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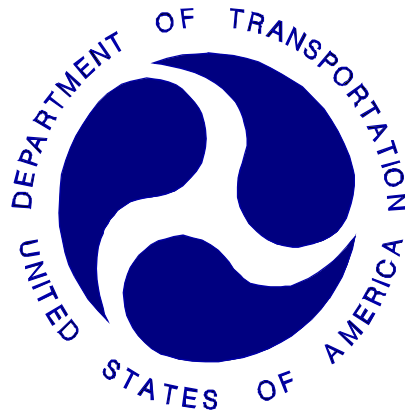
**SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION
INDICANT**

HONDA OF AMERICA MFG., INC.
2003 HONDA ELEMENT
MPV

NHTSA NUMBER: C35307

VERIDIAN ENGINEERING TEST NUMBER: 8675-F214-08

VERIDIAN ENGINEERING
TRANSPORTATION SCIENCES CENTER
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May 6, 2003

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Assurance
Office of Vehicle Safety Compliance
400 Seventh Street, SW
Room 6111 (NVS-220)
Washington, DC 20590

This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-02-D-01114. This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufactures' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

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16. Abstract <p>A 55/28 kph 90⁰ Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject Honda Element MPV. This test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001). This test was conducted at the Veridian Engineering Crash Test Facility in Buffalo, New York, on May 6, 2003.</p> <p>The impact velocity of the Moving Deformable Barrier (MDB) was 61.48 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21⁰C. The target vehicle post-test maximum crush was 175 mm at level 2.</p> <p>The test or target vehicle's performance is given below:</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;"><u>Front SID H3</u></th> <th style="width: 25%;"></th> <th style="width: 25%; text-align: center;"><u>Rear SID H3</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td style="text-align: center;">36.7</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">83.3</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td style="text-align: center;">34.0</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">87.0</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td style="text-align: center;">47.8</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">52.6</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td style="text-align: center;">42</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">70</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td style="text-align: center;">59</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">56</td> </tr> </tbody> </table> <p>The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.</p>					<u>Front SID H3</u>		<u>Rear SID H3</u>	Left Upper Rib Acceleration:	36.7	g's	83.3	Left Lower Rib Acceleration:	34.0	g's	87.0	Lower Spine Acceleration:	47.8	g's	52.6	Thoracic Trauma Index (TTI):	42	g's	70	Pelvis Acceleration (PEV):	59	g's	56
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17. Key Words Compliance Testing Side Impact Protection FMVSS 214 Side Impact Dummy (SID HIII)		18. Distribution Statement <u>Copies of this report are available from:</u> National Highway Traffic Safety Administration Technical Reference Division (TIS) Room 5108 (NPO-230) 400 Seventh St., S.W. Washington, D.C. 20590 Telephone No. (202) 366-4946																									
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SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-02-D-01114. The purpose of this indicant test was to evaluate side impact protection in a 2003 Honda Element MPV when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001).

SECTION 2

SUMMARY OF SIDE IMPACT TEST

This Side Impact Protection Indicant Test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001).

A 2003 Honda Element MPV was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 61.48 kph (38.2 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by the Veridian Engineering Transportation Sciences Center in Buffalo, New York on May 6, 2003. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the Side Impact Hybrid III Dummies (SID H3s) are included in Appendix A.

Two restrained Side Impact Hybrid III Dummies (SID H3s) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OCWS Side Impact Laboratory Test Procedure which is dated July, 1997. The side impact test was documented by one real-time camera and 9 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SID H3s were instrumented with the following accelerometers:

1. Left Upper Rib (LUR) uniaxial and redundant accelerometer (Y-direction)
2. Left Lower Rib (LLR) uniaxial and redundant accelerometer (Y-direction)
3. Lower Thoracic Spine (T₁₂) uniaxial and redundant accelerometer (Y-direction)
4. Pelvic (PEV) section uniaxial and redundant accelerometer (Y-direction)
5. Nine Axis Array Heads (NAAH)
6. Head triaxial accelerometers (X-, Y- and Z-direction)
7. Upper neck force and moment (X-, Y and Z-direction) load cells

A summary of the Side Impact Hybrid III Dummy (SID H3) configuration and verification test data can be found in Appendix C. A total of 72 channels of data were recorded. Appendix B contains the vehicle, MDB and dummy response data traces.

The following table summarizes the results of the test.

Injury Criteria	Front SID H3	Rear SID H3
TTI (g)	42	70
PEV (g)	59	56

AIR BAG DEPLOYMENT STATUS

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	Yes	No	N/A
Knee Bolster Bag	N/A	N/A	N/A
Side Air Bag	N/A	N/A	N/A
Side Curtain Bag	N/A	N/A	N/A

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2003 Honda Element MPV

Vehicle Body Color: Silver VIN: 5J6YH17213L006475

Vehicle NHTSA No.: C35307 Month & Year of Manufacture: 3/03

Engine Data: 4 Cylinders; - CID; 2.4 Liters; - cc

Engine Placement: - Longitudinal; or X Lateral

Transmission: 5 Speed; X Manual; - Automatic; X Overdrive

Final Drive: - Rear Wheel Drive; X Front Wheel Drive; - Four Wheel Drive

Odometer Reading 60 km

Supplemental Airbag Restraints:

Front Occupant: X Frontal; - Knee; - Side; - Curtain

Rear Occupant: X Frontal; - Knee; - Side; - Curtain

Options: - A/C; X Power Steering; X Power Brakes; X Power Windows

DATA FROM TIRE PLACARD

Recommended Tire Size: P215/70R16

*Recommended Cold Tire Pressure: 220 kpa FRONT; 235 kpa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P215/70R16 99S ; Manufacturer: Goodyear

Tire Pressure with Maximum Capacity Vehicle Load: Front: 300 kPa; Rear: 300 kPa

Treadwear: 340 ; Traction: A ; Temperature: B

VEHICLE CAPACITY DATA:

Number of Occupants: 2 Front; 2 Rear; 0 3rd Seat; 4 Total

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

Type of Rear Seats: - Bucket; - Bench; X Split Bench; X Contoured

Type of Front Seat Back: - Fixed; X Adjustable with X Lever or - Knob

Type of Rear Seat Back: - Fixed; X Adjustable with X Lever or - Knob

Vehicle Max Capacity Loading = 306.16 kg (A)

No. of Occupants x 68.04 kg. = 272.16 kg (B)

Vehicle Cargo Capacity = 34 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front = 420.5 kg Left Rear = 331.0 kg

Right Front = 403.0 kg Right Rear = 330.5 kg

TOTAL FRONT = 823.5 kg TOTAL REAR = 661.5 kg

% of Total Weight = 55.5% % % of Total Weight = 44.5 %

TOTAL WEIGHT = 1485.0 kg

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids = 1485.0 kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle = 34 kg (B)
Weight of instrumented SID H3 Dummies (2 X 81.2 kg) = 162.4 kg (C)
TEST VEHICLE TARGET WEIGHT: = 1681.4 kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 2 SID H3s + CARGO):

Left Front = 463.5 kg Left Rear = 425.0 kg
Right Front = 408.5 kg Right Rear = 384.0 kg
TOTAL FRONT = 872.0 kg TOTAL REAR = 809.0 kg
% of Total Weight = 51.9% % % of Total Weight = 48.1% %
TOTAL TEST WEIGHT = 1681.0 kg

AS TESTED WEIGHT OF TEST VEHICLE (2 SID H3s + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front = 453.0 kg Left Rear = 414.5 kg
Right Front = 413.5 kg Right Rear = 394.0 kg
TOTAL FRONT = 866.5 kg TOTAL REAR = 808.5 kg
% of Total Weight = 51.7% % % of Total Weight = 48.3% %
TOTAL TEST WEIGHT = 1675 kg

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front 818 Right Front 815 Left Rear 826 Right Rear 825

FULLY LOADED:

Left Front 802 Right Front 807 Left Rear 797 Right Rear 805

READY FOR TEST:

Left Front 807 Right Front 811 Left Rear 797 Right Rear 802**

Test Vehicle Wheelbase: 2580 millimeters

C.G. = 1245.33 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side = 4247 millimeters

Left Side = 4244 millimeters

Centerline = 4295 millimeters

** Lower than fully loaded attitude. Test was conducted with permission from COTR

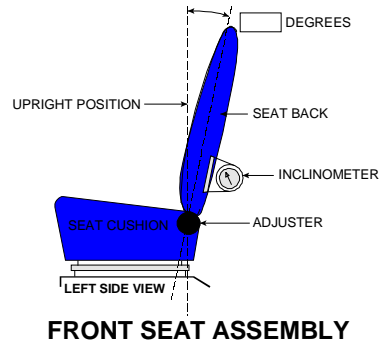
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

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



FRONT SEAT CUSHION PLACEMENT: Mid-position (14th detent or 140 mm)

Total Length of Adjustment Travel: 280 millimeters

Total Number of Adjustment Positions or Detents: 28

FRONT SEAT BACK ADJUSTMENT POSITION: 6th rearward notch

Seat Back Torso Angle: - degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: 2nd rearward notch

ADJUSTABLE STEERING COLUMN POSITION: Mid-position

WINDOW POSITIONS: Left Front: Closed Left Rear: Closed

Right Front: Open Right Rear: Removed

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

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

64.7 liters (Fuel Tank Usable Capacity)

60.2 liters used for test (92%-94% of Fuel Tank Usable Capacity)

LOCATION OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:

Wheelbase = 2580 millimeters

Impact Point is 350 millimeters rearward of front axle centerline
(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 343 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2003 Honda Element

Body Style: MPV

VIN: 5J6YH17213L006475

NHTSA No.: C35307

Test Date: May 6, 2003

Overall Length = 4295 millimeters; Overall Width = 1760 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 453.0 kg Left Rear = 414.5 kg

Right Front = 413.5 kg Right Rear = 394.0 kg

TOTAL FRONT = 866.5 kg TOTAL REAR = 808.5 kg

TOTAL VEHICLE WEIGHT 1675.0 kg

Wheelbase = 2580 millimeters

Longitudinal C.G. from Center of Front Axle = 1245.33 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 7 mm Forward of nominal impact ref. line (Lateral)

Actual Impact Point is 10 mm Below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (343 mm above ground) = 94 millimeters

2. LEVEL 2 (728 mm above ground) = 175 millimeters

3. LEVEL 3 (791 mm above ground) = 173 millimeters

4. LEVEL 4 (1097 mm above ground) = 85 millimeters

5. LEVEL 5 (1644 mm above ground) = 6 millimeters

Maximum Post-Test Intrusion = 175 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification SID H3/015

SID H3/016

Restraints Used 3-point safety belt

3-point safety belt

INSTRUMENTATION:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 3

 Offboard = 6

 TOTAL = 9

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore, Inc. 028C0103-2 023B1102

POSITION OF IMPACT (MDB) ON MONORAIL:

Crabbed 27° to left

MDB DETAILS:

Overall Width of Framework Carriage	=	<u>1250</u>	millimeters
Overall Length of MDB (incl. honeycomb impact face)	=	<u>4120</u>	millimeters
Wheelbase of Framework Carriage	=	<u>2590</u>	millimeters
Tread of Framework Carriage (Front & Rear)	=	<u>1875</u>	millimeters
C.G. Location Rearward of Front Axle	=	<u>1104</u>	millimeters

MDB WEIGHT:

Left Front	=	<u>409.5</u>	kg	Left Rear	=	<u>281.5</u>	kg
Right Front	=	<u>372.5</u>	kg	Right Rear	=	<u>299.0</u>	kg
TOTAL FRONT	=	<u>782.0</u>	kg	TOTAL REAR	=	<u>580.5</u>	kg
TOTAL MDB WEIGHT	=	<u>1362.5</u>	kg				
Impact Angle (MDB C/L to Target Vehicle C/L)	=	<u>90</u>	degrees				
Impact Speed	=	<u>61.48</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>177</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>138</u>	millimeters
3. Row C at Mid Level	=	<u>126</u>	millimeters
4. Row D at Top of Stack Level	=	<u>149</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels	=	<u>5</u>
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DATA SHEET 4

POST-TEST OBSERVATIONS

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT	REAR SEAT
ATD Type/Serial No.	SID H3/015	SID H3/016
Head Contact:	The back of the head to the head restraint	The top of the head to the side header
Upper Torso Contact:	Door Trim Panel	“C” Pillar
Lower Torso Contact:	Door Trim Panel	“C” Pillar
Left Knee Contact:	Door Trim Panel	Door Trim Panel
Right Knee Contact:	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed, Latched and Inoperable	Closed, Latched and Inoperable
Right Side Doors	Closed, Latched and Operable without Tools	Closed, Latched and Operable without Tools
Hatch/Other Door	N/A	Closed, Latched and Operable without Tools
Seat Movement (mm)	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	A- and “C” -pillars were moved inboard with no visible tears or separations.
Sill Separation	No visible tears or separations
Windshield Damage	None
Window Damage	Rear left side window shattered during the event.
Other Notable Effects	None

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	Yes	No	N/A
Knee Bolster Bag	N/A	N/A	N/A
Side Air Bag	N/A	N/A	N/A
Side Curtain Bag	N/A	N/A	N/A

MDB LEFT EDGE IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	± 50 mm	7 mm forward
Vertical Offset	mm	± 20 mm	10 mm below

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID H3 INSTRUMENTATION DATA

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

	Front Dummy ID# 015				Rear Dummy ID# 016			
	Pos. Direction		Neg. Direction		Pos. Direction		Neg. Direction	
	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS:								
NAAH X Arm Y	46.4	84.6	-4.8	46.6	116.6	67.4	-13.0	82.6
NAAH X Arm Z	39.2	64.4	-2.6	99.4	14.0	63.3	-45.0	72.5
NAAH Y Arm X	1.3	199.9	-26.7	84.4	16.3	77.4	-41.1	64.0
NAAH Y Arm Z	33.6	56.8	-6.9	84.8	31.2	63.1	-60.7	64.8
NAAH Z Arm X	2.8	54.6	-39.8	83.9	26.1	76.2	-34.8	65.7
NAAH Z Arm Y	90.0	84.2	-20.0	54.8	215.7	65.7	-52.4	74.4
Longitudinal X	1.3	44.3	-19.9	84.4	8.4	73.5	-16.1	65.9
Lateral Y	53.1	84.6	-2.8	44.0	141.7	66.1	-13.0	81.4
Vertical Z	32.8	69.2	-1.8	36.8	22.1	66.0	-52.4	78.4
Resultant R	60.3	84.4	0.0	-15.3	143.8	66.1	0.0	-2.8
HIC	200.3				1043.1			
NECK FORCES:								
Longitudinal X	40.3	44.9	-585.6	87.0	1211.3	78.6	-103.6	147.7
Lateral Y	605.4	85.9	-98.6	40.9	661.9	69.2	-1711.0	78.5
Vertical Z	1337.0	69.3	-525.7	85.4	659.4	57.5	-1794.5	77.4
Resultant R	1444.9	69.3	0.1	-13.9	2709.9	78.1	0.1	-3.1
NECK MOMENTS:								
X	39.9	83.4	-40.4	55.4	17.2	137.5	-230.7	70.3
Y	†	†	†	†	21.7	81.2	-28.2	73.9
Z	§	§	§	§	6.3	127.2	-24.6	72.1
Resultant R	§	§	§	§	232.9	70.4	0.0	2.9
RIB ACCELERATIONS:								
Upper Rib Lateral Y	36.7	57.5	-3.9	76.3	83.3	58.2	-23.1	65.0
Upper Rib Lateral Y(R)	35.8	57.5	-4.7	76.8	81.5	58.7	-21.5	65.0
Lower Rib Lateral Y	34.0	43.8	-3.2	73.1	87.0	58.1	-11.6	85.0
Lower Rib Lateral Y(R)	34.0	43.8	-3.0	73.2	90.3	58.1	-12.1	85.6
SPINE ACCELERATIONS:								
Lower Lateral Y	47.8	46.3	-3.3	95.0	52.6	62.5	-33.5	81.3
Lower Lateral Y(R)	46.8	46.3	-3.4	95.0	53.0	62.5	-33.1	81.3
PELVIC ACCELERATIONS:								
Lateral Y	59.4	40.6	-12.4	60.0	55.8	45.0	-14.5	68.1
Lateral Y(R)	60.4	40.7	-12.5	60.0	54.5	45.0	-14.1	68.1

REFERENCE: Positive Direction: Longitudinal (X) = forward; Lateral (Y) = to right; Vertical (Z) = down

Note: Rib, Spine and Pelvis data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.

Head Accelerations and Neck Forces are filtered at SAE Class 1000, Neck Moments are filtered at SAE Class 600.

† Channel Opened

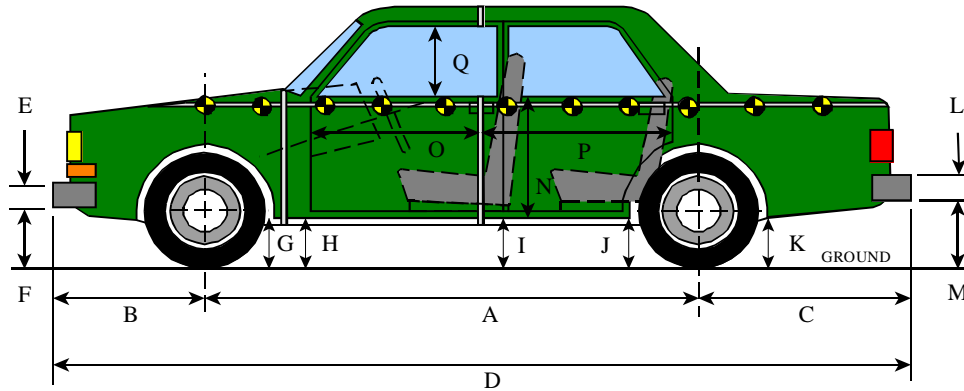
§ Data is Questionable

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



LEFT SIDE VIEW

NOTE: all dimensions are in millimeters with tolerance of ± 3 mm

	PRE-TEST (as delivered)	PRE-TEST (as tested)	POST-TEST (as tested)	Δ CHANGE
A	2575	2580	2555	-25
B	819	-	820	1
C	901	-	917	16
D	4295	-	4292	-3
E	158	-	158	0
F	312	309	330	21
G	297	282	286	4
H	297	282	281	-1
I	307	286	278	-8
J1	297	272	273	1
J2	307	282	296	14
K	350	326	329	3
L	135	-	135	0
M	390	366	365	-1
N	760	-	744	-16
O	707	-	706	-1
P	1007	-	958	-49
Q	448	-	441	-7
R	4247	-	4251	4
S	4244	-	4243	-1
T	1760	-	1652	-108

D = Length at Centerline

E&L = Bumper Thickness

R = Right Side Length

S = Left Side Length

T = Width at B-Pillar

J1 = To Pinch Weld

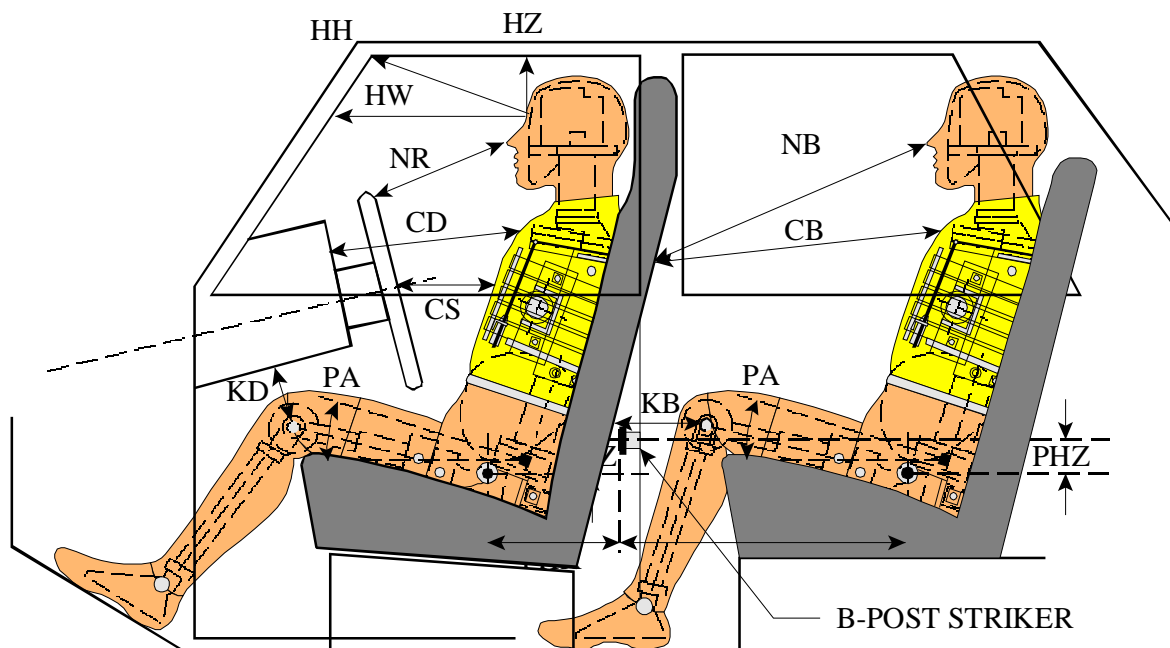
J2 = To Sill

DATA SHEET 7

SID H3 LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



LEFT SIDE VIEW

NOTE: 2-DOOR VEHICLE SHOWN.
REAR DUMMY PHX & PHZ
MEASUREMENTS FOR A 4-DOOR
VEHICLE WOULD USE THE C-POST
STRIKER AS A REFERENCE POINT

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

	DRIVER ID# 015	LEFT REAR PASS. ID# 016
HH	725	N/A
HW	895	N/A
HZ	250	164
NR/NB	493	855
CD/CB	614	755
CS	280	N/A
KDL(KDA°)/KBL(KBA°)	115 / (35 °)	381 / (22 °)
KDR(KBA°)/KBR(KBA°)	121 / (38 °)	390 / (28 °)
PA°	23.4 °	24.4 °
PHX	256	785
PHZ	153	371

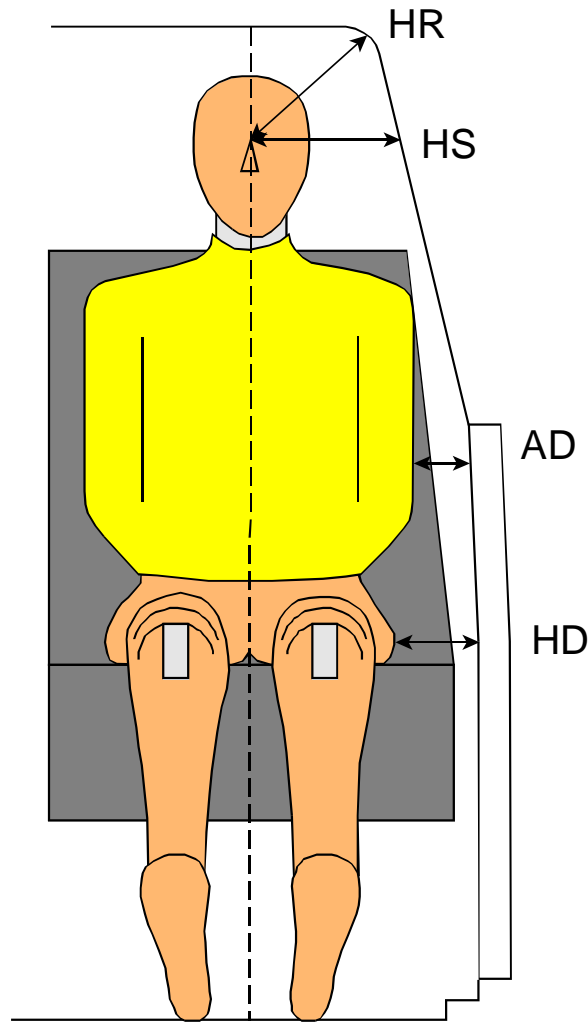
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID H3 LATERAL CLEARANCE DIMENSIONS

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



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

	DRIVER ID # 015		LEFT REAR PASS. ID # 016	
HR	272		295	
HS	330		440	
AD*	LOWER: 115	UPPER: 97	LOWER: 131	UPPER: 258
HD	196		133	

* Lower measurement is taken laterally at the center of the lower rib accelerometer height from the SID H3 arm segment to the closest part of the vehicle side.

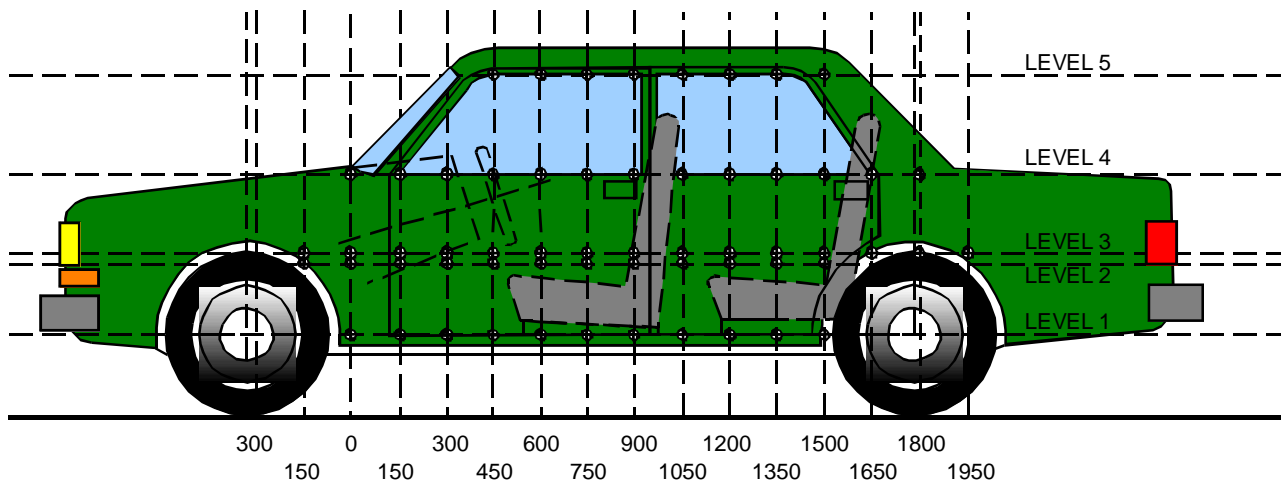
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID H3 arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



LEFT SIDE VIEW

NOTE: All measurements are in millimeters (mm)

- LEVEL 5 - WINDOW TOP
- LEVEL 4 - WINDOW SILL
- LEVEL 3 - MID-DOOR
- LEVEL 2 - OCCUPANT H-POINT
- LEVEL 1 - AXLE CENTERLINE HEIGHT OR SILL TOP HEIGHT

MEASUREMENTS ARE TAKEN WHEN THE VEHICLE IS IN THE "AS TESTED" CONFIGURATION.

Measurements Along the Vertical 750 mm Line Shown Above:

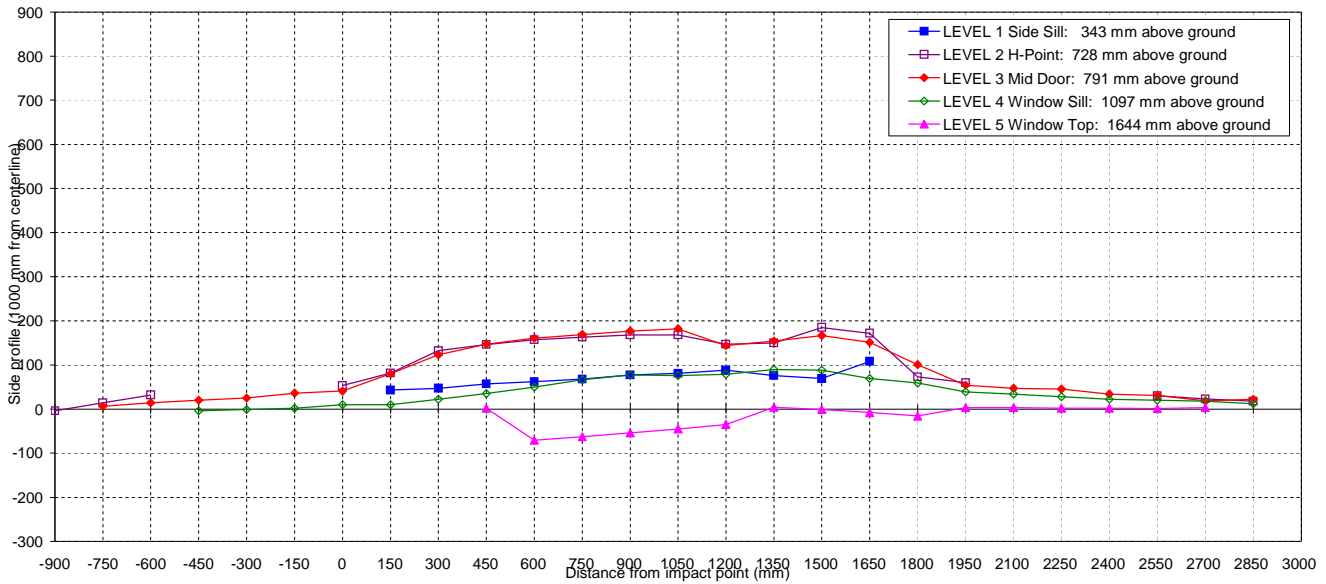
Level 5 @ Window Top	=	<u>1644</u>	millimeters
Level 4 @ Window Sill	=	<u>1097</u>	millimeters
Level 3 @ Mid Door	=	<u>791</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>728</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>343</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



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

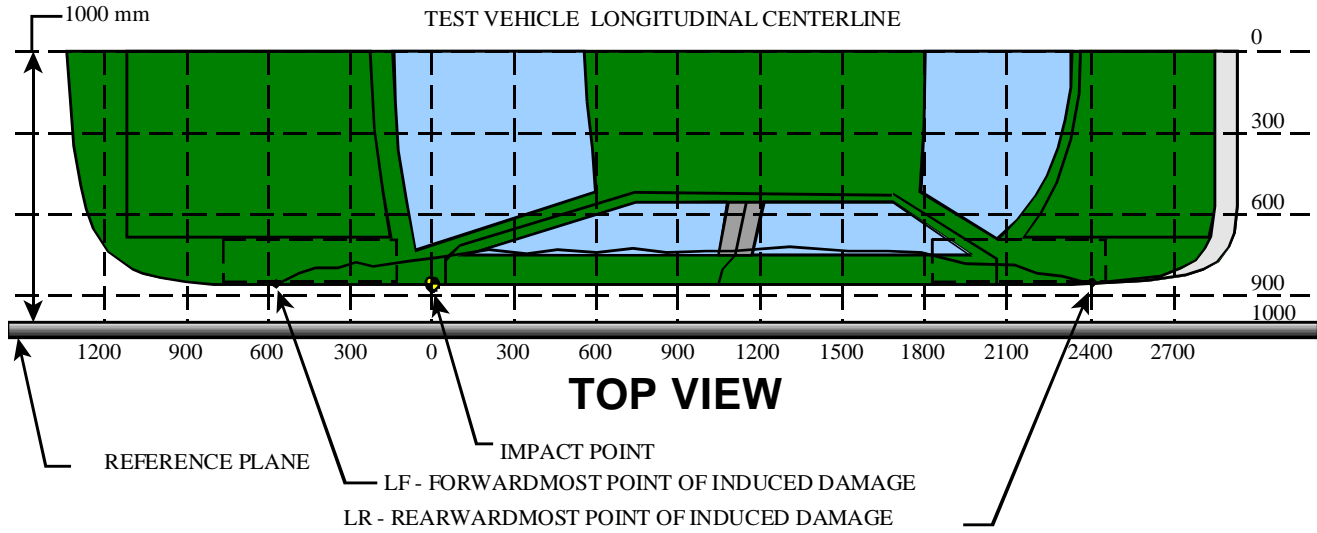
LEVEL	HEIGHT (mm)		DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
			-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	
LEVEL 1 SIDE SILL	343	PRE	--	--	--	--	--	--	185	204	200	200	199	196	197	196	199	204	162	--	--	--	--	--	--	--	--	--	--	
		POST	--	--	--	--	--	--	216	239	244	249	254	260	264	270	261	259	256	--	--	--	--	--	--	--	--	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31	35	44	49	55	64	67	74	62	55	94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LEVEL 2 H POINT	728	PRE	252	190	129	--	--	--	136	155	152	150	148	148	146	145	145	146	148	151	150	119	--	--	--	134	172	199	--	
		POST	241	197	154	--	--	--	181	229	276	287	296	302	305	303	282	287	323	314	212	168	--	--	--	153	183	205	--	
		CRUSH	-11	7	25	N/A	N/A	N/A	45	74	124	137	148	154	159	158	137	141	175	163	62	49	N/A	N/A	N/A	19	11	6	N/A	
LEVEL 3 MID DOOR	791	PRE	--	198	148	123	120	121	152	151	148	147	146	145	144	143	141	142	146	148	149	133	119	114	120	152	173	198	--	
		POST	--	198	156	137	138	150	186	223	263	286	299	306	313	316	276	288	304	290	241	177	156	148	144	172	181	208	--	
		CRUSH	N/A	0	8	14	18	29	34	72	115	139	153	161	169	173	135	146	158	142	92	44	37	34	24	20	8	10	N/A	
LEVEL 4 WINDOW SILL	1097	PRE	--	--	--	257	219	207	194	187	181	177	172	170	167	165	166	167	168	169	171	173	177	182	189	198	209	253	--	
		POST	--	--	--	251	215	206	201	193	199	208	218	232	240	236	240	252	250	233	224	206	205	203	205	211	219	258	--	
		CRUSH	N/A	N/A	N/A	-6	-4	-1	7	6	18	31	46	62	73	71	74	85	82	64	53	33	28	21	16	13	10	5	N/A	
LEVEL 5 WINDOW TOP	1644	PRE	--	--	--	--	--	--	--	--	--	349	332	325	321	317	312	310	308	310	312	311	314	320	327	337	349	--	--	
		POST	--	--	--	--	--	--	--	--	--	354	263	264	269	274	279	316	308	303	297	315	317	322	328	337	351	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	-69	-61	-52	-43	-33	6	0	-7	-15	4	3	2	1	0	2	N/A	N/A	

DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



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

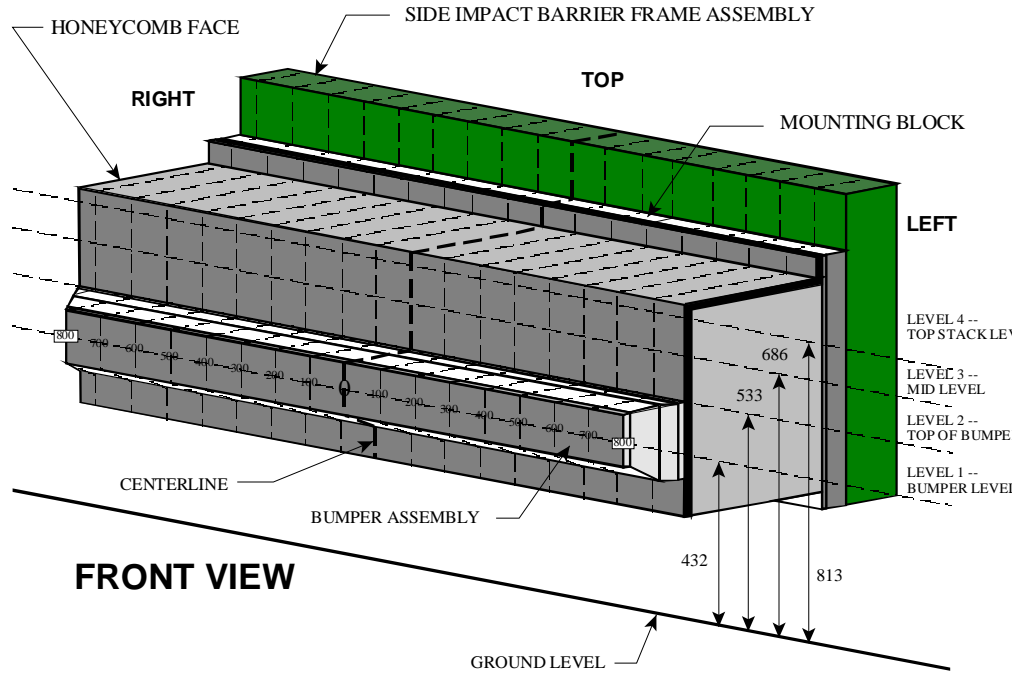
DPD MEASUREMENTS		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1	(LR = <u>-860</u> mm)	236	235	1
2	-148	157	121	36
3	564	304	146	158
4	1276	291	142	149
5	1988	182	129	53
6	(LF = <u>2700</u> mm)	195	172	23

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



NOTE: Dimensions are shown in millimeters, mm

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

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)								
			800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800	
LEVEL 4 TOP STACK	813	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619		
		POST	737	711	692	688	727	721	674	655	651	658	660	670	686	693	716	739	768	
		CRUSH	118	92	73	69	108	102	55	36	32	39	41	51	67	74	97	120	149	
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619		
		POST	741	677	668	680	711	704	674	662	654	646	646	649	657	670	684	706	745	
		CRUSH	122	58	49	61	92	85	55	43	35	27	27	30	38	51	65	87	126	
LEVEL 2 TOP BUMPER	533	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619		
		POST	757	754	748	745	738	741	735	738	738	734	736	734	735	734	735	738	738	
		CRUSH	138	135	129	126	119	122	116	119	119	115	117	115	116	115	116	119	119	
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	519	535		
		POST	711	696	692	691	694	691	680	680	679	677	679	676	674	673	674	677	690	
		CRUSH	176	177	174	173	176	173	162	162	161	159	161	158	156	155	156	158	155	

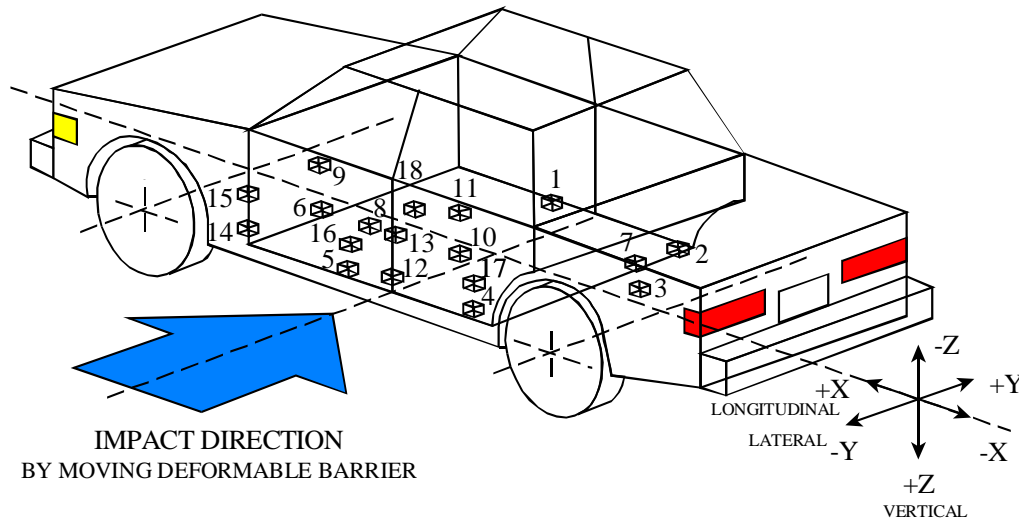
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



- | | |
|------------------------------------|------------------------------------|
| 1-Right Side Sill @ Front Seat | 10-Midrear of Left Rear Door |
| 2-Right Side Sill @ Rear Seat | 11-Left Rear Door Upper Centerline |
| 3-Rear Floorpan Above Axle | 12-Left Lower B-Pillar |
| 4-Left Side Sill @ Rear Seat | 13-Left Middle B-Pillar |
| 5-Left Side Sill @ Front Seat | 14-Left Lower A-Pillar |
| 6-Left Front Door on Centerline | 15-Left Middle A-Pillar |
| 7-Right Rear Occupant Compartment | 16-Front Seat Track |
| 8-Midrear of Left Front Door | 17-Rear Seat Track |
| 9-Left Front Door Upper Centerline | 18-Vehicle CG |

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

Accel. No.	Location	Coordinates (mm)±3 mm				Long. (x)		Lat. (y)		Vert. (z)		Resultant	
		X*	Y*	Z*		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
						pos.	neg.	pos.	neg.	pos.	neg.	pos.	neg.
1	Right Side Sill at Front Seat	2797	656	-380	pos.	2.8	50.9	42.2	7.1	5.1	131.7	44.6	7.2
					neg.	-10.6	8.5	-3.4	66.0	-11.5	7.2	0.0	-16.8
2	Right Side Sill at Rear Seat	1682	587	-533	pos.	3.3	51.1	44.4	7.1	5.8	77.3	45.2	7.1
					neg.	-7.5	7.8	-3.0	70.9	-8.5	16.2	0.0	-20.0
3	Rear Floorpan Above Axle	998	20	-534	pos.	2.5	51.8	40.5	8.2	4.3	70.3	40.8	8.3
					neg.	-6.5	10.8	-2.8	109.8	-5.8	53.1	0.0	-20.0
4	Left Side Sill at Rear Seat	1597	-520	-514	pos.	-	-	45.8	4.1	-	-	-	-
					neg.	-	-	-46.3	7.7	-	-	-	-
5	Left Side Sill at Front Seat	2714	-558	-367	pos.	-	-	§	§	-	-	-	-
					neg.	-	-	§	§	-	-	-	-
6	Left Front Door on Centerline	-	-	-	pos.	-	-	**	**	-	-	-	-
					neg.	-	-	**	**	-	-	-	-
7	Right Rear Occupant Compartment	1704	353	-532	pos.	-	-	40.3	7.6	-	-	-	-
					neg.	-	-	-3.3	109.2	-	-	-	-
8	Midrear of Left Front Door	-	-	-	pos.	-	-	**	**	-	-	-	-
					neg.	-	-	**	**	-	-	-	-
9	Left Front Door Upper Centerline	-	-	-	pos.	-	-	**	**	-	-	-	-
					neg.	-	-	**	**	-	-	-	-
10	Midrear of Left Rear Door	-	-	-	Pos.	-	-	**	**	-	-	-	-
					neg.	-	-	**	**	-	-	-	-
11	Left Rear Door Upper Centerline	-	-	-	pos.	-	-	**	**	-	-	-	-
					neg.	-	-	**	**	-	-	-	-

4-11

8675-F214-08

*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

**Accelerometer was not requested by COTR.

§ - Not Accurate after 82 ms

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307

Accel. No.	Location	Coordinates (mm)±3 mm				Long. (x)		Lat. (y)		Vert. (z)		Resultant	
		X*	Y*	Z*		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
12	Left Lower B-Pillar	1953	-674	-526	pos.	-	-	222.3	3.0	-	-	-	-
					neg.	-	-	-86.2	6.7	-	-	-	-
13	Left Middle B-Pillar	1917	-654	-1204	pos.	-	-	†	†	-	-	-	-
					neg.	-	-	†	†	-	-	-	-
14	Left Lower A-Pillar	2969	-595	-453	pos.	-	-	147.1	7.5	-	-	-	-
					neg.	-	-	-71.3	26.2	-	-	-	-
15	Left Middle A-Pillar	2926	-647	-1149	pos.	-	-	36.4	9.1	-	-	-	-
					neg.	-	-	-8.9	4.4	-	-	-	-
16	Front Seat Track	2086	-551	-463	pos.	-	-	63.4	5.0	-	-	-	-
					neg.	-	-	-11.4	9.1	-	-	-	-
17	Rear Seat Track	1389	-493	-526	pos.	-	-	133.3	6.0	-	-	-	-
					neg.	-	-	-33.2	21.2	-	-	-	-
18	Vehicle CG	2589	132	-380	pos.	3.7	51.1	49.4	9.5	12.7	19.9	51.3	9.3
					neg.	-10.6	8.4	-3.5	75.2	-14.5	8.0	0.0	-19.6

*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

† - Not accurate after 23 ms.

4-12

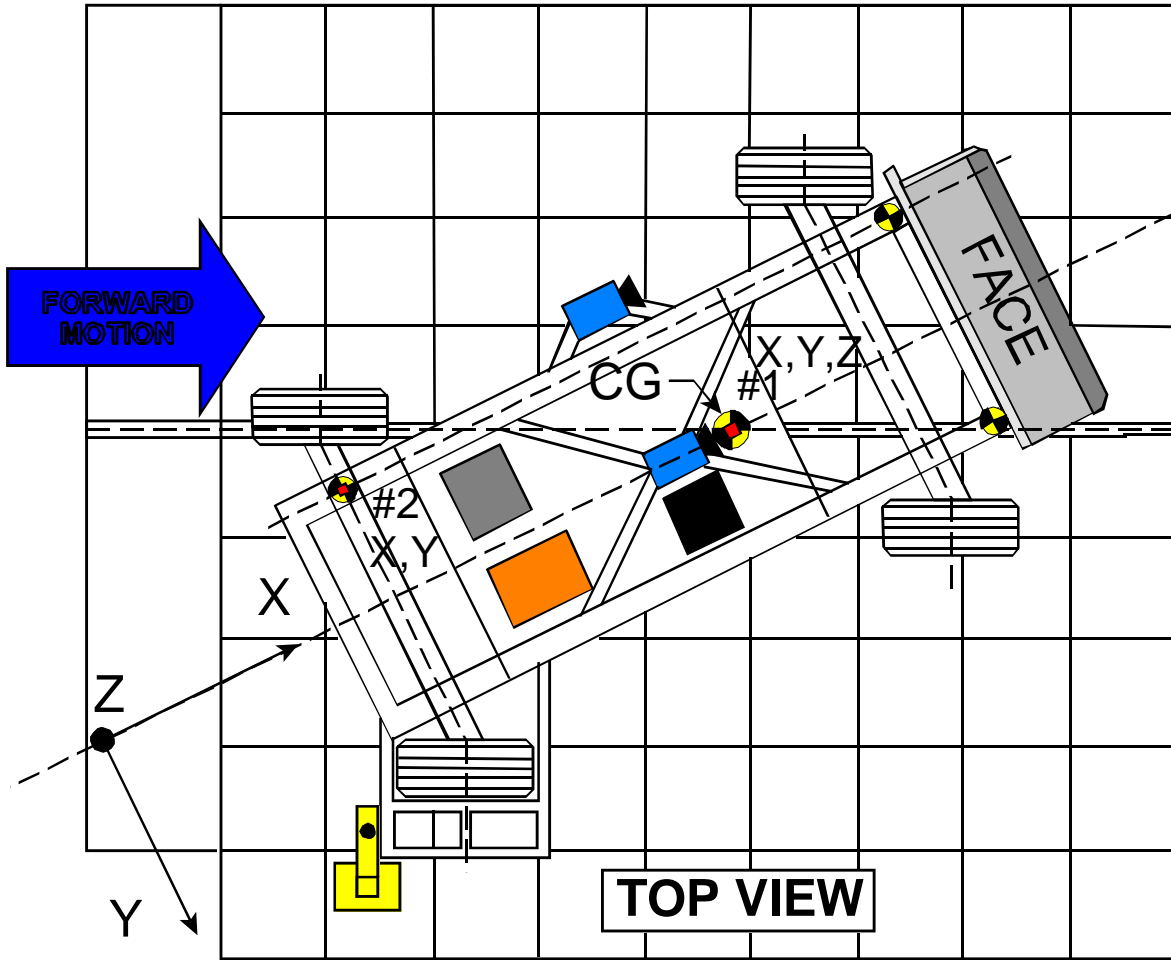
8675-F214-08

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	MDB Center of Gravity							
	Longitudinal... X	1859	0	-330	1.0	91.7	-21.7	35.1
	Lateral..... Y				2.9	55.1	-7.0	31.2
	Vertical..... Z				18.4	52.4	-17.9	58.6
	Resultant..... R				26.7	40.3	0.1	179.3
2	Rear Frame Member							
	Longitudinal... X	386	-660	-660	1.3	87.7	-24.6	28.9
	Lateral..... Y				3.6	18.8	-2.5	57.9

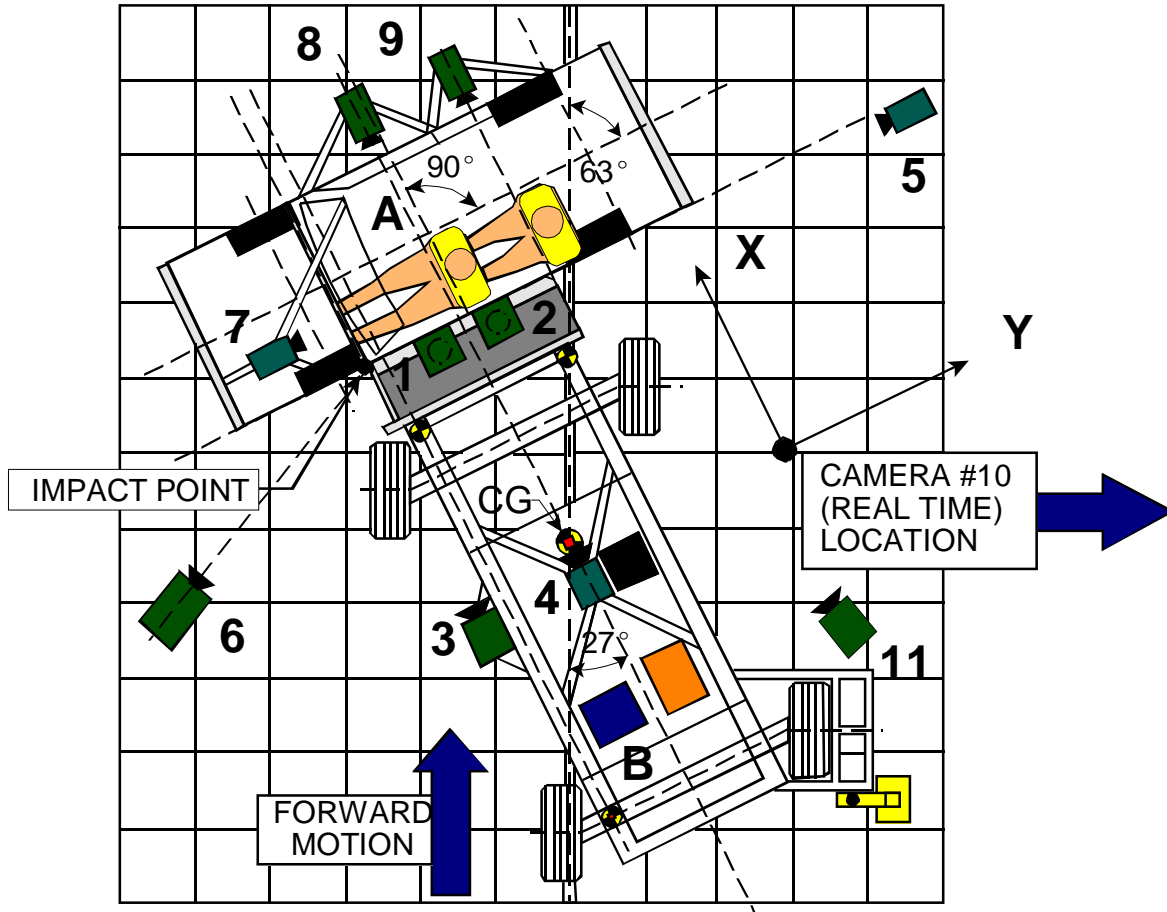
*Reference: X = Rear Bumper (+ Forward)
 Y = Vehicle Centerline (+ To Right)
 Z = Ground Level (+ Down)
 All measurements accurate to within ±3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2003 Honda Element MPV

NHTSA No. C35307



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	329	902	-4880	-90	8	1000
2	Overhead closeup view of impact plane	88	740	-4880	-90	12.5	1000
3	MDB onboard closeup view of impact point	-1470	0	-847	0	13	1010
4	MDB onboard view of driver dummy	-1140	838	-1586	-17	7.5	1000
5	Right side ground level overall view	-65	9325	-1088	-2	25	1000
6	Left side ground level overall view	-2310	-1567	-1069	-4	13	1000
7	Test vehicle onboard driver front view	495	-38	-1434	-10	13	800
8	Test vehicle onboard driver side view	1670	803	-1255	-5	8	1000
9	Test vehicle onboard passenger side view	1775	1595	-1295	-8	8	900
10	Real time film coverage of test	-	-	-	-	-	24

* Reference (from point of impact); all measurements accurate to within ± 6 mm.

X = (Impact Point) + Forward
 Y = (Impact Point) + To Right
 Z = (Ground Level) + Down

SECTION 5

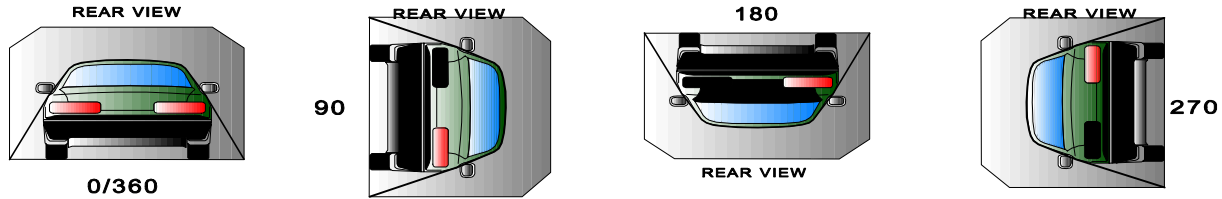
FUEL SYSTEM INTEGRITY

DATA SHEET 17

ROLLOVER DATA

Vehicle: 2003 Honda Element MPV

NHTSA No.: C35307



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds
0° - 90°	1	11	5	6	11	7	6	11	7	6	11	7
90° - 180°	1	03	5	6	3	7	6	3	7	6	3	7
180°-270°	1	00	5	6	0	7	6	0	7	6	0	7
270°-360°	1	10	5	6	10	7	6	10	7	6	10	7

II. FMVSS 301 REQUIREMENTS: (Maximum allowable solvent spillage):

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
142 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	0	0	0	N/A
90° - 180°	0	0	0	N/A
180°-270°	0	0	0	N/A
270°-360°	0	0	0	N/A

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

IV. SOLVENT SPILLAGE LOCATION(S):

Rollover Stage	Spillage Location
0° - 90°	None
90° - 180°	None
180°-270°	None
270°-360°	None

APPENDIX A

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Figure A- 29	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 31
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Figure A- 31	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3	A- 33
Figure A- 32	POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3	A- 34
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Figure A-1 PRE-TEST FRONTAL VIEW OF TEST VEHICLE



A-4

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Figure A-2 POST-TEST FRONTAL VIEW OF TEST VEHICLE



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Figure A-3 PRE-TEST REAR VIEW OF TEST VEHICLE



Figure A-4 POST-TEST REAR VIEW OF TEST VEHICLE



Figure A-5 PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE



Figure A-6 POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE



Figure A-7 PRE-TEST LEFT FRONT VIEW OF TEST VEHICLE



Figure A-8 POST-TEST LEFT FRONT VIEW OF TEST VEHICLE



Figure A-9 PRE-TEST LEFT REAR VIEW OF TEST VEHICLE



Figure A-10 POST-TEST LEFT REAR VIEW OF TEST VEHICLE



Figure A-11 PRE-TEST RIGHT FRONT VIEW OF TEST VEHICLE



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Figure A-12 POST-TEST RIGHT FRONT VIEW OF TEST VEHICLE



Figure A-13 PRE-TEST RIGHT REAR VIEW OF TEST VEHICLE



Figure A-14 POST-TEST RIGHT REAR VIEW OF TEST VEHICLE



Figure A-15 PRE-TEST FRONTAL VIEW OF IMPACTOR FACE



A-18

8675-F214-08

Figure A-16 POST-TEST FRONTAL VIEW OF IMPACTOR FACE



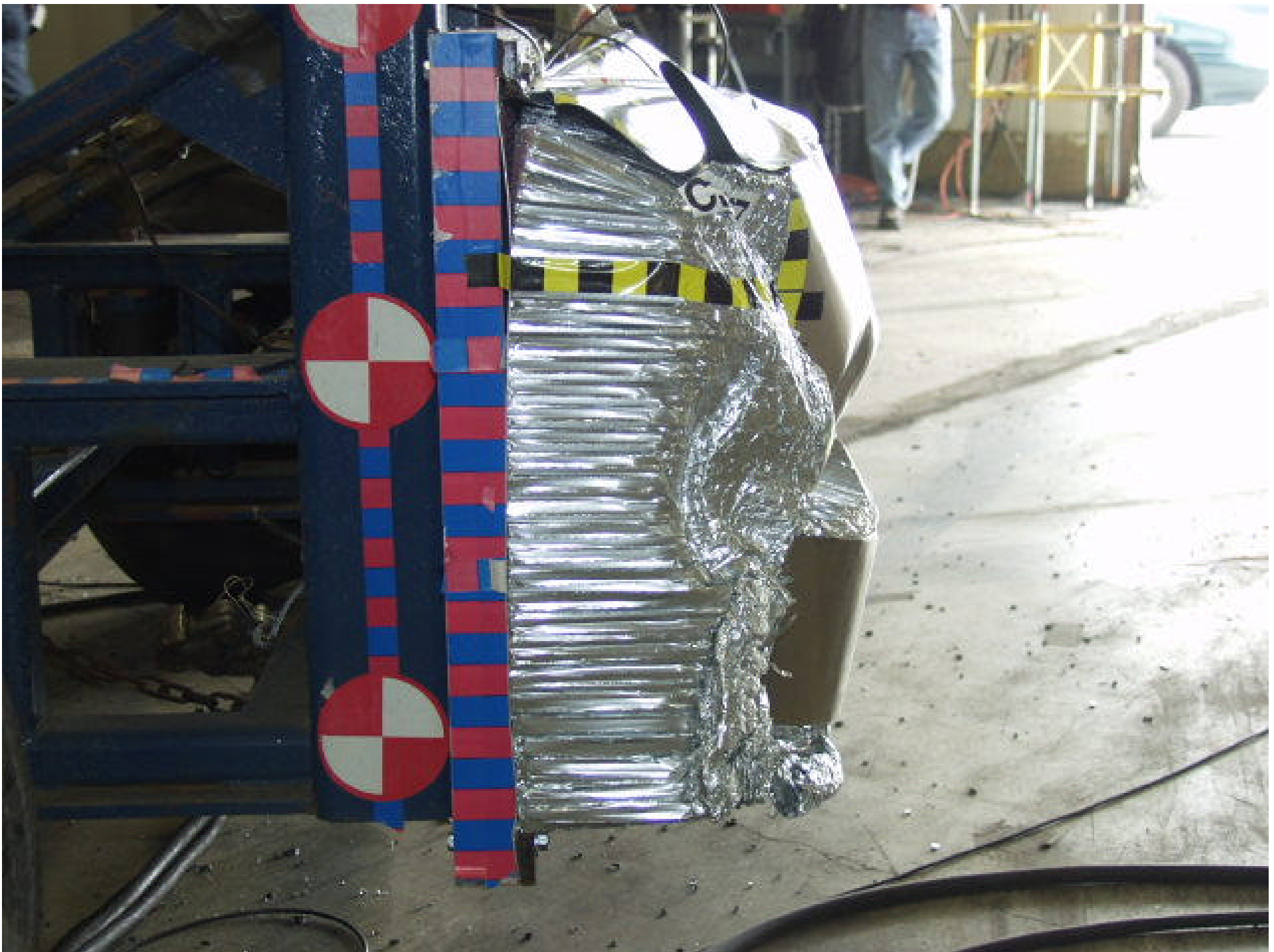
Figure A-17 PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE



Figure A-18 POST-TEST LEFT SIDE VIEW OF IMPACTOR FACE



Figure A-19 PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE



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Figure A-20 POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE



Figure A-21 PRE-TEST TOP VIEW OF IMPACTOR FACE



Figure A-22 POST-TEST TOP VIEW OF IMPACTOR FACE



Figure A-23 PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE



Figure A-24 POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE



A-27

8675-F214-08

Figure A-25 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



A-28

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Figure A-26 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-27 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



Figure A-28 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



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Figure A-29 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-30 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID



A-33

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Figure A-31 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



Figure A-32 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



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Figure A-33 PRE-TEST INTERIOR OF FRONT DOOR



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Figure A-34 POST-TEST INTERIOR OF FRONT DOOR SHOWING SID H3 IMPACT LOCATIONS



Figure A-35 PRE-TEST INTERIOR OF REAR DOOR



Figure A-36 POST-TEST INTERIOR OF REAR DOOR SHOWING SID H3 IMPACT LOCATIONS



Figure A-37 PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



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Figure A-38 PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-39 POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET



Figure A-40 CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL

TIRE INFORMATION SCV-A011

GVWR	4450bs	
GAWR	FRONT	REAR
	2300bs	2205bs
VEHICLE CAPACITY WEIGHT	675bs	
TIRE SIZE	P215/70R16-99S	
RIM SIZE	16x6 1/2 JJ	
COLD TIRE INFLATION PRESSURE	FRONT	REAR
	20Psi, 32psi	20Psi, 34psi
	UP TO VEHICLE CAPACITY WEIGHT	
SAFETY TIRE SIZE	T145/90D16-108M	
INFLATION (PSI/KPa)	420kPa, 60psi	
*SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION		

Figure A-41 CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL



Figure A-42 IMPACT PHOTO



Figure A-43 ROLLOVER 90 DEGREES

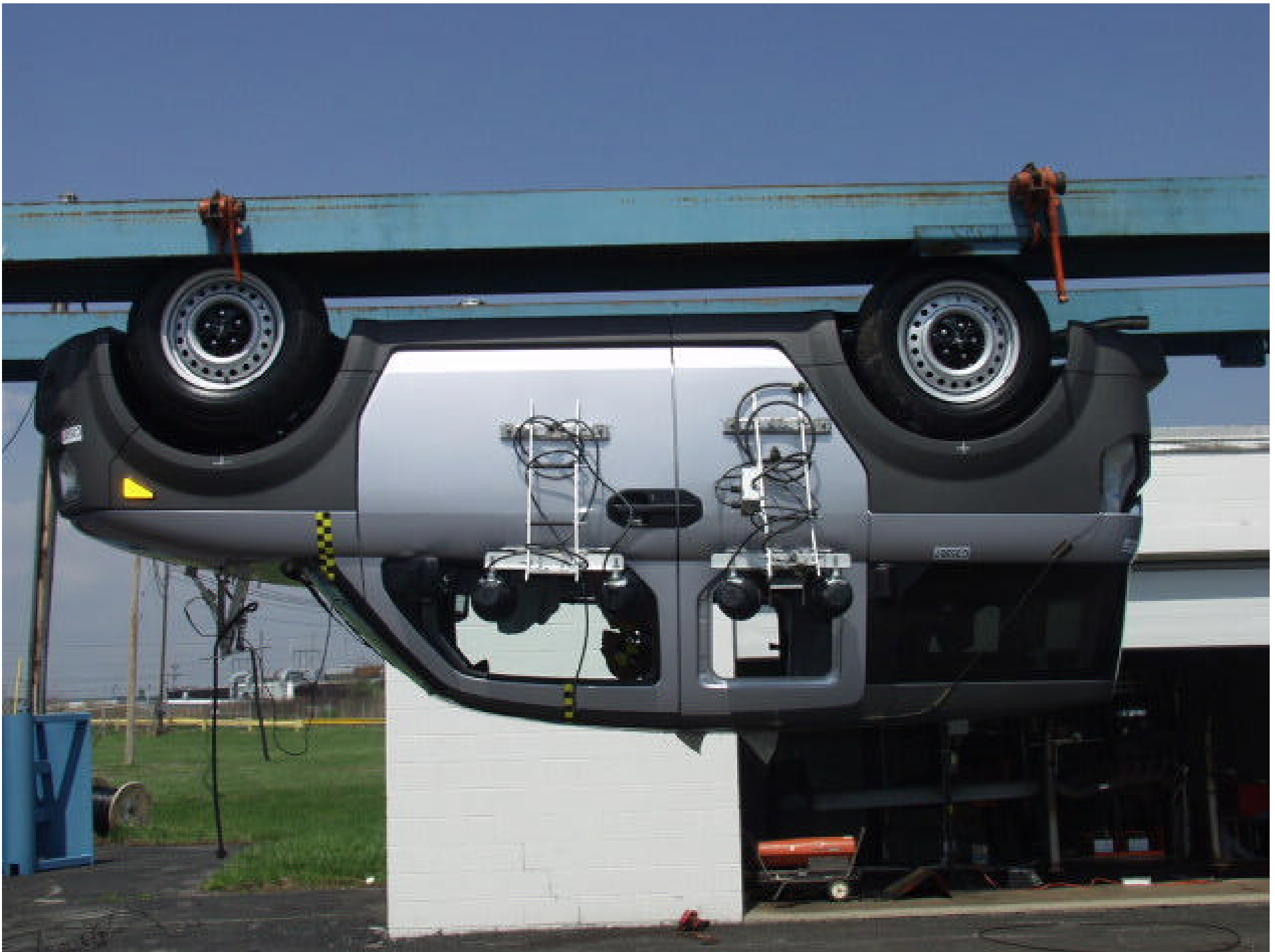


Figure A-44 ROLLOVER 180 DEGREES



Figure A-45 ROLLOVER 270 DEGREES



Figure A-46 ROLLOVER 360 DEGREES

APPENDIX B

VEHICLE, MDB AND SID HYBRID III RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS ACCELERATION, FORCE AND MOMENT DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180 INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
1	DRIVER HEAD 9 ARRAY X ARM (Y) ACCELERATION VS TIME	B- 7
2	DRIVER HEAD 9 ARRAY X ARM (Y) VELOCITY VS TIME	B- 8
3	DRIVER HEAD 9 ARRAY X ARM (Z) ACCELERATION VS TIME	B- 9
4	DRIVER HEAD 9 ARRAY X ARM (Z) VELOCITY VS TIME	B- 10
5	DRIVER HEAD 9 ARRAY Y ARM (X) ACCELERATION VS TIME	B- 11
6	DRIVER HEAD 9 ARRAY Y ARM (X) VELOCITY VS TIME	B- 12
7	DRIVER HEAD 9 ARRAY Y ARM (Z) ACCELERATION VS TIME	B- 13
8	DRIVER HEAD 9 ARRAY Y ARM (Z) VELOCITY VS TIME	B- 14
9	DRIVER HEAD 9 ARRAY Z ARM (X) ACCELERATION VS TIME	B- 15
10	DRIVER HEAD 9 ARRAY Z ARM (X) VELOCITY VS TIME	B- 16
11	DRIVER HEAD 9 ARRAY Z ARM (Y) ACCELERATION VS TIME	B- 17
12	DRIVER HEAD 9 ARRAY Z ARM (Y) VELOCITY VS TIME	B- 18
13	DRIVER HEAD (X) ACCELERATION VS TIME	B- 19
14	DRIVER HEAD (X) VELOCITY VS TIME	B- 20
15	DRIVER HEAD (Y) ACCELERATION VS TIME	B- 21
16	DRIVER HEAD (Y) VELOCITY VS TIME	B- 22
17	DRIVER HEAD (Z) ACCELERATION VS TIME	B- 23
18	DRIVER HEAD (Z) VELOCITY VS TIME	B- 24
19	DRIVER HEAD RESULTANT ACCELERATION VS TIME	B- 25
20	DRIVER UPPER NECK (X) FORCE VS TIME	B- 26
21	DRIVER UPPER NECK (Y) FORCE VS TIME	B- 27
22	DRIVER UPPER NECK (Z) FORCE VS TIME	B- 28
23	DRIVER UPPER NECK RESULTANT FORCE VS TIME	B- 29
24	DRIVER UPPER NECK (X) MOMENT VS TIME	B- 30
25	DRIVER UPPER NECK (Y) MOMENT VS TIME	B- 31
26	DRIVER UPPER NECK (Z) MOMENT VS TIME	B- 32
27	DRIVER UPPER NECK RESULTANT MOMENT VS TIME	B- 33
28	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 34
29	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 35
30	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 36
31	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 37
32	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 38
33	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 39
34	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 40
35	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 41

DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS
 ACCELERATION, FORCE AND MOMENT DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180
 INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
36	PASSENGER HEAD 9 ARRAY X ARM (Y) ACCELERATION VS TIME	B- 42
37	PASSENGER HEAD 9 ARRAY X ARM (Y) VELOCITY VS TIME	B- 43
38	PASSENGER HEAD 9 ARRAY X ARM (Z) ACCELERATION VS TIME	B- 44
39	PASSENGER HEAD 9 ARRAY X ARM (Z) VELOCITY VS TIME	B- 45
40	PASSENGER HEAD 9 ARRAY Y ARM (X) ACCELERATION VS TIME	B- 46
41	PASSENGER HEAD 9 ARRAY Y ARM (X) VELOCITY VS TIME	B- 47
42	PASSENGER HEAD 9 ARRAY Y ARM (Z) ACCELERATION VS TIME	B- 48
43	PASSENGER HEAD 9 ARRAY Y ARM (Z) VELOCITY VS TIME	B- 49
44	PASSENGER HEAD 9 ARRAY Z ARM (X) ACCELERATION VS TIME	B- 50
45	PASSENGER HEAD 9 ARRAY Z ARM (X) VELOCITY VS TIME	B- 51
46	PASSENGER HEAD 9 ARRAY Z ARM (Y) ACCELERATION VS TIME	B- 52
47	PASSENGER HEAD 9 ARRAY Z ARM (Y) VELOCITY VS TIME	B- 53
48	PASSENGER HEAD (X) ACCELERATION VS TIME	B- 54
49	PASSENGER HEAD (X) VELOCITY VS TIME	B- 55
50	PASSENGER HEAD (Y) ACCELERATION VS TIME	B- 56
51	PASSENGER HEAD (Y) VELOCITY VS TIME	B- 57
52	PASSENGER HEAD (Z) ACCELERATION VS TIME	B- 58
53	PASSENGER HEAD (Z) VELOCITY VS TIME	B- 59
54	PASSENGER HEAD RESULTANT ACCELERATION VS TIME	B- 60
55	DRIVER UPPER NECK (X) FORCE VS TIME	B- 61
56	DRIVER UPPER NECK (Y) FORCE VS TIME	B- 62
57	DRIVER UPPER NECK (Z) FORCE VS TIME	B- 63
58	DRIVER UPPER NECK RESULTANT FORCE VS TIME	B- 64
59	DRIVER UPPER NECK (X) MOMENT VS TIME	B- 65
60	DRIVER UPPER NECK (Y) MOMENT VS TIME	B- 66
61	DRIVER UPPER NECK (Z) MOMENT VS TIME	B- 67
62	DRIVER UPPER NECK RESULTANT MOMENT VS TIME	B- 68
63	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 69
64	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 70
65	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 71
66	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 72
67	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 73
68	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 74
69	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 75
70	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 76

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS
 ACCELERATION DATA - FIR FILTERED

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
71	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 77
72	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 78
73	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 79
74	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 80
75	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 81
76	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 82
77	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 83
78	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 84

TEST VEHICLE INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
79	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 85
80	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 86
81	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 87
82	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 88
83	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 89
84	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 90
85	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 91
86	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 92
87	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 93
88	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 94
89	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 95
90	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 96
91	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 97
92	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 98
93	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 99
94	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 100
95	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 101
96	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 102
97	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 103
98	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 104
99	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 105
100	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 106
101	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 107
102	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 108
103	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 109
104	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 110
105	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 111
106	LOWER B-POST (Y) ACCELERATION VS TIME	B- 112
107	LOWER B-POST (Y) VELOCITY VS TIME	B- 113
108	UPPER B-POST (Y) ACCELERATION VS TIME	B- 114
109	UPPER B-POST (Y) VELOCITY VS TIME	B- 115
110	LOWER A-POST (Y) ACCELERATION VS TIME	B- 116
111	LOWER A-POST (Y) VELOCITY VS TIME	B- 117
112	UPPER A-POST (Y) ACCELERATION VS TIME	B- 118
113	UPPER A-POST (Y) VELOCITY VS TIME	B- 119
114	FRONT SEAT TRACK (Y) ACCELERATION VS TIME	B- 120
115	FRONT SEAT TRACK (Y) VELOCITY VS TIME	B- 121
116	REAR SEAT TRACK (Y) ACCELERATION VS TIME	B- 122
117	REAR SEAT TRACK (Y) VELOCITY VS TIME	B- 123

TEST VEHICLE INSTRUMENTATION PLOTS
 ACCELERATION DATA - FILTER CLASS 60
 INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
118	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 124
119	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 125
120	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 126
121	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 127
122	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 128
123	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 129
124	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 130

MDB INSTRUMENTATION PLOTS
 ACCELERATION DATA - FILTER CLASS 60
 INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
125	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 131
126	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 132
127	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 133
128	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 134
129	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 135
130	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 136
131	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 137
132	MDB REAR (X) ACCELERATION VS TIME	B- 138
133	MDB REAR (X) VELOCITY VS TIME	B- 139
134	MDB REAR (Y) ACCELERATION VS TIME	B- 140
135	MDB REAR (Y) VELOCITY VS TIME	B- 141

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
 ACCELERATION DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180
 INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
136	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 142
137	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 143
138	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 144
139	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 145
140	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 146
141	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 147
142	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 148
143	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 149
144	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 150
145	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 151
146	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 152
147	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 153
148	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 154
149	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 155
150	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 156
151	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 157

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
 ACCELERATION DATA - FIR FILTERED

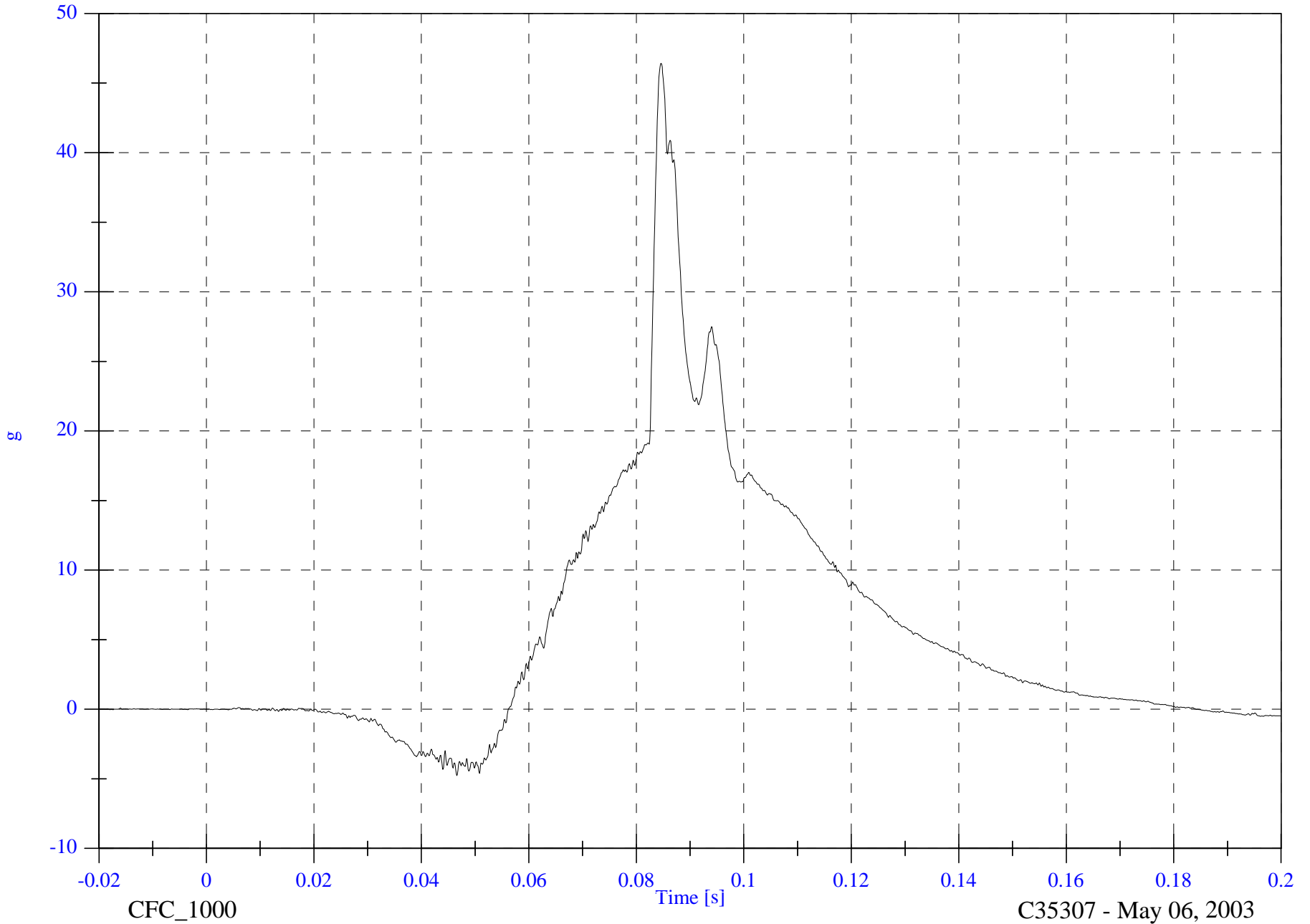
<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
152	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 158
153	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 159
154	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 160
155	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 161
156	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 162
157	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 163
158	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 164
159	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 165

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Head 9 Array X Arm Ay

Max: 46.4 [g] at 0.085 [s]

Min: -4.8 [g] at 0.047 [s]



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8675-F214-08

2003 FMVSS 214D Test 8 2003 Honda Element

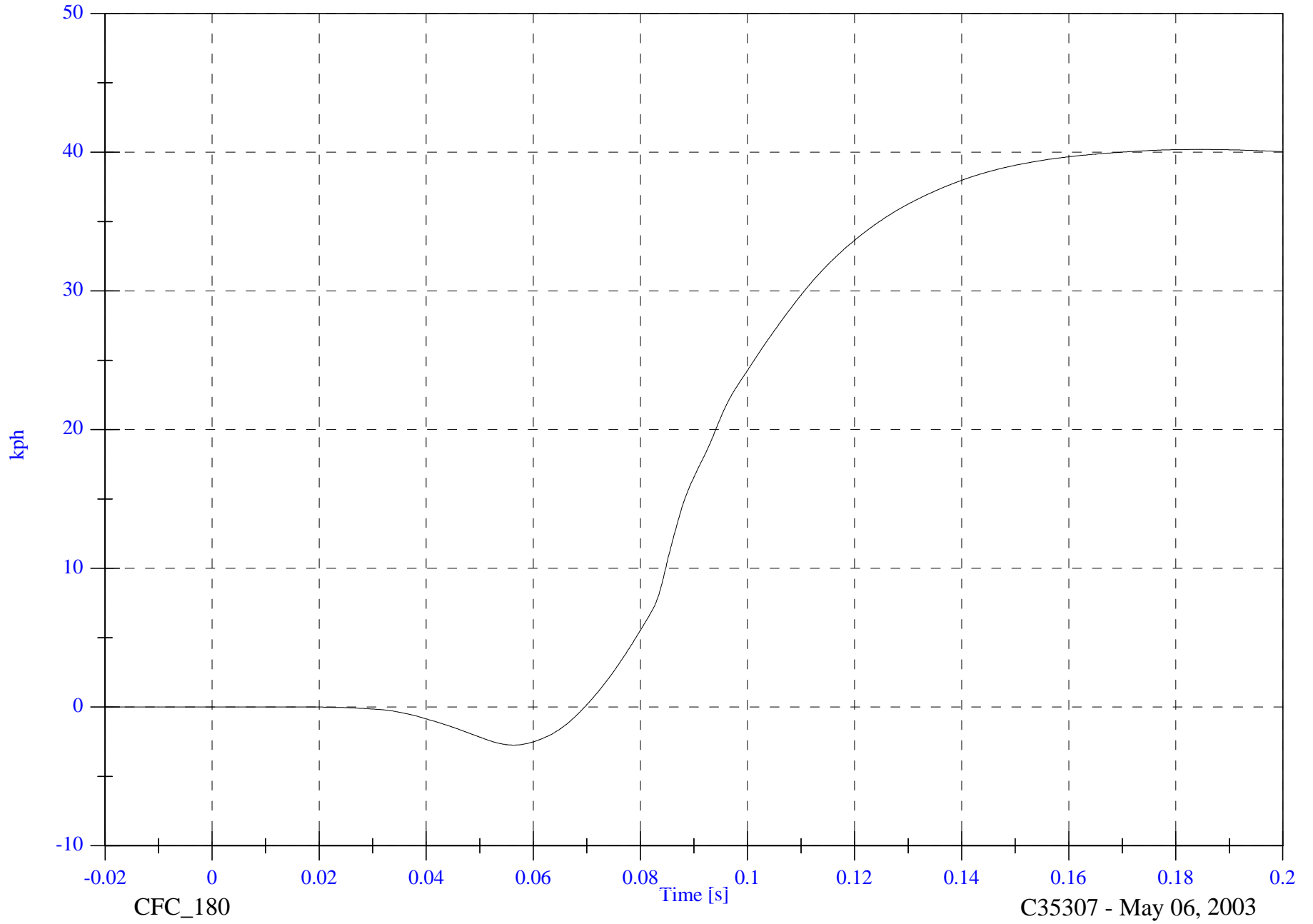
V2P1 Head 9 Array X Arm Ay Velocity

Max: 40.2 [kph] at 0.184 [s]

Min: -2.7 [kph] at 0.056 [s]

B-8

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

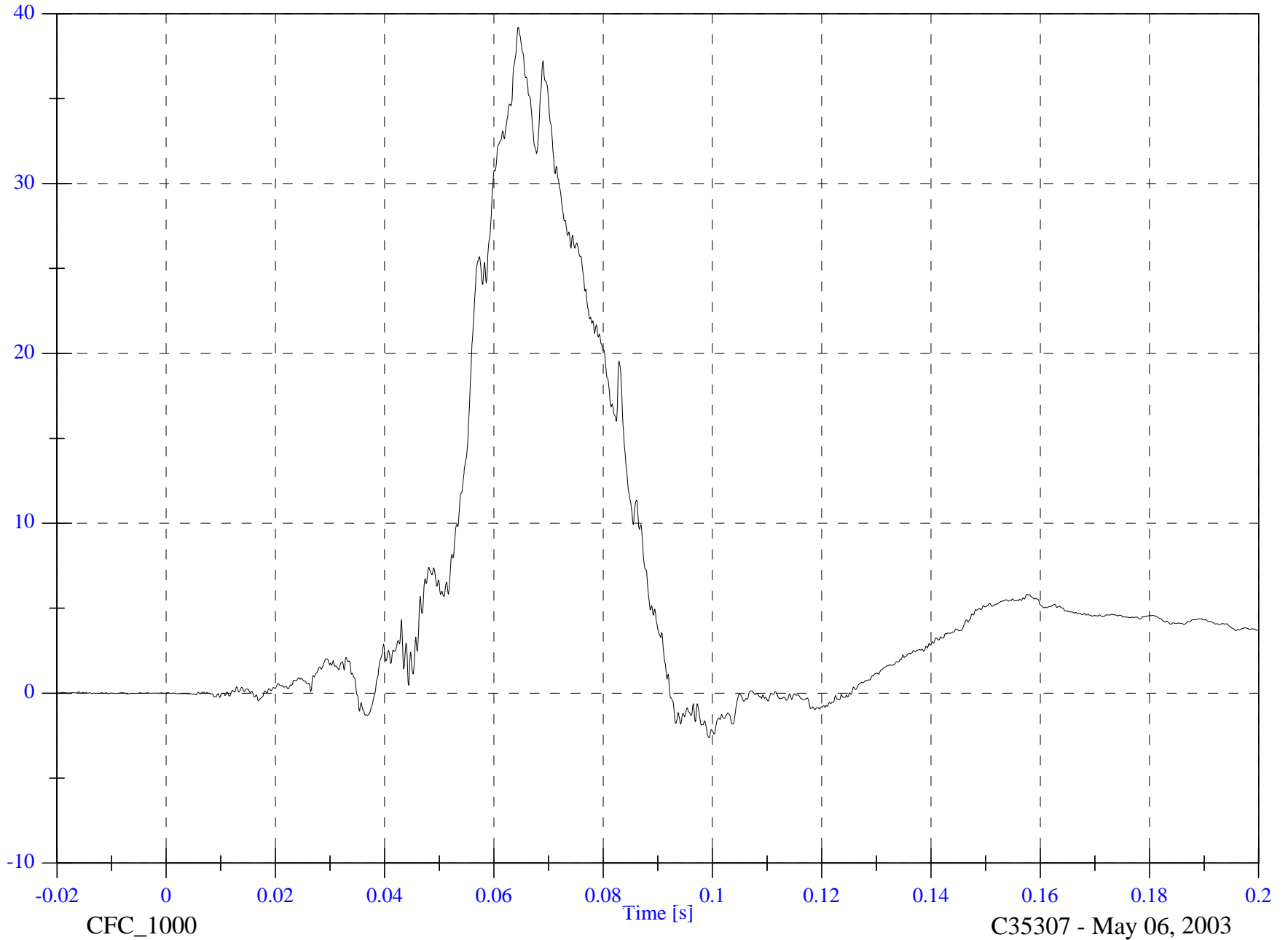
V2P1 Head 9 Array X Arm Az

Max: 39.2 [g] at 0.064 [s]

Min: -2.6 [g] at 0.099 [s]

B-9

g



8675-F214-08

CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

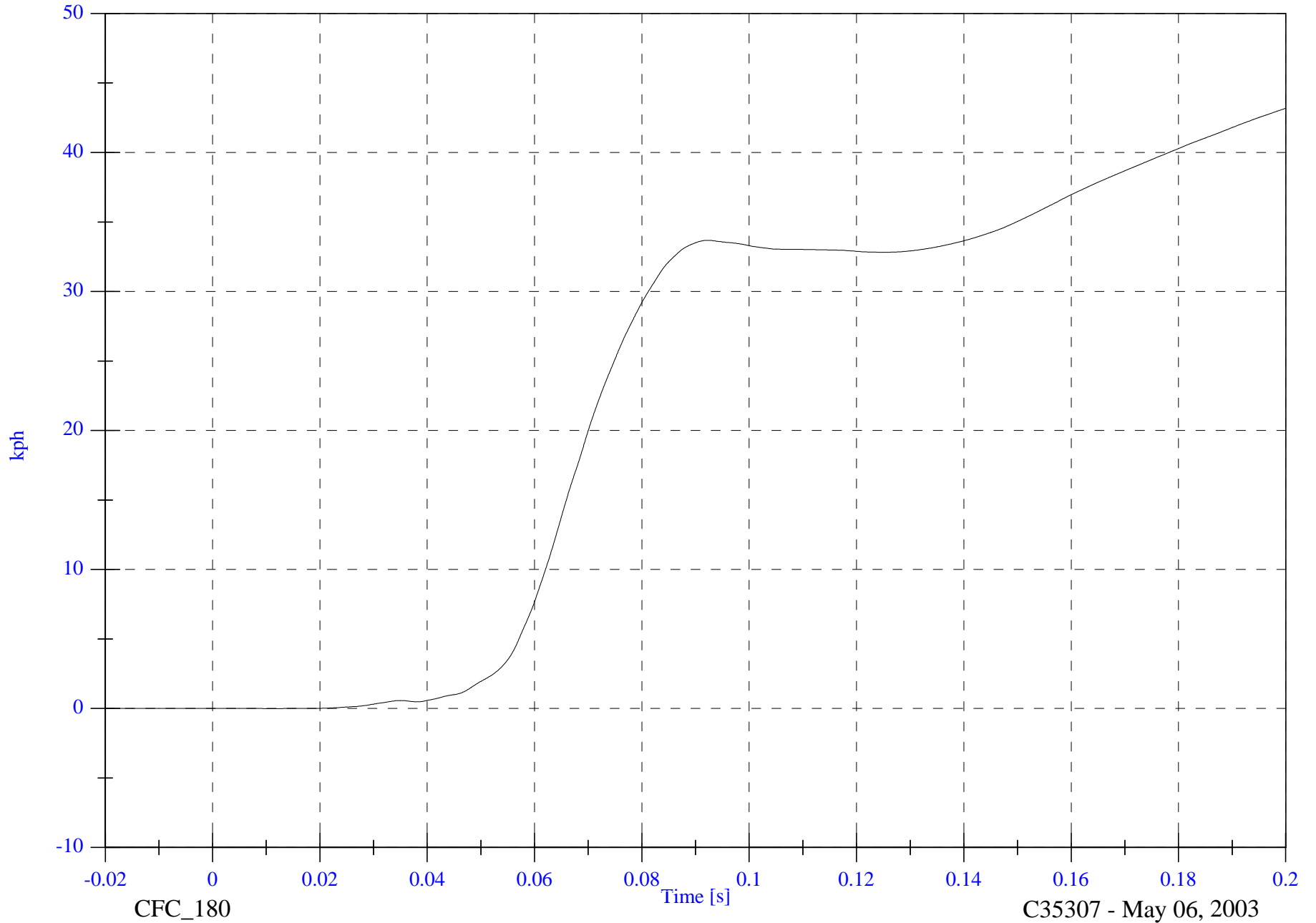
V2P1 Head 9 Array X Arm Az Velocity

Max: 43.2 [kph] at 0.200 [s]

Min: -0.0 [kph] at 0.012 [s]

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8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

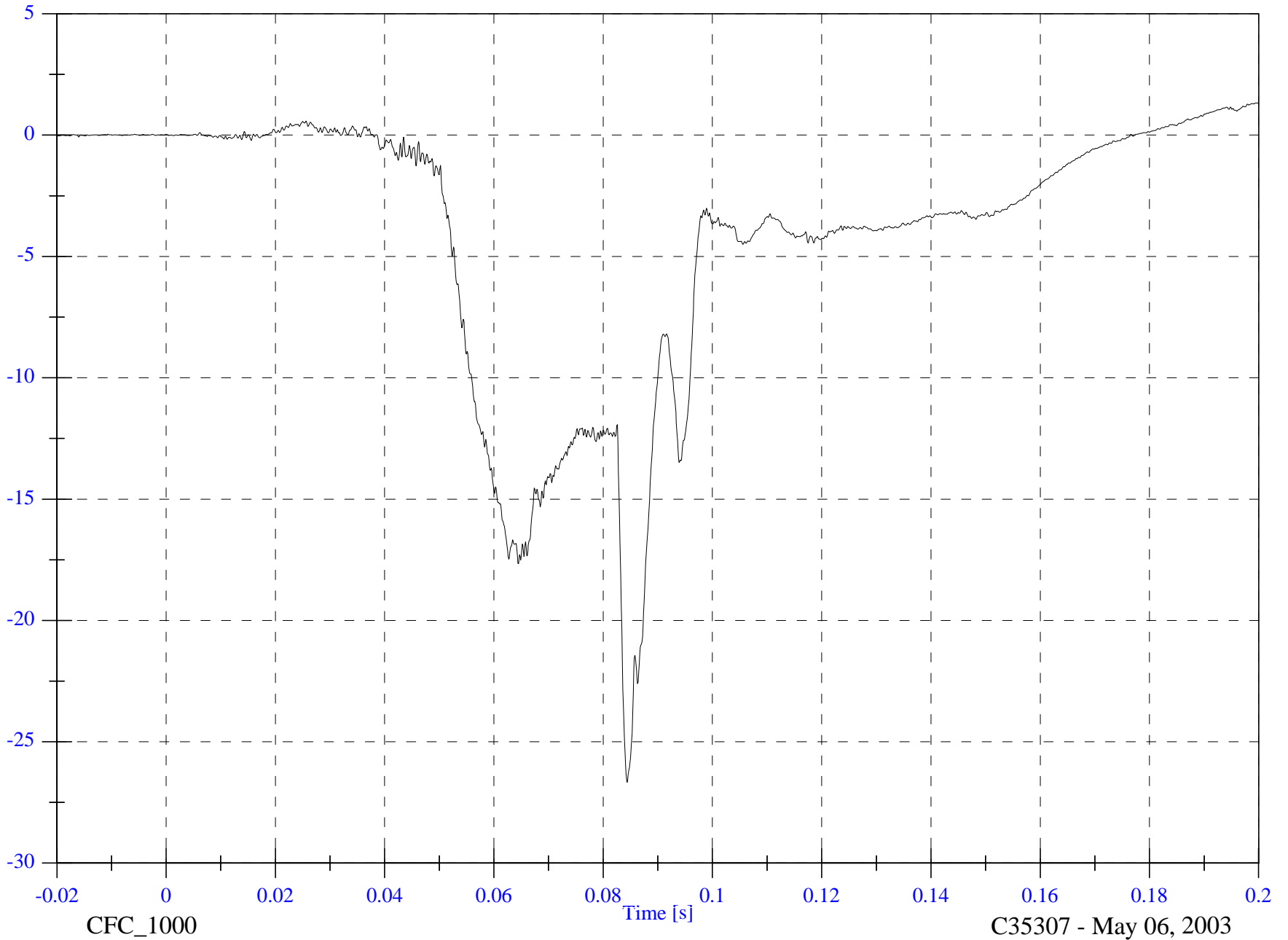
V2P1 Head 9 Array Y Arm Ax

Max: 1.3 [g] at 0.200 [s]

Min: -26.7 [g] at 0.084 [s]

B-11

g



8675-F214-08

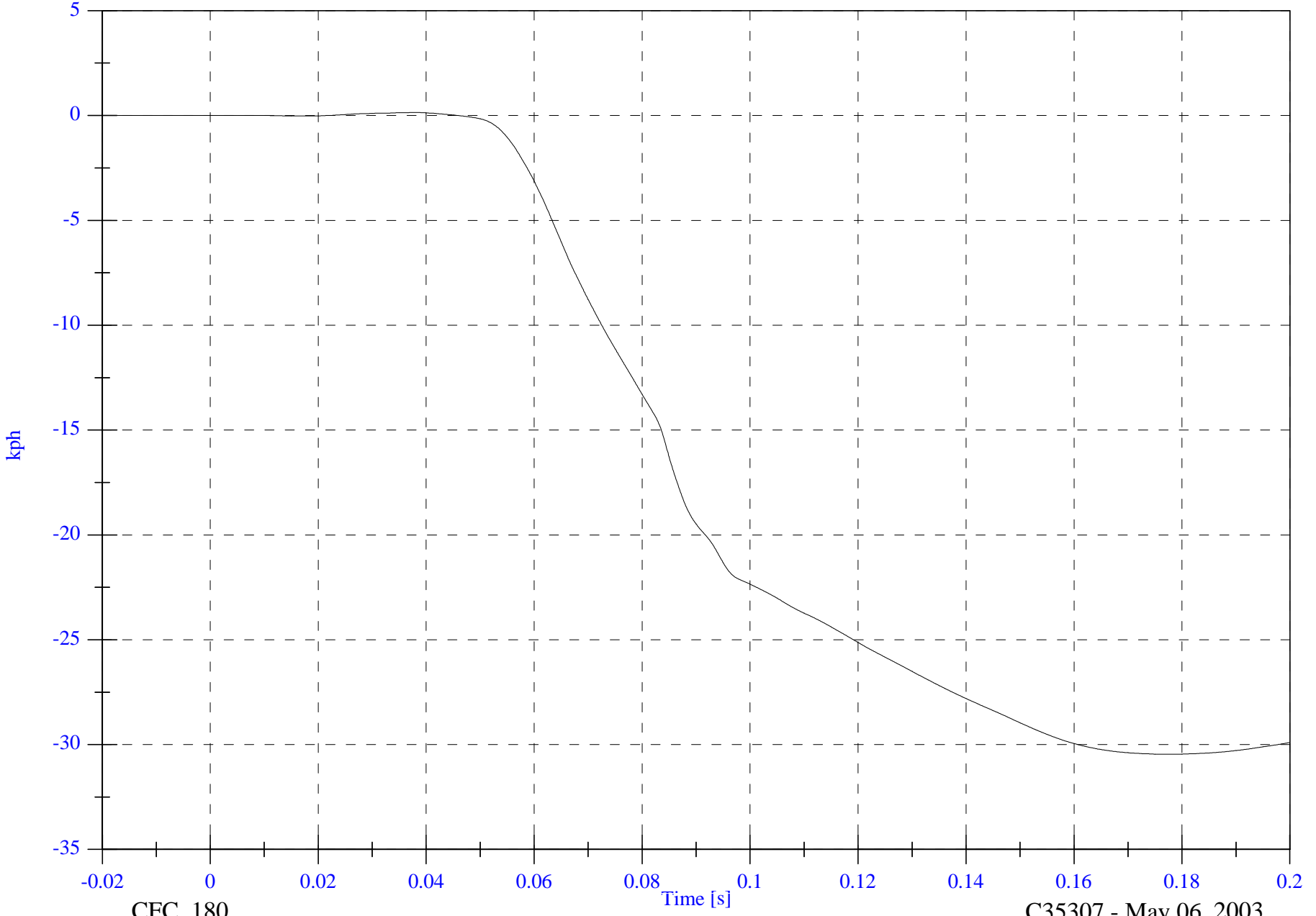
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Head 9 Array Y Arm Ax Velocity

Max: 0.1 [kph] at 0.038 [s]

Min: -30.5 [kph] at 0.177 [s]



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8675-F214-08

CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

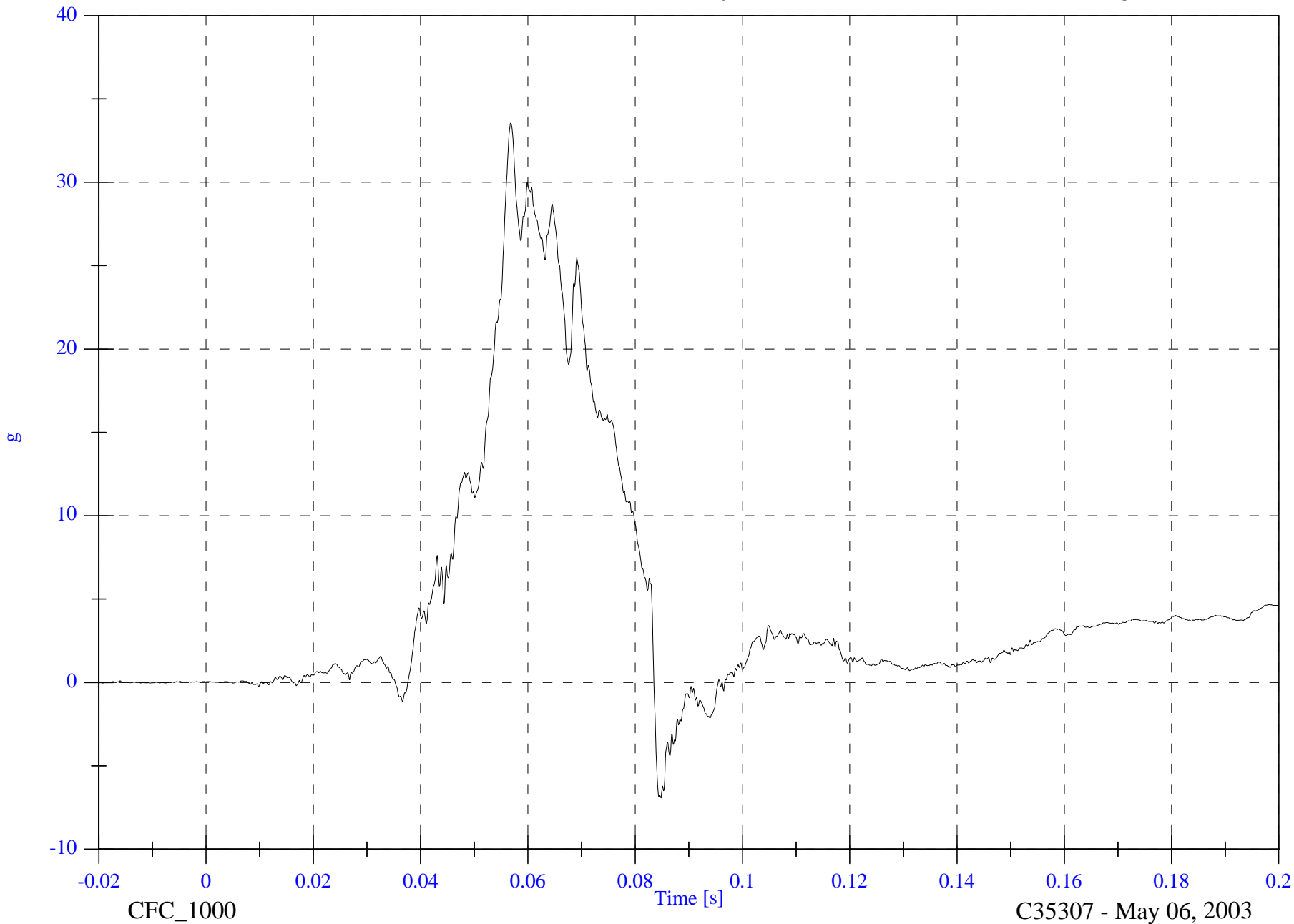
V2P1 Head 9 Array Y Arm Az

Max: 33.6 [g] at 0.057 [s]

Min: -6.9 [g] at 0.085 [s]

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8675-F214-08



2003 FMVSS 214D Test 8 2003 Honda Element

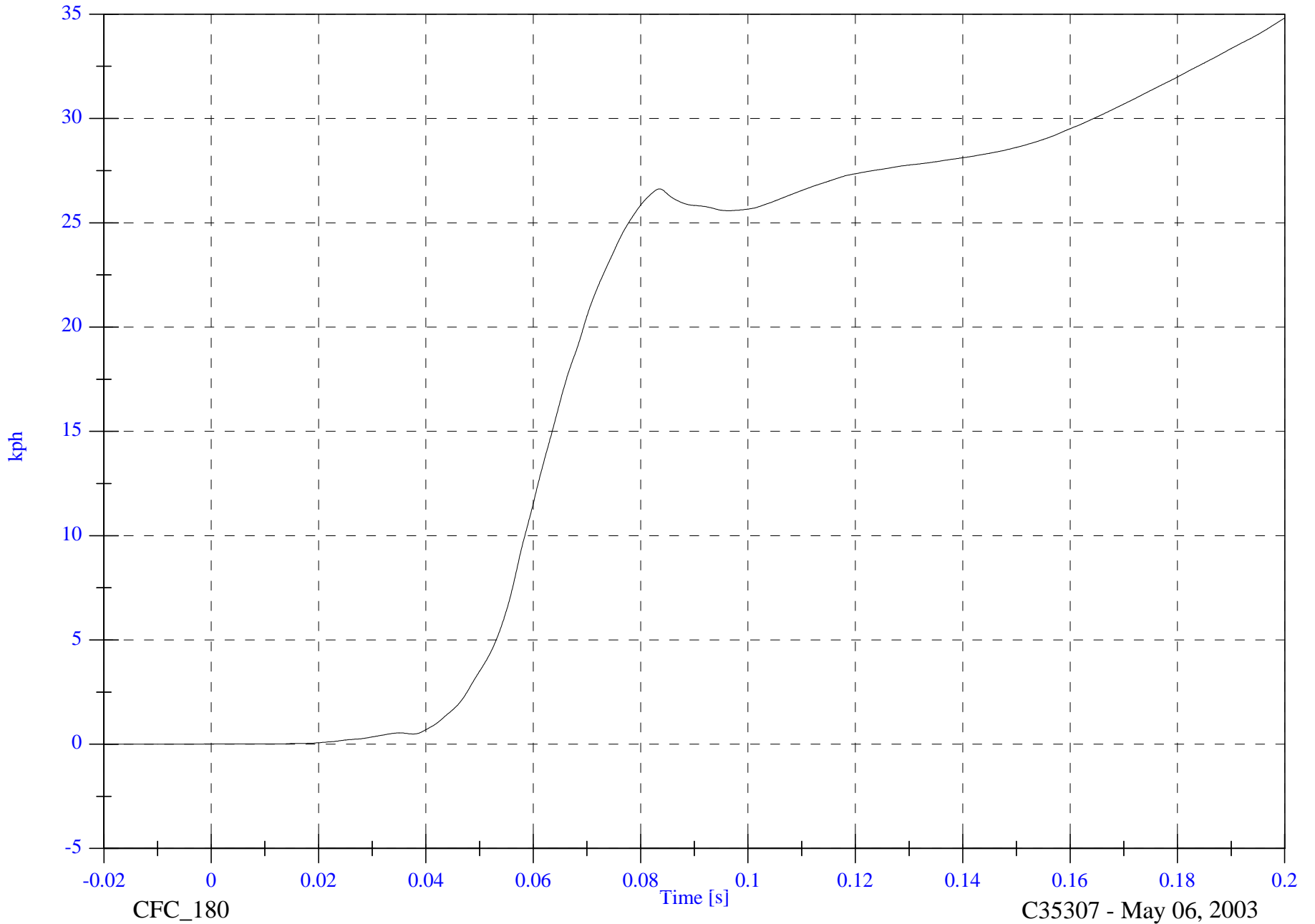
V2P1 Head 9 Array Y Arm Az Velocity

Max: 34.8 [kph] at 0.200 [s]

Min: -0.0 [kph] at -0.018 [s]

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8675-F214-08



CFC_180

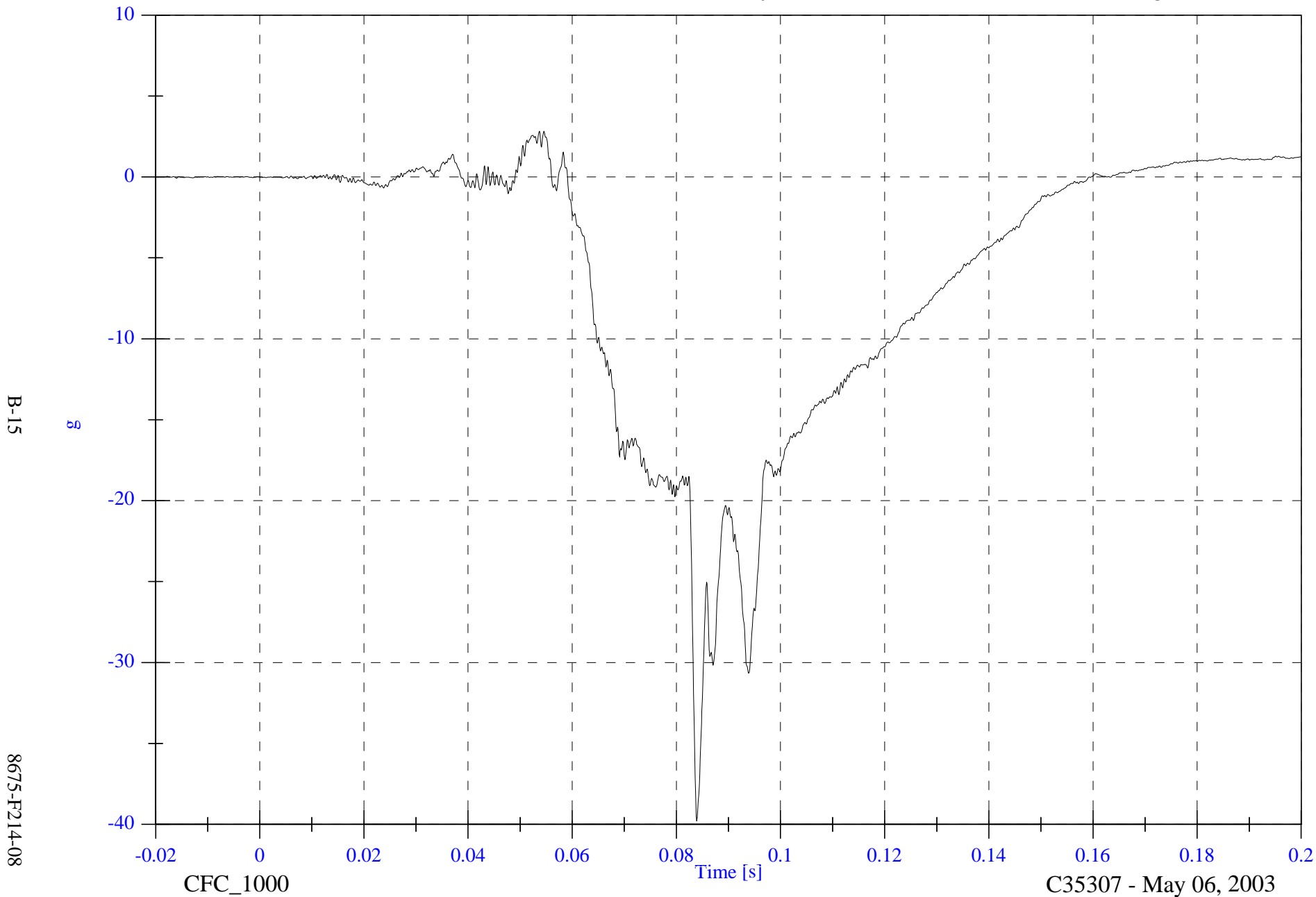
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Head 9 Array Z Arm Ax

Max: 2.8 [g] at 0.055 [s]

Min: -39.8 [g] at 0.084 [s]



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8675-F214-08

2003 FMVSS 214D Test 8 2003 Honda Element

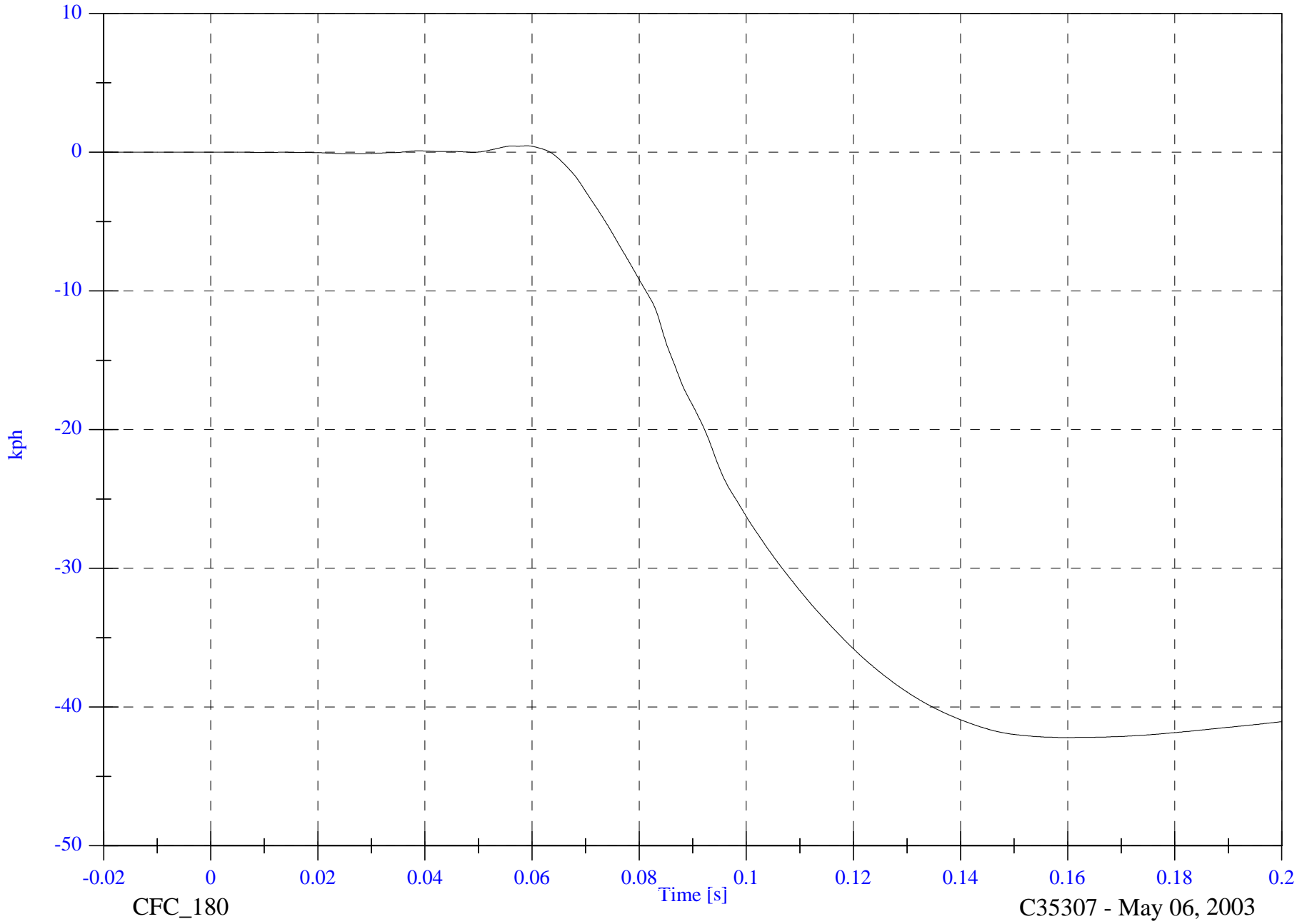
V2P1 Head 9 Array Z Arm Ax Velocity

Max: 0.5 [kph] at 0.059 [s]

Min: -42.2 [kph] at 0.159 [s]

B-16

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

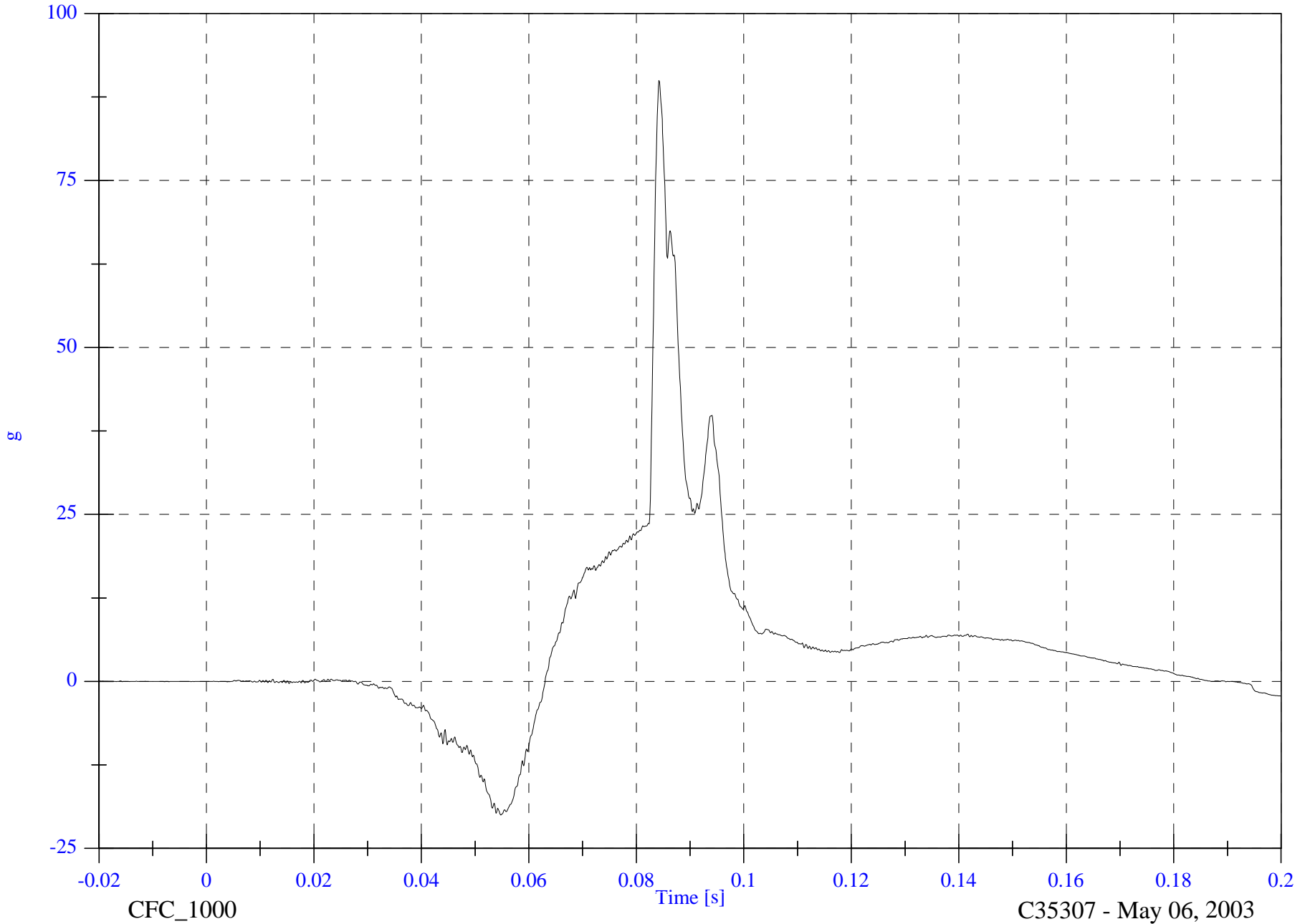
V2P1 Head 9 Array Z Arm Ay

Max: 90.0 [g] at 0.084 [s]

Min: -20.0 [g] at 0.055 [s]

B-17

8675-F214-08



CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

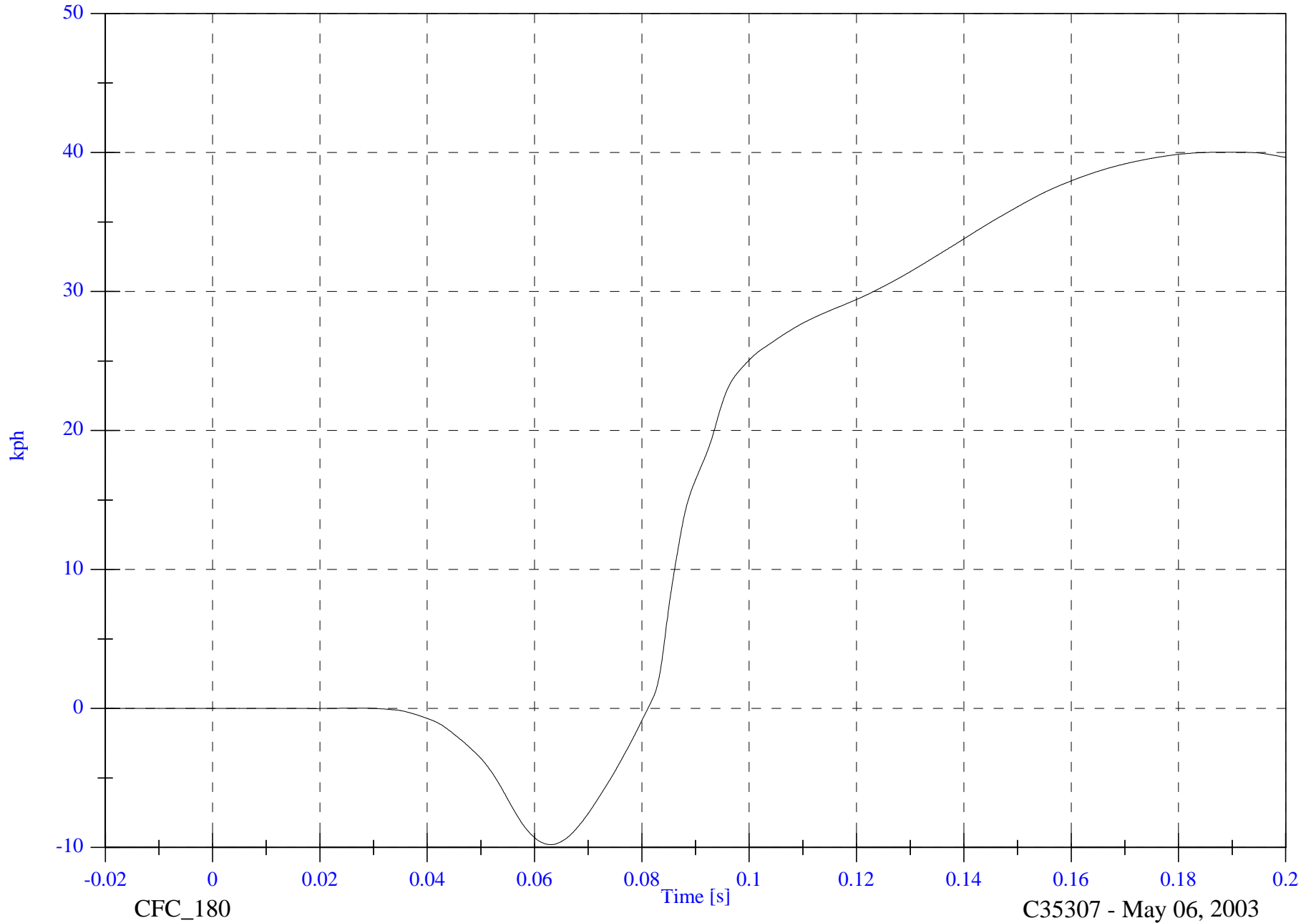
V2P1 Head 9 Array Z Arm Ay Velocity

Max: 40.0 [kph] at 0.190 [s]

Min: -9.8 [kph] at 0.063 [s]

B-18

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

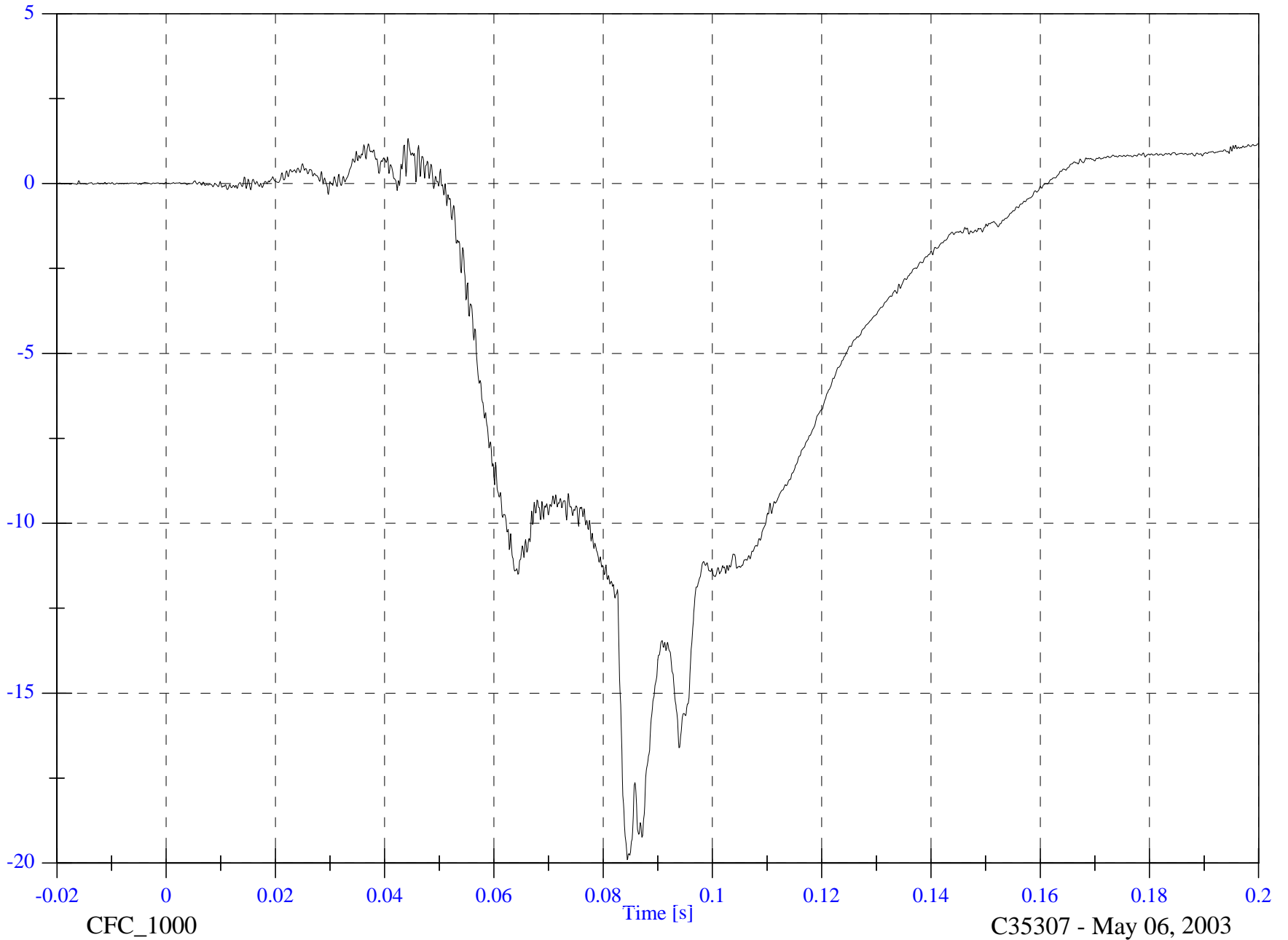
V2P1 Head x

Max: 1.3 [g] at 0.044 [s]

Min: -19.9 [g] at 0.084 [s]

B-19

g



8675-F214-08

CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

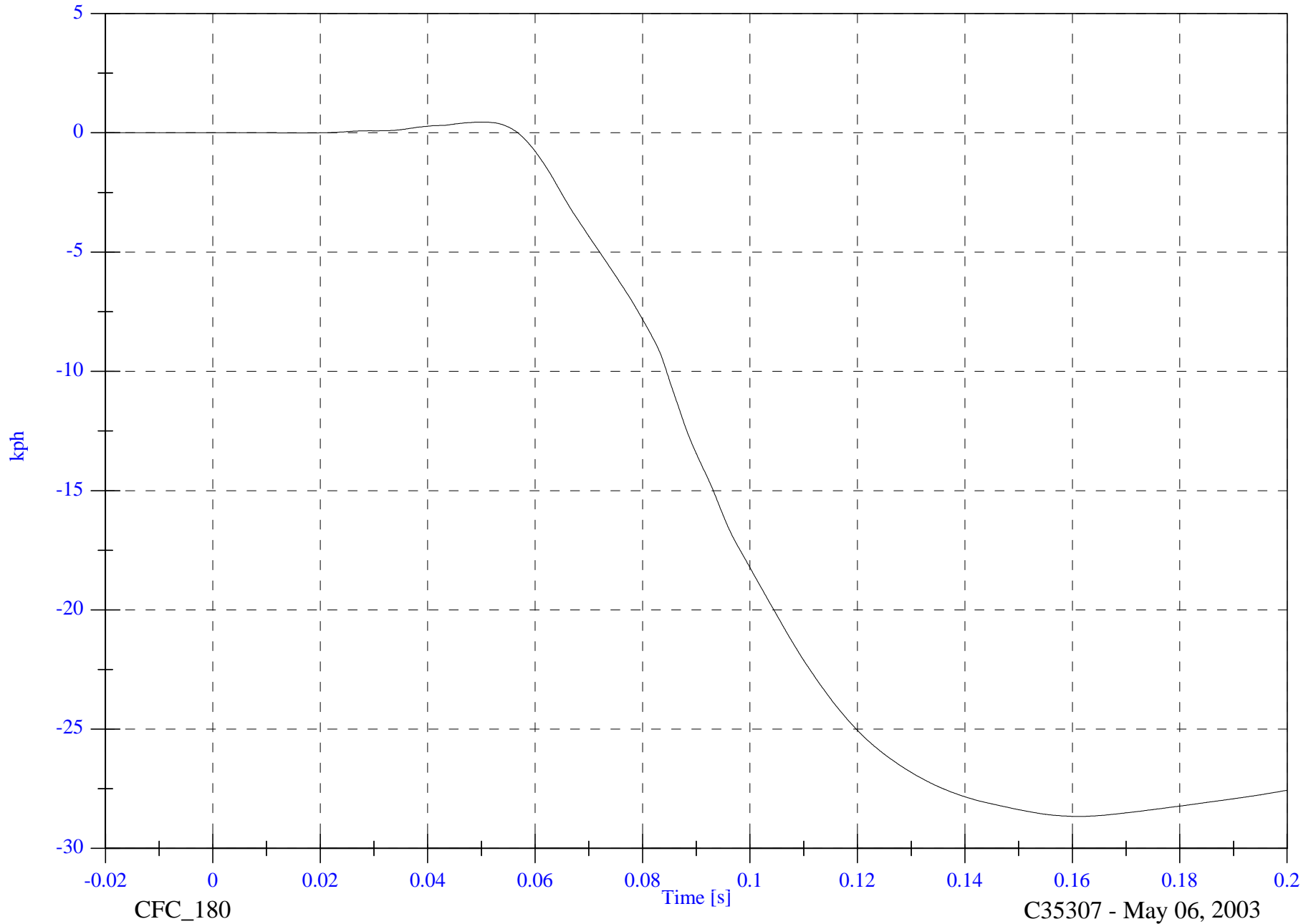
V2P1 Head x Velocity

Max: 0.4 [kph] at 0.050 [s]

Min: -28.7 [kph] at 0.161 [s]

B-20

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

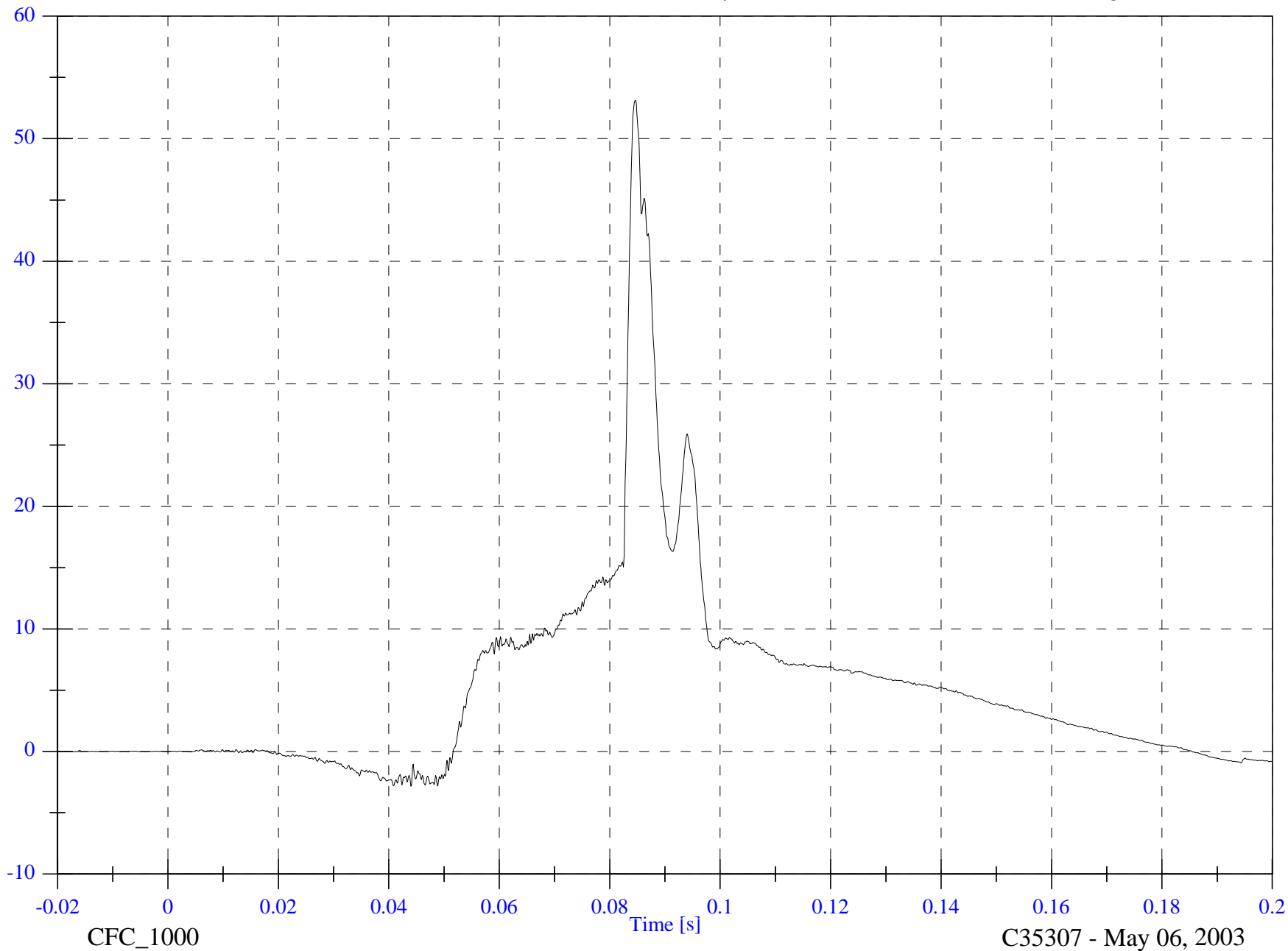
Max: 53.1 [g] at 0.085 [s]

V2P1 Head y

Min: -2.8 [g] at 0.044 [s]

B-21

g



8675-F214-08

CFC_1000

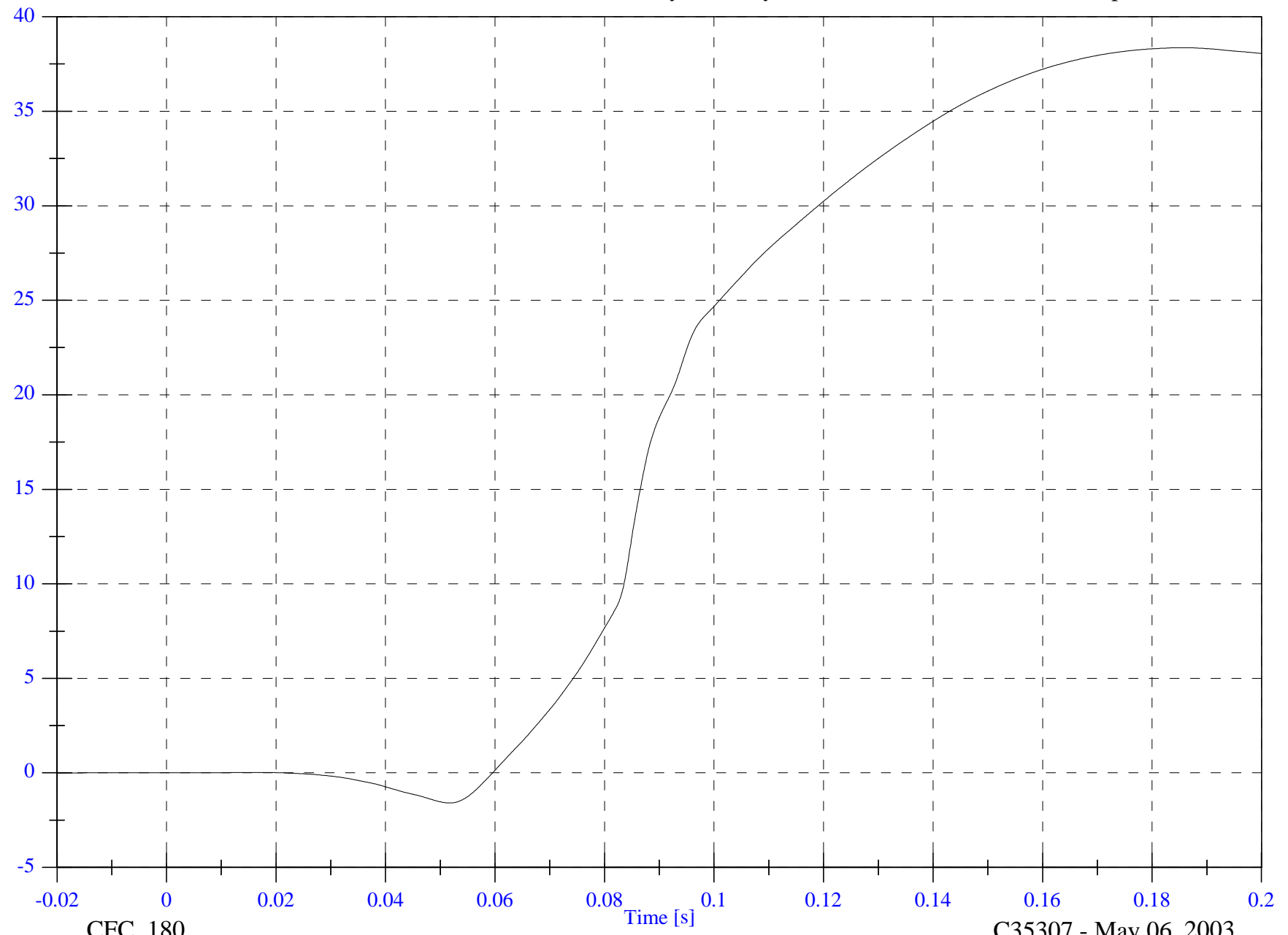
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 38.4 [kph] at 0.185 [s]

V2P1 Head y Velocity

Min: -1.6 [kph] at 0.052 [s]



B-22

8675-F214-08

CFC_180

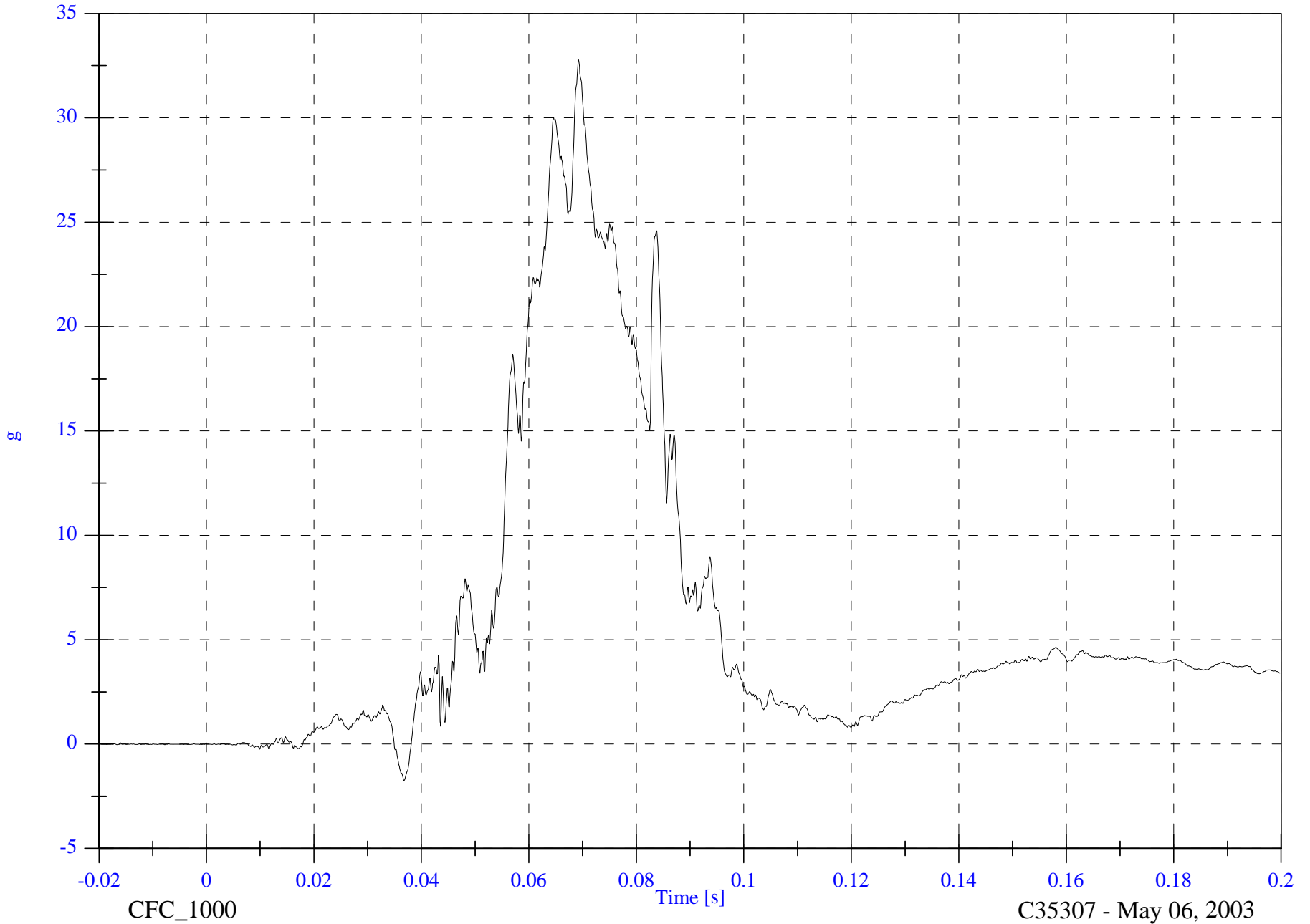
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Head z

Max: 32.8 [g] at 0.069 [s]

Min: -1.8 [g] at 0.037 [s]



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8675-F214-08

CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

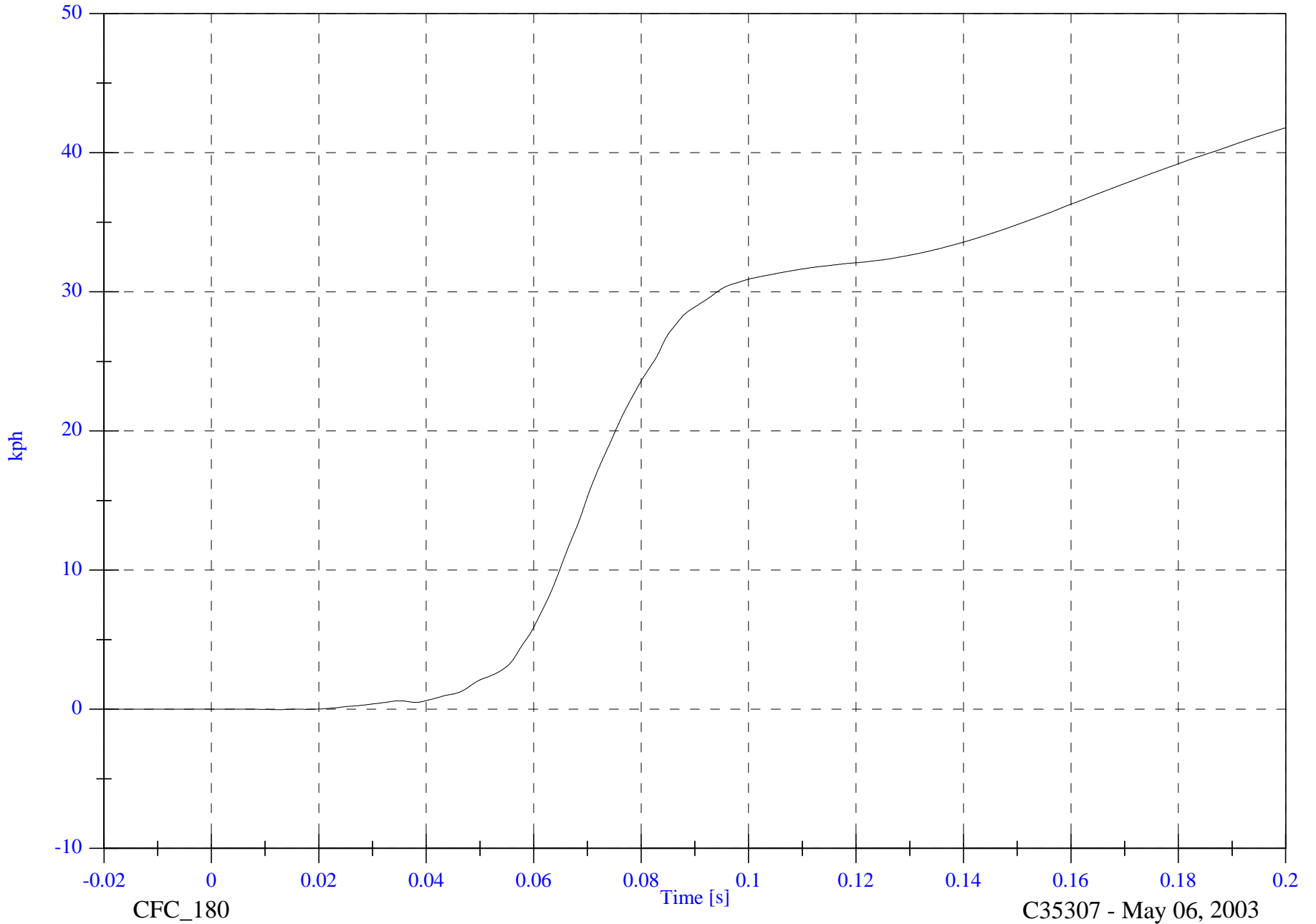
V2P1 Head z Velocity

Max: 41.8 [kph] at 0.200 [s]

Min: -0.0 [kph] at 0.012 [s]

B-24

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

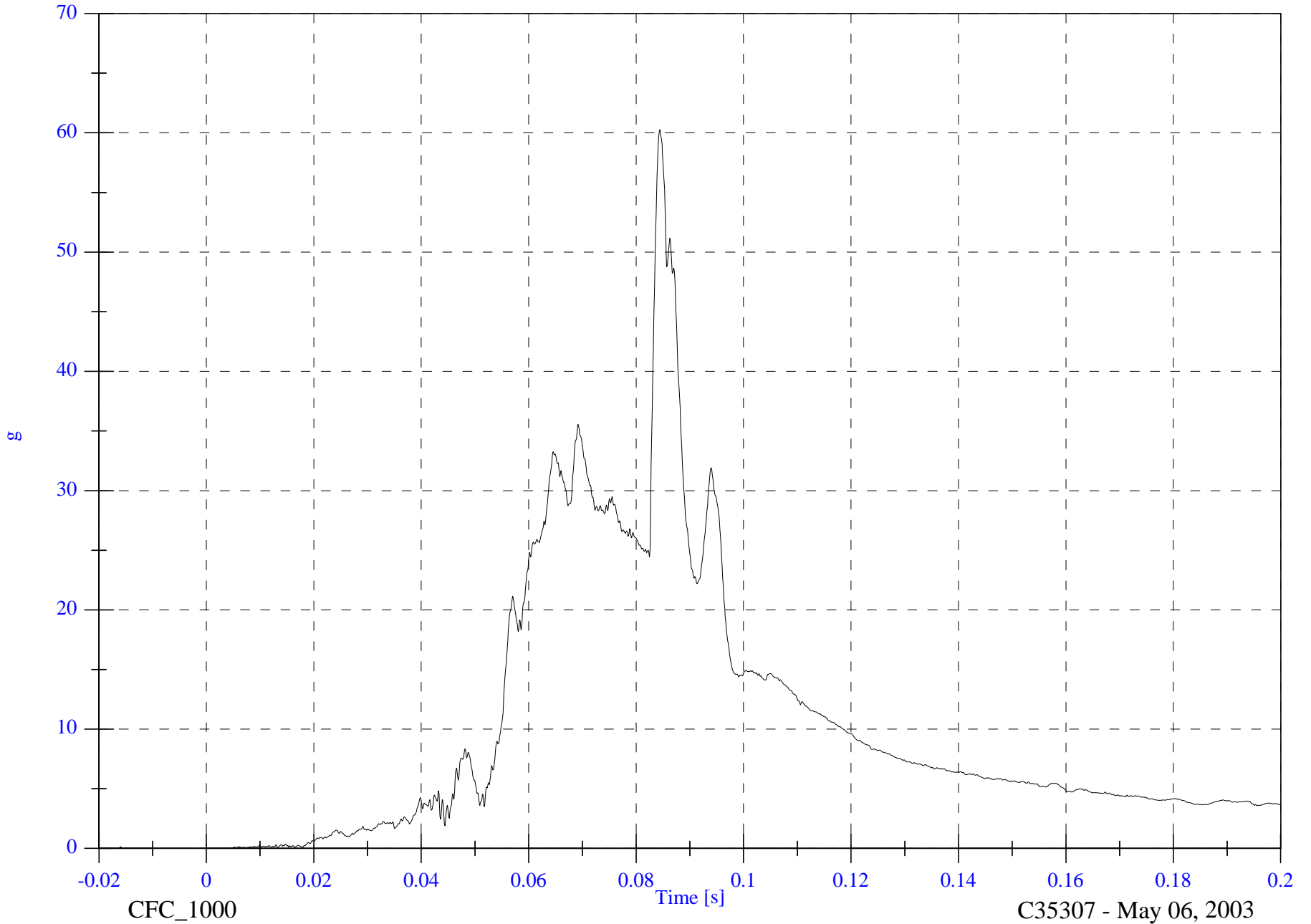
V2P1 Head Resultant

Max: 60.3 [g] at 0.084 [s]

Min: 0.0 [g] at -0.015 [s]

B-25

8675-F214-08



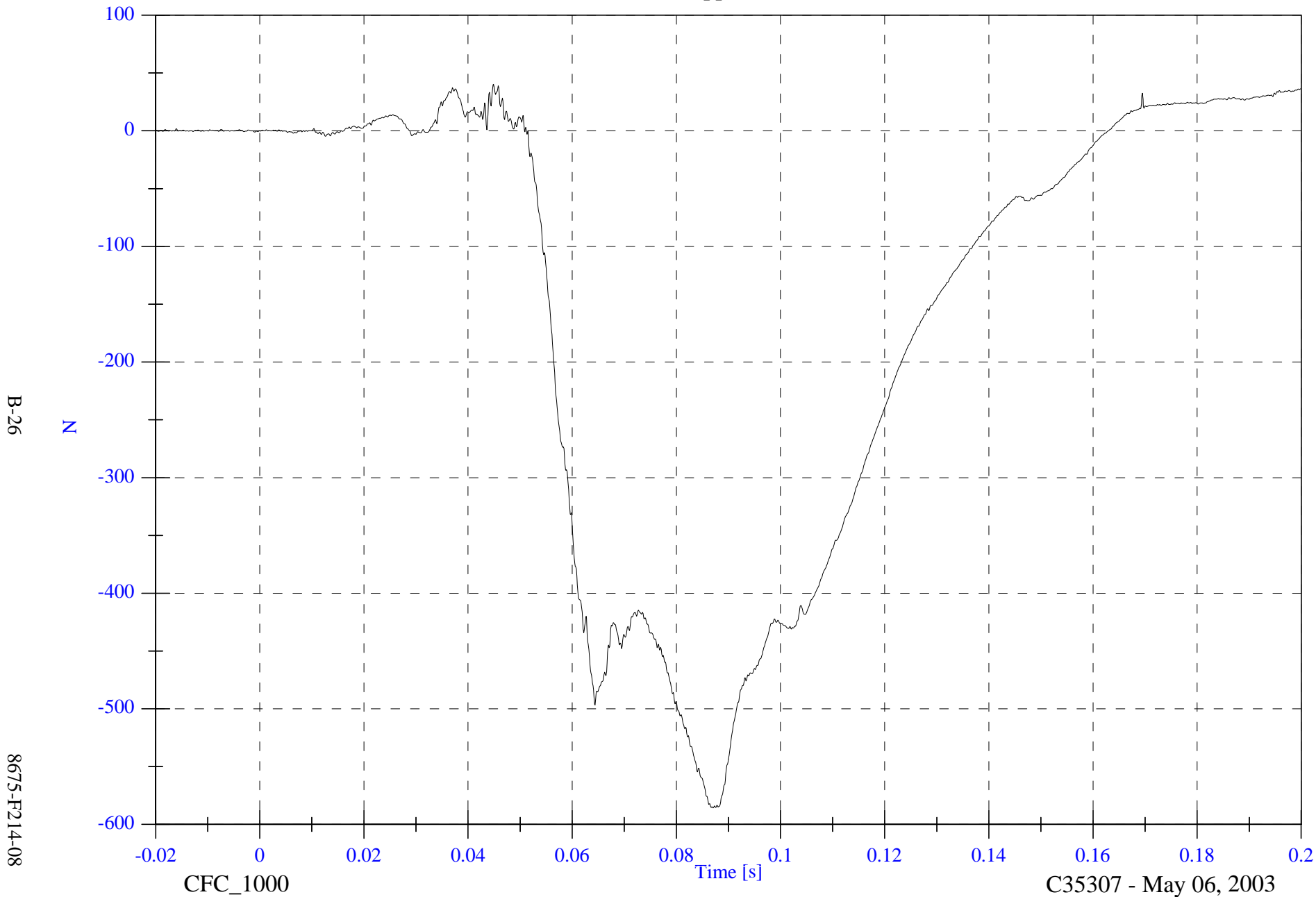
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Upper Neck Fx

Max: 40.3 [N] at 0.045 [s]

Min: -585.6 [N] at 0.087 [s]



B-26

8675-F214-08

CFC_1000

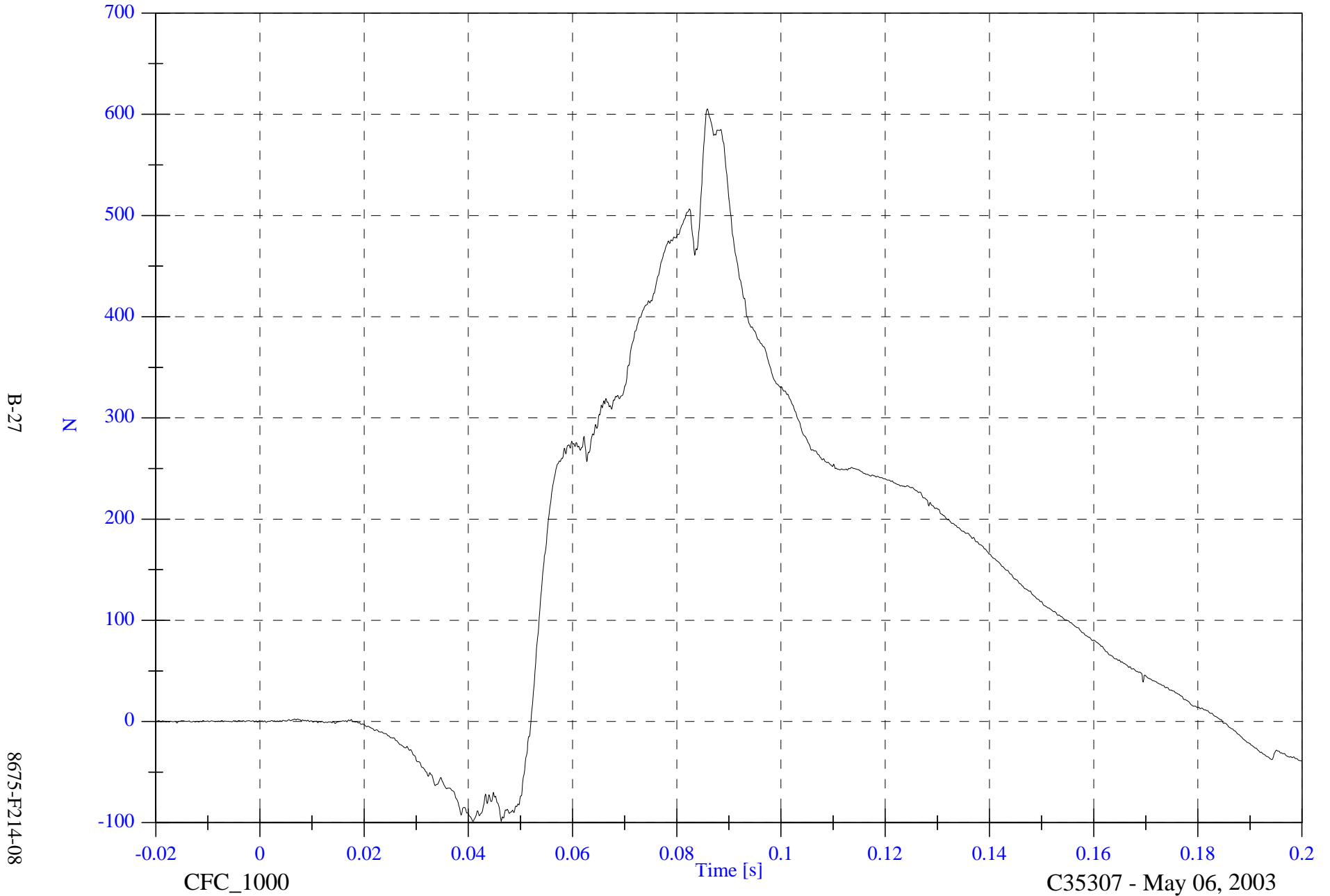
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 605.4 [N] at 0.086 [s]

V2P1 Upper Neck Fy

Min: -98.6 [N] at 0.041 [s]



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8675-F214-08

CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 1337.0 [N] at 0.069 [s]

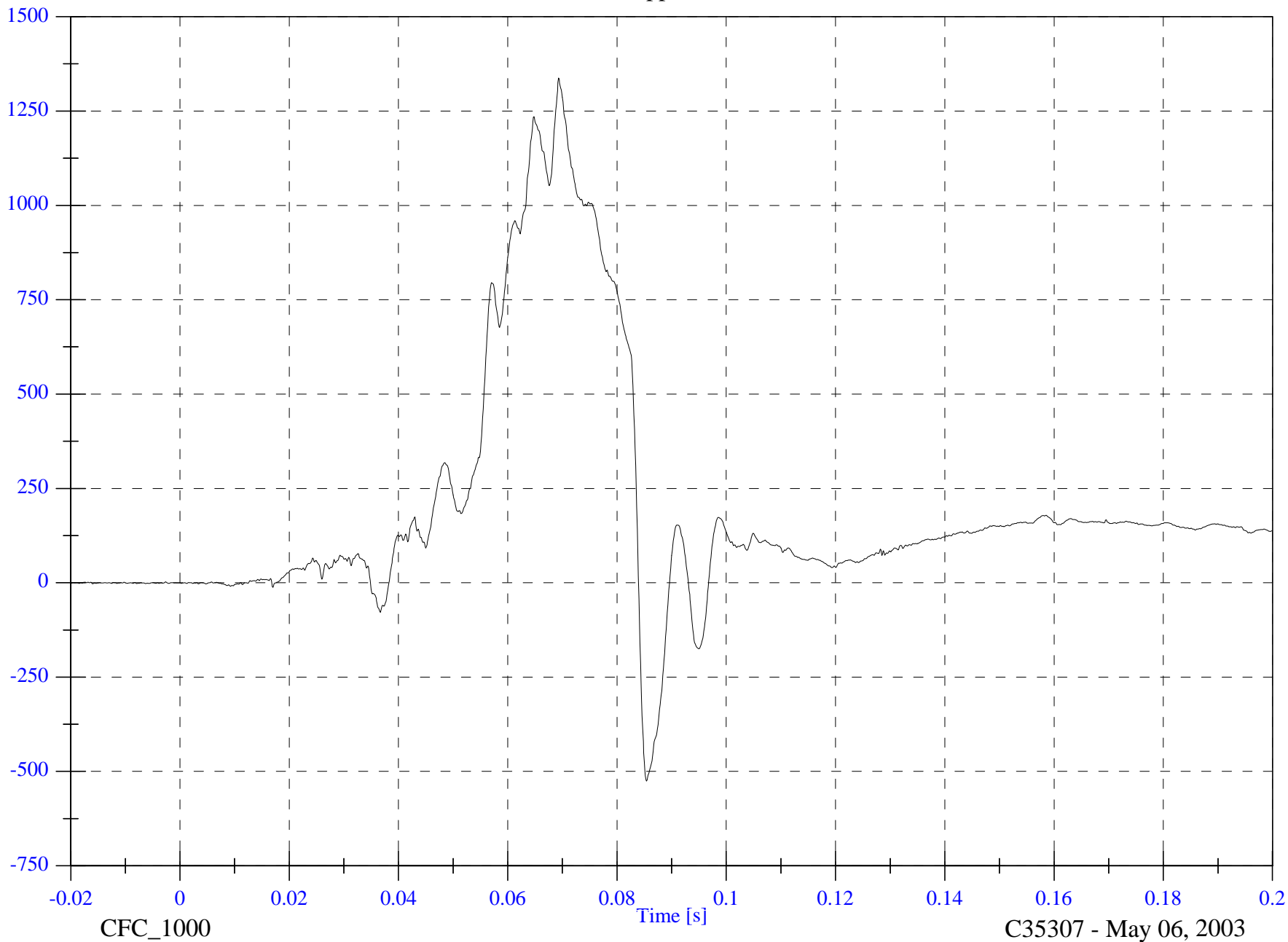
V2P1 Upper Neck Fz

Min: -525.7 [N] at 0.085 [s]

B-28

N

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C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

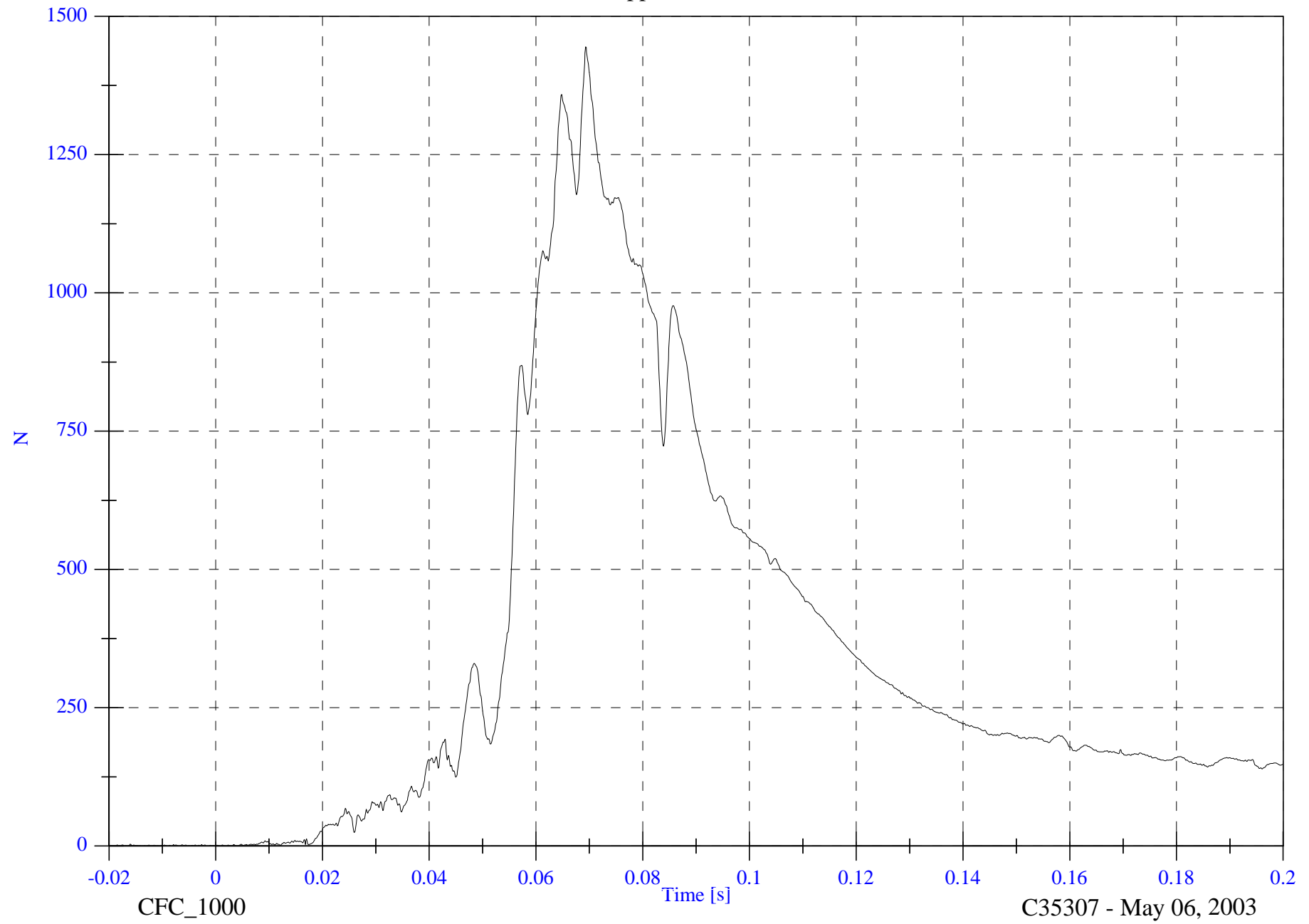
Max: 1444.9 [N] at 0.069 [s]

V2P1 Upper Neck F Resultant

Min: 0.1 [N] at -0.014 [s]

B-29

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C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

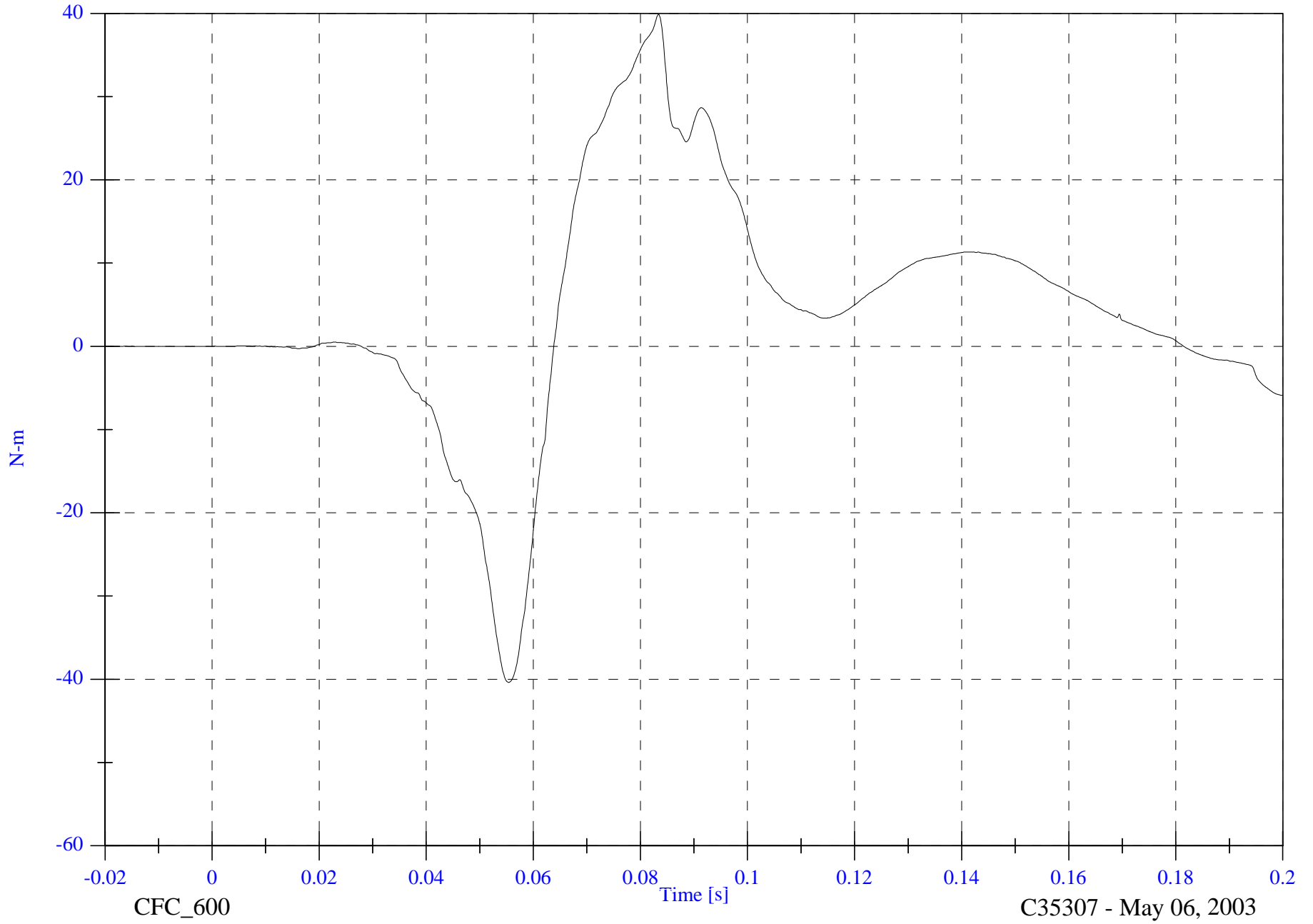
Max: 39.9 [N-m] at 0.083 [s]

V2P1 Upper Neck Mx

Min: -40.4 [N-m] at 0.055 [s]

B-30

8675-F214-08



CFC_600

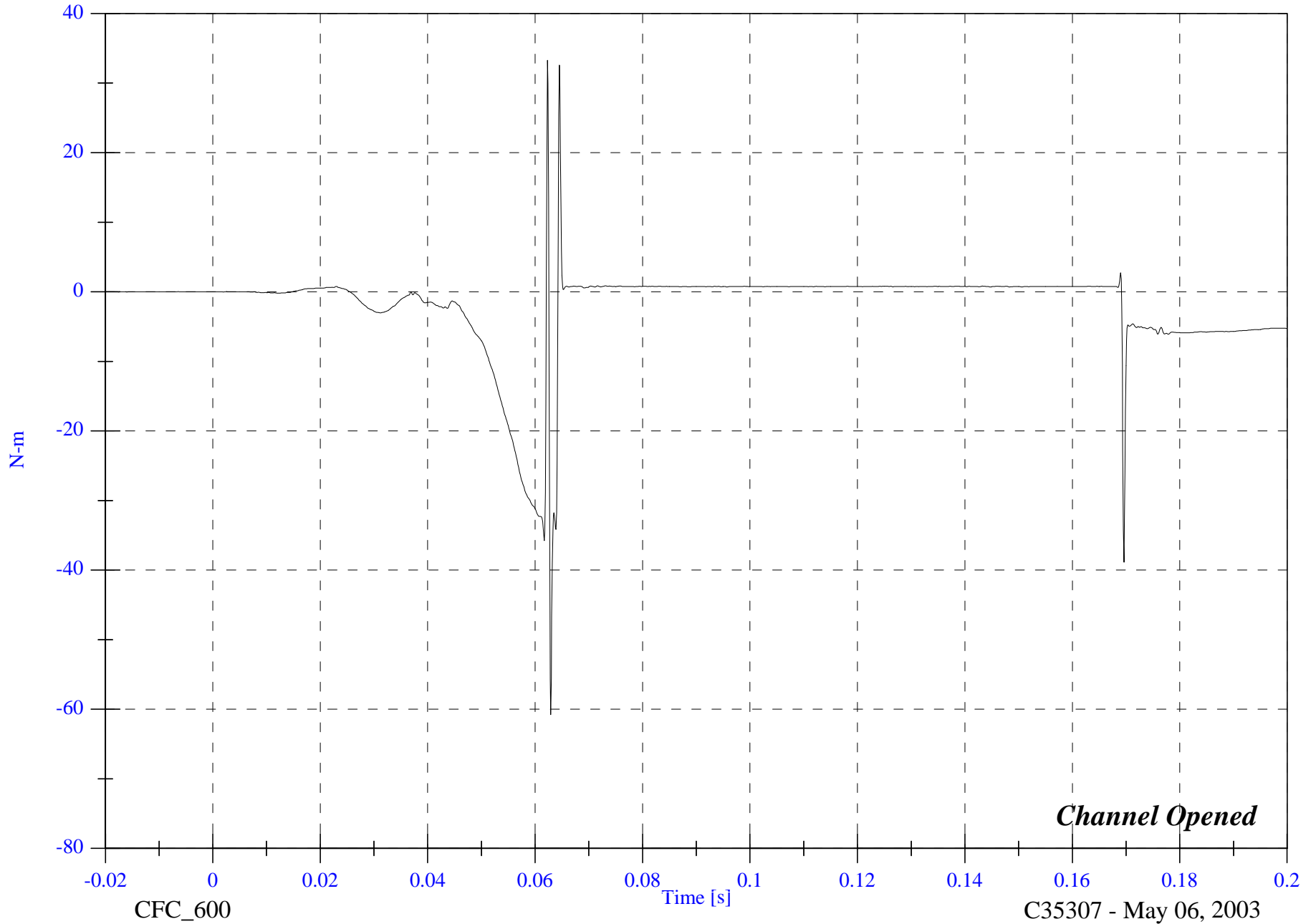
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Upper Neck My

Max: 33.3 [N-m] at 0.062 [s]

Min: -60.8 [N-m] at 0.063 [s]



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8675-F214-08

Channel Opened

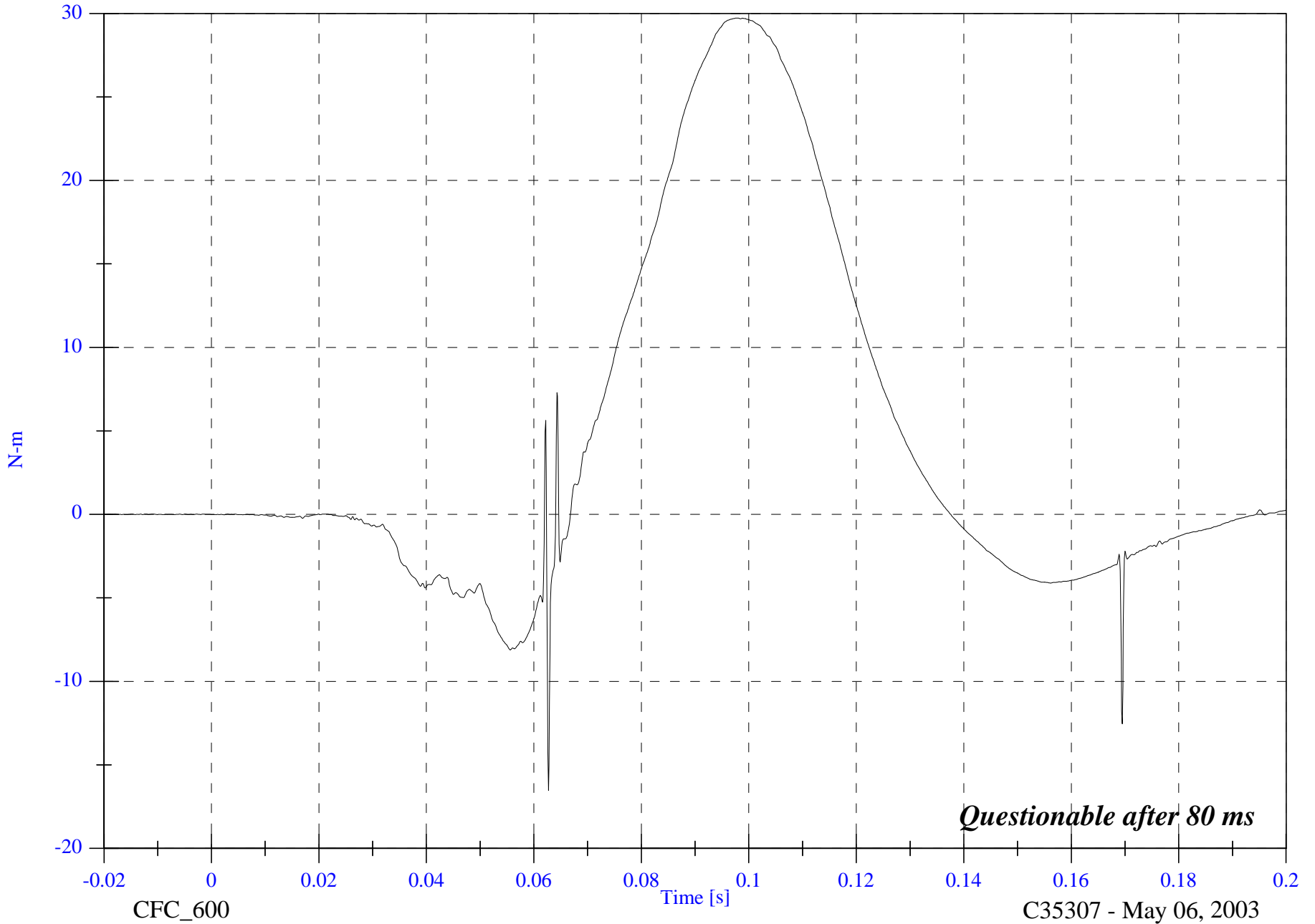
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 29.7 [N-m] at 0.098 [s]

V2P1 Upper Neck Mz

Min: -16.5 [N-m] at 0.063 [s]



B-32

8675-F214-08

CFC_600

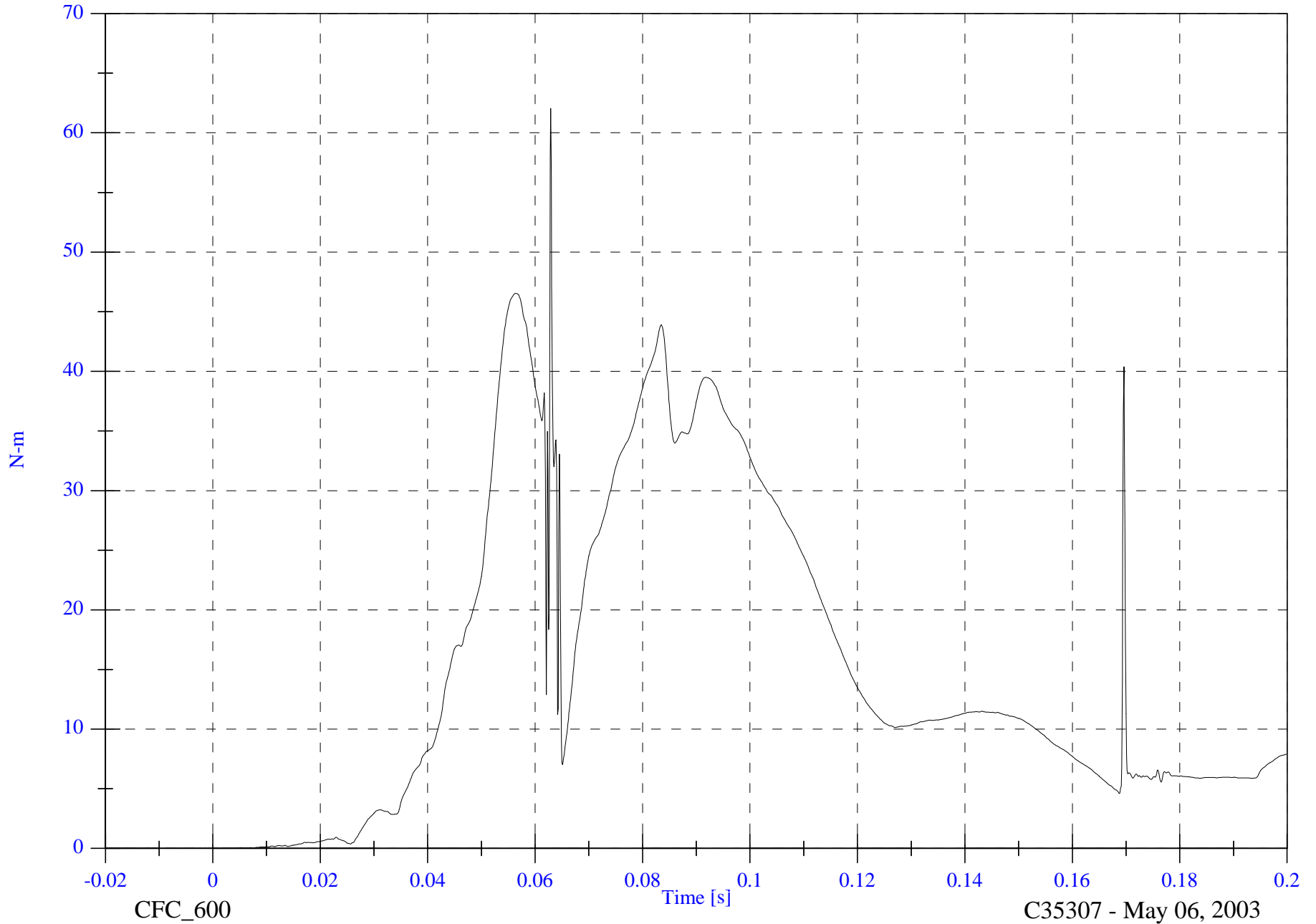
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Upper Neck M Resultant

Max: 62.1 [N-m] at 0.063 [s]

Min: 0.0 [N-m] at -0.018 [s]



B-33

8675-F214-08

CFC_600

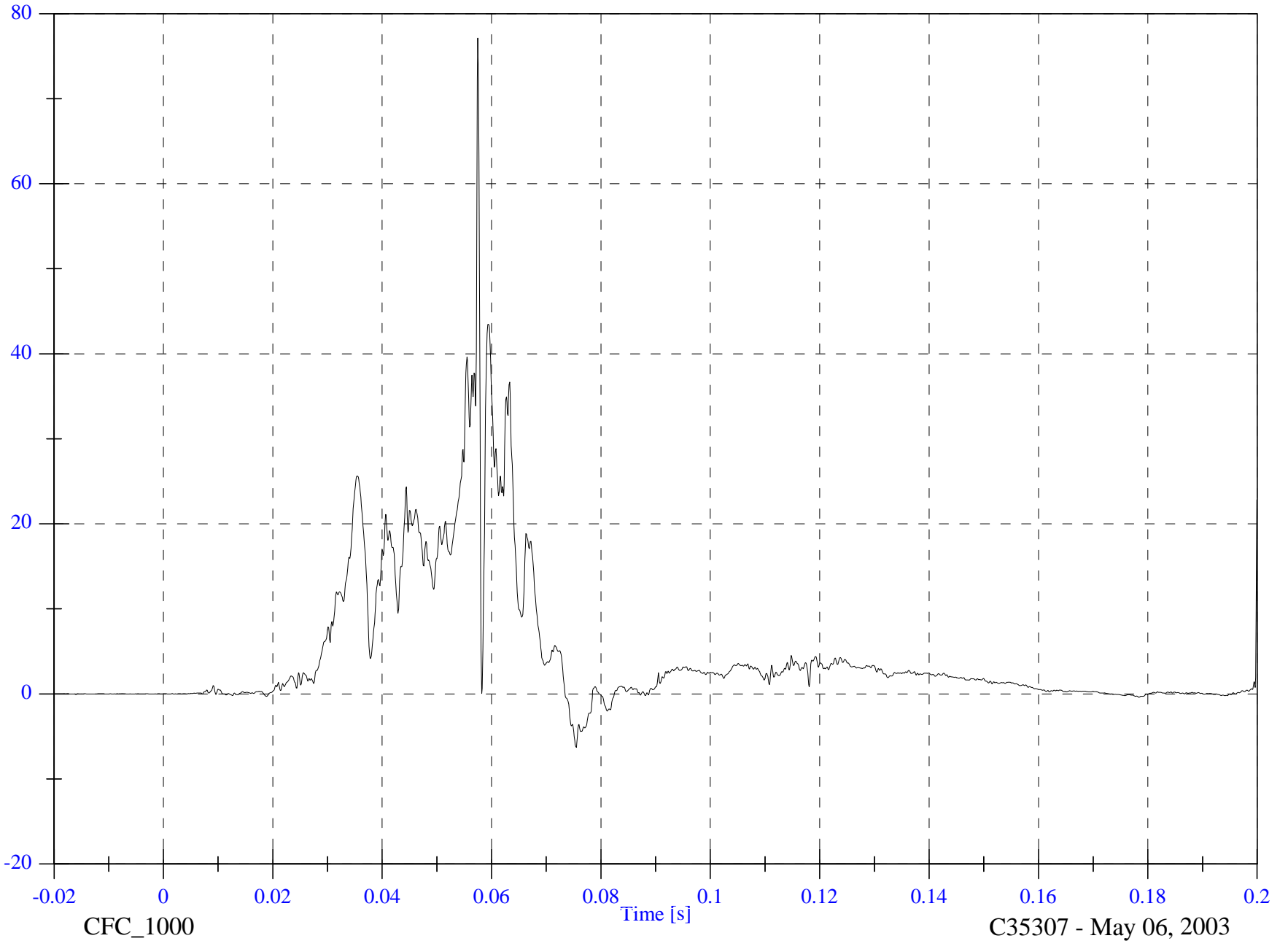
C35307 - May 06, 2003

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V2P1 Upper Rib y

Max: 77.1 [g] at 0.057 [s]

Min: -6.3 [g] at 0.076 [s]



B-34

g

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CFC_1000

Time [s]

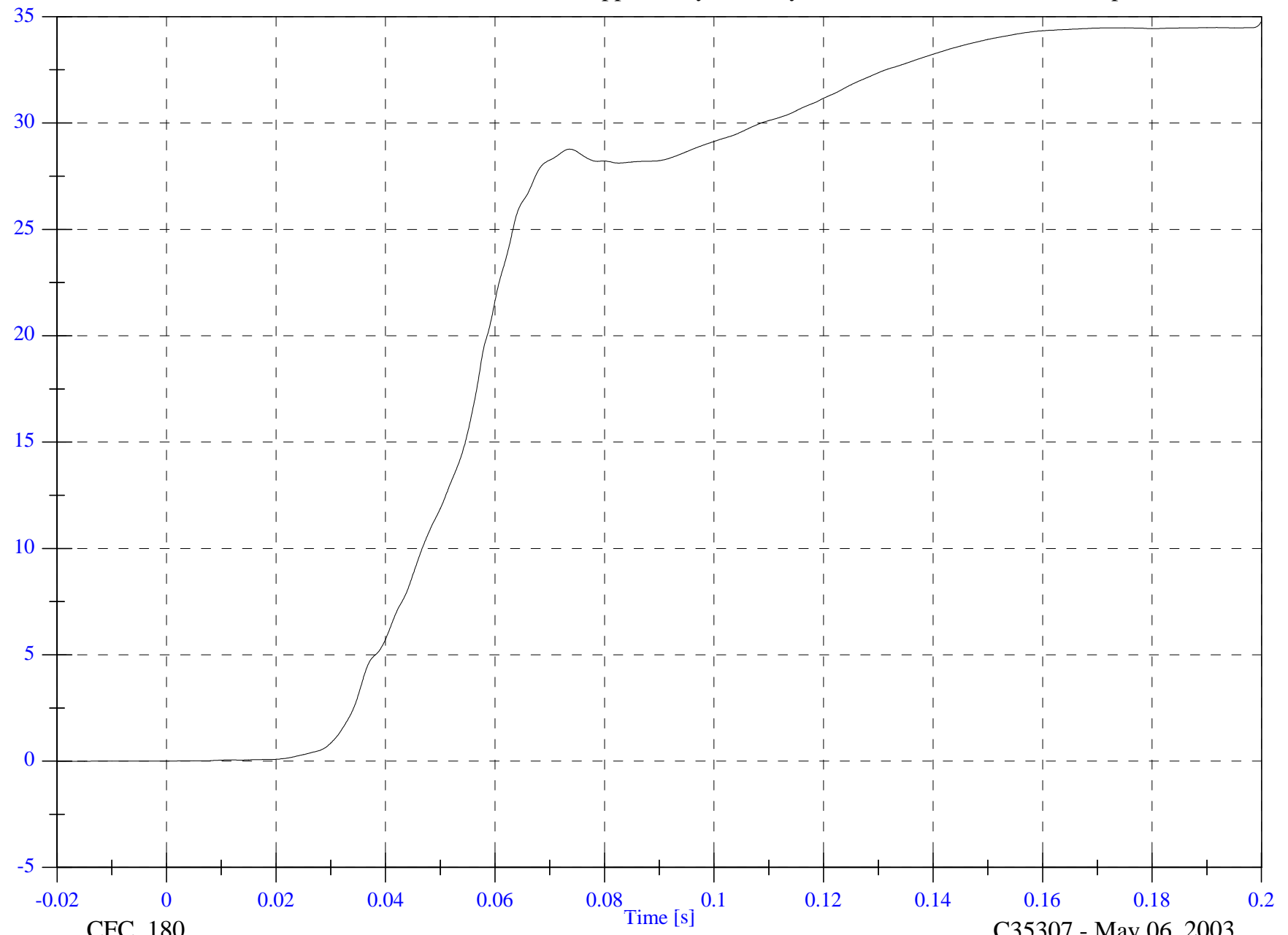
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 34.8 [kph] at 0.200 [s]

V2P1 Upper Rib y Velocity

Min: -0.0 [kph] at -0.020 [s]



B-35

8675-F214-08

CFC_180

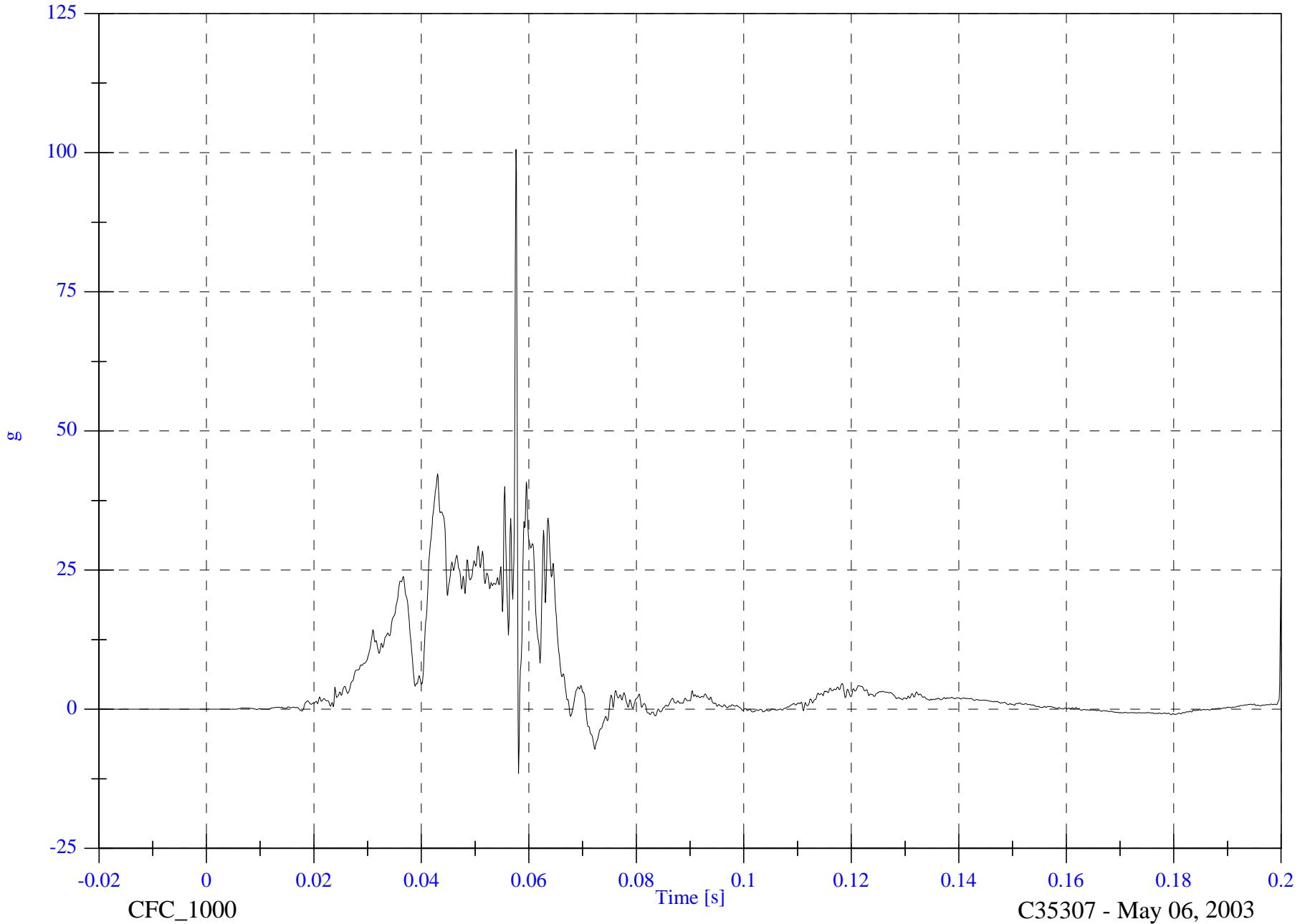
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Lower Rib y

Max: 100.6 [g] at 0.058 [s]

Min: -11.6 [g] at 0.058 [s]



B-36

8675-F214-08

CFC_1000

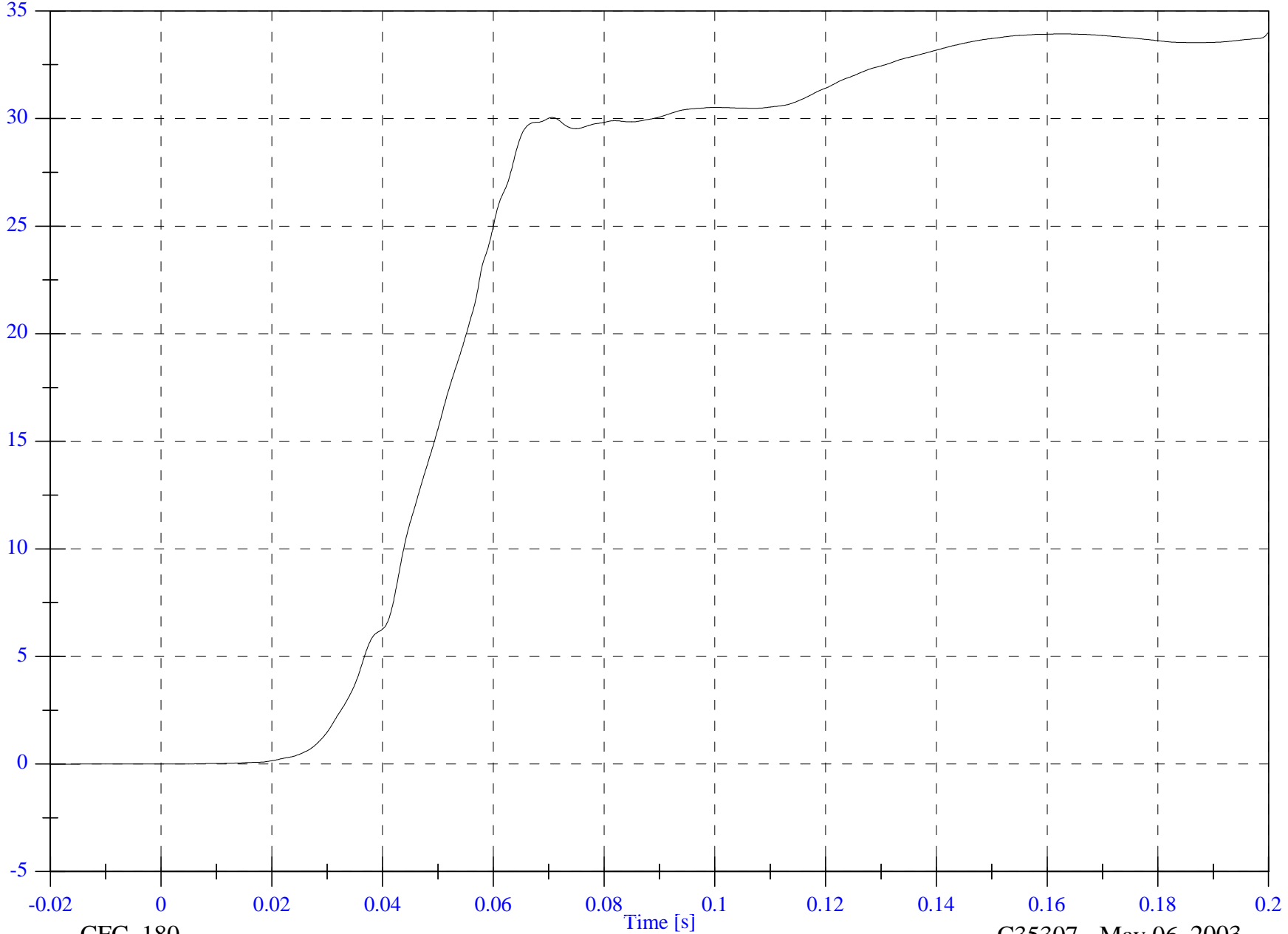
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Lower Rib y Velocity

Max: 34.0 [kph] at 0.200 [s]

Min: -0.0 [kph] at -0.020 [s]



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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

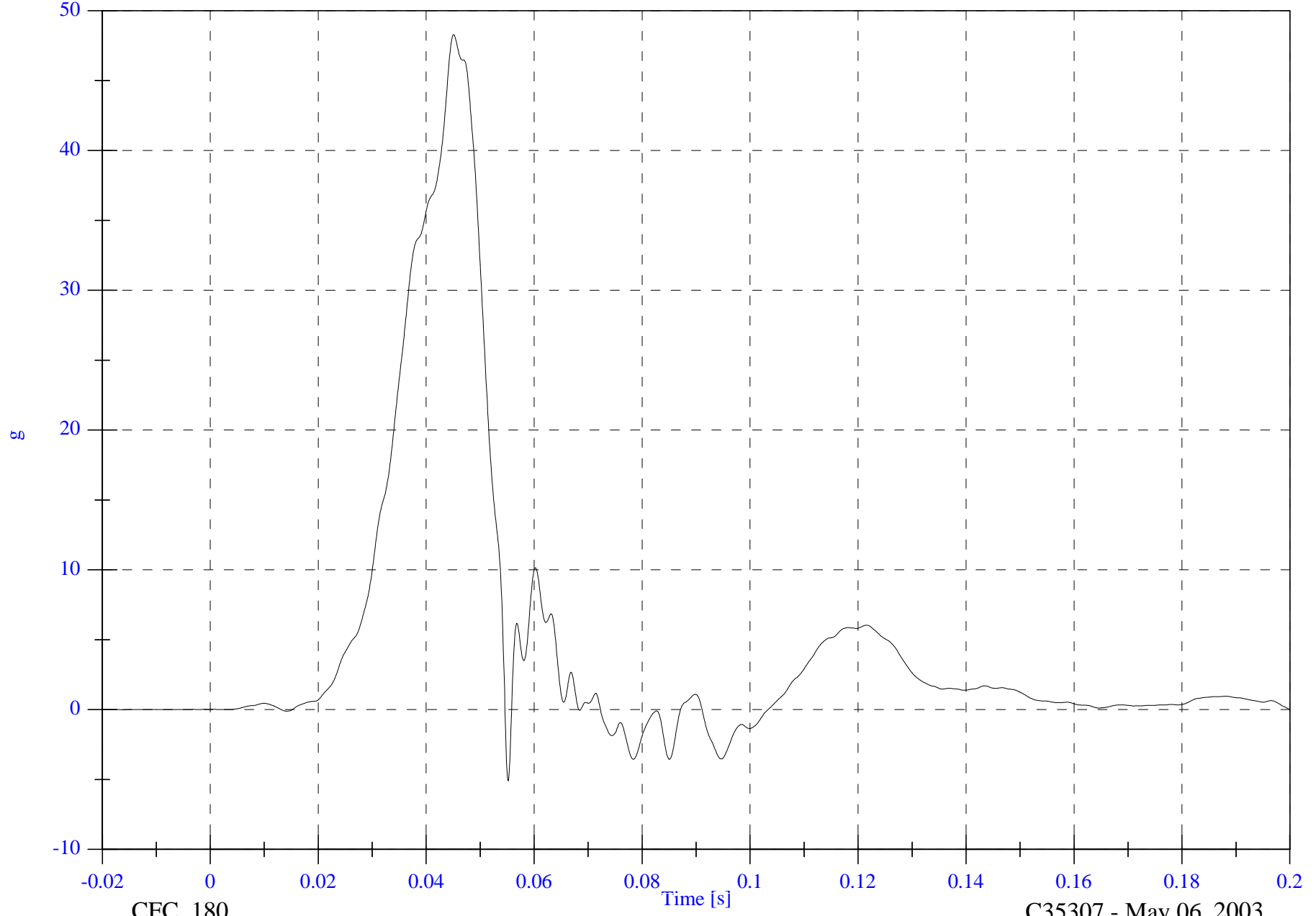
V2P1 Lower Spine y

Max: 48.3 [g] at 0.045 [s]

Min: -5.1 [g] at 0.055 [s]

B-38

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CFC_180

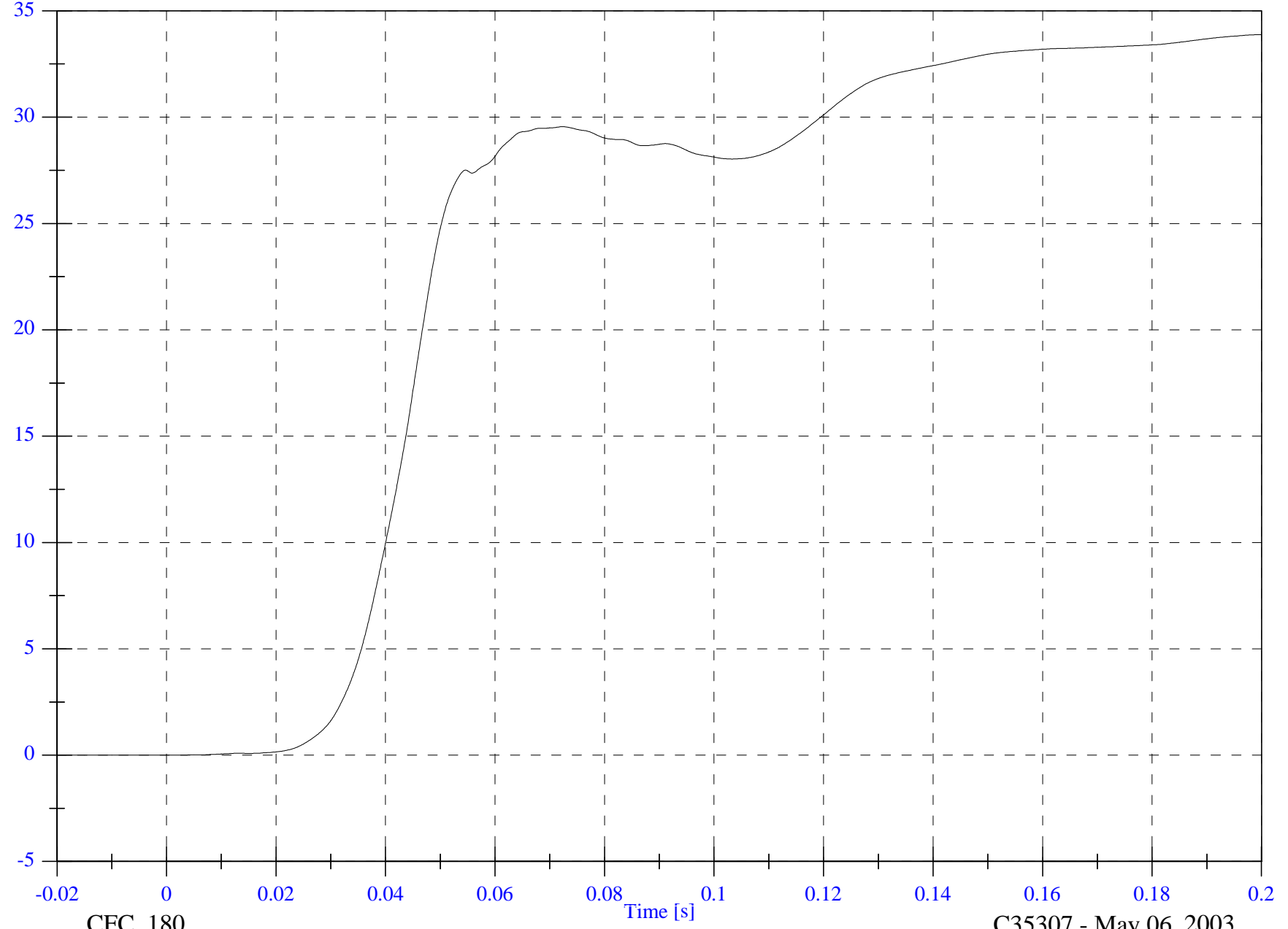
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 33.9 [kph] at 0.200 [s]

V2P1 Lower Spine y Velocity

Min: -0.0 [kph] at -0.020 [s]



B-39

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CFC_180

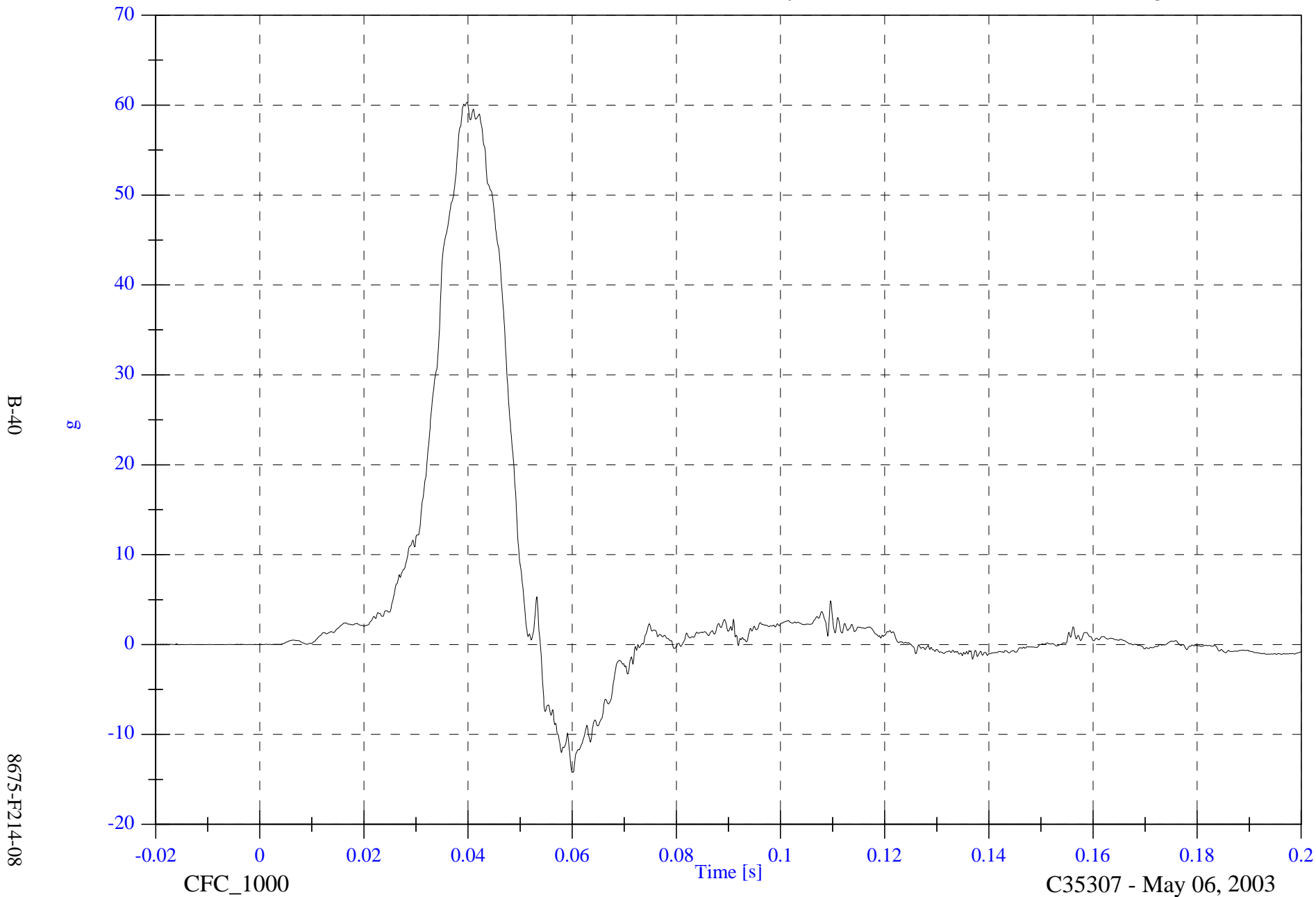
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Pelvic y

Max: 60.3 [g] at 0.040 [s]

Min: -14.2 [g] at 0.060 [s]

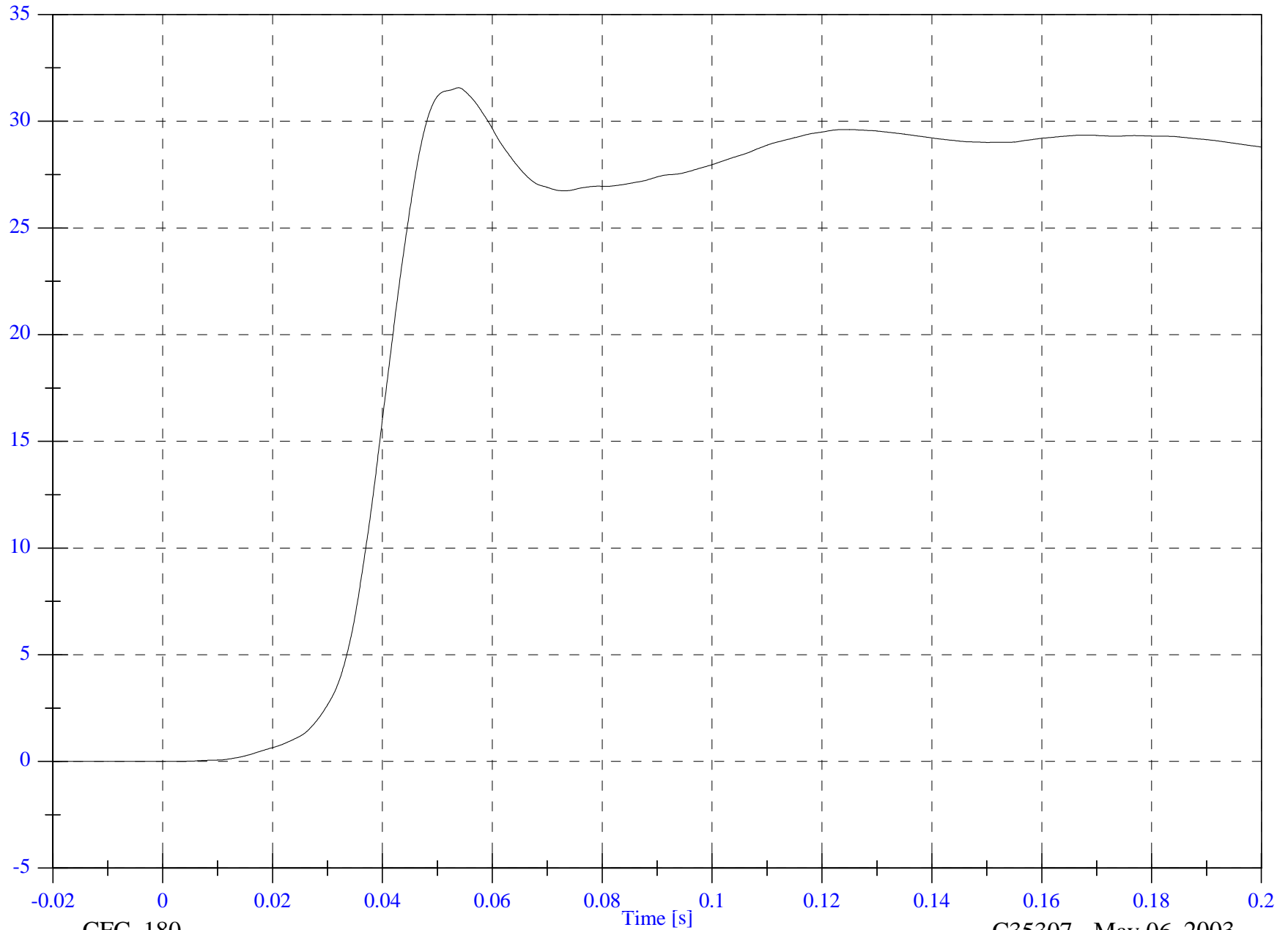


2003 FMVSS 214D Test 8 2003 Honda Element

Max: 31.6 [kph] at 0.054 [s]

V2P1 Pelvic y Velocity

Min: -0.0 [kph] at -0.020 [s]



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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

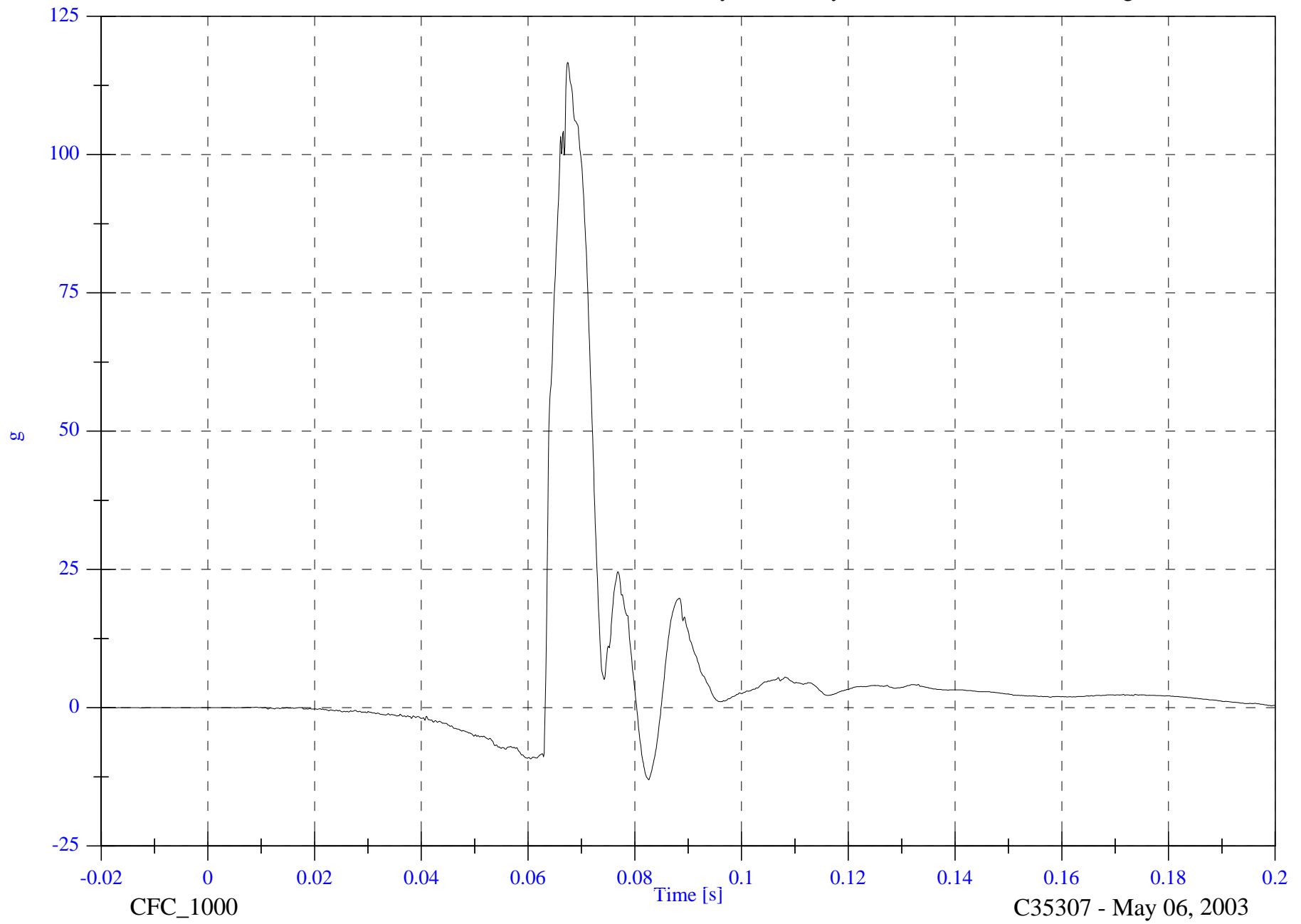
Max: 116.6 [g] at 0.067 [s]

V2P4 Head 9 Array X Arm Ay

Min: -13.0 [g] at 0.083 [s]

B-42

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CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

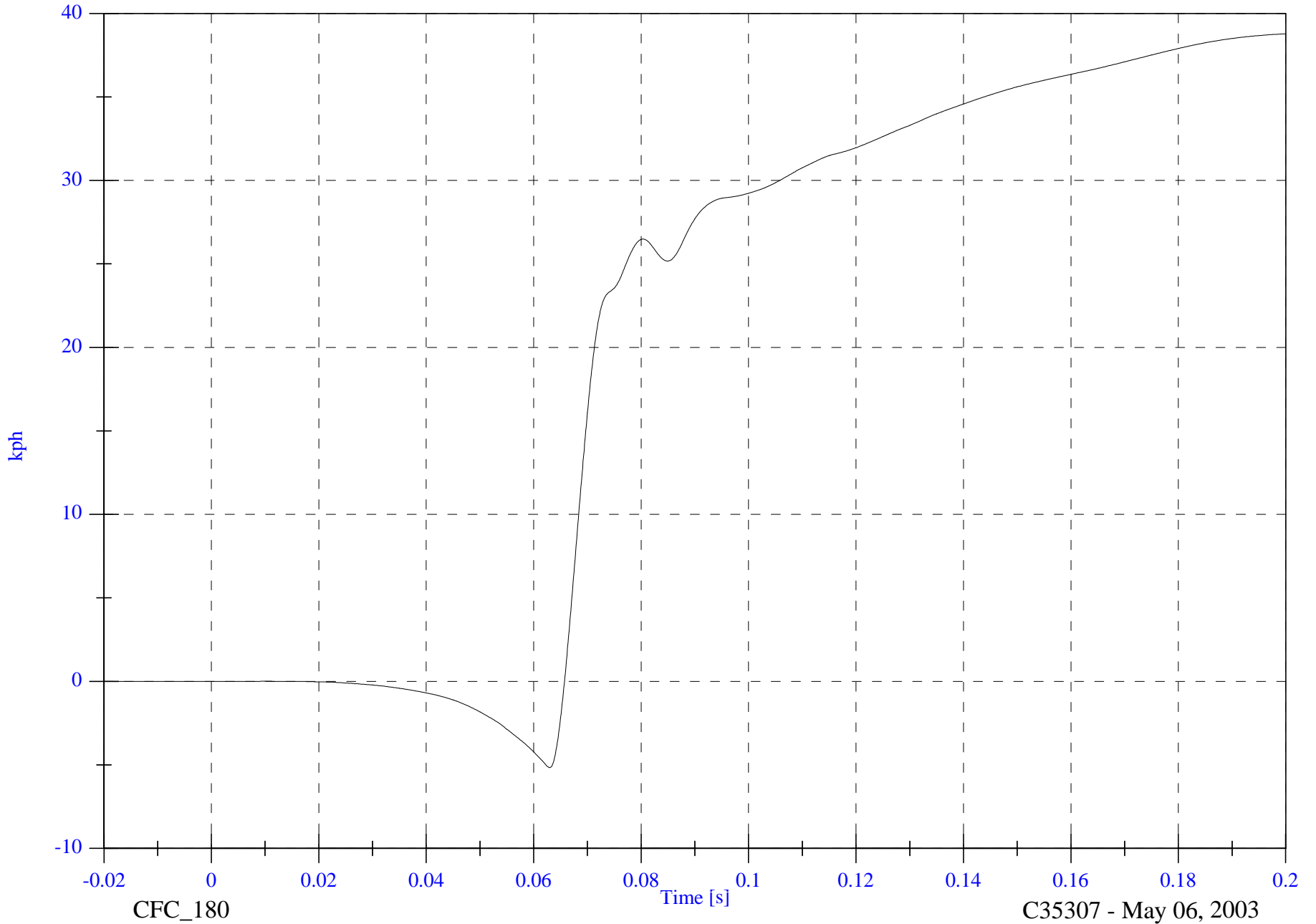
V2P4 Head 9 Array X Arm Ay Velocity

Max: 38.8 [kph] at 0.200 [s]

Min: -5.2 [kph] at 0.063 [s]

B-43

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

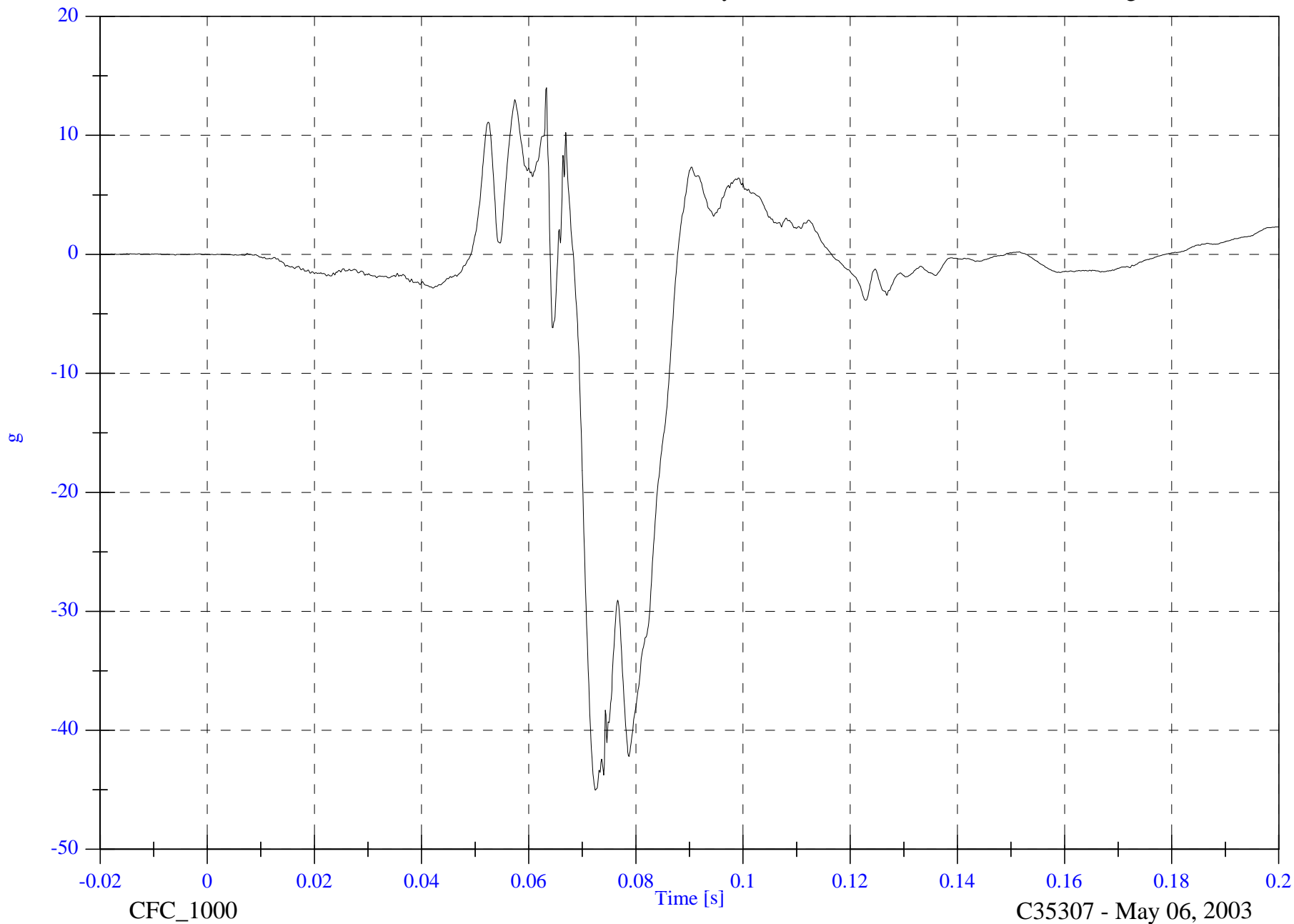
V2P4 Head 9 Array X Arm Az

Max: 14.0 [g] at 0.063 [s]

Min: -45.0 [g] at 0.072 [s]

B-44

8675-F214-08



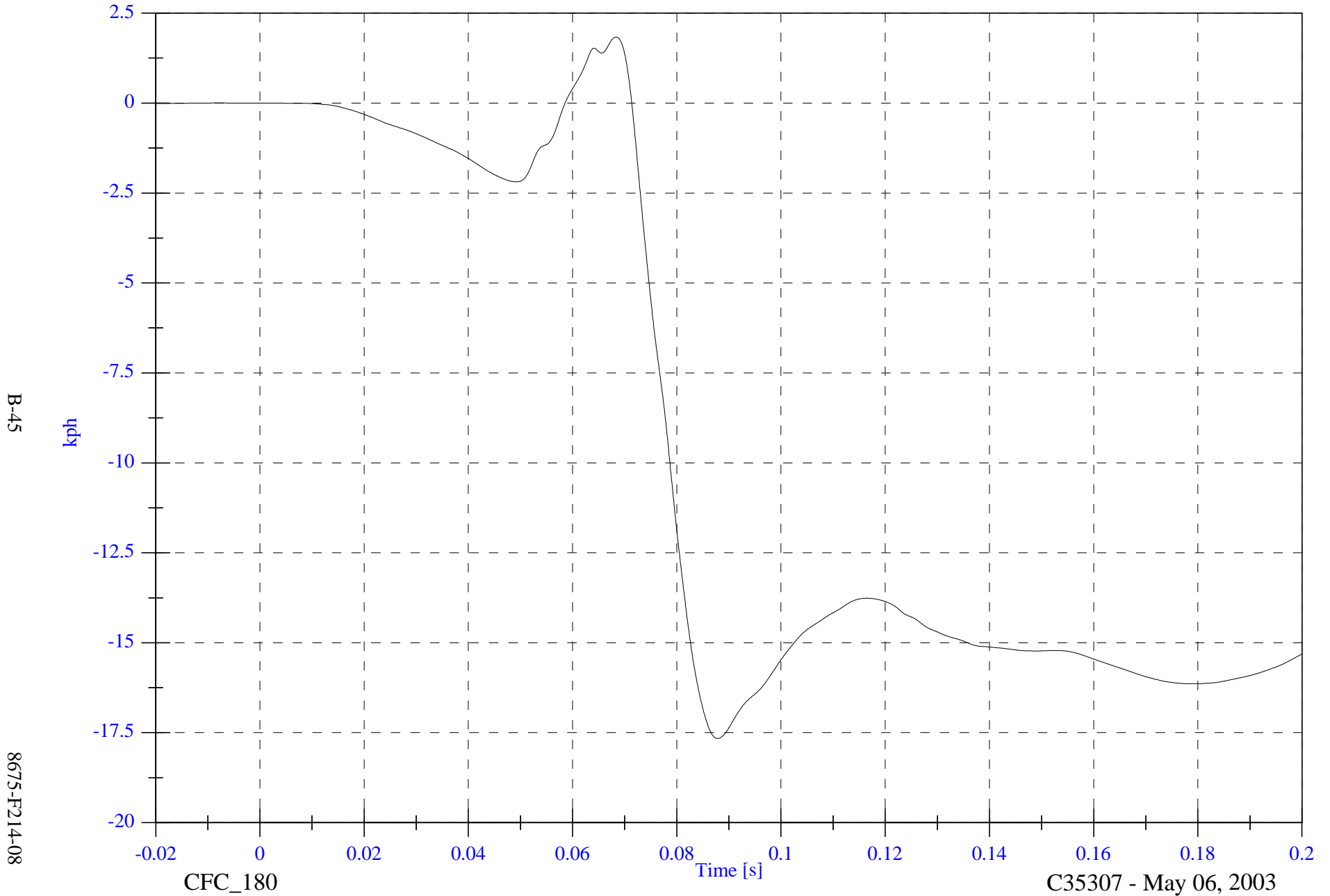
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Head 9 Array X Arm Az Velocity

Max: 1.8 [kph] at 0.068 [s]

Min: -17.7 [kph] at 0.088 [s]



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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

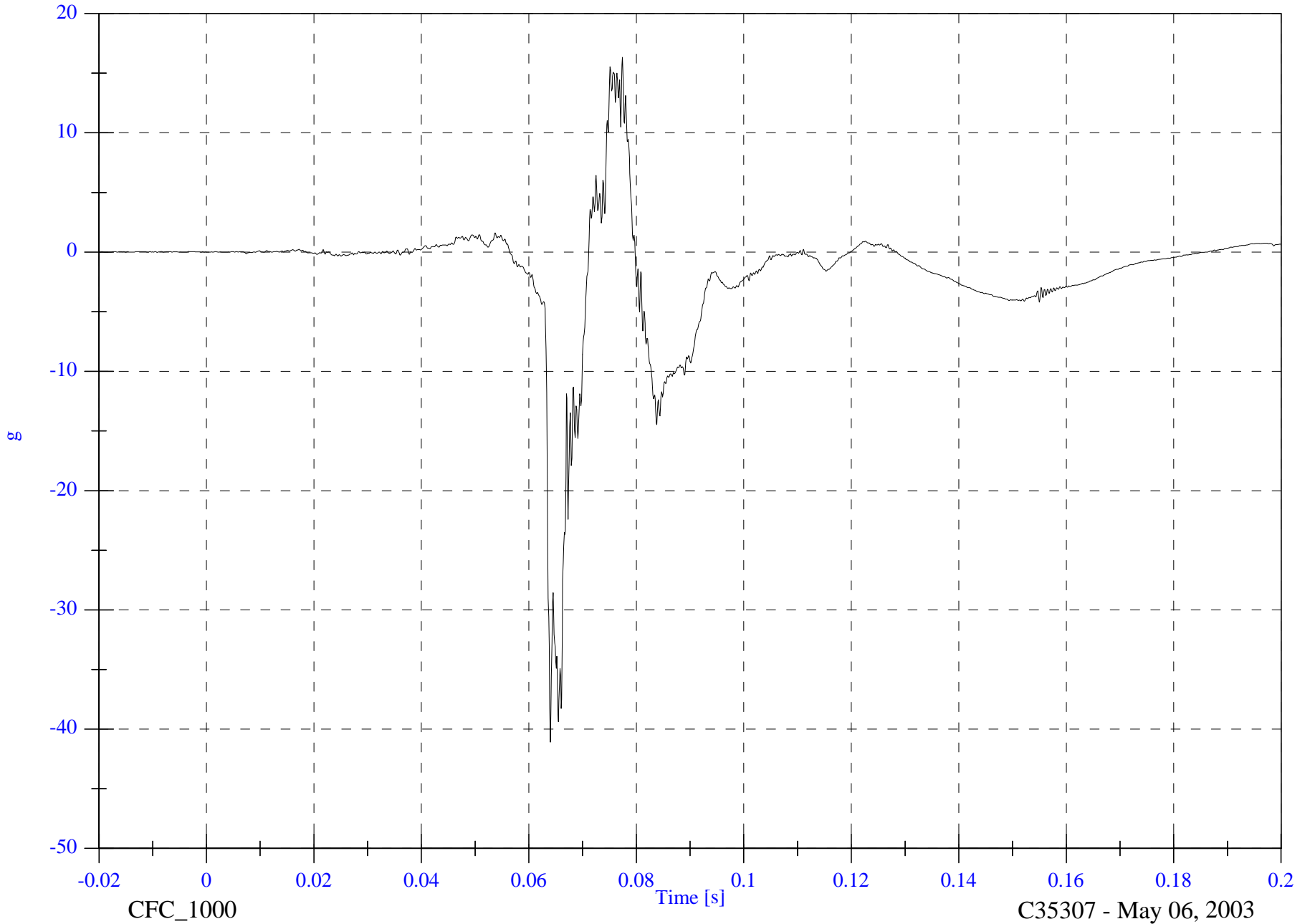
V2P4 Head 9 Array Y Arm Ax

Max: 16.3 [g] at 0.077 [s]

Min: -41.1 [g] at 0.064 [s]

B-46

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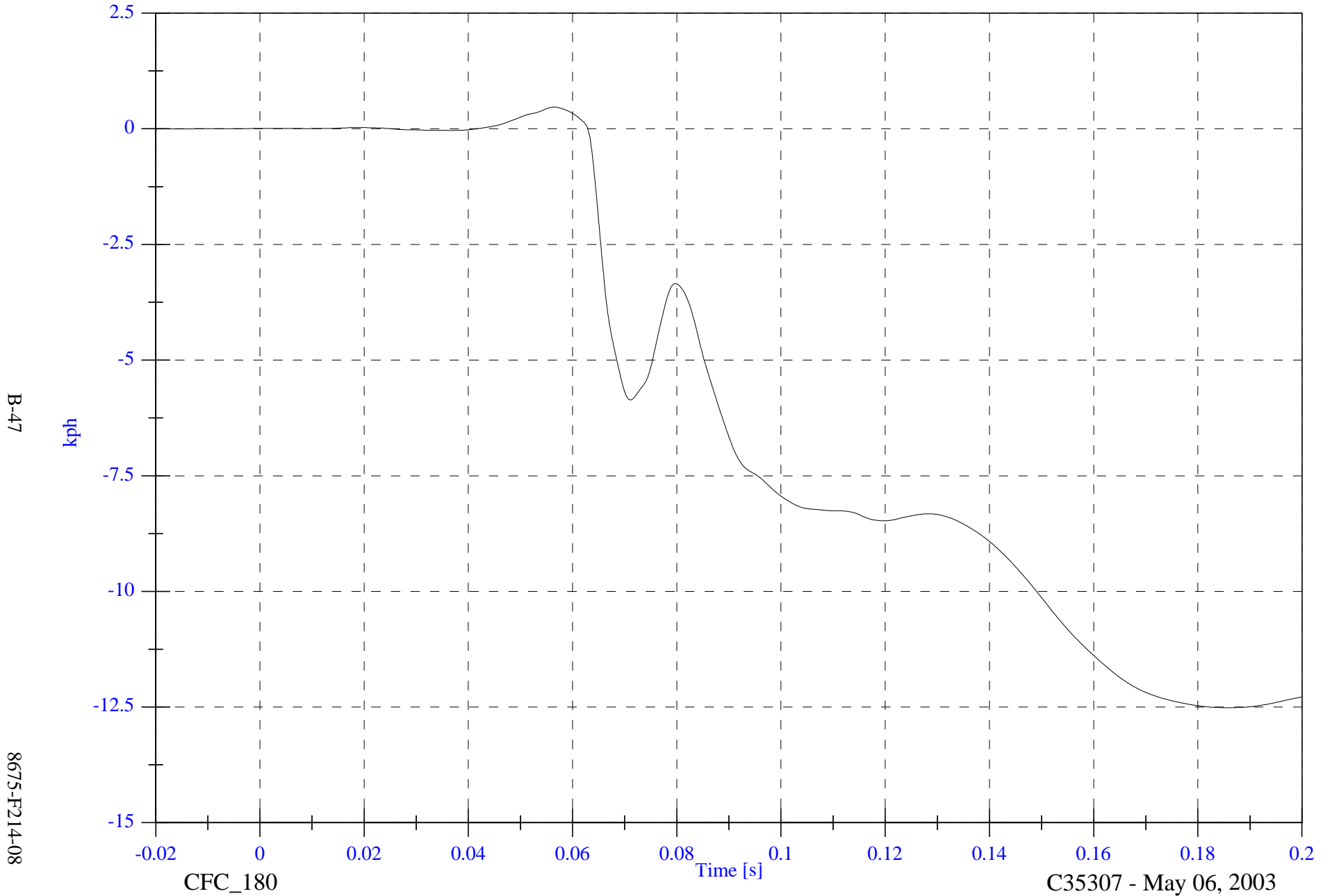
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Head 9 Array Y Arm Ax Velocity

Max: 0.5 [kph] at 0.057 [s]

Min: -12.5 [kph] at 0.186 [s]



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8675-F214-08

CFC_180

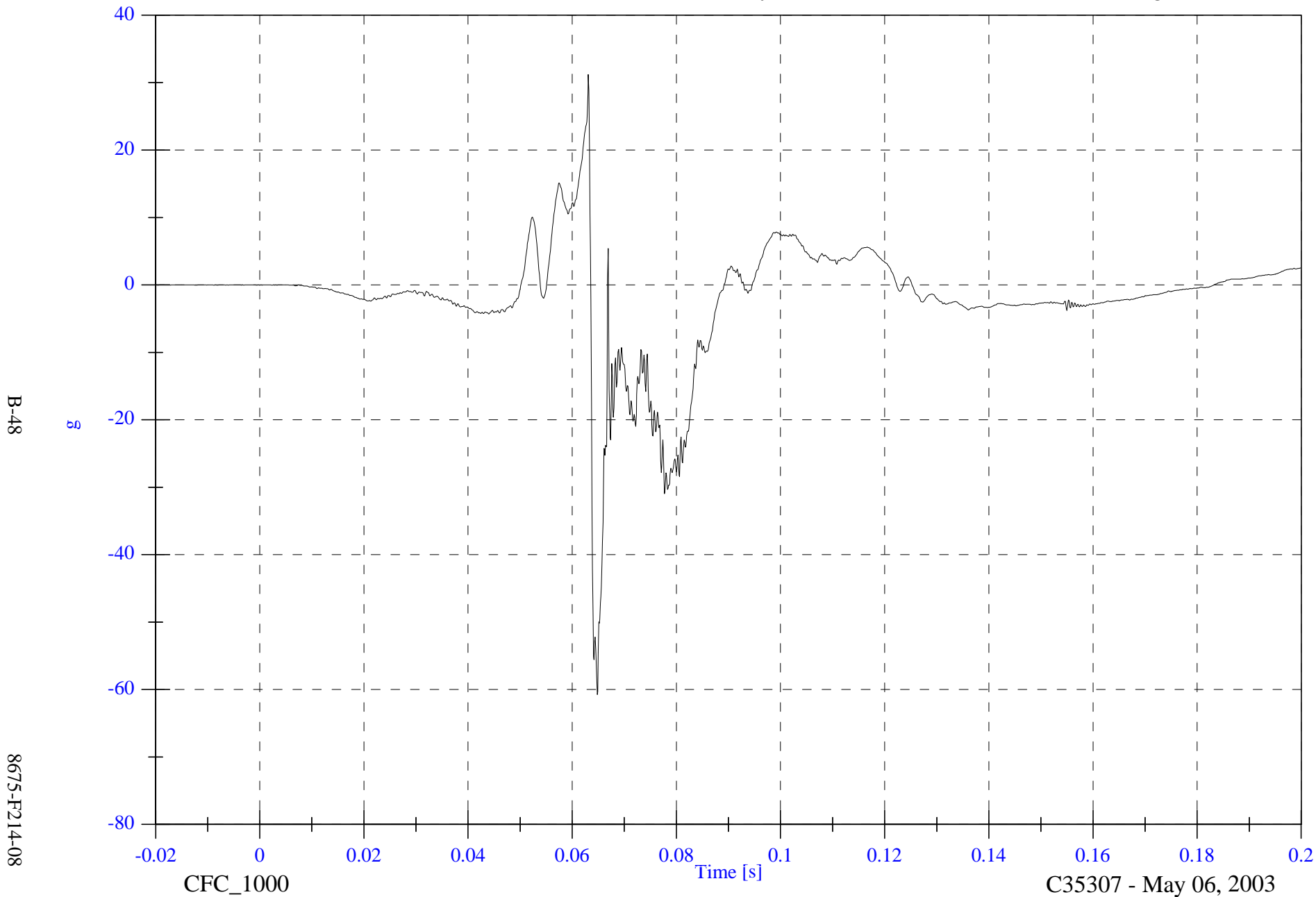
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Head 9 Array Y Arm Az

Max: 31.2 [g] at 0.063 [s]

Min: -60.7 [g] at 0.065 [s]



B-48

8675-F214-08

CFC_1000

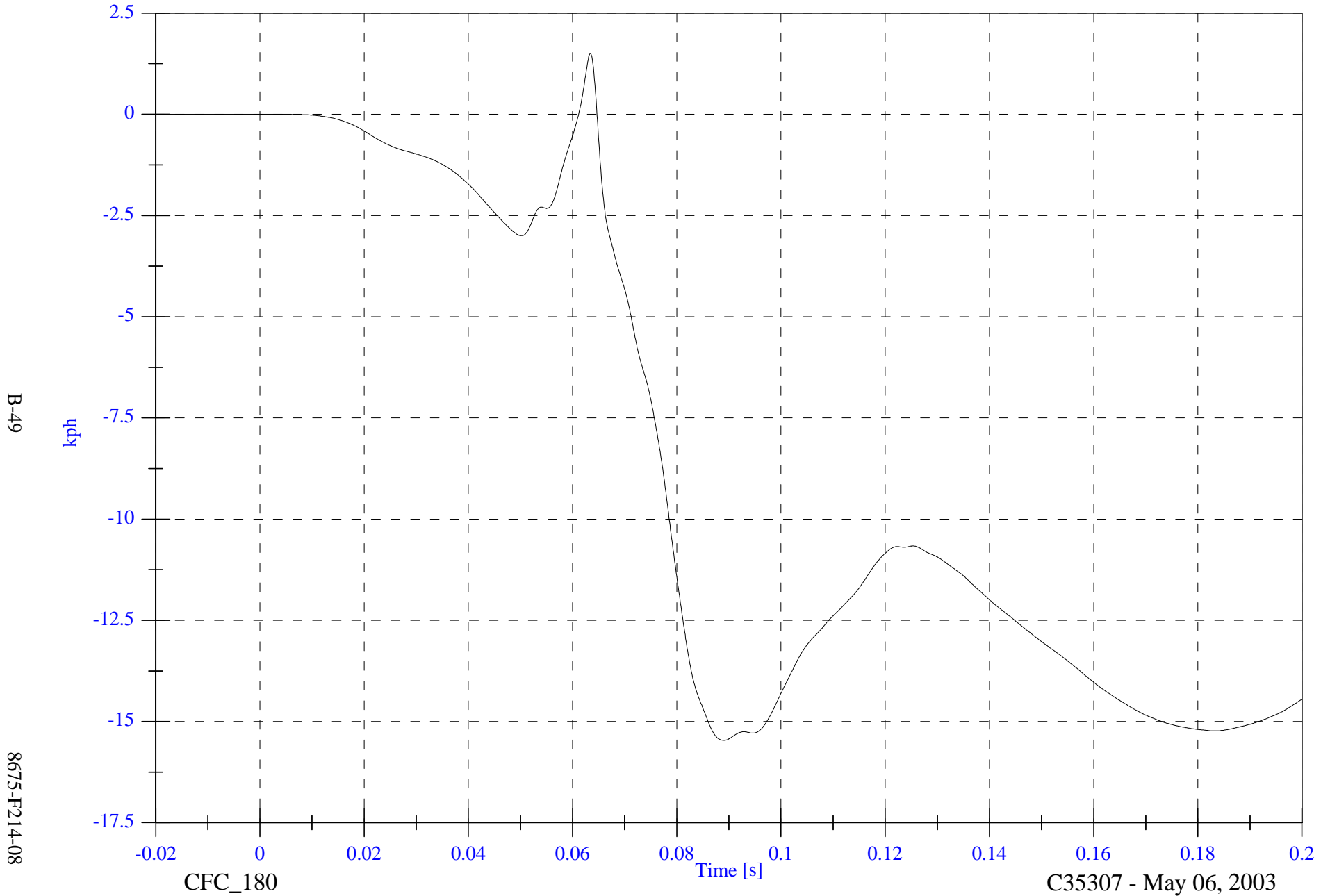
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Head 9 Array Y Arm Az Velocity

Max: 1.5 [kph] at 0.063 [s]

Min: -15.5 [kph] at 0.089 [s]



B-49

8675-F214-08

CFC_180

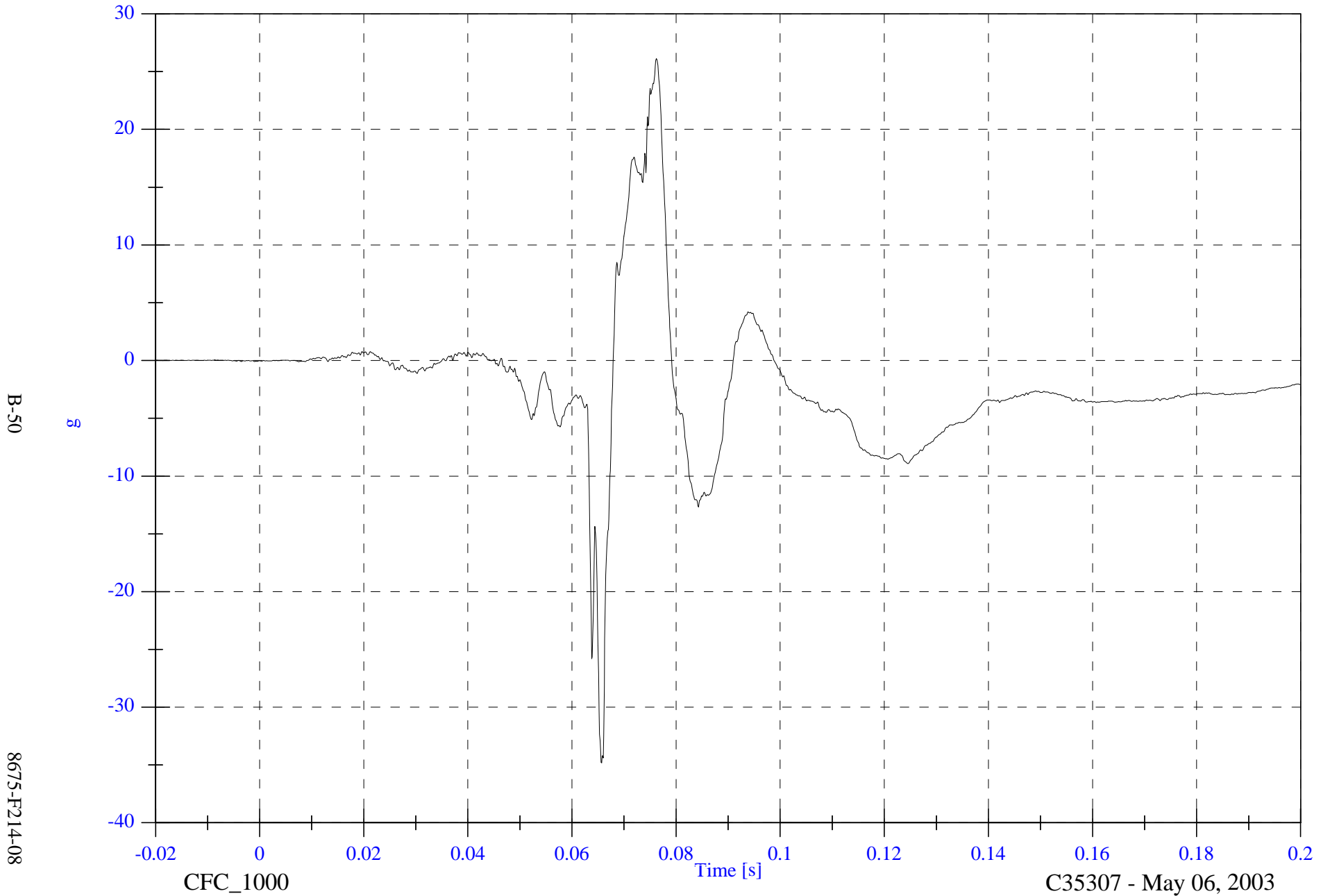
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Head 9 Array Z Arm Ax

Max: 26.1 [g] at 0.076 [s]

Min: -34.8 [g] at 0.066 [s]



2003 FMVSS 214D Test 8 2003 Honda Element

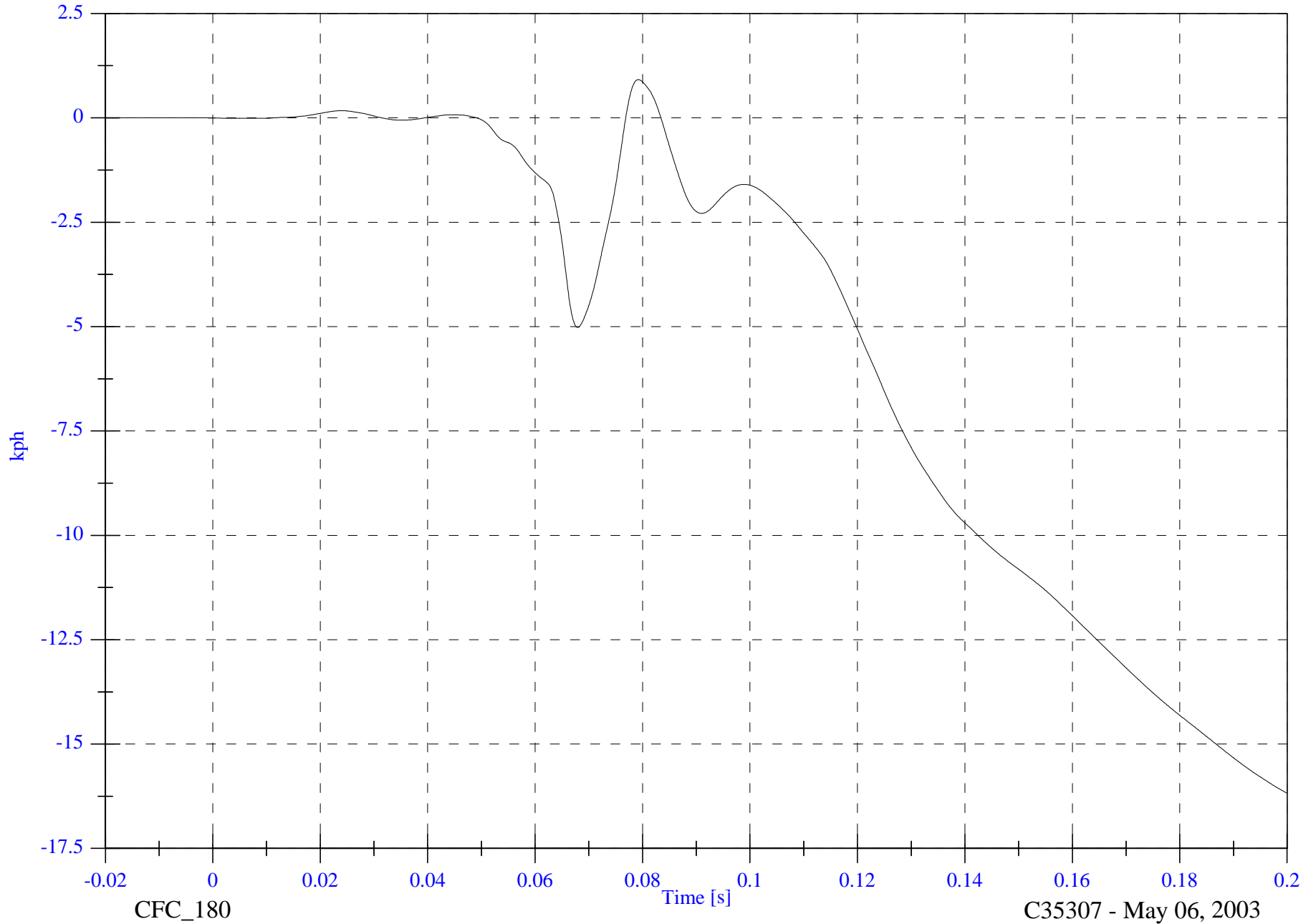
V2P4 Head 9 Array Z Arm Ax Velocity

Max: 0.9 [kph] at 0.079 [s]

Min: -16.2 [kph] at 0.200 [s]

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

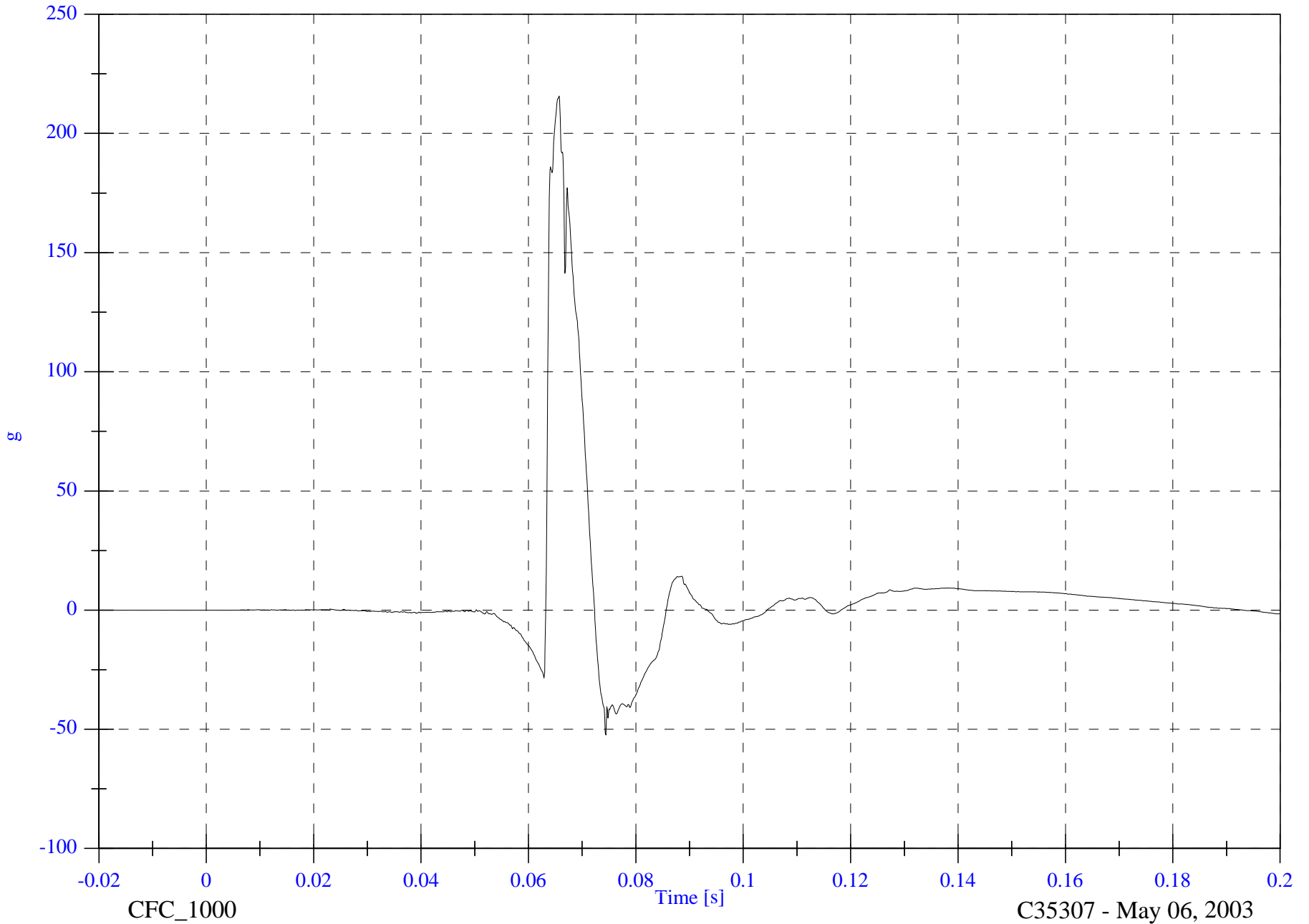
V2P4 Head 9 Array Z Arm Ay

Max: 215.7 [g] at 0.066 [s]

Min: -52.4 [g] at 0.074 [s]

B-52

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CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

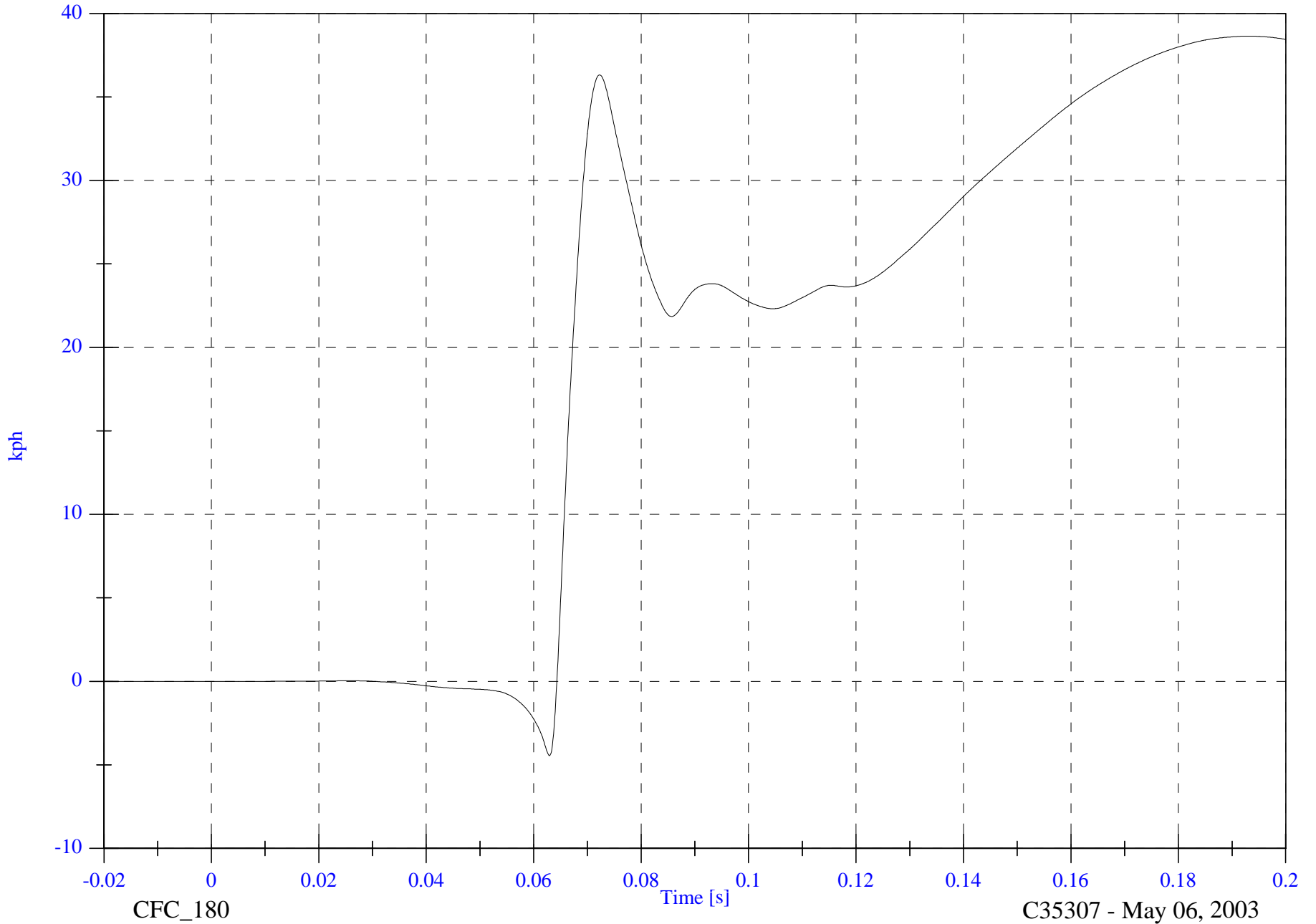
V2P4 Head 9 Array Z Arm Ay Velocity

Max: 38.6 [kph] at 0.193 [s]

Min: -4.4 [kph] at 0.063 [s]

B-53

8675-F214-08



CFC_180

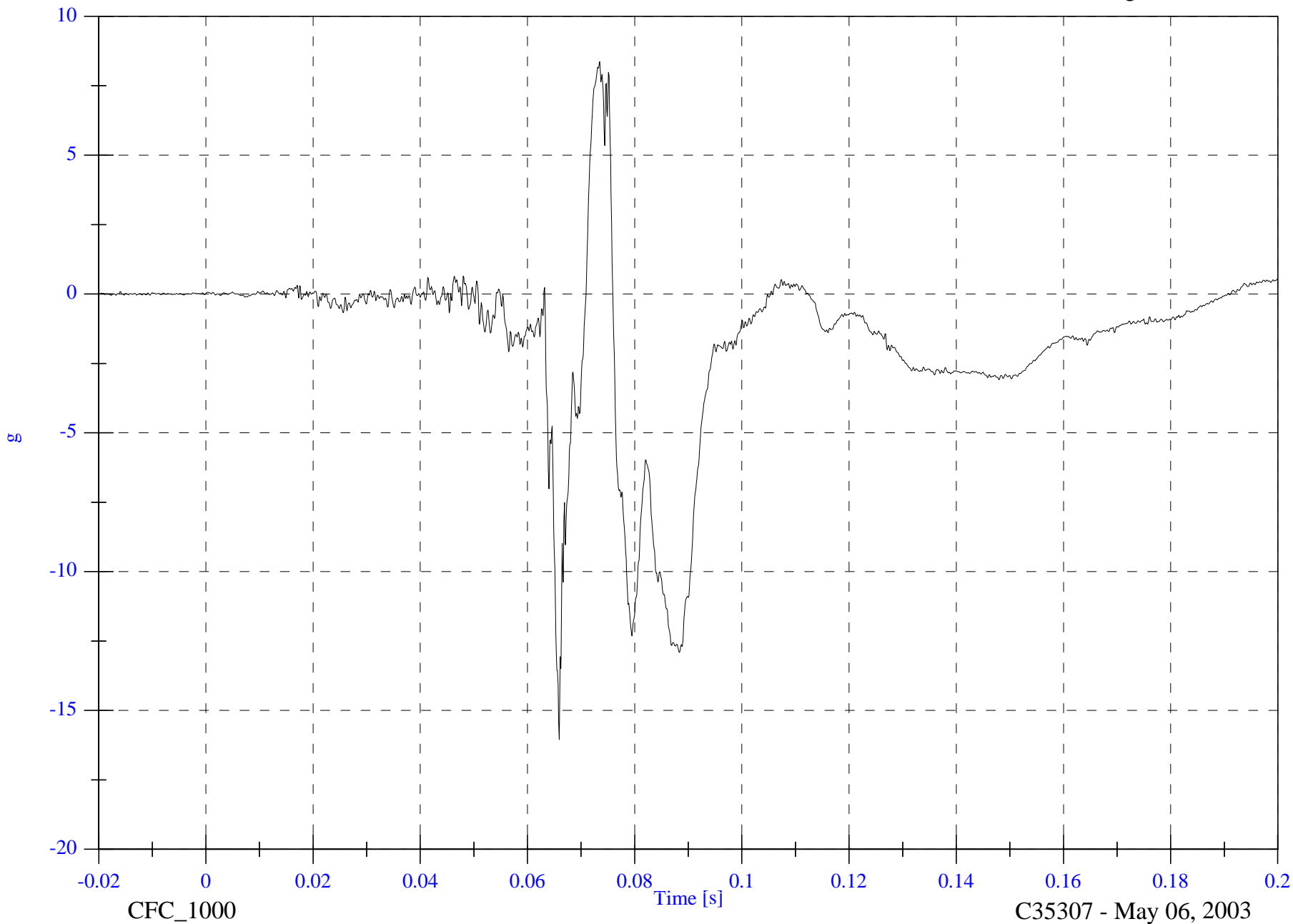
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Head x

Max: 8.4 [g] at 0.073 [s]

Min: -16.1 [g] at 0.066 [s]



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CFC_1000

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

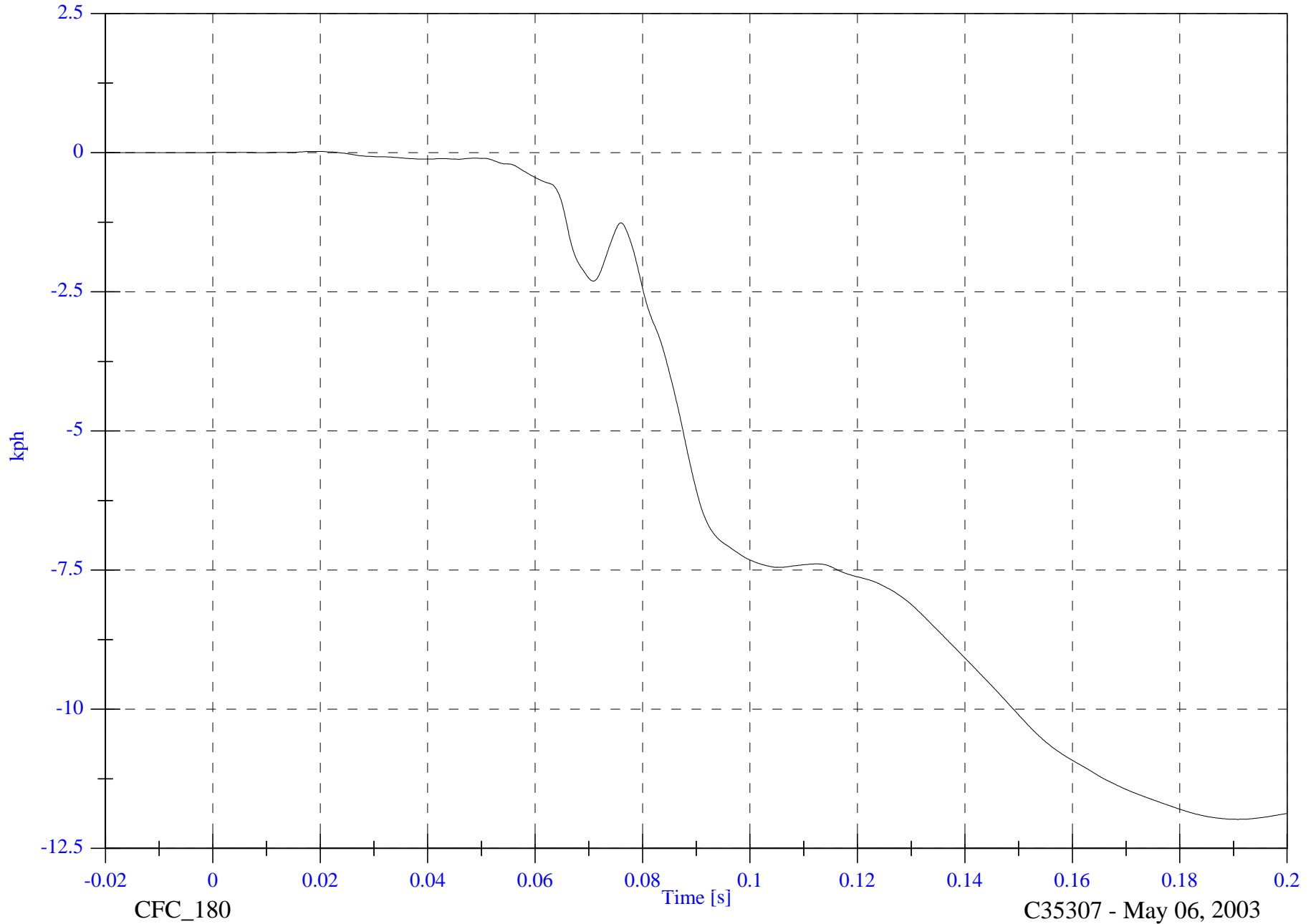
V2P4 Head x Velocity

Max: 0.0 [kph] at 0.018 [s]

Min: -12.0 [kph] at 0.191 [s]

B-55

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CFC_180

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

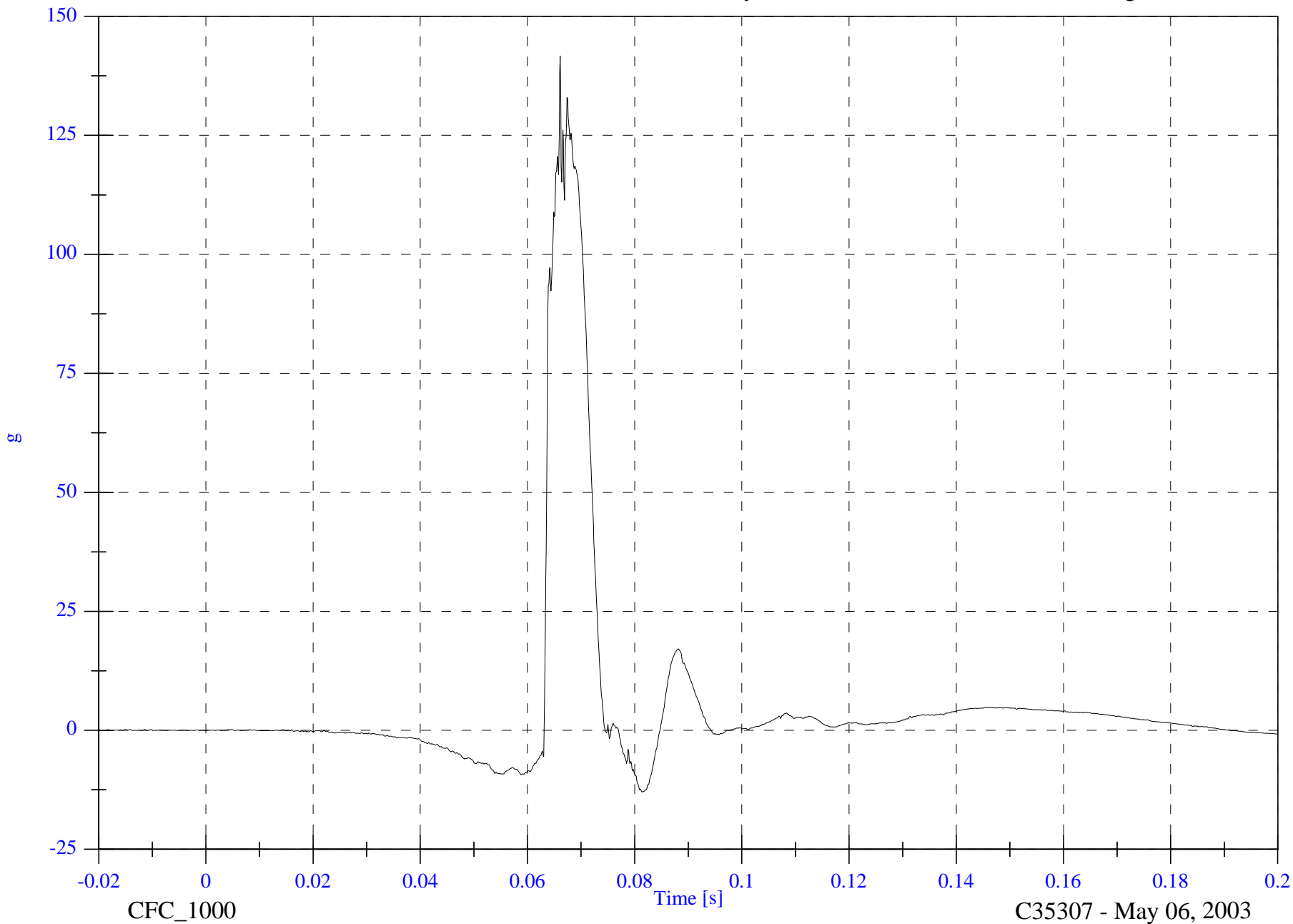
Max: 141.7 [g] at 0.066 [s]

V2P4 Head y

Min: -13.0 [g] at 0.081 [s]

B-56

8675-F214-08



CFC_1000

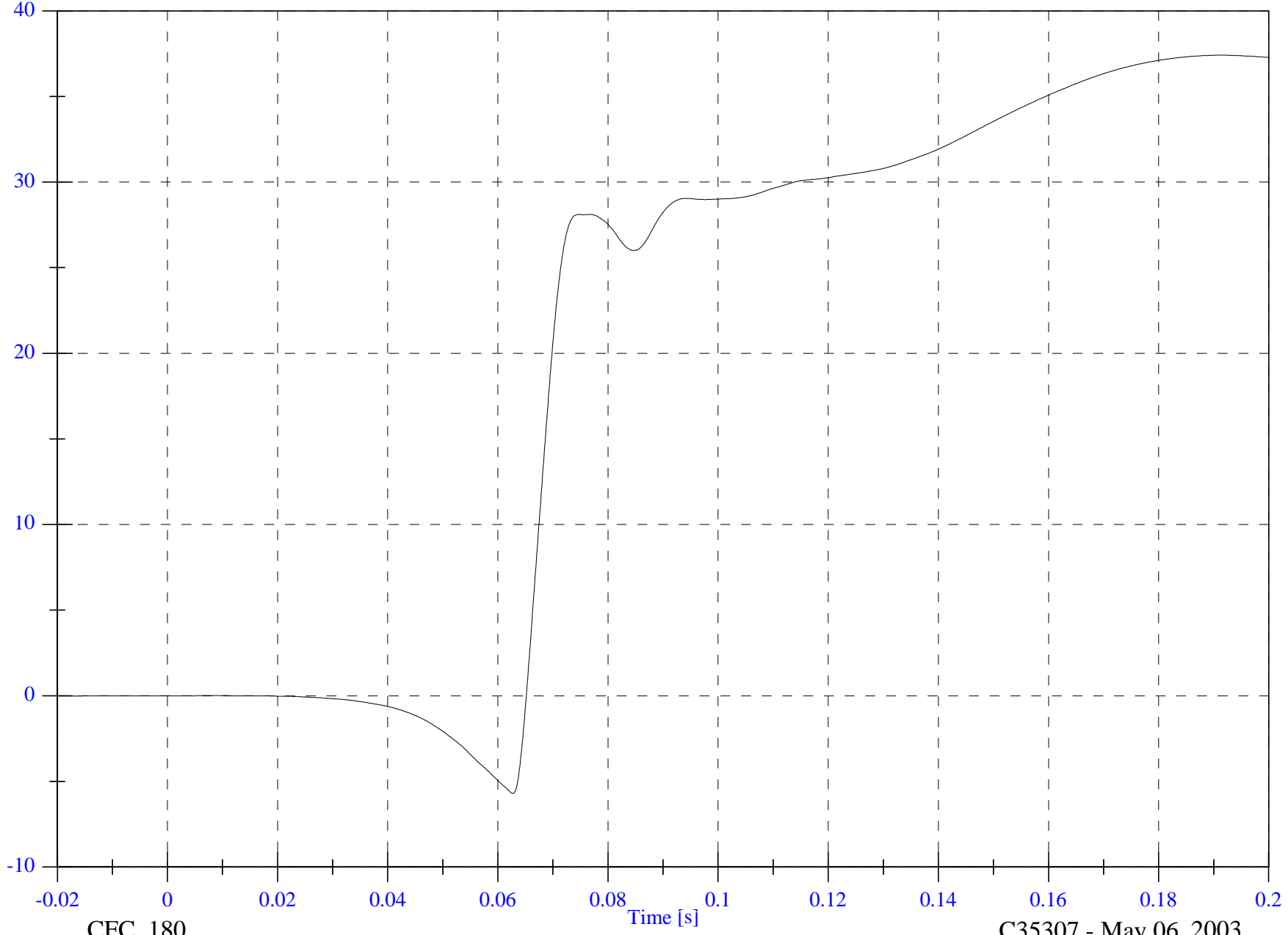
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 37.4 [kph] at 0.191 [s]

V2P4 Head y Velocity

Min: -5.7 [kph] at 0.063 [s]



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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

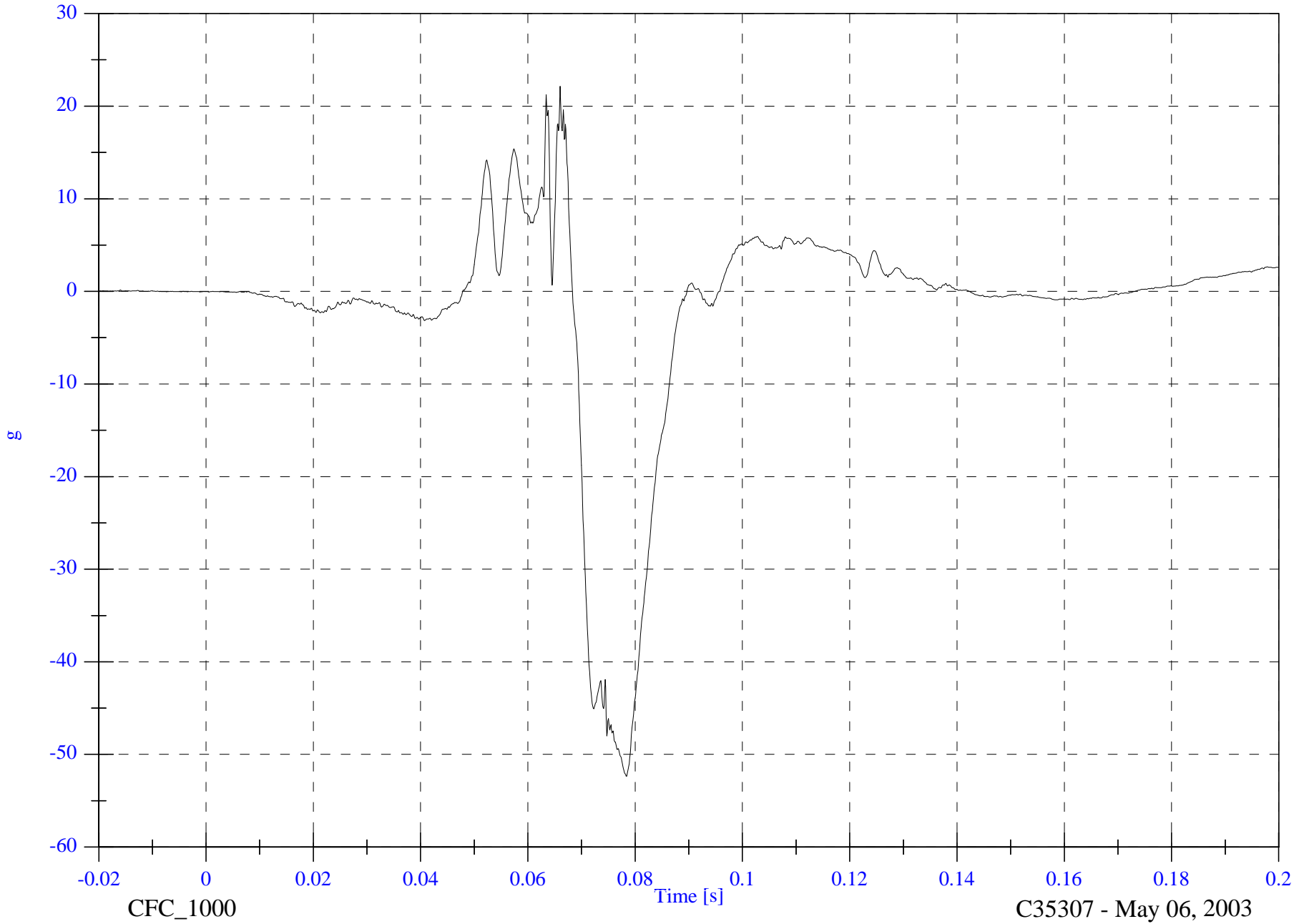
V2P4 Head z

Max: 22.1 [g] at 0.066 [s]

Min: -52.4 [g] at 0.078 [s]

B-58

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

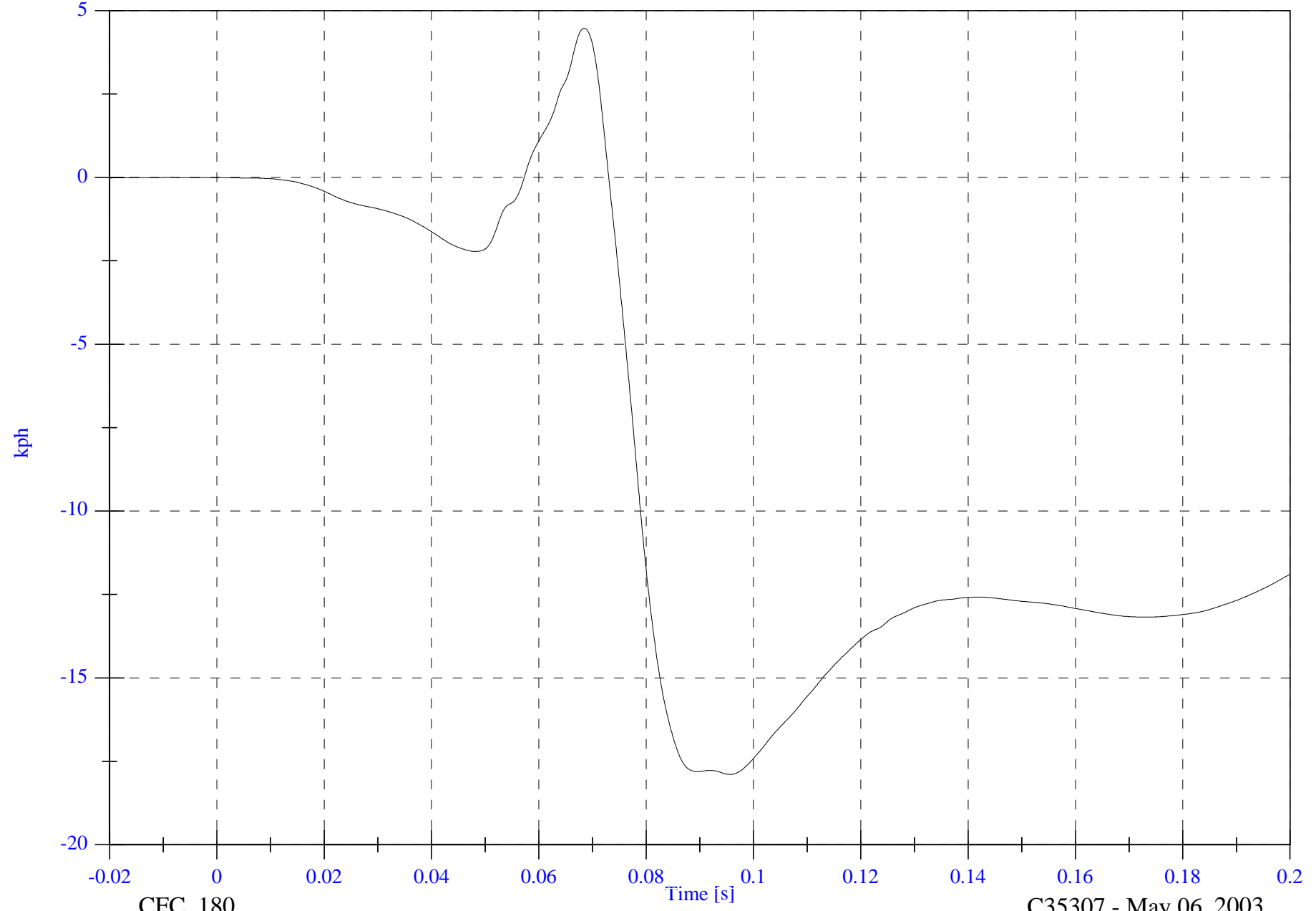
Max: 4.5 [kph] at 0.068 [s]

V2P4 Head z Velocity

Min: -17.9 [kph] at 0.096 [s]

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8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

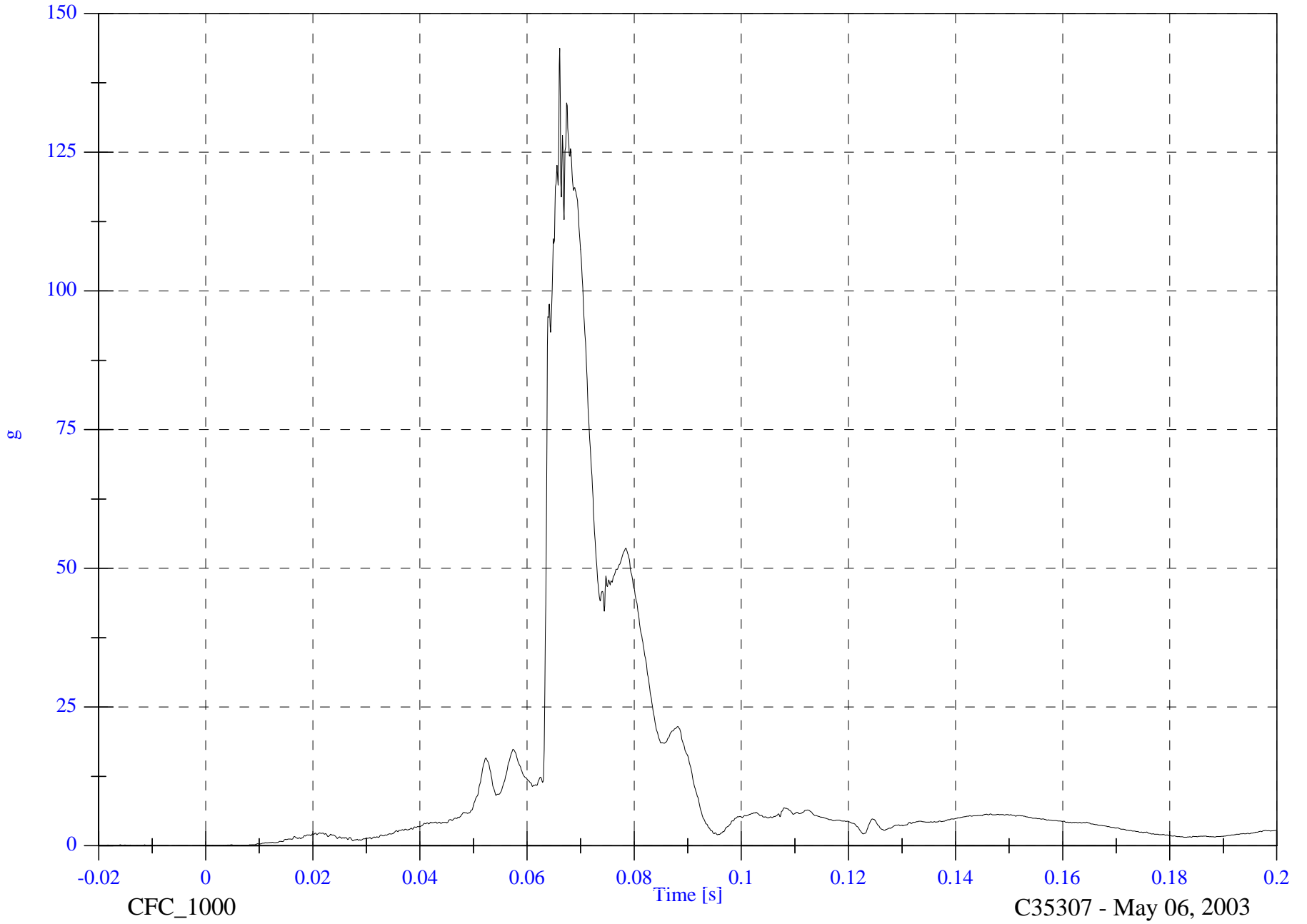
Max: 143.8 [g] at 0.066 [s]

V2P4 Head Resultant

Min: 0.0 [g] at -0.003 [s]

B-60

8675-F214-08



CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

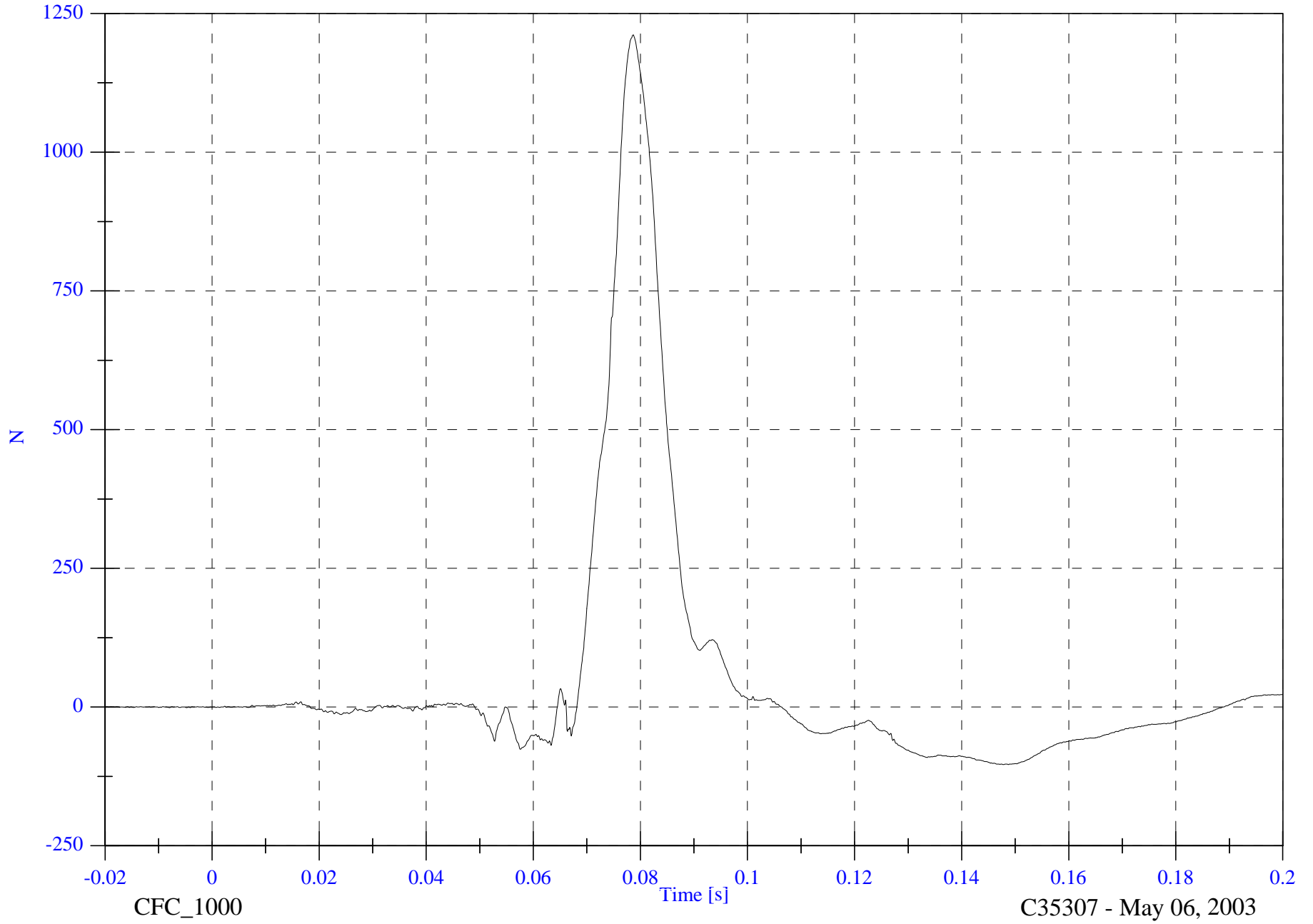
Max: 1211.3 [N] at 0.079 [s]

V2P4 Upper Neck Fx

Min: -103.6 [N] at 0.148 [s]

B-61

8675-F214-08



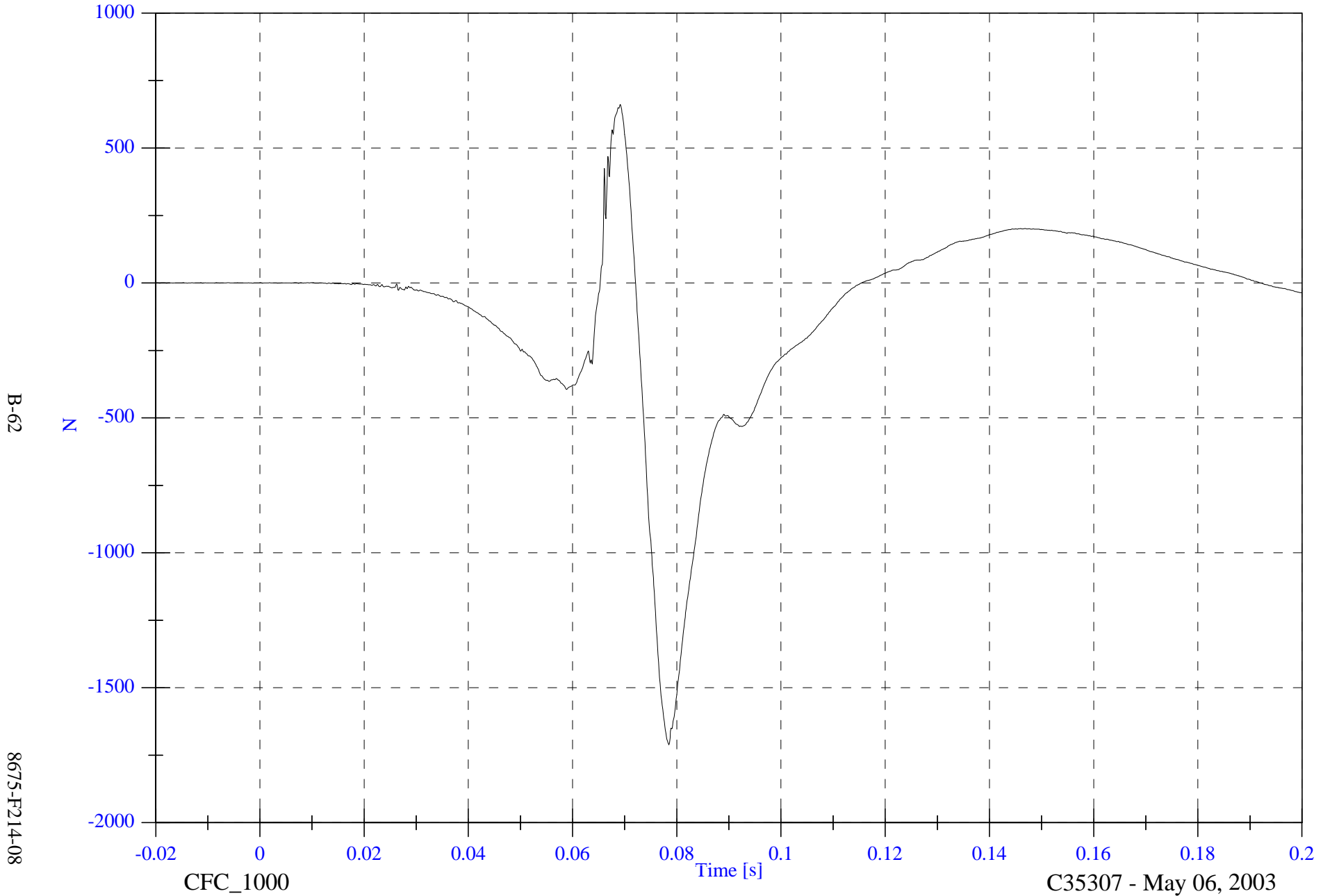
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Neck Fy

Max: 661.9 [N] at 0.069 [s]

Min: -1711.0 [N] at 0.078 [s]



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CFC_1000

Time [s]

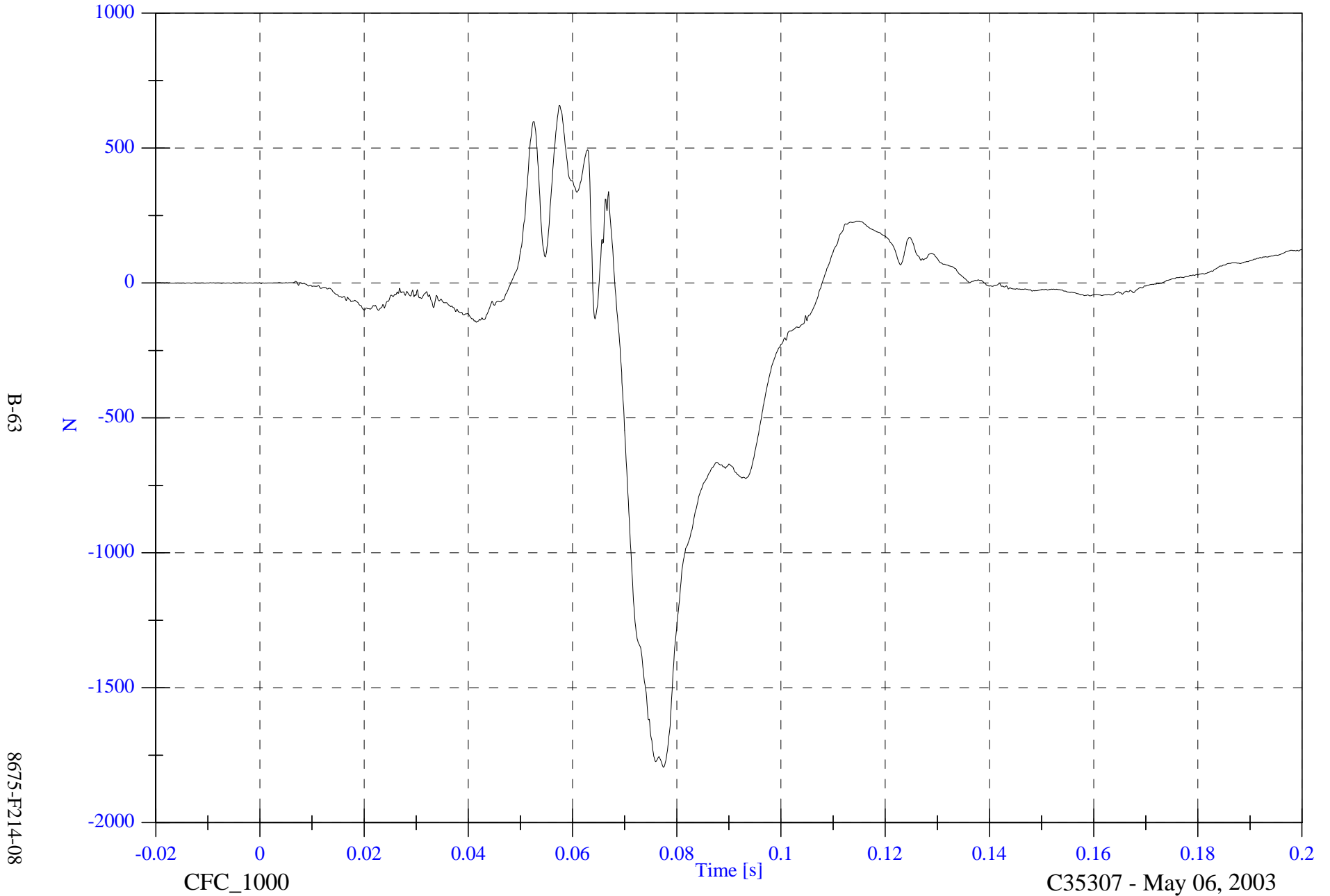
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Neck Fz

Max: 659.4 [N] at 0.057 [s]

Min: -1794.5 [N] at 0.077 [s]



B-63

8675-F214-08

CFC_1000

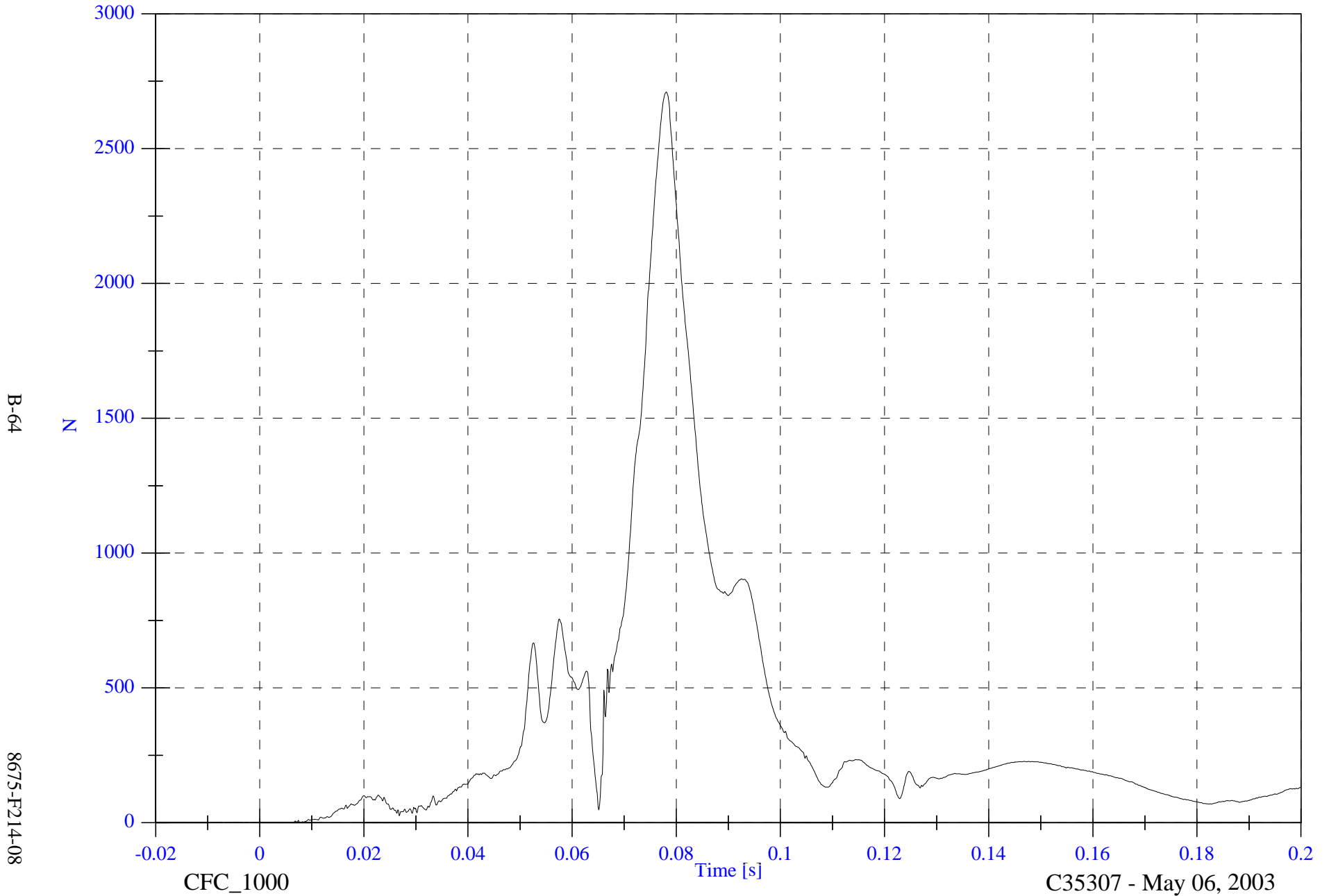
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Neck F Resultant

Max: 2709.9 [N] at 0.078 [s]

Min: 0.1 [N] at -0.003 [s]



B-64

8675-F214-08

CFC_1000

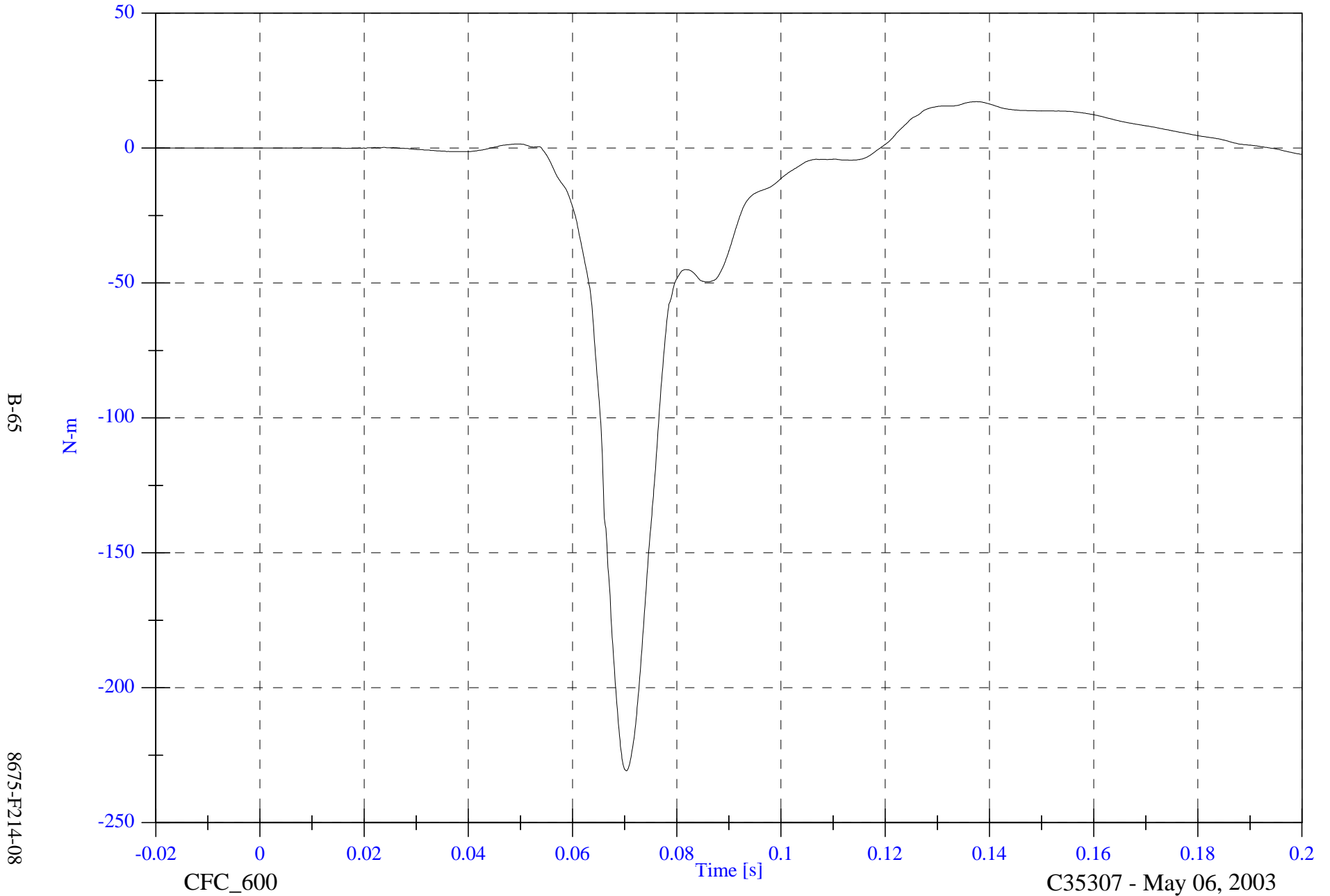
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Neck Mx

Max: 17.2 [N-m] at 0.137 [s]

Min: -230.7 [N-m] at 0.070 [s]



B-65

8675-F214-08

CFC_600

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

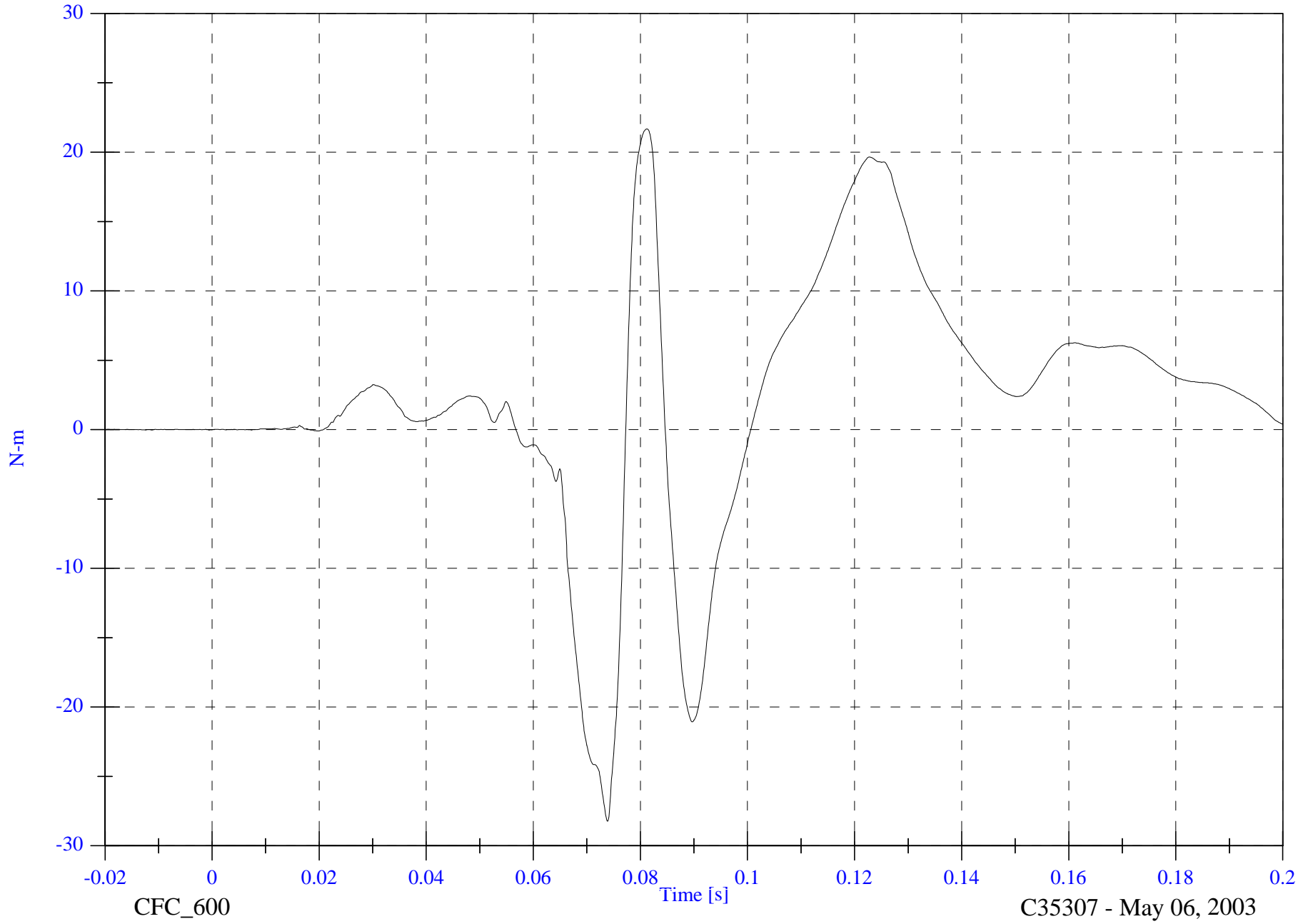
V2P4 Upper Neck My

Max: 21.7 [N-m] at 0.081 [s]

Min: -28.2 [N-m] at 0.074 [s]

B-66

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

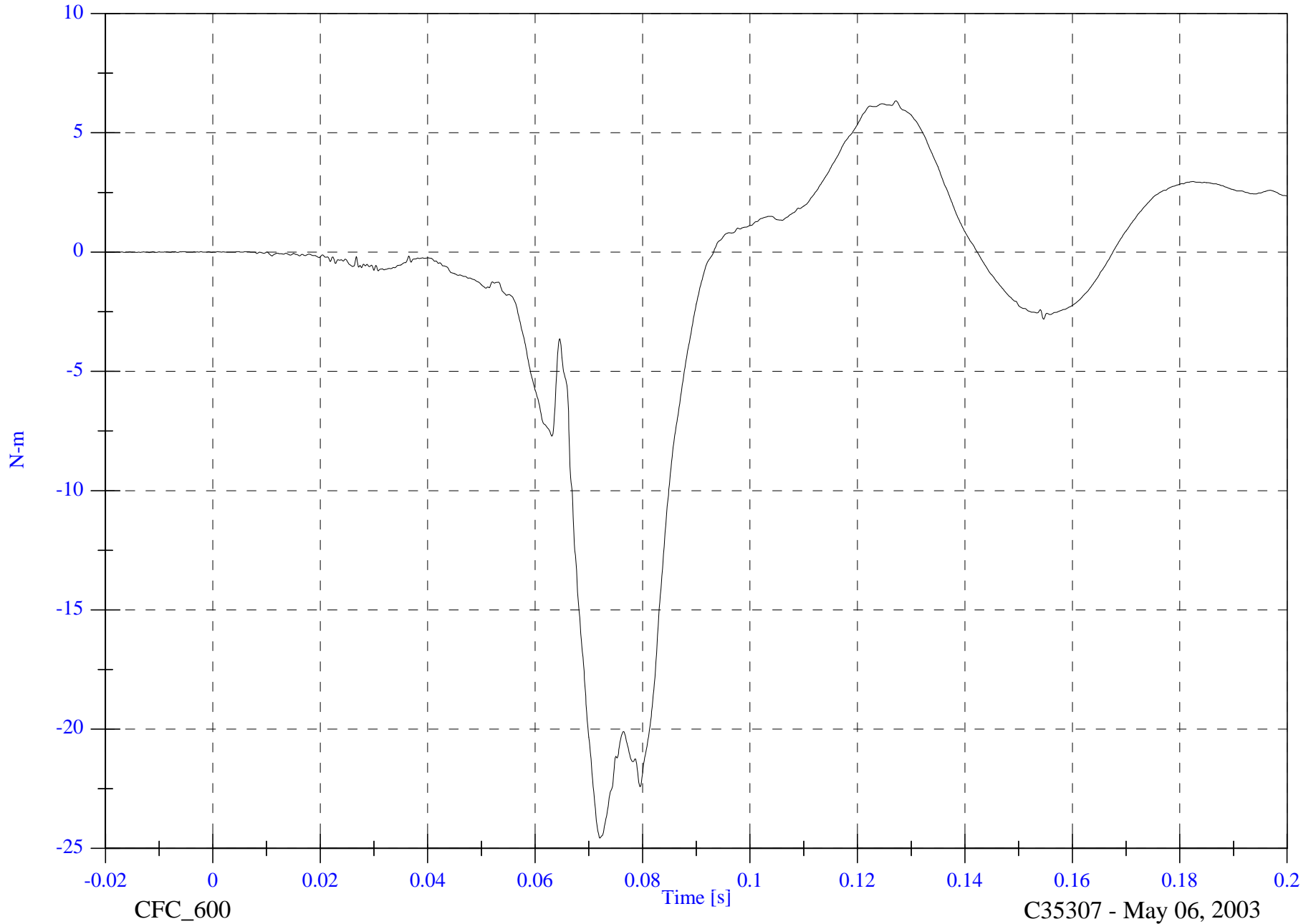
V2P4 Upper Neck Mz

Max: 6.3 [N-m] at 0.127 [s]

Min: -24.6 [N-m] at 0.072 [s]

B-67

8675-F214-08



CFC_600

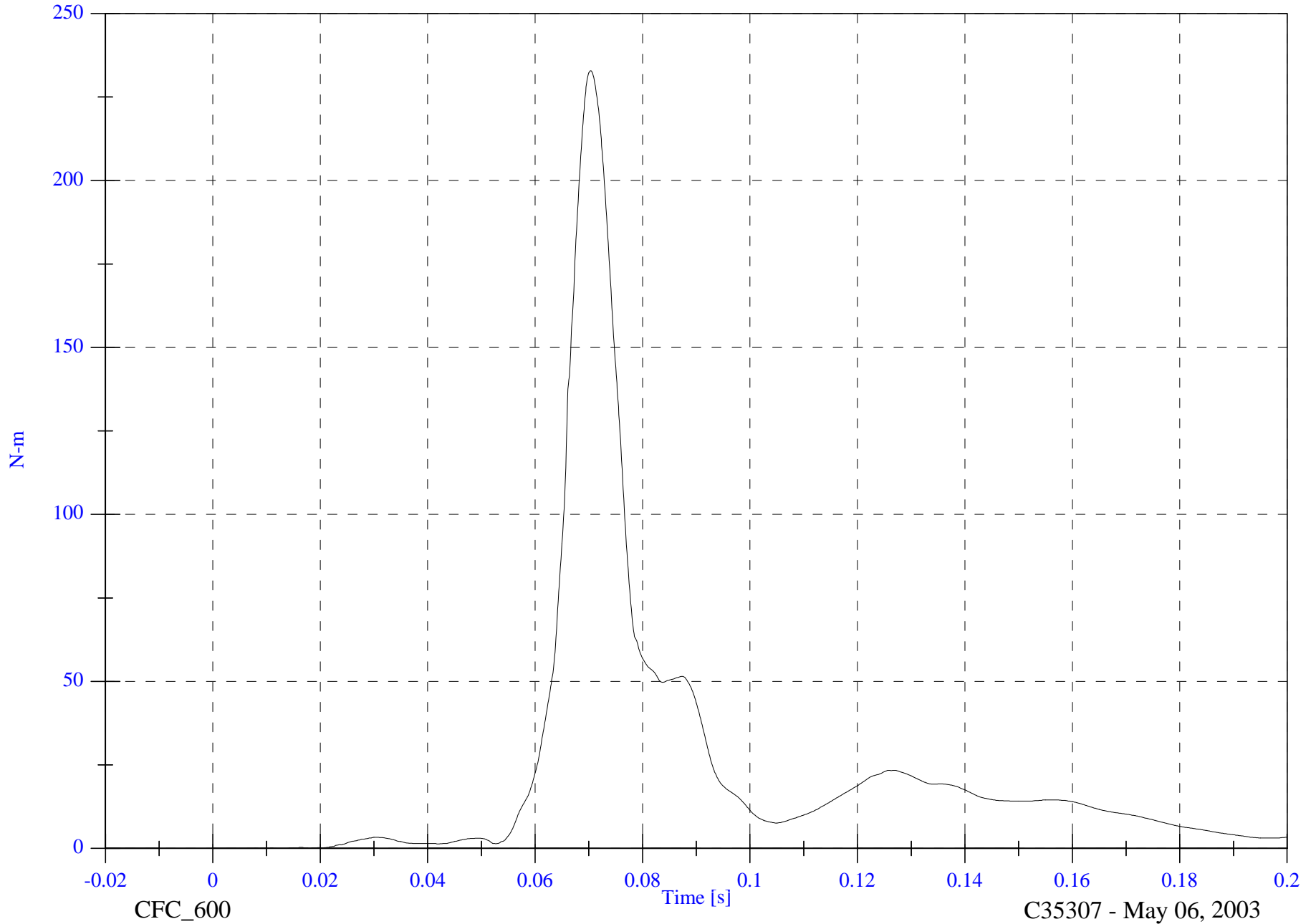
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Neck M Resultant

Max: 232.9 [N-m] at 0.070 [s]

Min: 0.0 [N-m] at 0.003 [s]



B-68

8675-F214-08

CFC_600

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

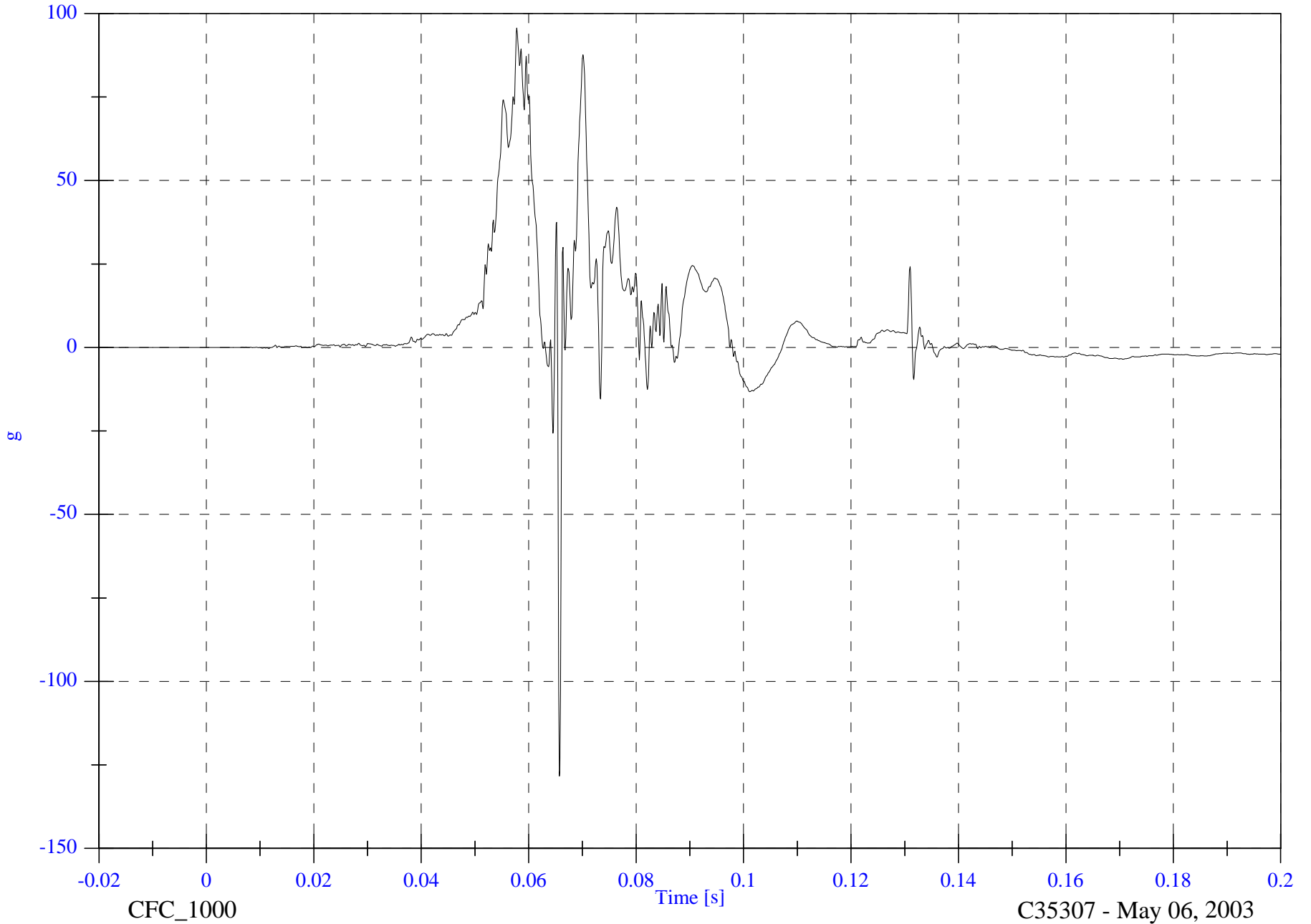
V2P4 Upper Rib y

Max: 95.7 [g] at 0.058 [s]

Min: -128.4 [g] at 0.066 [s]

B-69

8675-F214-08



2003 FMVSS 214D Test 8 2003 Honda Element

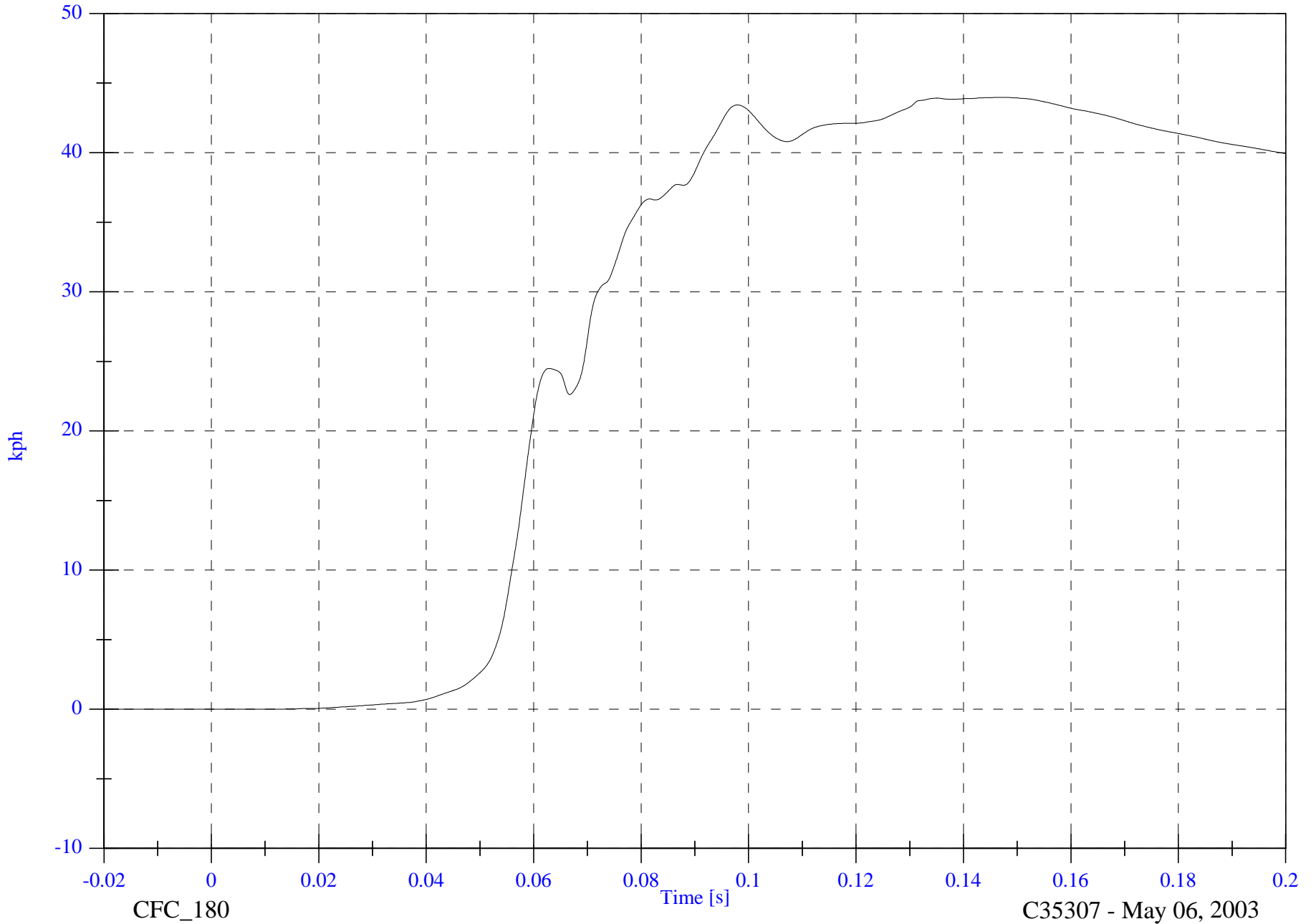
V2P4 Upper Rib y Velocity

Max: 44.0 [kph] at 0.147 [s]

Min: -0.0 [kph] at -0.016 [s]

B-70

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

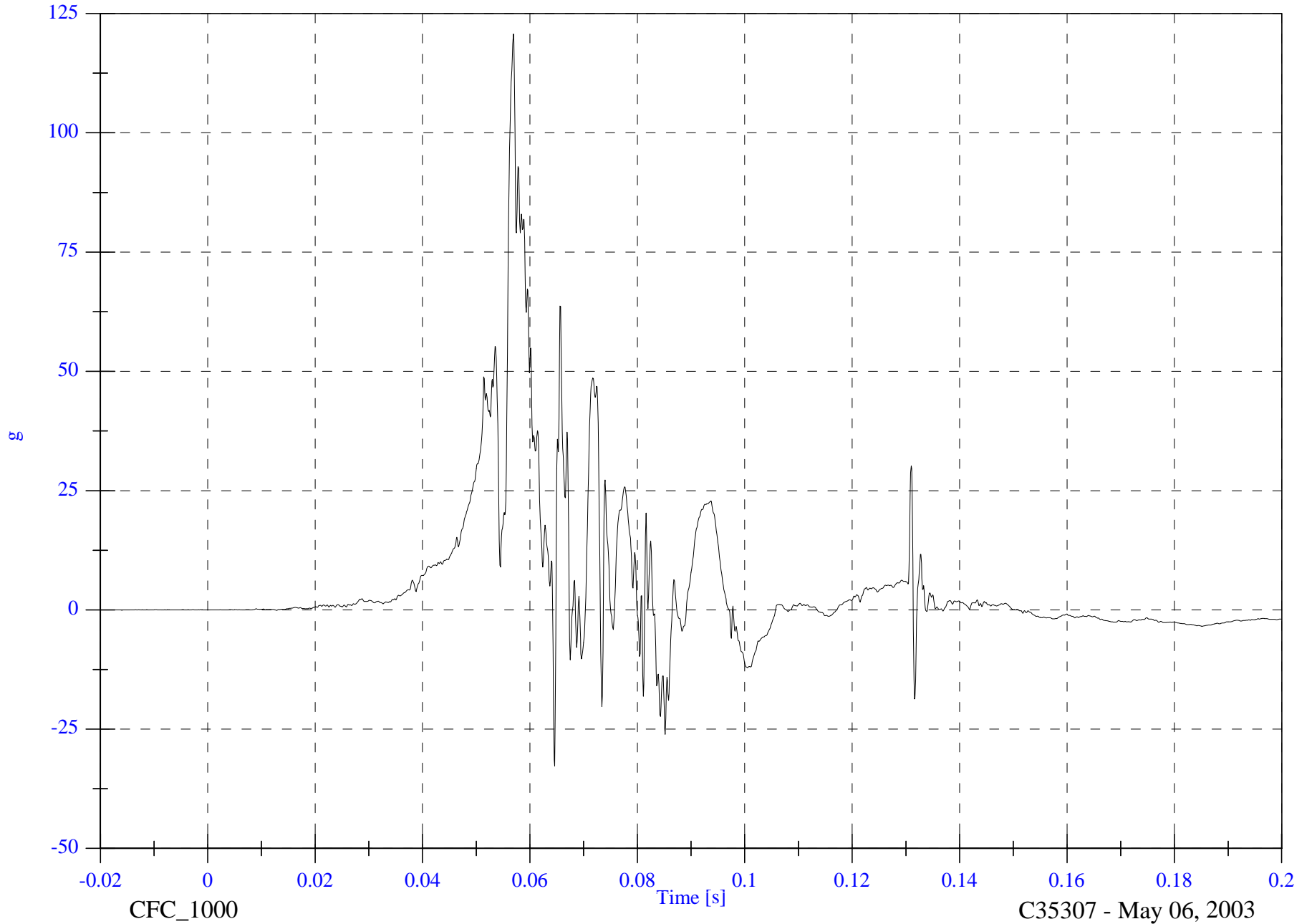
V2P4 Lower Rib y

Max: 120.7 [g] at 0.057 [s]

Min: -32.7 [g] at 0.065 [s]

B-71

8675-F214-08



2003 FMVSS 214D Test 8 2003 Honda Element

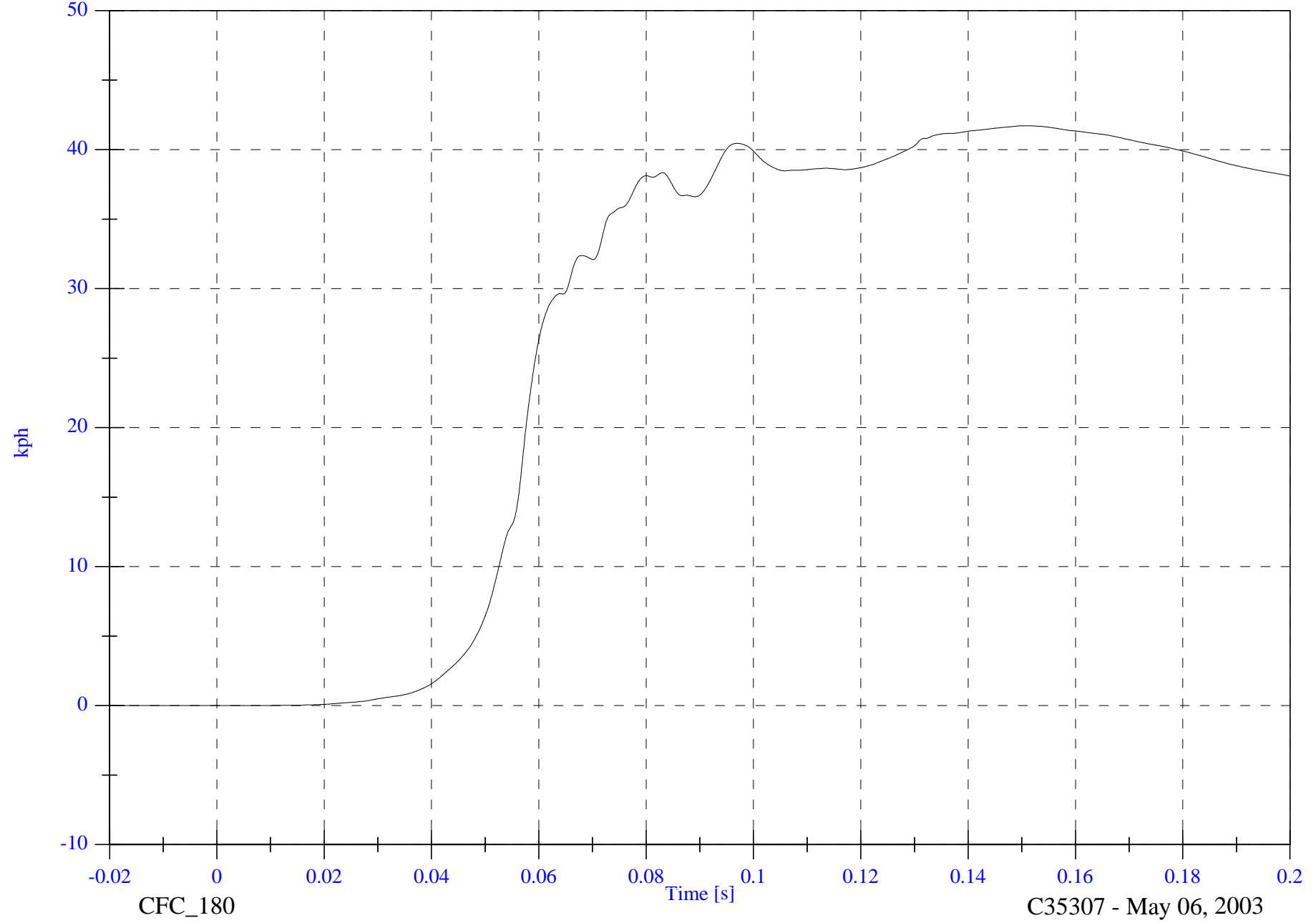
V2P4 Lower Rib y Velocity

Max: 41.7 [kph] at 0.151 [s]

Min: -0.0 [kph] at -0.015 [s]

B-72

8675-F214-08



CFC_180

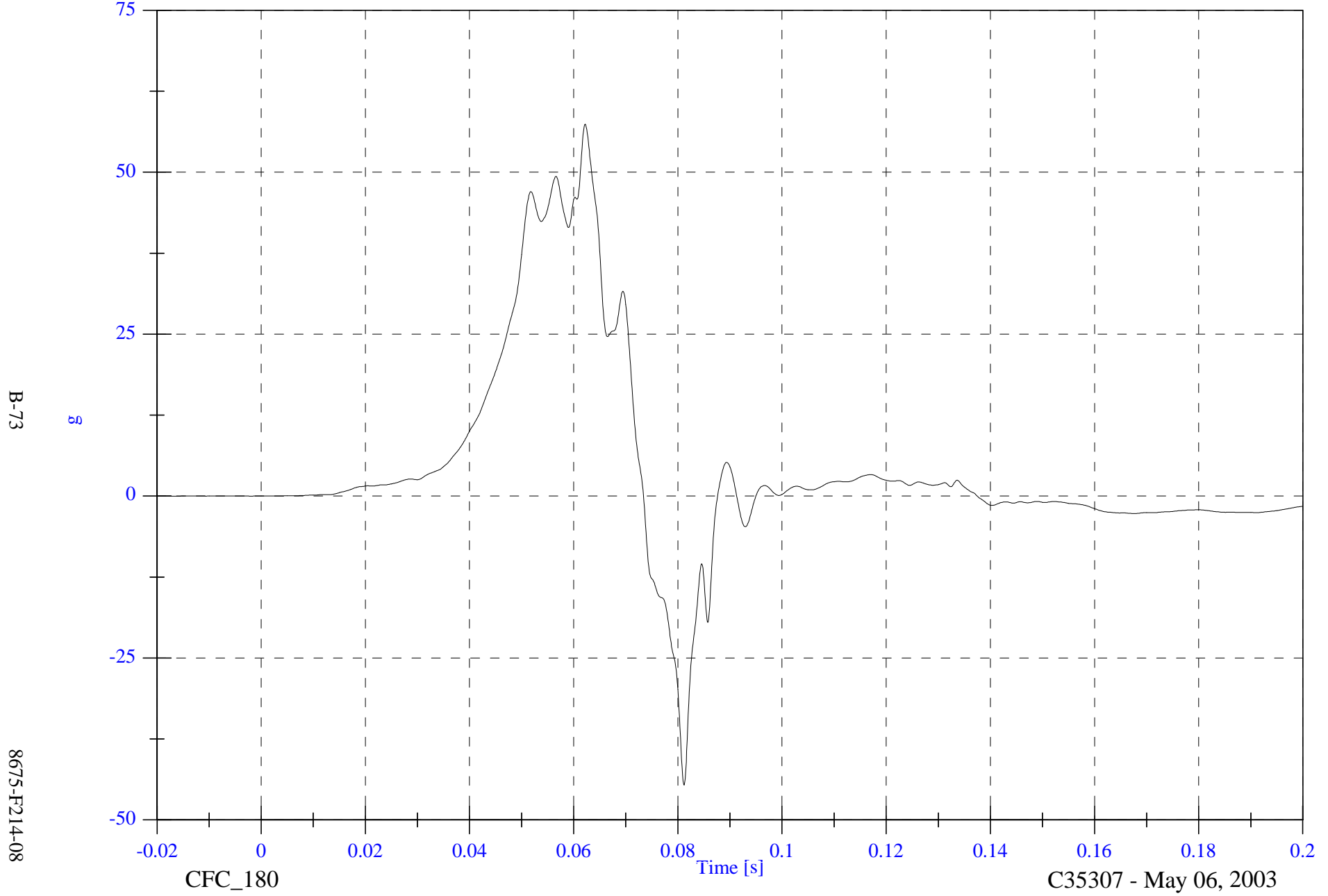
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Lower Spine y

Max: 57.4 [g] at 0.062 [s]

Min: -44.6 [g] at 0.081 [s]



B-73

8675-F214-08

CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

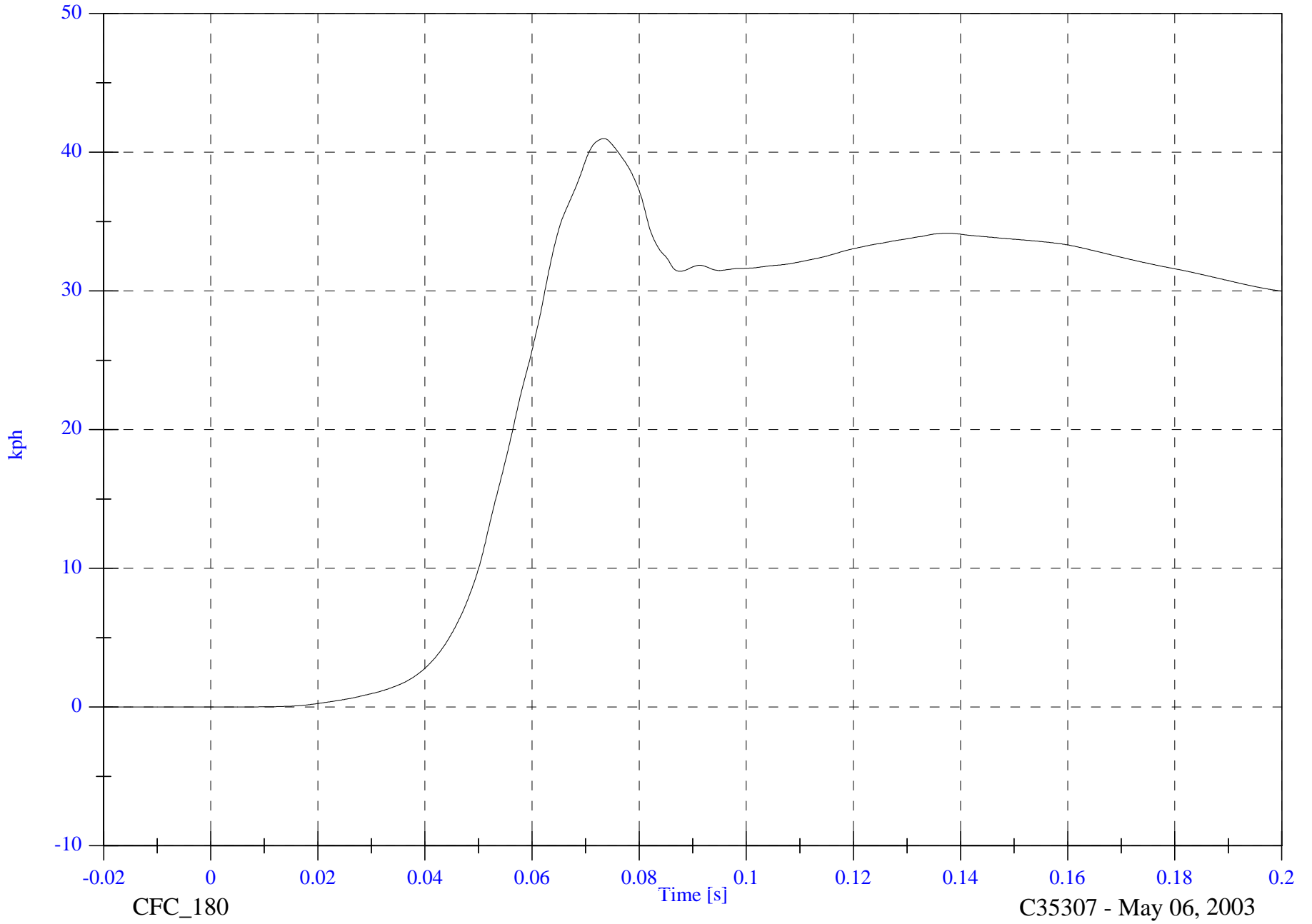
V2P4 Lower Spine y Velocity

Max: 41.0 [kph] at 0.073 [s]

Min: -0.0 [kph] at -0.015 [s]

B-74

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

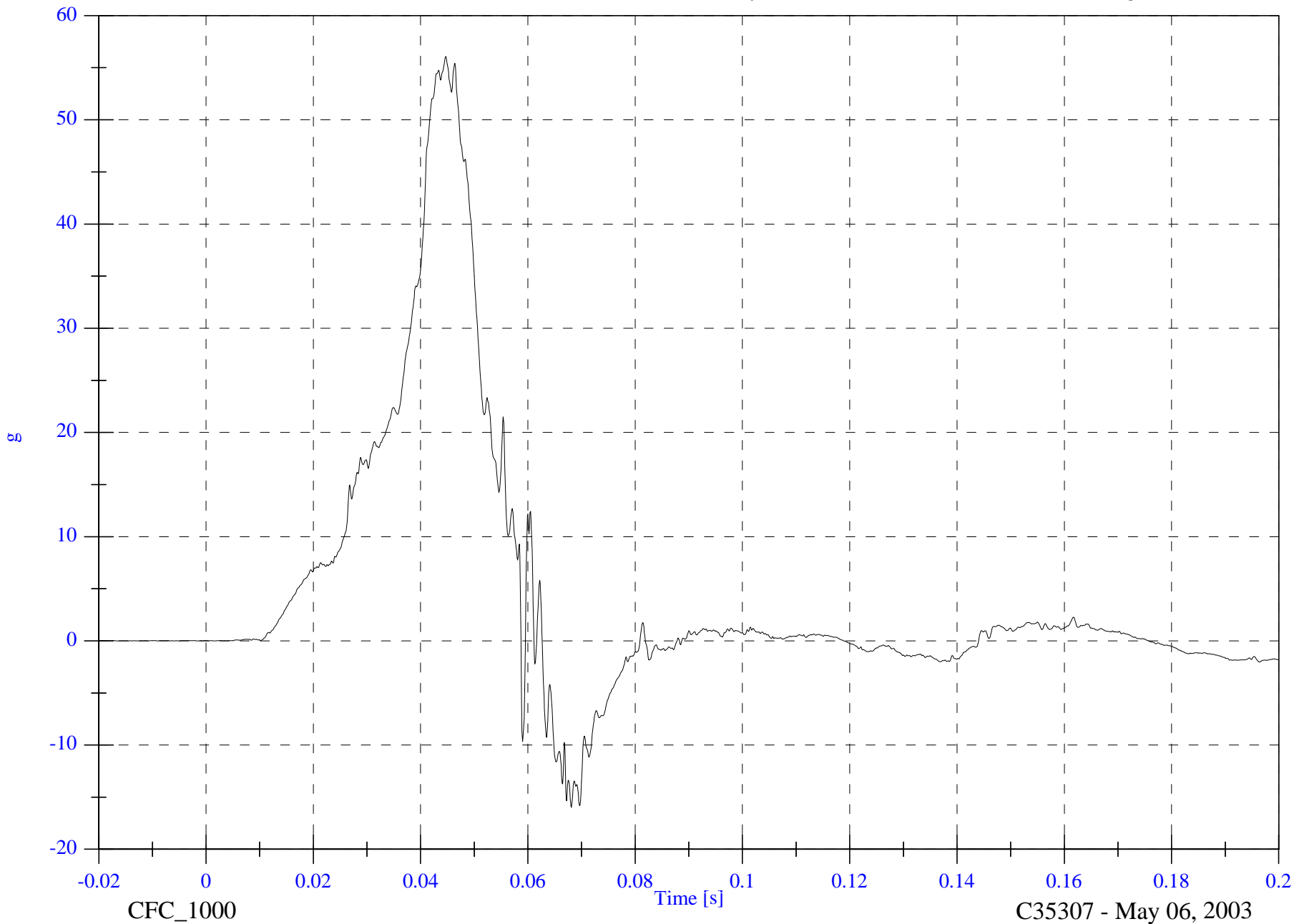
V2P4 Pelvic y

Max: 56.1 [g] at 0.045 [s]

Min: -16.0 [g] at 0.068 [s]

B-75

8675-F214-08



CFC_1000

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

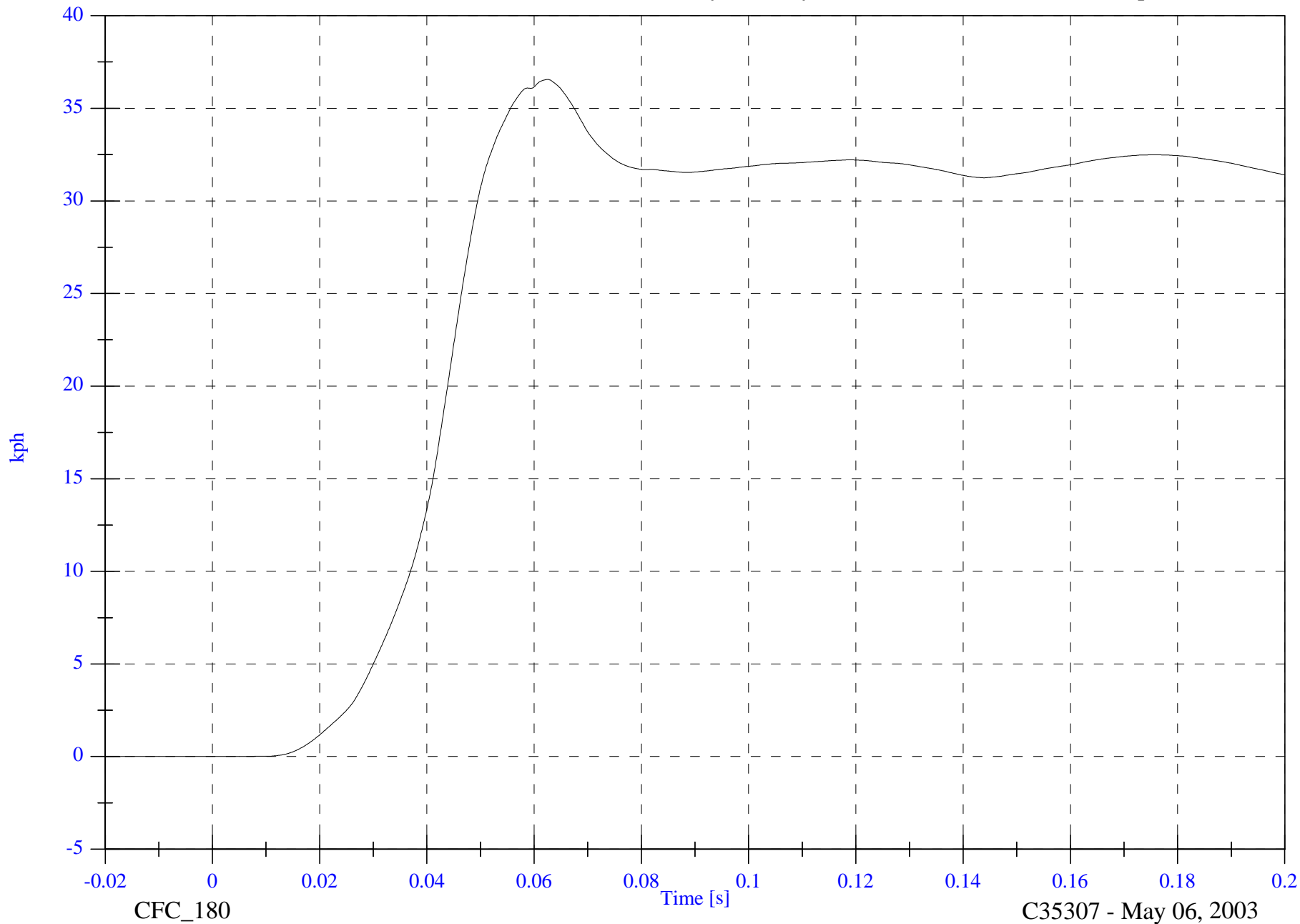
Max: 36.6 [kph] at 0.062 [s]

V2P4 Pelvic y Velocity

Min: -0.0 [kph] at -0.020 [s]

B-76

8675-F214-08



CFC_180

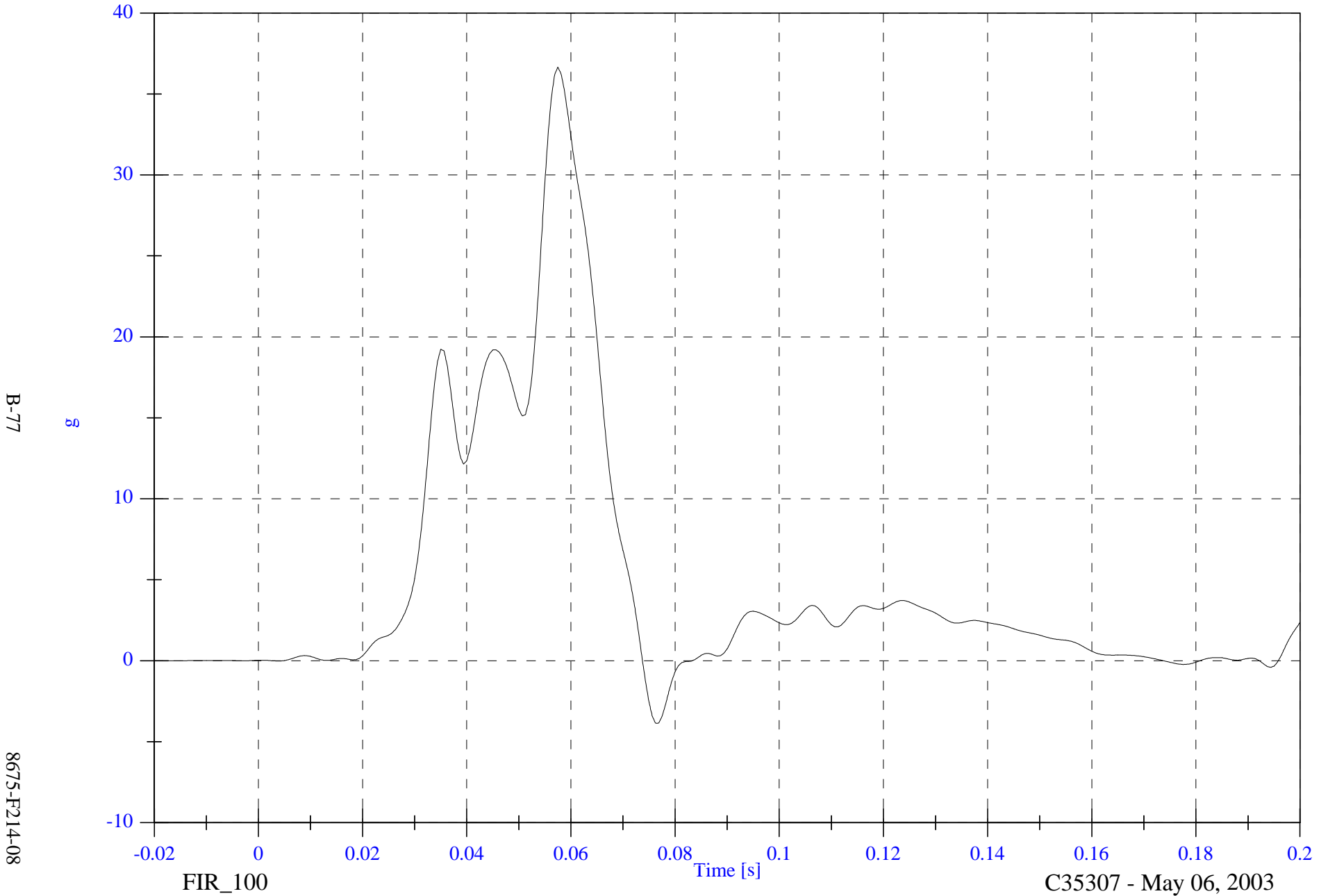
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Upper Rib y

Max: 36.7 [g] at 0.057 [s]

Min: -3.9 [g] at 0.076 [s]



B-77

8675-F214-08

FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

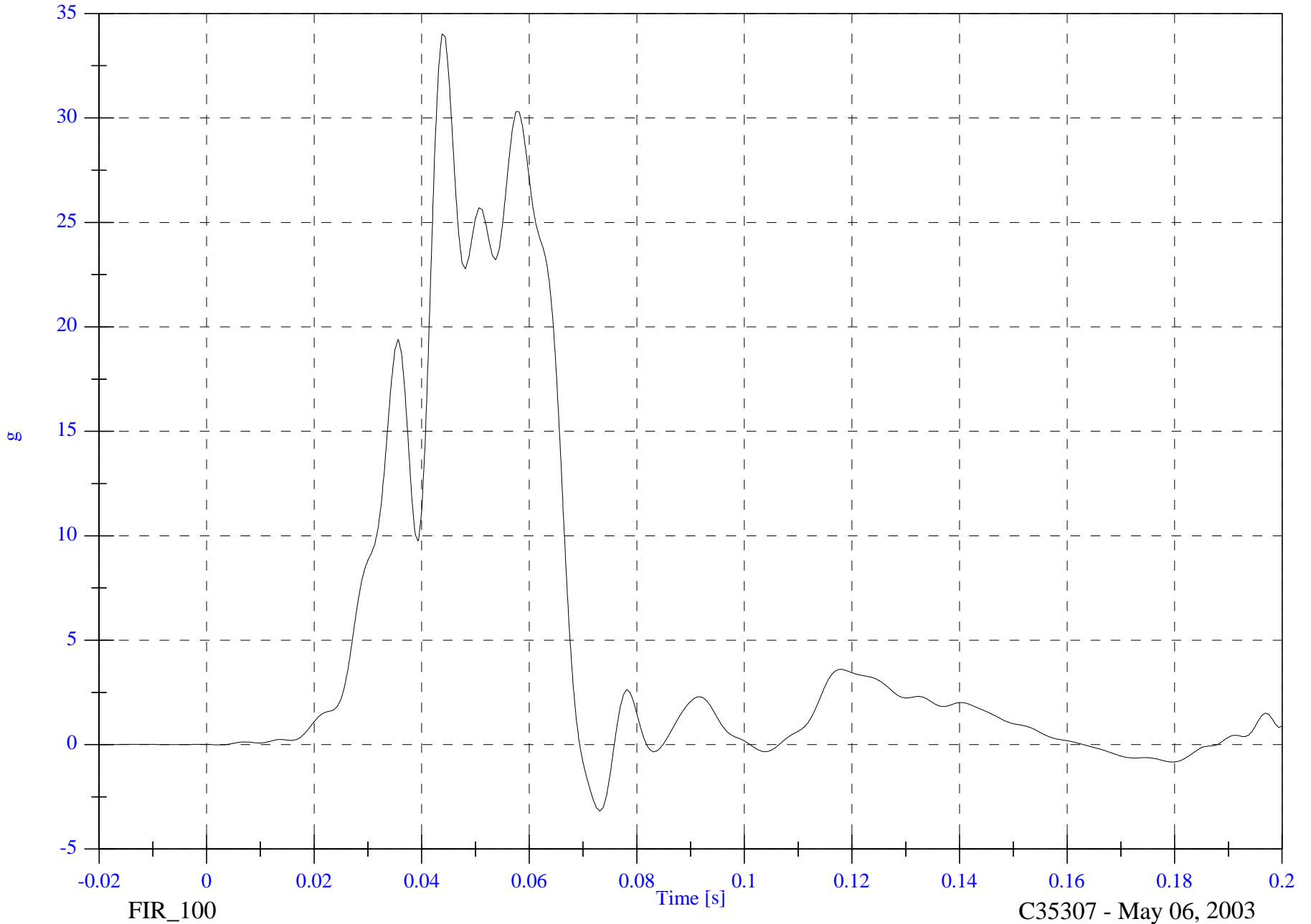
V2P1 Lower Rib y

Max: 34.0 [g] at 0.044 [s]

Min: -3.2 [g] at 0.073 [s]

B-78

8675-F214-08



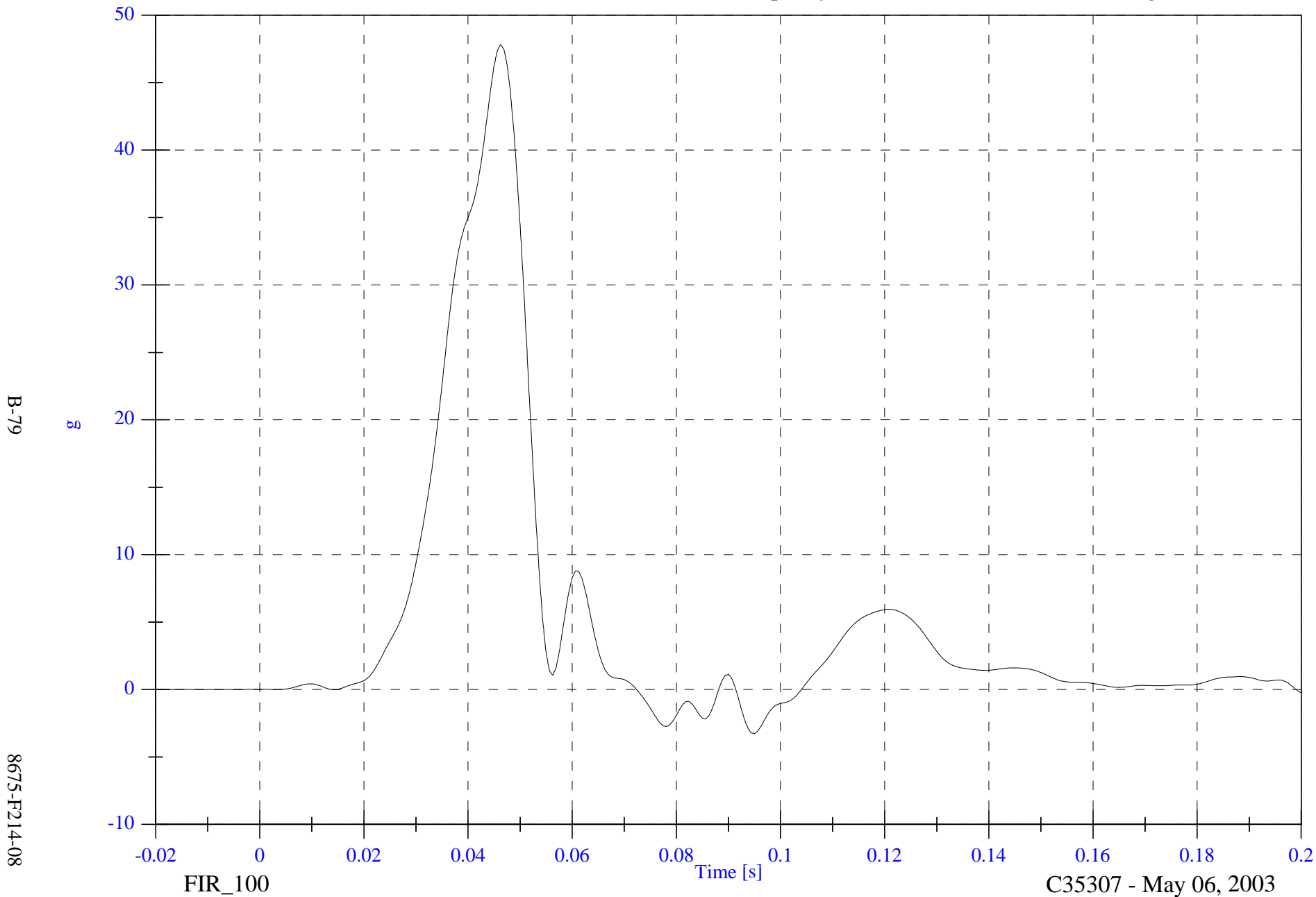
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Lower Spine y

Max: 47.8 [g] at 0.046 [s]

Min: -3.3 [g] at 0.095 [s]



B-79

8675-F214-08

FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

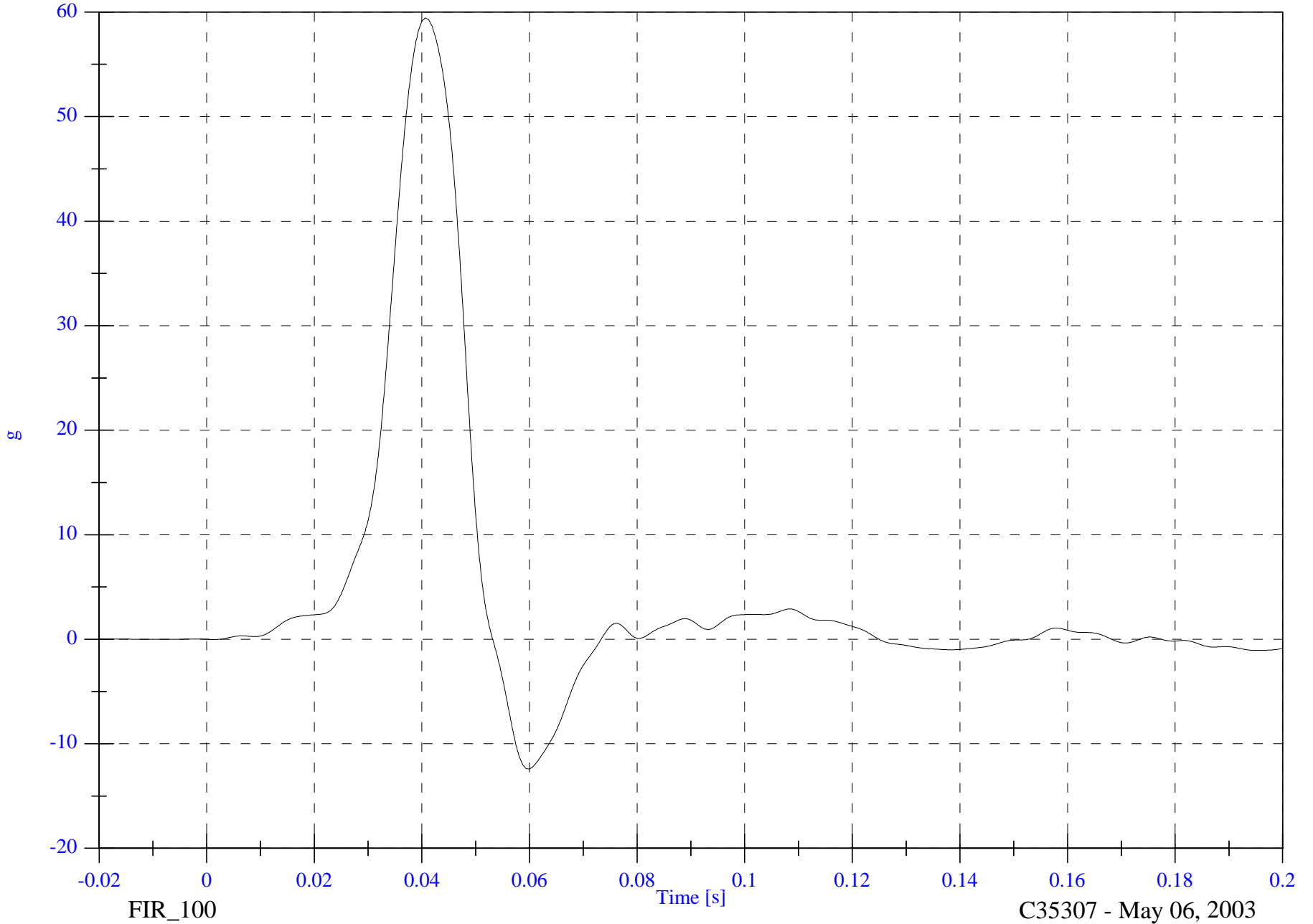
V2P1 Pelvic y

Max: 59.4 [g] at 0.041 [s]

Min: -12.4 [g] at 0.060 [s]

B-80

8675-F214-08



FIR_100

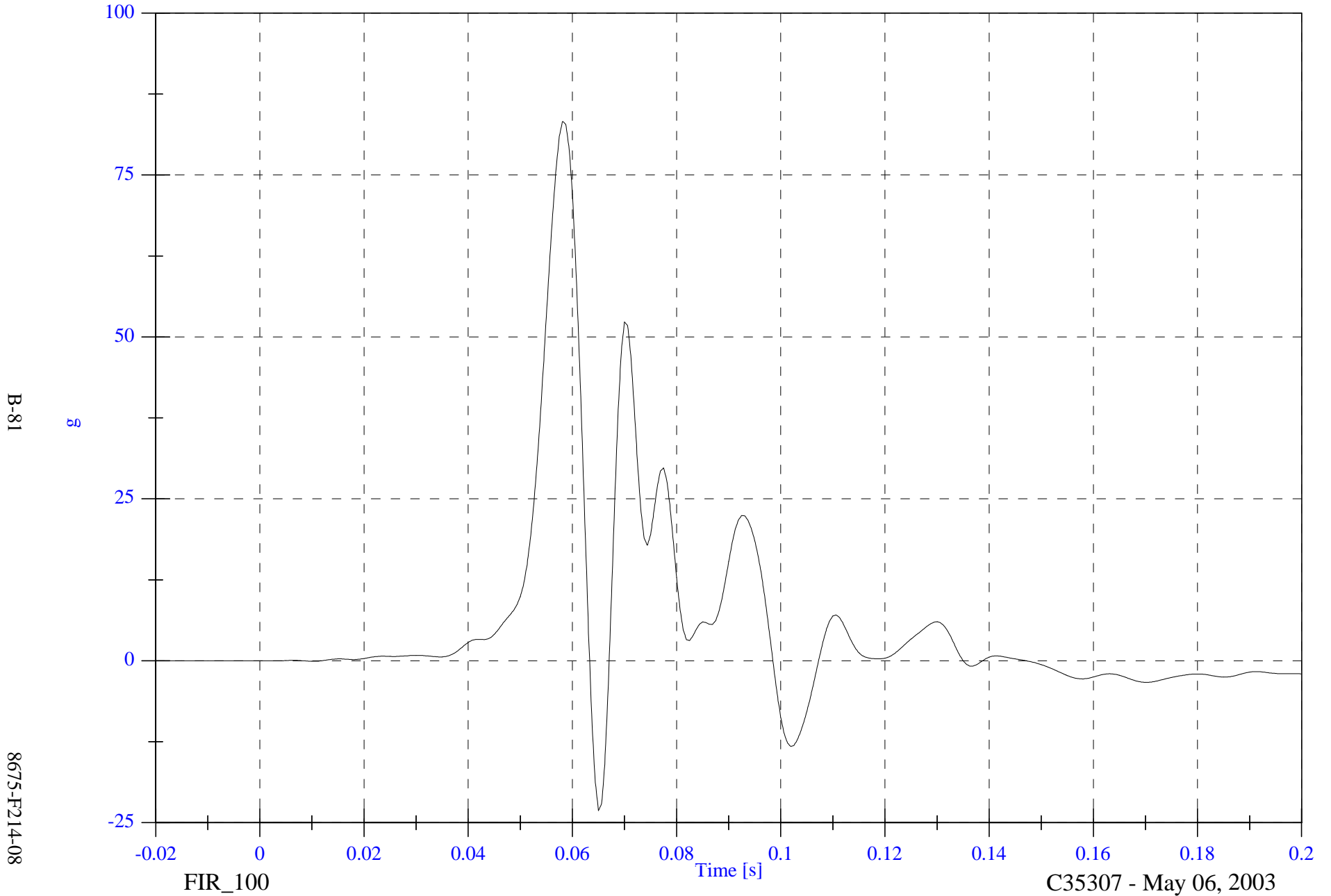
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Rib y

Max: 83.3 [g] at 0.058 [s]

Min: -23.1 [g] at 0.065 [s]



2003 FMVSS 214D Test 8 2003 Honda Element

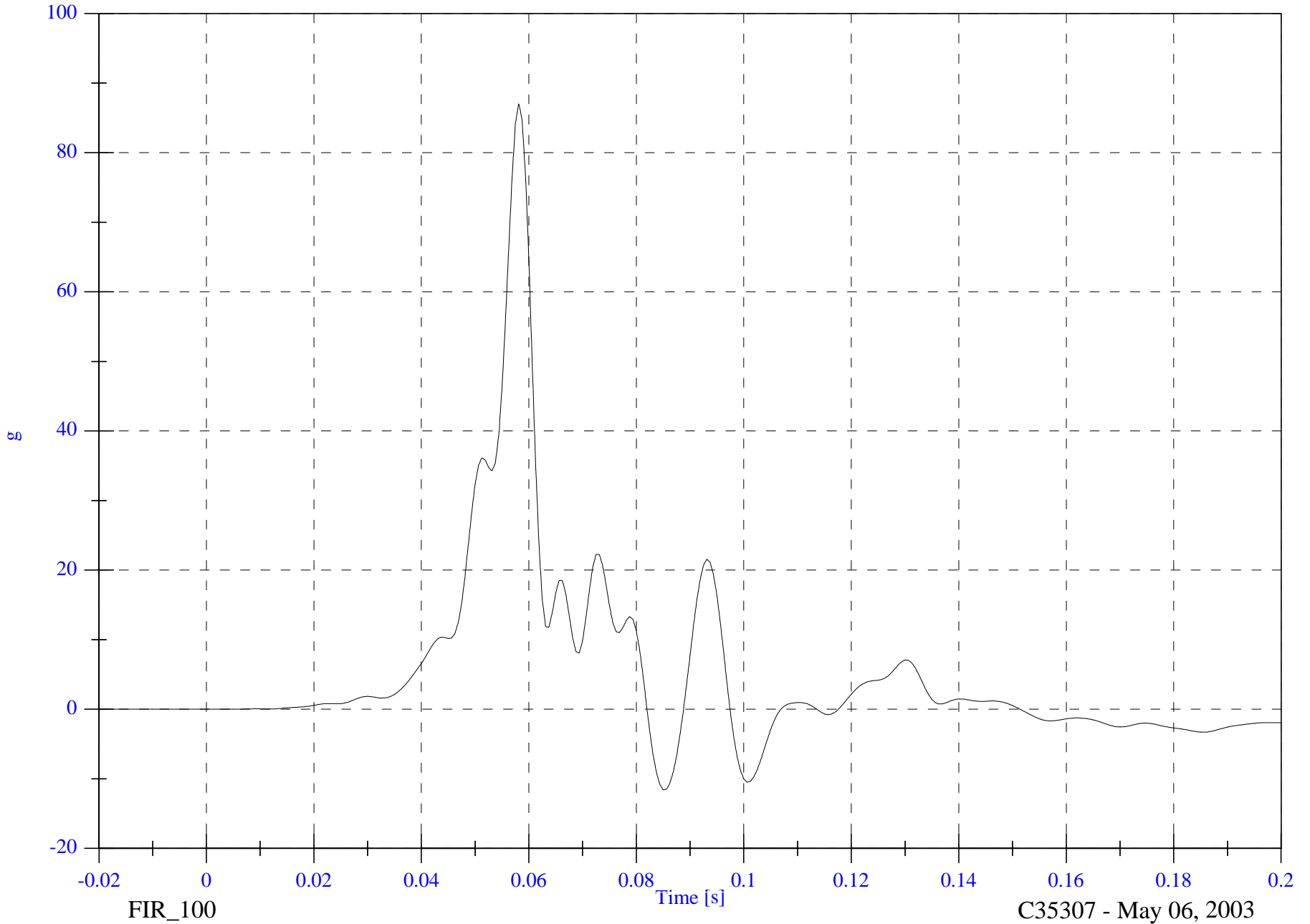
V2P4 Lower Rib y

Max: 87.0 [g] at 0.058 [s]

Min: -11.6 [g] at 0.085 [s]

B-82

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Lower Spine y

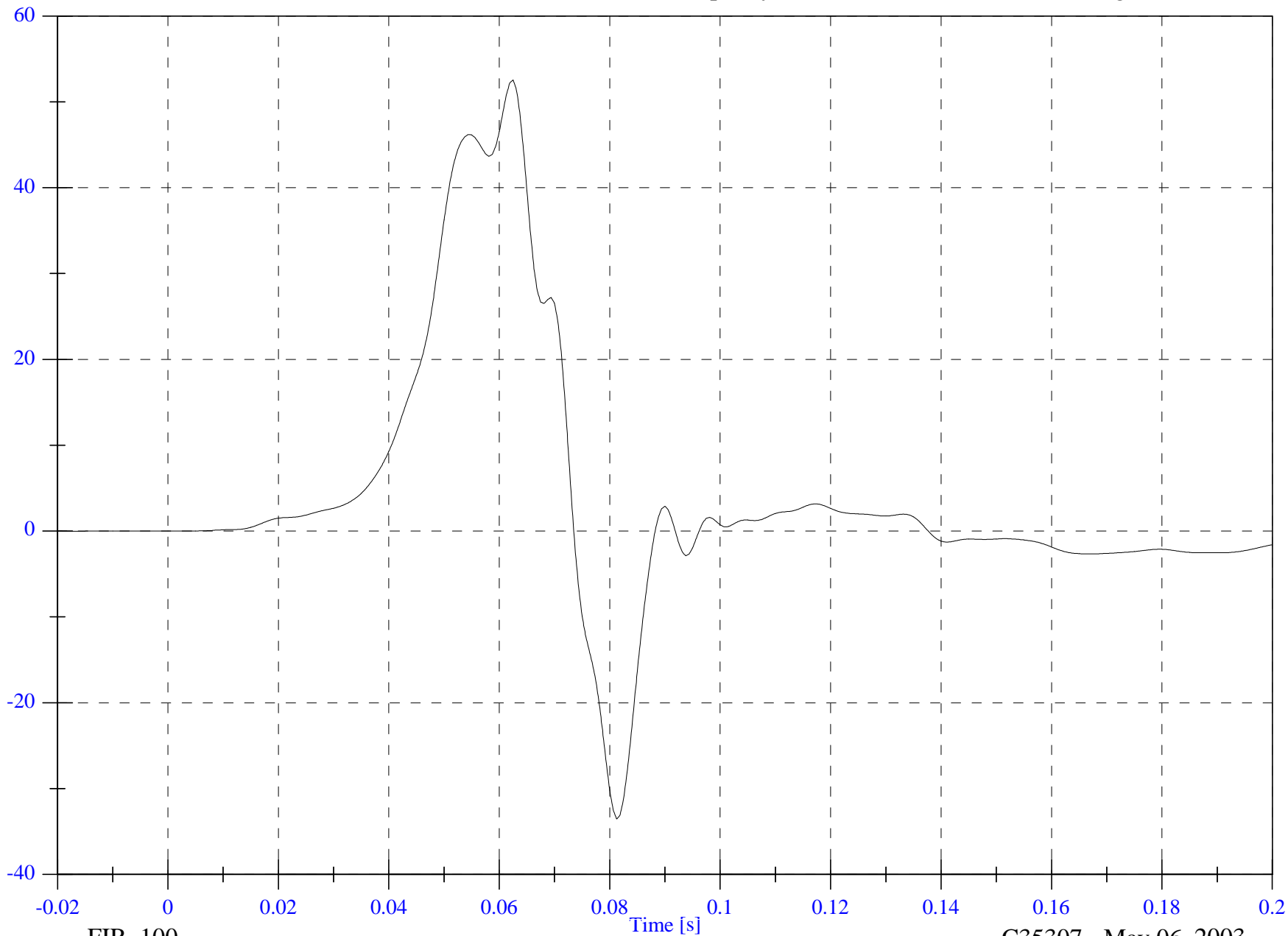
Max: 52.6 [g] at 0.062 [s]

Min: -33.5 [g] at 0.081 [s]

B-83

g

8675-F214-08



FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

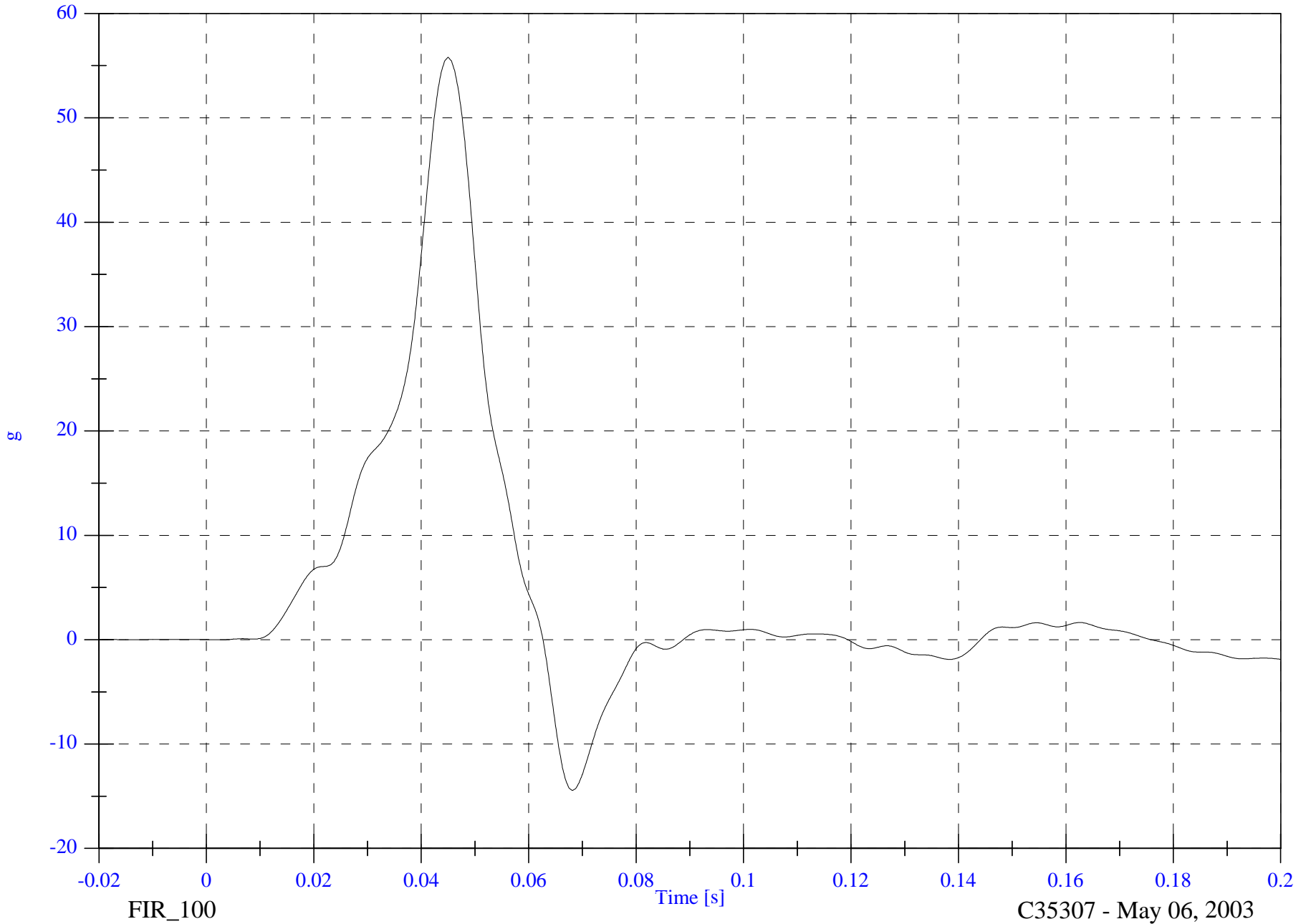
V2P4 Pelvic y

Max: 55.8 [g] at 0.045 [s]

Min: -14.5 [g] at 0.068 [s]

B-84

8675-F214-08



FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

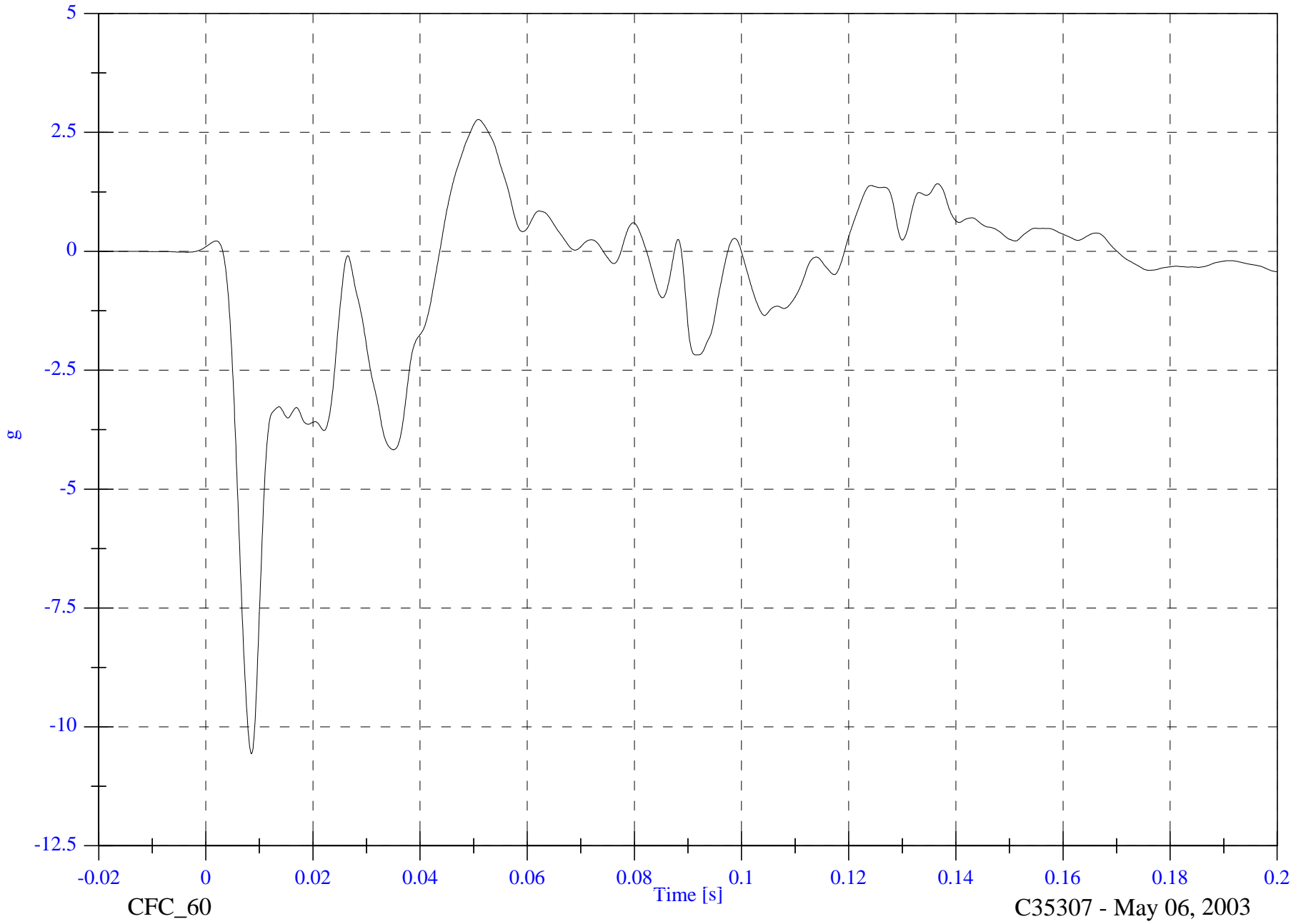
V2 A1 Right Front Sill x

Max: 2.8 [g] at 0.051 [s]

Min: -10.6 [g] at 0.008 [s]

B-85

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

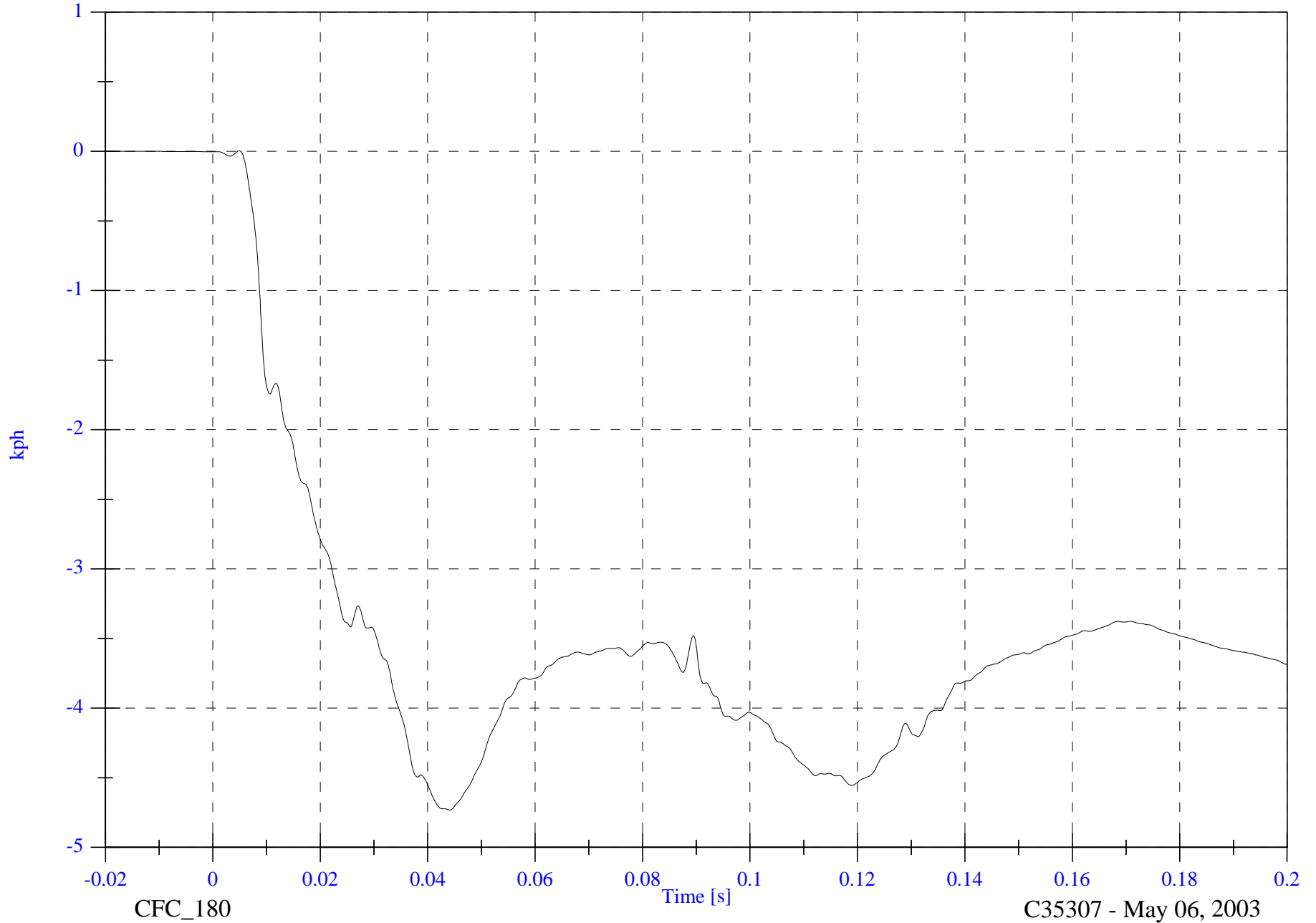
V2 A1 Right Front Sill x Velocity

Max: 0.0 [kph] at 0.005 [s]

Min: -4.7 [kph] at 0.044 [s]

B-86

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

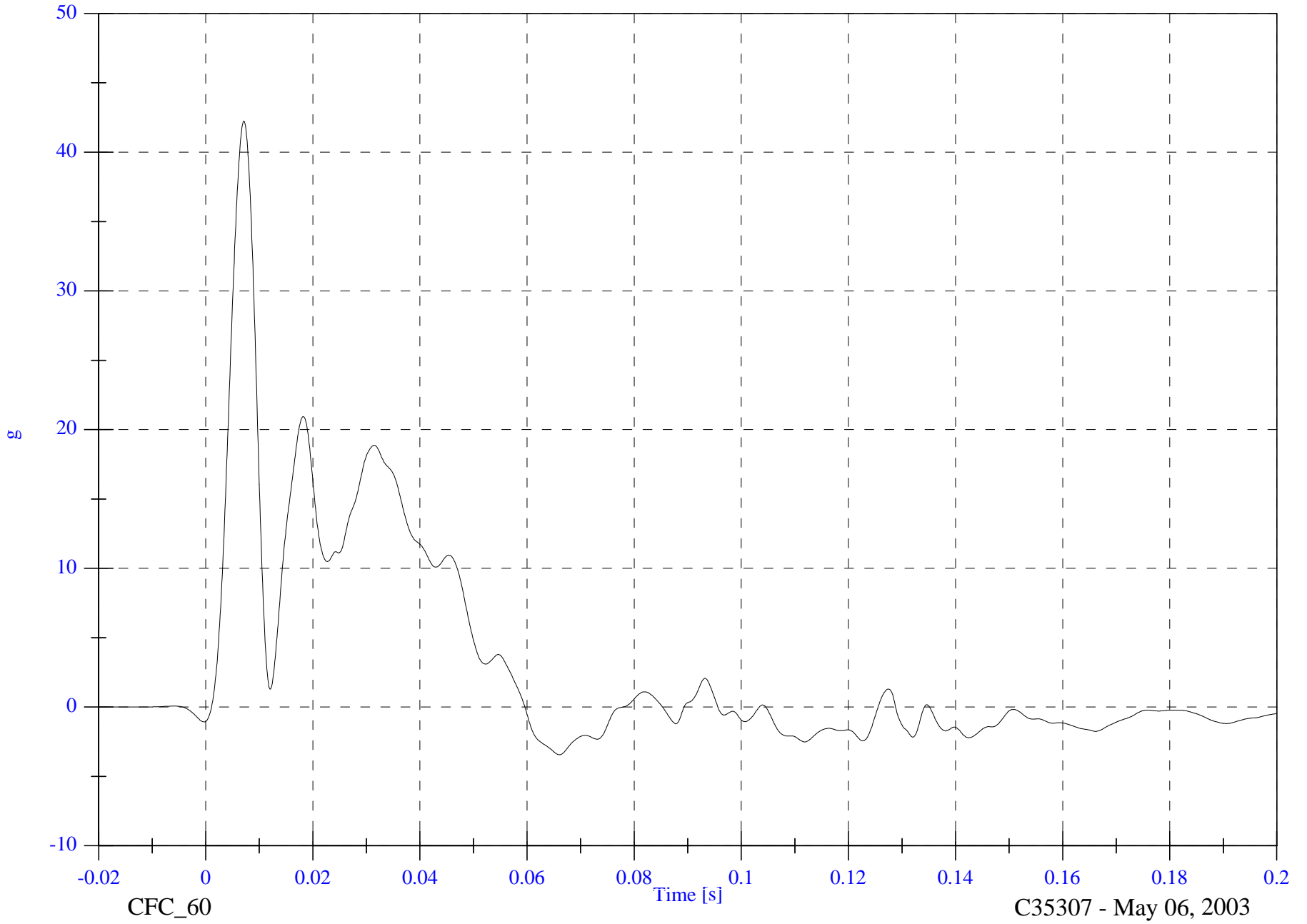
V2 A1 Right Front Sill y

Max: 42.2 [g] at 0.007 [s]

Min: -3.4 [g] at 0.066 [s]

B-87

8675-F214-08



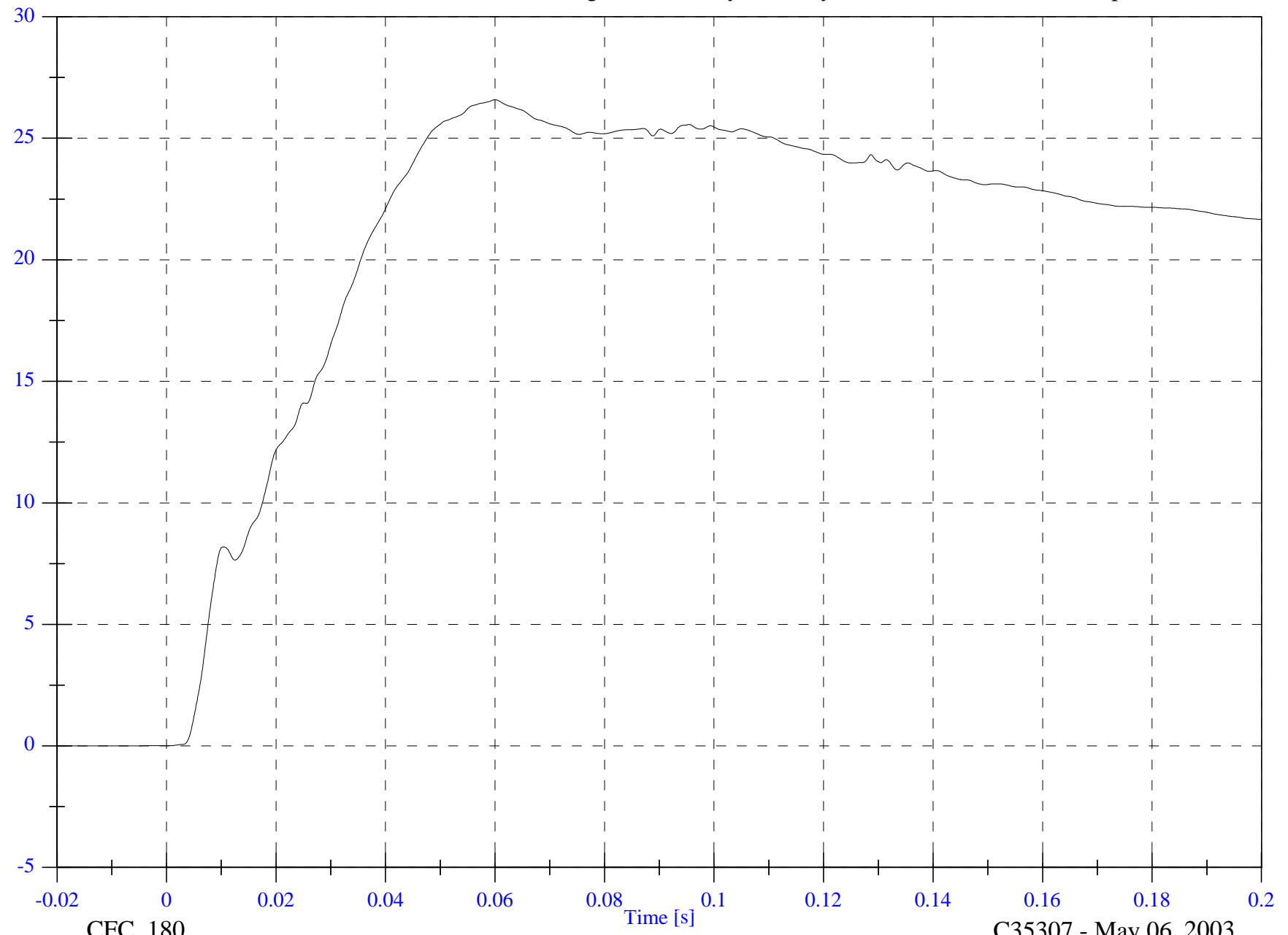
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 26.6 [kph] at 0.060 [s]

V2 A1 Right Front Sill y Velocity

Min: -0.0 [kph] at -0.016 [s]



B-88

8675-F214-08

CFC_180

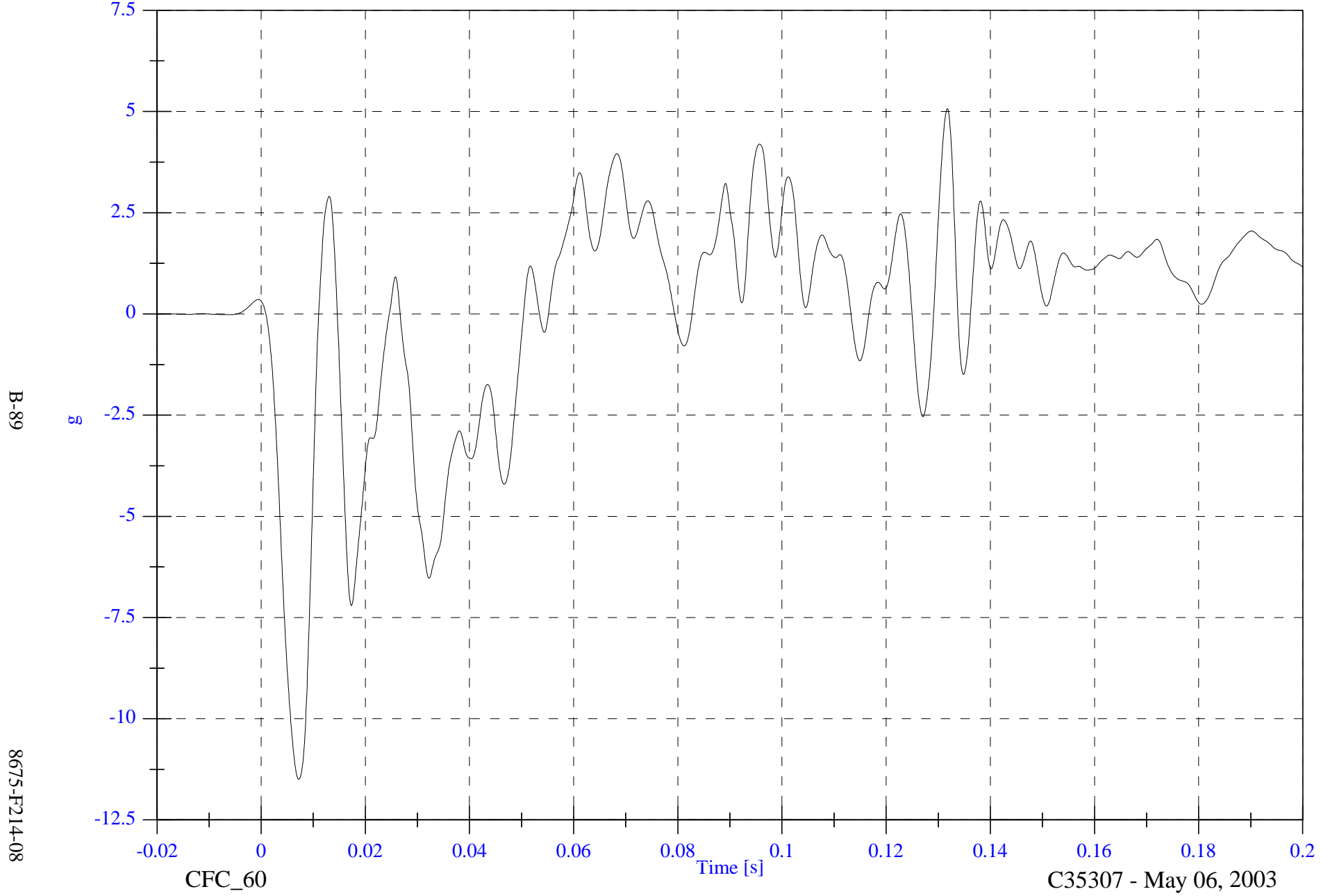
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 5.1 [g] at 0.132 [s]

V2 A1 Right Front Sill z

Min: -11.5 [g] at 0.007 [s]



B-89

8675-F214-08

CFC_60

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A1 Right Front Sill z Velocity

Max: 1.3 [kph] at 0.200 [s]

Min: -6.3 [kph] at 0.051 [s]

B-90

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

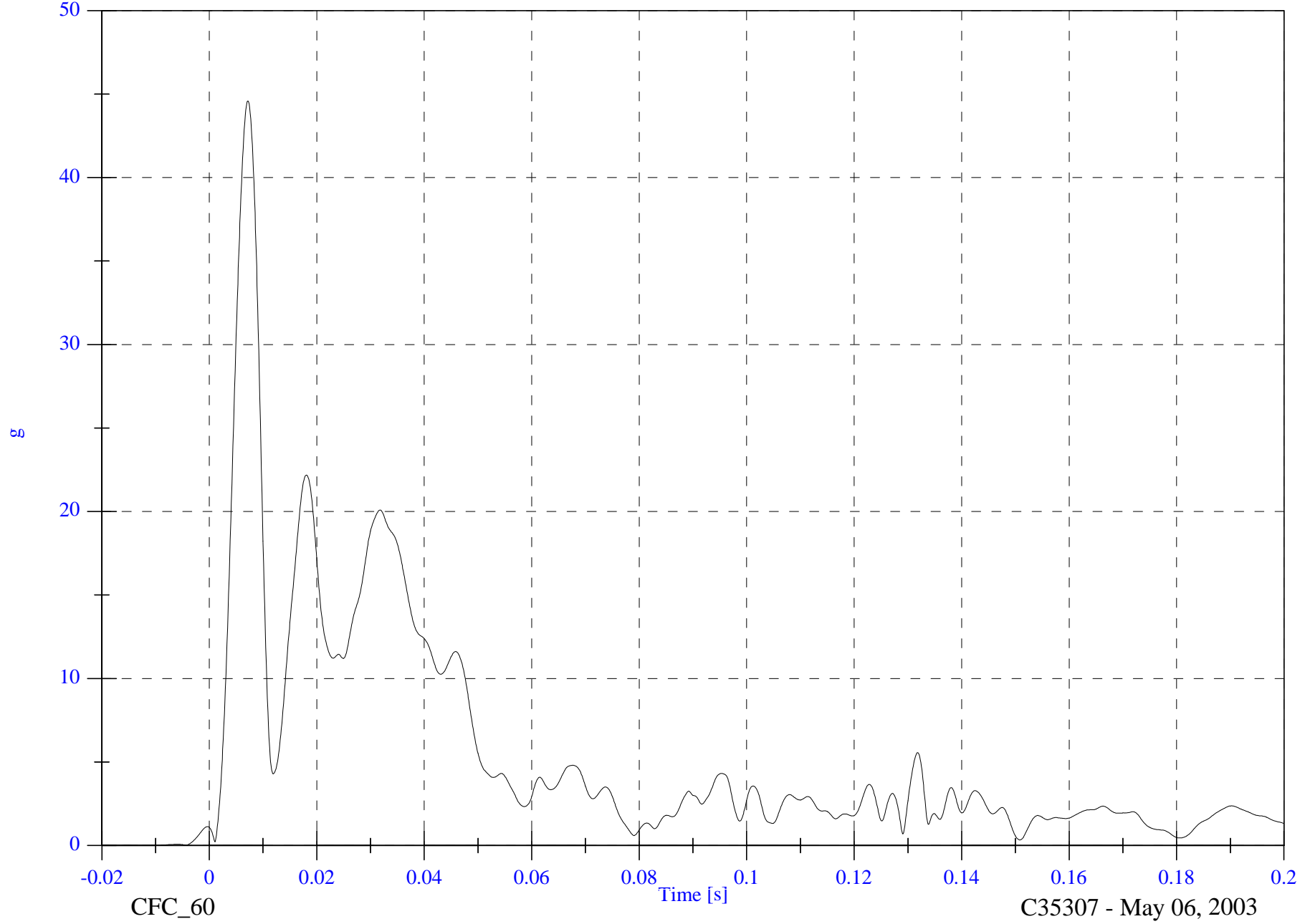
V2 A1 Right Front Sill Resultant

Max: 44.6 [g] at 0.007 [s]

Min: 0.0 [g] at -0.017 [s]

B-91

8675-F214-08

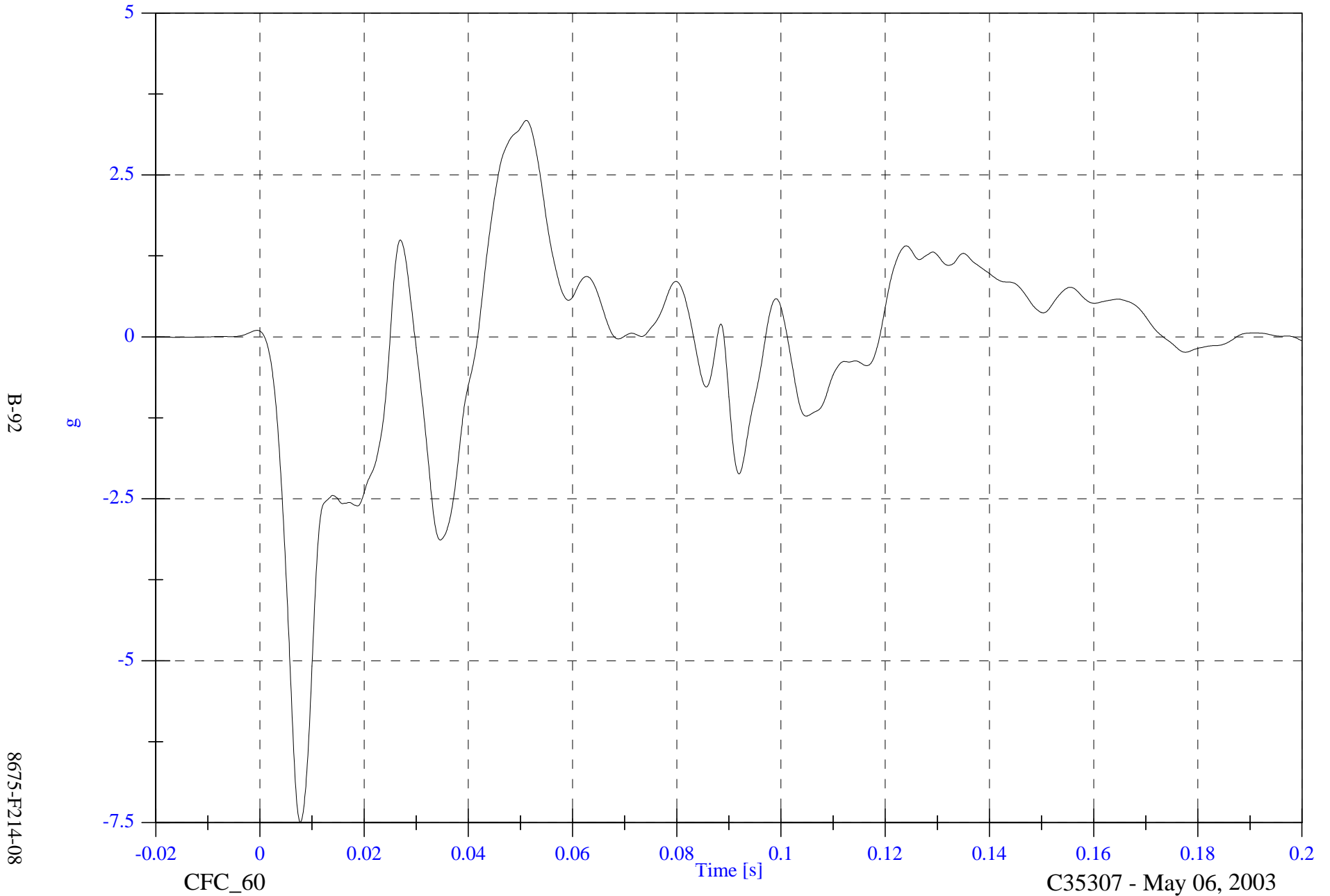


2003 FMVSS 214D Test 8 2003 Honda Element

V2 A2 Right Rear Sill x

Max: 3.3 [g] at 0.051 [s]

Min: -7.5 [g] at 0.008 [s]



B-92

g

8675-F214-08

CFC_60

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A2 Right Rear Sill x Velocity

Max: 0.0 [kph] at 0.000 [s]

Min: -3.1 [kph] at 0.042 [s]

B-93

8675-F214-08



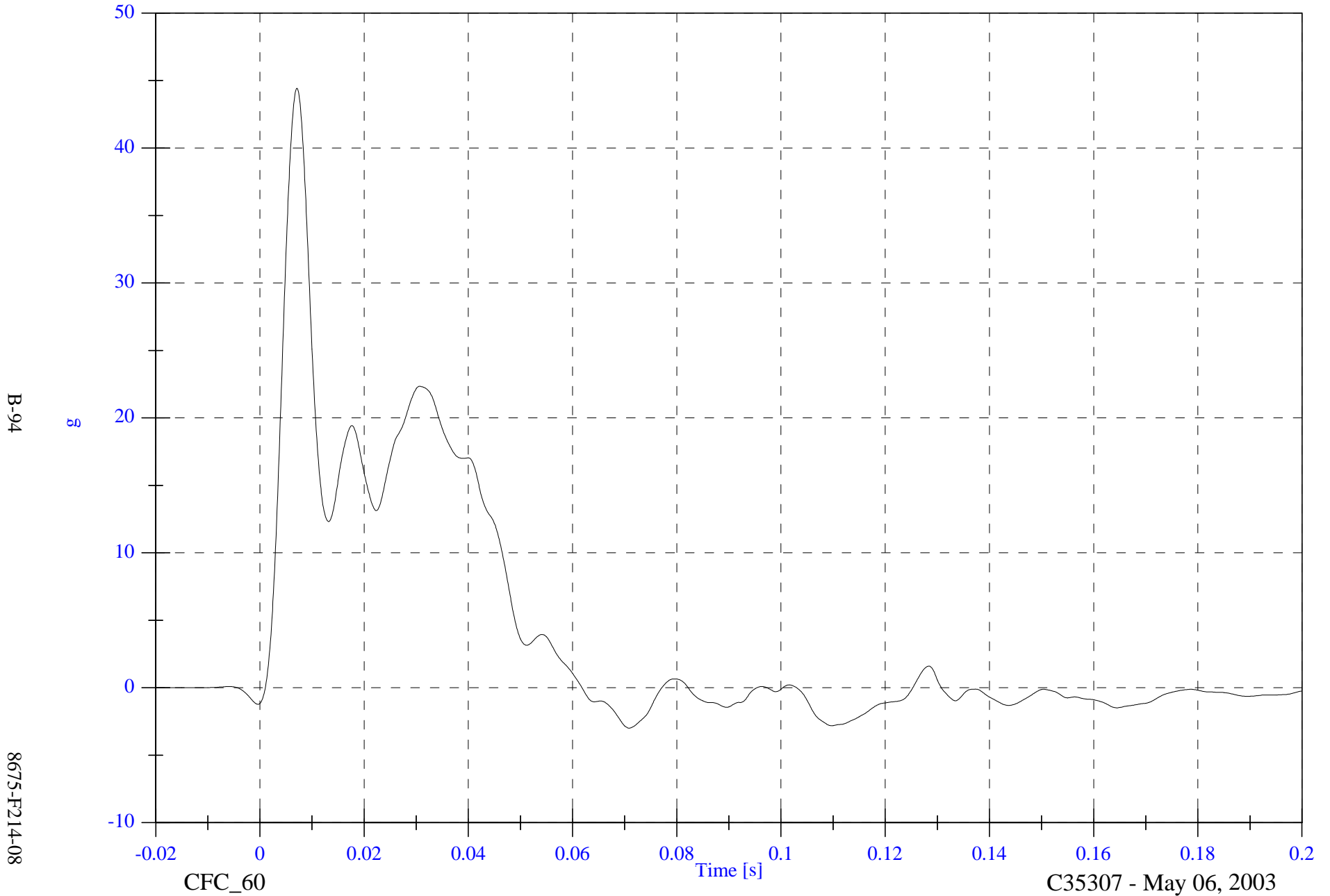
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A2 Right Rear Sill y

Max: 44.4 [g] at 0.007 [s]

Min: -3.0 [g] at 0.071 [s]



B-94

8675-F214-08

CFC_60

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

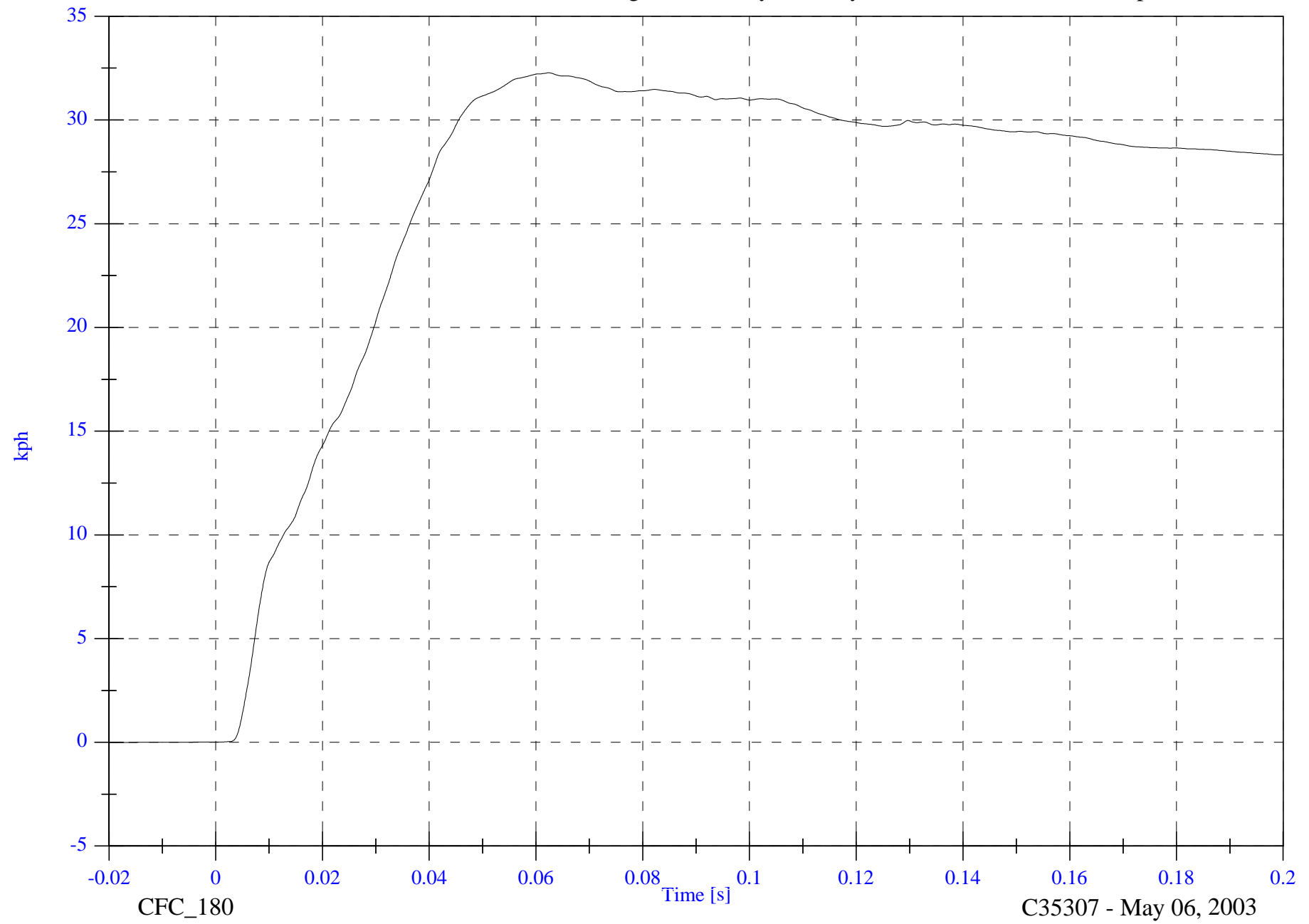
Max: 32.3 [kph] at 0.062 [s]

V2 A2 Right Rear Sill y Velocity

Min: -0.0 [kph] at -0.019 [s]

B-95

8675-F214-08



CFC_180

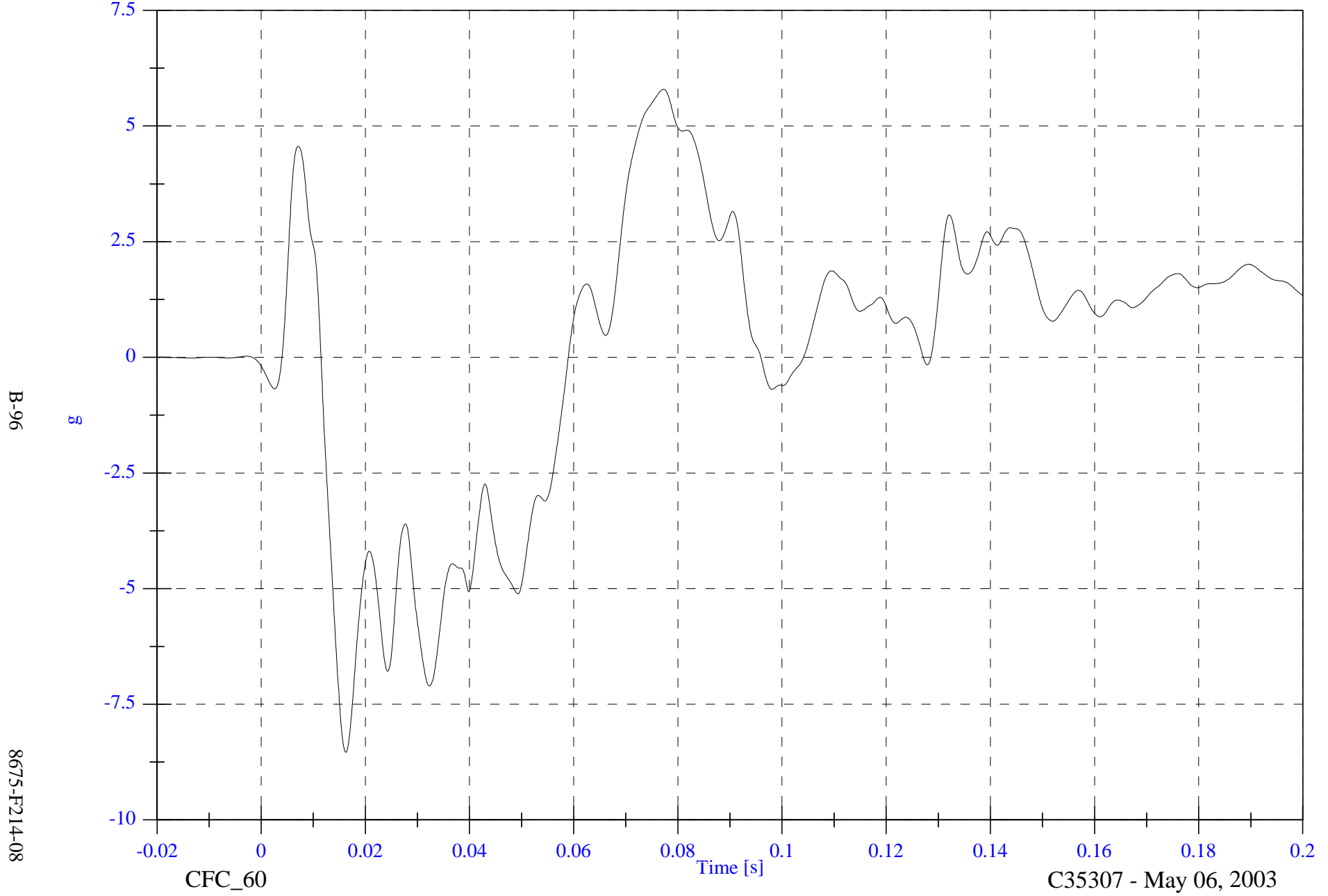
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A2 Right Rear Sill z

Max: 5.8 [g] at 0.077 [s]

Min: -8.5 [g] at 0.016 [s]



B-96

8675-F214-08

CFC_60

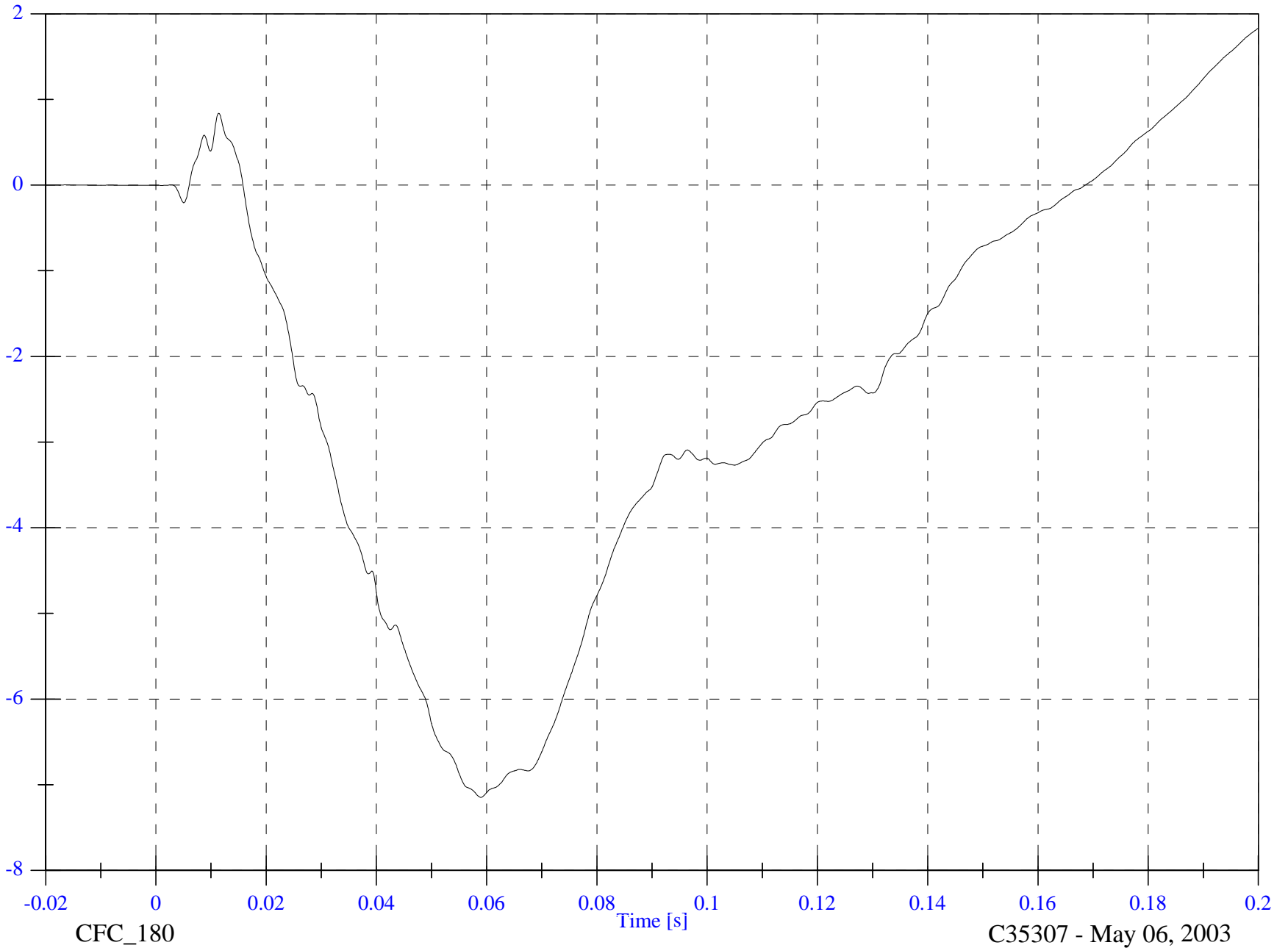
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A2 Right Rear Sill z Velocity

Max: 1.8 [kph] at 0.200 [s]

Min: -7.1 [kph] at 0.059 [s]



B-97

8675-F214-08

CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

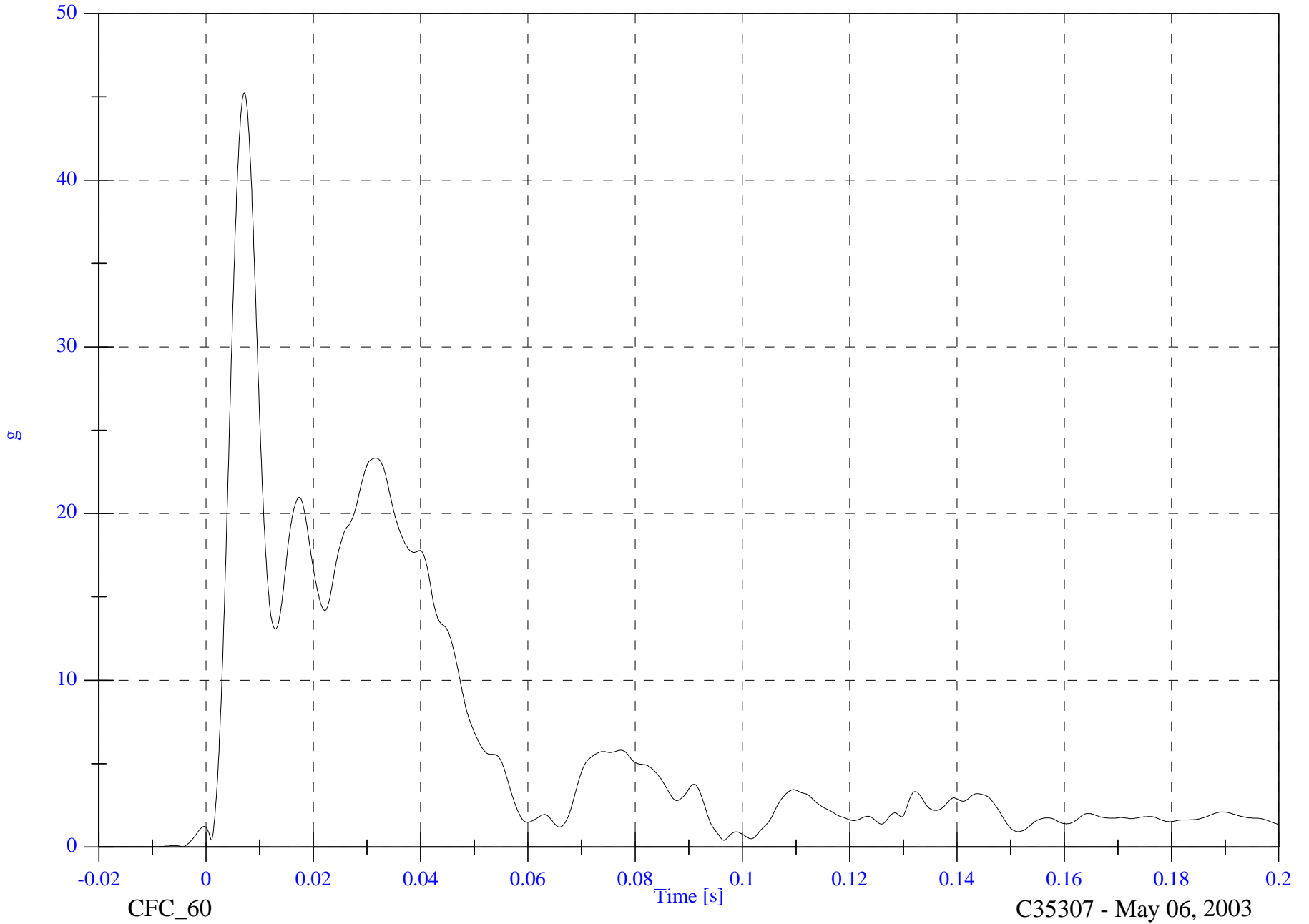
V2 A2 Right Rear Sill Resultant

Max: 45.2 [g] at 0.007 [s]

Min: 0.0 [g] at -0.020 [s]

B-98

8675-F214-08



CFC_60

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

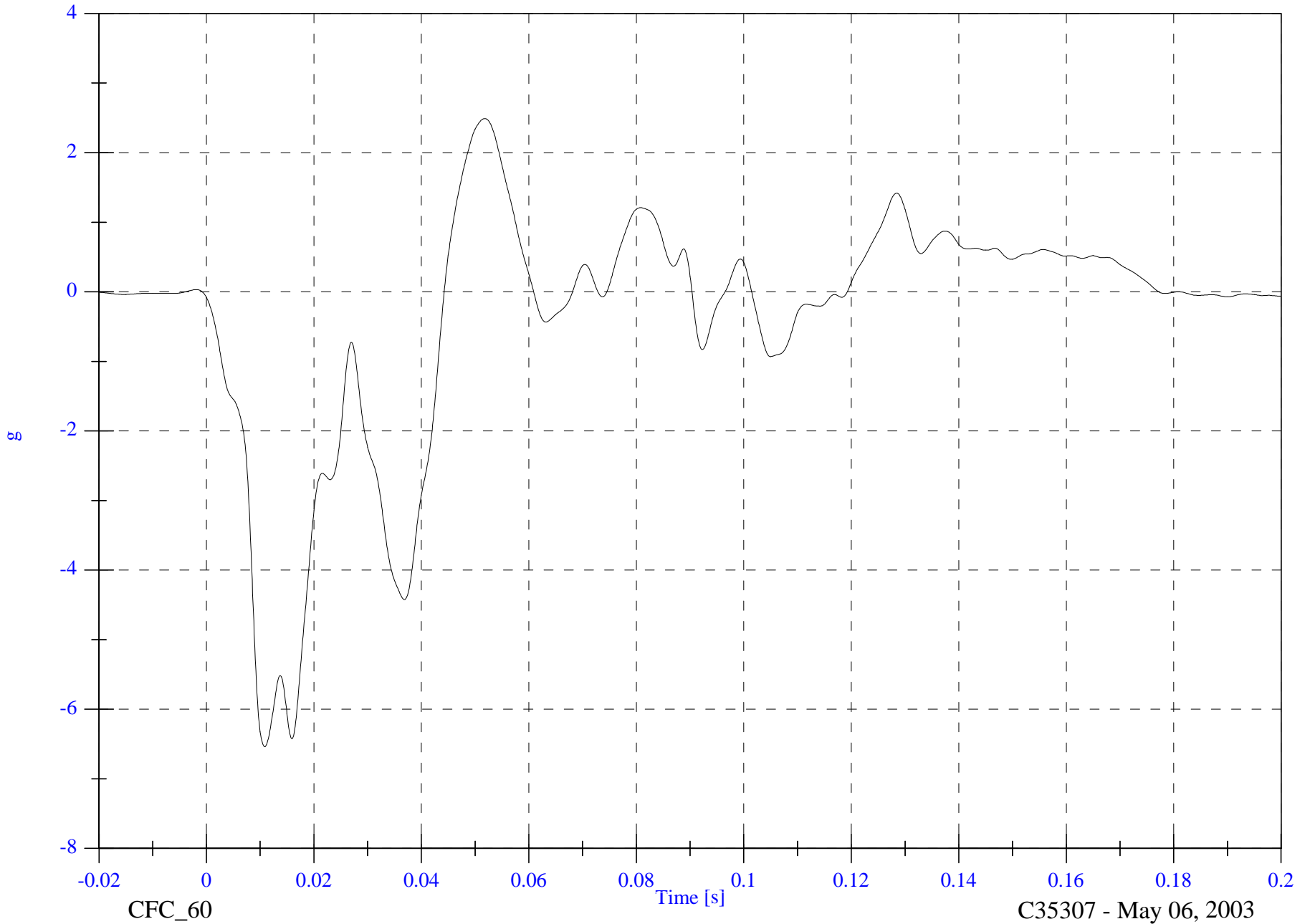
V2 A3 Rear Floorpan x

Max: 2.5 [g] at 0.052 [s]

Min: -6.5 [g] at 0.011 [s]

B-99

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

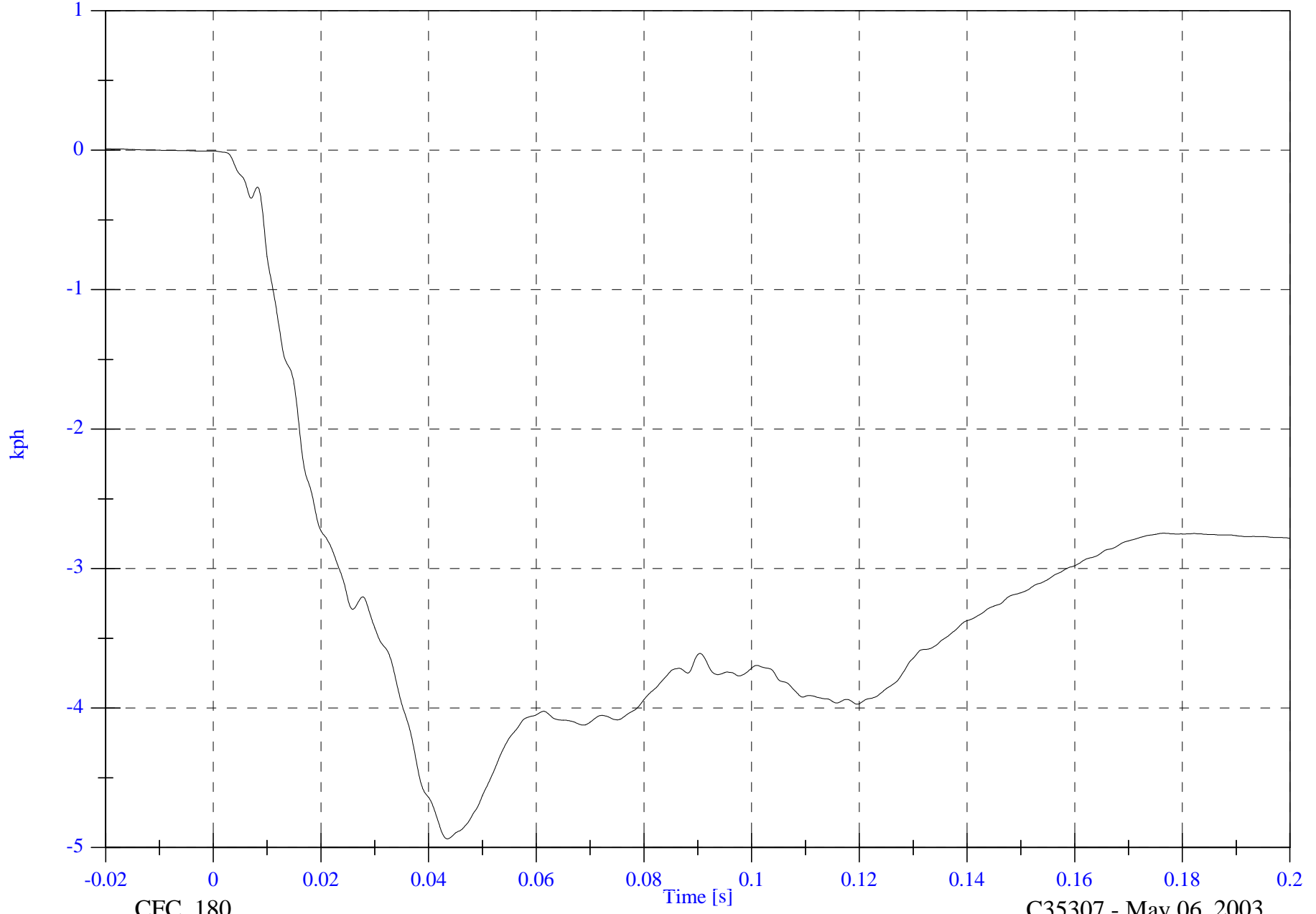
V2 A3 Rear Floorpan x Velocity

Max: 0.0 [kph] at -0.020 [s]

Min: -4.9 [kph] at 0.043 [s]

B-100

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

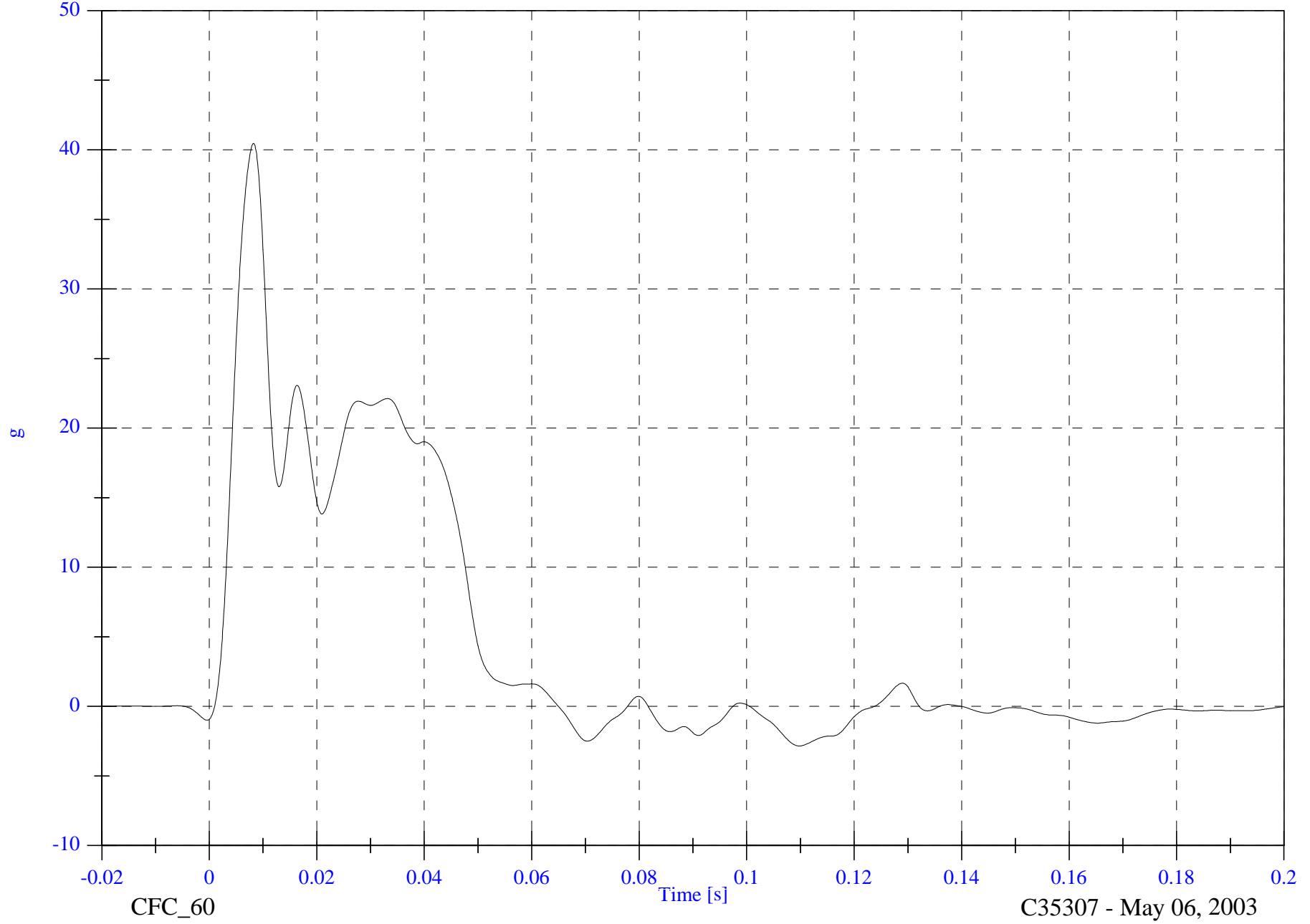
V2 A3 Rear Floorpan y

Max: 40.5 [g] at 0.008 [s]

Min: -2.8 [g] at 0.110 [s]

B-101

8675-F214-08



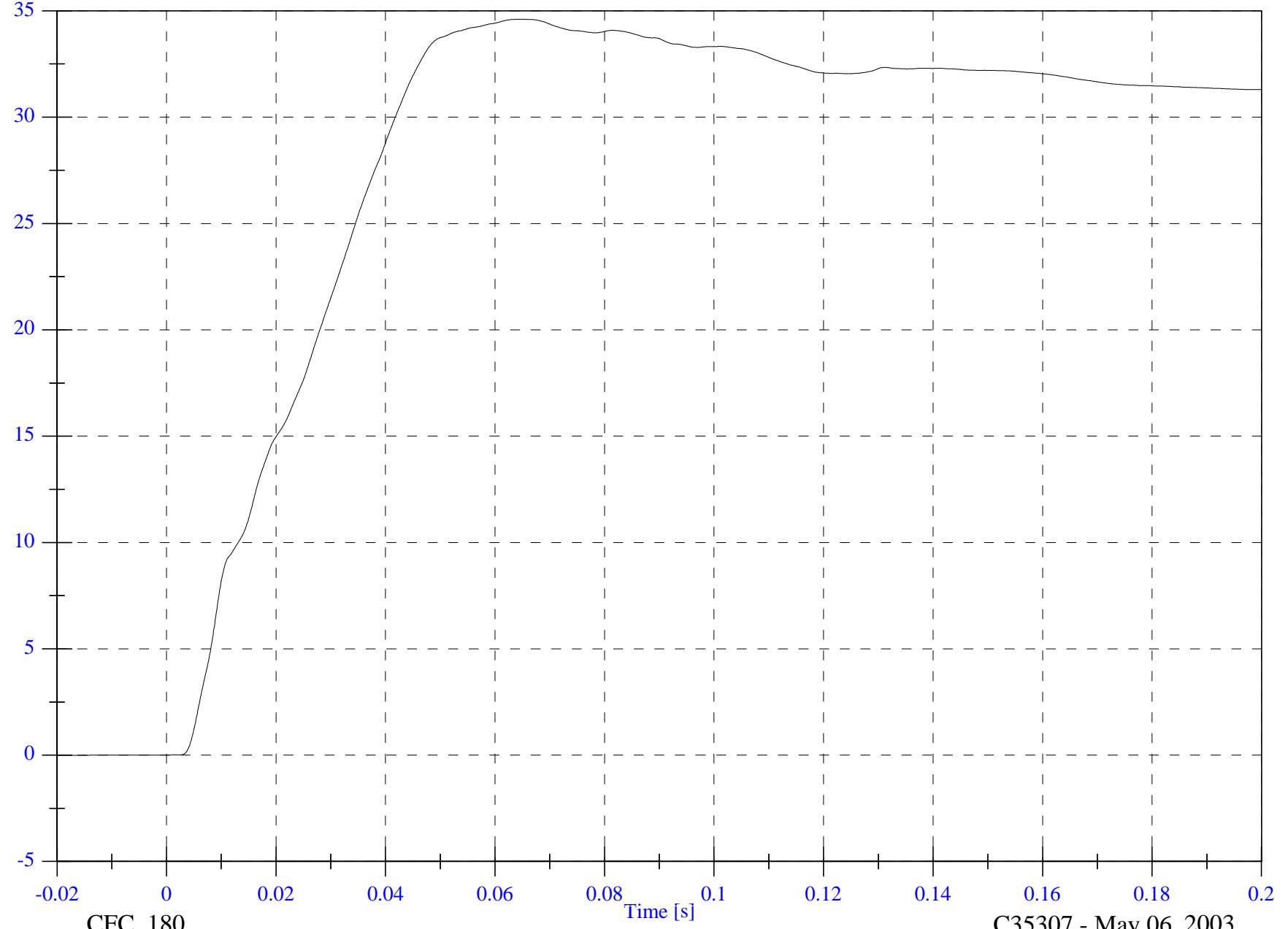
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 34.6 [kph] at 0.064 [s]

V2 A3 Rear Floorpan y Velocity

Min: -0.0 [kph] at -0.020 [s]



B-102

8675-F214-08

CFC_180

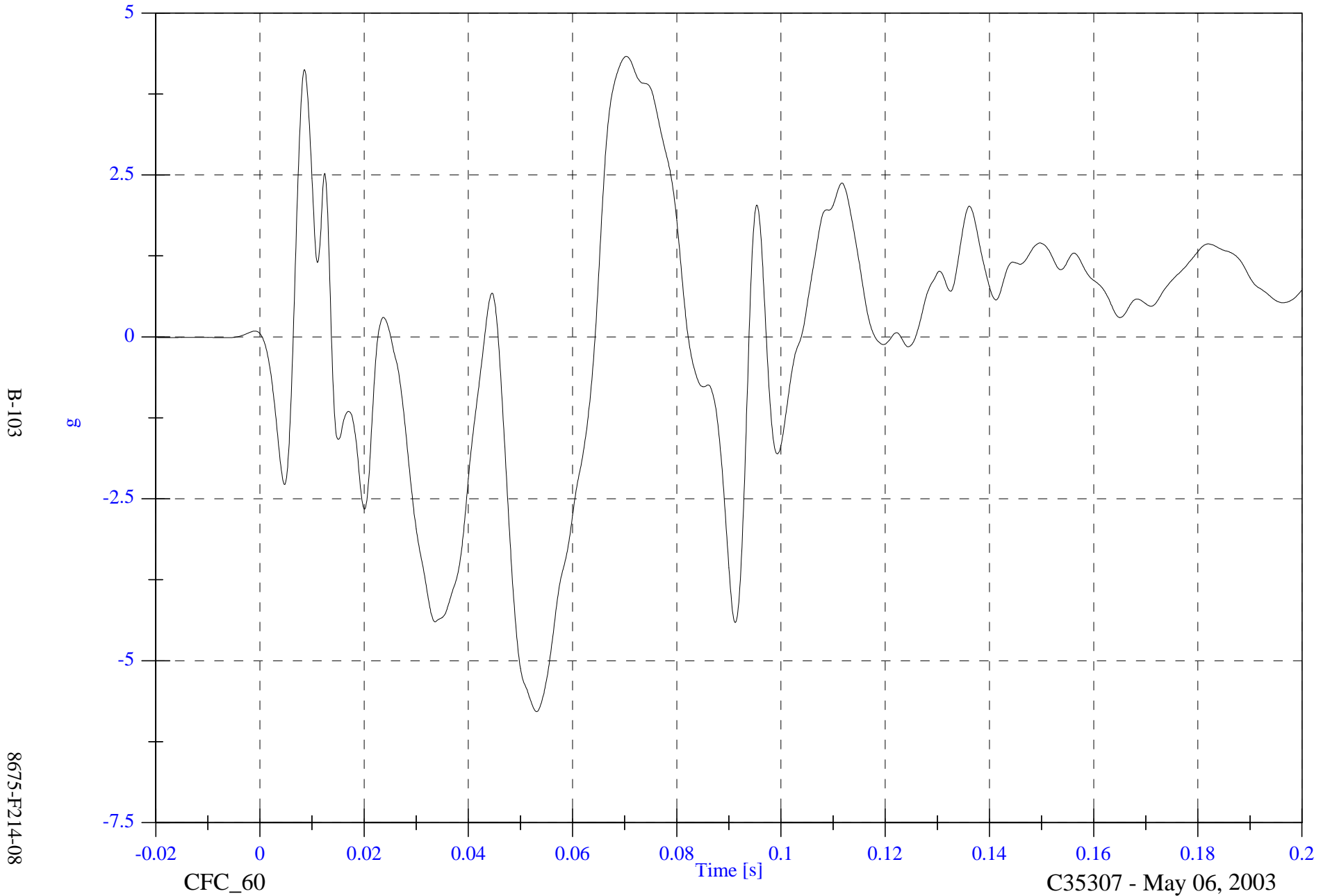
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A3 Rear Floorpan z

Max: 4.3 [g] at 0.070 [s]

Min: -5.8 [g] at 0.053 [s]



B-103

8675-F214-08

CFC_60

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

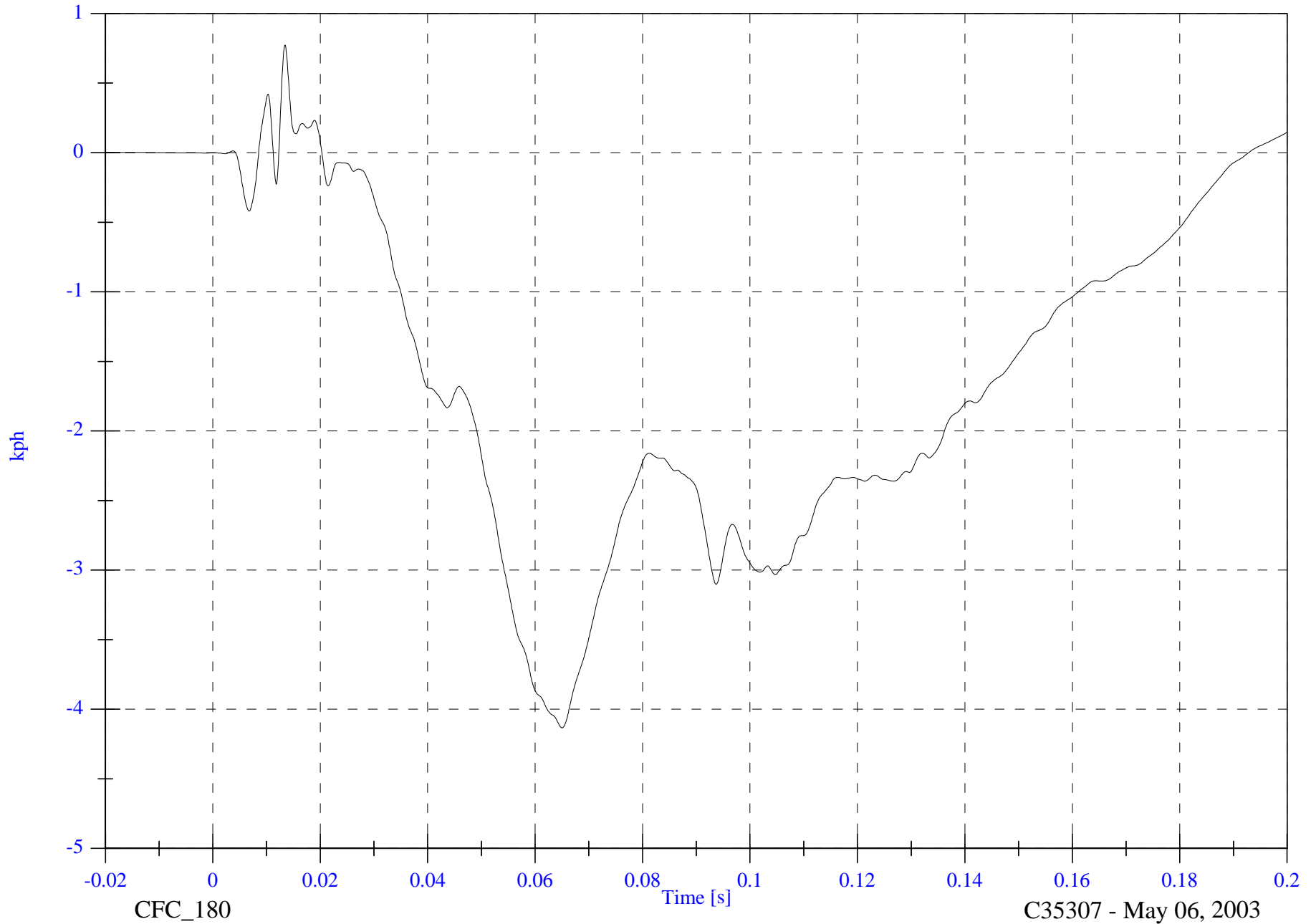
V2 A3 Rear Floorpan z Velocity

Max: 0.8 [kph] at 0.013 [s]

Min: -4.1 [kph] at 0.065 [s]

B-104

8675-F214-08



CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A3 Rear Floorpan Resultant

Max: 40.8 [g] at 0.008 [s]

Min: 0.0 [g] at -0.020 [s]

B-105

8675-F214-08



CFC_60

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

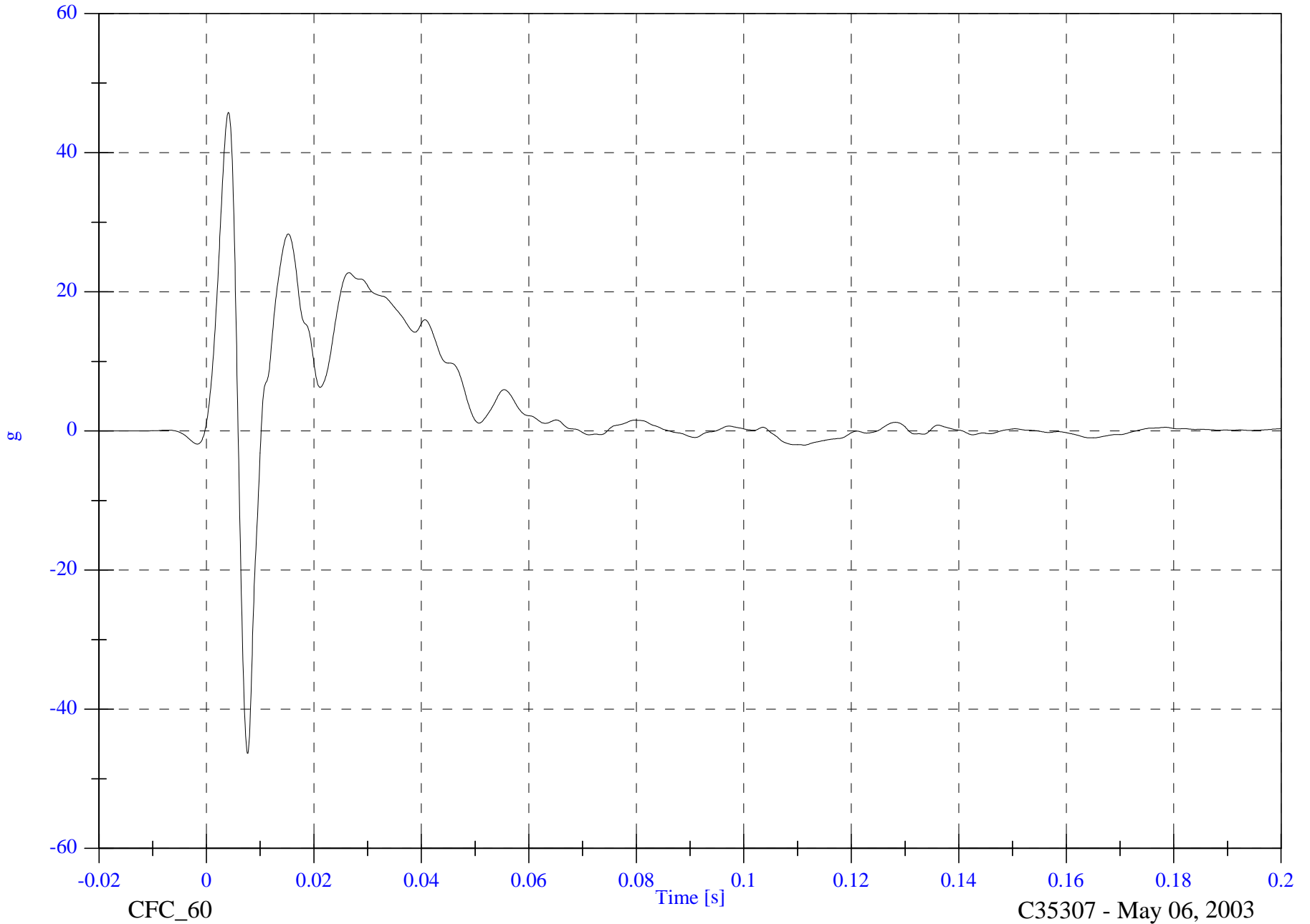
V2 A4 Left Rear Sill y

Max: 45.8 [g] at 0.004 [s]

Min: -46.3 [g] at 0.008 [s]

B-106

8675-F214-08



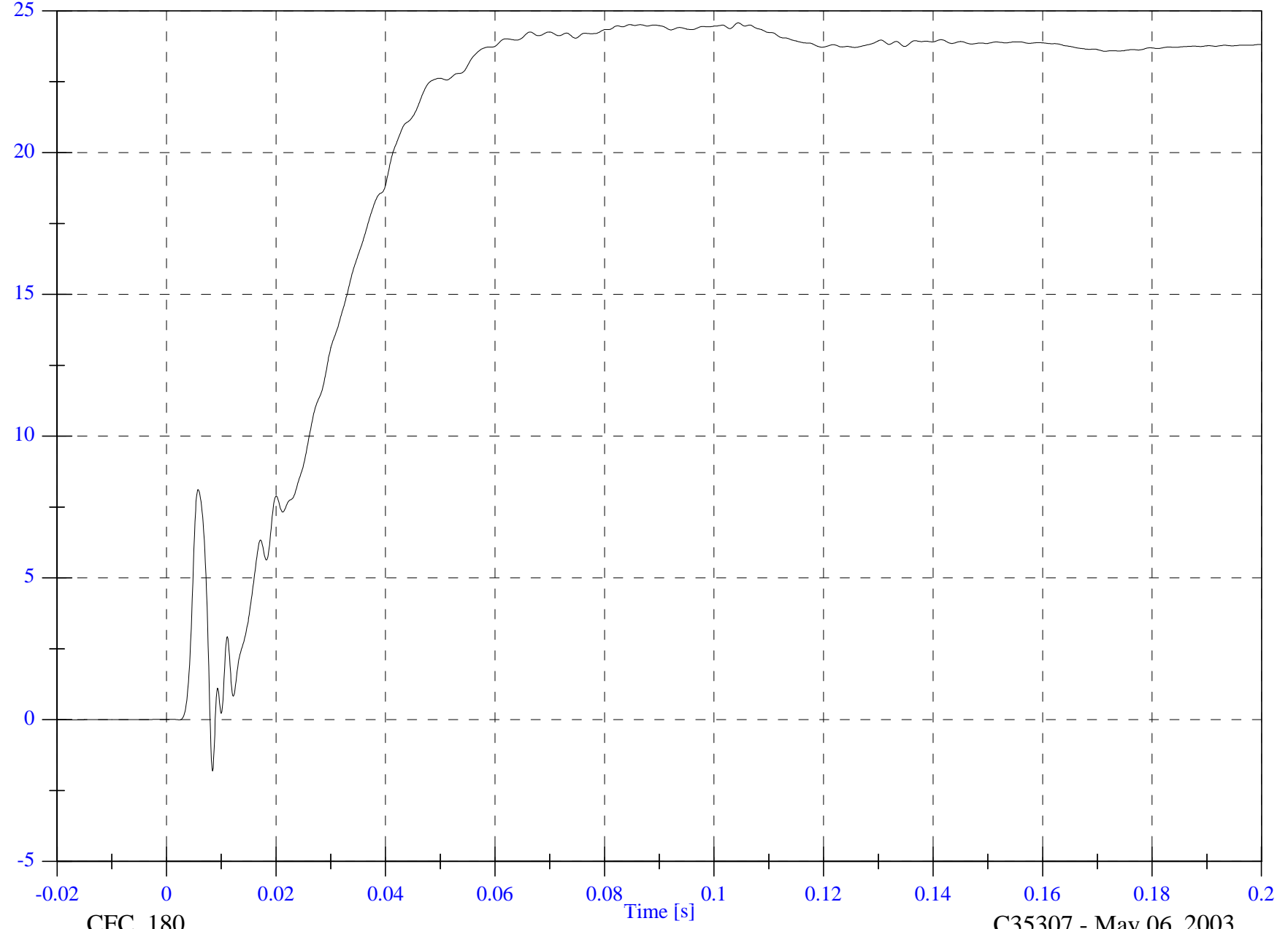
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

Max: 24.6 [kph] at 0.104 [s]

V2 A4 Left Rear Sill y Velocity

Min: -1.8 [kph] at 0.008 [s]



B-107

8675-F214-08

CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

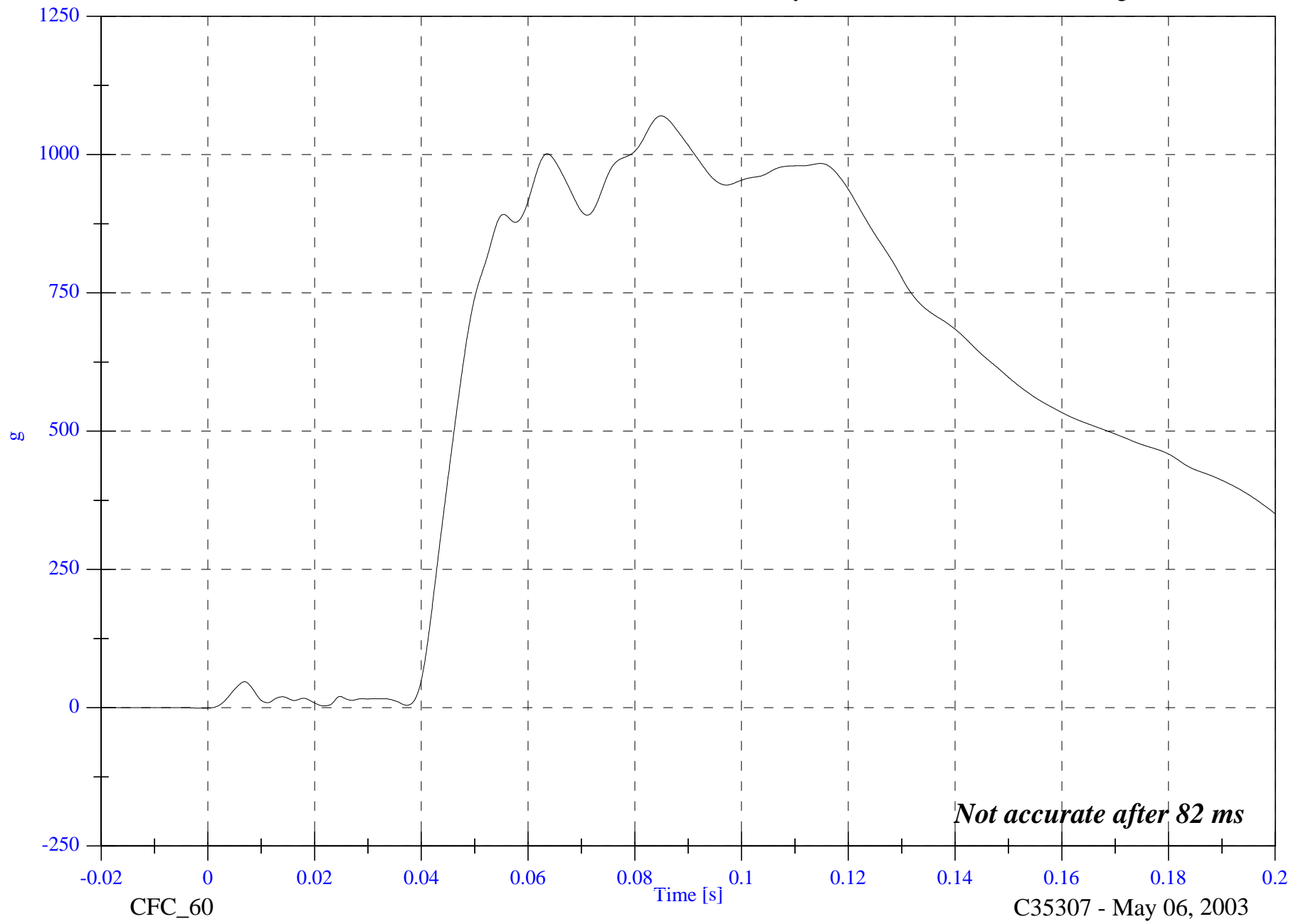
Max: 1069.9 [g] at 0.085 [s]

V2 A5 Left Front Sill y

Min: -1.0 [g] at -0.001 [s]

B-108

8675-F214-08



Not accurate after 82 ms

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

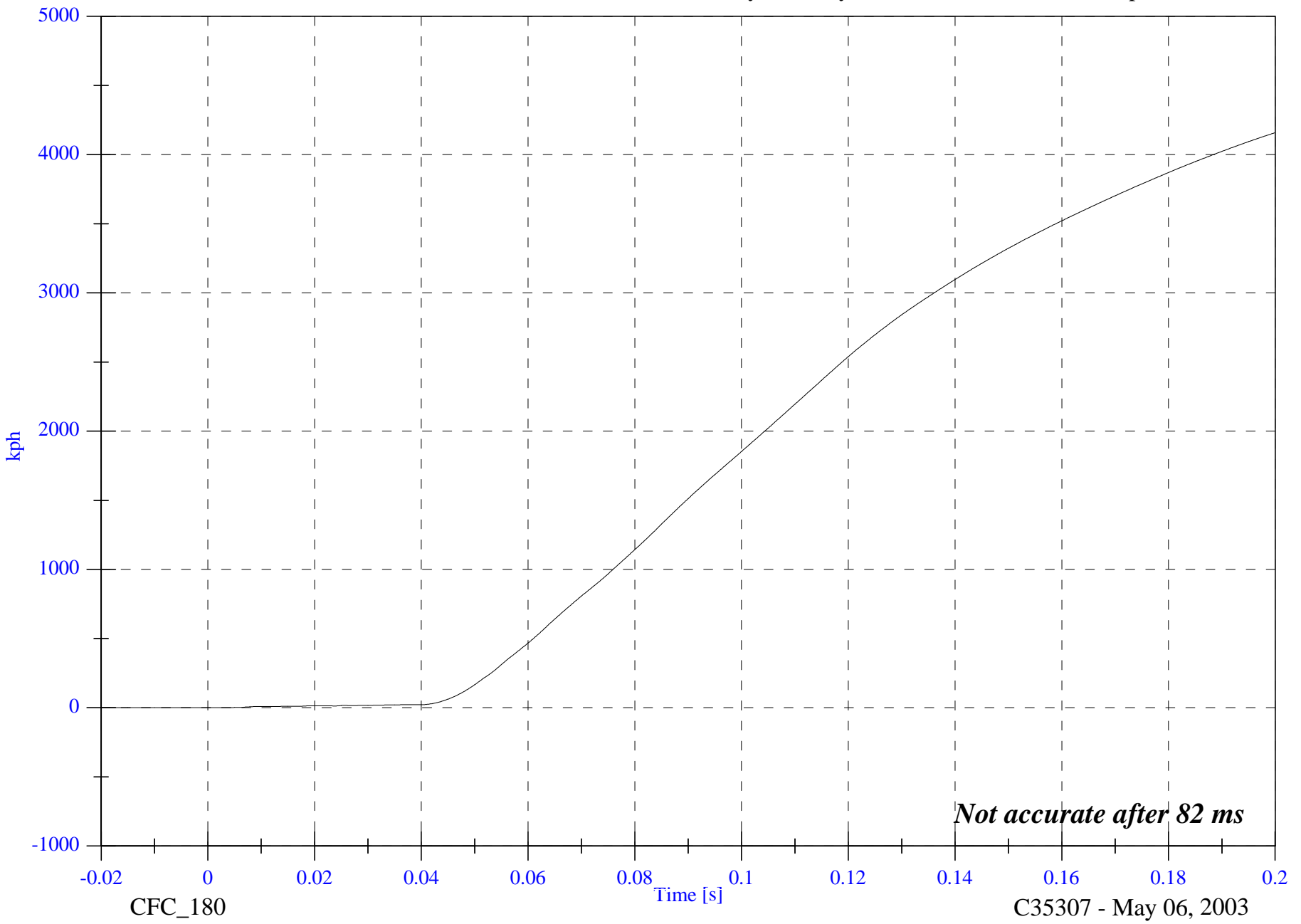
Max: 4157.2 [kph] at 0.200 [s]

V2 A5 Left Front Sill y Velocity

Min: -0.0 [kph] at -0.007 [s]

B-109

8675-F214-08



Not accurate after 82 ms

CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

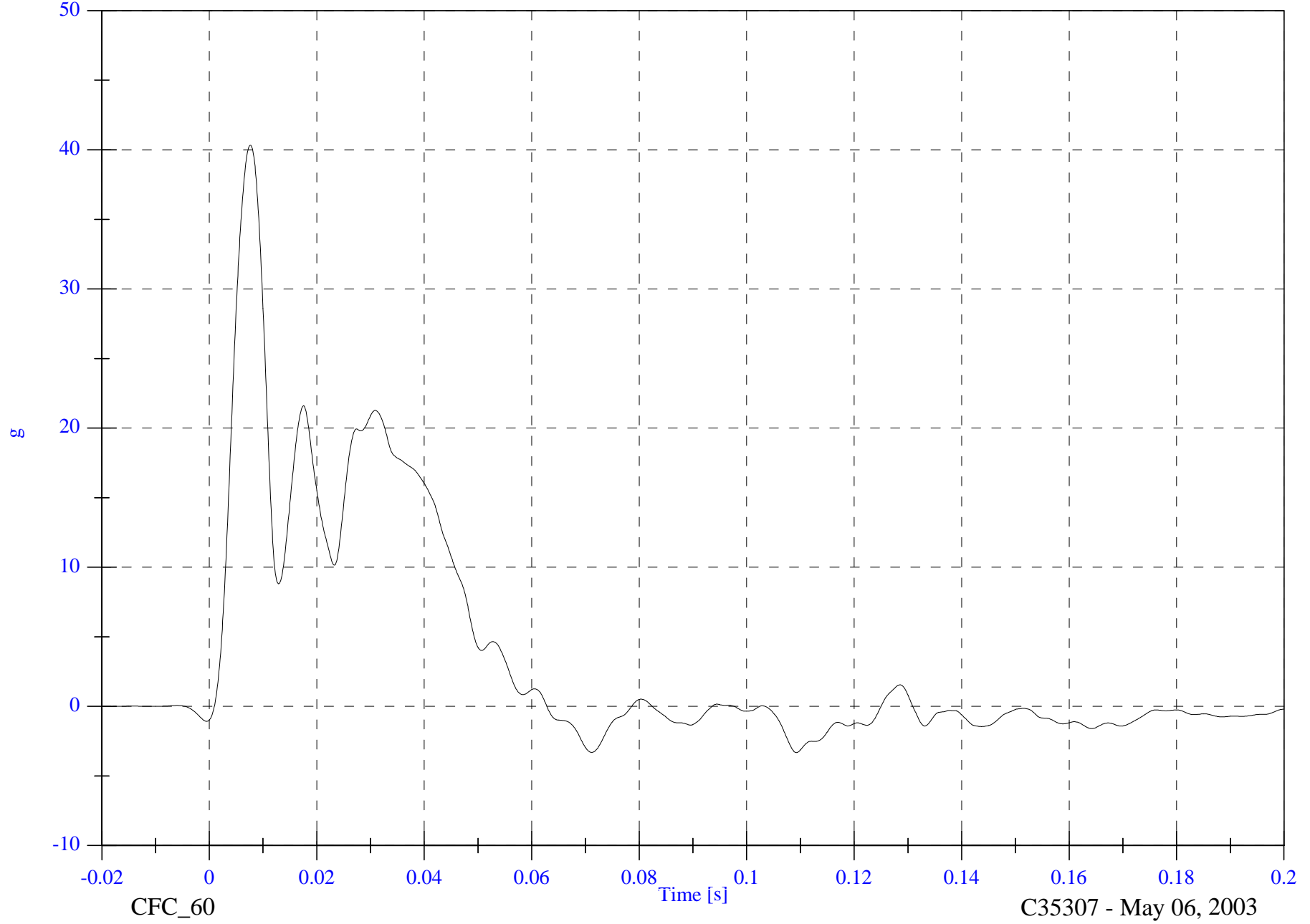
V2 A7 Right Rear Compartment y

Max: 40.3 [g] at 0.008 [s]

Min: -3.3 [g] at 0.109 [s]

B-110

8675-F214-08



C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

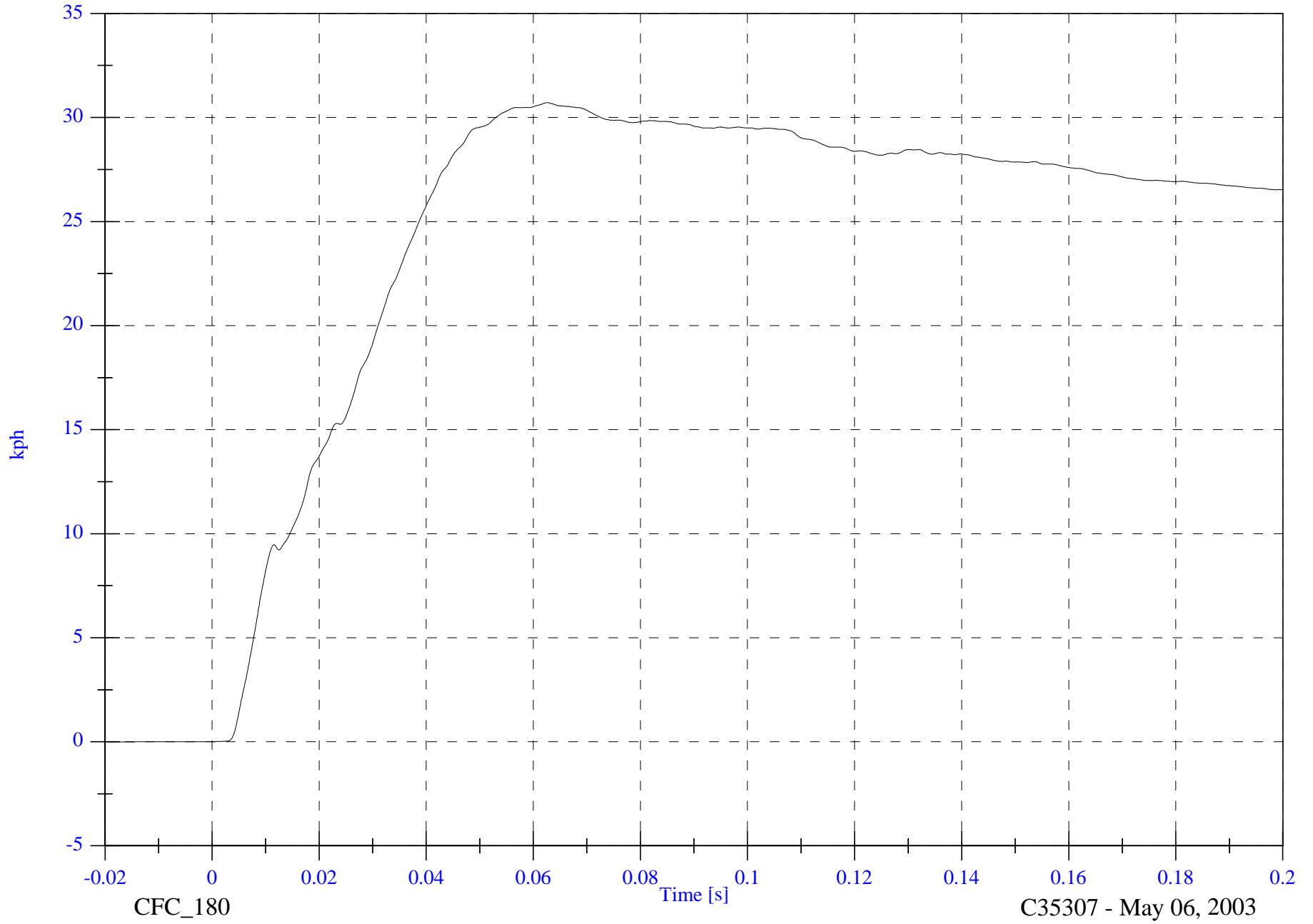
V2 A7 Right Rear Compartment y Velocity

Max: 30.7 [kph] at 0.063 [s]

Min: -0.0 [kph] at -0.016 [s]

B-111

8675-F214-08



CFC_180

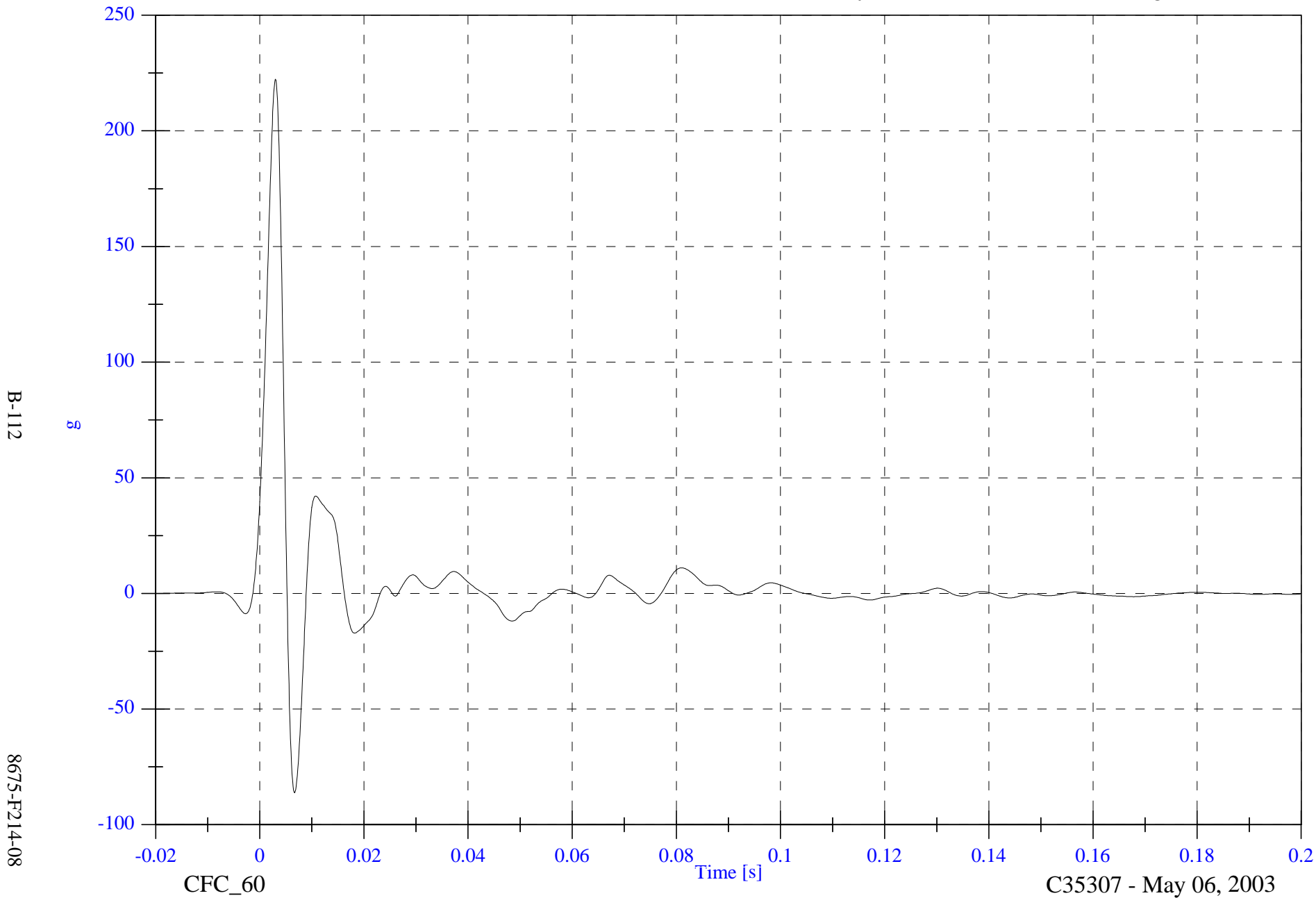
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A12 Left Lower B Post y

Max: 222.3 [g] at 0.003 [s]

Min: -86.2 [g] at 0.007 [s]



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CFC_60

Time [s]

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2003 FMVSS 214D Test 8 2003 Honda Element

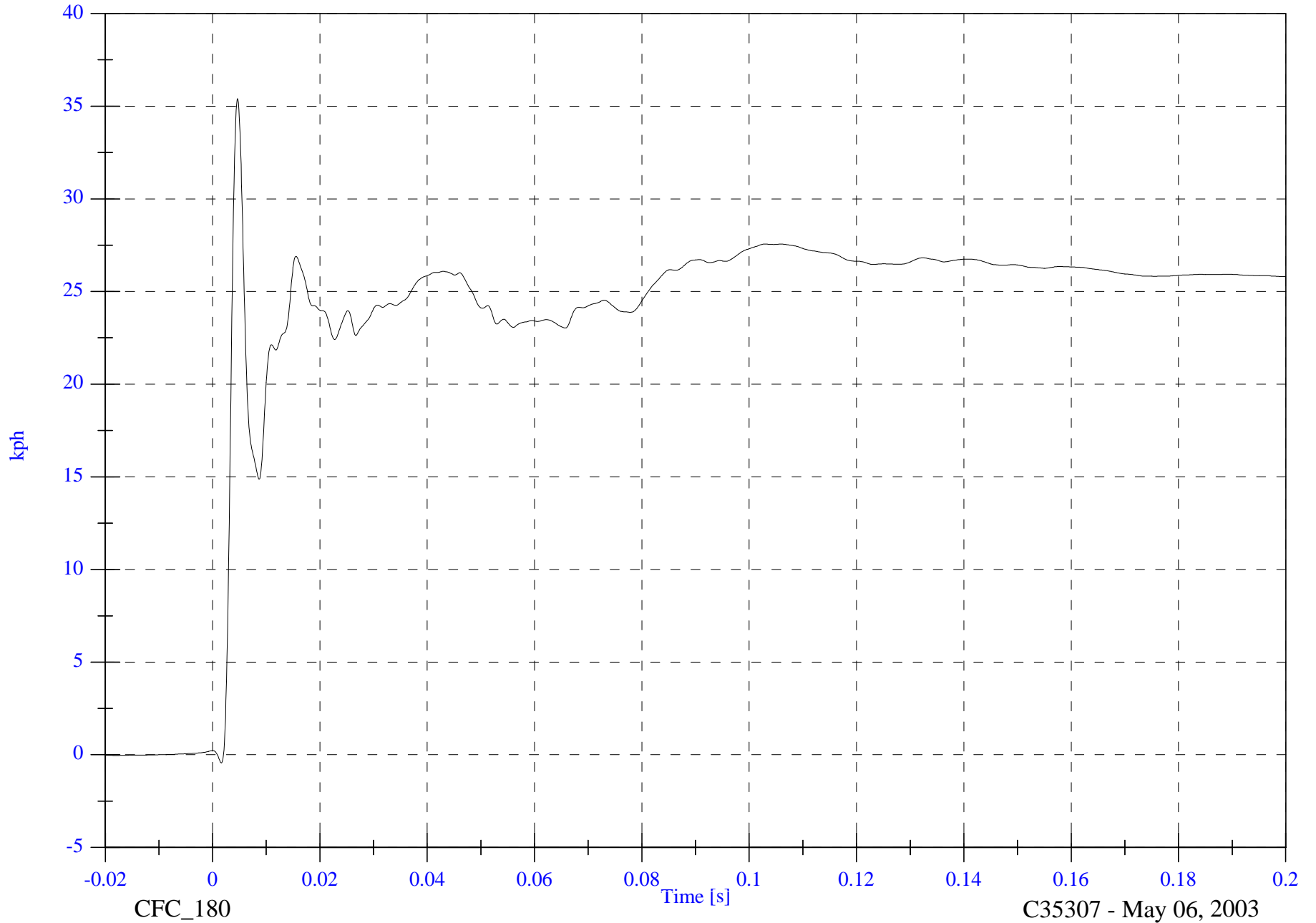
Max: 35.4 [kph] at 0.005 [s]

V2 A12 Left Lower B Post y Velocity

Min: -0.4 [kph] at 0.002 [s]

B-113

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CFC_180

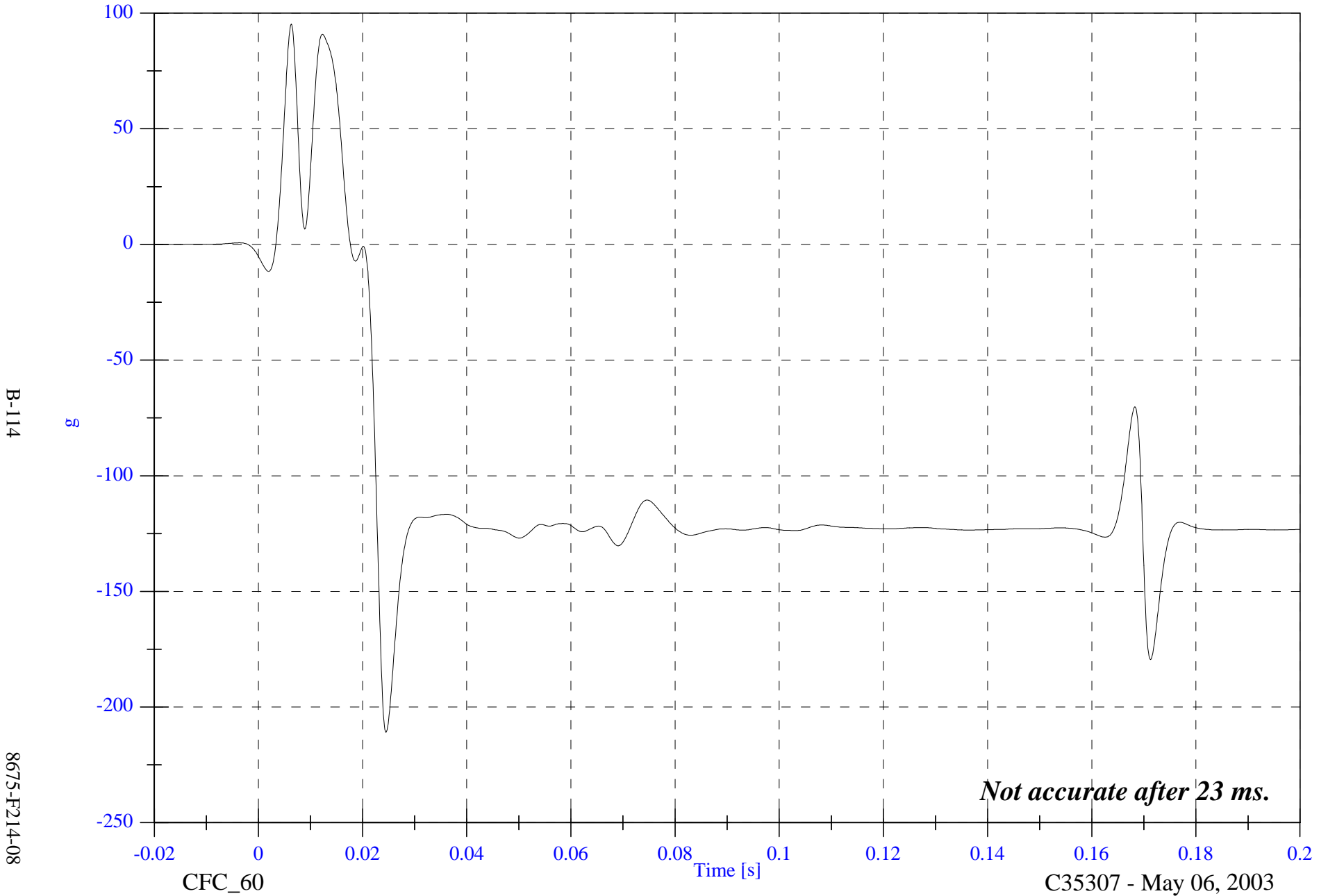
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A13 Left Middle B Post y

Max: 95.3 [g] at 0.006 [s]

Min: -210.9 [g] at 0.025 [s]



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CFC_60

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

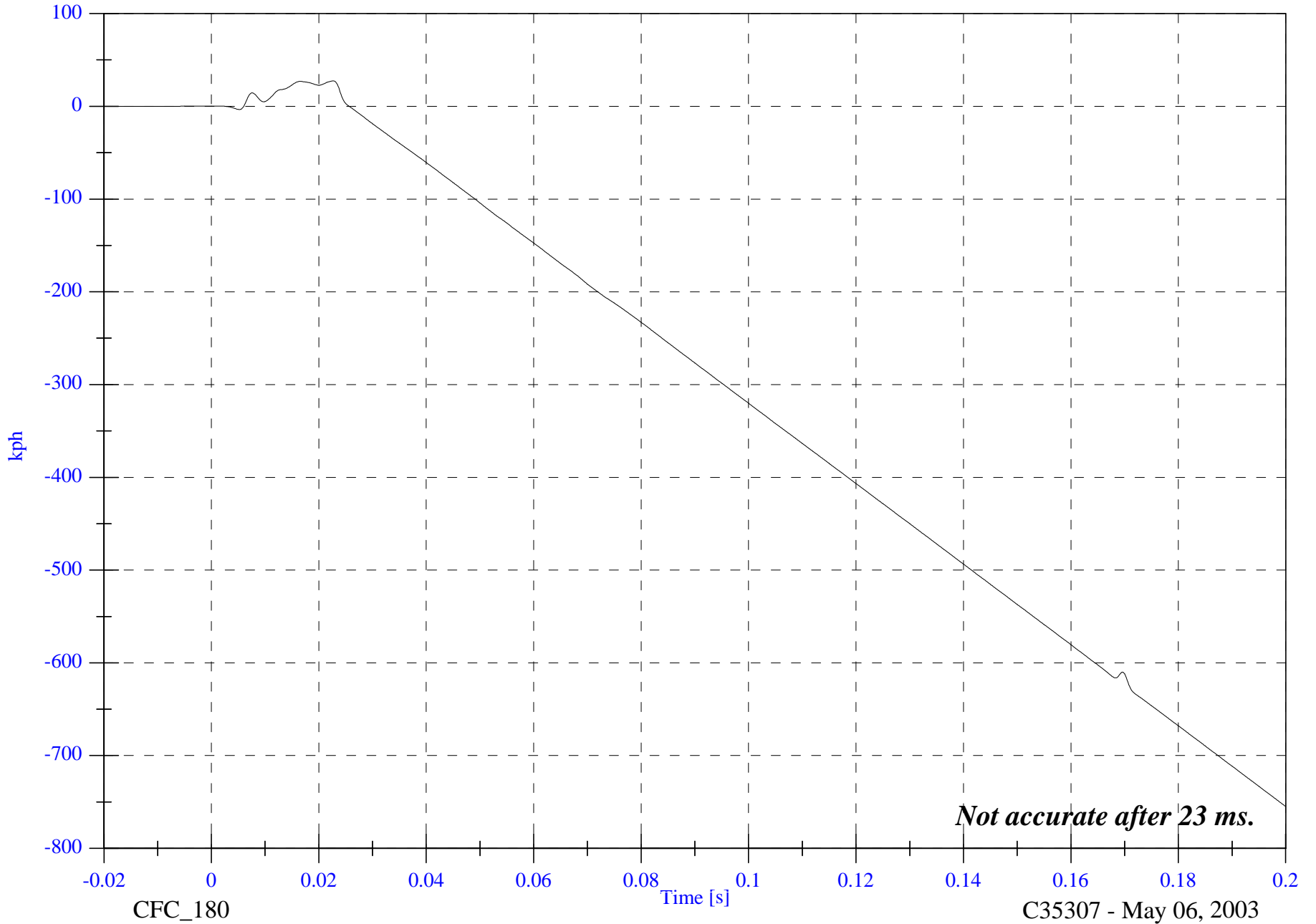
V2 A13 Left Middle B Post y Velocity

Max: 27.3 [kph] at 0.023 [s]

Min: -754.4 [kph] at 0.200 [s]

B-115

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Not accurate after 23 ms.

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

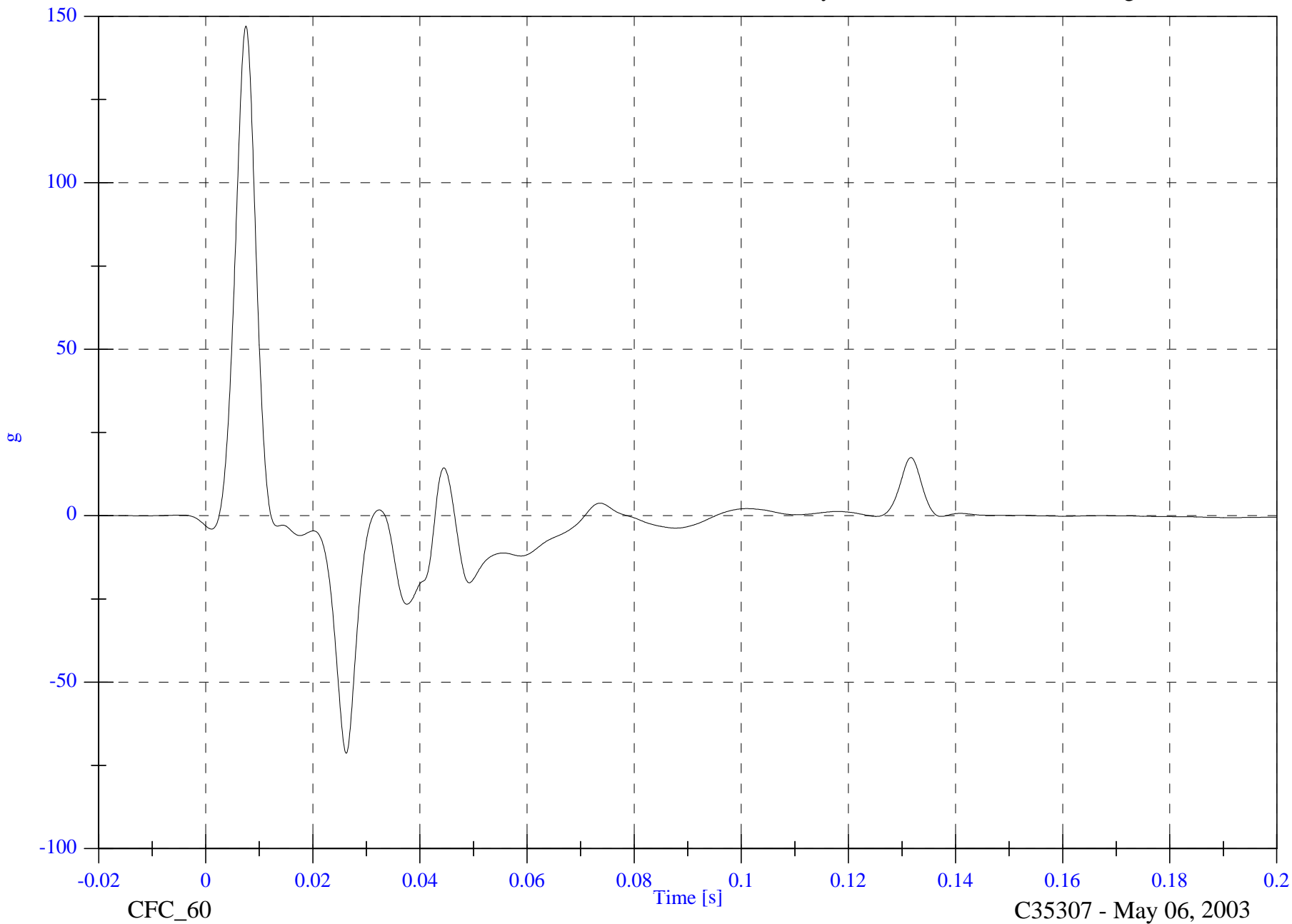
V2 A14 Left Lower A Post y

Max: 147.1 [g] at 0.007 [s]

Min: -71.3 [g] at 0.026 [s]

B-116

8675-F214-08

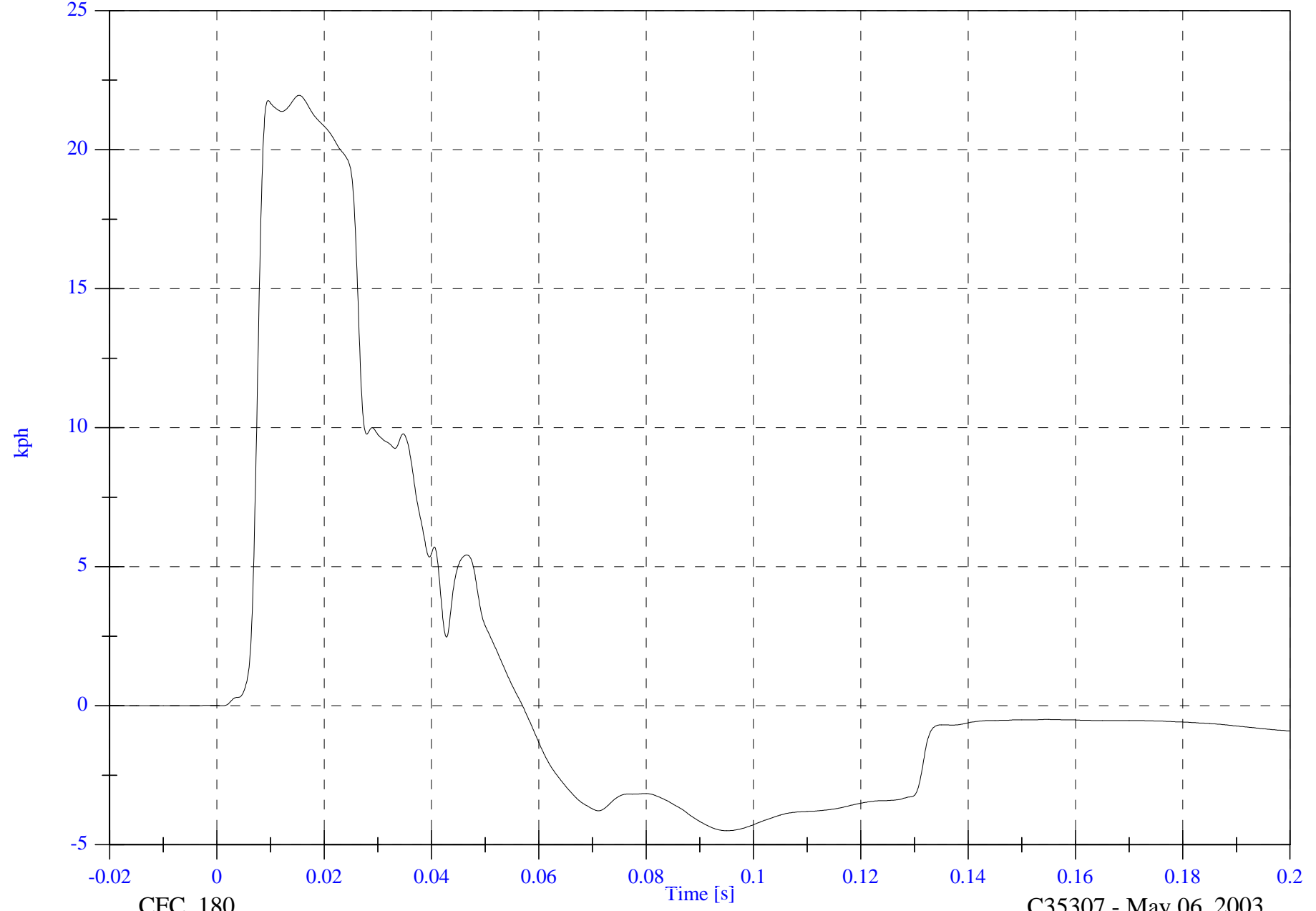


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Max: 22.0 [kph] at 0.015 [s]

V2 A14 Left Lower A Post y Velocity

Min: -4.5 [kph] at 0.095 [s]



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CFC_180

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2003 FMVSS 214D Test 8 2003 Honda Element

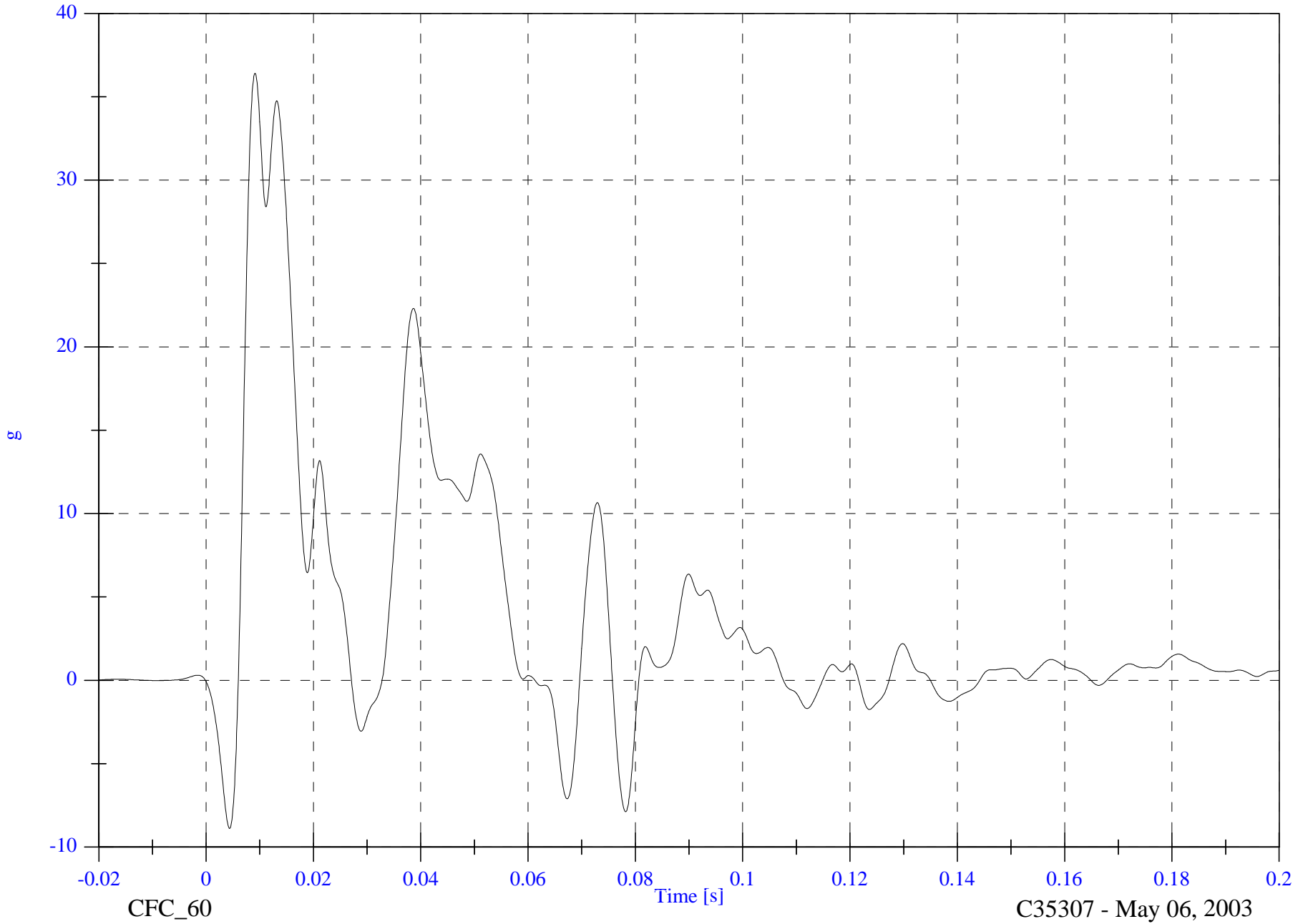
V2 A15 Left Mid A Post y

Max: 36.4 [g] at 0.009 [s]

Min: -8.9 [g] at 0.004 [s]

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Max: 26.1 [kph] at 0.199 [s]

V2 A15 Left Mid A Post y Velocity

Min: -1.8 [kph] at 0.007 [s]

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CFC_180

Time [s]

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

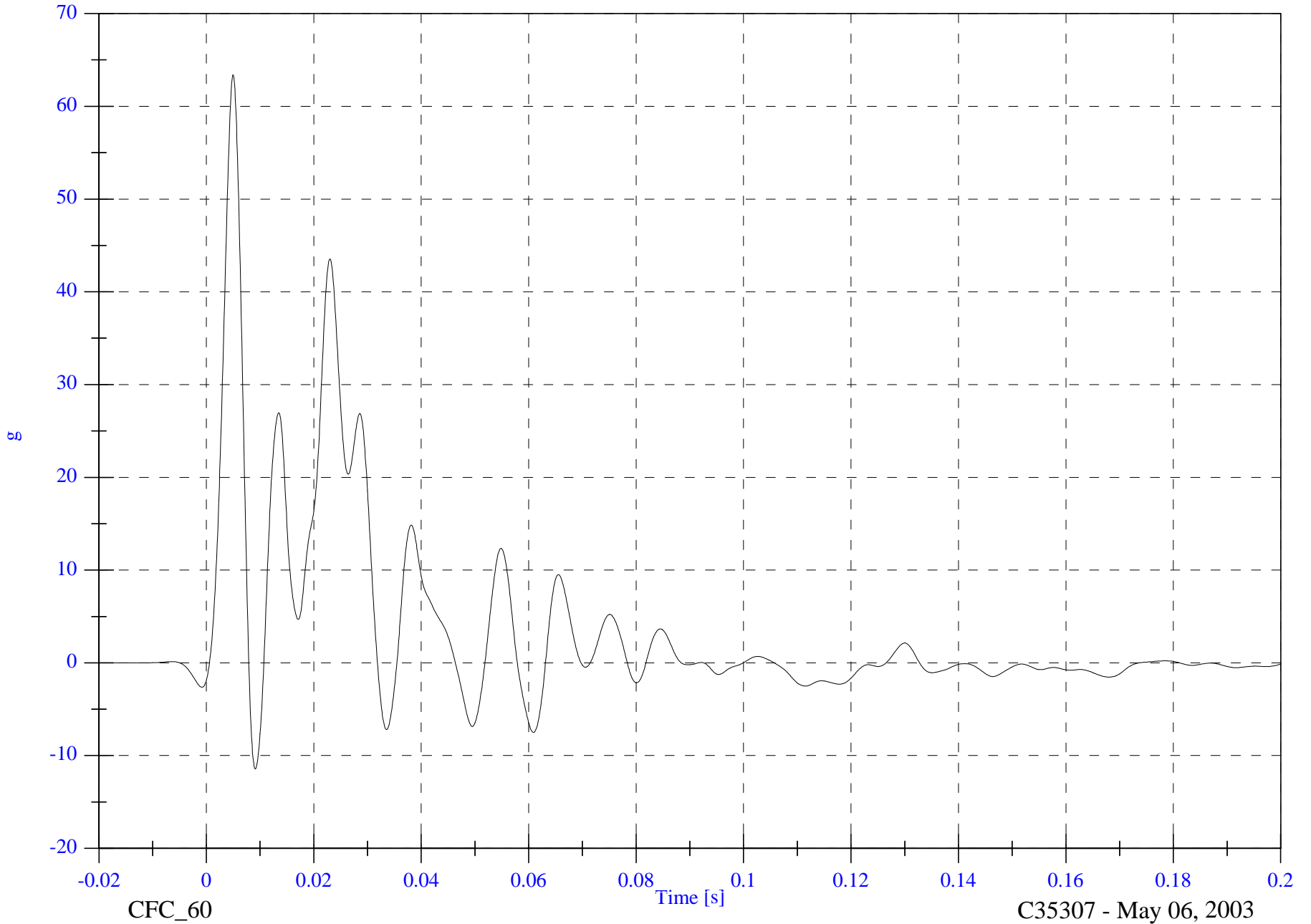
V2 A16 Front Seat Track y

Max: 63.4 [g] at 0.005 [s]

Min: -11.4 [g] at 0.009 [s]

B-120

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C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

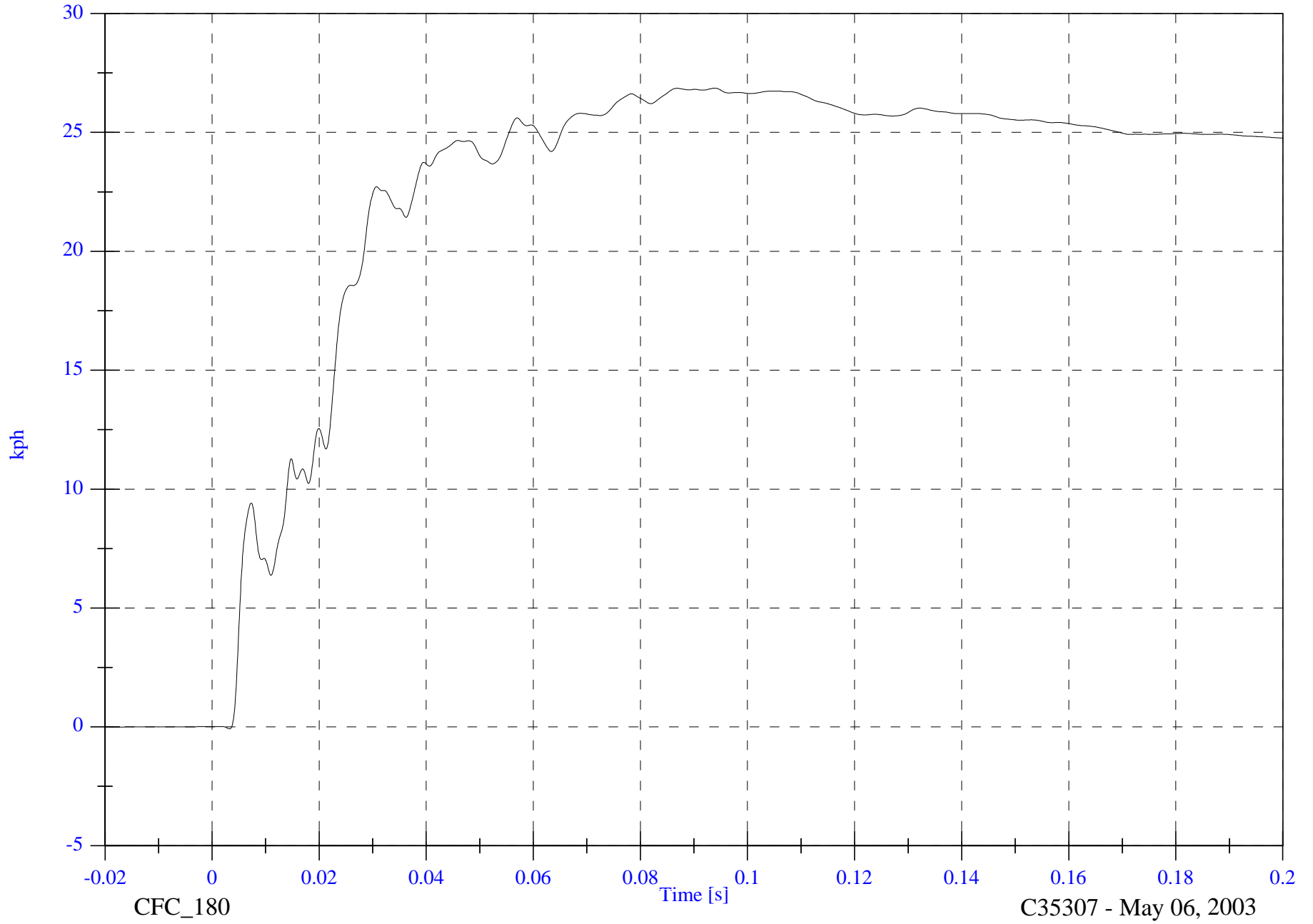
V2 A16 Front Seat Track y Velocity

Max: 26.9 [kph] at 0.094 [s]

Min: -0.1 [kph] at 0.003 [s]

B-121

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

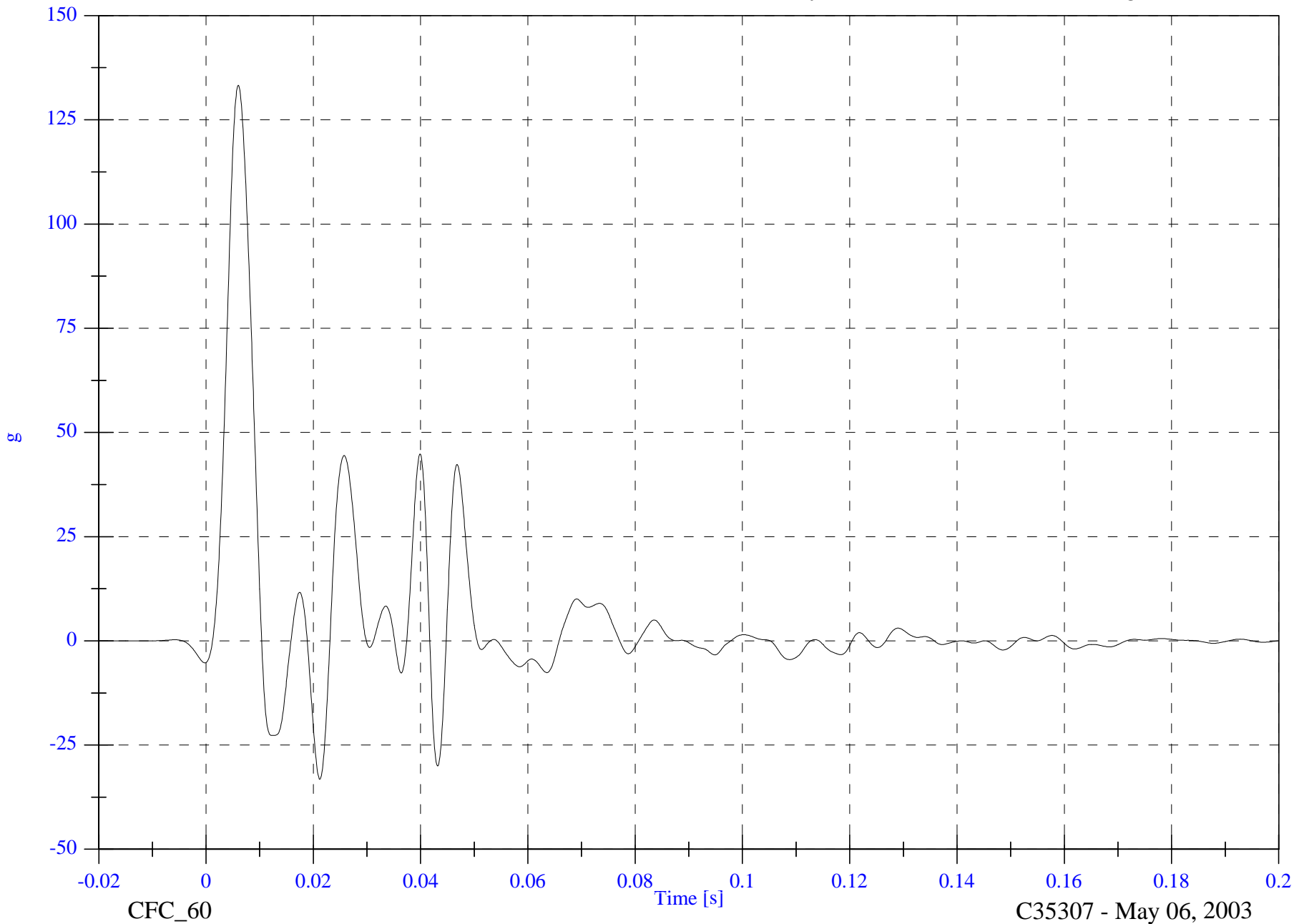
V2 A17 Rear Seat Track y

Max: 133.3 [g] at 0.006 [s]

Min: -33.2 [g] at 0.021 [s]

B-122

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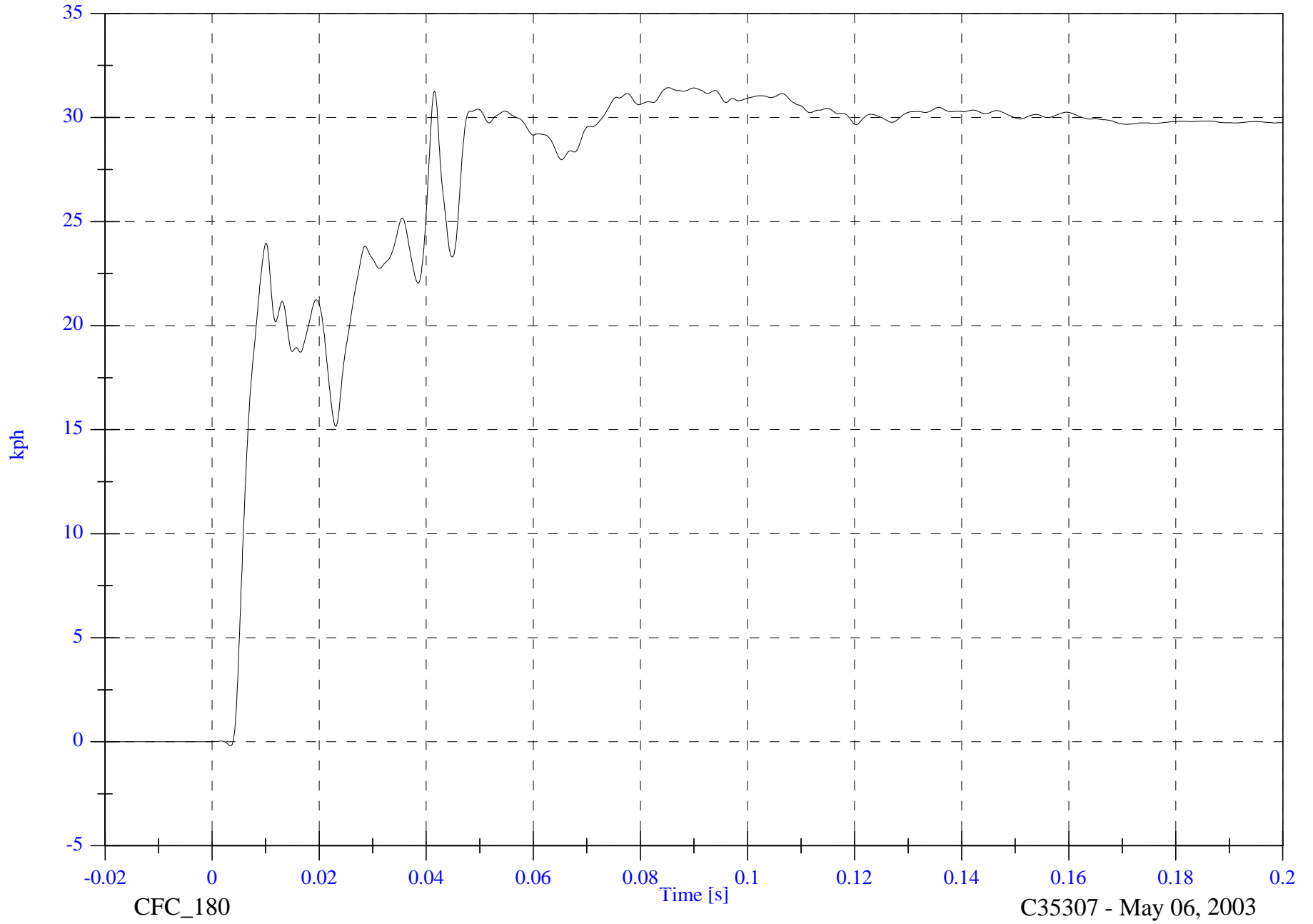
C35307 - May 06, 2003

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V2 A17 Rear Seat Track y Velocity

Max: 31.4 [kph] at 0.085 [s]

Min: -0.2 [kph] at 0.003 [s]



B-123

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CFC_180

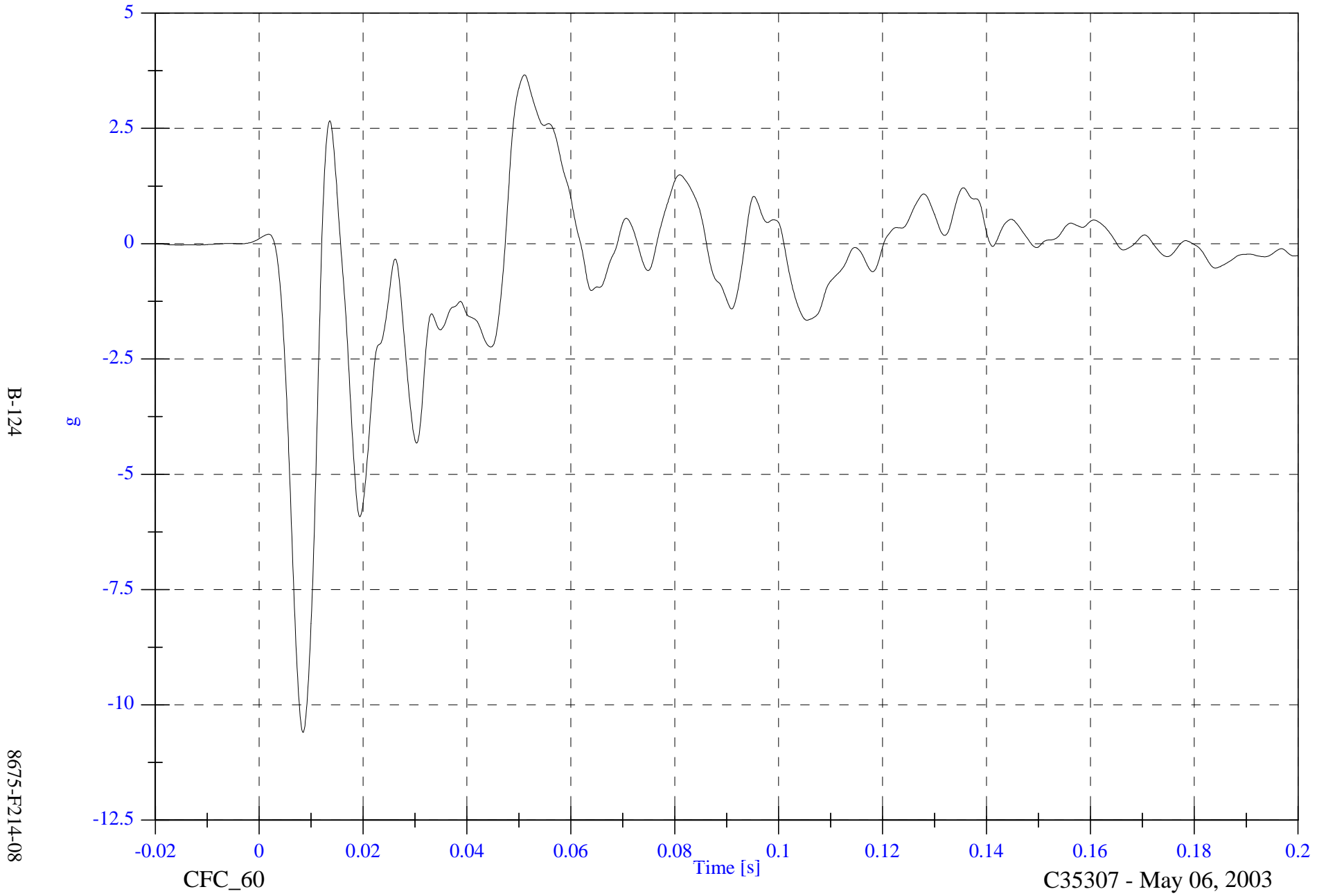
C35307 - May 06, 2003

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V2 A18 Target CG x

Max: 3.7 [g] at 0.051 [s]

Min: -10.6 [g] at 0.008 [s]



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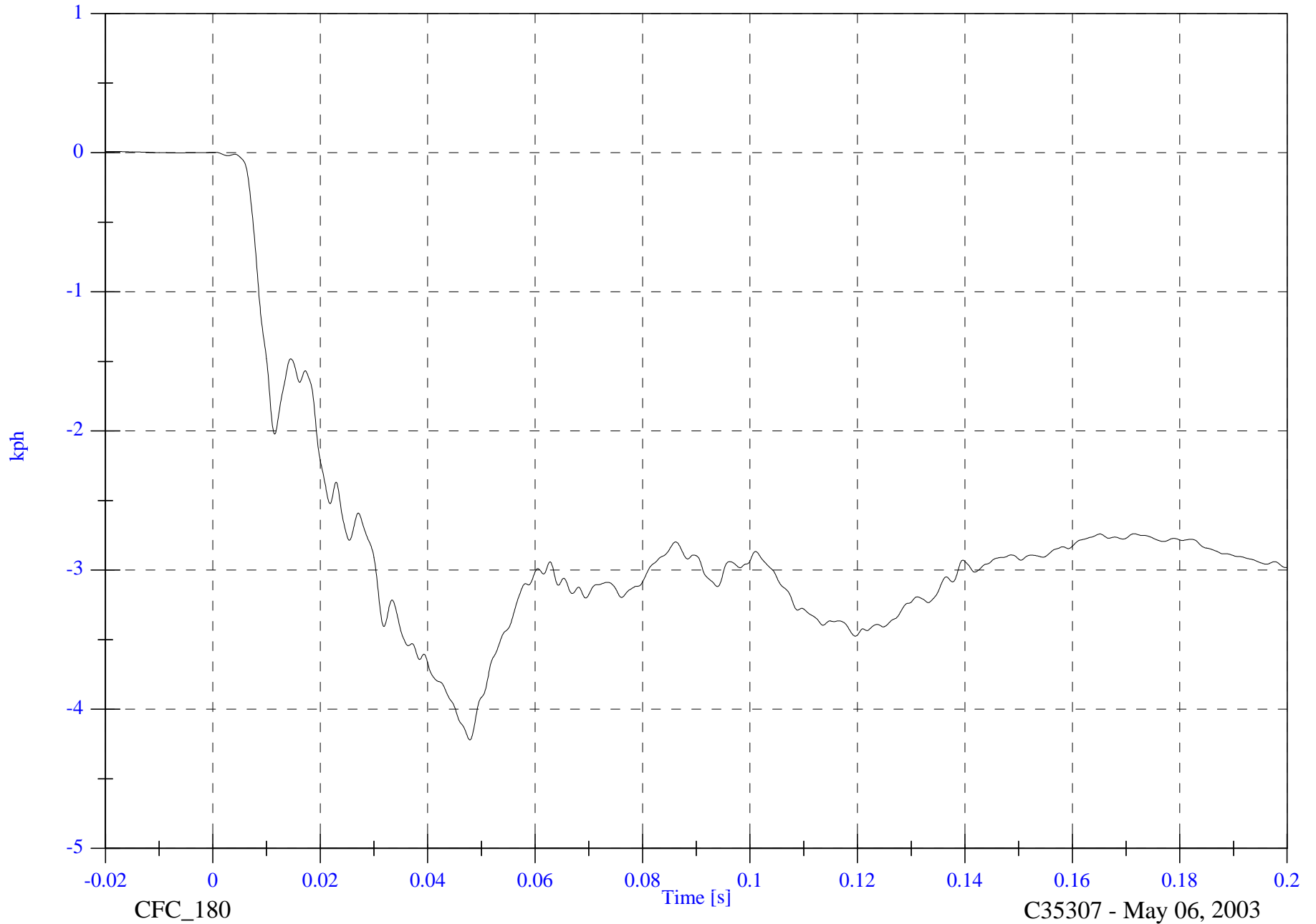
V2 A18 Target CG x Velocity

Max: 0.0 [kph] at -0.018 [s]

Min: -4.2 [kph] at 0.048 [s]

B-125

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CFC_180

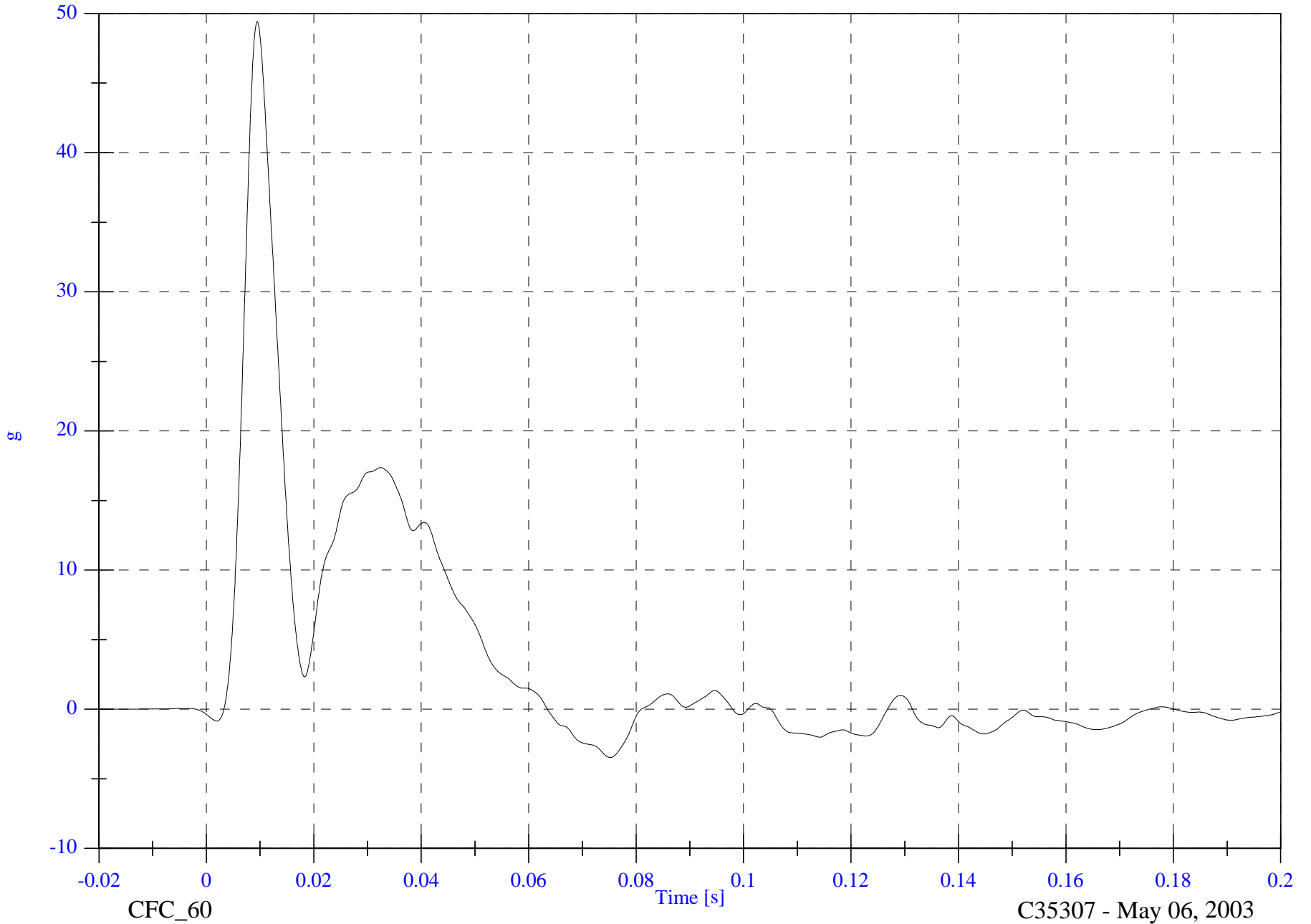
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2 A18 Target CG y

Max: 49.4 [g] at 0.010 [s]

Min: -3.5 [g] at 0.075 [s]



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CFC_60

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2003 FMVSS 214D Test 8 2003 Honda Element

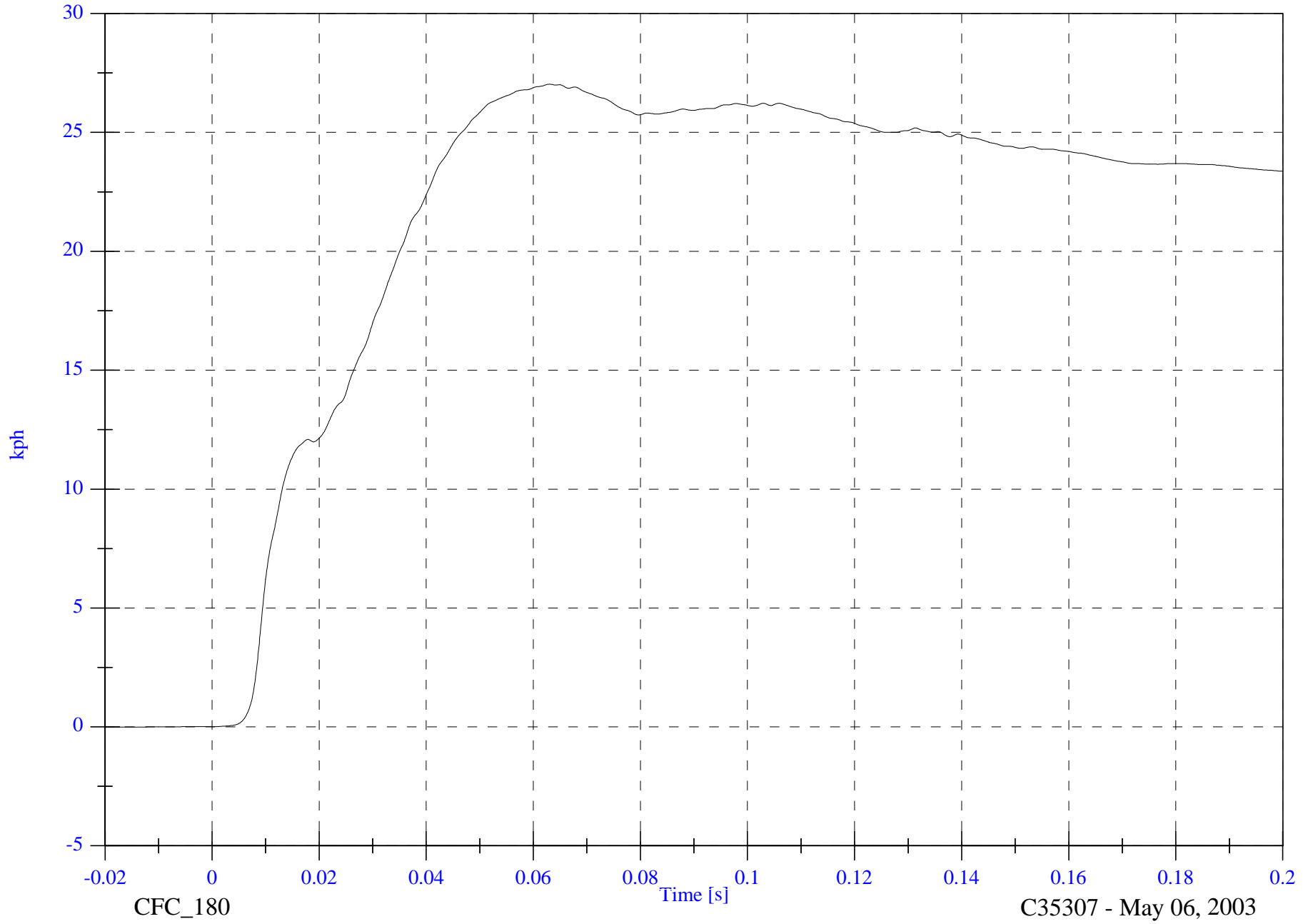
V2 A18 Target CG y Velocity

Max: 27.0 [kph] at 0.063 [s]

Min: -0.0 [kph] at -0.016 [s]

B-127

8675-F214-08



CFC_180

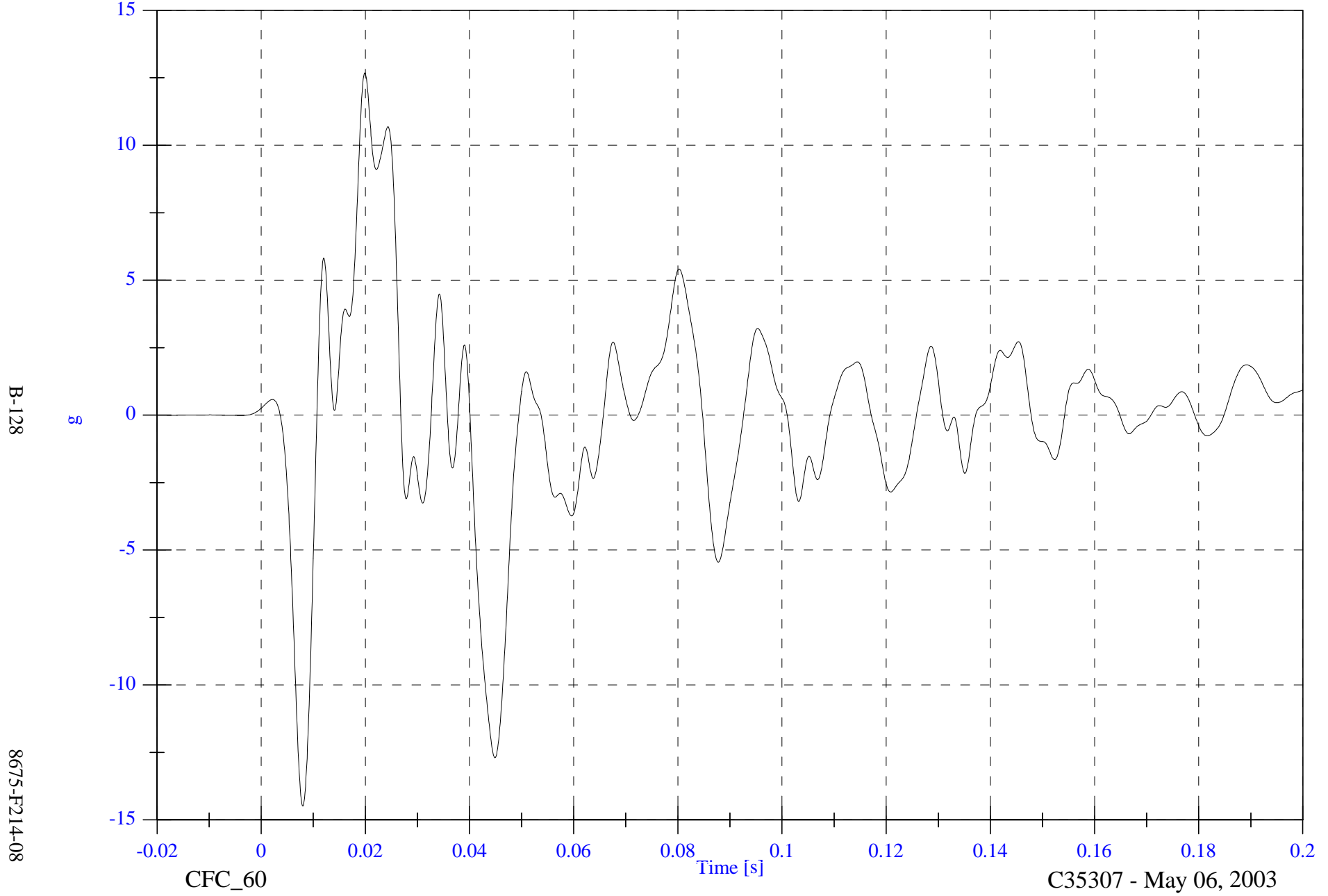
C35307 - May 06, 2003

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V2 A18 Target CG z

Max: 12.7 [g] at 0.020 [s]

Min: -14.5 [g] at 0.008 [s]



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CFC_60

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

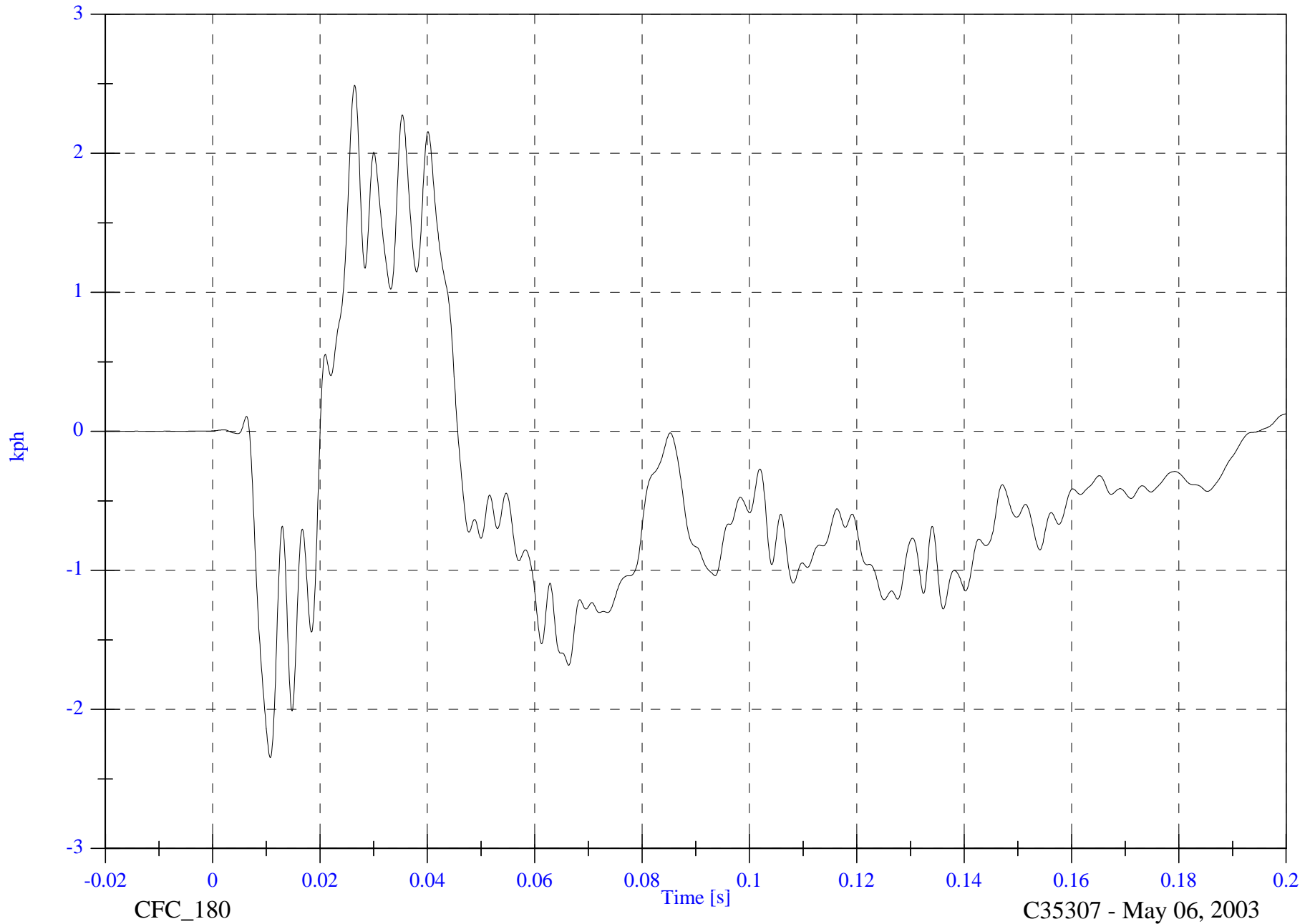
V2 A18 Target CG z Velocity

Max: 2.5 [kph] at 0.026 [s]

Min: -2.3 [kph] at 0.011 [s]

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

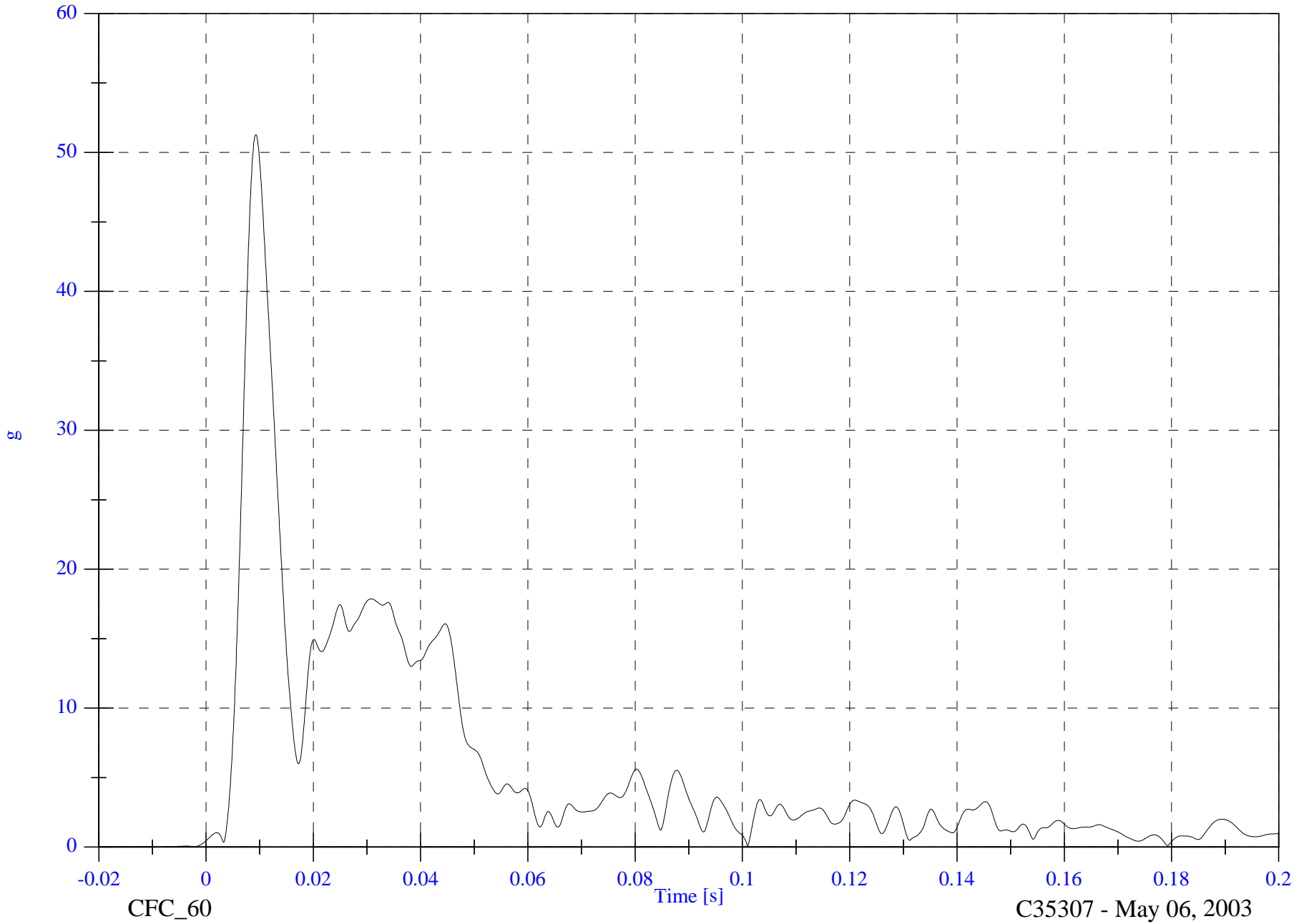
V2 A18 Target CG Resultant

Max: 51.3 [g] at 0.009 [s]

Min: 0.0 [g] at -0.020 [s]

B-130

8675-F214-08

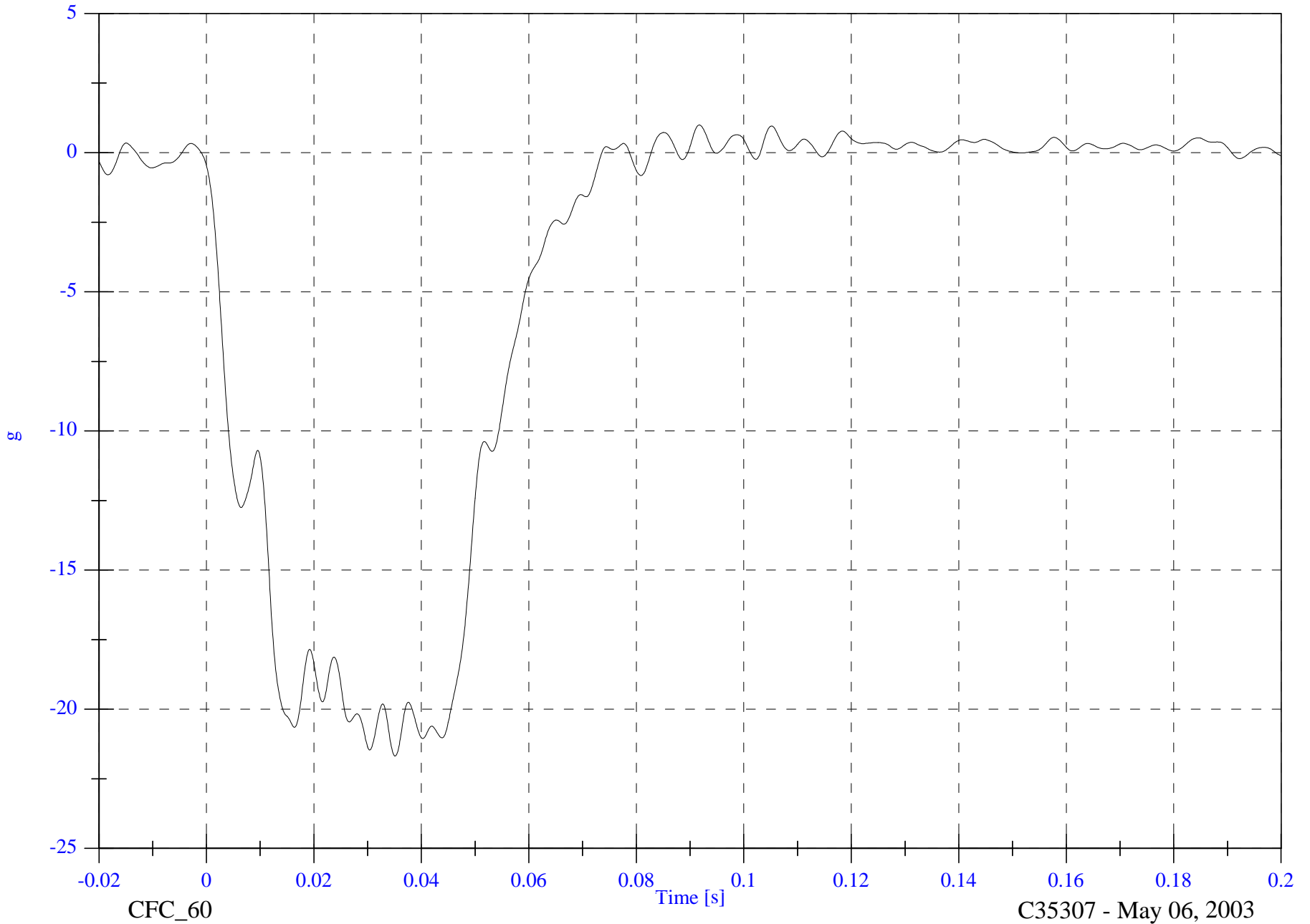


2003 FMVSS 214D Test 8 2003 Honda Element

V1 Moving Barrier CG X

Max: 1.0 [g] at 0.092 [s]

Min: -21.7 [g] at 0.035 [s]



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CFC_60

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2003 FMVSS 214D Test 8 2003 Honda Element

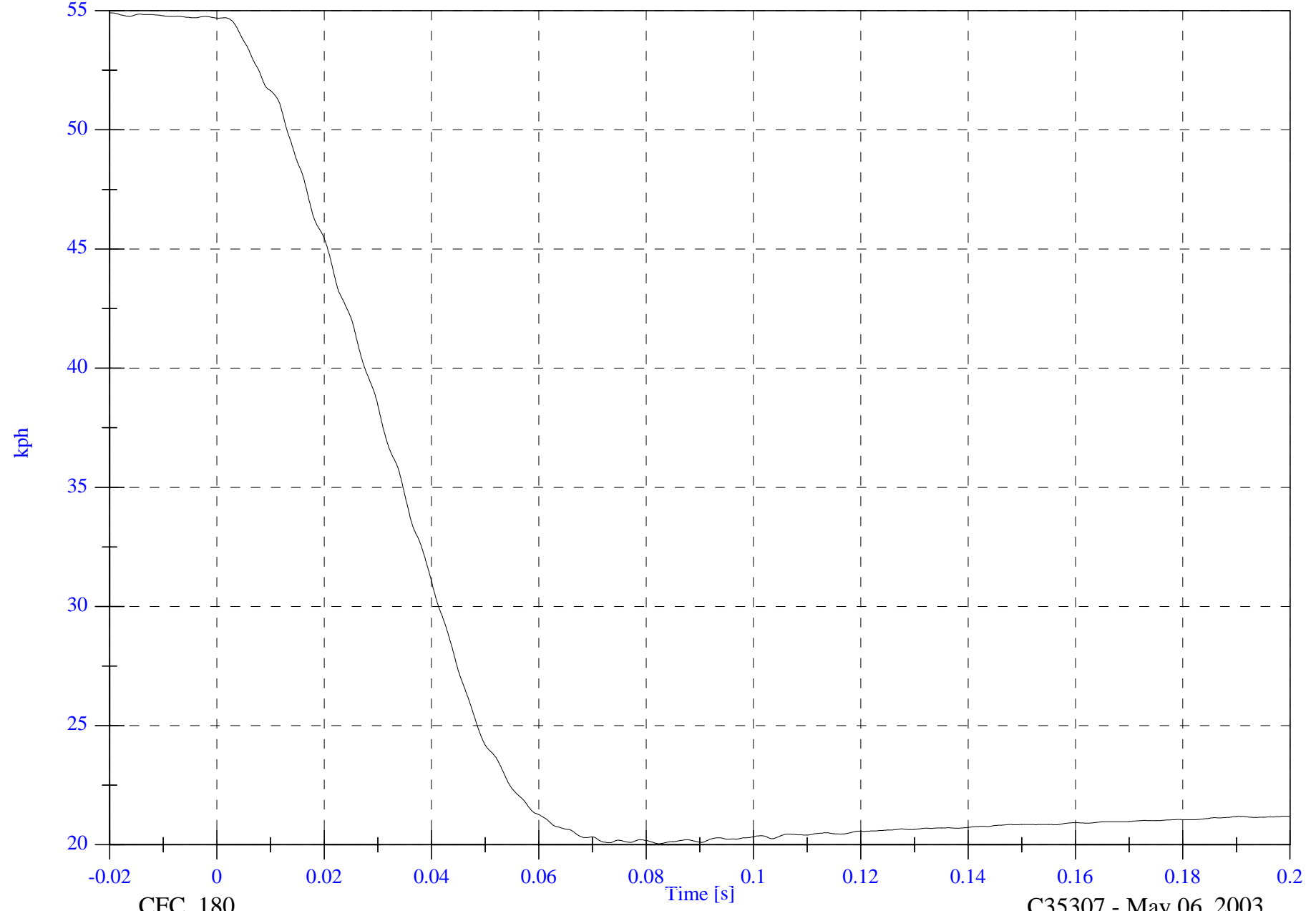
Max: 54.9 [kph] at -0.020 [s]

V1 Moving Barrier CG X Velocity

Min: 20.0 [kph] at 0.082 [s]

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

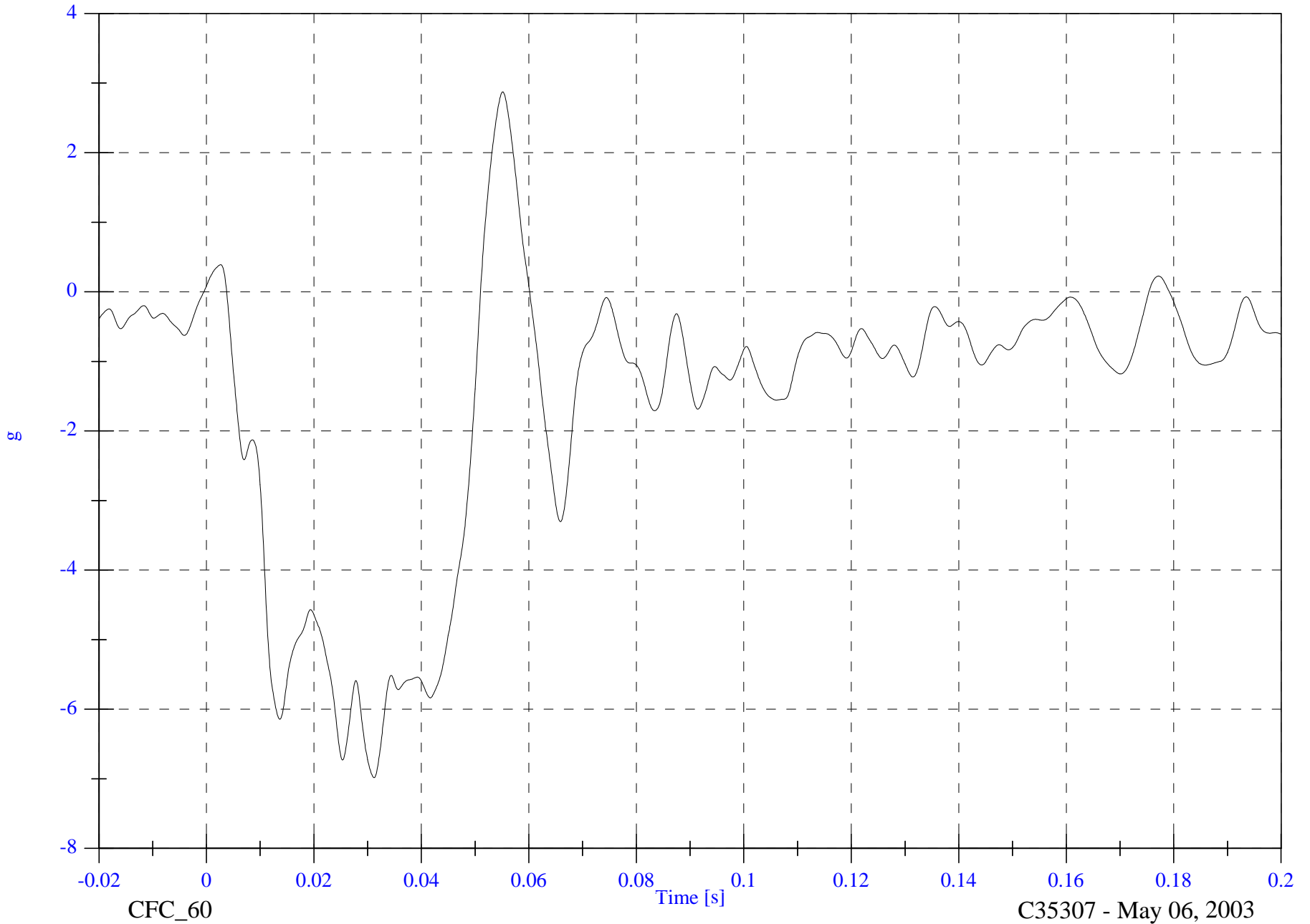
V1 Moving Barrier CG Y

Max: 2.9 [g] at 0.055 [s]

Min: -7.0 [g] at 0.031 [s]

B-133

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C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

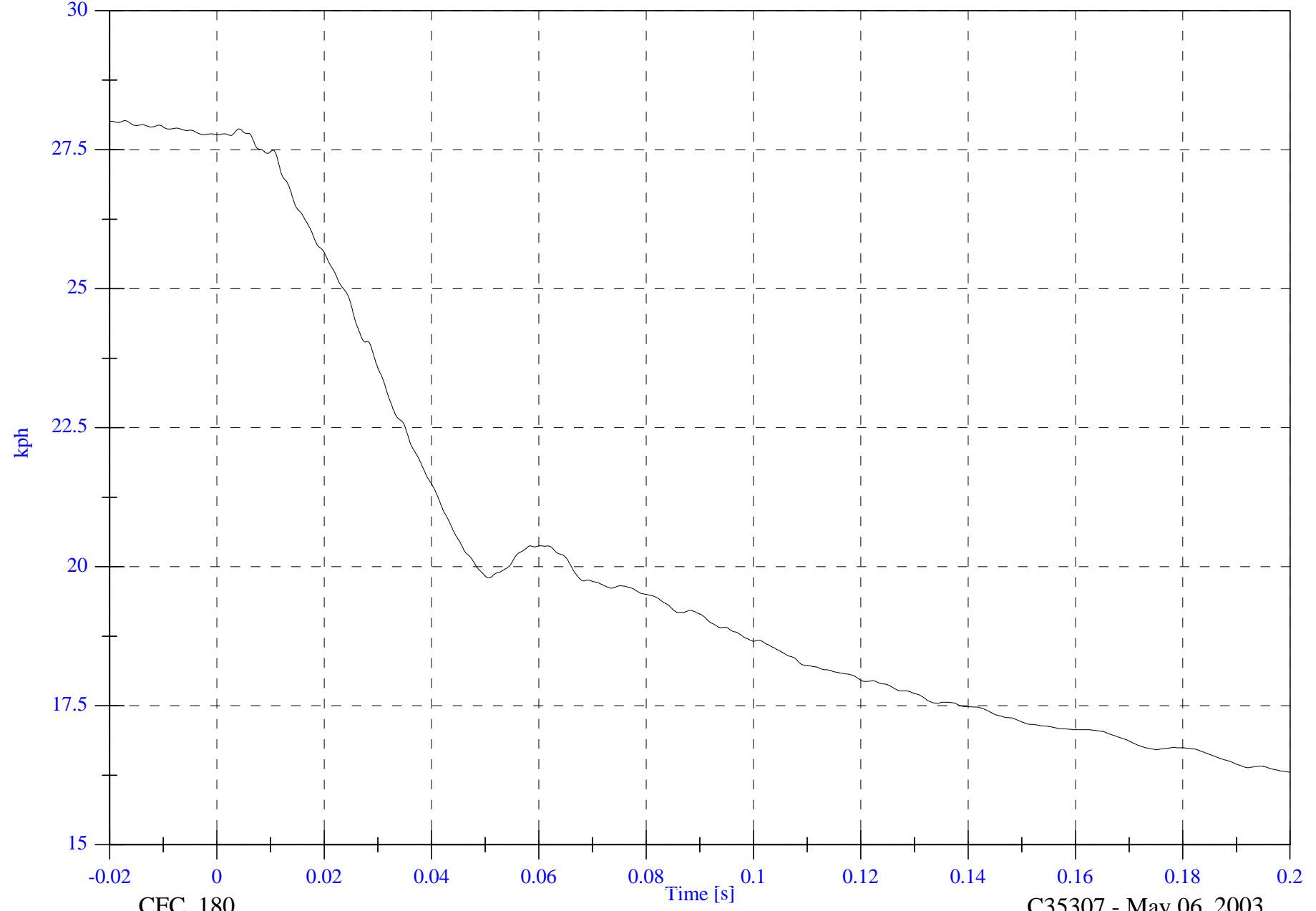
Max: 28.0 [kph] at -0.017 [s]

V1 Moving Barrier CG Y Velocity

Min: 16.3 [kph] at 0.200 [s]

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

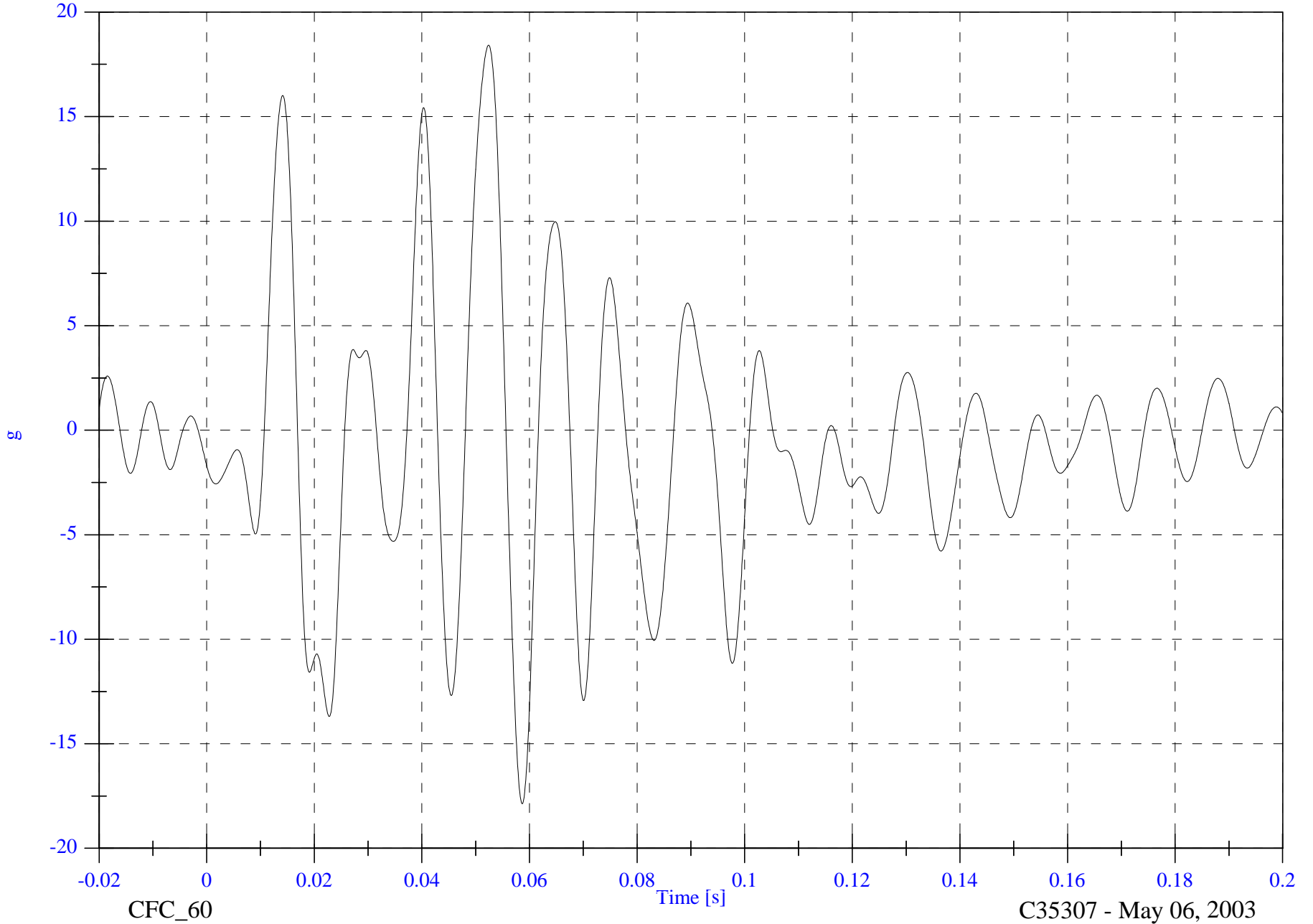
V1 Moving Barrier CG Z

Max: 18.4 [g] at 0.052 [s]

Min: -17.9 [g] at 0.059 [s]

B-135

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CFC_60

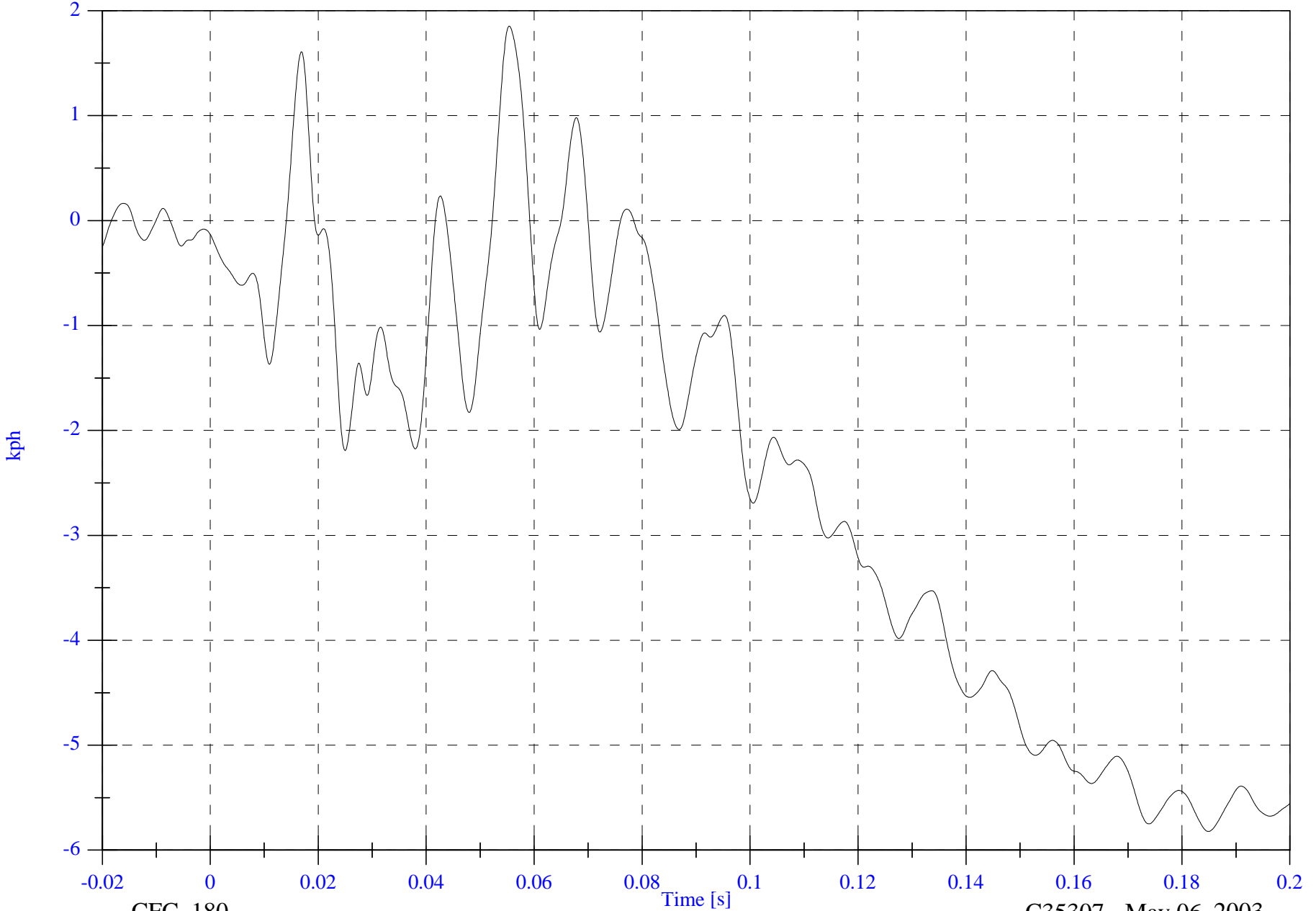
C35307 - May 06, 2003

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Max: 1.9 [kph] at 0.055 [s]

V1 Moving Barrier CG Z Velocity

Min: -5.8 [kph] at 0.185 [s]



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CFC_180

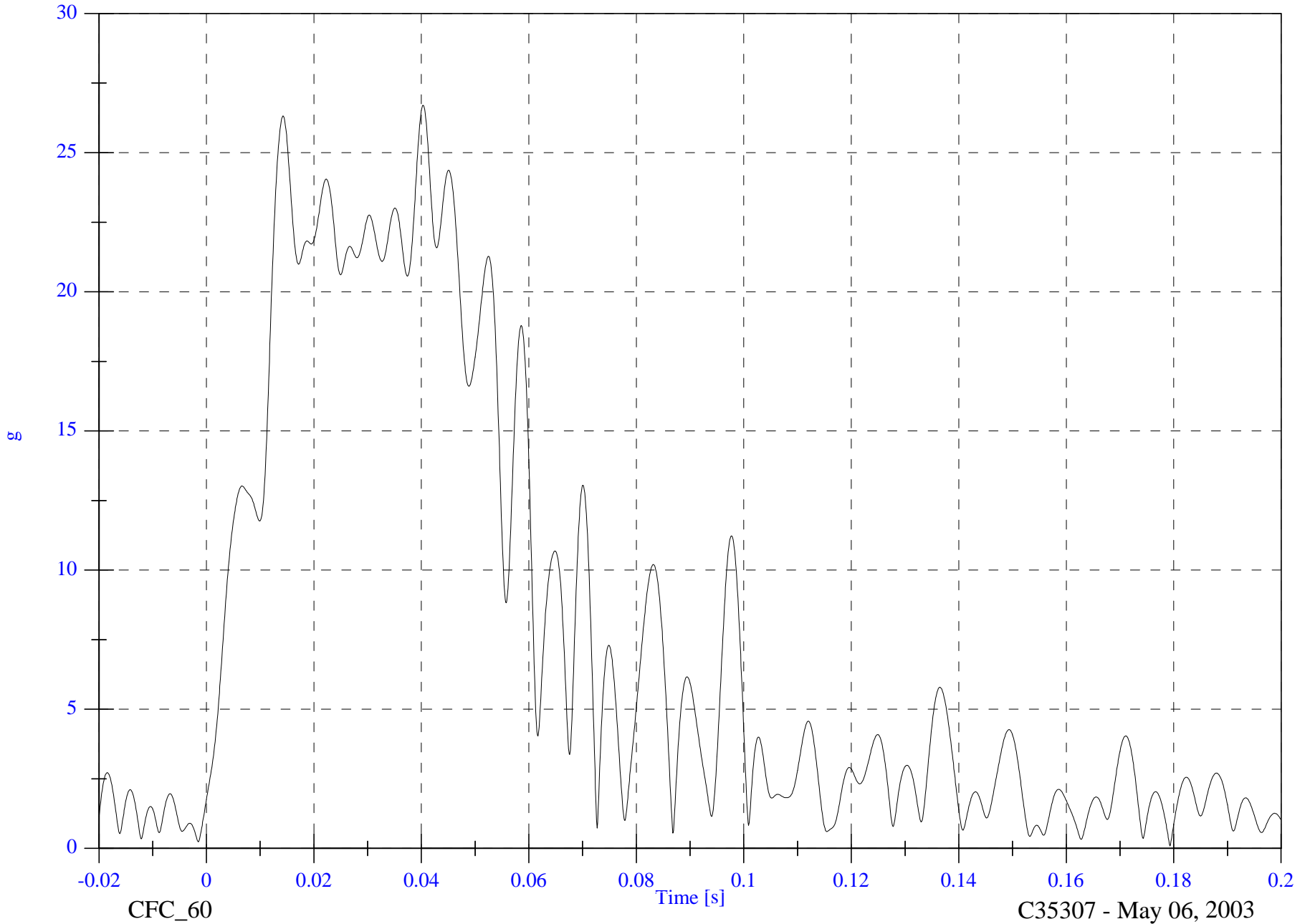
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V1 Moving Barrier CG Resultant

Max: 26.7 [g] at 0.040 [s]

Min: 0.1 [g] at 0.179 [s]



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C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

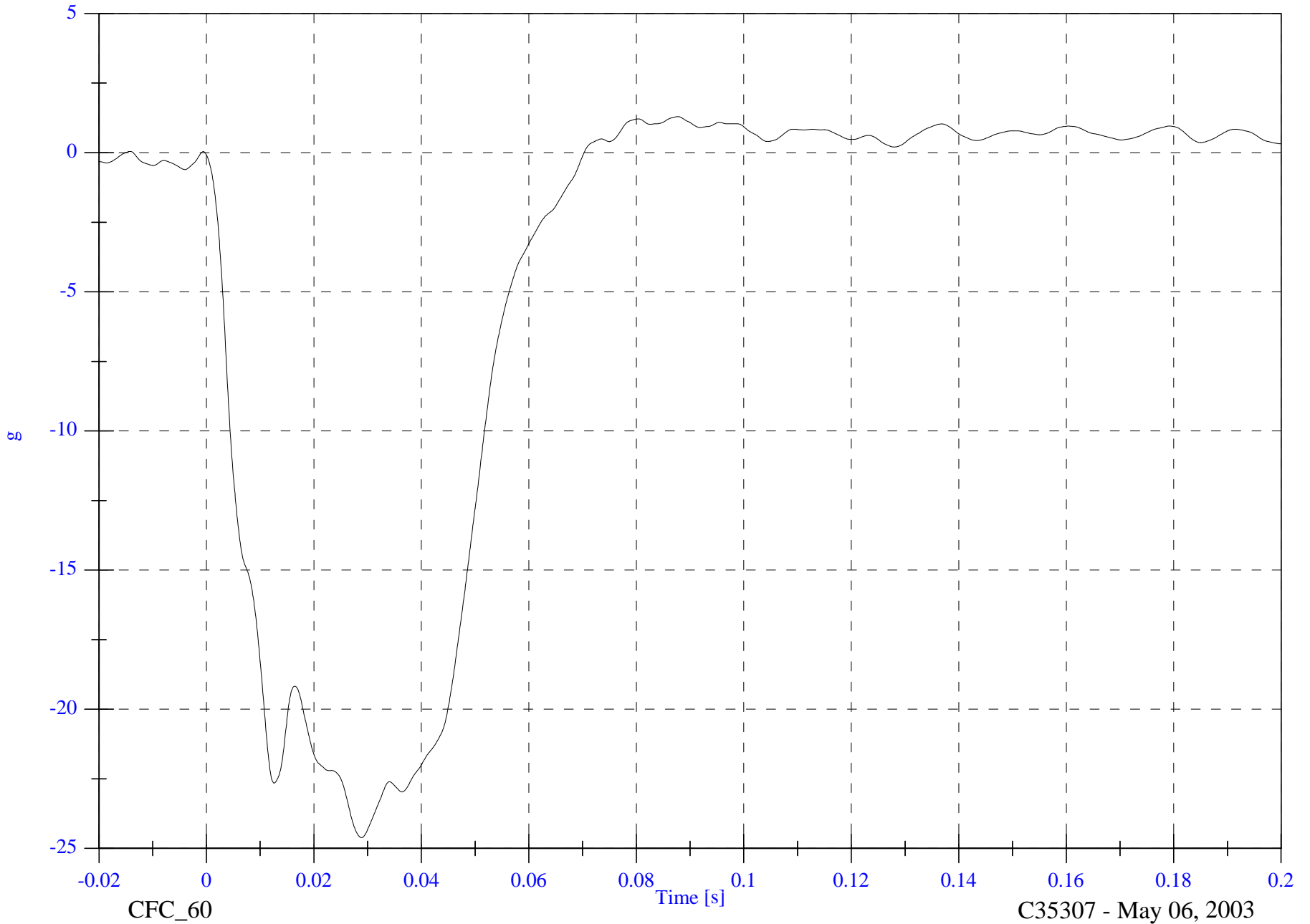
V1 Moving Barrier Left Rail X

Max: 1.3 [g] at 0.088 [s]

Min: -24.6 [g] at 0.029 [s]

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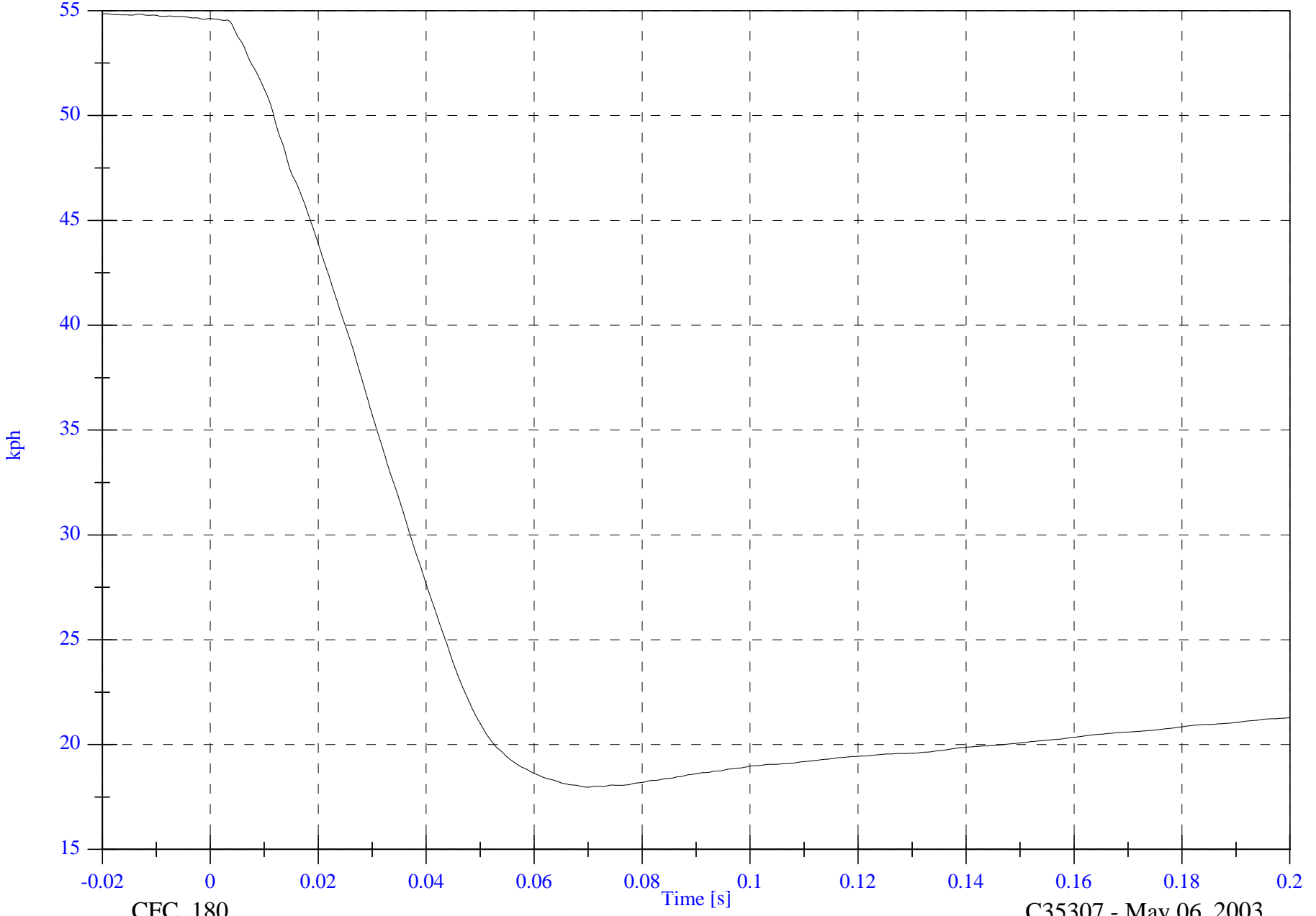
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Max: 54.9 [kph] at -0.019 [s]

V1 Moving Barrier Left Rail X Velocity

Min: 18.0 [kph] at 0.070 [s]



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CFC_180

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2003 FMVSS 214D Test 8 2003 Honda Element

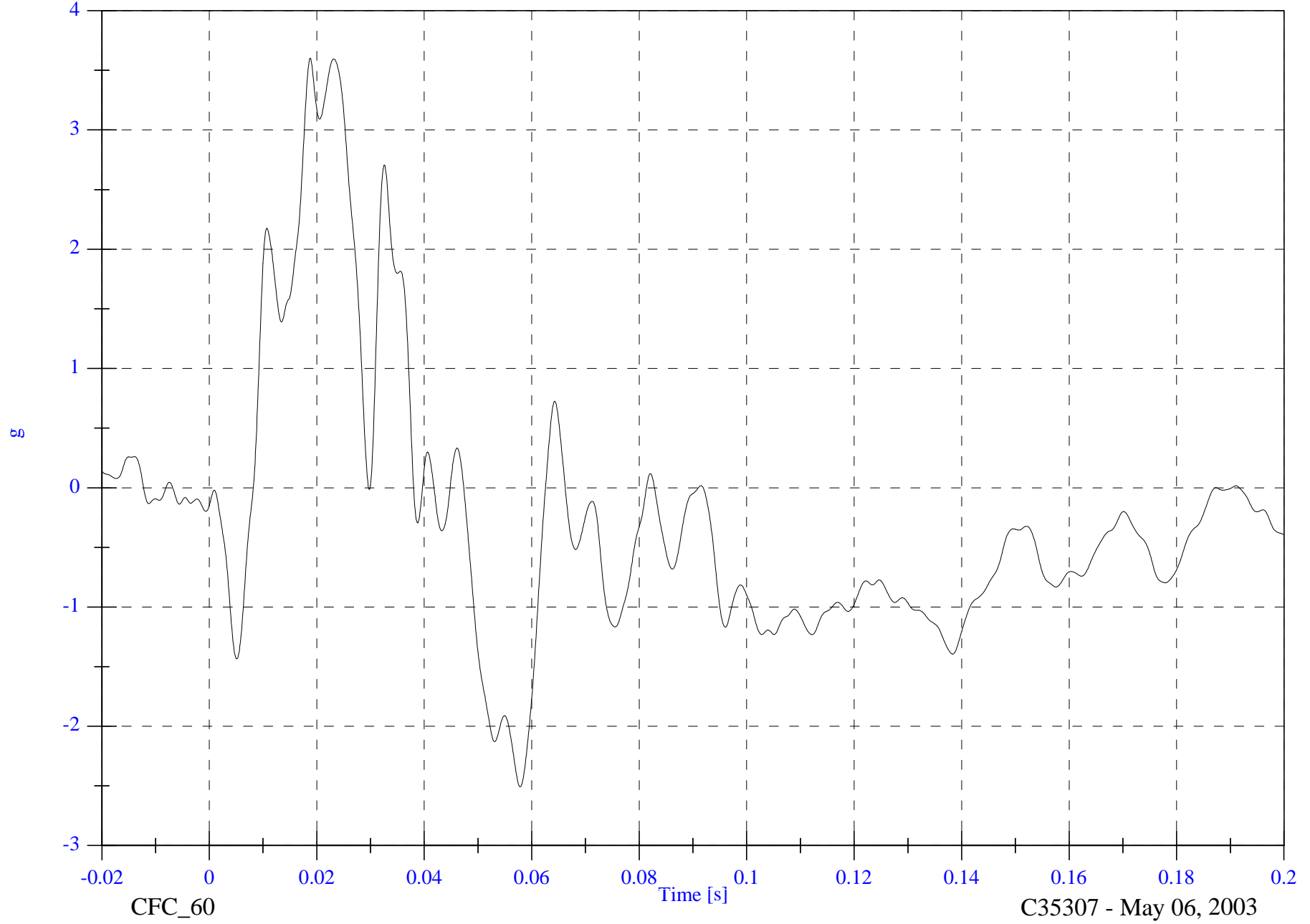
V1 Moving Barrier Left Rail Y

Max: 3.6 [g] at 0.019 [s]

Min: -2.5 [g] at 0.058 [s]

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CFC_60

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Max: 30.0 [kph] at 0.037 [s]

V1 Moving Barrier Left Rail Y Velocity

Min: 25.9 [kph] at 0.200 [s]



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CFC_180

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2003 FMVSS 214D Test 8 2003 Honda Element

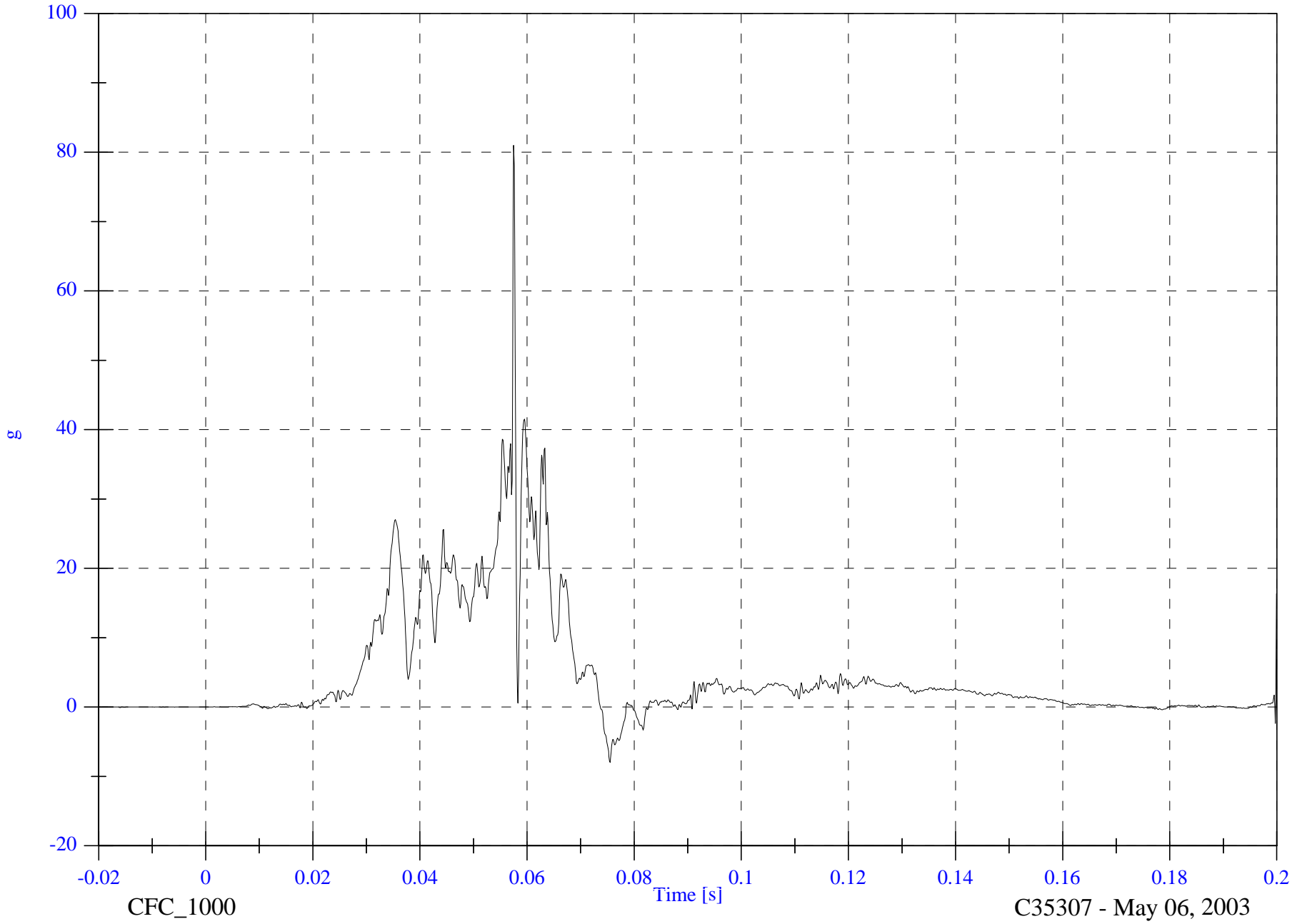
V2P1 Upper Rib Ry

Max: 81.0 [g] at 0.057 [s]

Min: -8.0 [g] at 0.076 [s]

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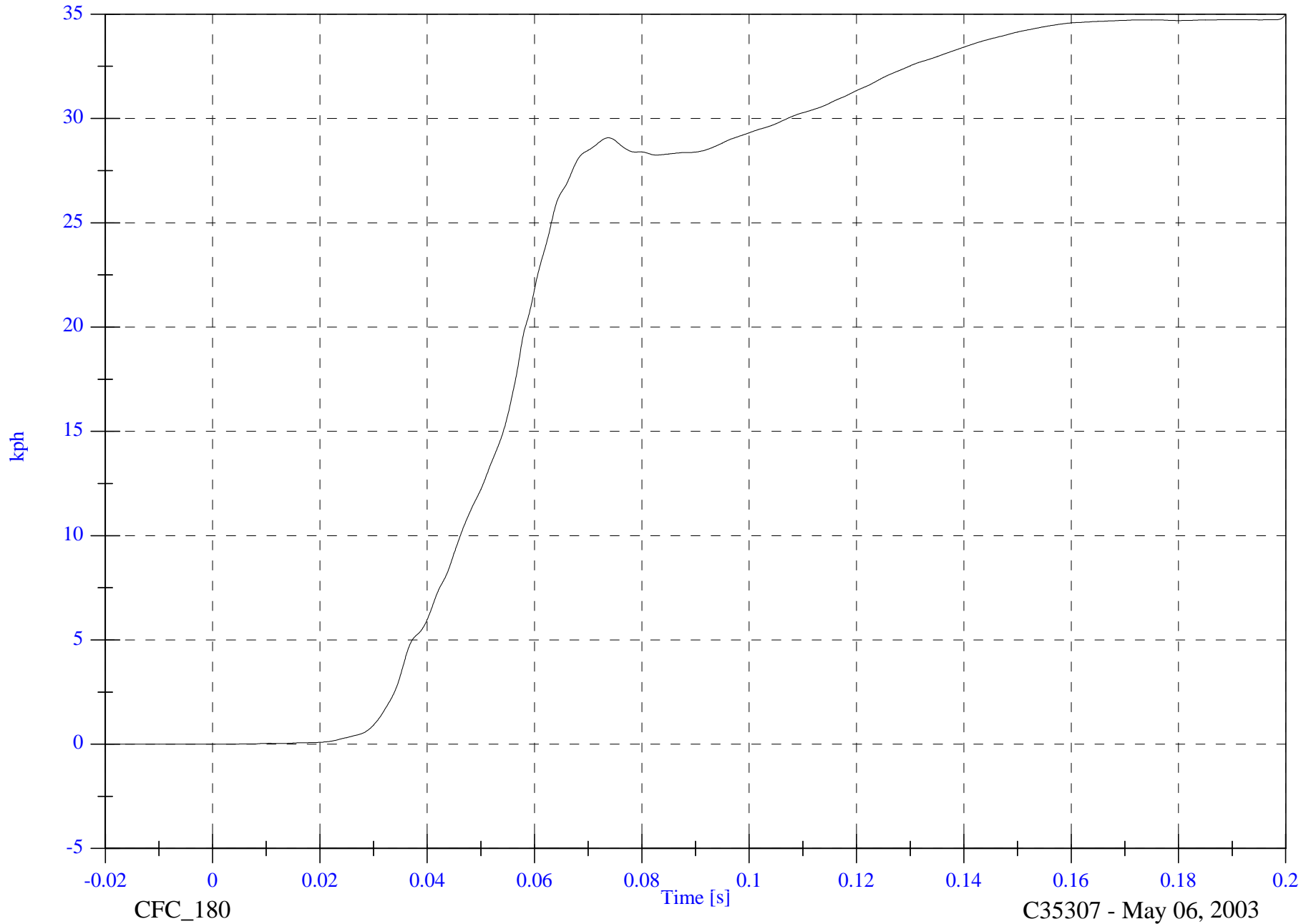
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V2P1 Upper Rib Ry Velocity

Max: 35.0 [kph] at 0.200 [s]

Min: -0.0 [kph] at -0.015 [s]



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C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

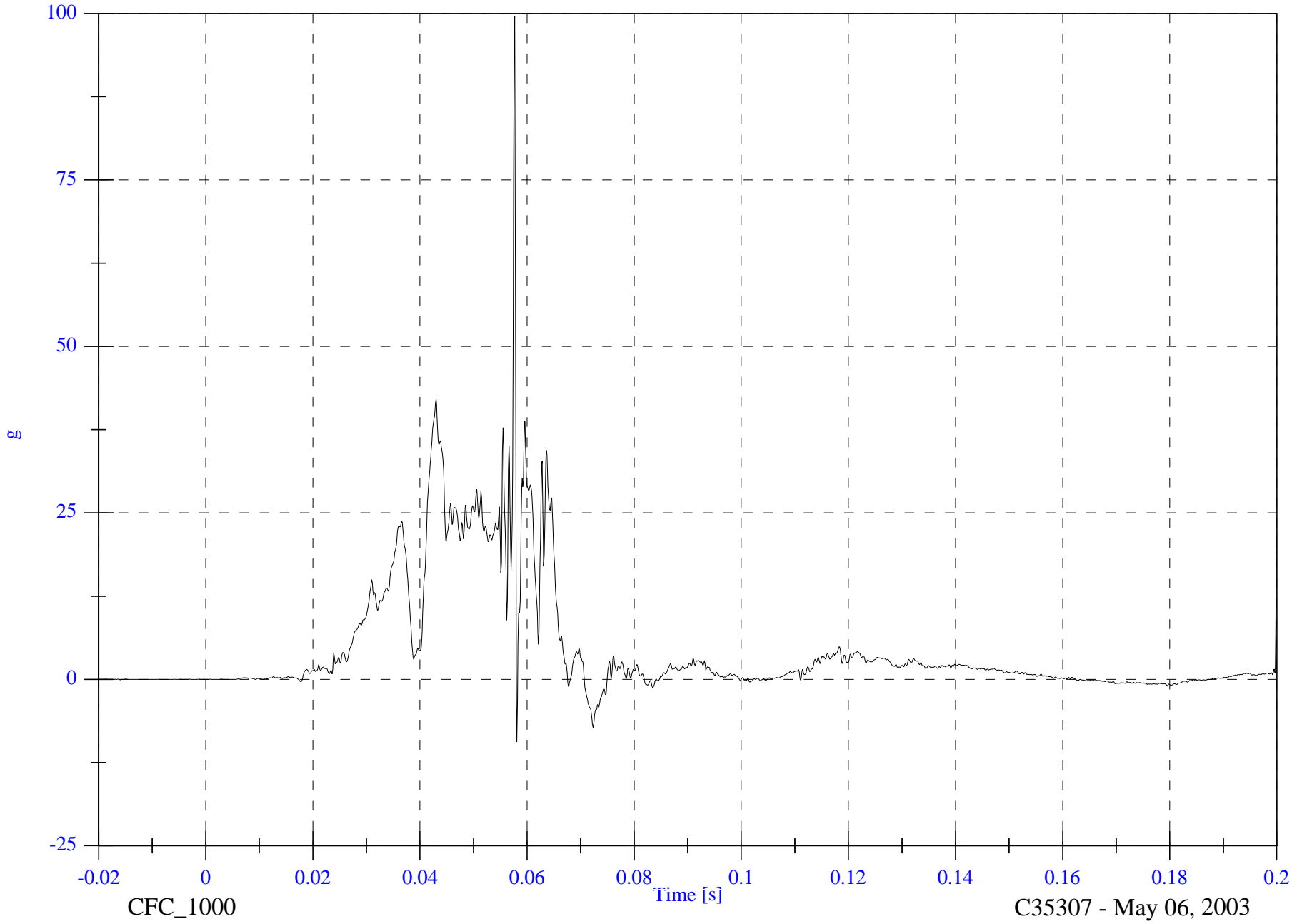
V2P1 Lower Rib Ry

Max: 99.5 [g] at 0.058 [s]

Min: -9.4 [g] at 0.058 [s]

B-144

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2003 FMVSS 214D Test 8 2003 Honda Element

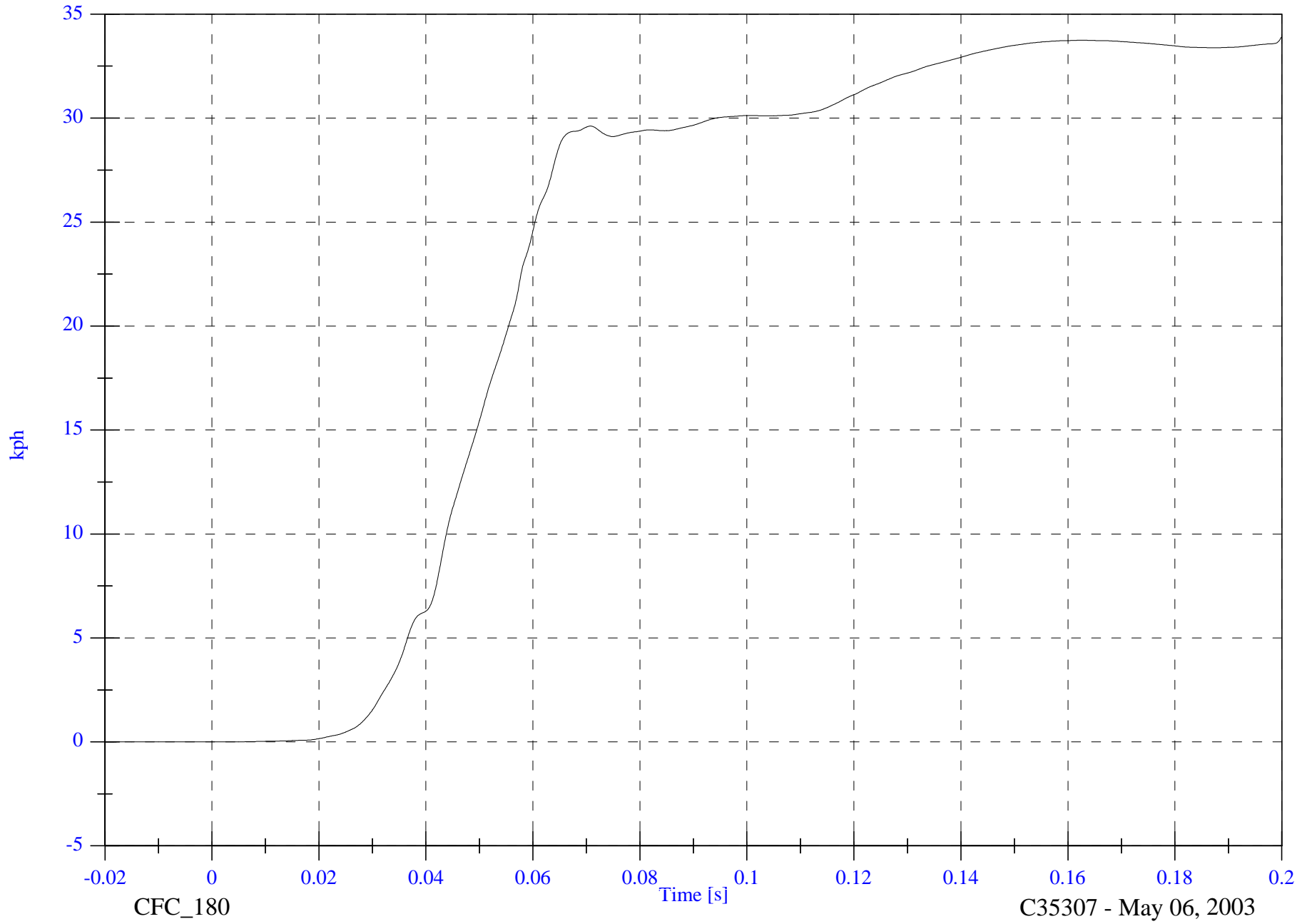
V2P1 Lower Rib Ry Velocity

Max: 33.9 [kph] at 0.200 [s]

Min: -0.0 [kph] at -0.020 [s]

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CFC_180

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2003 FMVSS 214D Test 8 2003 Honda Element

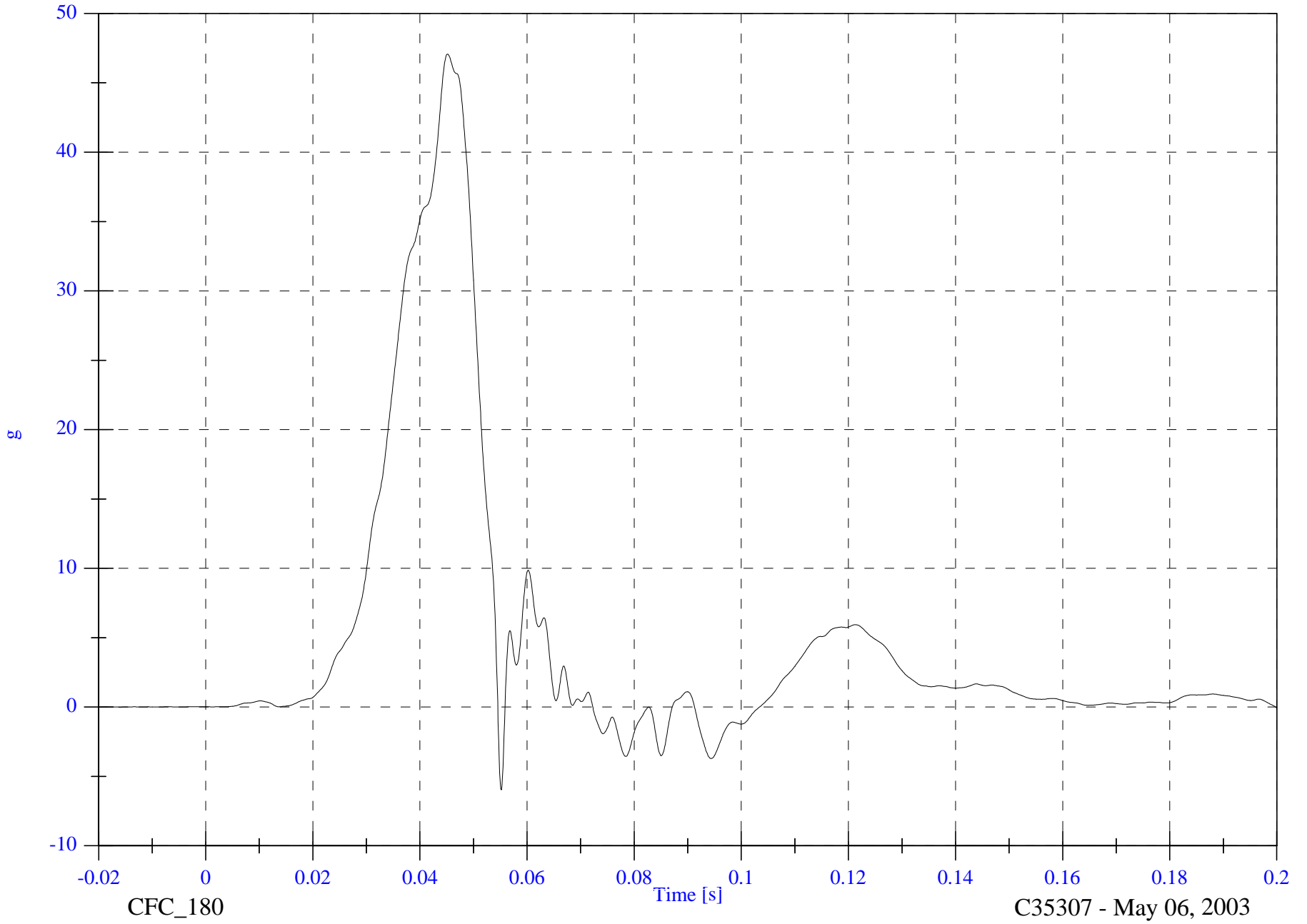
V2P1 Lower Spine Ry

Max: 47.1 [g] at 0.045 [s]

Min: -6.0 [g] at 0.055 [s]

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CFC_180

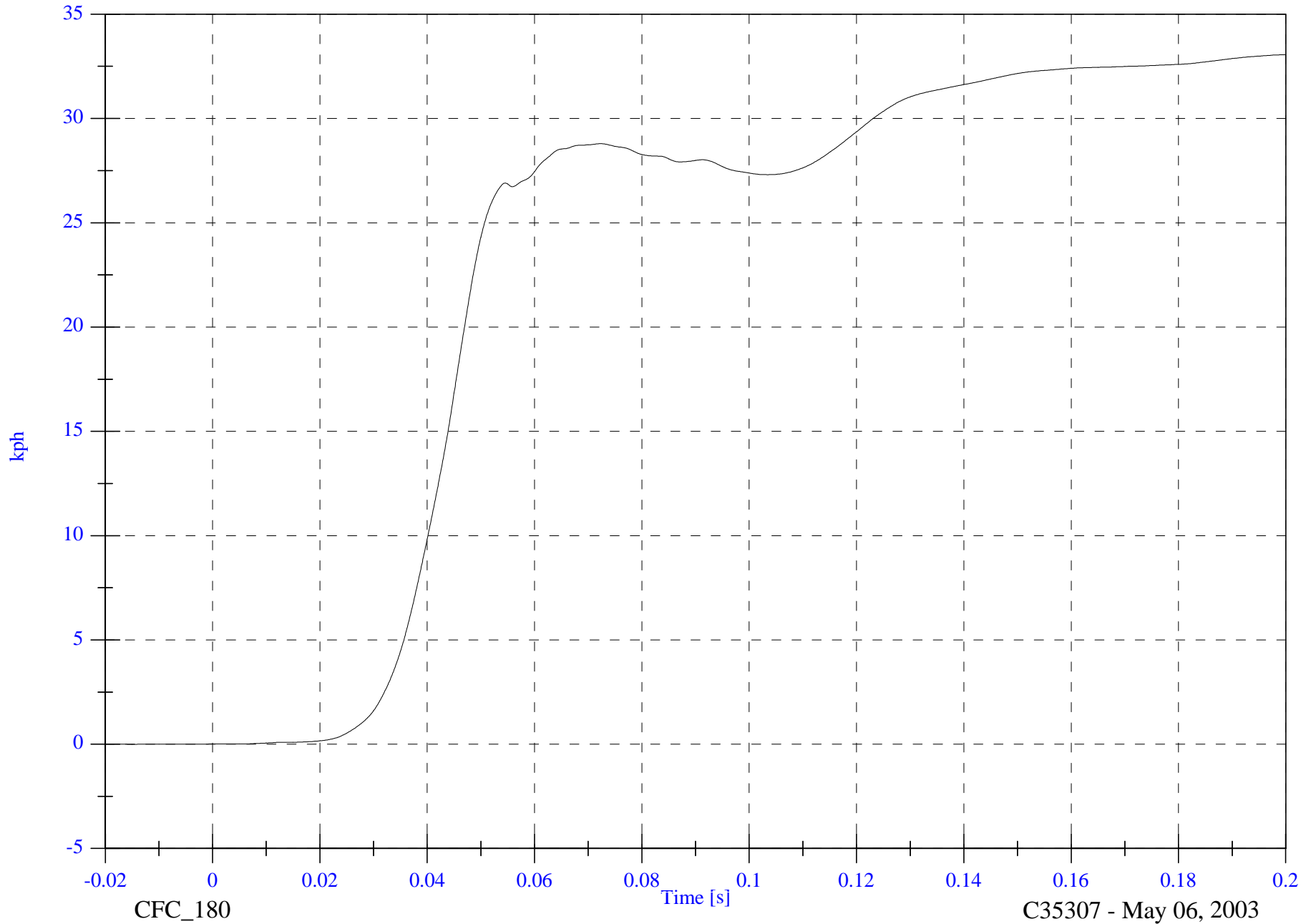
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V2P1 Lower Spine Ry Velocity

Max: 33.1 [kph] at 0.200 [s]

Min: -0.0 [kph] at -0.015 [s]



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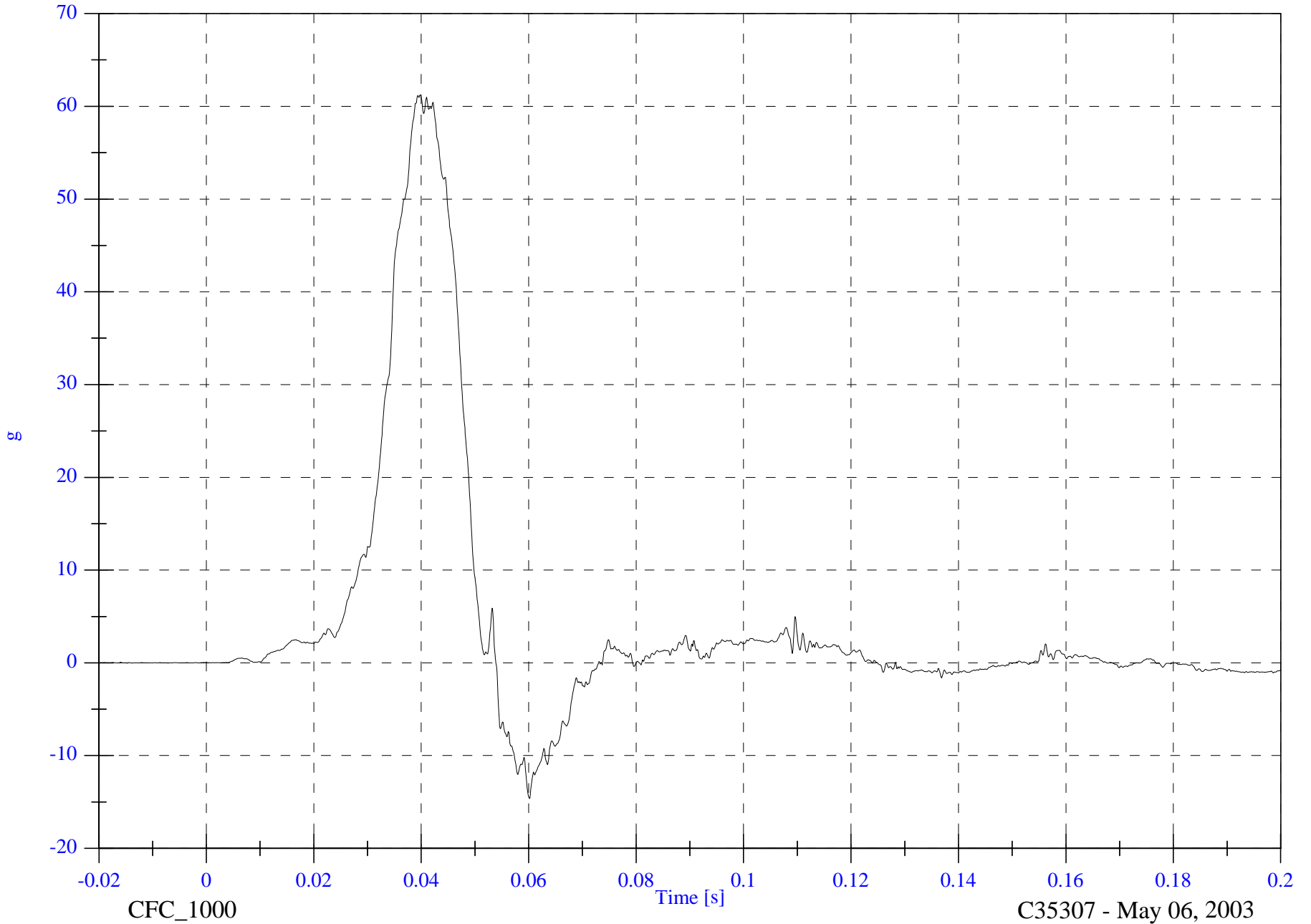
V2P1 Pelvic Ry

Max: 61.2 [g] at 0.040 [s]

Min: -14.6 [g] at 0.060 [s]

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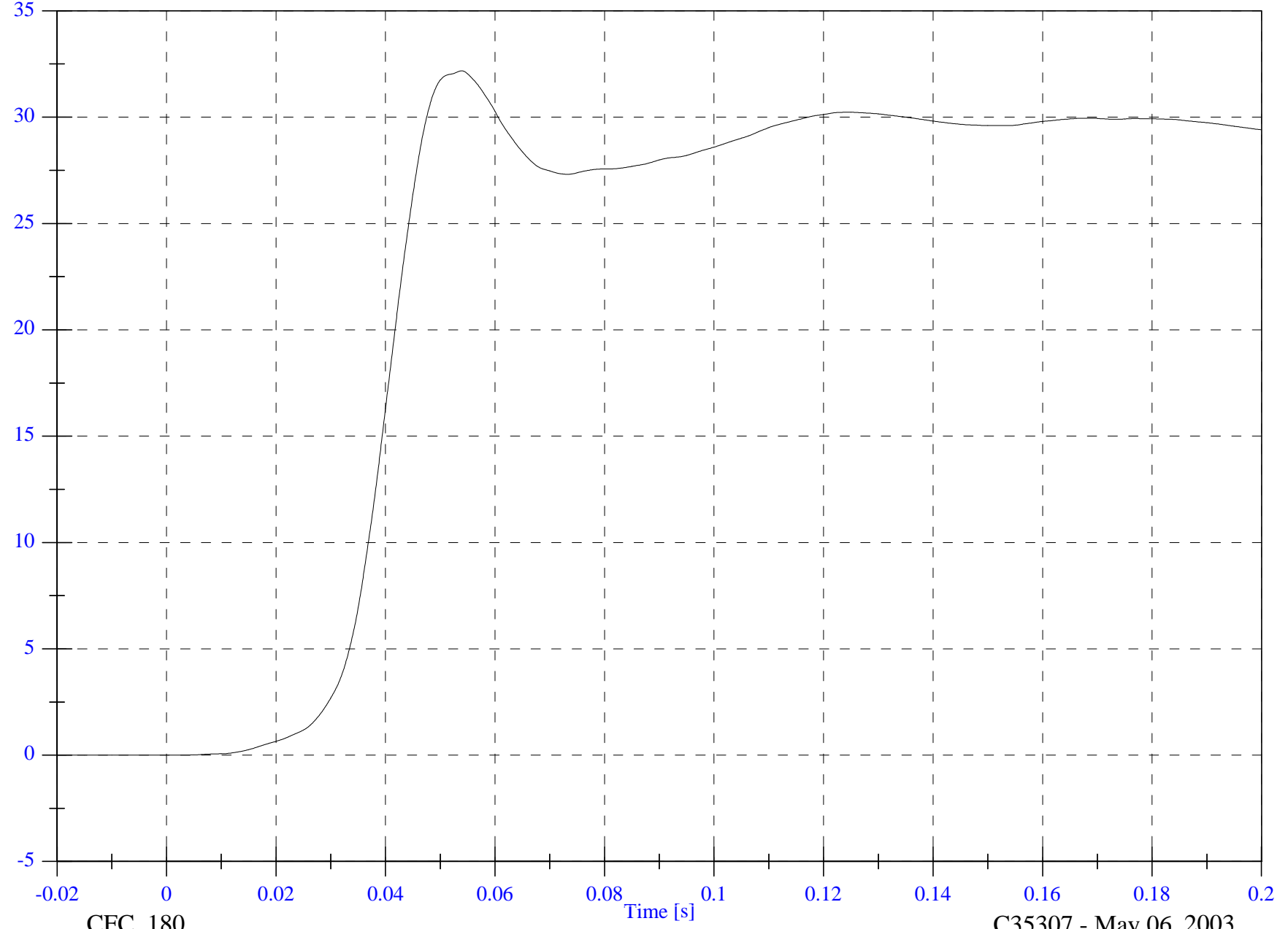


2003 FMVSS 214D Test 8 2003 Honda Element

Max: 32.2 [kph] at 0.054 [s]

V2P1 Pelvic Ry Velocity

Min: -0.0 [kph] at -0.020 [s]



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CFC_180

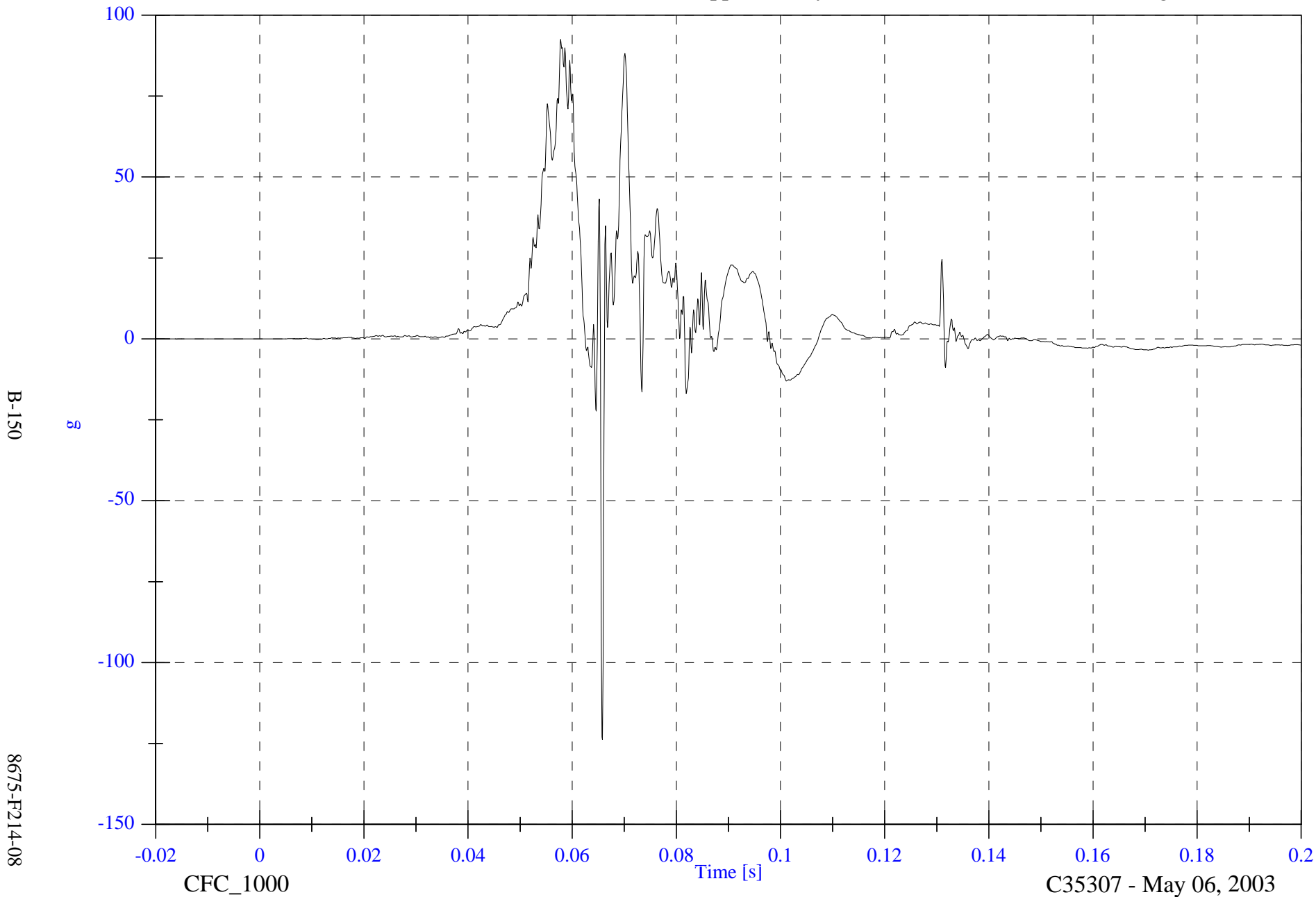
C35307 - May 06, 2003

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V2P4 Upper Rib Ry

Max: 92.5 [g] at 0.058 [s]

Min: -123.8 [g] at 0.066 [s]



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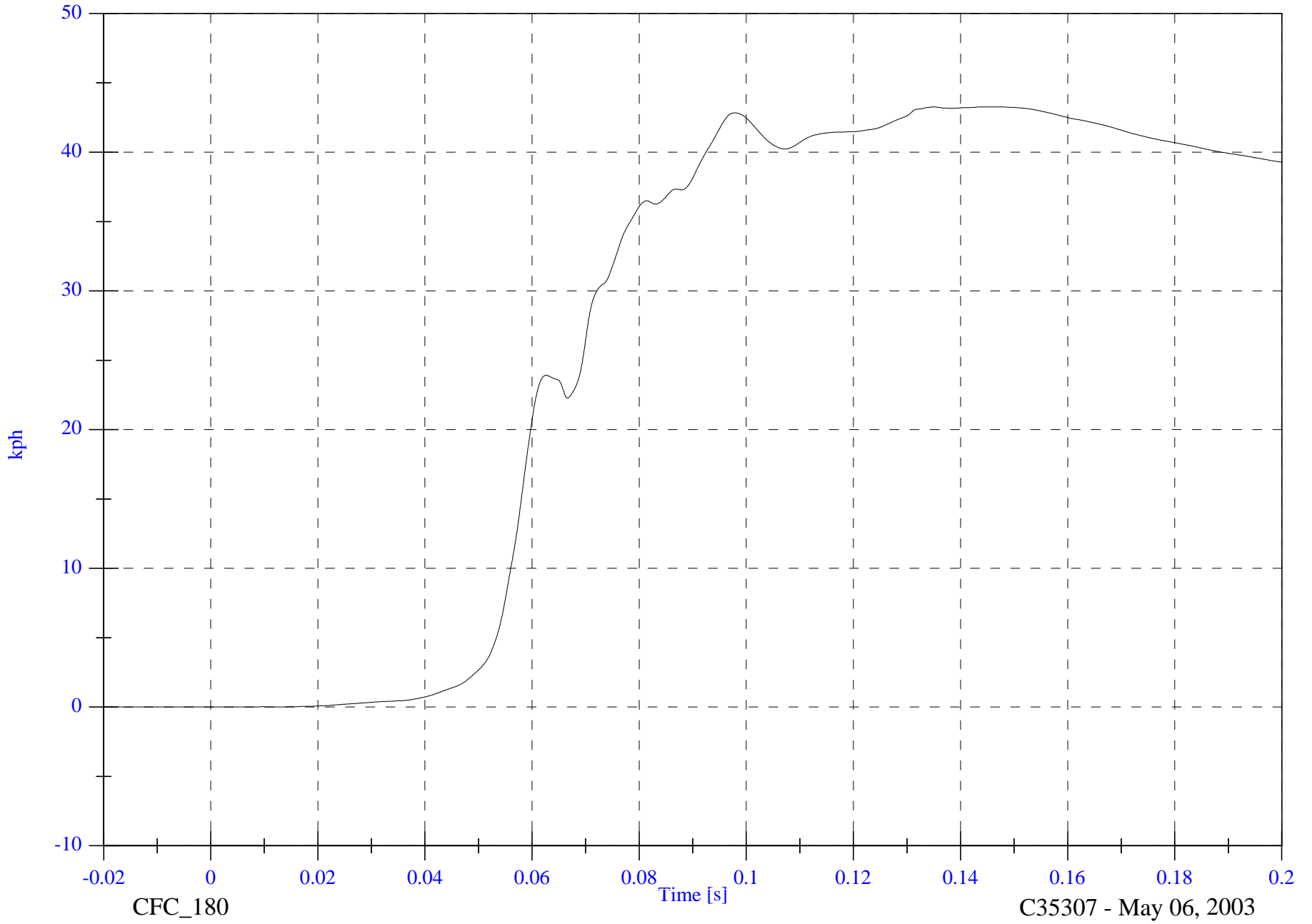
V2P4 Upper Rib Ry Velocity

Max: 43.3 [kph] at 0.147 [s]

Min: -0.0 [kph] at -0.020 [s]

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CFC_180

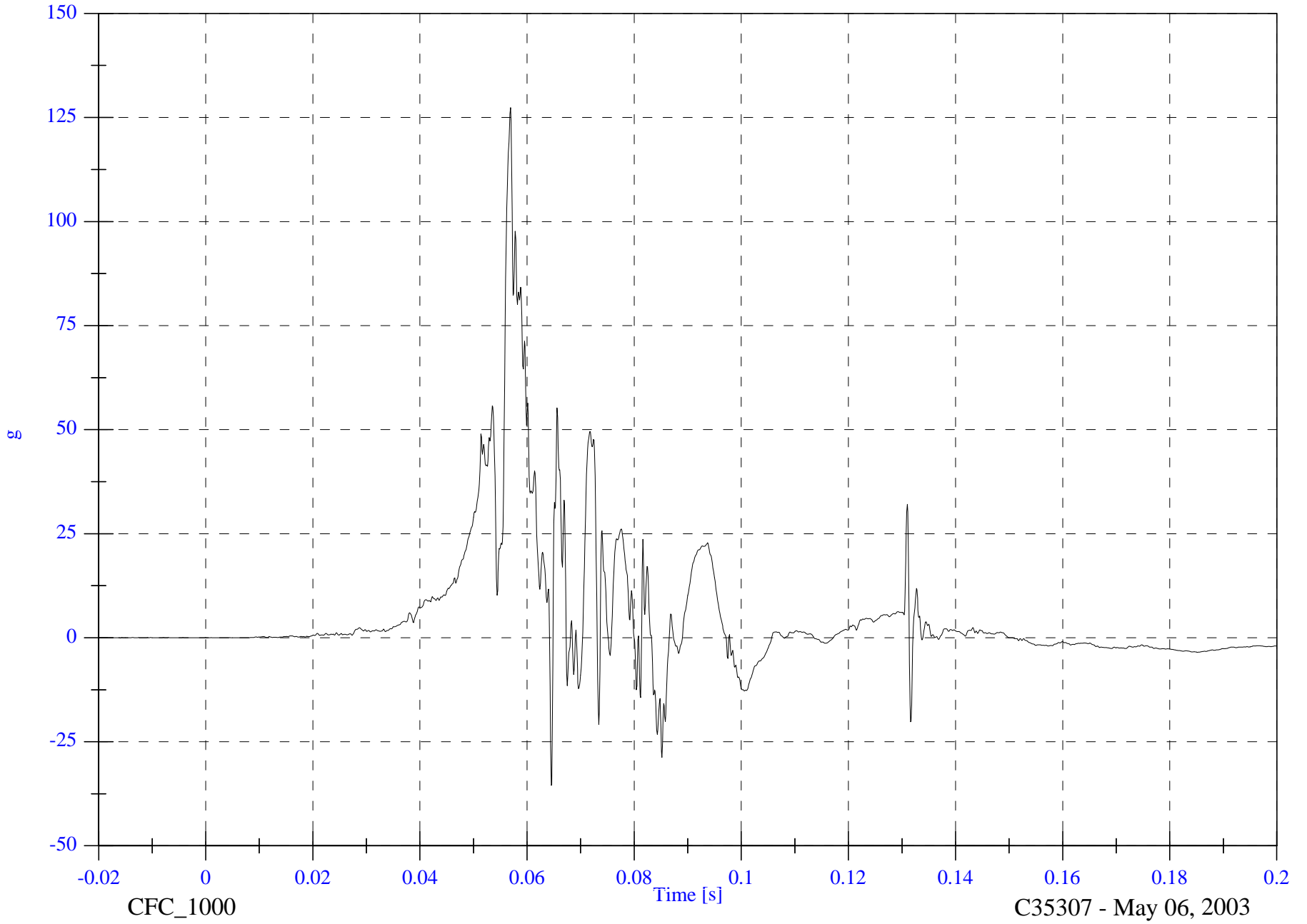
C35307 - May 06, 2003

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V2P4 Lower Rib Ry

Max: 127.4 [g] at 0.057 [s]

Min: -35.4 [g] at 0.064 [s]



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CFC_1000

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

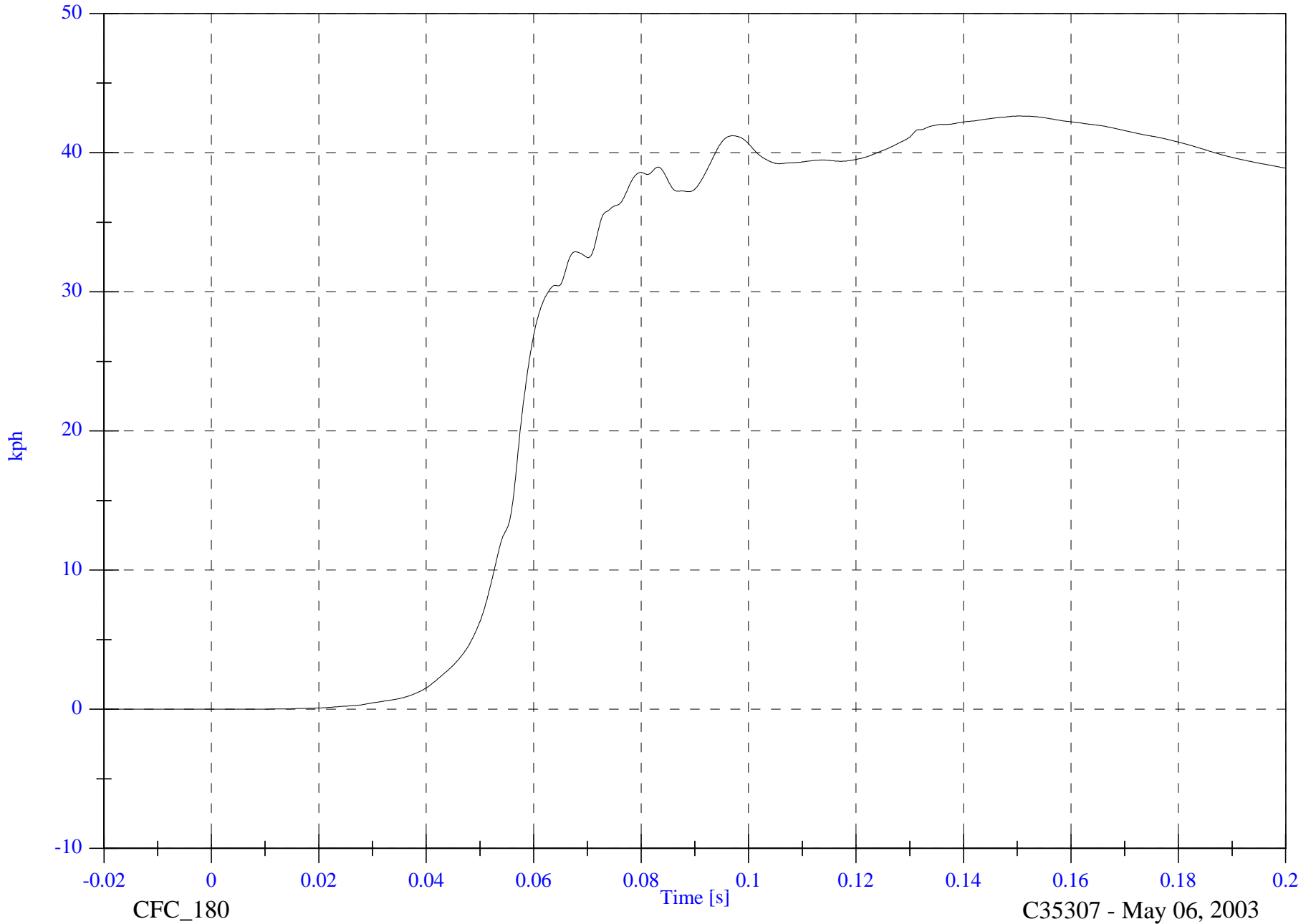
V2P4 Lower Rib Ry Velocity

Max: 42.6 [kph] at 0.150 [s]

Min: -0.0 [kph] at -0.015 [s]

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CFC_180

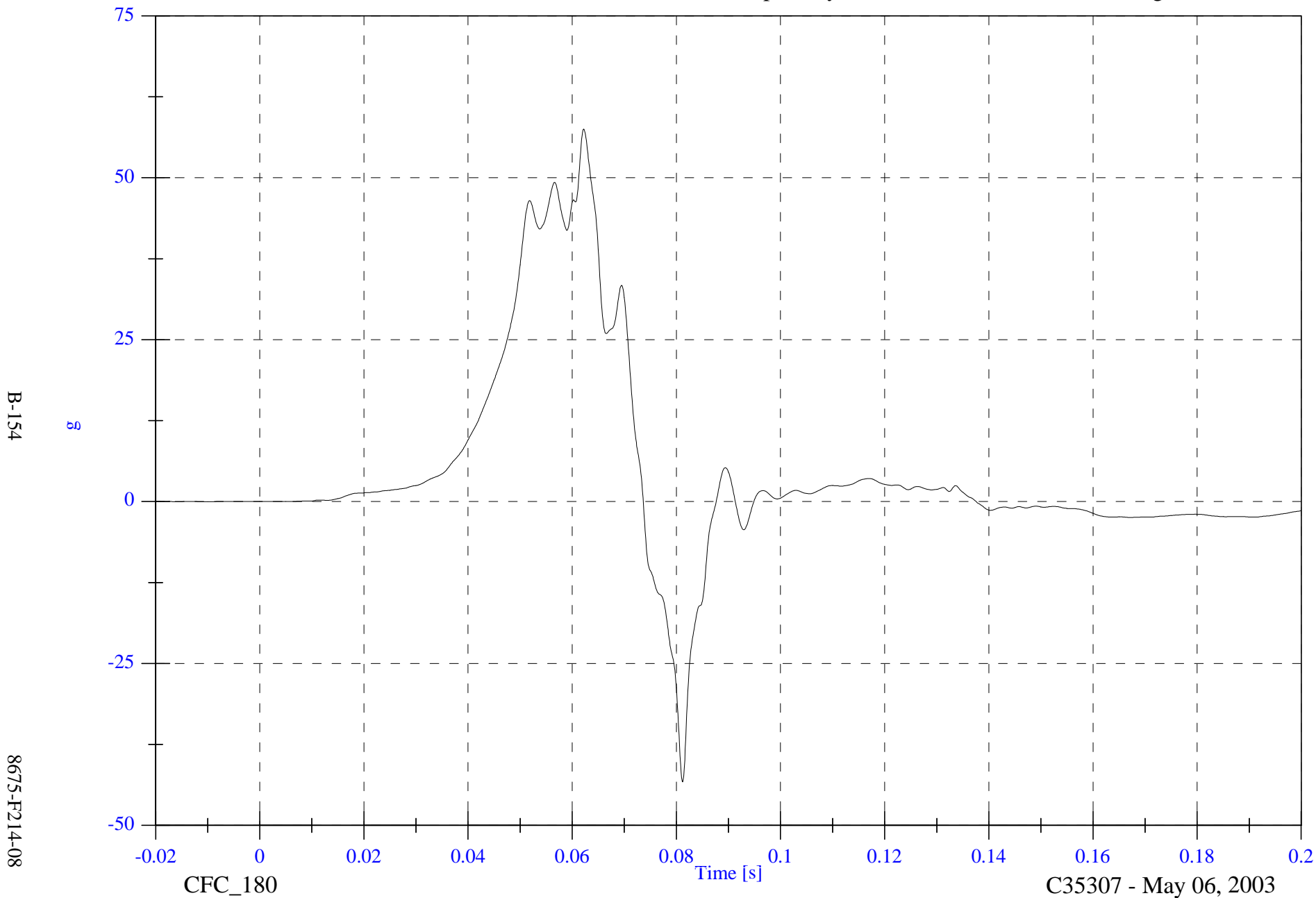
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V2P4 Lower Spine Ry

Max: 57.5 [g] at 0.062 [s]

Min: -43.3 [g] at 0.081 [s]



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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

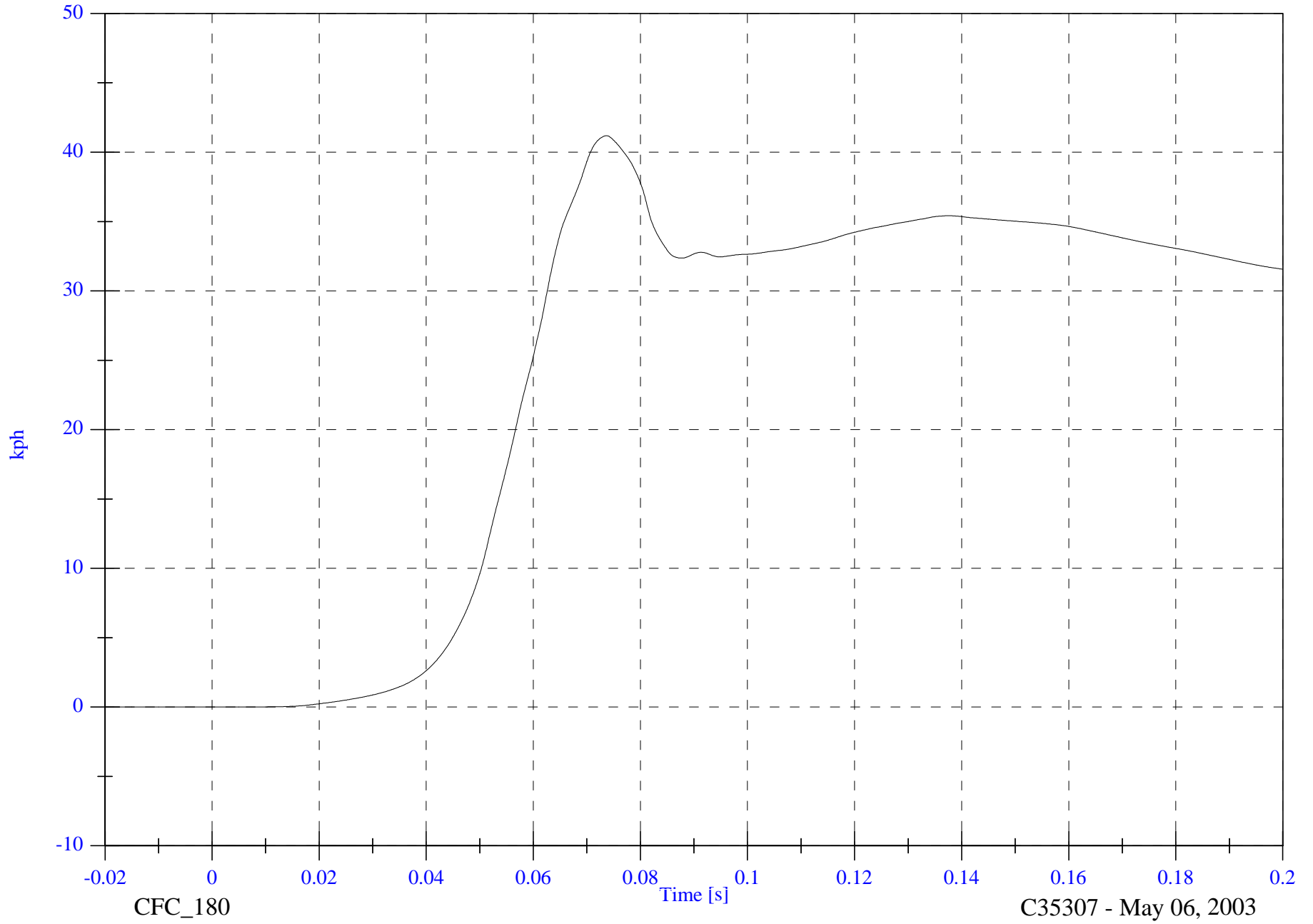
V2P4 Lower Spine Ry Velocity

Max: 41.2 [kph] at 0.074 [s]

Min: -0.0 [kph] at -0.008 [s]

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

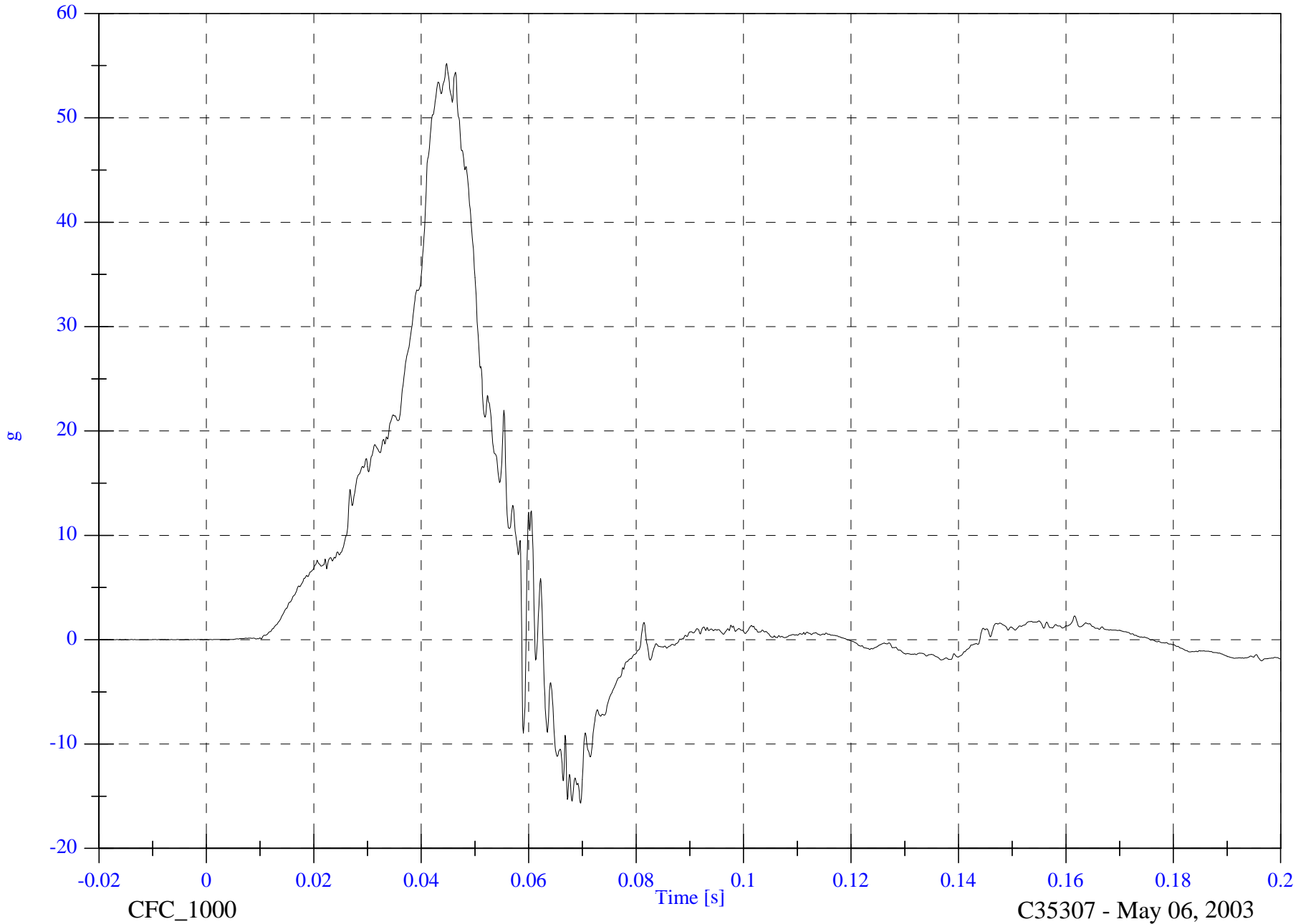
V2P4 Pelvic Ry

Max: 55.2 [g] at 0.045 [s]

Min: -15.7 [g] at 0.070 [s]

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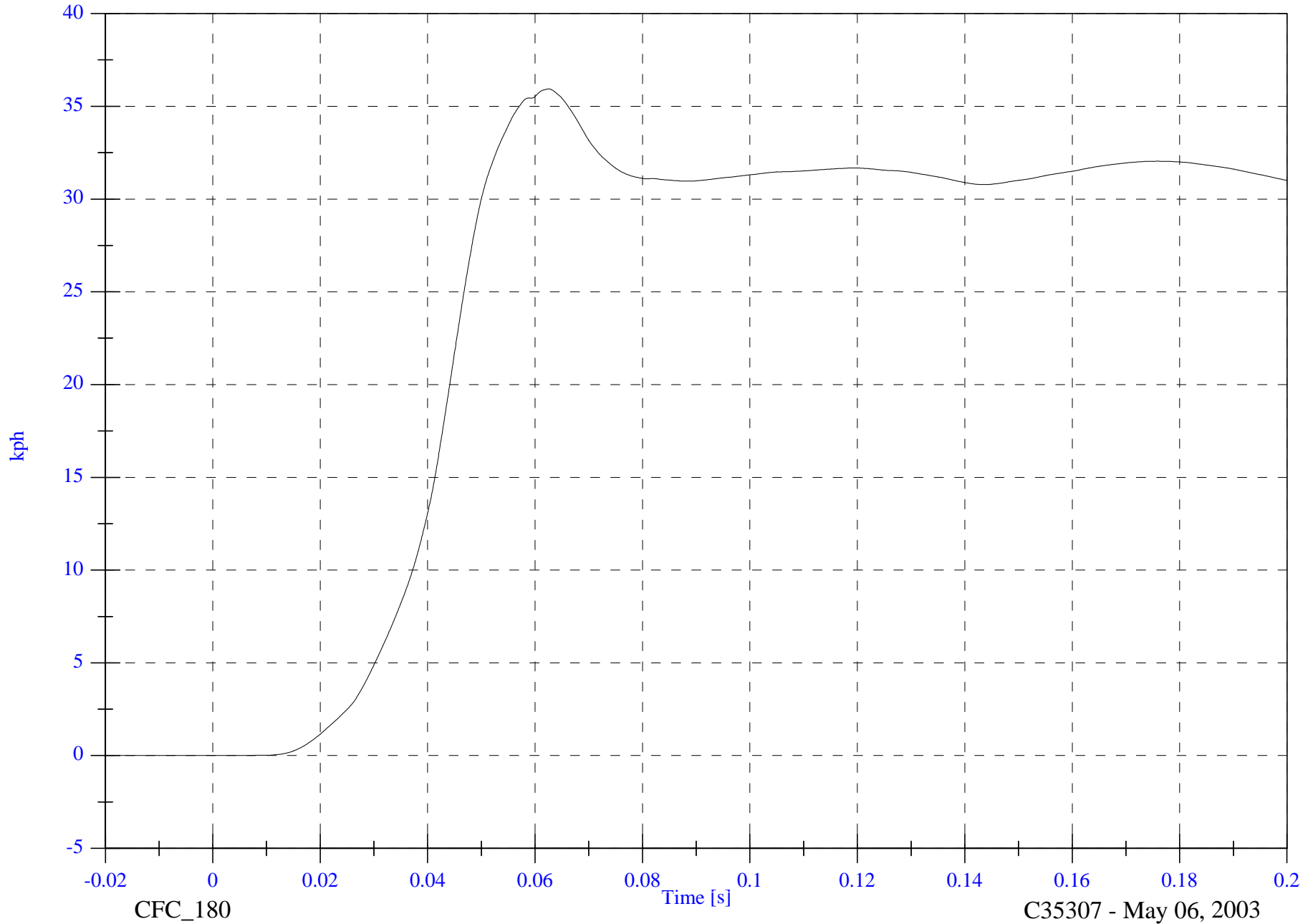
Max: 35.9 [kph] at 0.062 [s]

V2P4 Pelvic Ry Velocity

Min: -0.0 [kph] at -0.018 [s]

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CFC_180

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

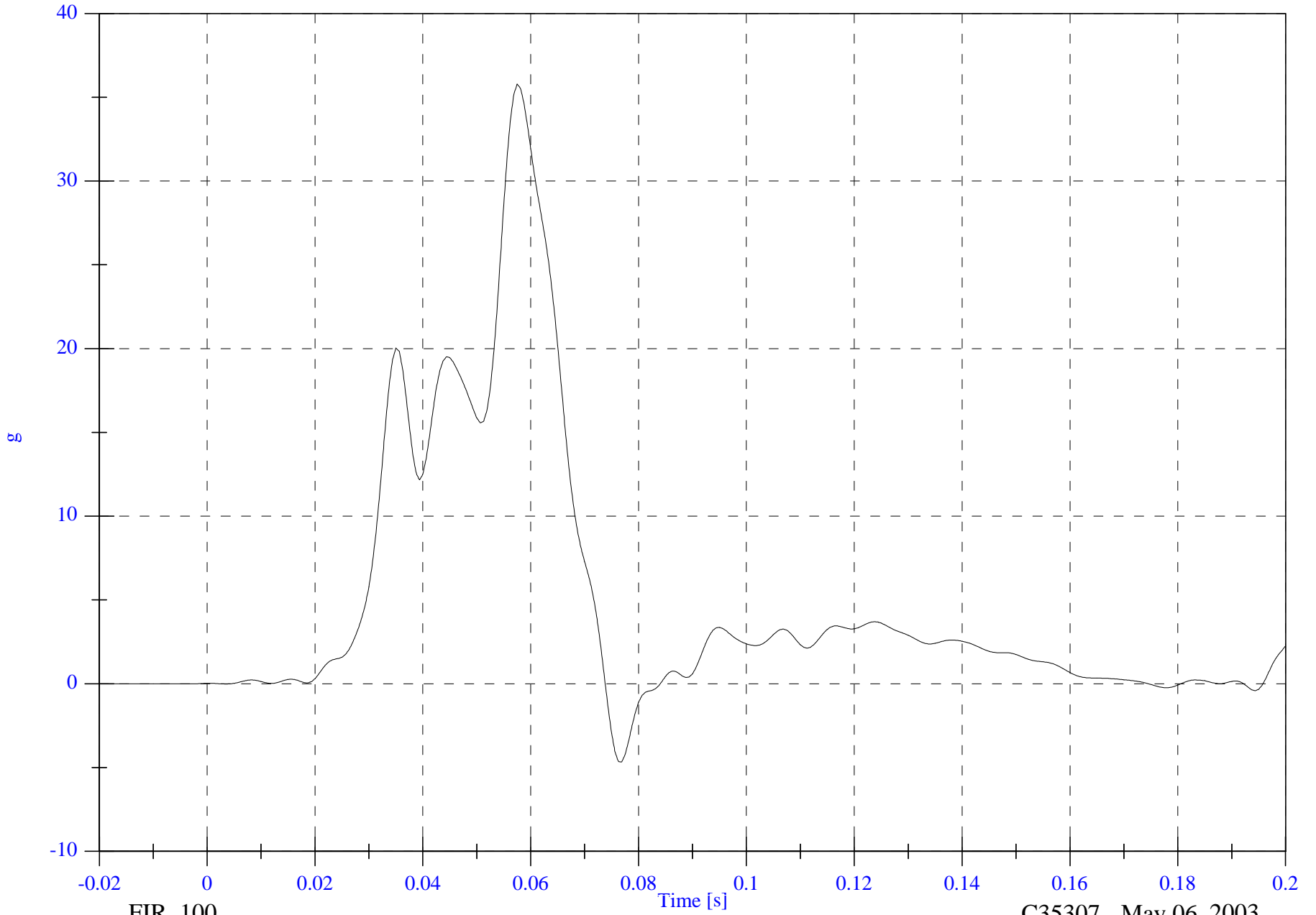
V2P1 Upper Rib Ry

Max: 35.8 [g] at 0.057 [s]

Min: -4.7 [g] at 0.077 [s]

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FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

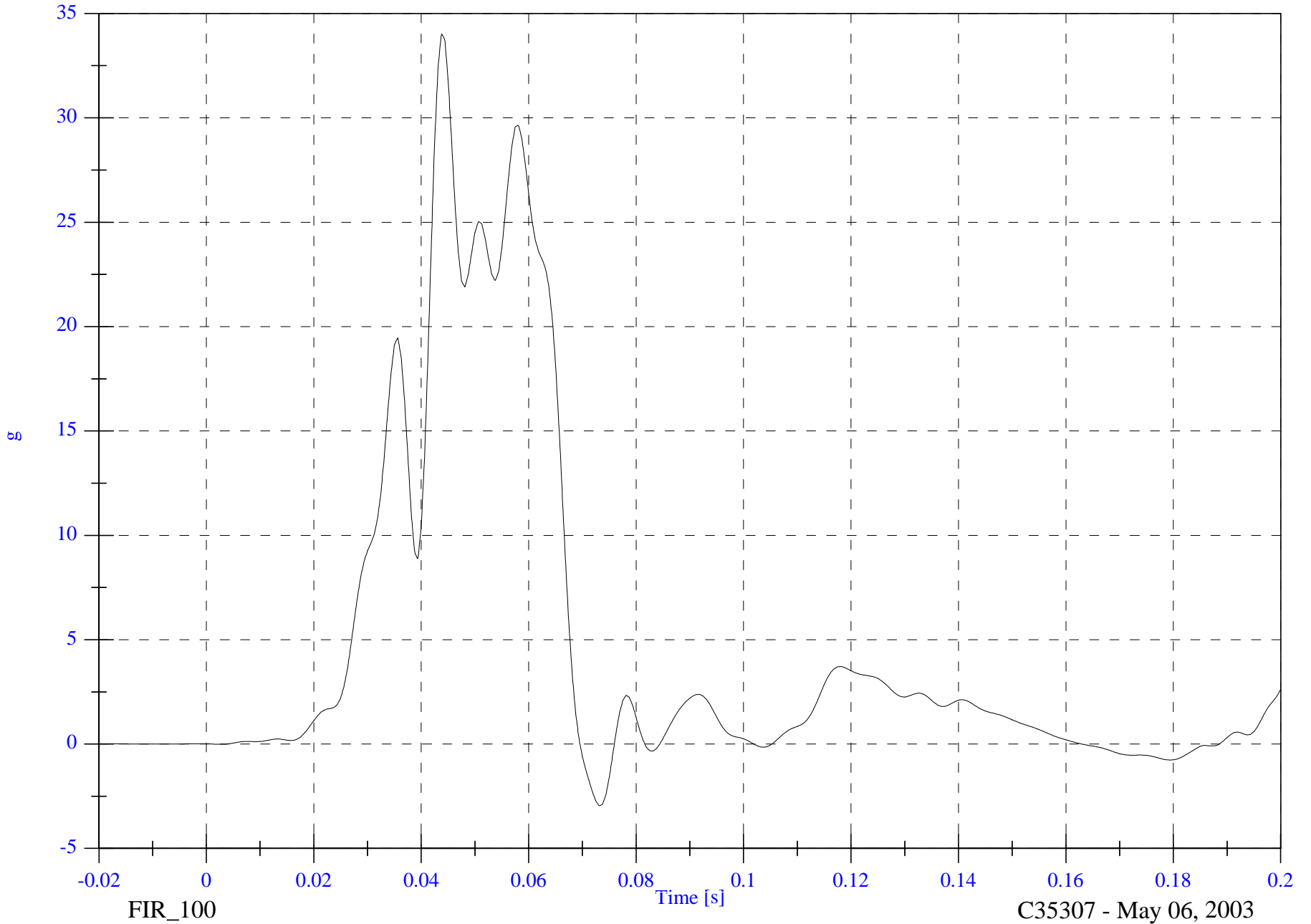
V2P1 Lower Rib Ry

Max: 34.0 [g] at 0.044 [s]

Min: -3.0 [g] at 0.073 [s]

B-159

8675-F214-08



FIR_100

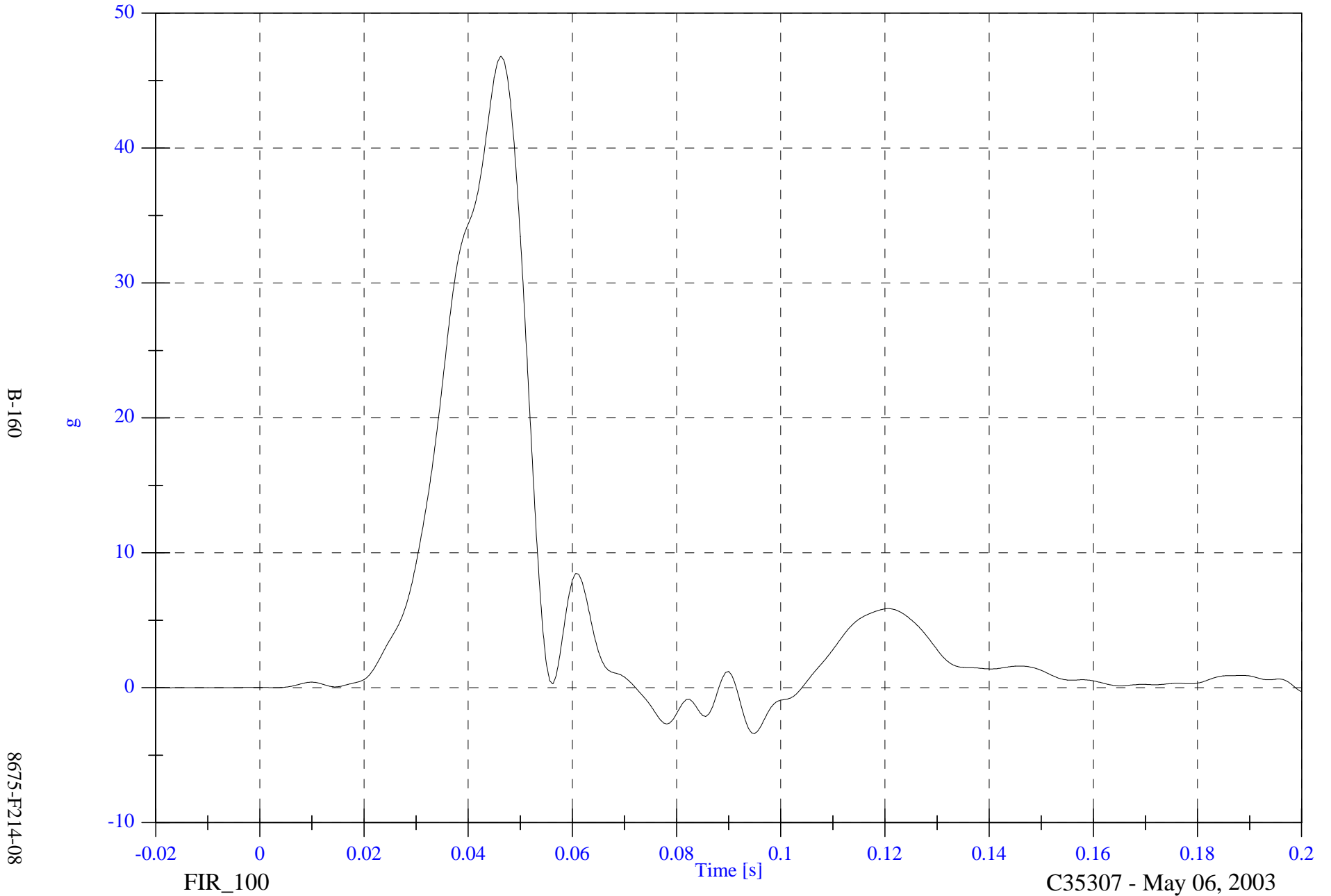
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P1 Lower Spine Ry

Max: 46.8 [g] at 0.046 [s]

Min: -3.4 [g] at 0.095 [s]



B-160

8675-F214-08

FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

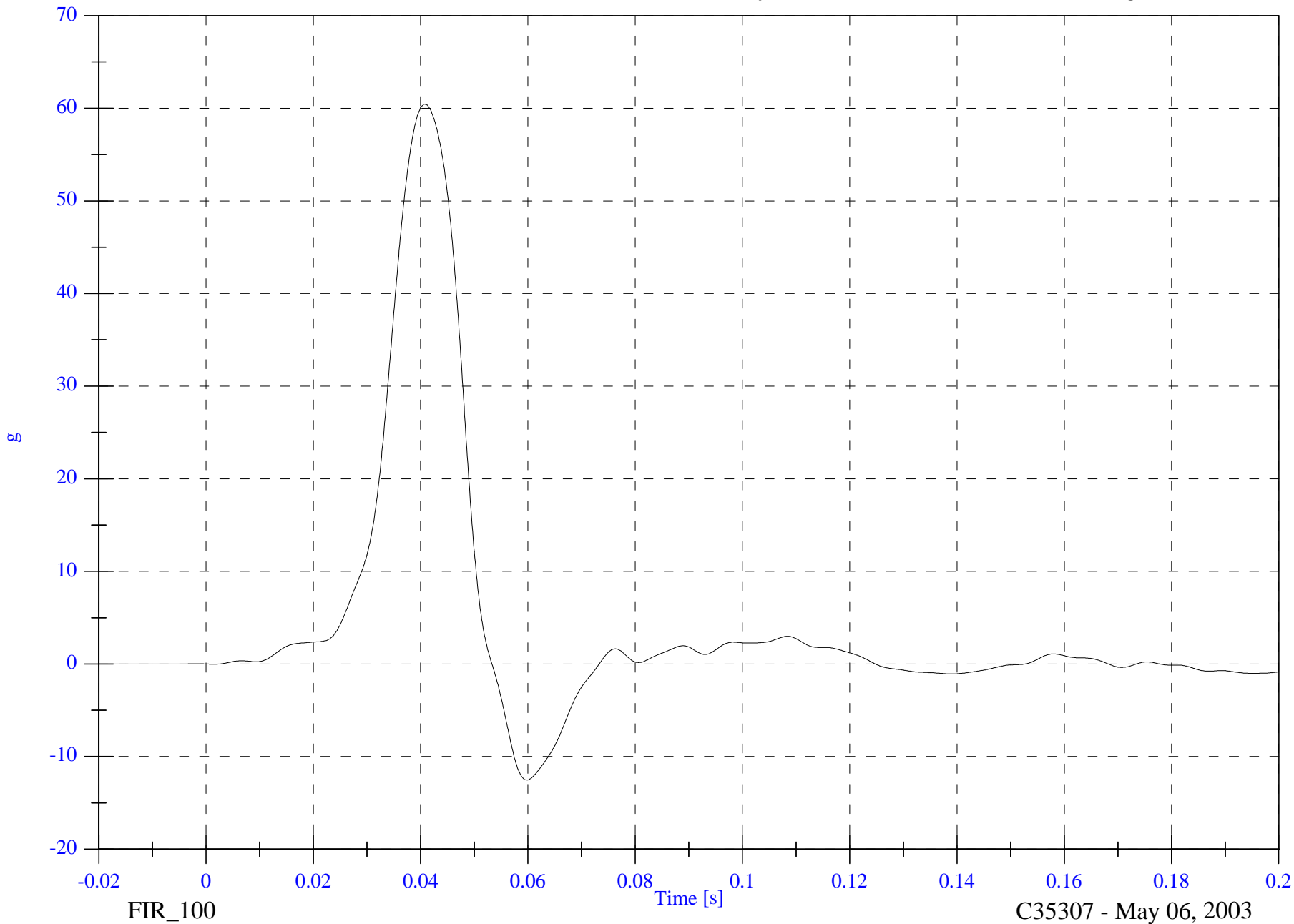
V2P1 Pelvic Ry

Max: 60.4 [g] at 0.041 [s]

Min: -12.5 [g] at 0.060 [s]

B-161

8675-F214-08



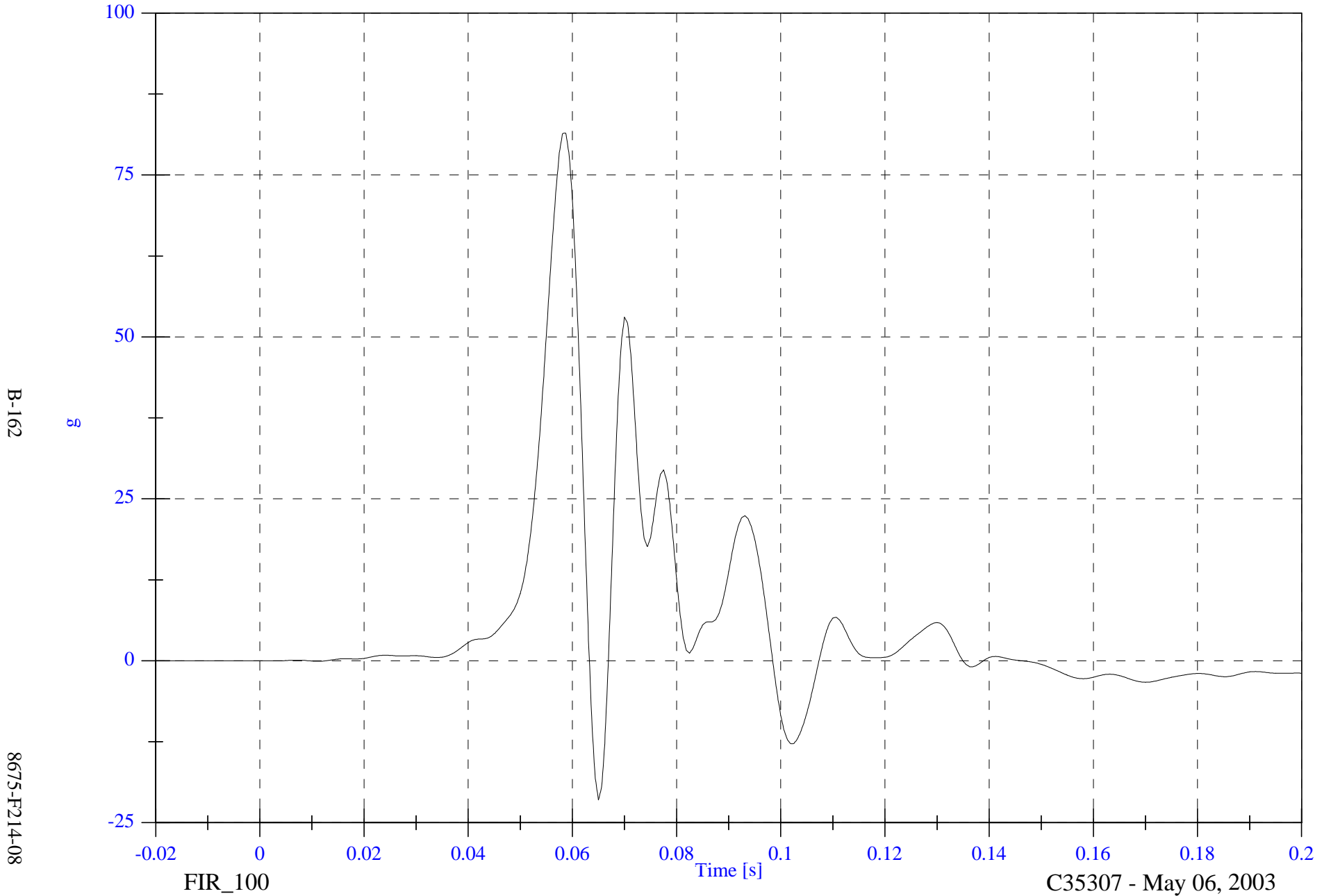
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Upper Rib Ry

Max: 81.5 [g] at 0.059 [s]

Min: -21.5 [g] at 0.065 [s]



B-162

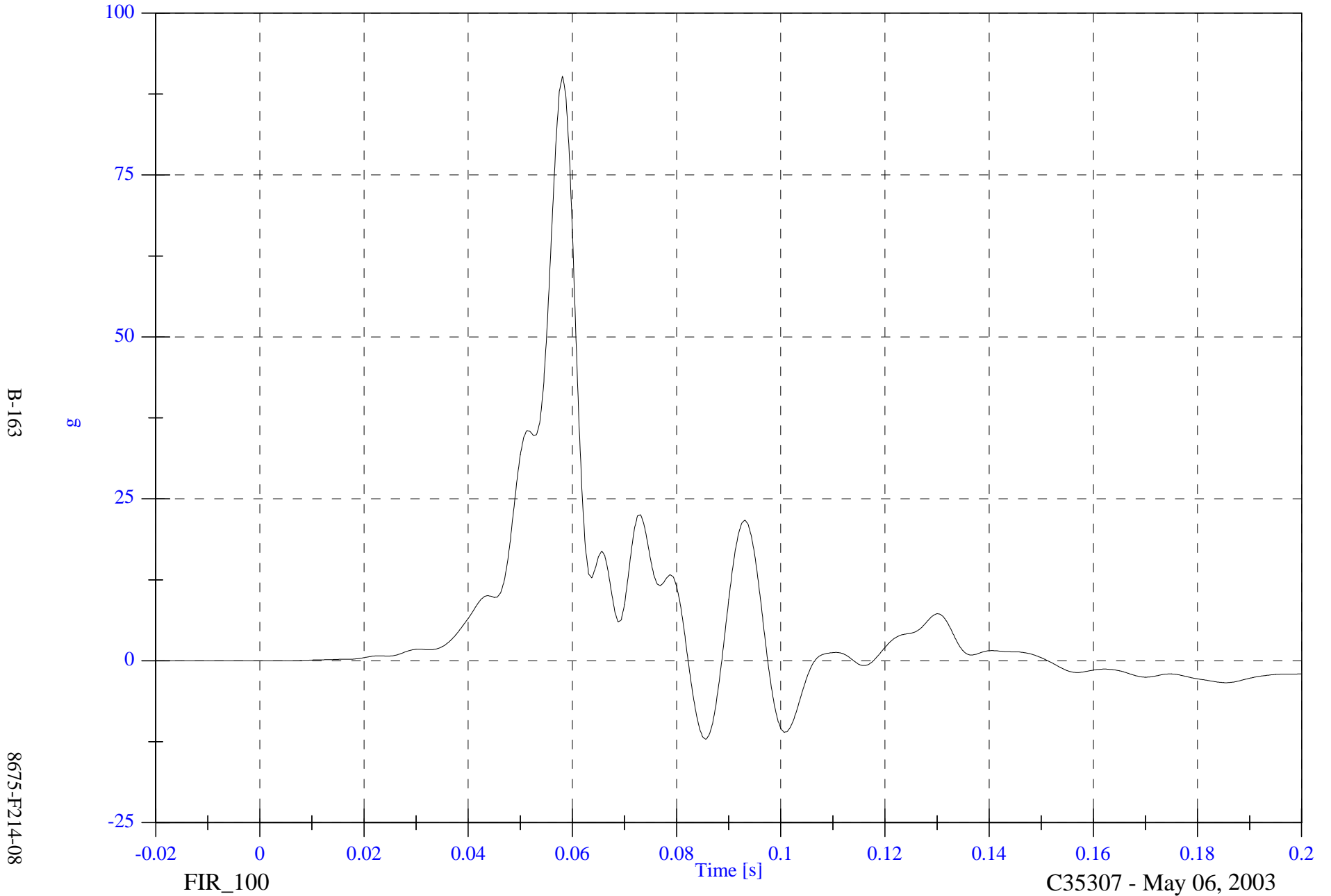
8675-F214-08

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Lower Rib Ry

Max: 90.3 [g] at 0.058 [s]

Min: -12.1 [g] at 0.086 [s]



B-163

8675-F214-08

FIR_100

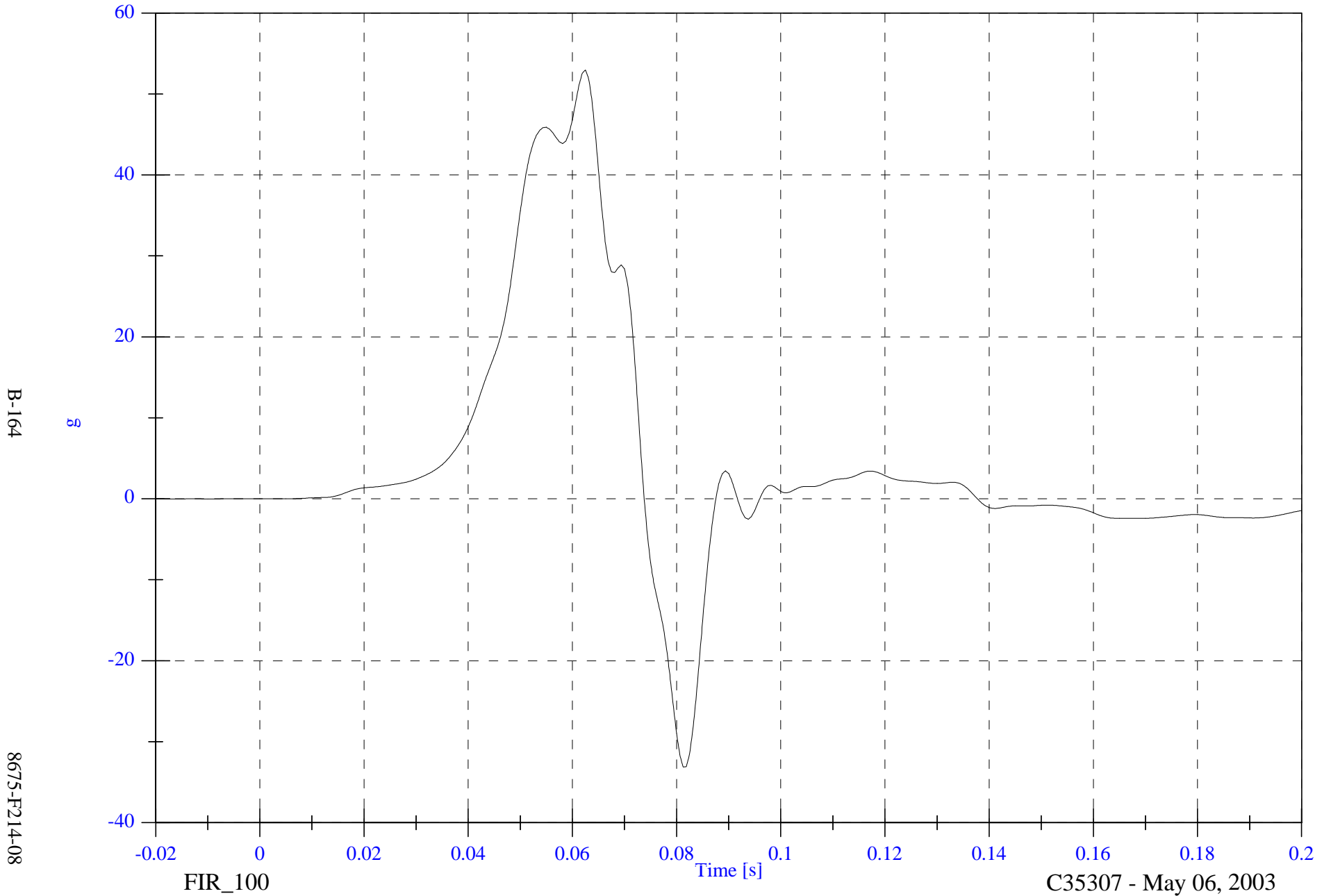
C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

V2P4 Lower Spine Ry

Max: 53.0 [g] at 0.062 [s]

Min: -33.1 [g] at 0.081 [s]



B-164

8675-F214-08

FIR_100

C35307 - May 06, 2003

2003 FMVSS 214D Test 8 2003 Honda Element

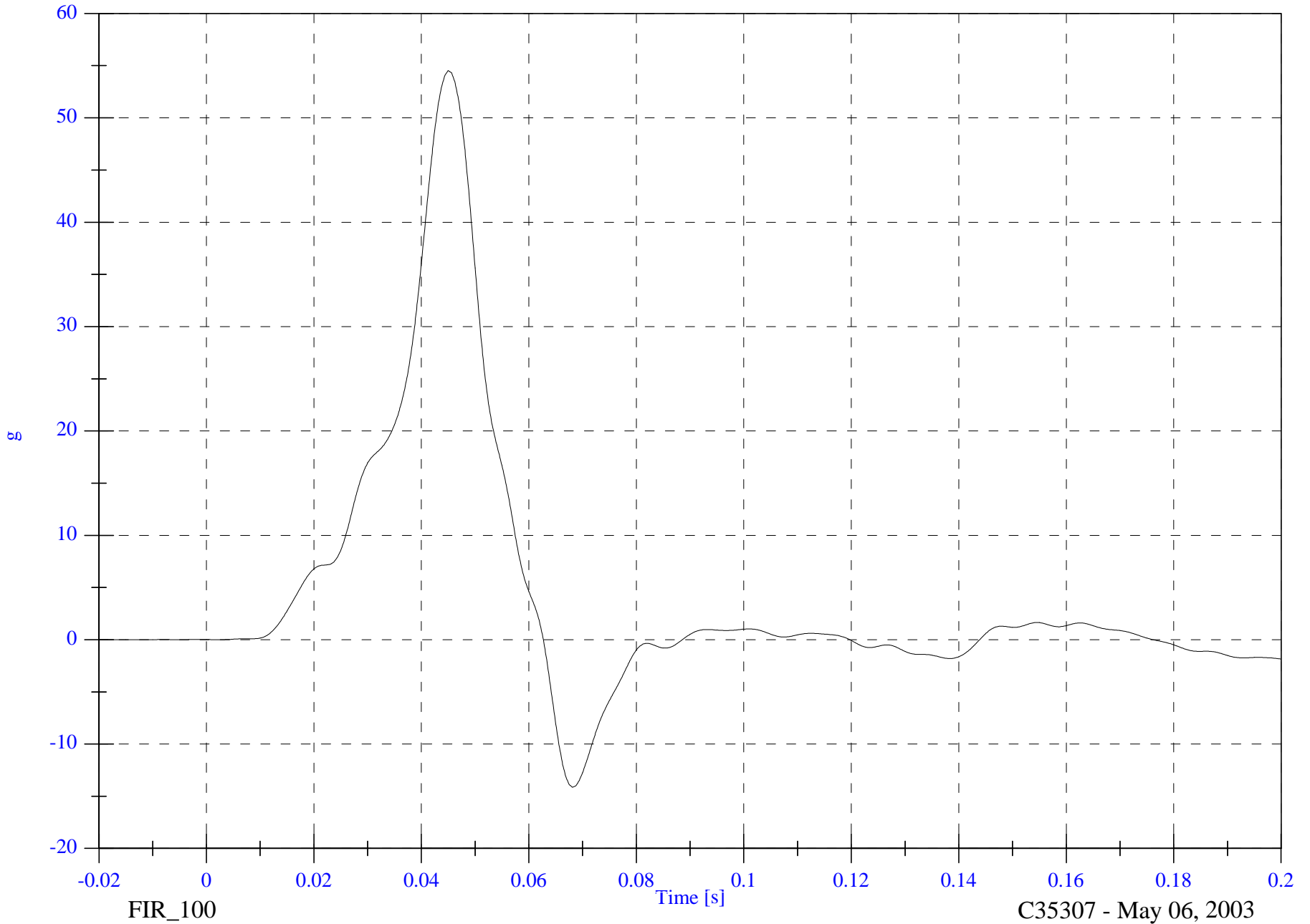
V2P4 Pelvic Ry

Max: 54.5 [g] at 0.045 [s]

Min: -14.1 [g] at 0.068 [s]

B-165

8675-F214-08



FIR_100

C35307 - May 06, 2003

APPENDIX C

SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION
CONFIGURED FOR LEFT SIDE IMPACT

Date: May 2, 2003; May 9, 2003

Sequential Test Number:

2; 3

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 015		SID H3 016	
		NO.:		NO.:	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	902	902	902	902
RH- Rib Height (mm)	501 - 521	511	511	513	513
HP- Hip Pivot Height (mm)	99 ref.	99	99	990	99
RD- Rib from Back Line (mm)	229 - 241	239	239	239	239
KV- Knee Pivot from Back Line (mm)	511 - 526	521	521	521	521
SW- Knee Pivot to Floor (mm)	490 - 505	495	495	495	495
HW- Hip Width (mm)	356 - 391	371	371	371	371
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	37	38	37	38
PROBE SPEED (m/s)	4.27 - 4.33	4.3	4.27	4.29	4.28
UPPER RIB (g's)	37 - 46	38.69	37.43	42.97	43.28
LOWER RIB (g's)	37 - 46	38.27	38.17	40.28	38.62
LOWER SPINE (g's)	15 - 22	19.6	18.55	21.81	21.2
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	37	38	37	38
PROBE SPEED (m/s)	4.27 - 4.33	4.31	4.28	4.27	4.27
PELVIS (g's)	40 - 60	44.61	43.89	42.12	42.12

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 015

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	902
RH- Rib Height (mm)	502 – 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	239
KH- Knee Pivot from Back Line (mm)	511 – 526	521
KV- Knee Pivot to Floor (mm)	490 – 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

**THORACIC SHOCK ABSORBER TESTS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
 Date: April 24, 2003 Laboratory Technician: B. Swiecicki

DAMPER IDENTIFICATION: _____

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)		10 - 70	35.0
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	997.8
	DISPLACEMENT (mm)	30 - 35	32.2
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1909.7
	DISPLACEMENT (mm)	32 - 37	35.0
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	4336.4
	DISPLACEMENT (mm)	33 - 40	37.9

DAMPER SETTING: 5

REMARKS: None

Shock Test - Low at 3.05 m/s

Low Part 572F Shock Absorber Impact

Calibration Date: 04-24-03

Serial No: 015

Work File: 015SL 04-23-03

-----TEST RESULTS-----

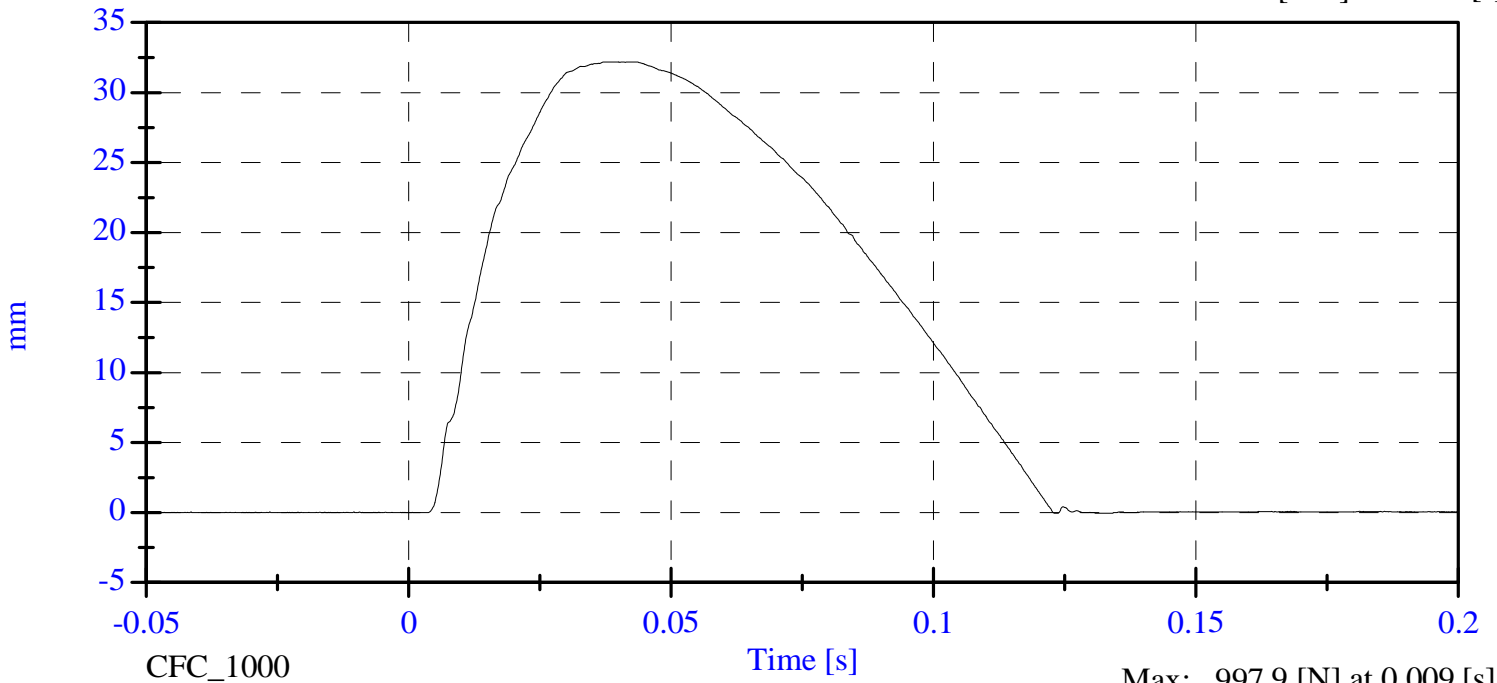
<u>TEST CONDITION</u>	<u>PARAMETERS</u>	<u>RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	30.00-35.00 mm	32.18 mm	Passed
Maximum Force:	836.00-1125.00 N	997.85 N	Passed

Shock Test - Low

Displacement vs. Time

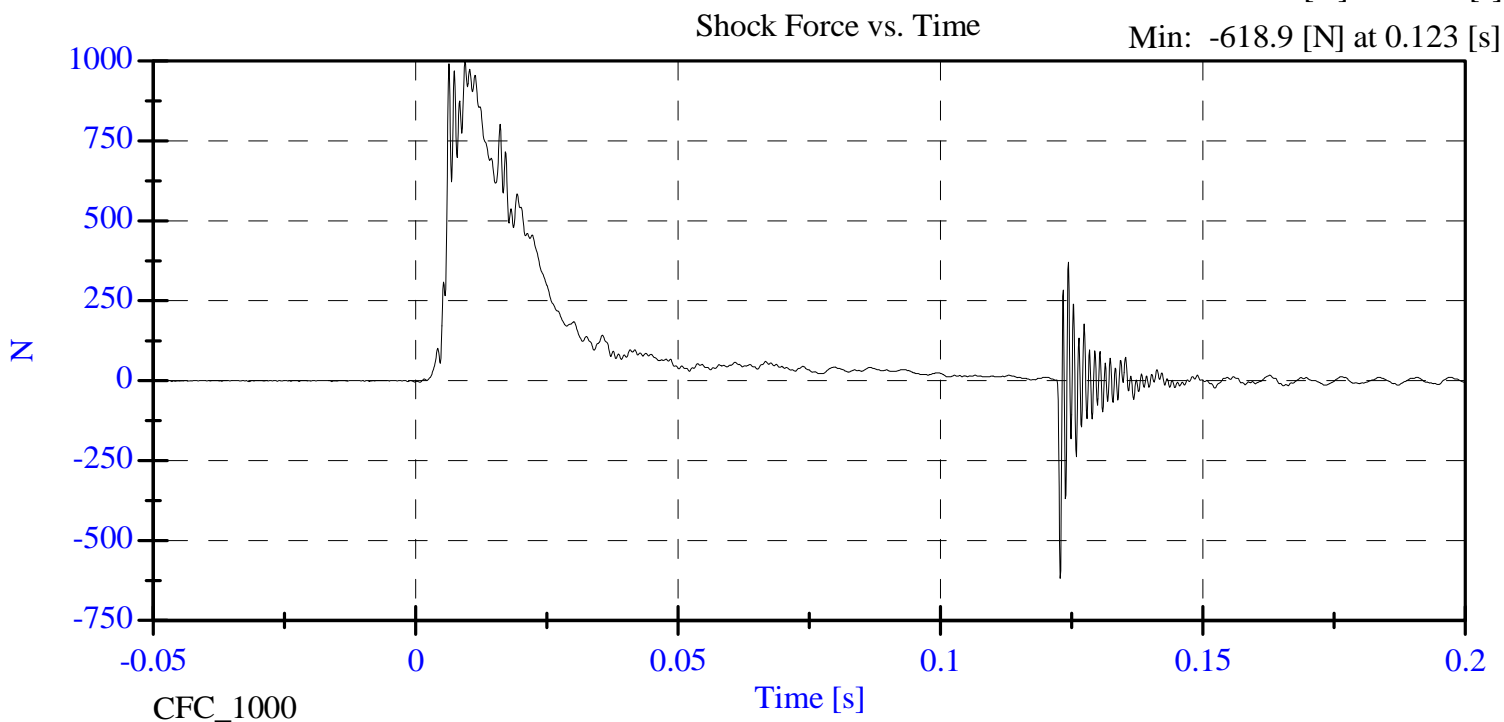
Max: 32.2 [mm] at 0.041 [s]

Min: -0.1 [mm] at 0.124 [s]



Max: 997.9 [N] at 0.009 [s]

Min: -618.9 [N] at 0.123 [s]



Shock Test - Medium at 4.27 m/s

Medium Part 572F Shock Absorber Impact

Calibration Date: 04-24-03

Serial No: 015

Work File: 015SM 04-23-03

-----TEST RESULTS-----

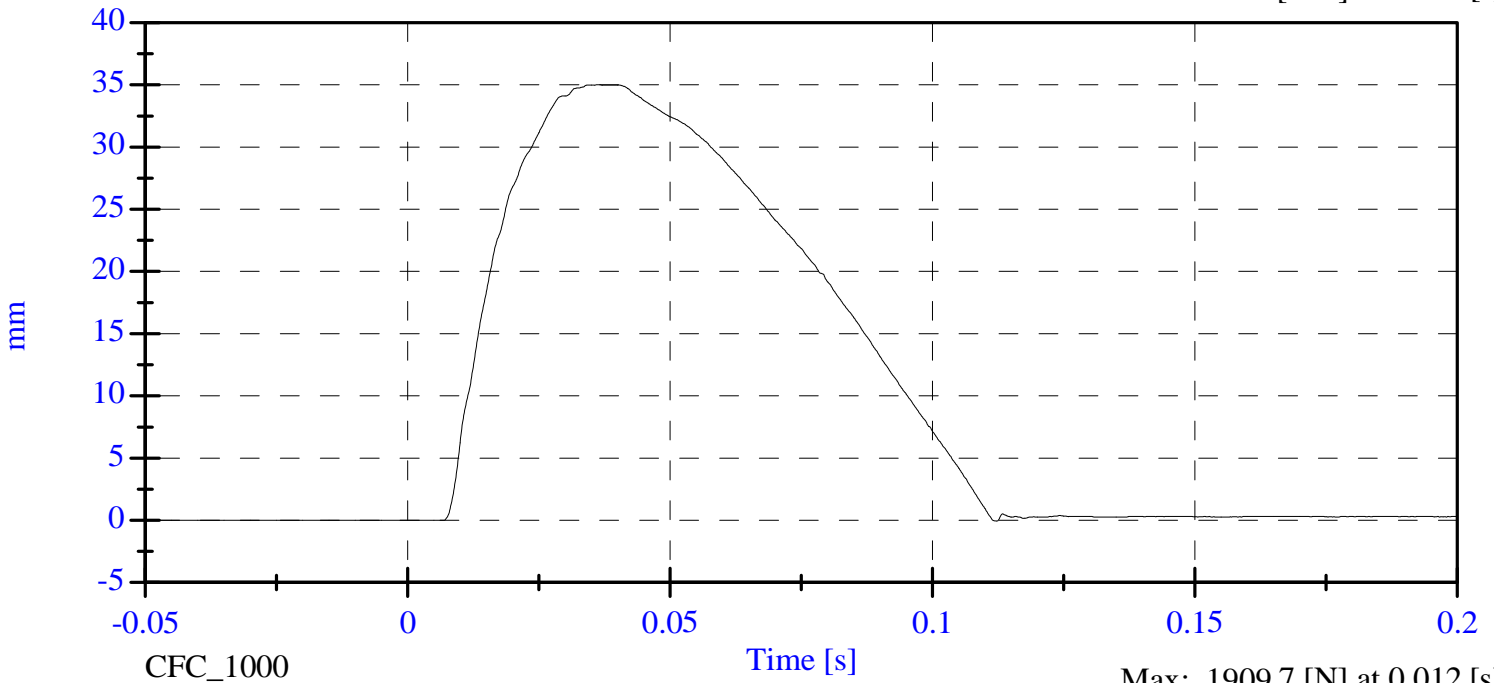
<u>TEST CONDITION</u>	<u>PARAMETERS</u>	<u>RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	32.00-37.00 mm	35.02 mm	Passed
Maximum Force:	1730.00-2099.00 N	1909.74 N	Passed

Shock Test - Medium

Displacement vs. Time

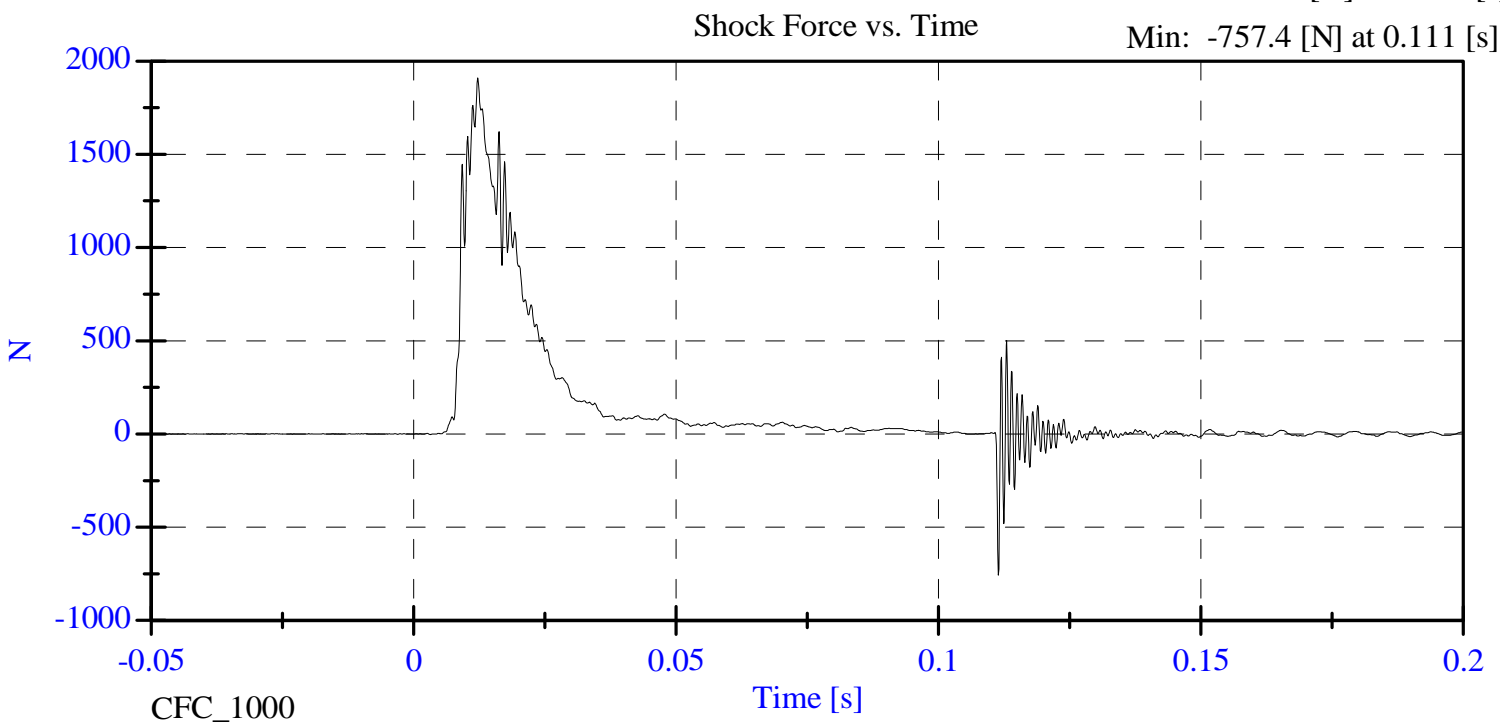
Max: 35.0 [mm] at 0.036 [s]

Min: -0.1 [mm] at 0.112 [s]



Max: 1909.7 [N] at 0.012 [s]

Min: -757.4 [N] at 0.111 [s]



Shock - High at 6.10 m/s

High Part 572F Shock Absorber Impact

Calibration Date: 04-25-03

Serial No: 015

Work File: 015SH2 04-23-03

-----TEST RESULTS-----

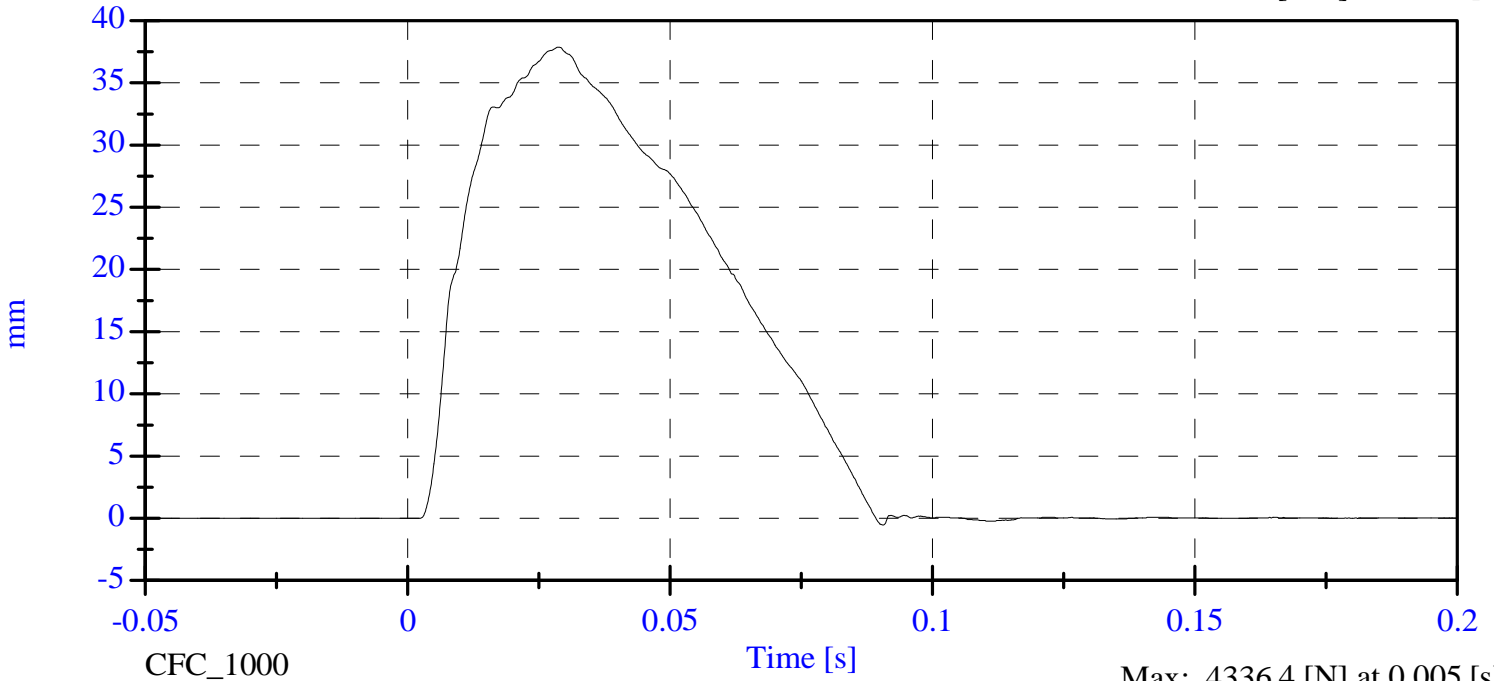
<u>TEST CONDITION</u>	<u>PARAMETERS</u>	<u>RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Displacement:	33.00-40.00 mm	37.86 mm	Passed
Maximum Force:	3741.00-4448.00 N	4336.39 N	Passed

Shock - High

Displacement vs. Time

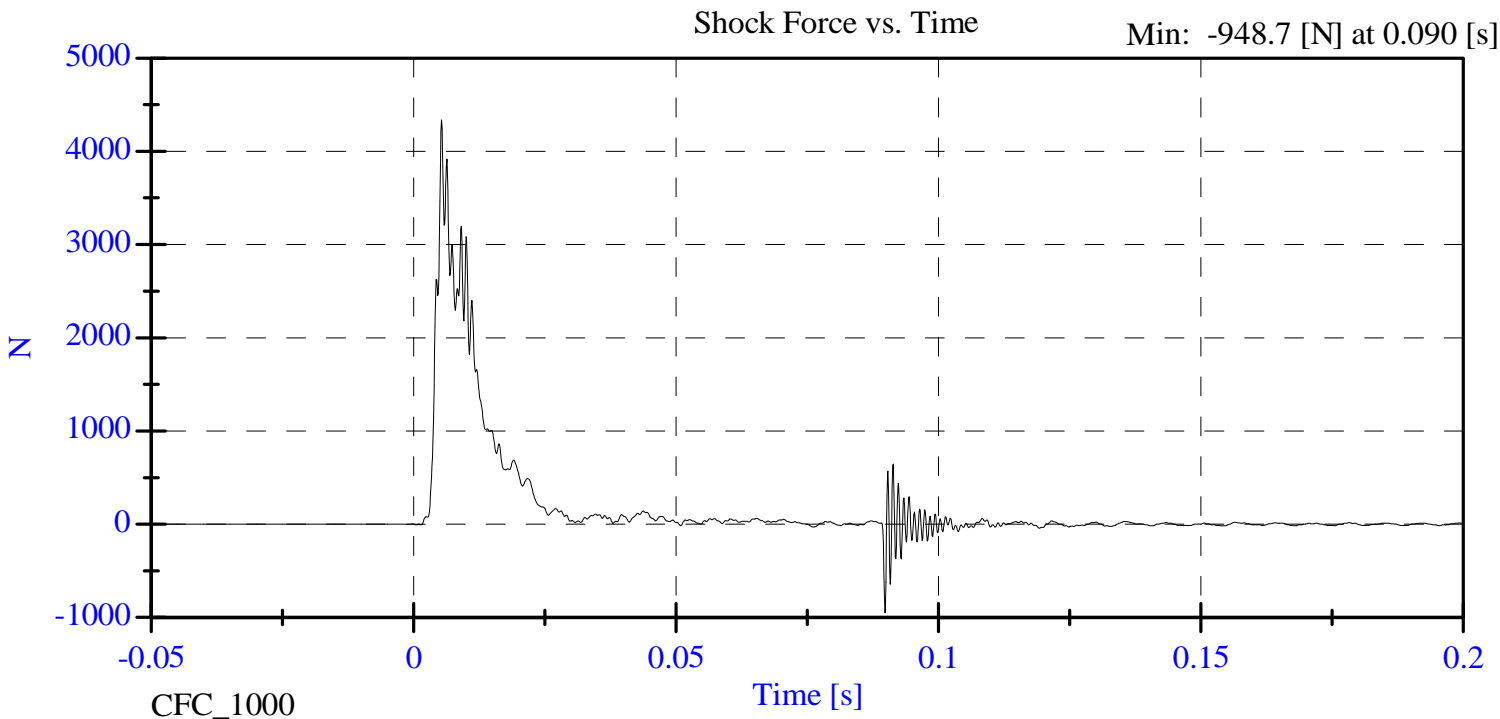
Max: 37.9 [mm] at 0.029 [s]

Min: -0.5 [mm] at 0.091 [s]



Max: 4336.4 [N] at 0.005 [s]

Min: -948.7 [N] at 0.090 [s]



**LATERAL THORAX IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

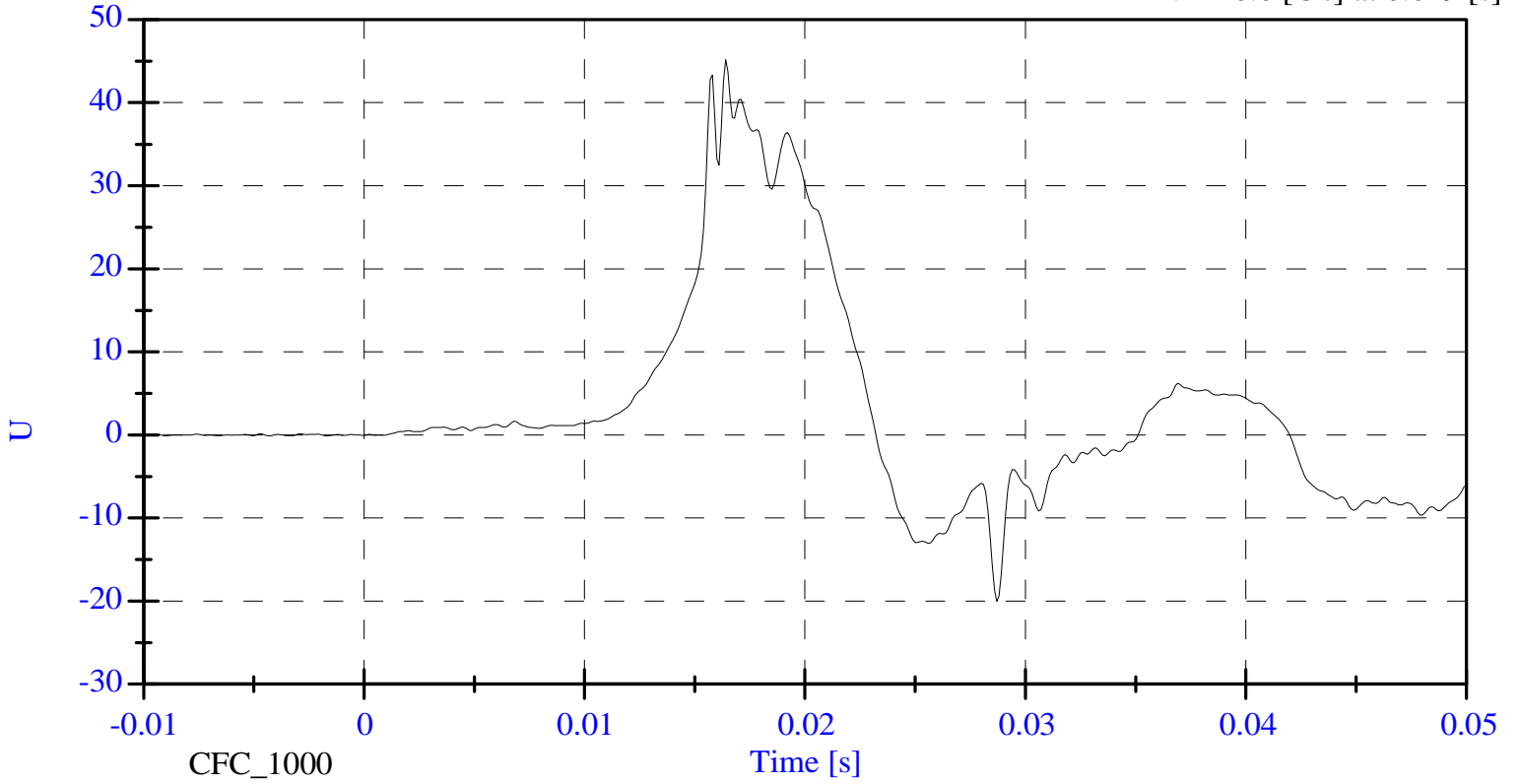
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
PROBE SPEED (m/s)	4.27 - 4.33	4.30
UPPER RIB (g's)	37 - 46	38.69
LOWER RIB (g's)	37 - 46	38.27
LOWER SPINE (g's)	15 - 22	19.60

REMARKS: None

Max: 45.2 [G's] at 0.016 [s]

Min: -20.0 [G's] at 0.029 [s]

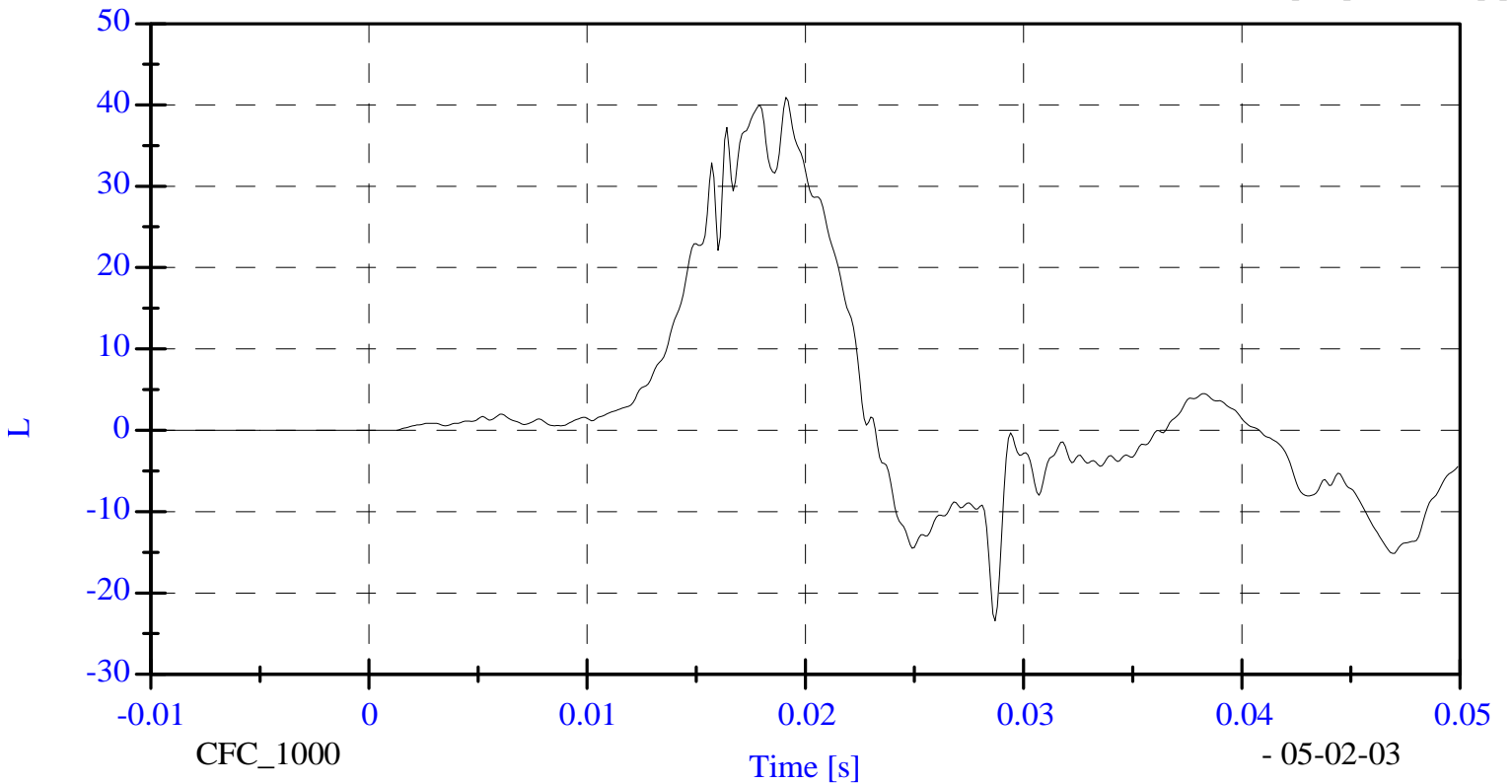
Upper Rib Y Acceleration



Max: 40.9 [G's] at 0.019 [s]

Min: -23.4 [G's] at 0.029 [s]

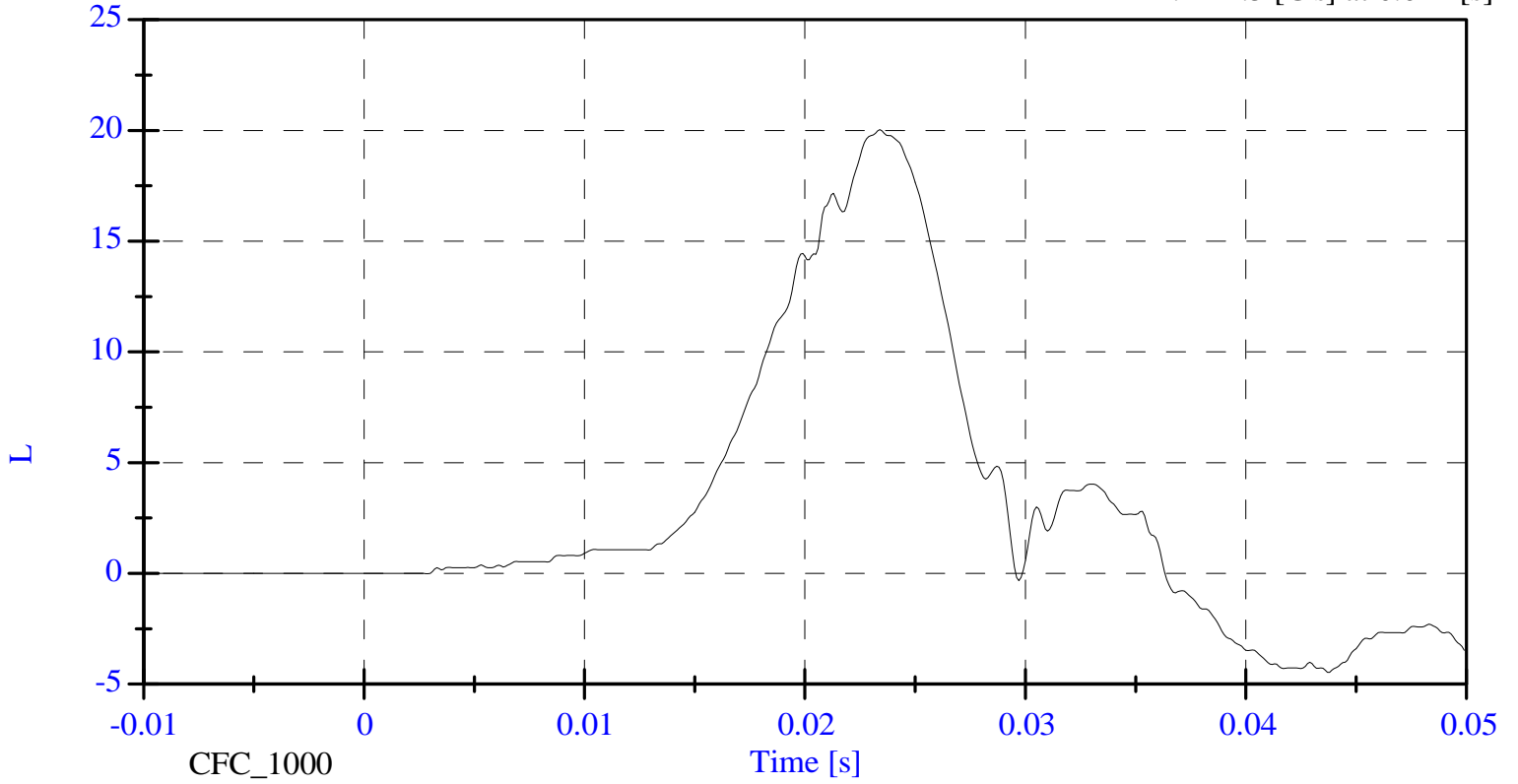
Lower Rib Y Acceleration



Lower Spine Y Acceleration

Max: 20.0 [G's] at 0.023 [s]

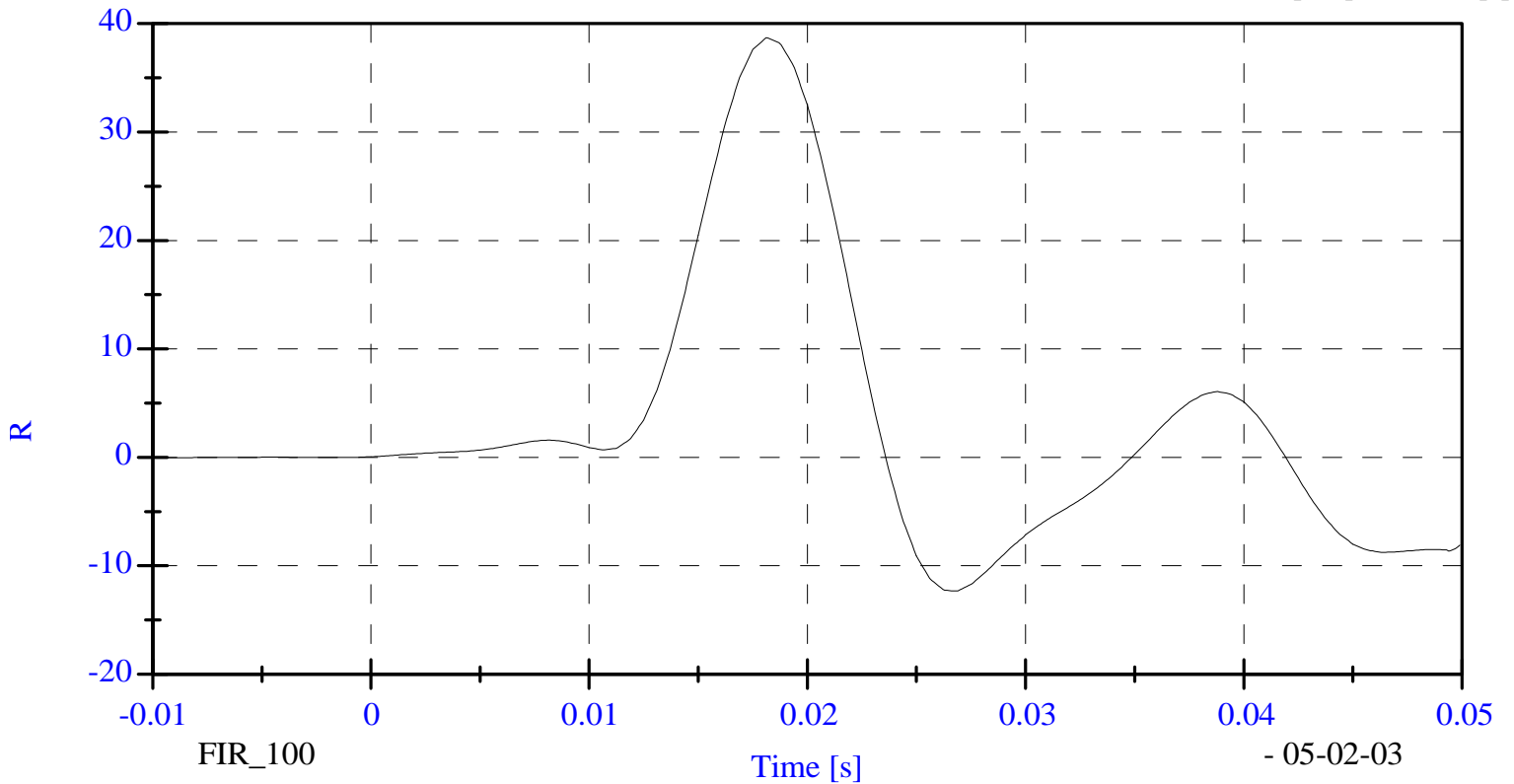
Min: -4.5 [G's] at 0.044 [s]



Upper Rib Y Acceleration

Max: 38.7 [G's] at 0.018 [s]

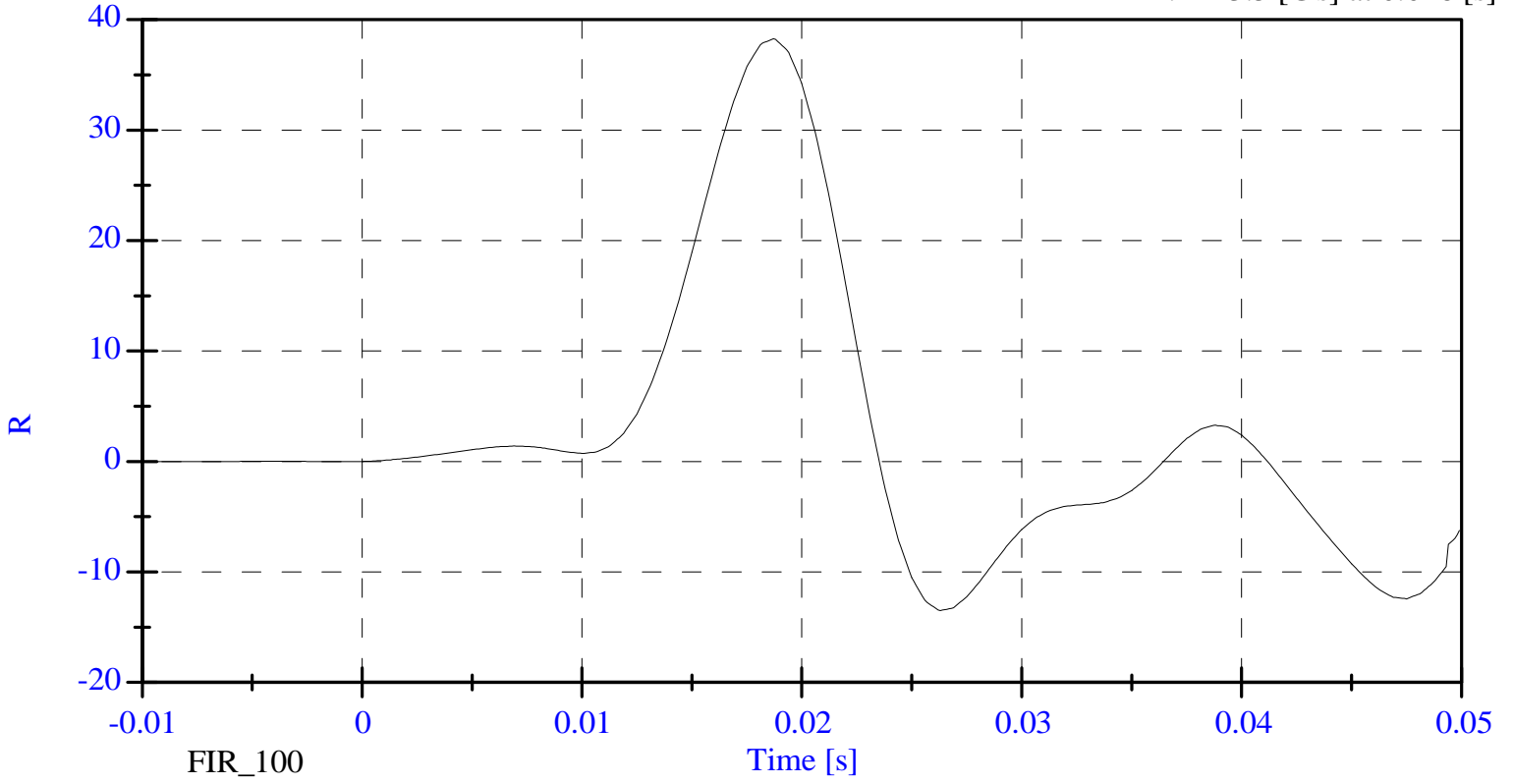
Min: -12.3 [G's] at 0.027 [s]



Max: 38.3 [G's] at 0.019 [s]

Min: -13.5 [G's] at 0.026 [s]

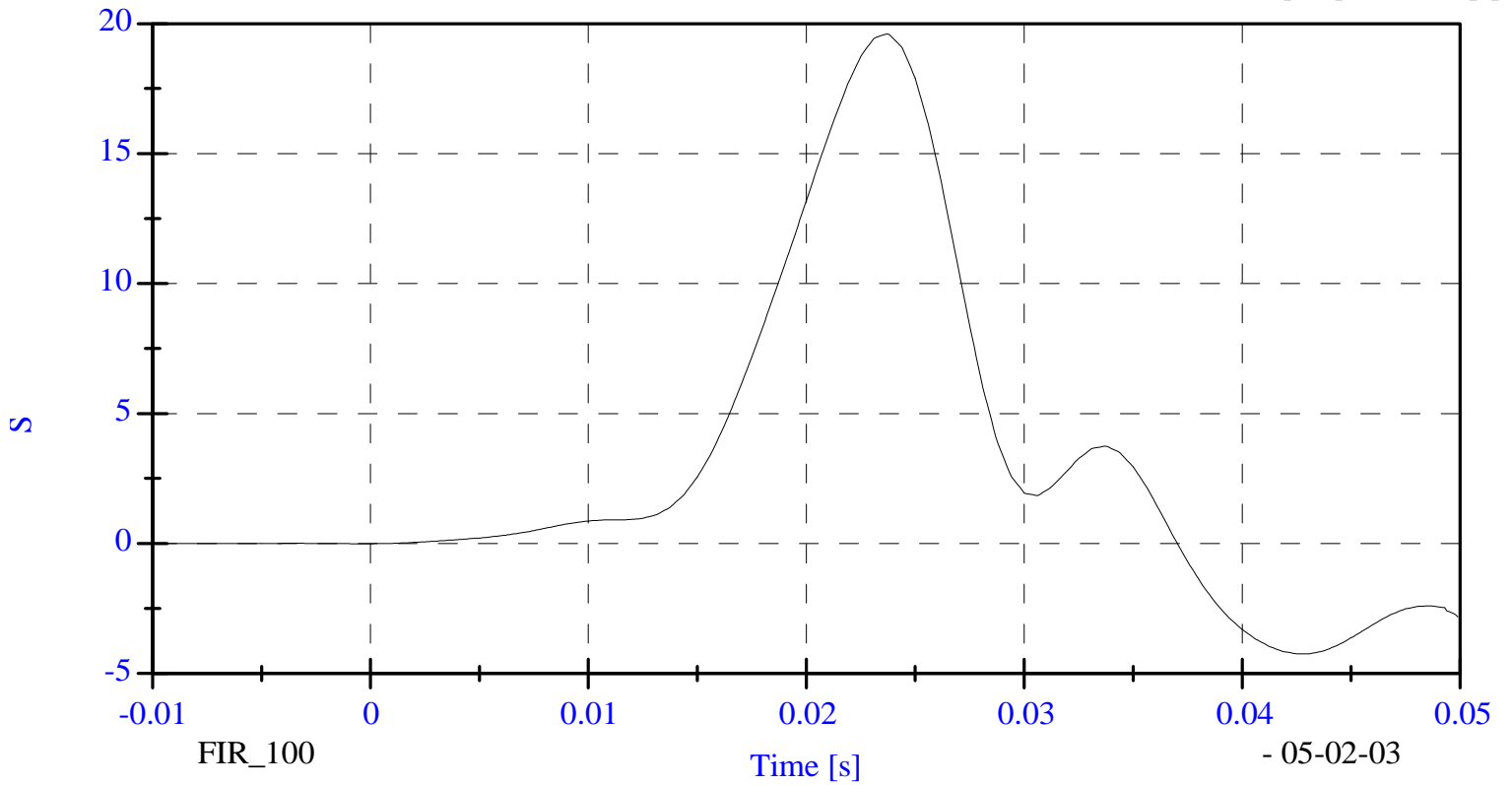
Lower Rib Y Acceleration



Max: 19.6 [G's] at 0.024 [s]

Min: -4.3 [G's] at 0.043 [s]

Lower Spine Y Acceleration



**LATERAL PELVIS IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

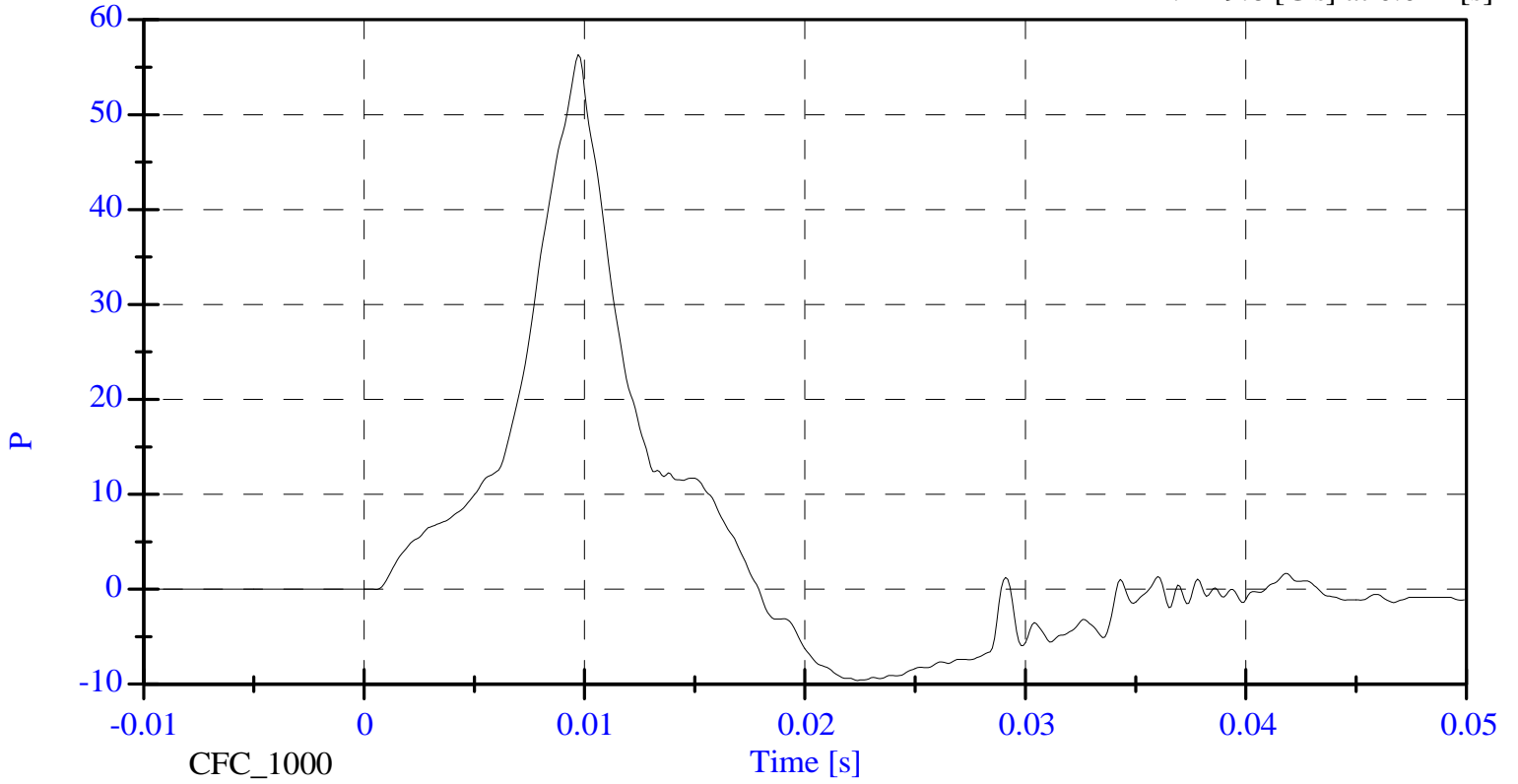
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
PROBE SPEED (m/s)	4.27 - 4.33	4.31
PELVIS ACCELERATION (g's)	40 - 60	44.61

REMARKS: None

Max: 56.3 [G's] at 0.010 [s]

Min: -9.6 [G's] at 0.022 [s]

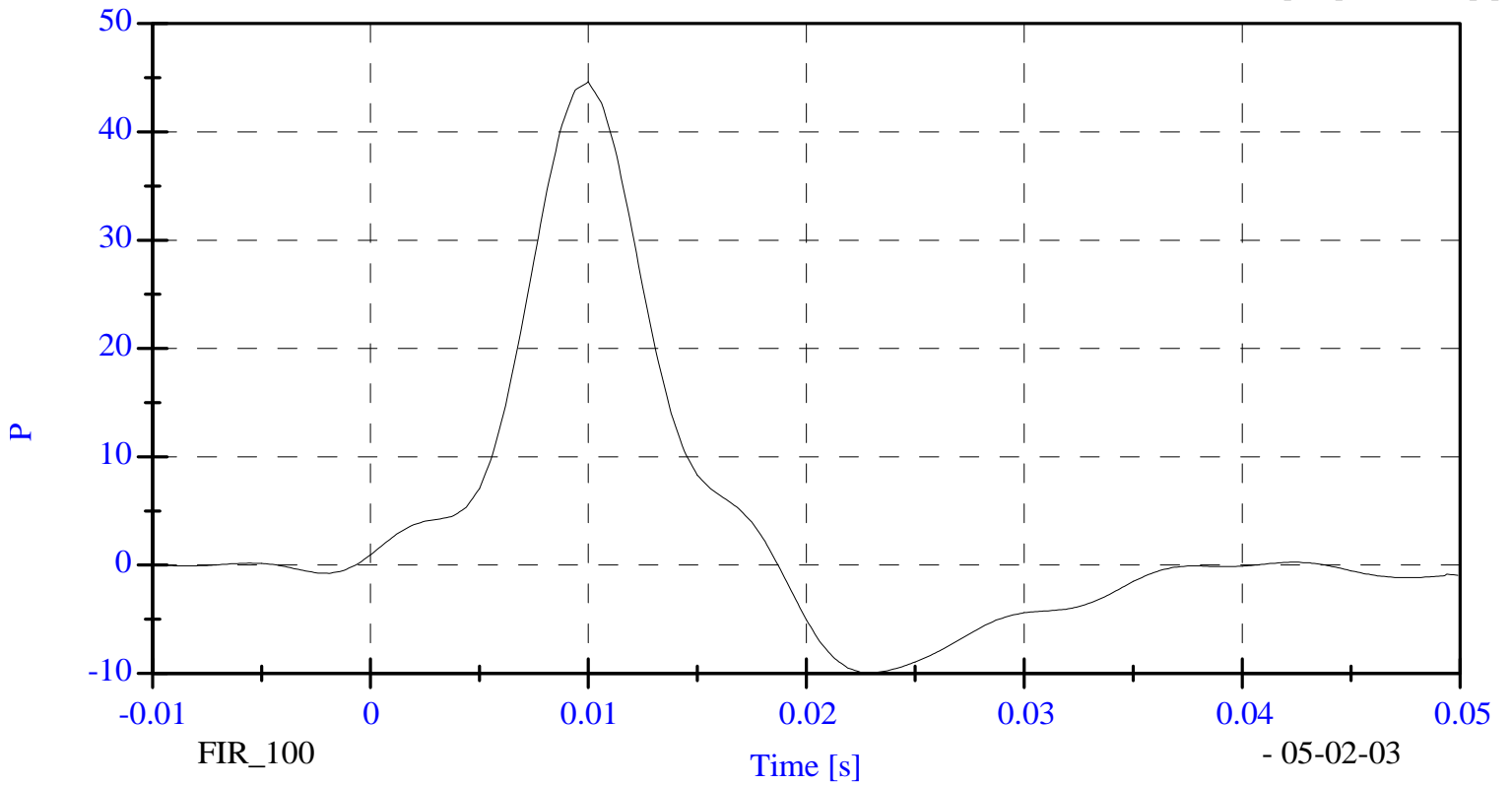
Pelvis Acceleration



Max: 44.6 [G's] at 0.010 [s]

Min: -9.9 [G's] at 0.023 [s]

Pelvis Y Acceleration



**HEAD DROP TEST
PRE-TEST**

(Test not required for SID certification)

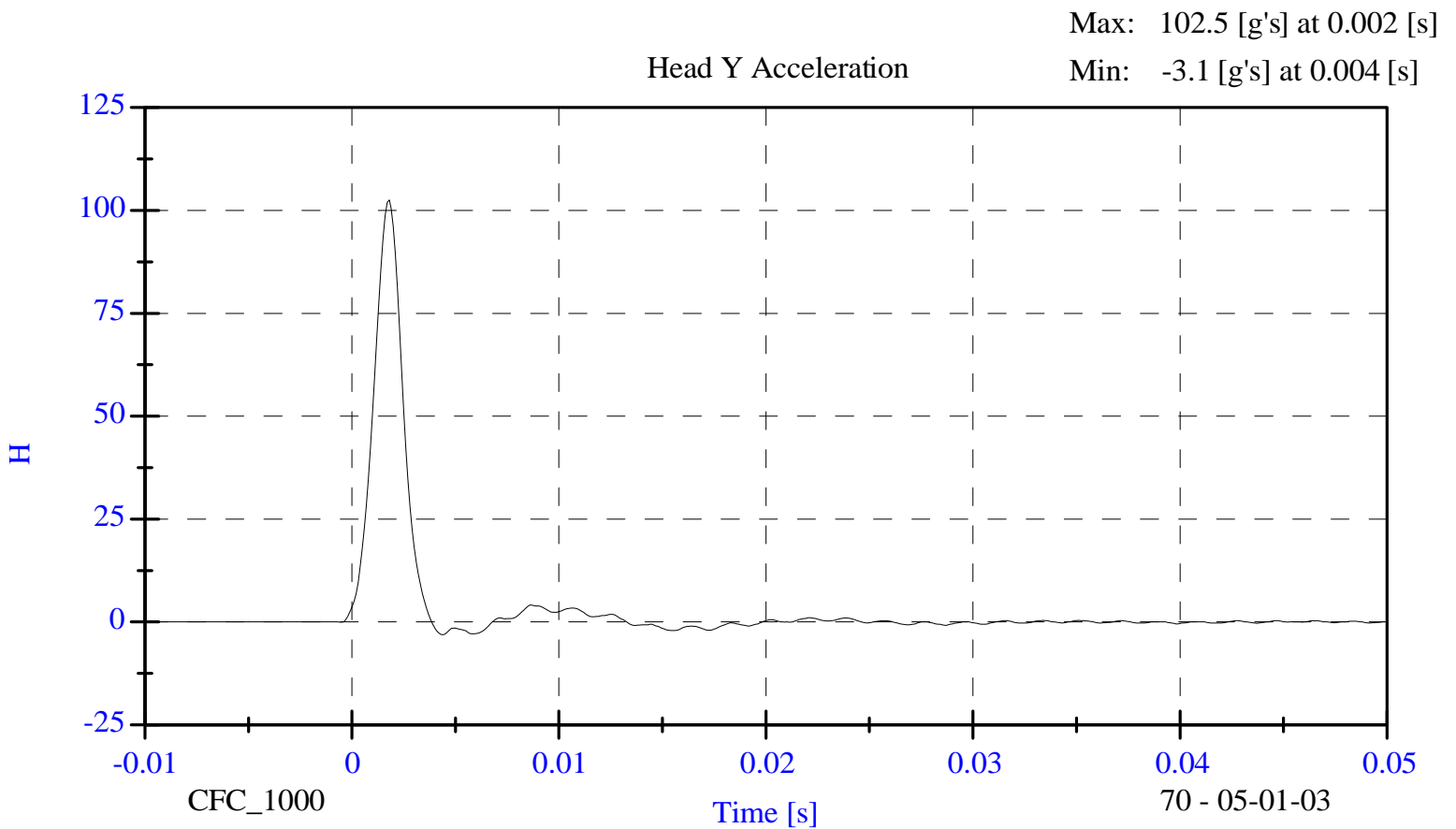
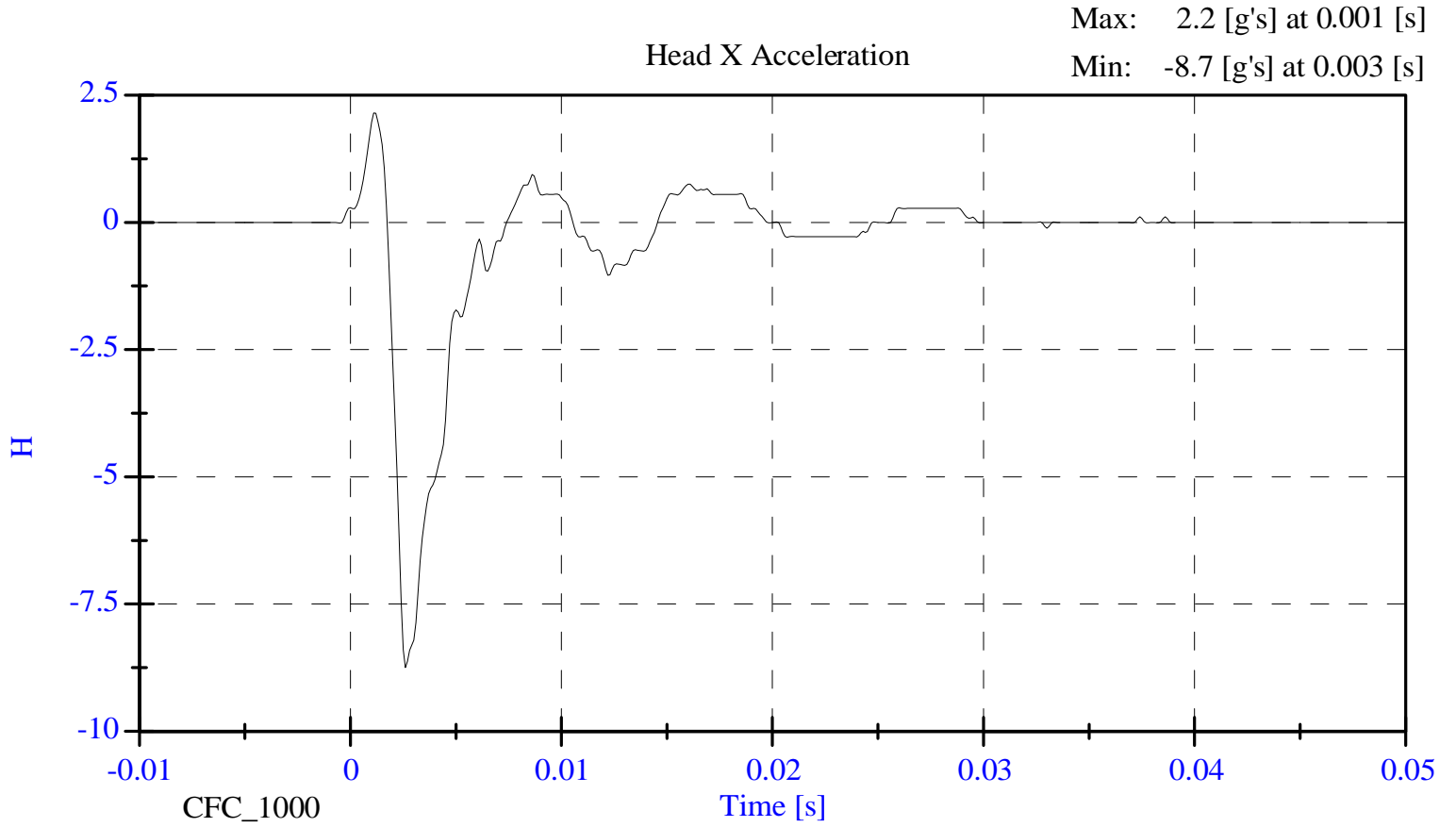
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 2
Date: May 1, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 – 22.2	21.1
RELATIVE HUMIDITY (%)	10 – 70	41.0
PEAK RESULTANT ACCELERATION (Gs)	120 – 150	125.17
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 15	2.15
CURVE PERCENT NONMODAL (%)	< 15	3.69

REMARKS: None

015 Head Drop

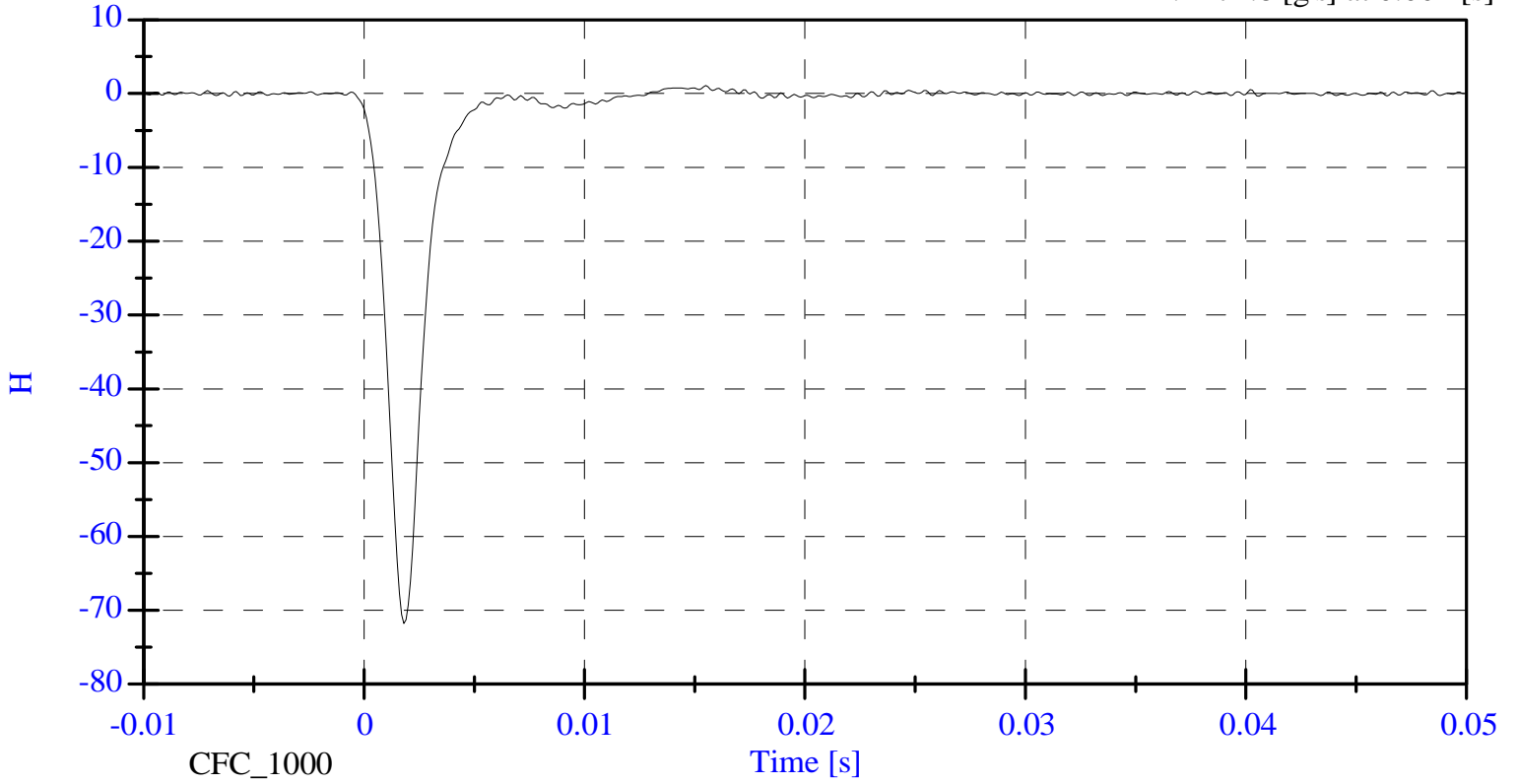


015 Head Drop

Head Z Acceleration

Max: 1.1 [g's] at 0.016 [s]

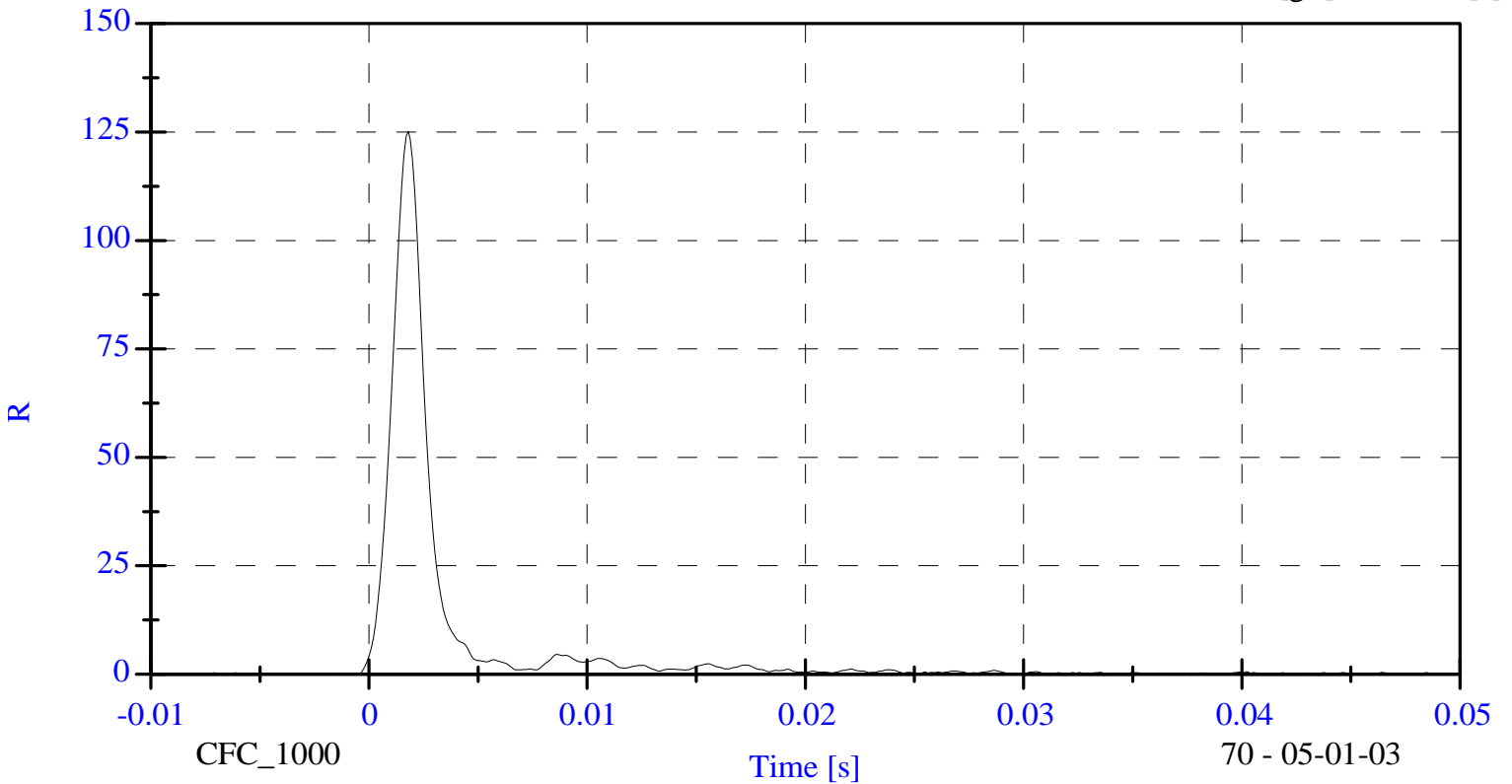
Min: -71.8 [g's] at 0.002 [s]



Head Resultant

Max: 125.2 [g's] at 0.002 [s]

Min: 0.0 [g's] at -0.008 [s]



**LATERAL NECK BENDING TEST
PRE-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 2
Date: May 1, 2003 Laboratory Technician: B. Swiecicki

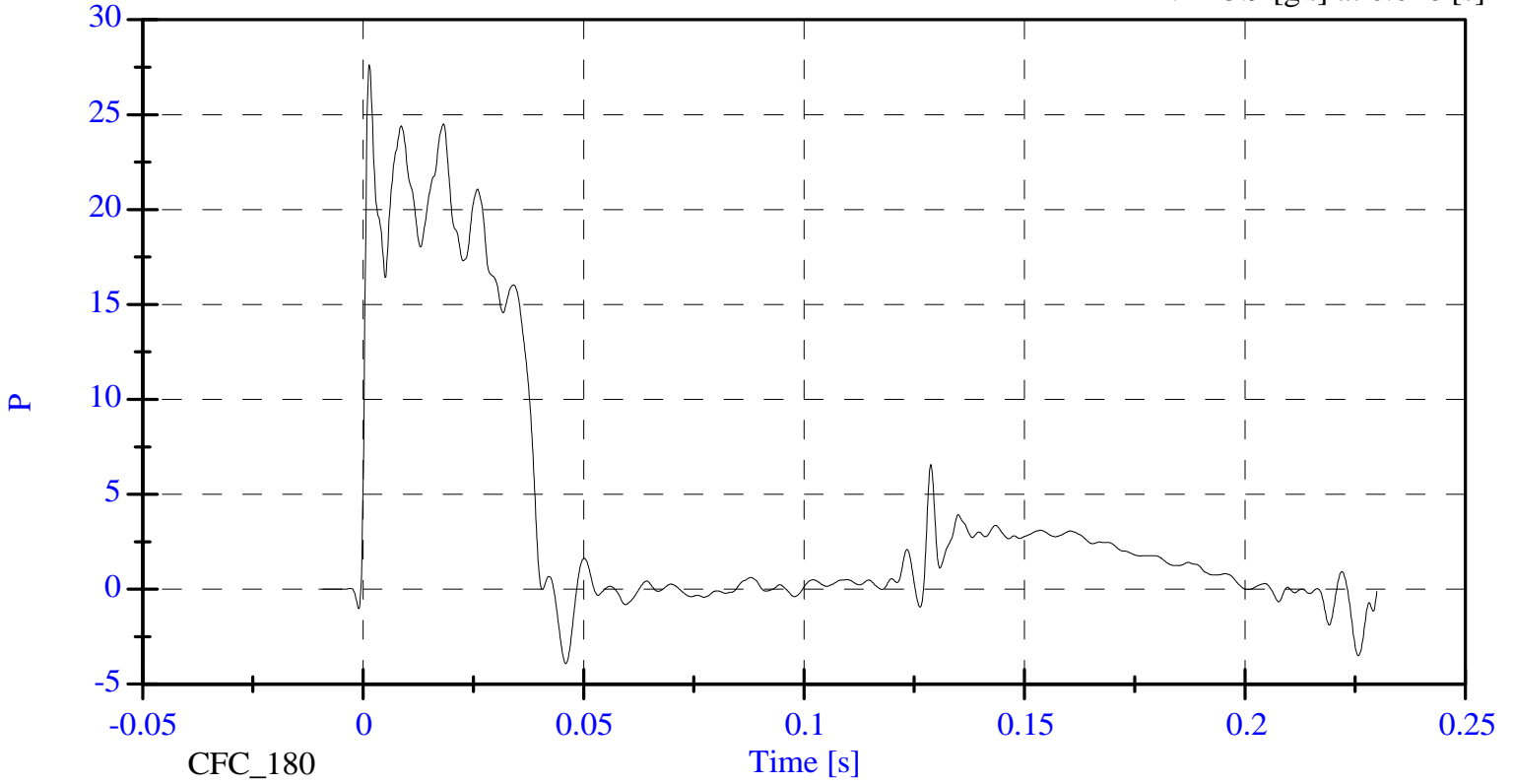
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 - 22.2	21.1
RELATIVE HUMIDITY (%)	10 - 70	40.0
IMPACT VELOCITY (m/s)	6.89 - 7.13	6.99
PENDULUM DELTA V		
DELTA V @ 10 ms (m/s)	1.96 - 2.55	2.09
DELTA V @ 20 ms (m/s)	4.12 - 5.10	4.17
DELTA V @ 30 ms (m/s)	5.73 - 7.01	6.00
DELTA V @ 40-70 ms (m/s)	6.27 - 7.64	7.24
D PLANE ROTATION		
MAXIMUM ROTATION (deg)	64 - 78	72.3
ROT. ANGLE TIME to ZERO (ms)	50 - 70	59.1
MOMENT ABOUT THE OCCIPITAL CONDYLE		
MAX OCCIPITAL MOMENT (Nm)	88 - 108	89.77
OCCIPITAL MOMENT DECAY (ms)	40.0 - 60.0	51.4
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT		
ROTATION wrt MOMENT (ms)	0 - 20	9.9

REMARKS: None

Max: 27.6 [g's] at 0.001 [s]

Min: -3.9 [g's] at 0.046 [s]

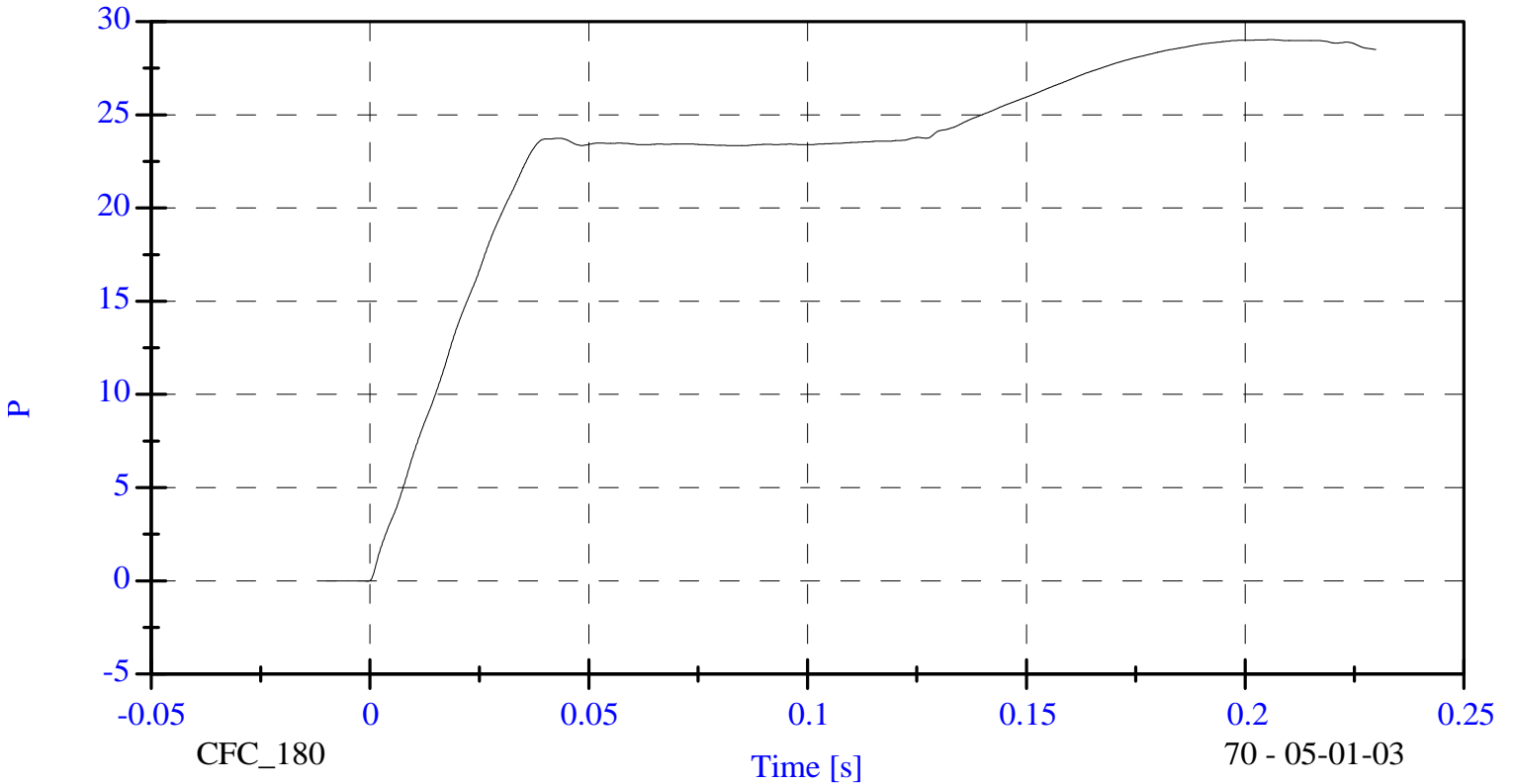
Pendulum Acceleration



Max: 29.0 [ft/s] at 0.206 [s]

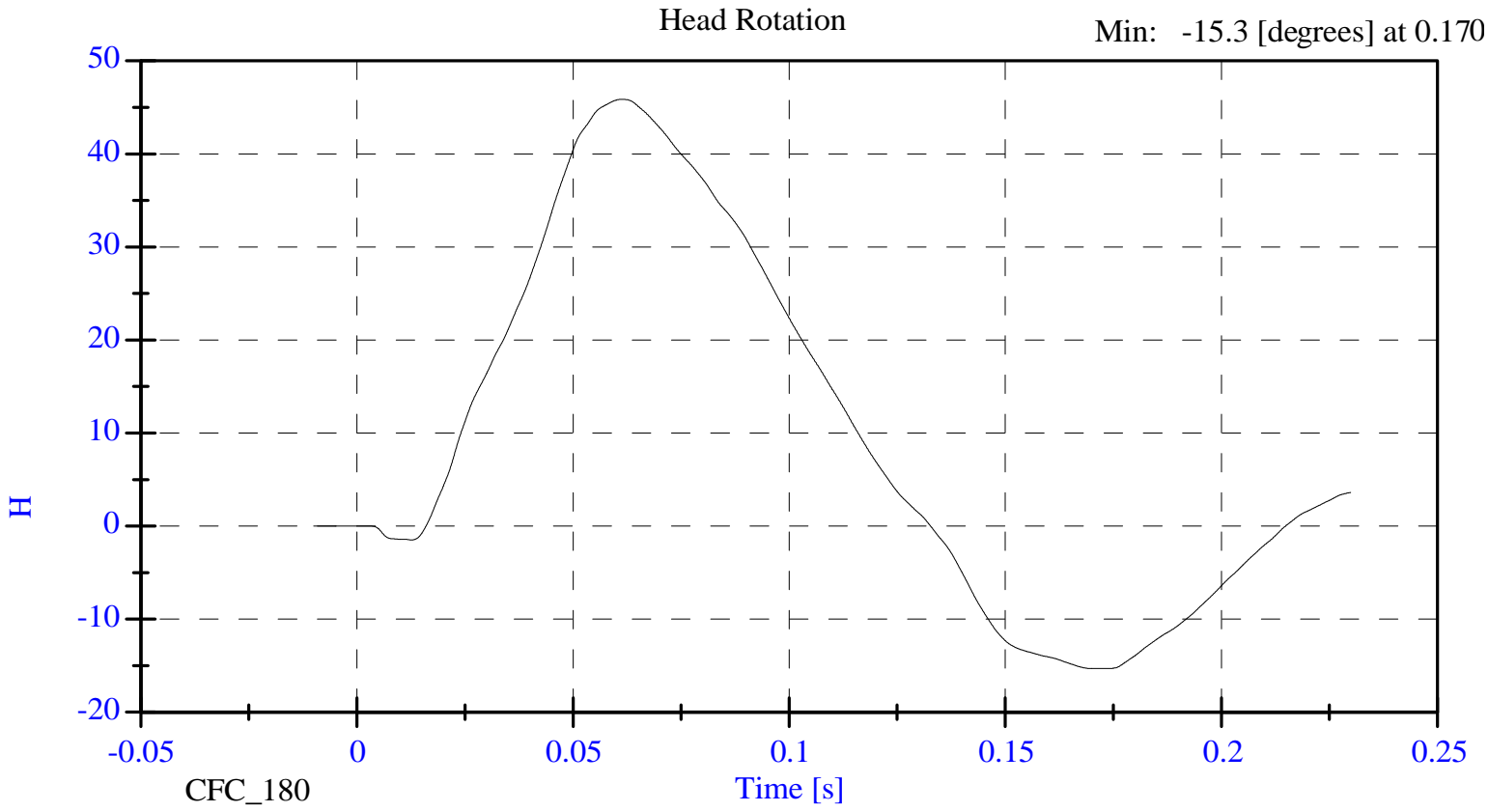
Min: -0.0 [ft/s] at -0.001 [s]

Pendulum Velocity



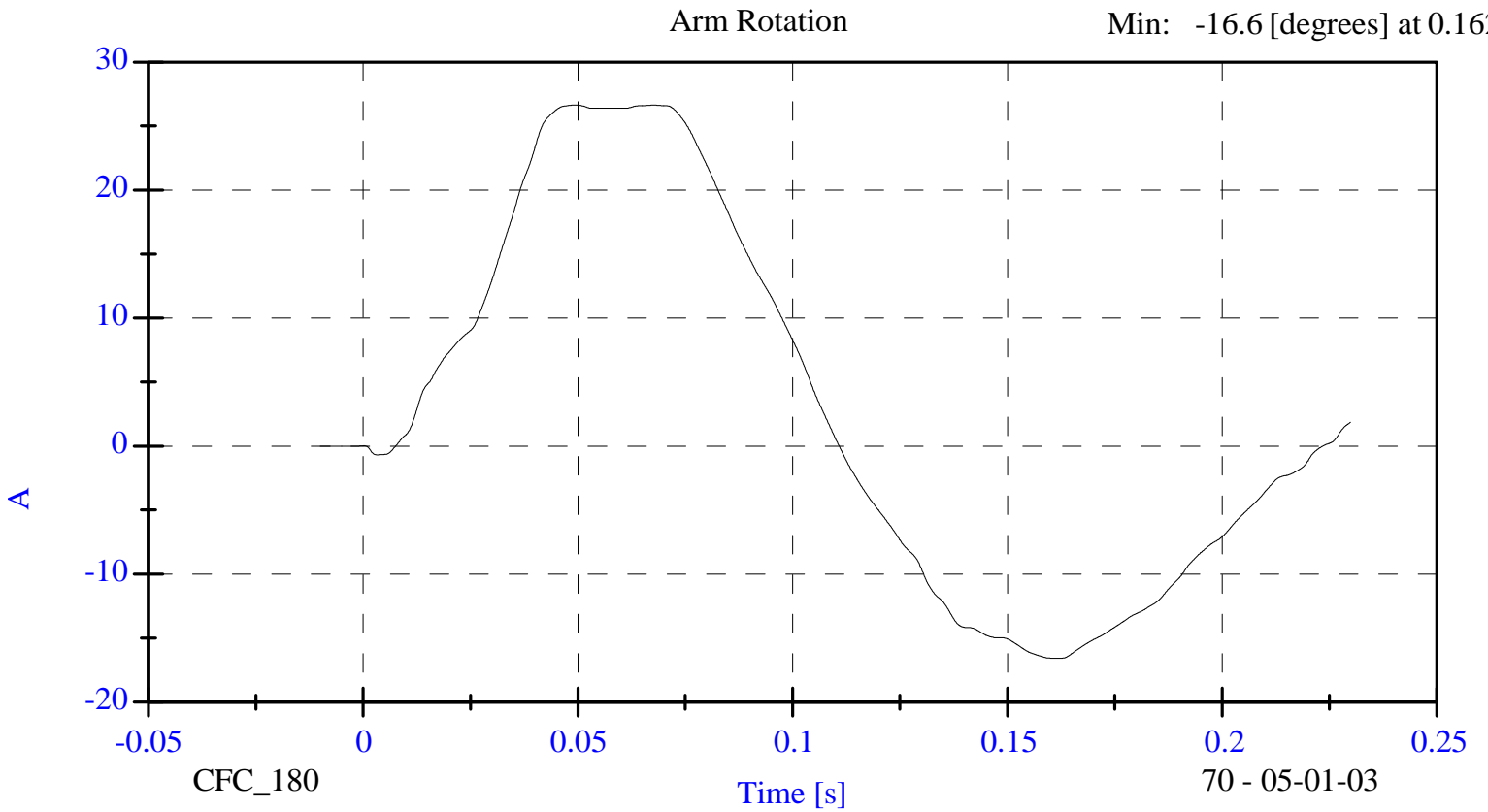
Max: 45.9 [degrees] at 0.061

Min: -15.3 [degrees] at 0.170



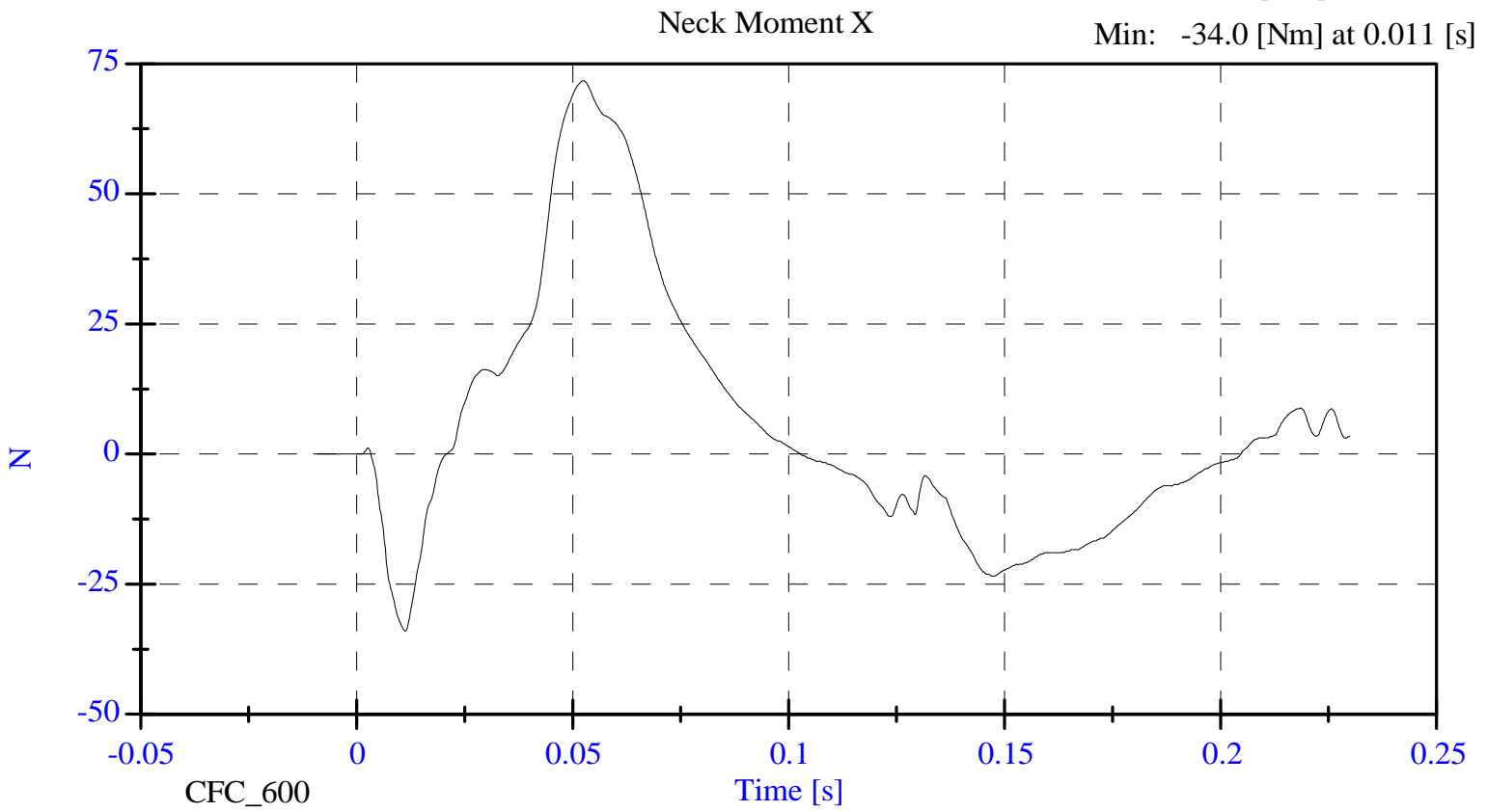
Max: 26.6 [degrees] at 0.049

Min: -16.6 [degrees] at 0.162



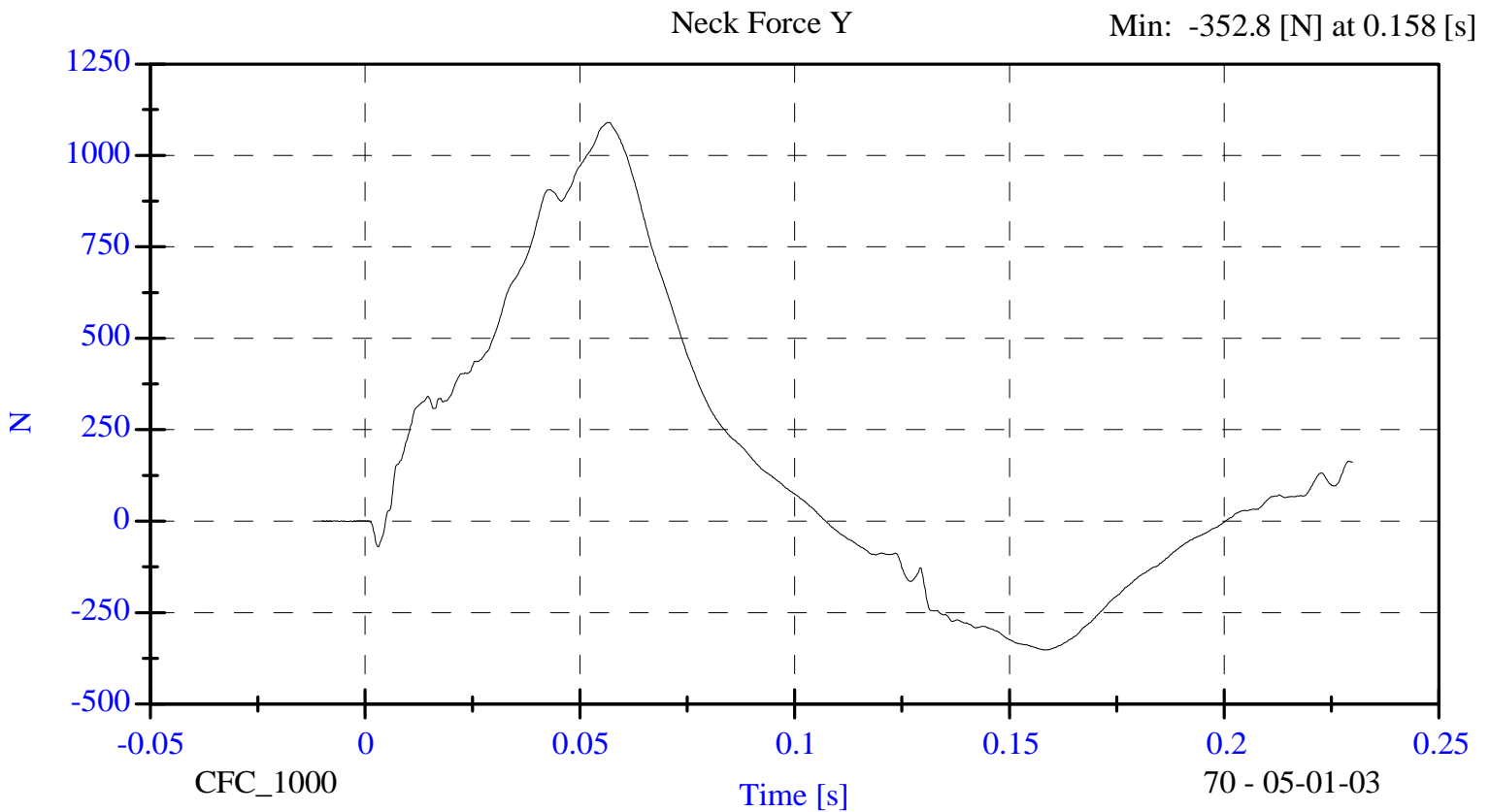
Max: 71.7 [Nm] at 0.052 [s]

Min: -34.0 [Nm] at 0.011 [s]



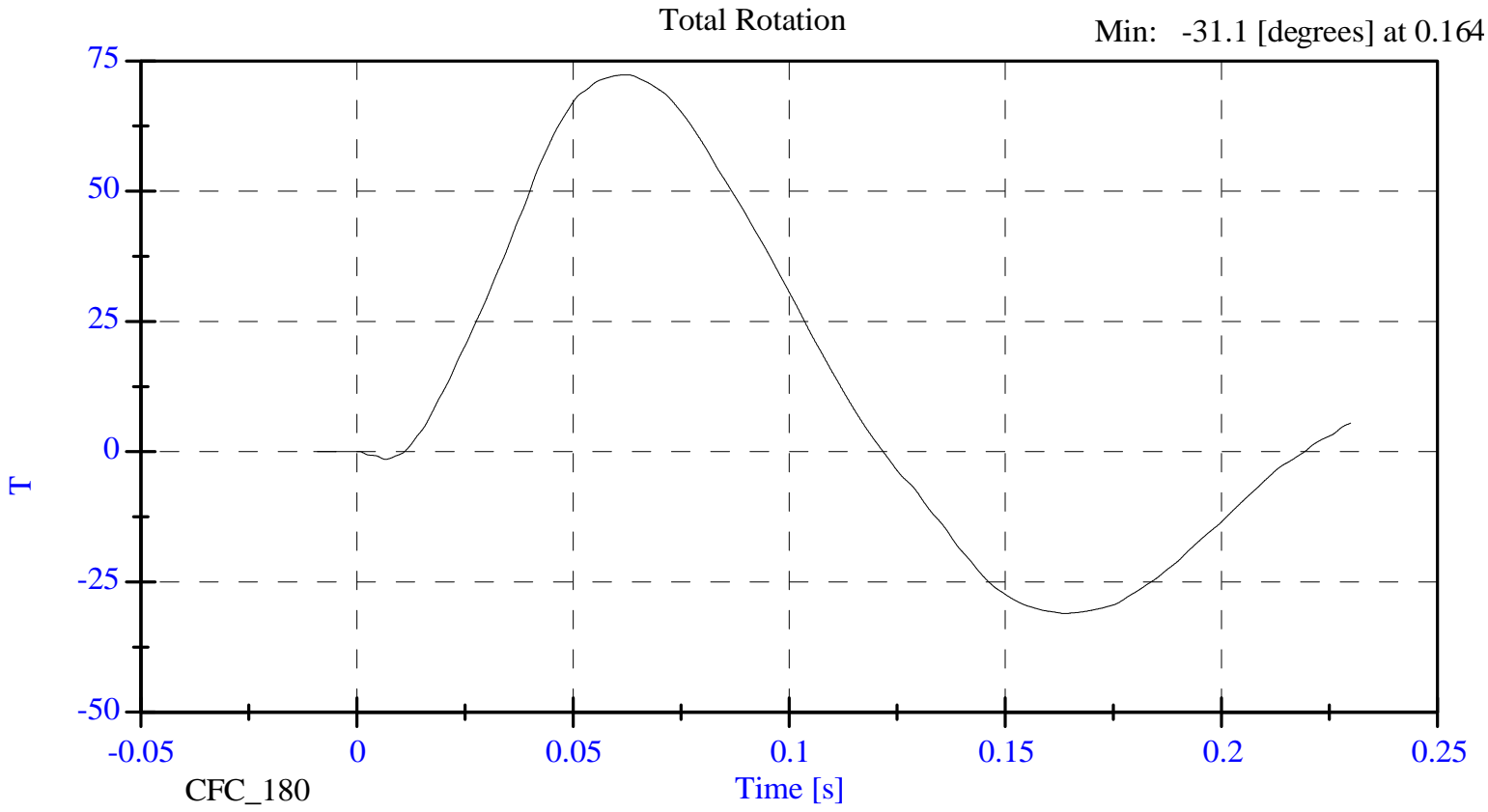
Max: 1090.1 [N] at 0.057 [s]

Min: -352.8 [N] at 0.158 [s]



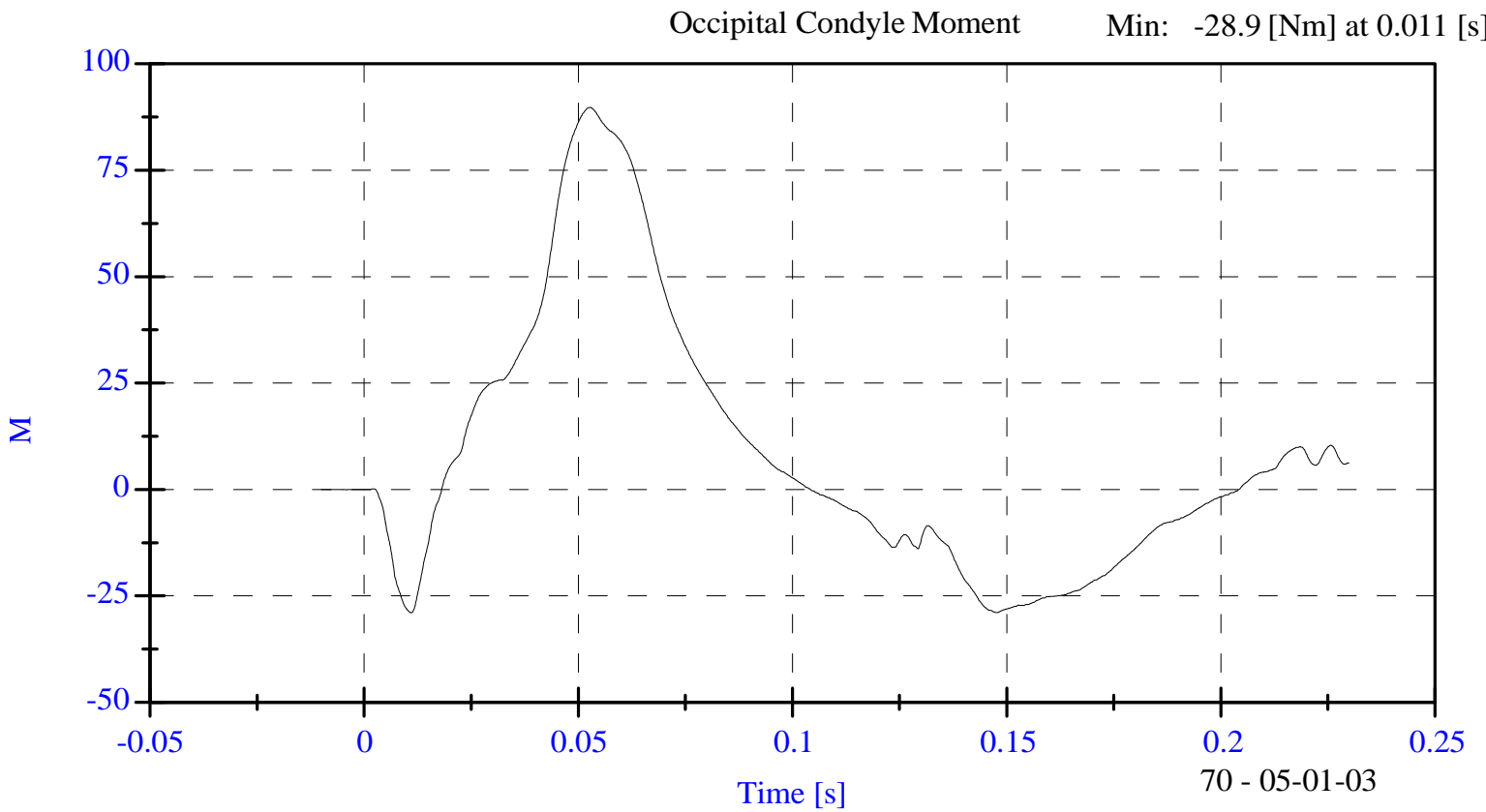
Max: 72.3 [degrees] at 0.063

Min: -31.1 [degrees] at 0.164



Max: 89.8 [Nm] at 0.053 [s]

Min: -28.9 [Nm] at 0.011 [s]



70 - 05-01-03

**ABDOMINAL COMPRESSION TEST
PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
FORCE @ 13 mm (N)	104 - 162	120.1
FORCE @ 19 mm (N)	163 - 221	187.7
FORCE @ 25 mm (N)	222 - 280	260.2
FORCE @ 33 mm (N)	325 - 391	371.4

REMARKS: None

Dummy S/N 015

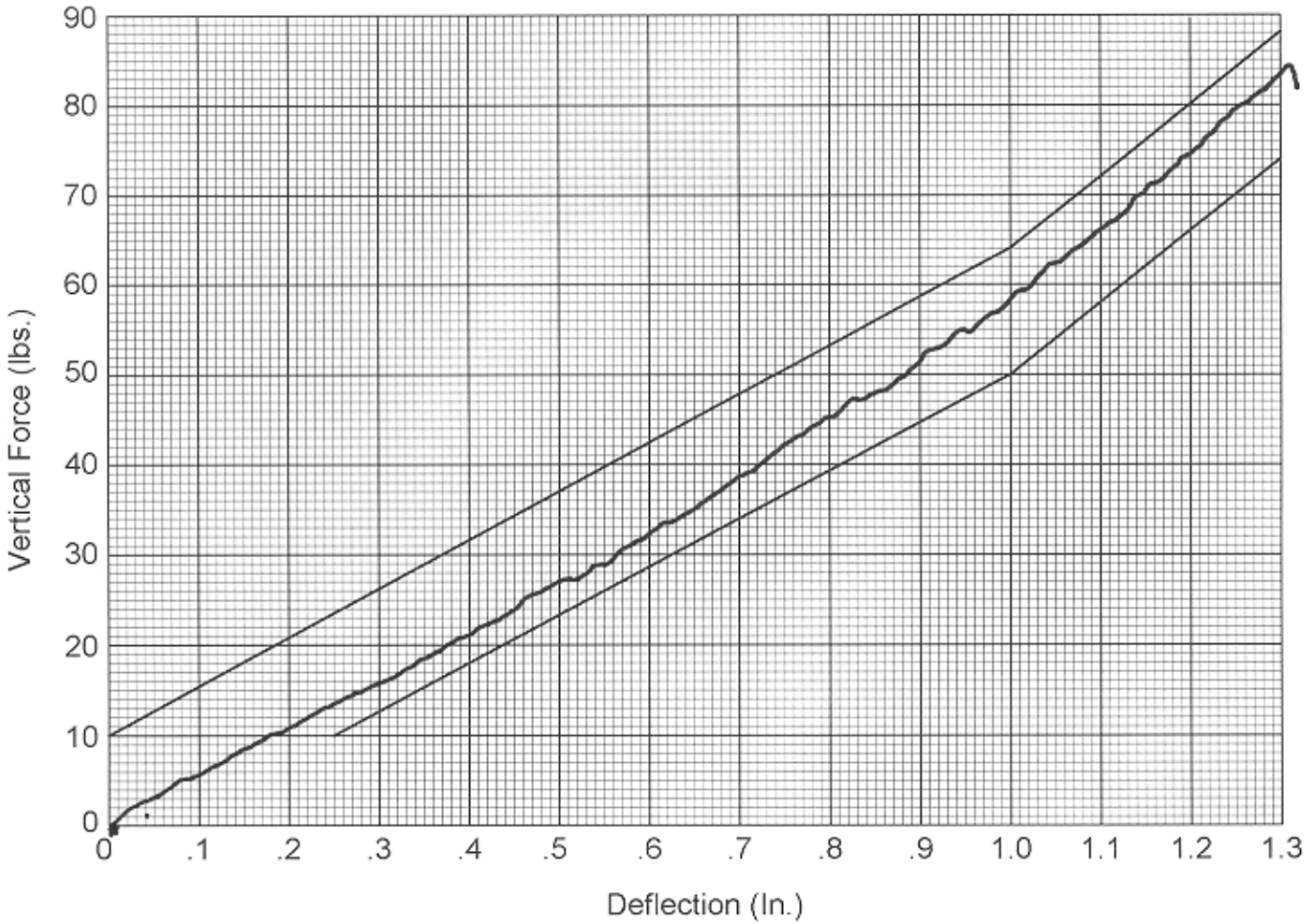
W/A _____

Date 5-02-03

Performed By BQ

Temp. 70°

Humidity 37%



**Hybrid II
Abdomen Static Press**

LUMBAR FLEXION TEST
PRE-TEST
 (Test not required for SID certification)

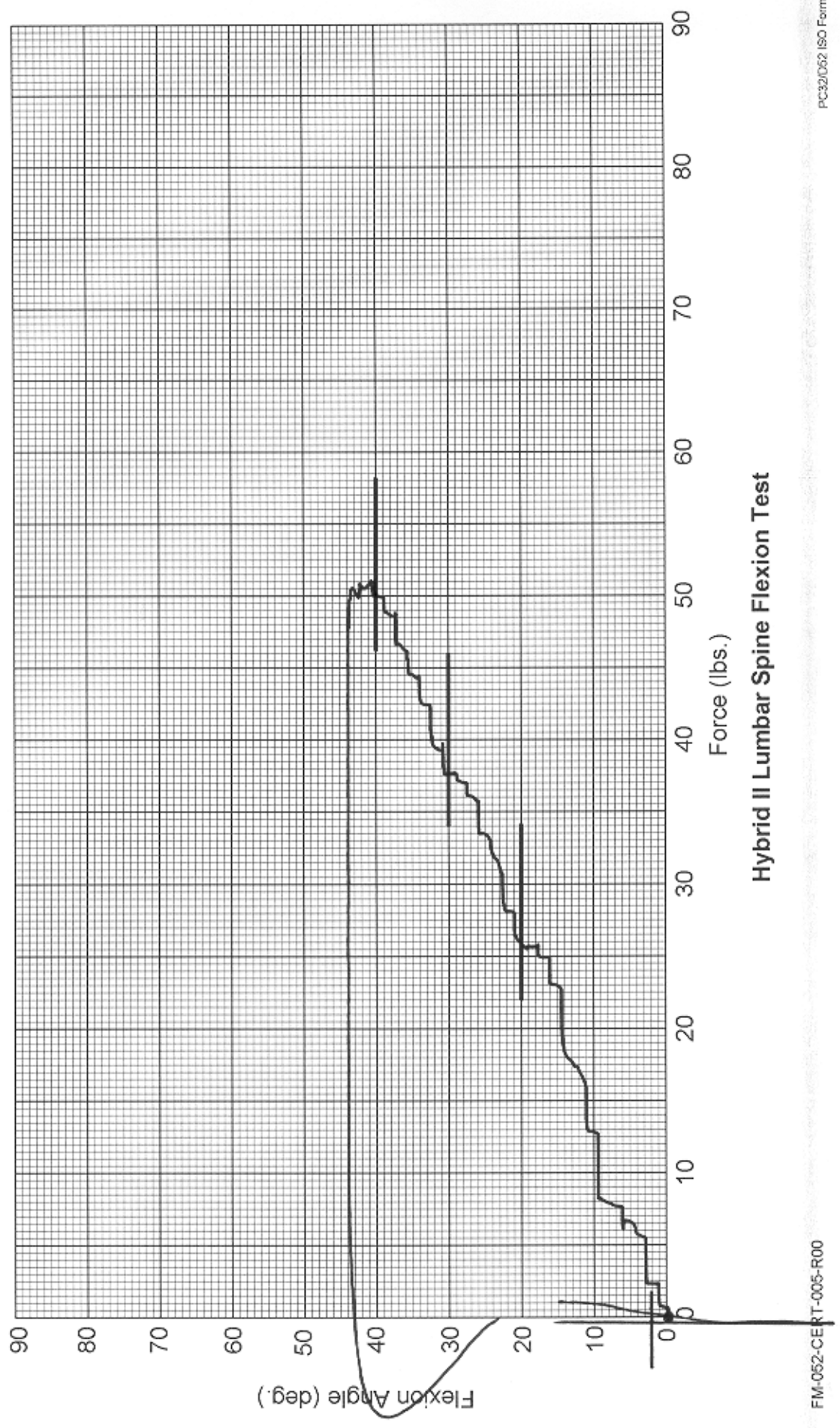
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
 Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	114.3
FORCE @ 30° (N)	151.2 - 204.6	167.5
FORCE @ 40° (N)	204.6 - 258	222.4
RETURN ANGLE	12° max.	2°

REMARKS: None

Dummy S/N 015
 W/A _____
 Date 5-02-03
 Performed By [Signature]
 Temp. 70°
 Humidity 37%



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 2
 Date: May 2, 2003 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 016

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

**THORACIC SHOCK ABSORBER TESTS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
 Date: April 25, 2003 Laboratory Technician: B. Swiecicki

DAMPER IDENTIFICATION: _____

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)		10 - 70	40.0
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	934.7
	DISPLACEMENT (mm)	30 - 35	31.7
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1867.3
	DISPLACEMENT (mm)	32 - 37	34.9
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	4438.7
	DISPLACEMENT (mm)	33 - 40	37.6

DAMPER SETTING: 5

REMARKS: None

Shock Low at 3.05 m/s

Low Part 572F Shock Absorber Impact

Calibration Date: 04-25-03

Serial No: 016

Work File: 016SL1 04-25-03

-----TEST RESULTS-----

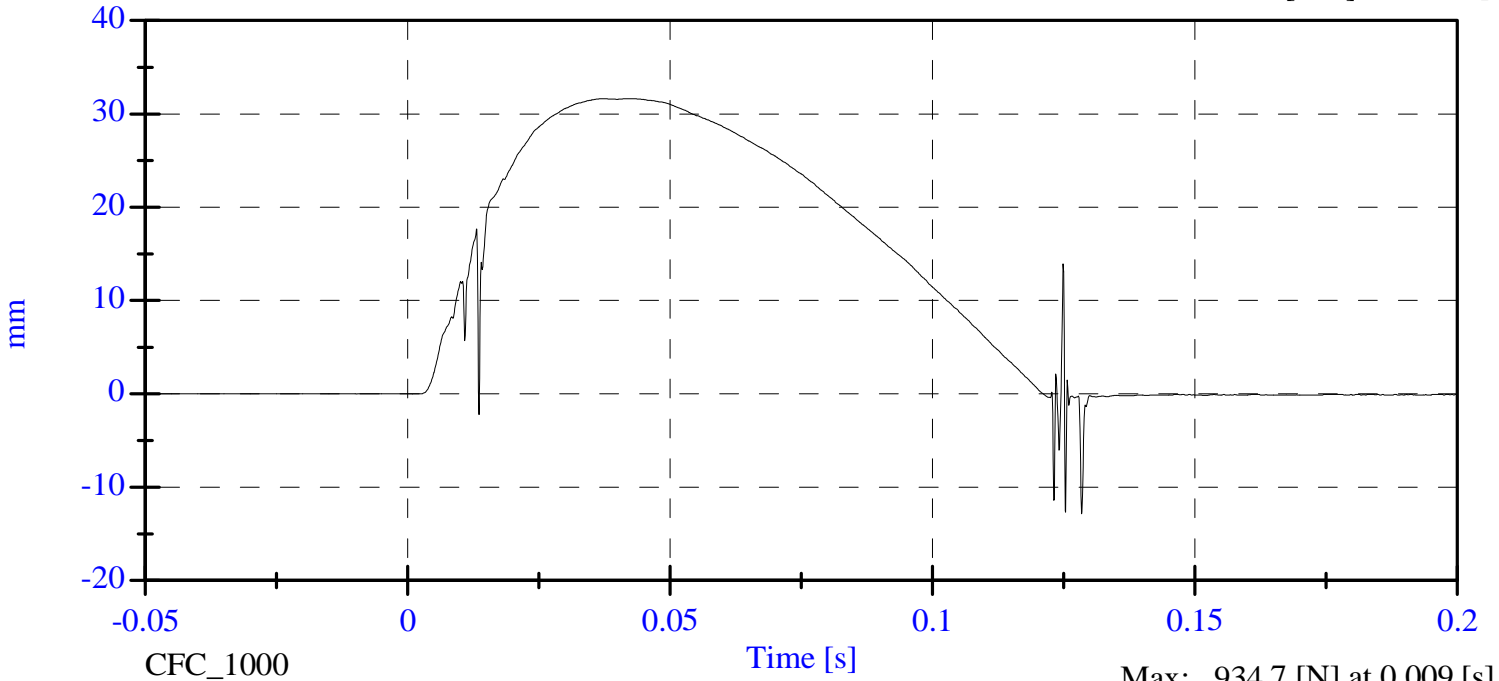
<u>TEST CONDITION</u>	<u>PARAMETERS</u>	<u>RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Displacement:	30.00-35.00 mm	31.65 mm	Passed
Maximum Force:	836.00-1125.00 N	934.69 N	Passed

Shock Low

Displacement vs. Time

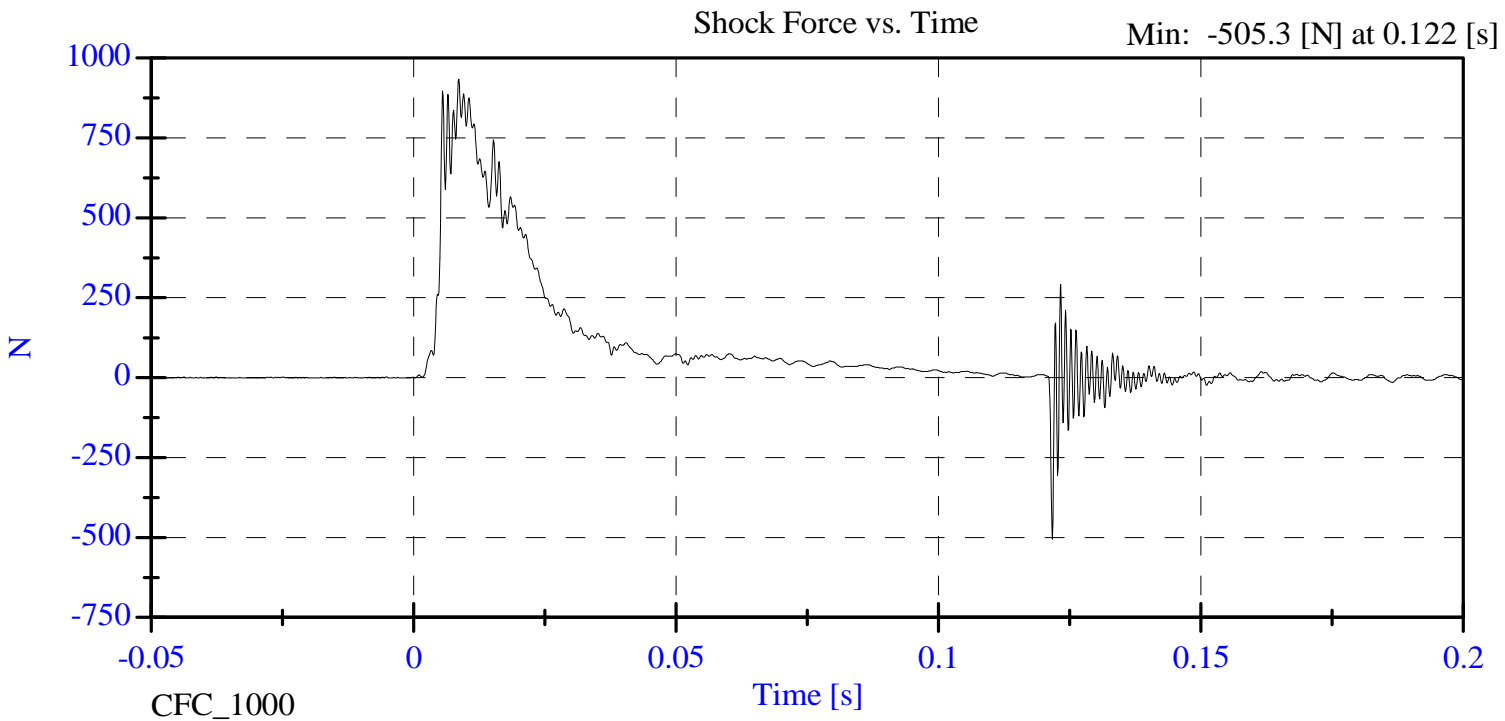
Max: 31.6 [mm] at 0.037 [s]

Min: -12.8 [mm] at 0.128 [s]



Max: 934.7 [N] at 0.009 [s]

Min: -505.3 [N] at 0.122 [s]



Shock Med at 4.27 m/s

Medium Part 572F Shock Absorber Impact

Calibration Date: 04-25-03

Serial No: 016

Work File: 016SM 04-25-03

-----TEST RESULTS-----

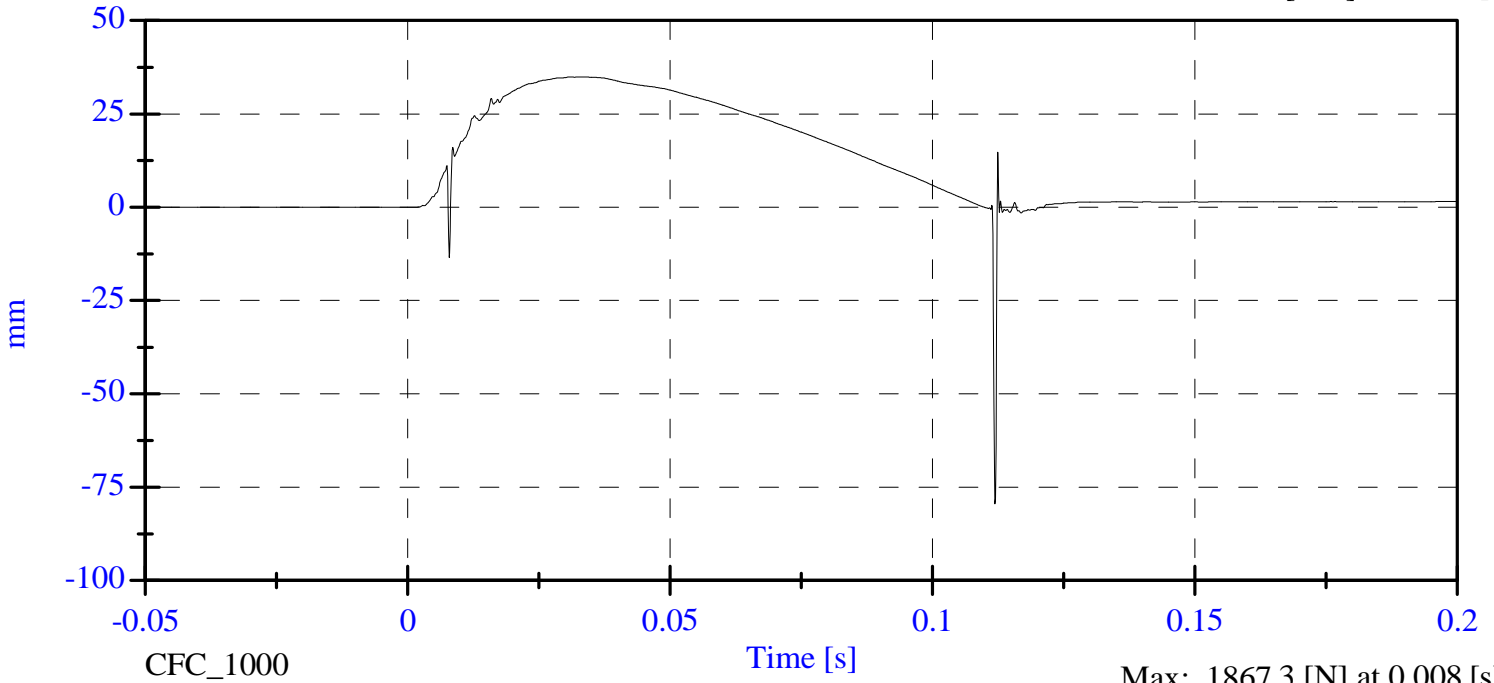
<u>TEST CONDITION</u>	<u>PARAMETERS</u>	<u>RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Displacement:	32.00-37.00 mm	34.91 mm	Passed
Maximum Force:	1730.00-2099.00 N	1867.29 N	Passed

Shock Med

Displacement vs. Time

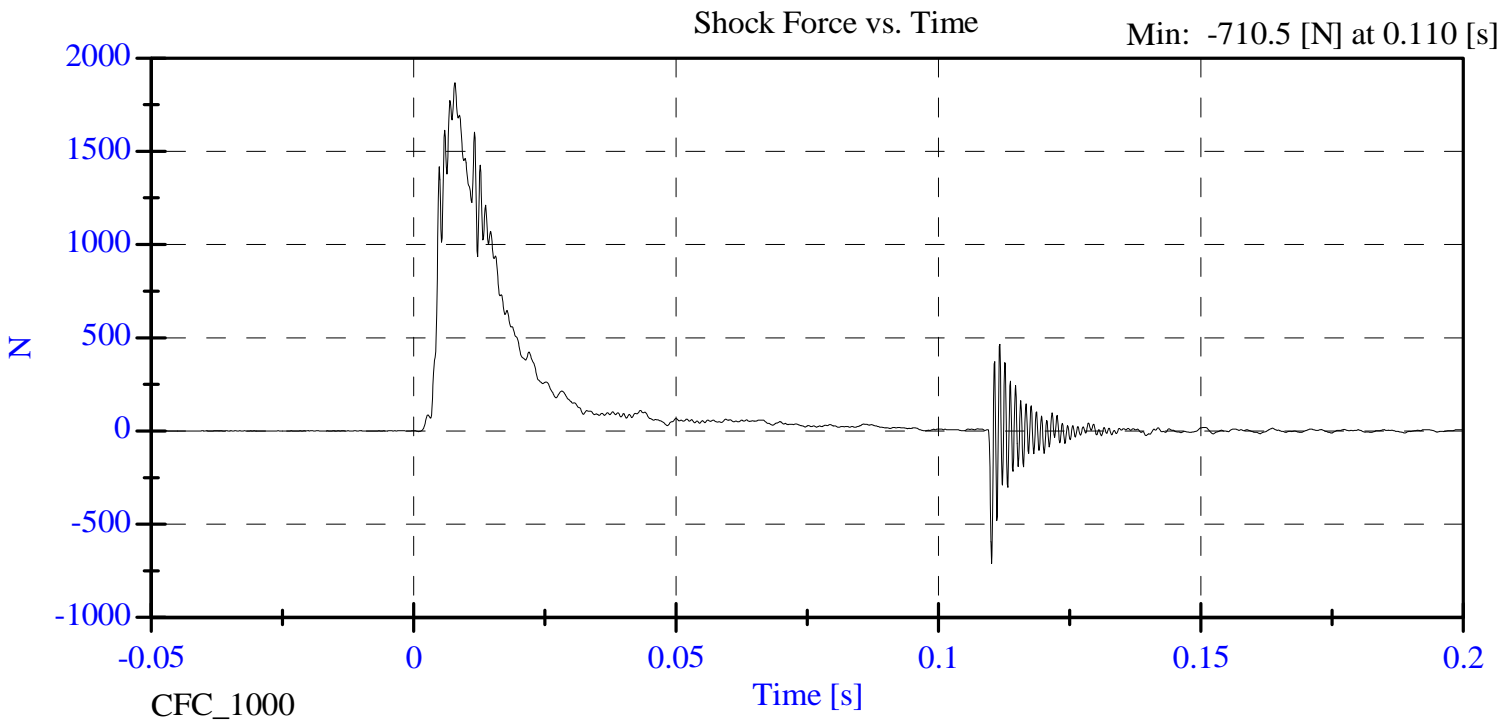
Max: 34.9 [mm] at 0.033 [s]

Min: -79.4 [mm] at 0.112 [s]



Max: 1867.3 [N] at 0.008 [s]

Min: -710.5 [N] at 0.110 [s]



Shock High at 6.10 m/s

High Part 572F Shock Absorber Impact

Calibration Date: 04-25-03

Serial No: 016

Work File: 016SH2 04-25-03

-----TEST RESULTS-----

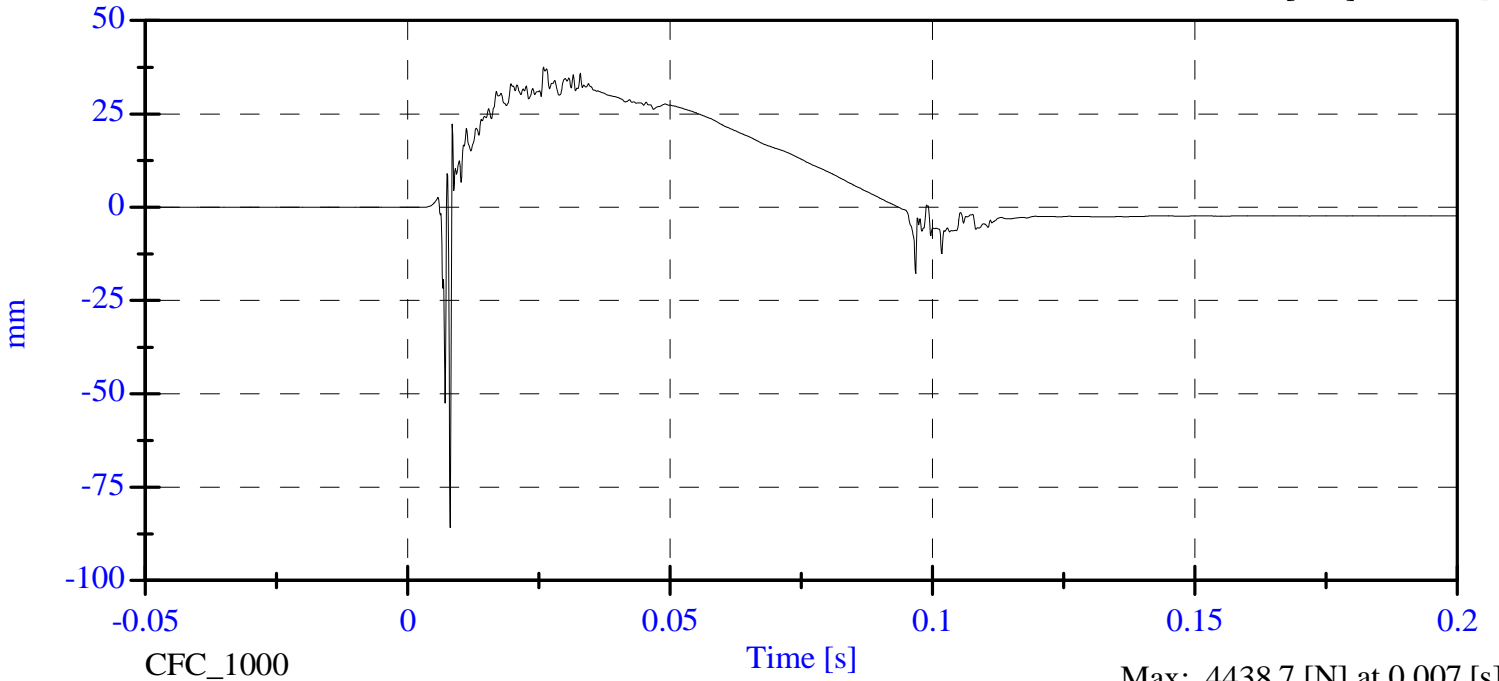
<u>TEST CONDITION</u>	<u>PARAMETERS</u>	<u>RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Displacement:	33.00-40.00 mm	37.56 mm	Passed
Maximum Force:	3741.00-4448.00 N	4438.69 N	Passed

Shock High

Displacement vs. Time

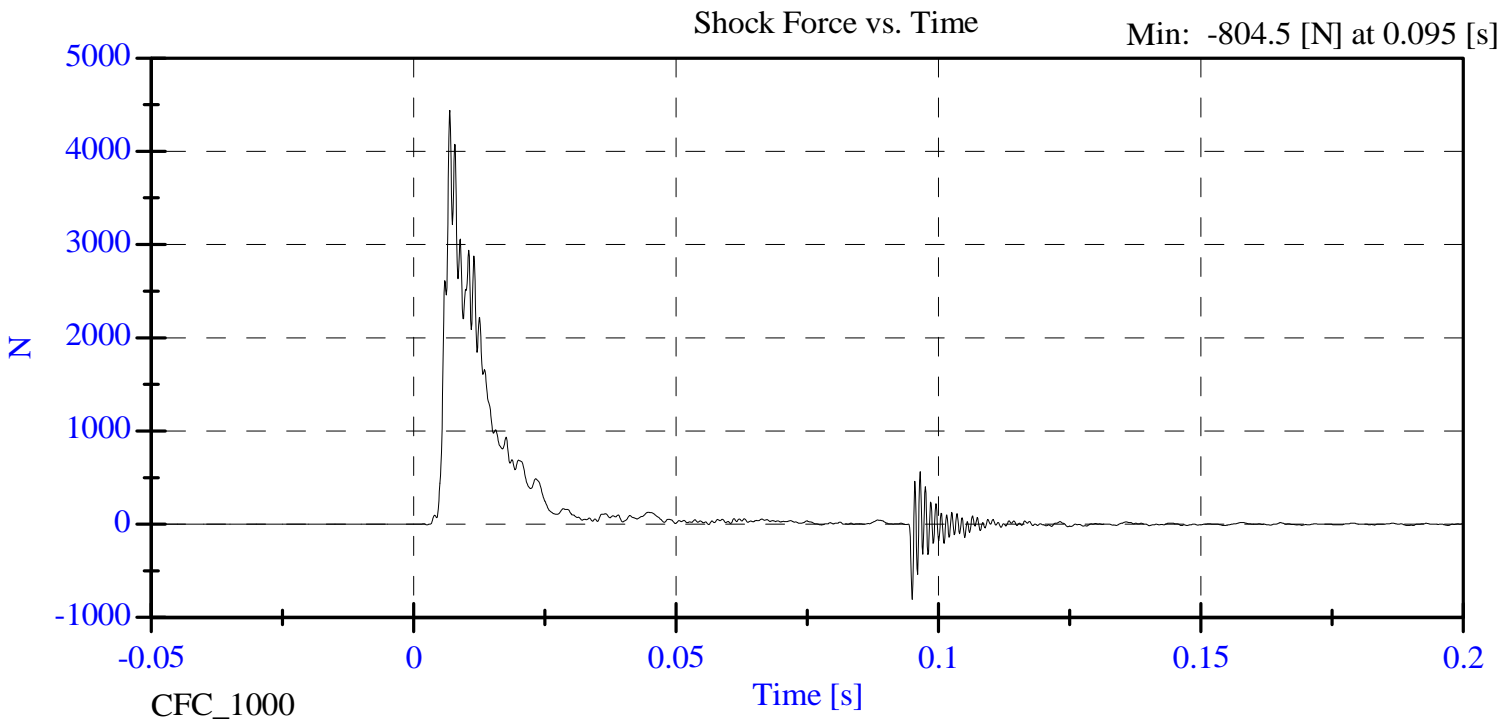
Max: 37.6 [mm] at 0.026 [s]

Min: -85.8 [mm] at 0.008 [s]



Max: 4438.7 [N] at 0.007 [s]

Min: -804.5 [N] at 0.095 [s]



**LATERAL THORAX IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

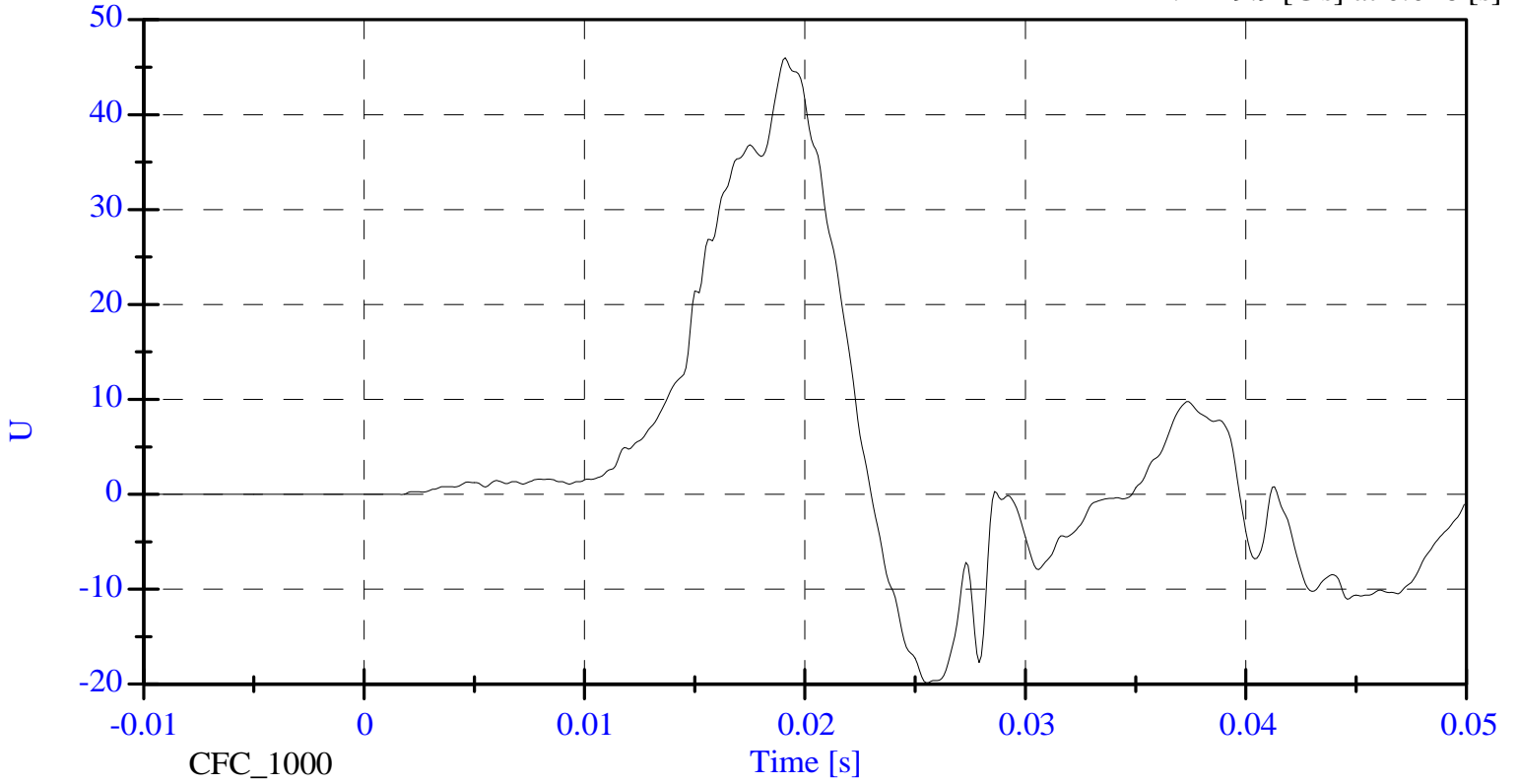
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	42.97
LOWER RIB (g's)	37 - 46	40.28
LOWER SPINE (g's)	15 - 22	21.81

REMARKS: None

Max: 46.0 [G's] at 0.019 [s]

Min: -19.9 [G's] at 0.026 [s]

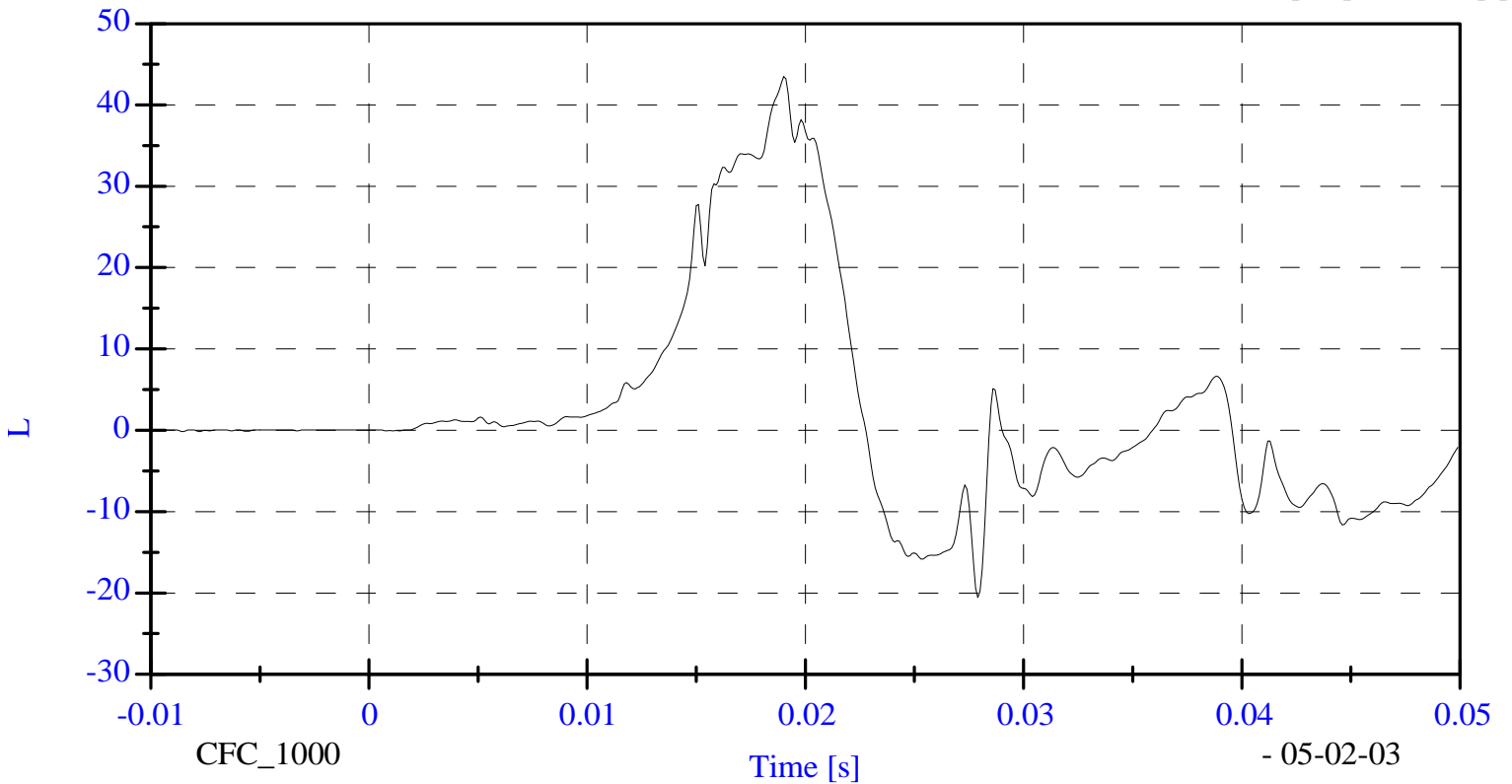
Upper Rib Y Acceleration



Max: 43.5 [G's] at 0.019 [s]

Min: -20.6 [G's] at 0.028 [s]

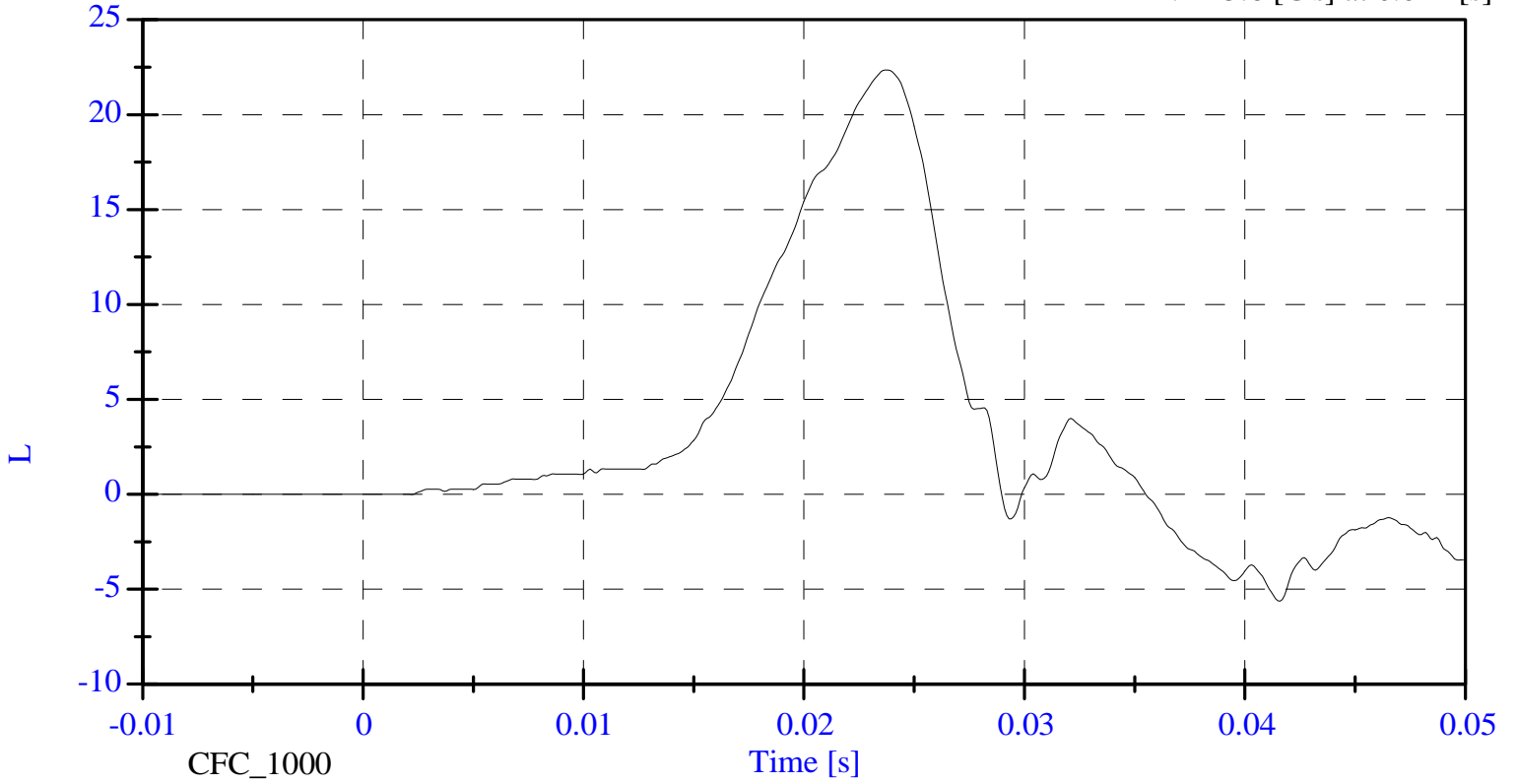
Lower Rib Y Acceleration



Lower Spine Y Acceleration

Max: 22.3 [G's] at 0.024 [s]

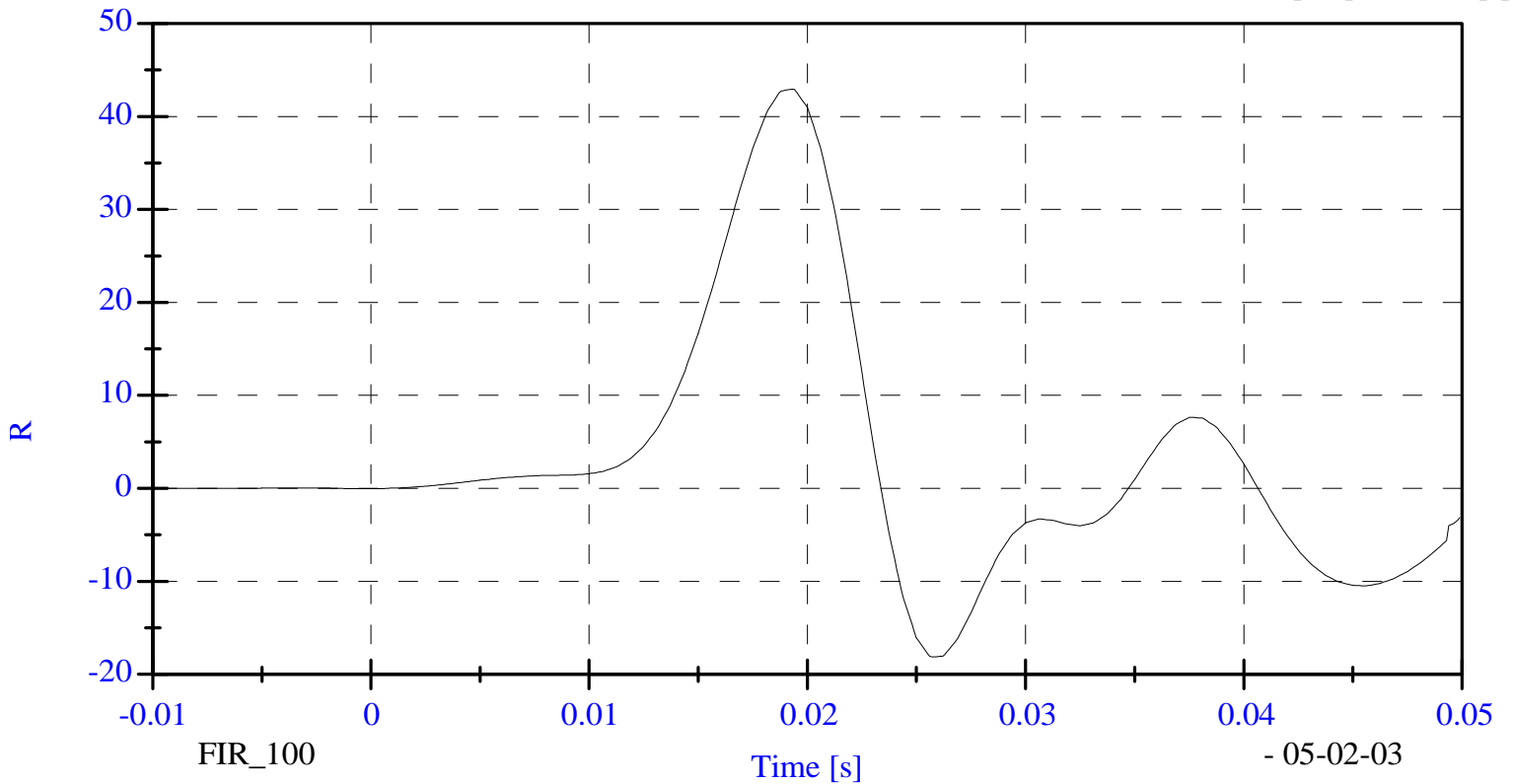
Min: -5.6 [G's] at 0.042 [s]



Upper Rib Y Acceleration

Max: 43.0 [G's] at 0.019 [s]

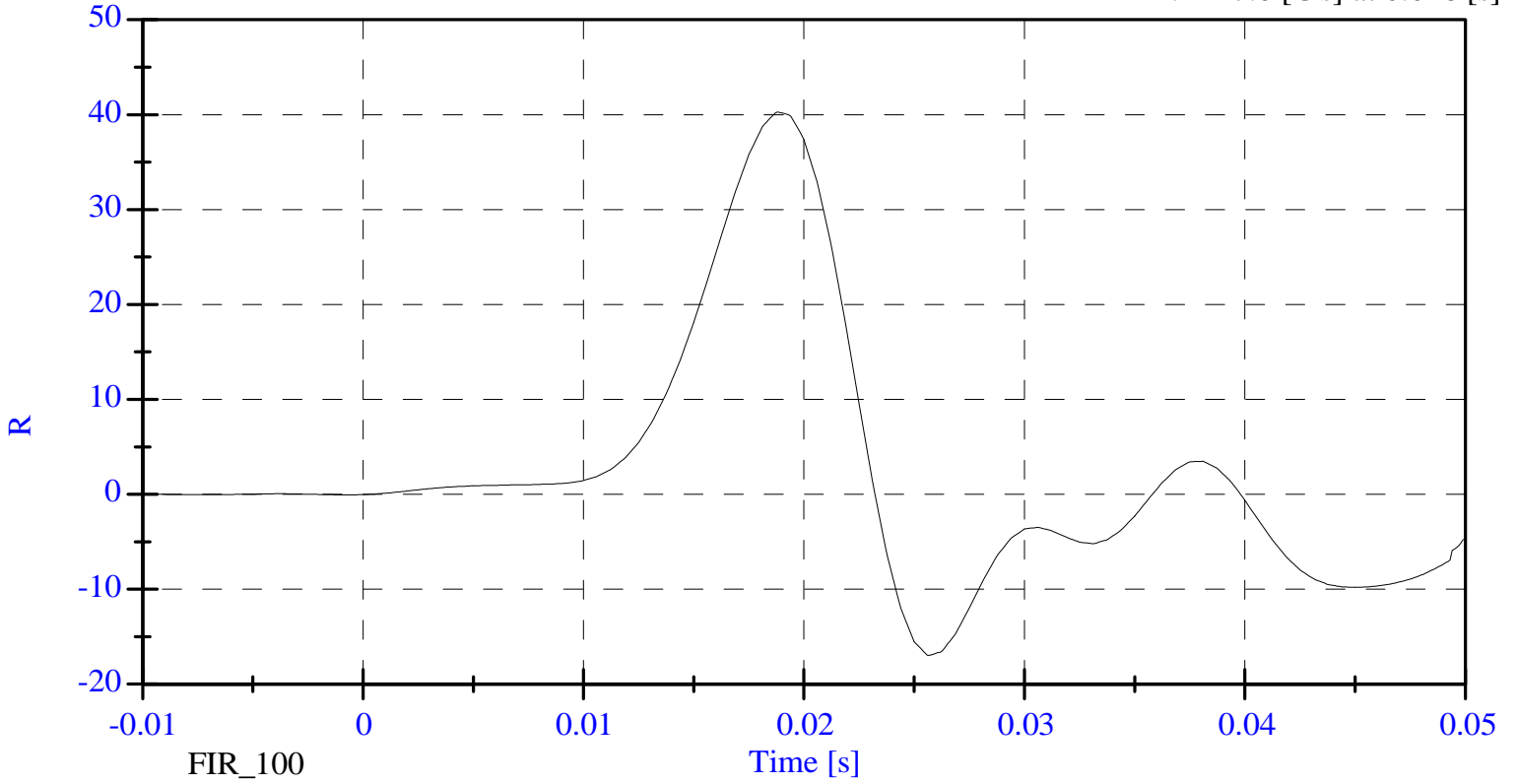
Min: -18.1 [G's] at 0.026 [s]



Max: 40.3 [G's] at 0.019 [s]

Min: -17.0 [G's] at 0.026 [s]

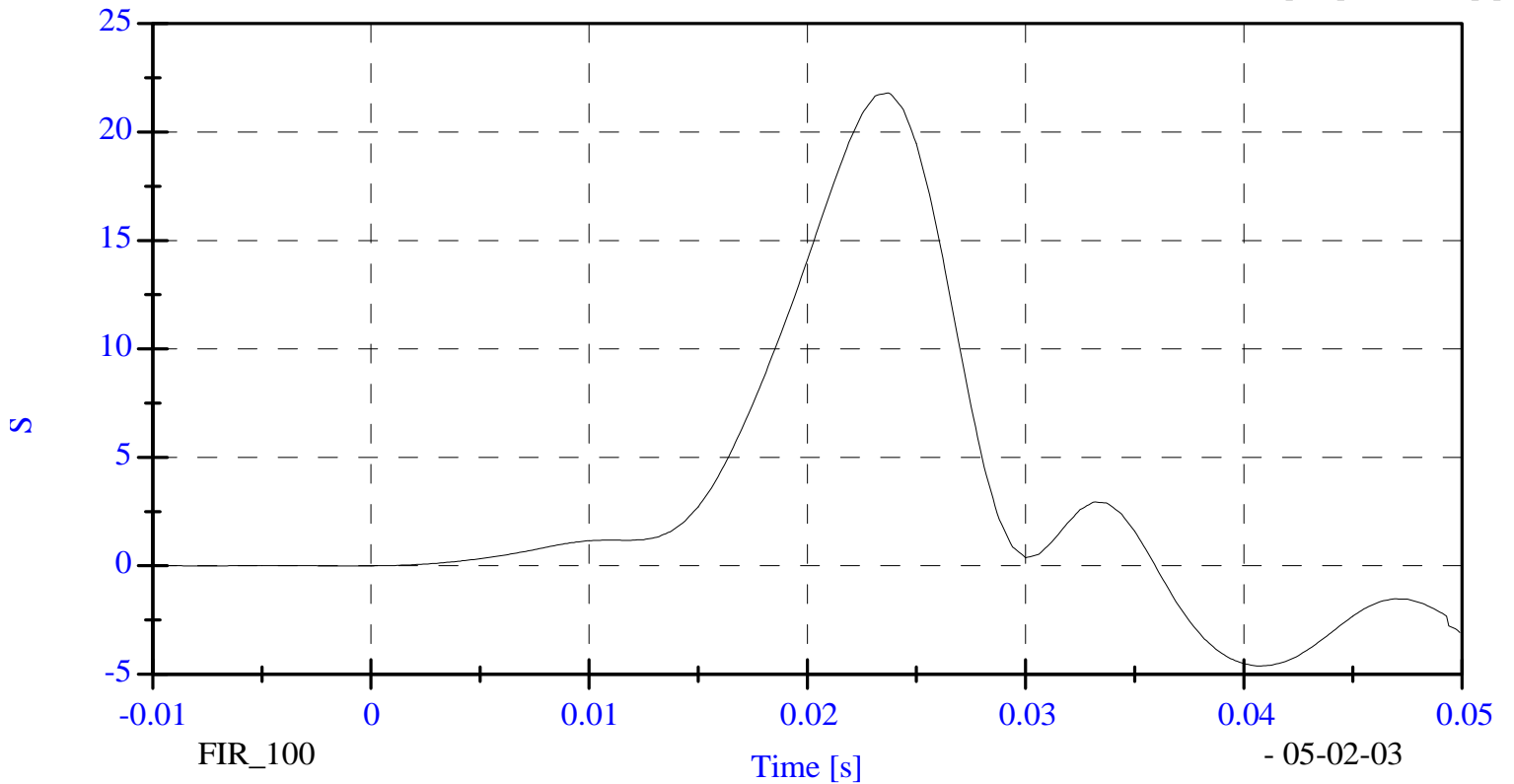
Lower Rib Y Acceleration



Max: 21.8 [G's] at 0.024 [s]

Min: -4.6 [G's] at 0.041 [s]

Lower Spine Y Acceleration



**LATERAL PELVIS IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

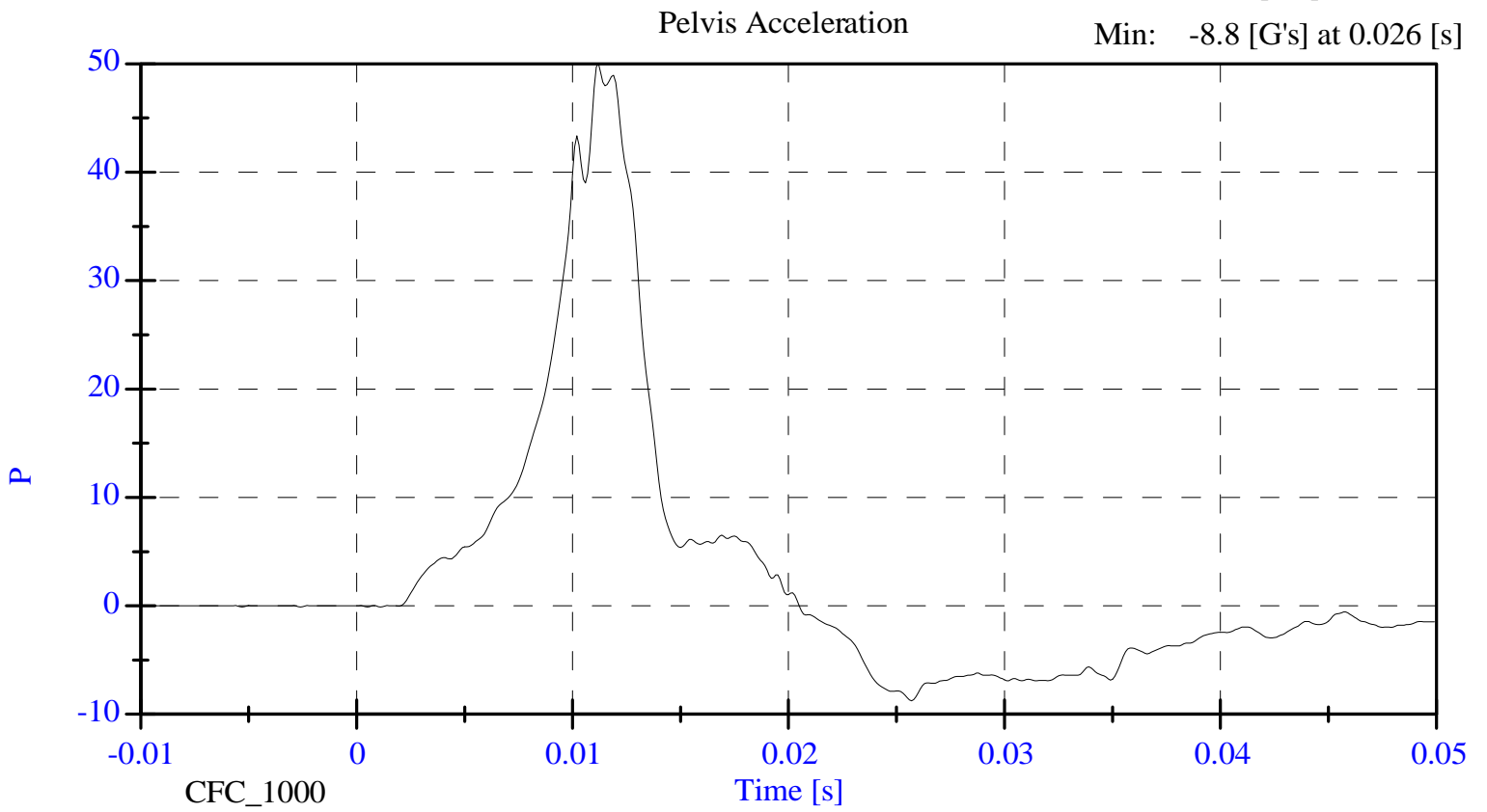
SID H3 Serial No.: 016 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
PROBE SPEED (m/s)	4.27 - 4.33	4.27
PELVIS ACCELERATION (g's)	40 - 60	42.12

REMARKS: None

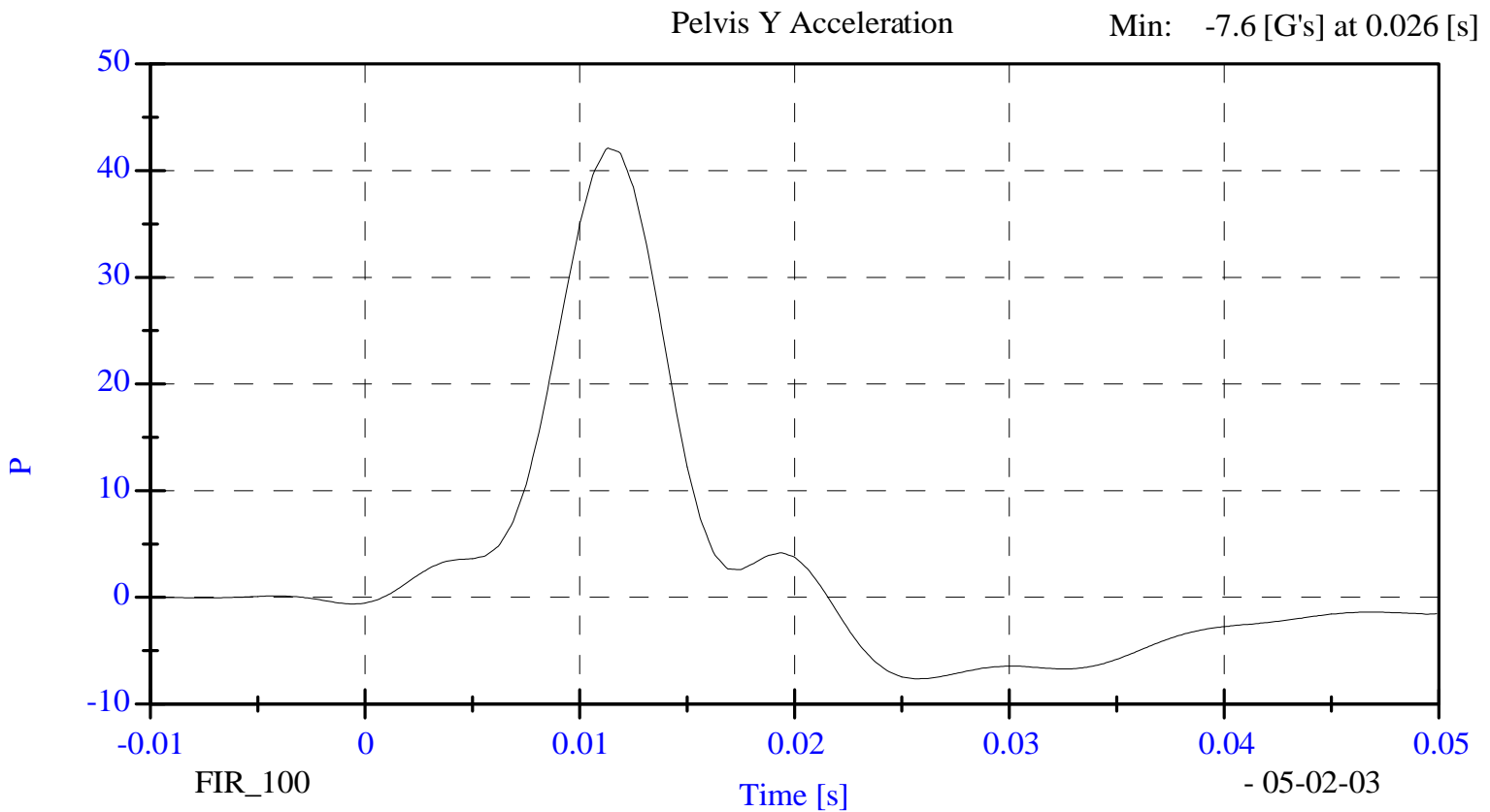
Max: 50.0 [G's] at 0.011 [s]

Min: -8.8 [G's] at 0.026 [s]



Max: 42.1 [G's] at 0.011 [s]

Min: -7.6 [G's] at 0.026 [s]



**HEAD DROP TEST
PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 2
Date: May 1, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 – 22.2	21.1
RELATIVE HUMIDITY (%)	10 – 70	41.0
PEAK RESULTANT ACCELERATION (Gs)	120 – 150	134.95
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 15	1.85
CURVE PERCENT NONMODAL (%)	< 15	3.36

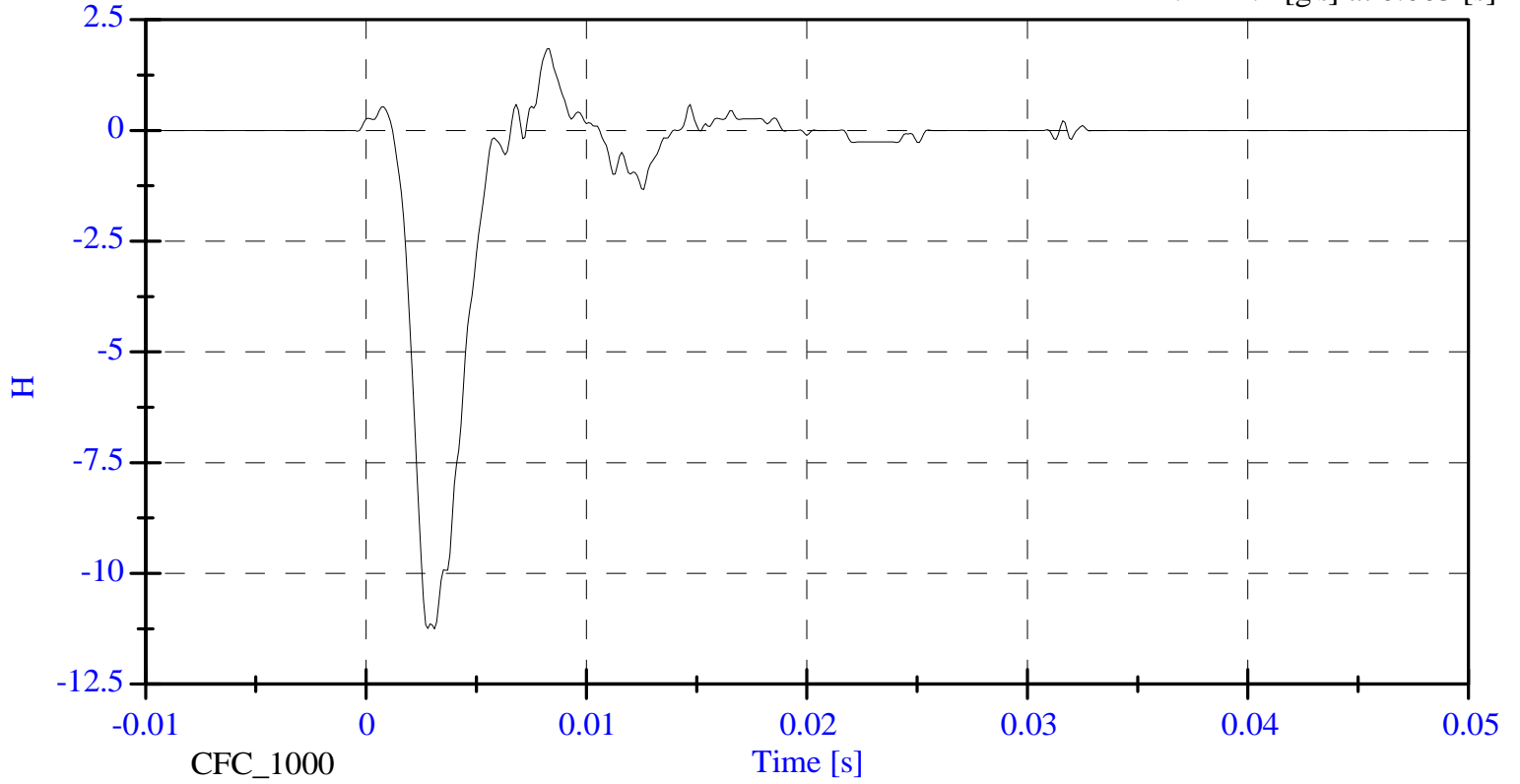
REMARKS: None

016 Head Drop

Head X Acceleration

Max: 1.8 [g's] at 0.008 [s]

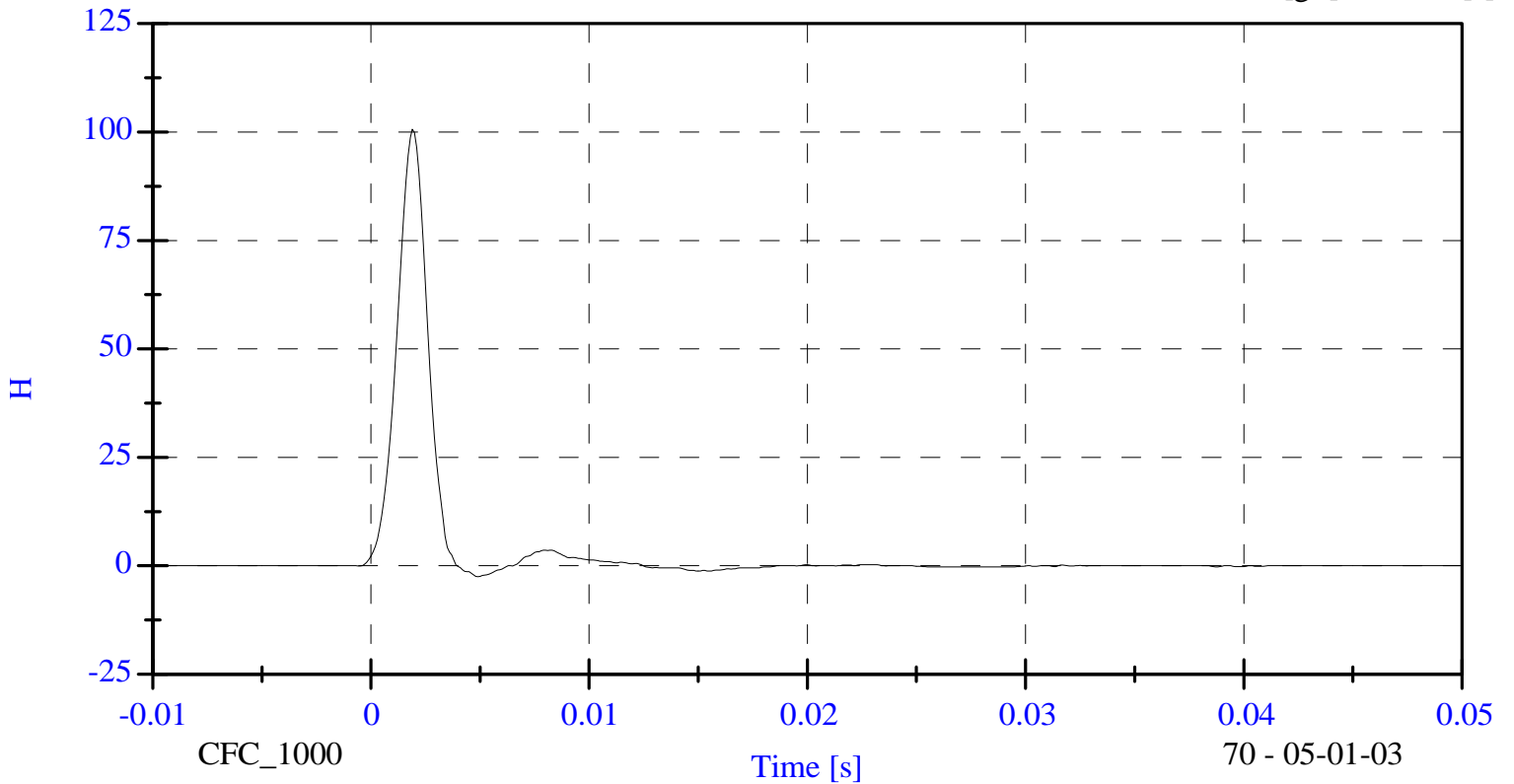
Min: -11.2 [g's] at 0.003 [s]



Head Y Acceleration

Max: 100.6 [g's] at 0.002 [s]

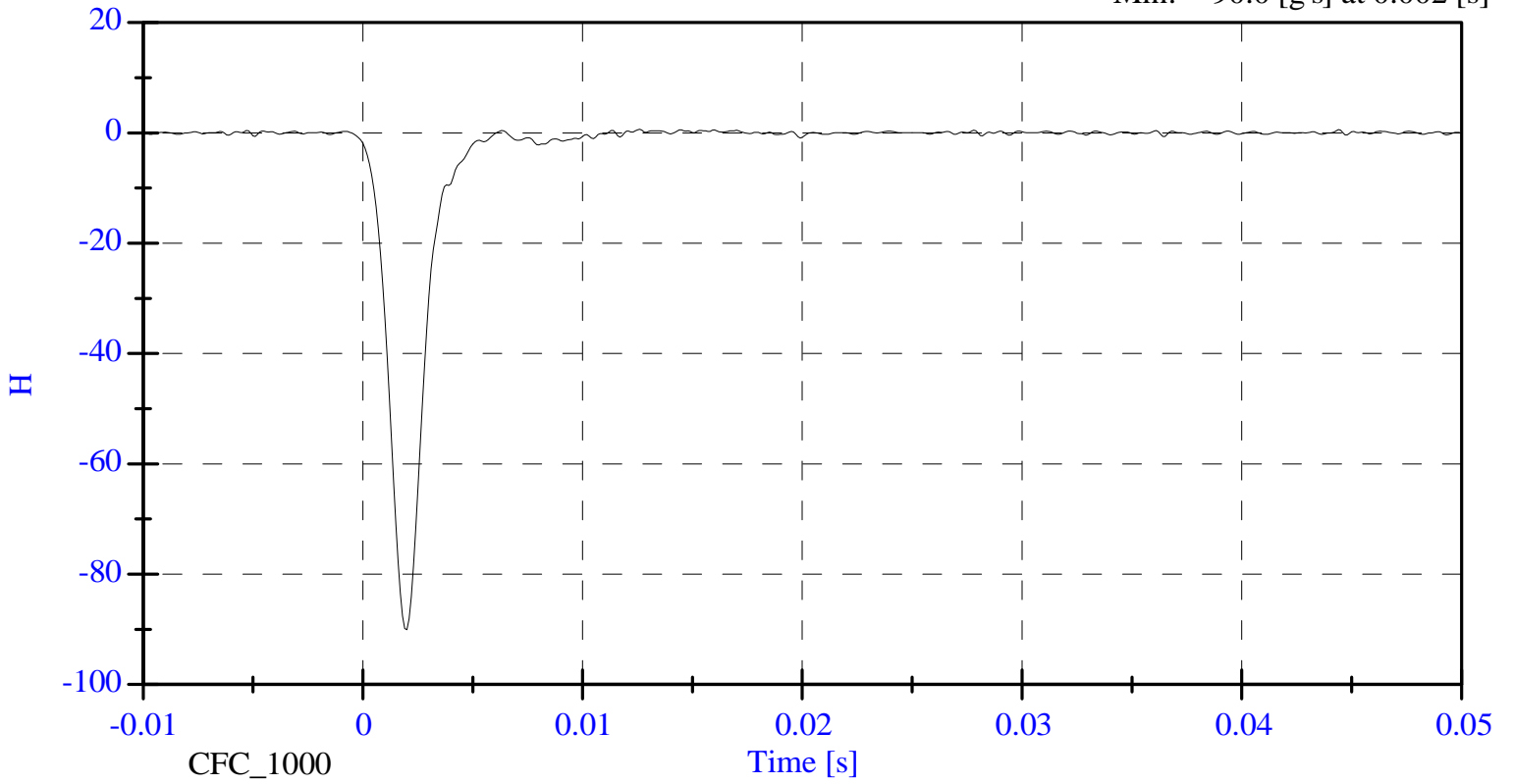
Min: -2.5 [g's] at 0.005 [s]



Head Z Acceleration

Max: 0.7 [g's] at 0.013 [s]

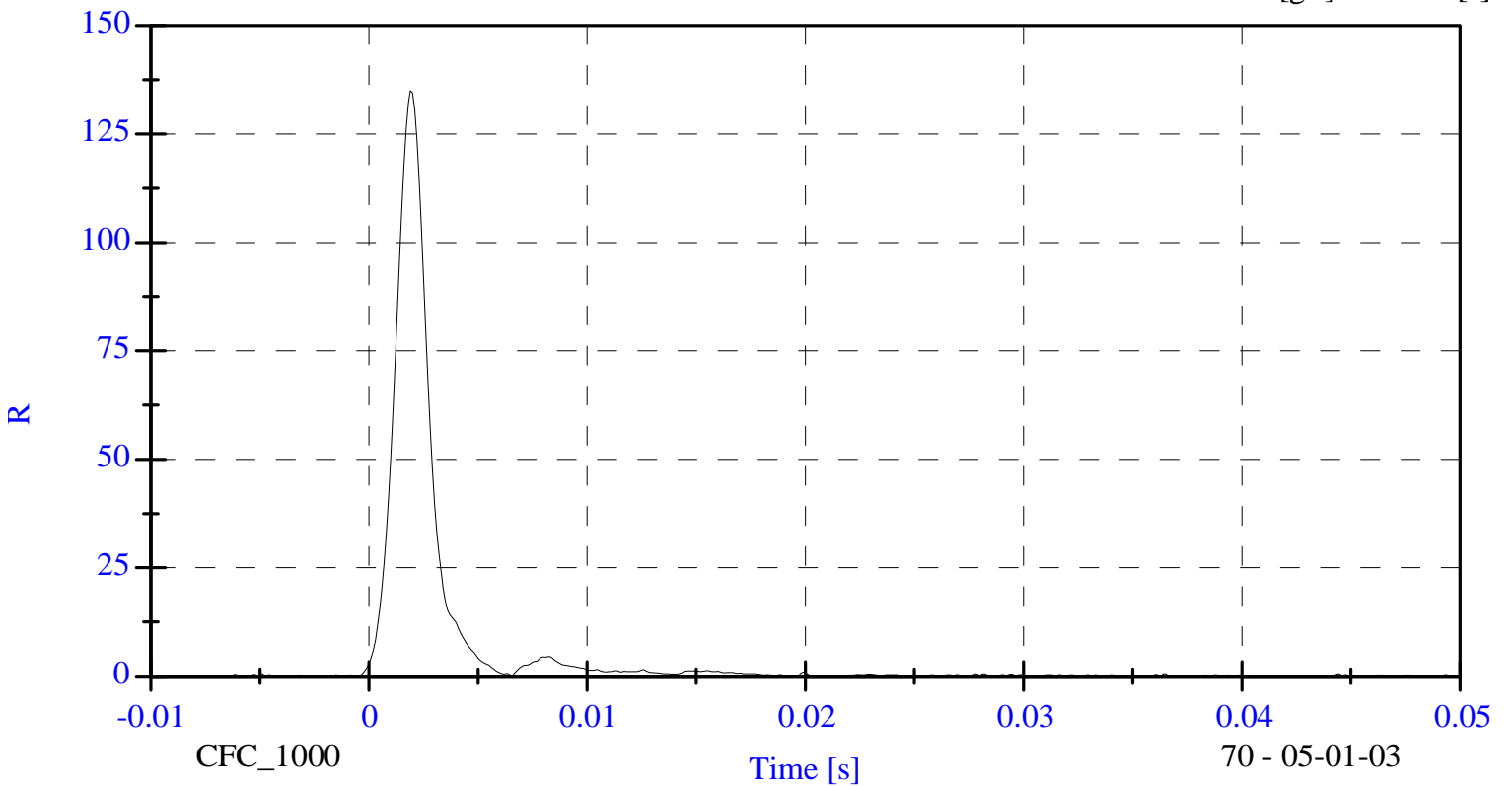
Min: -90.0 [g's] at 0.002 [s]



Head Resultant

Max: 134.9 [g's] at 0.002 [s]

Min: 0.0 [g's] at 0.044 [s]



**LATERAL NECK BENDING TEST
PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 2
 Date: May 1, 2003 Laboratory Technician: B. Swiecicki

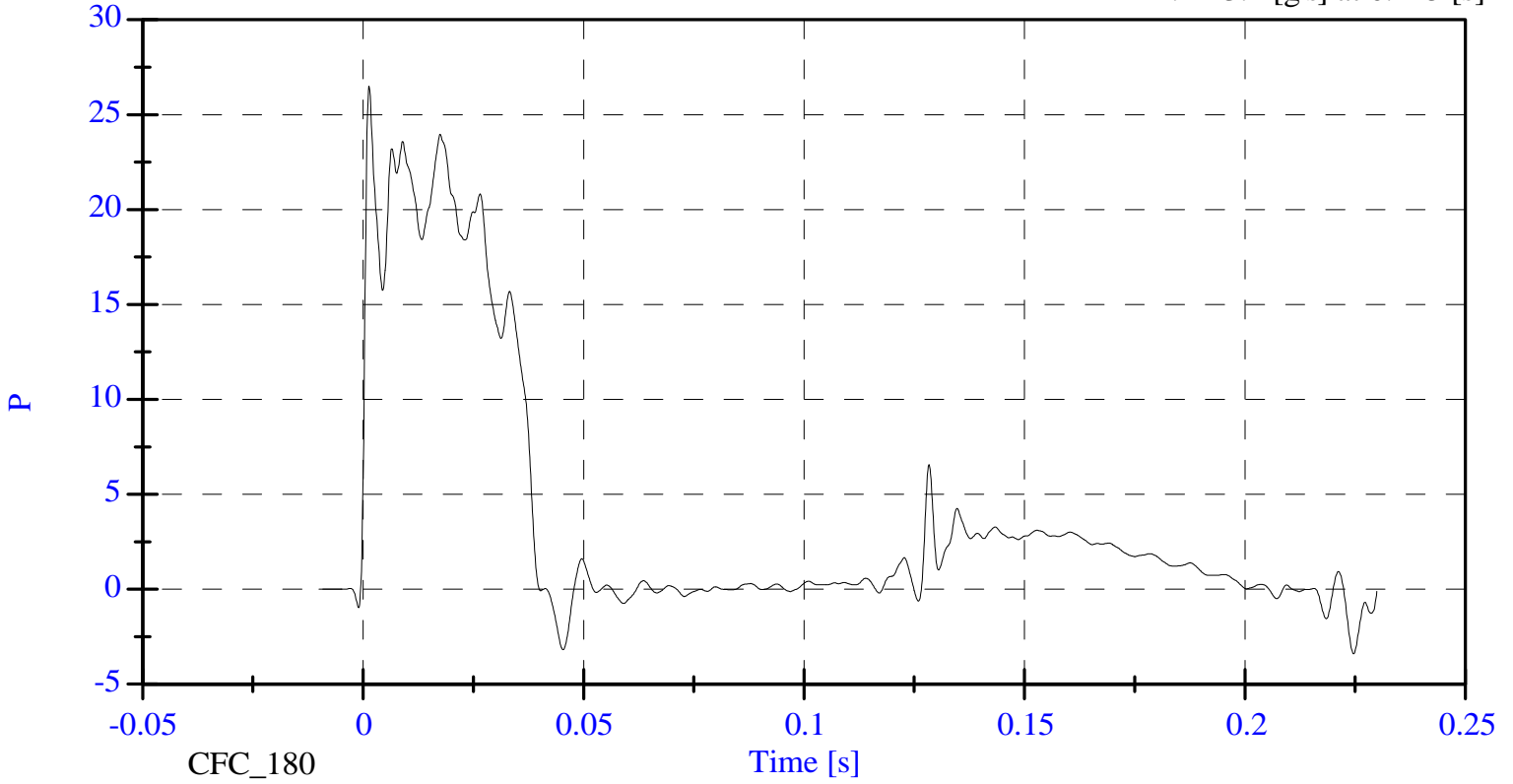
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 - 22.2	21.1
RELATIVE HUMIDITY (%)	10 - 70	40.0
IMPACT VELOCITY (m/s)	6.89 - 7.13	6.97
PENDULUM DELTA V		
DELTA V @ 10 ms (m/s)	1.96 - 2.55	2.05
DELTA V @ 20 ms (m/s)	4.12 - 5.10	4.13
DELTA V @ 30 ms (m/s)	5.73 - 7.01	6.00
DELTA V @ 40-70 ms (m/s)	6.27 - 7.64	7.01
D PLANE ROTATION		
MAXIMUM ROTATION (deg)	64 - 78	72.21
ROT. ANGLE TIME to ZERO (ms)	50 - 70	58.60
MOMENT ABOUT THE OCCIPITAL CONDYLE		
MAX OCCIPITAL MOMENT (Nm)	88 - 108	89.83
OCCIPITAL MOMENT DECAY (ms)	40.0 - 60.0	51.70
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT		
ROTATION wrt MOMENT (ms)	0 - 20	10.40

REMARKS: None

Max: 26.5 [g's] at 0.001 [s]

Min: -3.4 [g's] at 0.225 [s]

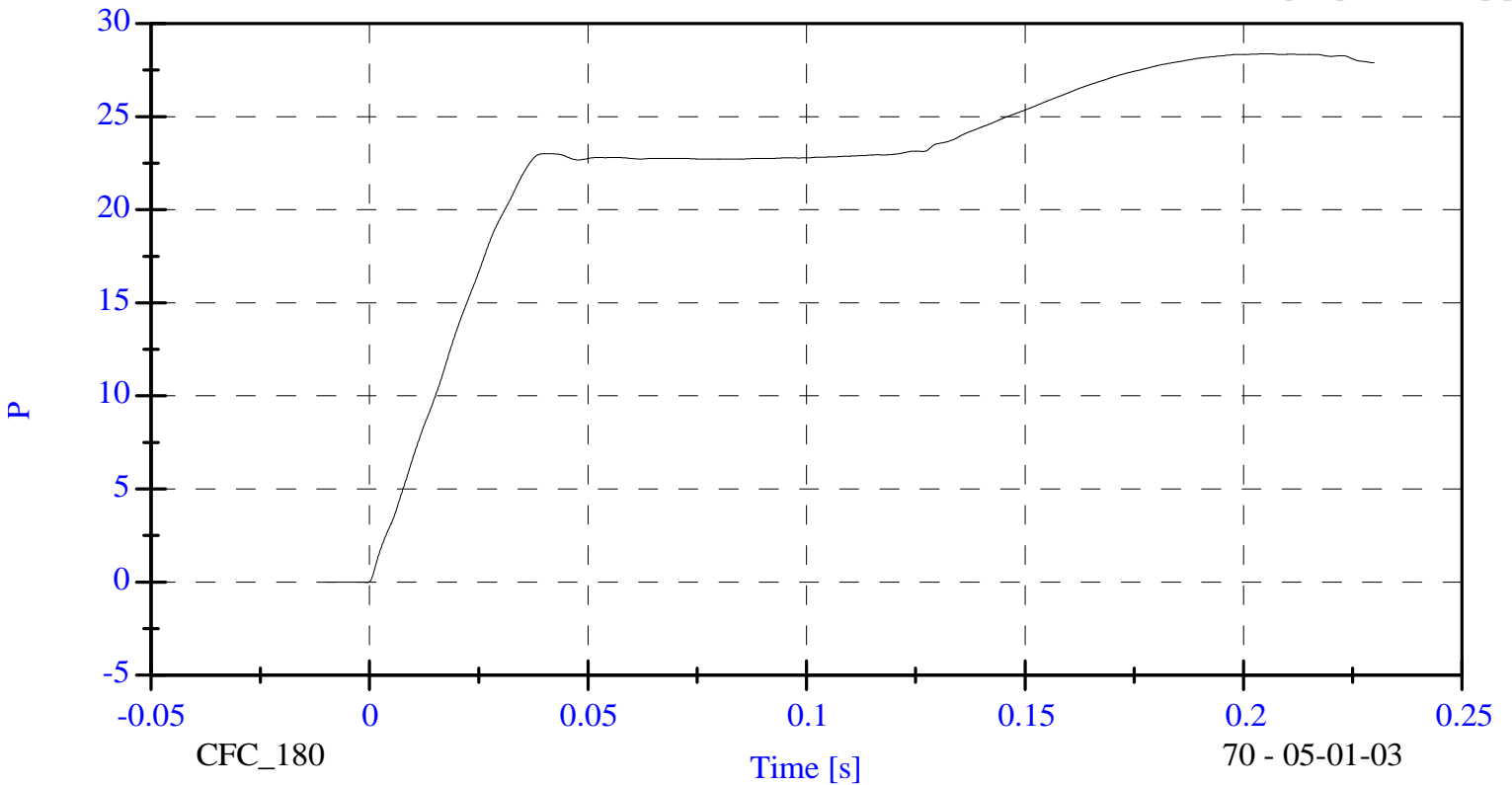
Pendulum Acceleration



Max: 28.4 [ft/s] at 0.205 [s]

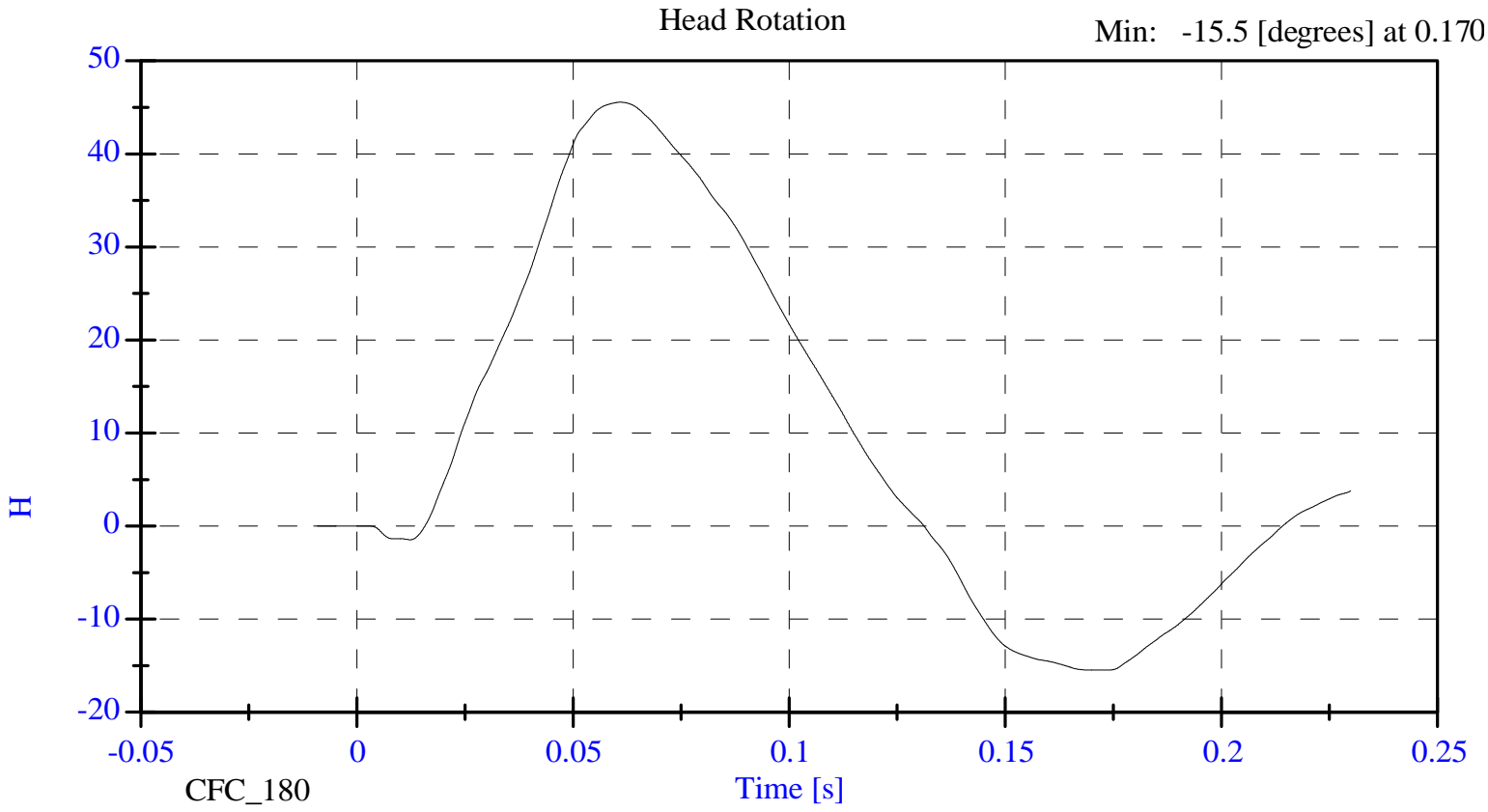
Min: -0.0 [ft/s] at -0.001 [s]

Pendulum Velocity



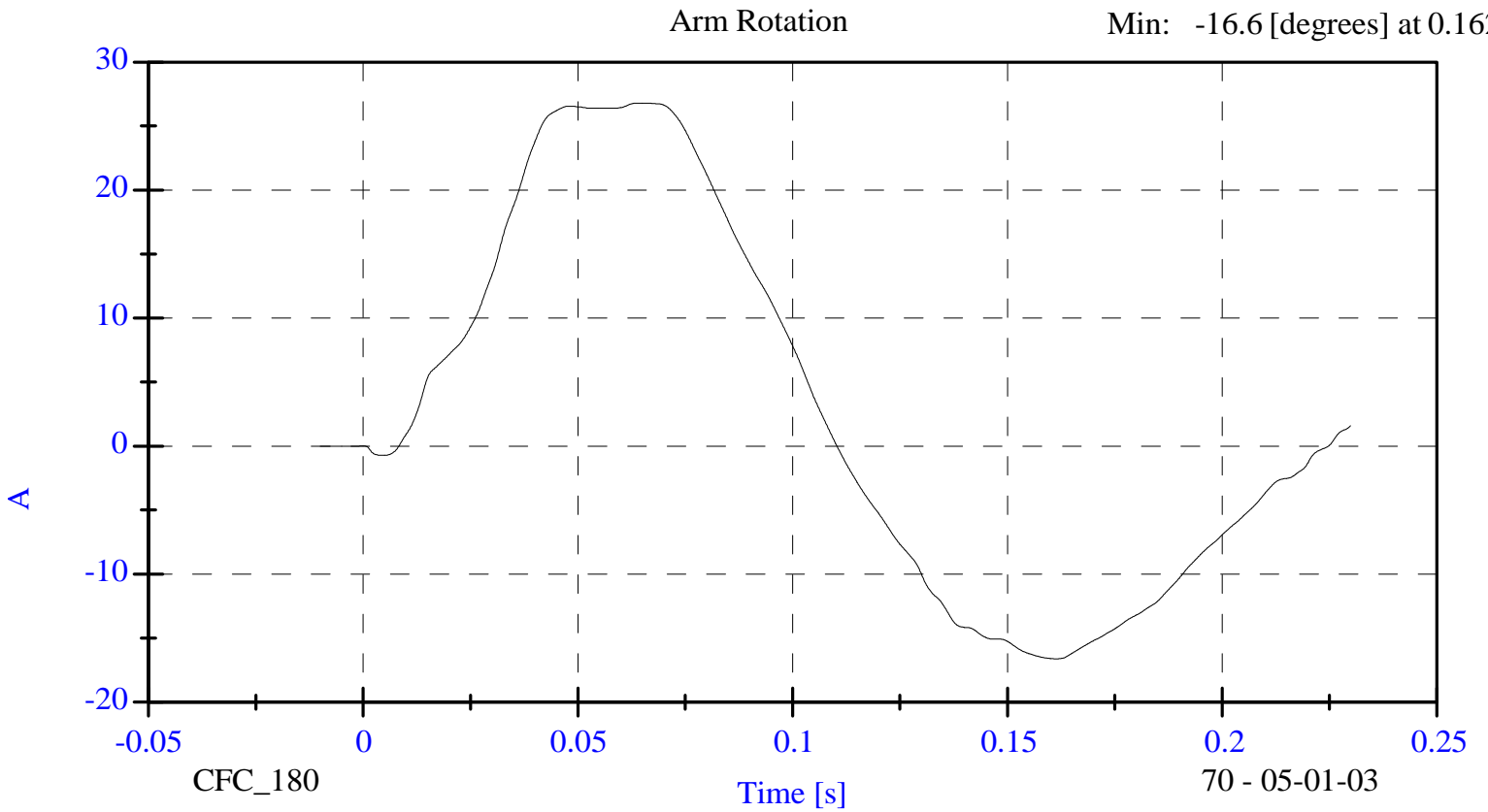
Max: 45.6 [degrees] at 0.061

Min: -15.5 [degrees] at 0.170



Max: 26.8 [degrees] at 0.064

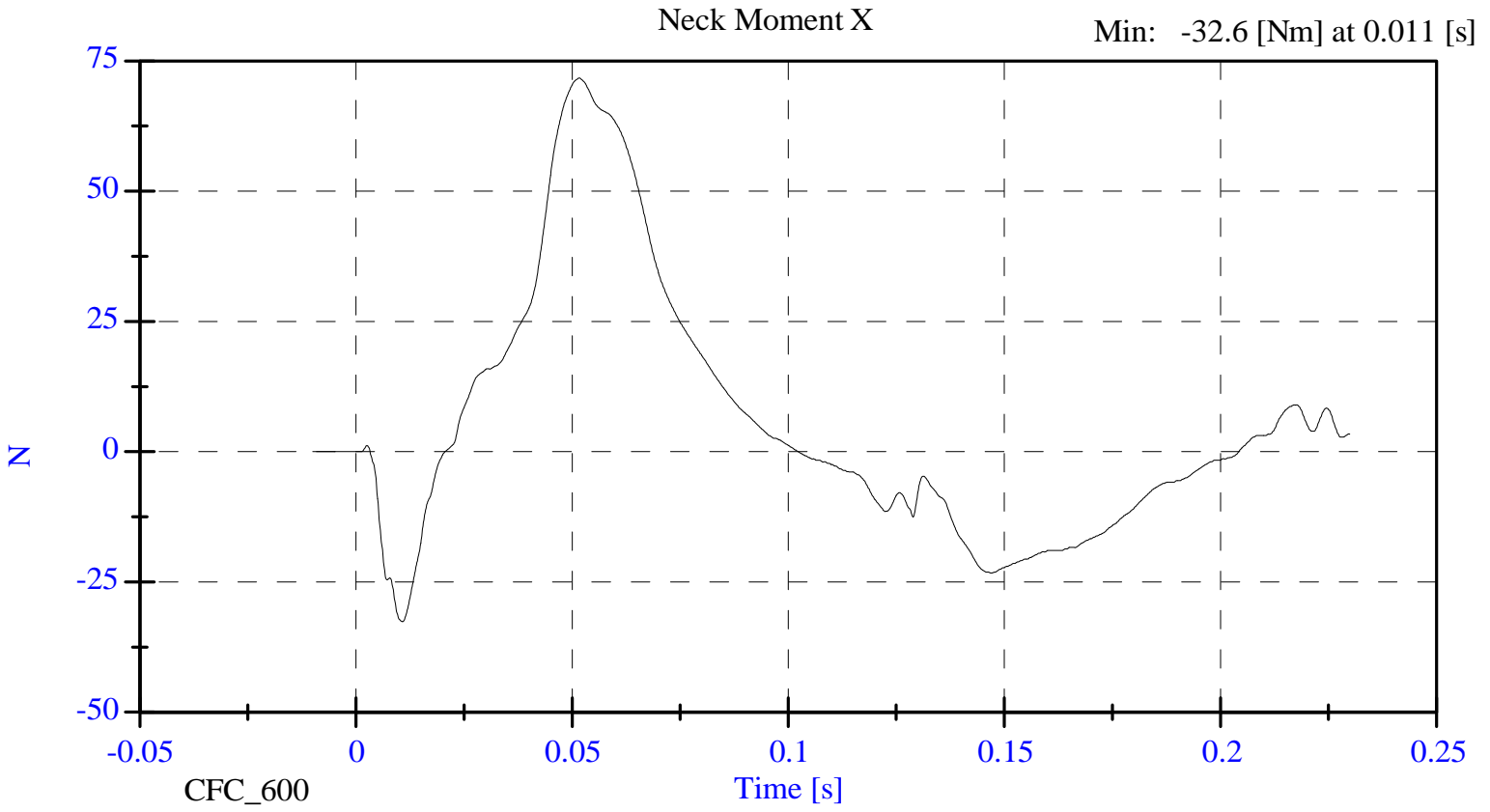
Min: -16.6 [degrees] at 0.162



70 - 05-01-03

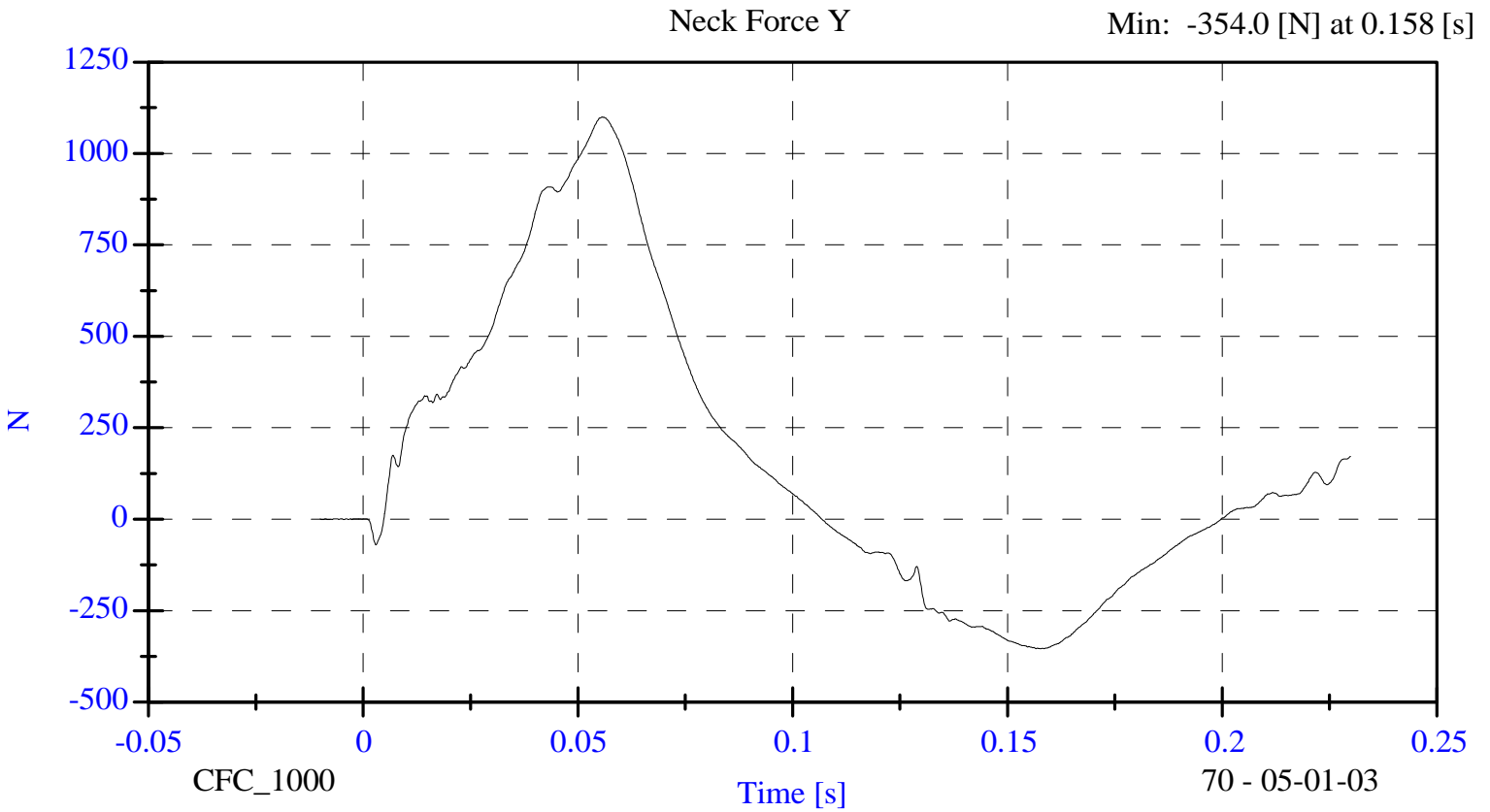
Max: 71.7 [Nm] at 0.052 [s]

Min: -32.6 [Nm] at 0.011 [s]



Max: 1099.7 [N] at 0.056 [s]

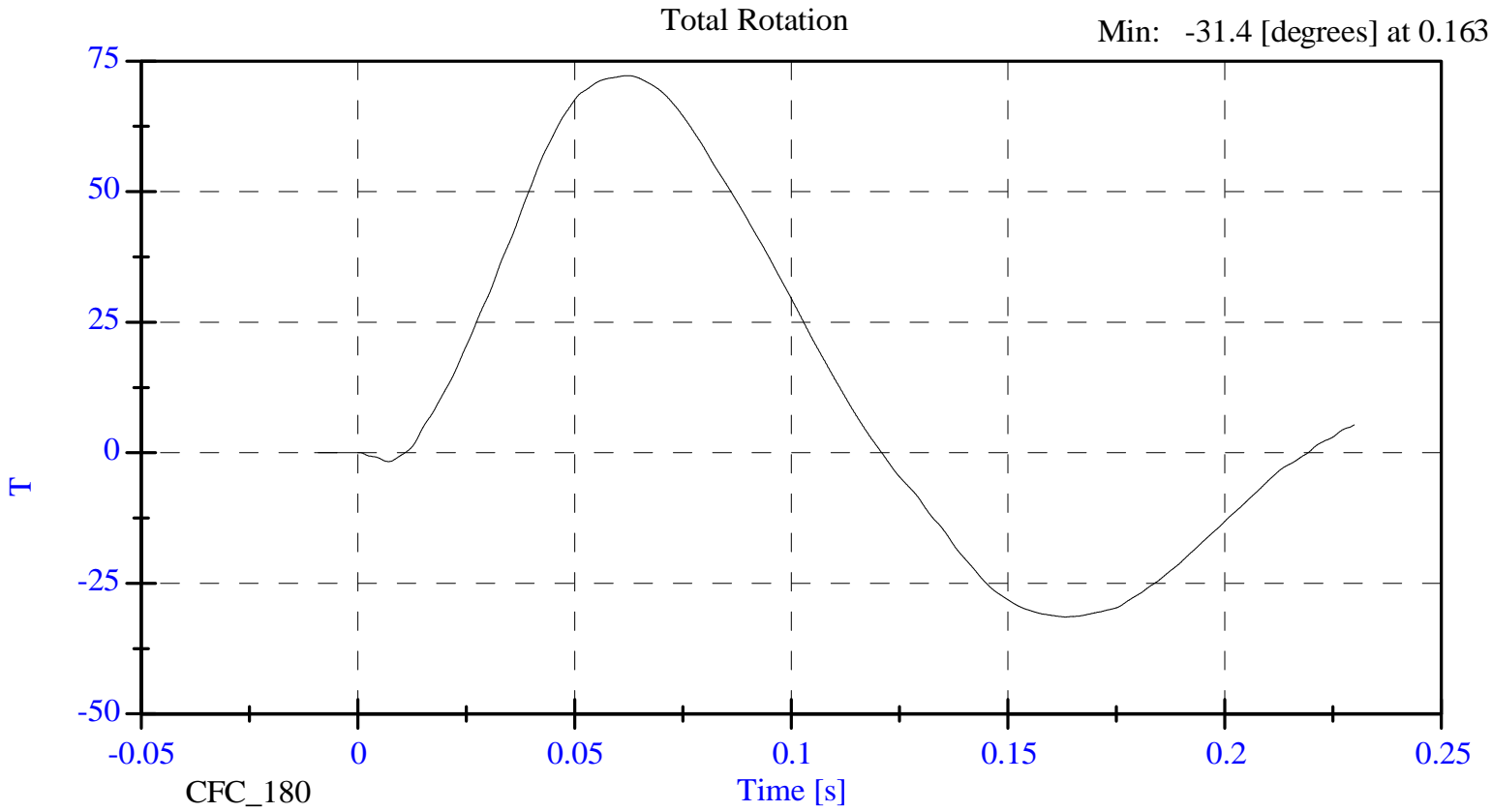
Min: -354.0 [N] at 0.158 [s]



70 - 05-01-03

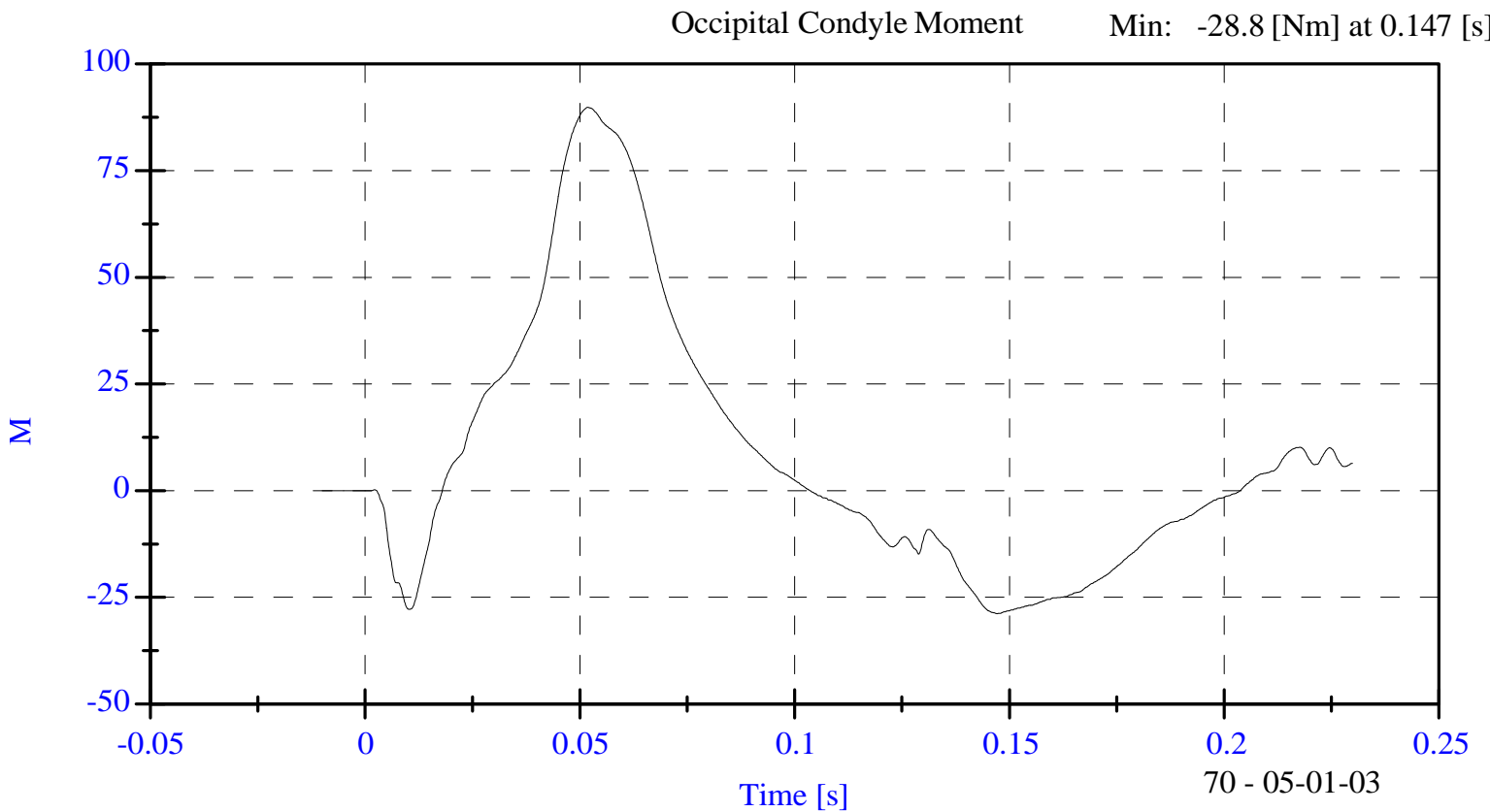
Max: 72.2 [degrees] at 0.062

Min: -31.4 [degrees] at 0.163



Max: 89.8 [Nm] at 0.052 [s]

Min: -28.8 [Nm] at 0.147 [s]



**ABDOMINAL COMPRESSION TEST
PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
FORCE @ 13 mm (N)	104 - 162	118.3
FORCE @ 19 mm (N)	163 - 221	186.8
FORCE @ 25 mm (N)	222 - 280	259.6
FORCE @ 33 mm (N)	325 - 391	361.2

REMARKS: None

Dummy S/N 016

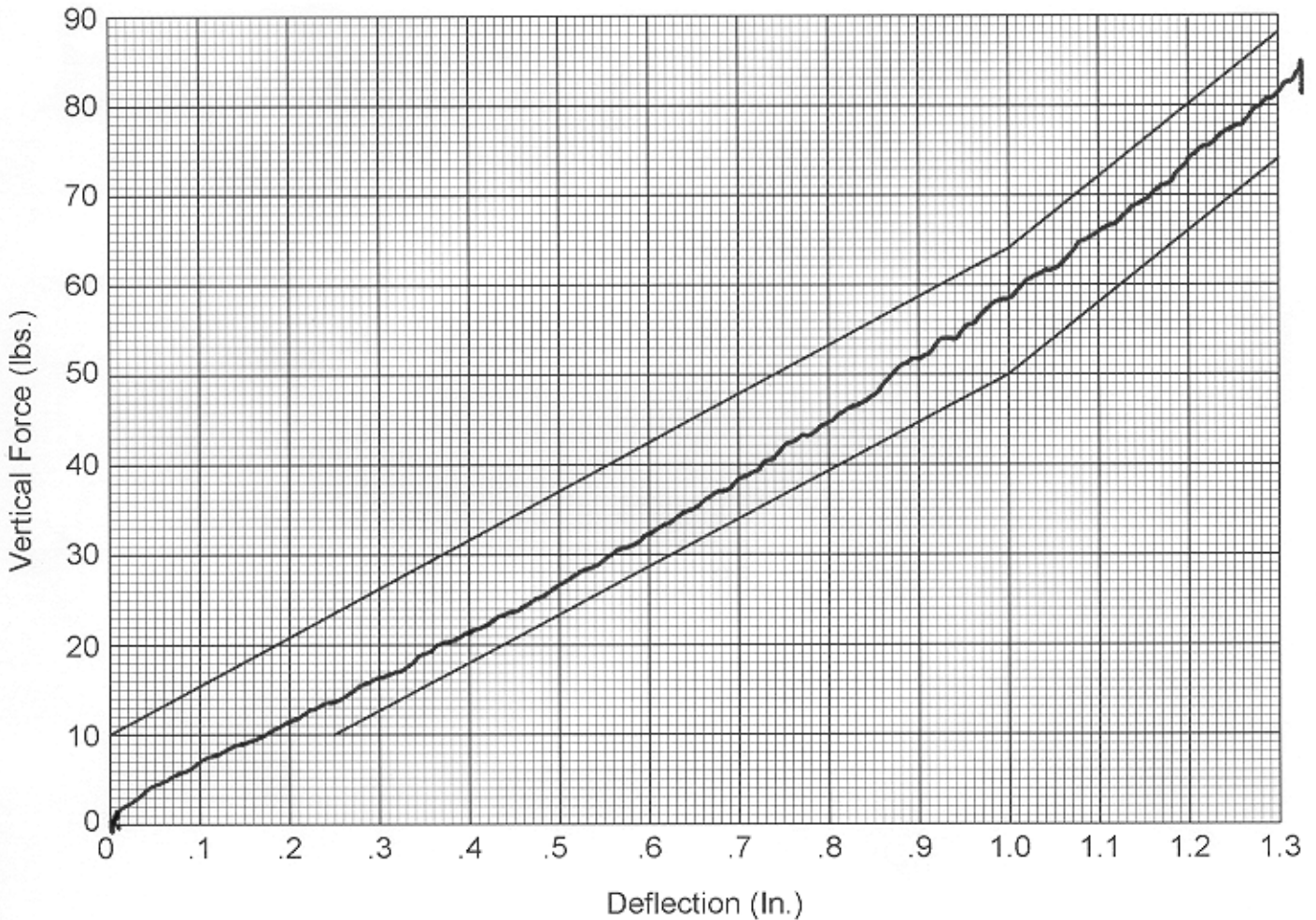
W/A _____

Date 5-02-03

Performed By [Signature]

Temp. 70°

Humidity 37%



Hybrid II
Abdomen Static Press

LUMBAR FLEXION TEST
PRE-TEST
 (Test not required for SID certification)

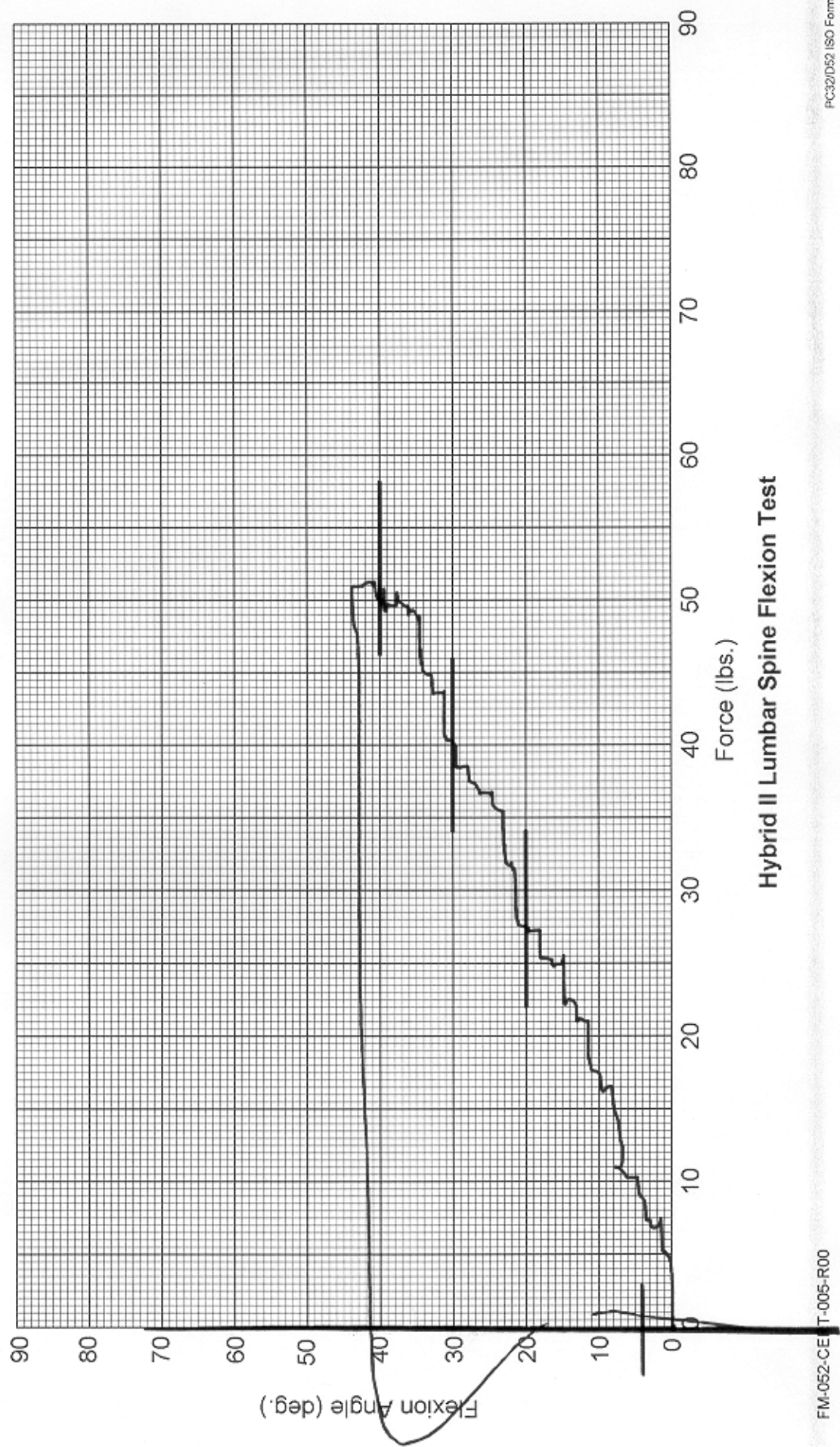
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
 Date: May 2, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	37.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	121.9
FORCE @ 30° (N)	151.2 - 204.6	178.8
FORCE @ 40° (N)	204.6 - 258	223.7
RETURN ANGLE	12° max.	4°

REMARKS: None

Dummy S/N 016
 W/A _____
 Date 5-02-03
 Performed By [Signature]
 Temp. 70°
 Humidity 37%



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 2
 Date: May 2, 2003 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 015

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

**LATERAL THORAX IMPACT TEST
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	38.00
PROBE SPEED (m/s)	4.27 - 4.33	4.27
UPPER RIB (g's)	37 - 46	37.43
LOWER RIB (g's)	37 - 46	38.17
LOWER SPINE (g's)	15 - 22	18.55

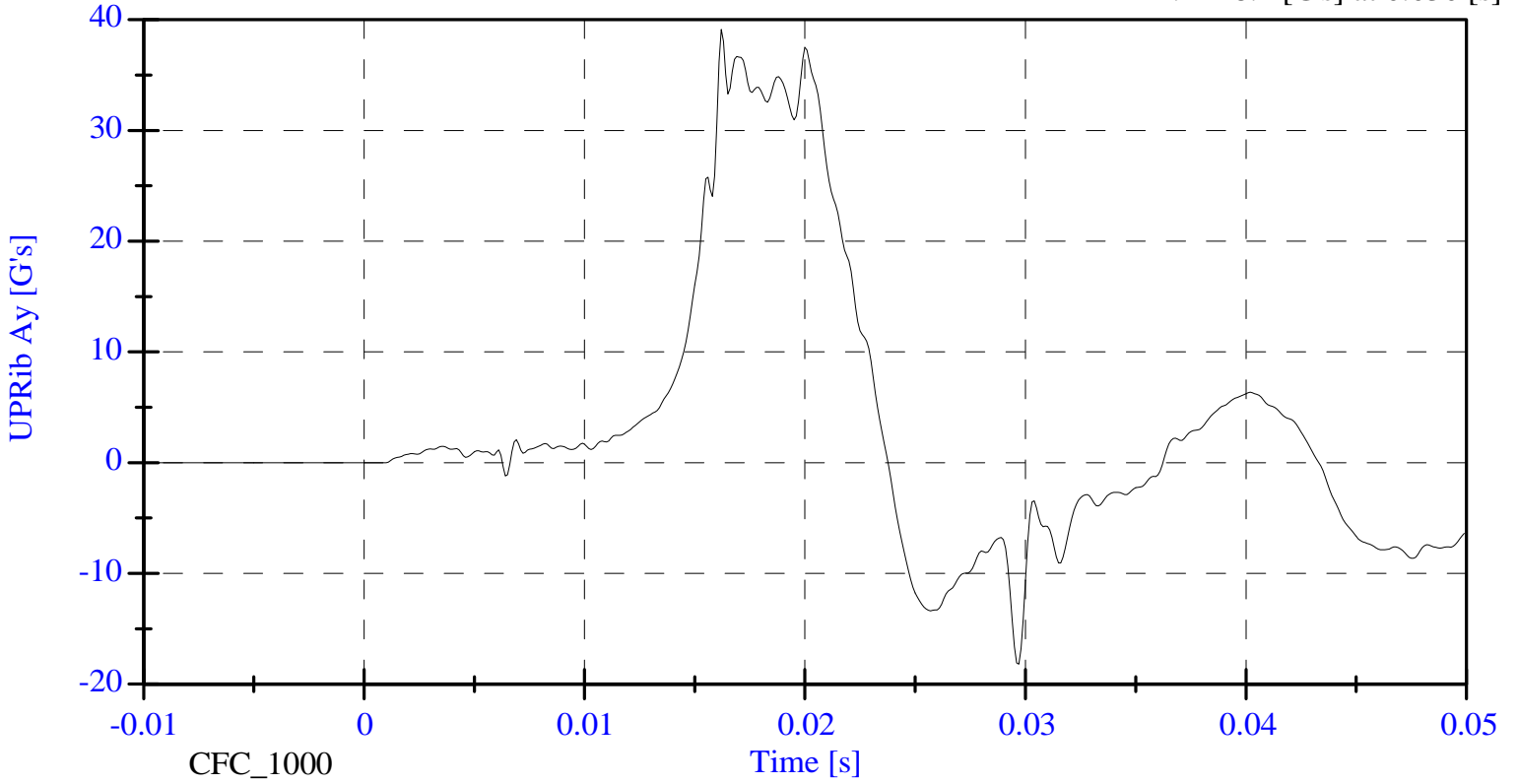
REMARKS: None

Thorax Impact

Upper Rib Y Acceleration

Max: 39.1 [G's] at 0.016 [s]

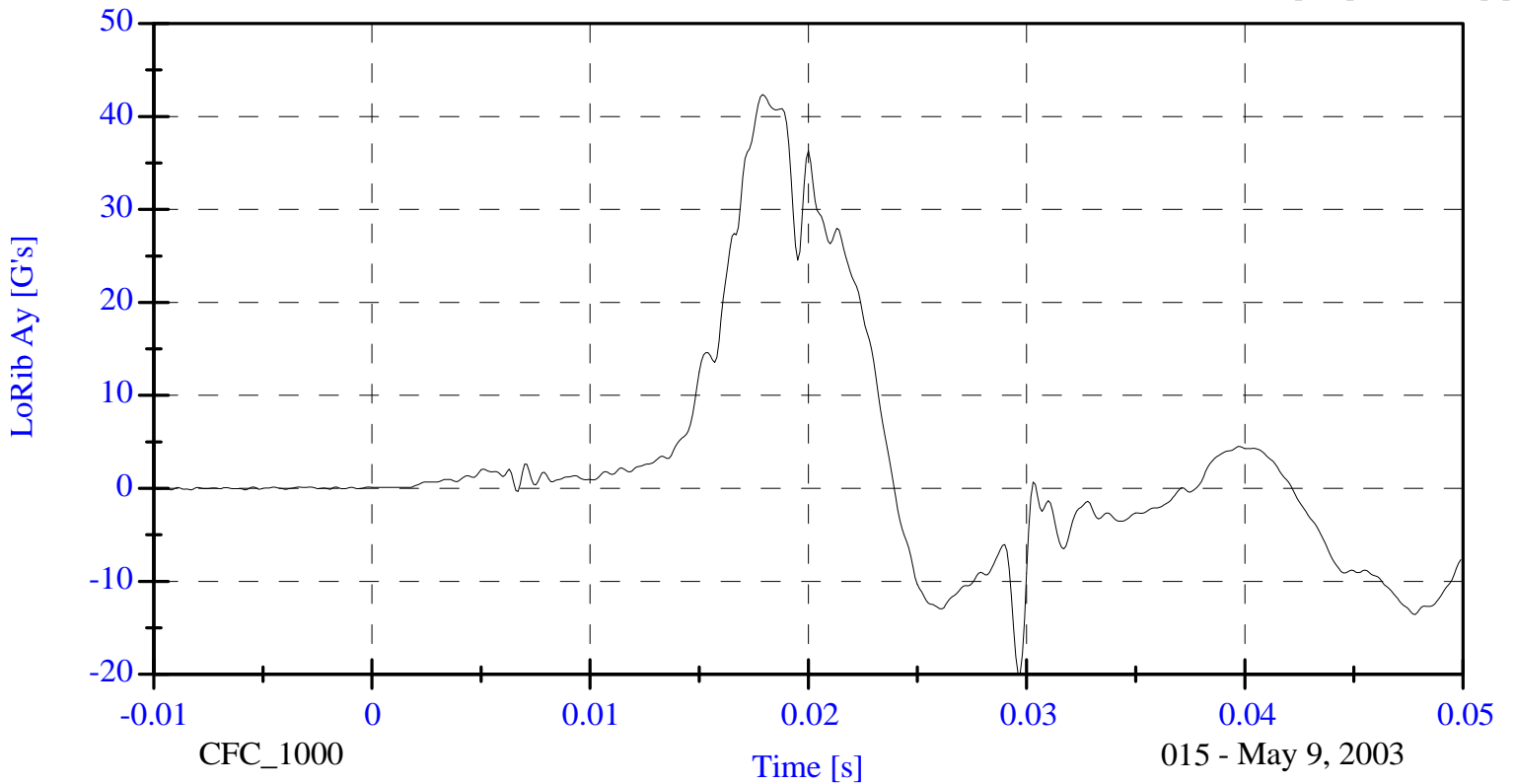
Min: -18.2 [G's] at 0.030 [s]



Lower Rib Y Acceleration

Max: 42.4 [G's] at 0.018 [s]

Min: -19.9 [G's] at 0.030 [s]



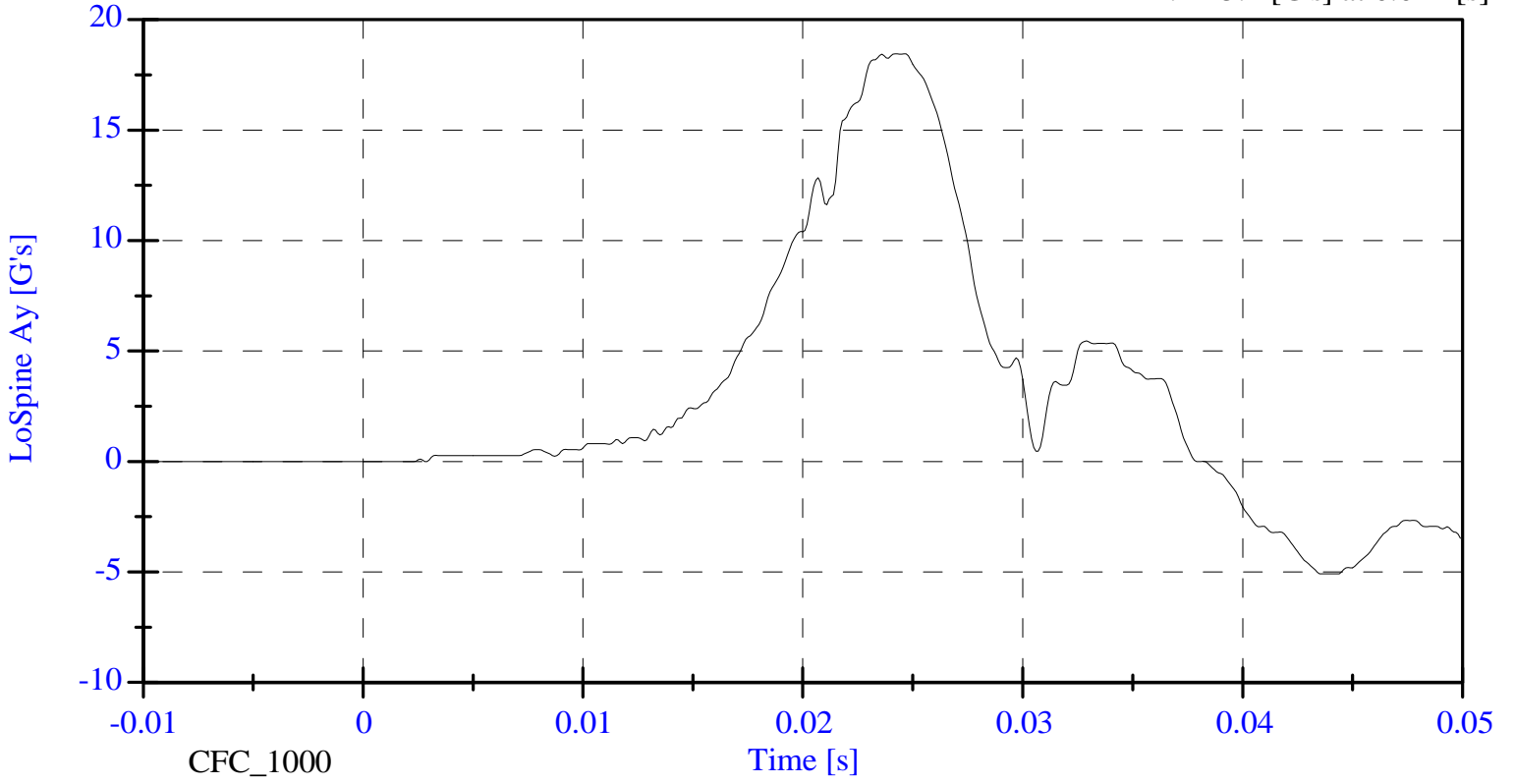
015 - May 9, 2003

Thorax Impact

Lower Spine Y Acceleration

Max: 18.5 [G's] at 0.025 [s]

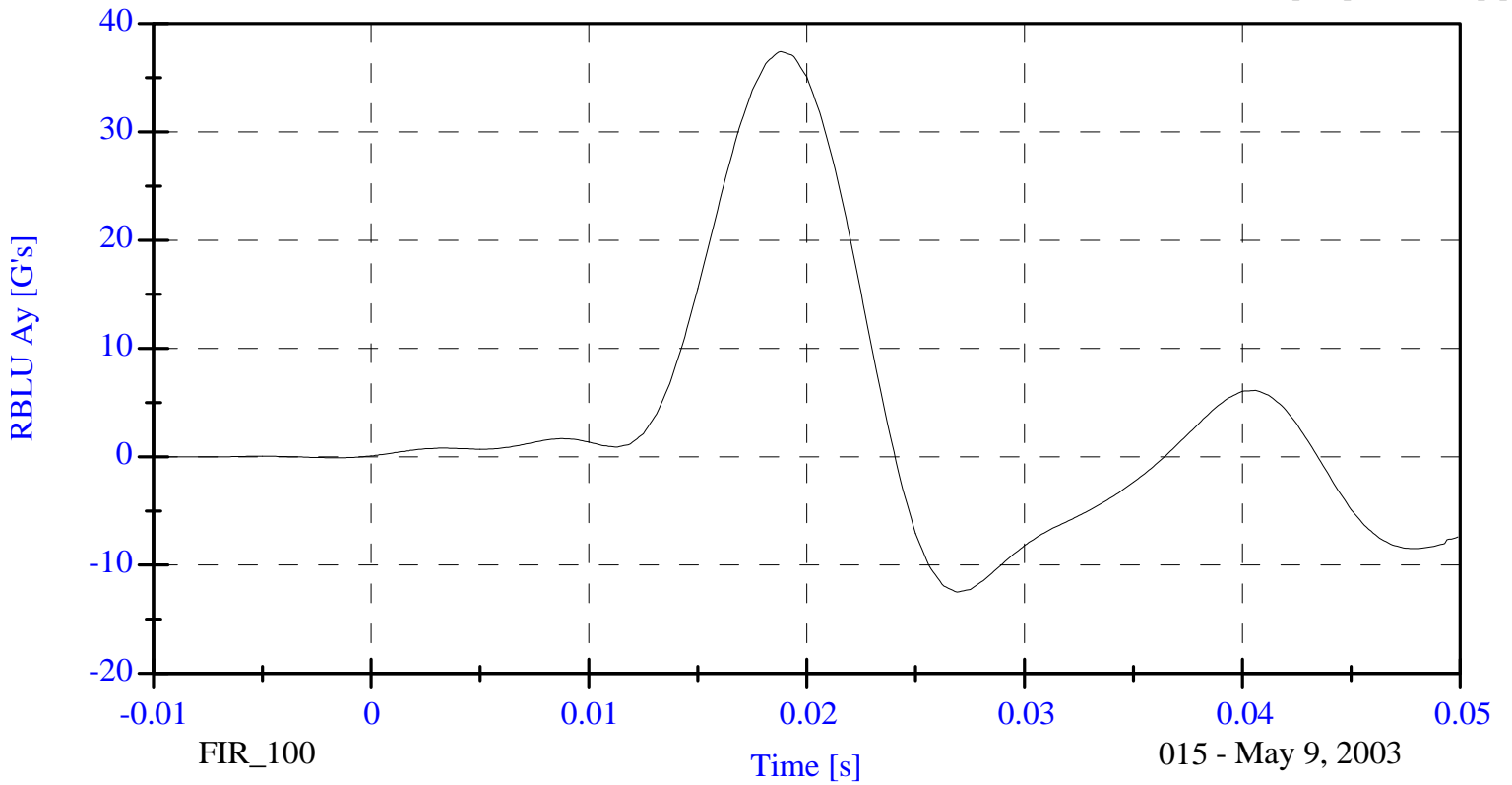
Min: -5.1 [G's] at 0.044 [s]



Upper Rib Y Acceleration

Max: 37.4 [G's] at 0.019 [s]

Min: -12.5 [G's] at 0.027 [s]

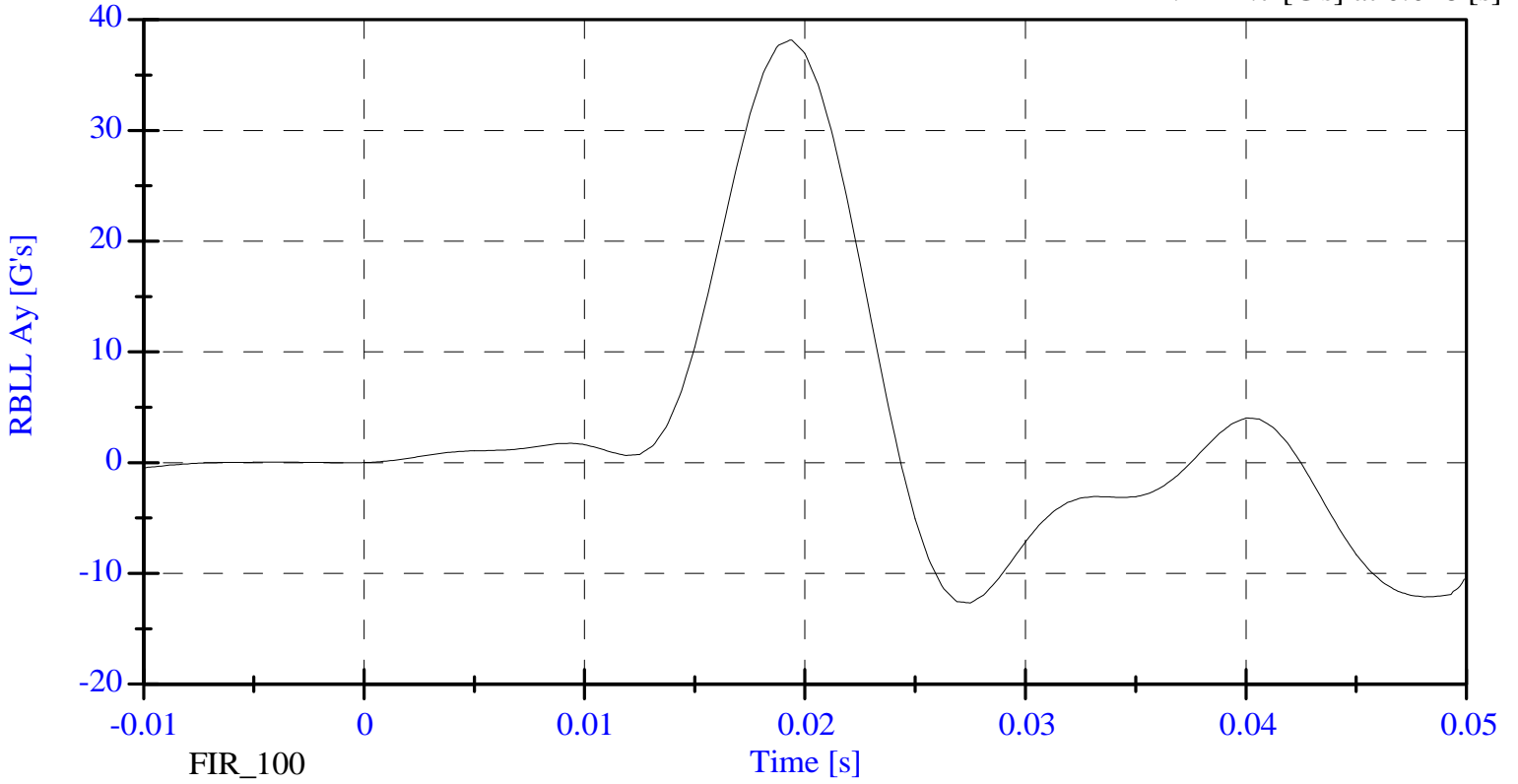


Thorax Impact

Max: 38.2 [G's] at 0.019 [s]

Min: -12.7 [G's] at 0.028 [s]

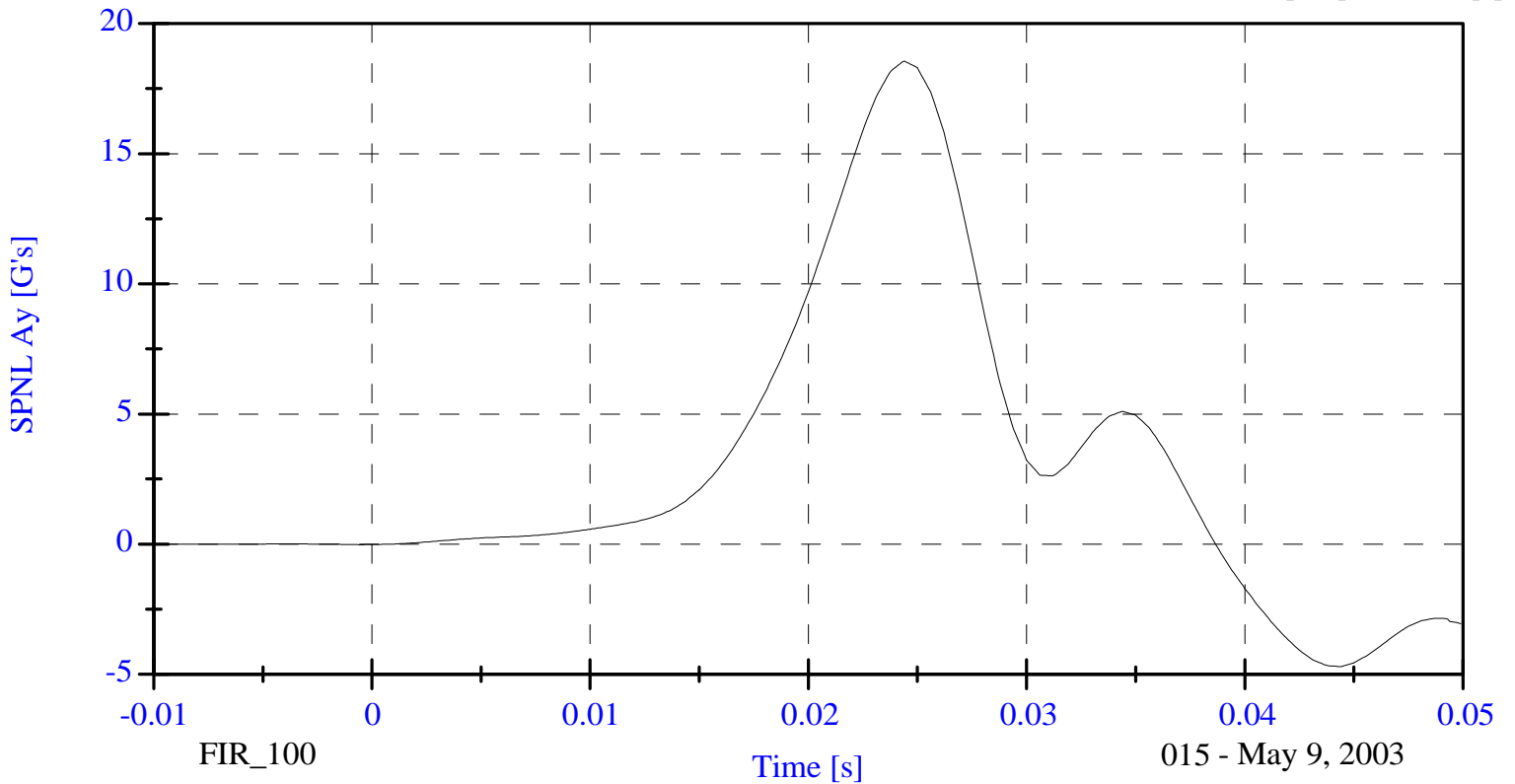
Lower Rib Y Acceleration



Max: 18.6 [G's] at 0.024 [s]

Min: -4.7 [G's] at 0.044 [s]

Lower Spine Y Acceleration



015 - May 9, 2003

**LATERAL PELVIS IMPACT TEST
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

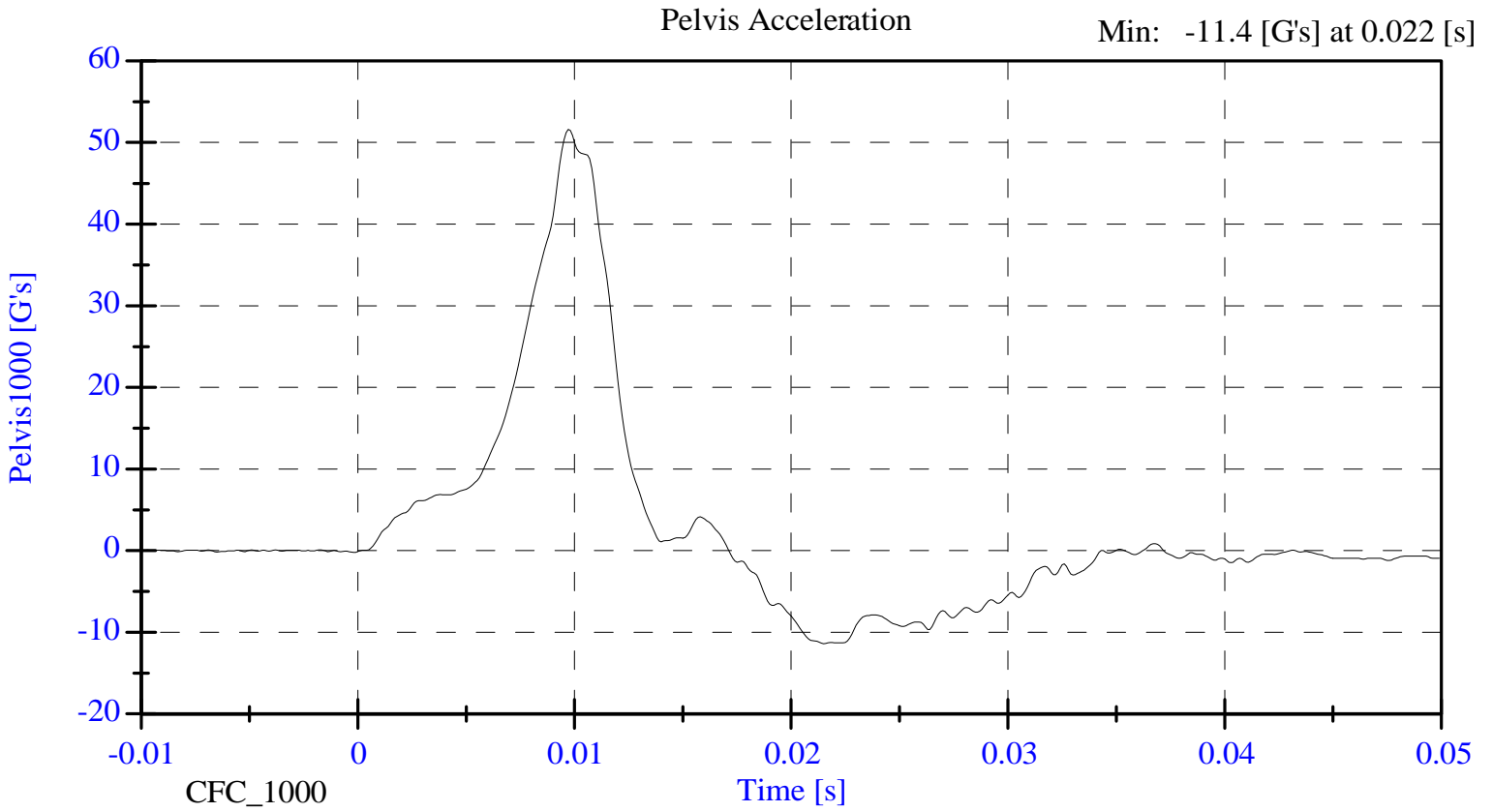
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	38.00
PROBE SPEED (m/s)	4.27 - 4.33	4.28
PELVIS ACCELERATION (g's)	40 - 60	43.89

REMARKS: None

Pelvic Impact

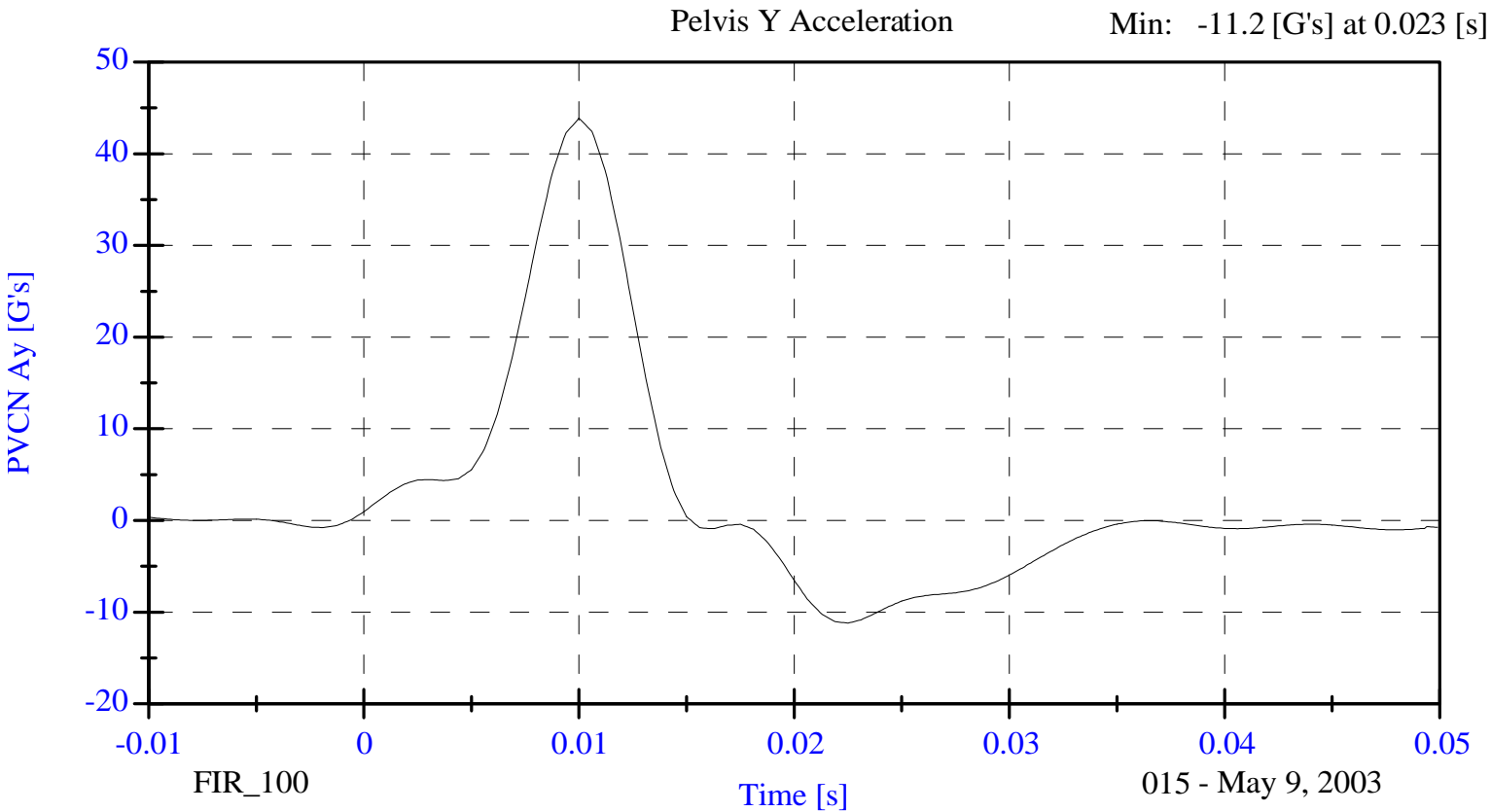
Max: 51.6 [G's] at 0.010 [s]

Min: -11.4 [G's] at 0.022 [s]



Max: 43.9 [G's] at 0.010 [s]

Min: -11.2 [G's] at 0.023 [s]



015 - May 9, 2003

**HEAD DROP TEST
POST-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 3
Date: May 7, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 – 22.2	21.1
RELATIVE HUMIDITY (%)	10 – 70	33.00
PEAK RESULTANT ACCELERATION (Gs)	120 – 150	120.13
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 15	10.92
CURVE PERCENT NONMODAL (%)	< 15	3.72

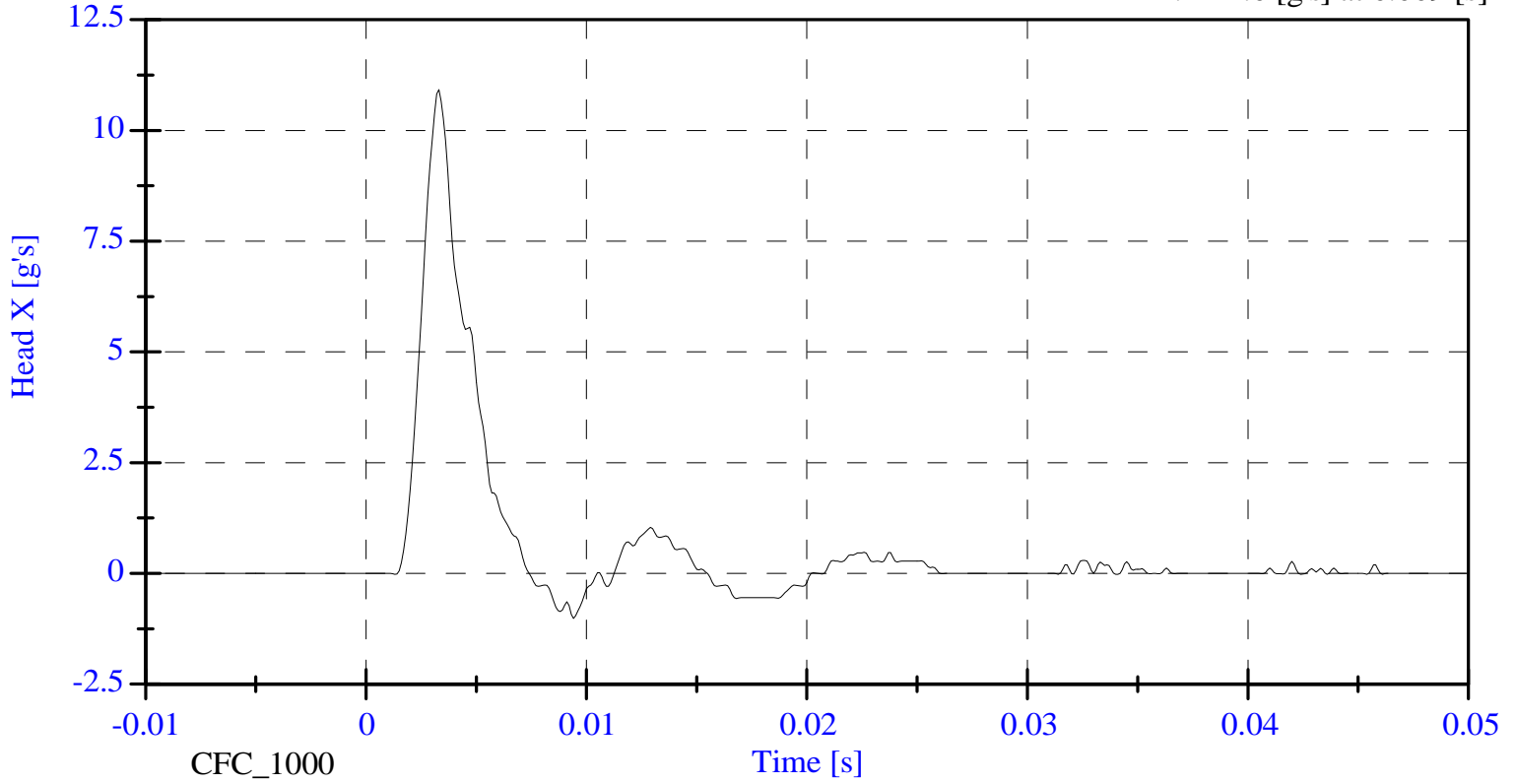
REMARKS: None

Head Drop

Head X Acceleration

Max: 10.9 [g's] at 0.003 [s]

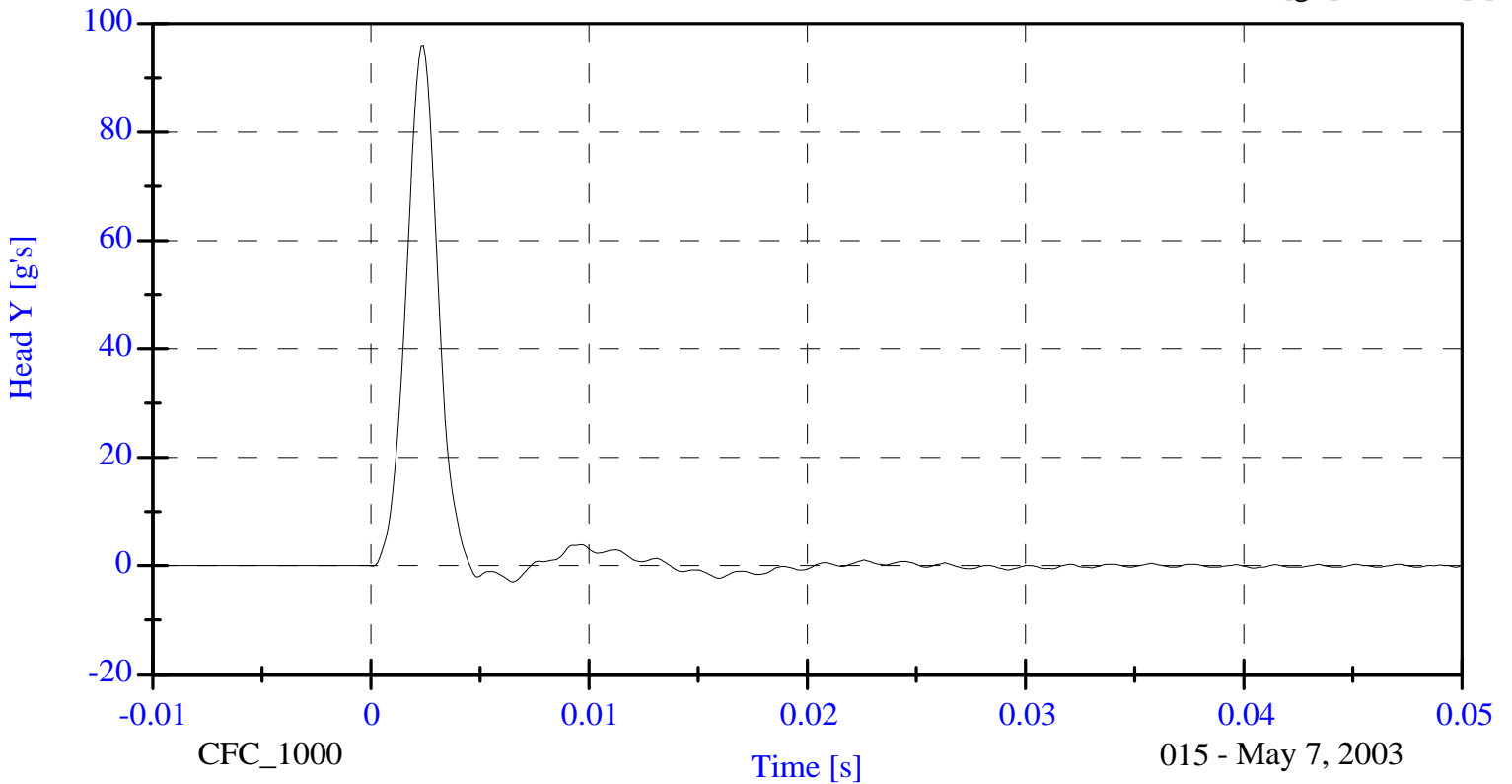
Min: -1.0 [g's] at 0.009 [s]



Head Y Acceleration

Max: 95.9 [g's] at 0.002 [s]

Min: -3.0 [g's] at 0.007 [s]



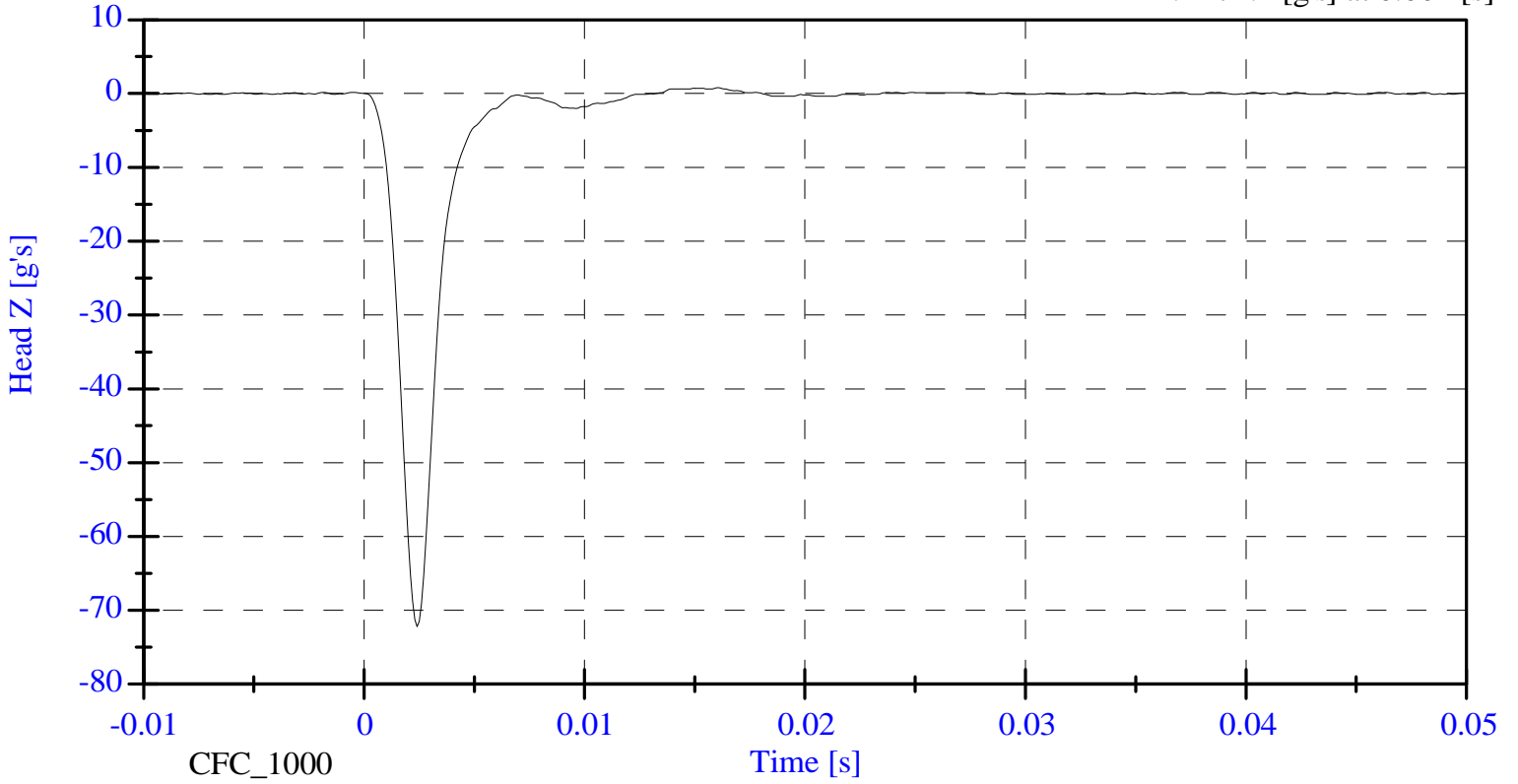
015 - May 7, 2003

Head Drop

Head Z Acceleration

Max: 0.8 [g's] at 0.016 [s]

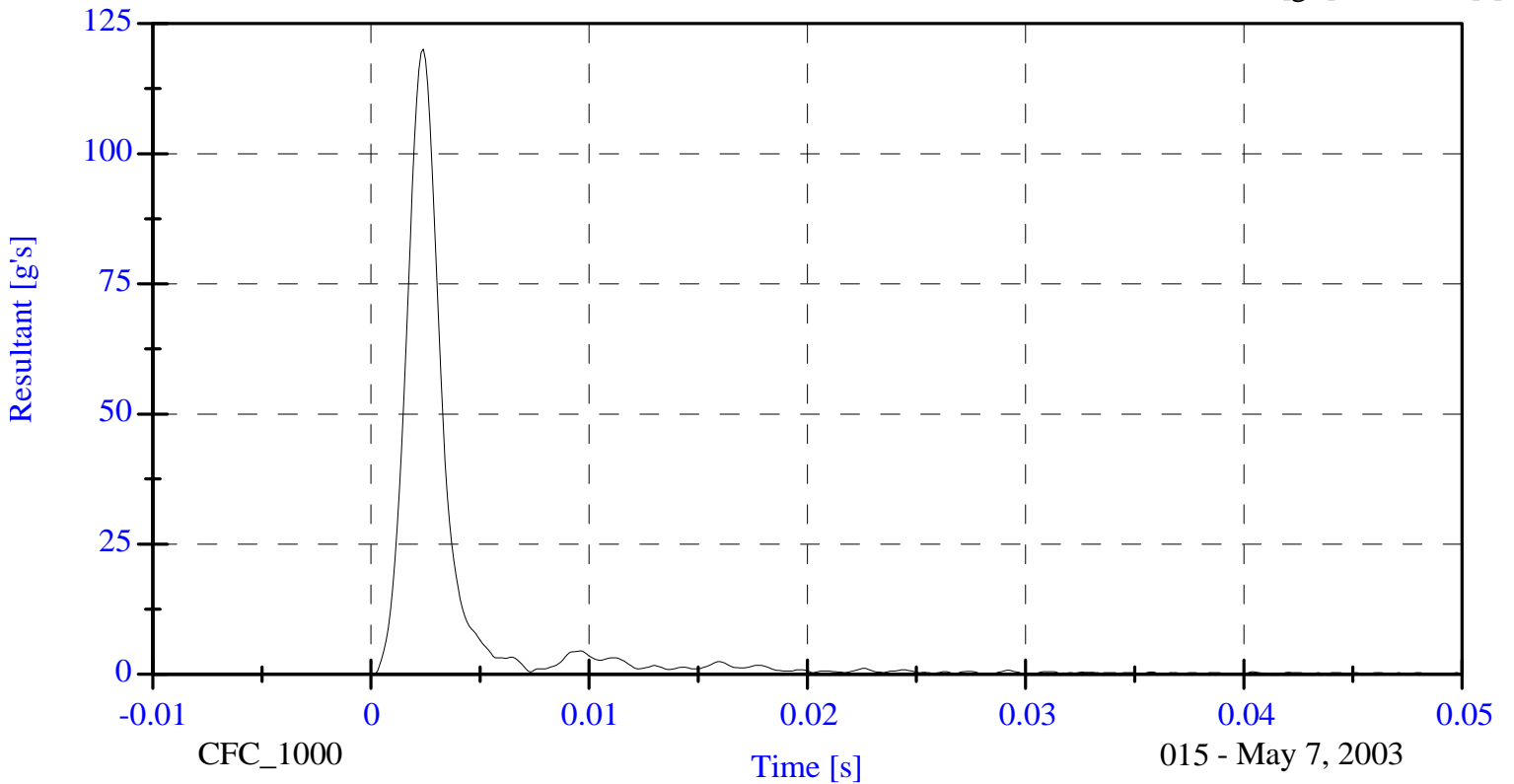
Min: -72.2 [g's] at 0.002 [s]



Head Resultant

Max: 120.1 [g's] at 0.002 [s]

Min: 0.0 [g's] at -0.008 [s]



**LATERAL NECK BENDING TEST
POST-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 3
Date: May 8, 2003 Laboratory Technician: B. Swiecicki

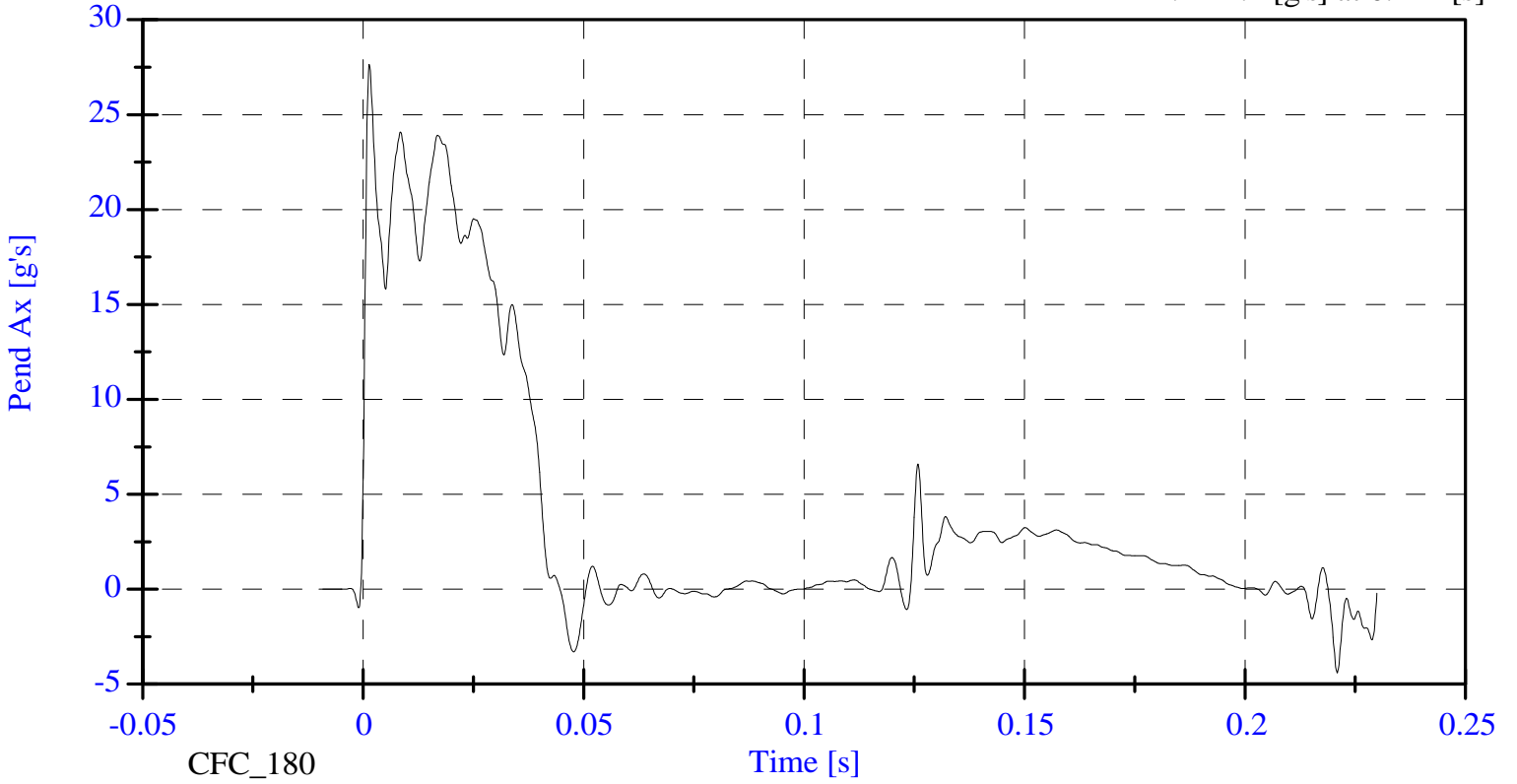
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 - 22.2	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.00
IMPACT VELOCITY (m/s)	6.89 - 7.13	6.92
PENDULUM DELTA V		
DELTA V @ 10 ms (m/s)	1.96 - 2.55	2.06
DELTA V @ 20 ms (m/s)	4.12 - 5.10	4.14
DELTA V @ 30 ms (m/s)	5.73 - 7.01	5.96
DELTA V @ 40-70 ms (m/s)	6.27 - 7.64	7.22
D PLANE ROTATION		
MAXIMUM ROTATION (deg)	64 - 78	71.93
ROT. ANGLE TIME to ZERO (ms)	50 - 70	60.10
MOMENT ABOUT THE OCCIPITAL CONDYLE		
MAX OCCIPITAL MOMENT (Nm)	88 - 108	90.93
OCCIPITAL MOMENT DECAY (ms)	40.0 - 60.0	49.30
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT		
ROTATION wrt MOMENT (ms)	0 - 20	9.30

REMARKS: None

Pendulum Acceleration

Max: 27.6 [g's] at 0.001 [s]

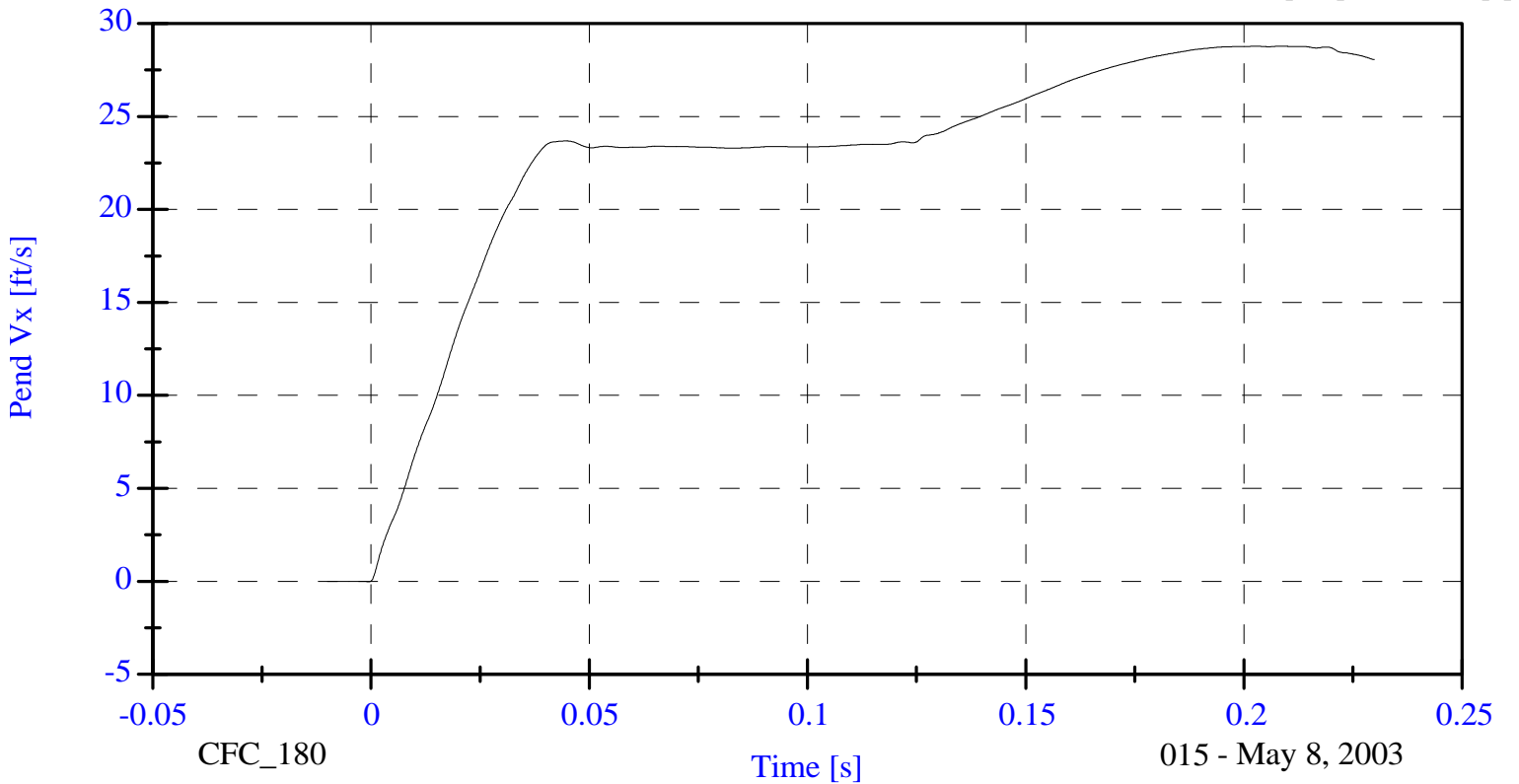
Min: -4.4 [g's] at 0.221 [s]



Pendulum Velocity

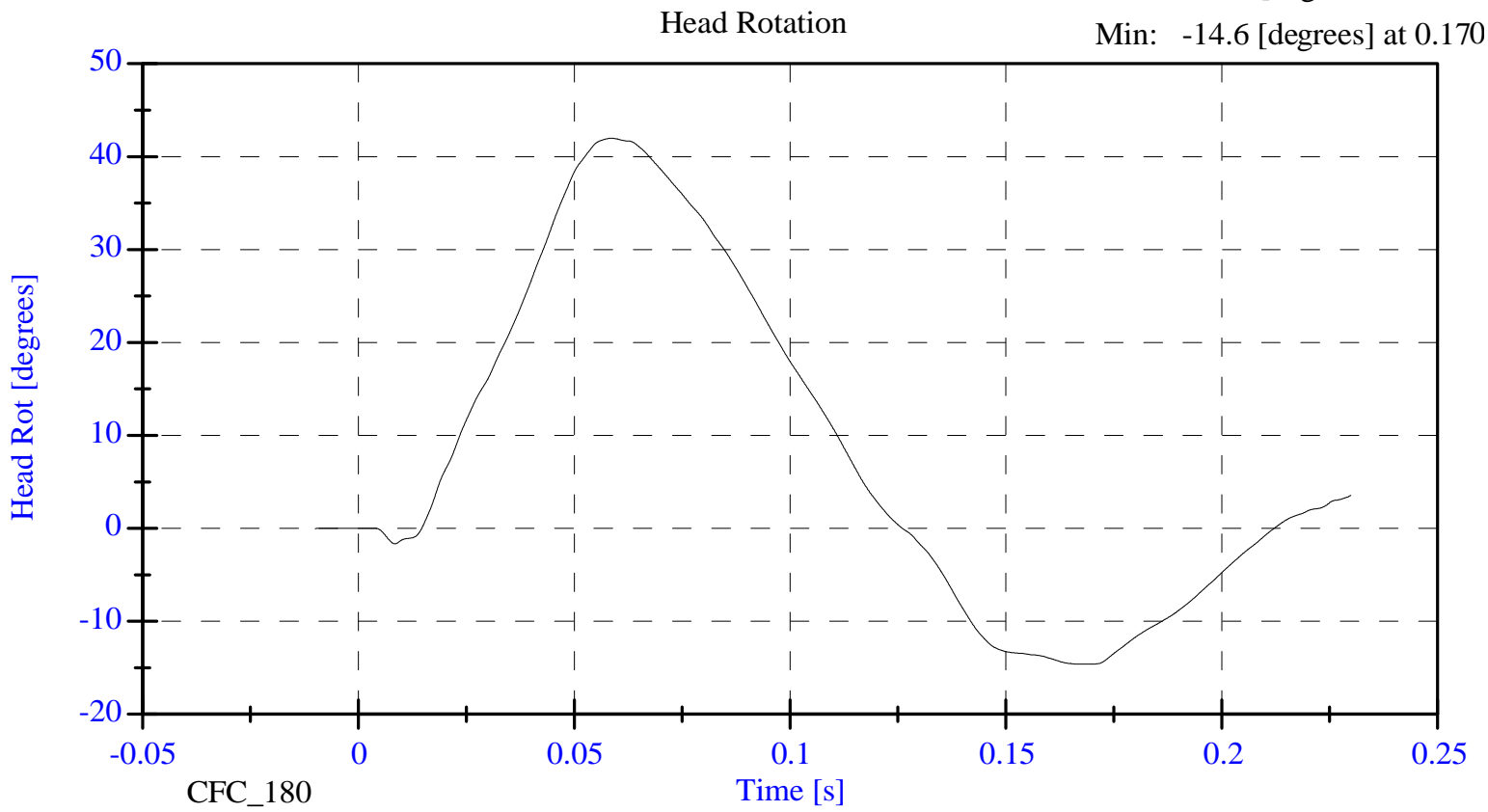
Max: 28.8 [ft/s] at 0.209 [s]

Min: -0.0 [ft/s] at -0.001 [s]



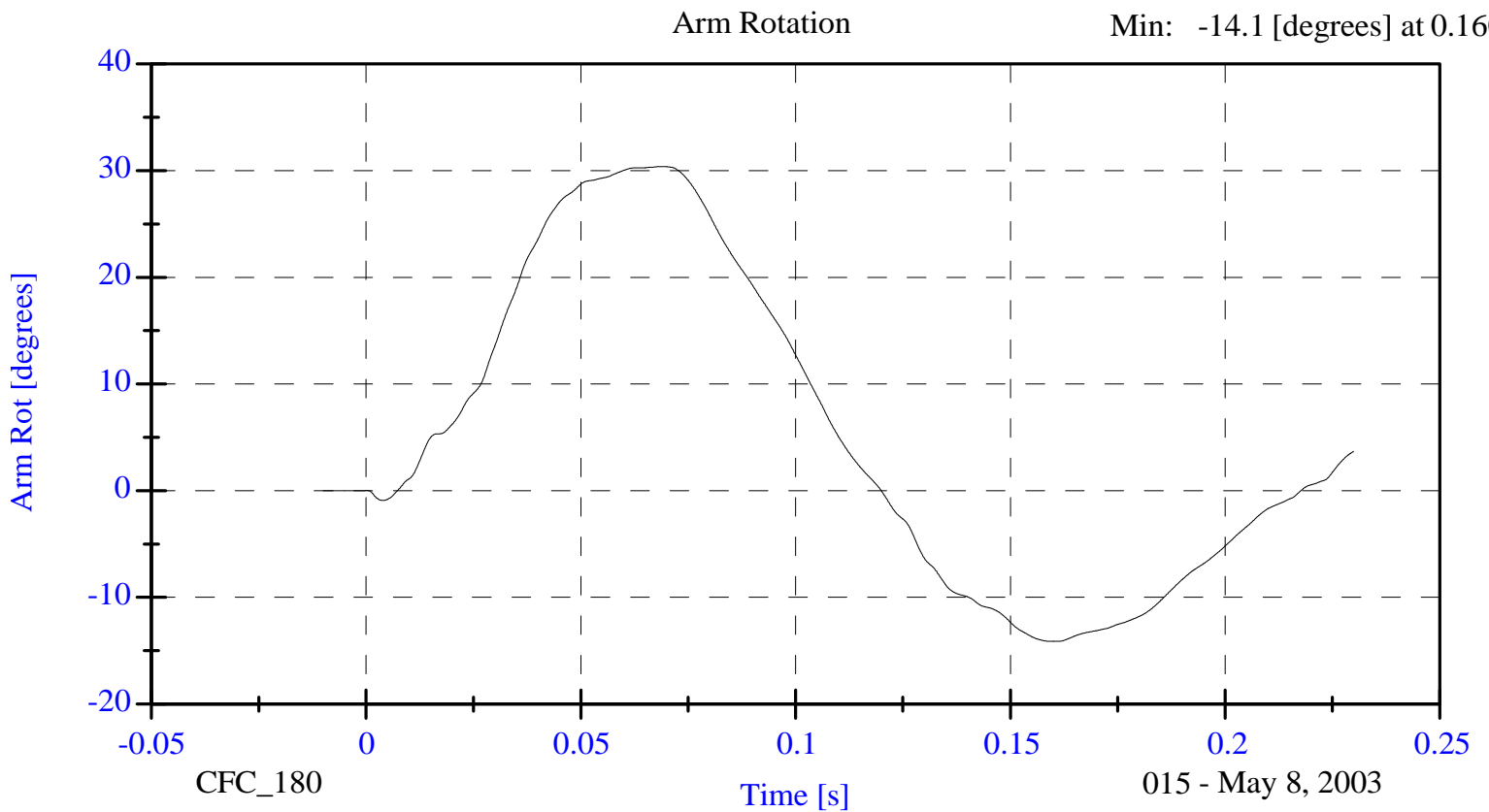
Max: 42.0 [degrees] at 0.059

Min: -14.6 [degrees] at 0.170



Max: 30.4 [degrees] at 0.070

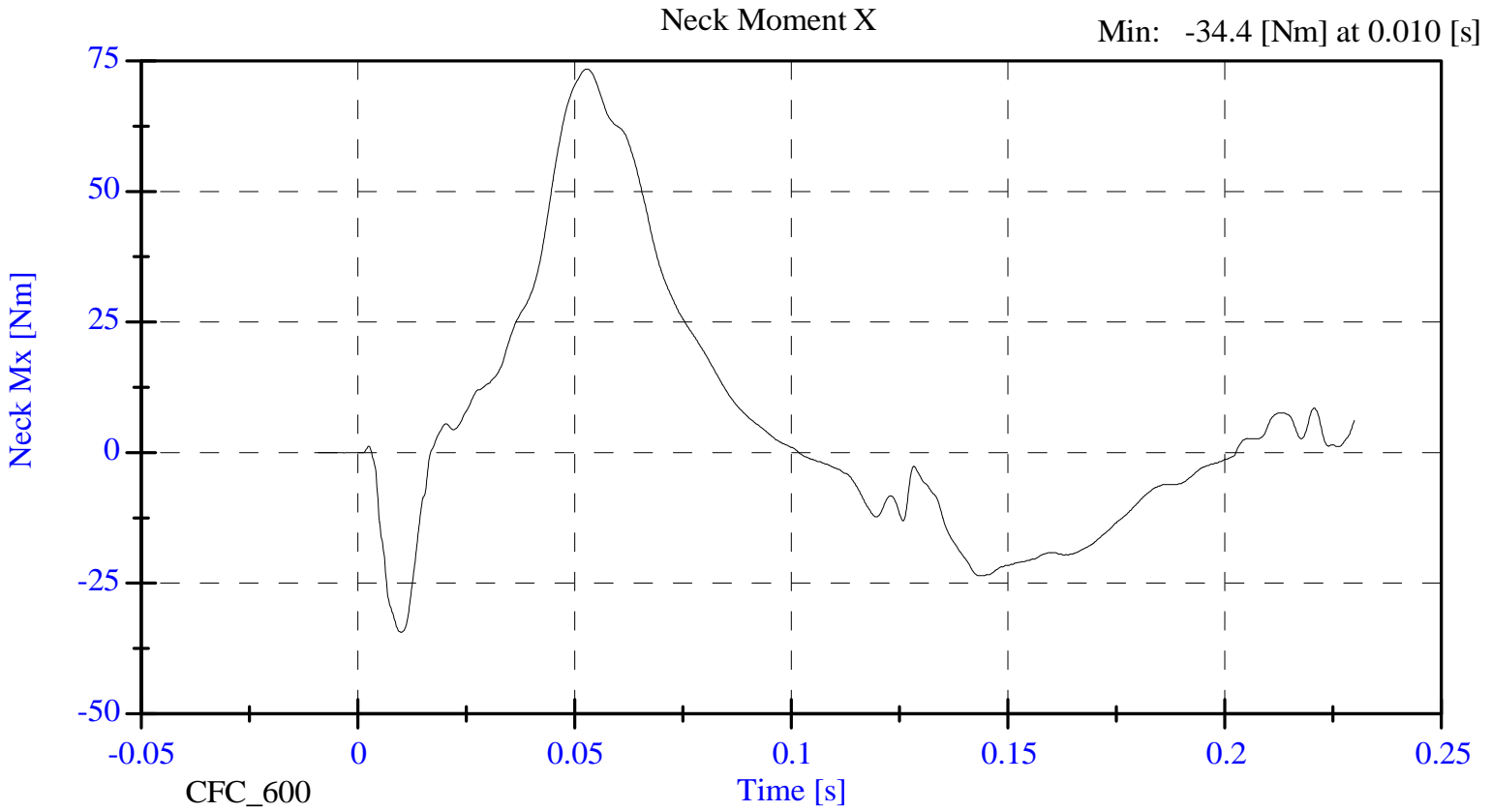
Min: -14.1 [degrees] at 0.160



Neck Test

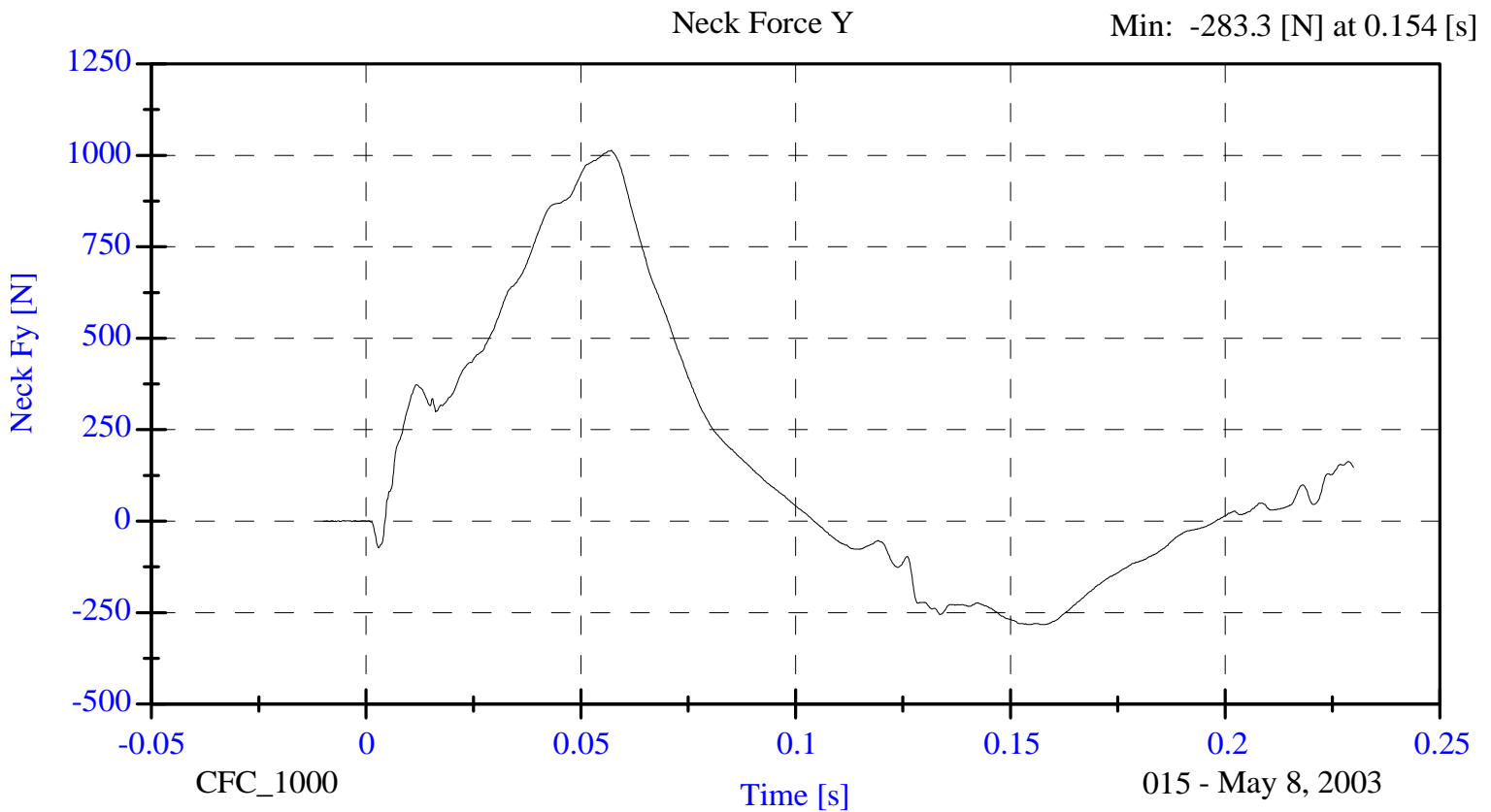
Max: 73.4 [Nm] at 0.053 [s]

Min: -34.4 [Nm] at 0.010 [s]



Max: 1013.4 [N] at 0.057 [s]

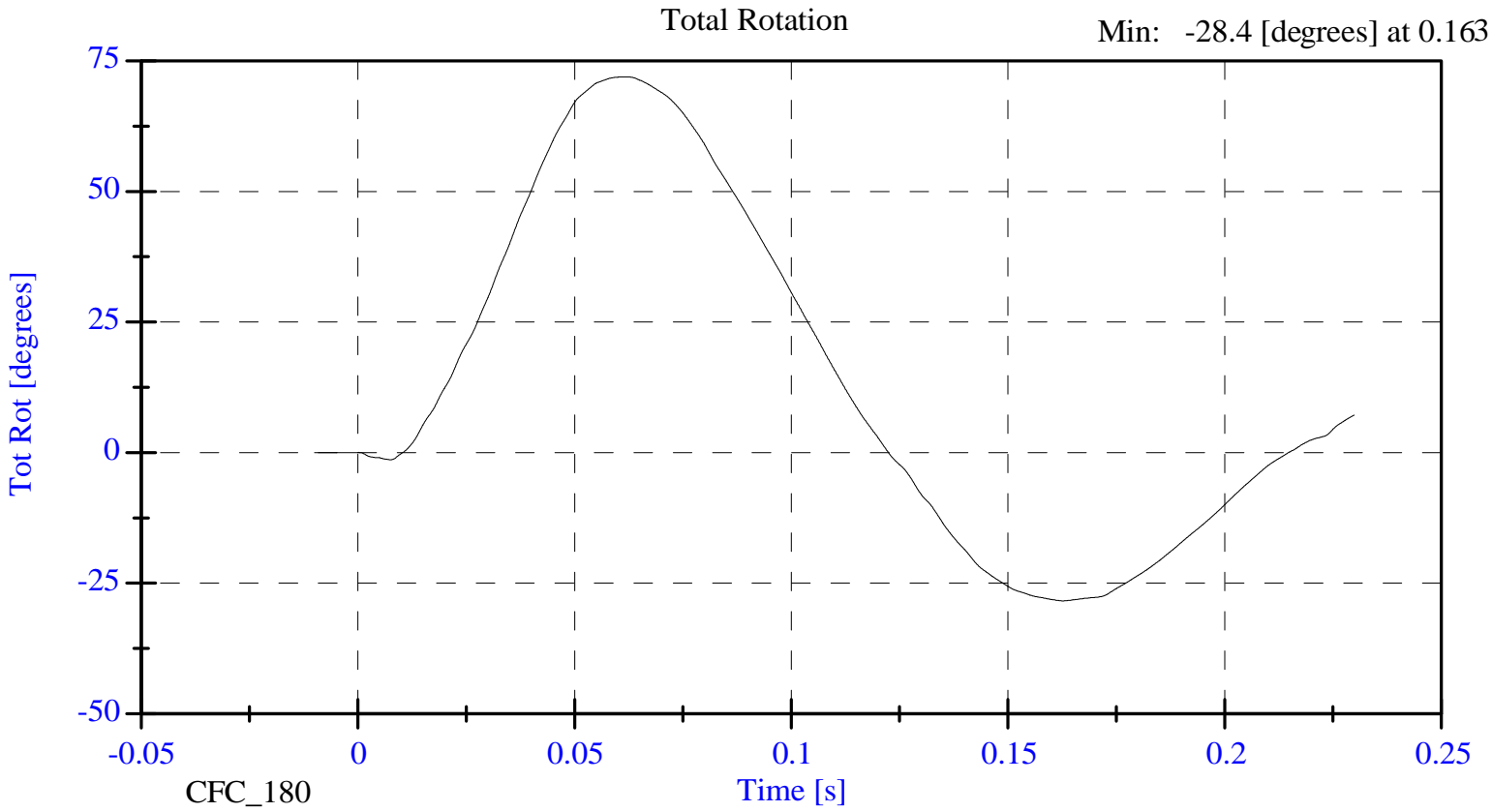
Min: -283.3 [N] at 0.154 [s]



Neck Test

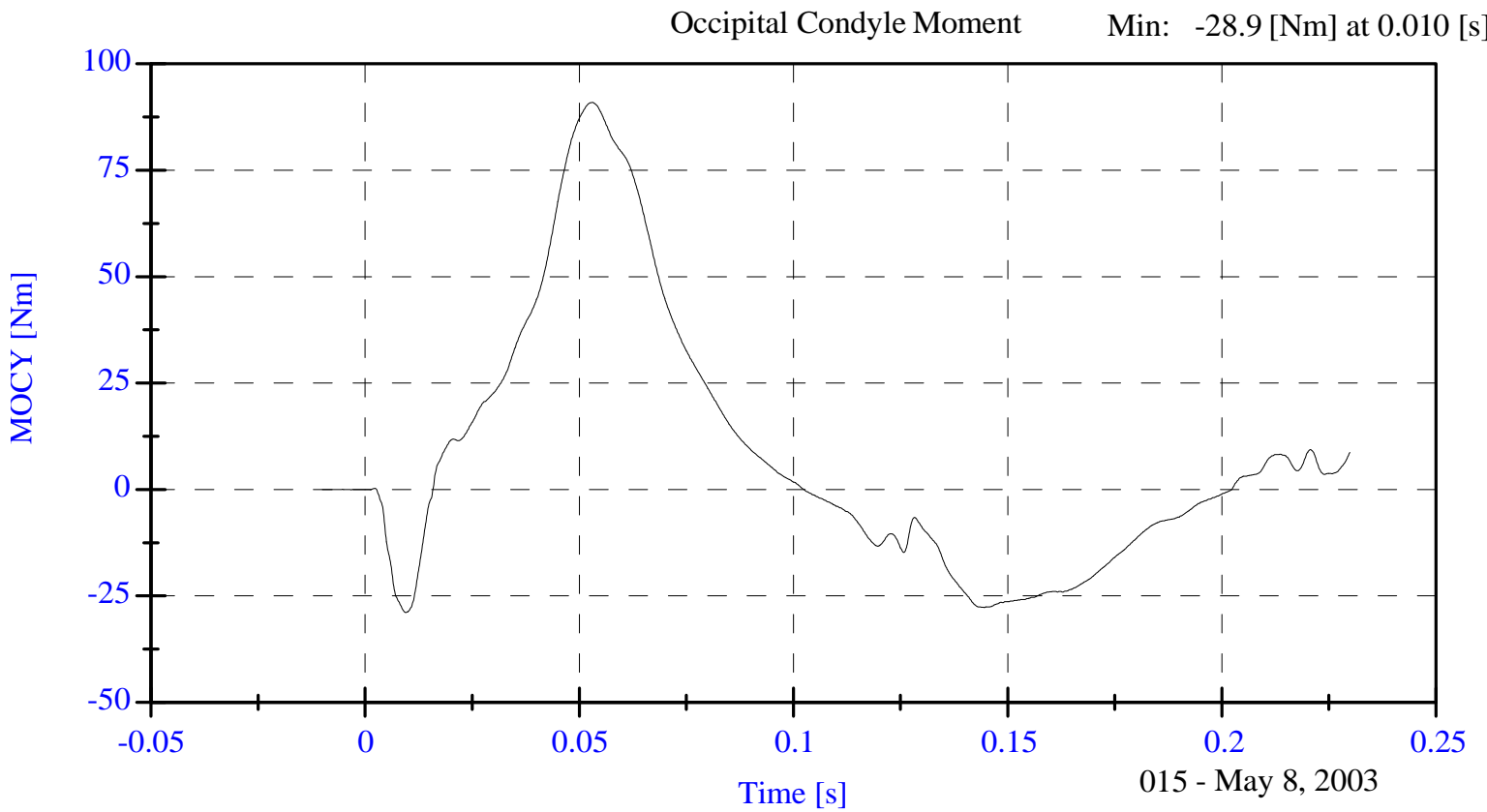
Max: 71.9 [degrees] at 0.062

Min: -28.4 [degrees] at 0.163



Max: 90.9 [Nm] at 0.053 [s]

Min: -28.9 [Nm] at 0.010 [s]



**ABDOMINAL COMPRESSION TEST
POST TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
Date: May 17, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	39.0
FORCE @ 13 mm (N)	104 - 162	113.4
FORCE @ 19 mm (N)	163 - 221	177.9
FORCE @ 25 mm (N)	222 - 280	258.9
FORCE @ 33 mm (N)	325 - 391	375.9

REMARKS: None

Dummy S/N 015

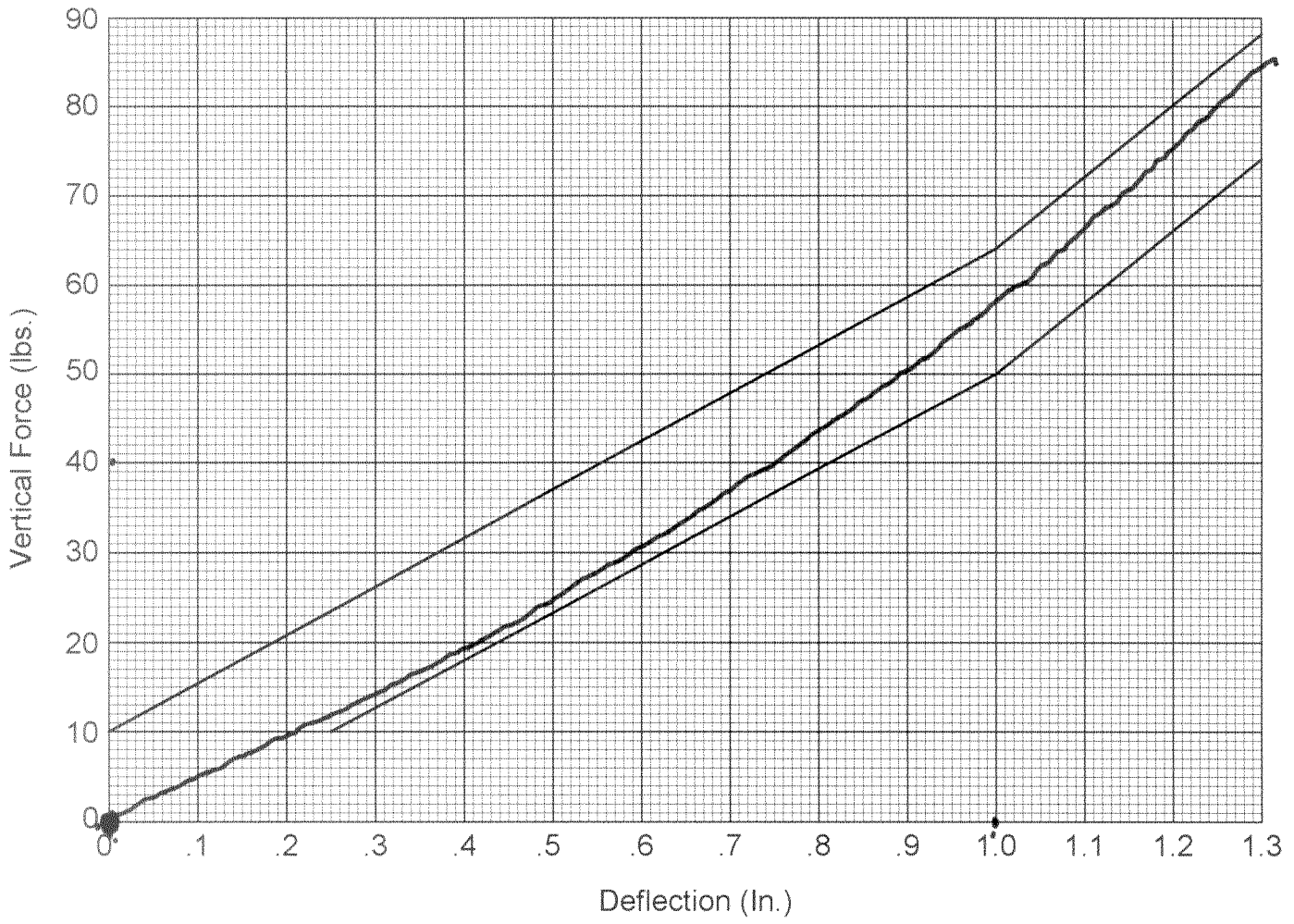
W/A _____

Date 5-9-03

Performed By [Signature]

Temp. 70°

Humidity 39%



**Hybrid II
Abdomen Static Press**

**LUMBAR FLEXION TEST
POST TEST**
(Test not required for SID certification)

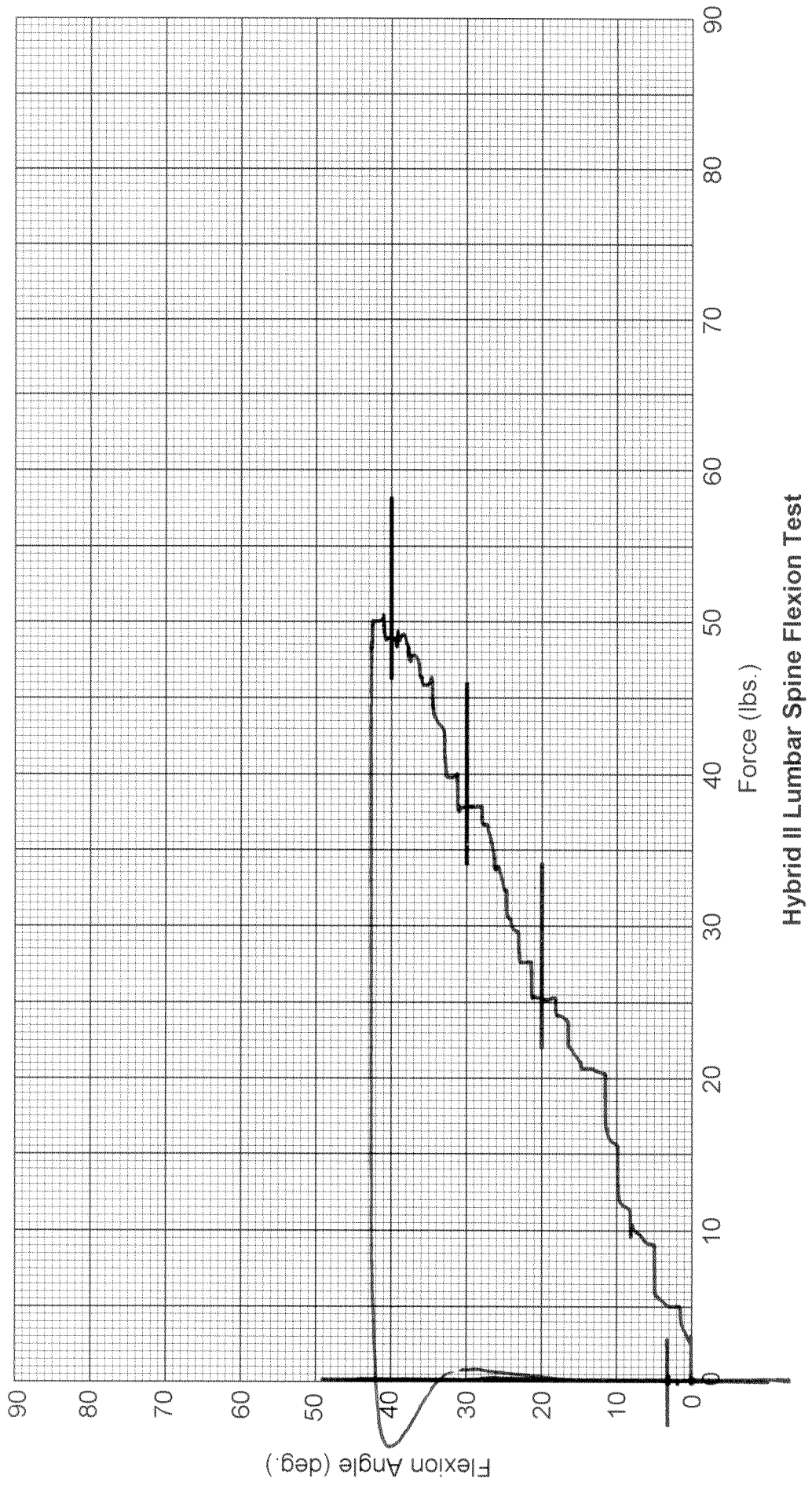
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
Date: May 17, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	39.0
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	111.2
FORCE @ 30° (N)	151.2 - 204.6	169.0
FORCE @ 40° (N)	204.6 - 258	218.0
RETURN ANGLE	12° max.	3.2°

REMARKS: None

Dummy S/N 015
 W/A _____
 Date 5-9-03
 Performed By [Signature]
 Temp. 70°
 Humidity 59%



Hybrid II Lumbar Spine Flexion Test

POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 3
 Date: May 9, 2003 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 016

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

**LATERAL THORAX IMPACT TEST
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	38.00
PROBE SPEED (m/s)	4.27 - 4.33	4.28
UPPER RIB (g's)	37 - 46	43.28
LOWER RIB (g's)	37 - 46	38.62
LOWER SPINE (g's)	15 - 22	21.20

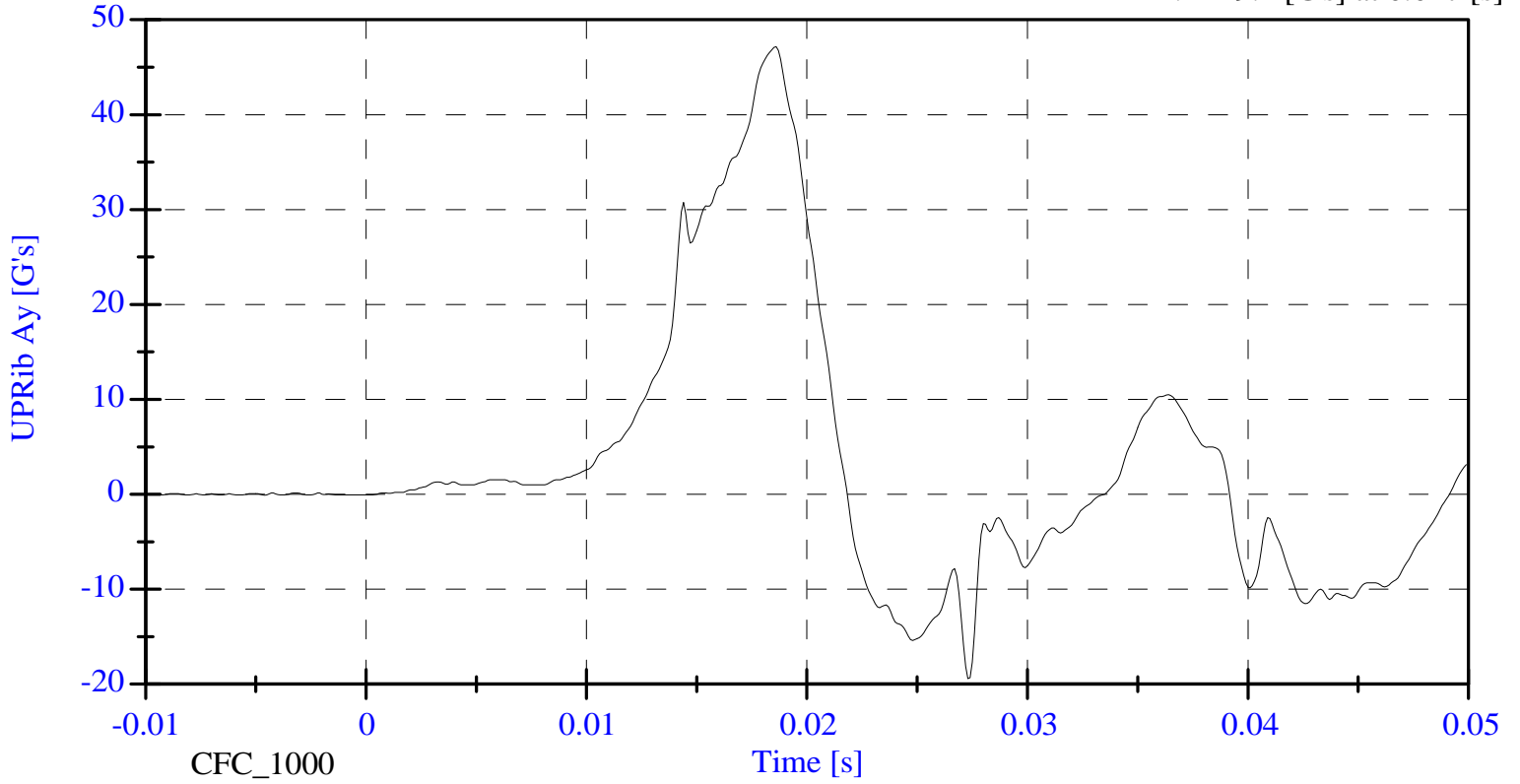
REMARKS: None

Thorax Impact

Upper Rib Y Acceleration

Max: 47.1 [G's] at 0.019 [s]

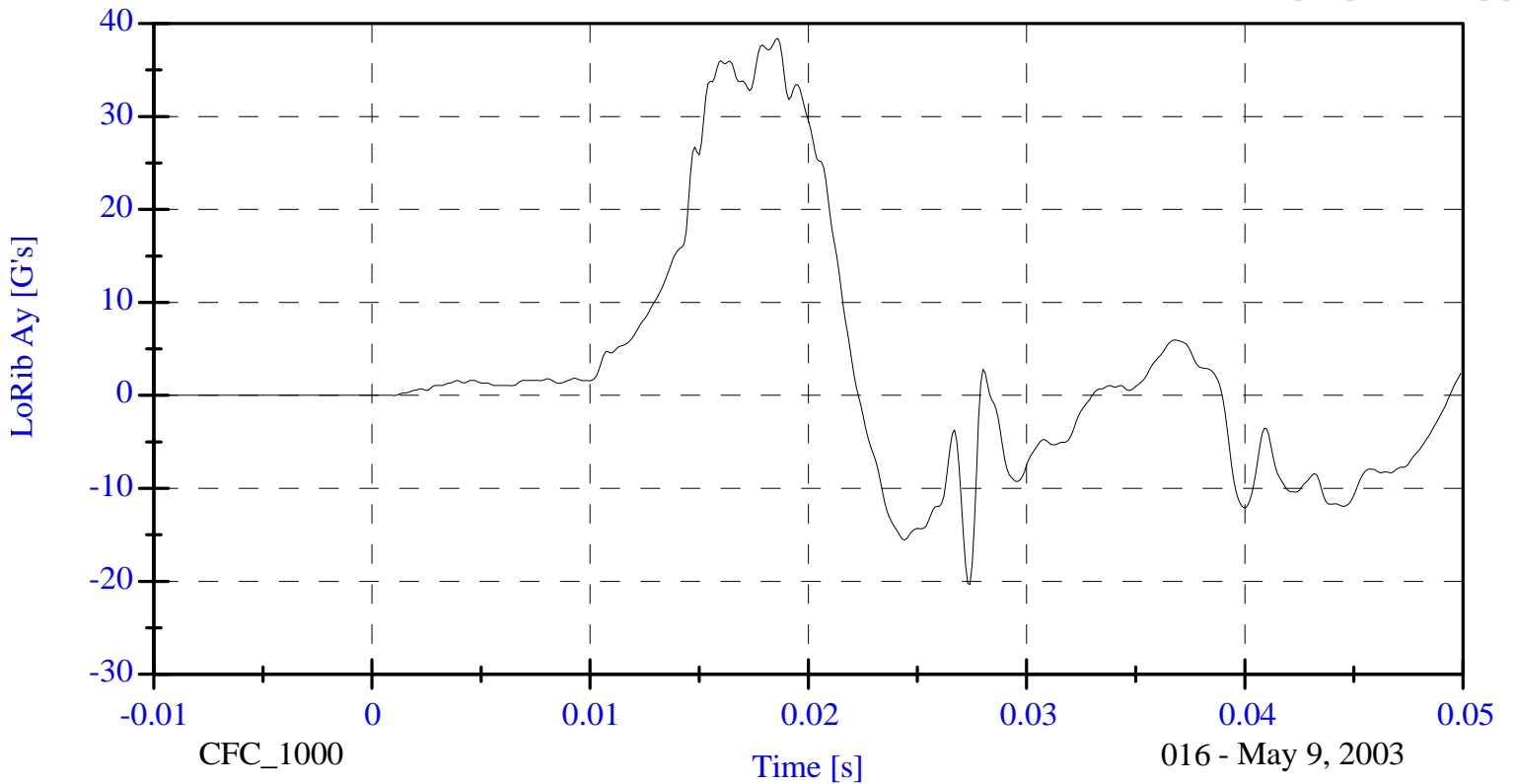
Min: -19.4 [G's] at 0.027 [s]



Lower Rib Y Acceleration

Max: 38.4 [G's] at 0.019 [s]

Min: -20.3 [G's] at 0.027 [s]

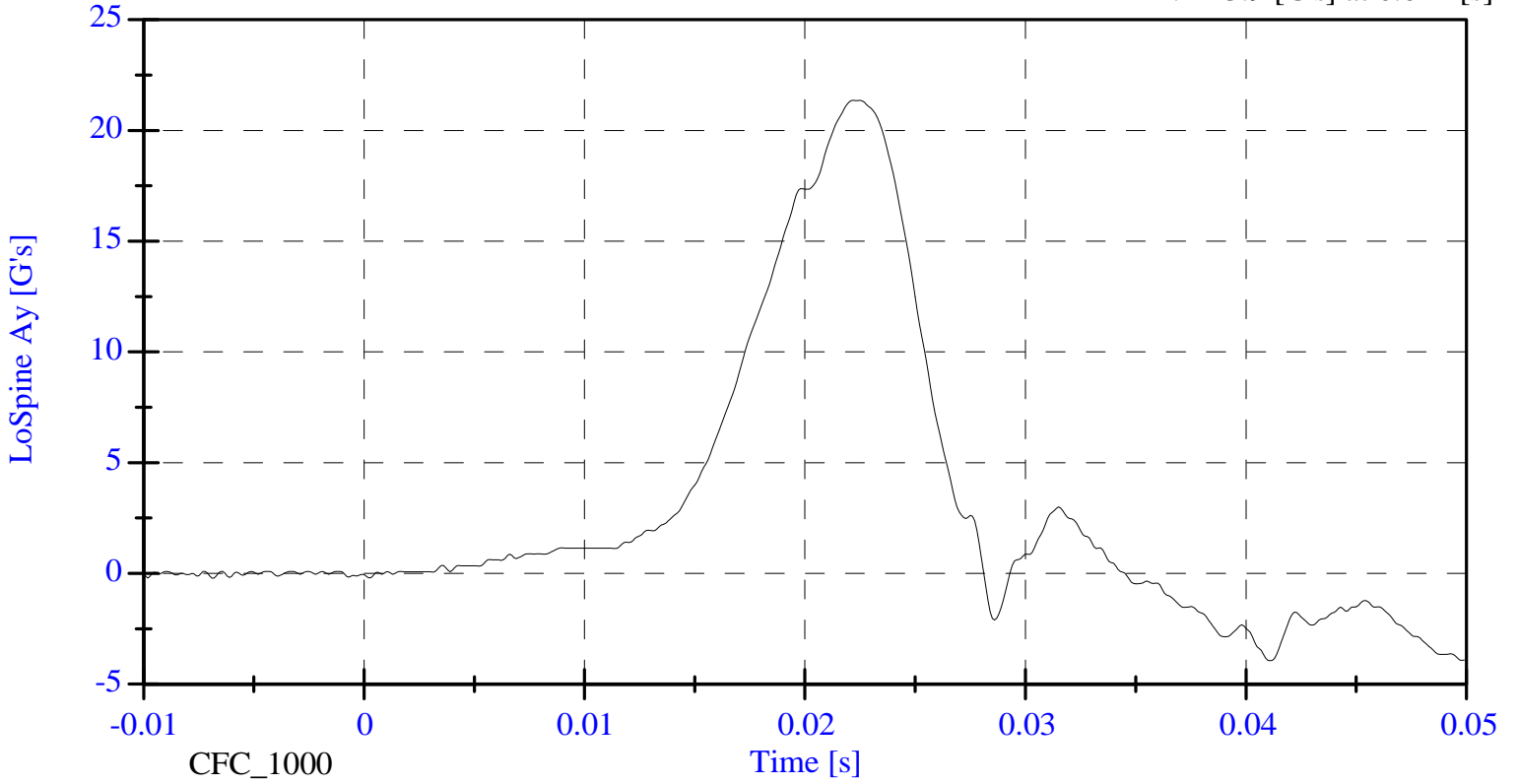


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Lower Spine Y Acceleration

Max: 21.4 [G's] at 0.023 [s]

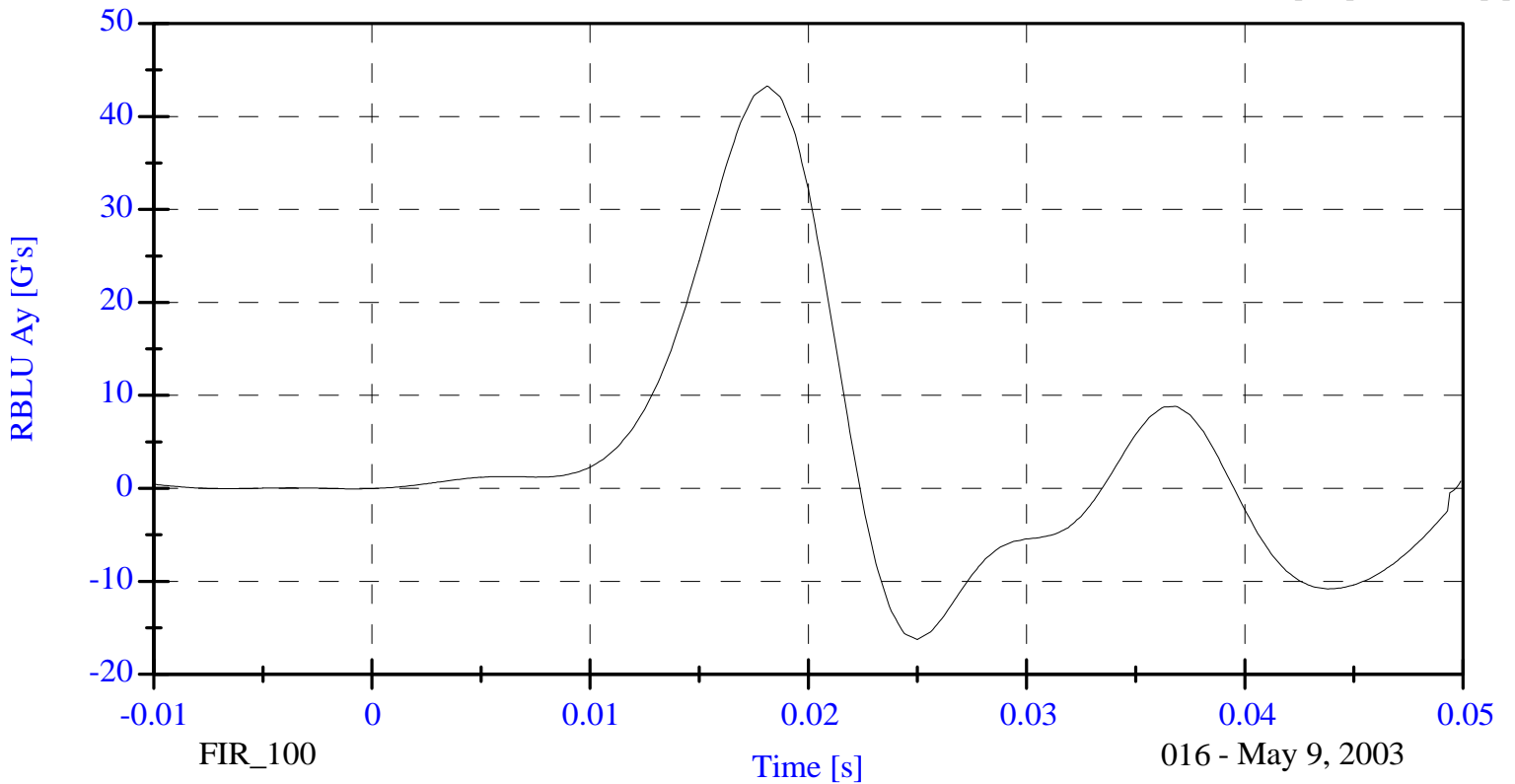
Min: -3.9 [G's] at 0.041 [s]



Upper Rib Y Acceleration

Max: 43.3 [G's] at 0.018 [s]

Min: -16.3 [G's] at 0.025 [s]



FIR_100

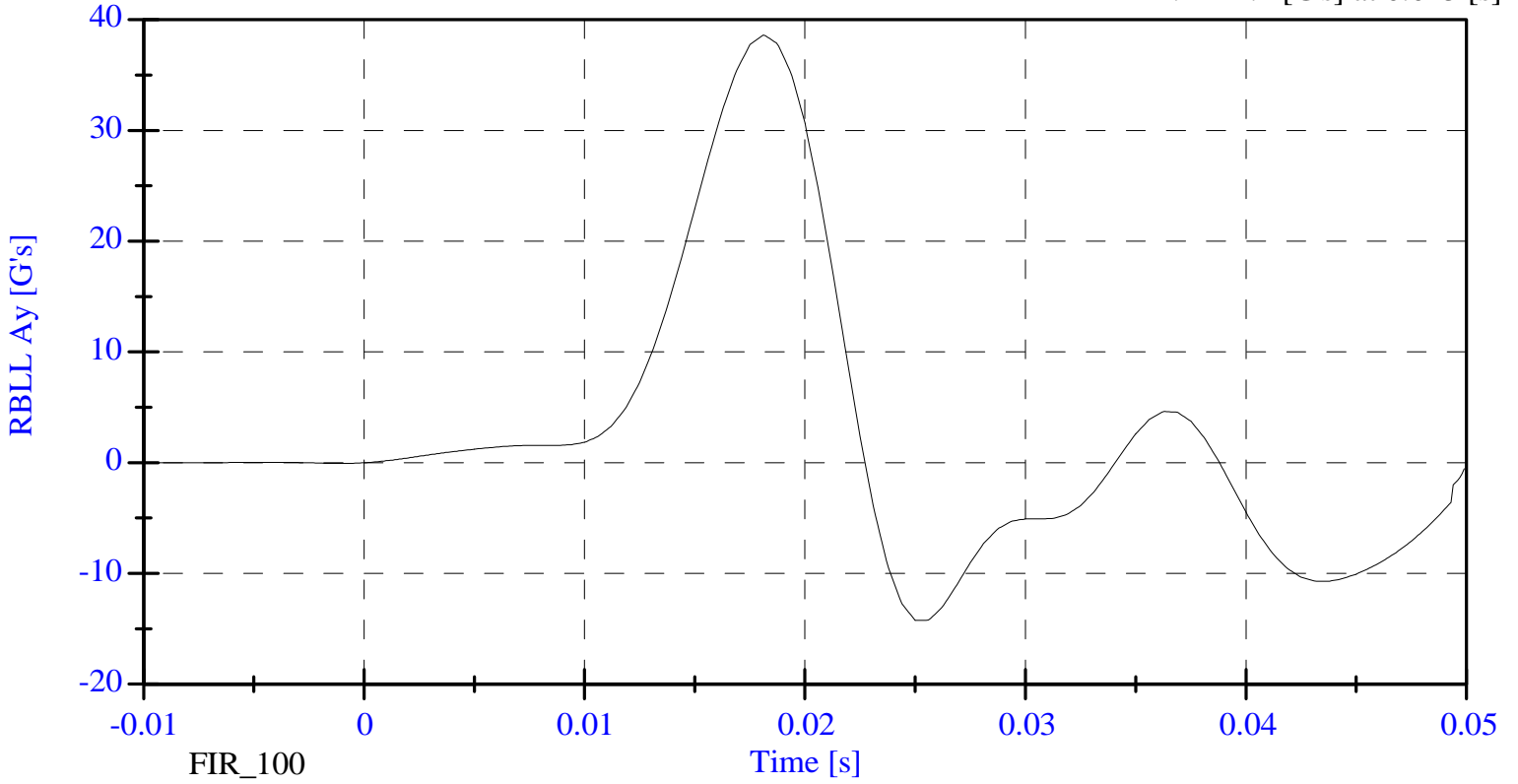
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Thorax Impact

Max: 38.6 [G's] at 0.018 [s]

Min: -14.2 [G's] at 0.025 [s]

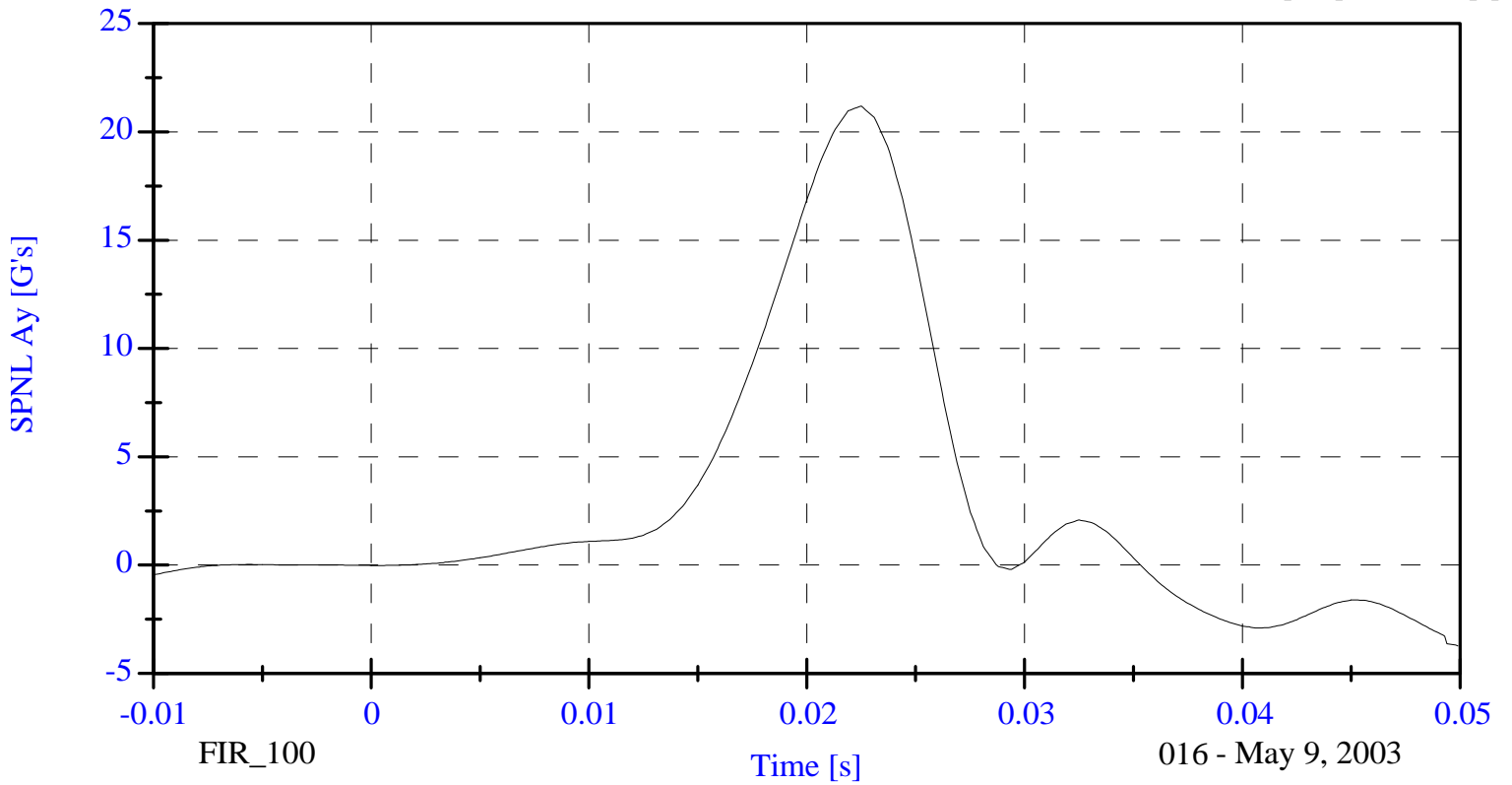
Lower Rib Y Acceleration



Max: 21.2 [G's] at 0.023 [s]

Min: -3.7 [G's] at 0.050 [s]

Lower Spine Y Acceleration



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**LATERAL PELVIS IMPACT TEST
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

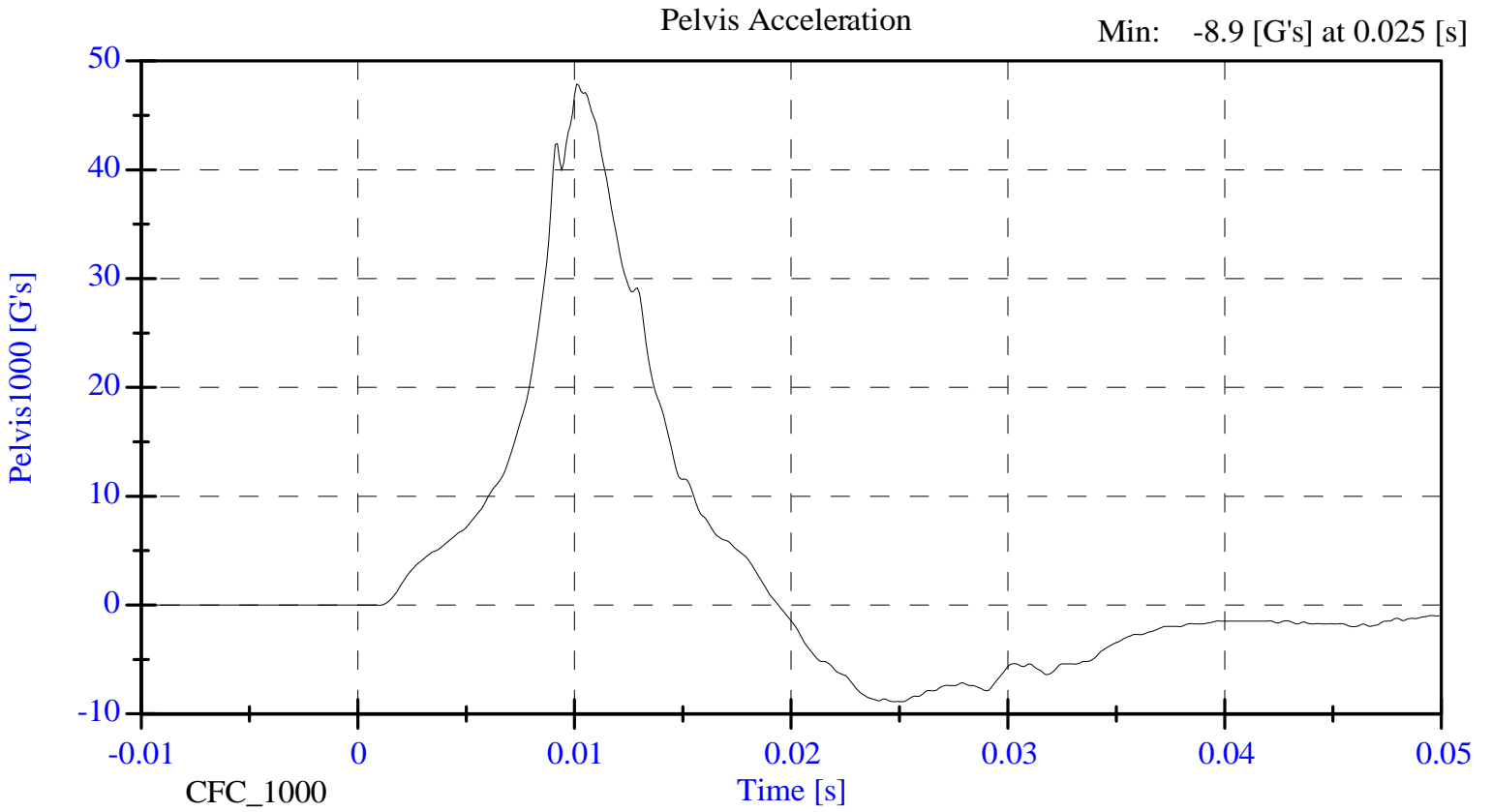
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	38.00
PROBE SPEED (m/s)	4.27 - 4.33	4.27
PELVIS ACCELERATION (g's)	40 - 60	42.12

REMARKS: None

Pelvic Impact

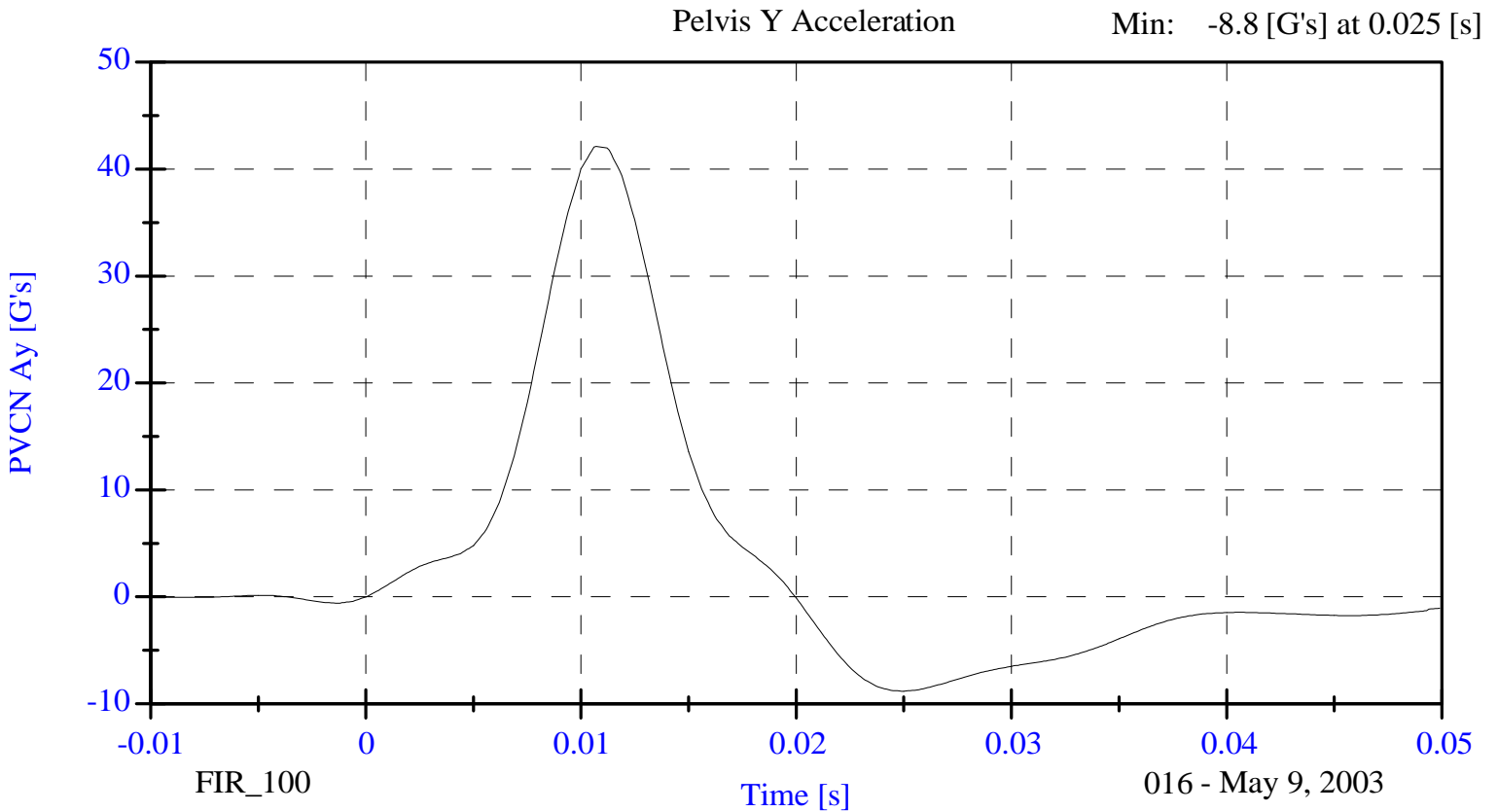
Max: 47.9 [G's] at 0.010 [s]

Min: -8.9 [G's] at 0.025 [s]



Max: 42.1 [G's] at 0.011 [s]

Min: -8.8 [G's] at 0.025 [s]



**HEAD DROP TEST
POST-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 3
 Date: May 7, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 – 22.2	21.1
RELATIVE HUMIDITY (%)	10 – 70	33.00
PEAK RESULTANT ACCELERATION (Gs)	120 – 150	131.66
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 15	11.27
CURVE PERCENT NONMODAL (%)	< 15	2.67

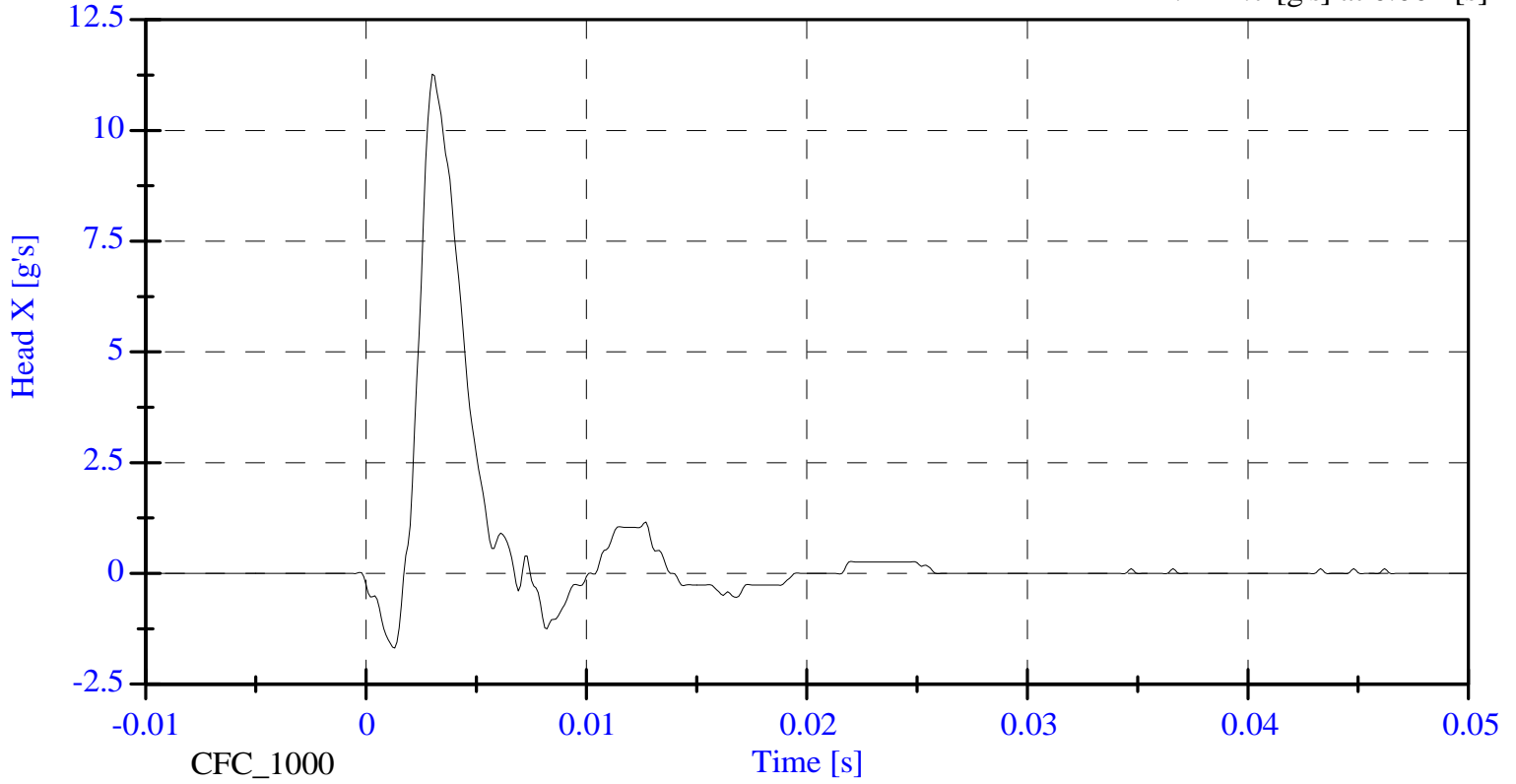
REMARKS: None

Head Drop

Head X Acceleration

Max: 11.3 [g's] at 0.003 [s]

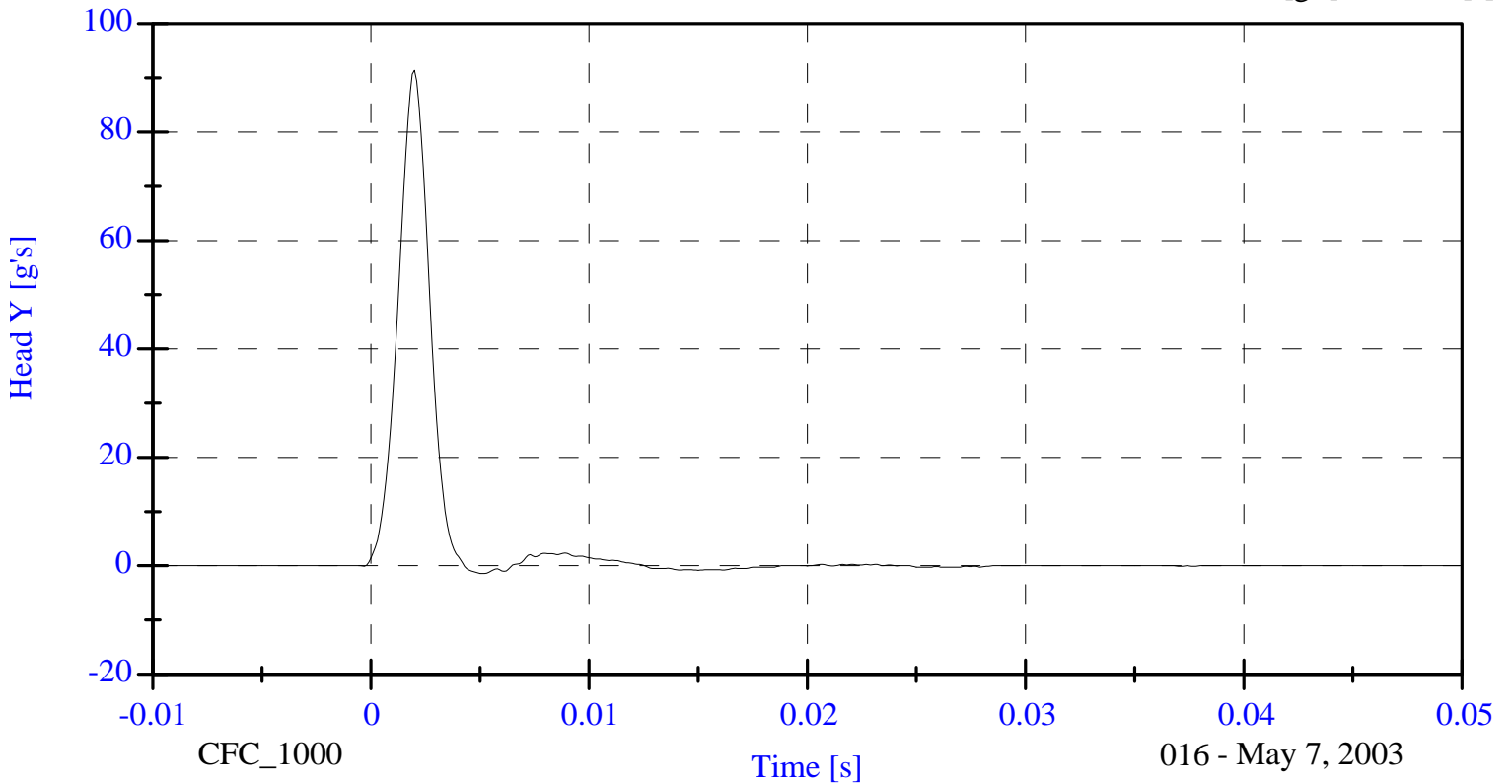
Min: -1.7 [g's] at 0.001 [s]



Head Y Acceleration

Max: 91.4 [g's] at 0.002 [s]

Min: -1.4 [g's] at 0.005 [s]



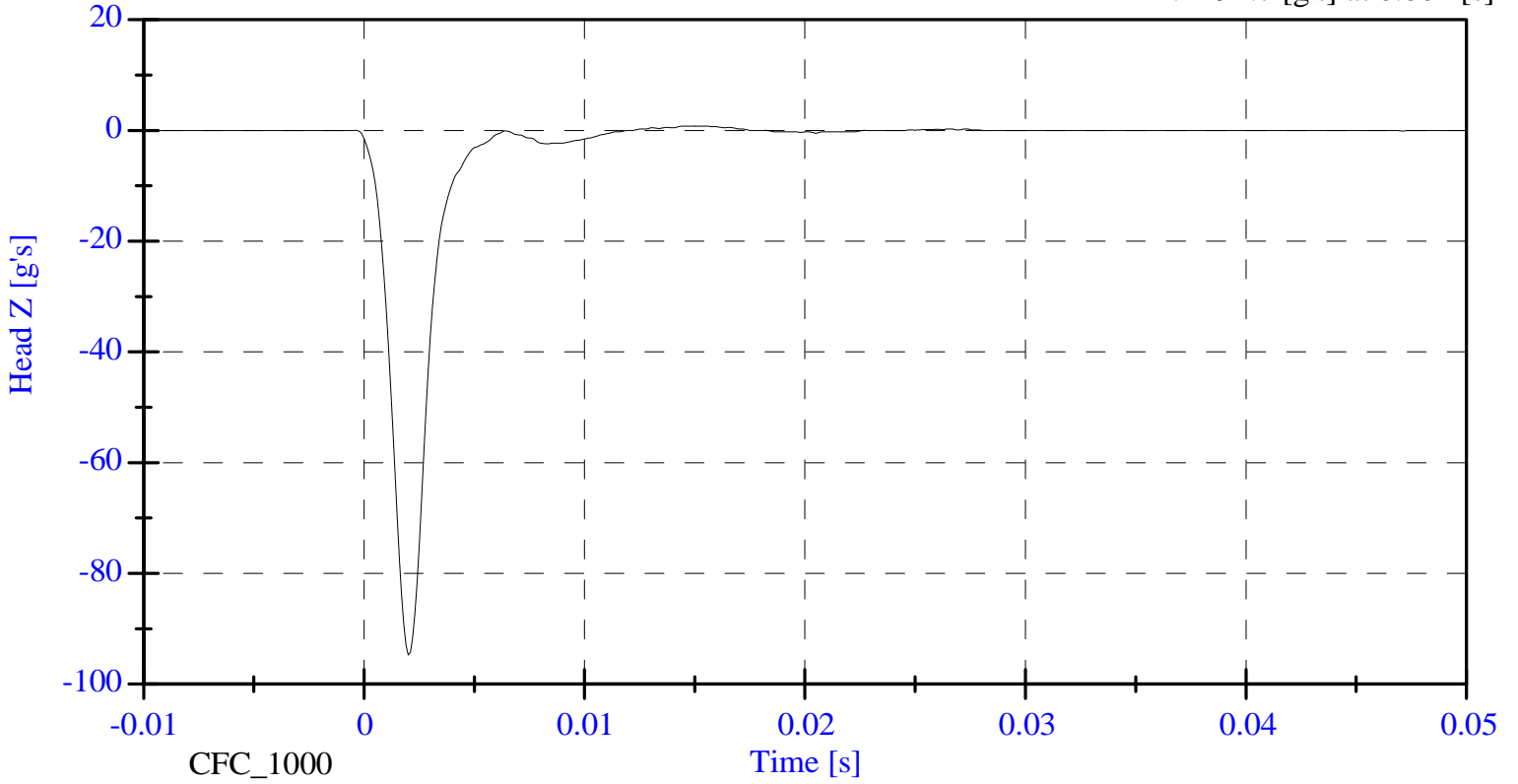
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Head Drop

Head Z Acceleration

Max: 0.8 [g's] at 0.015 [s]

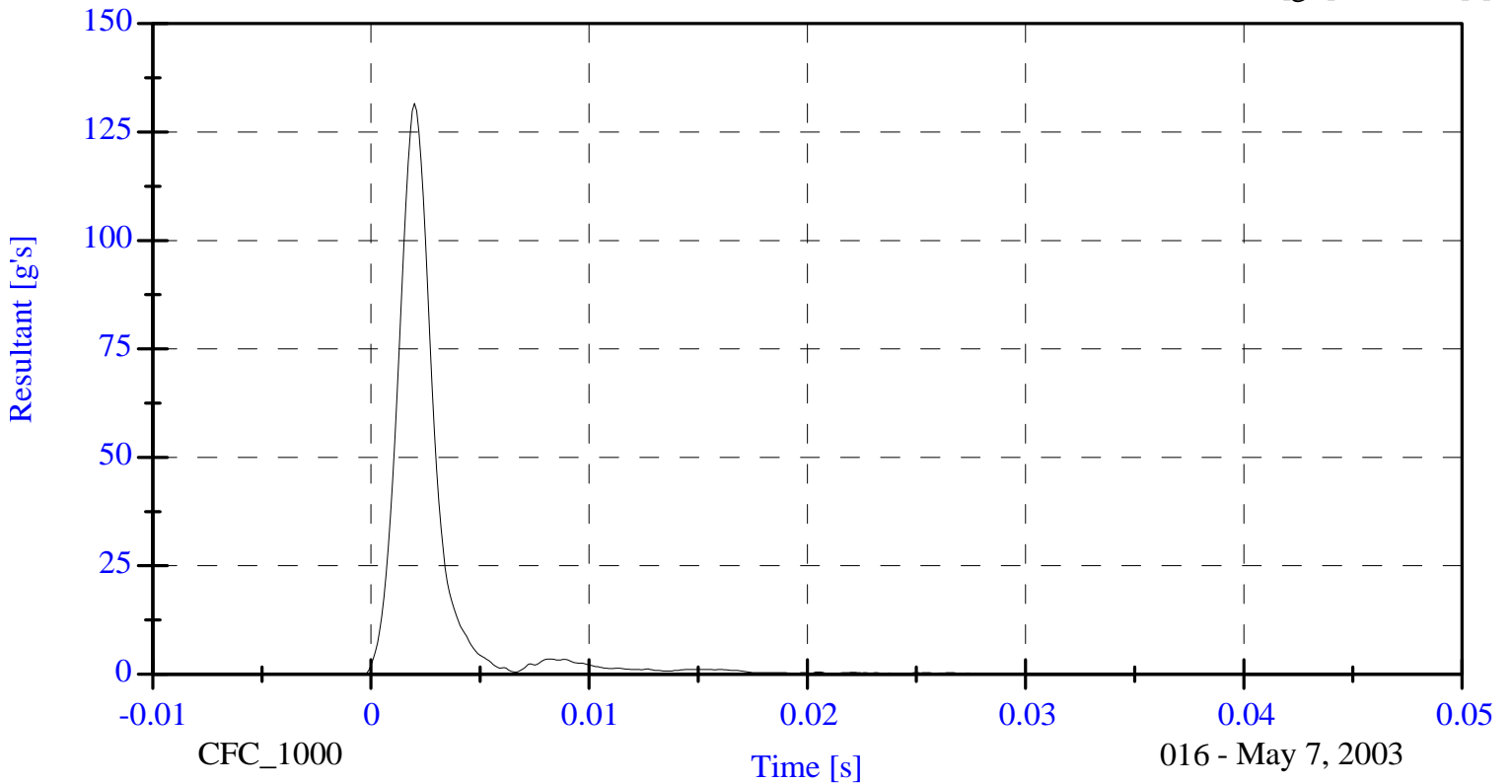
Min: -94.7 [g's] at 0.002 [s]



Head Resultant

Max: 131.7 [g's] at 0.002 [s]

Min: 0.0 [g's] at 0.031 [s]



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**LATERAL NECK BENDING TEST
POST-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 3
Date: May 8, 2003 Laboratory Technician: B. Swiecicki

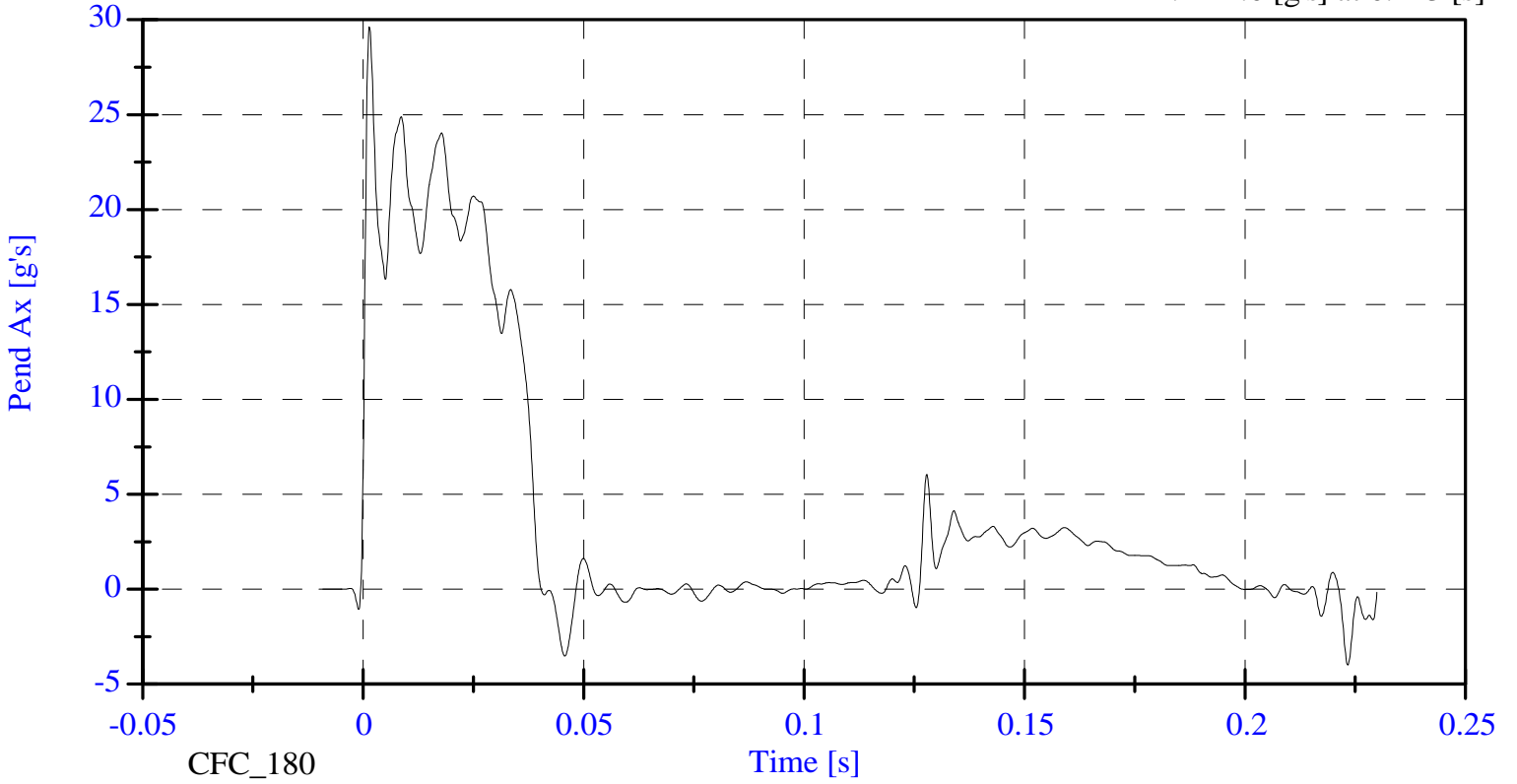
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	20.6 - 22.2	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.0
IMPACT VELOCITY (m/s)	6.89 - 7.13	6.90
PENDULUM DELTA V		
DELTA V @ 10 ms (m/s)	1.96 - 2.55	2.14
DELTA V @ 20 ms (m/s)	4.12 - 5.10	4.20
DELTA V @ 30 ms (m/s)	5.73 - 7.01	6.07
DELTA V @ 40-70 ms (m/s)	6.27 - 7.64	7.21
D PLANE ROTATION		
MAXIMUM ROTATION (deg)	64 - 78	73.66
ROT. ANGLE TIME to ZERO (ms)	50 - 70	61.50
MOMENT ABOUT THE OCCIPITAL CONDYLE		
MAX OCCIPITAL MOMENT (Nm)	88 - 108	88.14
OCCIPITAL MOMENT DECAY (ms)	40.0 - 60.0	52.10
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT		
ROTATION wrt MOMENT (ms)	0 - 20	10.10

REMARKS: None

Max: 29.6 [g's] at 0.001 [s]

Min: -4.0 [g's] at 0.223 [s]

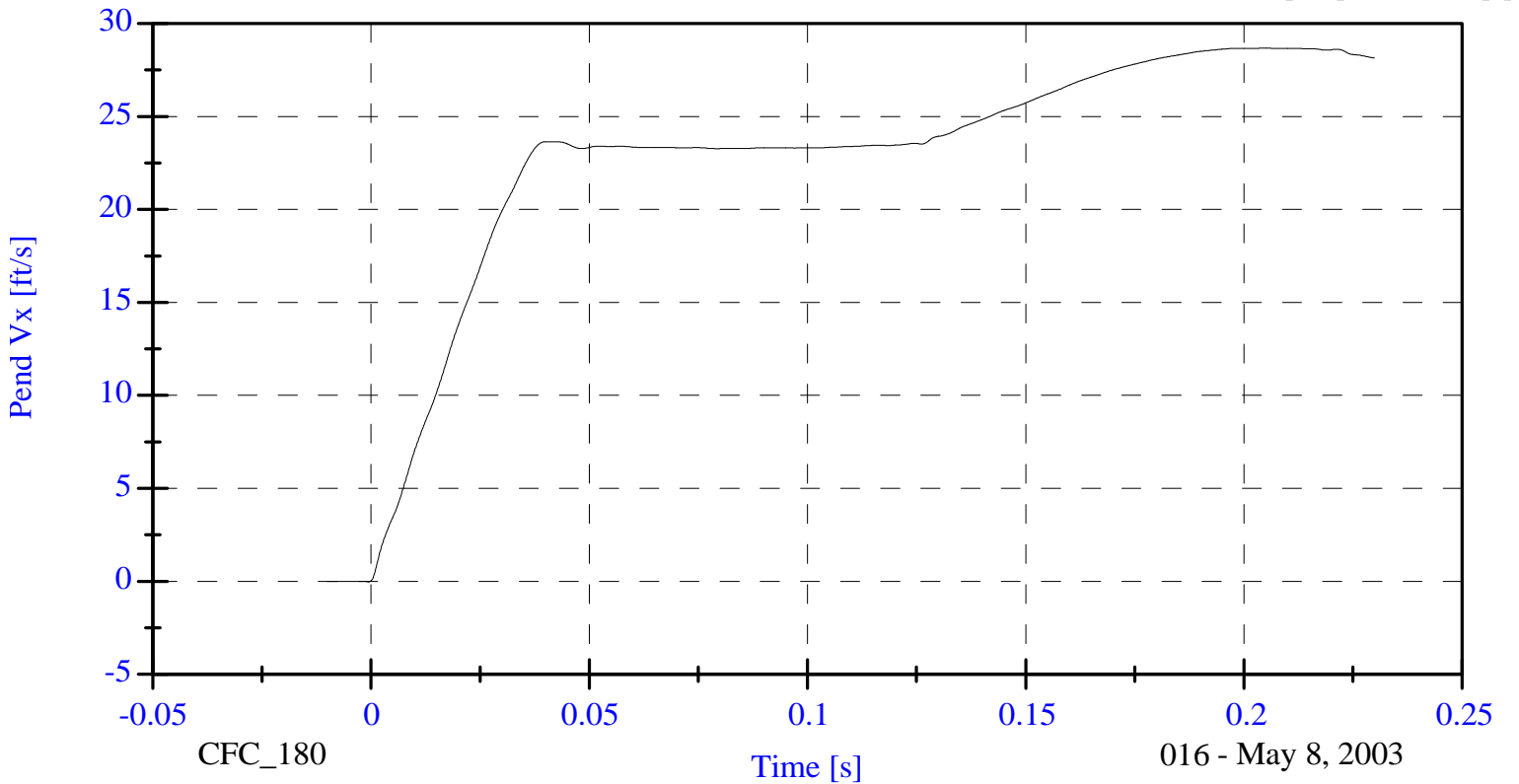
Pendulum Acceleration



Max: 28.7 [ft/s] at 0.205 [s]

Min: -0.0 [ft/s] at -0.001 [s]

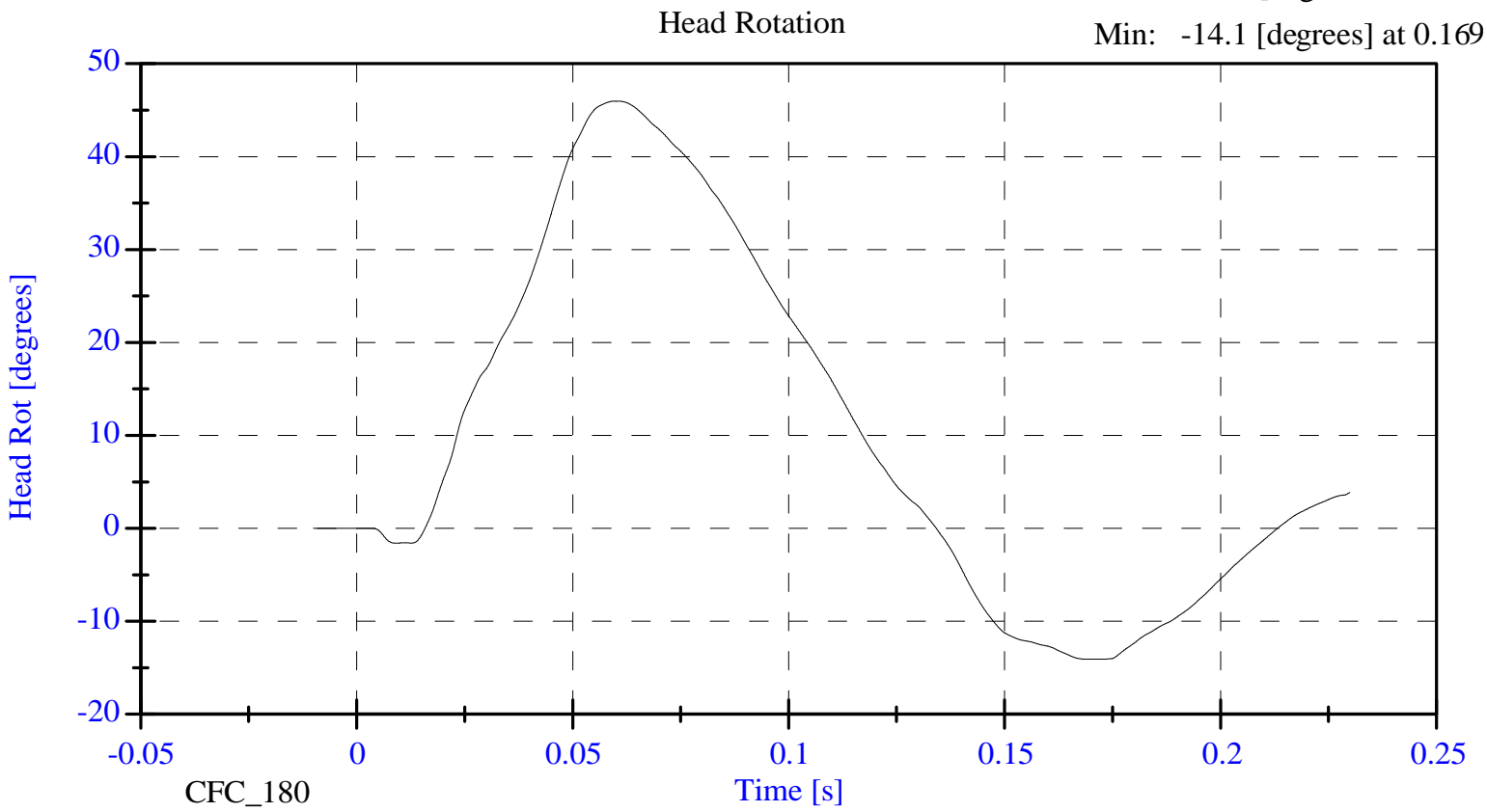
Pendulum Velocity



Neck Test

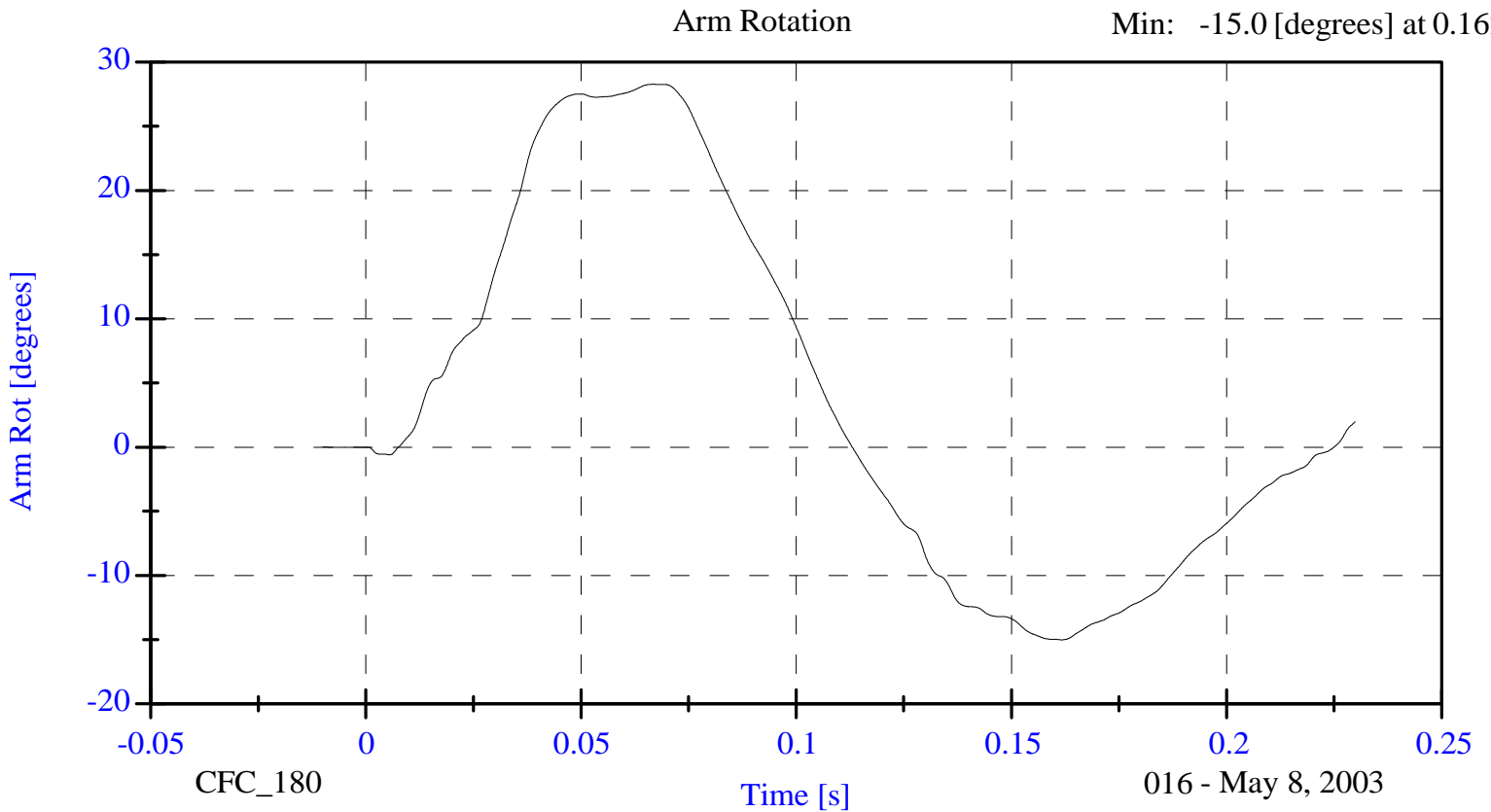
Max: 46.0 [degrees] at 0.060

Min: -14.1 [degrees] at 0.169



Max: 28.3 [degrees] at 0.067

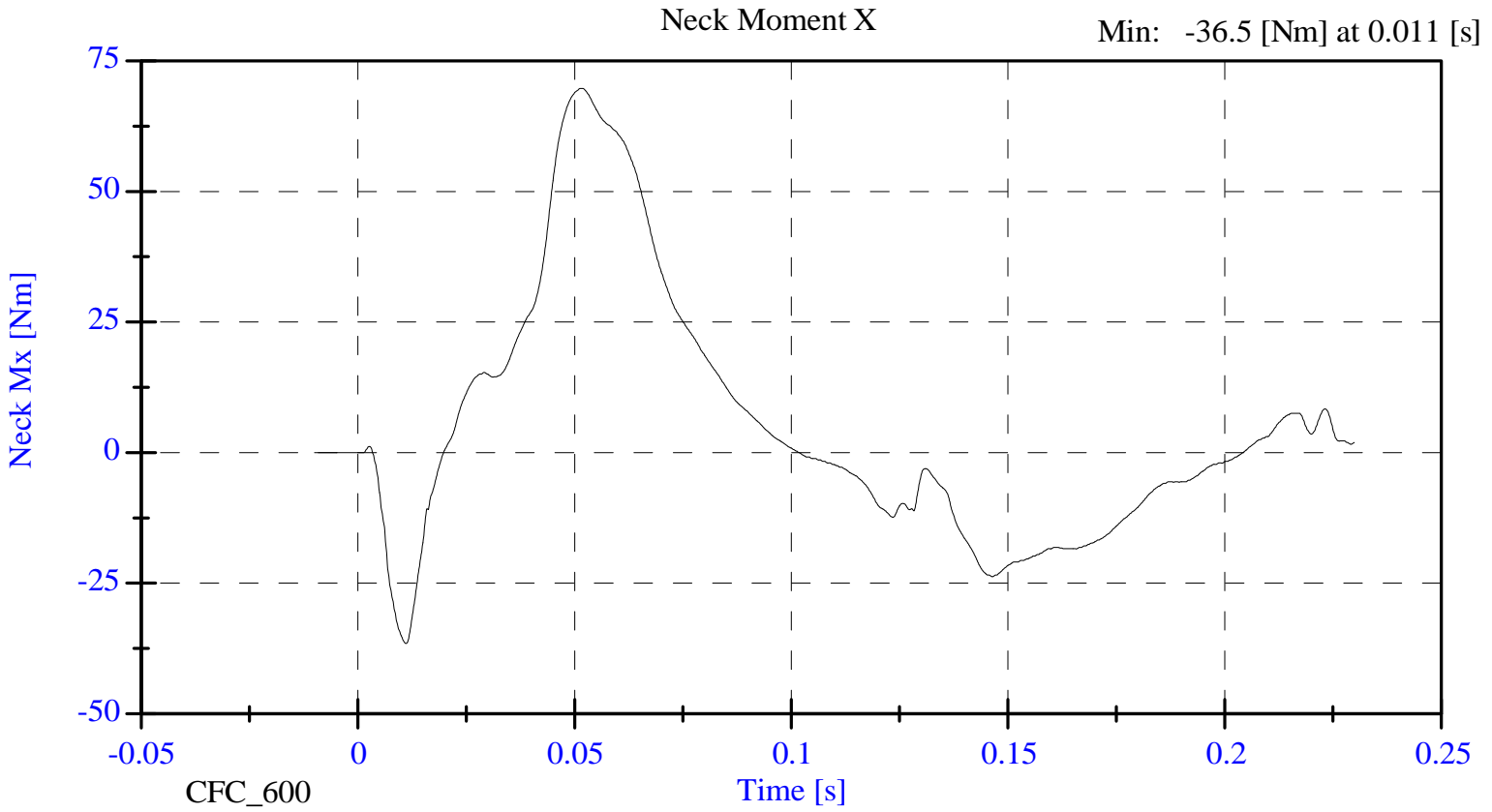
Min: -15.0 [degrees] at 0.162



Neck Test

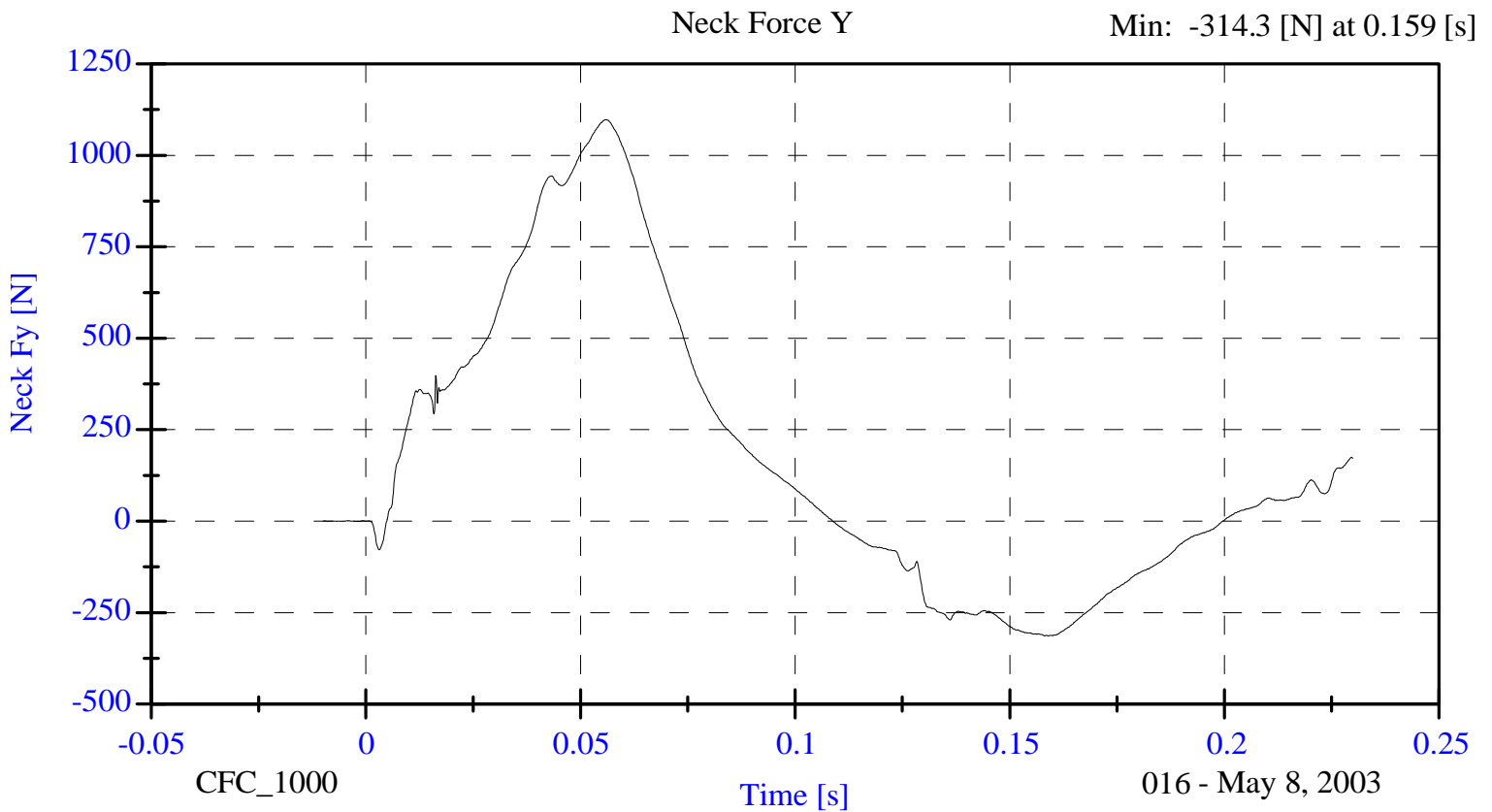
Max: 69.7 [Nm] at 0.052 [s]

Min: -36.5 [Nm] at 0.011 [s]



Max: 1097.7 [N] at 0.056 [s]

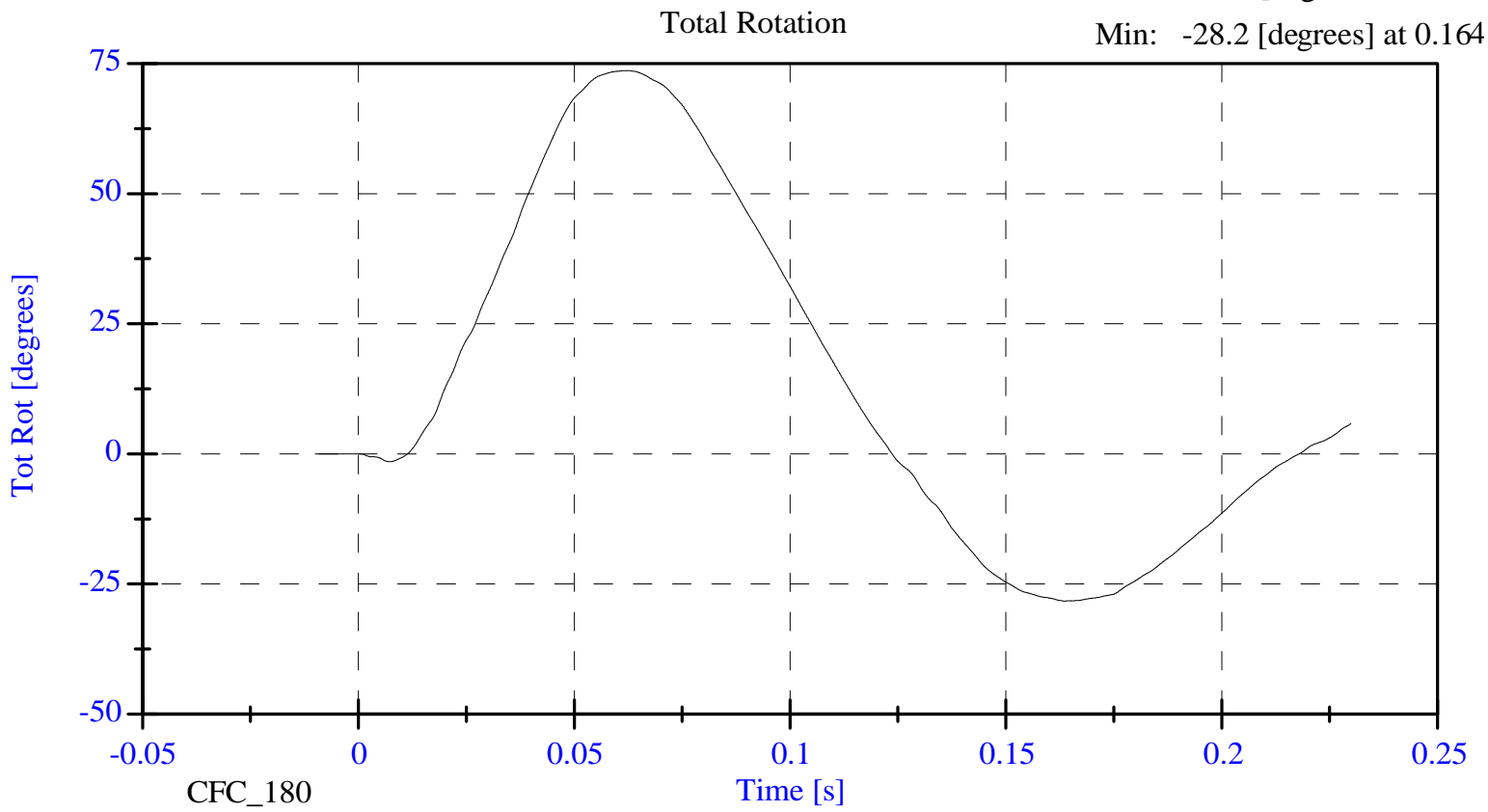
Min: -314.3 [N] at 0.159 [s]



Neck Test

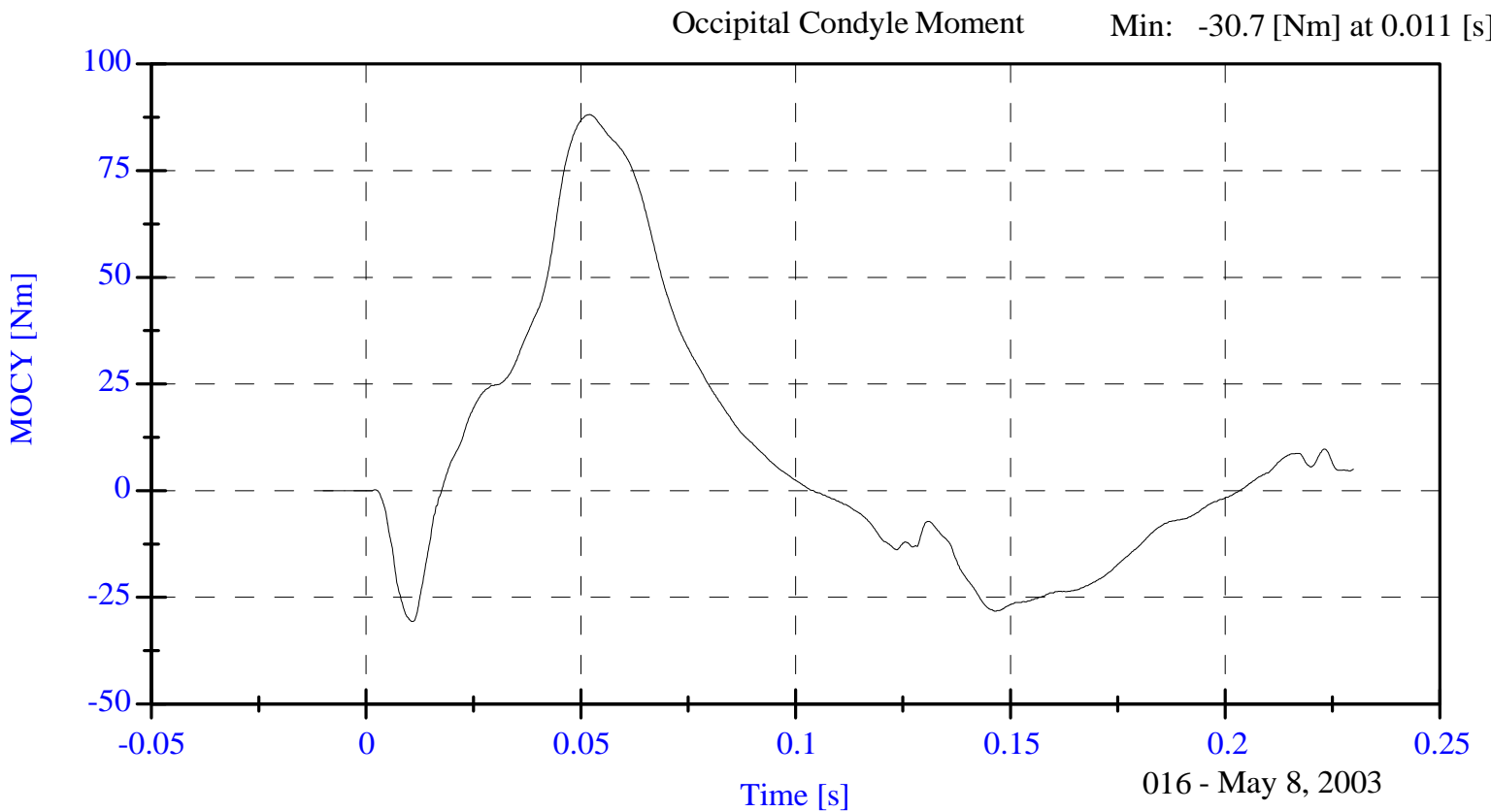
Max: 73.7 [degrees] at 0.062

Min: -28.2 [degrees] at 0.164



Max: 88.1 [Nm] at 0.052 [s]

Min: -30.7 [Nm] at 0.011 [s]



**ABDOMINAL COMPRESSION TEST
POST TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	39.0
FORCE @ 13 mm (N)	104 - 162	111.2
FORCE @ 19 mm (N)	163 - 221	175.7
FORCE @ 25 mm (N)	222 - 280	258.0
FORCE @ 33 mm (N)	325 - 391	373.7

REMARKS: None

Dummy S/N 016

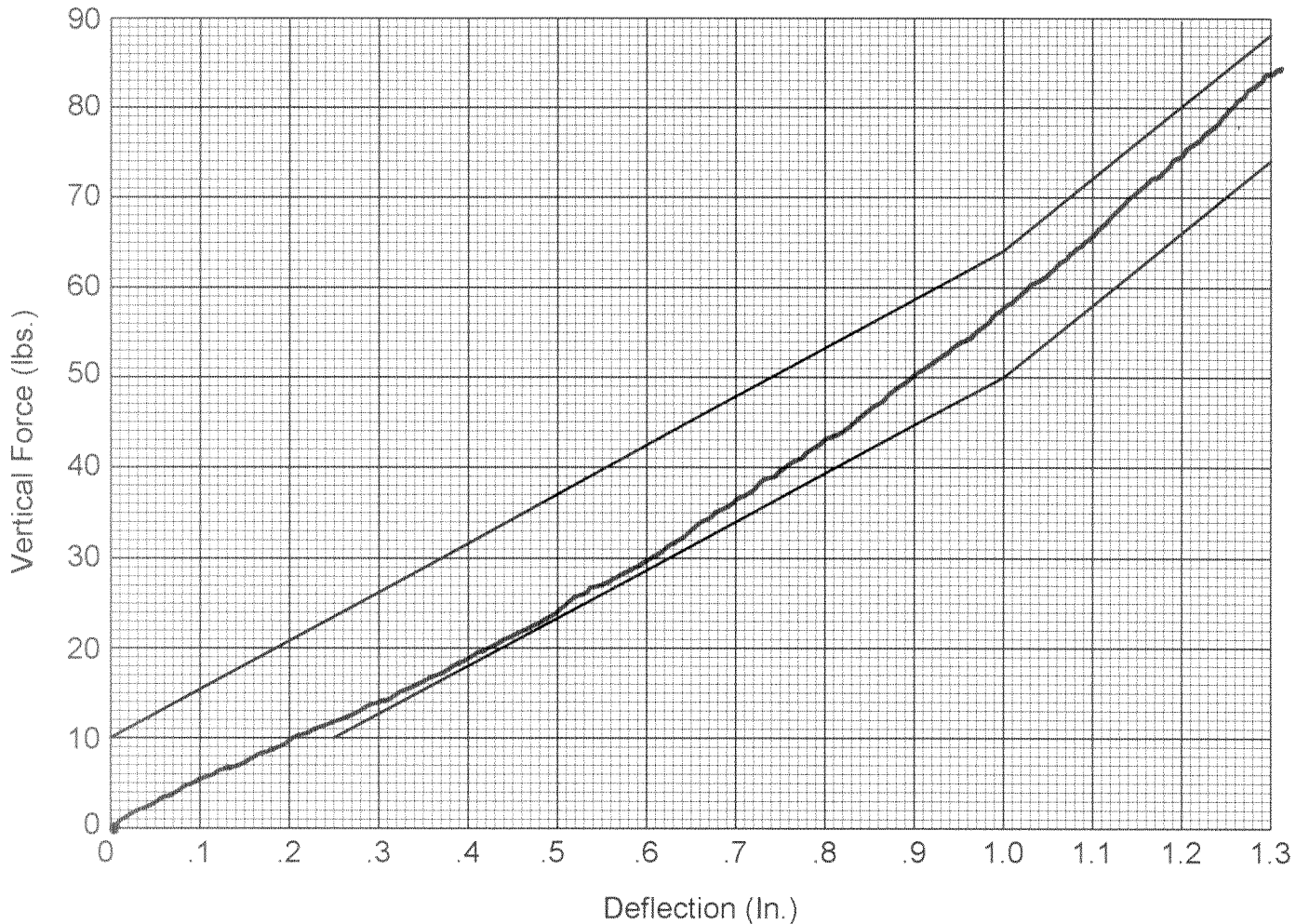
W/A _____

Date 5-9-03

Performed By [Signature]

Temp. 70°

Humidity 39%



**Hybrid II
Abdomen Static Press**

**LUMBAR FLEXION TEST
POST TEST**
(Test not required for SID certification)

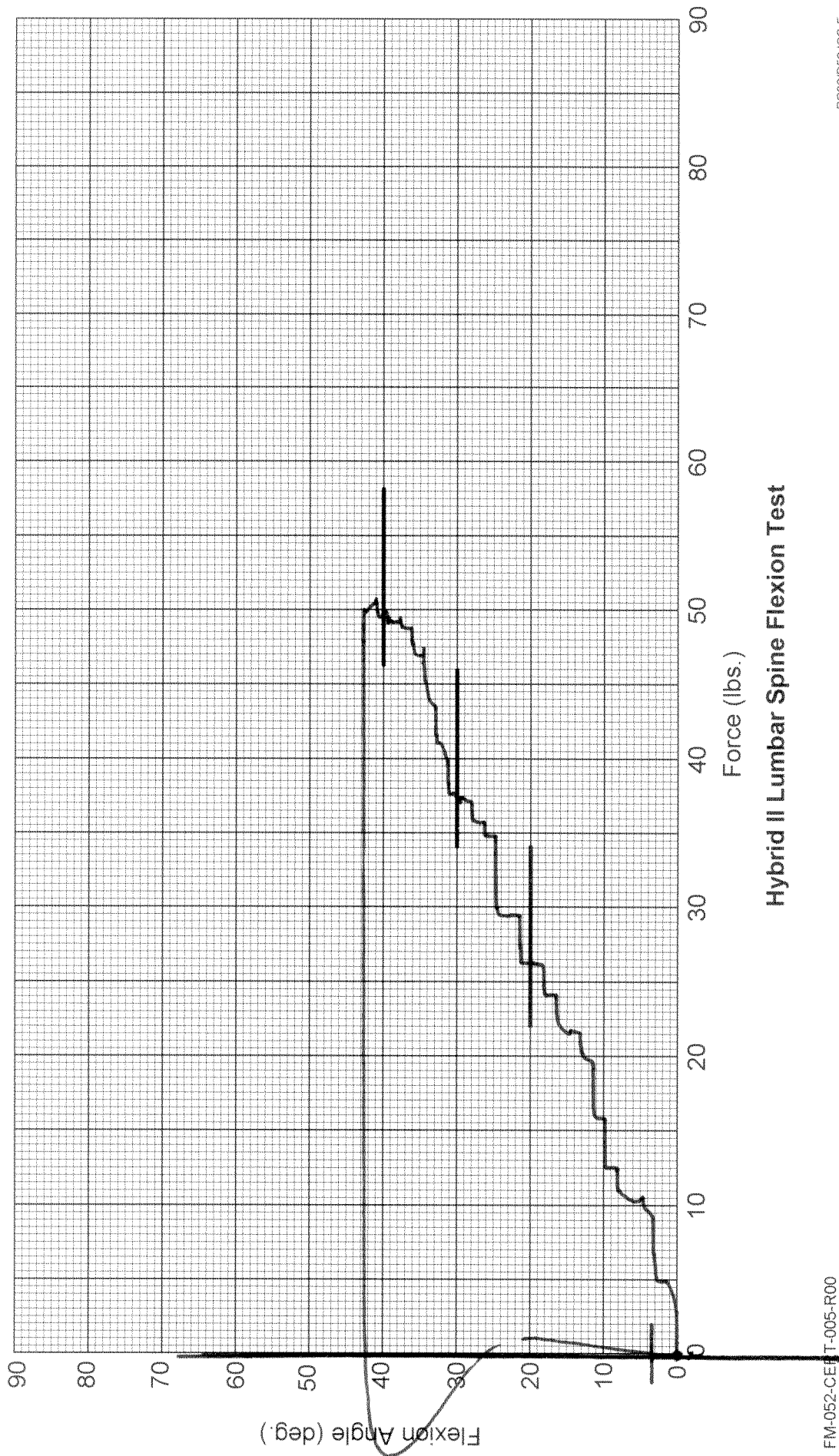
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
Date: May 9, 2003 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	39.0
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	116.8
FORCE @ 30° (N)	151.2 - 204.6	166.8
FORCE @ 40° (N)	204.6 - 258	220.2
RETURN ANGLE	12° max.	3.5°

REMARKS: None

Dummy S/N 016
 W/A _____
 Date 5-9-03
 Performed By [Signature]
 Temp. 70°
 Humidity 39%



Hybrid II Lumbar Spine Flexion Test

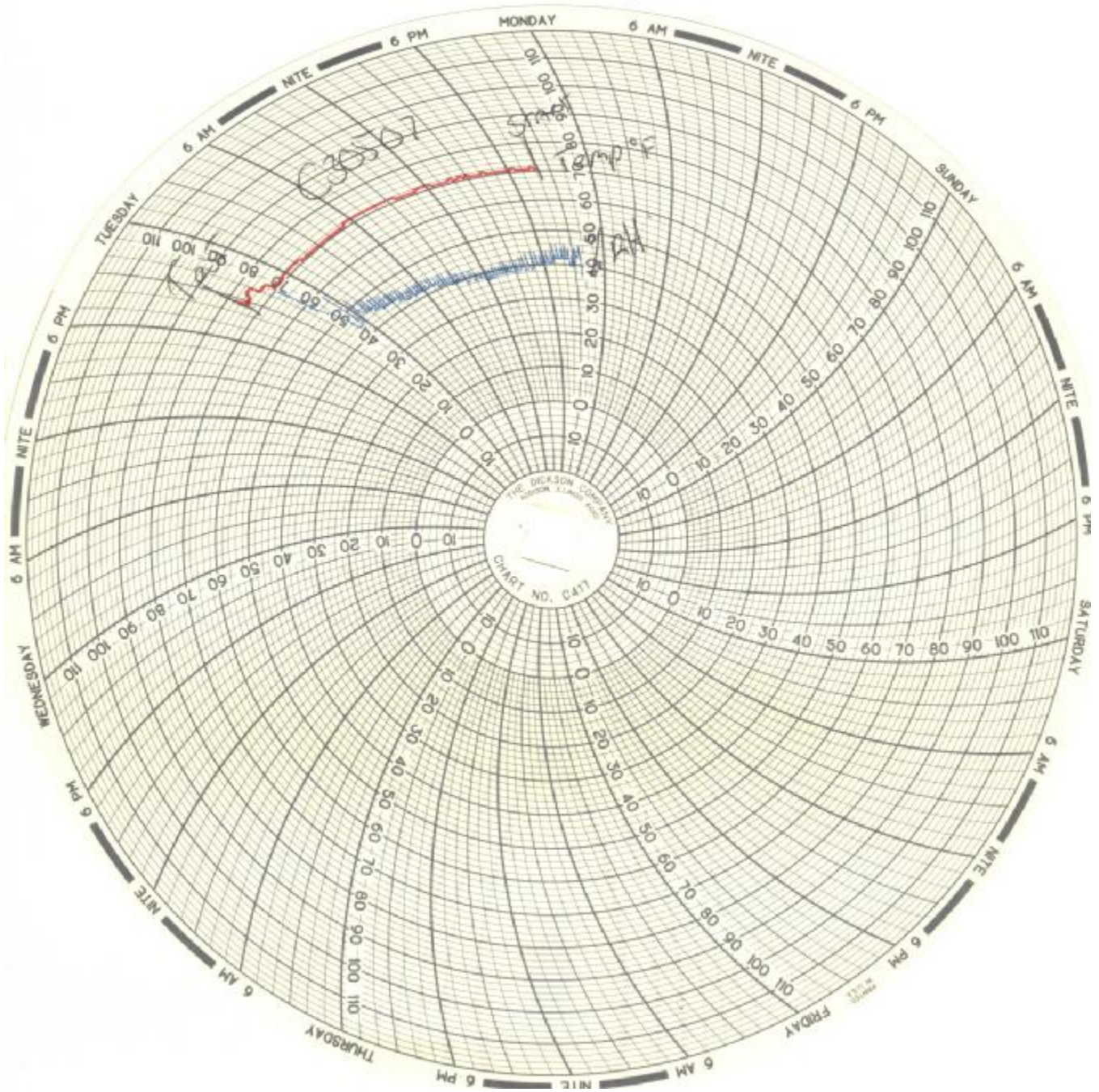
POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 016 Sequential Test Number: 3
 Date: May 9, 2003 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

TEMPERATURE TRACE



APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

**TEST EQUIPMENT LIST AND CALIBRATION INFORMATION
SID INSTRUMENTATION**

FRONT SID NO.: 015			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
NAAH HEAD X ARM Y	AC-01G18-F06	ENTRAN	07-Apr-03
NAAH HEAD X ARM Z	AC-01B00113-f39	ENTRAN	07-Apr-03
NAAH HEAD Y ARM X	AC-00L13-F14	ENTRAN	07-Apr-03
NAAH HEAD Y ARM Z	AC-01G18-F16	ENTRAN	07-Apr-03
NAAH HEAD Z ARM X	AC-01B00L13-F72	ENTRAN	07-Apr-03
NAAH HEAD Z ARM Y	AC-01G18-F12	ENTRAN	07-Apr-03
HEAD AX	AC-P23993	ENDEVCO	04-Dec-02
HEAD AY	AC-P23939	ENDEVCO	04-Dec-02
HEAD AZ	AC-P23999	ENDEVCO	04-Dec-02
UPPER NECK FX	LC-260Fx	DENTON	12-Dec-02
UPPER NECK FY	LC-260Fy	DENTON	12-Dec-02
UPPER NECK FZ	LC-260Fz	DENTON	12-Dec-02
UPPER NECK MX	LC-260Mx	DENTON	12-Dec-02
UPPER NECK MY	LC-260My	DENTON	12-Dec-02
UPPER NECK MZ	LC-260Mz	DENTON	12-Dec-02
UPPER RIB	AC-P16862	ENDEVCO	18-Feb-03
LOWER RIB	AC-P16656	ENDEVCO	18-Feb-03
LOWER SPINE	AC-P16866	ENDEVCO	18-Feb-03
PELVIS	AC-P16676	ENDEVCO	18-Feb-03
UPPER RIB REDUNDANT	AC-P23156	ENDEVCO	18-Feb-03
LOWER RIB REDUNDANT	AC-P16645	ENDEVCO	18-Feb-03
LOWER SPINE REDUNDANT	AC-P19343	ENDEVCO	18-Apr-03
PELVIS REDUNDANT	AC-P16843	ENDEVCO	18-Feb-03

REAR SID NO.: 016			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
NAAH HEAD X ARM Y	AC-01G18-F08	ENTRAN	01-Apr-03
NAAH HEAD X ARM Z	AC-00L20-A13	ENTRAN	01-Apr-03
NAAH HEAD Y ARM X	AC-00L20-A08	ENTRAN	28-Mar-03
NAAH HEAD Y ARM Z	AC-01G18-F13	ENTRAN	28-Mar-03
NAAH HEAD Z ARM X	AC-01J02-F18	ENTRAN	28-Mar-03
NAAH HEAD Z ARM Y	AC-01G25-N11	ENTRAN	28-Mar-03
HEAD AX	AC-P23960	ENDEVCO	10-Nov-02
HEAD AY	AC-P23940	ENDEVCO	09-Nov-02
HEAD AZ	AC-P23899	ENDEVCO	10-Nov-02
UPPER NECK FX	LC-261Fx	DENTON	12-Dec-02
UPPER NECK FY	LC-261Fy	DENTON	12-Dec-02
UPPER NECK FZ	LC-261Fz	DENTON	12-Dec-02
UPPER NECK MX	LC-261Mx	DENTON	12-Dec-02
UPPER NECK MY	LC-261My	DENTON	12-Dec-02
UPPER NECK MZ	LC-261Mz	DENTON	12-Dec-02
UPPER RIB	AC-P18524	ENDEVCO	17-Feb-03
LOWER RIB	AC-P18533	ENDEVCO	17-Feb-03
LOWER SPINE	AC-P18514	ENDEVCO	17-Feb-03
PELVIS	AC-P18519	ENDEVCO	17-Feb-03
UPPER RIB REDUNDANT	AC-P18528	ENDEVCO	17-Feb-03
LOWER RIB REDUNDANT	AC-P18518	ENDEVCO	17-Feb-03
LOWER SPINE REDUNDANT	AC-P18688	ENDEVCO	17-Feb-03
PELVIS REDUNDANT	AC-P18531	ENDEVCO	17-Feb-03

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-P19253	ENDEVCO	10-Feb-03
RIGHT FRONT SILL (Y)	AC-P21392	ENDEVCO	10-Feb-03
RIGHT FRONT SILL (Z)	AC-P23138	ENDEVCO	10-Feb-03
RIGHT REAR SILL (X)	AC-P23926	ENDEVCO	13-Mar-03
RIGHT REAR SILL (Y)	AC-P23864	ENDEVCO	13-Mar-03
RIGHT REAR SILL (Z)	AC-P23854	ENDEVCO	13-Mar-03
REAR FLOORPAN ABOVE AXLE (X)	AC-J31026	ENDEVCO	14-Apr-03
REAR FLOORPAN ABOVE AXLE (Y)	AC-J30491	ENDEVCO	14-Apr-03
REAR FLOORPAN ABOVE AXLE (Z)	AC-J32831	ENDEVCO	14-Apr-03
LEFT REAR SILL (Y)	AC-D69	ICS	28-Apr-03
LEFT FRONT SILL (Y)	AC-D30	ICS	28-Apr-03
LEFT FRONT DOOR CENTERLINE (Y)	-	-	-
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-D80	ICS	28-Apr-03
MID REAR OF LEFT FRONT DOOR (Y)	-	-	-
LEFT FRONT DOOR UPPER C\L (Y)	-	-	-
MID REAR OF LEFT REAR DOOR (Y)	-	-	-
LEFT REAR DOOR UPPER C\L (Y)	-	-	-
LOWER LEFT B- PILLAR (Y)	AC-8083-032	ICS	20-Nov-02
MIDDLE LEFT B-PILLAR (Y)	AC-9026-036	ICS	11-Nov-02
LOWER LEFT A-PILLAR (Y)	AC-8084-010	ICS	08-Nov-02
UPPER LEFT A-PILLAR (Y)	AC-J33198	ENDEVCO	16-Apr-03
FRONT SEAT TRACK (Y)	AC-8084-024	ICS	11-Nov-02
REAR SEAT TRACK (Y)	AC-8084-018	ICS	11-Nov-02
VEHICLE CG (X)	AC-J32832	ENDEVCO	16-Apr-03
VEHICLE CG (Y)	AC-J33376	ENDEVCO	16-Apr-03
VEHICLE CG (Z)	AC-J31095	ENDEVCO	14-Apr-03
MDB CG (X)	AC-C16433	ENDEVCO	17-Apr-03
MDB CG (Y)	AC-C16416	ENDEVCO	17-Apr-03
MDB CG (Z)	AC-C16499	ENDEVCO	17-Apr-03
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	17-Apr-03
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	15-Apr-03

REMARKS: None