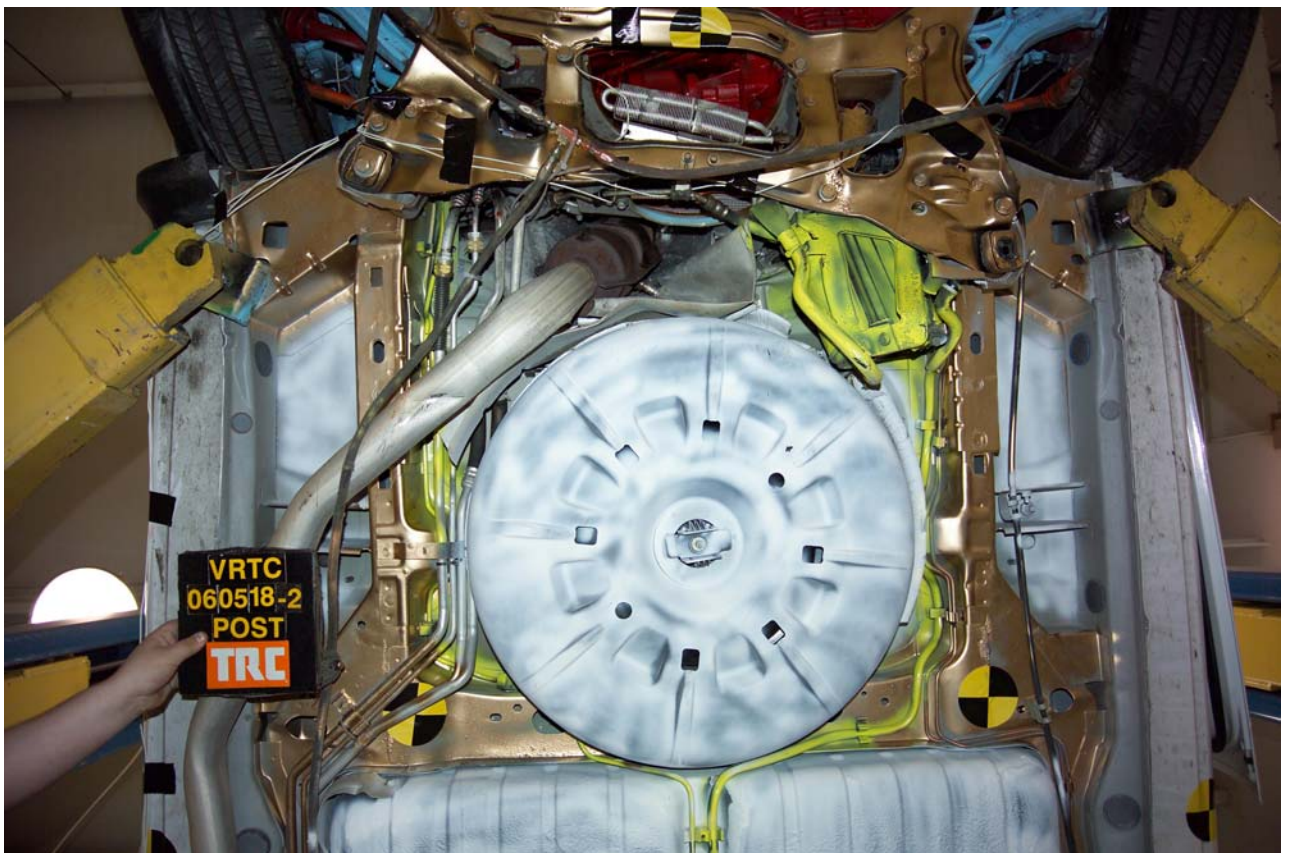


Figure A-23 Post-Test Mid Front Underbody View

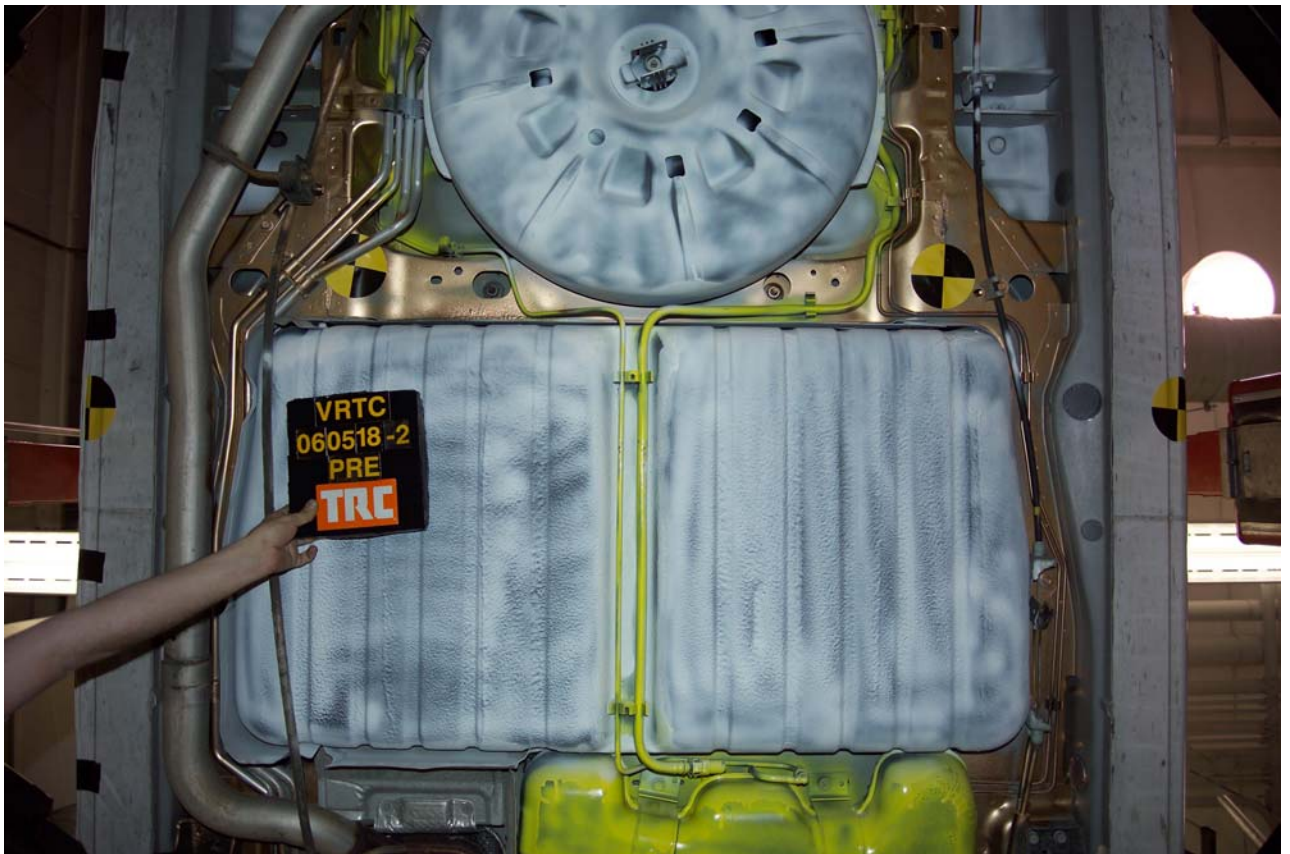


Figure A-24 Pre-Test Mid Underbody View

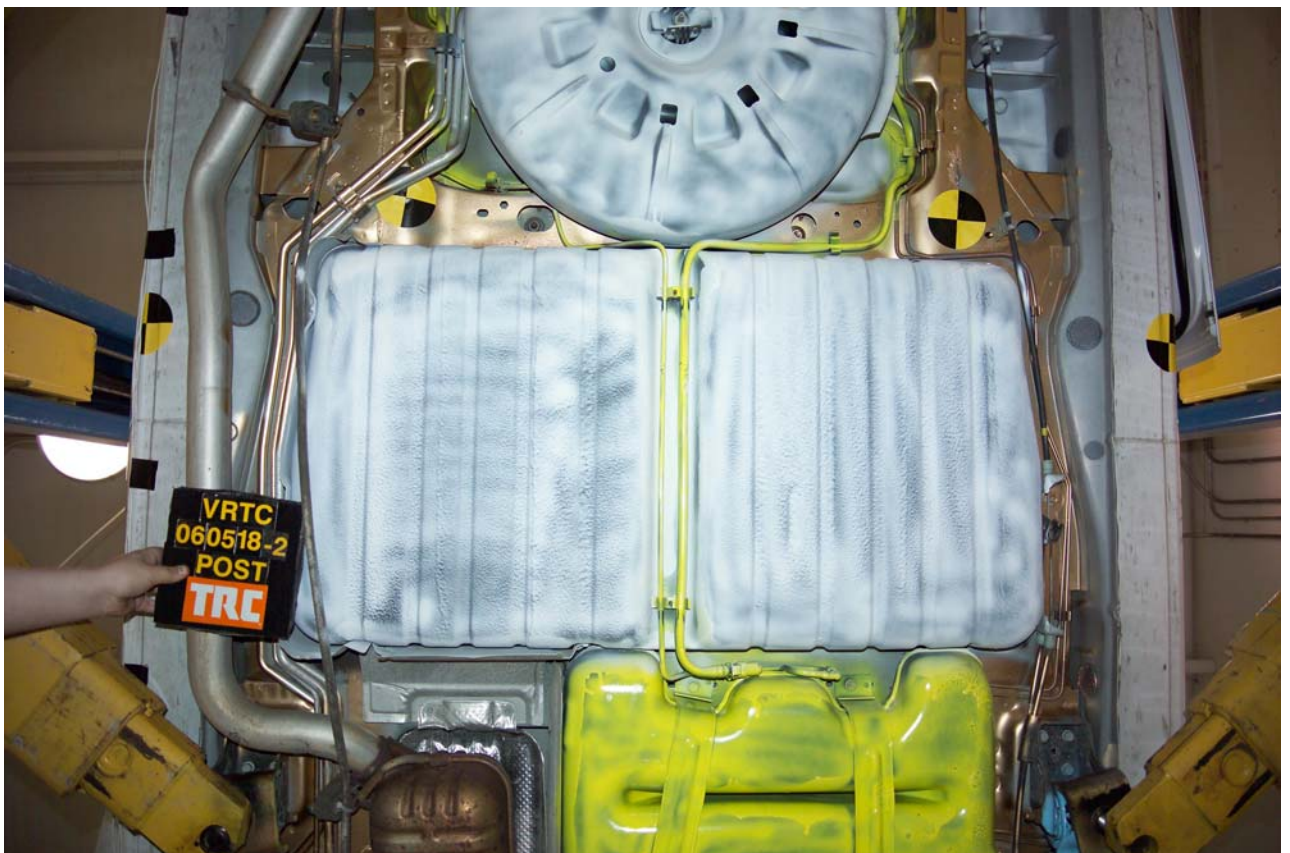


Figure A-25 Post-Test Mid Underbody View

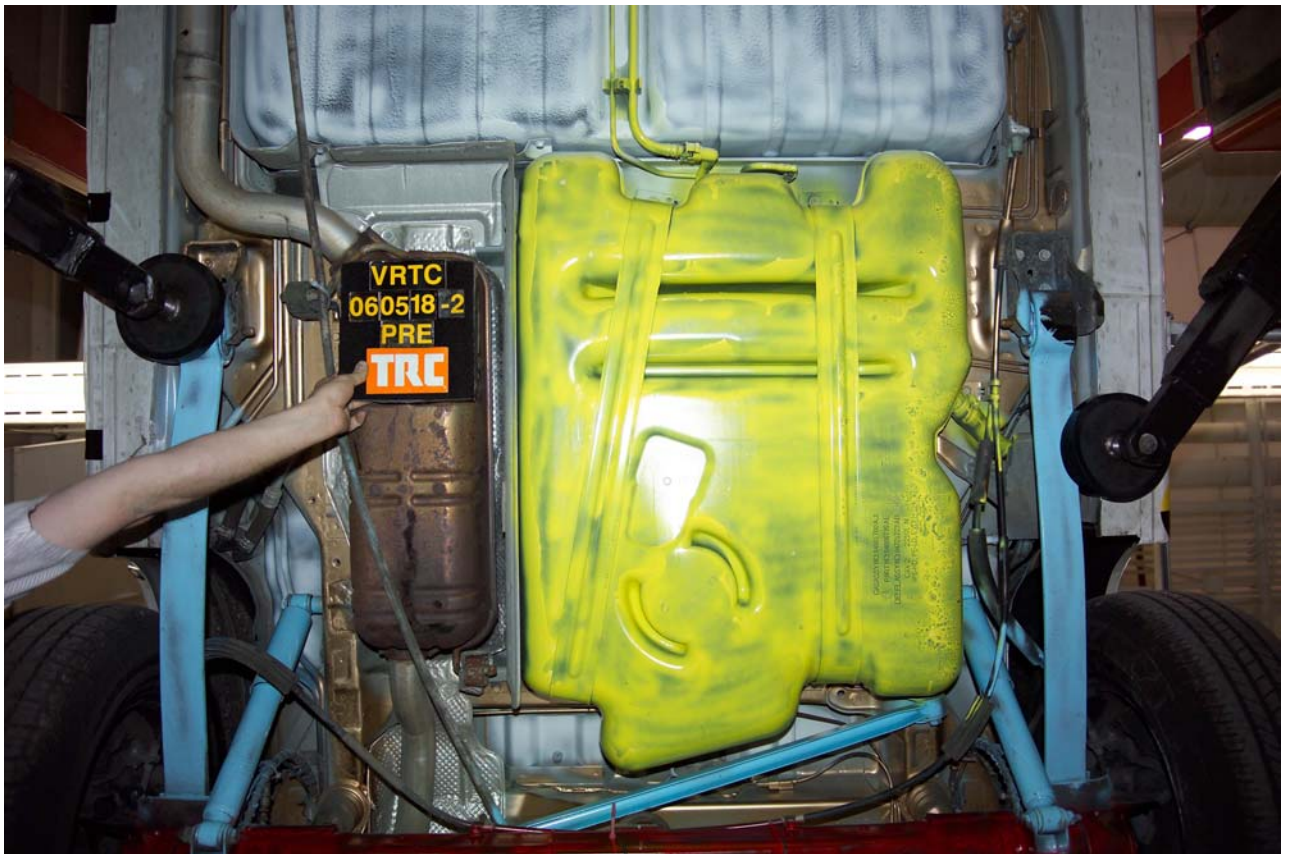


Figure A-26 Pre-Test Mid Rear Underbody View



Figure A-27 Post-Test Mid Rear Underbody View

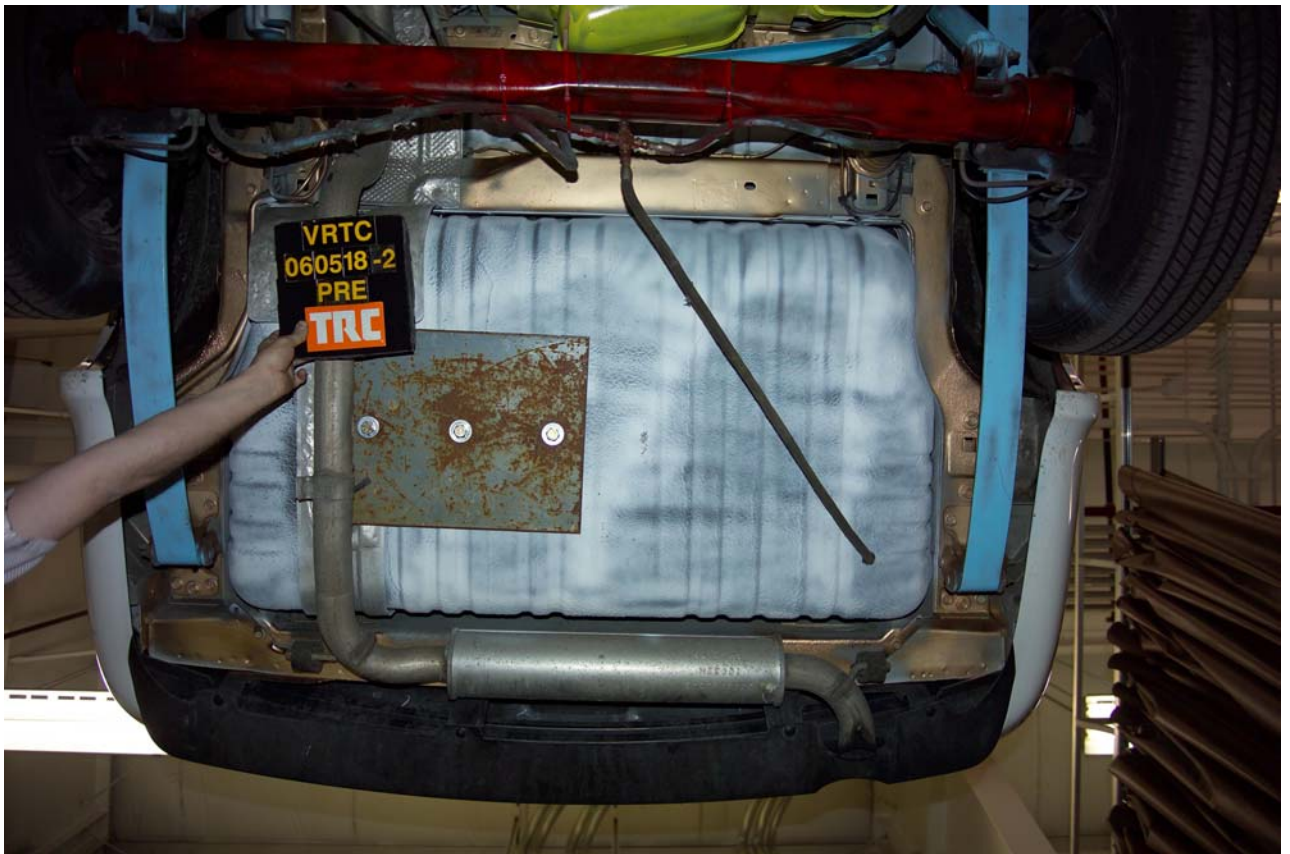


Figure A-28 Pre-Test Rear Underbody View

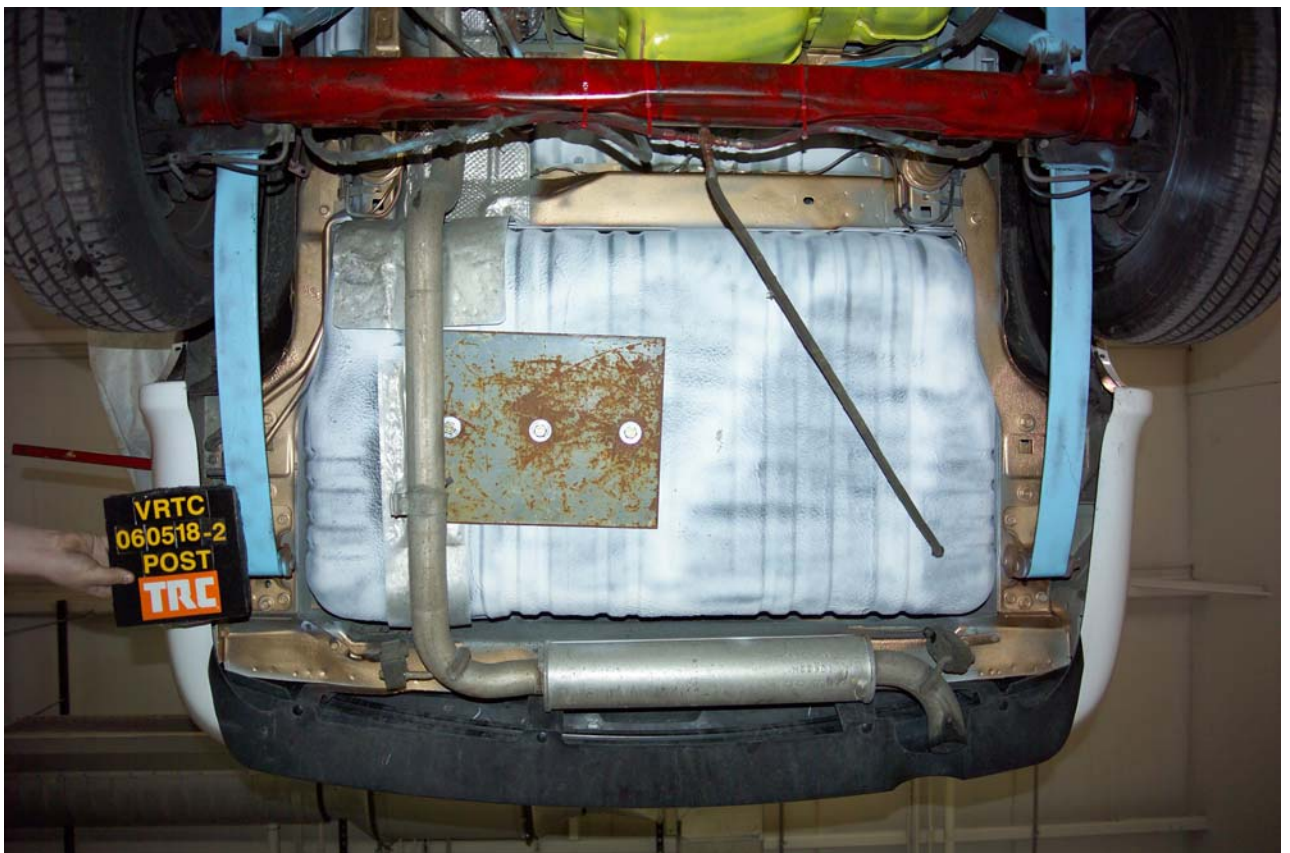


Figure A-29 Post-Test Rear Underbody View

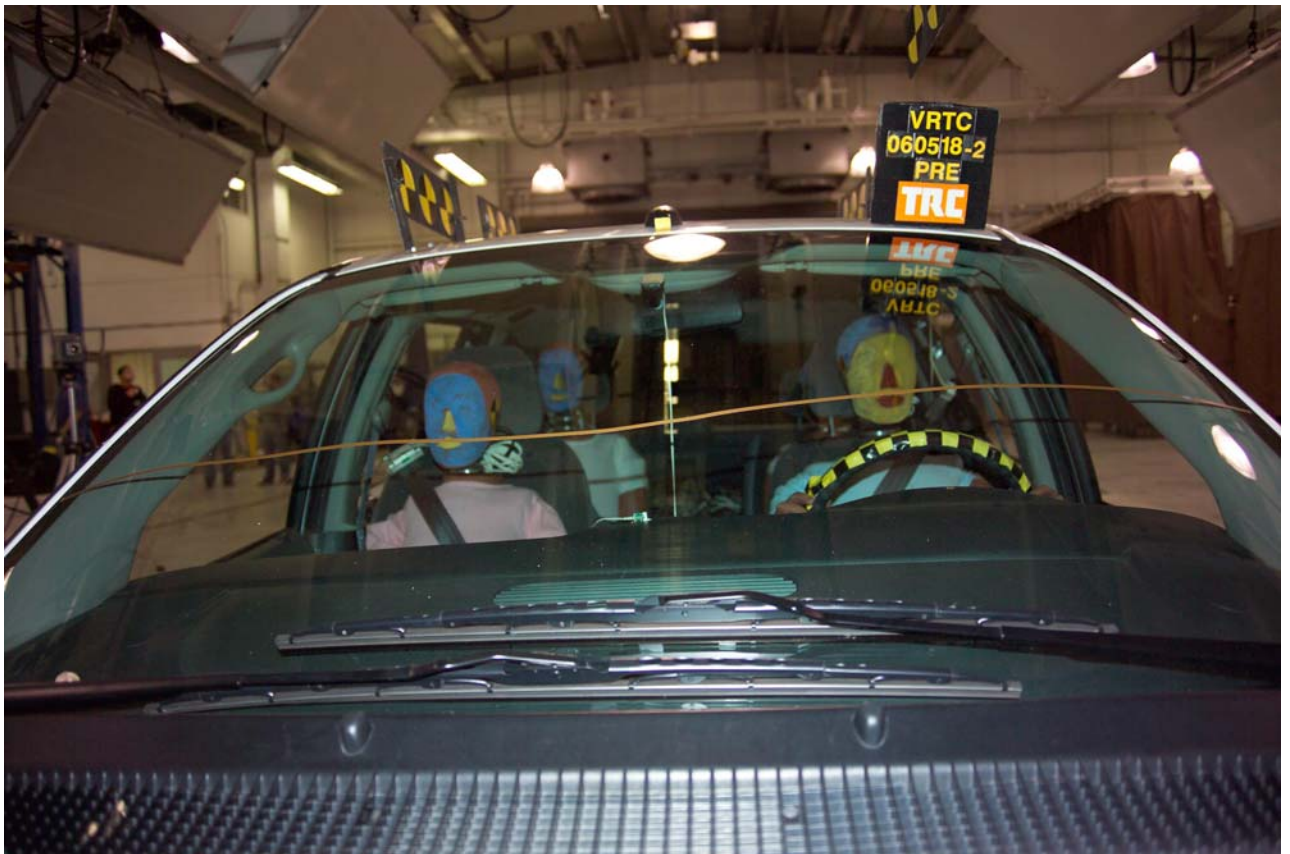


Figure A-30 Pre-Test Windshield View

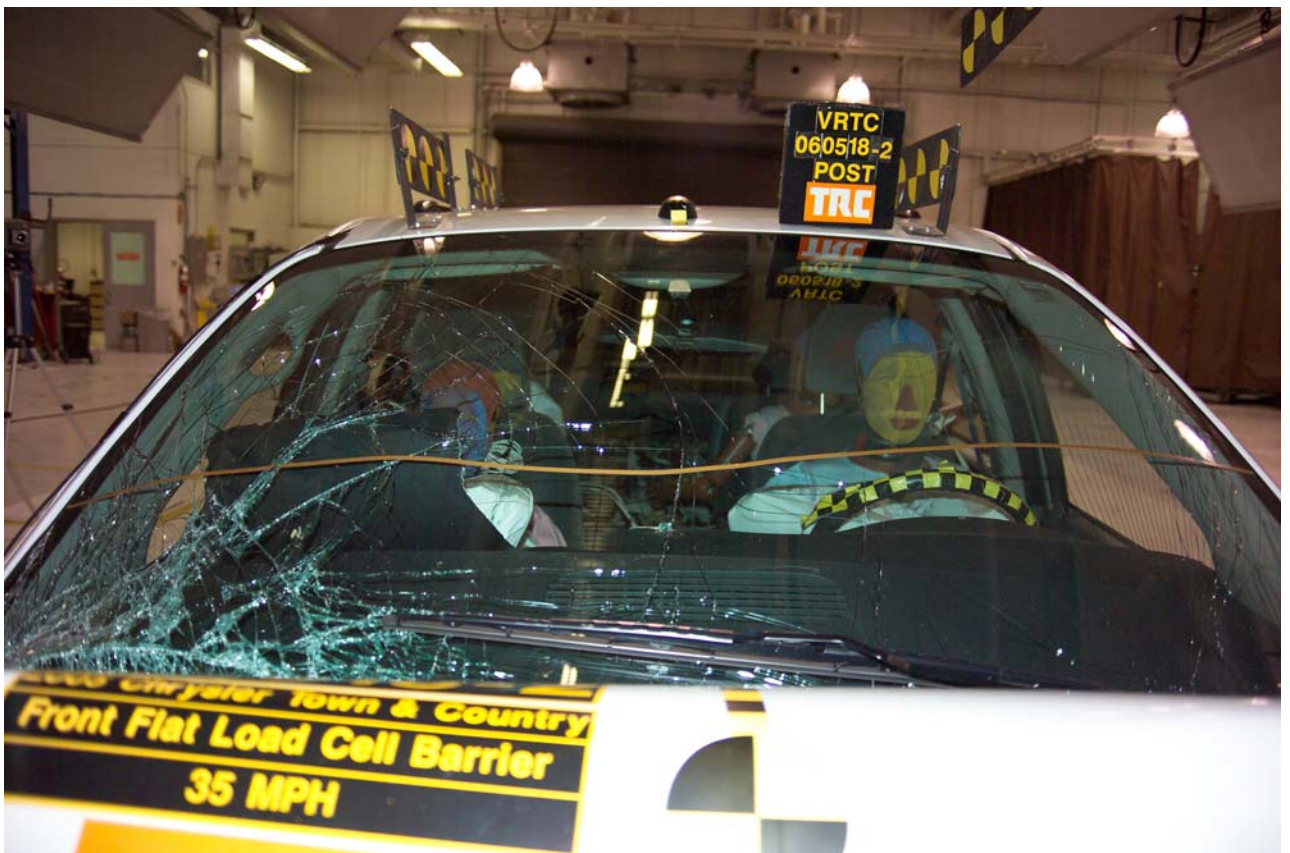


Figure A-31 Post-Test Windshield View



Figure A-32 Pre-Test Driver and Passenger Dummies through Windshield View



Figure A-33 Post-Test Driver and Passenger Dummies through Windshield View



Figure A-34 Pre-Test Driver Dummy - View 1

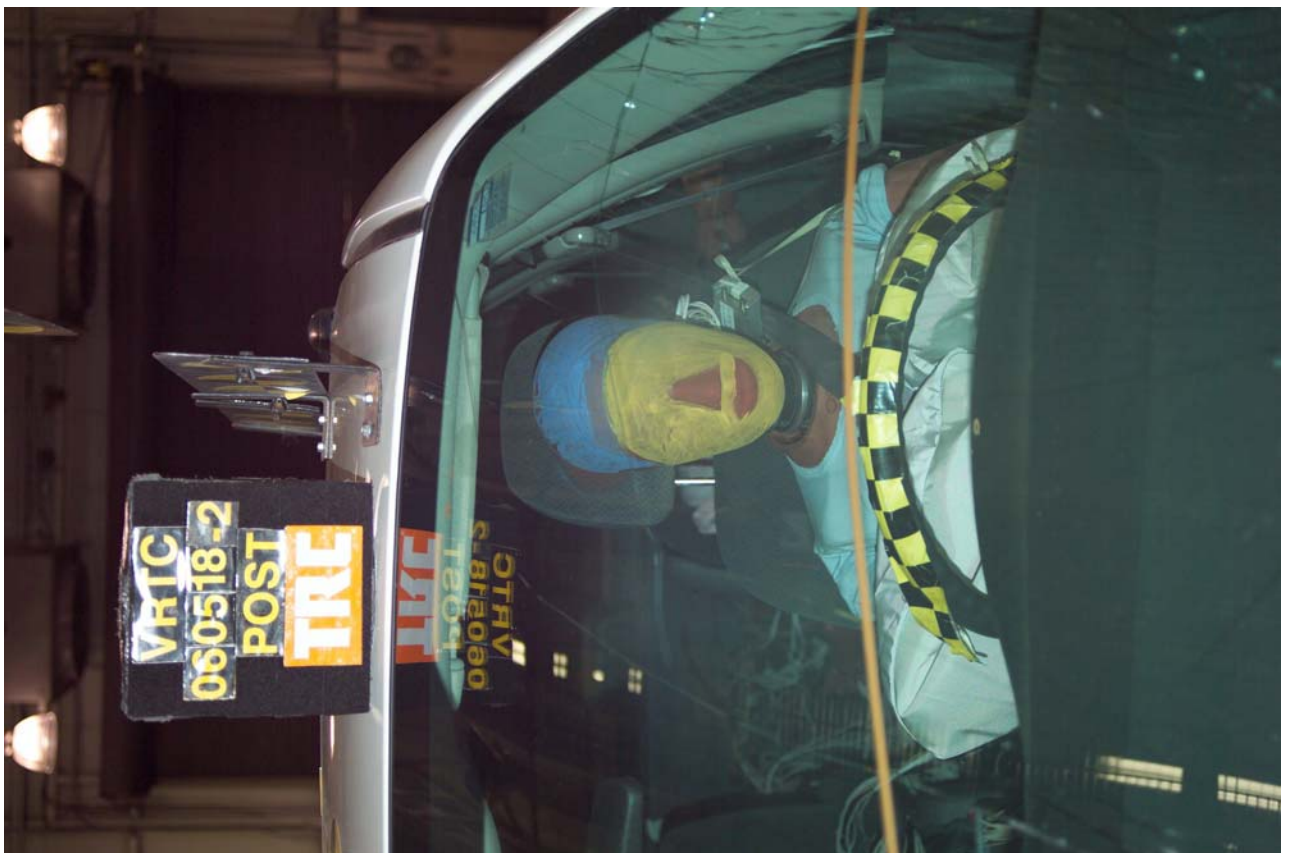


Figure A-35 Post-Test Driver Dummy - View 1



Figure A-36 Pre-Test Driver Dummy - View 2



Figure A-37 Post-Test Driver Dummy - View 2



Figure A-38 Pre-Test Driver Dummy - View 3



Figure A-39 Post-Test Driver Dummy - View 3



Figure A-40 Pre-Test Driver Dummy - View 4



Figure A-41 Post-Test Driver Dummy - View 4



Figure A-42 Pre-Test Right Front Passenger Dummy - View 1

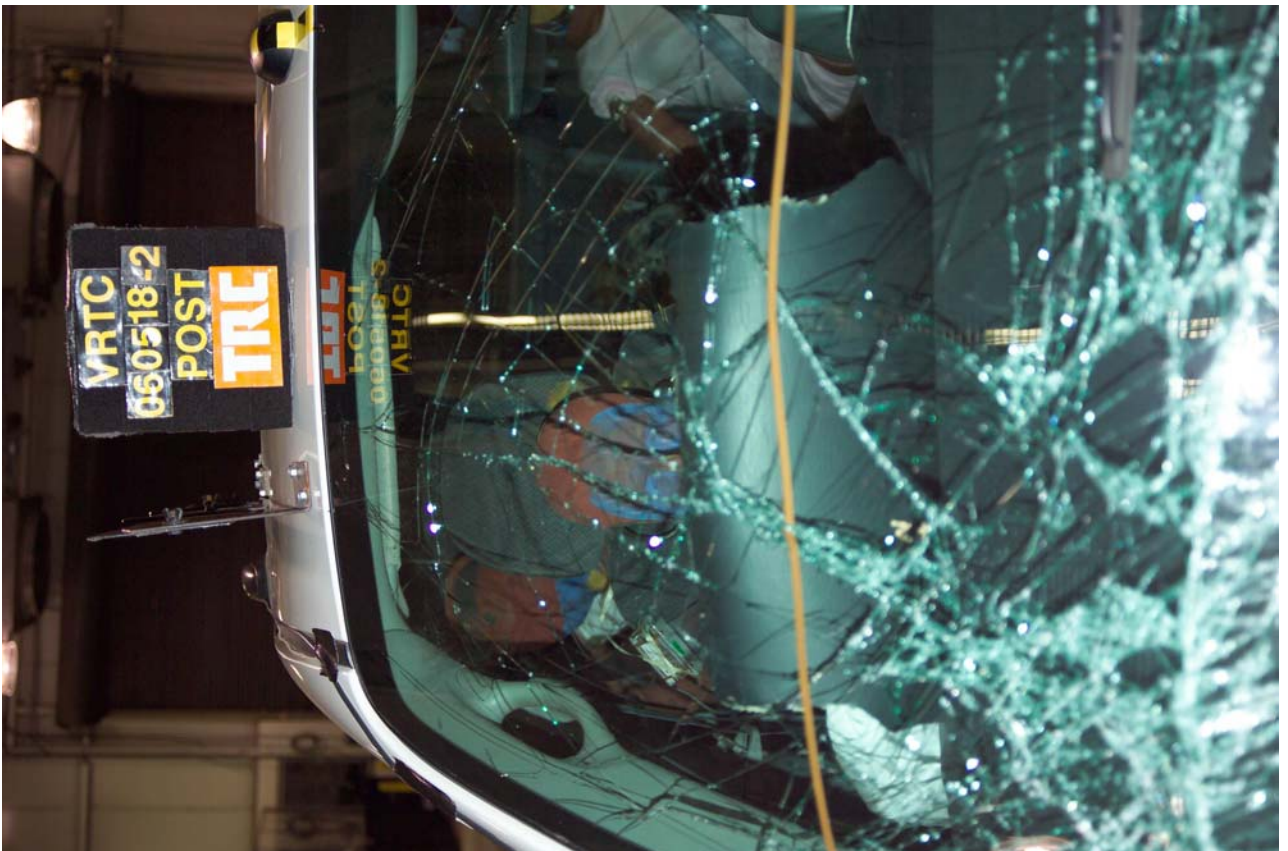


Figure A-43 Post-Test Right Front Passenger Dummy - View 1



Figure A-44 Pre-Test Right Front Passenger Dummy - View 2



Figure A-45 Post-Test Right Front Passenger Dummy - View 2



Figure A-46 Pre-Test Right Front Passenger Dummy - View 3



Figure A-47 Post-Test Right Front Passenger Dummy - View 3



Figure A-48 Pre-Test Right Front Passenger Dummy - View 4



Figure A-49 Post-Test Right Front Passenger Dummy - View 4



Figure A-50 Pre-Test Left Rear Passenger Dummy - View 1



Figure A-51 Post-Test Left Rear Passenger Dummy - View 1



Figure A-52 Pre-Test Left Rear Passenger Dummy - View 2



Figure A-53 Post-Test Left Rear Passenger Dummy - View 2



Figure A-54 Pre-Test Left Rear Passenger Dummy - View 3



Figure A-55 Post-Test Left Rear Passenger Dummy - View 4



Figure A-56 Pre-Test Right Rear Passenger Dummy - View 1



Figure A-57 Post-Test Right Rear Passenger Dummy - View 1



Figure A-58 Pre-Test Right Rear Passenger Dummy - View 2



Figure A-59 Post-Test Right Rear Passenger Dummy - View 2



Figure A-60 Pre-Test Right Rear Passenger Dummy - View 3



Figure A-61 Post-Test Right Rear Passenger Dummy - View 4



Figure A-62 Post-Test Driver Dummy Overall Contact View



Figure A-63 Post-Test Driver Dummy Head Contact - View 1



Figure A-64 Post-Test Driver Dummy Head Contact - View 2



Figure A-65 Post-Test Driver Dummy Knee Contact View



Figure A-66 Post-Test Driver Floorboard Deformation View



Figure A-67 Post-Test Driver Toeboard Deformation View



Figure A-68 Post-Test Center Dash Panel Deformation View

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



Figure A-70 Post-Test Right Front Passenger Dummy Head Contact - View 1



Figure A-71 Post-Test Right Front Passenger Dummy Head Contact - View 2



Figure A-72 Post-Test Right Front Passenger Dummy Knee Contact View



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



Figure A-74 Post-Test Right Front Passenger Toeboard Deformation View



Figure A-75 Post-Test Left Rear Passenger Dummy Overall Contact View



Figure A-76 Post-Test Left Rear Passenger Dummy Head Contact View



Figure A-77 Post-Test Right Rear Passenger Dummy Overall Contact View



Figure A-78 Post-Test Right Rear Passenger Dummy Head Contact View



Figure A-79 Post-Test Right Rear Passenger D-Ring Damage - View 1



Figure A-80 Post-Test Right Rear Passenger D-Ring Damage - View 2



Figure A-81 Post-Test Right Rear Passenger D-Ring Damage - View 3



Figure A-82 Post-Test Right Rear Passenger Side Panel Damage View



Figure A-83 Certification Label View



Figure A-84 Recommended Tire Pressure Label View



Figure A-85 Pre-Test Ballast View

Appendix B

Data Plots



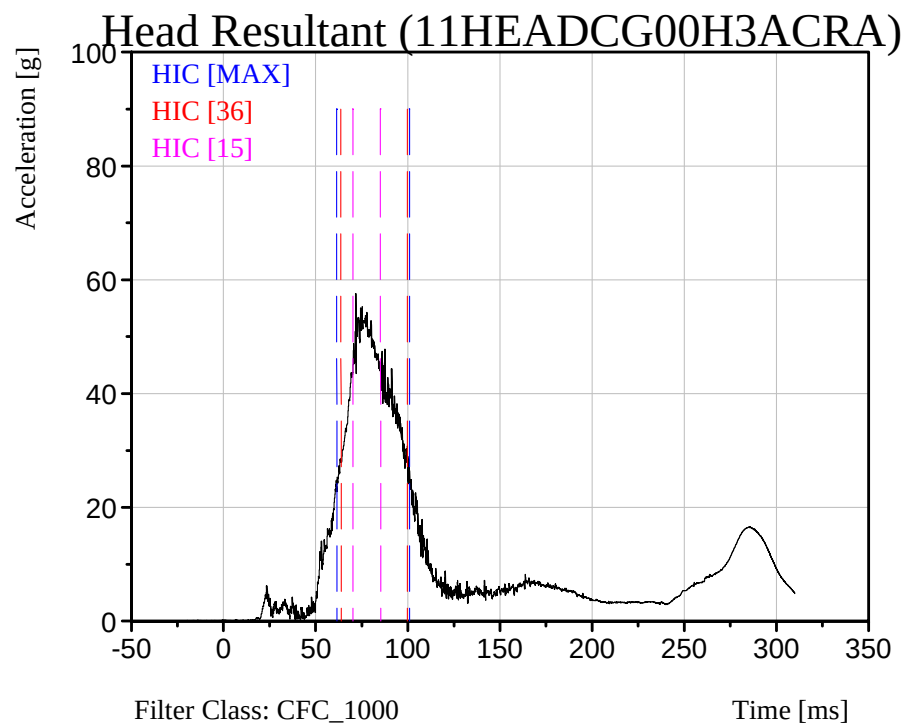
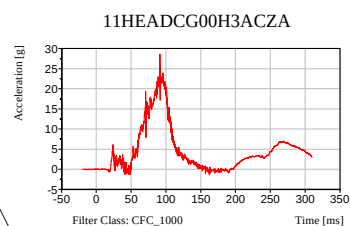
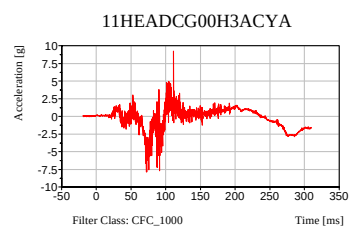
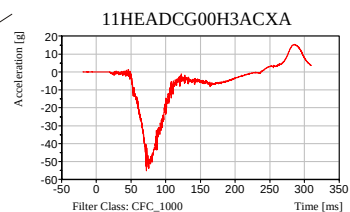
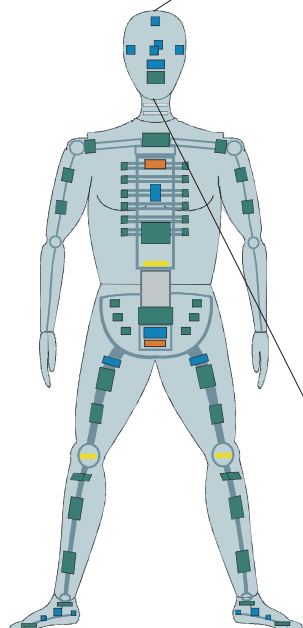
Head Injury Criterion (HIC)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Dummy: HIII 50th Male
Seating Position:
Driver

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 418.59	61.52 ms	100.96 ms	40.74 g
HIC [36] = 414.65	63.84 ms	99.84 ms	42.10 g
HIC [15] = 264.18	70.24 ms	85.28 ms	49.85 g

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



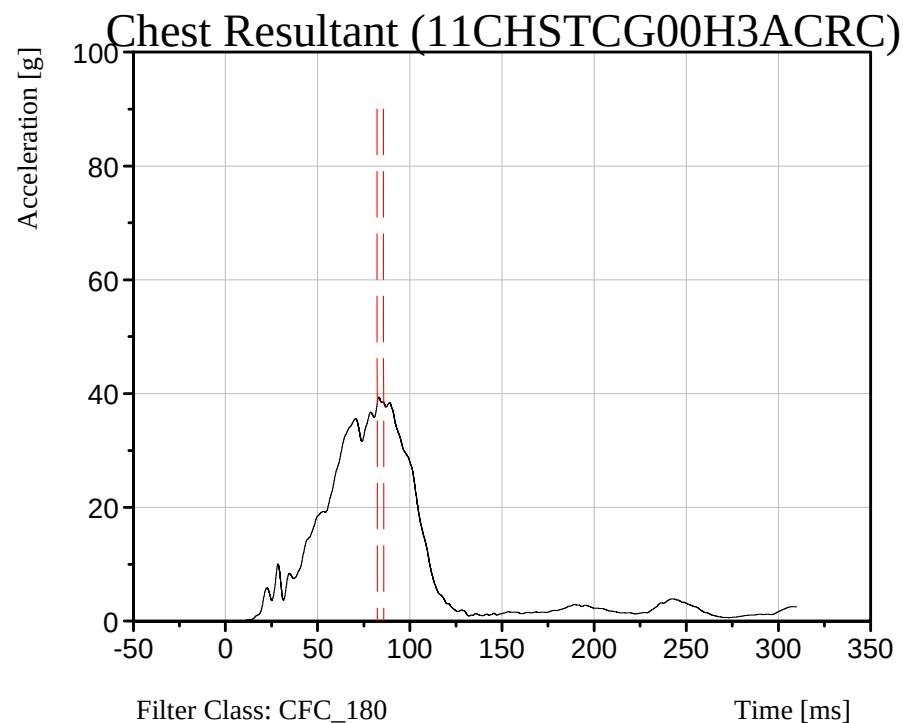
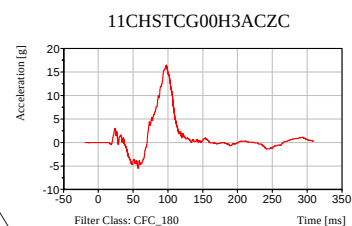
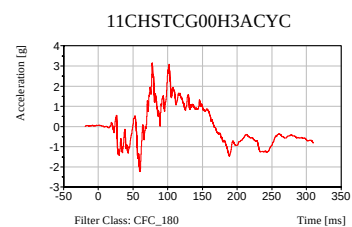
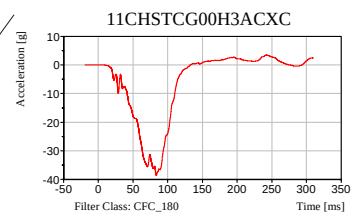
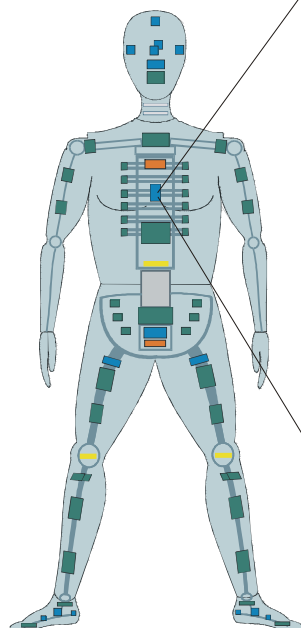
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



3 ms Duration Acceleration = 38.44 g
Chest Severity Index = 328.85

<u>T1</u> (Begin)	<u>T2</u> (End)
82.32 ms	85.86 ms

Dummy: HIII 50th Male
Seating Position:

Driver

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



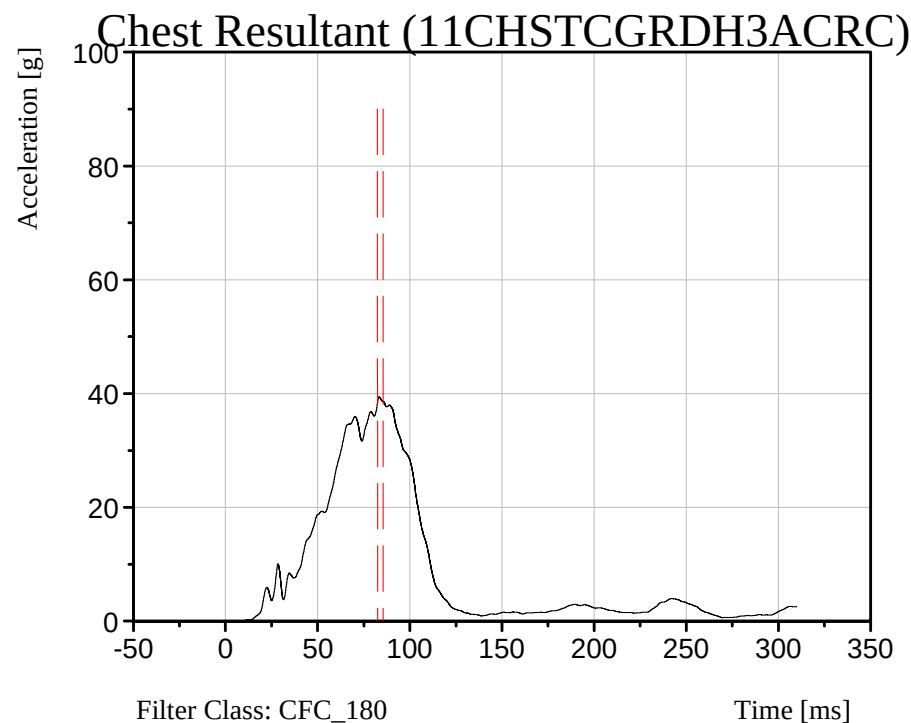
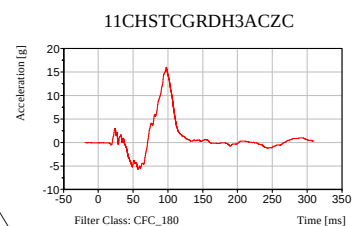
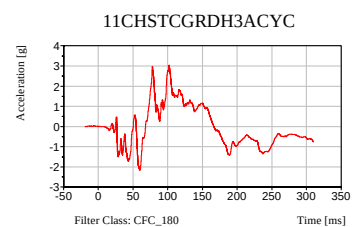
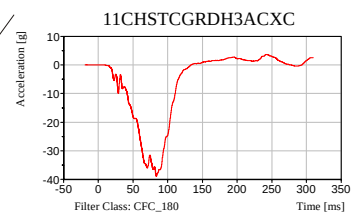
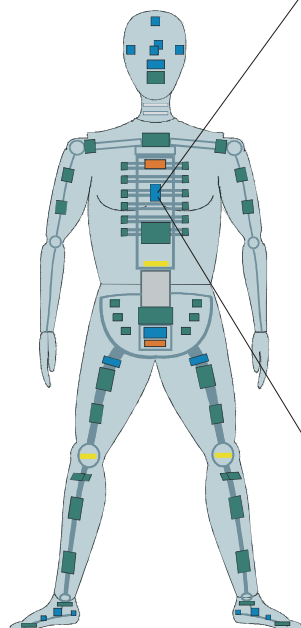
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



3 ms Duration Acceleration = 38.69 g
Chest Severity Index = 333.40

<u>T1</u> (Begin)	<u>T2</u> (End)
82.53 ms	85.53 ms

Dummy: HIII 50th Male
Seating Position:

Driver

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



Chest Deflection

Date: 05/18/2006
Time: 17:50

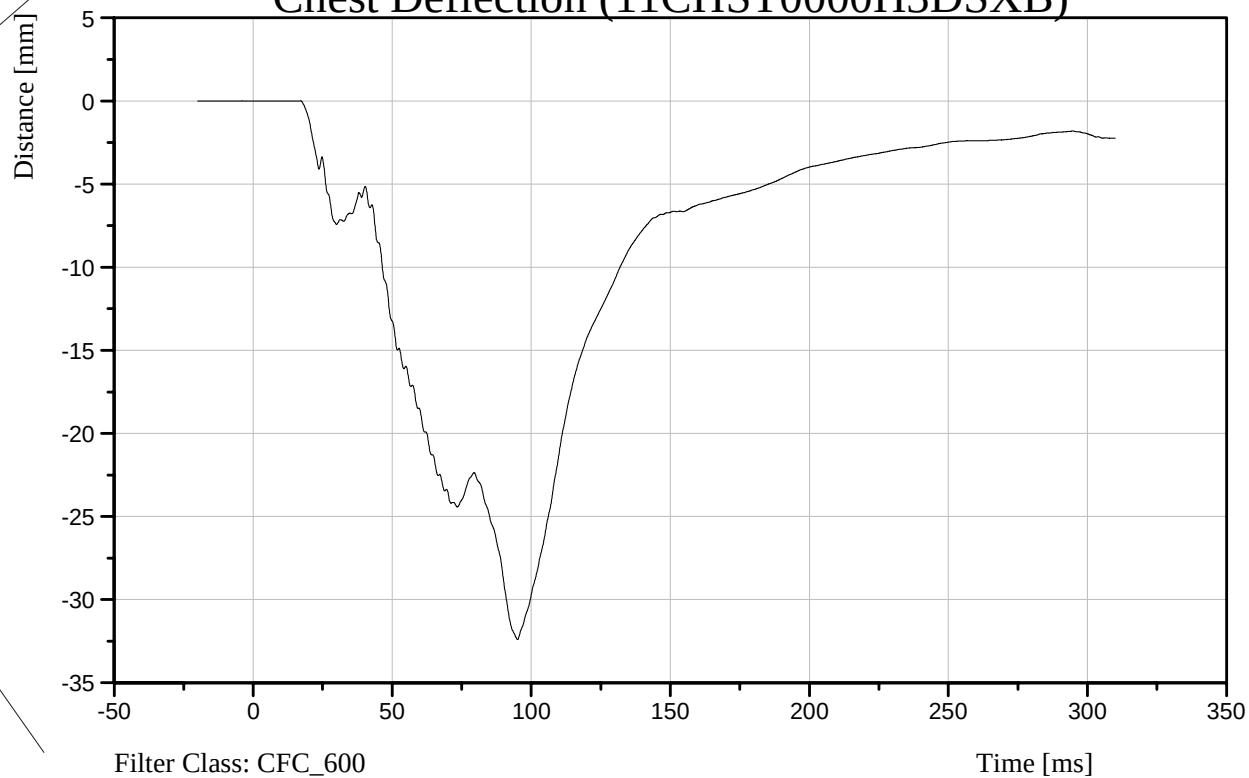
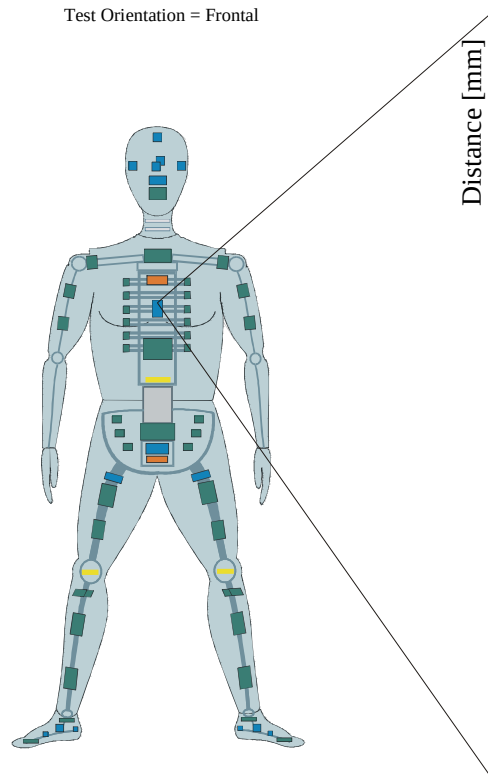
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Chest Deflection (11CHST0000H3DSXB)



Dummy: HIII 50th Male

Seating Position:

Driver

[Max.] 0.01 mm at 17.12 ms

[Min.] -32.40 mm at 95.04 ms

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



Neck Moment about the Occipital Condyle (NECK OM)

Date: 05/18/2006
Time: 17:50

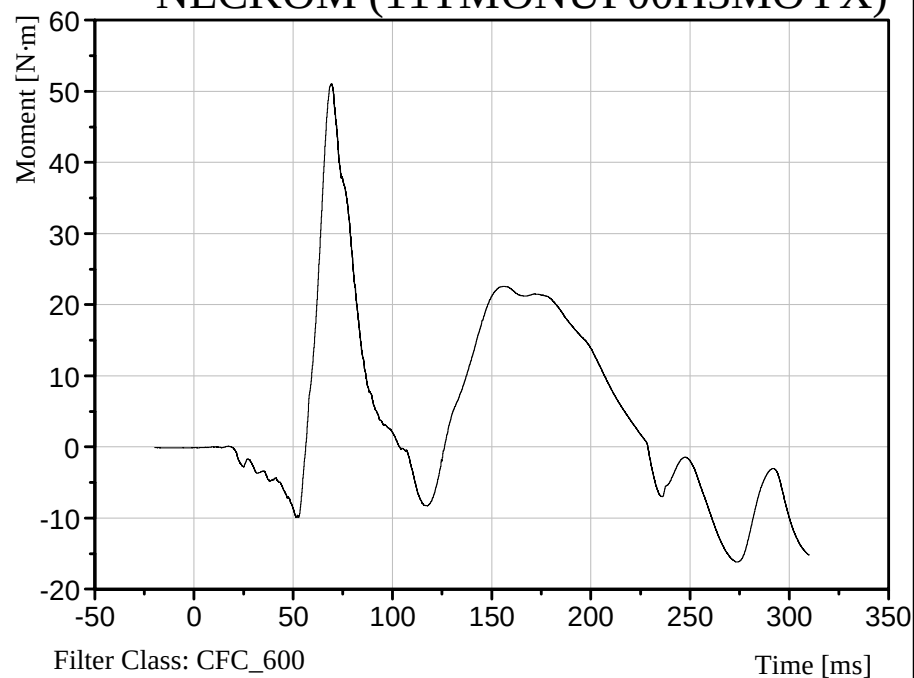
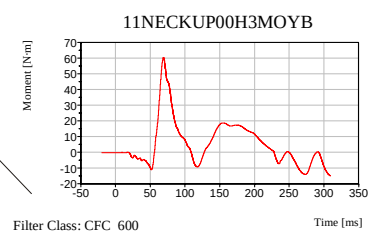
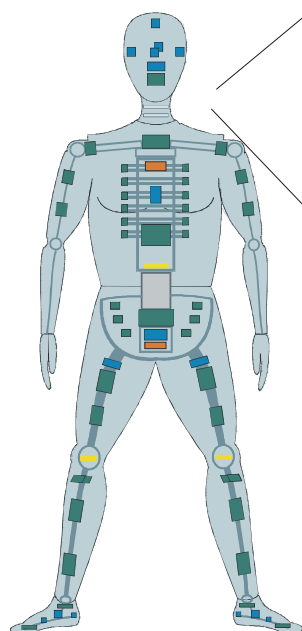
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

NECKOM (11TMONUP00H3MOYX)



Dummy: HIII 50th Male
Seating Position:

Driver

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

[Max.] 51.05 N·m at 69.28 ms

[Min.] -16.18 N·m at 273.36 ms

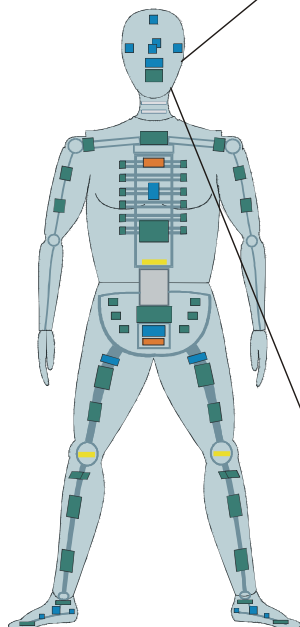


Date: 05/18/2006
Time: 17:50

Neck Injury Predictor (NIJ)

Customer: VRTC

Test Orientation = Frontal
Fzc(Tension) = 6806
Fzc(Compression) = 6160
Myc(Extension) = 135
Myc(Flexion) = 310



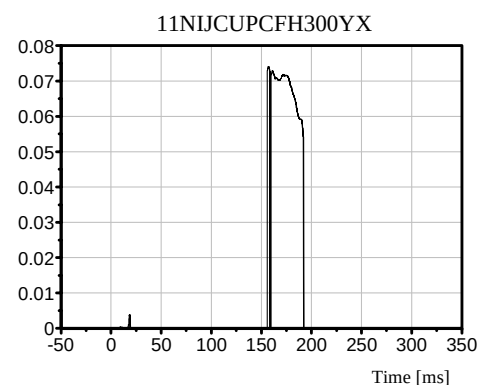
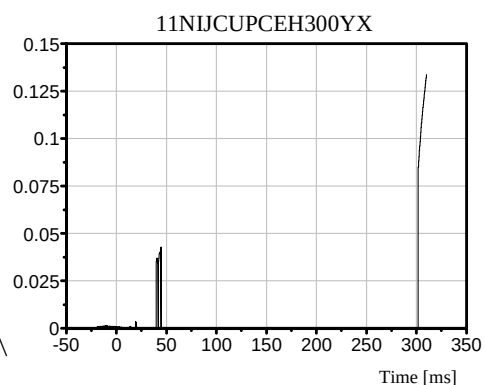
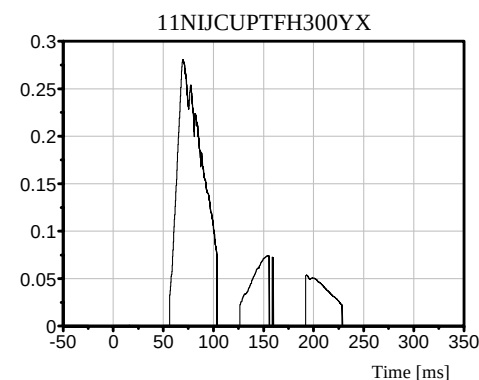
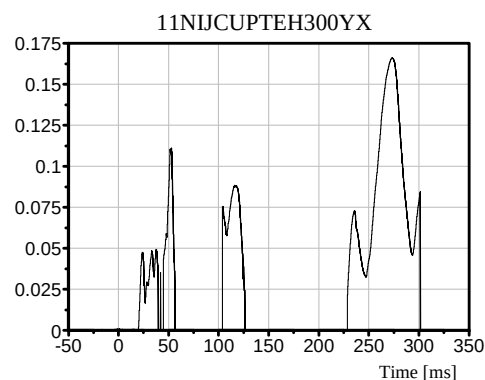
Dummy: HIII 50th Male
Seating Position:

Driver

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



TRC Inc. Test Lab: CTF
Test Number: 060518-2





Neck Shear Force

Date: 05/18/2006
Time: 17:50

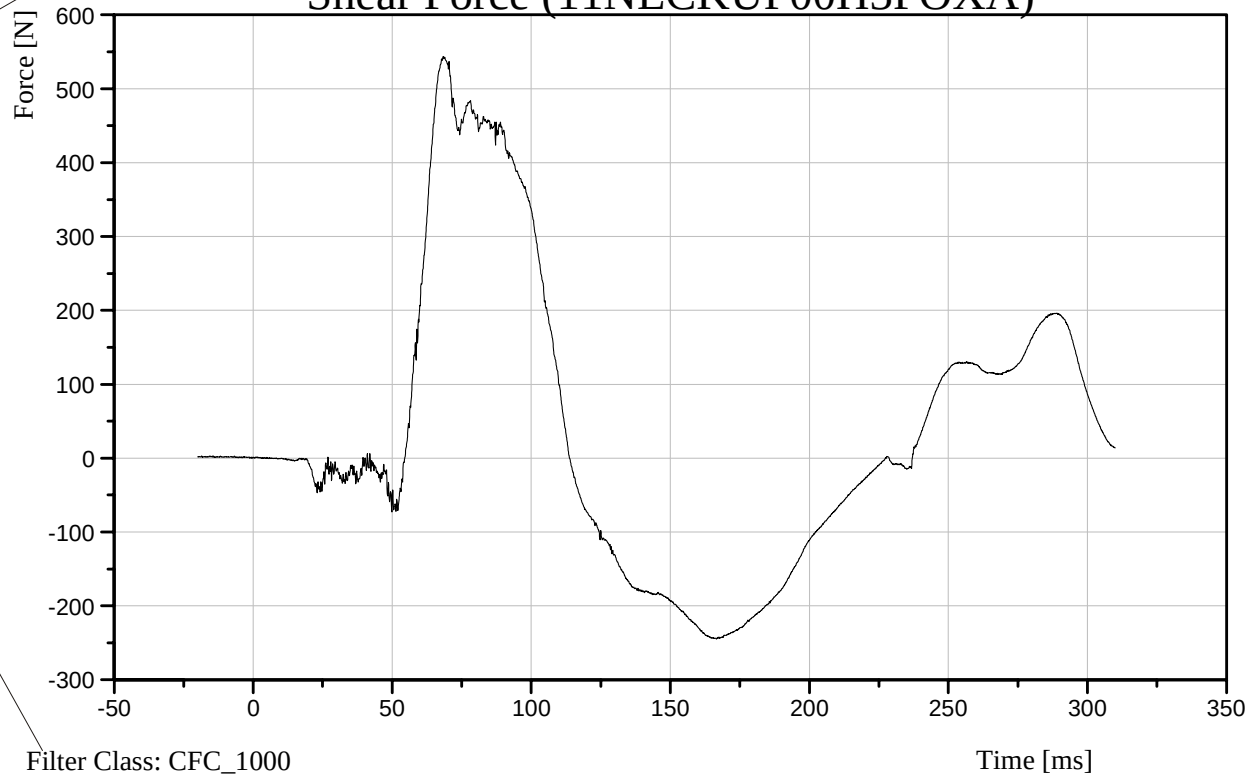
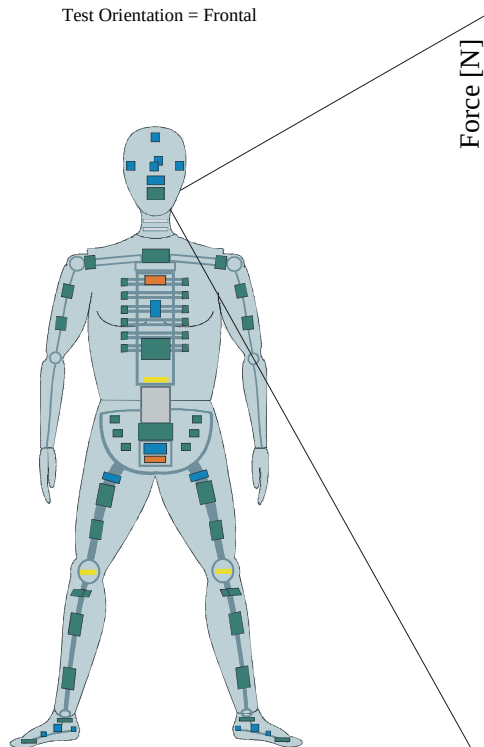
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (11NECKUP00H3FOXA)



Dummy:HIII 50th Male

Seating Position:

Driver

Neck Shear Force Source Code: Min/Max of 11NECKUP00H3FOXA

[Max.] 543.74 N at 68.32 ms

[Min.] -244.67 N at 166.56 ms



Neck Shear Force

Date: 05/18/2006
Time: 17:50

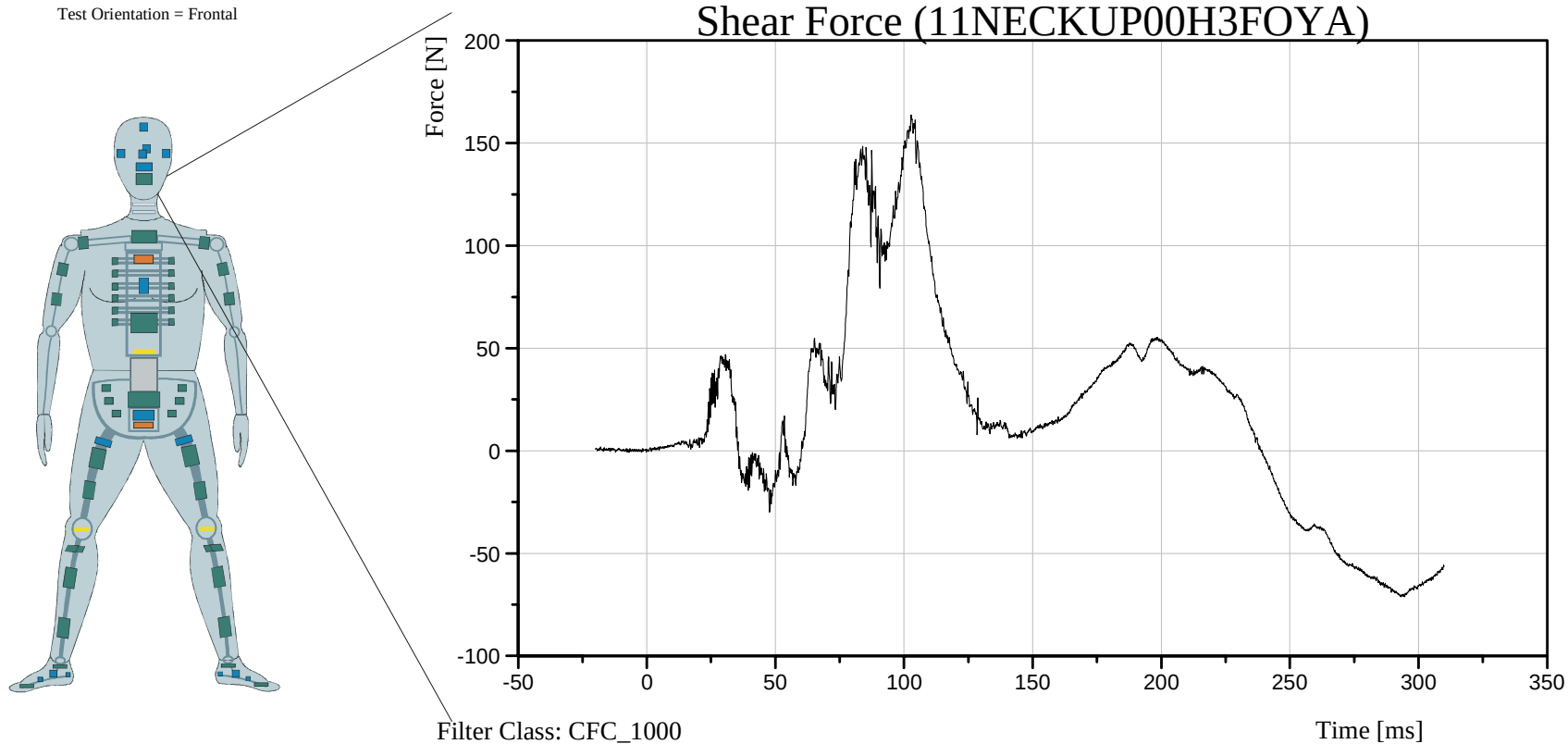
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (11NECKUP00H3FOYA)



Dummy: HIII 50th Male

Seating Position:

Driver

[Max.] 163.69 N at 102.72 ms

[Min.] -71.20 N at 293.12 ms

Neck Shear Force Source Code: Min/Max of 11NECKUP00H3FOYA



Neck Axial Force

Date: 05/18/2006
Time: 17:50

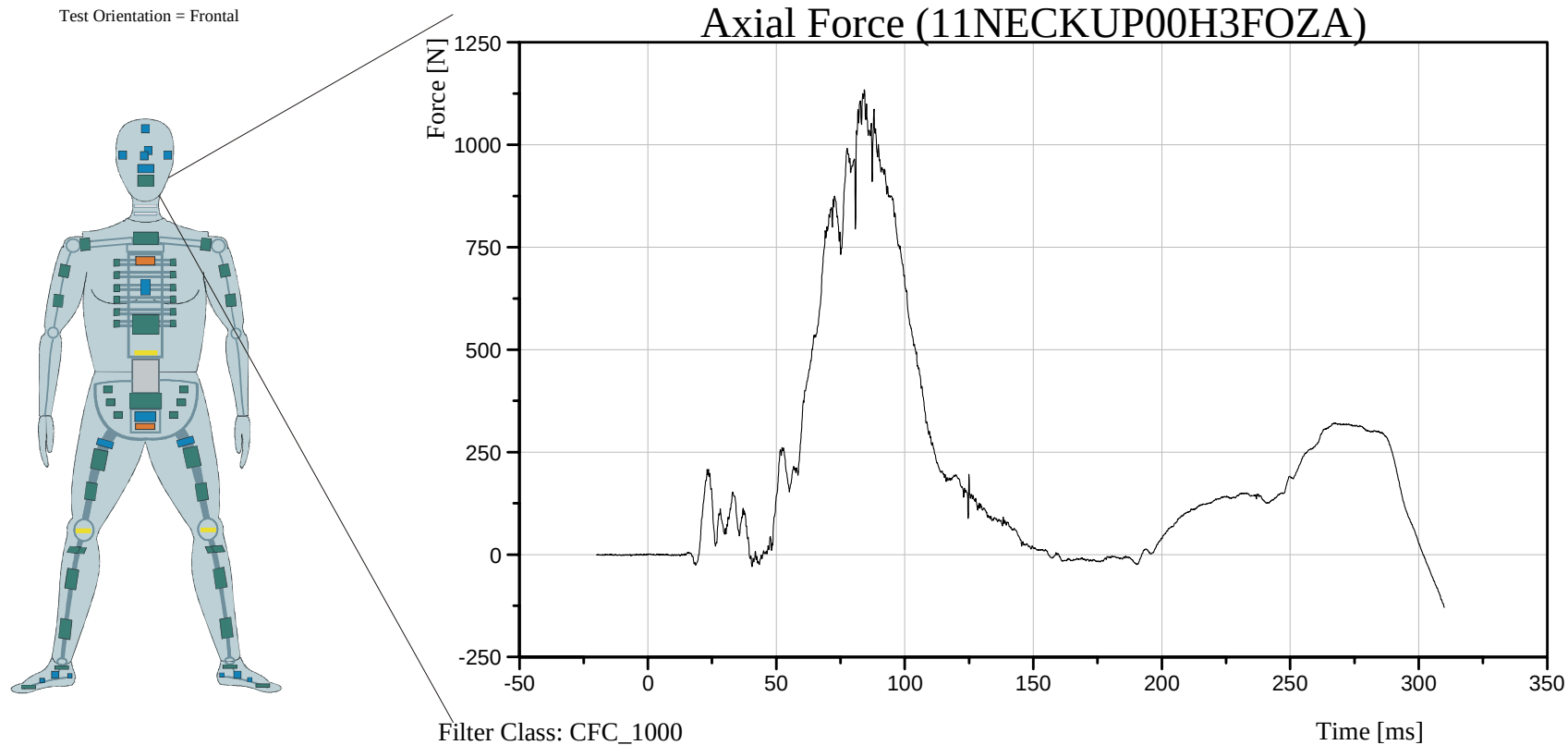
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Axial Force (11NECKUP00H3FOZA)



Dummy: HIII 50th Male

Seating Position:

Driver

[Max.] 1,134.54 N at 84.24 ms

[Min.] -129.29 N at 310.00 ms

Neck Axial Force Source Code: Min/Max of 11NECKUP00H3FOZA



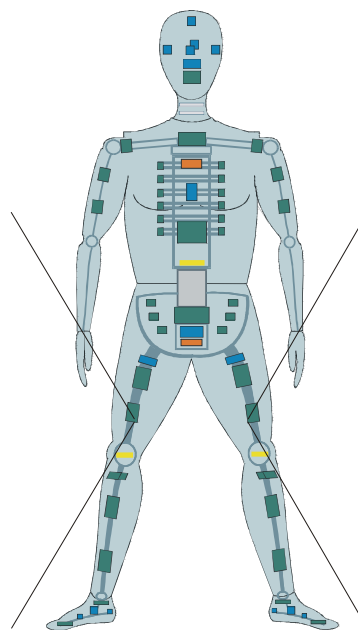
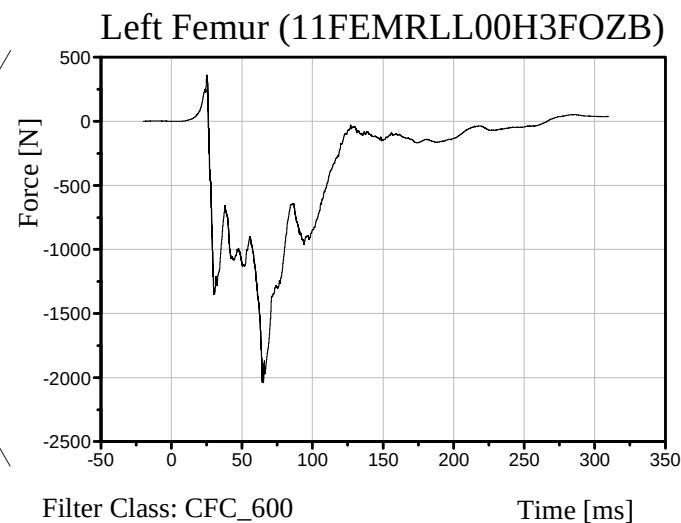
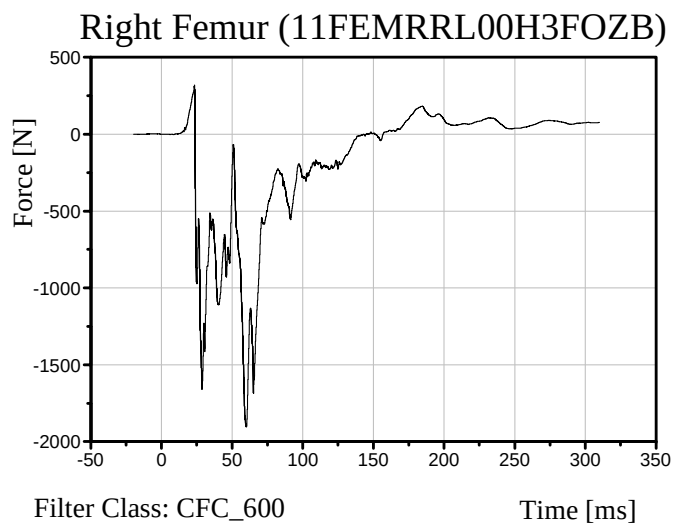
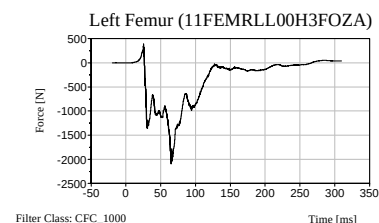
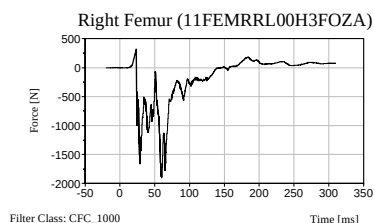
Femur Load

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Max [Tension] 320.35 N at 23.20 ms
Min [Compression] -1,903.81 N at 60.00 ms

Dummy: HIII 50th Male
Seating Position:
Driver

Max [Tension] 363.01 N at 25.20 ms
Min [Compression] -2,040.40 N at 65.36 ms

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



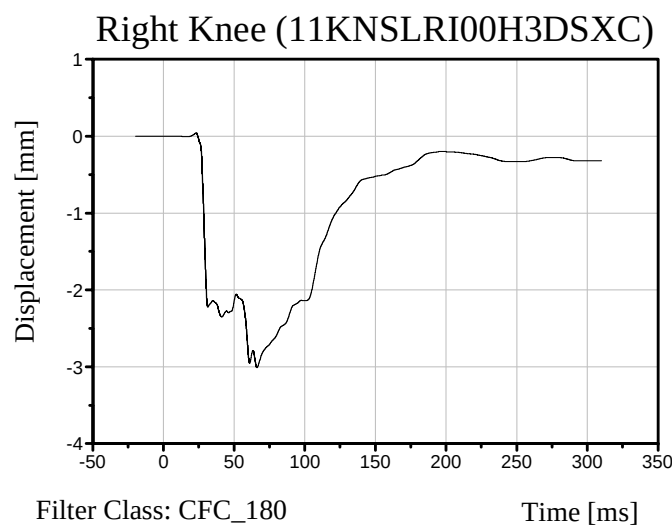
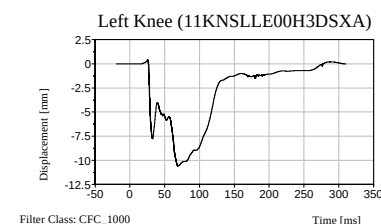
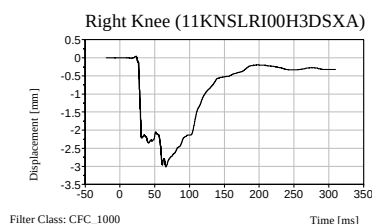
Knee Slider Displacement

Date: 05/18/2006
Time: 17:50

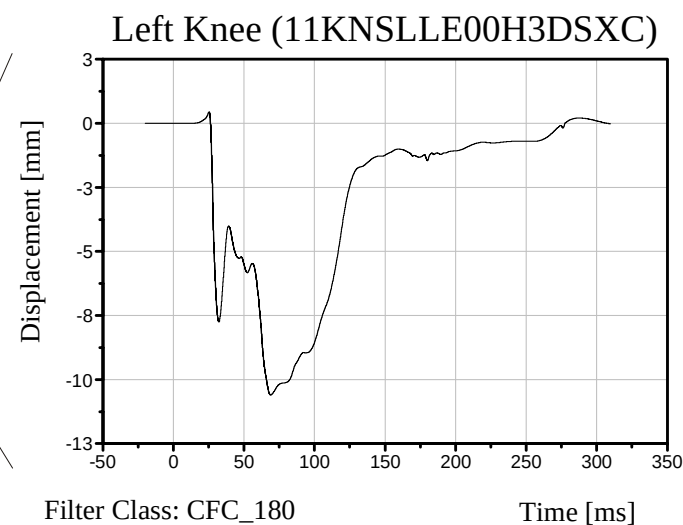
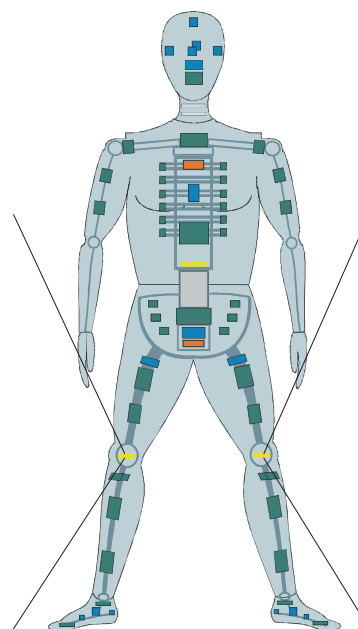
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Max. [Tension] 0.04 mm at 23.04 ms
Min. [Compression] -3.01 mm at 66.08 ms



Max. [Tension] 0.44 mm at 25.36 ms
Min. [Compression] -10.60 mm at 69.04 ms

Dummy: HIII 50th Male
Seating Position:
Driver

Knee Displacement Source Code : Min/Max of 11KNSLRI00H3DSXC and 11KNSLLE00H3DSXC (CFC 600)



Tibia Index (TI)

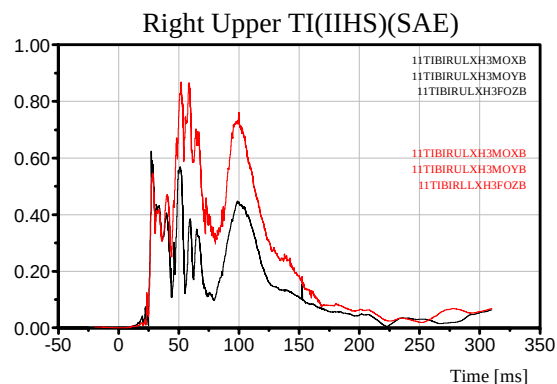
Date: 05/18/2006
Time: 17:50

Customer: VRTC

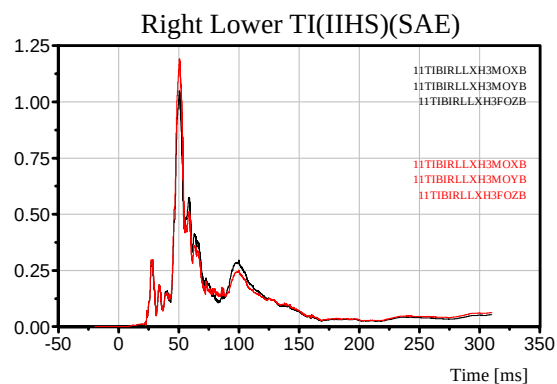
TRC Inc. Test Lab: CTF

Test Number: 060518-2

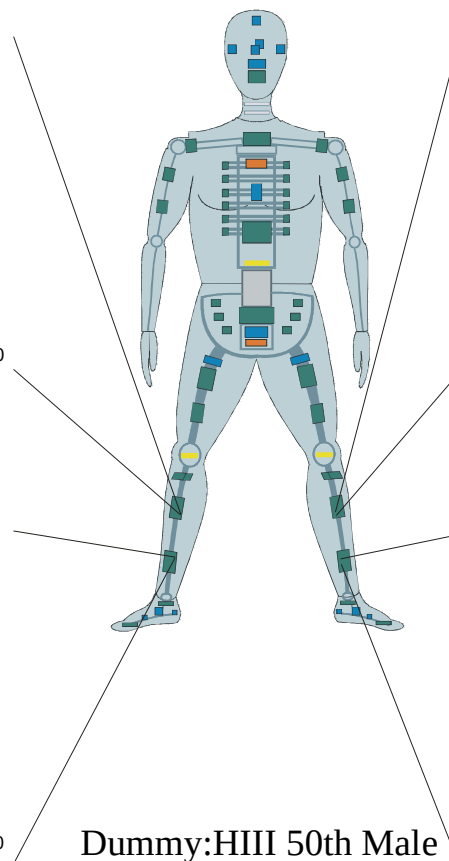
Critical Bending Moment = 240 N·m
Critical Compression Force = 12000 N



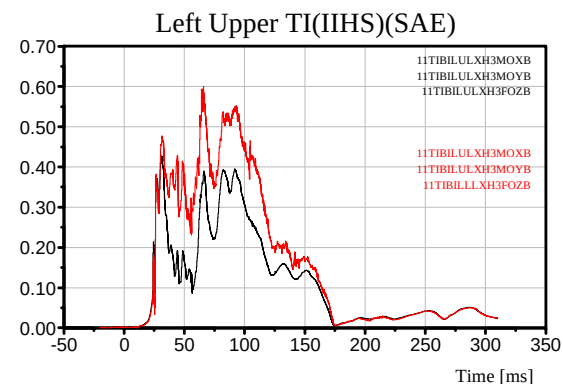
Max = 0.62 at 27.04 ms (SAE)
Max = 0.87 at 51.84 ms (IIHS)



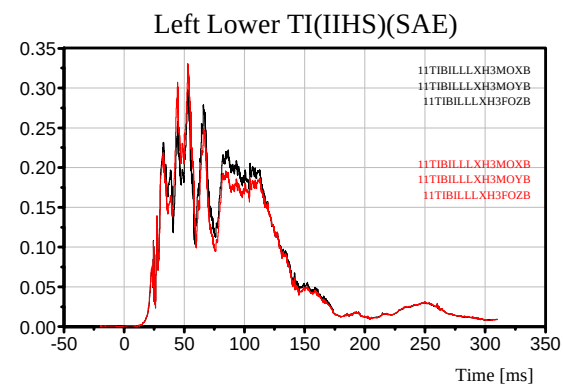
Max = 1.05 at 50.48 ms (SAE)
Max = 1.19 at 50.48 ms (IIHS)



Dummy: HIII 50th Male
Seating Position:
Driver



Max = 0.43 at 30.40 ms (SAE)
Max = 0.60 at 65.76 ms (IIHS)



Max = 0.30 at 52.88 ms (SAE)
Max = 0.33 at 52.88 ms (IIHS)

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



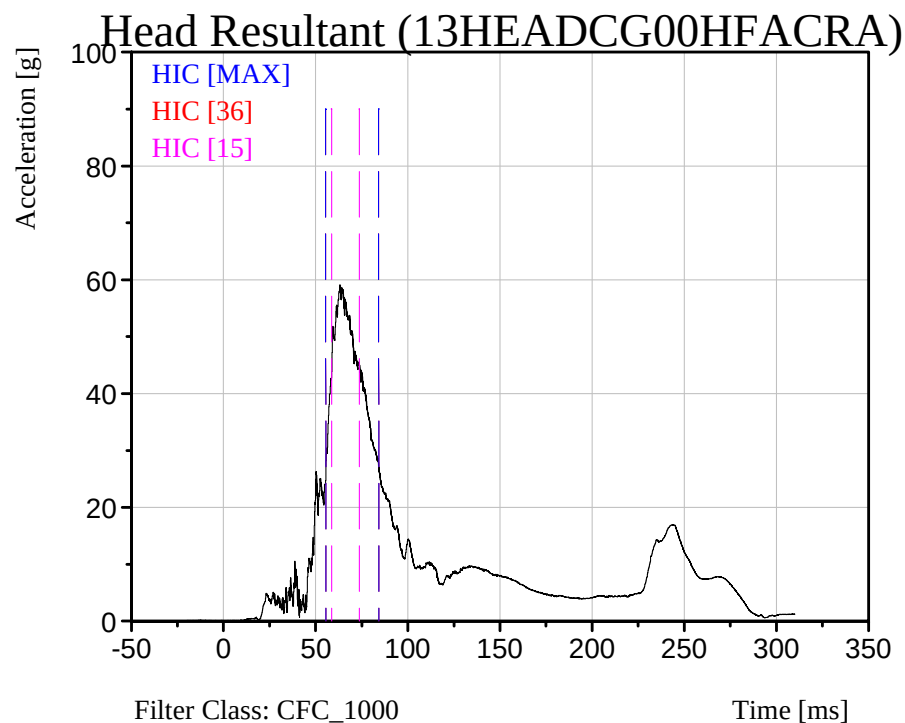
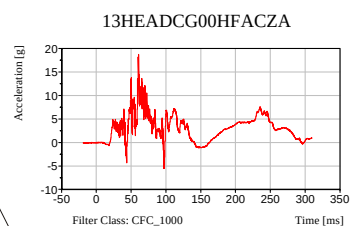
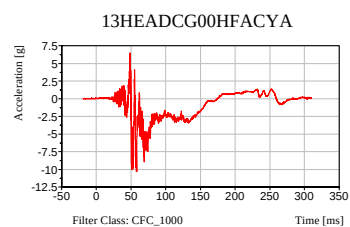
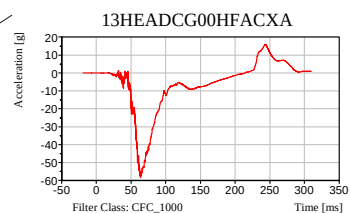
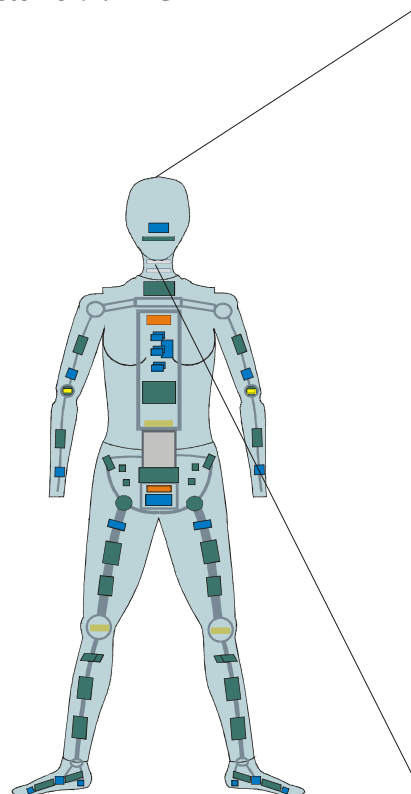
Head Injury Criterion (HIC)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



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.] = 374.93	55.52 ms	84.24 ms	44.24 g
HIC [36] = 374.93	55.52 ms	84.24 ms	44.24 g
HIC [15] = 294.36	58.72 ms	73.76 ms	52.04 g



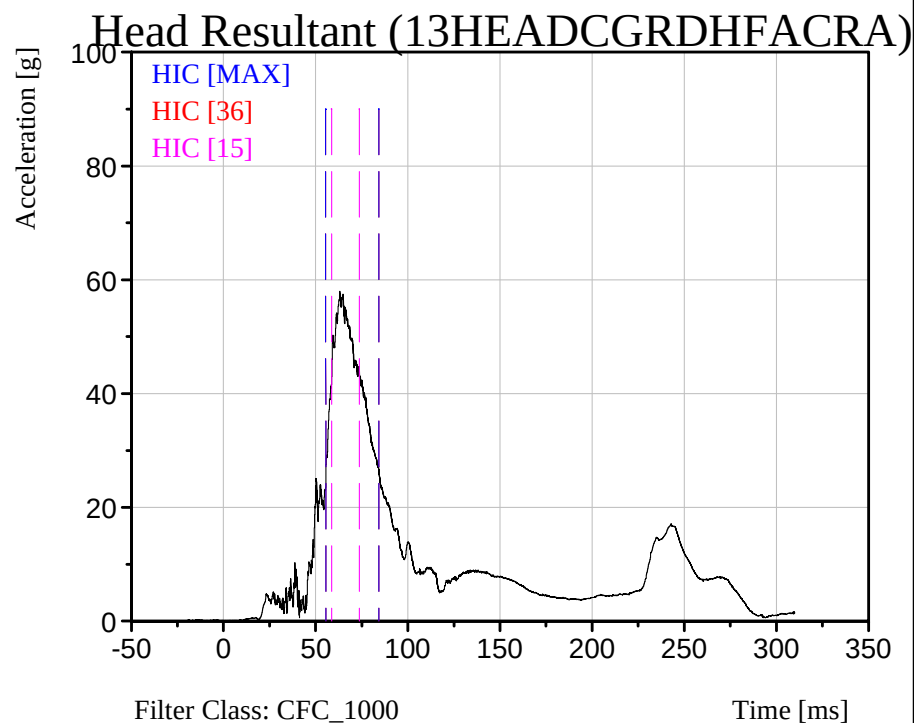
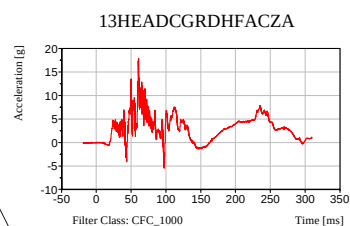
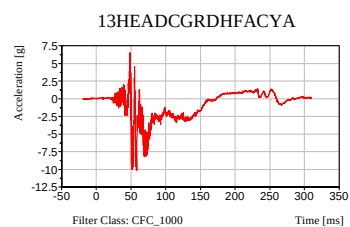
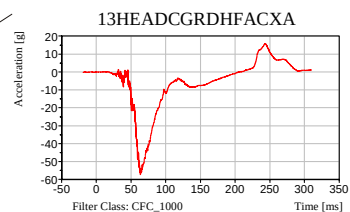
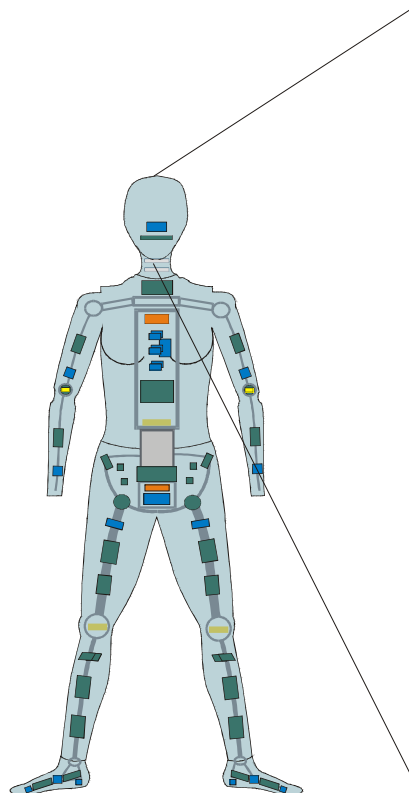
Head Injury Criterion (HIC)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



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.] = 351.71	55.52 ms	84.32 ms	43.08 g
HIC [36] = 351.71	55.52 ms	84.32 ms	43.08 g
HIC [15] = 276.69	58.72 ms	73.76 ms	50.77 g



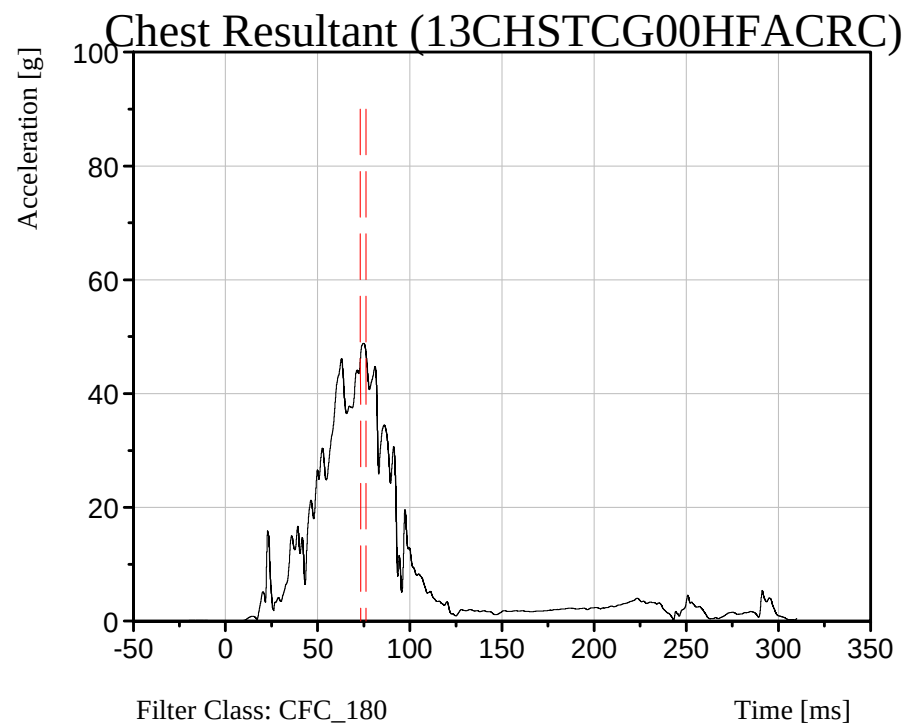
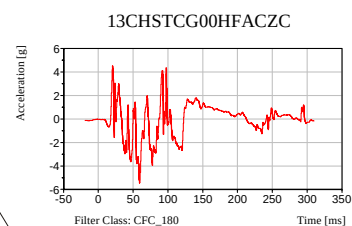
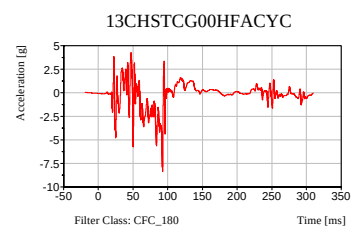
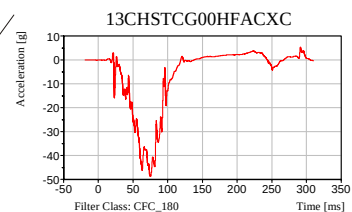
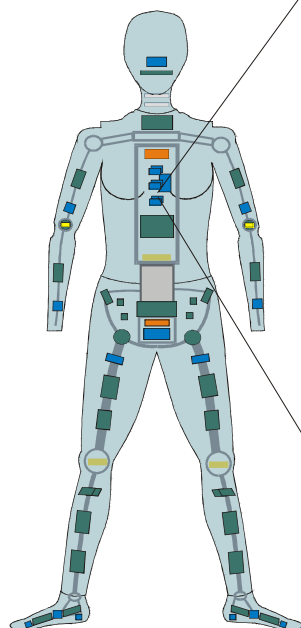
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



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

3 ms Duration Acceleration = 46.81 g
Chest Severity Index = 396.49

<u>T1</u> (Begin)	<u>T2</u> (End)
73.25 ms	76.25 ms

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



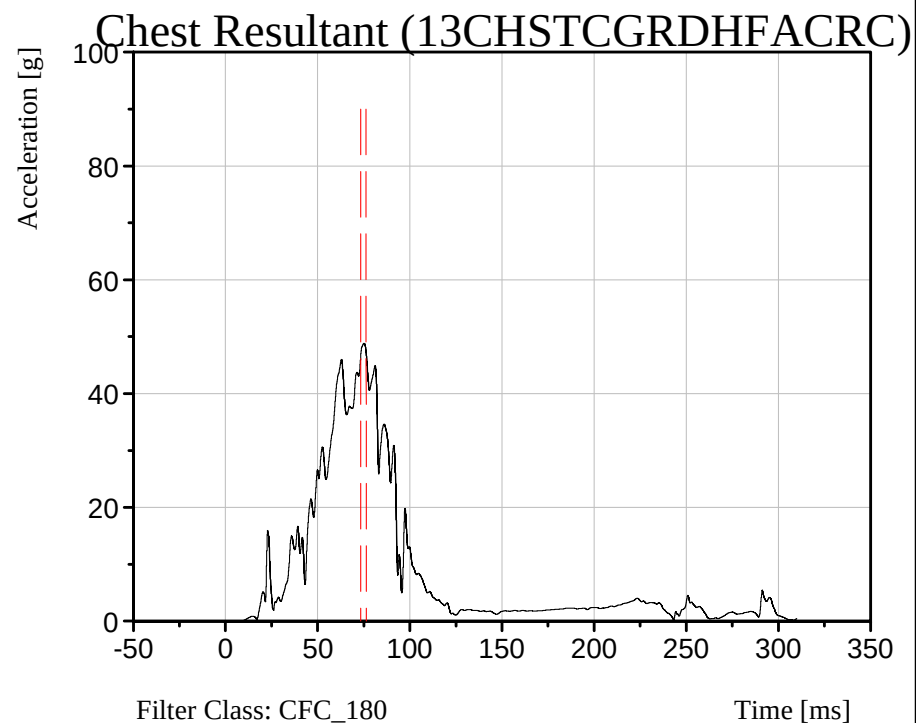
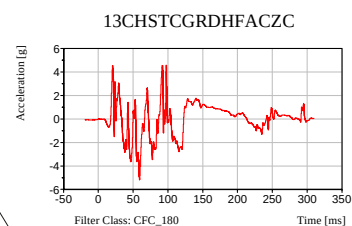
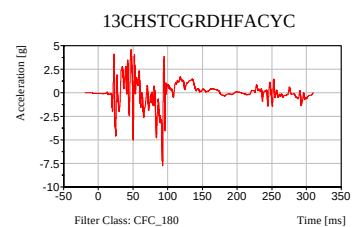
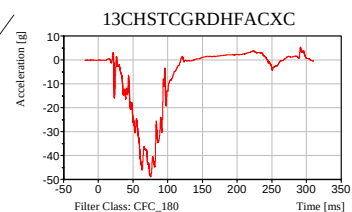
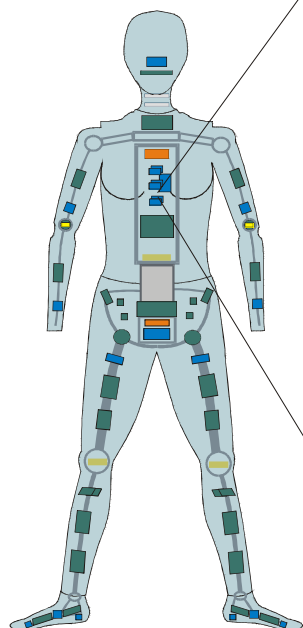
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



3 ms Duration Acceleration = 46.88 g
Chest Severity Index = 397.23

<u>T1</u> (Begin)	<u>T2</u> (End)
73.33 ms	76.33 ms

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

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



Chest Deflection

Date: 05/18/2006
Time: 17:50

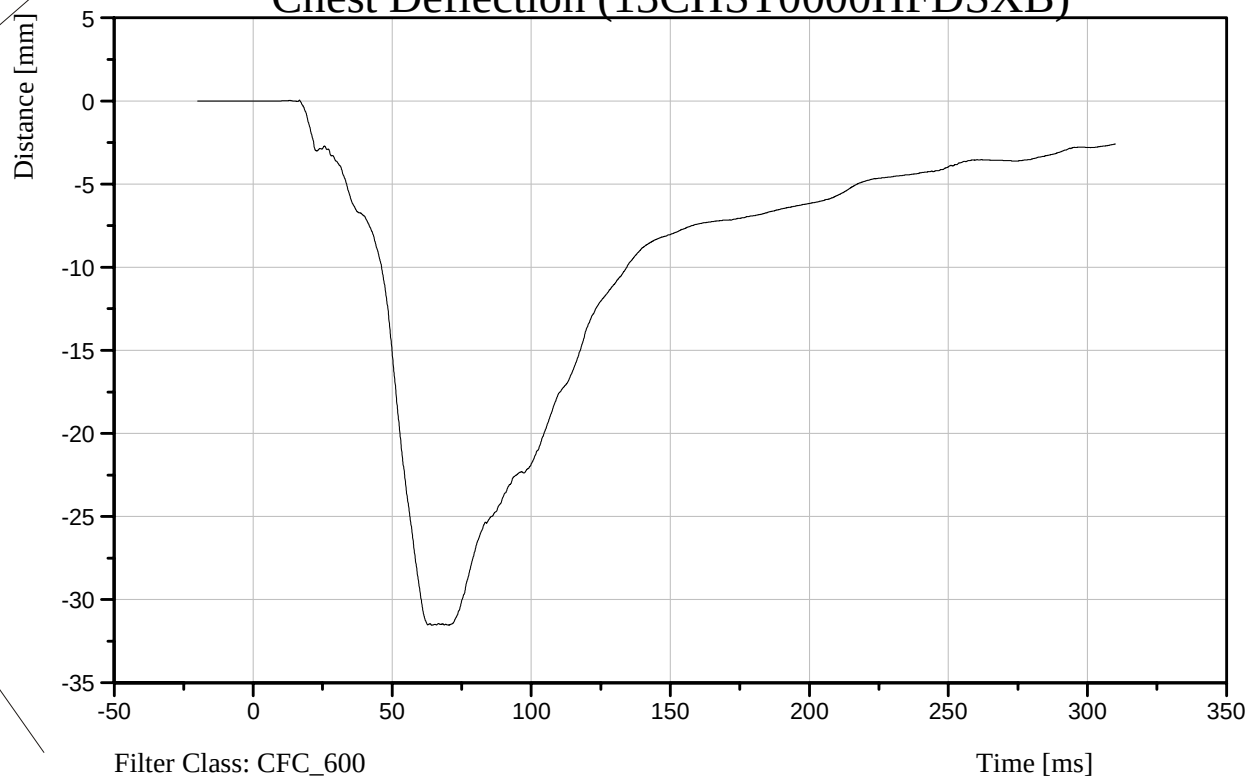
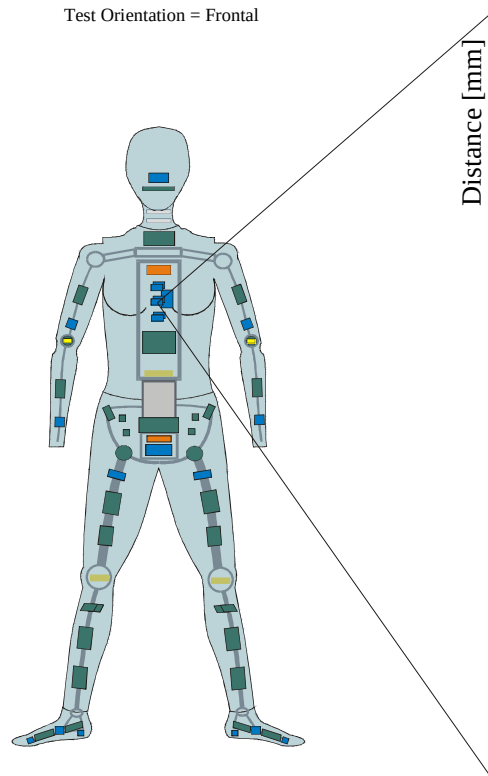
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Chest Deflection (13CHST0000HFDSXB)



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

[Max.] 0.06 mm at 16.64 ms

[Min.] -31.54 mm at 64.24 ms

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



Neck Moment about the Occipital Condyle (NECK OM)

Date: 05/18/2006
Time: 17:50

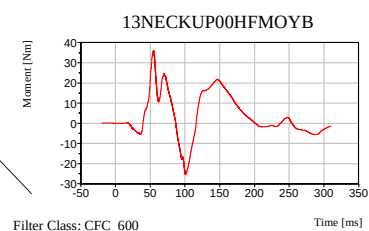
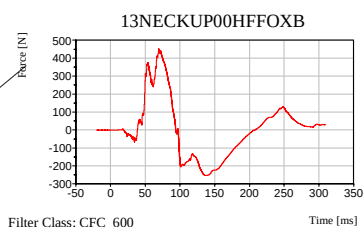
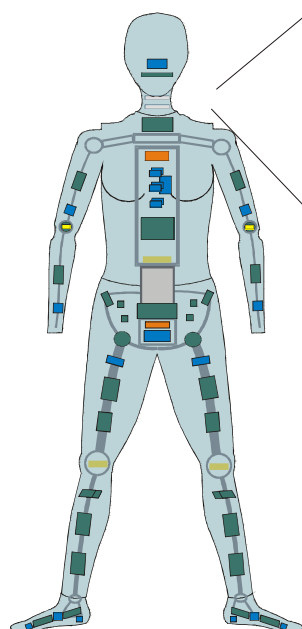
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

NECKOM (13TMONUP00HFM0YX)



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

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

[Max.] 29.61 Nm at 54.80 ms

[Min.] -21.74 Nm at 100.96 ms

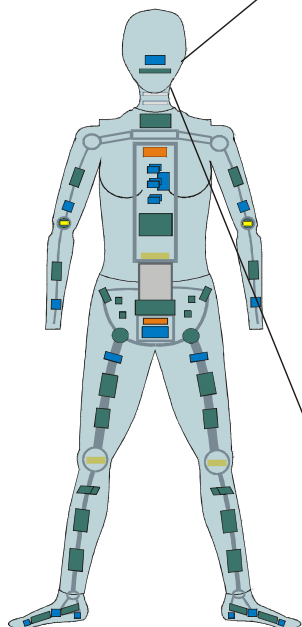


Neck Injury Predictor (NIJ)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

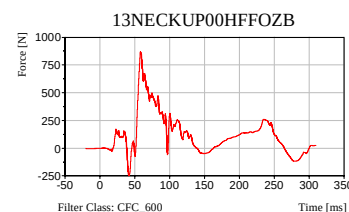
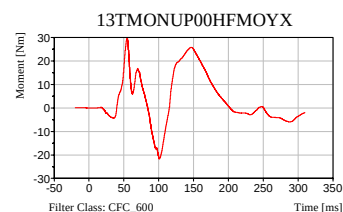
Test Orientation = Frontal
Fzc(Tension) = 4287
Fzc(Compression) = 3880
Myc(Extension) = 67
Myc(Flexion) = 155



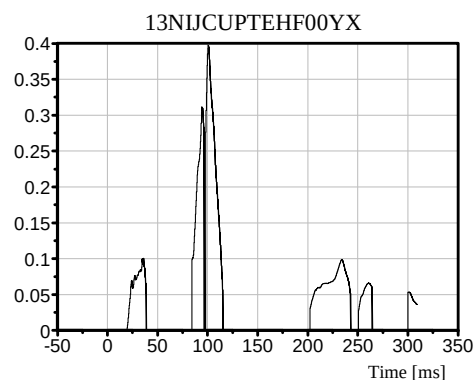
Dummy: HIII 5th Female
Seating Position:

Right Front Passenger

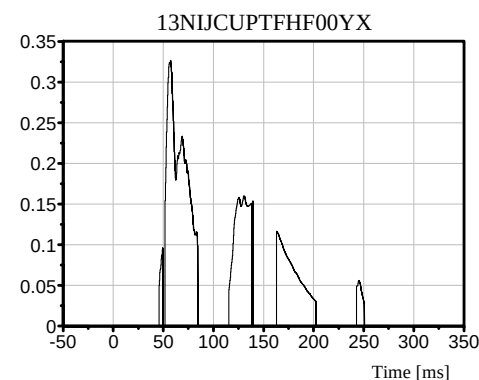
NIJ Source Code: (Fz/Fzc)+(My/Myc)



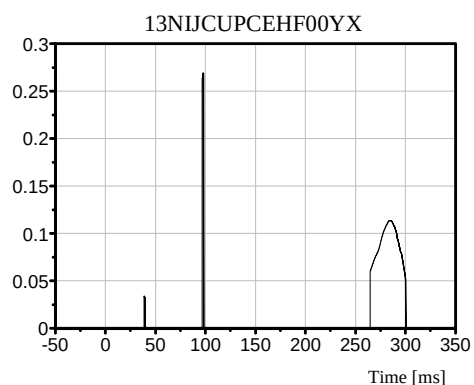
TRC Inc. Test Lab: CTF
Test Number: 060518-2



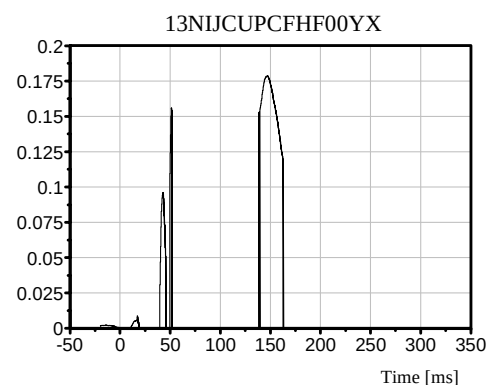
Max [NTE] 0.3971 at 100.72 ms



Max [NTF] 0.3264 at 57.20 ms



Max [NCE] 0.2695 at 97.68 ms



Max [NCF] 0.1786 at 147.12 ms



Neck Shear Force

Date: 05/18/2006
Time: 17:50

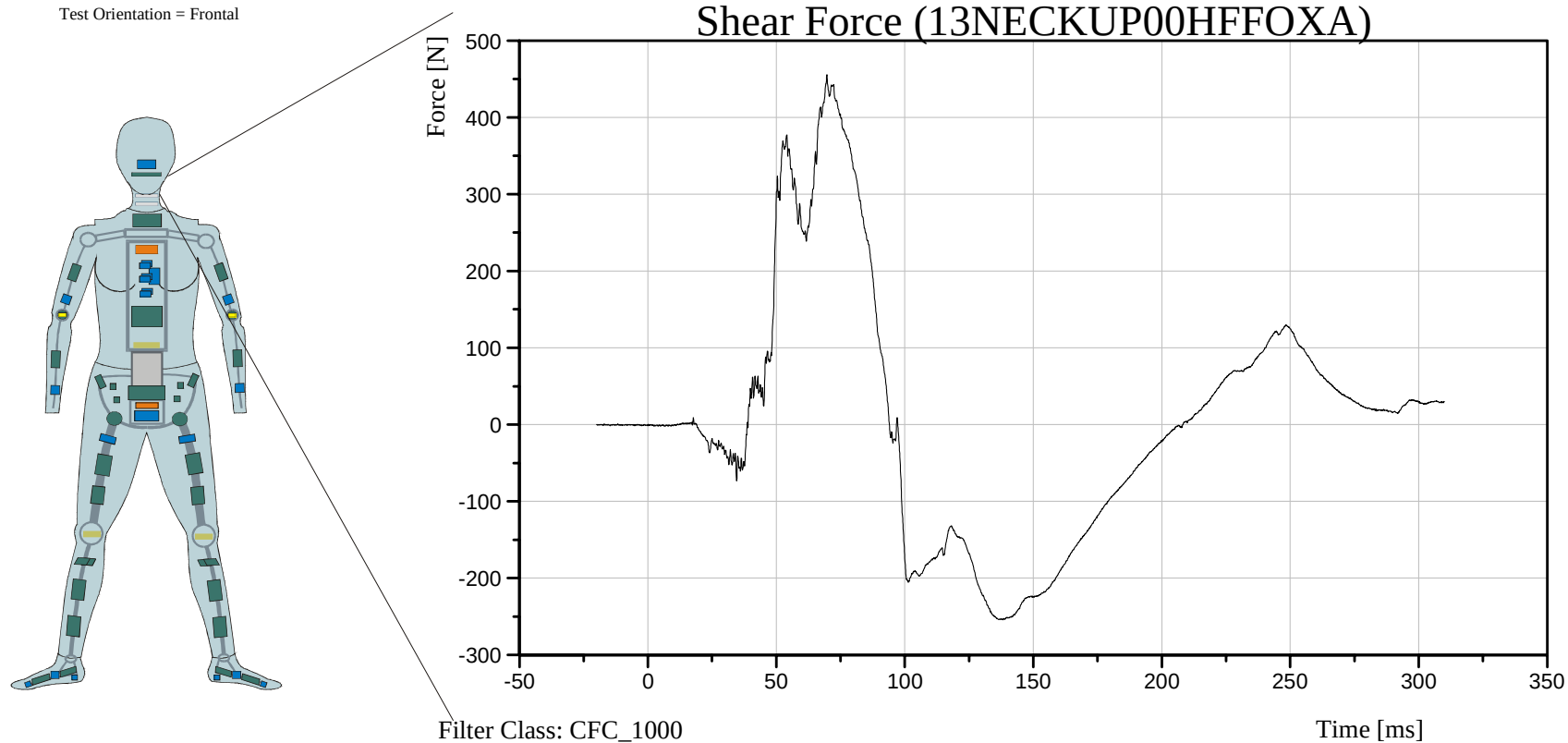
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (13NECKUP00HFFOXA)



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

[Max.] 455.69 N at 69.60 ms

[Min.] -254.34 N at 138.16 ms

Neck Shear Force Source Code: Min/Max of 13NECKUP00HFFOXA



Neck Shear Force

Date: 05/18/2006
Time: 17:50

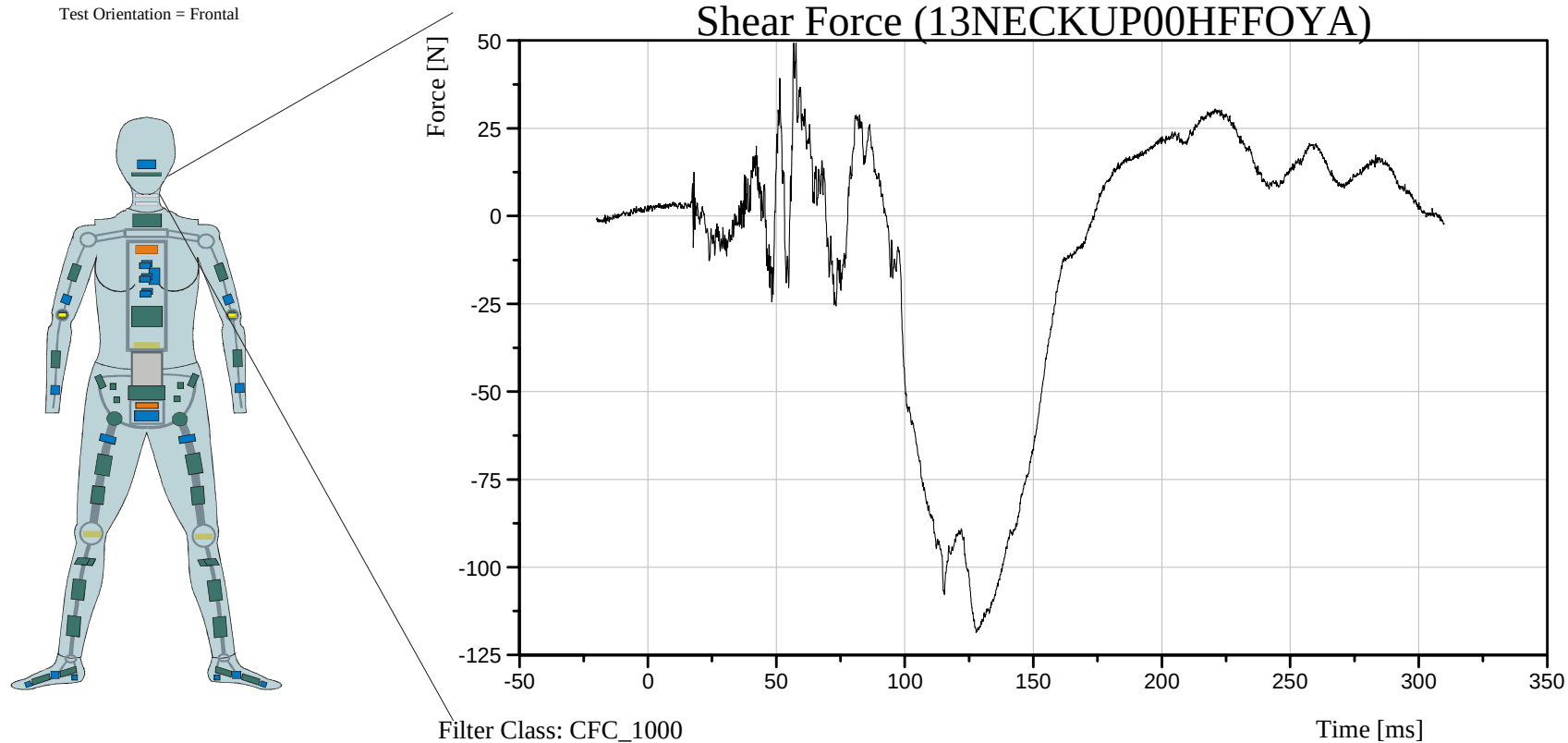
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (13NECKUP00HFFOYA)



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

[Max.] 49.28 N at 56.80 ms

[Min.] -118.65 N at 127.76 ms

Neck Shear Force Source Code: Min/Max of 13NECKUP00HFFOYA



Neck Axial Force

Date: 05/18/2006
Time: 17:50

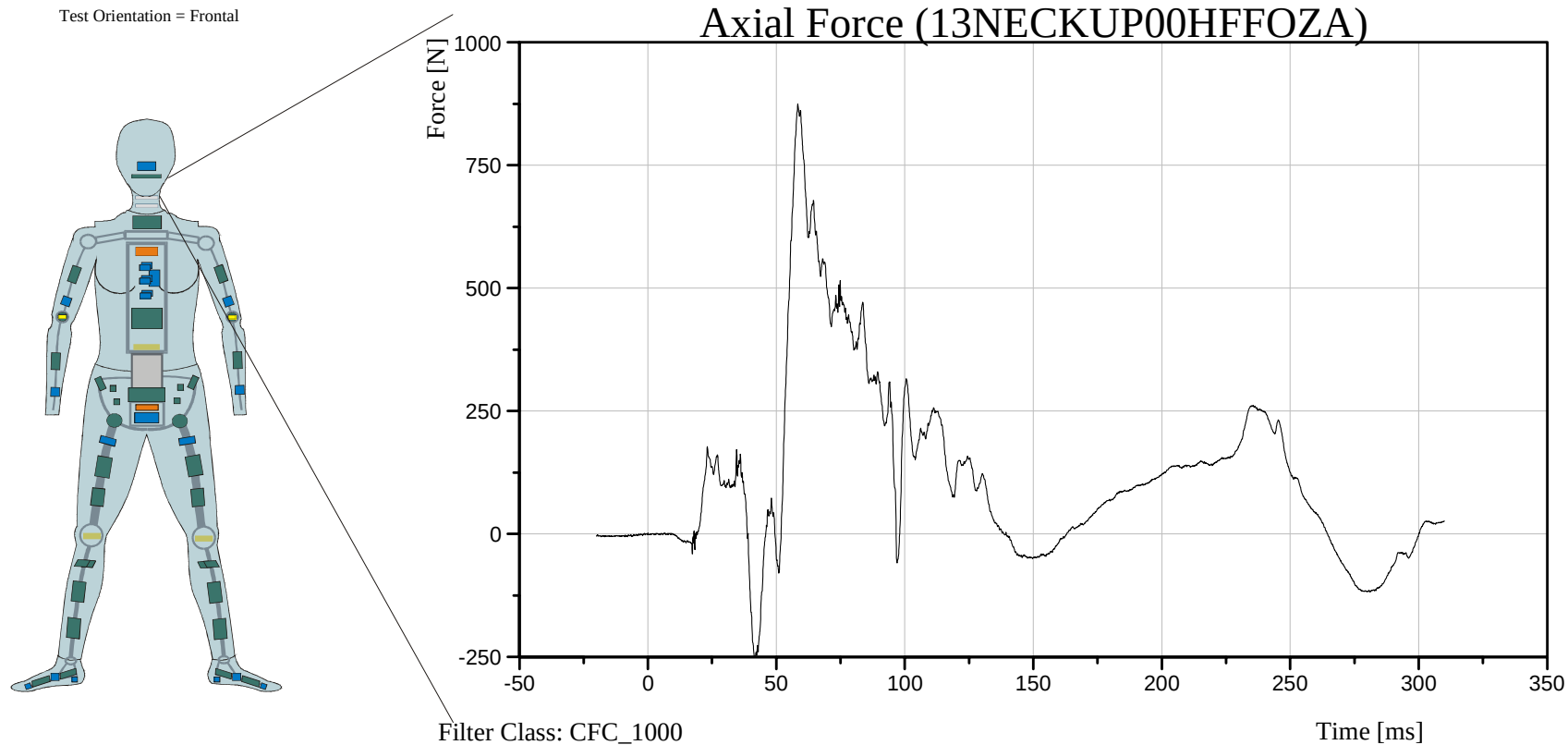
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Axial Force (13NECKUP00HFFOZA)



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

[Max.] 874.88 N at 58.32 ms

[Min.] -249.21 N at 41.76 ms

Neck Axial Force Source Code: Min/Max of 13NECKUP00HFFOZA



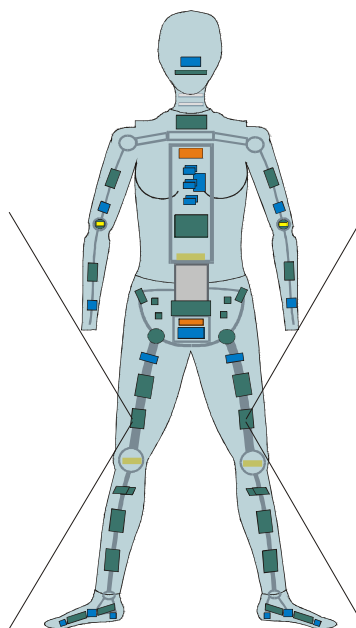
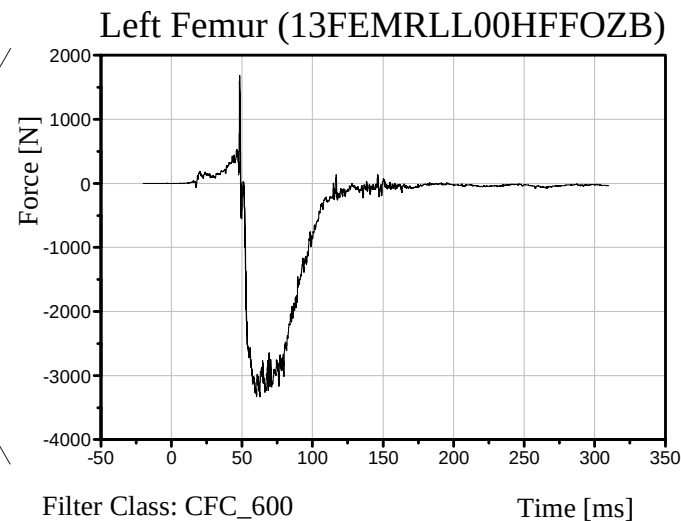
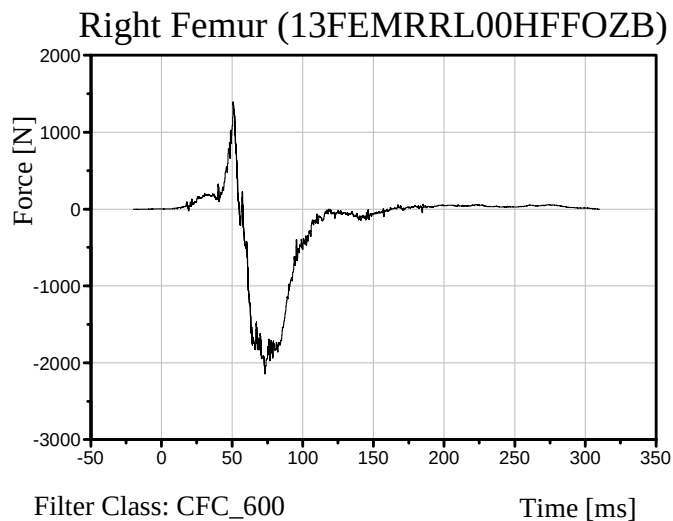
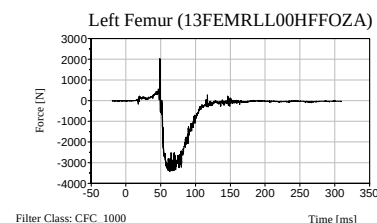
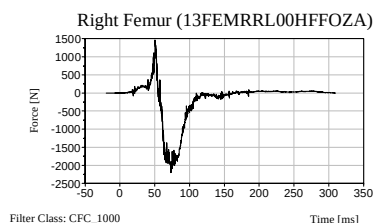
Femur Load

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Max [Tension] 1,395.02 N at 50.72 ms
Min [Compression] -2,142.54 N at 73.04 ms

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

Max [Tension] 1,687.66 N at 48.48 ms
Min [Compression] -3,327.37 N at 62.72 ms

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



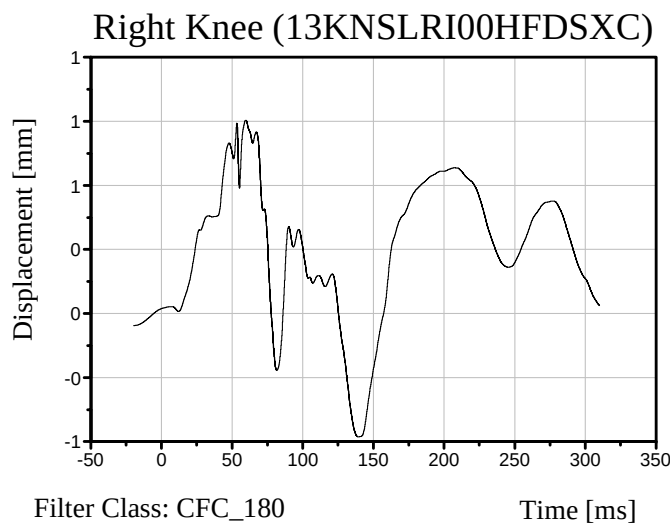
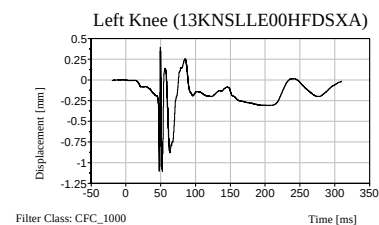
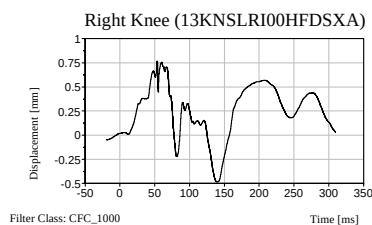
Knee Slider Displacement

Date: 05/18/2006
Time: 17:50

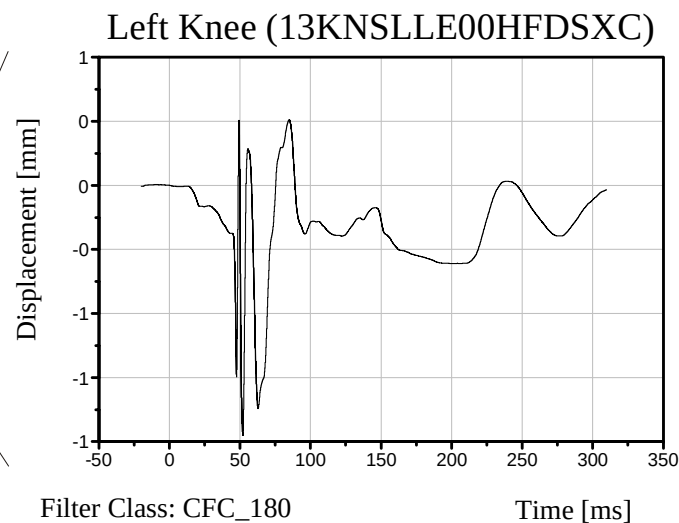
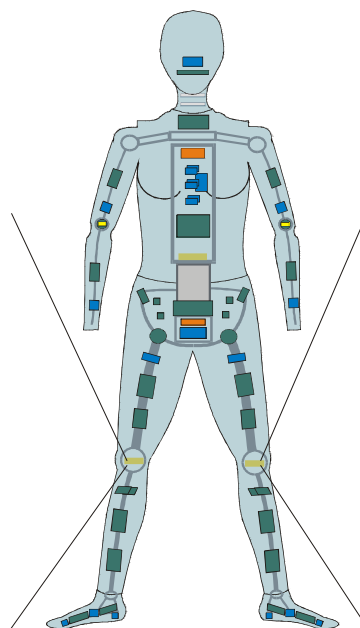
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Max. [Tension] 0.75 mm at 59.68 ms
Min. [Compression] -0.48 mm at 139.28 ms



Max. [Tension] 0.26 mm at 84.96 ms
Min. [Compression] -0.98 mm at 52.16 ms

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

Knee Displacement Source Code : Min/Max of 13KNSLRI00HFDSXC and 13KNSLLE00HFDSXC (CFC 600)



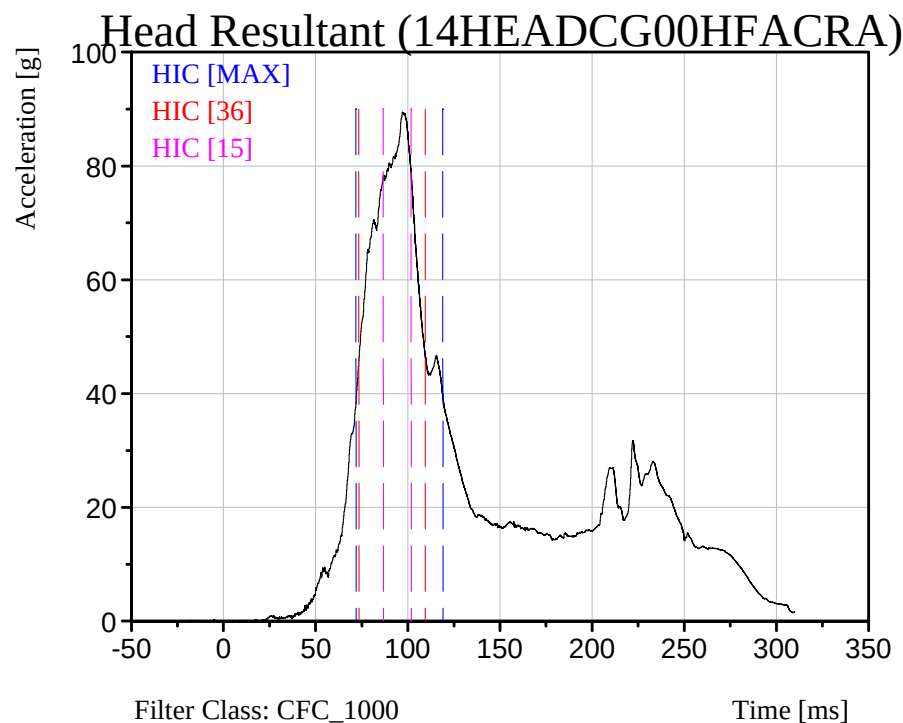
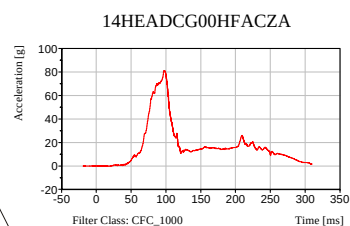
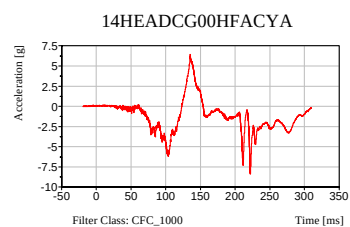
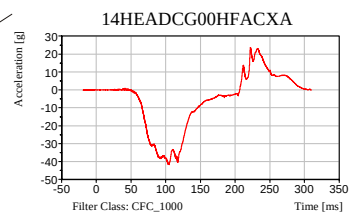
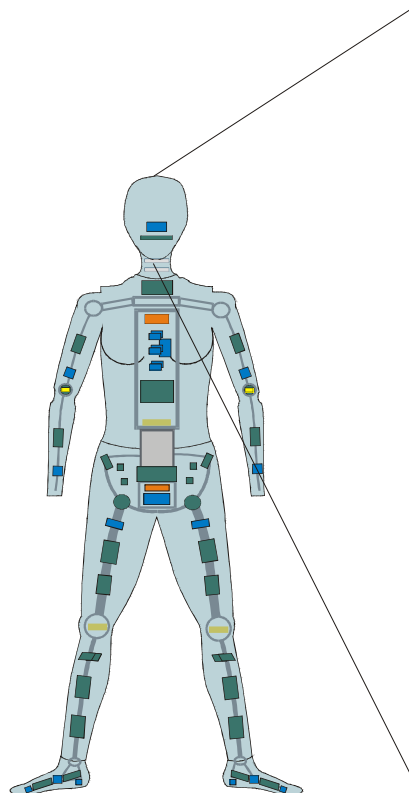
Head Injury Criterion (HIC)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Dummy: HIII 5th Female
Seating Position:
Left Rear 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.] = 1,614.93	71.92 ms	119.04 ms	65.12 g
HIC [36] = 1,567.36	73.44 ms	109.44 ms	71.65 g
HIC [15] = 945.25	86.80 ms	101.84 ms	83.02 g



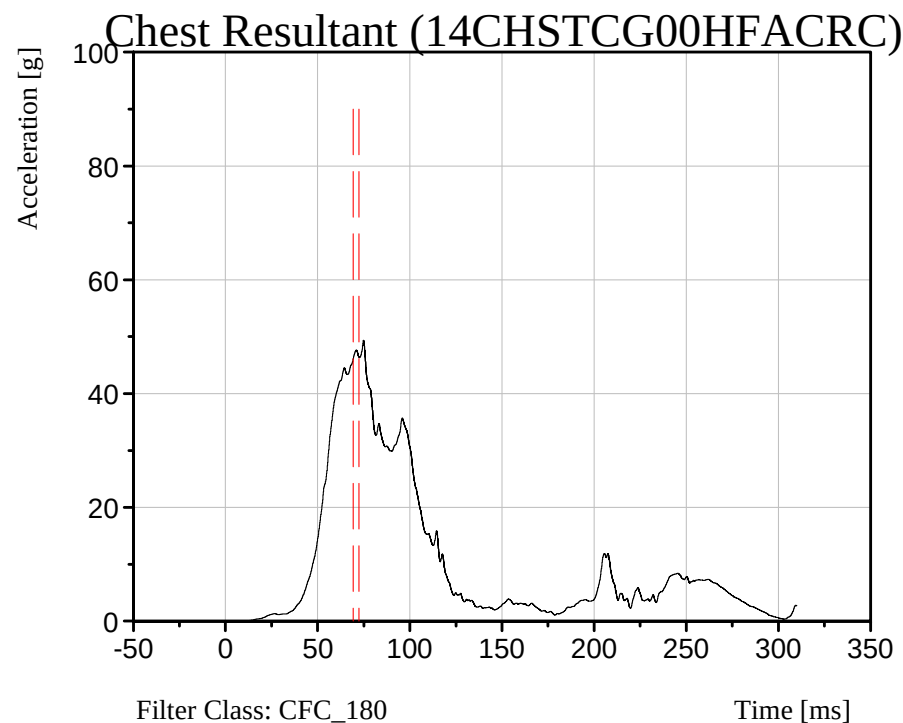
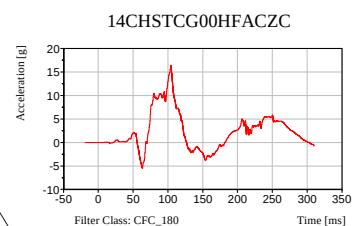
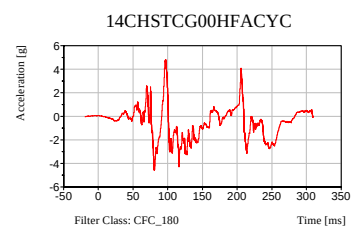
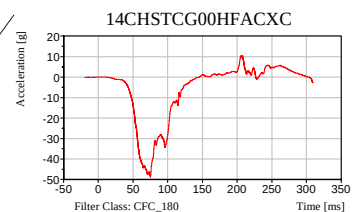
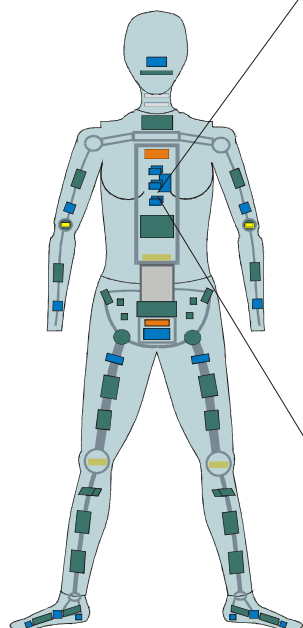
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



3 ms Duration Acceleration = 46.38 g
Chest Severity Index = 467.90

<u>T1</u> (Begin)	<u>T2</u> (End)
69.40 ms	72.40 ms

Dummy: HIII 5th Female
Seating Position:
Left Rear Passenger

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



Chest Deflection

Date: 05/18/2006
Time: 17:50

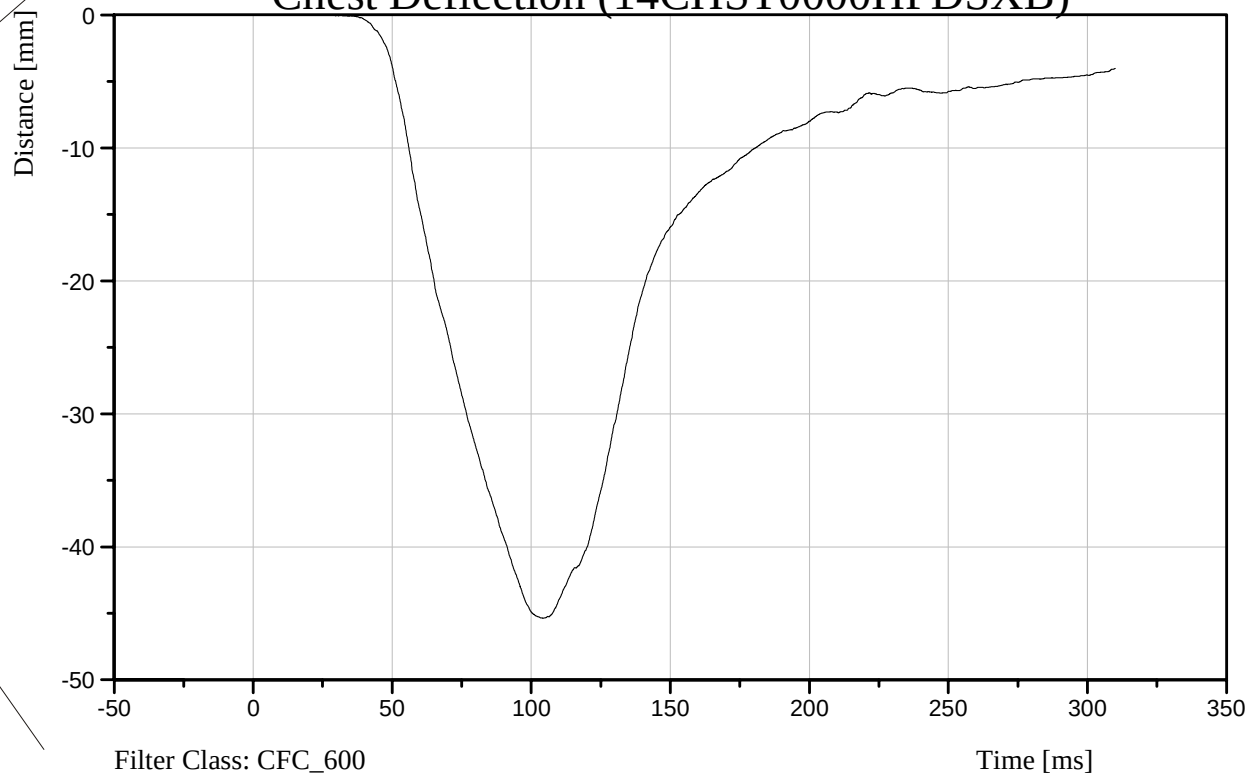
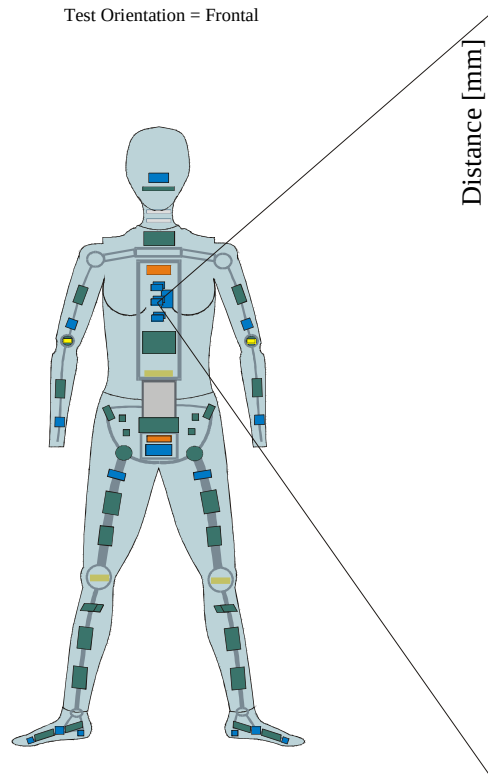
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Chest Deflection (14CHST0000HFDSXB)



Dummy: HIII 5th Female
Seating Position:
Left Rear Passenger

[Max.] 0.01 mm at -14.88 ms
[Min.] -45.38 mm at 104.32 ms

ChestDeflection Source Code : Min/Max of 14CHST0000HFDSXB (CFC_600)



Neck Moment about the Occipital Condyle (NECK OM)

Date: 05/18/2006
Time: 17:50

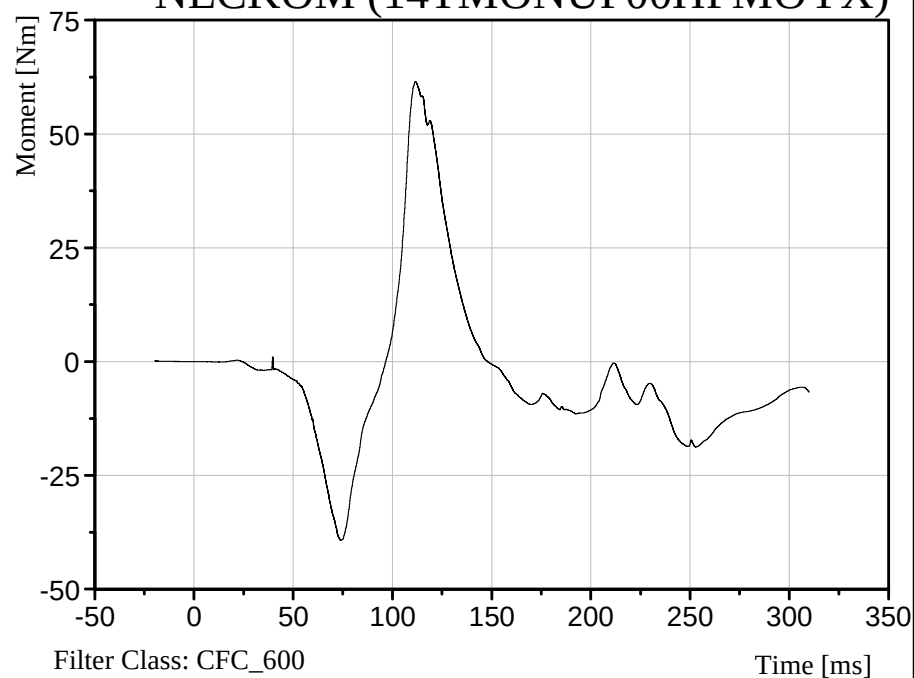
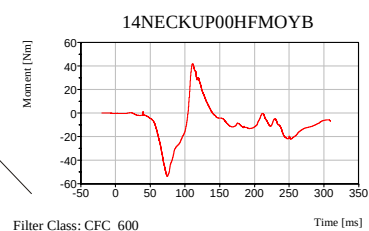
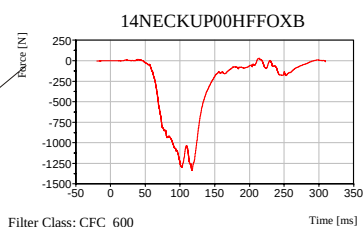
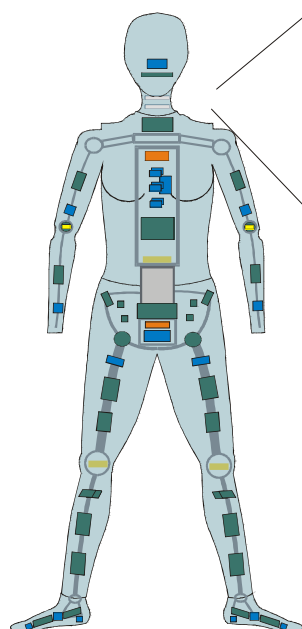
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

NECKOM (14TMONUP00HFM0YX)



Dummy: HIII 5th Female
Seating Position:
Left Rear Passenger

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

[Max.] 61.49 Nm at 111.60 ms

[Min.] -39.25 Nm at 73.84 ms

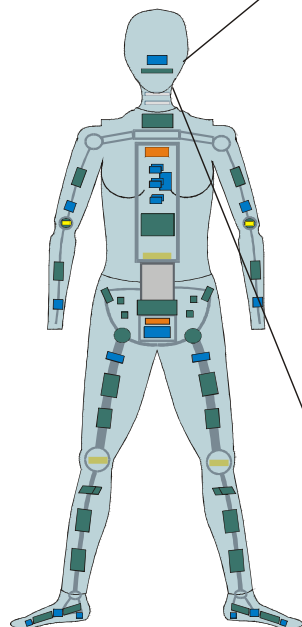


Date: 05/18/2006
Time: 17:50

Neck Injury Predictor (NIJ)

Customer: VRTC

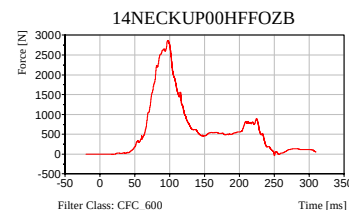
Test Orientation = Frontal
Fzc(Tension) = 4287
Fzc(Compression) = 3880
Myc(Extension) = 67
Myc(Flexion) = 155



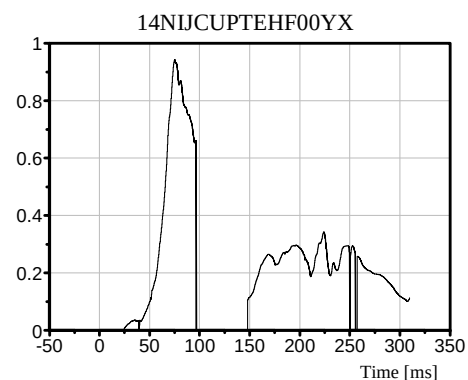
Dummy: HIII 5th Female
Seating Position:

Left Rear Passenger

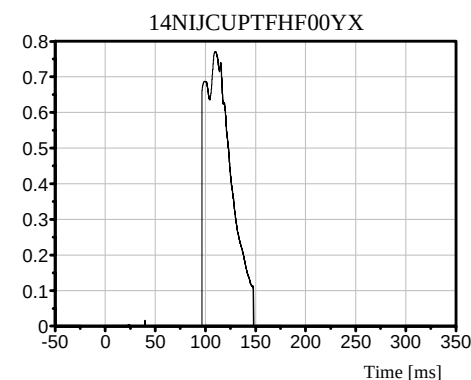
NIJ Source Code: (Fz/Fzc)+(Myc/Myc)



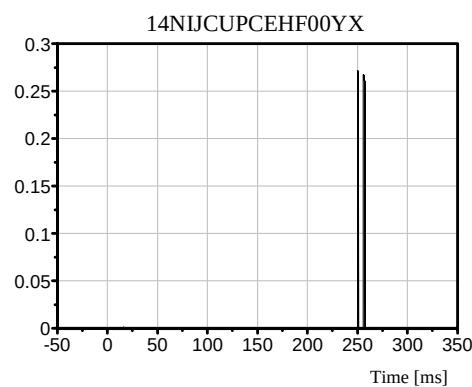
TRC Inc. Test Lab: CTF
Test Number: 060518-2



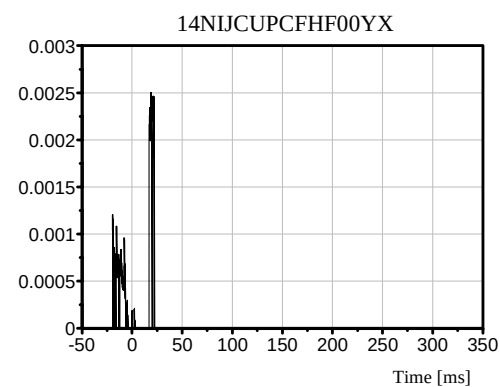
Max [NTE] 0.9433 at 74.96 ms



Max [NTF] 0.7713 at 110.08 ms



Max [NCE] 0.2719 at 250.08 ms



Max [NCF] 0.0025 at 18.80 ms



Neck Shear Force

Date: 05/18/2006
Time: 17:50

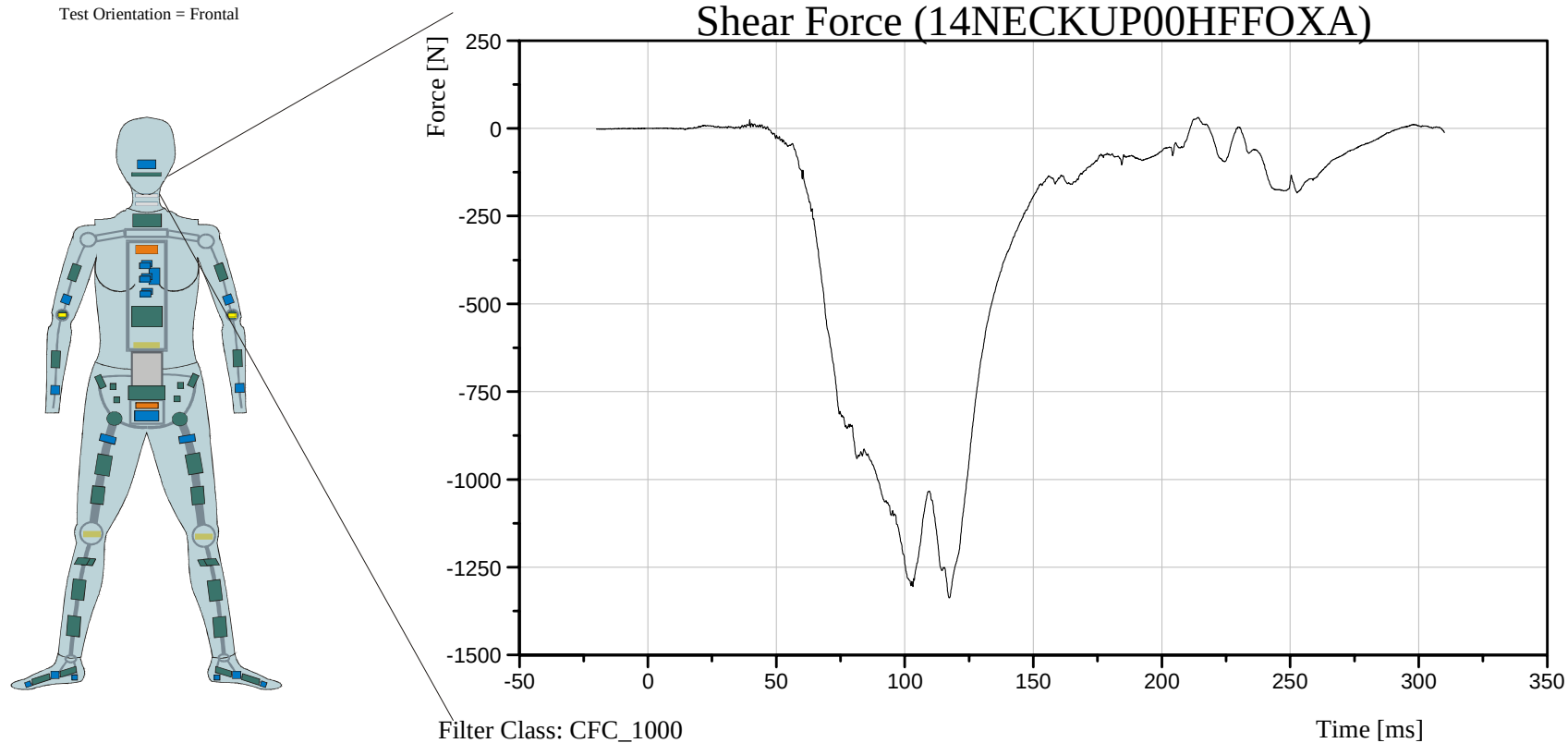
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (14NECKUP00HFFOXA)



Dummy: HIII 5th Female

Seating Position:

Left Rear Passenger

[Max.] 30.60 N at 214.08 ms

[Min.] -1,337.24 N at 117.36 ms

Neck Shear Force Source Code: Min/Max of 14NECKUP00HFFOXA



Neck Shear Force

Date: 05/18/2006
Time: 17:50

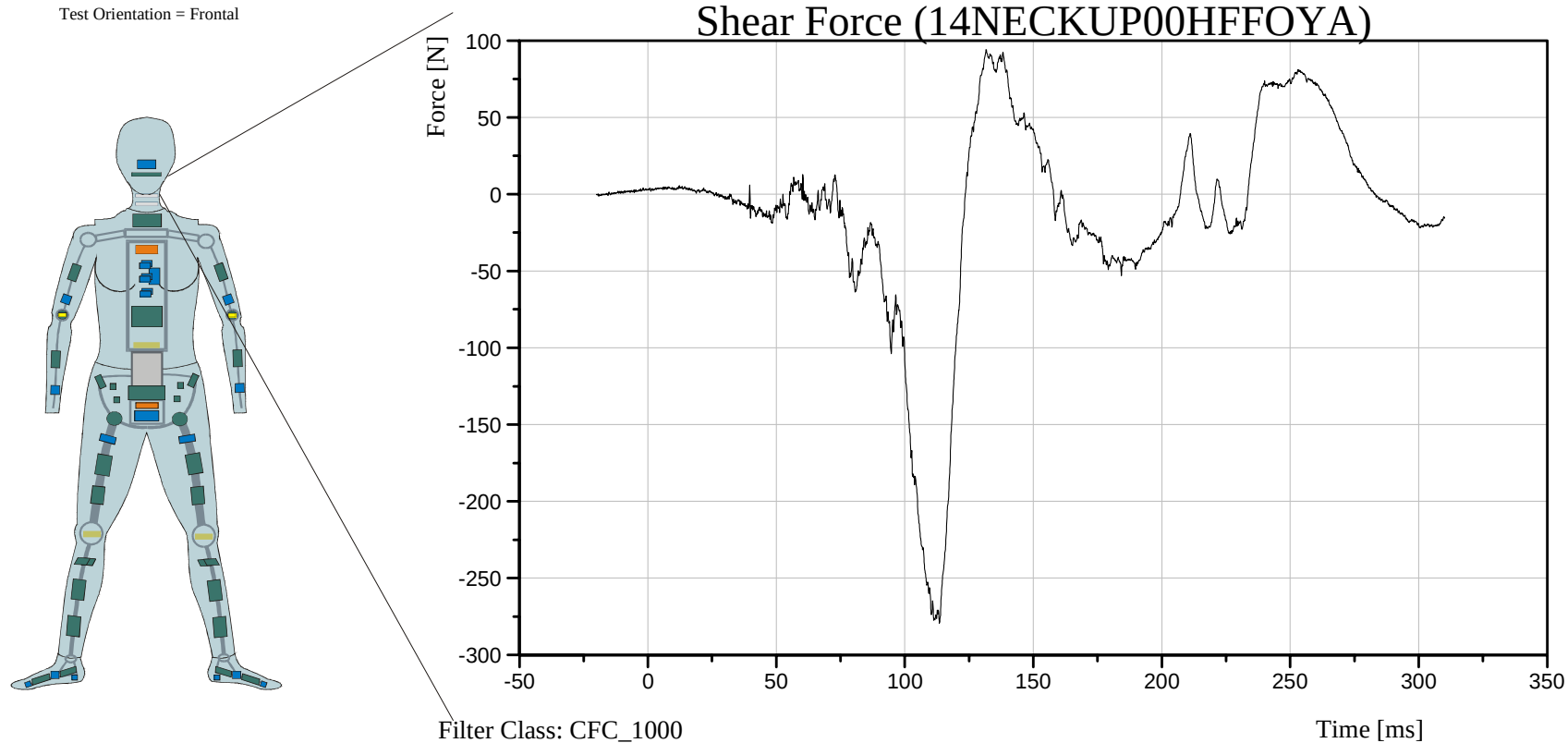
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (14NECKUP00HFFOYA)



Dummy: HIII 5th Female
Seating Position:
Left Rear Passenger

[Max.] 94.01 N at 131.60 ms

[Min.] -279.34 N at 113.44 ms

Neck Shear Force Source Code: Min/Max of 14NECKUP00HFFOYA



Neck Axial Force

Date: 05/18/2006
Time: 17:50

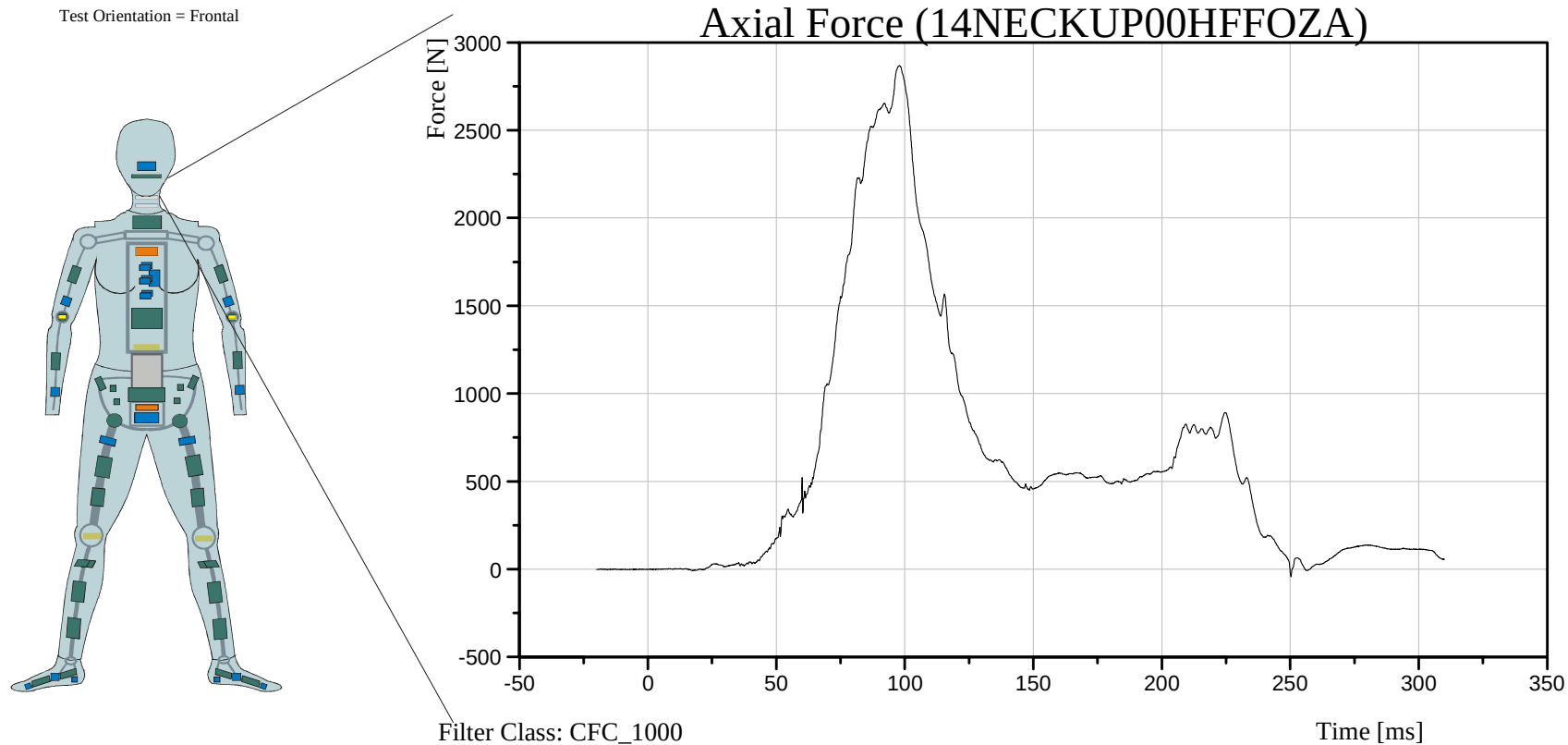
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Axial Force (14NECKUP00HFFOZA)



Dummy: HIII 5th Female
Seating Position:
Left Rear Passenger

[Max.] 2,867.03 N at 97.76 ms

[Min.] -43.59 N at 250.24 ms

Neck Axial Force Source Code: Min/Max of 14NECKUP00HFFOZA



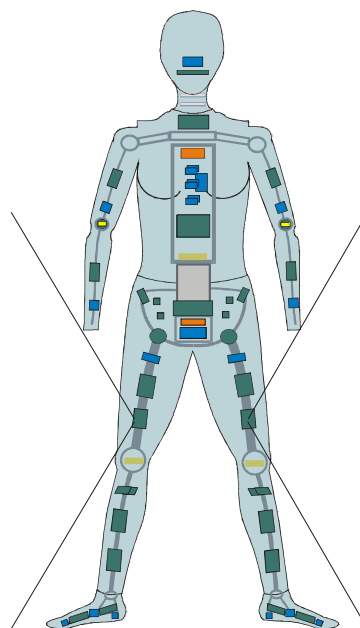
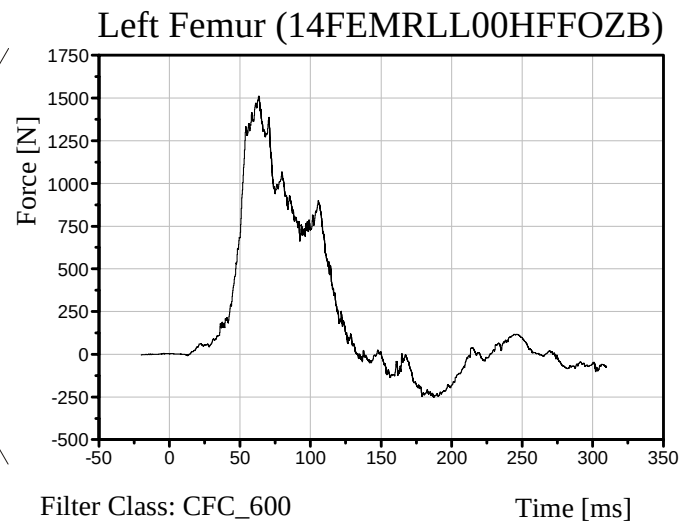
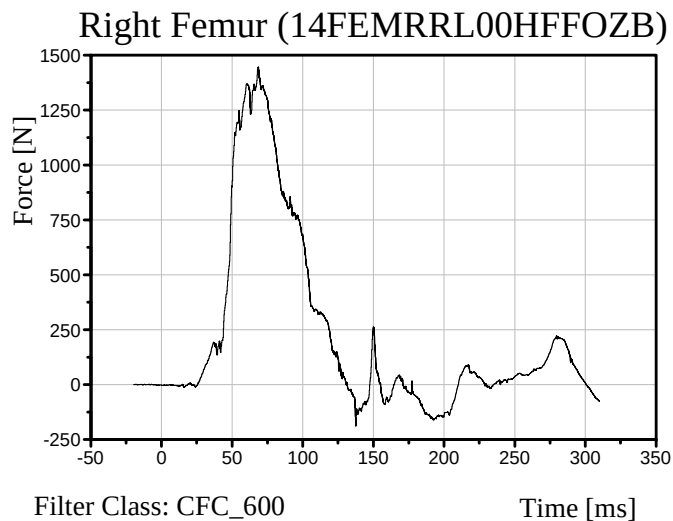
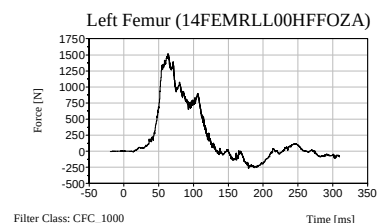
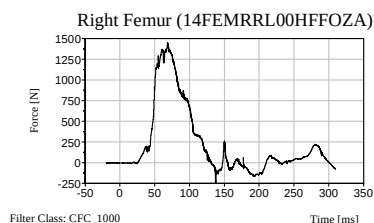
Femur Load

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Max [Tension] 1,447.61 N at 68.40 ms
Min [Compression] -188.22 N at 137.60 ms

Dummy: HIII 5th Female
Seating Position:
Left Rear Passenger

Max [Tension] 1,511.75 N at 63.44 ms
Min [Compression] -251.84 N at 187.36 ms

Femur Load Source Code : Min/Max of 14FEMRRL00HFFOZB and 14FEMRLL00HFFOZB (CFC 600)



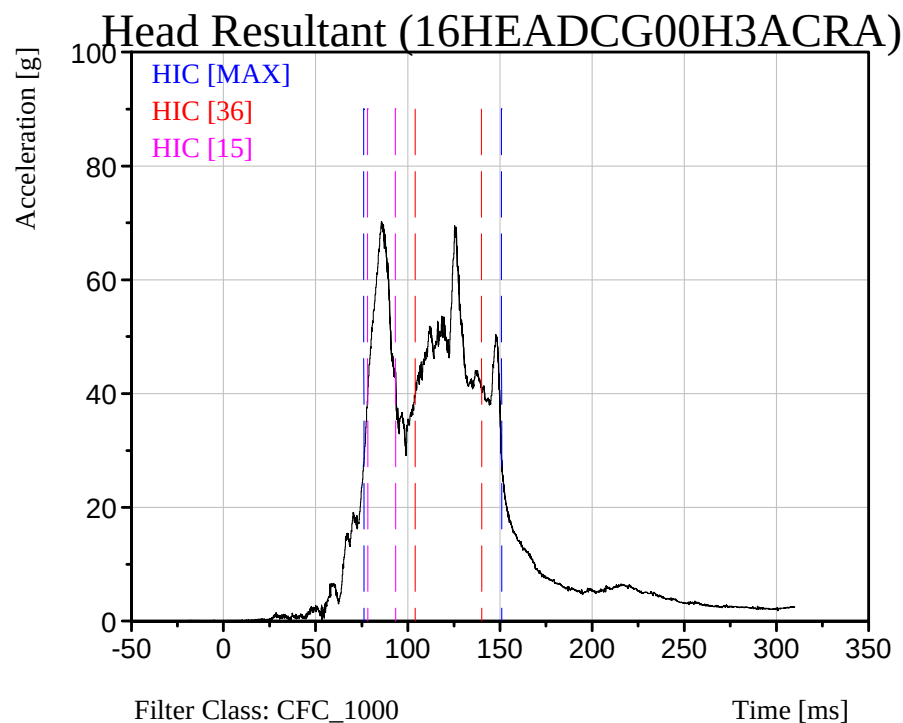
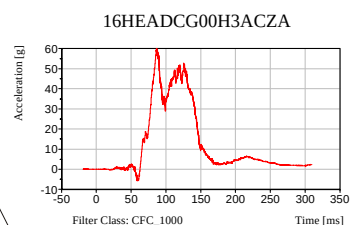
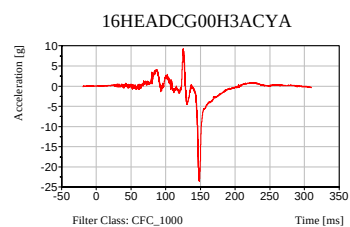
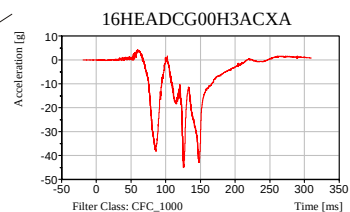
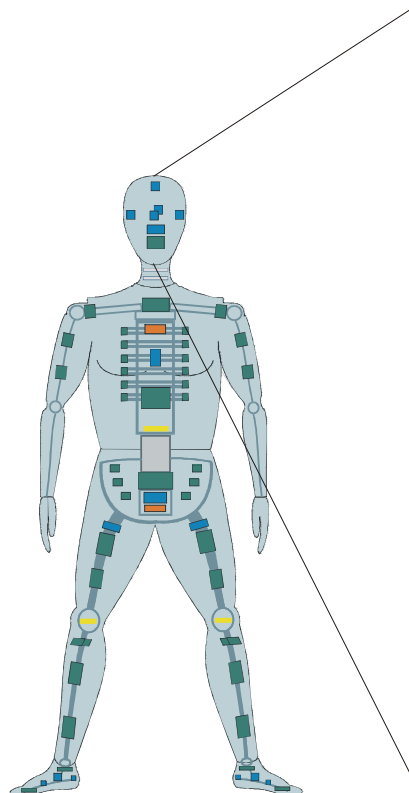
Head Injury Criterion (HIC)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Dummy: HIII 50th Male
Seating Position:
Right Rear 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.] = 1,128.15	76.16 ms	150.88 ms	46.92 g
HIC [36] = 594.65	104.08 ms	140.08 ms	48.64 g
HIC [15] = 364.22	78.32 ms	93.36 ms	56.63 g



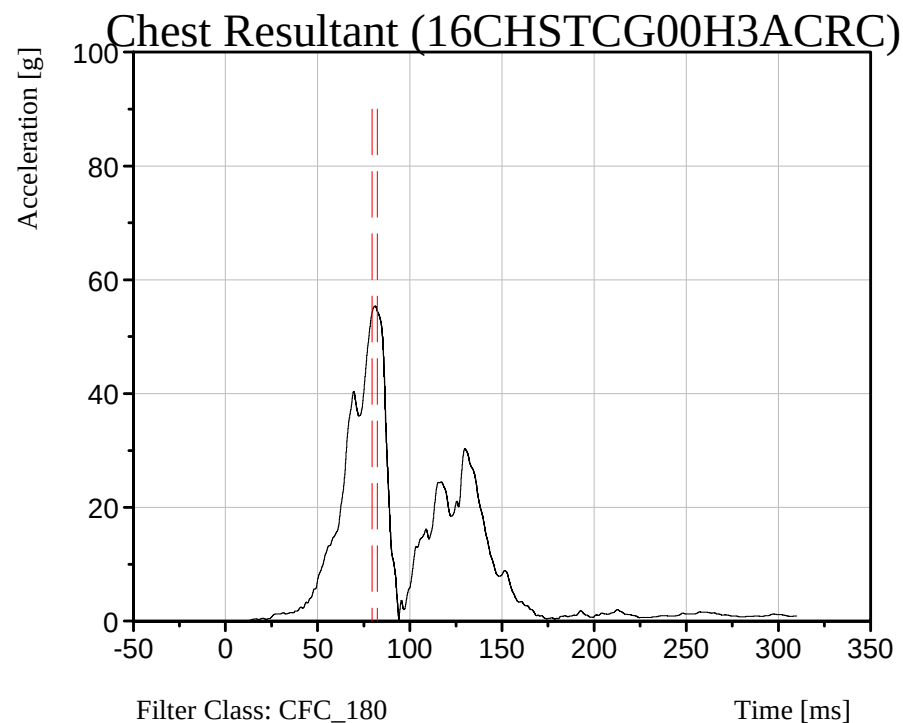
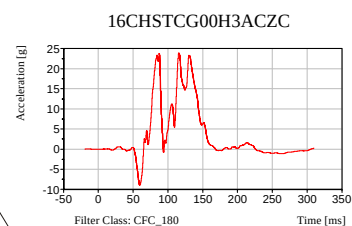
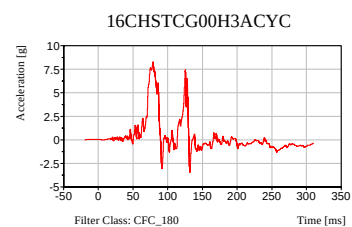
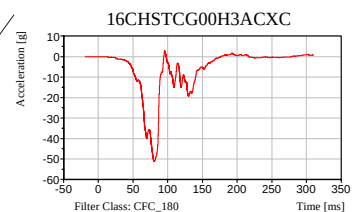
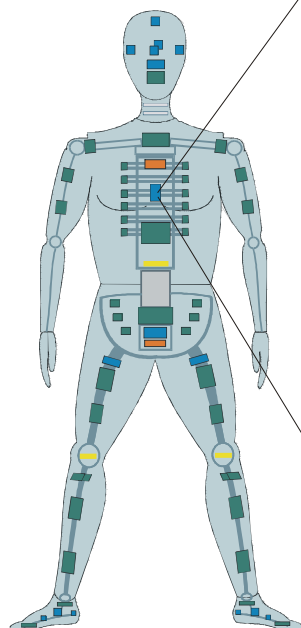
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Dummy:HIII 50th Male
Seating Position:
Right Rear Passenger

3 ms Duration Acceleration = 54.34 g
Chest Severity Index = 414.32

<u>T1</u> (Begin)	<u>T2</u> (End)
79.52 ms	82.52 ms

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



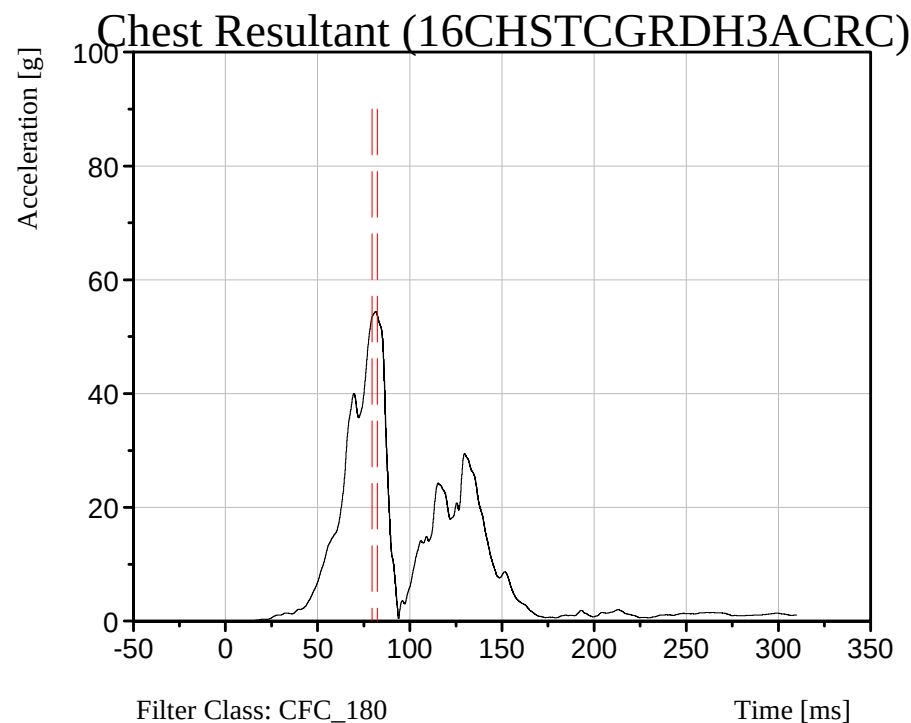
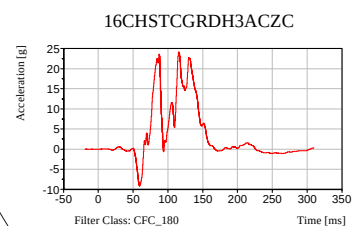
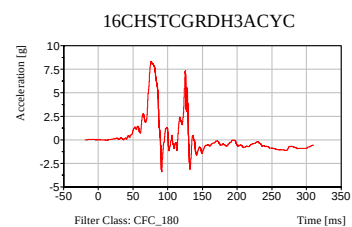
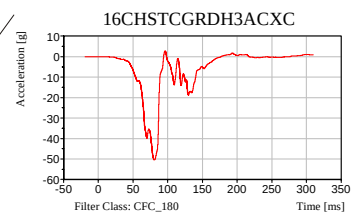
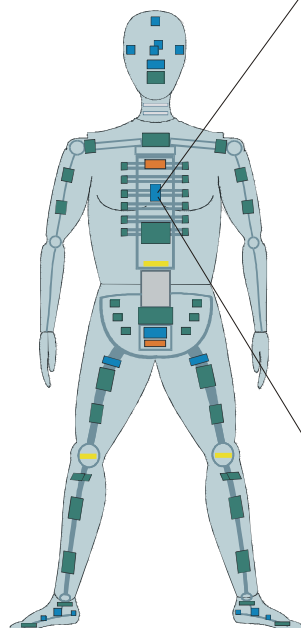
Date: 05/18/2006
Time: 17:50

3 ms Duration Acceleration (Chest)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



3 ms Duration Acceleration = 53.50 g
Chest Severity Index = 399.71

<u>T1</u> (Begin)	<u>T2</u> (End)
79.50 ms	82.50 ms

Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

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



Chest Deflection

Date: 05/18/2006
Time: 17:50

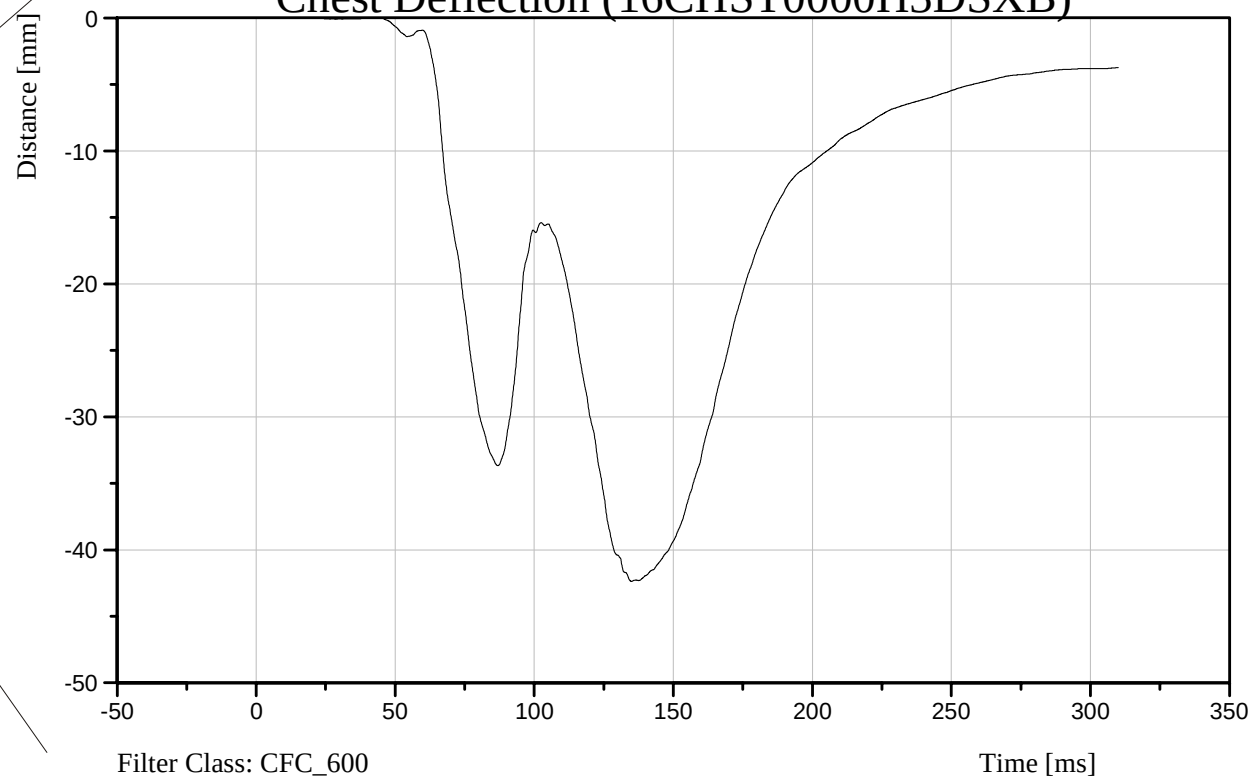
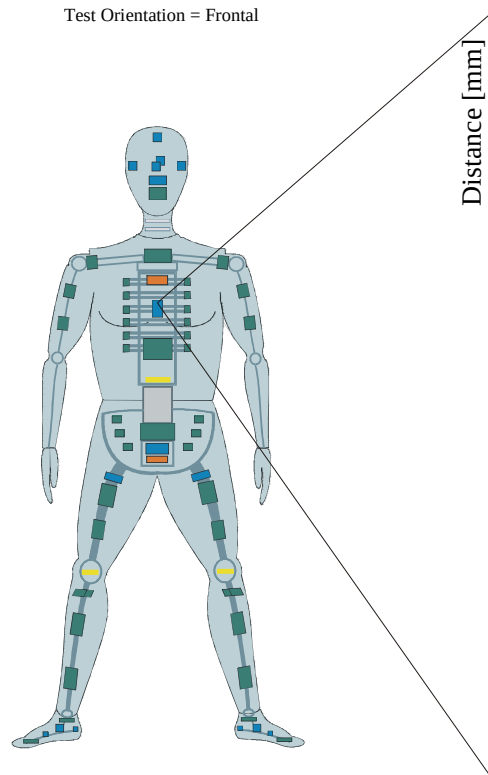
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Chest Deflection (16CHST0000H3DSXB)



Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

[Max.] 0.01 mm at 4.80 ms
[Min.] -42.37 mm at 135.04 ms

ChestDeflection Source Code : Min/Max of 16CHST0000H3DSXB (CFC_600)



Neck Moment about the Occipital Condyle (NECK OM)

Date: 05/18/2006
Time: 17:50

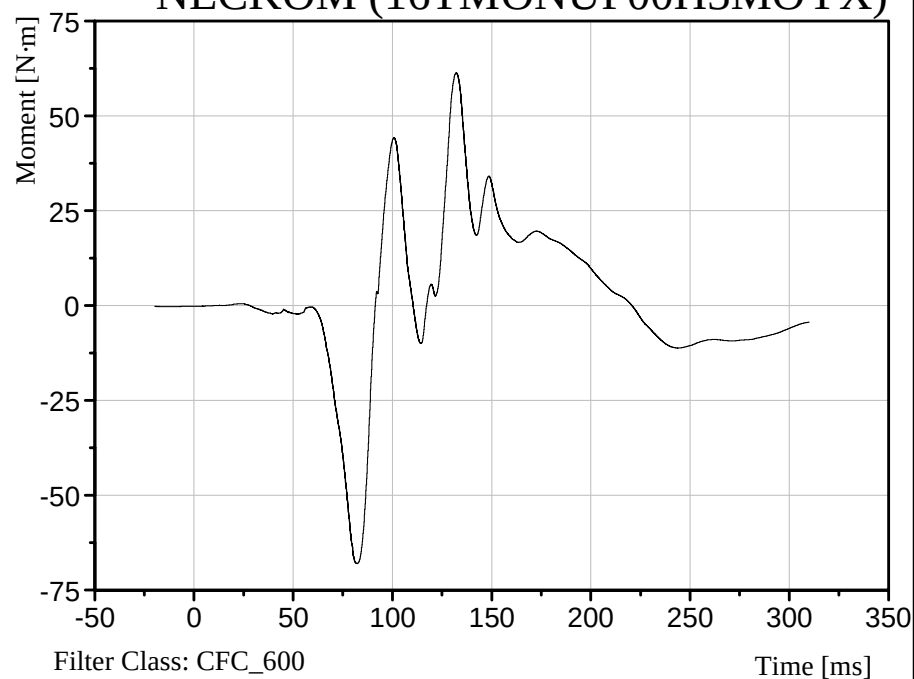
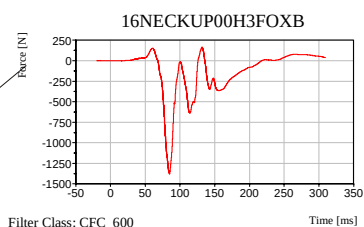
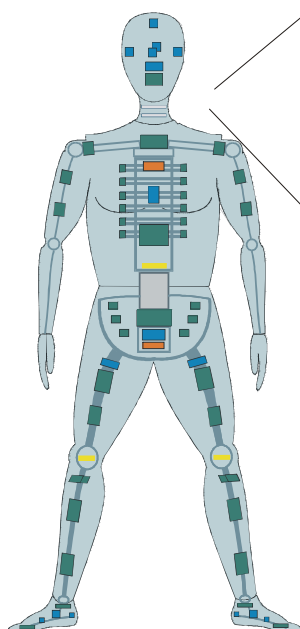
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

NECKOM (16TMONUP00H3MOYX)



Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

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

[Max.] 61.38 N·m at 132.08 ms

[Min.] -67.98 N·m at 82.16 ms

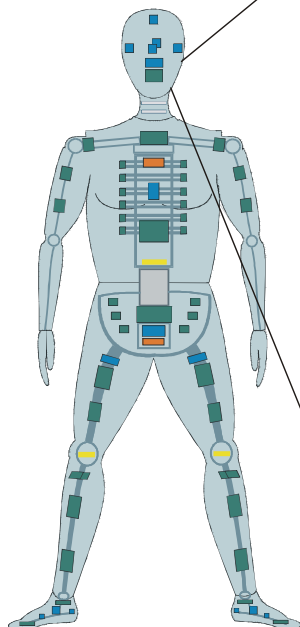


Neck Injury Predictor (NIJ)

Date: 05/18/2006
Time: 17:50

Customer: VRTC

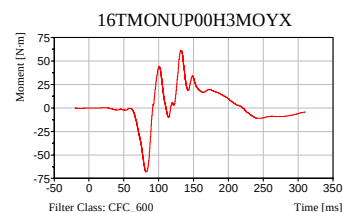
Test Orientation = Frontal
Fzc(Tension) = 6806
Fzc(Compression) = 6160
Myc(Extension) = 135
Myc(Flexion) = 310



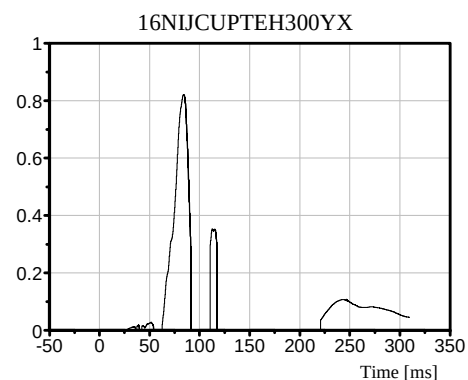
Dummy: HIII 50th Male
Seating Position:

Right Rear Passenger

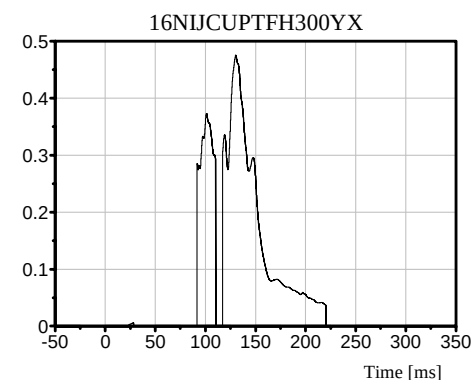
NIJ Source Code: (Fz/Fzc)+(My/Myc)



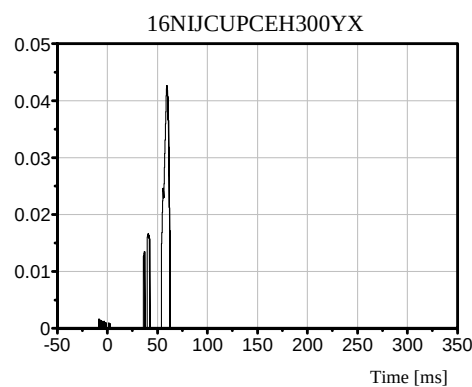
TRC Inc. Test Lab: CTF
Test Number: 060518-2



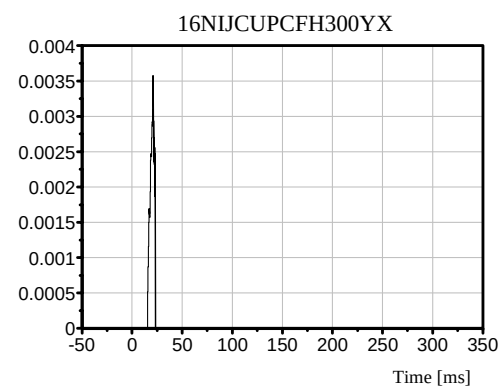
Max [NTE] 0.8218 at 84.08 ms



Max [NTF] 0.4757 at 130.24 ms



Max [NCE] 0.0426 at 59.36 ms



Max [NCF] 0.0036 at 20.88 ms



Neck Shear Force

Date: 05/18/2006
Time: 17:50

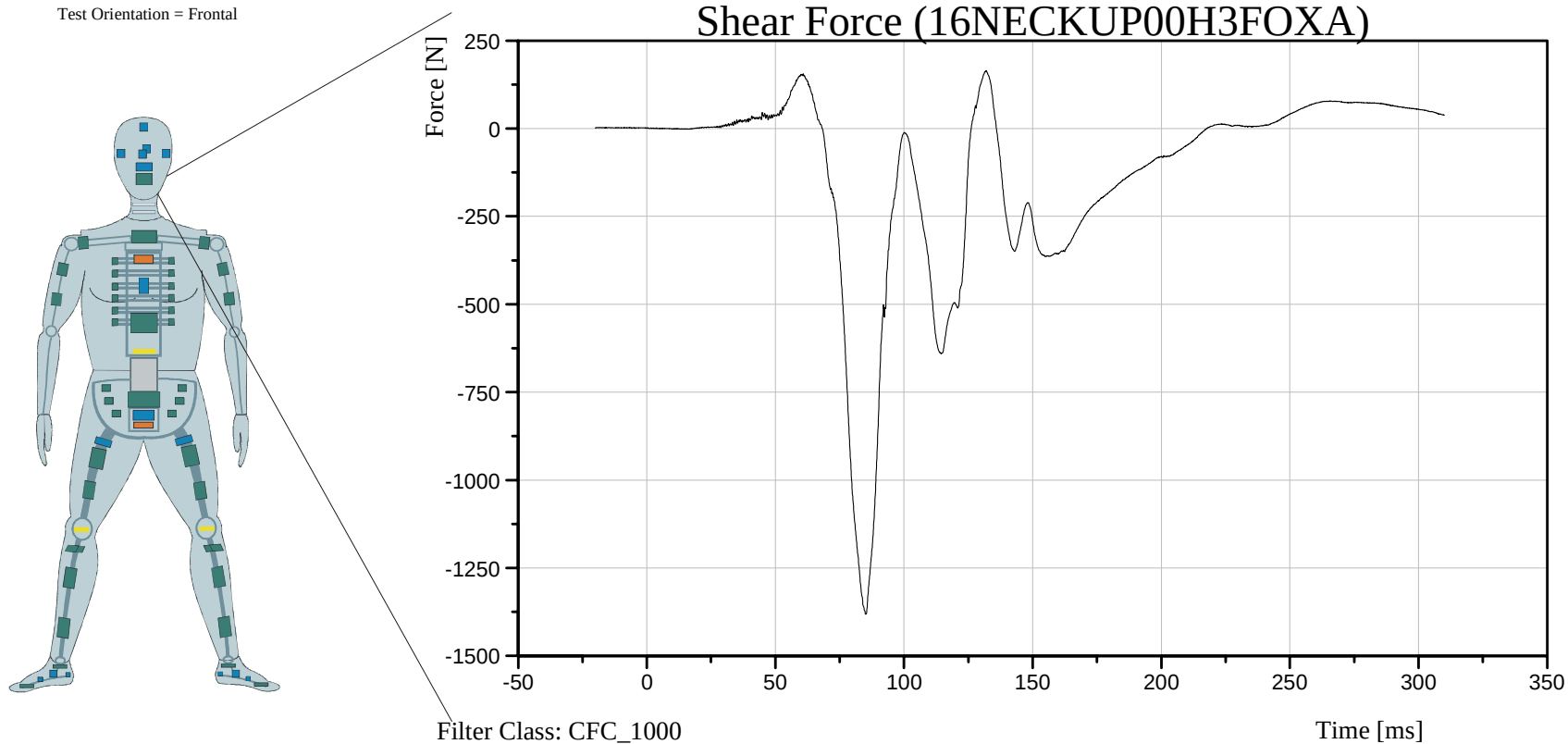
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (16NECKUP00H3FOXA)



Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

Neck Shear Force Source Code: Min/Max of 16NECKUP00H3FOXA

[Max.] 164.75 N at 131.92 ms
[Min.] -1,381.57 N at 85.04 ms



Neck Shear Force

Date: 05/18/2006
Time: 17:50

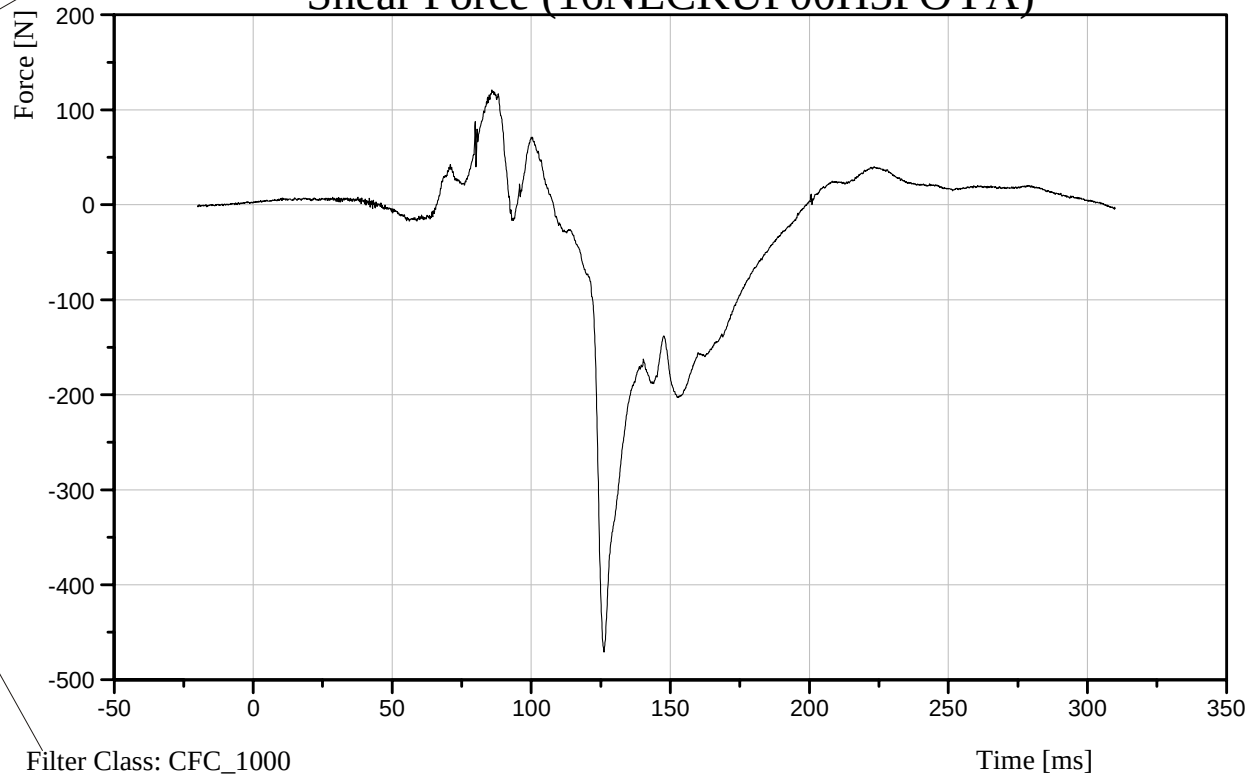
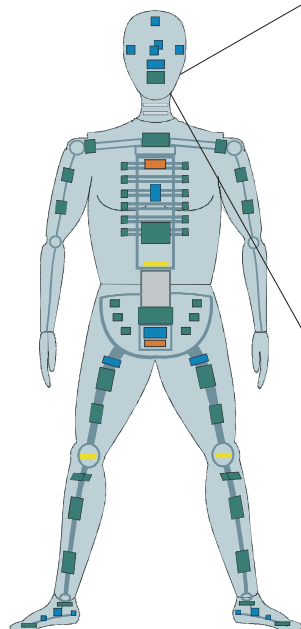
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Shear Force (16NECKUP00H3FOYA)



Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

[Max.] 121.02 N at 85.84 ms

[Min.] -471.07 N at 126.16 ms

Neck Shear Force Source Code: Min/Max of 16NECKUP00H3FOYA



Neck Axial Force

Date: 05/18/2006
Time: 17:50

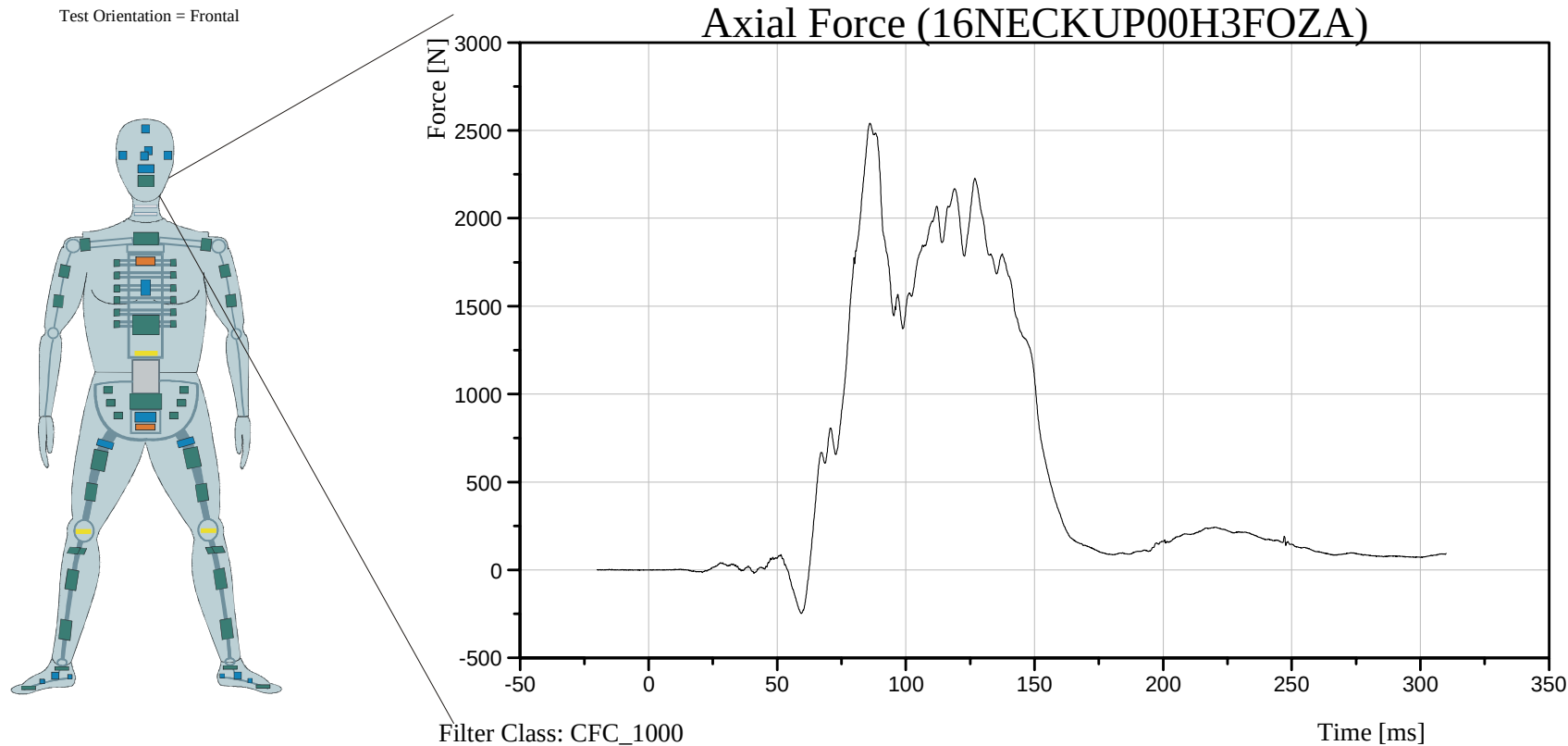
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2

Test Orientation = Frontal

Axial Force (16NECKUP00H3FOZA)



Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

[Max.] 2,540.37 N at 86.00 ms
[Min.] -247.07 N at 59.28 ms

Neck Axial Force Source Code: Min/Max of 16NECKUP00H3FOZA



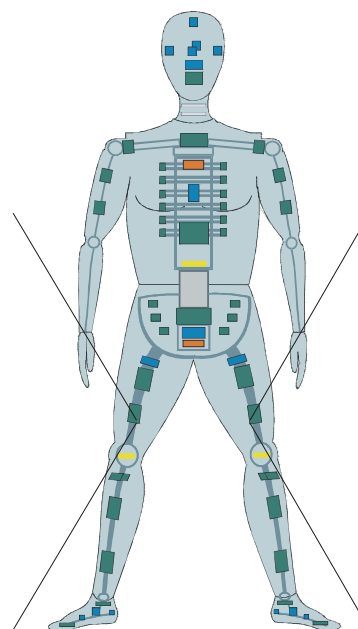
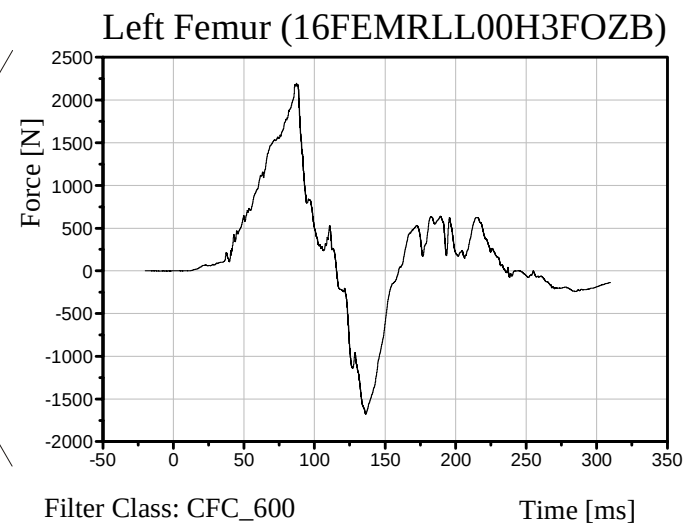
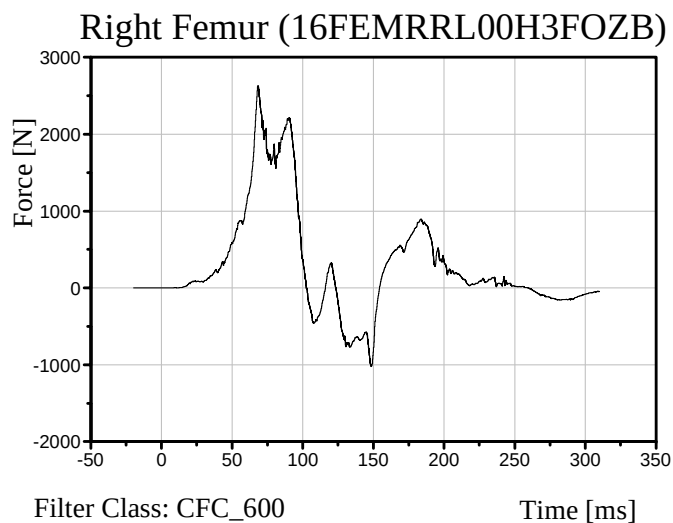
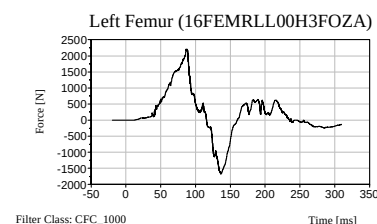
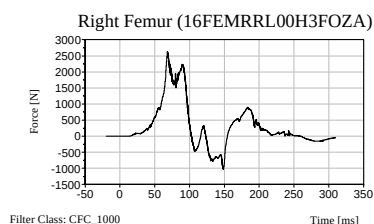
Femur Load

Date: 05/18/2006
Time: 17:50

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Max [Tension] 2,630.54 N at 68.24 ms
Min [Compression] -1,021.88 N at 148.48 ms

Dummy: HIII 50th Male
Seating Position:
Right Rear Passenger

Max [Tension] 2,195.60 N at 87.28 ms
Min [Compression] -1,676.90 N at 136.40 ms

Femur Load Source Code : Min/Max of 16FEMRRL00H3FOZB and 16FEMRLL00H3FOZB (CFC 600)



2005 Town and Country into Flat High Resolution LCB

Driver Head X-Axis Acceleration

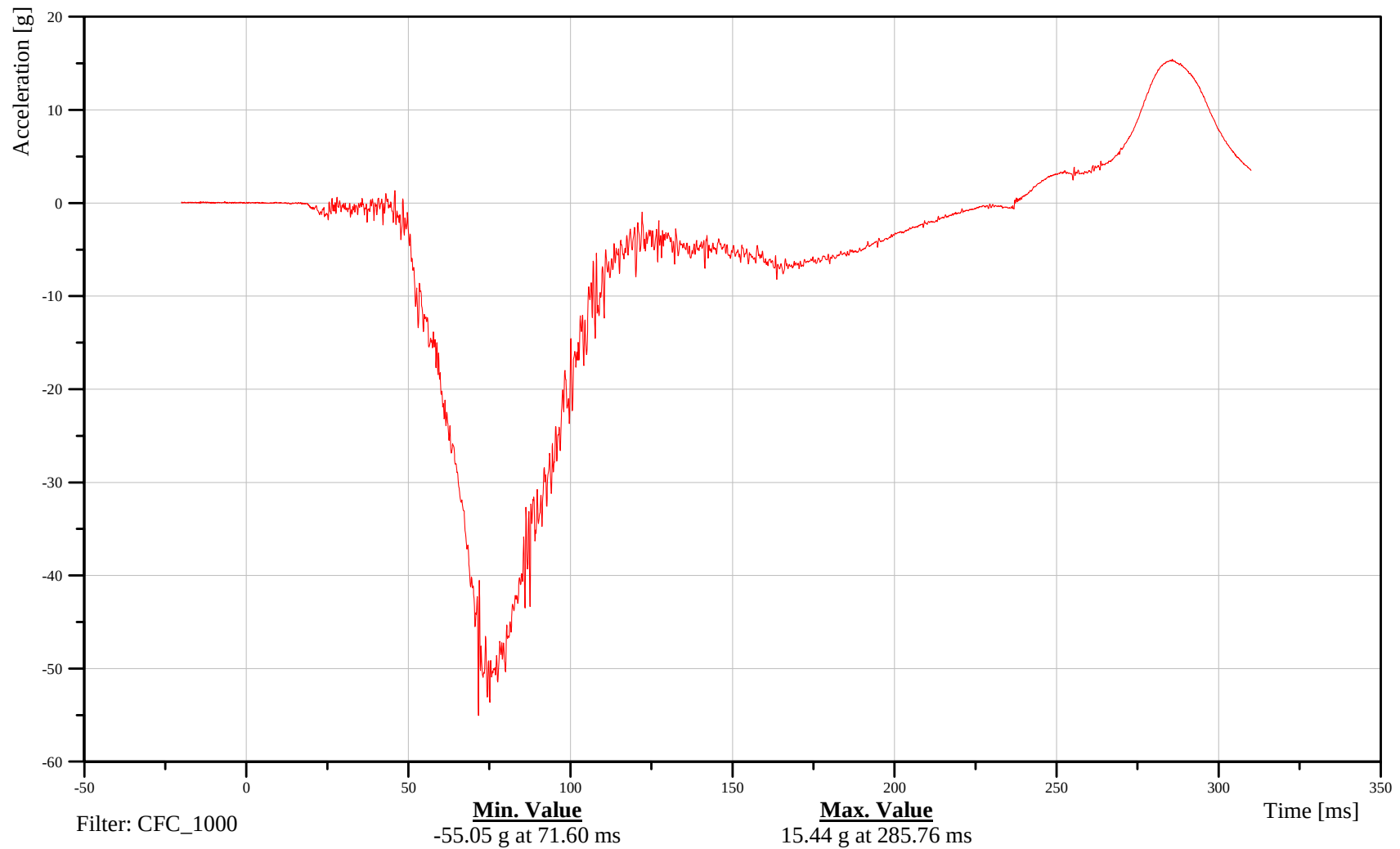
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Y-Axis Acceleration

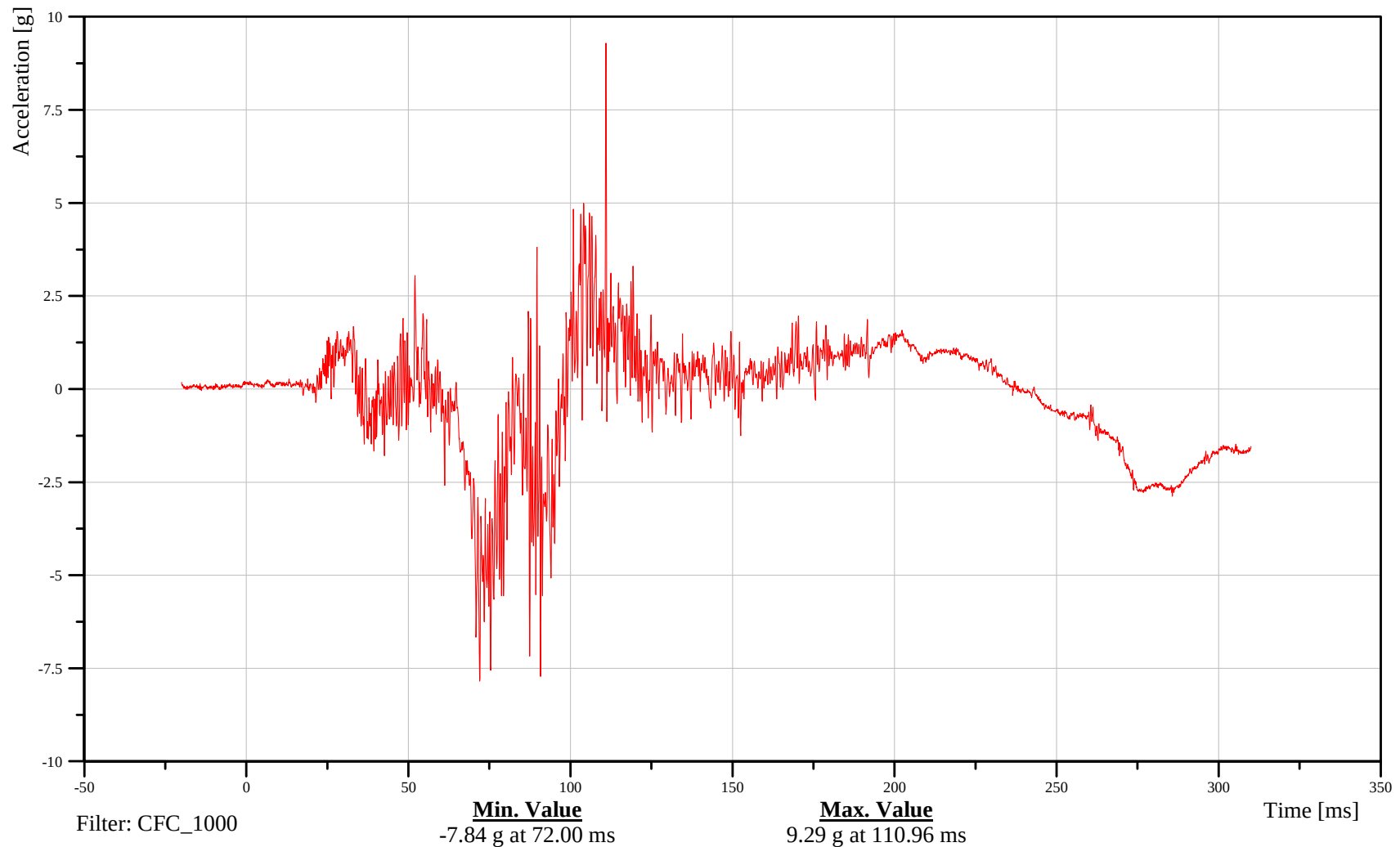
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Z-Axis Acceleration

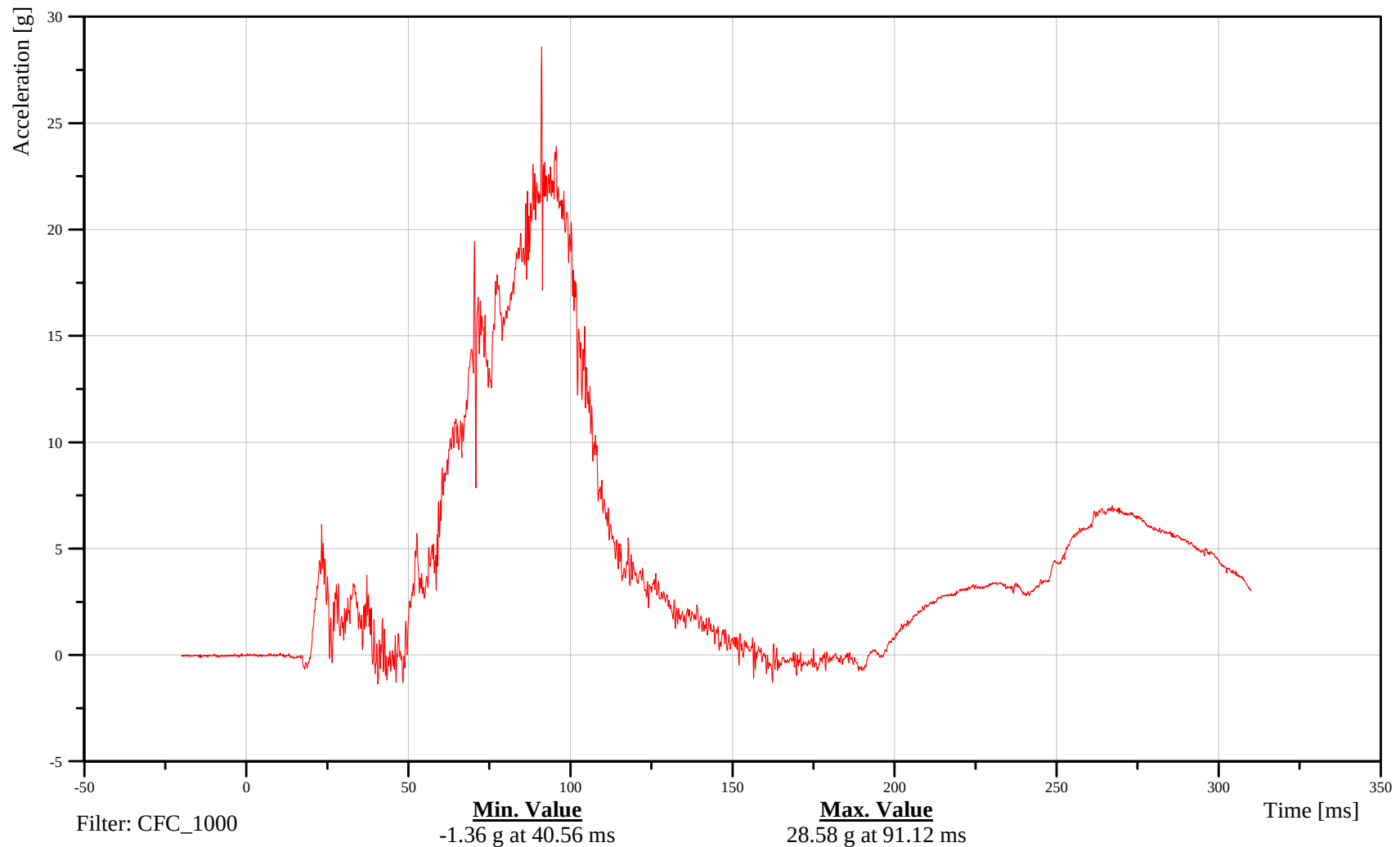
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Resultant Acceleration

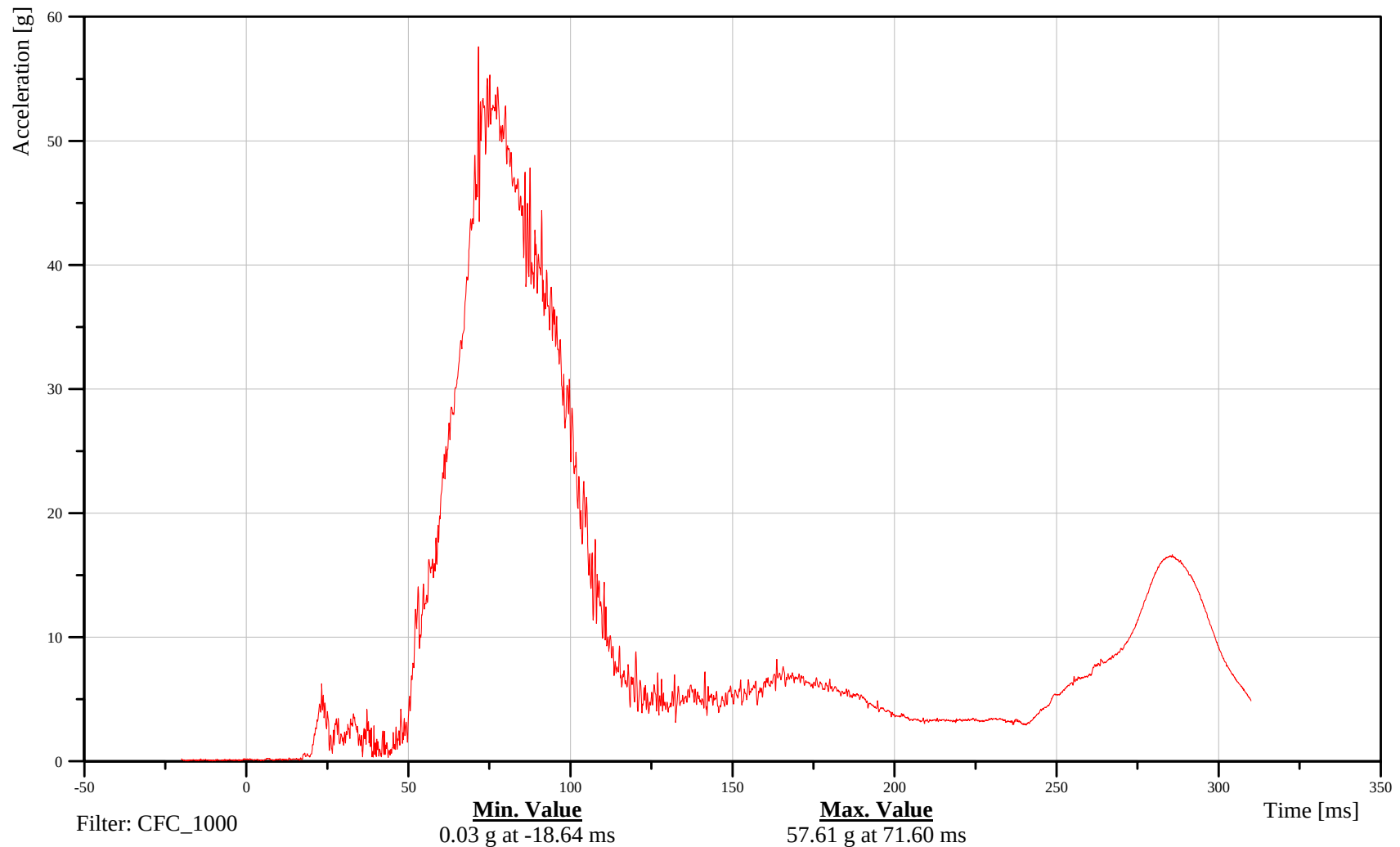
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Front Y-Axis Acceleration

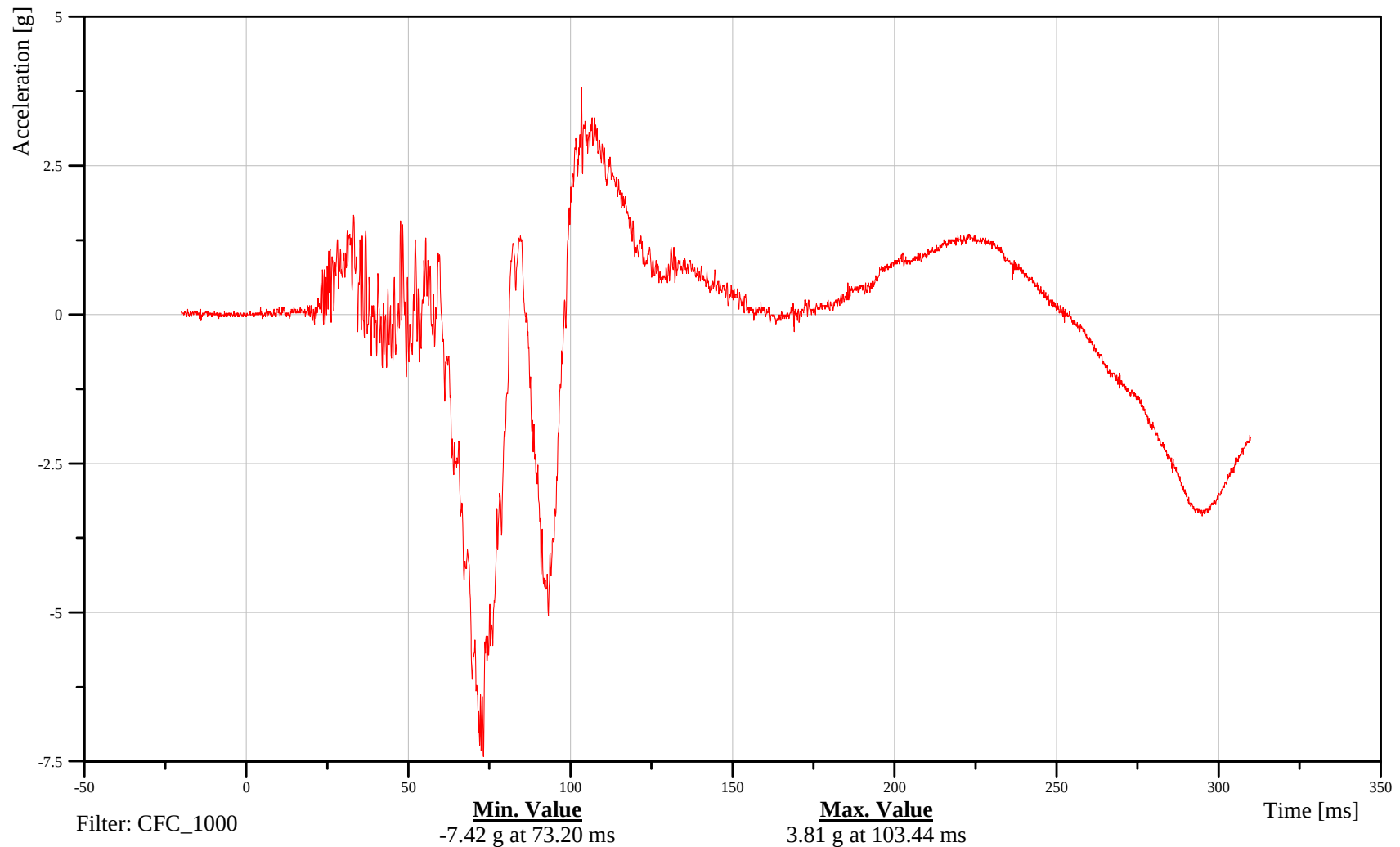
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADFR00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Front Z-Axis Acceleration

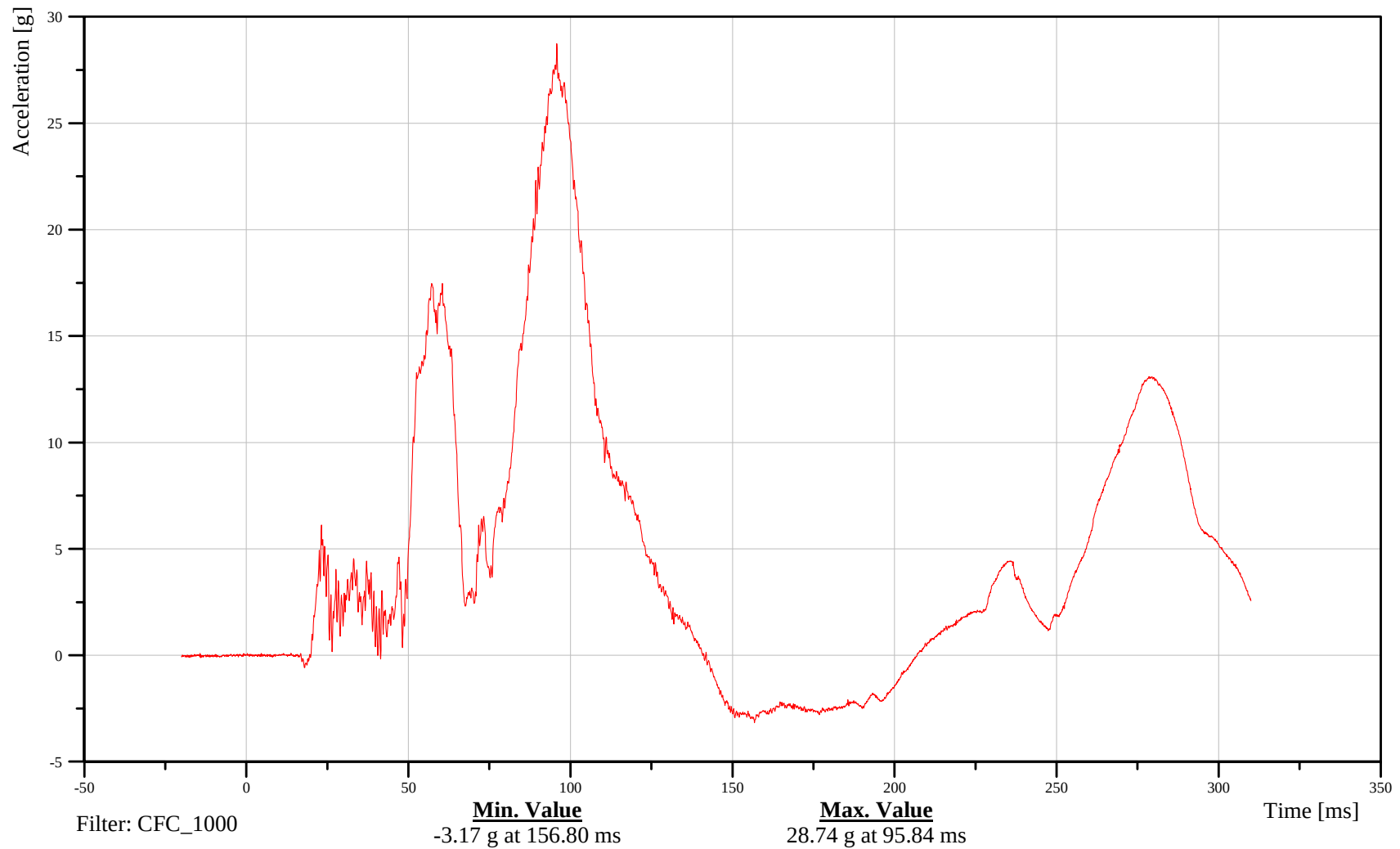
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADFR00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Top X-Axis Acceleration

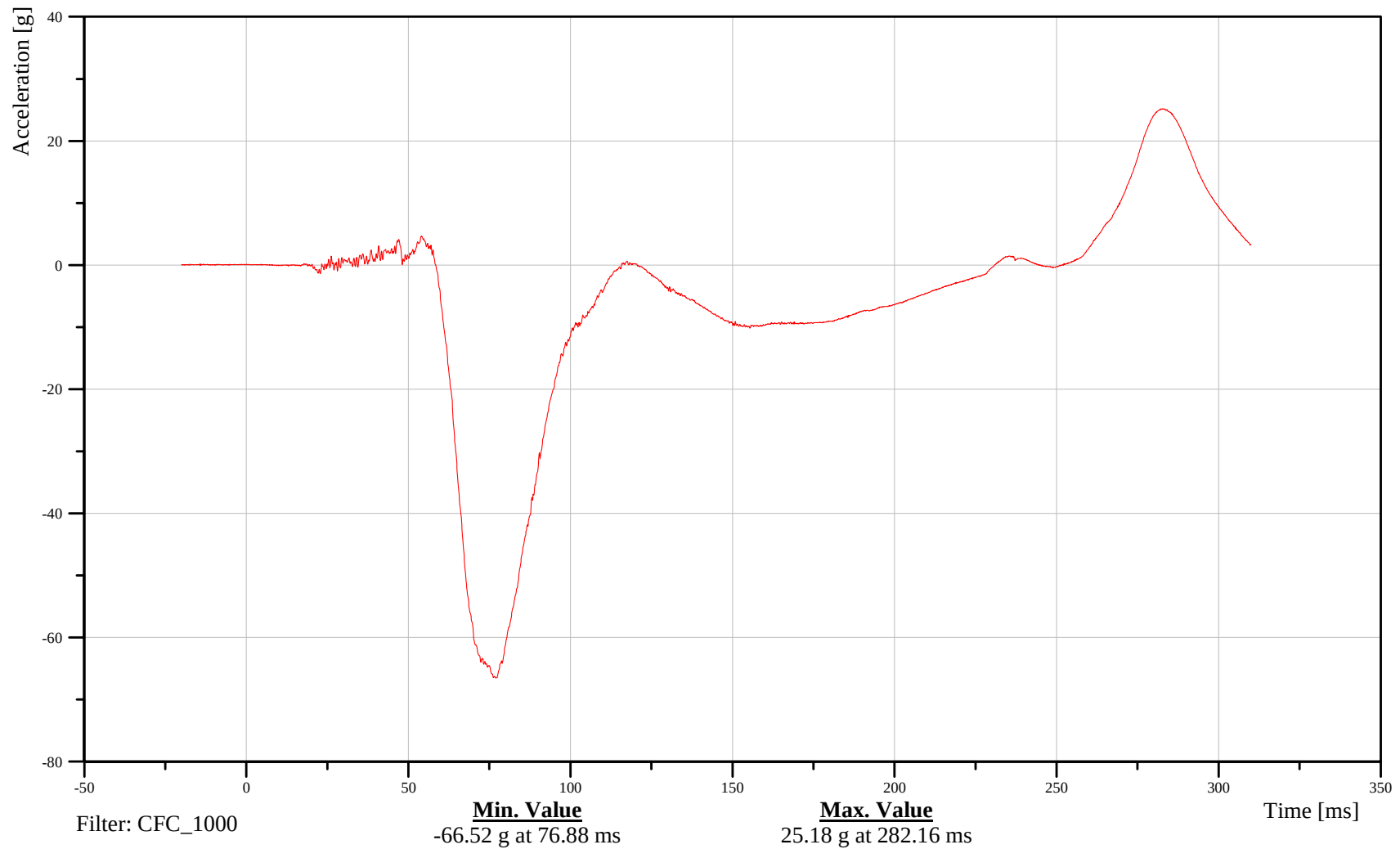
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADUP00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Top Y-Axis Acceleration

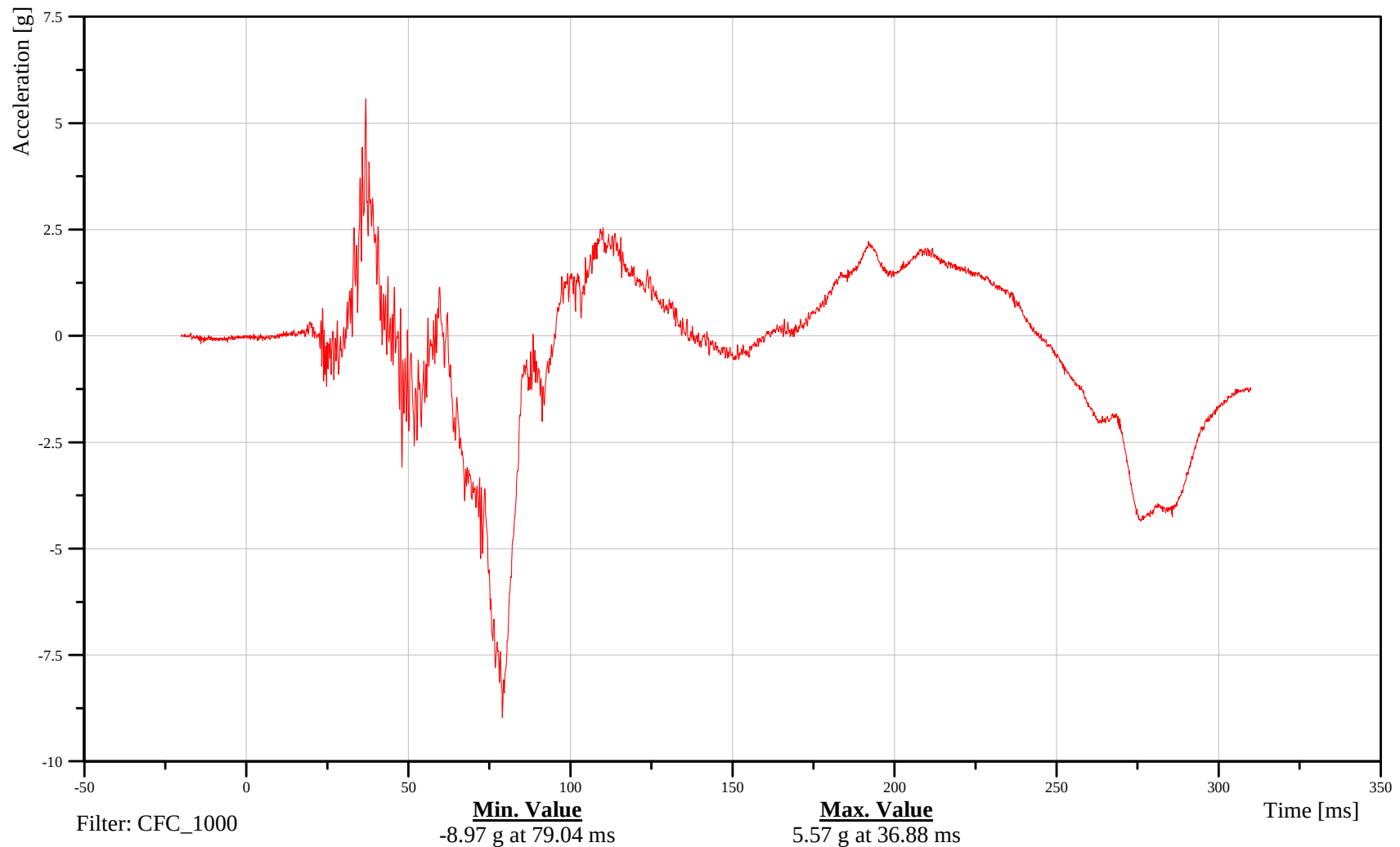
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADUP00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Side X-Axis Acceleration

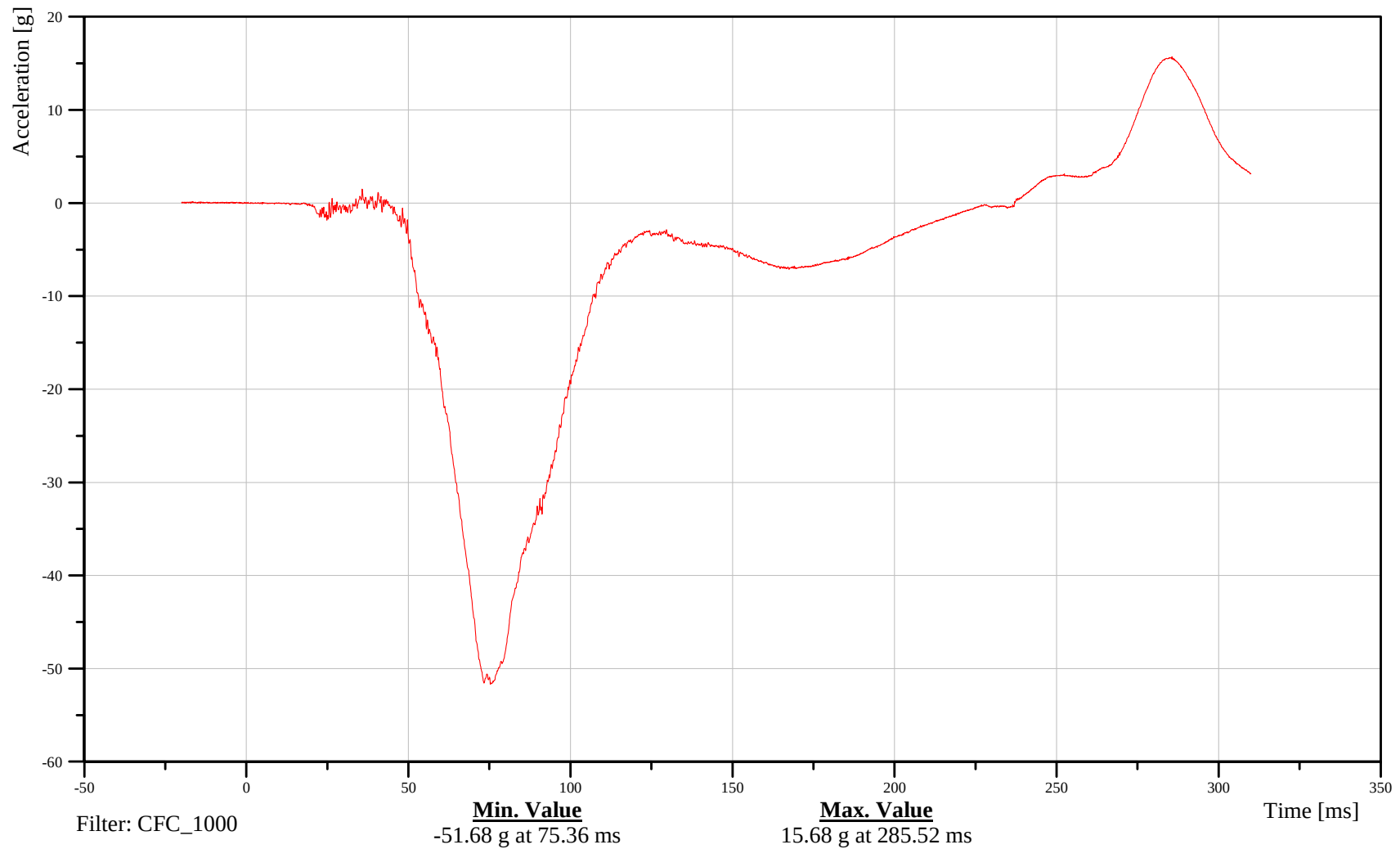
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADLE00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Head Side Z-Axis Acceleration

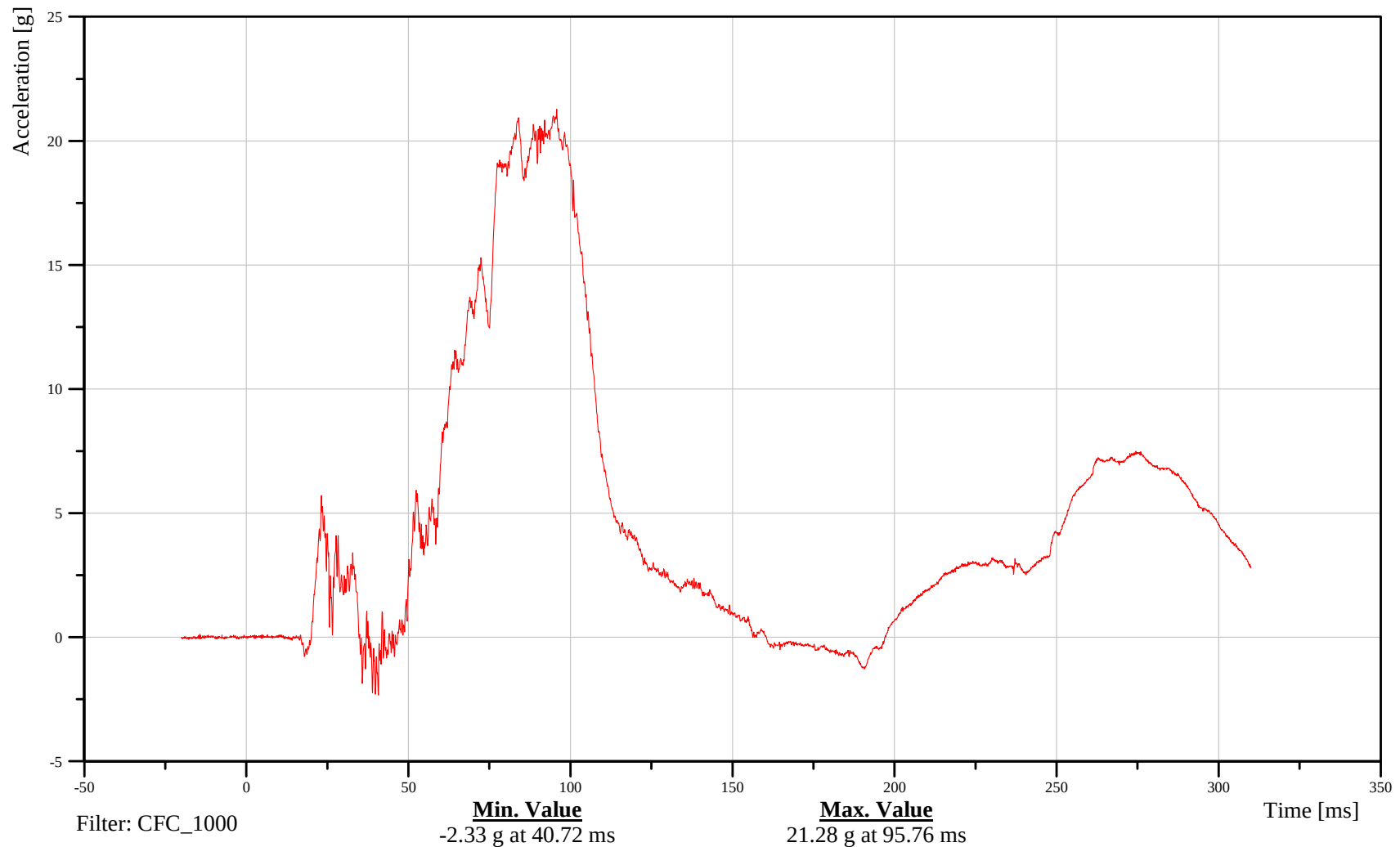
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11HEADLE00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Upper Neck X-Axis Force

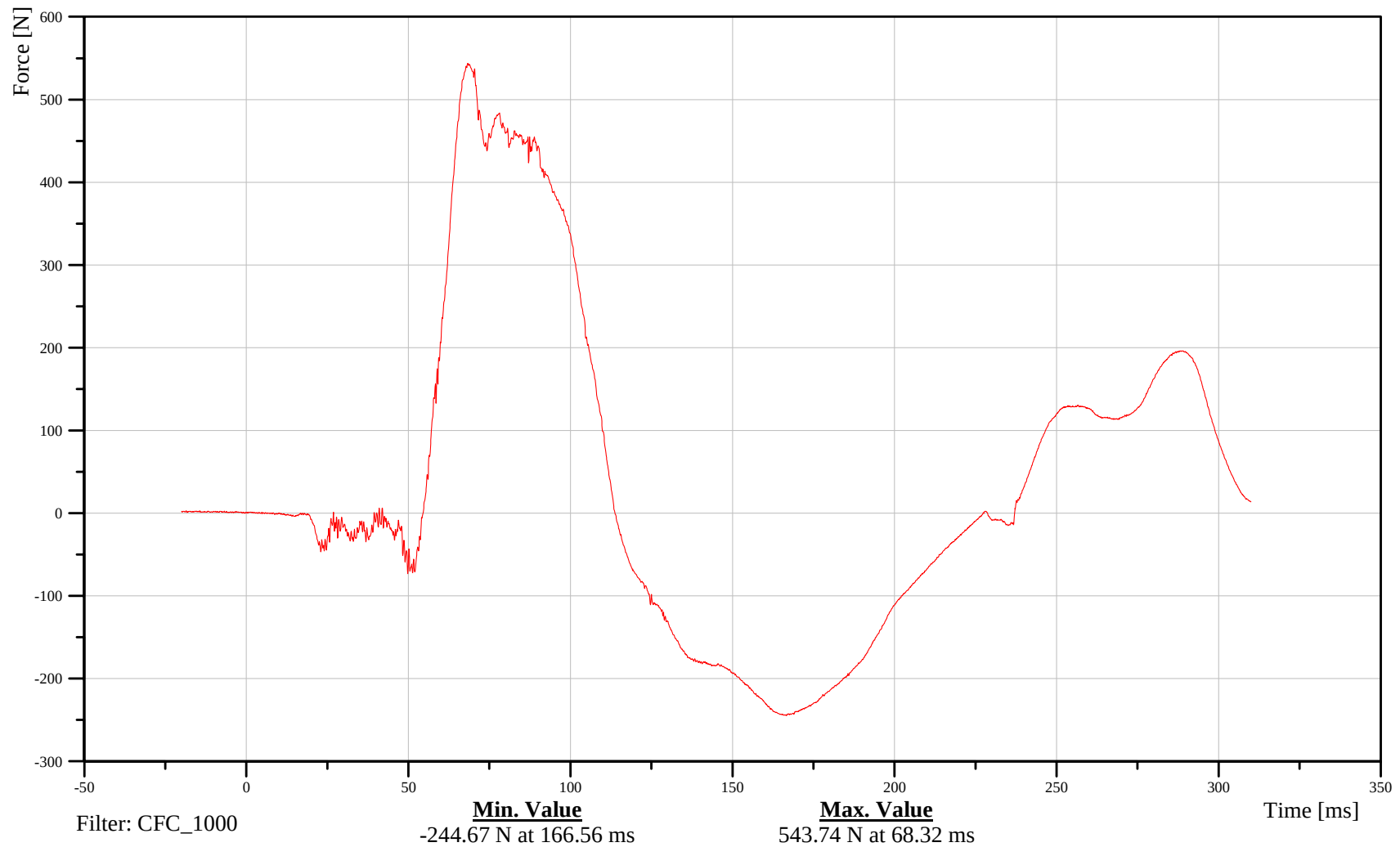
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKUP00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Upper Neck Y-Axis Force

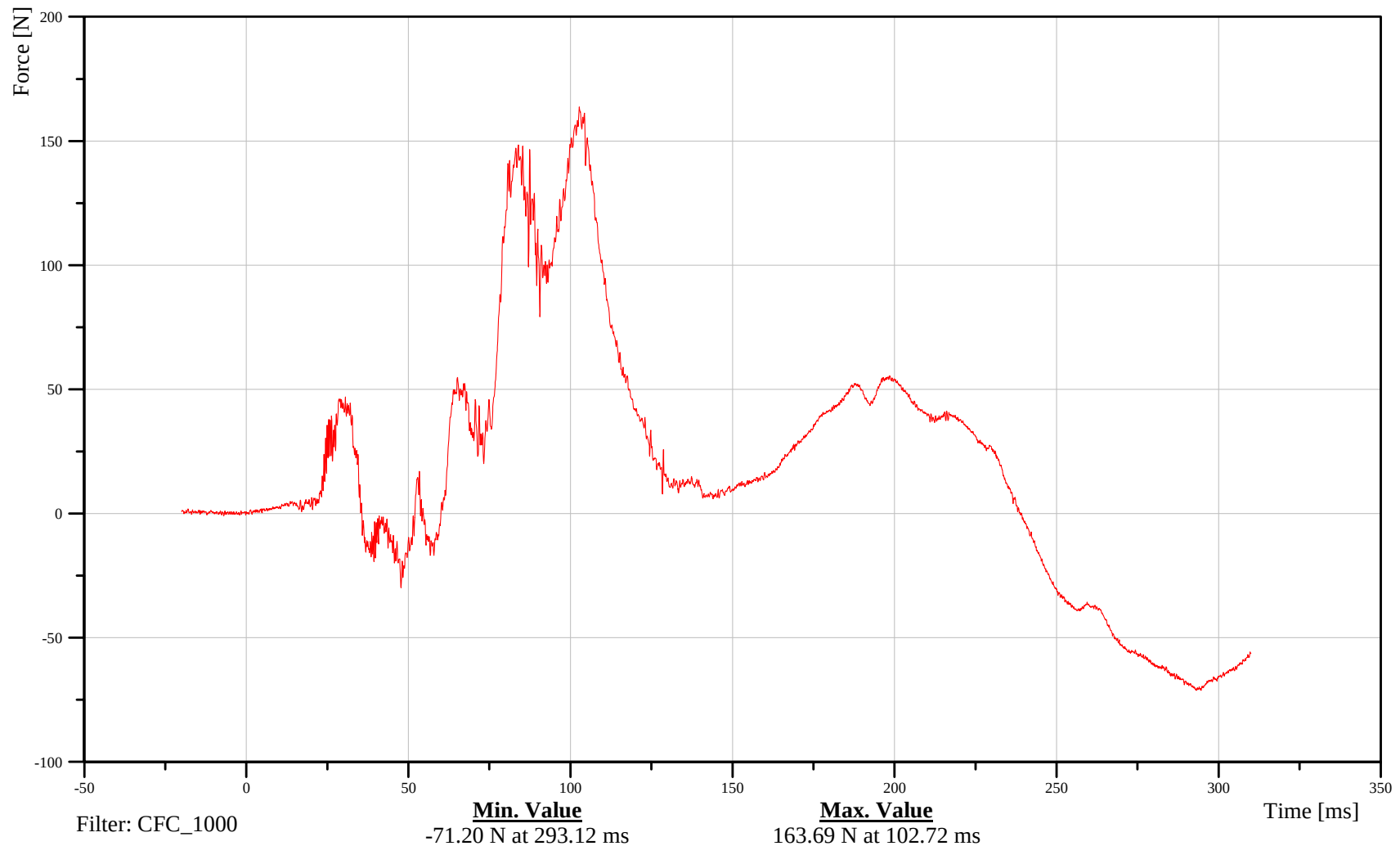
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKUP00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Upper Neck Z-Axis Force

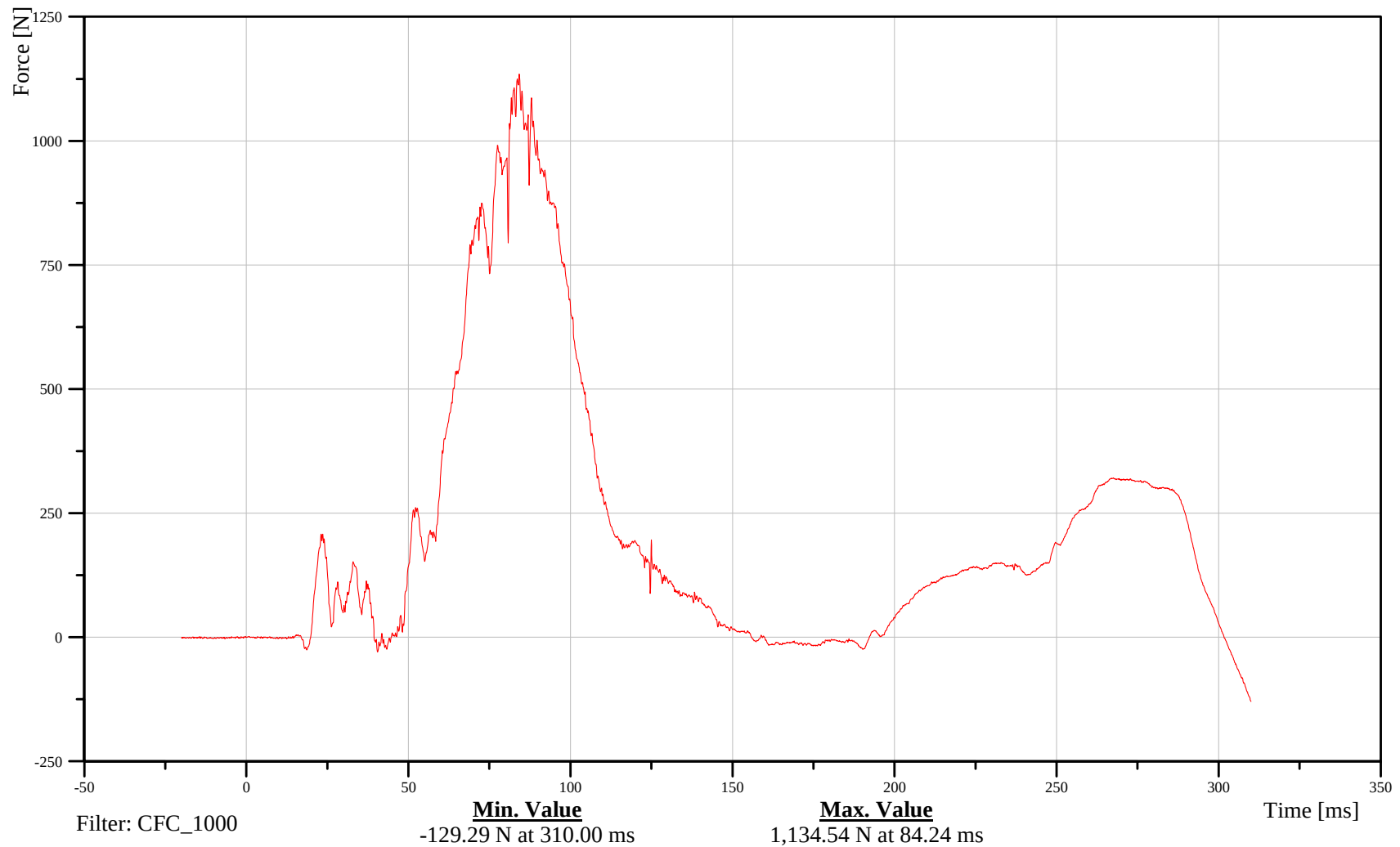
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKUP00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Upper Neck Moment About X Axis

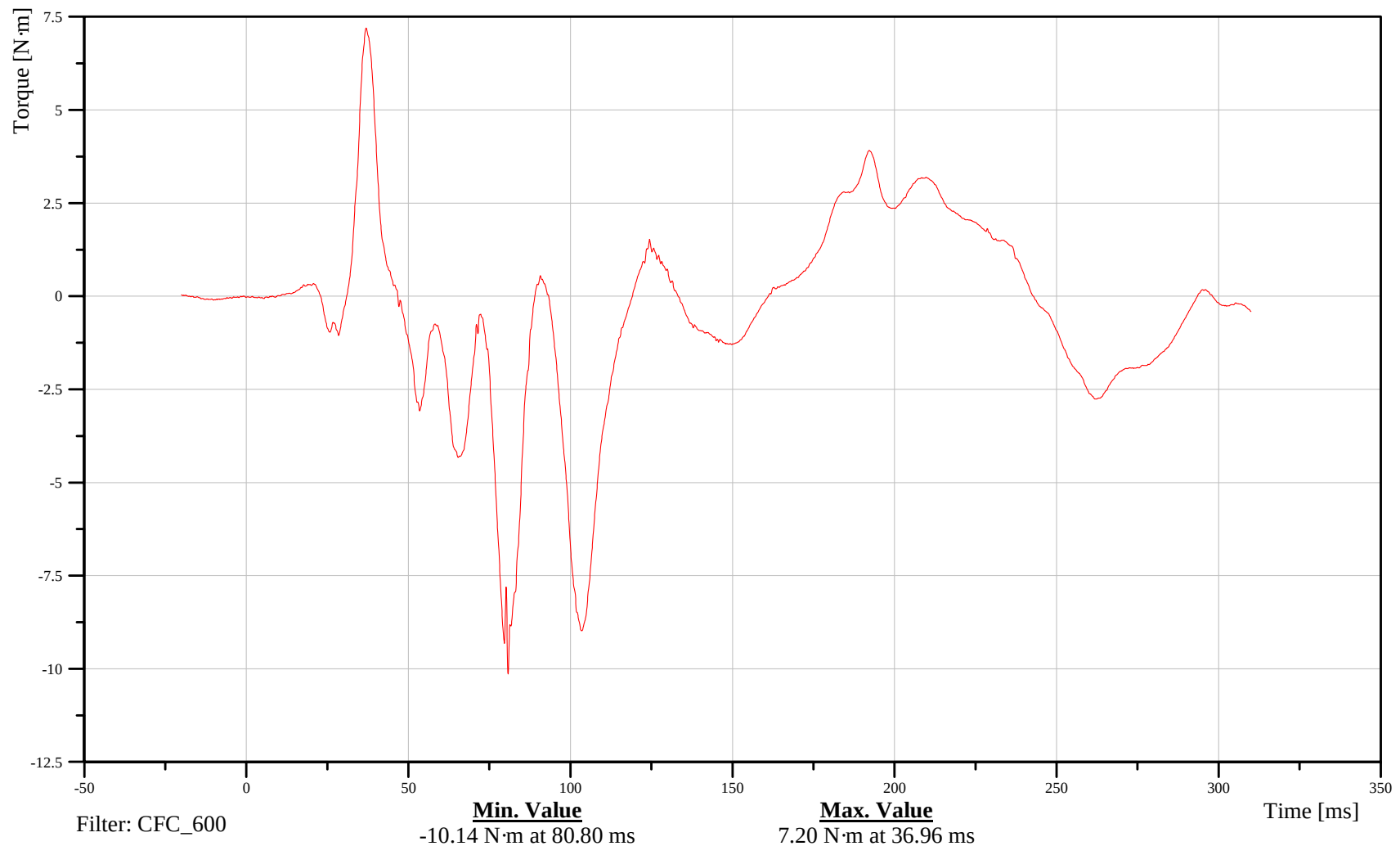
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKUP00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Upper Neck Moment About Y Axis

Date: 05/19/2006

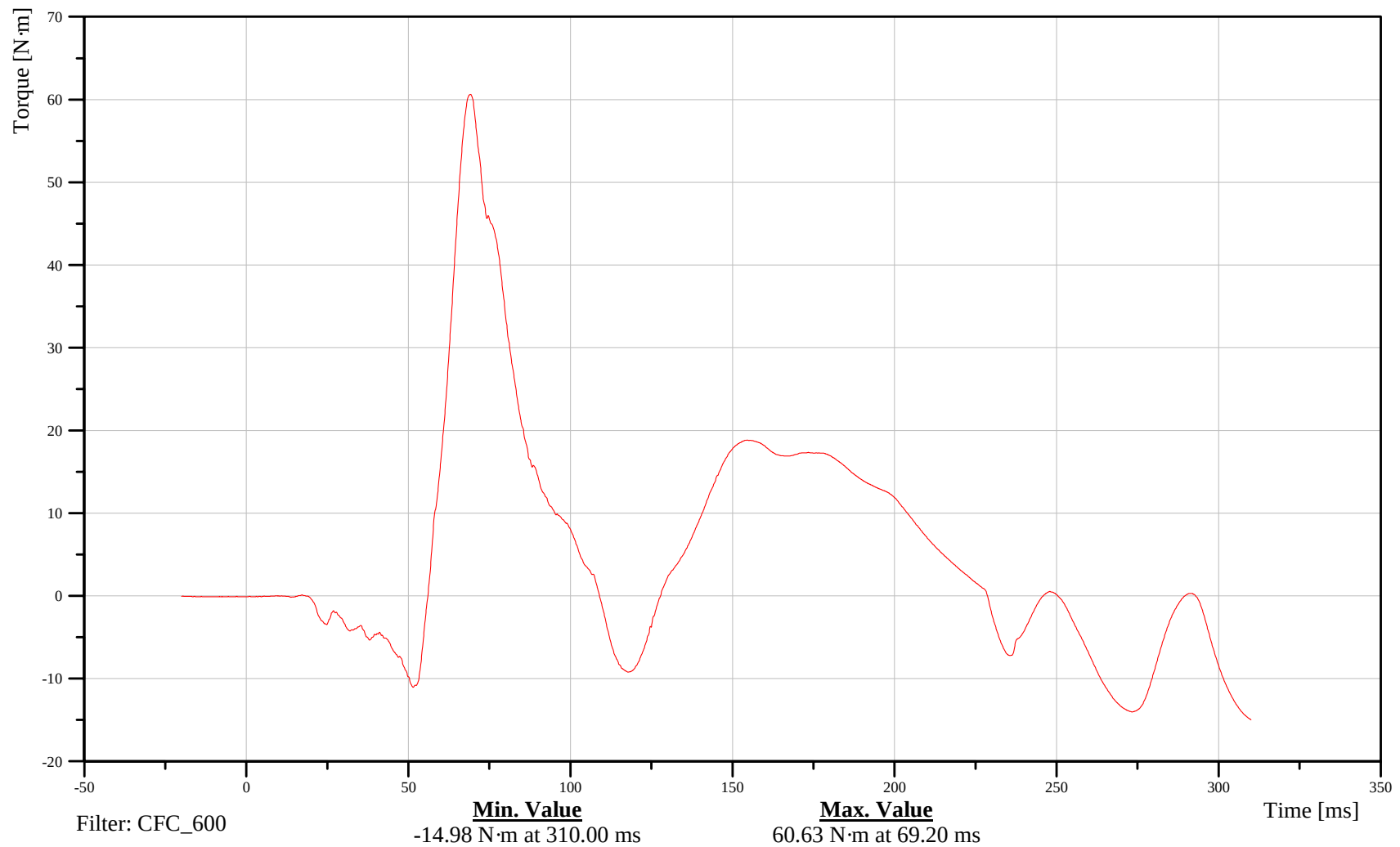
Time: 17:50

Customer: VRTC

11NECKUP00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Upper Neck Moment About Z Axis

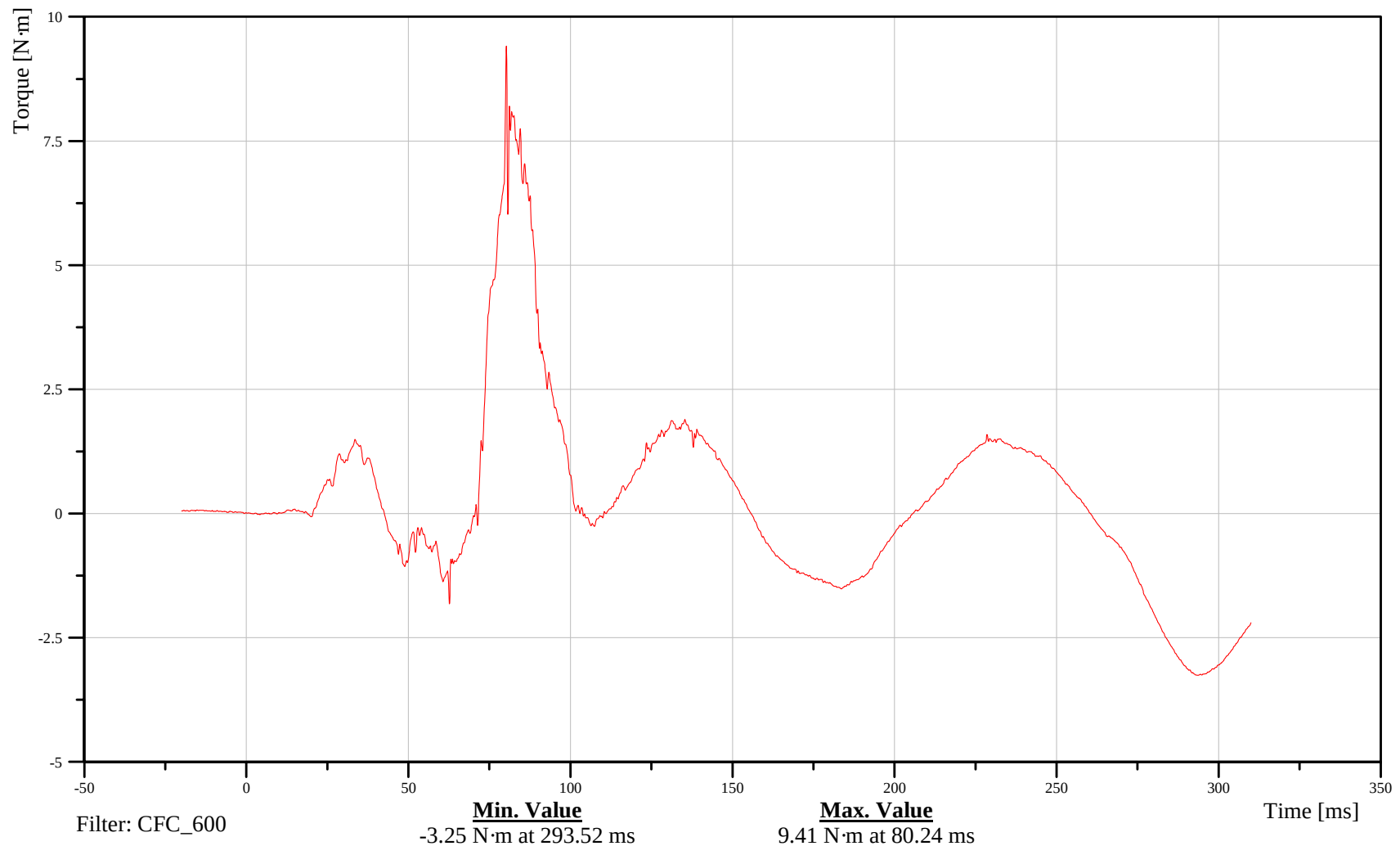
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKUP00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lower Neck X-Axis Force

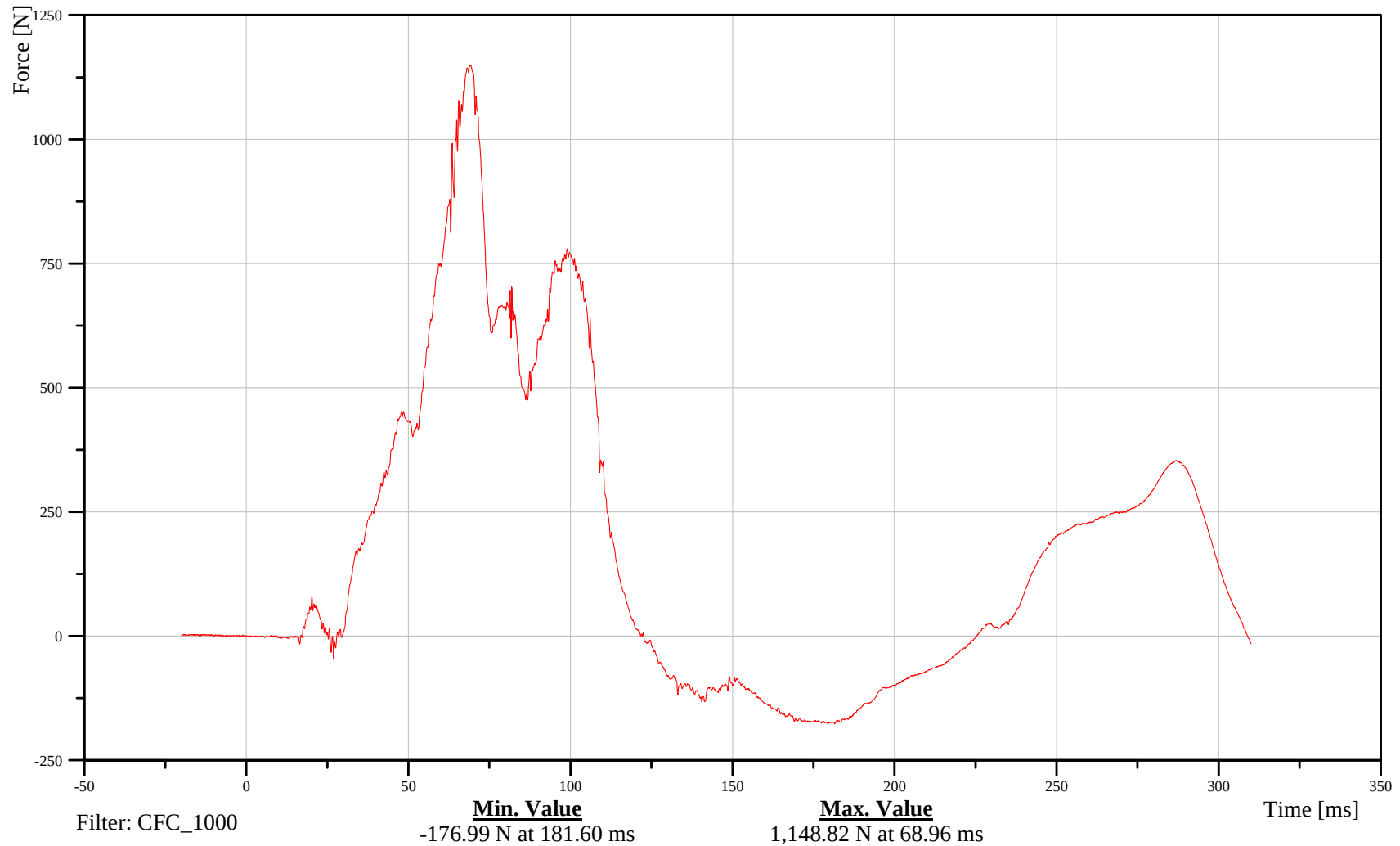
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKLO00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lower Neck Y-Axis Force

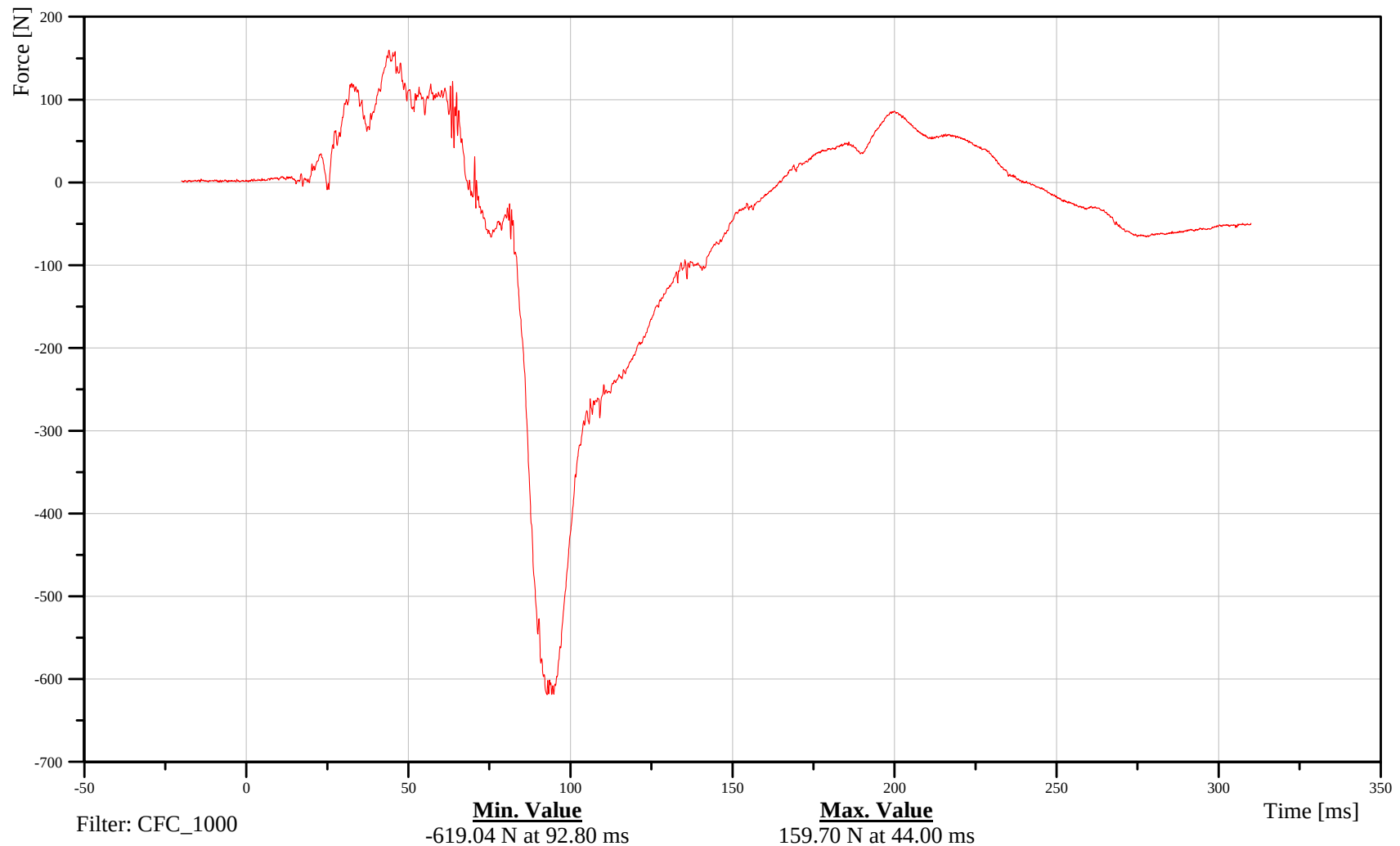
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKLO00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lower Neck Z-Axis Force

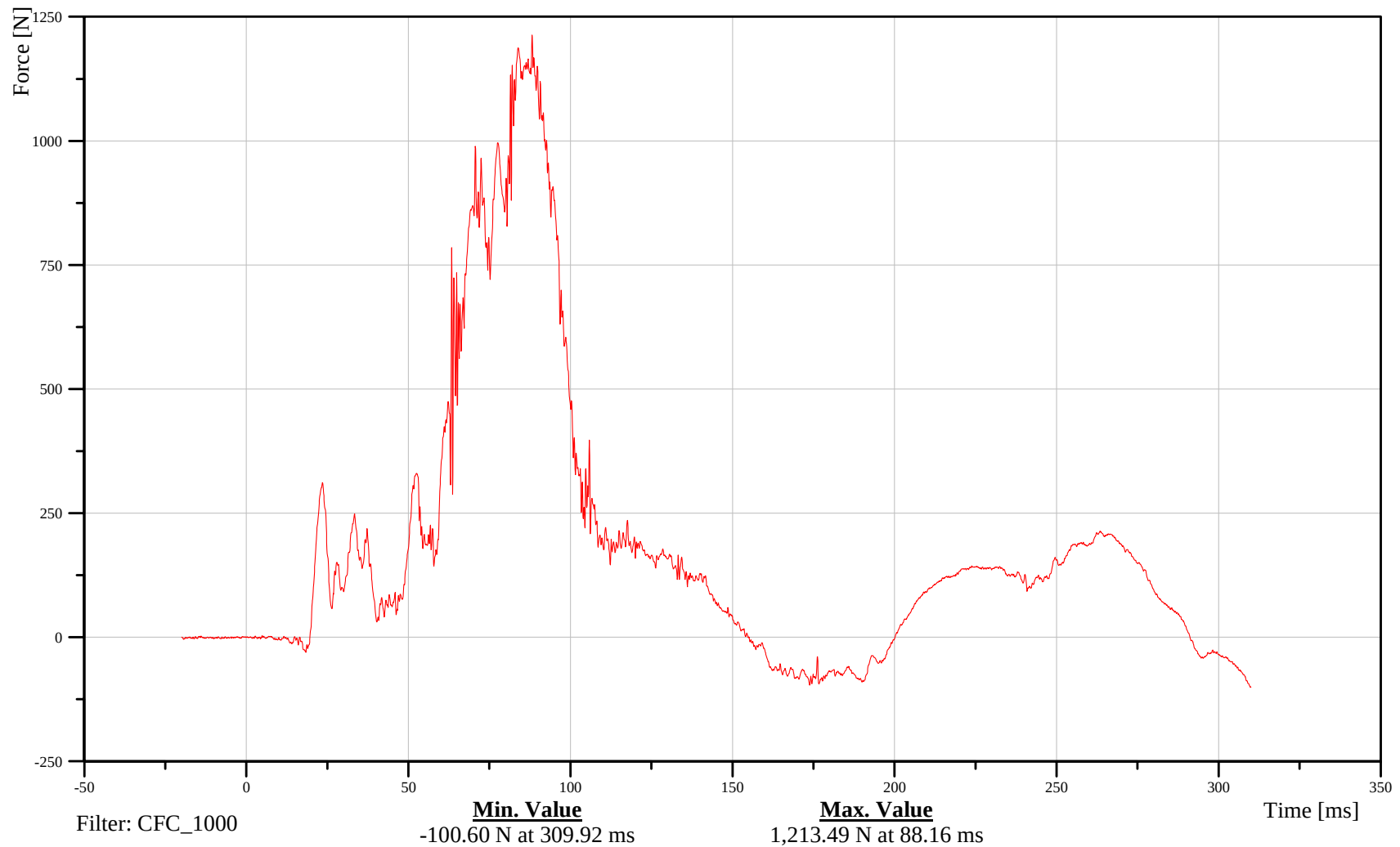
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKLO00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lower Neck Moment About X Axis

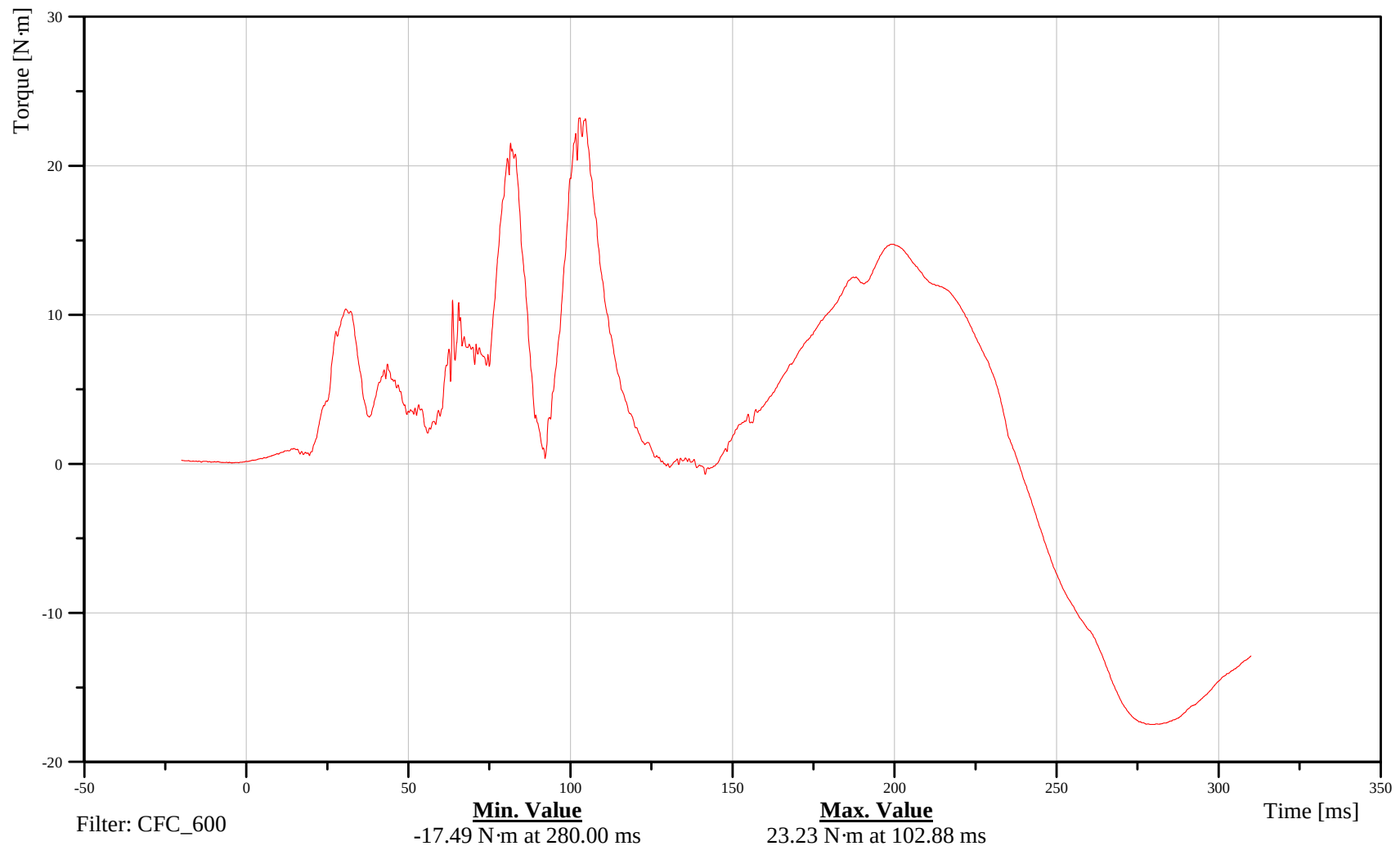
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKLO00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lower Neck Moment About Y Axis

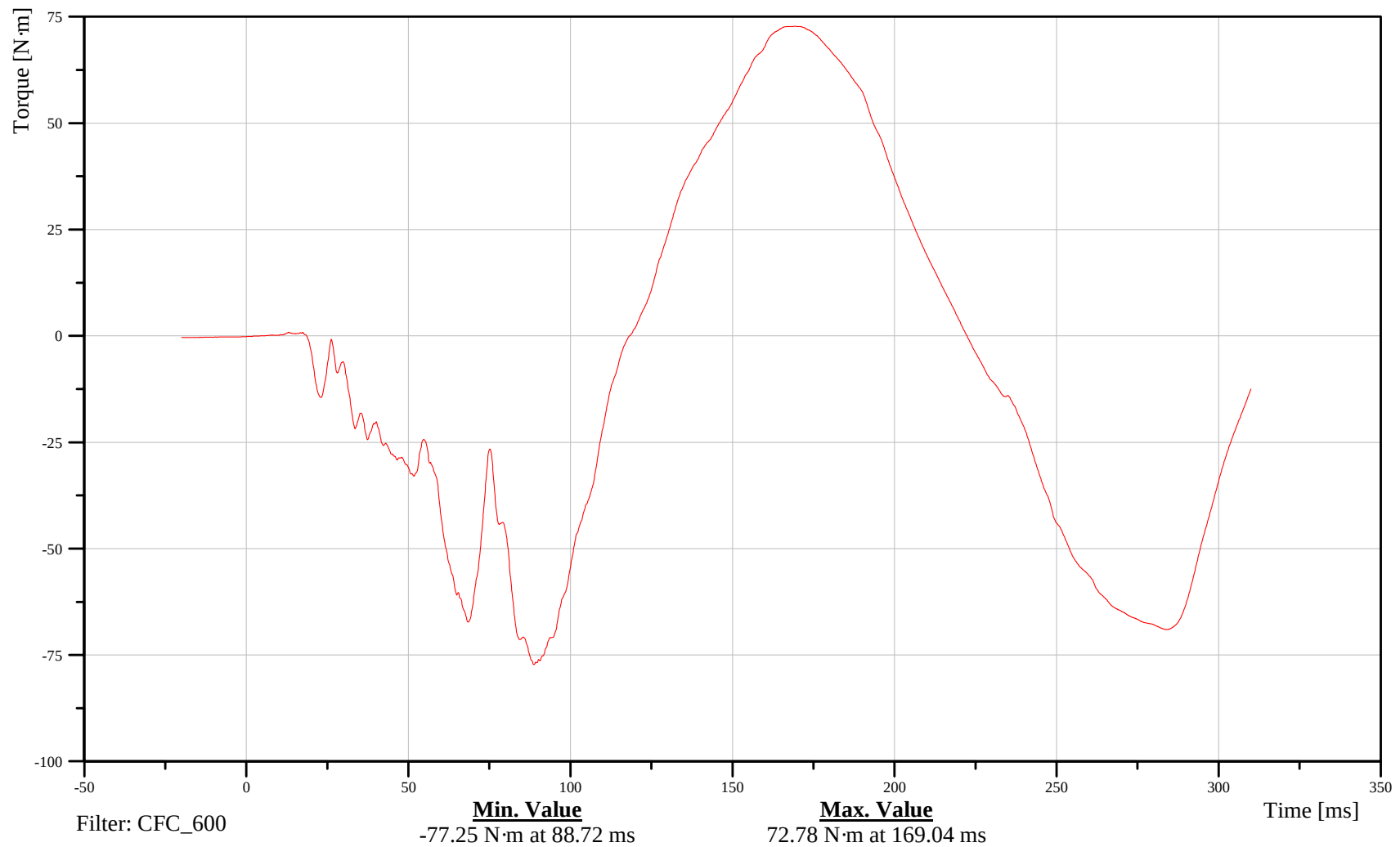
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11NECKLO00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lower Neck Moment About Z Axis

Date: 05/19/2006

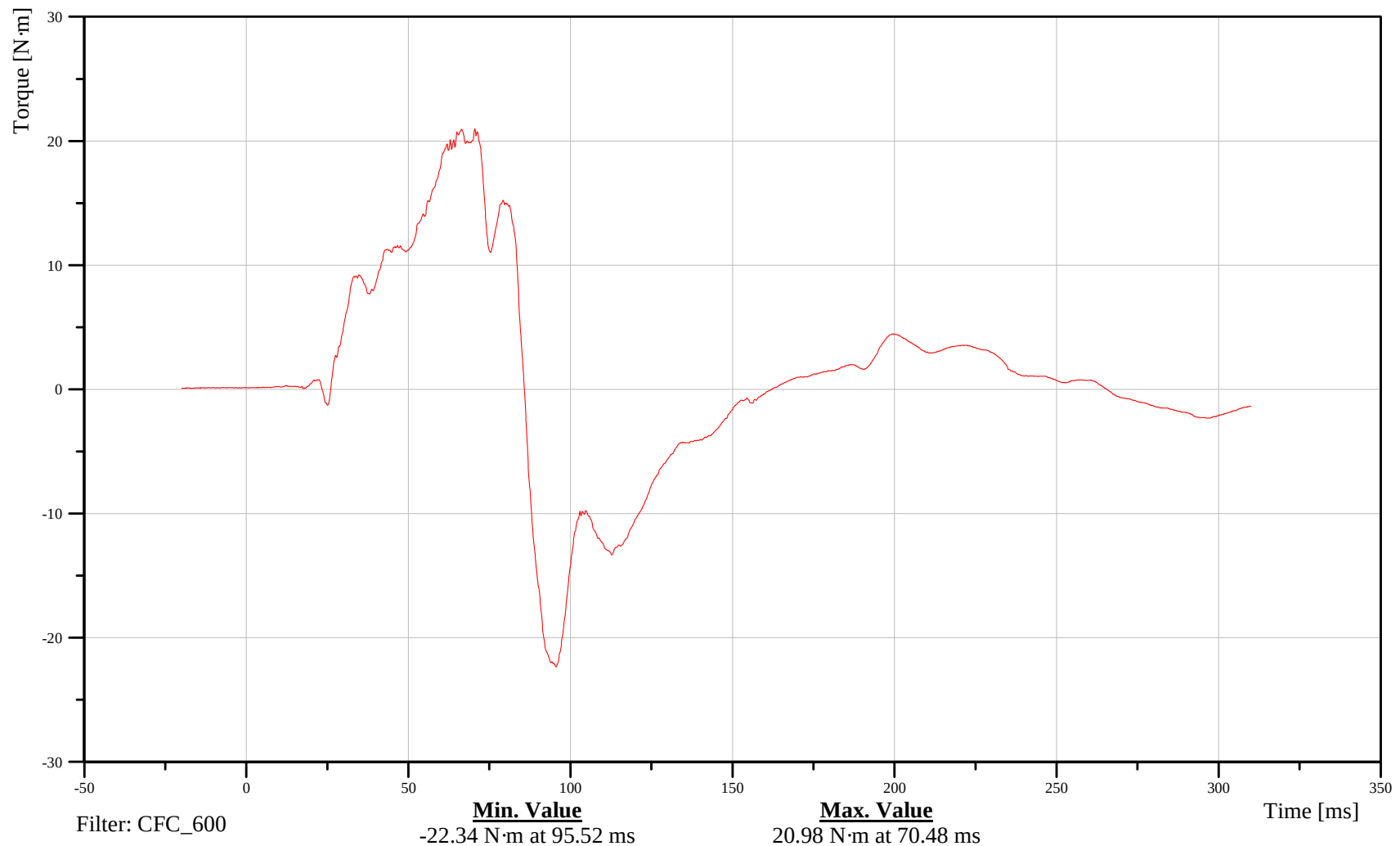
Time: 17:50

Customer: VRTC

11NECKLO00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Chest CG X-Axis Acceleration

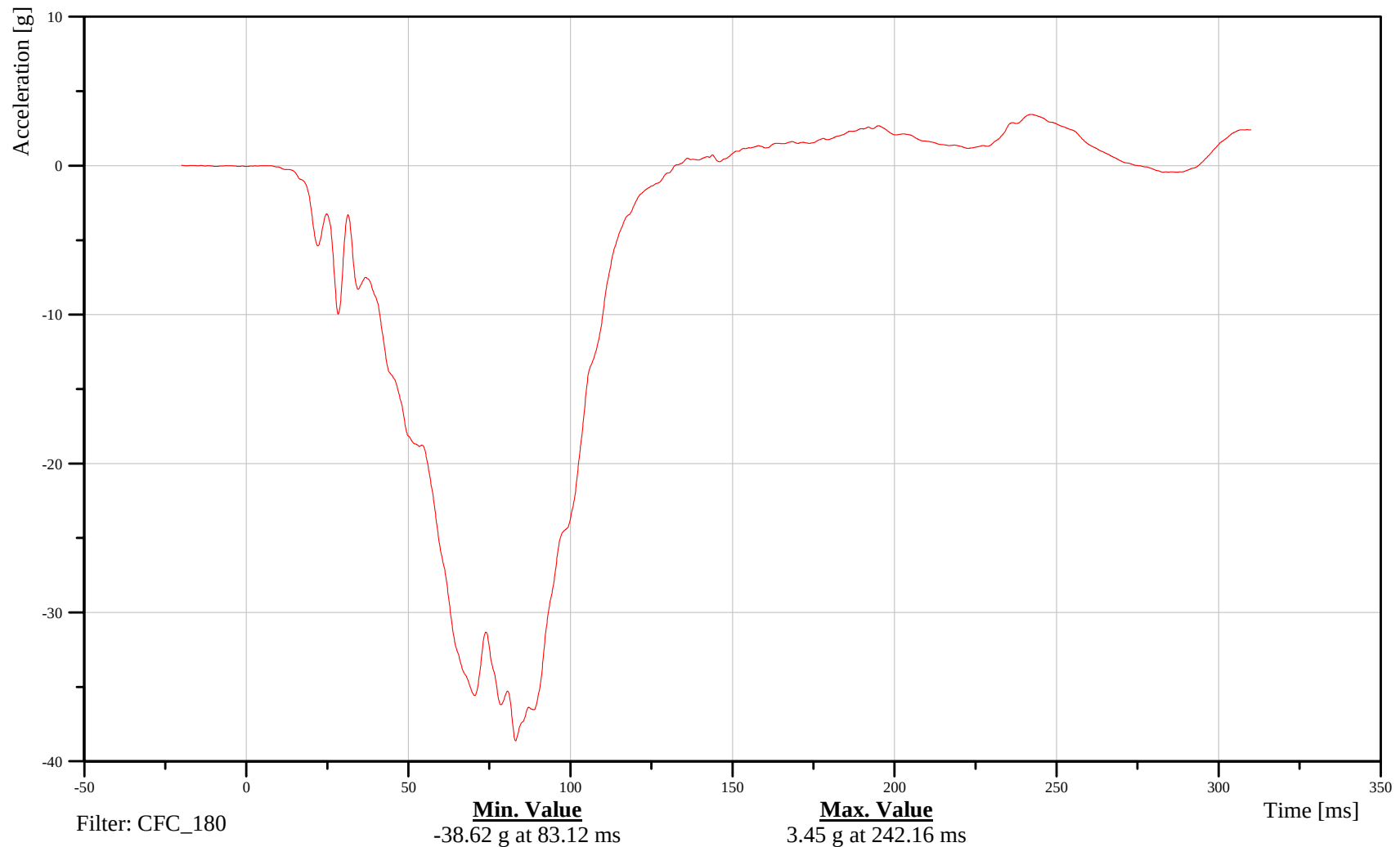
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Chest CG Y-Axis Acceleration

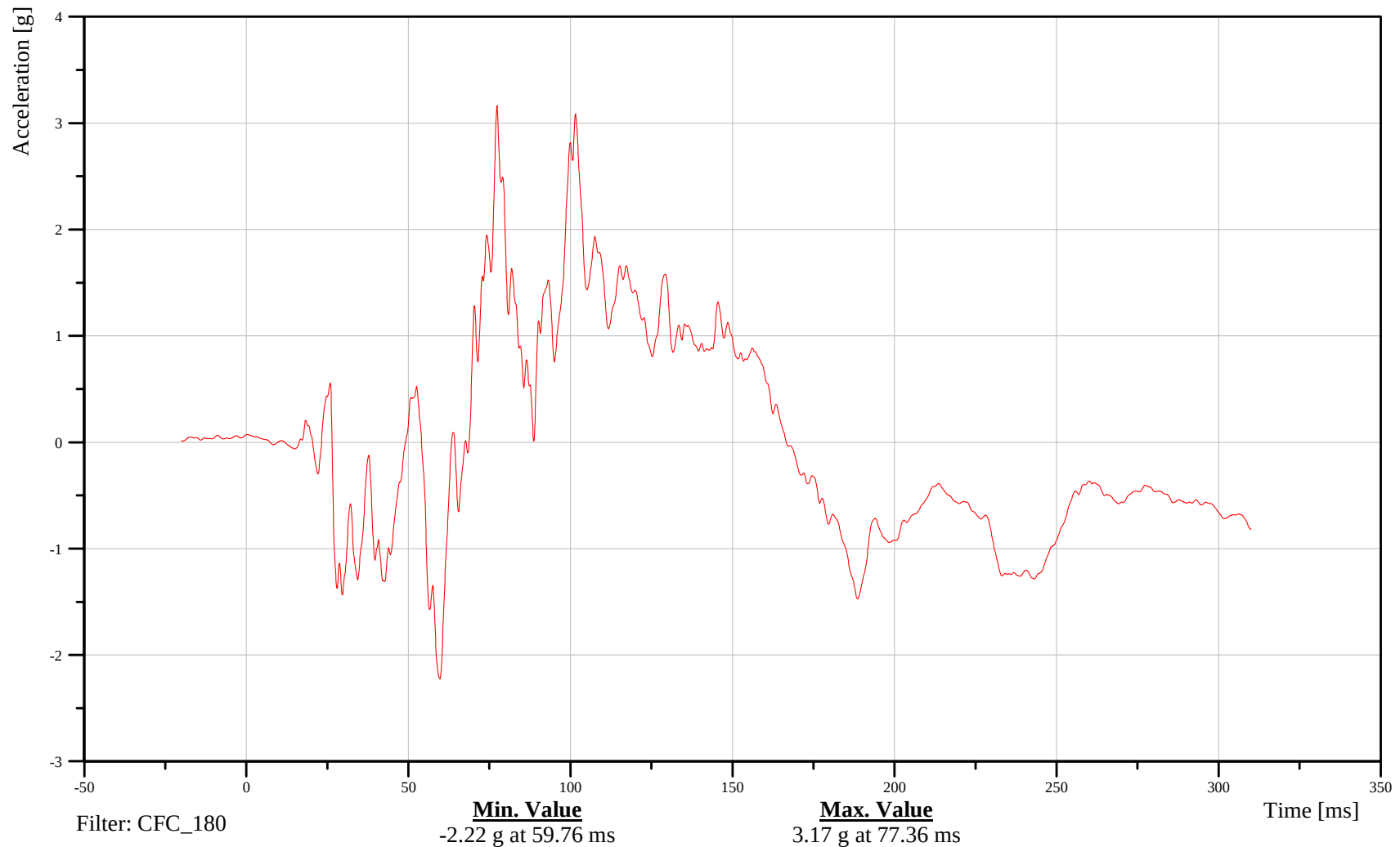
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Chest CG Z-Axis Acceleration

Date: 05/19/2006

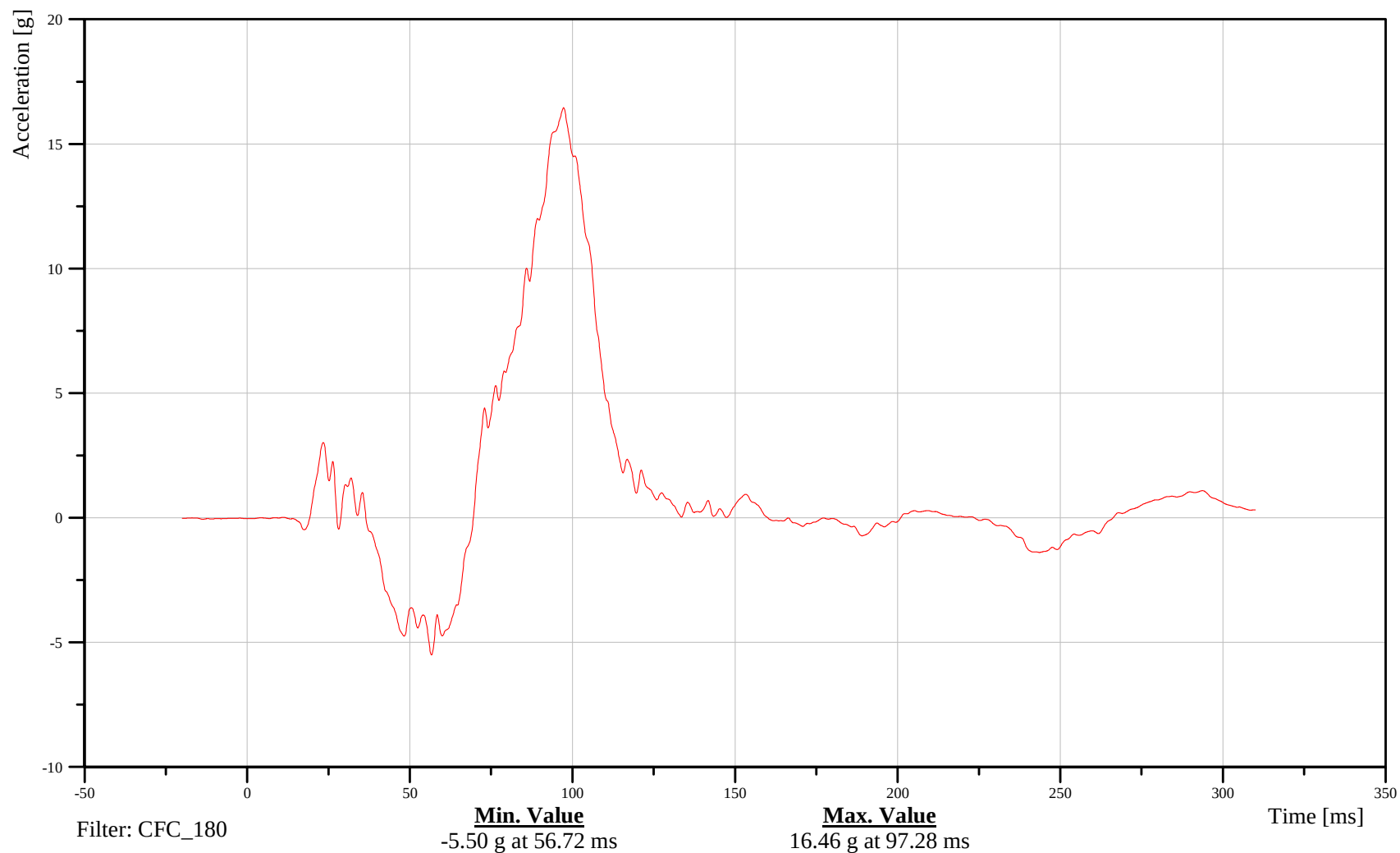
Time: 17:50

Customer: VRTC

11CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Chest CG Resultant Acceleration

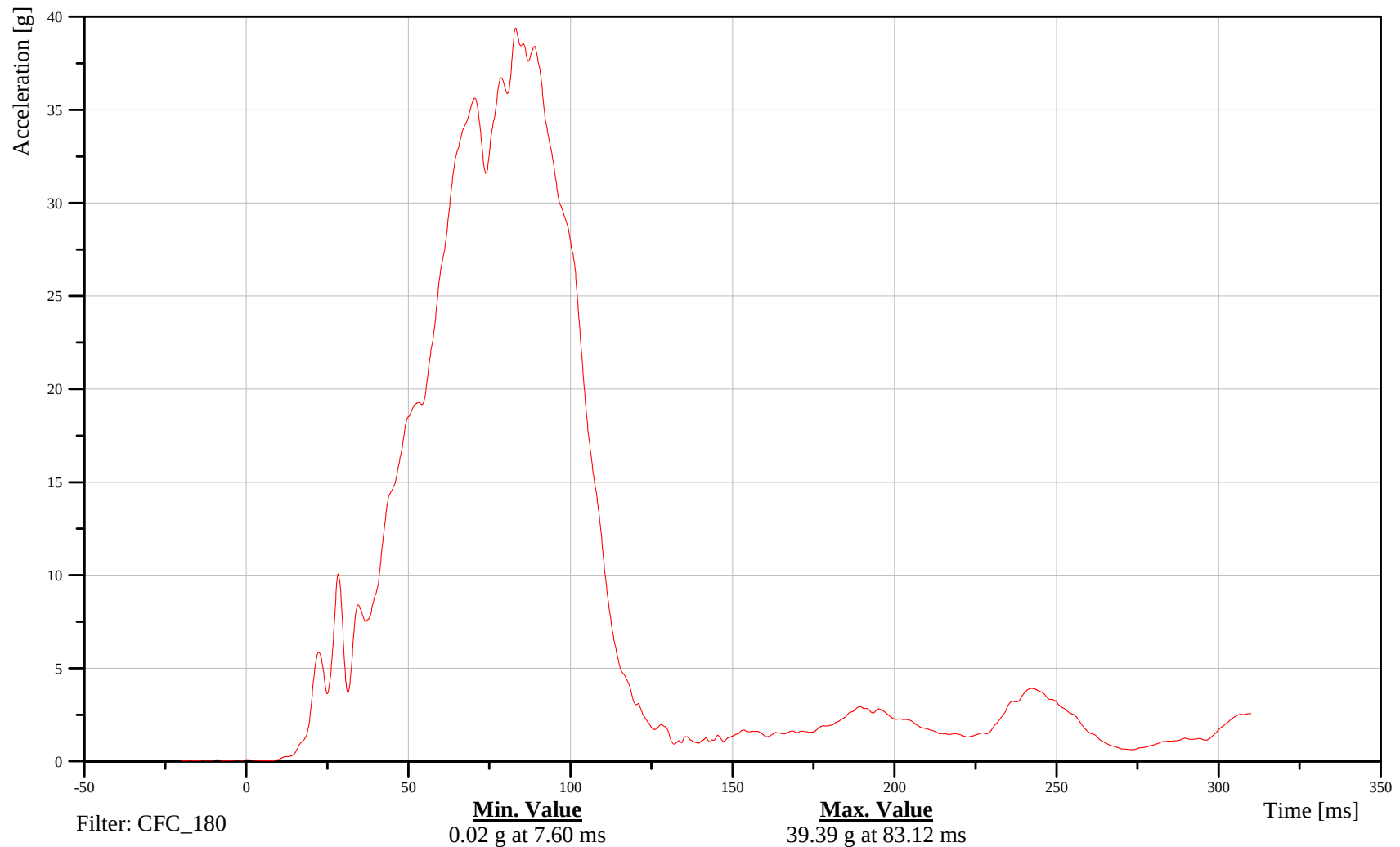
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Redundant Chest CG X-Axis Acceleration

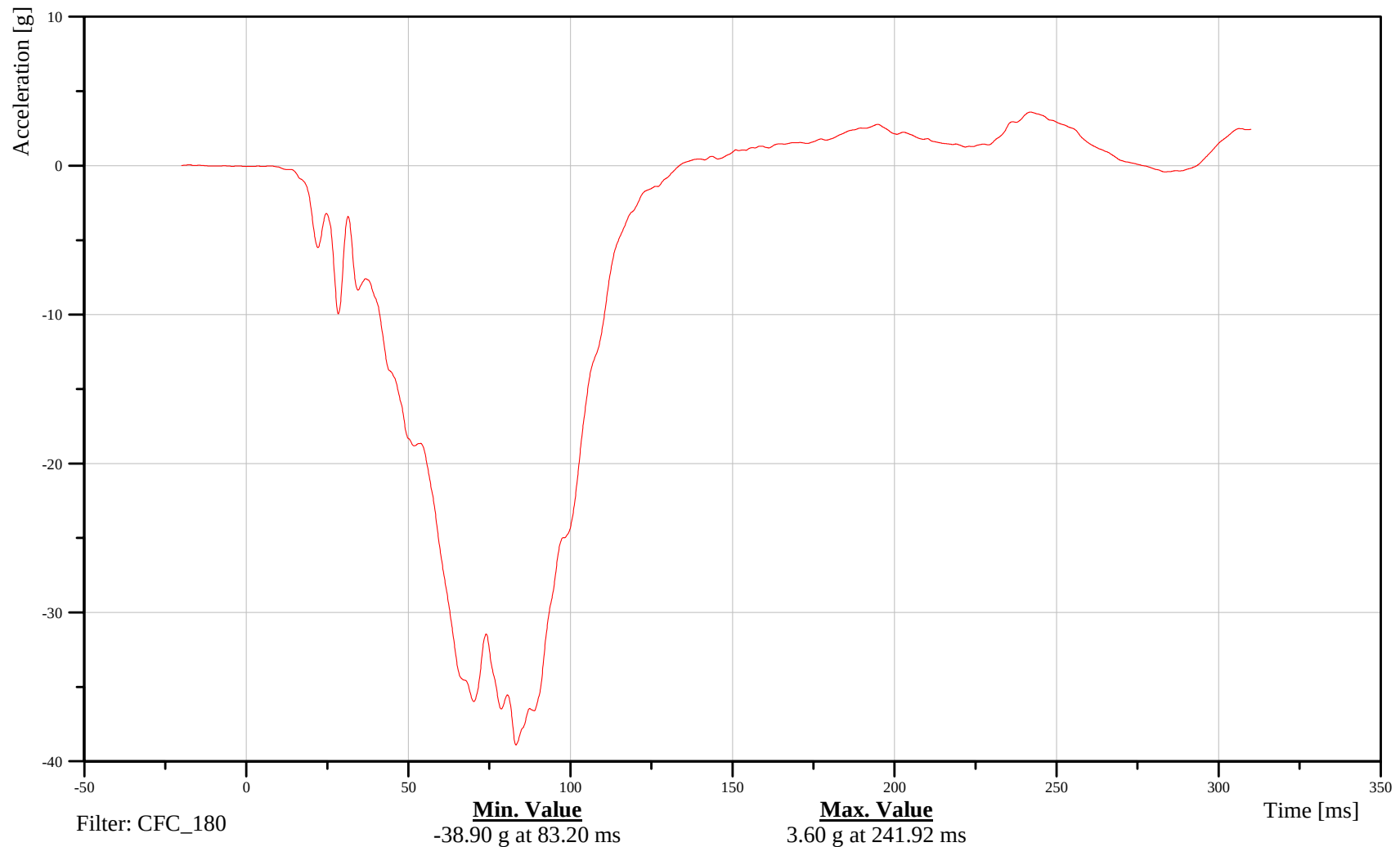
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Redundant Chest CG Y-Axis Acceleration

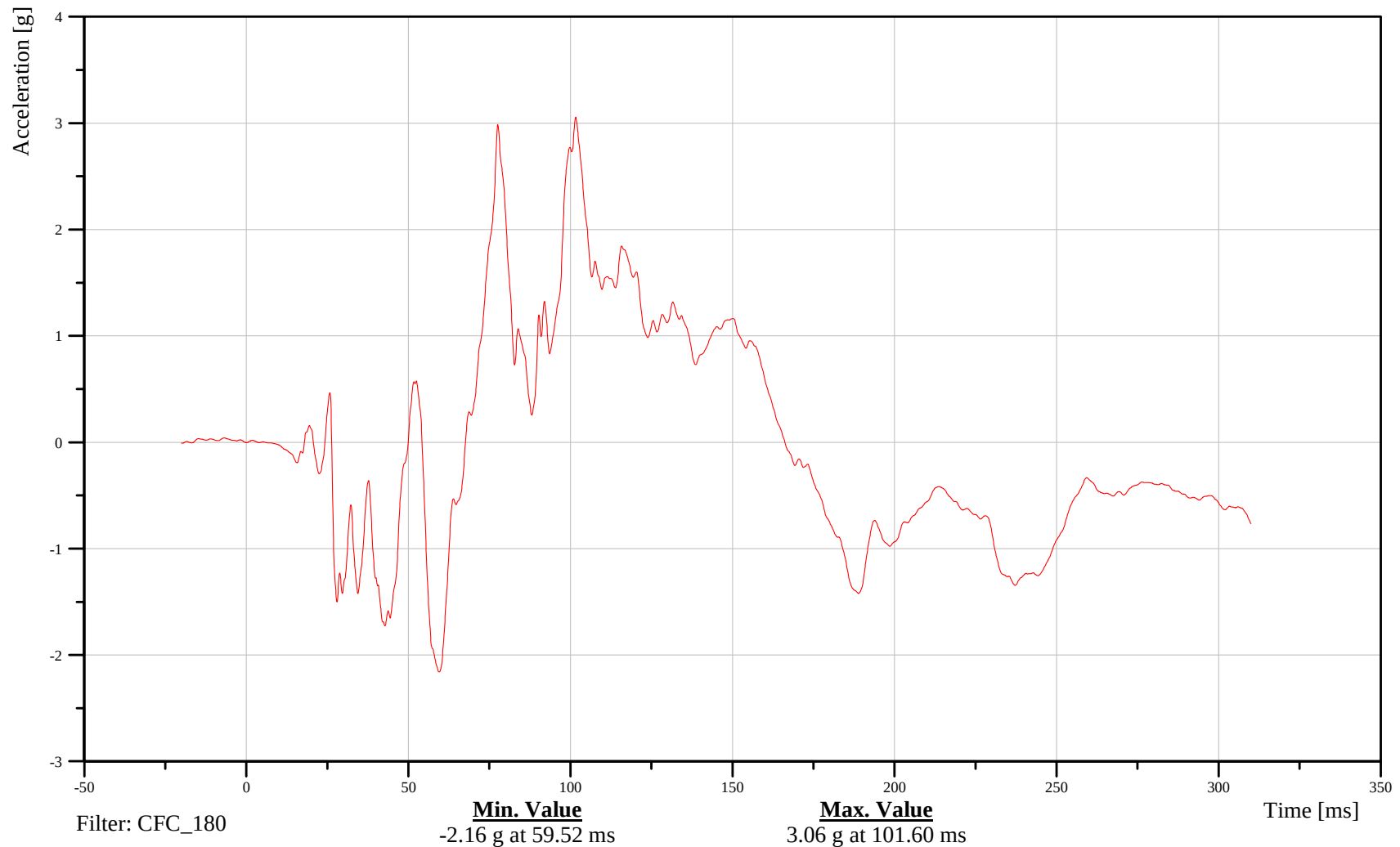
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Redundant Chest CG Z-Axis Acceleration

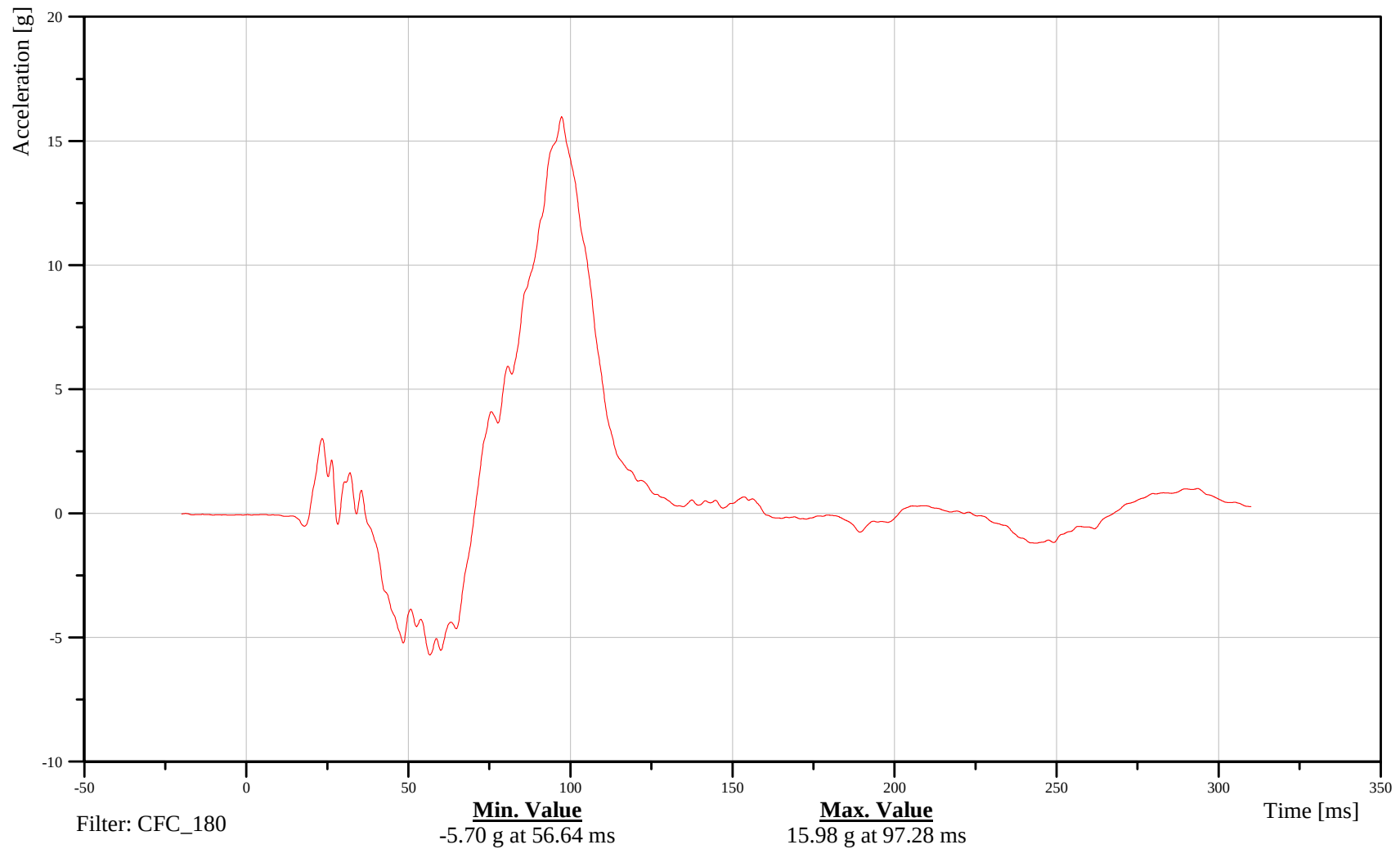
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

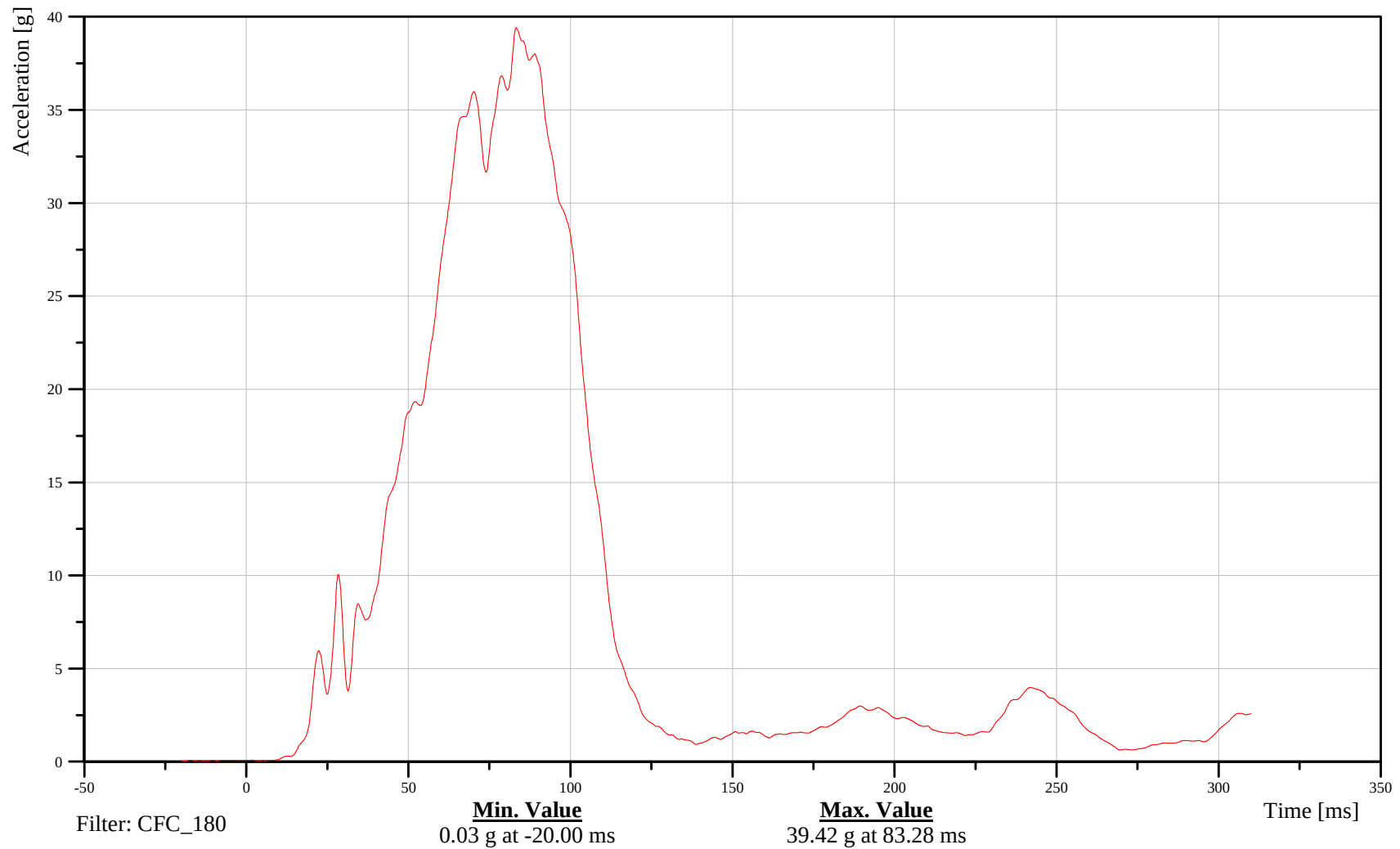
Driver Redundant Chest CG Resultant Acceleration

Customer: VRTC

11CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Chest Displacement

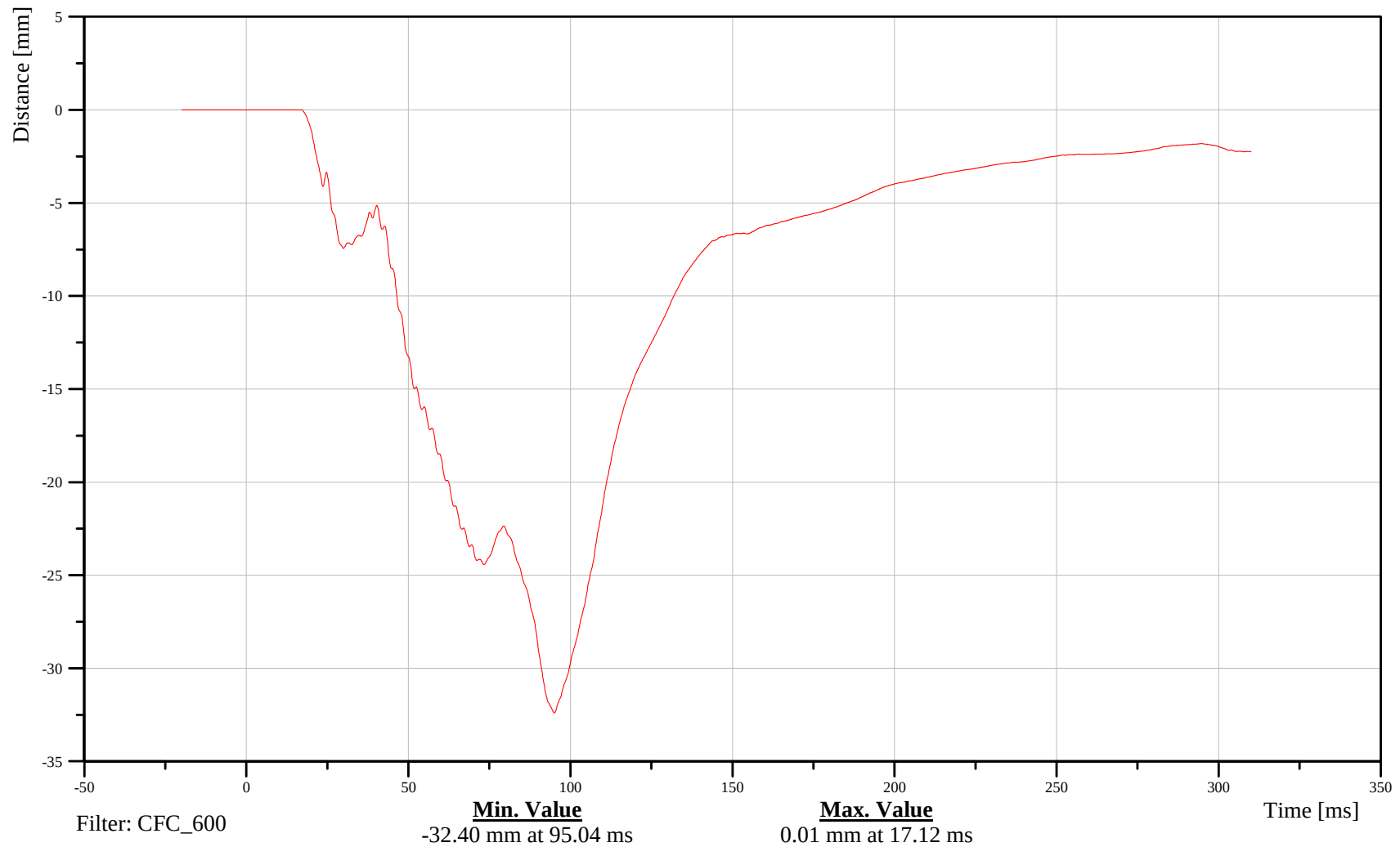
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11CHST0000H3DSXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Pelvis CG X-Axis Acceleration

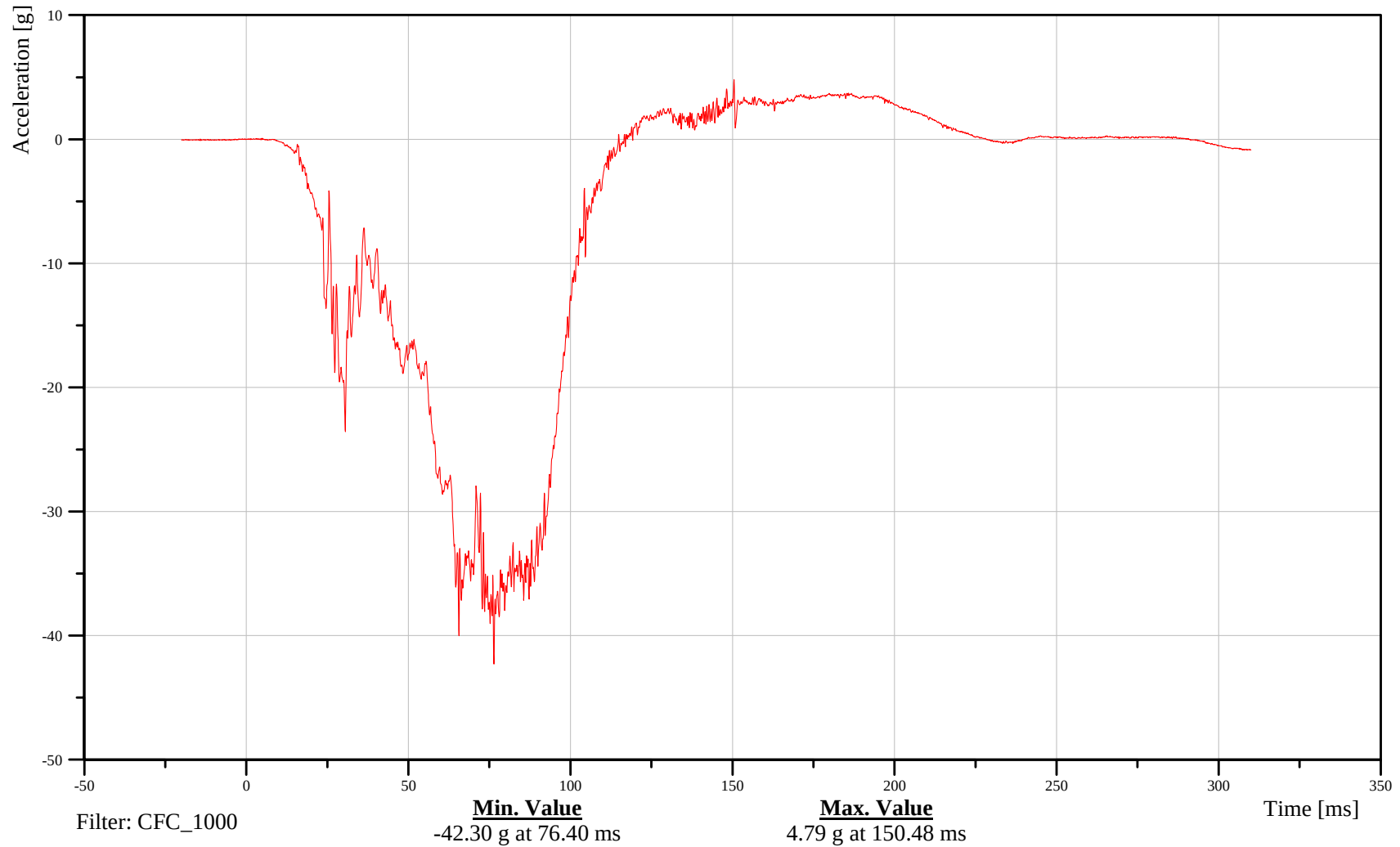
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11PELVCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Pelvis CG Y-Axis Acceleration

Date: 05/19/2006

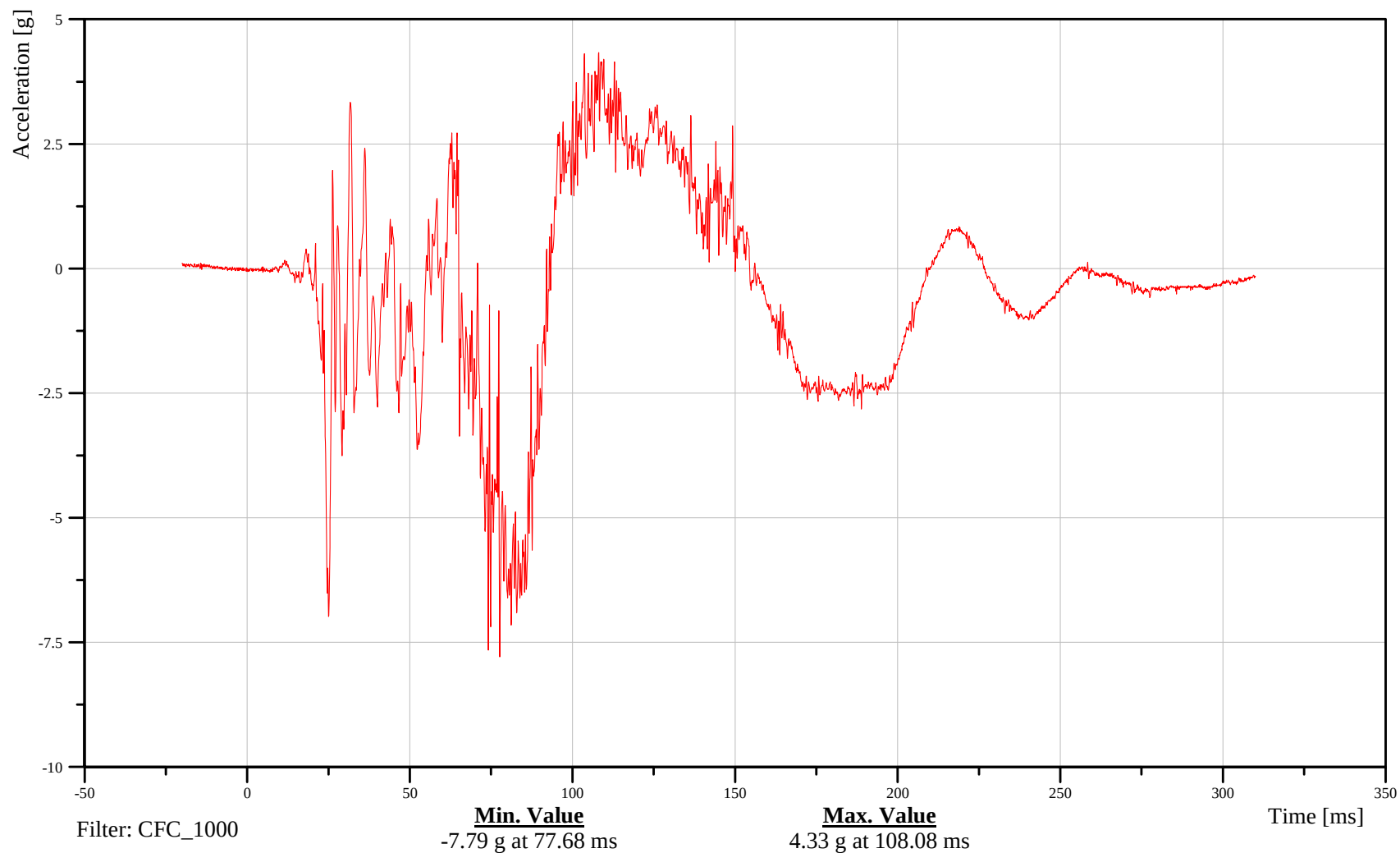
Time: 17:50

Customer: VRTC

11PELVCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Pelvis CG Z-Axis Acceleration

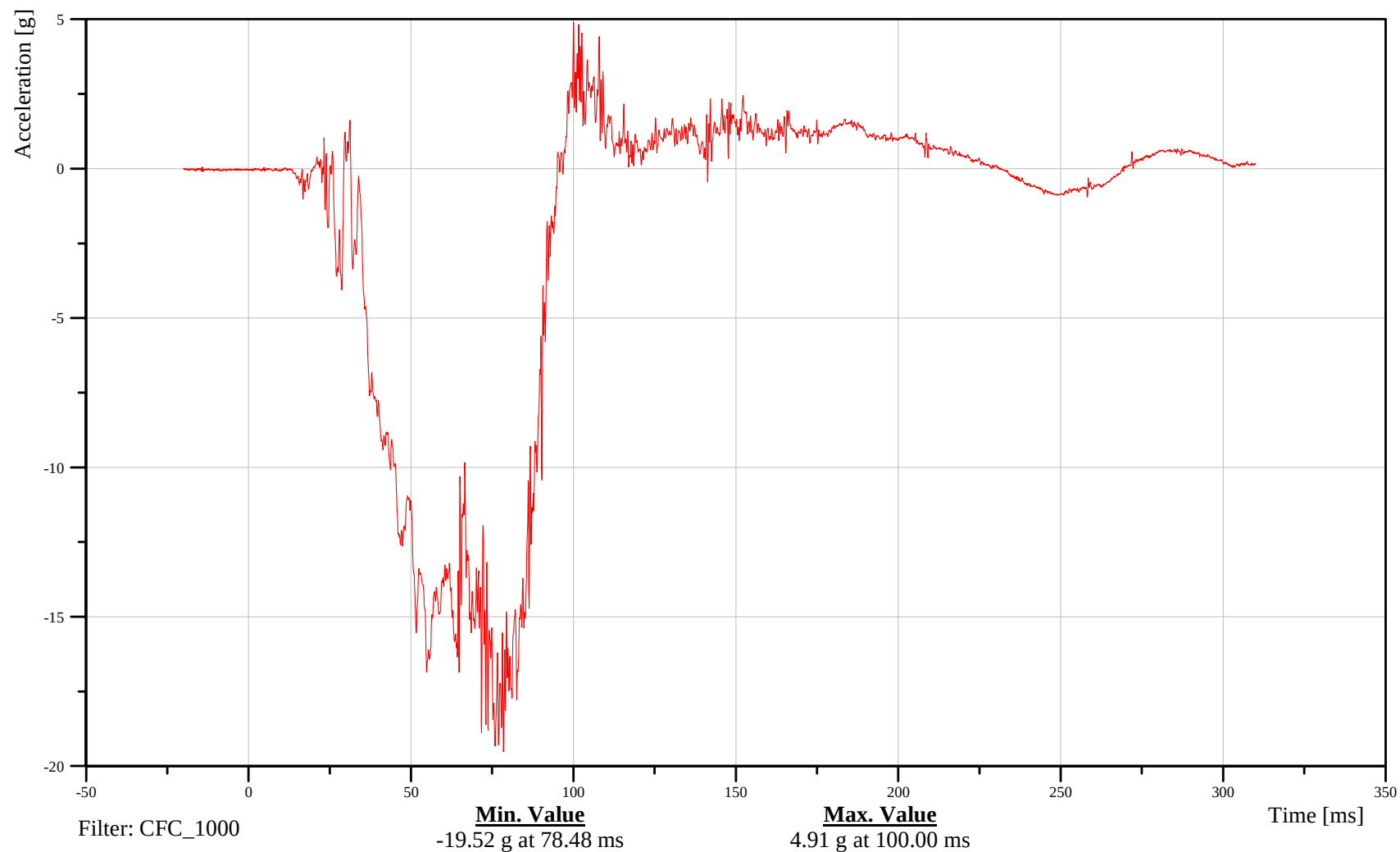
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11PELVCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Pelvis CG Resultant Acceleration

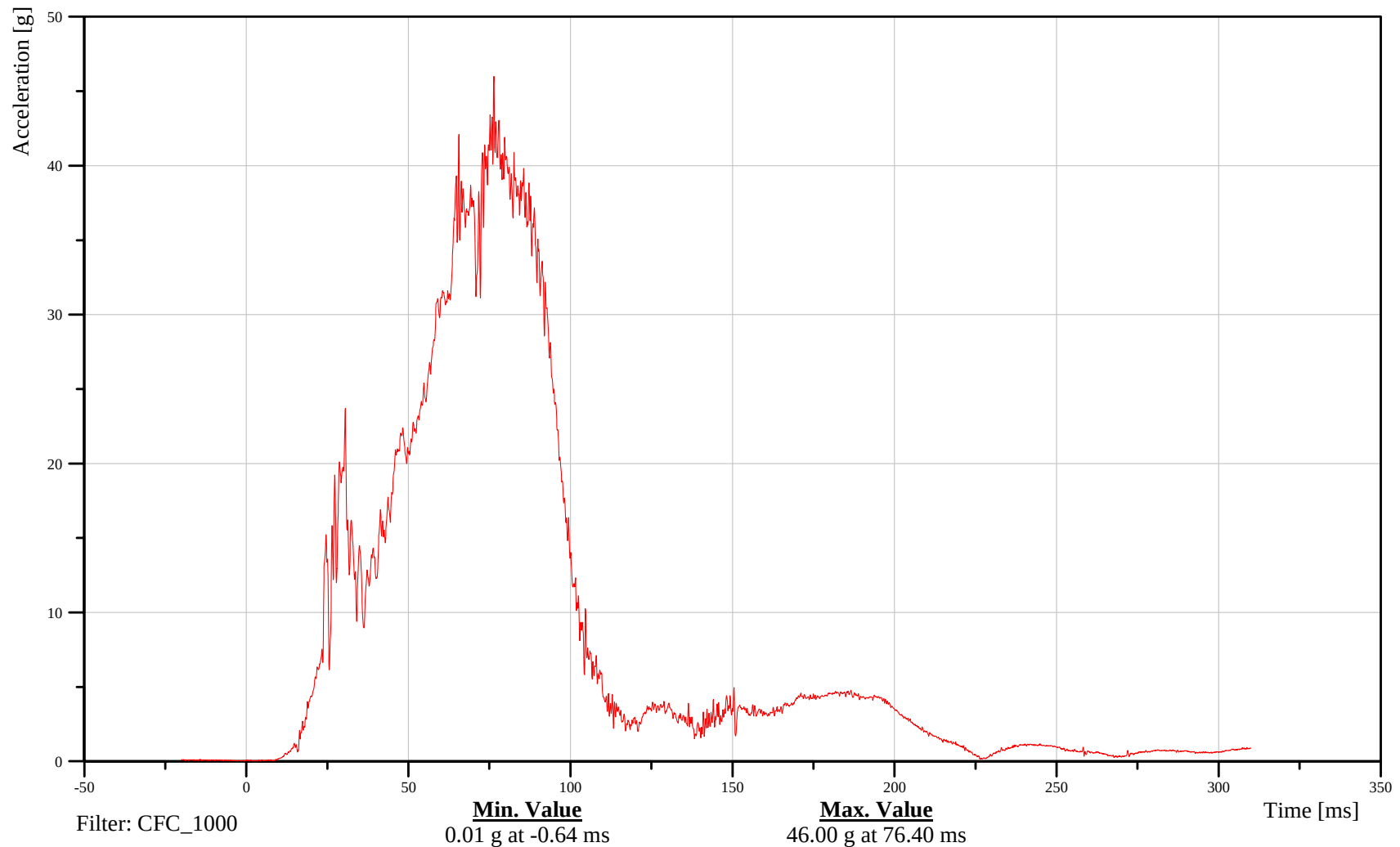
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11PELVCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Femur Z-Axis Force

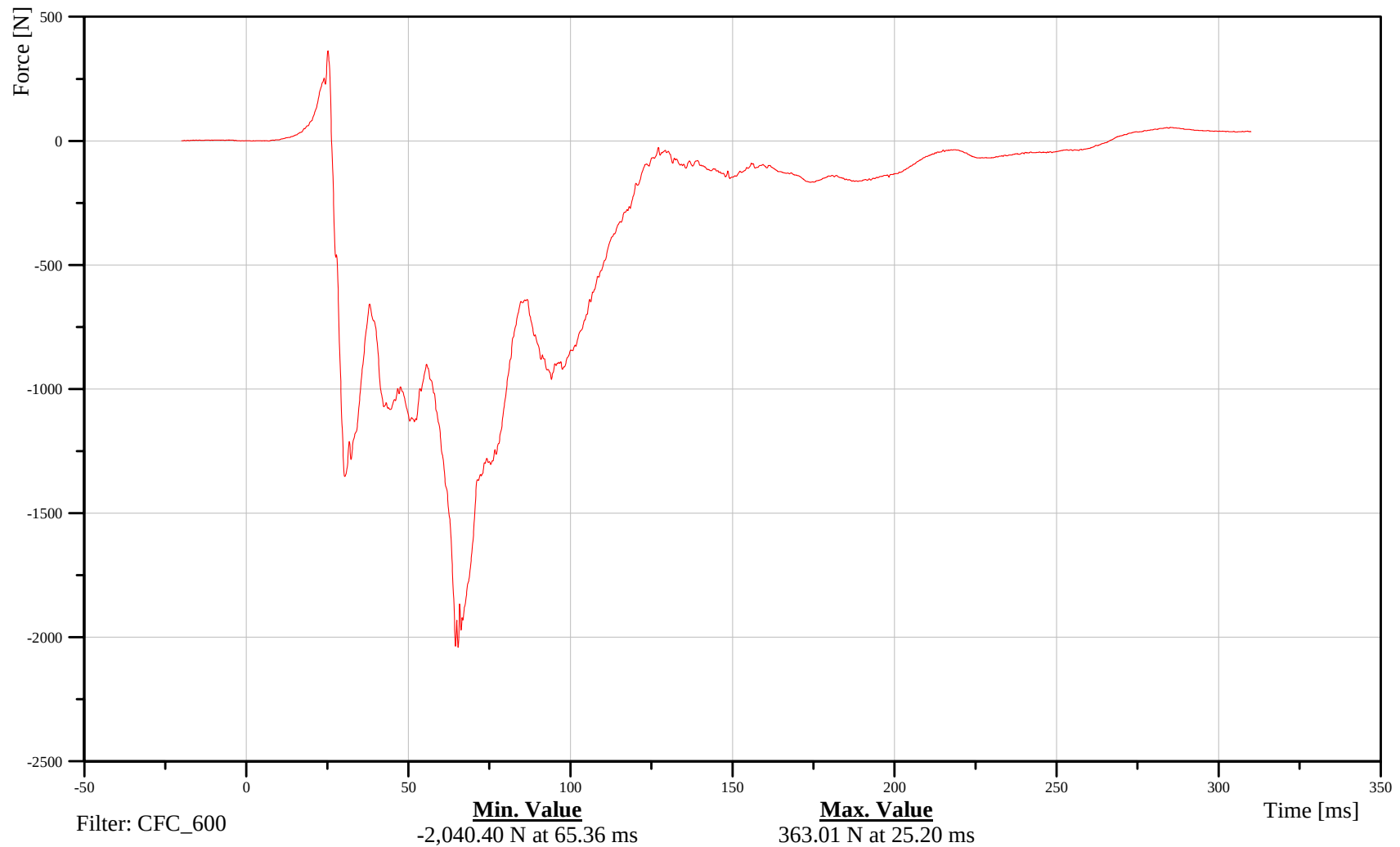
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Femur Z-Axis Force

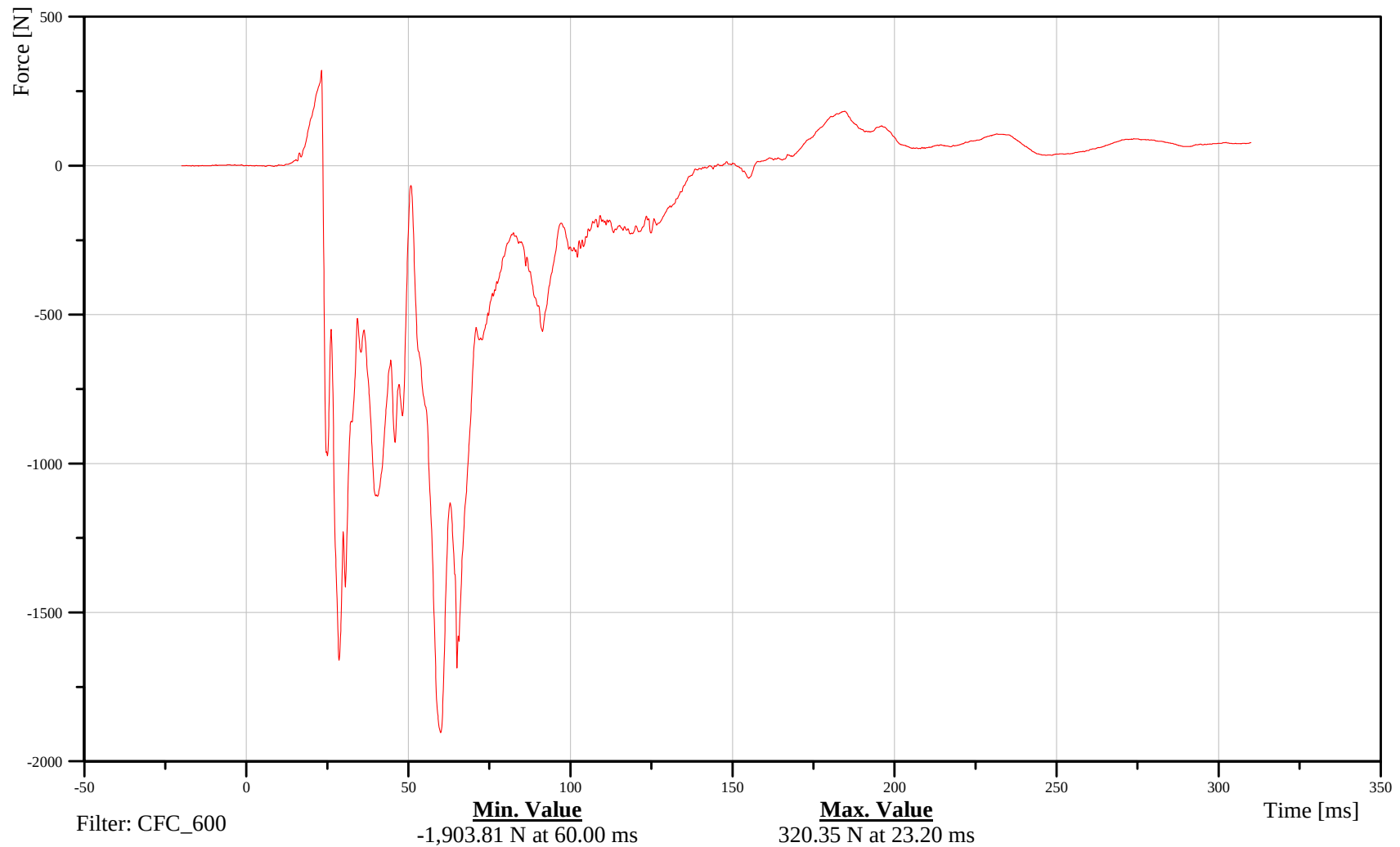
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Knee Displacement

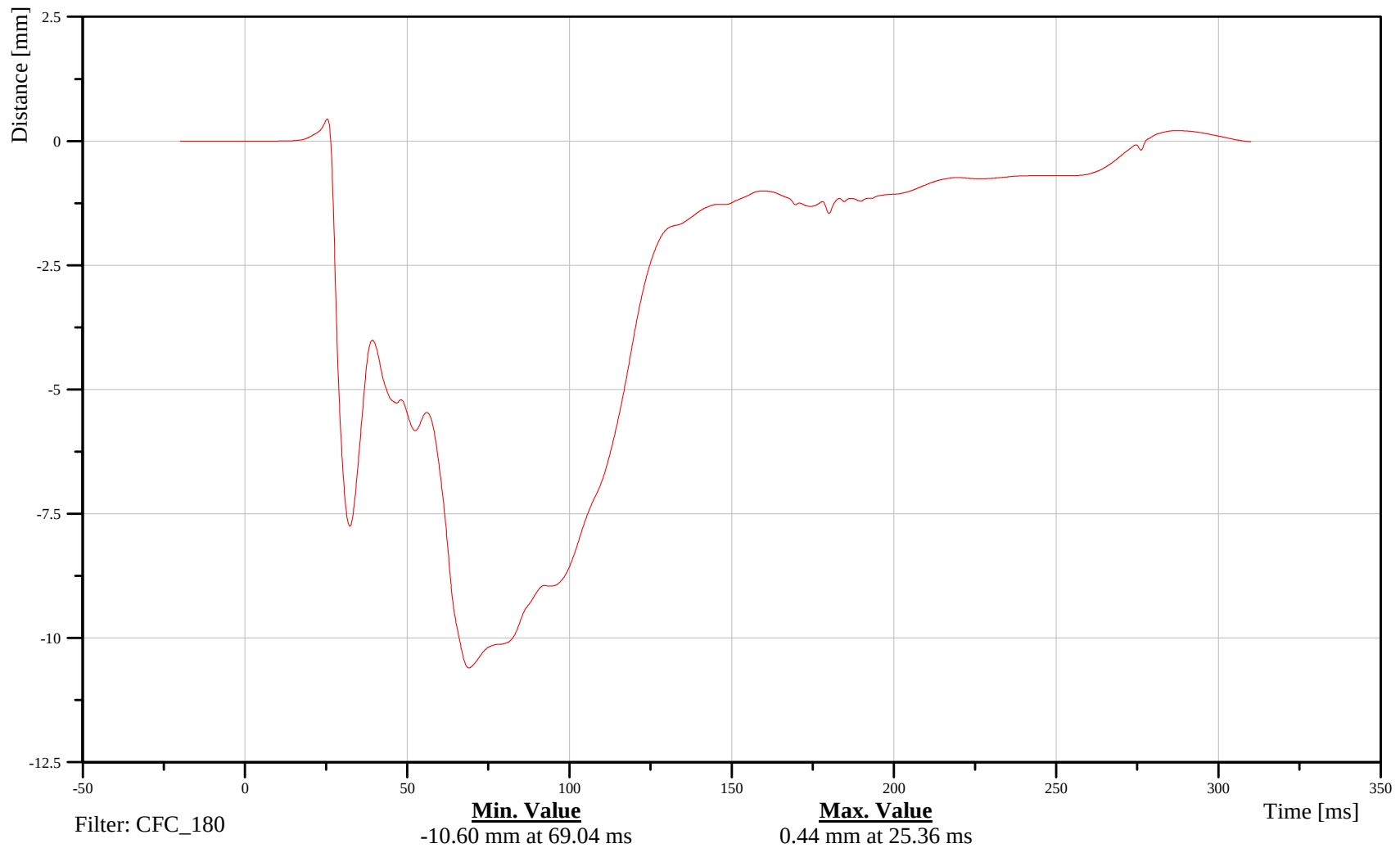
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11KNSLLE00H3DSXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Upper Tibia Z-Axis Force

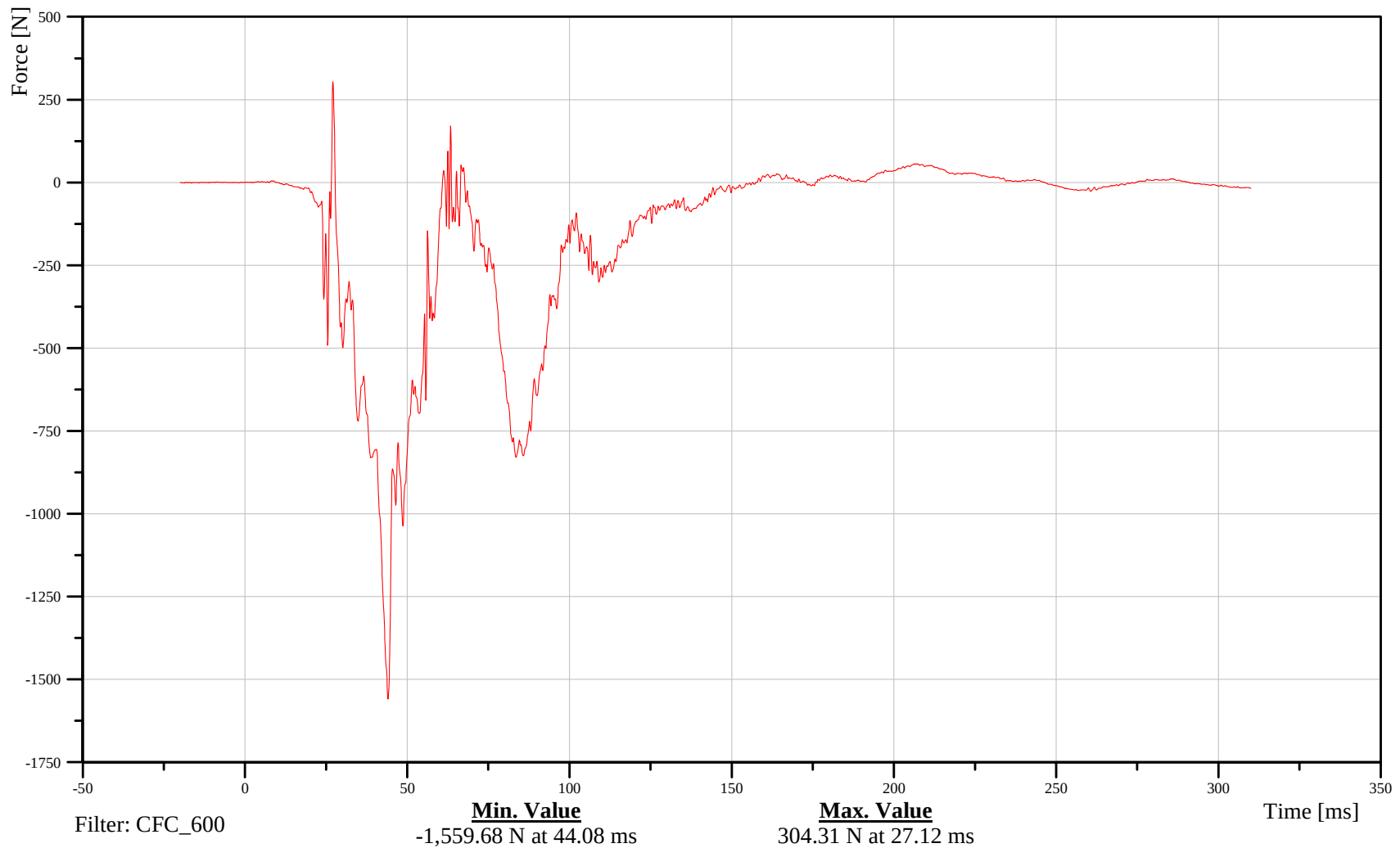
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBILULXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Upper Tibia Moment About X Axis

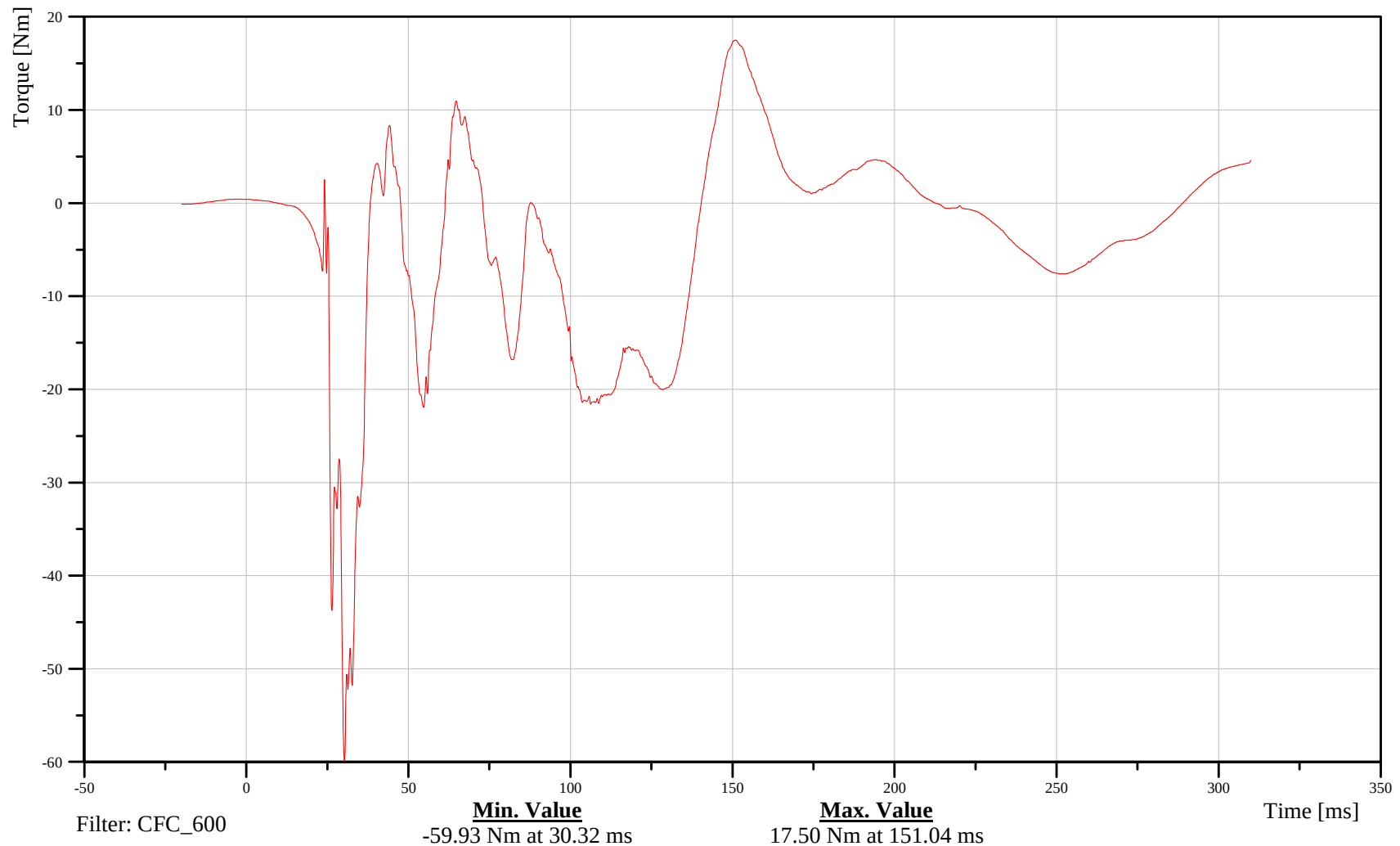
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBILULXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Upper Tibia Moment About Y Axis

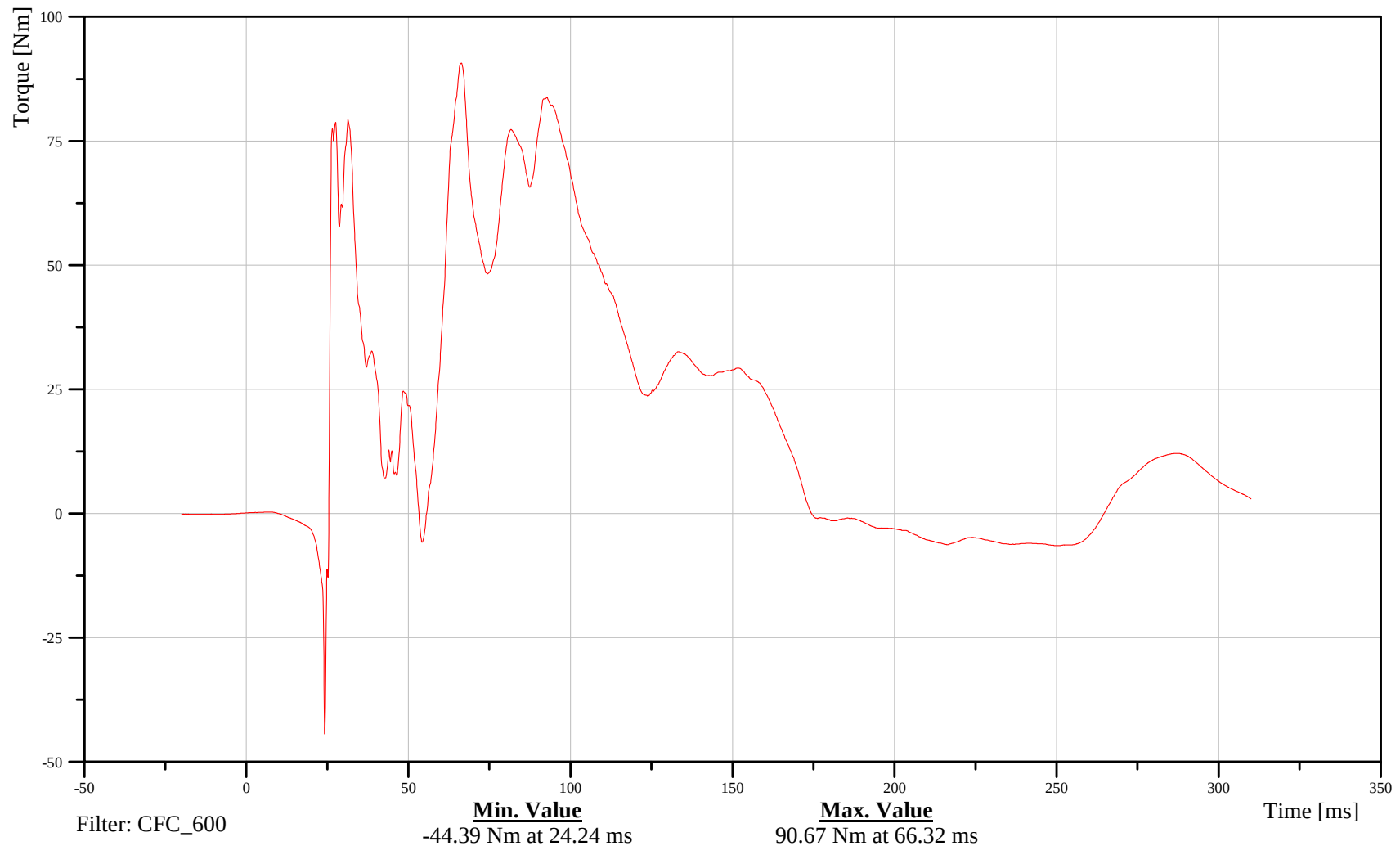
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBILULXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Lower Tibia Z-Axis Force

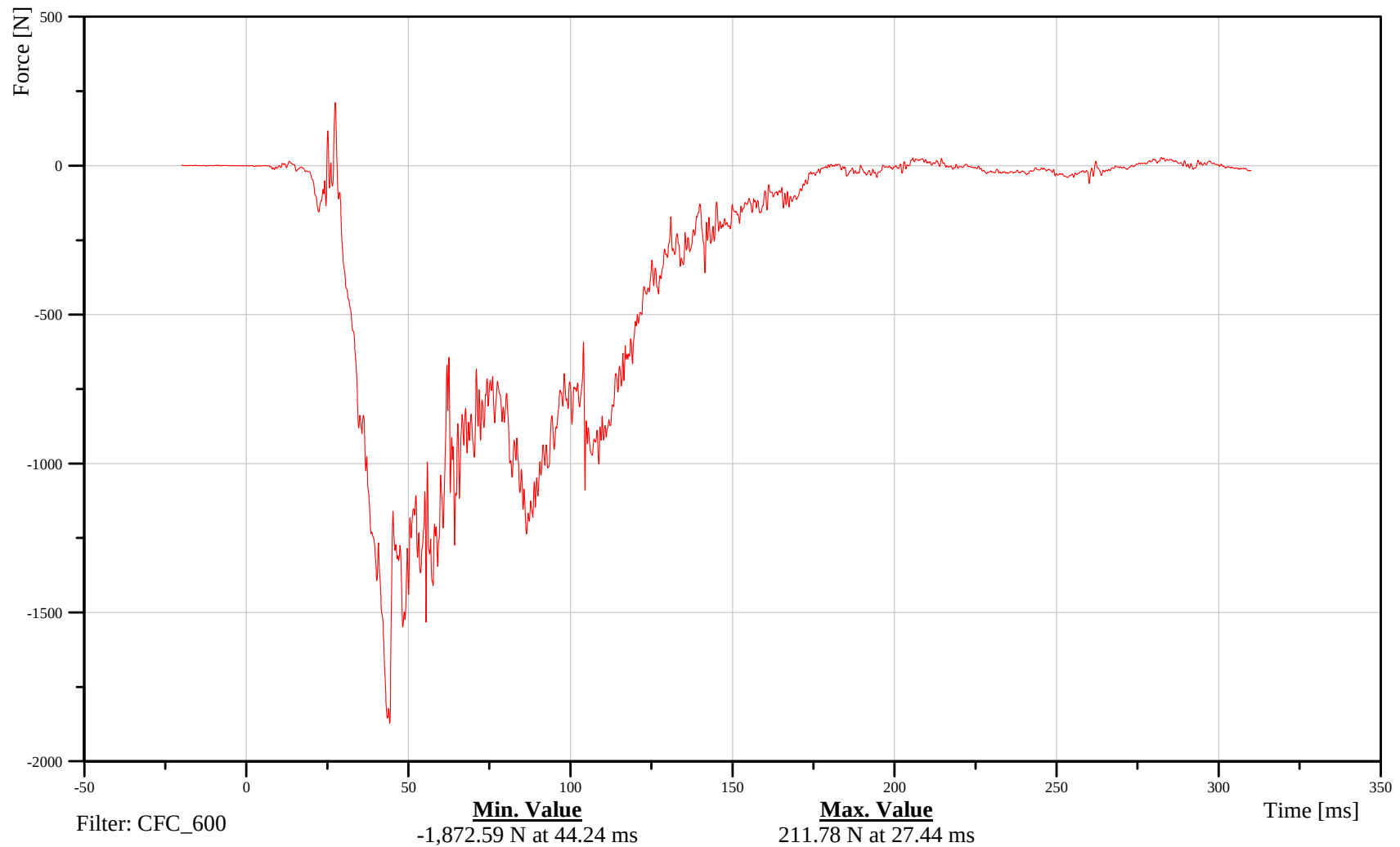
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBILLXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Lower Tibia Moment About X Axis

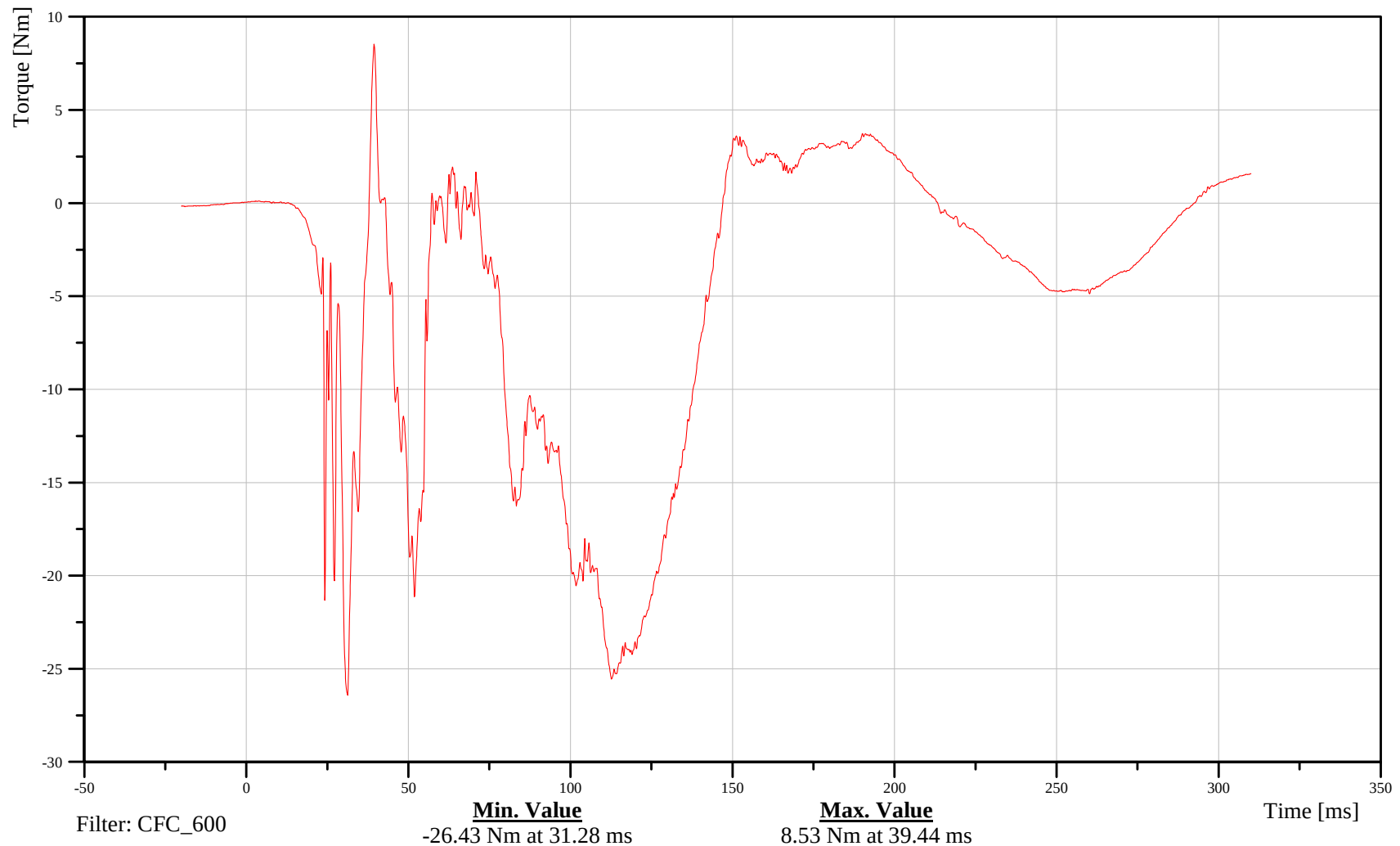
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBILLXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Lower Tibia Moment About Y Axis

Date: 05/19/2006

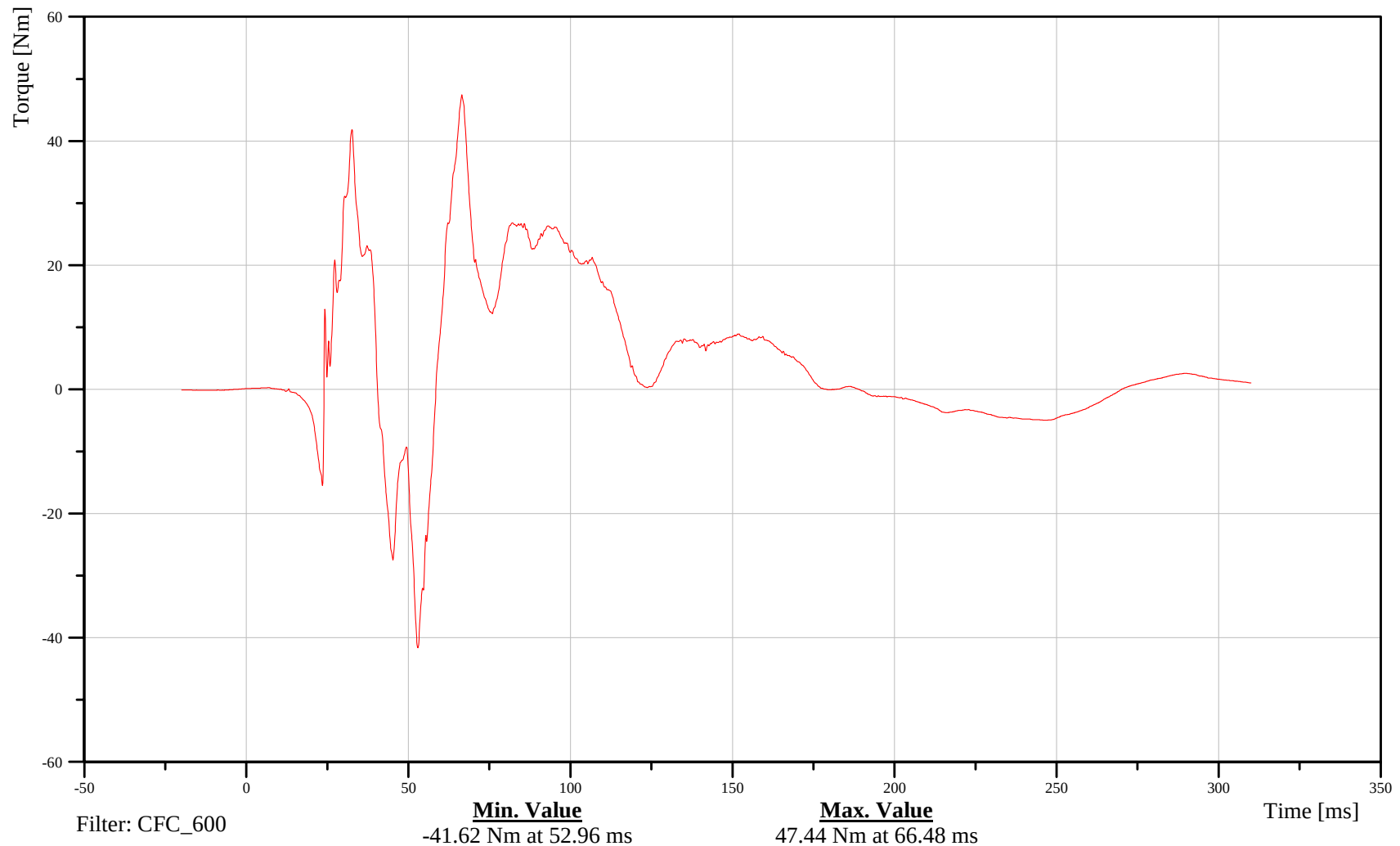
Time: 17:50

Customer: VRTC

11TIBILLXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Foot X-Axis Rotation

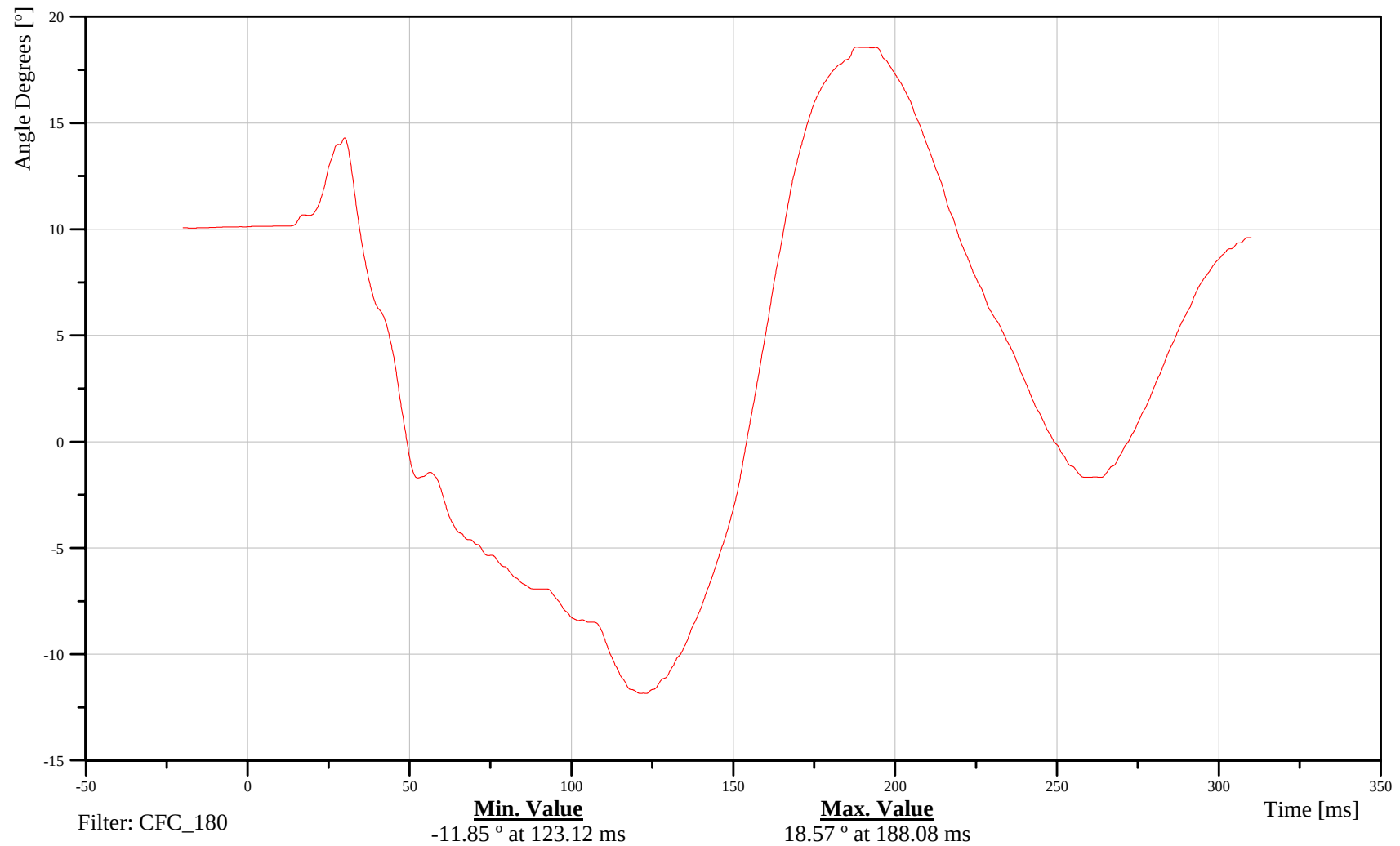
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FOOTLELXH3ANXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Foot Y-Axis Rotation

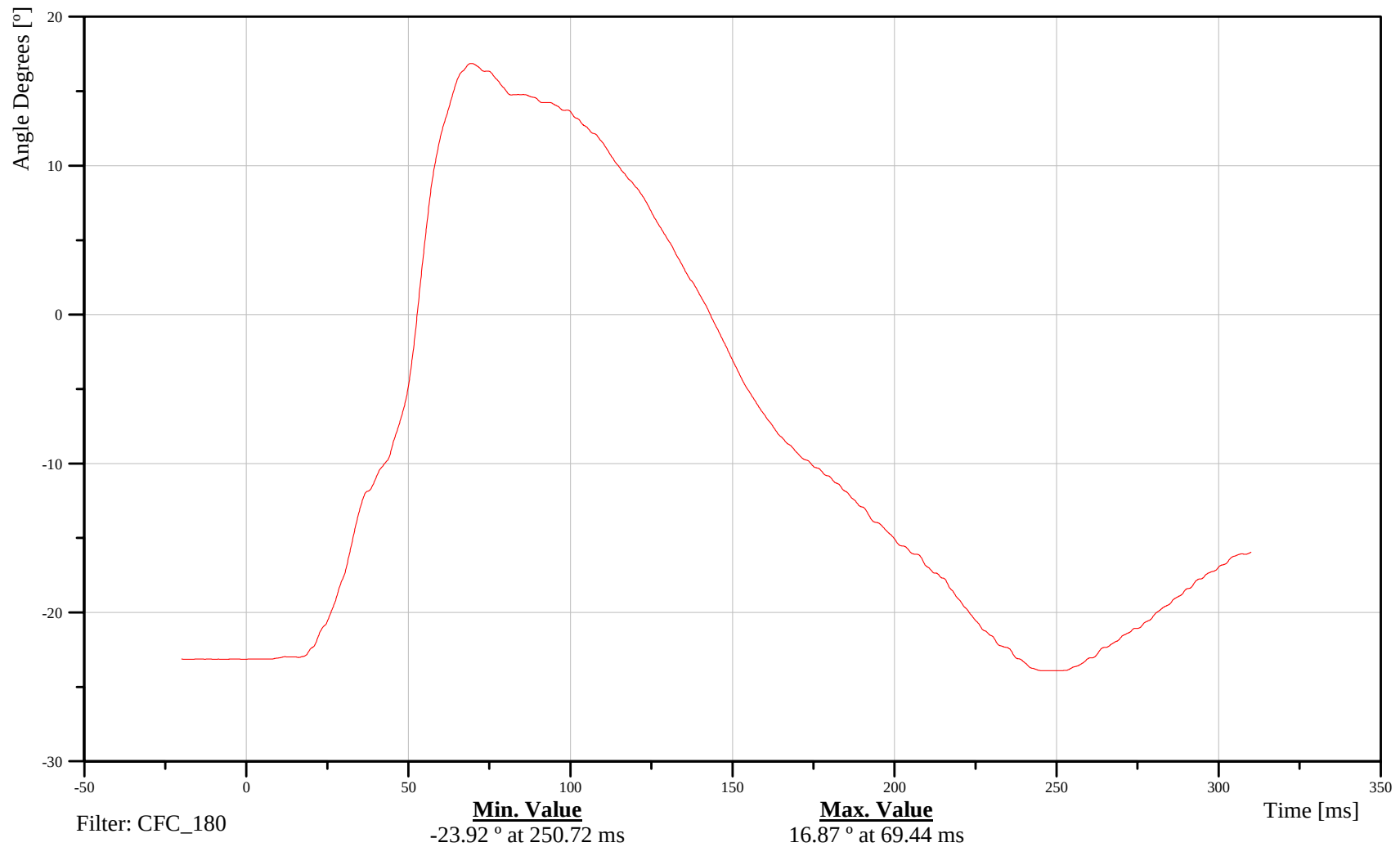
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FOOTLELXH3ANYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Left Foot Z-Axis Rotation

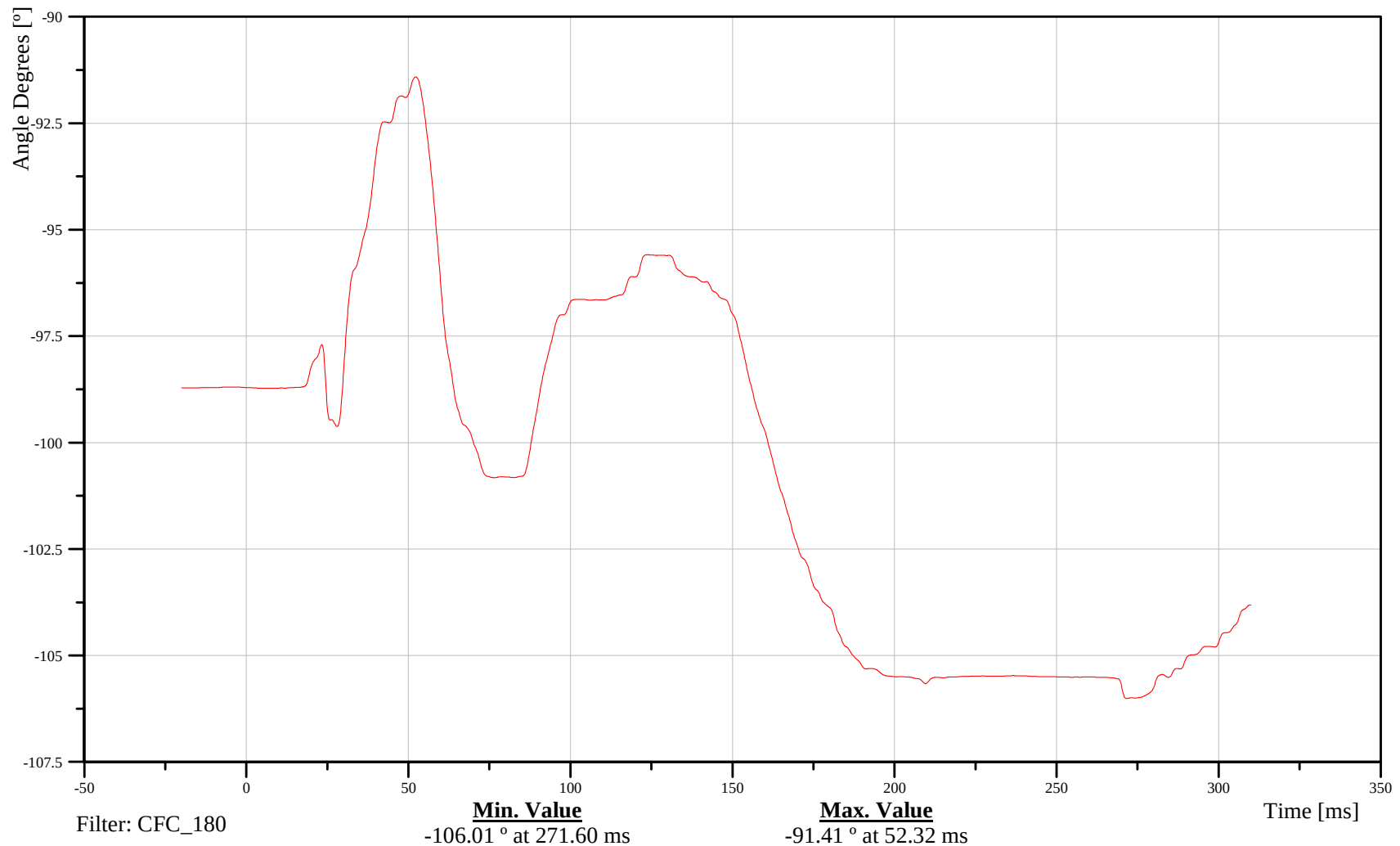
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FOOTLELXH3ANZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Knee Displacement

Date: 05/19/2006

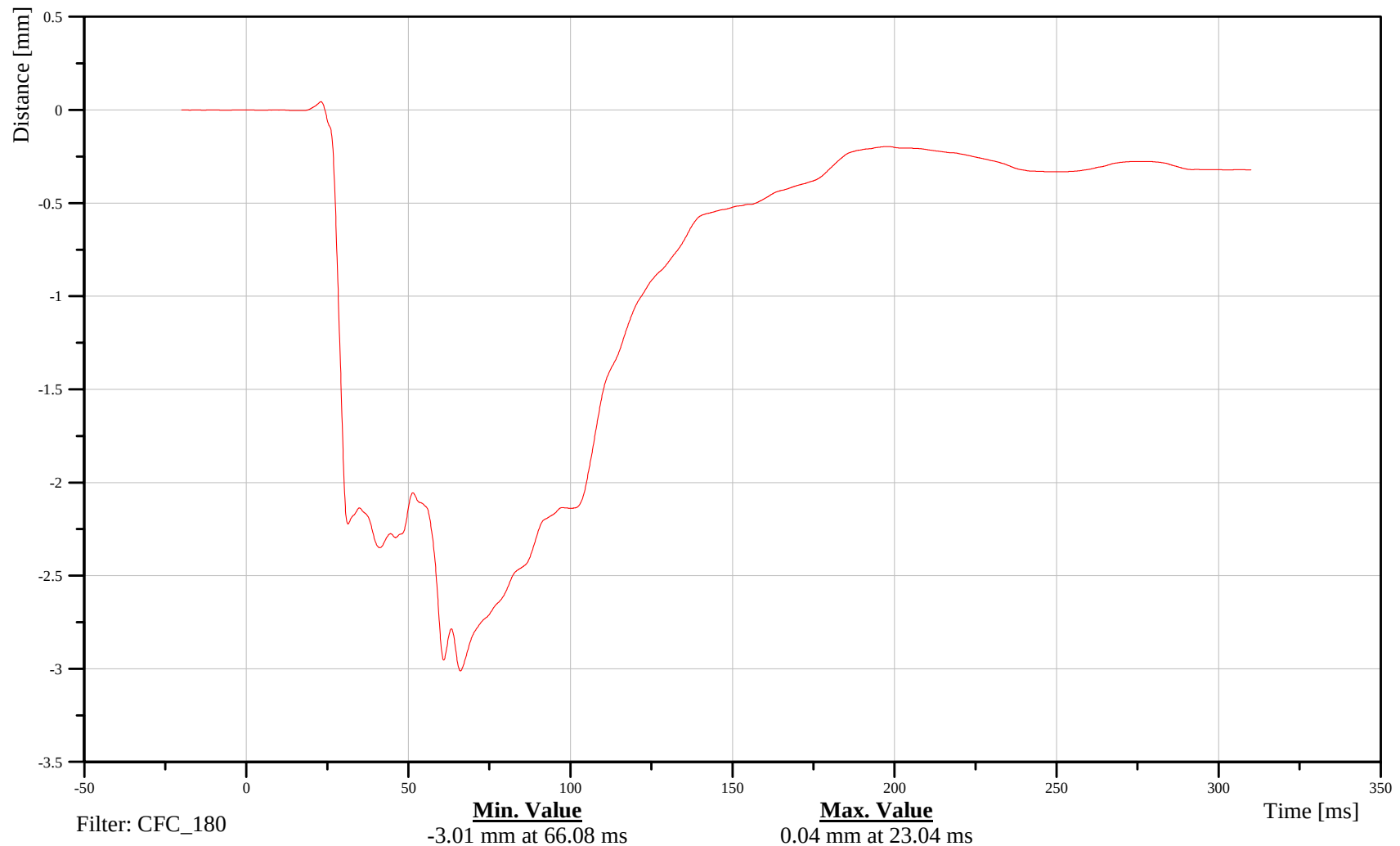
Time: 17:50

Customer: VRTC

11KNSLRI00H3DSXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Upper Tibia Z-Axis Force

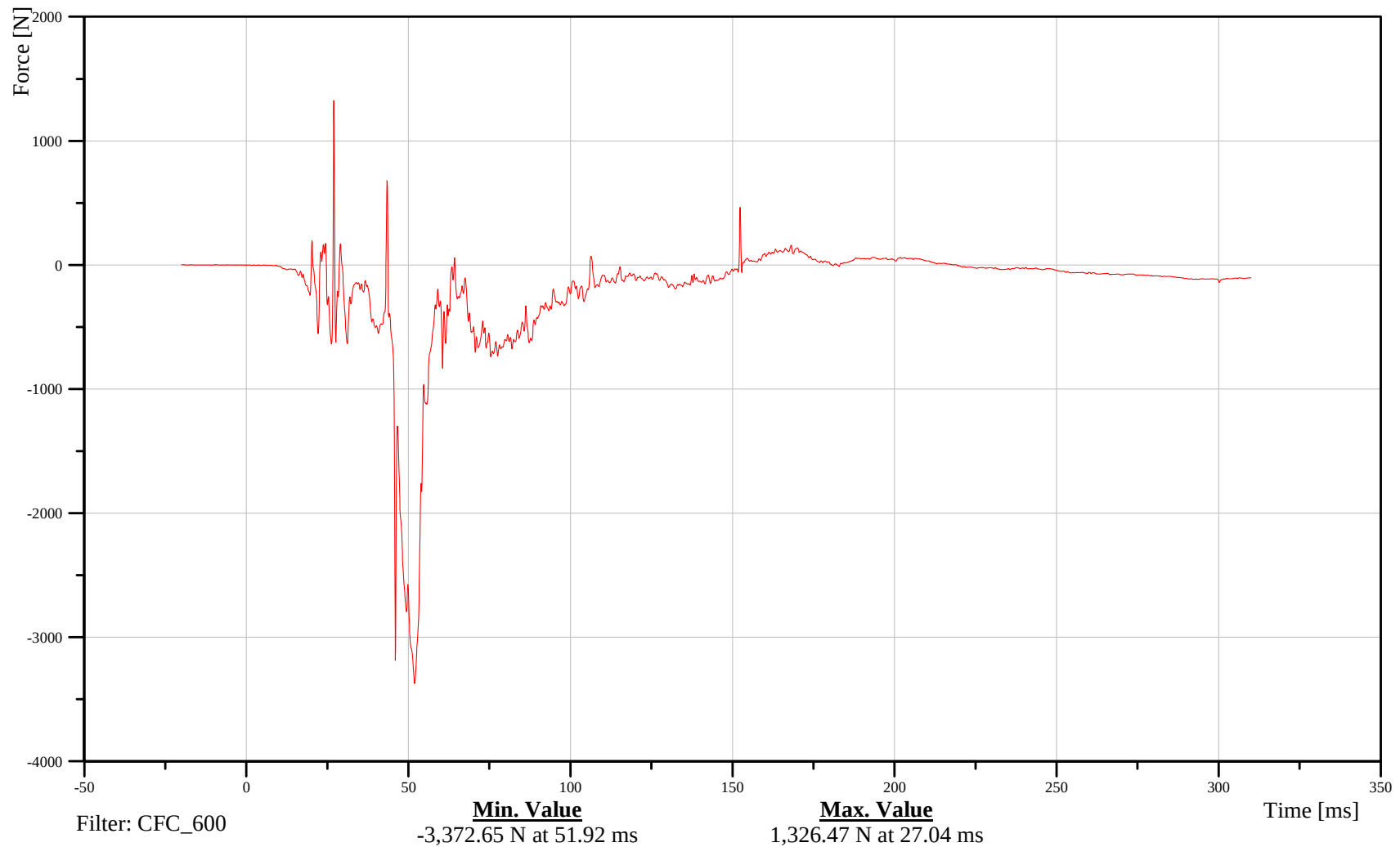
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBIRULXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Upper Tibia Moment About X Axis

Date: 05/19/2006

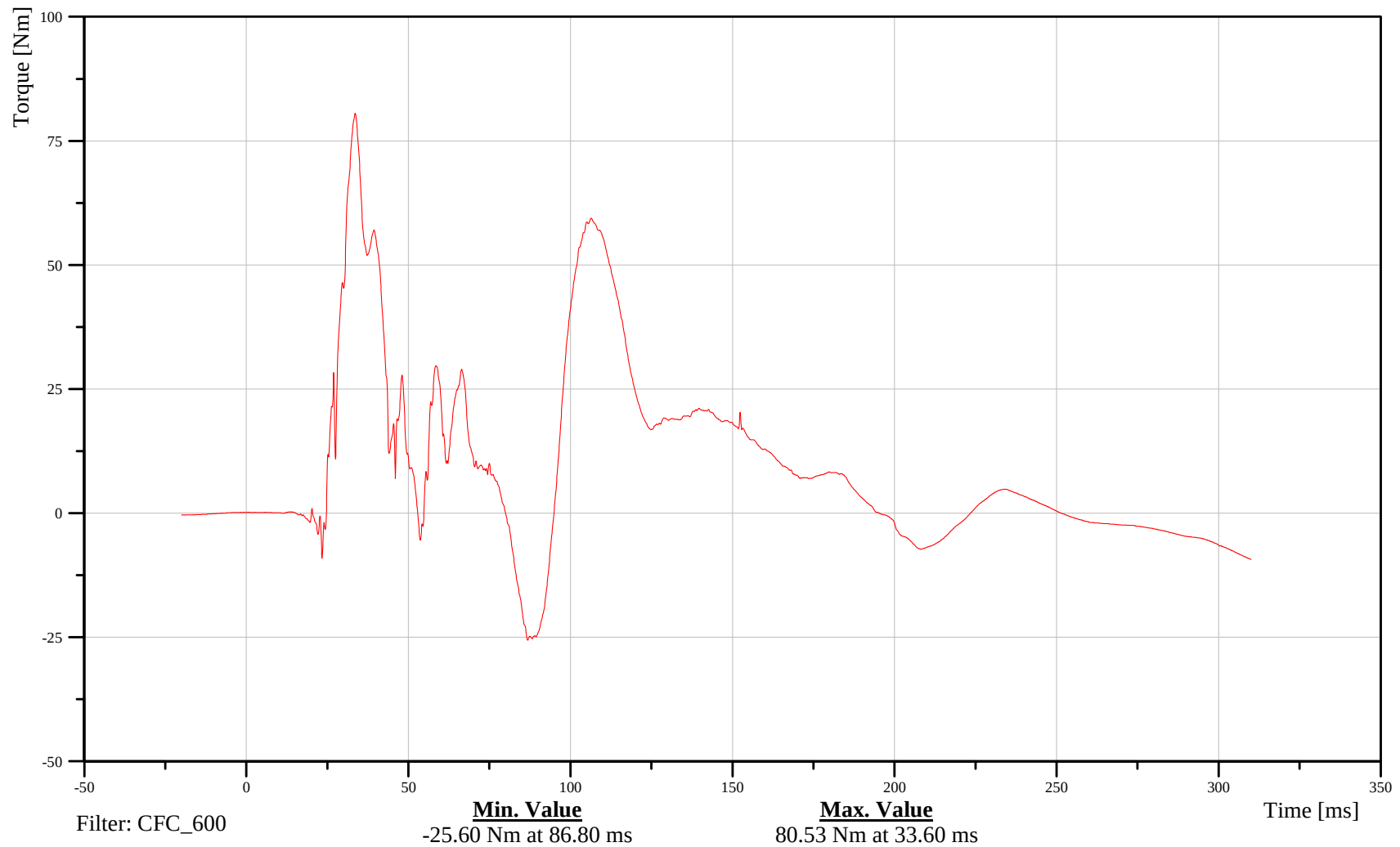
Time: 17:50

Customer: VRTC

11TIBIRULXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

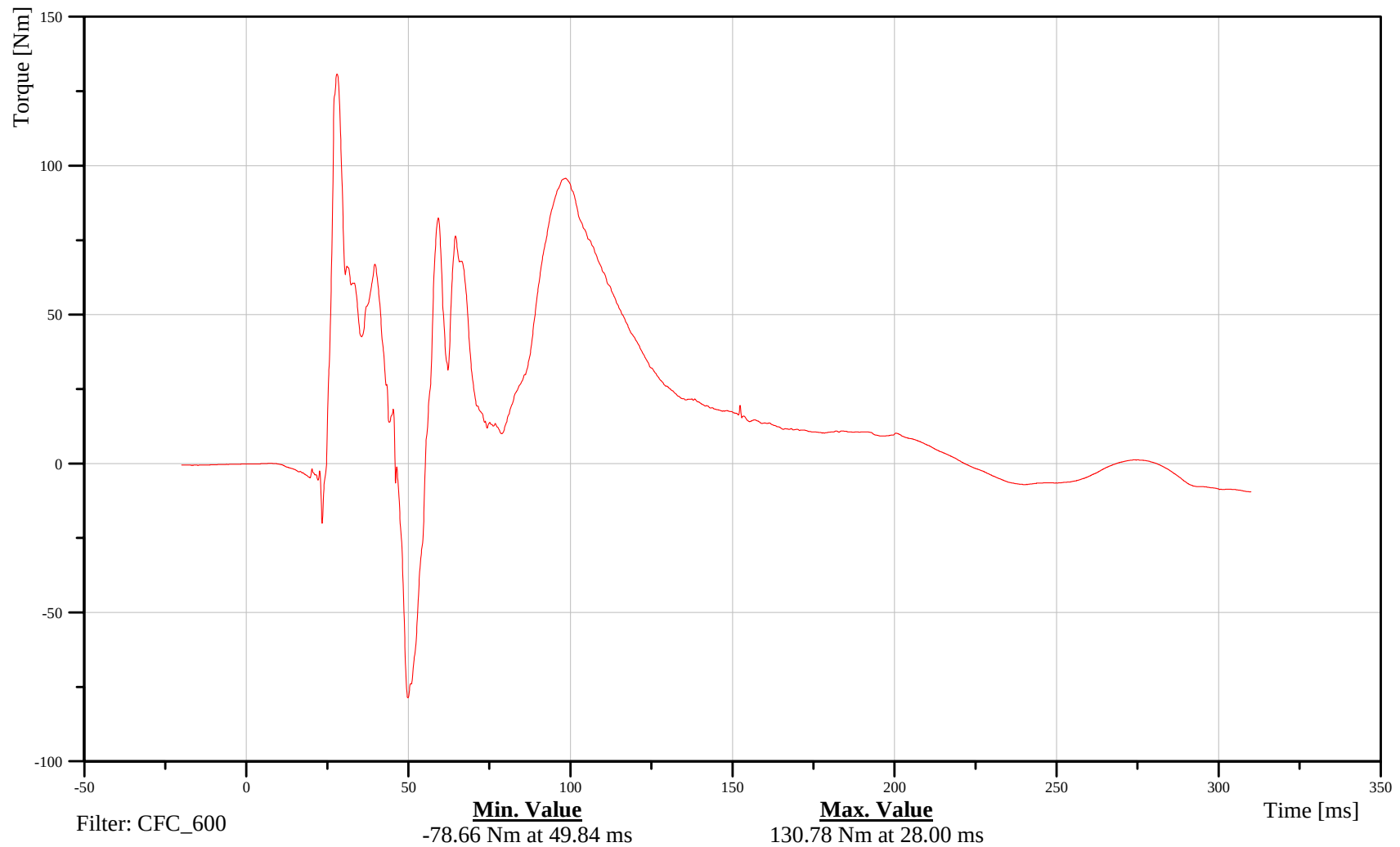
Driver Right Upper Tibia Moment About Y Axis

Customer: VRTC

11TIBIRULXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Lower Tibia Z-Axis Force

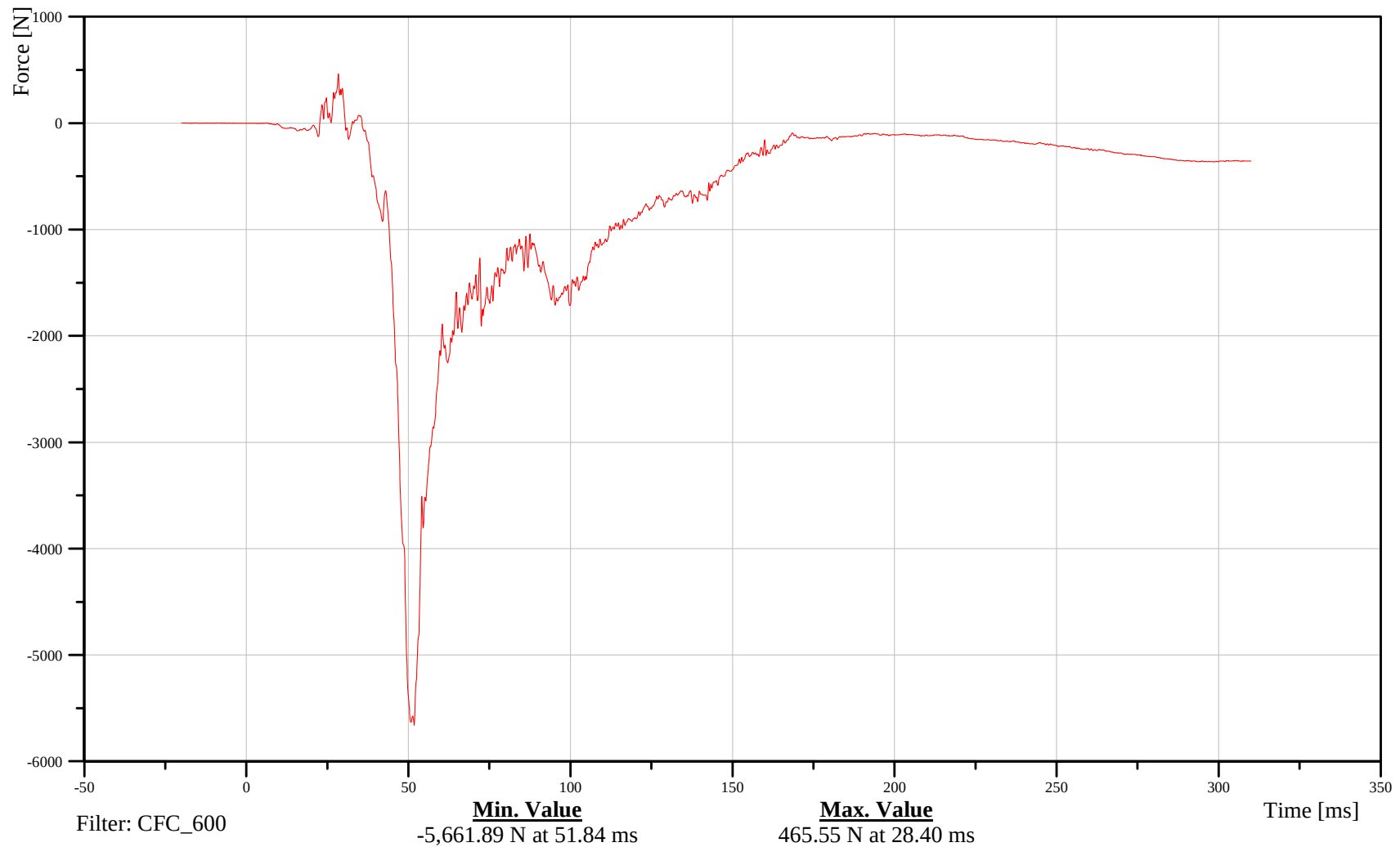
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBIRLLXH3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Lower Tibia Moment About X Axis

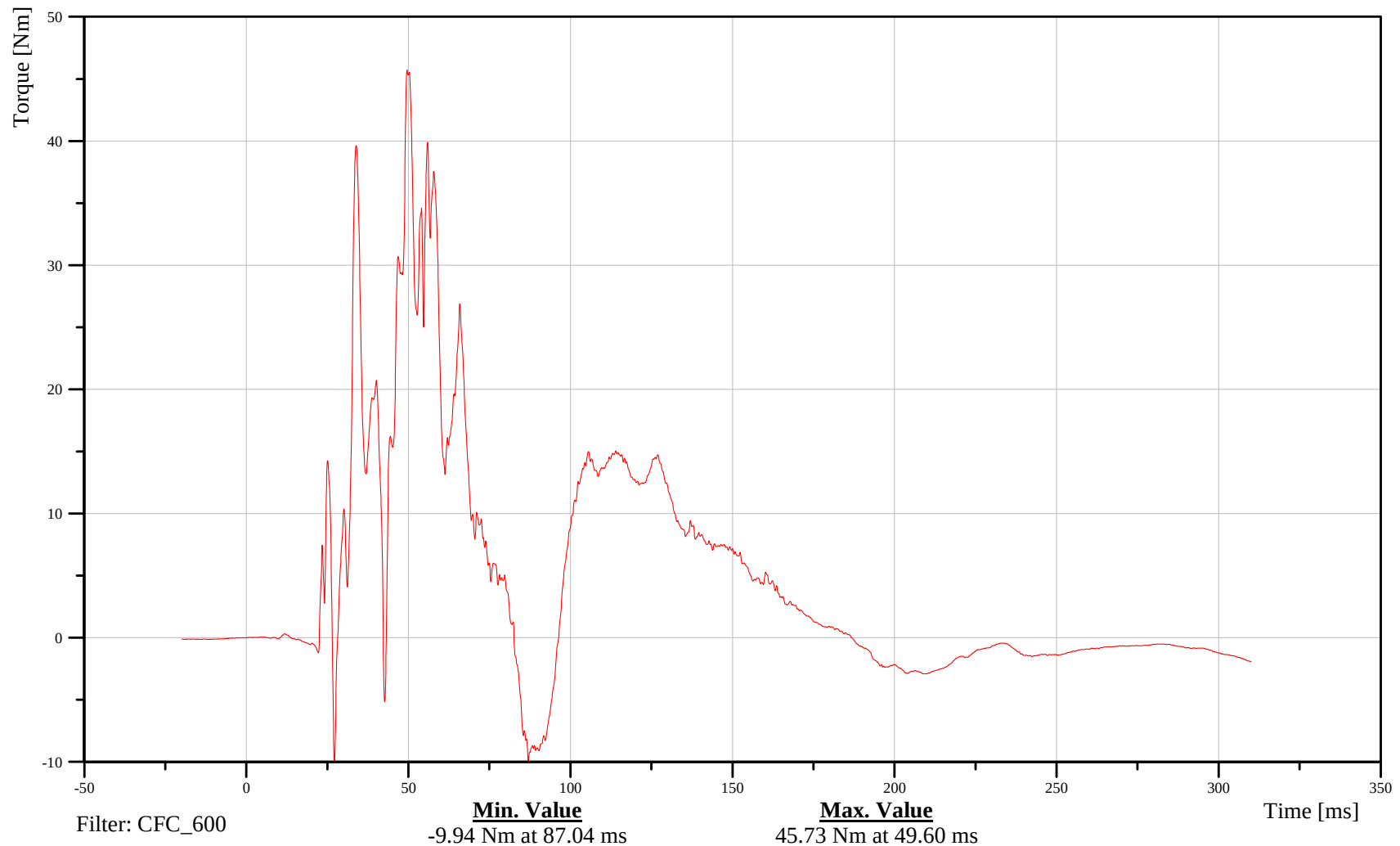
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBIRLLXH3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Lower Tibia Moment About Y Axis

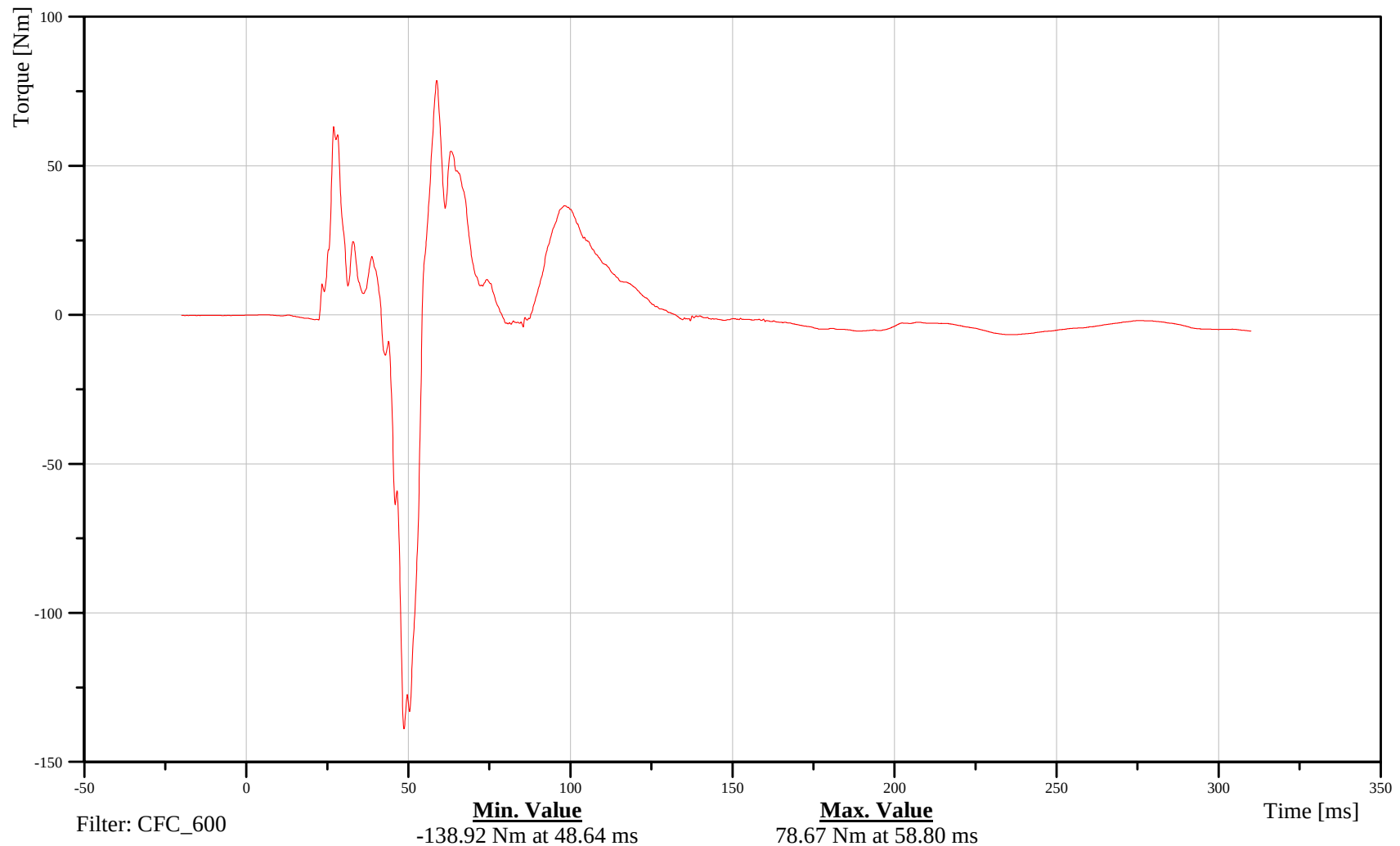
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11TIBIRLLXH3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Foot X-Axis Rotation

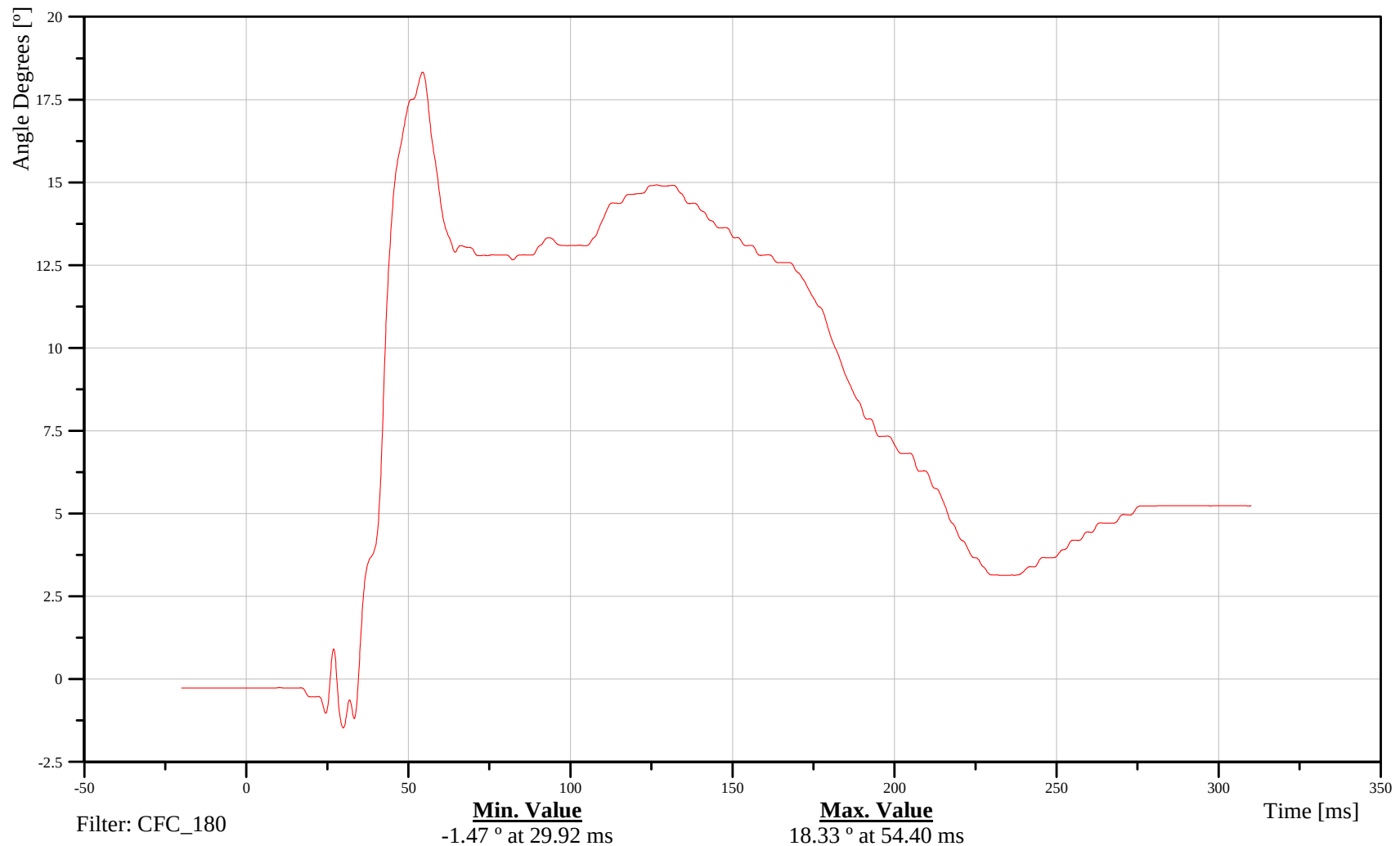
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FOOTRILXH3ANXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Foot Y-Axis Rotation

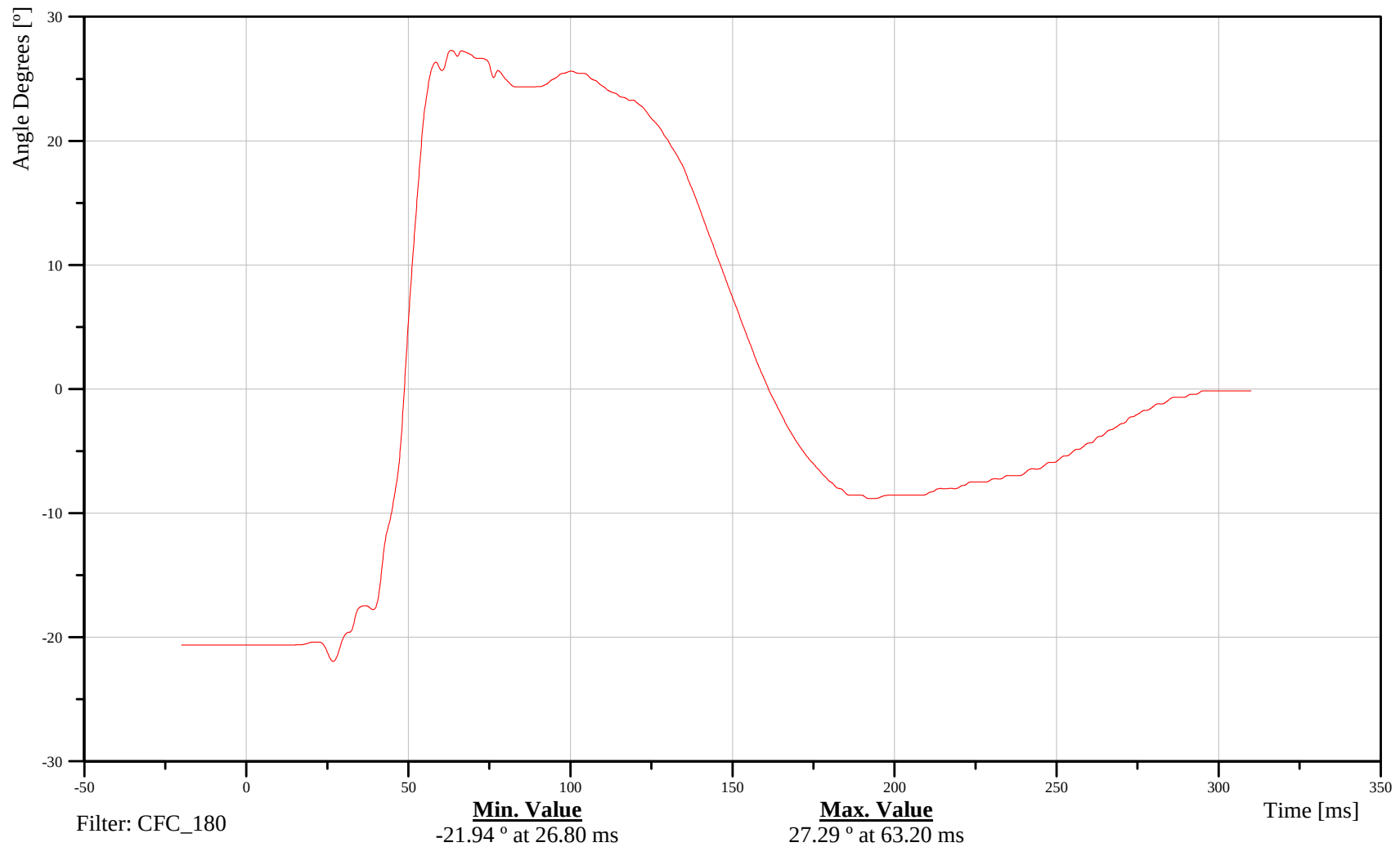
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FOOTRILXH3ANYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Right Foot Z-Axis Rotation

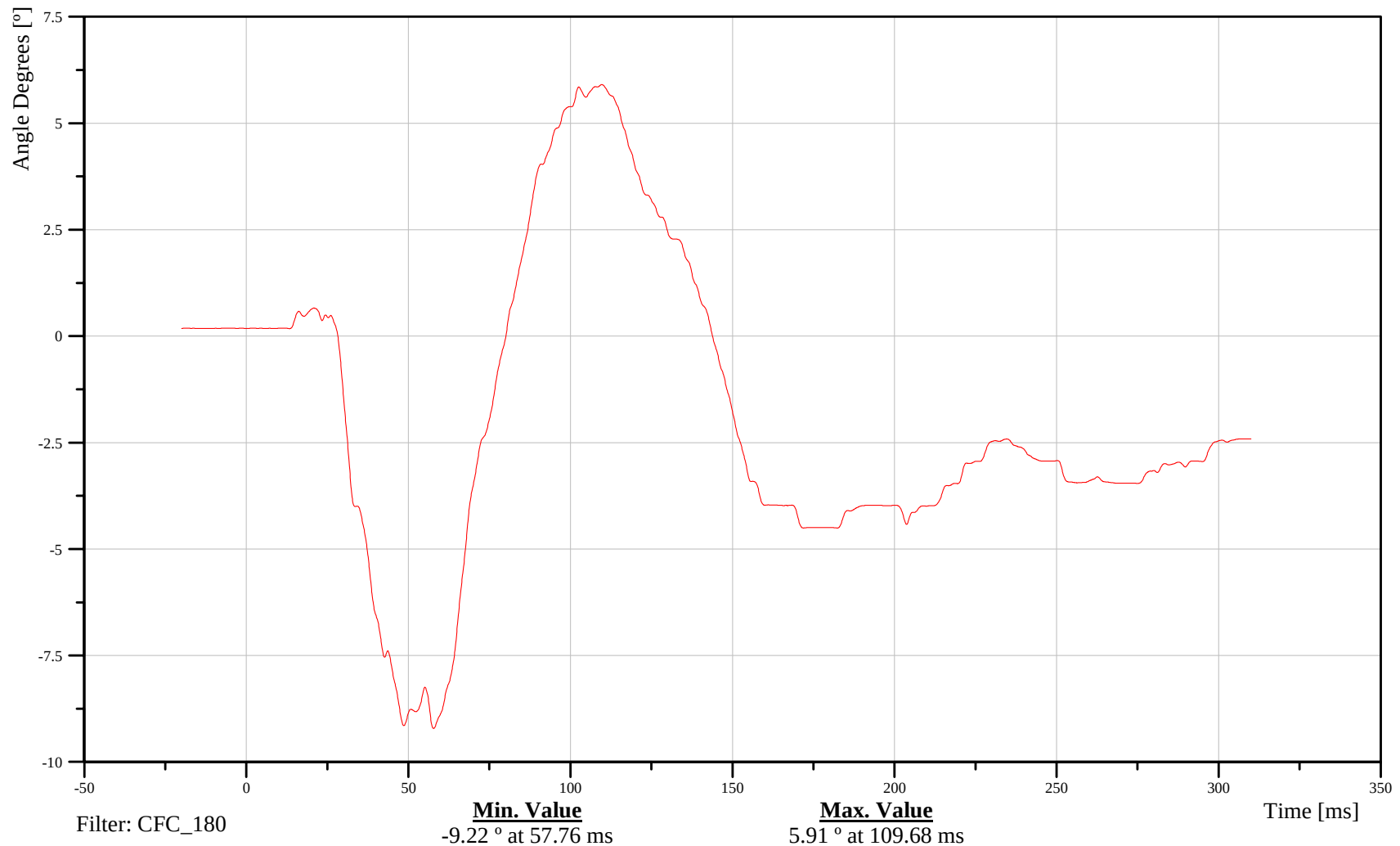
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11FOOTRILXH3ANZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

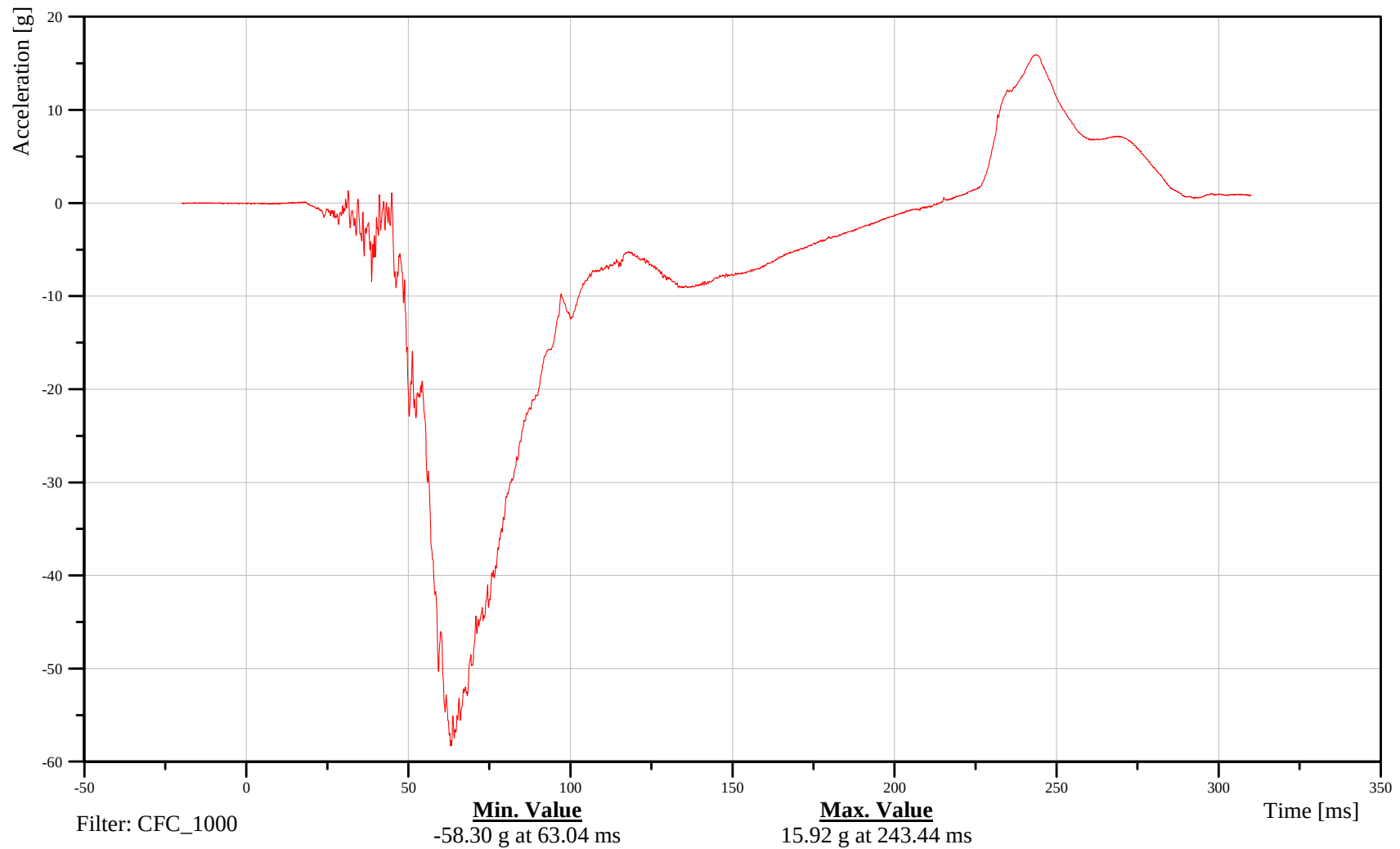
Right Front Passenger Head X-Axis Acceleration

Customer: VRTC

13HEADCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

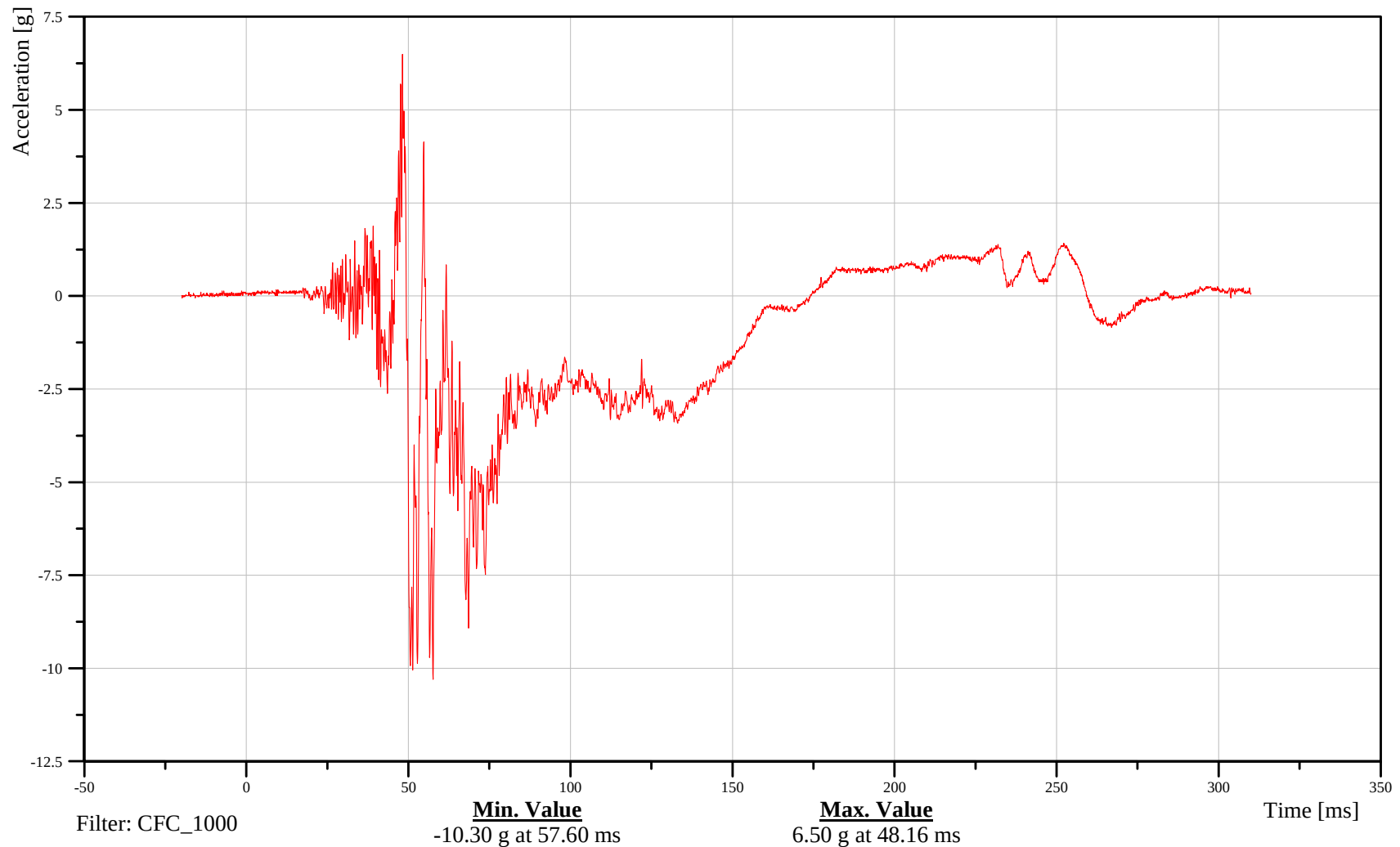
Right Front Passenger Head Y-Axis Acceleration

Customer: VRTC

13HEADCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

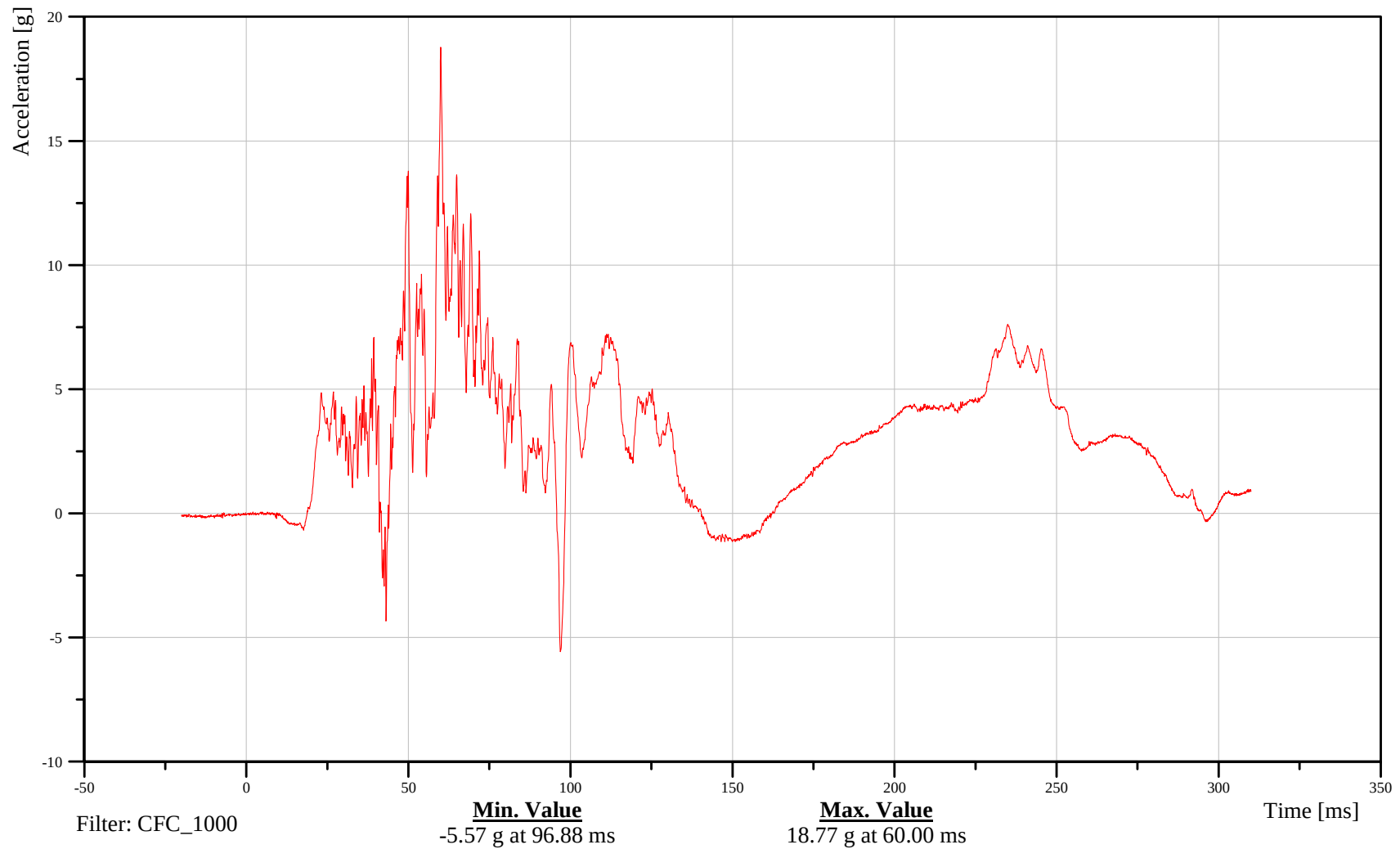
Right Front Passenger Head Z-Axis Acceleration

Customer: VRTC

13HEADCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

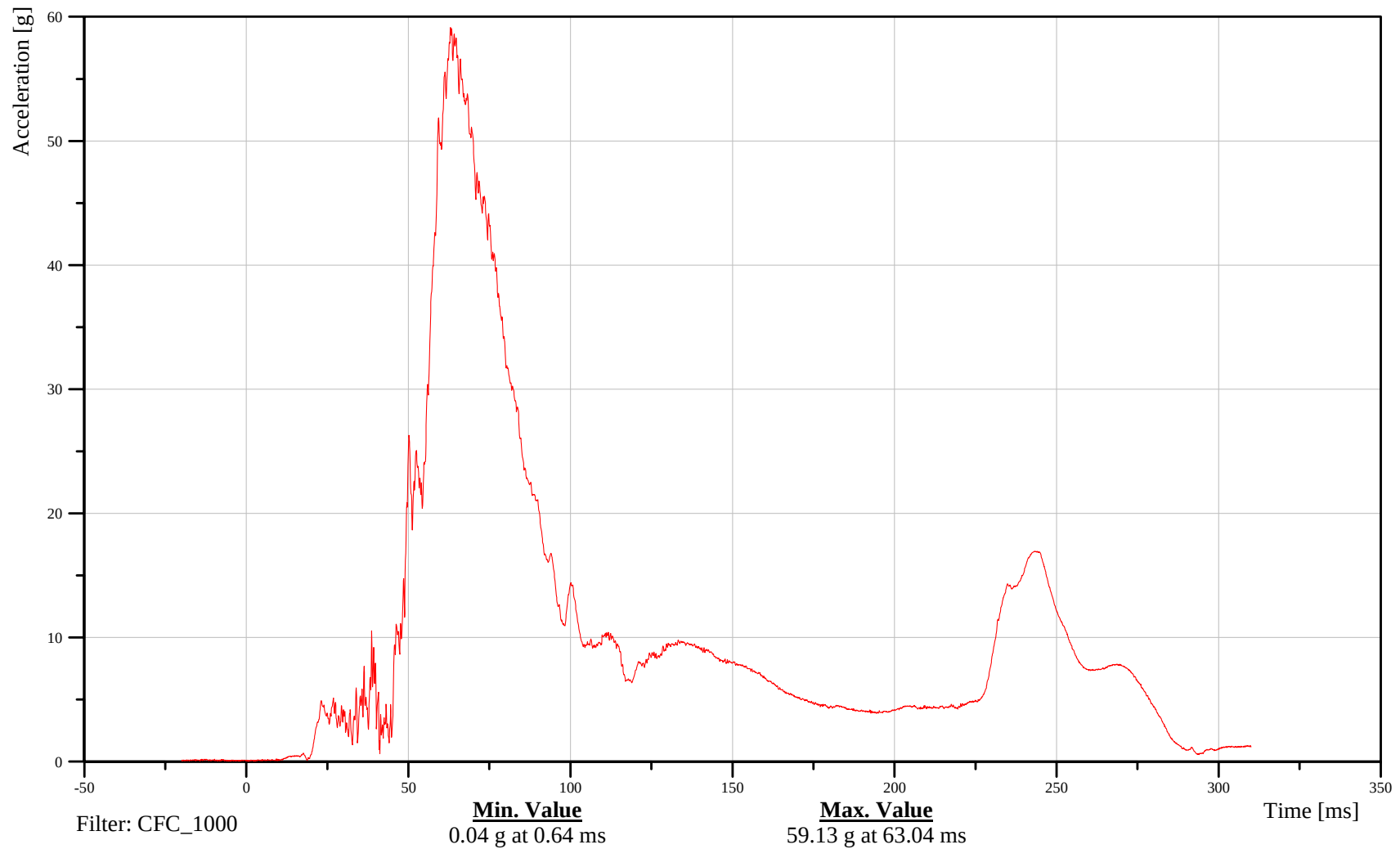
Right Front Passenger Head Resultant Acceleration

Customer: VRTC

13HEADCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Head X-Axis Redundant Acceleration

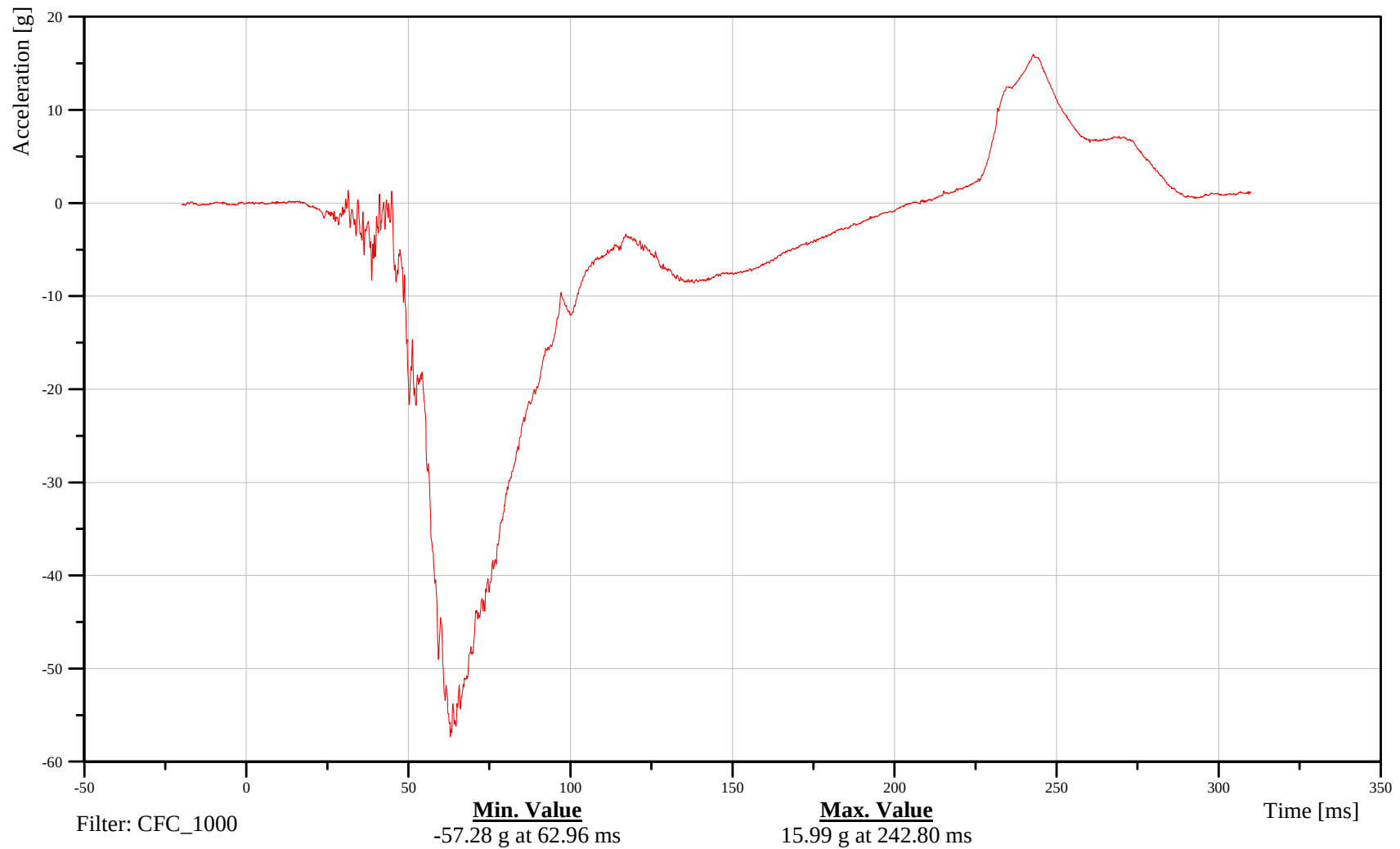
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13HEADCGRDHFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Head Y-Axis Redundant Acceleration

Date: 05/19/2006

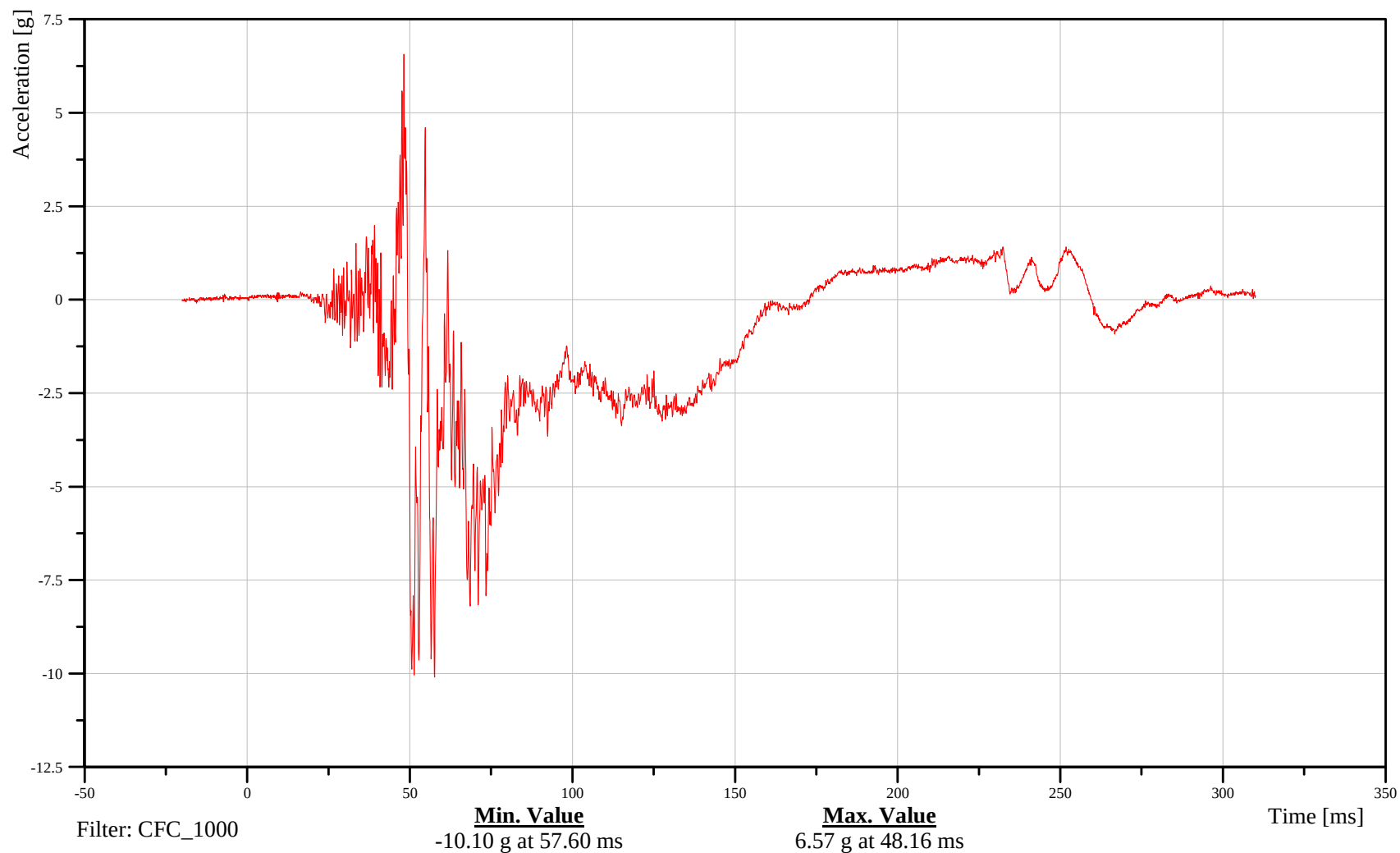
Time: 17:50

Customer: VRTC

13HEADCGRDHFACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Head Z-Axis Redundant Acceleration

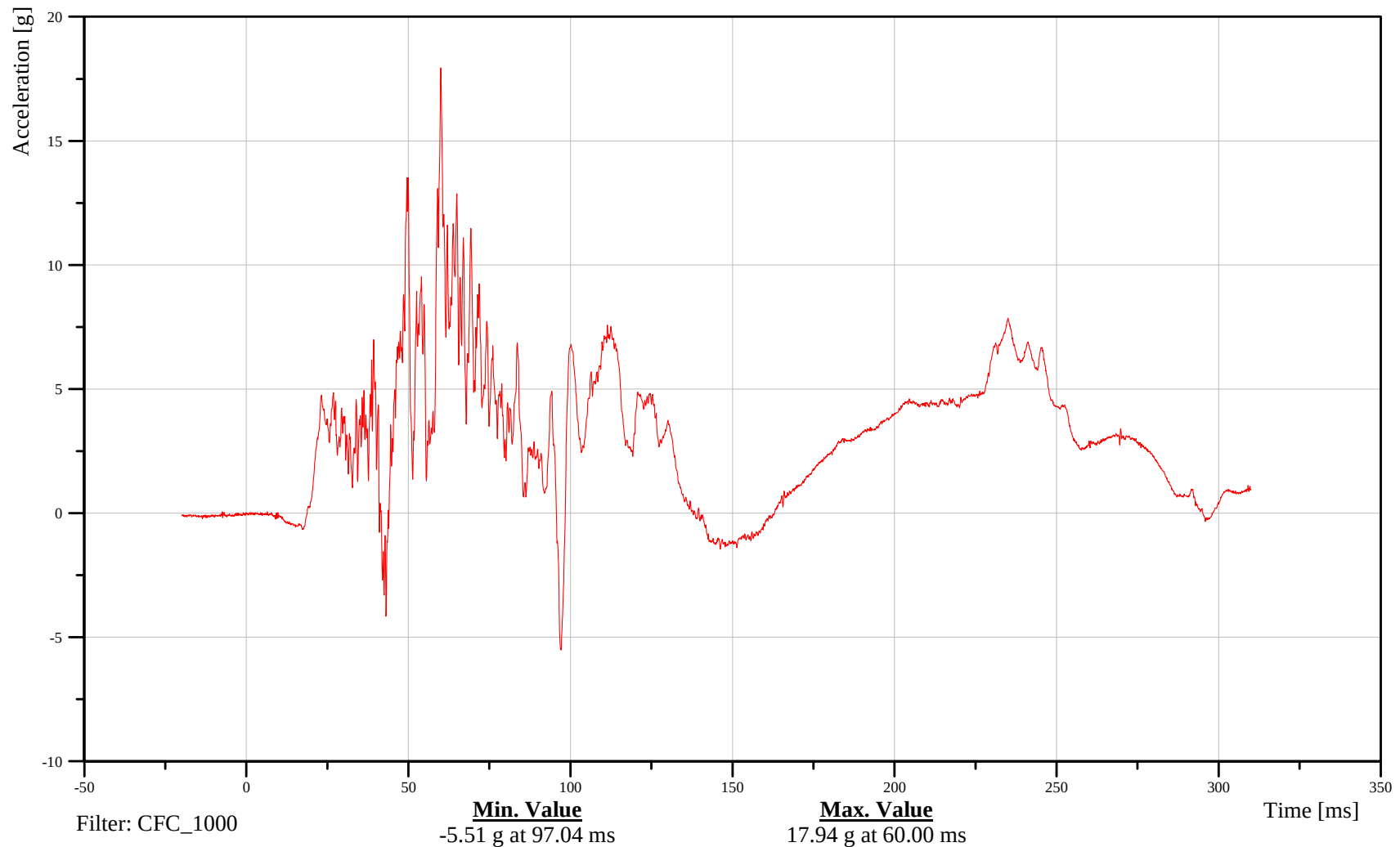
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13HEADCGRDHFACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

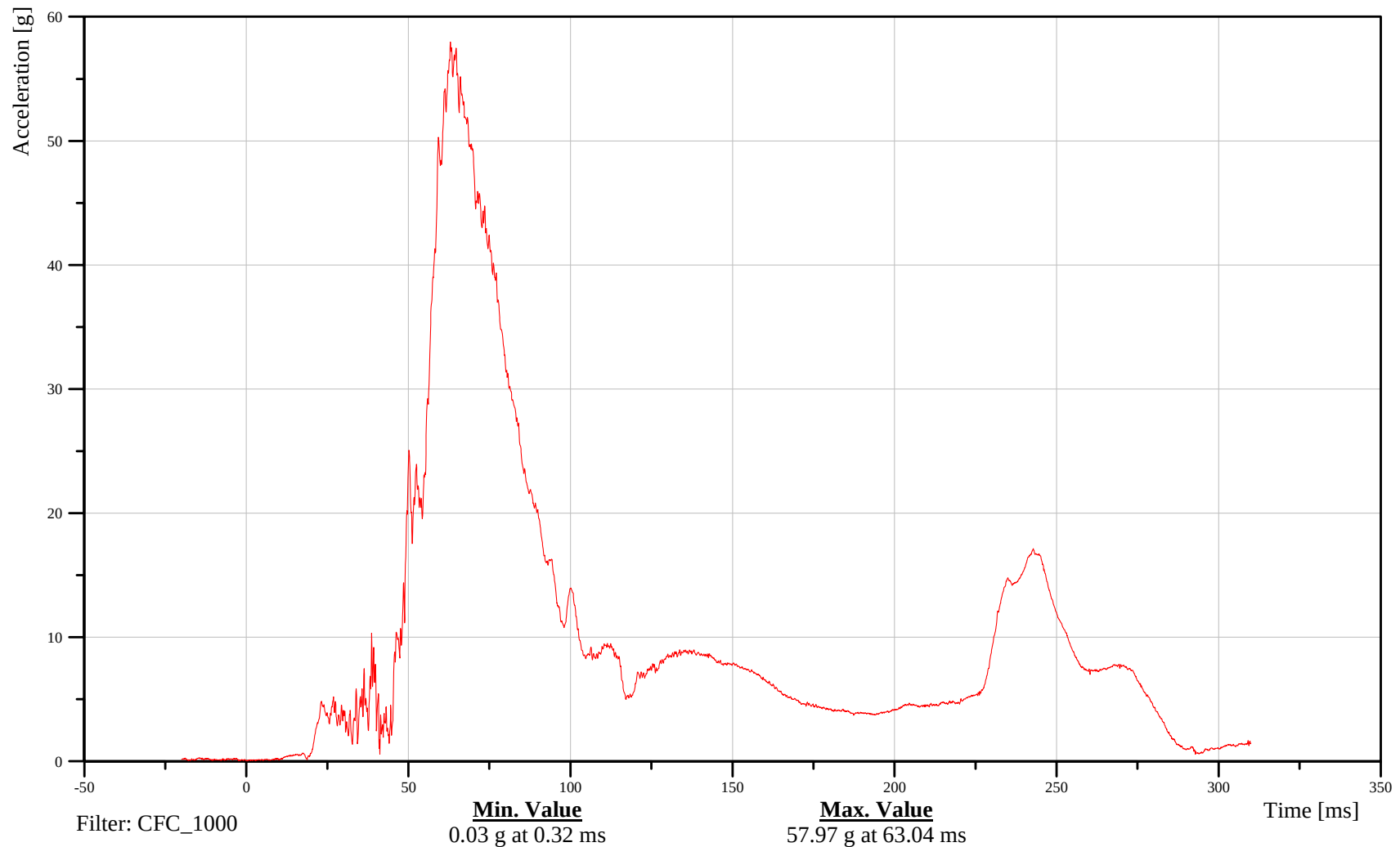
Right Front Passenger Head Redundant Resultant Acceleration

Customer: VRTC

13HEADCGRDHFACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

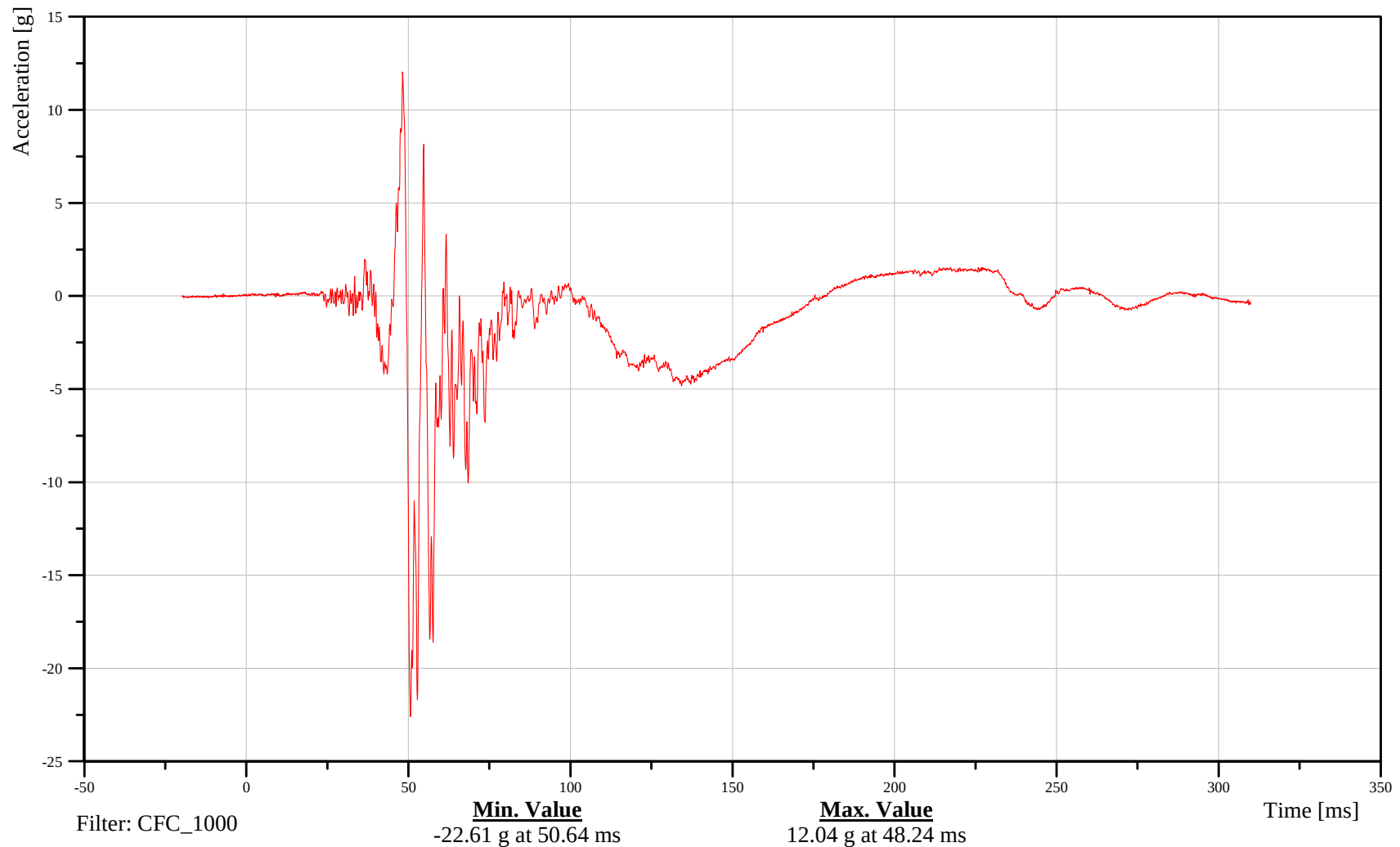
Right Front Passenger Head Front Y-Axis Acceleration

Customer: VRTC

13HEADFR00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

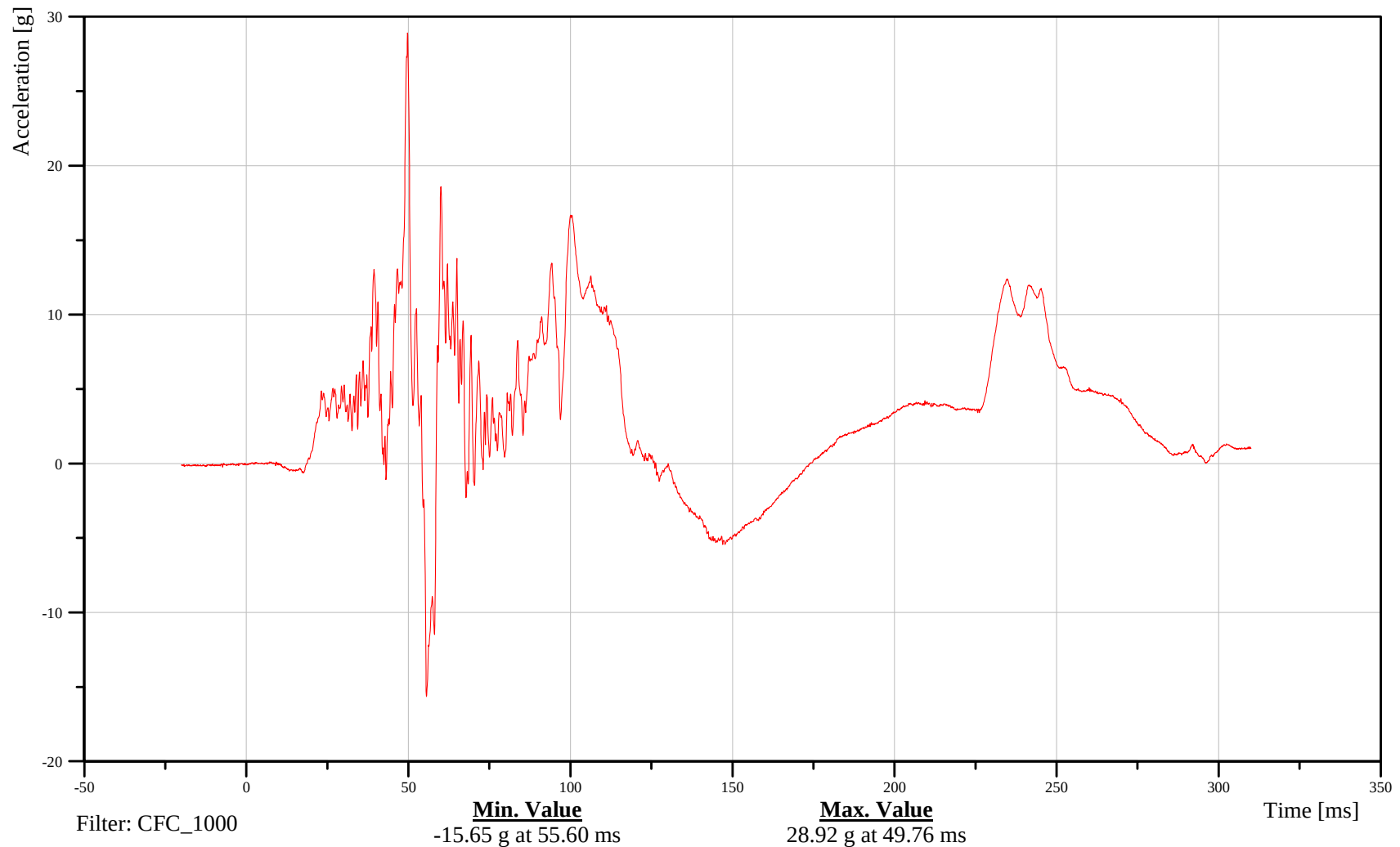
Right Front Passenger Head Front Z-Axis Acceleration

Customer: VRTC

13HEADFR00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

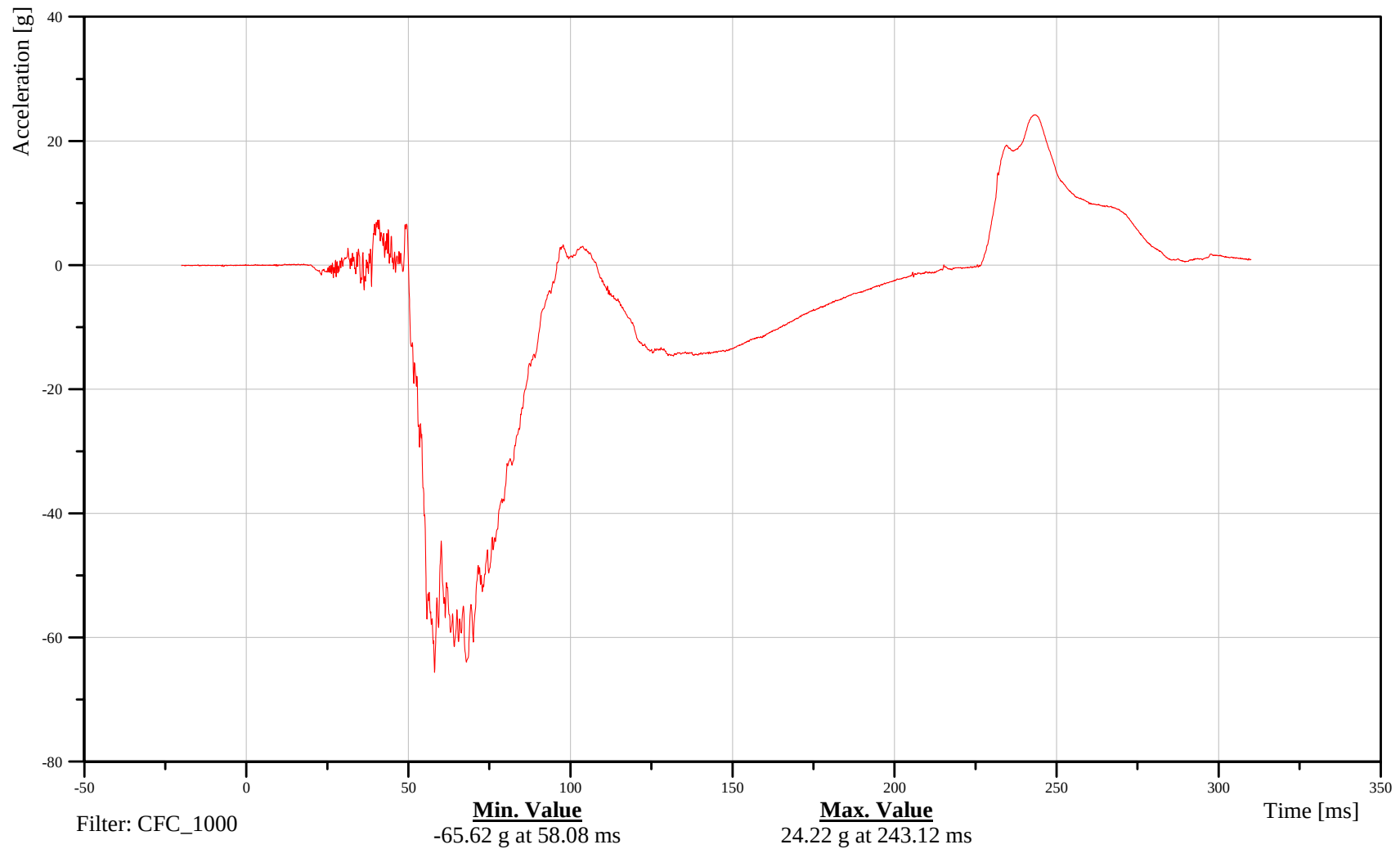
Right Front Passenger Head Top X-Axis Acceleration

Customer: VRTC

13HEADUP00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

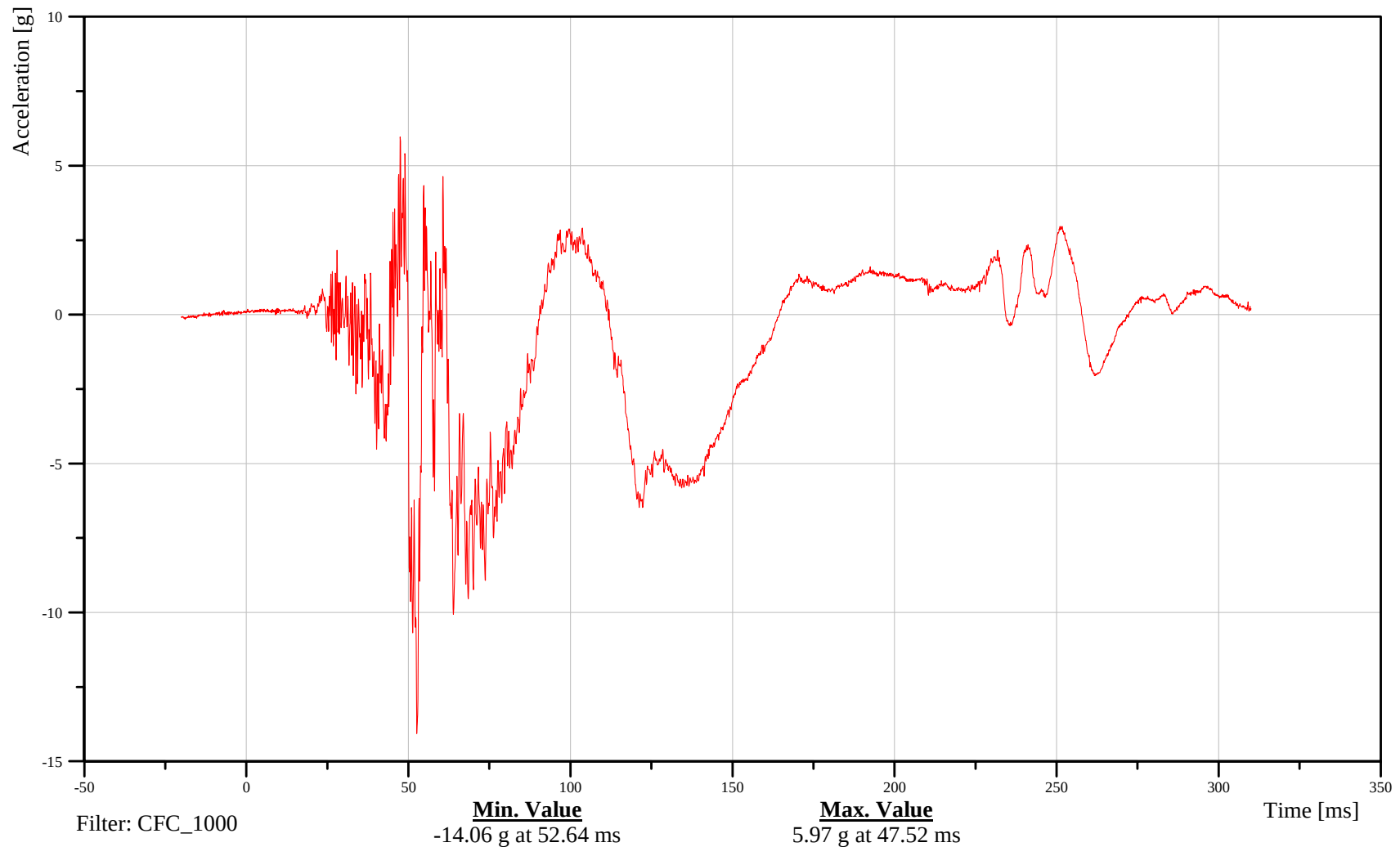
Right Front Passenger Head Top Y-Axis Acceleration

Customer: VRTC

13HEADUP00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Head Side X-Axis Acceleration

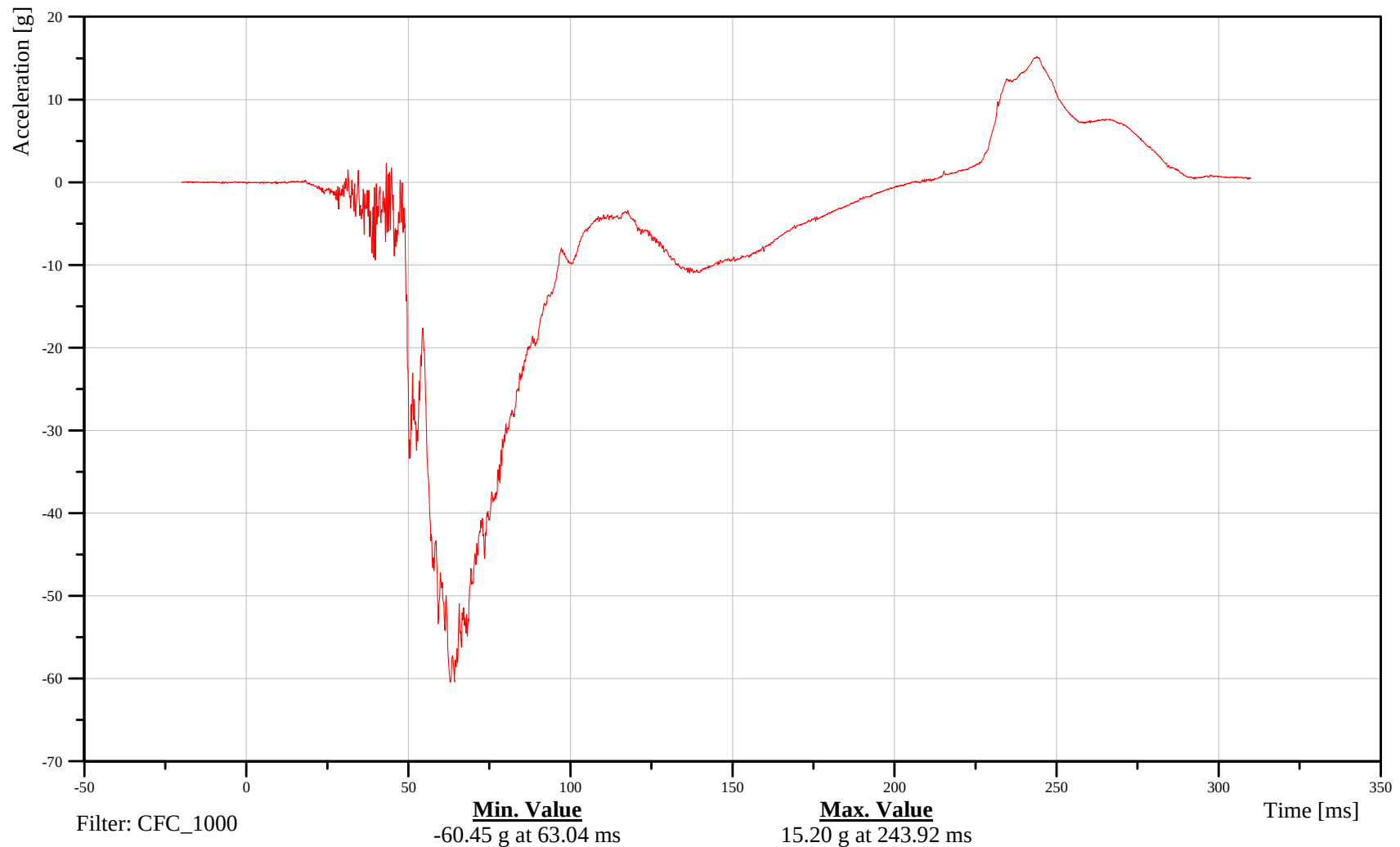
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13HEADLE00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

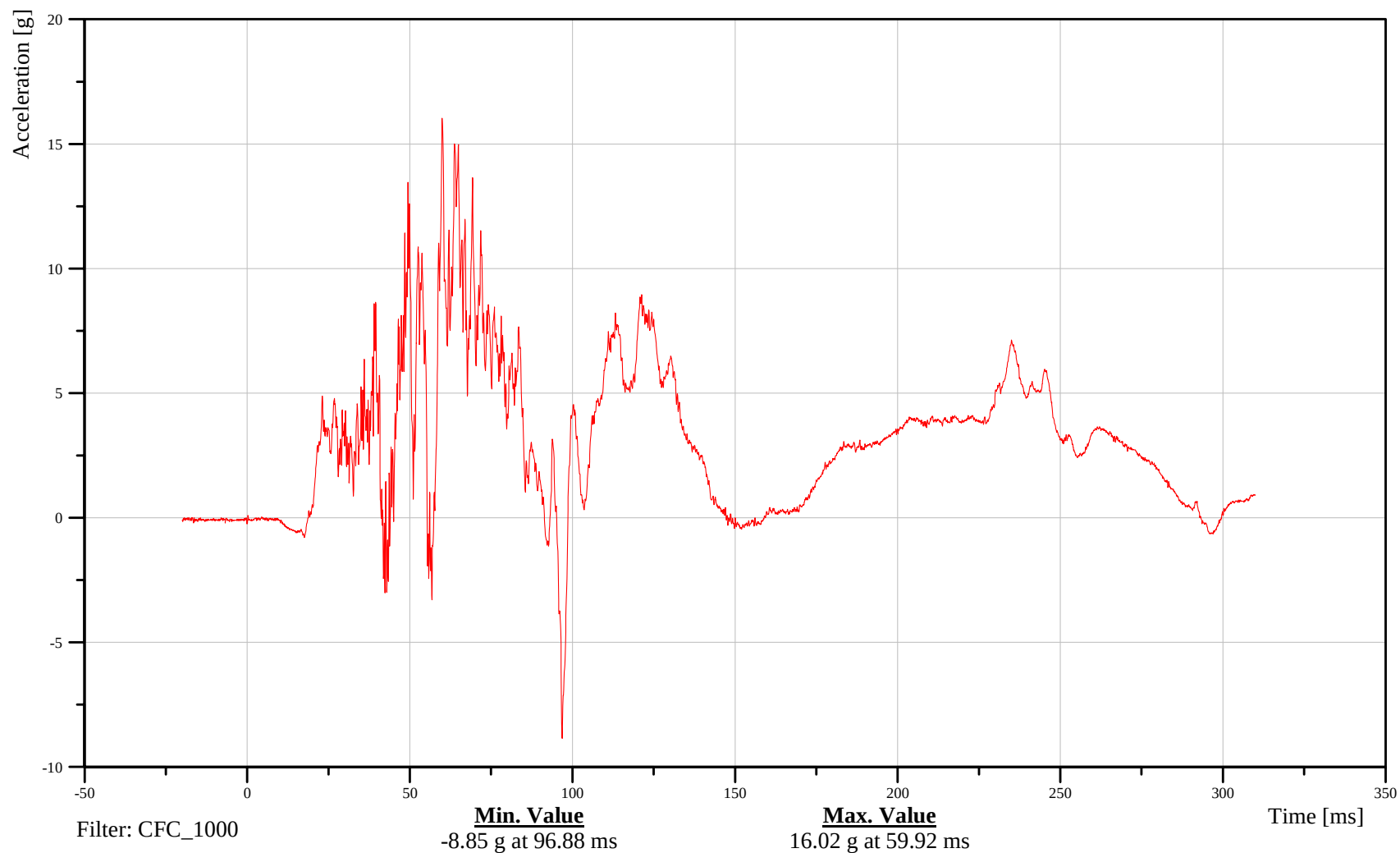
Right Front Passenger Head Side Z-Axis Acceleration

Customer: VRTC

13HEADLE00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

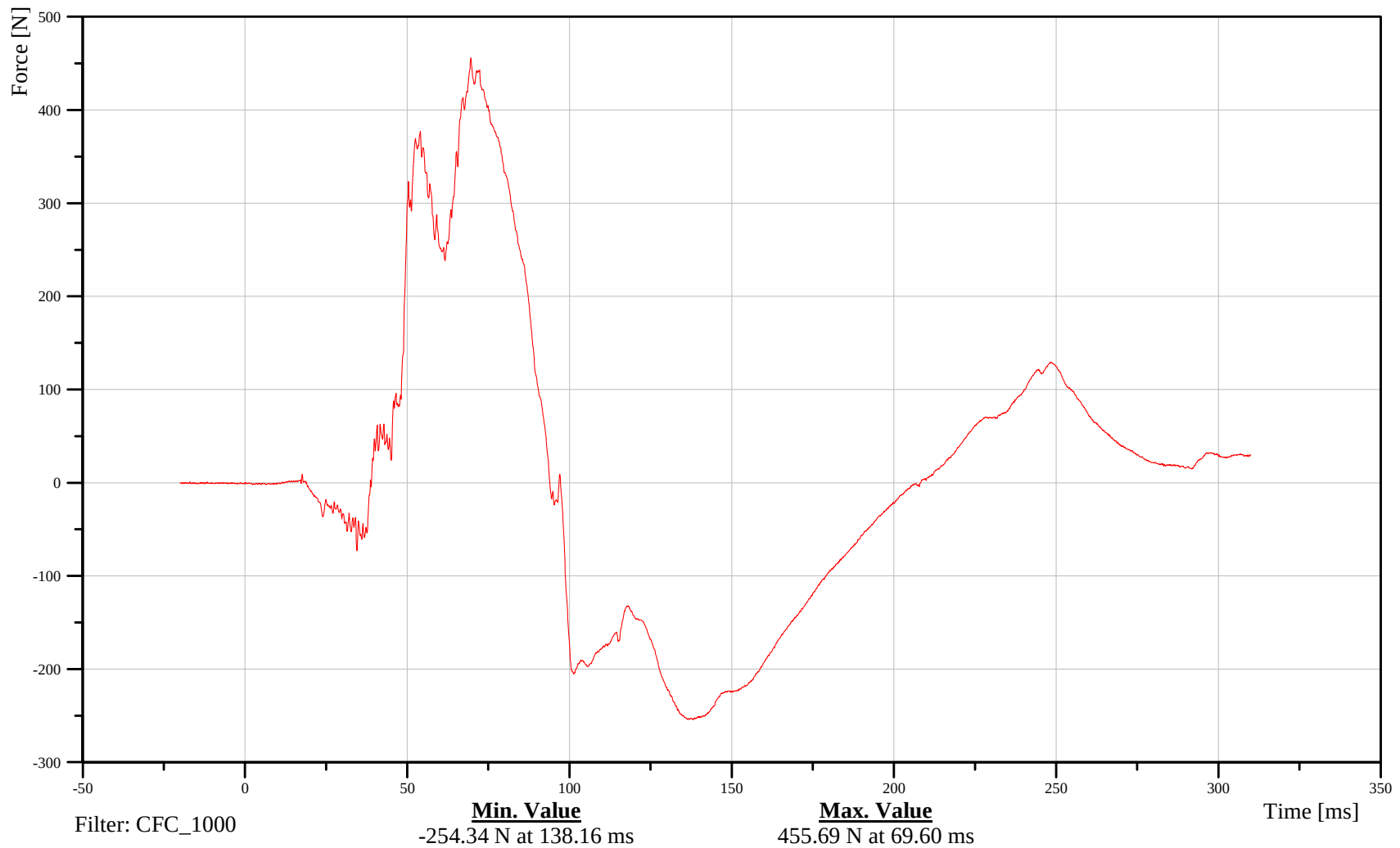
Right Front Passenger Upper Neck X-Axis Force

Customer: VRTC

13NECKUP00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

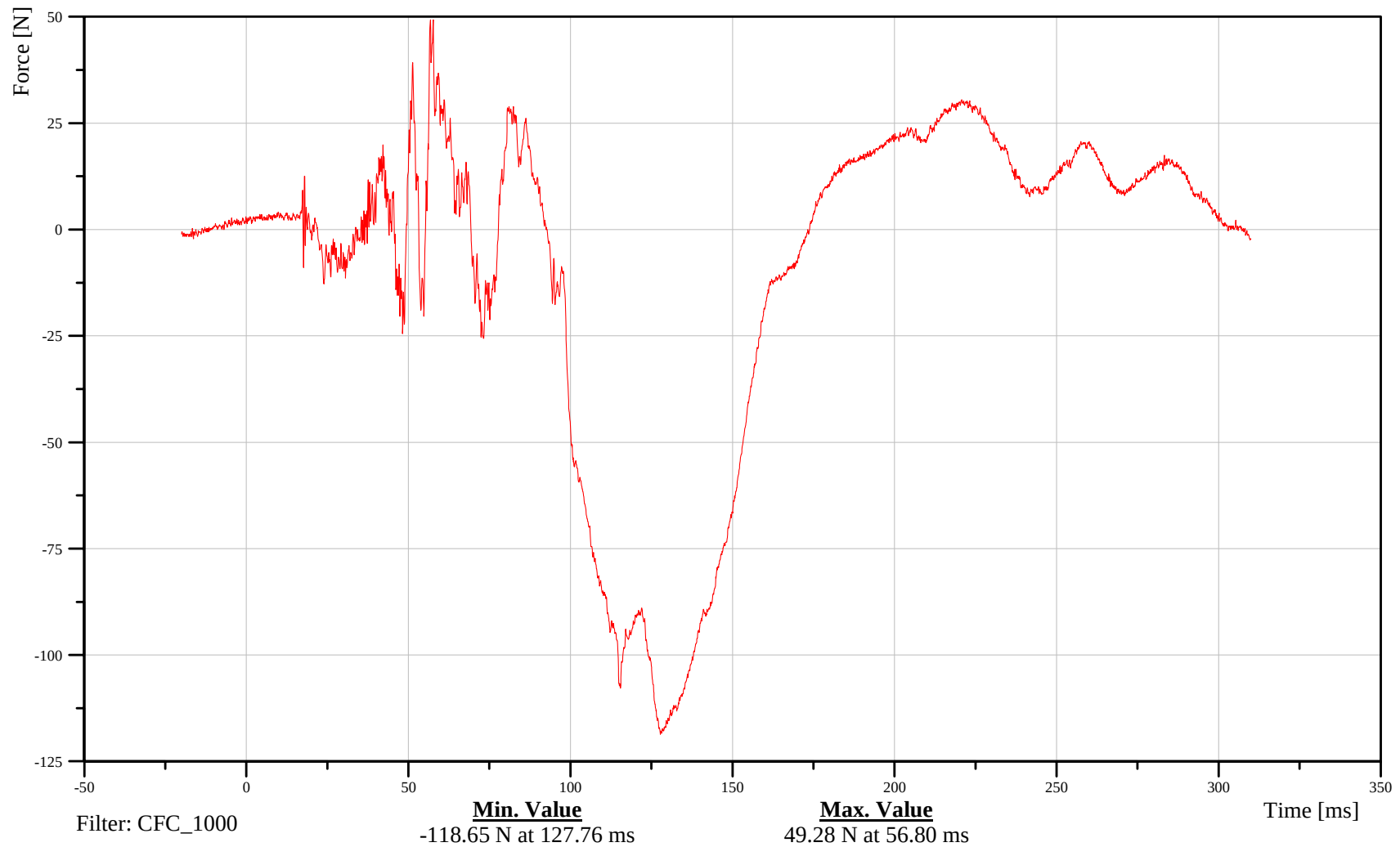
Right Front Passenger Upper Neck Y-Axis Force

Customer: VRTC

13NECKUP00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

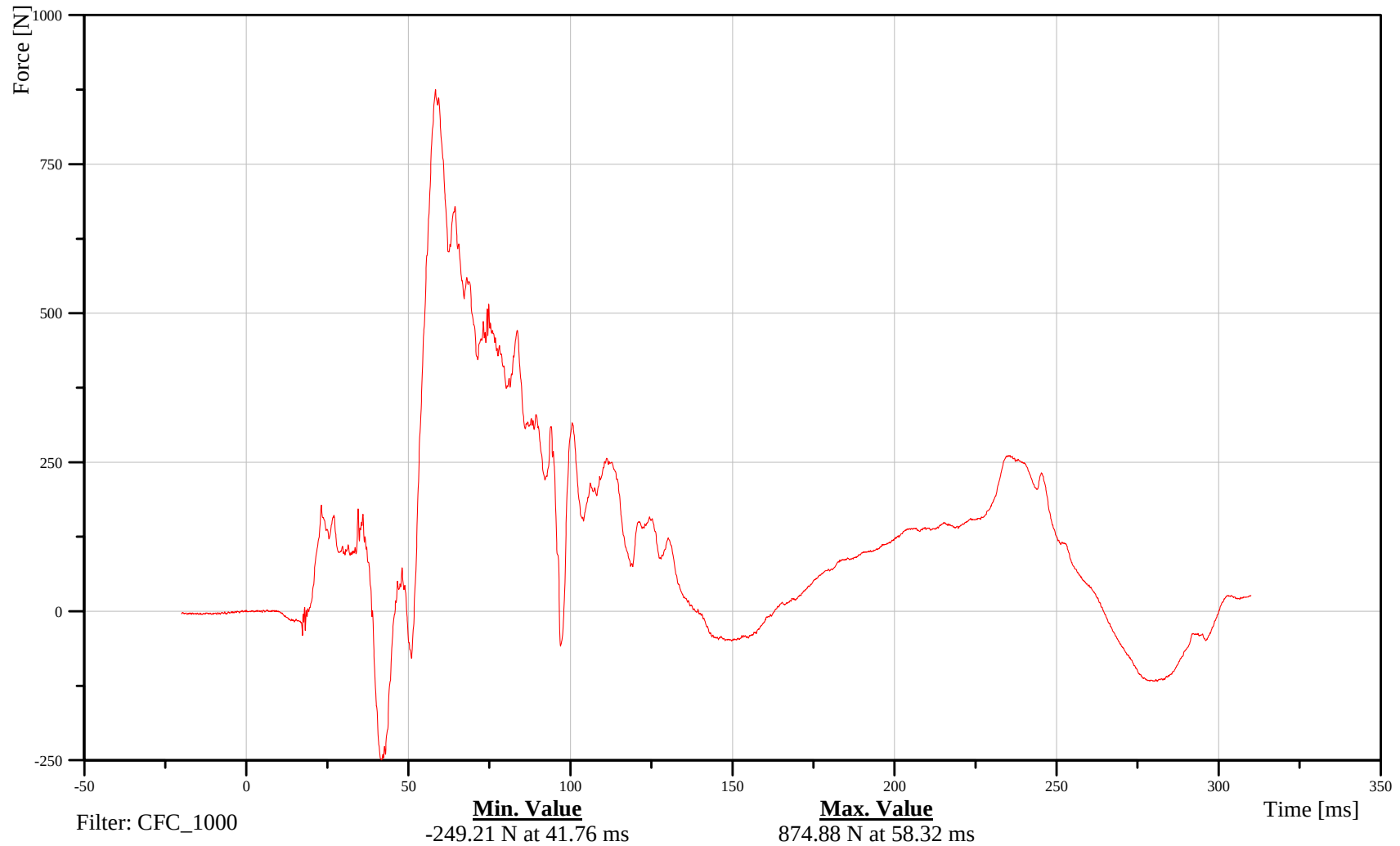
Right Front Passenger Upper Neck Z-Axis Force

Customer: VRTC

13NECKUP00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Right Front Passenger Upper Neck Moment About X Axis

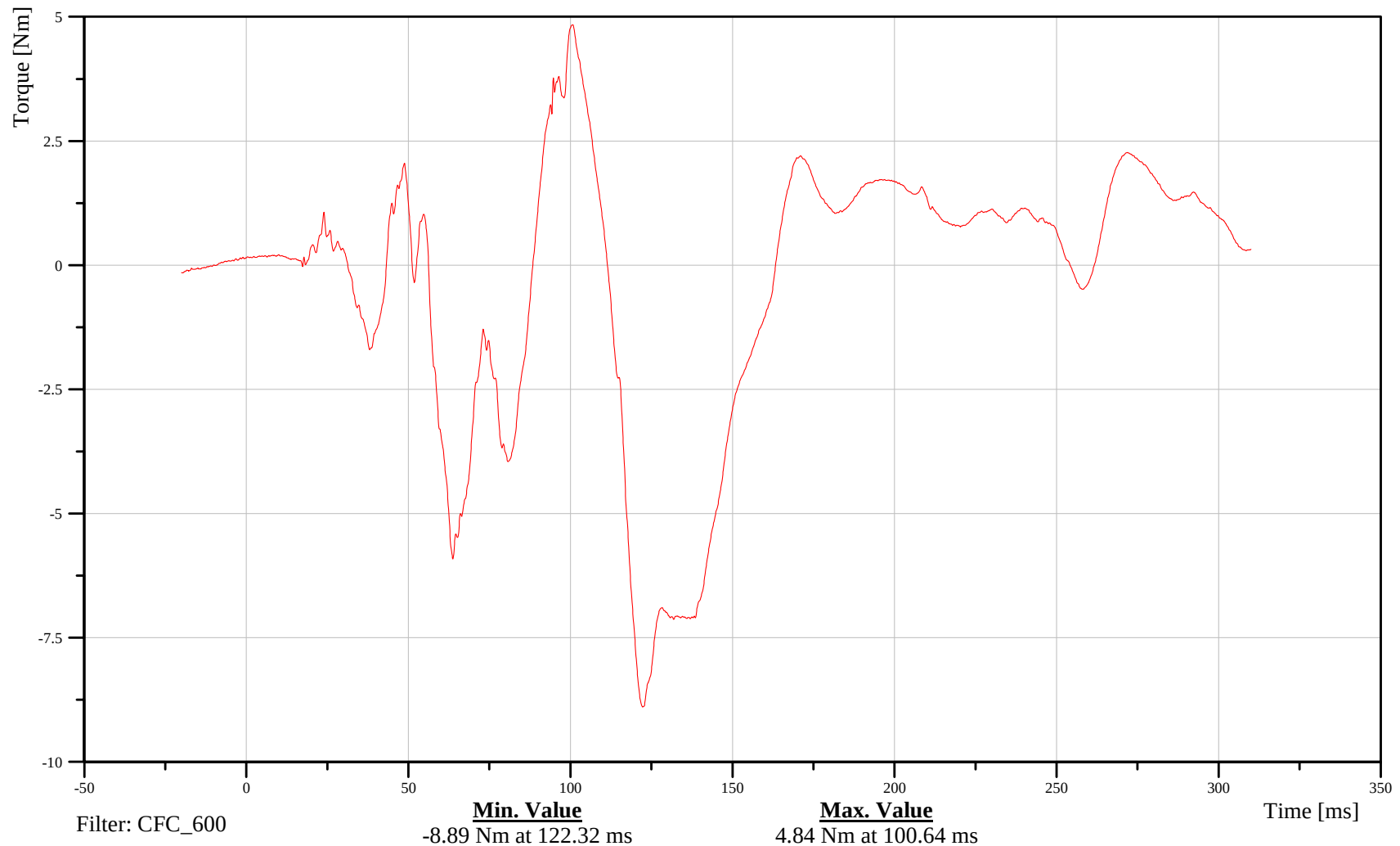
Time: 17:50

Customer: VRTC

13NECKUP00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

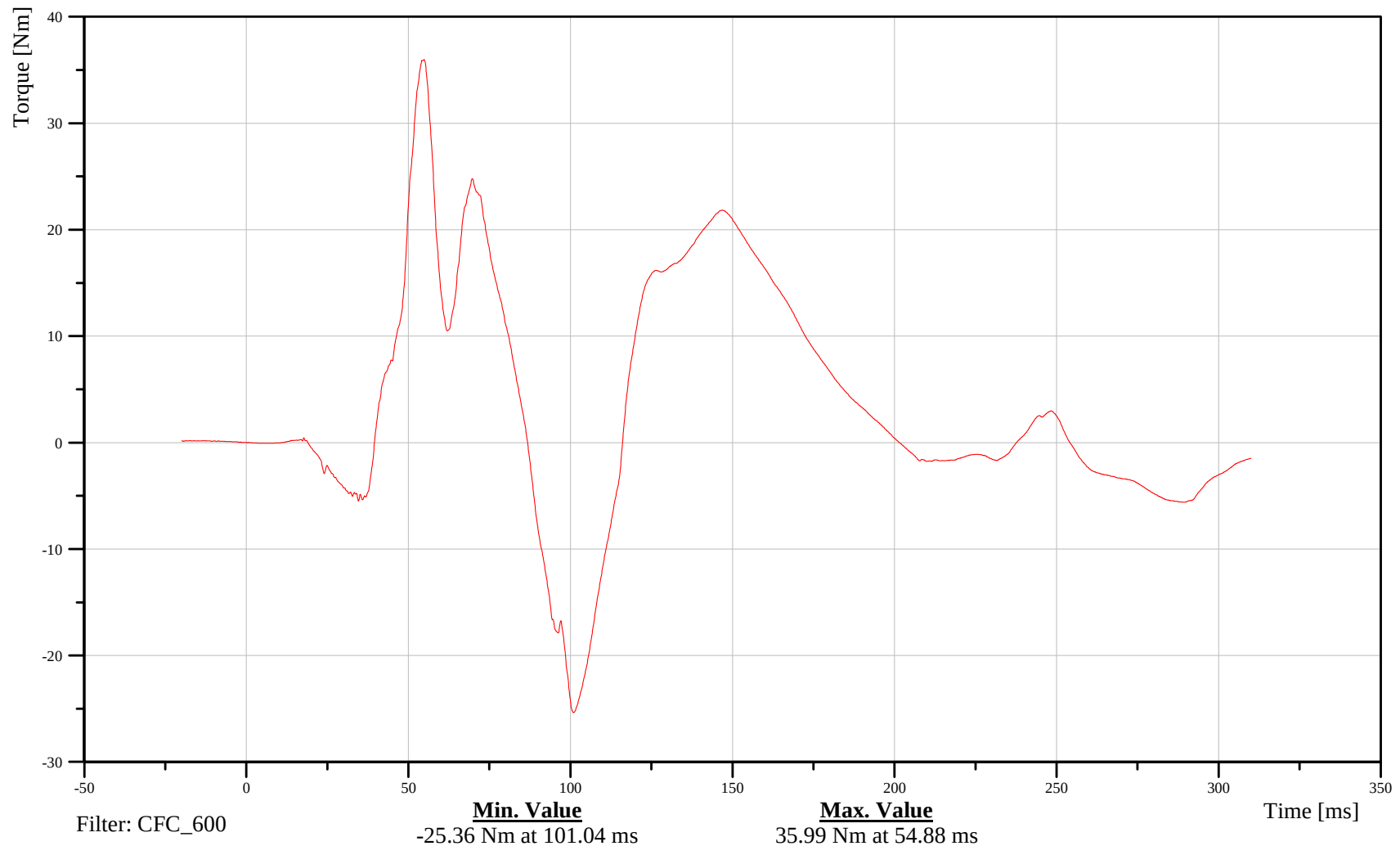
Right Front Passenger Upper Neck Moment About Y Axis

Customer: VRTC

13NECKUP00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

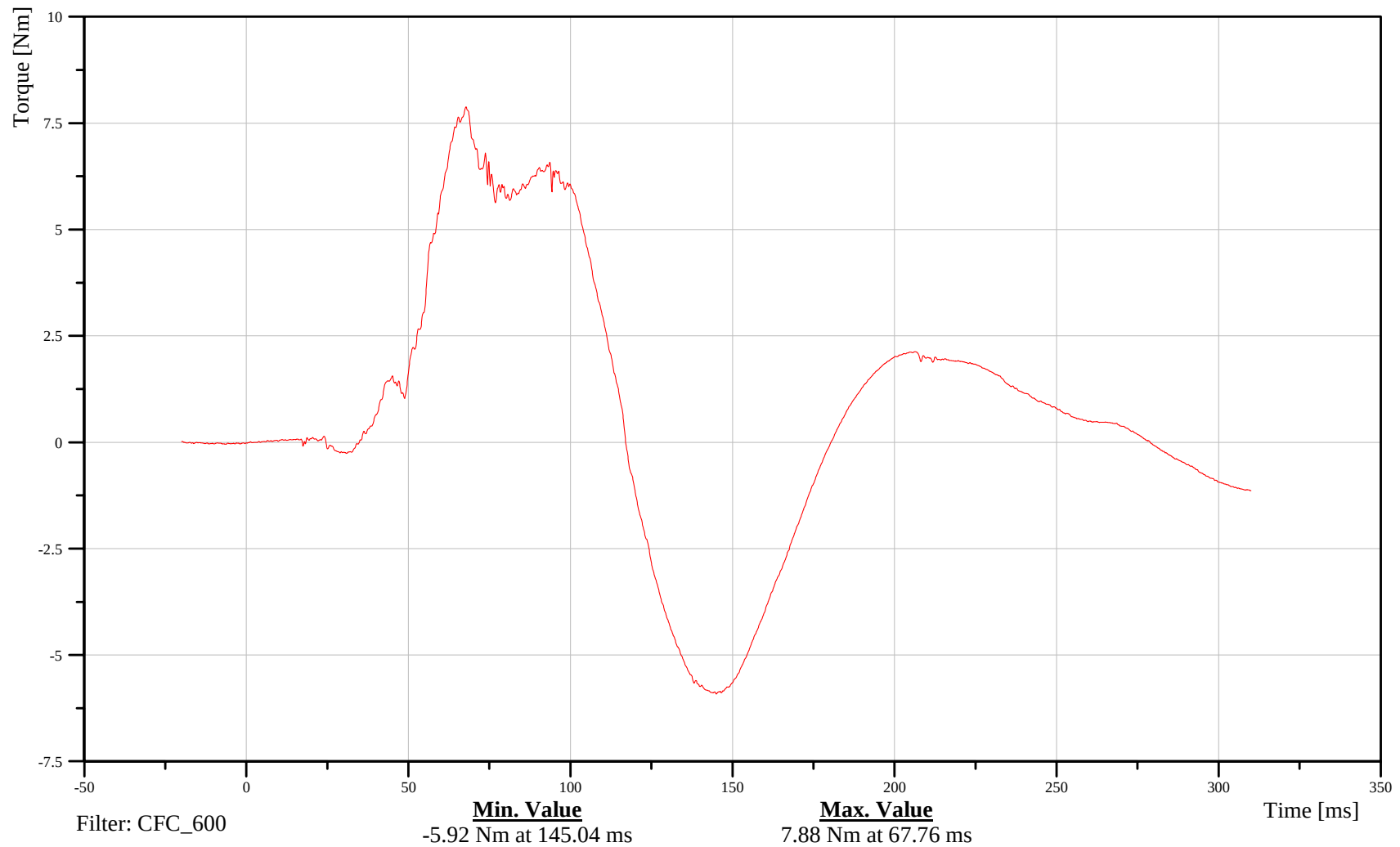
Right Front Passenger Upper Neck Moment About Z Axis

Customer: VRTC

13NECKUP00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

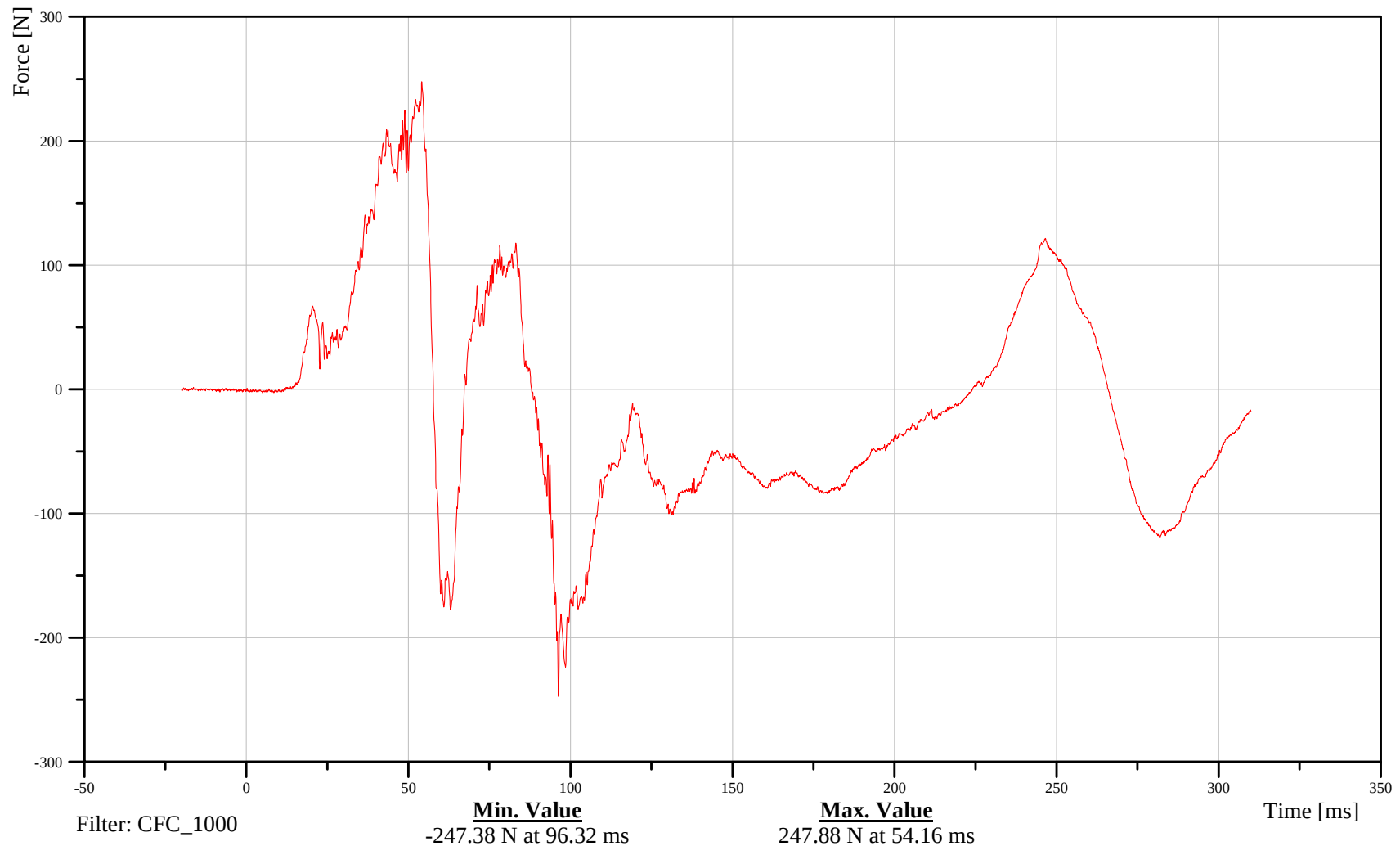
Right Front Passenger Lower Neck X-Axis Force

Customer: VRTC

13NECKLO00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Lower Neck Y-Axis Force

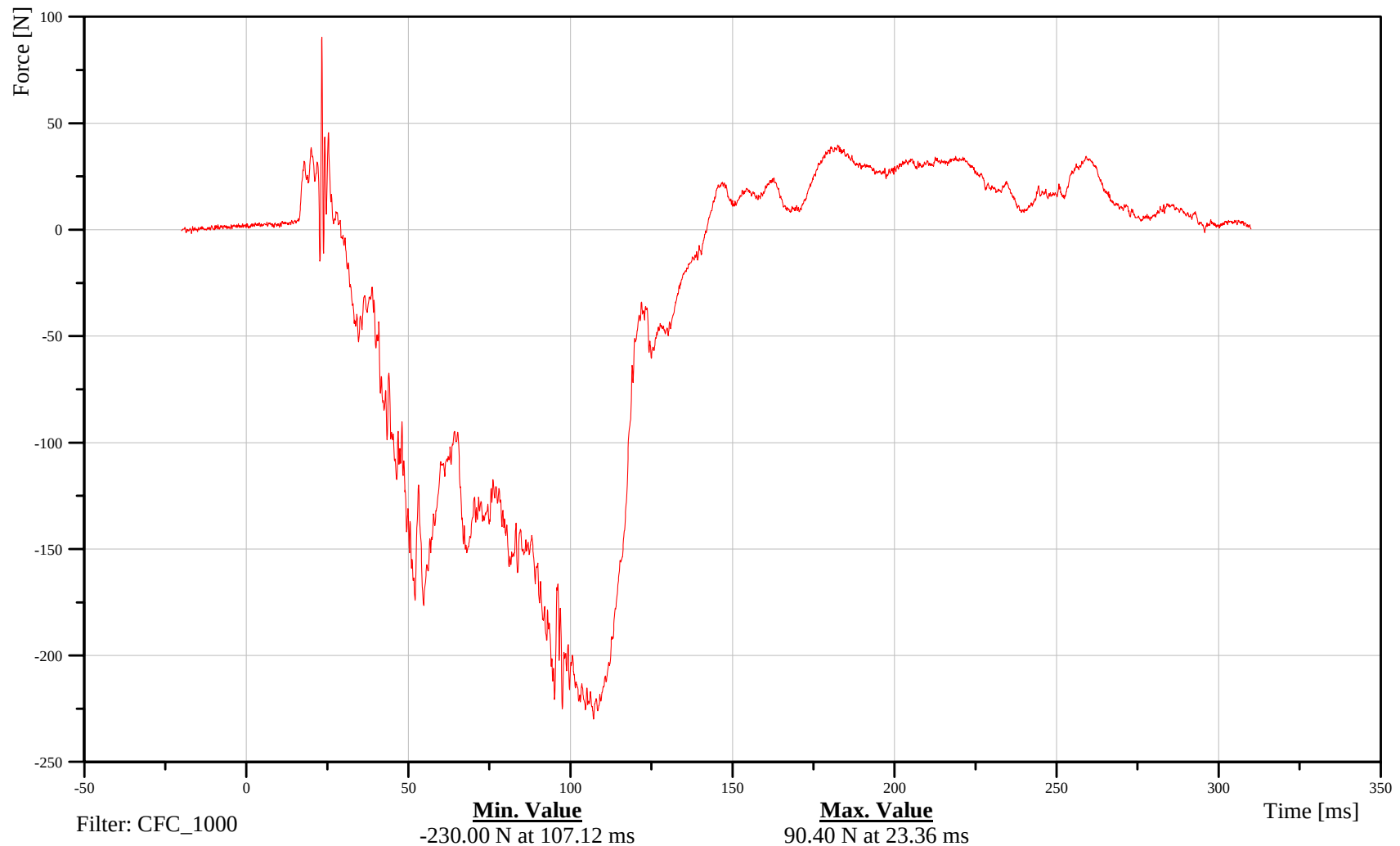
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13NECKLO00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

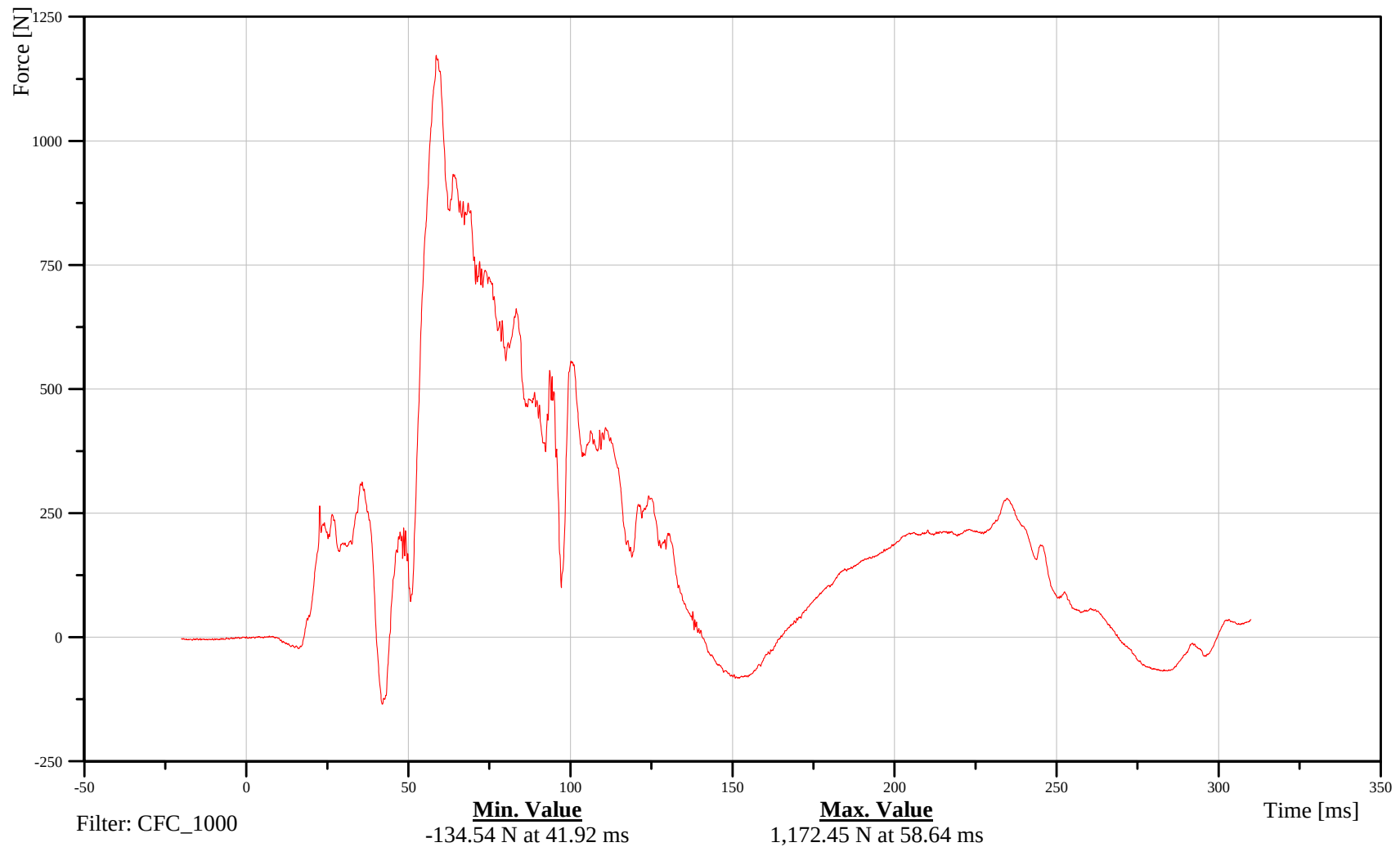
Right Front Passenger Lower Neck Z-Axis Force

Customer: VRTC

13NECKLO00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Right Front Passenger Lower Neck Moment About X Axis

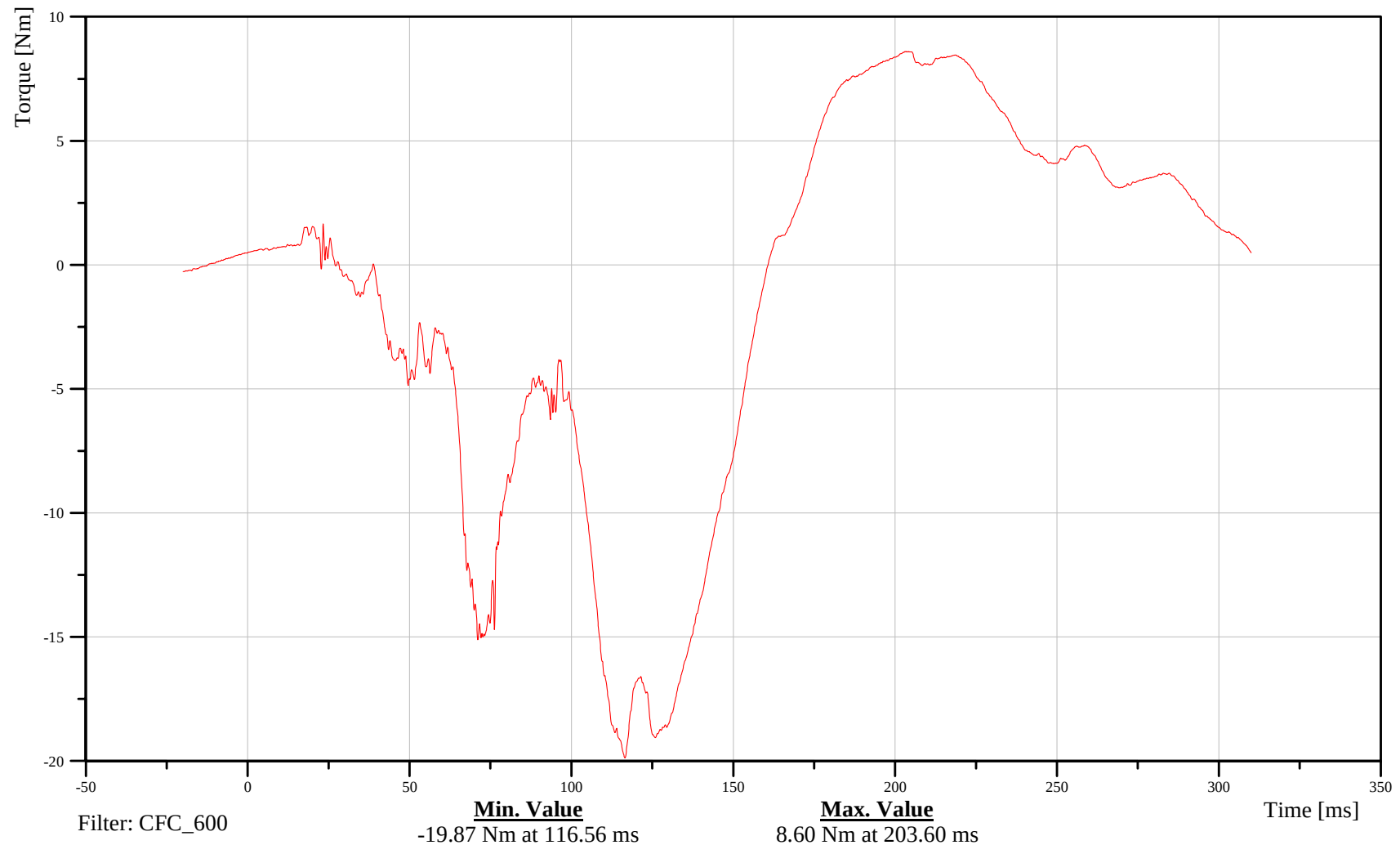
Time: 17:50

Customer: VRTC

13NECKLO00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Right Front Passenger Lower Neck Moment About Y Axis

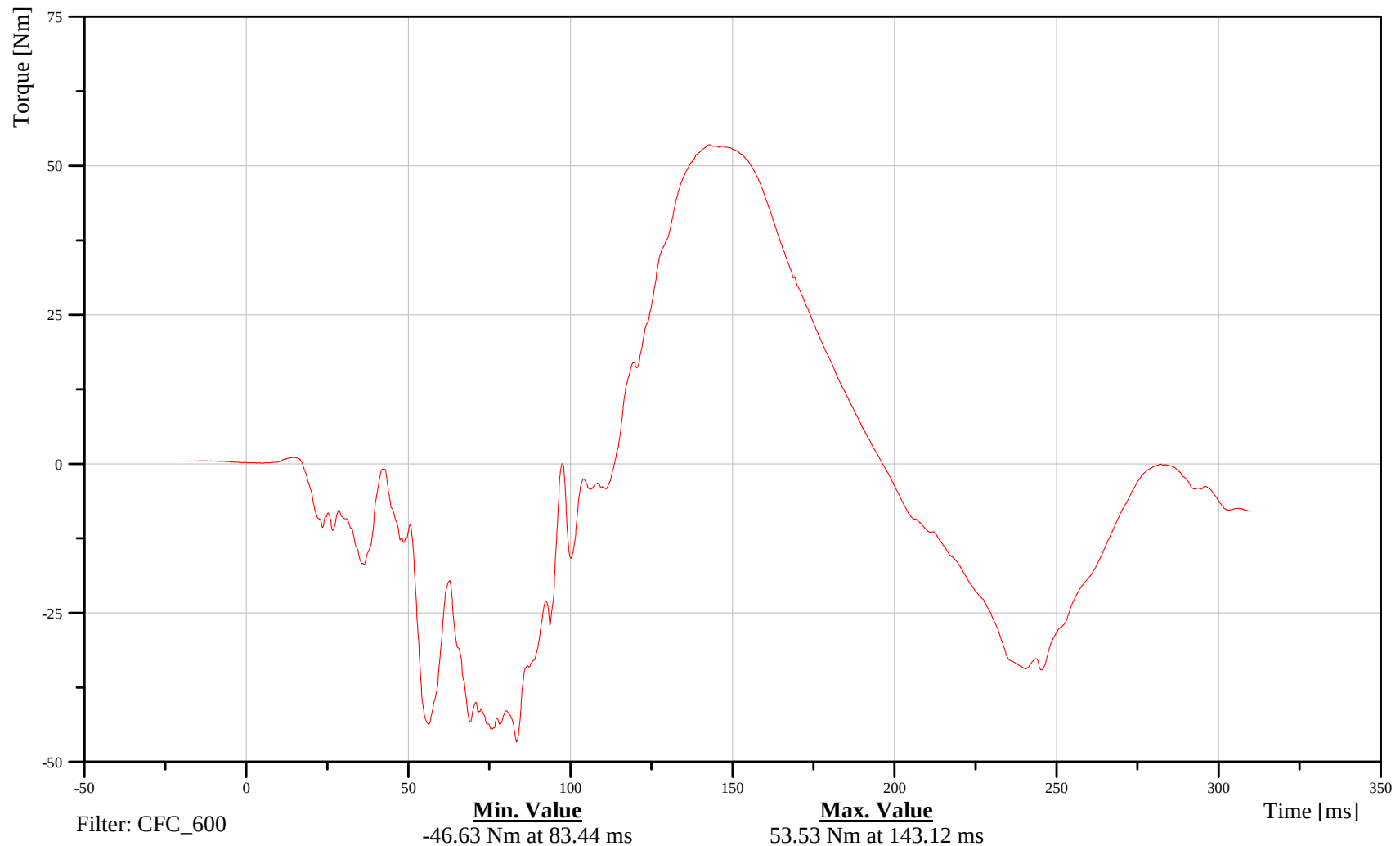
Time: 17:50

Customer: VRTC

13NECKLO00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

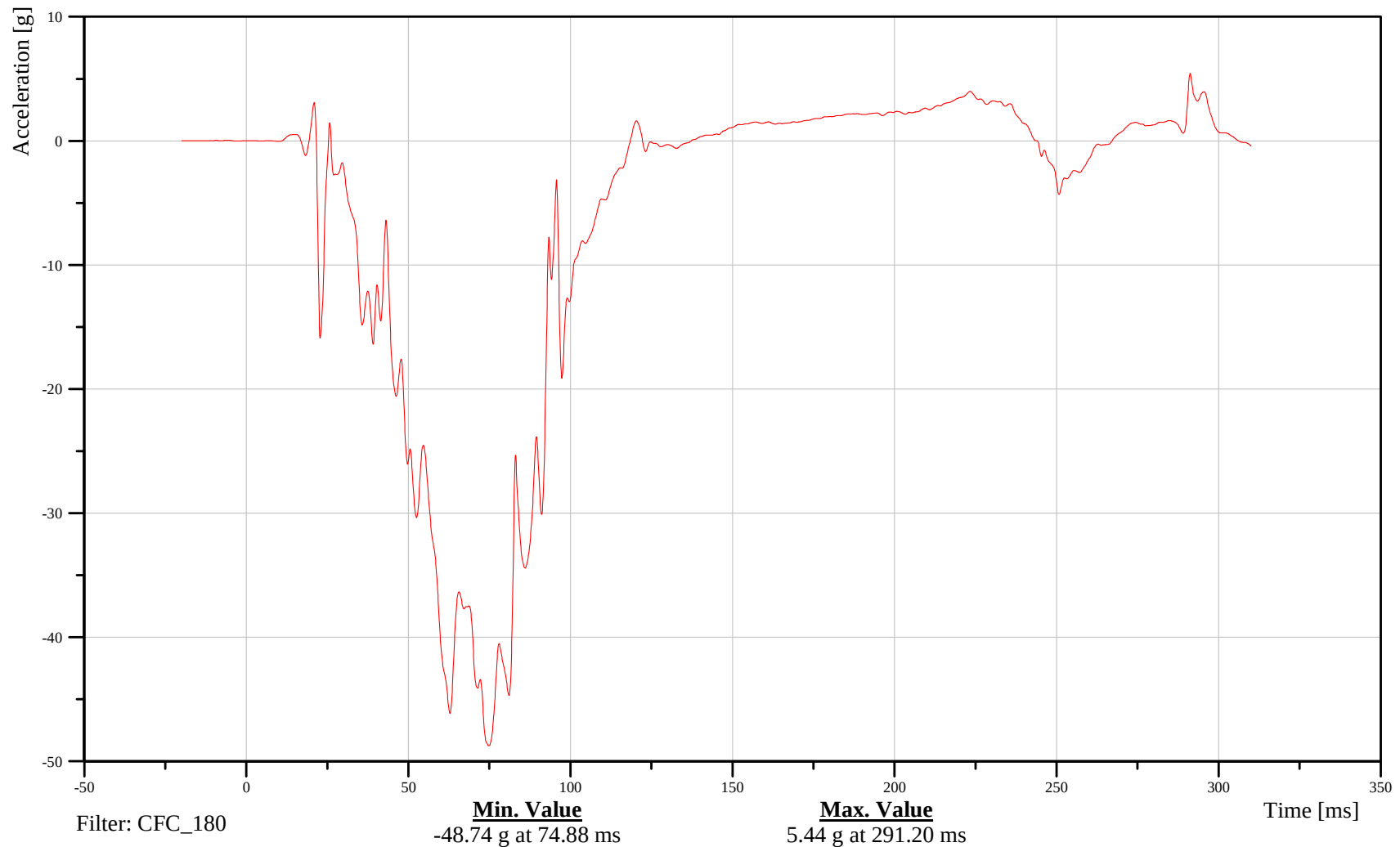
Right Front Passenger Chest CG X-Axis Acceleration

Customer: VRTC

13CHSTCG00HFACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

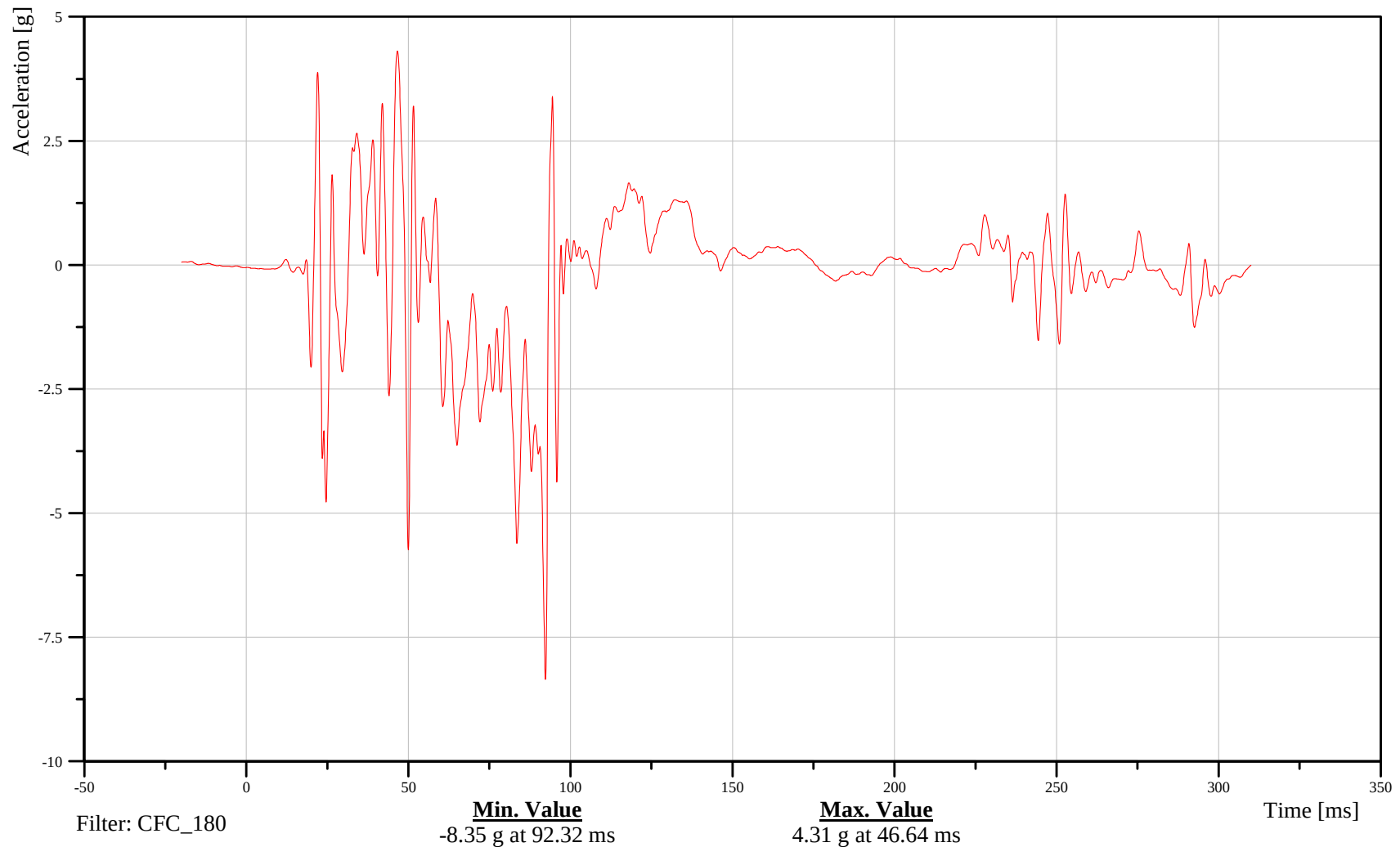
Right Front Passenger Chest CG Y-Axis Acceleration

Customer: VRTC

13CHSTCG00HFACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

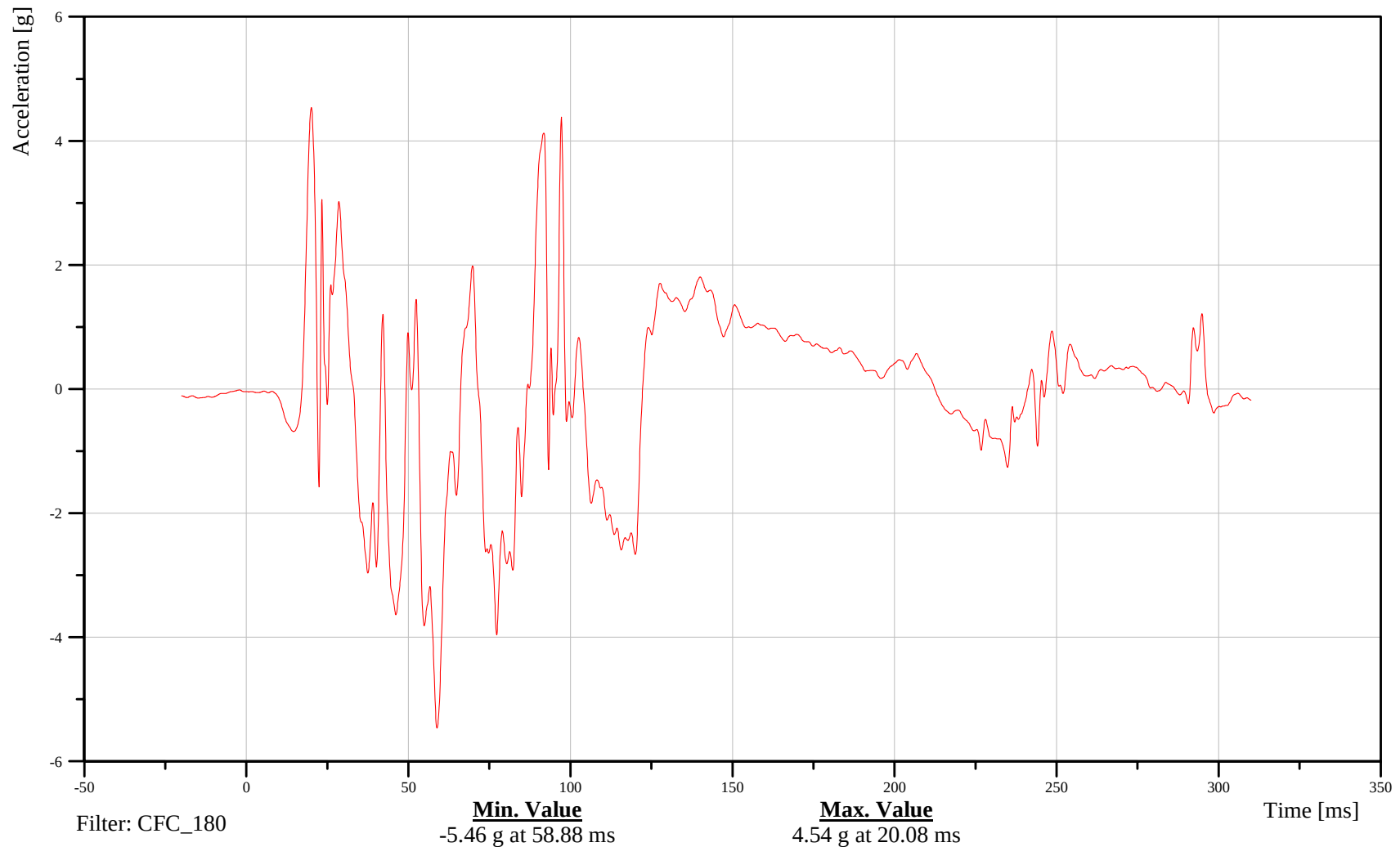
Right Front Passenger Chest CG Z-Axis Acceleration

Customer: VRTC

13CHSTCG00HFACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

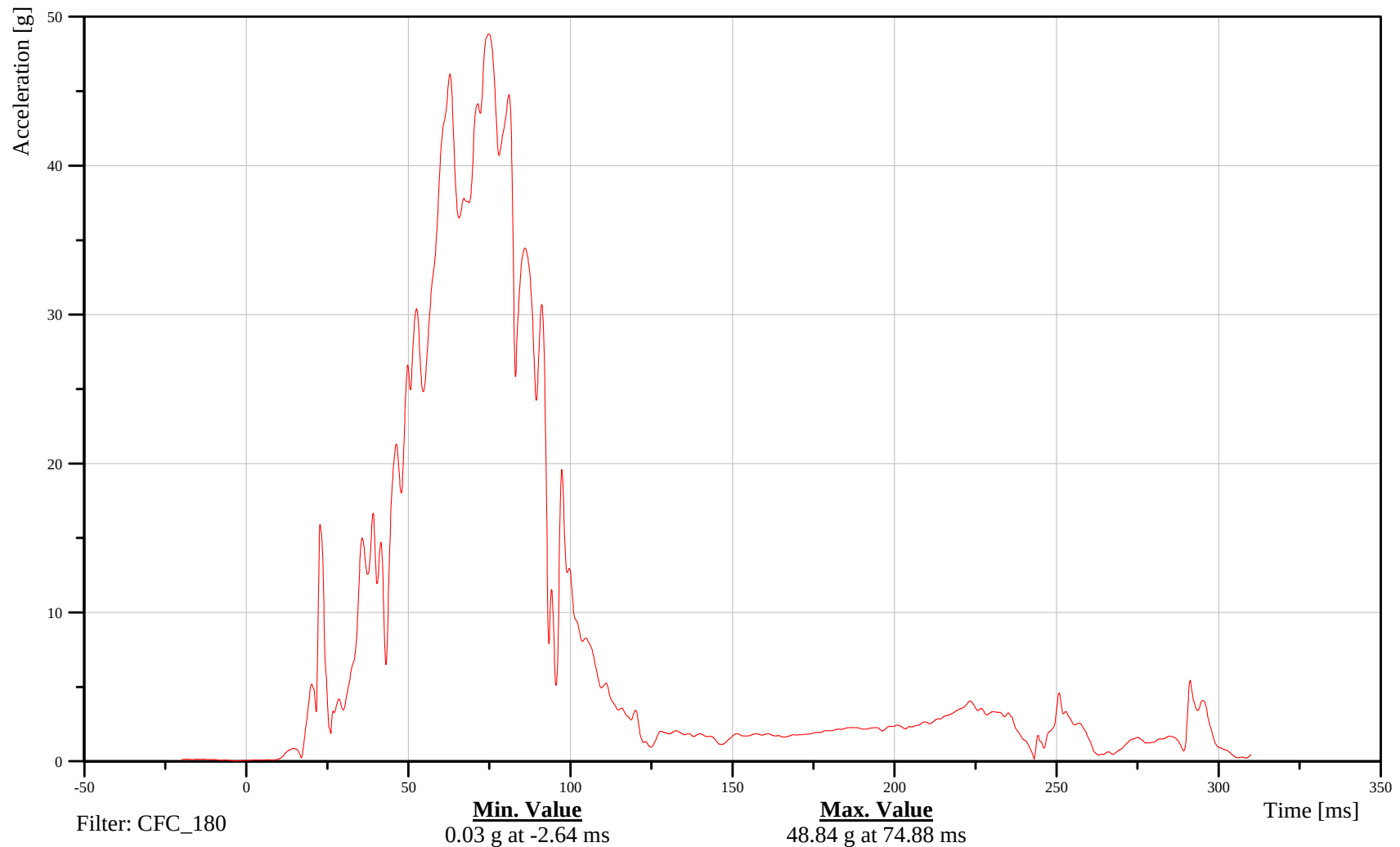
Right Front Passenger Chest CG Resultant Acceleration

Customer: VRTC

13CHSTCG00HFACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Redundant Chest CG X-Axis Acceleration

Date: 05/19/2006

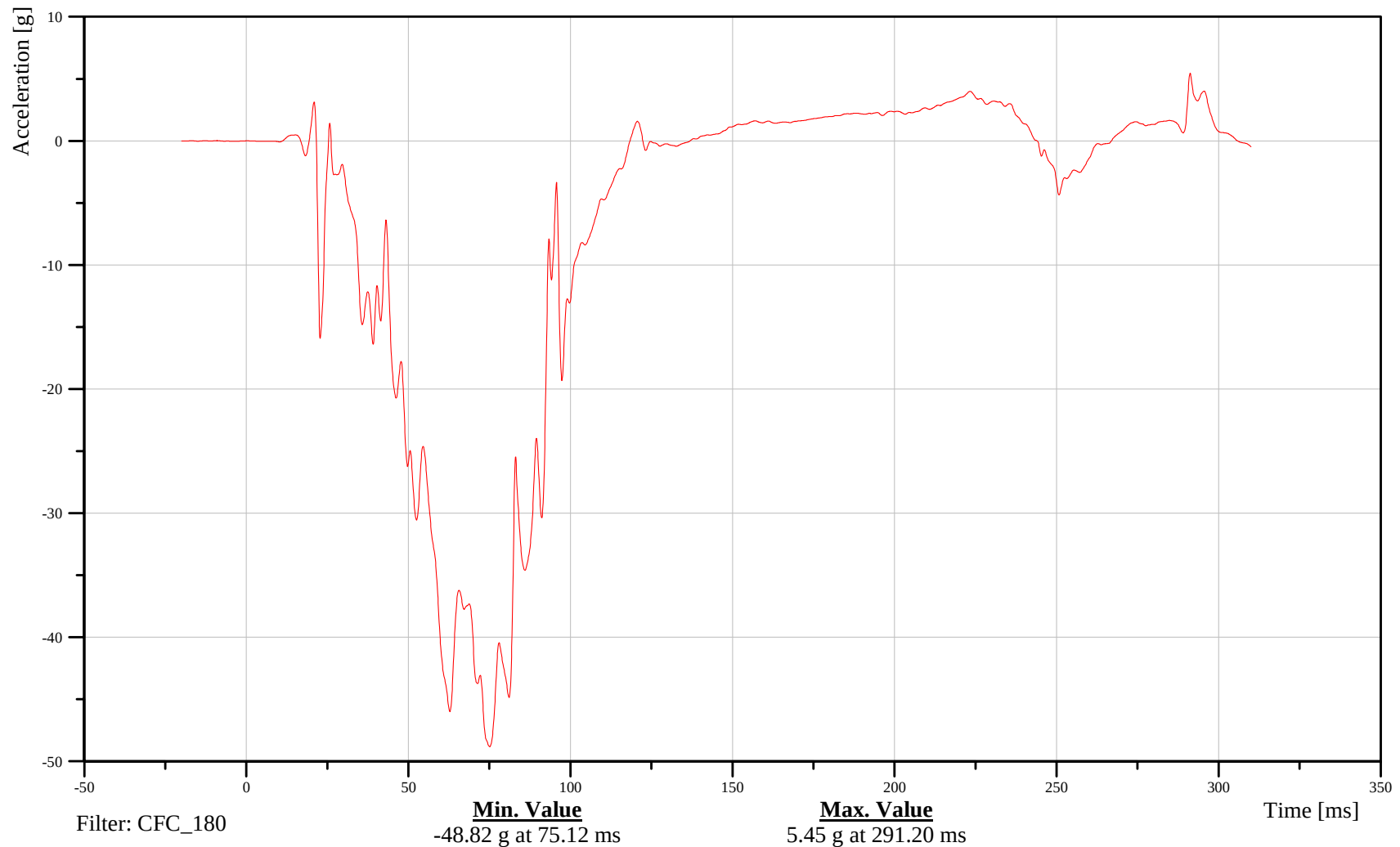
Time: 17:50

Customer: VRTC

13CHSTCGRDHFACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Redundant Chest CG Y-Axis Acceleration

Date: 05/19/2006

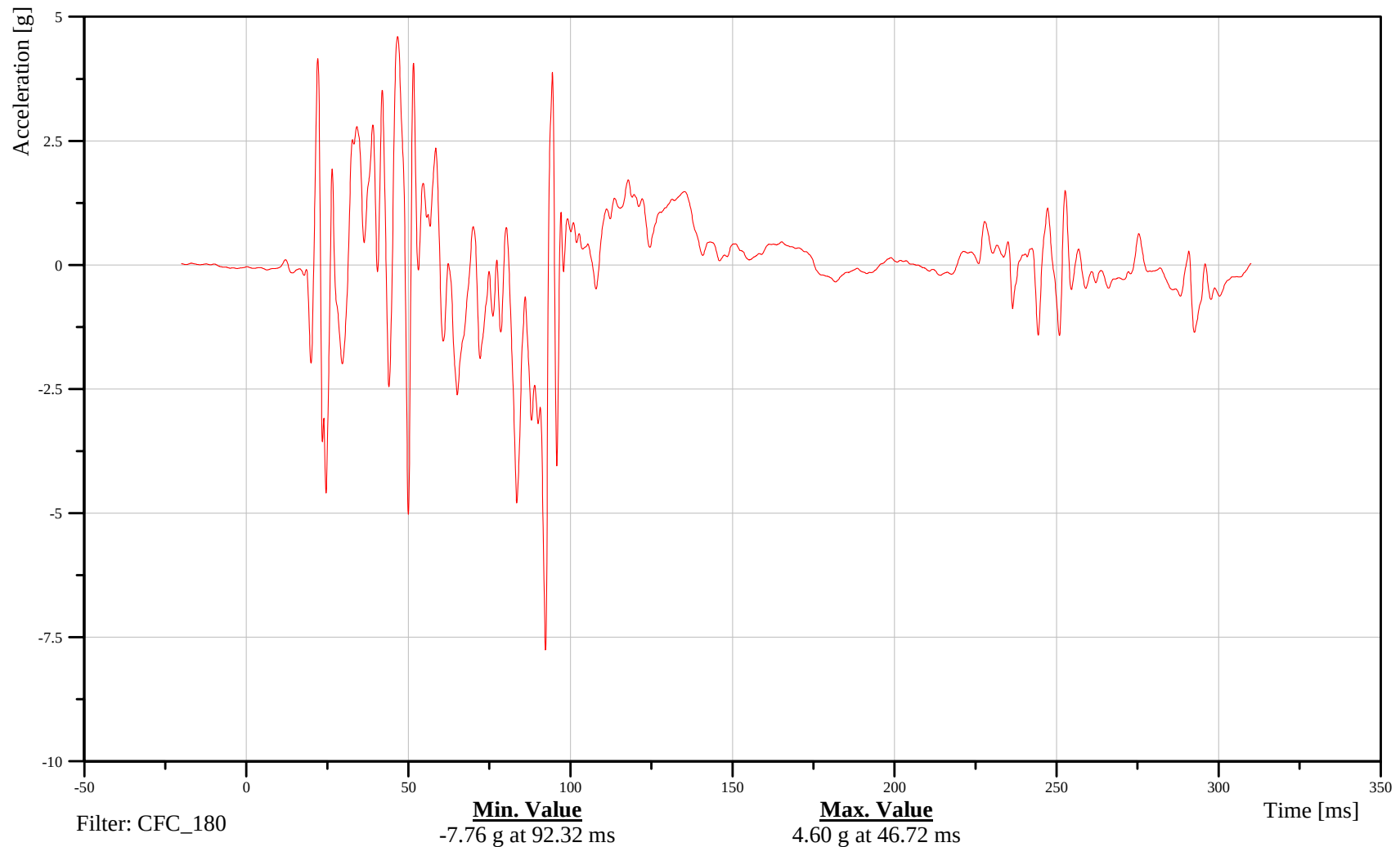
Time: 17:50

Customer: VRTC

13CHSTCGRDHFACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Redundant Chest CG Z-Axis Acceleration

Date: 05/19/2006

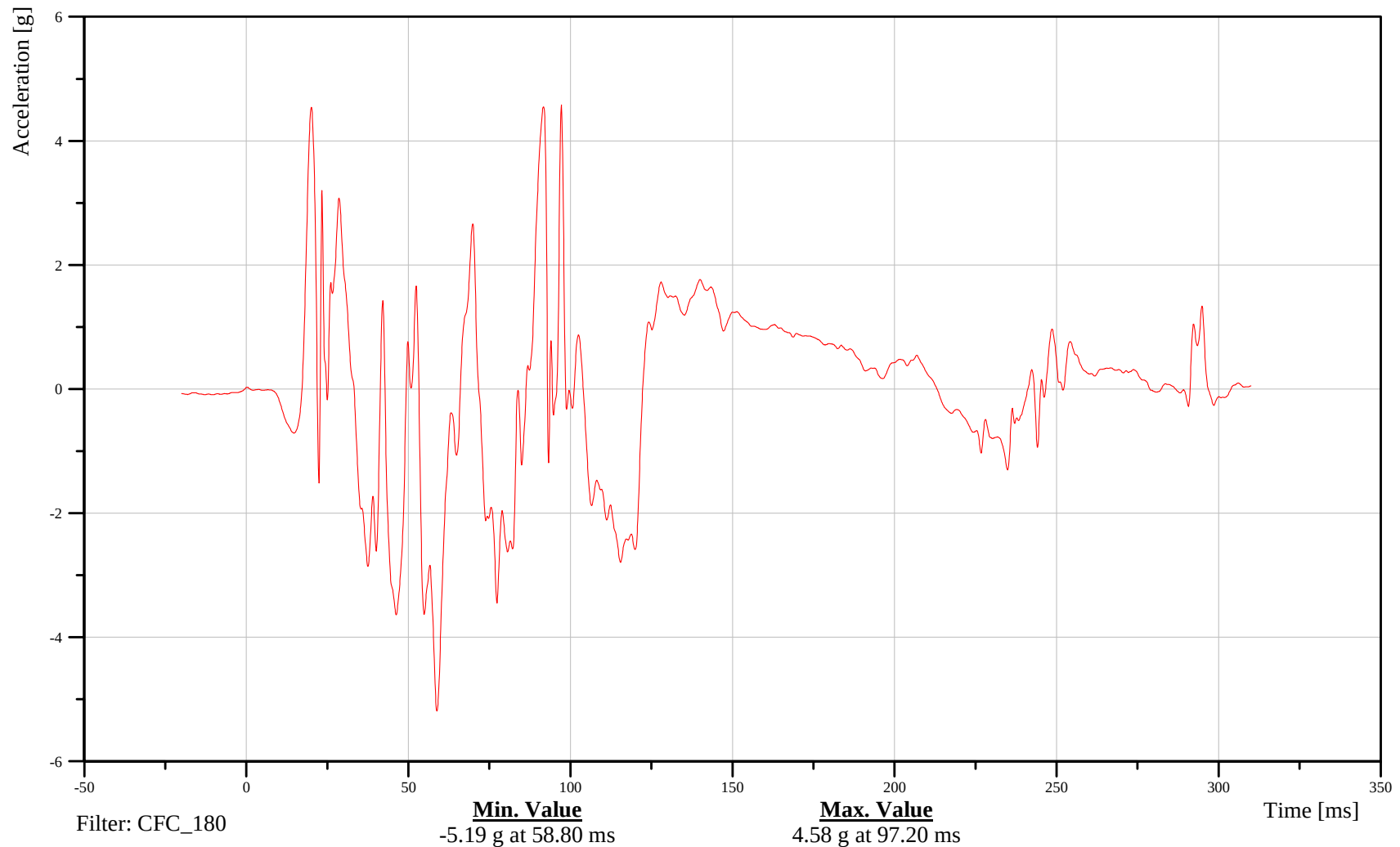
Time: 17:50

Customer: VRTC

13CHSTCGRDHFACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Right Front Passenger Redundant Chest CG Resultant Acceleration

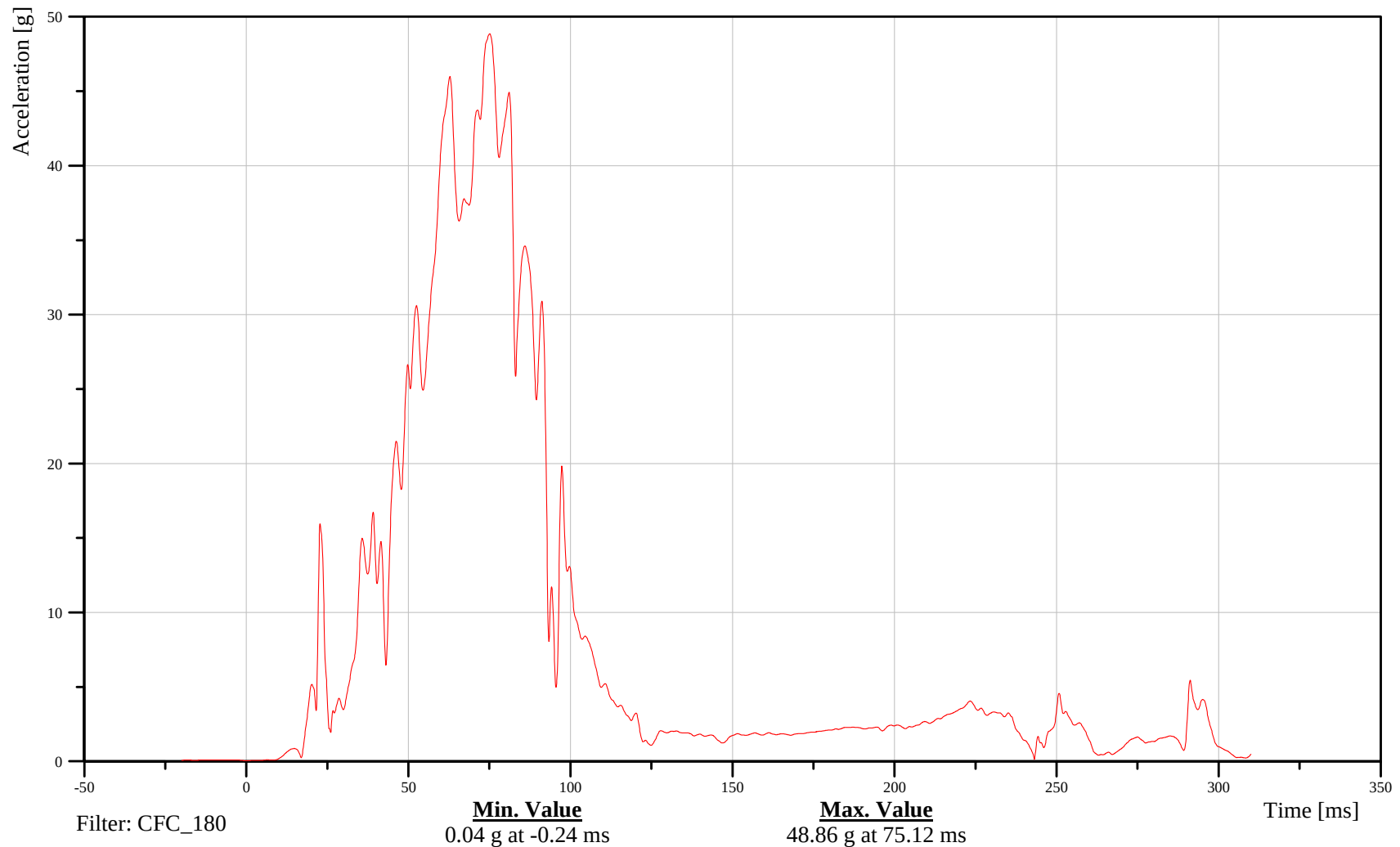
Time: 17:50

Customer: VRTC

13CHSTCGRDHFACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

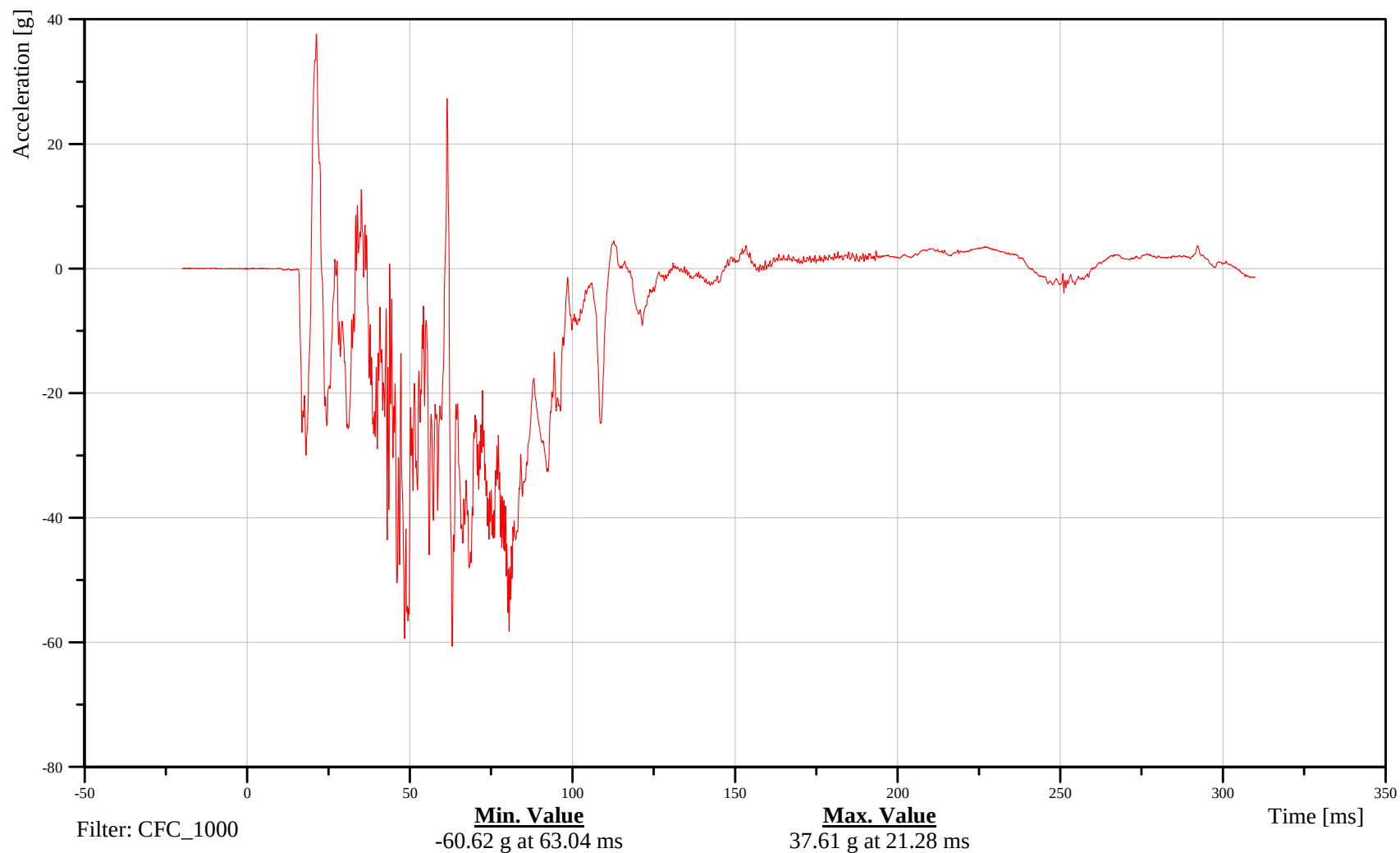
Right Front Passenger Sternum Upper X-Axis Acceleration

Customer: VRTC

13STRNUP00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

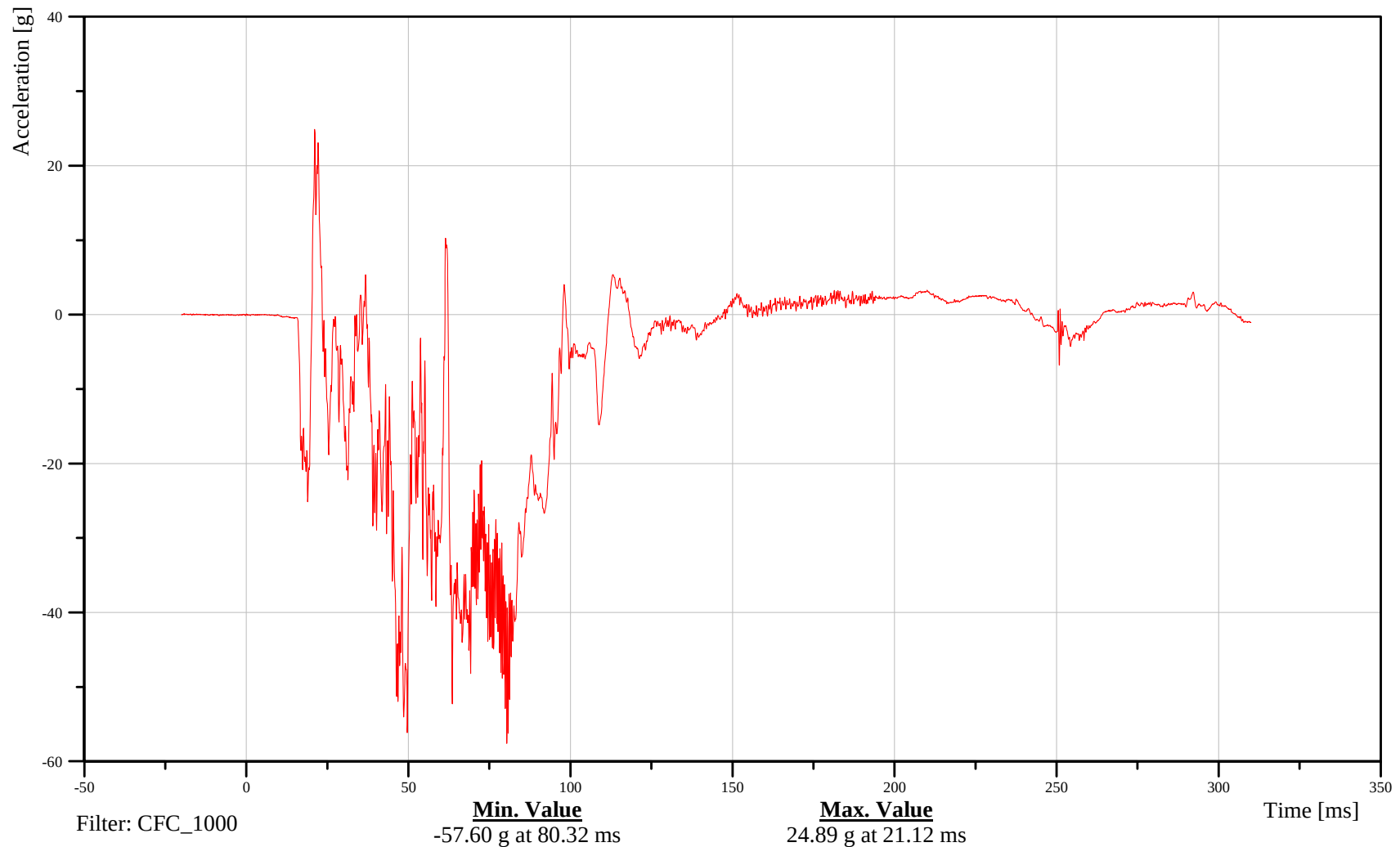
Right Front Passenger Sternum Mid X-Axis Acceleration

Customer: VRTC

13STRNMI00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

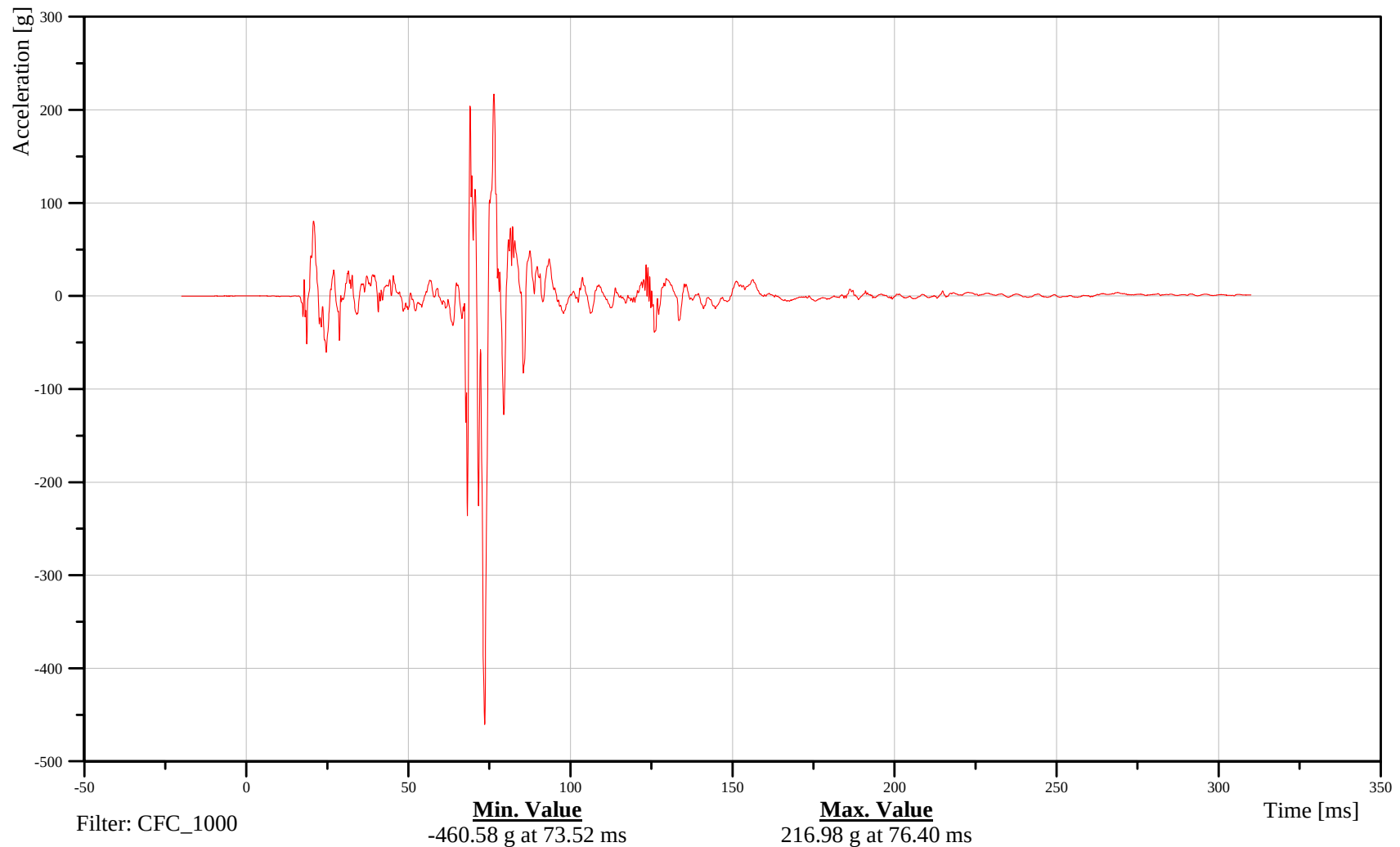
Right Front Passenger Sternum Lower X-Axis Acceleration

Customer: VRTC

13STRNLO00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

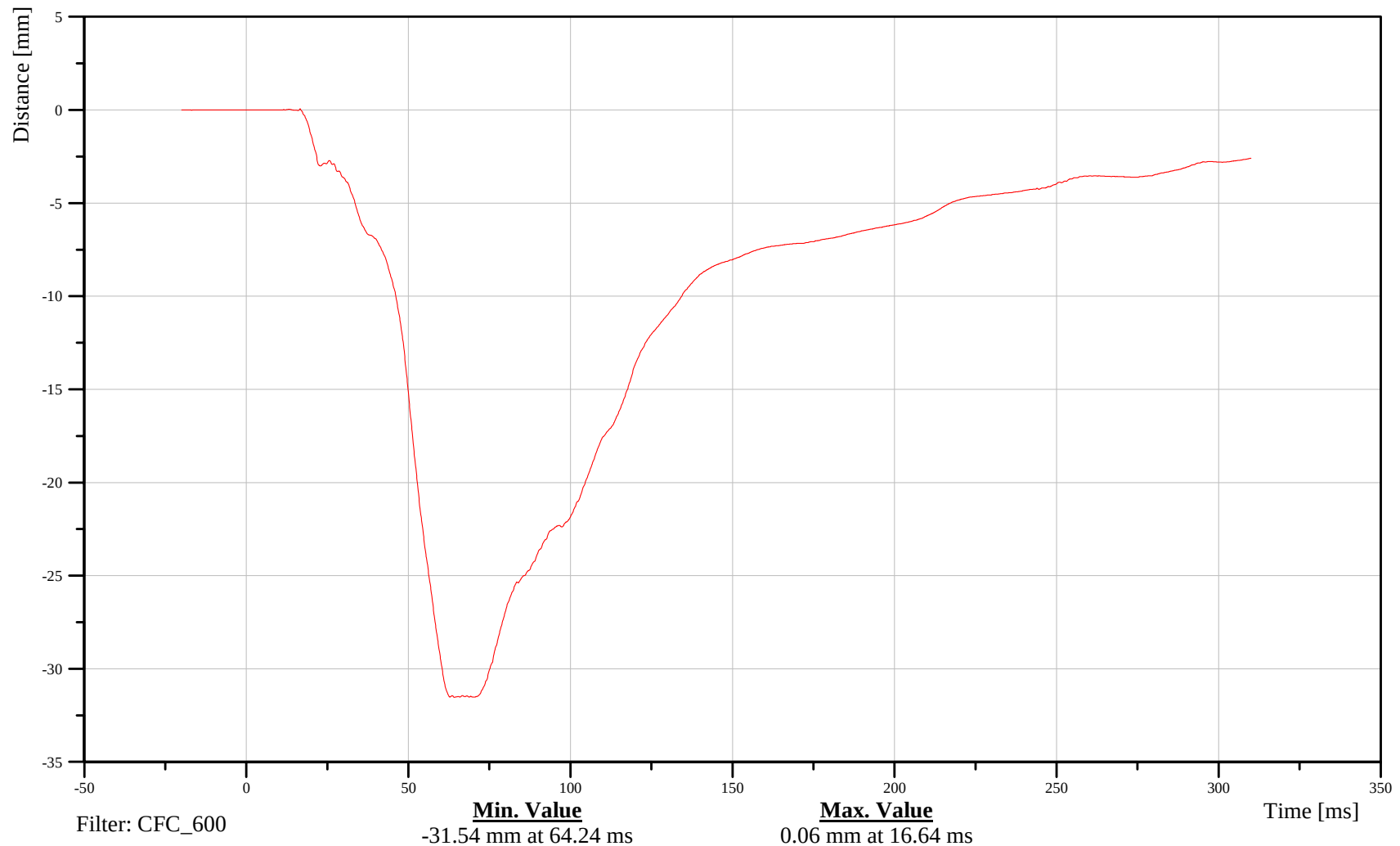
Right Front Passenger Chest Displacement

Customer: VRTC

13CHST0000HFDSXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

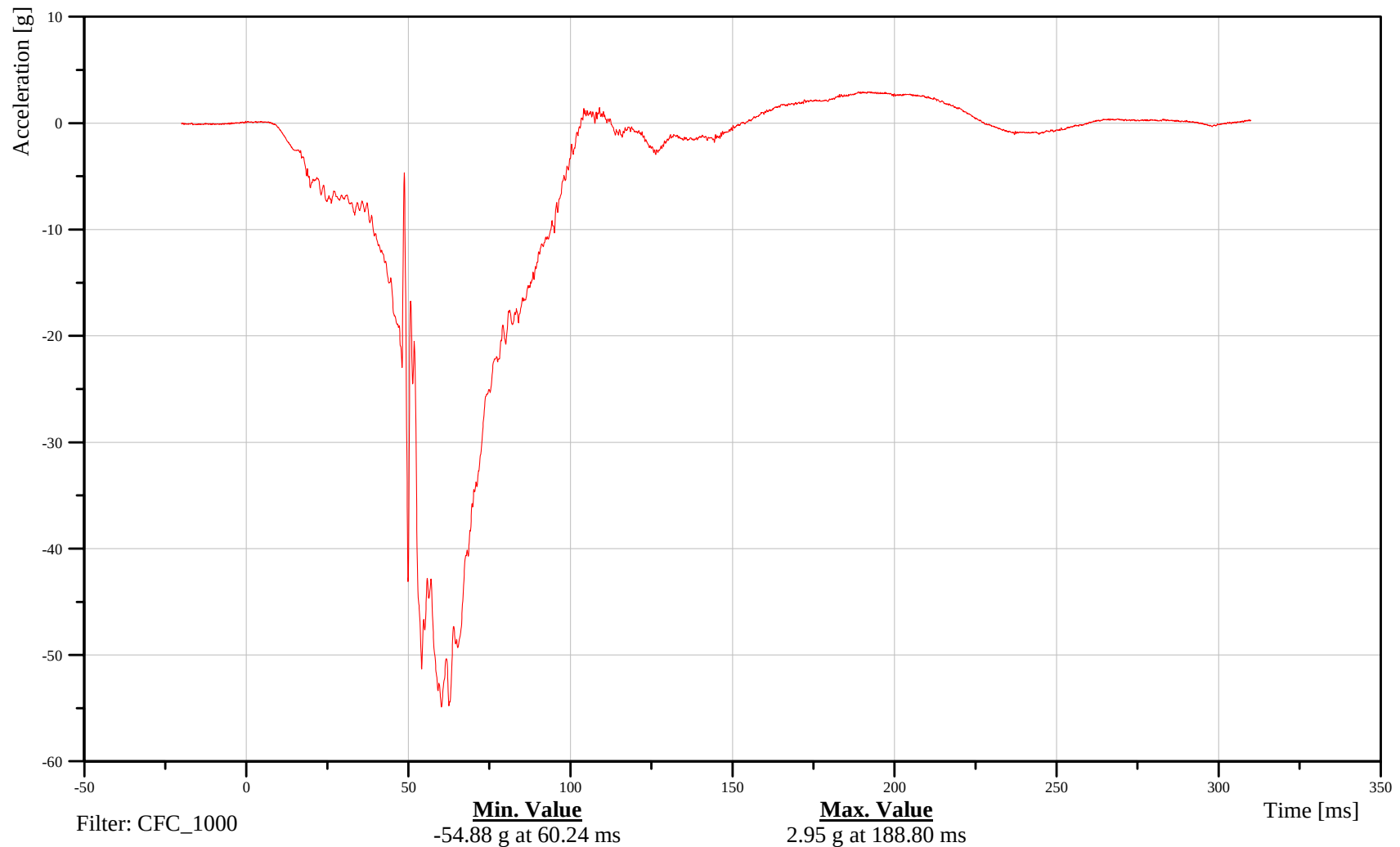
Right Front Passenger Pelvis CG X-Axis Acceleration

Customer: VRTC

13PELVCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

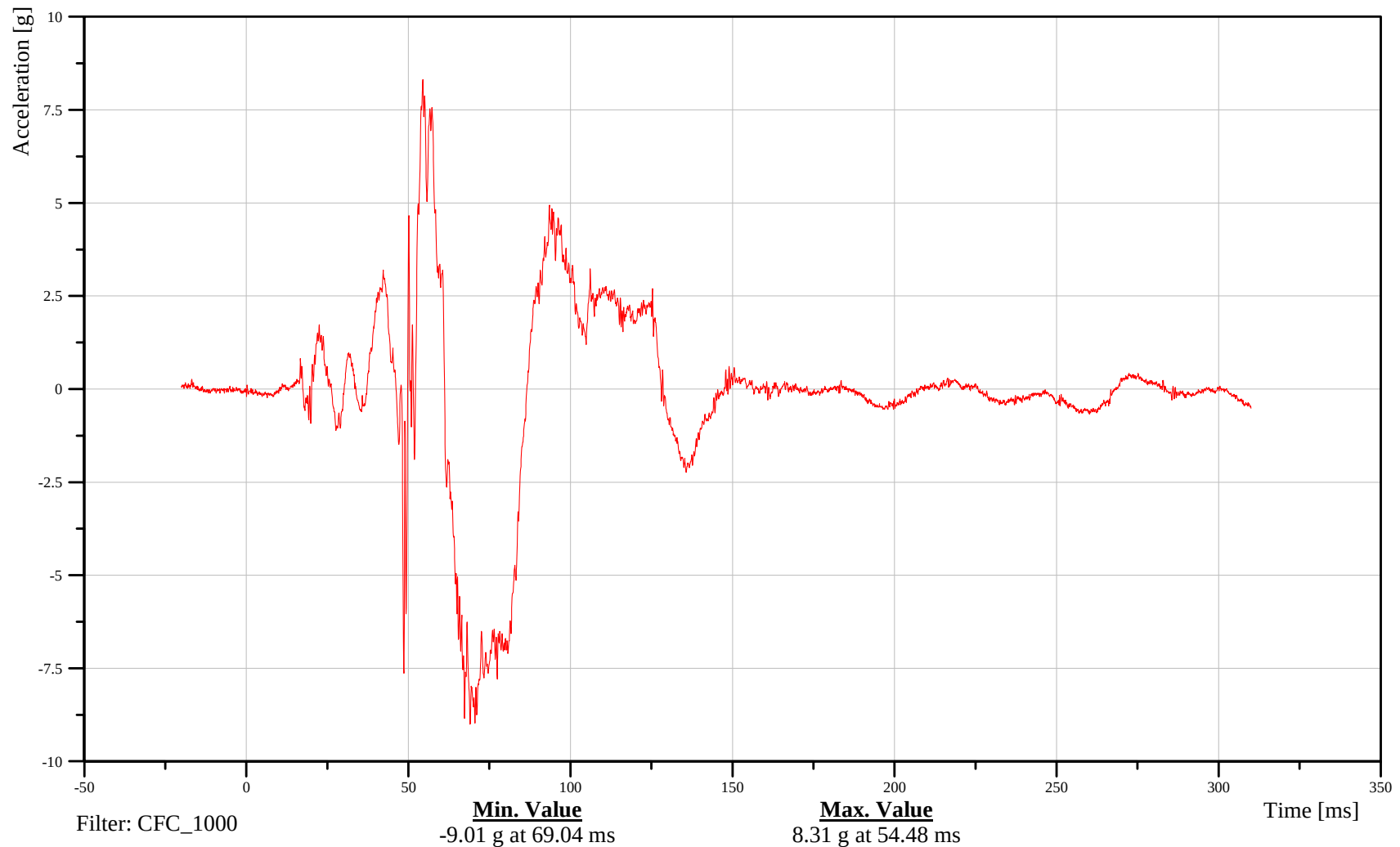
Right Front Passenger Pelvis CG Y-Axis Acceleration

Customer: VRTC

13PELVCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

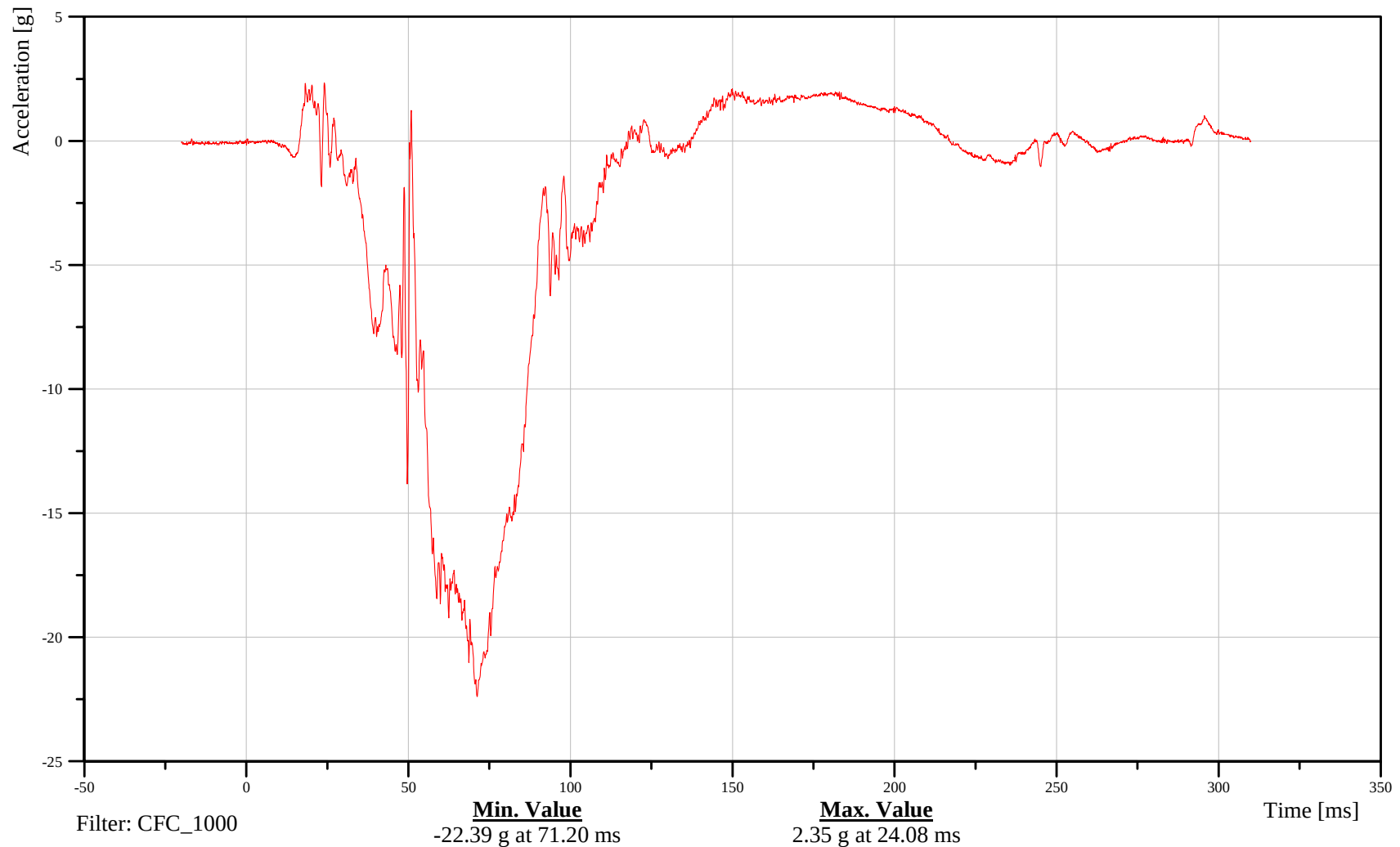
Right Front Passenger Pelvis CG Z-Axis Acceleration

Customer: VRTC

13PELVCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Pelvis CG Resultant Acceleration

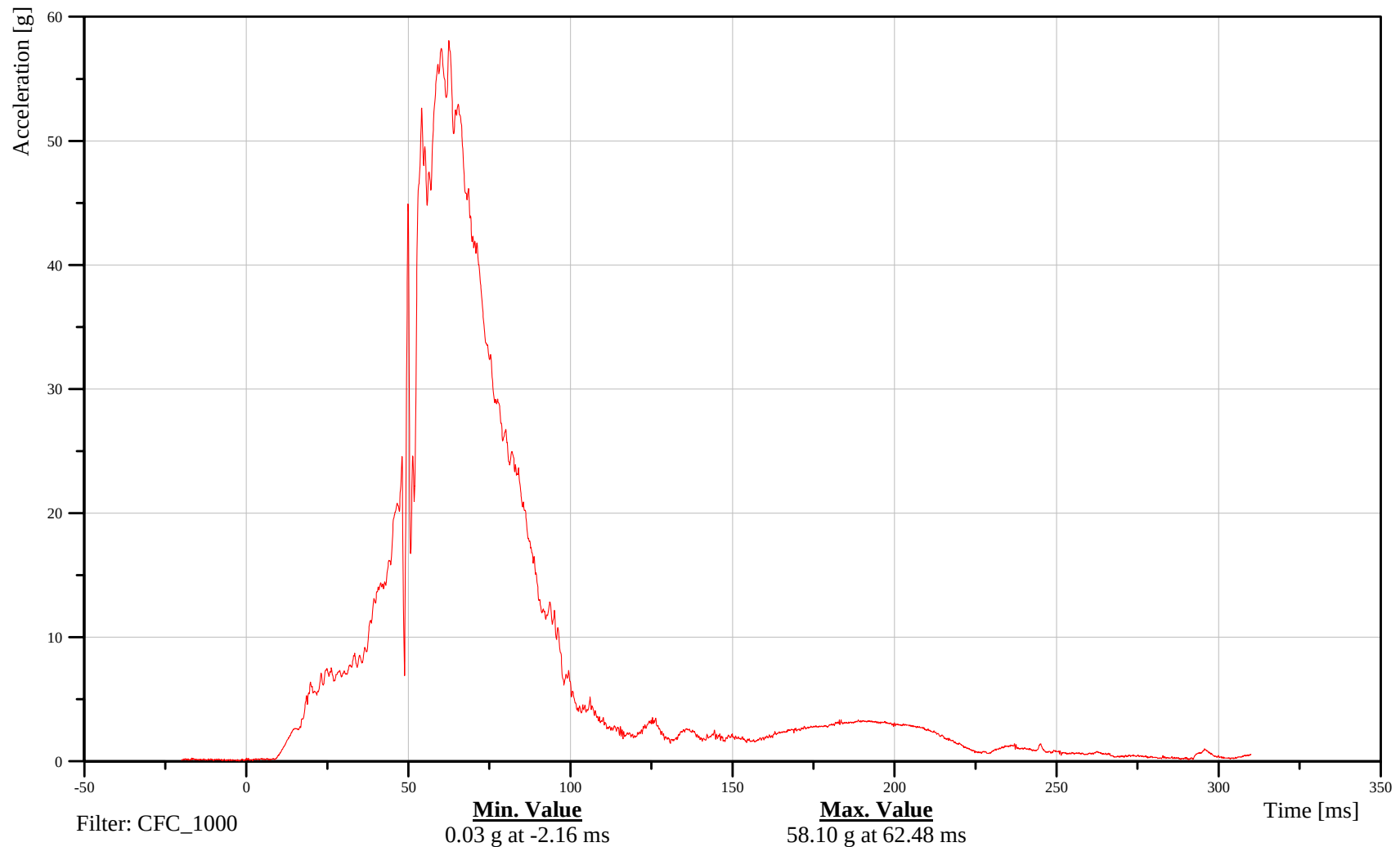
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13PELVCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Left Femur Z-Axis Force

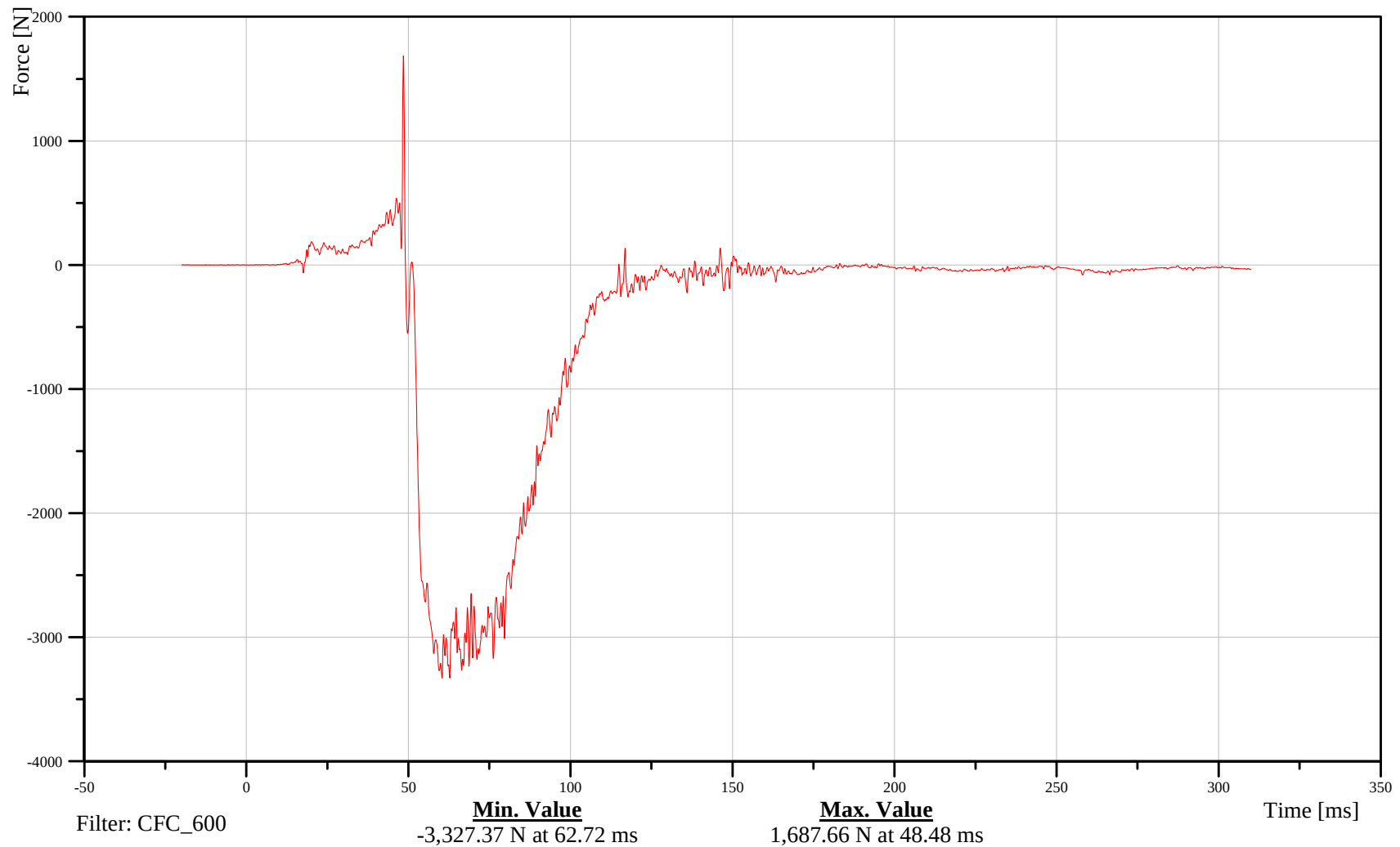
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13FEMRLL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

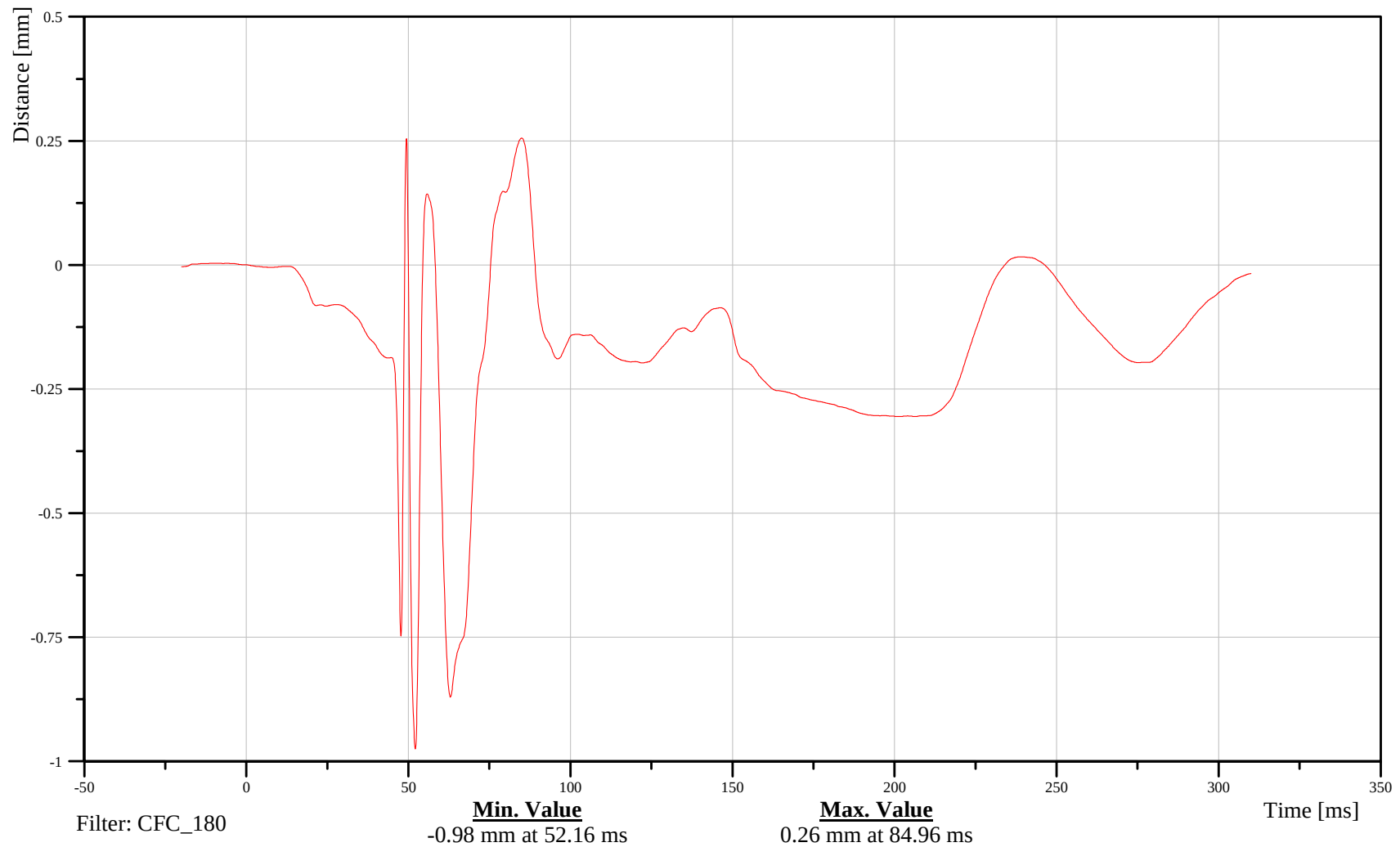
Right Front Passenger Left Knee Displacement

Customer: VRTC

13KNSLLE00HFDSXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

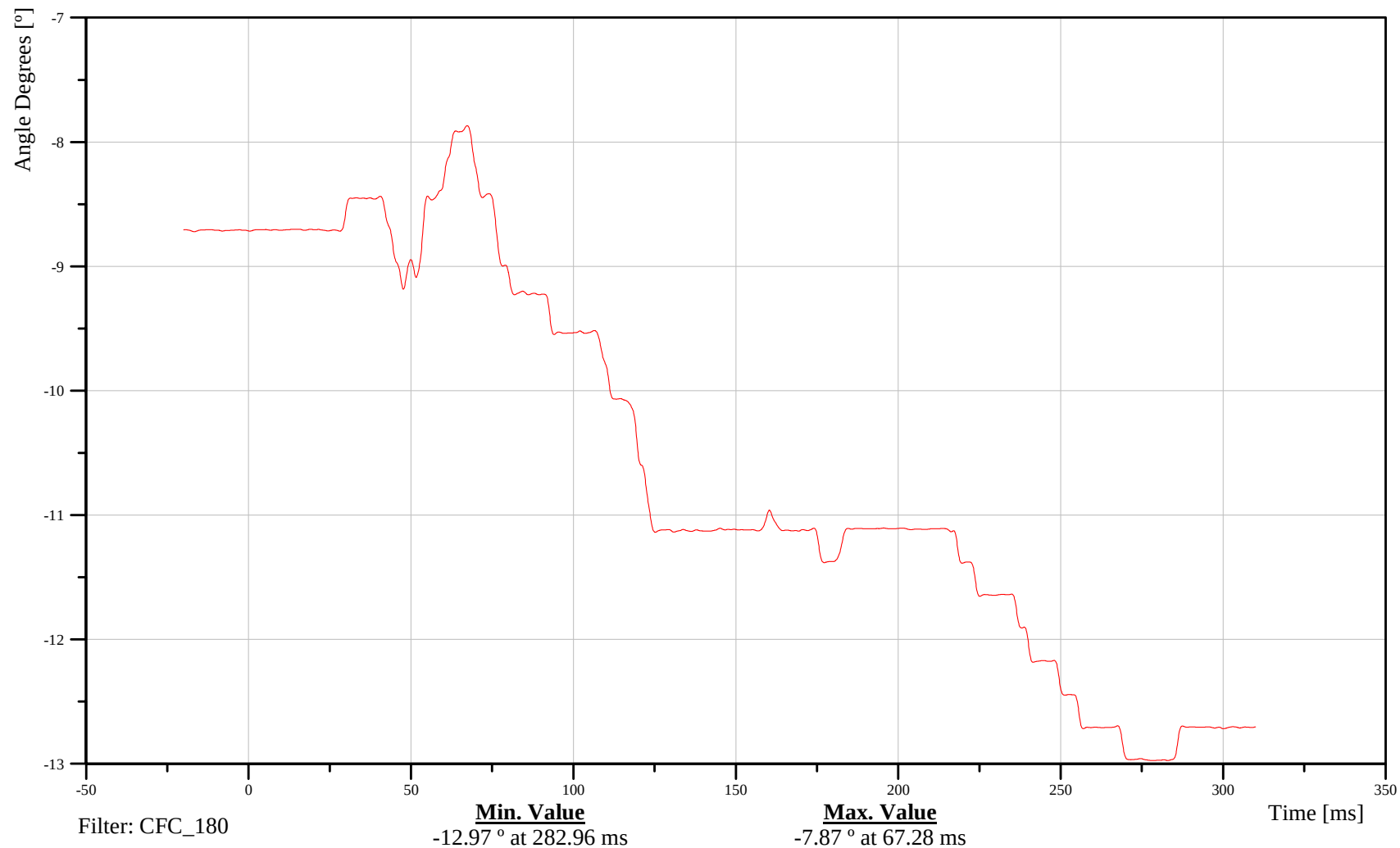
Right Front Passenger Left Foot X-Axis Rotation

Customer: VRTC

13FOOTLEFXHFANXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

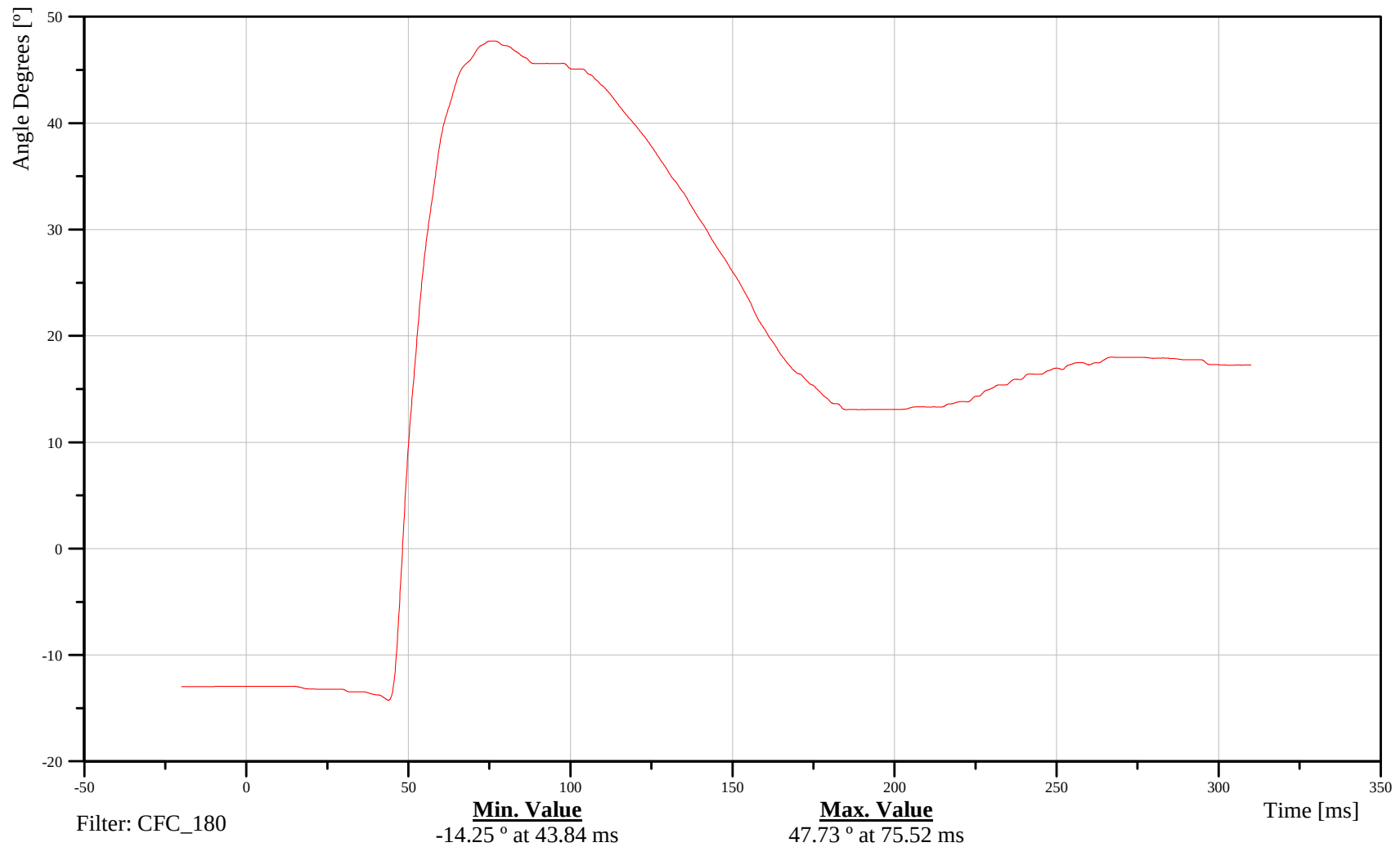
Right Front Passenger Left Foot Y-Axis Rotation

Customer: VRTC

13FOOTLEFXHFANYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

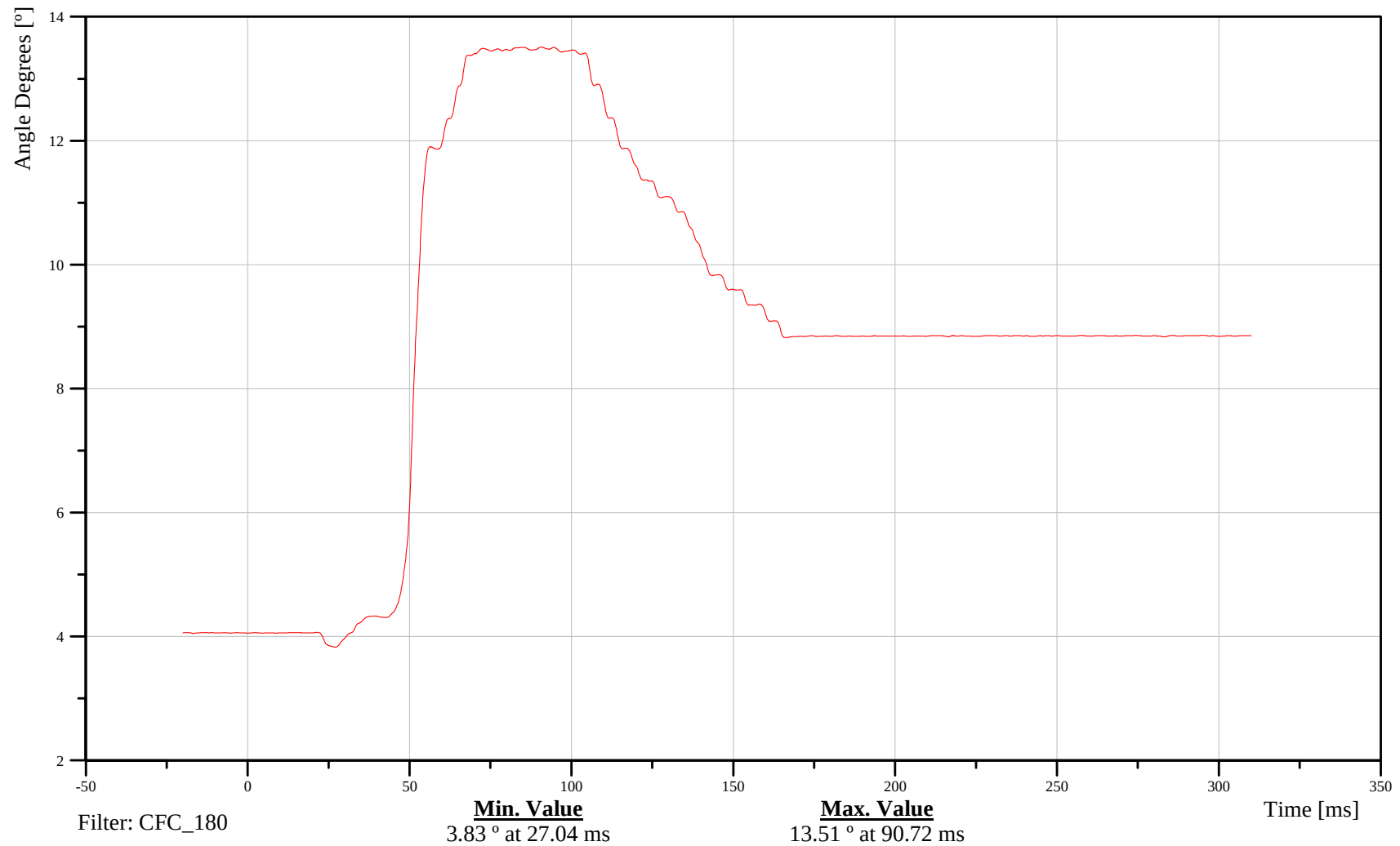
Right Front Passenger Left Foot Z-Axis Rotation

Customer: VRTC

13FOOTLEFXHFANZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

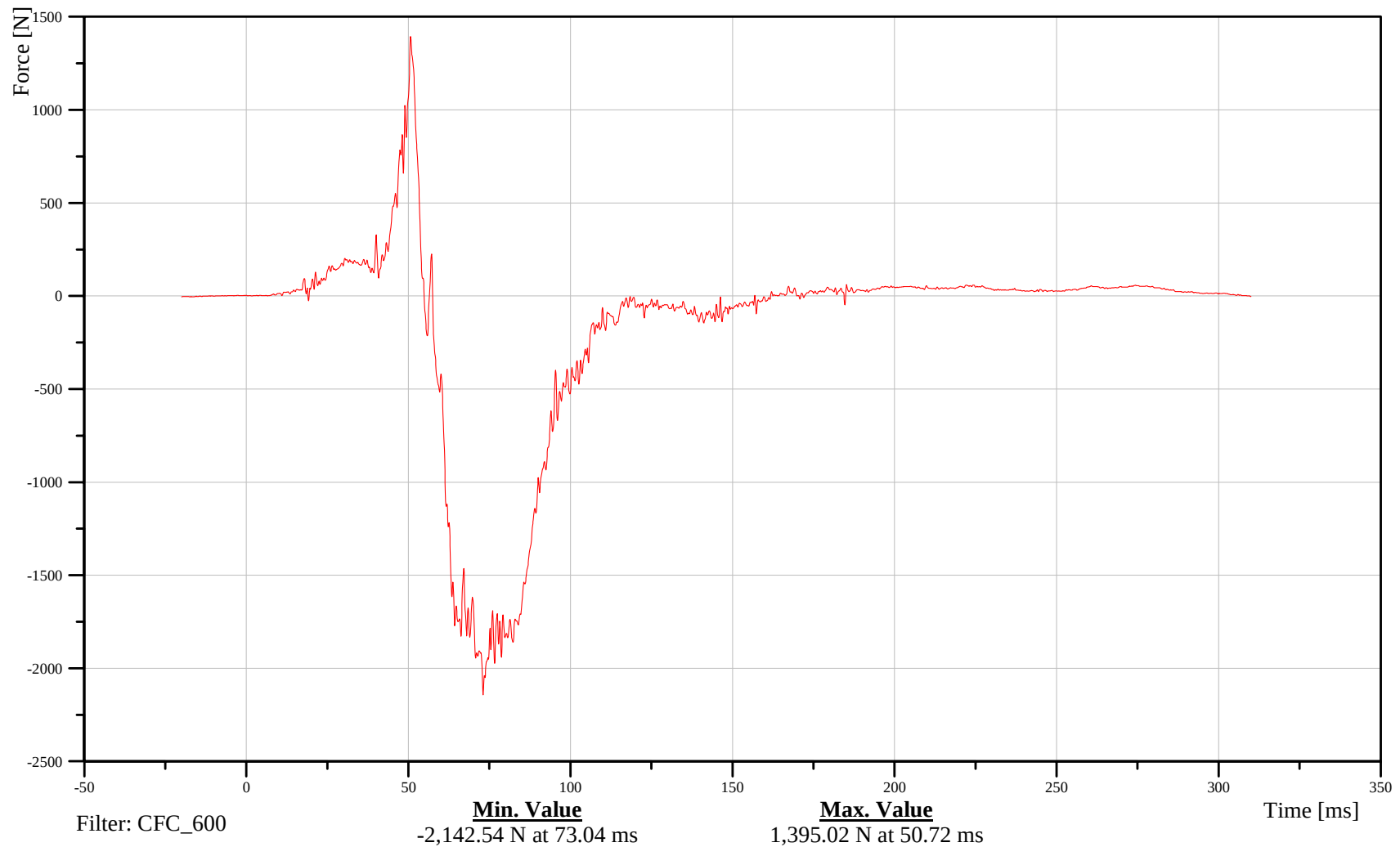
Right Front Passenger Right Femur Z-Axis Force

Customer: VRTC

13FEMRRL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

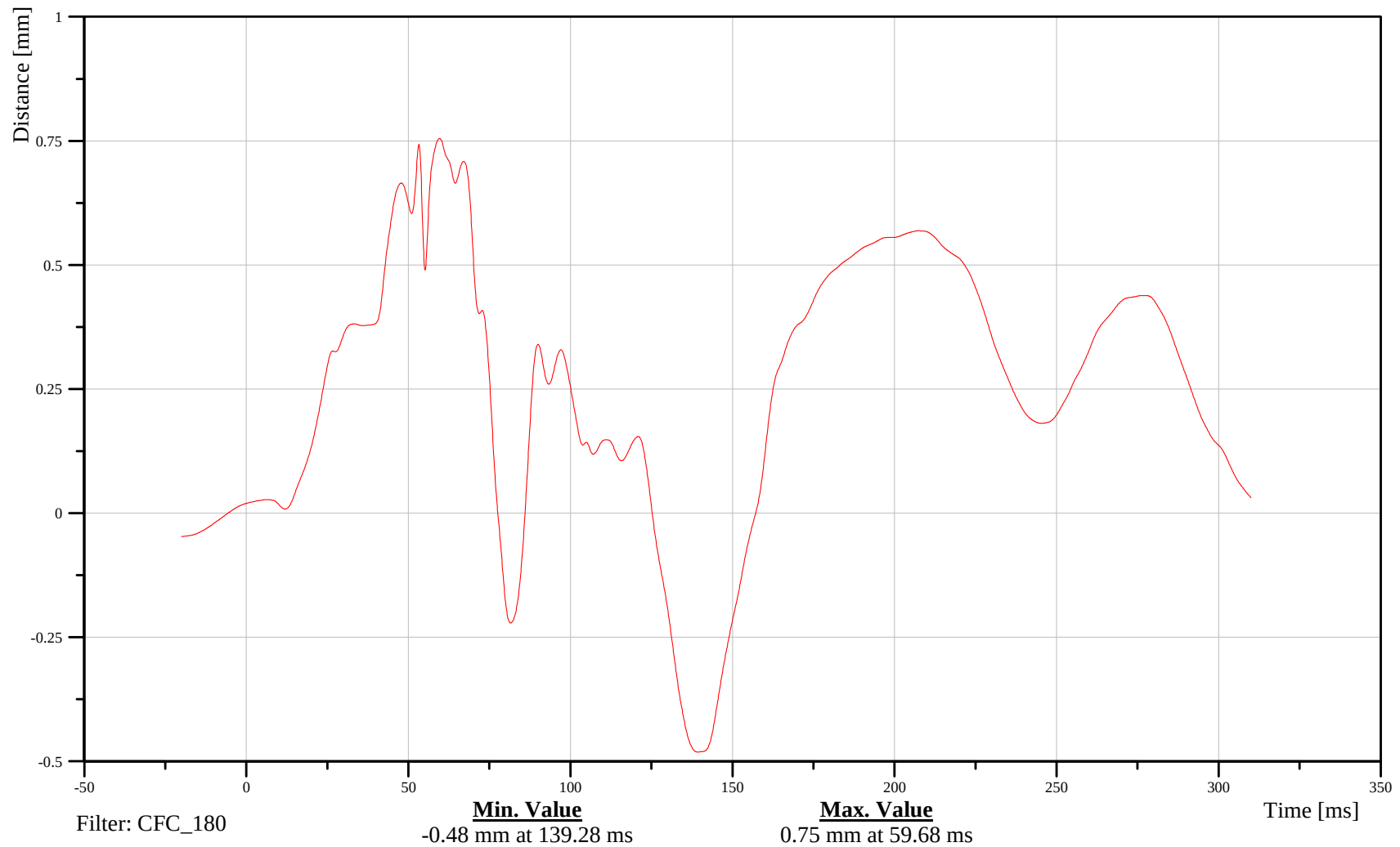
Right Front Passenger Right Knee Displacement

Customer: VRTC

13KNSLRI00HFDSXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

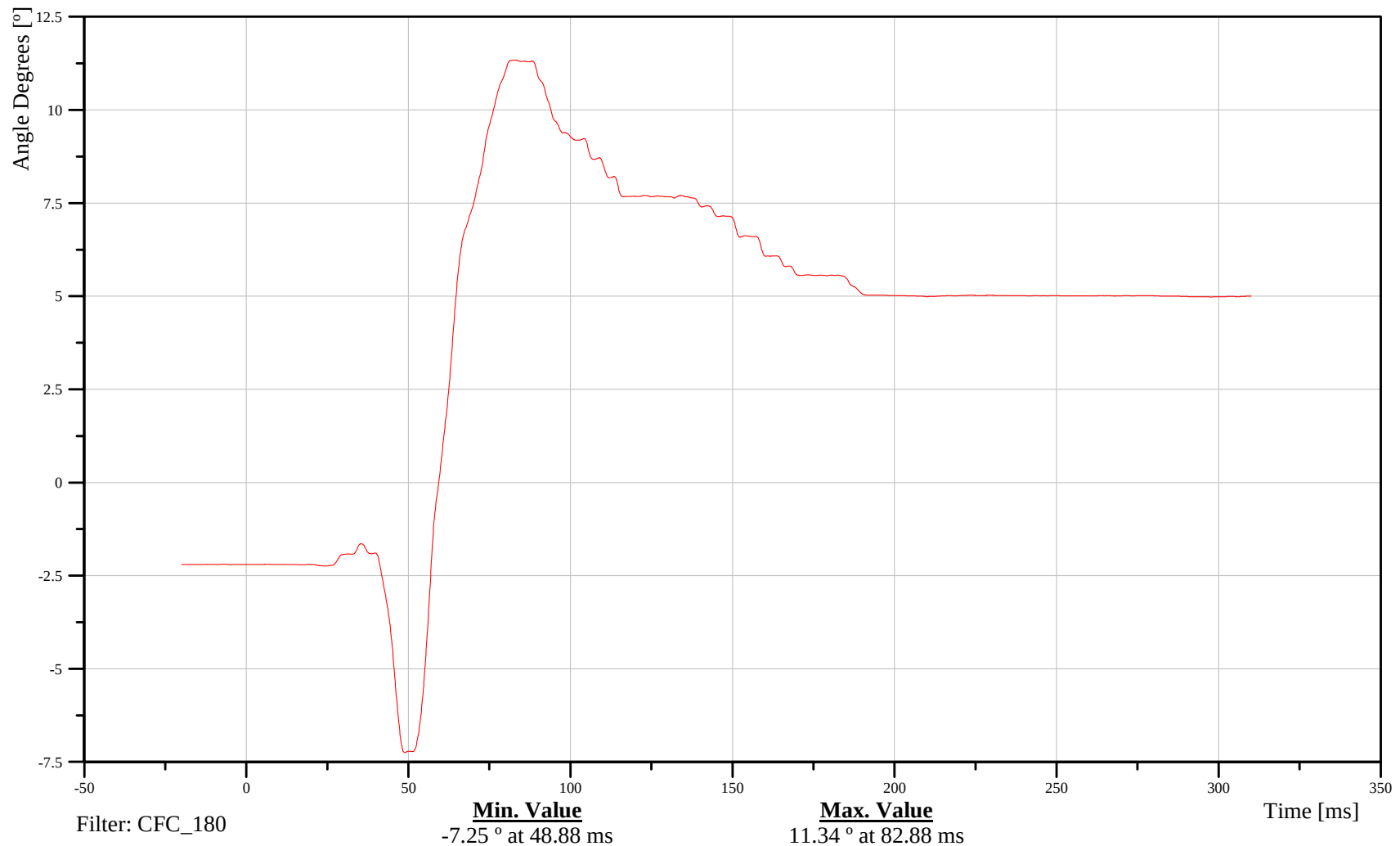
Right Front Passenger Right Foot X-Axis Rotation

Customer: VRTC

13FOOTRIFXHFANXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

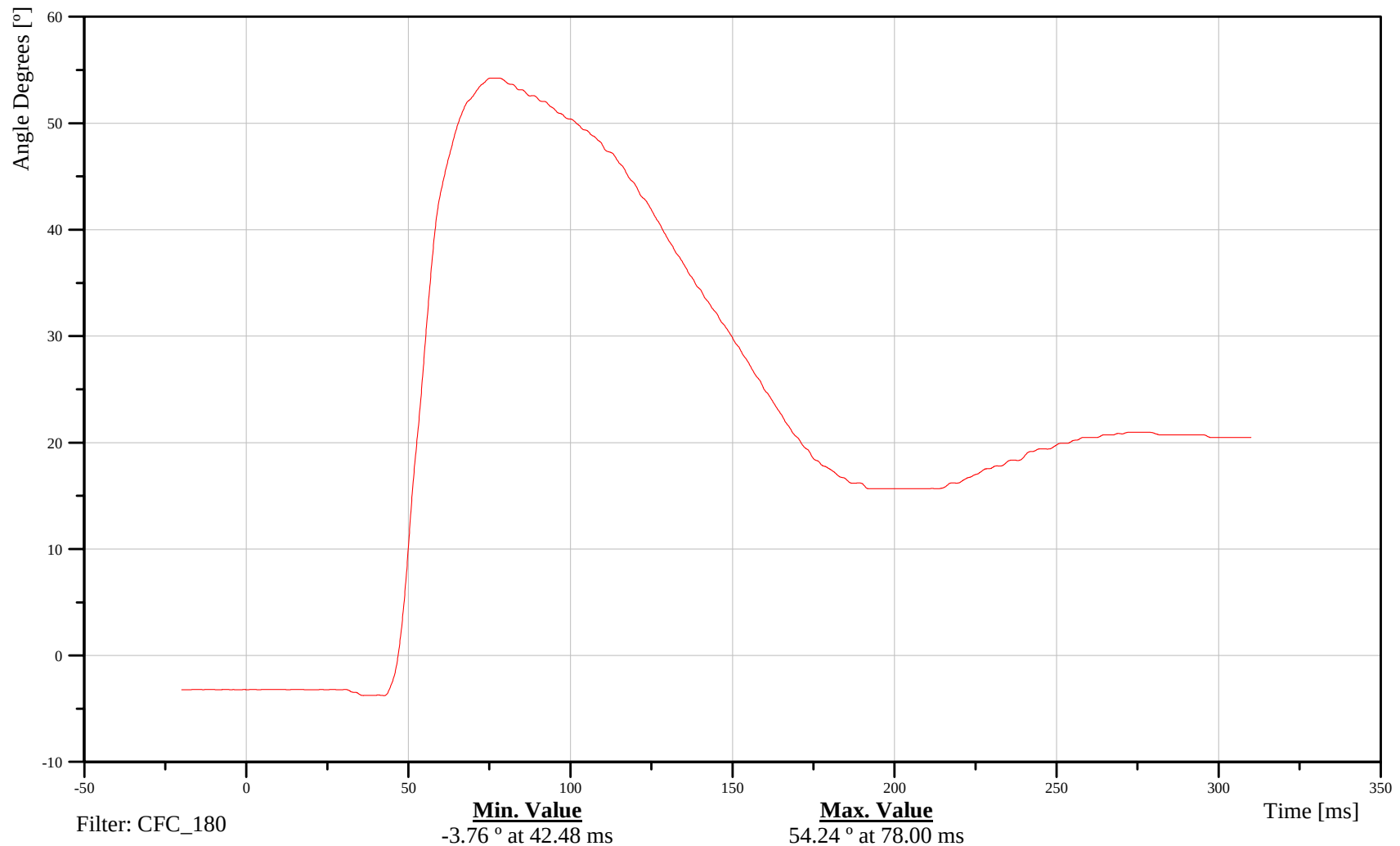
Right Front Passenger Right Foot Y-Axis Rotation

Customer: VRTC

13FOOTRIFXHFANYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

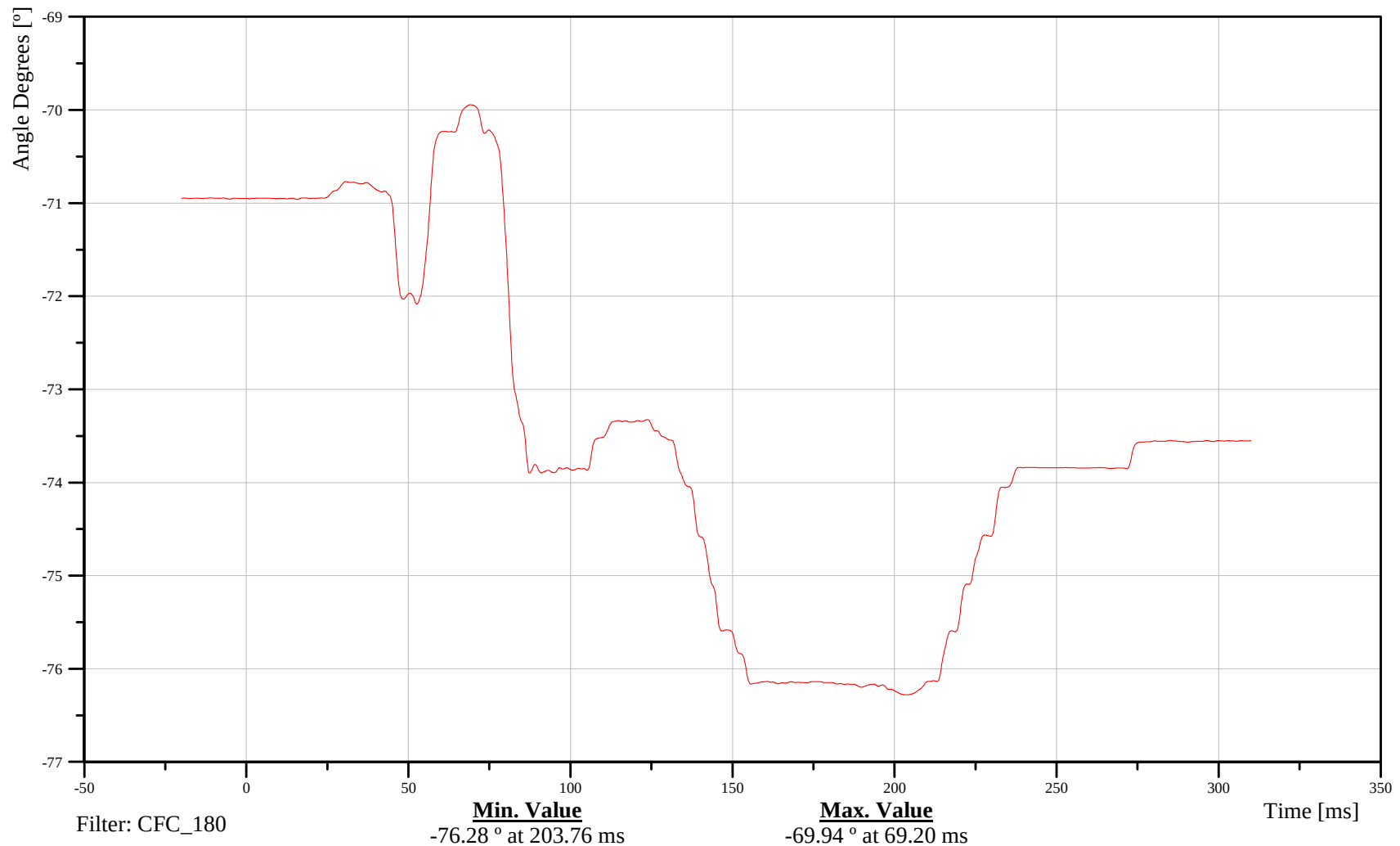
Right Front Passenger Right Foot Z-Axis Rotation

Customer: VRTC

13FOOTRIFXHFANZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Head X-Axis Acceleration

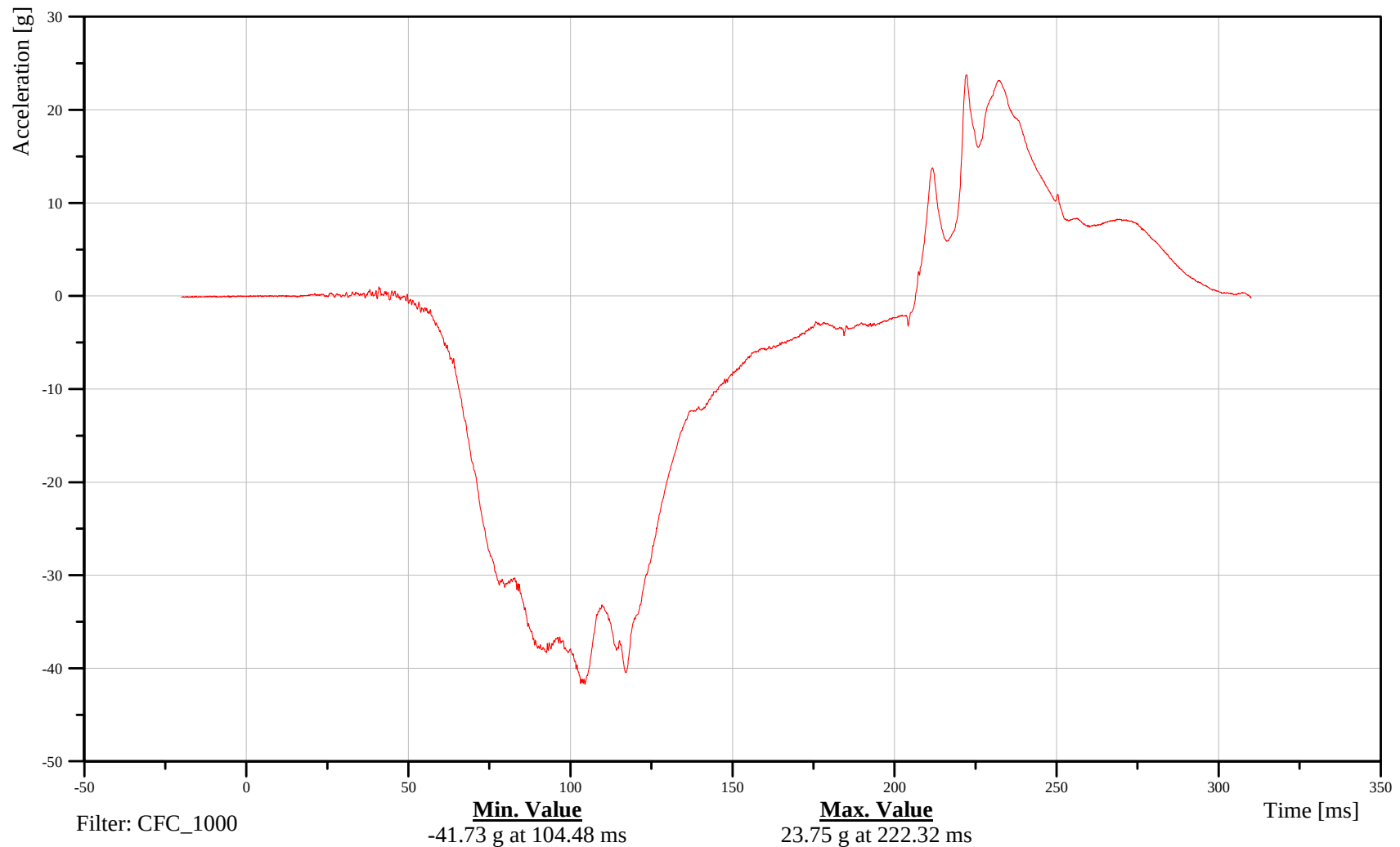
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14HEADCG00HFACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

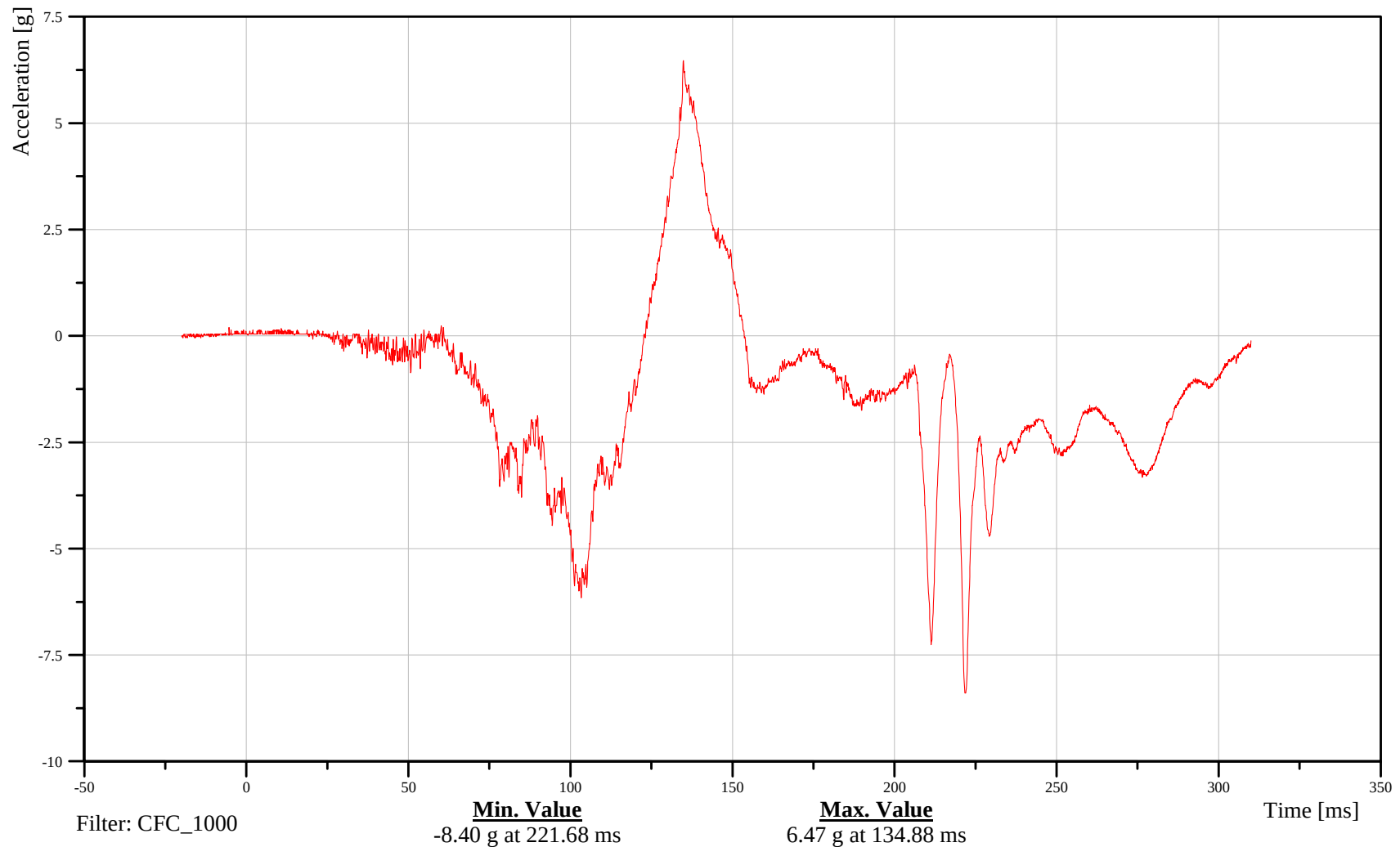
Left Rear Passenger Head Y-Axis Acceleration

Customer: VRTC

14HEADCG00HFACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

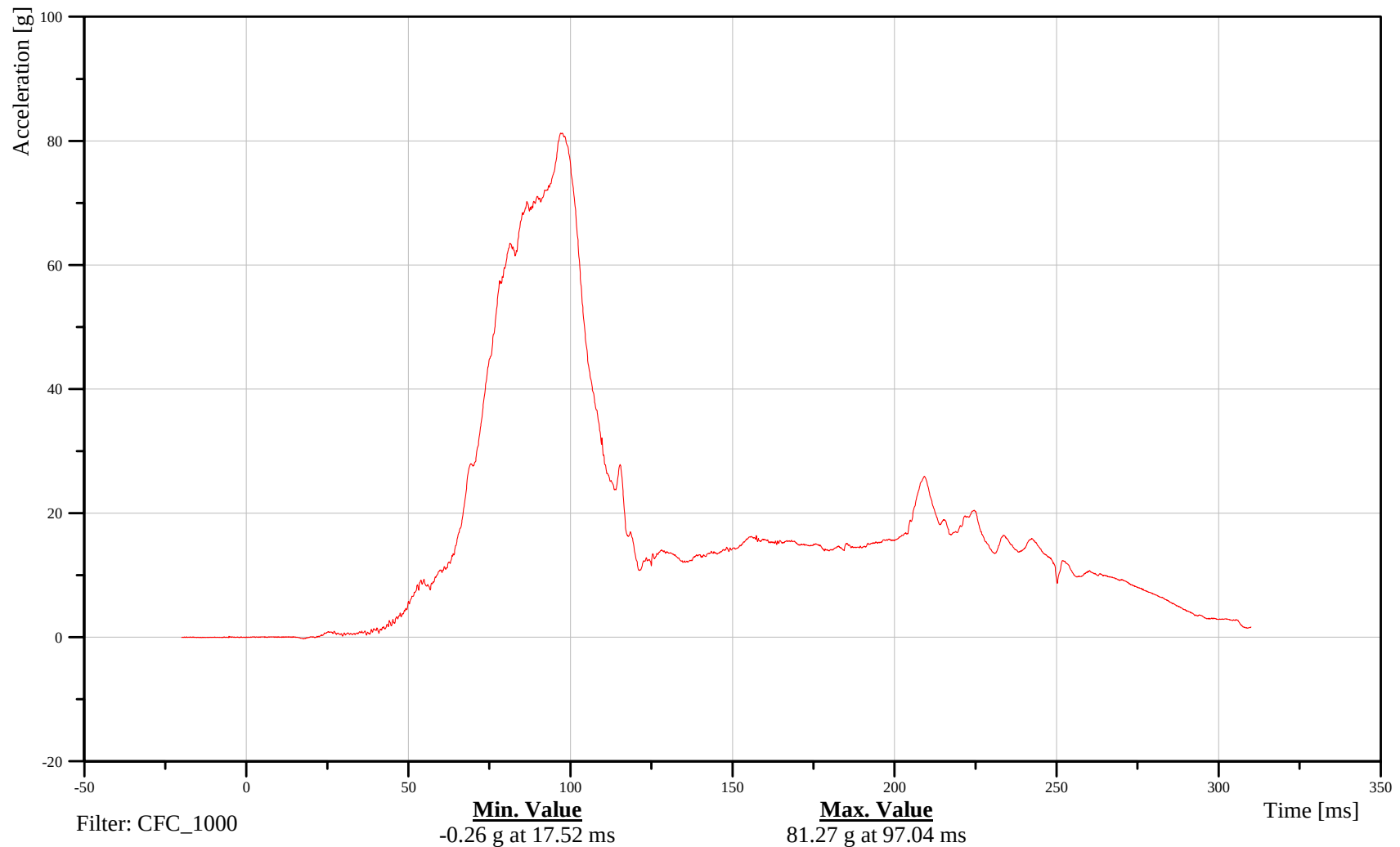
Left Rear Passenger Head Z-Axis Acceleration

Customer: VRTC

14HEADCG00HFACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

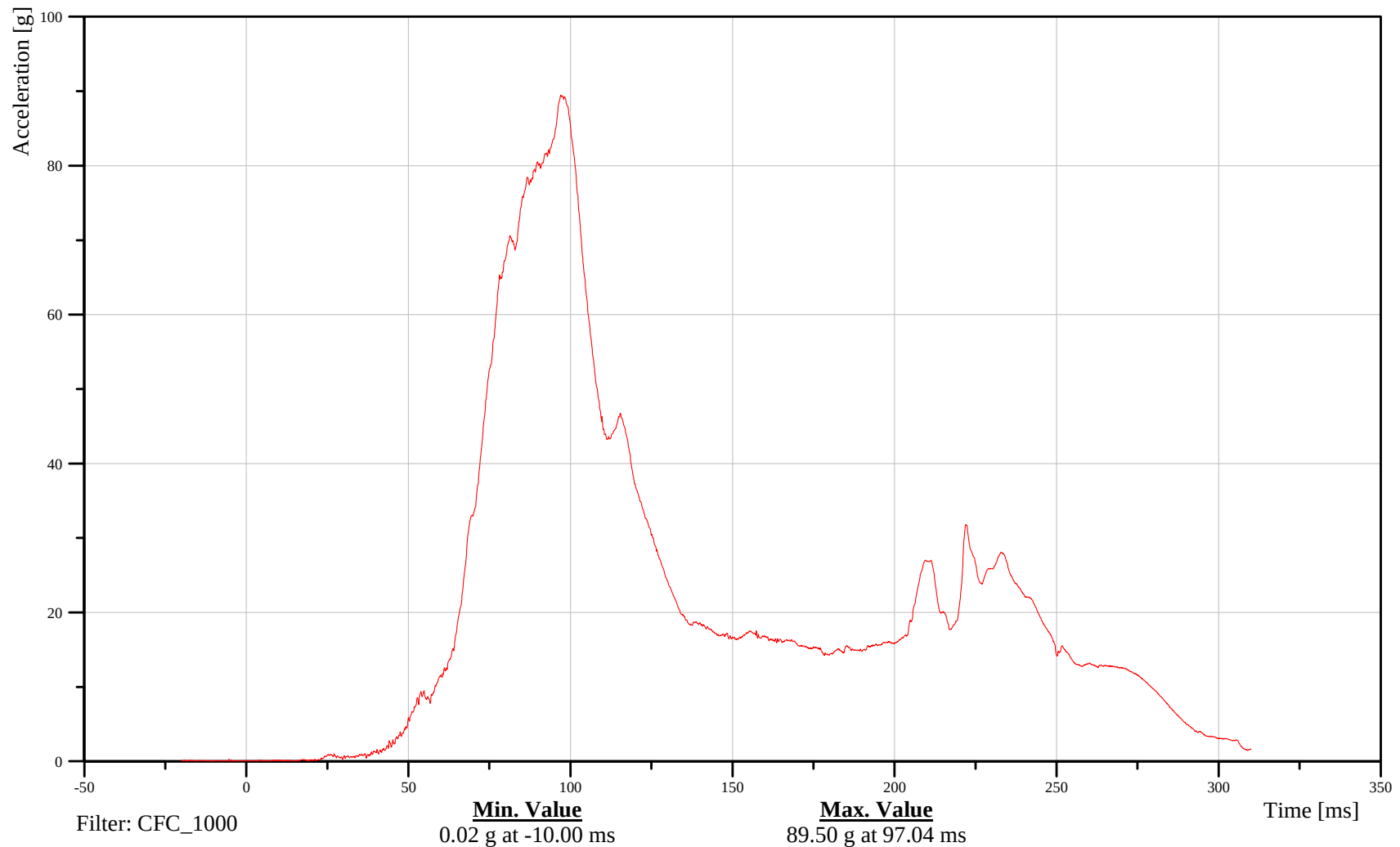
Left Rear Passenger Head Resultant Acceleration

Customer: VRTC

14HEADCG00HFACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

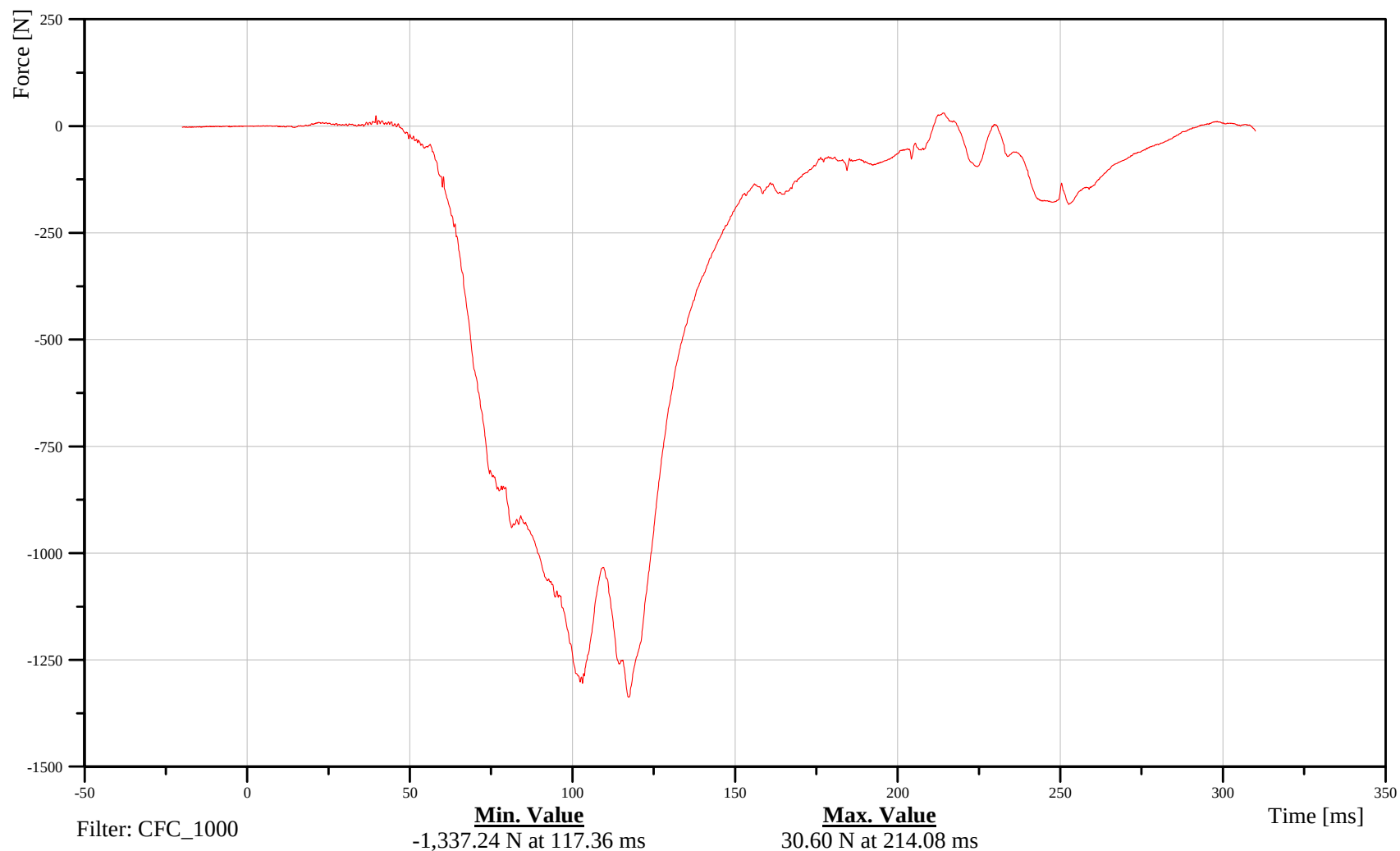
Left Rear Passenger Upper Neck X-Axis Force

Customer: VRTC

14NECKUP00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

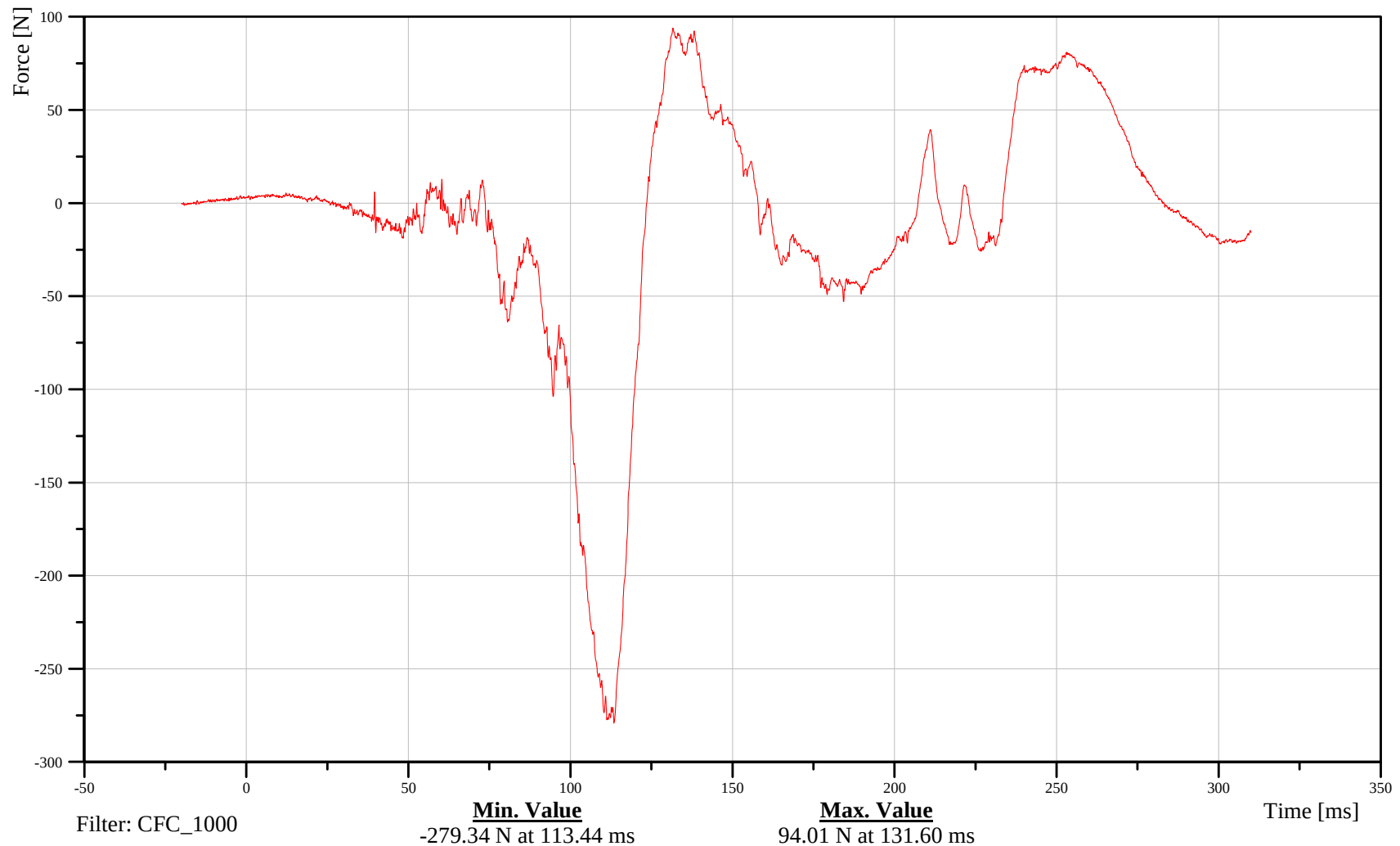
Left Rear Passenger Upper Neck Y-Axis Force

Customer: VRTC

14NECKUP00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

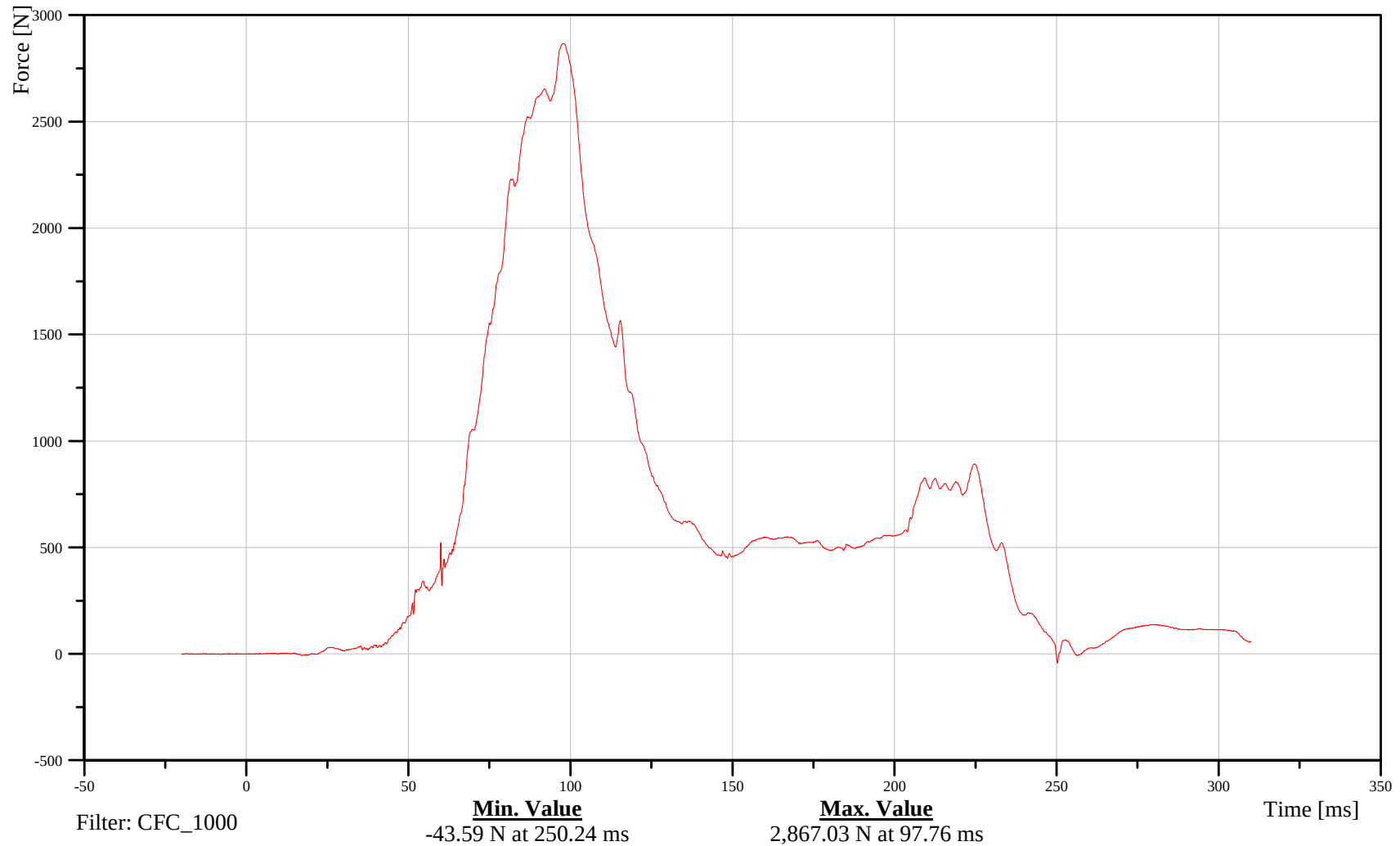
Left Rear Passenger Upper Neck Z-Axis Force

Customer: VRTC

14NECKUP00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

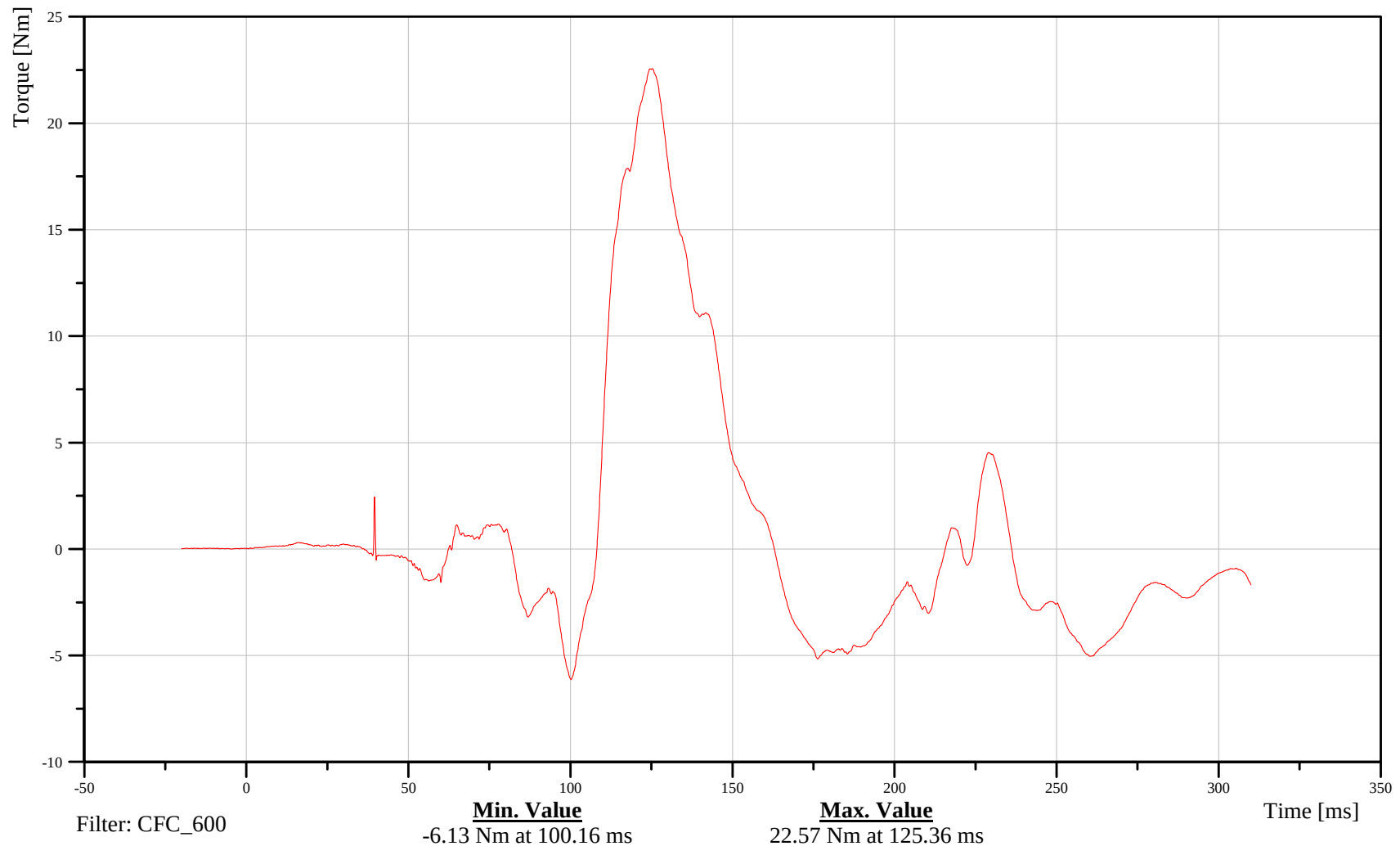
Left Rear Passenger Upper Neck Moment About X Axis

Customer: VRTC

14NECKUP00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Left Rear Passenger Upper Neck Moment About Y Axis

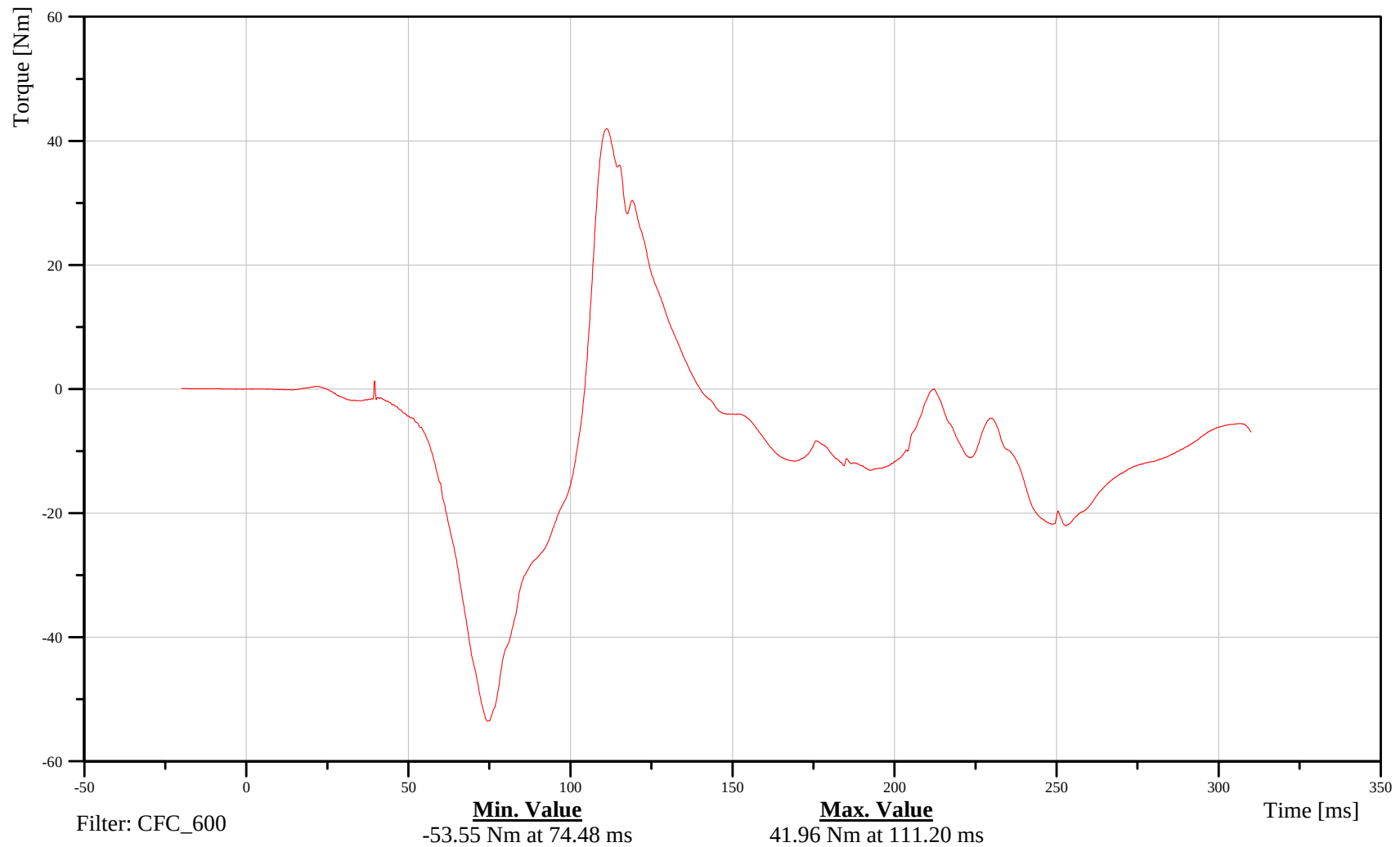
Time: 17:50

Customer: VRTC

14NECKUP00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Upper Neck Moment About Z Axis

Date: 05/19/2006

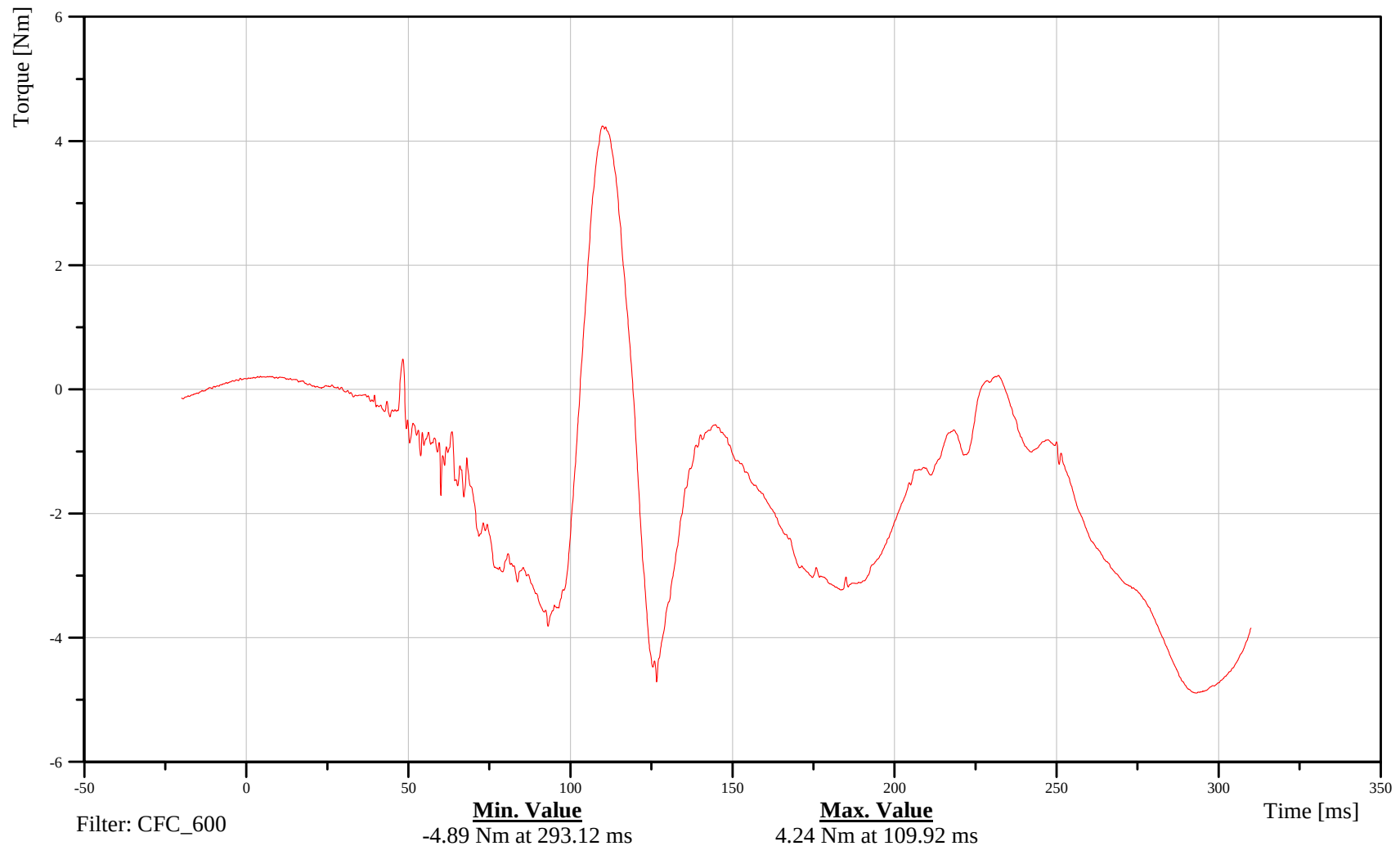
Time: 17:50

Customer: VRTC

14NECKUP00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Lower Neck X-Axis Force

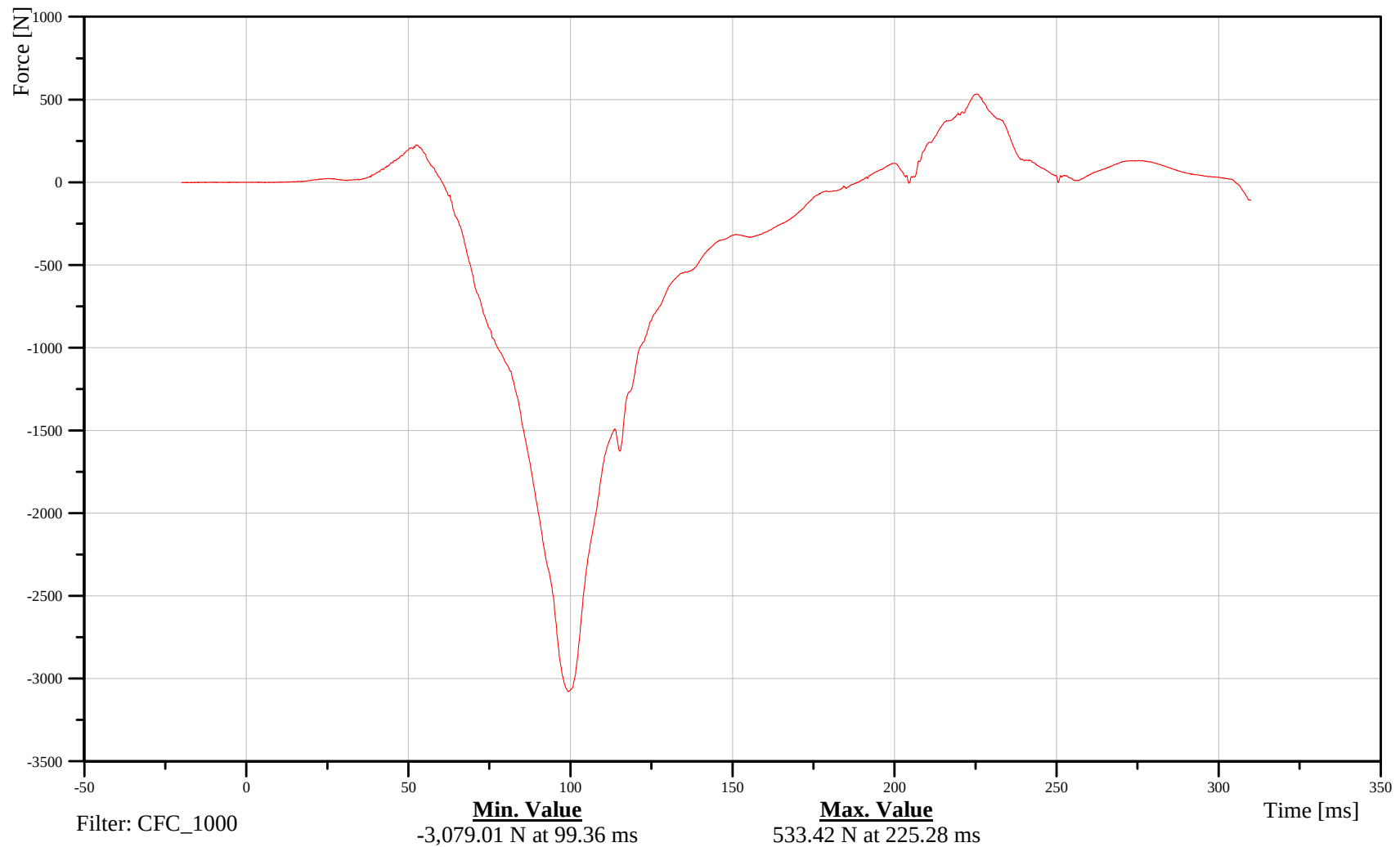
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14NECKLO00HFFOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Lower Neck Y-Axis Force

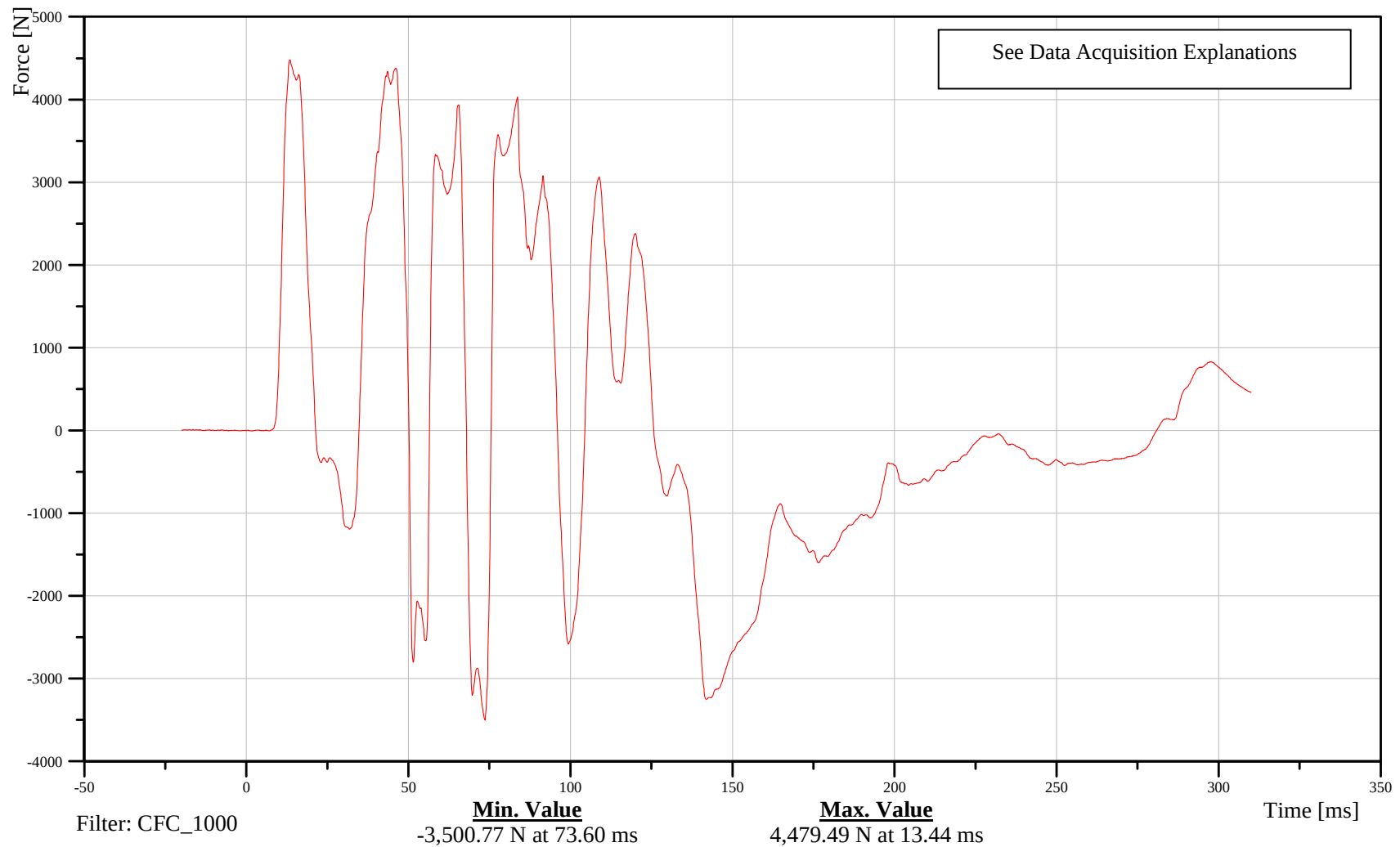
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14NECKLO00HFFOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

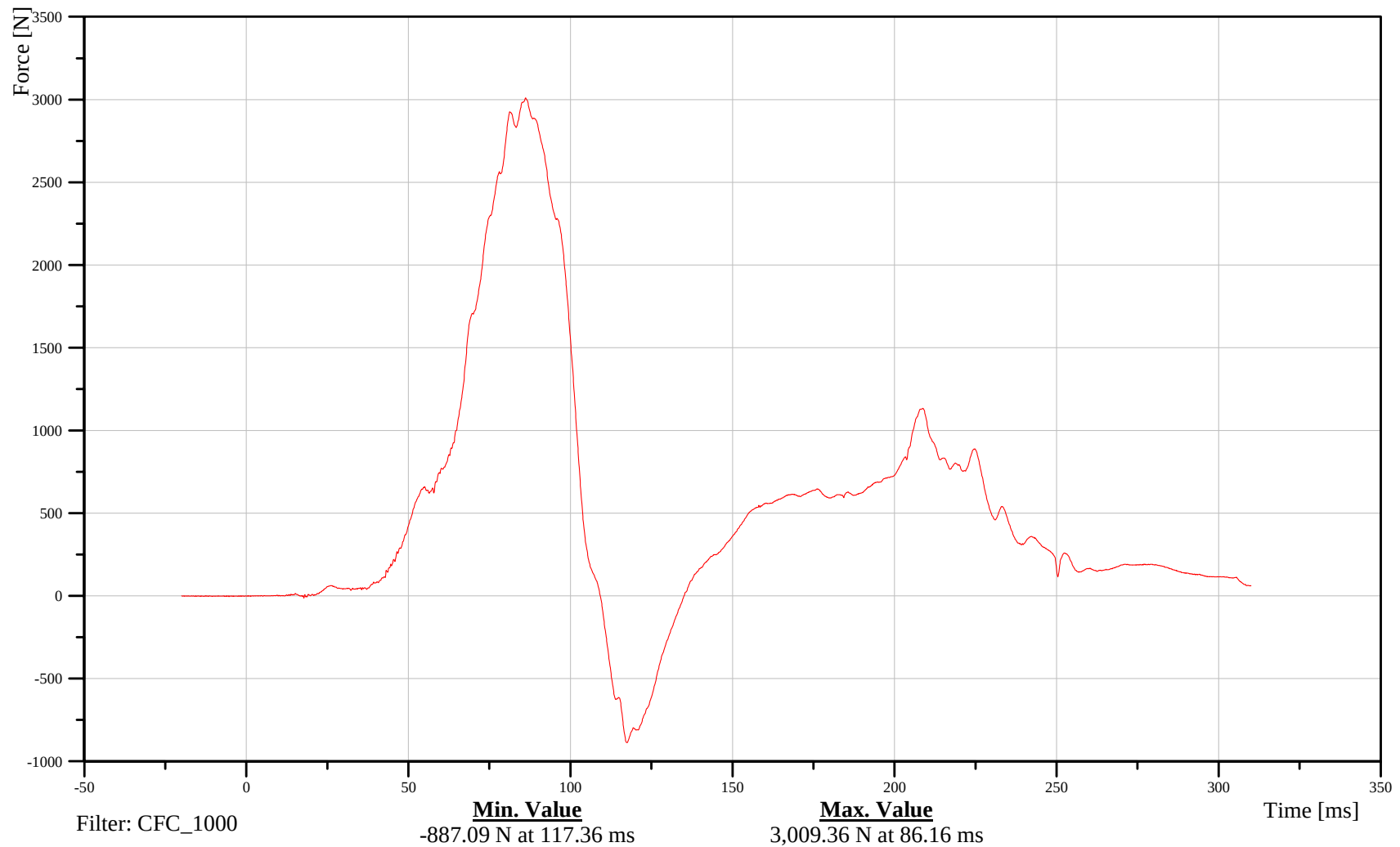
Left Rear Passenger Lower Neck Z-Axis Force

Customer: VRTC

14NECKLO00HFFOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Lower Neck Moment About X Axis

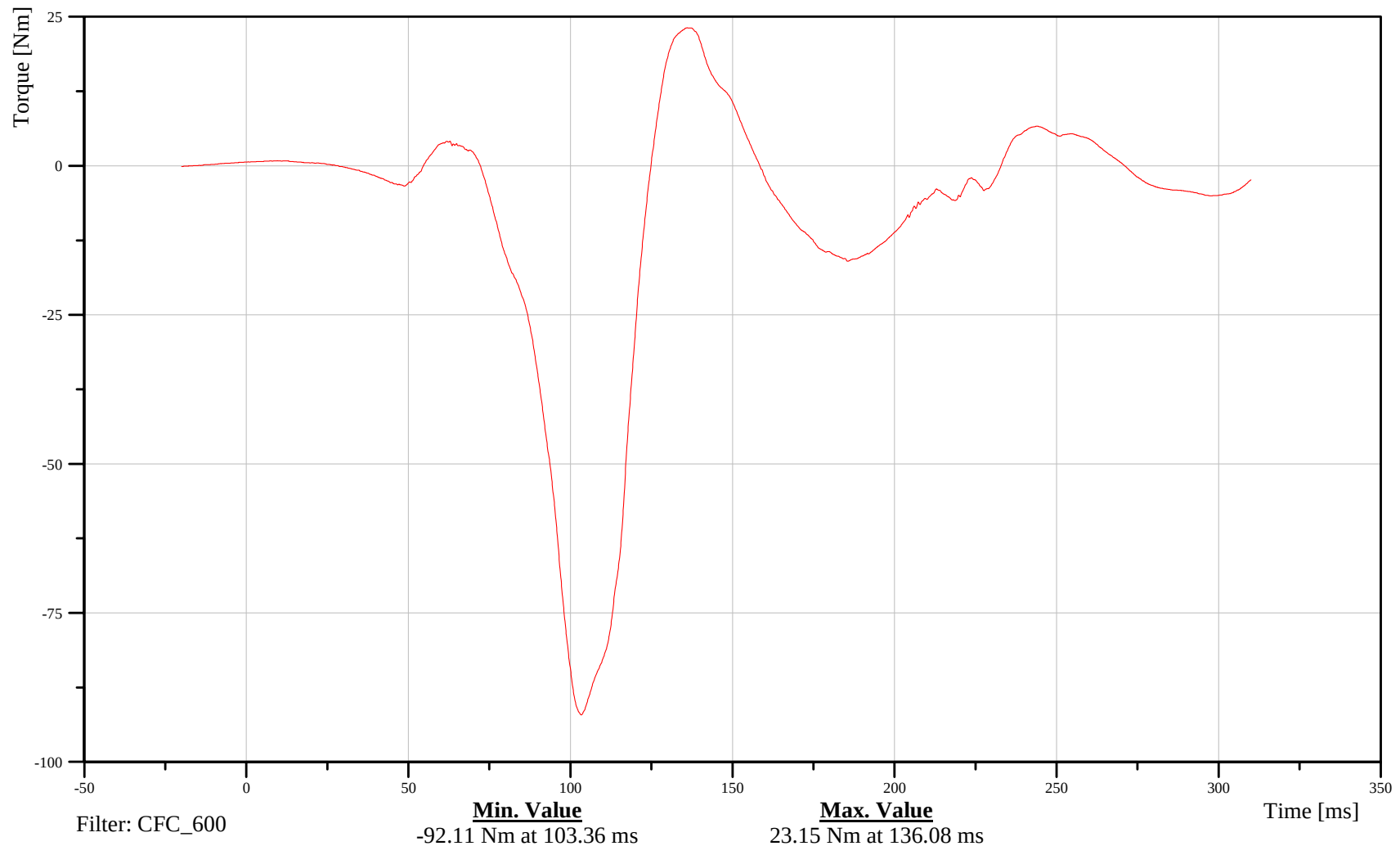
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14NECKLO00HFMOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Left Rear Passenger Lower Neck Moment About Y Axis

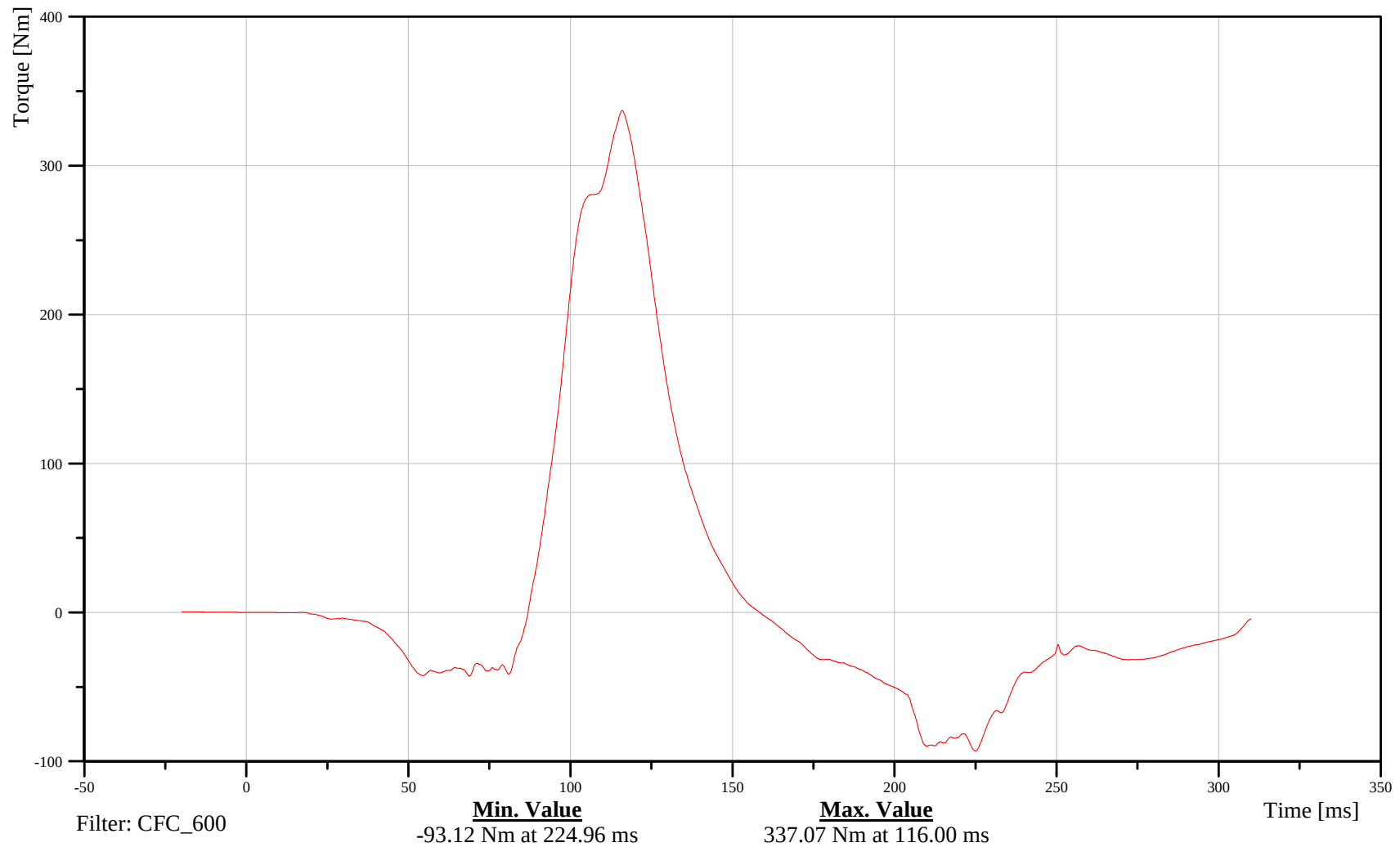
Time: 17:50

Customer: VRTC

14NECKLO00HFMOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Lower Neck Moment About Z Axis

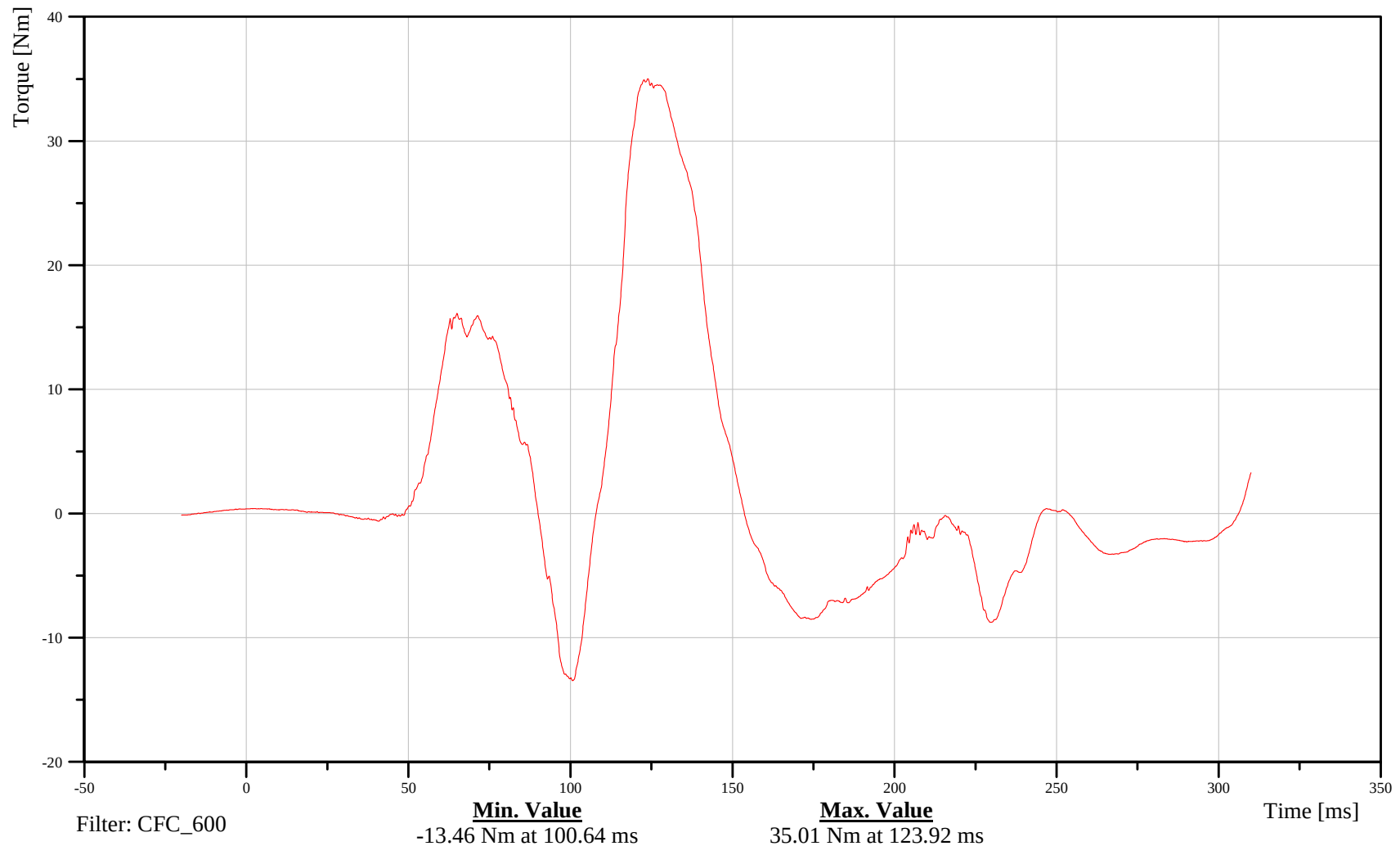
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14NECKLO00HFMOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

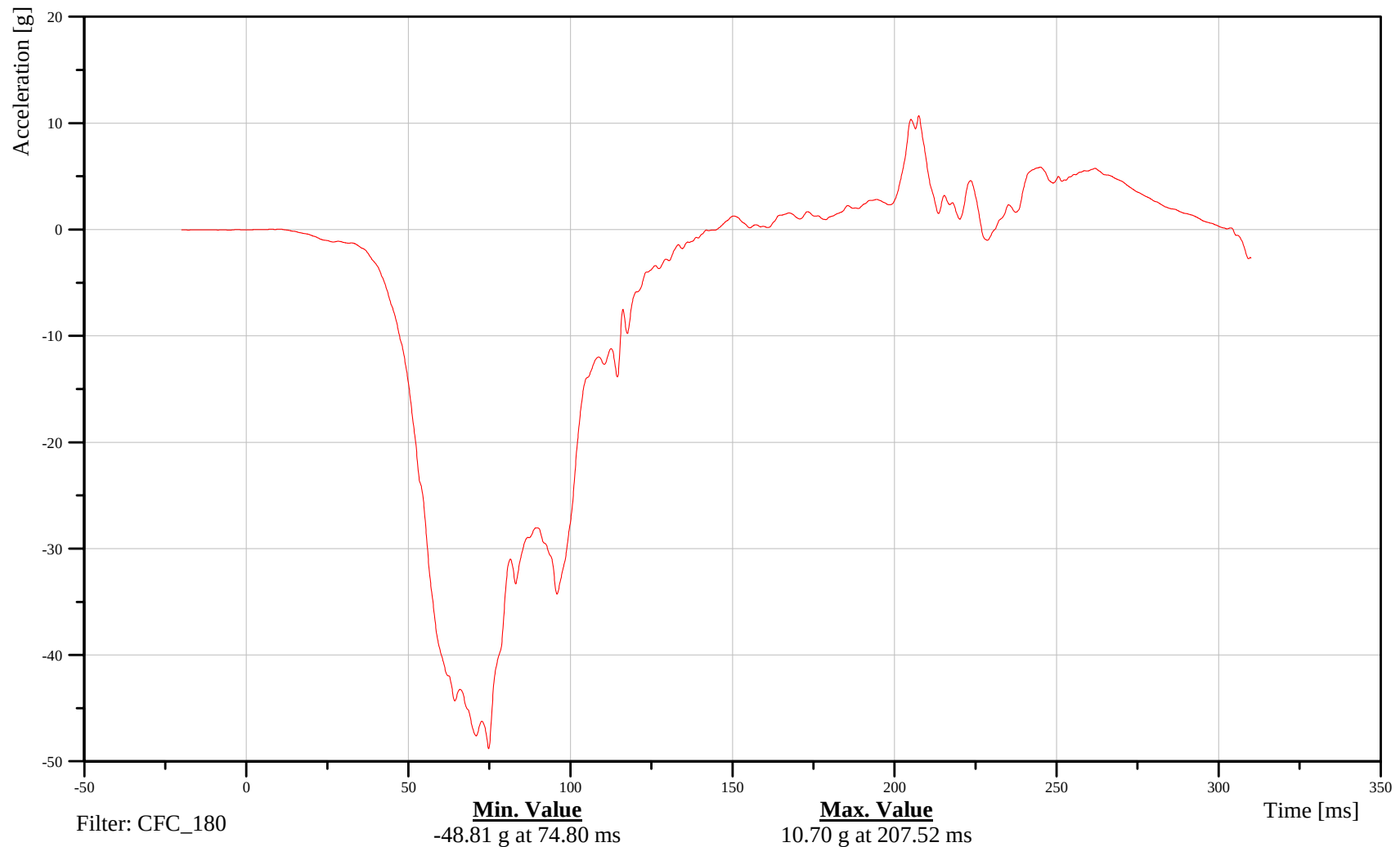
Left Rear Passenger Chest CG X-Axis Acceleration

Customer: VRTC

14CHSTCG00HFACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

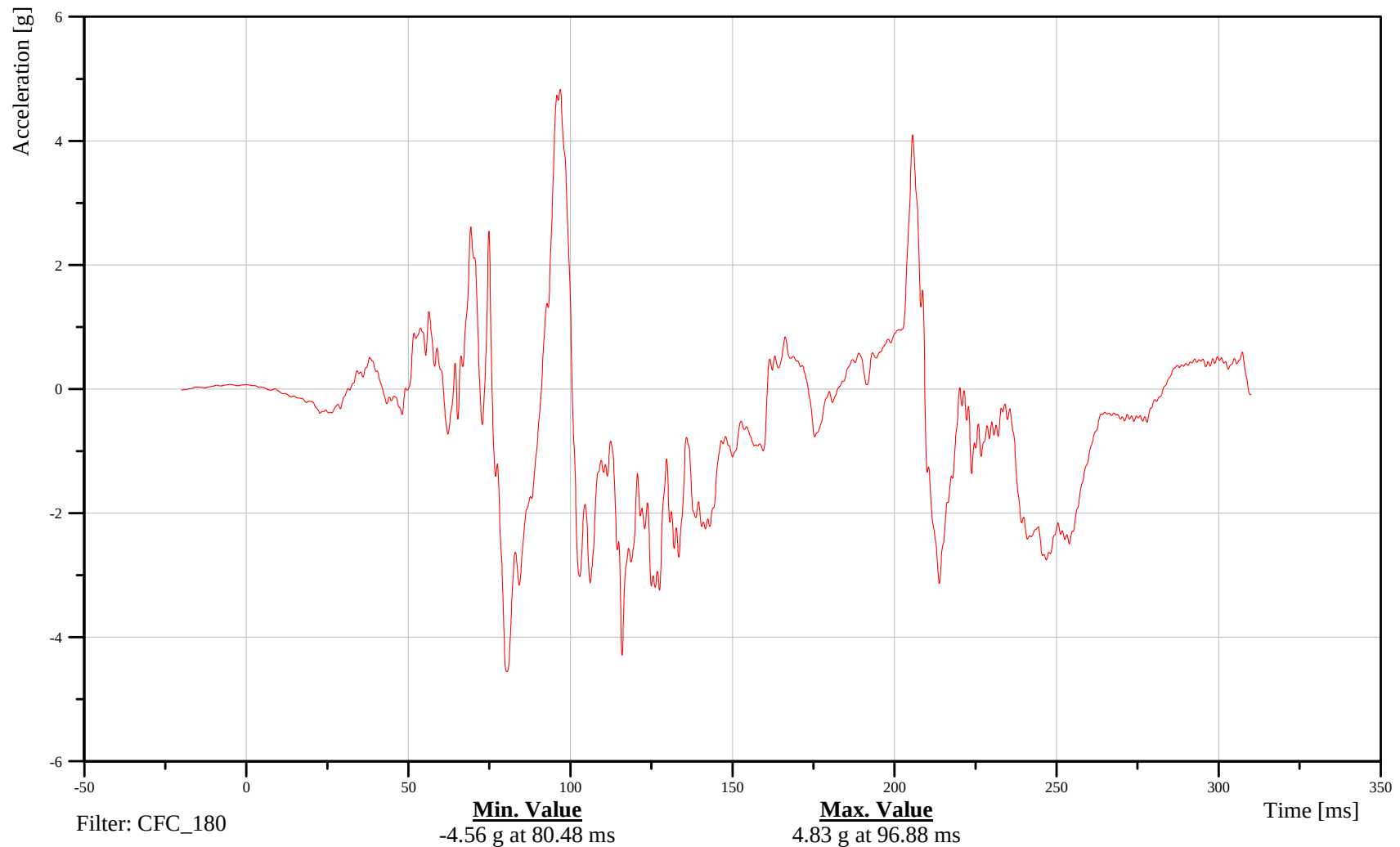
Left Rear Passenger Chest CG Y-Axis Acceleration

Customer: VRTC

14CHSTCG00HFACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

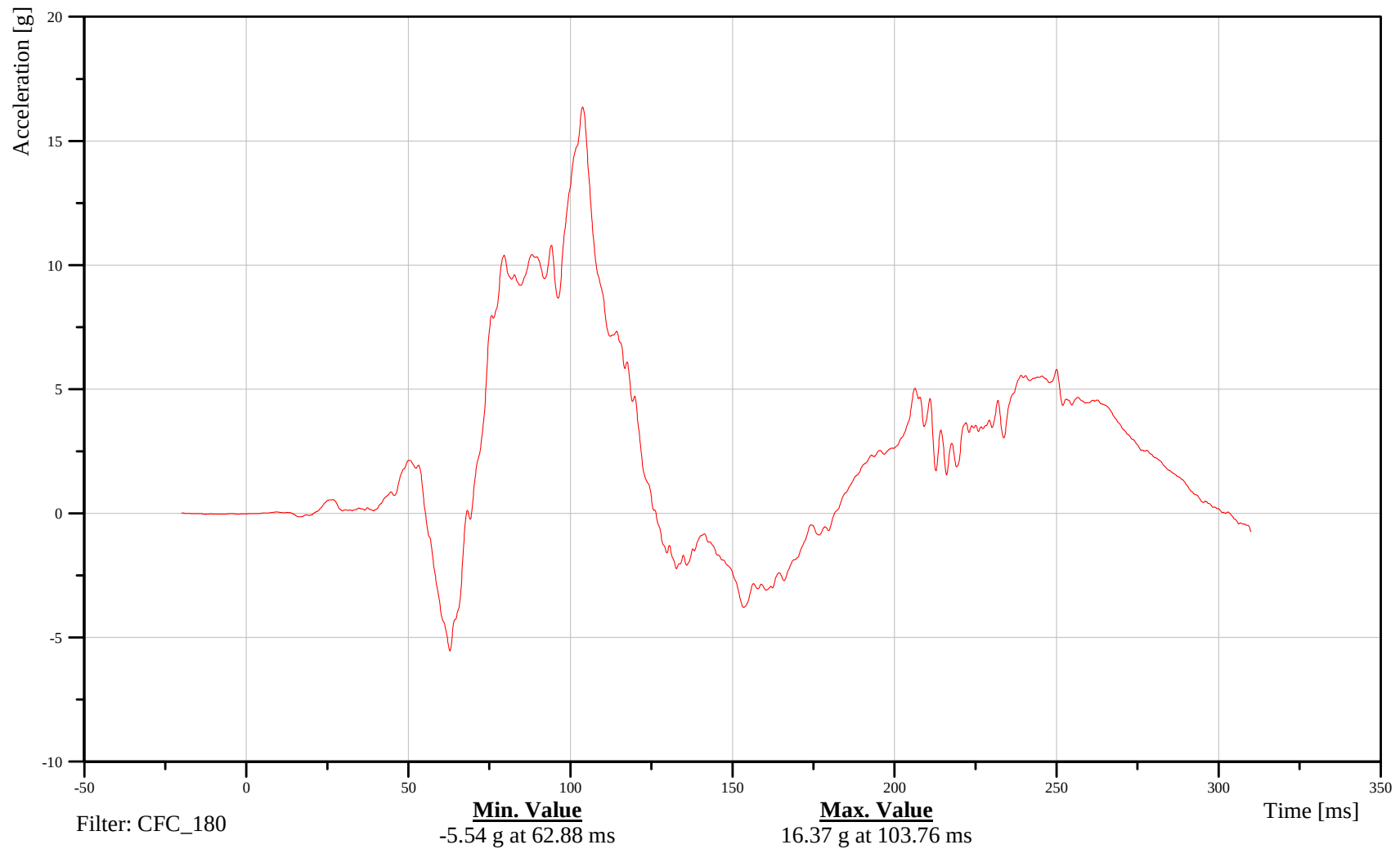
Left Rear Passenger Chest CG Z-Axis Acceleration

Customer: VRTC

14CHSTCG00HFACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

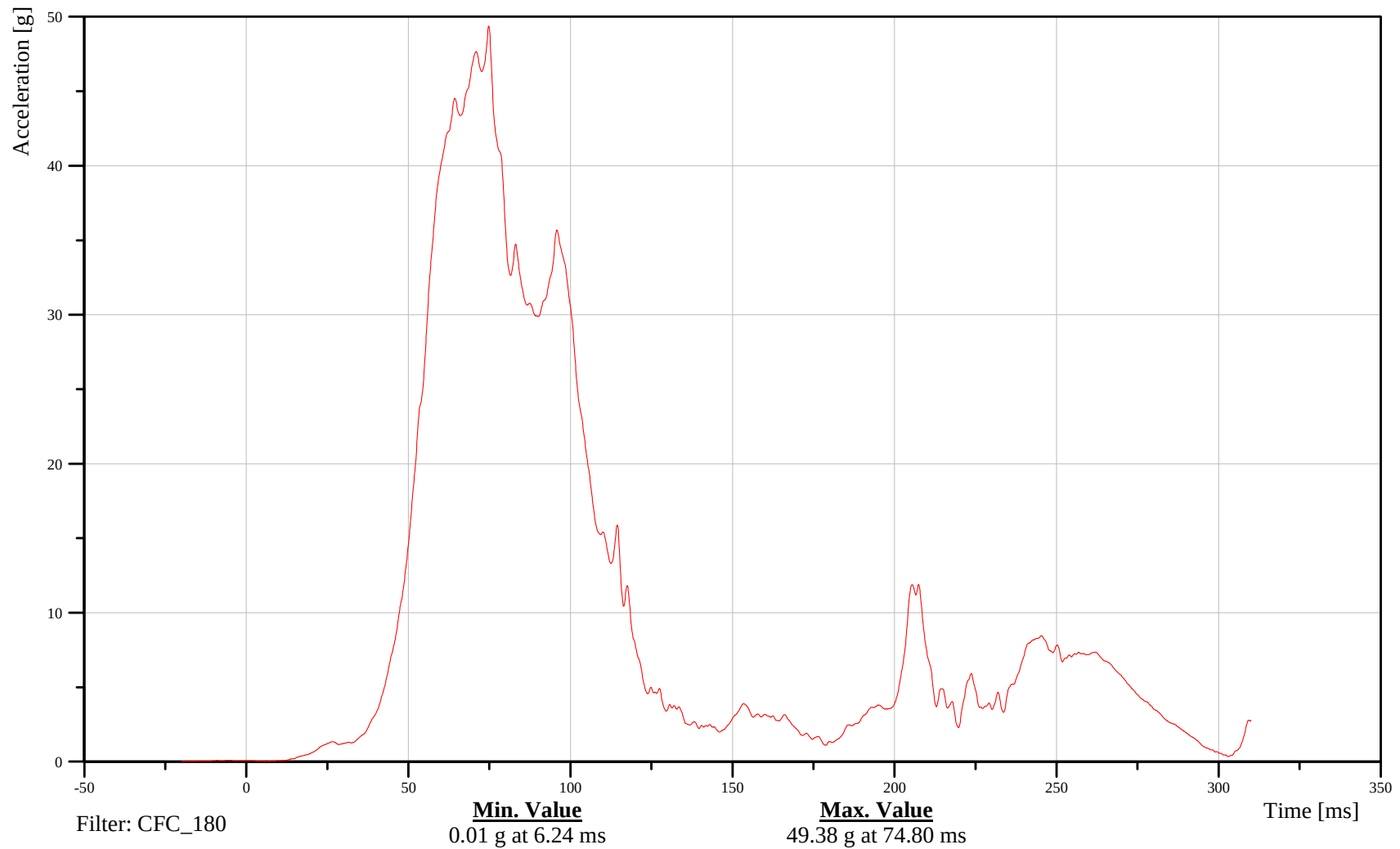
Left Rear Passenger Chest CG Resultant Acceleration

Customer: VRTC

14CHSTCG00HFACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

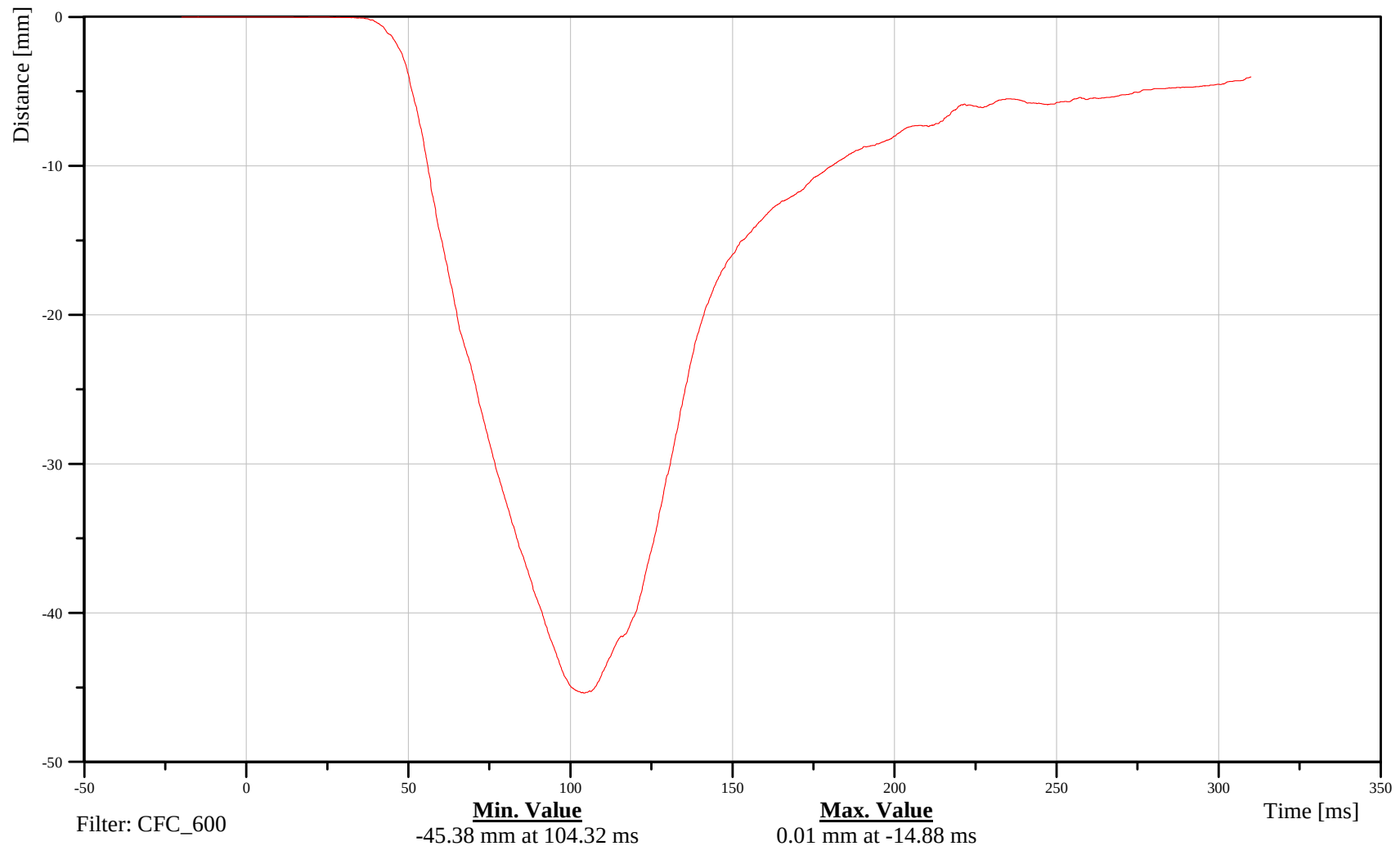
Left Rear Passenger Chest Displacement

Customer: VRTC

14CHST0000HFDSXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Left Femur Z-Axis Force

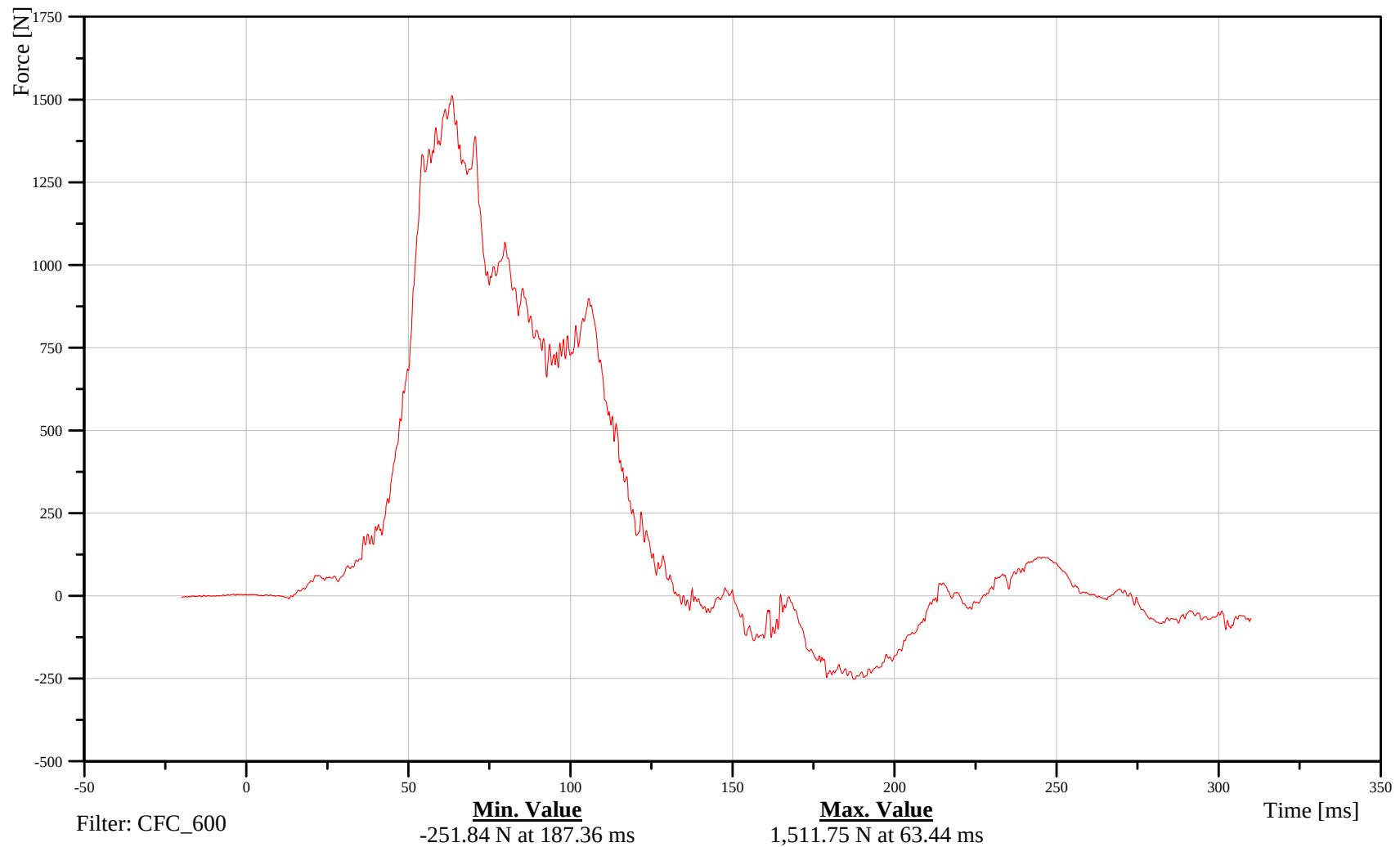
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14FEMRLL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

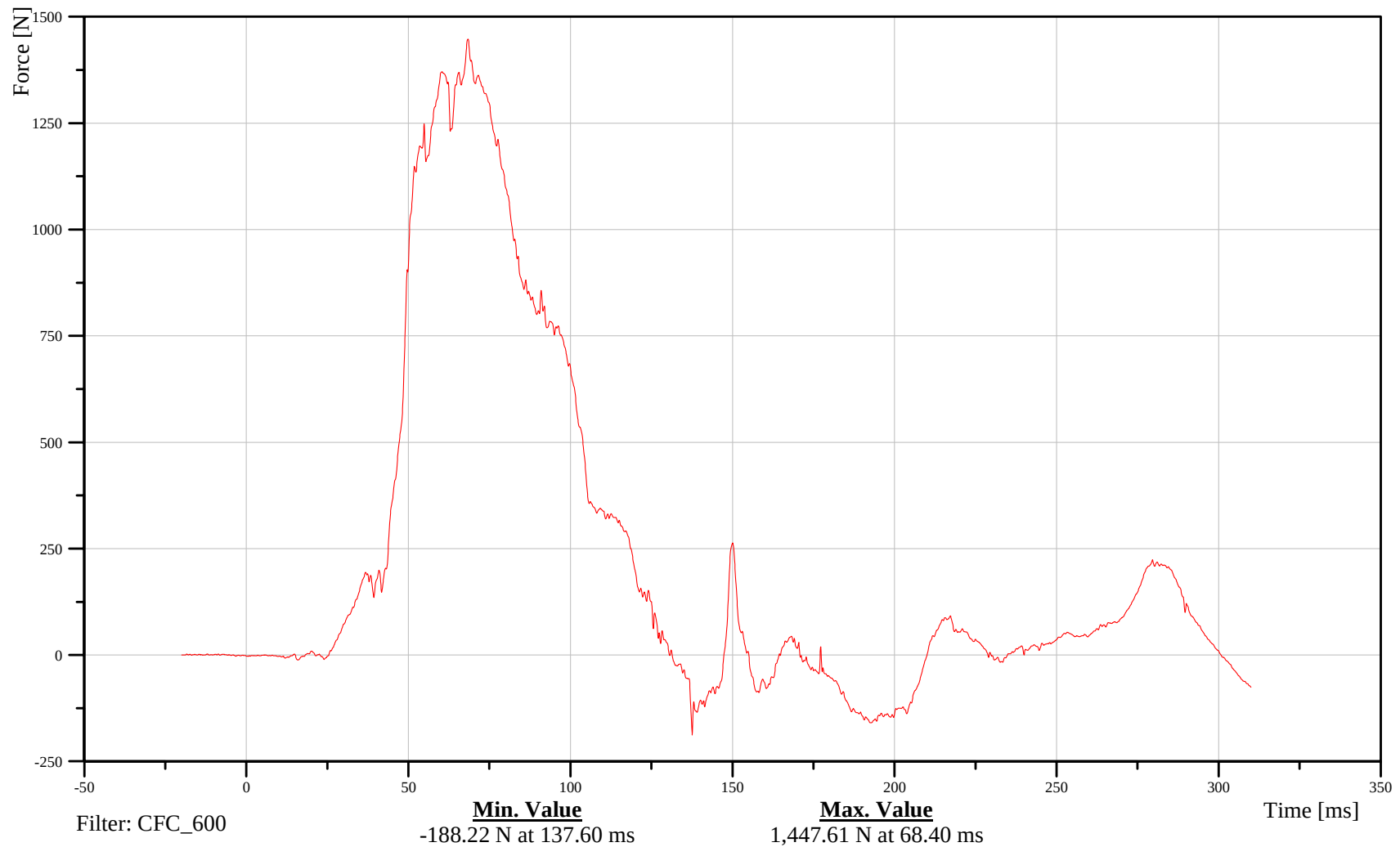
Left Rear Passenger Right Femur Z-Axis Force

Customer: VRTC

14FEMRRL00HFFOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

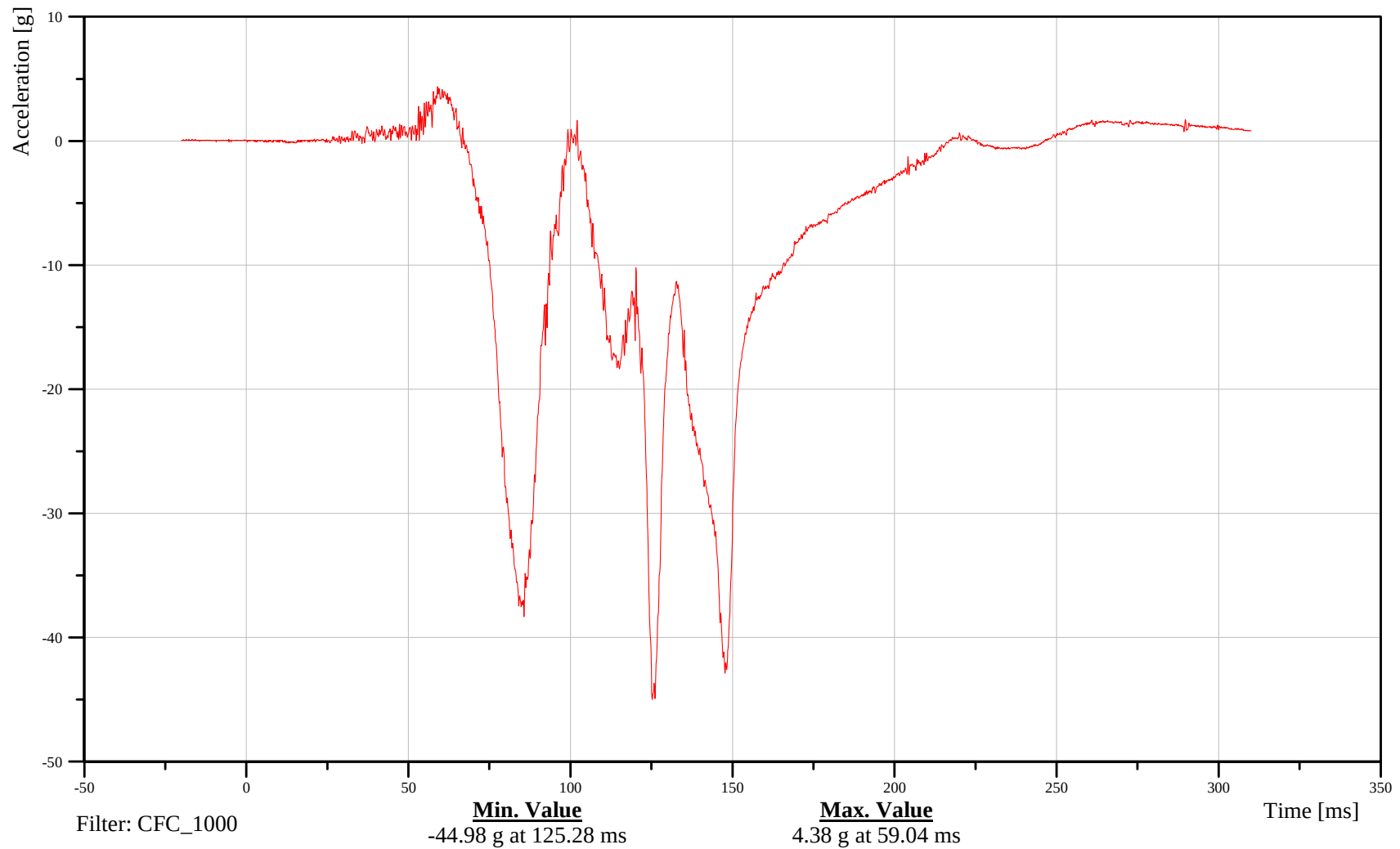
Right Rear Passenger Head X-Axis Acceleration

Customer: VRTC

16HEADCG00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

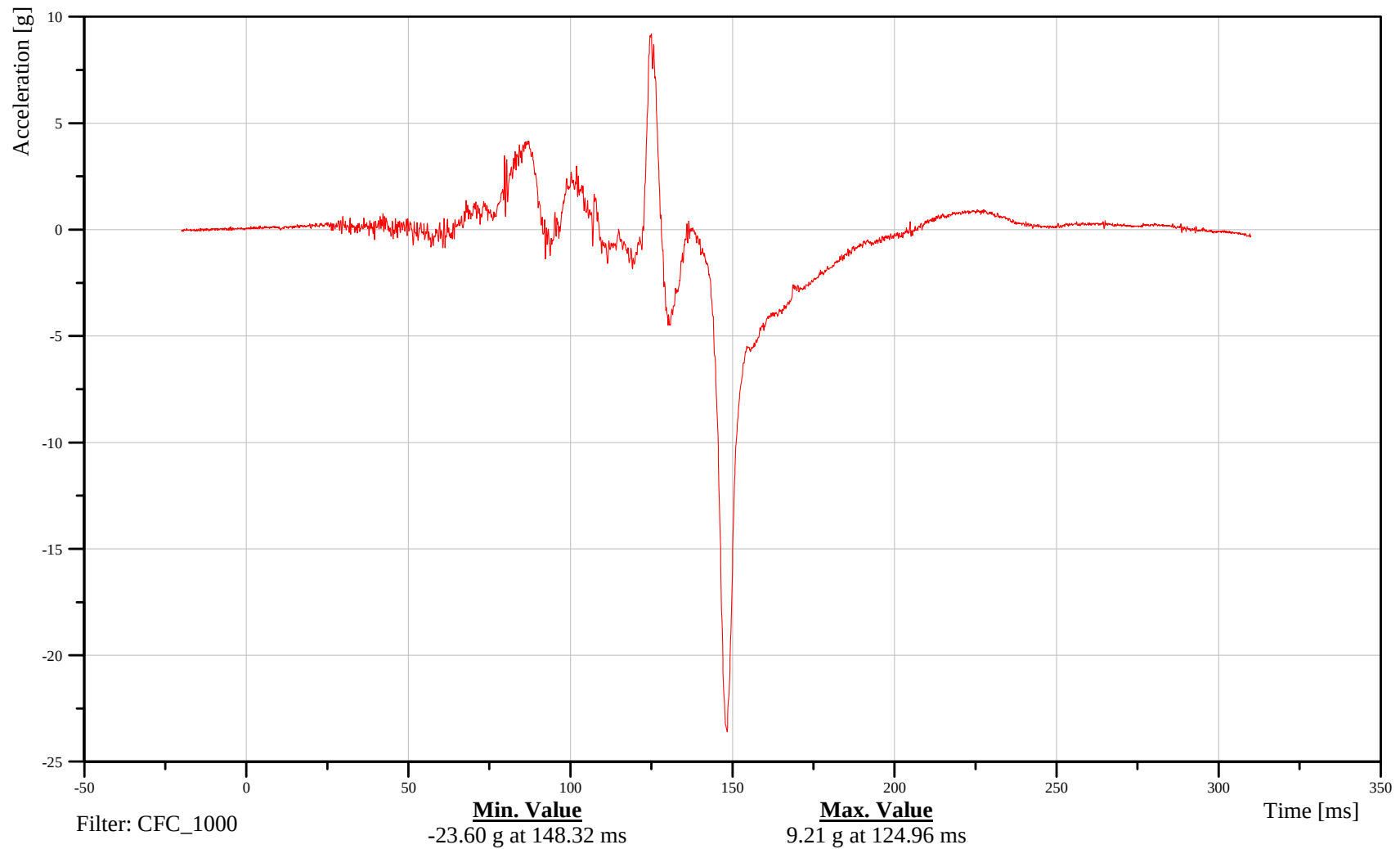
Right Rear Passenger Head Y-Axis Acceleration

Customer: VRTC

16HEADCG00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

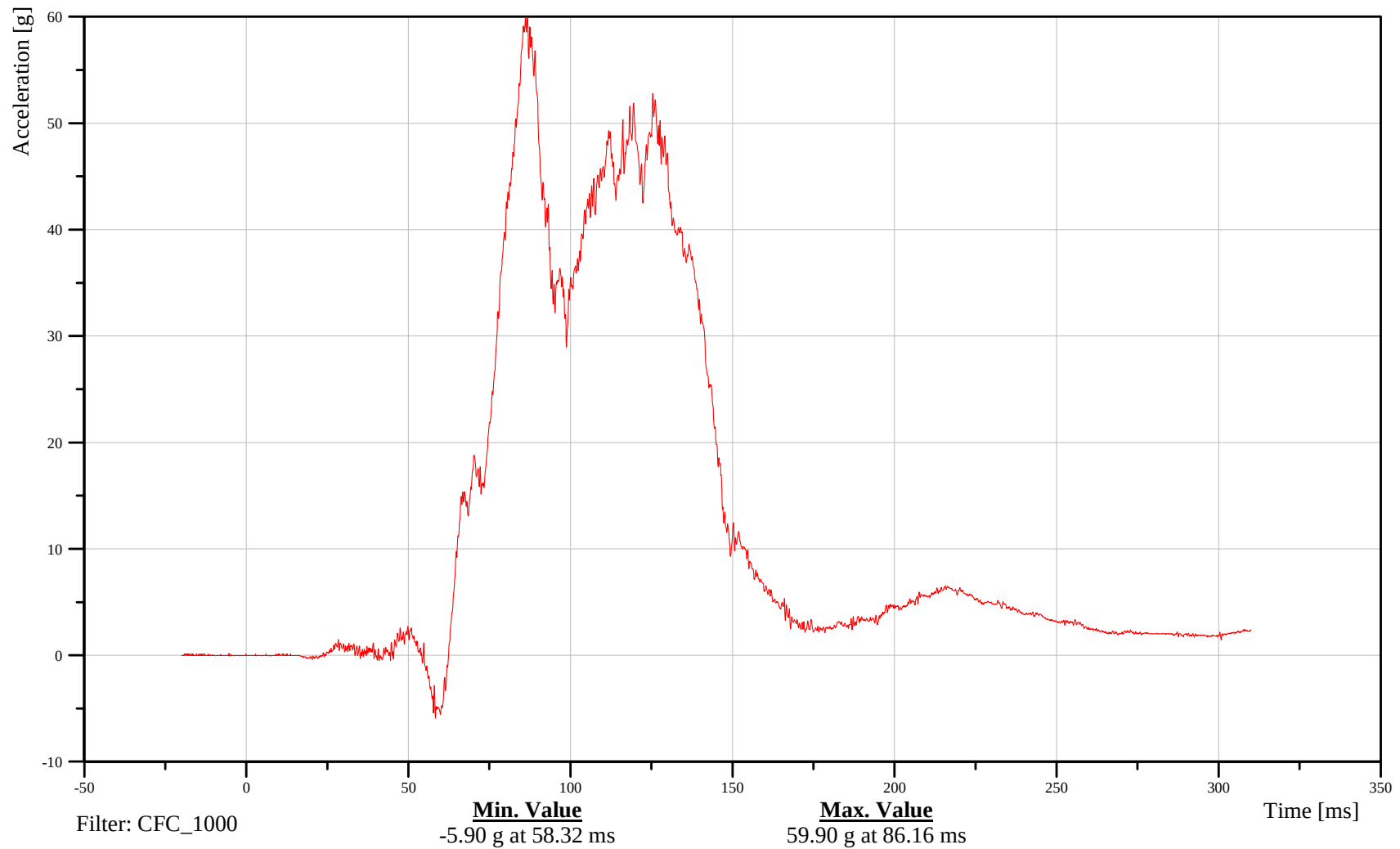
Right Rear Passenger Head Z-Axis Acceleration

Customer: VRTC

16HEADCG00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

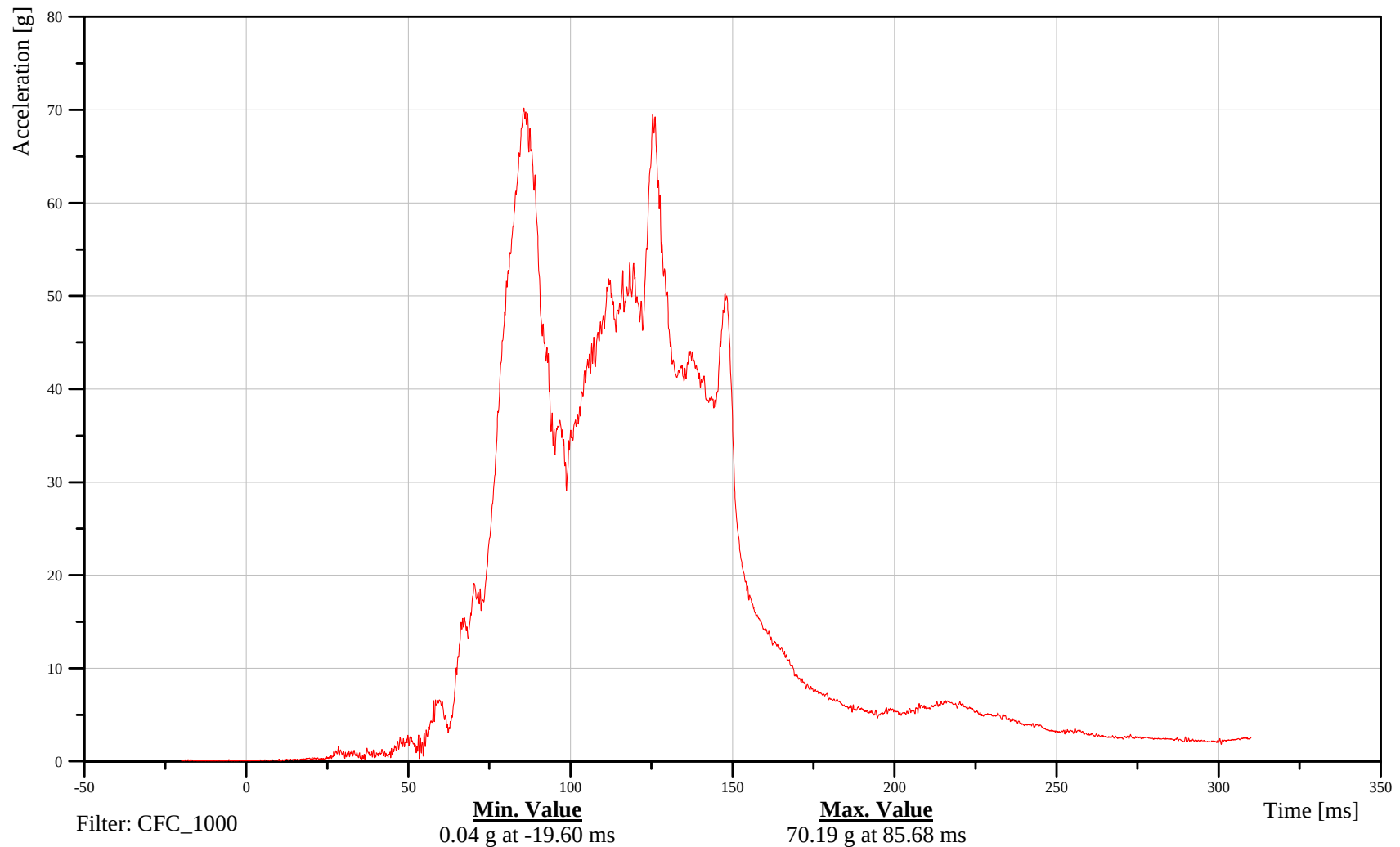
Right Rear Passenger Head Resultant Acceleration

Customer: VRTC

16HEADCG00H3ACRA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

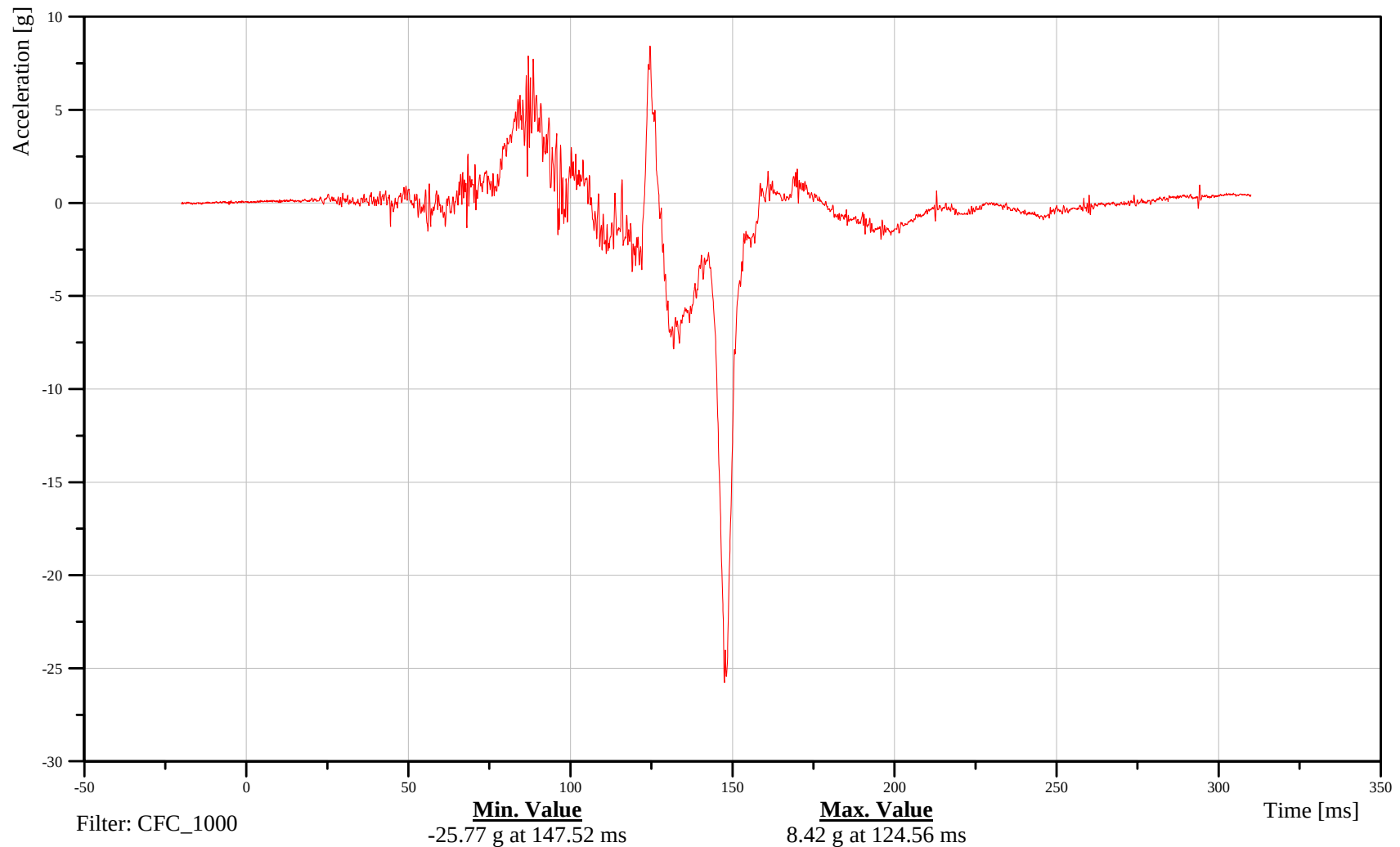
Right Rear Passenger Head Front Y-Axis Acceleration

Customer: VRTC

16HEADFR00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

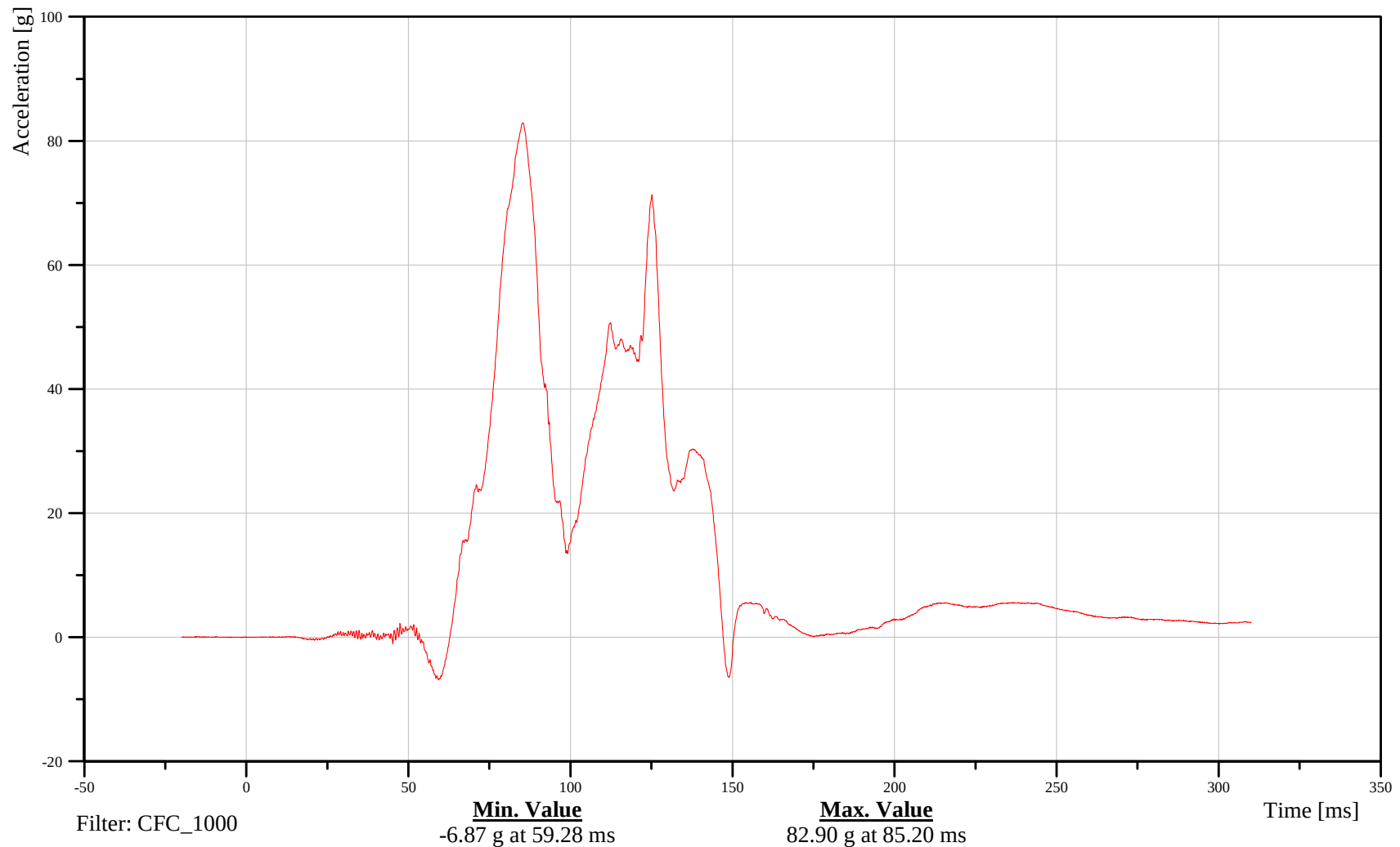
Right Rear Passenger Head Front Z-Axis Acceleration

Customer: VRTC

16HEADFR00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

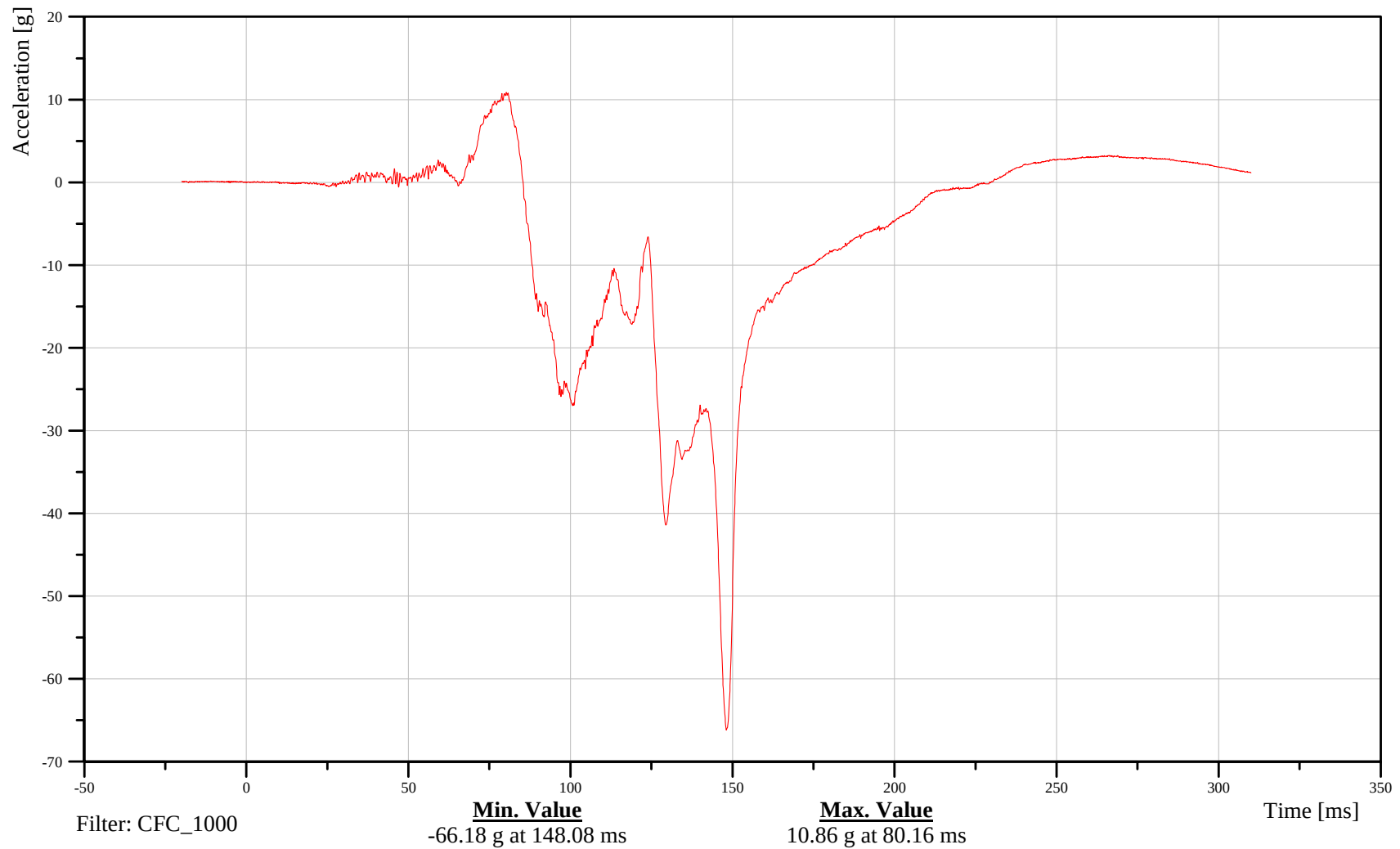
Right Rear Passenger Head Top X-Axis Acceleration

Customer: VRTC

16HEADUP00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

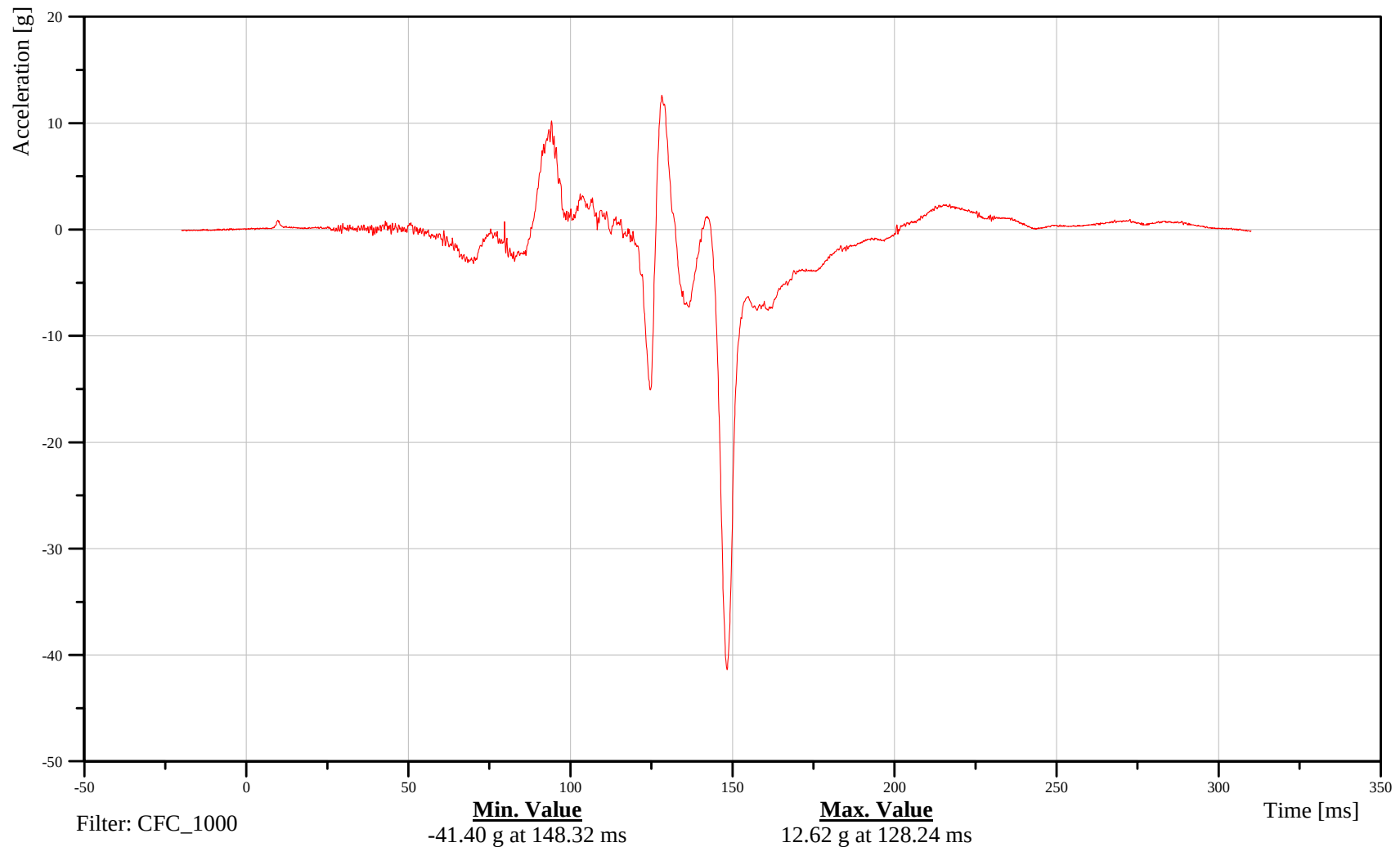
Right Rear Passenger Head Top Y-Axis Acceleration

Customer: VRTC

16HEADUP00H3ACYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

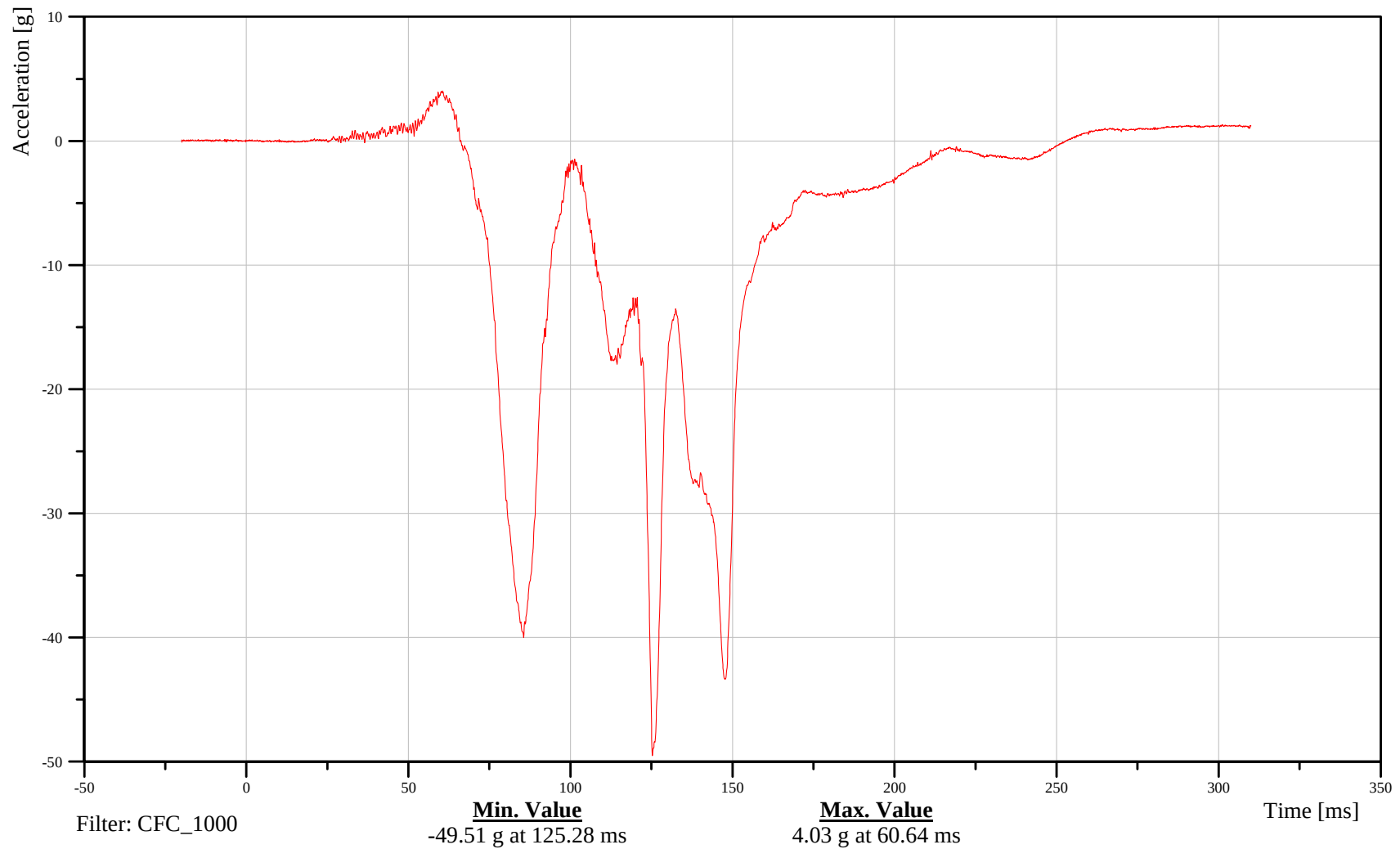
Right Rear Passenger Head Side X-Axis Acceleration

Customer: VRTC

16HEADLE00H3ACXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

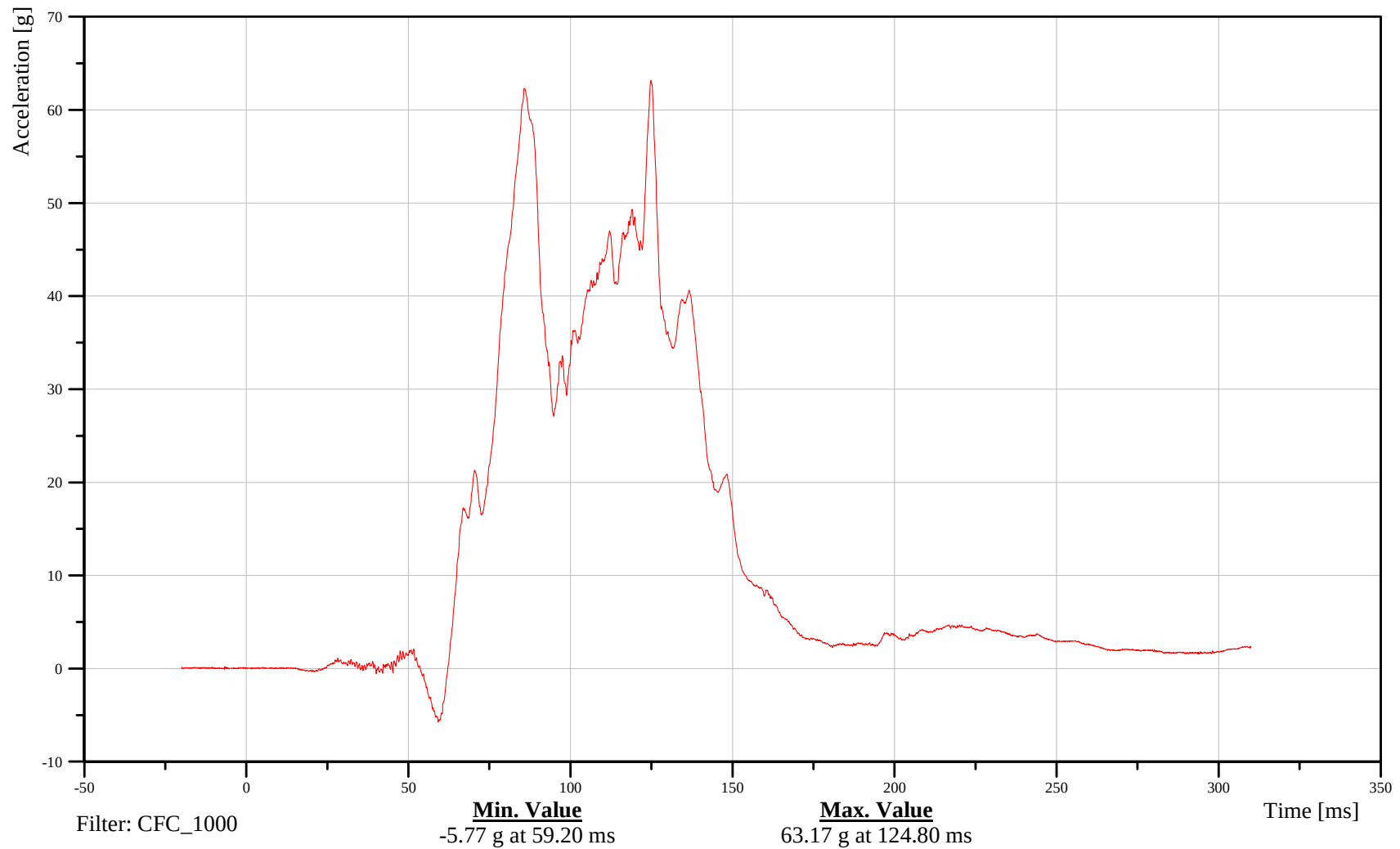
Right Rear Passenger Head Side Z-Axis Acceleration

Customer: VRTC

16HEADLE00H3ACZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

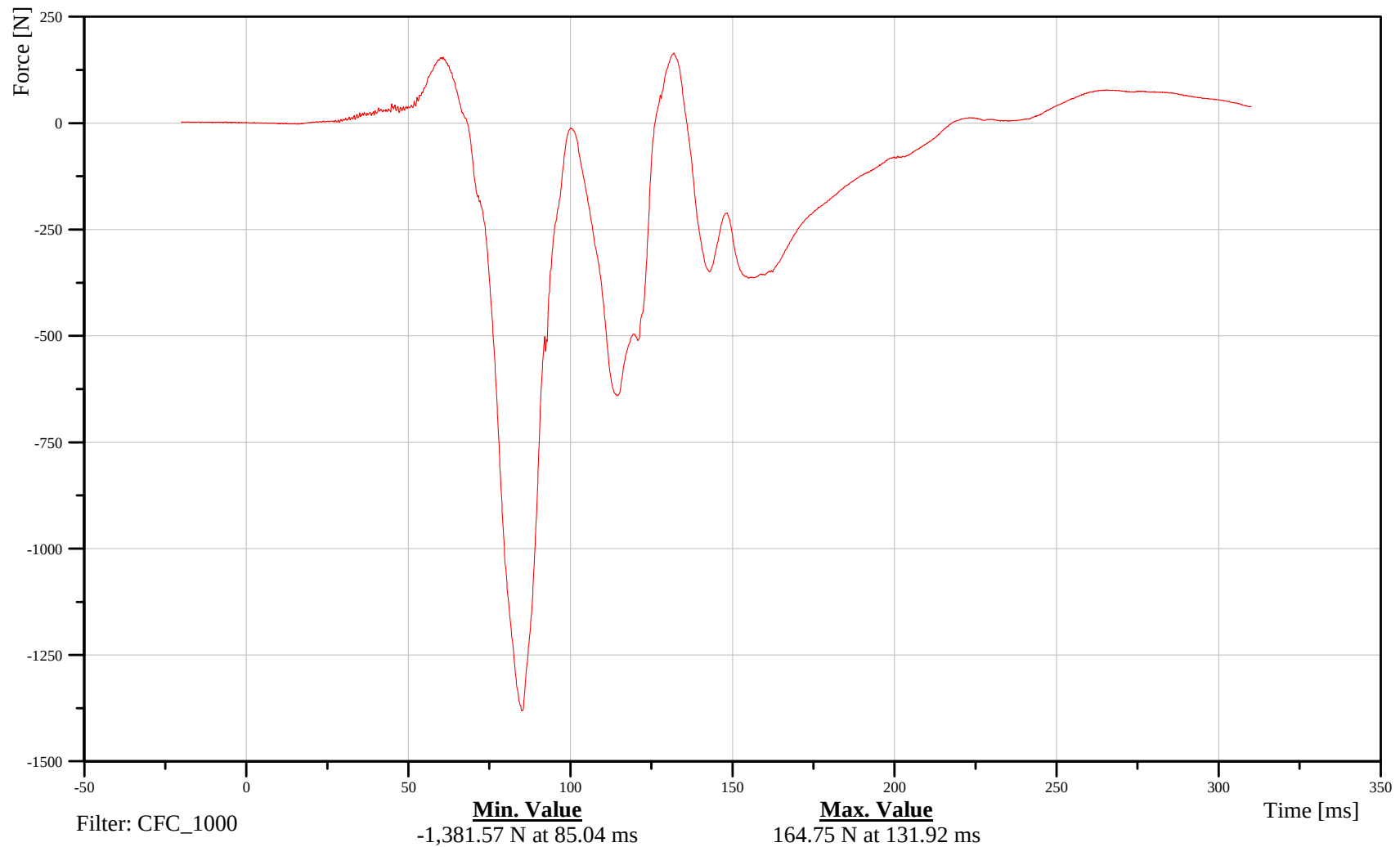
Right Rear Passenger Upper Neck X-Axis Force

Customer: VRTC

16NECKUP00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

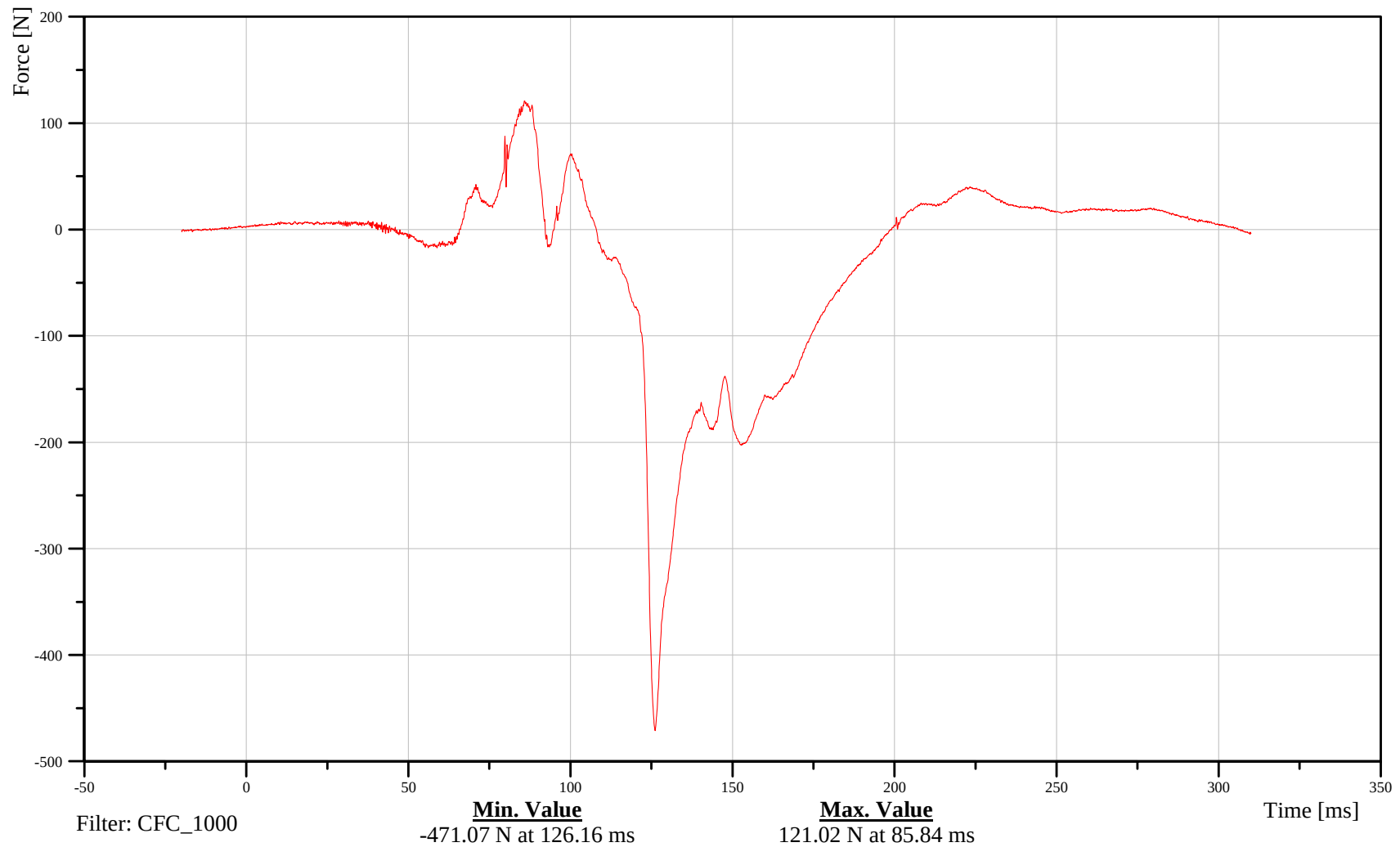
Right Rear Passenger Upper Neck Y-Axis Force

Customer: VRTC

16NECKUP00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

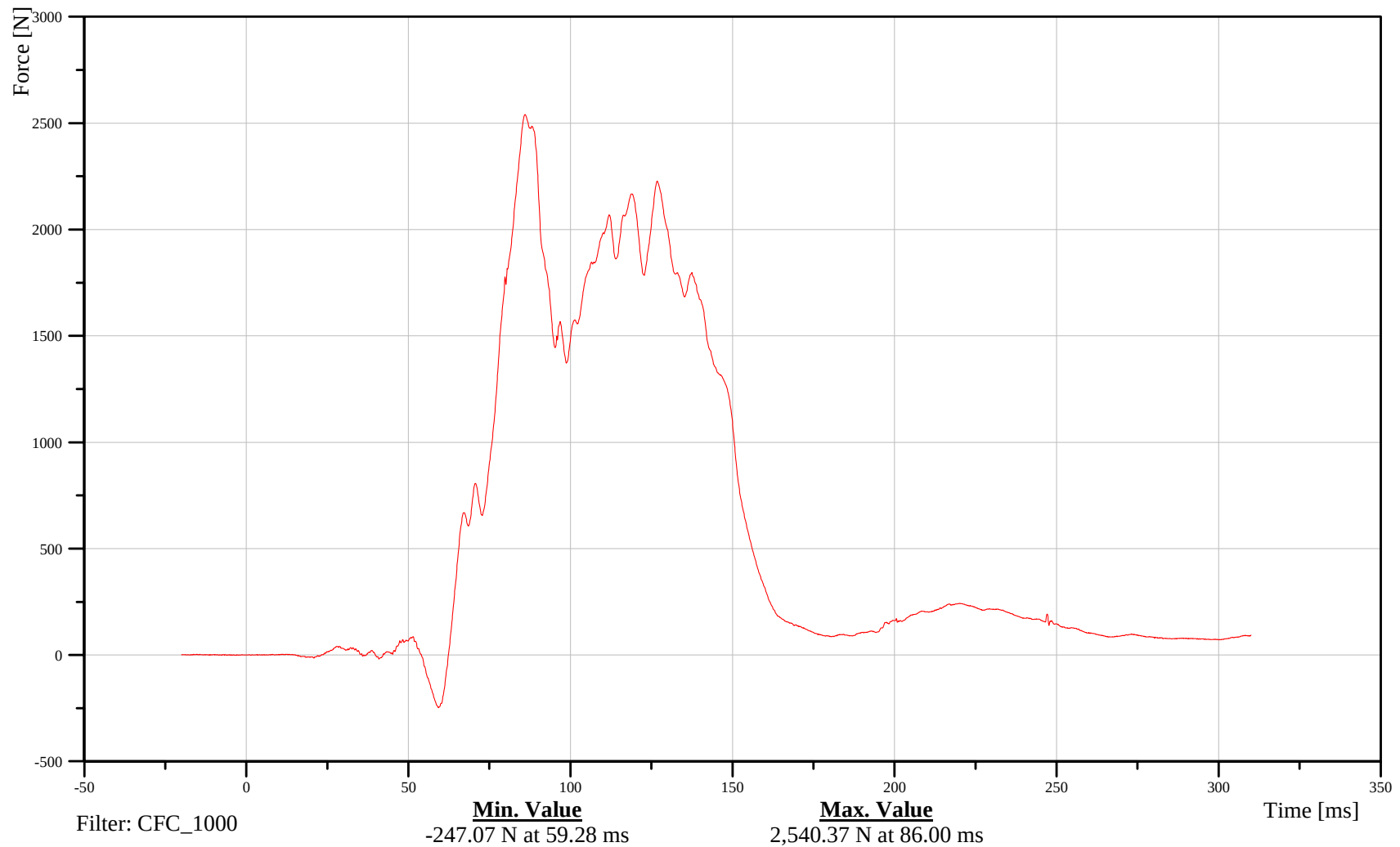
Right Rear Passenger Upper Neck Z-Axis Force

Customer: VRTC

16NECKUP00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

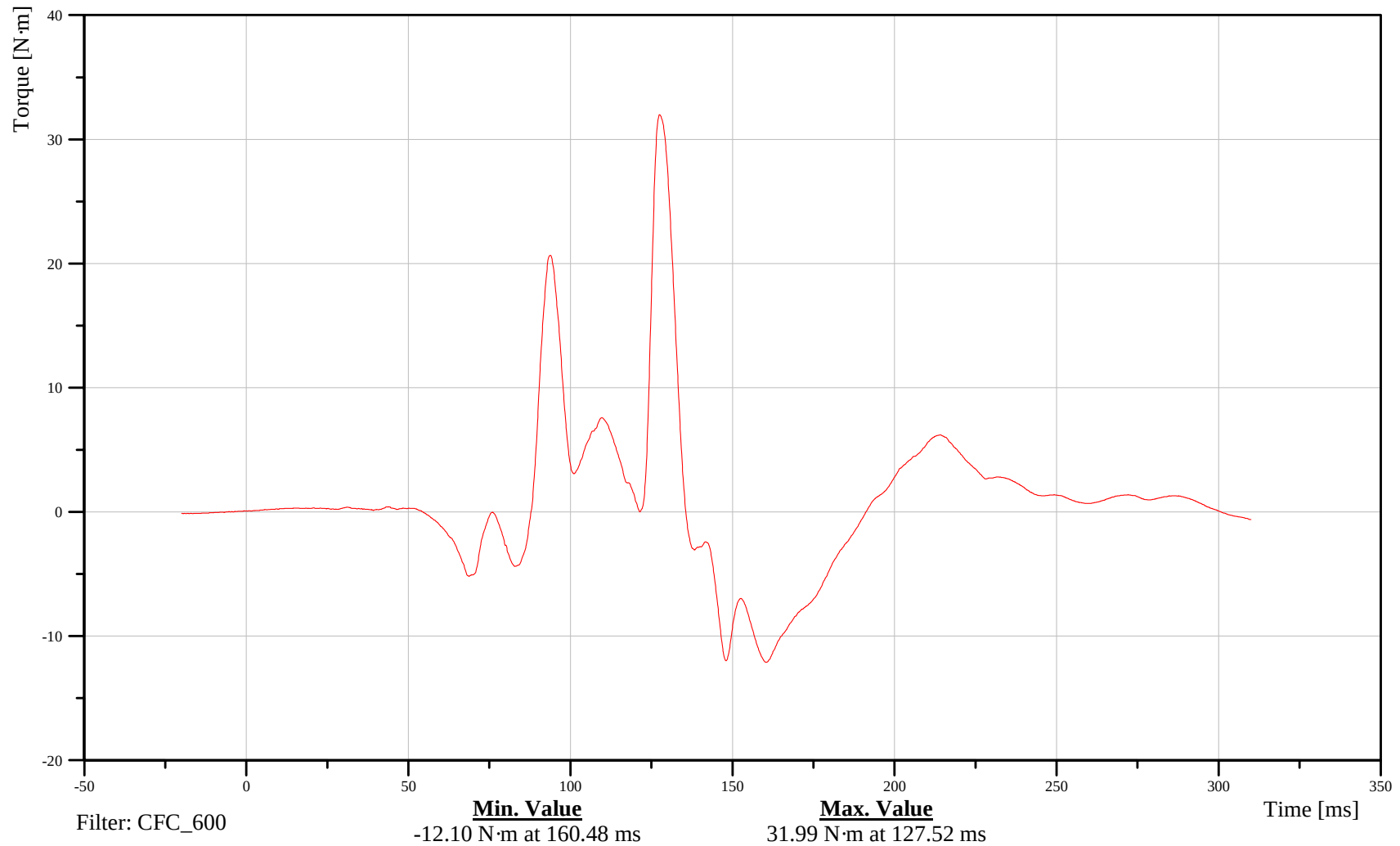
Right Rear Passenger Upper Neck Moment About X Axis

Customer: VRTC

16NECKUP00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

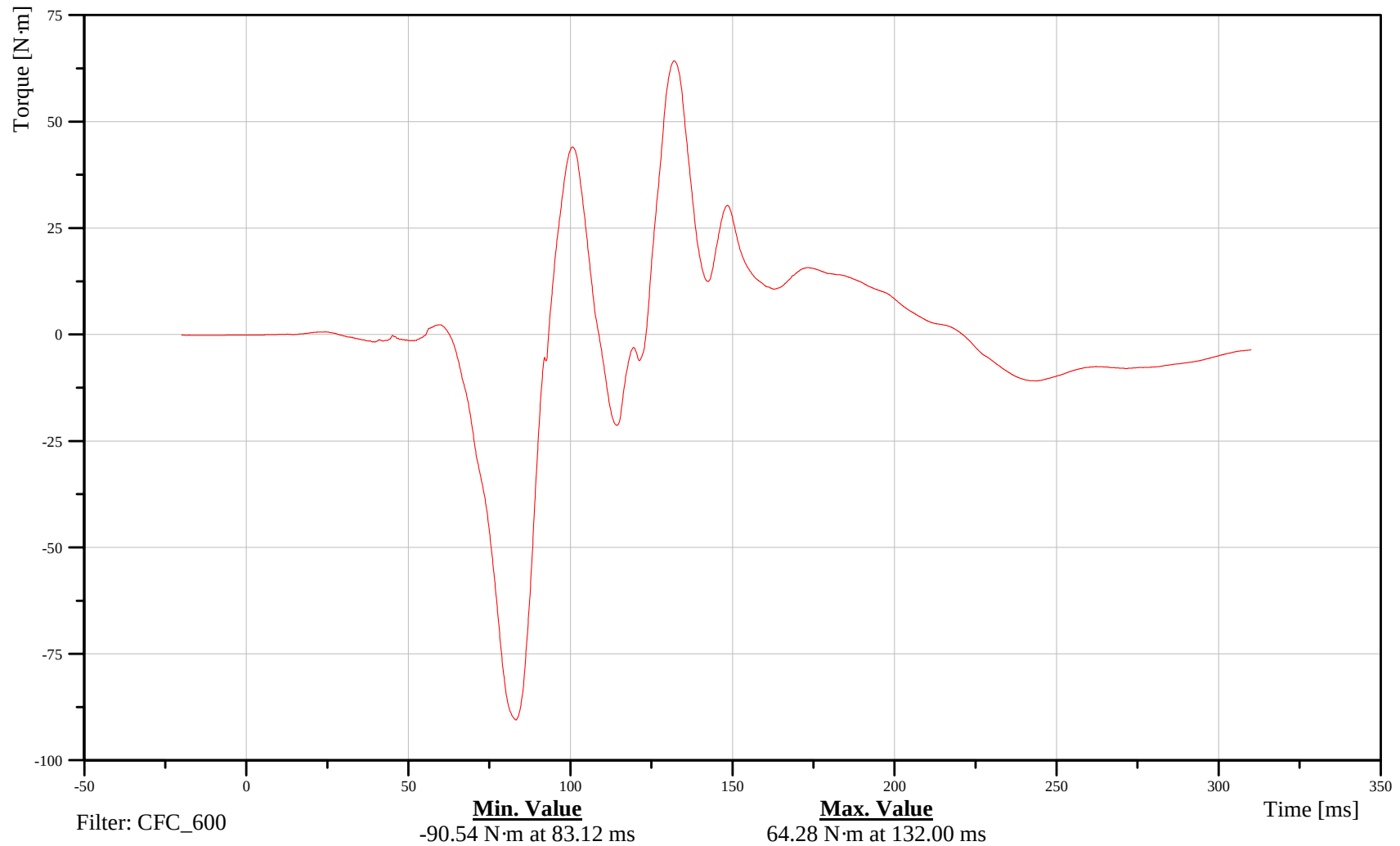
Right Rear Passenger Upper Neck Moment About Y Axis

Customer: VRTC

16NECKUP00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

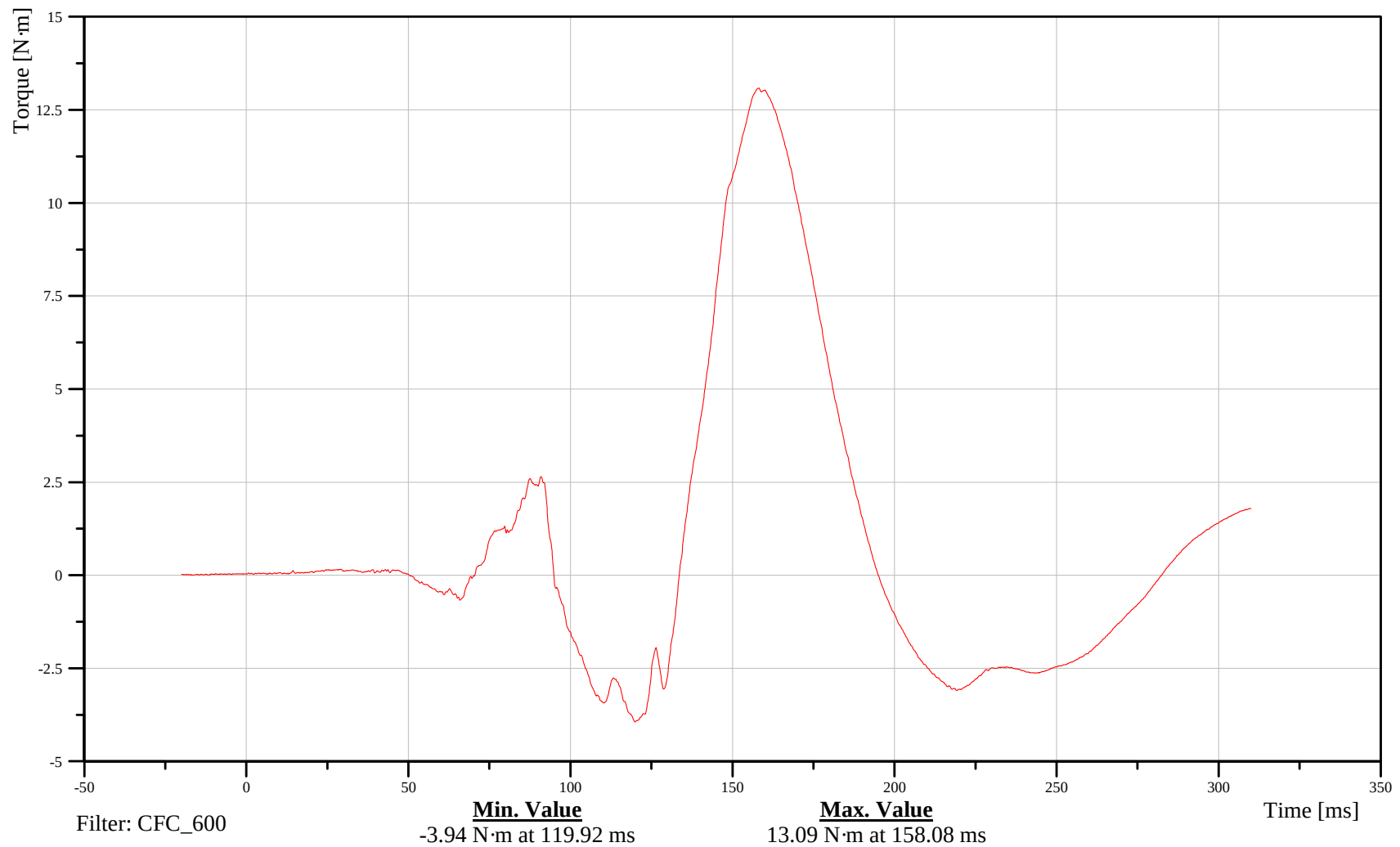
Right Rear Passenger Upper Neck Moment About Z Axis

Customer: VRTC

16NECKUP00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

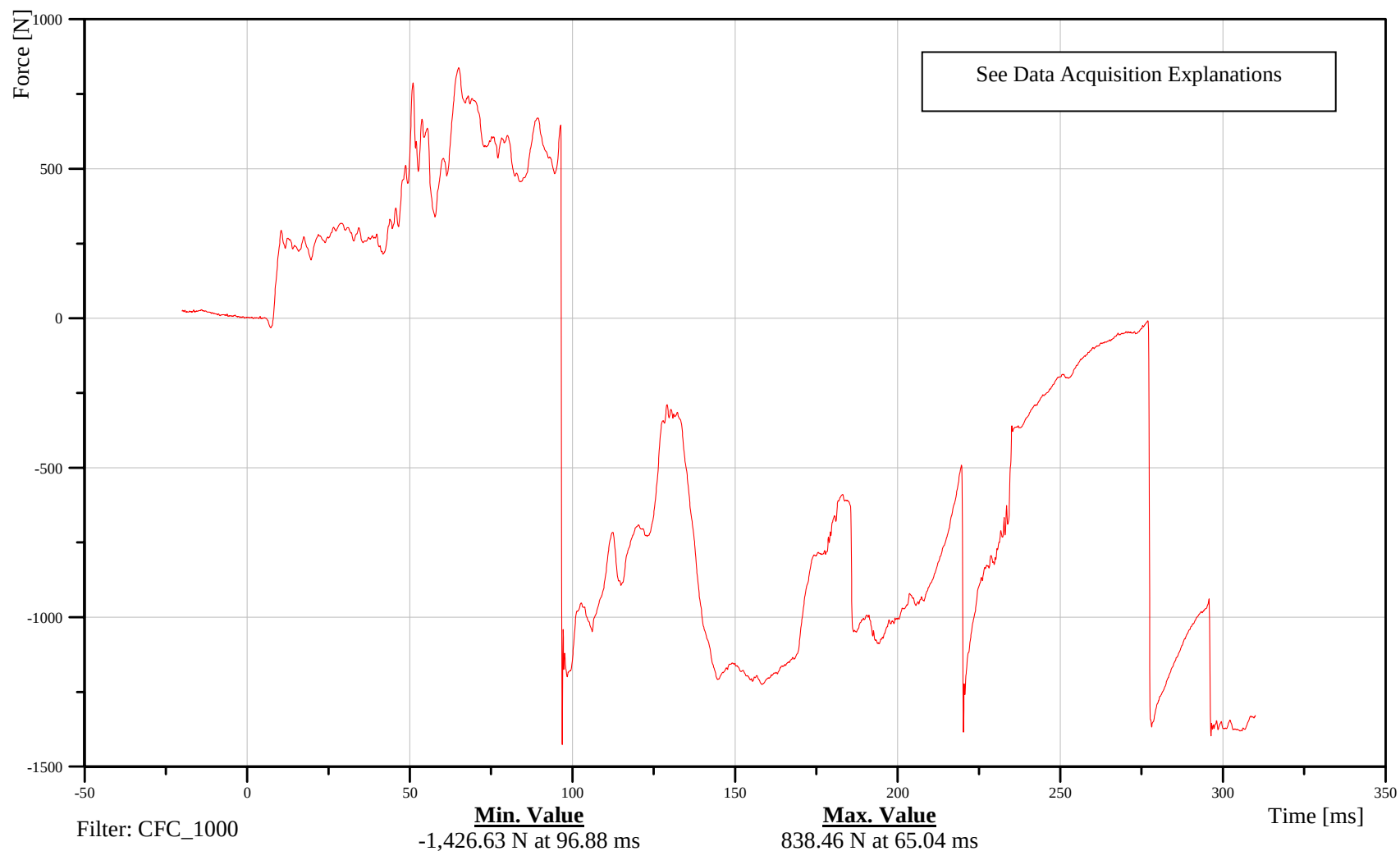
Right Rear Passenger Lower Neck X-Axis Force

Customer: VRTC

16NECKLO00H3FOXA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

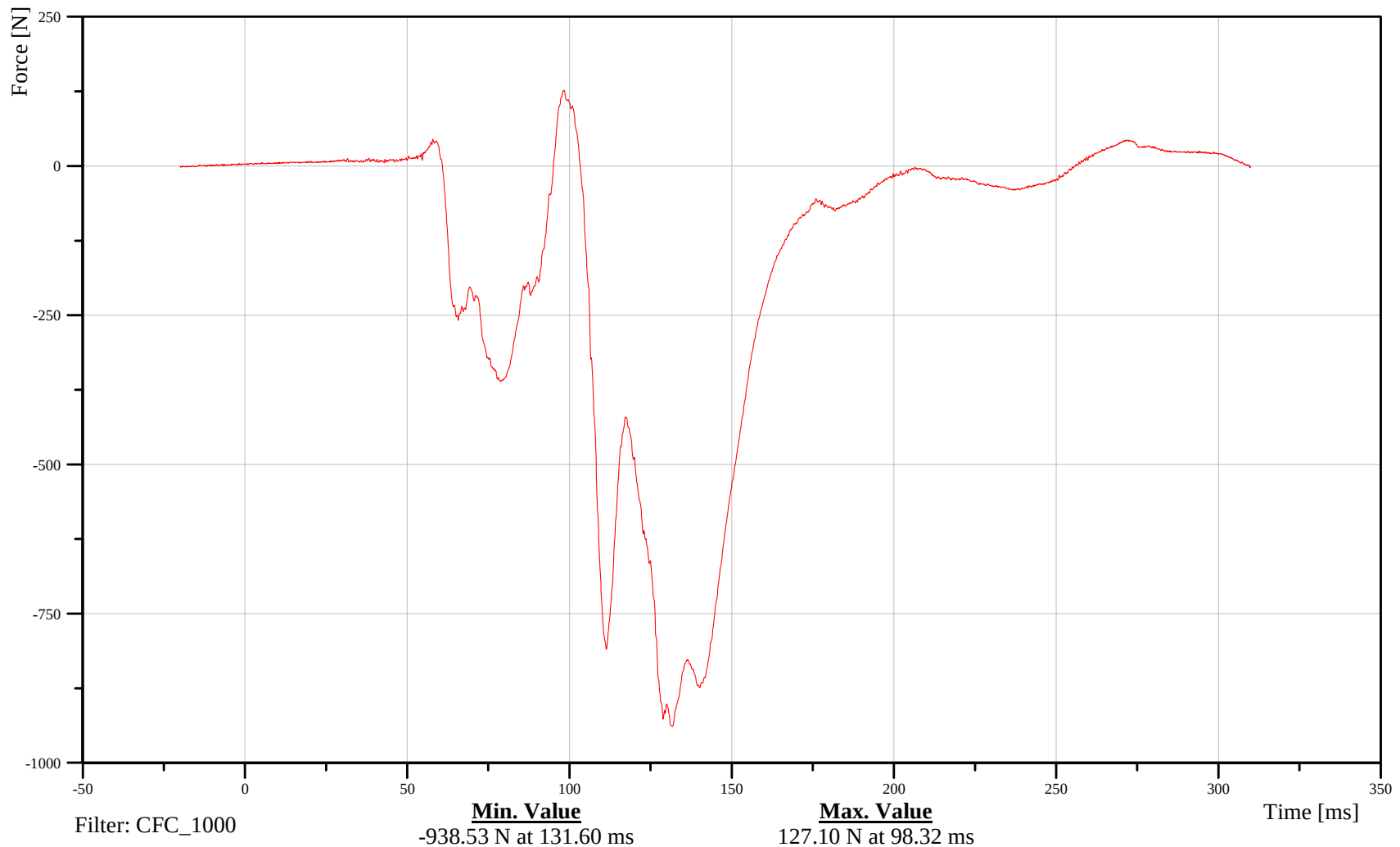
Right Rear Passenger Lower Neck Y-Axis Force

Customer: VRTC

16NECKLO00H3FOYA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

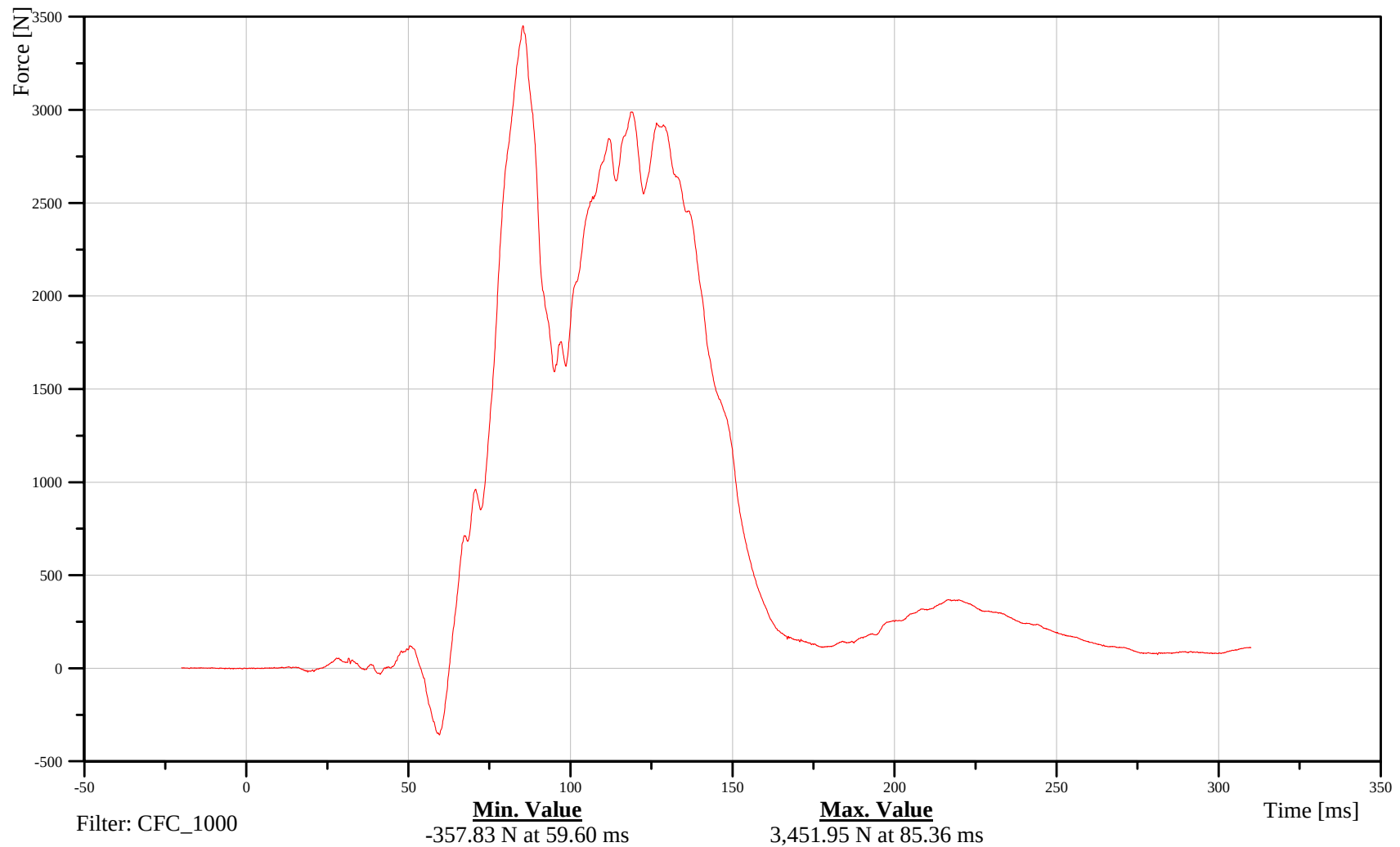
Right Rear Passenger Lower Neck Z-Axis Force

Customer: VRTC

16NECKLO00H3FOZA

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

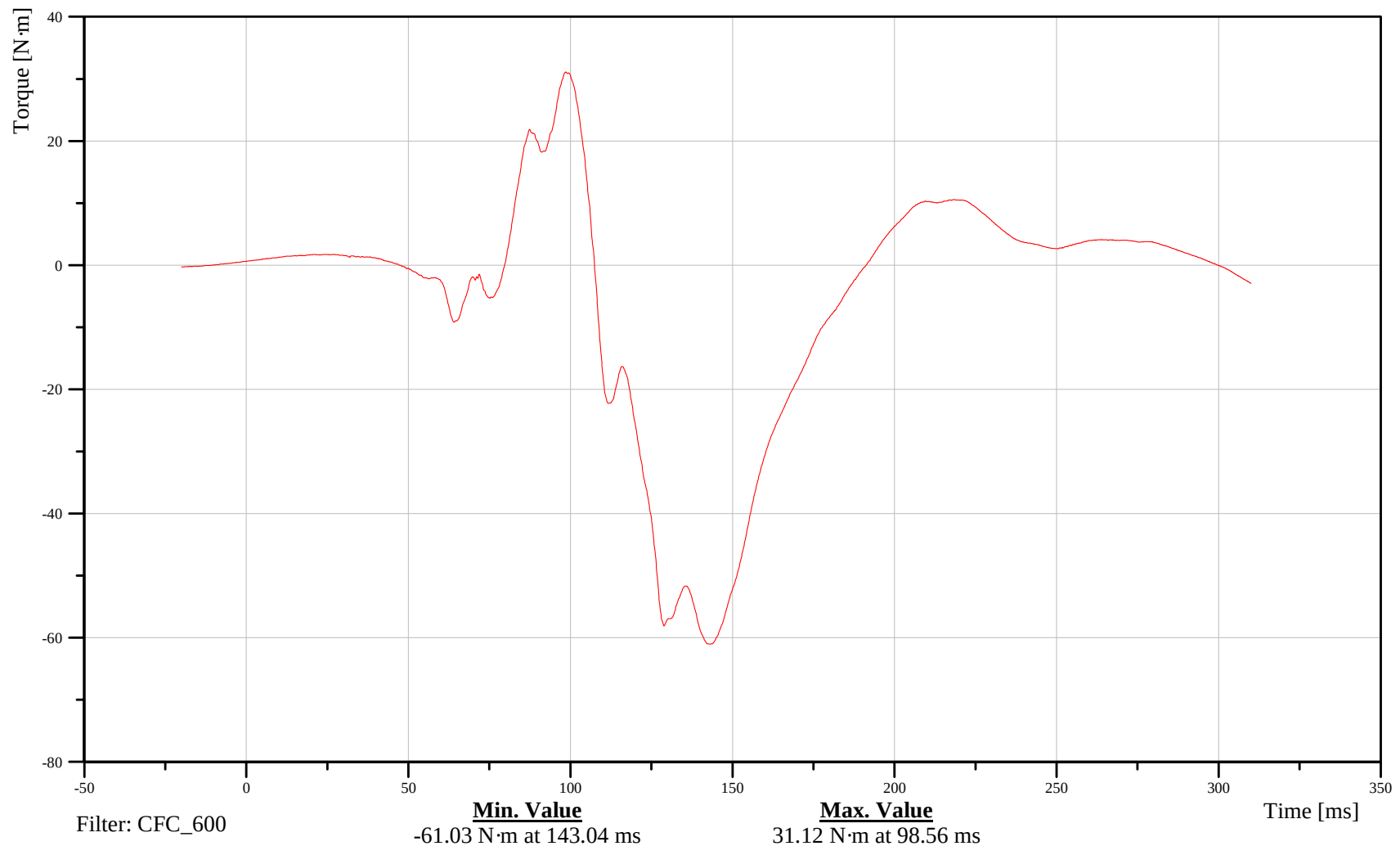
Right Rear Passenger Lower Neck Moment About X Axis

Customer: VRTC

16NECKLO00H3MOXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

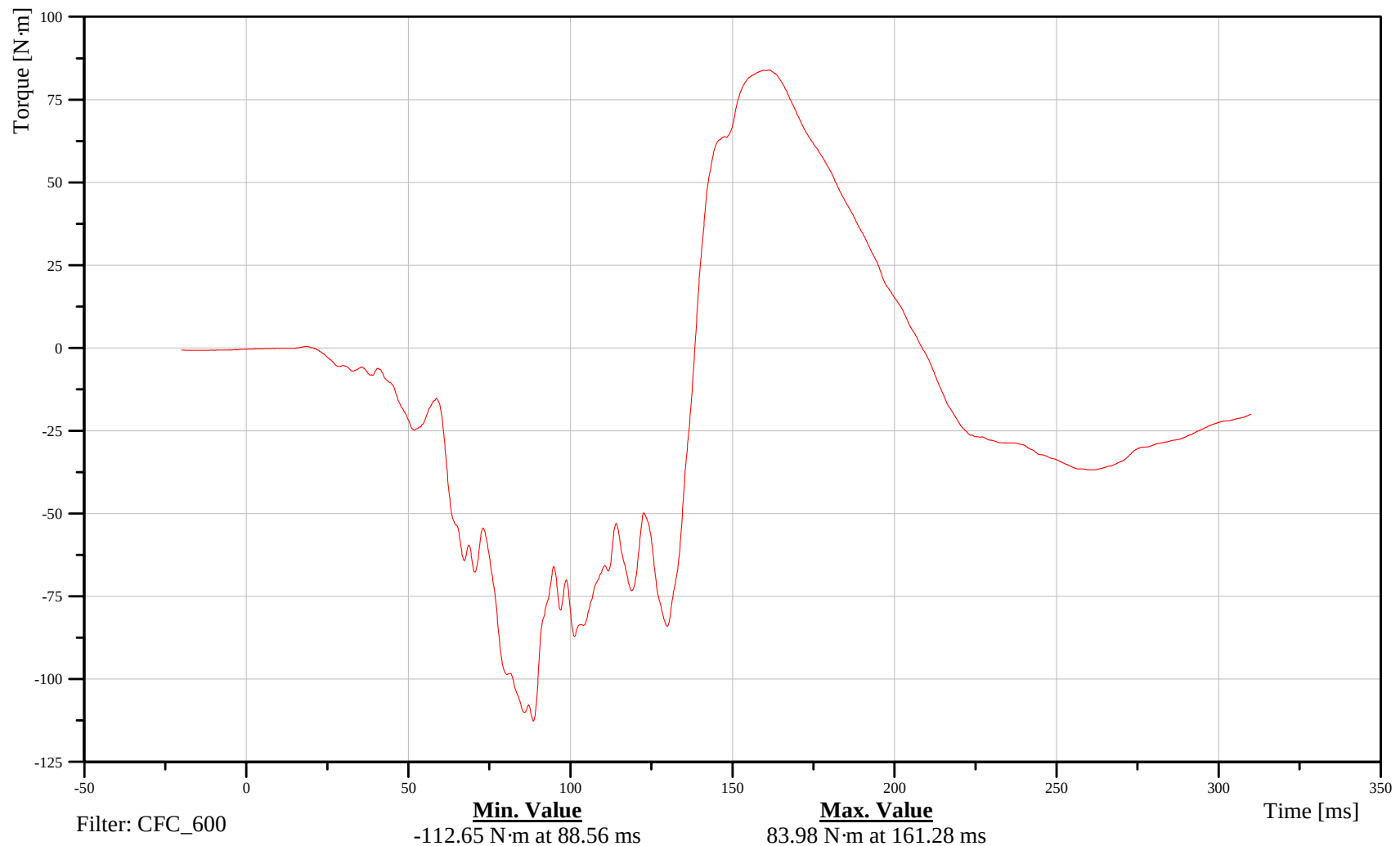
Right Rear Passenger Lower Neck Moment About Y Axis

Customer: VRTC

16NECKLO00H3MOYB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Right Rear Passenger Lower Neck Moment About Z Axis

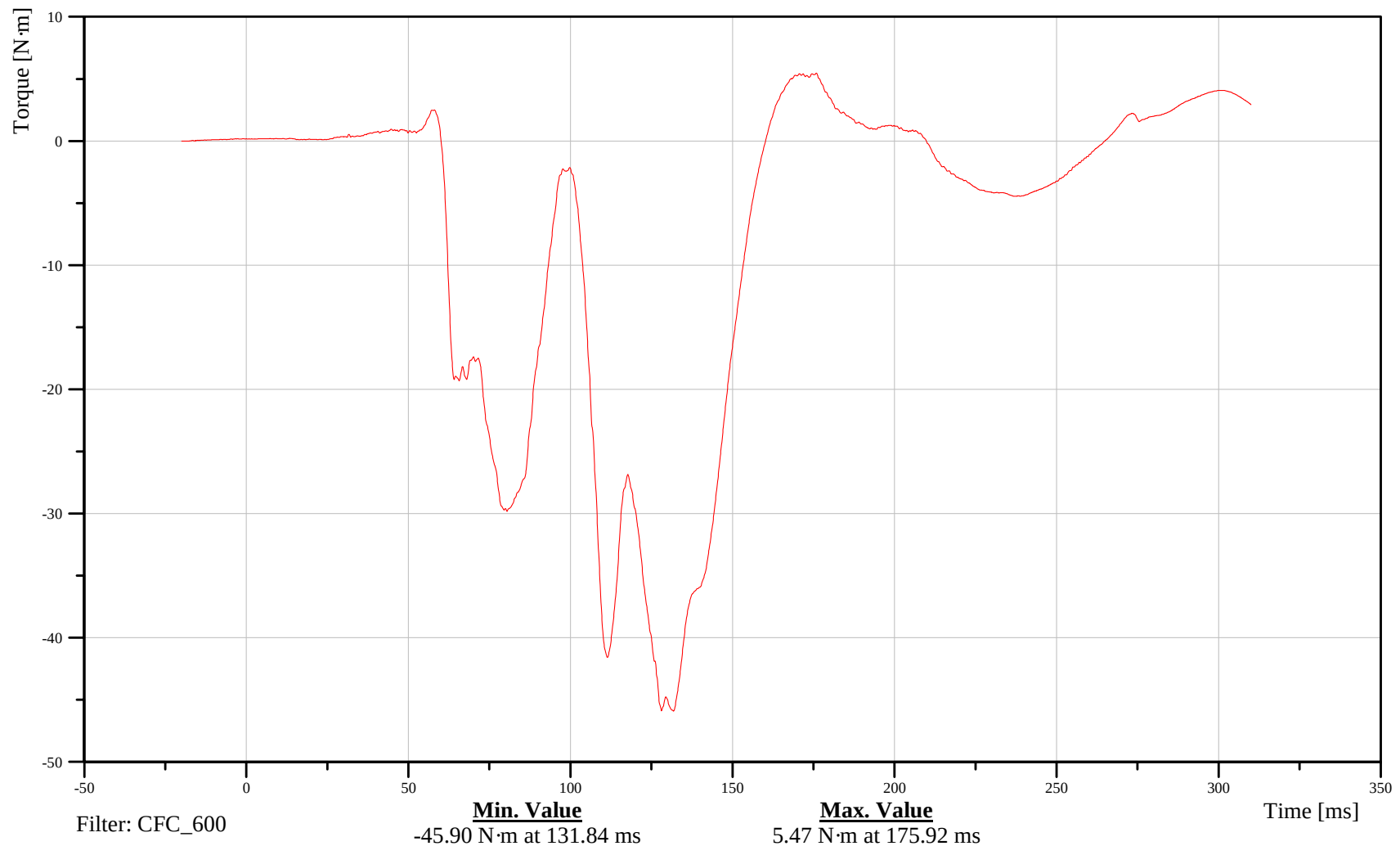
Time: 17:50

Customer: VRTC

16NECKLO00H3MOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

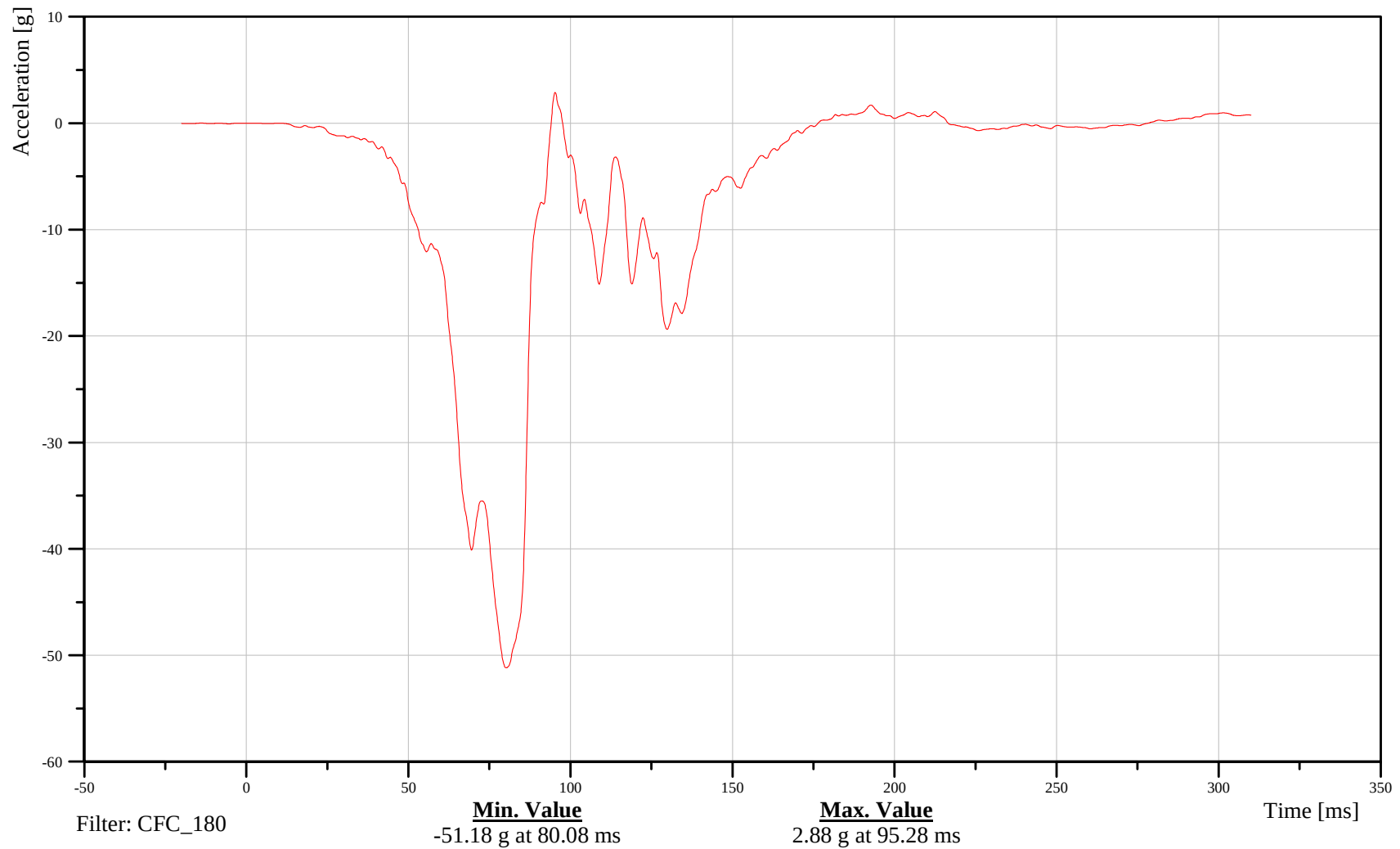
Right Rear Passenger Chest CG X-Axis Acceleration

Customer: VRTC

16CHSTCG00H3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Rear Passenger Chest CG Y-Axis Acceleration

Date: 05/19/2006

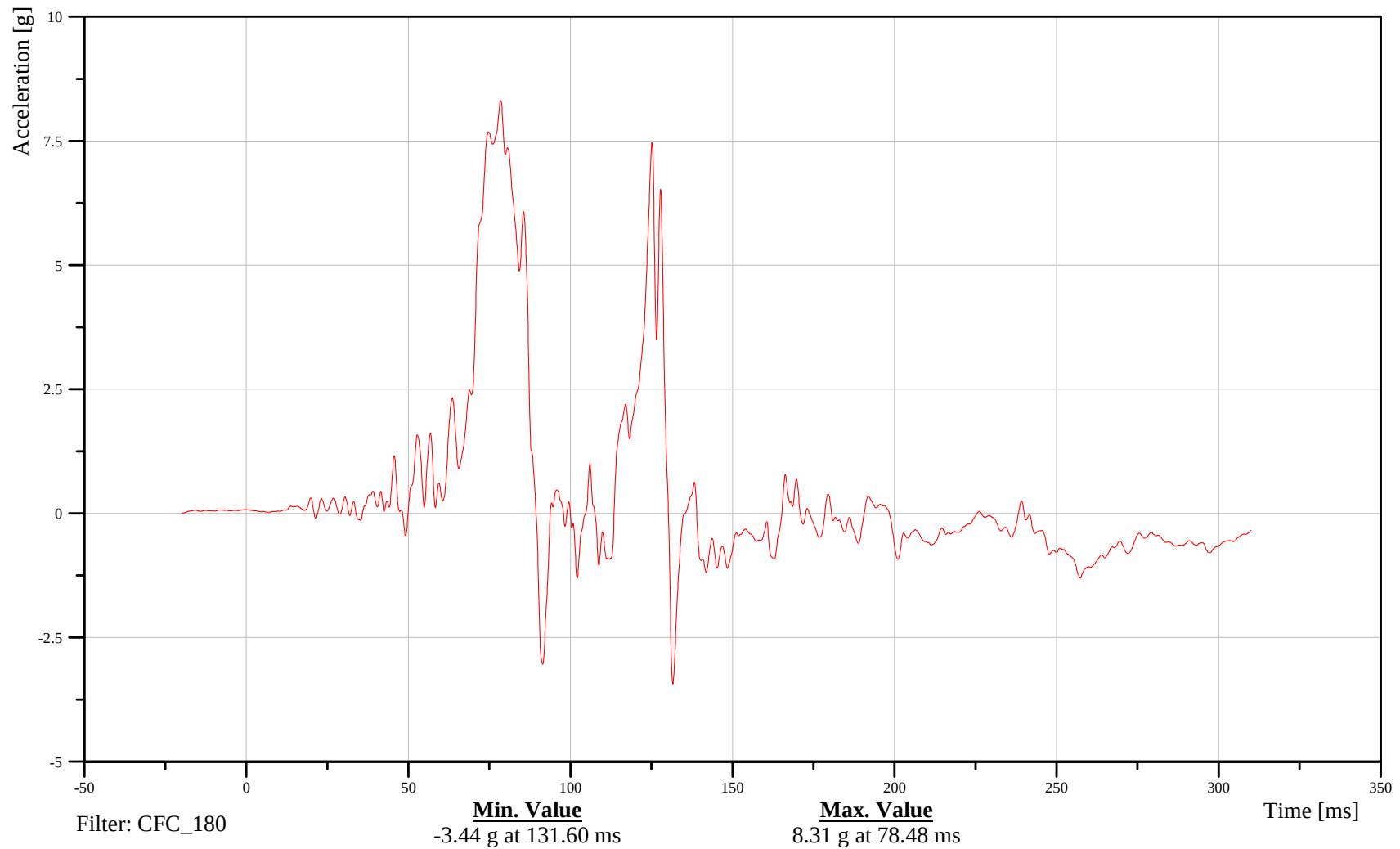
Time: 17:50

Customer: VRTC

16CHSTCG00H3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

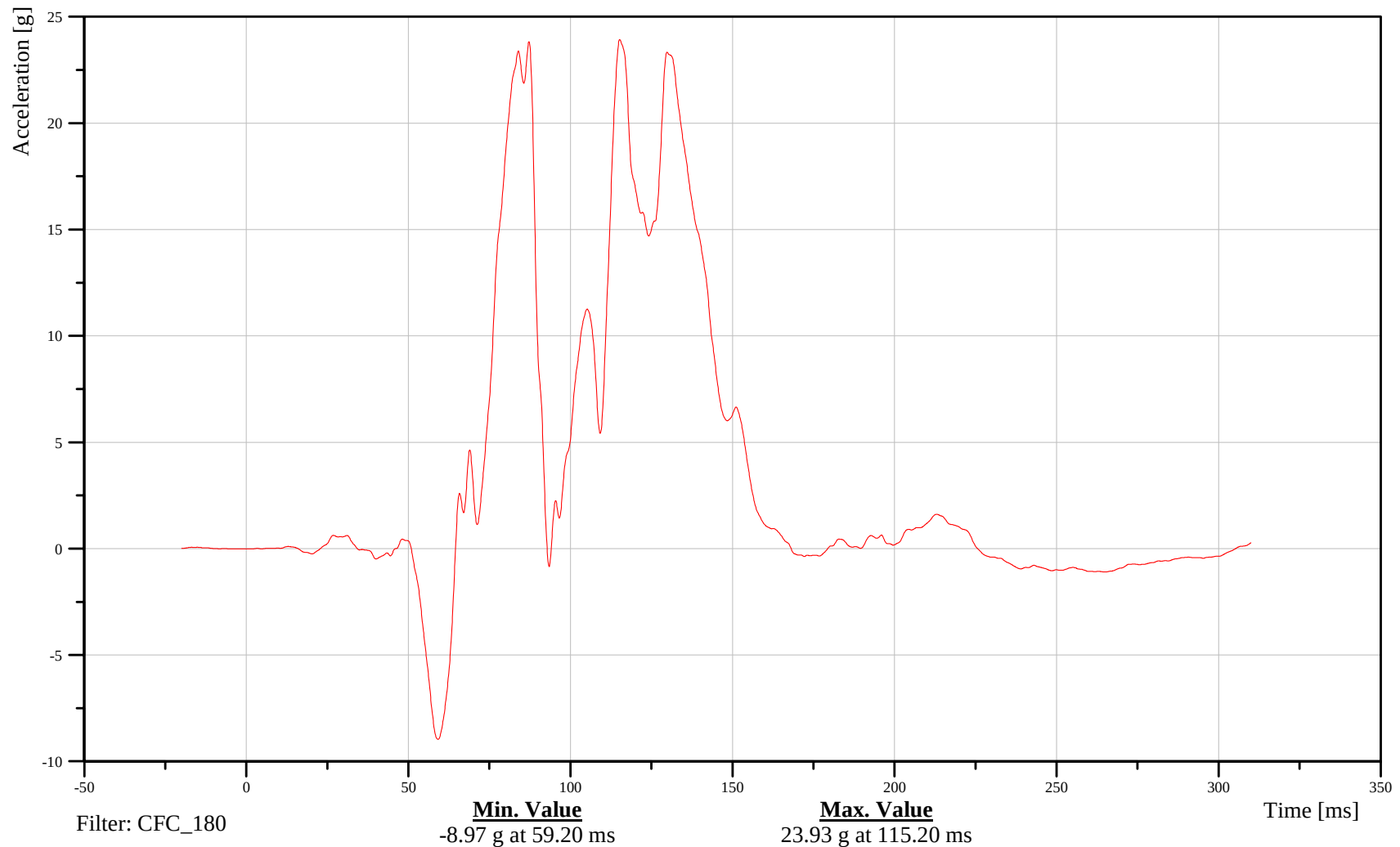
Right Rear Passenger Chest CG Z-Axis Acceleration

Customer: VRTC

16CHSTCG00H3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Rear Passenger Chest CG Resultant Acceleration

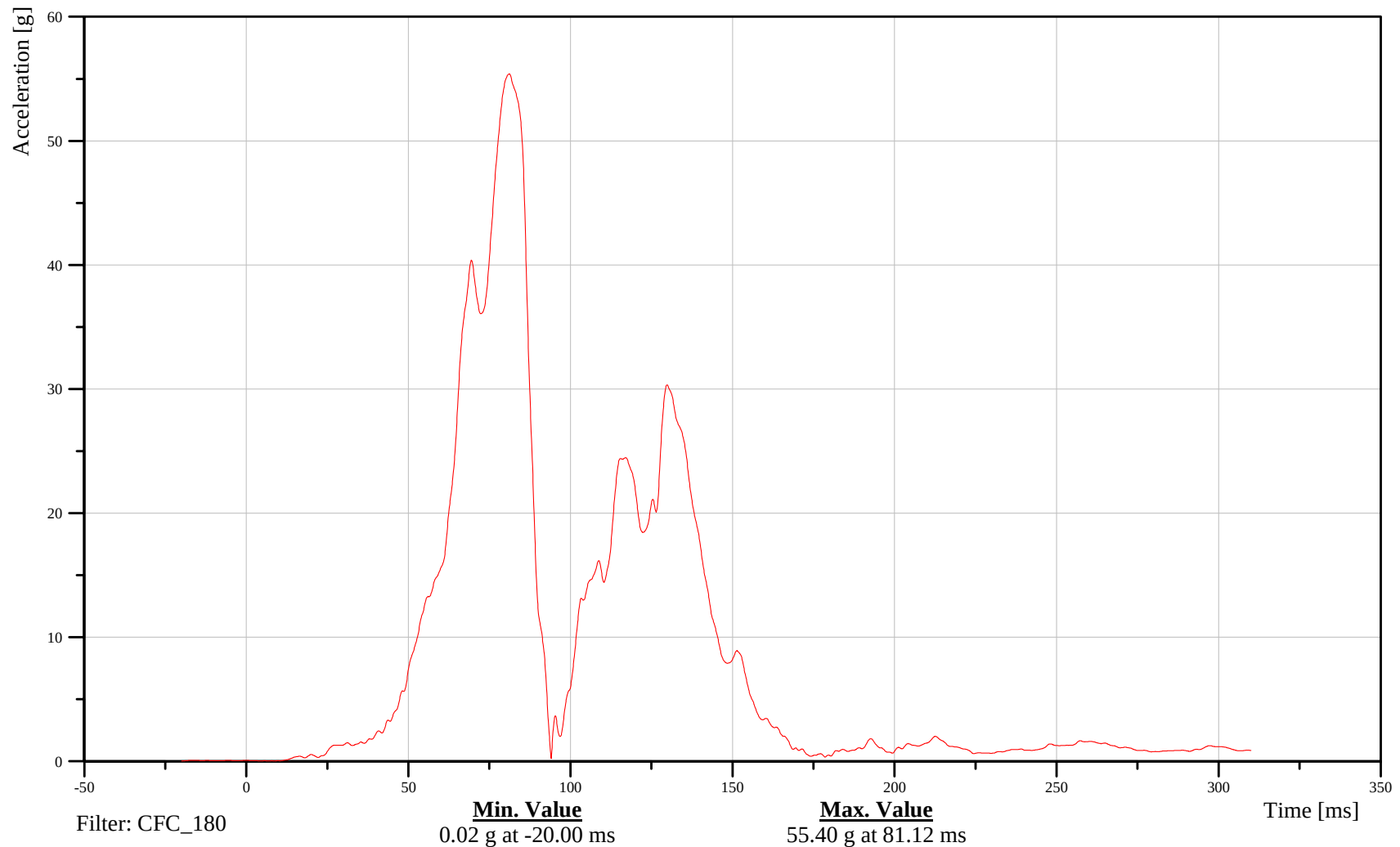
Date: 05/19/2006
Time: 17:50

Customer: VRTC

16CHSTCG00H3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Rear Passenger Redundant Chest CG X-Axis Acceleration

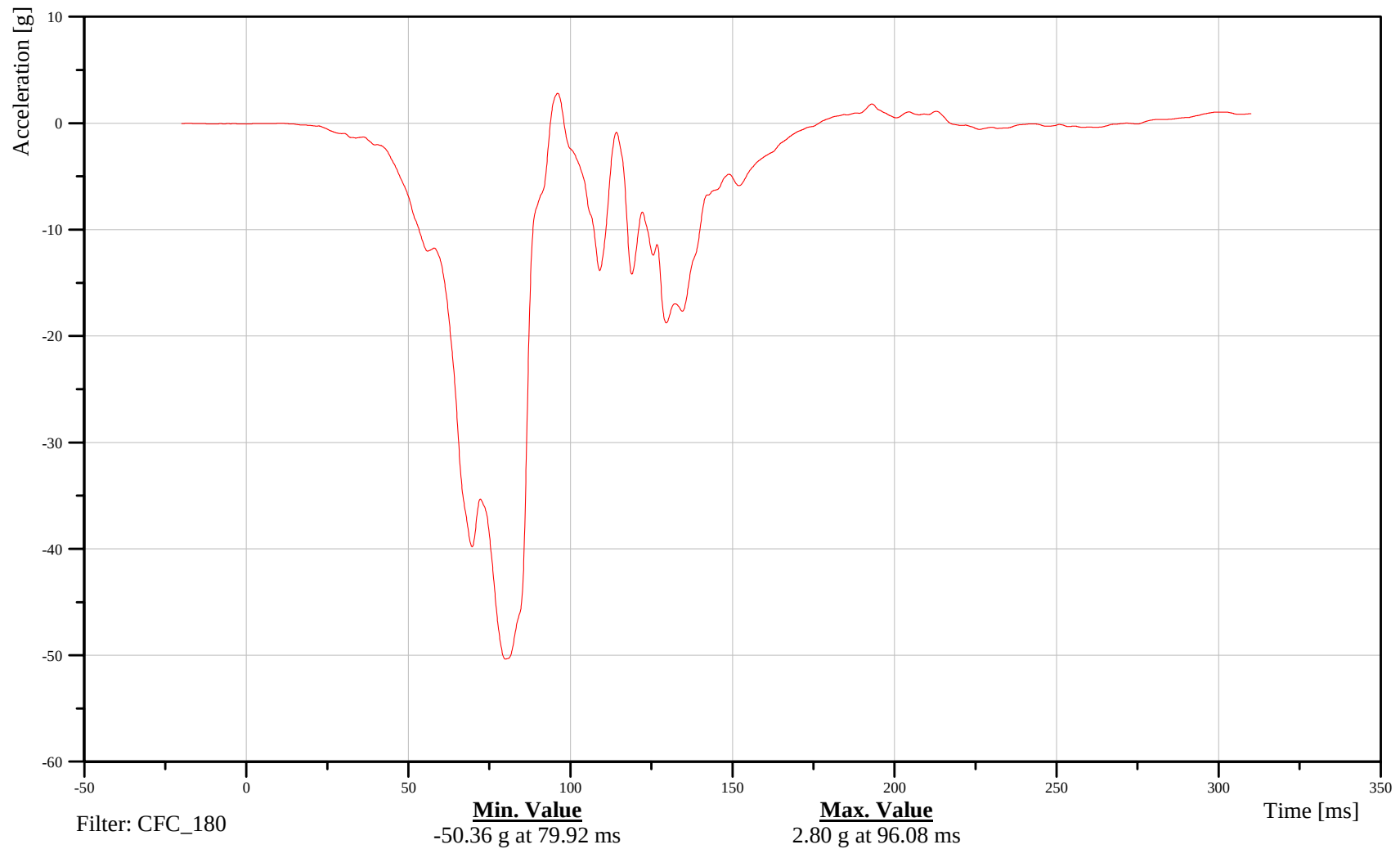
Date: 05/19/2006
Time: 17:50

Customer: VRTC

16CHSTCGRDH3ACXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Rear Passenger Redundant Chest CG Y-Axis Acceleration

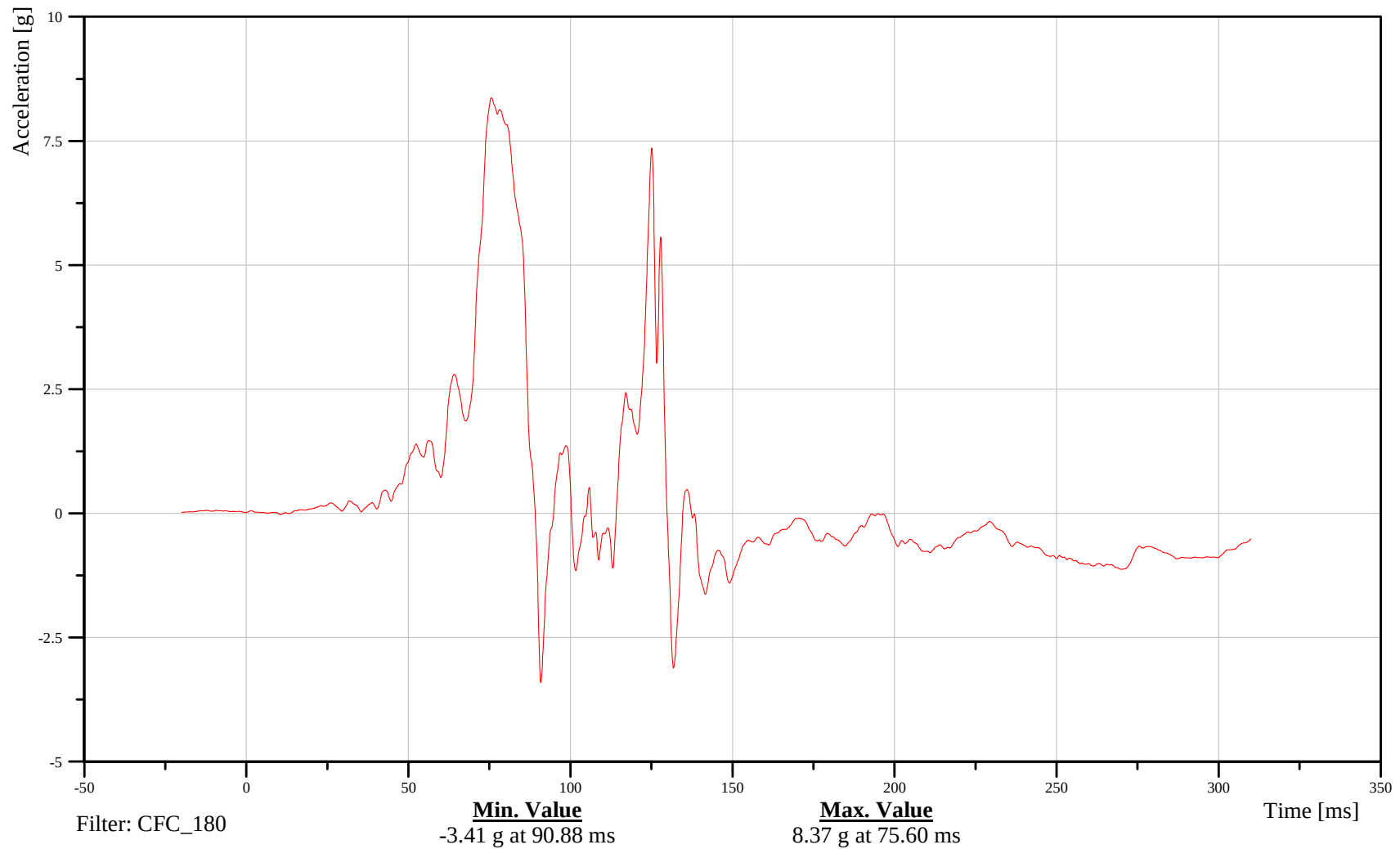
Date: 05/19/2006
Time: 17:50

Customer: VRTC

16CHSTCGRDH3ACYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Rear Passenger Redundant Chest CG Z-Axis Acceleration

Date: 05/19/2006

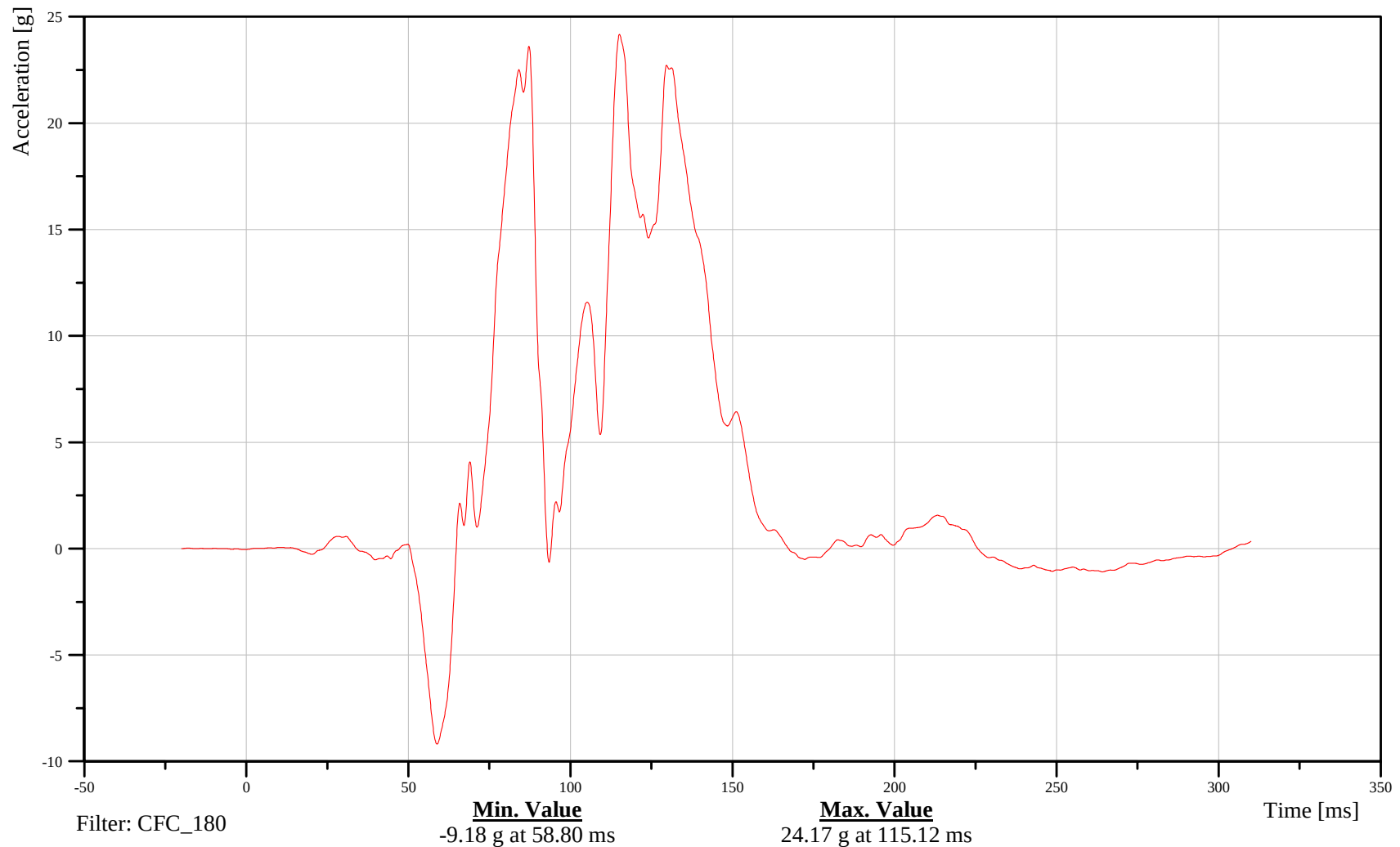
Time: 17:50

Customer: VRTC

16CHSTCGRDH3ACZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

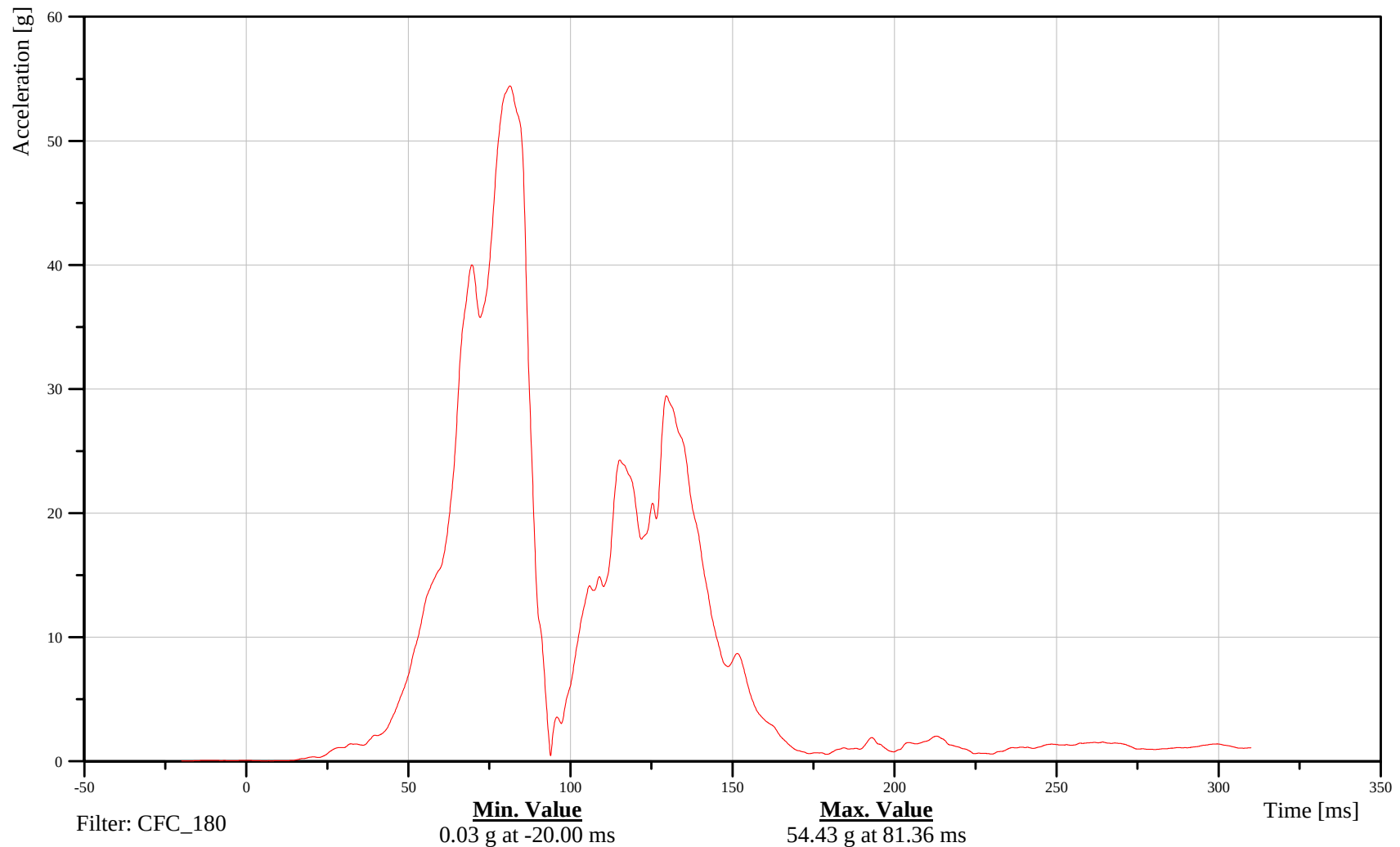
Right Rear Passenger Redundant Chest CG Resultant Acceleration

Customer: VRTC

16CHSTCGRDH3ACRC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

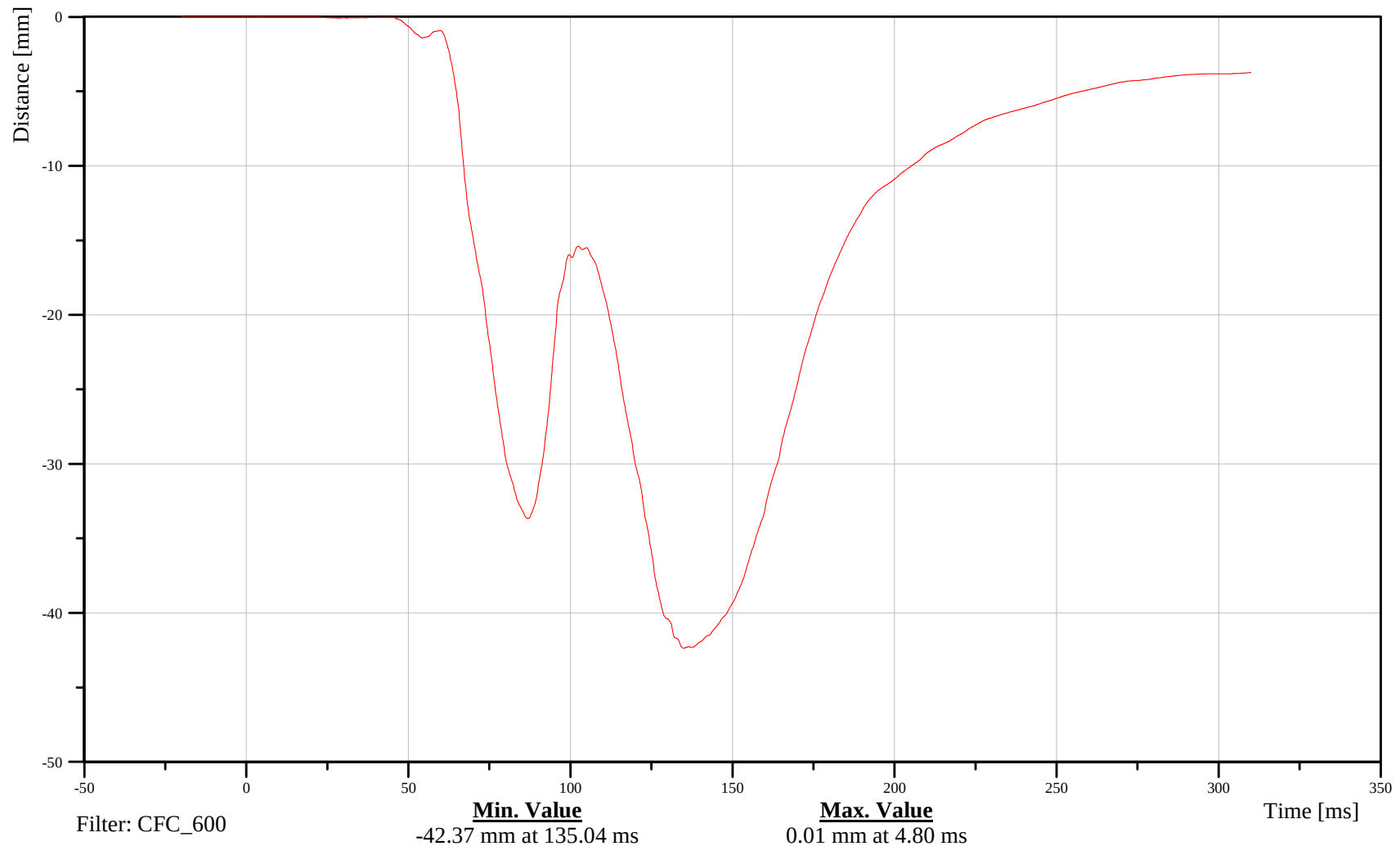
Right Rear Passenger Chest Displacement

Customer: VRTC

16CHST0000H3DSXB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

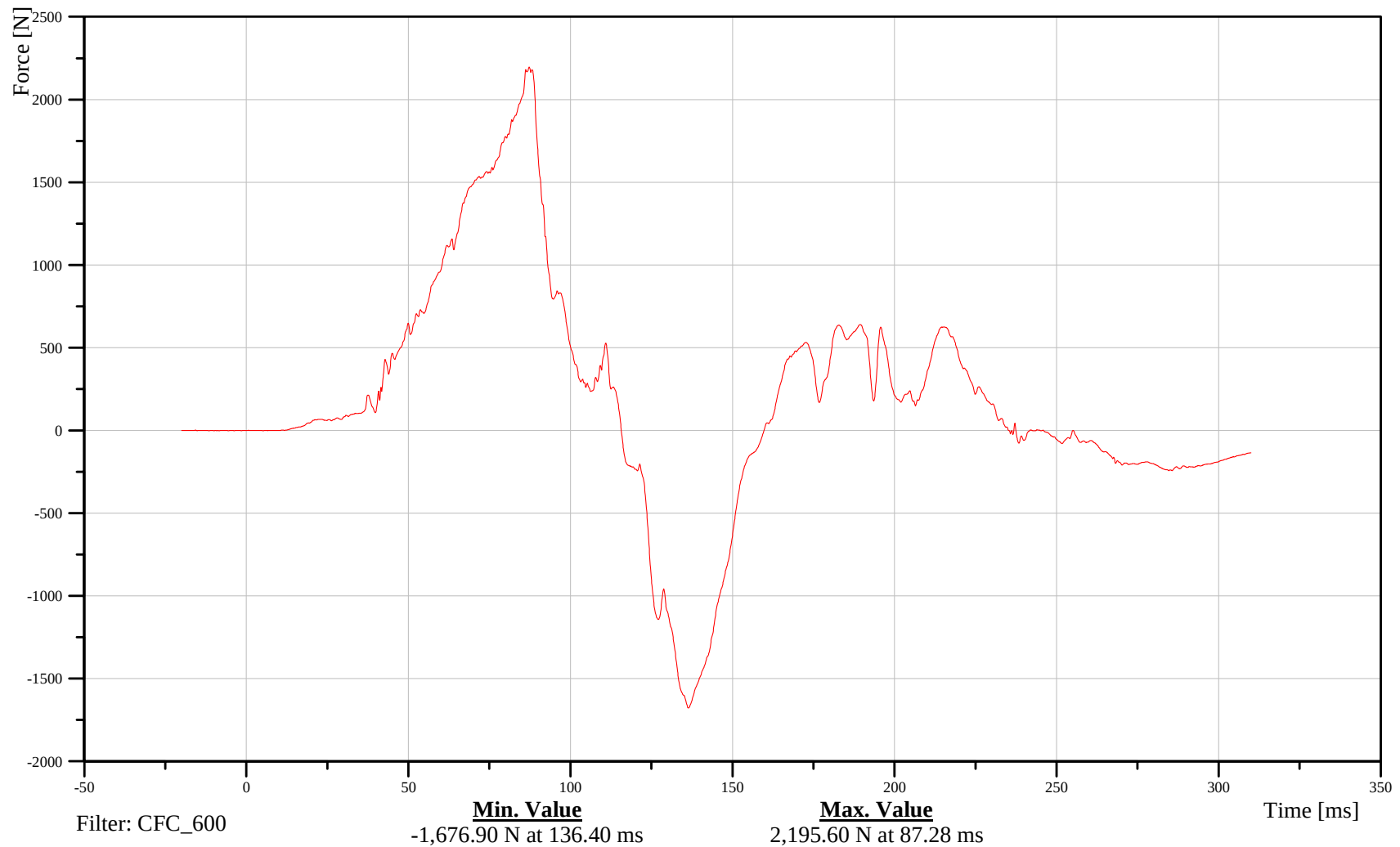
Right Rear Passenger Left Femur Z-Axis Force

Customer: VRTC

16FEMRLL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

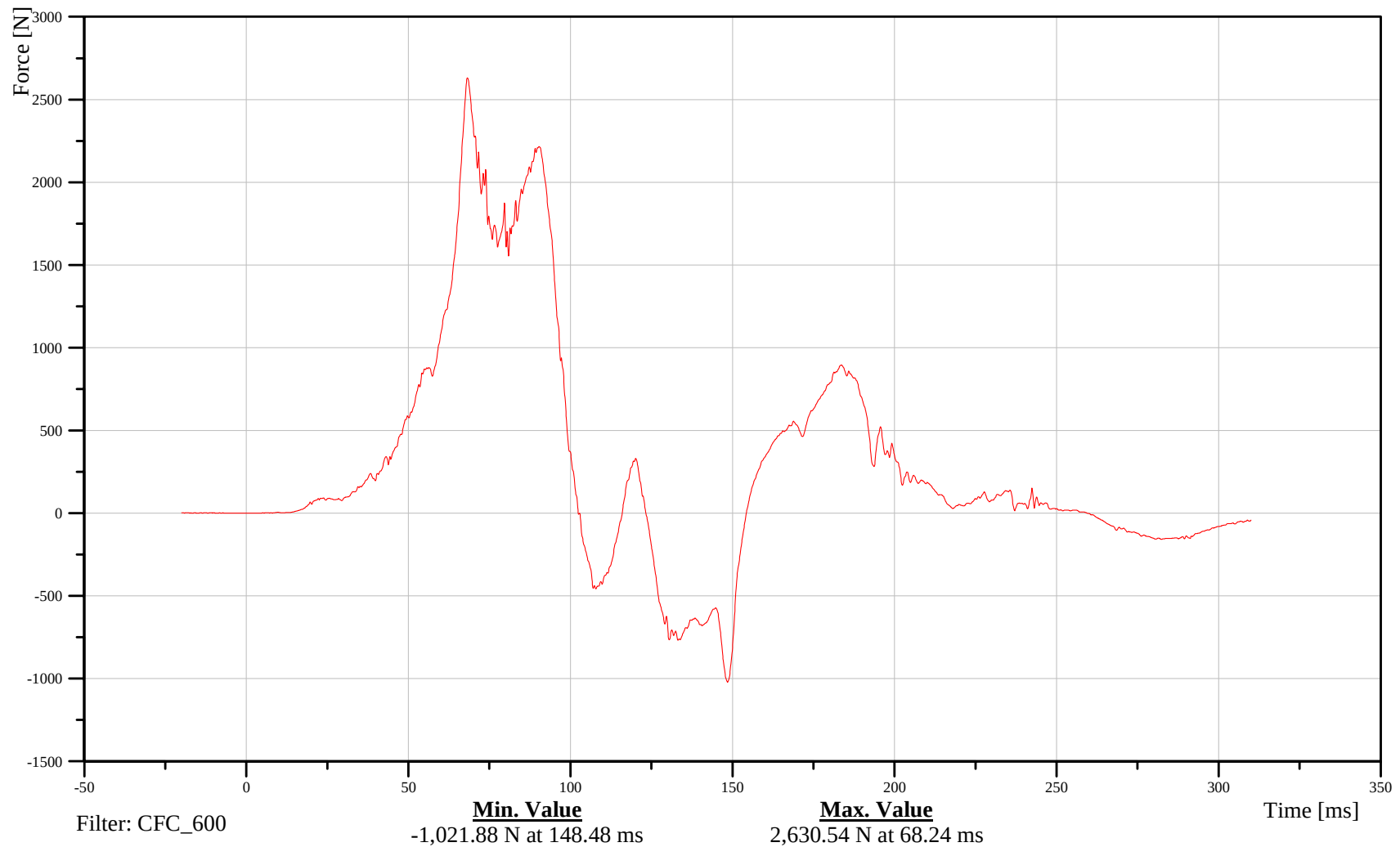
Right Rear Passenger Right Femur Z-Axis Force

Customer: VRTC

16FEMRRL00H3FOZB

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Seat Crossmember X-Axis Acceleration

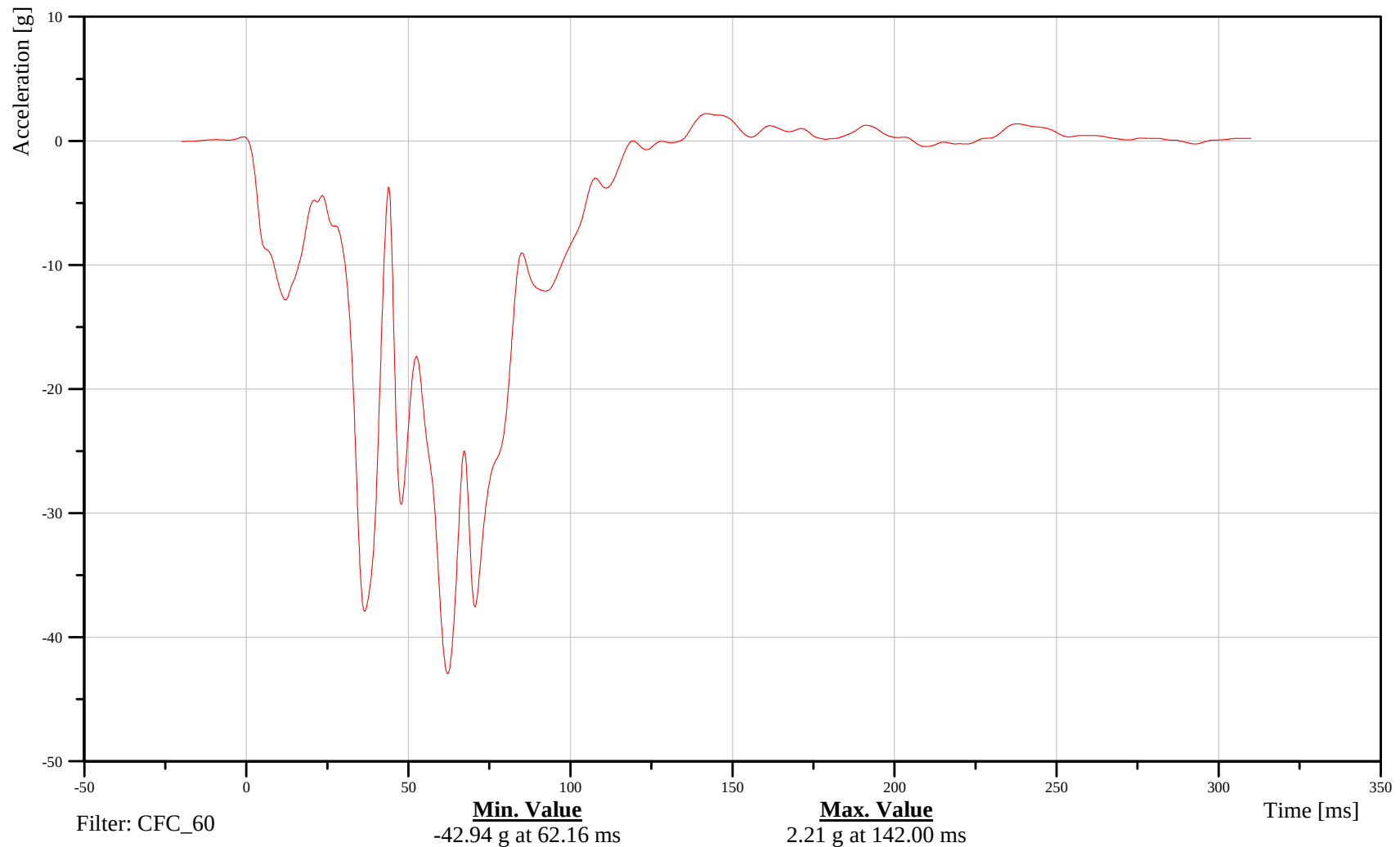
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14CRME000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

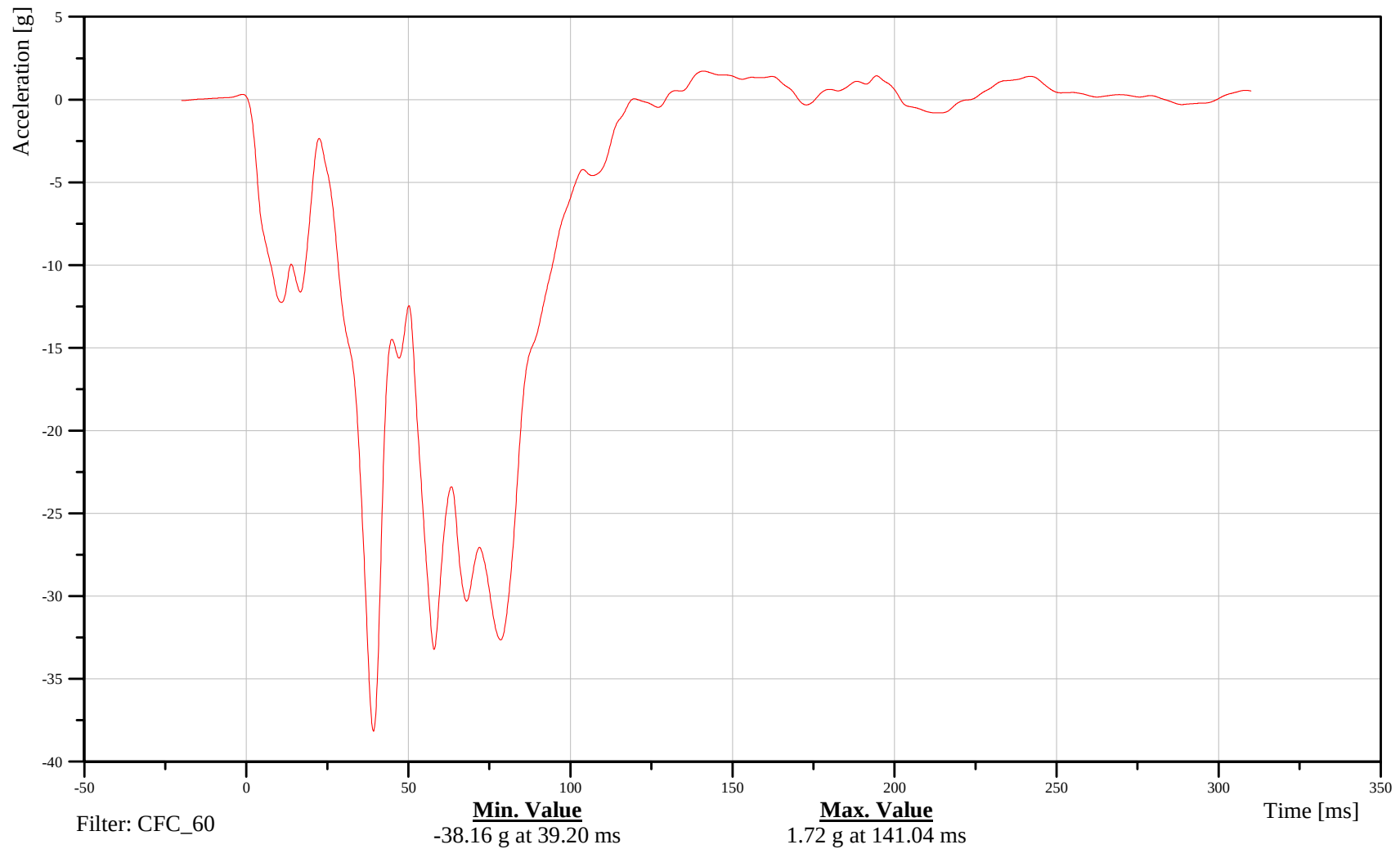
Right Rear Seat Crossmember X-Axis Acceleration

Customer: VRTC

16CRME000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Top of Engine X-Axis Acceleration

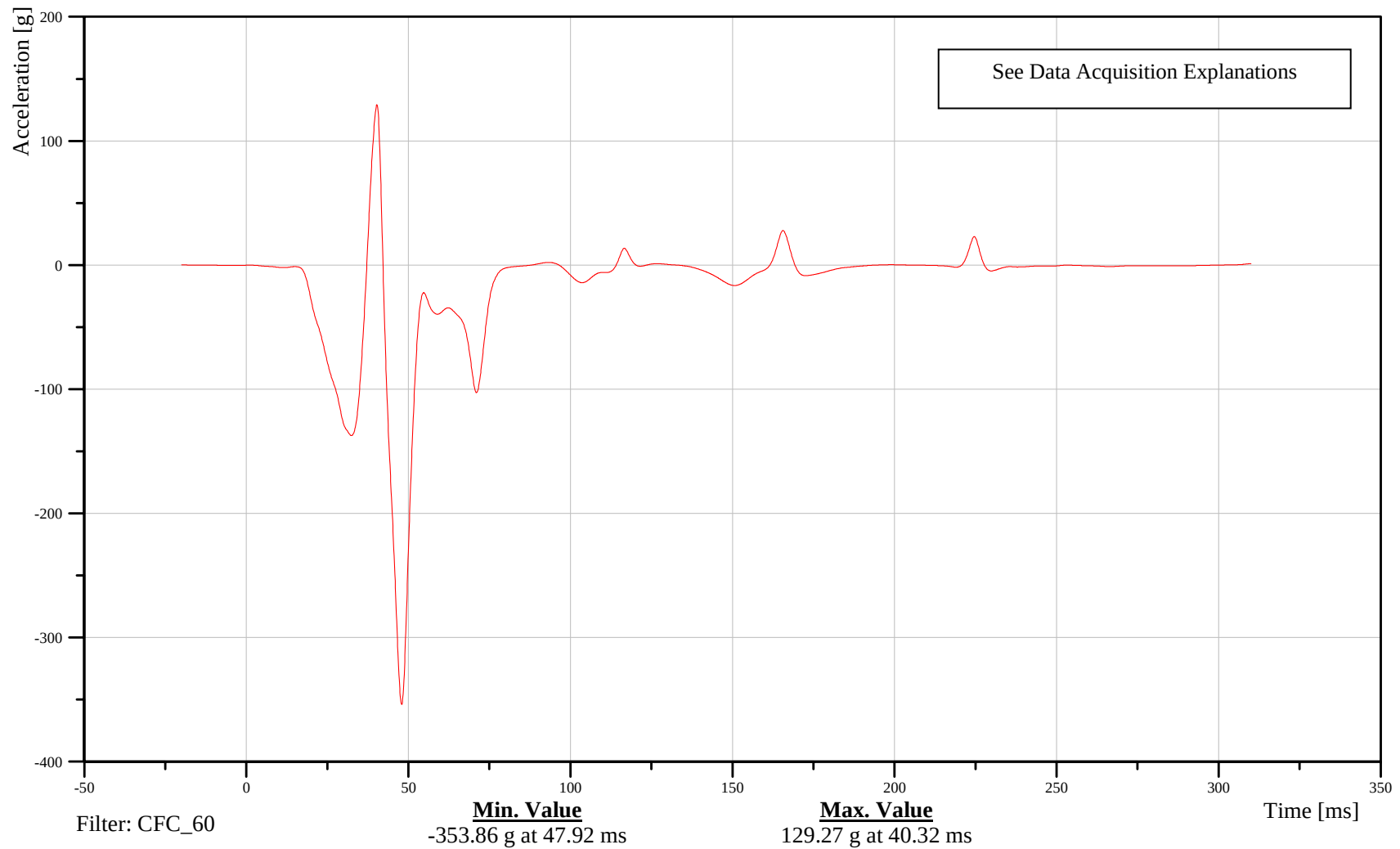
Date: 05/19/2006
Time: 17:50

Customer: VRTC

12ENGNTTP0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Bottom of Engine X-Axis Acceleration

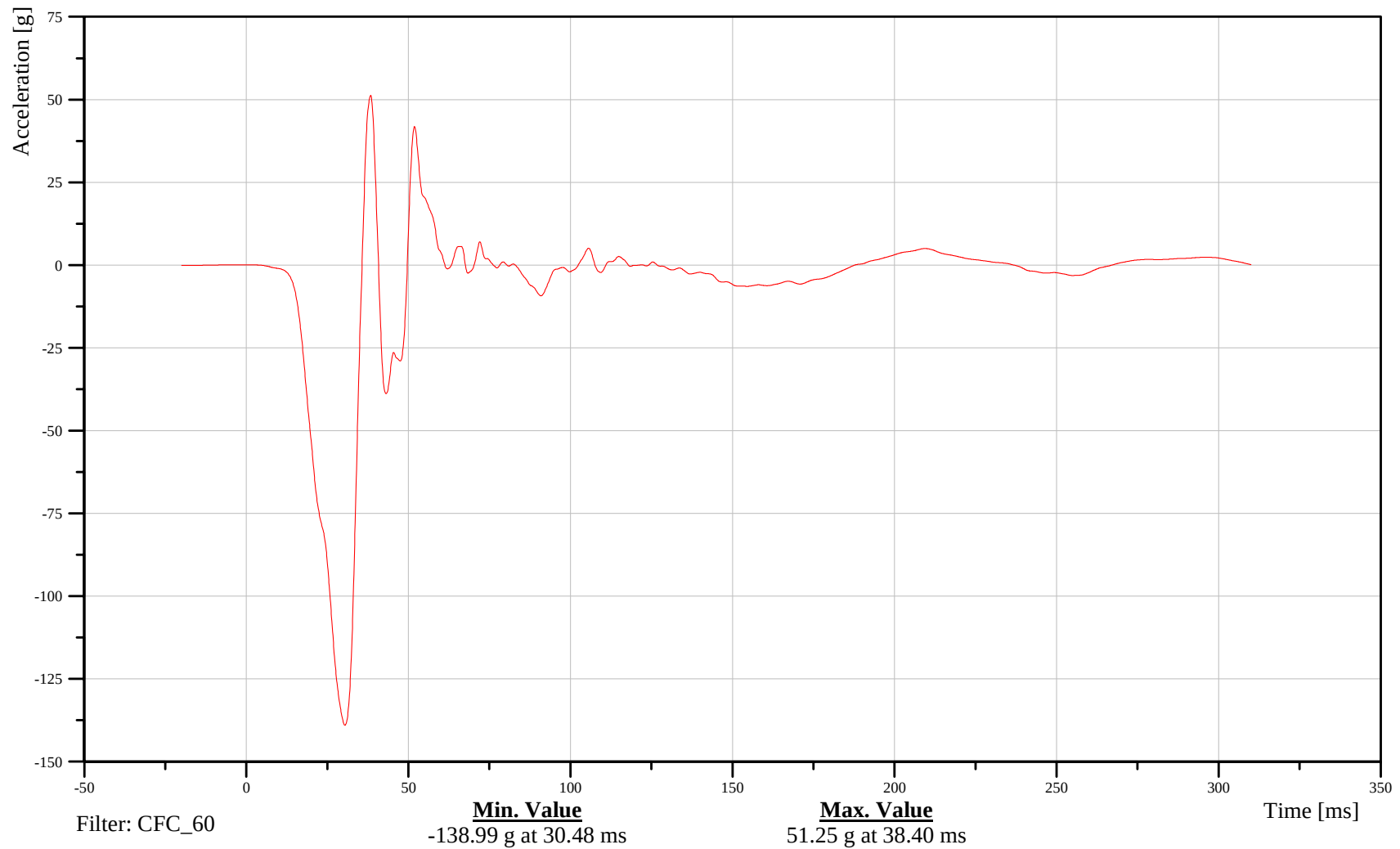
Date: 05/19/2006
Time: 17:50

Customer: VRTC

12ENG NBO0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

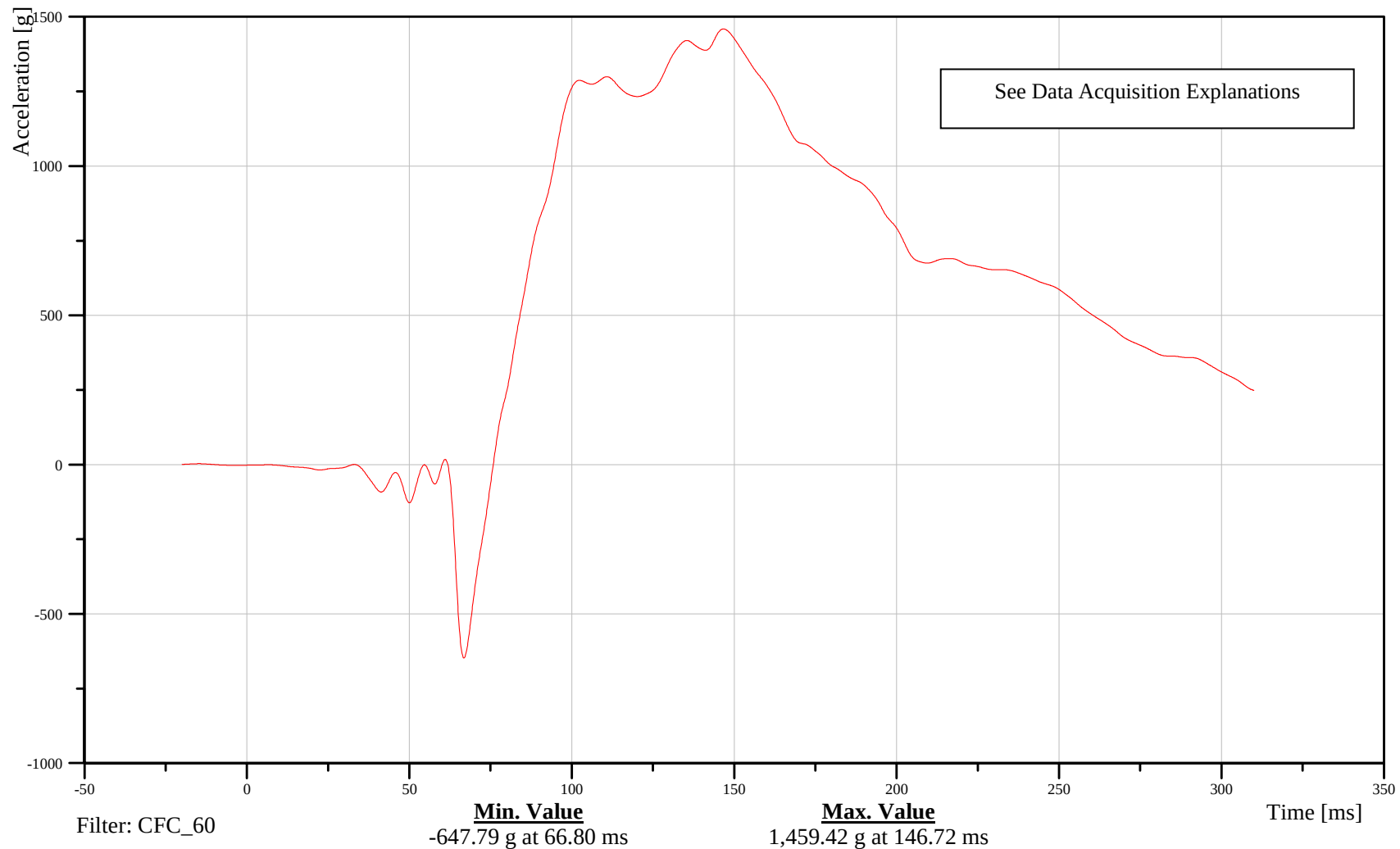
Right Front Brake Caliper X-Axis Acceleration

Customer: VRTC

13VEHCRI0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Front Brake Caliper X-Axis Acceleration

Date: 05/19/2006

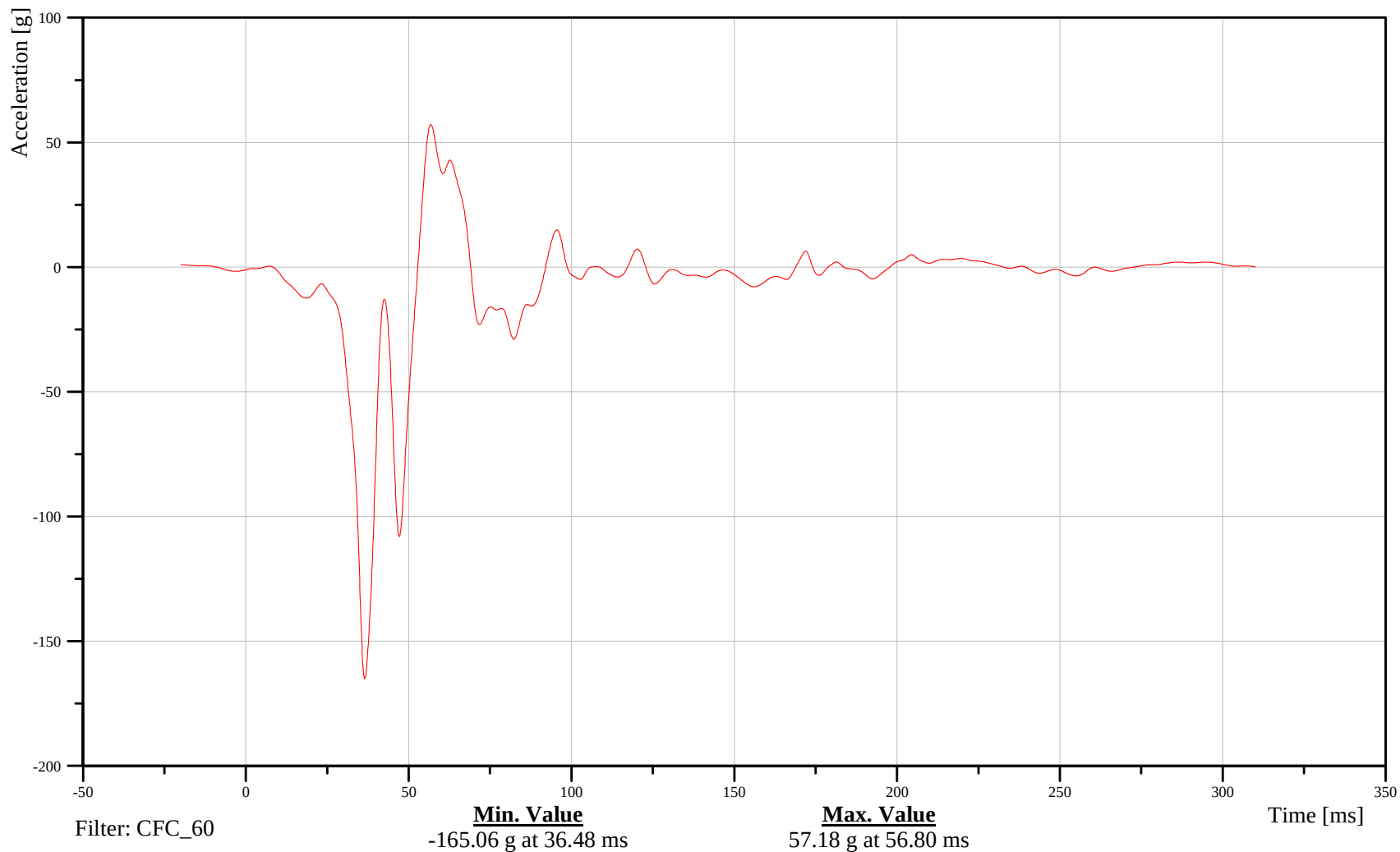
Time: 17:50

Customer: VRTC

11VEHICLE0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Dash Center X-Axis Acceleration

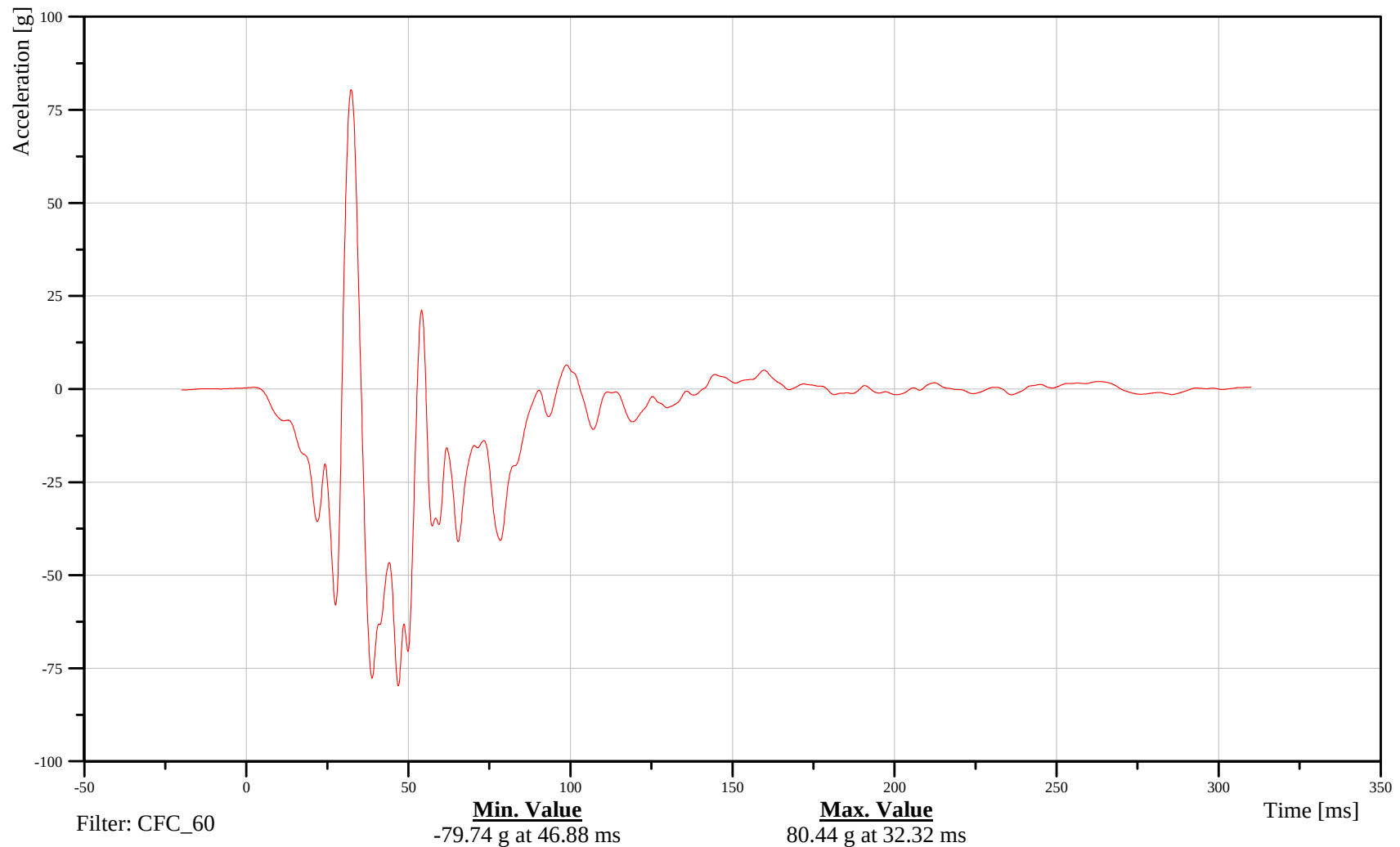
Date: 05/19/2006
Time: 17:50

Customer: VRTC

12DASH000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

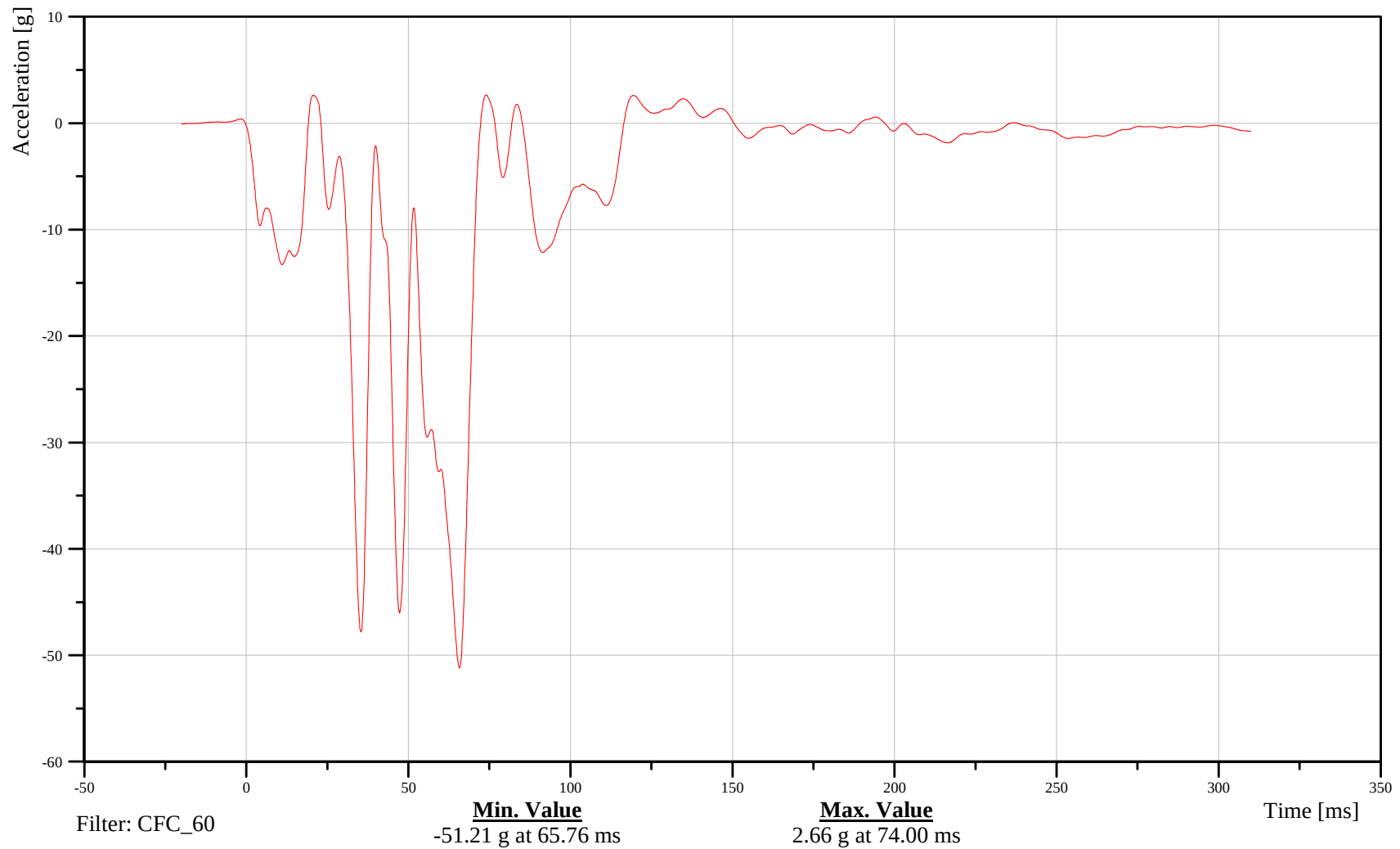
Toe Pan Accelerator X-Axis Acceleration

Customer: VRTC

11PEAC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

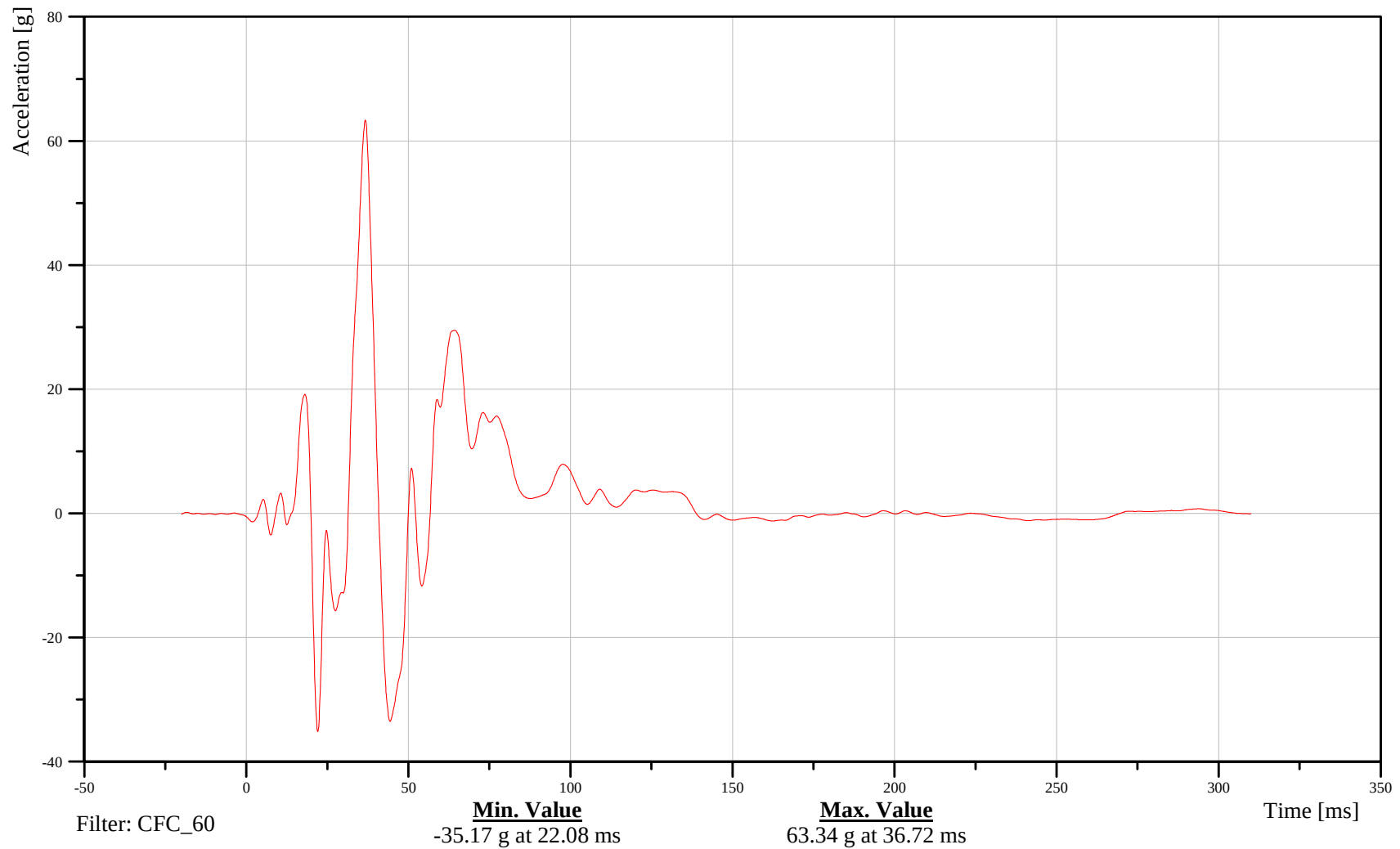
Toe Pan Accelerator Z-Axis Acceleration

Customer: VRTC

11PEAC000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Toe Pan Footrest X-Axis Acceleration

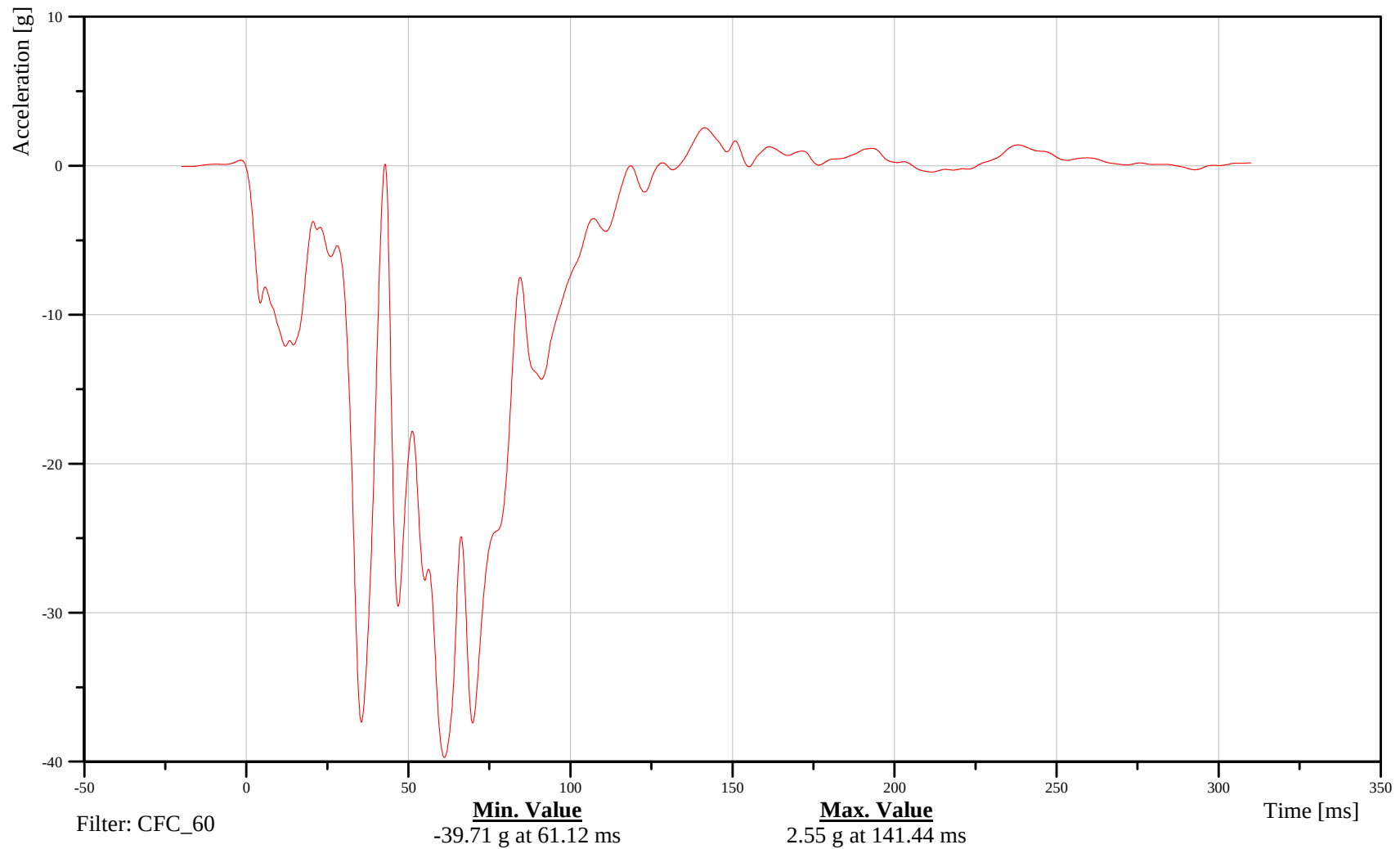
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11VEHC000001ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

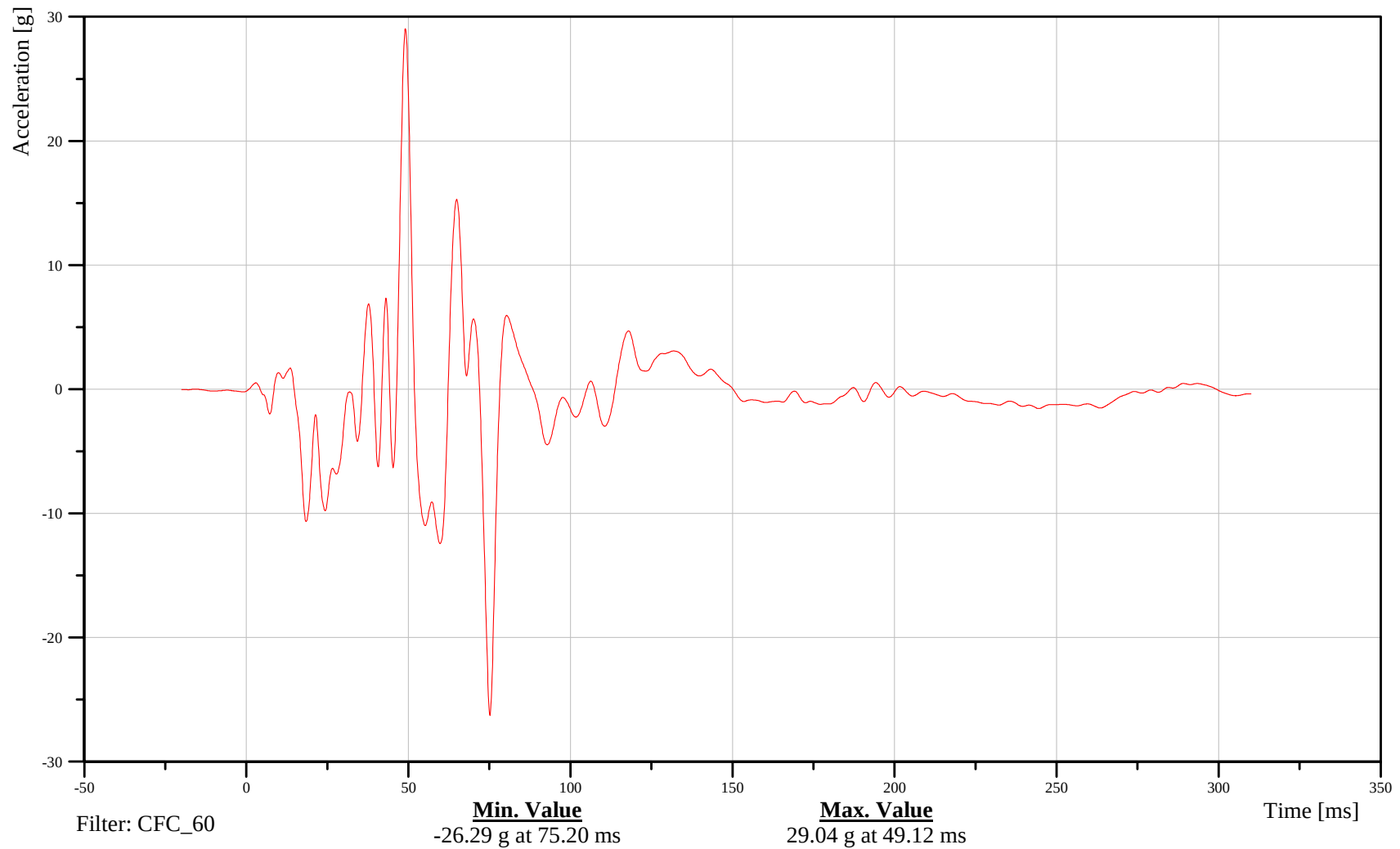
Toe Pan Footrest Z-Axis Acceleration

Customer: VRTC

11VEHC000001ACZD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Rear Tunnel Center X-Axis Acceleration

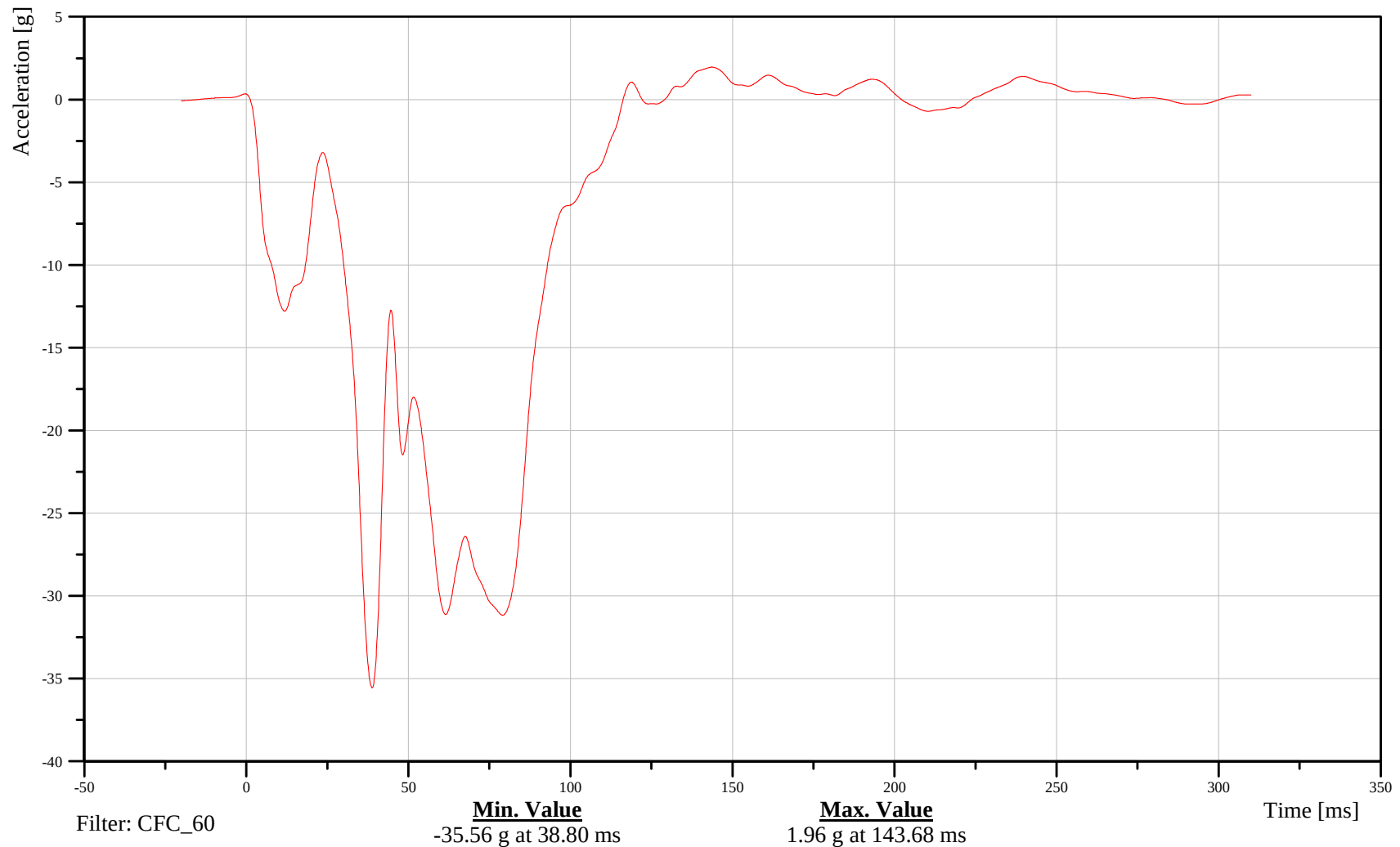
Date: 05/19/2006
Time: 17:50

Customer: VRTC

15TUNNCY0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG X-Axis Acceleration

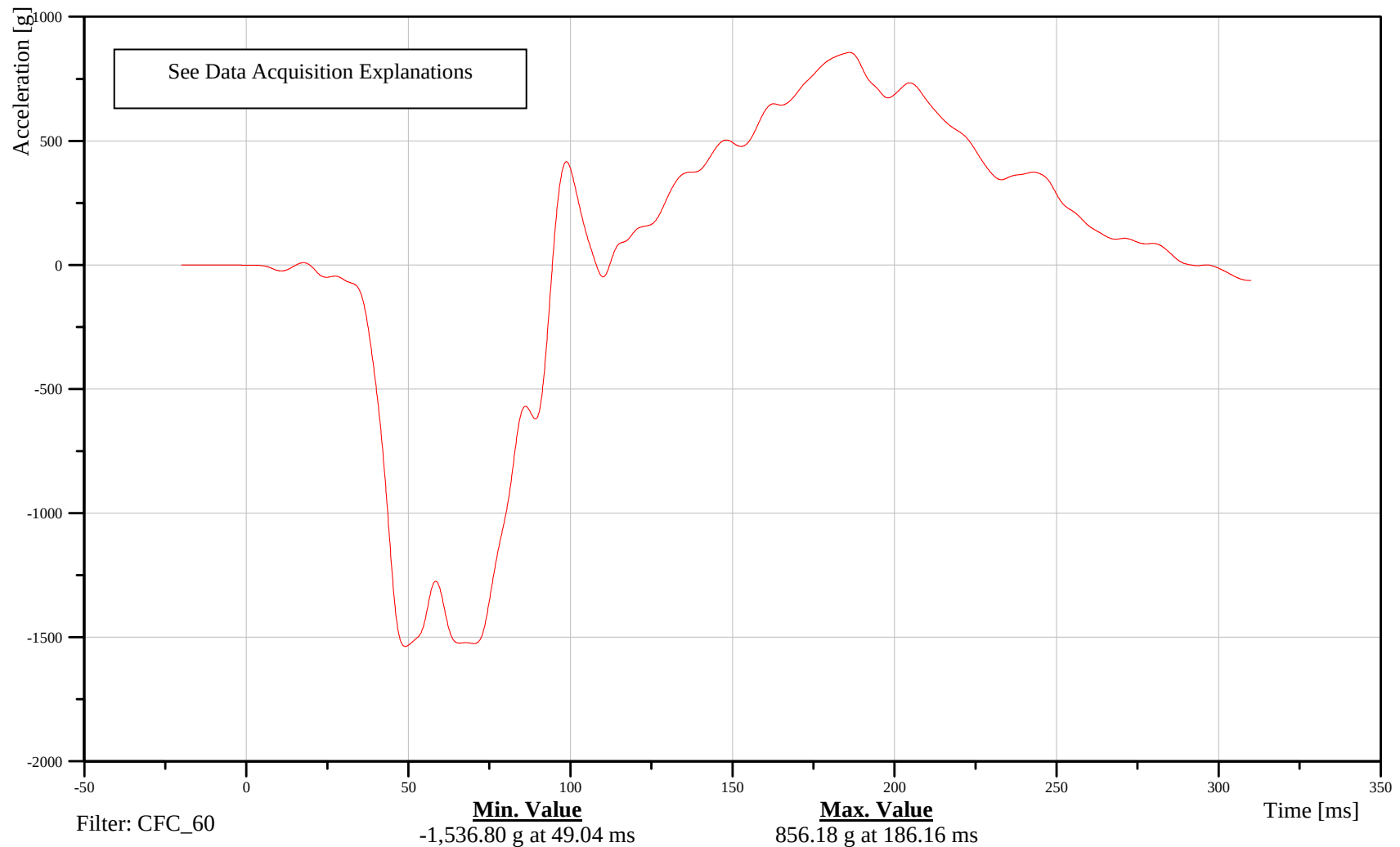
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG X-Axis Velocity

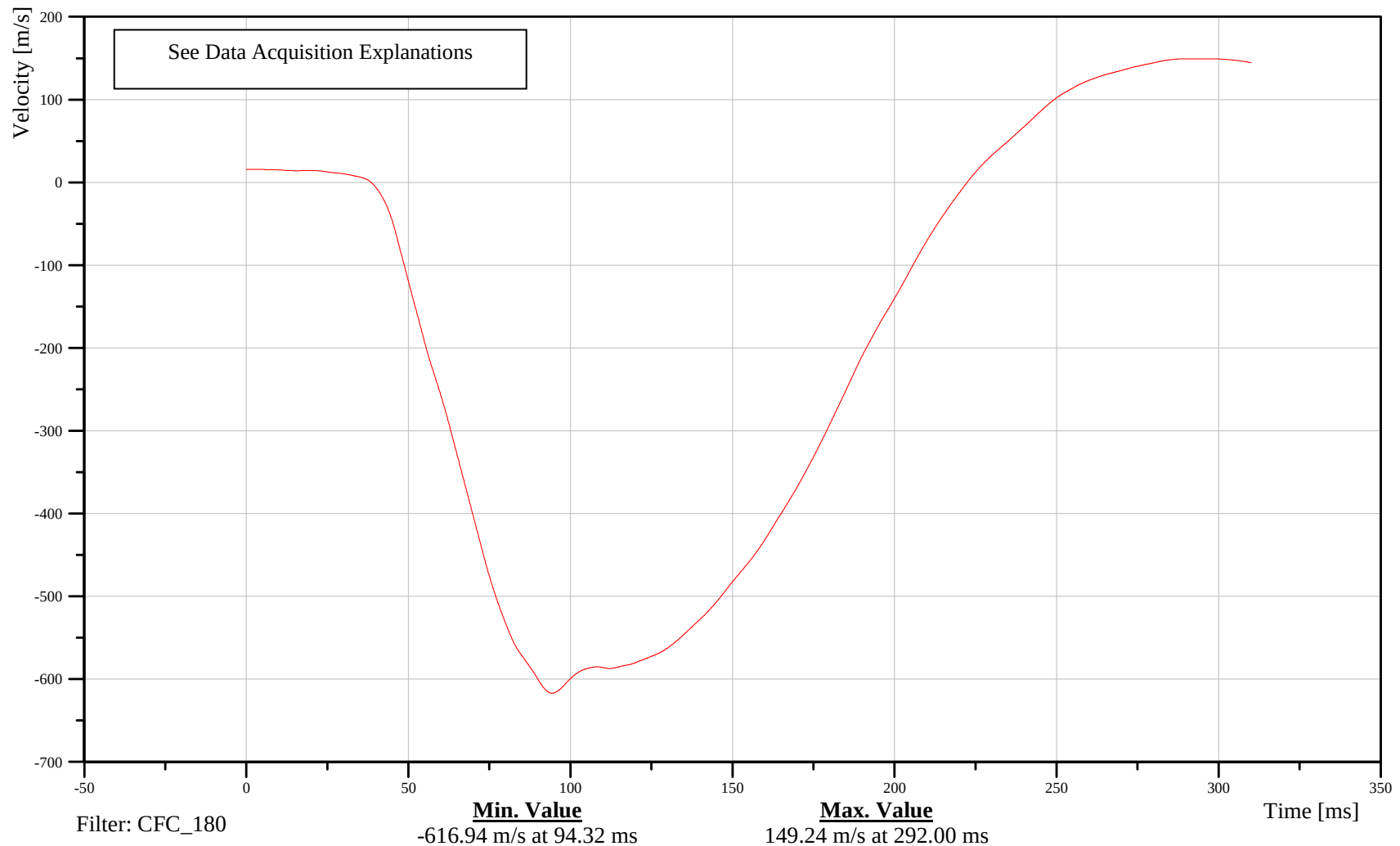
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000VEXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG X-Axis Displacement

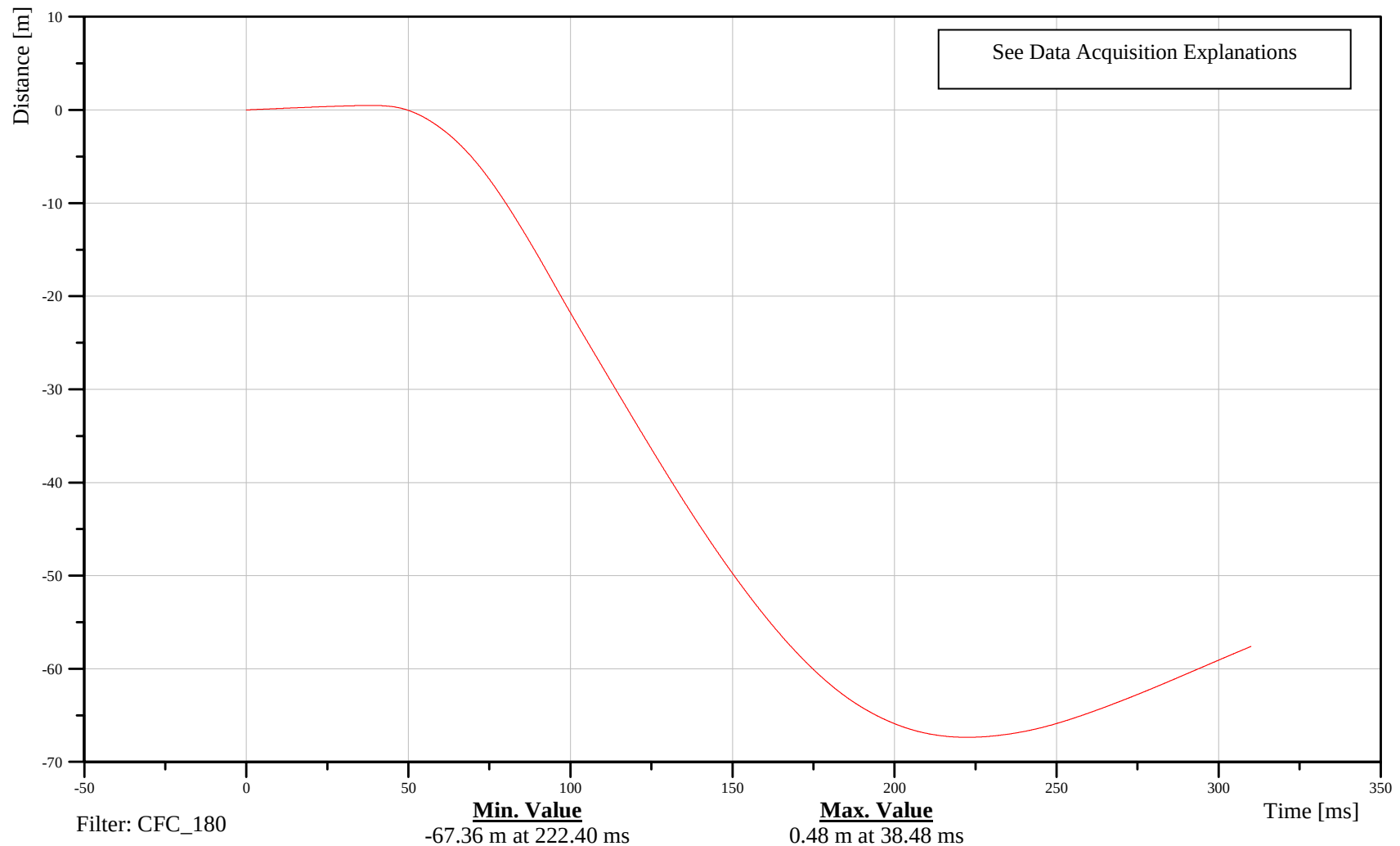
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000DCXC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Y-Axis Acceleration

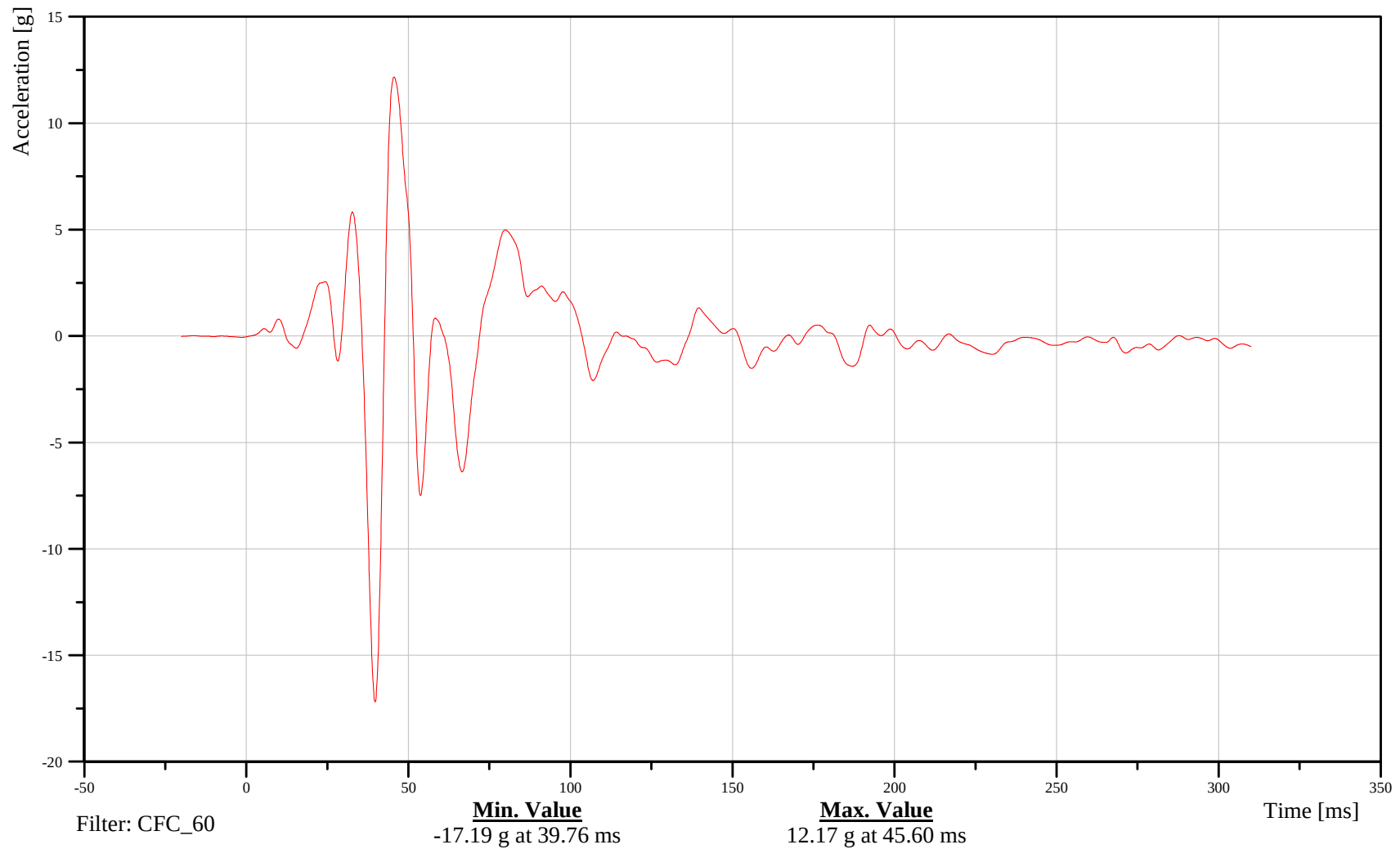
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Y-Axis Velocity

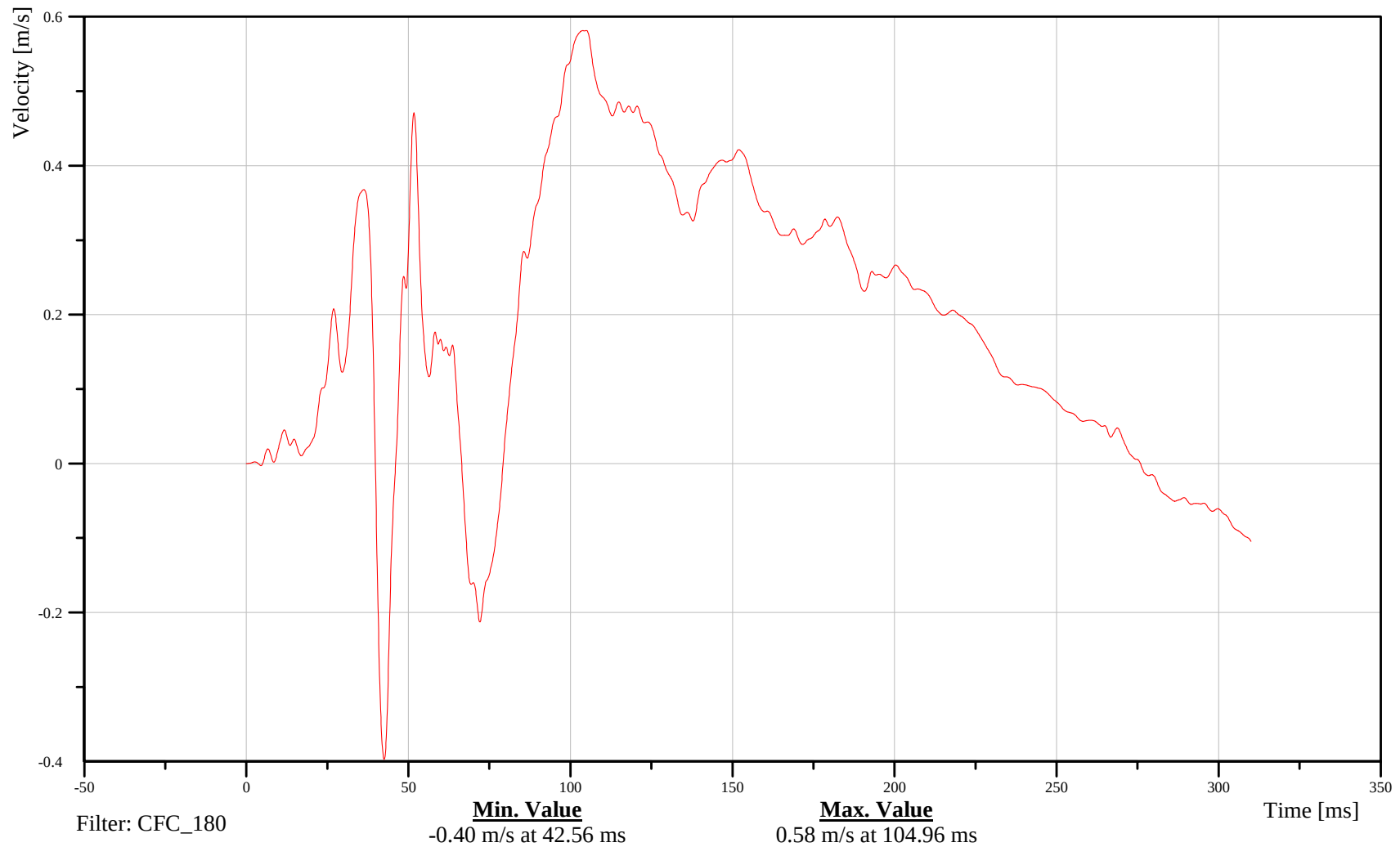
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Y-Axis Displacement

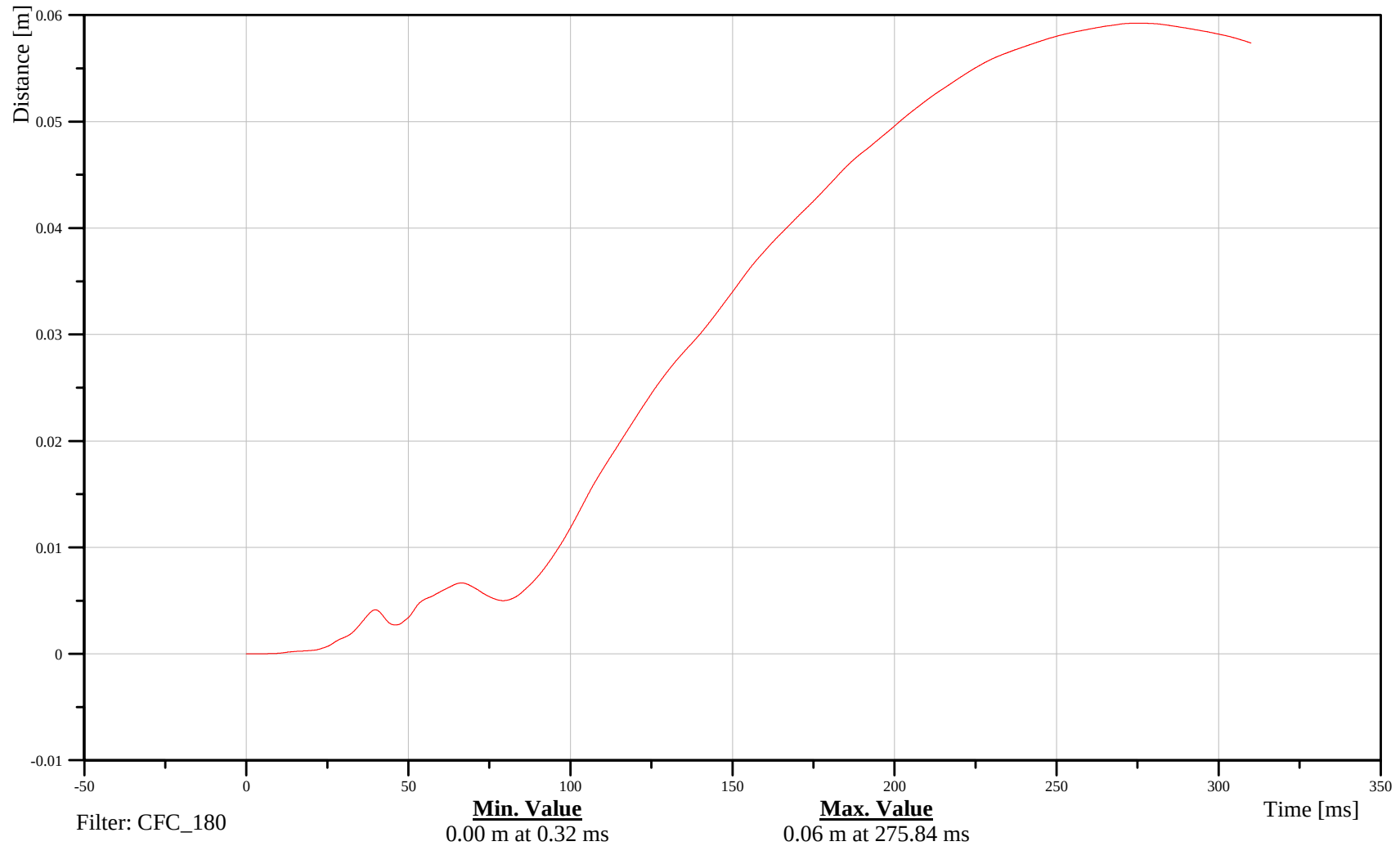
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000DCYC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Z-Axis Acceleration

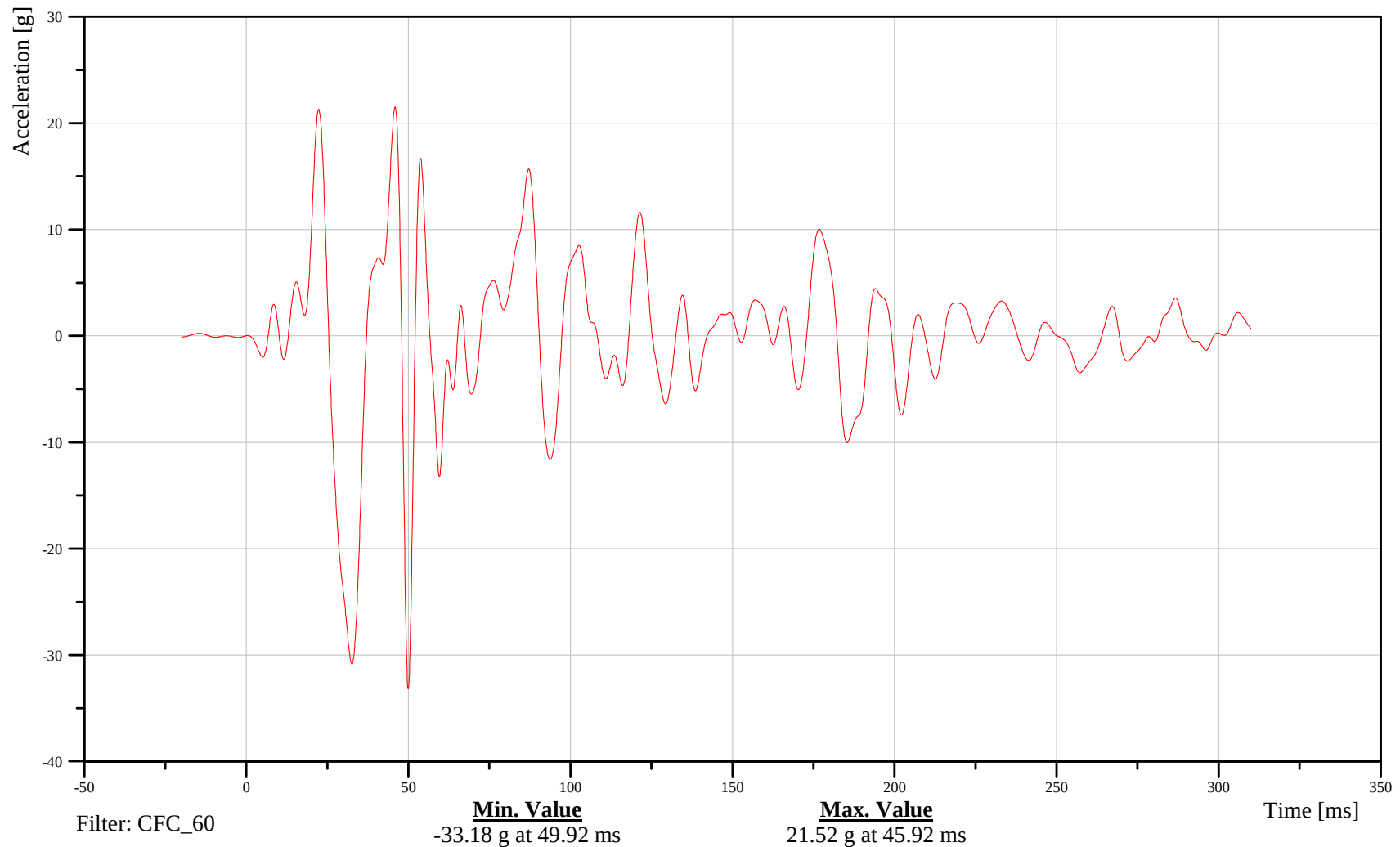
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Z-Axis Velocity

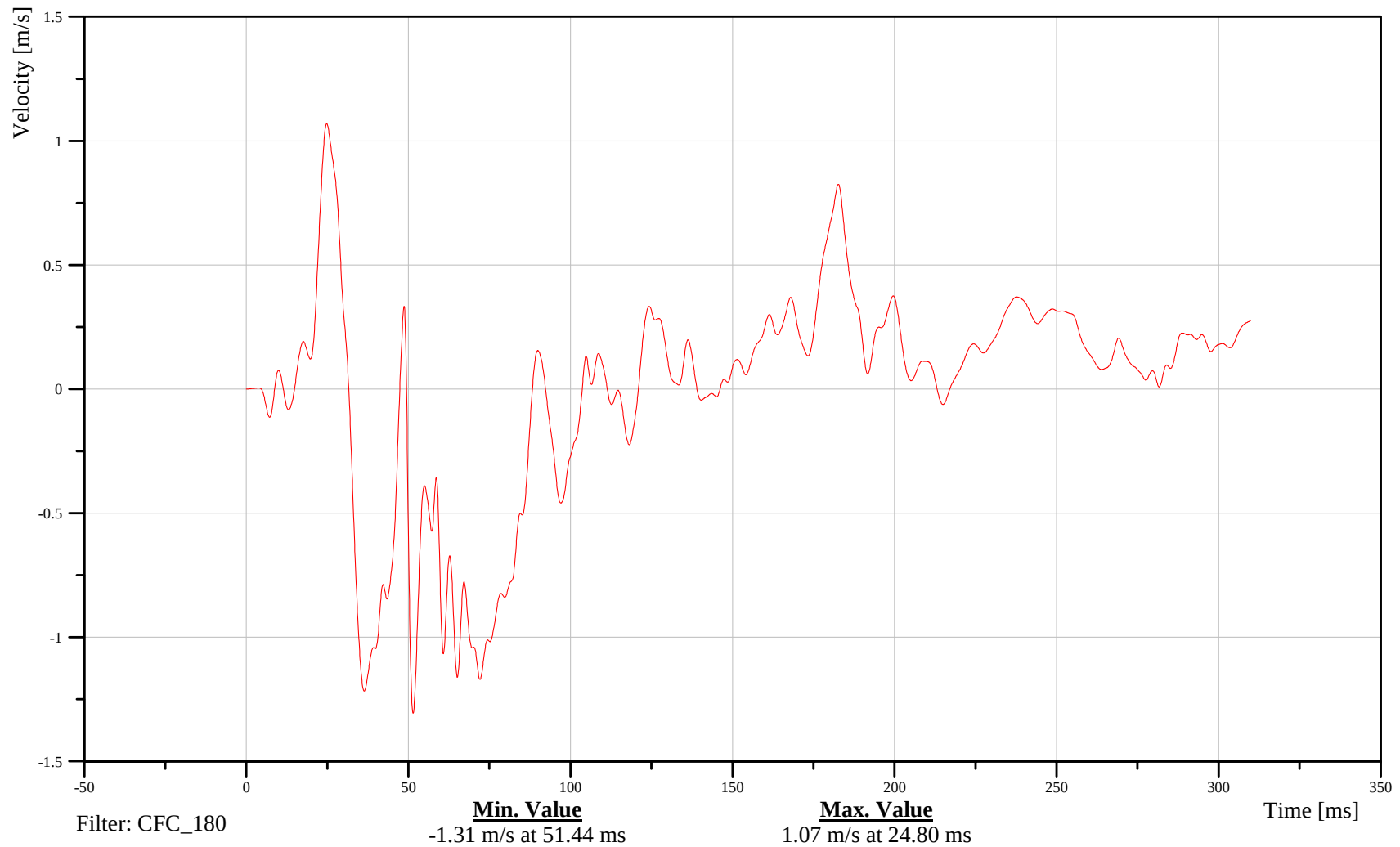
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000VEZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Z-Axis Displacement

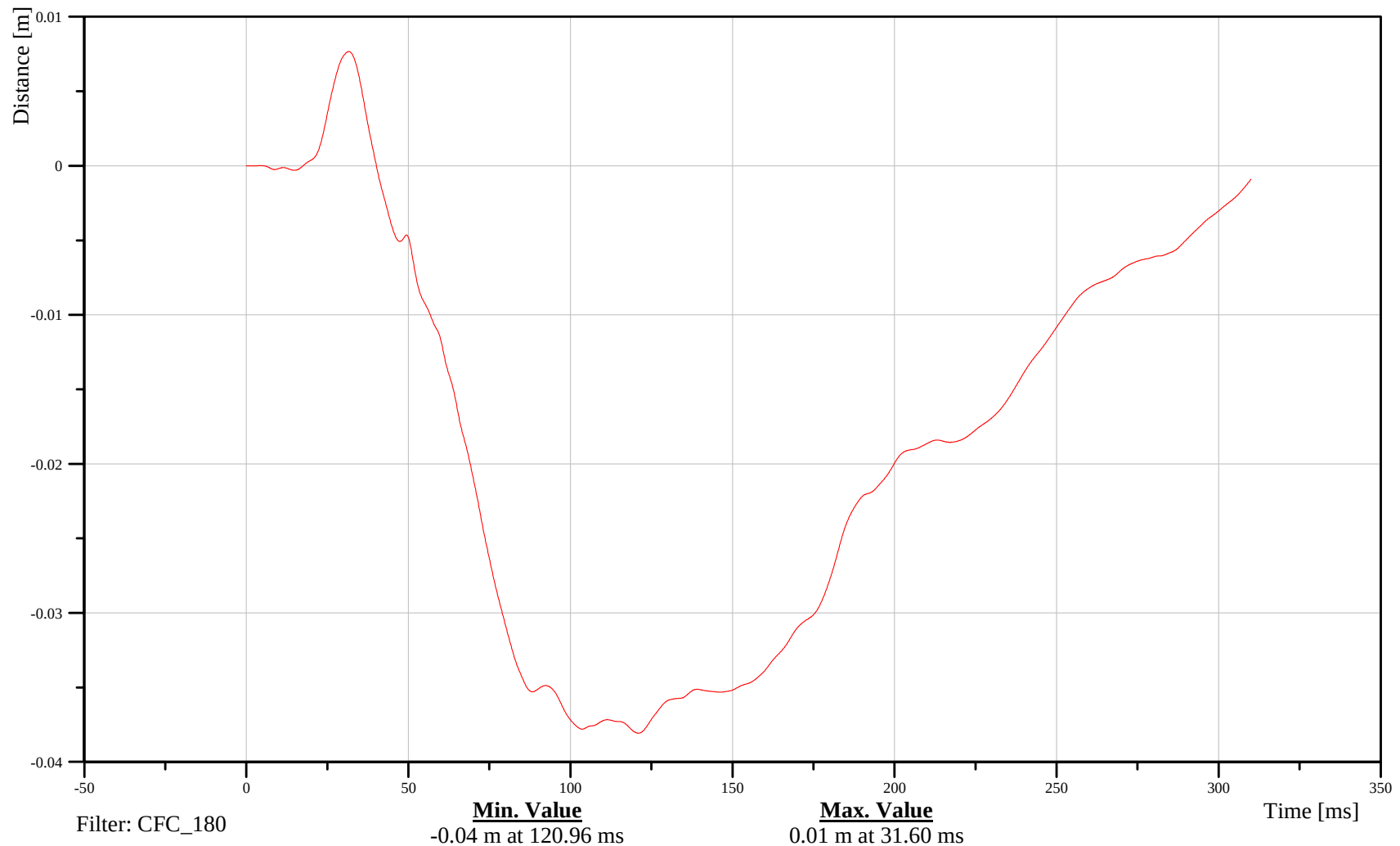
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000DCZC

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle CG Resultant Acceleration

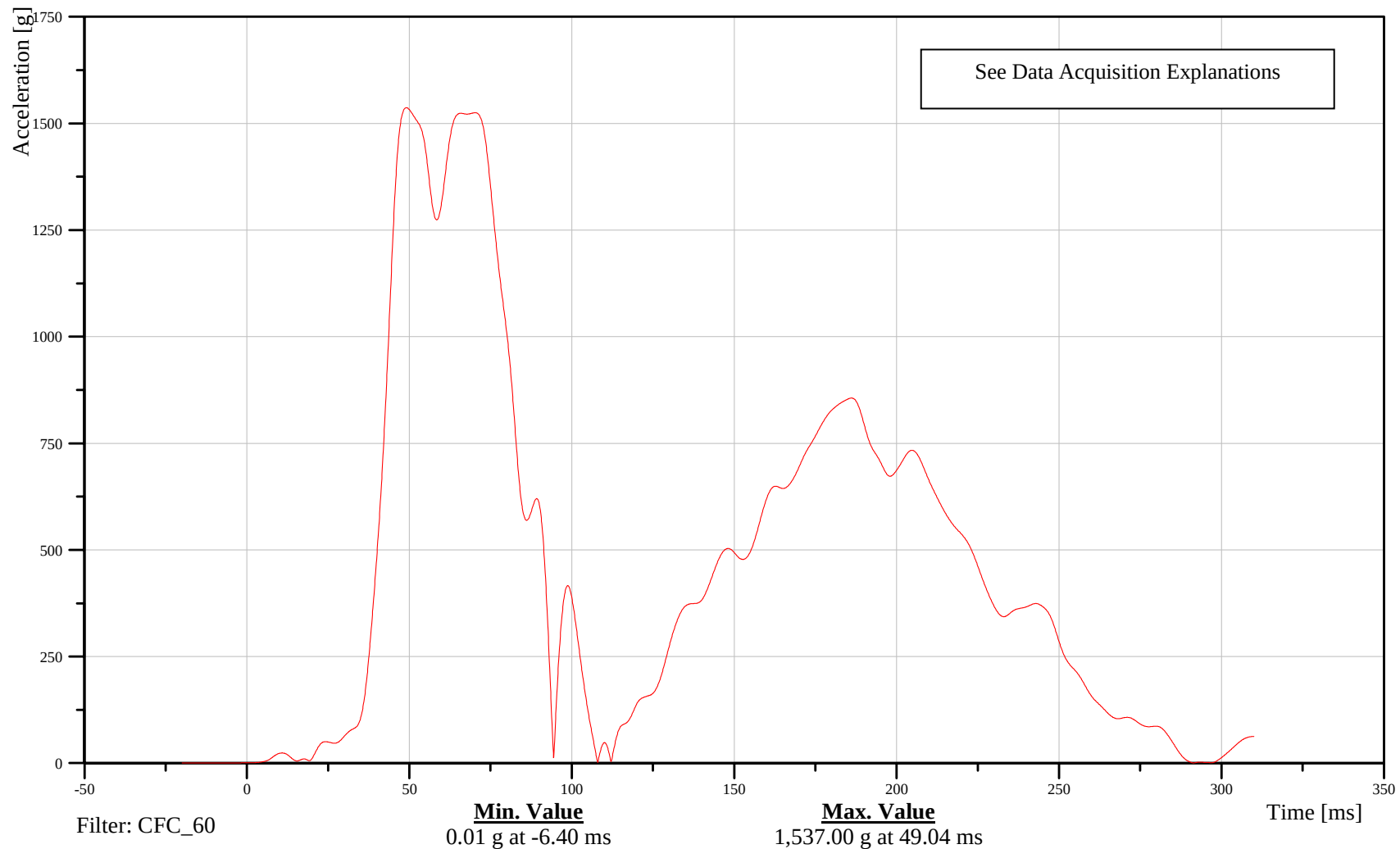
Date: 05/19/2006
Time: 17:50

Customer: VRTC

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle Rear Deck X-Axis Acceleration

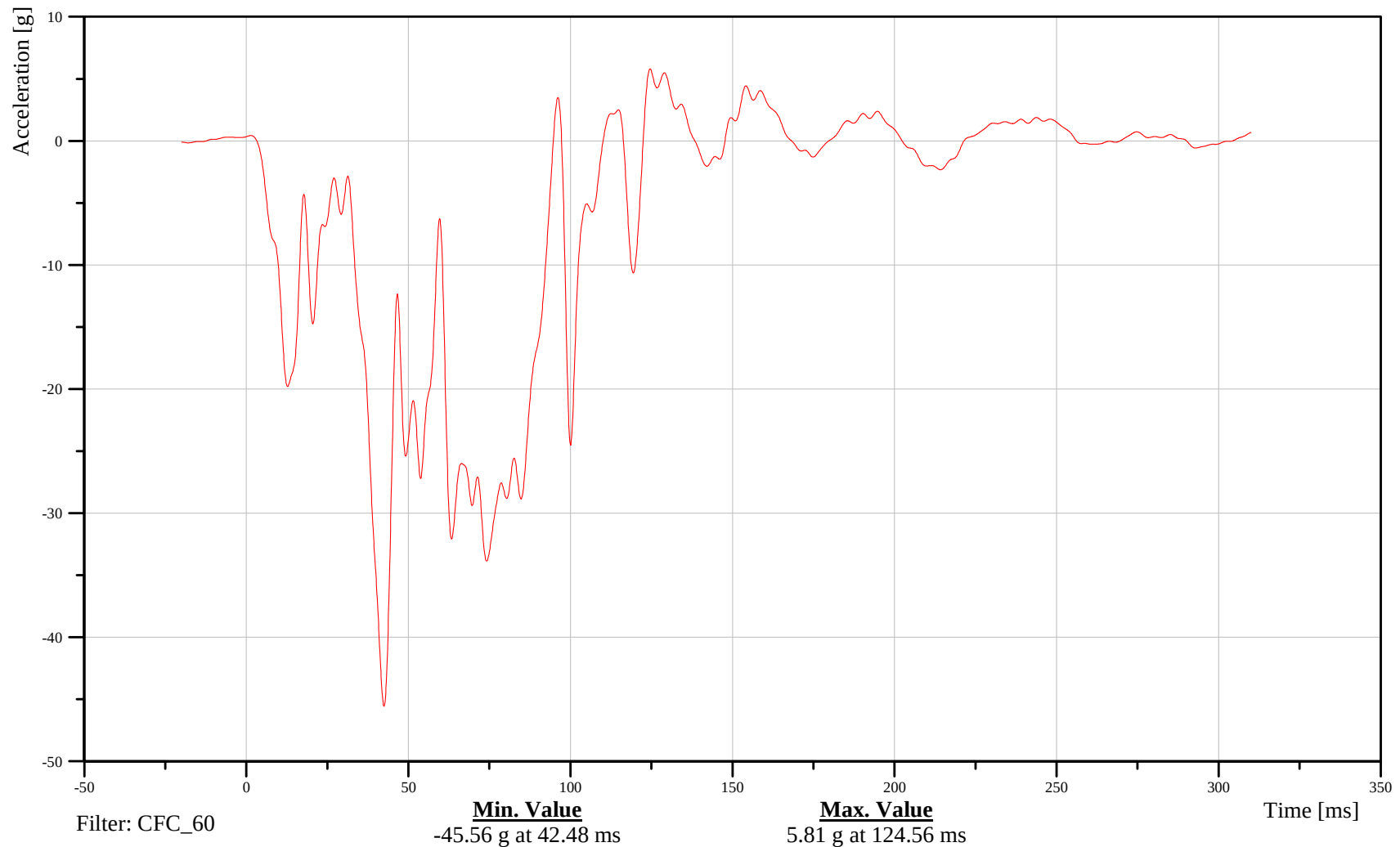
Date: 05/19/2006
Time: 17:50

Customer: VRTC

18VEHC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle Rear Deck Y-Axis Acceleration

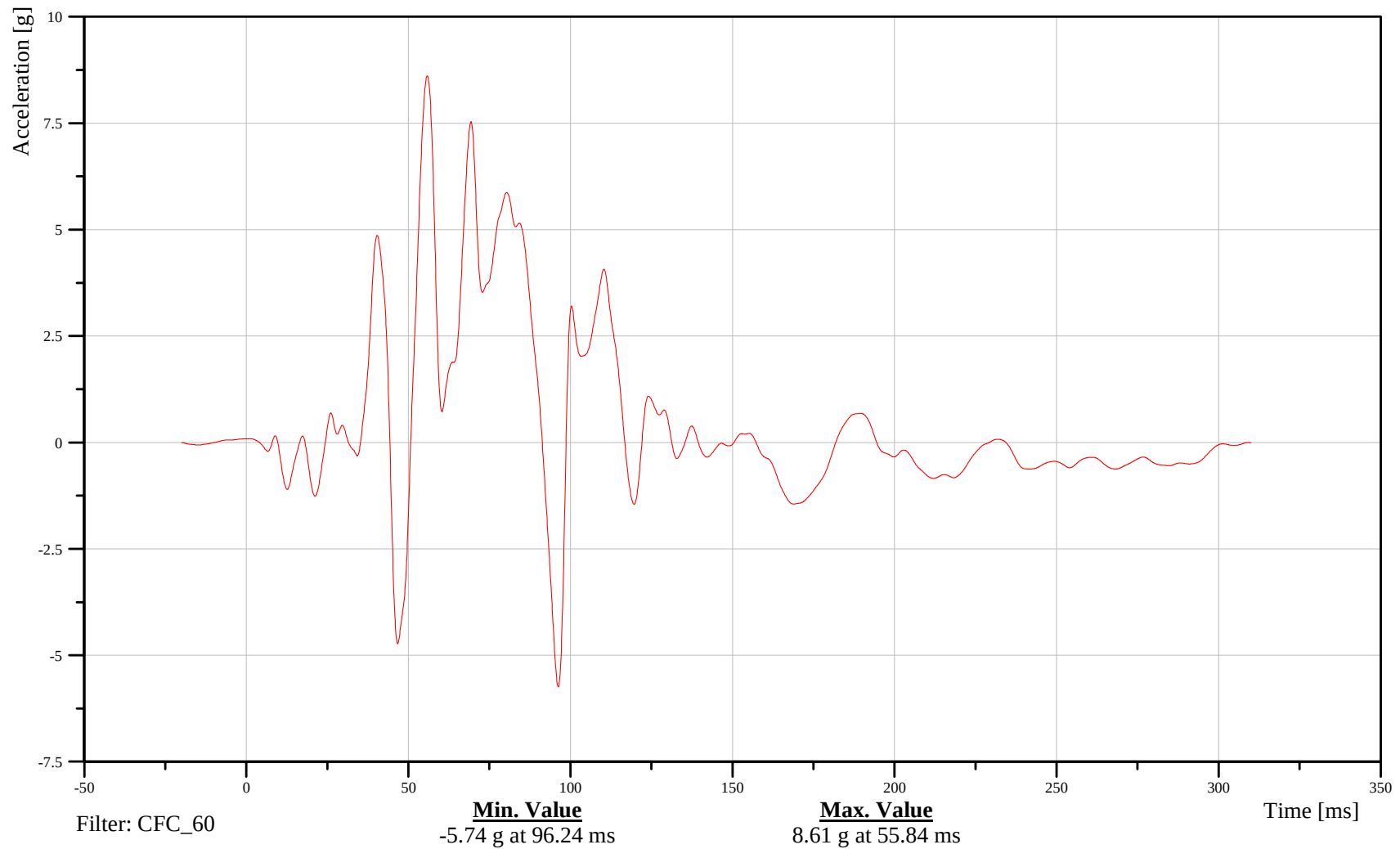
Date: 05/19/2006
Time: 17:50

Customer: VRTC

18VEHC000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle Rear Deck Z-Axis Acceleration

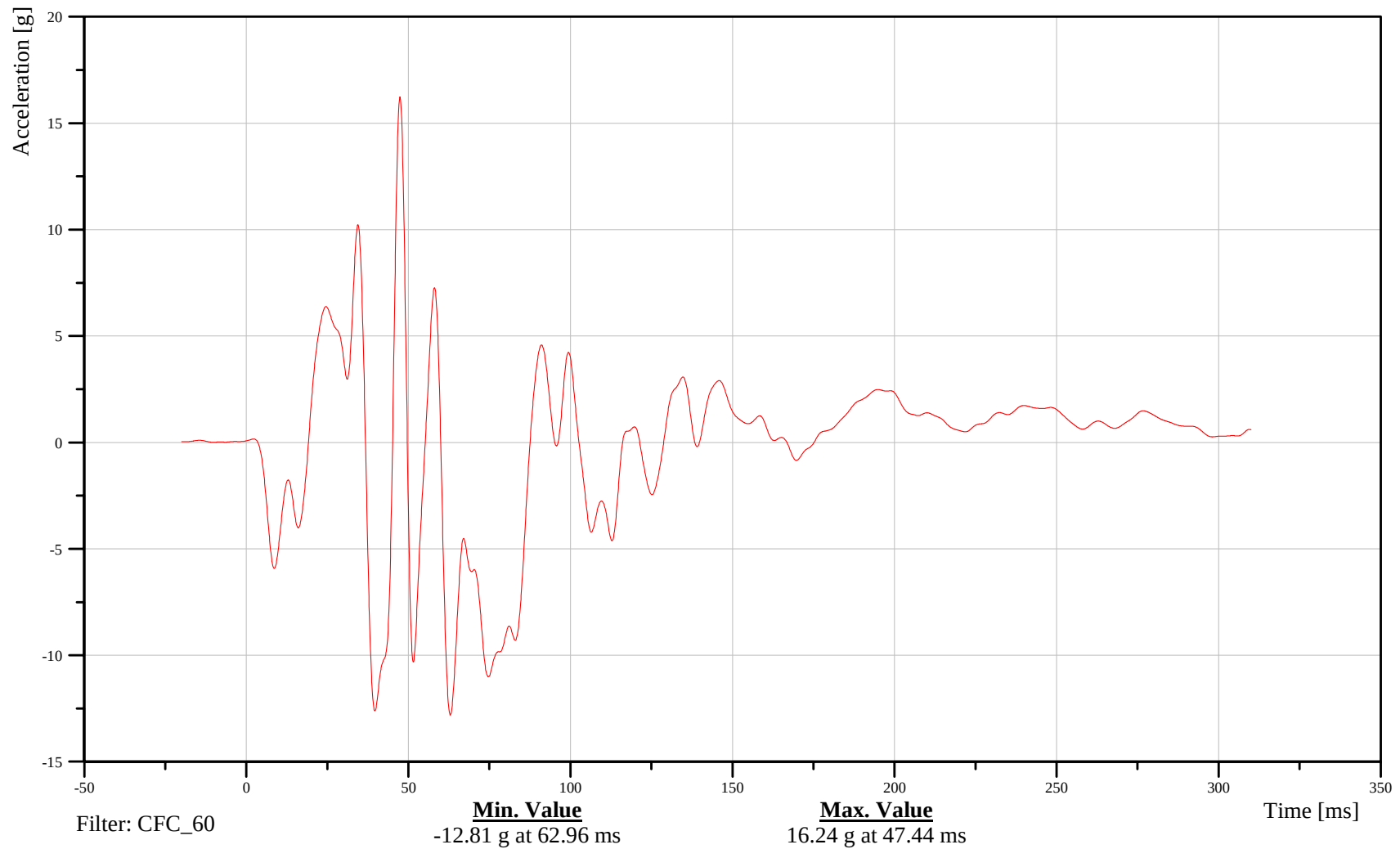
Date: 05/19/2006
Time: 17:50

Customer: VRTC

18VEHC000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Vehicle Rear Deck Resultant Acceleration

Date: 05/19/2006

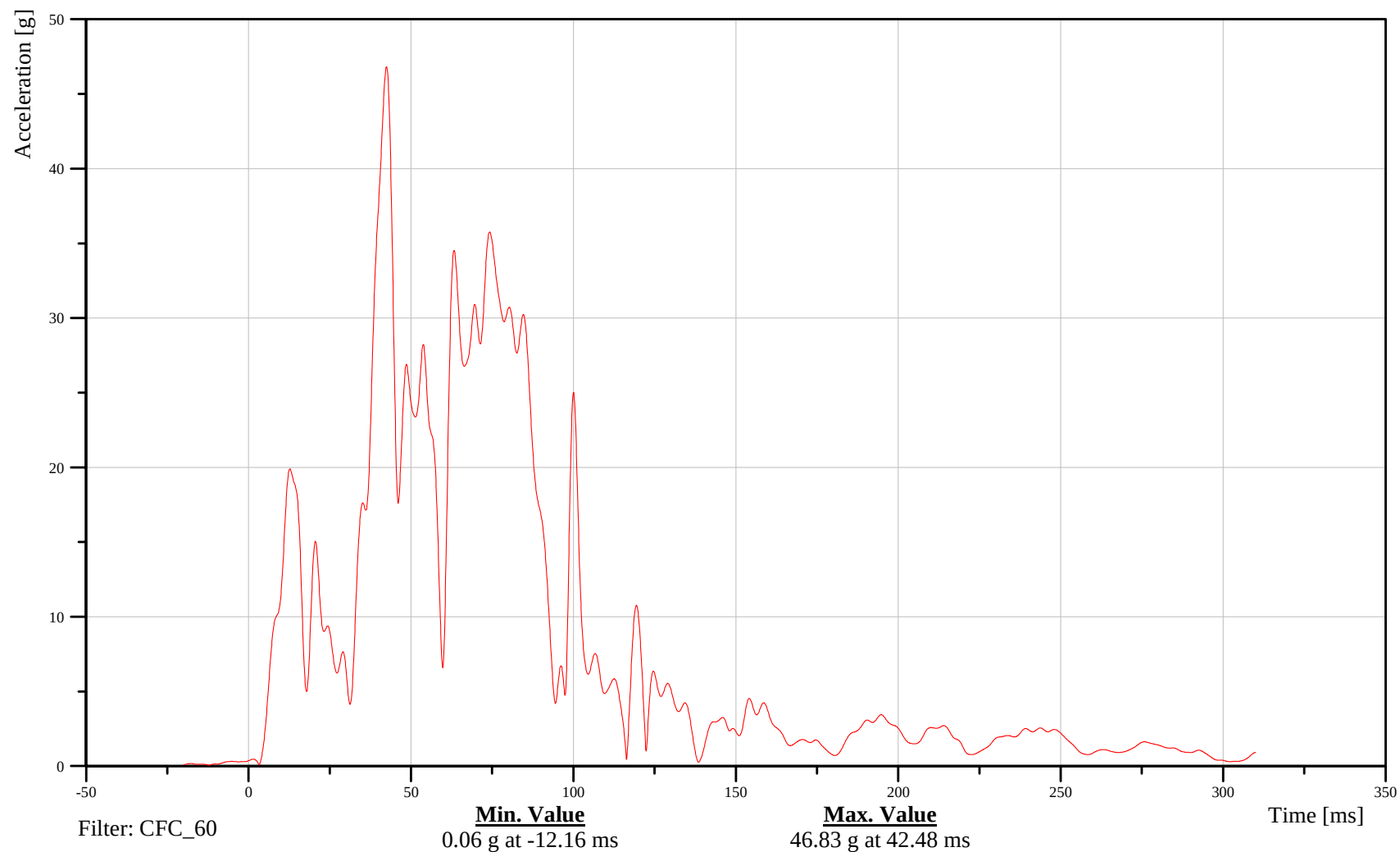
Time: 17:50

Customer: VRTC

18VEHC000000ACRD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lap Belt Spool

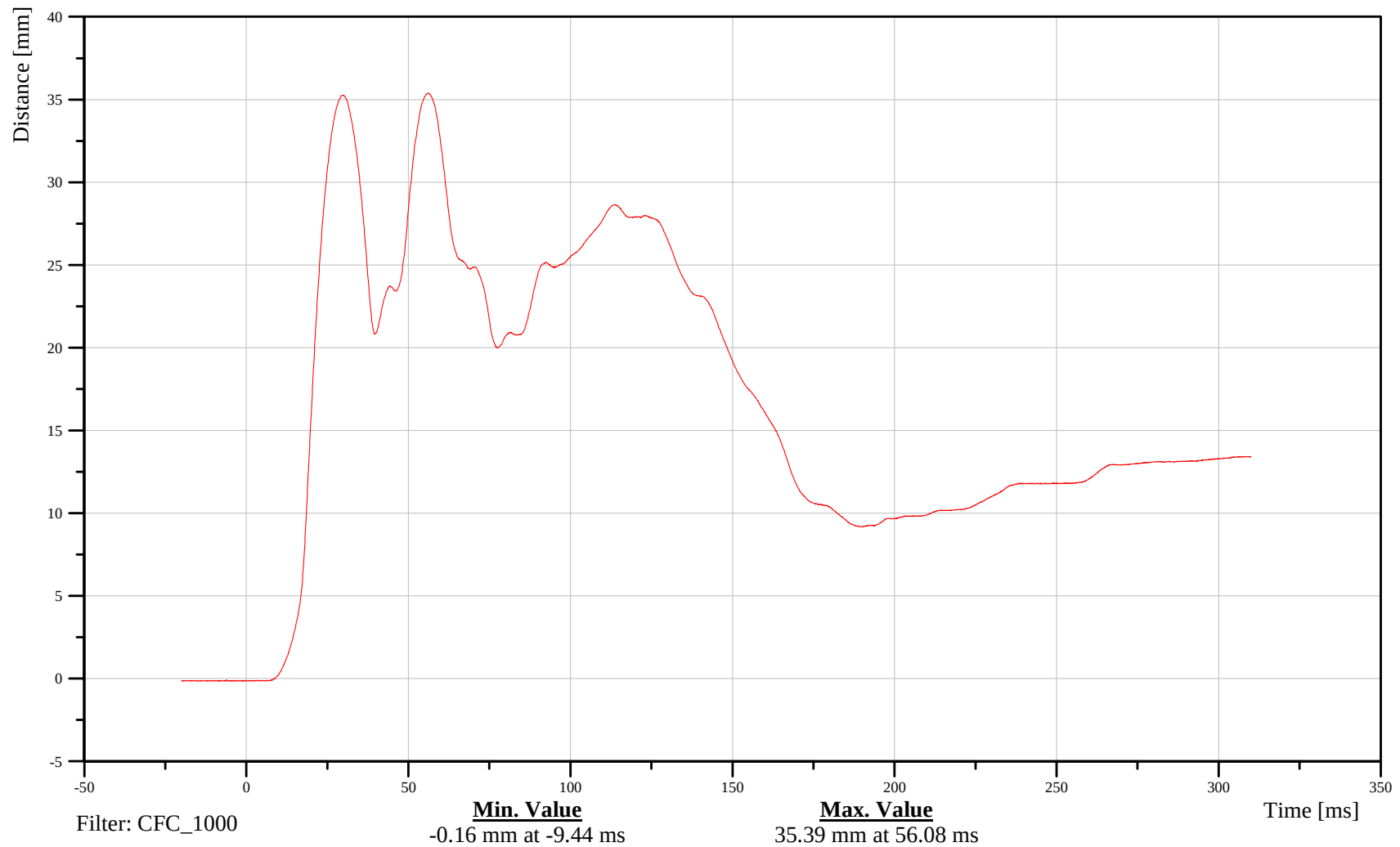
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Shoulder Belt Spool and Retraction

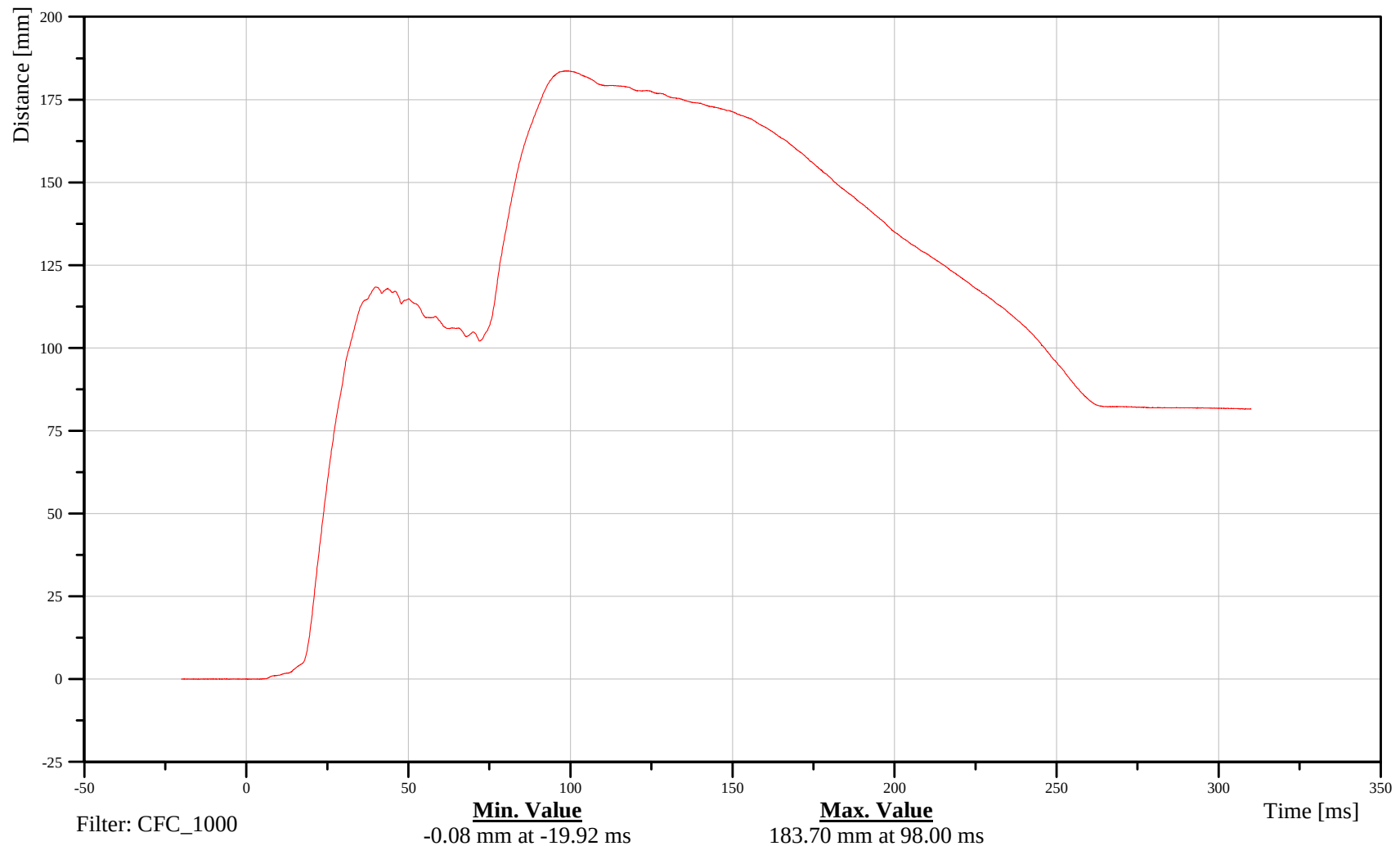
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Lap Belt Spool

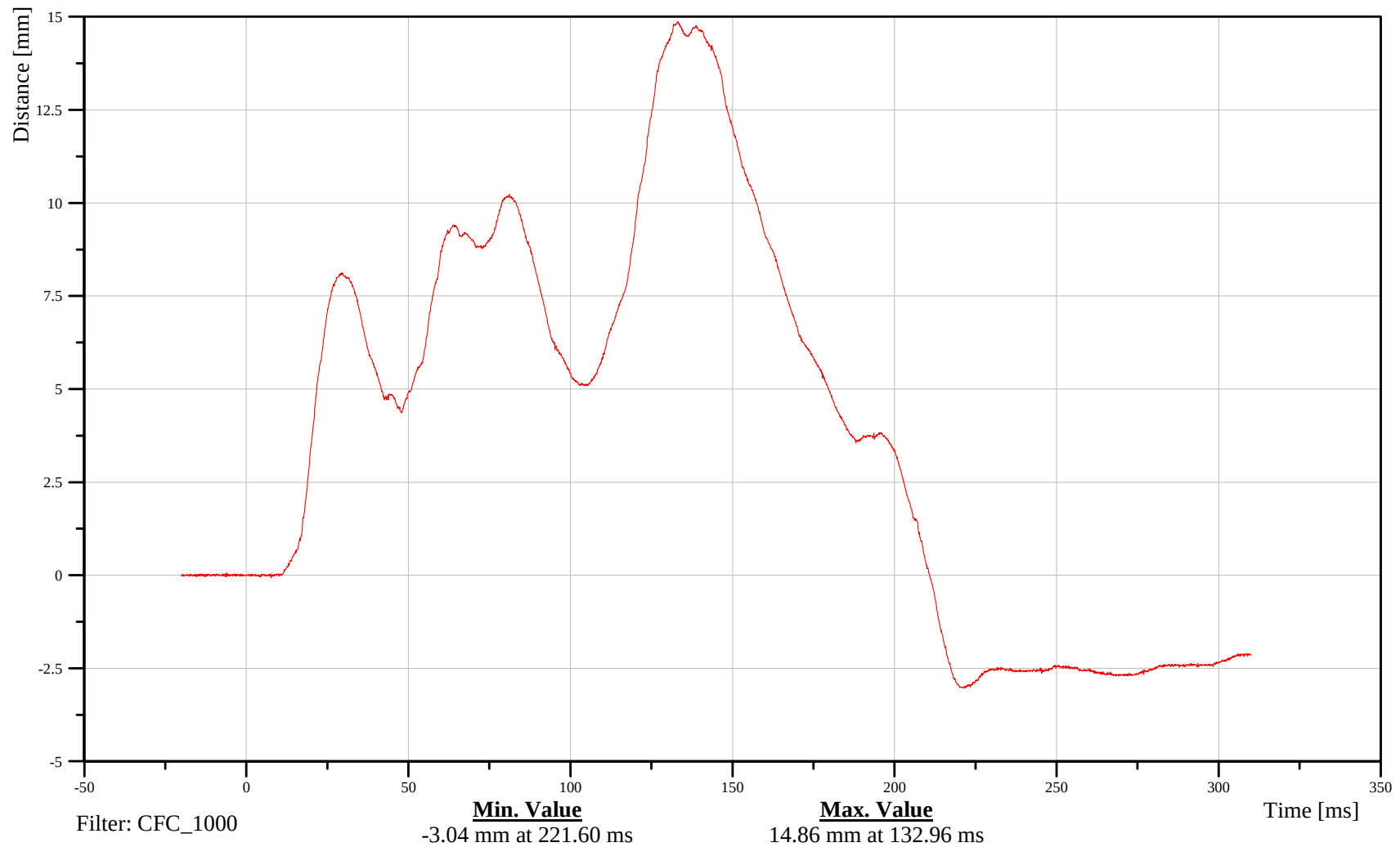
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Shoulder Belt Spool and Retraction

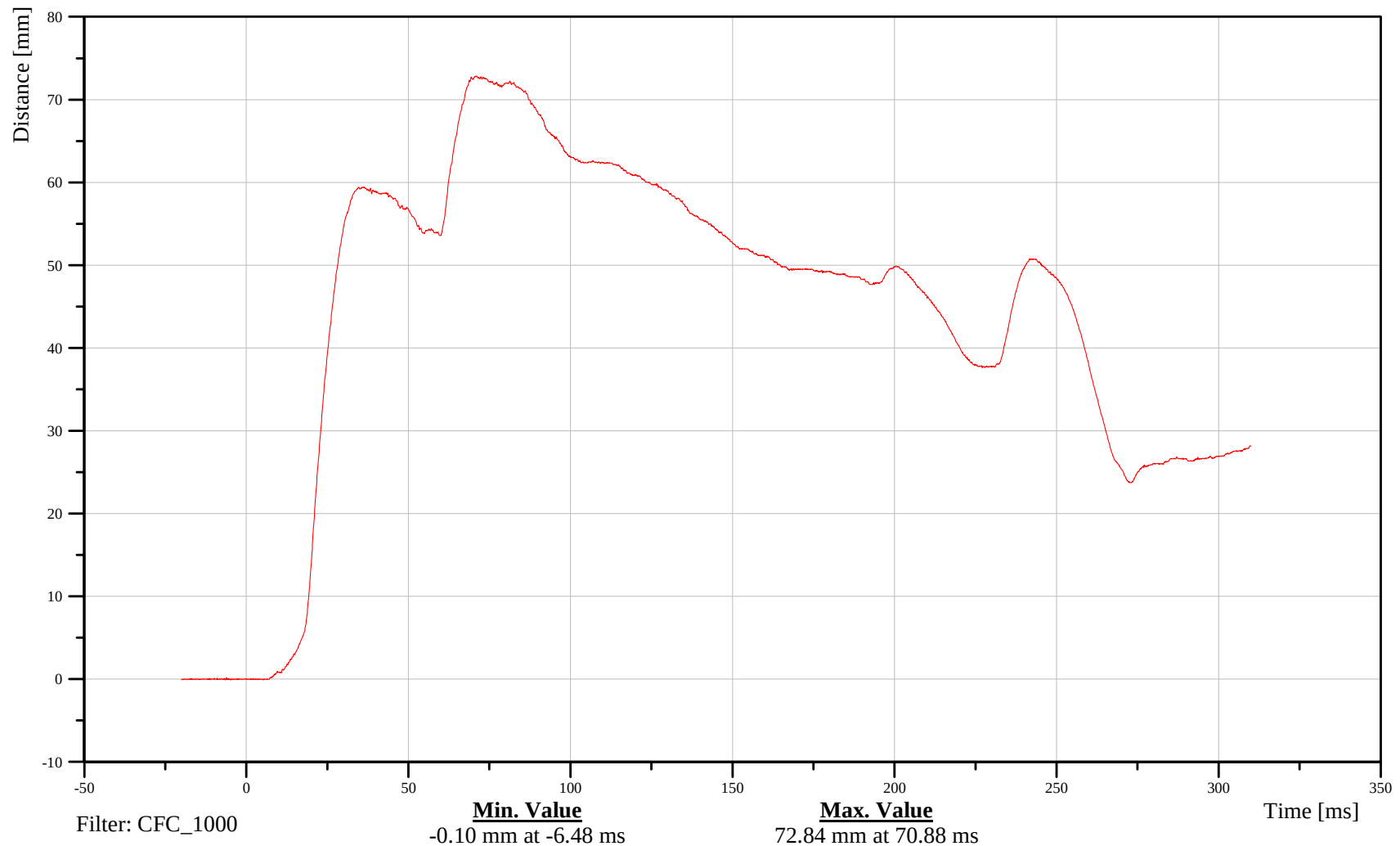
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Lap Belt Force

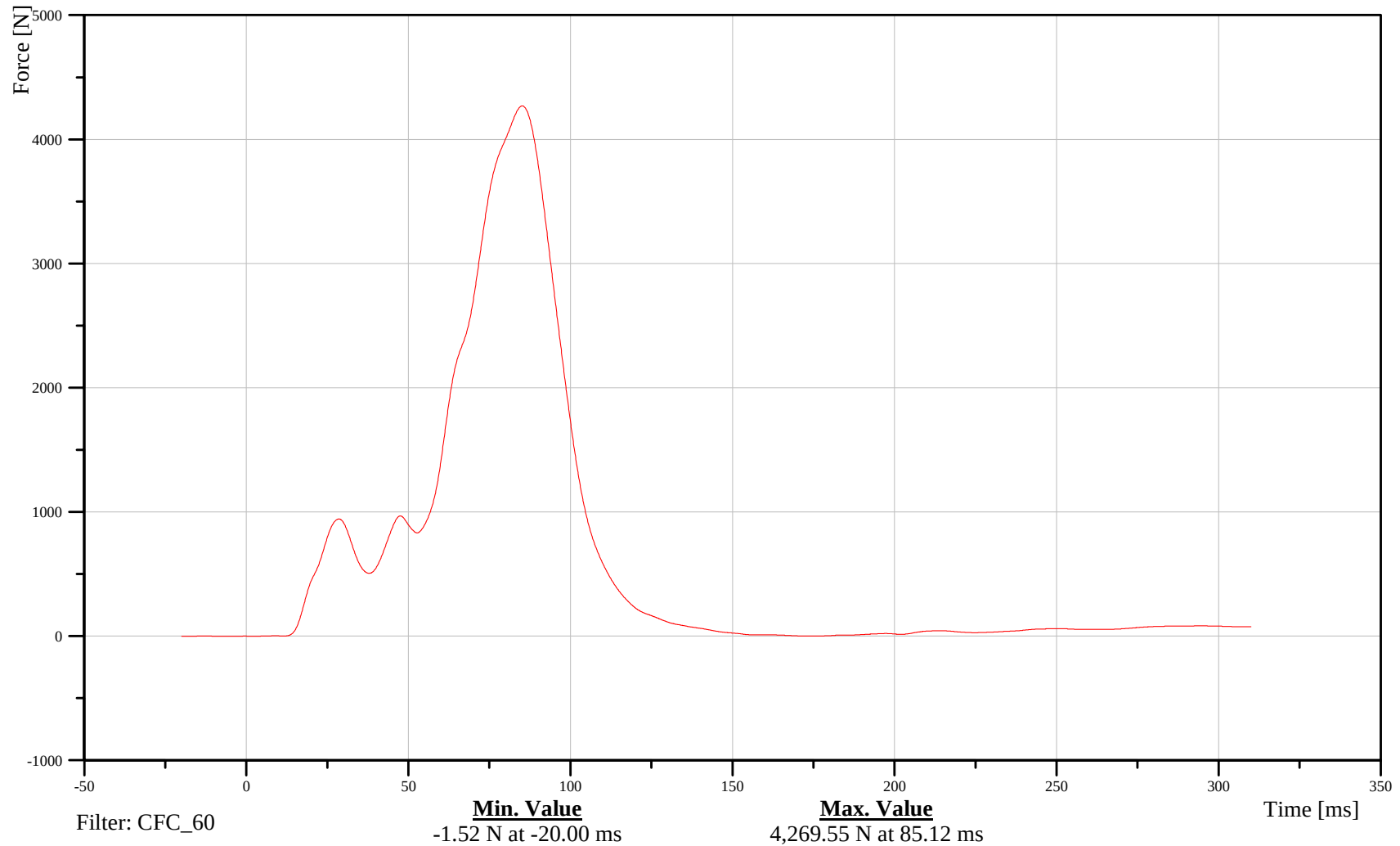
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11SEBA0000B5FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Shoulder Belt Force

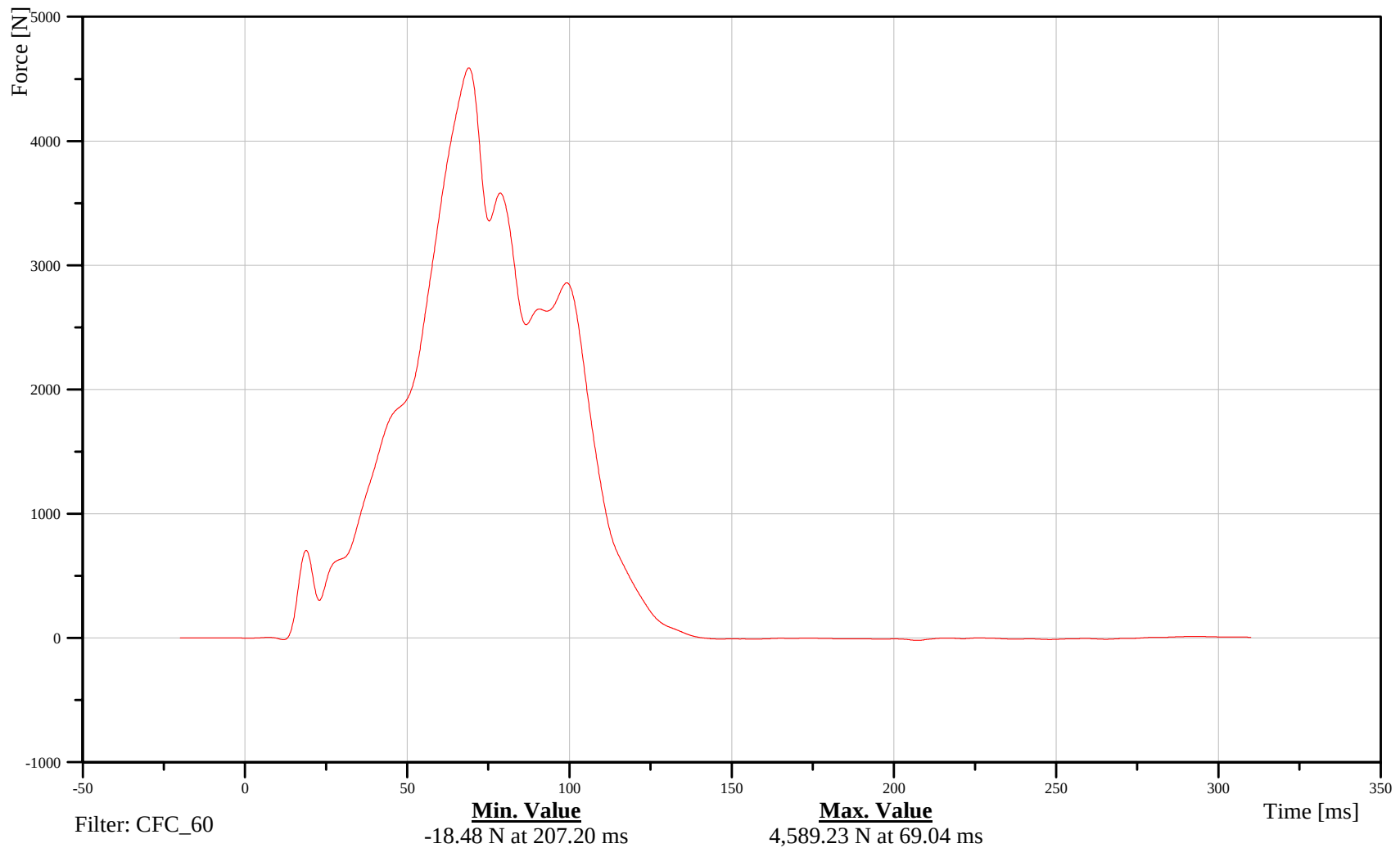
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11SEBA0000B3FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

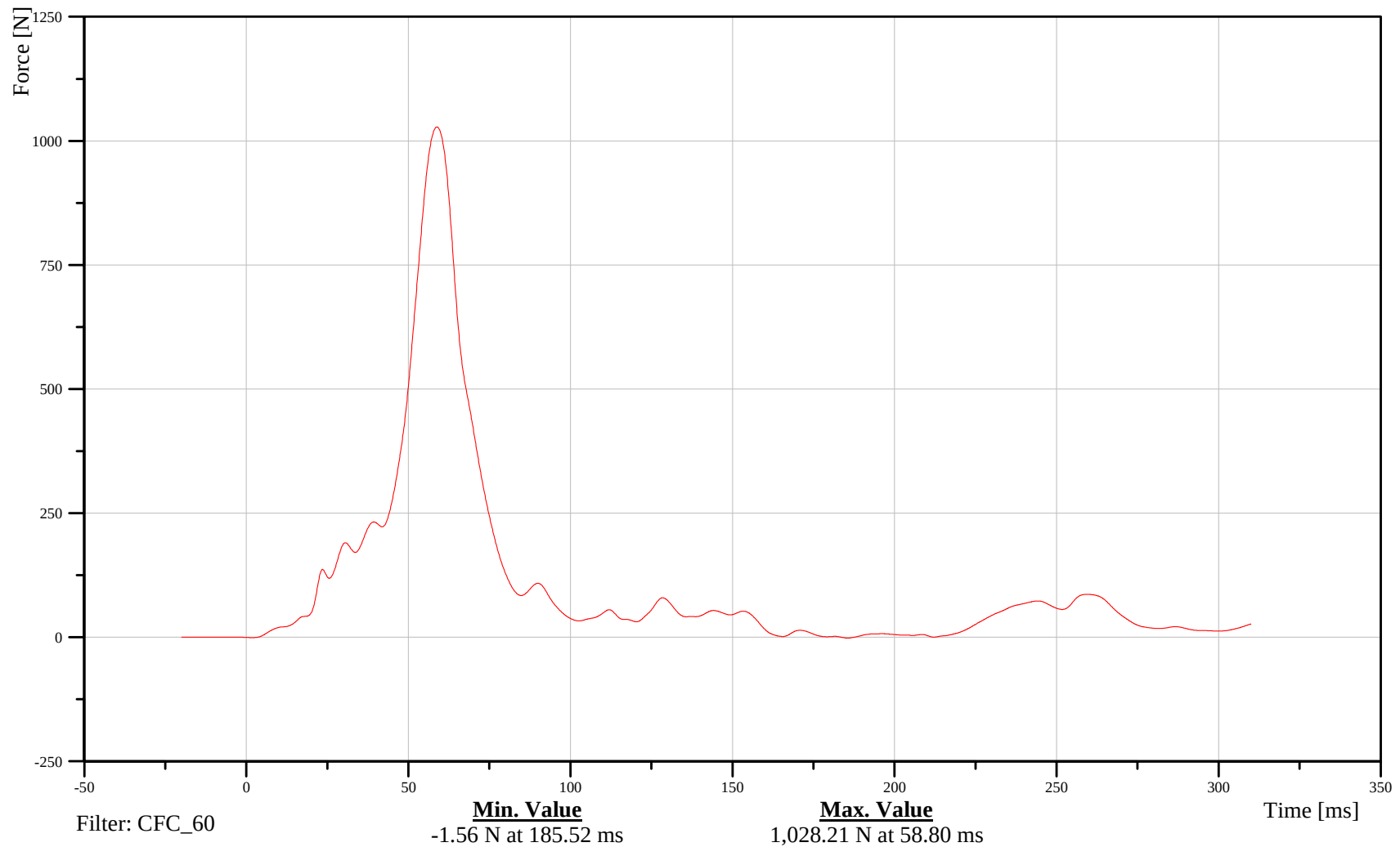
Right Front Passenger Lap Belt Force

Customer: VRTC

13SEBA0000B5FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

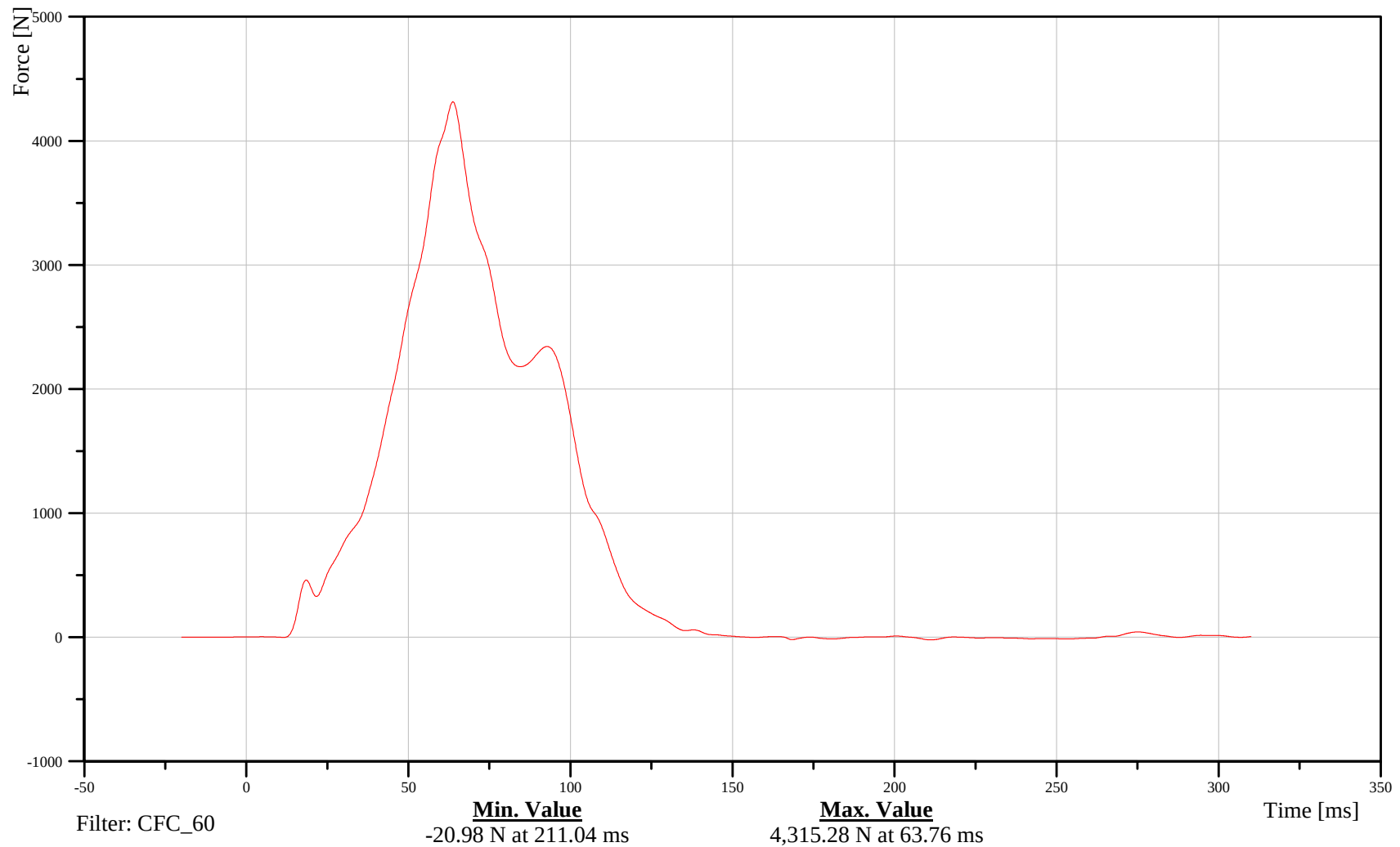
Right Front Passenger Shoulder Belt Force

Customer: VRTC

13SEBA0000B3FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

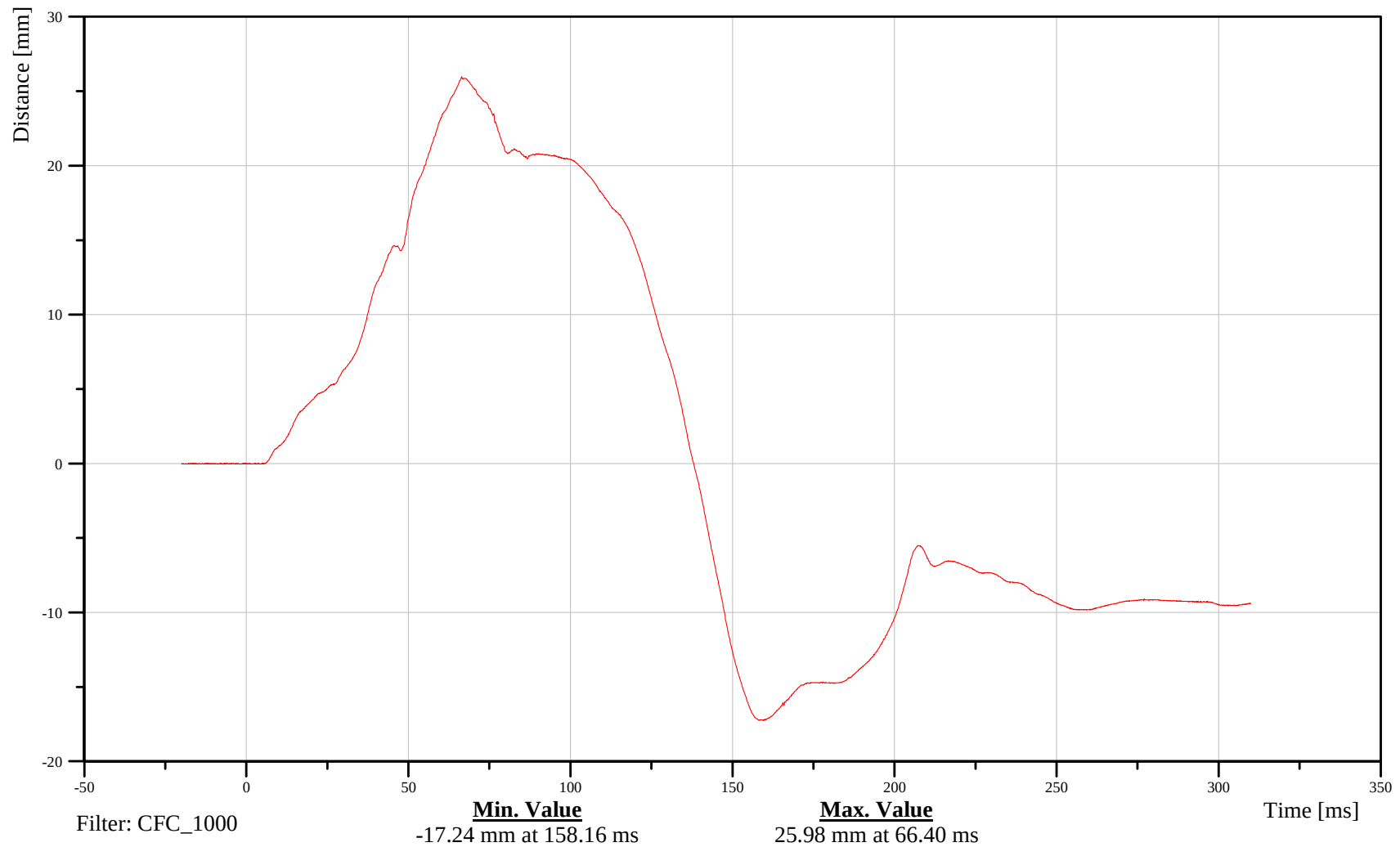
Left Rear Passenger Lap Belt Spool

Customer: VRTC

14SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Left Rear Passenger Shoulder Belt Spool and Retraction

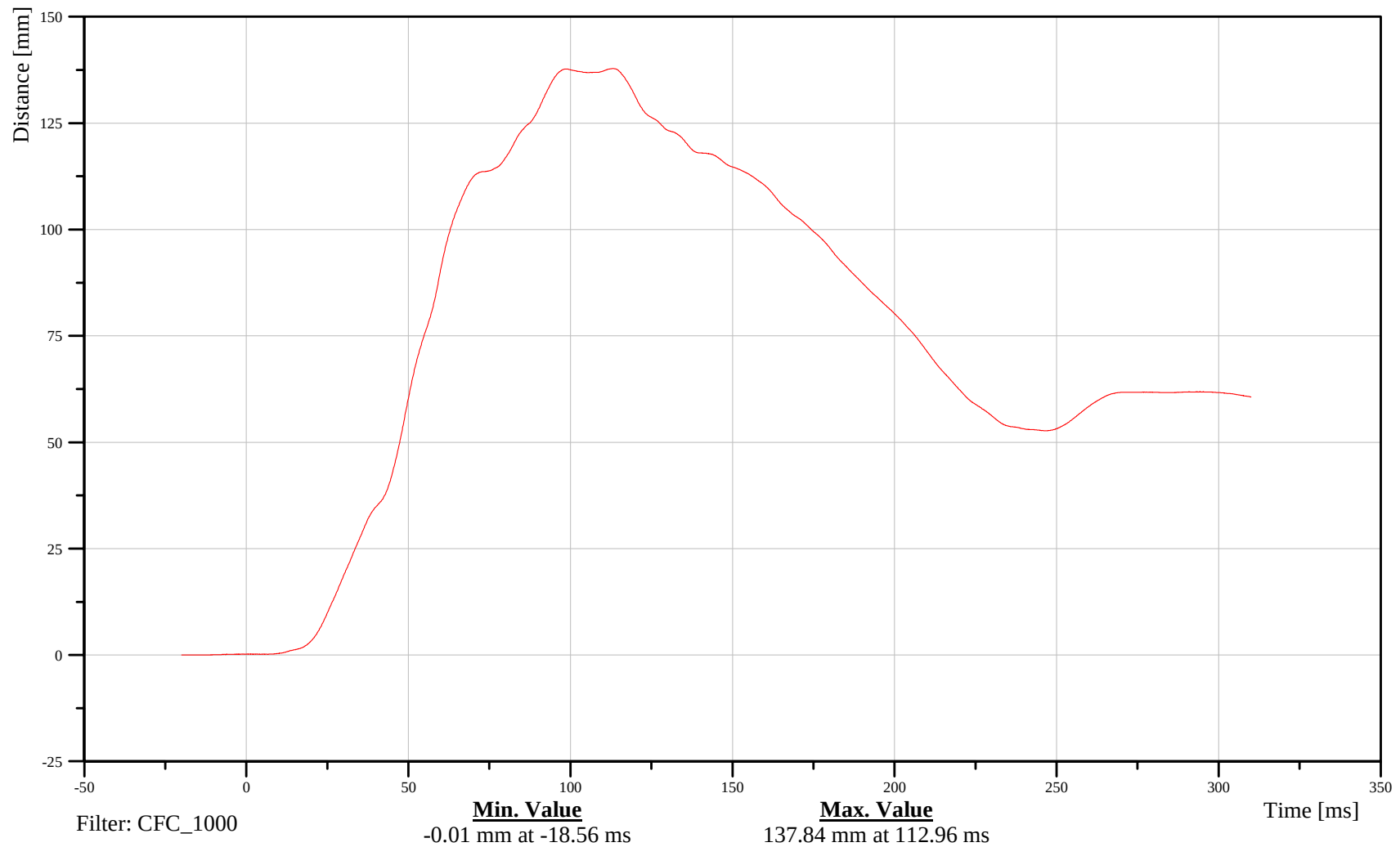
Date: 05/19/2006
Time: 17:50

Customer: VRTC

14SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

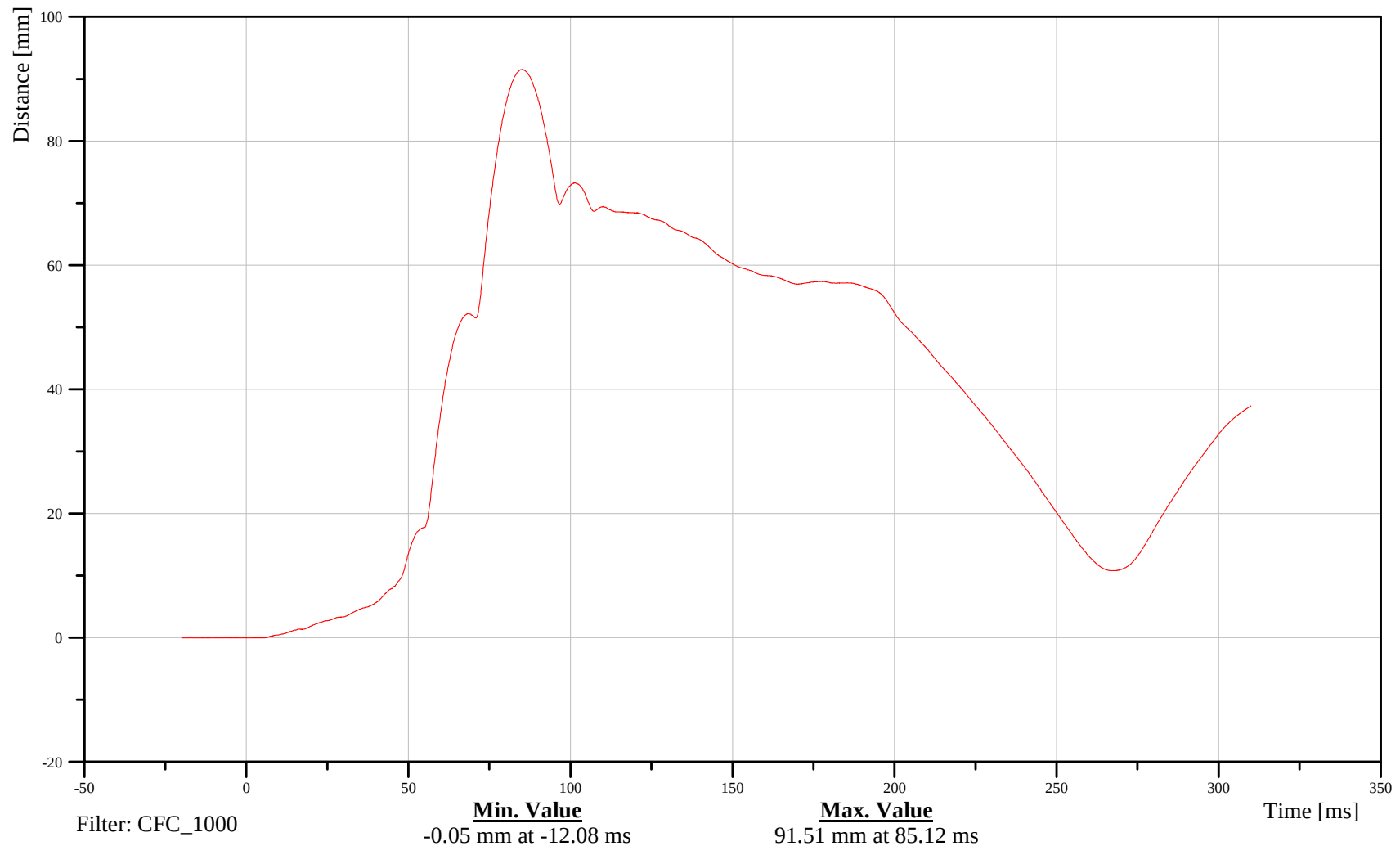
Right Rear Passenger Lap Belt Spool

Customer: VRTC

16SEBA0000B5DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

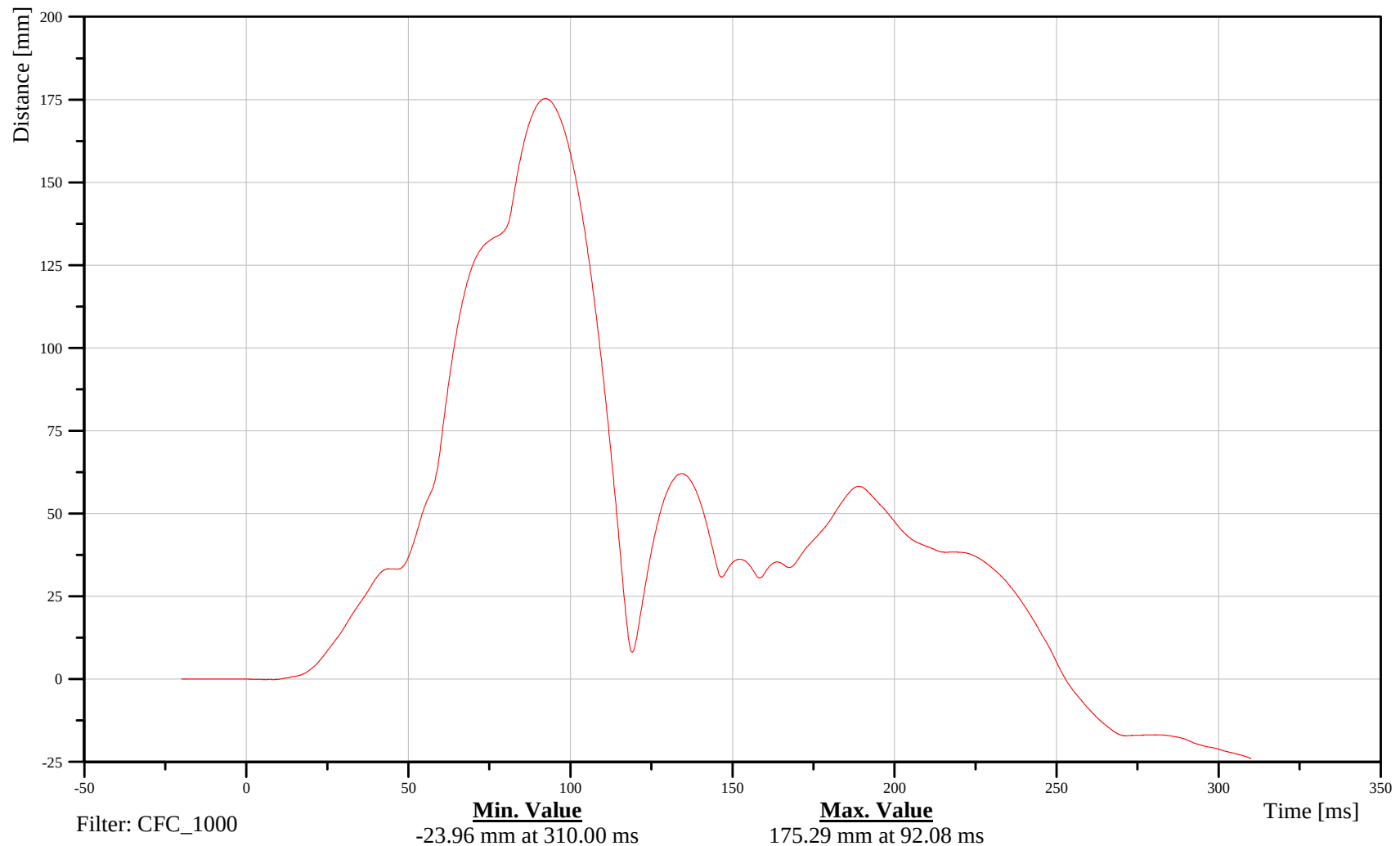
Right Rear Passenger Shoulder Belt Spool and Retraction

Customer: VRTC

16SEBA0000B3DS0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

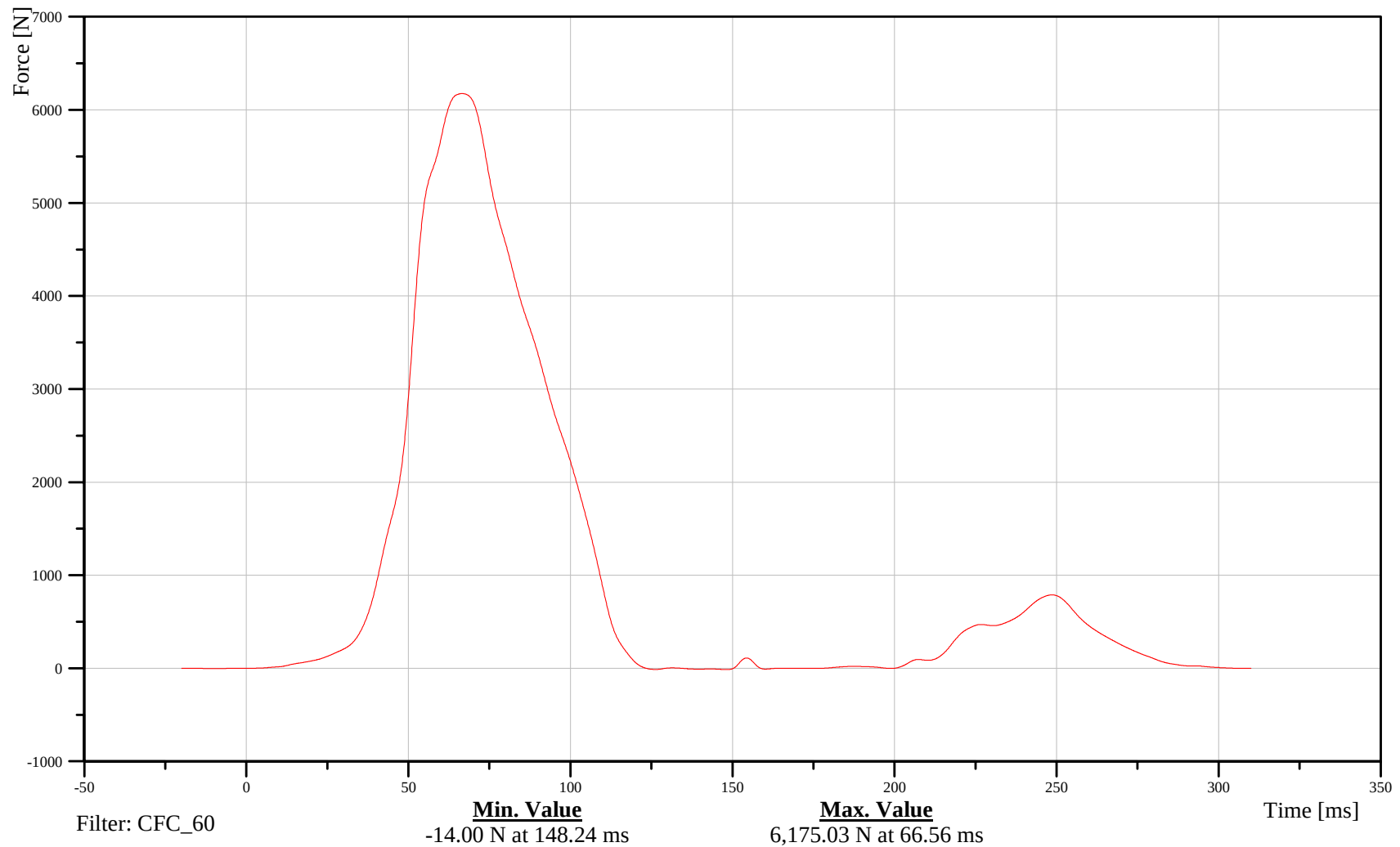
Left Rear Passenger Lap Belt Force

Customer: VRTC

14SEBA0000B5FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006

Time: 17:50

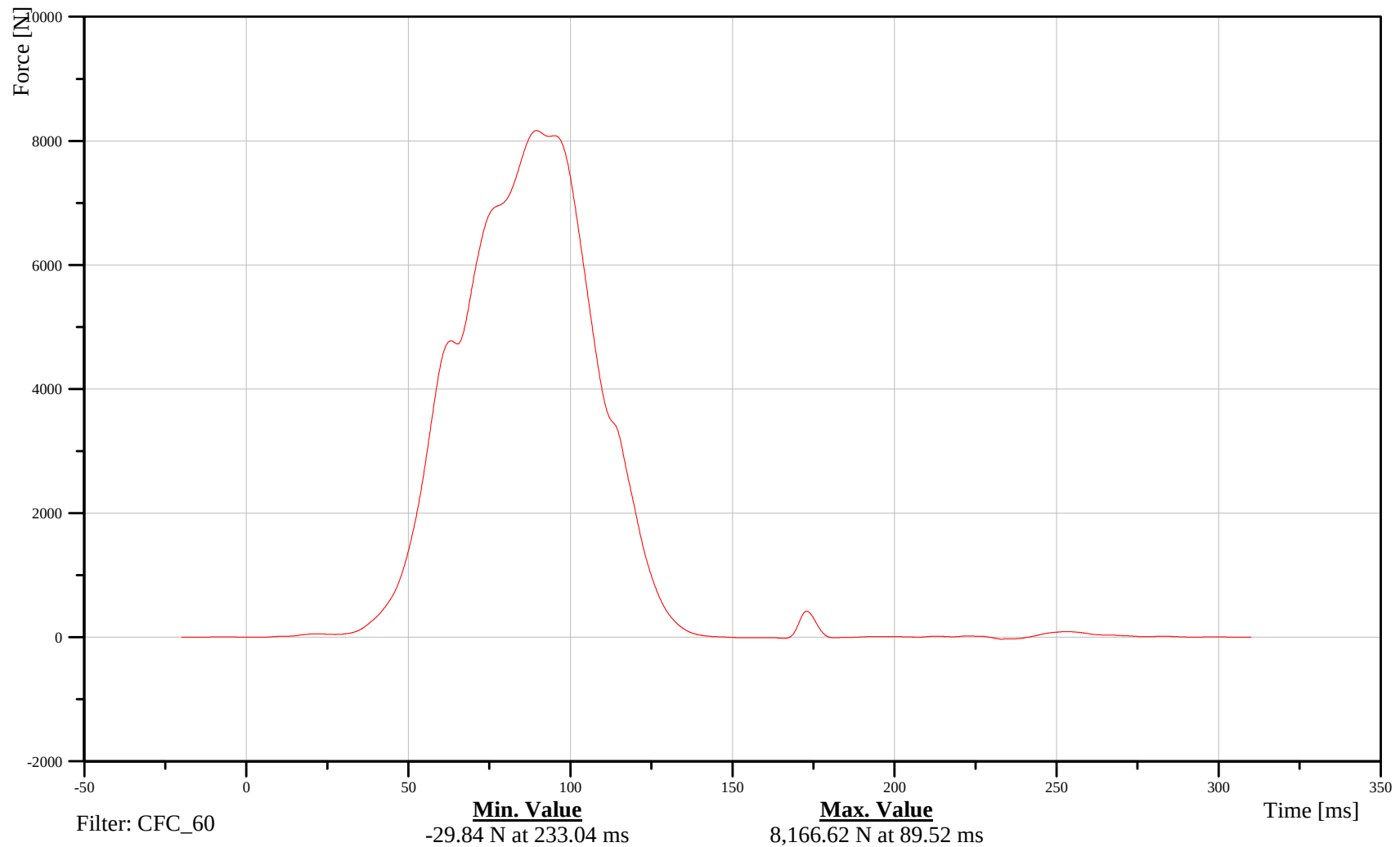
Left Rear Passenger Shoulder Belt Force

Customer: VRTC

14SEBA0000B3FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

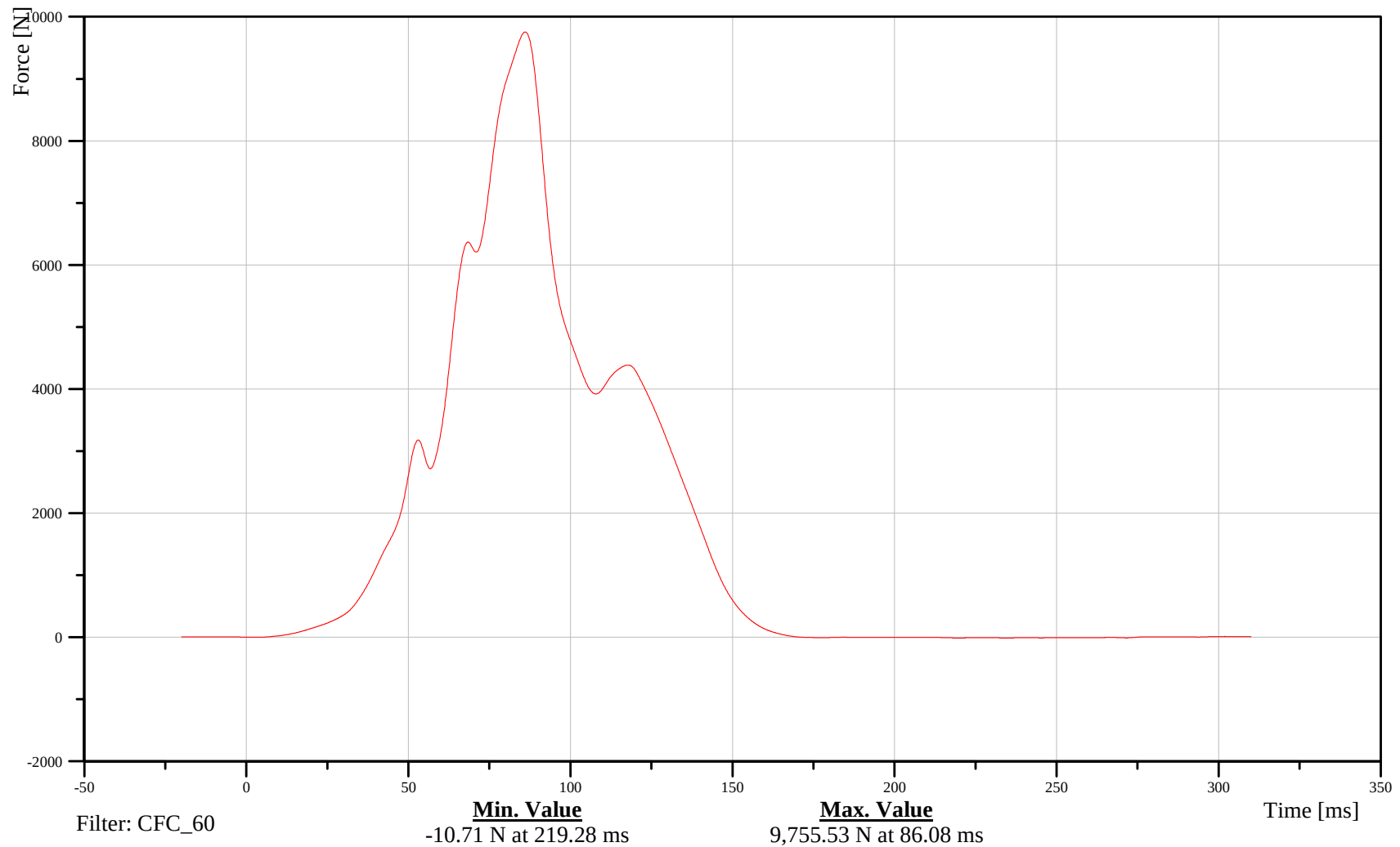
Right Rear Passenger Lap Belt Force

Customer: VRTC

16SEBA0000B5FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

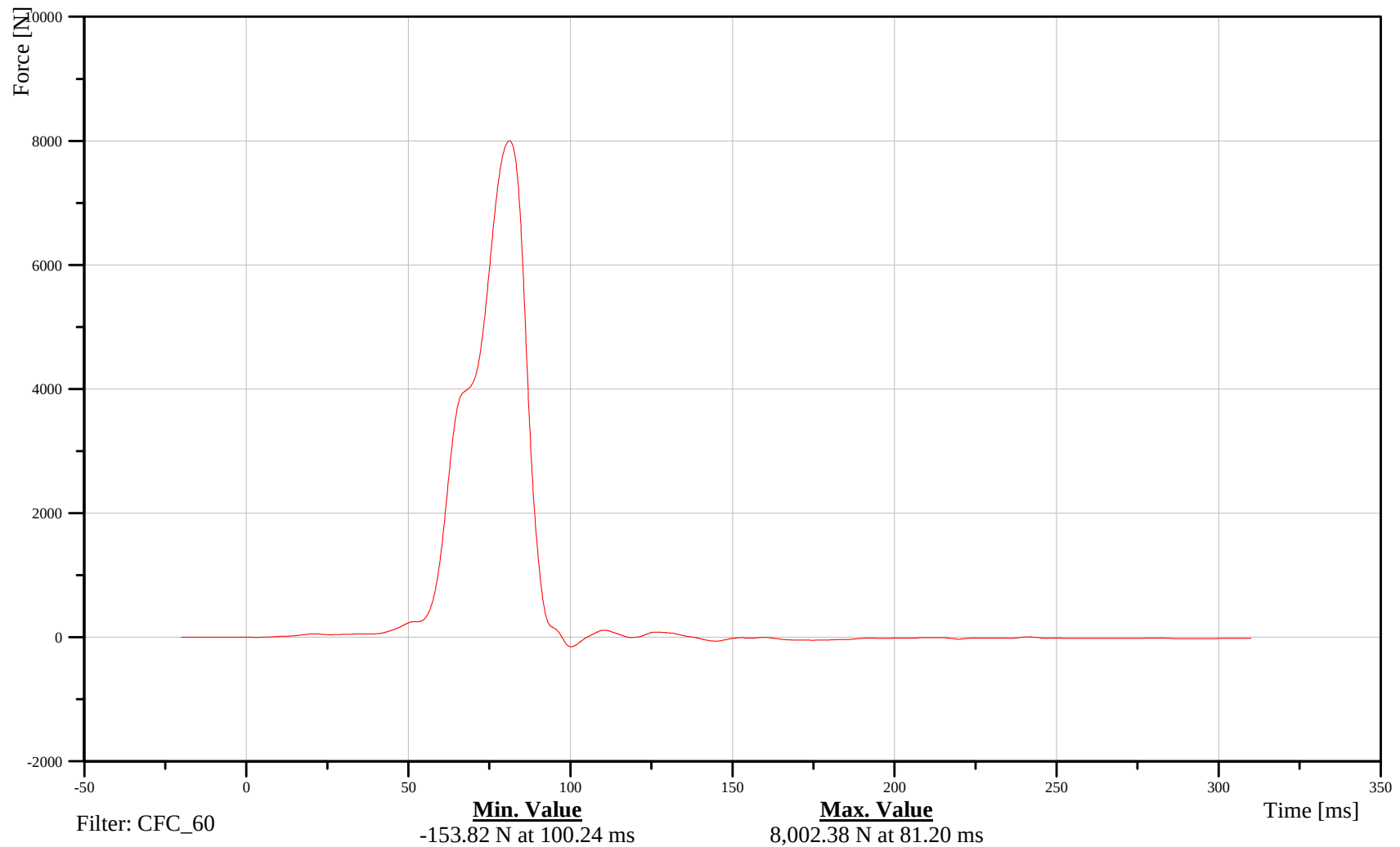
Right Rear Passenger Shoulder Belt Force

Customer: VRTC

16SEBA0000B3FO0D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Date: 05/19/2006
Time: 17:50

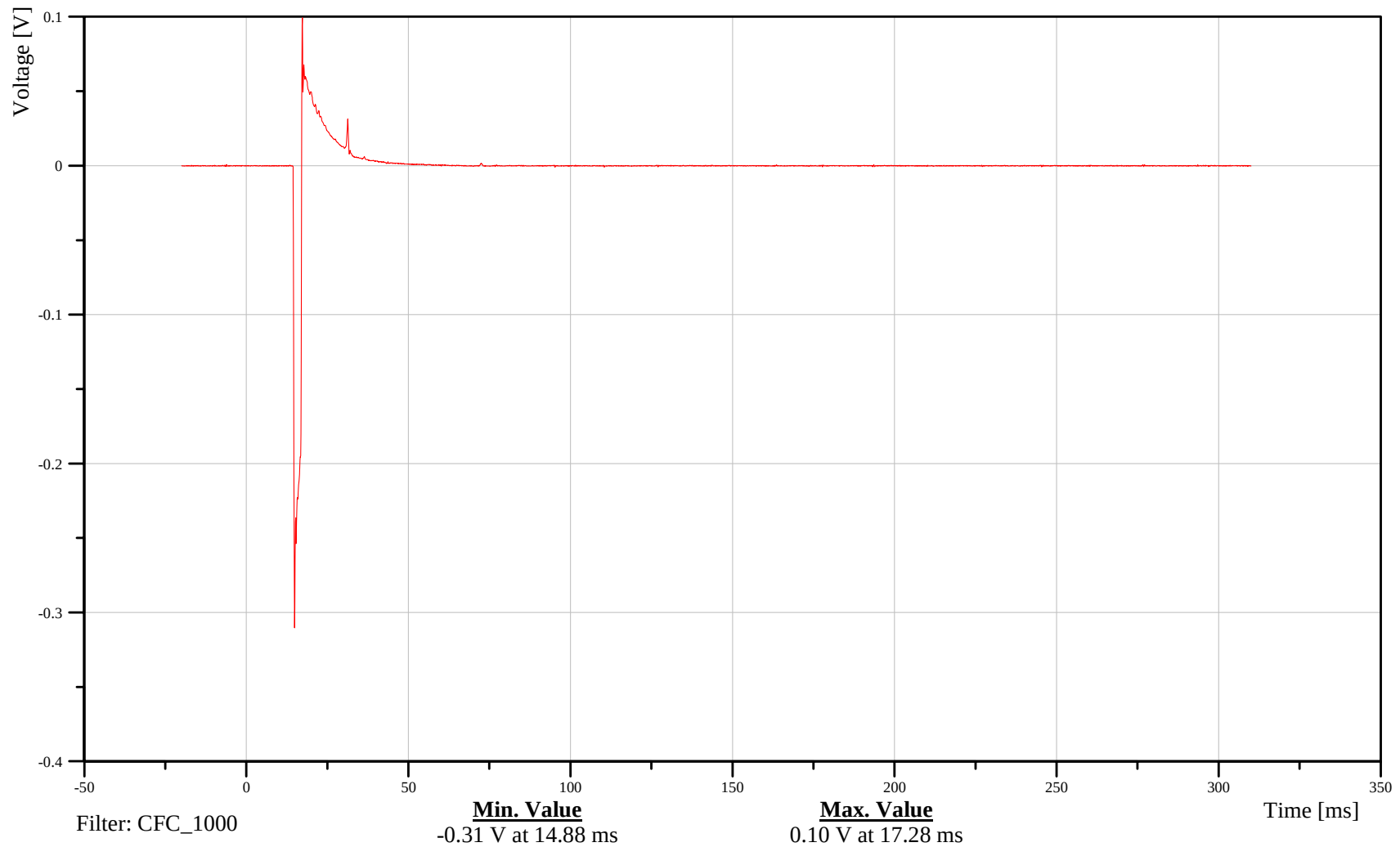
Driver Airbag - Primary

Customer: VRTC

11AIRBFR0100EV0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Driver Airbag - Secondary

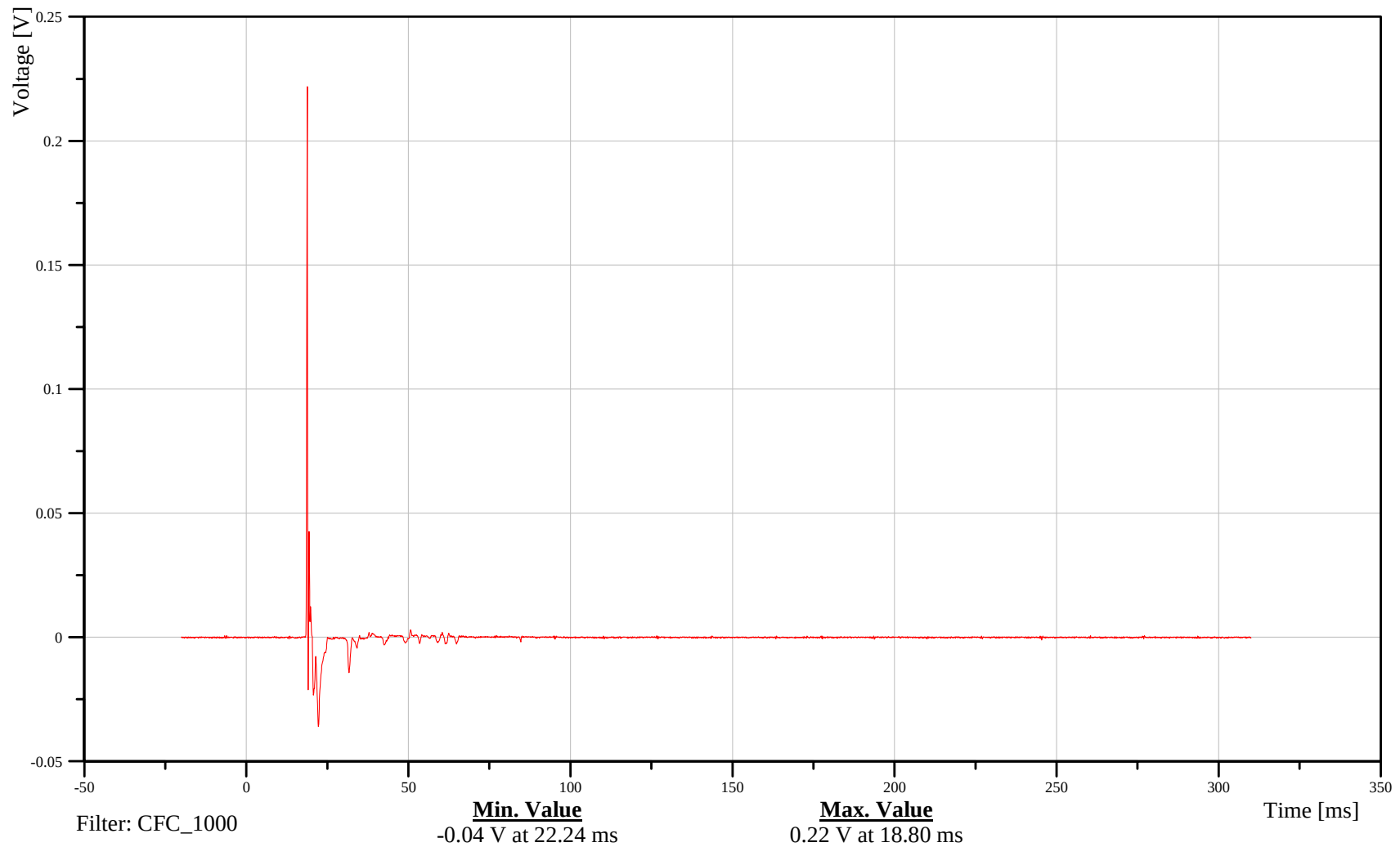
Date: 05/19/2006
Time: 17:50

Customer: VRTC

11AIRBFR0200EV0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Airbag - Primary

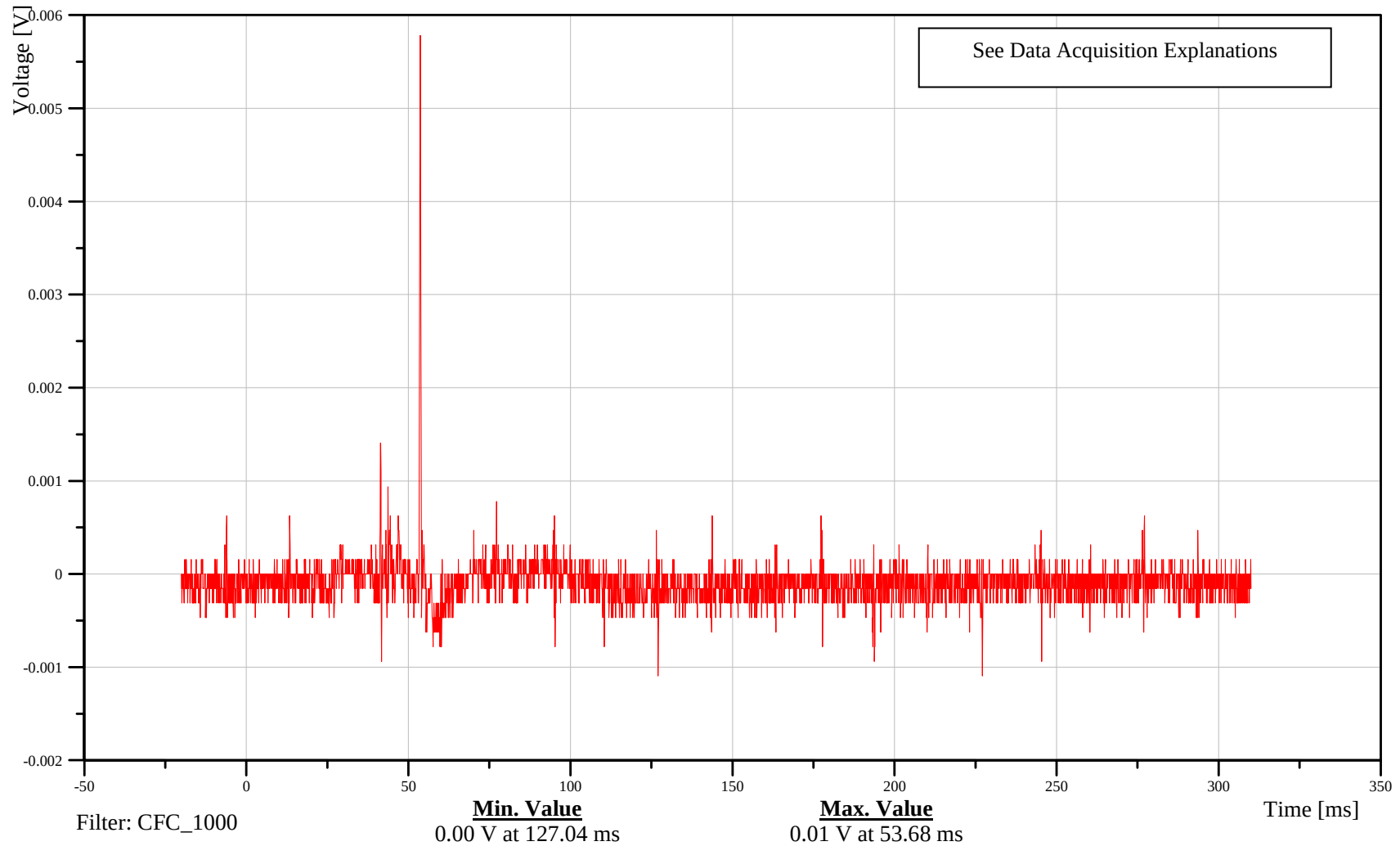
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13AIRBFR0100EV0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Right Front Passenger Airbag - Secondary

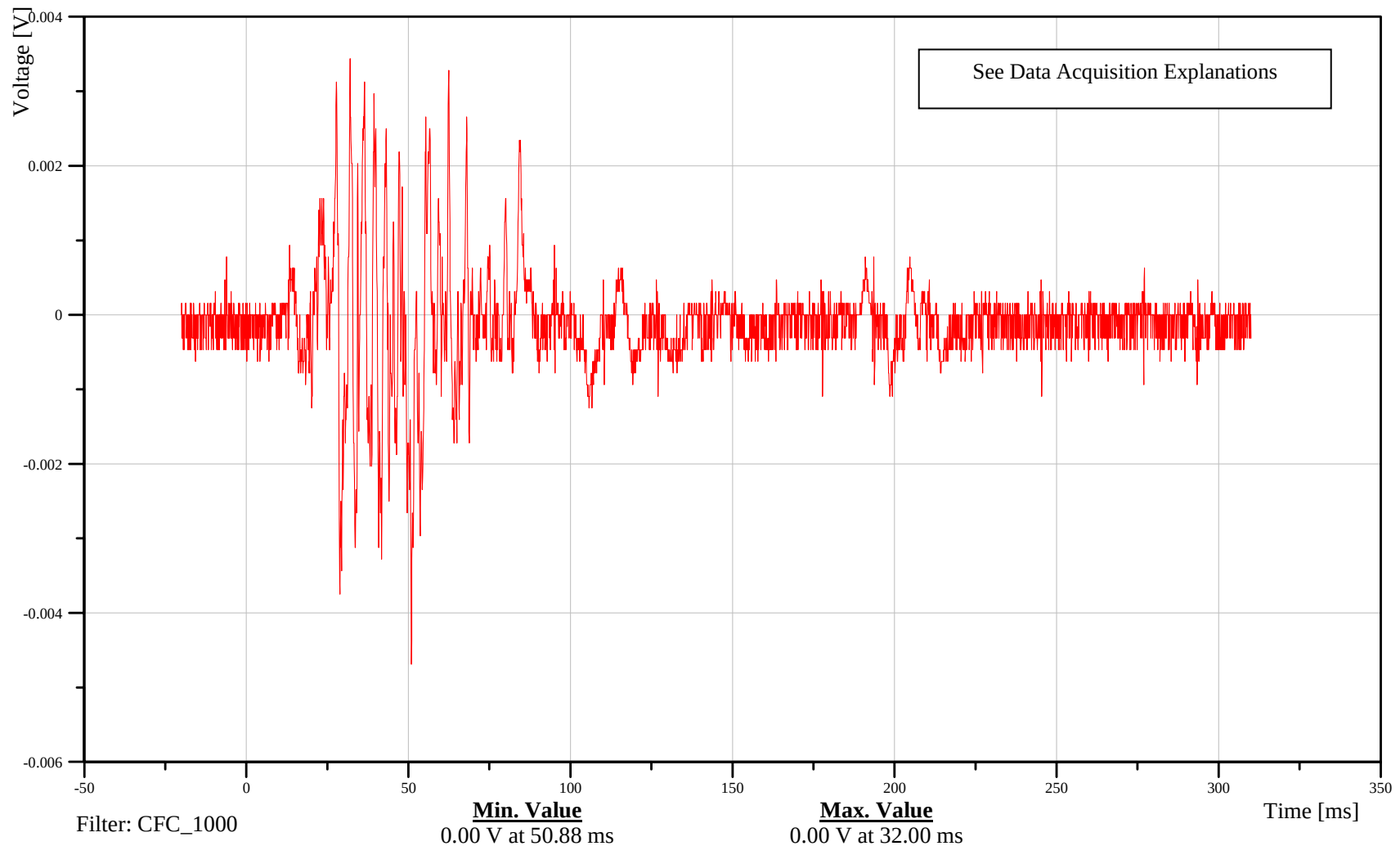
Date: 05/19/2006
Time: 17:50

Customer: VRTC

13AIRBFR0200EV0A

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 9 Column 7

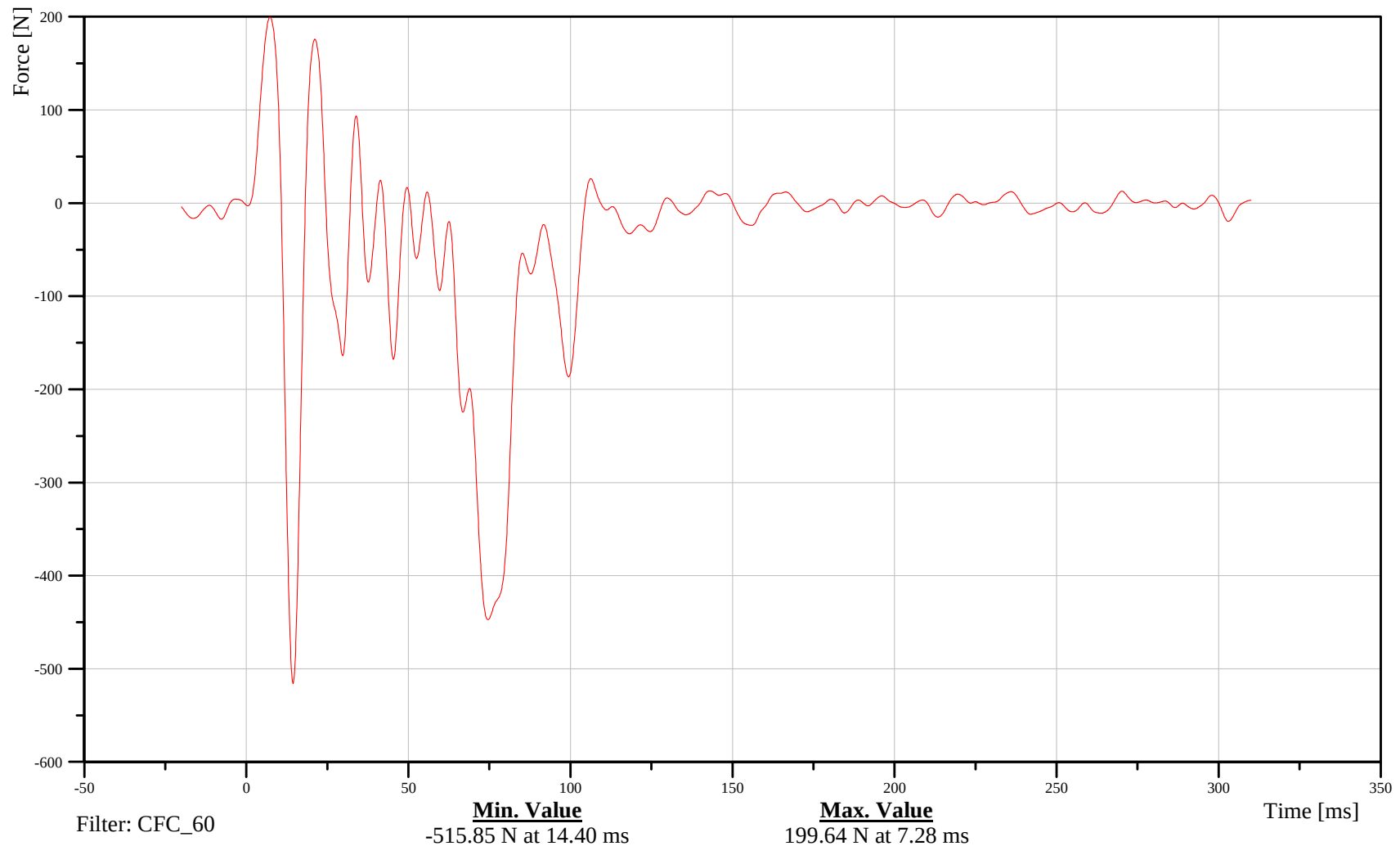
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000A07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 9 Column 8

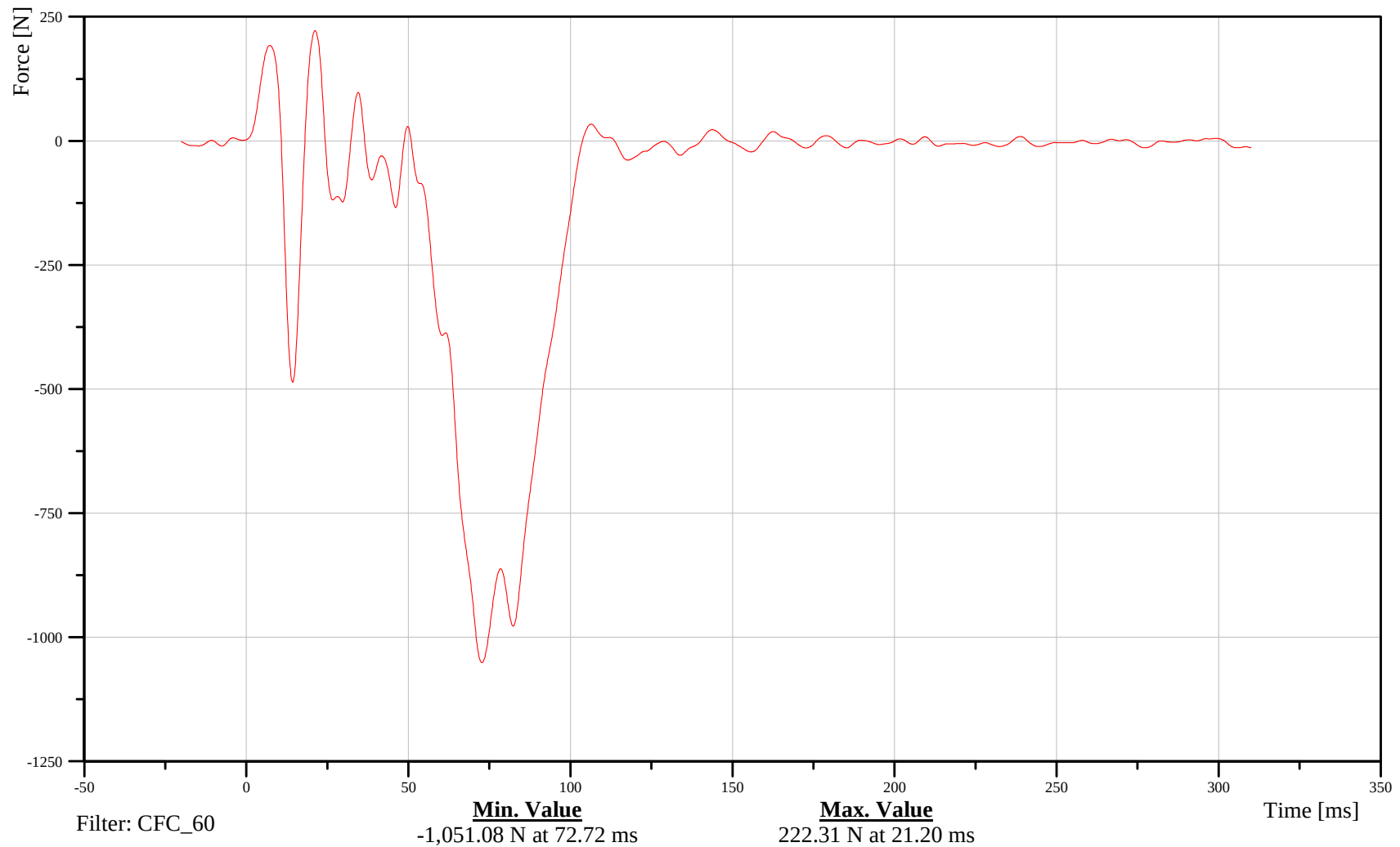
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000A08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 9 Column 9

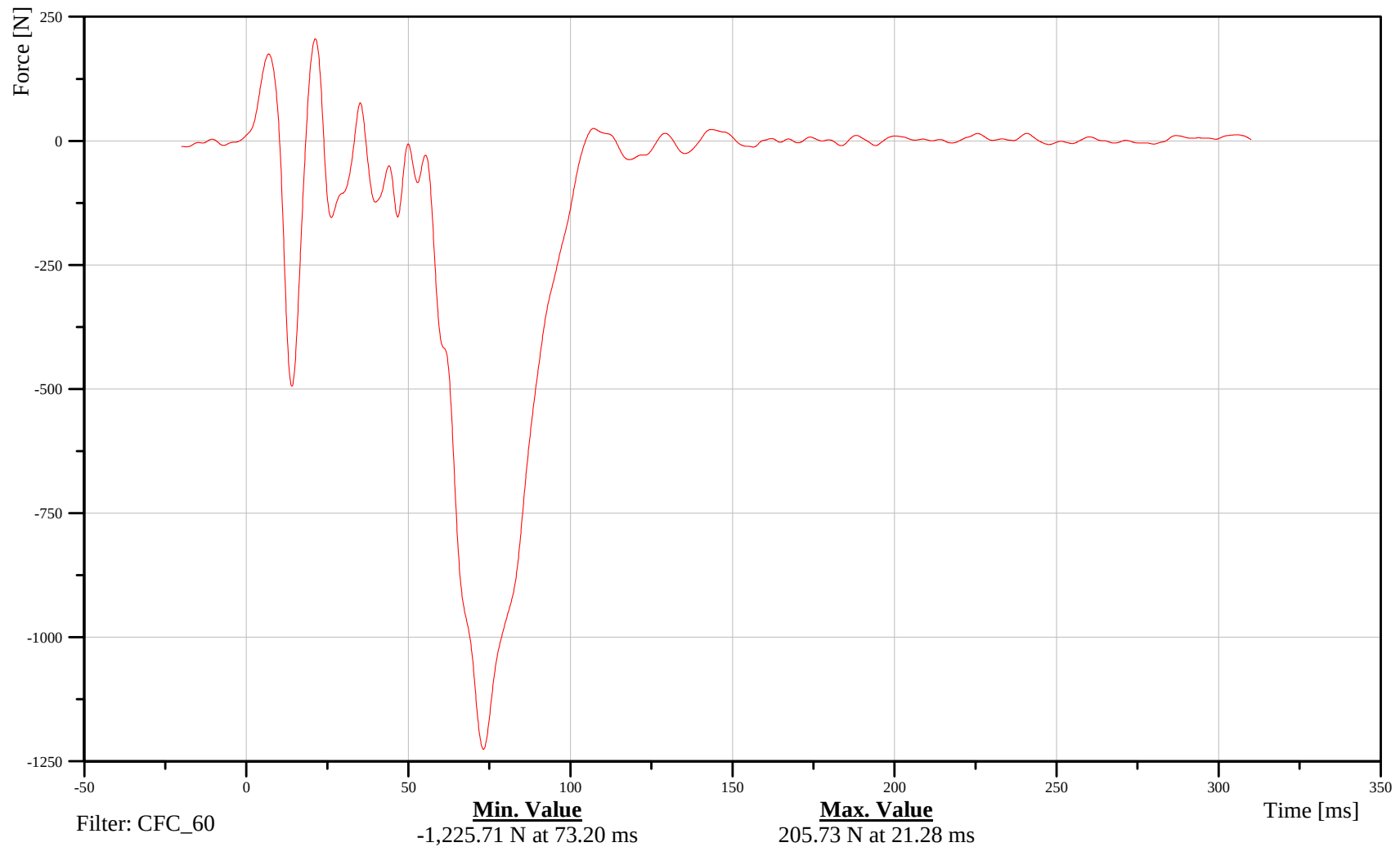
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000A09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 9 Column 10

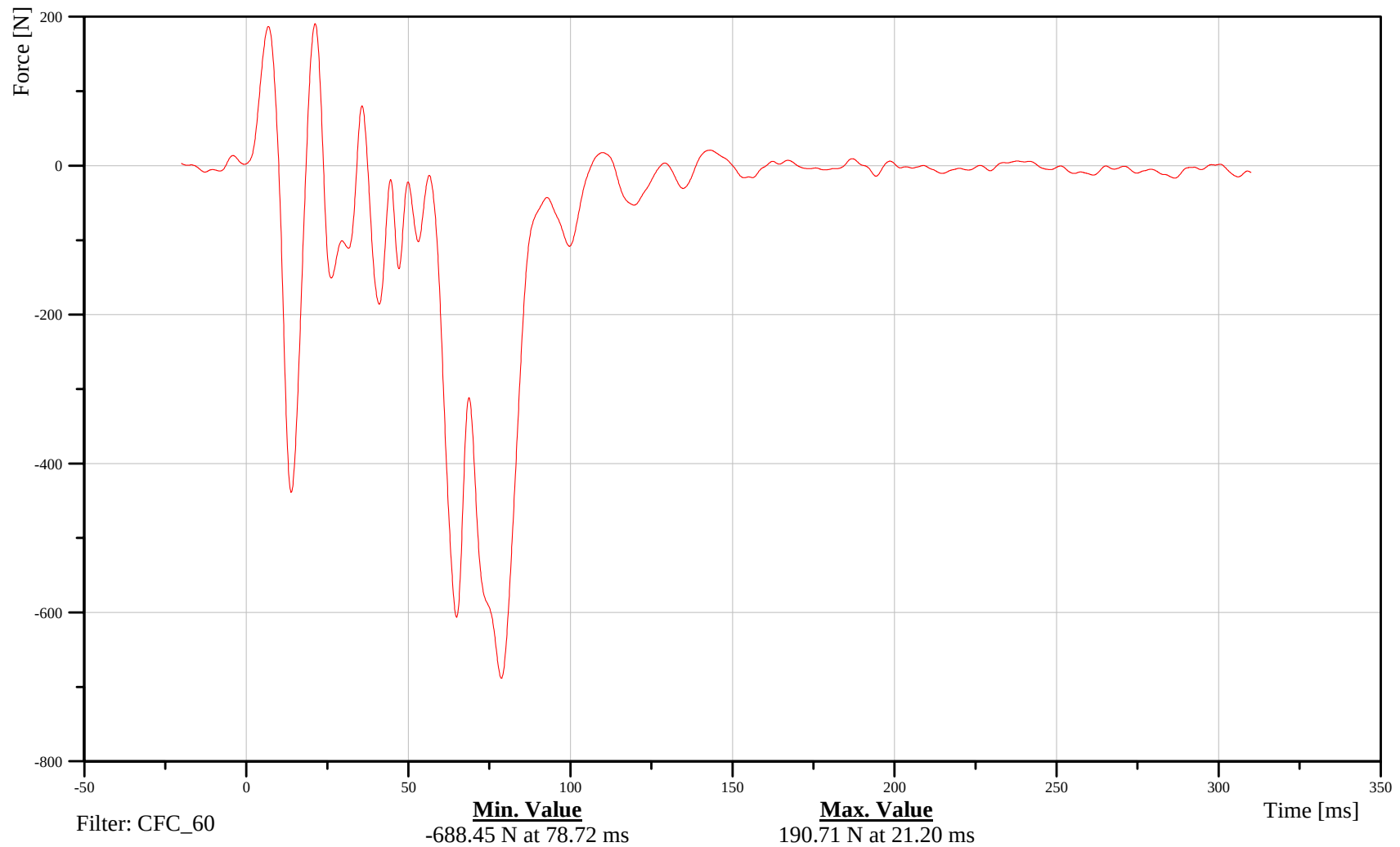
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000A10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 1

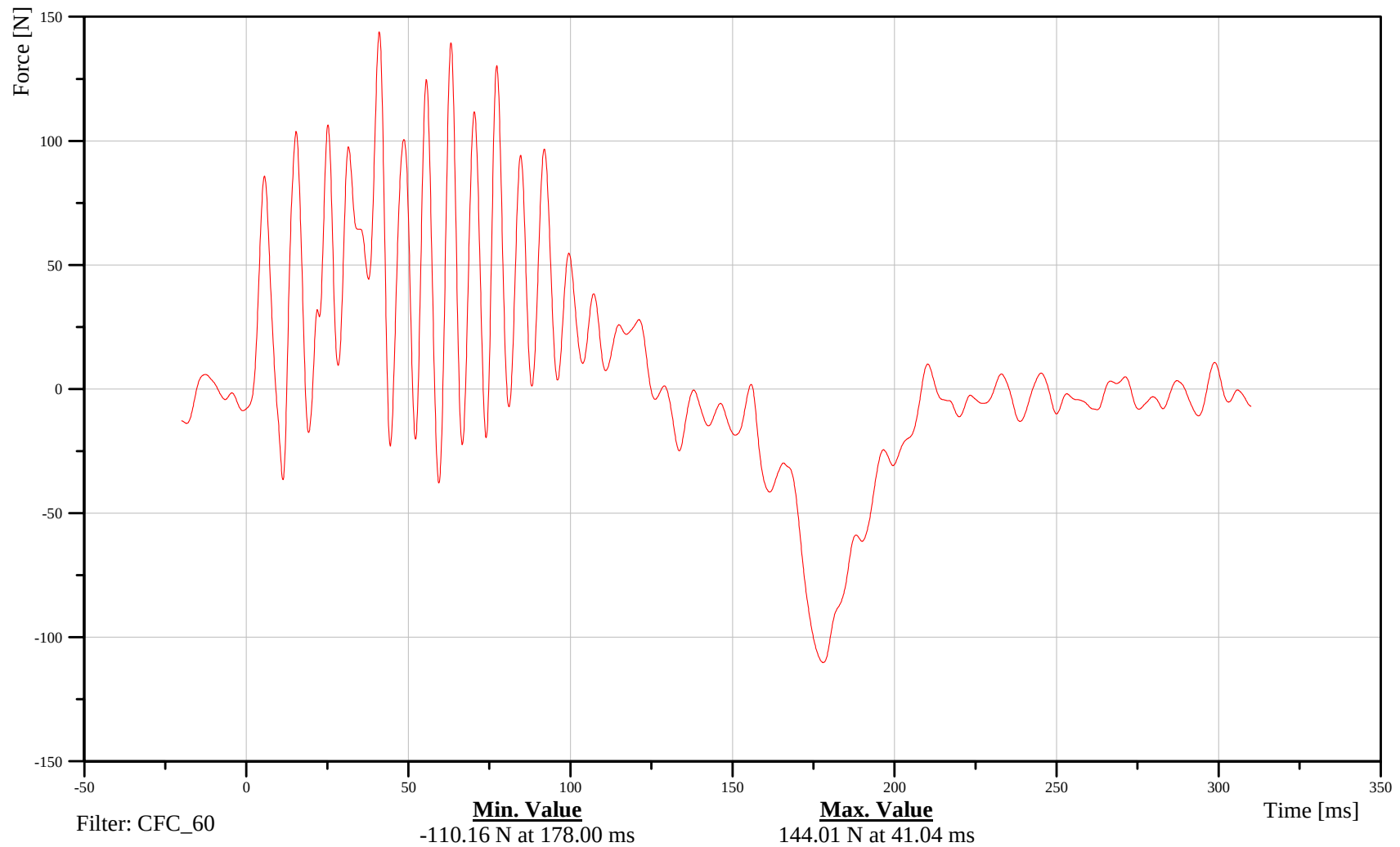
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 2

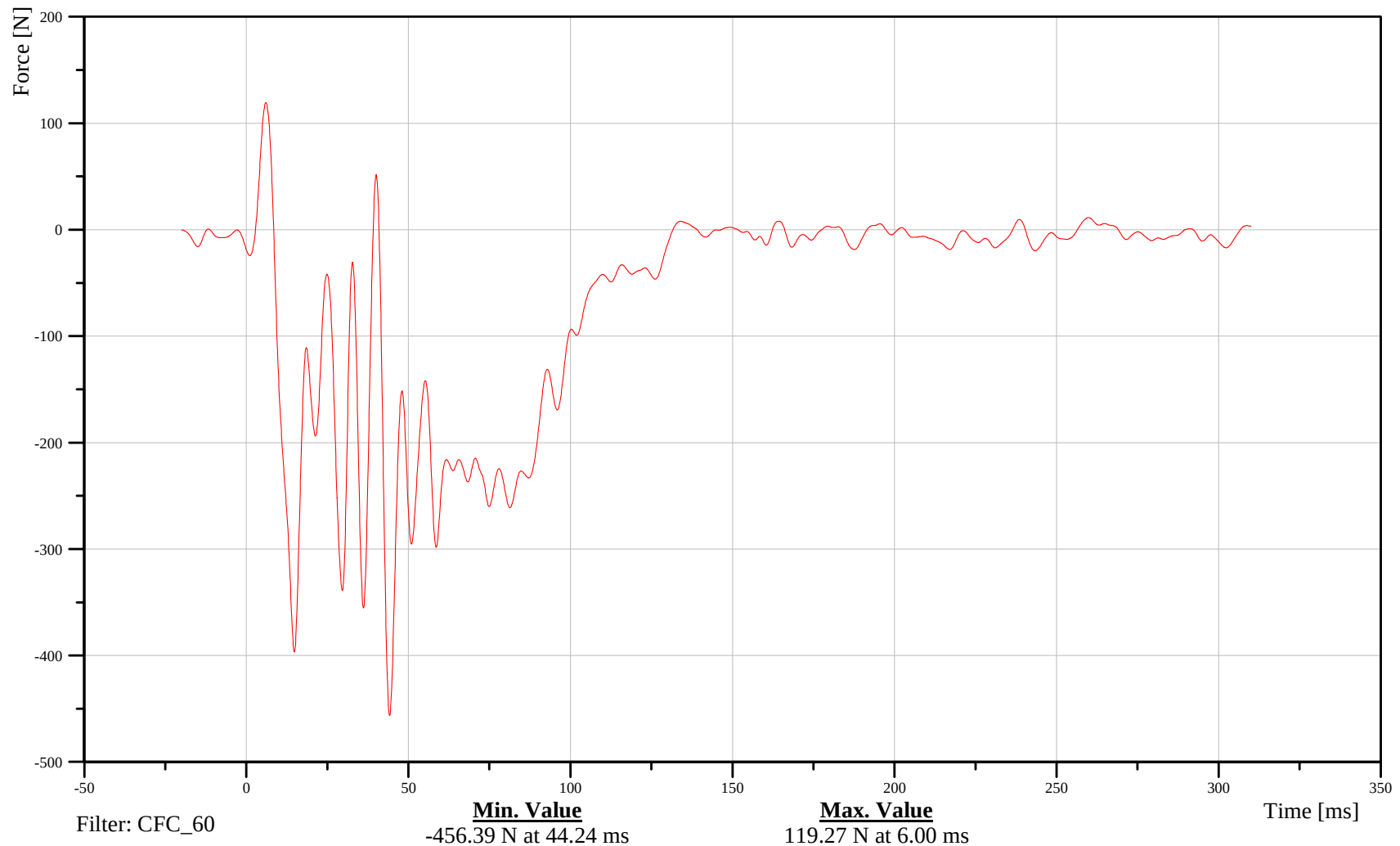
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B02FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 3

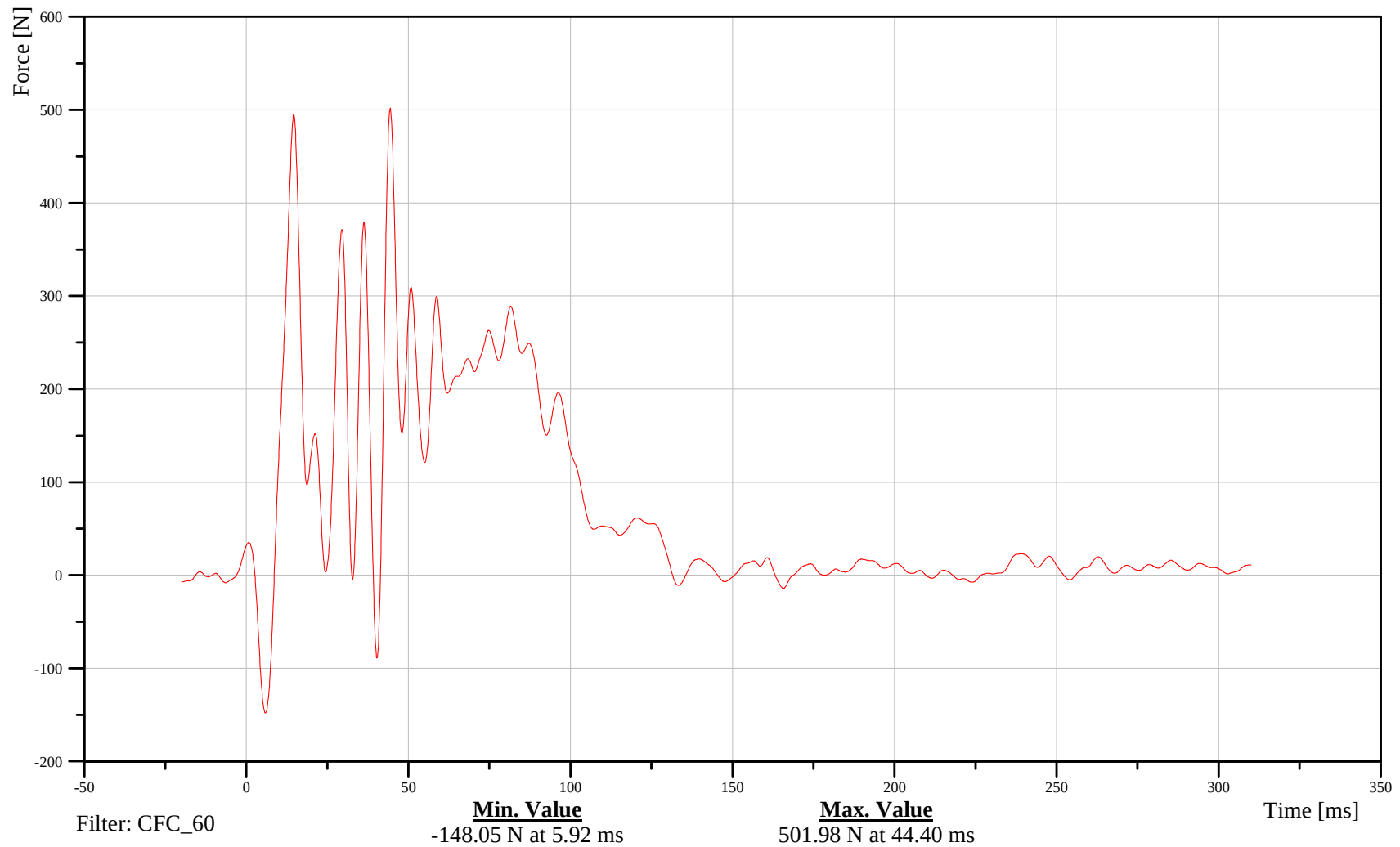
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 4

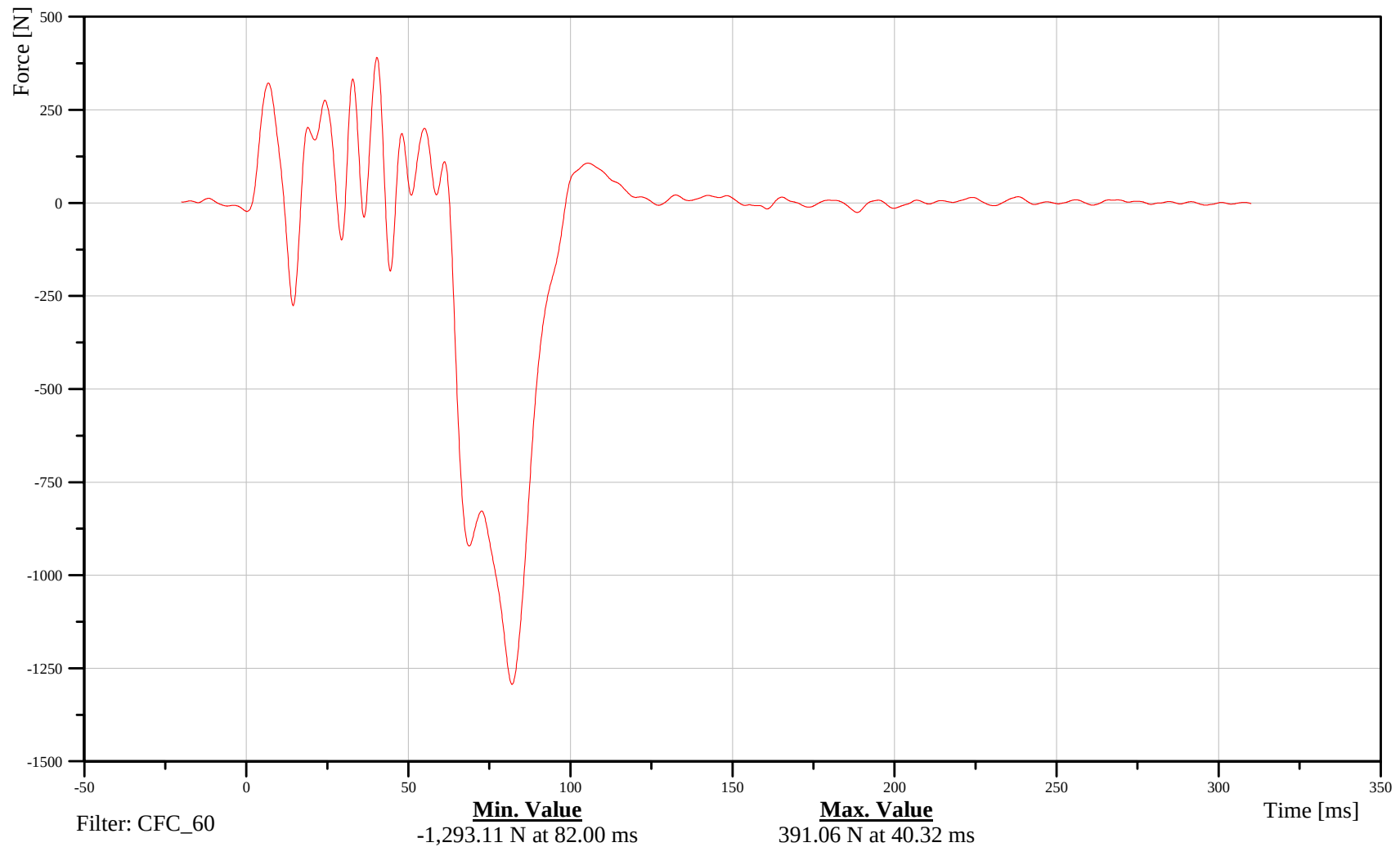
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 5

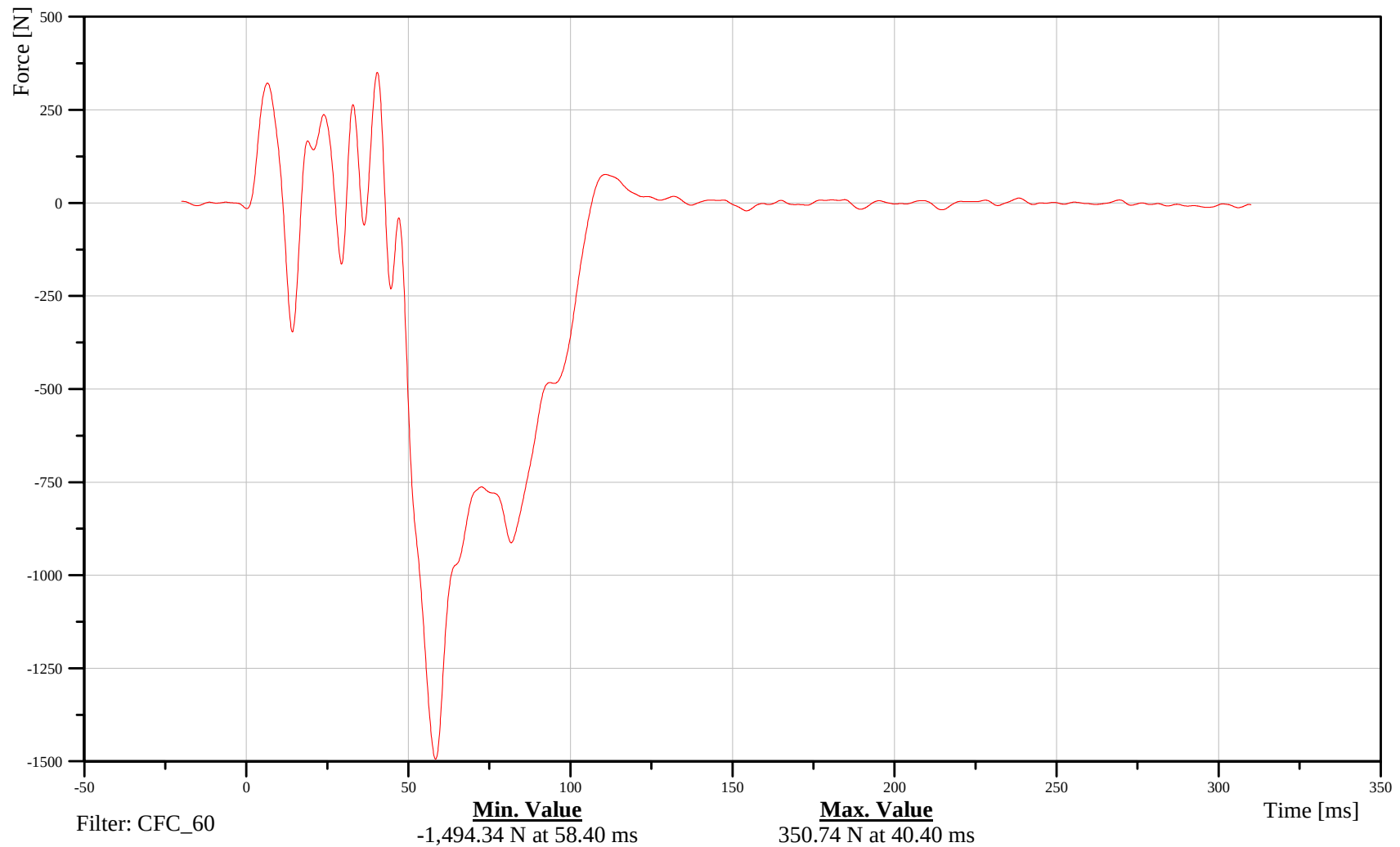
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 6

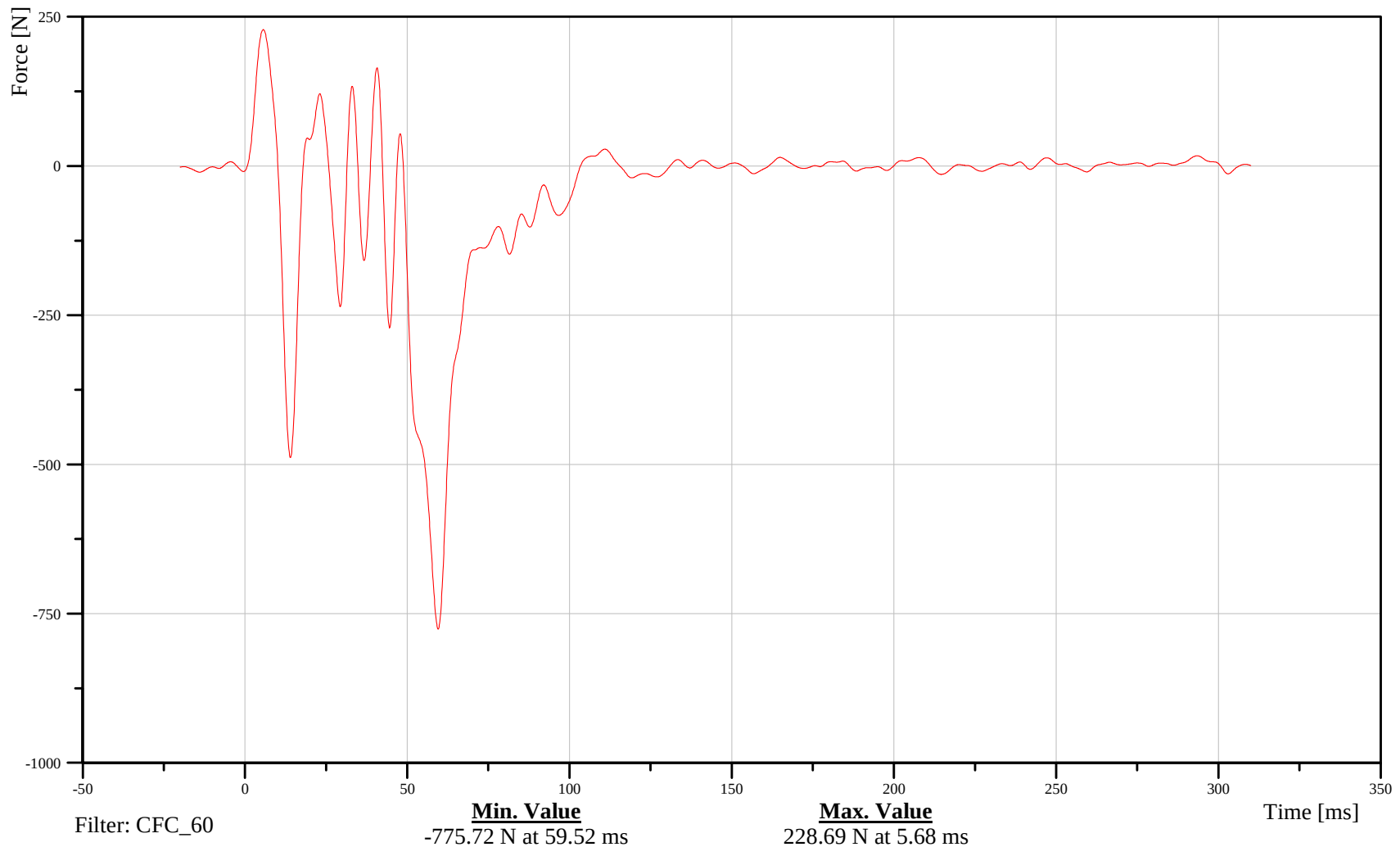
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Time: 17:50

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L0FBAR000B06FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 7

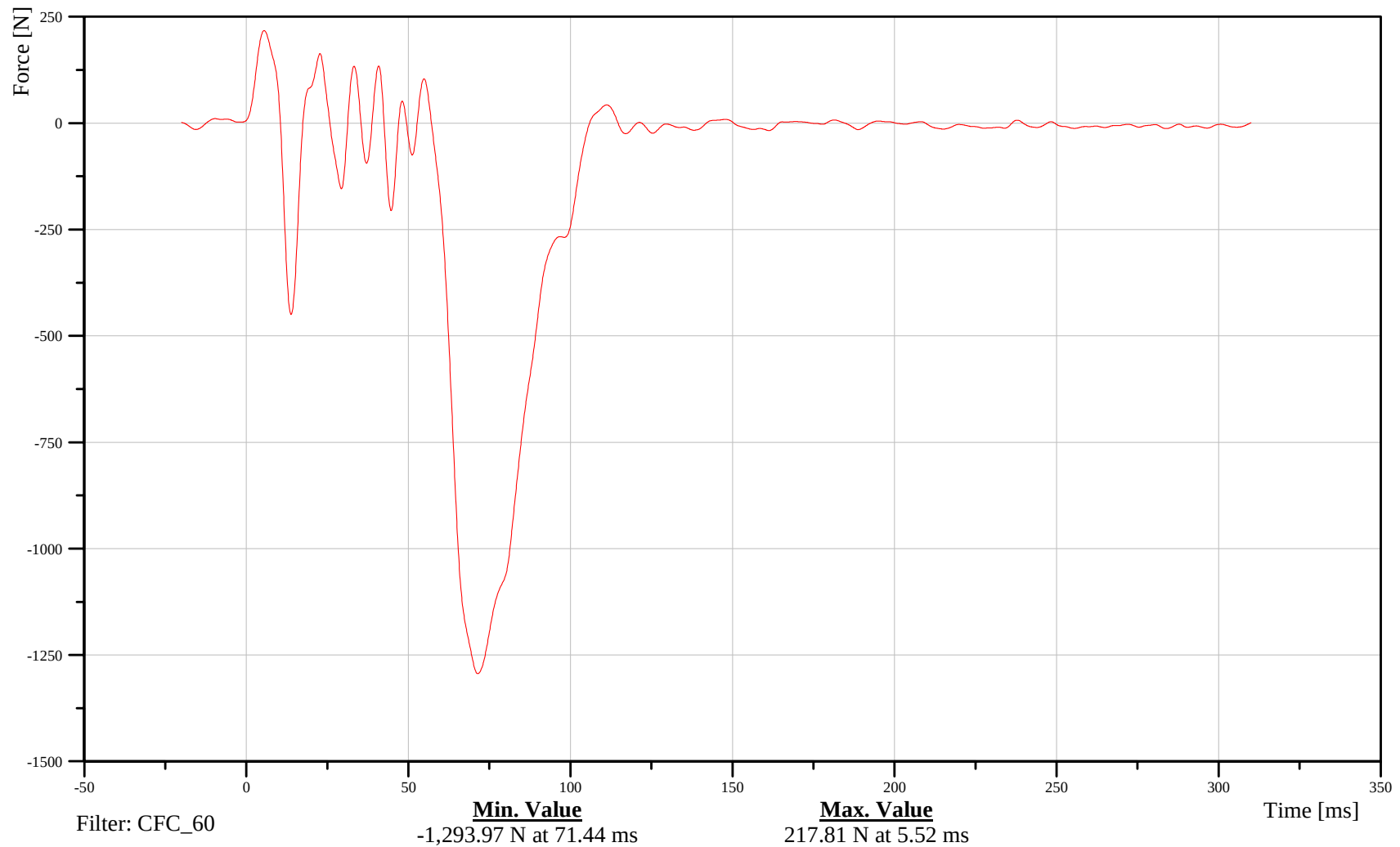
Date: 05/19/2006
Time: 17:50

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L0FBAR000B07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 8

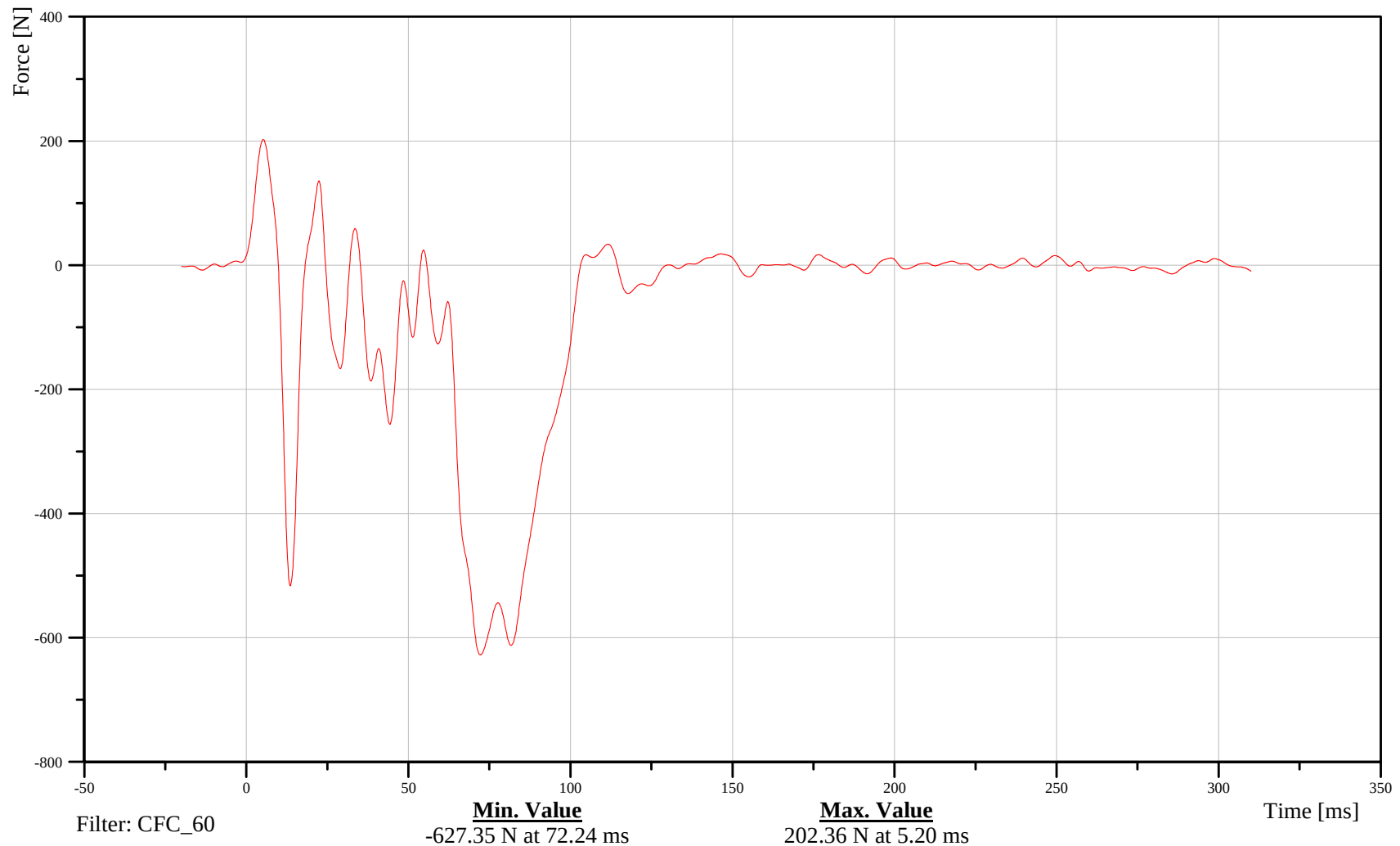
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 9

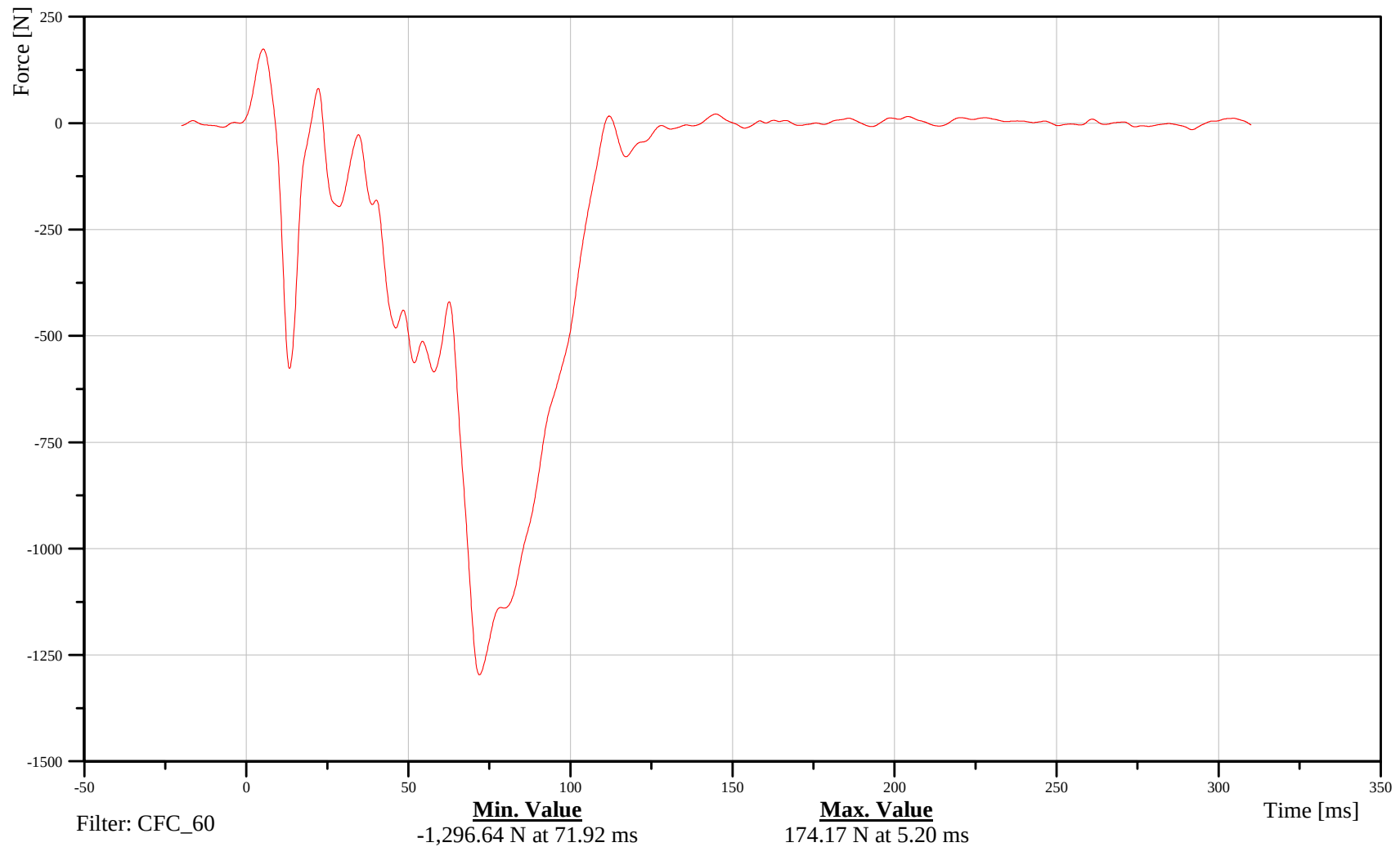
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 10

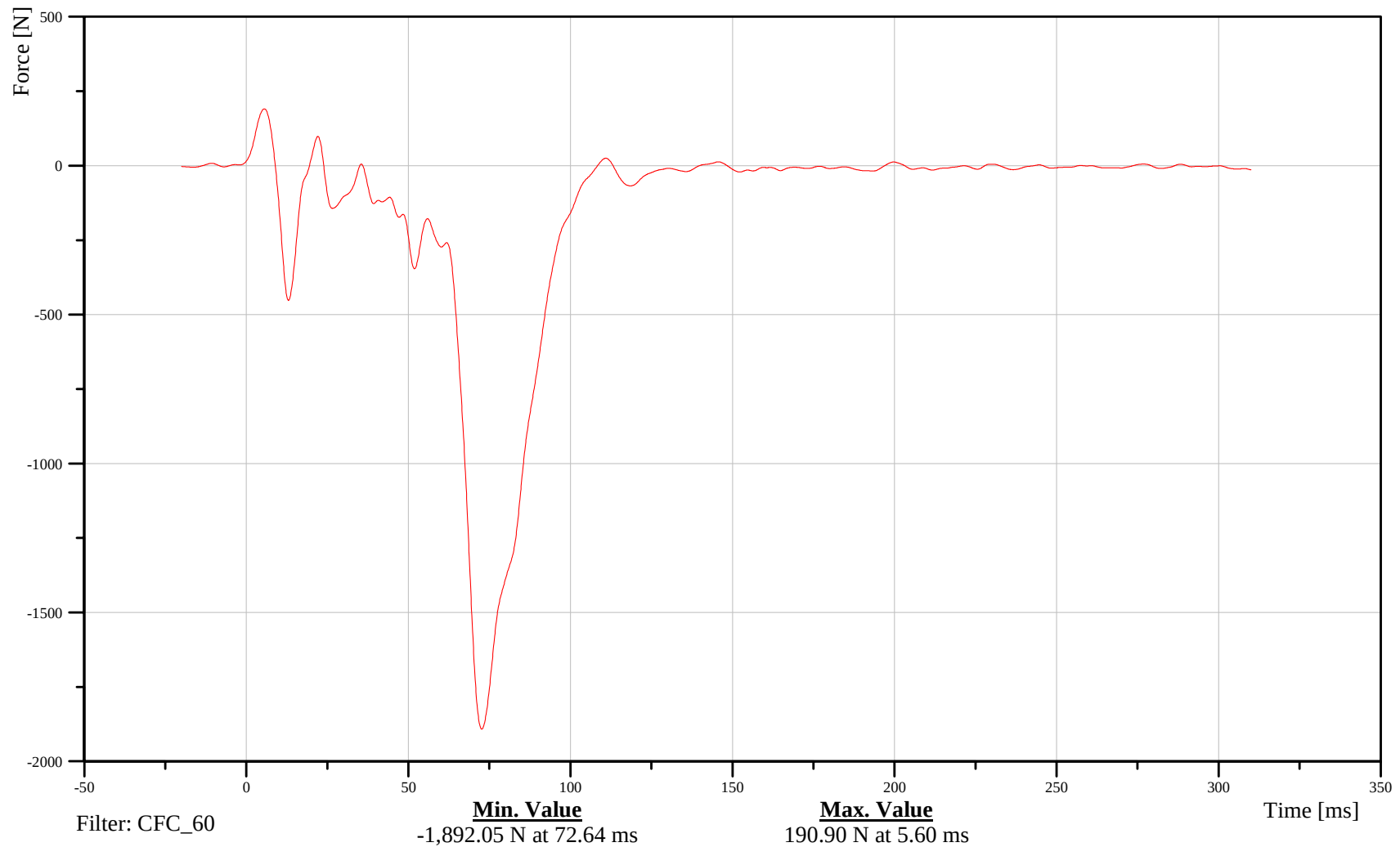
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 11

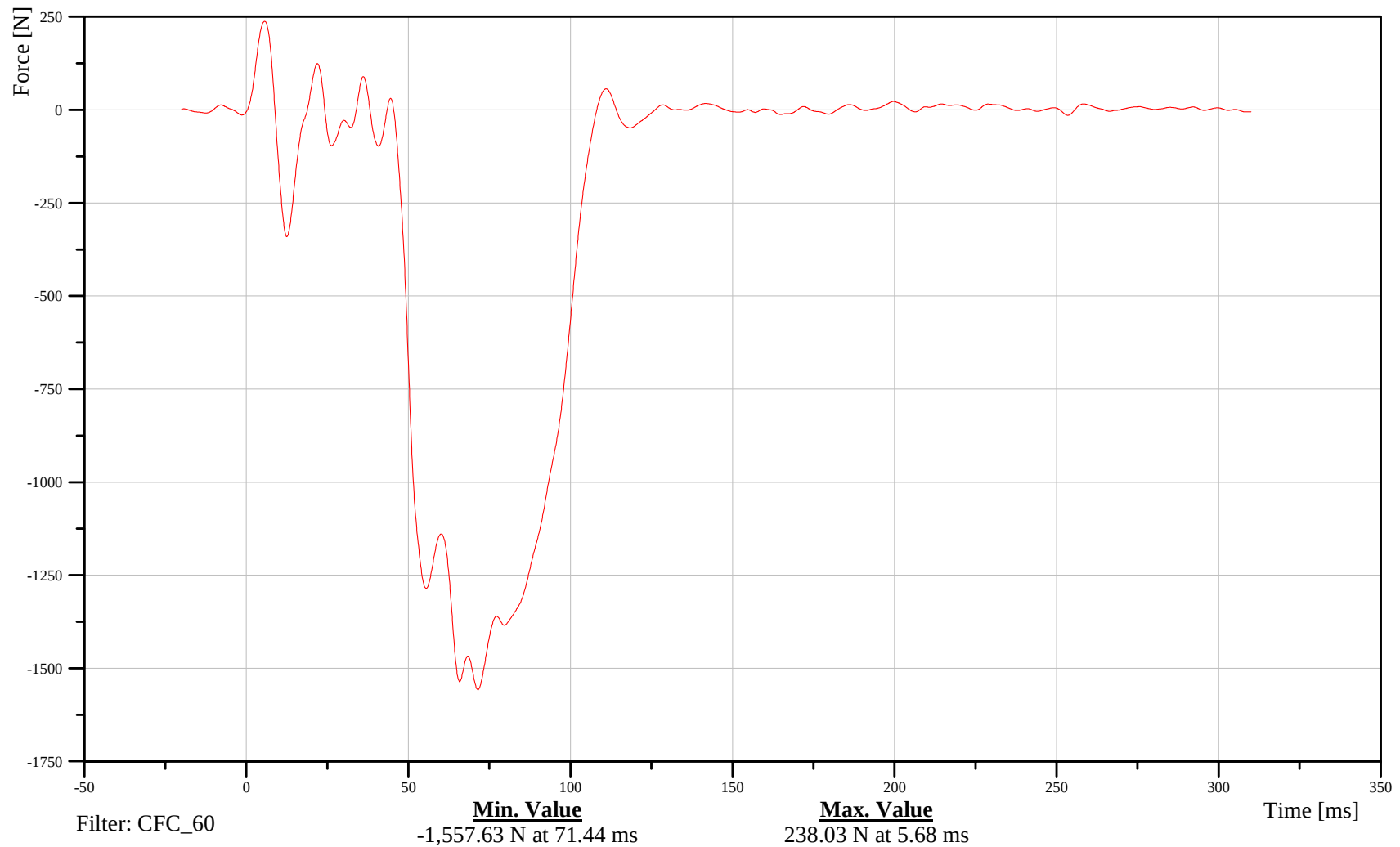
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B11FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 12

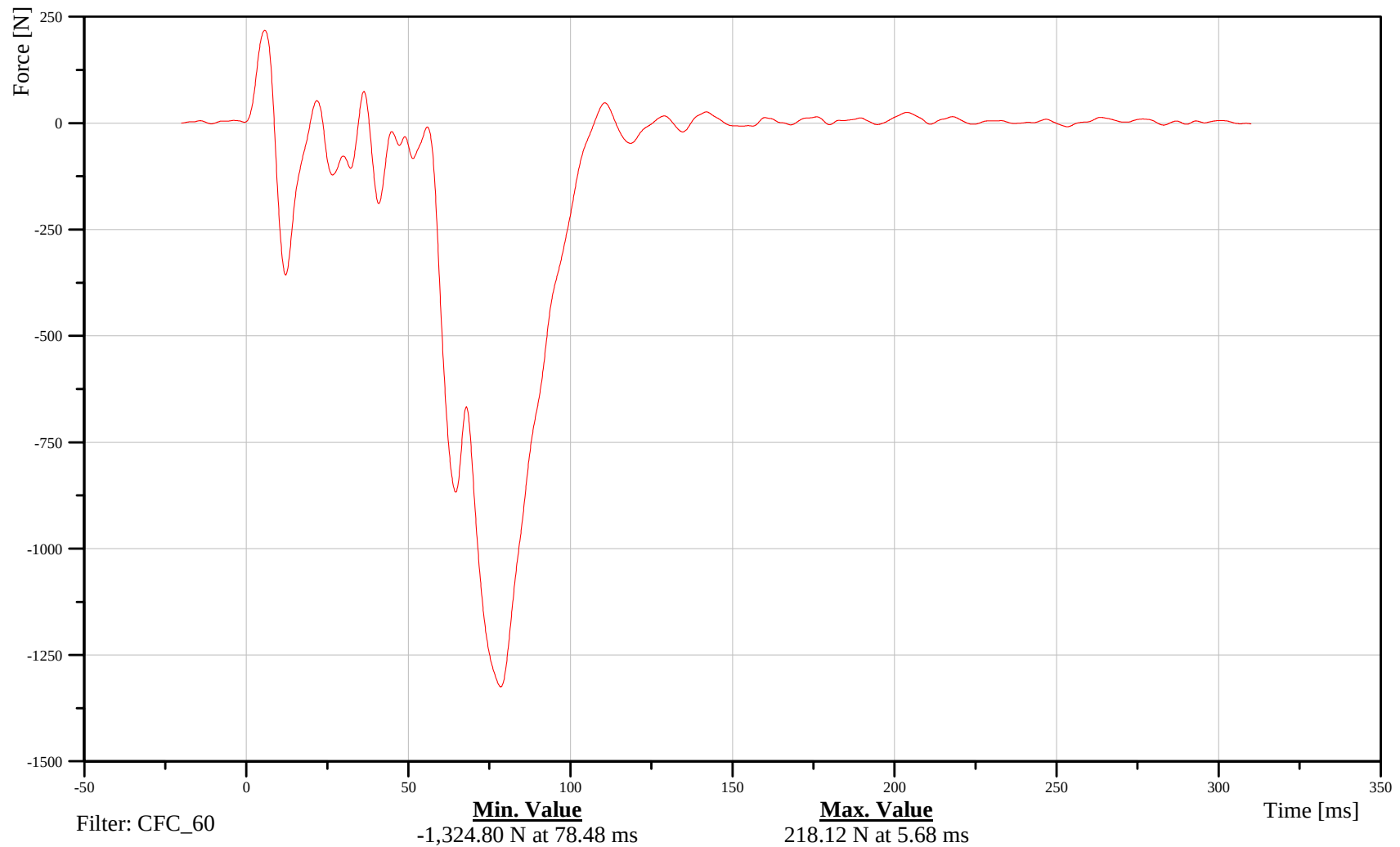
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B12FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 13

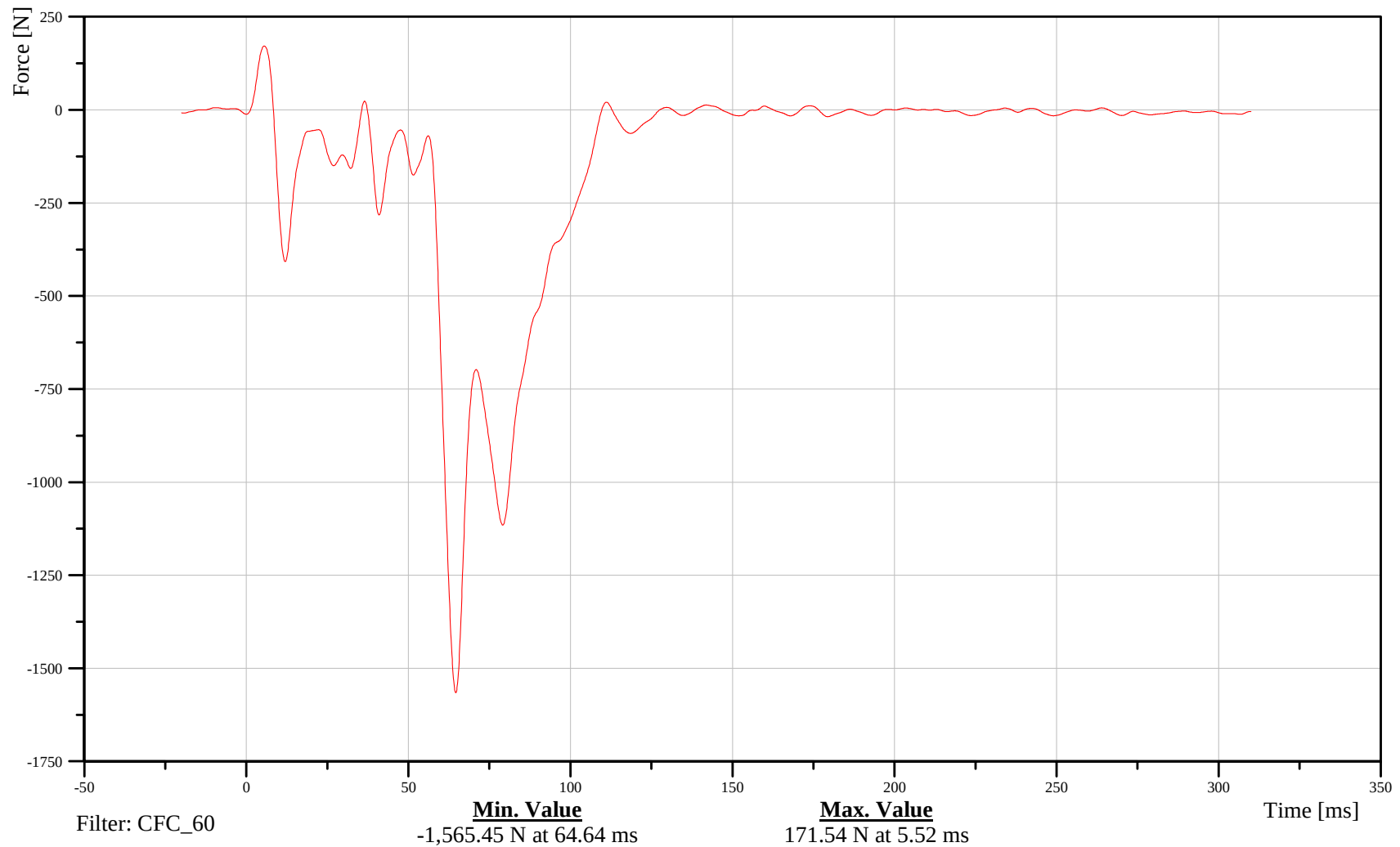
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B13FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 14

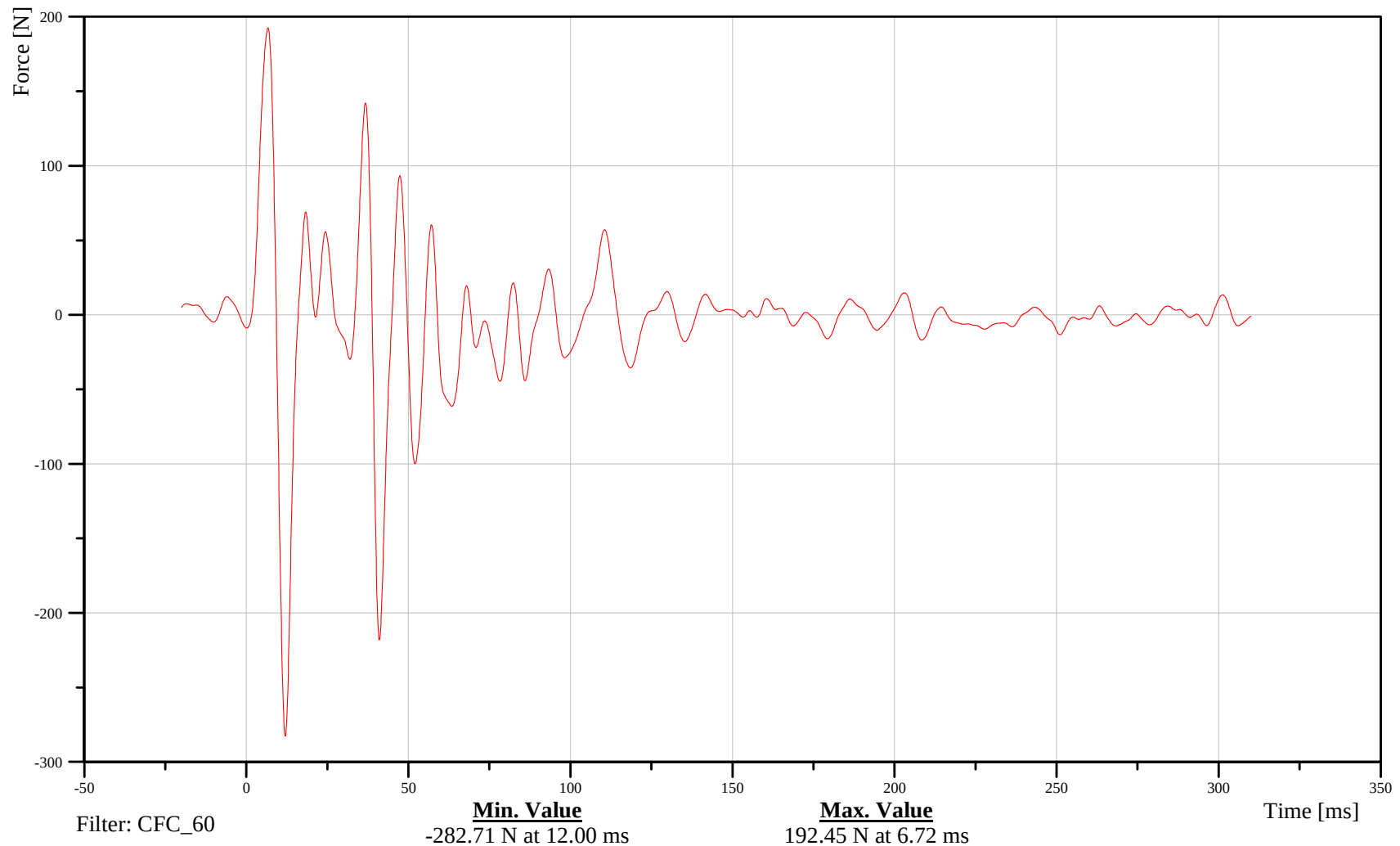
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B14FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 15

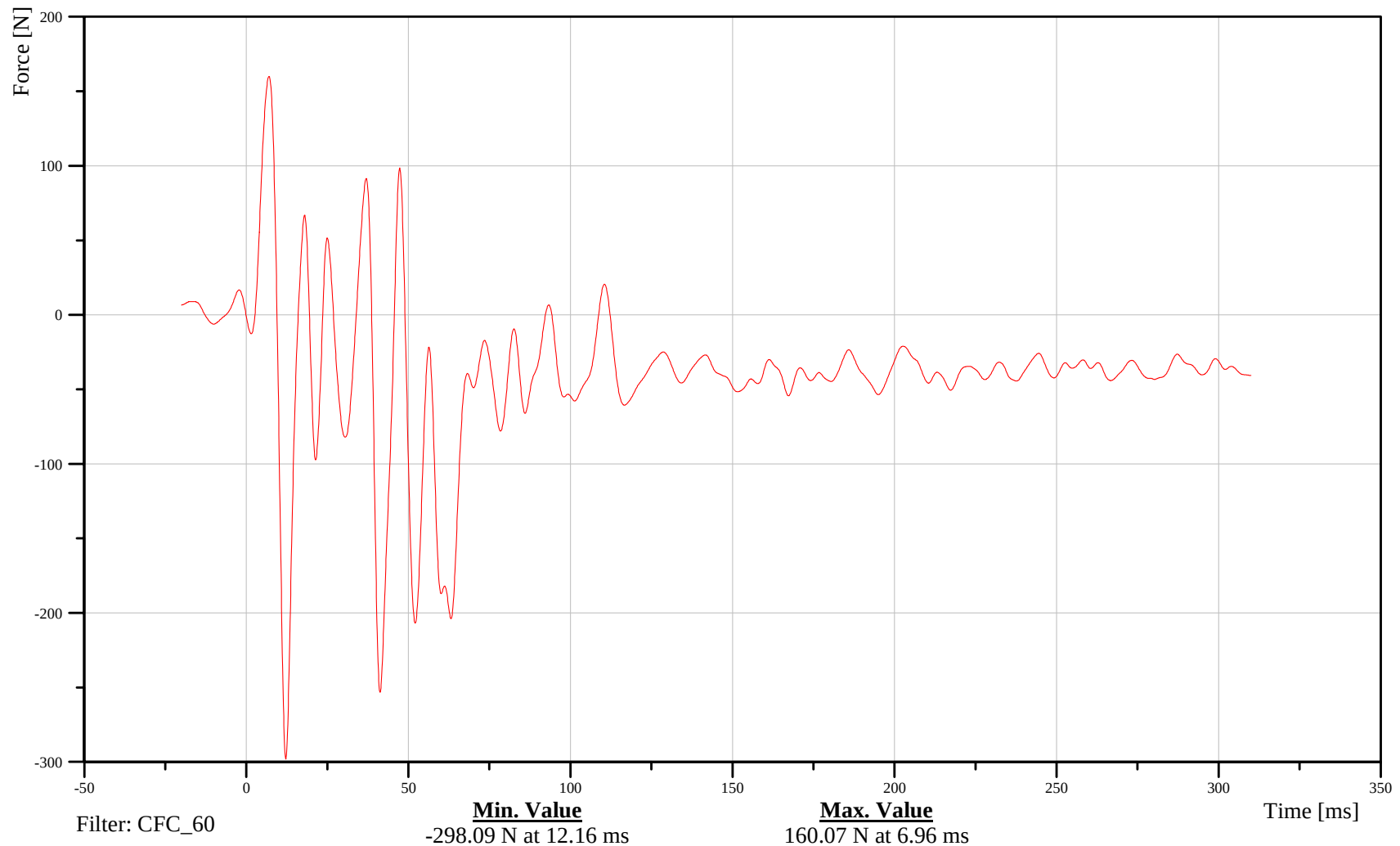
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 8 Column 16

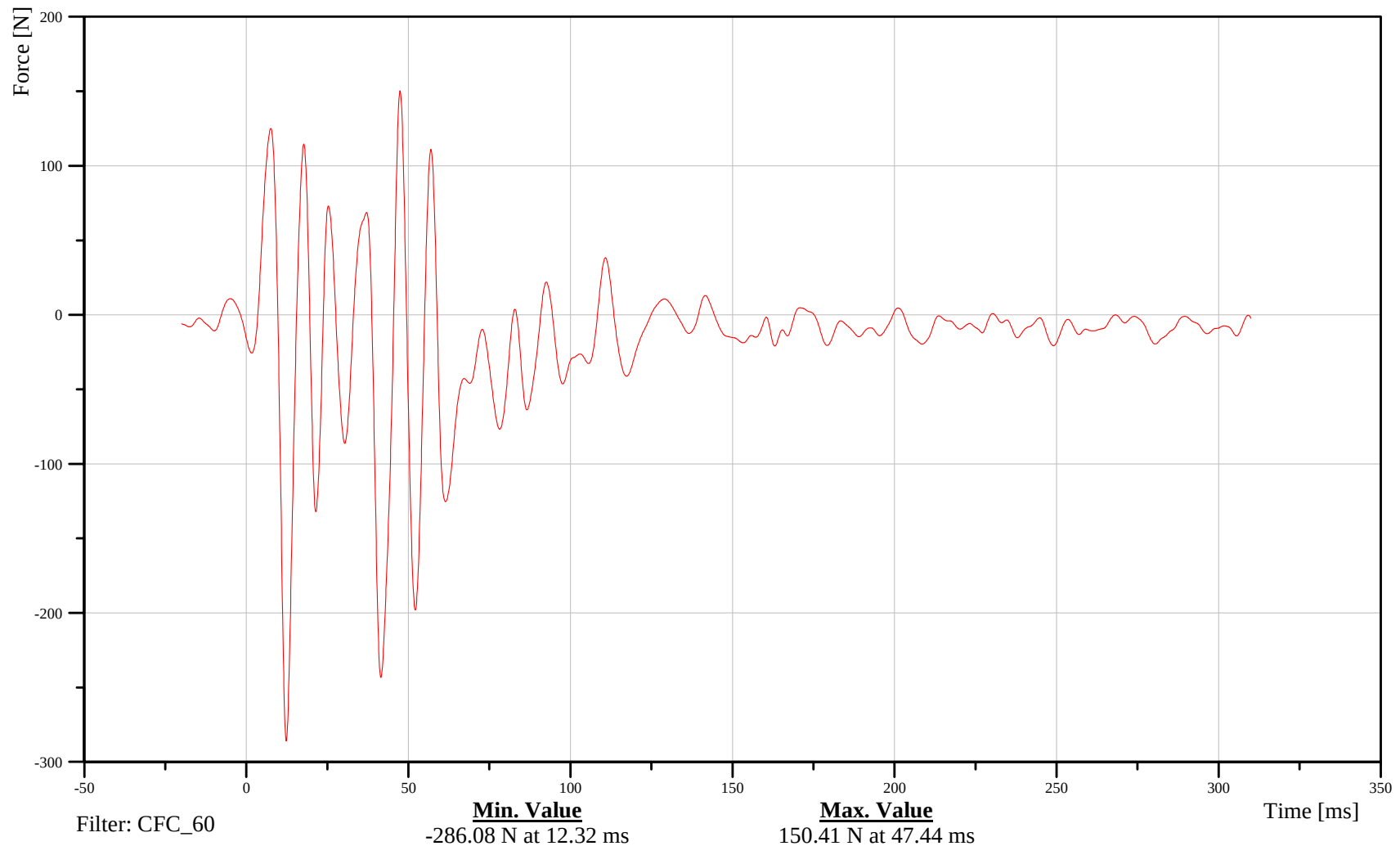
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000B16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 1

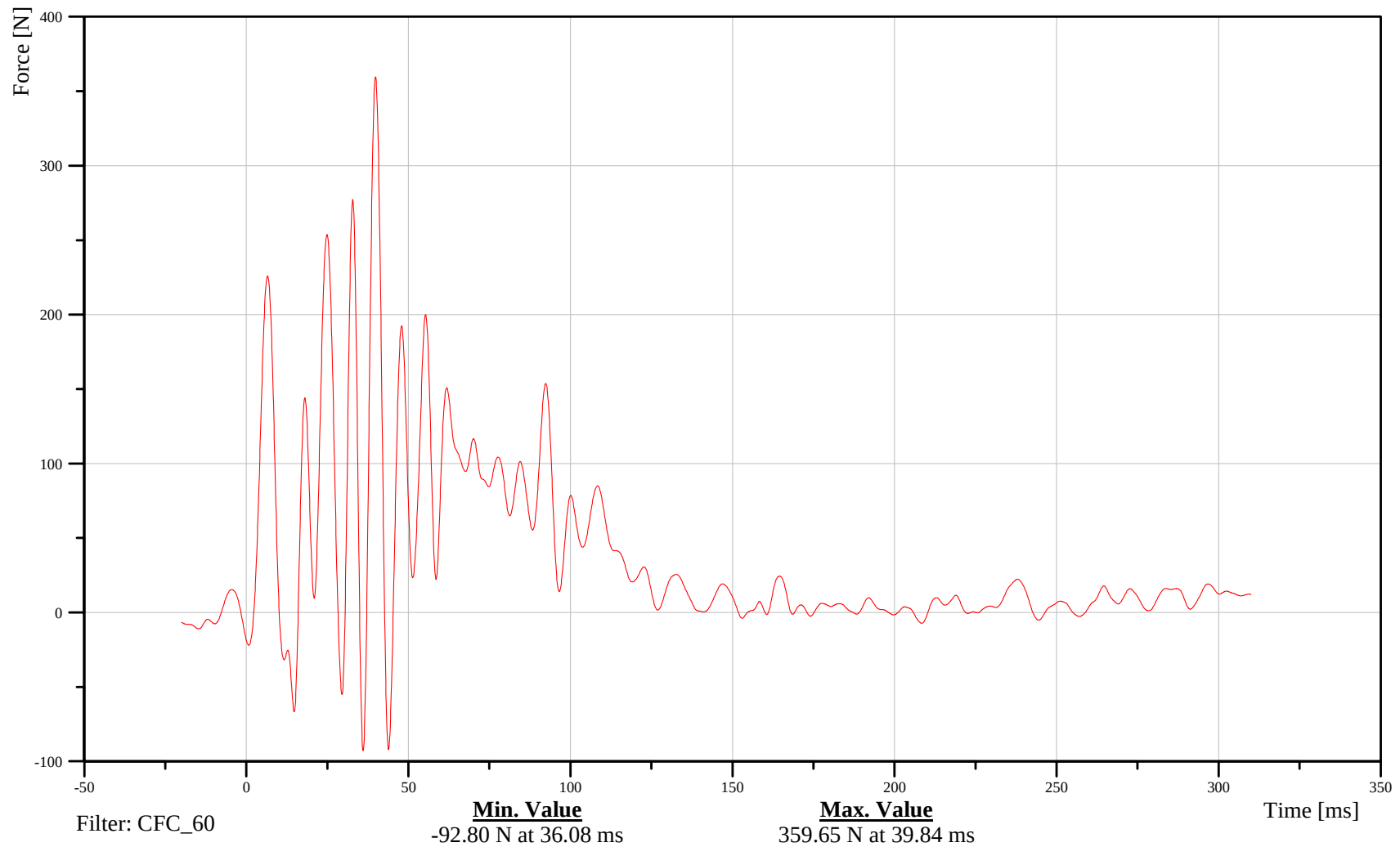
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C01FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 2

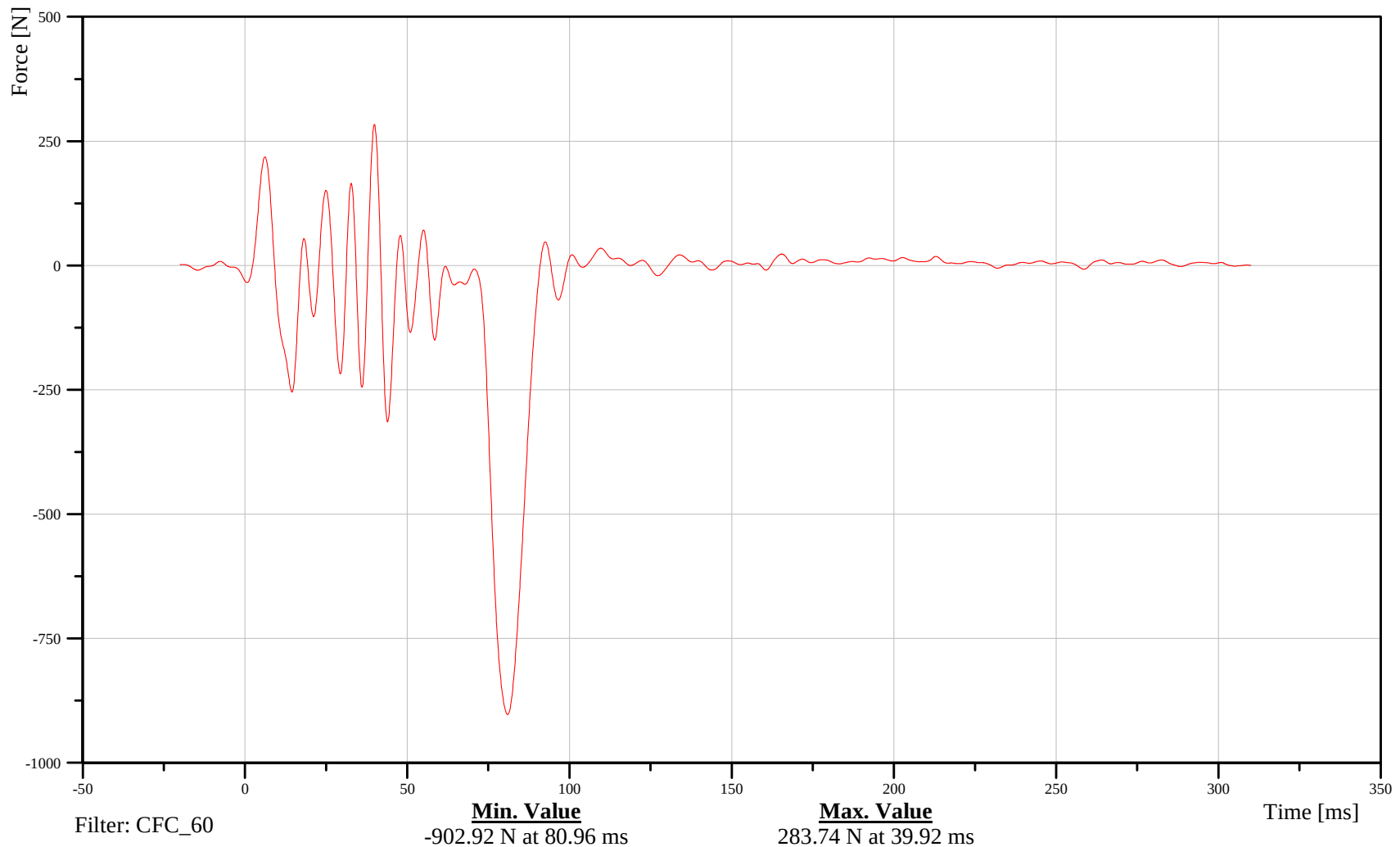
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C02FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 3

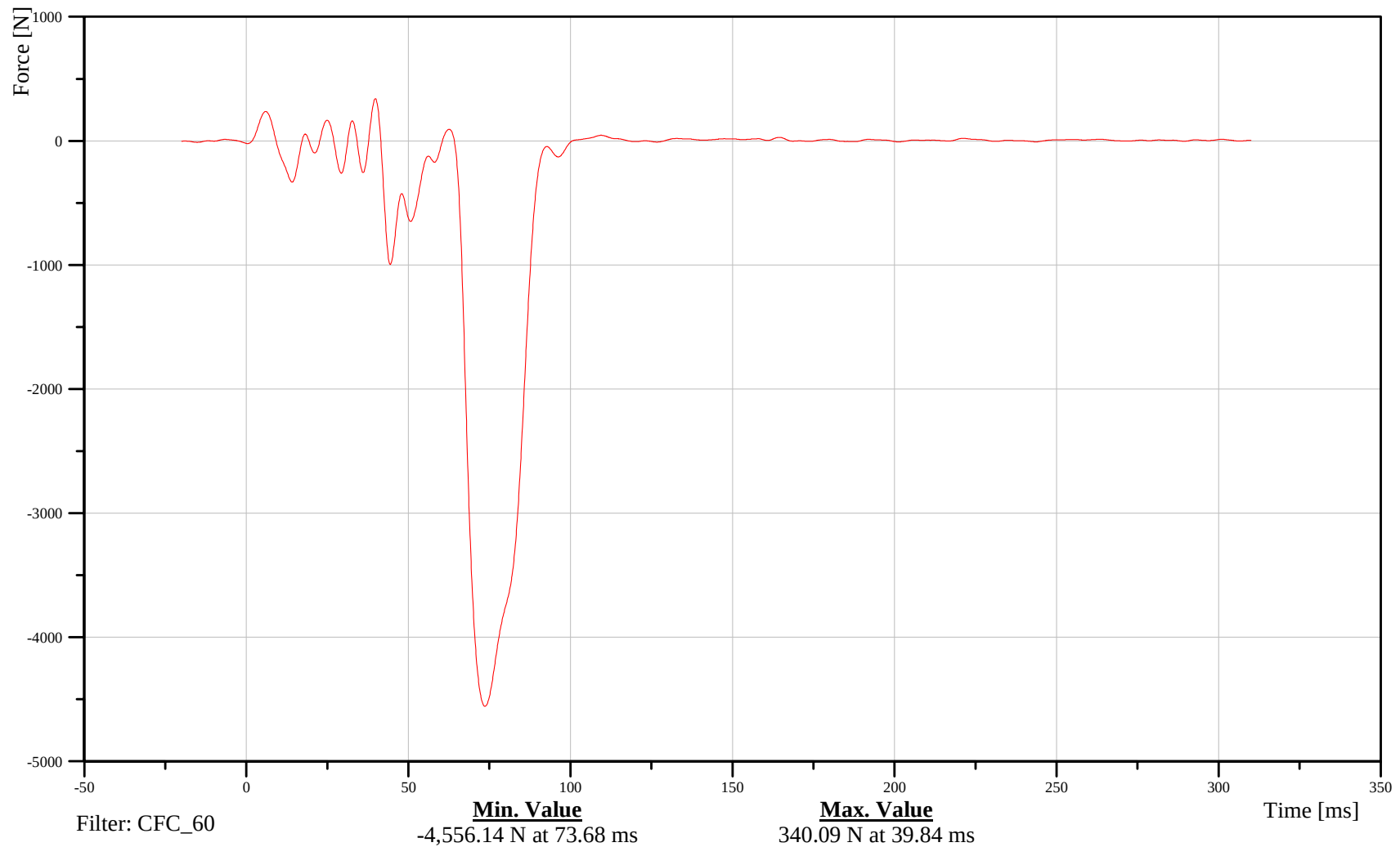
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 4

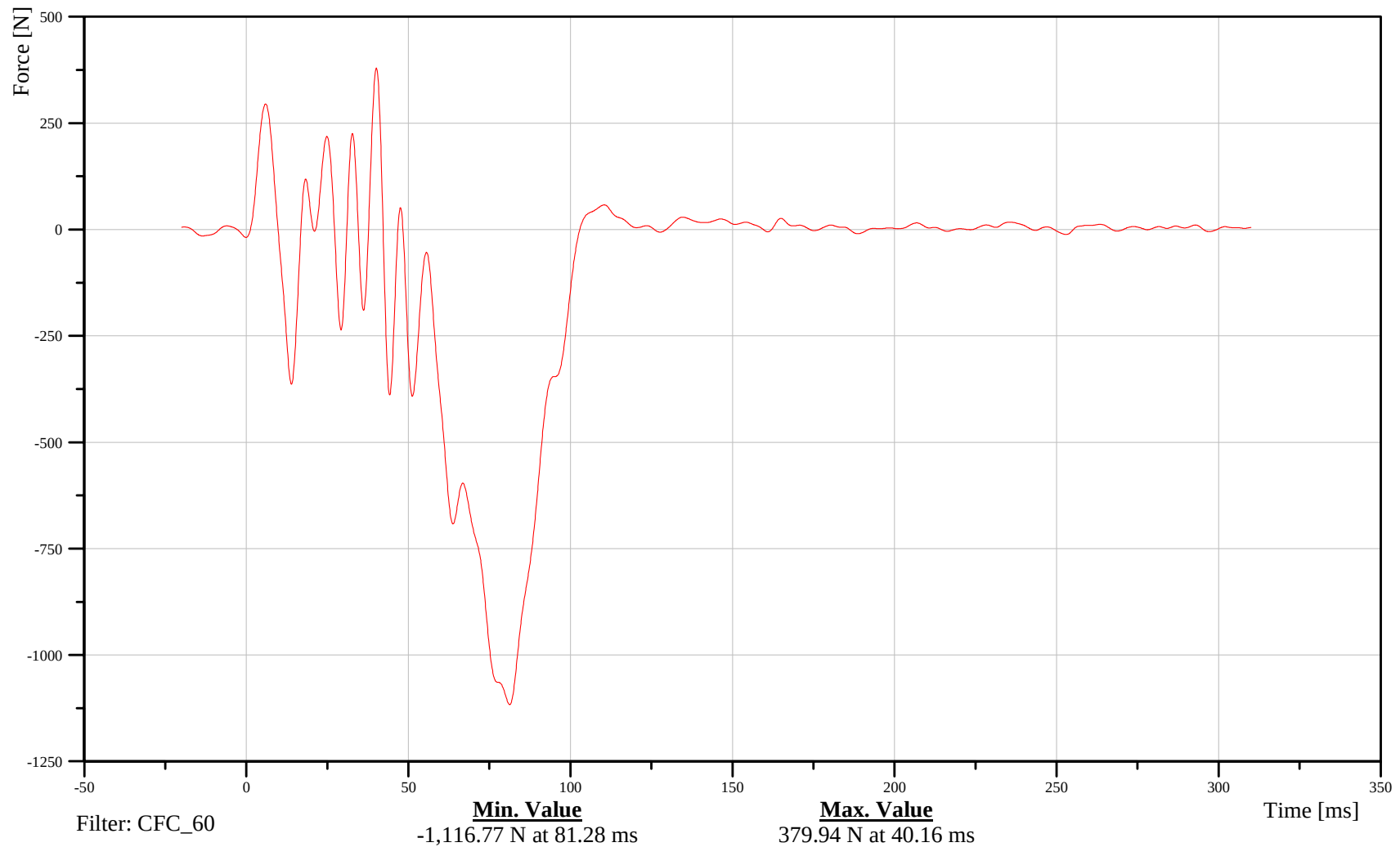
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 5

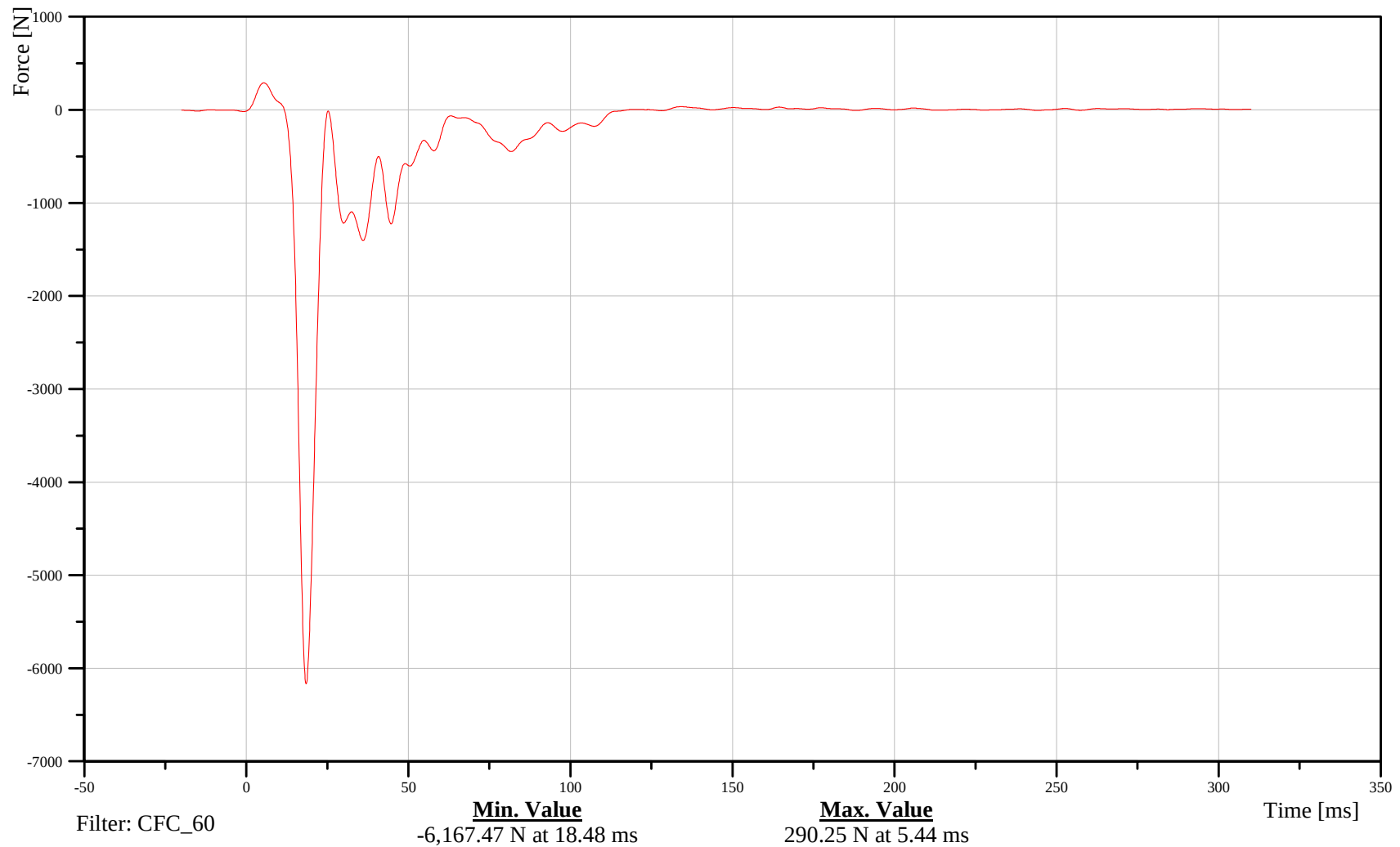
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C05FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 6

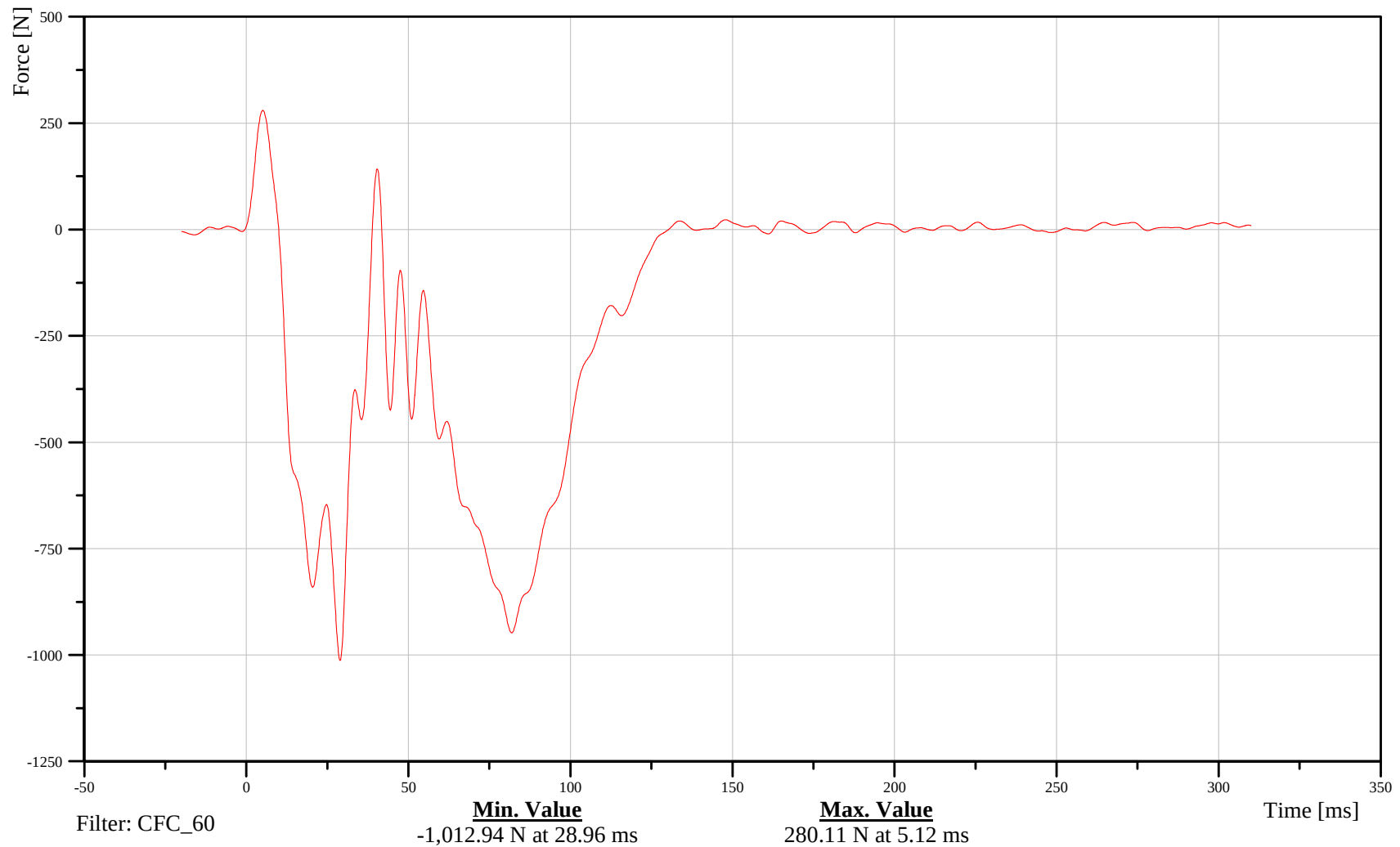
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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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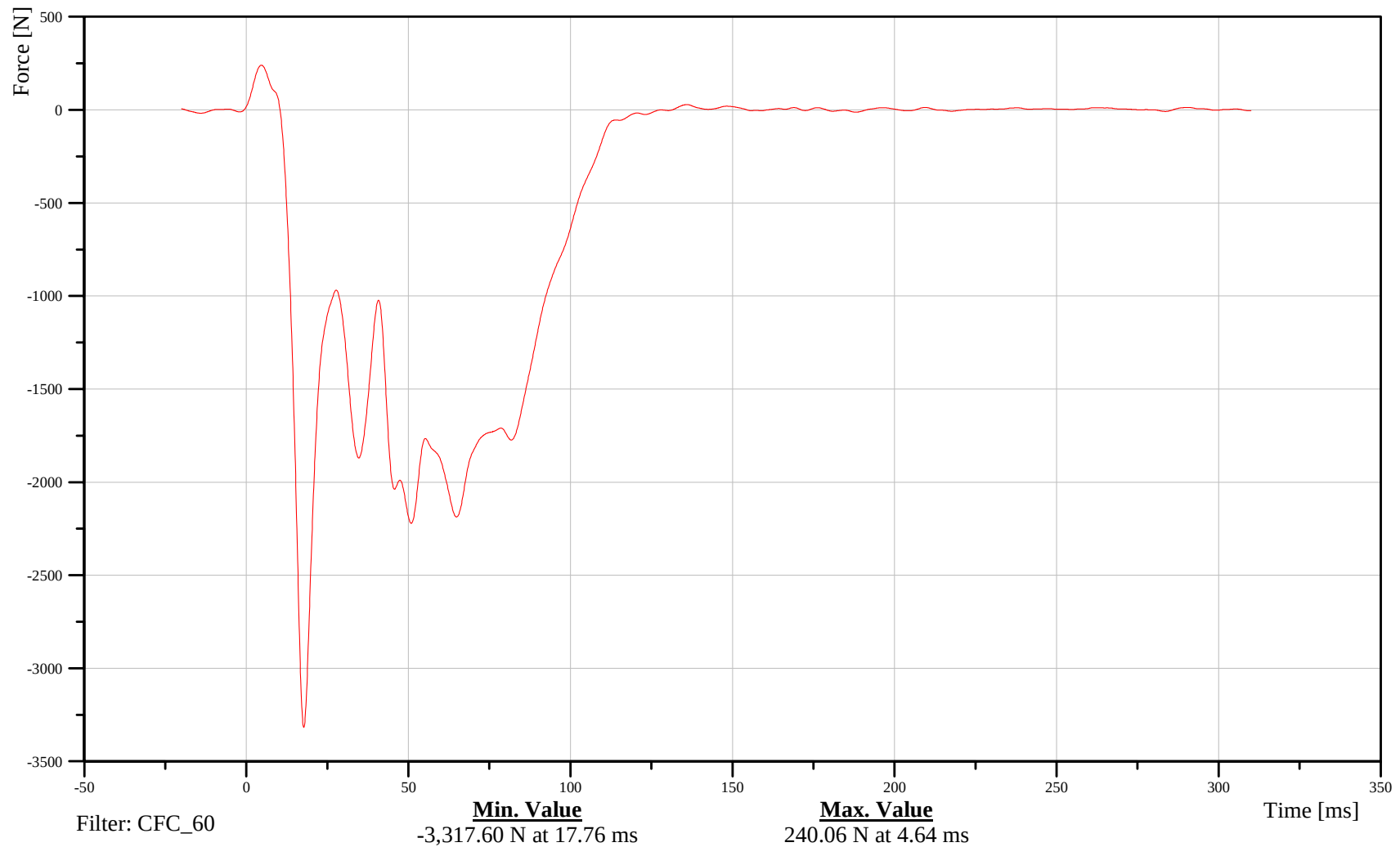
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Time: 17:50

Customer: VRTC

L0FBAR000C07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 8

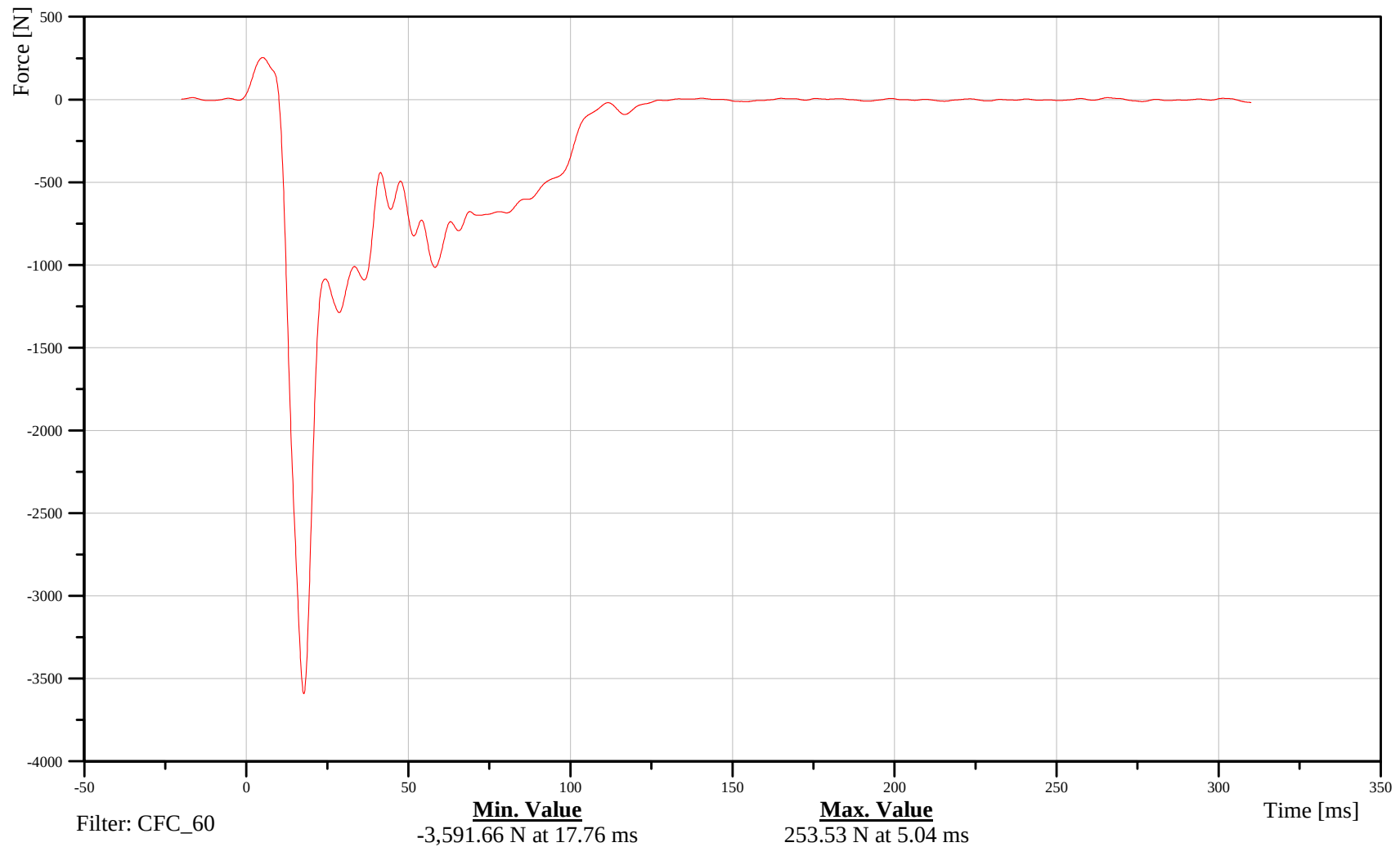
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 9

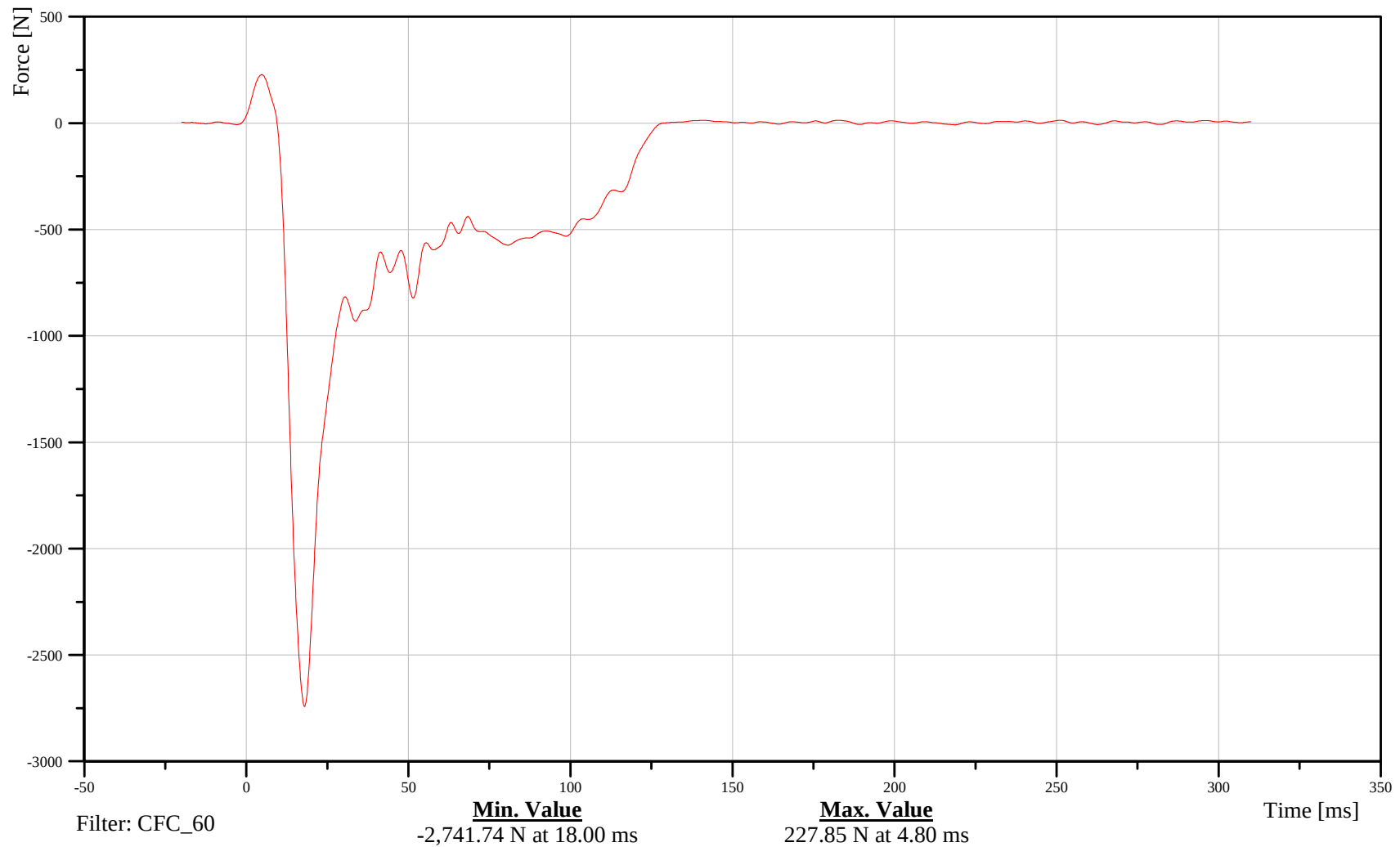
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 10

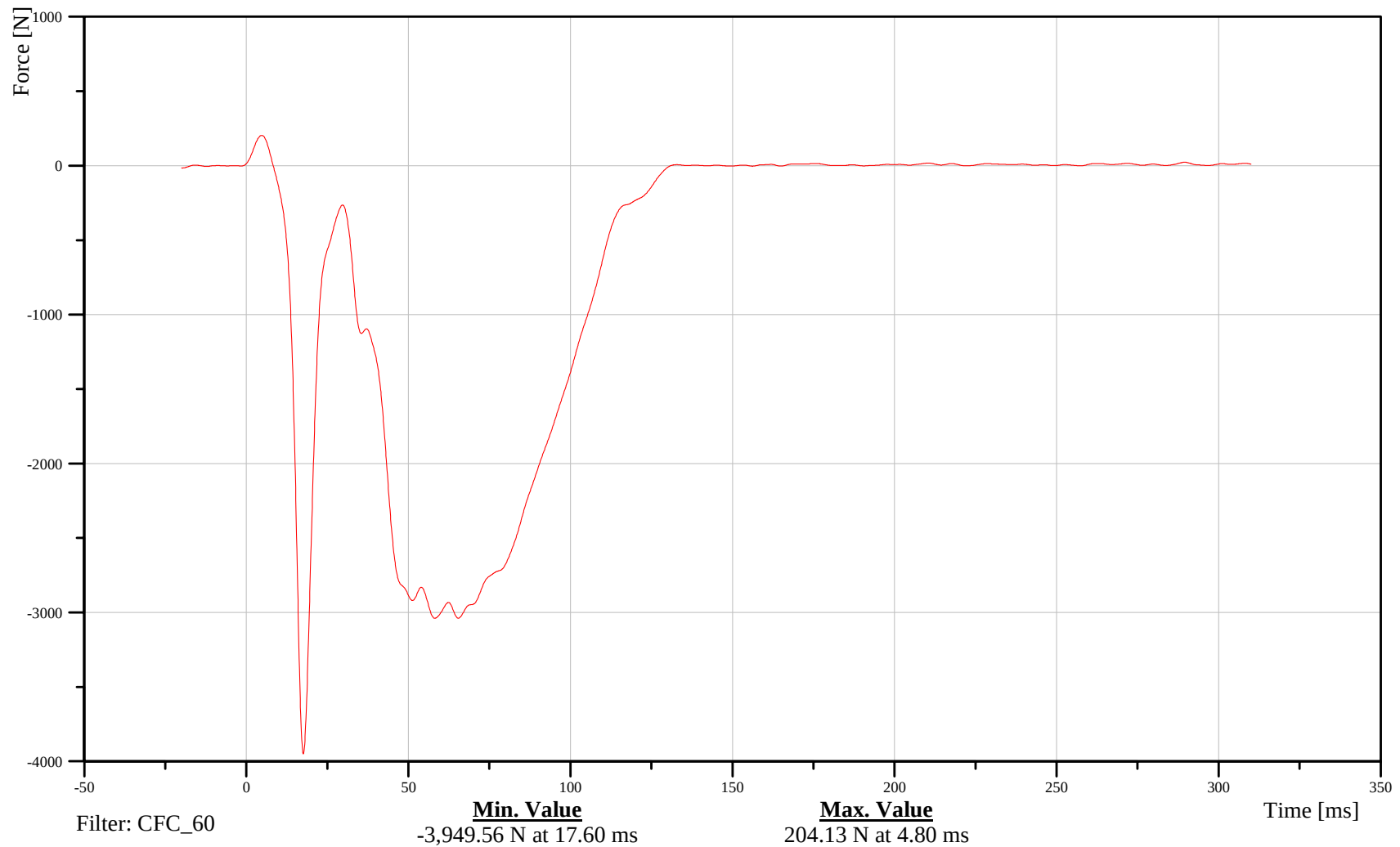
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 11

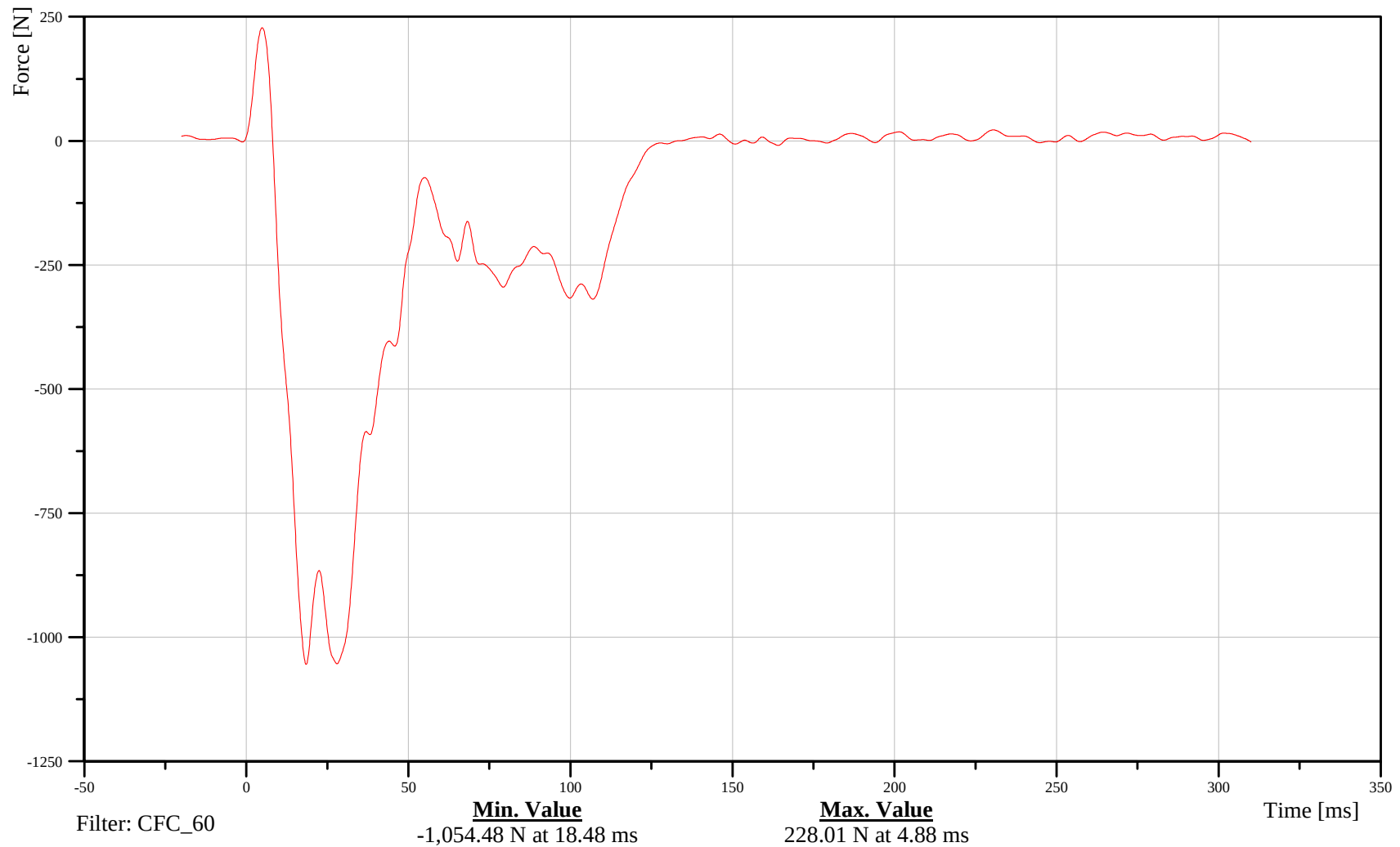
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C11FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 12

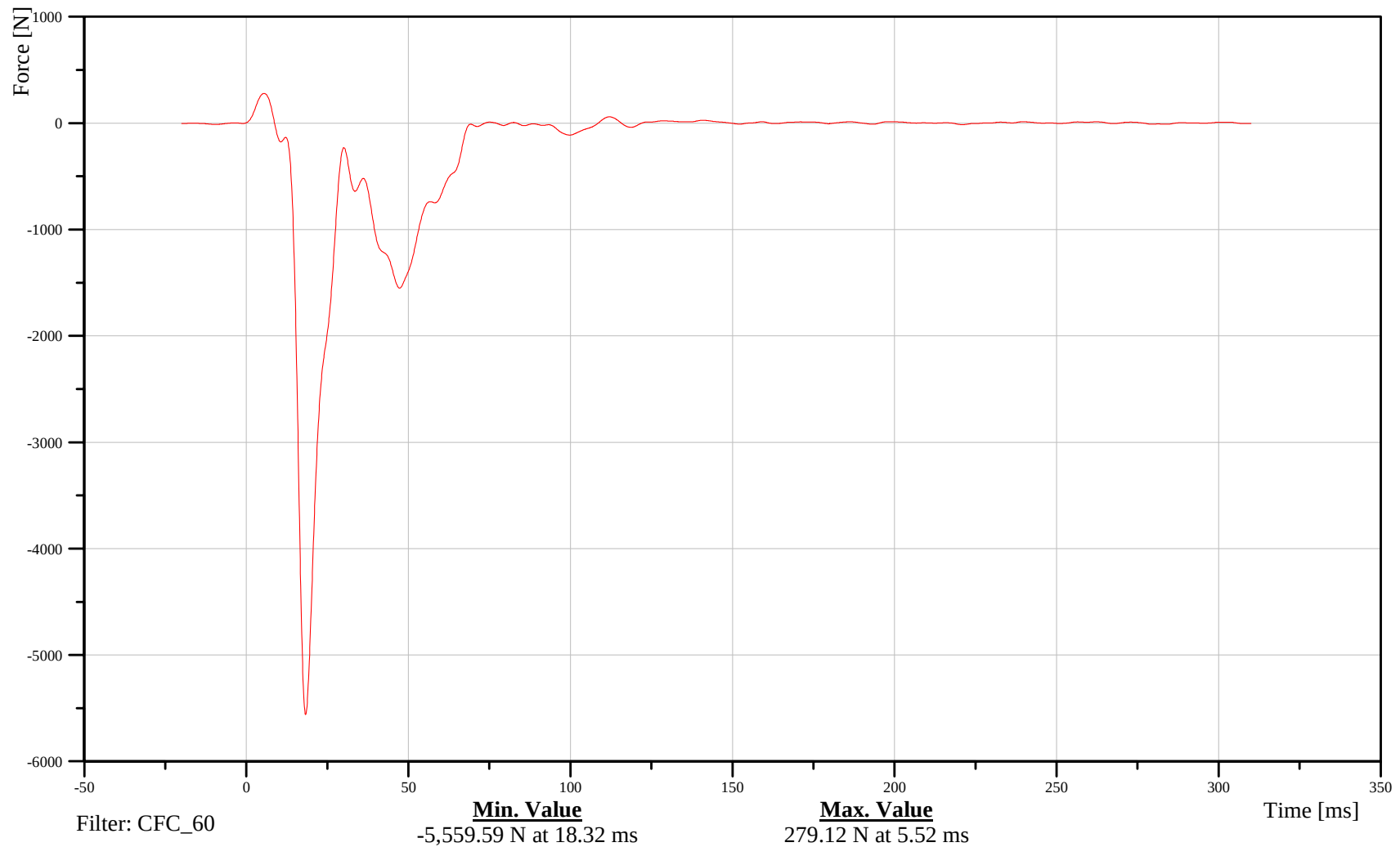
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C12FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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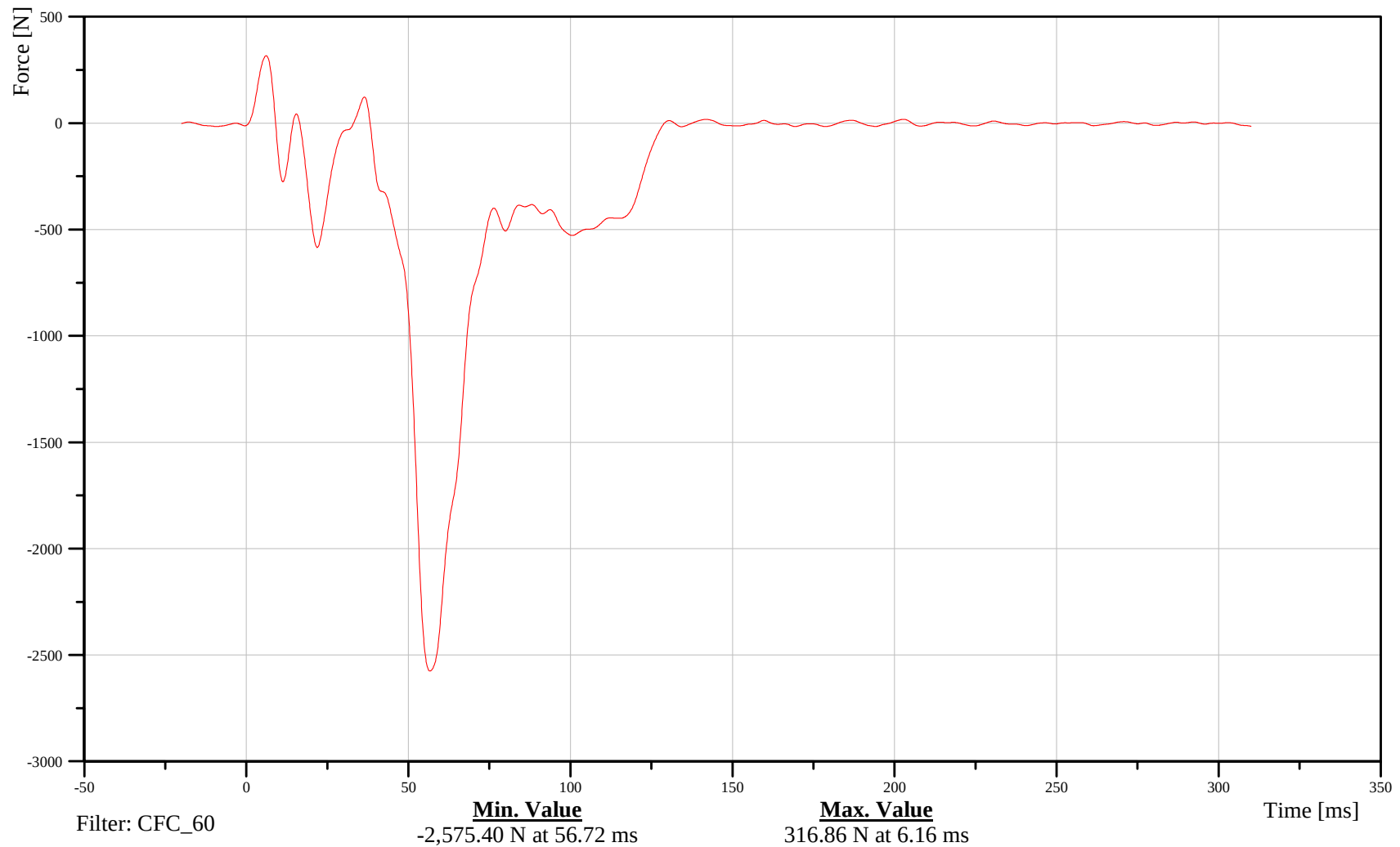
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C13FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 14

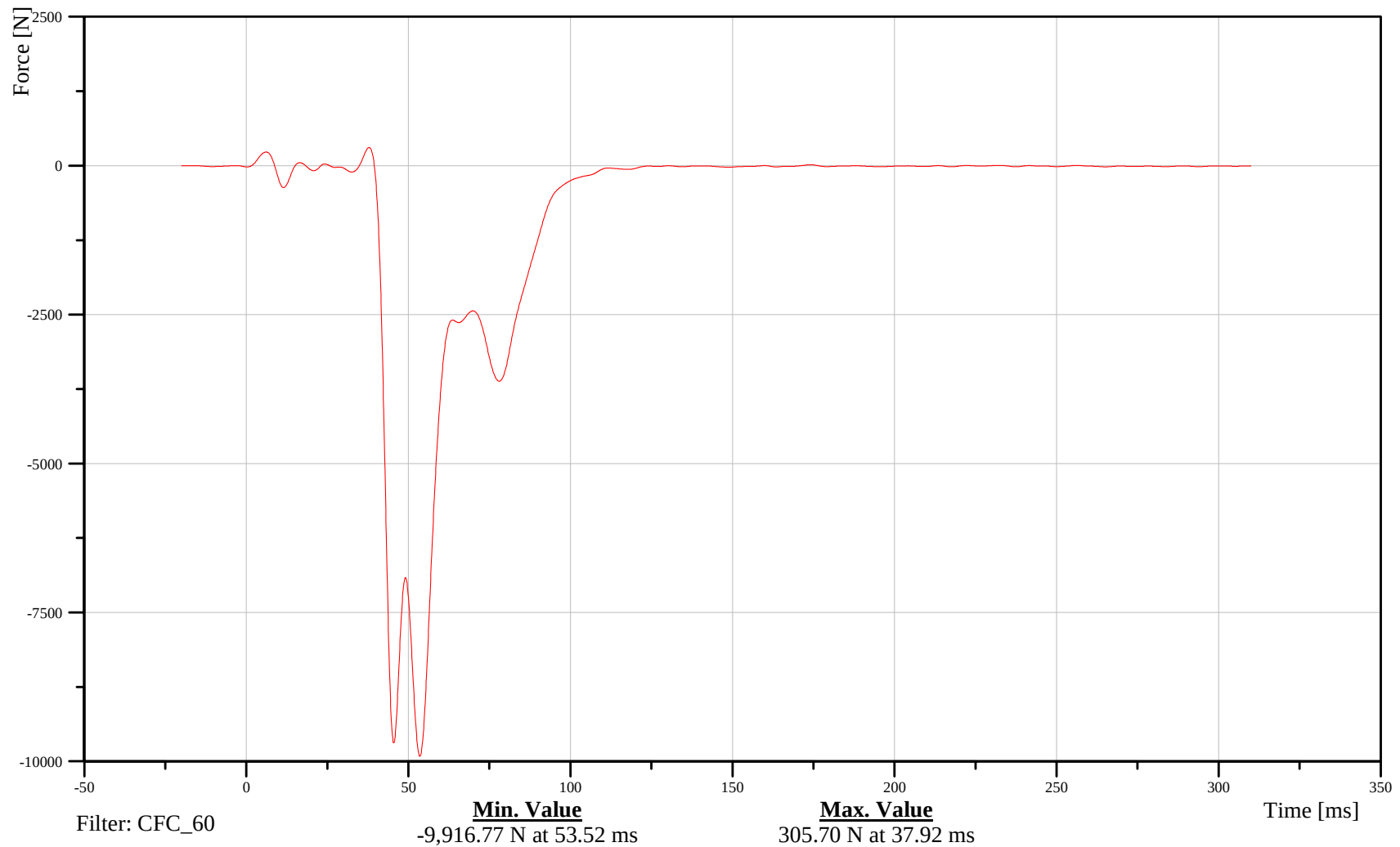
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C14FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 15

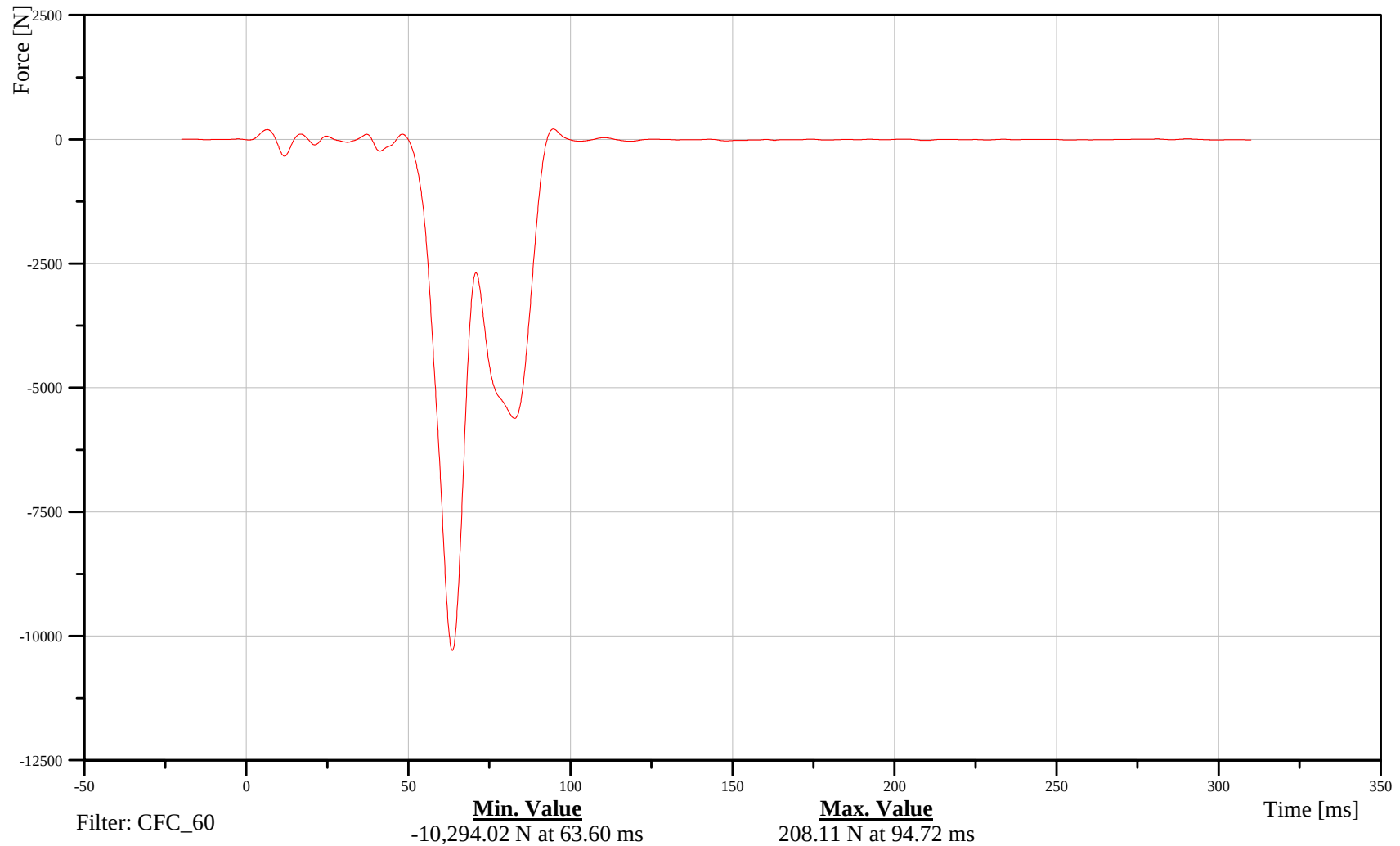
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C15FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 7 Column 16

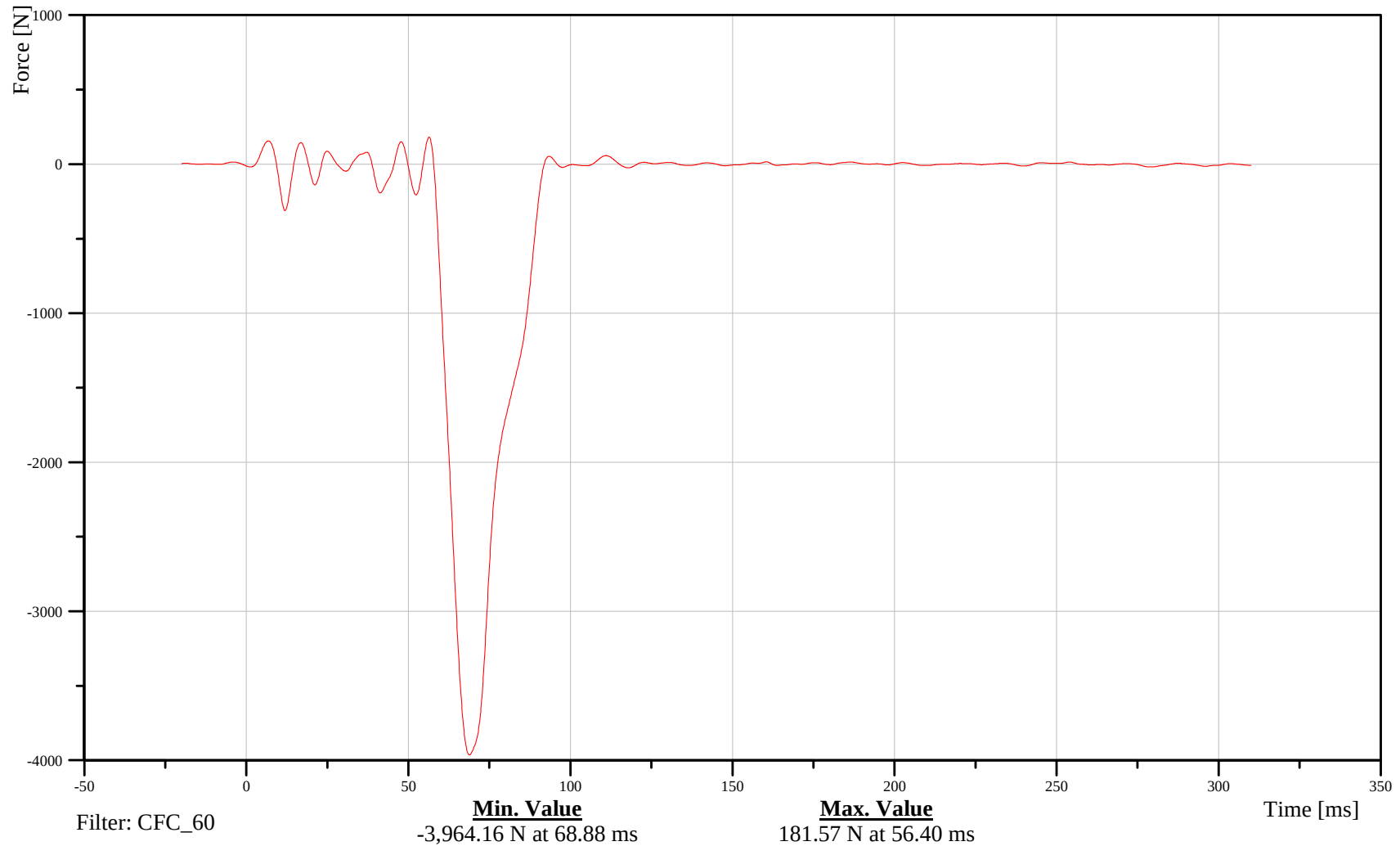
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000C16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 1

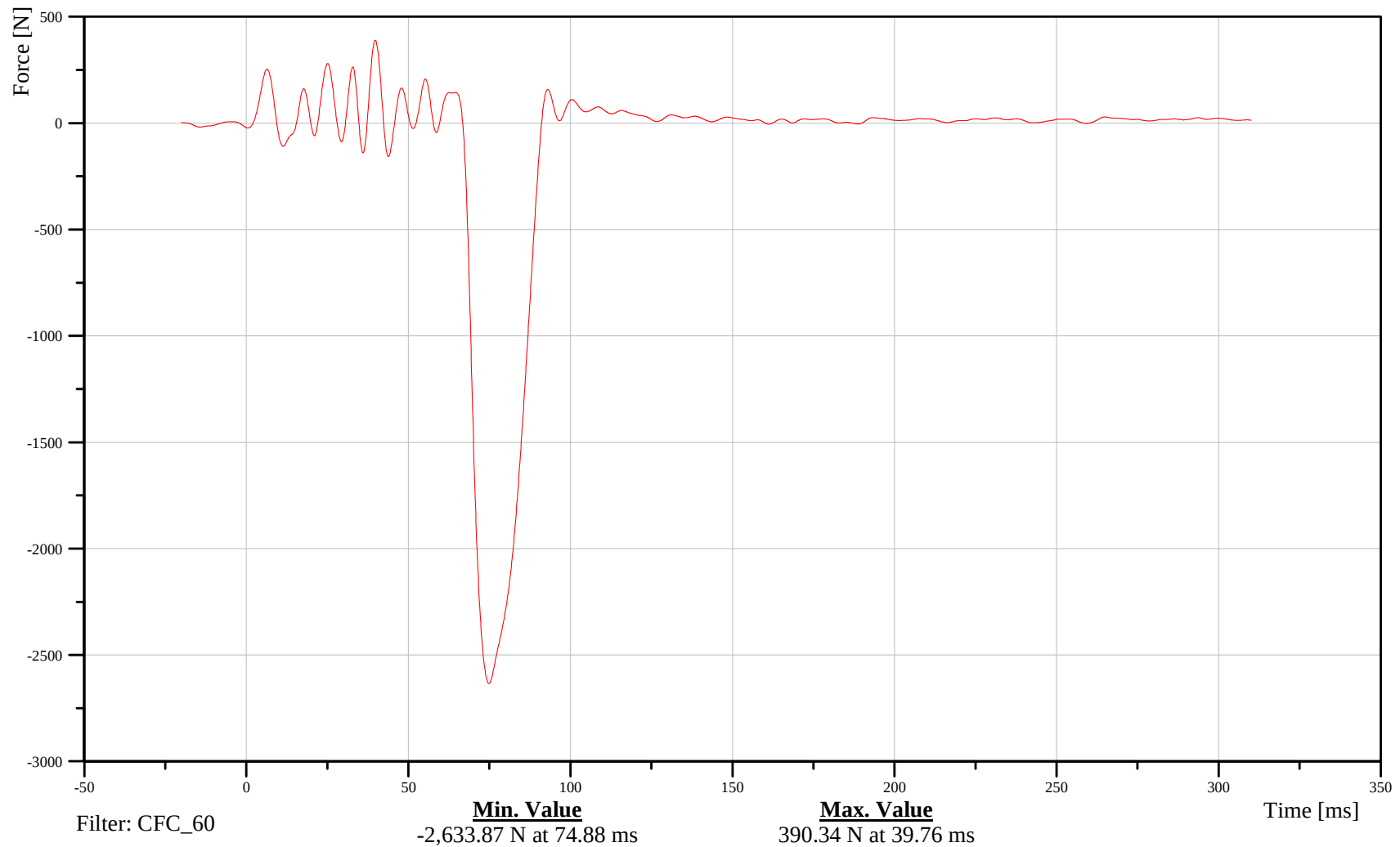
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D01FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 2

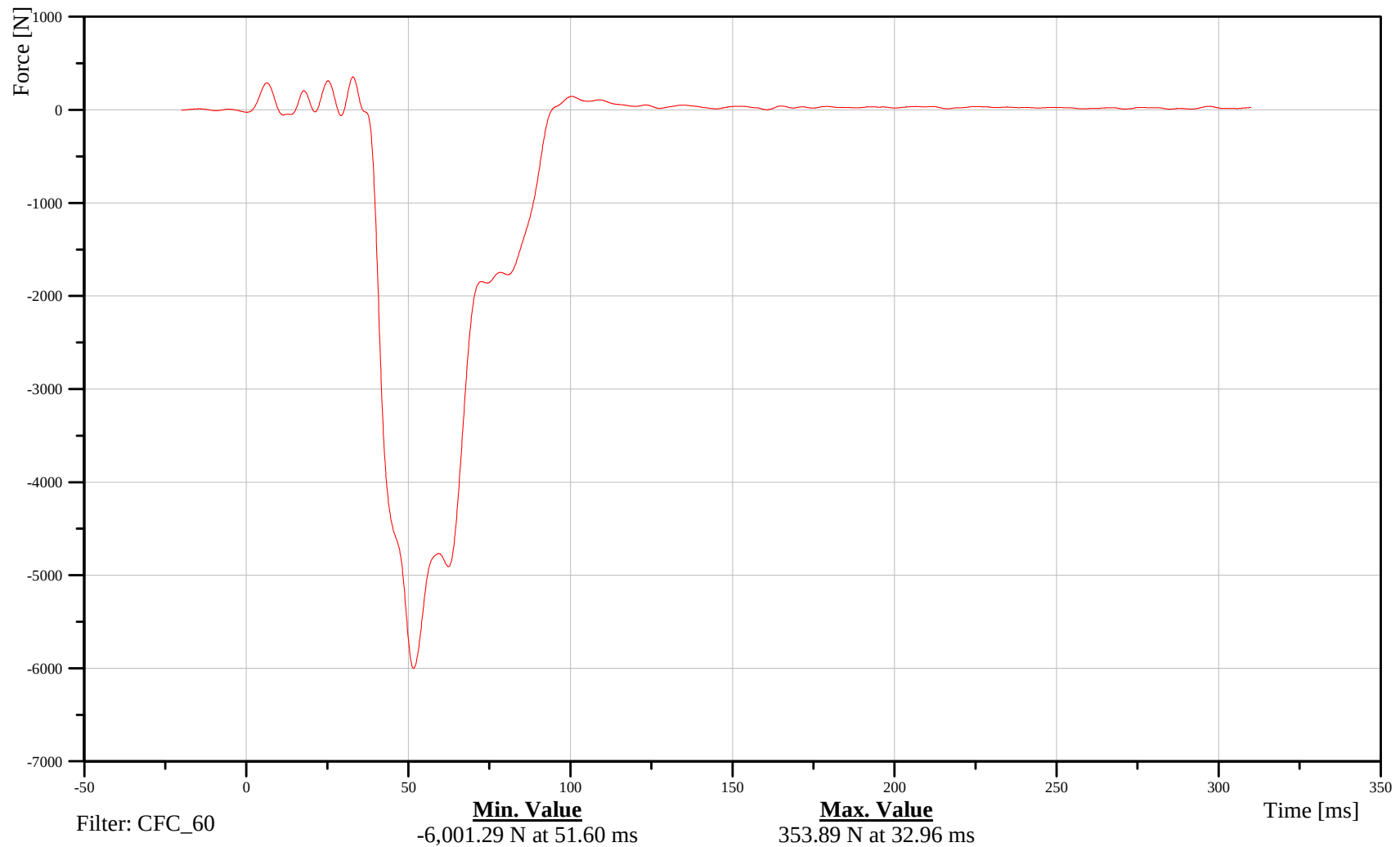
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D02FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 3

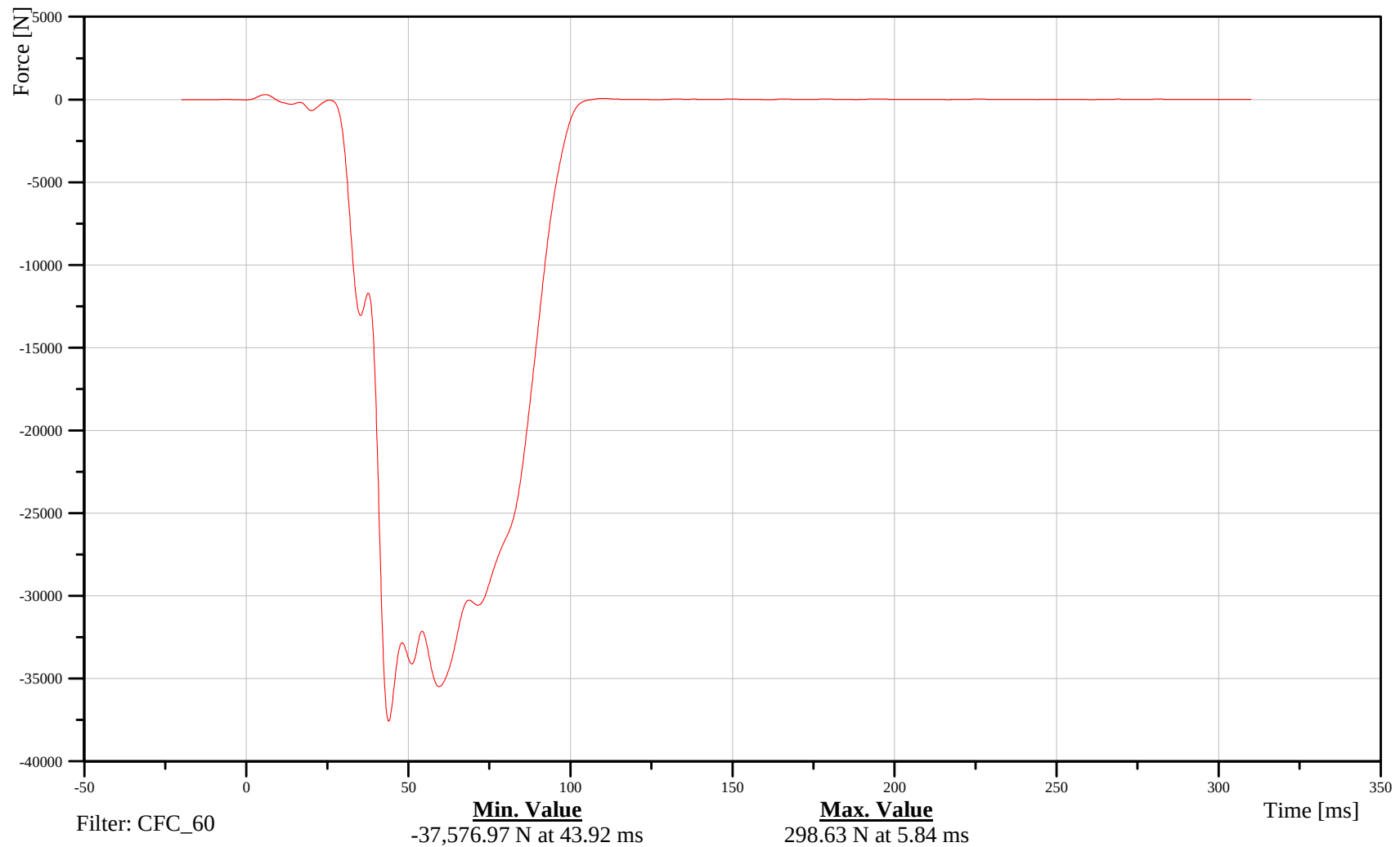
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 4

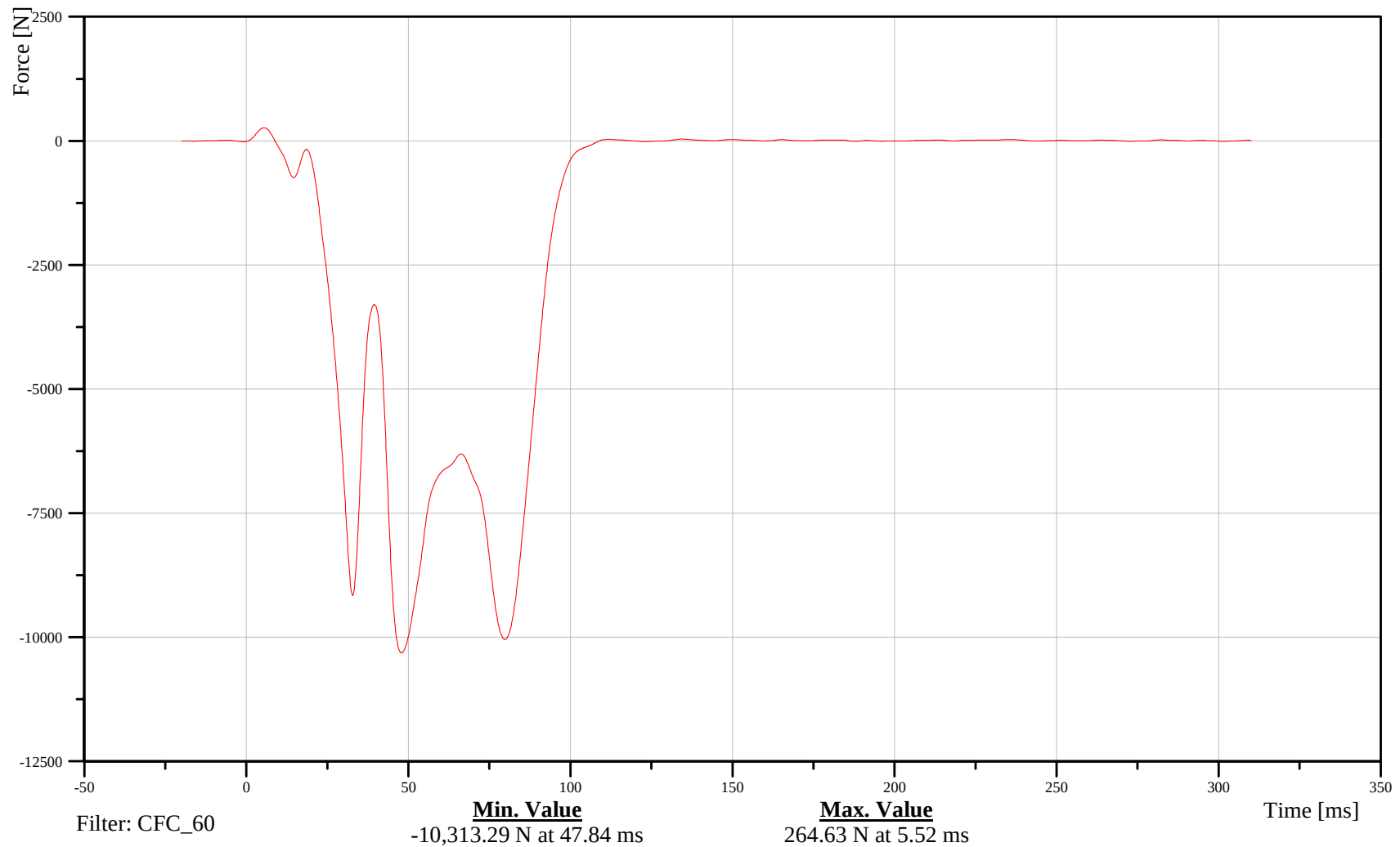
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 5

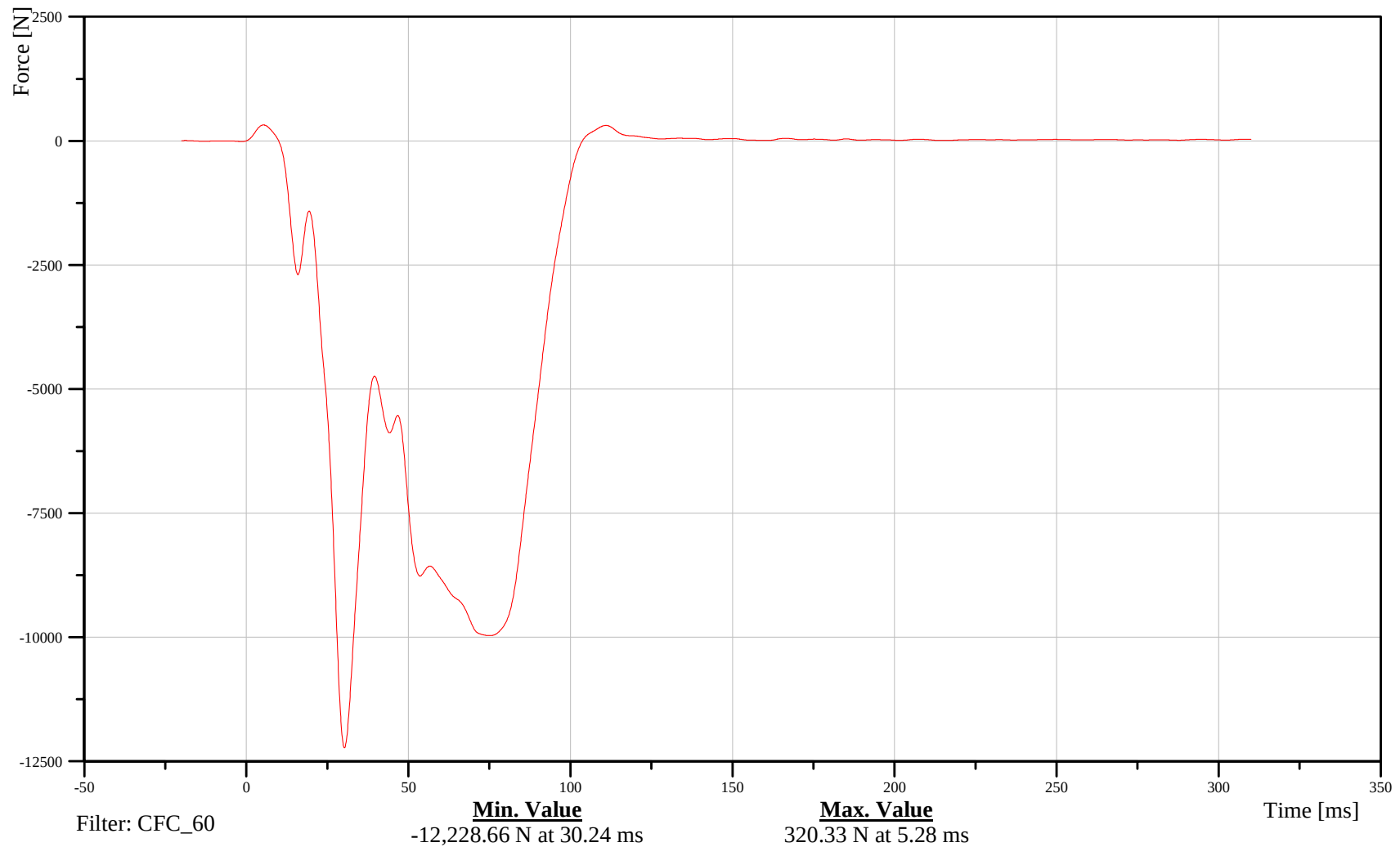
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Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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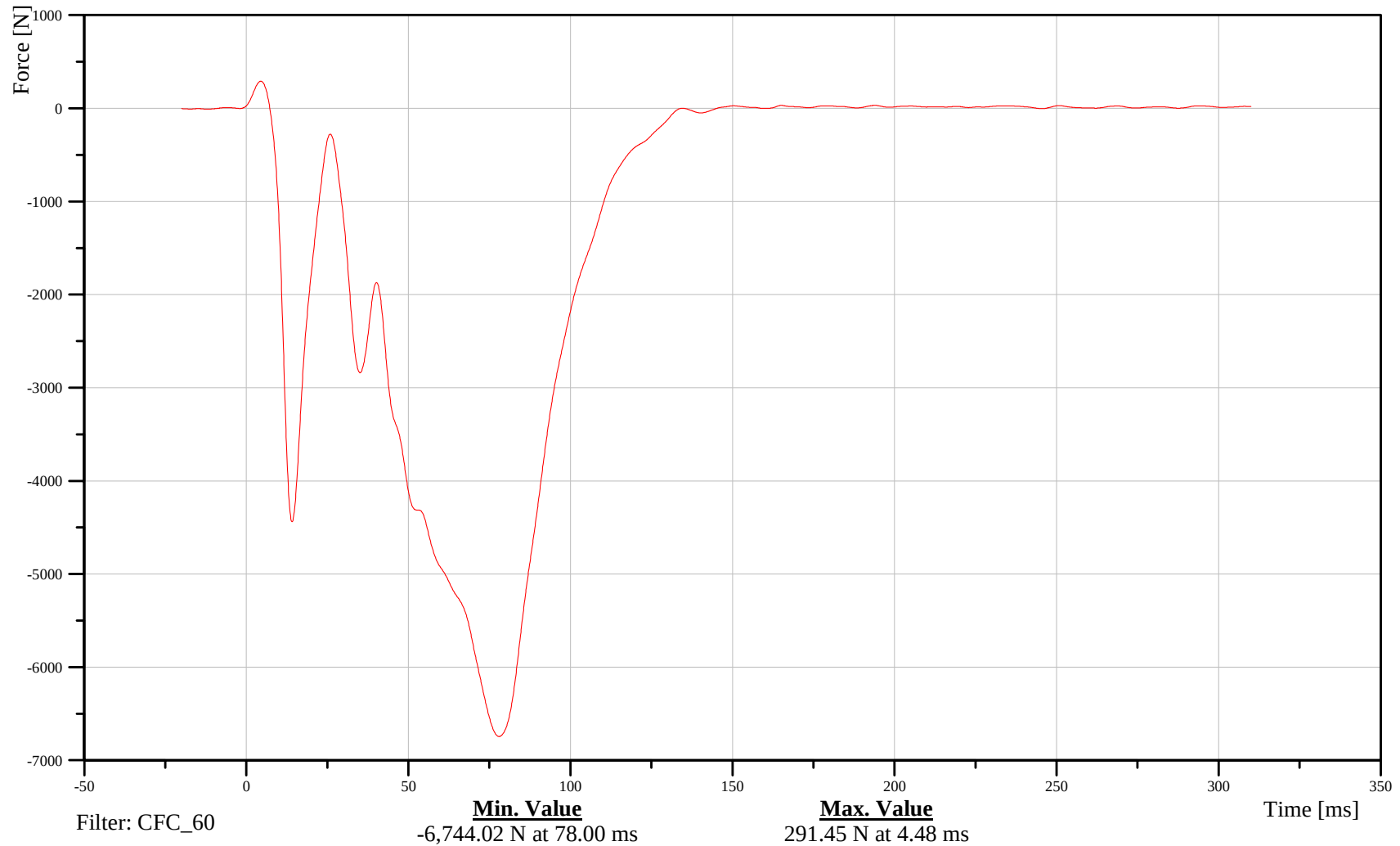
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D06FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 7

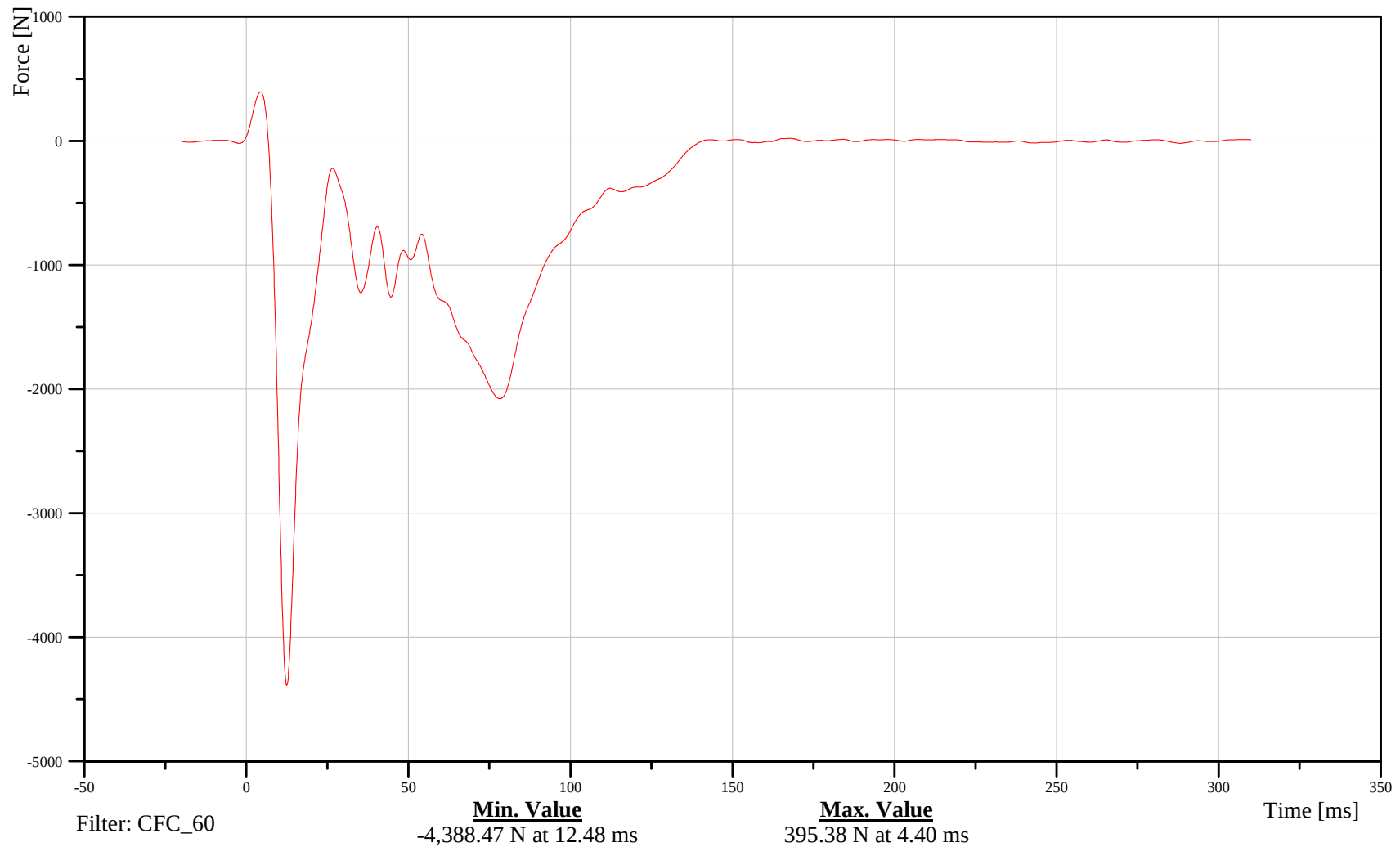
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 8

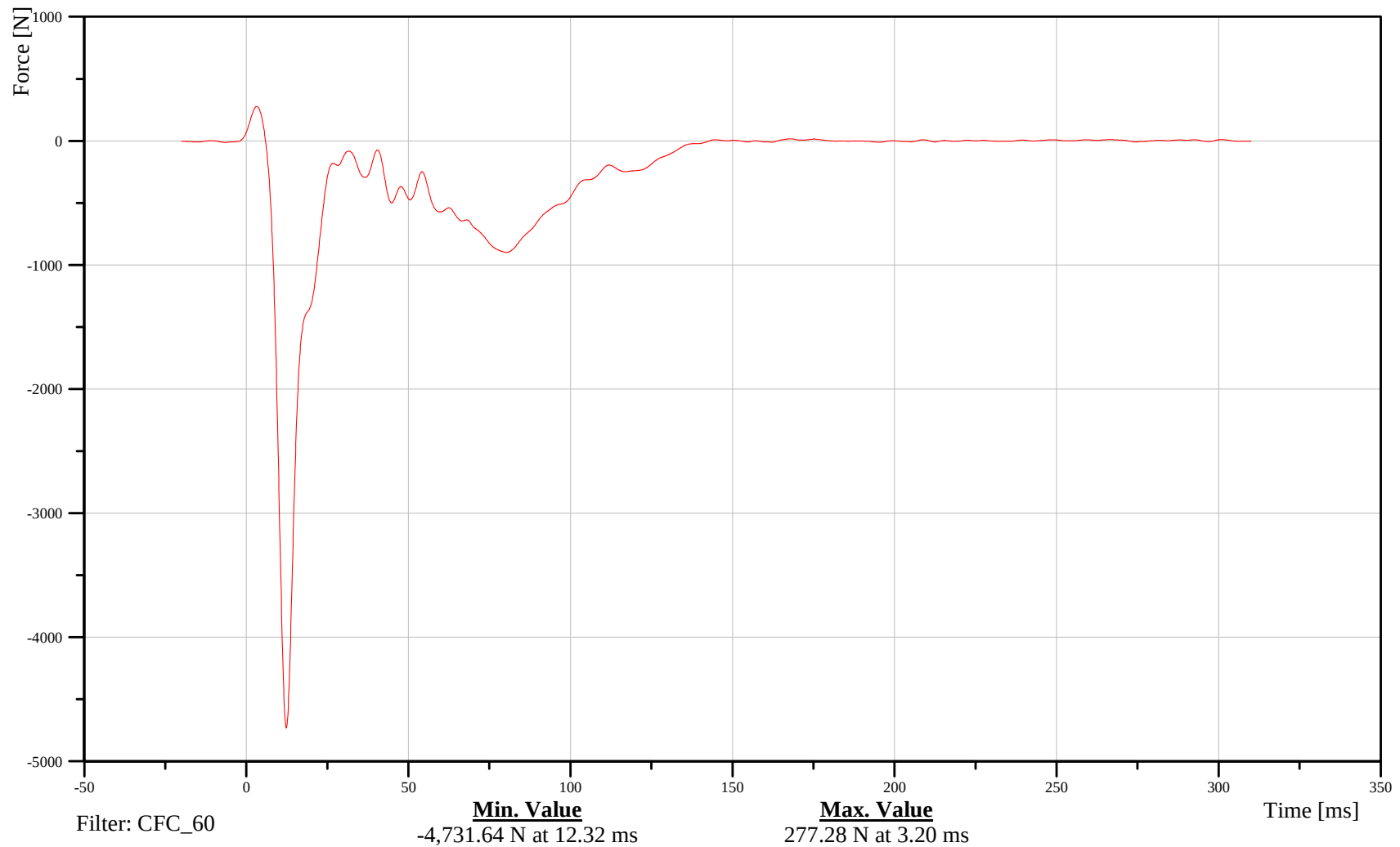
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 9

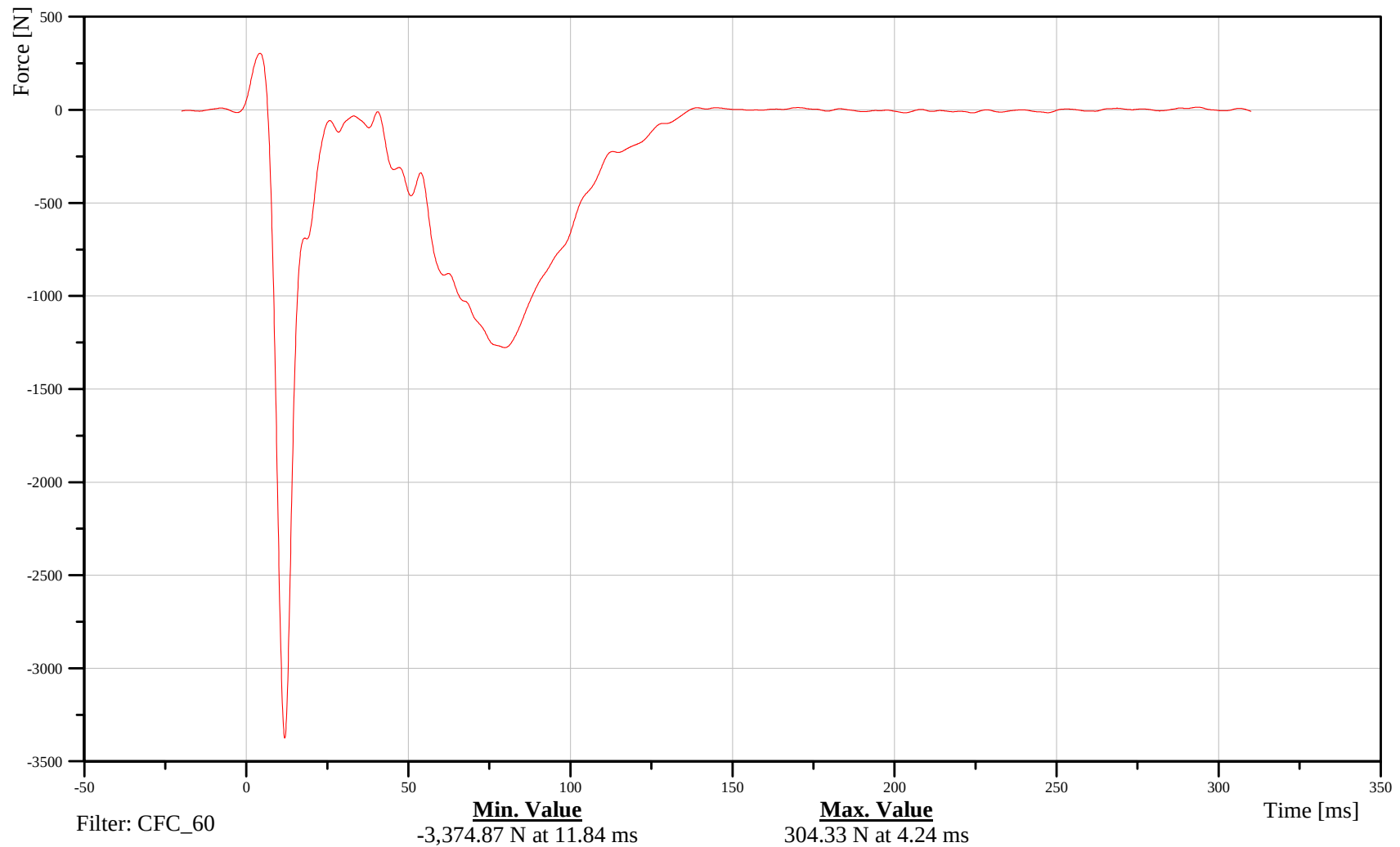
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 10

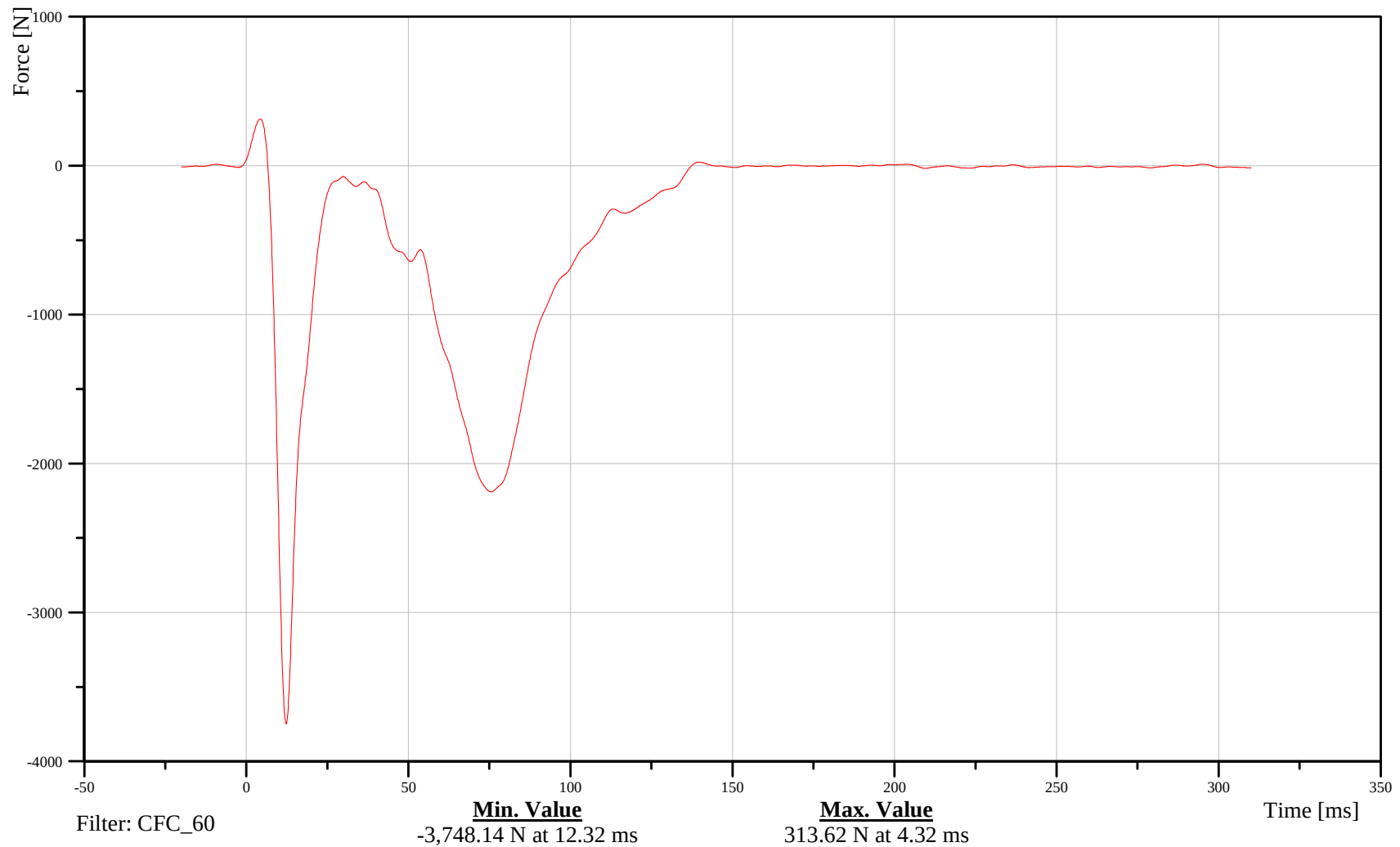
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 11

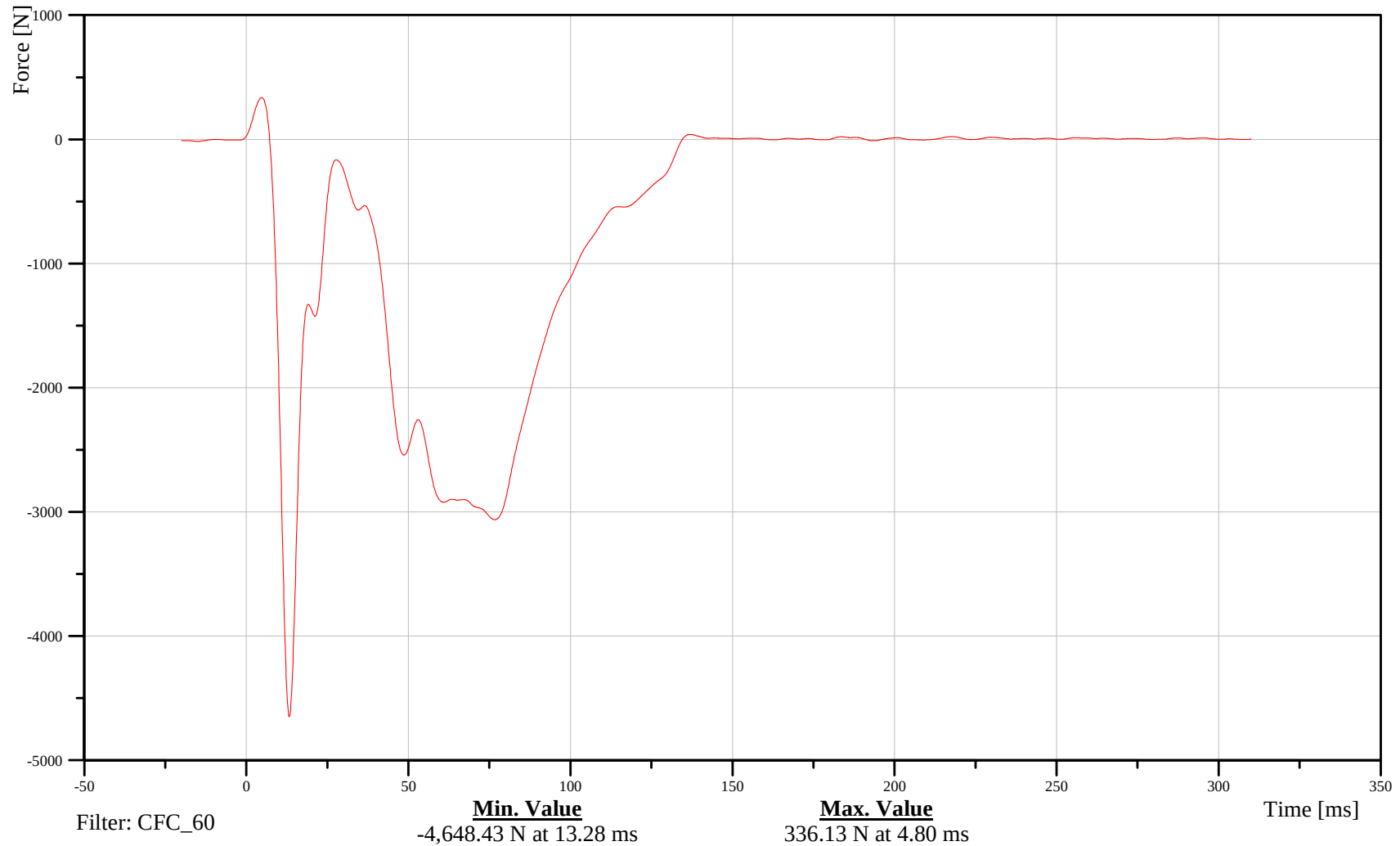
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 12

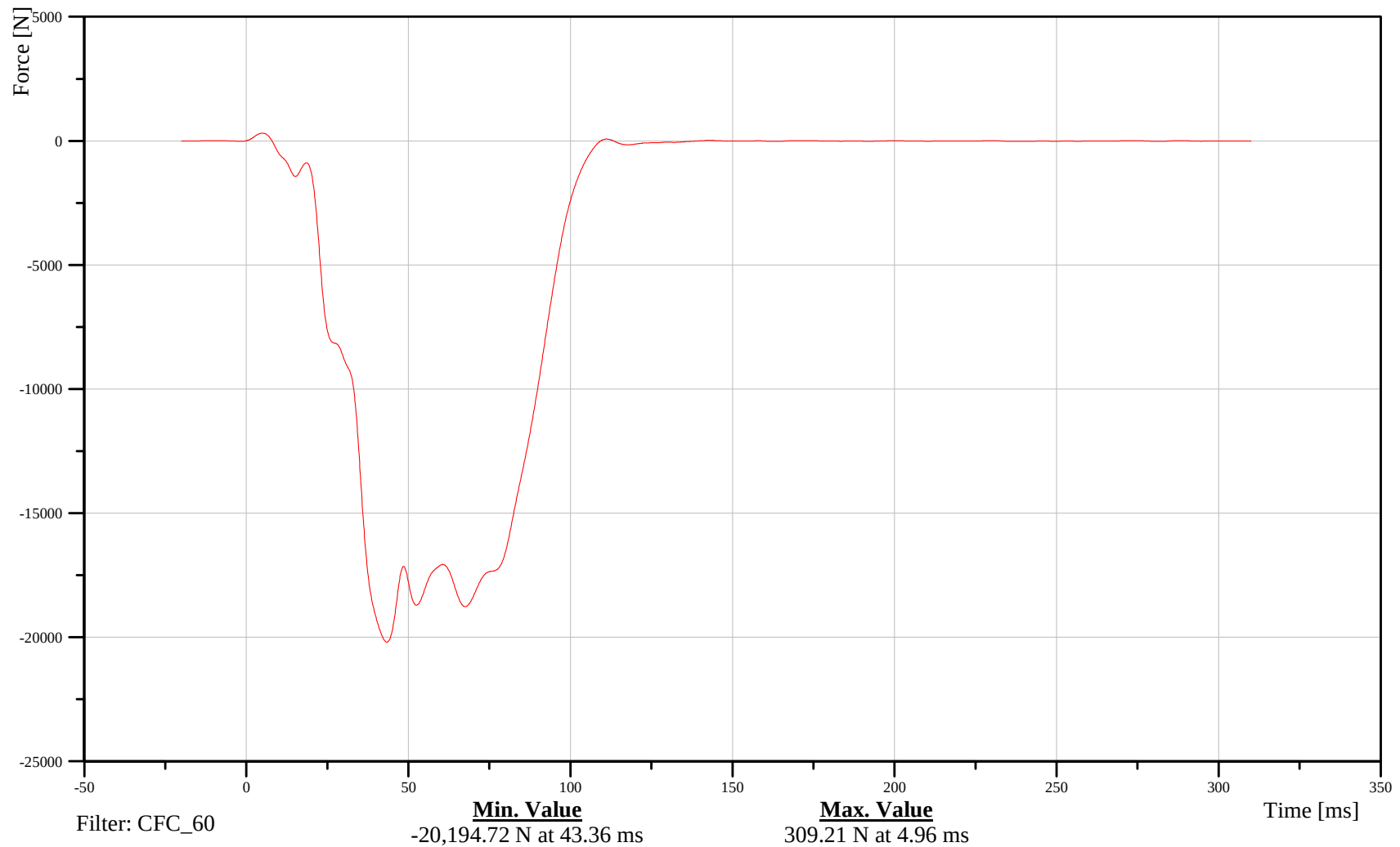
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D12FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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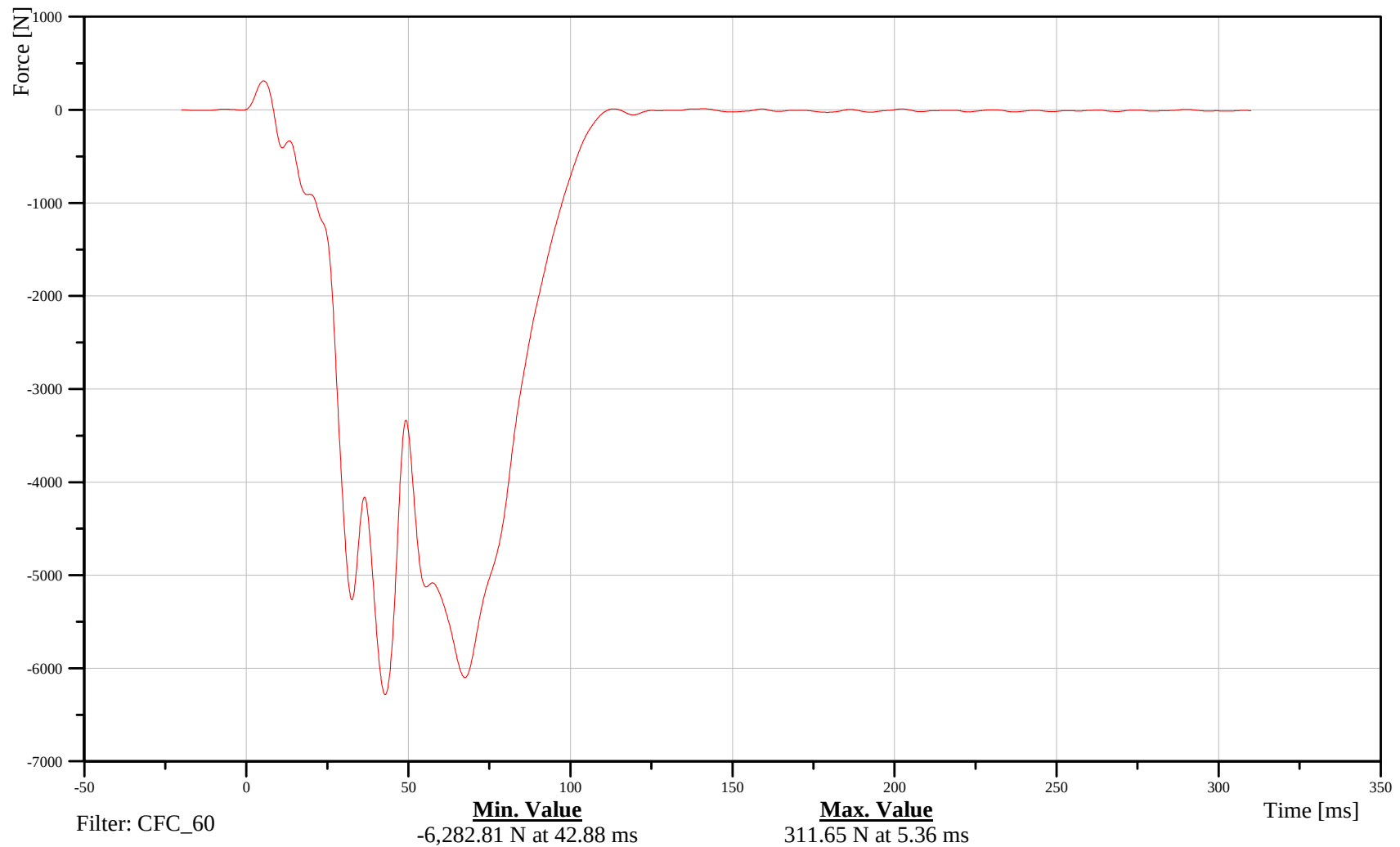
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





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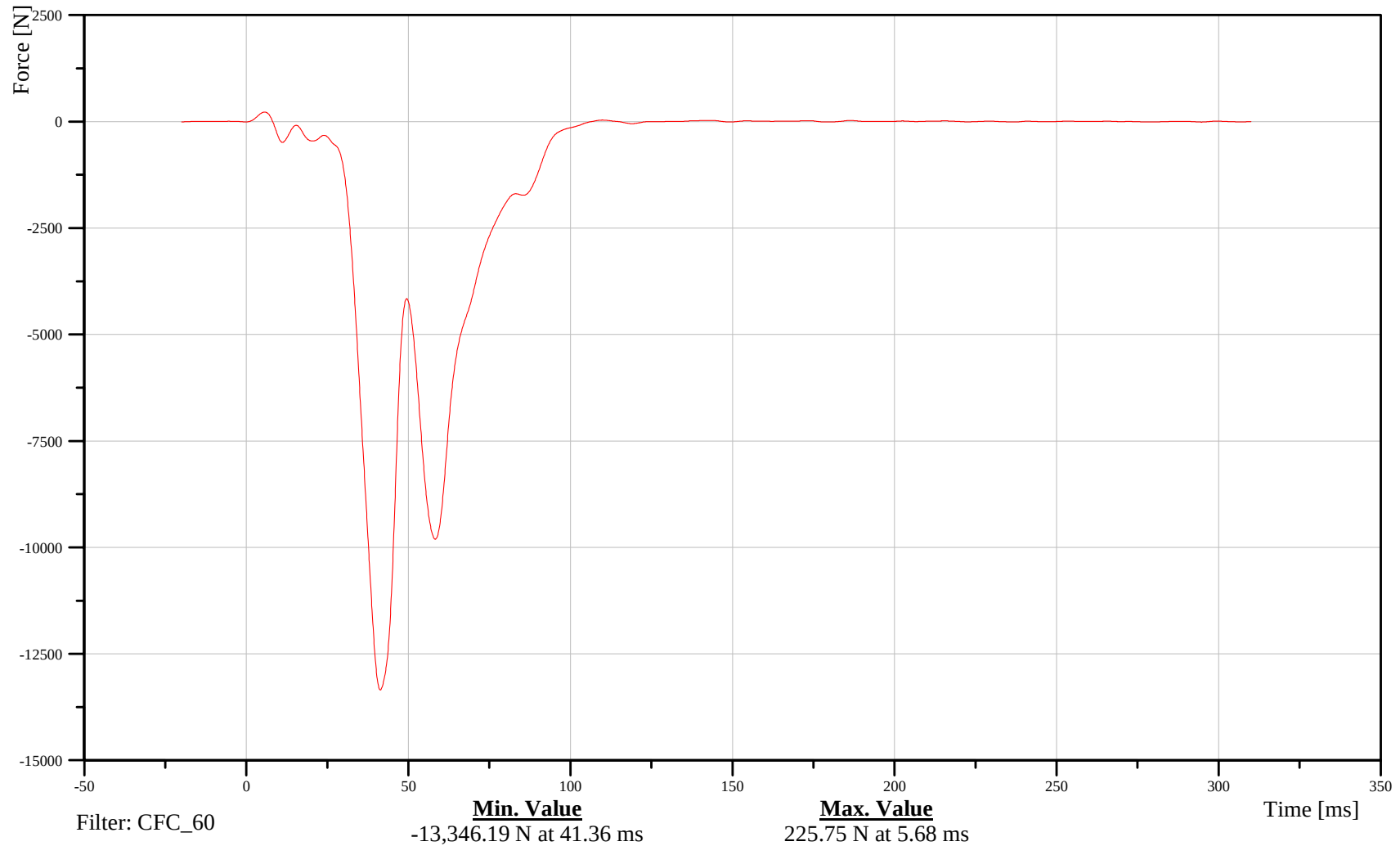
Date: 05/19/2006
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Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 15

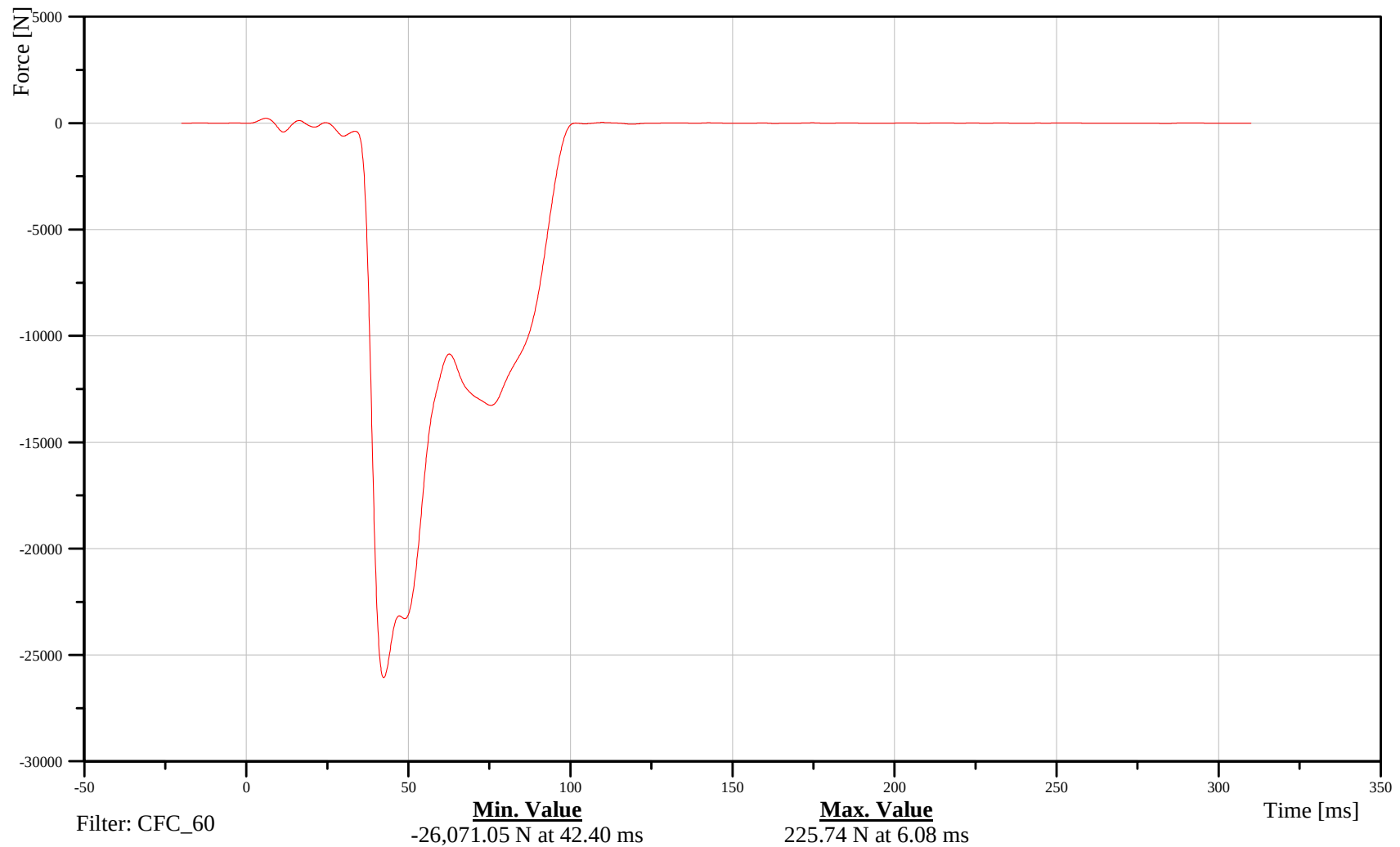
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D15FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 6 Column 16

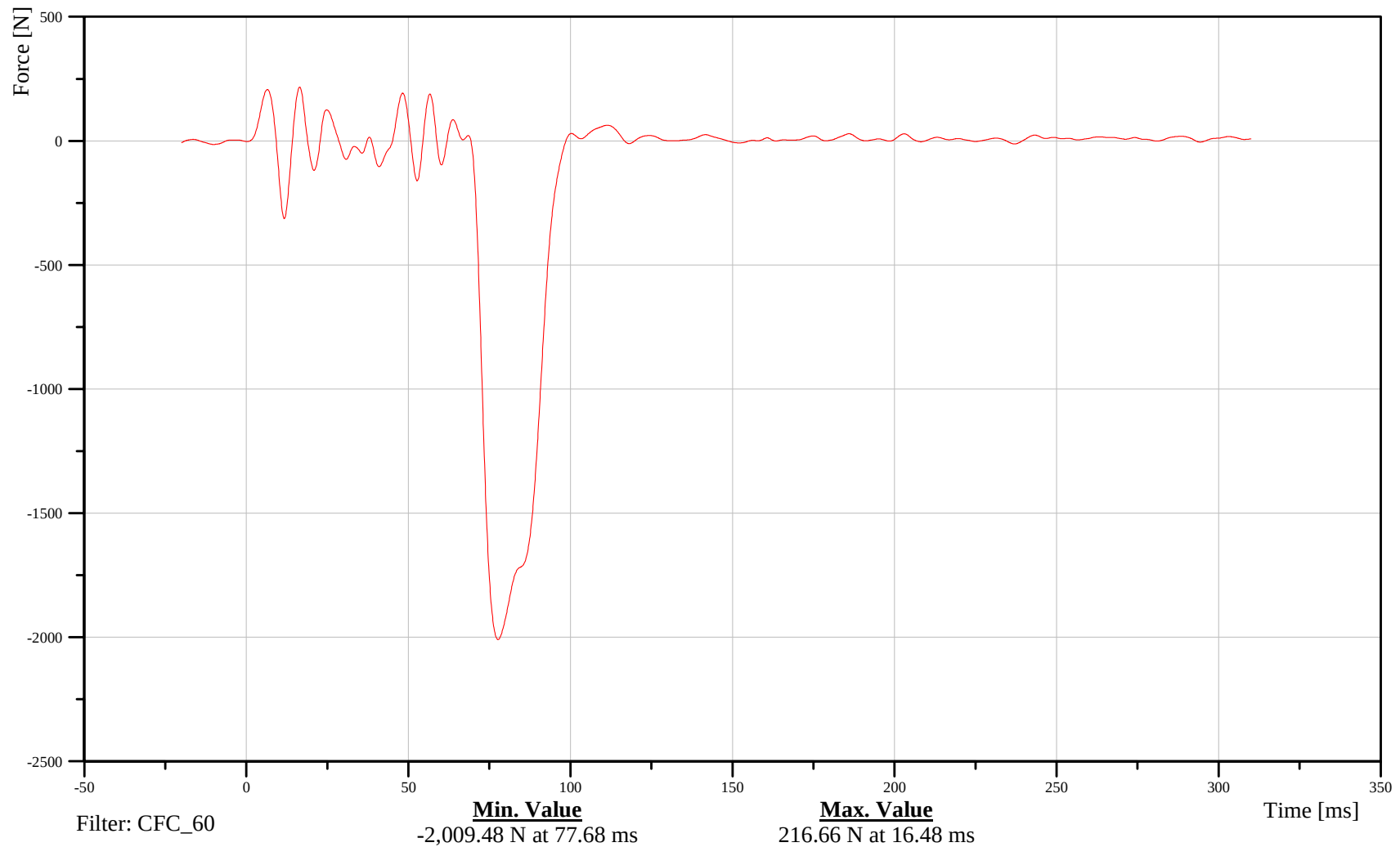
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000D16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 1

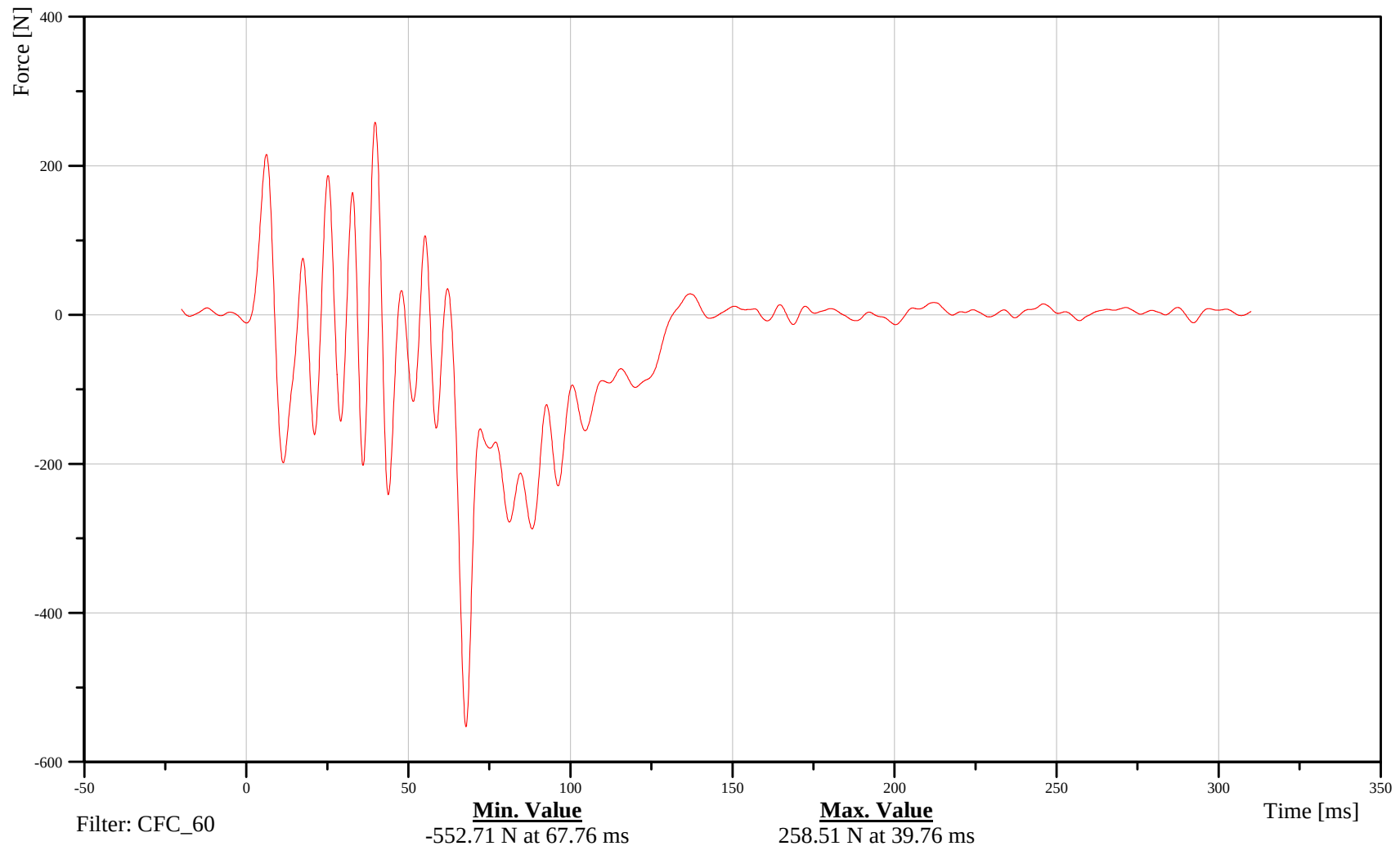
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E01FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 2

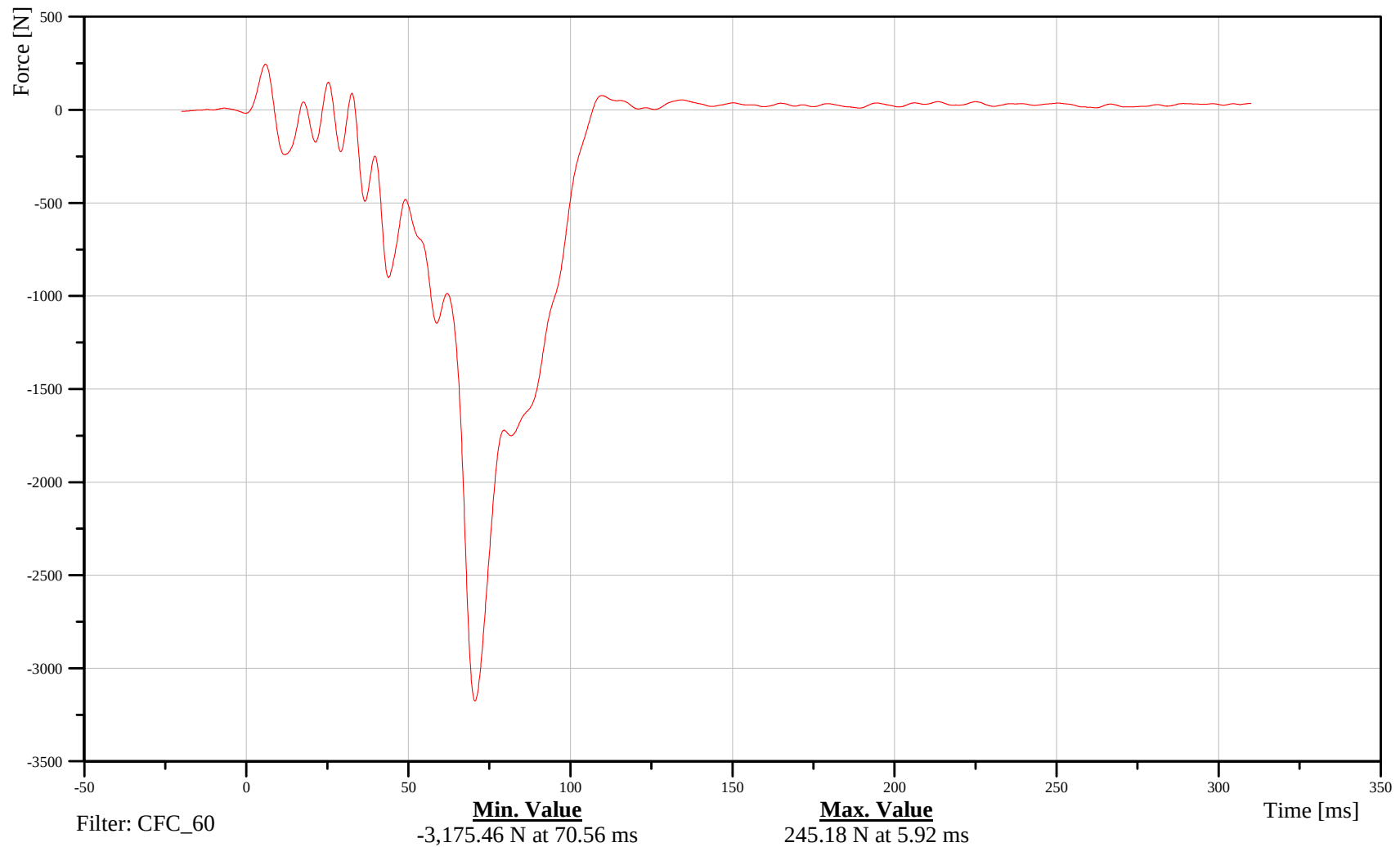
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E02FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 3

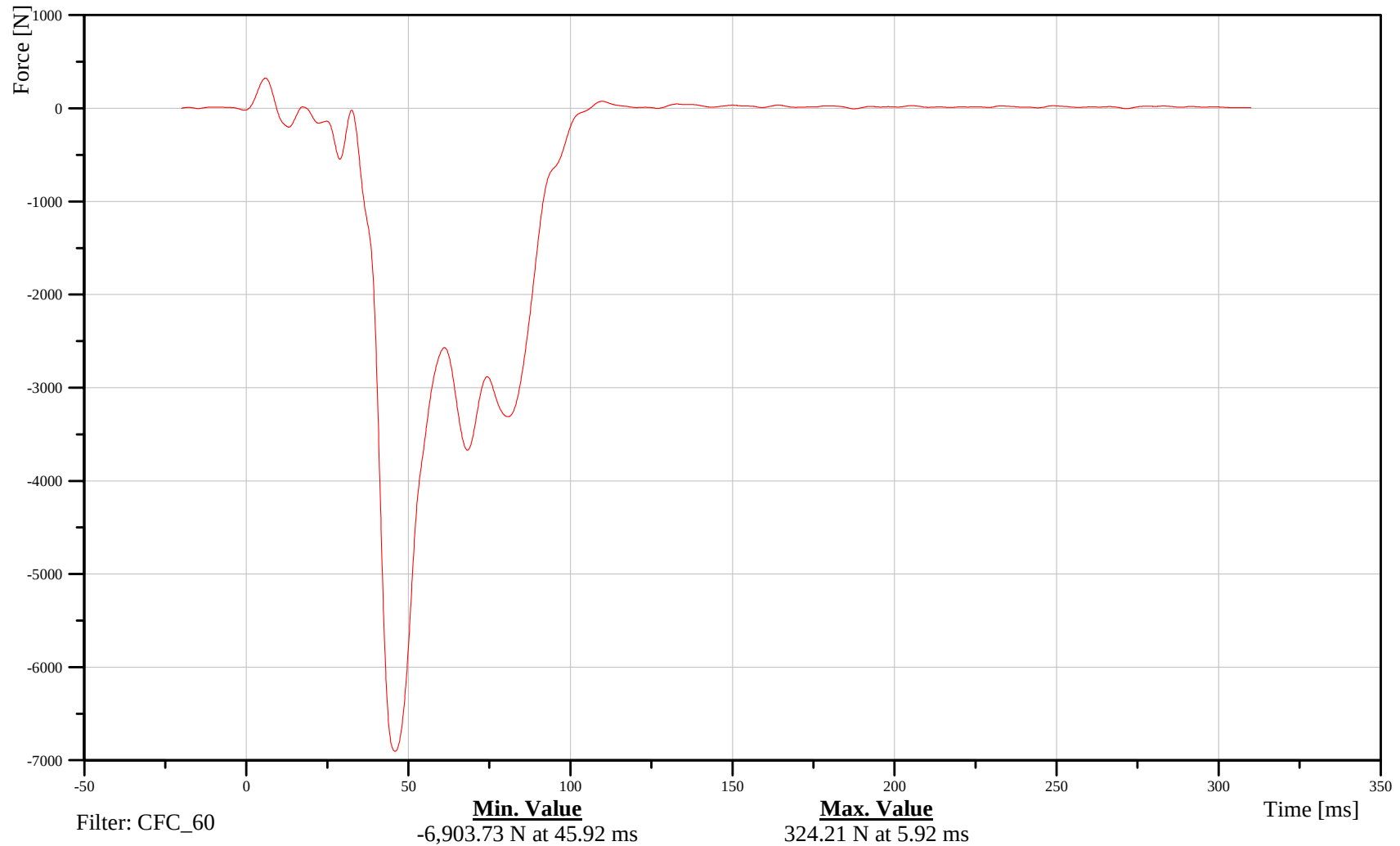
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 4

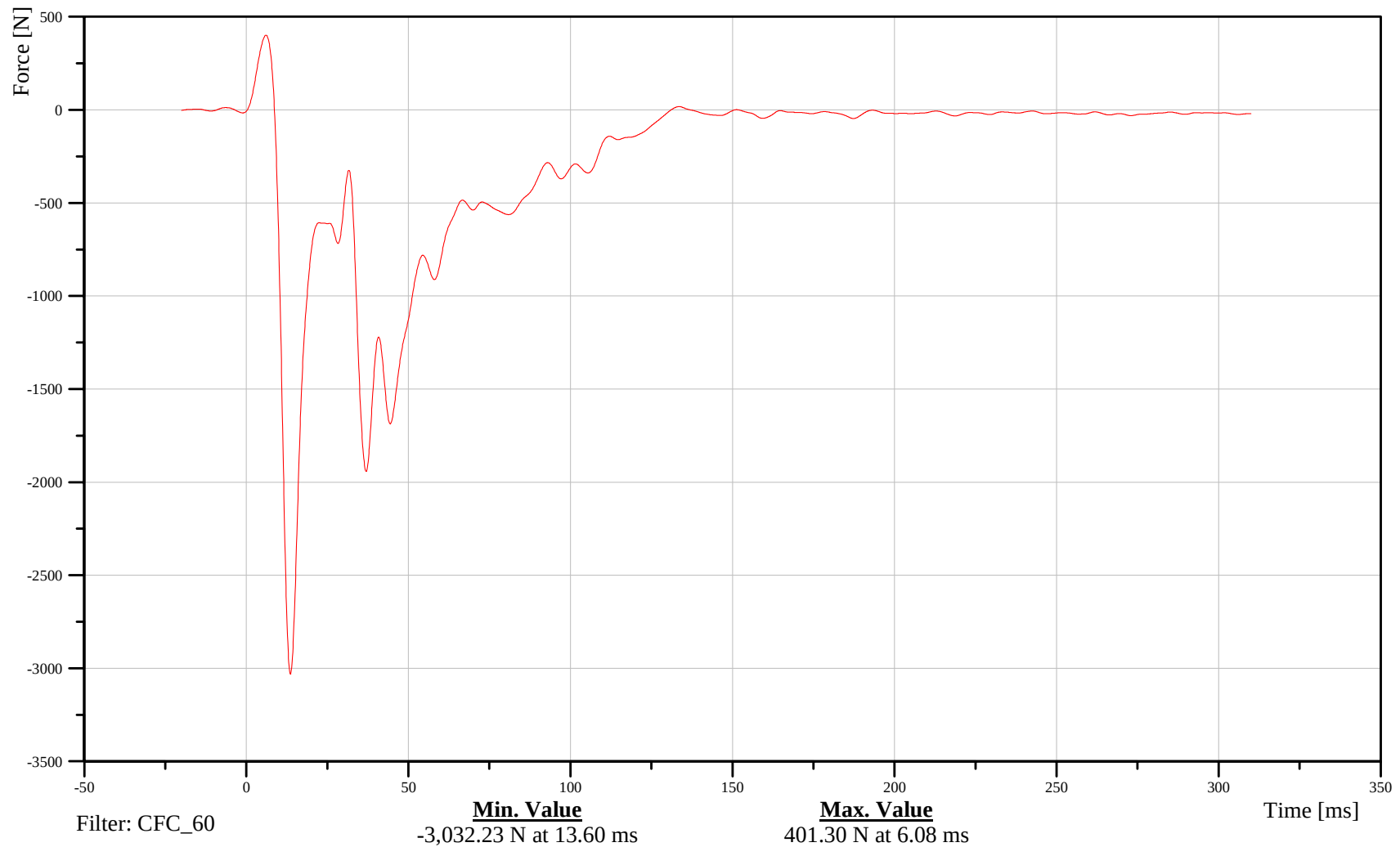
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Time: 17:50

Customer: VRTC

L0FBAR000E04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 5

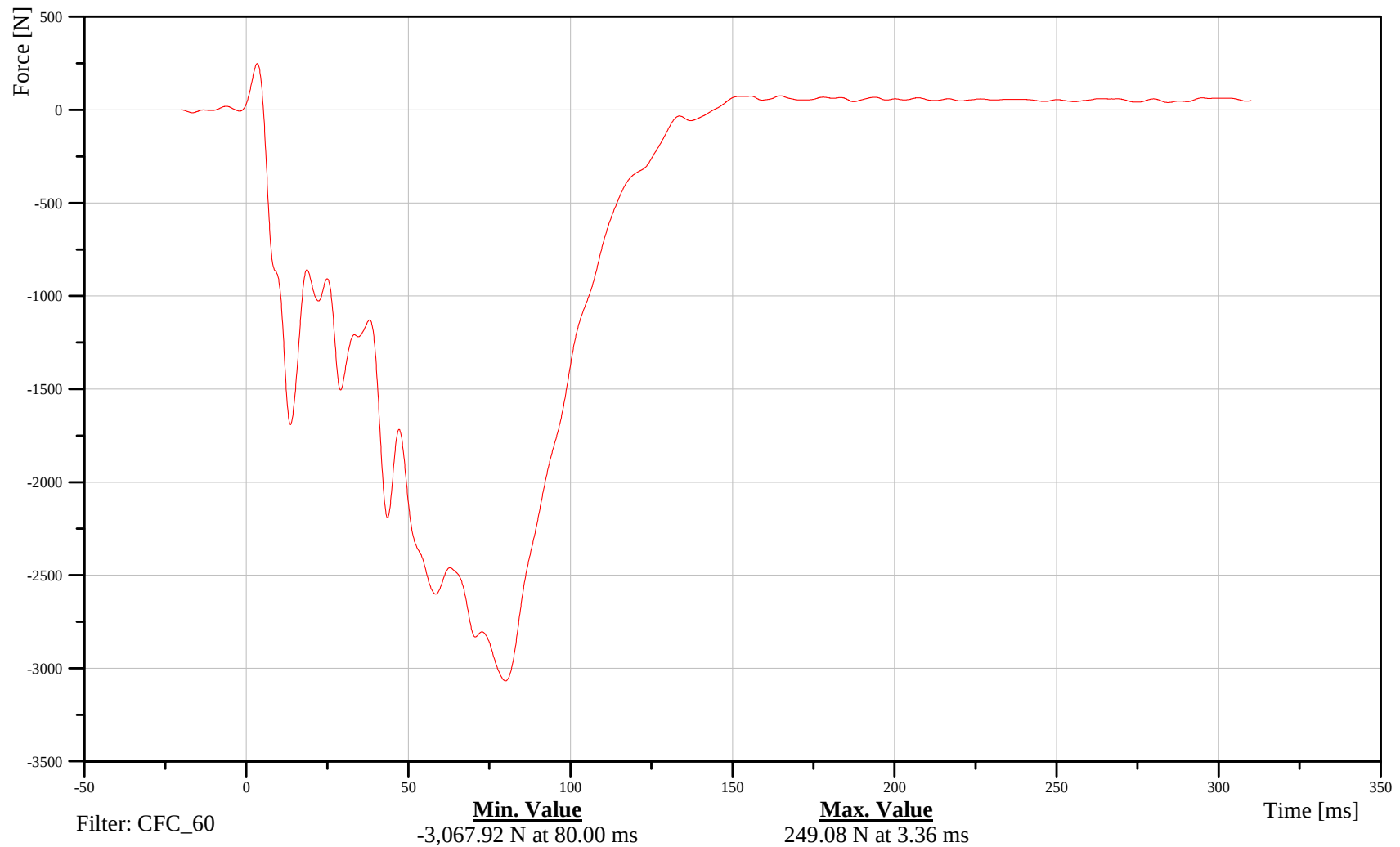
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 6

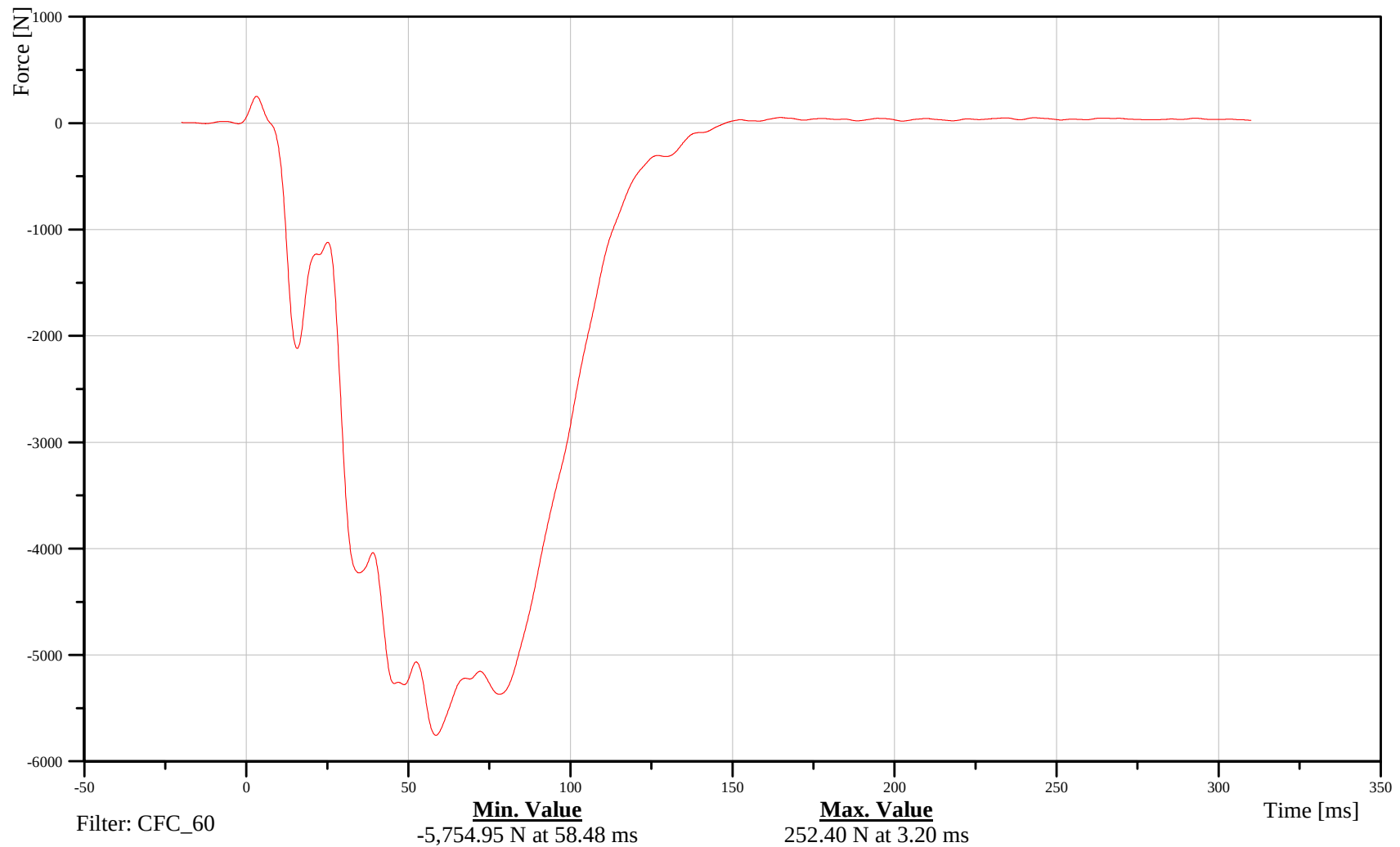
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Time: 17:50

Customer: VRTC

L0FBAR000E06FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 7

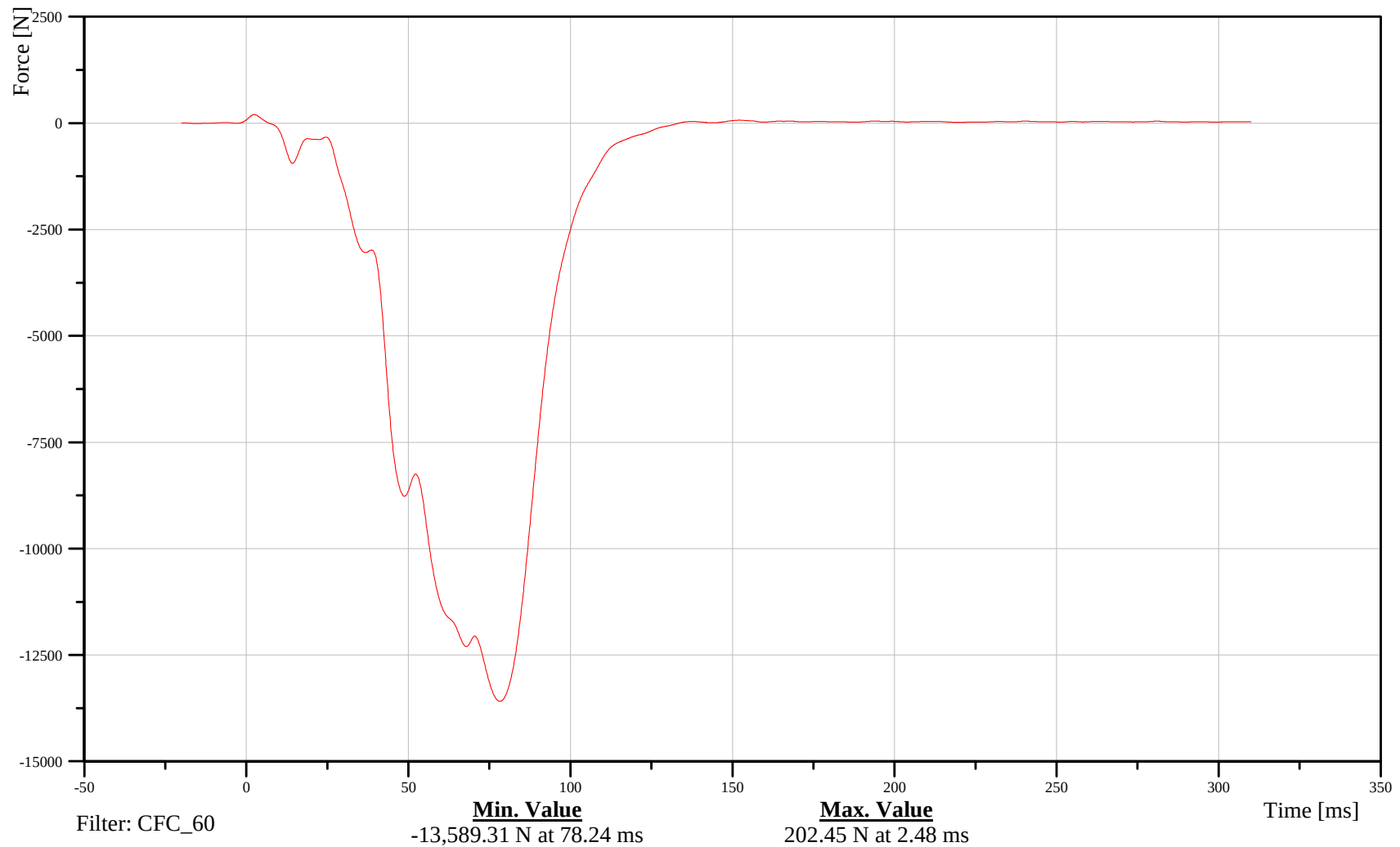
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 8

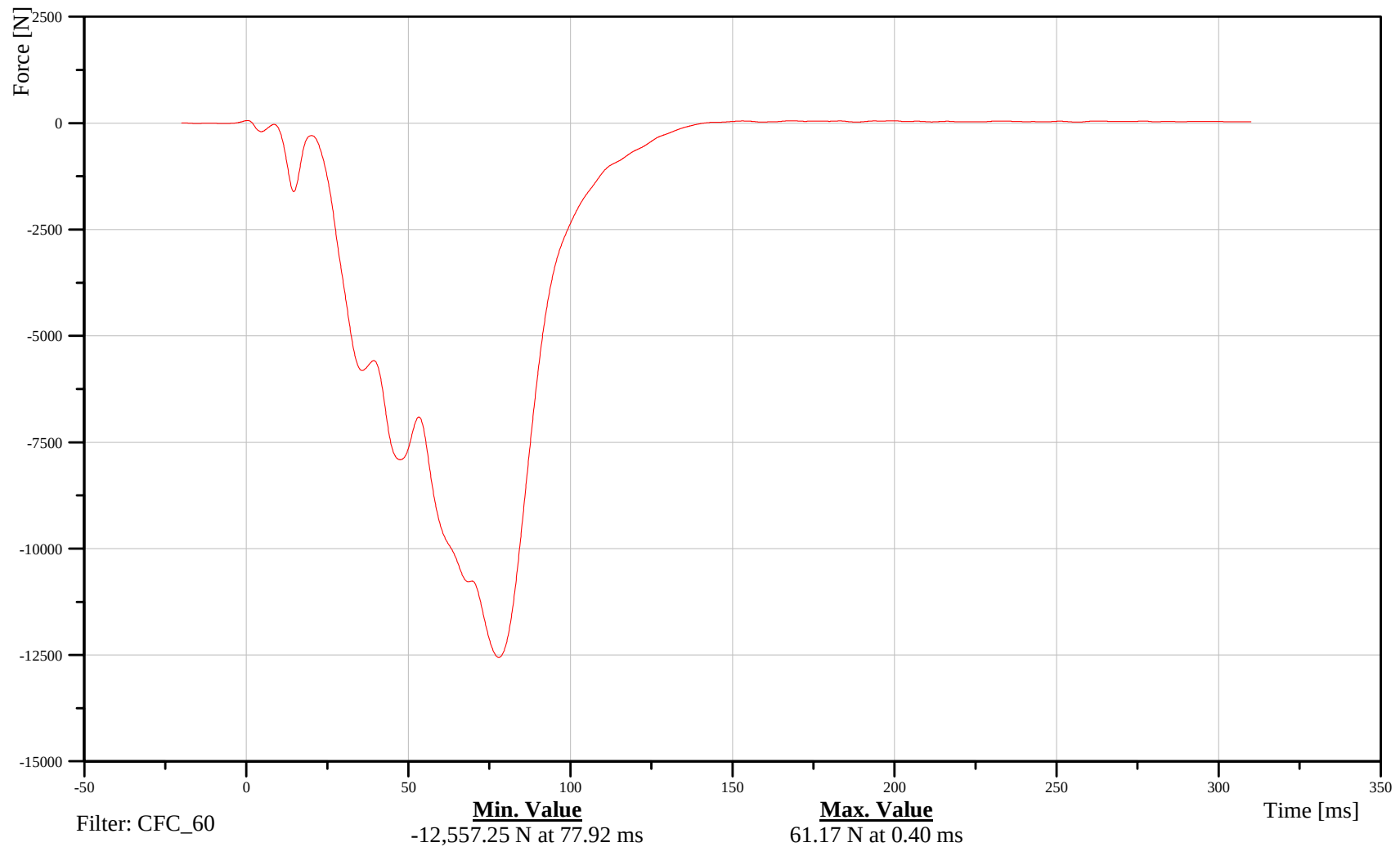
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 9

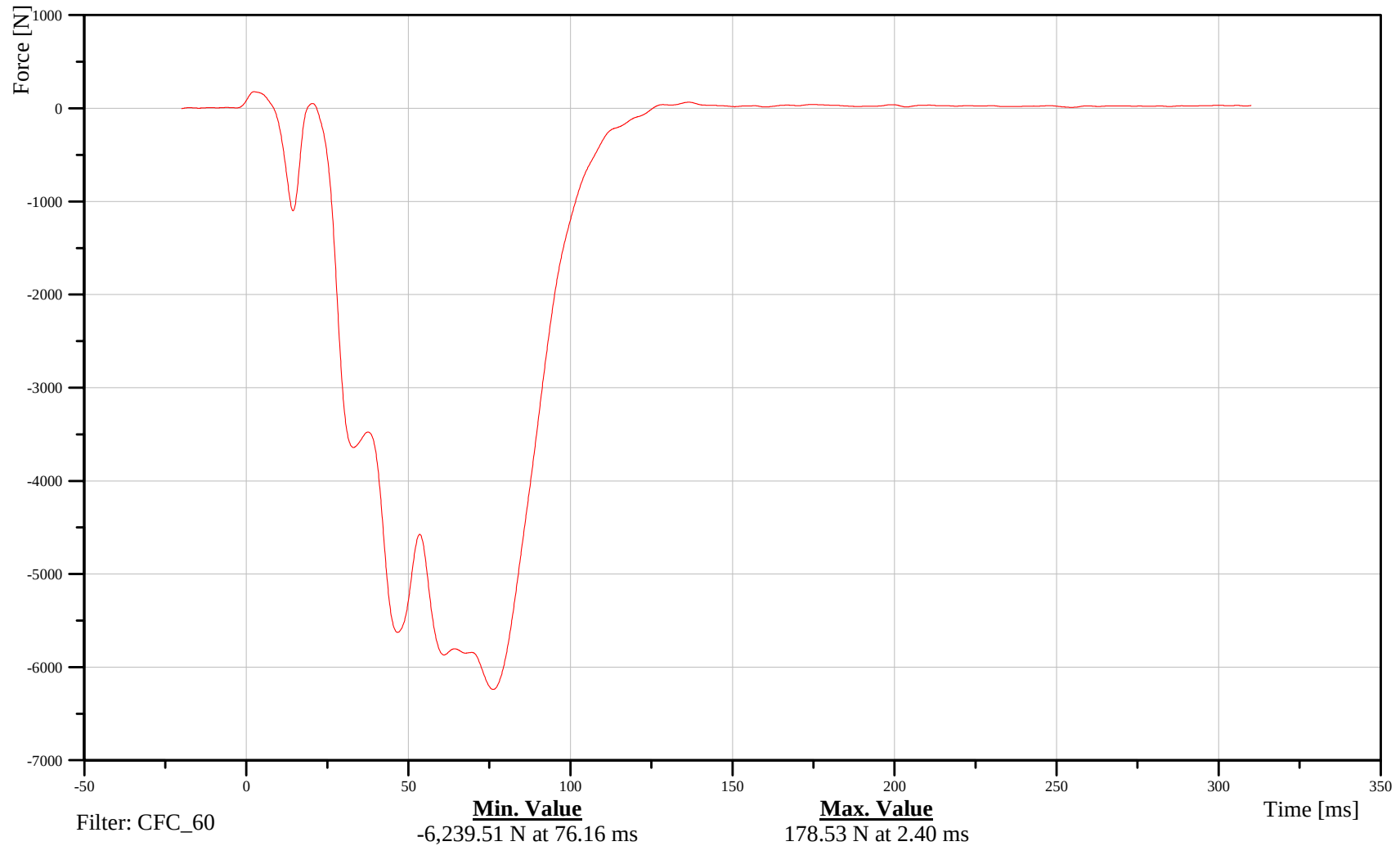
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 10

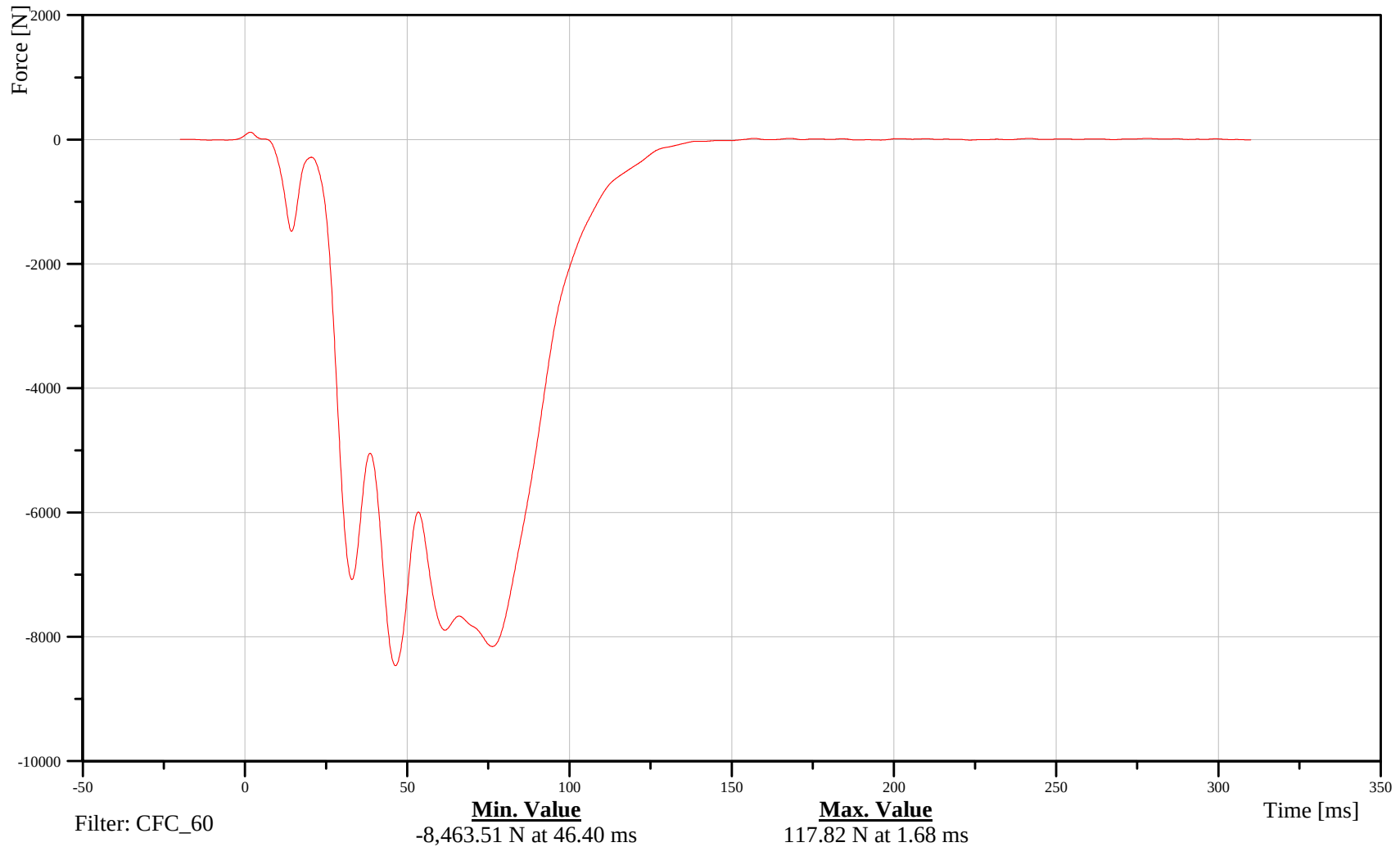
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 11

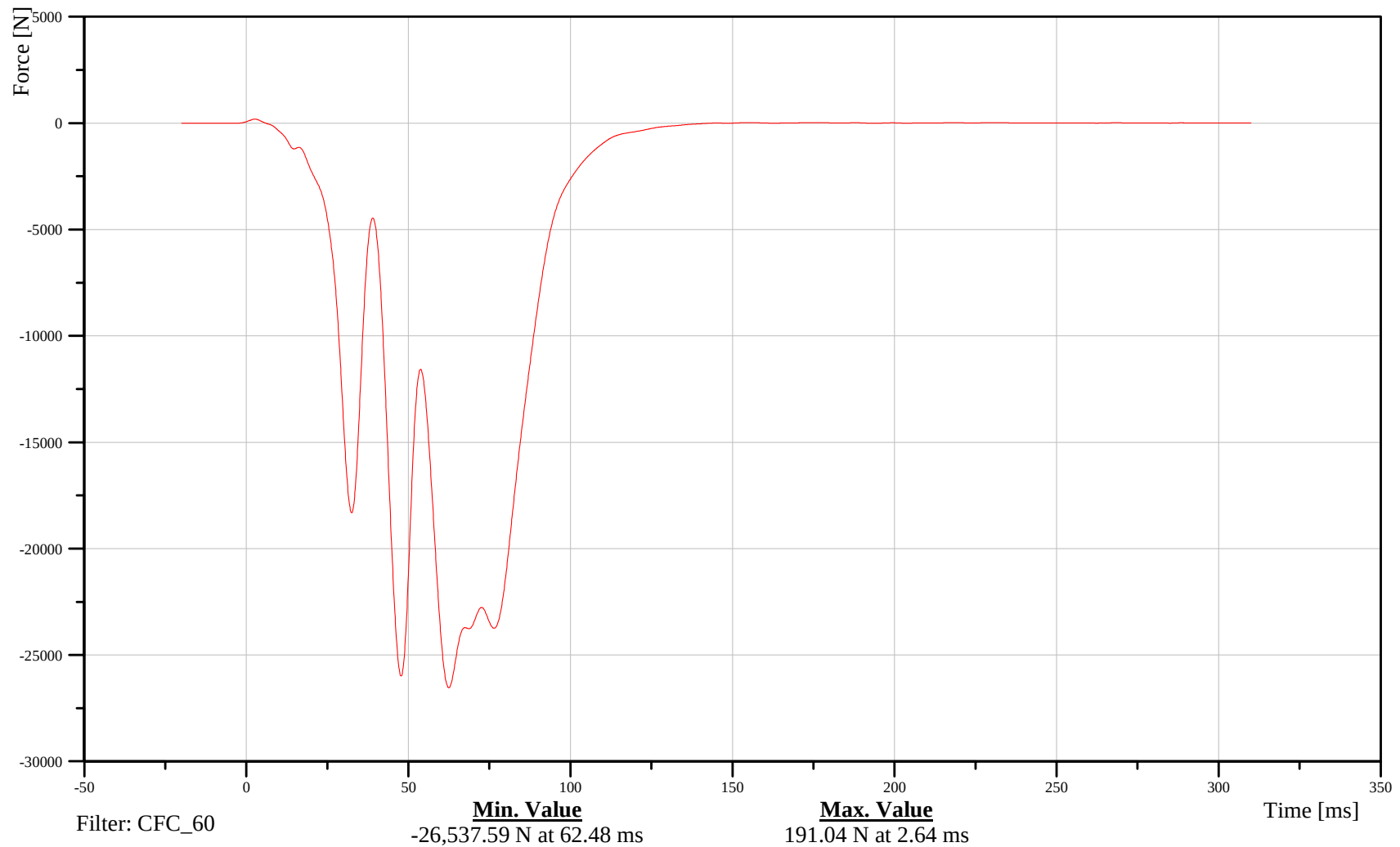
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E11FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 12

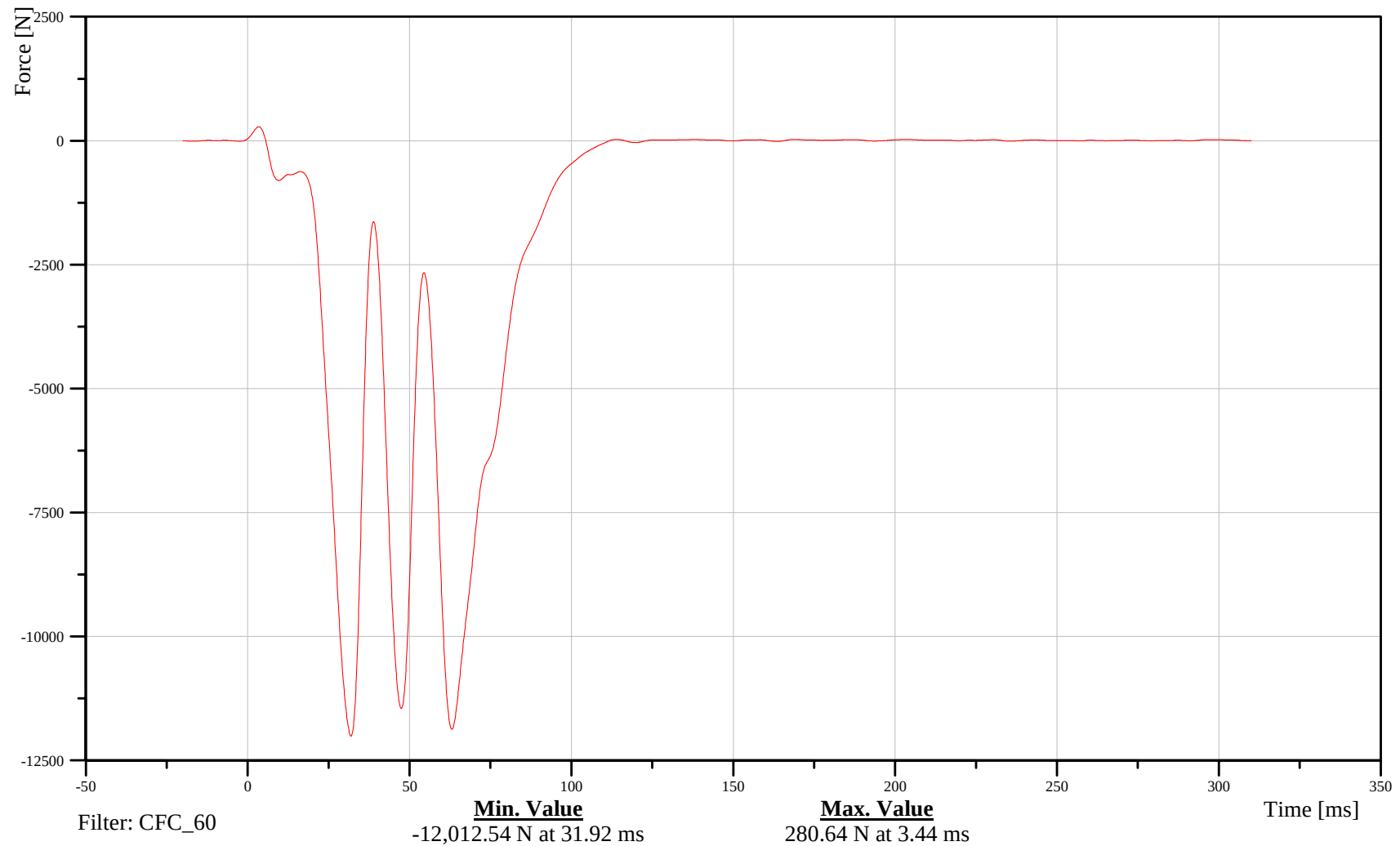
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 13

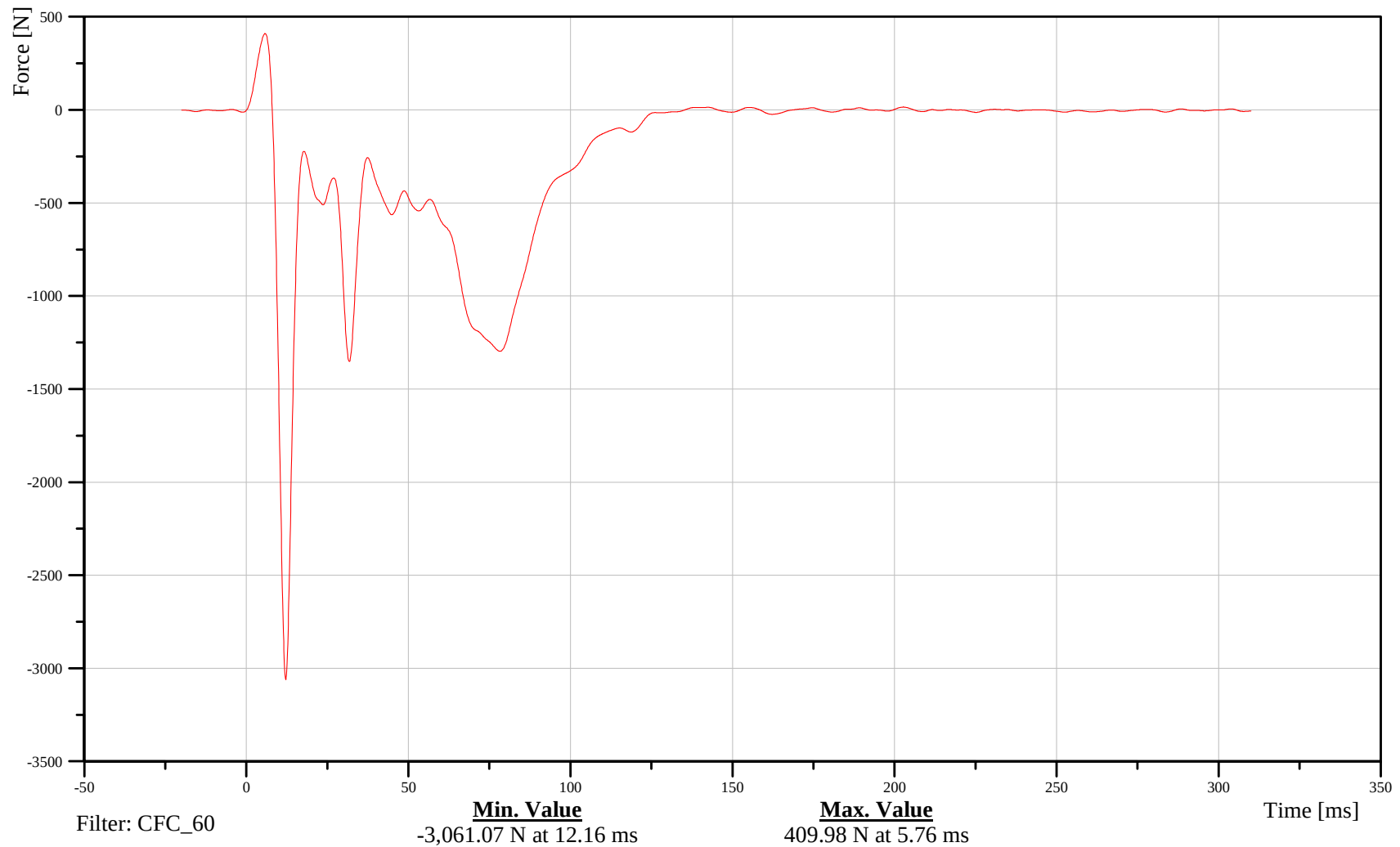
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E13FOX D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 14

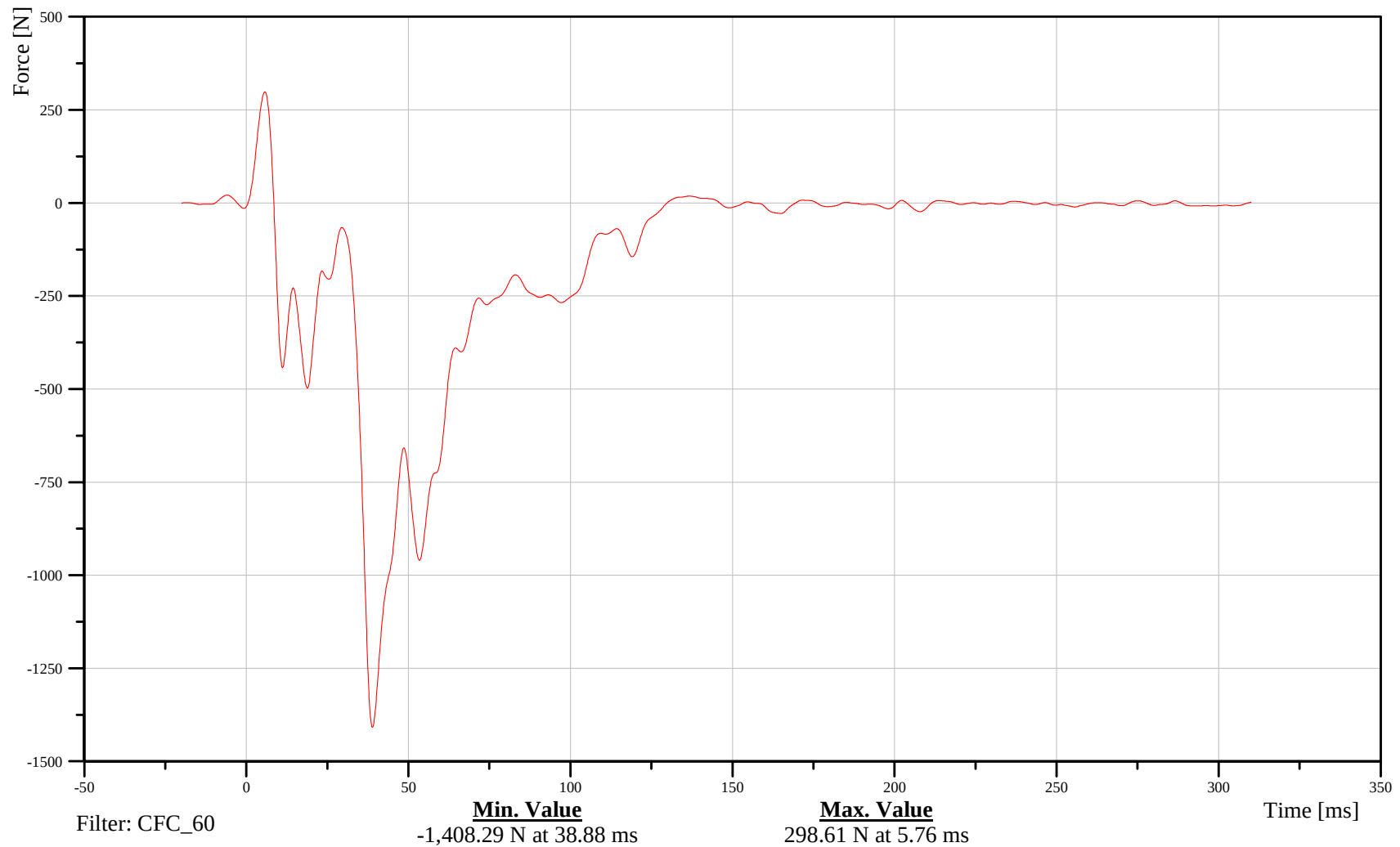
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E14FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 15

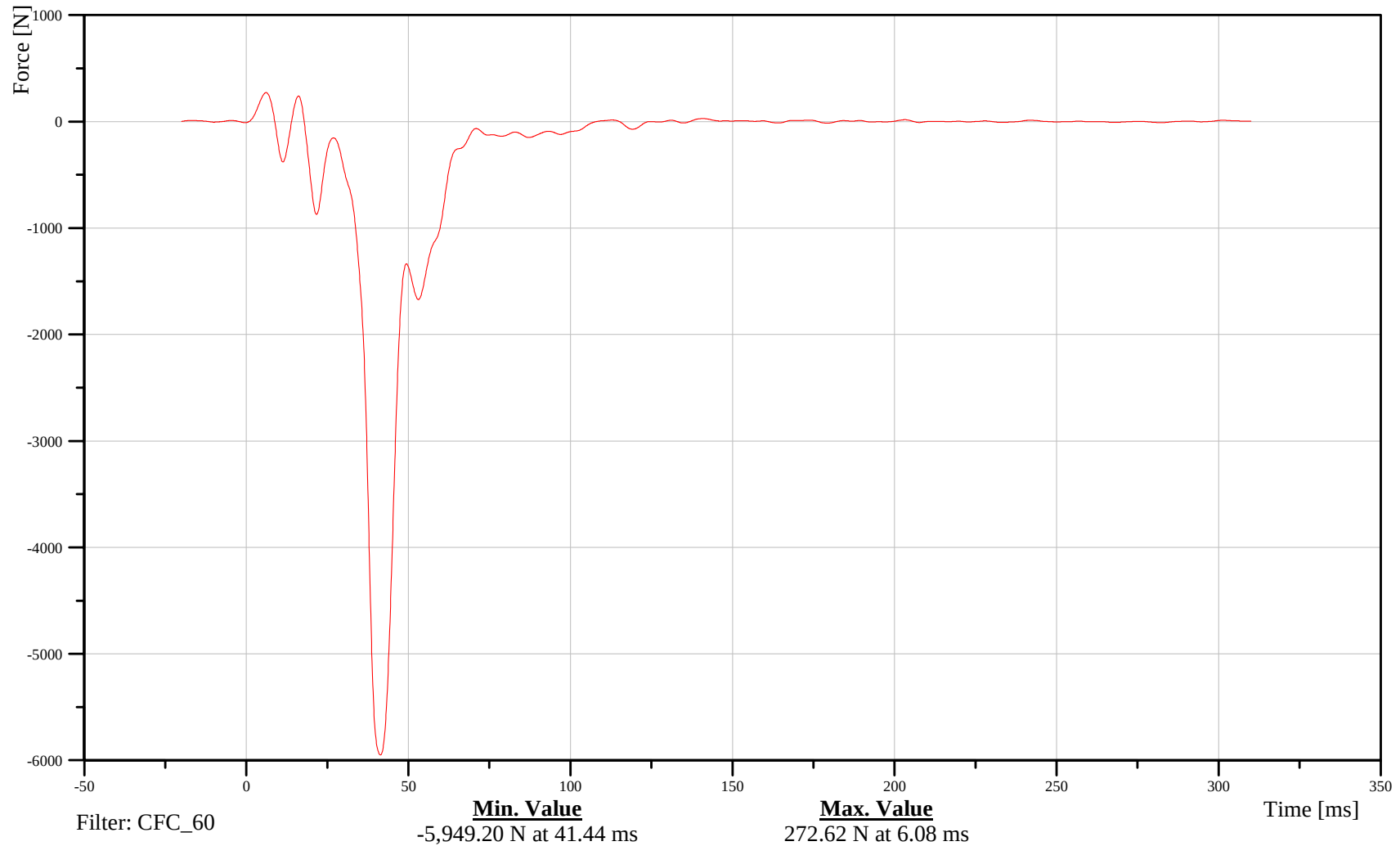
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E15FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 5 Column 16

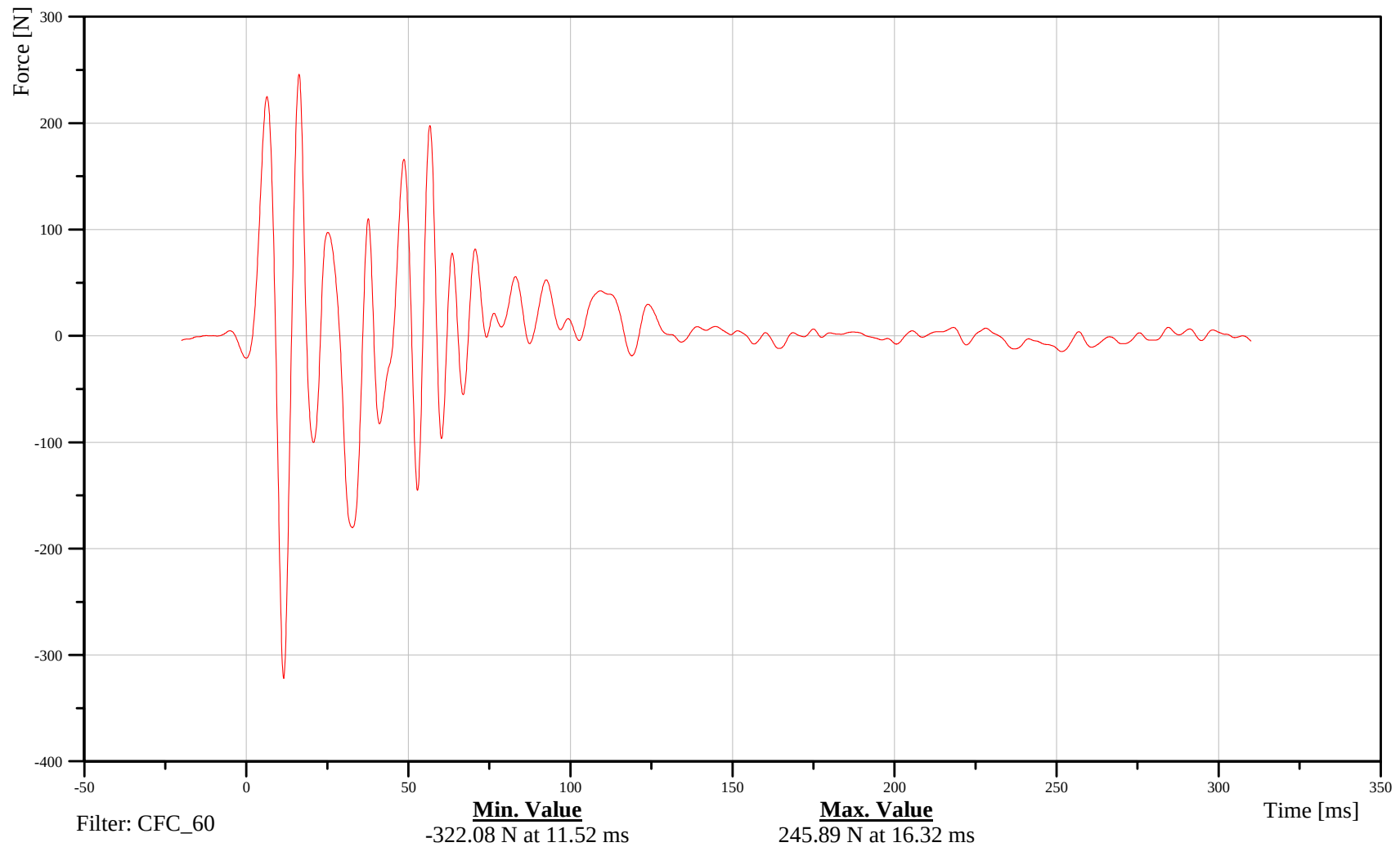
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000E16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 1

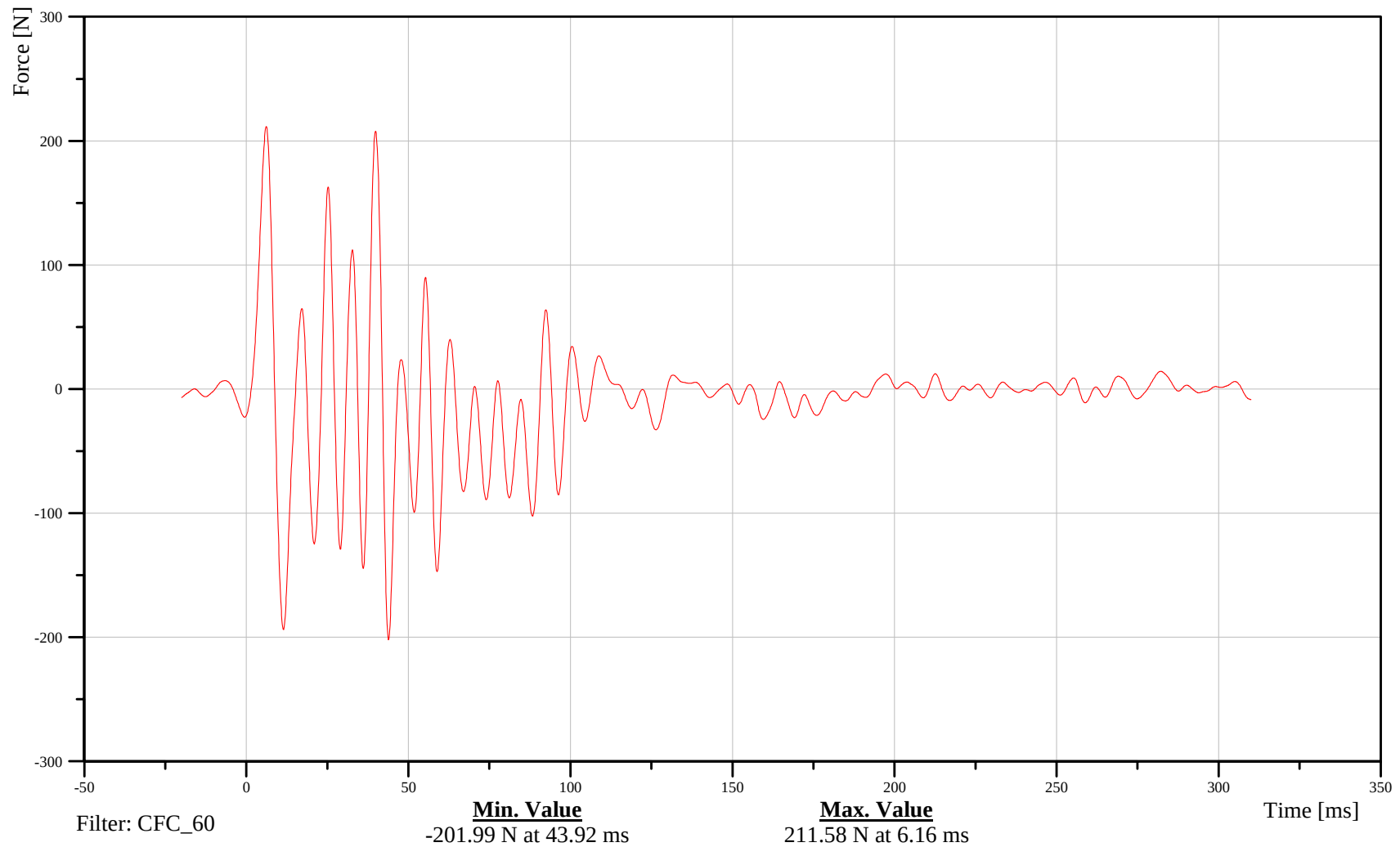
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 2

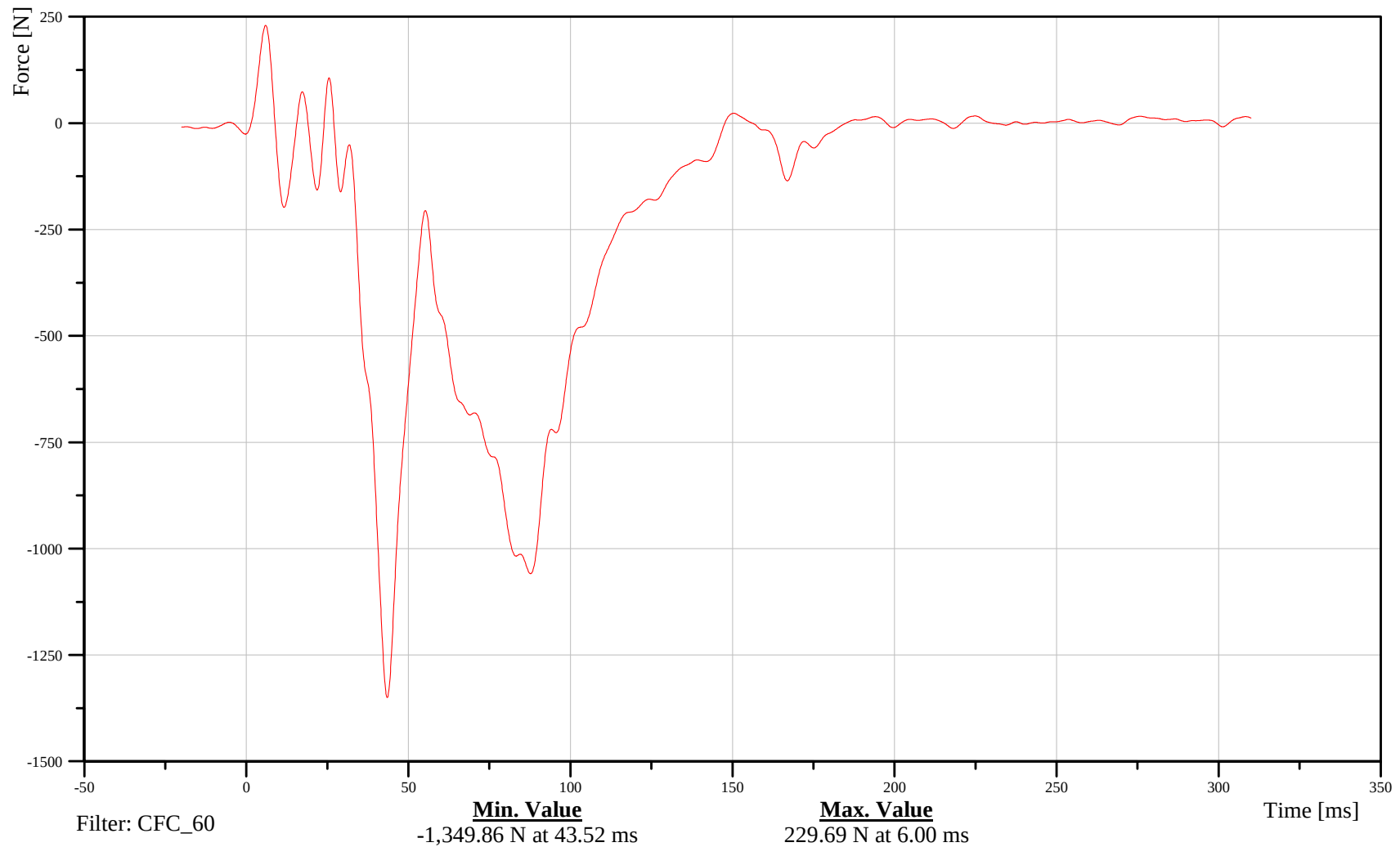
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 3

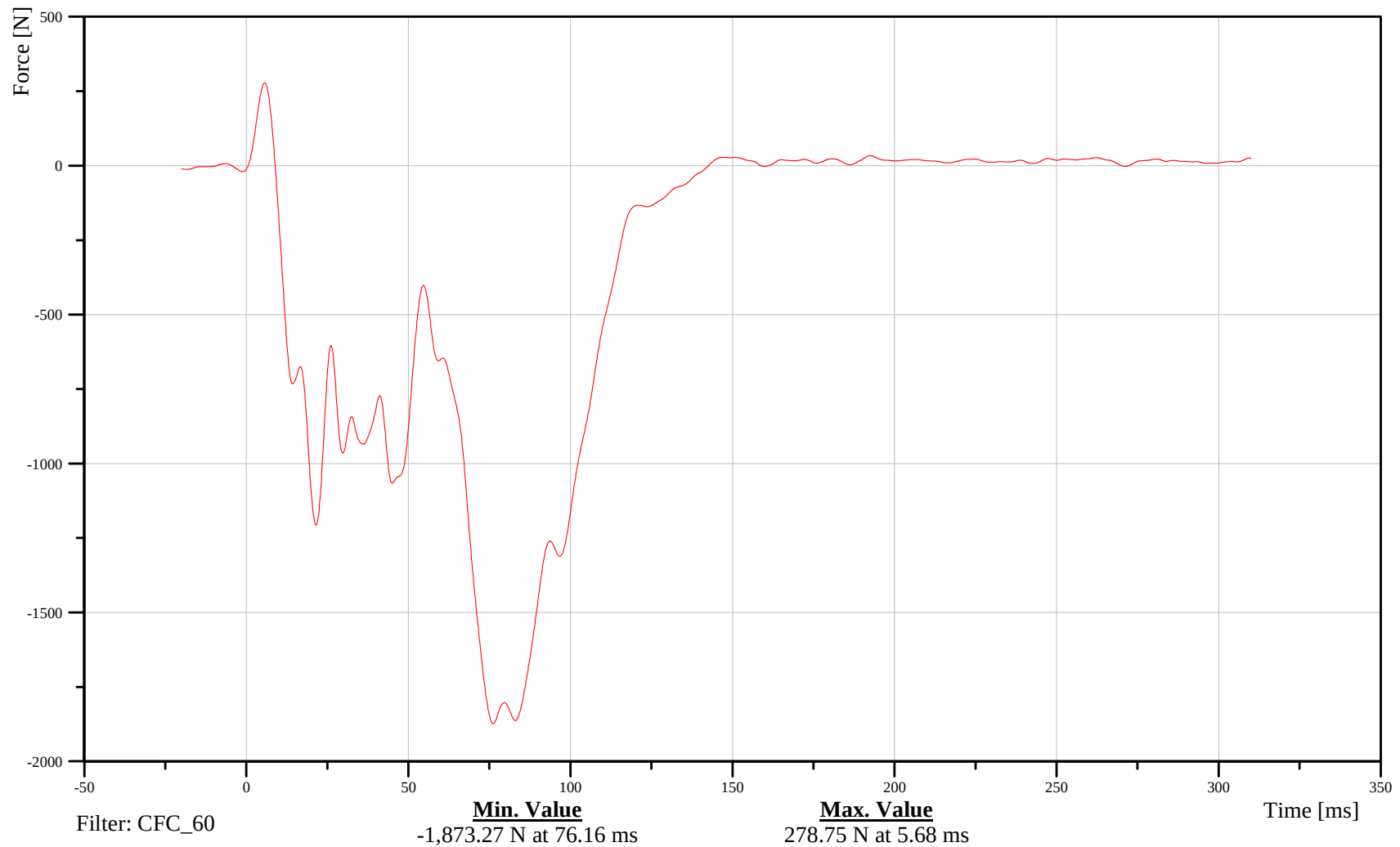
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000F03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 4

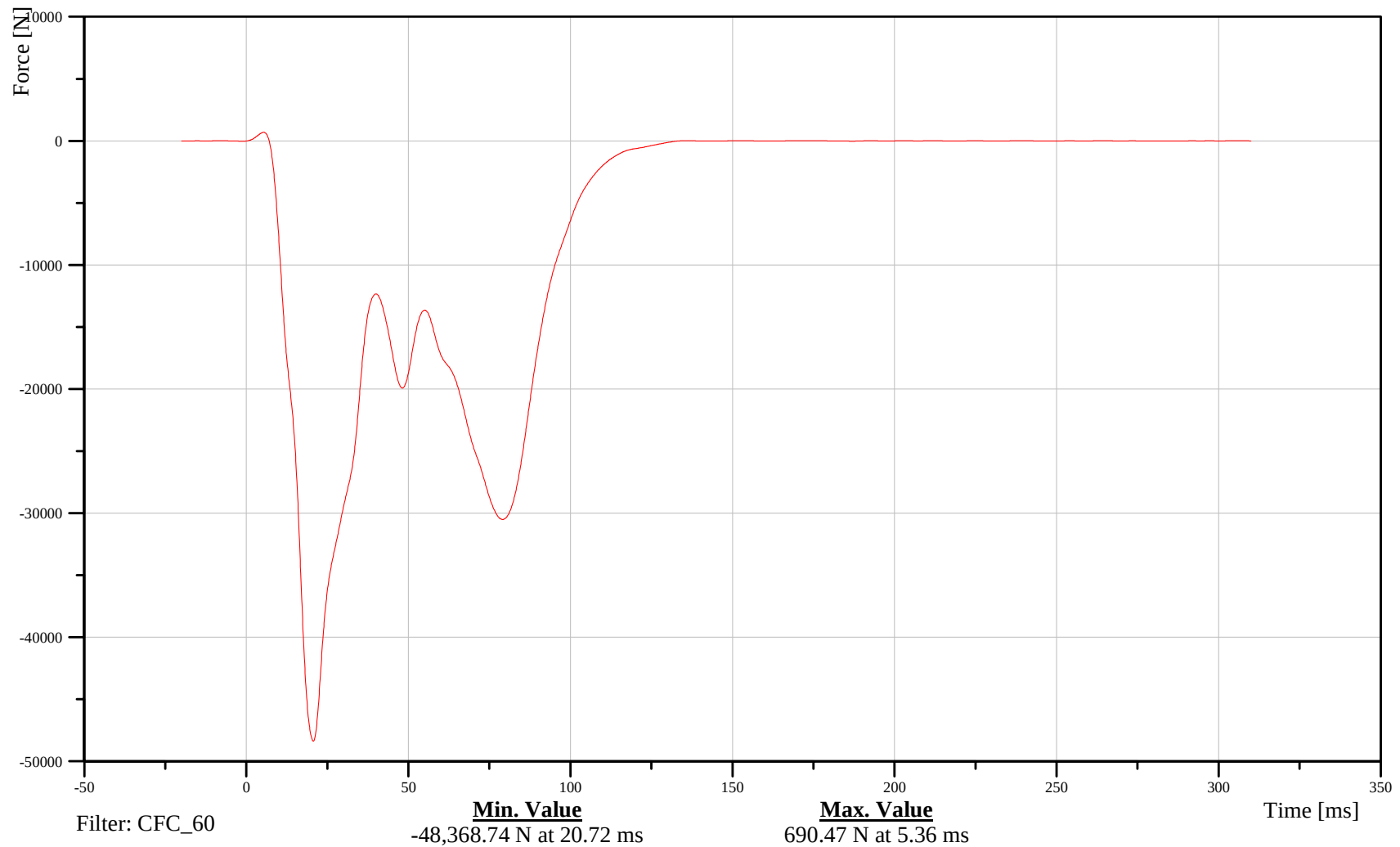
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 5

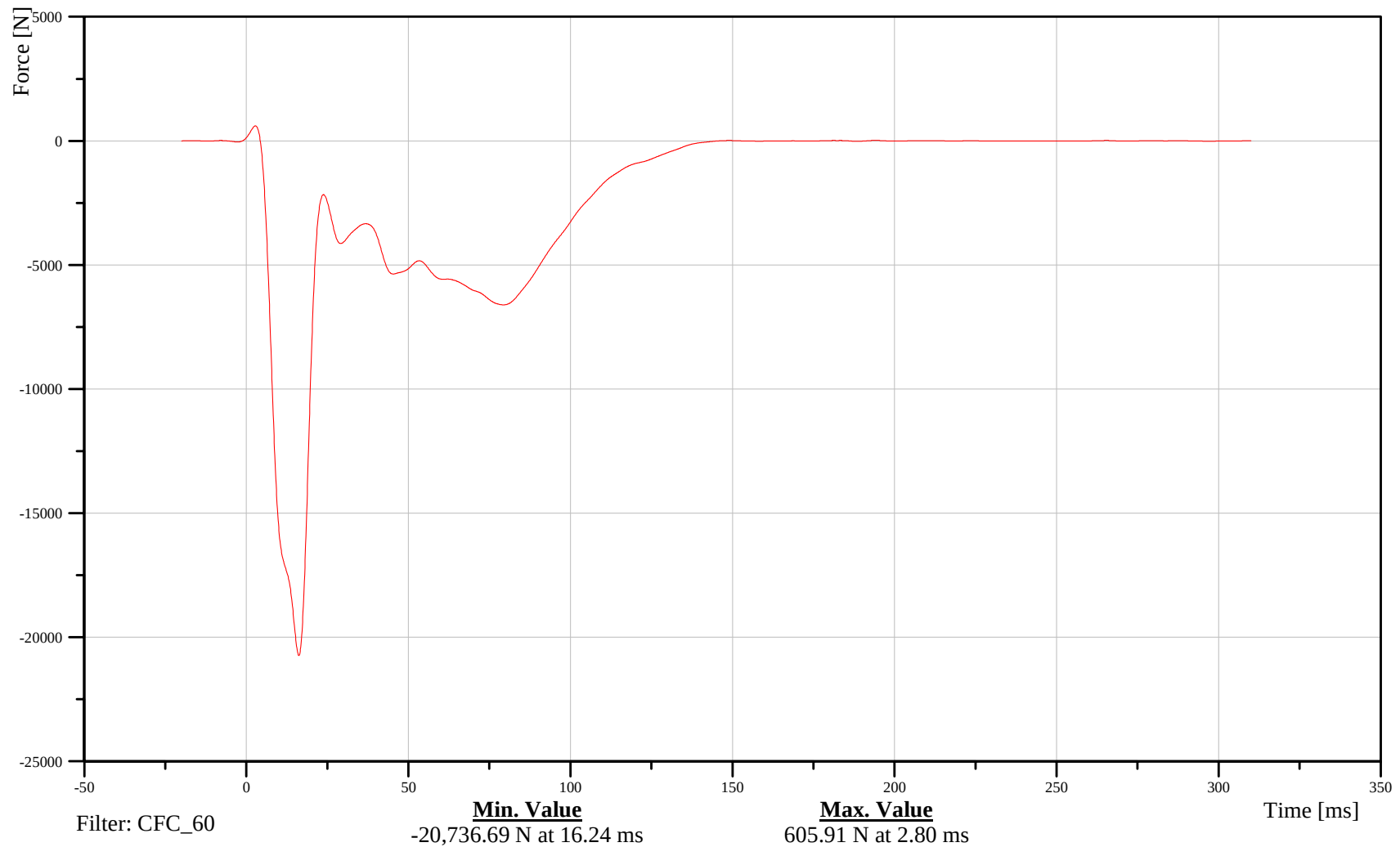
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 6

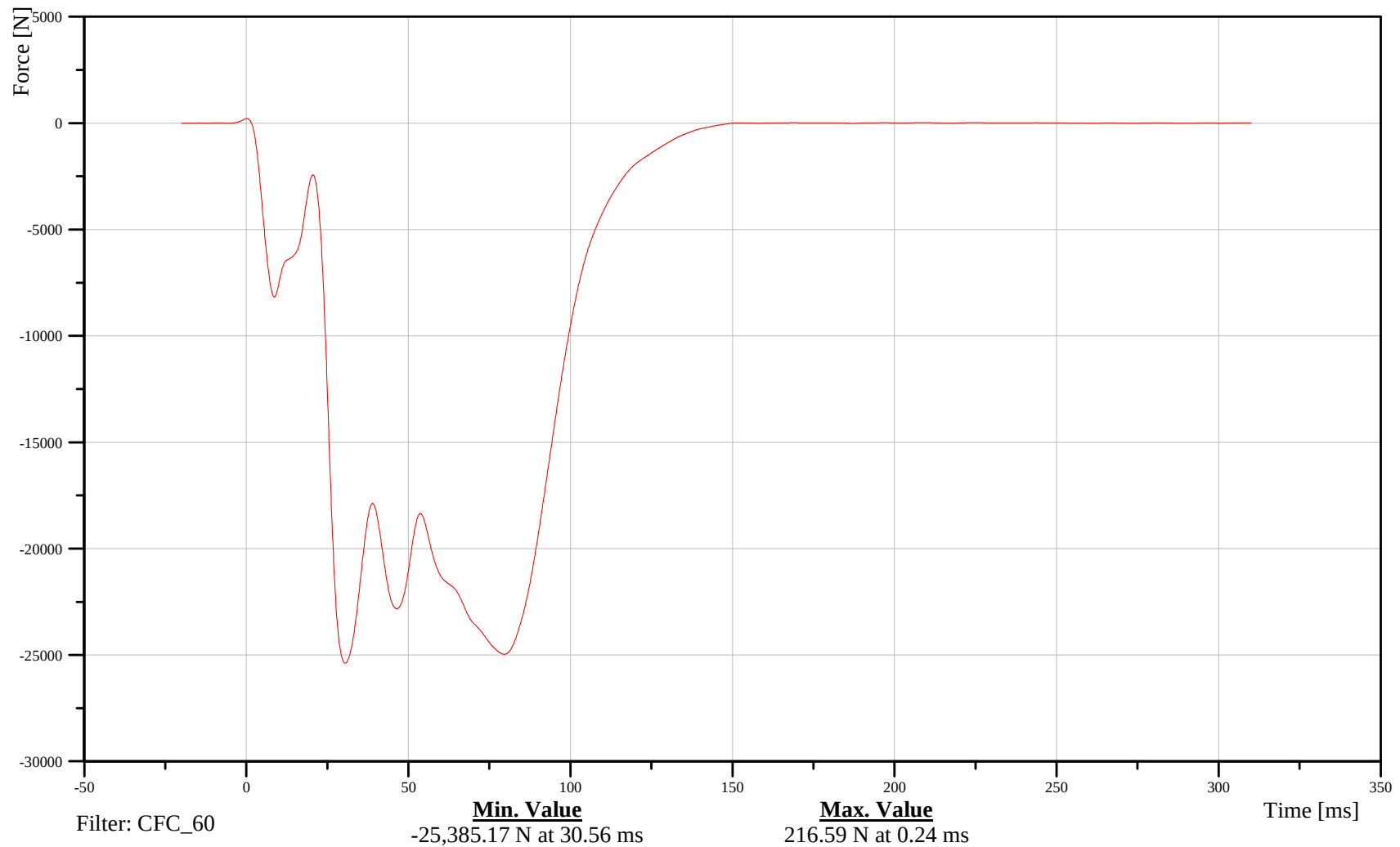
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 7

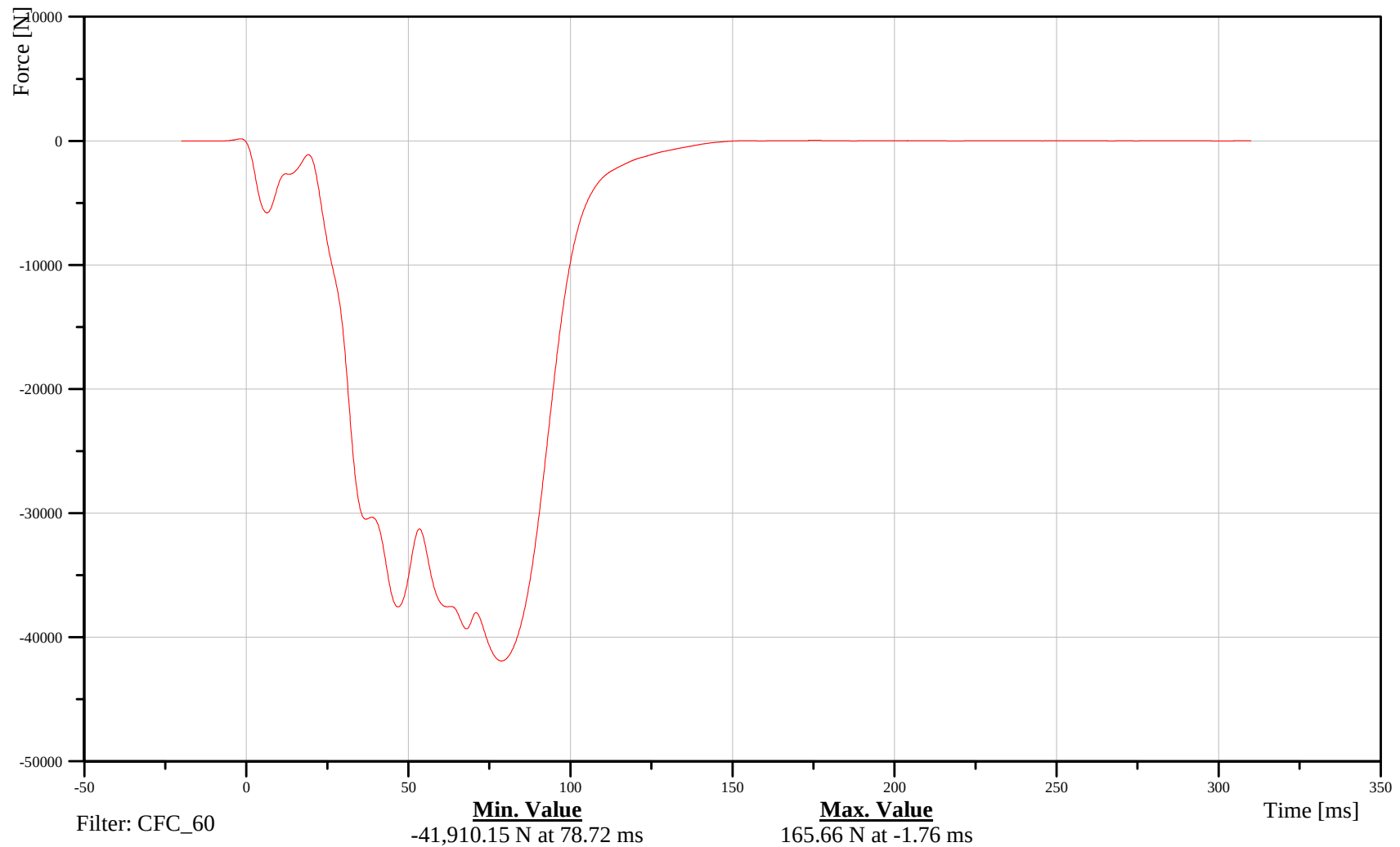
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Time: 17:50

Customer: VRTC

L0FBAR000F07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 8

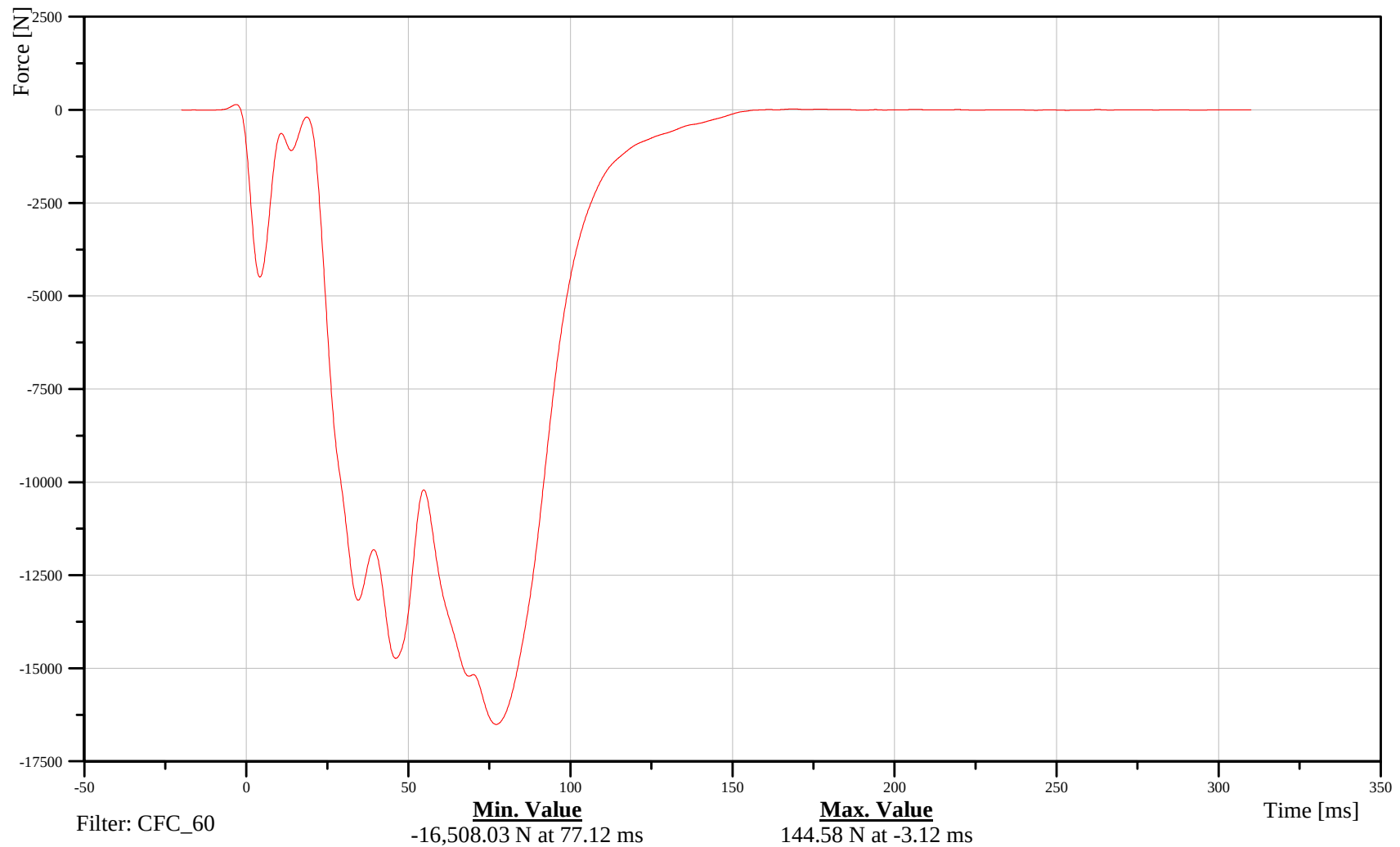
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Time: 17:50

Customer: VRTC

L0FBAR000F08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 9

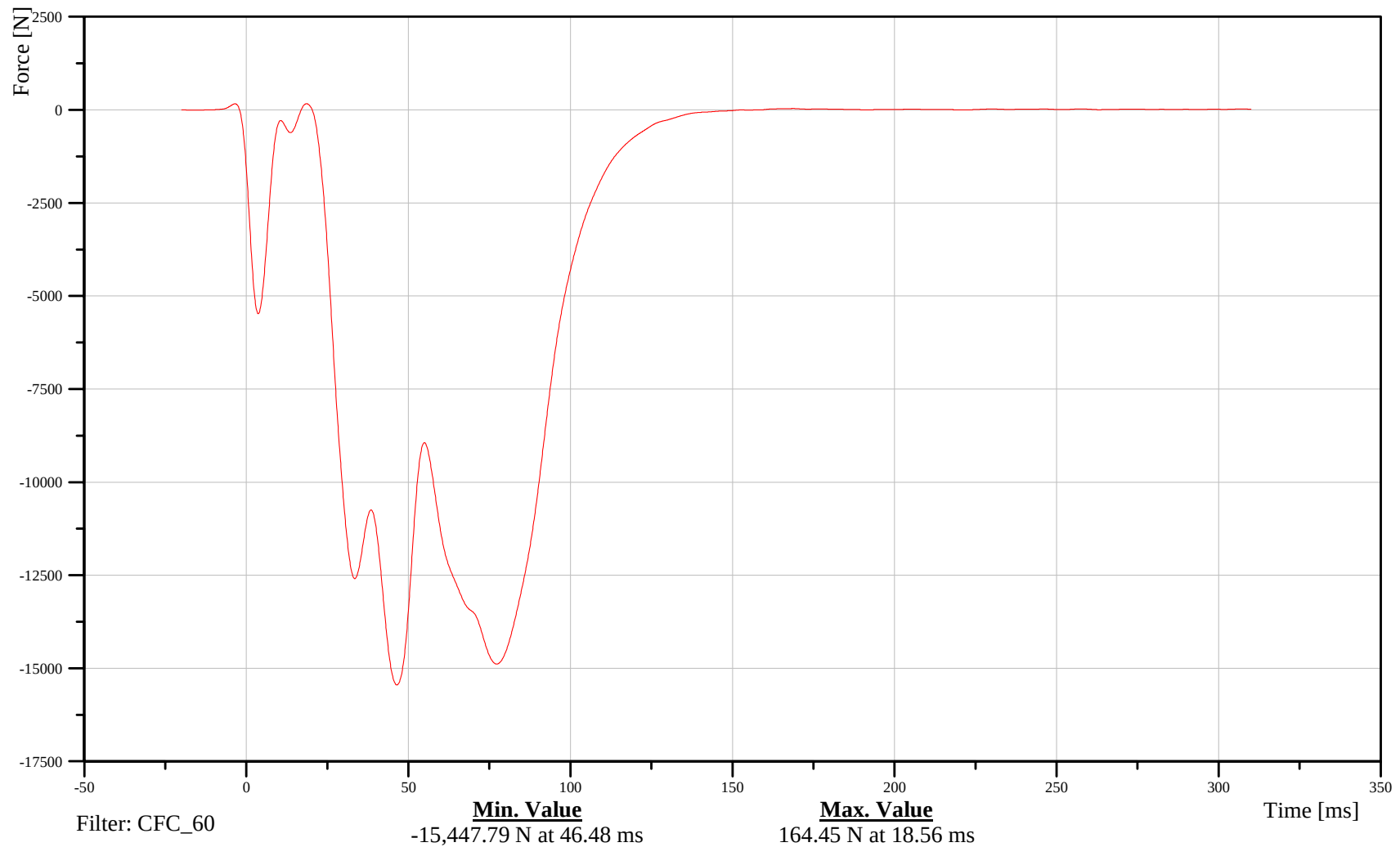
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Time: 17:50

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L0FBAR000F09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 10

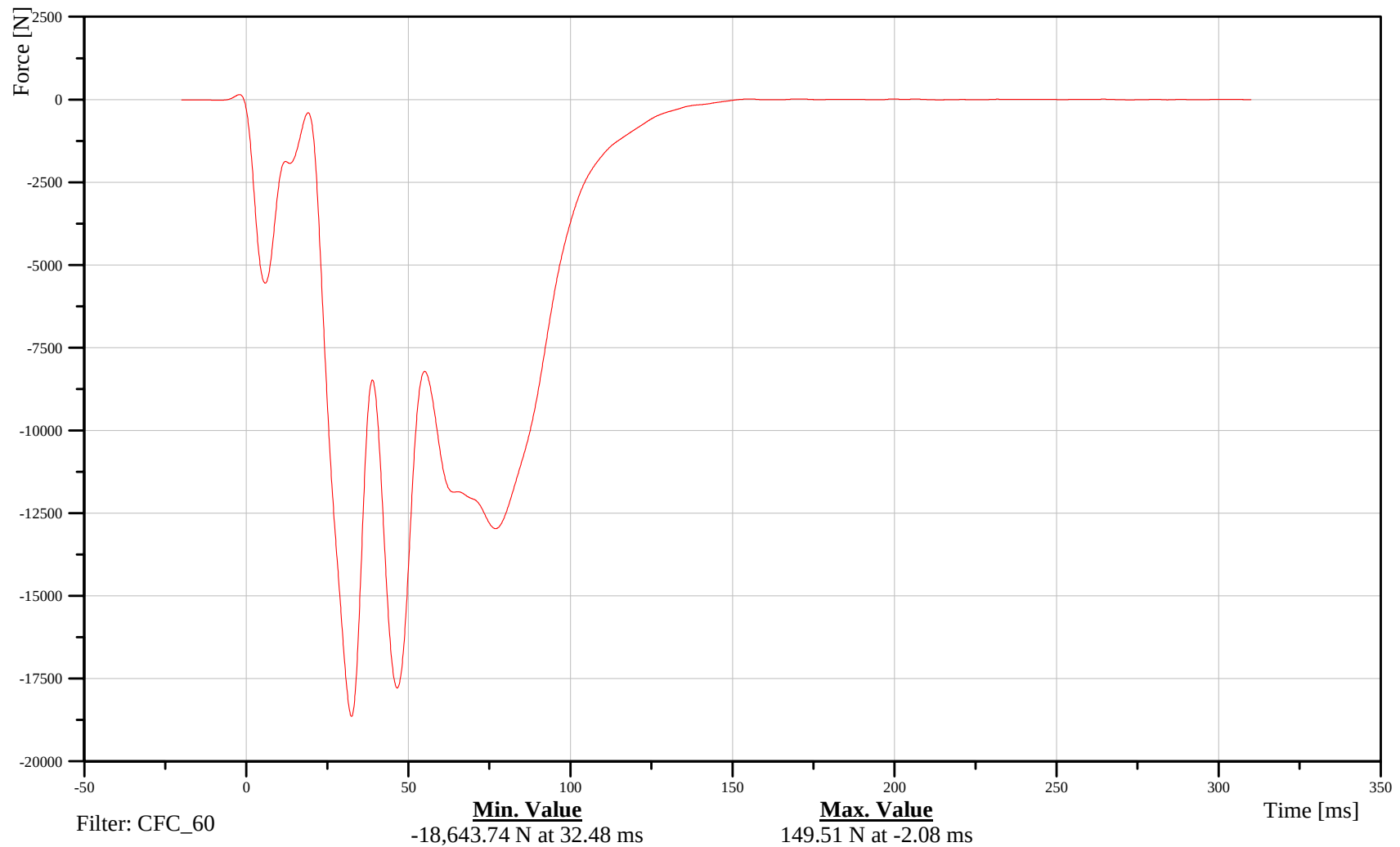
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 11

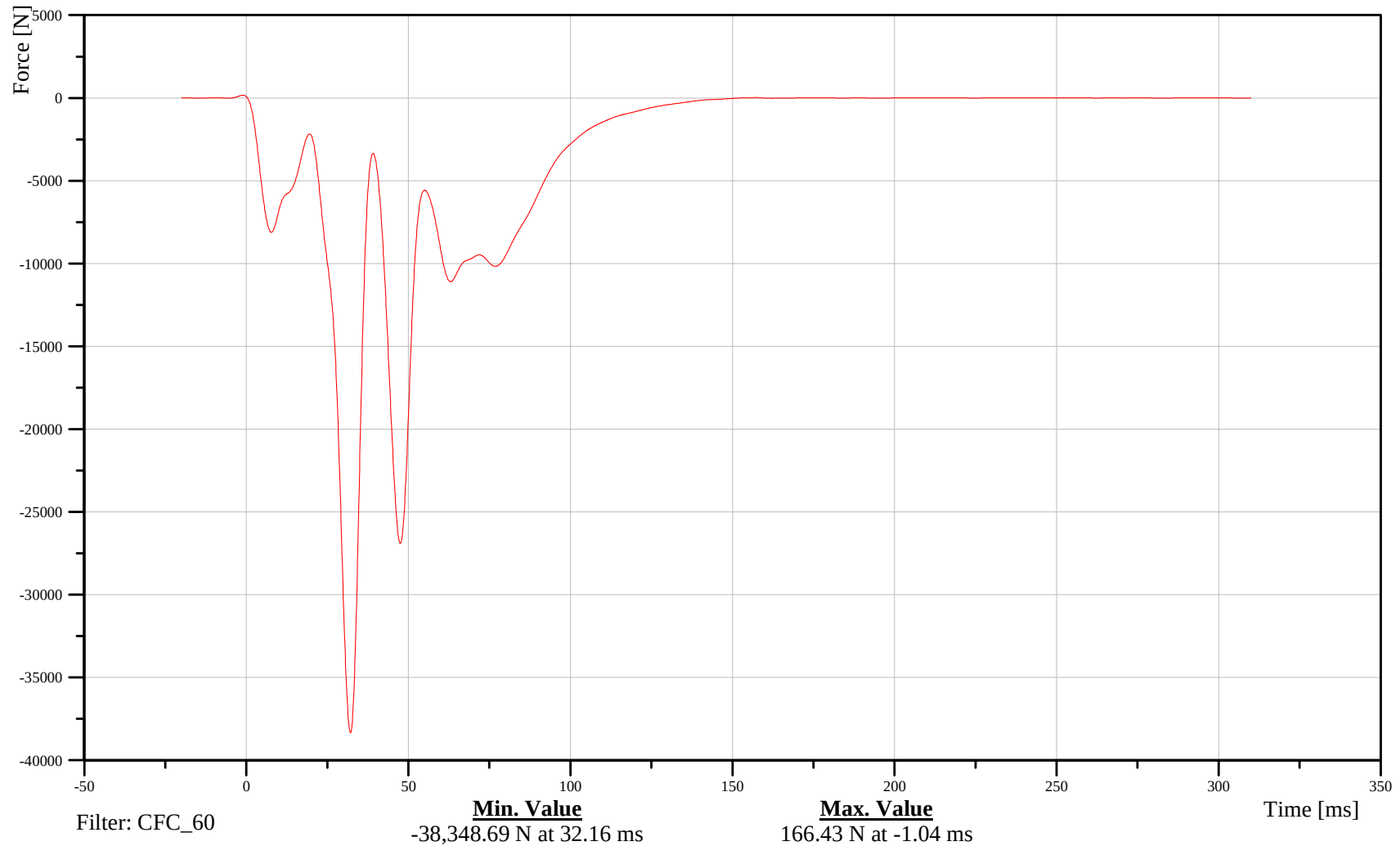
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 12

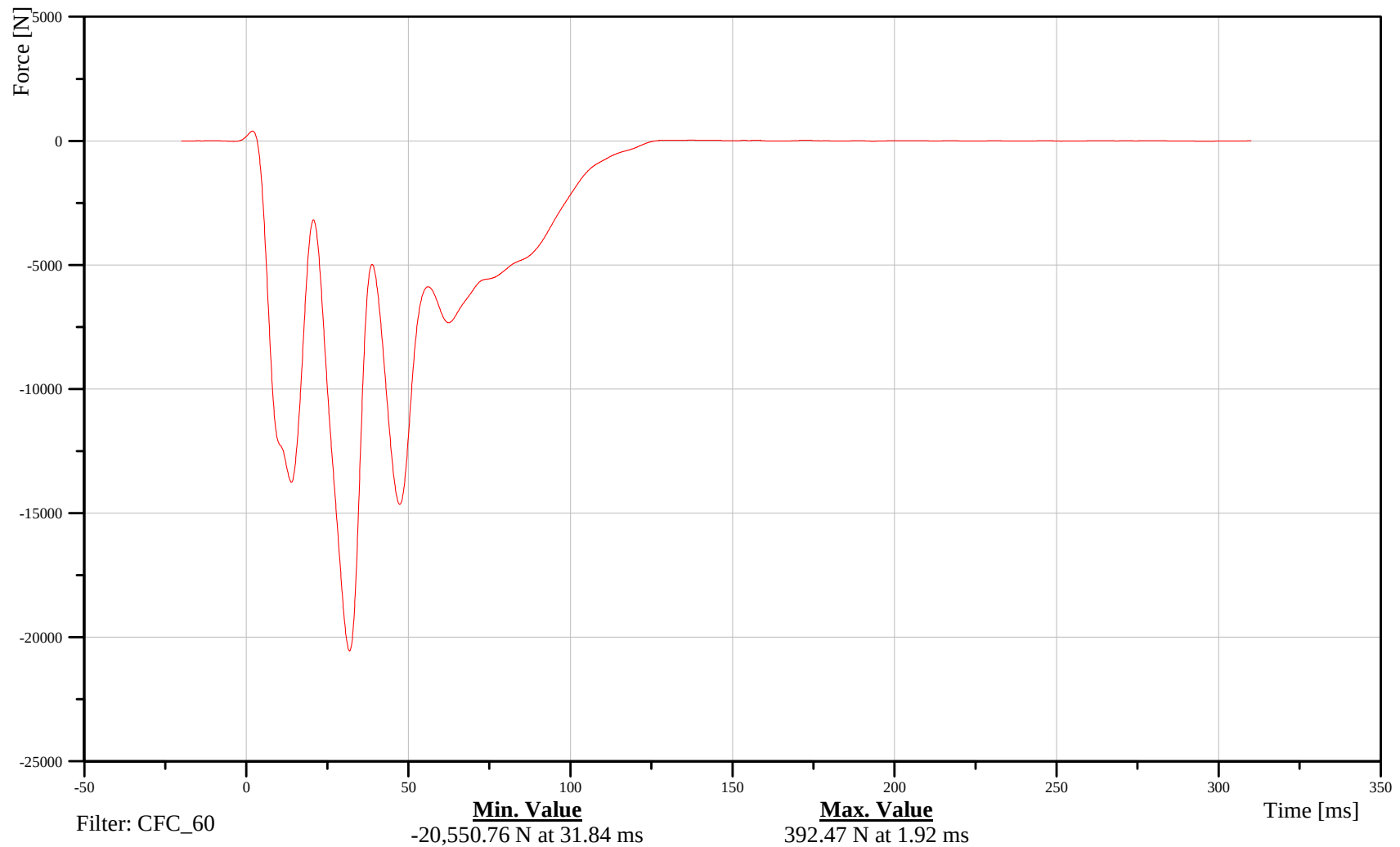
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 13

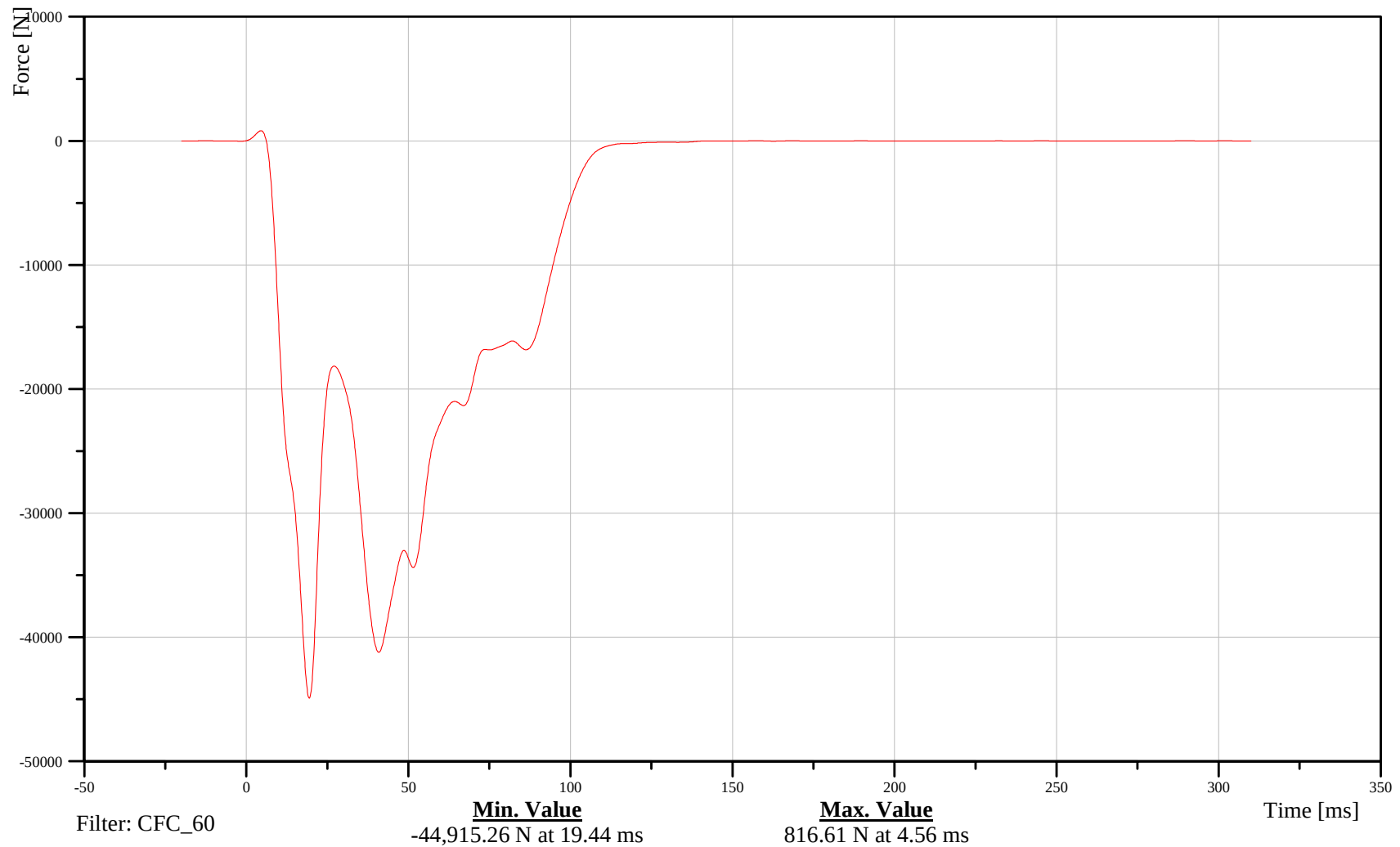
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 14

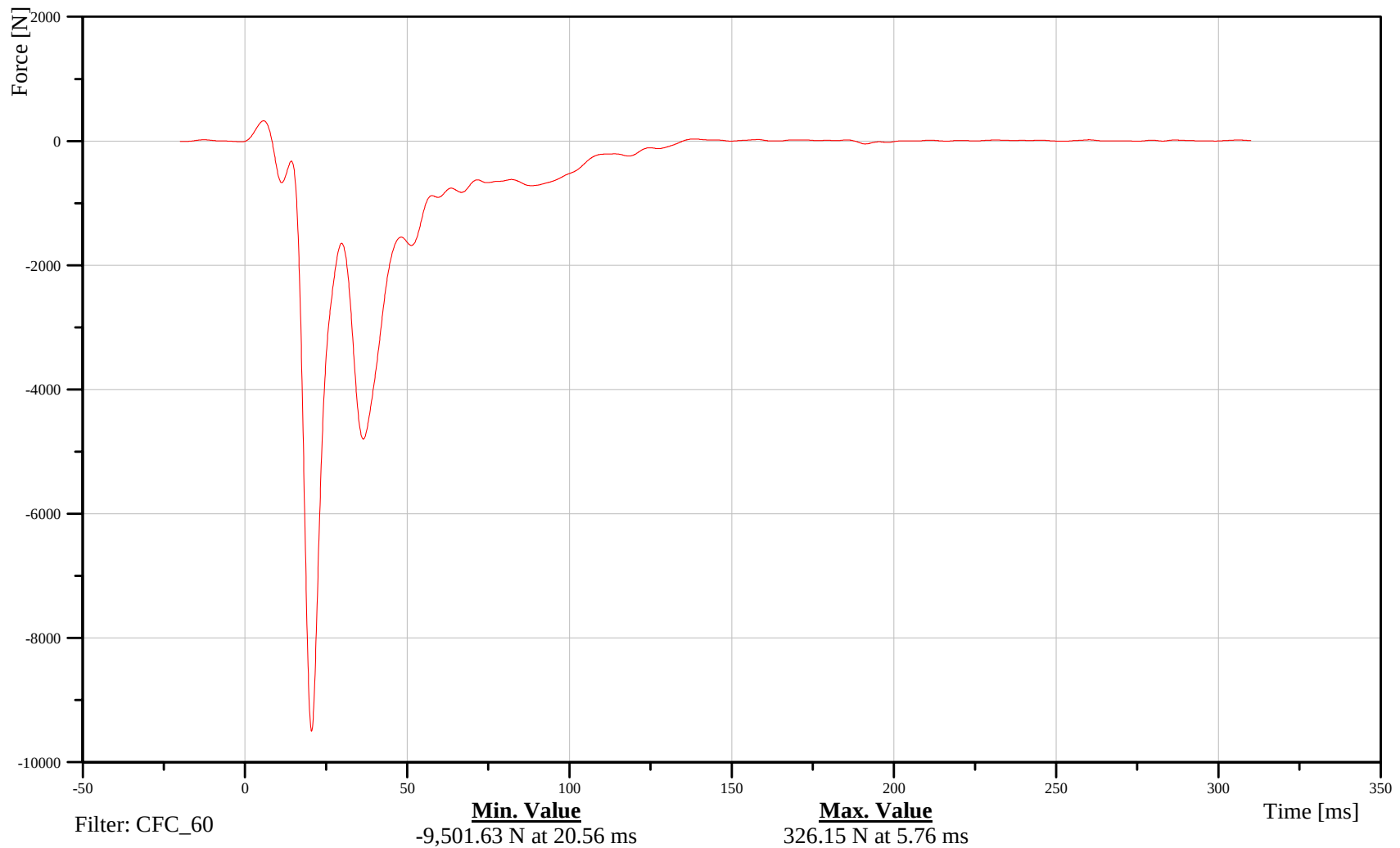
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 15

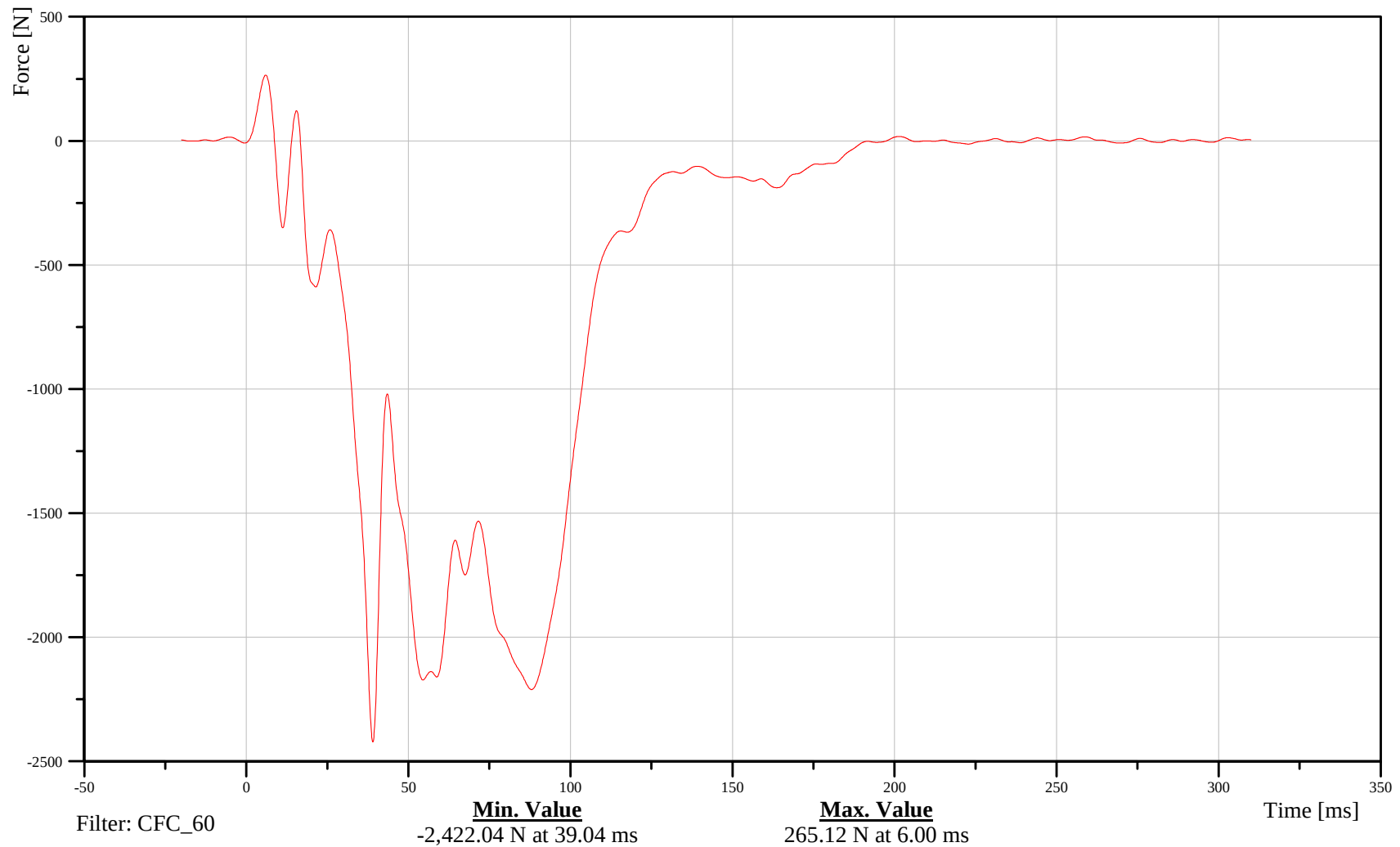
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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 4 Column 16

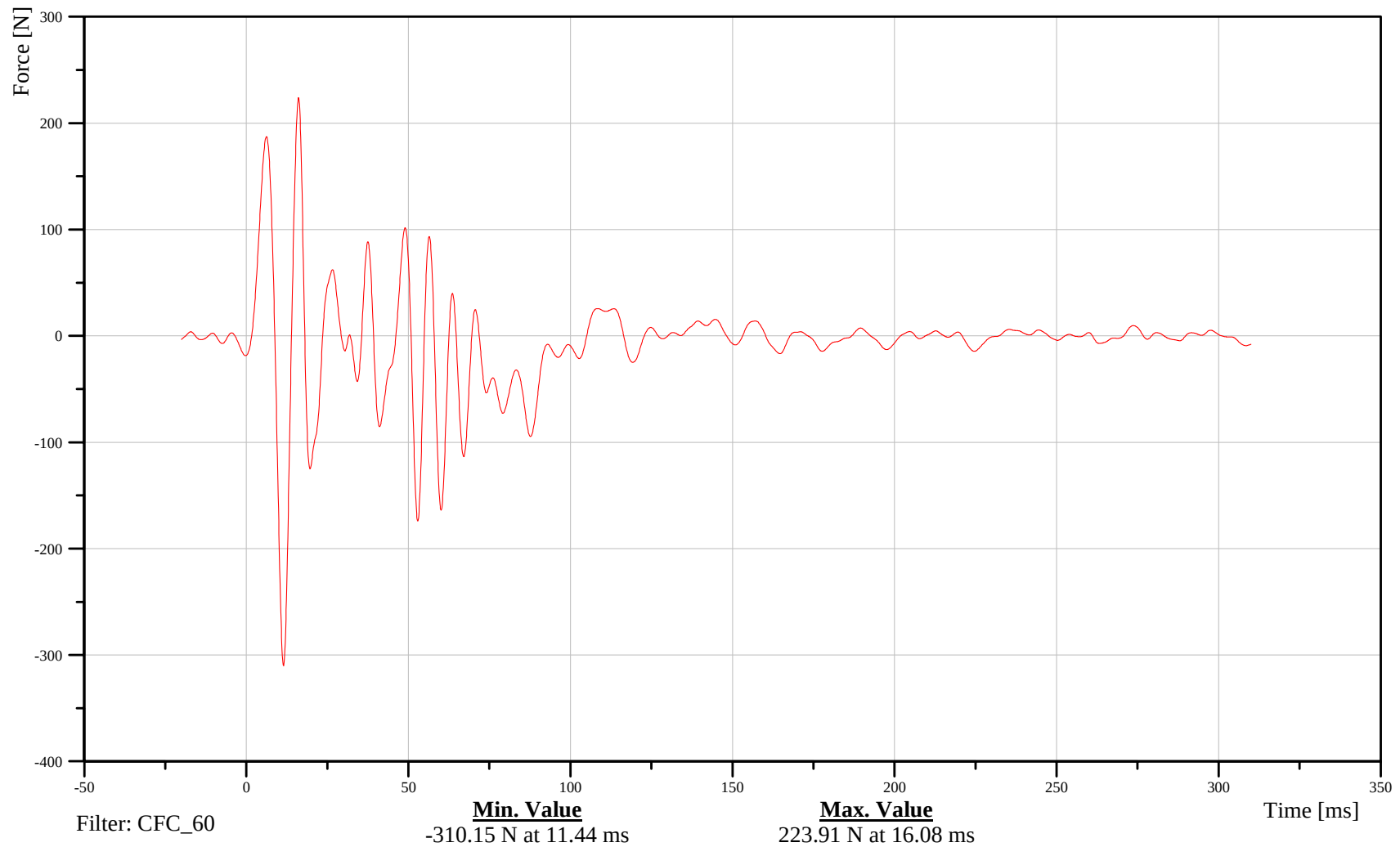
Date: 05/19/2006
Time: 17:50

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L0FBAR000F16FOX D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 1

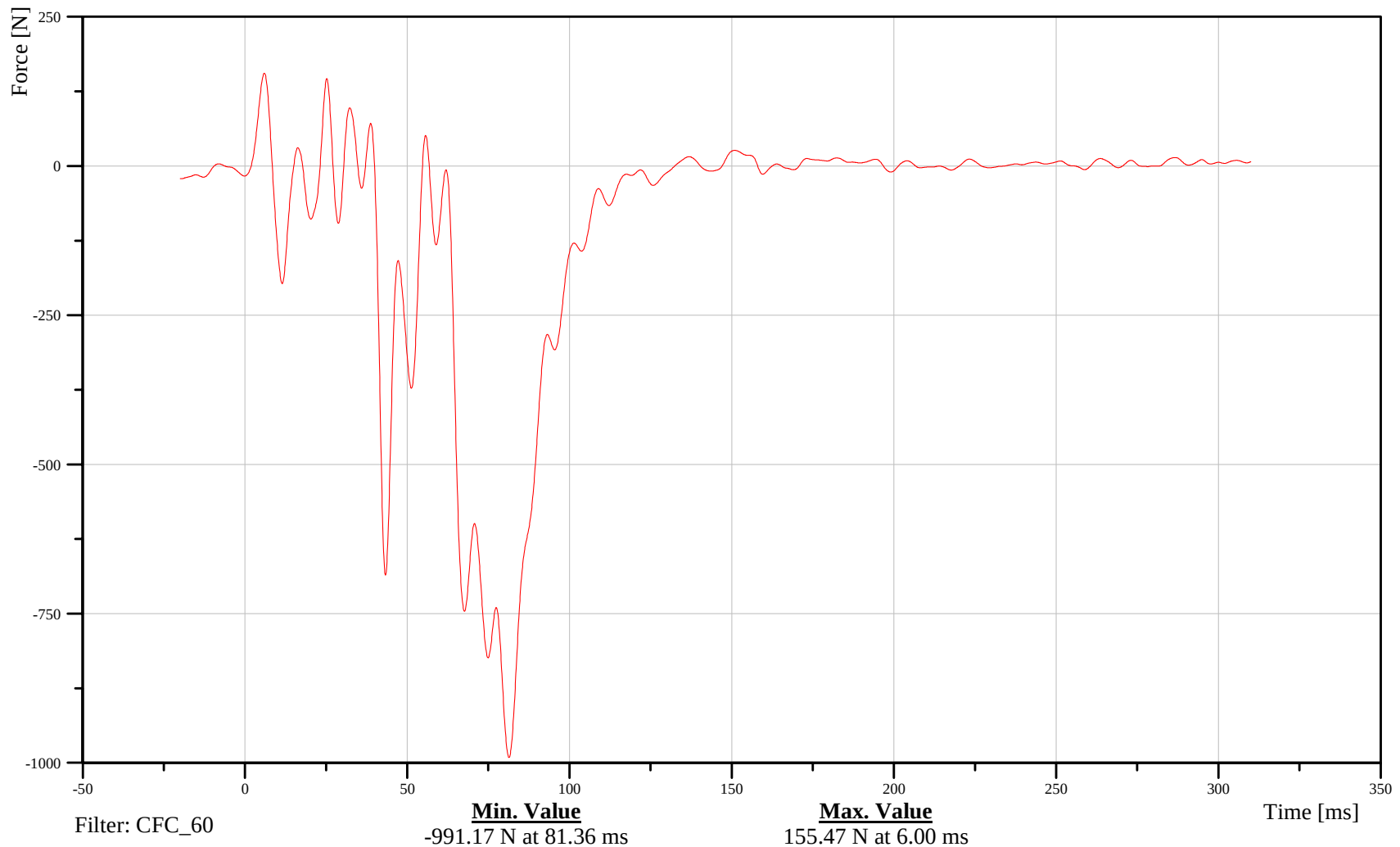
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 2

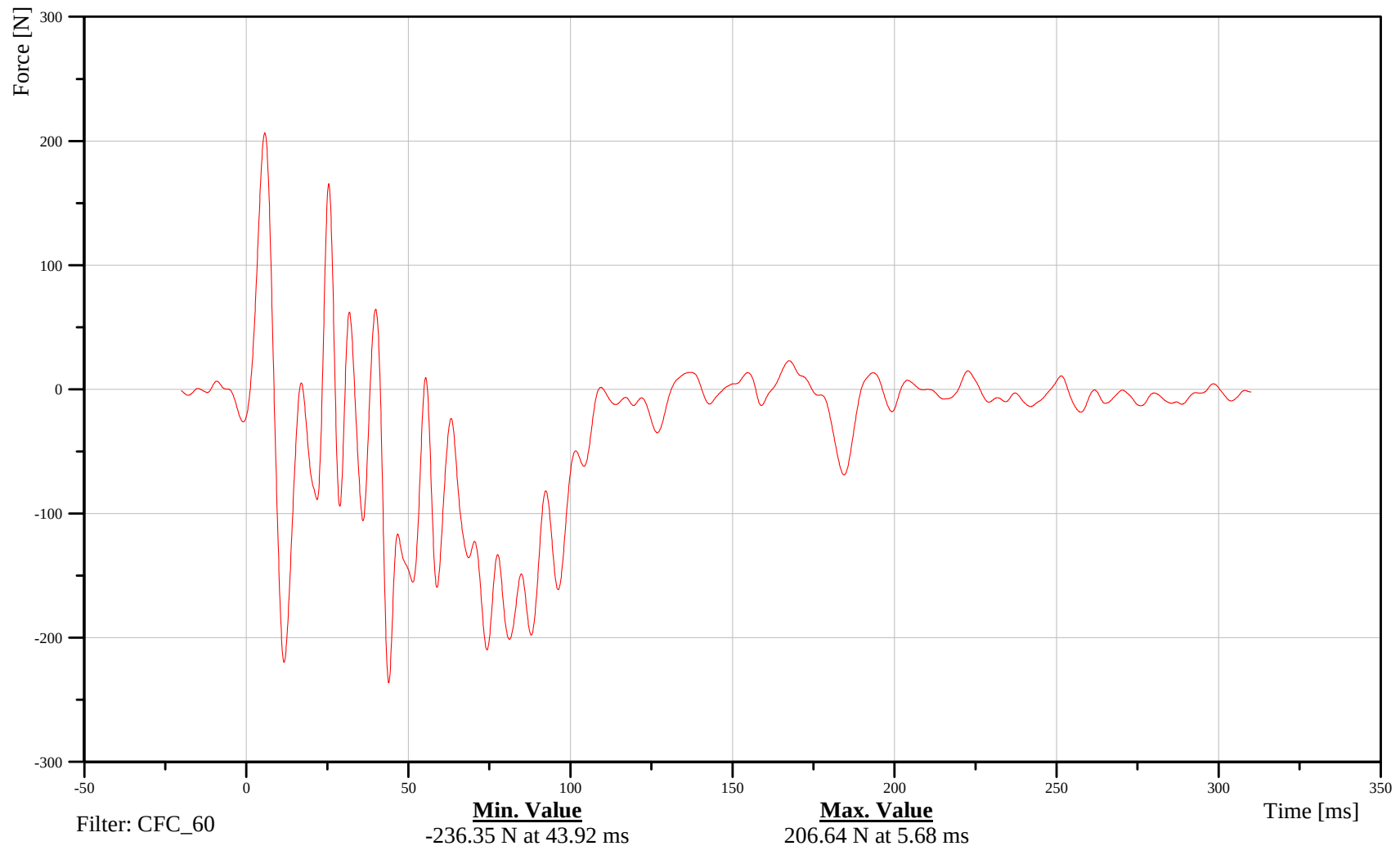
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 3

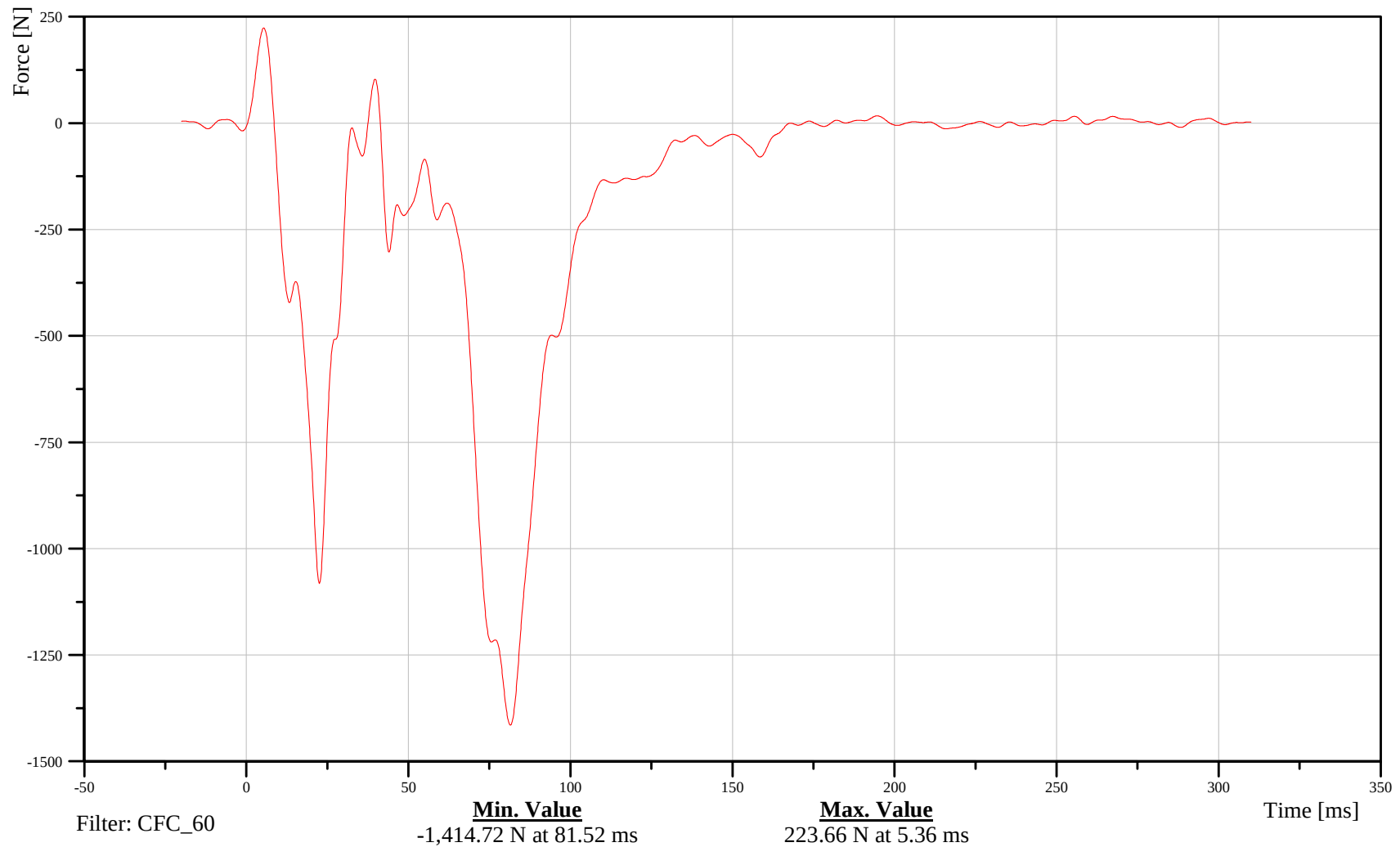
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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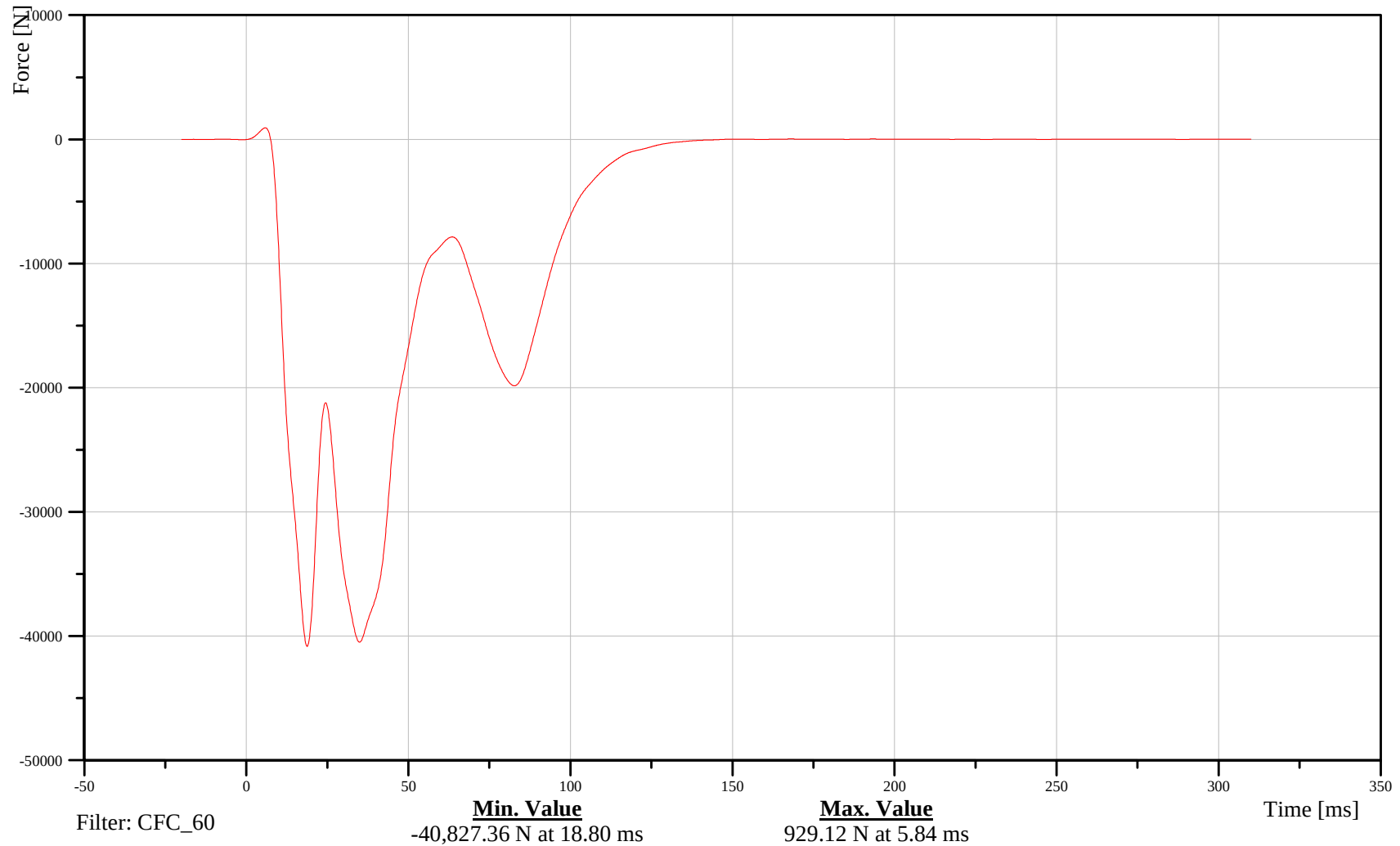
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000G04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 5

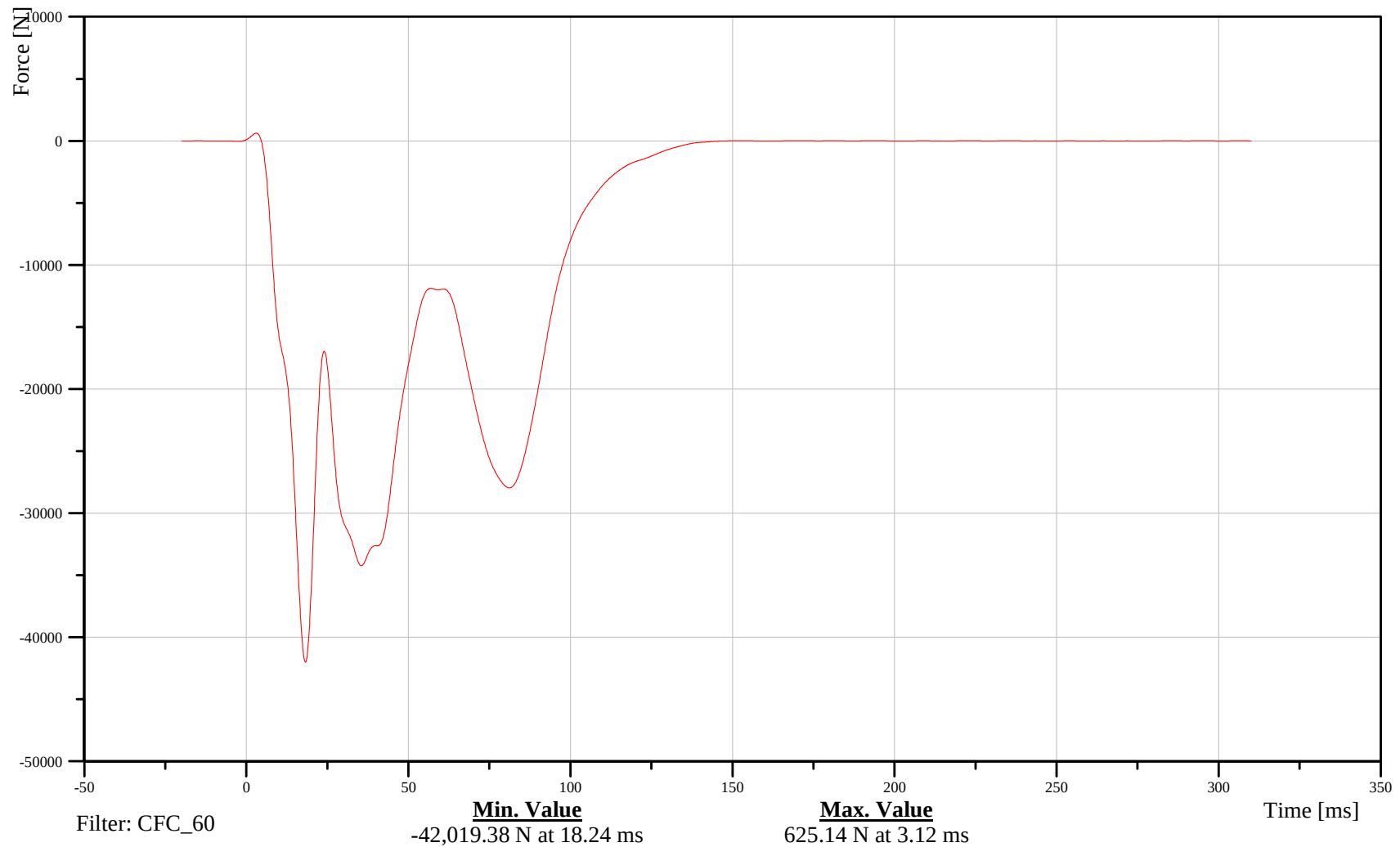
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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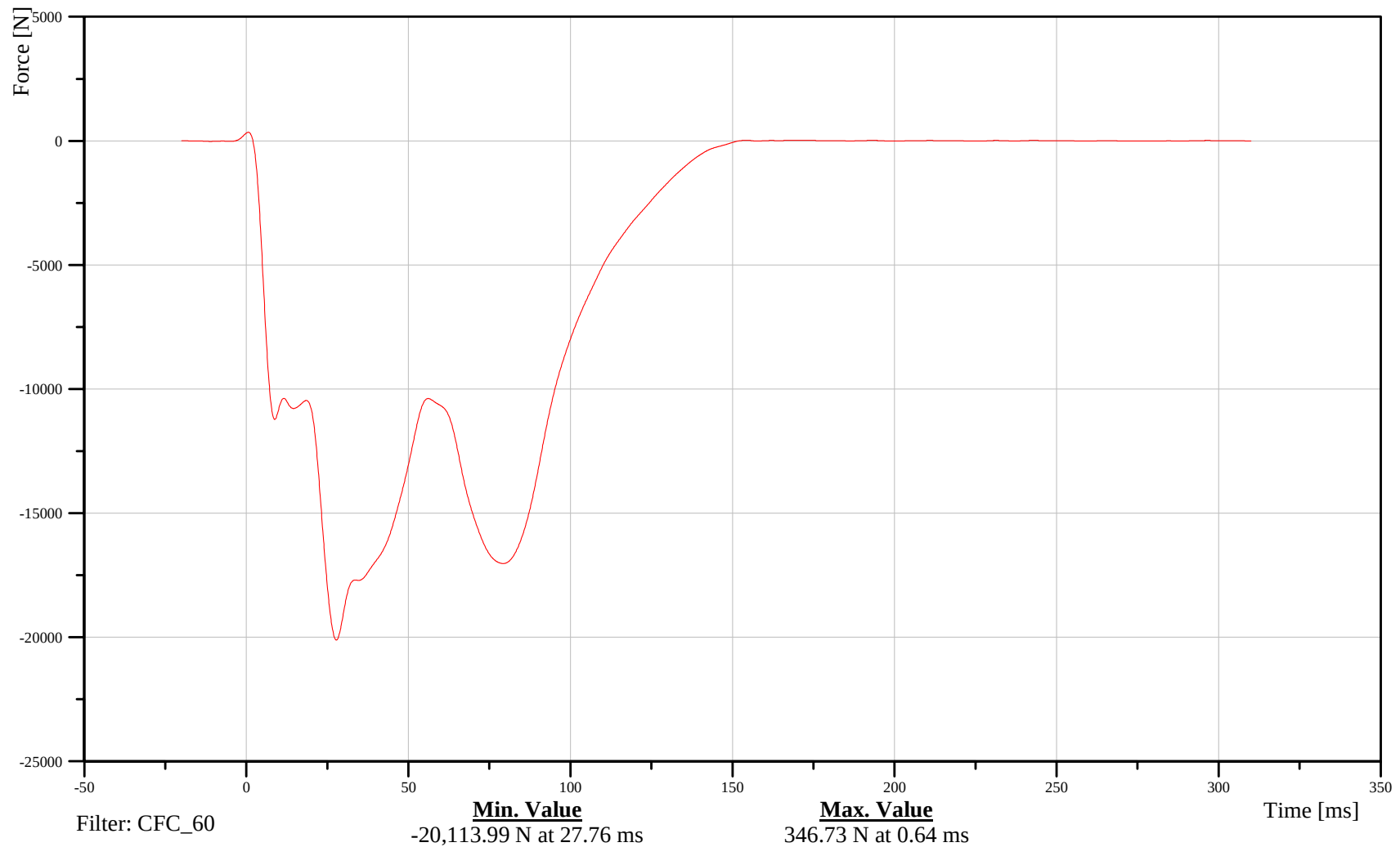
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 7

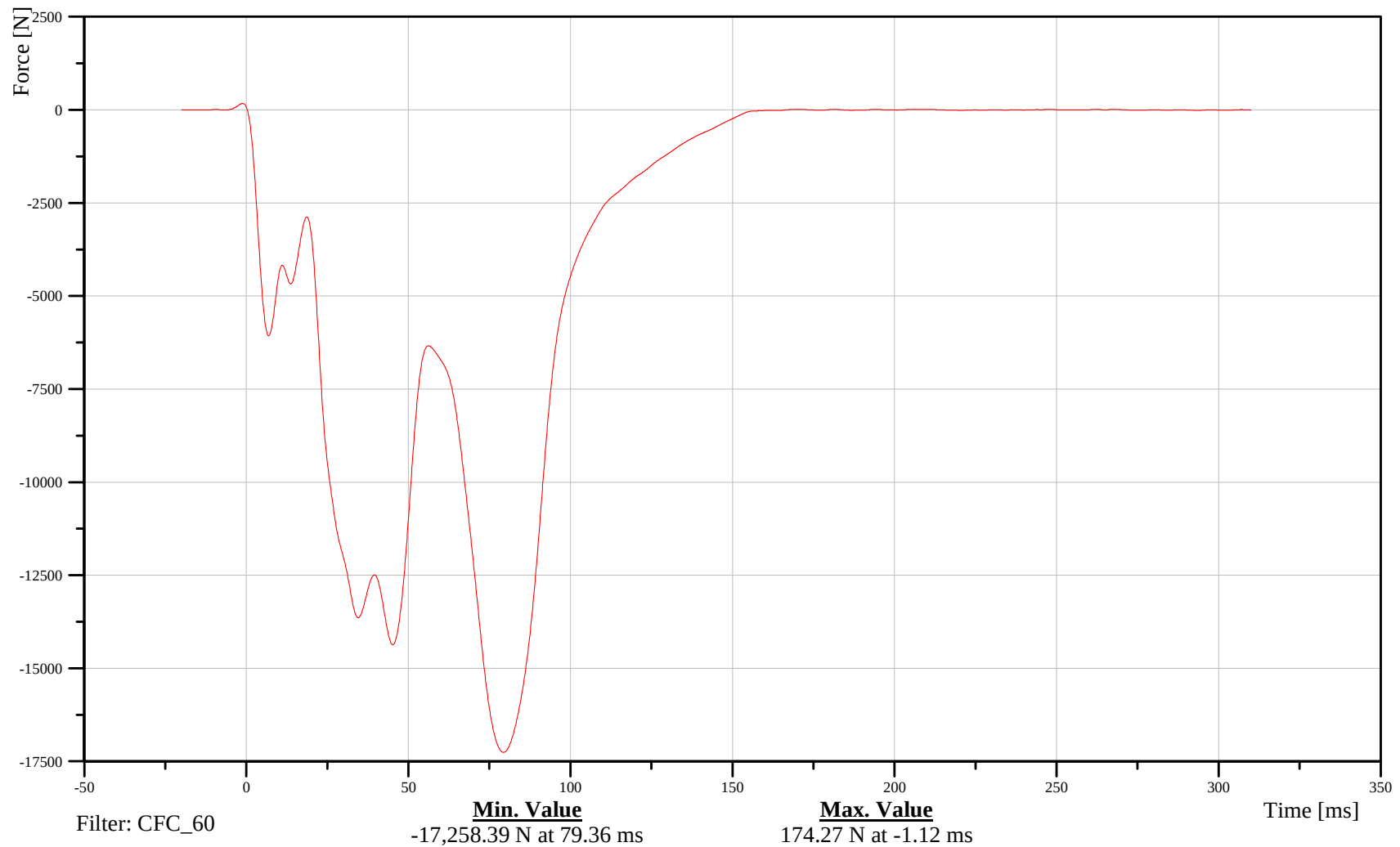
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 8

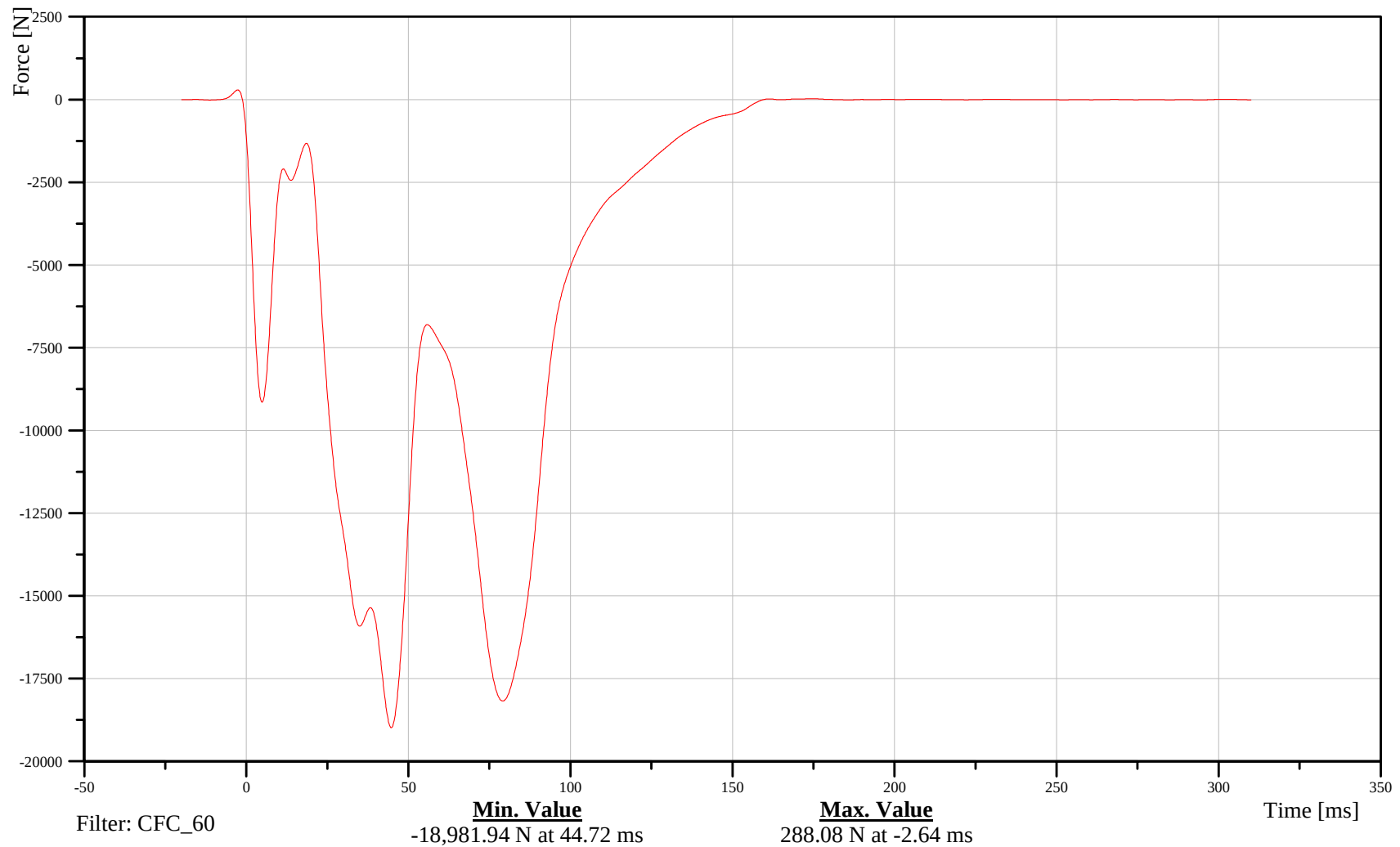
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 9

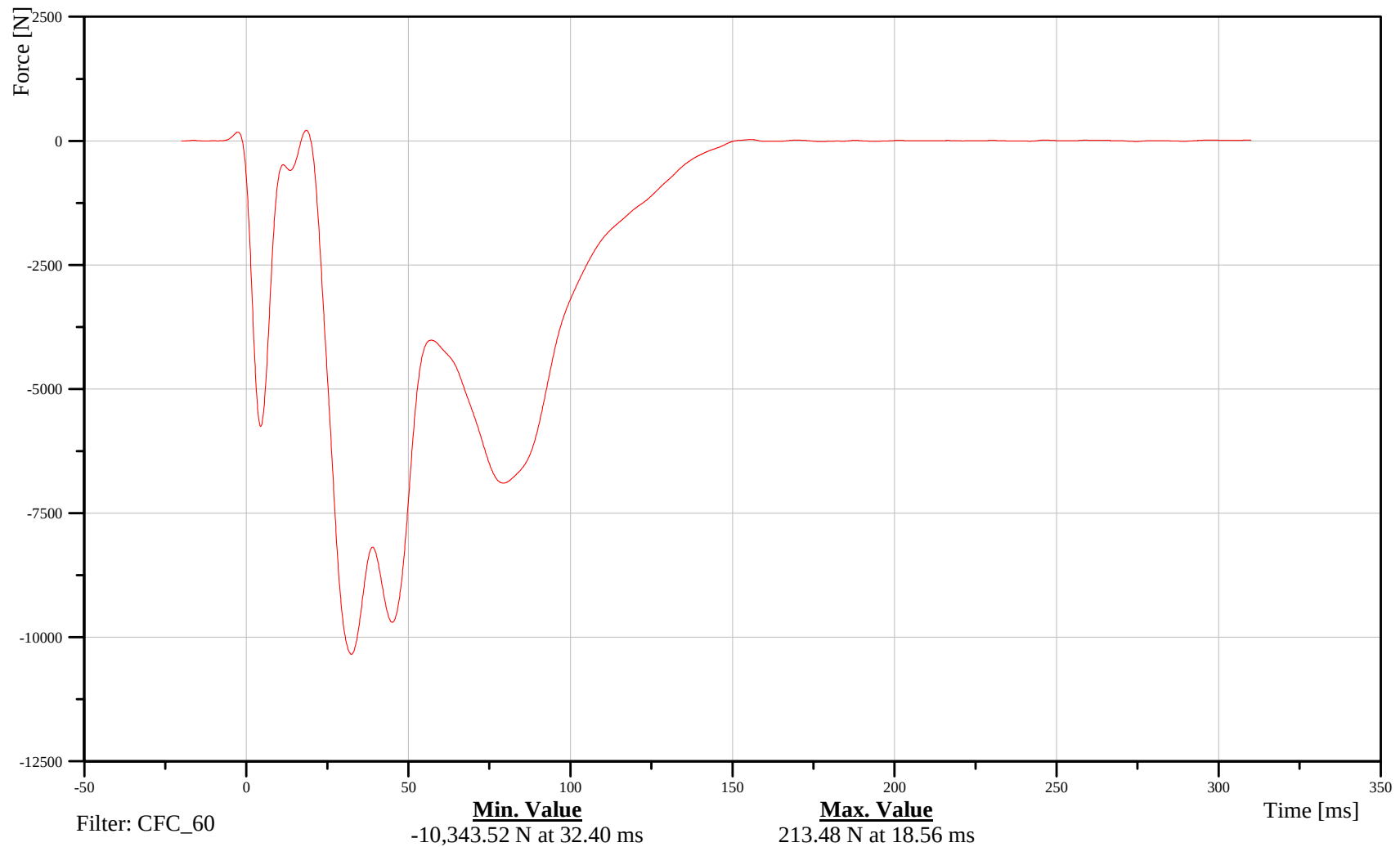
Date: 05/19/2006
Time: 17:50

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 10

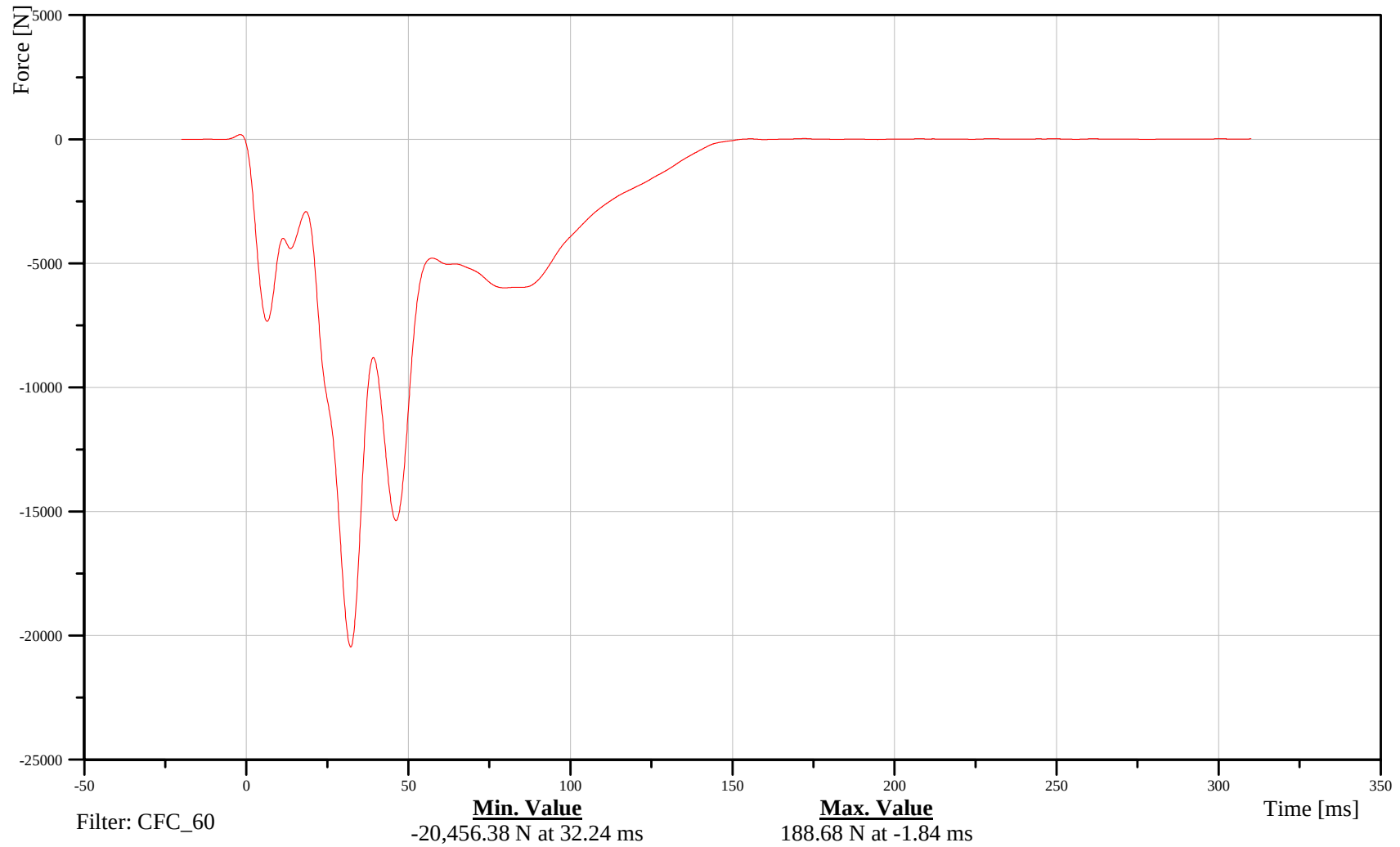
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 11

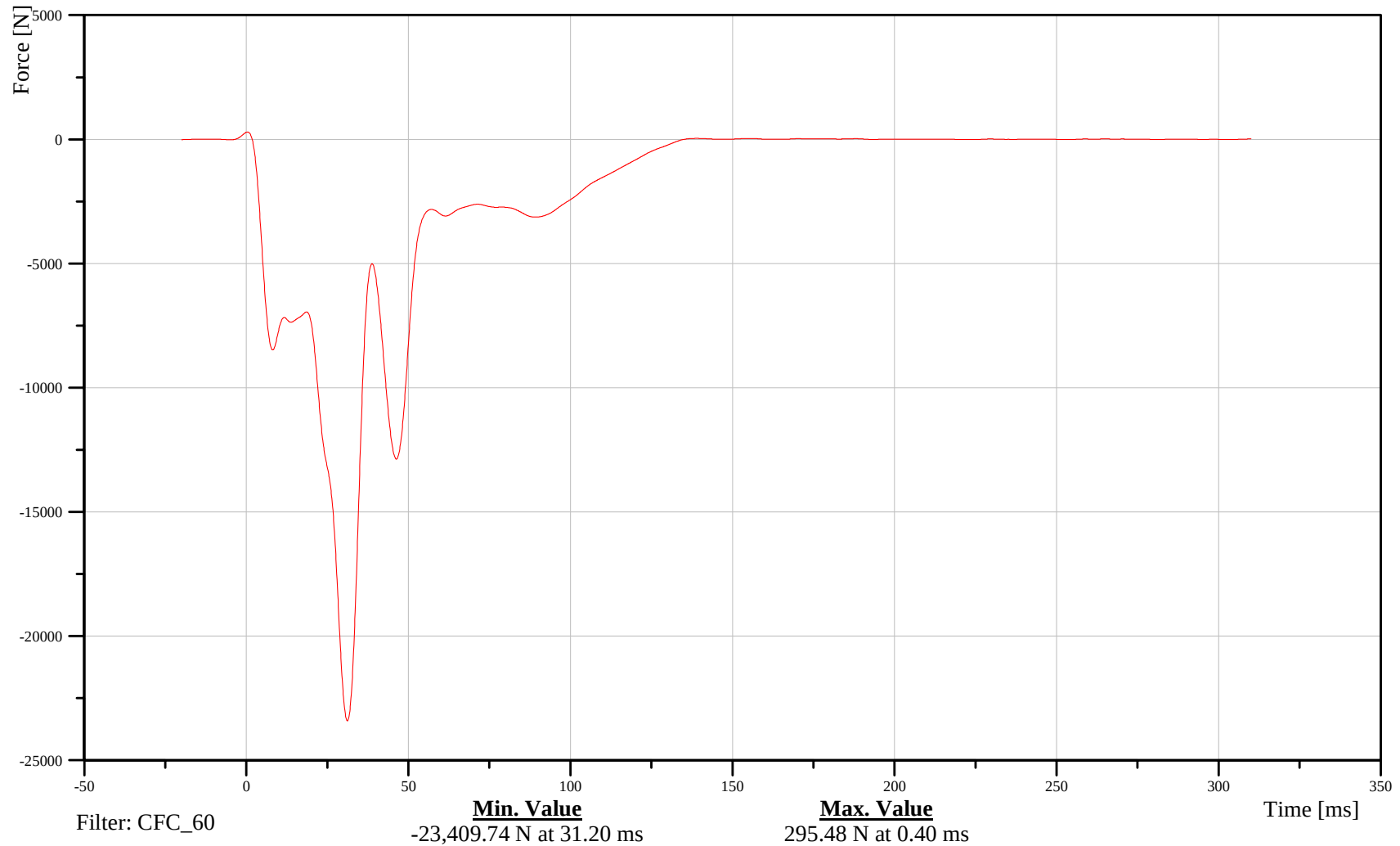
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Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 12

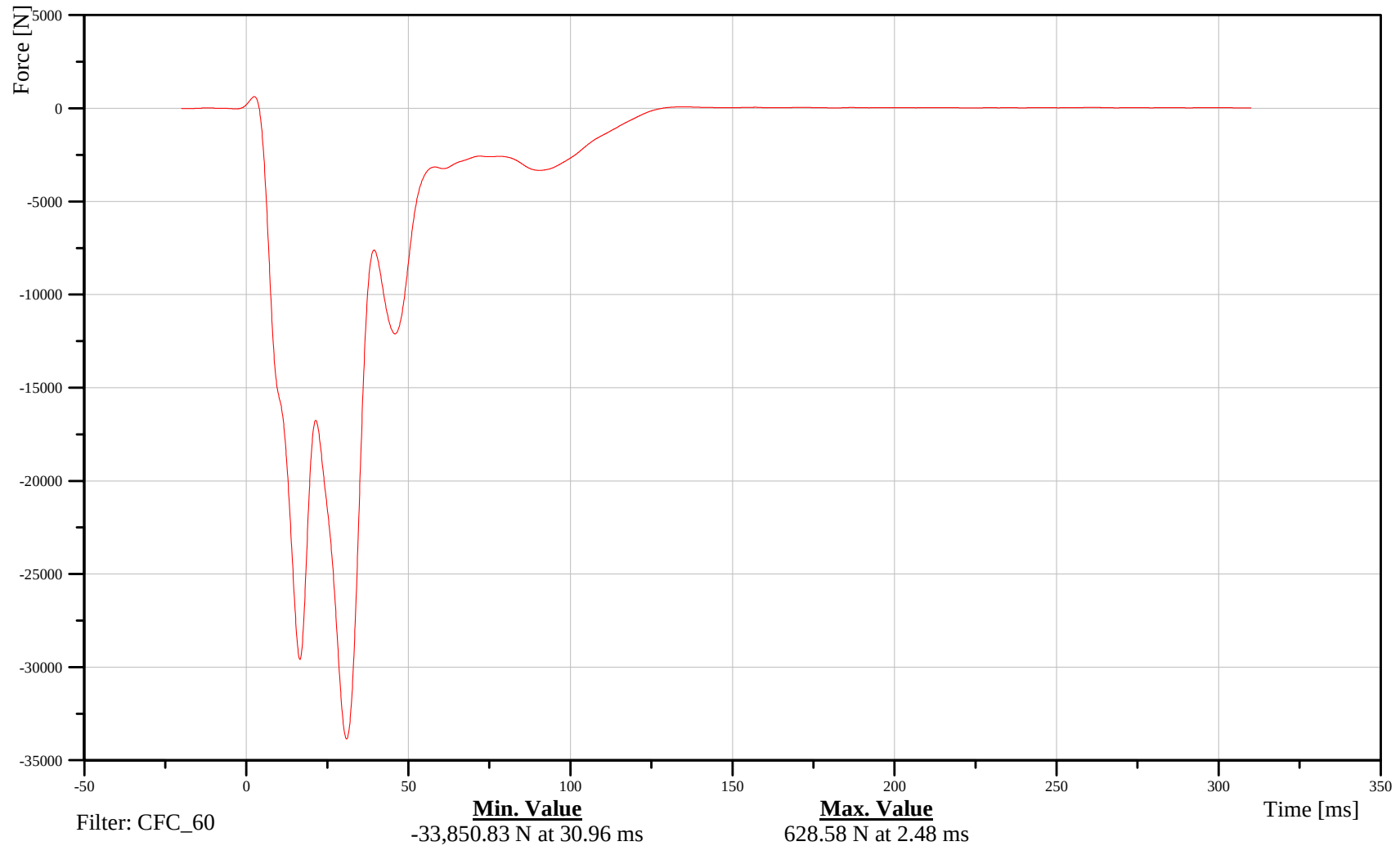
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 13

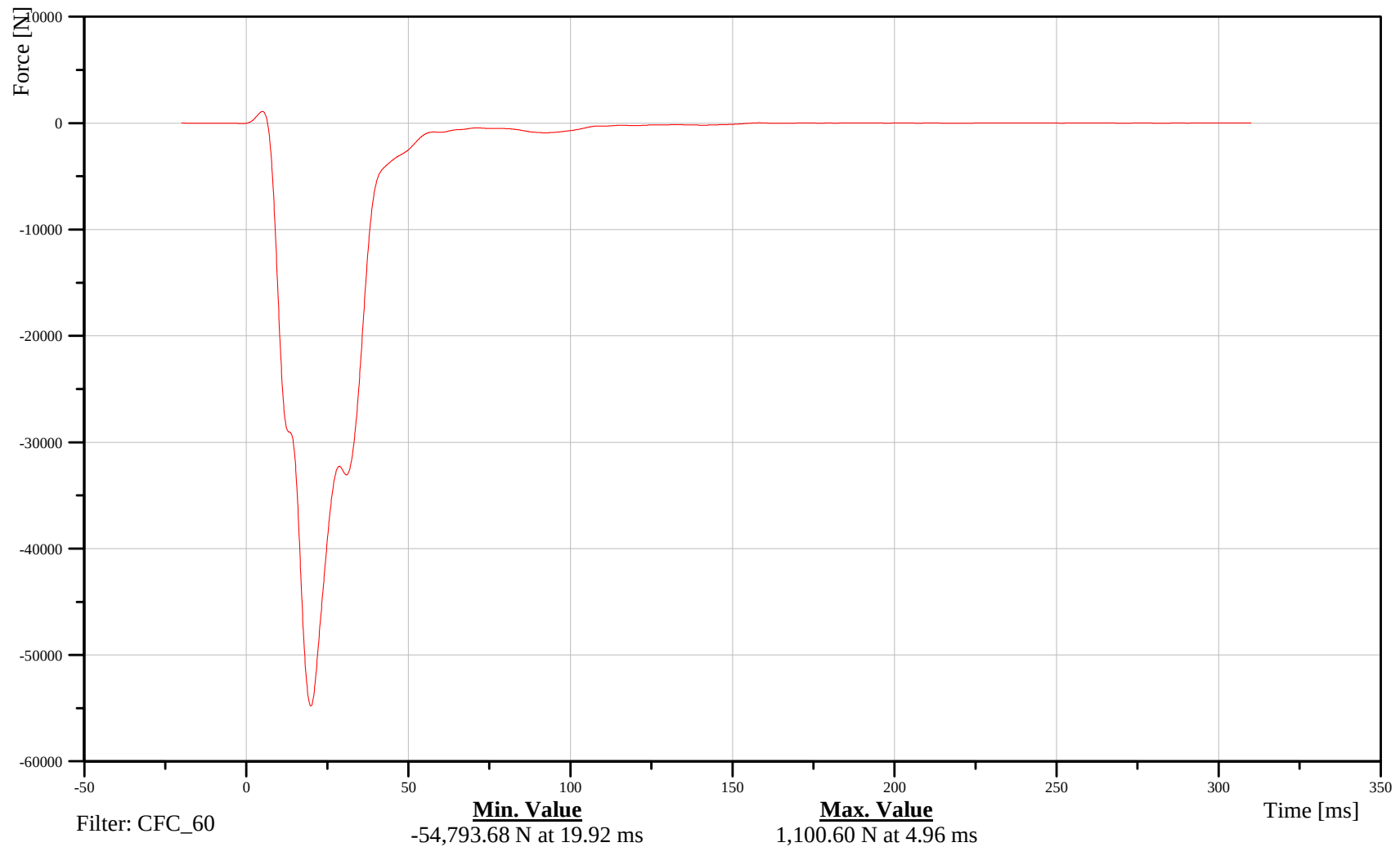
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 14

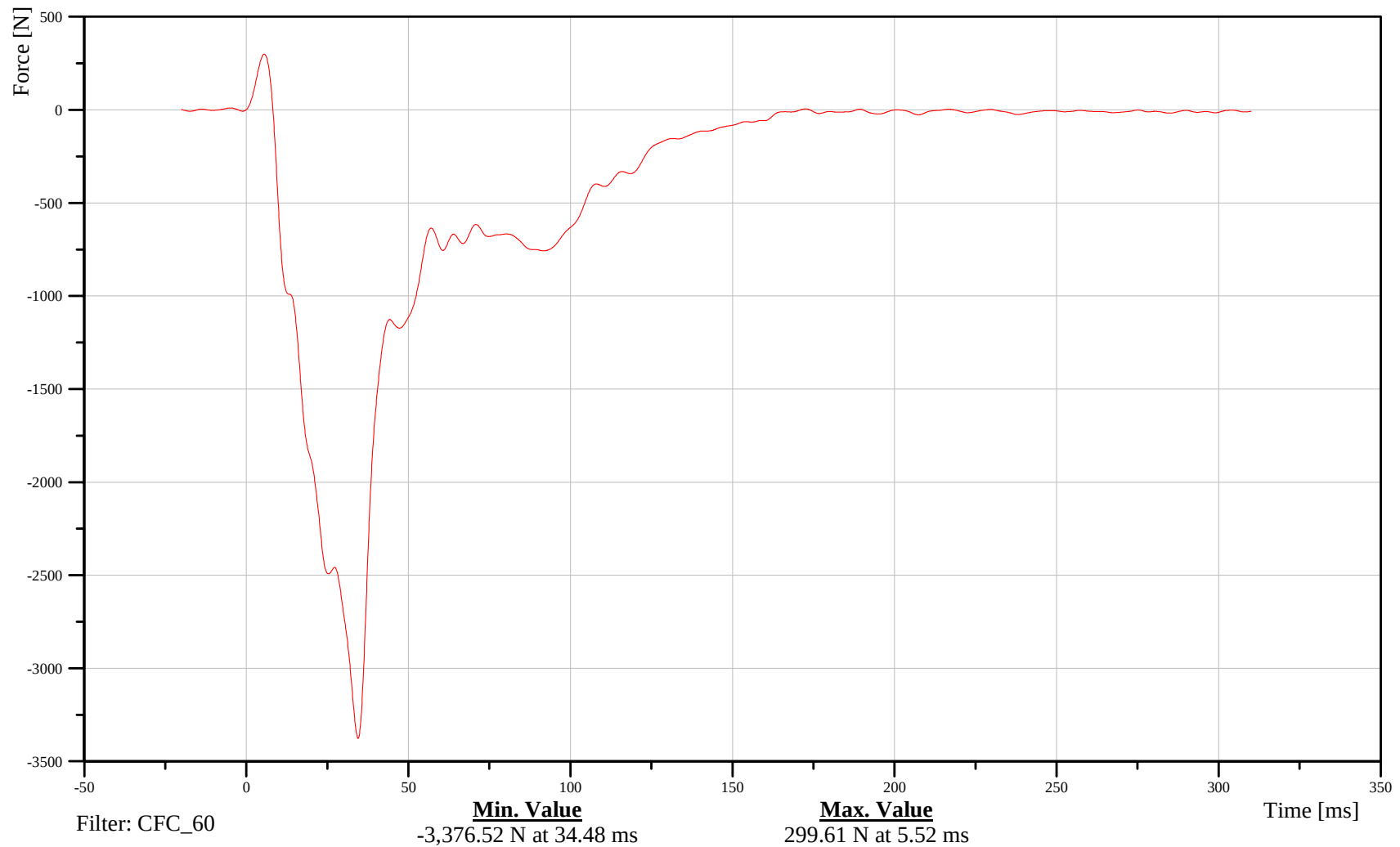
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 15

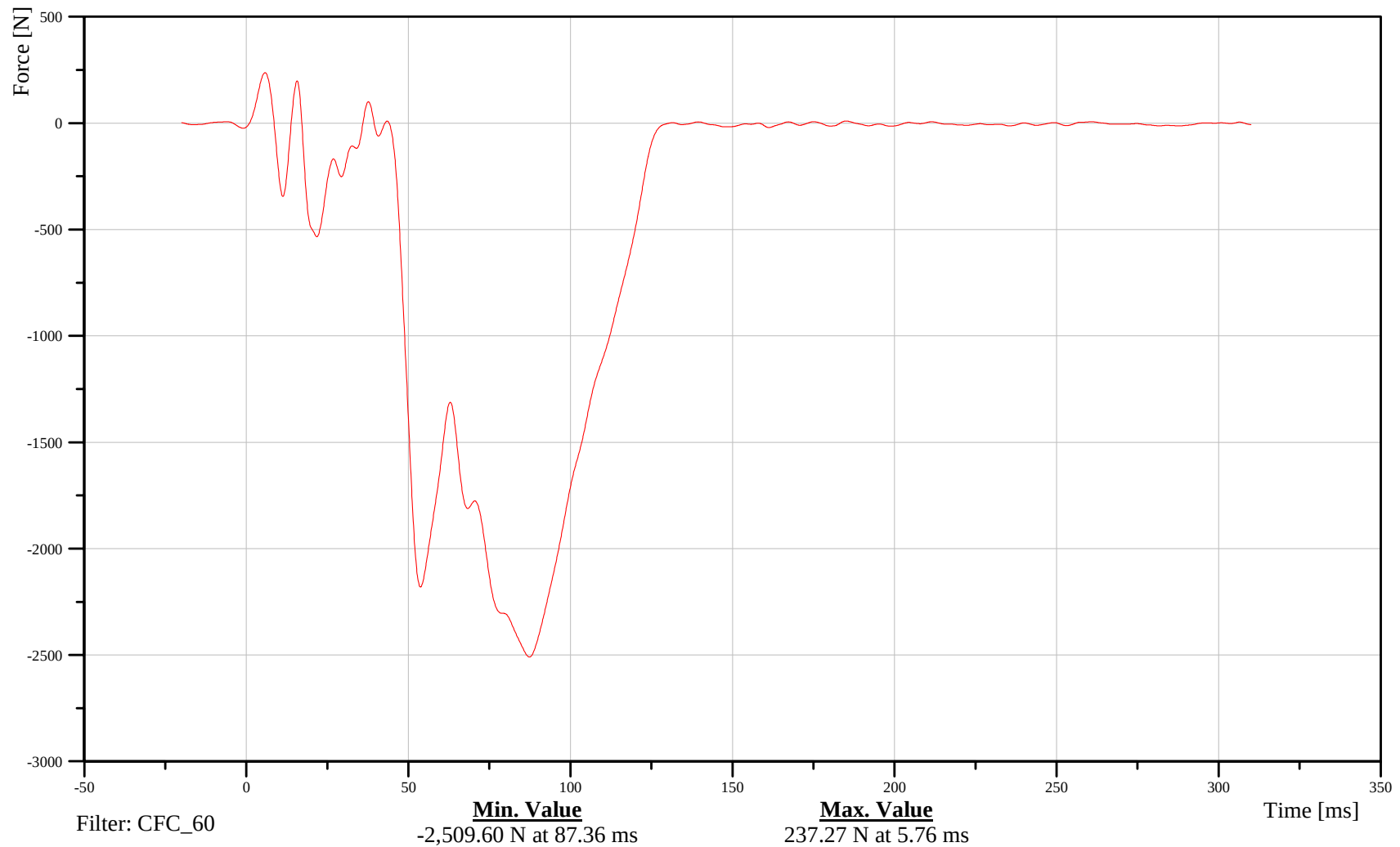
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 3 Column 16

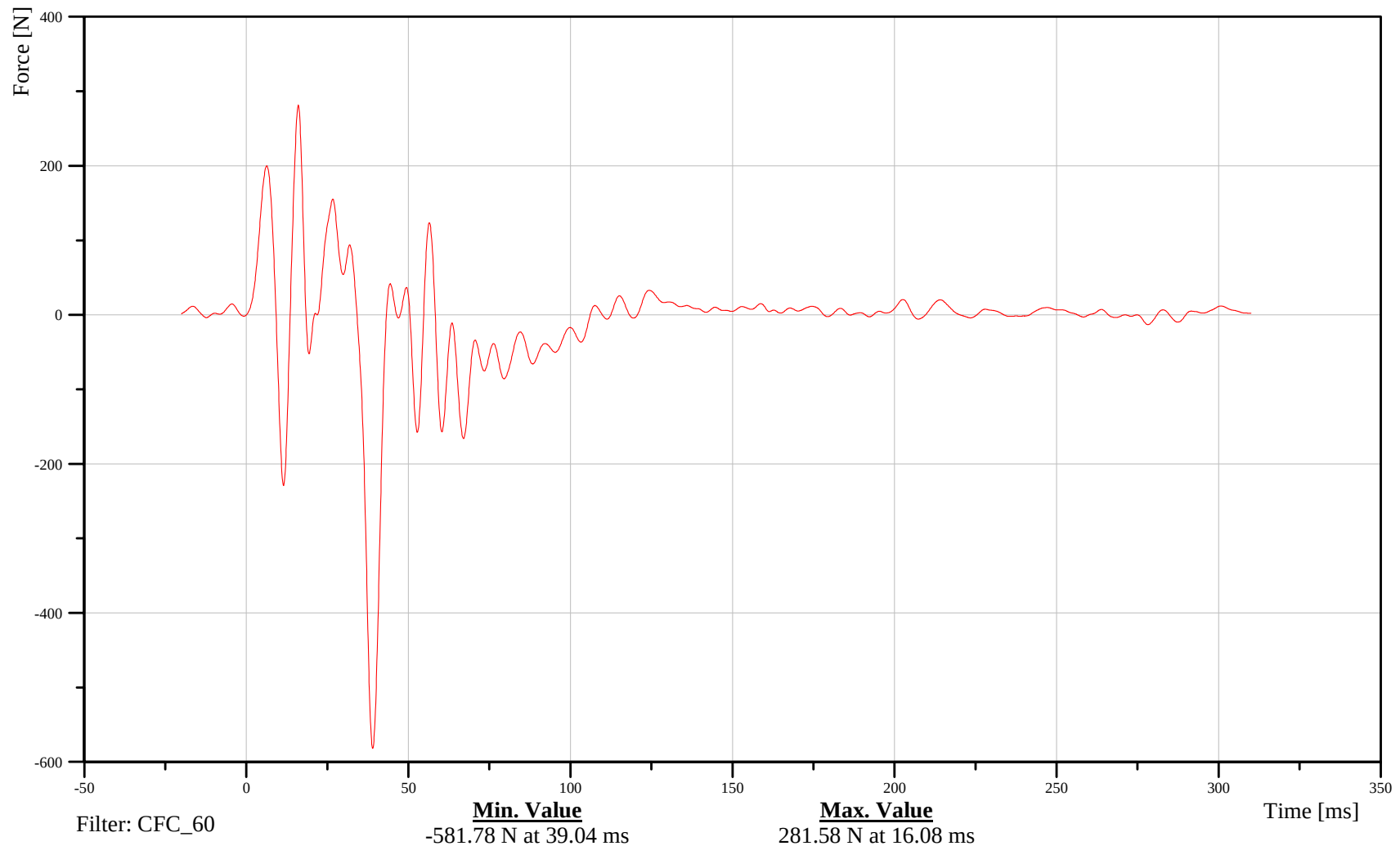
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000G16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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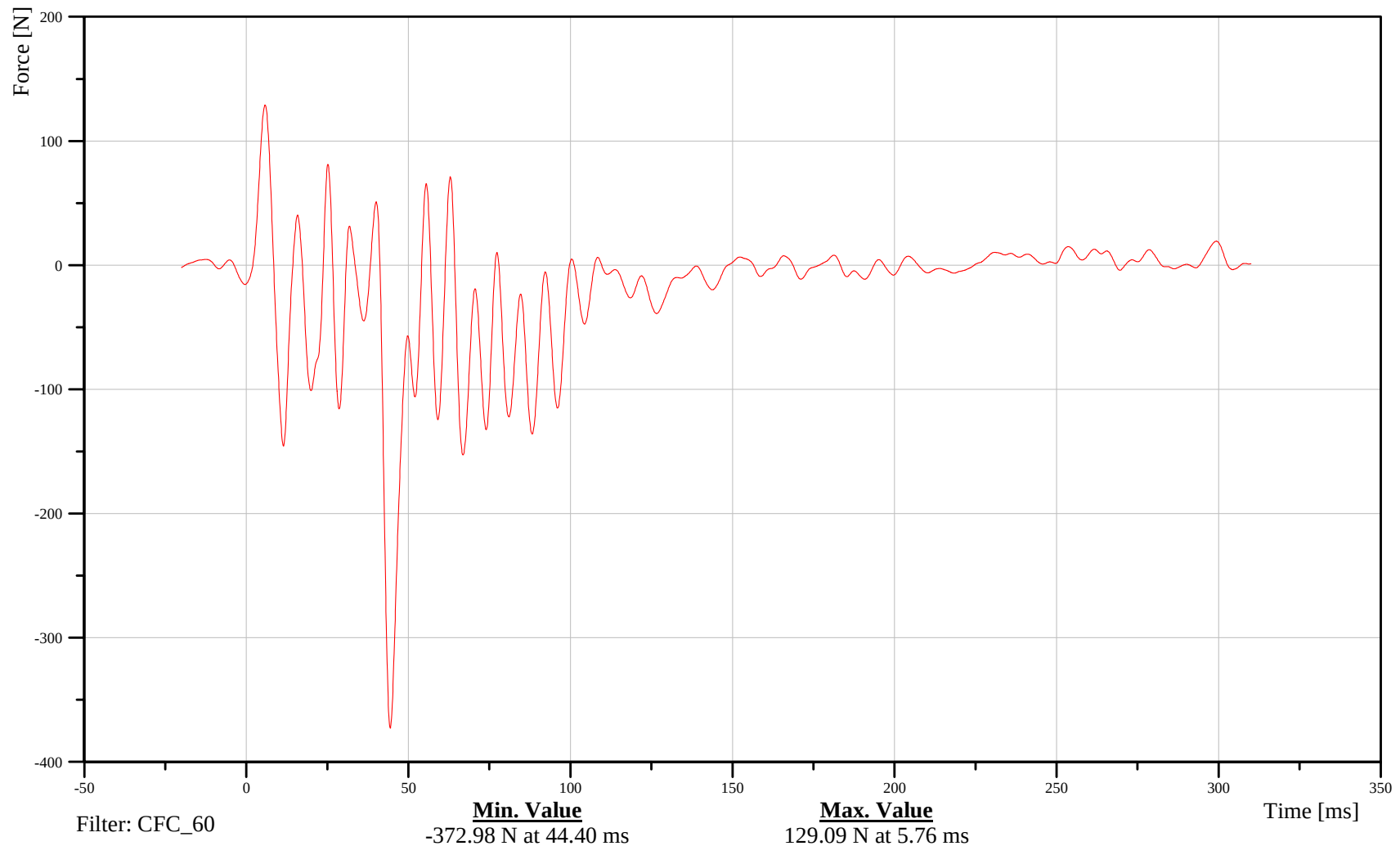
Date: 05/19/2006
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

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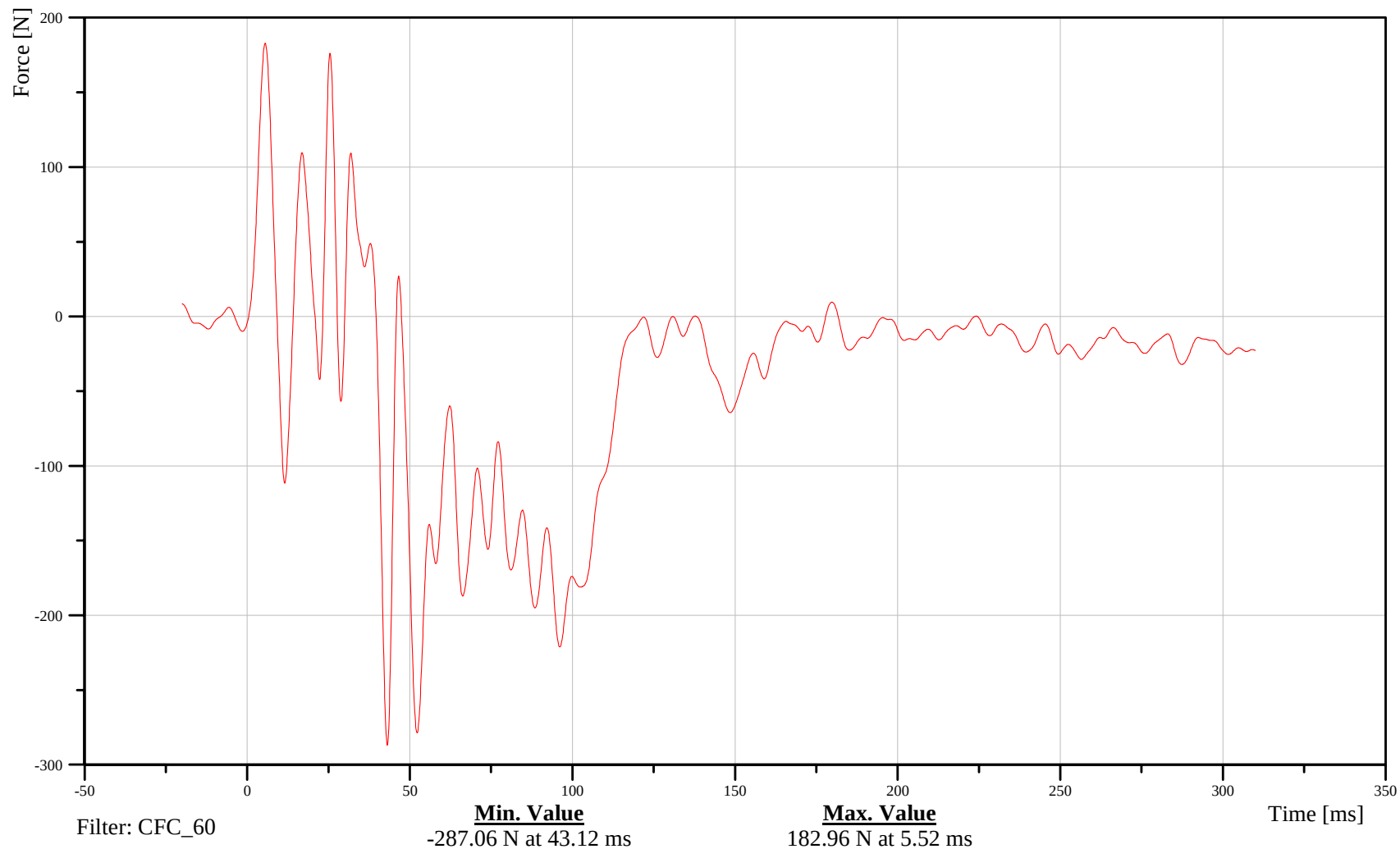
Time: 17:50

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 3

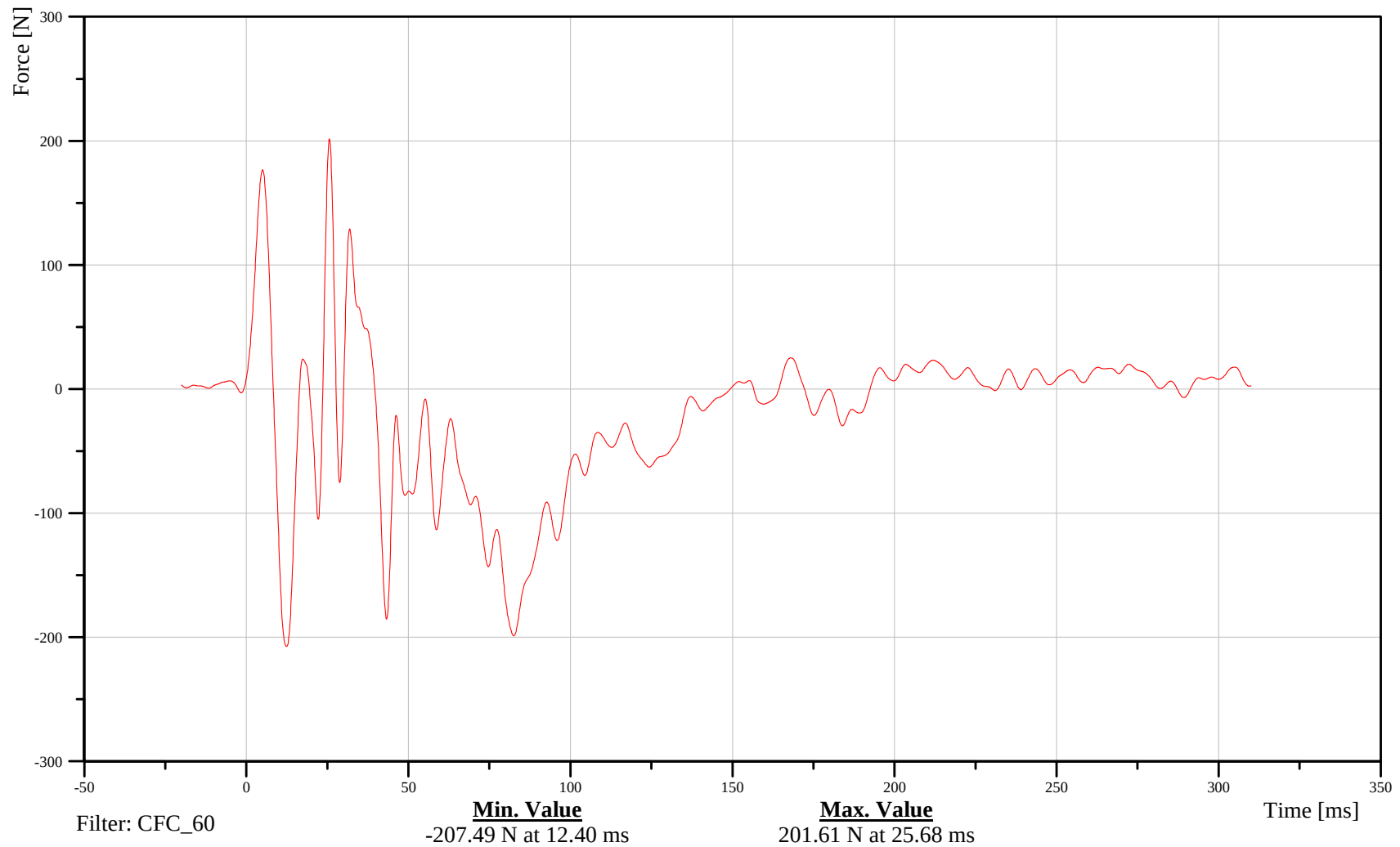
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 4

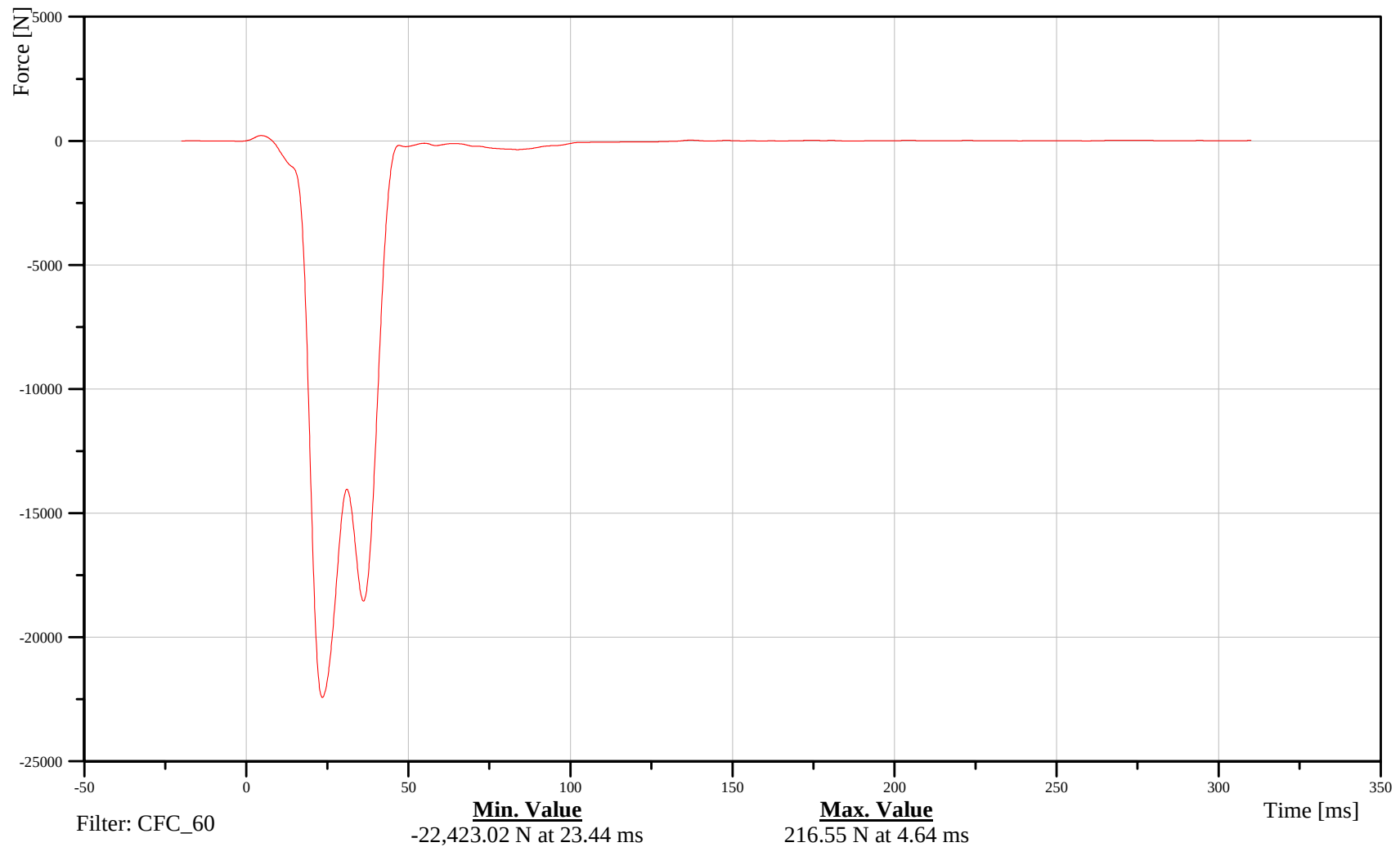
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 5

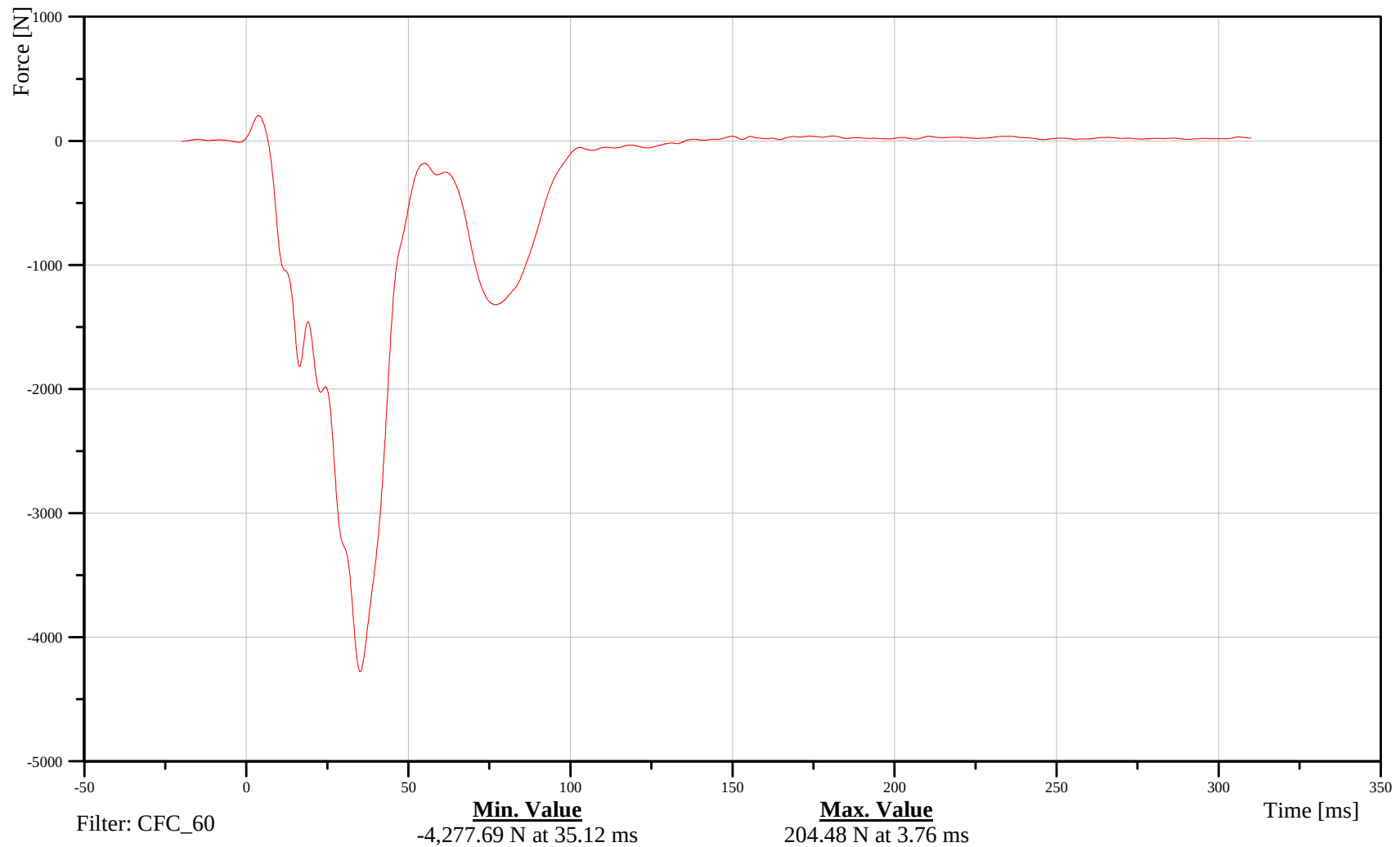
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H05FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 6

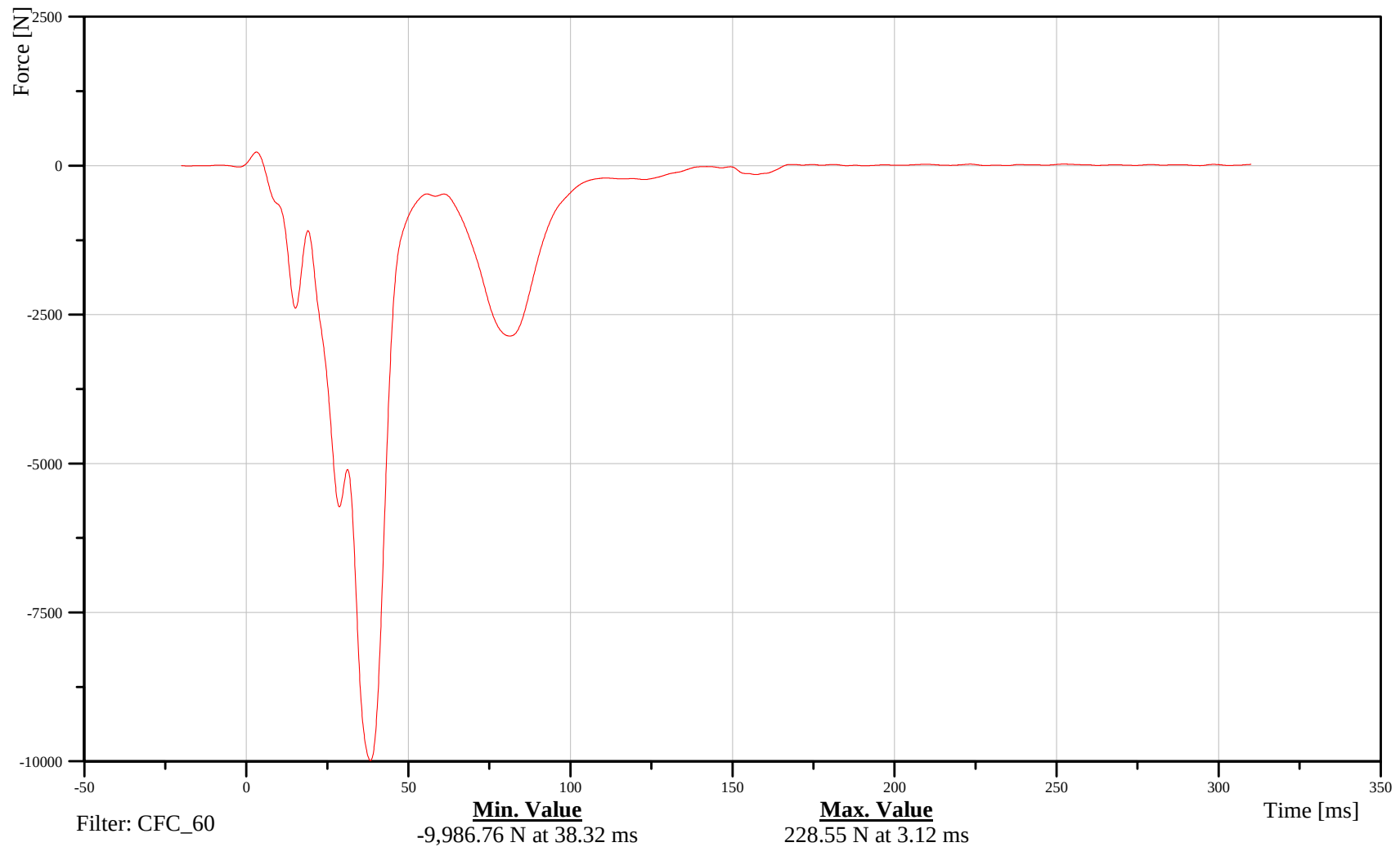
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H06FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 7

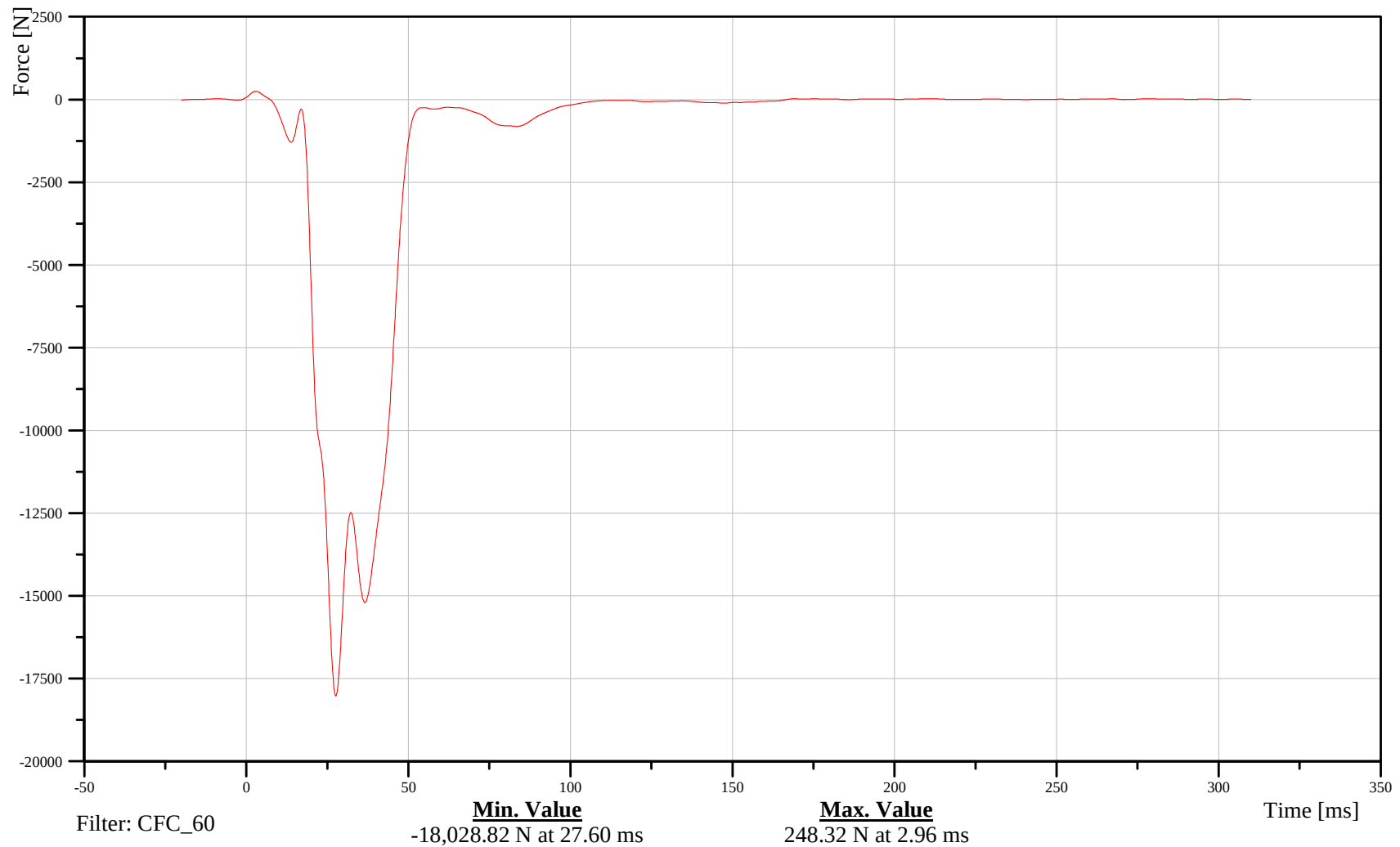
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 8

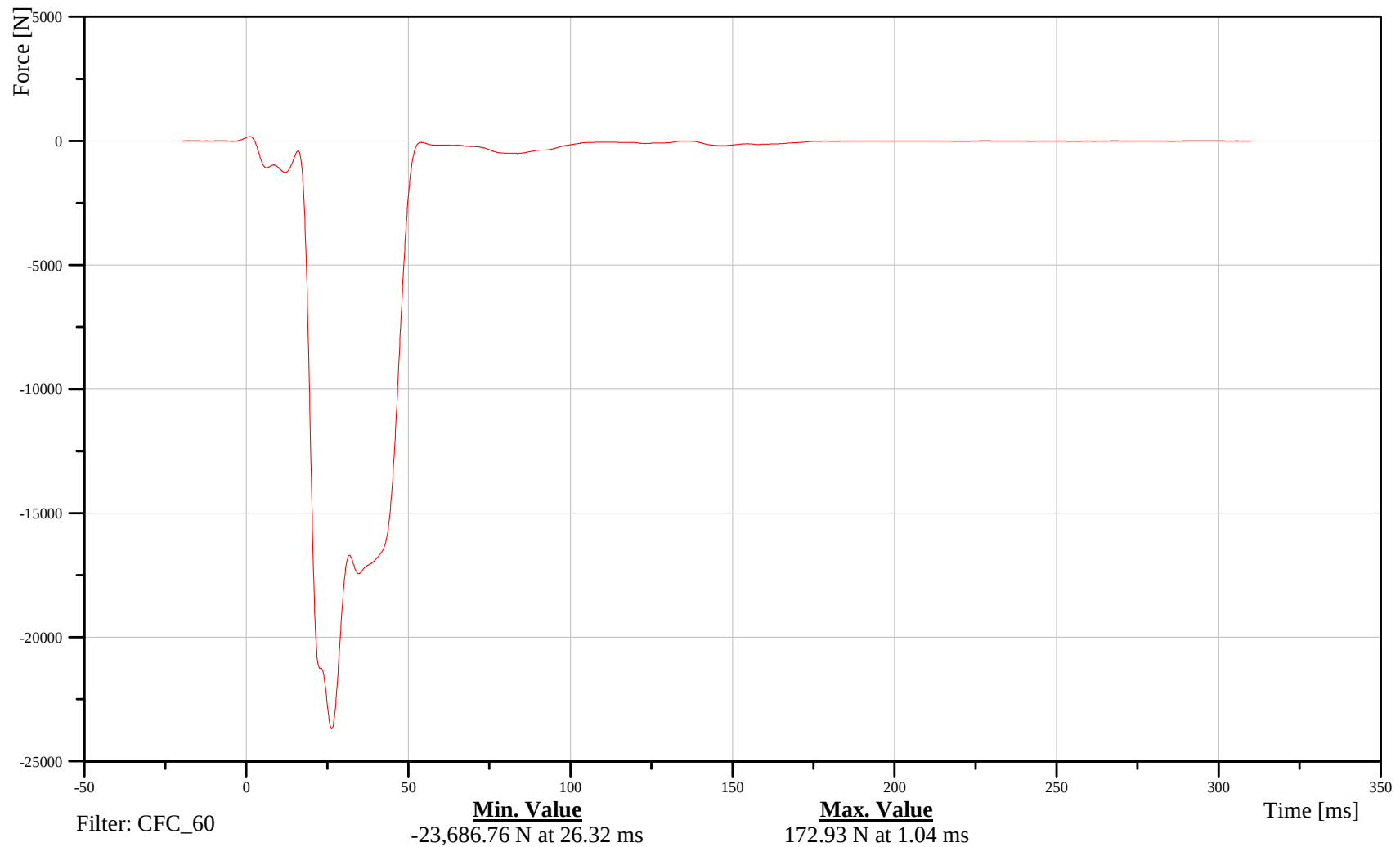
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 9

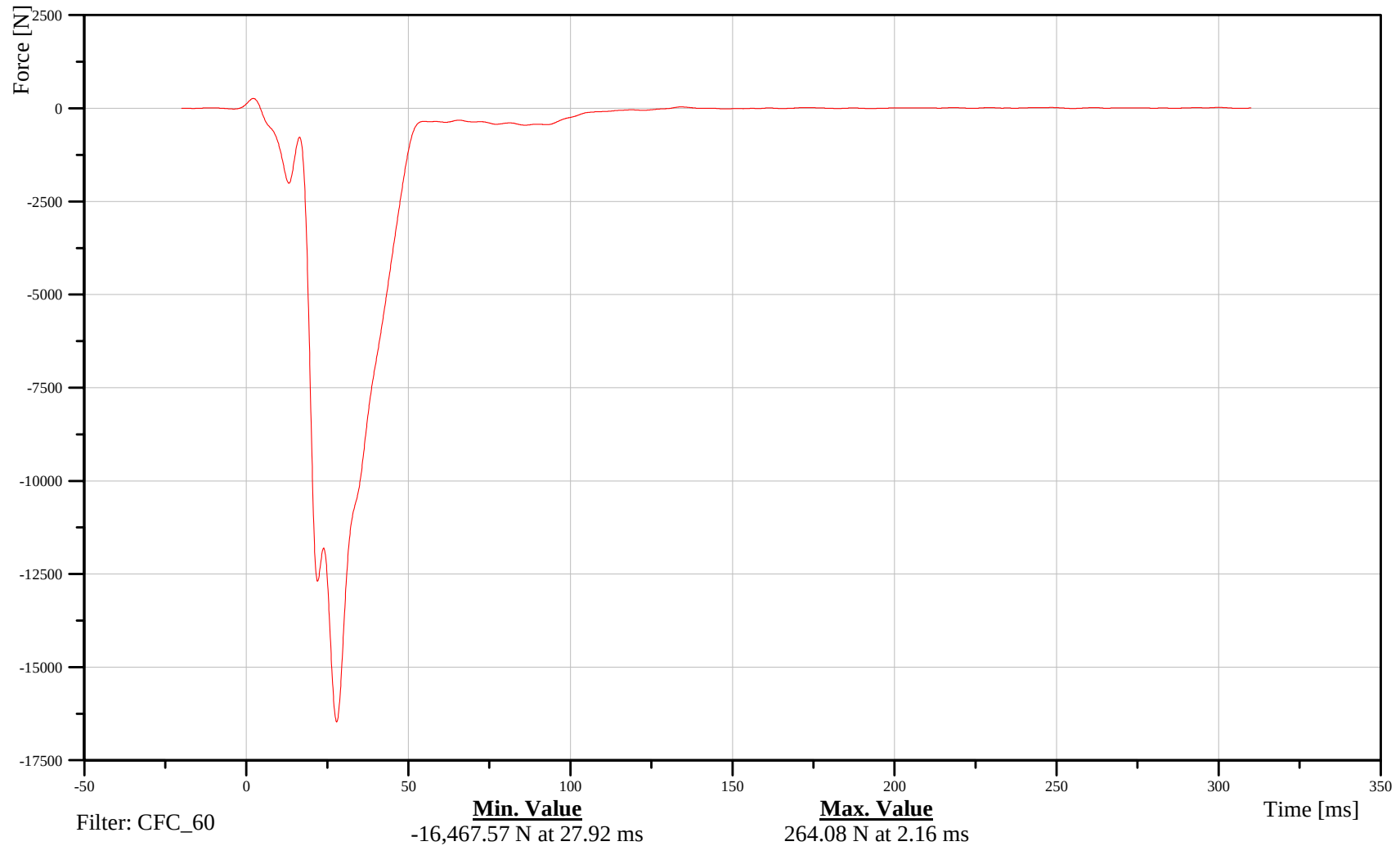
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 10

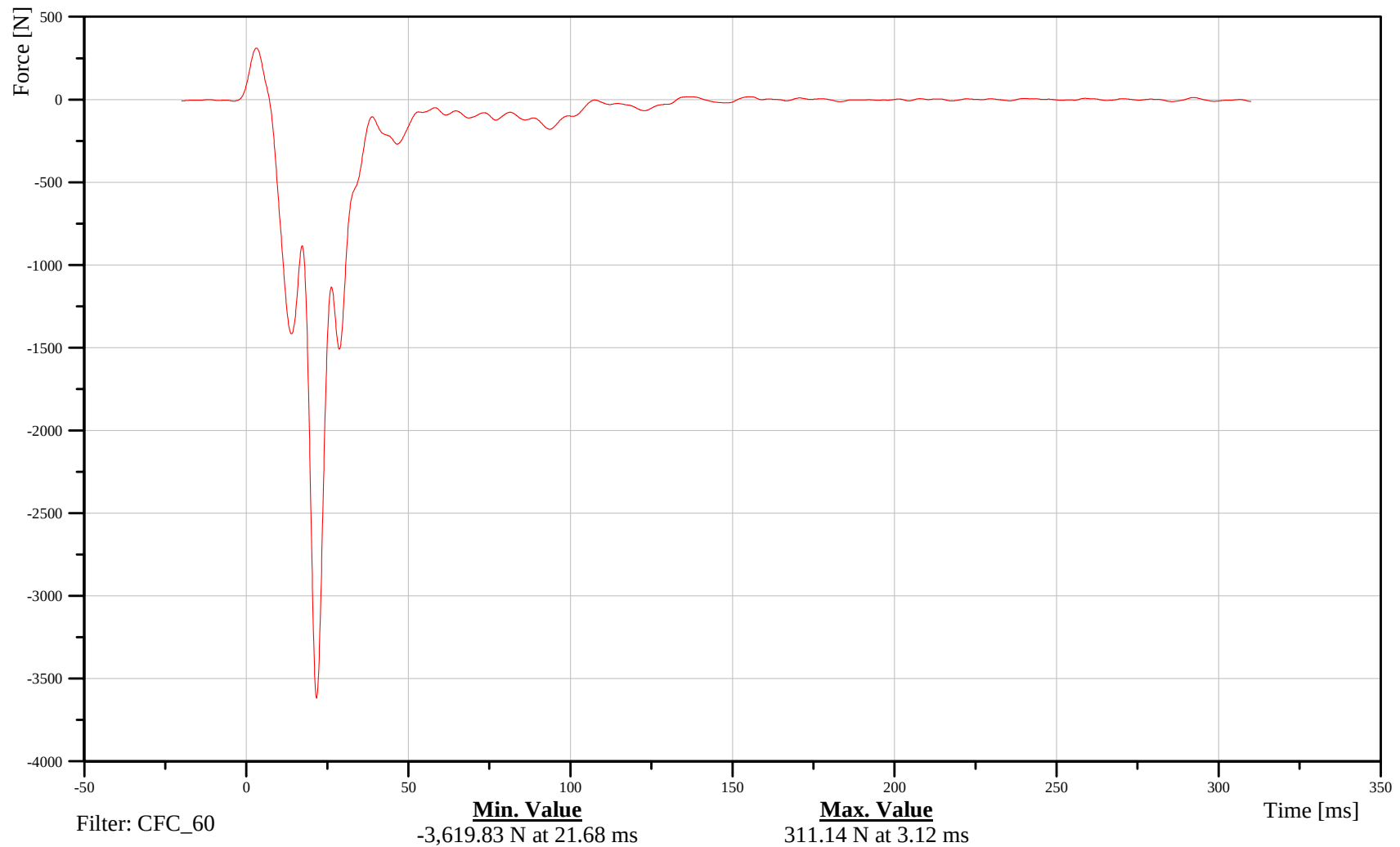
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 11

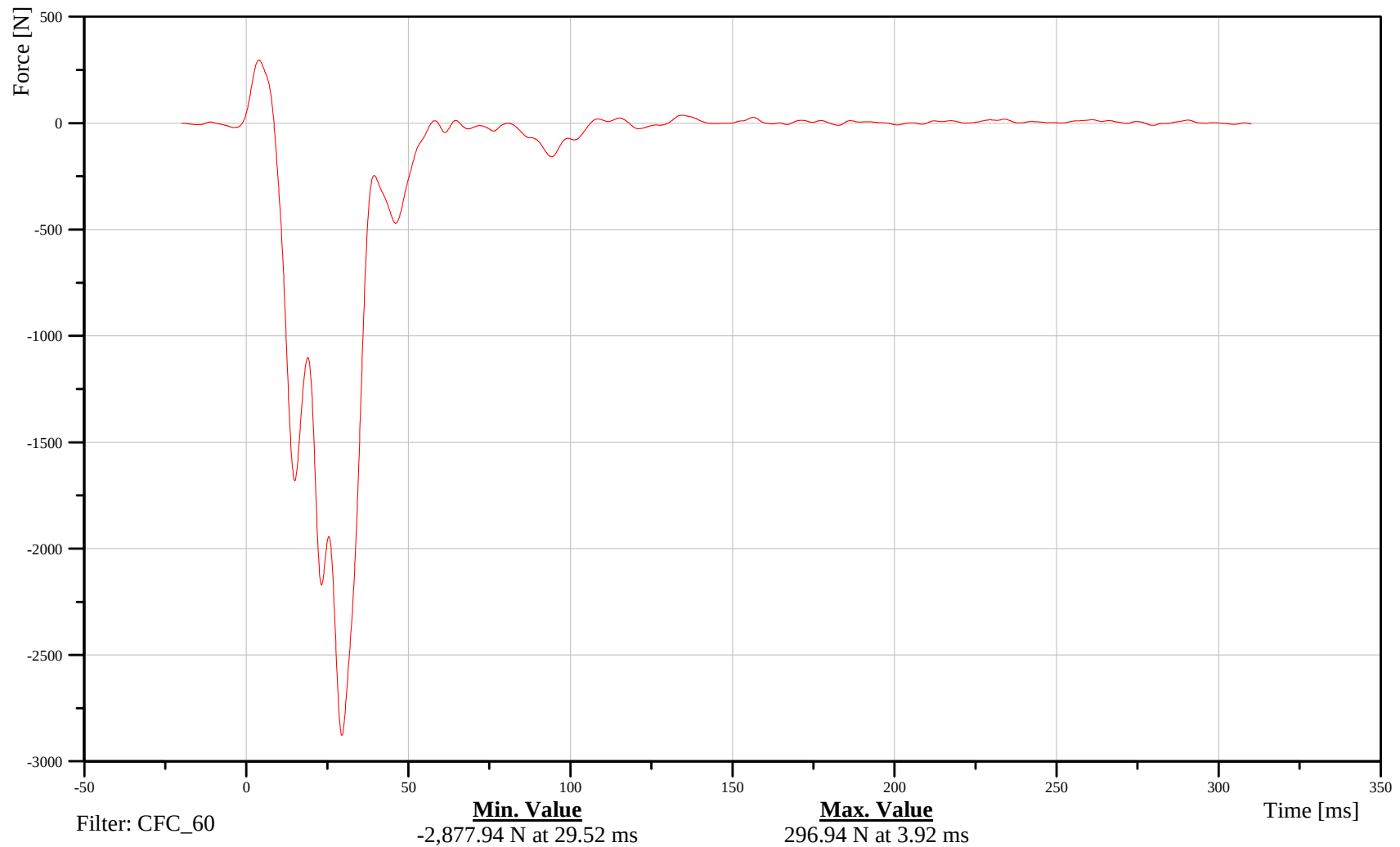
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H11FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 12

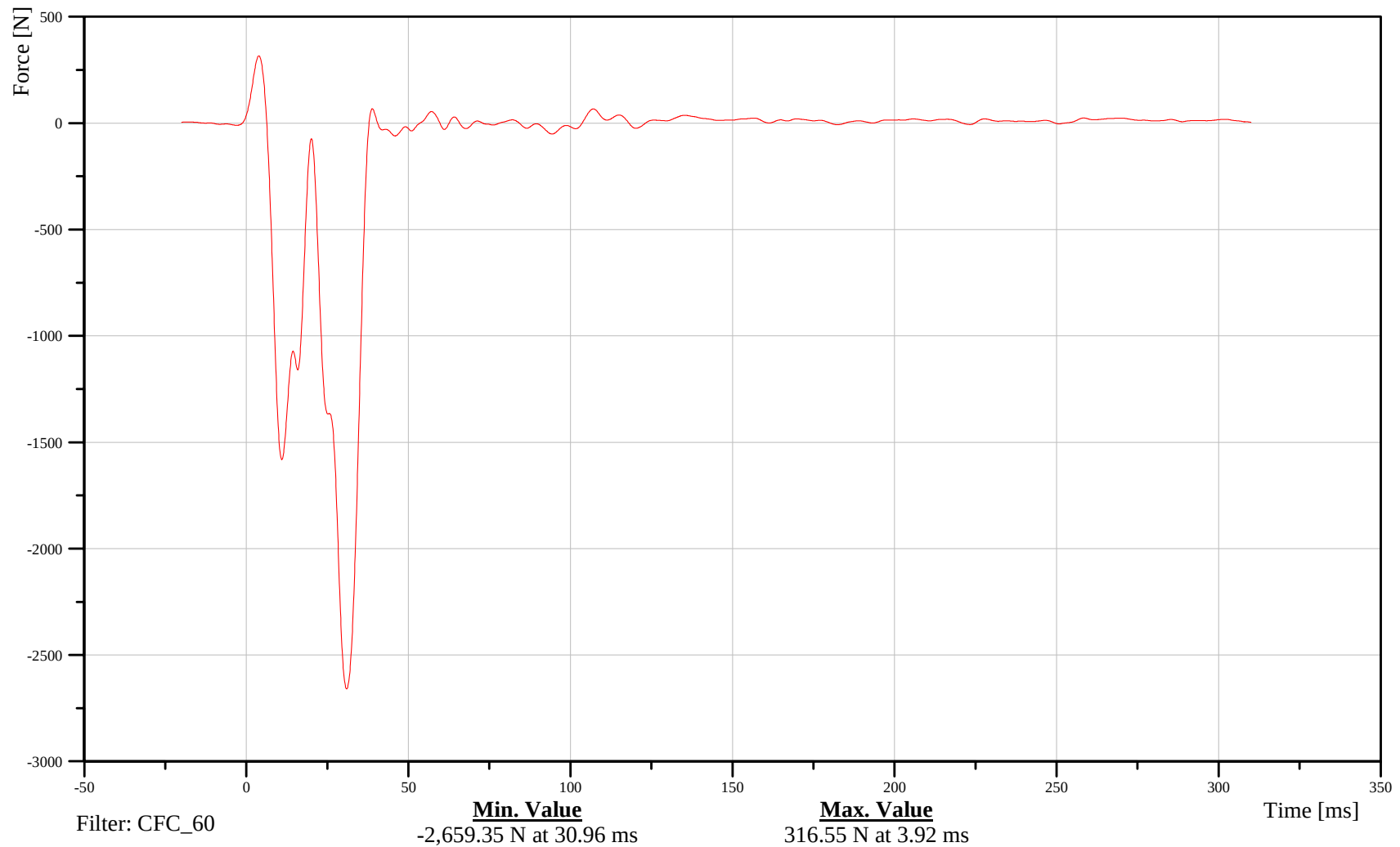
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H12FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 13

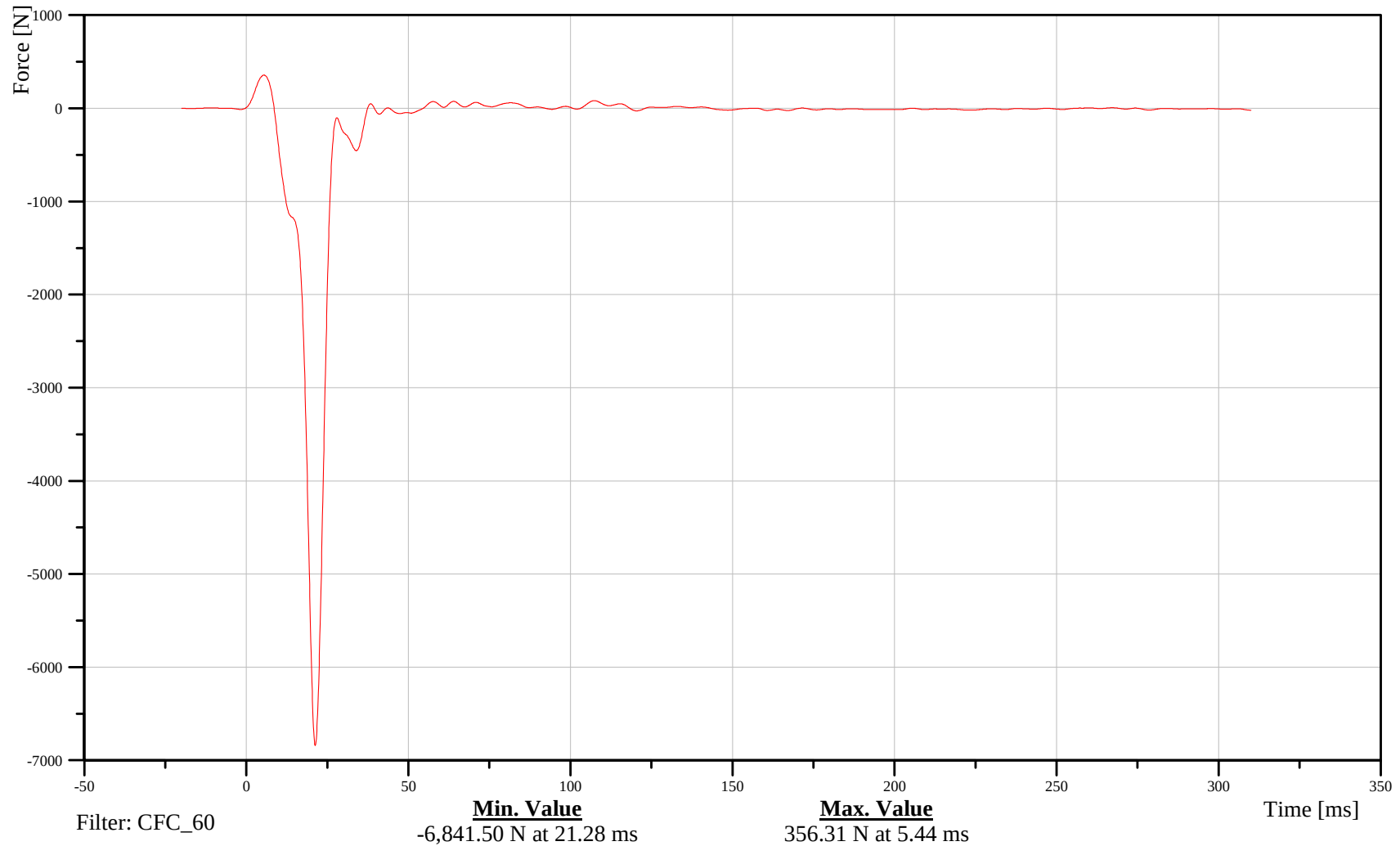
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H13FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 14

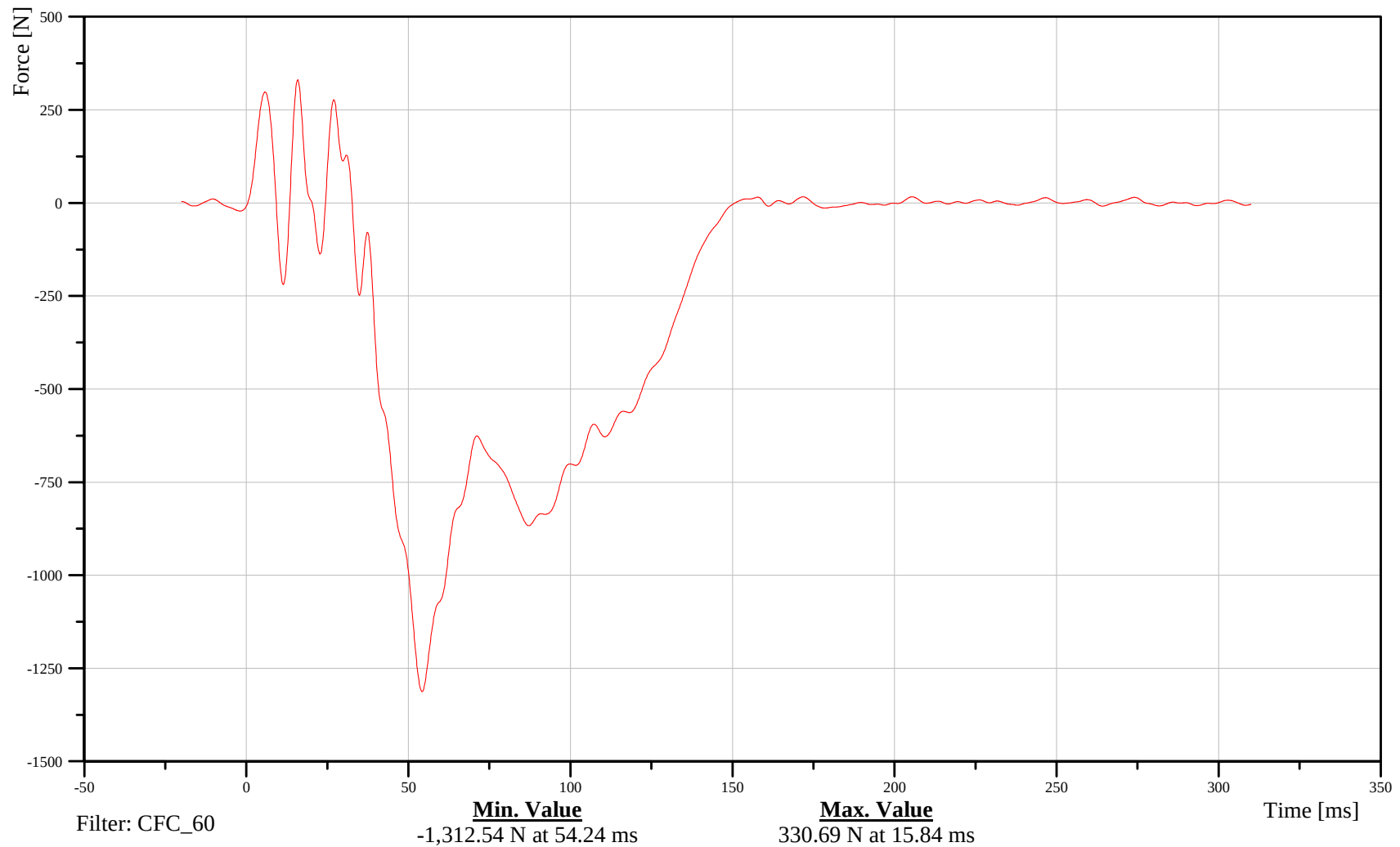
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H14FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 15

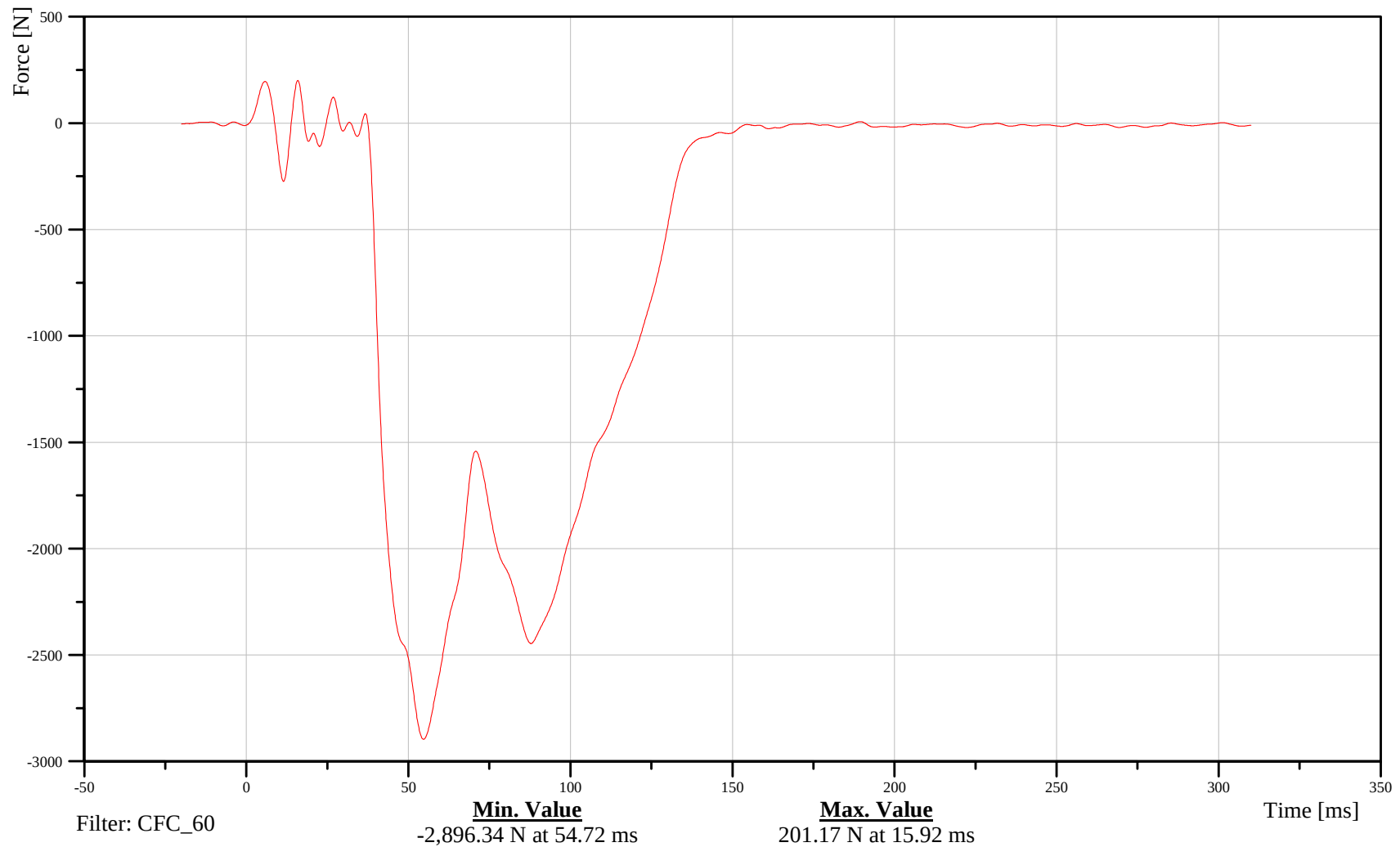
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H15FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 2 Column 16

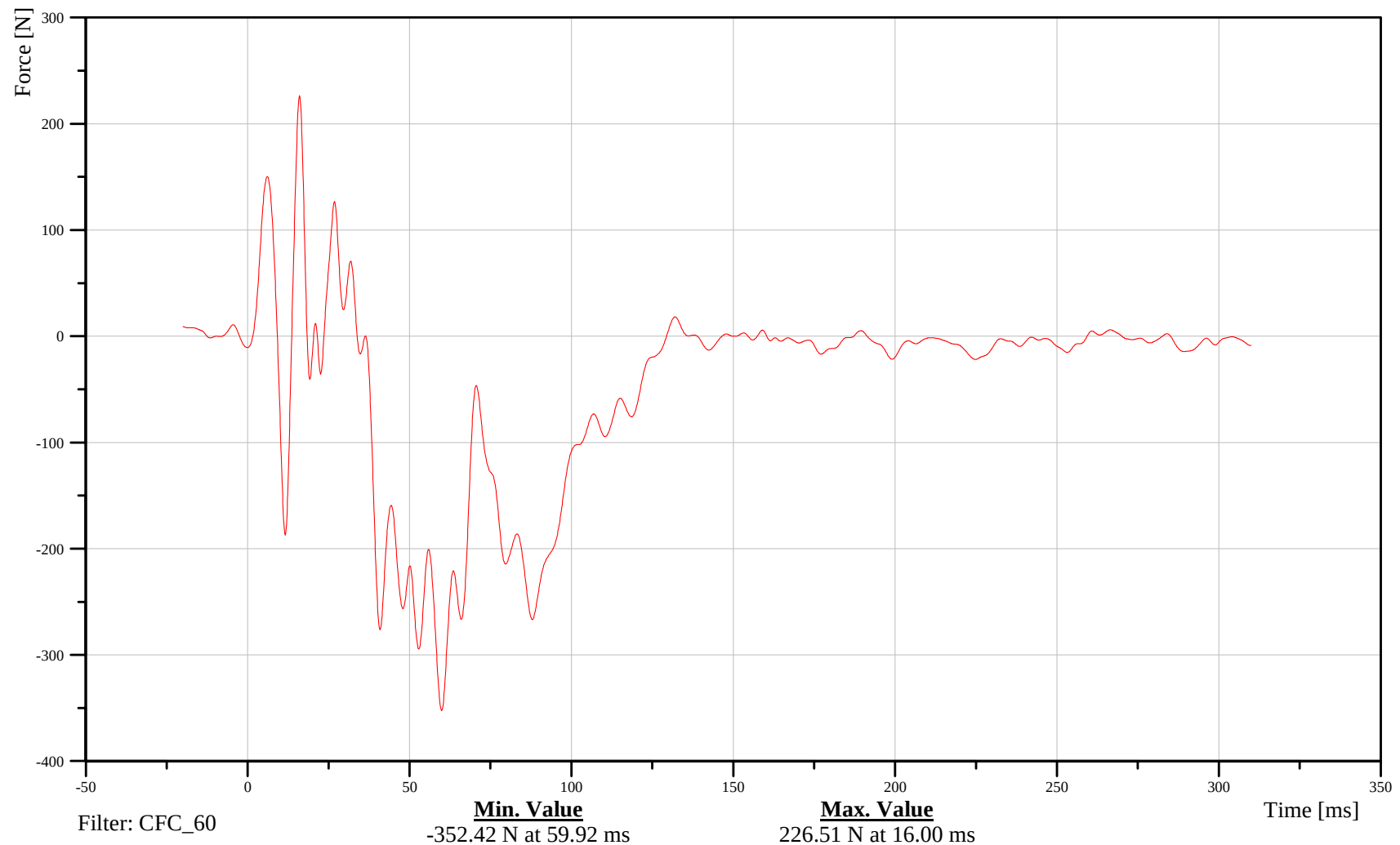
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000H16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 1

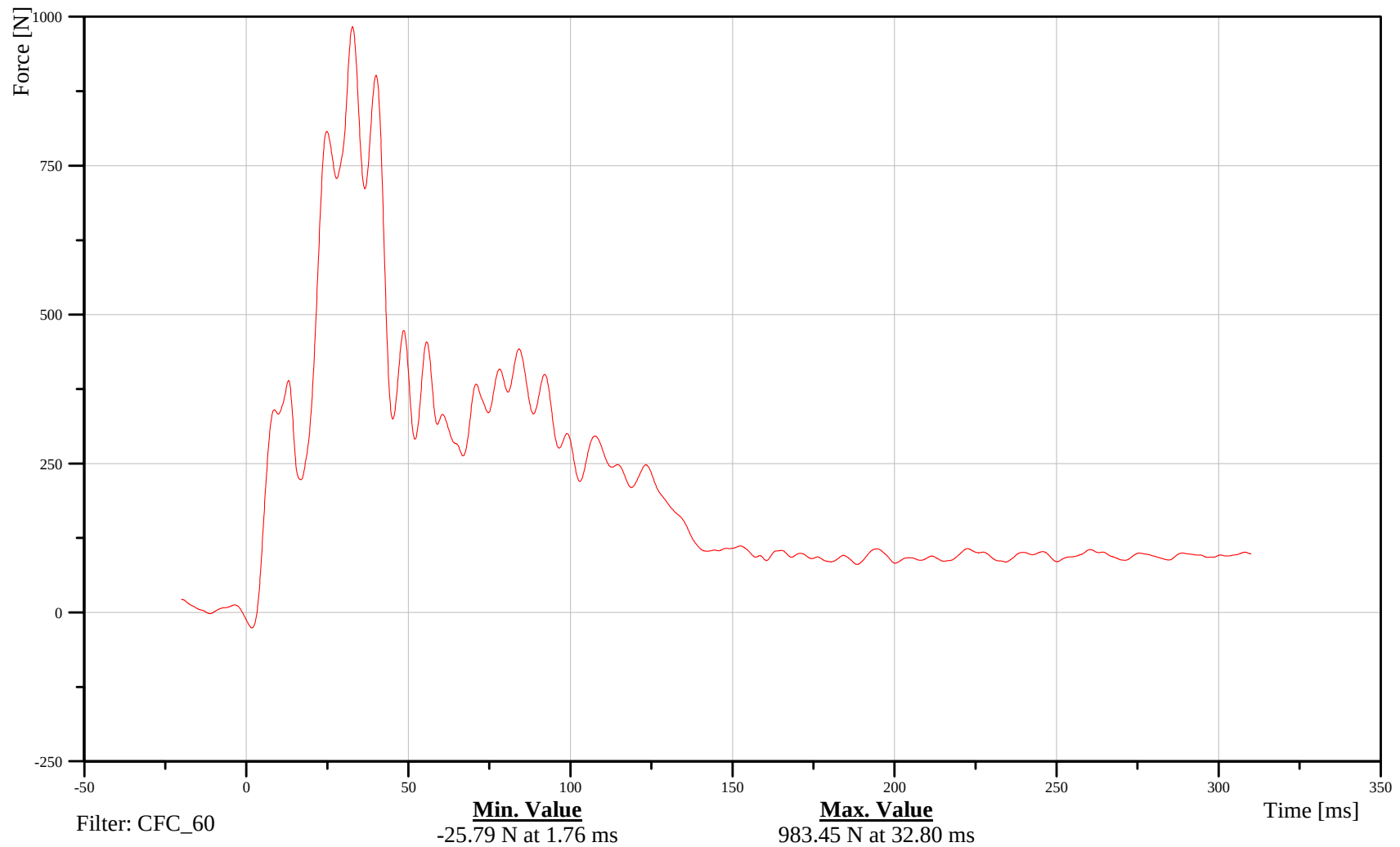
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I01FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 2

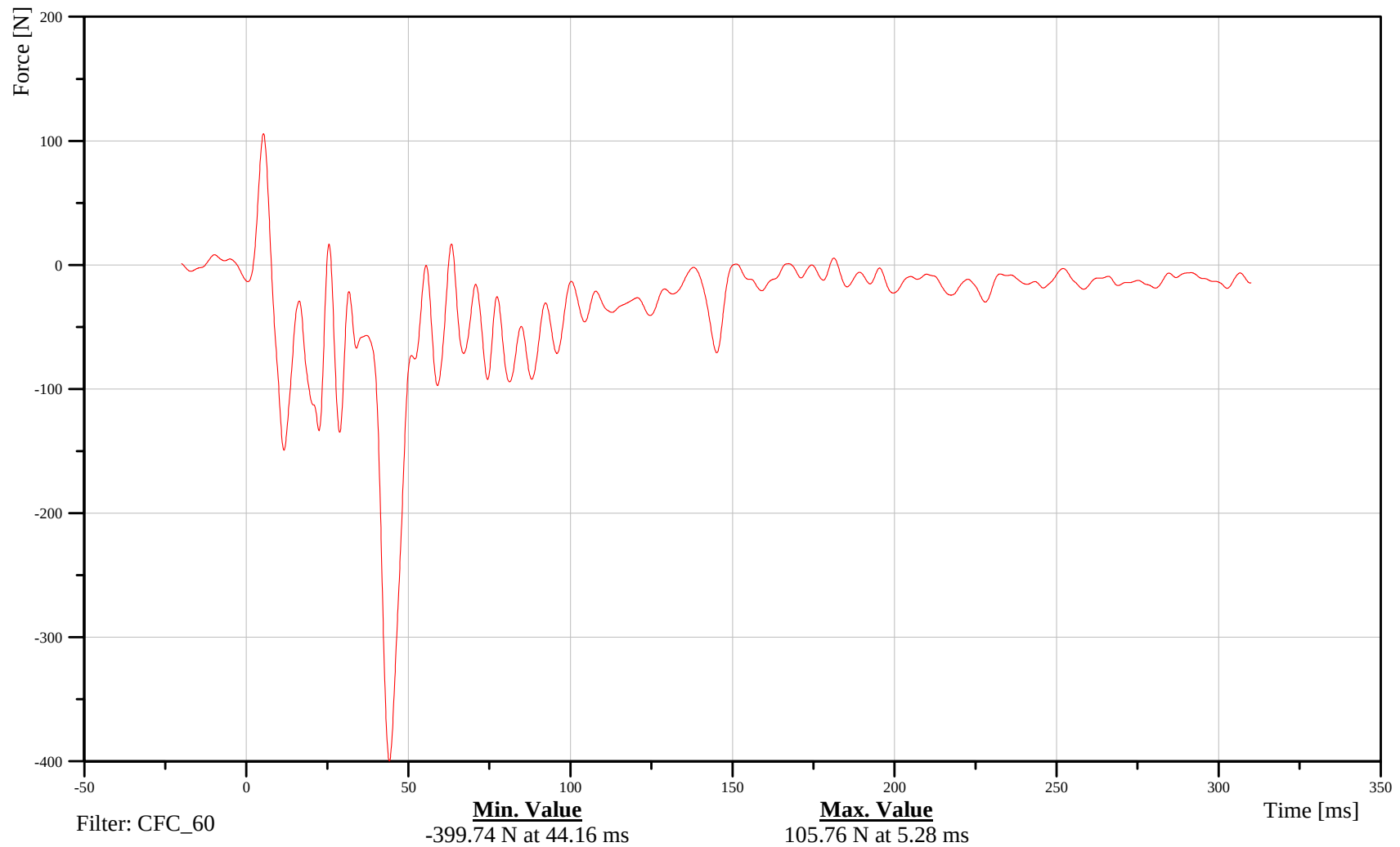
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I02FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 3

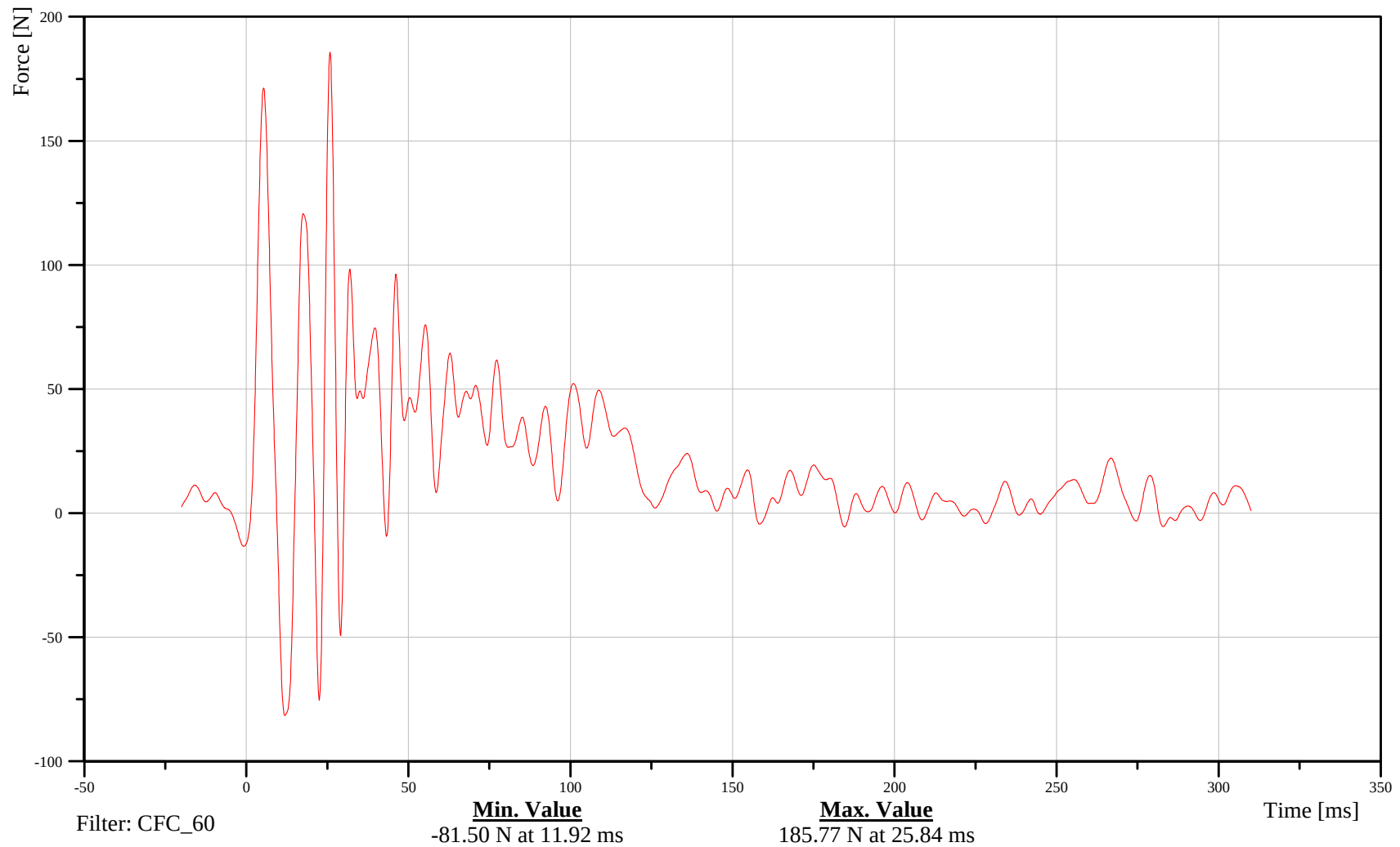
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I03FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 4

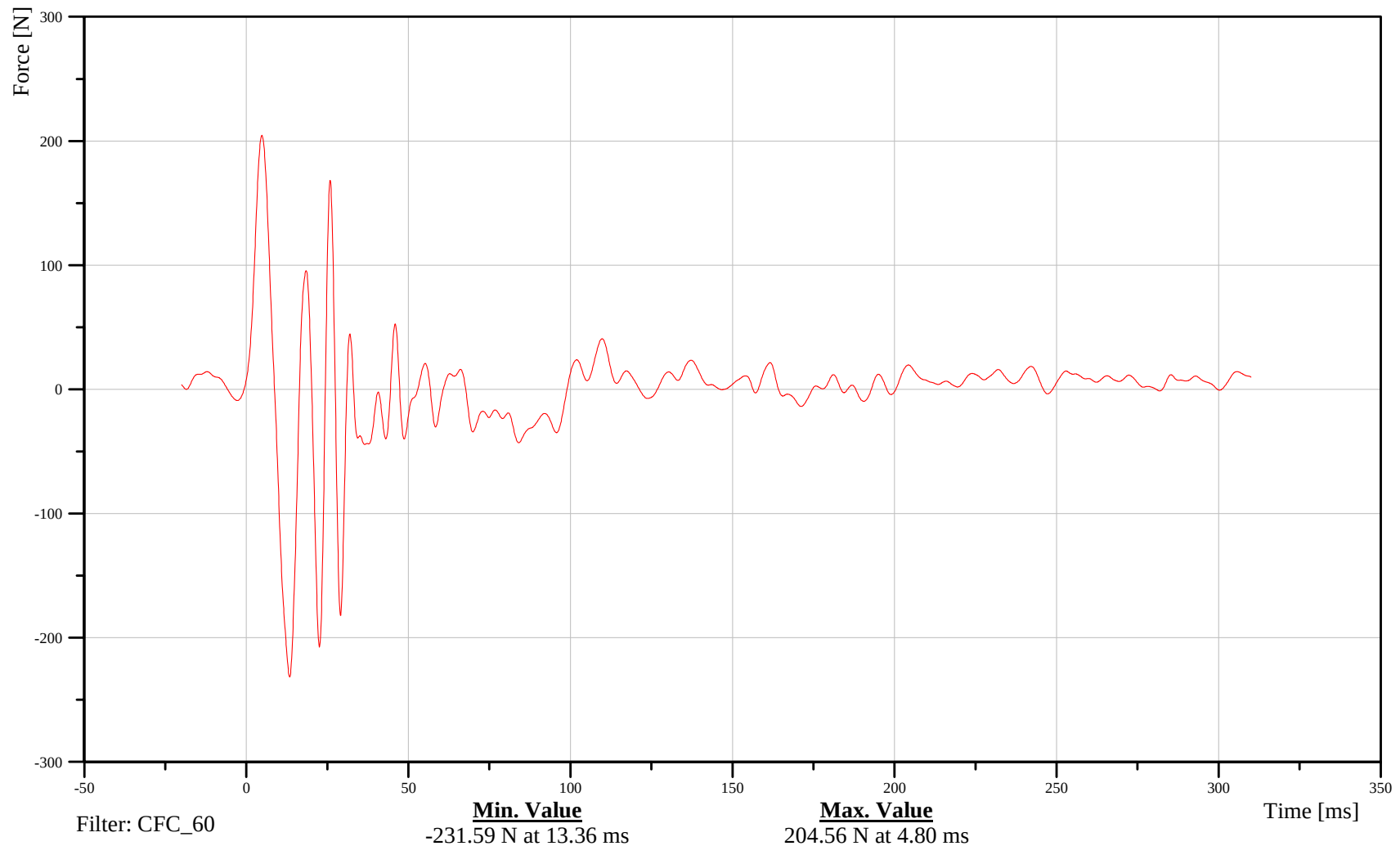
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I04FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 5

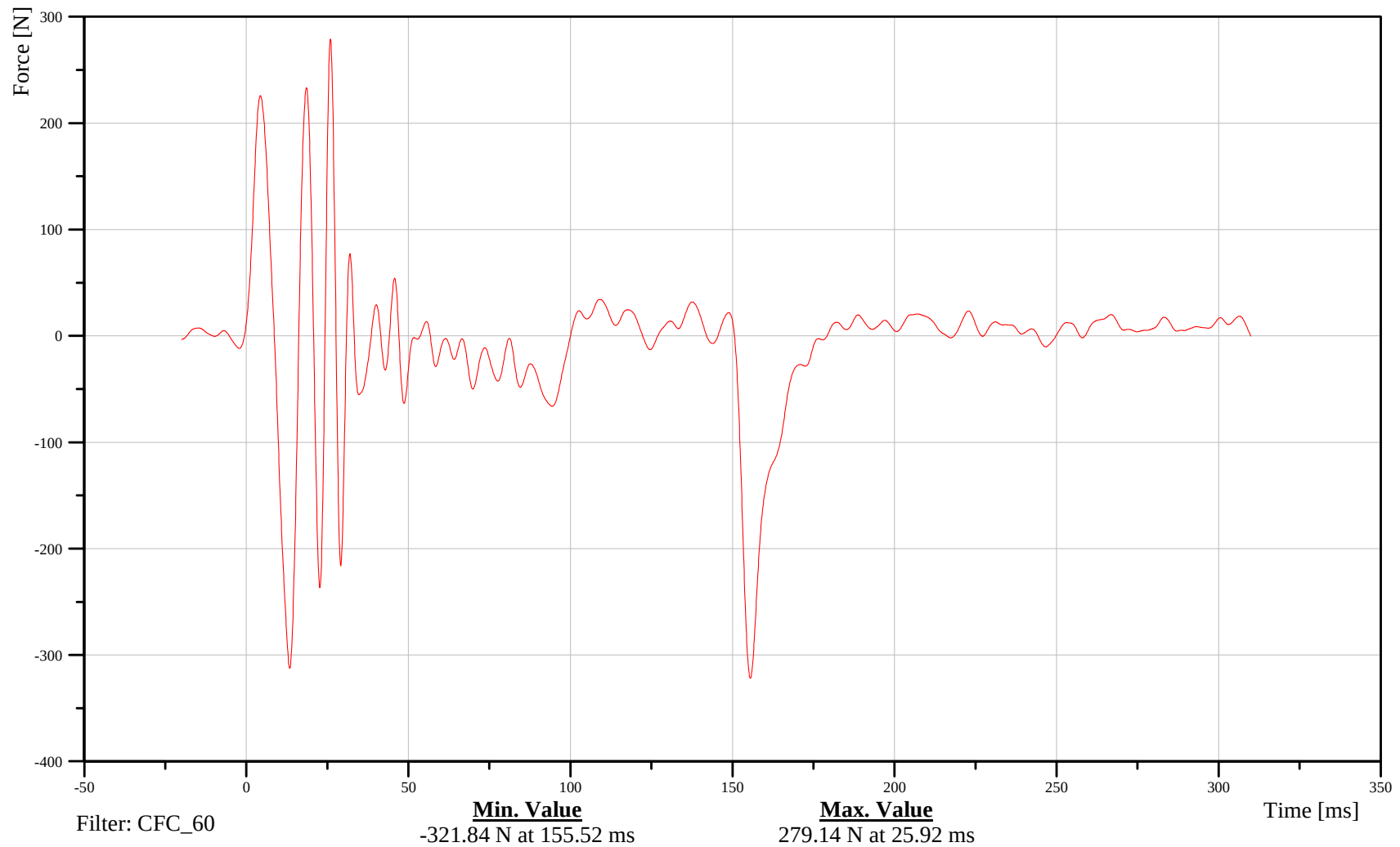
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I05FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 6

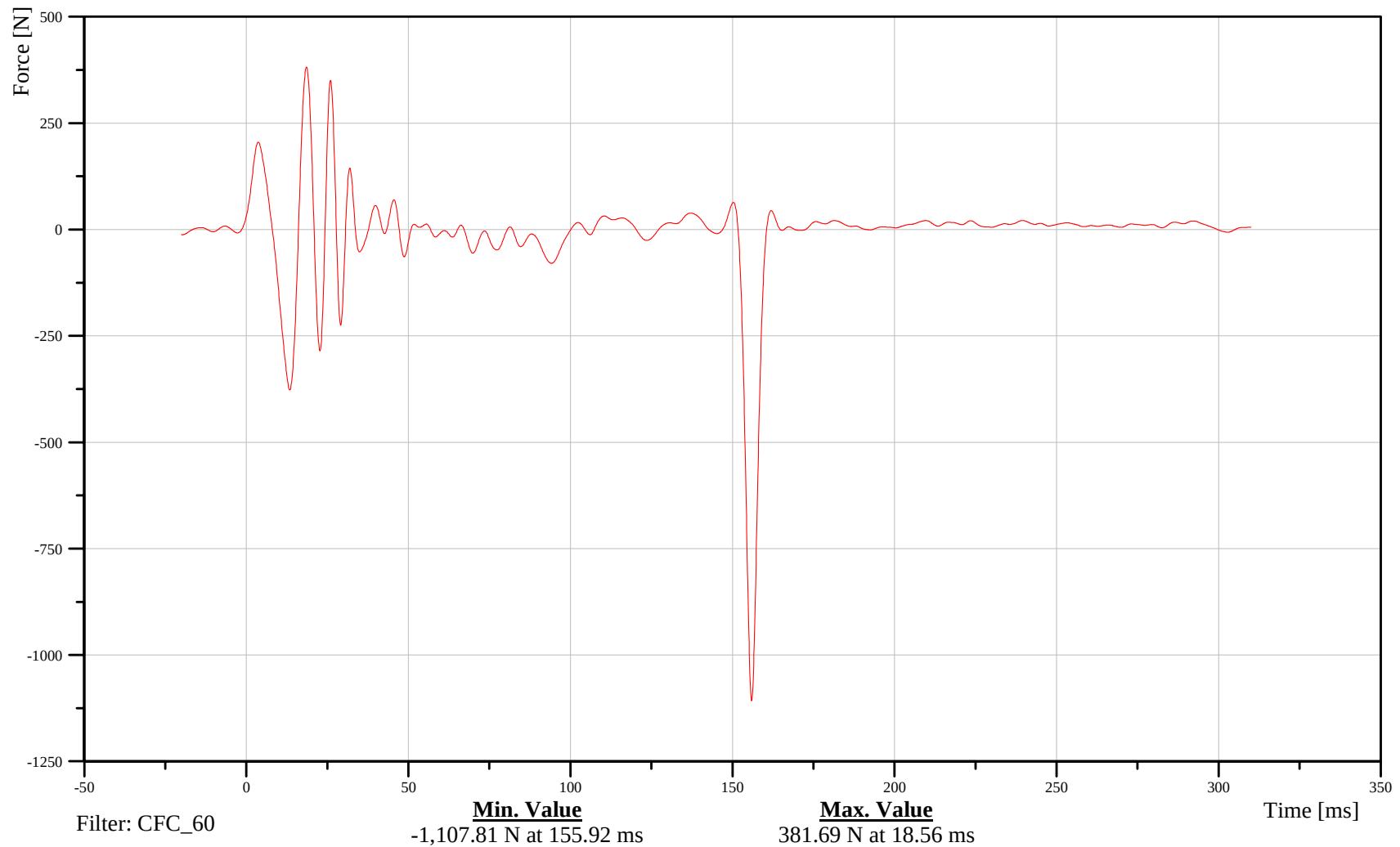
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I06FOX D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 7

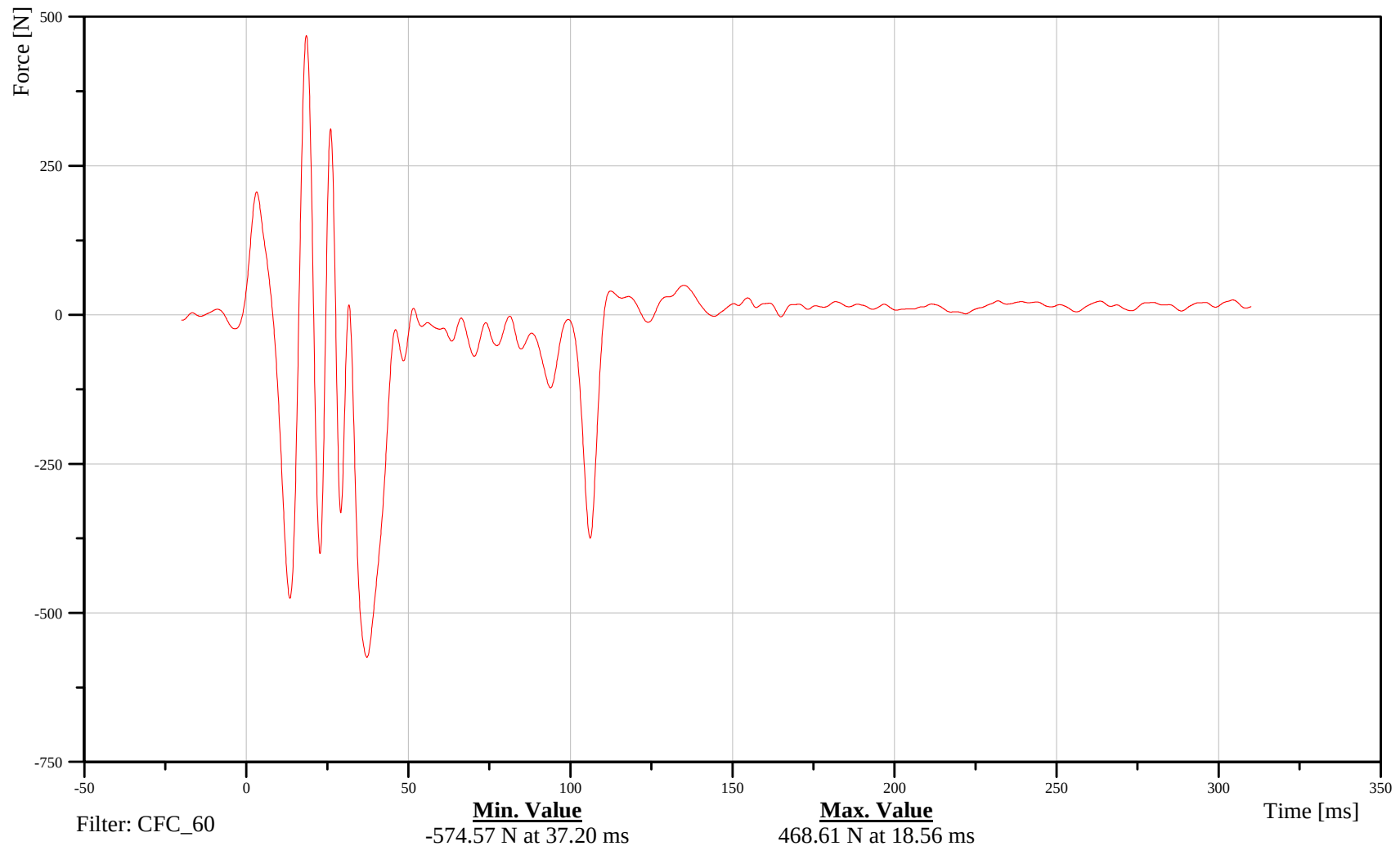
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I07FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 8

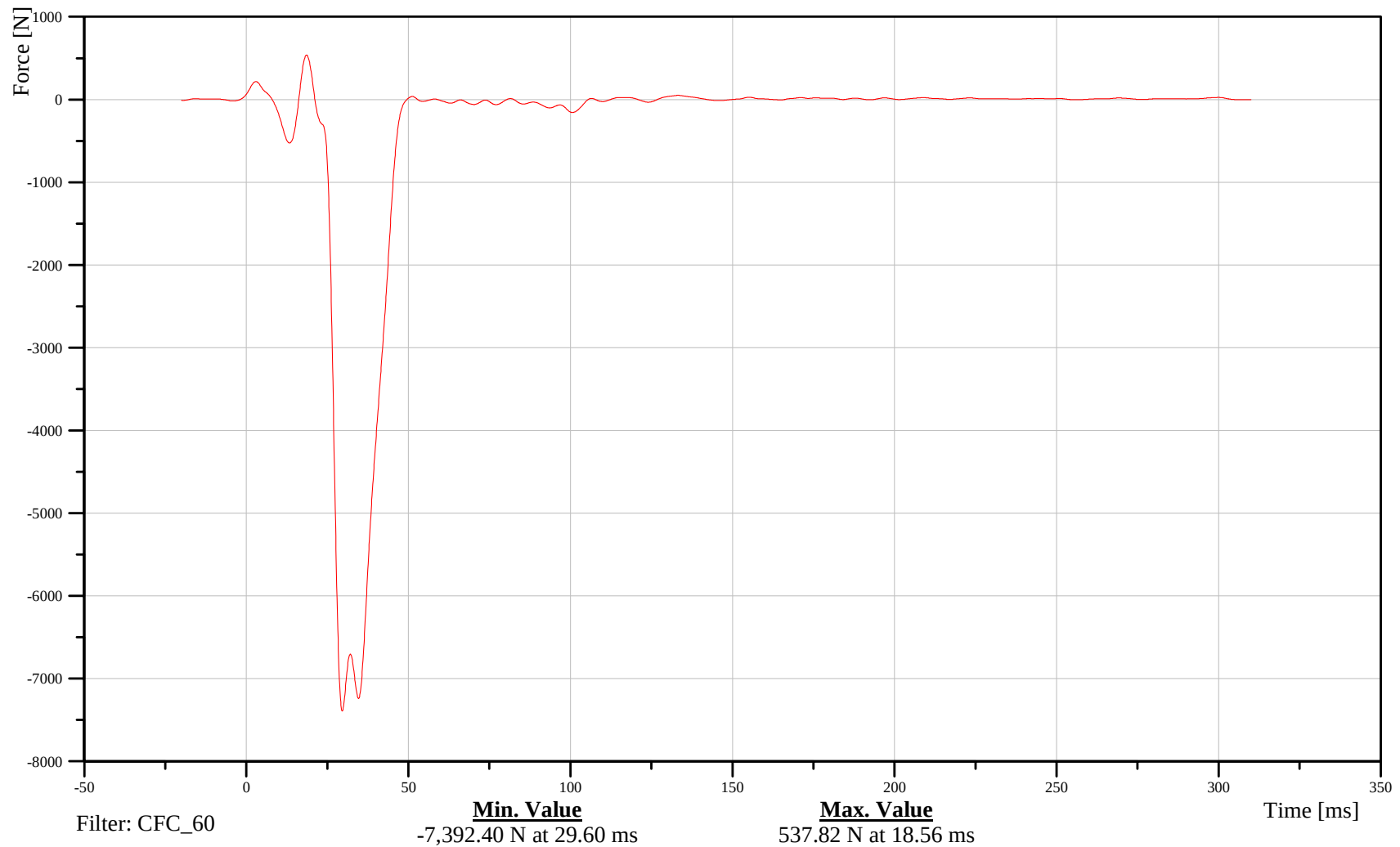
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I08FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 9

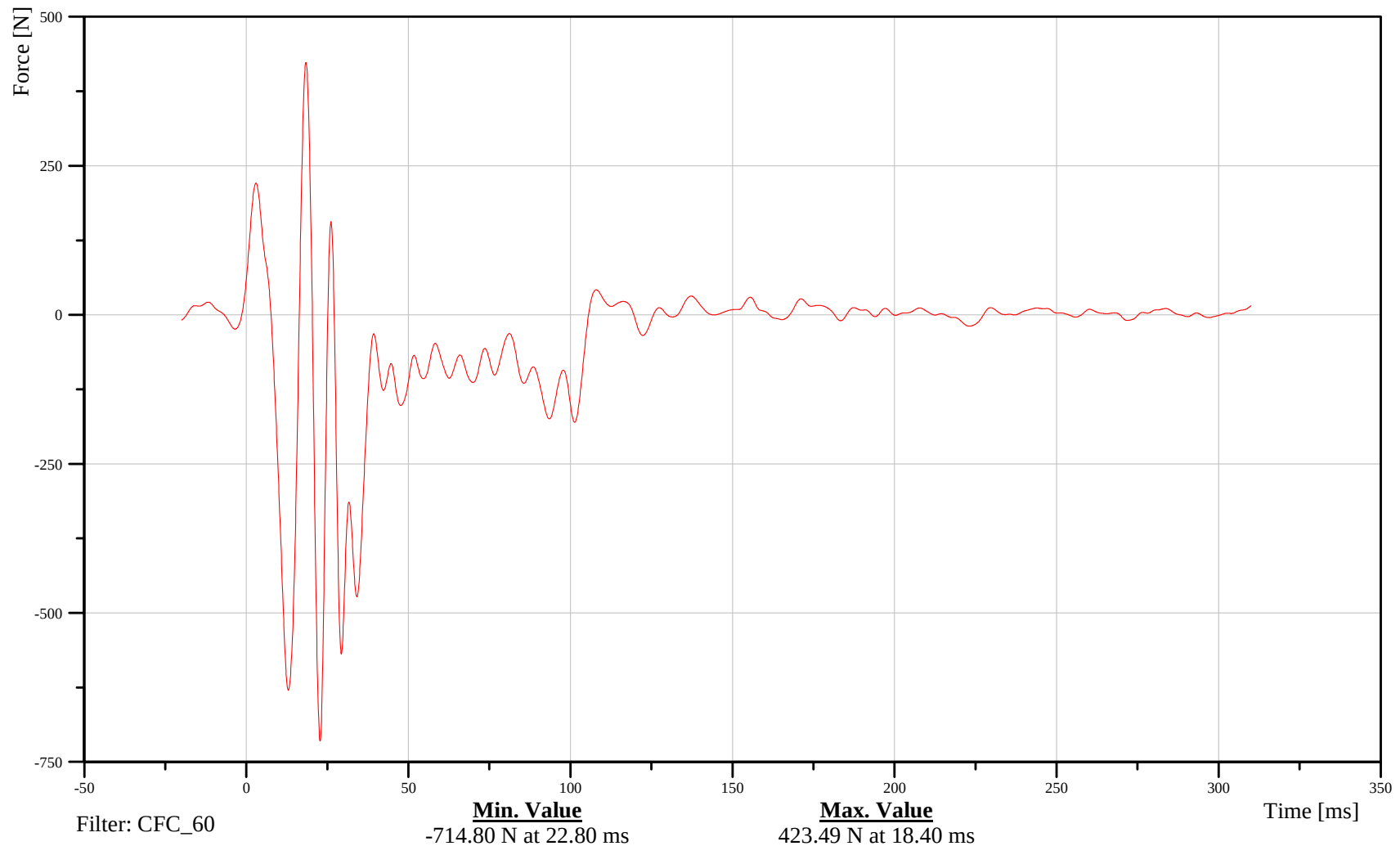
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I09FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 10

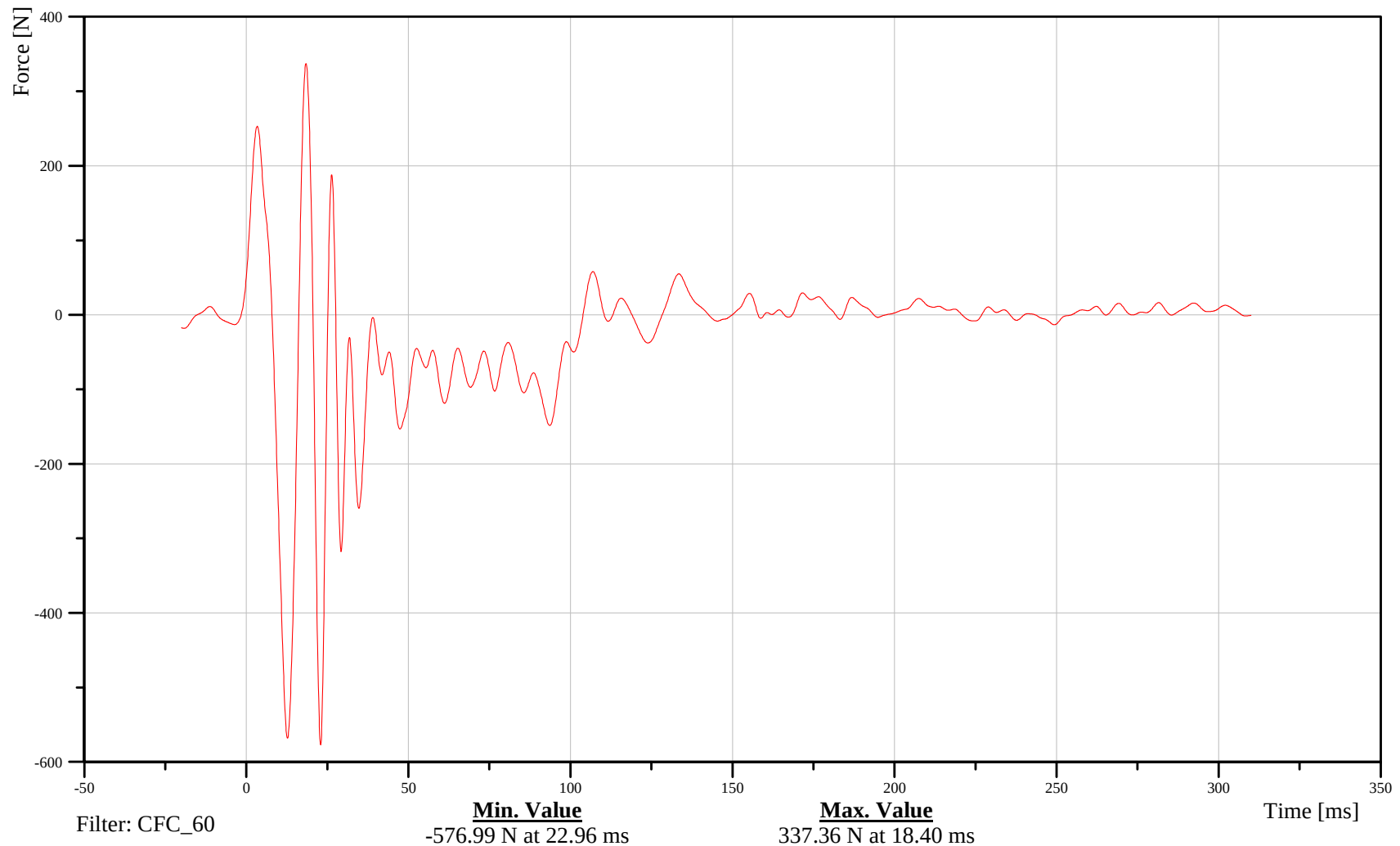
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I10FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 11

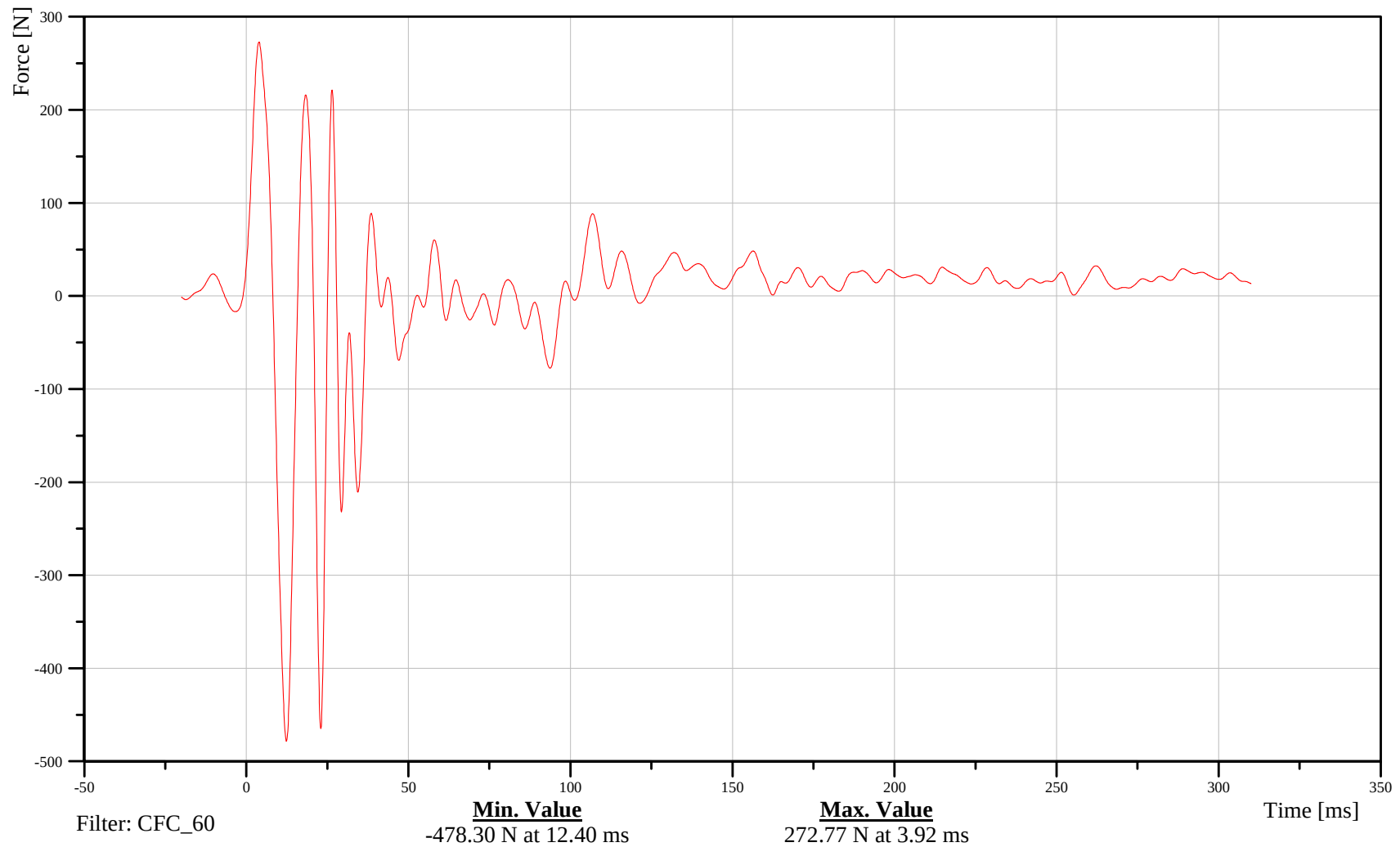
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I11FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 12

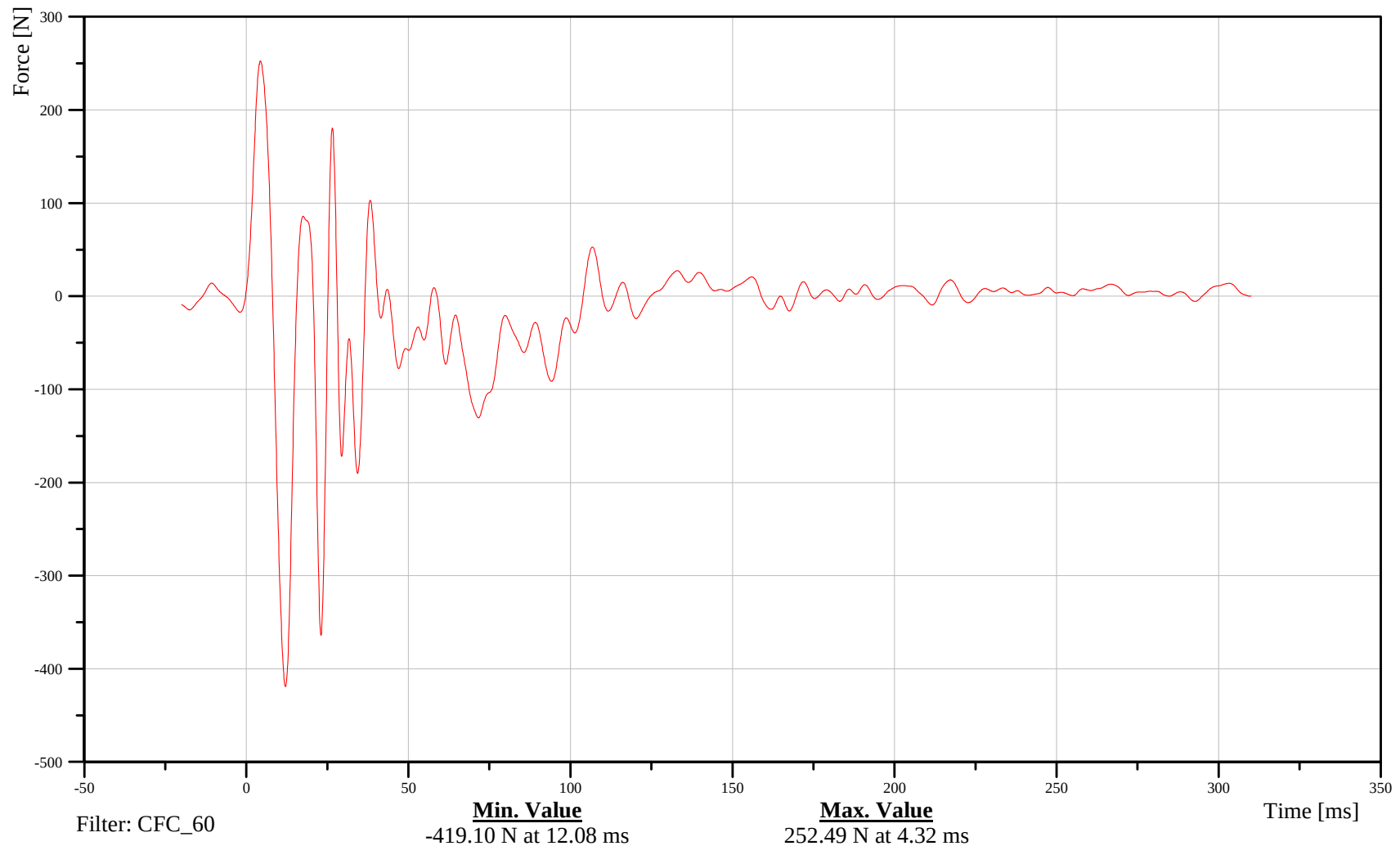
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I12FOX D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 13

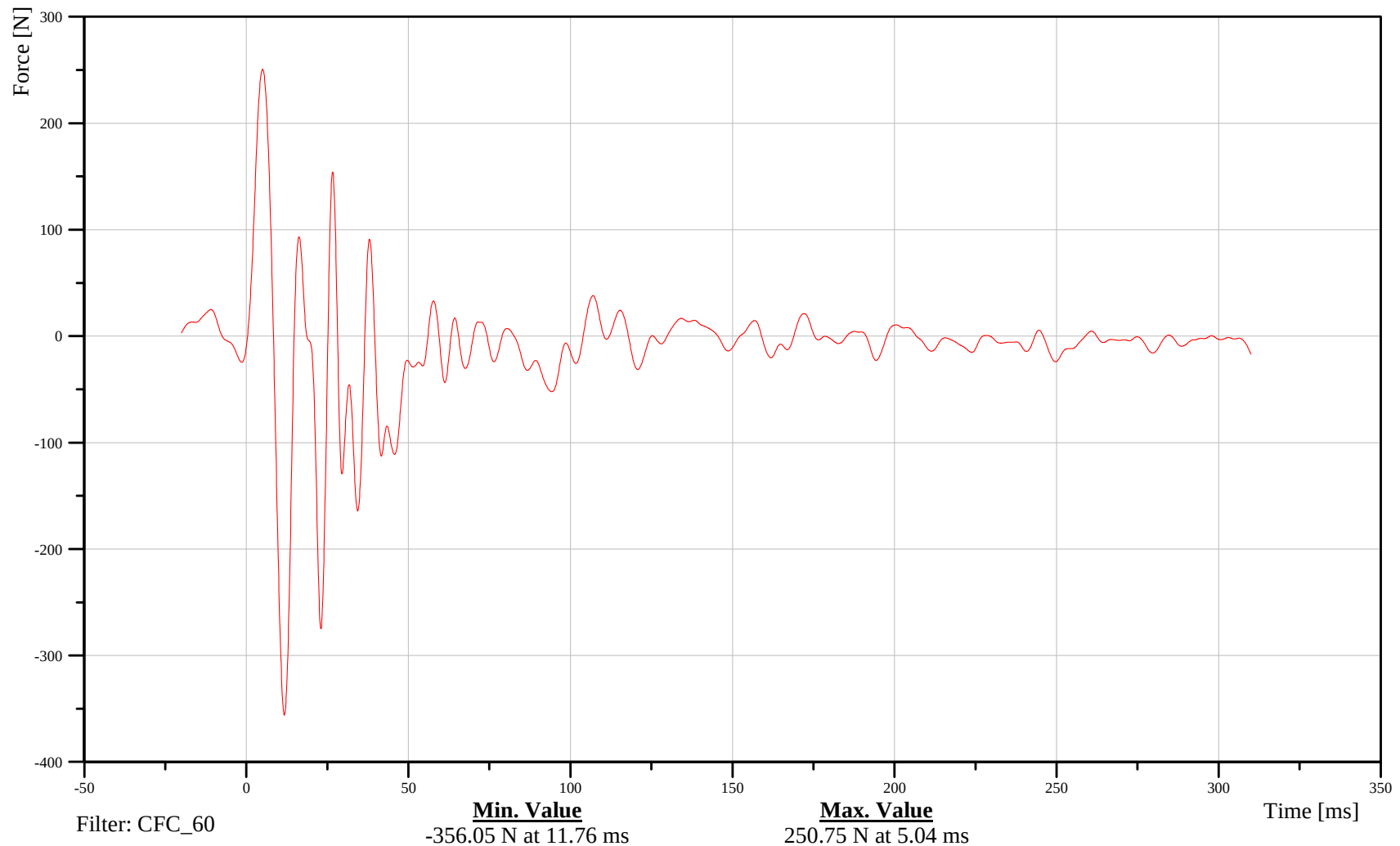
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I13FOX D

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 14

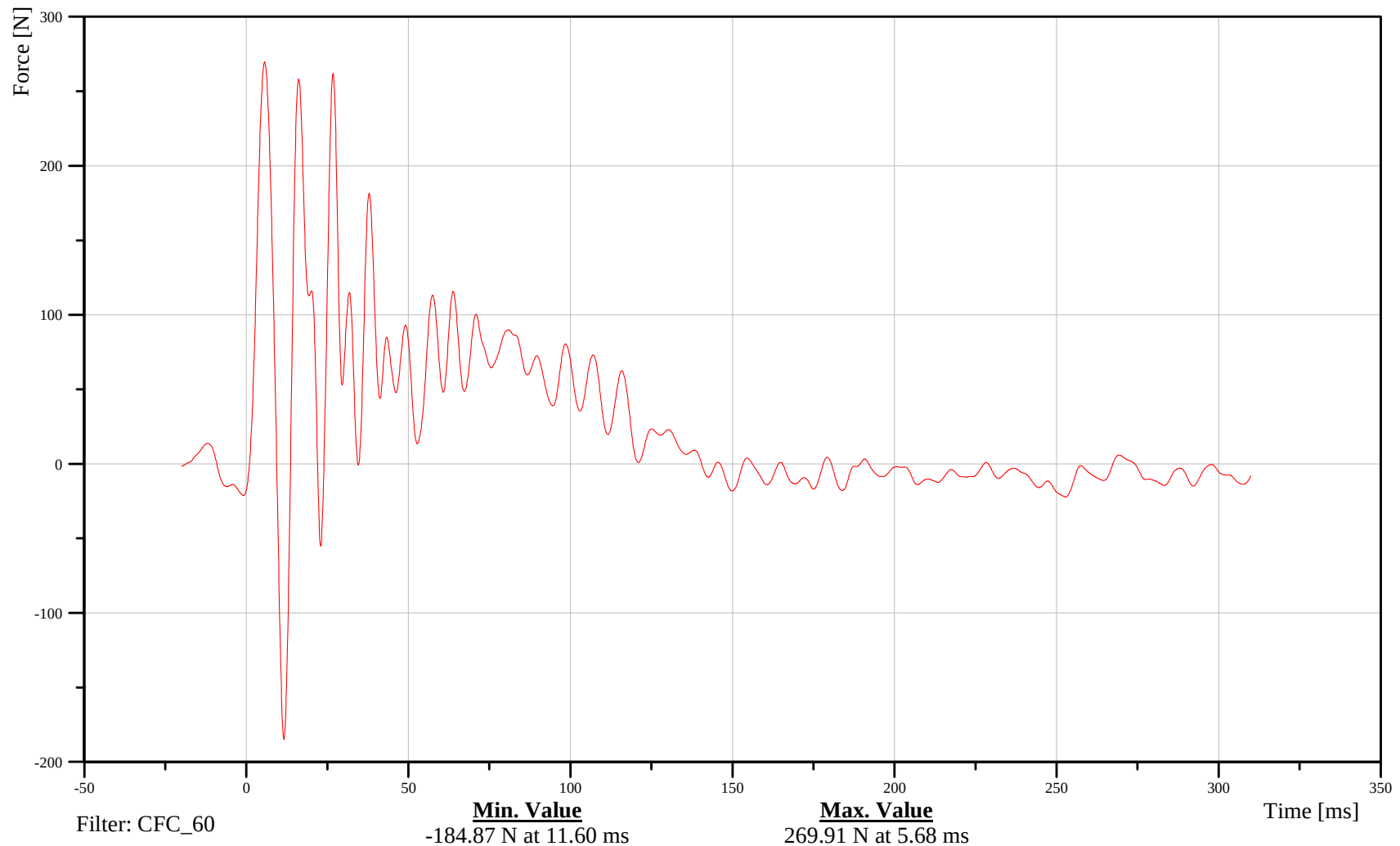
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I14FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 15

Date: 05/19/2006

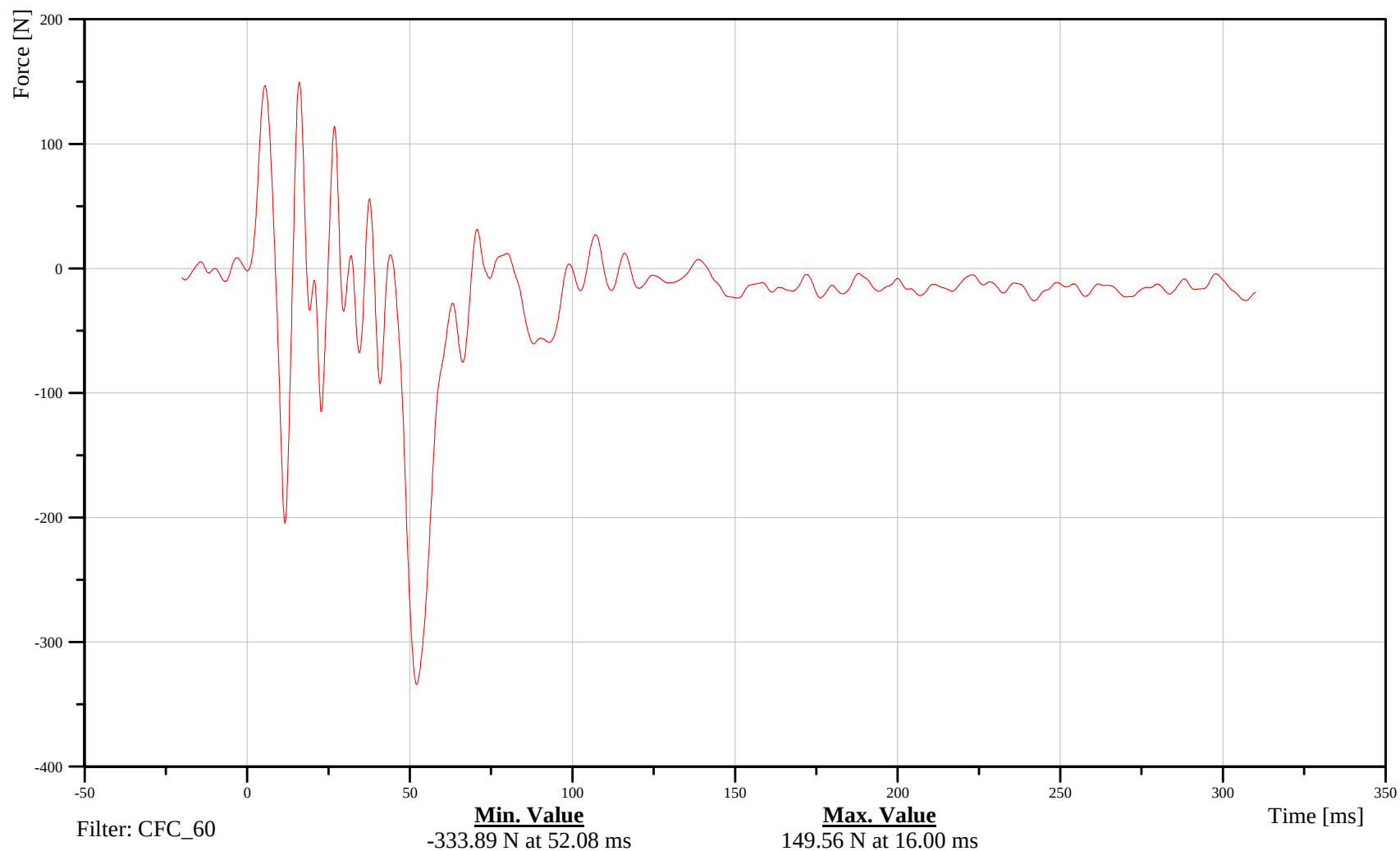
Time: 17:50

Customer: VRTC

L0FBAR000I15FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2





2005 Town and Country into Flat High Resolution LCB

Load Cell Row 1 Column 16

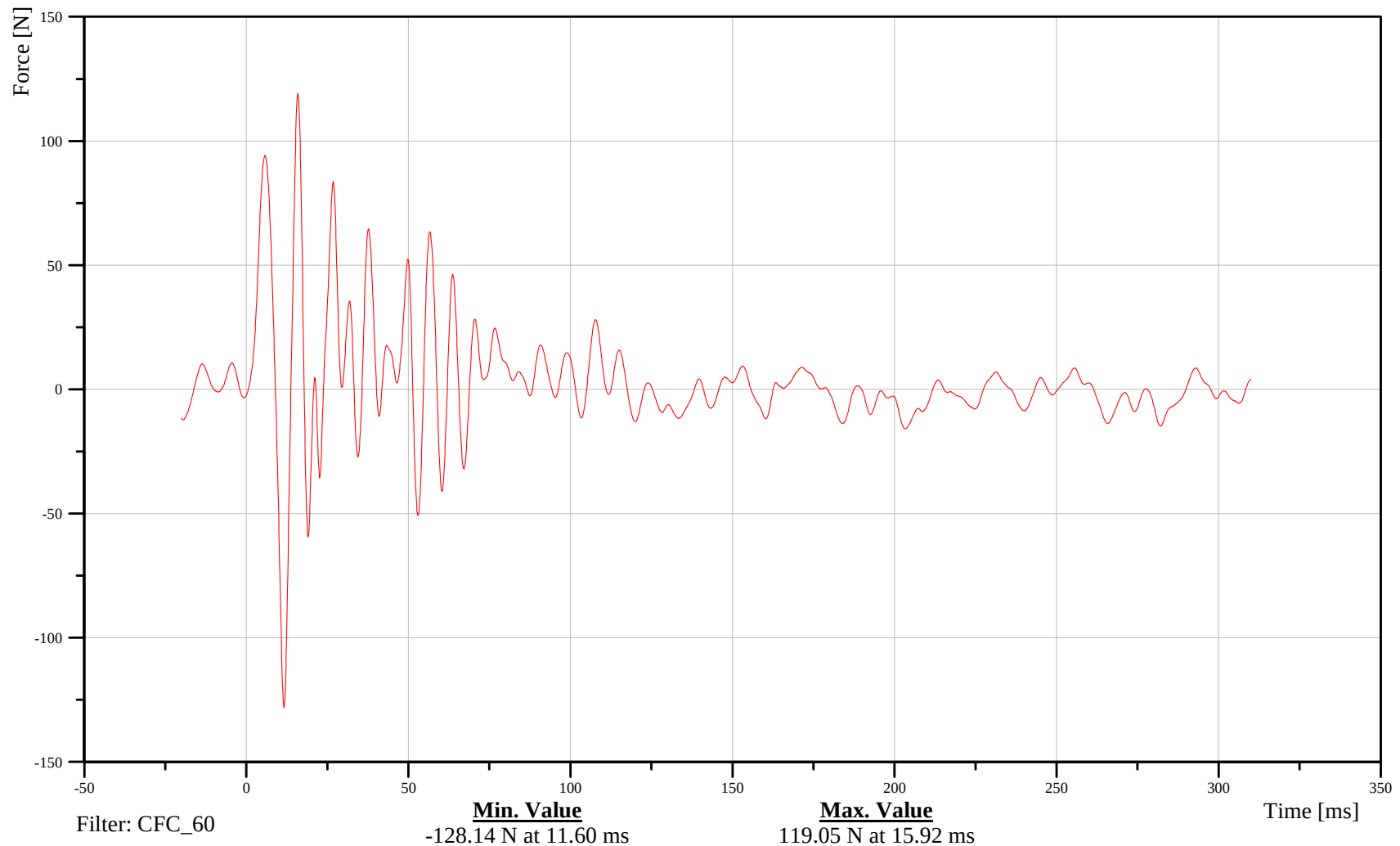
Date: 05/19/2006
Time: 17:50

Customer: VRTC

L0FBAR000I16FOXD

TRC Inc. Test Lab: CTF

Test Number: 060518-2



Appendix C

Dummy Configuration and Performance Verification Data

Pre-Test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 090

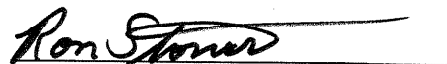
NHTSA/VRTC
572E HIII 50th Male Dummy
External Dimensions
Serial No. 090 w/ THOR-LX legs Calibration No. 56

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	881	Yes
B	Shoulder Pivot Height	505.5 - 520.7	511	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	90	Yes
F	Thigh Clearance	139.7 - 154.9	152	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	342	Yes
J	Elbow Rest Height	190.5 - 210.8	202	Yes
K	Buttock Knee Length	579.1 - 604.5	598	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	468	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	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. 56-1

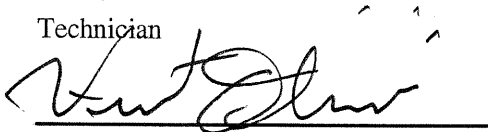
Test Date: 05/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	240.1 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-2.6 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

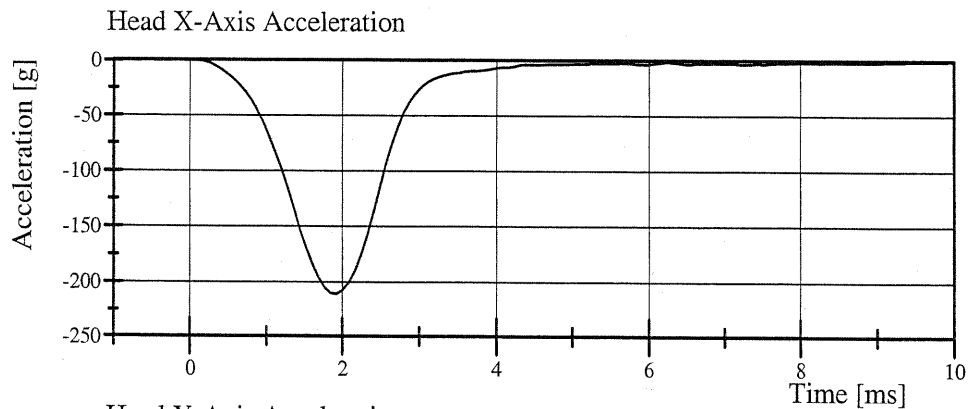


Transportation Research Center Inc.

Front Head Drop

HIH 50th Serial No. 090 Certification No. 56-1

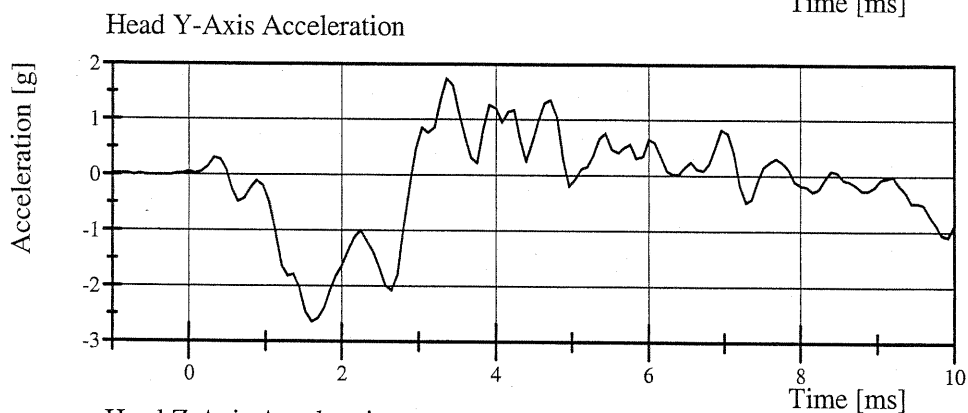
Test Date: 05/10/2006



Filter Class: CFC_1000

Max: 0.0 g at -0.6 ms

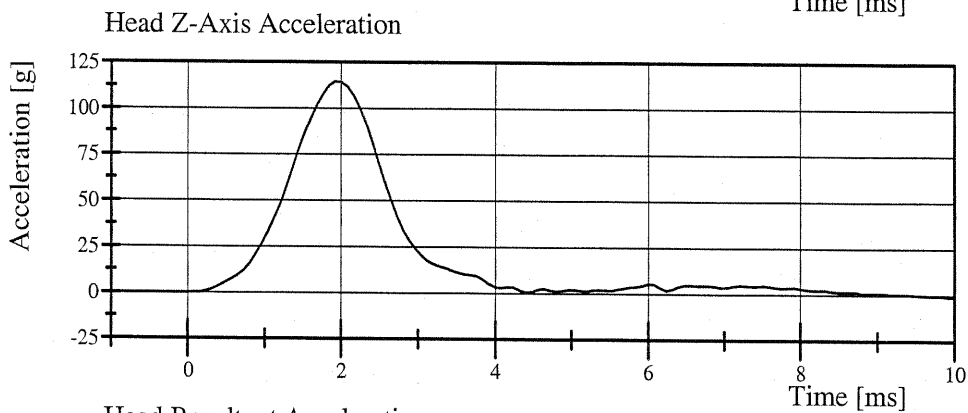
Min: -211.0 g at 1.9 ms



Filter Class: CFC_1000

Max: 1.7 g at 3.4 ms

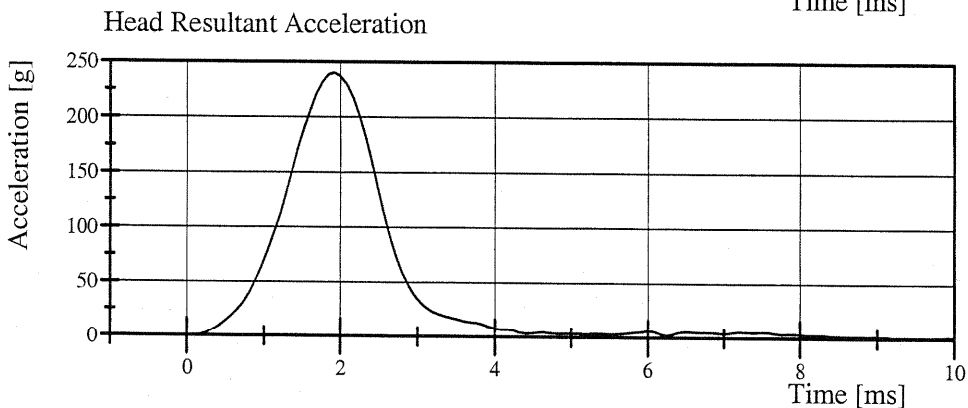
Min: -2.6 g at 1.6 ms



Filter Class: CFC_1000

Max: 114.6 g at 1.9 ms

Min: -0.9 g at 9.9 ms



Filter Class: CFC_1000

Max: 240.1 g at 1.9 ms

Min: 0.0 g at -0.6 ms

Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 090 Certification No. 56-1

Test Date: 05/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	45 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.946 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	38.3 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-24.12 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-21.14 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-15.85 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-15.85 g	Yes
Total Head D-Plane Rotation Peak	(-64) - (-78) °	-74.6 °	Yes
Time of Peak	57 - 64 ms	59.8 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	120.2 ms	Yes
Total Neck Occipital Condyles Moment Peak	88 - 108 N·m	101.0 N·m	Yes
Time of Peak	47 - 58 ms	50.6 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	97 - 107 ms	104.6 ms	Yes

Test meets specifications.

Comments:

Technician



Approved



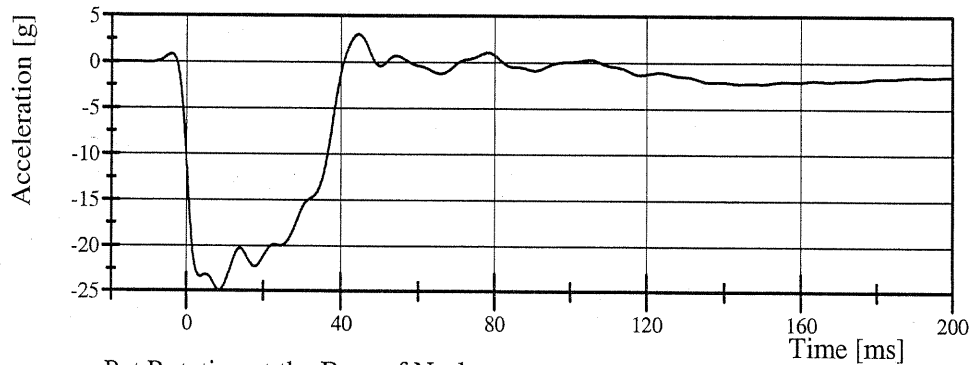
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 090 Certification No. 56-1

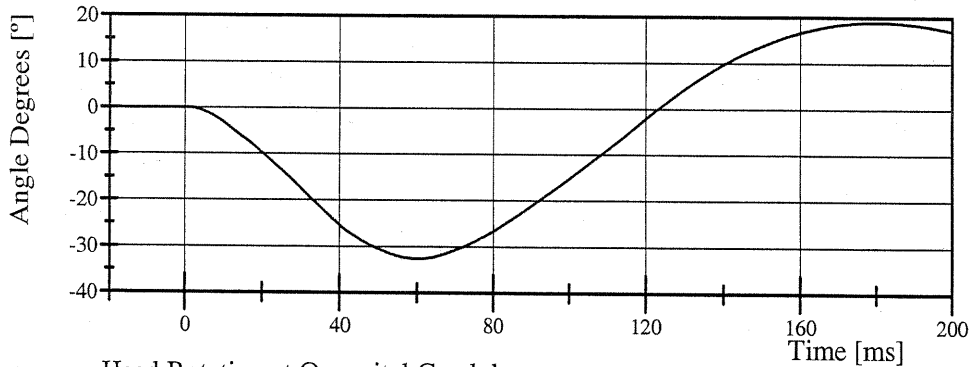
Test Date: 05/10/2006

Pendulum Acceleration



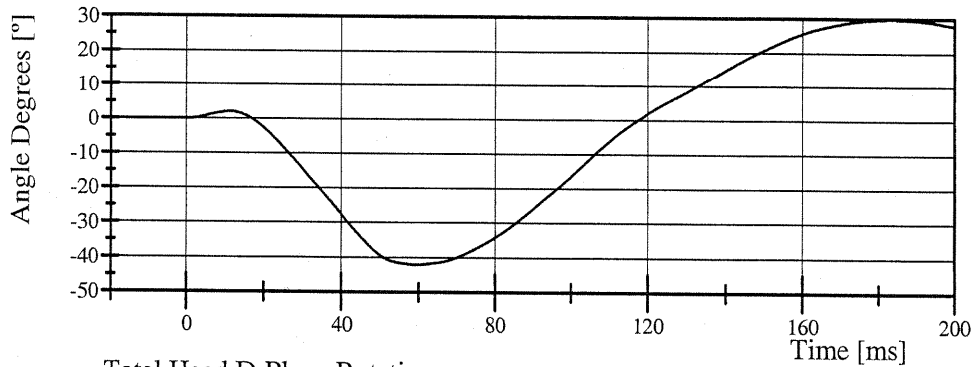
Filter Class: CFC_60
Max: 3.0 g at 44.4 ms
Min: -24.9 g at 8.5 ms

Pot Rotation at the Base of Neck



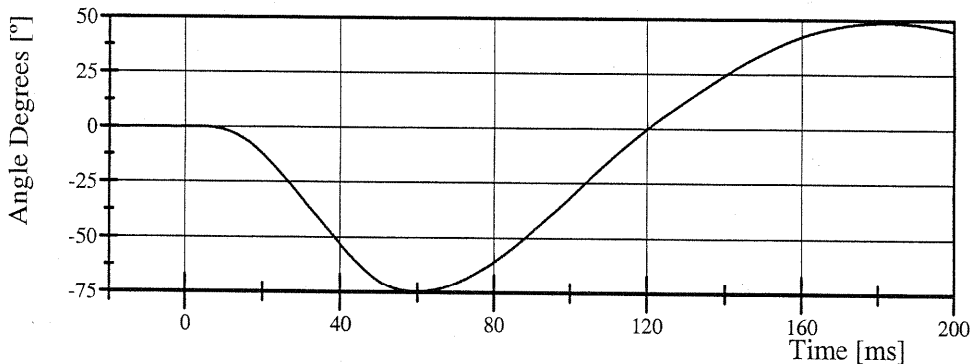
Filter Class: CFC_60
Max: 19.0 ° at 179.9 ms
Min: -32.6 ° at 60.5 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 29.9 ° at 183.3 ms
Min: -42.0 ° at 59.4 ms

Total Head D-Plane Rotation



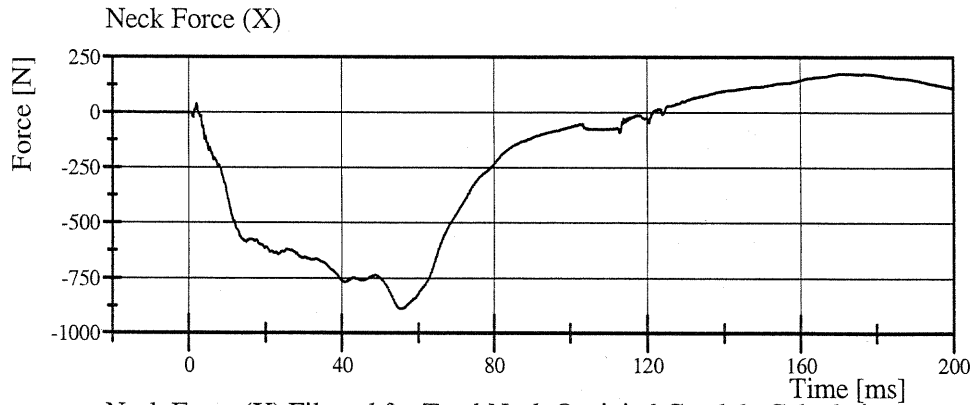
Filter Class: CFC_60
Max: 48.8 ° at 182.0 ms
Min: -74.6 ° at 59.8 ms

Transportation Research Center Inc.

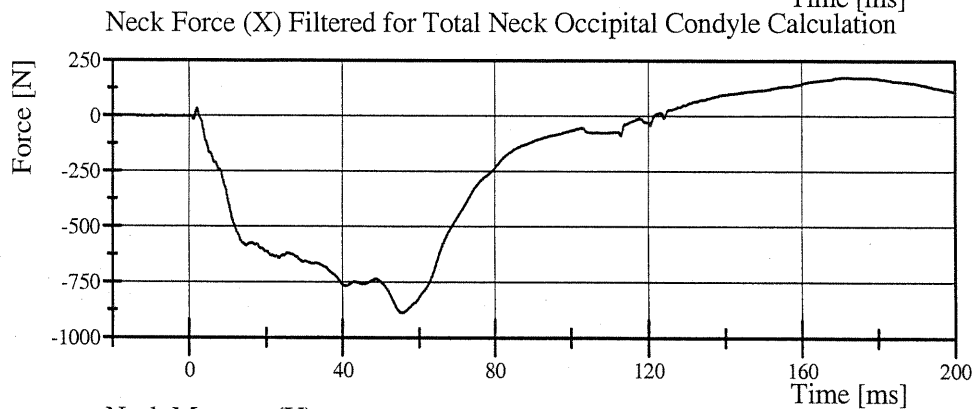
Neck Flexion

HIII 50th Serial No. 090 Certification No. 56-1

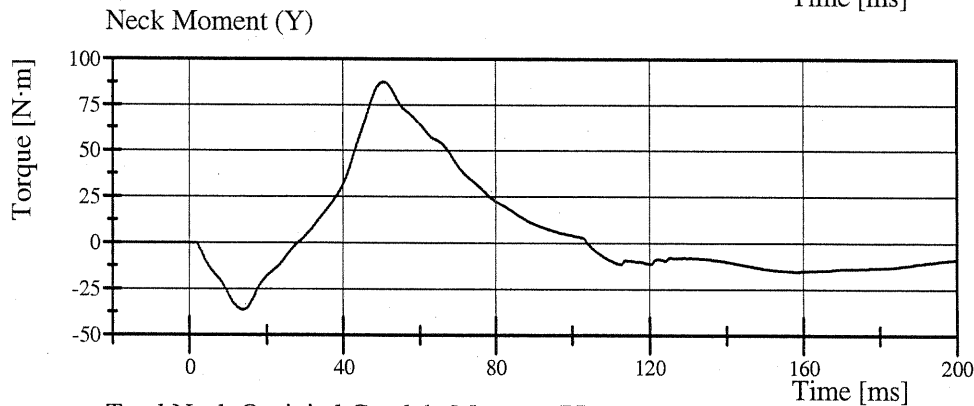
Test Date: 05/10/2006



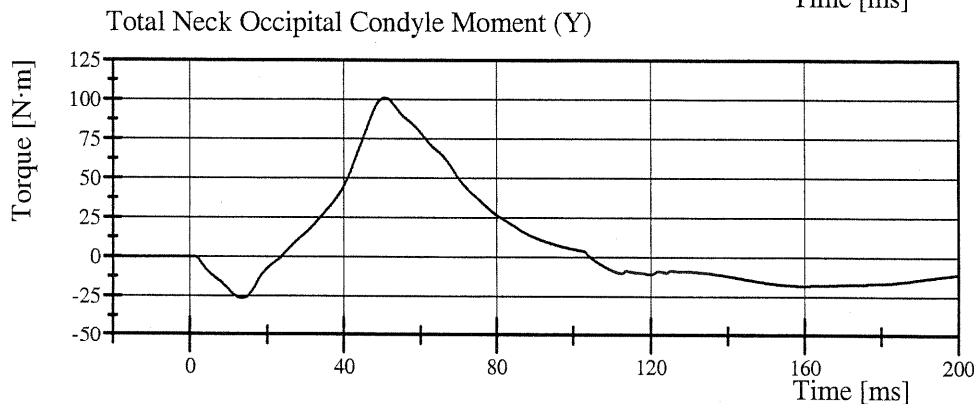
Filter Class: CFC_1000
Max: 176.9 N at 171.6 ms
Min: -887.1 N at 55.1 ms



Filter Class: CFC_600
Max: 176.5 N at 171.5 ms
Min: -887.2 N at 55.3 ms



Filter Class: CFC_600
Max: 87.6 N·m at 50.6 ms
Min: -36.3 N·m at 13.8 ms



Filter Class: CFC_600
Max: 101.0 N·m at 50.6 ms
Min: -26.3 N·m at 13.6 ms

Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 090 Certification No. 56-1

Test Date: 05/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.984 m/s	Yes
Pendulum Acceleration Decay			
Crossing 5g	38 - 46 ms	41.9 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	18.81 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	16.61 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	14.38 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	14.38 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	97.1 °	Yes
Time of Peak	72 - 82 ms	77.6 ms	Yes
Total Head D-Plane Rotation			
Decay to 0°	147 - 174 ms	161.7 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-53) - (-80) N·m	-68.4 N·m	Yes
Time of Peak	65 - 79 ms	73.0 ms	Yes
Total Neck Occipital Condyles Moment			
Decay to 0 N·m	120 - 148 ms	145.3 ms	Yes

Test meets specifications.

Comments:

Technician



Approved

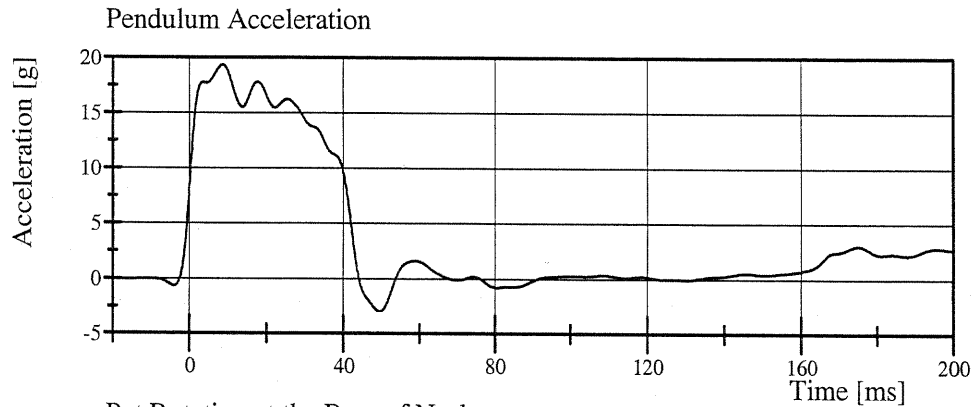


Transportation Research Center Inc.

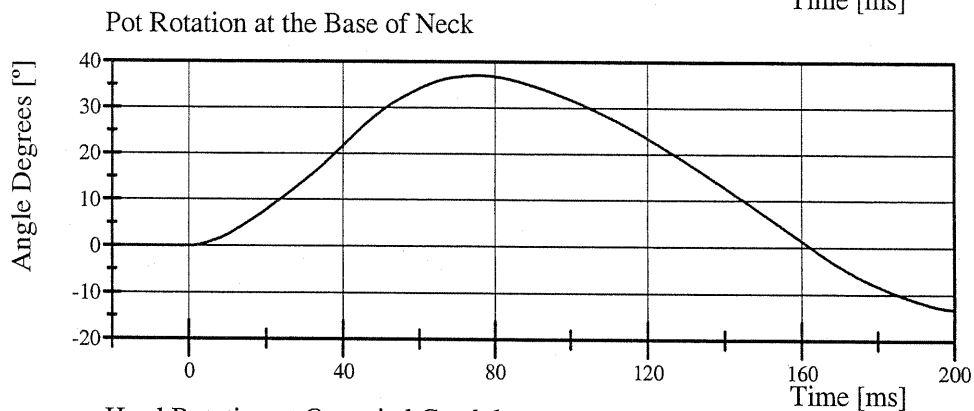
Neck Extension

HIII 50th Serial No. 090 Certification No. 56-1

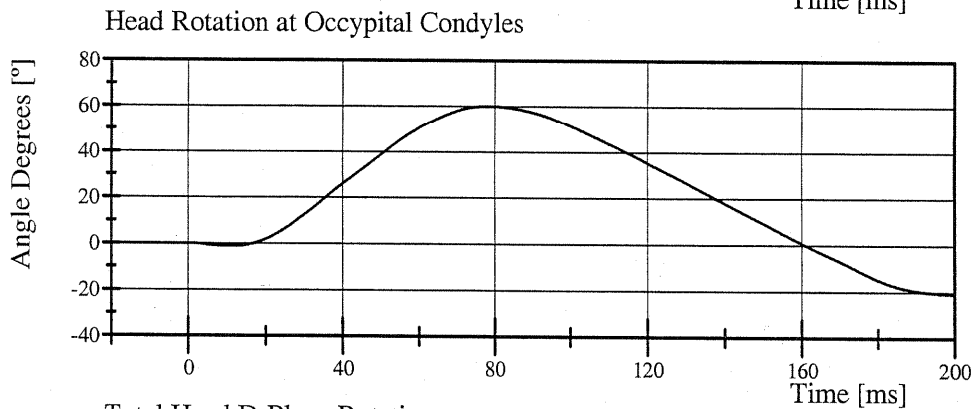
Test Date: 05/10/2006



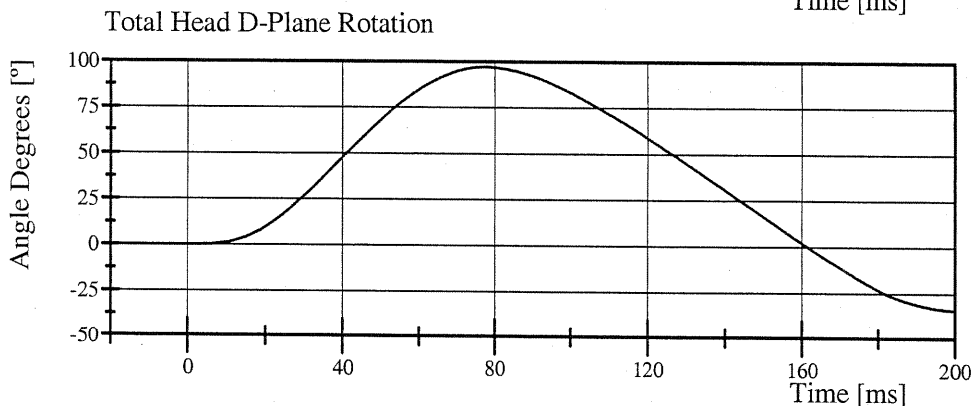
Filter Class: CFC_60
Max: 19.4 g at 8.7 ms
Min: -2.9 g at 49.5 ms



Filter Class: CFC_60
Max: 37.0 ° at 75.8 ms
Min: -13.2 ° at 200.0 ms



Filter Class: CFC_60
Max: 60.1 ° at 78.5 ms
Min: -20.9 ° at 200.0 ms



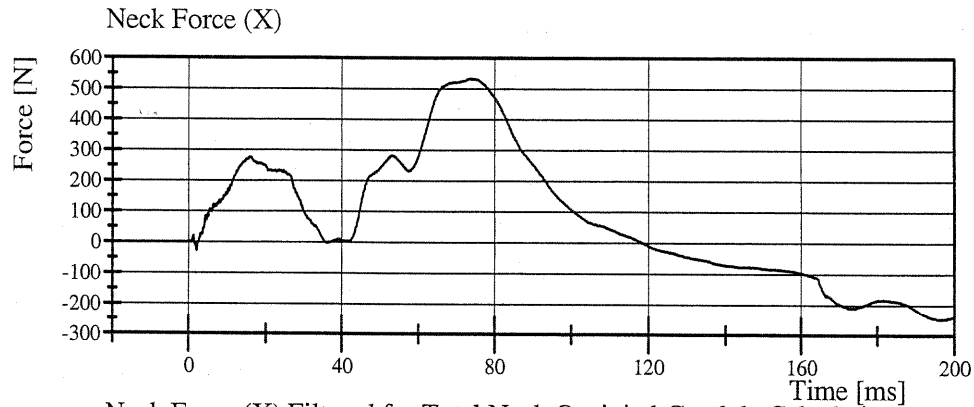
Filter Class: CFC_60
Max: 97.1 ° at 77.6 ms
Min: -34.1 ° at 200.0 ms

Transportation Research Center Inc.

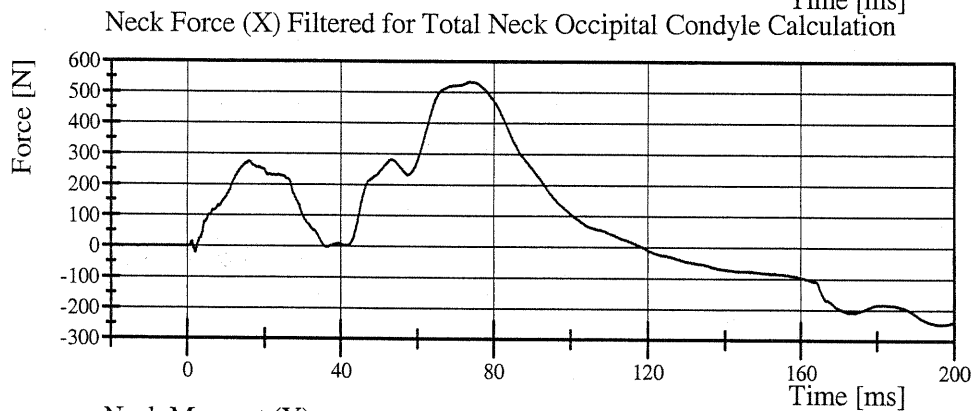
Neck Extension

HIII 50th Serial No. 090 Certification No. 56-1

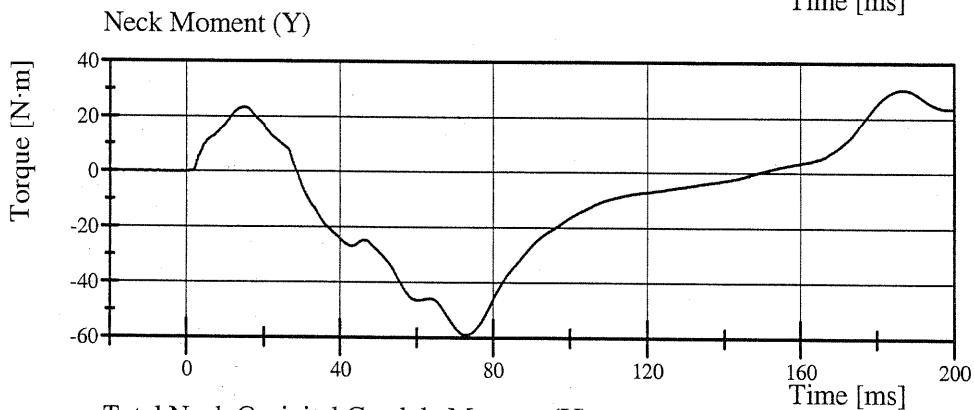
Test Date: 05/10/2006



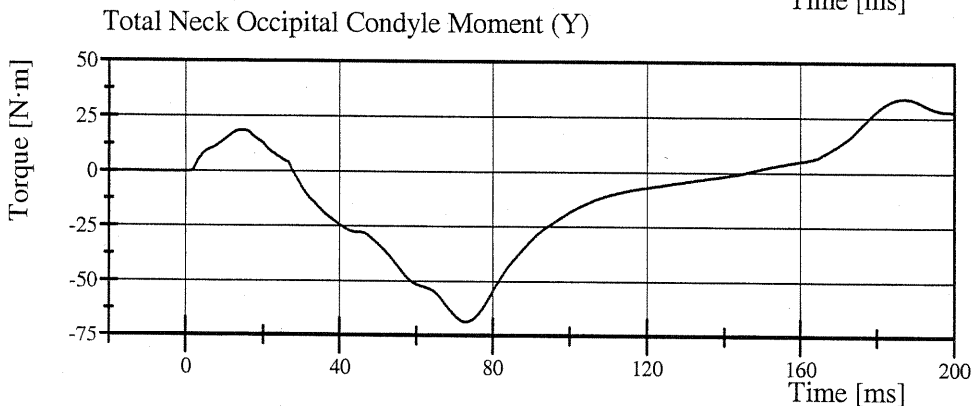
Filter Class: CFC_1000
Max: 533.9 N at 73.6 ms
Min: -247.7 N at 196.6 ms



Filter Class: CFC_600
Max: 533.7 N at 73.7 ms
Min: -247.3 N at 197.0 ms



Filter Class: CFC_600
Max: 30.5 N·m at 186.8 ms
Min: -59.0 N·m at 72.9 ms



Filter Class: CFC_600
Max: 34.0 N·m at 187.0 ms
Min: -68.4 N·m at 73.0 ms

Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

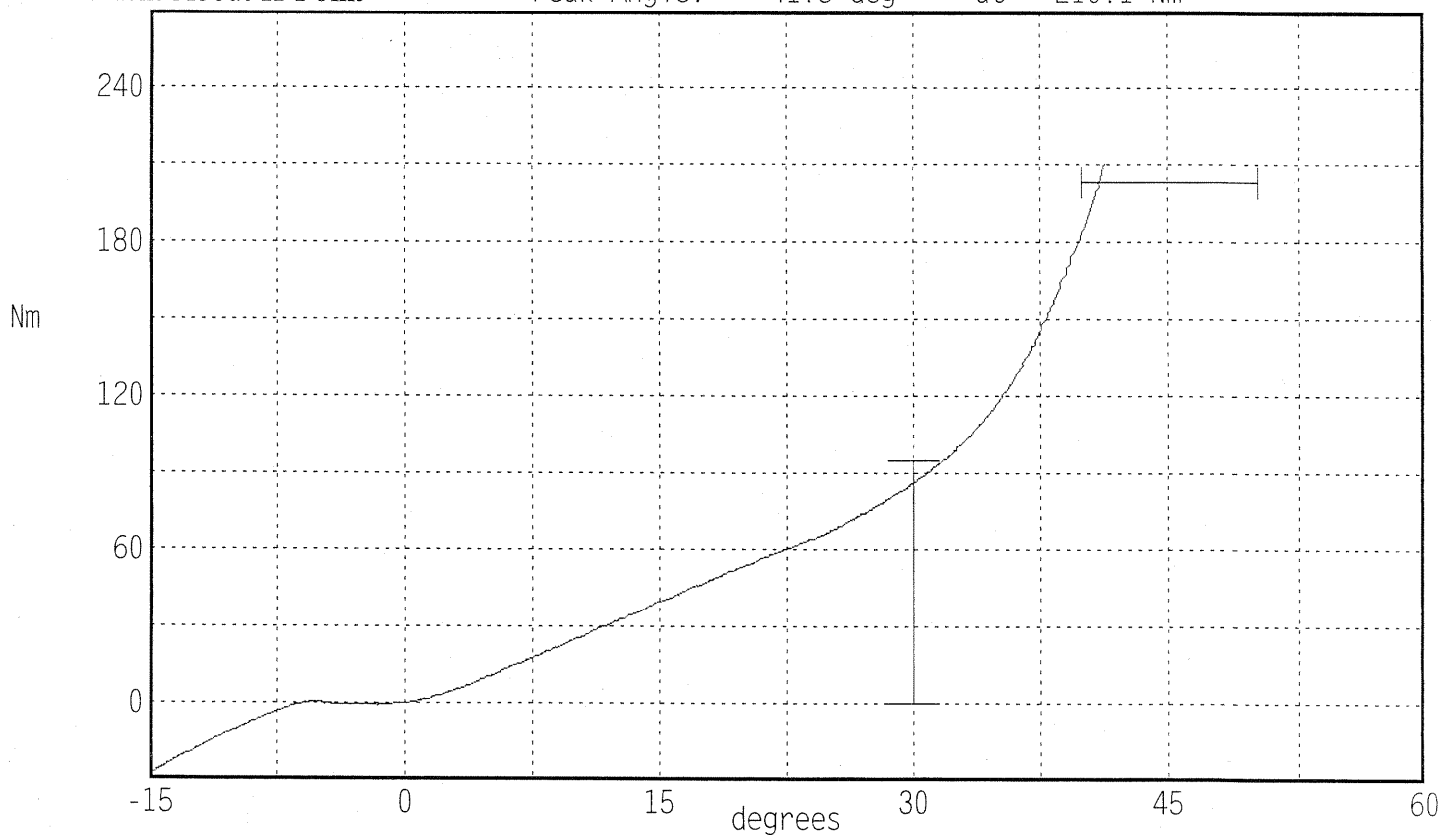
Serial Number: 090L
Test Number: 090C56
Comments:

Date: 05/10/2006
Time: 09:09

TEST PARAMETER	SPECIFICATION	TEST RESULTS	
Temperature	18.9 - 25.6	21.6 °C	Pass
Humidity	10 - 70	46 %	Pass
Moment at 30 deg	<= 94.9	86.6 Nm	Pass
Angle at 203 Nm	40.0 - 50.0	41.0 deg	Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec	Pass

Peak Moment: 210.1 Nm at 41.3 deg
Peak Angle: 41.3 deg at 210.1 Nm

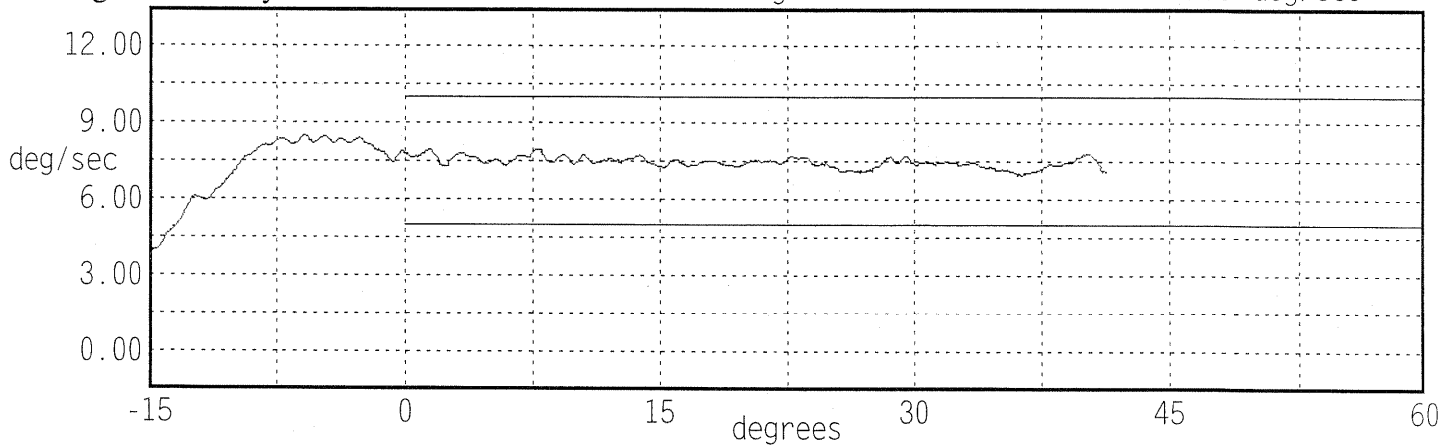
Moment About H-Point



Angular Velocity

Max: 8.0 deg/sec

Min: 7.0 deg/sec



Applied Safety Technologies Corp.

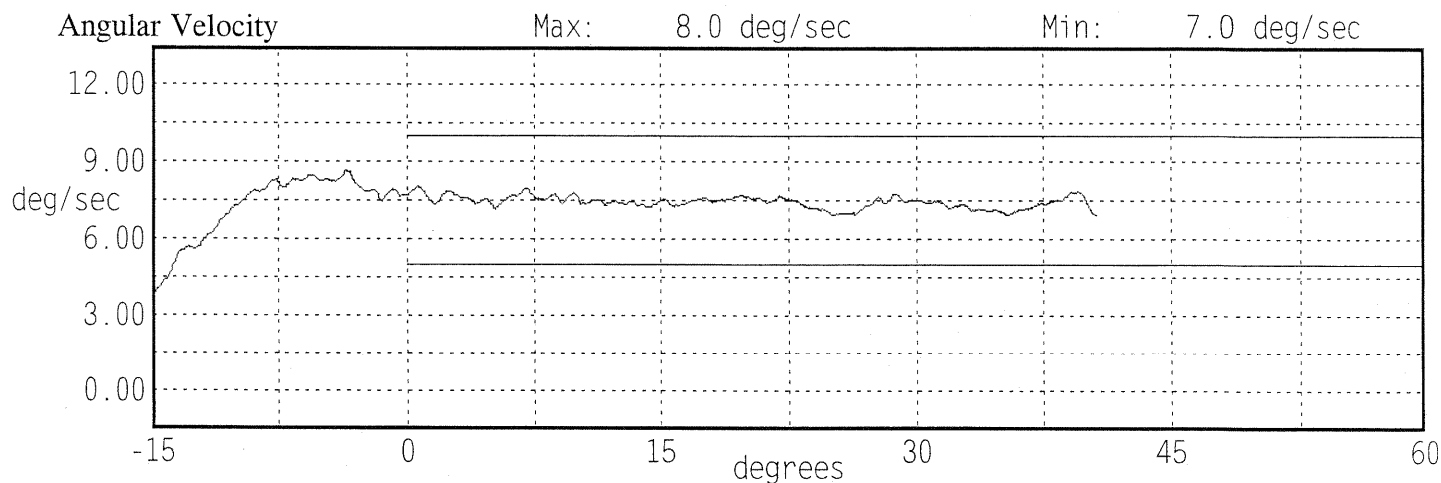
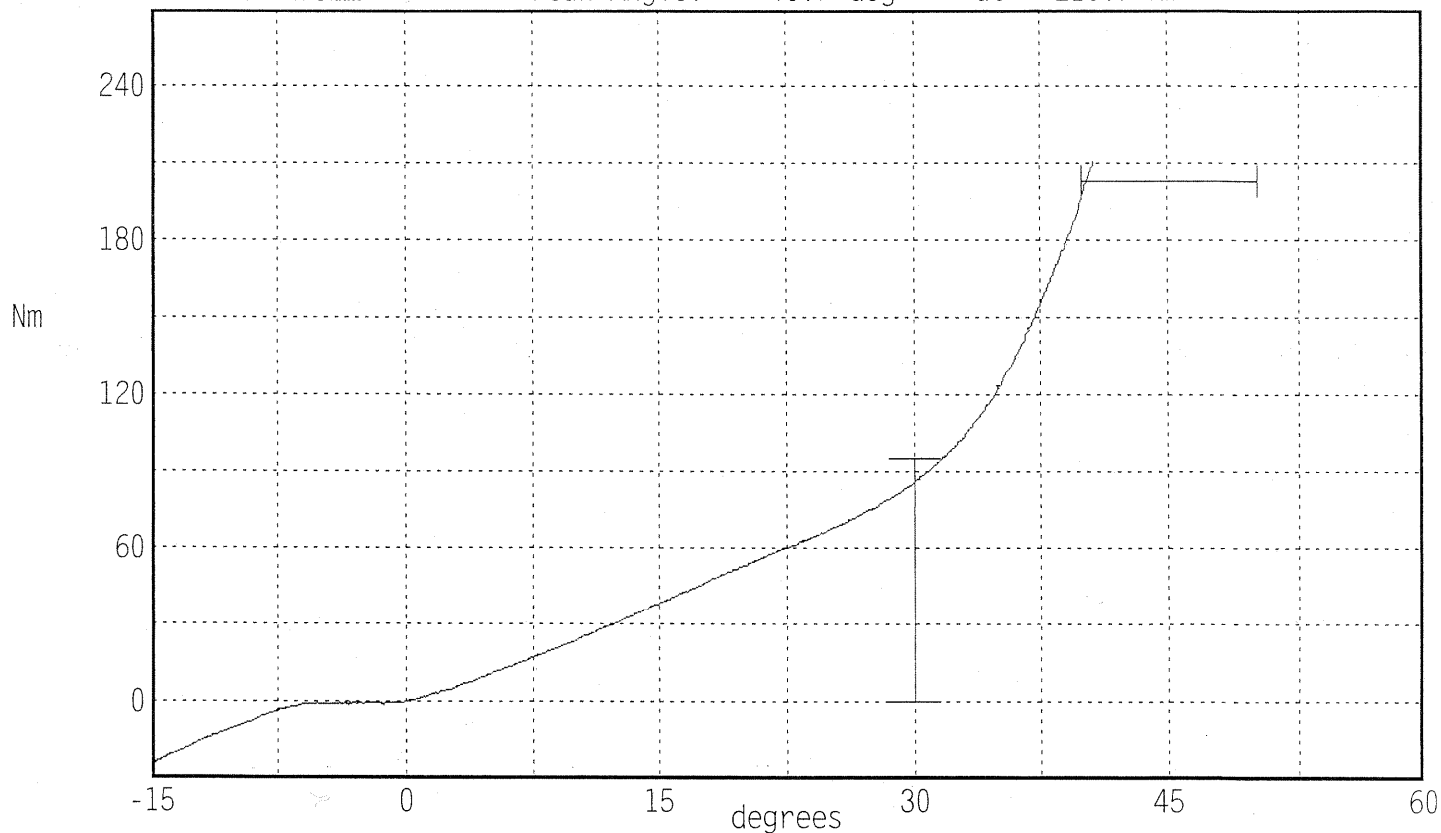
Hybrid III Hip Range of Motion

Serial Number: 090R
Test Number: 090C56
Comments:

Date: 05/10/2006
Time: 09:17

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.6 °C Pass
Humidity	10 - 70	46 % Pass
Moment at 30 deg	<= 94.9	86.2 Nm Pass
Angle at 203 Nm	40.0 - 50.0	40.3 deg Pass
Average Velocity	5.0 - 10.0	7.4 deg/sec Pass

Moment About H-Point
Peak Moment: 210.7 Nm at 40.7 deg
Peak Angle: 40.7 deg at 210.7 Nm



Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 090 Certification No. 56-1

Test Date: 05/10/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.622 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,711.1 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-67.61 mm	Yes
Internal Hysteresis	65 - 85 %	73.2 %	Yes

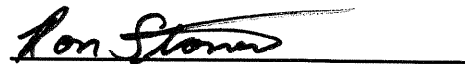
Test meets specifications.

Comments:

Technician



Approved

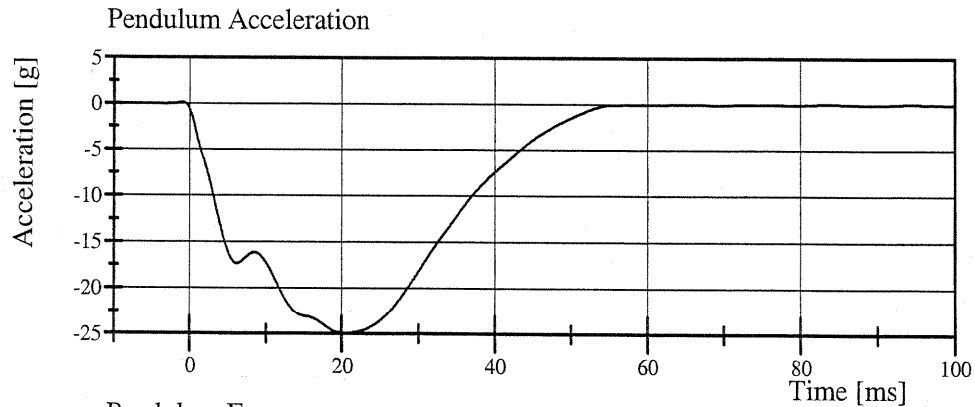


Transportation Research Center Inc.

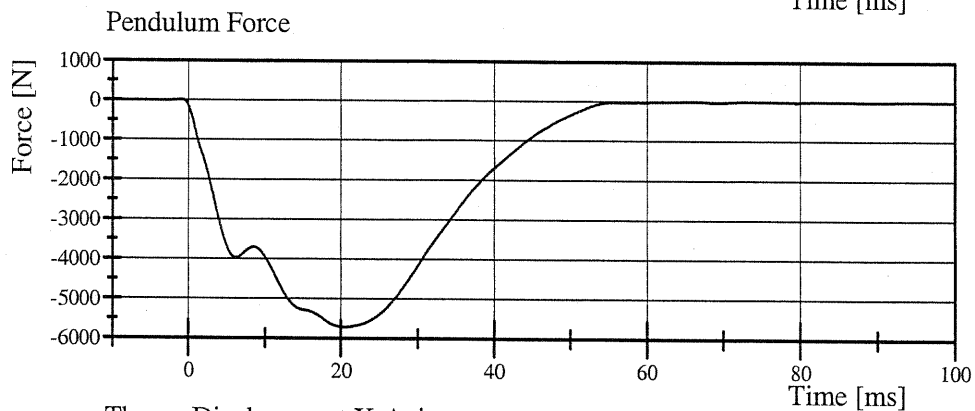
Front Thorax

HIII 50th Serial No. 090 Certification No. 56-1

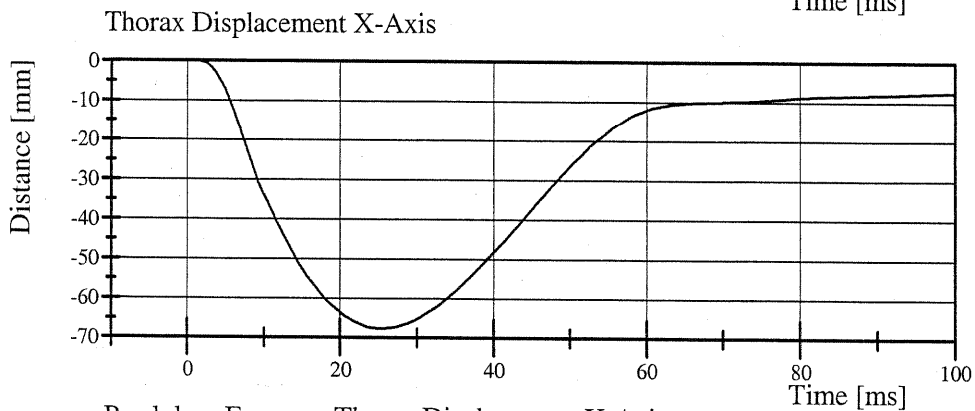
Test Date: 05/10/2006



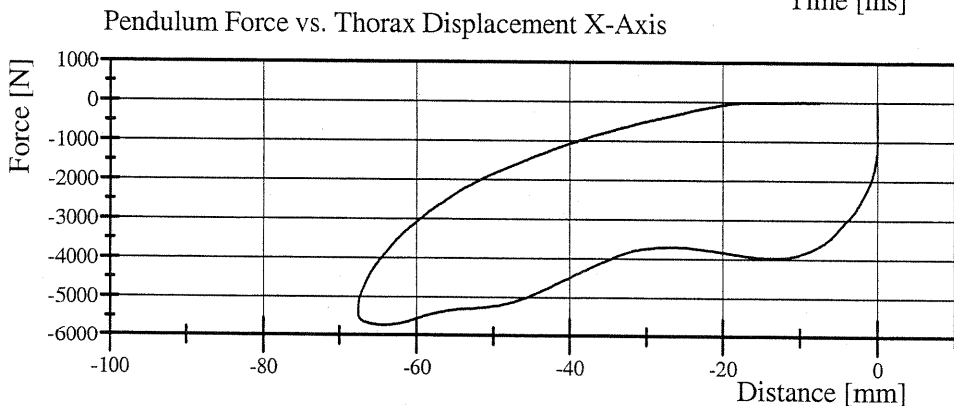
Filter Class: CFC_180
Max: 0.1 g at -1.0 ms
Min: -24.9 g at 20.6 ms



Filter Class: CFC_180
Max: 19.8 N at -1.0 ms
Min: -5,711.1 N at 20.6 ms



Filter Class: CFC_600
Max: 0.0 mm at -5.6 ms
Min: -67.6 mm at 25.0 ms



Filter Class: CFC_180
Max: 19.8 N at -0.0 mm
Min: -5,711.1 N at -64.4 mm

Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 8-1

Test Date: 05/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.091 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,570.45 N	Yes

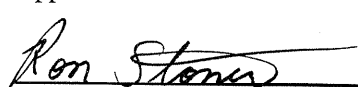
Test meets specifications.

Comments:

Technician



Approved

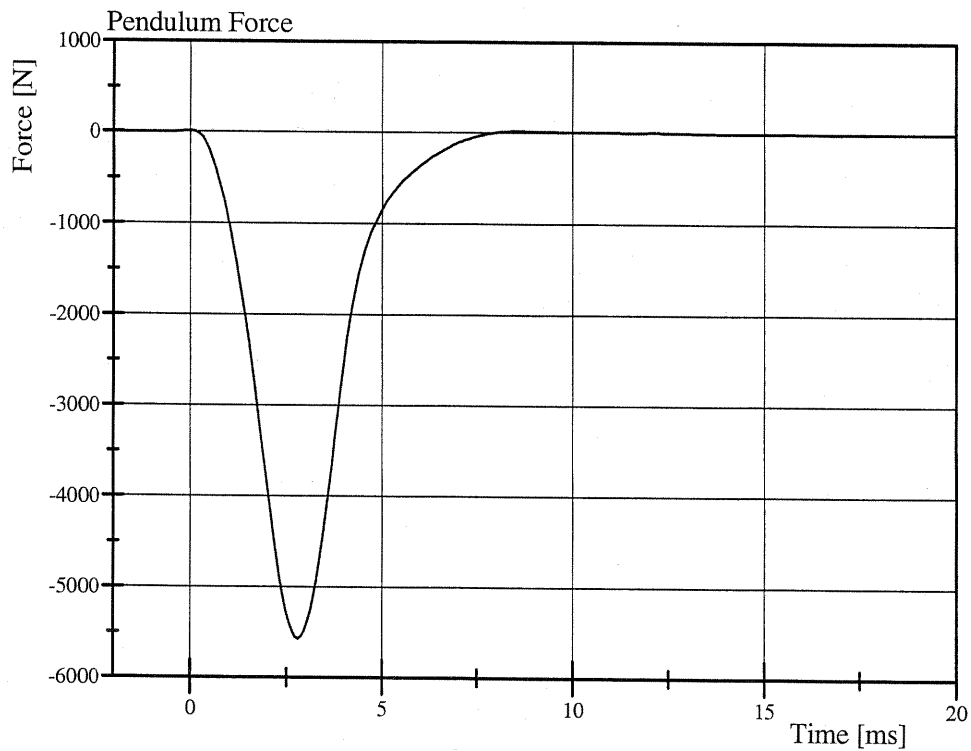
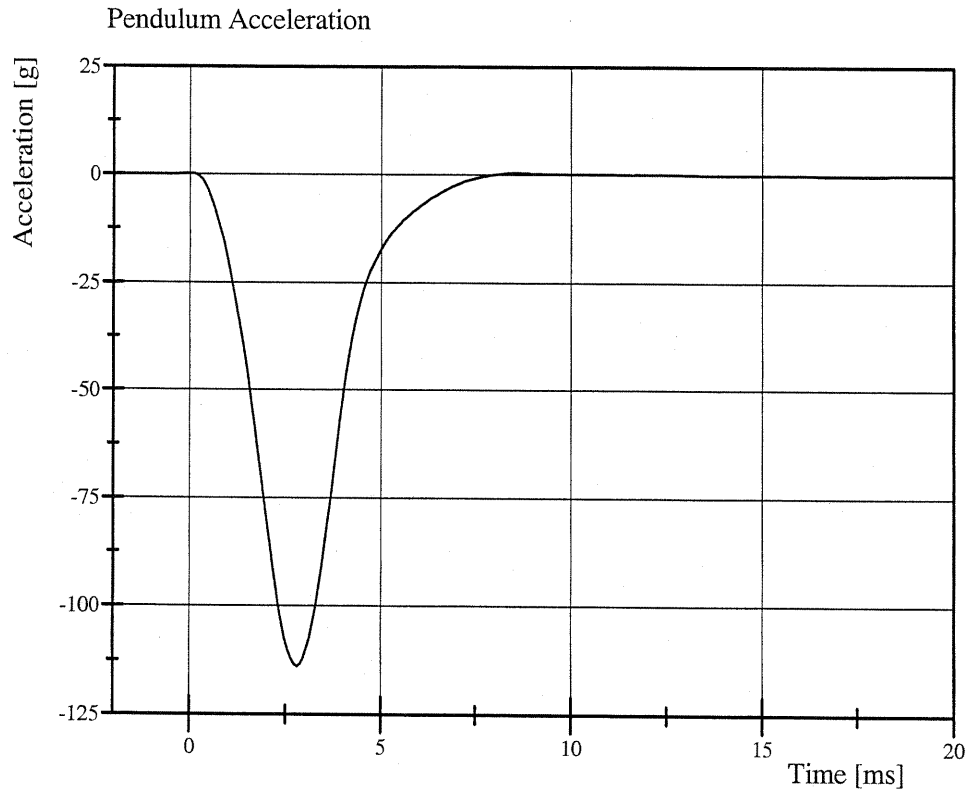


Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 8-1

Test Date: 05/17/2006



Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 8-2

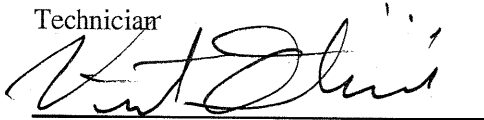
Test Date: 05/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.095 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,574.90 N	Yes

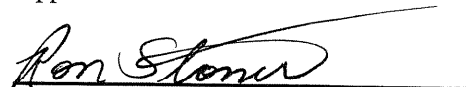
Test meets specifications.

Comments:

Technician



Approved

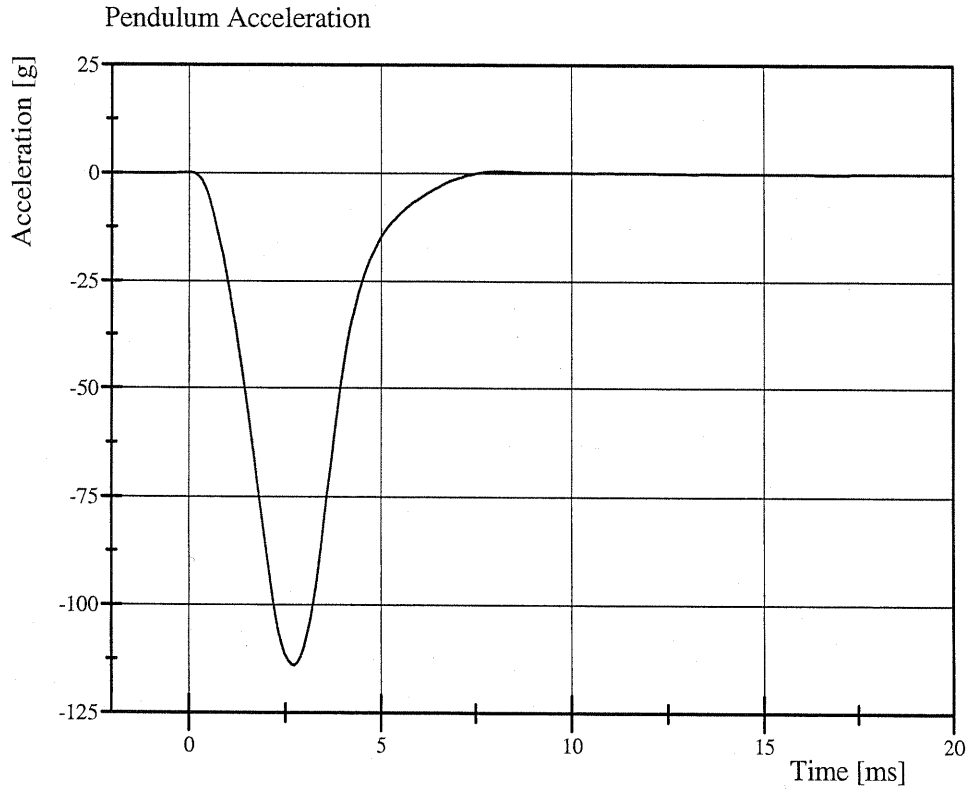


Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 50th Serial No. LX116117 Certification No. 8-2

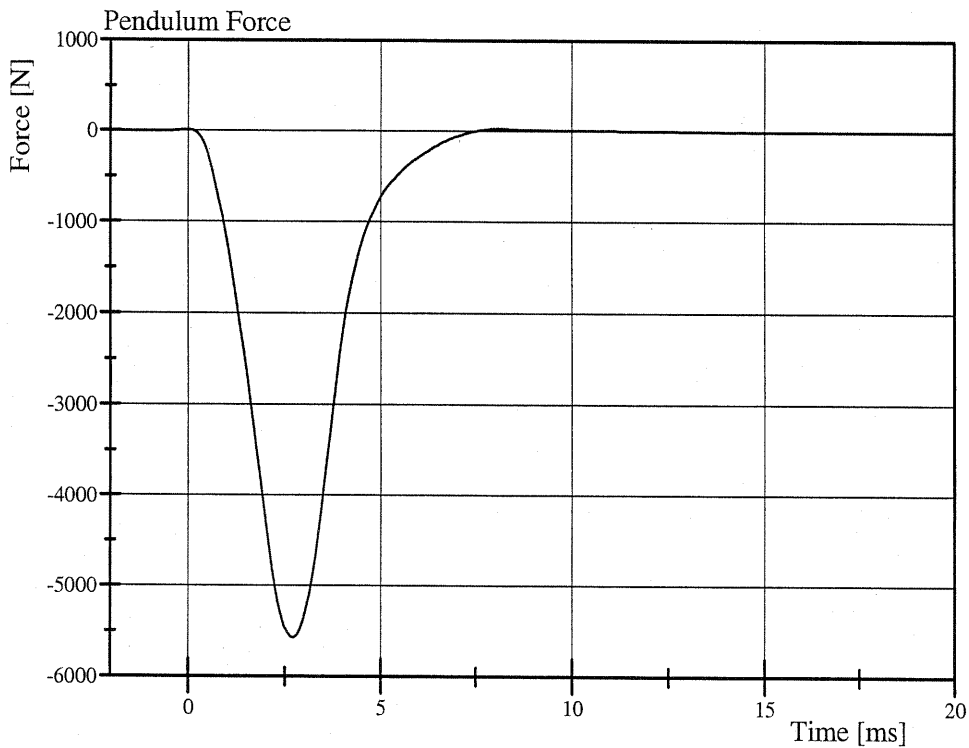
Test Date: 05/17/2006



Filter Class: CFC_600

Max: 0.5 g at 8.1 ms

Min: -113.9 g at 2.7 ms



Filter Class: CFC_600

Max: 26.5 N at 8.1 ms

Min: -5,574.9 N at 2.7 ms

Transportation Research Center Inc.

Left Knee Slider

HIII 50th Serial No. LX116117 Certification No. 8-2

Test Date: 05/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.752 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,376.4 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-2,608.6 N	Yes

Test meets specifications.

Comments:

Technician



Approved

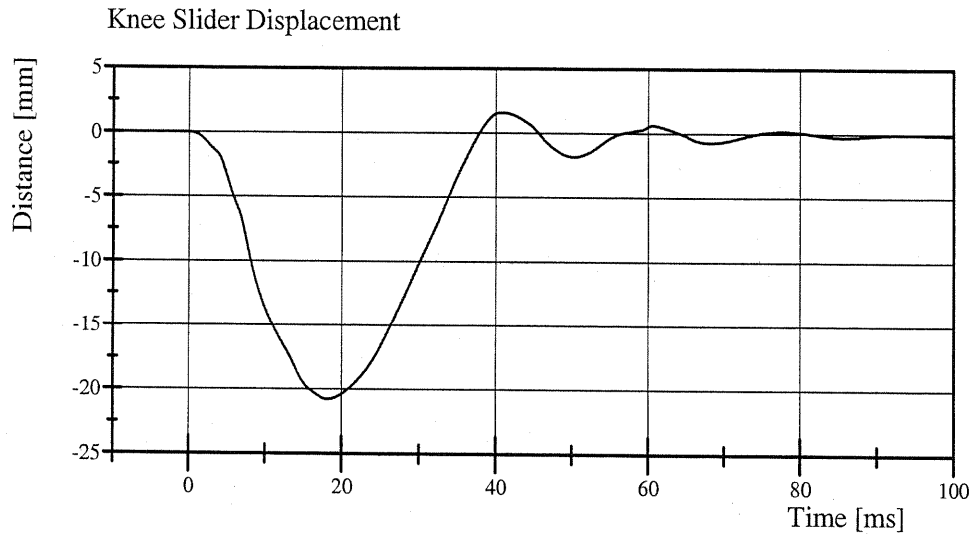


Transportation Research Center Inc.

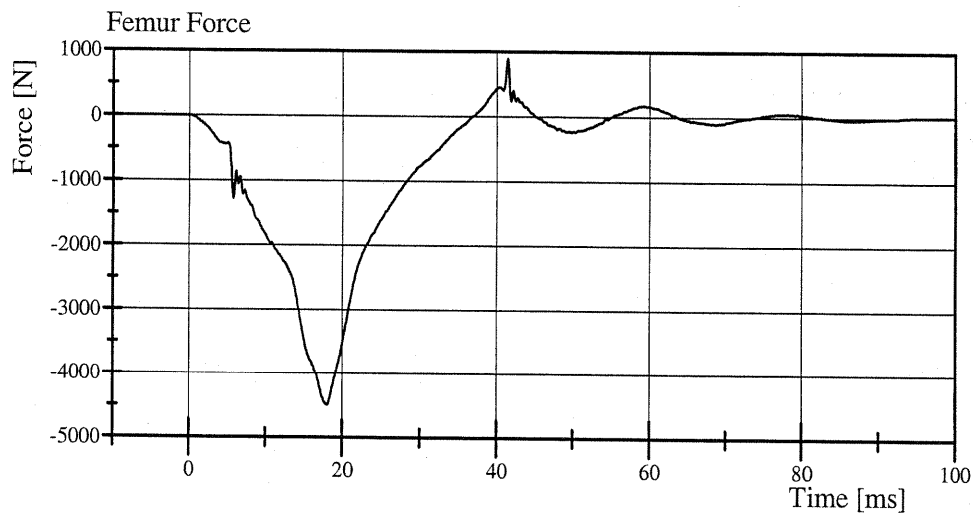
Left Knee Slider

HIII 50th Serial No. LX116117 Certification No. 8-2

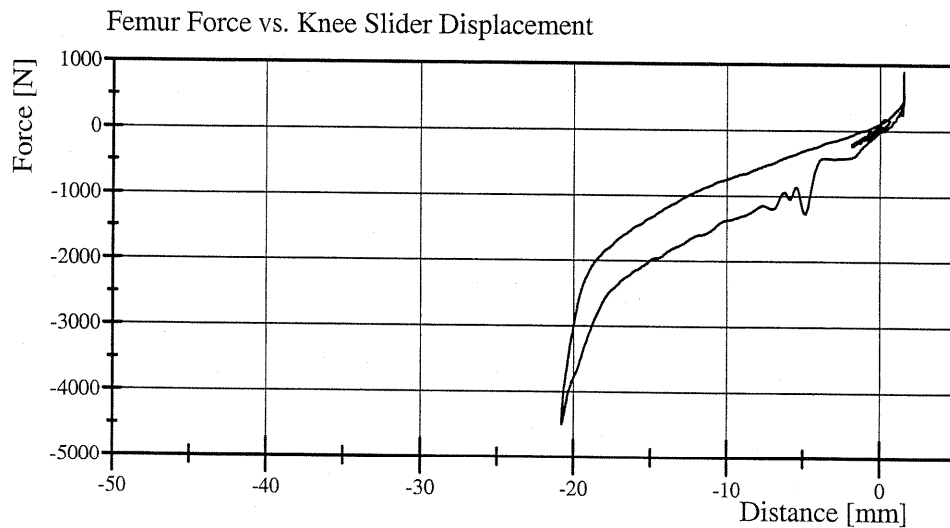
Test Date: 05/16/2006



Filter Class: CFC_180
Max: 1.6 mm at 40.8 ms
Min: -20.8 mm at 18.2 ms



Filter Class: CFC_600
Max: 893.2 N at 41.4 ms
Min: -4,491.3 N at 18.0 ms



Filter Class: CFC_600
Max: 893.2 N at 1.5 mm
Min: -4,491.3 N at -20.8 mm

Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX116117 Certification No. 8-13

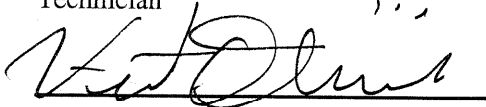
Test Date: 05/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.730 m/s	Yes
Force Peak at 10.0 mm Deflection	(-1,260) - (-1,720) N	-1,592.9 N	Yes
Force Peak at 18.0 mm Deflection	(-2,270) - (-3,100) N	-3,004.3 N	Yes

Test meets specifications.

Comments:

Technician



Approved



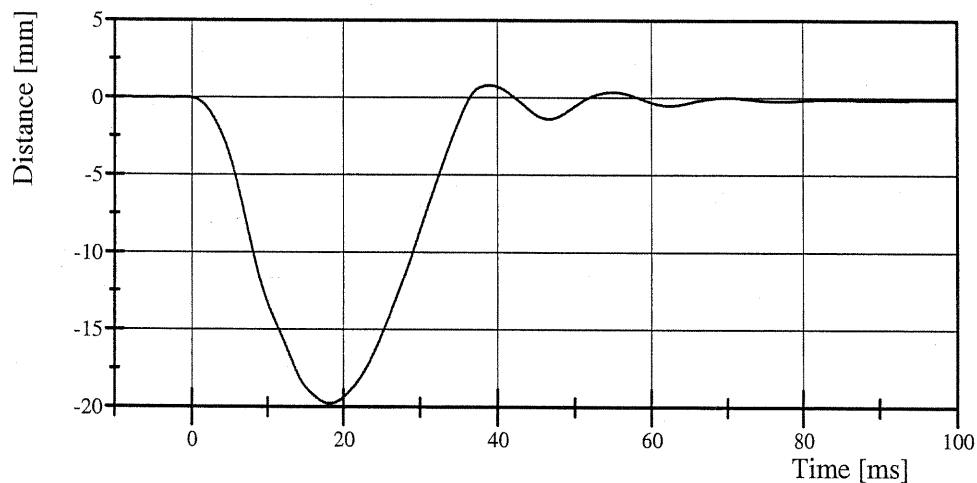
Transportation Research Center Inc.

Right Knee Slider

HIII 50th Serial No. LX116117 Certification No. 8-13

Test Date: 05/17/2006

Knee Slider Displacement

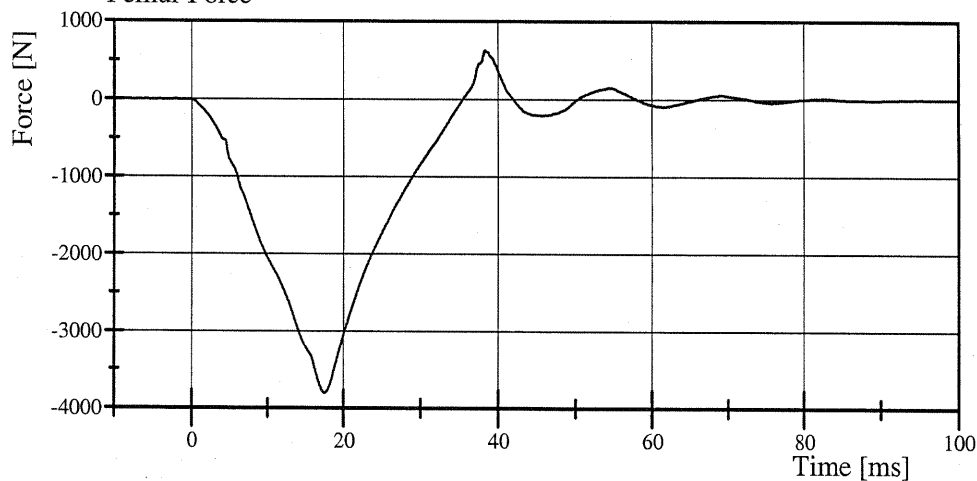


Filter Class: CFC_180

Max: 0.8 mm at 39.0 ms

Min: -19.8 mm at 18.2 ms

Femur Force

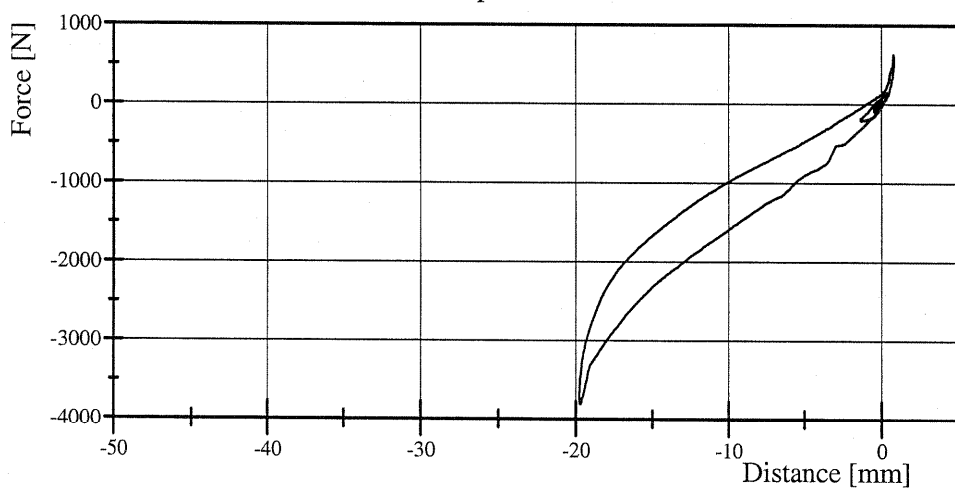


Filter Class: CFC_600

Max: 628.3 N at 38.4 ms

Min: -3,803.2 N at 17.4 ms

Femur Force vs. Knee Slider Displacement



Filter Class: CFC_600

Max: 628.3 N at 0.8 mm

Min: -3,803.2 N at -19.7 mm

Pre-Test Dummy Configuration and Performance Verification Data

Right Front Passenger Dummy S/N: 416

Transportation Research Center Inc.
5720 HIII 5th Female Dummy
External Dimensions
Serial No. 416 Calibration No. 38
With Thor FLX Legs

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	782	Yes
B	Shoulder Pivot Height	431.8 - 457.2	453	Yes
C	Hip Pivot Height	81.3 - 86.3	85	Yes
D	Hip Pivot from Backline	144.8 - 149.8	146	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	78	Yes
F	Thigh Clearance	119.4 - 134.6	122	Yes
G	Back of Elbow to Wrist Pivot	243.9 - 259.1	252	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	191	Yes
K	Buttock Knee Length	520.7 - 546.1	533	Yes
L	Popliteal Height	355.6 - 376.0	361	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	186	Yes
P	Foot Length	218.5 - 233.7	221	Yes
R	Buttock to Knee Pivot Length	457.2 - 482.6	473	Yes
S	Head Breadth	137.1 - 147.3	141	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	363	Yes
W	Foot Breadth	78.8 - 94.0	88	Yes
X	Head Circumference	528.3 - 548.7	534	Yes
Y	Chest Circumference with Jacket	850.9 - 881.3	873	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. 38-2

Test Date: 05/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	49 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	279.0 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-3.5 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

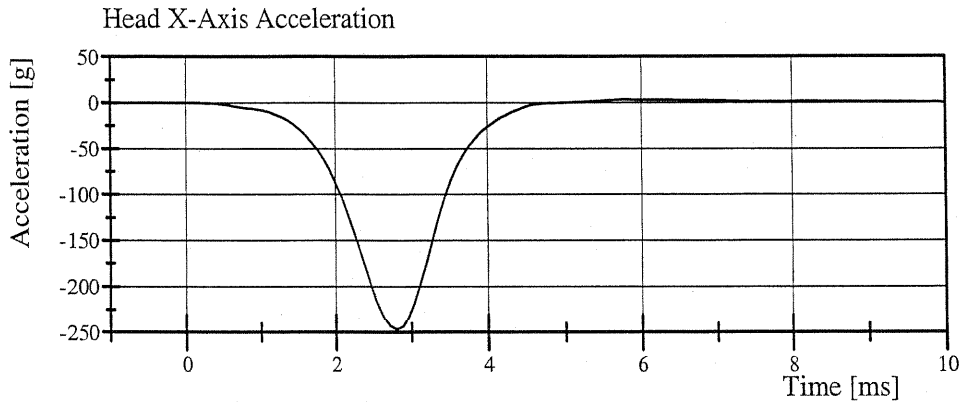


Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 416 Certification No. 38-2

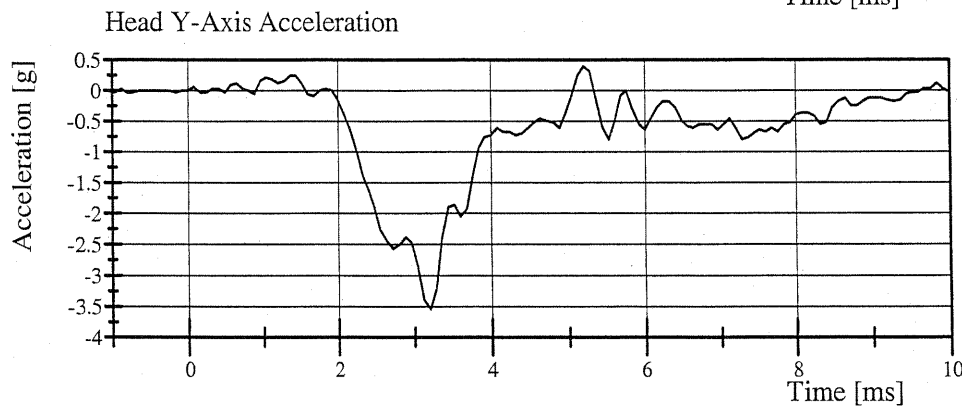
Test Date: 05/16/2006



Filter Class: CFC_1000

Max: 3.4 g at 5.8 ms

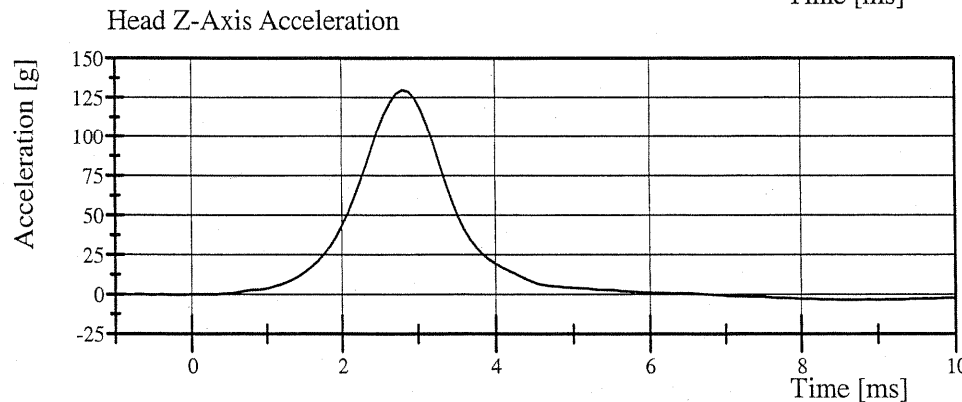
Min: -246.9 g at 2.8 ms



Filter Class: CFC_1000

Max: 0.4 g at 5.2 ms

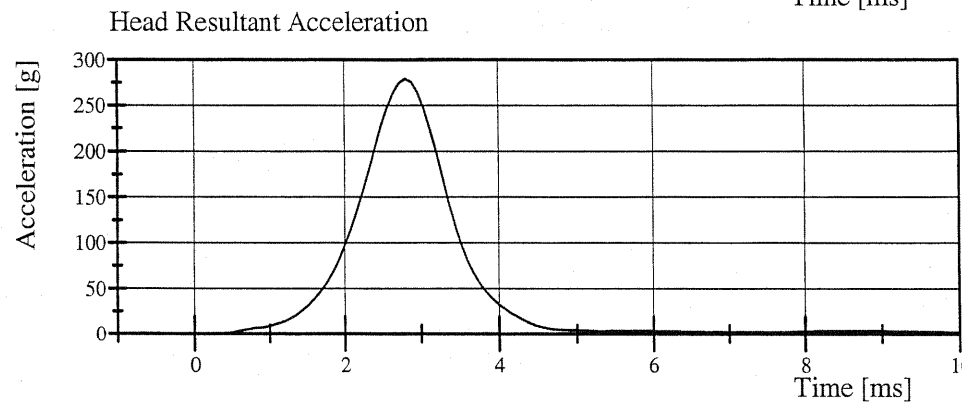
Min: -3.5 g at 3.2 ms



Filter Class: CFC_1000

Max: 129.9 g at 2.8 ms

Min: -3.4 g at 8.6 ms



Filter Class: CFC_1000

Max: 279.0 g at 2.8 ms

Min: 0.0 g at -0.6 ms

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 38-1

Test Date: 04/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	35 %	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	-2.35 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	(-4.0) - (-5.0) m/s	-4.46 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	(-5.8) - (-7.0) m/s	-6.33 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-79.1 °	Yes
Total Neck Occipital Condyles Moment Between -77° and -91° Rotation	69 - 83 N·m	75.0 N·m	Yes
Total Neck Occipital Condyles Moment Decay to 10 N·m	80 - 100 ms	86.6 ms	Yes

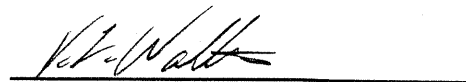
Test meets specifications.

Comments:

Technician



Approved



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

04.30.2006 15:07:14 549



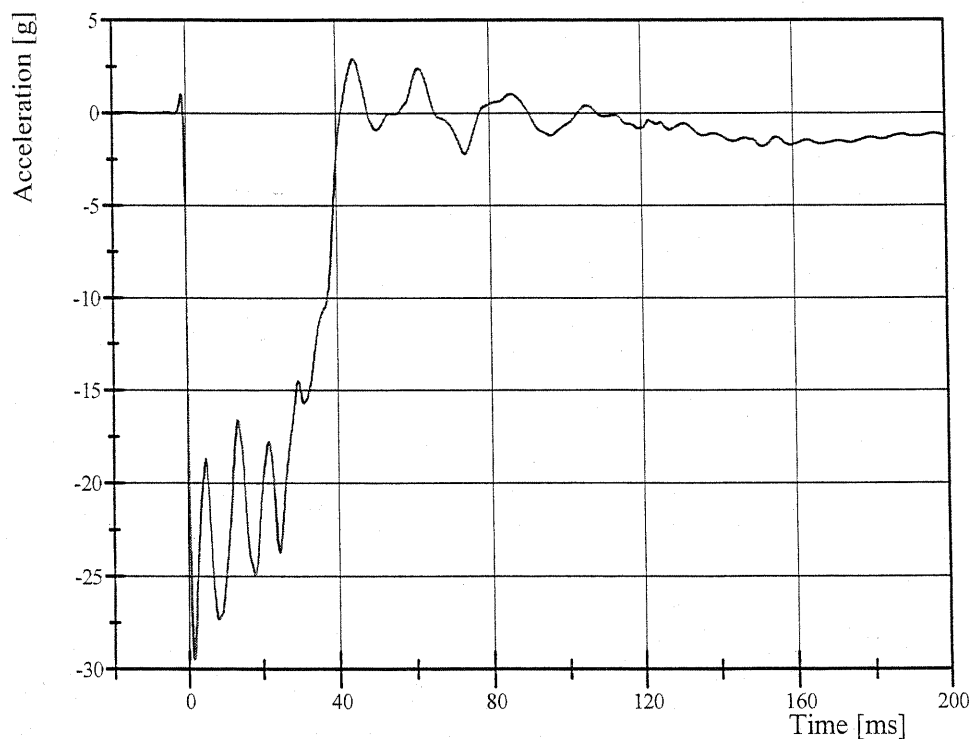
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 38-1

Test Date: 04/30/2006

Pendulum Acceleration

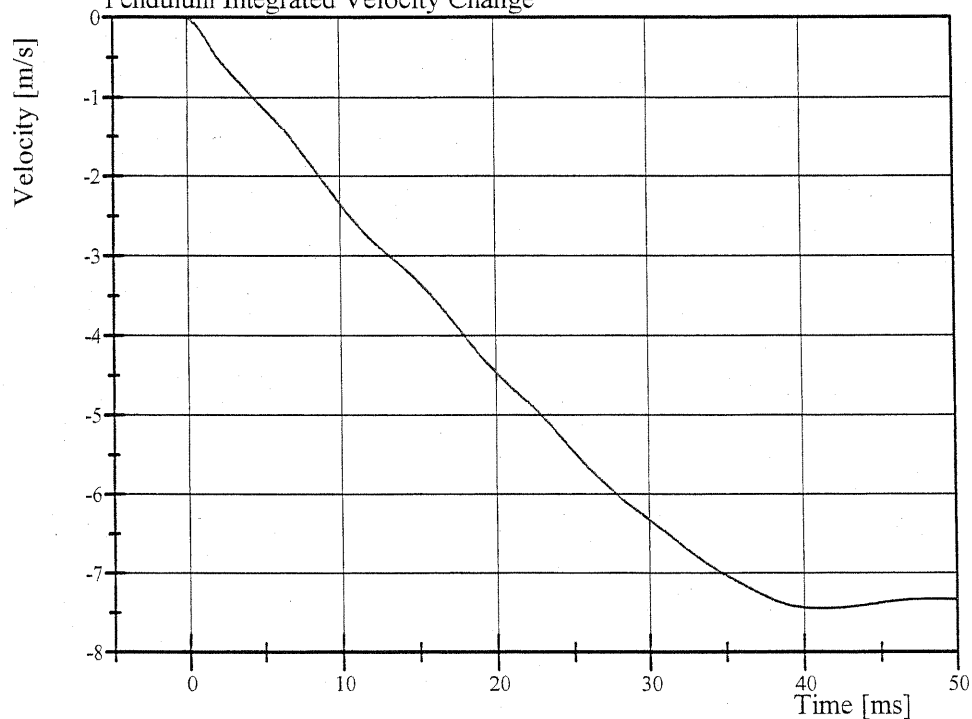


Filter Class: CFC_180

Max: 2.9 g at 44.6 ms

Min: -29.5 g at 1.3 ms

Pendulum Integrated Velocity Change



Filter Class: CFC_180

Max: 0.0 m/s at 0.0 ms

Min: -7.4 m/s at 41.3 ms



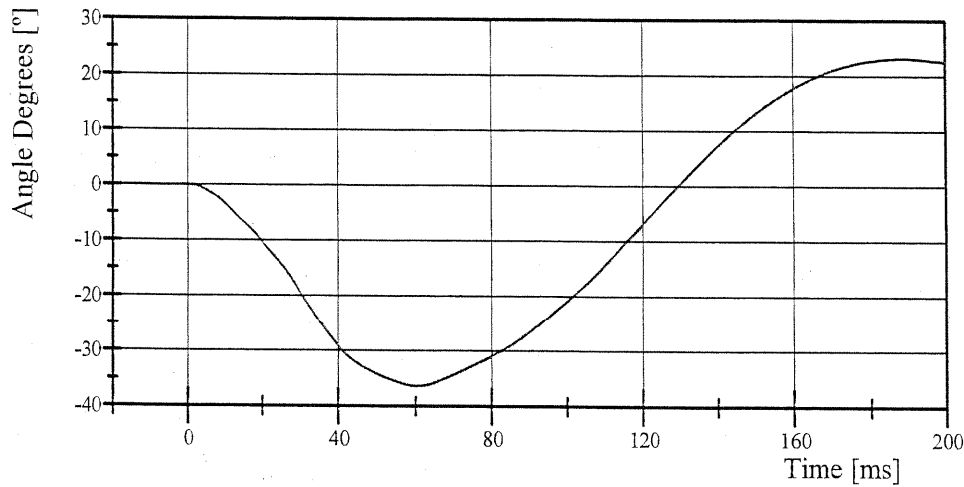
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 38-1

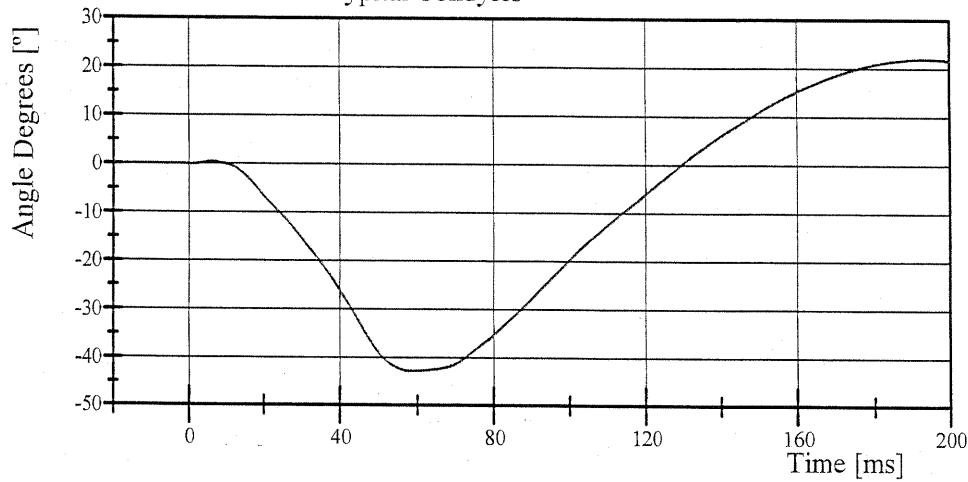
Test Date: 04/30/2006

Pot Rotation at the Base of Neck



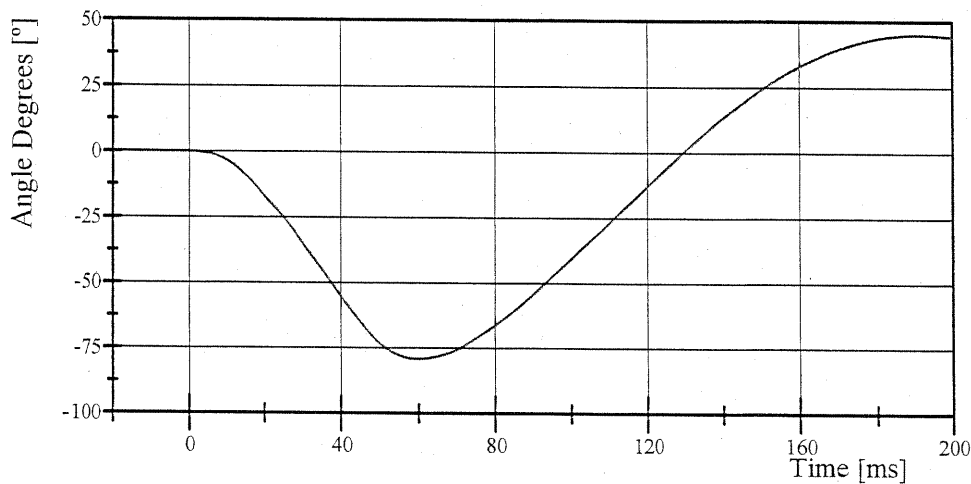
Filter Class: CFC_60
Max: 23.2 ° at 188.9 ms
Min: -36.4 ° at 60.7 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 21.9 ° at 193.8 ms
Min: -42.8 ° at 58.9 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 45.0 ° at 191.2 ms
Min: -79.1 ° at 59.9 ms

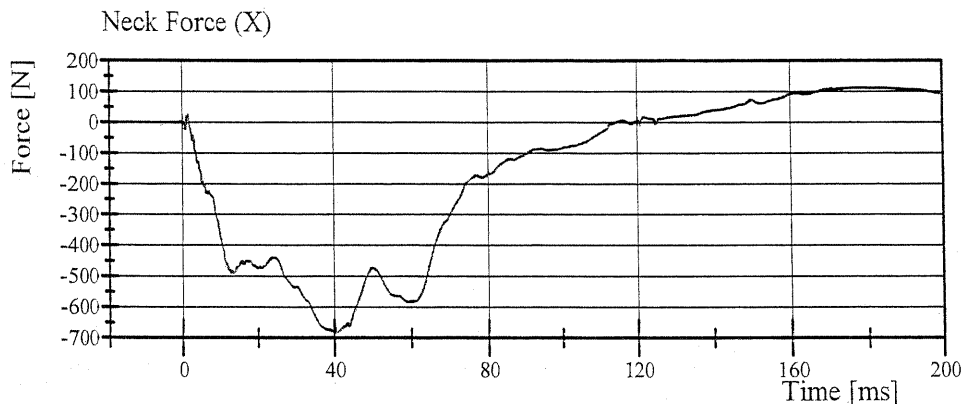


Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 416 Certification No. 38-1

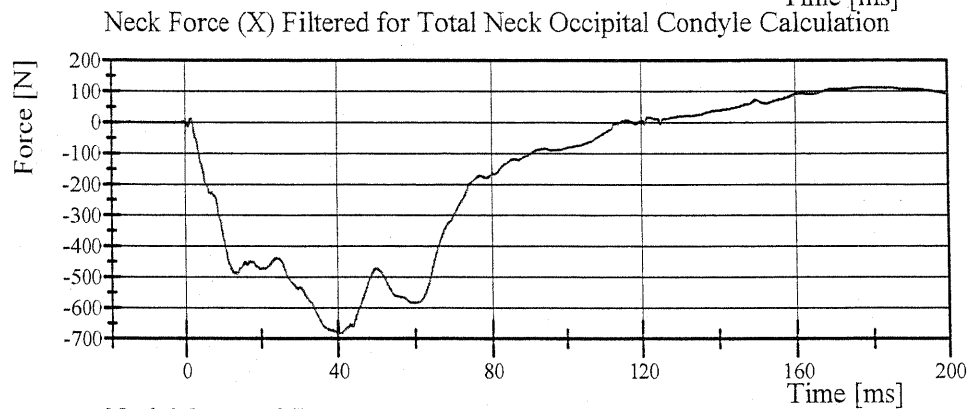
Test Date: 04/30/2006



Filter Class: CFC_1000

Max: 113.6 N at 178.1 ms

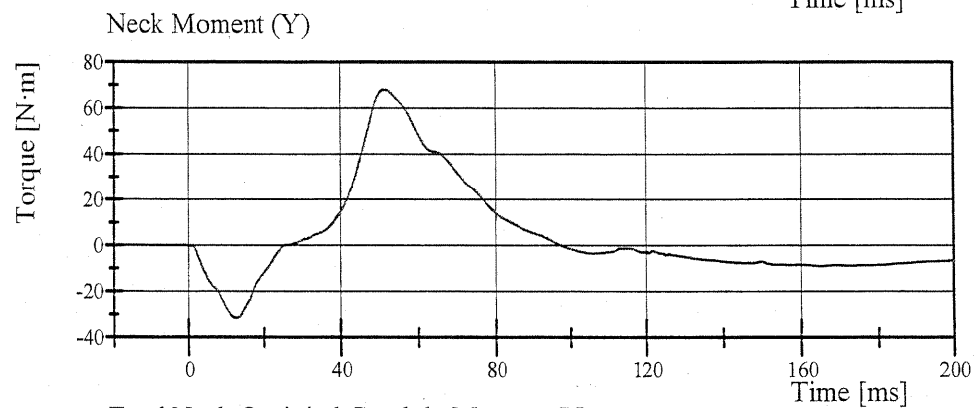
Min: -684.2 N at 40.6 ms



Filter Class: CFC_600

Max: 113.4 N at 178.2 ms

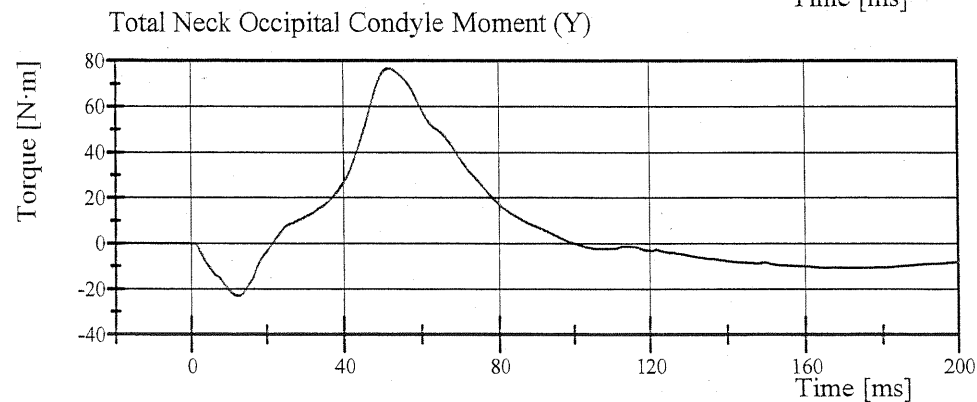
Min: -683.5 N at 40.6 ms



Filter Class: CFC_600

Max: 68.0 N·m at 51.6 ms

Min: -31.7 N·m at 12.5 ms



Filter Class: CFC_600

Max: 76.7 N·m at 51.8 ms

Min: -23.1 N·m at 12.3 ms



Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 38-2

Test Date: 04/30/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Pendulum Velocity	(-5.95) - (-6.19) m/s	-6.076 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	1.5 - 1.9 m/s	1.86 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	3.1 - 3.9 m/s	3.64 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	4.6 - 5.6 m/s	5.26 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	105.6 °	Yes
Total Neck Occipital Condyles Moment Between 99° and 114° Rotation	(-53) - (-65) N·m	-54.3 N·m	Yes
Total Neck Occipital Condyles Moment Decay to -10 N·m	94 - 114 ms	101.3 ms	Yes

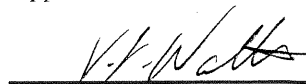
Test meets specifications.

Comments:

Technician



Approved

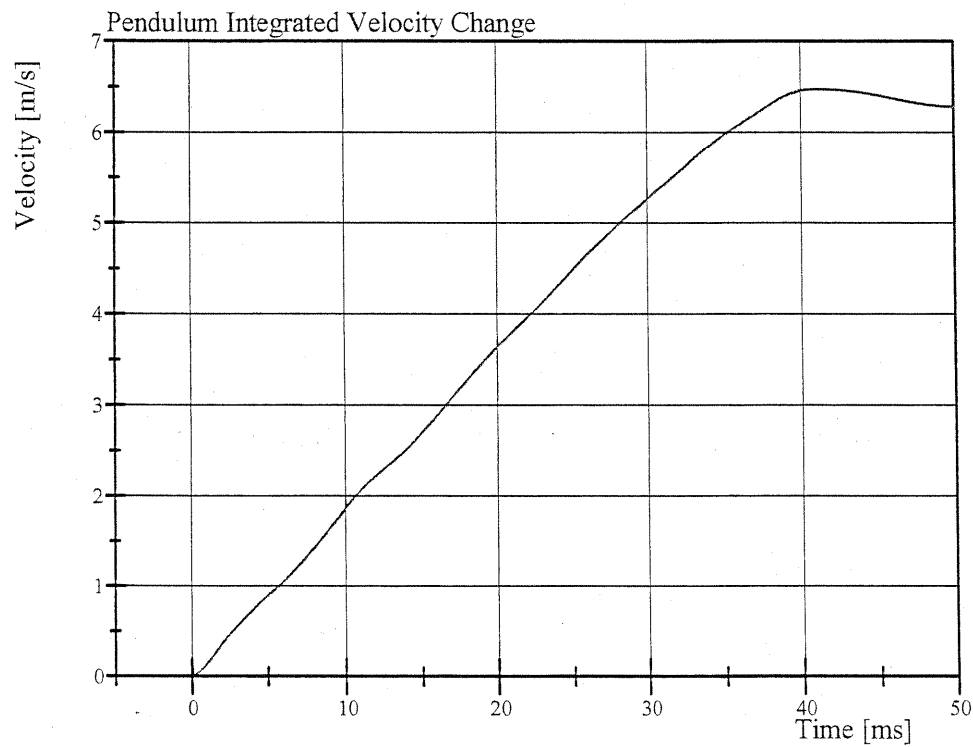
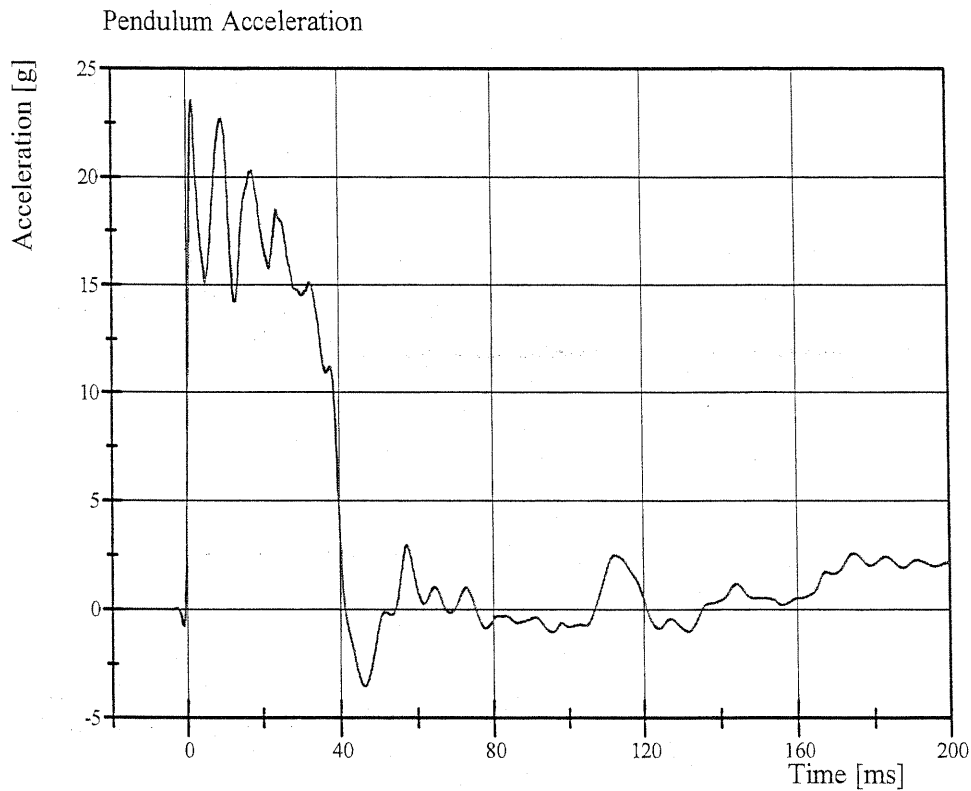


Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 38-2

Test Date: 04/30/2006



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

04.30.2006 16:42:51 625



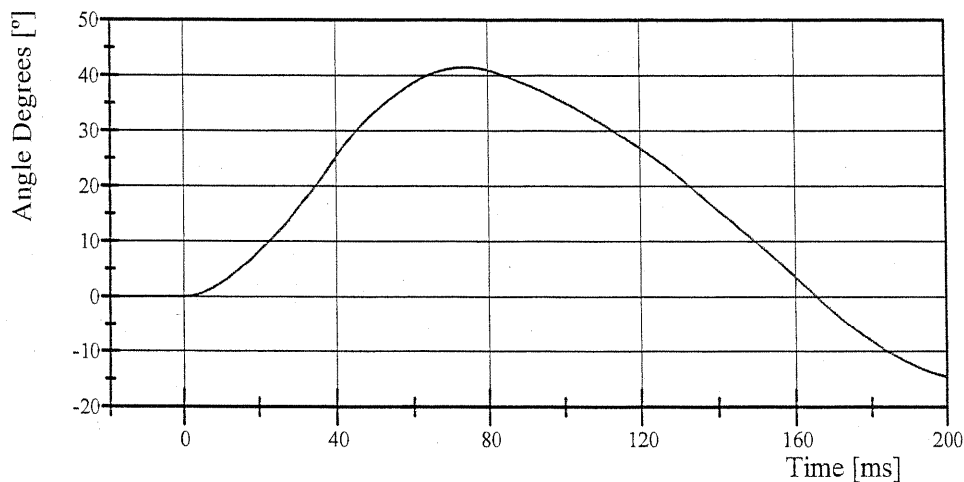
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 38-2

Test Date: 04/30/2006

Pot Rotation at the Base of Neck

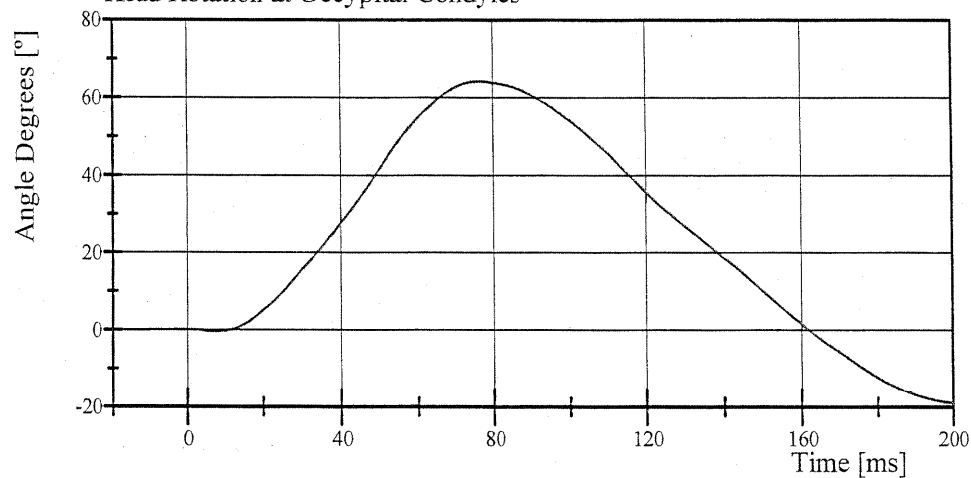


Filter Class: CFC_60

Max: 41.5 ° at 74.5 ms

Min: -14.6 ° at 200.0 ms

Head Rotation at Occypital Condyles

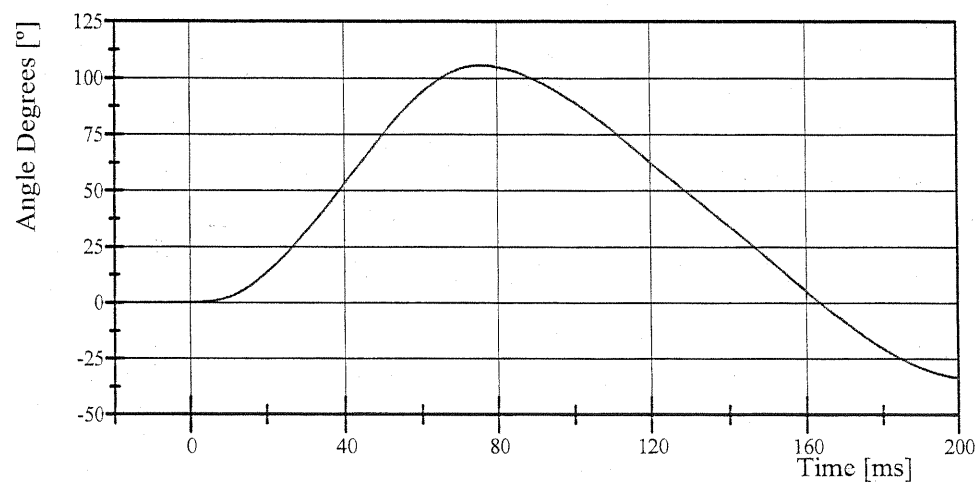


Filter Class: CFC_60

Max: 64.2 ° at 76.6 ms

Min: -19.0 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 105.6 ° at 75.9 ms

Min: -33.6 ° at 200.0 ms

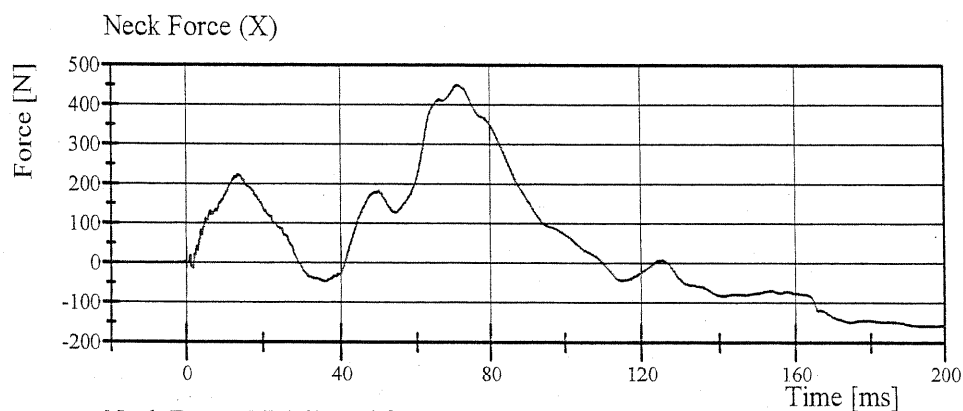


Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 416 Certification No. 38-2

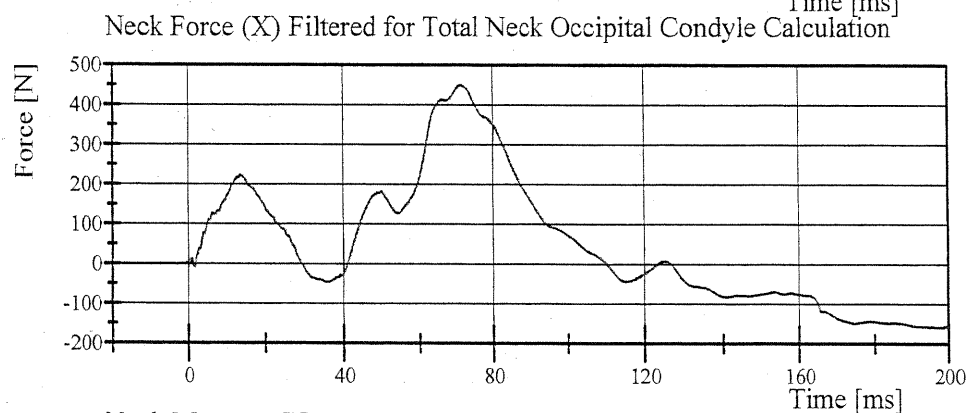
Test Date: 04/30/2006



Filter Class: CFC_1000

Max: 450.4 N at 71.4 ms

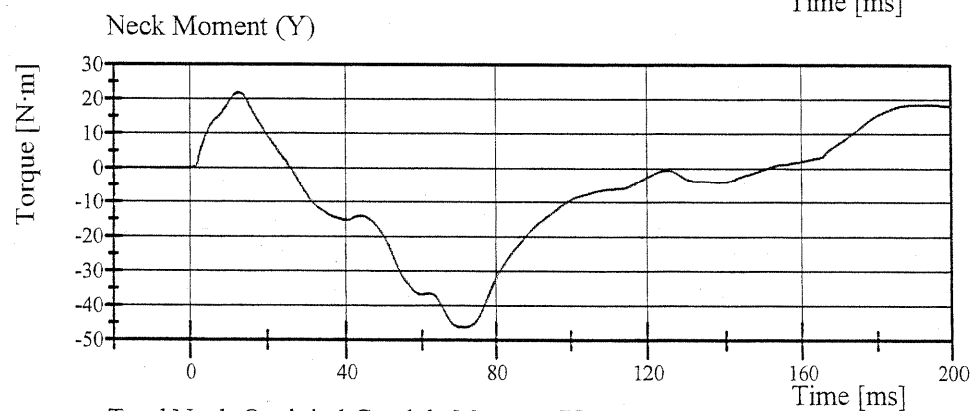
Min: -159.0 N at 194.5 ms



Filter Class: CFC_600

Max: 450.0 N at 71.4 ms

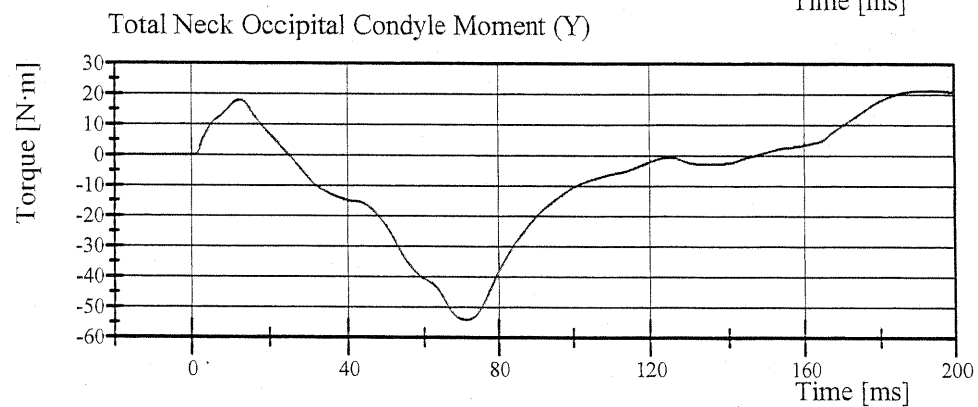
Min: -158.7 N at 196.2 ms



Filter Class: CFC_600

Max: 21.8 N·m at 12.5 ms

Min: -46.3 N·m at 71.8 ms



Filter Class: CFC_600

Max: 21.3 N·m at 194.6 ms

Min: -54.3 N·m at 71.8 ms



Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 416 Certification No. 38-3

Test Date: 05/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.599 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,236.2 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	>= (-4,600) N	-3,957.9 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-57.5 mm	Yes
Internal Hysteresis	69 - 85 %	69.3 %	Yes

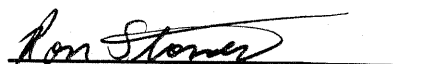
Test meets specifications.

Comments:

Technician



Approved



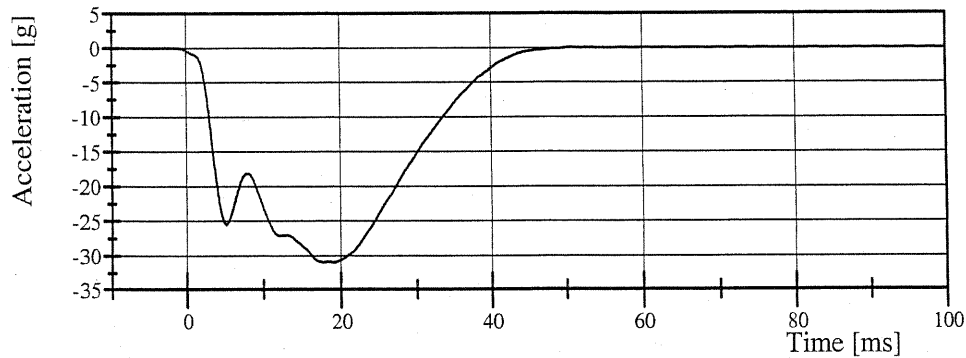
Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 416 Certification No. 38-3

Test Date: 05/17/2006

Pendulum Acceleration

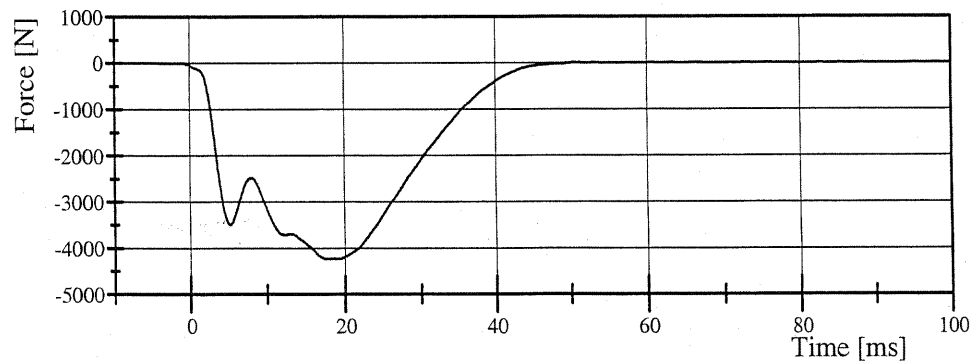


Filter Class: CFC_180

Max: 0.1 g at 50.8 ms

Min: -30.9 g at 19.1 ms

Pendulum Force

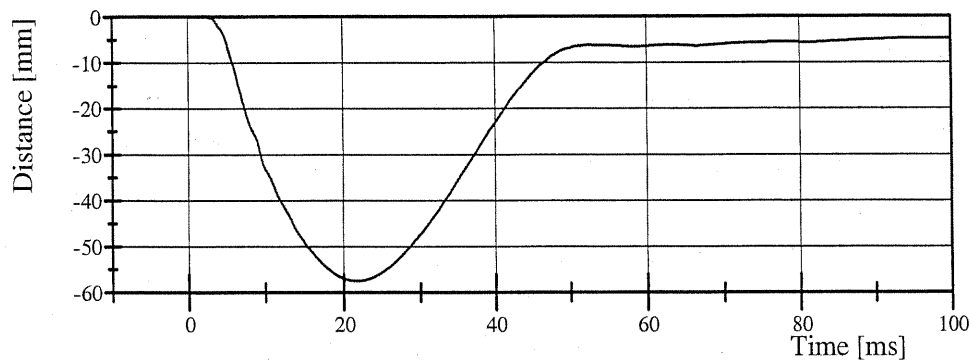


Filter Class: CFC_180

Max: 12.4 N at 50.8 ms

Min: -4,236.2 N at 19.1 ms

Thorax Displacement X-Axis

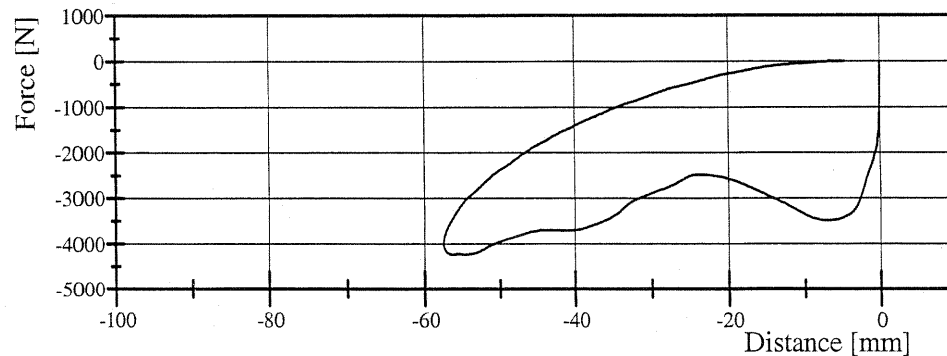


Filter Class: CFC_600

Max: 0.0 mm at -8.2 ms

Min: -57.5 mm at 21.8 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180

Max: 12.4 N at -6.4 mm

Min: -4,236.2 N at -56.3 mm

TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

CAL DATE: 17-May-06

TRC, INC.

TEST NO: TOFL-01

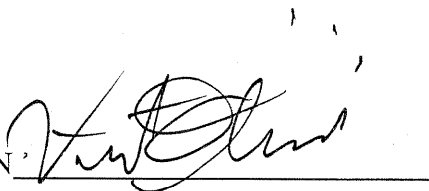
572 O SN416 TORSO FLEX CAL 38

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6 – 22.2° C	21.1° C
RELATIVE HUMIDITY	10 – 70 %	48 %
INITIAL ANGLE OF UNSUPPORTRED DUMMY	<= 20° REFERENCED TO VERTICAL	19.0°
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	320 – 390 N	322.3 N
RETURN ANGLE		25.4°
DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE	+/- 8 ° OF INTIAL ANGLE	6.4 °
RATE	0.5° - 1.5°/sec	0.97 °/sec

TEST MEETS SPECIFICATIONS

Comments:

TECHNICIAN



Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 5th Serial No. 416 Certification No. 38-1

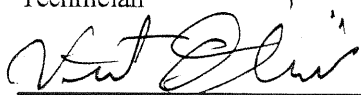
Test Date: 04/26/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.100 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,709.8 N	Yes

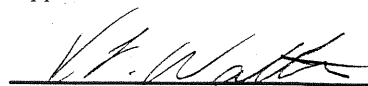
Test meets specifications.

Comments:

Technician



Approved



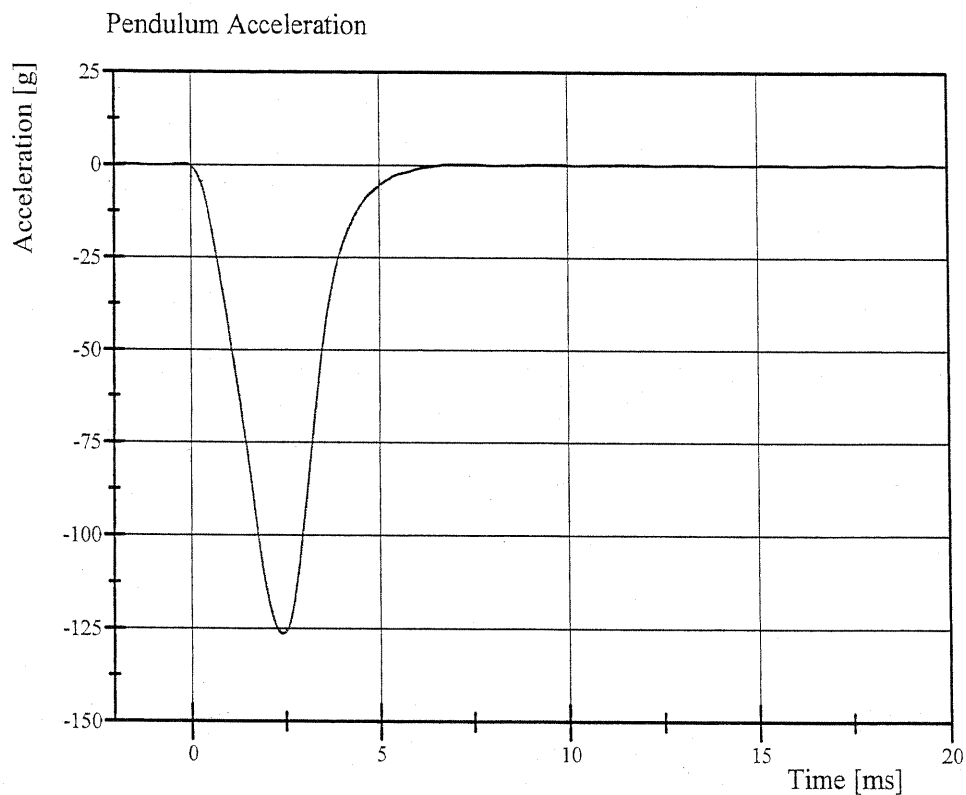
Specification Source: CFR49 Part 572 Subpart O
with Polarity in accordance with J211

04.26.2006 09:28:07 1701

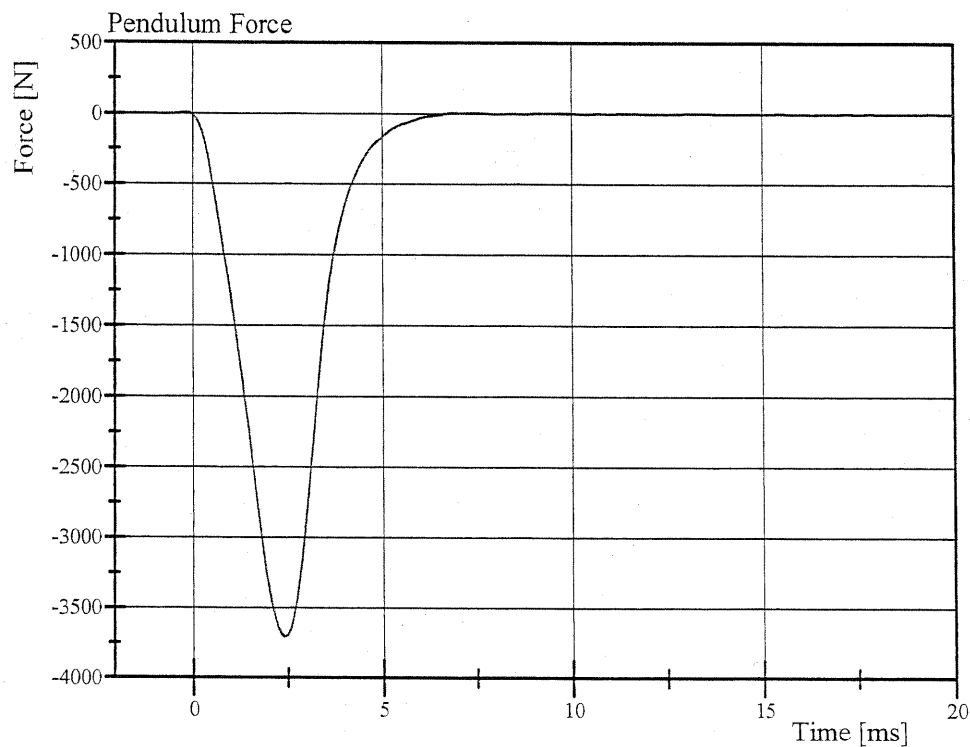


Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 38-1
Test Date: 04/26/2006



Filter Class: CFC_600
Max: 0.3 g at -0.2 ms
Min: -126.5 g at 2.4 ms



Filter Class: CFC_600
Max: 8.3 N at -0.2 ms
Min: -3,709.8 N at 2.4 ms



Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 5th Serial No. 416 Certification No. 38-1

Test Date: 04/26/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.100 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,714.5 N	Yes

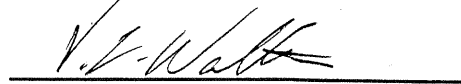
Test meets specifications.

Comments:

Technician



Approved



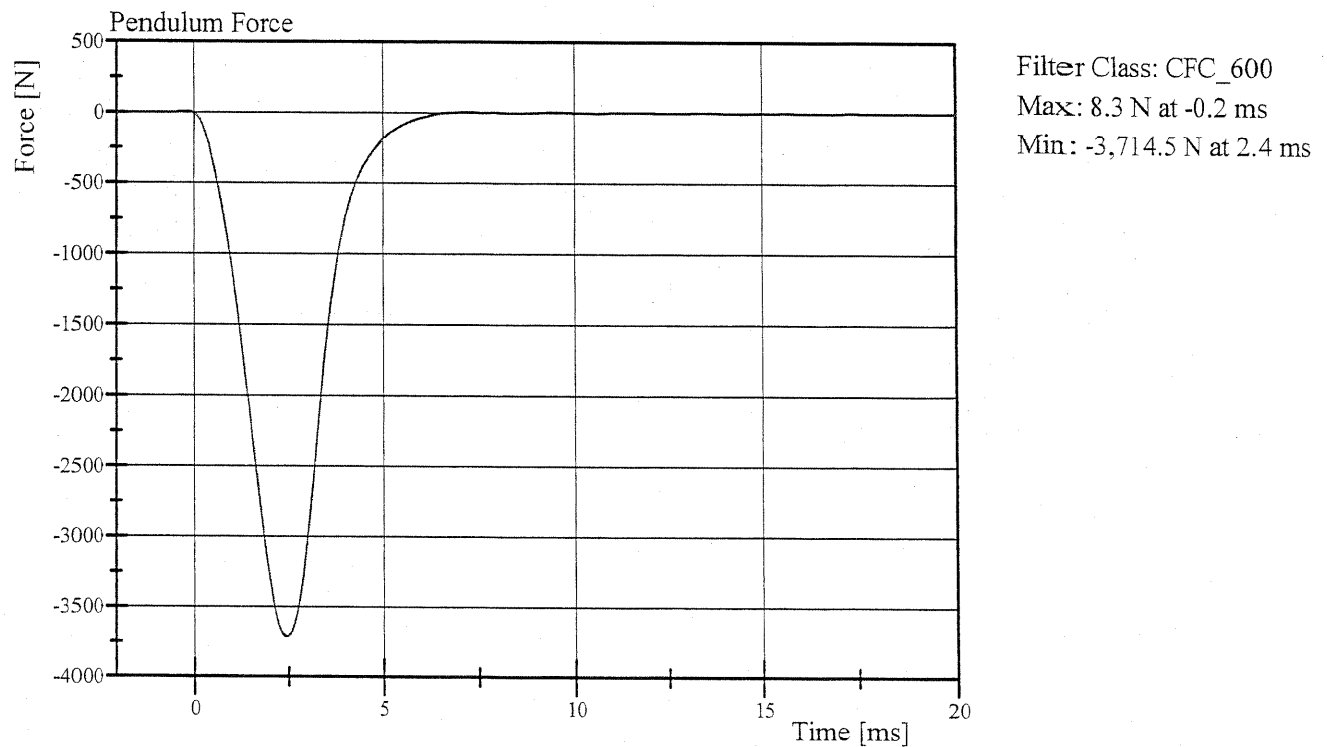
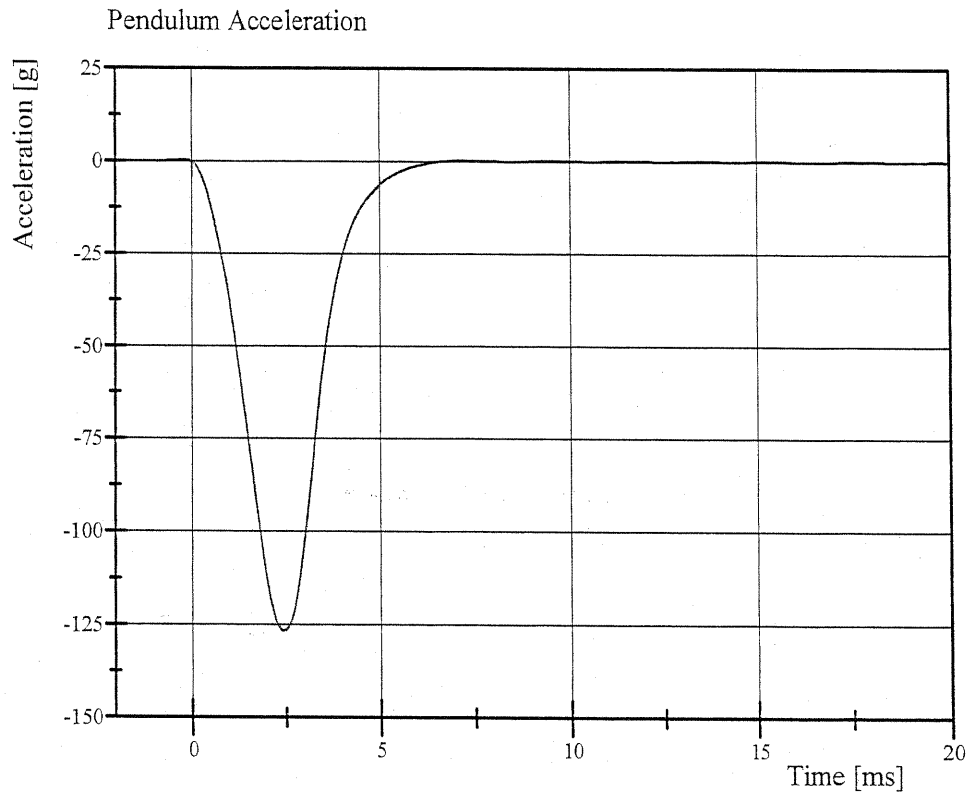
Specification Source: CFR49 Part 572 Subpart O
with Polarity in accordance with J211

04.26.2006 09:30:08 1692



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. 416 Certification No. 38-1
Test Date: 04/26/2006



Transportation Research Center Inc.

Left Knee Slider

HIII 5th Serial No. 416 Certification No. 38-1

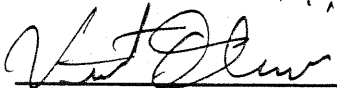
Test Date: 05/01/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	43 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.730 m/s	Yes
Peak Deflection	(-12.7) - (-15.5) mm	-12.90 mm	Yes

Test meets specifications.

Comments:

Technician



Approved



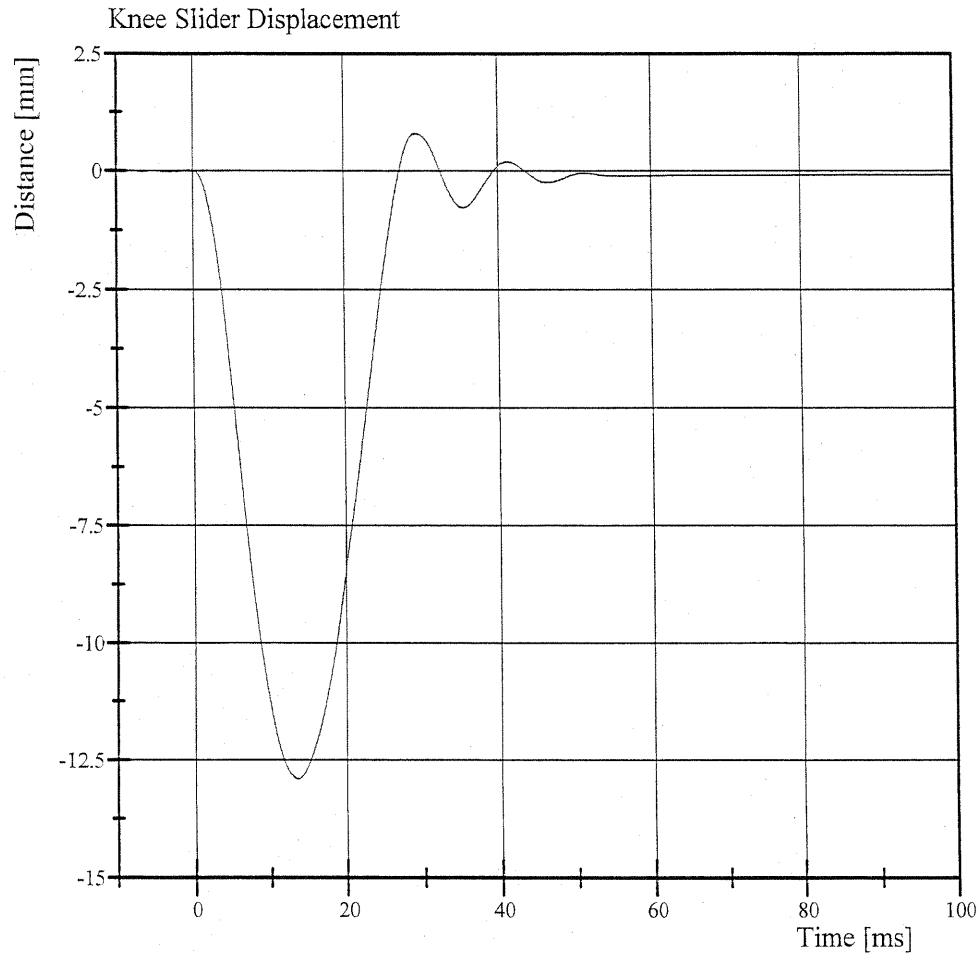


Transportation Research Center Inc.

Left Knee Slider

HIII 5th Serial No. 416 Certification No. 38-1

Test Date: 05/01/2006



Filter Class: CFC_180
Max: 0.8 mm at 29.4 ms
Min: -12.9 mm at 13.4 ms



Transportation Research Center Inc.

Right Knee Slider

HIII 5th Serial No. 416 Certification No. 38-1

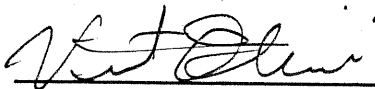
Test Date: 04/27/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Probe Velocity	2.70 - 2.80 m/s	2.735 m/s	Yes
Peak Deflection	(-12.7) - (-15.5) mm	-12.99 mm	Yes

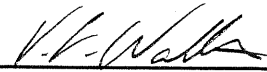
Test meets specifications.

Comments:

Technician



Approved



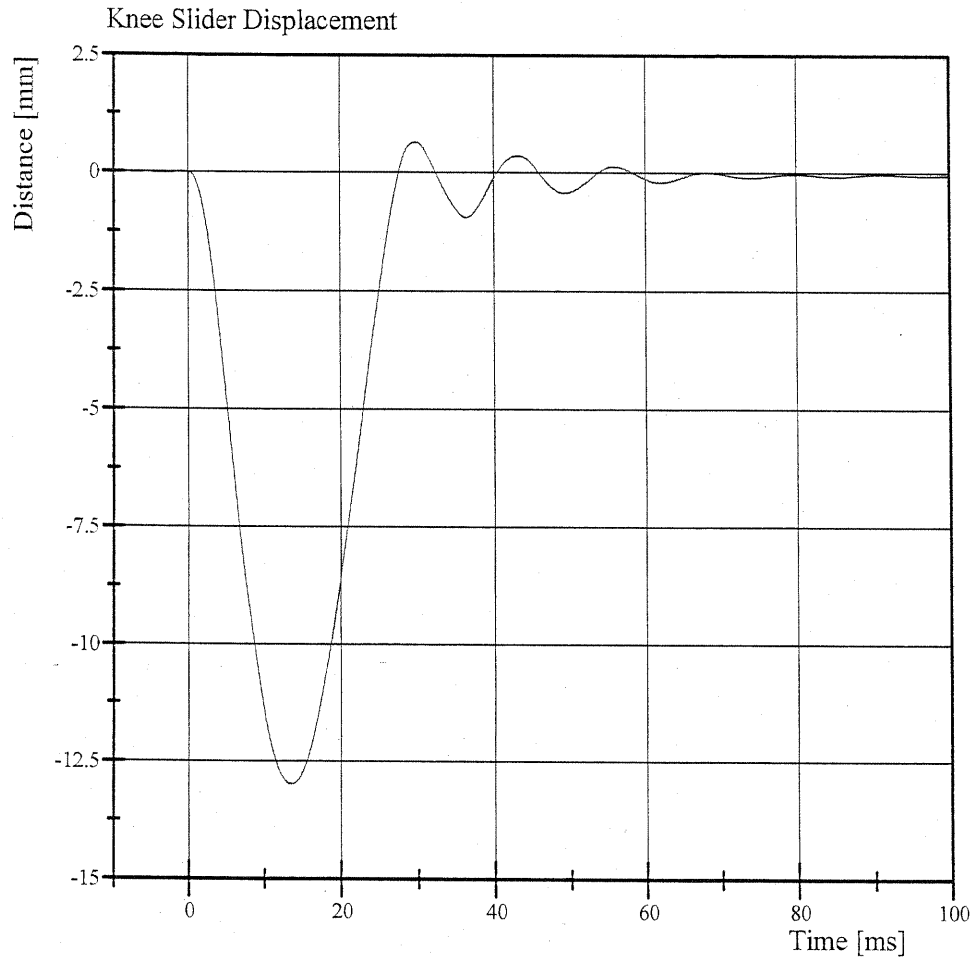


Transportation Research Center Inc.

Right Knee Slider

HIII 5th Serial No. 416 Certification No. 38-1

Test Date: 04/27/2006



Filter Class: CFC_180
Max: 0.6 mm at 29.8 ms
Min: -13.0 mm at 13.4 ms



Pre-Test Dummy Configuration and Performance Verification Data

Left Rear Passenger Dummy S/N: 070

Transportation Research Center Inc.
5720 HIII 5th Female Dummy
External Dimensions
Serial No. 070 Calibration No. 16

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	782	Yes
B	Shoulder Pivot Height	431.8 - 457.2	450	Yes
C	Hip Pivot Height	81.3 - 86.3	86	Yes
D	Hip Pivot from Backline	144.8 - 149.8	149	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	77	Yes
F	Thigh Clearance	119.4 - 134.6	131	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	181	Yes
P	Foot Length	218.5 - 233.7	221	Yes
R	Buttock to Knee Pivot Length	457.2 - 482.6	477	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	305	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	855	Yes
Z	Waist Circumference	759.5 - 789.9	774	Yes
AA	Reference Location for Chest Circumference	332.7 - 358.1	355	Yes
BB	Reference Location for Waist Circumference	160.0 - 170.2	165	Yes

* Partial Set

Technician

Ron Stoner

Approved

V. J. Welles



Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 070 Certification No. 16-1

Test Date: 05/04/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	263.1 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-5.0 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Ron Storer

Approved

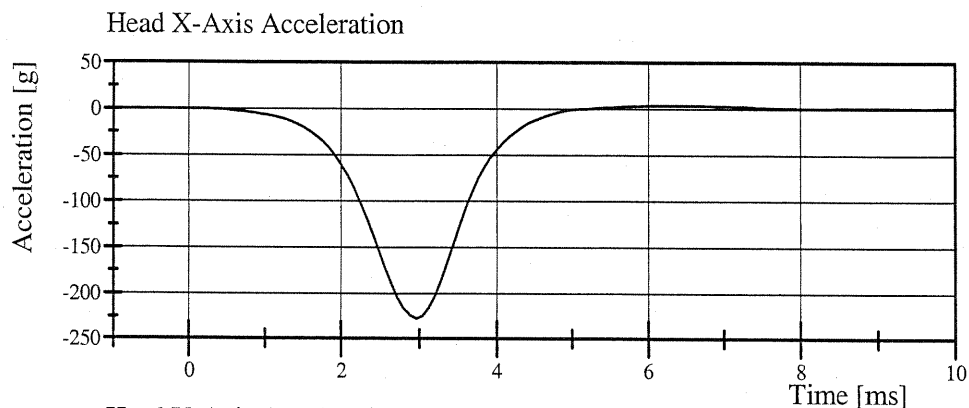
V.L. Watter

Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 070 Certification No. 16-1

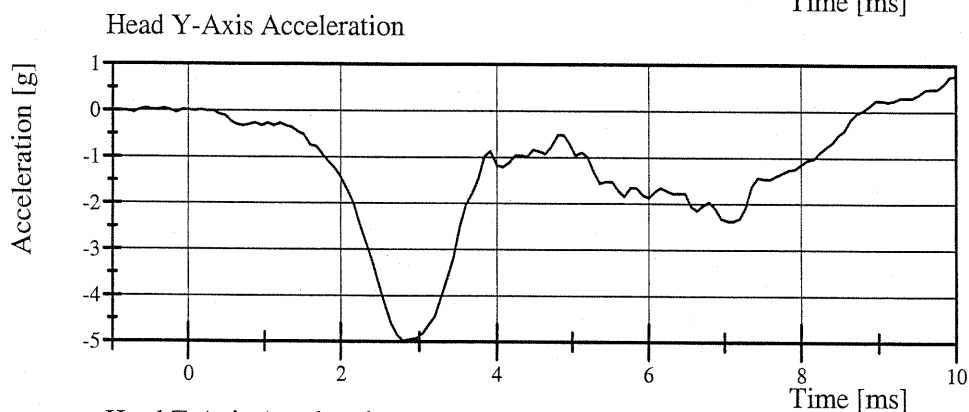
Test Date: 05/04/2006



Filter Class: CFC_1000

Max: 4.1 g at 6.6 ms

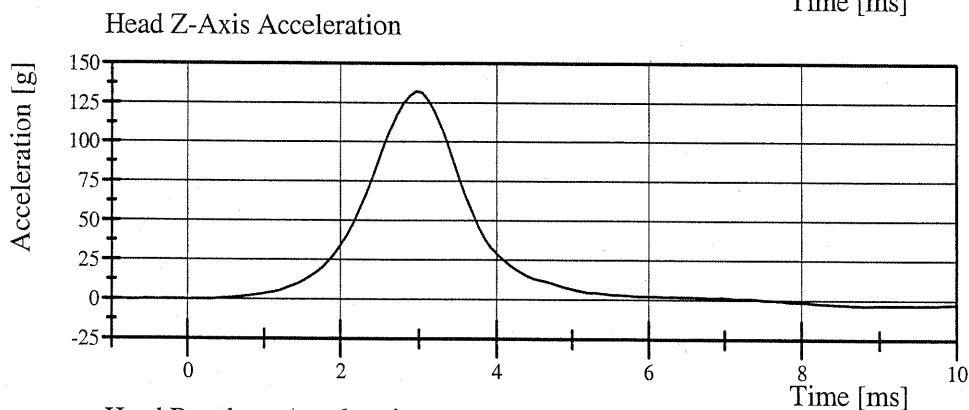
Min: -227.2 g at 3.0 ms



Filter Class: CFC_1000

Max: 0.8 g at 10.0 ms

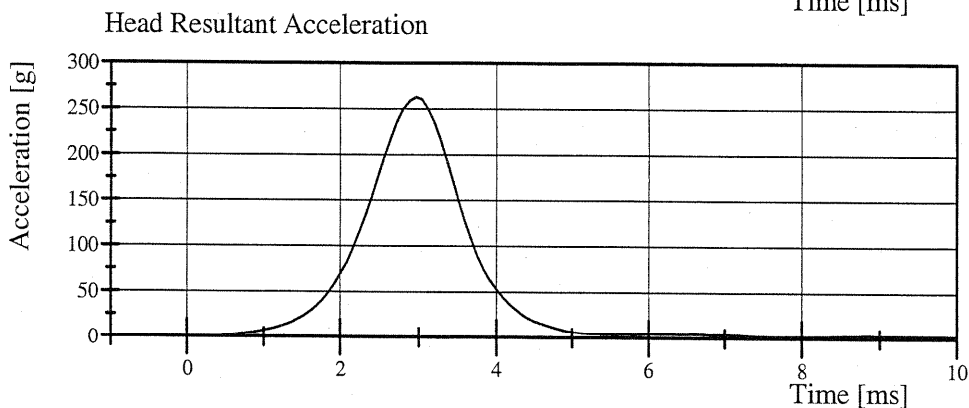
Min: -5.0 g at 2.8 ms



Filter Class: CFC_1000

Max: 132.5 g at 3.0 ms

Min: -3.4 g at 8.8 ms



Filter Class: CFC_1000

Max: 263.1 g at 3.0 ms

Min: 0.0 g at -0.9 ms

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 16-2

Test Date: 05/05/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	39 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	7.061 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	(-2.1) - (-2.5) m/s	-2.38 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	(-4.0) - (-5.0) m/s	-4.63 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	(-5.8) - (-7.0) m/s	-6.74 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-77.0 °	Yes
Total Neck Occipital Condyles Moment Between -77° and -91° Rotation	69 - 83 N·m	69.0 N·m	Yes
Total Neck Occipital Condyles Moment Decay to 10 N·m	80 - 100 ms	87.4 ms	Yes

Test meets specifications.

Comments:

Technician

Ron Storer

Approved

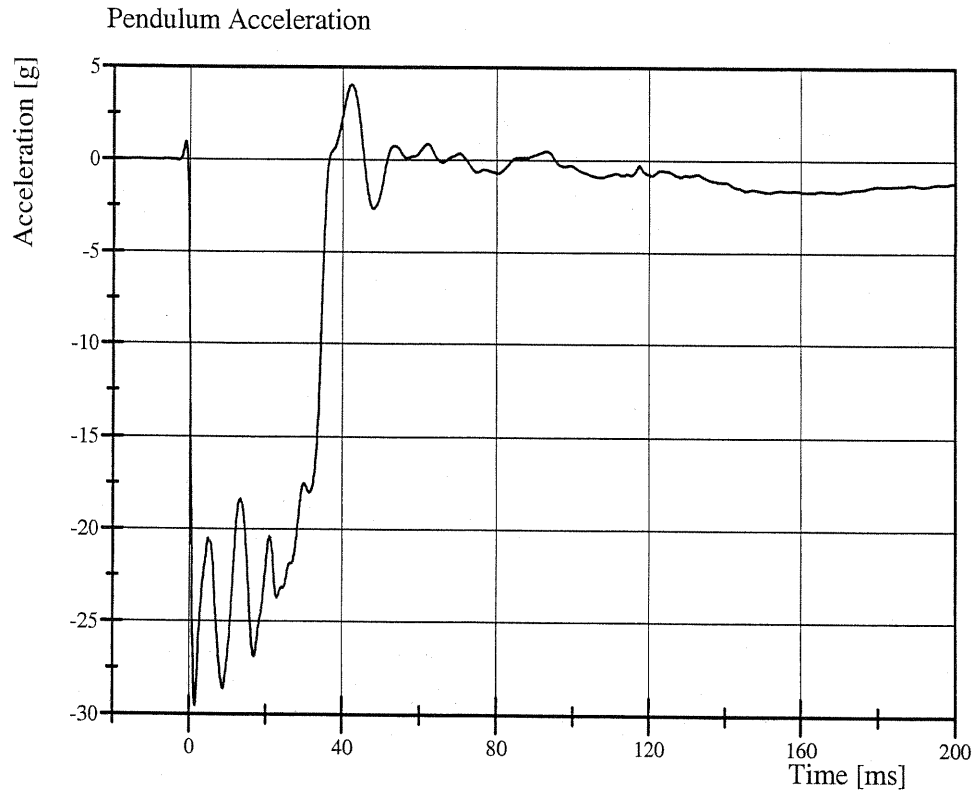
V. F. Walth

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 16-2

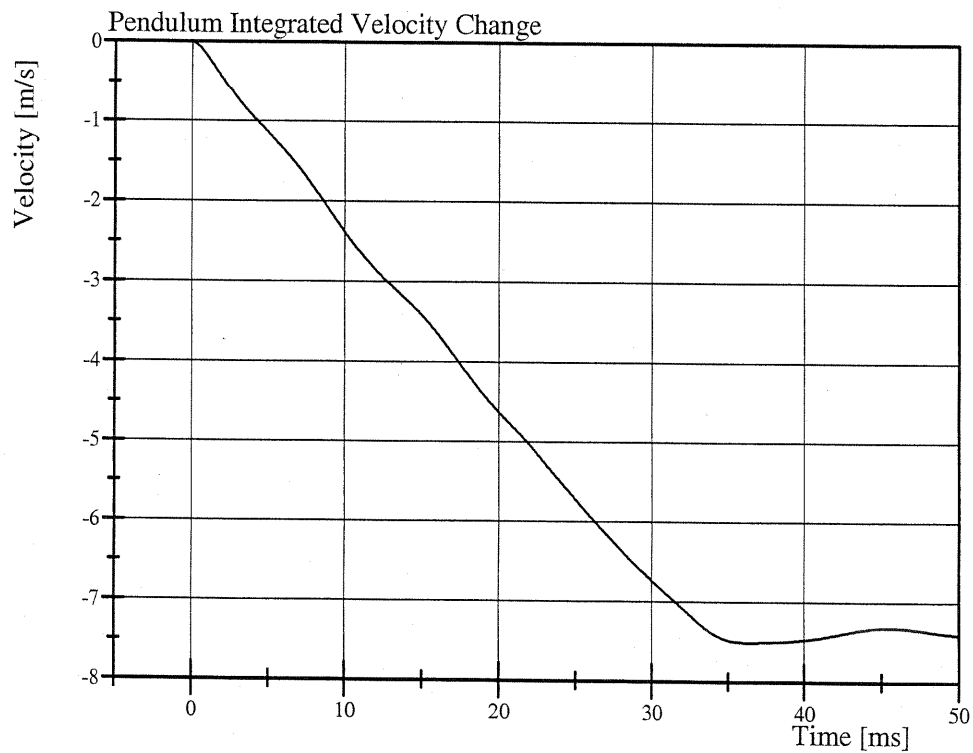
Test Date: 05/05/2006



Filter Class: CFC_180

Max: 4.1 g at 42.4 ms

Min: -29.5 g at 1.5 ms



Filter Class: CFC_180

Max: 0.0 m/s at 0.0 ms

Min: -7.5 m/s at 36.4 ms

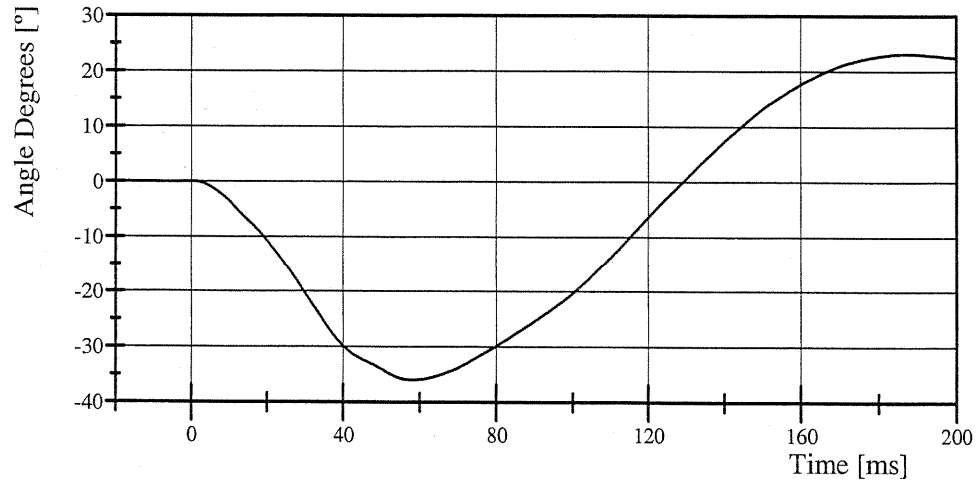
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 16-2

Test Date: 05/05/2006

Pot Rotation at the Base of Neck

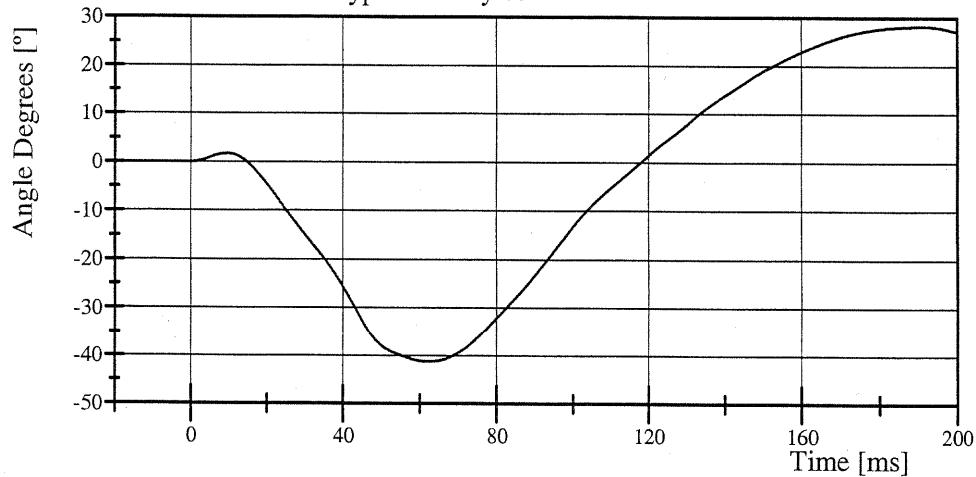


Filter Class: CFC_60

Max: 23.2 ° at 187.4 ms

Min: -36.0 ° at 58.2 ms

Head Rotation at Occypital Condyles

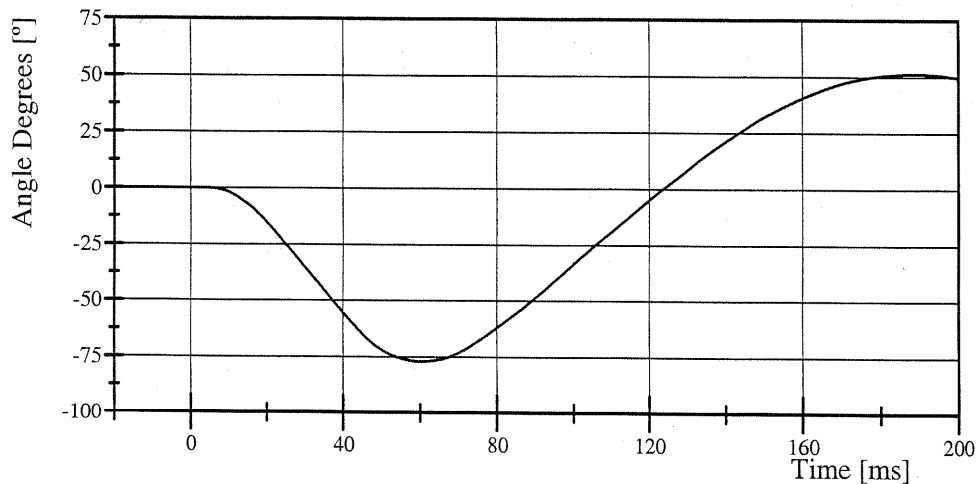


Filter Class: CFC_60

Max: 28.3 ° at 191.4 ms

Min: -41.2 ° at 62.1 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 51.4 ° at 188.6 ms

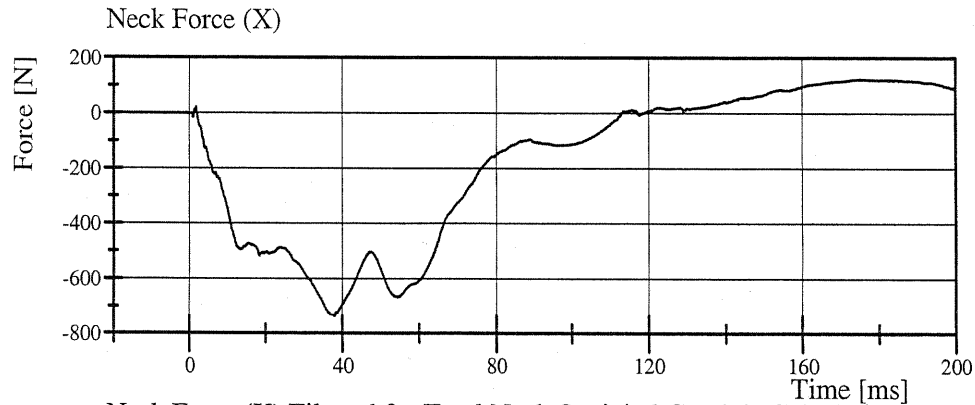
Min: -77.0 ° at 60.4 ms

Transportation Research Center Inc.

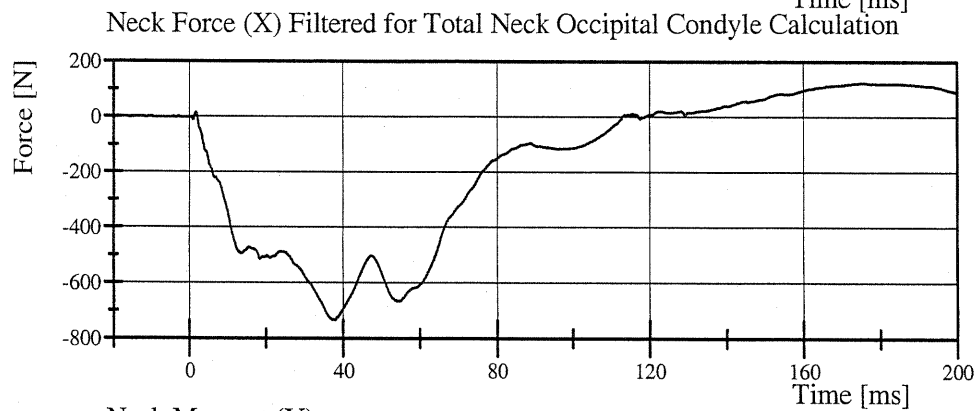
Neck Flexion

HIII 5th Serial No. 070 Certification No. 16-2

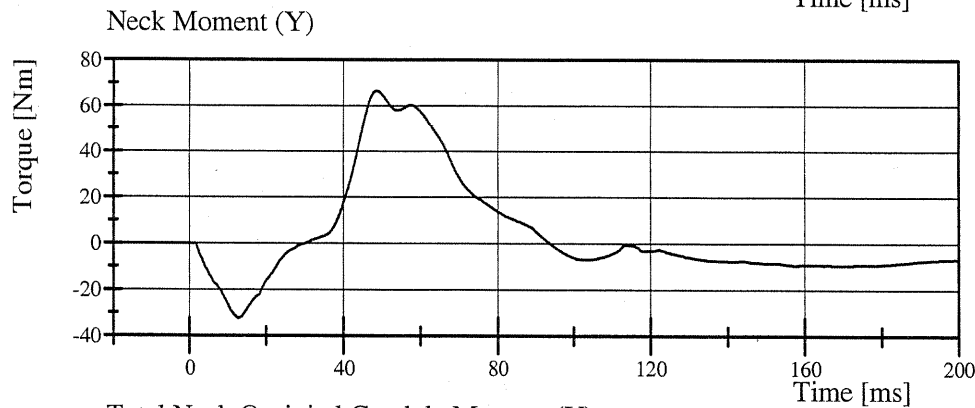
Test Date: 05/05/2006



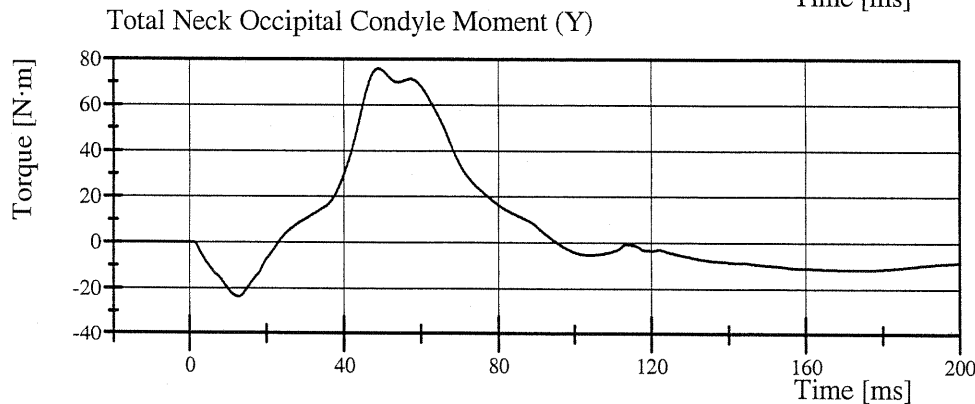
Filter Class: CFC_1000
Max: 123.9 N at 174.9 ms
Min: -737.3 N at 37.9 ms



Filter Class: CFC_600
Max: 123.5 N at 174.9 ms
Min: -734.1 N at 37.8 ms



Filter Class: CFC_600
Max: 66.6 Nm at 48.7 ms
Min: -32.3 Nm at 12.7 ms



Filter Class: CFC_600
Max: 75.9 N·m at 48.9 ms
Min: -23.7 N·m at 12.6 ms

Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 16-1

Test Date: 05/05/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	39 %	Yes
Pendulum Velocity	(-5.95) - (-6.19) m/s	-6.064 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	1.5 - 1.9 m/s	1.90 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	3.1 - 3.9 m/s	3.68 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	4.6 - 5.6 m/s	5.45 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	104.4 °	Yes
Total Neck Occipital Condyles Moment Between 99° and 114° Rotation	(-53) - (-65) N·m	-54.1 N·m	Yes
Total Neck Occipital Condyles Moment Decay to -10 N·m	94 - 114 ms	102.9 ms	Yes

Test meets specifications.

Comments:

Technician

Ron Storer

Approved

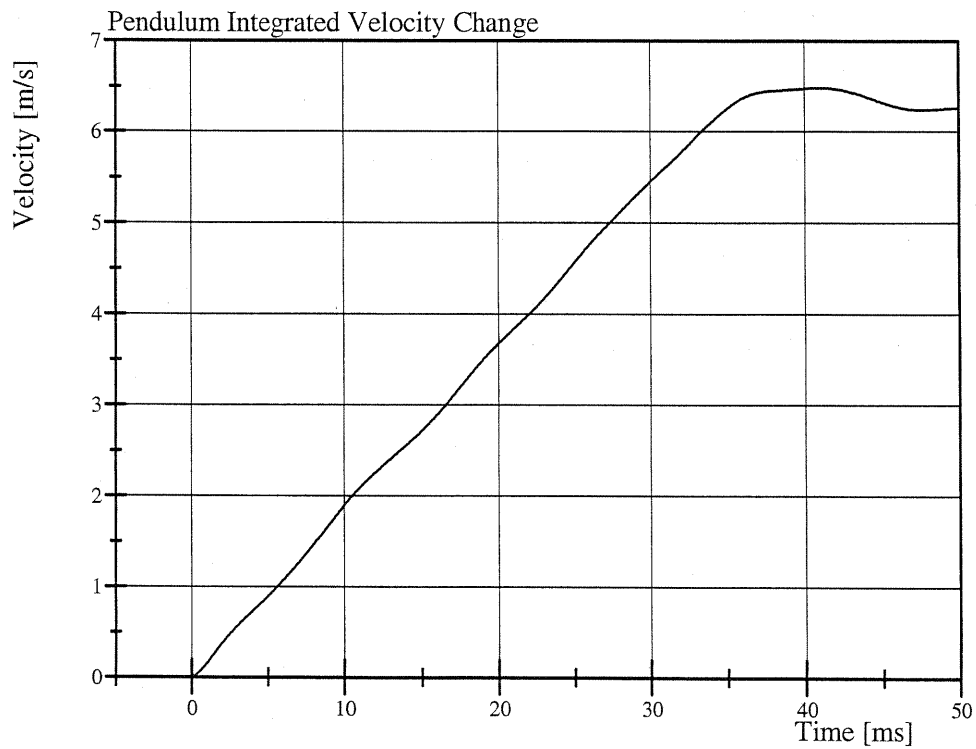
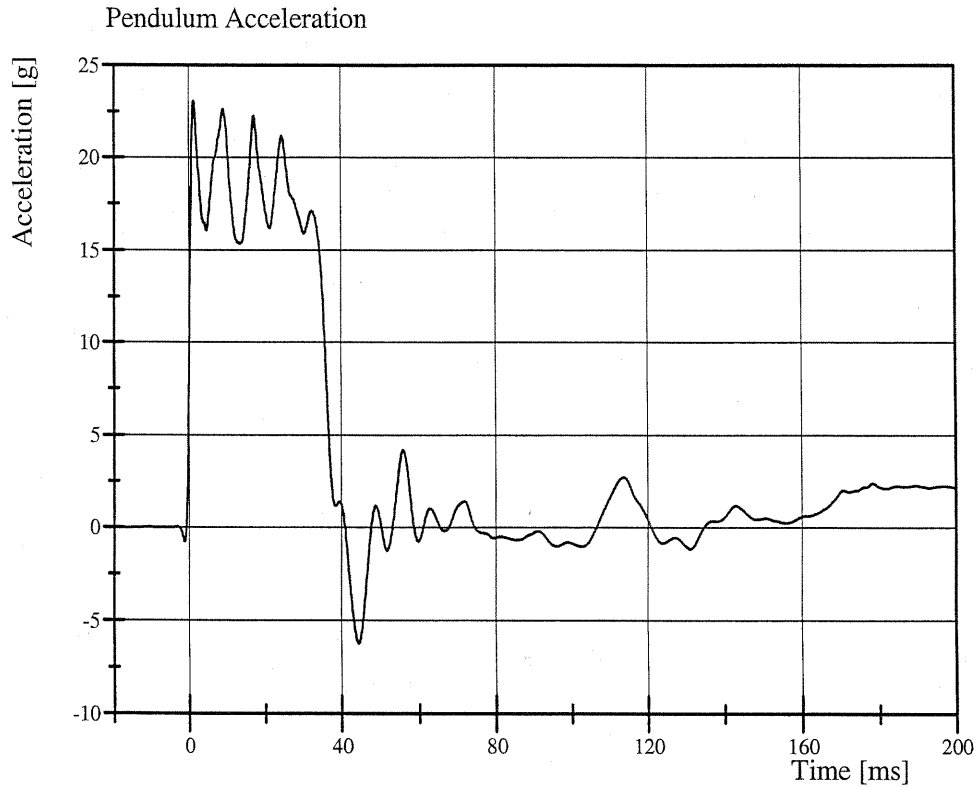
V. F. Watts

Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 16-1

Test Date: 05/05/2006



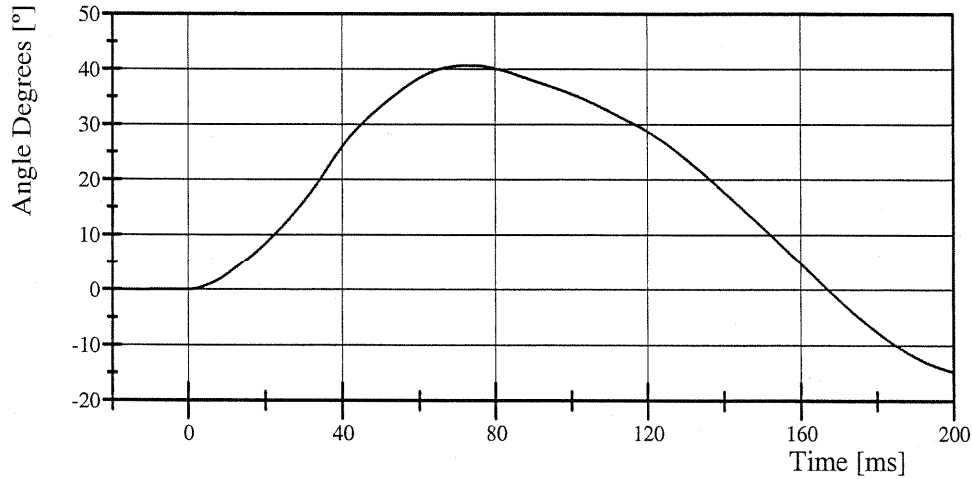
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 16-1

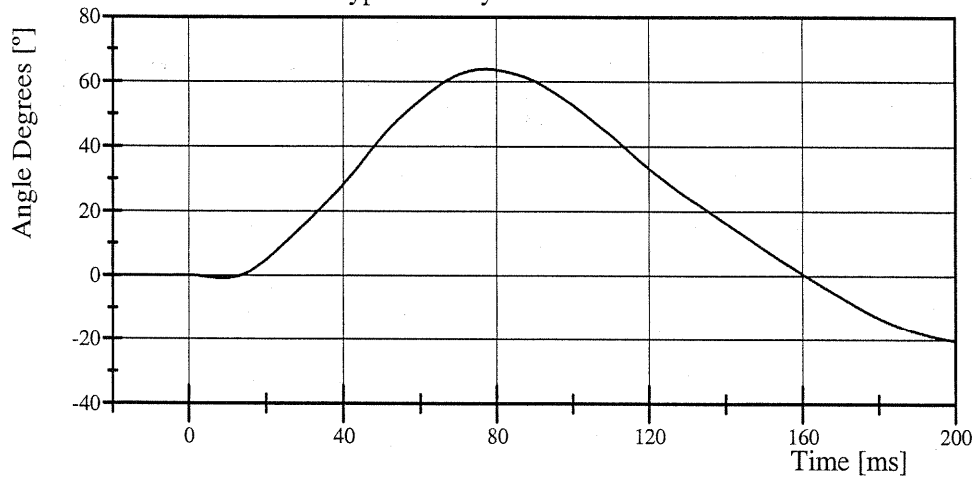
Test Date: 05/05/2006

Pot Rotation at the Base of Neck



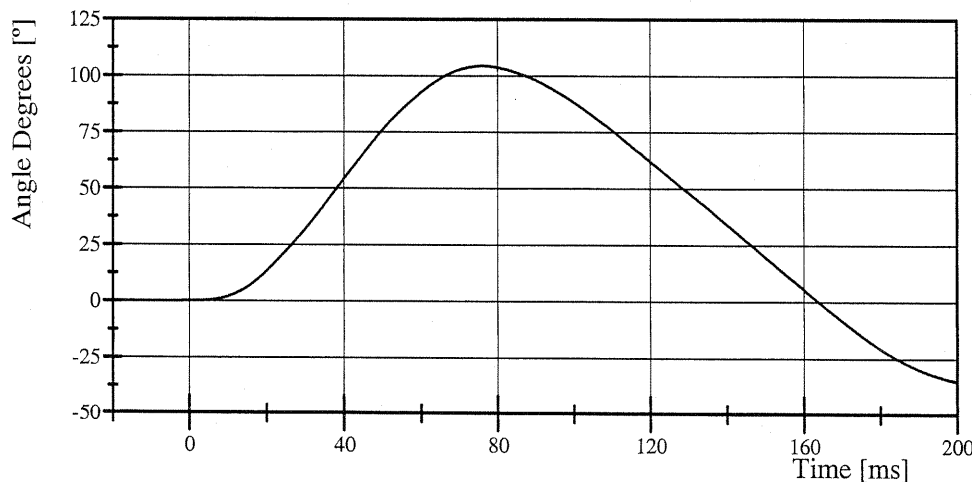
Filter Class: CFC_60
Max: 40.7 ° at 73.6 ms
Min: -14.7 ° at 200.0 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 63.8 ° at 77.3 ms
Min: -20.3 ° at 200.0 ms

Total Head D-Plane Rotation



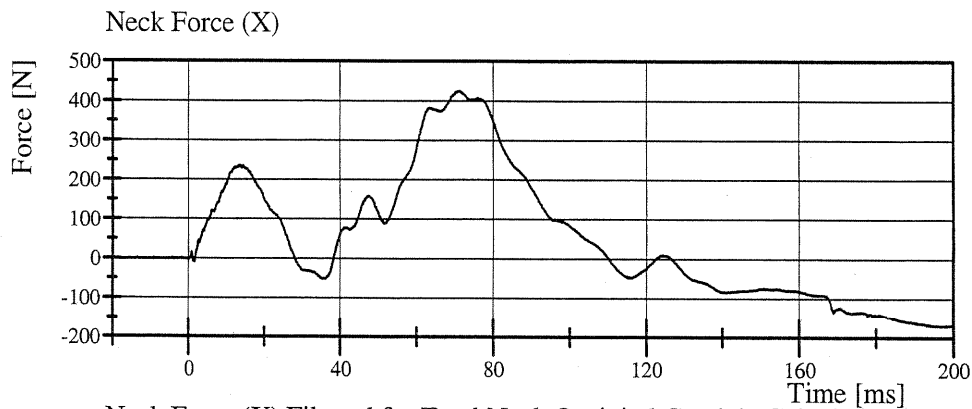
Filter Class: CFC_60
Max: 104.4 ° at 76.1 ms
Min: -35.0 ° at 200.0 ms

Transportation Research Center Inc.

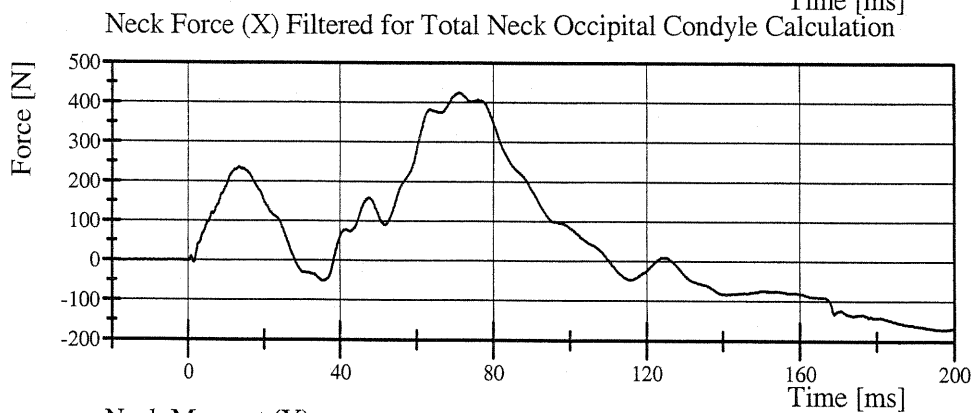
Neck Extension

HIII 5th Serial No. 070 Certification No. 16-1

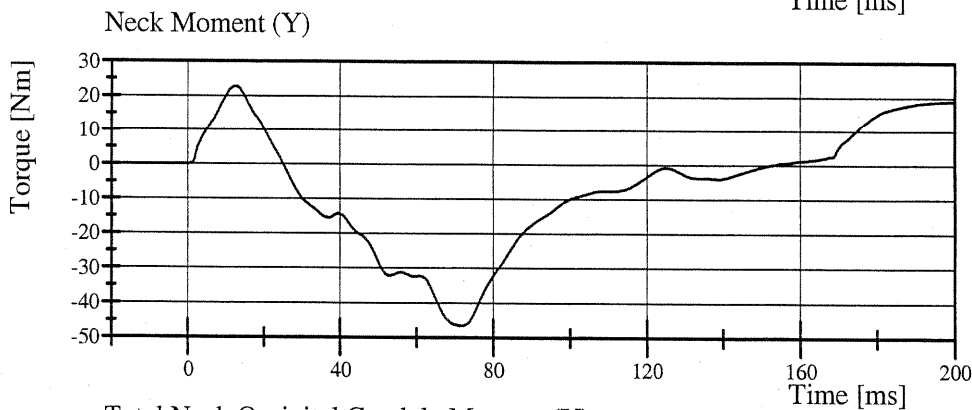
Test Date: 05/05/2006



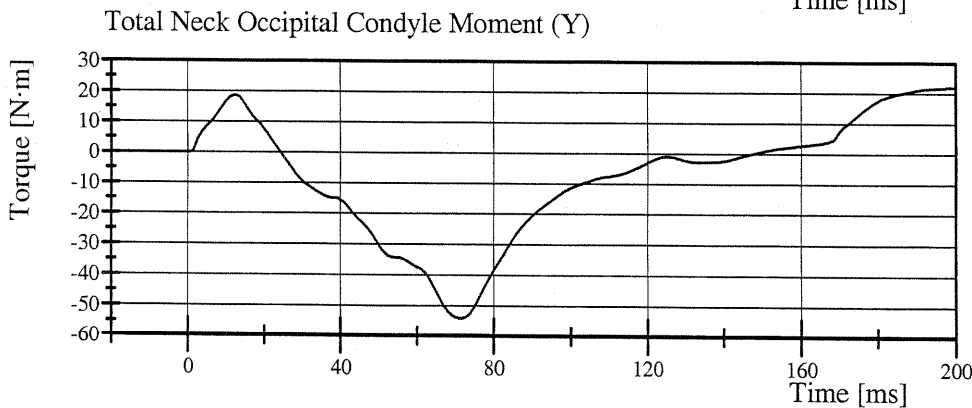
Filter Class: CFC_1000
Max: 425.8 N at 70.9 ms
Min: -170.9 N at 197.8 ms



Filter Class: CFC_600
Max: 425.3 N at 71.0 ms
Min: -170.5 N at 196.8 ms



Filter Class: CFC_600
Max: 22.8 Nm at 12.3 ms
Min: -46.5 Nm at 71.6 ms



Filter Class: CFC_600
Max: 22.0 N·m at 199.1 ms
Min: -54.1 N·m at 71.2 ms

Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 070 Certification No. 16-1

Test Date: 05/05/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	42 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.669 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,212.3 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	$\geq$ (-4,600) N	-4,213.2 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-52.8 mm	Yes
Internal Hysteresis	69 - 85 %	72.7 %	Yes

Test meets specifications.

Comments:

Technician

Ron Storer

Approved

V. J. Walter

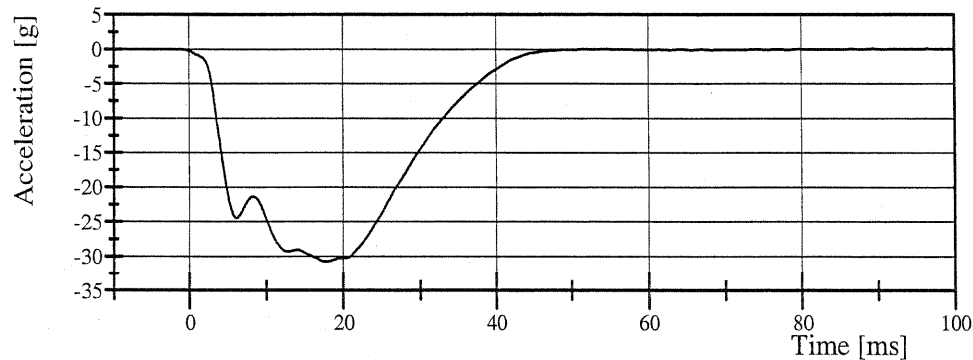
Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 070 Certification No. 16-1

Test Date: 05/05/2006

Pendulum Acceleration

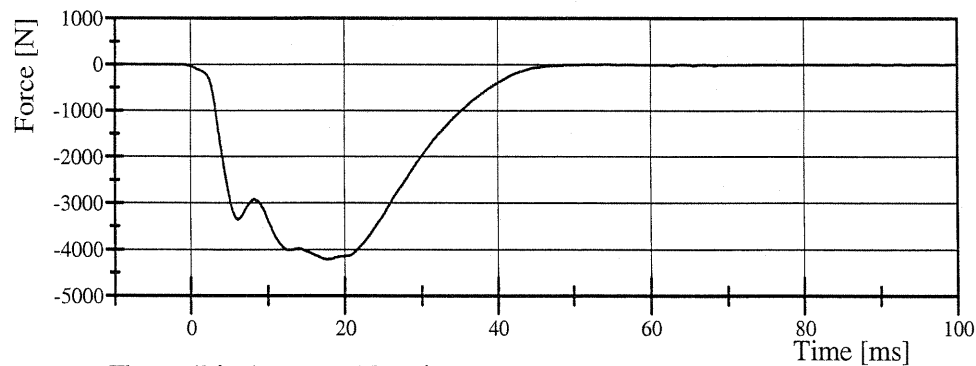


Filter Class: CFC_180

Max: 0.1 g at 89.4 ms

Min: -30.8 g at 17.7 ms

Pendulum Force

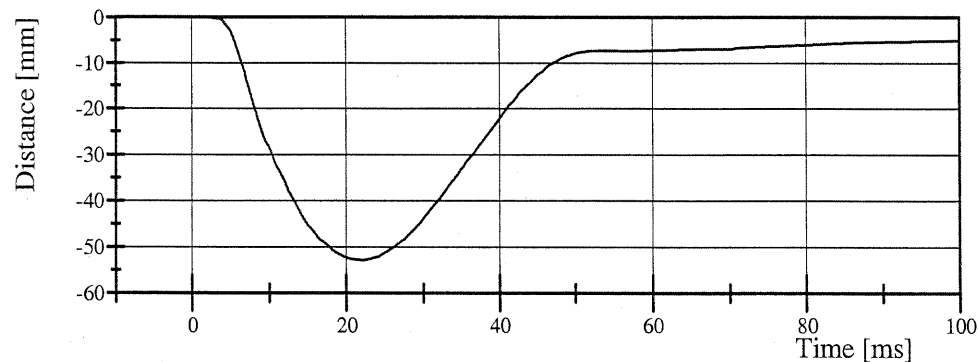


Filter Class: CFC_180

Max: 12.2 N at 89.4 ms

Min: -4,213.2 N at 17.7 ms

Thorax Displacement X-Axis

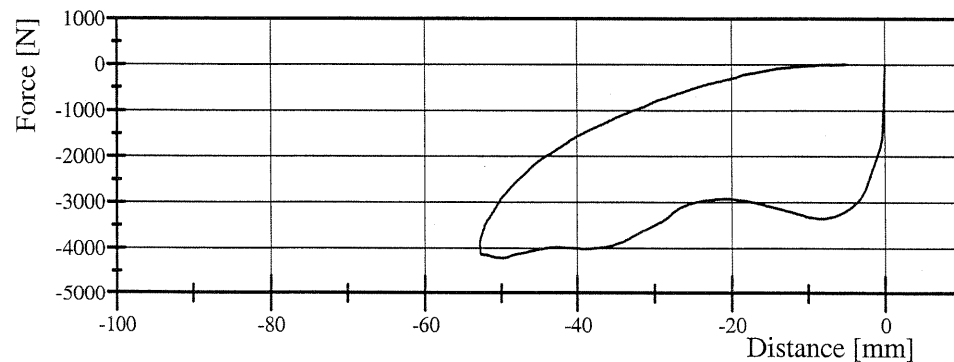


Filter Class: CFC_600

Max: 0.0 mm at 4.6 ms

Min: -52.8 mm at 22.2 ms

Pendulum Force vs. Thorax Displacement X-Axis



Filter Class: CFC_180

Max: 12.2 N at -5.3 mm

Min: -4,213.2 N at -49.8 mm

TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

CAL DATE: 05-May-06

TRC, INC.

TEST NO: TOFL-01

572 O SN070 TORSO FLEX CAL 16

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6 – 22.2° C	21.0 ° C
RELATIVE HUMIDITY	10 – 70 %	38 %
INITIAL ANGLE OF UNSUPPORTED DUMMY	<= 22° REFERENCED TO VERTICAL	17.6 °
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	147 - 200 N	355.7 N
RETURN ANGLE		22.3 °
DIFFERENCE BETWEEN RETURN ANGLE & INITIAL ANGLE	+/- 8 ° OF INITIAL ANGLE	4.7 °
RATE	0.5° - 1.5°/sec	0.98 °/sec

TEST MEETS SPECIFICATIONS

Comments:

TECHNICIAN

Ron Stoner

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 16-1
Test Date: 05/04/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.119 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,603.4 N	Yes

Test meets specifications.

Comments:

Technician

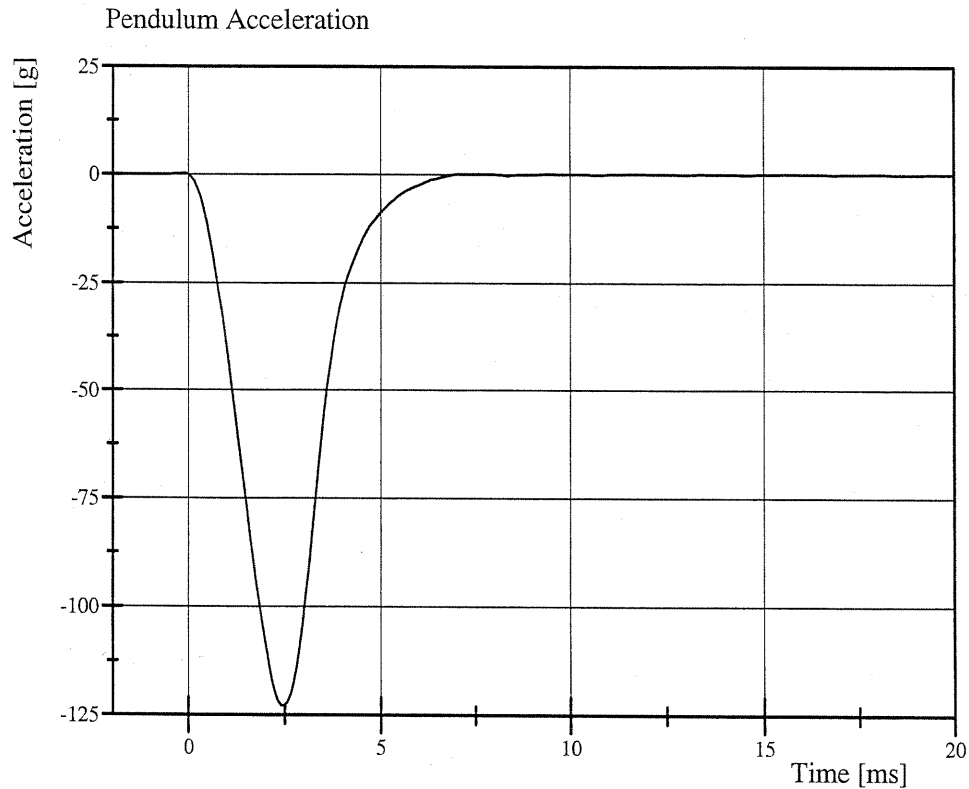
Ron Storer

Approved

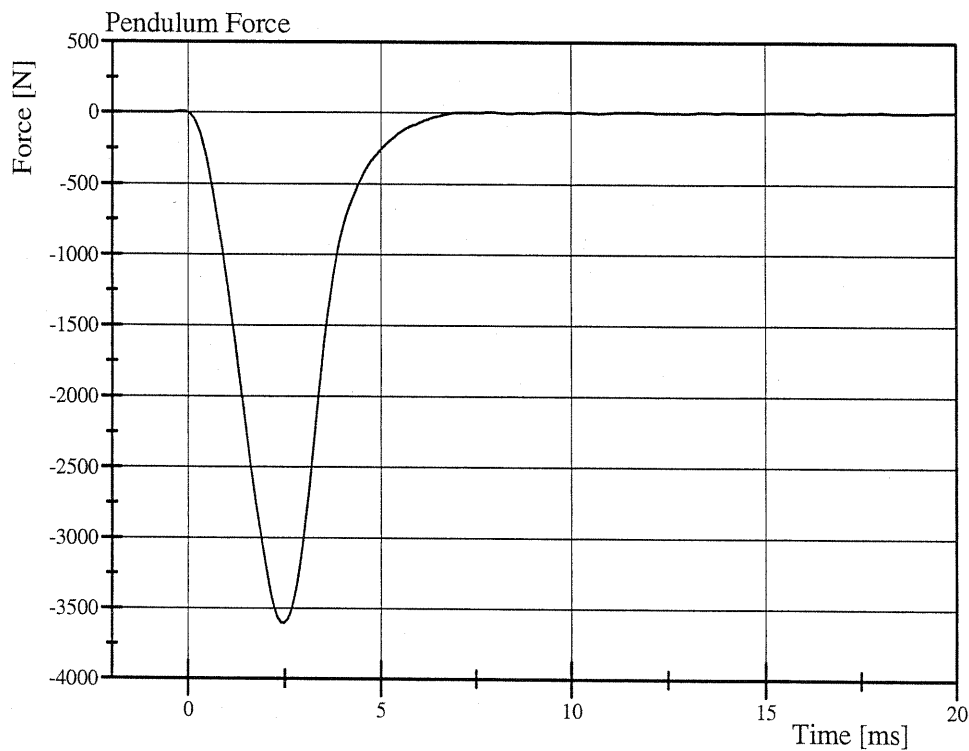
V. L. Walter

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 16-1
Test Date: 05/04/2006



Filter Class: CFC_600
Max: 0.2 g at -0.2 ms
Min: -122.9 g at 2.5 ms



Filter Class: CFC_600
Max: 7.2 N at -0.2 ms
Min: -3,603.4 N at 2.5 ms

Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 5th Serial No. 070 Certification No. 16-4

Test Date: 5/5/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	38 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.114 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,788.7 N	Yes

Test meets specifications.

Comments:

Technician

Ron Stoner

Approved

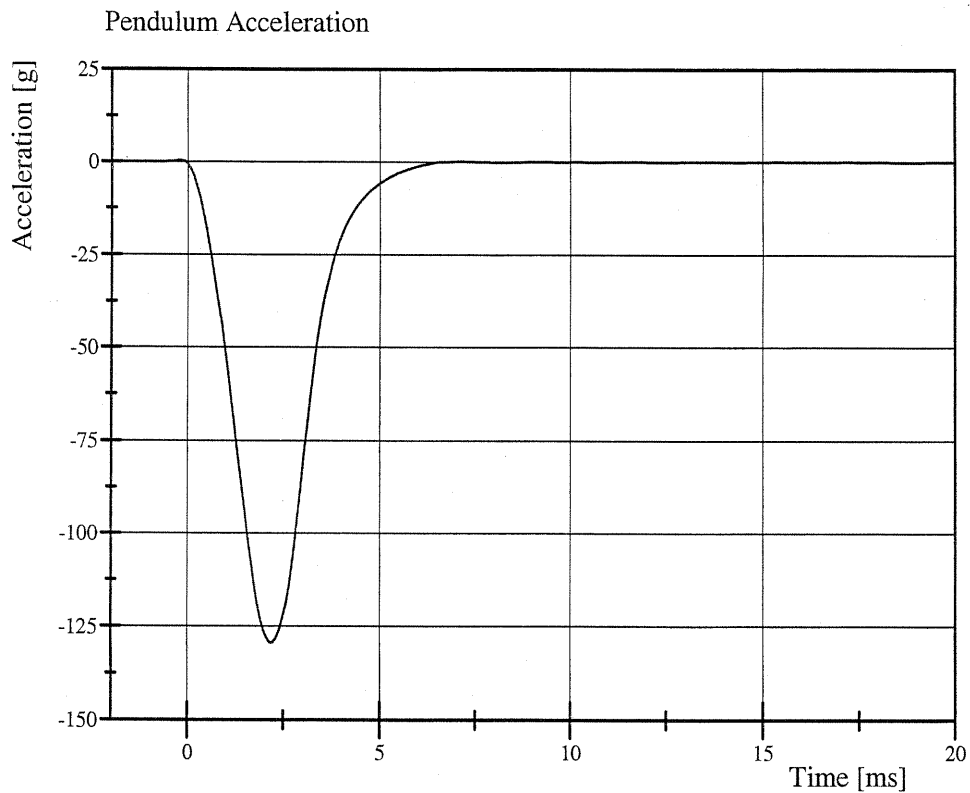
V. J. Walter

Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 5th Serial No. 070 Certification No. 16-4

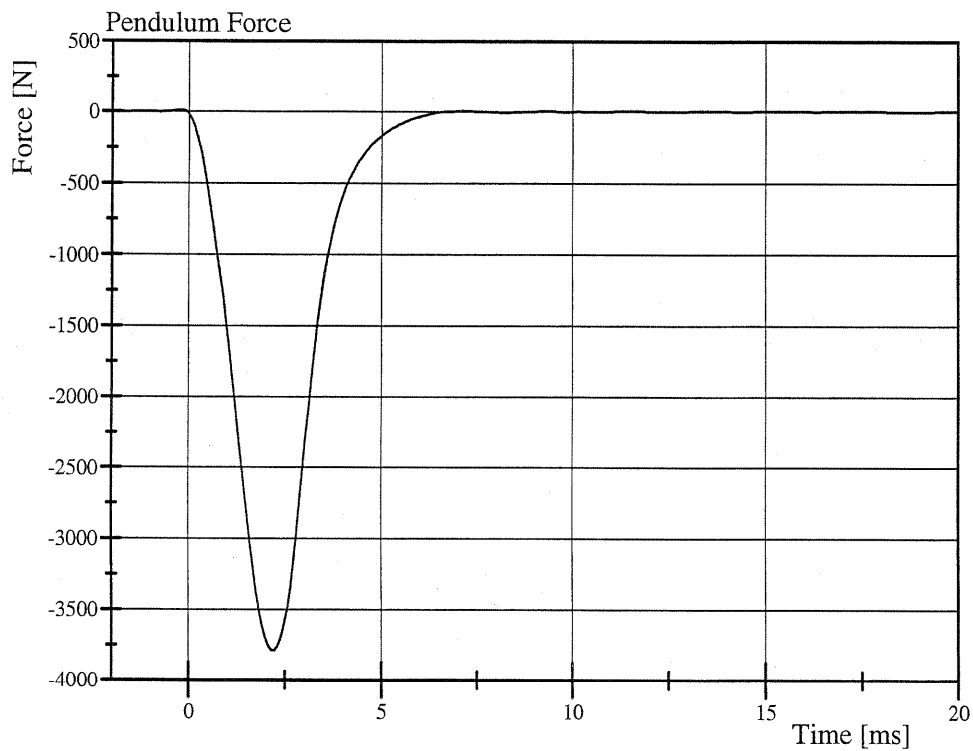
Test Date: 5/5/2006



Filter Class: CFC_600

Max: 0.3 g at -0.2 ms

Min: -129.2 g at 2.2 ms



Filter Class: CFC_600

Max: 8.7 N at -0.2 ms

Min: -3,788.7 N at 2.2 ms

Post-Test Dummy Configuration and Performance Verification Data

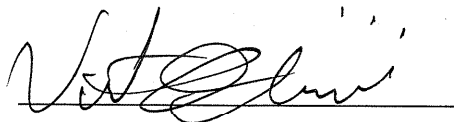
Left Rear Passenger Dummy S/N: 070

Transportation Research Center Inc.
5720 HIII 5th Female Dummy
External Dimensions
Serial No. 070 Calibration No. 17

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	783	Yes
B	Shoulder Pivot Height	431.8 - 457.2	447	Yes
C	Hip Pivot Height	81.3 - 86.3	85	Yes
D	Hip Pivot from Backline	144.8 - 149.8	146	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	75	Yes
F	Thigh Clearance	119.4 - 134.6	127	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	183	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	873	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

* Partial Set

Technician



Approved




Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. 070 Certification No. 17-1

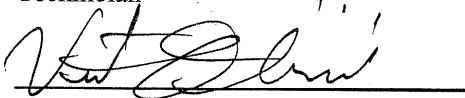
Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	39 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	266.4 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-8.5 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

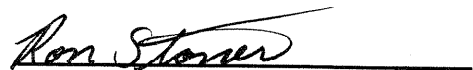
Test meets specifications.

Comments:

Technician



Approved

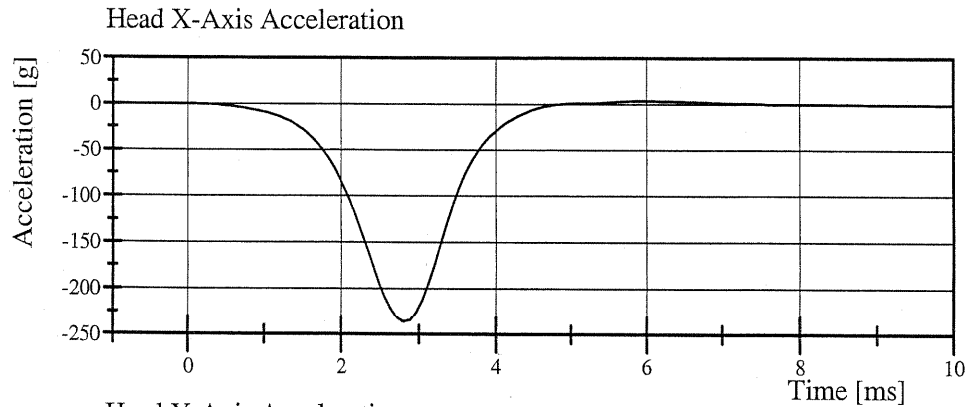


Transportation Research Center Inc.

Front Head Drop

HHH 5th Serial No. 070 Certification No. 17-1

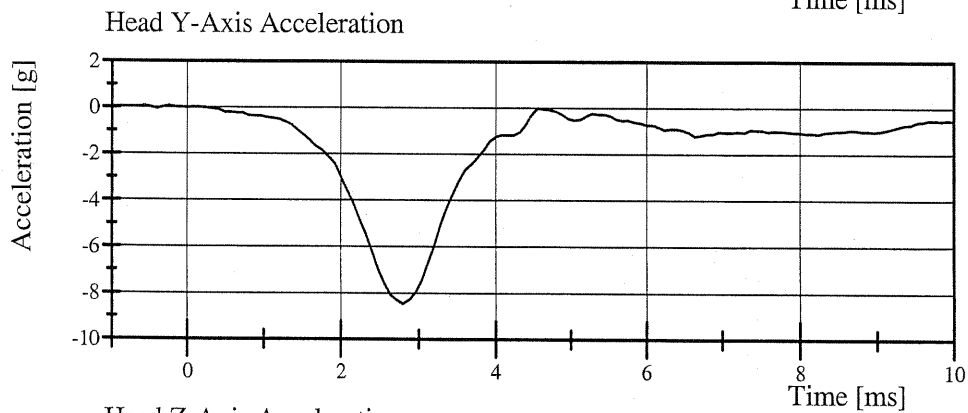
Test Date: 05/19/2006



Filter Class: CFC_1000

Max: 3.8 g at 5.8 ms

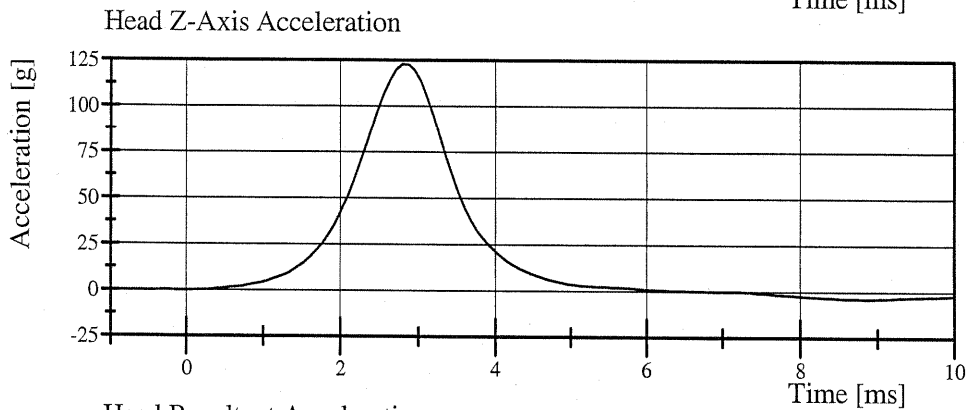
Min: -236.2 g at 2.8 ms



Filter Class: CFC_1000

Max: 0.1 g at -0.6 ms

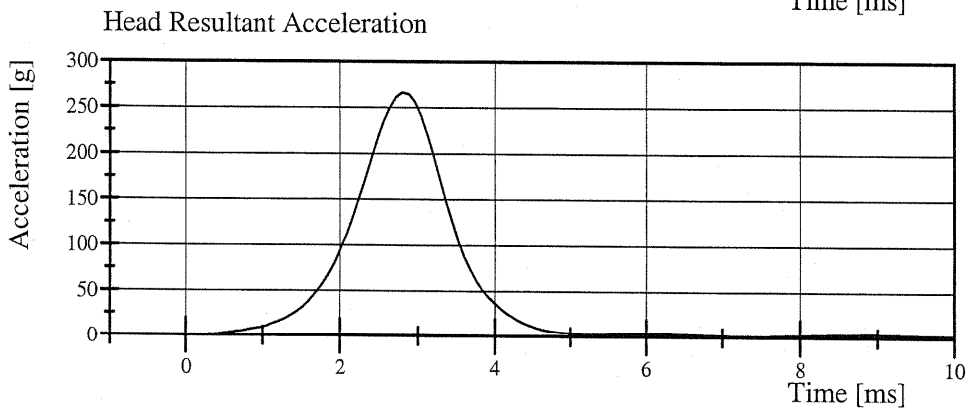
Min: -8.5 g at 2.8 ms



Filter Class: CFC_1000

Max: 122.9 g at 2.8 ms

Min: -3.9 g at 8.9 ms



Filter Class: CFC_1000

Max: 266.4 g at 2.8 ms

Min: 0.0 g at -1.0 ms

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 17-1

Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	7.023 m/s	Yes
Pendulum Integrated Velocity Change at 10ms	(-2.1) - (-2.5) m/s	-2.49 m/s	Yes
Pendulum Integrated Velocity Change at 20ms	(-4.0) - (-5.0) m/s	-4.80 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	(-5.8) - (-7.0) m/s	-6.84 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-78.9 °	Yes
Total Neck Occipital Condyles Moment Between -77° and -91° Rotation	69 - 83 N·m	70.3 N·m	Yes
Total Neck Occipital Condyles Moment Decay to 10 N·m	80 - 100 ms	86.8 ms	Yes

Test meets specifications.

Comments:

Technician



Approved

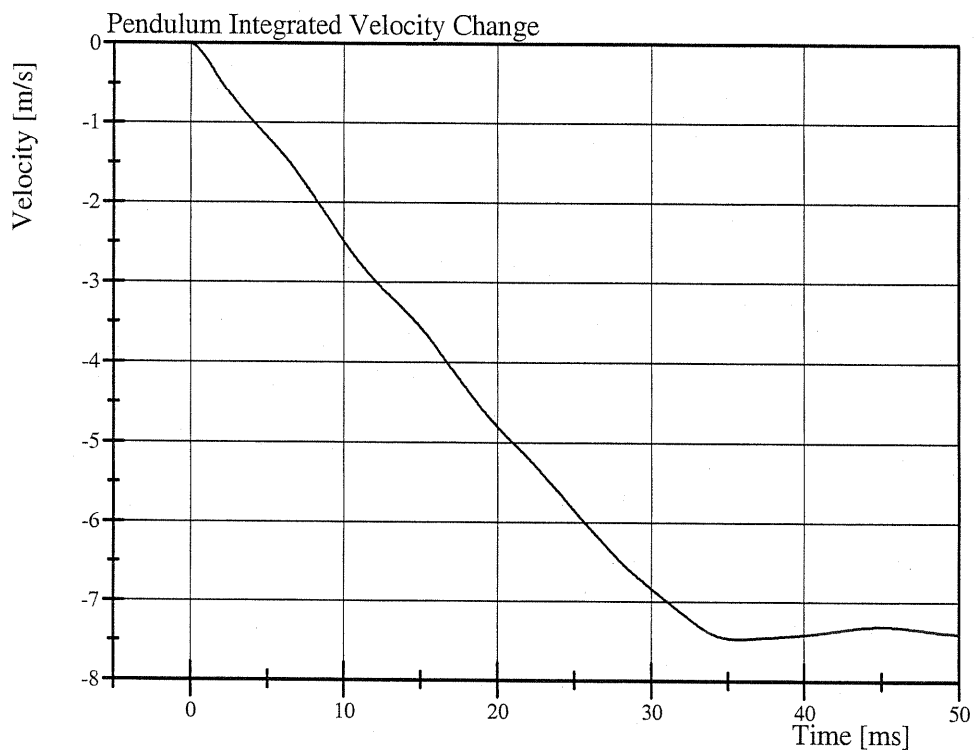
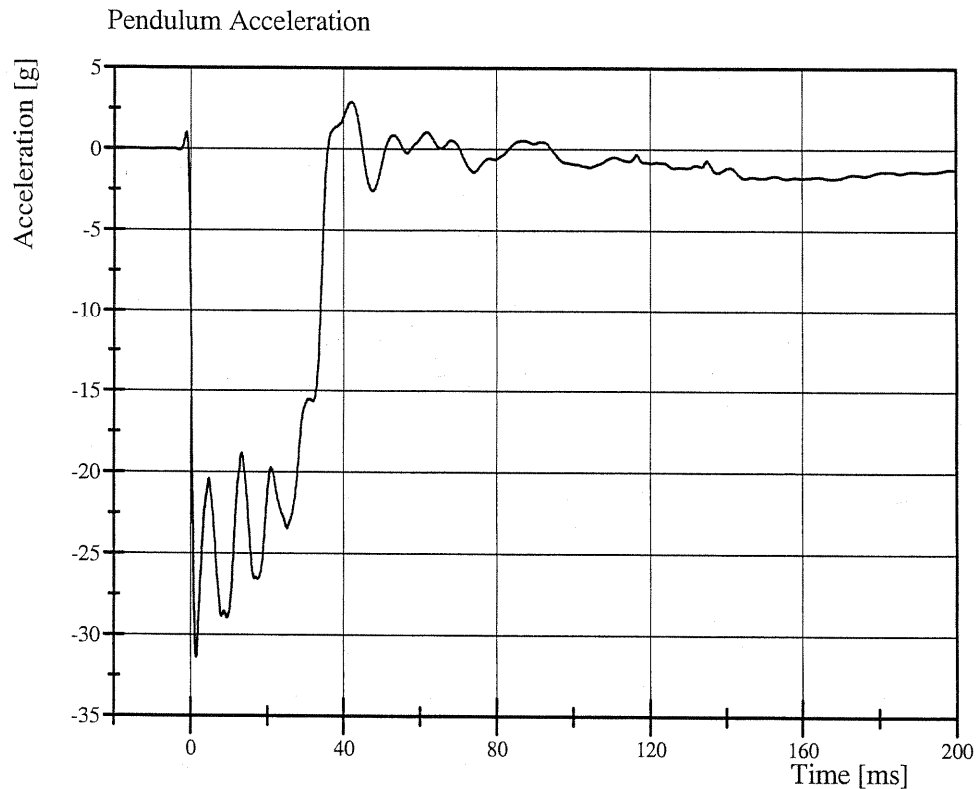


Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 17-1

Test Date: 05/19/2006



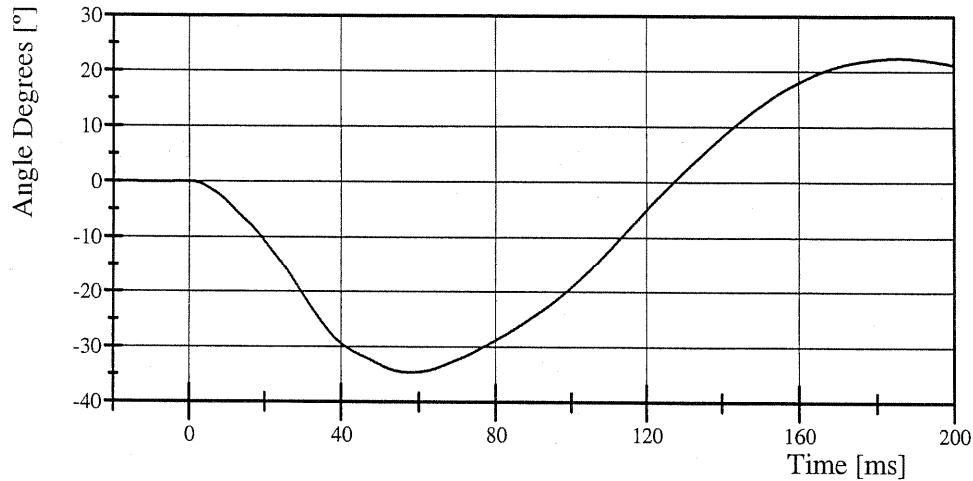
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 17-1

Test Date: 05/19/2006

Pot Rotation at the Base of Neck

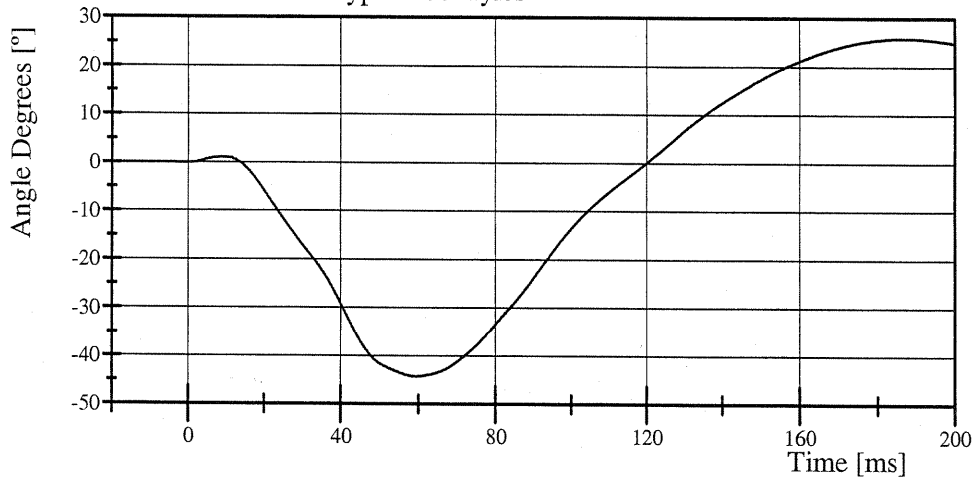


Filter Class: CFC_60

Max: 22.4 ° at 185.8 ms

Min: -34.6 ° at 57.9 ms

Head Rotation at Occypital Condyles

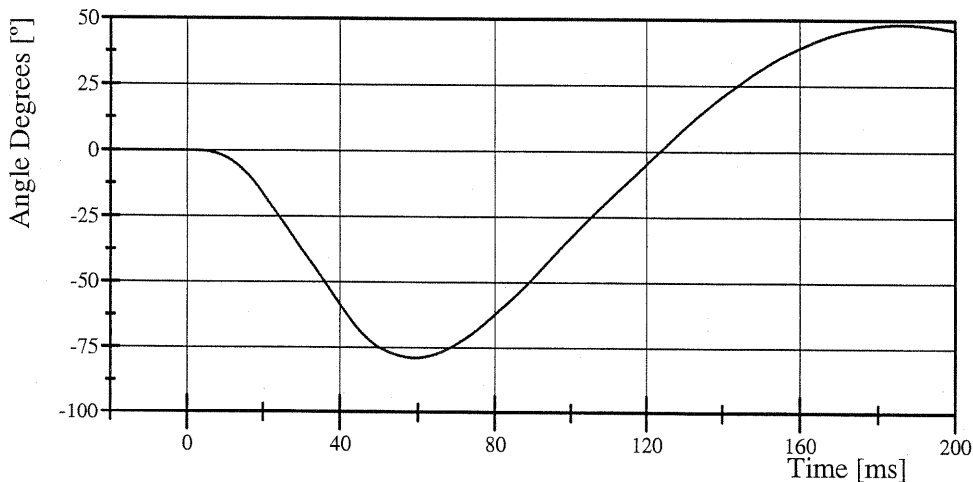


Filter Class: CFC_60

Max: 25.9 ° at 186.8 ms

Min: -44.3 ° at 59.5 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 48.3 ° at 186.2 ms

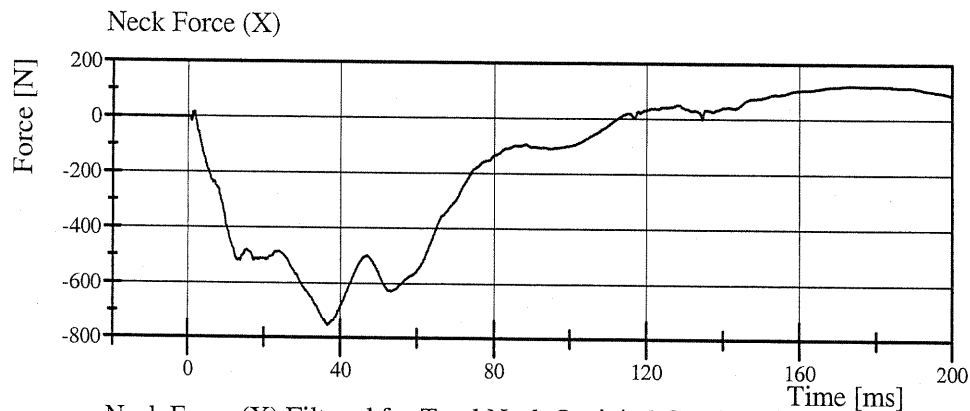
Min: -78.9 ° at 59.2 ms

Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. 070 Certification No. 17-1

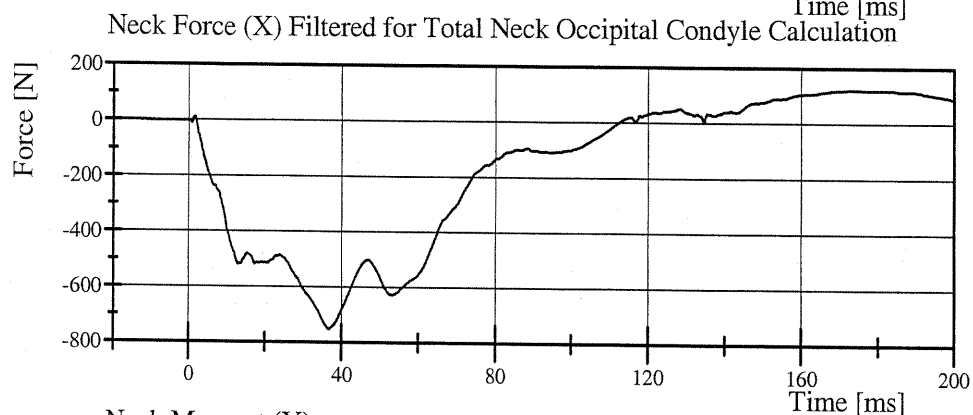
Test Date: 05/19/2006



Filter Class: CFC_1000

Max: 123.2 N at 173.0 ms

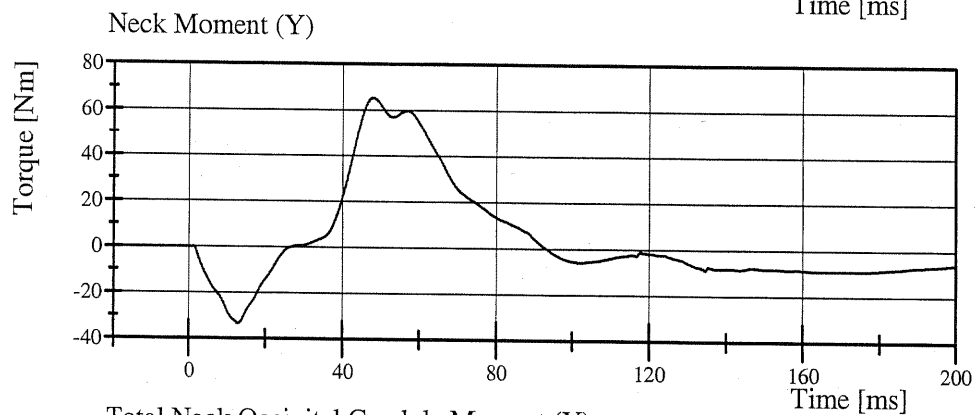
Min: -753.5 N at 36.6 ms



Filter Class: CFC_600

Max: 122.7 N at 173.0 ms

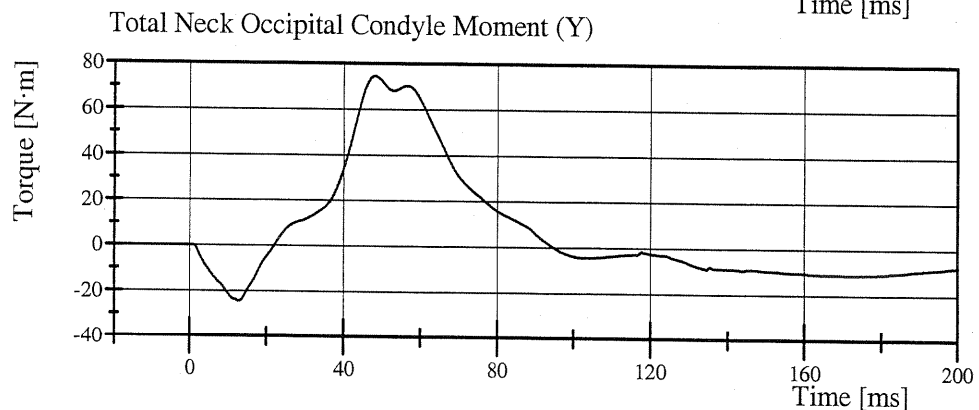
Min: -752.2 N at 36.6 ms



Filter Class: CFC_600

Max: 65.4 Nm at 47.9 ms

Min: -33.4 Nm at 12.7 ms



Filter Class: CFC_600

Max: 74.5 N·m at 48.1 ms

Min: -24.3 N·m at 12.6 ms

Transportation Research Center Inc.

Neck Extension

HIH 5th Serial No. 070 Certification No. 17-2

Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	40 %	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	3.68 m/s	Yes
Pendulum Integrated Velocity Change at 30ms	4.6 - 5.6 m/s	5.33 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	106.9 °	Yes
Total Neck Occipital Condyles Moment Between 99° and 114° Rotation	(-53) - (-65) N·m	-56.2 N·m	Yes
Total Neck Occipital Condyles Moment Decay to -10 N·m	94 - 114 ms	102.8 ms	Yes

Test meets specifications.

Comments:

Technician



Approved

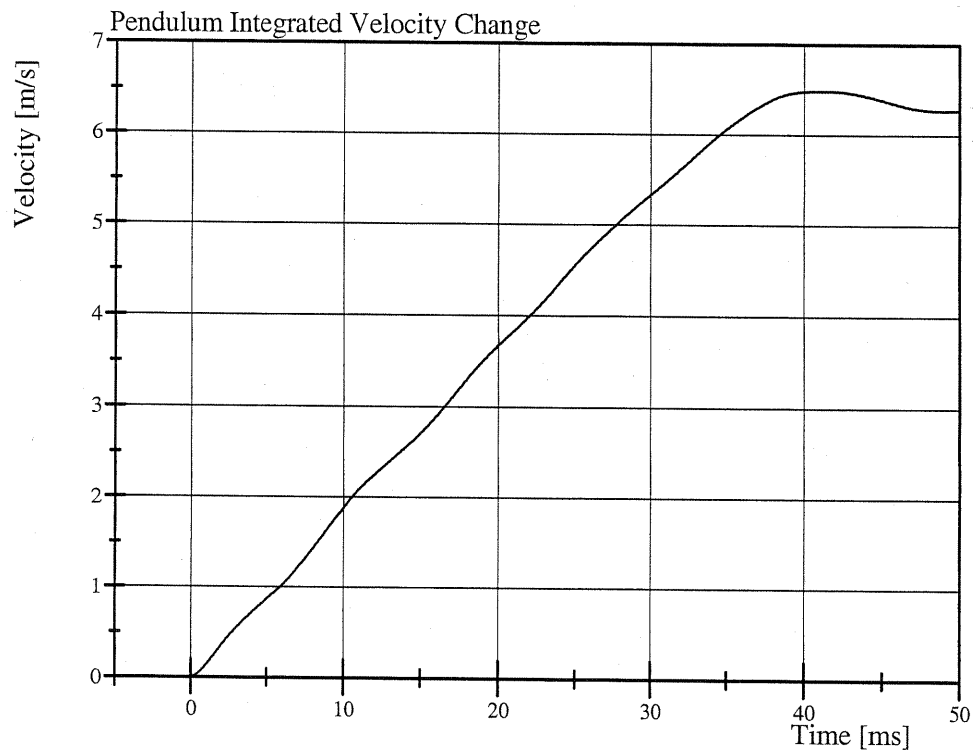
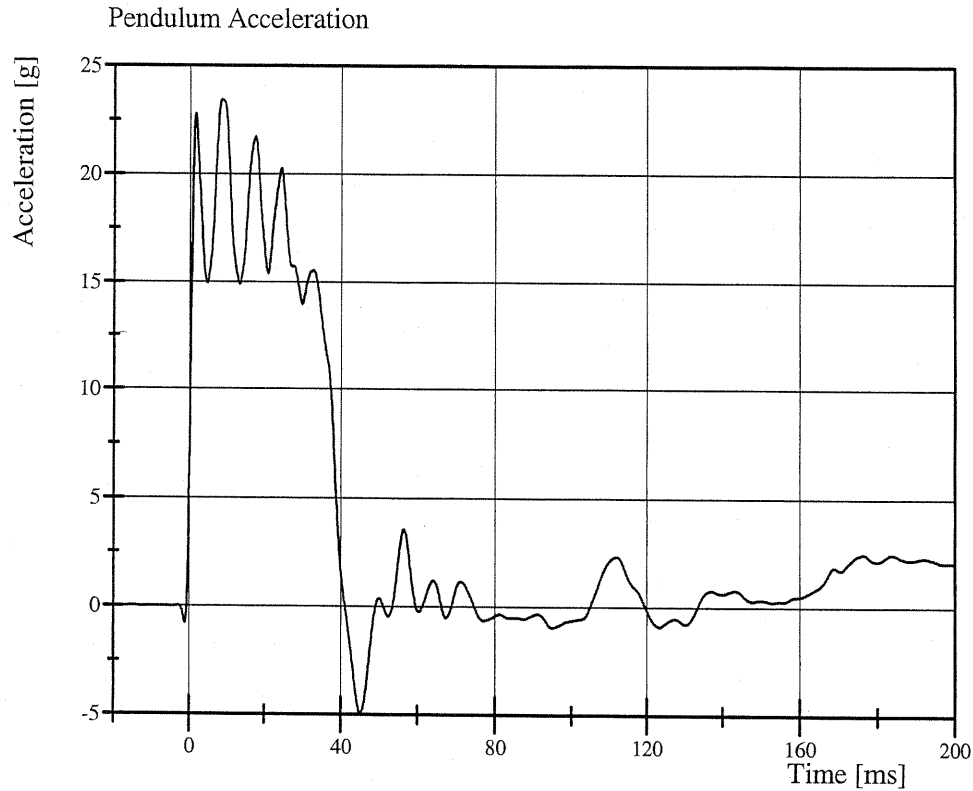


Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 17-2

Test Date: 05/19/2006



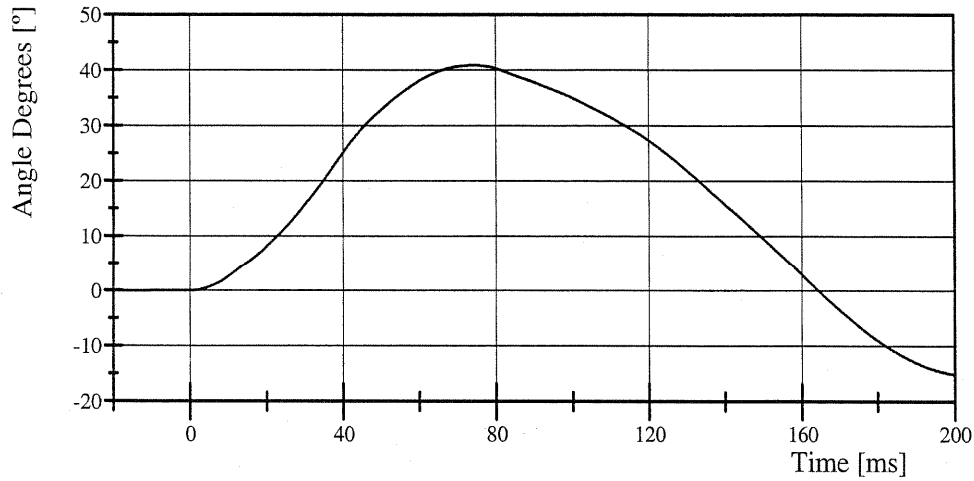
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. 070 Certification No. 17-2

Test Date: 05/19/2006

Pot Rotation at the Base of Neck

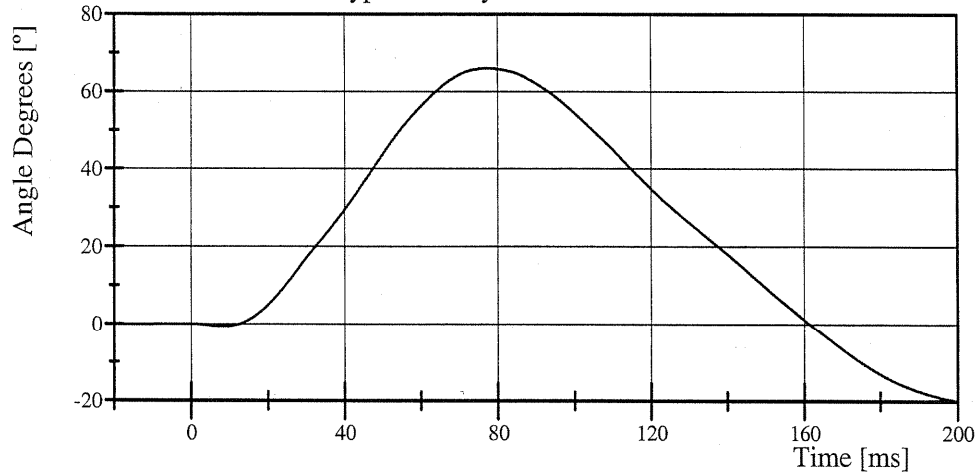


Filter Class: CFC_60

Max: 40.9 ° at 74.6 ms

Min: -15.1 ° at 200.0 ms

Head Rotation at Occypital Condyles

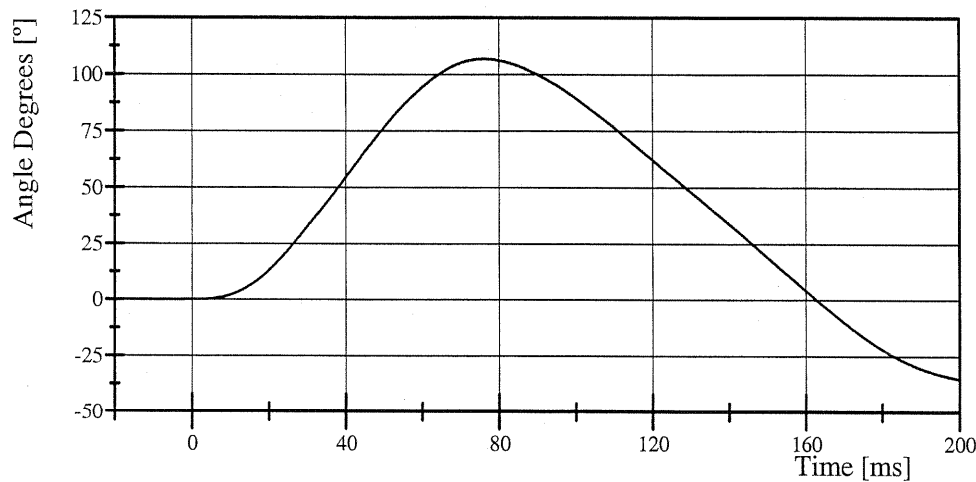


Filter Class: CFC_60

Max: 66.0 ° at 77.1 ms

Min: -19.9 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 106.9 ° at 76.2 ms

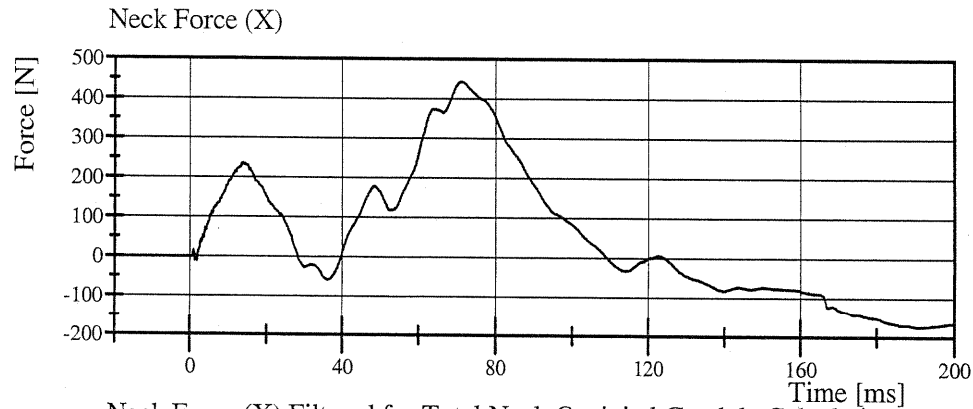
Min: -35.0 ° at 200.0 ms

Transportation Research Center Inc.

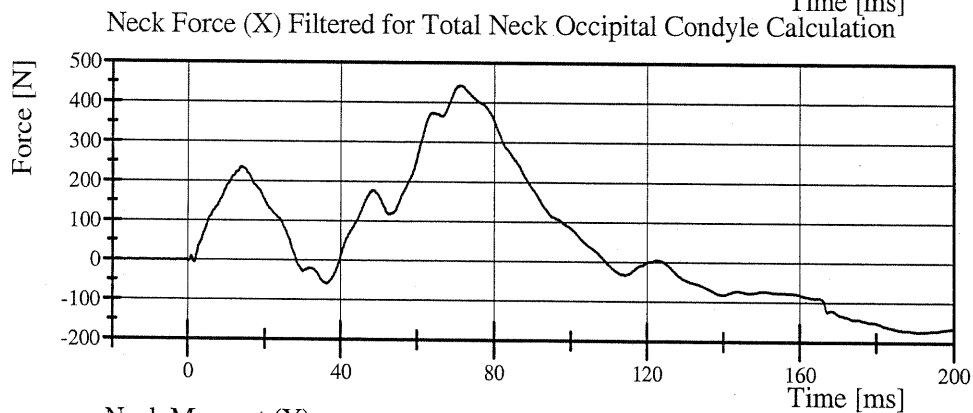
Neck Extension

HIII 5th Serial No. 070 Certification No. 17-2

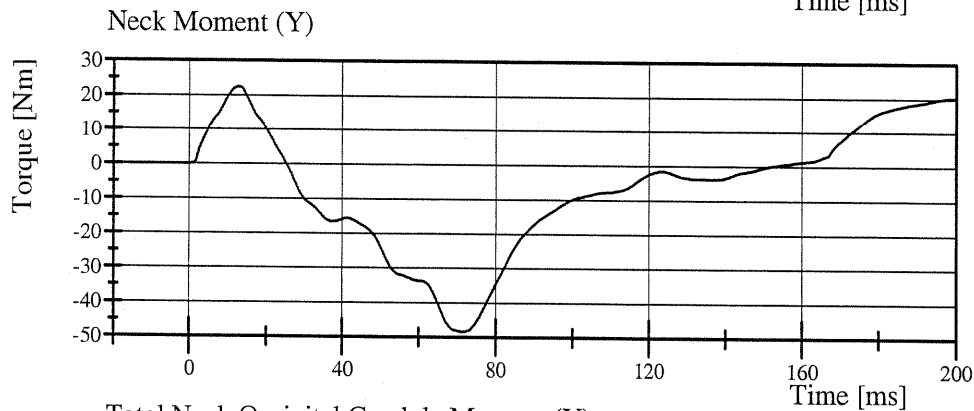
Test Date: 05/19/2006



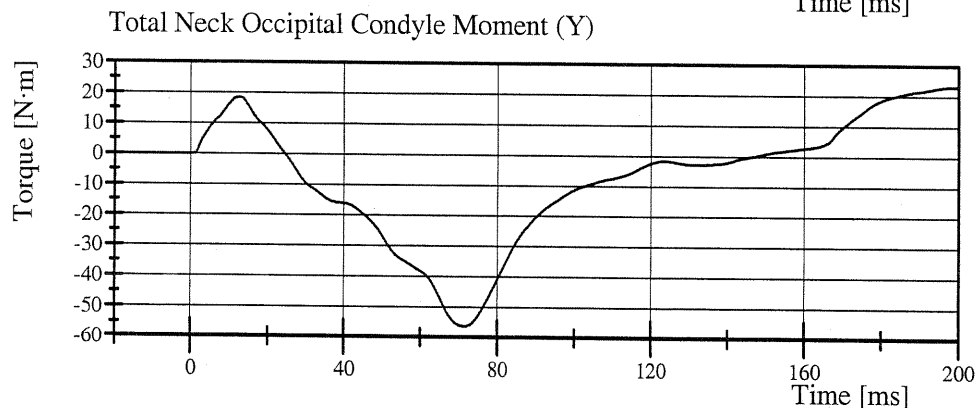
Filter Class: CFC_1000
Max: 443.6 N at 71.4 ms
Min: -174.0 N at 191.1 ms



Filter Class: CFC_600
Max: 443.0 N at 71.3 ms
Min: -173.4 N at 190.7 ms



Filter Class: CFC_600
Max: 22.5 Nm at 12.6 ms
Min: -48.4 Nm at 71.8 ms



Filter Class: CFC_600
Max: 23.2 N·m at 199.8 ms
Min: -56.2 N·m at 71.7 ms

Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 070 Certification No. 17-1

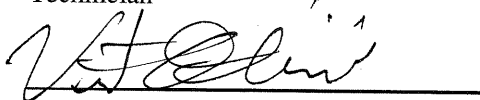
Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.639 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,293.0 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	$\geq$ (-4,600) N	-4,299.4 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-52.2 mm	Yes
Internal Hysteresis	69 - 85 %	72.4 %	Yes

Test meets specifications.

Comments:

Technician



Approved

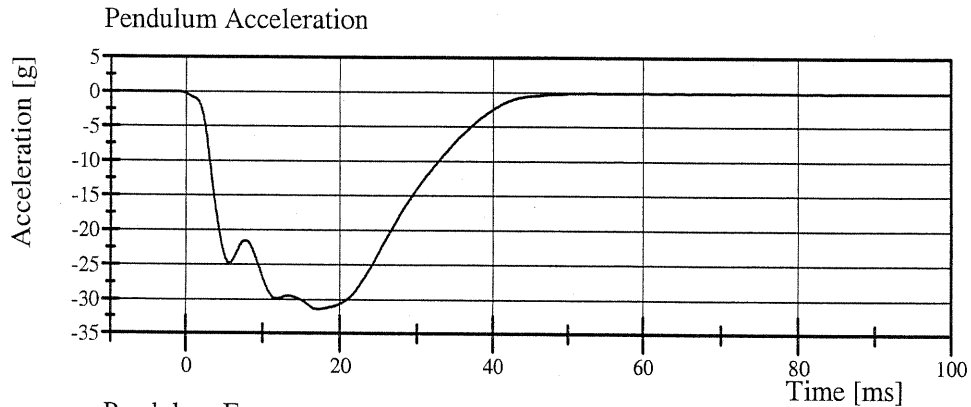


Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. 070 Certification No. 17-1

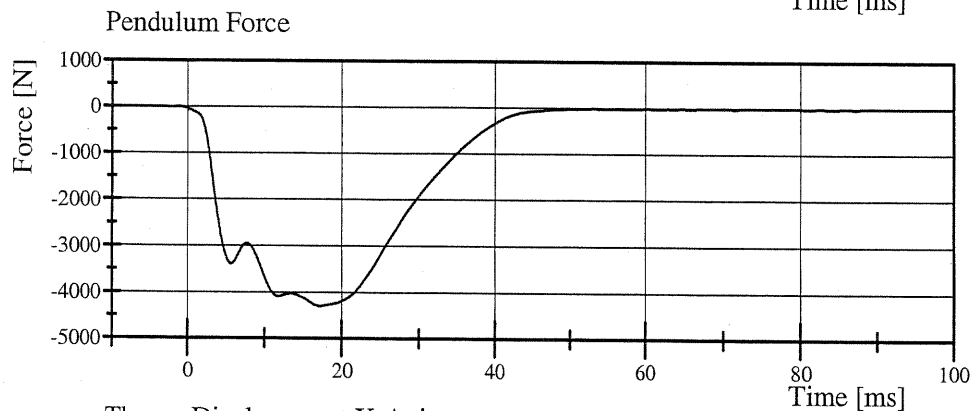
Test Date: 05/19/2006



Filter Class: CFC_180

Max: 0.0 g at -8.2 ms

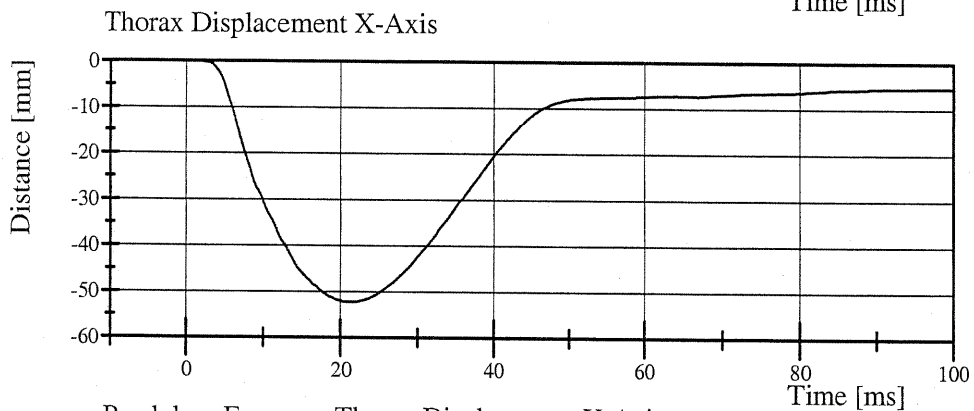
Min: -31.4 g at 17.2 ms



Filter Class: CFC_180

Max: 1.5 N at -8.2 ms

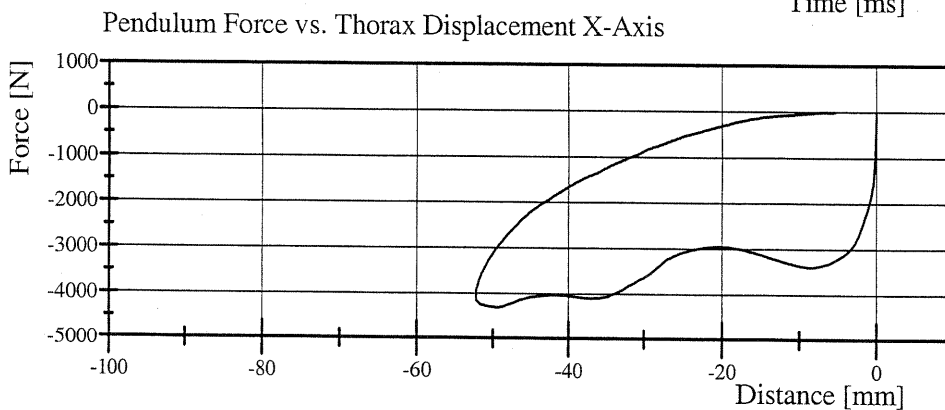
Min: -4,299.4 N at 17.2 ms



Filter Class: CFC_600

Max: 0.0 mm at -4.2 ms

Min: -52.2 mm at 21.7 ms



Filter Class: CFC_180

Max: 1.5 N at 0.0 mm

Min: -4,299.4 N at -49.5 mm

TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

CAL DATE: 19-May-06

TRC, INC.

TEST NO: TOFL-01

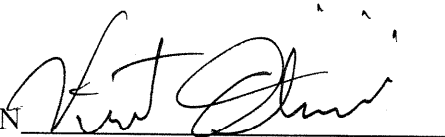
572 O SN070 TORSO FLEX CAL 17

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6 – 22.2° C	21.2 ° C
RELATIVE HUMIDITY	10 – 70 %	39 %
INITIAL ANGLE OF UNSUPPORTRED DUMMY	<= 20° REFERENCED TO VERTICAL	18.2 °
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	320 - 390 N	348.6 N
RETURN ANGLE		22.9 °
DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE	+/- 8 ° OF INTIAL ANGLE	4.7 °
RATE	0.5° - 1.5°/sec	0.97 °/sec

TEST MEETS SPECIFICATIONS

Comments:

TECHNICIAN



Transportation Research Center Inc.

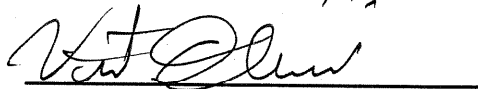
Left Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 17-2
Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	41 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.117 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,524.7 N	Yes

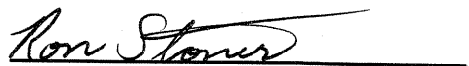
Test meets specifications.

Comments:

Technician

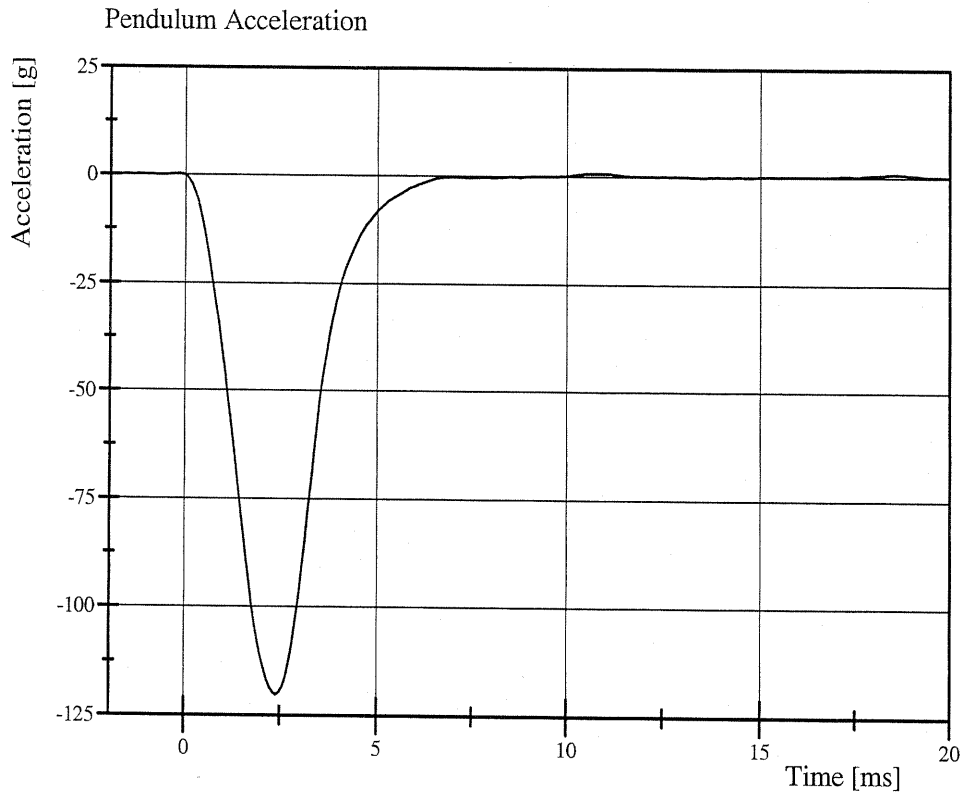


Approved

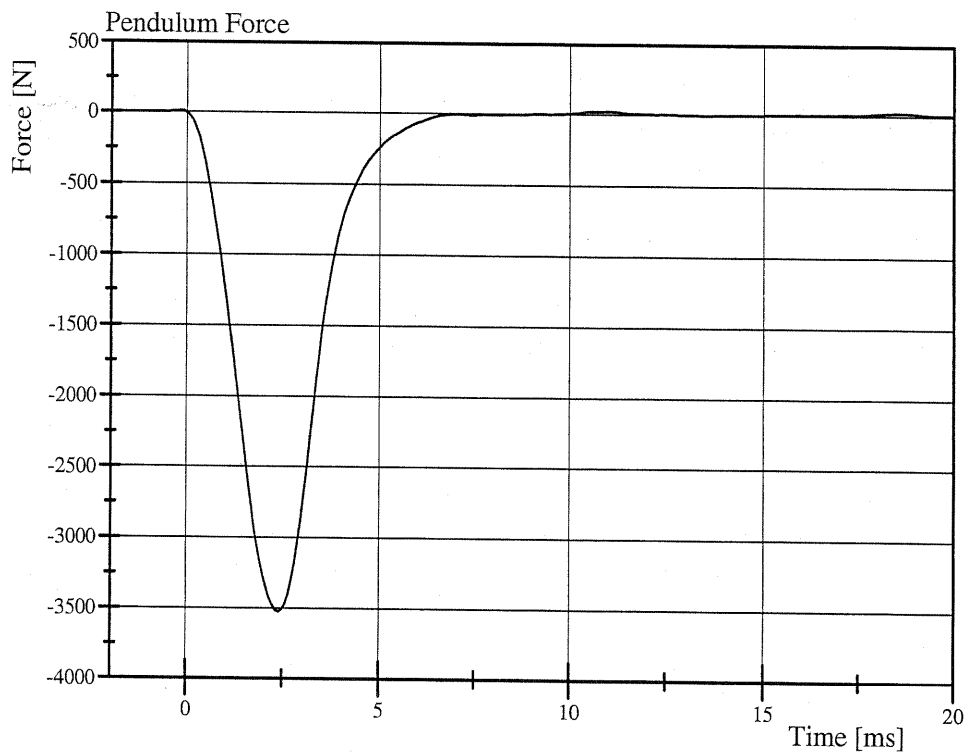


Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. 070 Certification No. 17-2
Test Date: 05/19/2006



Filter Class: CFC_600
Max: 0.8 g at 18.6 ms
Min: -120.2 g at 2.4 ms



Filter Class: CFC_600
Max: 22.7 N at 18.6 ms
Min: -3,524.7 N at 2.4 ms

Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 5th Serial No. 070 Certification No. 17-2

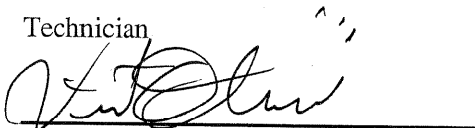
Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.119 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,533.9 N	Yes

Test meets specifications.

Comments:

Technician



Approved

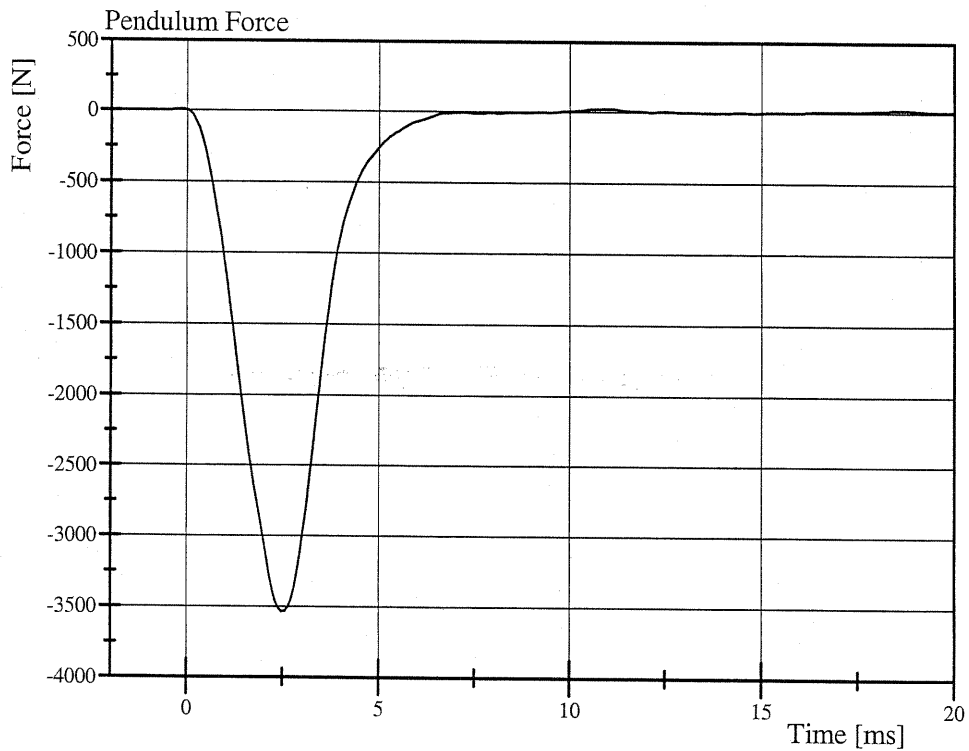
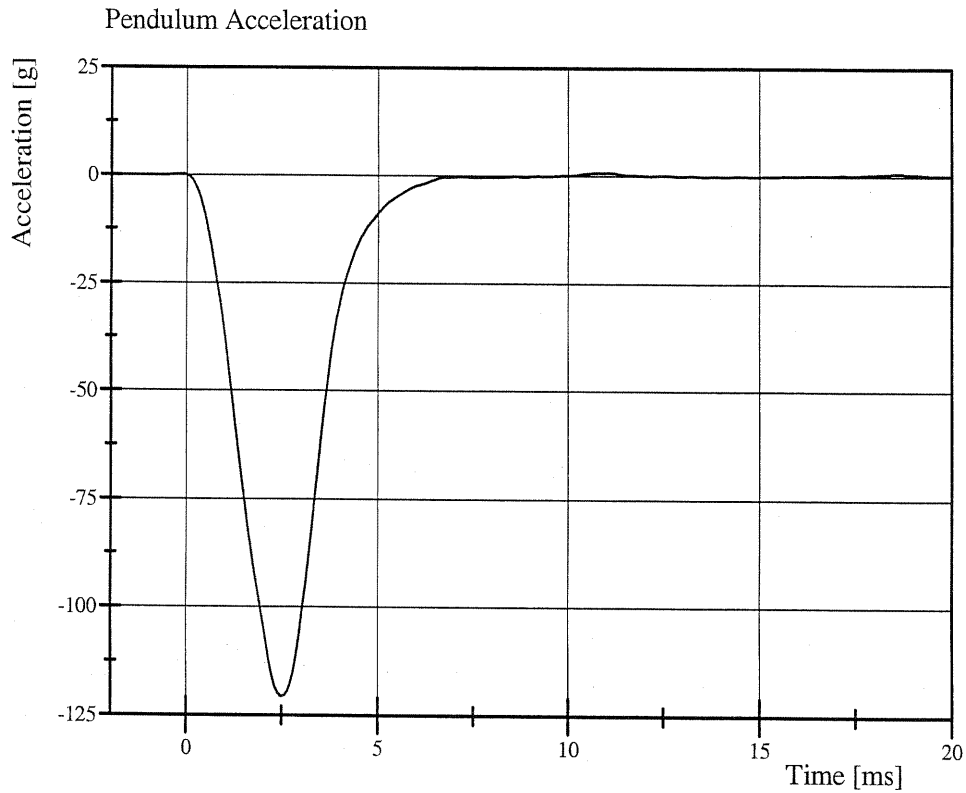


Transportation Research Center Inc.

Right Knee Femur Response Test

HIII 5th Serial No. 070 Certification No. 17-2

Test Date: 05/19/2006



Pre-Test Dummy Configuration and Performance Verification Data

Right Rear Passenger Dummy S/N: 110

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 110 Calibration No. 25

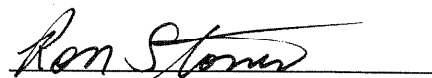
Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	883	Yes
B	Shoulder Pivot Height	505.5 - 520.7	515	Yes
C	H-Point Height	83.8 - 88.9	86	Yes
D	H-Point From Seatback	134.6 - 139.7	137	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	90	Yes
F	Thigh Clearance	139.7 - 154.9	152	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	290	Yes
H	Skull Cap To Backline	40.6 - 45.7	43	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	338	Yes
J	Elbow Rest Height	190.5 - 210.8	206	Yes
K	Buttock Knee Length	579.1 - 604.5	600	Yes
L	Popliteal Height	429.3 - 454.7	440	Yes
M	Knee Pivot Height	485.1 - 500.4	495	Yes
N	Buttock Popliteal Length	452.1 - 477.5	470	Yes
O	Chest Depth	213.4 - 228.6	220	Yes
P	Foot Length	251.5 - 266.7	253	Yes
V	Shoulder Breadth	421.6 - 436.9	427	Yes
W	Foot Breadth	91.4 - 106.7	97	Yes
Y	Chest Circumference	970.3 - 1000.8	985	Yes
Z	Waist Circumference	835.7 - 866.1	859	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	228	Yes

* Partial Set

Technician



Approved



Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 110 Certification No. 25-1

Test Date: 04/26/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	259.4 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-1.1 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

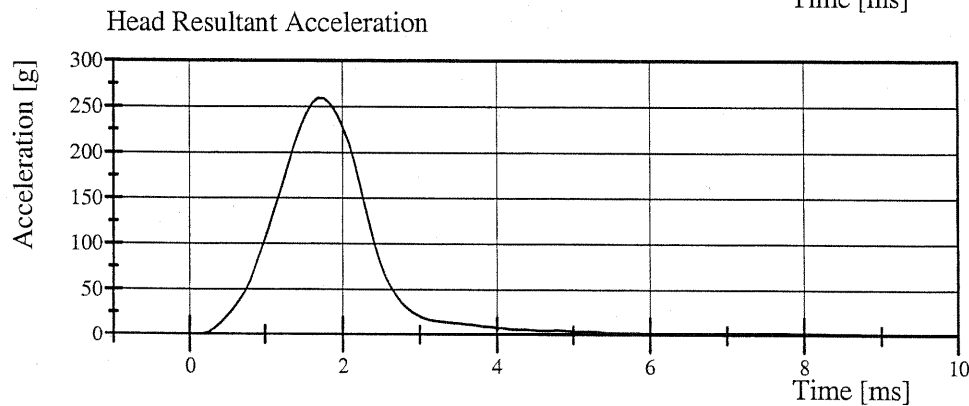
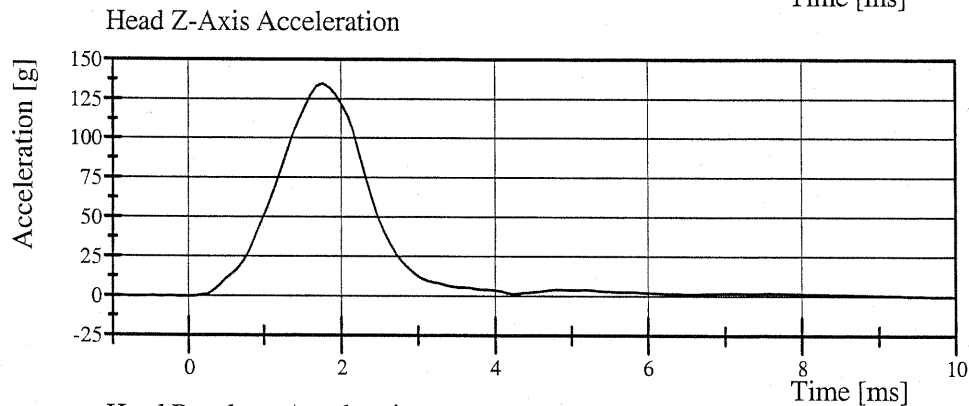
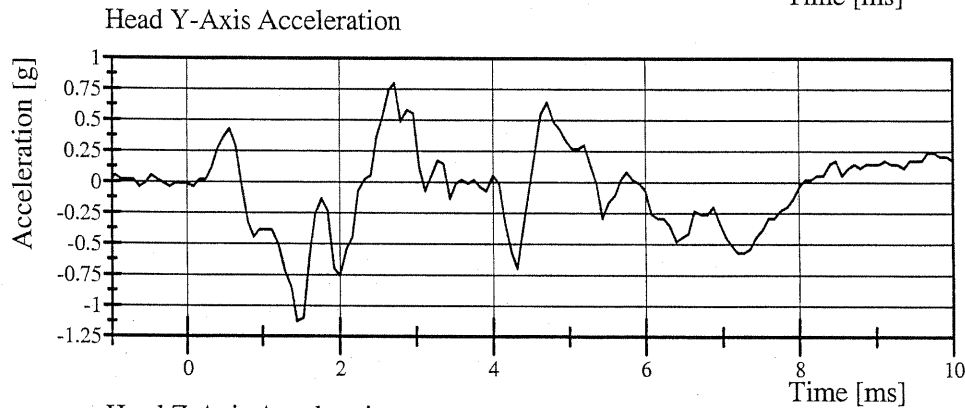
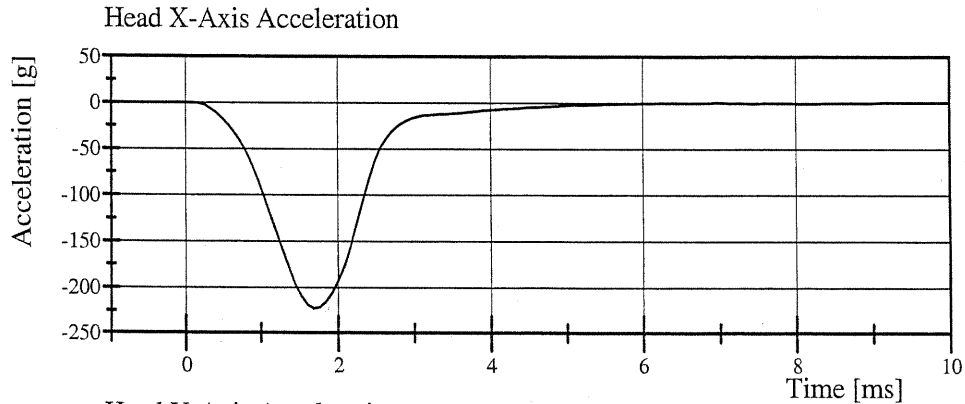


Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 110 Certification No. 25-1

Test Date: 04/26/2006



Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 110 Certification No. 25-2

Test Date: 05/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.937 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	36.8 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-24.52 g	Yes
Pendulum Acceleration at 20ms	(-17.6) - (-22.6) g	-21.95 g	Yes
Pendulum Acceleration at 30ms	(-12.5) - (-18.5) g	-16.88 g	Yes
Pendulum Acceleration > 30ms	>= (-29.0) g	-16.88 g	Yes
Total Head D-Plane Rotation Peak	(-64) - (-78) °	-73.0 °	Yes
Time of Peak	57 - 64 ms	59.8 ms	Yes
Total Head D-Plane Rotation Decay to 0°	113 - 128 ms	120.6 ms	Yes
Total Neck Occipital Condyles Moment Peak	88 - 108 N·m	103.3 N·m	Yes
Time of Peak	47 - 58 ms	49.5 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	97 - 107 ms	100.2 ms	Yes

Test meets specifications.

Comments:

Technician



Approved



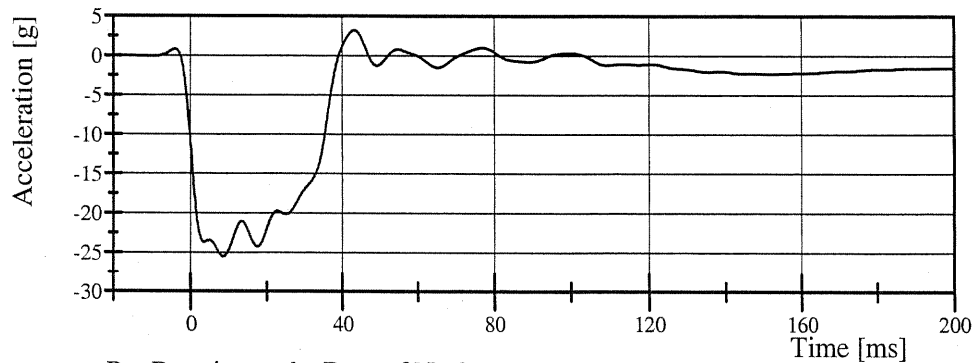
Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 110 Certification No. 25-2

Test Date: 05/16/2006

Pendulum Acceleration

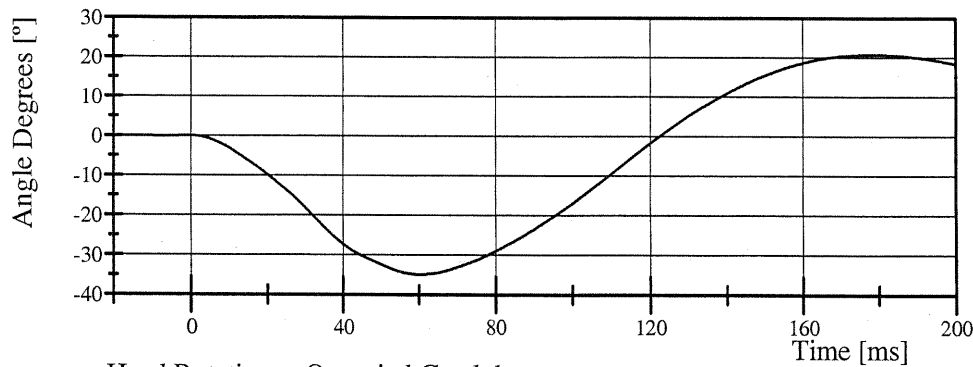


Filter Class: CFC_60

Max: 3.2 g at 43.2 ms

Min: -25.5 g at 8.5 ms

Pot Rotation at the Base of Neck

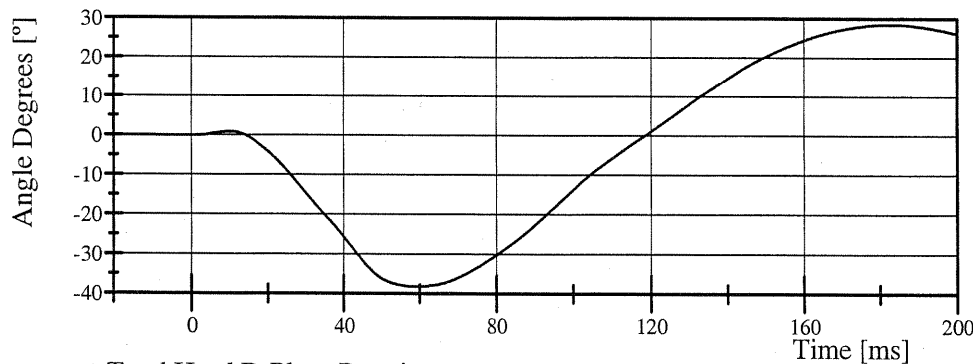


Filter Class: CFC_60

Max: 20.8 ° at 178.1 ms

Min: -34.9 ° at 60.4 ms

Head Rotation at Occypital Condyles

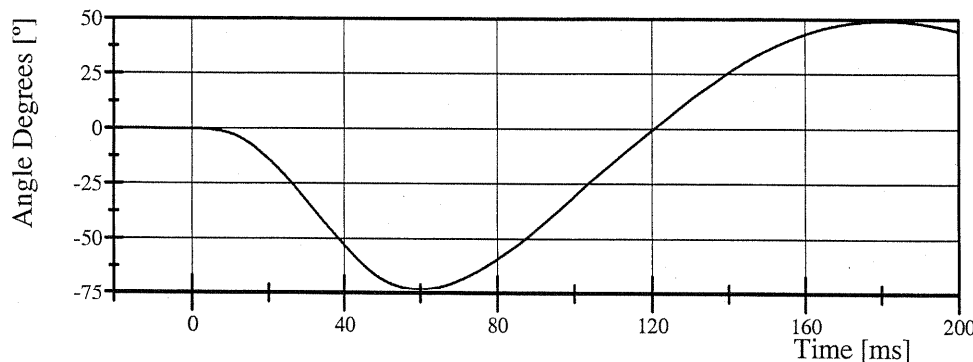


Filter Class: CFC_60

Max: 28.6 ° at 182.3 ms

Min: -38.2 ° at 59.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 49.3 ° at 181.0 ms

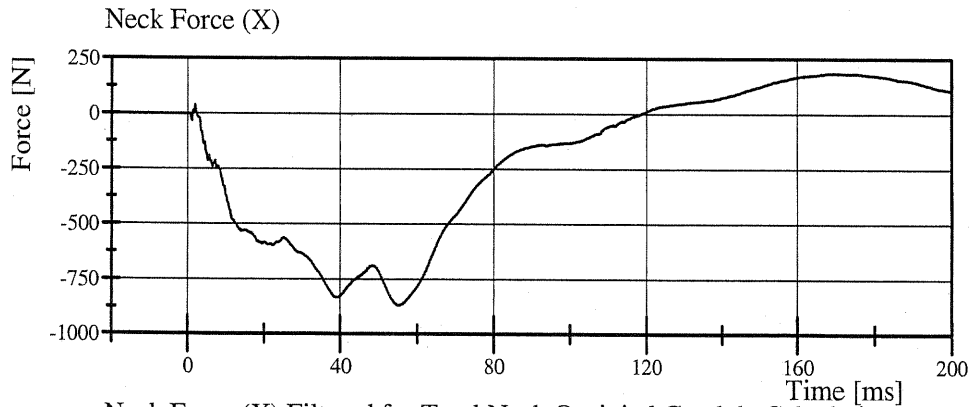
Min: -73.0 ° at 59.8 ms

Transportation Research Center Inc.

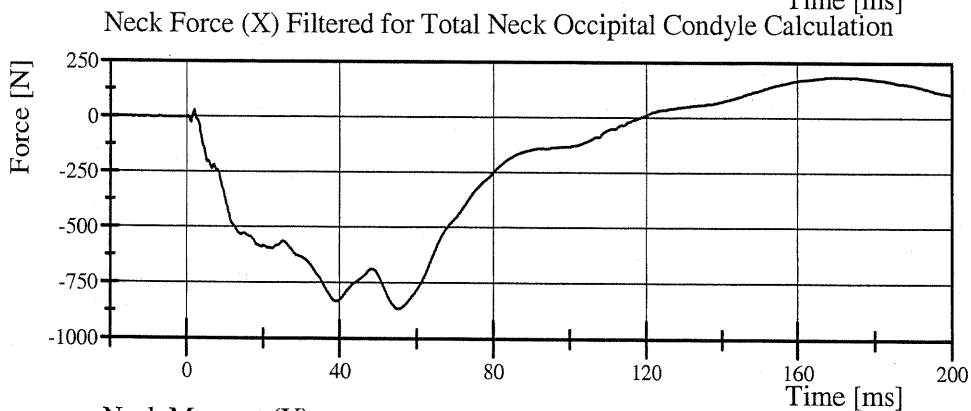
Neck Flexion

HIH 50th Serial No. 110 Certification No. 25-2

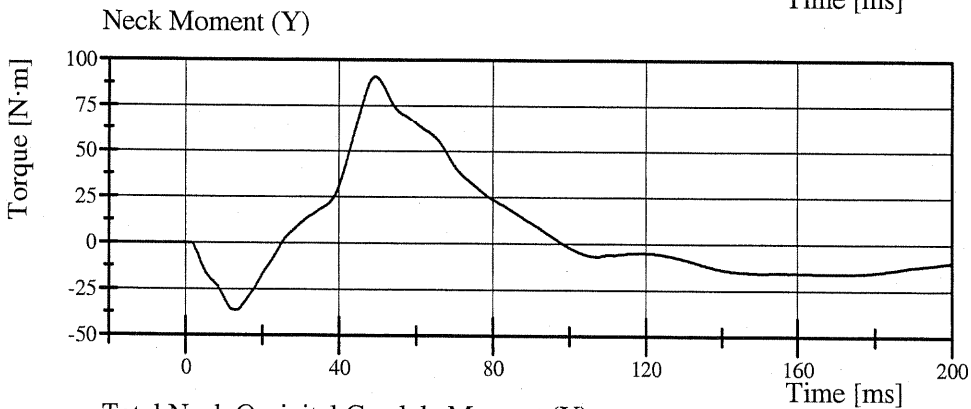
Test Date: 05/16/2006



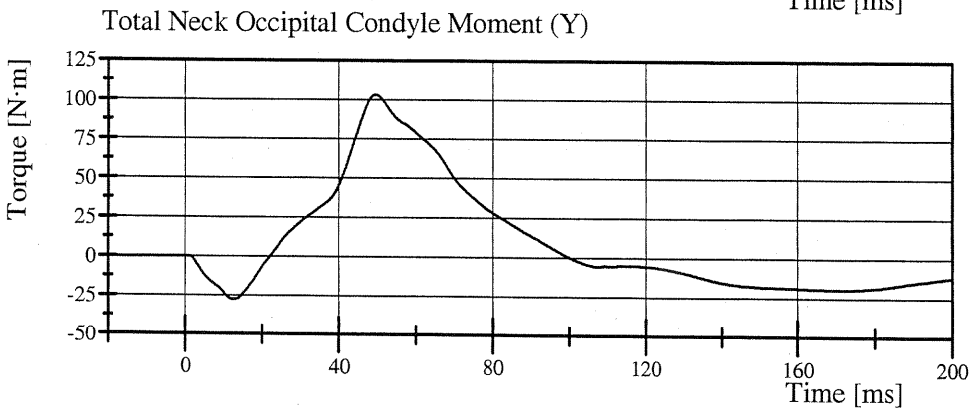
Filter Class: CFC_1000
Max: 186.3 N at 169.8 ms
Min: -867.3 N at 55.1 ms



Filter Class: CFC_600
Max: 186.0 N at 169.8 ms
Min: -867.2 N at 55.2 ms



Filter Class: CFC_600
Max: 90.9 N·m at 49.3 ms
Min: -36.4 N·m at 13.0 ms



Filter Class: CFC_600
Max: 103.3 N·m at 49.5 ms
Min: -27.5 N·m at 12.6 ms

Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 110 Certification No. 25-1

Test Date: 05/16/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.982 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	39.4 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	20.39 g	Yes
Pendulum Acceleration at 20ms	14.0 - 19.0 g	17.69 g	Yes
Pendulum Acceleration at 30ms	11.0 - 16.0 g	14.28 g	Yes
Pendulum Acceleration > 30ms	<= 22.0 g	14.28 g	Yes
Total Head D-Plane Rotation Peak	81 - 106 °	95.0 °	Yes
Time of Peak	72 - 82 ms	75.5 ms	Yes
Total Head D-Plane Rotation Decay to 0°	147 - 174 ms	158.9 ms	Yes
Total Neck Occipital Condyles Moment Peak	(-53) - (-80) N·m	-70.9 N·m	Yes
Time of Peak	65 - 79 ms	69.9 ms	Yes
Total Neck Occipital Condyles Moment Decay to 0 N·m	120 - 148 ms	140.5 ms	Yes

Test meets specifications.

Comments:

Technician



Approved

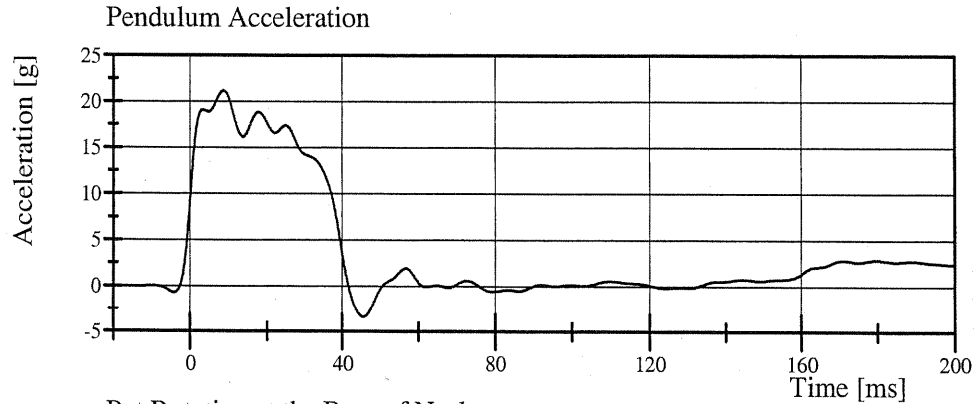


Transportation Research Center Inc.

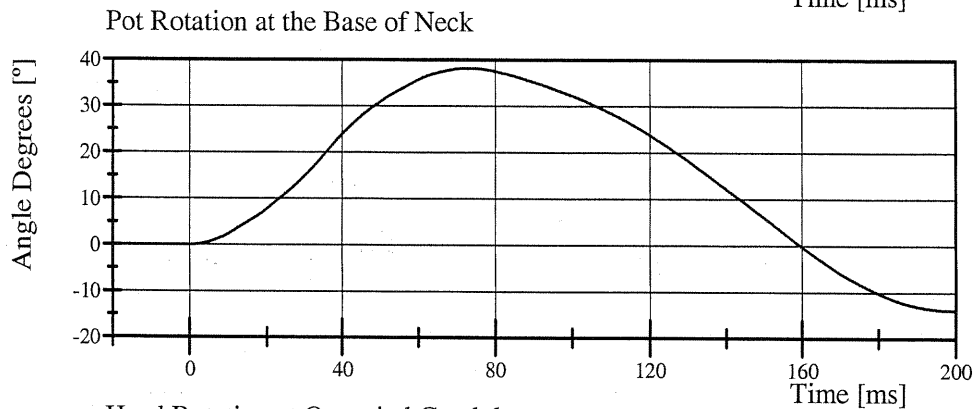
Neck Extension

HIH 50th Serial No. 110 Certification No. 25-1

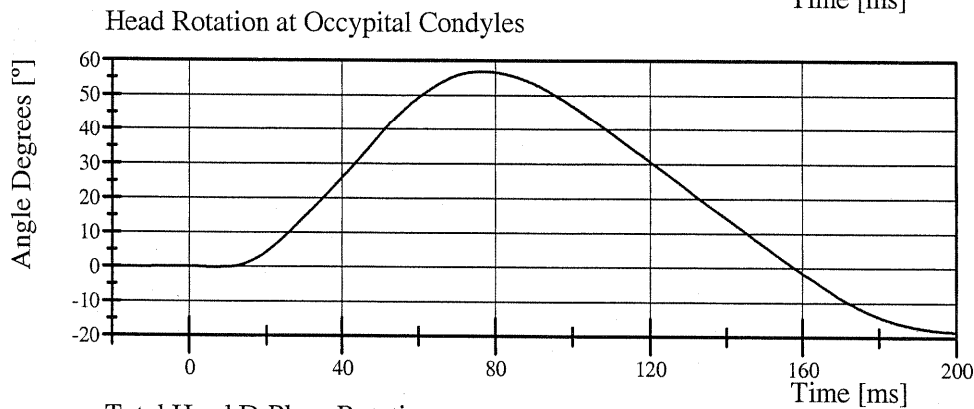
Test Date: 05/16/2006



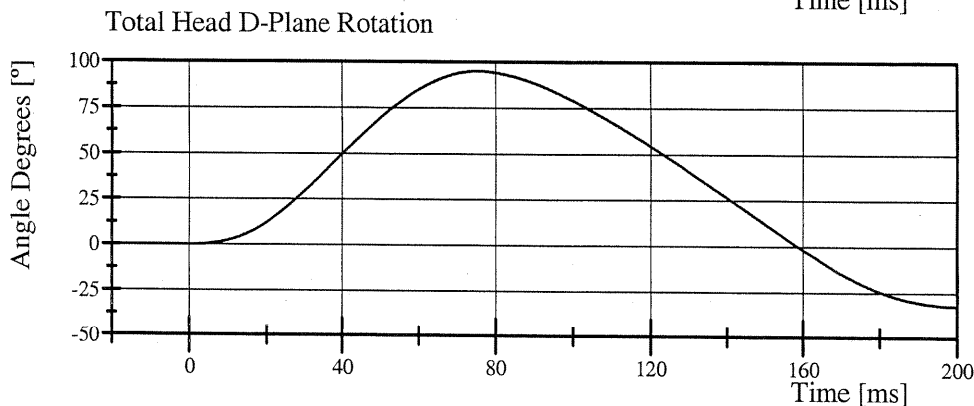
Filter Class: CFC_60
Max: 21.2 g at 8.6 ms
Min: -3.4 g at 45.4 ms



Filter Class: CFC_60
Max: 38.2 ° at 73.3 ms
Min: -13.9 ° at 200.0 ms



Filter Class: CFC_60
Max: 56.9 ° at 76.8 ms
Min: -18.3 ° at 200.0 ms



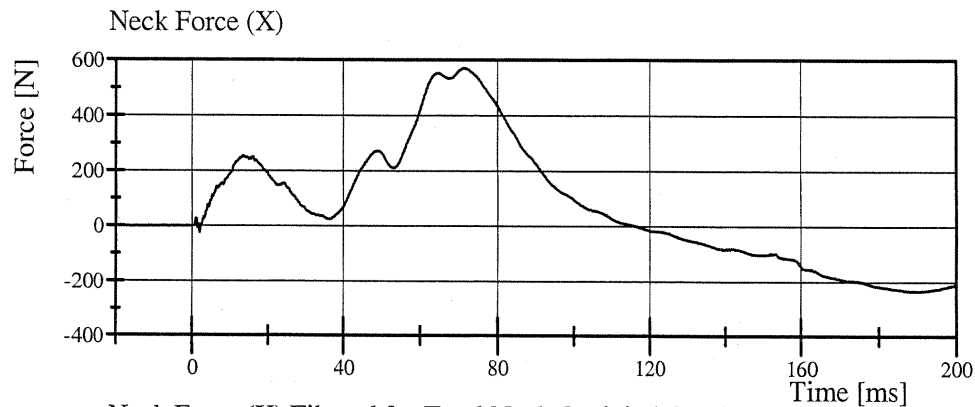
Filter Class: CFC_60
Max: 95.0 ° at 75.5 ms
Min: -32.2 ° at 200.0 ms

Transportation Research Center Inc.

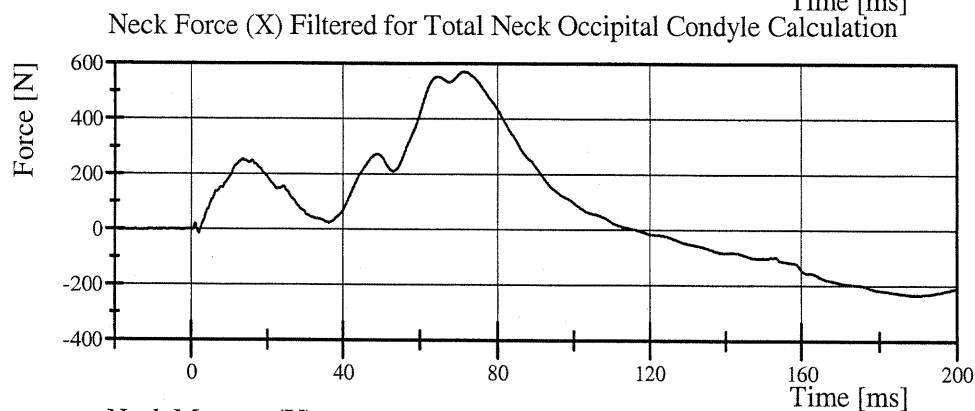
Neck Extension

HIH 50th Serial No. 110 Certification No. 25-1

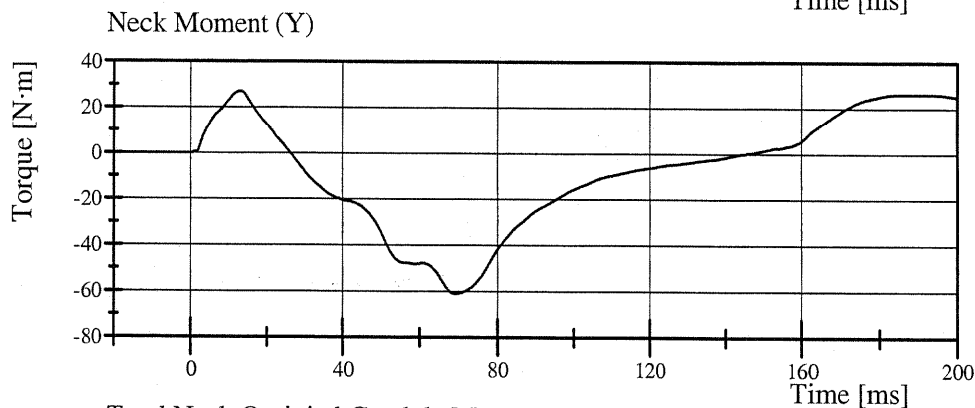
Test Date: 05/16/2006



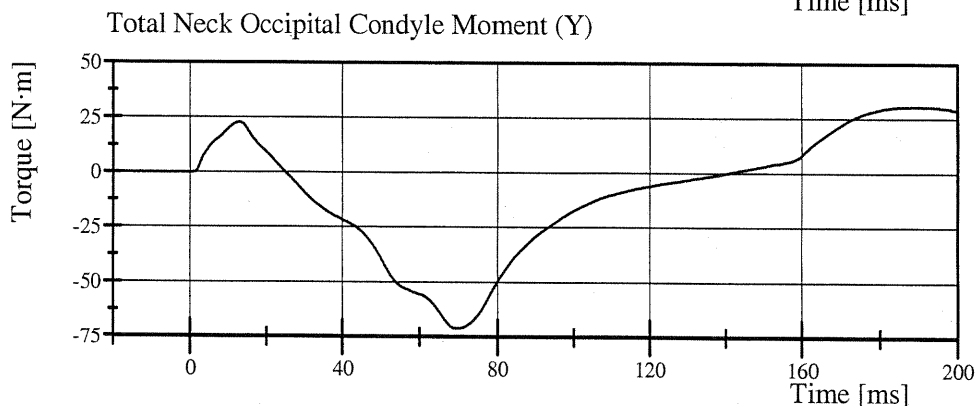
Filter Class: CFC_1000
Max: 570.6 N at 71.2 ms
Min: -233.8 N at 190.4 ms



Filter Class: CFC_600
Max: 570.6 N at 71.5 ms
Min: -233.3 N at 190.3 ms



Filter Class: CFC_600
Max: 27.1 N·m at 12.9 ms
Min: -61.1 N·m at 69.3 ms



Filter Class: CFC_600
Max: 30.6 N·m at 189.4 ms
Min: -70.9 N·m at 69.9 ms

Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 110 Certification No. 25-1

Test Date: 05/03/2006

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.632 m/s	Yes
Probe Force Peak	(-5,160) - (-5,893) N	-5,697.6 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-66.11 mm	Yes
Internal Hysteresis	65 - 85 %	73.3 %	Yes

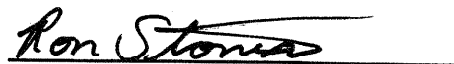
Test meets specifications.

Comments:

Technician



Approved

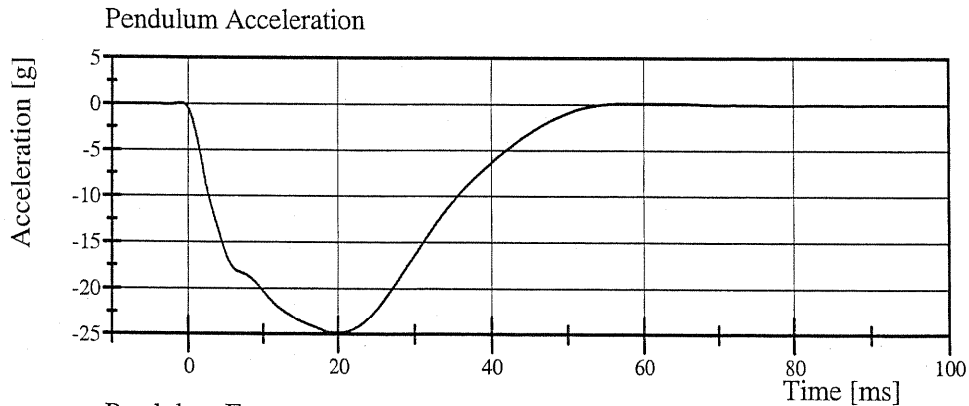


Transportation Research Center Inc.

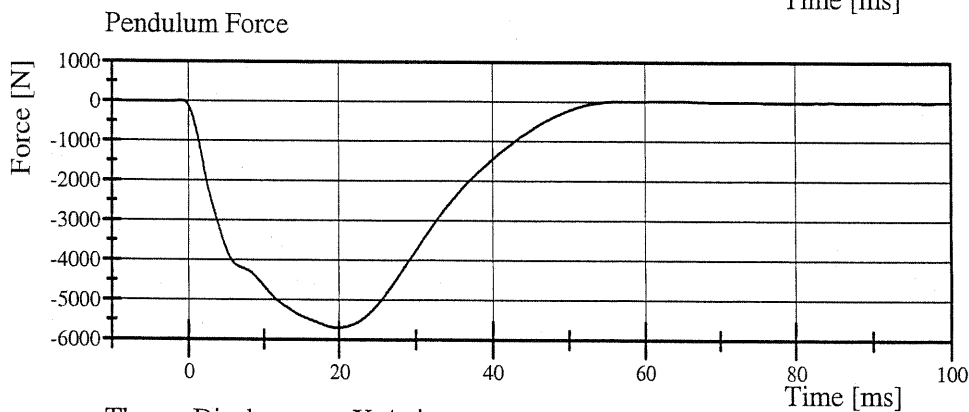
Front Thorax

HIII 50th Serial No. 110 Certification No. 25-1

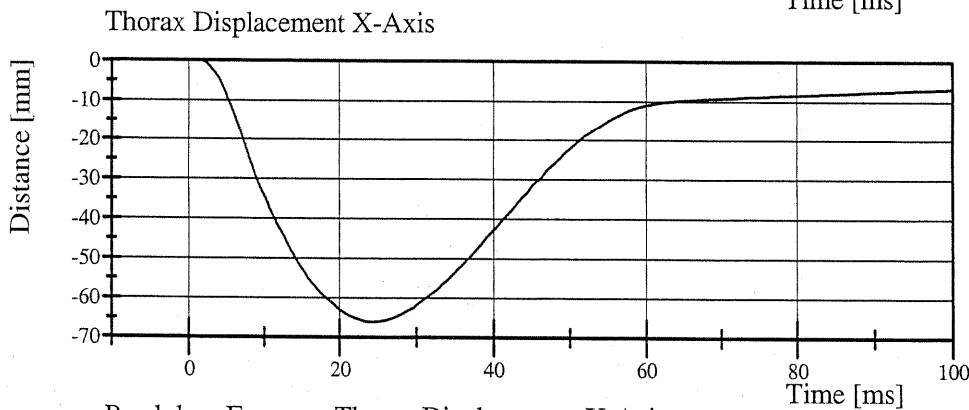
Test Date: 05/03/2006



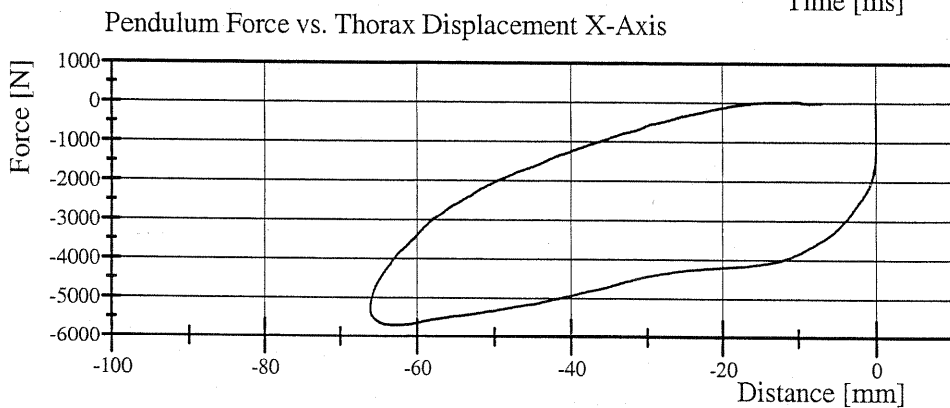
Filter Class: CFC_180
Max: 0.1 g at 63.6 ms
Min: -24.9 g at 19.8 ms



Filter Class: CFC_180
Max: 24.7 N at 63.6 ms
Min: -5,697.6 N at 19.8 ms



Filter Class: CFC_600
Max: 0.0 mm at -1.7 ms
Min: -66.1 mm at 24.3 ms



Filter Class: CFC_180
Max: 24.7 N at -10.0 mm
Min: -5,697.6 N at -62.8 mm

Applied Safety Technologies Corp.

Hybrid III Hip Range of Motion

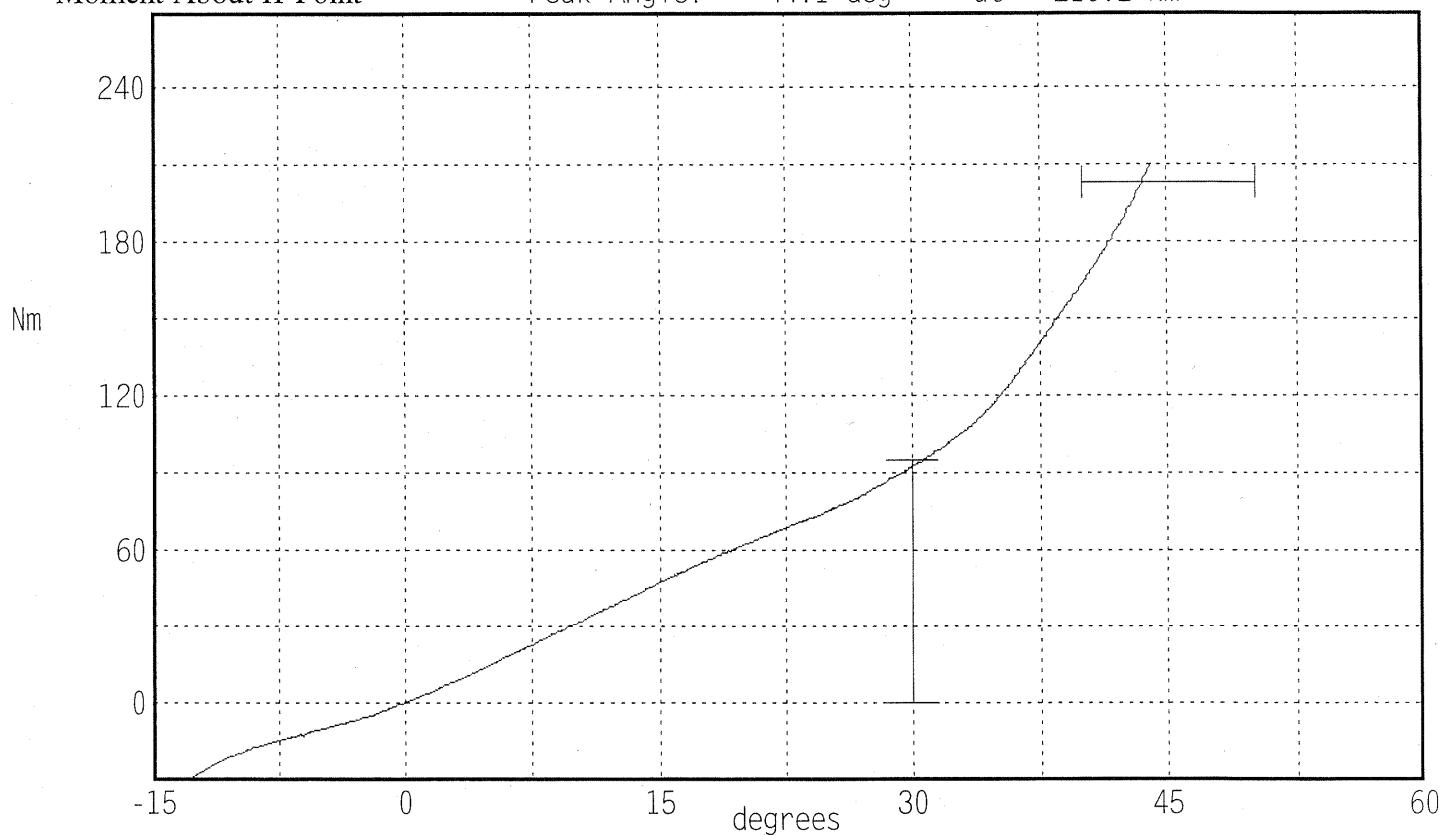
Serial Number: 110L
Test Number: 110C25
Comments:

Date: 05/16/2006
Time: 08:54

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.4 °C Pass
Humidity	10 - 70	47 % Pass
Moment at 30 deg	<= 94.9	92.9 Nm Pass
Angle at 203 Nm	40.0 - 50.0	43.6 deg Pass
Average Velocity	5.0 - 10.0	7.4 deg/sec Pass

Peak Moment: 210.2 Nm at 44.1 deg
Peak Angle: 44.1 deg at 210.2 Nm

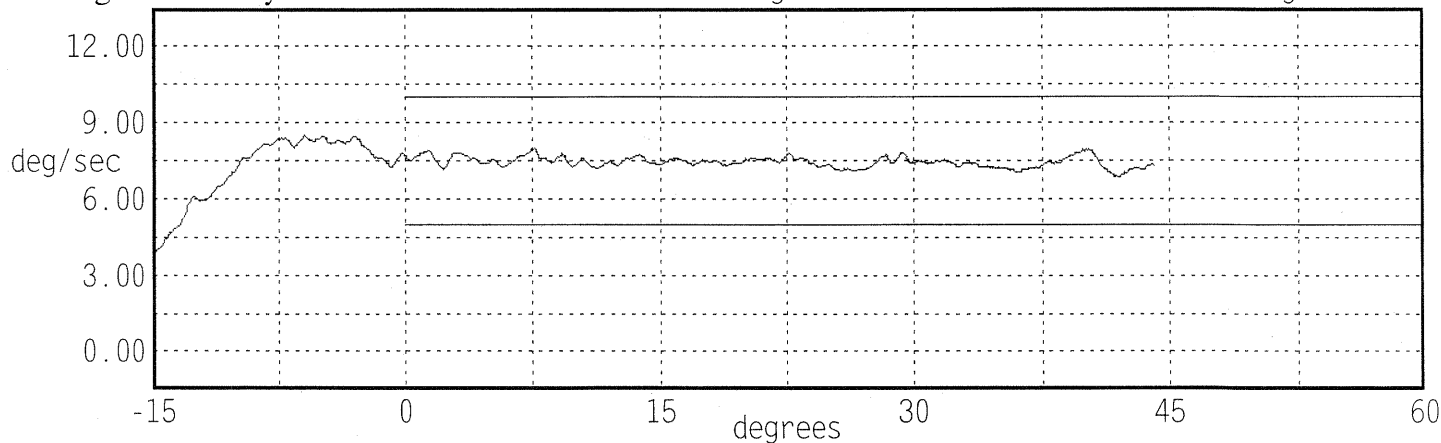
Moment About H-Point



Angular Velocity

Max: 8.0 deg/sec

Min: 6.9 deg/sec



Applied Safety Technologies Corp.

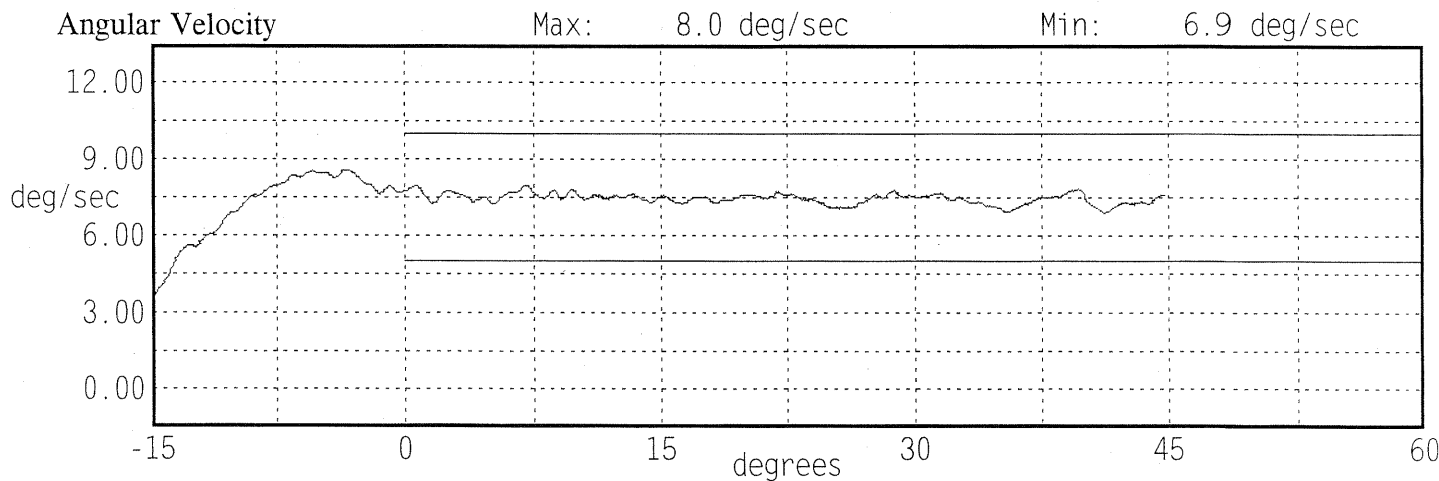
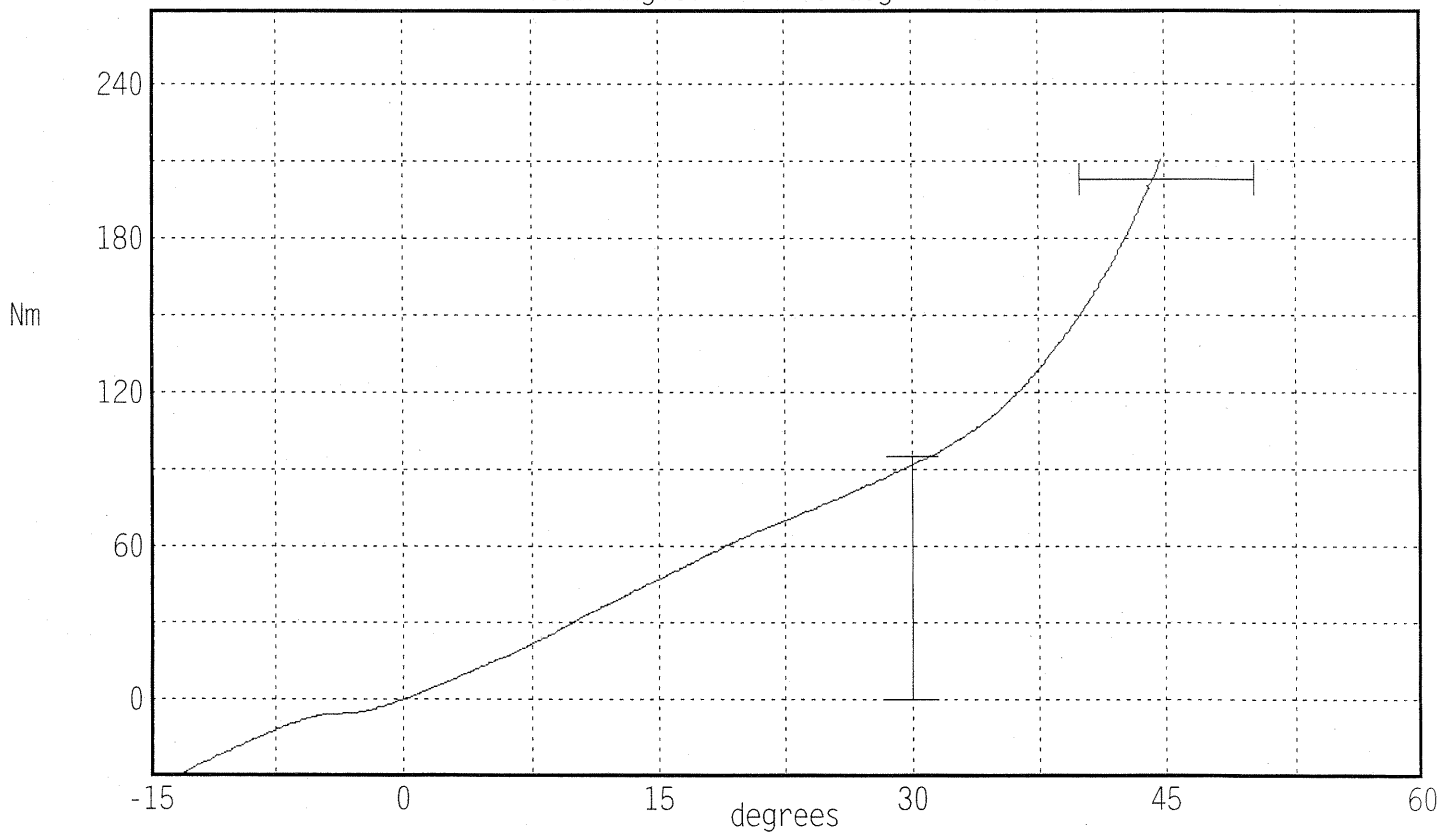
Hybrid III Hip Range of Motion

Serial Number: 110R
Test Number: 110C25
Comments:

Date: 05/16/2006
Time: 09:05

TEST PARAMETER	SPECIFICATION	TEST RESULTS	
Temperature	18.9 - 25.6	21.4 °C	Pass
Humidity	10 - 70	47 %	Pass
Moment at 30 deg	<= 94.9	91.9 Nm	Pass
Angle at 203 Nm	40.0 - 50.0	44.4 deg	Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec	Pass

Moment About H-Point
Peak Moment: 210.5 Nm at 44.8 deg
Peak Angle: 44.8 deg at 210.5 Nm



Transportation Research Center Inc.

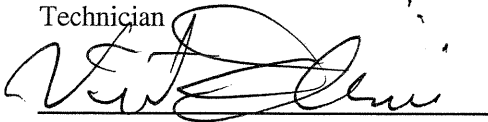
Left Knee Femur Response Test
HIII 50th Serial No. 110 Certification No. 25-1
Test Date: 05/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.093 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,453.67 N	Yes

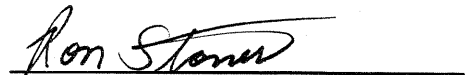
Test meets specifications.

Comments:

Technician

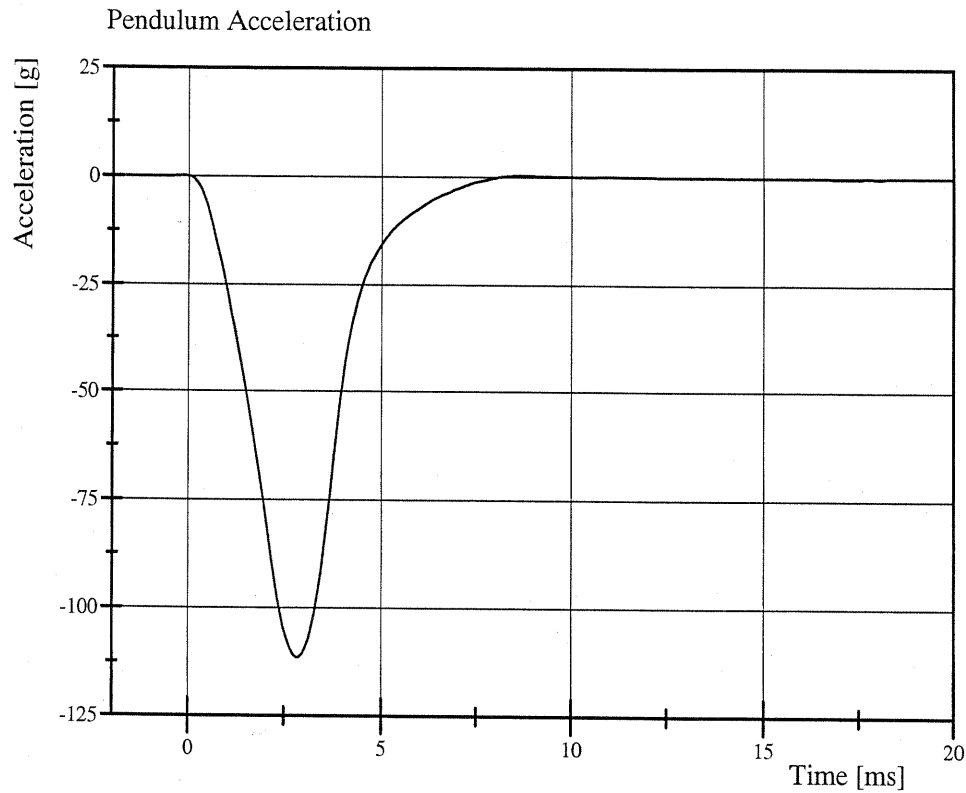


Approved

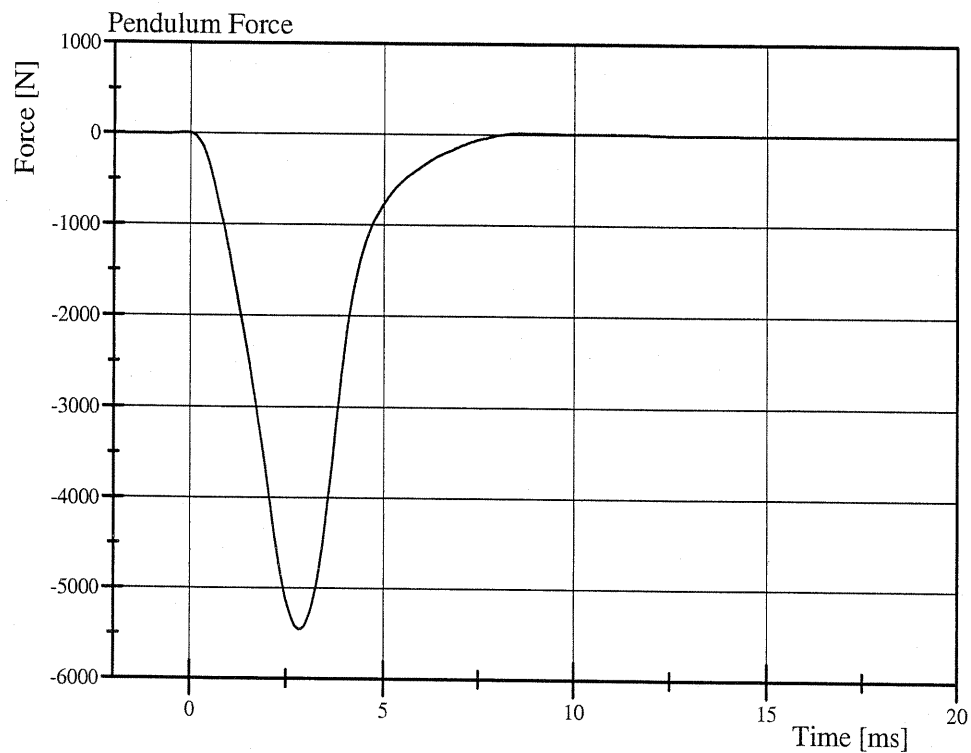


Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. 110 Certification No. 25-1
Test Date: 05/17/2006



Filter Class: CFC_600
Max: 0.4 g at 8.6 ms
Min: -111.5 g at 2.9 ms



Filter Class: CFC_600
Max: 17.5 N at 8.6 ms
Min: -5,453.7 N at 2.9 ms

Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 110 Certification No. 25-1
Test Date: 05/17/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Probe Velocity	2.08 - 2.13 m/s	2.095 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,761.36 N	Yes

Test meets specifications.

Comments:

Technician

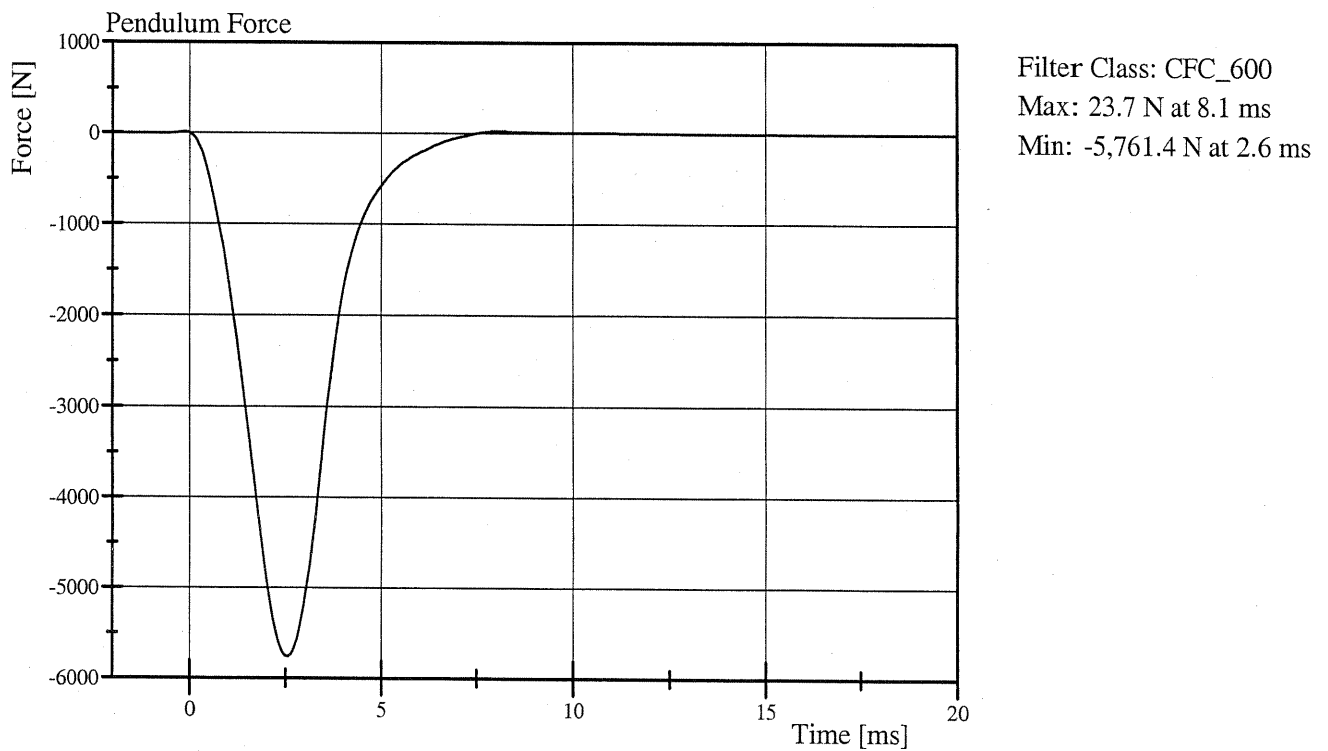
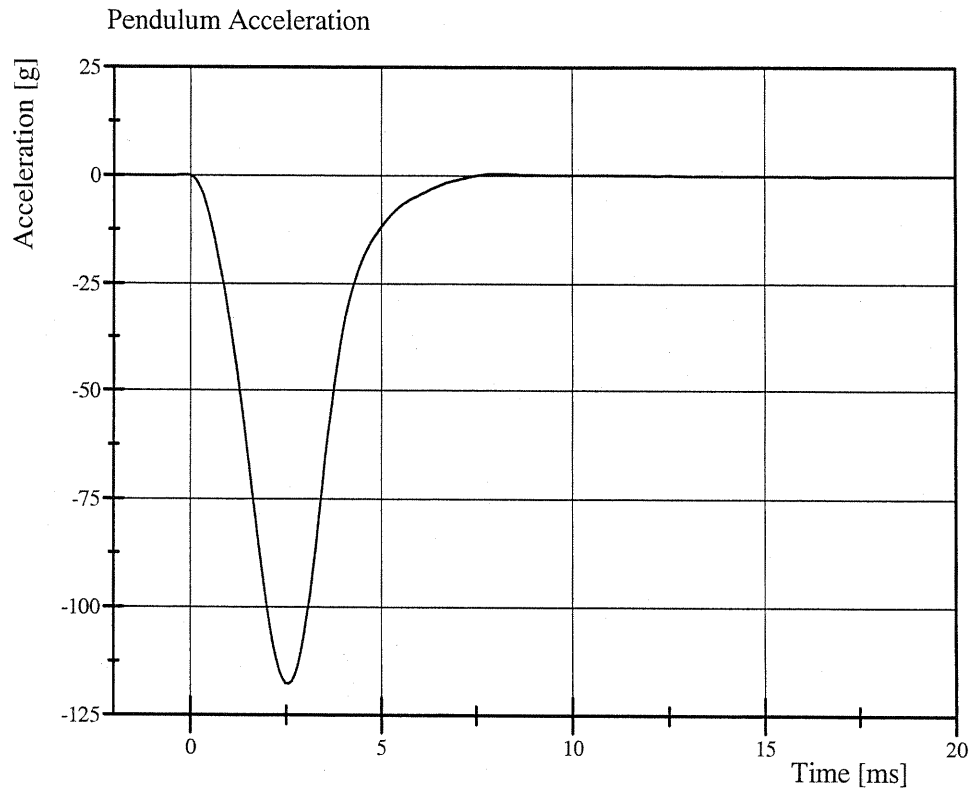


Approved



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 110 Certification No. 25-1
Test Date: 05/17/2006



Post-Test Dummy Configuration and Performance Verification Data

Right Rear Passenger Dummy S/N: 110

Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 110 Certification No. 26-1

Test Date: 05/19/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	38 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	260.5 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	6.5 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

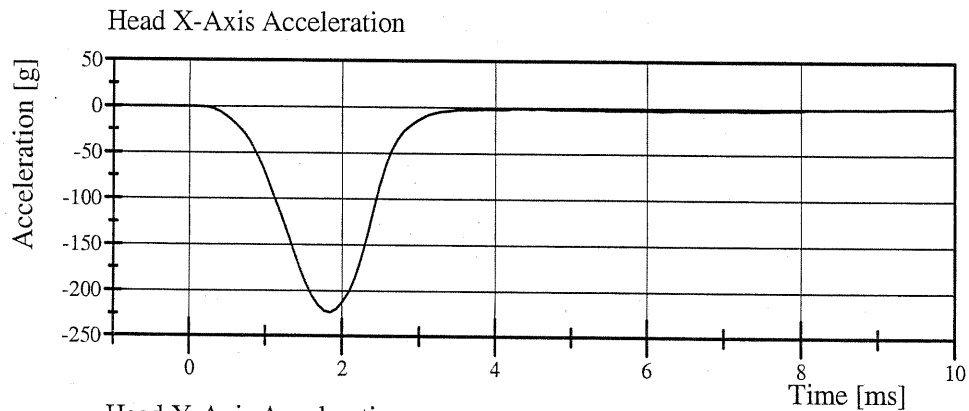


Transportation Research Center Inc.

Front Head Drop

HHH 50th Serial No. 110 Certification No. 26-1

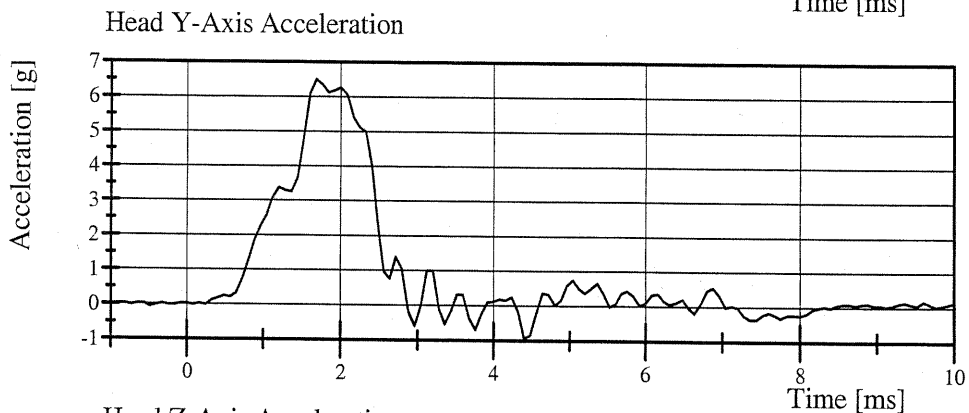
Test Date: 05/19/2006



Filter Class: CFC_1000

Max: 0.5 g at 10.0 ms

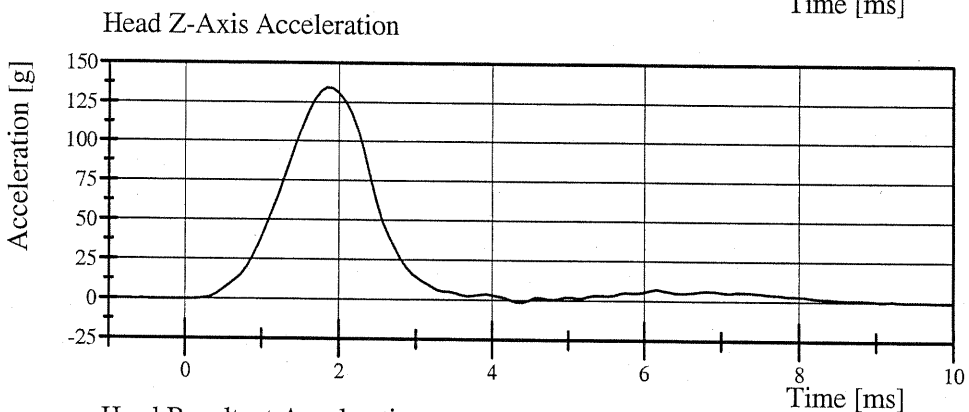
Min: -223.0 g at 1.8 ms



Filter Class: CFC_1000

Max: 6.5 g at 1.7 ms

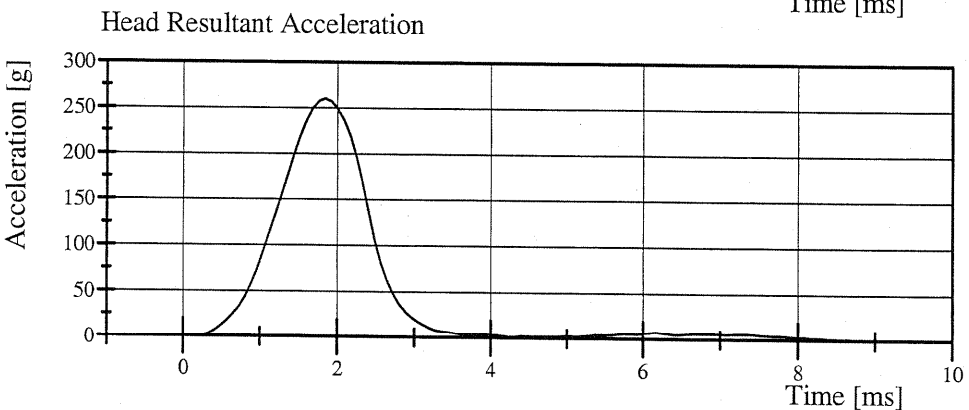
Min: -0.9 g at 4.4 ms



Filter Class: CFC_1000

Max: 134.5 g at 1.8 ms

Min: -1.4 g at 4.4 ms



Filter Class: CFC_1000

Max: 260.5 g at 1.8 ms

Min: 0.0 g at -0.7 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 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
1	Trig D1	10ZERO000000EV00	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	-	Leftward	1-090 HIII 50th Alderson.002
4	DW83J	11HEADCG00H3ACZA	Head Accel Z	1000	g	-	Upward	1-090 HIII 50th Alderson.003
5	98H14-K15	11HEADFR00H3ACYA	Head (FT) Accel Y	1000	g	-	Leftward	1-090 HIII 50th Alderson.004
6	03F03E29-N01	11HEADFR00H3ACZA	Head (FT) Accel Z	1000	g	-	Upward	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	-	Leftward	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	-	Upward	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	-	Leftward	1-090 HIII 50th Alderson.023
25	J13739	11CHSTCG00H3ACZA	Chest Accel Z	1000	g	-	Upward	1-090 HIII 50th Alderson.024
26	B02A25-N09	11CHSTCGRDH3ACXA	Chest Accel X Red.	1000	g	-	Rearward	1-090 HIII 50th Alderson.025
27	06A07-R14	11CHSTCGRDH3ACYA	Chest Accel Y Red.	1000	g	-	Leftward	1-090 HIII 50th Alderson.026

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
28	00L13-F05	11CHSTCGRDH3ACZA	Chest Accel Z Red.	1000	g	-	Upward	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	-	Leftward	1-090 HIII 50th Alderson.030
32	ACCT5	11PELVCG00H3ACZA	Pelvis Accel Z	600	g	-	Upward	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	150-0121VL-14696	11KNSLLE00H3DSXA	Left Knee Displacement X	21.8	mm	-	Hold femur in place, tibia rearward	1-LX116-117.001
36	4353J-97-FZ	11TIBILULXH3FOZA	Left Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX116-117.003
37	4353J-97-MX	11TIBILULXH3MOXA	Left Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.004
38	4353J-97-MY	11TIBILULXH3MOYA	Left Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.005
39	4929J-80-FZ	11TIBILLX3FOZA	Left Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX116-117.010
40	4929J-80-MX	11TIBILLX3MOXA	Left Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.011
41	4929J-80-MY	11TIBILLX3MOYA	Left Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.012
42	PD210-4B-60	11FOOTLELXH3ANXA	Left Foot Angular Dis. X LX117X	166	°	+	Eversion	1-LX116-117.013
43	PD210-4B-61	11FOOTLELXH3ANYA	Left Foot Angular Dis. Y LX117Y	165	°	+	Dorsiflexion	1-LX116-117.014
44	PD210-4B-62	11FOOTLELXH3ANZA	Left Foot Angular Dis. Z LX117Z	165	°	+	Internal rotation	1-LX116-117.015
45	150-0121VL-14672	11KNSLRI00H3DSXA	Right Knee Displacement X	21.8	mm	-	Hold femur in place, tibia rearward	1-LX116-117.019
46	4353J-79-FZ	11TIBIRULXH3FOZA	Right Upper Tibia Force Z	11120	N	+	Tibia downward, femur upward	1-LX116-117.021
47	4353J-79-MX	11TIBIRULXH3MOXA	Right Upper Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.022

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
48	4353J-79-MY	11TIBIRULXH3MOYA	Right Upper Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.023
49	4929J-79-FZ	11TIBIRLLXH3FOZA	Right Lower Tibia Force Z	11120	N	+	Ankle downward, knee upward	1-LX116-117.028
50	4929J-79-MX	11TIBIRLLXH3MOXA	Right Lower Tibia Moment X	395.4	Nm	+	Ankle leftward, hold knee in place	1-LX116-117.029
51	4929J-79-MY	11TIBIRLLXH3MOYA	Right Lower Tibia Moment Y	395.4	Nm	+	Ankle forward, hold knee in place	1-LX116-117.030
52	PD210-4B-338	11FOOTRILXH3ANXA	Right Foot Angular Dis. X LX116X	164	°	-	Inversion	1-LX116-117.031
53	PD210-4B-58	11FOOTRILXH3ANYA	Right Foot Angular Dis. Y LX116Y	166	°	+	Dorsiflexion	1-LX116-117.032
54	PD210-4B-339	11FOOTRILXH3ANZA	Right Foot Angular Dis. Z LX116Z	165	°	-	Internal rotation	1-LX116-117.033
55	03E03E20-N20	13HEADCG00HFACXA	Head Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.001
56	02A18-N10	13HEADCG00HFACYA	Head Accel Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.002
57	02A09-F15	13HEADCG00HFACZA	Head Accel Z	1000	g	-	Upward	3-416 HIII 5th FTSS.003
58	01L26-F02	13HEADCGRDHFACXA	Head Accel Red X	1000	g	-	Rearward	3-416 HIII 5th FTSS.004
59	02A09-F13	13HEADCGRDHFACYA	Head Accel Red Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.005
60	02A16-A06	13HEADCGRDHFACZA	Head Accel Red Z	1000	g	-	Upward	3-416 HIII 5th FTSS.006
61	02A18-N04	13HEADFR00HFACYA	Head (FT) Accel Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.007
62	02A18-N20	13HEADFR00HFACZA	Head (FT) Accel Z	1000	g	-	Upward	3-416 HIII 5th FTSS.008
63	03F03F09-N05	13HEADUP00HFACXA	Head (TP) Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.009
64	98H14-K10	13HEADUP00HFACYA	Head (TP) Accel Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.010
65	02A16-A19	13HEADLE00HFACXA	Head (LT) Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.011
66	02A16-A22	13HEADLE00HFACZA	Head (LT) Accel Z	1000	g	-	Upward	3-416 HIII 5th FTSS.012
67	IF-205-161-FX	13NECKUP00HFFOXA	Neck Force X	8896	N	-	Head forward, chest rearward	3-416 HIII 5th FTSS.013
68	IF-205-161-FY	13NECKUP00HFFOYA	Neck Force Y	8896	N	+	Head leftward, chest rightward	3-416 HIII 5th FTSS.014
69	IF-205-161-FZ	13NECKUP00HFFOZA	Neck Force Z	13344	N	+	Head upward, chest downward	3-416 HIII 5th FTSS.015
70	IF-205-161-MX	13NECKUP00HFMOXA	Neck Moment X	282	Nm	-	Right ear toward right shoulder	3-416 HIII 5th FTSS.016
71	IF-205-161-MY	13NECKUP00HFMOYA	Neck Moment Y	282	Nm	+	Chin toward sternum	3-416 HIII 5th FTSS.017
72	IF-205-161-MZ	13NECKUP00HFMOZA	Neck Moment Z	282	Nm	+	Chin toward left shoulder	3-416 HIII 5th FTSS.018

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
73	2150-86-FX	13NECKLO00HFFOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	3-416 HIII 5th FTSS.019
74	2150-86-FY	13NECKLO00HFFOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	3-416 HIII 5th FTSS.020
75	2150-86-FZ	13NECKLO00HFFOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	3-416 HIII 5th FTSS.021
76	2150-86-MX	13NECKLO00HFMOXA	Neck Lower Moment X	451.9	Nm	-	Right ear toward right shoulder	3-416 HIII 5th FTSS.022
77	2150-86-MY	13NECKLO00HFMOYA	Neck Lower Moment Y	451.9	Nm	+	Chin toward sternum	3-416 HIII 5th FTSS.023
78	02A16-A04	13CHSTCG00HFACXA	Chest Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.024
79	C02B19-F02	13CHSTCG00HFACYA	Chest Accel Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.025
80	C02B19-F06	13CHSTCG00HFACZA	Chest Accel Z	1000	g	-	Upward	3-416 HIII 5th FTSS.026
81	B02A25-N08	13CHSTCGRDHFACXA	Chest Accel Red X	1000	g	-	Rearward	3-416 HIII 5th FTSS.027
82	03E03E19-N02	13CHSTCGRDHFACYA	Chest Accel Red Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.028
83	C02B19-F04	13CHSTCGRDHFACZA	Chest Accel Red Z	1000	g	-	Upward	3-416 HIII 5th FTSS.029
84	B02A09-F08	13STRNUP00HFACXA	Sternum Upper Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.030
85	02A16-A05	13STRNMI00HFACXA	Sternum Mid Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.031
86	03F03F09-N18	13STRNLO00HFACXA	Sternum Lower Accel X	1000	g	+	Forward	3-416 HIII 5th FTSS.032
87	14CB1-2897-416	13CHST0000HFDSXA	Chest Deflection X 516	100	mm	+	Forward	3-416 HIII 5th FTSS.033
88	C02B19-F03	13PELVCG00HFACXA	Pelvis Accel X	1000	g	-	Rearward	3-416 HIII 5th FTSS.034
89	02A16-A27	13PELVCG00HFACYA	Pelvis Accel Y	1000	g	-	Leftward	3-416 HIII 5th FTSS.035
90	C02B19-F01	13PELVCG00HFACZA	Pelvis Accel Z	1000	g	-	Upward	3-416 HIII 5th FTSS.036
91	2430-736	13FEMRLL00HFFOZA	Left Femur Force Z #8	13344	N	+	Knee forward, pelvis rearward	3-416 HIII 5th FTSS.037
92	150-0121VR-030589	13KNSLLE00HFDSXA	Left Knee Displacement	33	mm	-	Hold femur in place, tibia rearward	3-416 HIII 5th FTSS.038
93	PD210-4B-AK-044	13FOOTLEFXHFANXA	Left Foot Disp. X FLX102X	318	°	-	Inversion	3-416 HIII 5th FTSS.050
94	PD210-4B-AK-043	13FOOTLEFXHFANYA	Left Foot Disp. Y FLX102Y	318	°	-	Dorsiflexion	3-416 HIII 5th FTSS.051
95	PD210-4B-AK-045	13FOOTLEFXHFANZA	Left Foot Disp. Z FLX102Z	318	°	-	External rotation	3-416 HIII 5th FTSS.052
96	2430-742	13FEMRRL00HFFOZA	Right Femur Force Z 507	13344	N	+	Knee forward, pelvis rearward	3-416 HIII 5th FTSS.056
97	150-0121VL-030583	13KNSLRIO0HFDSXA	Right Knee Displacement	22.1	mm	-	Hold femur in place, tibia rearward	3-416 HIII 5th FTSS.057
98	PD210-4B-AK-029	13FOOTRIFXHFANXA	Right Foot Disp. X FLX101X	318	°	-	Eversion	3-416 HIII 5th FTSS.069
99	PD210-4B-AK-030	13FOOTRIFXHFANYA	Right Foot Disp. Y FLX101Y	318	°	+	Dorsiflexion	3-416 HIII 5th FTSS.070
100	PD210-4B-AK-031	13FOOTRIFXHFANZA	Right Foot Disp. Z FLX101Z	318	°	+	External rotation	3-416 HIII 5th FTSS.071

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
101	98H13-F03	14HEADCG00HFACXA	Head Accel X	1000	g	+	Forward	4-070 HIII 5th Denton.001
102	03E03E21-M01	14HEADCG00HFACYA	Head Accel Y	1000	g	-	Leftward	4-070 HIII 5th Denton.002
103	02I02I05-F15	14HEADCG00HFACZA	Head Accel Z	1000	g	-	Upward	4-070 HIII 5th Denton.003
104	1716AJ-1563-FX	14NECKUP00HFFOXA	Neck Force X	8896.4	N	+	Head rearward, chest forward	4-070 HIII 5th Denton.010
105	1716AJ-1563-FY	14NECKUP00HFFOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	4-070 HIII 5th Denton.011
106	1716AJ-1563-FZ	14NECKUP00HFFOZA	Neck Force Z	13344	N	+	Head upward, chest downward	4-070 HIII 5th Denton.012
107	1716AJ-1563-MX	14NECKUP00HFMOXA	Neck Moment X	282	Nm	+	Left ear toward left shoulder	4-070 HIII 5th Denton.013
108	1716AJ-1563-MY	14NECKUP00HFMOYA	Neck Moment Y	282	Nm	+	Chin toward sternum	4-070 HIII 5th Denton.014
109	1716AJ-1563-MZ	14NECKUP00HFMOZA	Neck Moment Z	282	Nm	+	Chin toward left shoulder	4-070 HIII 5th Denton.015
110	3251-107-FX	14NECKLO00HFFOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	4-070 HIII 5th Denton.016
111	3251-107-FY	14NECKLO00HFFOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	4-070 HIII 5th Denton.017
112	3251-107-FZ	14NECKLO00HFFOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	4-070 HIII 5th Denton.018
113	3251-107-MX	14NECKLO00HFMOXA	Neck Lower Moment X	452	Nm	-	Right ear toward right shoulder	4-070 HIII 5th Denton.019
114	3251-107-MY	14NECKLO00HFMOYA	Neck Lower Moment Y	452	Nm	+	Chin toward sternum	4-070 HIII 5th Denton.020
115	3251-107-MZ	14NECKLO00HFMOZA	Neck Lower Moment Z	339	Nm	+	Chin toward left shoulder	4-070 HIII 5th Denton.021
116	AAJY4	14CHSTCG00HFACXA	Chest Accel X	1000	g	+	Forward	4-070 HIII 5th Denton.022
117	AKAA4	14CHSTCG00HFACYA	Chest Accel Y	1000	g	-	Leftward	4-070 HIII 5th Denton.023
118	ACC63	14CHSTCG00HFACZA	Chest Accel Z	1000	g	-	Upward	4-070 HIII 5th Denton.024
119	14CB1-2897-070	14CHST0000HFDSXA	Chest Deflection X	81	mm	+	Forward	4-070 HIII 5th Denton.025
120	IF-625-140-FZ	14FEMRL00HFFOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	4-070 HIII 5th Denton.029
121	IF-625-141-FZ	14FEMRRL00HFFOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	4-070 HIII 5th Denton.030
122	J36743	16HEADCG00H3ACXA	Head Accel X	1000	g	+	Forward	6-110 HIII 50th FTSS.001
123	99102-F15	16HEADCG00H3ACYA	Head Accel Y	1000	g	-	Leftward	6-110 HIII 50th FTSS.002
124	J19227	16HEADCG00H3ACZA	Head Accel Z	1000	g	-	Upward	6-110 HIII 50th FTSS.003
125	J27490	16HEADFR00H3ACYA	Head (FT) Accel Y	1000	g	-	Leftward	6-110 HIII 50th FTSS.004

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
126	03E03E21-M21	16HEADFR00H3ACZA	Head (FT) Accel Z	1000	g	-	Upward	6-110 HIII 50th FTSS.005
127	00L13-F14	16HEADUP00H3ACXA	Head (TP) Accel X	1000	g	+	Forward	6-110 HIII 50th FTSS.006
128	99H12-F08	16HEADUP00H3ACYA	Head (TP) Accel Y	1000	g	-	Leftward	6-110 HIII 50th FTSS.007
129	03E03E20-N01	16HEADLE00H3ACXA	Head (LT) Accel X	1000	g	+	Forward	6-110 HIII 50th FTSS.008
130	03D03D16-F14	16HEADLE00H3ACZA	Head (LT) Accel Z	1000	g	-	Upward	6-110 HIII 50th FTSS.009
131	1716A-1039-FX	16NECKUP00H3FOXA	Neck Force X	8896.4	N	-	Head forward, chest rearward	6-110 HIII 50th FTSS.010
132	1716A-1039-FY	16NECKUP00H3FOYA	Neck Force Y	8896.4	N	+	Head leftward, chest rightward	6-110 HIII 50th FTSS.011
133	1716A-1039-FZ	16NECKUP00H3FOZA	Neck Force Z	13344	N	+	Head upward, chest downward	6-110 HIII 50th FTSS.012
134	1716A-1039-MX	16NECKUP00H3MOXA	Neck Moment X	282	N-m	-	Right ear toward right shoulder	6-110 HIII 50th FTSS.013
135	1716A-1039-MY	16NECKUP00H3MOYA	Neck Moment Y	282	N-m	+	Chin toward sternum	6-110 HIII 50th FTSS.014
136	1716A-1039-MZ	16NECKUP00H3MOZA	Neck Moment Z	282	N-m	+	Chin toward left shoulder	6-110 HIII 50th FTSS.015
137	1794A-215-FX	16NECKLO00H3FOXA	Neck Lower Force X	13344	N	-	Head forward, chest rearward	6-110 HIII 50th FTSS.016
138	1794A-215-FY	16NECKLO00H3FOYA	Neck Lower Force Y	13344	N	+	Head leftward, chest rightward	6-110 HIII 50th FTSS.017
139	1794A-215-FZ	16NECKLO00H3FOZA	Neck Lower Force Z	13344	N	+	Head upward, chest downward	6-110 HIII 50th FTSS.018
140	1794A-215-MX	16NECKLO00H3MOXA	Neck Lower Moment X	452	N-m	-	Right ear toward right shoulder	6-110 HIII 50th FTSS.019
141	1794A-215-MY	16NECKLO00H3MOYA	Neck Lower Moment Y	452	N-m	+	Chin toward sternum	6-110 HIII 50th FTSS.020
142	1794A-215-MZ	16NECKLO00H3MOZA	Neck Lower Moment Z	452	N-m	+	Chin toward left shoulder	6-110 HIII 50th FTSS.021
143	AJ534	16CHSTCG00H3ACXA	Chest Accel X	1000	g	+	Forward	6-110 HIII 50th FTSS.022
144	J17976	16CHSTCG00H3ACYA	Chest Accel Y	1000	g	-	Leftward	6-110 HIII 50th FTSS.023
145	J32884	16CHSTCG00H3ACZA	Chest Accel Z	1000	g	-	Upward	6-110 HIII 50th FTSS.024
146	02I02I10-N15	16CHSTCGRDH3ACXA	Chest Accel X Red.	1000	g	-	Rearward	6-110 HIII 50th FTSS.025
147	02D02C21-N02	16CHSTCGRDH3ACYA	Chest Accel Y Red.	1000	g	-	Leftward	6-110 HIII 50th FTSS.026
148	98H10-F18	16CHSTCGRDH3ACZA	Chest Accel Z Red.	1000	g	-	Upward	6-110 HIII 50th FTSS.027
149	CST110	16CHST0000H3DSXA	Chest Deflection X	100	mm	-	Rearward	6-110 HIII 50th FTSS.028
150	2121A-1396	16FEMRL00H3FOZA	Left Femur Force Z	13344	N	+	Knee forward, pelvis rearward	6-110 HIII 50th FTSS.032

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
151	2121A-1397	16FEMRRL00H3FOZA	Right Femur Force Z	13344	N	+	Knee forward, pelvis rearward	6-110 HIII 50th FTSS.033
152	P49911	14CRME000000ACXA	Left Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
153	P49710	16CRME000000ACXA	Right Rear Seat Cross-member X-axis Acceleration	1000	g	+	Forward	
154	P25259	12ENGNTPO000ACXA	Top of Engine X-axis Acceleration	2000	g	+	Forward	
155	P49307	12ENGNB00000ACXA	Bottom of Engine X-axis Acceleration	2000	g	-	Rearward	
156	P49766	13VEHCRI0000ACXA	Right Front Brake Caliper X-axis acceleration	2000	g	+	Forward	
157	P50601	11VEHCLE0000ACXA	Left Front Brake Caliper X-axis acceleration	2000	g	-	Rearward	
158	P50404	12DASH000000ACXA	Dash Center X-axis acceleration	1500	g	+	Forward	
159	P50668	11PEAC000000ACXA	Toe Pan Accelerator x-axis acceleration	2000	g	+	Forward	
160	P50613	11PEAC000000ACZA	Toe Pan Accelerator z-axis acceleration	2000	g	-	Upward	
161	P50305	11VEHC000001ACXA	Toe Pan footrest x-axis acceleration	2000	g	+	Forward	
162	P50432	11VEHC000001ACZA	Toe Pan footrest z-axis acceleration	2000	g	-	Upward	
163	P45626	15TUNNCY0000ACXA	Rear Tunnel center x-axis acceleration	1000	g	+	Forward	
164	P50322	10VEHCCG0000ACXA	Vehicle CG X-axis acceleration	1500	g	+	Forward	
165	P50318	10VEHCCG0000ACYA	Vehicle CG Y-axis acceleration	1500	g	-	Leftward	
166	P50310	10VEHCCG0000ACZA	Vehicle CG Z-axis acceleration	1500	g	-	Upward	
167	P50609	18VEHC000000ACXA	Vehicle rear deck X-axis acceleration	1000	g	+	Forward	
168	P50417	18VEHC000000ACYA	Vehicle rear deck Y-axis acceleration	1000	g	+	Rightward	
169	P50276	18VEHC000000ACZA	Vehicle rear deck Z-axis acceleration	1000	g	-	Upward	
170	37980	11SEBA0000B5DS0A	Driver lap belt spool	635	mm	+	Bipolar	
171	A23306	11SEBA0000B3DS0A	Driver shoulder belt spool and retraction (SP08)	1270	mm	+	Bipolar	
172	K1506281A	13SEBA0000B5DS0A	RF Pass lap belt spool (C)	635	mm	+	Bipolar	
173	A23305	13SEBA0000B3DS0A	RF Pass shoulder belt spool and retraction (S3)	1250	mm	+	Bipolar	
174	3419T-842	11SEBA0000B5FO0A	Driver lap belt Force (610)	15568	N	+	Tension	
175	3419-837	11SEBA0000B3FO0A	Driver shoulder belt force (A2)	15568	N	+	Tension	
176	3419T-840	13SEBA0000B5FO0A	RF Pass lap belt force (152)	15568	N	+	Tension	
177	3419-829	13SEBA0000B3FO0A	RF Pass shoulder belt force (S217)	15568	N	+	Tension	
178	37979	14SEBA0000B5DS0A	LR Pass lap belt spool	635	mm	+	Bipolar	
179	37978	14SEBA0000B3DS0A	LR Pass shoulder belt spool and retraction	635	mm	+	Bipolar	
180	37977	16SEBA0000B5DS0A	RR Pass lap belt spool	635	mm	+	Bipolar	
181	37976	16SEBA0000B3DS0A	RR Pass shoulder belt spool and retraction	635	mm	+	Bipolar	
182	3419-835	14SEBA0000B5FO0A	LR Pass lap belt Force	15568	N	+	Tension	
183	3419T-843	14SEBA0000B3FO0A	LR Pass shoulder belt force (606)	15568	N	+	Tension	
184	3419-807	16SEBA0000B5FO0A	RR Pass lap belt force (4A)	15568	N	+	Tension	
185	3419T-828	16SEBA0000B3FO0A	RR Pass shoulder belt force (S228)	15568	N	+	Tension	
186	ABFire1	11AIRBFR0100EV0A	DRIV. FRONT AIRBAG1 IND (IP24)	5	V	+	Bipolar	
187	ABFire2	11AIRBFR0200EV0A	DRIV. FRONT AIRBAG2 IND (IP31)	5	V	+	Bipolar	
188	ABFire3	13AIRBFR0100EV0A	PASS. FRONT AIRBAG1 IND (IP62)	5	V	+	Bipolar	
189	ABFire4	13AIRBFR0200EV0A	PASS. FRONT AIRBAG2 IND (IP38)	5	V	+	Bipolar	

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Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
190	398390091	L0FBAR000A07FOXA	Load Cell Row 9 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.001
191	398390029	L0FBAR000A08FOXA	Load Cell Row 9 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.002
192	398390131	L0FBAR000A09FOXA	Load Cell Row 9 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.003
193	398390073	L0FBAR000A10FOXA	Load Cell Row 9 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.004
194	398390093	L0FBAR000B01FOXA	Load Cell Row 8 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.005
195	398390028	L0FBAR000B02FOXA	Load Cell Row 8 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.006
196	398390024	L0FBAR000B03FOXA	Load Cell Row 8 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.007
197	398390003	L0FBAR000B04FOXA	Load Cell Row 8 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.008
198	398390011	L0FBAR000B05FOXA	Load Cell Row 8 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.009
199	398390123	L0FBAR000B06FOXA	Load Cell Row 8 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.010
200	398390036	L0FBAR000B07FOXA	Load Cell Row 8 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.011
201	398390048	L0FBAR000B08FOXA	Load Cell Row 8 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.012
202	398390111	L0FBAR000B09FOXA	Load Cell Row 8 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.013
203	398390039	L0FBAR000B10FOXA	Load Cell Row 8 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.014
204	398390013	L0FBAR000B11FOXA	Load Cell Row 8 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.015
205	398390017	L0FBAR000B12FOXA	Load Cell Row 8 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.016
206	398390125	L0FBAR000B13FOXA	Load Cell Row 8 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.017
207	398390097	L0FBAR000B14FOXA	Load Cell Row 8 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.018
208	398390096	L0FBAR000B15FOXA	Load Cell Row 8 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.019
209	398390020	L0FBAR000B16FOXA	Load Cell Row 8 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.020

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Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
210	398390045	L0FBAR000C01FOXA	Load Cell Row 7 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.021
211	398390015	L0FBAR000C02FOXA	Load Cell Row 7 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.022
212	398390009	L0FBAR000C03FOXA	Load Cell Row 7 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.023
213	398390040	L0FBAR000C04FOXA	Load Cell Row 7 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.024
214	398390069	L0FBAR000C05FOXA	Load Cell Row 7 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.025
215	398390100	L0FBAR000C06FOXA	Load Cell Row 7 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.026
216	398390112	L0FBAR000C07FOXA	Load Cell Row 7 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.027
217	398390075	L0FBAR000C08FOXA	Load Cell Row 7 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.028
218	398390101	L0FBAR000C09FOXA	Load Cell Row 7 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.029
219	398390053	L0FBAR000C10FOXA	Load Cell Row 7 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.030
220	398390117	L0FBAR000C11FOXA	Load Cell Row 7 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.031
221	398390032	L0FBAR000C12FOXA	Load Cell Row 7 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.032
222	398390014	L0FBAR000C13FOXA	Load Cell Row 7 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.033
223	398390090	L0FBAR000C14FOXA	Load Cell Row 7 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.034
224	398390079	L0FBAR000C15FOXA	Load Cell Row 7 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.035
225	398390071	L0FBAR000C16FOXA	Load Cell Row 7 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.036
226	398390082	L0FBAR000D01FOXA	Load Cell Row 6 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.037
227	398390006	L0FBAR000D02FOXA	Load Cell Row 6 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.038
228	398390118	L0FBAR000D03FOXA	Load Cell Row 6 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.039
229	398390001	L0FBAR000D04FOXA	Load Cell Row 6 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.040

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Channel Report Test Number 060518-2

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060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
230	398390122	L0FBAR000D05FOXA	Load Cell Row 6 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.041
231	398390002	L0FBAR000D06FOXA	Load Cell Row 6 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.042
232	398390060	L0FBAR000D07FOXA	Load Cell Row 6 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.043
233	398390108	L0FBAR000D08FOXA	Load Cell Row 6 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.044
234	398390050	L0FBAR000D09FOXA	Load Cell Row 6 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.045
235	398390124	L0FBAR000D10FOXA	Load Cell Row 6 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.046
236	398390086	L0FBAR000D11FOXA	Load Cell Row 6 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.047
237	398390004	L0FBAR000D12FOXA	Load Cell Row 6 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.048
238	398390026	L0FBAR000D13FOXA	Load Cell Row 6 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.049
239	398390116	L0FBAR000D14FOXA	Load Cell Row 6 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.050
240	398390056	L0FBAR000D15FOXA	Load Cell Row 6 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.051
241	398390010	L0FBAR000D16FOXA	Load Cell Row 6 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.052
242	398390038	L0FBAR000E01FOXA	Load Cell Row 5 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.053
243	398390083	L0FBAR000E02FOXA	Load Cell Row 5 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.054
244	398390018	L0FBAR000E03FOXA	Load Cell Row 5 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.055
245	398390042	L0FBAR000E04FOXA	Load Cell Row 5 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.056
246	398390084	L0FBAR000E05FOXA	Load Cell Row 5 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.057
247	398390099	L0FBAR000E06FOXA	Load Cell Row 5 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.058
248	398390089	L0FBAR000E07FOXA	Load Cell Row 5 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.059
249	398390066	L0FBAR000E08FOXA	Load Cell Row 5 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.060

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
250	398390129	L0FBAR000E09FOXA	Load Cell Row 5 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.061
251	398390067	L0FBAR000E10FOXA	Load Cell Row 5 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.062
252	398390081	L0FBAR000E11FOXA	Load Cell Row 5 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.063
253	398390054	L0FBAR000E12FOXA	Load Cell Row 5 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.064
254	398390063	L0FBAR000E13FOXA	Load Cell Row 5 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.065
255	398390046	L0FBAR000E14FOXA	Load Cell Row 5 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.066
256	398390052	L0FBAR000E15FOXA	Load Cell Row 5 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.067
257	398390094	L0FBAR000E16FOXA	Load Cell Row 5 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.068
258	398390087	L0FBAR000F01FOXA	Load Cell Row 4 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.069
259	398390092	L0FBAR000F02FOXA	Load Cell Row 4 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.070
260	398390127	L0FBAR000F03FOXA	Load Cell Row 4 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.071
261	398390076	L0FBAR000F04FOXA	Load Cell Row 4 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.072
262	398390057	L0FBAR000F05FOXA	Load Cell Row 4 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.073
263	398390107	L0FBAR000F06FOXA	Load Cell Row 4 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.074
264	398390030	L0FBAR000F07FOXA	Load Cell Row 4 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.075
265	398390016	L0FBAR000F08FOXA	Load Cell Row 4 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.076
266	398390078	L0FBAR000F09FOXA	Load Cell Row 4 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.077
267	398390072	L0FBAR000F10FOXA	Load Cell Row 4 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.078
268	398390064	L0FBAR000F11FOXA	Load Cell Row 4 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.079
269	398390051	L0FBAR000F12FOXA	Load Cell Row 4 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.080

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Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
270	398390121	L0FBAR000F13FOXA	Load Cell Row 4 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.081
271	398390049	L0FBAR000F14FOXA	Load Cell Row 4 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.082
272	398390025	L0FBAR000F15FOXA	Load Cell Row 4 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.083
273	398390055	L0FBAR000F16FOXA	Load Cell Row 4 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.084
274	398390043	L0FBAR000G01FOXA	Load Cell Row 3 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.085
275	398390126	L0FBAR000G02FOXA	Load Cell Row 3 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.086
276	398390103	L0FBAR000G03FOXA	Load Cell Row 3 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.087
277	398390130	L0FBAR000G04FOXA	Load Cell Row 3 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.088
278	398390031	L0FBAR000G05FOXA	Load Cell Row 3 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.089
279	398390095	L0FBAR000G06FOXA	Load Cell Row 3 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.090
280	398390106	L0FBAR000G07FOXA	Load Cell Row 3 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.091
281	398390047	L0FBAR000G08FOXA	Load Cell Row 3 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.092
282	398390005	L0FBAR000G09FOXA	Load Cell Row 3 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.093
283	398390021	L0FBAR000G10FOXA	Load Cell Row 3 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.094
284	398390058	L0FBAR000G11FOXA	Load Cell Row 3 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.095
285	398390022	L0FBAR000G12FOXA	Load Cell Row 3 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.096
286	398390007	L0FBAR000G13FOXA	Load Cell Row 3 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.097
287	398390065	L0FBAR000G14FOXA	Load Cell Row 3 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.098
288	398390119	L0FBAR000G15FOXA	Load Cell Row 3 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.099
289	398390133	L0FBAR000G16FOXA	Load Cell Row 3 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.100

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
290	398390120	L0FBAR000H01FOXA	Load Cell Row 2 Column 1	300000	N	-	Compression force	0-Barrier VRTC Flat 132.101
291	398390027	L0FBAR000H02FOXA	Load Cell Row 2 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.102
292	398390034	L0FBAR000H03FOXA	Load Cell Row 2 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.103
293	398390019	L0FBAR000H04FOXA	Load Cell Row 2 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.104
294	398390035	L0FBAR000H05FOXA	Load Cell Row 2 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.105
295	398390113	L0FBAR000H06FOXA	Load Cell Row 2 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.106
296	398390105	L0FBAR000H07FOXA	Load Cell Row 2 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.107
297	398390114	L0FBAR000H08FOXA	Load Cell Row 2 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.108
298	398390109	L0FBAR000H09FOXA	Load Cell Row 2 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.109
299	398390044	L0FBAR000H10FOXA	Load Cell Row 2 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.110
300	398390008	L0FBAR000H11FOXA	Load Cell Row 2 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.111
301	398390134	L0FBAR000H12FOXA	Load Cell Row 2 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.112
302	398390115	L0FBAR000H13FOXA	Load Cell Row 2 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.113
303	398390037	L0FBAR000H14FOXA	Load Cell Row 2 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.114
304	398390070	L0FBAR000H15FOXA	Load Cell Row 2 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.115
305	398390110	L0FBAR000H16FOXA	Load Cell Row 2 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.116
306	398390059	L0FBAR000I01FOXA	Load Cell Row 1 Column 1	222400	N	-	Compression force	0-Barrier VRTC Flat 132.117
307	398390085	L0FBAR000I02FOXA	Load Cell Row 1 Column 2	300000	N	-	Compression force	0-Barrier VRTC Flat 132.118
308	398390041	L0FBAR000I03FOXA	Load Cell Row 1 Column 3	300000	N	-	Compression force	0-Barrier VRTC Flat 132.119
309	398390074	L0FBAR000I04FOXA	Load Cell Row 1 Column 4	300000	N	-	Compression force	0-Barrier VRTC Flat 132.120

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060518-2

Channel Report Test Number 060518-2

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
310	398390023	L0FBAR000I05FOXA	Load Cell Row 1 Column 5	300000	N	-	Compression force	0-Barrier VRTC Flat 132.121
311	398390033	L0FBAR000I06FOXA	Load Cell Row 1 Column 6	300000	N	-	Compression force	0-Barrier VRTC Flat 132.122
312	398390102	L0FBAR000I07FOXA	Load Cell Row 1 Column 7	300000	N	-	Compression force	0-Barrier VRTC Flat 132.123
313	398390061	L0FBAR000I08FOXA	Load Cell Row 1 Column 8	300000	N	-	Compression force	0-Barrier VRTC Flat 132.124
314	398390098	L0FBAR000I09FOXA	Load Cell Row 1 Column 9	300000	N	-	Compression force	0-Barrier VRTC Flat 132.125
315	398390128	L0FBAR000I10FOXA	Load Cell Row 1 Column 10	300000	N	-	Compression force	0-Barrier VRTC Flat 132.126
316	398390088	L0FBAR000I11FOXA	Load Cell Row 1 Column 11	300000	N	-	Compression force	0-Barrier VRTC Flat 132.127
317	398390104	L0FBAR000I12FOXA	Load Cell Row 1 Column 12	300000	N	-	Compression force	0-Barrier VRTC Flat 132.128
318	398390012	L0FBAR000I13FOXA	Load Cell Row 1 Column 13	300000	N	-	Compression force	0-Barrier VRTC Flat 132.129
319	398390068	L0FBAR000I14FOXA	Load Cell Row 1 Column 14	300000	N	-	Compression force	0-Barrier VRTC Flat 132.130
320	398390062	L0FBAR000I15FOXA	Load Cell Row 1 Column 15	300000	N	-	Compression force	0-Barrier VRTC Flat 132.131
321	398390077	L0FBAR000I16FOXA	Load Cell Row 1 Column 16	300000	N	-	Compression force	0-Barrier VRTC Flat 132.132

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060518-2

Command File Test Number 060518-2

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
1	11HEADCG00H3ACXA	Driver Head X-Axis Acceleration	1000	+	yes	1000
2	11HEADCG00H3ACYA	Driver Head Y-Axis Acceleration	1000	+	yes	1000
3	11HEADCG00H3ACZA	Driver Head Z-Axis Acceleration	1000	+	yes	1000
3A	11HEADCG00H3ACRA	Driver Head Resultant Acceleration	1000			
4	11HEADFR00H3ACYA	Driver Head Front Y-Axis Acceleration	1000	+	yes	1000
5	11HEADFR00H3ACZA	Driver Head Front Z-Axis Acceleration	1000	+	yes	1000
6	11HEADUP00H3ACXA	Driver Head Top X-Axis Acceleration	1000	+	yes	1000
7	11HEADUP00H3ACYA	Driver Head Top Y-Axis Acceleration	1000	+	yes	1000
8	11HEADLE00H3ACXA	Driver Head Side X-Axis Acceleration	1000	+	yes	1000
9	11HEADLE00H3ACZA	Driver Head Side Z-Axis Acceleration	1000	+	yes	1000
10	11NECKUP00H3FOXA	Driver Upper Neck X-Axis Force	1000	+	yes	8896.4
11	11NECKUP00H3FOYA	Driver Upper Neck Y-Axis Force	1000	+	yes	8896.4
12	11NECKUP00H3FOZA	Driver Upper Neck Z-Axis Force	1000	+	yes	13344
13	11NECKUP00H3MOXA	Driver Upper Neck Moment About X Axis	600	+	yes	282
14	11NECKUP00H3MOYA	Driver Upper Neck Moment About Y Axis	600	+	yes	282
15	11NECKUP00H3MOZA	Driver Upper Neck Moment About Z Axis	600	+	yes	282
16	11NECKLO00H3FOXA	Driver Lower Neck X-Axis Force	1000	+	yes	13344
17	11NECKLO00H3FOYA	Driver Lower Neck Y-Axis Force	1000	+	yes	13344
18	11NECKLO00H3FOZA	Driver Lower Neck Z-Axis Force	1000	+	yes	13344
19	11NECKLO00H3MOXA	Driver Lower Neck Moment About X Axis	600	+	yes	452
20	11NECKLO00H3MOYA	Driver Lower Neck Moment About Y Axis	600	+	yes	452
21	11NECKLO00H3MOZA	Driver Lower Neck Moment About Z Axis	600	+	yes	452
22	11CHSTCG00H3ACXA	Driver Chest CG X-Axis Acceleration	180	+	yes	1000
23	11CHSTCG00H3ACYA	Driver Chest CG Y-Axis Acceleration	180	+	yes	1000
24	11CHSTCG00H3ACZA	Driver Chest CG Z-Axis Acceleration	180	+	yes	1000
24A	11CHSTCG00H3ACRA	Driver Chest CG Resultant Acceleration	180			
25	11CHSTCGRDH3ACXA	Driver Redundant Chest CG X-Axis Acceleration	180	+	yes	1000
26	11CHSTCGRDH3ACYA	Driver Redundant Chest CG Y-Axis Acceleration	180	+	yes	1000
27	11CHSTCGRDH3ACZA	Driver Redundant Chest CG Z-Axis Acceleration	180	+	yes	1000
27A	11CHSTCGRDH3ACRA	Driver Redundant Chest CG Resultant Acceleration	180			
28	11CHST0000H3DSXA	Driver Chest Displacement	600	+	yes	100
29	11PELVCG00H3ACXA	Driver Pelvis CG X-Axis Acceleration	1000	+	yes	600
30	11PELVCG00H3ACYA	Driver Pelvis CG Y-Axis Acceleration	1000	+	yes	600
31	11PELVCG00H3ACZA	Driver Pelvis CG Z-Axis Acceleration	1000	+	yes	600
31A	11PELVCG00H3ACRA	Driver Pelvis CG Resultant Acceleration	1000			
32	11FEMRLL00H3FOZA	Driver Left Femur Z-Axis Force	600	+	yes	13344
33	11FEMRRL00H3FOZA	Driver Right Femur Z-Axis Force	600	+	yes	13344

Command File Test Number 060518-2

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
34	11KNSLLE00H3DSXA	Driver Left Knee Displacement	180	+	yes	21.8
35	11TIBILULXH3FOZA	Driver Left Upper Tibia Z-Axis Force	600	+	yes	11120
36	11TIBILULXH3MOXA	Driver Left Upper Tibia Moment About X Axis	600	+	yes	395.4
37	11TIBILULXH3MOYA	Driver Left Upper Tibia Moment About Y Axis	600	+	yes	395.4
38	11TIBILLXHX3FOZA	Driver Left Lower Tibia Z-Axis Force	600	+	yes	11120
39	11TIBILLXHX3MOXA	Driver Left Lower Tibia Moment About X Axis	600	+	yes	395.4
40	11TIBILLXHX3MOYA	Driver Left Lower Tibia Moment About Y Axis	600	+	yes	395.4
41	11FOOTLELXH3ANXA	Driver Left Foot X-Axis Rotation	180	+	no	166
42	11FOOTLELXH3ANYA	Driver Left Foot Y-Axis Rotation	180	+	no	165
43	11FOOTLELXH3ANZA	Driver Left Foot Z-Axis Rotation	180	+	no	165
44	11KNSLRI00H3DSXA	Driver Right Knee Displacement	180	+	yes	21.8
45	11TIBIRULXH3FOZA	Driver Right Upper Tibia Z-Axis Force	600	+	yes	11120
46	11TIBIRULXH3MOXA	Driver Right Upper Tibia Moment About X Axis	600	+	yes	395.4
47	11TIBIRULXH3MOYA	Driver Right Upper Tibia Moment About Y Axis	600	+	yes	395.4
48	11TIBIRLLXH3FOZA	Driver Right Lower Tibia Z-Axis Force	600	+	yes	11120
49	11TIBIRLLXH3MOXA	Driver Right Lower Tibia Moment About X Axis	600	+	yes	395.4
50	11TIBIRLLXH3MOYA	Driver Right Lower Tibia Moment About Y Axis	600	+	yes	395.4
51	11FOOTRILXH3ANXA	Driver Right Foot X-Axis Rotation	180	-	no	164
52	11FOOTRILXH3ANYA	Driver Right Foot Y-Axis Rotation	180	+	no	166
53	11FOOTRILXH3ANZA	Driver Right Foot Z-Axis Rotation	180	+	no	165
54	13HEADCG00HFACXA	Right Front Passenger Head X-Axis Acceleration	1000	+	yes	1000
55	13HEADCG00HFACYA	Right Front Passenger Head Y-Axis Acceleration	1000	+	yes	1000
56	13HEADCG00HFACZA	Right Front Passenger Head Z-Axis Acceleration	1000	+	yes	1000
56A	13HEADCG00HFACRA	Right Front Passenger Head Resultant Acceleration	1000			
57	13HEADCGRDHFACXA	Right Front Passenger Head X-Axis Redundant Acceleration	1000	+	yes	1000
58	13HEADCGRDHFACYA	Right Front Passenger Head Y-Axis Redundant Acceleration	1000	+	yes	1000
59	13HEADCGRDHFACZA	Right Front Passenger Head Z-Axis Redundant Acceleration	1000	+	yes	1000
59A	13HEADCGRDHFACRA	Right Front Passenger Head Redundant Resultant Acceleration	1000			
60	13HEADFR00HFACYA	Right Front Passenger Head Front Y-Axis Acceleration	1000	+	yes	1000
61	13HEADFR00HFACZA	Right Front Passenger Head Front Z-Axis Acceleration	1000	+	yes	1000
62	13HEADUP00HFACXA	Right Front Passenger Head Top X-Axis Acceleration	1000	+	yes	1000
63	13HEADUP00HFACYA	Right Front Passenger Head Top Y-Axis Acceleration	1000	+	yes	1000
64	13HEADLE00HFACXA	Right Front Passenger Head Side X-Axis Acceleration	1000	+	yes	1000
65	13HEADLE00HFACZA	Right Front Passenger Head Side Z-Axis Acceleration	1000	+	yes	1000
66	13NECKUP00HFFOXA	Right Front Passenger Upper Neck X-Axis Force	1000	+	yes	8896
67	13NECKUP00HFFOYA	Right Front Passenger Upper Neck Y-Axis Force	1000	+	yes	8896
68	13NECKUP00HFFOZA	Right Front Passenger Upper Neck Z-Axis Force	1000	+	yes	13344

Command File Test Number 060518-2

Channel Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
69 13NECKUP00HFMOXA	Right Front Passenger Upper Neck Moment About X Axis	600	+	yes	282
70 13NECKUP00HFMOYA	Right Front Passenger Upper Neck Moment About Y Axis	600	+	yes	282
71 13NECKUP00HFMOZA	Right Front Passenger Upper Neck Moment About Z Axis	600	+	yes	282
72 13NECKLO00HFFOXA	Right Front Passenger Lower Neck X-Axis Force	1000	+	yes	13344
73 13NECKLO00HFFOYA	Right Front Passenger Lower Neck Y-Axis Force	1000	+	yes	13344
74 13NECKLO00HFFOZA	Right Front Passenger Lower Neck Z-Axis Force	1000	+	yes	13344
75 13NECKLO00HFMOXA	Right Front Passenger Lower Neck Moment About X Axis	600	+	yes	451.9
76 13NECKLO00HFMOYA	Right Front Passenger Lower Neck Moment About Y Axis	600	+	yes	451.9
77 13CHSTCG00HFACXA	Right Front Passenger Chest CG X-Axis Acceleration	180	+	yes	1000
78 13CHSTCG00HFACYA	Right Front Passenger Chest CG Y-Axis Acceleration	180	+	yes	1000
79 13CHSTCG00HFACZA	Right Front Passenger Chest CG Z-Axis Acceleration	180	+	yes	1000
79A 13CHSTCG00HFACRA	Right Front Passenger Chest CG Resultant Acceleration	180			
80 13CHSTCGRDHFACXA	Right Front Passenger Redundant Chest CG X-Axis Acceleration	180	+	yes	1000
81 13CHSTCGRDHFACYA	Right Front Passenger Redundant Chest CG Y-Axis Acceleration	180	+	yes	1000
82 13CHSTCGRDHFACZA	Right Front Passenger Redundant Chest CG Z-Axis Acceleration	180	+	yes	1000
82A 13CHSTCGRDHFACRA	Right Front Passenger Redundant Chest CG Resultant Acceleration	180			
83 13STRNUP00HFACXA	Right Front Passenger Sternum Upper X-Axis Acceleration	1000	+	yes	1000
84 13STRNMI00HFACXA	Right Front Passenger Sternum Mid X-Axis Acceleration	1000	+	yes	1000
85 13STRNLO00HFACXA	Right Front Passenger Sternum Lower X-Axis Acceleration	1000	+	yes	1000
86 13CHST0000HFDSXA	Right Front Passenger Chest Displacement	600	+	yes	100
87 13PELVCG00HFACXA	Right Front Passenger Pelvis CG X-Axis Acceleration	1000	+	yes	1000
88 13PELVCG00HFACYA	Right Front Passenger Pelvis CG Y-Axis Acceleration	1000	+	yes	1000
89 13PELVCG00HFACZA	Right Front Passenger Pelvis CG Z-Axis Acceleration	1000	+	yes	1000
89A 13PELVCG00HFACRA	Right Front Passenger Pelvis CG Resultant Acceleration	1000			
90 13FEMRLL00HFFOZA	Right Front Passenger Left Femur Z-Axis Force	600	+	yes	13344
91 13KNSLLE00HFDSXA	Right Front Passenger Left Knee Displacement	180	+	yes	33
92 13FOOTLEFXHFANXA	Right Front Passenger Left Foot X-Axis Rotation	180	+	no	318
93 13FOOTLEFXHFANYA	Right Front Passenger Left Foot Y-Axis Rotation	180	+	no	318
94 13FOOTLEFXHFANZA	Right Front Passenger Left Foot Z-Axis Rotation	180	+	no	318
95 13FEMRRL00HFFOZA	Right Front Passenger Right Femur Z-Axis Force	600	+	yes	13344
96 13KNSLRI00HFDSXA	Right Front Passenger Right Knee Displacement	180	+	yes	22.1
97 13FOOTRIFXHFANXA	Right Front Passenger Right Foot X-Axis Rotation	180	-	no	318
98 13FOOTRIFXHFANYA	Right Front Passenger Right Foot Y-Axis Rotation	180	+	no	318
99 13FOOTRIFXHFANZA	Right Front Passenger Right Foot Z-Axis Rotation	180	+	no	318
100 14HEADCG00HFACXA	Left Rear Passenger Head X-Axis Acceleration	1000	+	yes	1000
101 14HEADCG00HFACYA	Left Rear Passenger Head Y-Axis Acceleration	1000	+	yes	1000
102 14HEADCG00HFACZA	Left Rear Passenger Head Z-Axis Acceleration	1000	+	yes	1000

Command File Test Number 060518-2

Channel Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
102A 14HEADCG00HFACRA	Left Rear Passenger Head Resultant Acceleration	1000			
103 14NECKUP00HFFOXA	Left Rear Passenger Upper Neck X-Axis Force	1000	+	yes	8896.4
104 14NECKUP00HFFOYA	Left Rear Passenger Upper Neck Y-Axis Force	1000	+	yes	8896.4
105 14NECKUP00HFFOZA	Left Rear Passenger Upper Neck Z-Axis Force	1000	+	yes	13344
106 14NECKUP00HFMOXA	Left Rear Passenger Upper Neck Moment About X Axis	600	+	yes	282
107 14NECKUP00HFMOYA	Left Rear Passenger Upper Neck Moment About Y Axis	600	+	yes	282
108 14NECKUP00HFMOZA	Left Rear Passenger Upper Neck Moment About Z Axis	600	+	yes	282
109 14NECKLO00HFFOXA	Left Rear Passenger Lower Neck X-Axis Force	1000	+	yes	13344
110 14NECKLO00HFFOYA	Left Rear Passenger Lower Neck Y-Axis Force	1000	+	yes	13344
111 14NECKLO00HFFOZA	Left Rear Passenger Lower Neck Z-Axis Force	1000	+	yes	13344
112 14NECKLO00HFMOXA	Left Rear Passenger Lower Neck Moment About X Axis	600	+	yes	452
113 14NECKLO00HFMOYA	Left Rear Passenger Lower Neck Moment About Y Axis	600	+	yes	452
114 14NECKLO00HFMOZA	Left Rear Passenger Lower Neck Moment About Z Axis	600	+	yes	339
115 14CHSTCG00HFACXA	Left Rear Passenger Chest CG X-Axis Acceleration	180	+	yes	1000
116 14CHSTCG00HFACYA	Left Rear Passenger Chest CG Y-Axis Acceleration	180	+	yes	1000
117 14CHSTCG00HFACZA	Left Rear Passenger Chest CG Z-Axis Acceleration	180	+	yes	1000
117A 14CHSTCG00HFACRA	Left Rear Passenger Chest CG Resultant Acceleration	180			
118 14CHST0000HFDSXA	Left Rear Passenger Chest Displacement	600	+	yes	81
119 14FEMRLL00HFFOZA	Left Rear Passenger Left Femur Z-Axis Force	600	+	yes	13344
120 14FEMRRL00HFFOZA	Left Rear Passenger Right Femur Z-Axis Force	600	+	yes	13344
121 16HEADCG00H3ACXA	Right Rear Passenger Head X-Axis Acceleration	1000	+	yes	1000
122 16HEADCG00H3ACYA	Right Rear Passenger Head Y-Axis Acceleration	1000	+	yes	1000
123 16HEADCG00H3ACZA	Right Rear Passenger Head Z-Axis Acceleration	1000	+	yes	1000
123A 16HEADCG00H3ACRA	Right Rear Passenger Head Resultant Acceleration	1000			
124 16HEADFR00H3ACYA	Right Rear Passenger Head Front Y-Axis Acceleration	1000	+	yes	1000
125 16HEADFR00H3ACZA	Right Rear Passenger Head Front Z-Axis Acceleration	1000	+	yes	1000
126 16HEADUP00H3ACXA	Right Rear Passenger Head Top X-Axis Acceleration	1000	+	yes	1000
127 16HEADUP00H3ACYA	Right Rear Passenger Head Top Y-Axis Acceleration	1000	+	yes	1000
128 16HEADLE00H3ACXA	Right Rear Passenger Head Side X-Axis Acceleration	1000	+	yes	1000
129 16HEADLE00H3ACZA	Right Rear Passenger Head Side Z-Axis Acceleration	1000	+	yes	1000
130 16NECKUP00H3FOXA	Right Rear Passenger Upper Neck X-Axis Force	1000	+	yes	8896.4
131 16NECKUP00H3FOYA	Right Rear Passenger Upper Neck Y-Axis Force	1000	+	yes	8896.4
132 16NECKUP00H3FOZA	Right Rear Passenger Upper Neck Z-Axis Force	1000	+	yes	13344
133 16NECKUP00H3MOXA	Right Rear Passenger Upper Neck Moment About X Axis	600	+	yes	282
134 16NECKUP00H3MOYA	Right Rear Passenger Upper Neck Moment About Y Axis	600	+	yes	282
135 16NECKUP00H3MOZA	Right Rear Passenger Upper Neck Moment About Z Axis	600	+	yes	282
136 16NECKLO00H3FOXA	Right Rear Passenger Lower Neck X-Axis Force	1000	+	yes	13344

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Channel Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
137 16NECKLO00H3FOYA	Right Rear Passenger Lower Neck Y-Axis Force	1000	+	yes	13344
138 16NECKLO00H3FOZA	Right Rear Passenger Lower Neck Z-Axis Force	1000	+	yes	13344
139 16NECKLO00H3MOXA	Right Rear Passenger Lower Neck Moment About X Axis	600	+	yes	452
140 16NECKLO00H3MOYA	Right Rear Passenger Lower Neck Moment About Y Axis	600	+	yes	452
141 16NECKLO00H3MOZA	Right Rear Passenger Lower Neck Moment About Z Axis	600	+	yes	452
142 16CHSTCG00H3ACXA	Right Rear Passenger Chest CG X-Axis Acceleration	180	+	yes	1000
143 16CHSTCG00H3ACYA	Right Rear Passenger Chest CG Y-Axis Acceleration	180	+	yes	1000
144 16CHSTCG00H3ACZA	Right Rear Passenger Chest CG Z-Axis Acceleration	180	+	yes	1000
144A 16CHSTCG00H3ACRA	Right Rear Passenger Chest CG Resultant Acceleration	180			
145 16CHSTCGRDH3ACXA	Right Rear Passenger Redundant Chest CG X-Axis Acceleration	180	+	yes	1000
146 16CHSTCGRDH3ACYA	Right Rear Passenger Redundant Chest CG Y-Axis Acceleration	180	+	yes	1000
147 16CHSTCGRDH3ACZA	Right Rear Passenger Redundant Chest CG Z-Axis Acceleration	180	+	yes	1000
147A 16CHSTCGRDH3ACRA	Right Rear Passenger Redundant Chest CG Resultant Acceleration	180			
148 16CHST0000H3DSXA	Right Rear Passenger Chest Displacement	600	-	yes	100
149 16FEMRLL00H3FOZA	Right Rear Passenger Left Femur Z-Axis Force	600	+	yes	13344
150 16FEMRRL00H3FOZA	Right Rear Passenger Right Femur Z-Axis Force	600	+	yes	13344
151 14CRME000000ACXA	Left Rear Seat Crossmember X-Axis Acceleration	60	+	yes	1000
152 16CRME000000ACXA	Right Rear Seat Crossmember X-Axis Acceleration	60	+	yes	1000
153 12ENGNTPO0000ACXA	Top of Engine X-Axis Acceleration	60	+	yes	2000
154 12ENGNB000000ACXA	Bottom of Engine X-Axis Acceleration	60	+	yes	2000
155 13VEHCRI00000ACXA	Right Front Brake Caliper X-Axis Acceleration	60	+	yes	2000
156 11VEHCLE00000ACXA	Left Front Brake Caliper X-Axis Acceleration	60	+	yes	2000
157 12DASH0000000ACXA	Dash Center X-Axis Acceleration	60	+	yes	1500
158 11PEAC0000000ACXA	Toe Pan Accelerator X-Axis Acceleration	60	+	yes	2000
159 11PEAC0000000ACZA	Toe Pan Accelerator Z-Axis Acceleration	60	+	yes	2000
160 11VEHC0000001ACXA	Toe Pan Footrest X-Axis Acceleration	60	+	yes	2000
161 11VEHC0000001ACZA	Toe Pan Footrest Z-Axis Acceleration	60	+	yes	2000
162 15TUNNCY00000ACXA	Rear Tunnel Center X-Axis Acceleration	60	+	yes	1000
163 10VEHCCG00000ACXA	Vehicle CG X-Axis Acceleration	60	+	yes	1500
163A 10VEHCCG00000VEXA	Vehicle CG X-Axis Velocity	180			
163B 10VEHCCG00000DCXA	Vehicle CG X-Axis Displacement	180			
164 10VEHCCG00000ACYA	Vehicle CG Y-Axis Acceleration	60	+	yes	1500
164A 10VEHCCG00000VEYA	Vehicle CG Y-Axis Velocity	180			
164B 10VEHCCG00000DCYA	Vehicle CG Y-Axis Displacement	180			
165 10VEHCCG00000ACZA	Vehicle CG Z-Axis Acceleration	60	+	yes	1500
165A 10VEHCCG00000VEZA	Vehicle CG Z-Axis Velocity	180			
165B 10VEHCCG00000DCZA	Vehicle CG Z-Axis Displacement	180			

Command File Test Number 060518-2

Channel Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
165C 10VEHCCG0000ACRA	Vehicle CG Resultant Acceleration	60			
166 18VEHC000000ACXA	Vehicle Rear Deck X-Axis Acceleration	60	+	yes	1000
167 18VEHC000000ACYA	Vehicle Rear Deck Y-Axis Acceleration	60	+	yes	1000
168 18VEHC000000ACZA	Vehicle Rear Deck Z-Axis Acceleration	60	+	yes	1000
168A 18VEHC000000ACRA	Vehicle Rear Deck Resultant Acceleration	60			
169 11SEBA0000B5DS0A	Driver Lap Belt Spool	1000	+	yes	635
170 11SEBA0000B3DS0A	Driver Shoulder Belt Spool and Retraction	1000	+	yes	1270
171 13SEBA0000B5DS0A	Right Front Passenger Lap Belt Spool	1000	+	yes	635
172 13SEBA0000B3DS0A	Right Front Passenger Shoulder Belt Spool and Retraction	1000	+	yes	1250
173 11SEBA0000B5FO0A	Driver Lap Belt Force	60	+	yes	15568
174 11SEBA0000B3FO0A	Driver Shoulder Belt Force	60	+	yes	15568
175 13SEBA0000B5FO0A	Right Front Passenger Lap Belt Force	60	+	yes	15568
176 13SEBA0000B3FO0A	Right Front Passenger Shoulder Belt Force	60	+	yes	15568
177 14SEBA0000B5DS0A	Left Rear Passenger Lap Belt Spool	1000	+	yes	635
178 14SEBA0000B3DS0A	Left Rear Passenger Shoulder Belt Spool and Retraction	1000	+	yes	1270
179 16SEBA0000B5DS0A	Right Rear Passenger Lap Belt Spool	1000	+	yes	635
180 16SEBA0000B3DS0A	Right Rear Passenger Shoulder Belt Spool and Retraction	1000	+	yes	1270
181 14SEBA0000B5FO0A	Left Rear Passenger Lap Belt Force	60	+	yes	15568
182 14SEBA0000B3FO0A	Left Rear Passenger Shoulder Belt Force	60	+	yes	15568
183 16SEBA0000B5FO0A	Right Rear Passenger Lap Belt Force	60	+	yes	15568
184 16SEBA0000B3FO0A	Right Rear Passenger Shoulder Belt Force	60	+	yes	15568
185 11AIRBFR0100EV0A	Driver Airbag - Primary	1000	+	no	5
186 11AIRBFR0200EV0A	Driver Airbag - Secondary	1000	+	no	5
187 13AIRBFR0100EV0A	Right Front Passenger Airbag - Primary	1000	+	no	5
188 13AIRBFR0200EV0A	Right Front Passenger Airbag - Secondary	1000	+	no	5
189 L0FBAR000A07FOXA	Load Cell Row 9 Column 7	60	+	yes	300000
190 L0FBAR000A08FOXA	Load Cell Row 9 Column 8	60	+	yes	300000
191 L0FBAR000A09FOXA	Load Cell Row 9 Column 9	60	+	yes	300000
192 L0FBAR000A10FOXA	Load Cell Row 9 Column 10	60	+	yes	300000
193 L0FBAR000B01FOXA	Load Cell Row 8 Column 1	60	+	yes	300000
194 L0FBAR000B02FOXA	Load Cell Row 8 Column 2	60	+	yes	300000
195 L0FBAR000B03FOXA	Load Cell Row 8 Column 3	60	+	yes	300000
196 L0FBAR000B04FOXA	Load Cell Row 8 Column 4	60	+	yes	300000
197 L0FBAR000B05FOXA	Load Cell Row 8 Column 5	60	+	yes	300000
198 L0FBAR000B06FOXA	Load Cell Row 8 Column 6	60	+	yes	300000
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Command File Test Number 060518-2

Channel	Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
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204	L0FBAR000B12FOXA	Load Cell Row 8 Column 12	60	+	yes	300000
205	L0FBAR000B13FOXA	Load Cell Row 8 Column 13	60	+	yes	300000
206	L0FBAR000B14FOXA	Load Cell Row 8 Column 14	60	+	yes	300000
207	L0FBAR000B15FOXA	Load Cell Row 8 Column 15	60	+	yes	300000
208	L0FBAR000B16FOXA	Load Cell Row 8 Column 16	60	+	yes	300000
209	L0FBAR000C01FOXA	Load Cell Row 7 Column 1	60	+	yes	300000
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224	L0FBAR000C16FOXA	Load Cell Row 7 Column 16	60	+	yes	300000
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227	L0FBAR000D03FOXA	Load Cell Row 6 Column 3	60	+	yes	300000
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Command File Test Number 060518-2

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242	L0FBAR000E02FOXA	Load Cell Row 5 Column 2	60	+	yes	300000
243	L0FBAR000E03FOXA	Load Cell Row 5 Column 3	60	+	yes	300000
244	L0FBAR000E04FOXA	Load Cell Row 5 Column 4	60	+	yes	300000
245	L0FBAR000E05FOXA	Load Cell Row 5 Column 5	60	+	yes	300000
246	L0FBAR000E06FOXA	Load Cell Row 5 Column 6	60	+	yes	300000
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253	L0FBAR000E13FOXA	Load Cell Row 5 Column 13	60	+	yes	300000
254	L0FBAR000E14FOXA	Load Cell Row 5 Column 14	60	+	yes	300000
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262	L0FBAR000F06FOXA	Load Cell Row 4 Column 6	60	+	yes	300000
263	L0FBAR000F07FOXA	Load Cell Row 4 Column 7	60	+	yes	300000
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265	L0FBAR000F09FOXA	Load Cell Row 4 Column 9	60	+	yes	300000
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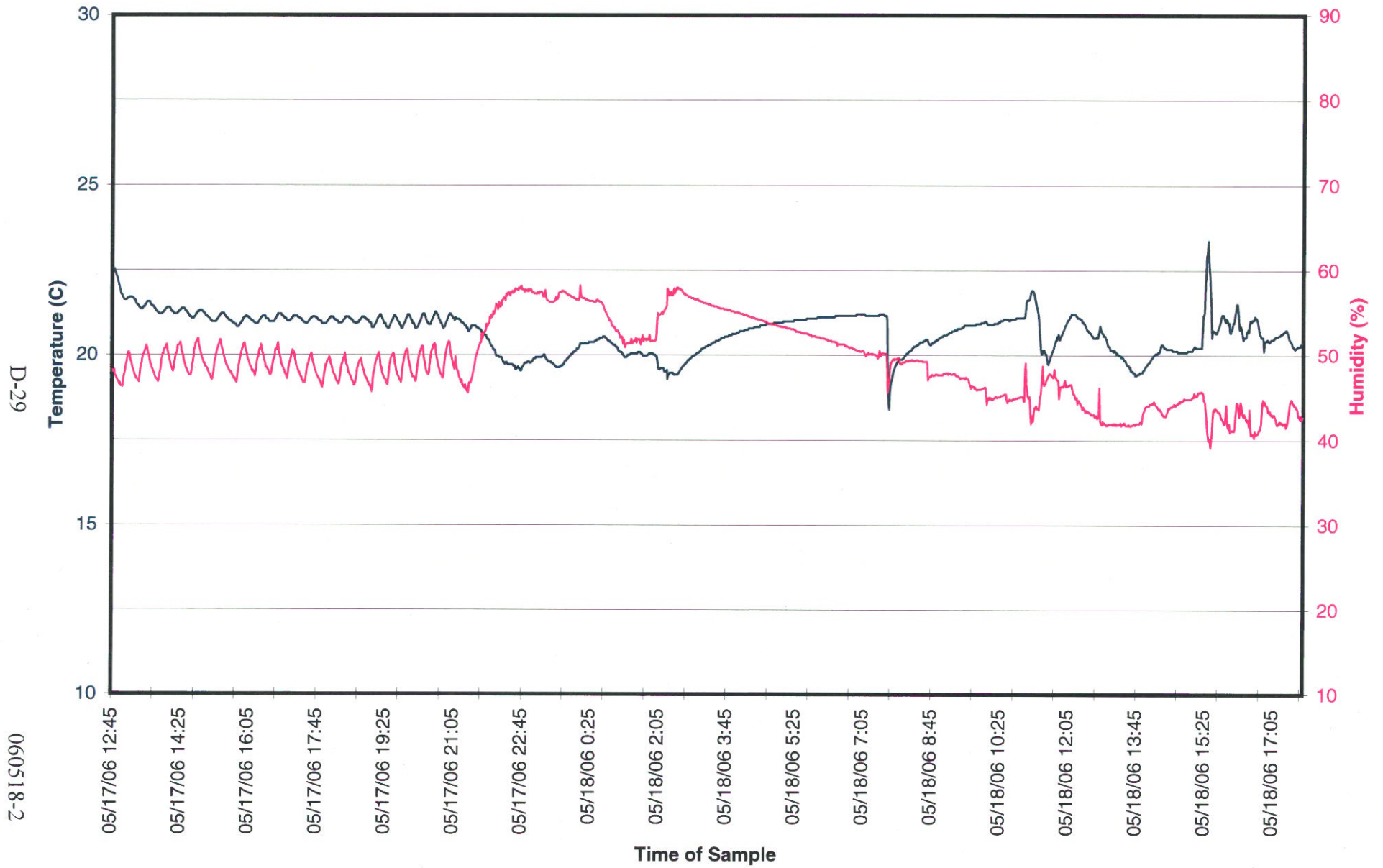
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278 LOFBAR000G06FOXA	Load Cell Row 3 Column 6	60	+	yes	300000
279 LOFBAR000G07FOXA	Load Cell Row 3 Column 7	60	+	yes	300000
280 LOFBAR000G08FOXA	Load Cell Row 3 Column 8	60	+	yes	300000
281 LOFBAR000G09FOXA	Load Cell Row 3 Column 9	60	+	yes	300000
282 LOFBAR000G10FOXA	Load Cell Row 3 Column 10	60	+	yes	300000
283 LOFBAR000G11FOXA	Load Cell Row 3 Column 11	60	+	yes	300000
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285 LOFBAR000G13FOXA	Load Cell Row 3 Column 13	60	+	yes	300000
286 LOFBAR000G14FOXA	Load Cell Row 3 Column 14	60	+	yes	300000
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289 LOFBAR000H01FOXA	Load Cell Row 2 Column 1	60	+	yes	300000
290 LOFBAR000H02FOXA	Load Cell Row 2 Column 2	60	+	yes	300000
291 LOFBAR000H03FOXA	Load Cell Row 2 Column 3	60	+	yes	300000
292 LOFBAR000H04FOXA	Load Cell Row 2 Column 4	60	+	yes	300000
293 LOFBAR000H05FOXA	Load Cell Row 2 Column 5	60	+	yes	300000
294 LOFBAR000H06FOXA	Load Cell Row 2 Column 6	60	+	yes	300000
295 LOFBAR000H07FOXA	Load Cell Row 2 Column 7	60	+	yes	300000
296 LOFBAR000H08FOXA	Load Cell Row 2 Column 8	60	+	yes	300000
297 LOFBAR000H09FOXA	Load Cell Row 2 Column 9	60	+	yes	300000
298 LOFBAR000H10FOXA	Load Cell Row 2 Column 10	60	+	yes	300000
299 LOFBAR000H11FOXA	Load Cell Row 2 Column 11	60	+	yes	300000
300 LOFBAR000H12FOXA	Load Cell Row 2 Column 12	60	+	yes	300000
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303 LOFBAR000H15FOXA	Load Cell Row 2 Column 15	60	+	yes	300000
304 LOFBAR000H16FOXA	Load Cell Row 2 Column 16	60	+	yes	300000
305 LOFBAR000I01FOXA	Load Cell Row 1 Column 1	60	+	yes	222400
306 LOFBAR000I02FOXA	Load Cell Row 1 Column 2	60	+	yes	300000
307 LOFBAR000I03FOXA	Load Cell Row 1 Column 3	60	+	yes	300000
308 LOFBAR000I04FOXA	Load Cell Row 1 Column 4	60	+	yes	300000
309 LOFBAR000I05FOXA	Load Cell Row 1 Column 5	60	+	yes	300000
310 LOFBAR000I06FOXA	Load Cell Row 1 Column 6	60	+	yes	300000
311 LOFBAR000I07FOXA	Load Cell Row 1 Column 7	60	+	yes	300000

Command File Test Number 060518-2

Channel Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
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315 L0FBAR000I11FOXA	Load Cell Row 1 Column 11	60	+	yes	300000
316 L0FBAR000I12FOXA	Load Cell Row 1 Column 12	60	+	yes	300000
317 L0FBAR000I13FOXA	Load Cell Row 1 Column 13	60	+	yes	300000
318 L0FBAR000I14FOXA	Load Cell Row 1 Column 14	60	+	yes	300000
319 L0FBAR000I15FOXA	Load Cell Row 1 Column 15	60	+	yes	300000
320 L0FBAR000I16FOXA	Load Cell Row 1 Column 16	60	+	yes	300000

2005 Chrysler Town & Country into High Resolution Load Cell Barrier / 060518-2



Appendix E

INSIA Report on Structural Measurements



UPM



INSIA

Compatibility Project
EEVC - WG15

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

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March, 1999

REPORT DOCUMENTATION PAGE	
Title:	<i>STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY</i>
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 -<i>Structural Survey of Cars</i>- 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.

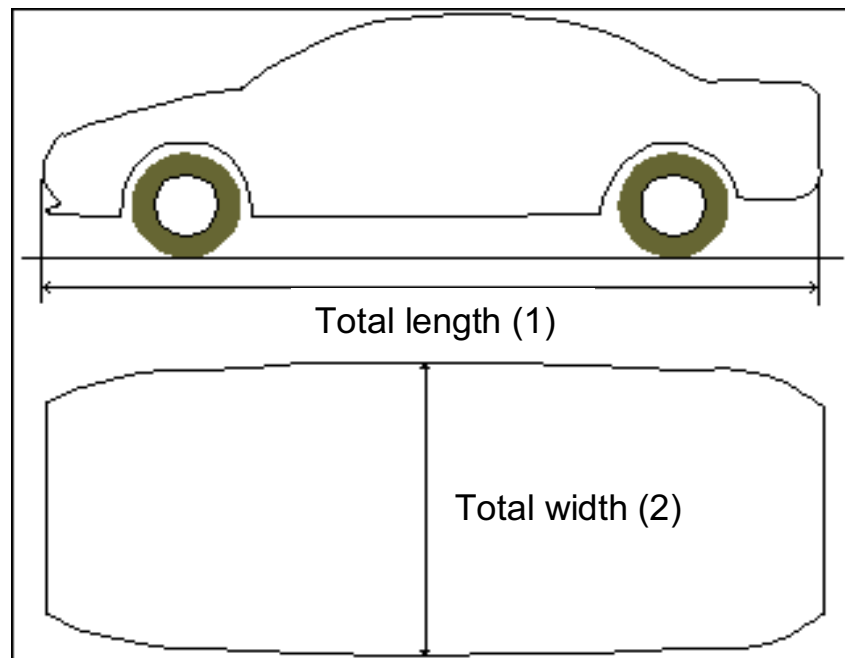


Figure 1.- Definition of the main resistant elements. General dimensions.

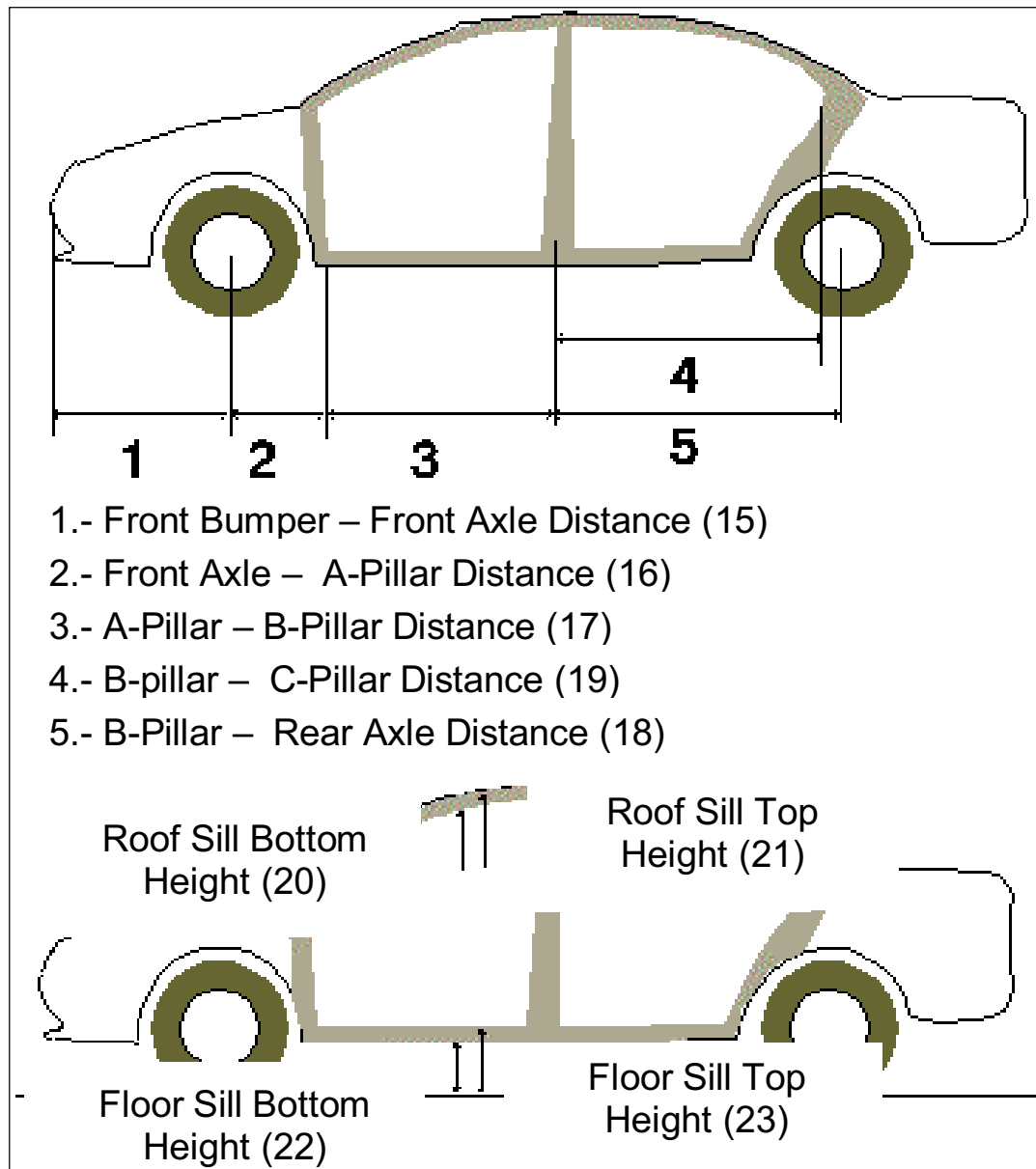


Figure 2.- Definition of the main resistant elements. Side elements.

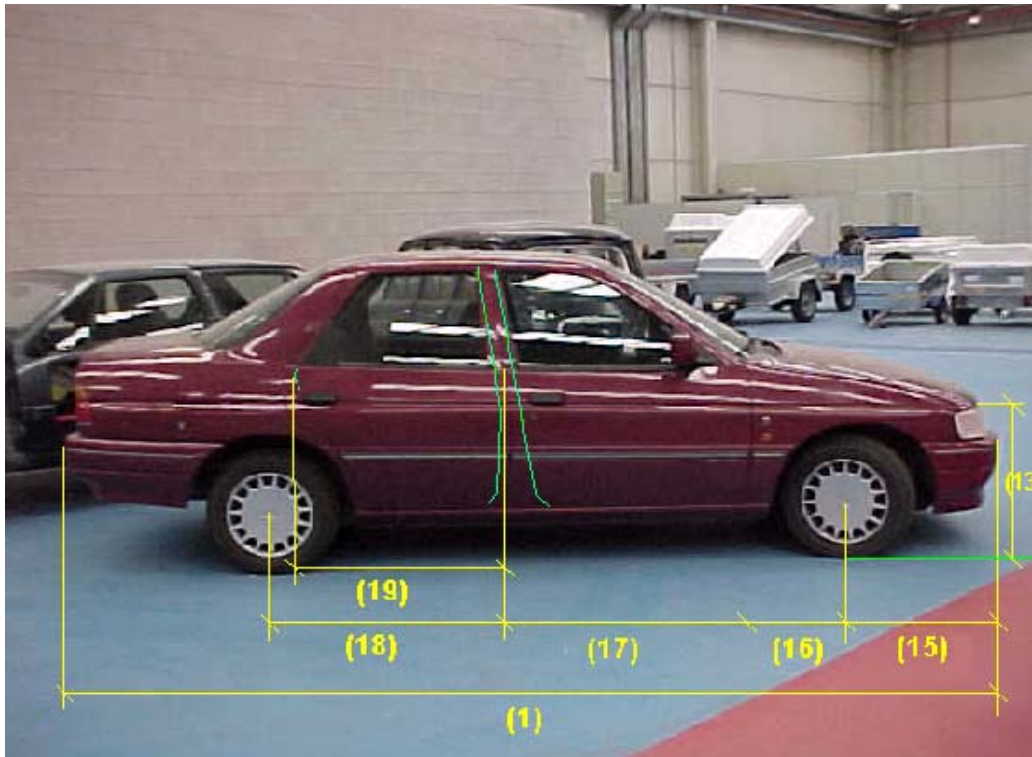


Figure 3.-
Measurements of
the side resistant
elements (outer).

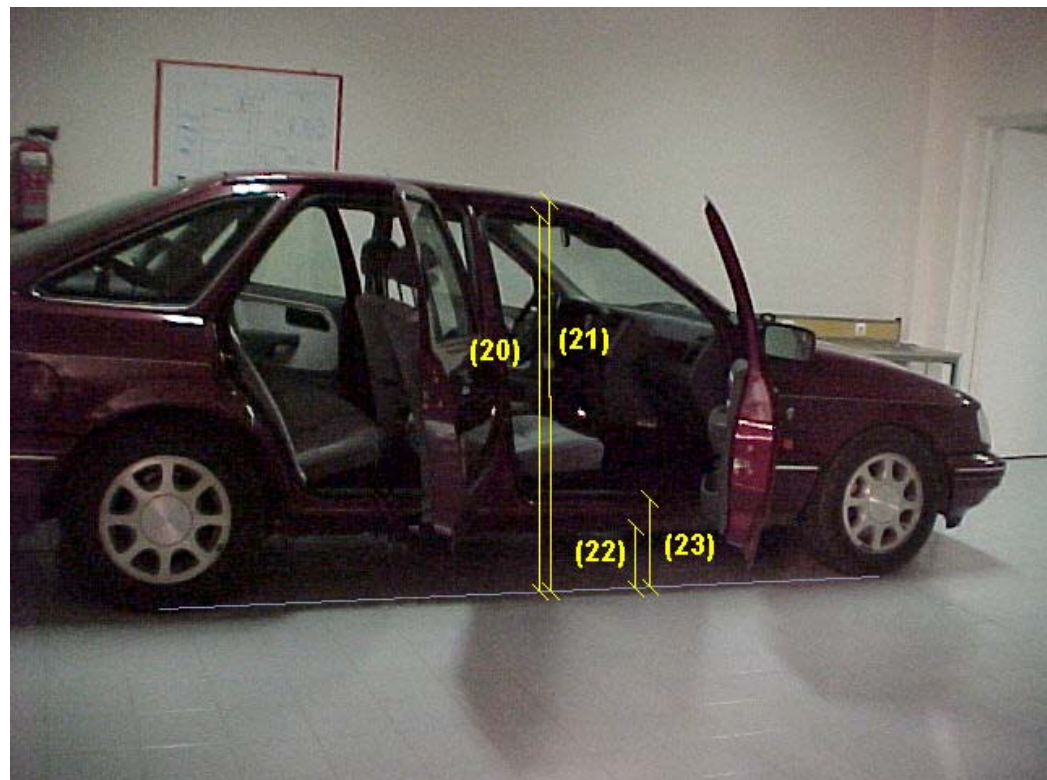


Figure 4.- Measurements
of the side resistant
elements (inner).

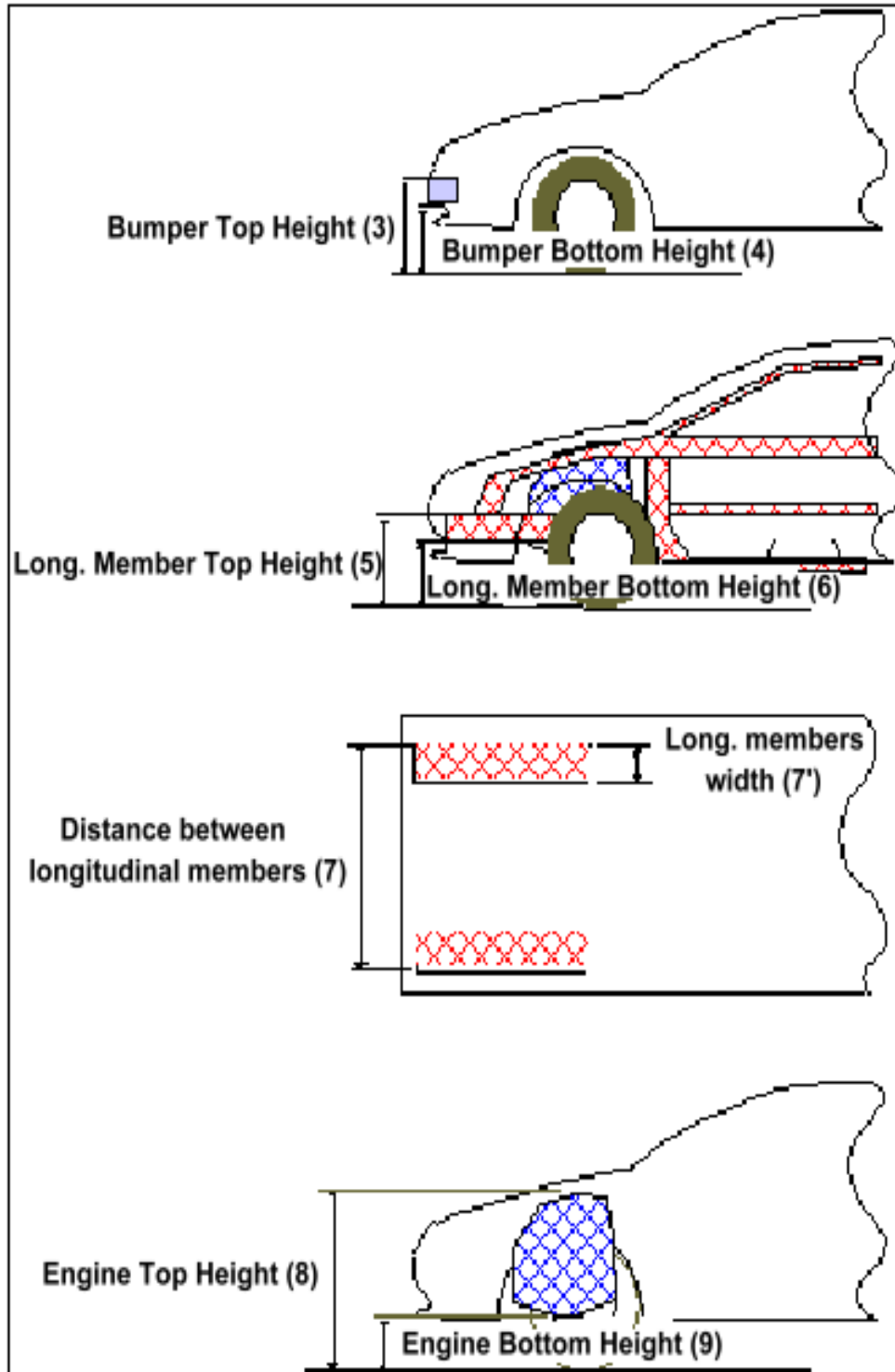


Figure 5.- Definition of the main resistant elements. Front elements.

Figure 6.-
Measurements of the
main resistant elements.
Front elements 1.

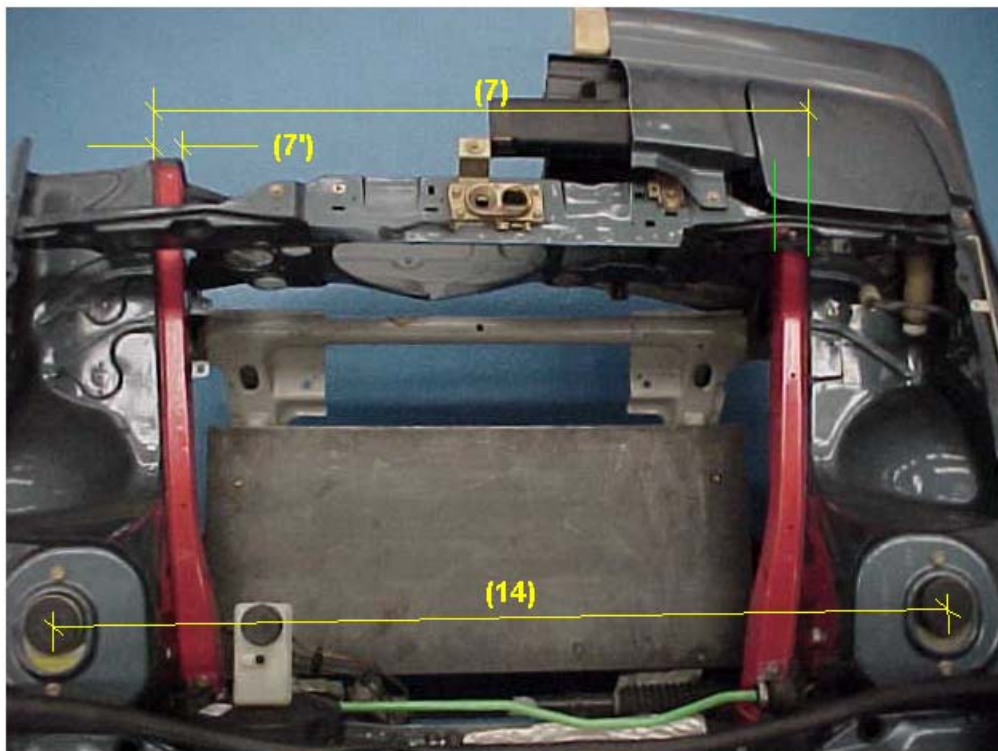
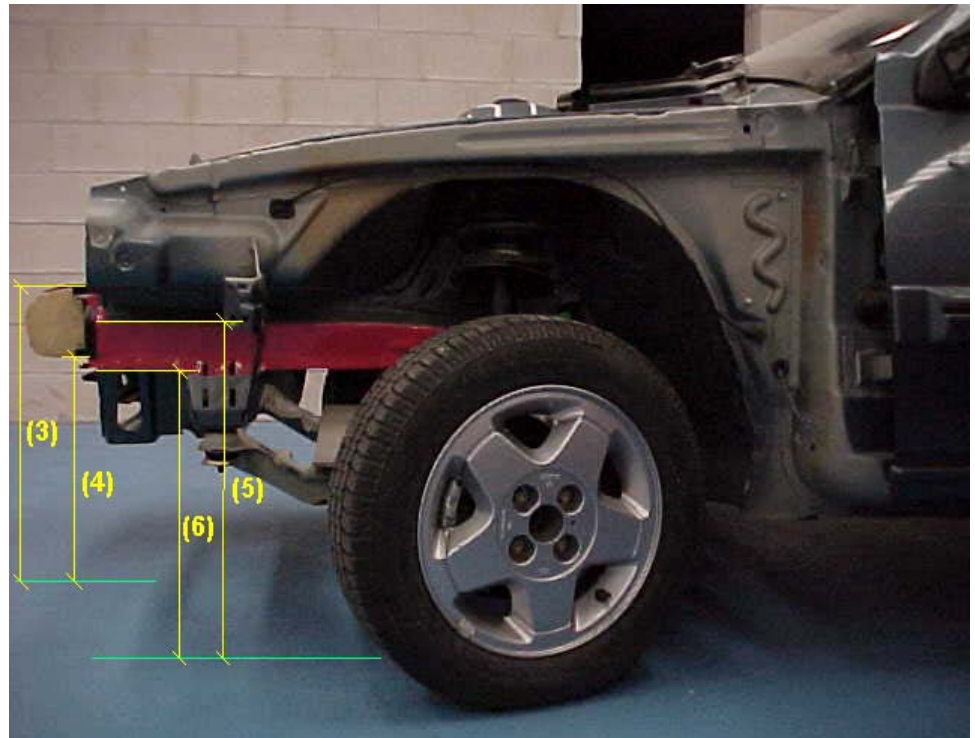


Figure 7.-
Measurements
of the main
resistant
elements. Front
elements 2.

Figure 8.-
Measurements of
the main resistant
elements. Front
elements 3.

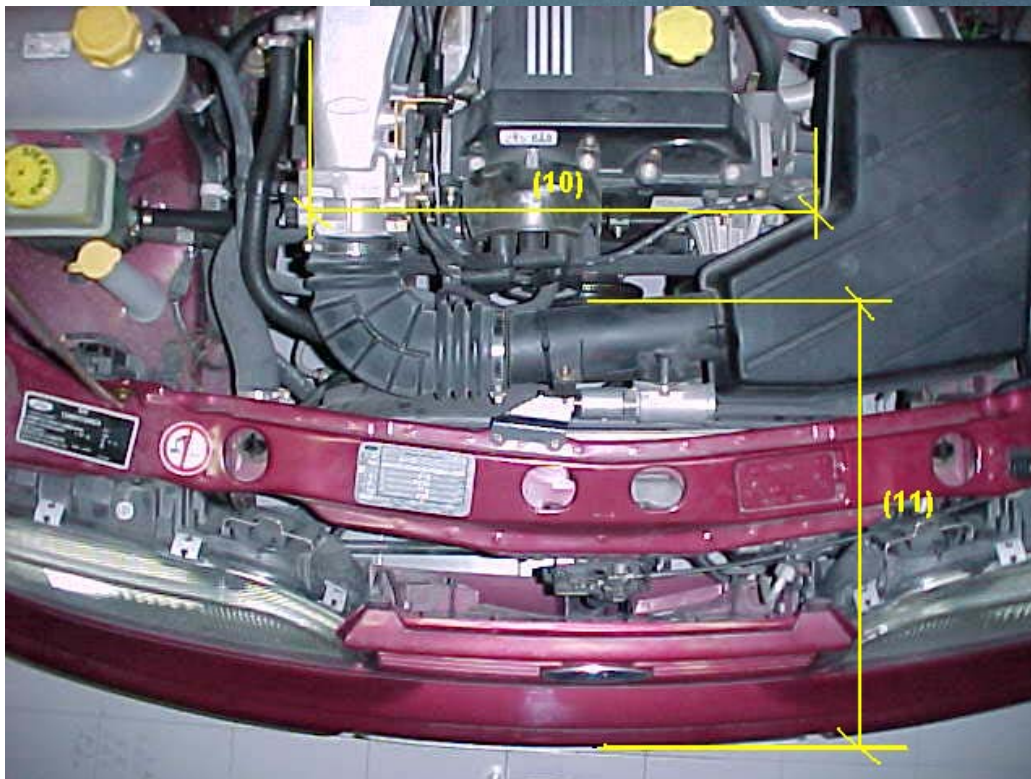
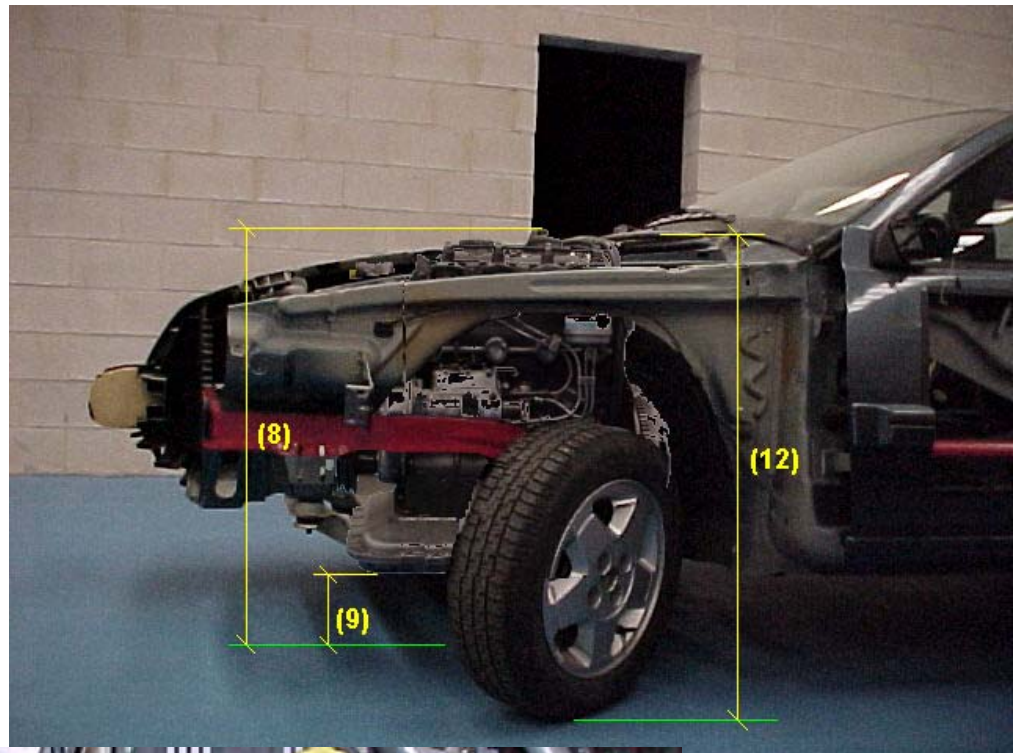


Figure 9.-
Definition of
the main
resistant
elements. Front
elements
(Longitudinal
engine).



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.