

036920

REPORT NUMBER: 214-CAL-04-01

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

NISSAN MOTOR CO.
2004 NISSAN MAXIMA
4-DOOR SEDAN

NHTSA NUMBER: C45200

ADVANCED INFORMATION ENGINEERING SERVICES TEST NUMBER: 8675-F214-11

GENERAL DYNAMICS
ADVANCED INFORMATION ENGINEERING SERVICES
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September 23, 2003

FINAL REPORT

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16. Abstract A 55/28 kph 90° Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject Nissan Maxima 4-Door Sedan. 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 Advanced Information Engineering Services Crash Test Facility in Buffalo, New York, on September 23, 2003. The impact velocity of the Moving Deformable Barrier (MDB) was 61.96 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 20.6°C. The target vehicle post-test maximum crush was 365 mm at level 2. The test or target vehicle's performance is given below:																																			
<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 20%; text-align: center;"><u>Front SID H3</u></th> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center;"><u>Rear SID H3</u></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td style="text-align: center;">57.7</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">64.4</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td style="text-align: center;">47.9</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">73.7</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td style="text-align: center;">59</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">63.3</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td style="text-align: center;">58</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">68</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td style="text-align: center;">101</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">89</td> <td style="text-align: center;">g's</td> </tr> </tbody> </table>							<u>Front SID H3</u>		<u>Rear SID H3</u>		Left Upper Rib Acceleration:	57.7	g's	64.4	g's	Left Lower Rib Acceleration:	47.9	g's	73.7	g's	Lower Spine Acceleration:	59	g's	63.3	g's	Thoracic Trauma Index (TTI):	58	g's	68	g's	Pelvis Acceleration (PEV):	101	g's	89	g's
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17. Key Words Compliance Testing Side Impact Protection FMVSS 214 Side Impact Dummy (SID)			18. Distribution Statement Copies of this report are available from: 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 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 2004 Nissan Maxima 4-Door Sedan 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 61.96 kph (38.5 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 Advanced Information Engineering Services Transportation Sciences Center in Buffalo, New York on September 23, 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. Head triaxial accelerometers (X-, Y- and Z-direction)
6. 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 60 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
THI (g)	58	68
PEV (g)	101	89

AIR BAG DEPLOYMENT STATUS

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	-
Knee Bolster Bag	-	-	-
Side Air Bag	Yes	No	-
Side Curtain Bag	Yes	No	Yes

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2004 Nissan Maxima 4-Door Sedan
 Vehicle Body Color: Red VIN: 1N4BA41E74
 Vehicle NHTSA No.: C45200 Month & Year of Manufacture: 05/03
 Engine Data: 6 Cylinders; - CID; 3.5 Liters; - cc
 Engine Placement: - Longitudinal; or X Lateral
 Transmission: 6 Speed; X Manual; - Automatic; - Overdrive
 Final Drive: - Rear Wheel Drive; X Front Wheel Drive; - Four Wheel Drive
 Odometer Reading 224 km
 Supplemental Airbag Restraints:
 Front Occupant: X Frontal; - Knee; X Side; X Curtain
 Rear Occupant: - Frontal; - Knee; - Side; X Curtain
 Options: X A/C; X Power Steering; X Power Brakes; X Power Windows

DATA FROM TIRE PLACARD

Recommended Tire Size: P245/45R18 96V
 *Recommended Cold Tire Pressure: 220 kpa FRONT; 220 kpa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P245/45R18 96V; Manufacturer: Goodyear
 Tire Pressure with Maximum Capacity Vehicle Load: Front: 300 kPa; Rear: 300 kPa
 Treadwear: 260; Traction: A; Temperature: A

VEHICLE CAPACITY DATA:

Number of Occupants: 2 Front; 3 Rear; 0 3rd Seat; 5 Total
 Type of Front Seats: X Bucket; - Bench; - Split Bench;
 Type of Rear Seats: - Bucket; X Bench; - Split Bench; X Contoured
 Type of Front Seat Back: - Fixed; X Adjustable with X Lever or - Knob
 Type of Rear Seat Back: X Fixed; - Adjustable with - Lever or - Knob
 Vehicle Max Capacity Loading = 390 kg (A)
 No. of Occupants x 68.04 kg. = 340.2 kg (B)
 Vehicle Cargo Capacity = 49.8 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front =	<u>481.0</u> kg	Left Rear =	<u>303.0</u> kg
Right Front =	<u>472.5</u> kg	Right Rear =	<u>311.0</u> kg
TOTAL FRONT =	<u>953.5</u> kg	TOTAL REAR =	<u>614.0</u> kg
% of Total Weight =	<u>60.8%</u> %	% of Total Weight =	<u>39.2</u> %
TOTAL WEIGHT =	<u>1567.5</u> kg		

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1567.5</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>49.8</u>	kg (B)
Weight of instrumented SID H3 Dummies (2 X 81.2 kg)	=	<u>162.4</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>1779.7</u>	kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 1 or 2 SID H3(s) + CARGO):

Left Front	=	<u>532.0</u>	kg	Left Rear	=	<u>402.0</u>	kg
Right Front	=	<u>483.5</u>	kg	Right Rear	=	<u>367.0</u>	kg
TOTAL FRONT	=	<u>1015.5</u>	kg	TOTAL REAR	=	<u>769.0</u>	kg
% of Total Weight	=	<u>56.9%</u>	%	% of Total Weight	=	<u>43.1%</u>	%
TOTAL TEST WEIGHT	=	<u>1784.5</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (1 OR 2 SID H3(s) + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front	=	<u>529.7</u>	kg	Left Rear	=	<u>386.7</u>	kg
Right Front	=	<u>492.9</u>	kg	Right Rear	=	<u>367.4</u>	kg
TOTAL FRONT	=	<u>1022.6</u>	kg	TOTAL REAR	=	<u>754.1</u>	kg
% of Total Weight	=	<u>57.6%</u>	%	% of Total Weight	=	<u>42.4%</u>	%
TOTAL TEST WEIGHT	=	<u>1776.7</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>753</u>	Right Front	<u>748</u>	Left Rear	<u>723</u>	Right Rear	<u>722</u>
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FULLY LOADED:

Left Front	<u>738</u>	Right Front	<u>742</u>	Left Rear	<u>690</u>	Right Rear	<u>696</u>
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READY FOR TEST:

Left Front	<u>740</u>	Right Front	<u>743</u>	Left Rear	<u>696</u>	Right Rear	<u>698</u>
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Test Vehicle Wheelbase: 2830 millimeters

C.G. = 1201.16 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side =	<u>4820</u>	millimeters
Left Side =	<u>4819</u>	millimeters
Centerline =	<u>4912</u>	millimeters

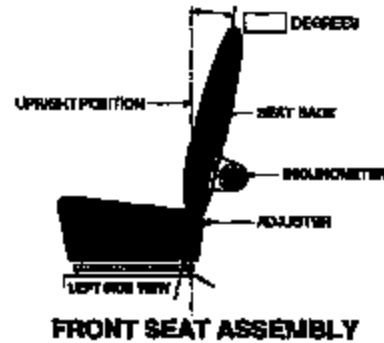
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200

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 (full down and 120 mm from full forward)

Total Length of Adjustment Travel: 240 millimeters

Total Number of Adjustment Positions or Detents: infinite

FRONT SEAT BACK ADJUSTMENT POSITION: 11.7 degrees from vertical as measured on the head rest post.

Seat Back Torso Angle: 19.0 degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: fixed

ADJUSTABLE STEERING COLUMN POSITION:

Place tilt adjustment in detent 3, where the top most detent is 0. Place telescopic adjustment in mid position (175 mm from instrument cluster to top of steering column rim)

WINDOW POSITIONS: Left Front: Closed

Left Rear: Closed

Right Front: Open

Right Rear: Open

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:

75.7 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 2830 millimeters

Impact Point is 475 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 468 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2004 Nissan Maxima

Body Style: 4-Door Sedan

VIN: JN4BA41E74

NHTSA No.: C45200

Test Date: September 23, 2003

Overall Length = 4912 millimeters; Overall Width = 1820 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 529.7 kg Left Rear = 386.7 kg

Right Front = 492.9 kg Right Rear = 367.4 kg

TOTAL FRONT = 1022.6 kg TOTAL REAR = 754.1 kg

TOTAL VEHICLE WEIGHT 1776.7 kg

Wheelbase = 2830 millimeters

Longitudinal C.G. from Center of Front Axle = 1201.16 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 9 mm below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (235 mm above ground) = 217 millimeters

2. LEVEL 2 (498 mm above ground) = 365 millimeters

3. LEVEL 3 (619 mm above ground) = 296 millimeters

4. LEVEL 4 (863 mm above ground) = 268 millimeters

5. LEVEL 5 (1373 mm above ground) = 88 millimeters

Maximum Post-Test Intrusion = 365 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification [REDACTED]

[REDACTED]

Restraints Used 3-point seat belt, side impact
airbag, side curtain airbag

3-point seat belt, side curtain airbag

INSTRUMENTATION:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 3

 Offboard = 7

 TOTAL = 10

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore: 112B0303-4; 033A0303

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>61.96</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>88</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>59</u>	millimeters
3. Row C at Mid Level	=	<u>73</u>	millimeters
4. Row D at Top of Stack Level	=	<u>139</u>	millimeters

INSTRUMENTATION:

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

POST-TEST OBSERVATIONS

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200

TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT	REAR SEAT
ATD Type/Serial No.	SID H3/269	SID H3/270
Head Contact:	Left side of head to side curtain airbag	Left side of head to side curtain airbag and C-pillar, top of head to roof liner
Upper Torso Contact:	Left arm to side impact airbag	Left arm to door trim above arm rest
Lower Torso Contact:	Pelvis to side impact airbag and seat bolster	Pelvis to door trim below arm rest
Left Knee Contact:	Left knee to door trim	Left knee to door trim
Right Knee Contact:	Right knee to left knee	Right knee to left knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed / Latched / Inoperable	Closed / Latched / Partially Operable
Right Side Doors	Closed / Latched / Operable	Closed / Latched / Operable
Hatch/Other Door	-	-
Seat Movement (mm)	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	No visible tears or separations
Sill Separation	None
Windshield Damage	The left side of the windshield cracked during the impact.
Window Damage	The left door windows and back window shattered during the impact.
Other Notable Effects	The P4 door outer sheet metal skin separated from the door during the impact. The P4 side impact beam broke from its forward attachment bracket during the test.

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	-
Knee Bolster Bag	-	-	-
Side Air Bag	Yes	No	-
Side Curtain Bag	Yes	No	Yes

MDB LEFT EDGE IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	± 50 mm	7 mm forward of target
Vertical Offset	mm	± 20 mm	9 mm below target

SECTION 4

OCCUPANT AND VEHICLE INFORMATION



DATA SHEET 5

SID H3 INSTRUMENTATION DATA

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200

		Front Dummy ID# 269				Rear Dummy ID# 270			
		Pos. Direction		Neg. Direction		Pos. Direction		Neg. Direction	
		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
Longitudinal	X	7.5	199.8	-25.7	57.1	11.3	61.7	-15.6	54.1
Lateral	Y	29.7	55.6	-6.4	176.7	135.5	53.9	-8.8	41.8
Vertical	Z	35.3	57.2	-3.5	35.6	17.0	42.4	-51.8	60.7
Resultant	R	51.9	57.1	-	-	136.3	53.9	-	-
HIC		242.5				824.5			
Longitudinal	X	259.2	199.9	-944.8	57.2	483.7	61.6	-155.4	99.3
Lateral	Y	467.5	58.6	-276.7	181.5	444.9	53.9	-850.4	62.4
Vertical	Z	1366.1	57.5	-122.2	34.7	792.0	47.6	-2204.5	60.5
Resultant	R	1718.9	57.4	-	-	2359.8	60.9	-	-
X		23.1	63.8	-45.4	40.2	19.1	115.1	-183.1	56.7
Y		43.0	80.6	-53.9	56.7	2.6	103.3	-3.8	69.4
Z		35.0	71.8	-9.9	188.8	12.3	99.9	-28.5	59.0
Resultant	R	57.5	56.4	-	-	185.1	56.7	-	-
Upper Rib Lateral	Y	57.7	43.1	-9.6	93.1	64.4	42.5	-9.8	86.9
Upper Rib Lateral	Y(R)	58.6	43.1	-10.1	93.1	61.8	42.5	-9.5	86.9
Lower Rib Lateral	Y	47.9	36.9	-9.8	93.8	73.7	43.8	-21.8	72.5
Lower Rib Lateral	Y(R)	44.9	28.8	-10.0	93.7	72.8	43.7	-22.8	72.5
Lower Lateral	Y	59.0	30.6	-12.1	68.1	63.3	40.6	-28.4	66.2
Lower Lateral	Y(R)	59.0	30.6	-12.0	68.1	63.0	40.6	-28.2	65.7
Lateral	Y	101.1	27.5	-29.1	50.6	88.7	35.0	-21.5	65.6
Lateral	Y(R)	102.9	27.5	-29.6	50.6	87.7	35.0	-21.4	65.6

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.

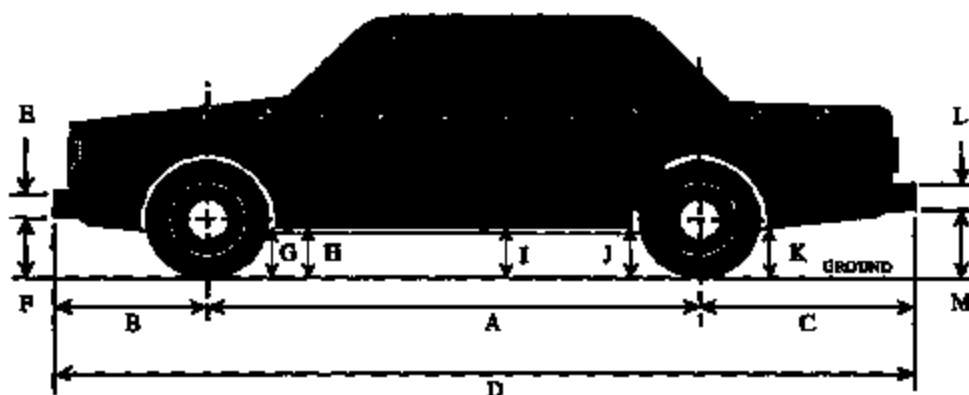
Head Accelerations and Neck Forces are filtered at SAE Class 1000, Neck Moments are filtered at SAE Class 600.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



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	2830	2830	2768	-62
B	952	-	1000	48
C	1130	-	1120	-10
D	4912	-	4888	-24
E	297	-	294	-3
F	223	217	231	14
G	128	110	127	17
H	203	184	208	24
I	201	174	222	48
J1	207	178	216	38
J2	202	171	205	34
K	211	173	210	37
L	361	-	360	-1
M	326	289	320	31
N	687	-	597	-90
O	825	-	716	-109
P	1245	-	1094	-151
Q	449	-	436	-13
R	4820	-	4818	-2
S	4819	-	4773	-46
T	1820	-	1592	-228

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

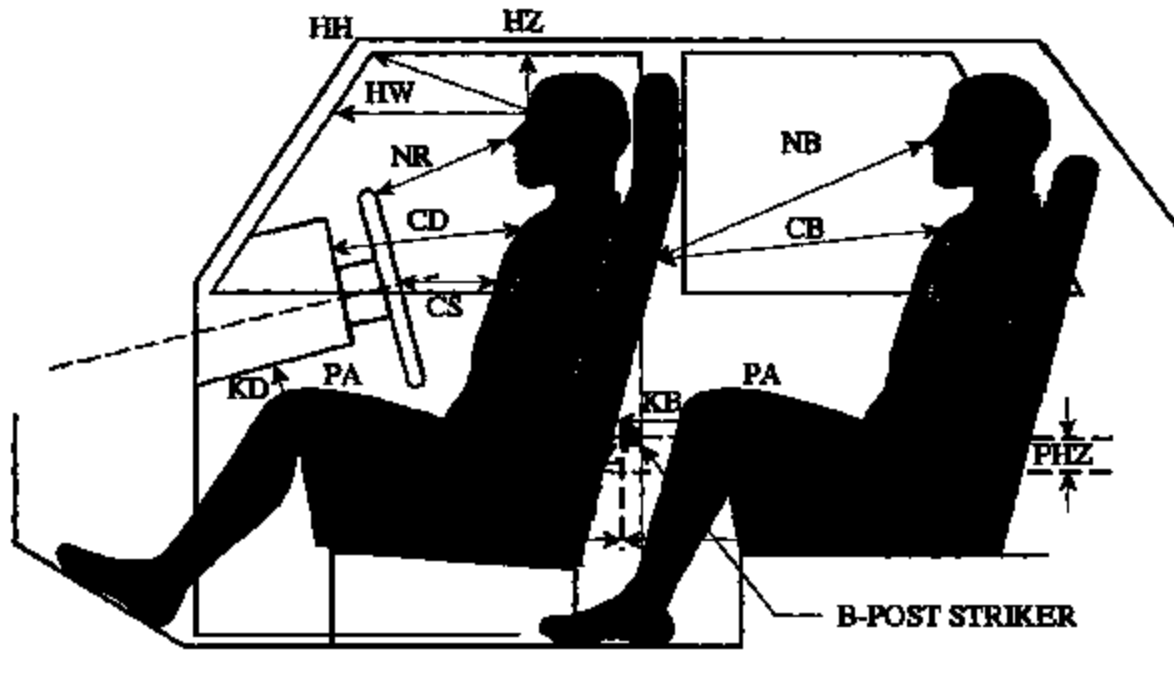
J2 = To Sill

DATA SHEET 7

SID H3 LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



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# 269	LEFT REAR PASS. ID# 270
HH	317	N/A
HW	648	N/A
HZ	154	152
NR/NB	402	647
CD/CB	582	600
CS	273	N/A
KDL(KDA°)/KBL(KBA°)	187 / (28 °)	289 / (33 °)
KDR(KDA°)/KBR(KBA°)	170 / (36 °)	287 / (34 °)
PA°	23.8°	23.5°
PHX	213	227
PHZ	149	280

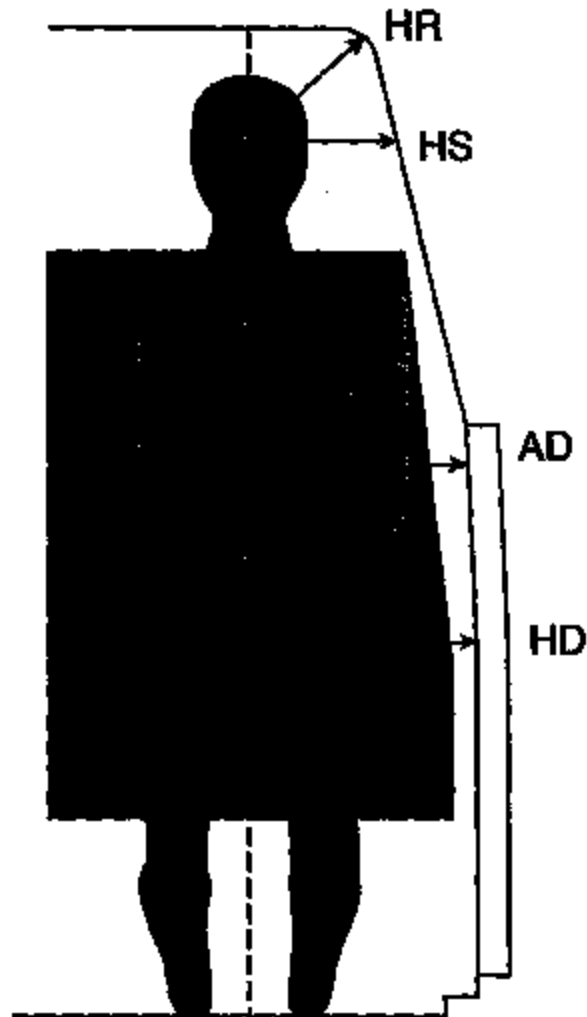
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID H3 LATERAL CLEARANCE DIMENSIONS

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



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

	DRIVER ID # [REDACTED]		LEFT REAR PASS. ID # [REDACTED]	
HR	185		214	
HS	318		329	
AD*	LOWER: 132	UPPER: 120	LOWER: 101	UPPER: 106
HD	166		168	

* 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.

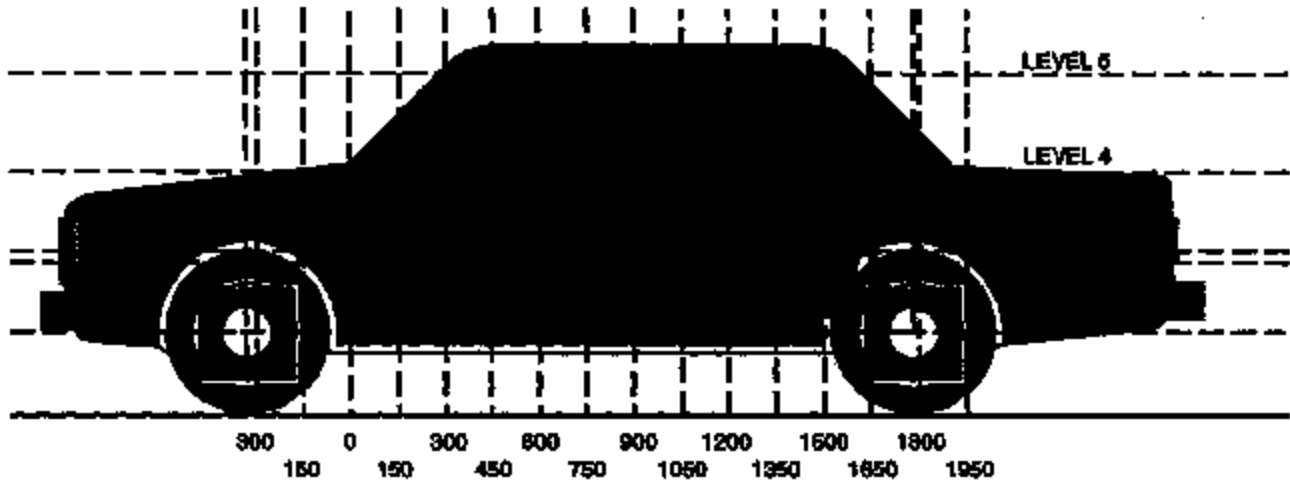


DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



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:

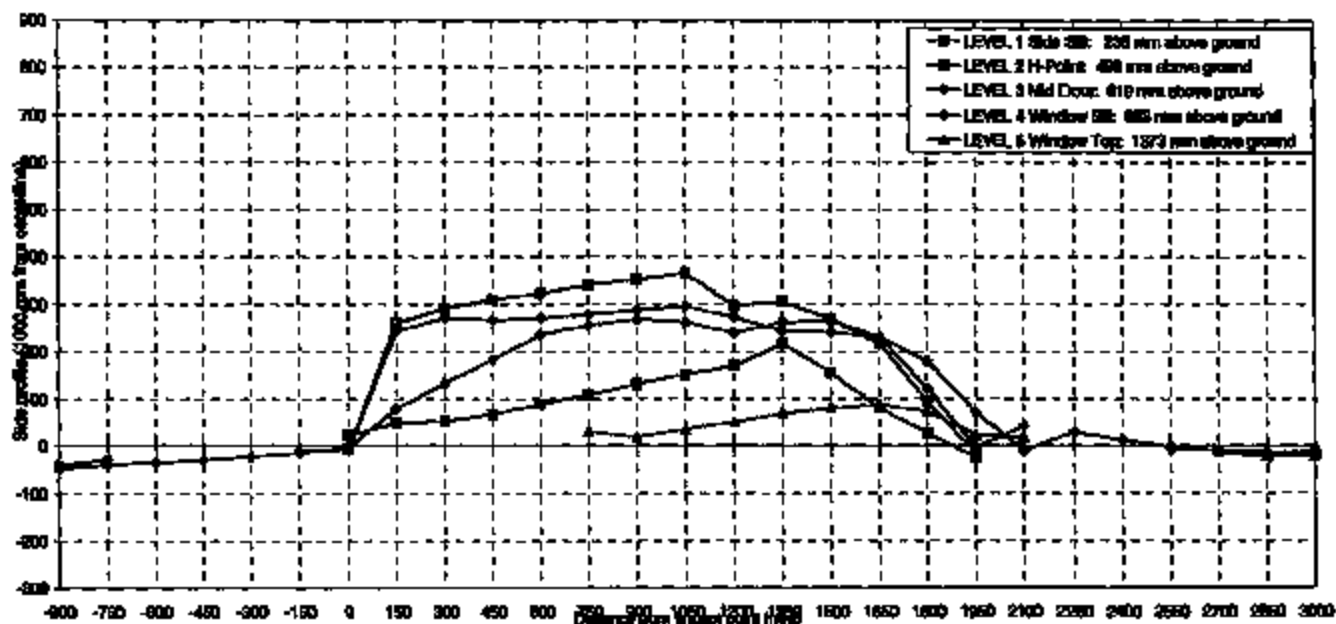
Level 5 @ Window Top	=	<u>1373</u>	millimeters
Level 4 @ Window Sill	=	<u>863</u>	millimeters
Level 3 @ Mid Door	=	<u>619</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>498</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>235</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



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

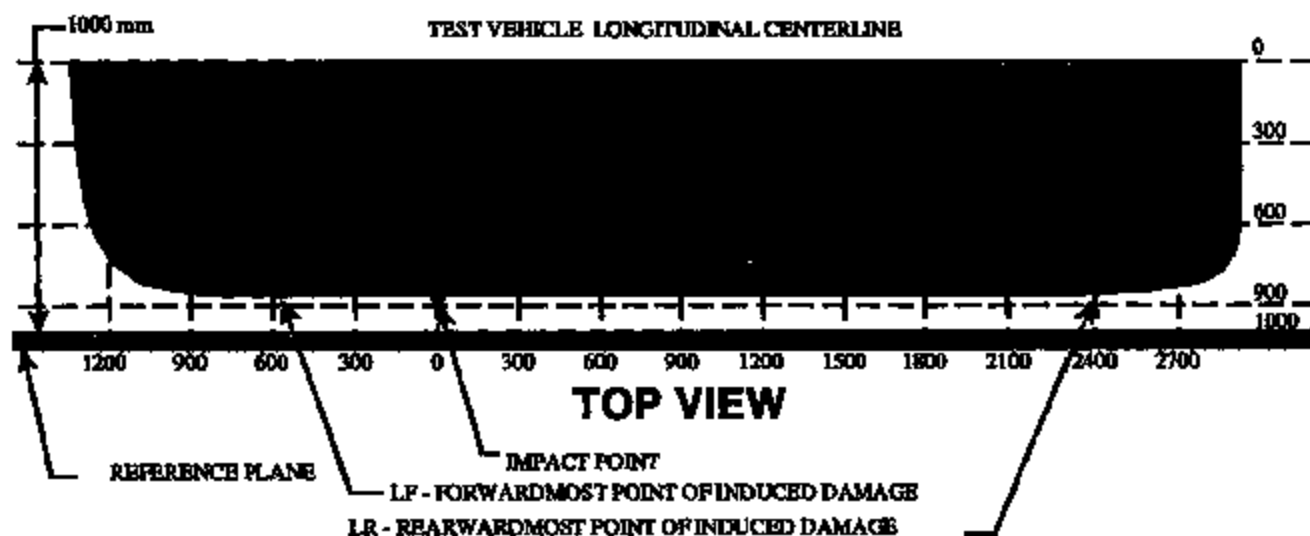
LEVEL	Loc/Chk (mm)	DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
		-900	-750	-600	-450	-300	-150	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000		
LEVEL 1 SIDE BLL	235	PRE	-	-	-	-	-	185	161	167	186	187	164	165	158	160	165	155	150	141	-	-	-	-	-	-	-	-	
		POST	-	-	-	-	-	204	214	224	244	288	285	307	320	307	310	295	177	118	-	-	-	-	-	-	-	-	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	48	53	67	89	100	131	132	170	217	235	98	27	-25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LEVEL 2 H POINT	408	PRE	132	-	-	-	-	118	119	112	111	109	108	103	107	105	108	108	108	102	-	-	-	-	112	143	159		
		POST	90	-	-	-	-	275	404	421	424	440	461	473	404	410	377	328	208	88	-	-	-	-	80	121	138		
		CRUSH	-42	N/A	N/A	N/A	N/A	N/A	239	291	309	303	340	333	305	287	305	269	138	94	-16	N/A	N/A	N/A	N/A	-13	-22	-21	
LEVEL 3 MID DOOR	619	PRE	148	118	-	-	-	110	109	102	108	103	108	105	104	105	107	108	108	97	-	-	-	87	112	143	168		
		POST	106	88	-	-	-	362	379	375	378	384	383	401	377	348	348	338	231	162	188	-	-	81	102	125	163		
		CRUSH	-43	-28	N/A	N/A	N/A	-11	262	271	266	270	278	287	286	272	244	241	231	122	-4	42	N/A	N/A	8	-18	-18	-10	
LEVEL 4 WINDOW BLL	865	PRE	302	309	227	198	164	178	181	154	140	145	142	138	127	125	128	125	127	136	117	128	136	149	158	168	180	214	
		POST	425	298	192	108	164	169	240	287	282	301	306	406	369	378	388	401	368	316	189	114	175	182	154	157	177	195	
		CRUSH	-47	-40	-33	-30	-23	-13	79	133	183	236	256	288	261	240	262	265	231	186	72	-11	28	23	-3	-11	-12	-16	
LEVEL 5 WINDOW TOP	1373	PRE	-	-	-	-	-	-	-	-	-	844	416	404	404	405	410	415	431	548	687	-	-	-	-	-	-		
		POST	-	-	-	-	-	-	-	-	-	-	674	438	438	465	473	481	623	626	671	716	-	-	-	-	-		
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30	19	35	51	68	61	39	73	23	13	N/A	N/A	N/A	N/A	N/A	N/A	

DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



MEASUREMENT CONVENTIONS:

Forward of the impact point (towards front of vehicle) is considered negative (-).
Rearward of the impact point (toward rear of vehicle) is considered positive (+).

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

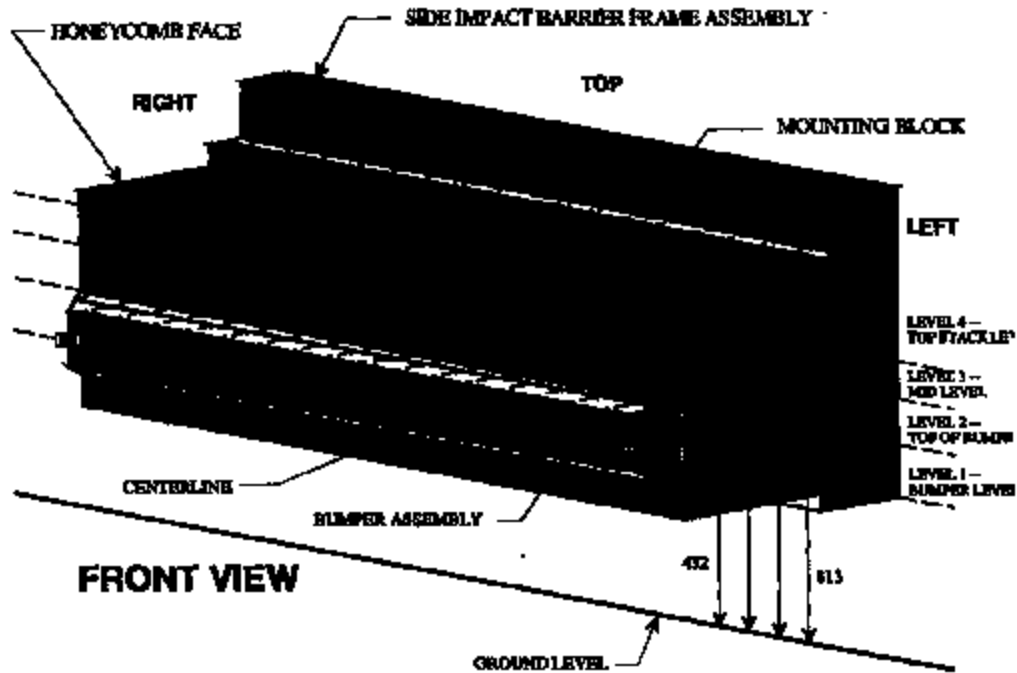
DPD MEASUREMENTS	POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1 (LR = 2550 mm)	154	156	-2
2 2030	149	121	28
3 1510	374	108	266
4 990	468	108	360
5 470	423	112	311
6 (LF = -50 mm)	160	168	-8

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



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	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	631	601	597	599	607	630	652	647	622	620	623	629	650	679	711	758
		CRUSH	12	-18	-22	-20	-12	11	33	28	3	1	4	10	31	60	92	139
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	612	600	606	606	610	617	626	618	615	617	619	621	623	630	650	692
		CRUSH	-7	-19	-13	-13	-9	-2	7	-1	-4	-2	0	2	6	11	31	73
LEVEL 2 TOP BUMPER	535	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	649	629	625	626	628	630	634	634	640	644	647	650	654	660	664	678
		CRUSH	30	10	6	7	9	11	15	15	21	25	28	31	35	41	45	59
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	519	535	
		POST	602	569	554	553	556	560	568	564	565	568	571	577	580	584	594	623
		CRUSH	67	50	36	35	38	42	42	46	47	50	53	59	62	66	75	88

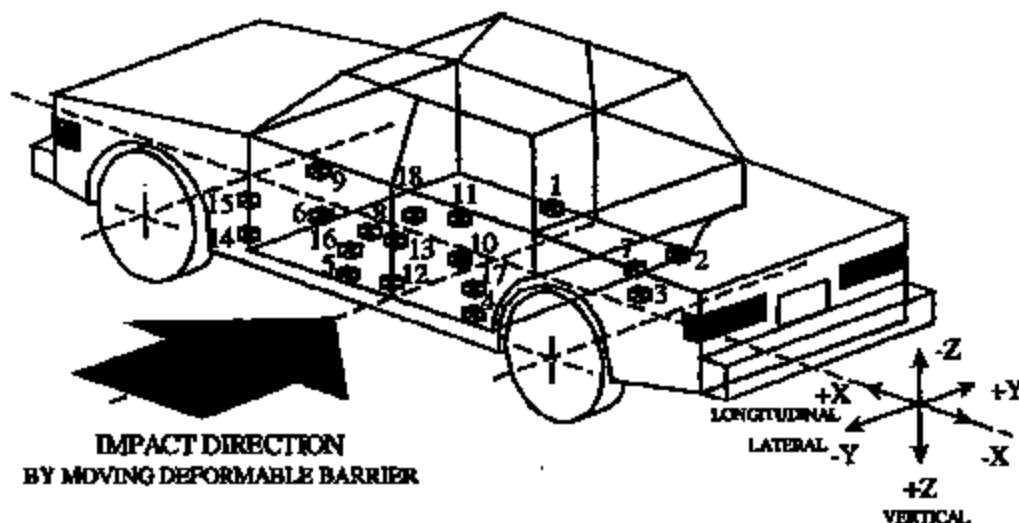
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



- 1-Right Side Sill @ Front Seat
- 2-Right Side Sill @ Rear Seat
- 3-Rear Floorpan Above Axle
- 4-Left Side Sill @ Rear Seat
- 5-Left Side Sill @ Front Seat
- 6-Left Front Door on Centerline
- 7-Right Rear Occupant Compartment
- 8-Midrear of Left Front Door
- 9-Left Front Door Upper Centerline

- 10-Midrear of Left Rear Door
- 11-Left Rear Door Upper Centerline
- 12-Left Lower B-Pillar
- 13-Left Middle B-Pillar
- 14-Left Lower A-Pillar
- 15-Left Middle A-Pillar
- 16-Front Seat Track
- 17-Rear Seat Track
- 18-Vehicle CG

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200

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)
1	Right Side Sill at Front Seat	3002	710	-219	pos.	3.5	52.5	24.5	6.1	3.6	46.3	24.8	6.2
					neg.	-7.7	11.3	-2.3	157.9	-7.7	9.5	-	-
2	Right Side Sill at Rear Seat	2094	709	-213	pos.	3.6	52.7	28.4	6.6	5.5	35.7	28.9	6.6
					neg.	-7.2	11.5	-2.5	161.4	-7.3	17.9	-	-
3	Rear Floorpan Above Axle	1407	-29	-507	pos.	1.8	46.0	24.0	6.6	6.9	22.1	24.5	6.5
					neg.	-4.5	57.1	-2.5	122.5	-6.9	55.2	-	-
4	Left Side Sill at Rear Seat	2098	-694	-209	pos.	-	-	99.8	11.6	-	-	-	-
					neg.	-	-	-51.9	24.0	-	-	-	-
5	Left Side Sill at Front Seat	3043	-647	-232	pos.	-	-	93.9	10.3	-	-	-	-
					neg.	-	-	-42.2	26.0	-	-	-	-
6**	Left Front Door on Centerline	-	-	-	pos.	-	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-	-
7	Right Rear Occupant Compartment	2082	412	-158	pos.	-	-	26.3	6.4	-	-	-	-
					neg.	-	-	-2.4	160.6	-	-	-	-
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.	-	-	-	-	-	-	-	-

*Reference: X - Rear Bumper (+ Forward)

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

**Accelerometer was not requested by COTR.

4-11

8675-P214-11

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

NHTSA No. C45200

Vehicle: 2004 Nissan Maxima 4-Door Sedan

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	2345	-691	-393	pos.	-	-	193.0	4.4	-	-	-	-
					neg.	-	-	-135.9	19.6	-	-	-	-
13	Left Middle B-Pillar	2298	-705	-770	pos.	-	-	208.0	4.6	-	-	-	-
					neg.	-	-	-76.0	9.1	-	-	-	-
14	Left Lower A-Pillar	3454	-686	-516	pos.	-	-	104.2	17.8	-	-	-	-
					neg.	-	-	-122.4	25.7	-	-	-	-
15	Left Middle A-Pillar	3347	-676	-958	pos.	-	-	74.7	24.6	-	-	-	-
					neg.	-	-	-66.3	30.5	-	-	-	-
16†	Front Seat Track	2504	-583	-303	pos.	-	-	†	-	-	-	-	-
					neg.	-	-	†	-	-	-	-	-
17	Rear Seat Track	1305	-470	-600	pos.	-	-	25.0	18.0	-	-	-	-
					neg.	-	-	-2.6	128.8	-	-	-	-
18	Vehicle CG	2753	-6	-397	pos.	25.5	37.2	119.1	25.2	49.7	29.3	122.5	25.2
					neg.	-29.8	27.0	-95.2	36.9	-66.6	37.3	-	-

*Reference: X - Rear Bumper (+ Forward) Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

† Data is invalid after 50 ms.

4-12

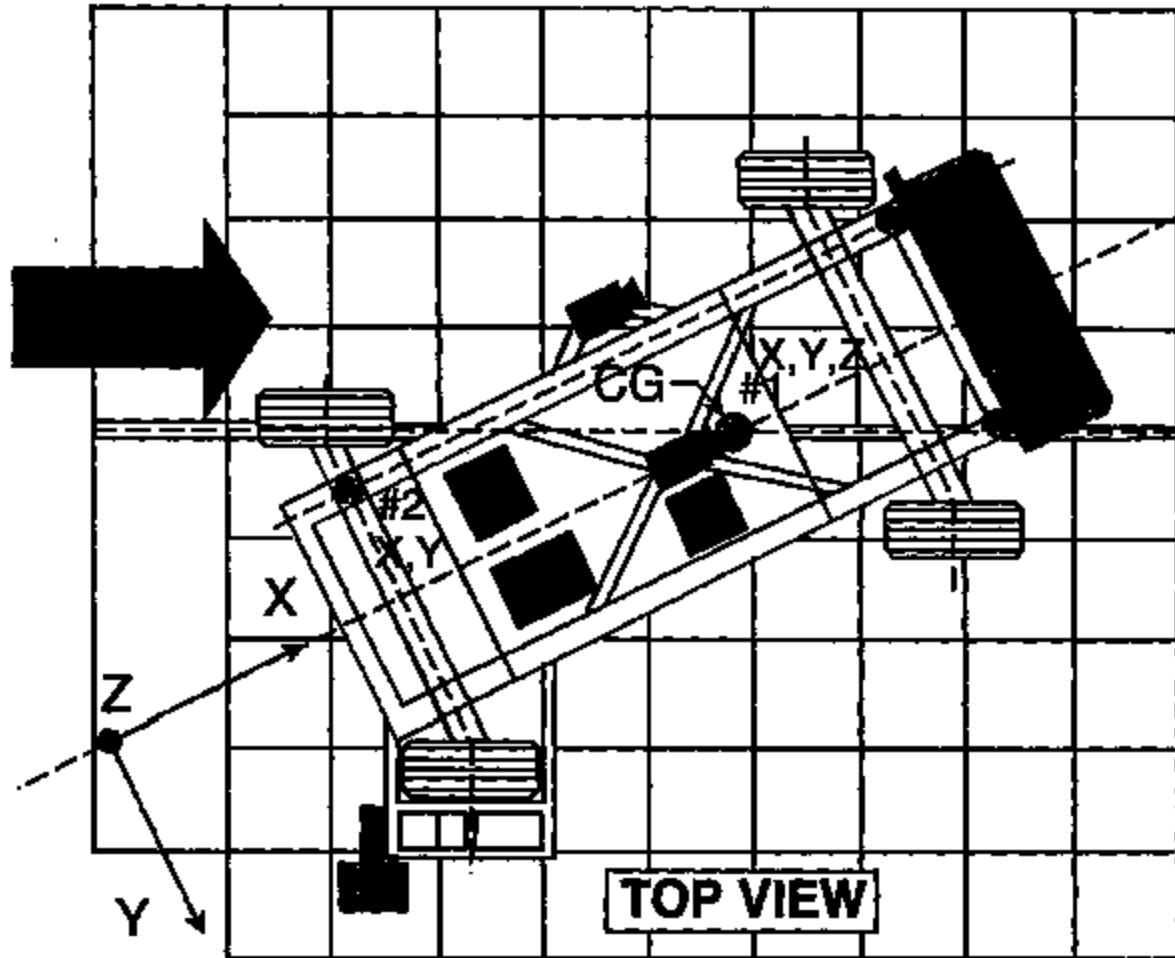
8675-F214-11

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	Longitudinal... X	1859	0	-330	0.9	154.9	-17.6	42.9
	Lateral..... Y				1.5	-20.0	-8.2	34.1
	Vertical..... Z				16.0	50.8	-19.7	20.0
	Resultant..... R				24.2	45.8	-	-
2	Longitudinal... X	386	-660	-660	2.2	-20.0	-20.6	32.3
	Lateral..... Y				4.6	32.8	-4.4	-20.0

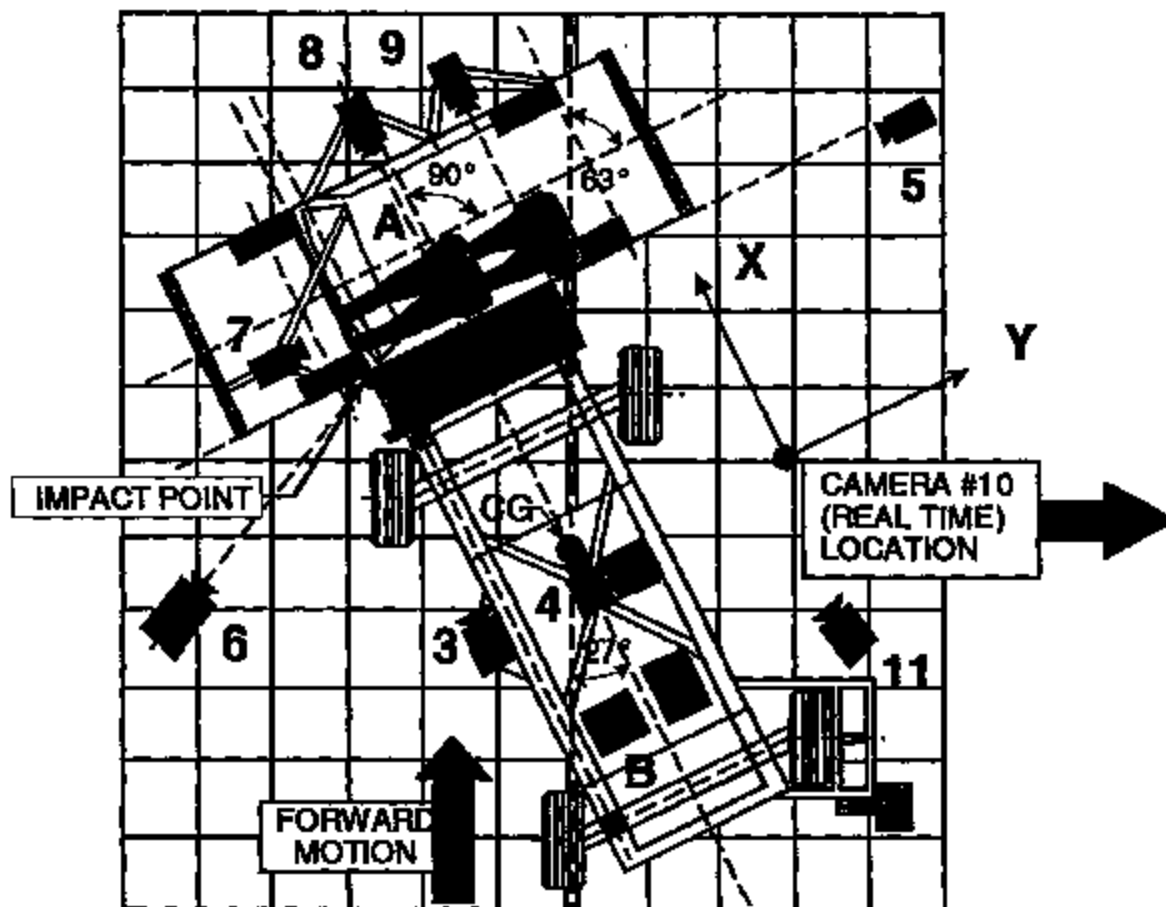
*Reference: X = Rear Bumper (+ Forward)
 Y = Vehicle Centerline (+ To Right)
 Z = Ground Level (+ Down)
 All measurements accurate to within ±3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No. C45200



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	105	827	-4880	-90	8	1000
2	Overhead closeup view of impact plane	230	876	-4880	-90	12.5	1000
3	MDB onboard closeup view of impact point	-1470	0	-847	0	13	1005
4*	MDB onboard view of driver dummy	-1140	838	-1586	-17	7.5	1000
5	Right side ground level overall view	-10	9245	-1092	-4	25	1000
6	Left side ground level overall view	-1855	-1675	-1114	-7	13	1000
7	Test vehicle onboard driver front view	570	-442	-1280	-11	13	1000
8	Test vehicle onboard driver side view	1833	805	-1032	-7	8	1000
9	Test vehicle onboard passenger side view	1814	1665	-1058	-8	8	1000
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 16

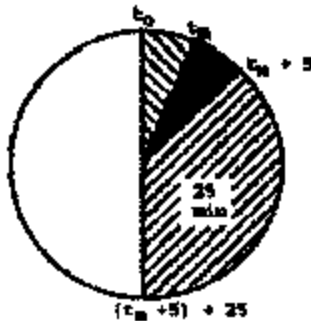
FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA No.: C45200 TEST DATE: September 23, 2003
Vehicle Mfg./Make/Model: Nissan Motor Co. 2004 Nissan Maxima 4-Door Sedan

TEST VEHICLE IMPACT TYPE:

- Frontal (48.28 kph)
- Oblique (48.28 kph) with barrier face first contacting the side (driver/passenger)
- Rear Moving Barrier (48.28 kph)
- Lateral Moving Barrier (32.19 kph)
- X Side Impact Moving Deformable Barrier (62.0 kph) contacting the driver side side (driver/passenger)

FUEL SPILLAGE MEASUREMENT:



- 1. From impact until vehicle motion ceases
- 2. For five minute period after vehicle motion ceases
- 3. For next 25 minutes

ACTUAL	MAX ALLOWED
0 g	28 g
0 g	142 g
0 g	28 g/1 min.

SOLVENT SPILLAGE DETAILS:

None

DATA SHEET 17

ROLLOVER DATA

Vehicle: 2004 Nissan Maxima 4-Door Sedan

NHTSA No.: C45200



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	seconds	minutes	seconds	minutes	seconds	minutes	seconds	minutes	seconds
0° - 90°	1	11	5	6	11	7					
90° - 180°	1	10	5	6	10	7					
180°-270°	1	2	5	6	2	7					
270°-360°	1	8	5	6	8	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
PHOTOGRAPHS

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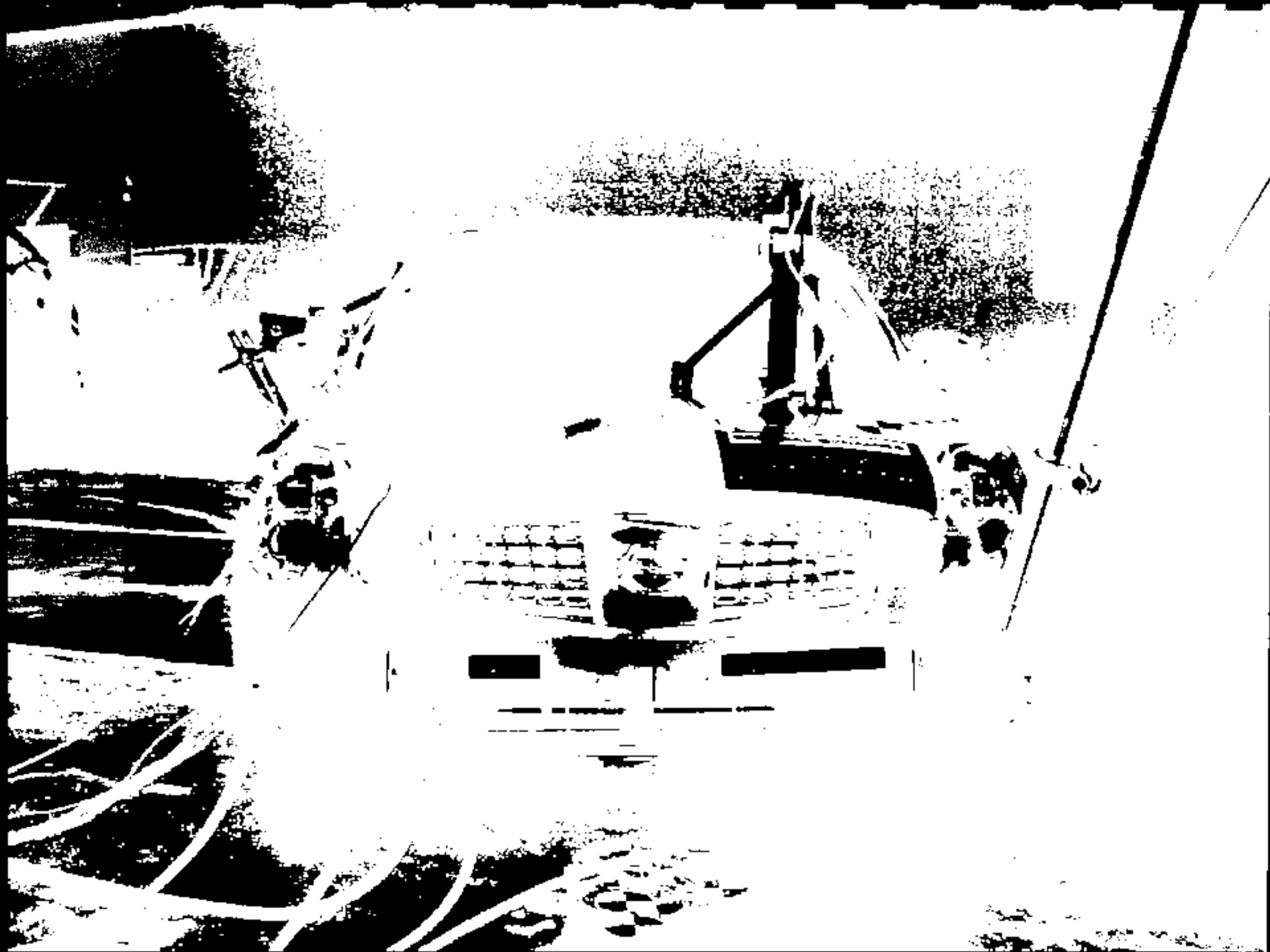


Figure A-1 PRE-TEST FRONTAL VIEW OF TEST VEHICLE



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

55.28 kph 90° IMPACT
2004 NISSAN MAXIMA
NHTSA C45200 09/23/03

GENERAL DYNAMICS
C42056-2001-2089
C45200

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8675-F214-11

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



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

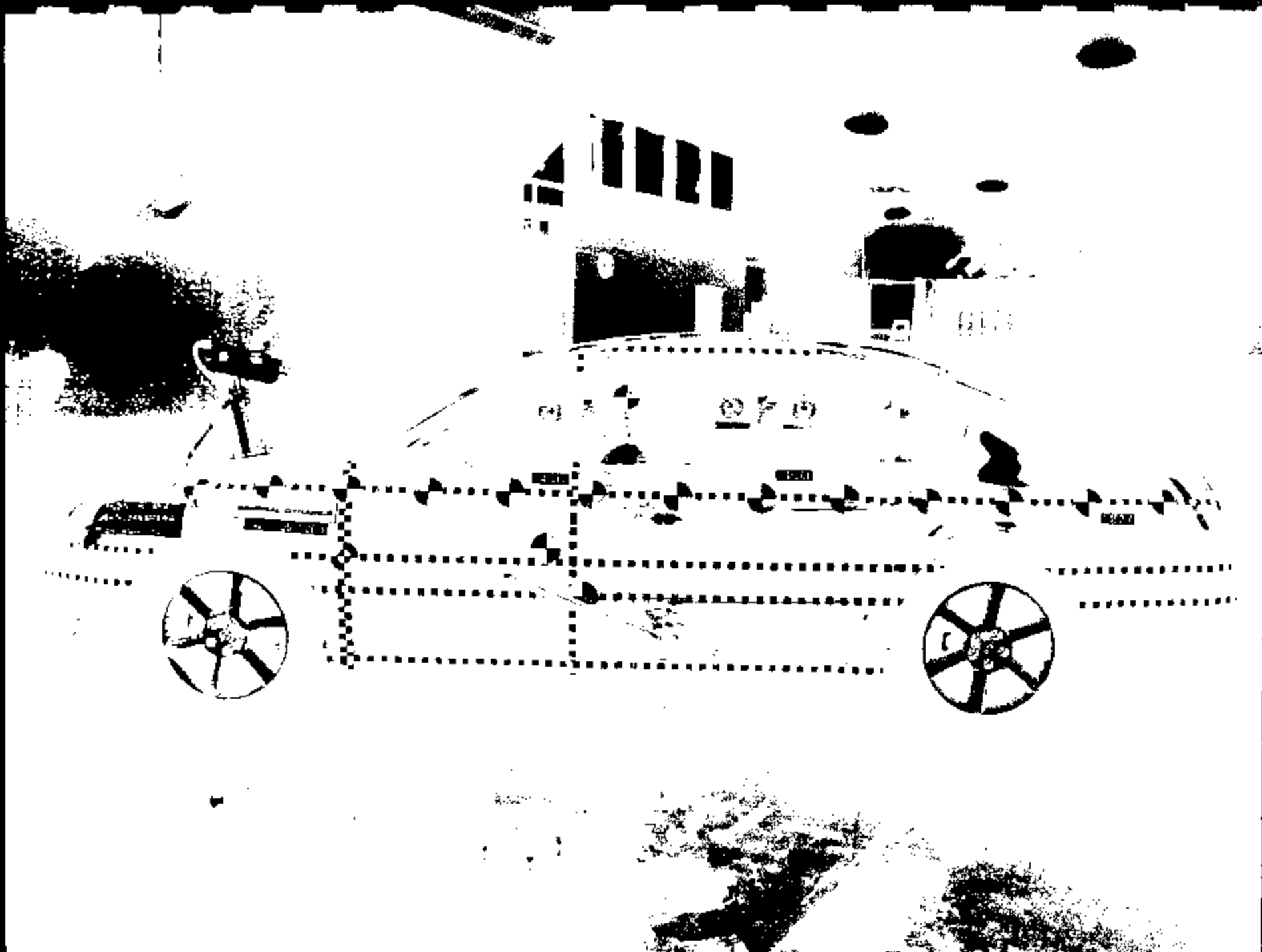


Figure A-5 PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

A-8



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

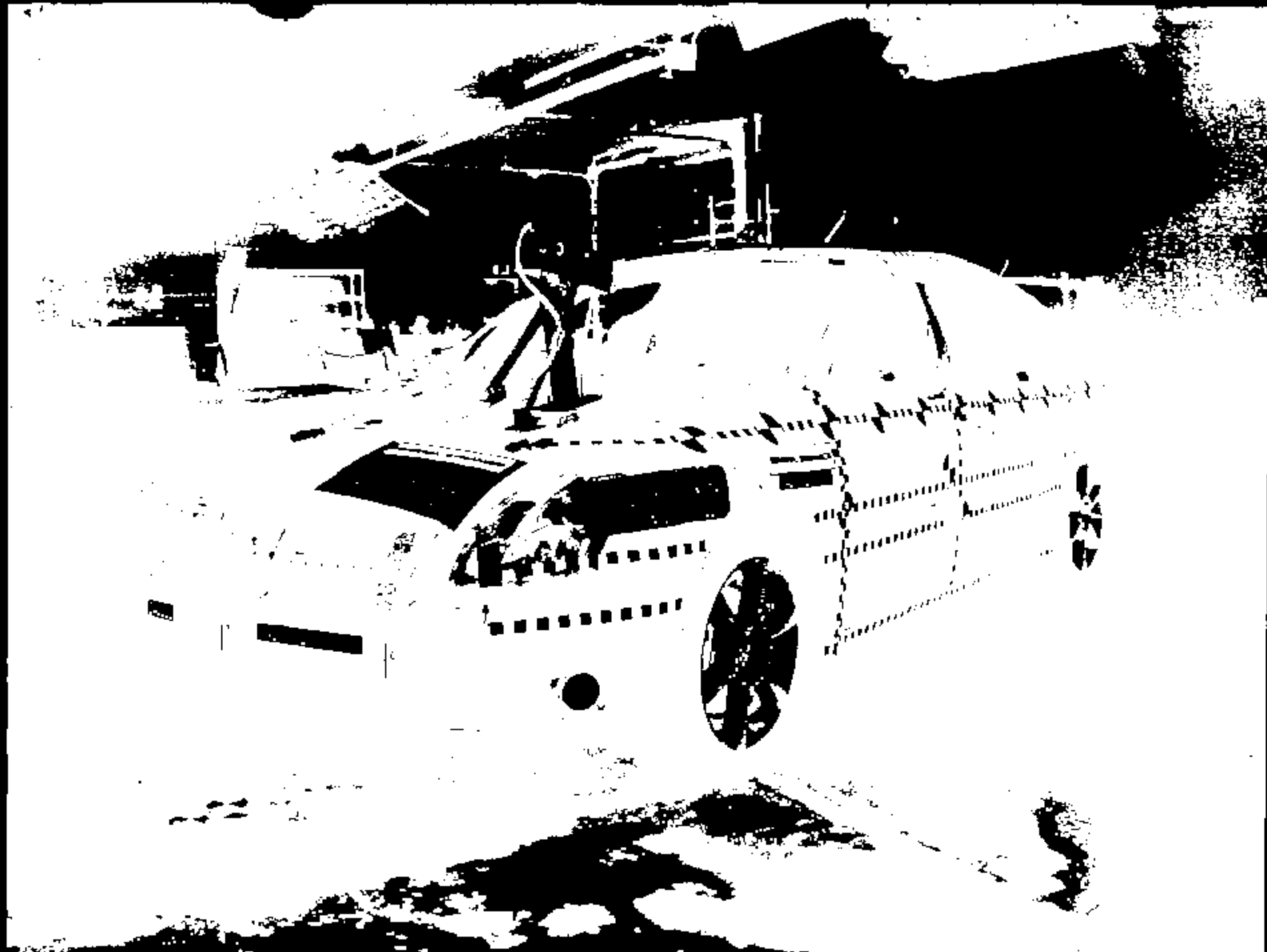


Figure A-7 PRE-TEST LEFT FRONT VIEW OF TEST VEHICLE

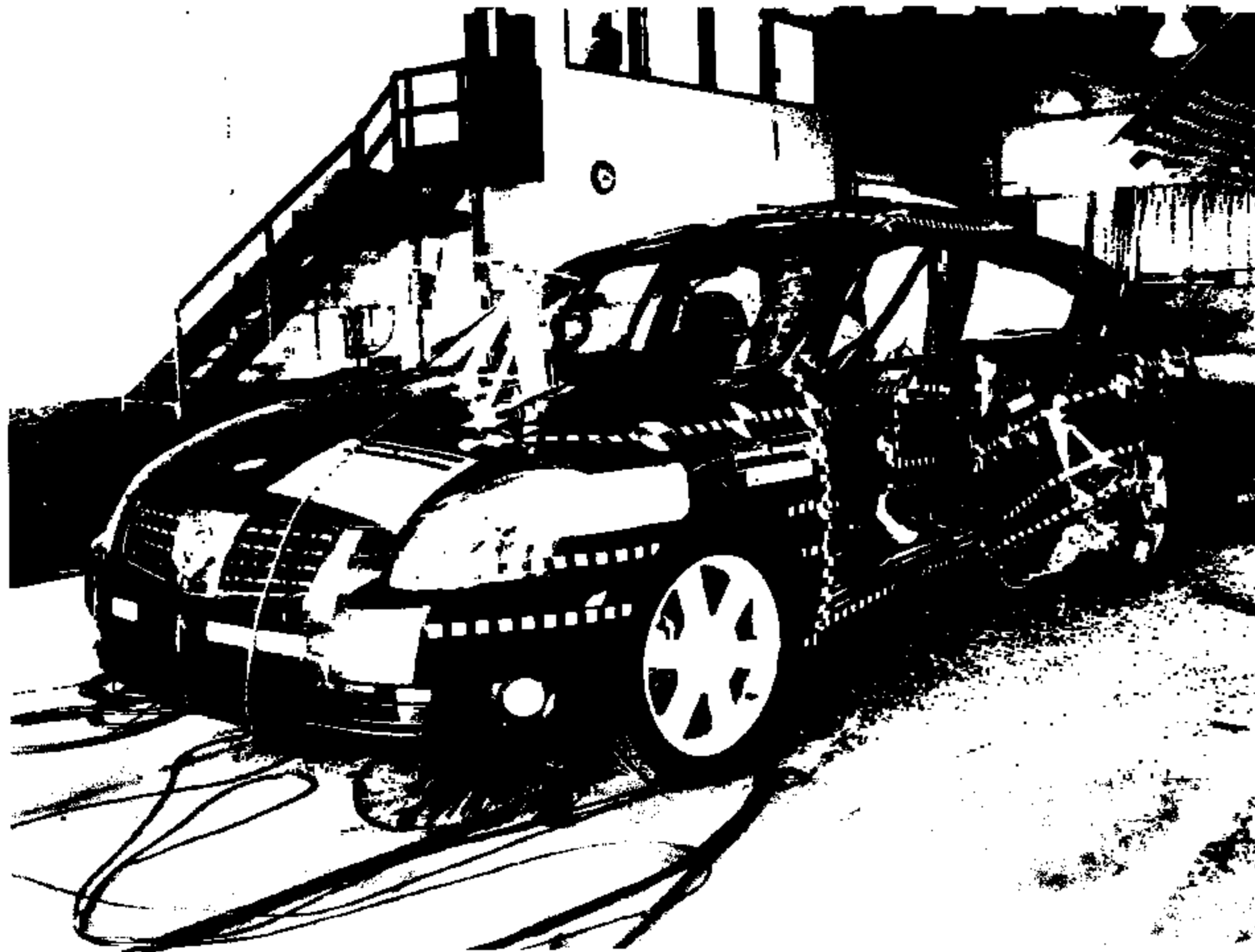


Figure A-8 POST-TEST LEFT FRONT VIEW OF TEST VEHICLE

A-10

8675-F211-11

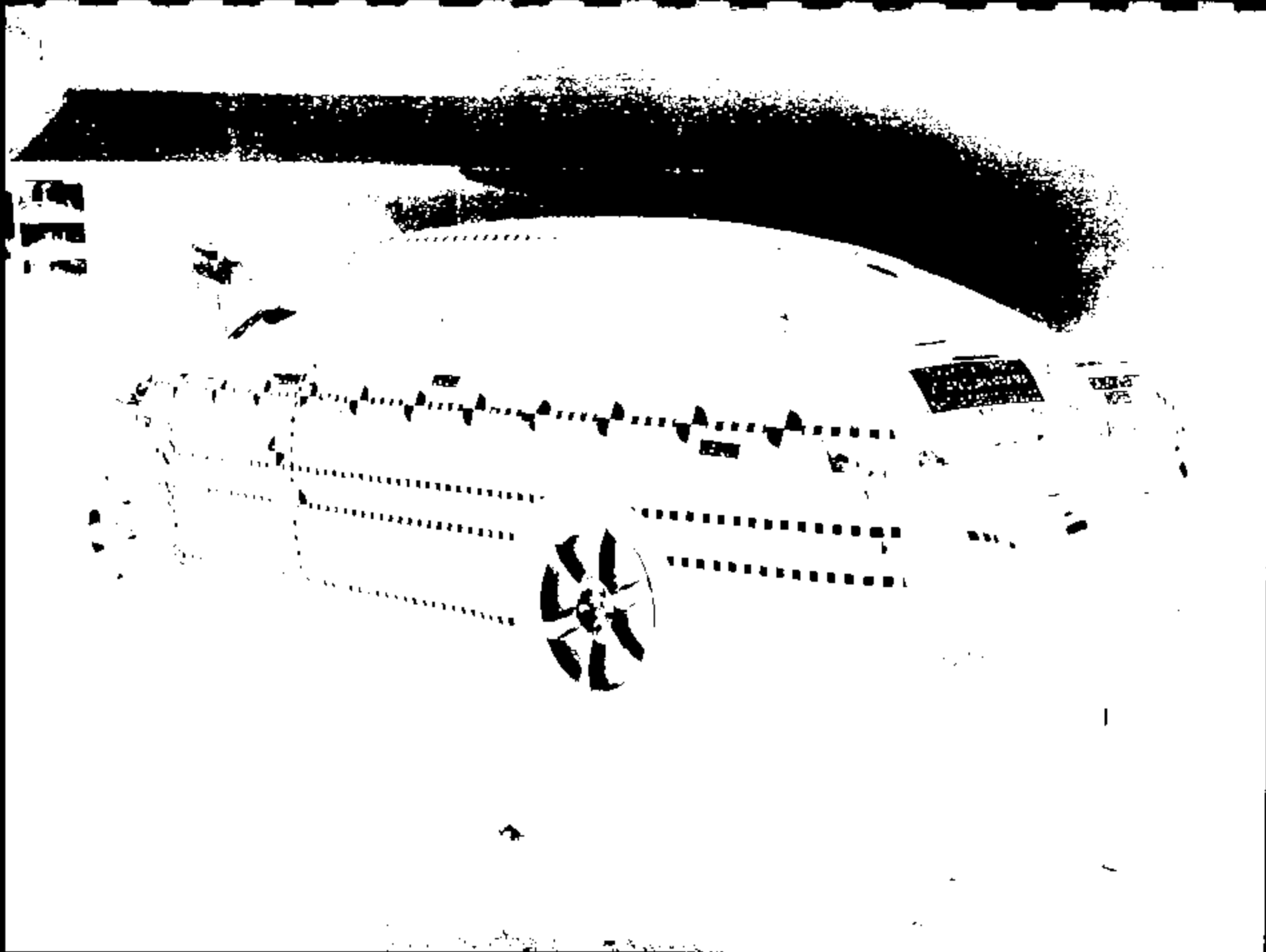


Figure A-9 PRE-TEST LEFT REAR VIEW OF TEST VEHICLE

A-12

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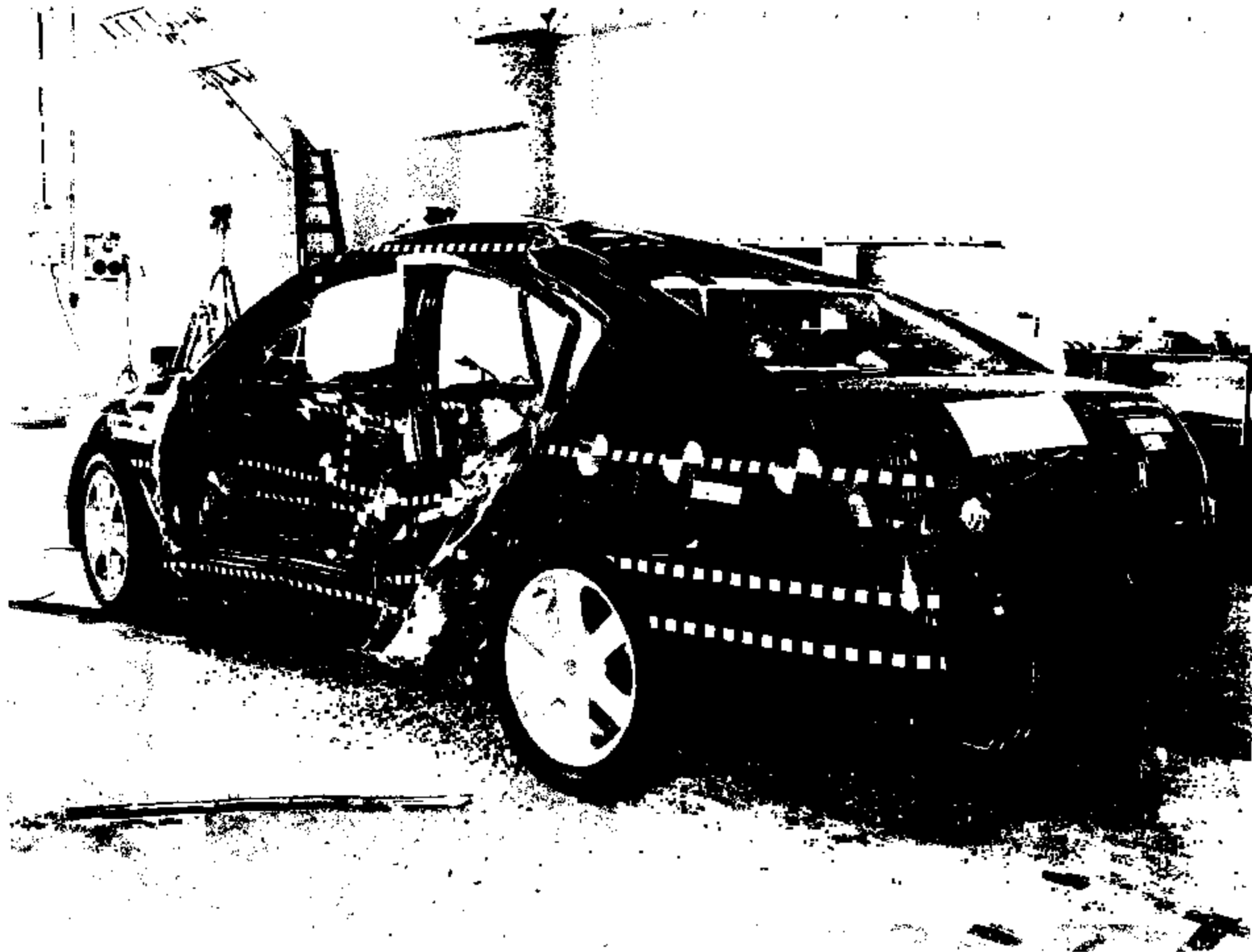


Figure A-10 POST-TEST LEFT REAR VIEW OF TEST VEHICLE

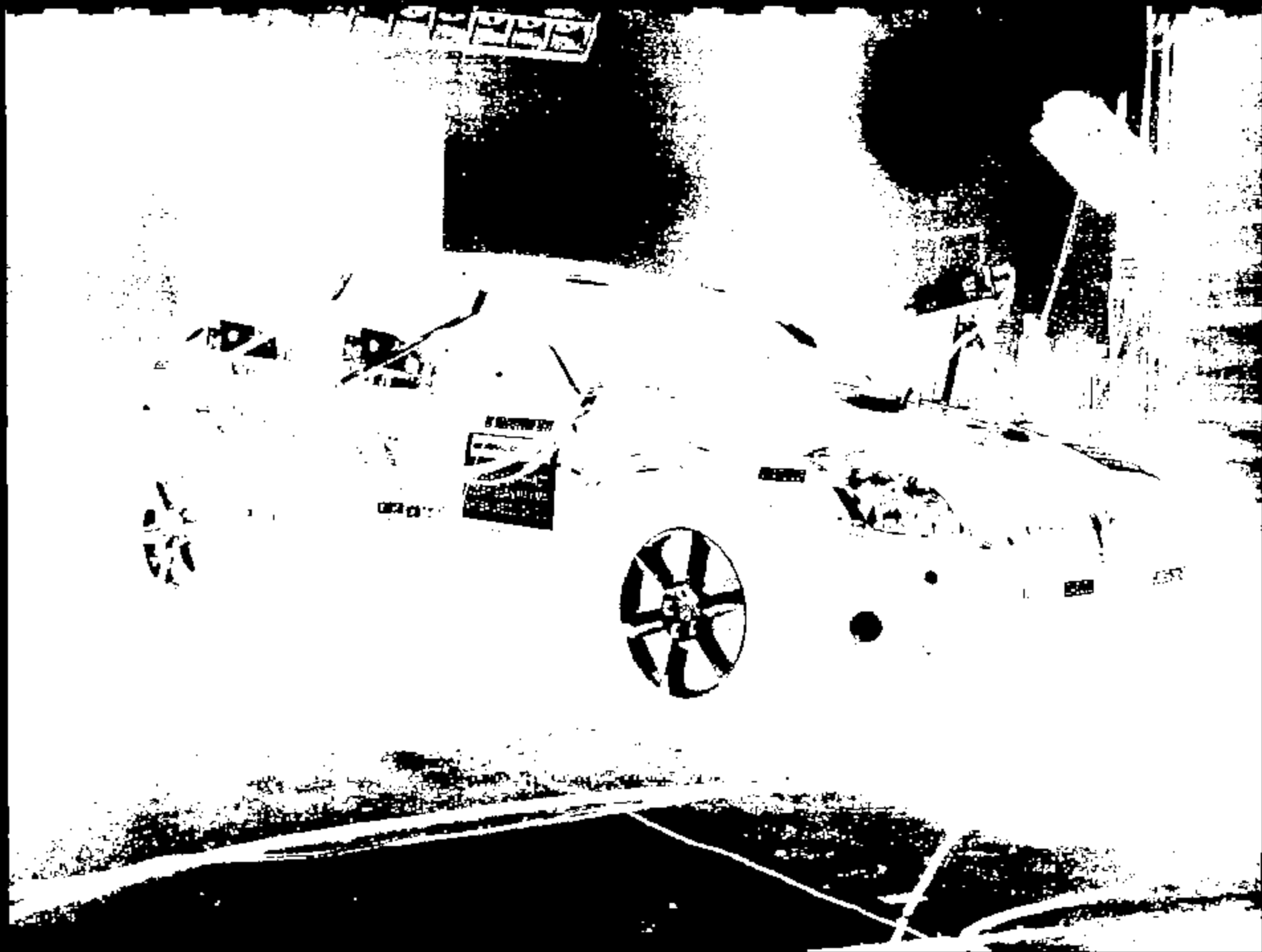
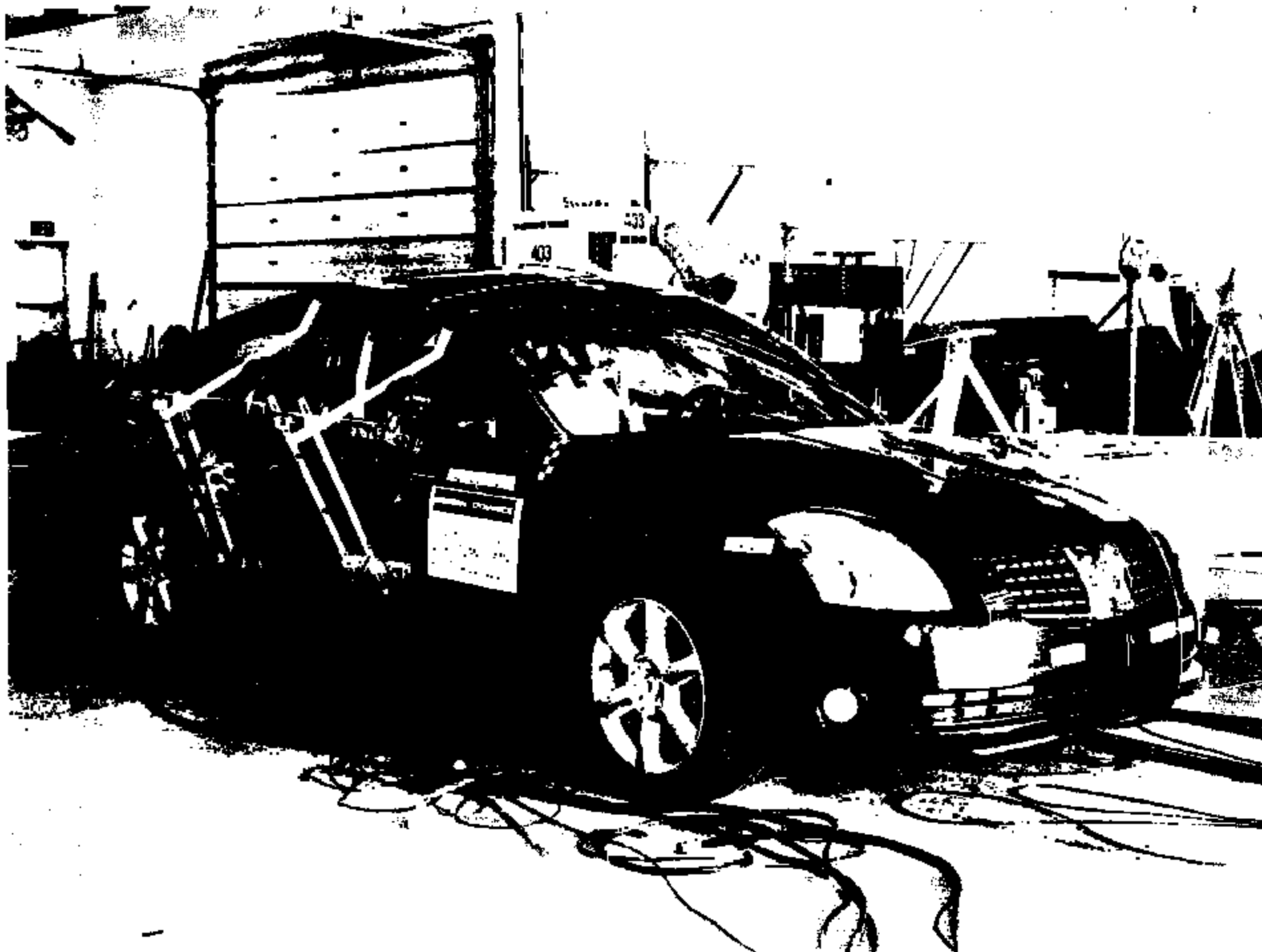


Figure A-11 PRE-TEST RIGHT FRONT VIEW OF TEST VEHICLE

A14



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

A-15

86755214.11

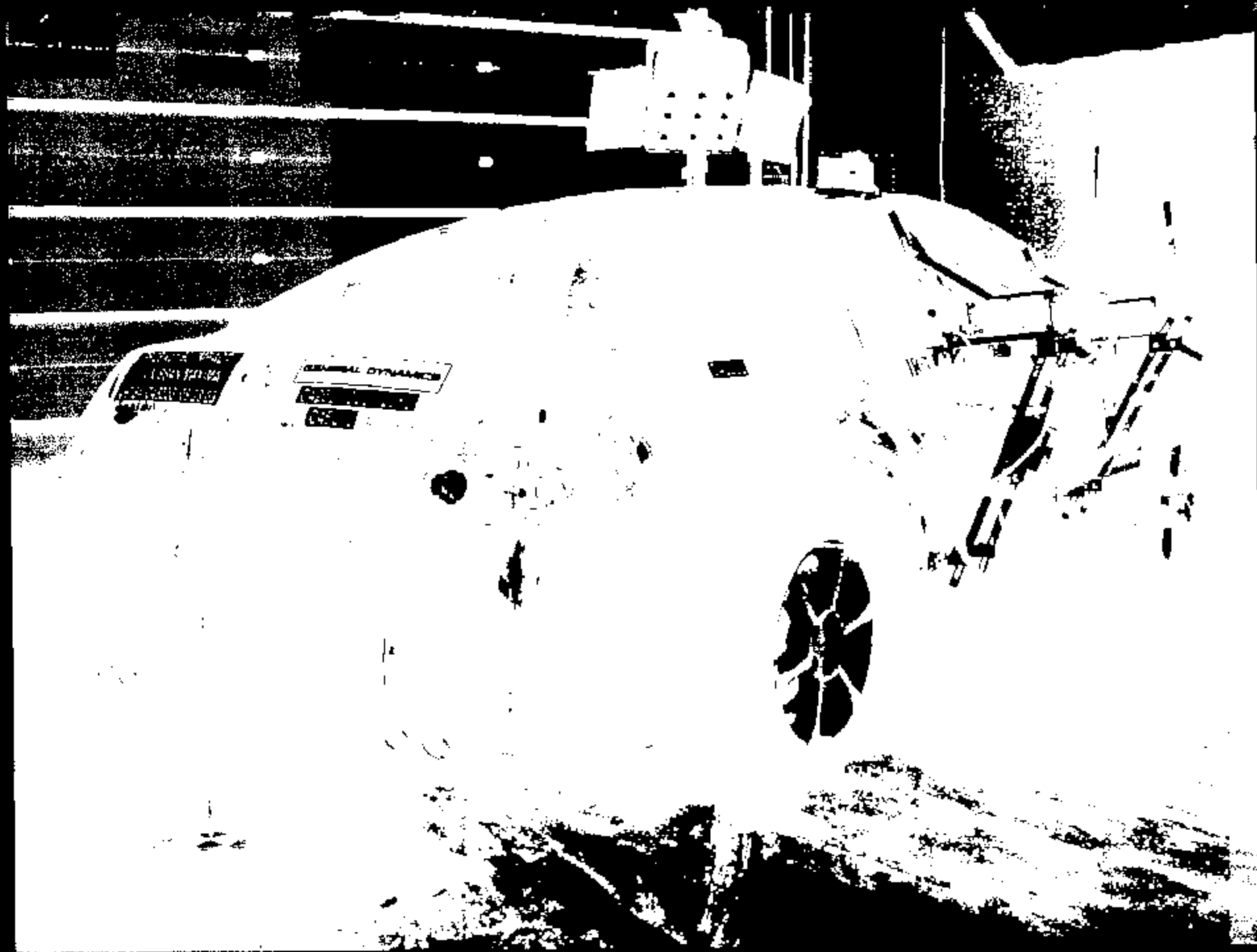


Figure A-13 PRE-TEST RIGHT REAR VIEW OF TEST VEHICLE

A-16

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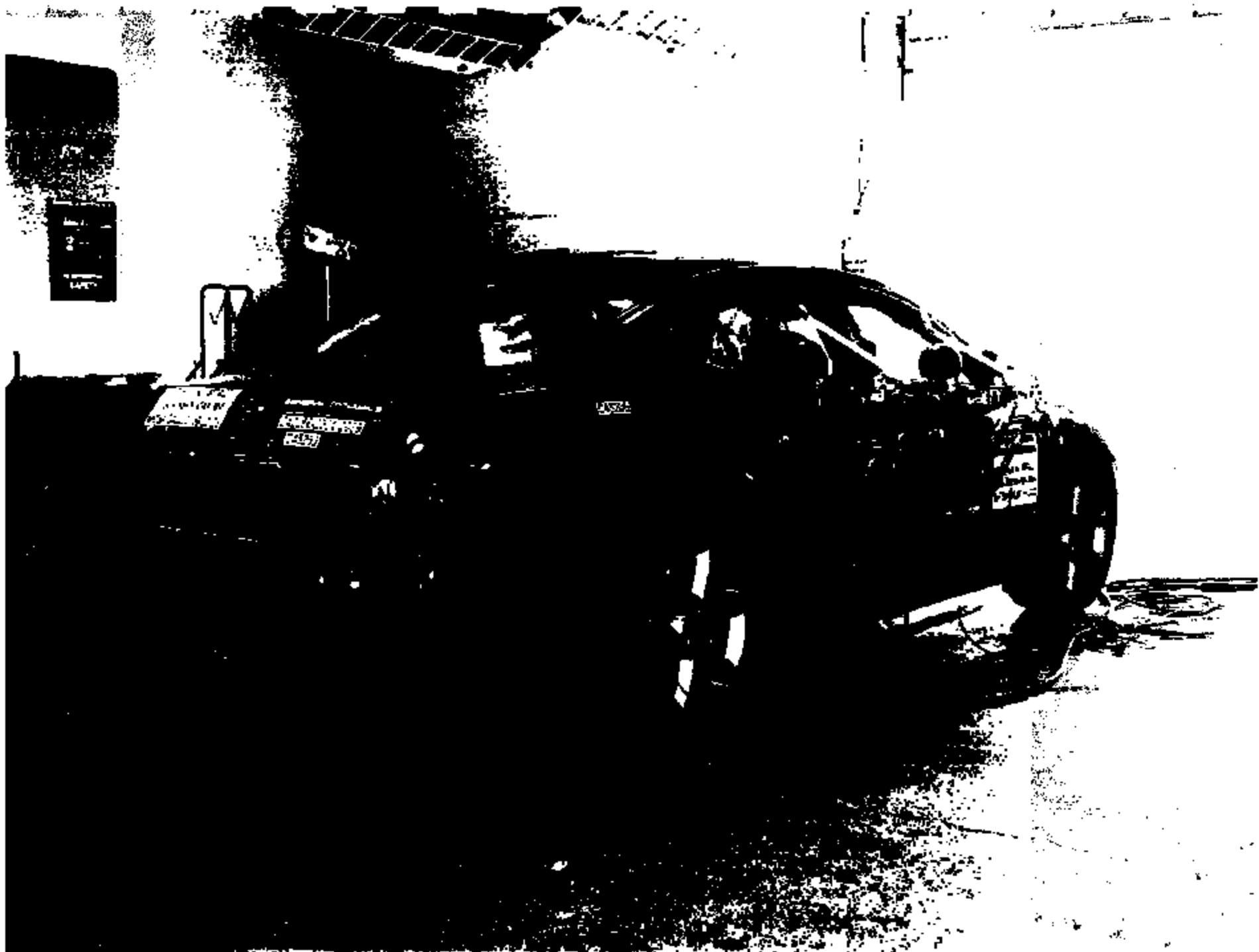
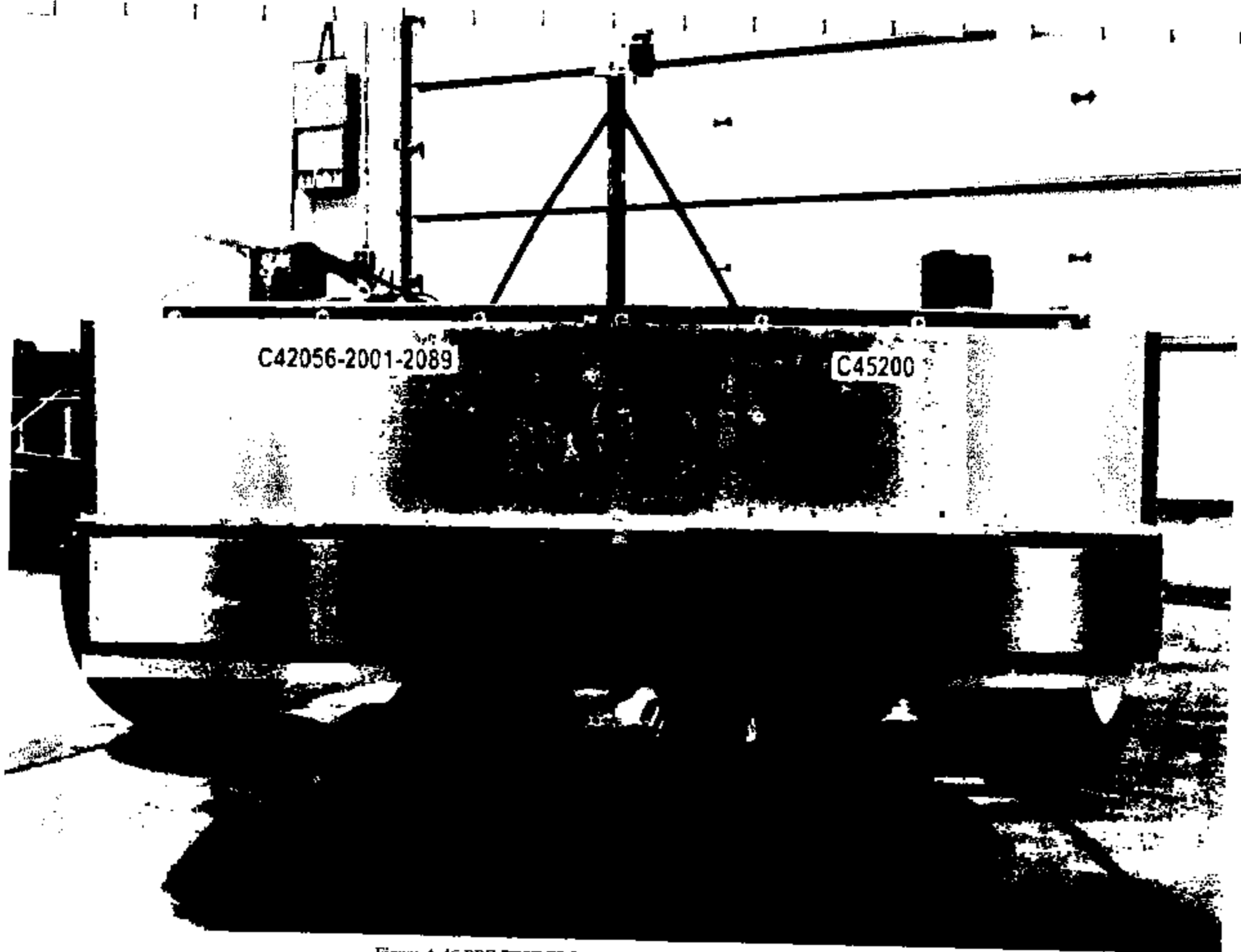


Figure A-14 POST-TEST RIGHT REAR VIEW OF TEST VEHICLE



C42056-2001-2089

C45200

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

A-19

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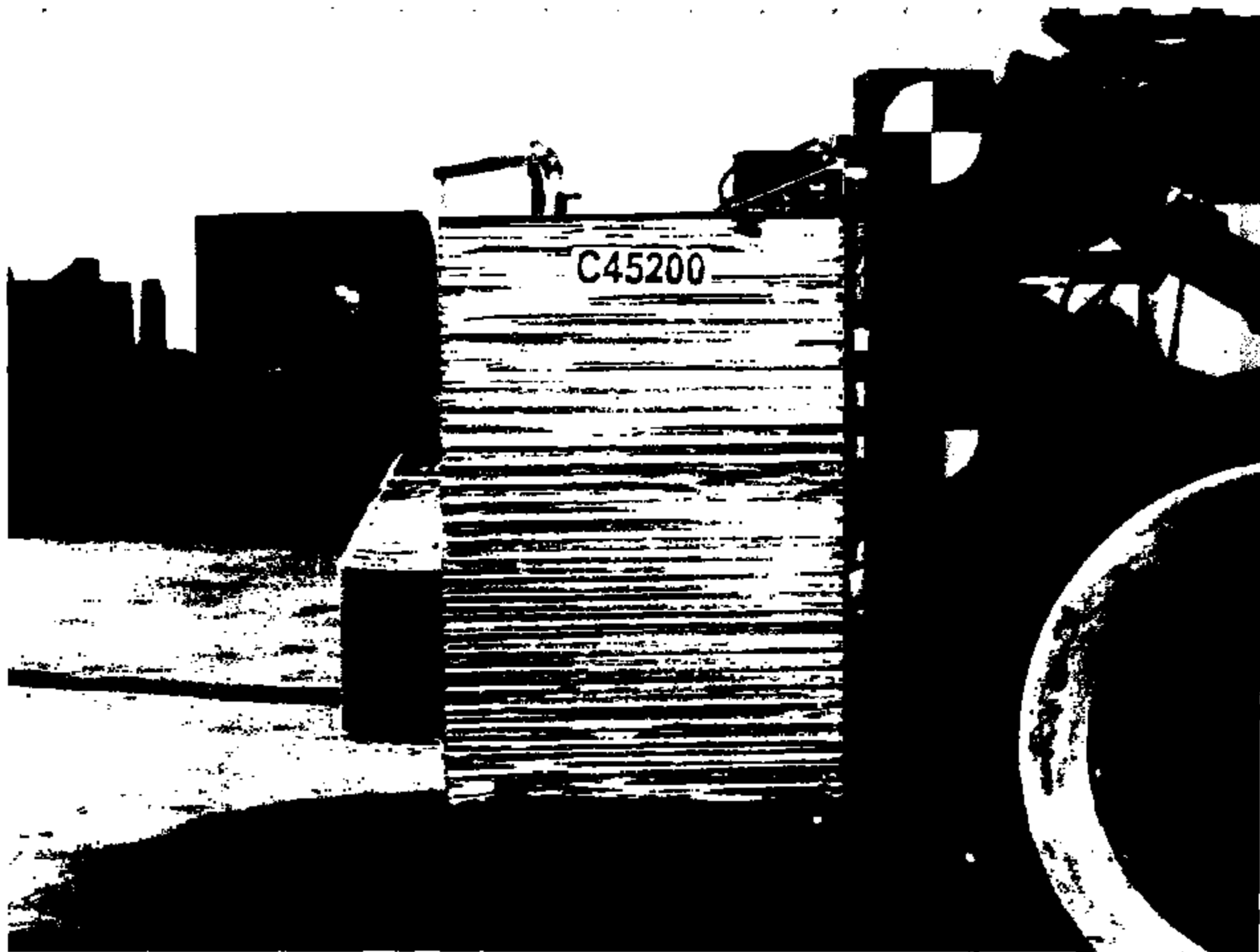


Figure A-17 PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE



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



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



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

55/28 kph 90° IMPACT
2004 NISSAN MAXIMA
NHTSA C45200 09/23/03

GENERAL DYNAMICS

C42056-2001-2089
C45200

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

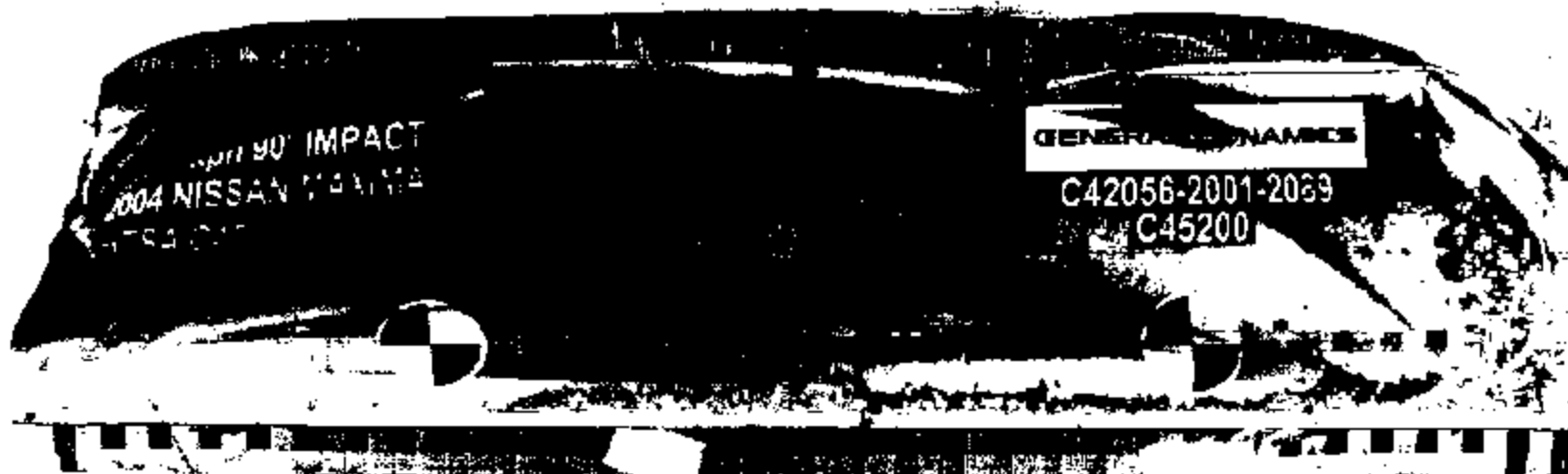


Figure A-22 POST-TEST TOP VIEW OF IMPACTOR FACE



A-25

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

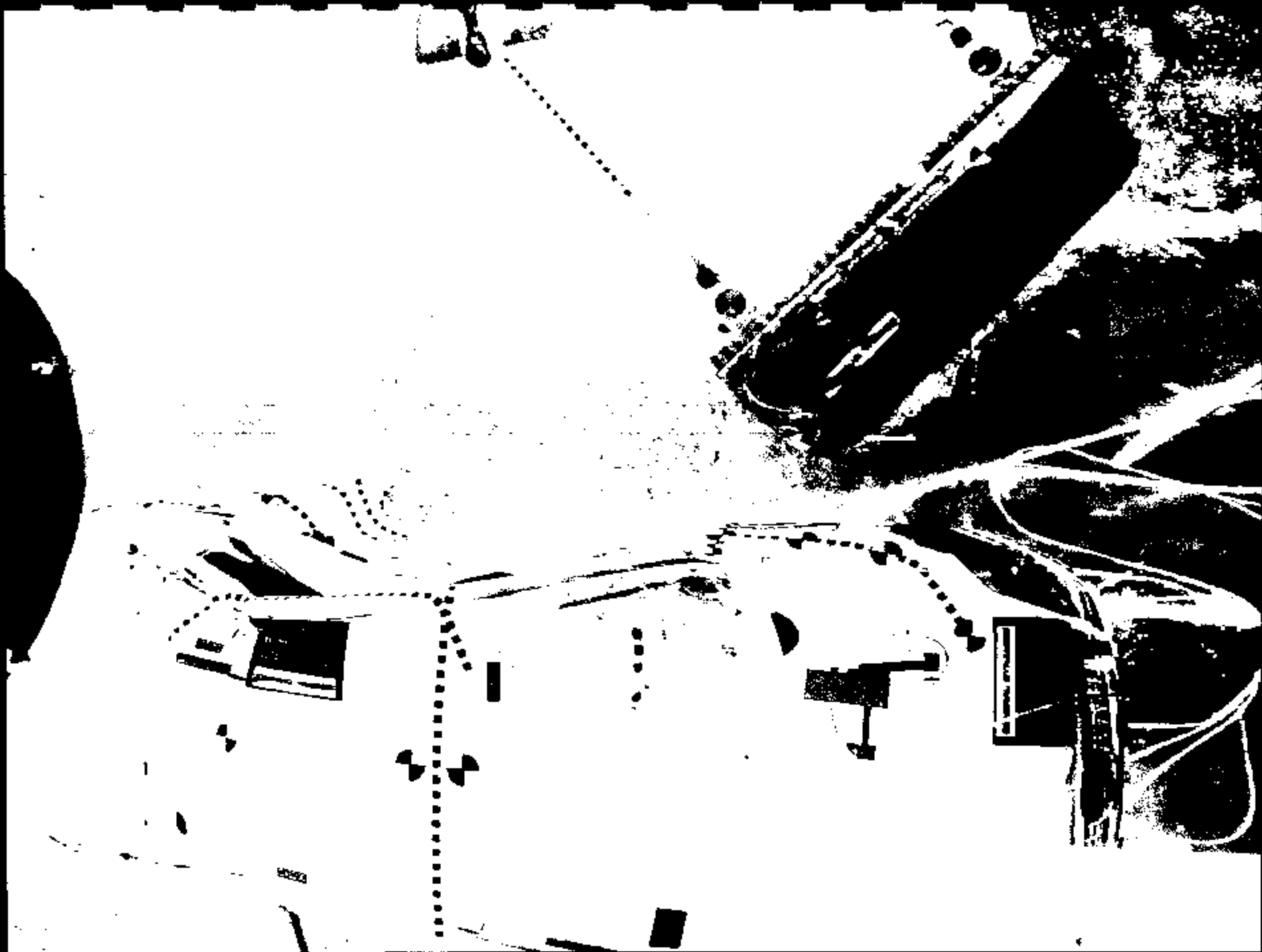


Figure A-24 POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE



A-27

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



Figure A-26 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID II.3



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



A-30

8675-F214-11

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



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 H3

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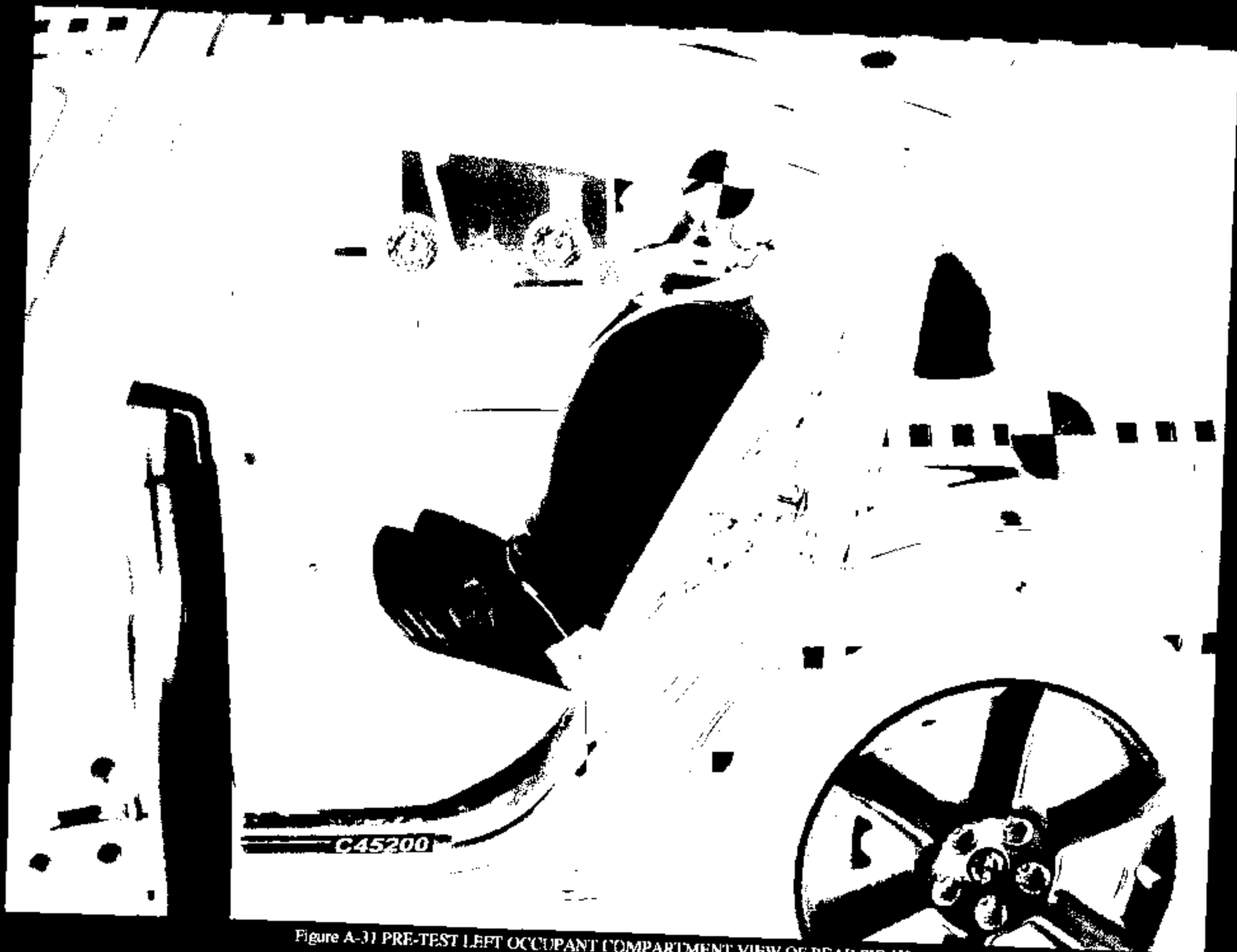


Figure A-31 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID 1B

15A C4520V



A-34

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



Figure A-33 PRE-TEST INTERIOR OF FRONT DOOR



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

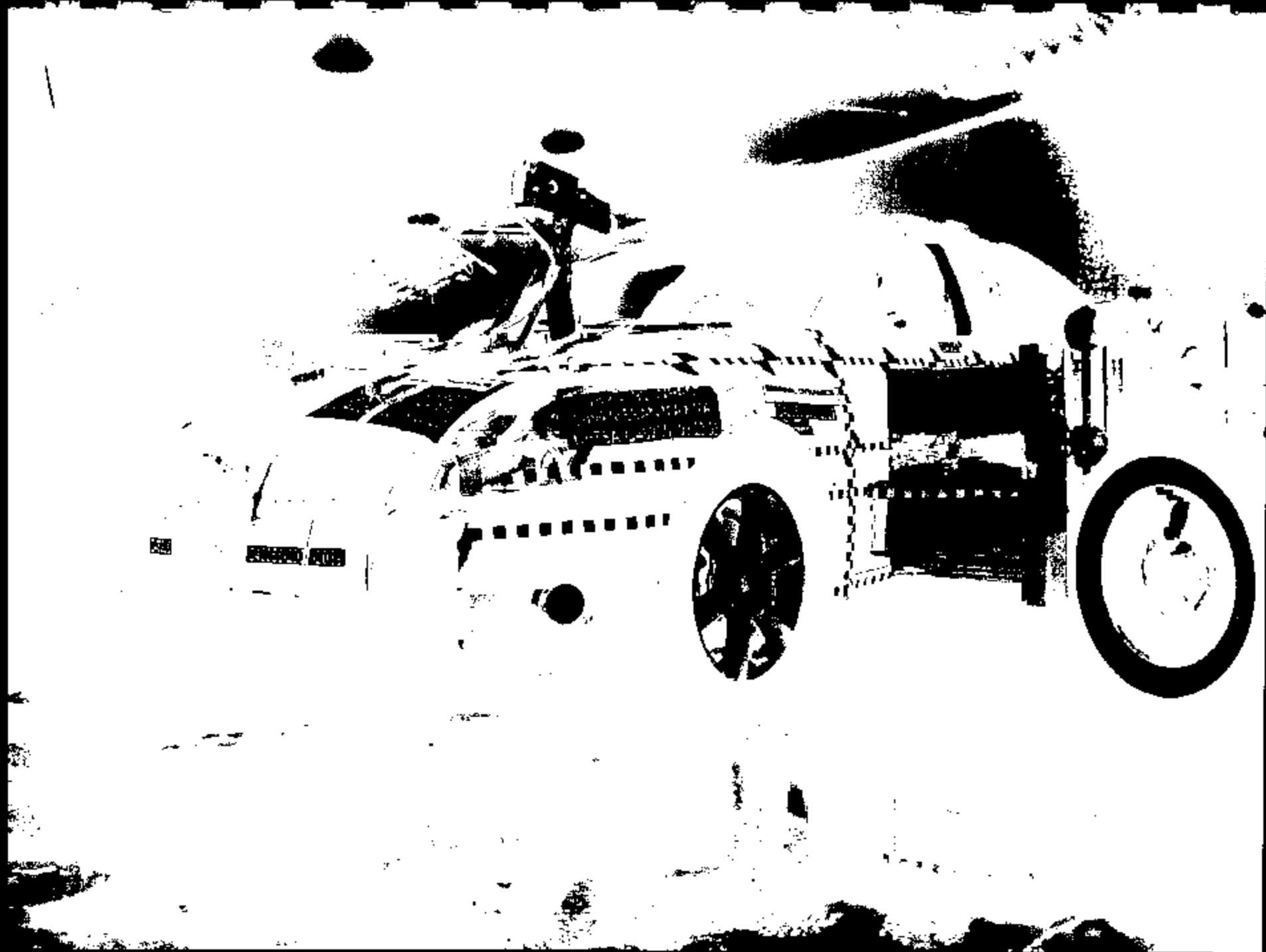
C45200

Figure A-35 PRE-TEST INTERIOR OF REAR SEAT

A-37



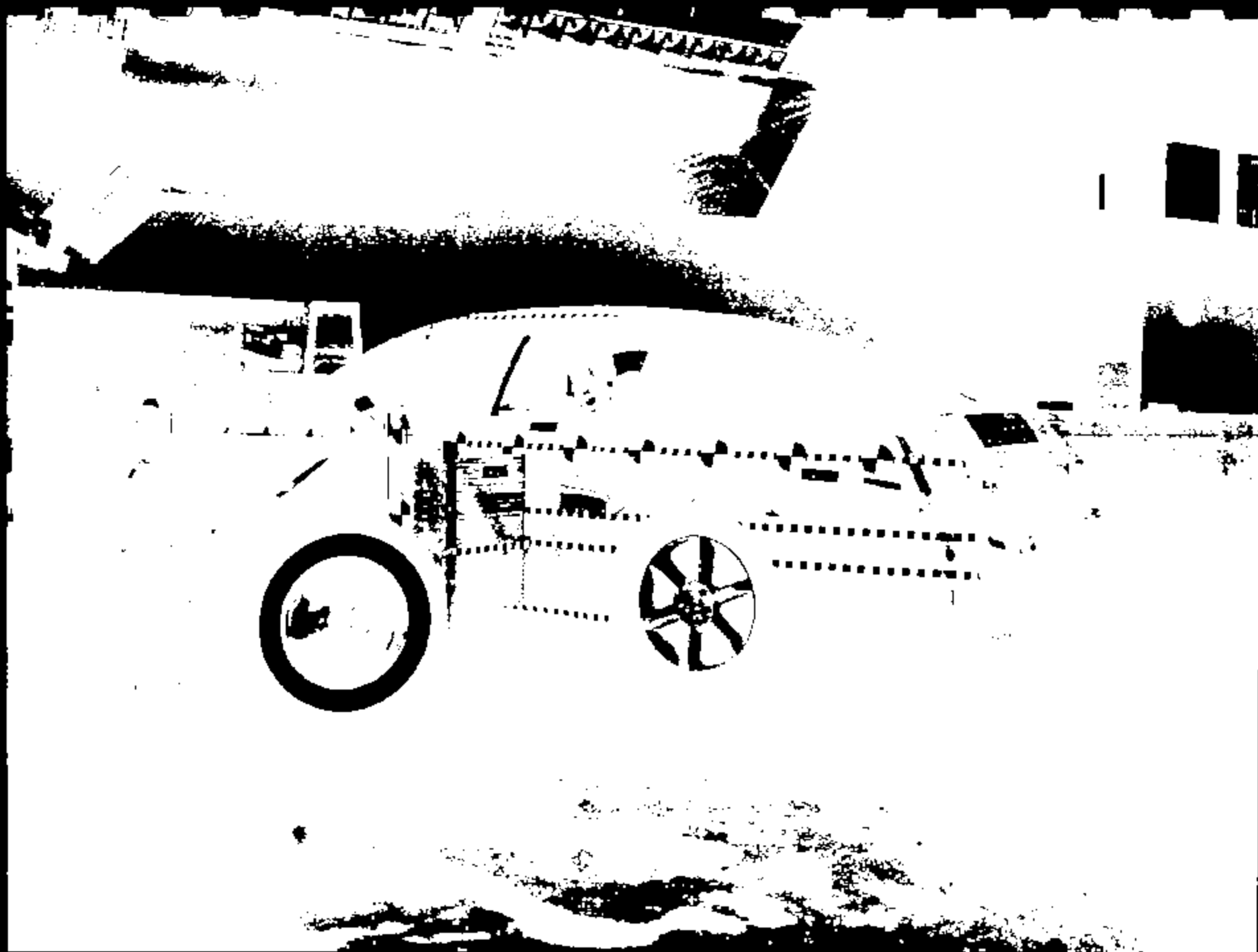
Figure A-36 POST-TEST INTERIOR OF REAR DOOR SHOWING SID H3 IMPACT LOCATIONS



A-39

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



A-40

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

A-11

8675-F214

POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET



MANUFACTURED BY NISSAN MOTOR CO., LTD.

DATE 05/03 GWR 4546 LB
GAWR FR. 2469 LB GAWR RR. 2097 LB

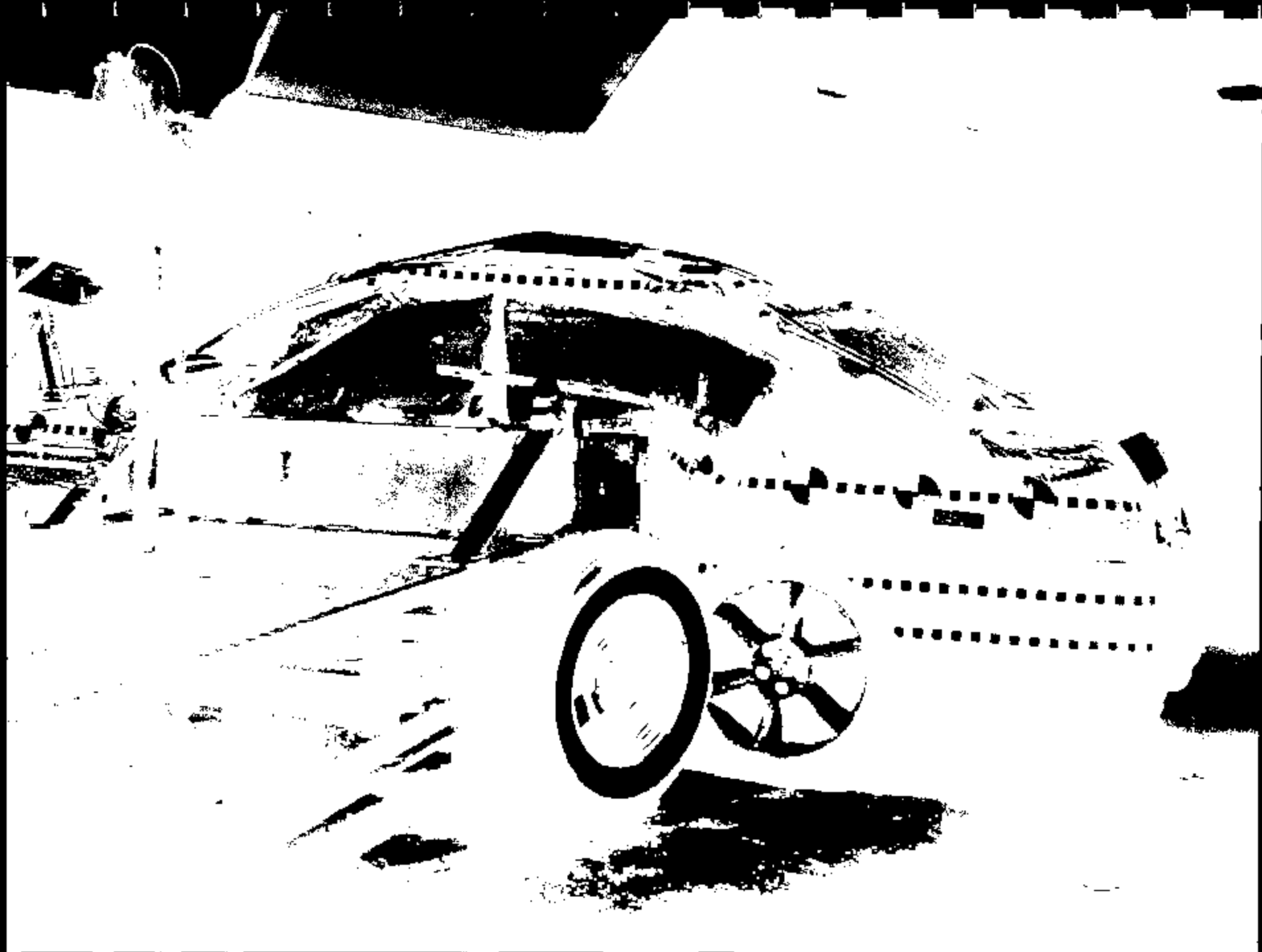
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY, BUMPER AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE. SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION.

VIN: 1N4BA41E74 [REDACTED] PASSENGER CAR

COLOR	TRIM	TRANS	AXLE	ENGINE
A15	G	R55F51A	FX41	UQ35DE 3498CC
MODEL:	BLJALTY-EU5		802	02000

1N4BA41E74 [REDACTED]

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



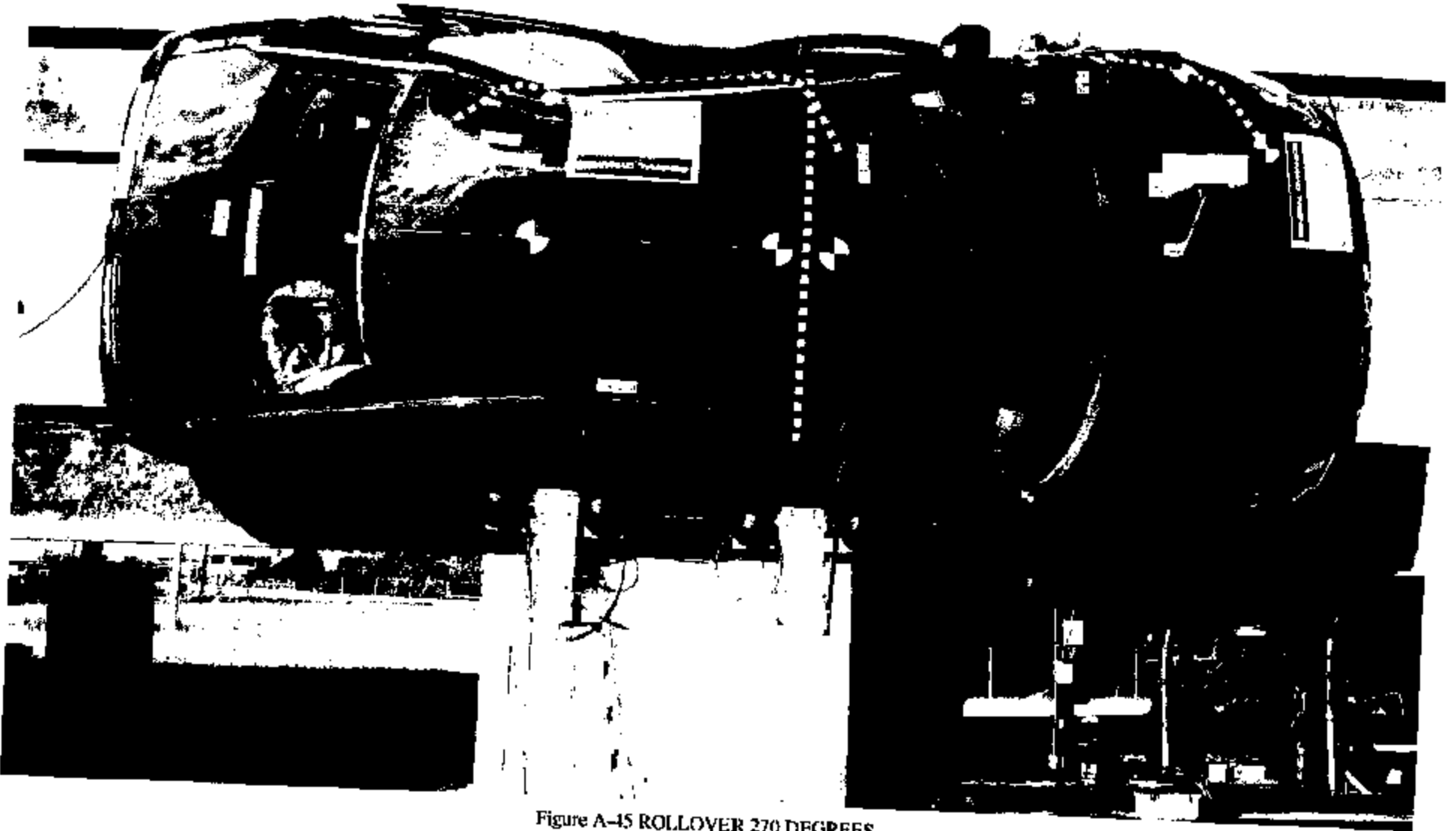
A-41

8675-F214-11

Figure A-42 IMPACT PHOTO

Figure A-44 ROLLOVER 180 DEGREES



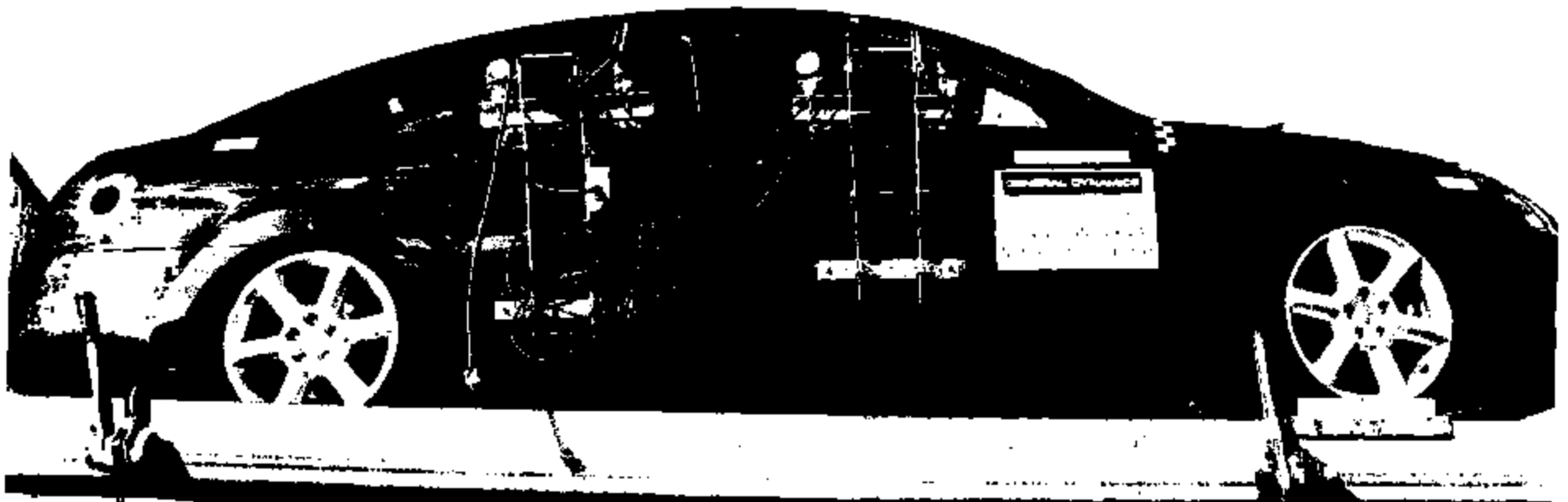


A-17

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Figure A-45 ROLLOVER 270 DEGREES

A-48



8675-F214-11

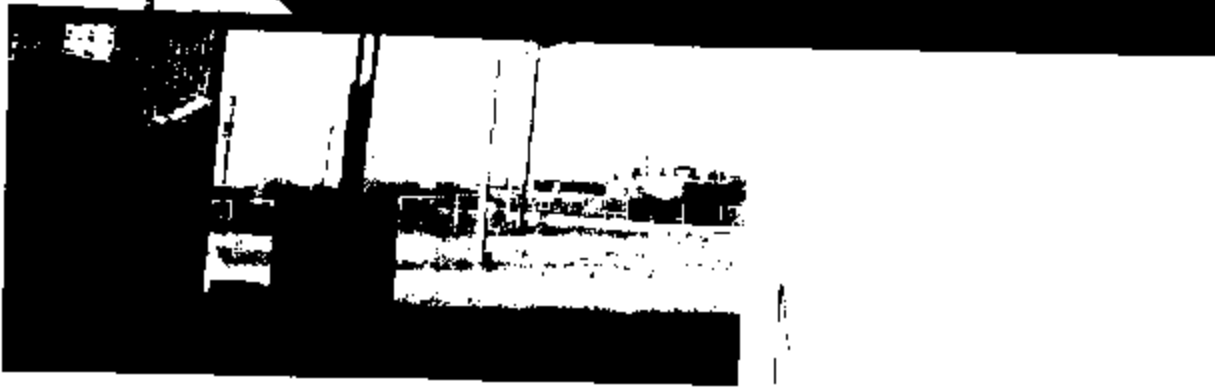


Figure A-46 ROLLOVER 360 DEGREES



Figure A-47 P4 OUTER DOOR SKIN

A-50

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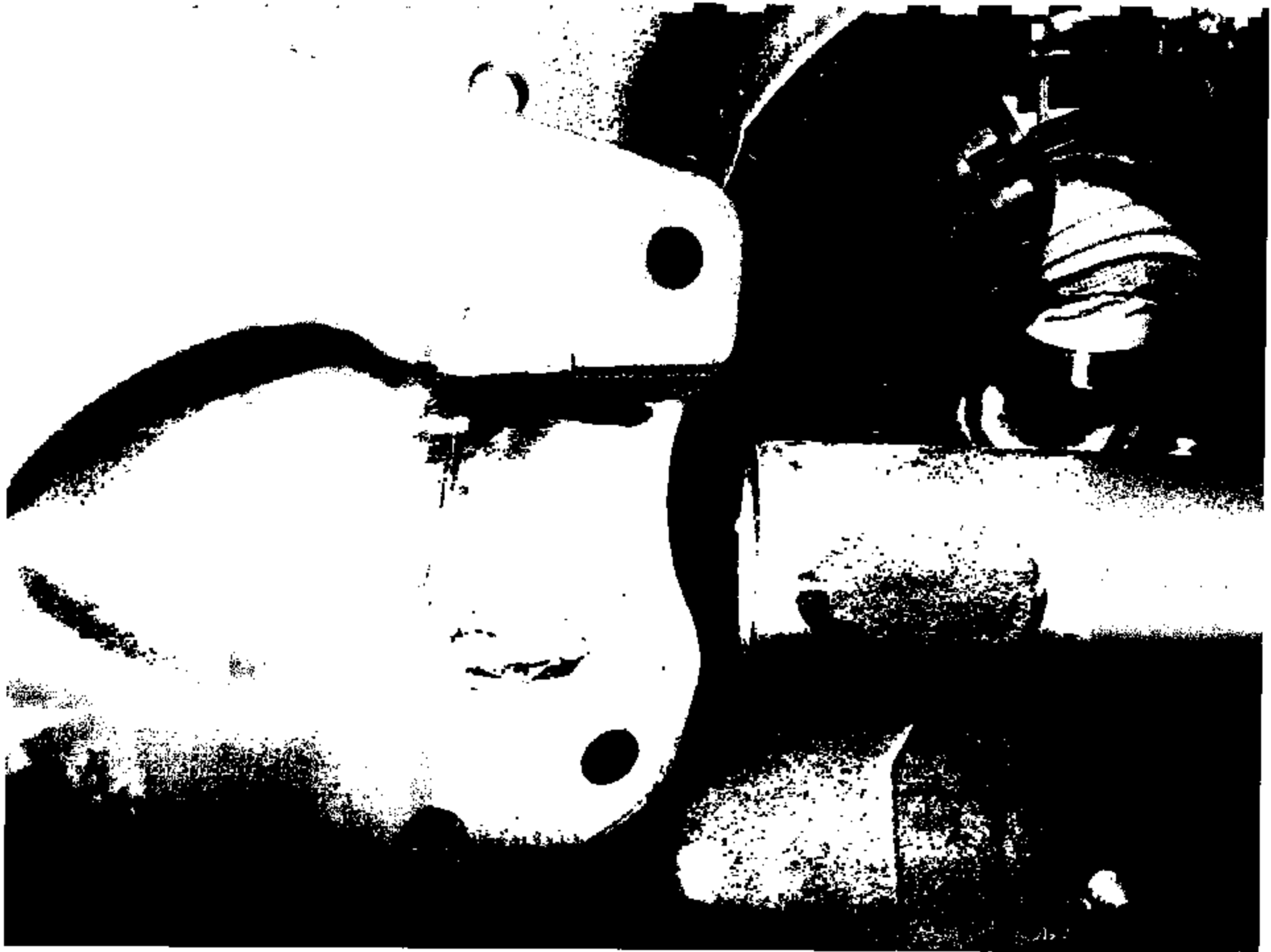


Figure A-48 P4 DOOR BEAM FRONT

APPENDIX B

VEHICLE, MDB AND SID HYBRID III RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS ACCELERATION AND FORCE DATA - FILTER CLASS 1000, MOMENT DATA - FILTER CLASS 600 LOWER SPINE DATA - FILTER CLASS 180, INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
1	DRIVER HEAD (X) ACCELERATION VS TIME	B- 6
2	DRIVER HEAD (X) VELOCITY VS TIME	B- 7
3	DRIVER HEAD (Y) ACCELERATION VS TIME	B- 8
4	DRIVER HEAD (Y) VELOCITY VS TIME	B- 9
5	DRIVER HEAD (Z) ACCELERATION VS TIME	B- 10
6	DRIVER HEAD (Z) VELOCITY VS TIME	B- 11
7	DRIVER HEAD RESULTANT ACCELERATION VS TIME	B- 12
8	DRIVER UPPER NECK (X) FORCE VS TIME	B- 13
9	DRIVER UPPER NECK (Y) FORCE VS TIME	B- 14
10	DRIVER UPPER NECK (Z) FORCE VS TIME	B- 15
11	DRIVER UPPER NECK RESULTANT FORCE VS TIME	B- 16
12	DRIVER UPPER NECK (X) MOMENT VS TIME	B- 17
13	DRIVER UPPER NECK (Y) MOMENT VS TIME	B- 18
14	DRIVER UPPER NECK (Z) MOMENT VS TIME	B- 19
15	DRIVER UPPER NECK RESULTANT MOMENT VS TIME	B- 20
16	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 21
17	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 22
18	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 23
19	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 24
20	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 25
21	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 26
22	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 27
23	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 28
24	PASSENGER HEAD (X) ACCELERATION VS TIME	B- 29
25	PASSENGER HEAD (X) VELOCITY VS TIME	B- 30
26	PASSENGER HEAD (Y) ACCELERATION VS TIME	B- 31
27	PASSENGER HEAD (Y) VELOCITY VS TIME	B- 32
28	PASSENGER HEAD (Z) ACCELERATION VS TIME	B- 33
29	PASSENGER HEAD (Z) VELOCITY VS TIME	B- 34
30	PASSENGER HEAD RESULTANT ACCELERATION VS TIME	B- 35
31	PASSENGER UPPER NECK (X) FORCE VS TIME	B- 36
32	PASSENGER UPPER NECK (Y) FORCE VS TIME	B- 37
33	PASSENGER UPPER NECK (Z) FORCE VS TIME	B- 38
34	PASSENGER UPPER NECK RESULTANT FORCE VS TIME	B- 39
35	PASSENGER UPPER NECK (X) MOMENT VS TIME	B- 40
36	PASSENGER UPPER NECK (Y) MOMENT VS TIME	B- 41
37	PASSENGER UPPER NECK (Z) MOMENT VS TIME	B- 42
38	PASSENGER UPPER NECK RESULTANT MOMENT VS TIME	B- 43
39	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 44
40	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 45
41	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 46
42	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 47
43	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 48
44	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 49
45	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 50
46	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 51

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS ACCELERATION DATA - FIR FILTERED

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
47	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 52
48	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 53
49	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 54
50	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 55
51	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 56
52	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 57
53	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 58
54	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 59

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>
55	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 60
56	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 61
57	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 62
58	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 63
59	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 64
60	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 65
61	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 66
62	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 67
63	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 68
64	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 69
65	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 70
66	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 71
67	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 72
68	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 73
69	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 74
70	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 75
71	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 76
72	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 77
73	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 78
74	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 79
75	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 80
76	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 81
77	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 82
78	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 83
79	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 84
80	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 85
81	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 86
82	LOWER B-POST (Y) ACCELERATION VS TIME	B- 87
83	LOWER B-POST (Y) VELOCITY VS TIME	B- 88
84	UPPER B-POST (Y) ACCELERATION VS TIME	B- 89
85	UPPER B-POST (Y) VELOCITY VS TIME	B- 90
86	LOWER A-POST (Y) ACCELERATION VS TIME	B- 91
87	LOWER A-POST (Y) VELOCITY VS TIME	B- 92
88	UPPER A-POST (Y) ACCELERATION VS TIME	B- 93
89	UPPER A-POST (Y) VELOCITY VS TIME	B- 94
90	FRONT SEAT TRACK (Y) ACCELERATION VS TIME	B- 95
91	FRONT SEAT TRACK (Y) VELOCITY VS TIME	B- 96
92	REAR SEAT TRACK (Y) ACCELERATION VS TIME	B- 97
93	REAR SEAT TRACK (Y) VELOCITY VS TIME	B- 98

**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>
94	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 99
95	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 100
96	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 101
97	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 102
98	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 103
99	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 104
100	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 105

**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>
101	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 106
102	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 107
103	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 108
104	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 109
105	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 110
106	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 111
107	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 112
108	MDB REAR (X) ACCELERATION VS TIME	B- 113
109	MDB REAR (X) VELOCITY VS TIME	B- 114
110	MDB REAR (Y) ACCELERATION VS TIME	B- 115
111	MDB REAR (Y) VELOCITY VS TIME	B- 116

**DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
ACCELERATION DATA - FILTER CLASS 100, LOWER SPINE - FILTER CLASS 180
INTEGRATION DATA - FILTER CLASS 180**

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
112	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 117
113	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 118
114	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 119
115	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 120
116	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 121
117	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 122
118	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 123
119	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 124
120	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 125
121	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 126
122	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 127
123	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 128
124	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 129
125	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 130
126	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 131
127	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 132

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

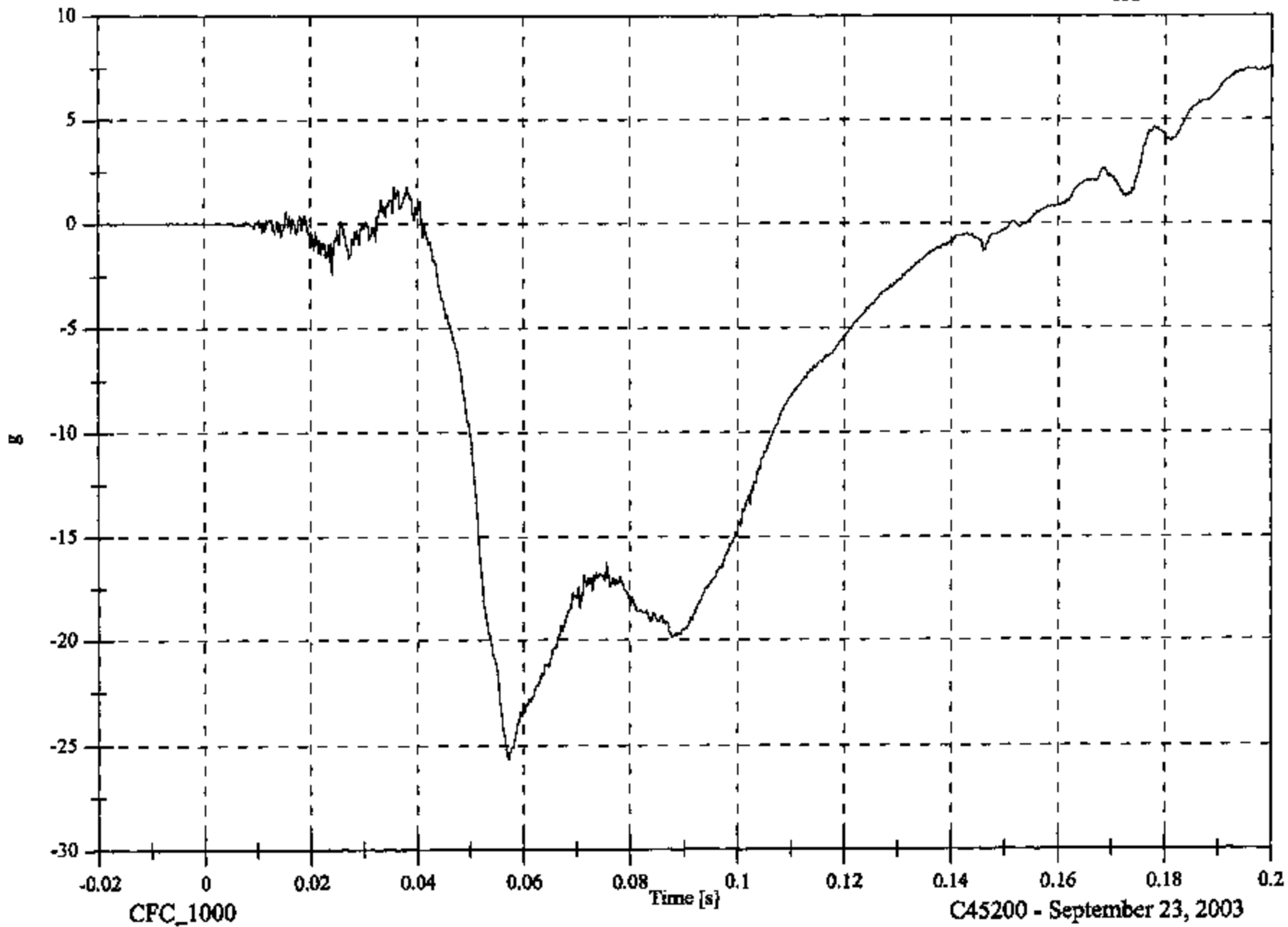
<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
128	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 133
129	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 134
130	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 135
131	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 136
132	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 137
133	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 138
134	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 139
135	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 140

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 7.5 [g] at 0.200 [s]

V2P1 Head x

Min: -25.7 [g] at 0.057 [s]



B-6

8675-F214-11

CFC_1000

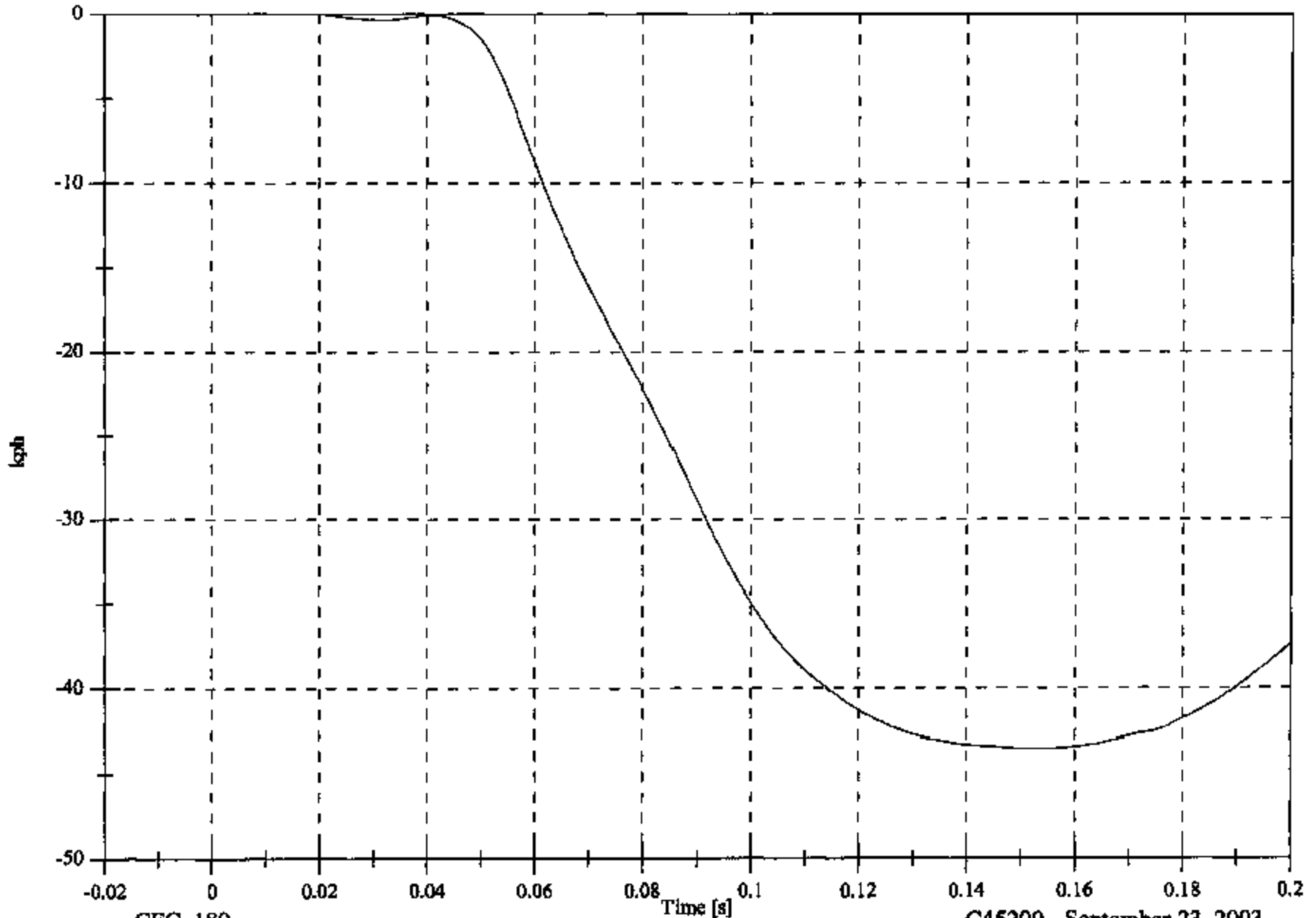
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 0.0 [kph] at 0.005 [s]

V2P1 Head x Velocity

Min: -43.6 [kph] at 0.154 [s]



B-7

8675-F214-11

CFC_180

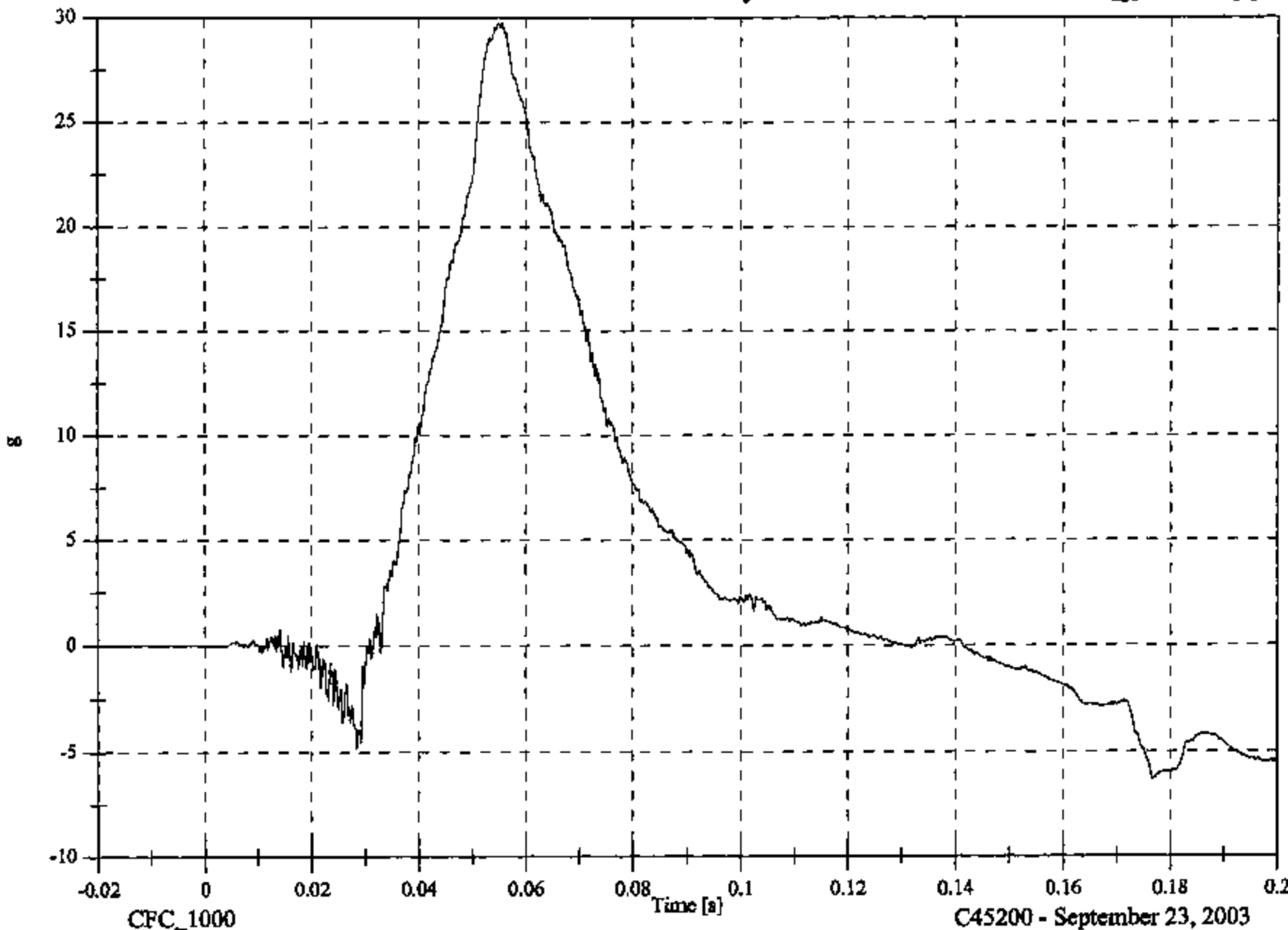
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Head y

Max: 29.7 [g] at 0.056 [s]

Min: -6.4 [g] at 0.177 [s]



B-8

8675-F214-11

CFC_1000

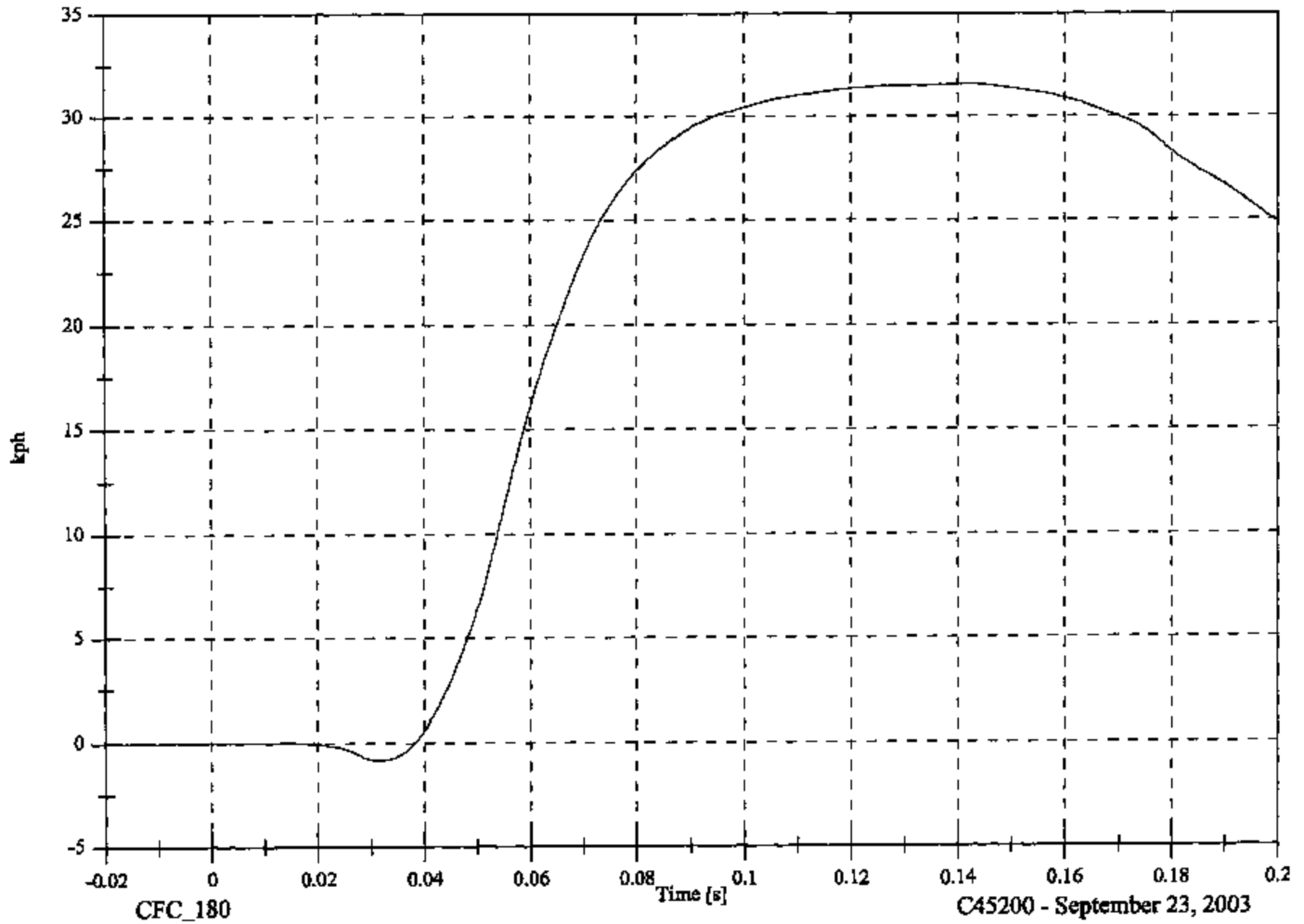
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Head y Velocity

Max: 31.6 [kph] at 0.141 [s]

Min: -0.8 [kph] at 0.031 [s]



B-9

8675-F214-11

CFC_180

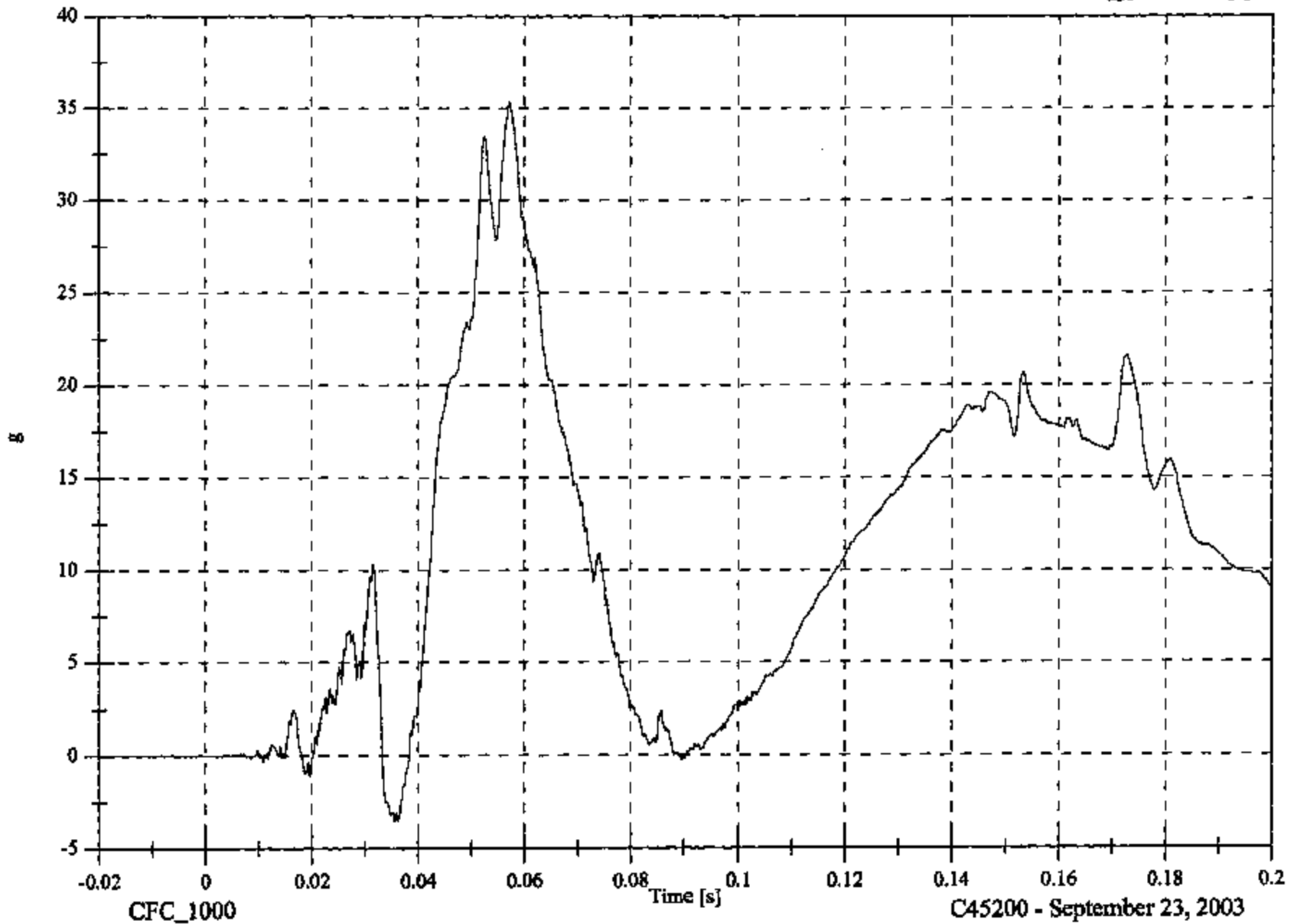
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Head z

Max: 35.3 [g] at 0.057 [s]

Min: -3.5 [g] at 0.036 [s]



B-10

8675-F214-11

CFC_1000

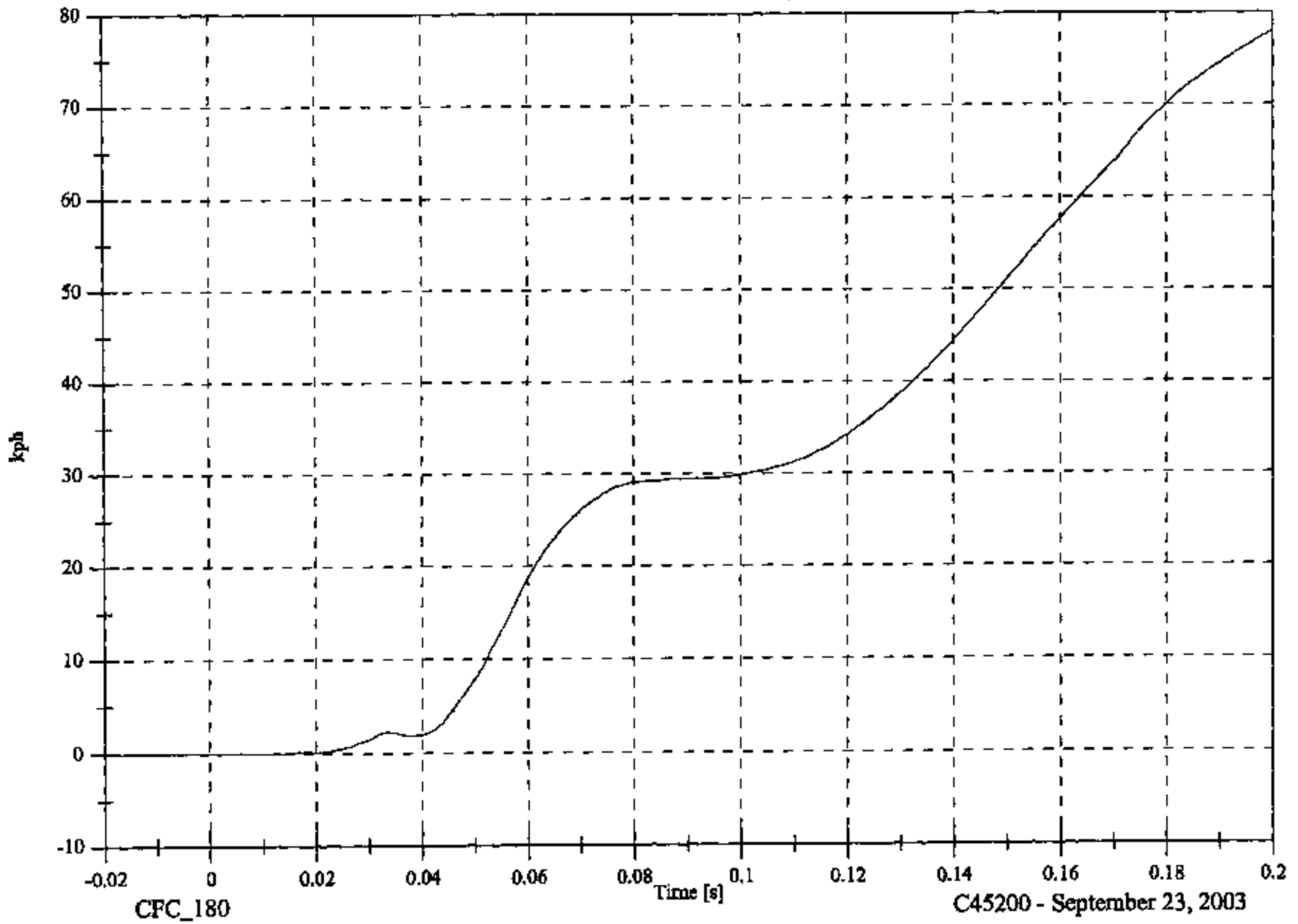
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Head z Velocity

Max: 78.0 [kph] at 0.200 [s]

Min: -0.0 [kph] at -0.014 [s]



B-11

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

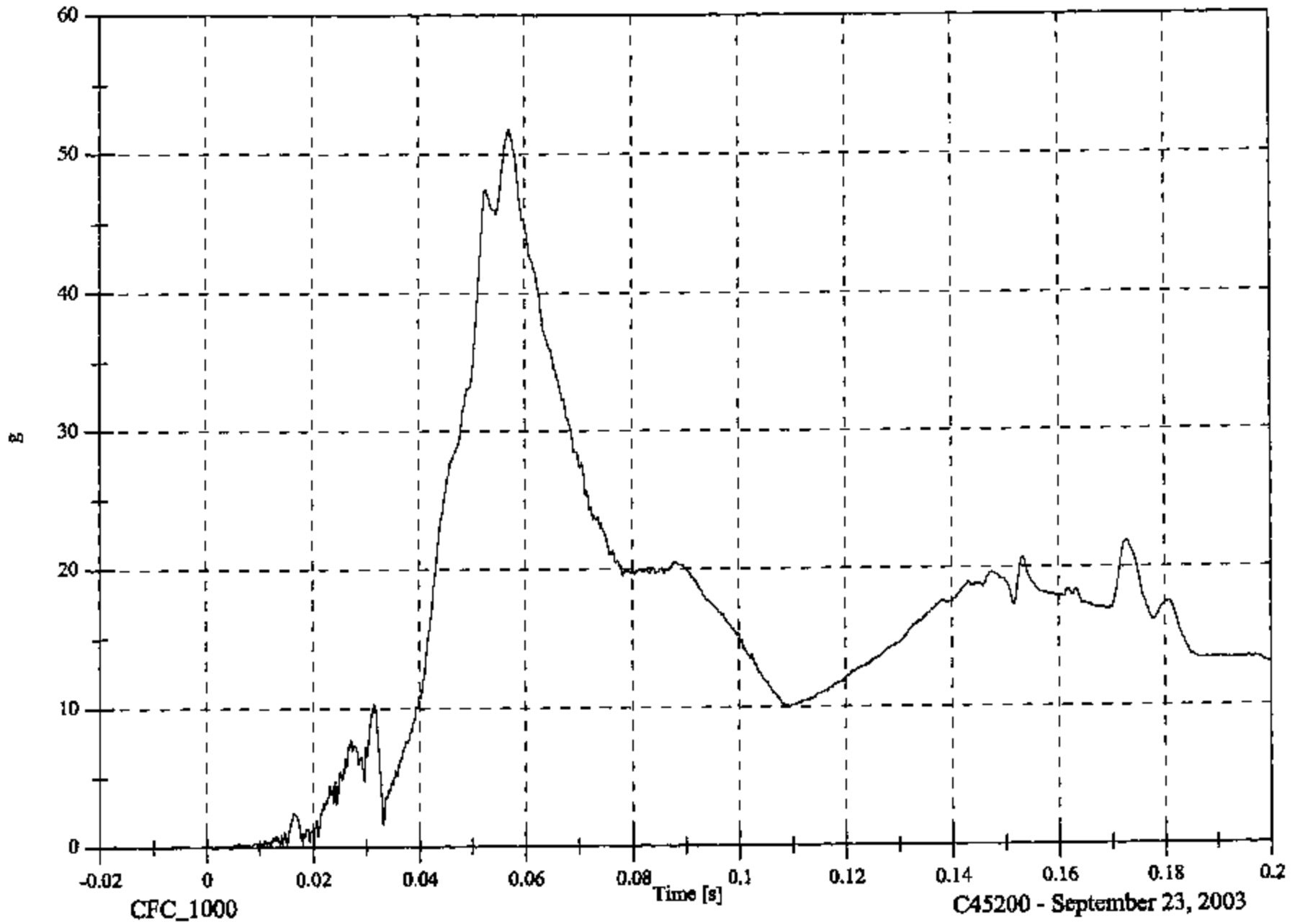
Max: 51.9 [g] at 0.057 [s]

V2P1 Head Resultant

Min: 0.0 [g] at -0.009 [s]

B-12

8675-F214-11



FMVSS 214D Indicant - 2004 Nissan Maxima

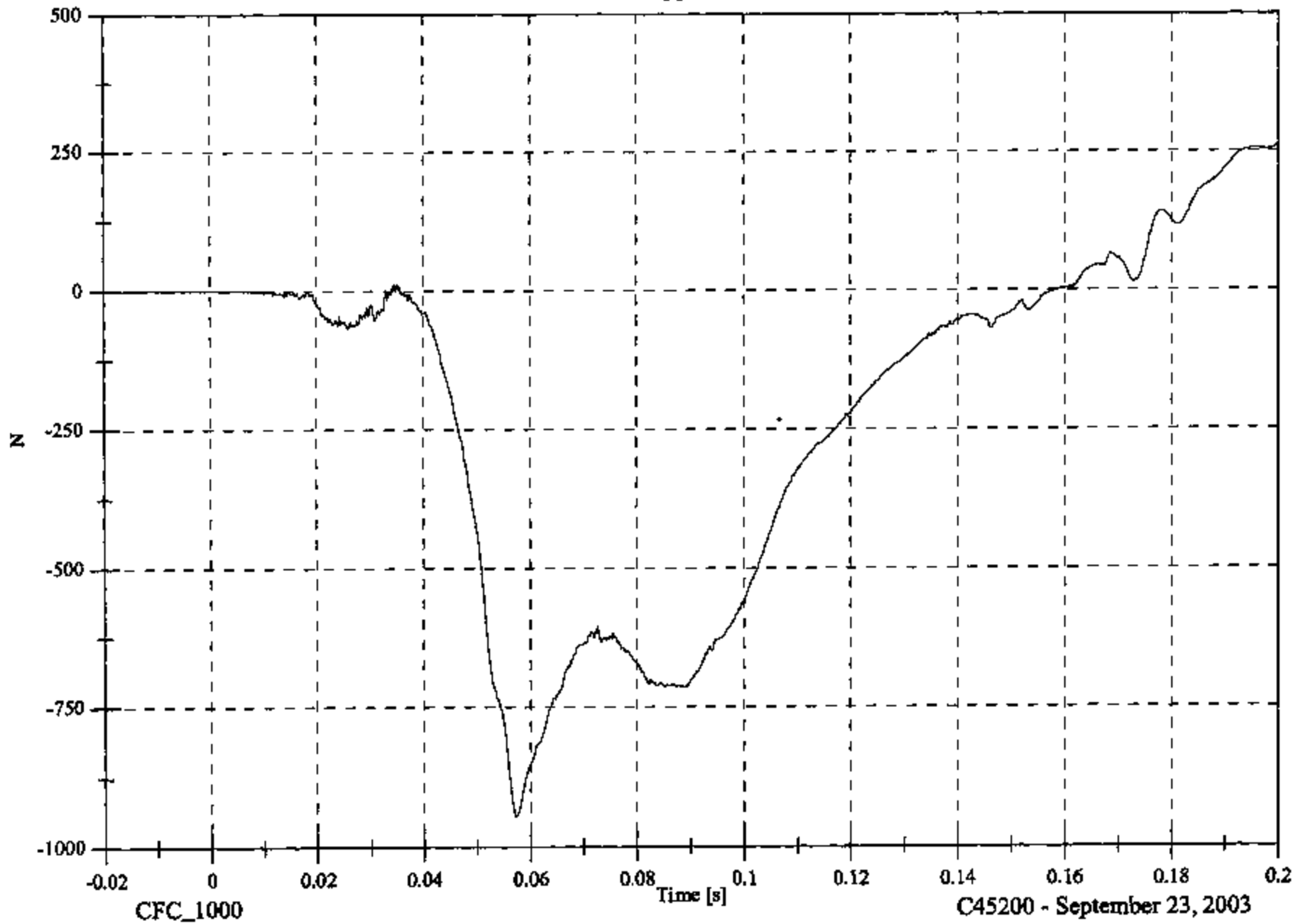
Max: 259.2 [N] at 0.200 [s]

V2P1 Upper Neck Fx

Min: -944.8 [N] at 0.057 [s]

B-13

8675-P214-11



CFC_1000

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

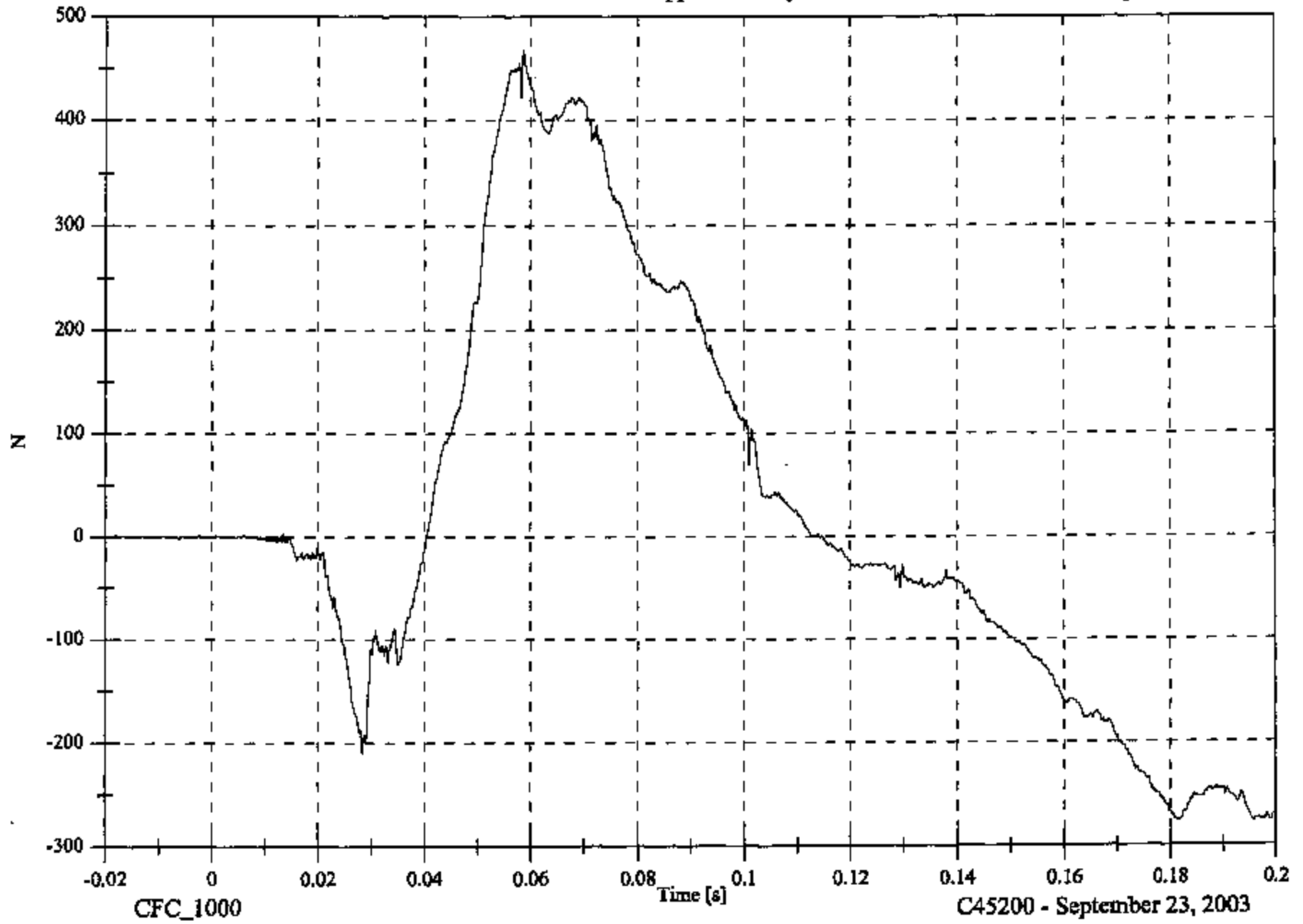
Max: 467.5 [N] at 0.059 [s]

V2P1 Upper Neck Fy

Min: -276.7 [N] at 0.181 [s]

B-14

8675-FZ14-11

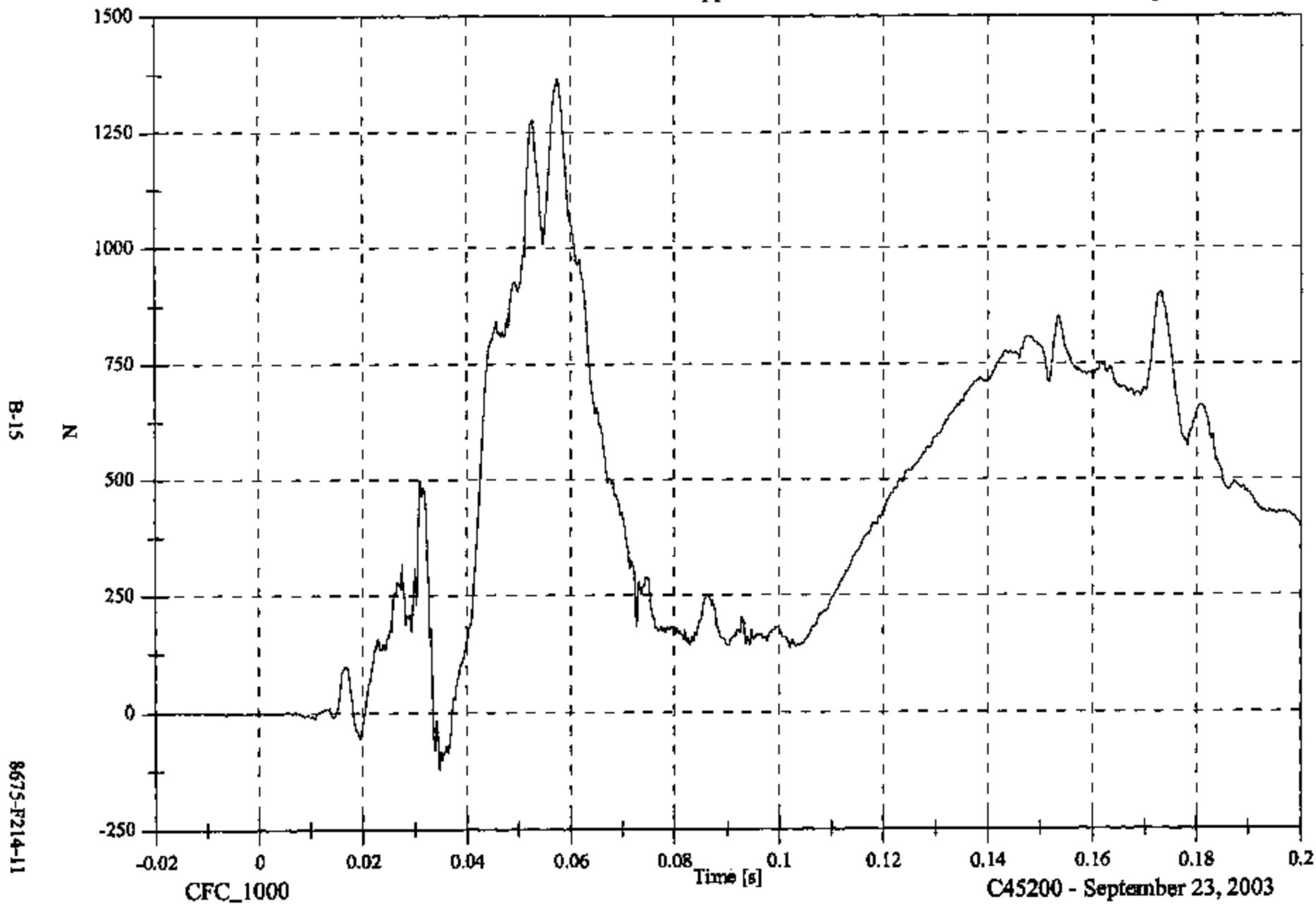


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 1366.1 [N] at 0.057 [s]

V2P1 Upper Neck Fz

Min: -122.2 [N] at 0.035 [s]

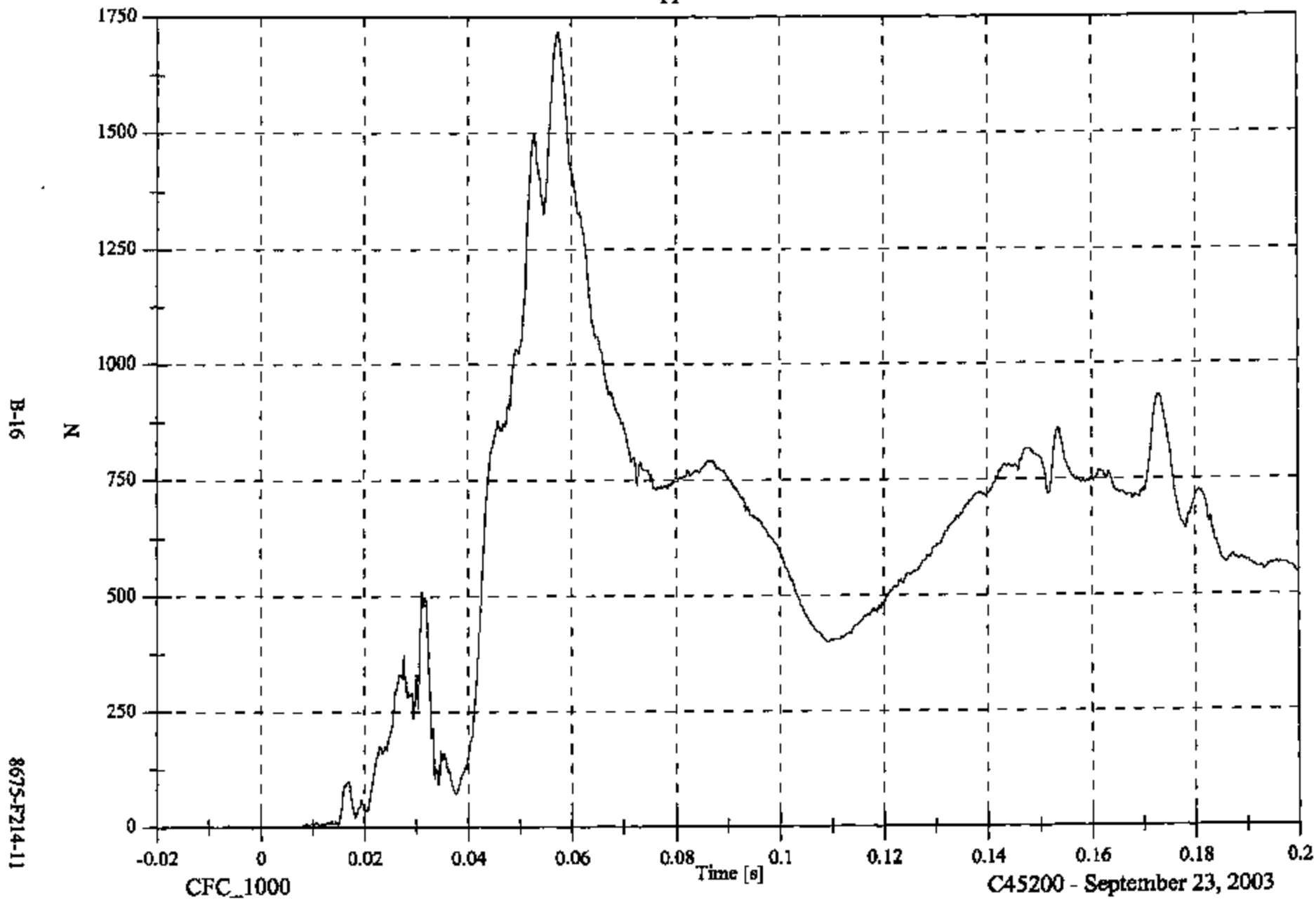


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 1718.9 [N] at 0.057 [s]

V2P1 Upper Neck F Resultant

Min: 0.1 [N] at -0.013 [s]

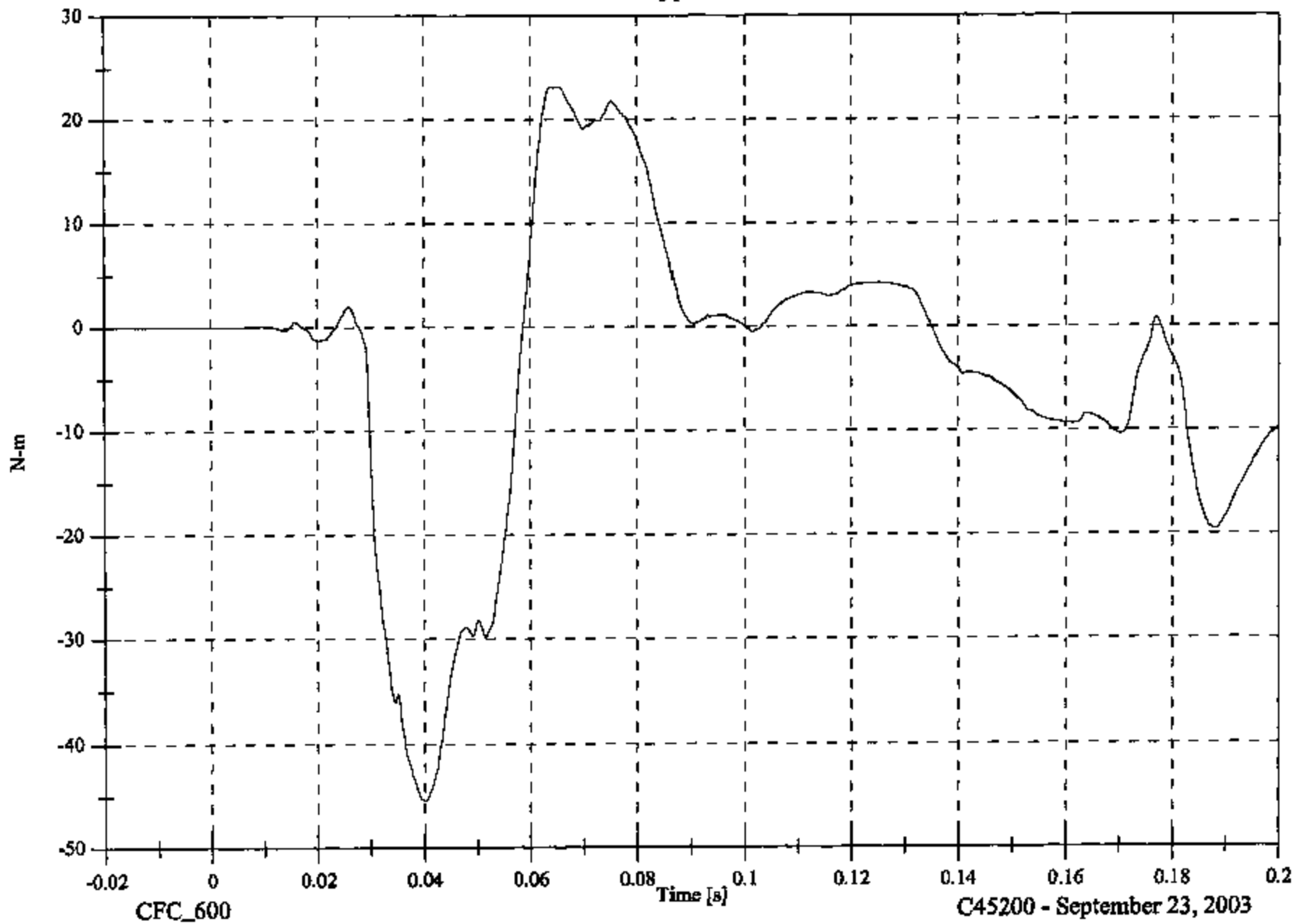


FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Upper Neck Mx

Max: 23.1 [N-m] at 0.064 [s]

Min: -45.4 [N-m] at 0.040 [s]



B-17

8675-P214-11

CFC_600

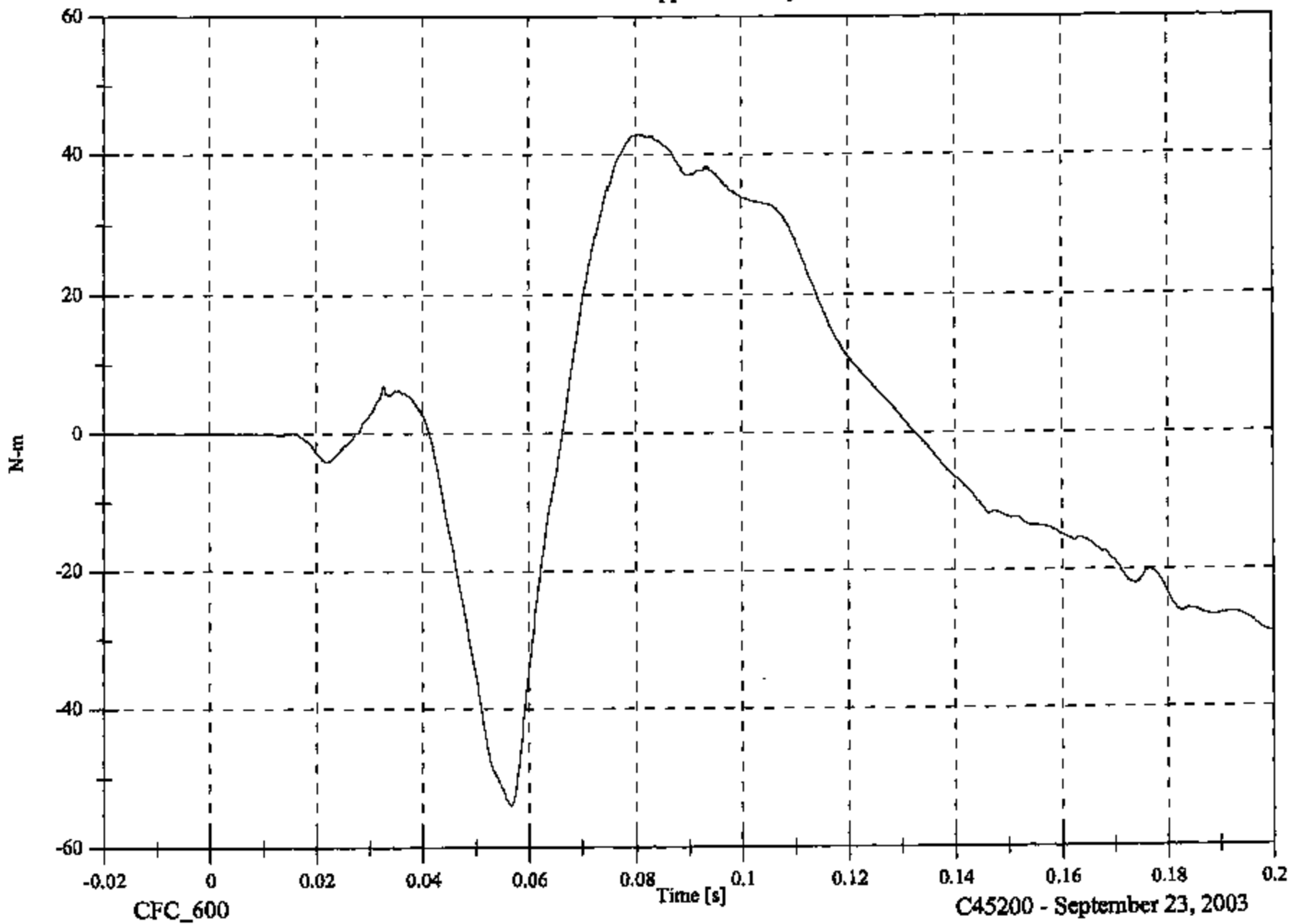
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 43.0 [N-m] at 0.081 [s]

V2P1 Upper Neck My

Min: -53.9 [N-m] at 0.057 [s]



B-18

8675-F214-11

CFC_600

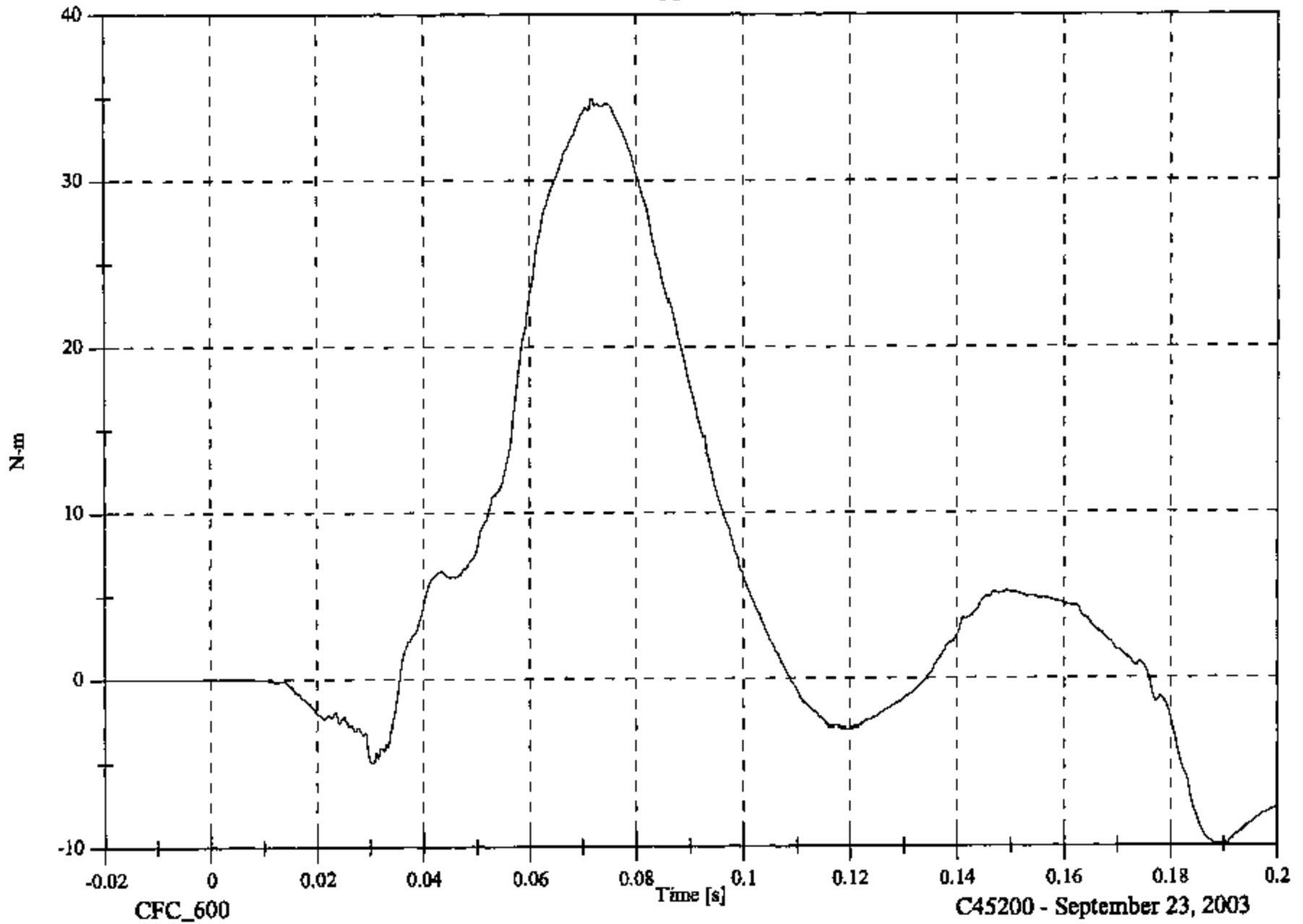
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 35.0 [N-m] at 0.072 [s]

V2P1 Upper Neck Mz

Min: -9.9 [N-m] at 0.189 [s]



B-19

8675-F214-11

CFC_600

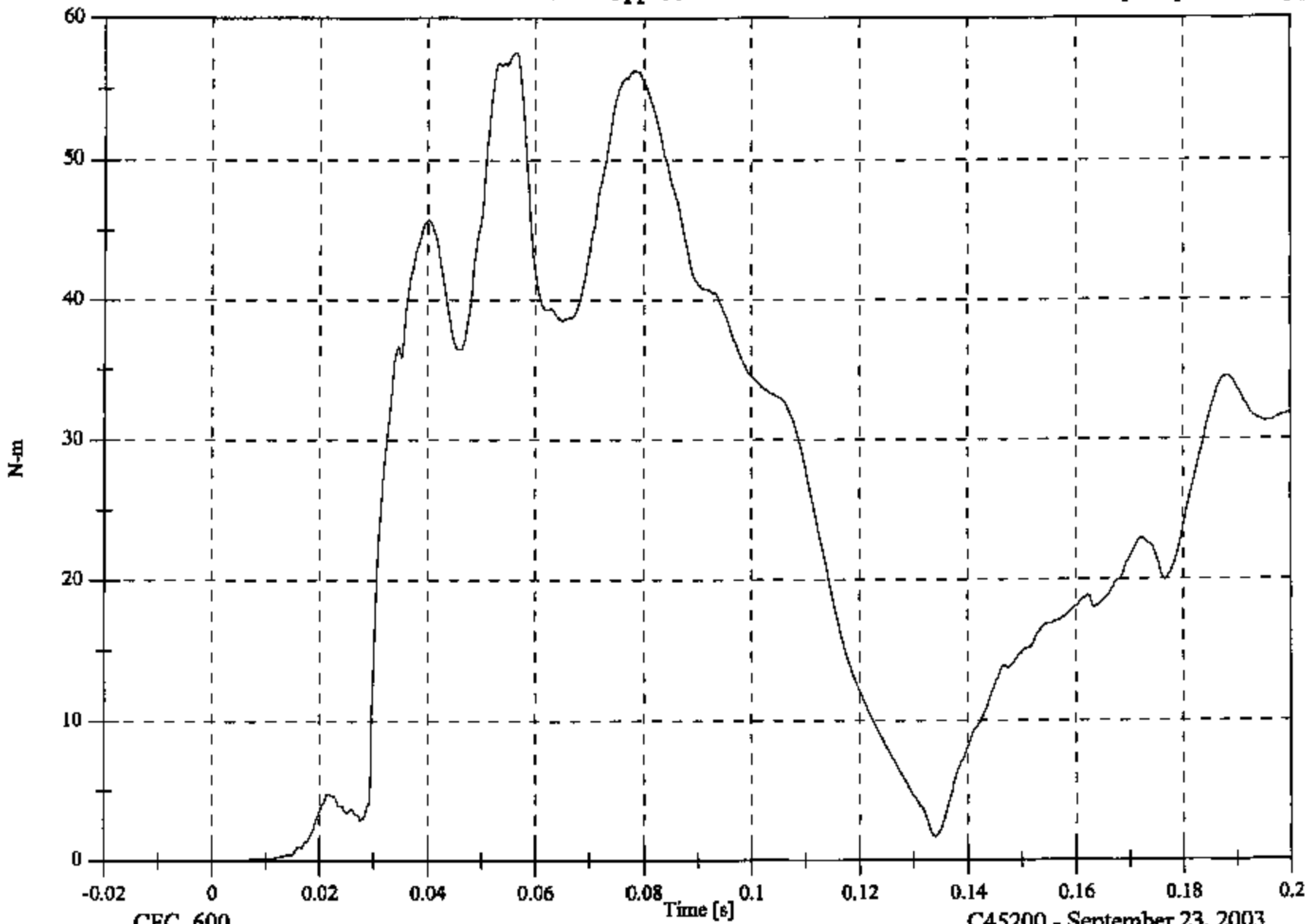
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Upper Neck M Resultant

Max: 57.5 [N-m] at 0.056 [s]

Min: 0.0 [N-m] at -0.001 [s]



B-20

8675-F214-11

CFC_600

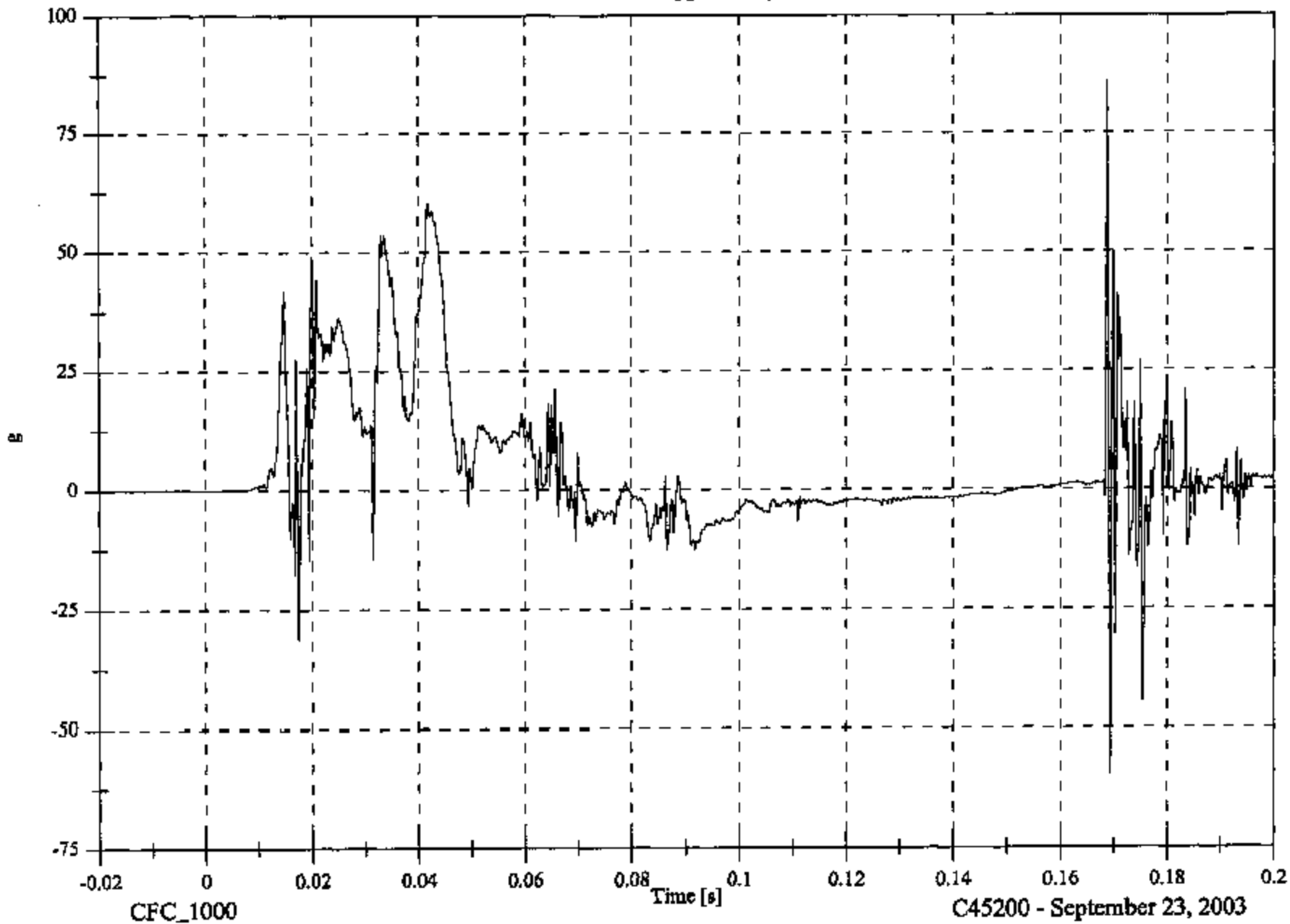
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Upper Rib y

Max: 86.1 [g] at 0.169 [s]

Min: -59.6 [g] at 0.169 [s]



B-21

8675-P214-11

CFC_1000

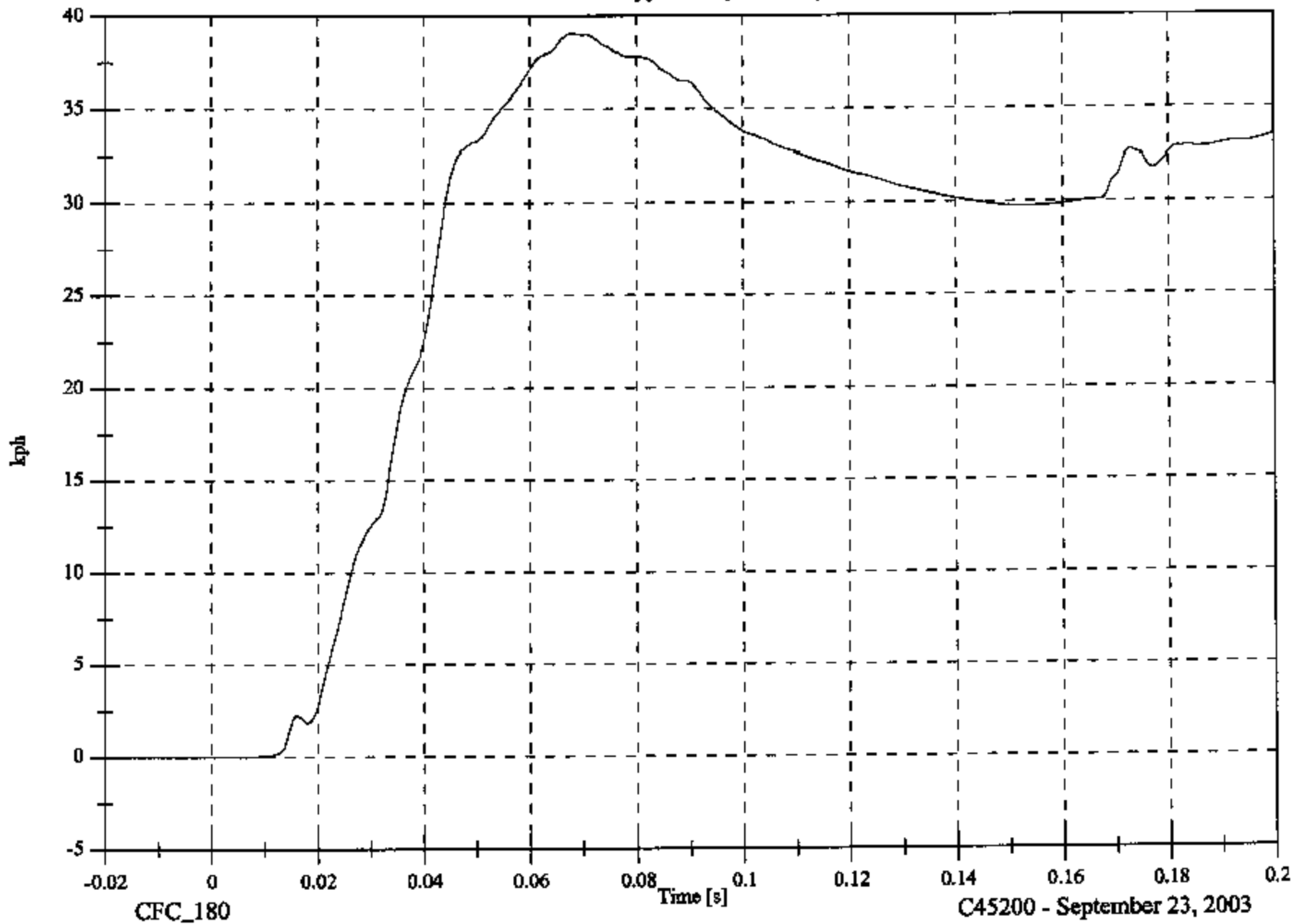
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 39.1 [kph] at 0.068 [s]

Min: -0.0 [kph] at -0.000 [s]

V2P1 Upper Rib y Velocity



B-22

8675-F214-11

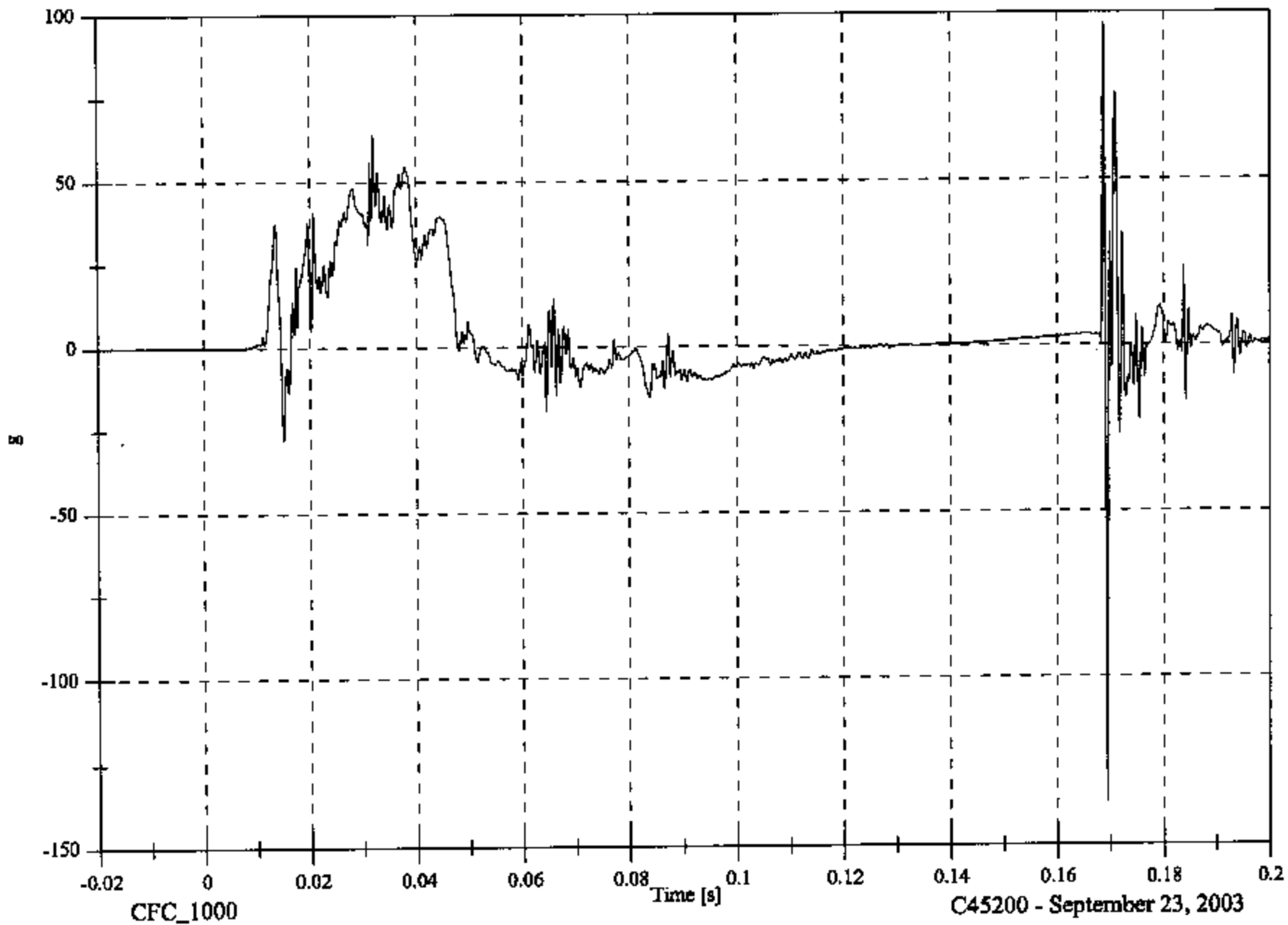
CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Lower Rib y

Max: 96.8 [g] at 0.169 [s]
Min: -137.0 [g] at 0.169 [s]



B-23

8675-F214-11

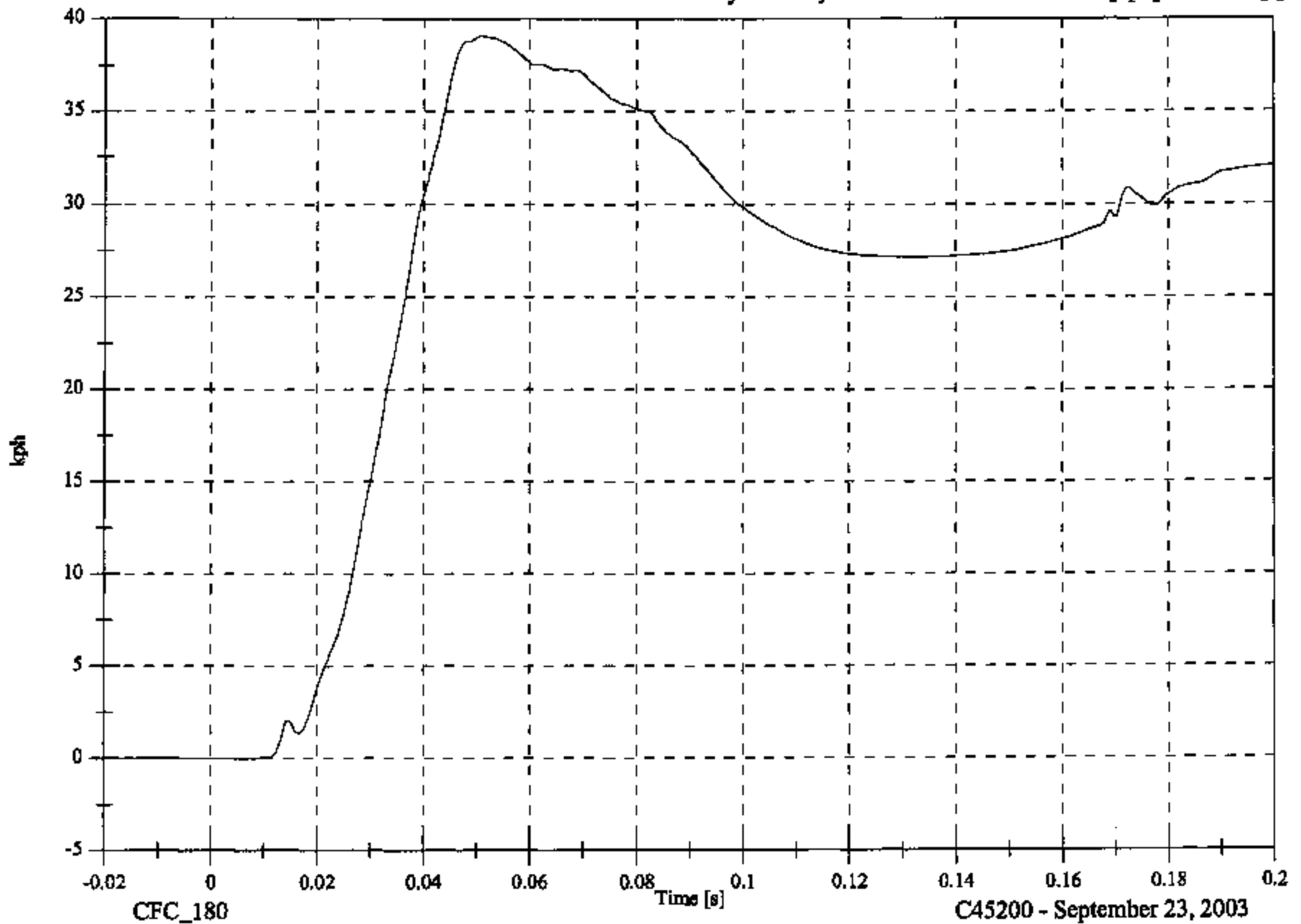
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 39.1 [kph] at 0.051 [s]

V2P1 Lower Rib y Velocity

Min: -0.0 [kph] at -0.004 [s]



B-24

8675-F214-11

CFC_180

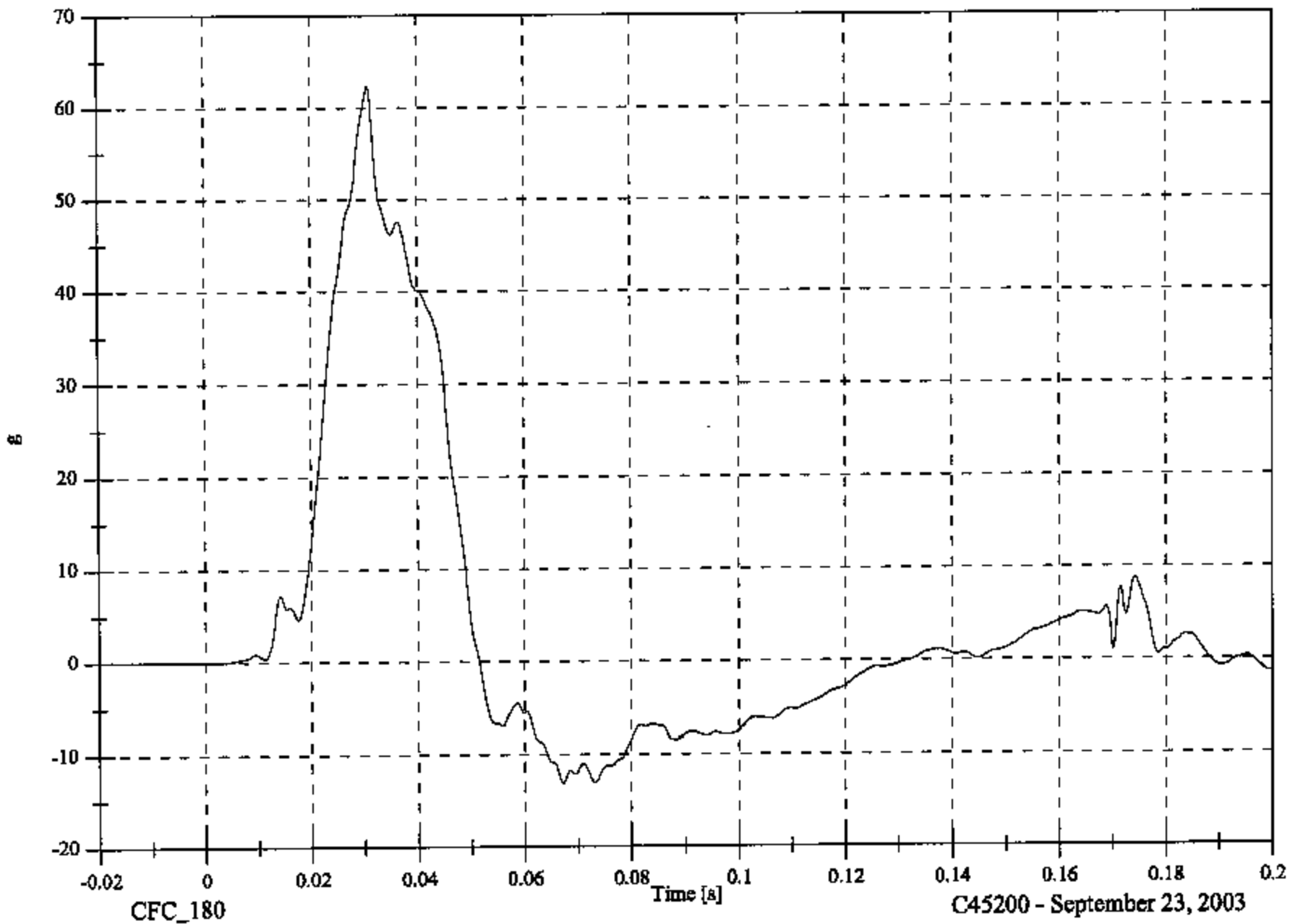
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 62.4 [g] at 0.031 [s]

V2P1 Lower Spine y

Min: -13.1 [g] at 0.067 [s]



B-25

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

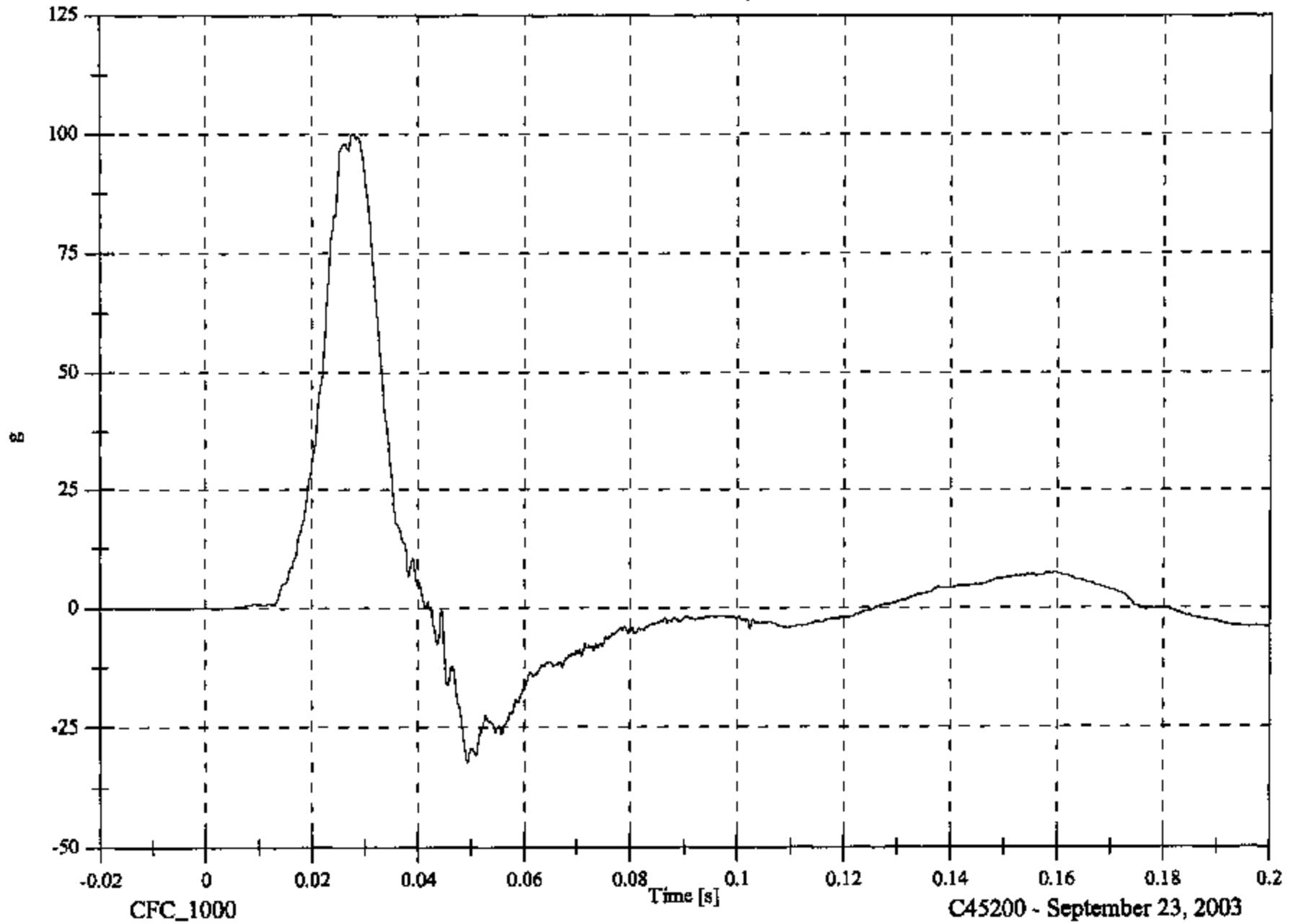
V2P1 Pelvic y

Max: 100.1 [g] at 0.028 [s]

Min: -32.2 [g] at 0.049 [s]

B-27

8675-F214-11

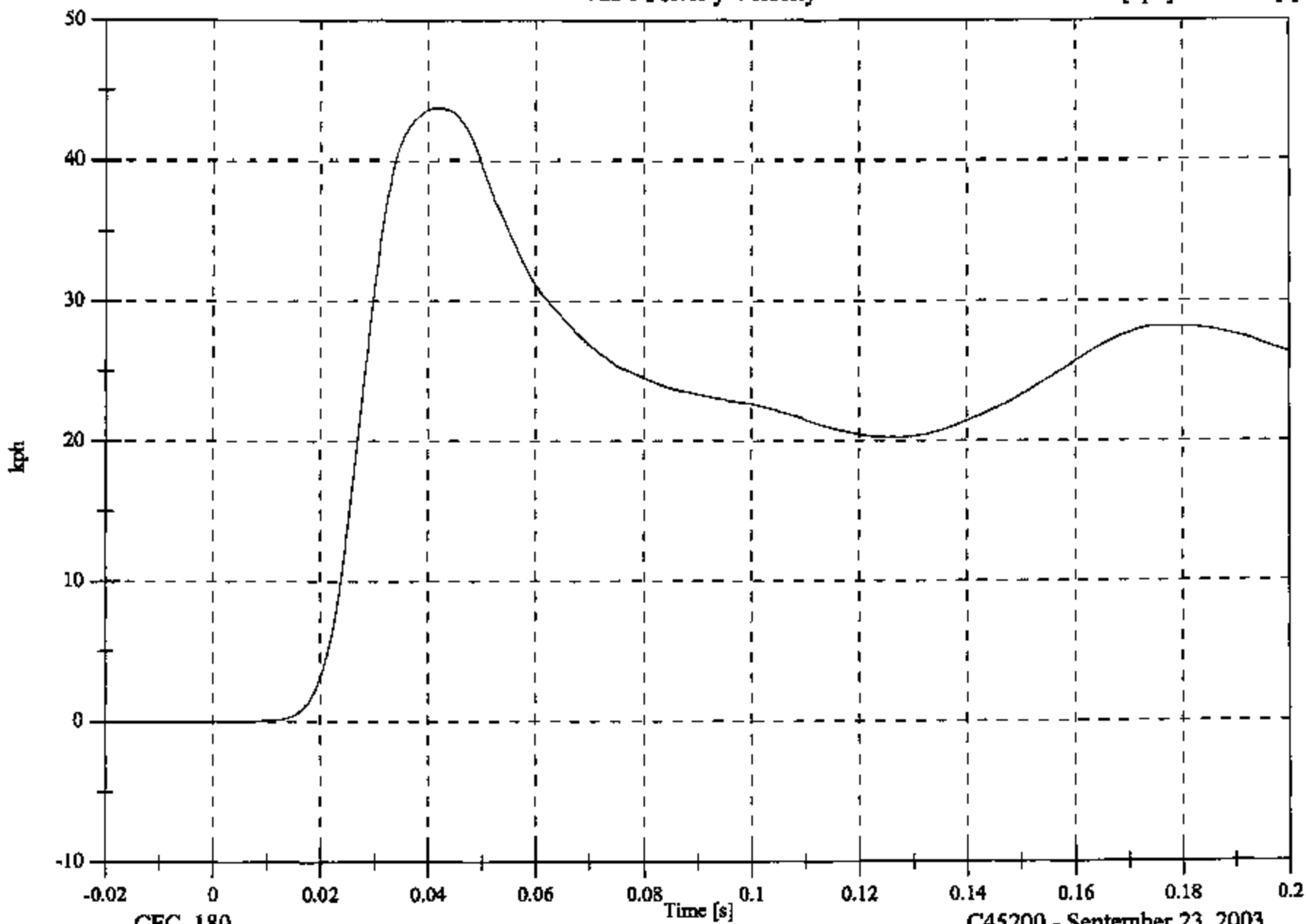


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 43.7 [kph] at 0.042 [s]

V2P1 Pelvic y Velocity

Min: -0.0 [kph] at -0.010 [s]



B-28

8675-F214-11

CFC_180

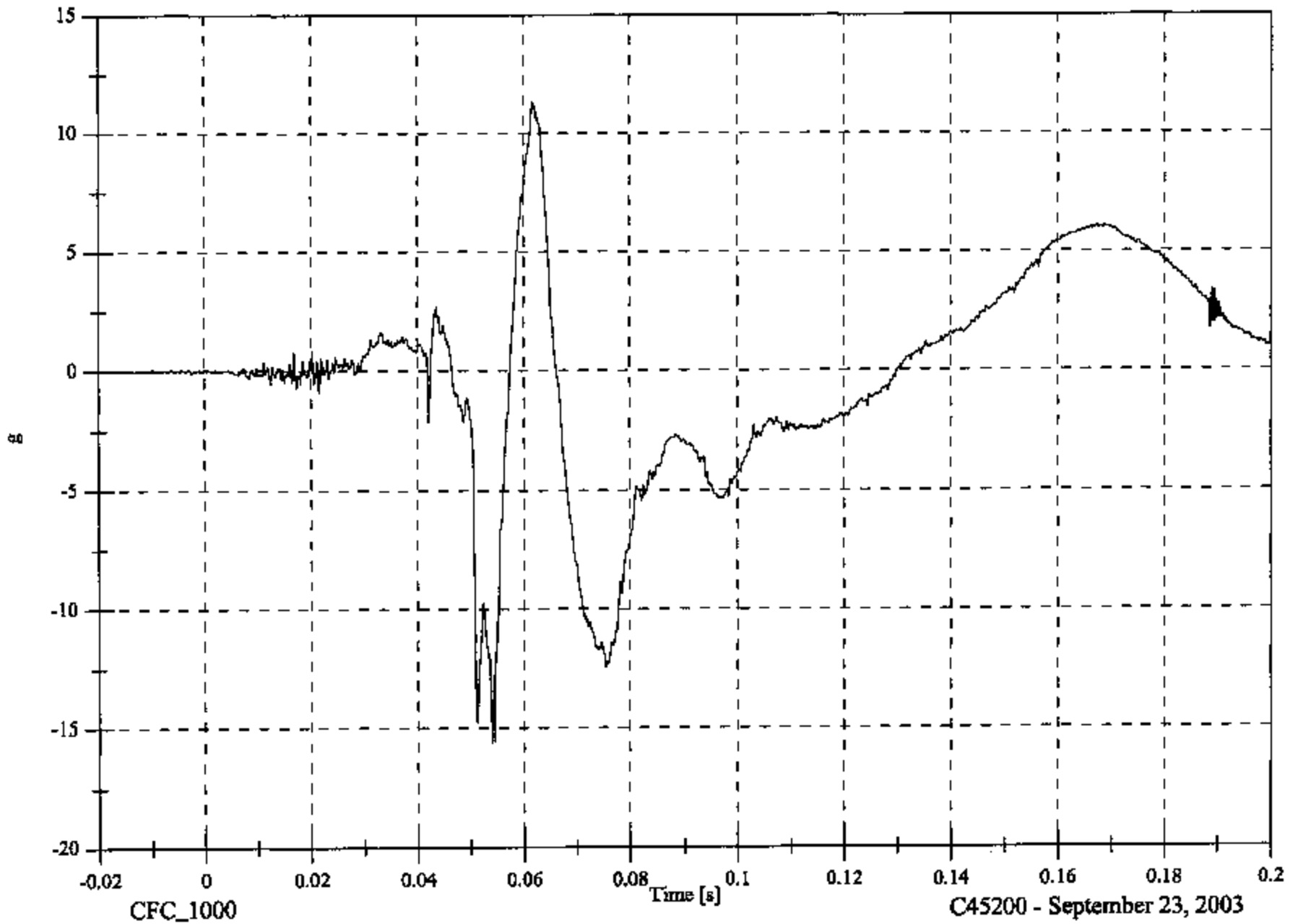
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Head x

Max: 11.3 [g] at 0.062 [s]

Min: -15.6 [g] at 0.054 [s]



B-29

8675-FZ14-11

CFC_1000

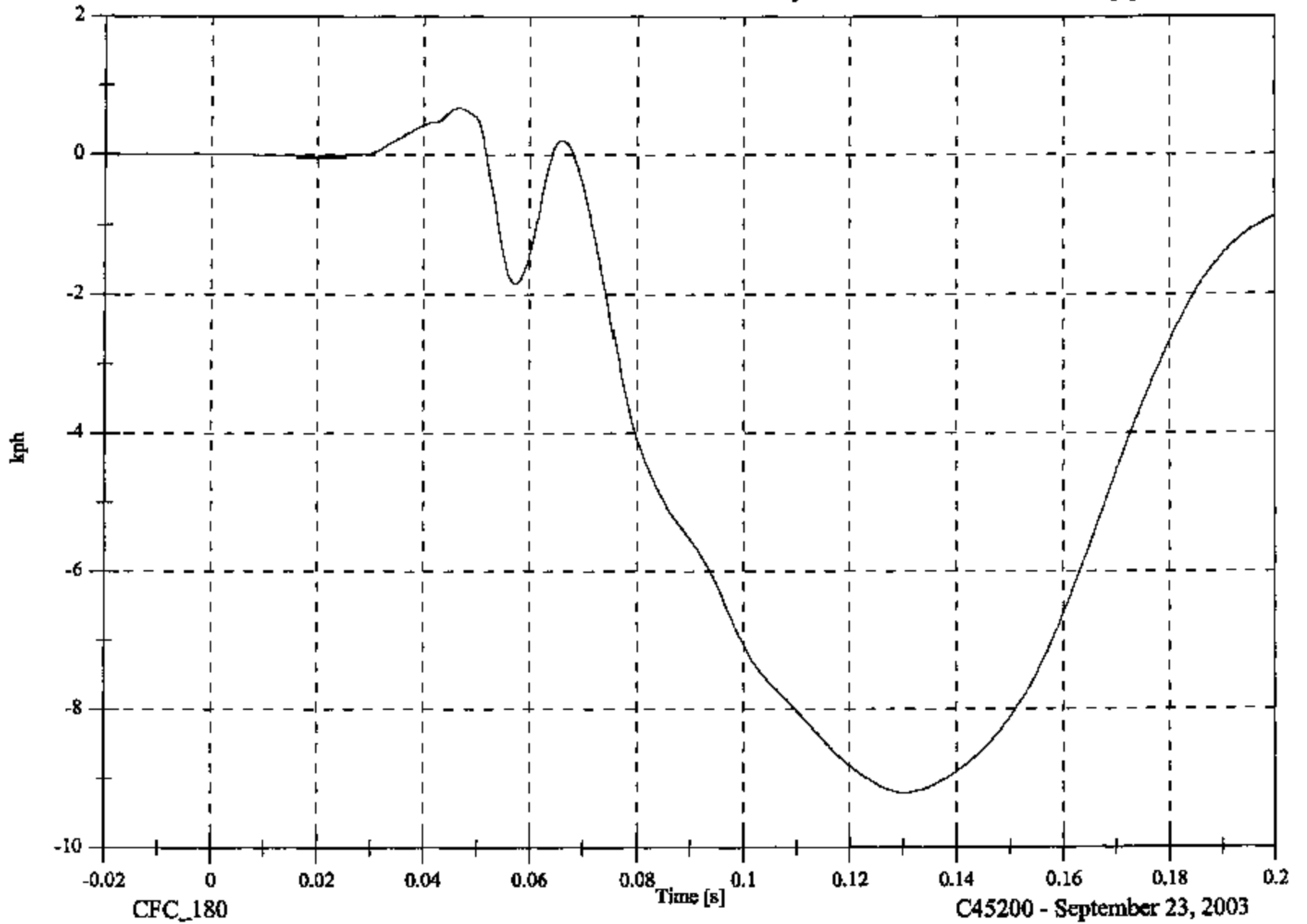
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 0.7 [kph] at 0.046 [s]

Min: -9.2 [kph] at 0.130 [s]

V2P4 Head x Velocity



B-30

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

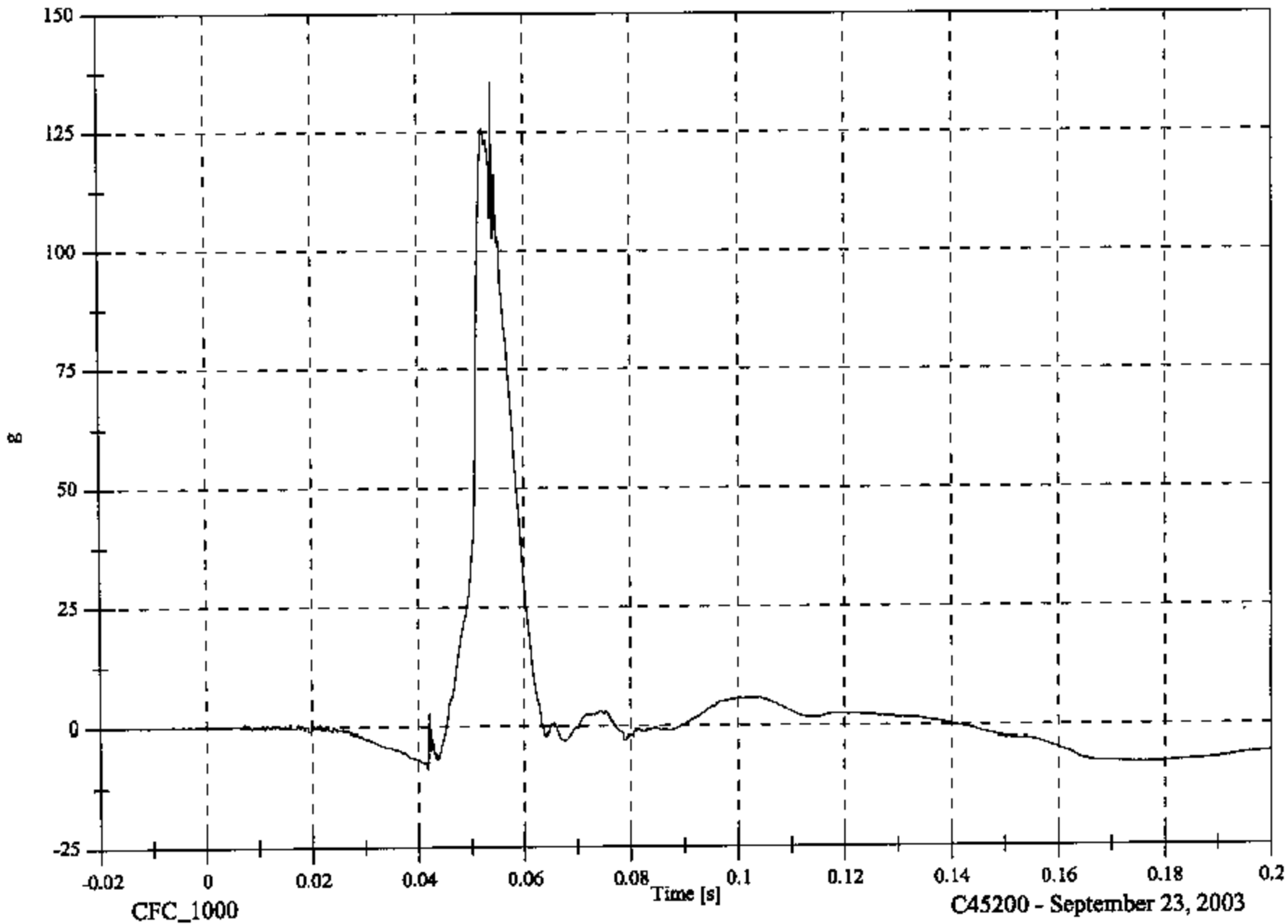
V2P4 Head y

Max: 135.5 [g] at 0.054 [s]

Min: -8.8 [g] at 0.042 [s]

B-31

8675-F214-11

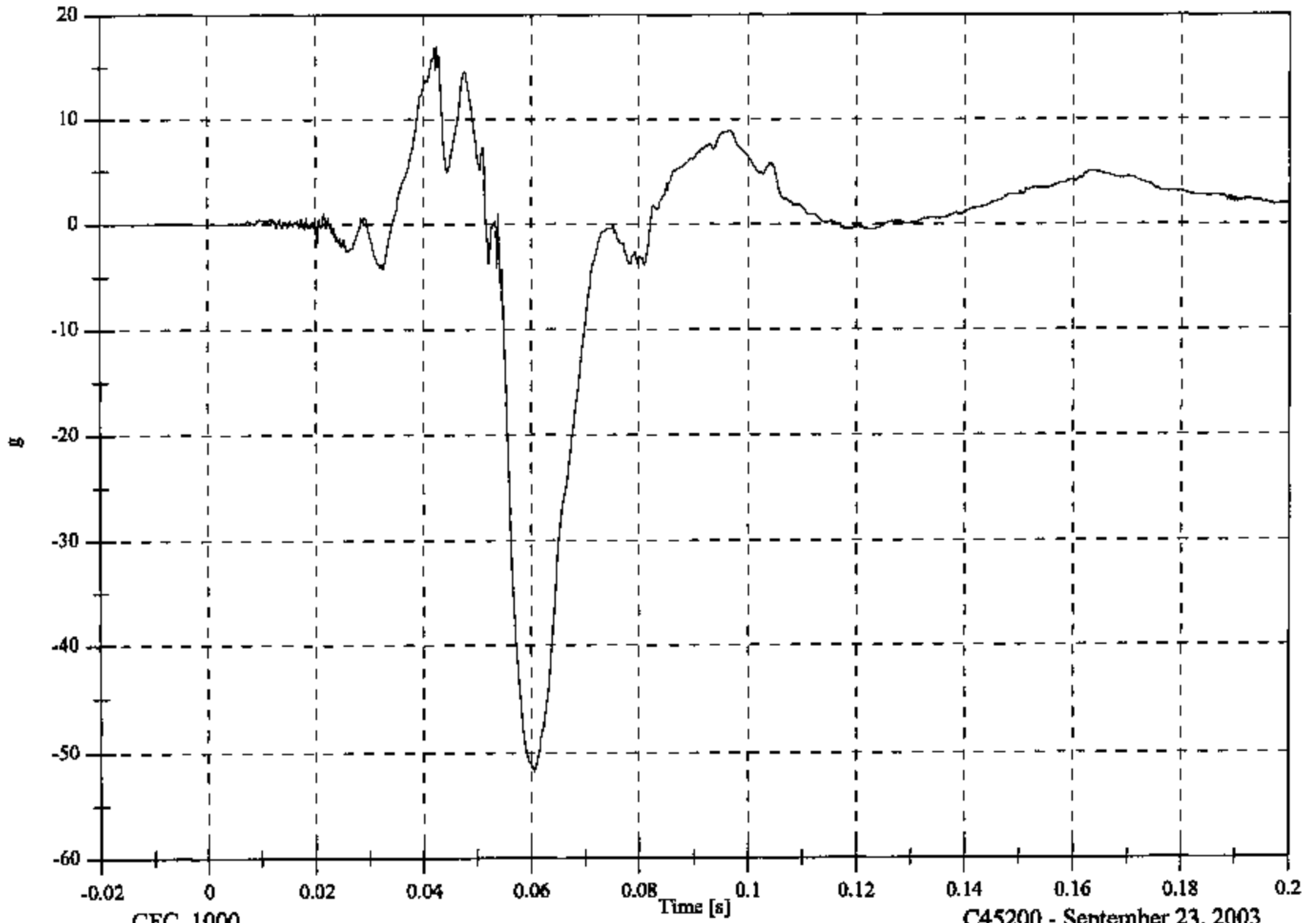


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 17.0 [g] at 0.042 [s]

V2P4 Head z

Min: -51.8 [g] at 0.061 [s]



B-33

8675-F214-11

CFC_1000

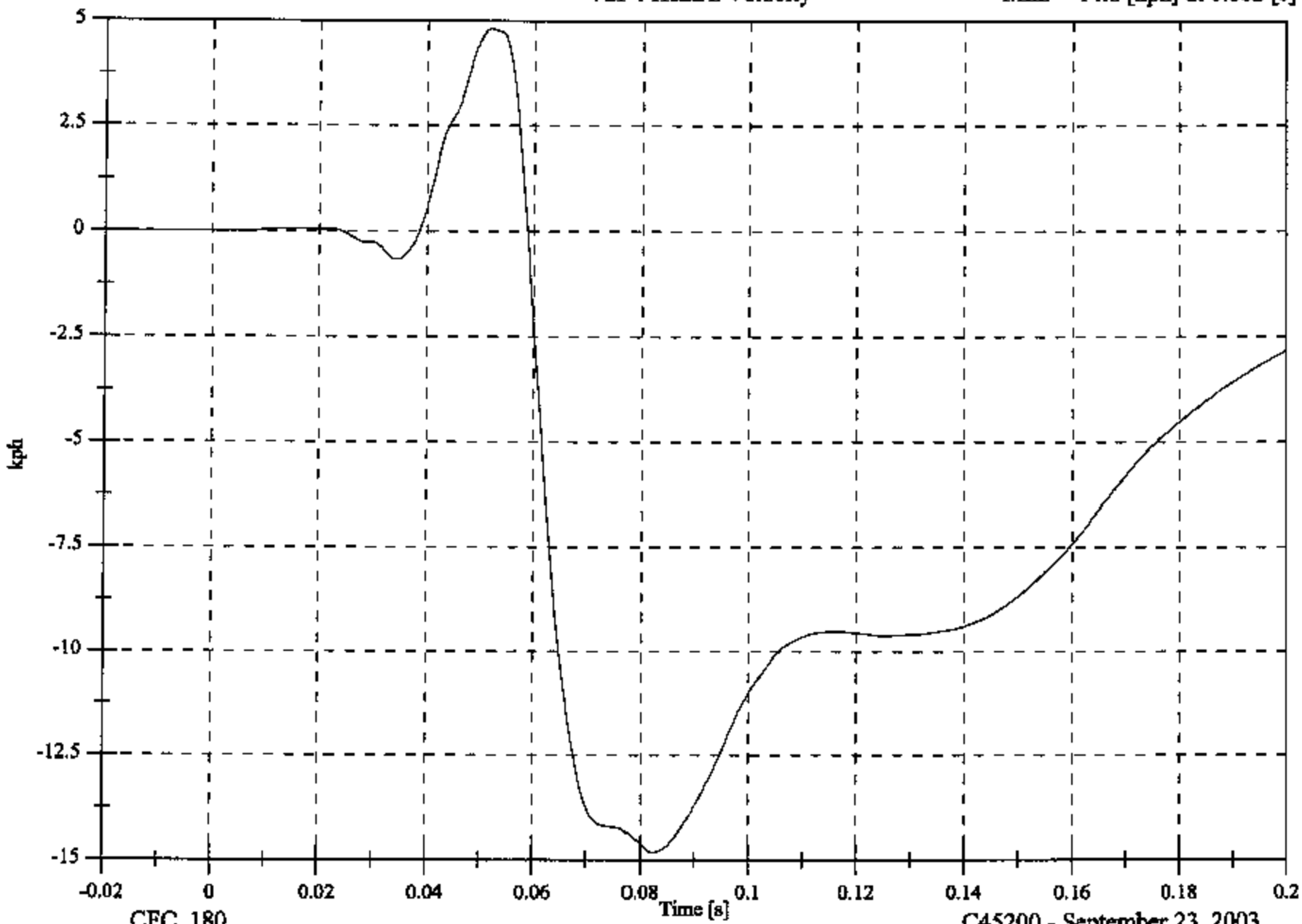
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 4.8 [kph] at 0.052 [s]

Min: -14.8 [kph] at 0.082 [s]

V2P4 Head z Velocity



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867S-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

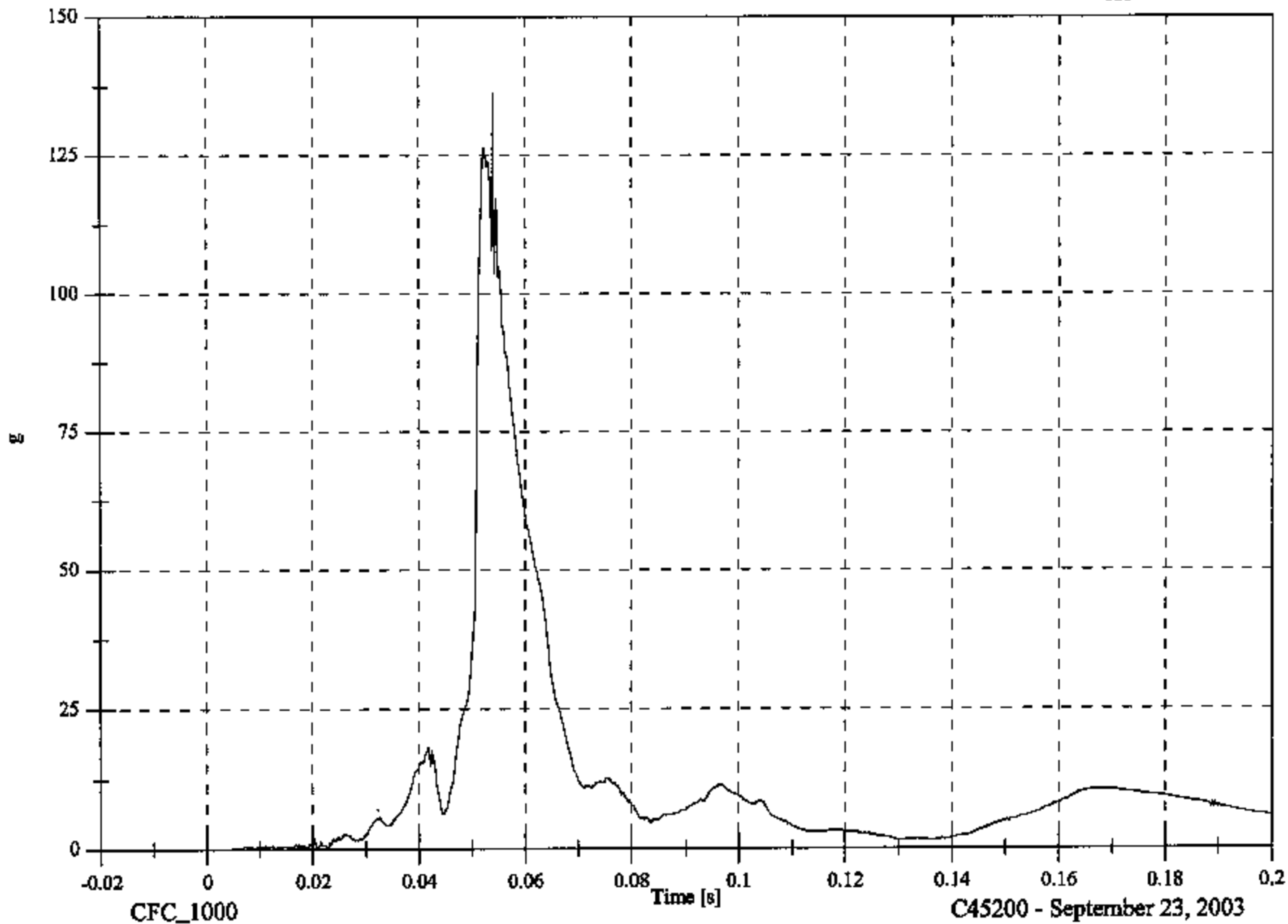
V2P4 Head Resultant

Max: 136.3 [g] at 0.054 [s]

Min: 0.0 [g] at -0.005 [s]

B-35

8675-F214-11



CFC_1000

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

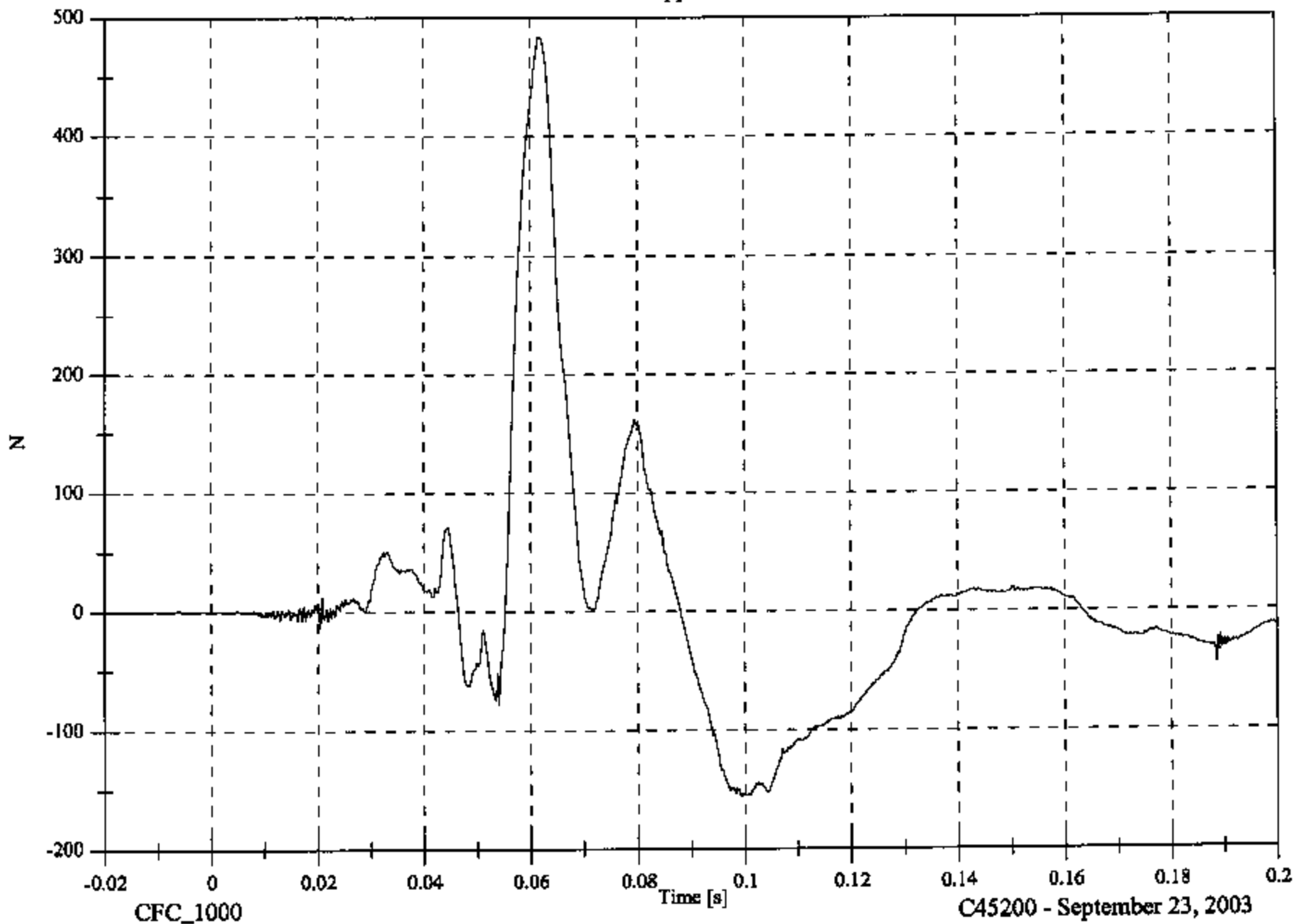
V2P4 Upper Neck Fx

Max: 483.7 [N] at 0.062 [s]

Min: -155.4 [N] at 0.099 [s]

B-36

8675-P214-11



CFC_1000

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

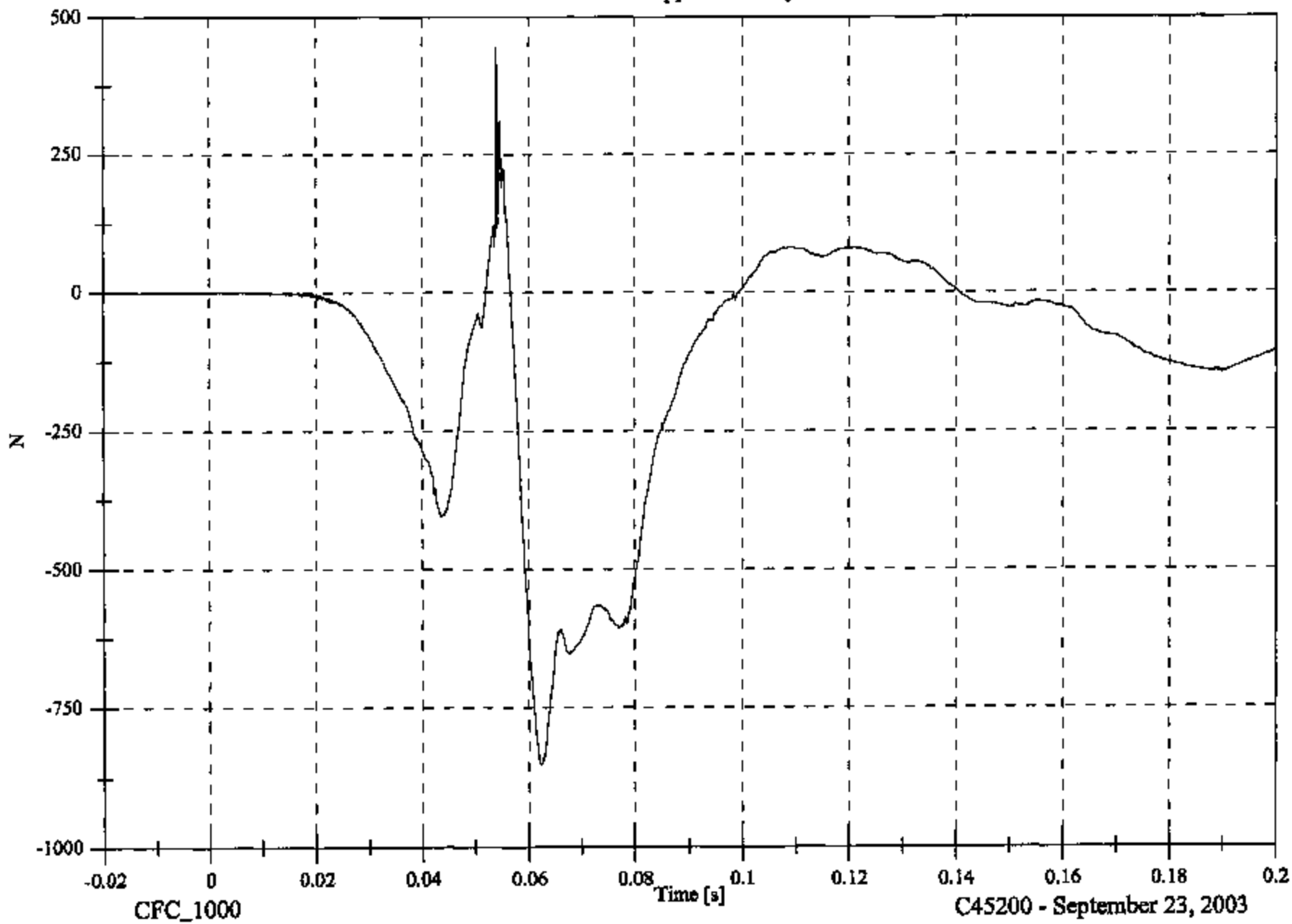
V2P4 Upper Neck Fy

Max: 444.9 [N] at 0.054 [s]

Min: -850.4 [N] at 0.062 [s]

B-37

B675-FZ14-11



FMVSS 214D Indicant - 2004 Nissan Maxima

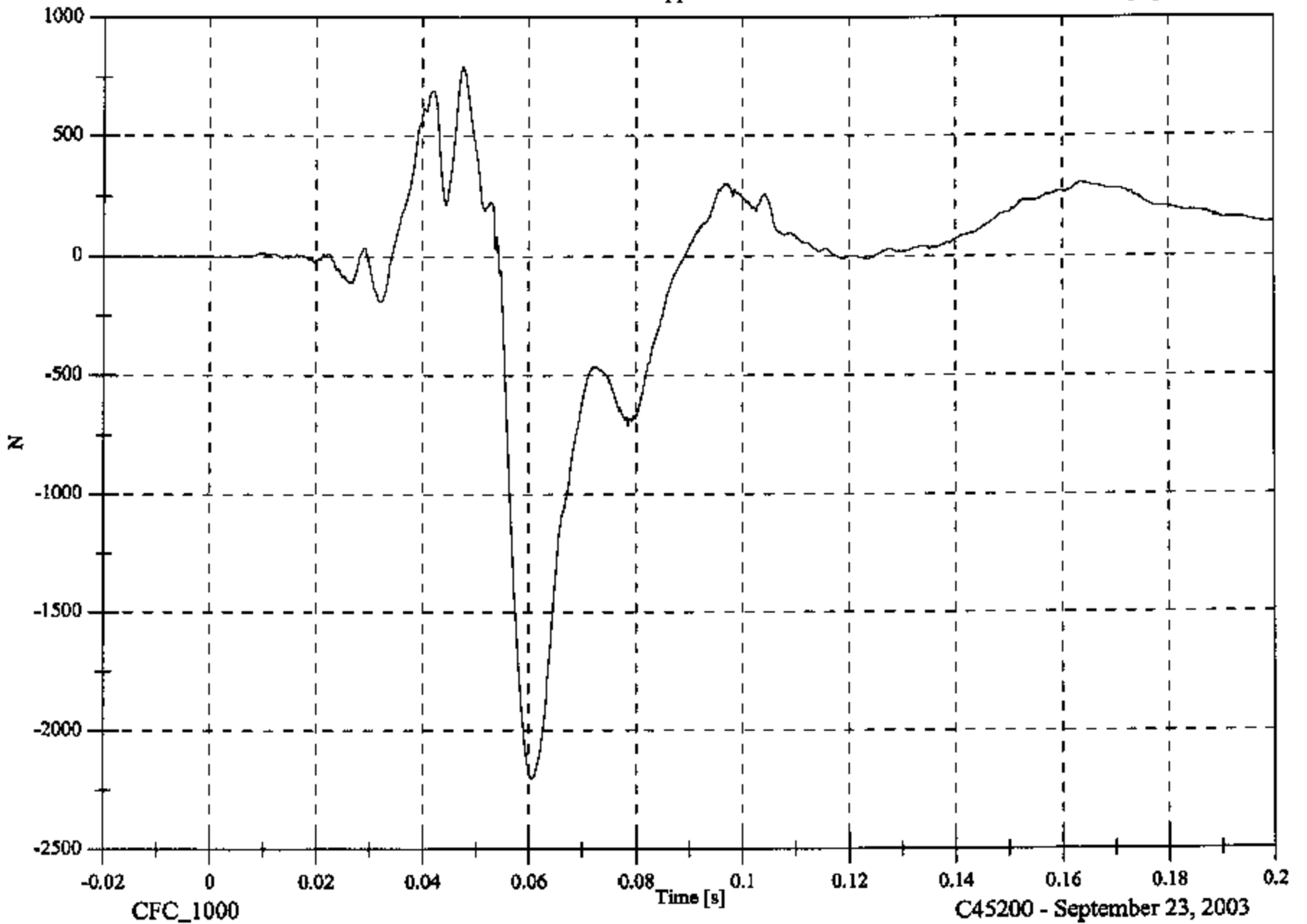
V2P4 Upper Neck Fz

Max: 792.0 [N] at 0.048 [s]

Min: -2204.5 [N] at 0.060 [s]

B-38

8675-F214-11

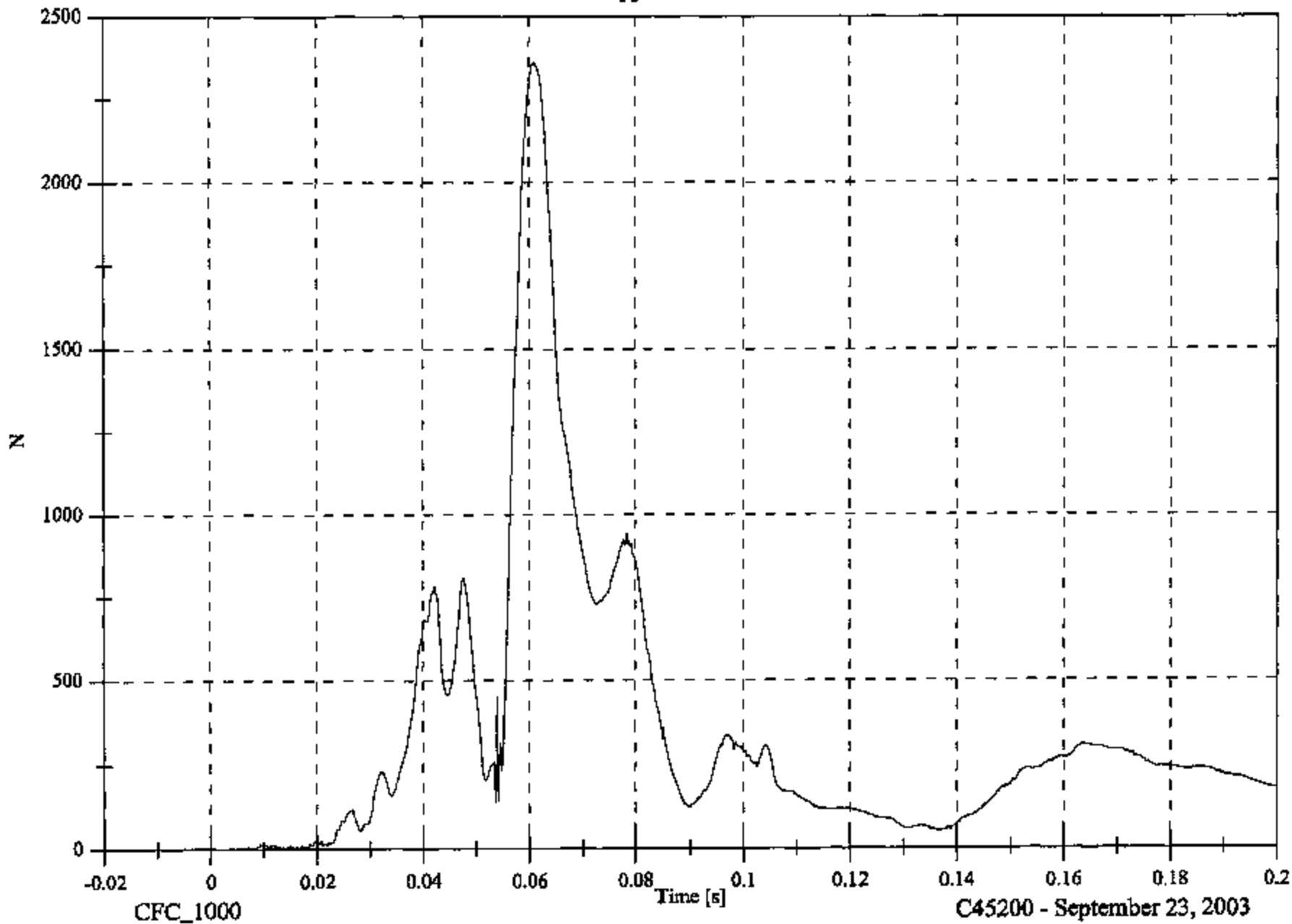


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 2359.8 [N] at 0.061 [s]

V2P4 Upper Neck F Resultant

Min: 0.1 [N] at 0.003 [s]



B-39

8675-F214-11

CFC_1000

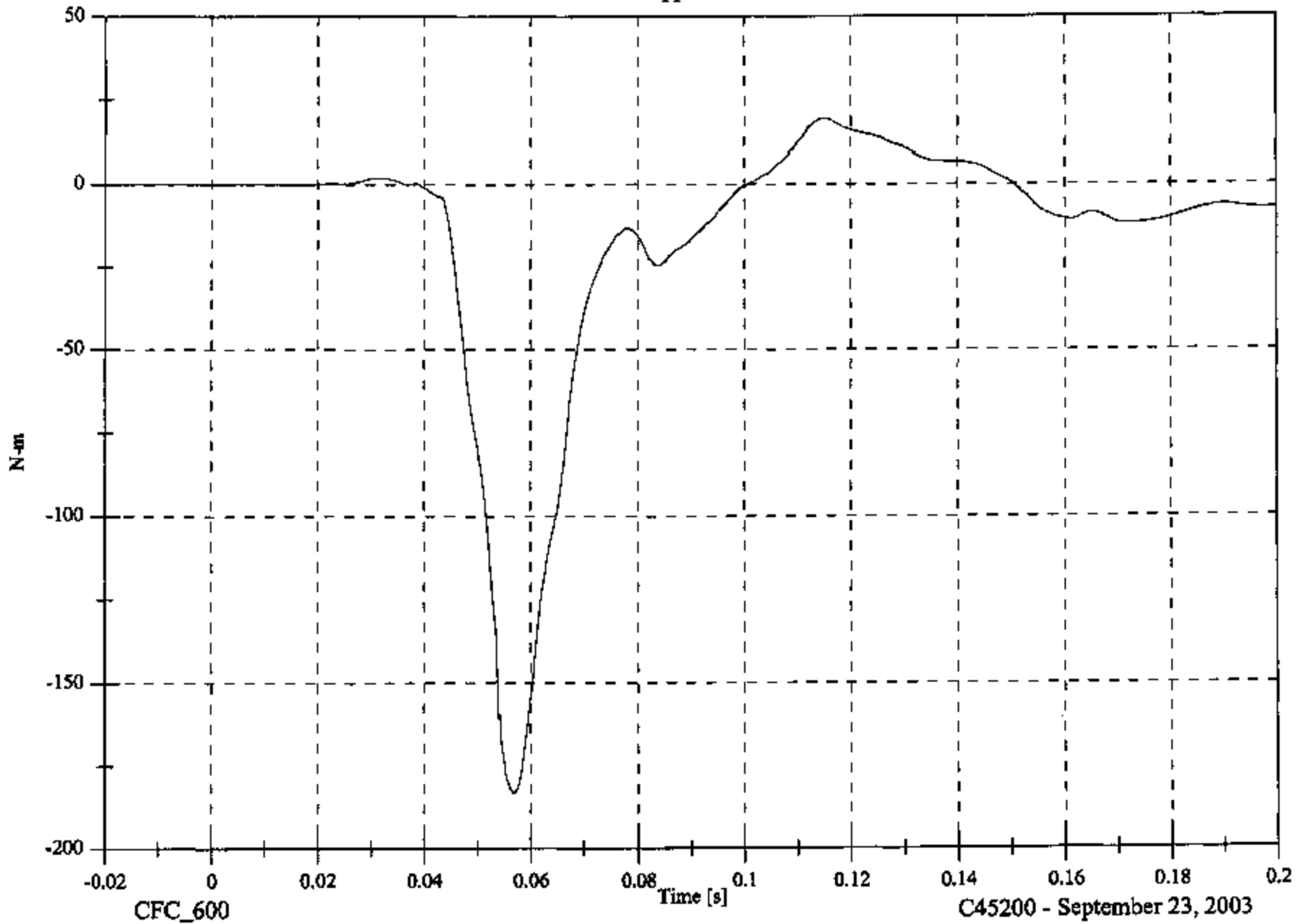
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Upper Neck Mx

Max: 19.1 [N-m] at 0.115 [s]

Min: -183.1 [N-m] at 0.057 [s]



B-40

8675-P214-11

CFC_600

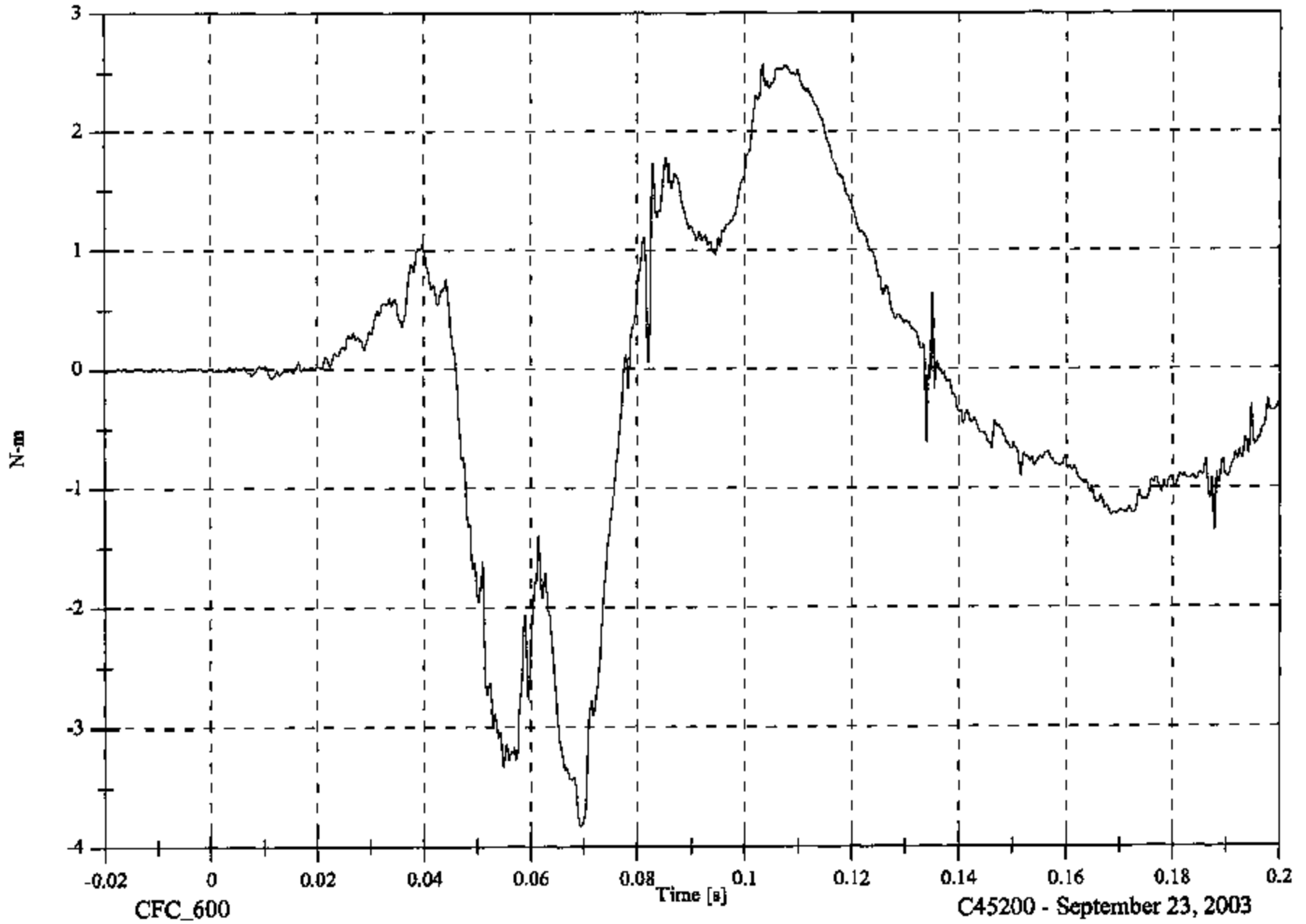
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 2.6 [N-m] at 0.103 [s]

V2P4 Upper Neck My

Min: -3.8 [N-m] at 0.069 [s]

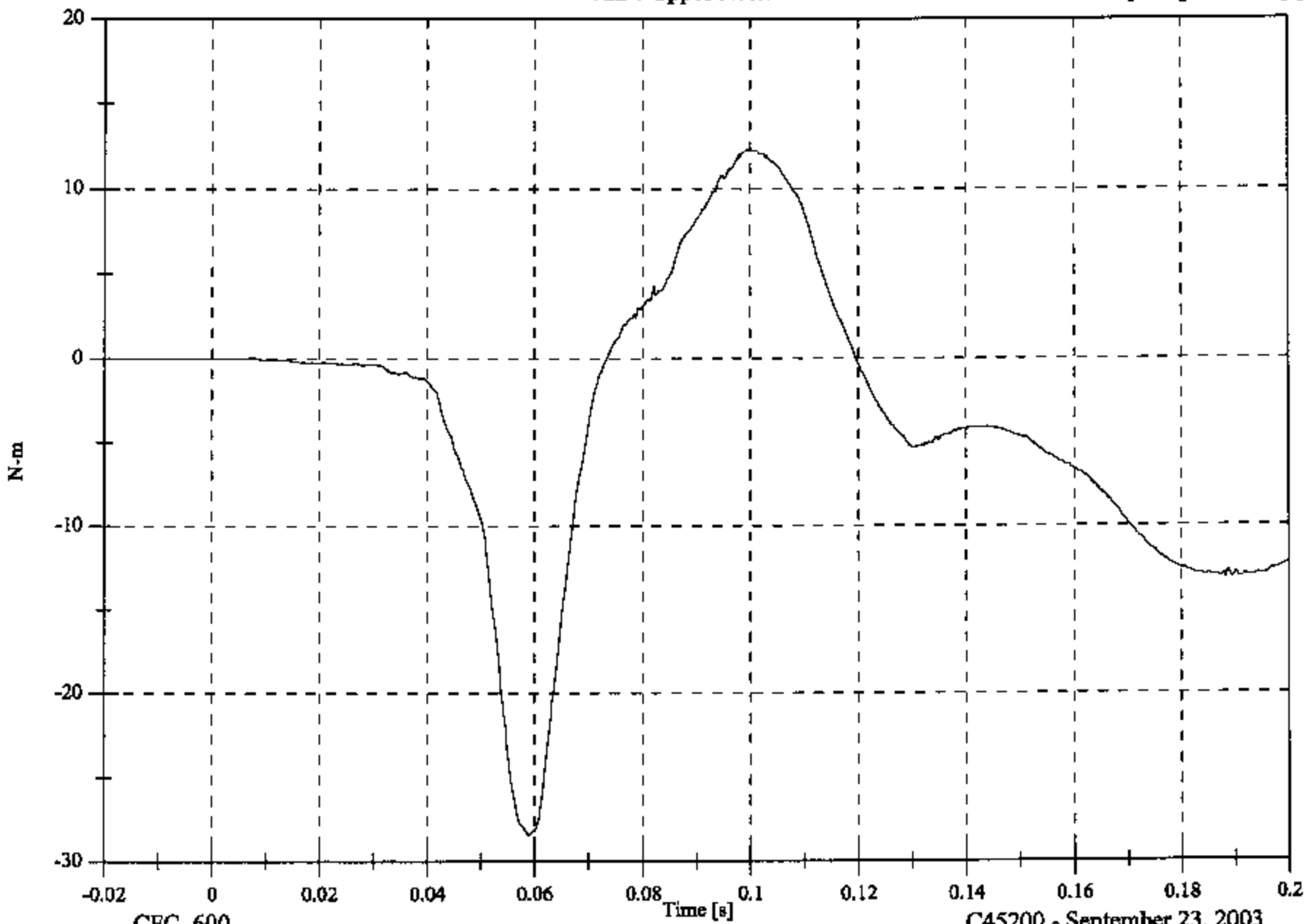


FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Upper Neck Mz

Max: 12.3 [N-m] at 0.100 [s]

Min: -28.5 [N-m] at 0.059 [s]



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8675-F214-11

CFC_600

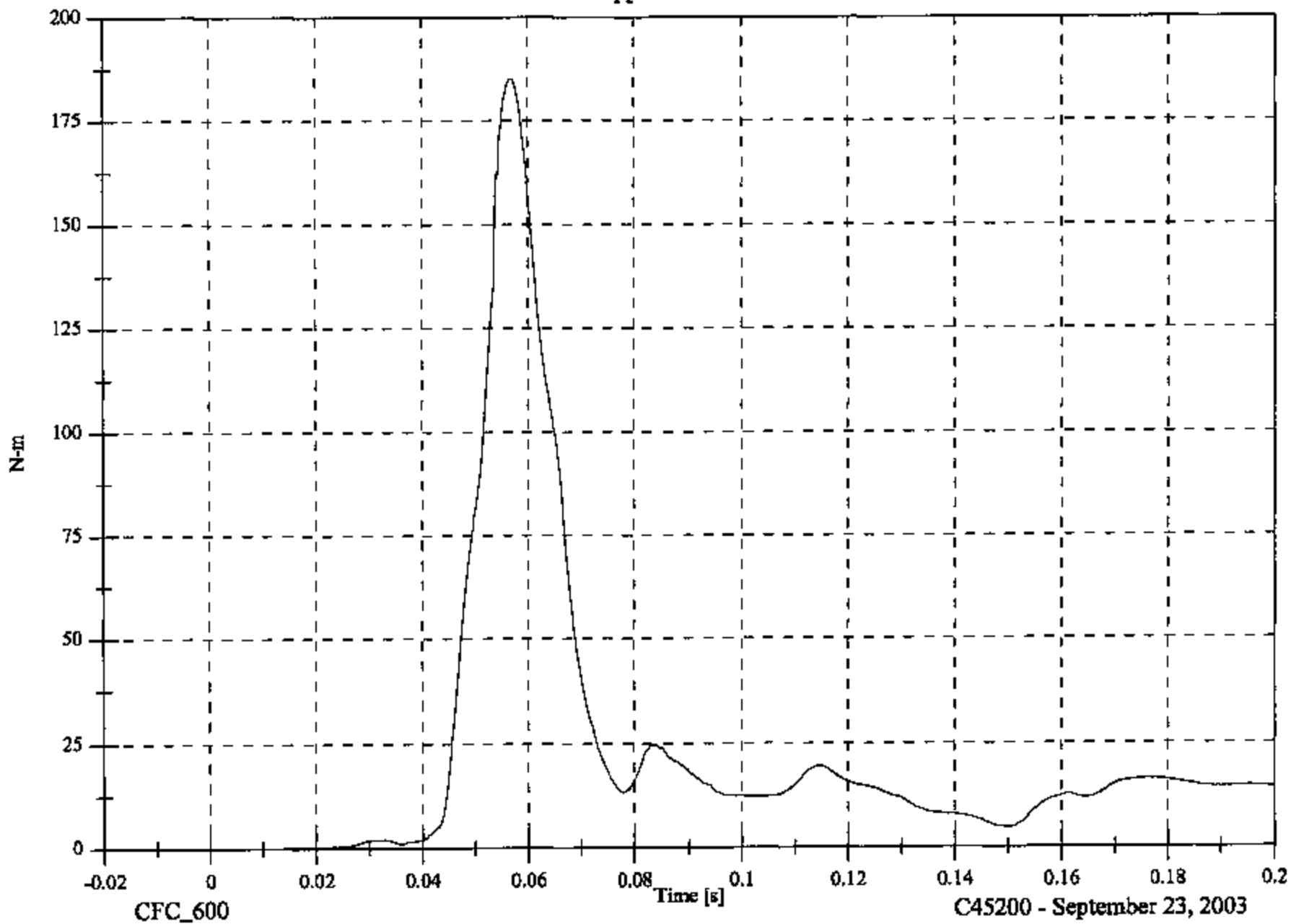
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Upper Neck M Resultant

Max: 185.1 [N-m] at 0.057 [s]

Min: 0.0 [N-m] at -0.017 [s]



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8675-F214-11

CFC_600

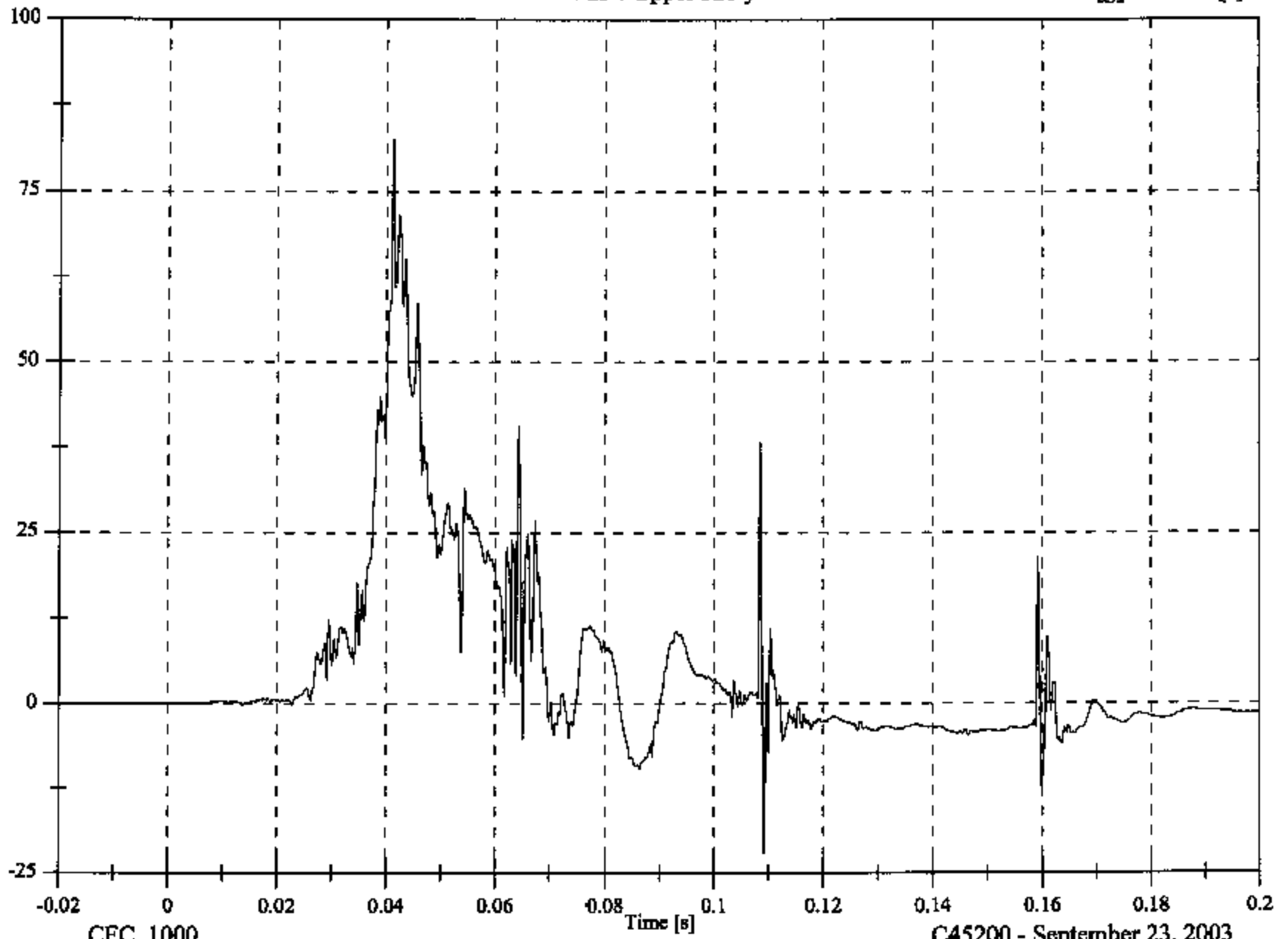
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 82.6 [g] at 0.041 [s]

V2P4 Upper Rib y

Min: -22.3 [g] at 0.109 [s]



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g

8675-F214-11

CFC_1000

Time [s]

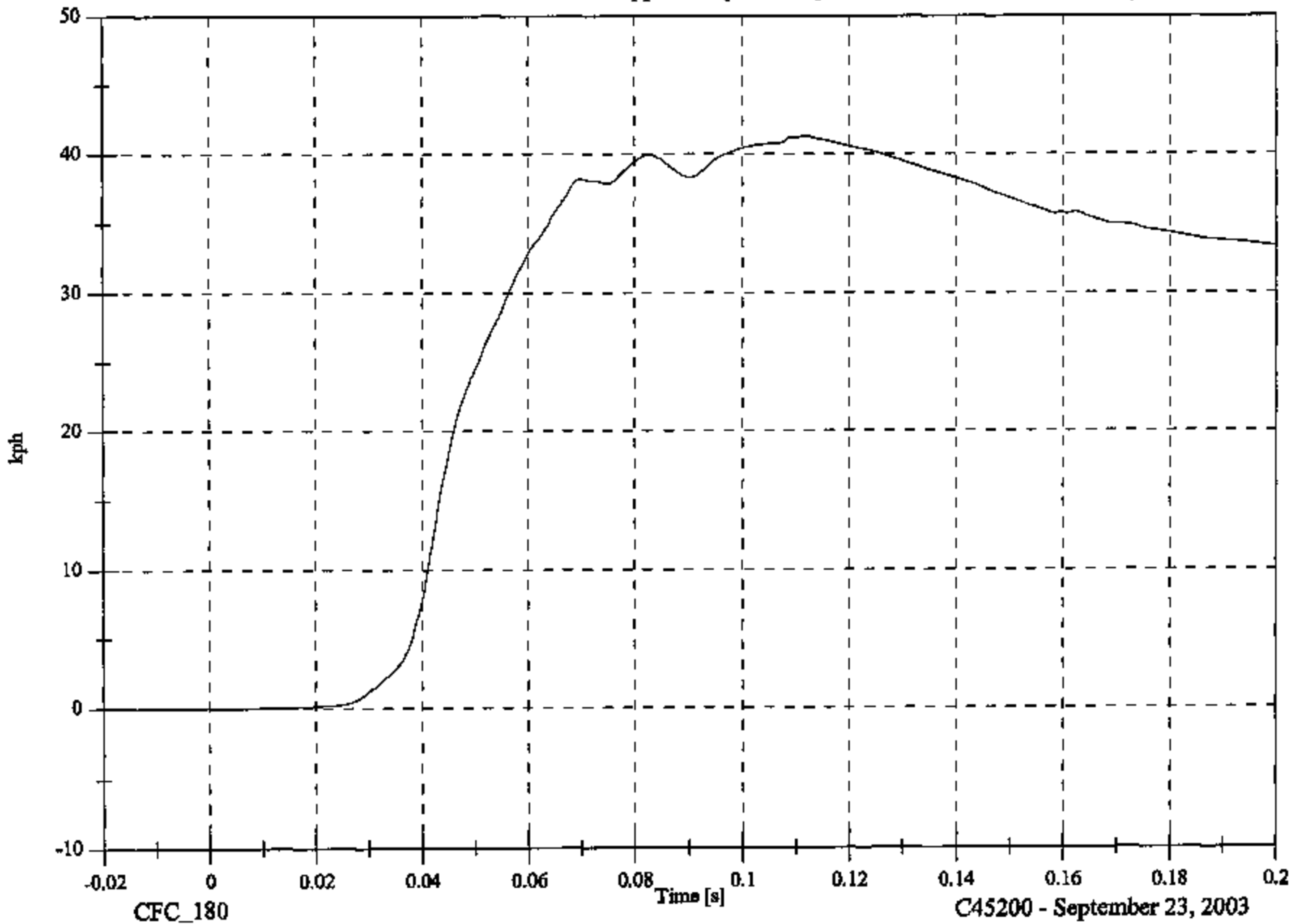
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 41.3 [kph] at 0.112 [s]

V2P4 Upper Rib y Velocity

Min: -0.0 [kph] at -0.004 [s]



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8675-F214-11

CFC_180

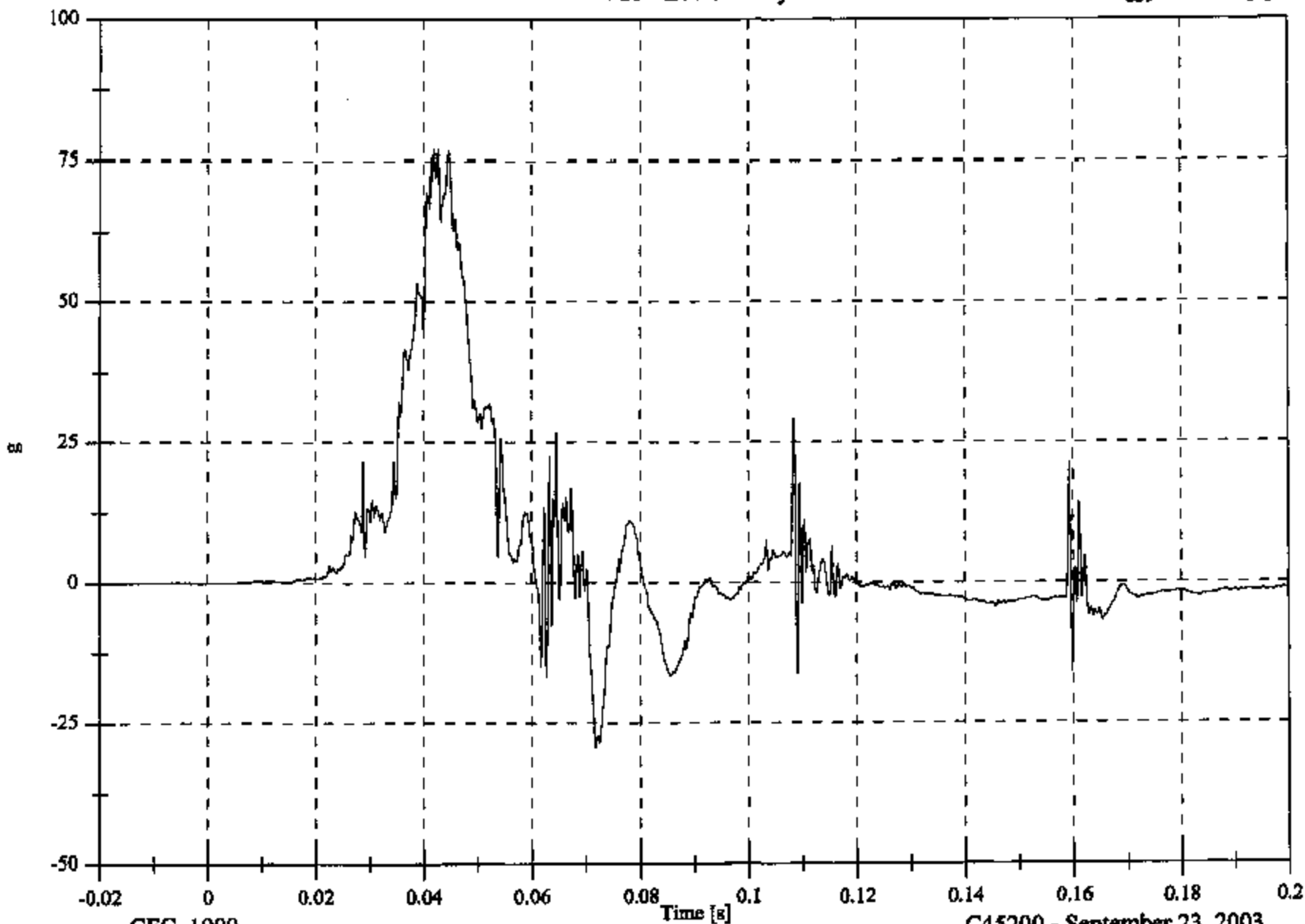
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Lower Rib y

Max: 77.1 [g] at 0.042 [s]

Min: -29.4 [g] at 0.072 [s]



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8675-F214-11

CFC_1000

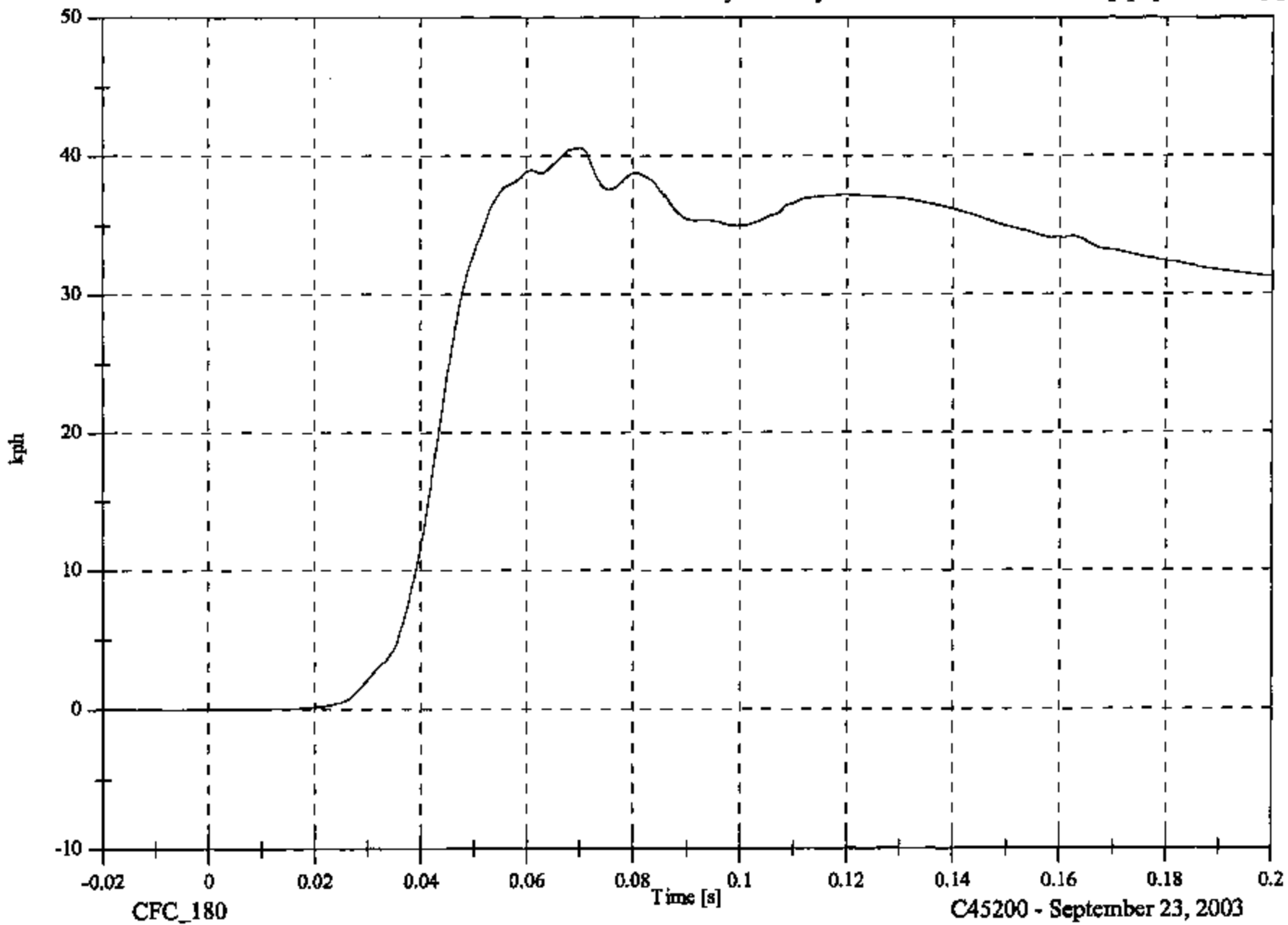
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 40.6 [kph] at 0.070 [s]

V2P4 Lower Rib y Velocity

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



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8675-F214-11

CFC_180

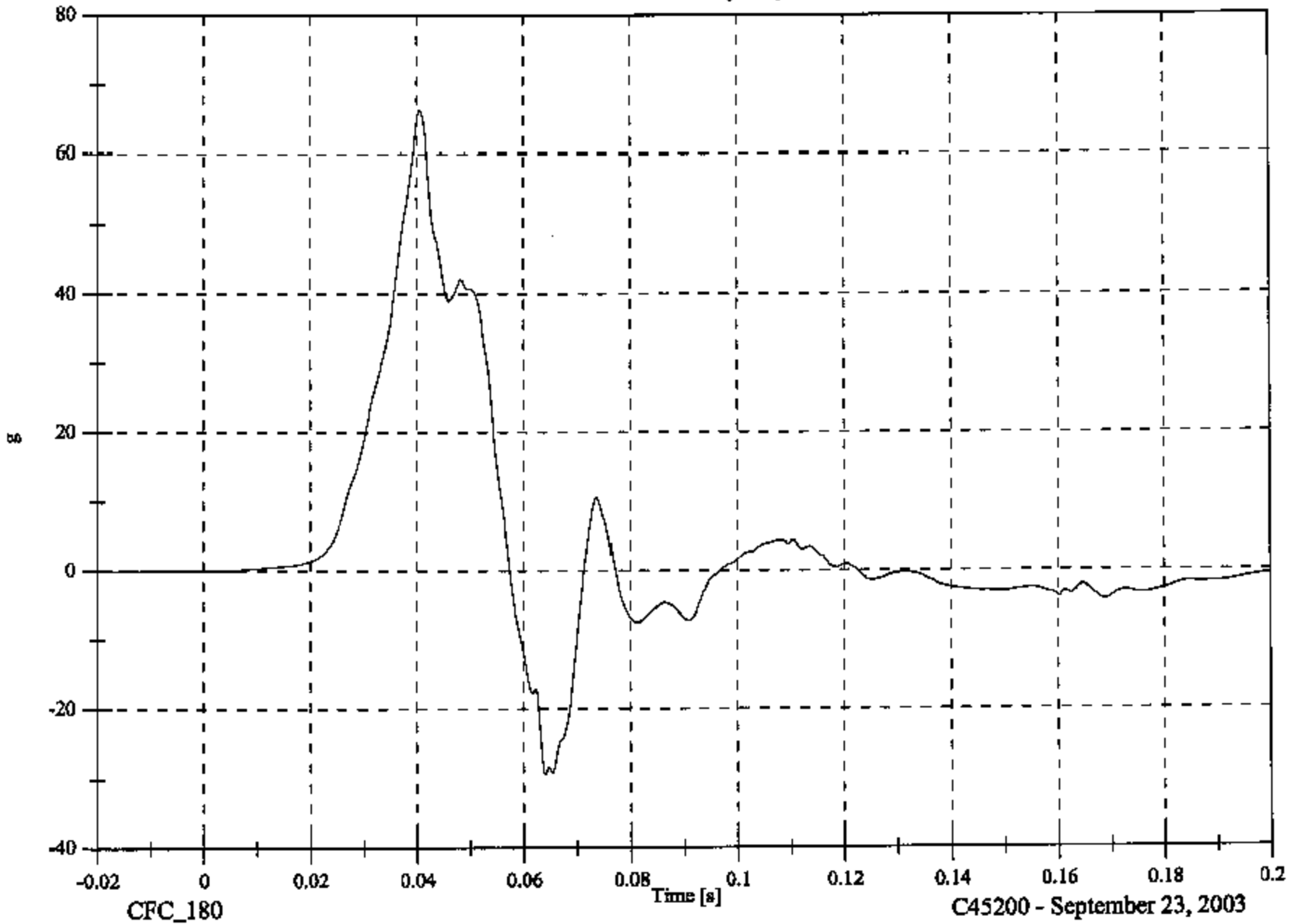
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Lower Spine y

Max: 66.3 [g] at 0.040 [s]

Min: -29.4 [g] at 0.064 [s]



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8675-F214-11

CFC_180

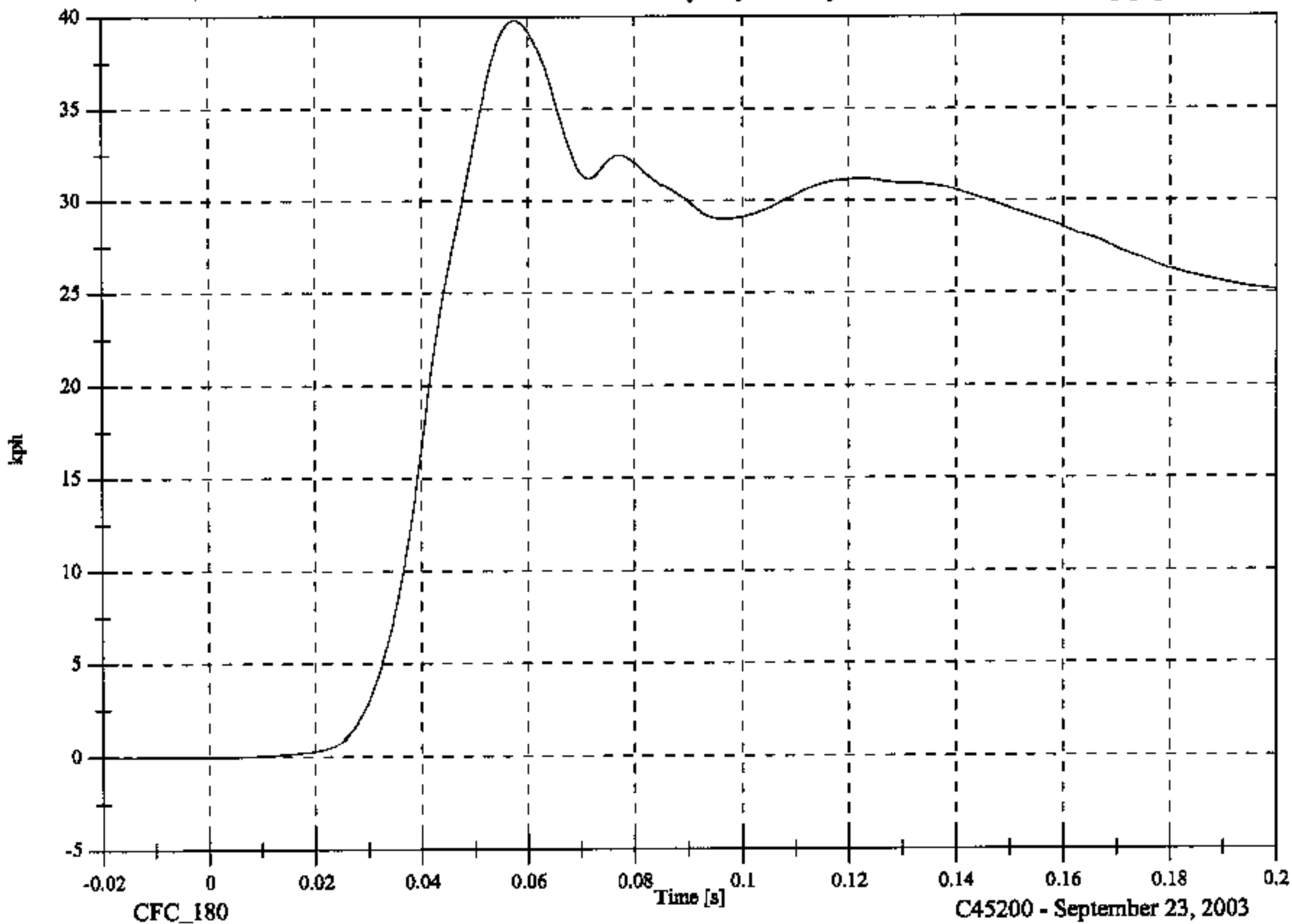
C45200 - September 23, 2003

FMVSS 214D Inducant - 2004 Nissan Maxima

Max: 39.8 [kph] at 0.057 [s]

V2P4 Lower Spine y Velocity

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



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8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

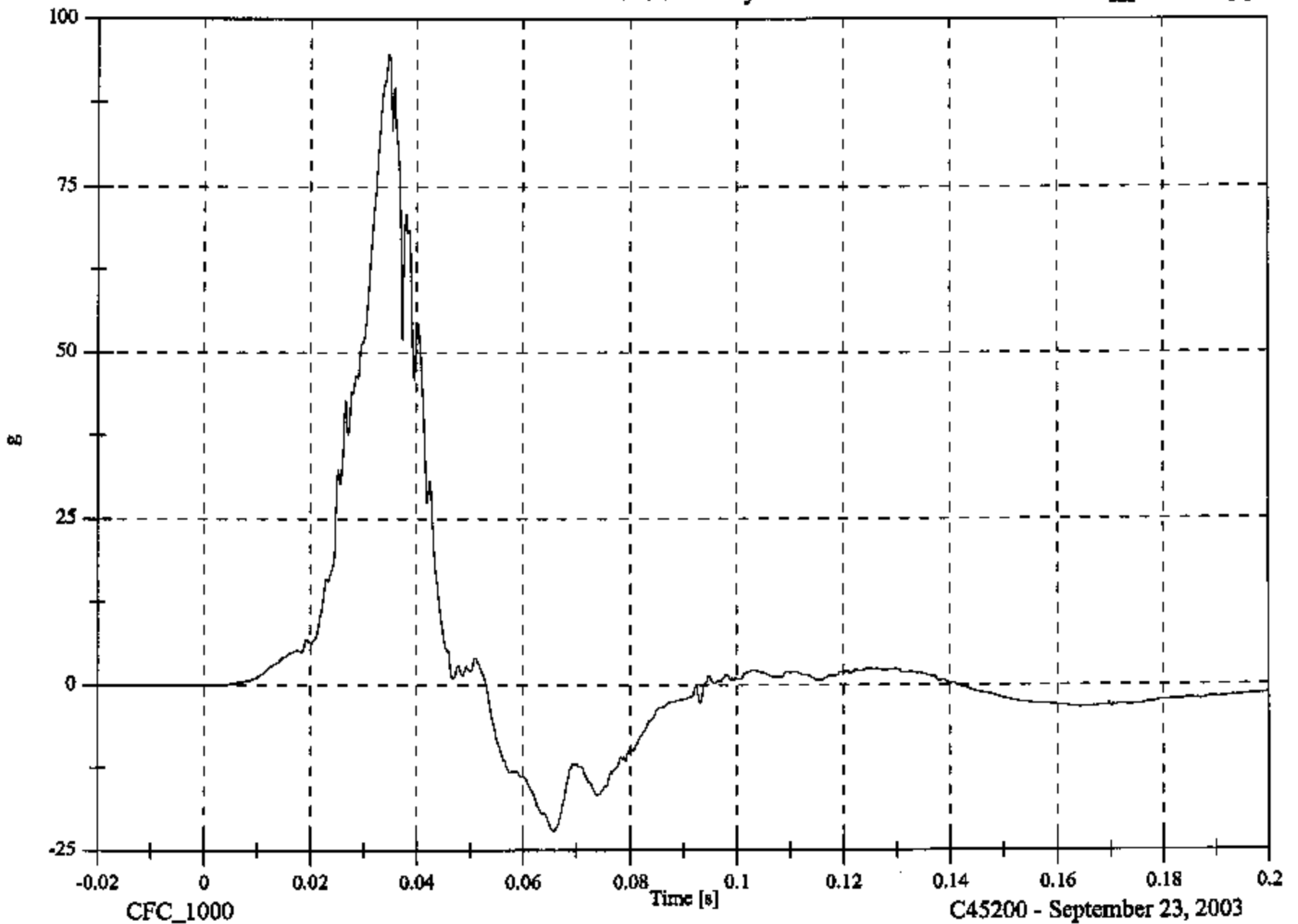
V2P4 Pelvic y

Max: 94.8 [g] at 0.035 [s]

Min: -22.0 [g] at 0.066 [s]

B-50

867S-F214-11



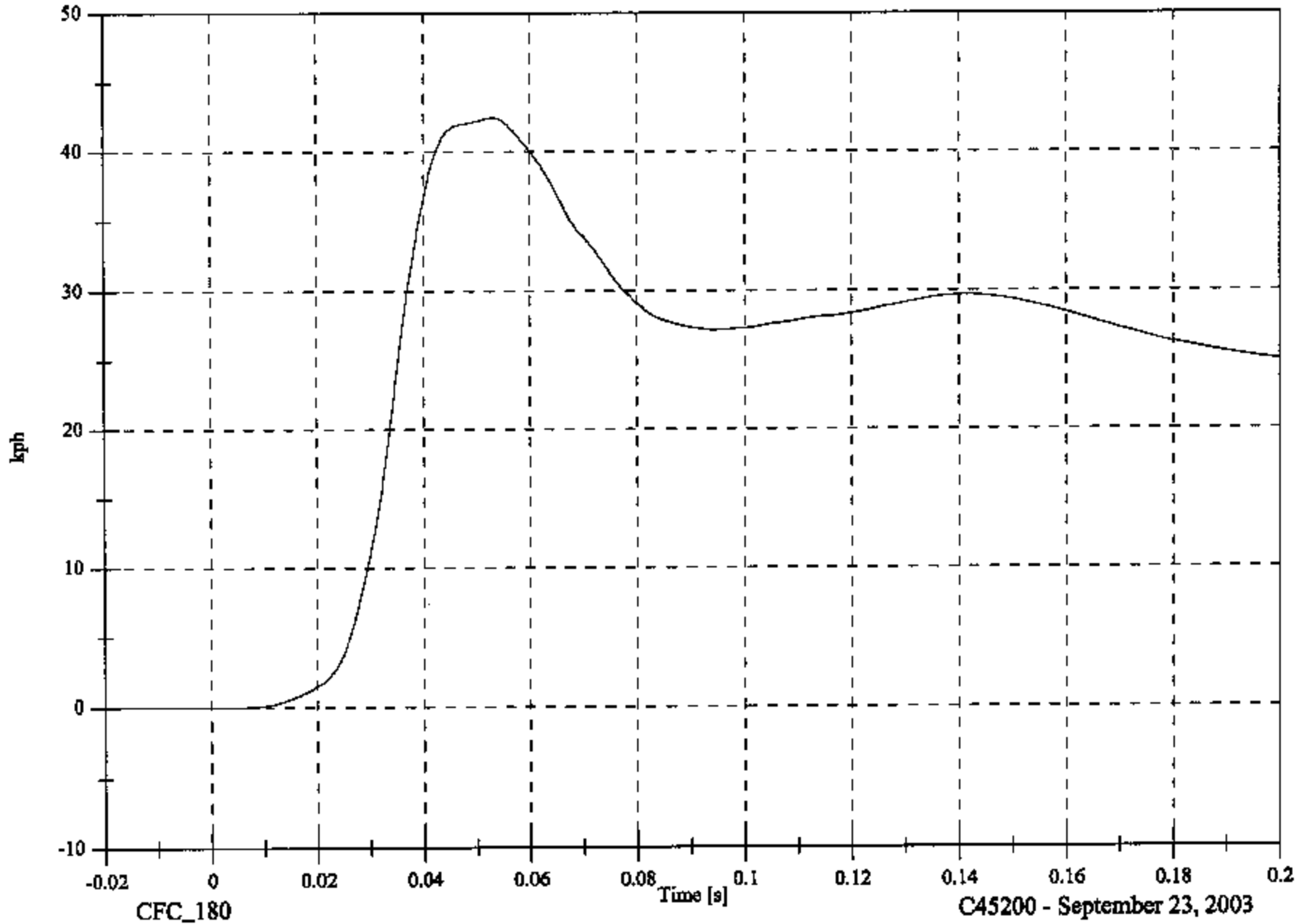
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 42.4 [kph] at 0.053 [s]

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

V2P4 Pelvic y Velocity



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B675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

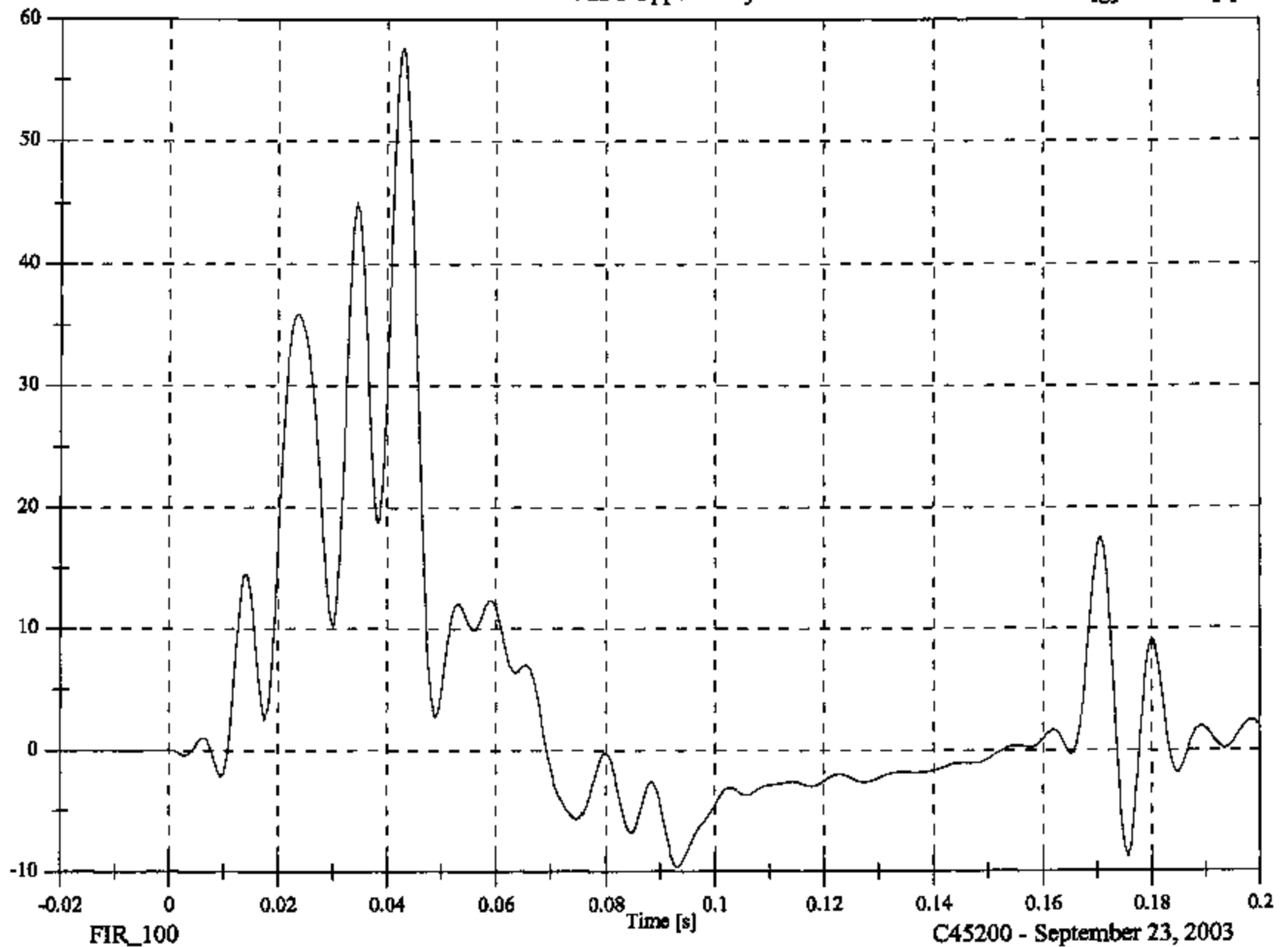
Max: 57.7 [g] at 0.043 [s]

V2P1 Upper Rib y

Min: -9.6 [g] at 0.093 [s]

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8675-F214-11



C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

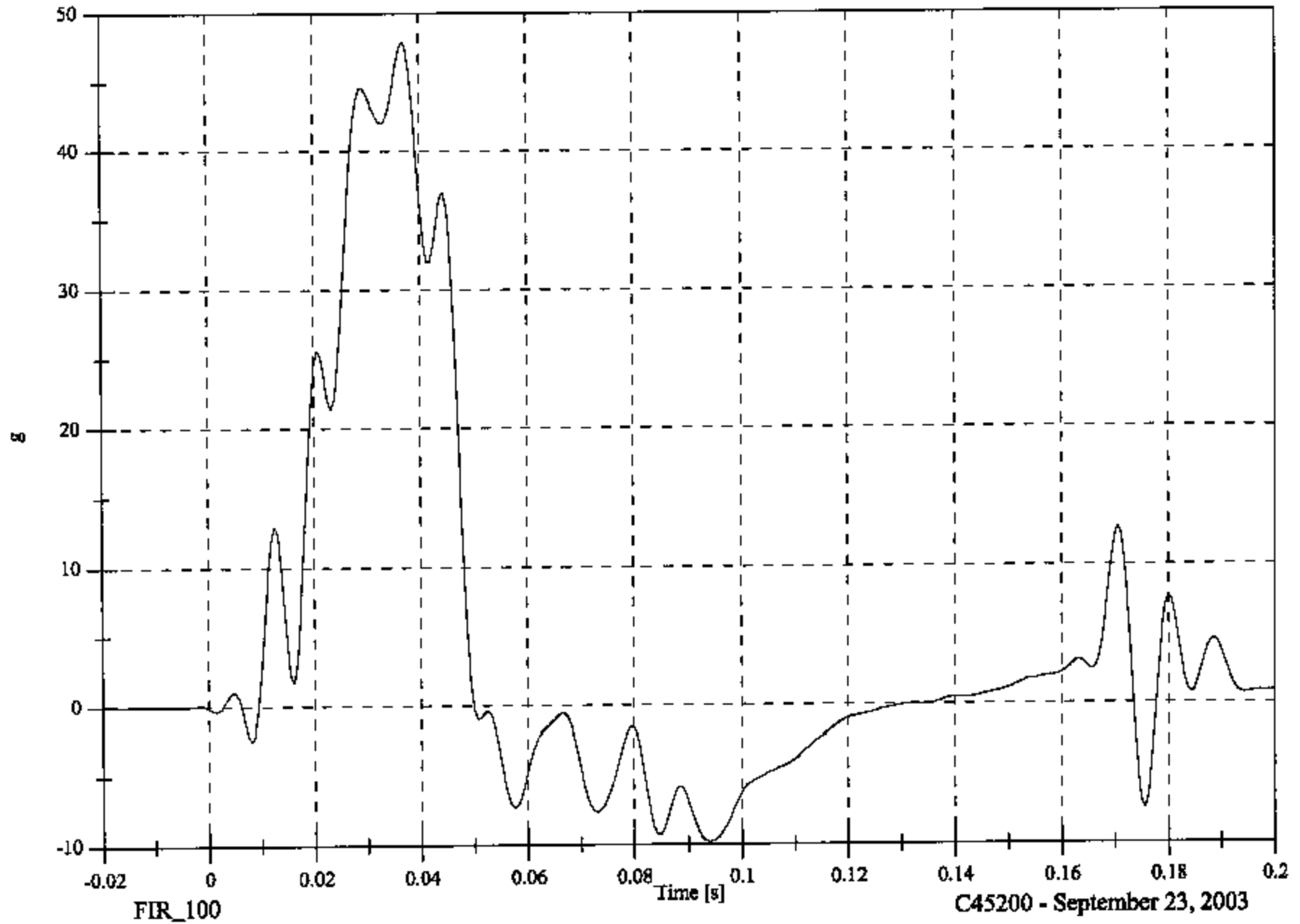
V2P1 Lower Rib y

Max: 47.9 [g] at 0.037 [s]

Min: -9.8 [g] at 0.094 [s]

B-53

8675-F214-11



C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

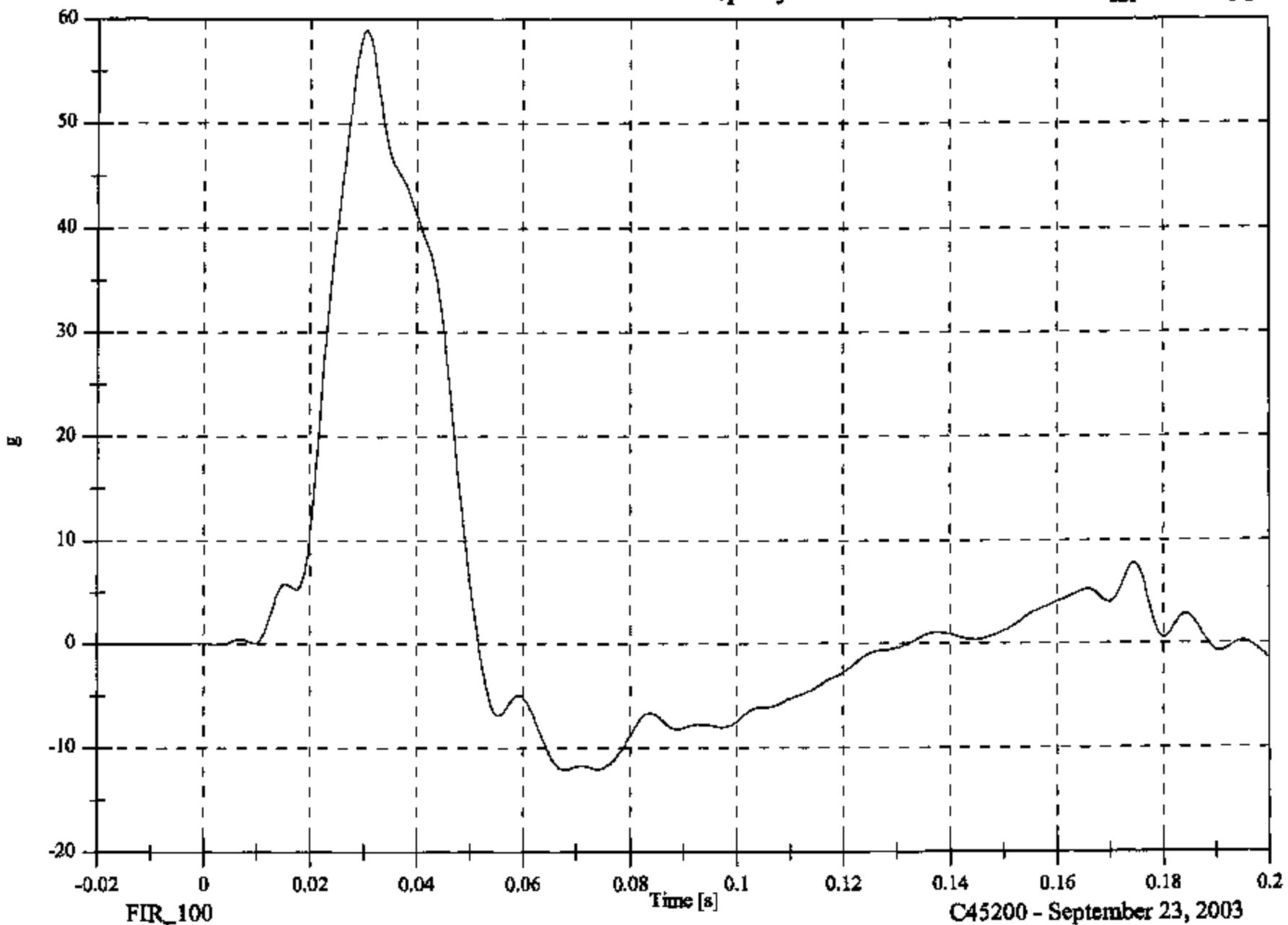
V2P1 Lower Spine y

Max: 59.0 [g] at 0.031 [s]

Min: -12.1 [g] at 0.068 [s]

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8675-FZ14-11



FMVSS 214D Indicant - 2004 Nissan Maxima

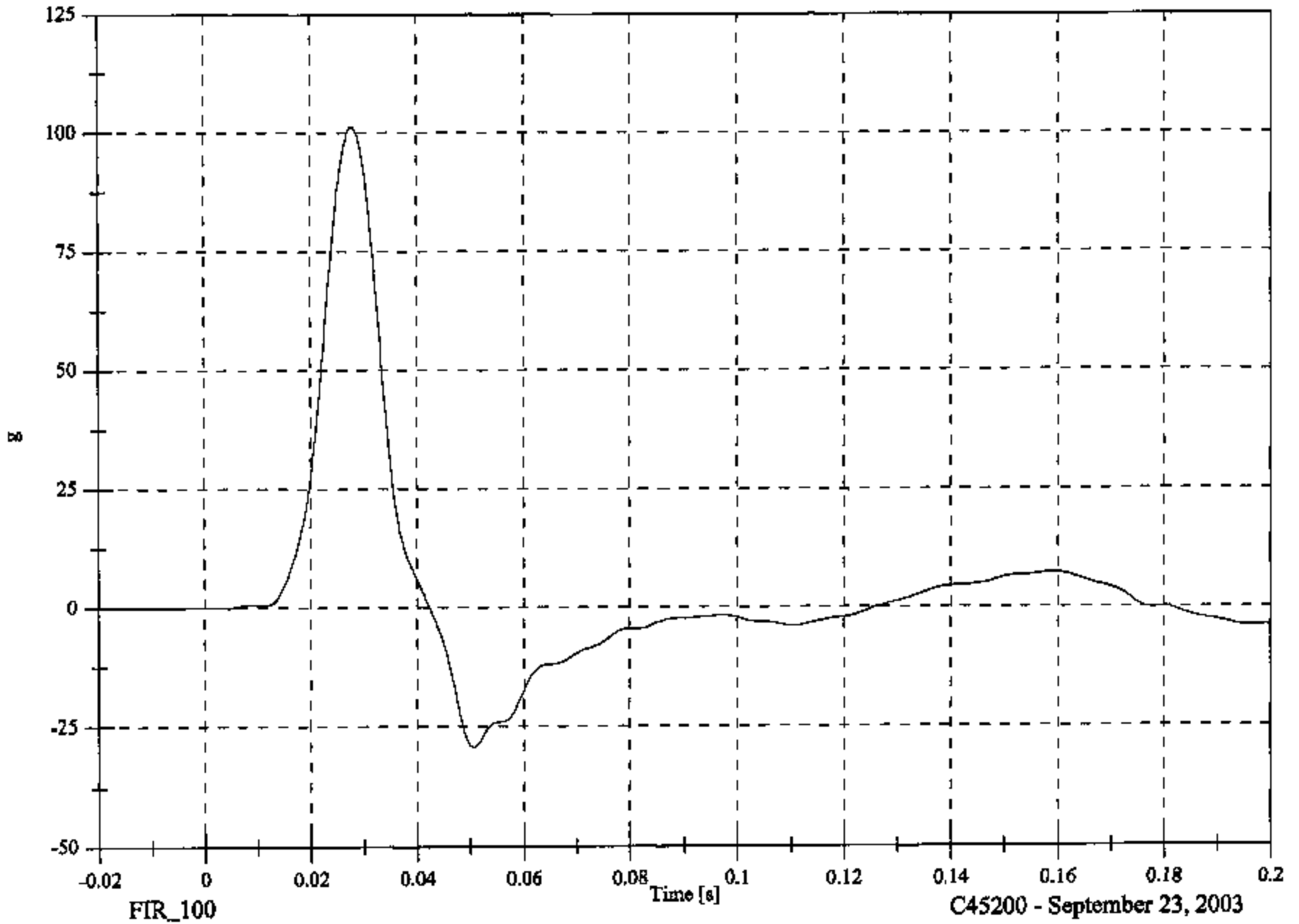
V2P1 Pelvic y

Max: 101.1 [g] at 0.027 [s]

Min: -29.1 [g] at 0.051 [s]

B-55

8675-F214-11



FMVSS 214D Indicant - 2004 Nissan Maxima

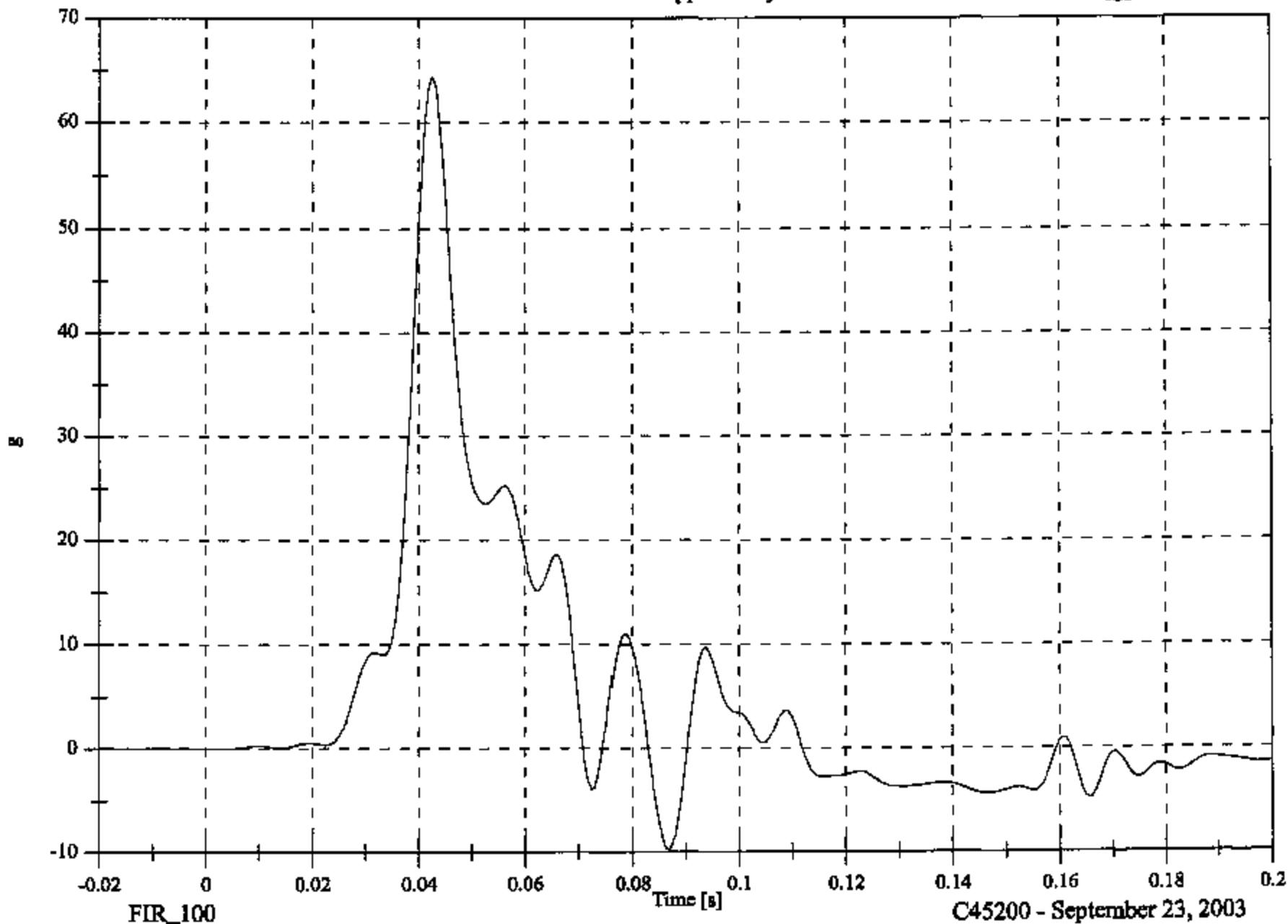
V2P4 Upper Rib y

Max: 64.4 [g] at 0.043 [s]

Min: -9.8 [g] at 0.087 [s]

B-56

8675-F214-13



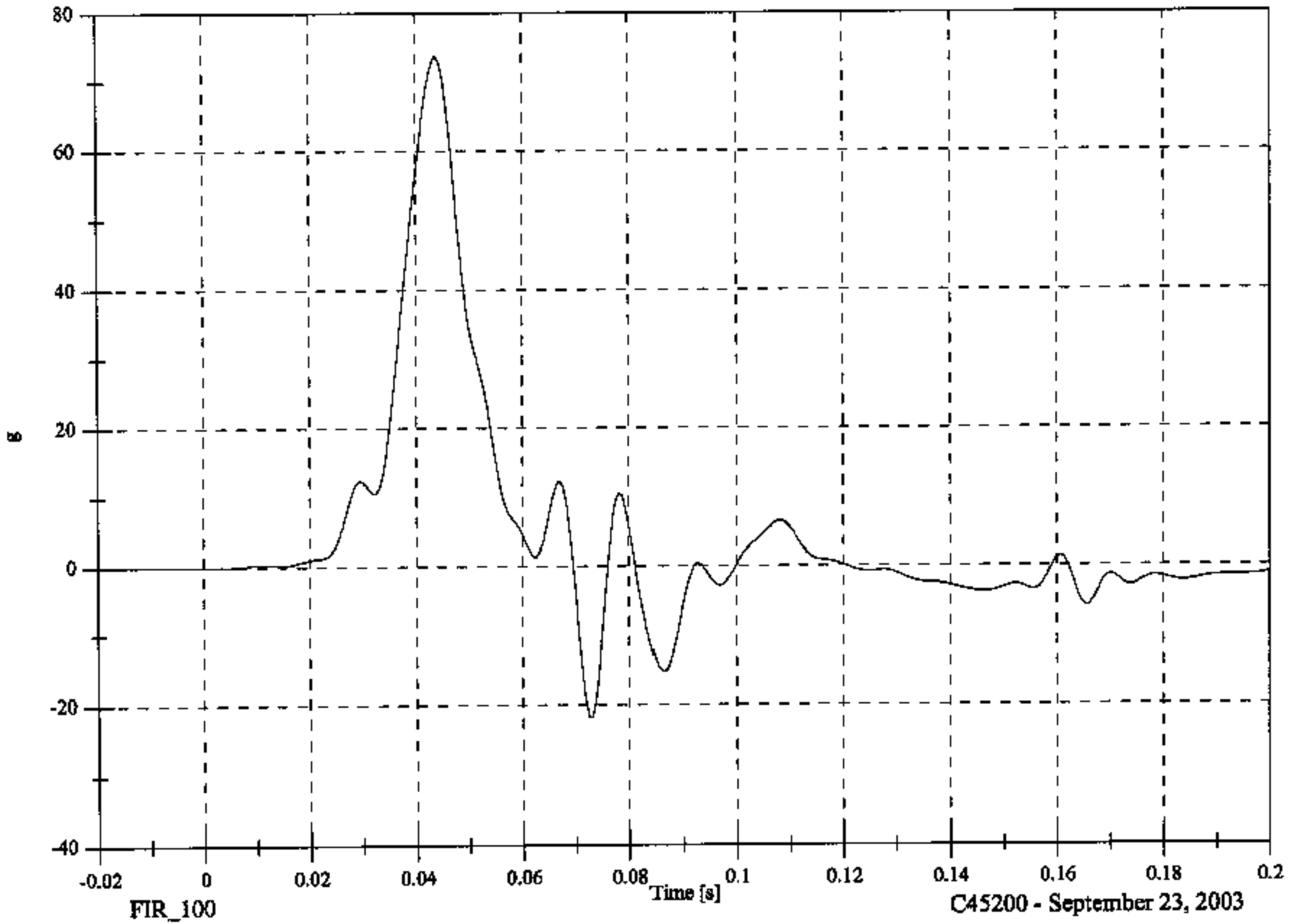
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Lower Rib y

Max: 73.7 [g] at 0.044 [s]

Min: -21.8 [g] at 0.072 [s]



B-57

8675-F214-11

FIR_100

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

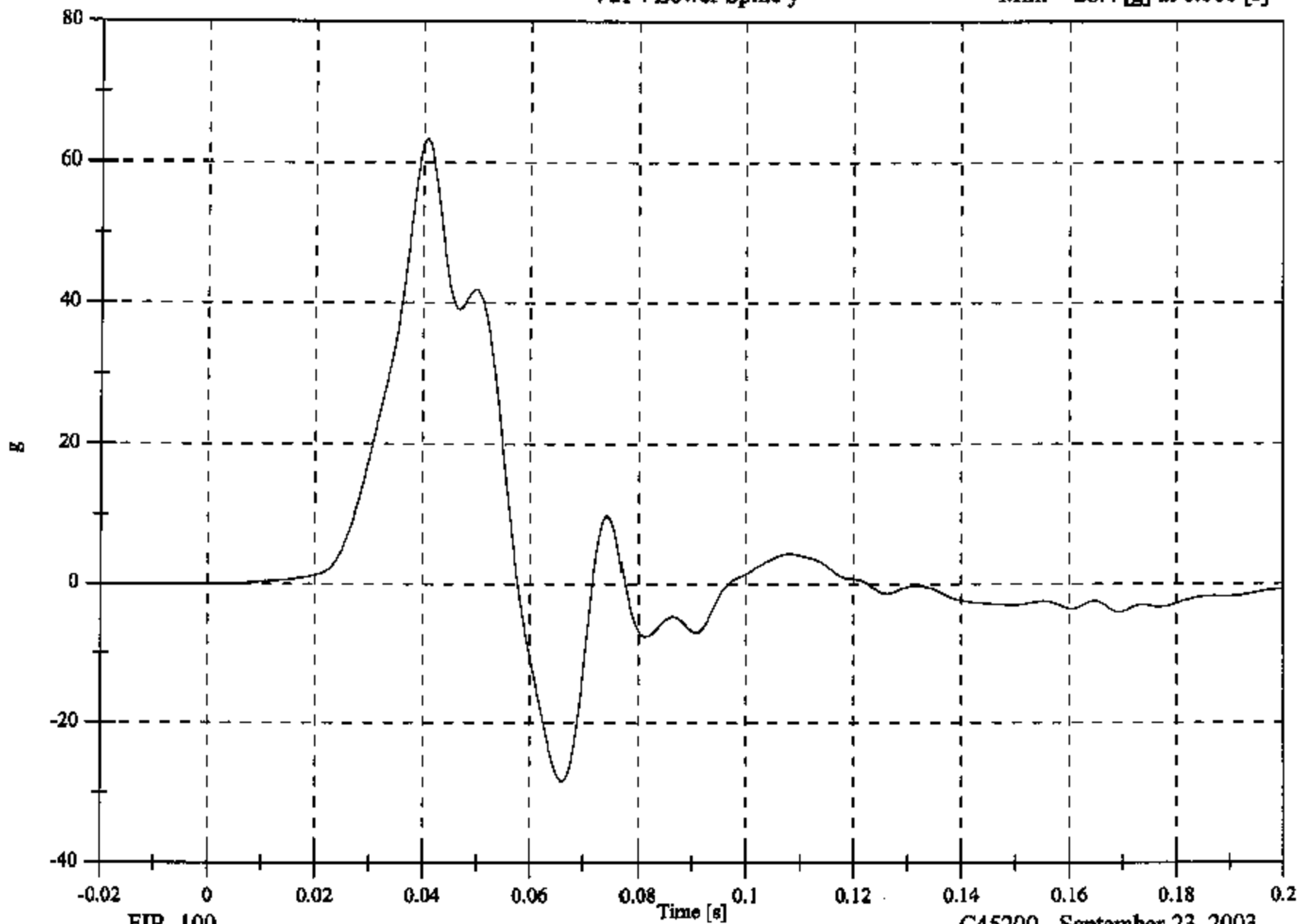
V2P4 Lower Spine y

Max: 63.3 [g] at 0.041 [s]

Min: -28.4 [g] at 0.066 [s]

B-58

8675-F214-11



FIR_100

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

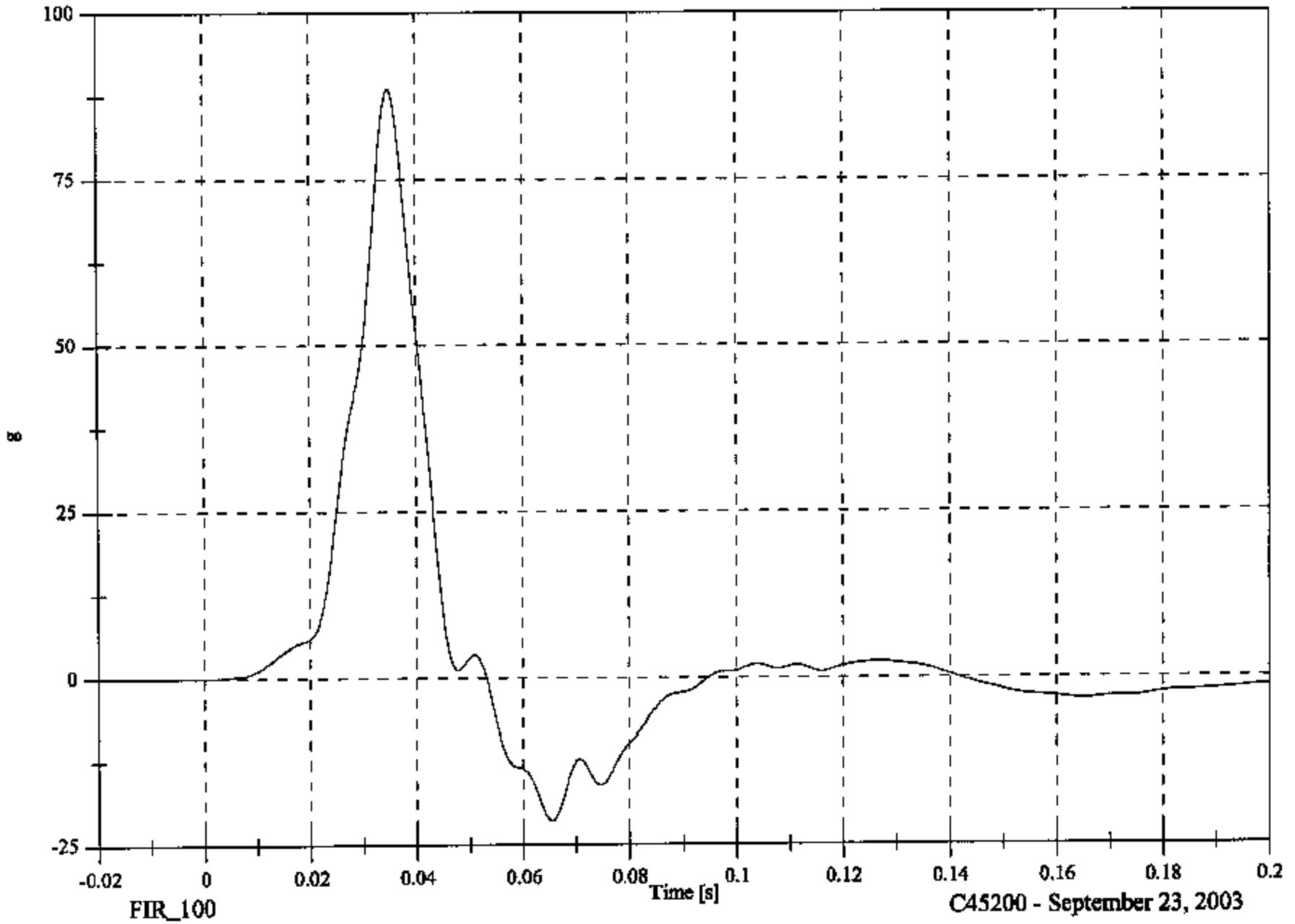
V2P4 Pelvic y

Max: 88.7 [g] at 0.035 [s]

Min: -21.5 [g] at 0.066 [s]

B-59

8675-F214-11



FMVSS 214D Indicant - 2004 Nissan Maxima

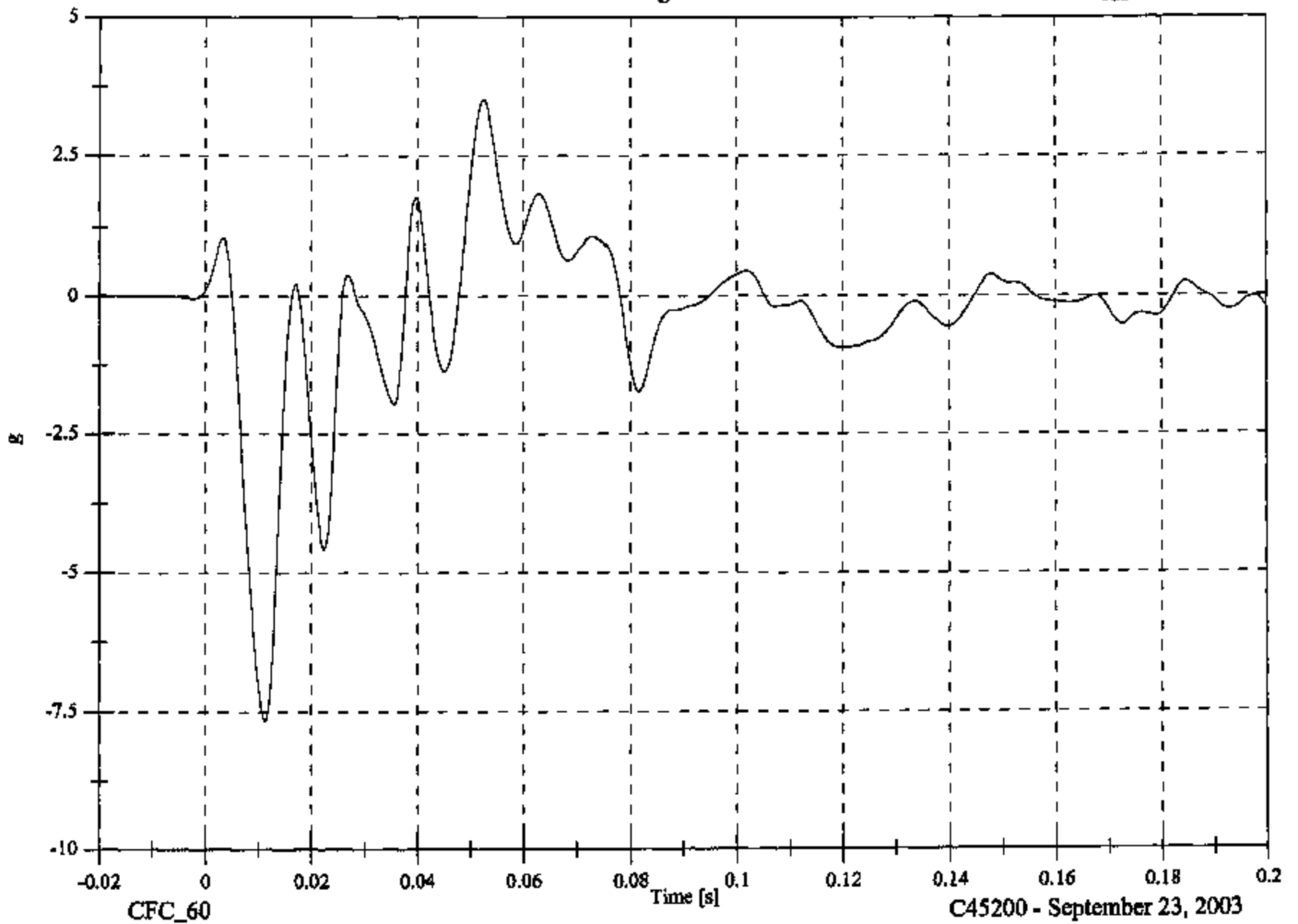
Max: 3.5 [g] at 0.053 [s]

V2 A1 Right Front Sill x

Min: -7.7 [g] at 0.011 [s]

B-60

8675-F214-11

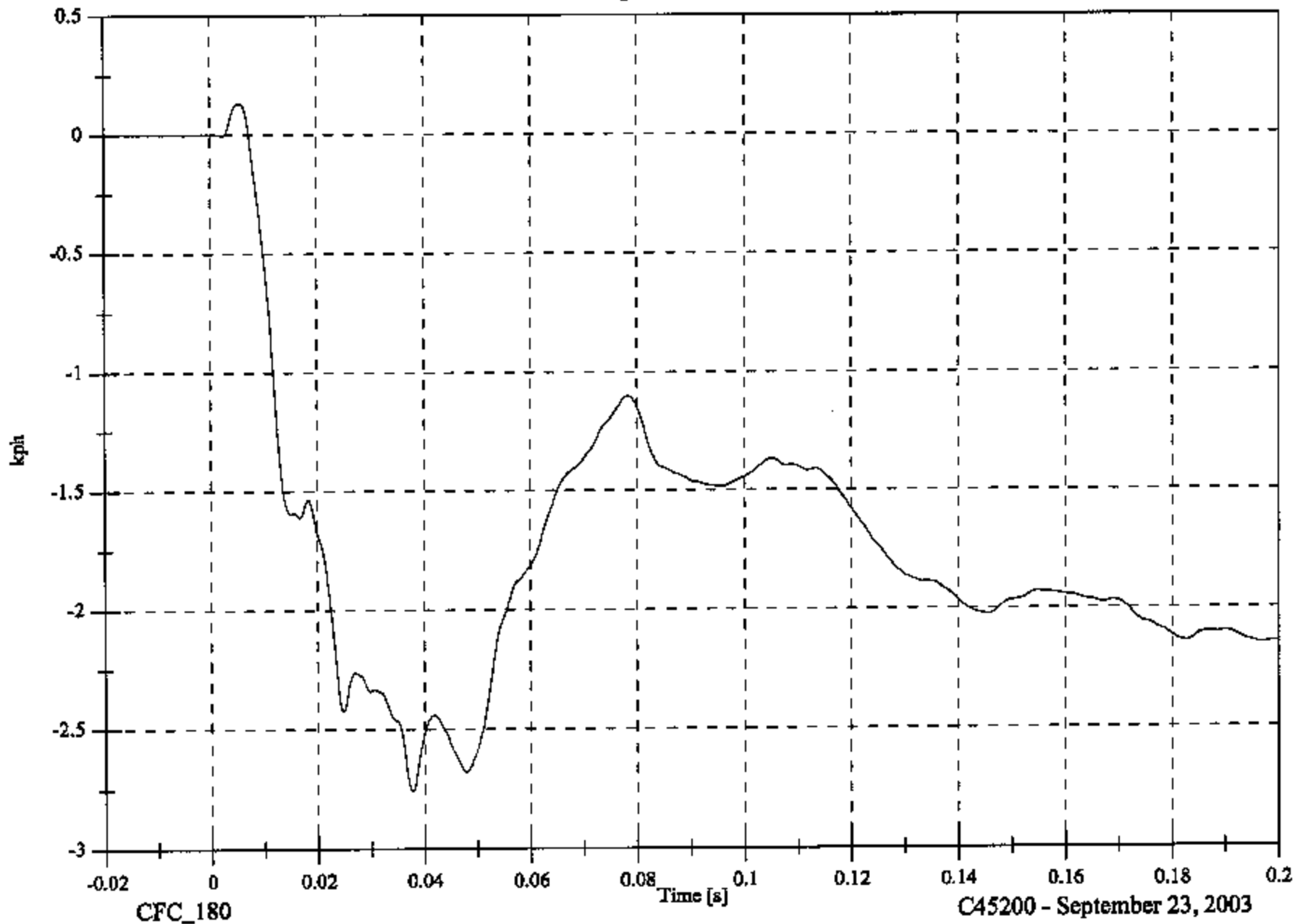


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 0.1 [kph] at 0.006 [s]

V2 A1 Right Front Sill x Velocity

Min: -2.8 [kph] at 0.038 [s]



B-61

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

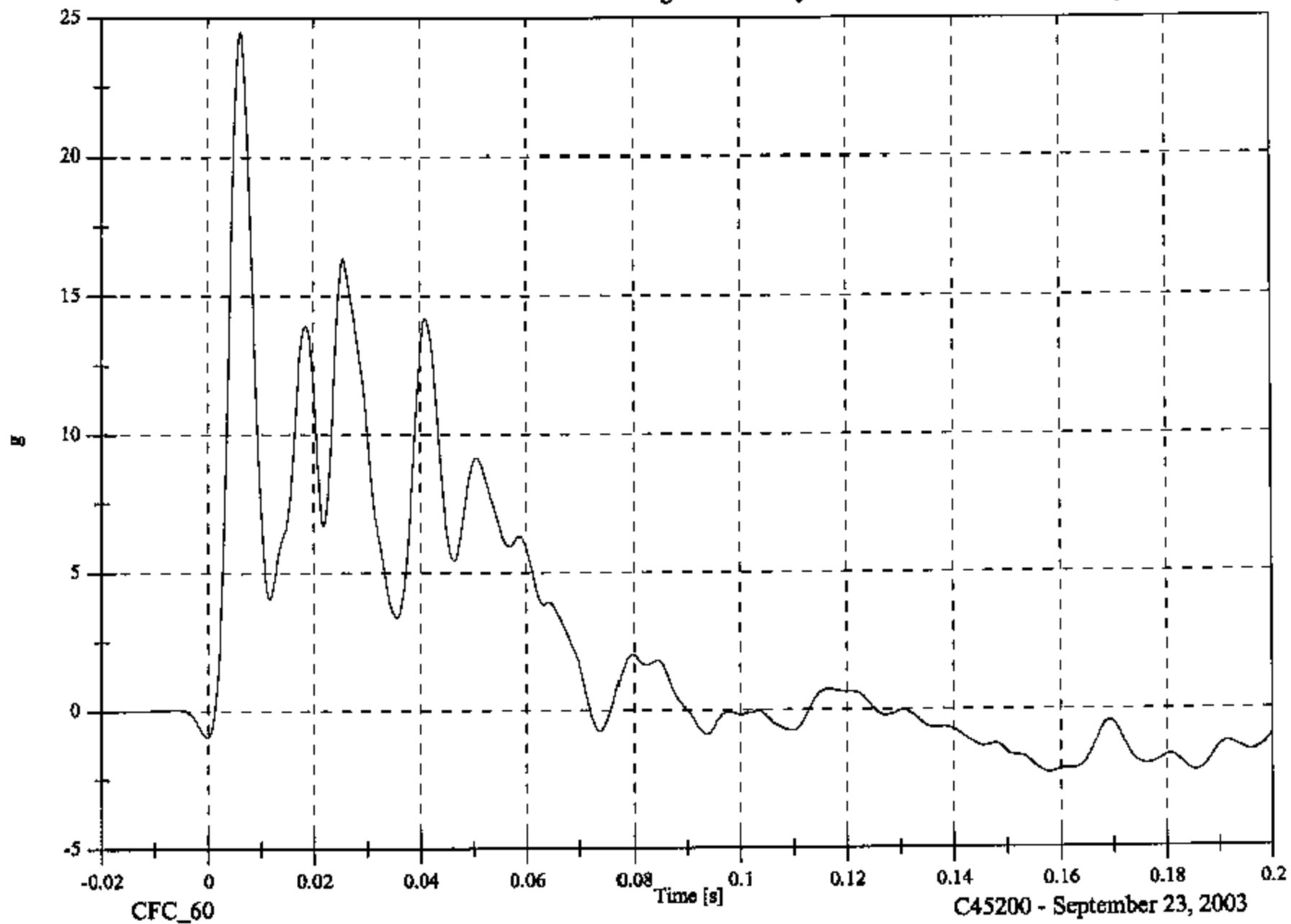
V2 A1 Right Front Sill y

Max: 24.5 [g] at 0.006 [s]

Min: -2.3 [g] at 0.158 [s]

B-62

8675-F214-11



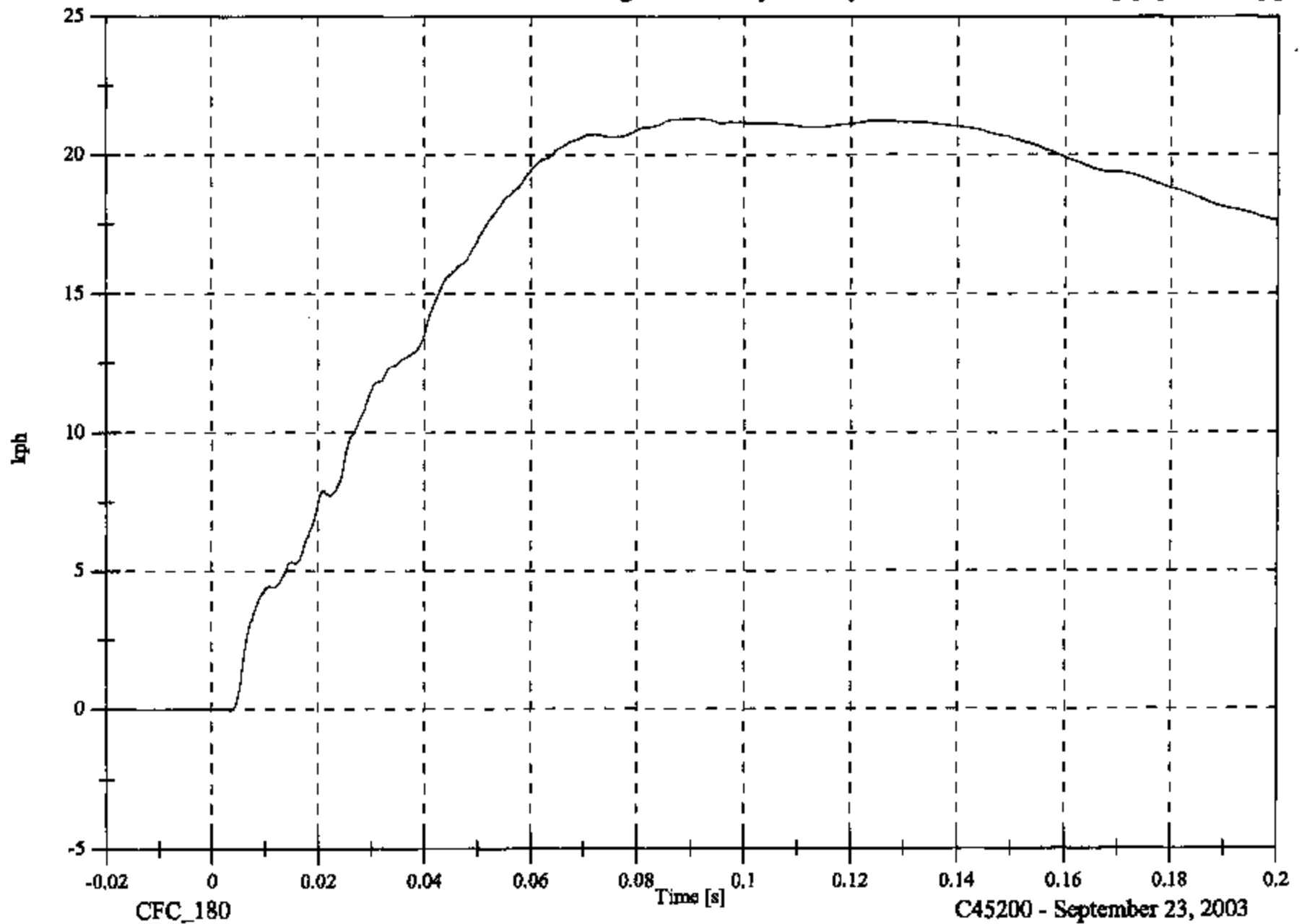
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 21.3 [kph] at 0.091 [s]

V2 A1 Right Front Sill y Velocity

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



B-63

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

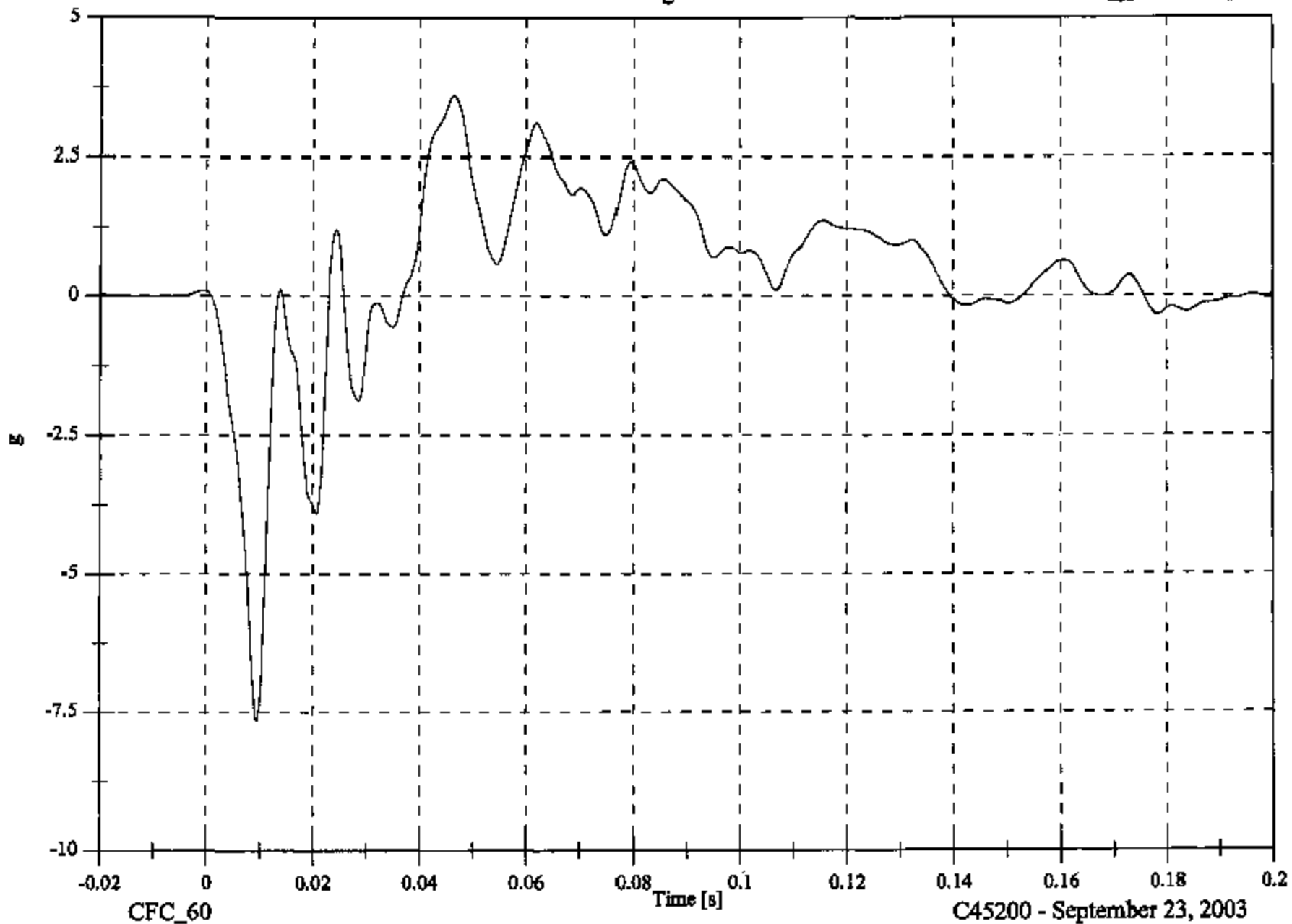
V2 A1 Right Front Sill z

Max: 3.6 [g] at 0.046 [s]

Min: -7.7 [g] at 0.010 [s]

B-64

8675-F214-11



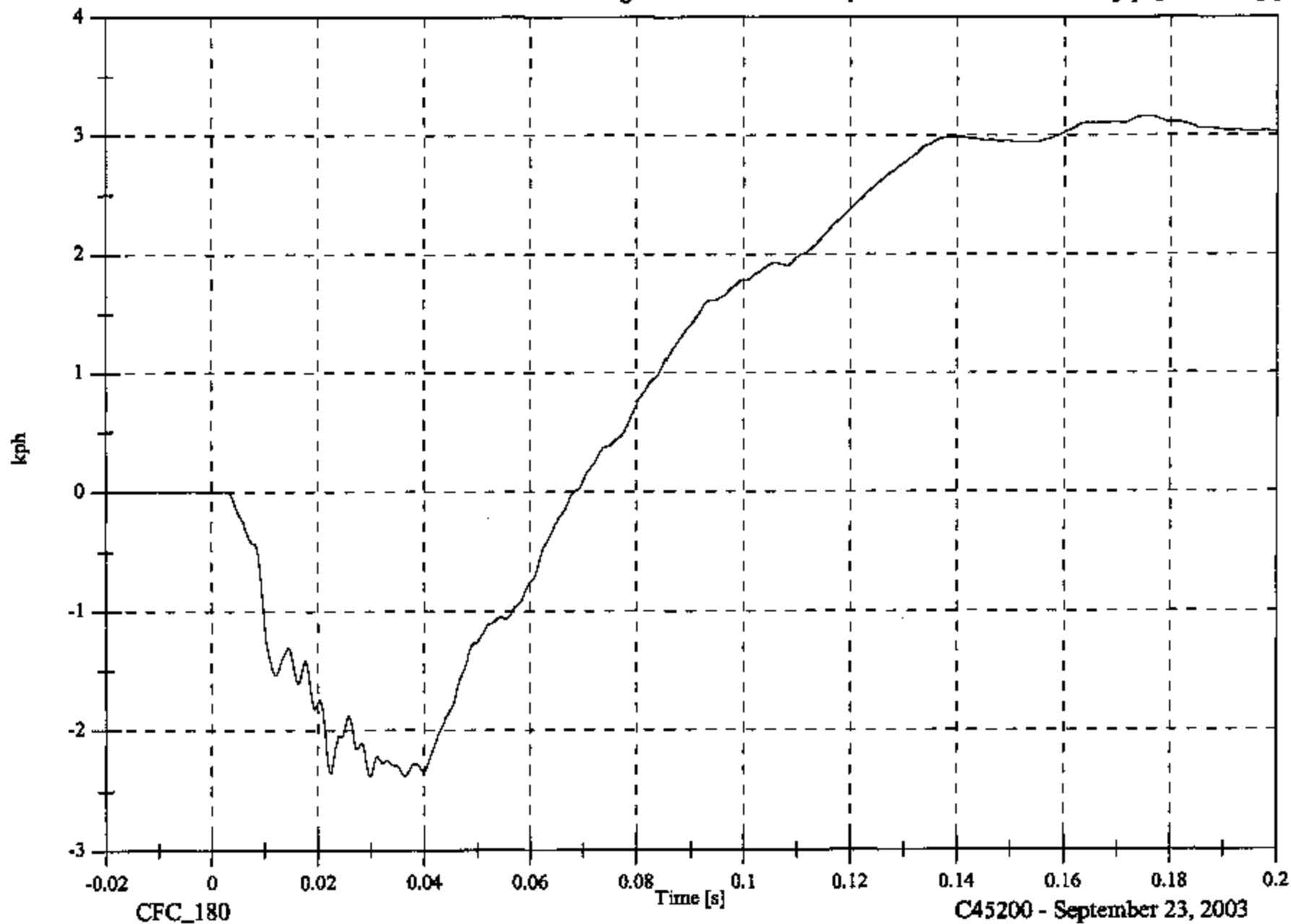
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 3.2 [kph] at 0.176 [s]

V2 A1 Right Front Sill z Velocity

Min: -2.4 [kph] at 0.030 [s]



B-65

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

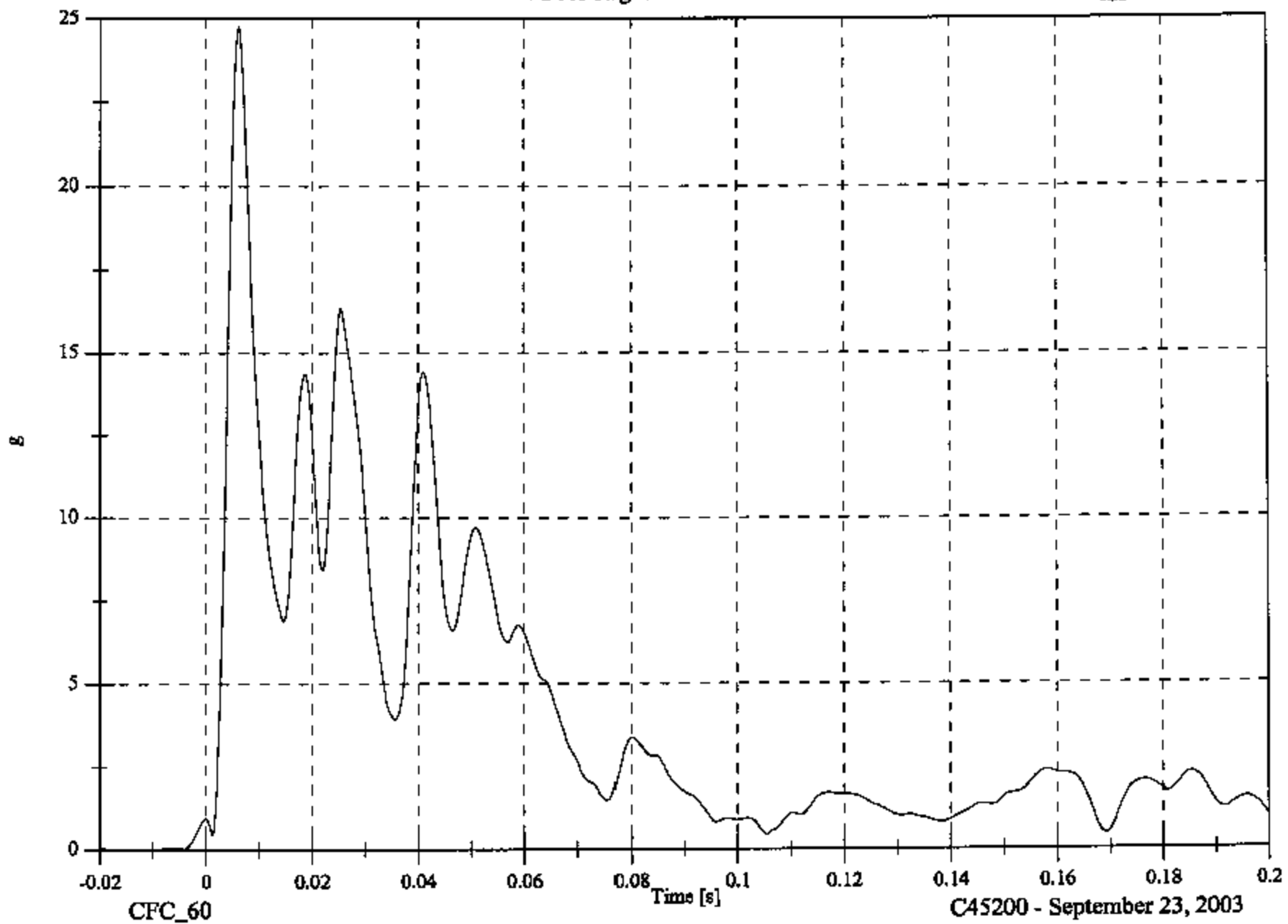
V2 A1 Right Front Sill Resultant

Max: 24.8 [g] at 0.006 [s]

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

B-66

8675-F214-11



CFC_60

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

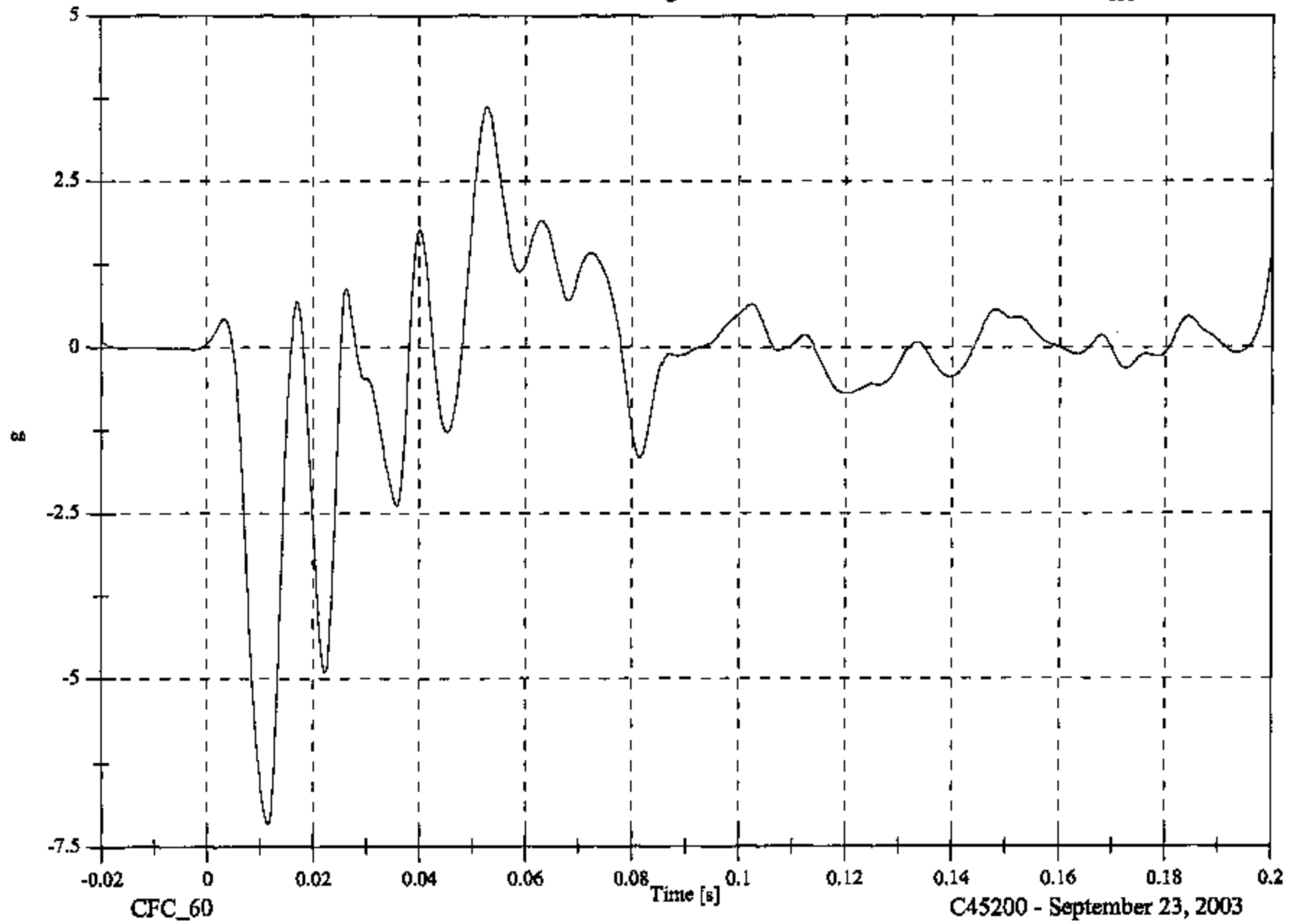
Max: 3.6 [g] at 0.053 [s]

V2 A2 Right Rear Sill x

Min: -7.2 [g] at 0.011 [s]

B-67

8675-P214-11



CFC_60

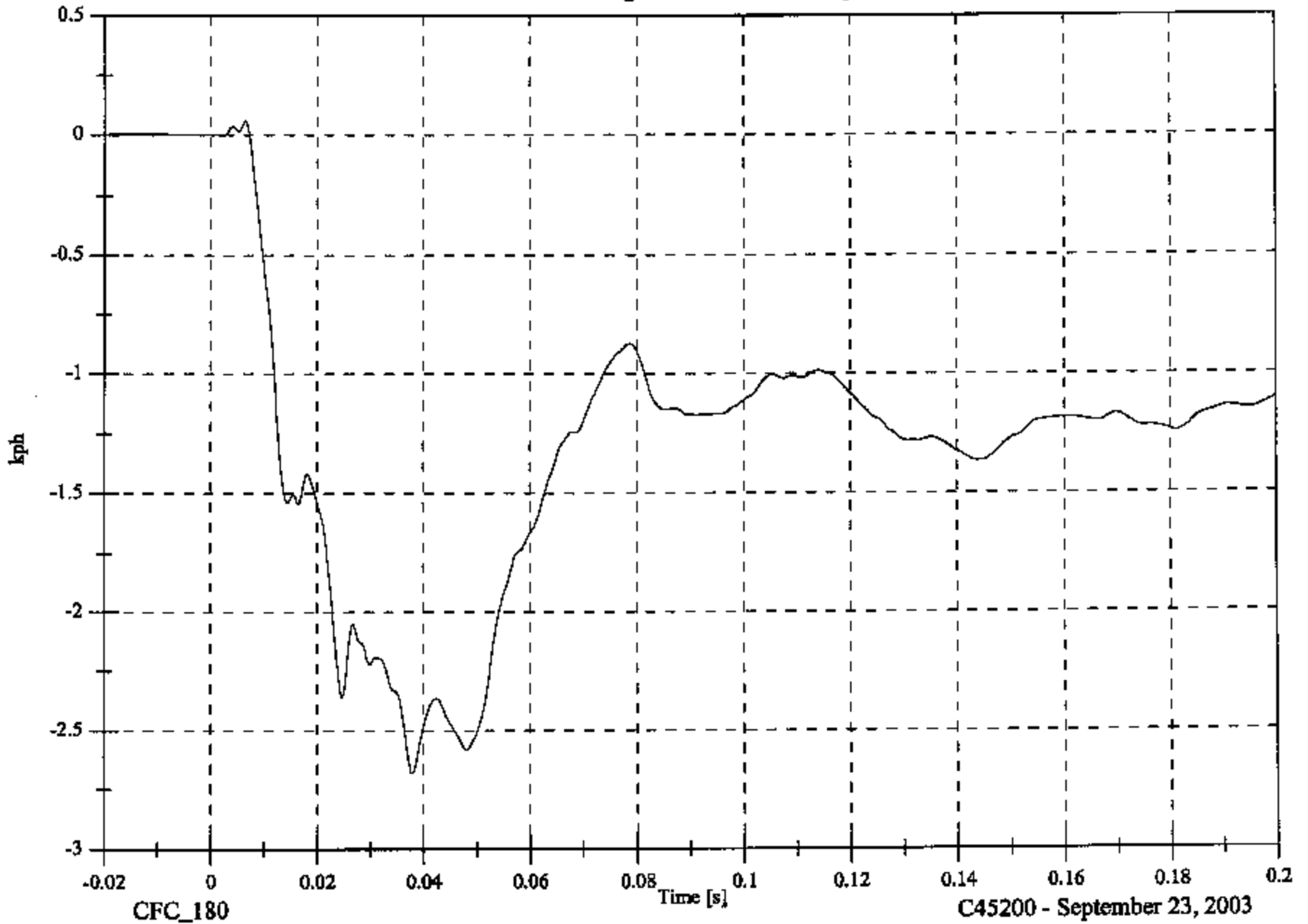
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A2 Right Rear Sill x Velocity

Max: 0.1 [kph] at 0.006 [s]

Min: -2.7 [kph] at 0.038 [s]



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8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

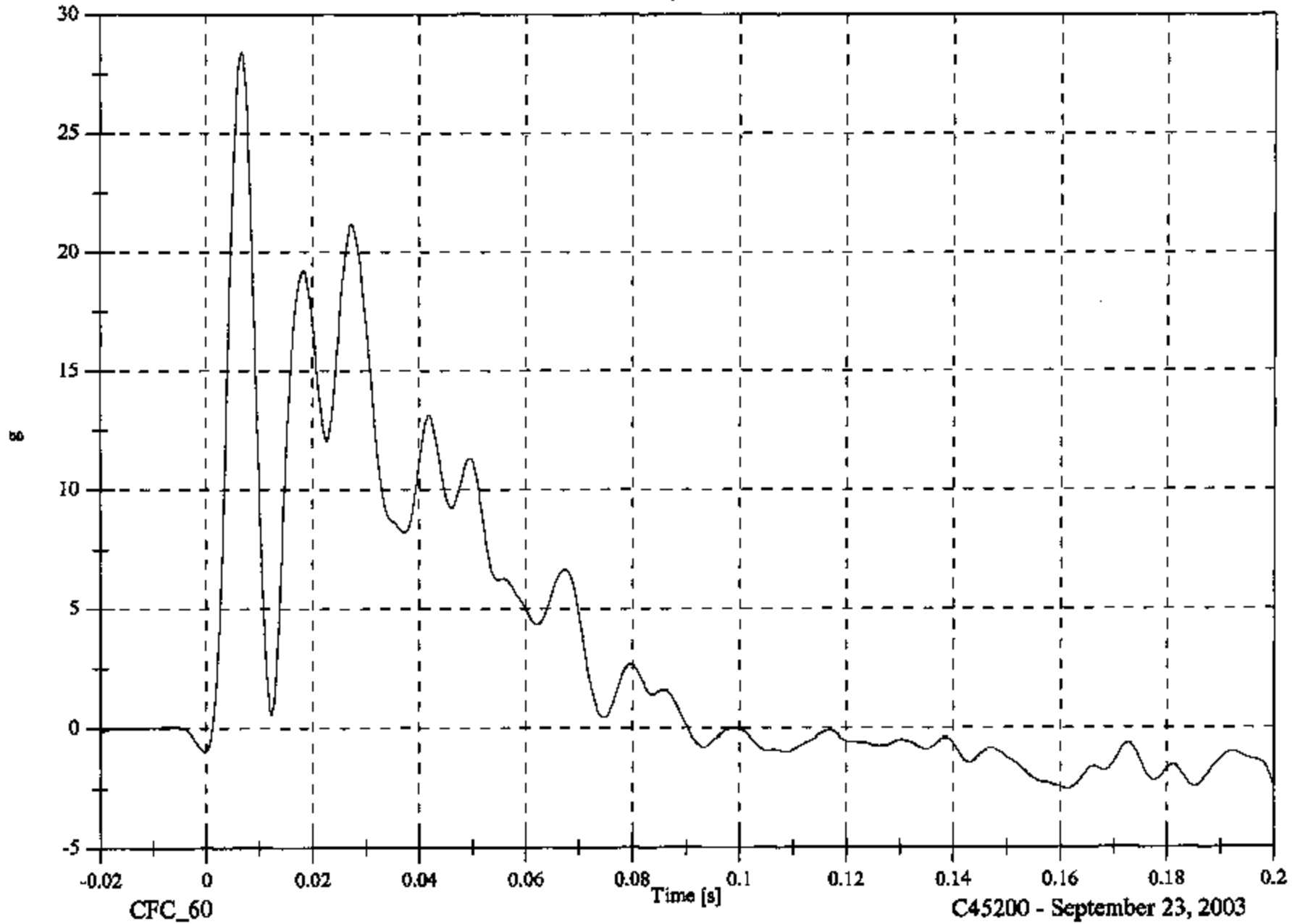
Max: 28.4 [g] at 0.007 [s]

V2 A2 Right Rear Sill y

Min: -2.5 [g] at 0.161 [s]

B-69

8675-F214-11

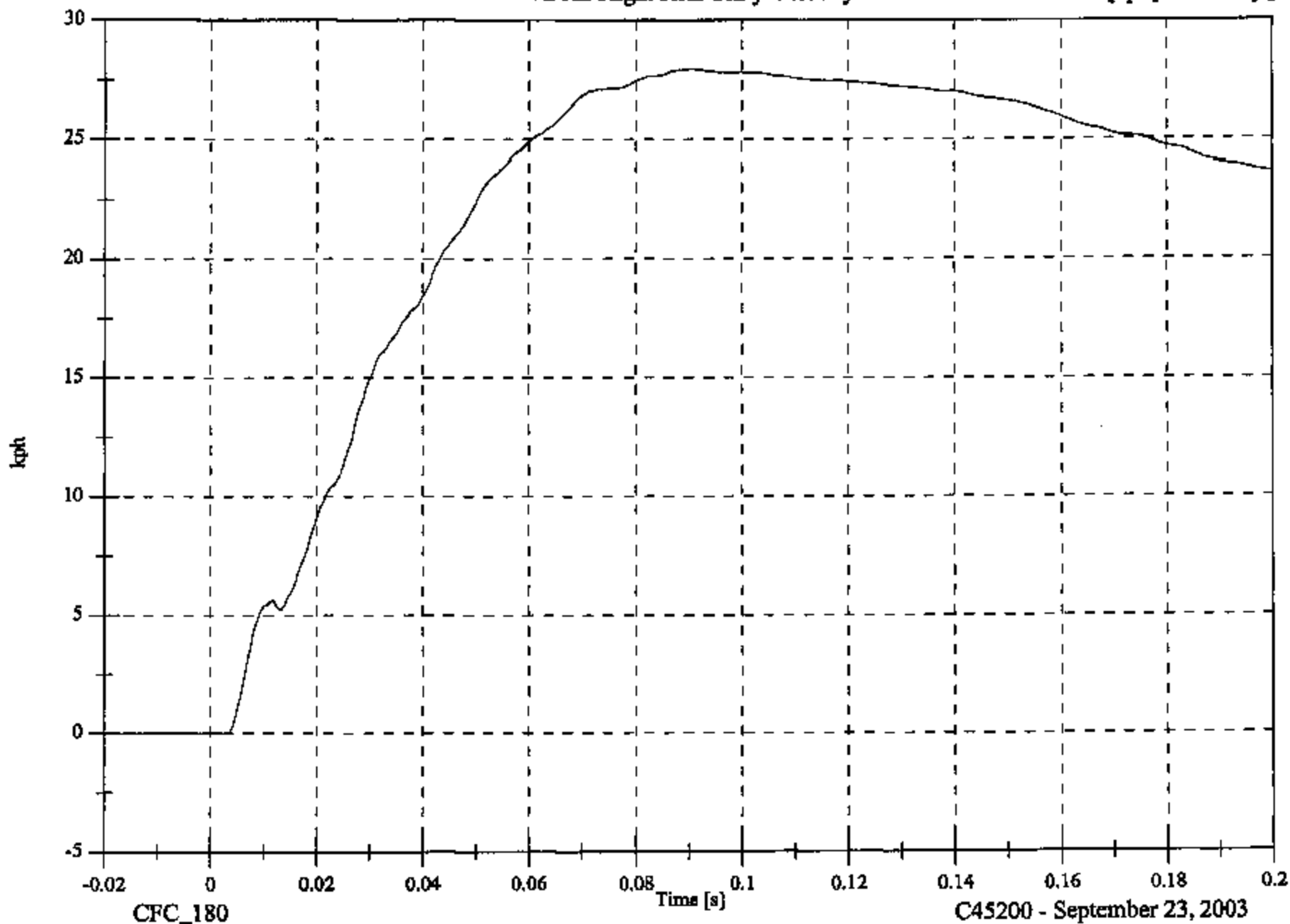


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 28.0 [kph] at 0.090 [s]

V2 A2 Right Rear Sill y Velocity

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



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8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

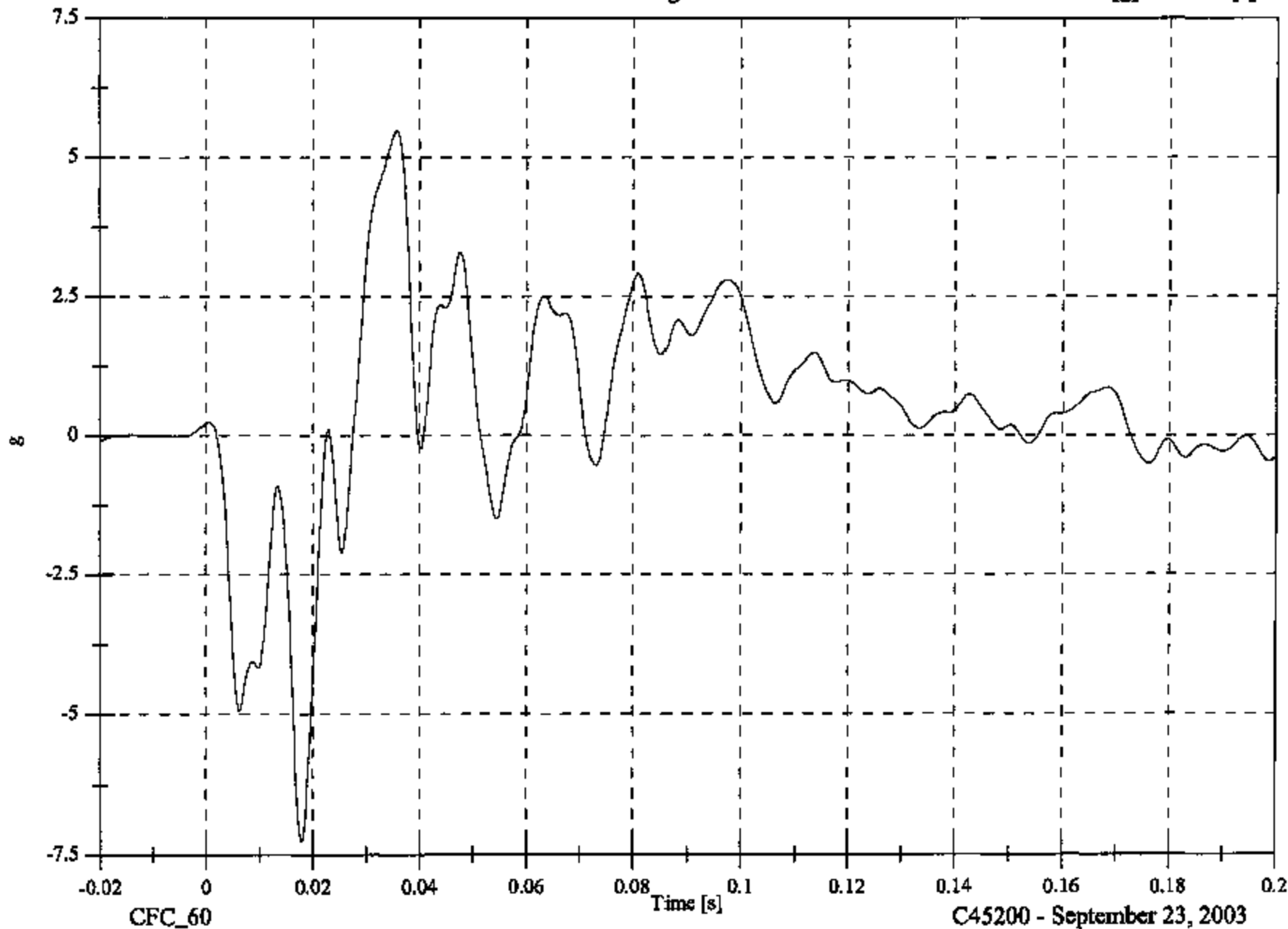
Max: 5.5 [g] at 0.036 [s]

V2 A2 Right Rear Sill z

Min: -7.3 [g] at 0.018 [s]

B-71

8675-F214-11



FMVSS 214D Indicant - 2004 Nissan Maxima

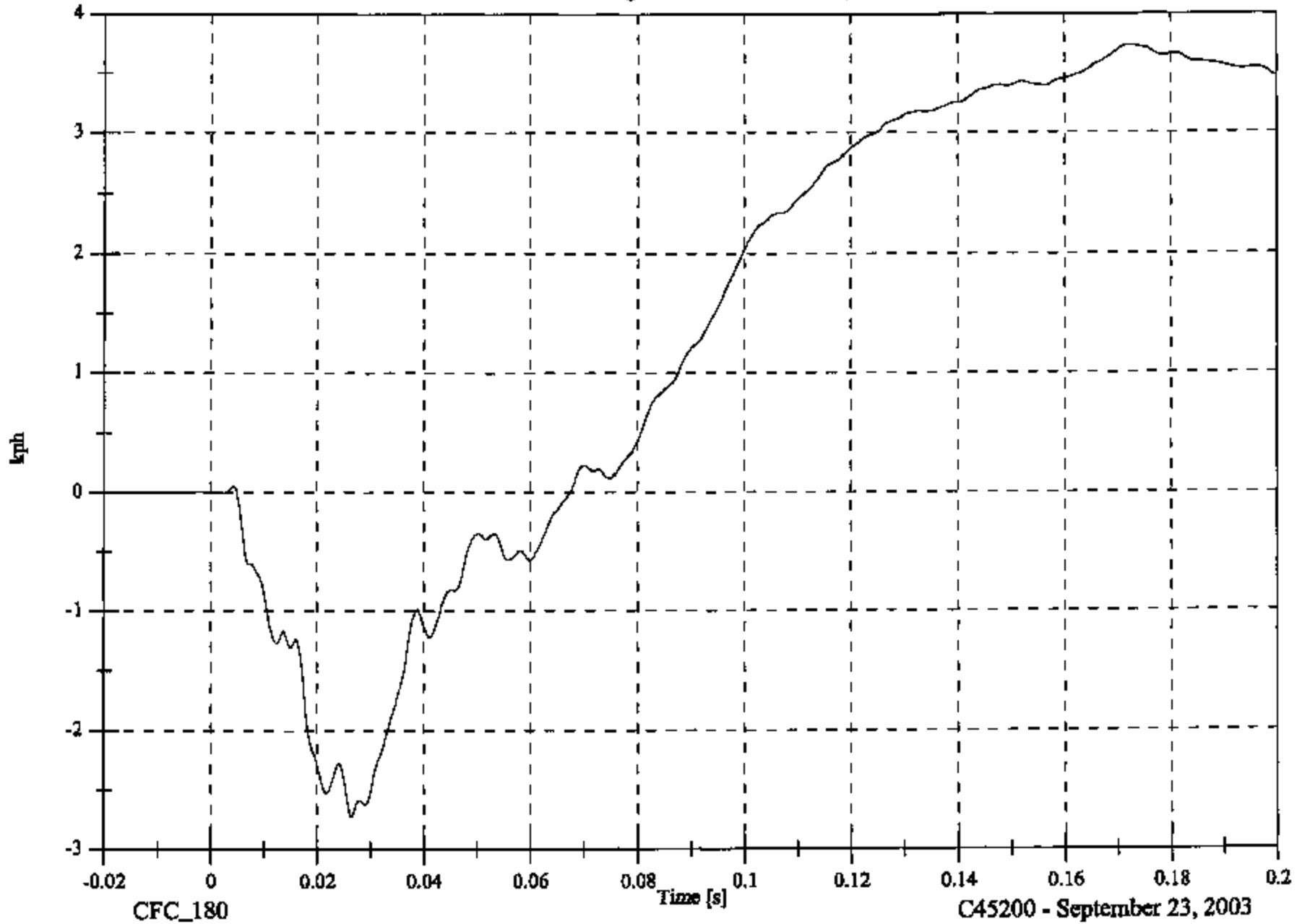
Max: 3.7 [kph] at 0.172 [s]

V2 A2 Right Rear Sill z Velocity

Min: -2.7 [kph] at 0.026 [s]

B-72

8675-F214-11

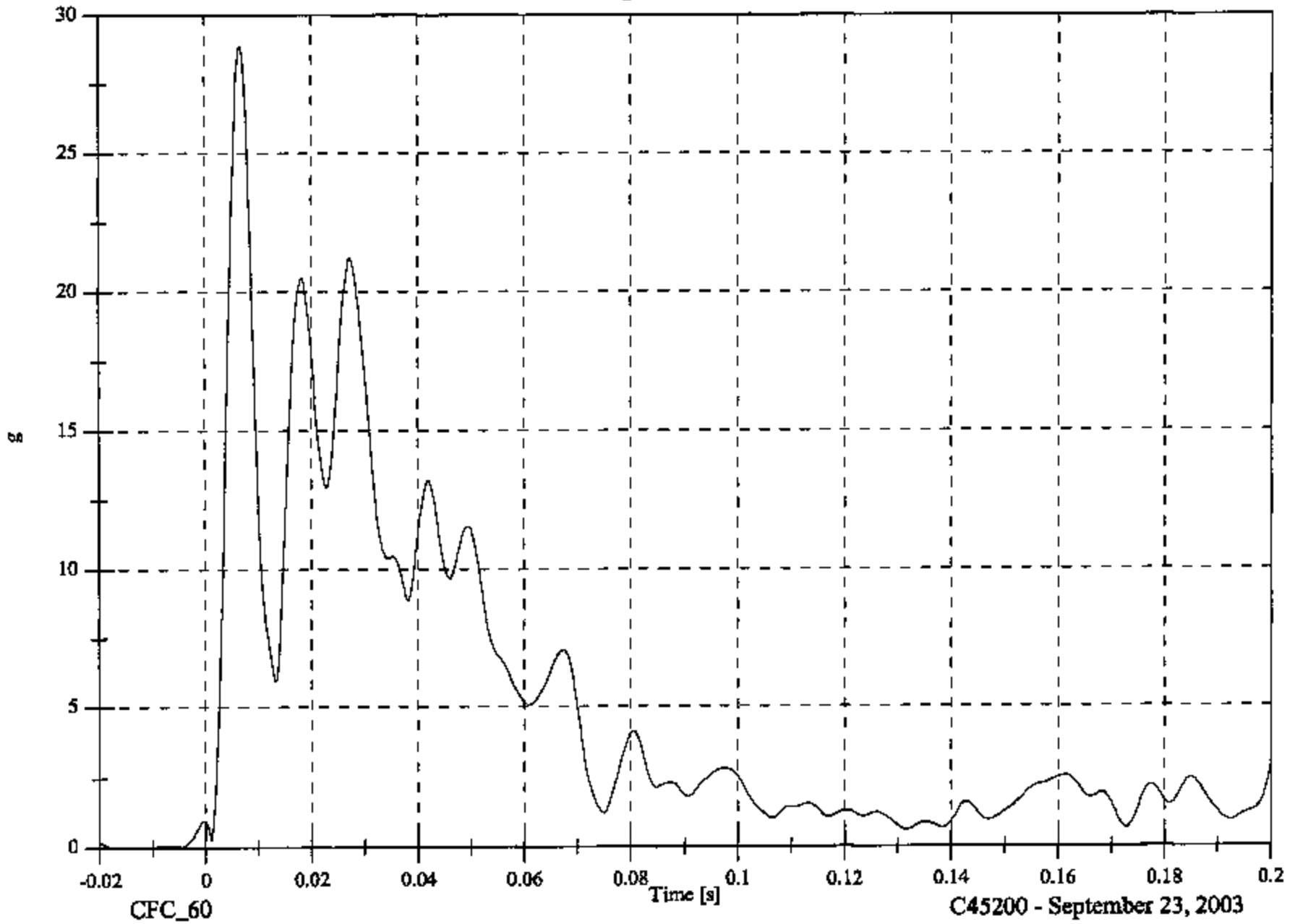


FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A2 Right Rear Sill Resultant

Max: 28.9 [g] at 0.007 [s]

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



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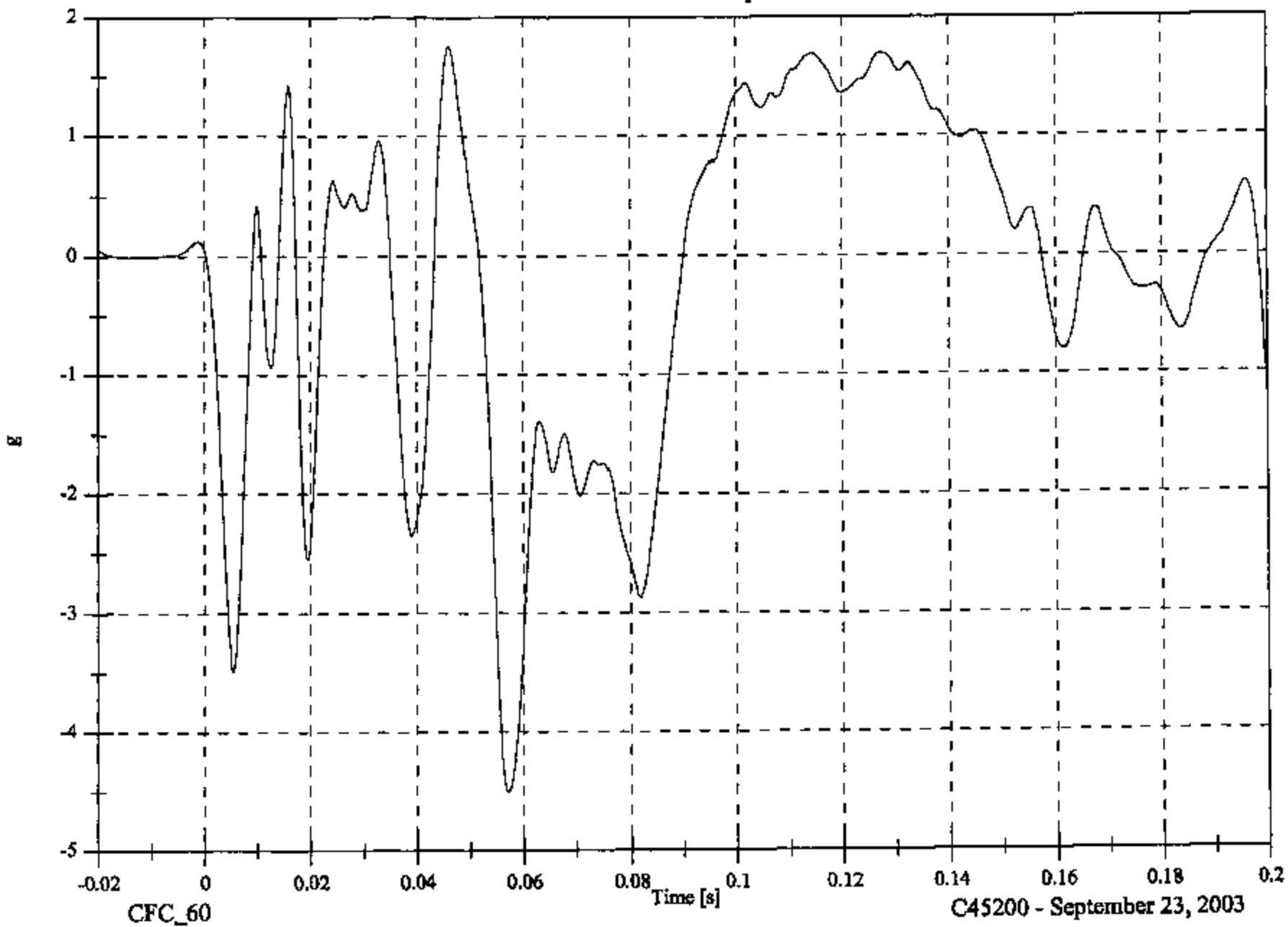
8675-F214-11

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 1.8 [g] at 0.046 [s]

V2 A3 Rear Floorpan x

Min: -4.5 [g] at 0.057 [s]



B-7A

8675-R214-11

CFC_60

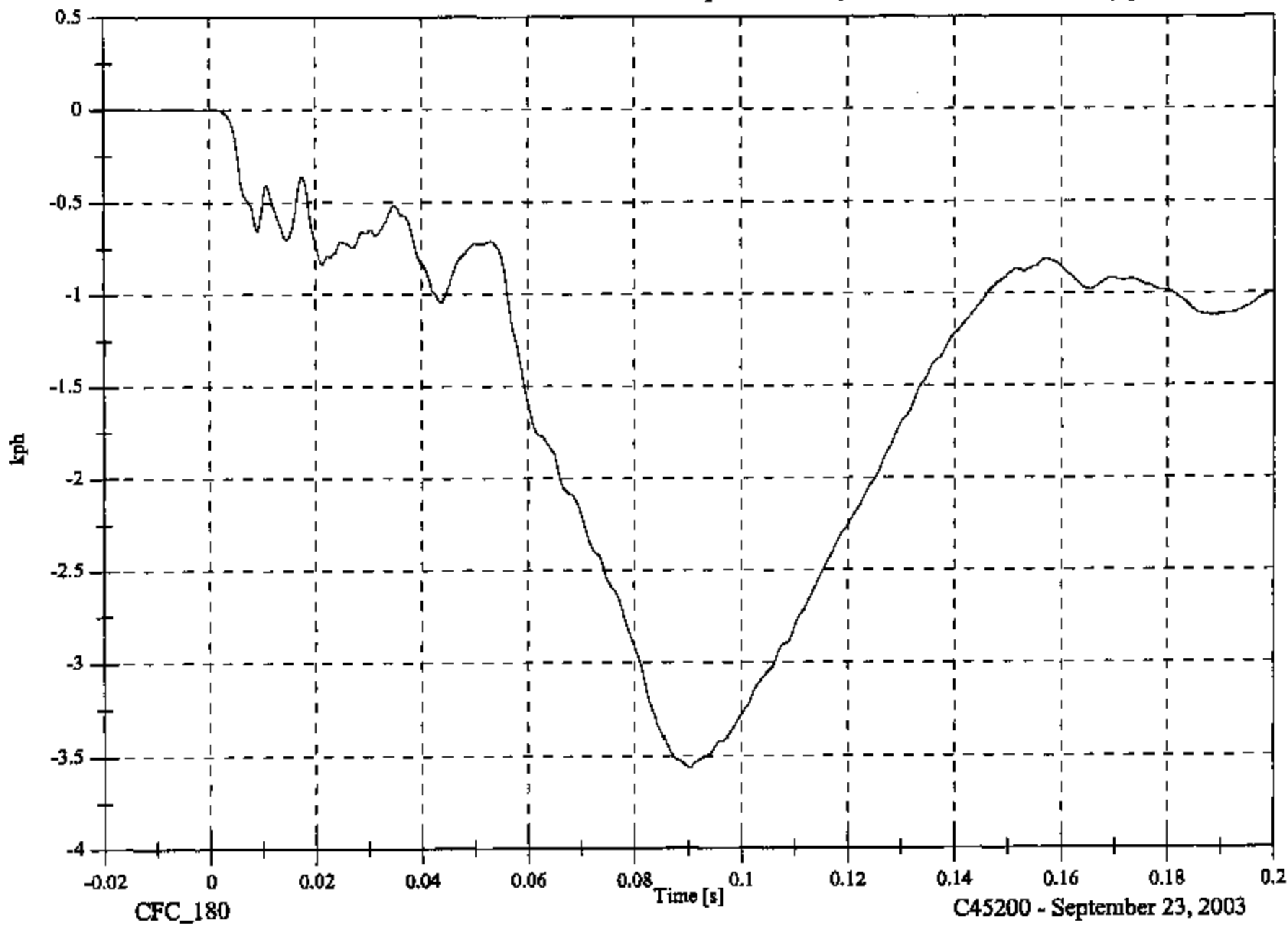
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 0.0 [kph] at 0.001 [s]

V2 A3 Rear Floorpan x Velocity

Min: -3.6 [kph] at 0.090 [s]



B-75

8675-F214-11

CFC_180

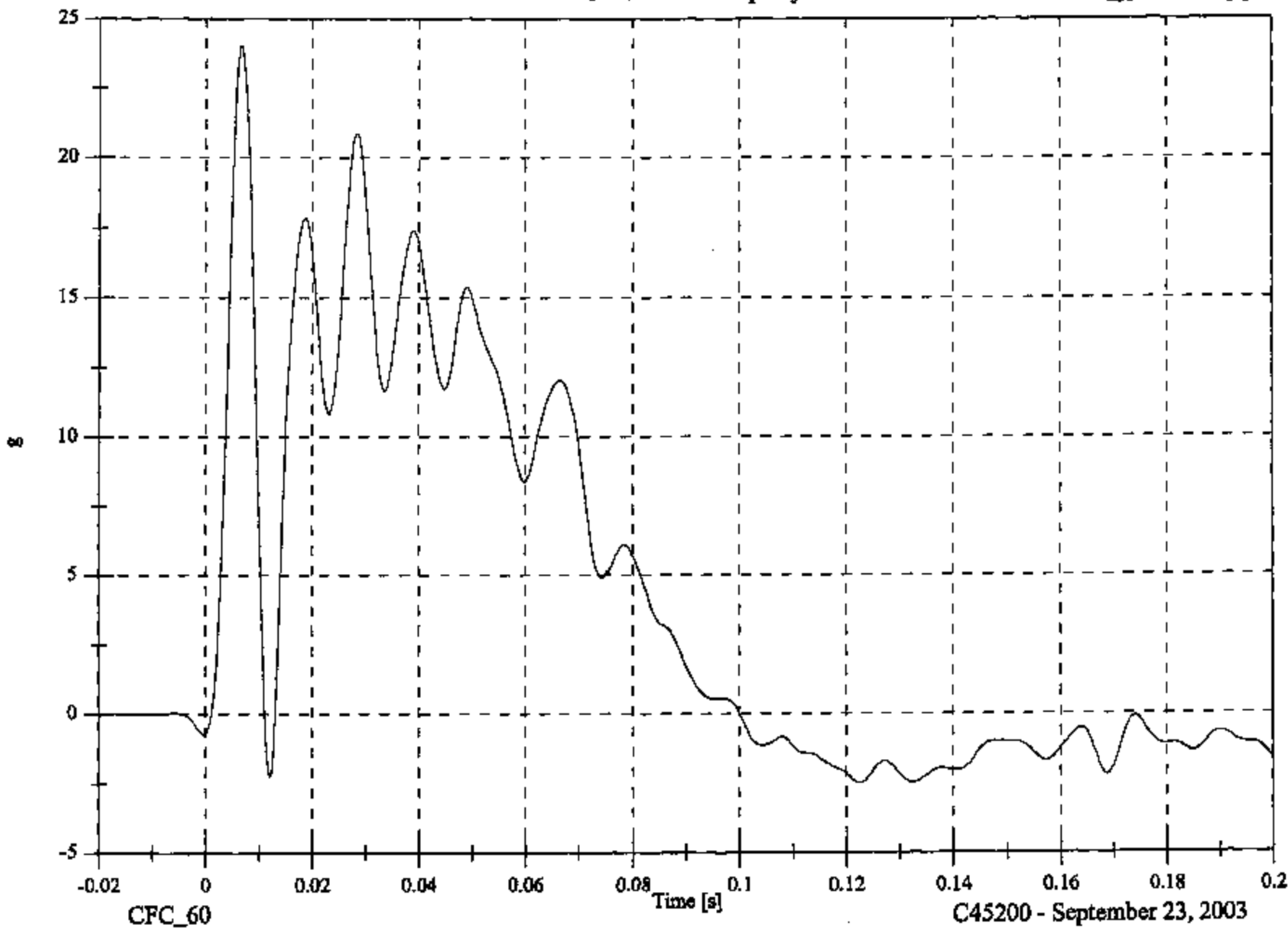
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A3 Rear Floorpan y

Max: 24.0 [g] at 0.007 [s]

Min: -2.5 [g] at 0.123 [s]



B-76

8675-F214-11

CFC_60

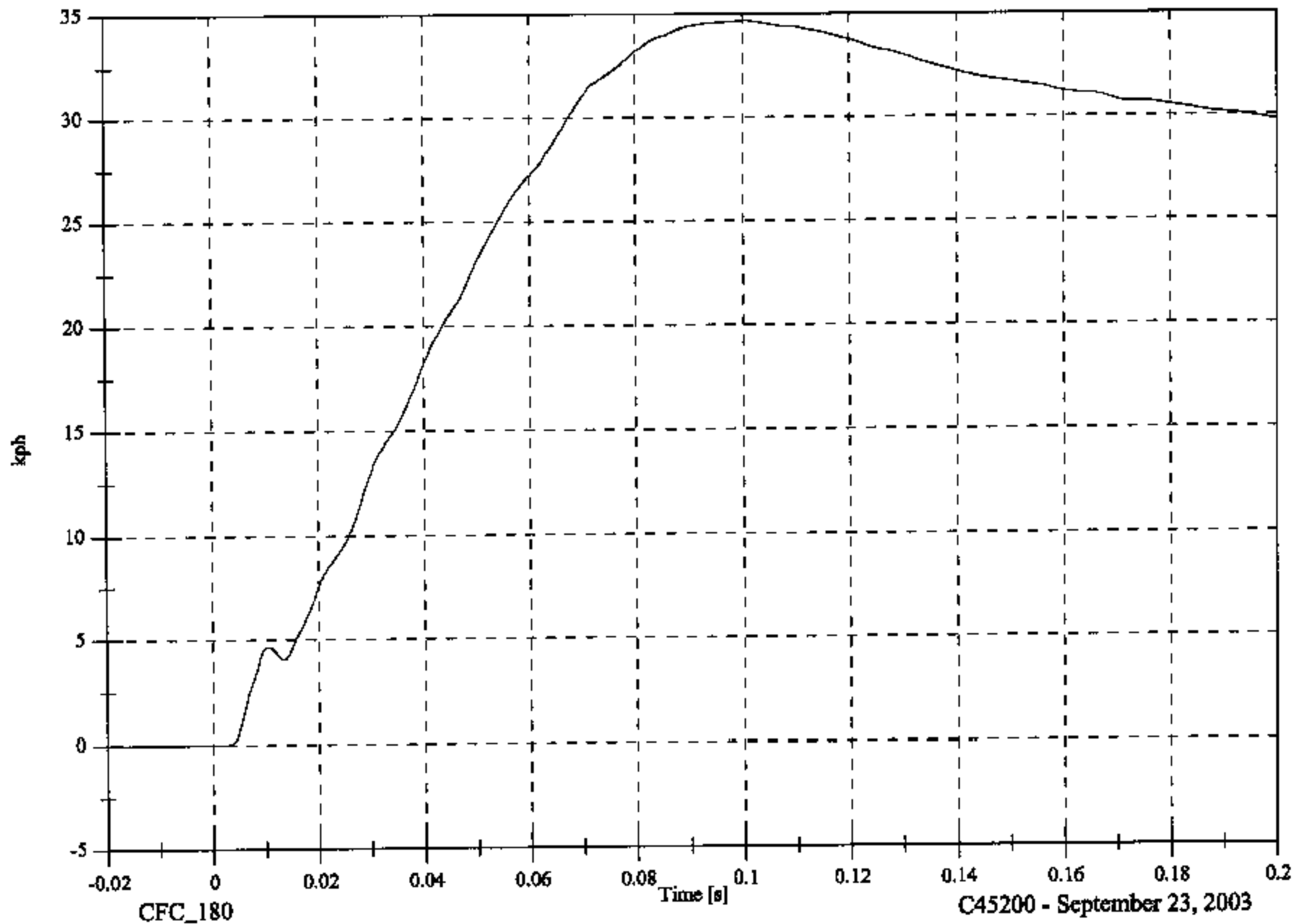
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 34.7 [kph] at 0.100 [s]

V2 A3 Rear Floorpan y Velocity

Min: -0.0 [kph] at -0.010 [s]



B-77

8675-R214-11

CFC_180

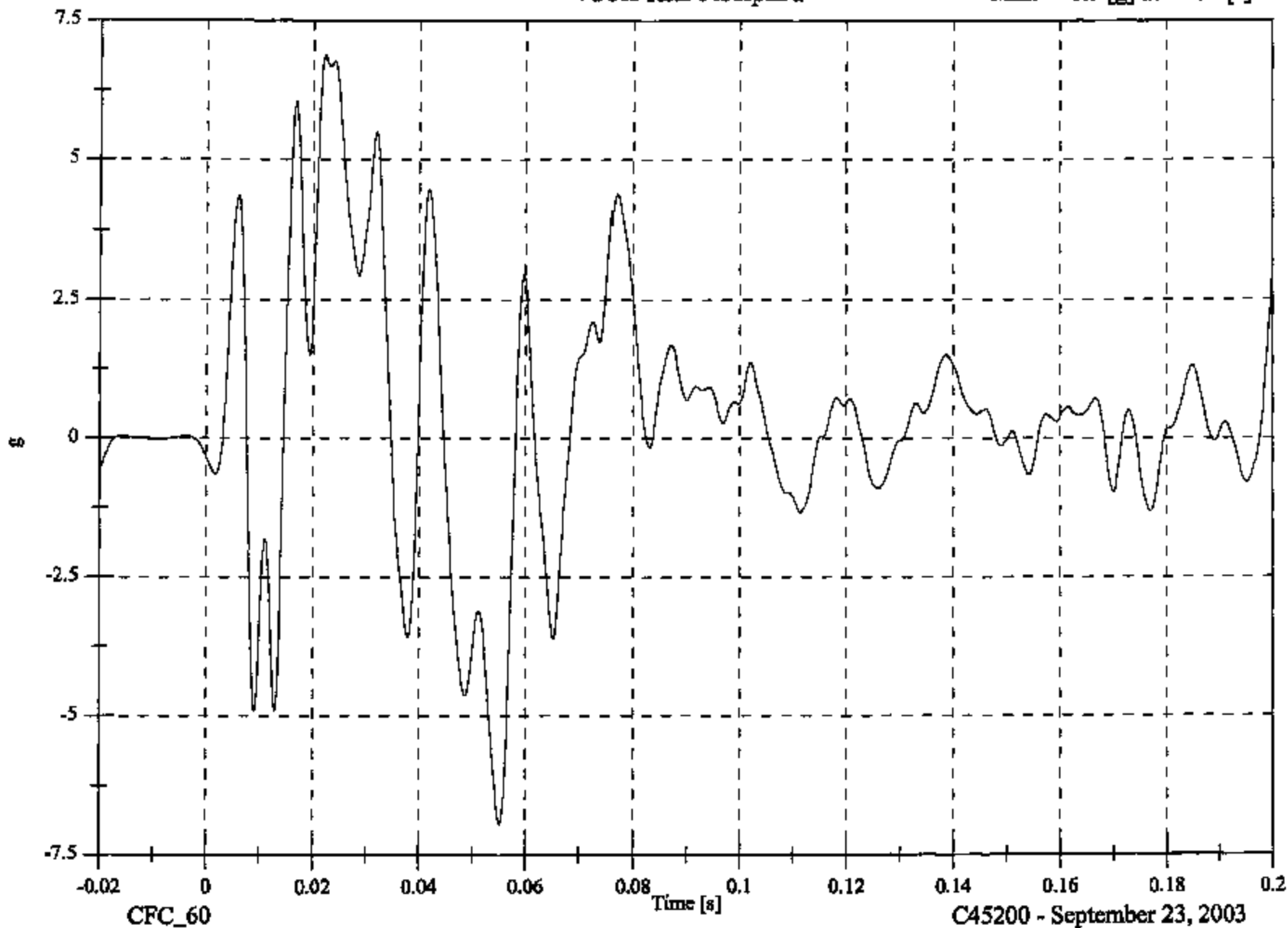
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 6.9 [g] at 0.022 [s]

V2 A3 Rear Floorpan z

Min: -6.9 [g] at 0.055 [s]



B-78

8675-F214-11

CFC_60

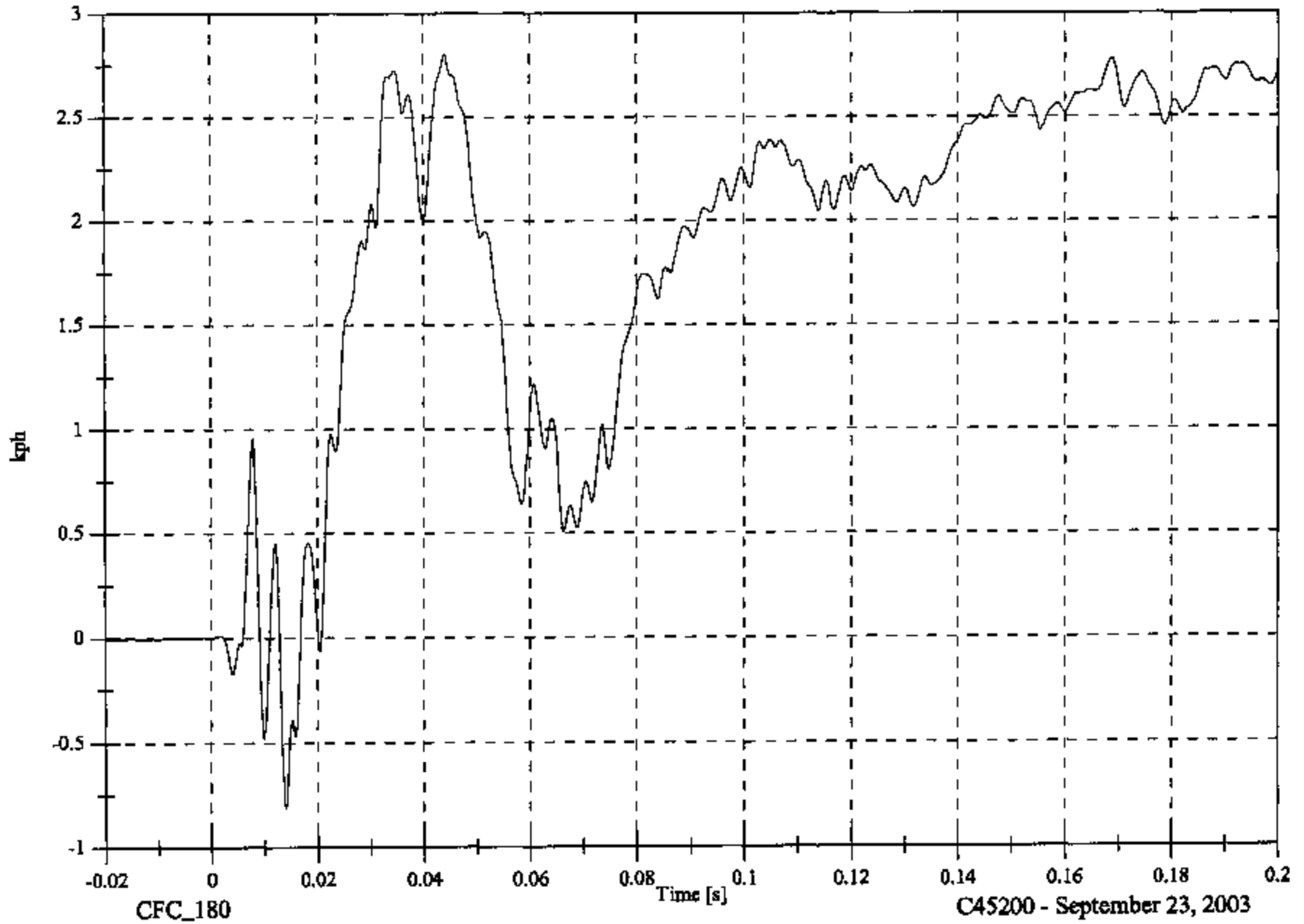
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 2.8 [kph] at 0.044 [s]

V2 A3 Rear Floorpan z Velocity

Min: -0.8 [kph] at 0.014 [s]



B-79

867S-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

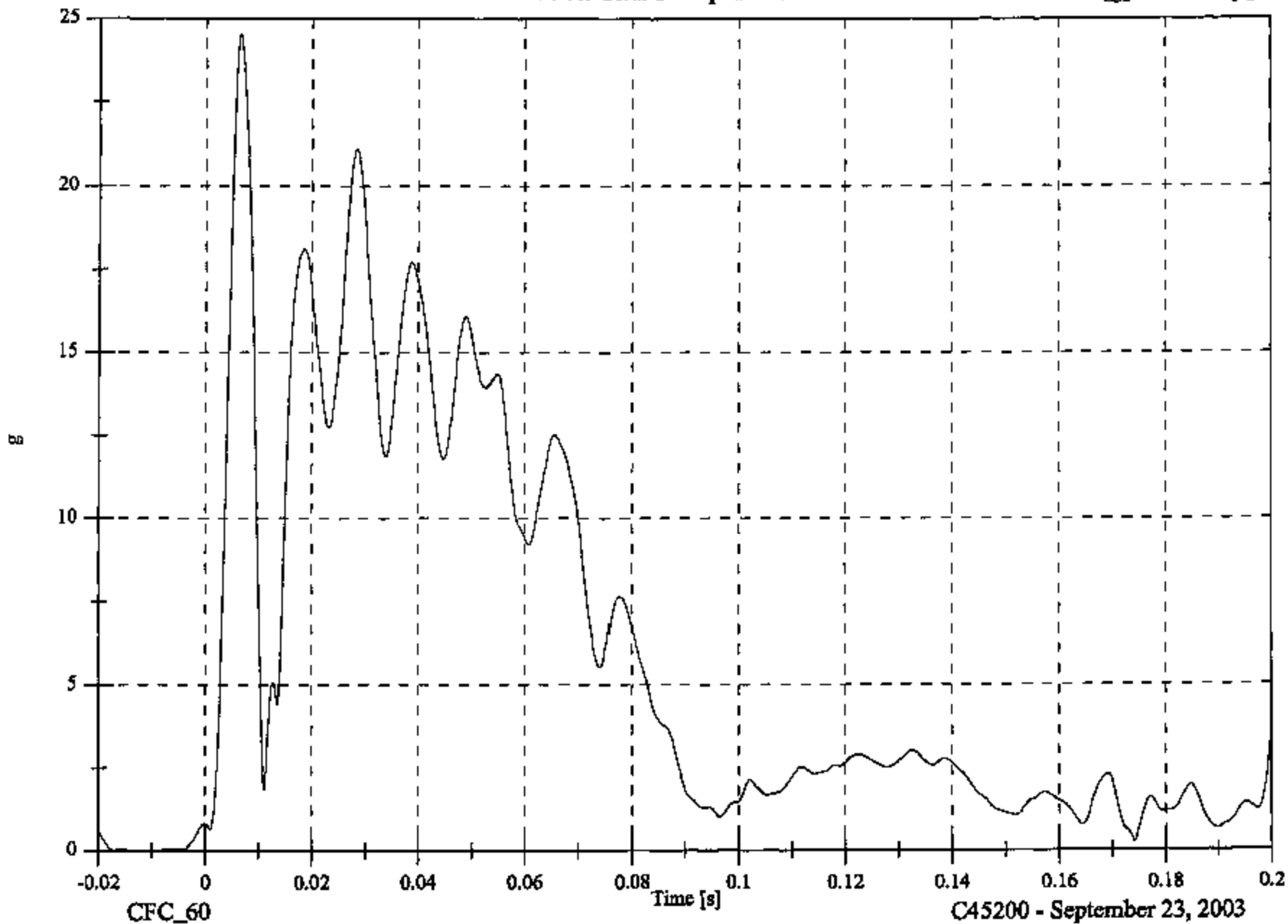
V2 A3 Rear Floorpan Resultant

Max: 24.5 [g] at 0.006 [s]

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

B-80

8675-F214-11



FMVSS 214D Indicant - 2004 Nissan Maxima

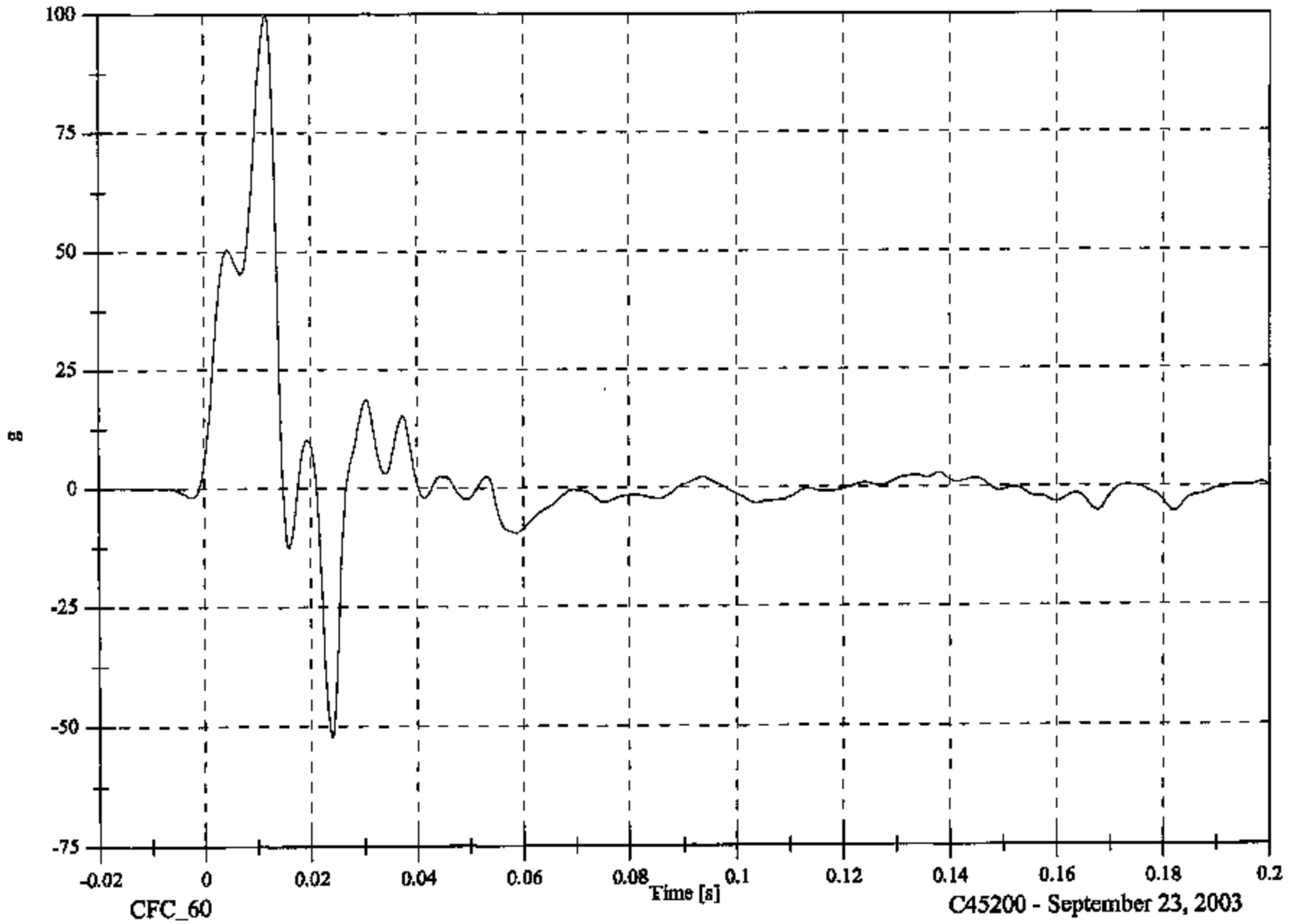
V2 A4 Left Rear Sill y

Max: 99.8 [g] at 0.012 [s]

Min: -51.9 [g] at 0.024 [s]

B-81

8675-F214-11

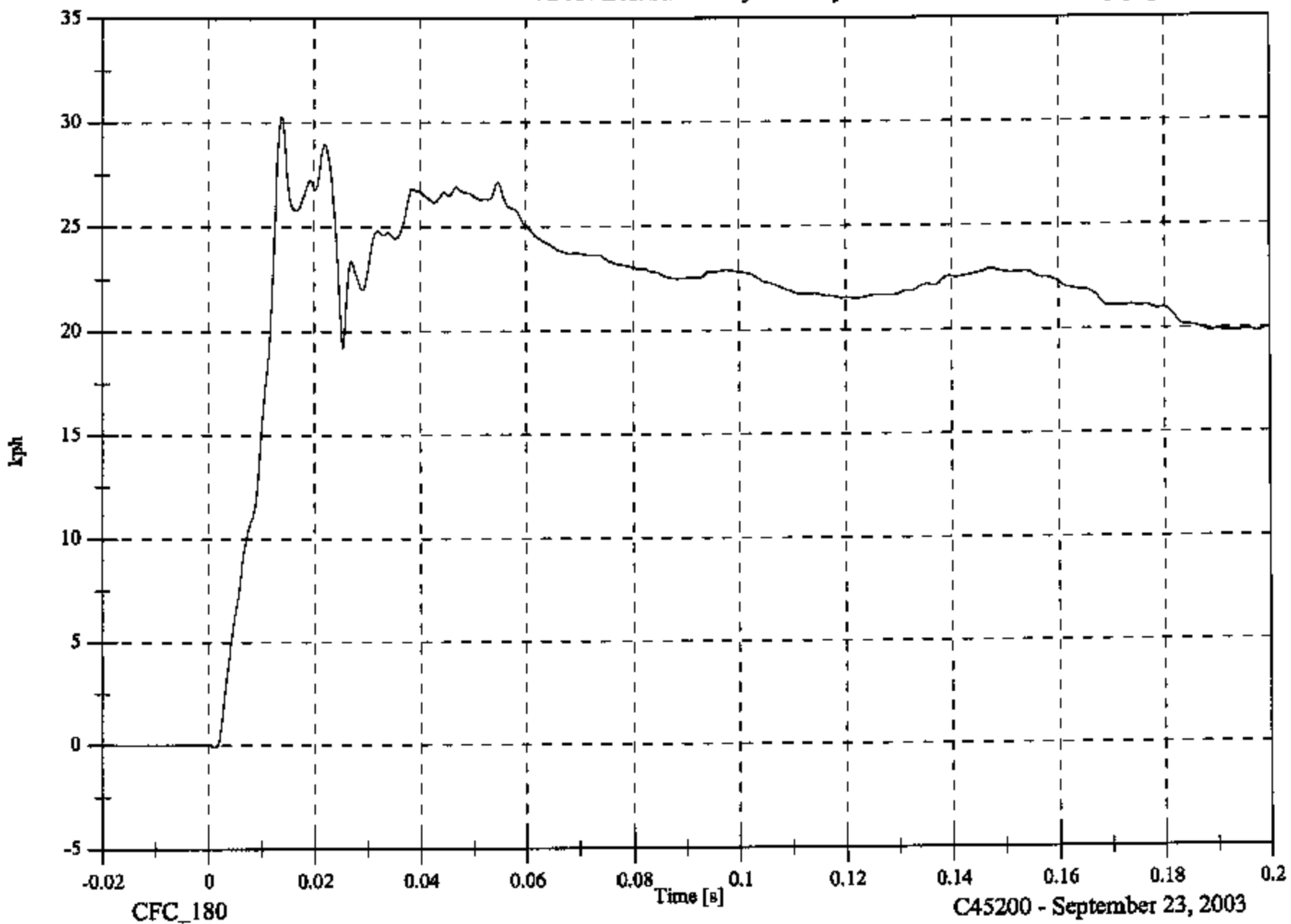


FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A4 Left Rear Sill y Velocity

Max: 30.3 [kph] at 0.014 [s]

Min: -0.1 [kph] at 0.001 [s]



B-82

8675-F214-11

CFC_180

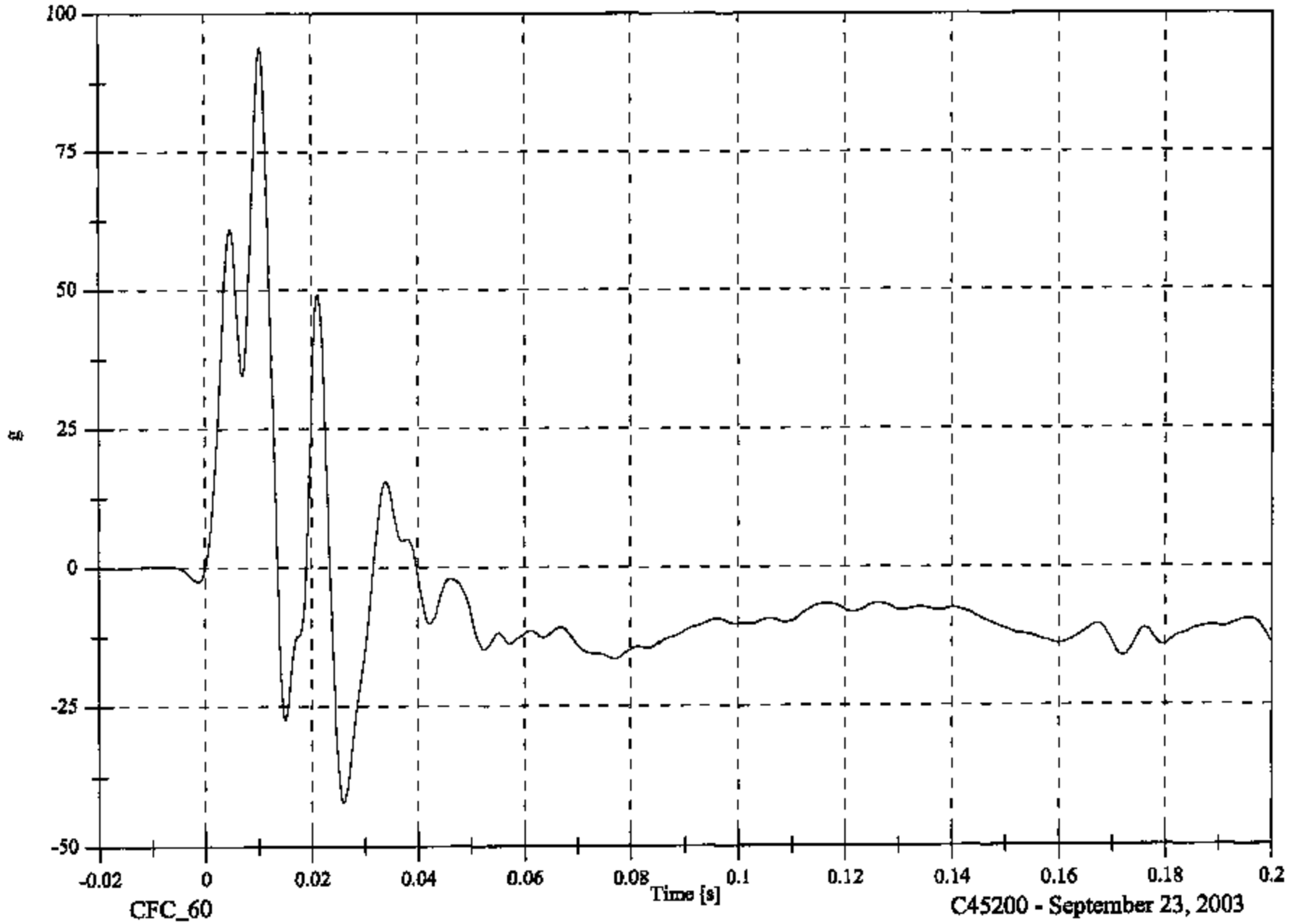
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 93.9 [g] at 0.010 [s]

V2 A5 Left Front Sill y

Min: -42.2 [g] at 0.026 [s]



B-83

8675-F214-11

CFC_60

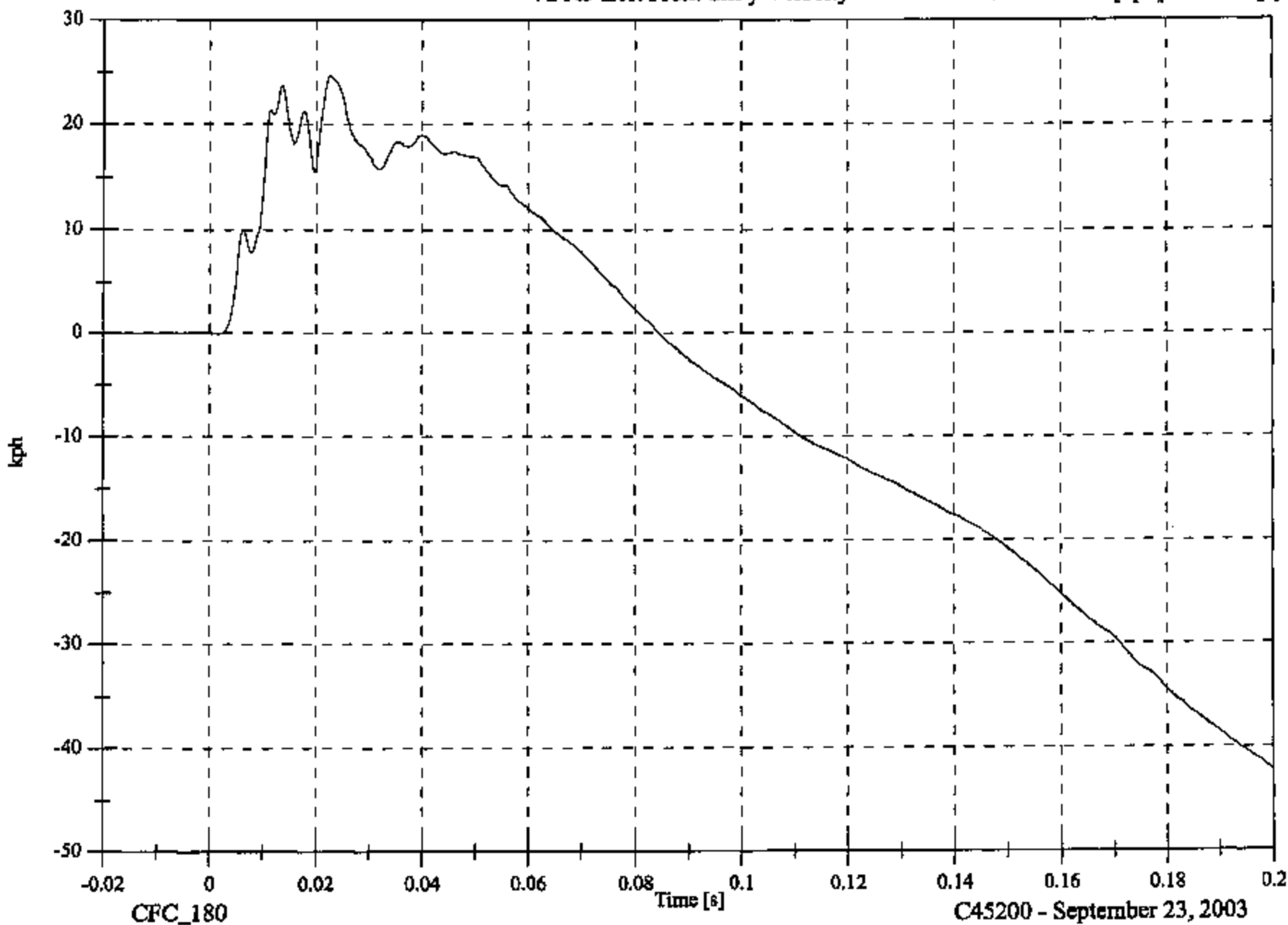
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 24.6 [kph] at 0.023 [s]

V2 A5 Left Front Sill y Velocity

Min: -42.2 [kph] at 0.200 [s]



B-84

8675-P214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

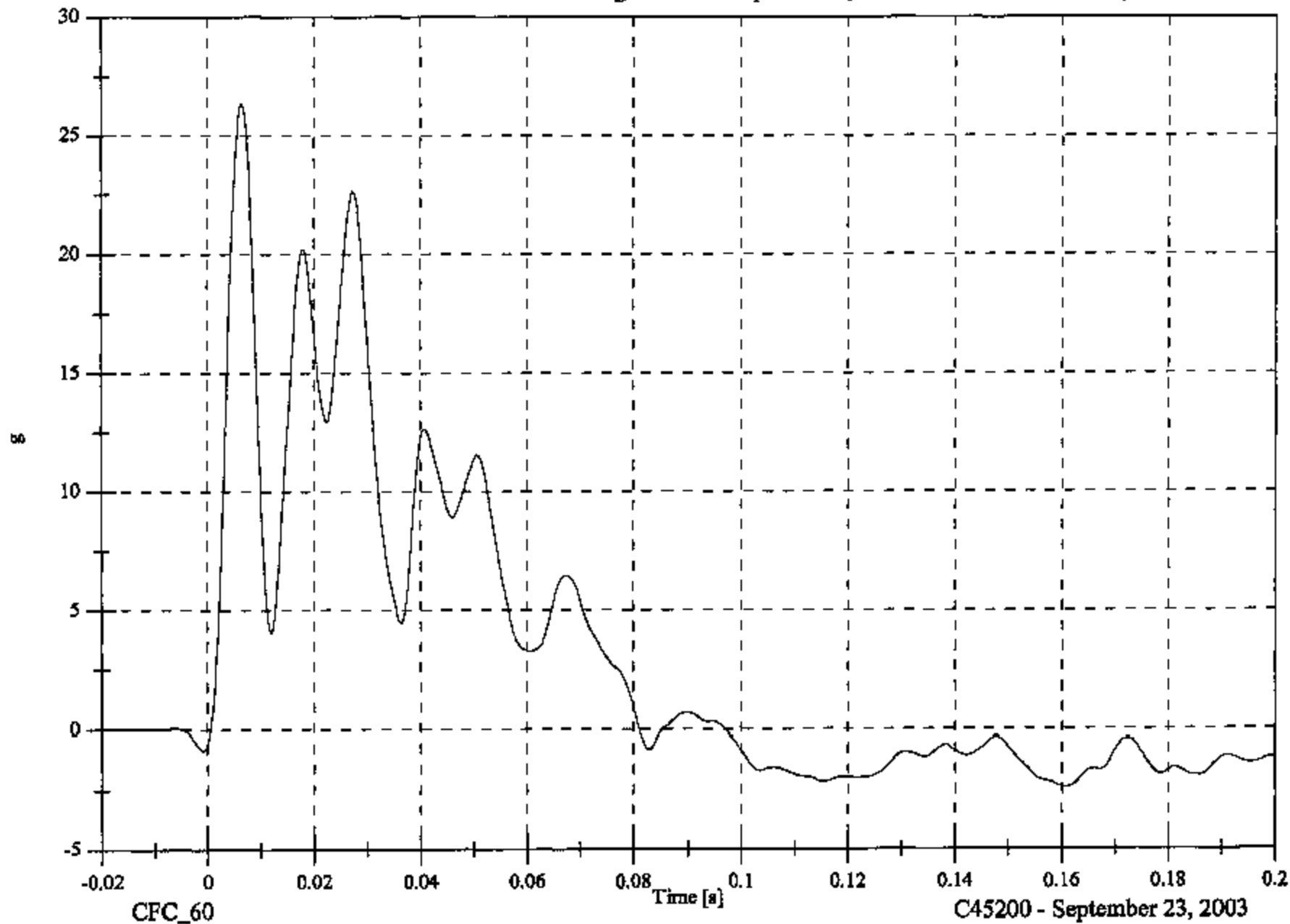
Max: 26.3 [g] at 0.006 [s]

V2 A7 Right Rear Compartment y

Min: -2.4 [g] at 0.161 [s]

B-85

8675-F214-11



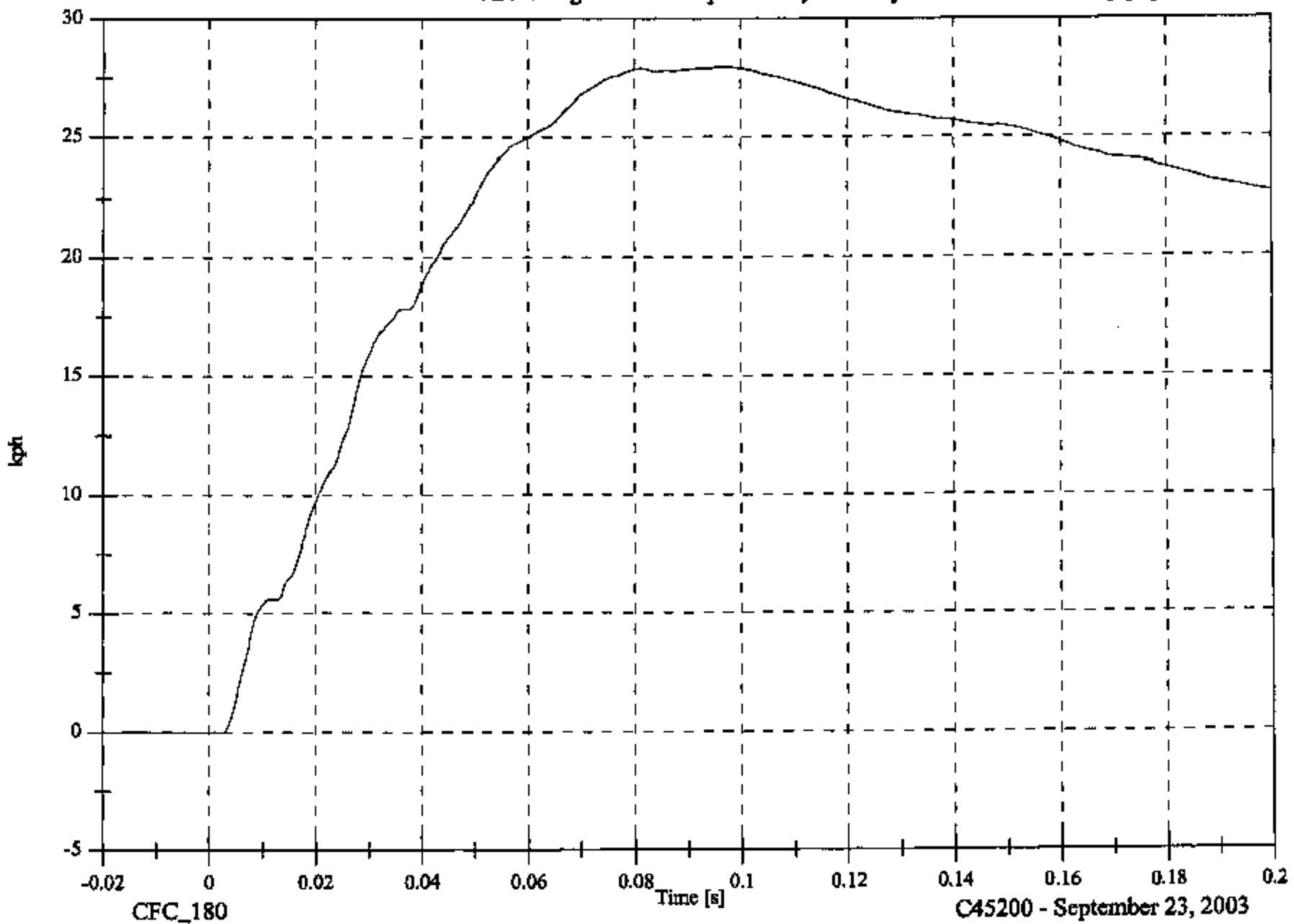
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 27.9 [kph] at 0.096 [s]

V2 A7 Right Rear Compartment y Velocity

Min: -0.0 [kph] at 0.002 [s]



B-86

8675-F214-11

CFC_180

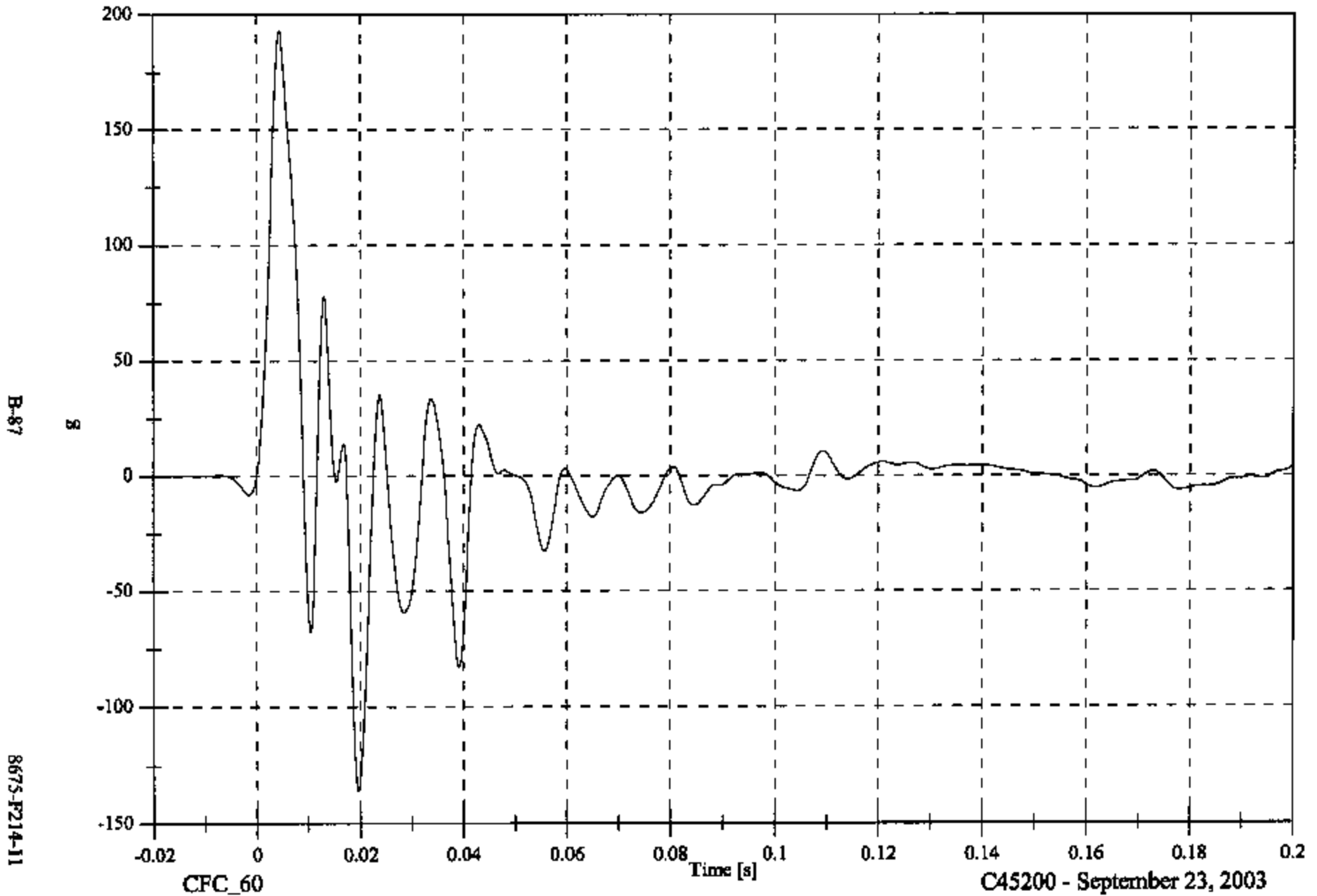
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 193.0 [g] at 0.004 [s]

V2 A12 Left Lower B Post y

Min: -135.9 [g] at 0.020 [s]

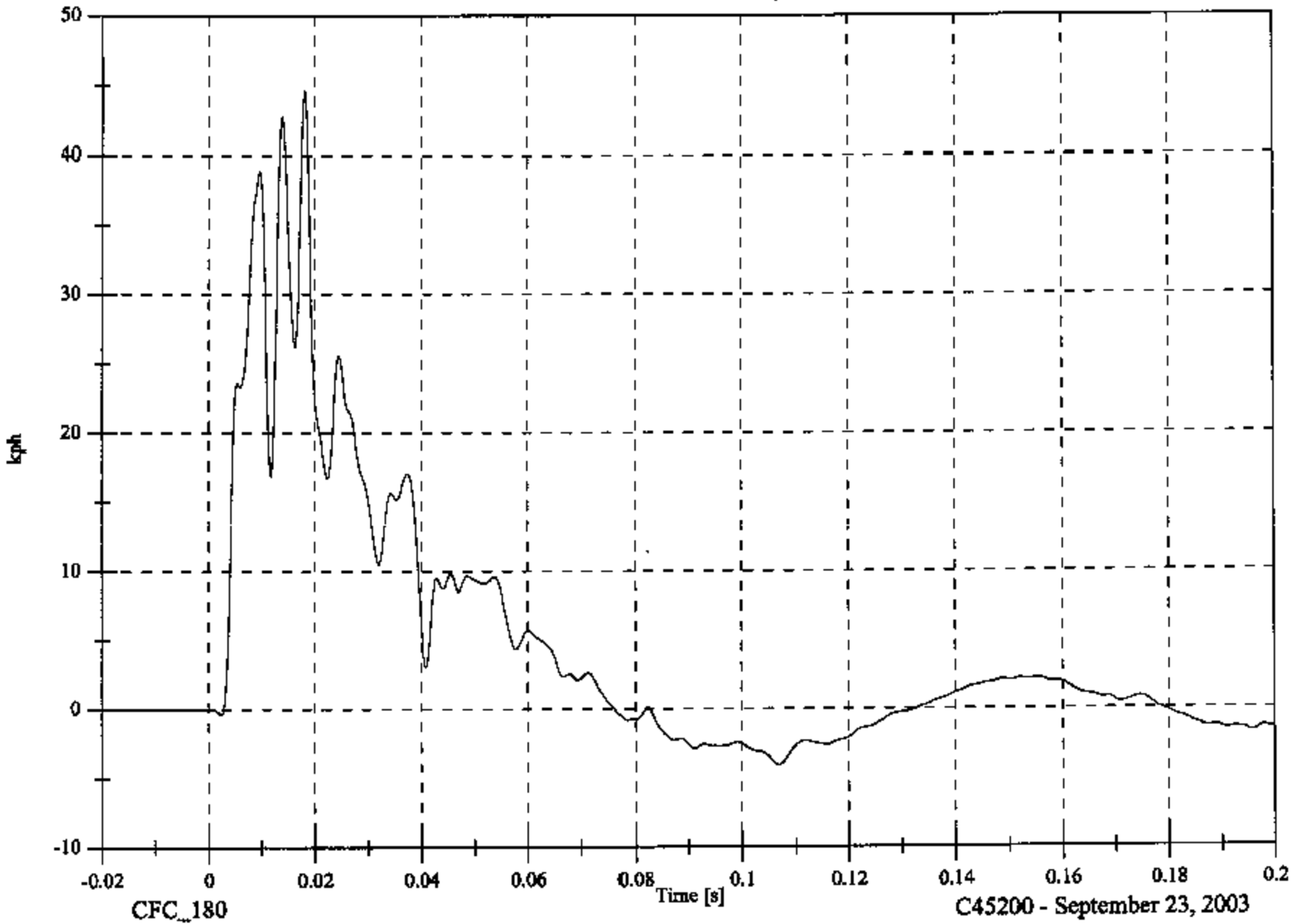


FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A12 Left Lower B Post y Velocity

Max: 44.6 [kph] at 0.018 [s]

Min: -4.1 [kph] at 0.107 [s]



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8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

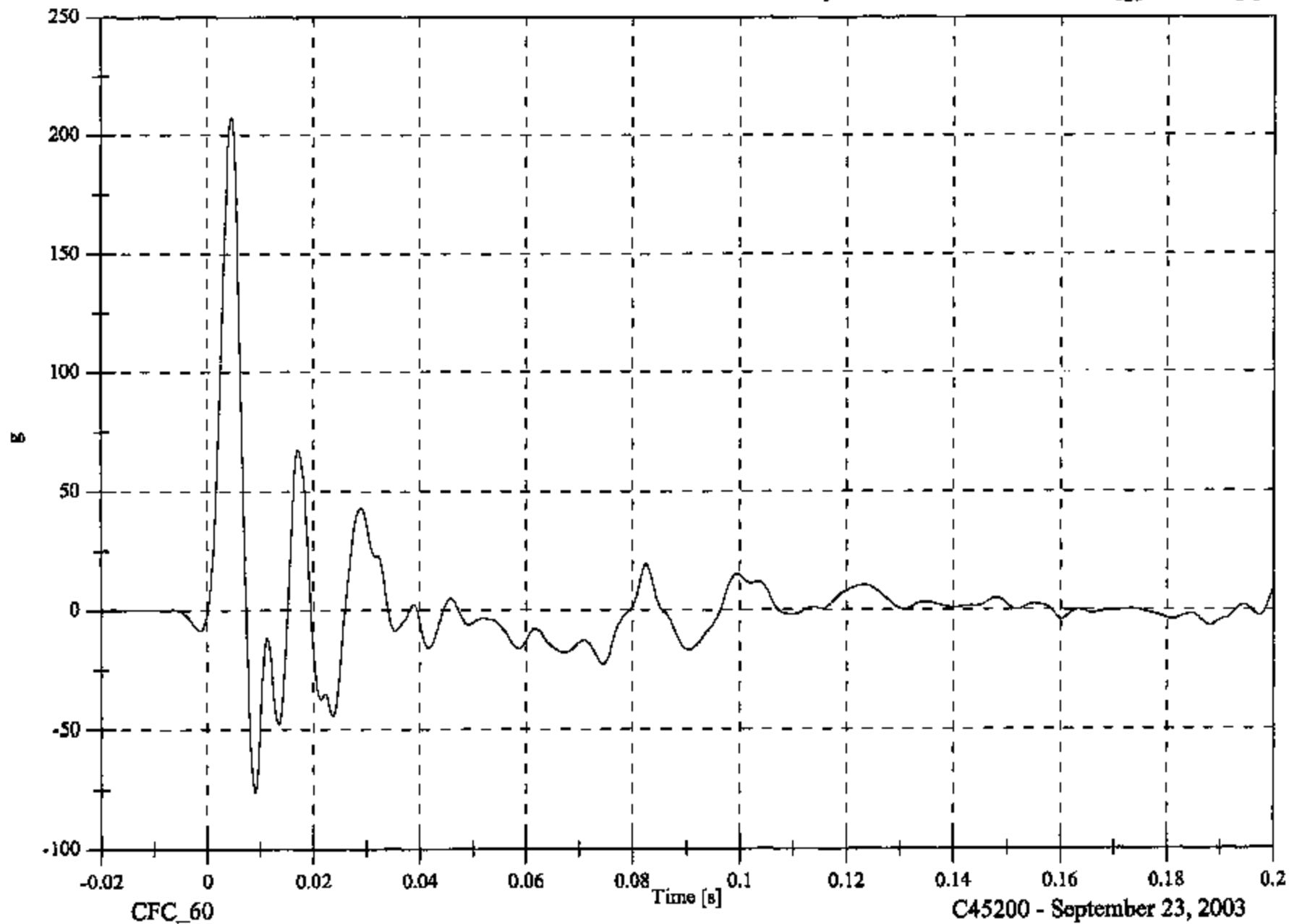
V2 A13 Left Middle B Post y

Max: 208.0 [g] at 0.005 [s]

Min: -76.0 [g] at 0.009 [s]

B-89

8675-F214-11

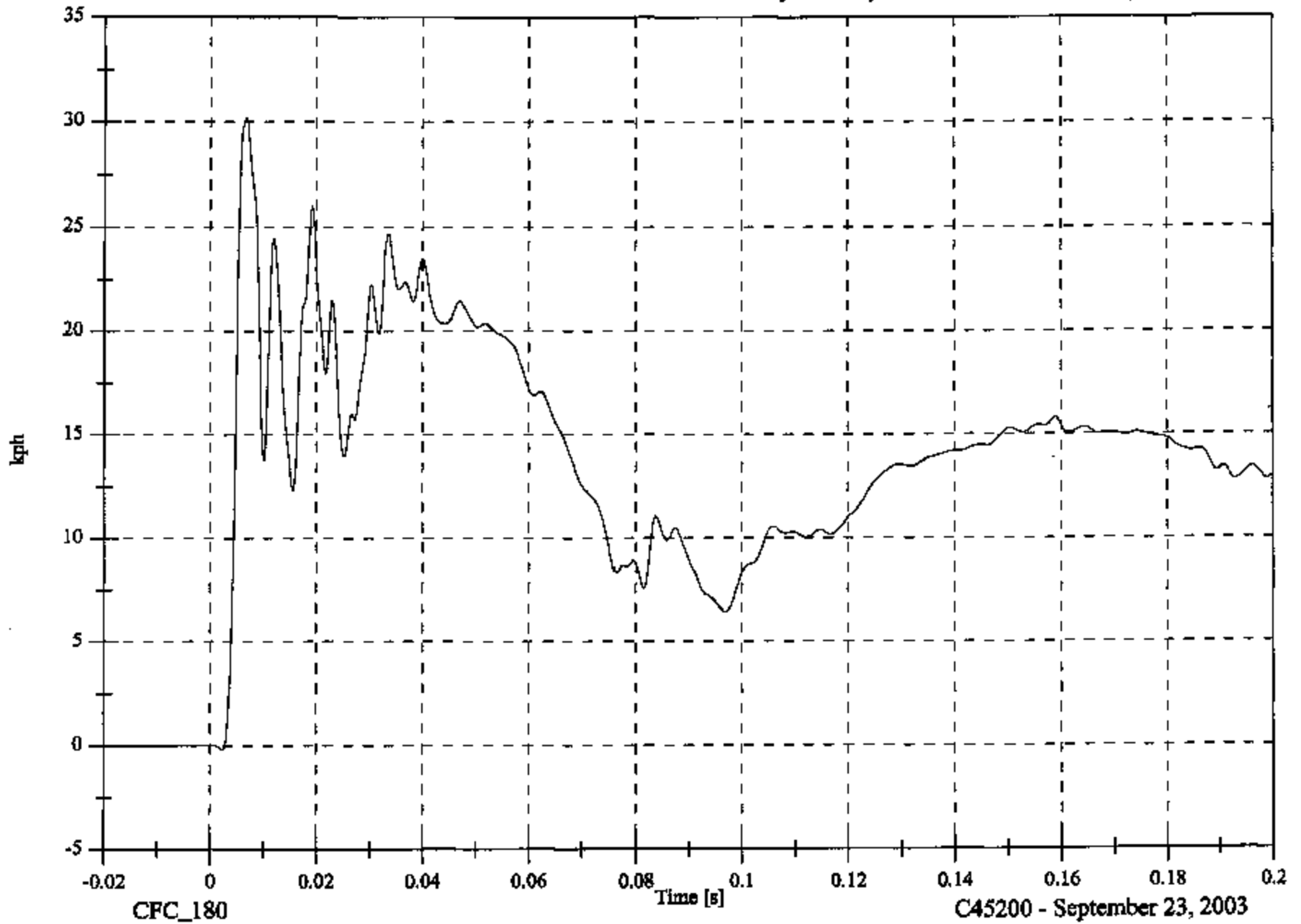


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 30.1 [kph] at 0.007 [s]

V2 A13 Left Middle B Post y Velocity

Min: -0.2 [kph] at 0.002 [s]



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CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

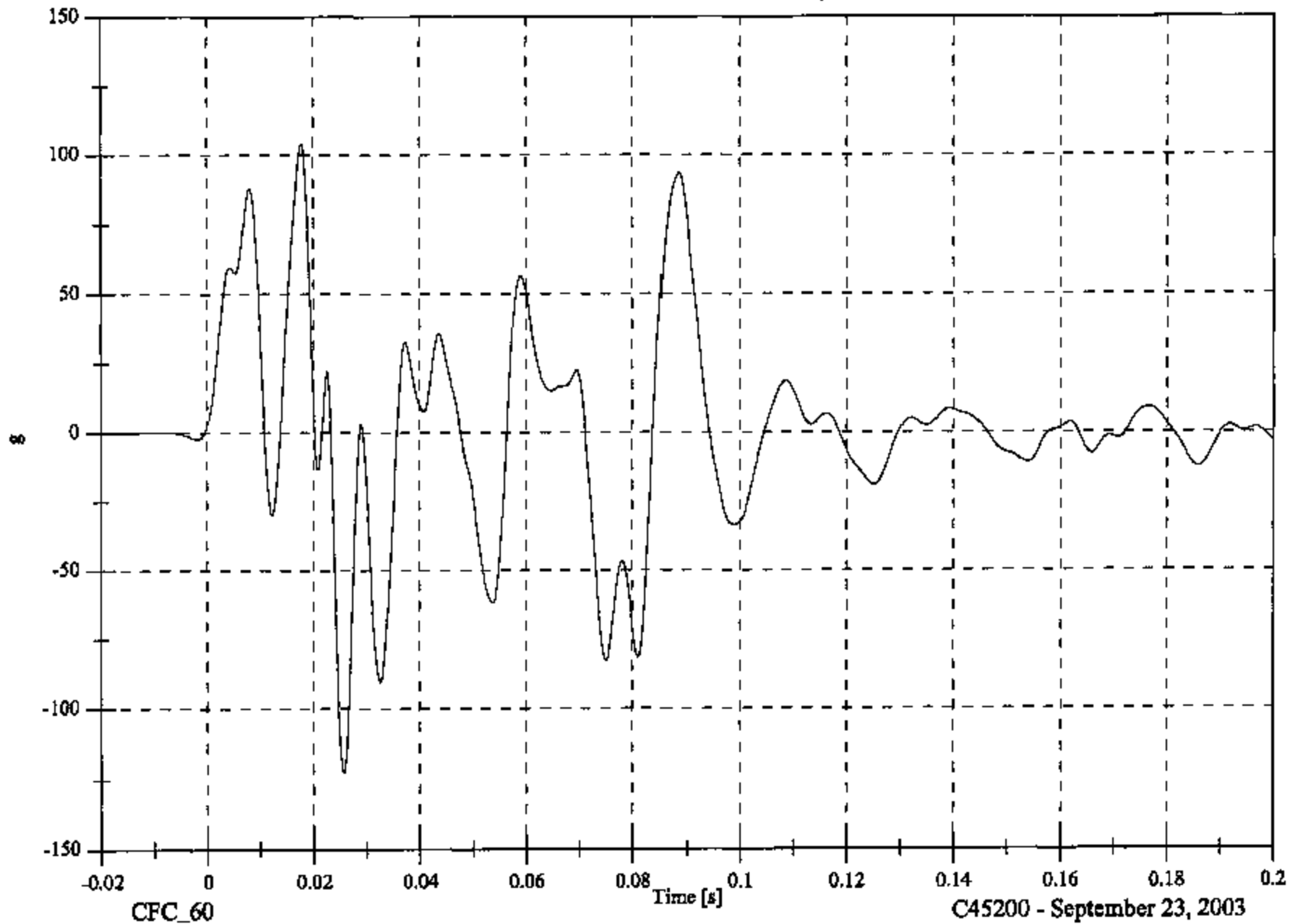
V2 A14 Left Lower A Post y

Max: 104.2 [g] at 0.018 [s]

Min: -122.4 [g] at 0.026 [s]

B-91

8675-F214-11

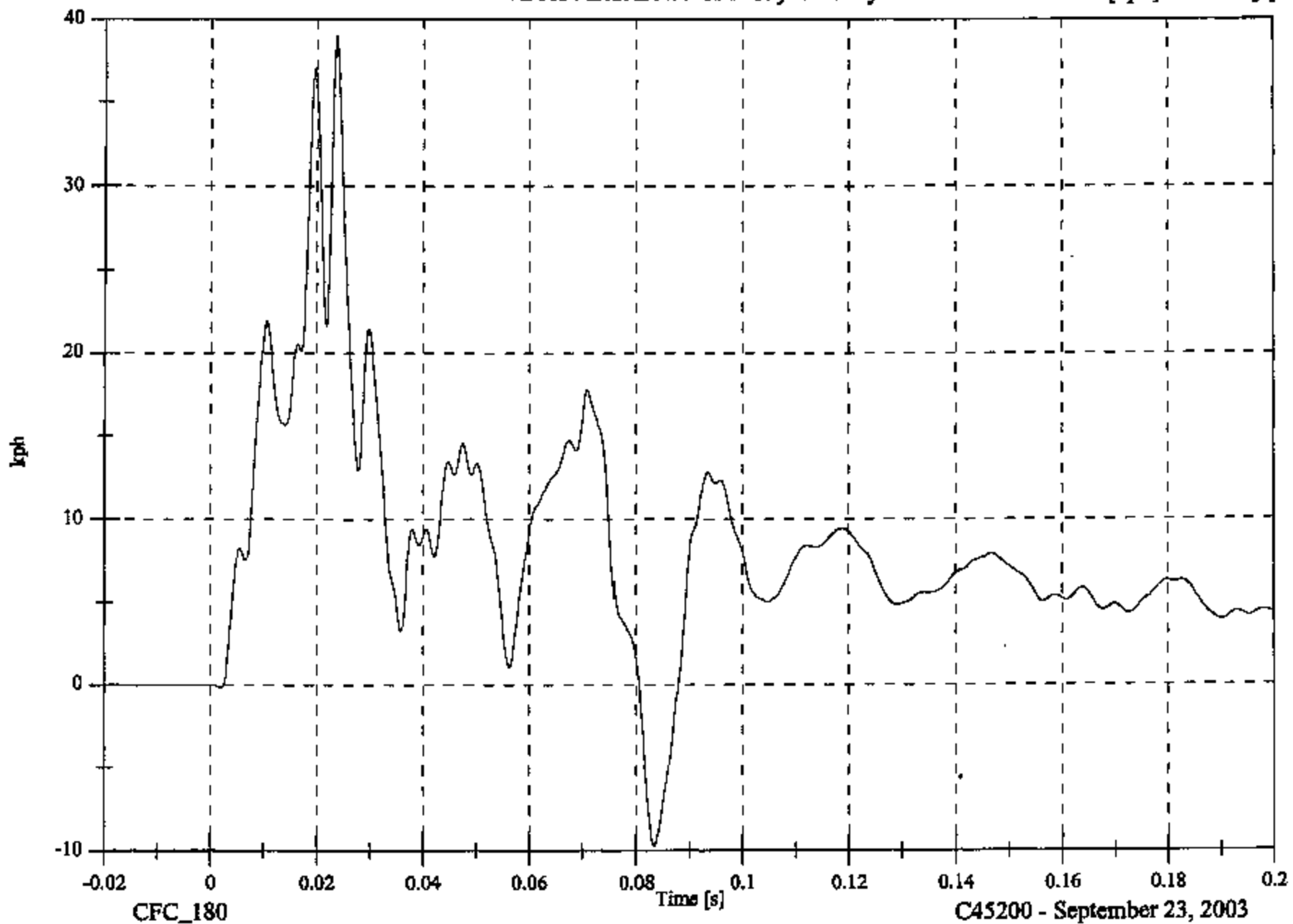


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 39.0 [kph] at 0.024 [s]

V2 A14 Left Lower A Post y Velocity

Min: -9.7 [kph] at 0.083 [s]



B-92

8675-F214-11

CFC_180

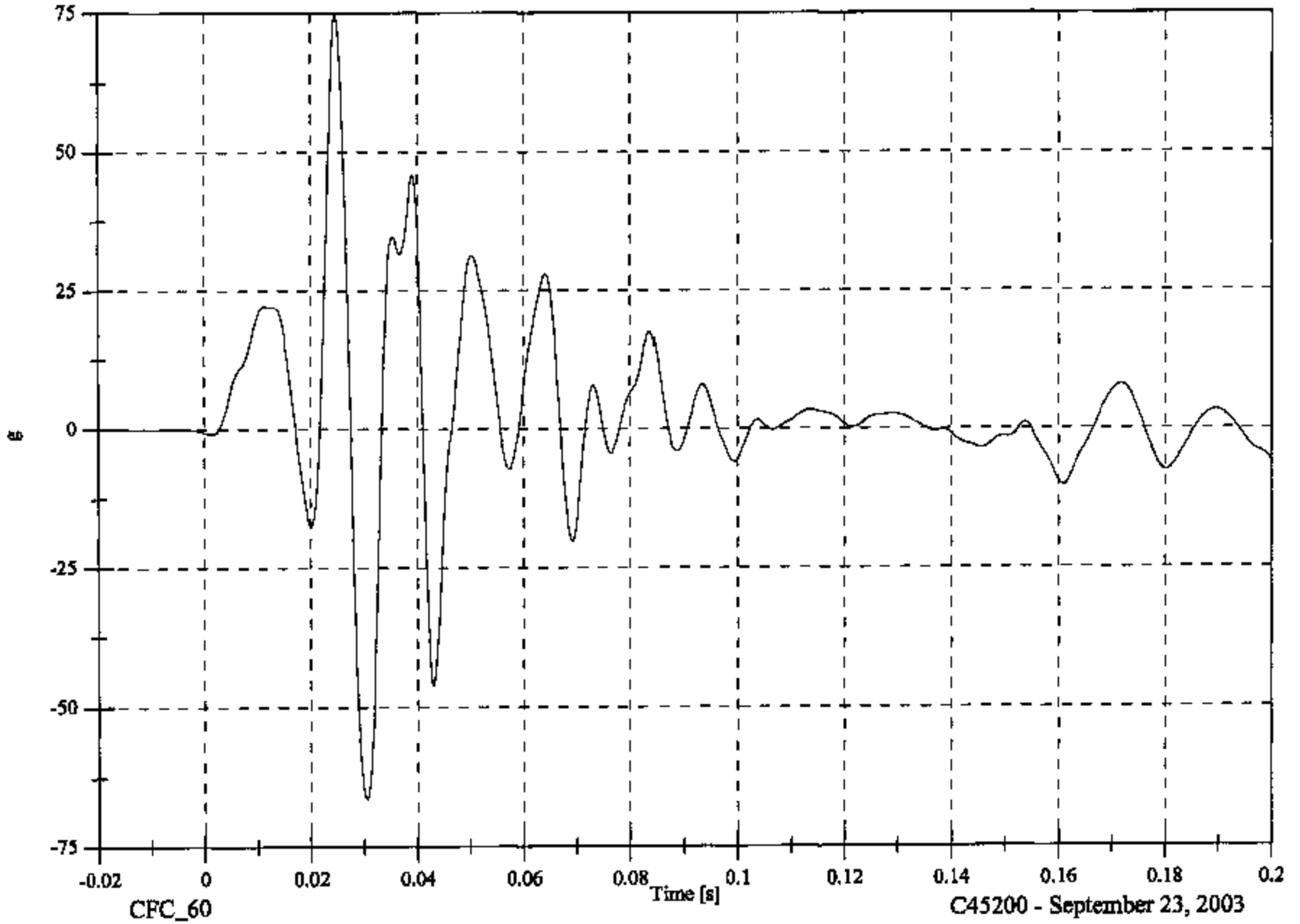
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 74.7 [g] at 0.025 [s]

V2 A15 Left Mid A Post y

Min: -66.3 [g] at 0.030 [s]



B-93

8675-F214-11

CFC_60

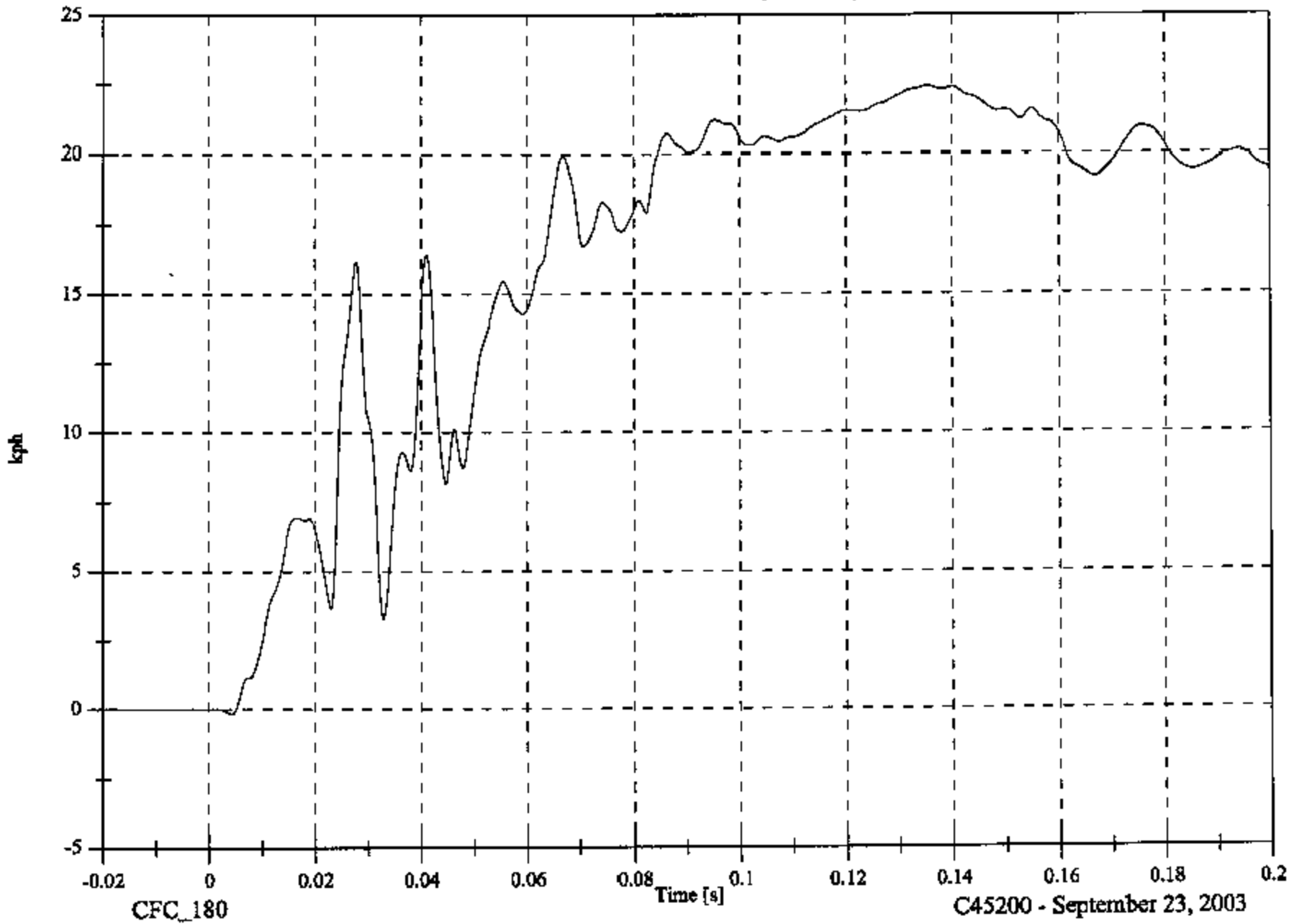
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A15 Left Mid A Post y Velocity

Max: 22.4 [kph] at 0.135 [s]

Min: -0.2 [kph] at 0.004 [s]



B-94

8675-F214-11

CFC_180

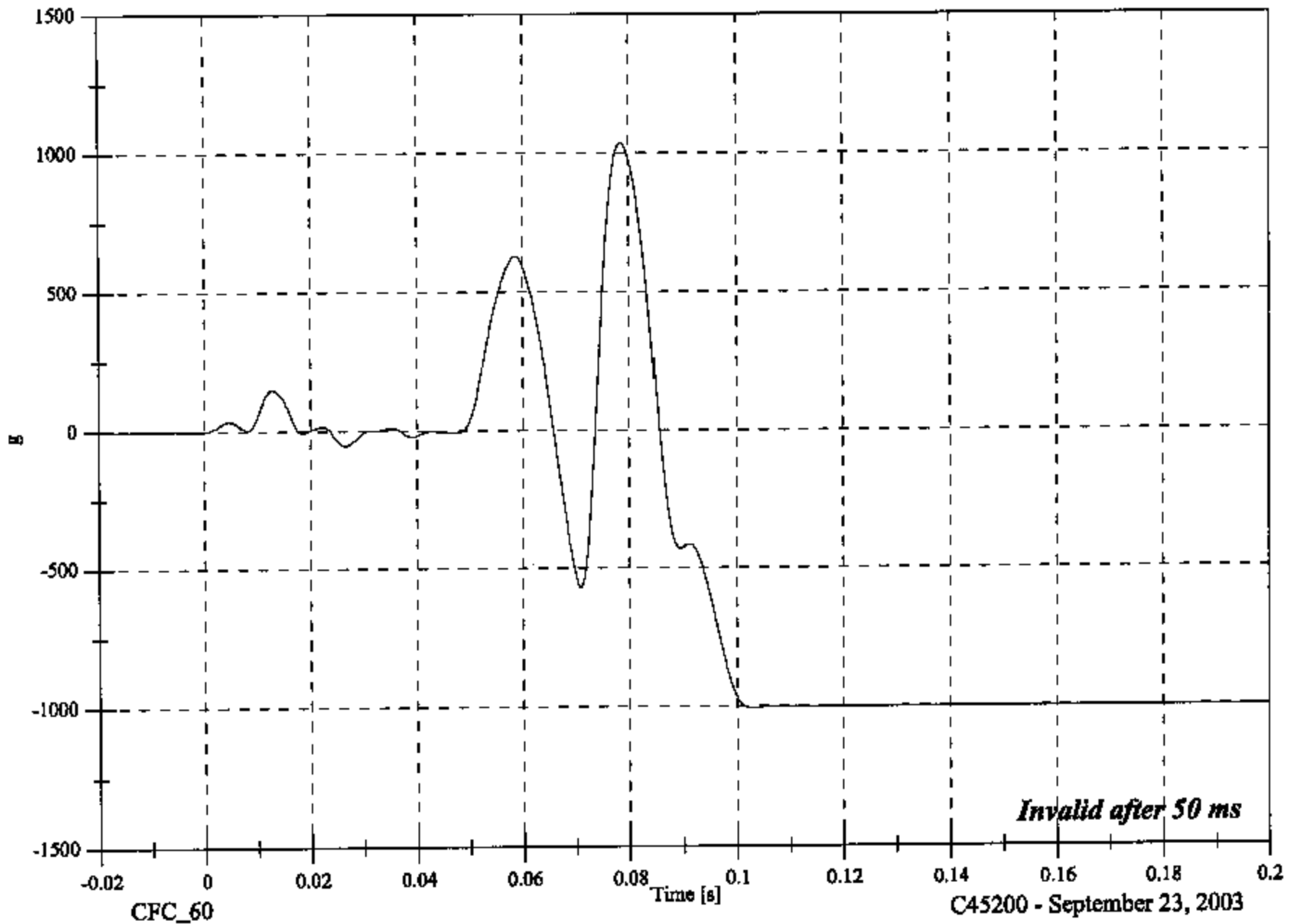
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 1035.0 [g] at 0.078 [s]

V2 A16 Front Seat Track y

Min: -1009.0 [g] at 0.103 [s]



B-95

8675-F214-11

Invalid after 50 ms

CFC_60

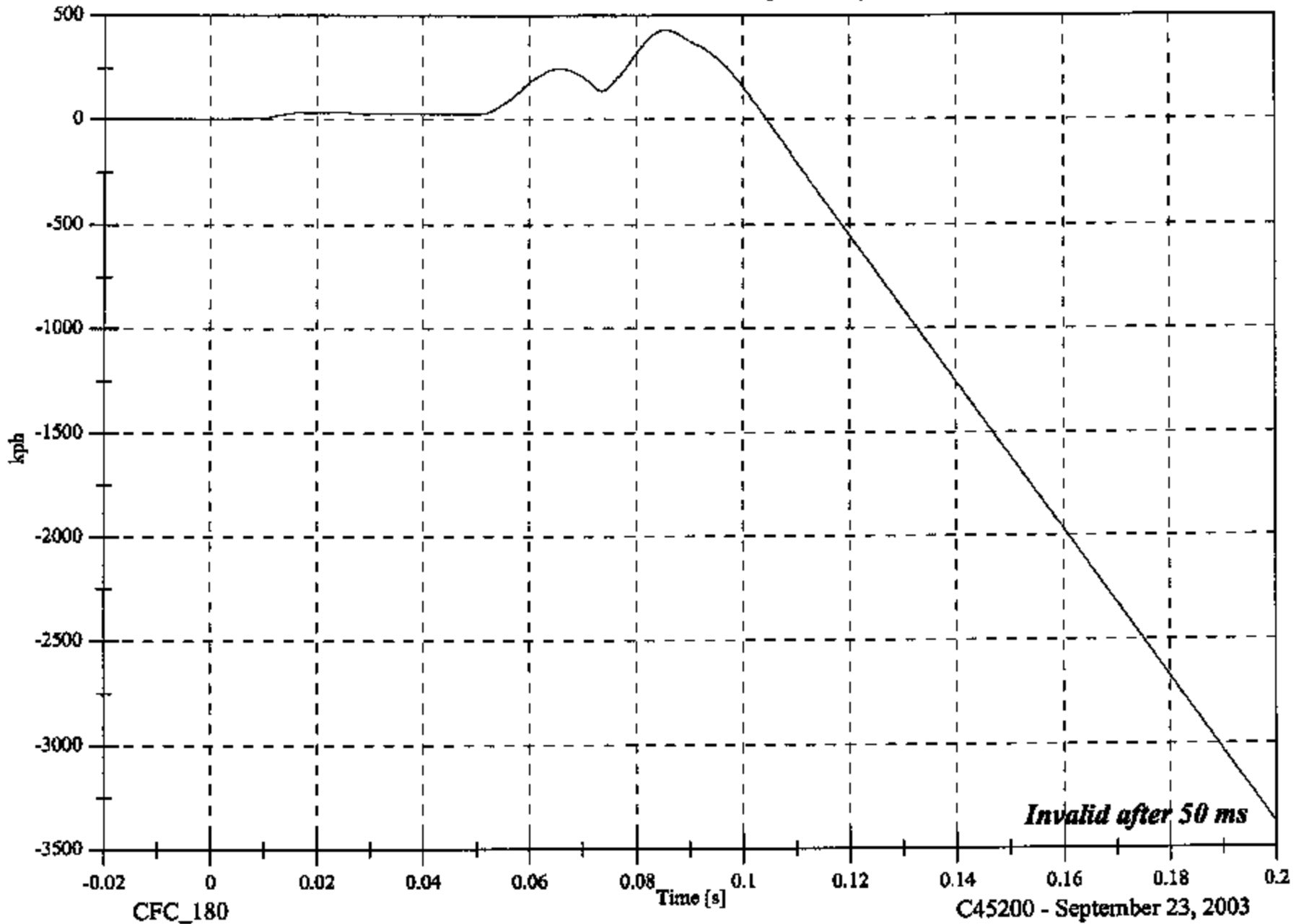
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A16 Front Seat Track y Velocity

Max: 433.3 [kph] at 0.085 [s]

Min: -3378.2 [kph] at 0.200 [s]



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8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

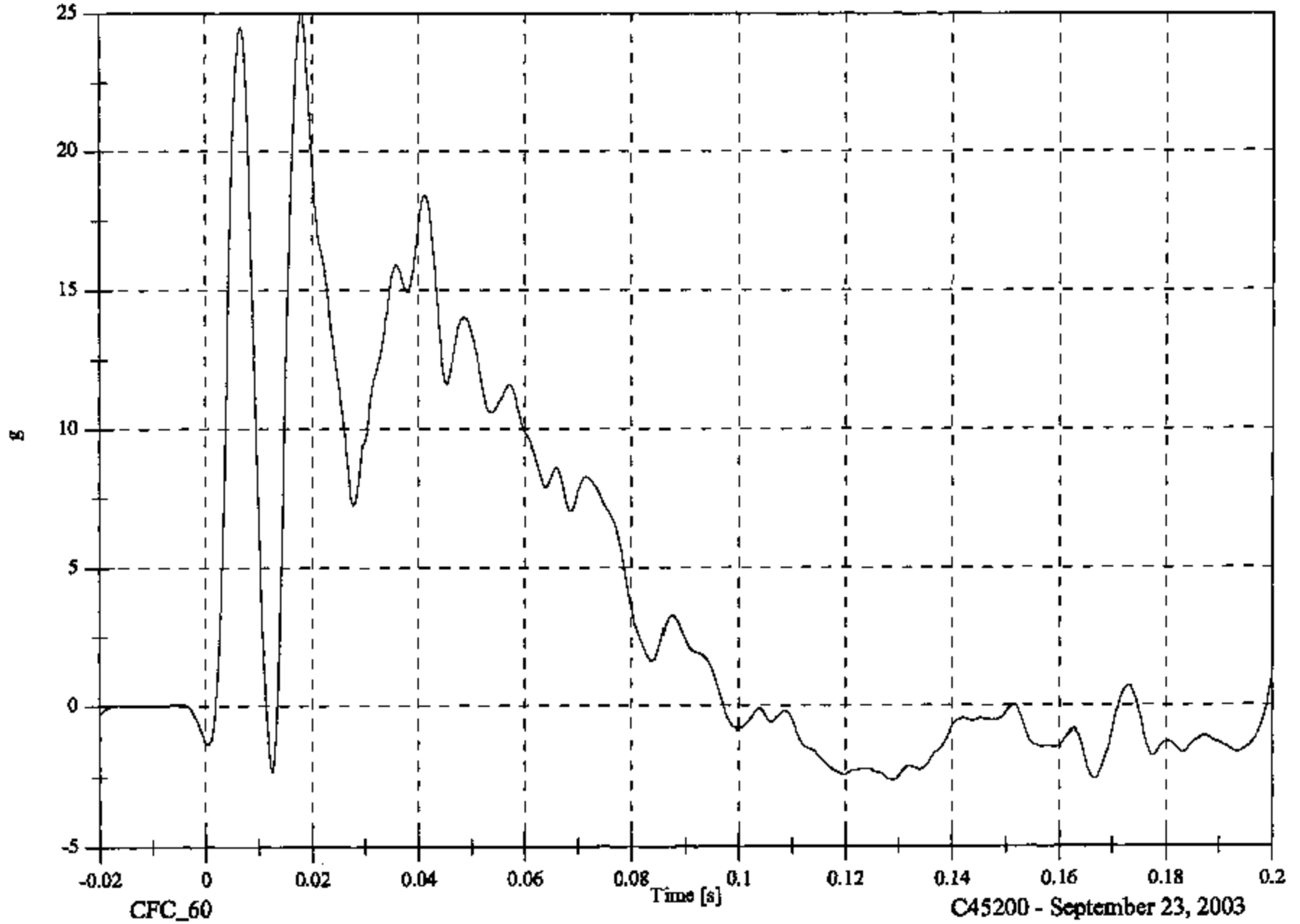
V2 A17 Rear Seat Track y

Max: 25.0 [g] at 0.018 [s]

Min: -2.6 [g] at 0.129 [s]

B-97

8675-F214-11



C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

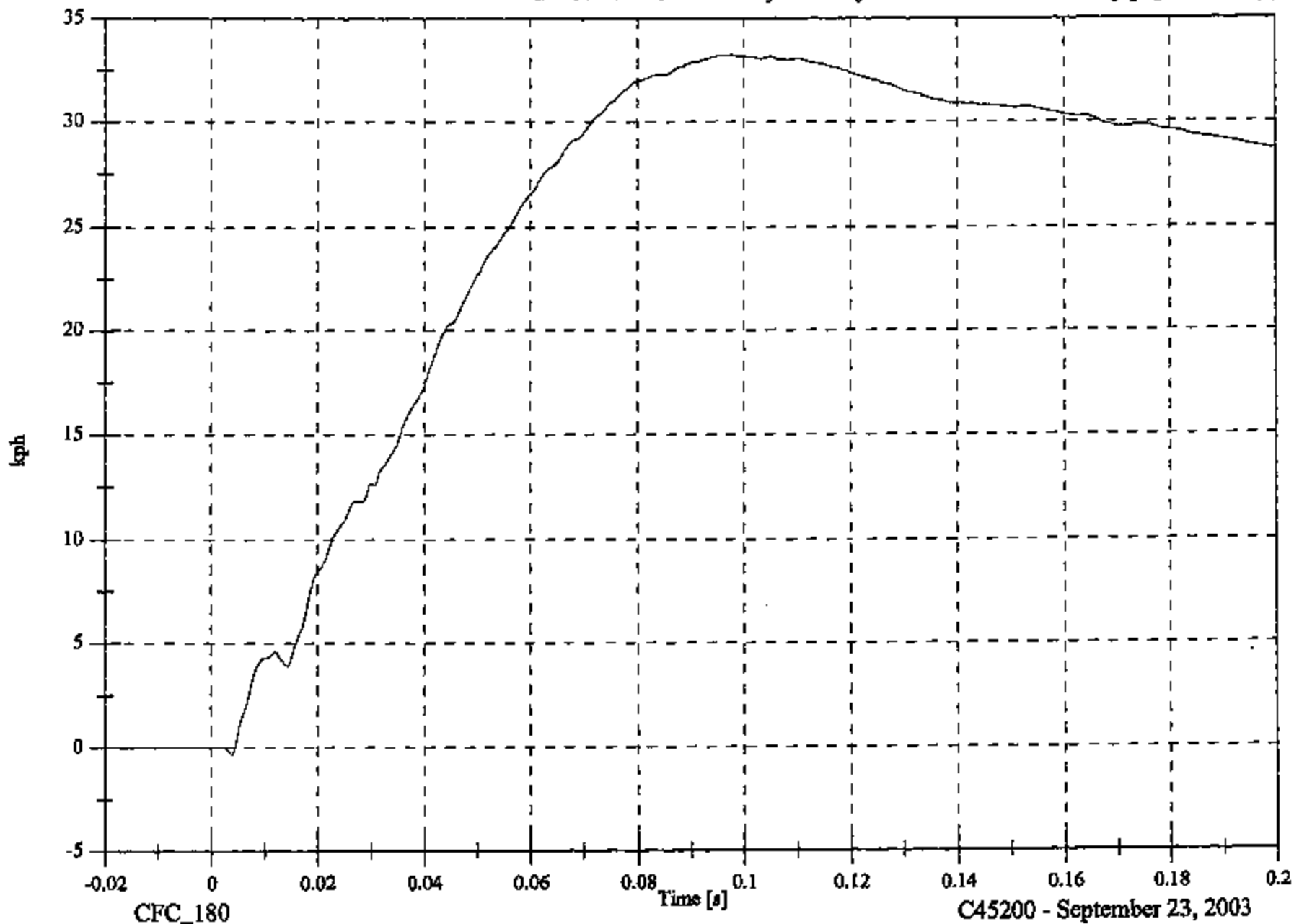
Max: 33.2 [kph] at 0.097 [s]

V2 A17 Rear Seat Track y Velocity

Min: -0.4 [kph] at 0.004 [s]

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8675-F214-11



CFC_180

Time [s]

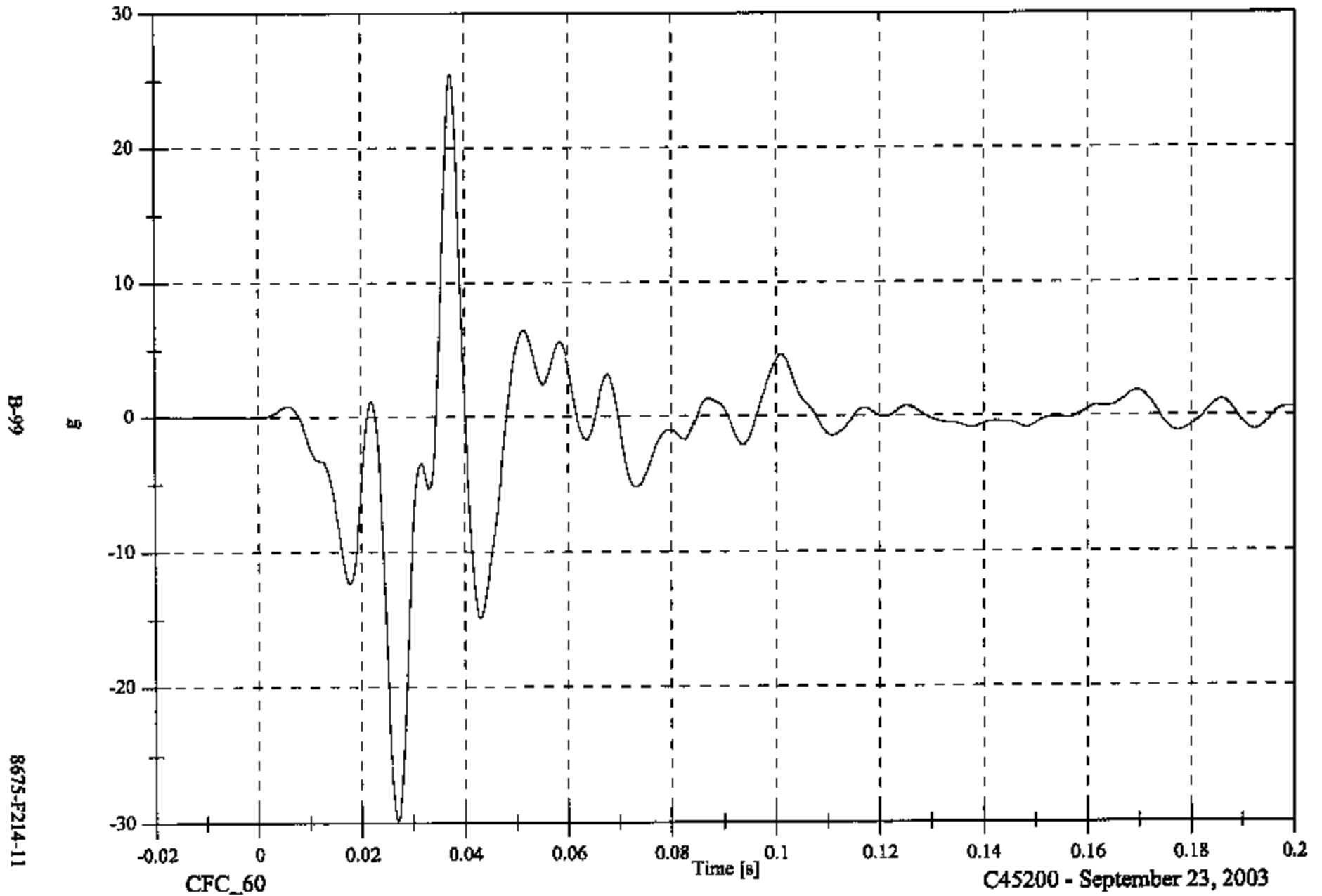
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 25.5 [g] at 0.037 [s]

V2 A18 Target CG x

Min: -29.8 [g] at 0.027 [s]



FMVSS 214D Indicant - 2004 Nissan Maxima

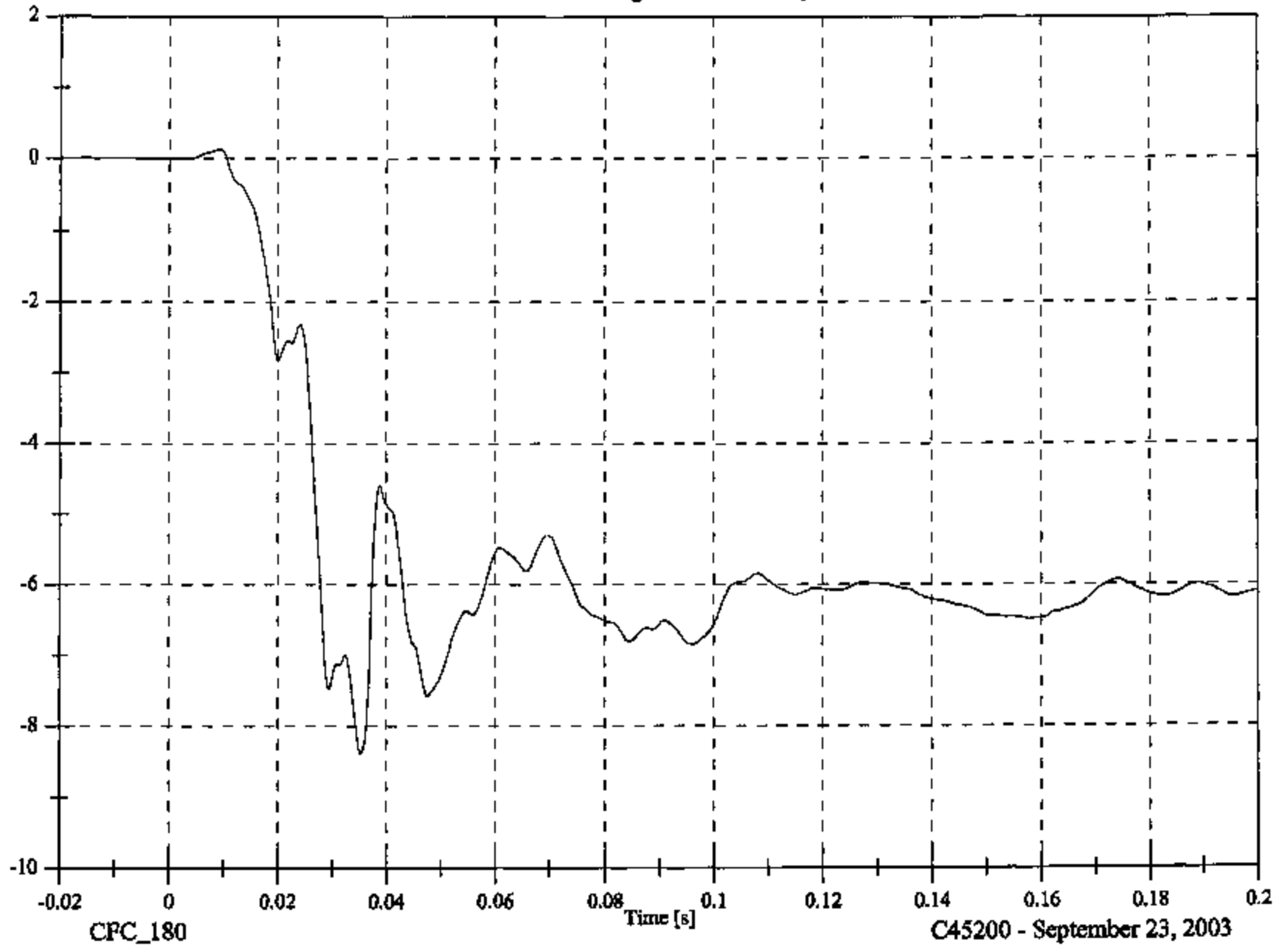
Max: 0.1 [kph] at 0.009 [s]

V2 A18 Target CG x Velocity

Min: -8.4 [kph] at 0.035 [s]

B-100

8675-F214-11

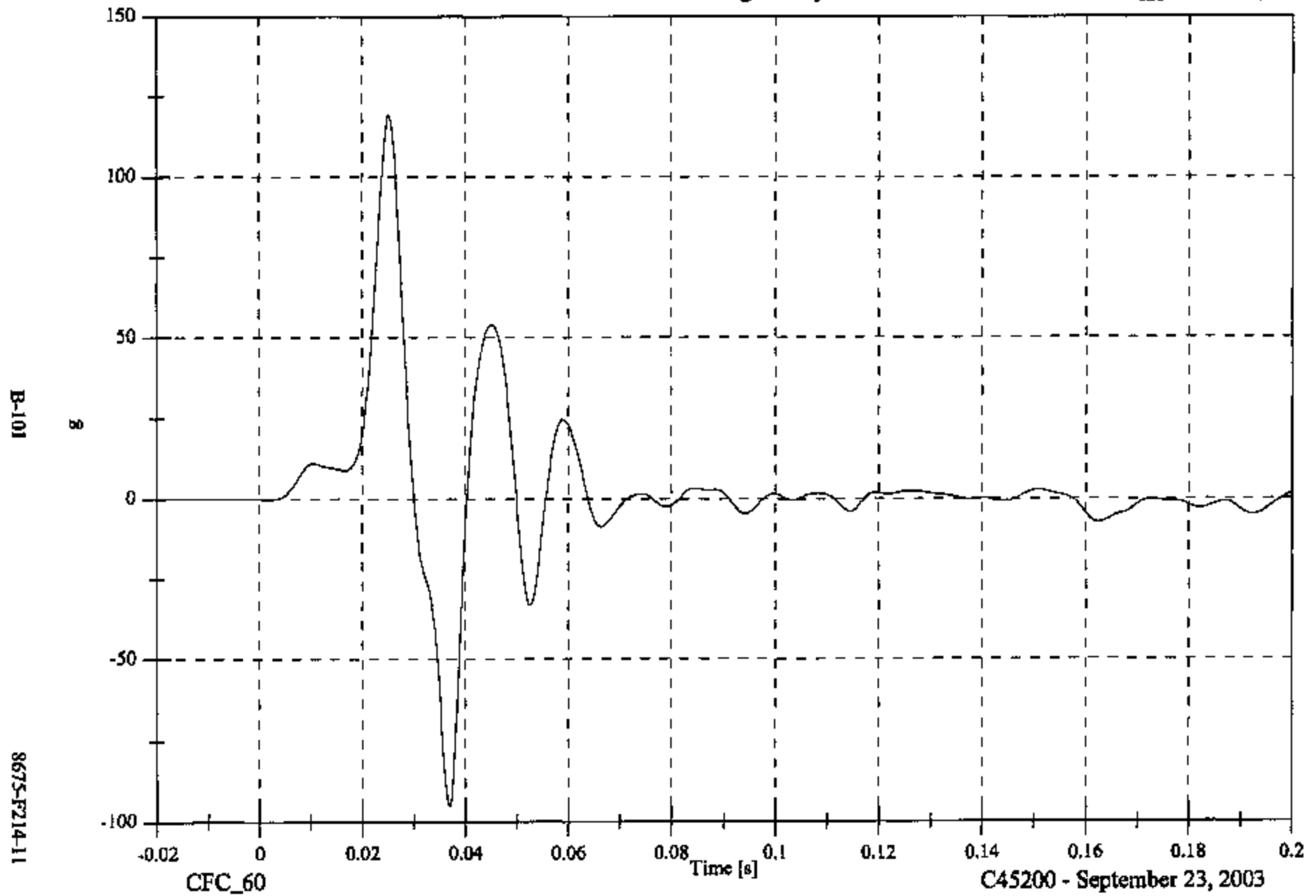


FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A18 Target CG y

Max: 119.1 [g] at 0.025 [s]

Min: -95.2 [g] at 0.037 [s]

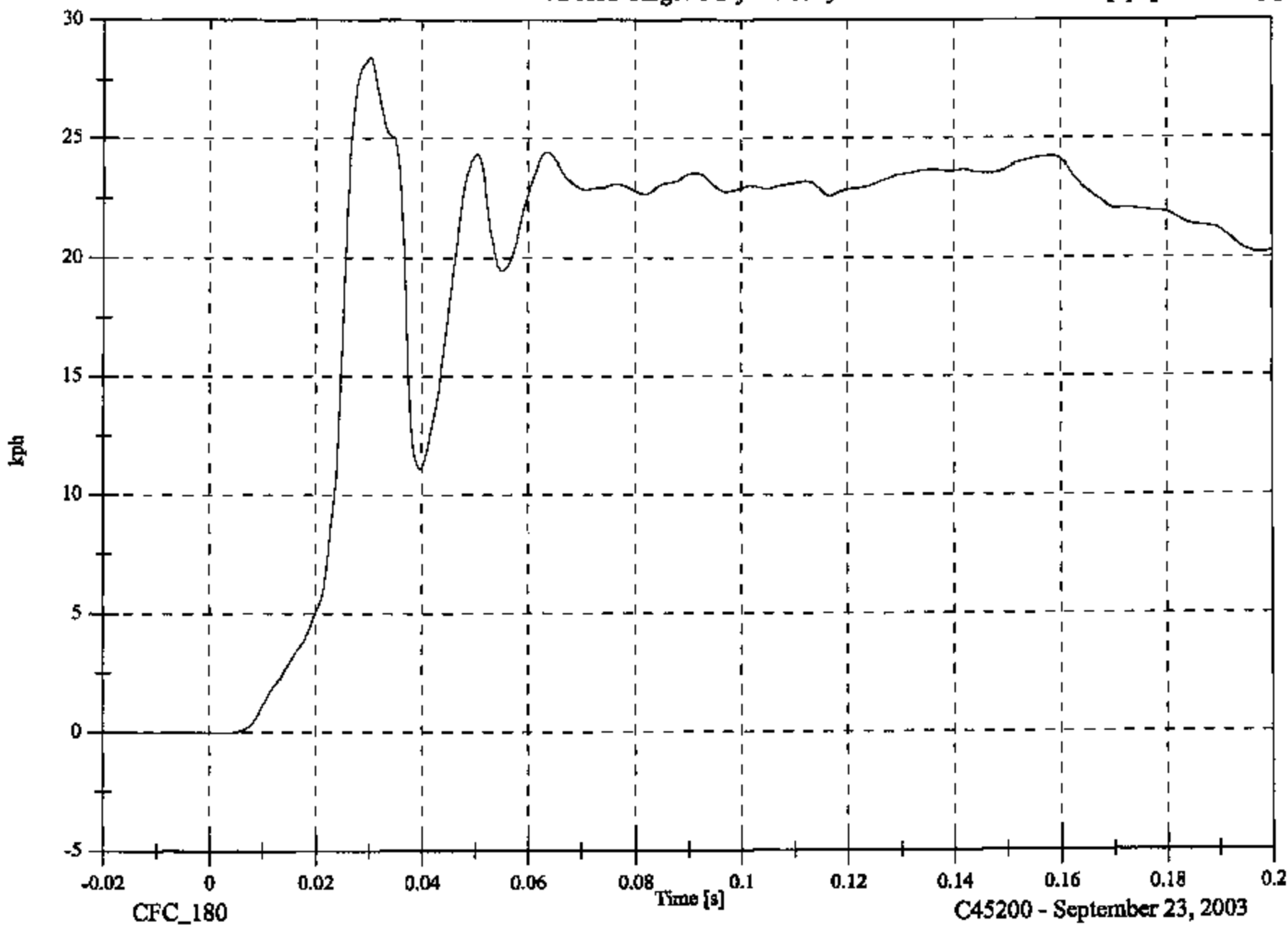


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 28.4 [kph] at 0.030 [s]

V2 A18 Target CG y Velocity

Min: -0.0 [kph] at -0.013 [s]



B-102

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

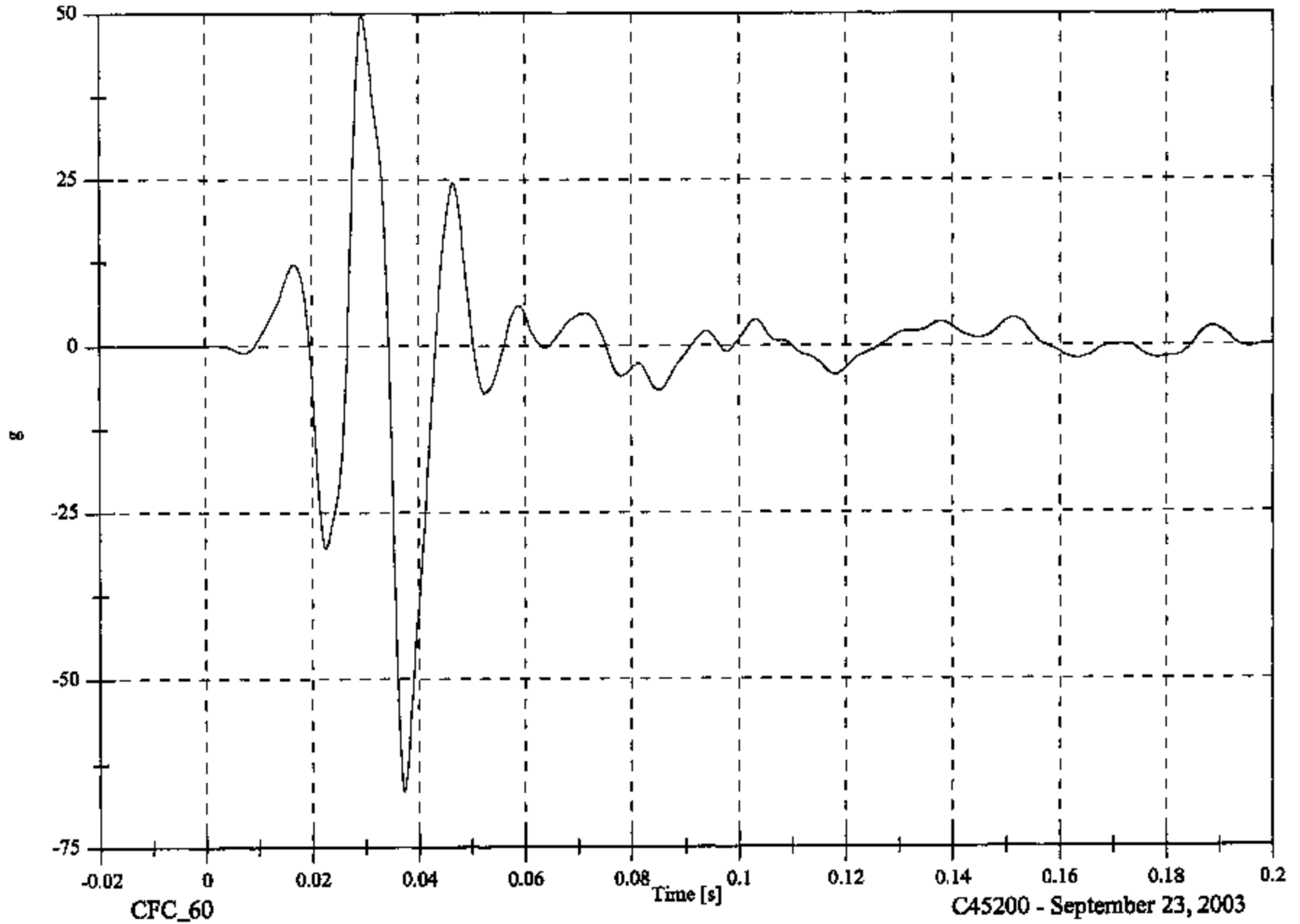
V2 A18 Target CG z

Max: 49.7 [g] at 0.029 [s]

Min: -66.6 [g] at 0.037 [s]

B-103

8675-F214+11



FMVSS 214D Indicant - 2004 Nissan Maxima

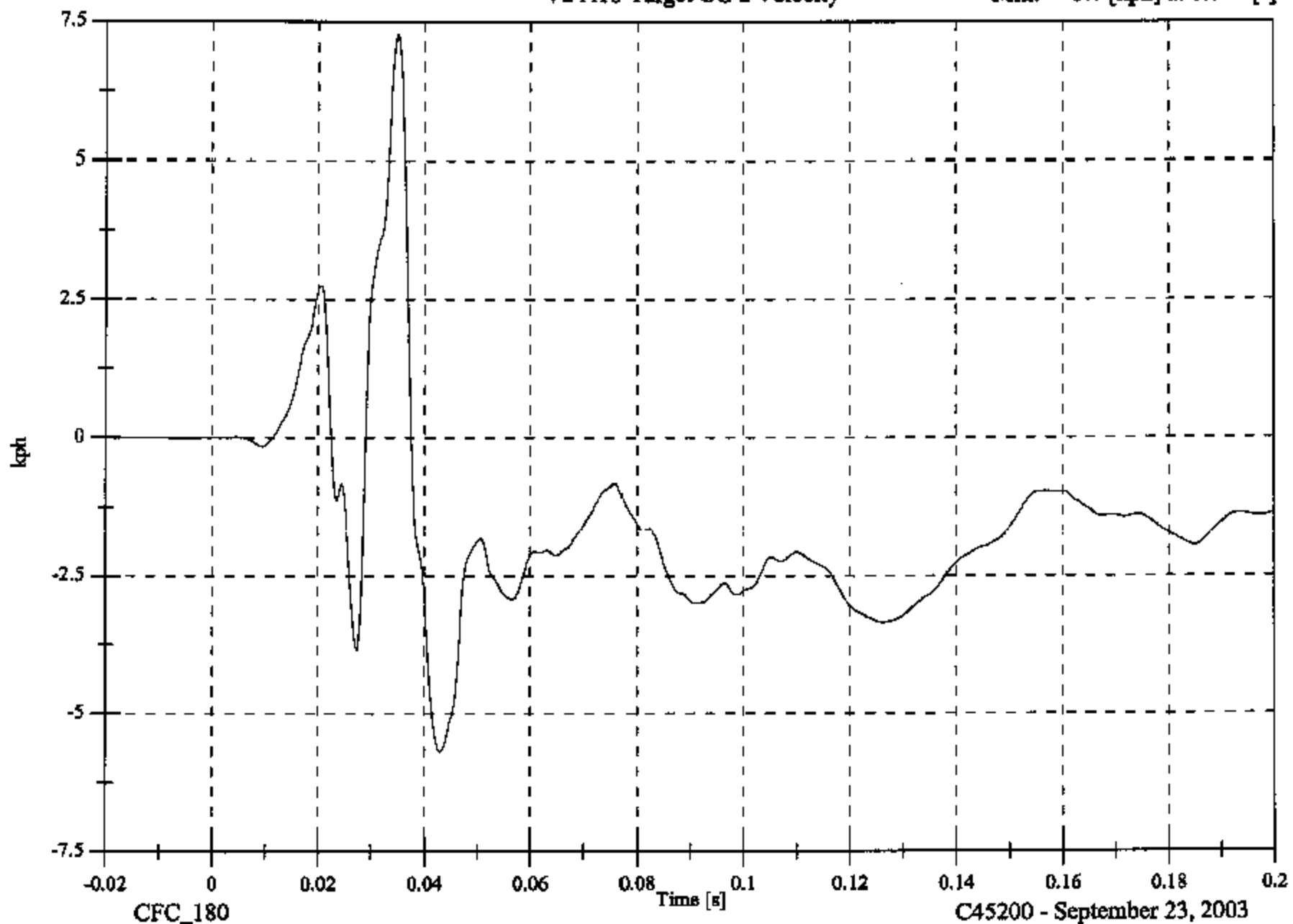
V2 A18 Target CG z Velocity

Max: 7.3 [kph] at 0.035 [s]

Min: -5.7 [kph] at 0.043 [s]

B-104

8675-F214-11



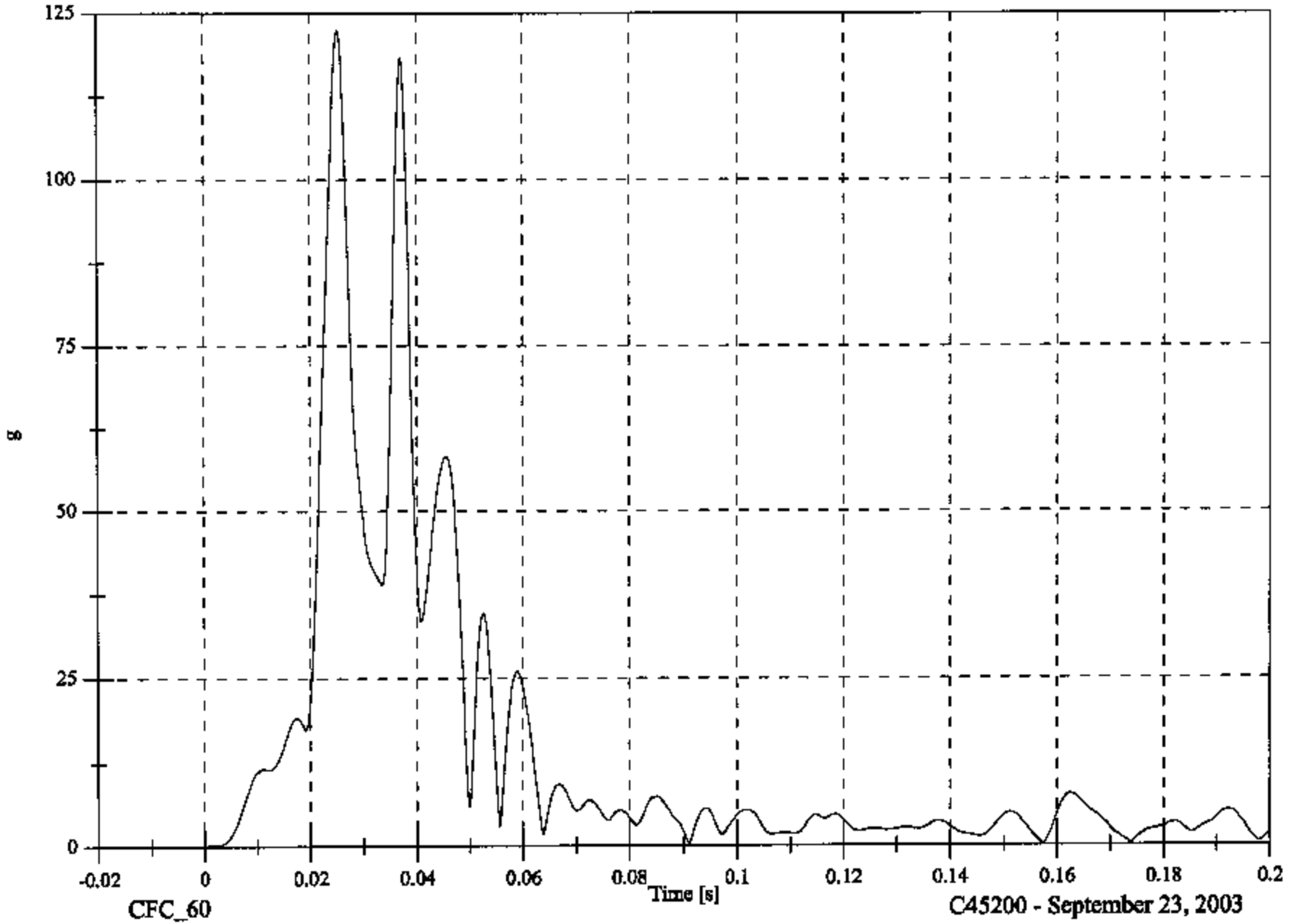
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2 A18 Target CG Resultant

Max: 122.5 [g] at 0.025 [s]

Min: 0.0 [g] at -0.013 [s]



B-105

8675-F214-11

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

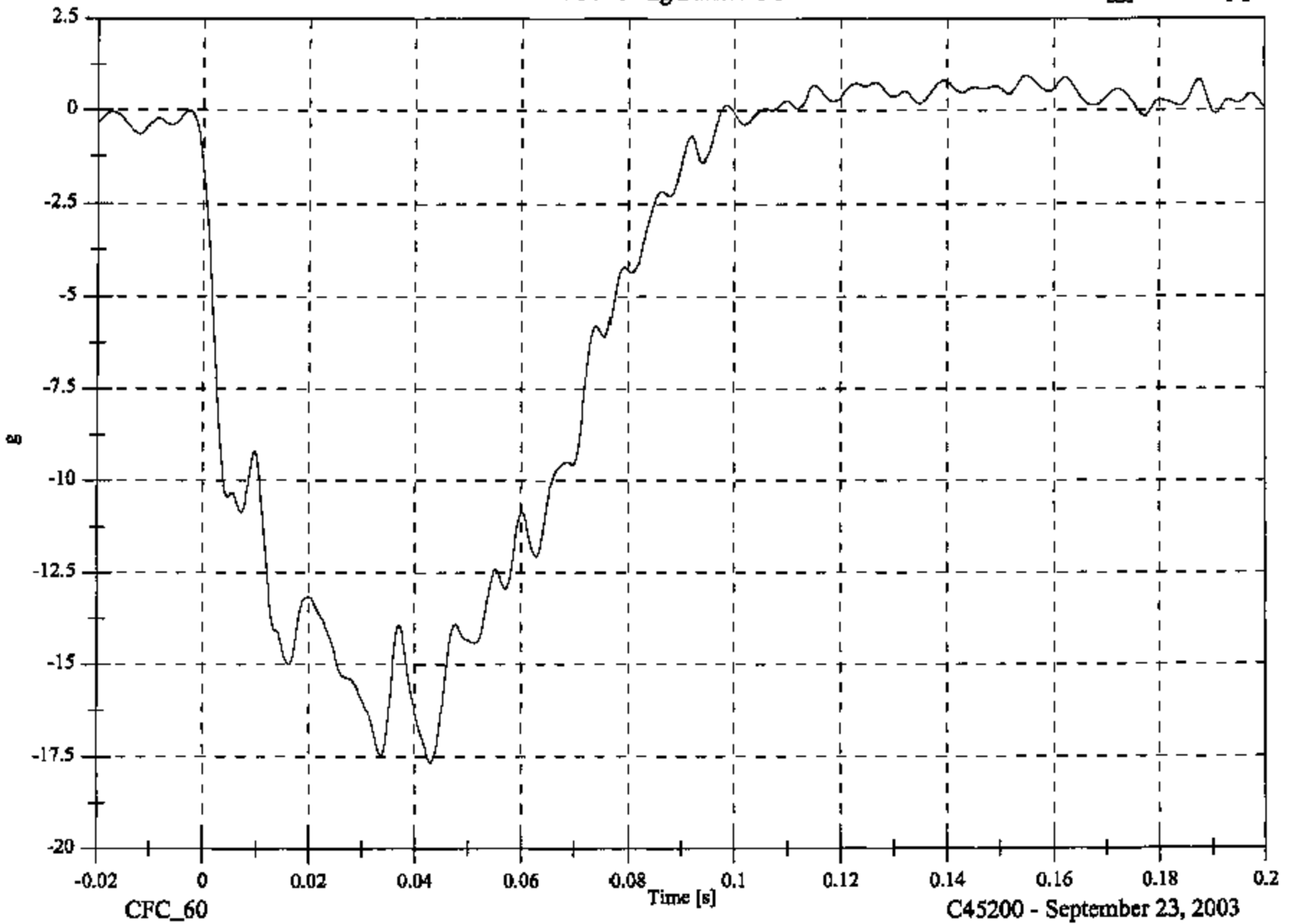
V1 Moving Barrier CG X

Max: 0.9 [g] at 0.155 [s]

Min: -17.6 [g] at 0.043 [s]

B-106

8675-F214-11

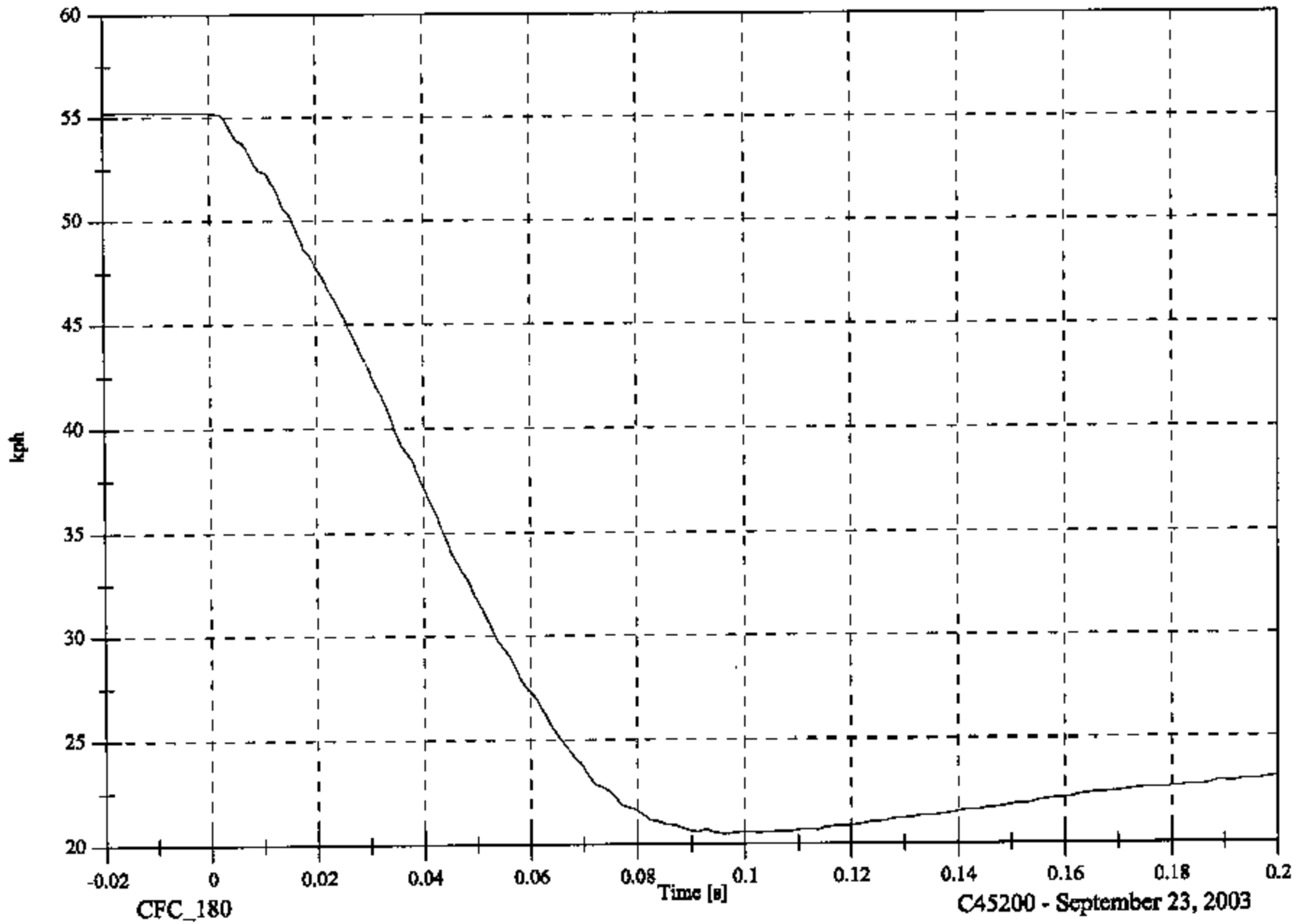


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 55.2 [kph] at -0.015 [s]

V1 Moving Barrier CG X Velocity

Min: 20.5 [kph] at 0.096 [s]



B-107

8675-F214-11

CFC_180

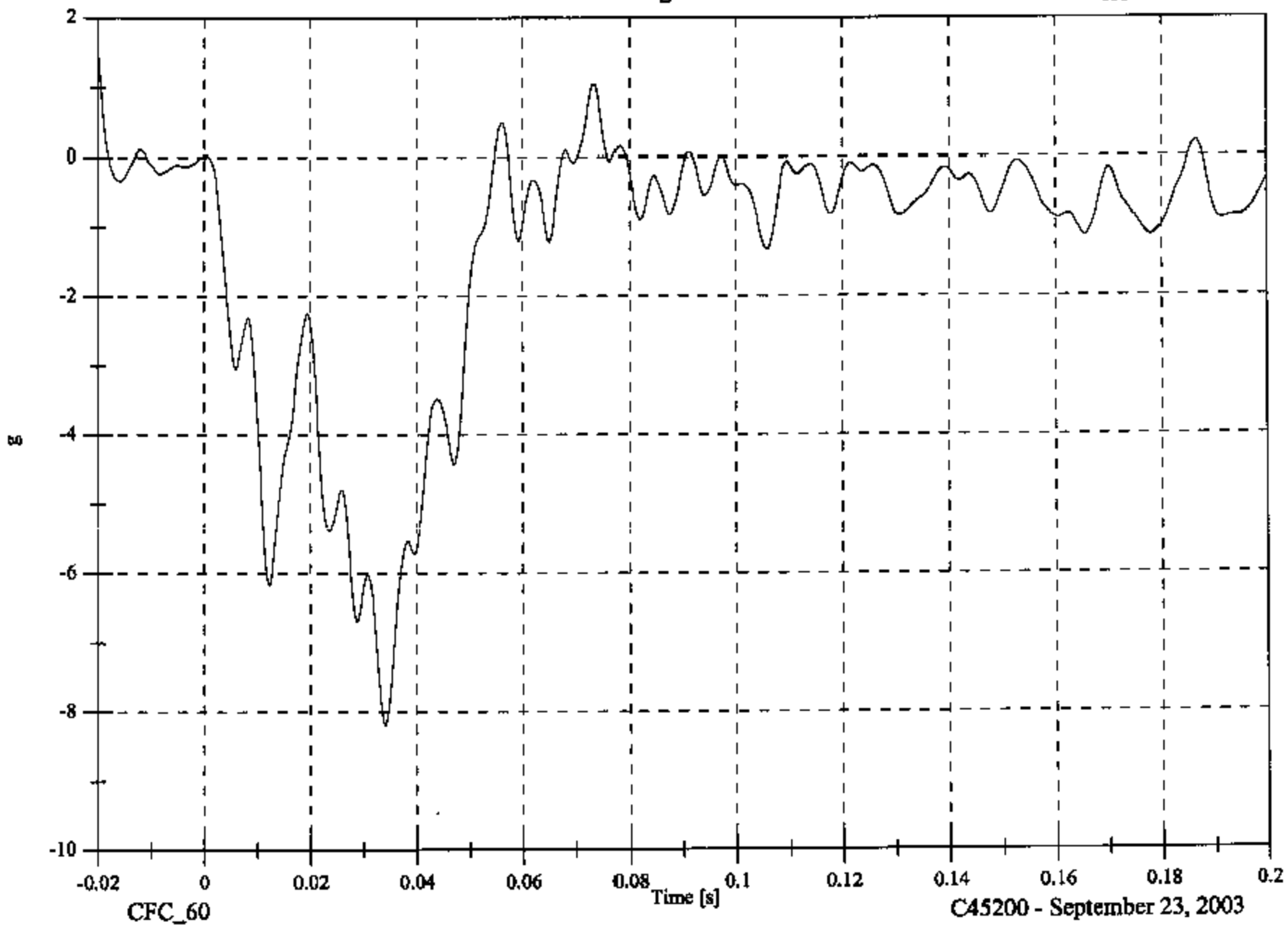
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 1.5 [g] at -0.020 [s]

V1 Moving Barrier CG Y

Min: -8.2 [g] at 0.034 [s]



B-108

8675-F214-11

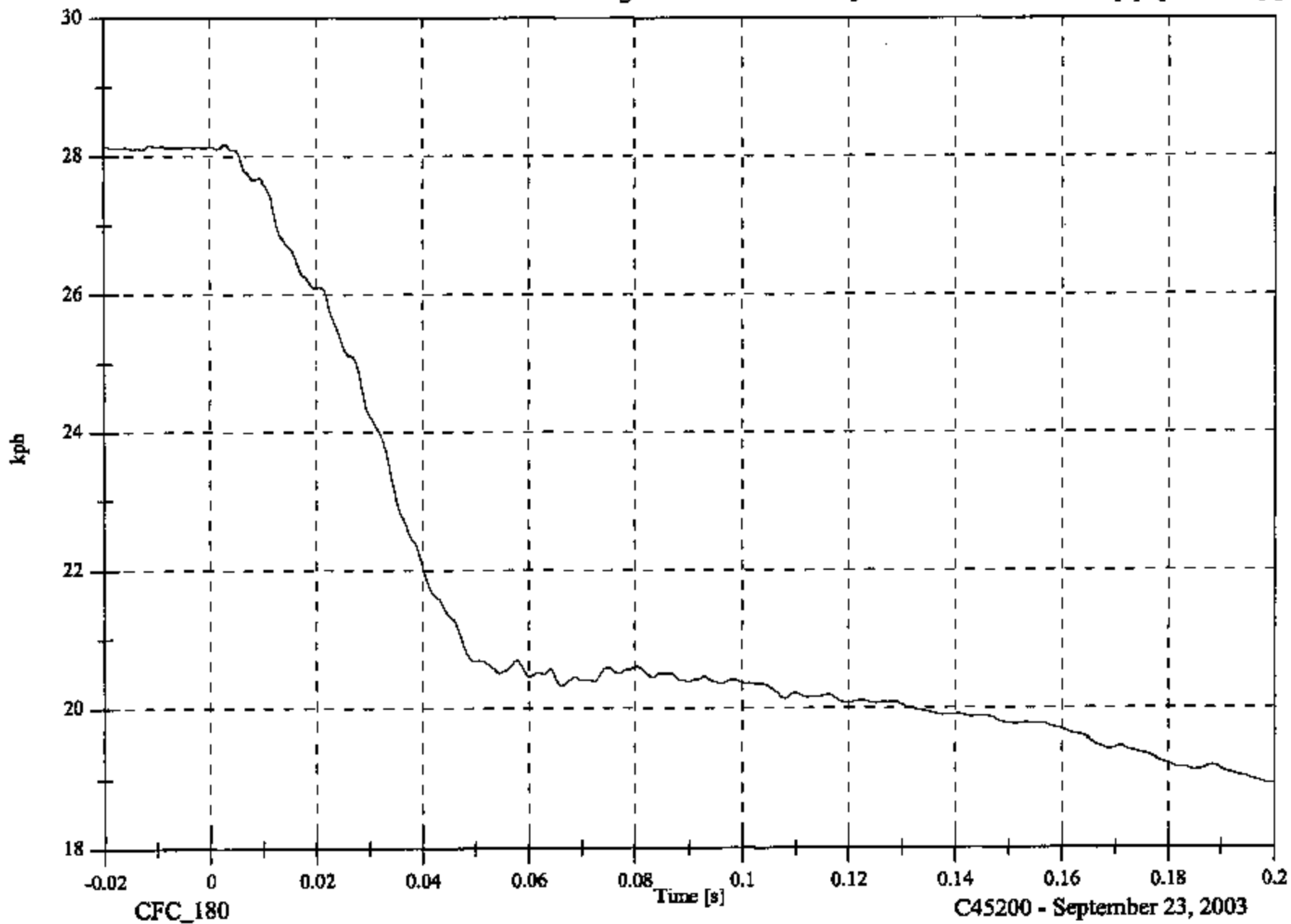
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 28.2 [kph] at 0.003 [s]

V1 Moving Barrier CG Y Velocity

Min: 18.9 [kph] at 0.200 [s]



B-109

8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

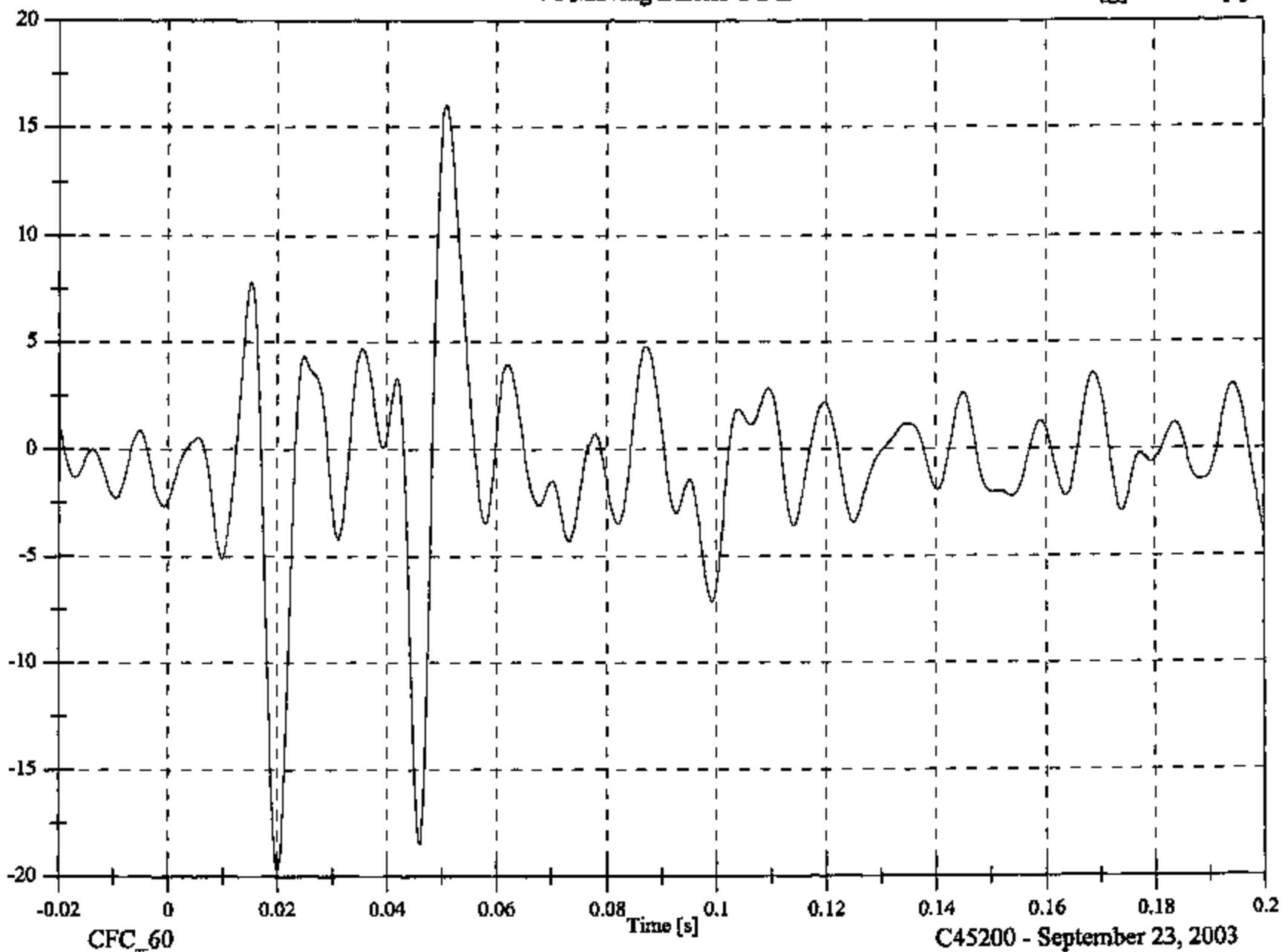
Max: 16.0 [g] at 0.051 [s]

V1 Moving Barrier CG Z

Min: -19.7 [g] at 0.020 [s]

B-110

8675-F214-11



FMVSS 214D Indicant - 2004 Nissan Maxima

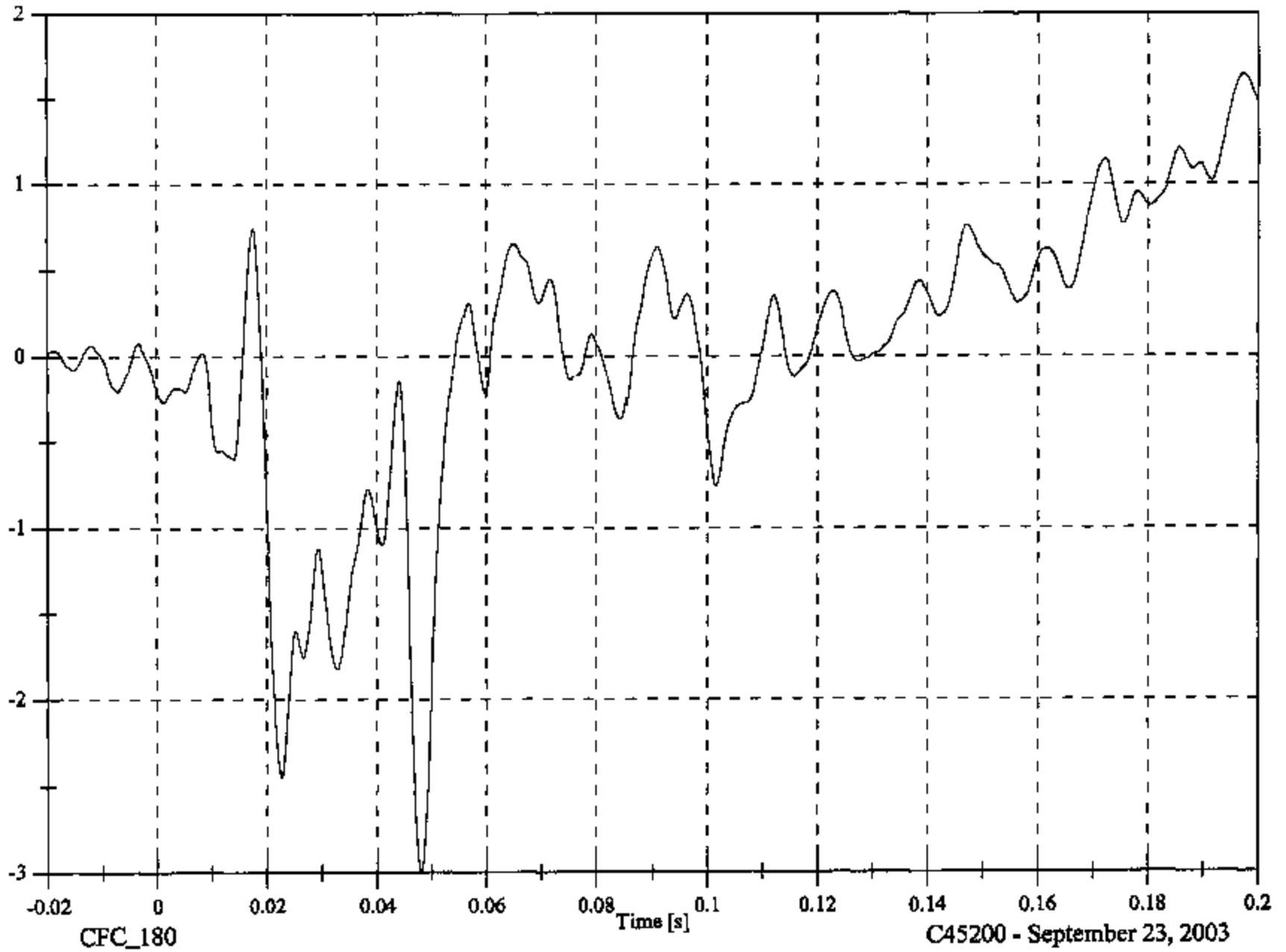
Max: 1.6 [kph] at 0.197 [s]

V1 Moving Barrier CG Z Velocity

Min: -3.0 [kph] at 0.048 [s]

B-111

kph



8675-F214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

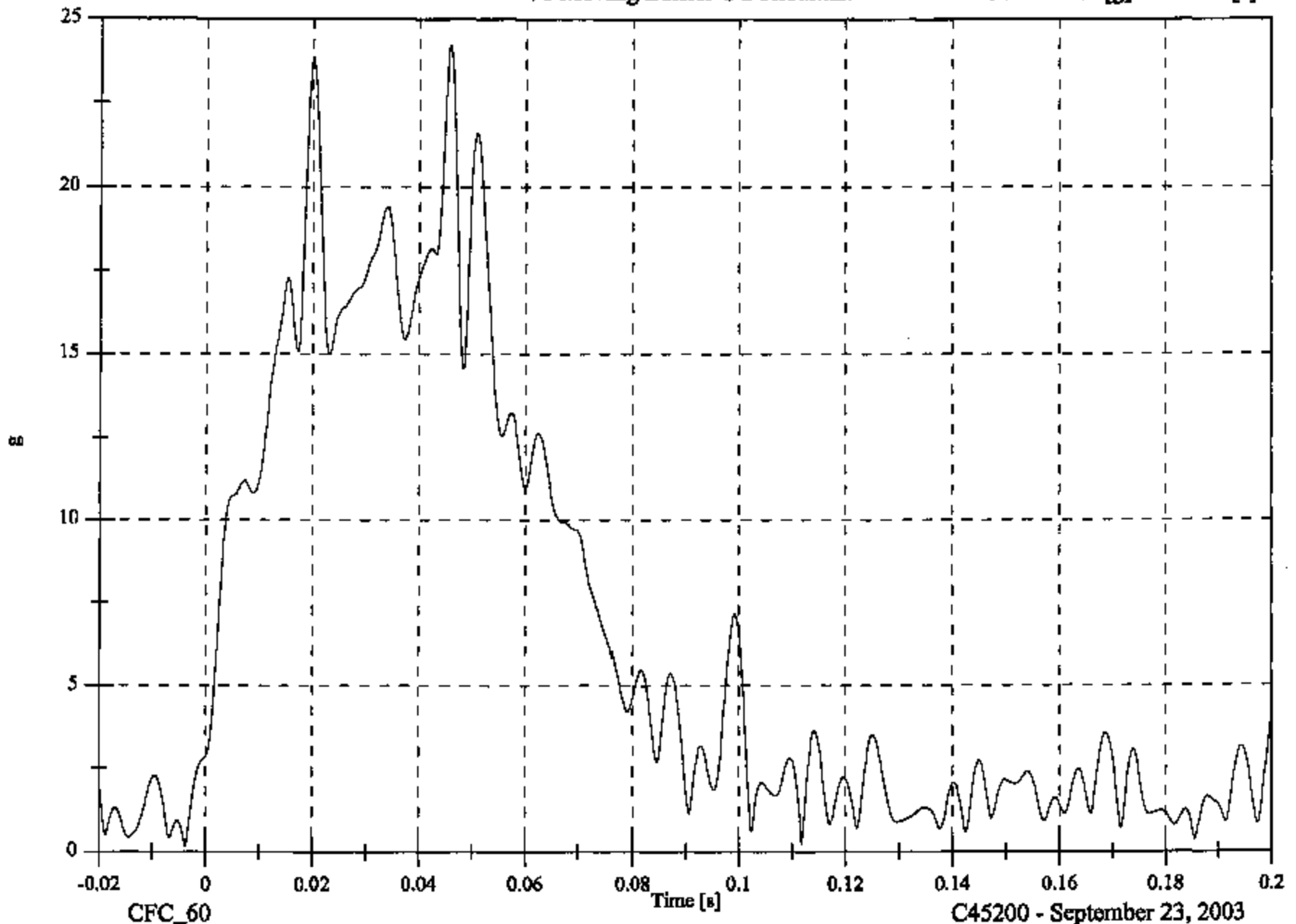
V1 Moving Barrier CG Resultant

Max: 24.2 [g] at 0.046 [s]

Min: 0.2 [g] at -0.004 [s]

B-112

8675-F214-11

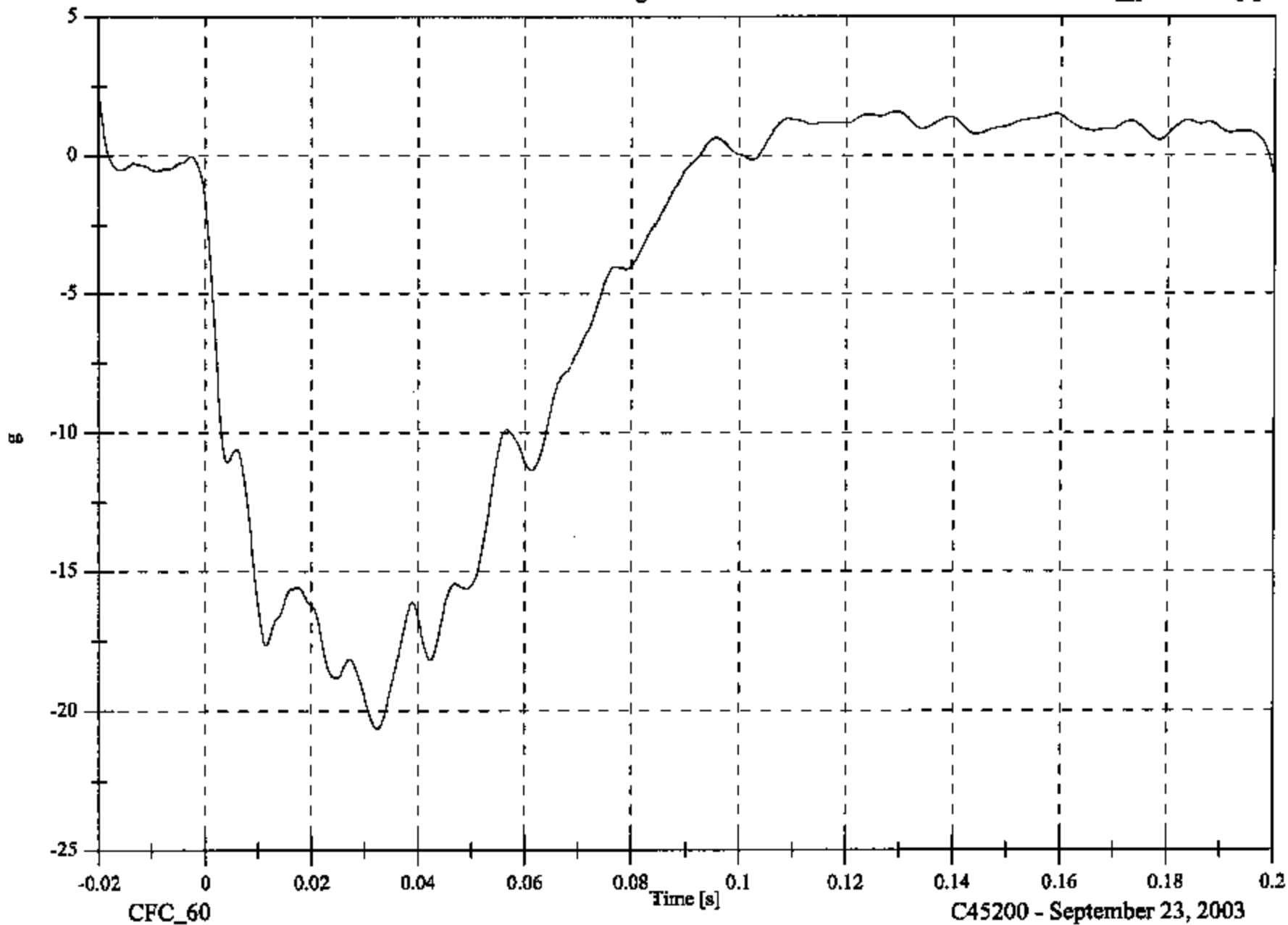


FMVSS 214D Indicant - 2004 Nissan Maxima

V1 Moving Barrier Left Rail X

Max: 2.2 [g] at -0.020 [s]

Min: -20.6 [g] at 0.032 [s]



B-113

8675-F214-11

CFC_60

Time [s]

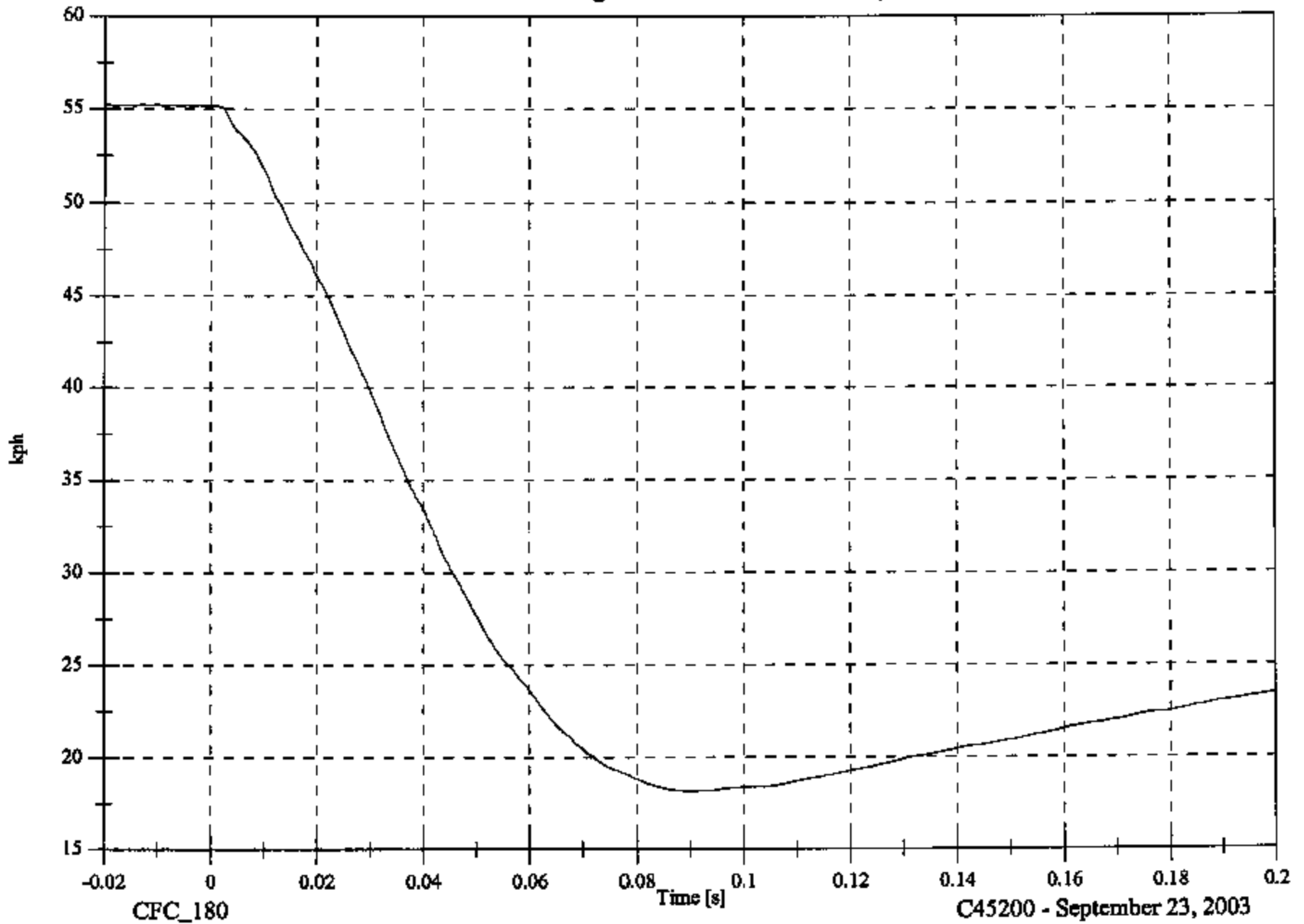
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 55.2 [kph] at -0.020 [s]

V1 Moving Barrier Left Rail X Velocity

Min: 18.2 [kph] at 0.089 [s]



B-114

B675-F214-11

CFC_180

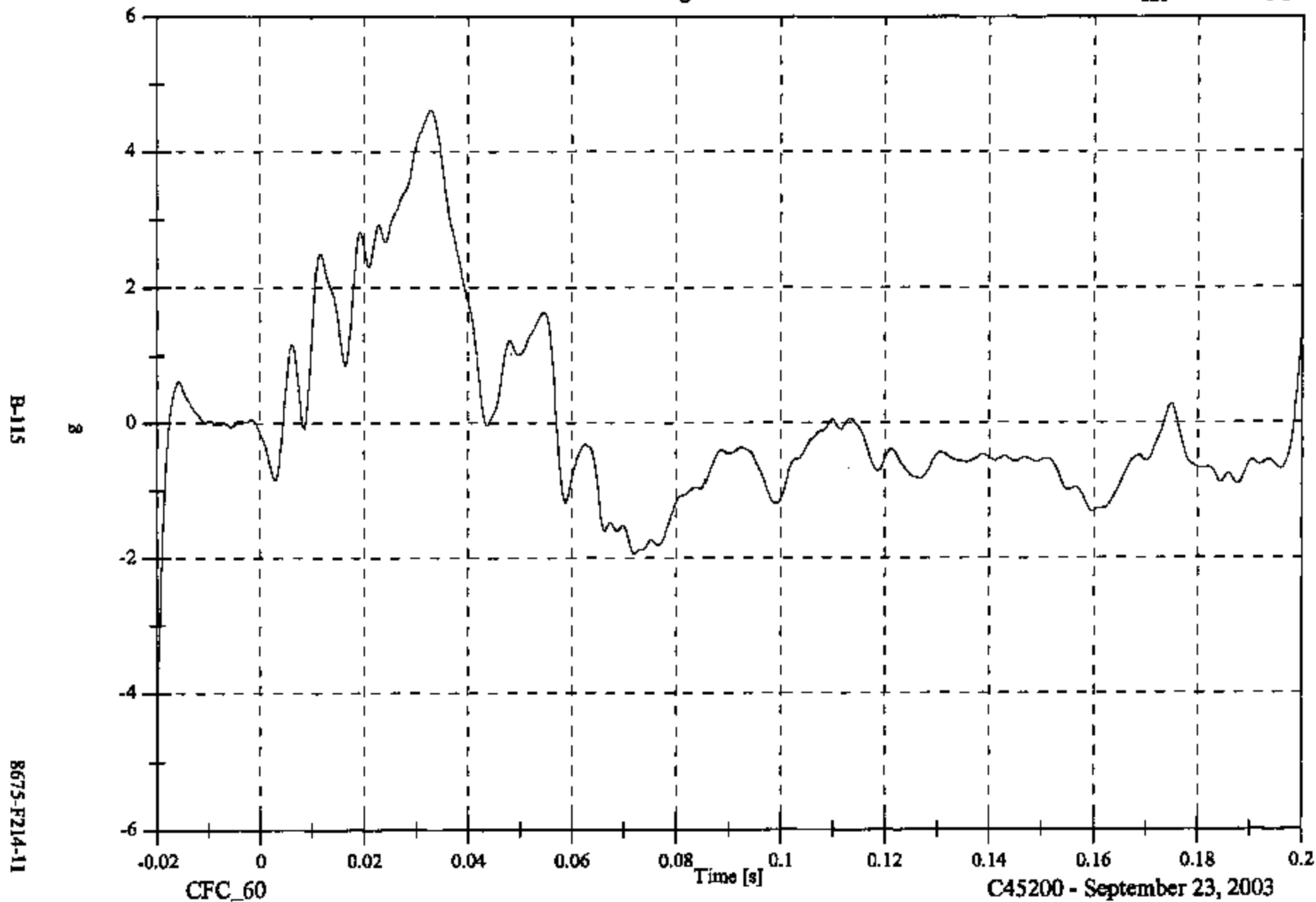
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V1 Moving Barrier Left Rail Y

Max: 4.6 [g] at 0.033 [s]

Min: -4.4 [g] at -0.020 [s]

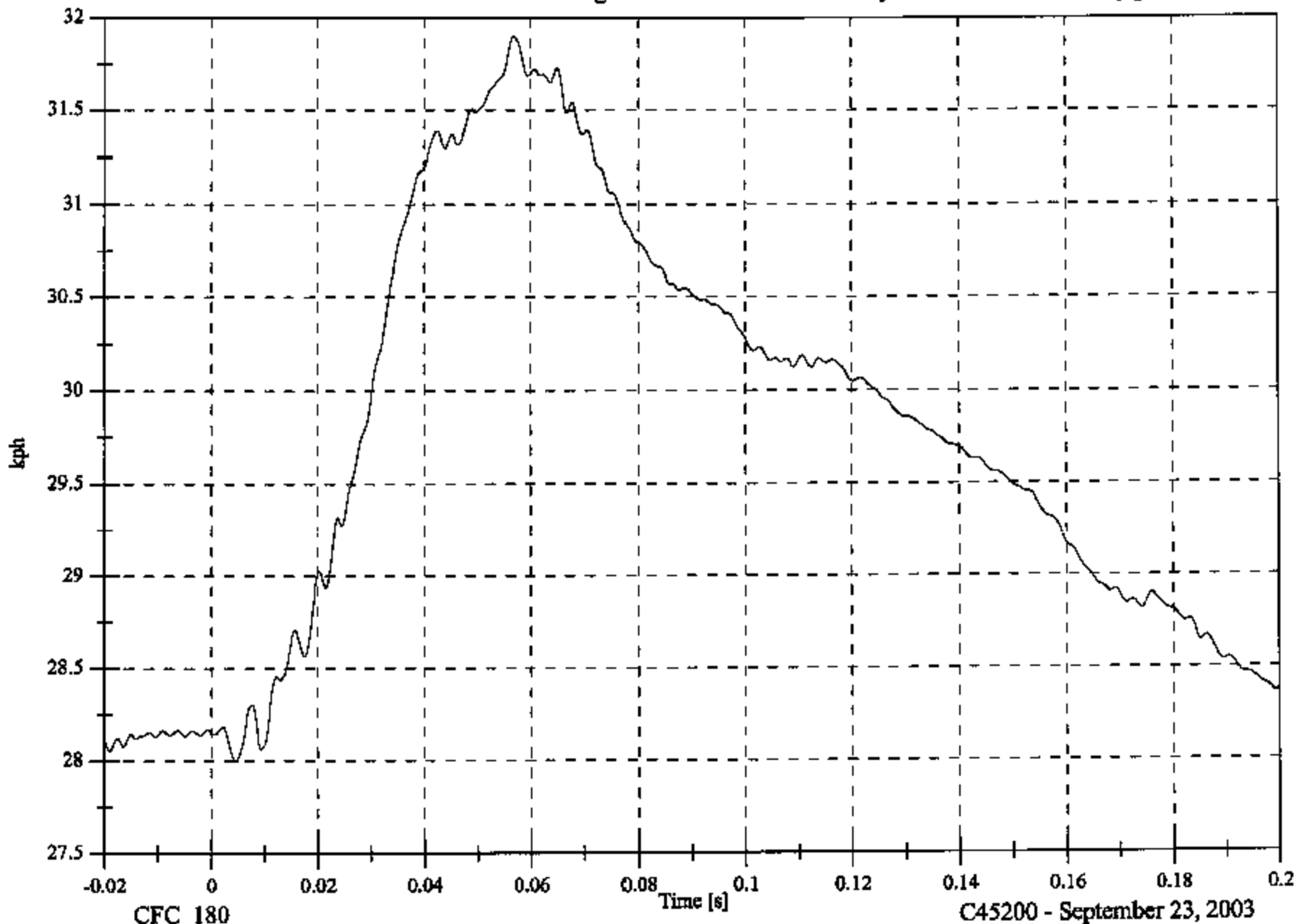


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 31.9 [kph] at 0.057 [s]

V1 Moving Barrier Left Rail Y Velocity

Min: 28.0 [kph] at 0.005 [s]



B-116

8675-F214-11

CFC_180

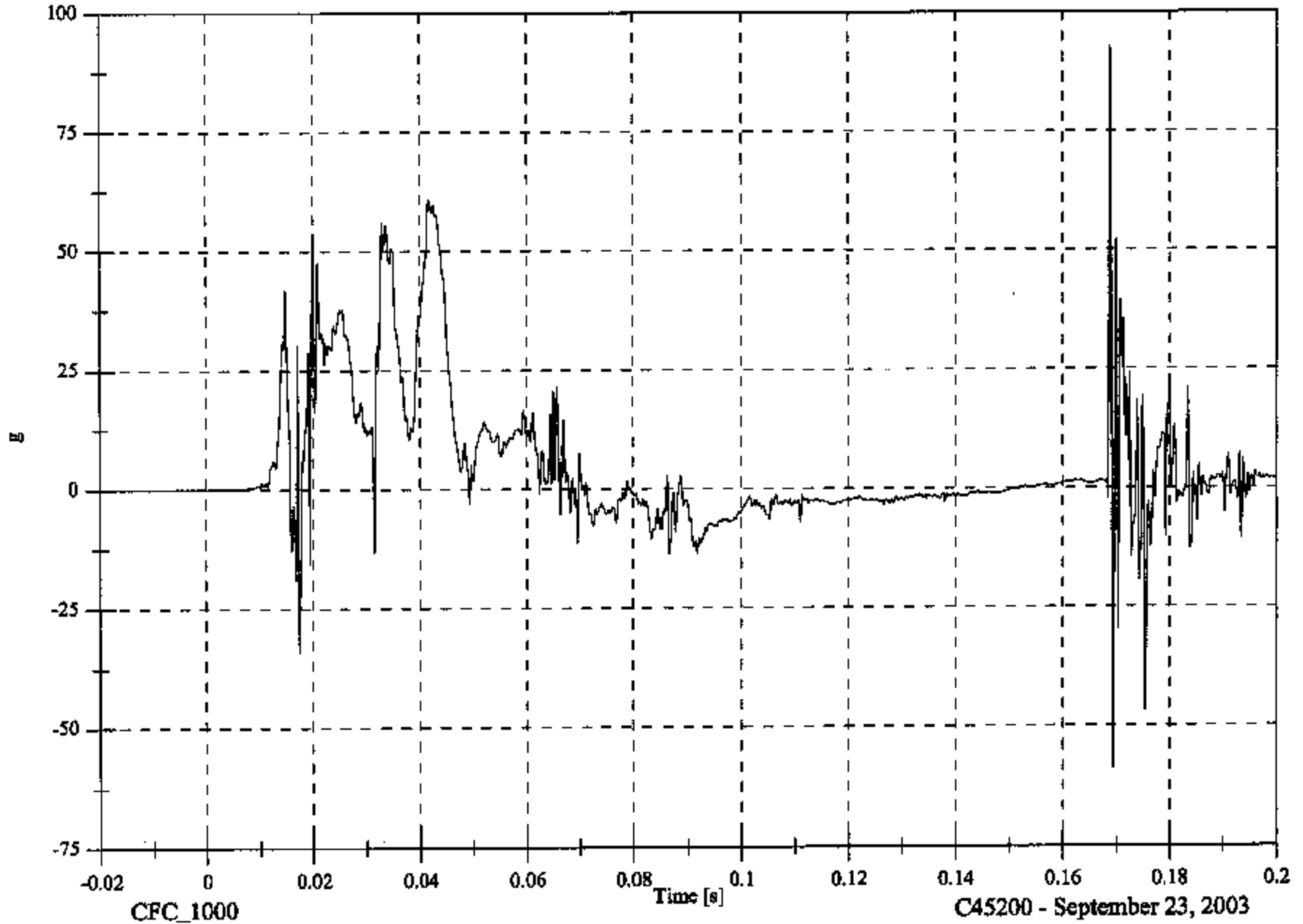
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 92.7 [g] at 0.169 [s]

V2P1 Upper Rib Ry

Min: -58.6 [g] at 0.169 [s]



B-117

8675-F214-11

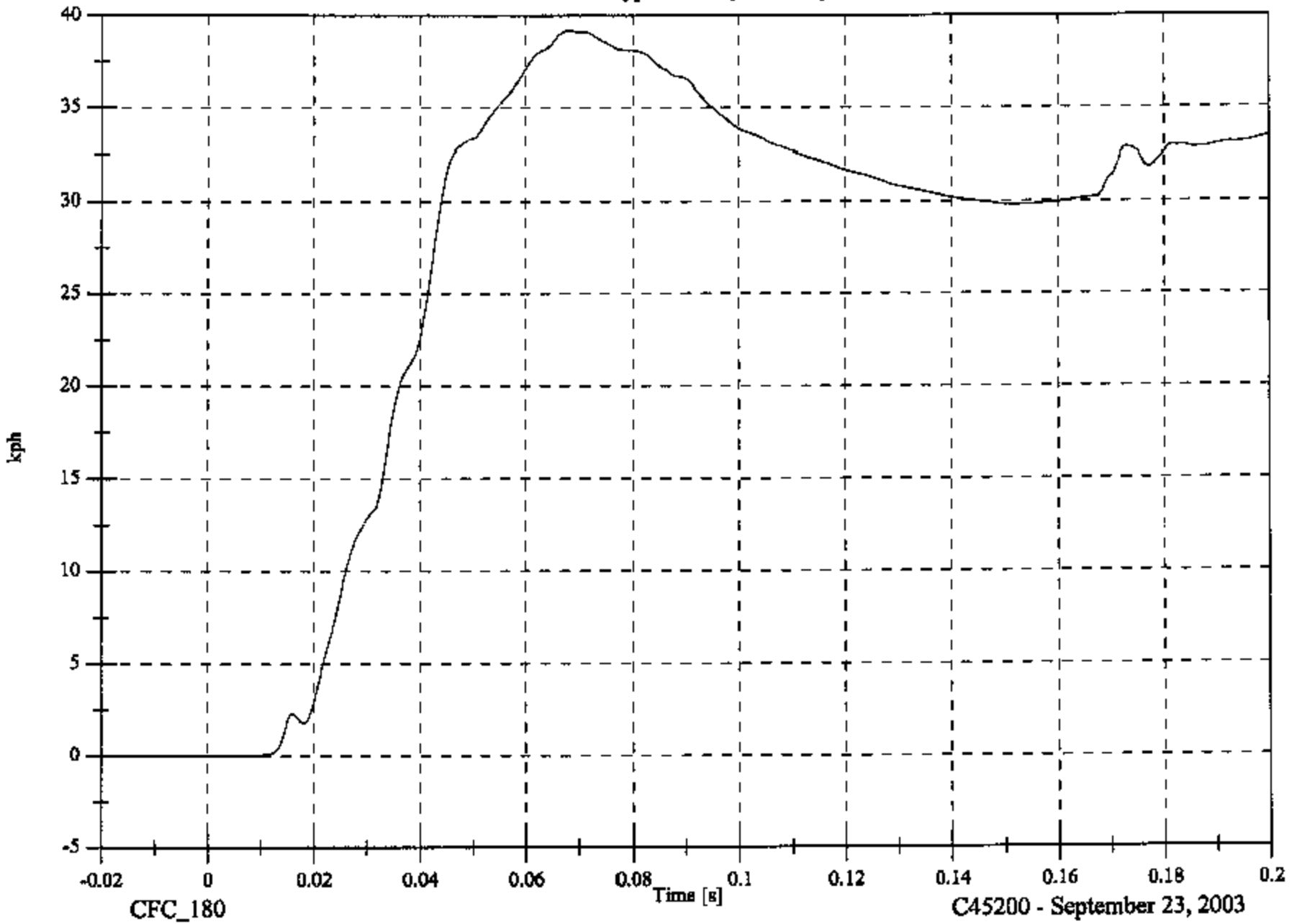
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 39.2 [kph] at 0.068 [s]

V2P1 Upper Rib Ry Velocity

Min: -0.0 [kph] at -0.005 [s]



B-118

8675-F214-11

CFC_180

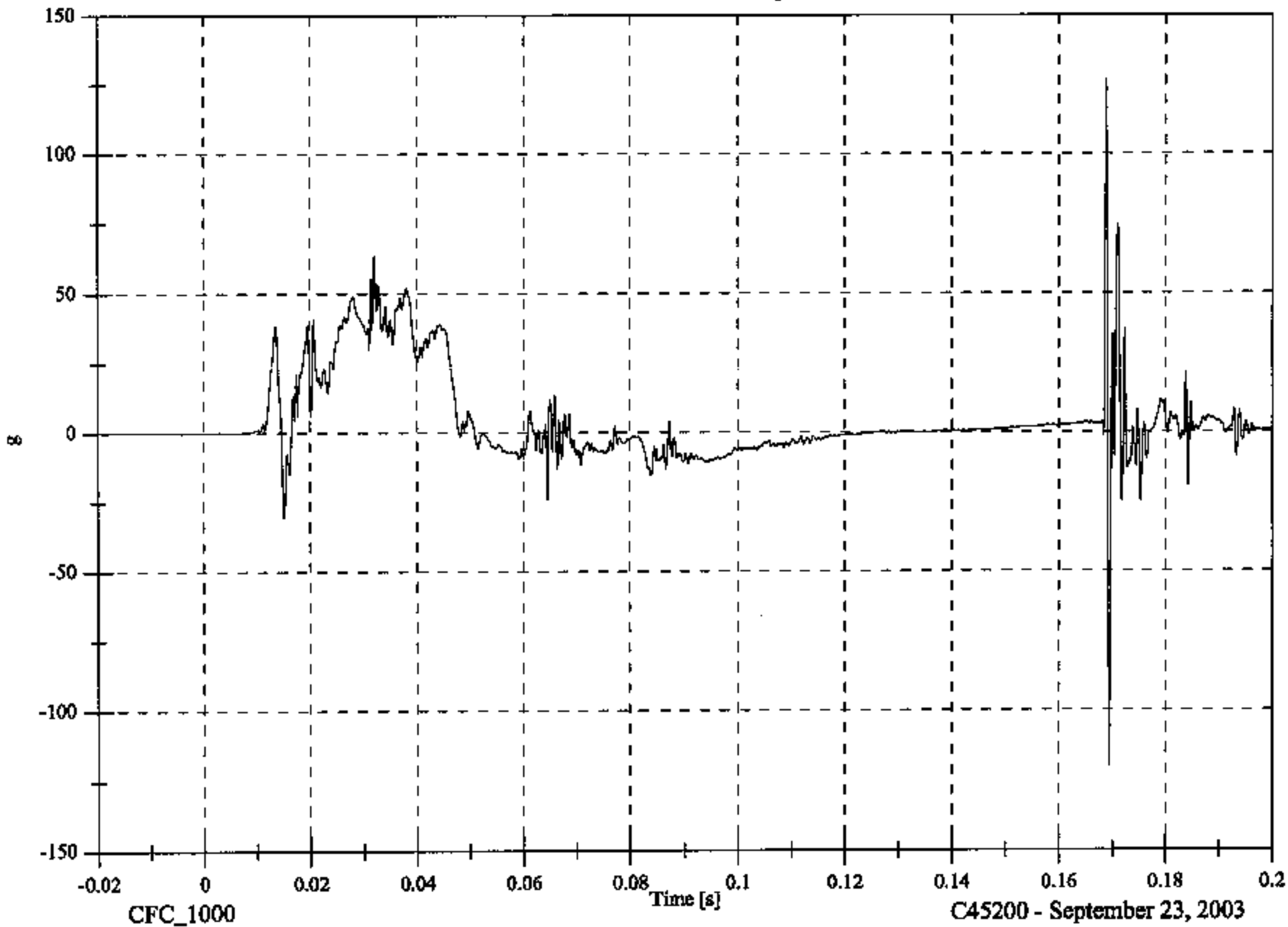
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 126.5 [g] at 0.169 [s]

V2P1 Lower Rib Ry

Min: -119.7 [g] at 0.169 [s]



B-119

8675-F214-11

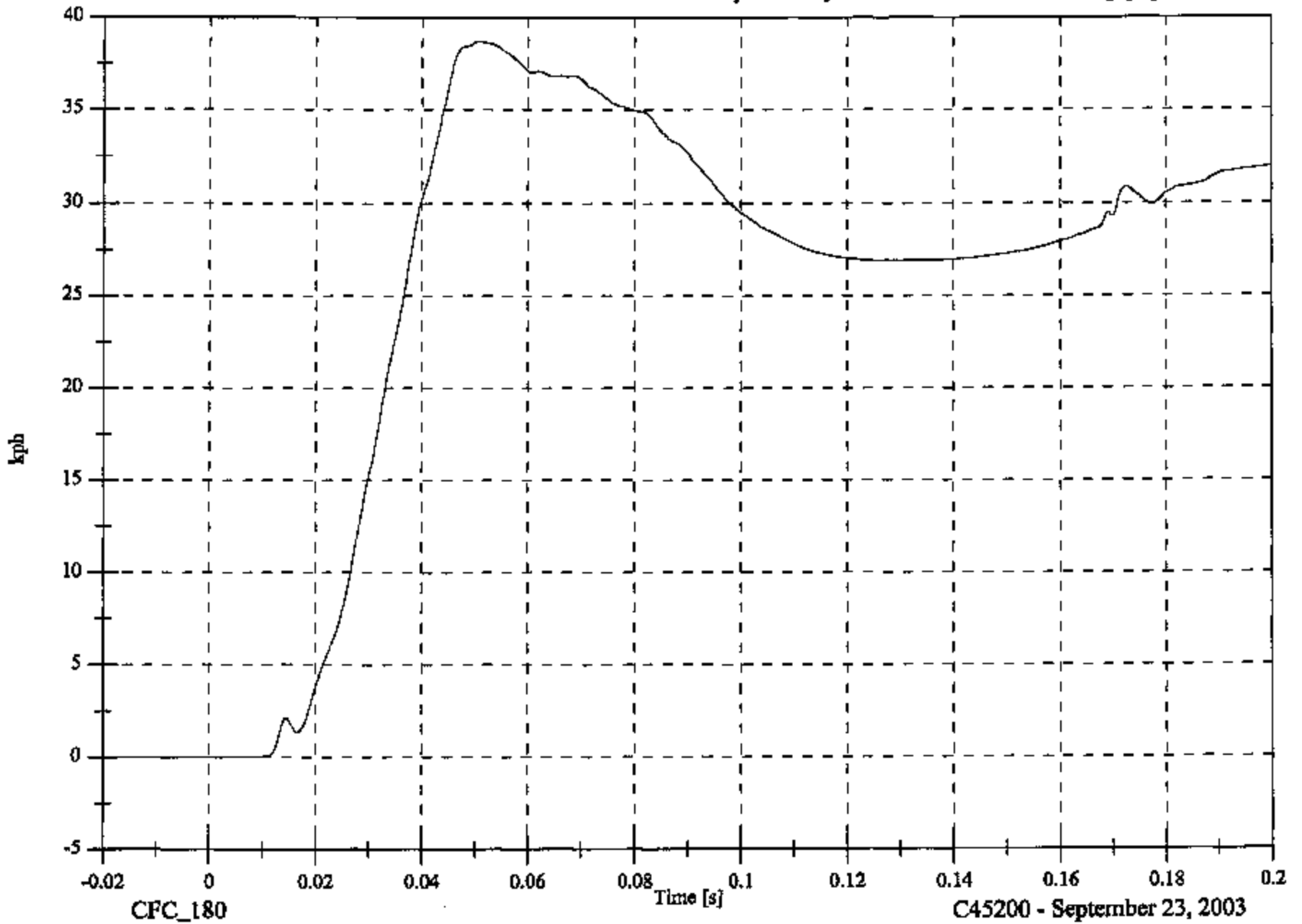
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 38.7 [kph] at 0.051 [s]

V2P1 Lower Rib Ry Velocity

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



B-120

8675-P214-11

CFC_180

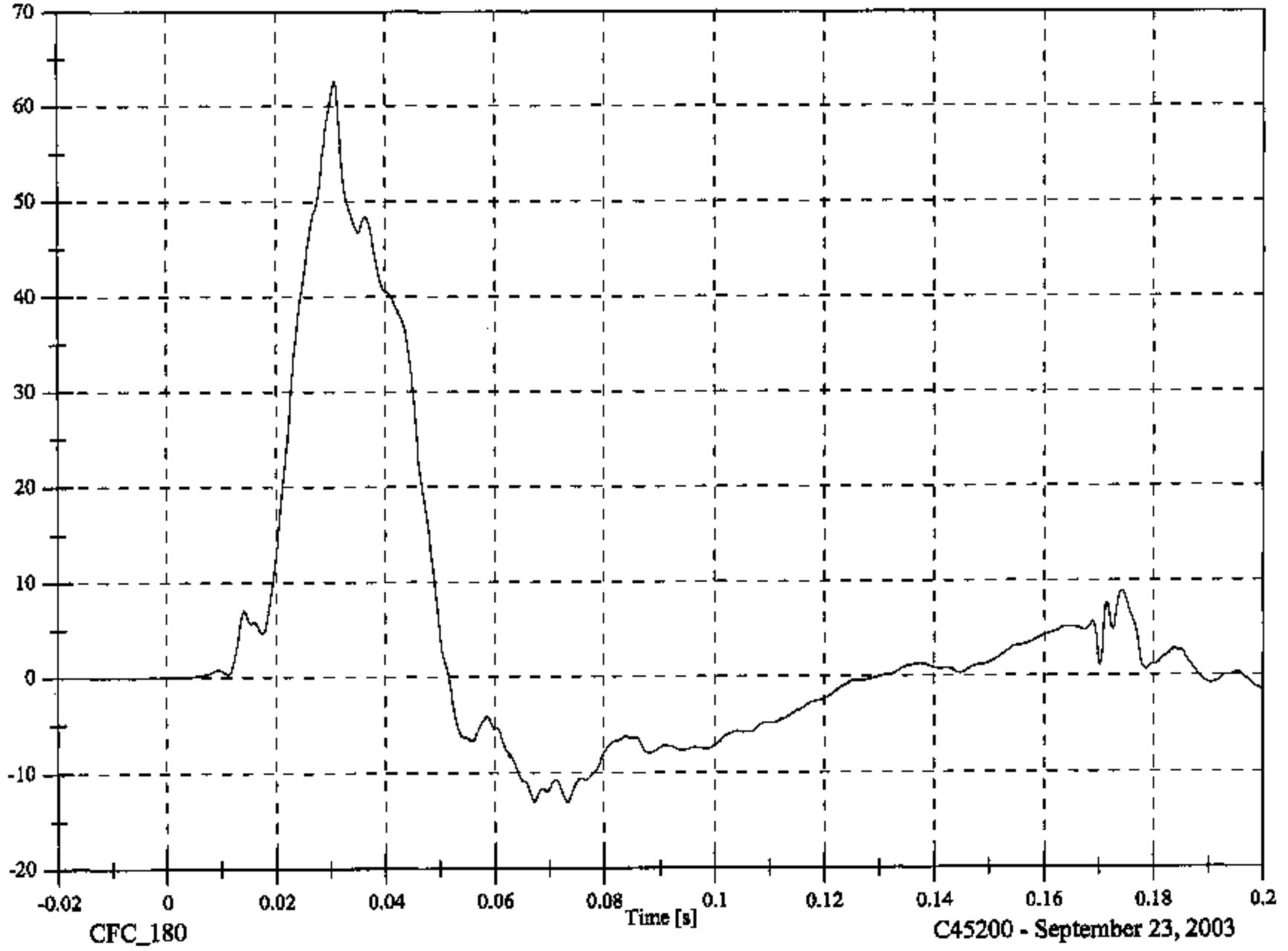
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 62.5 [g] at 0.031 [s]

V2P1 Lower Spine Ry

Min: -13.1 [g] at 0.073 [s]



B-121

867S-F214-11

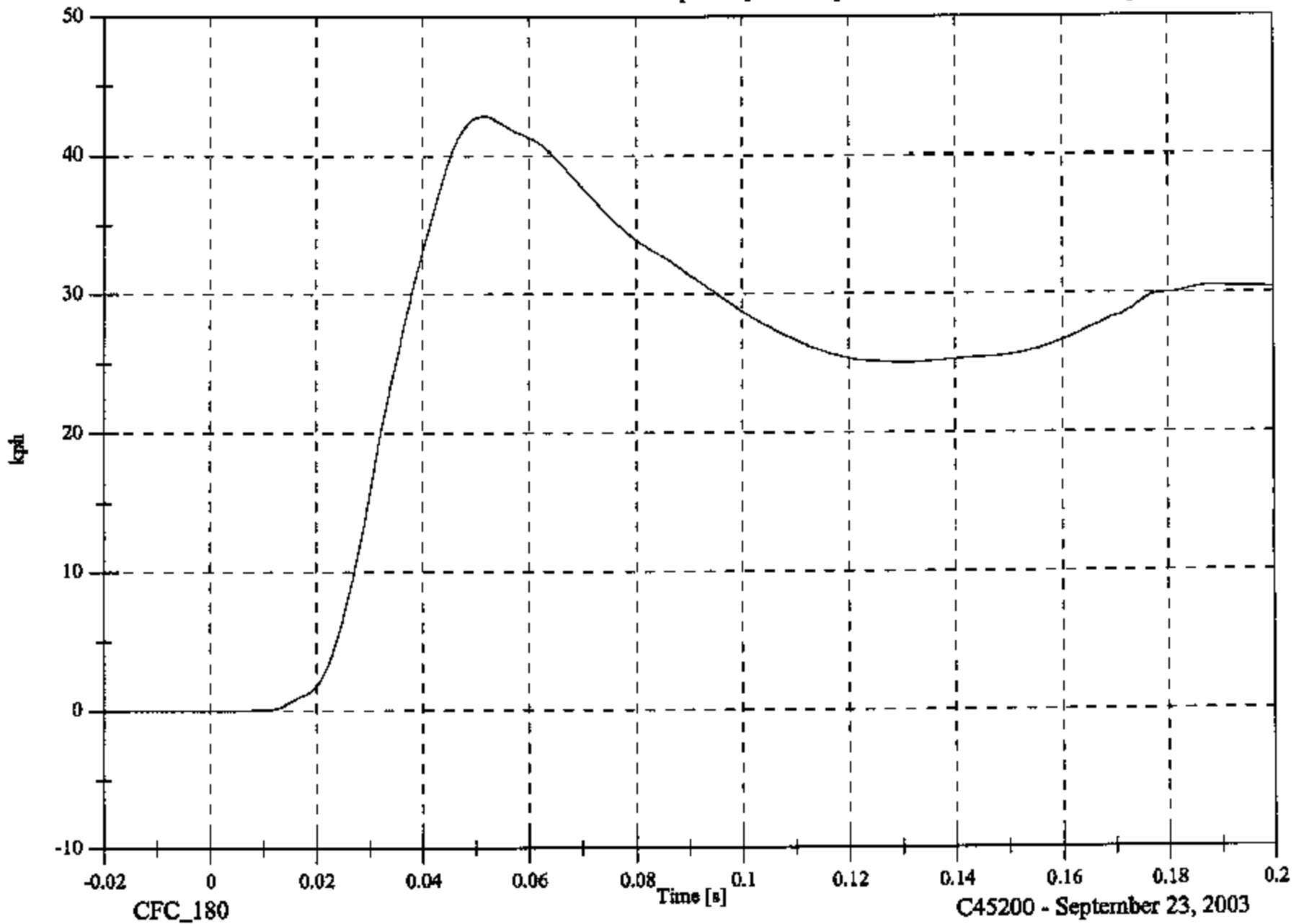
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Lower Spine Ry Velocity

Max: 42.8 [kph] at 0.052 [s]

Min: -0.0 [kph] at -0.004 [s]



B-122

8675-F214-11

CFC_180

Time [s]

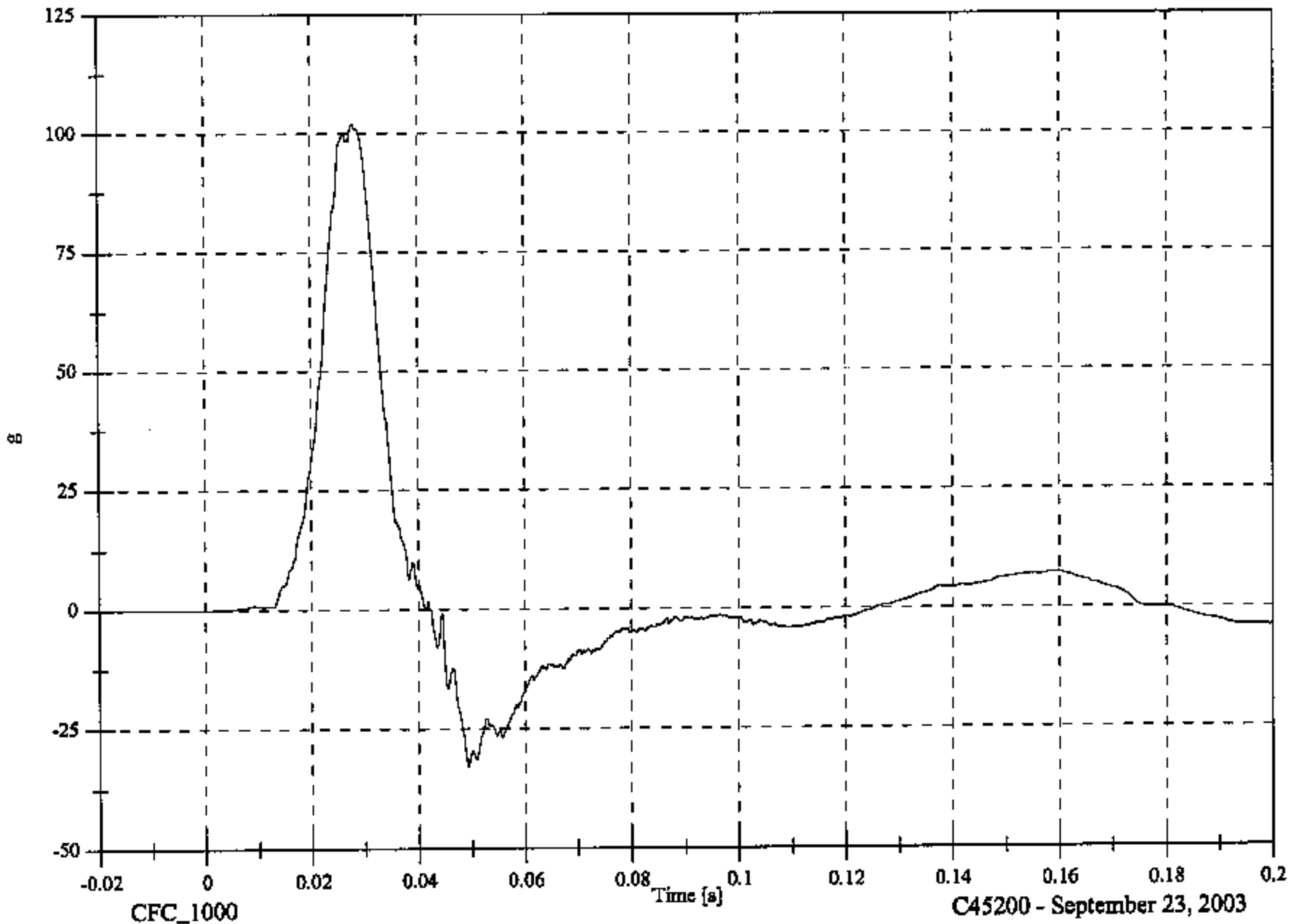
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Pelvic Ry

Max: 102.0 [g] at 0.028 [s]

Min: -32.8 [g] at 0.049 [s]



B-123

8675-F214-11

CFC_1000

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

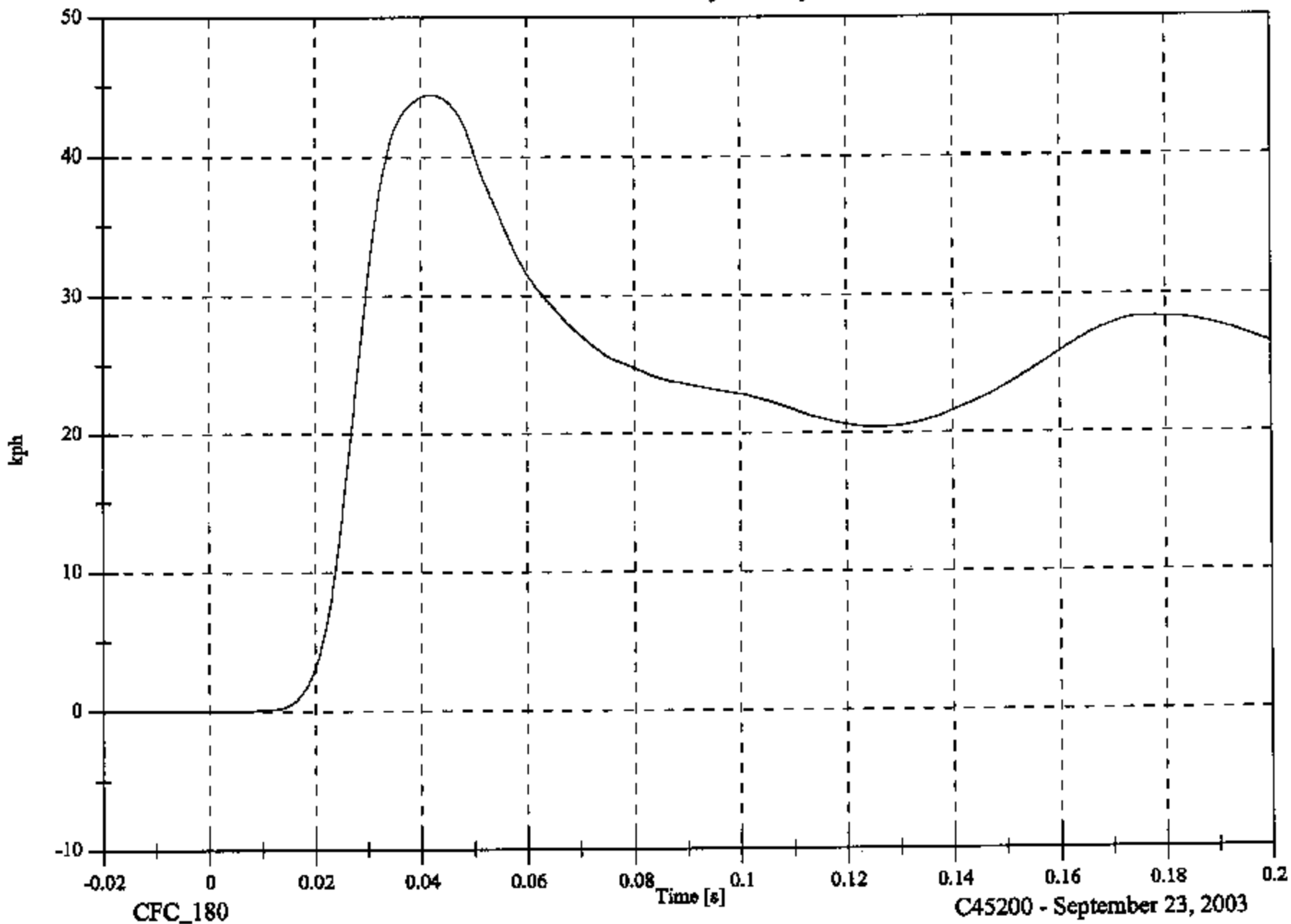
V2P1 Pelvic Ry Velocity

Max: 44.4 [kph] at 0.042 [s]

Min: -0.0 [kph] at -0.011 [s]

B-124

8675-F214-11



CFC_180

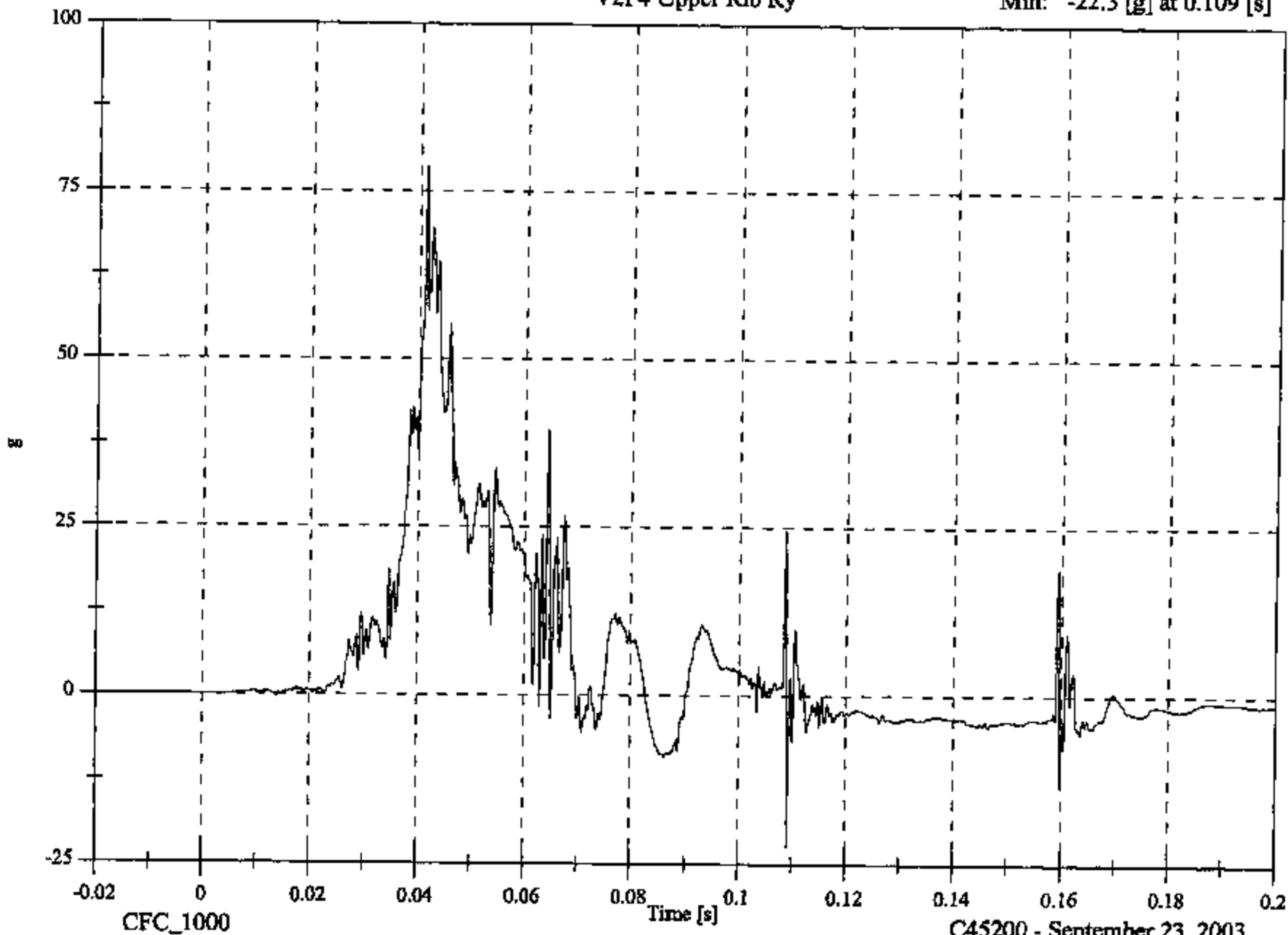
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Upper Rib Ry

Max: 78.7 [g] at 0.041 [s]

Min: -22.3 [g] at 0.109 [s]



B-125

8675-F214-11

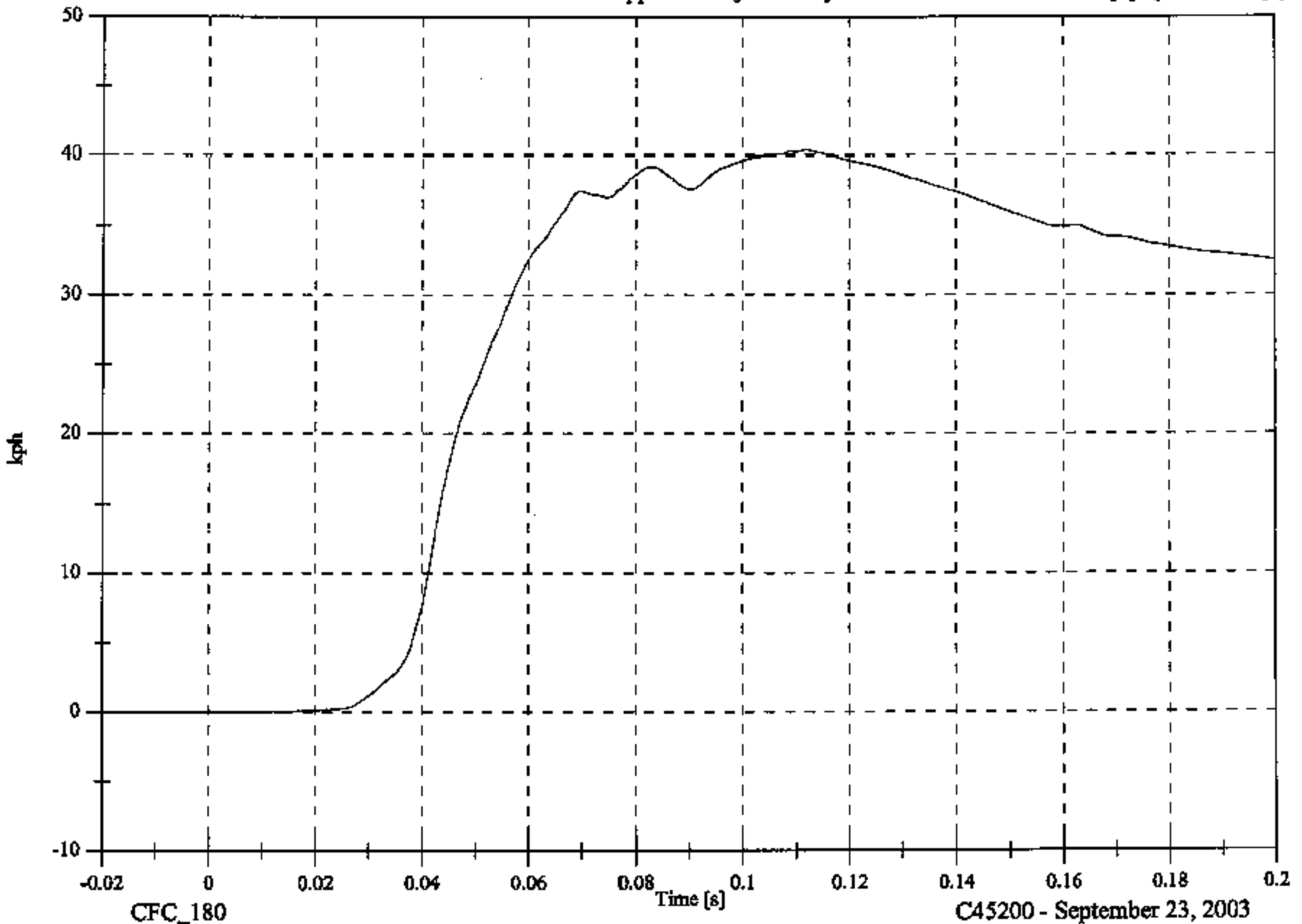
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Upper Rib Ry Velocity

Max: 40.4 [kph] at 0.112 [s]

Min: -0.0 [kph] at -0.004 [s]



B-126

8675-F214-11

CFC_180

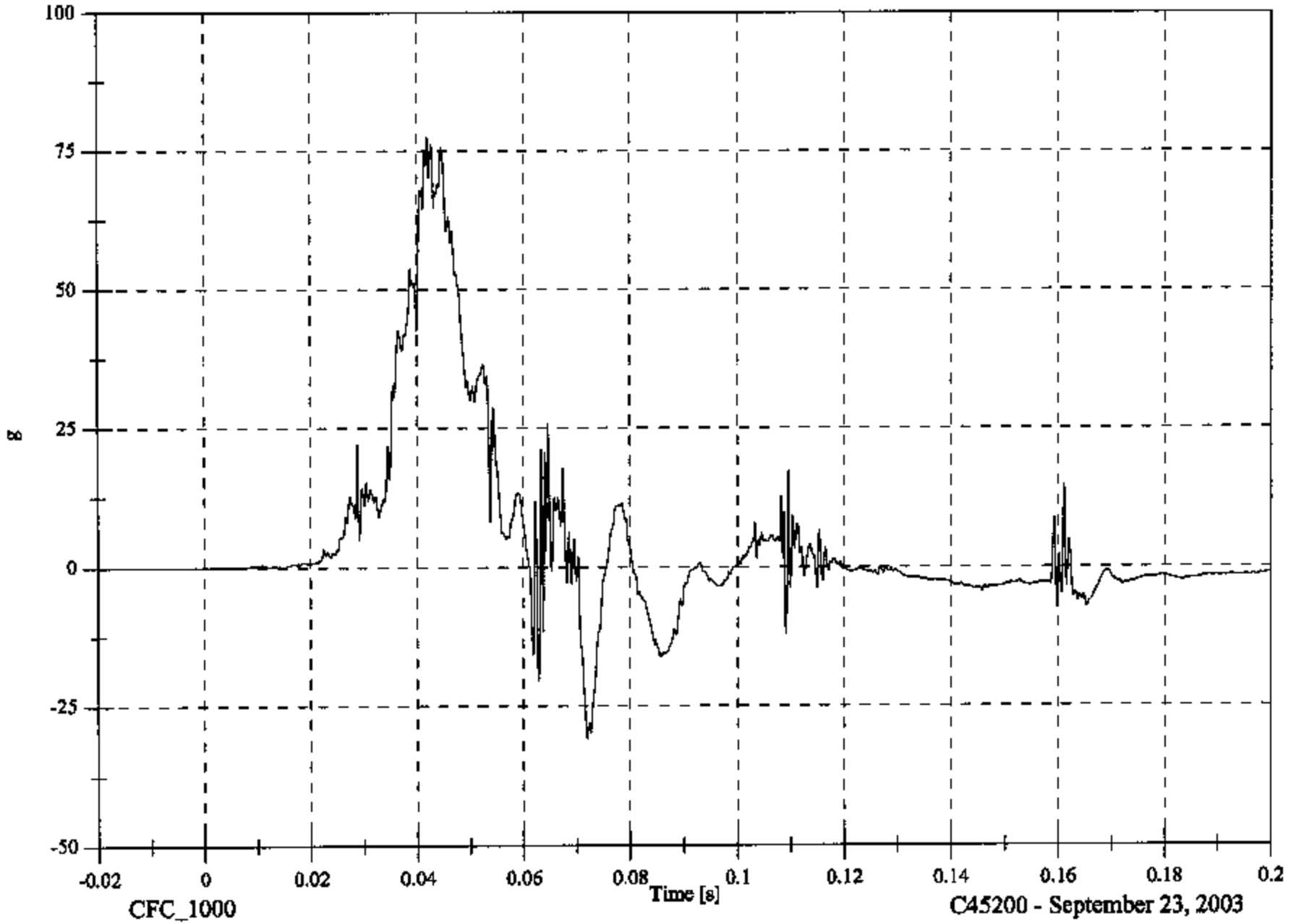
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Lower Rib Ry

Max: 77.4 [g] at 0.042 [s]

Min: -30.6 [g] at 0.072 [s]



B-127

8675-F214-11

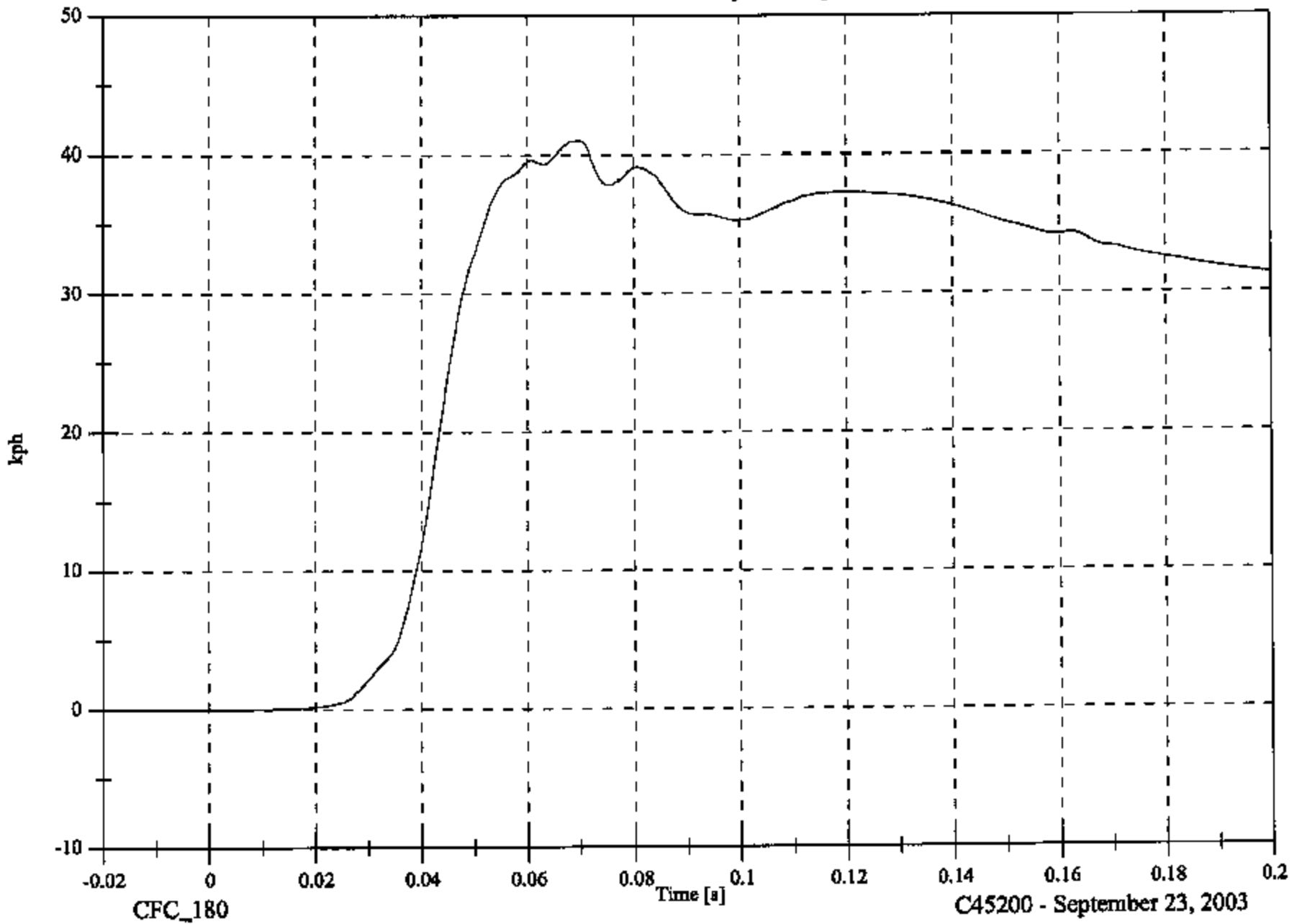
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Lower Rib Ry Velocity

Max: 41.0 [kph] at 0.070 [s]

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



B-128

8675-F214-11

CFC_180

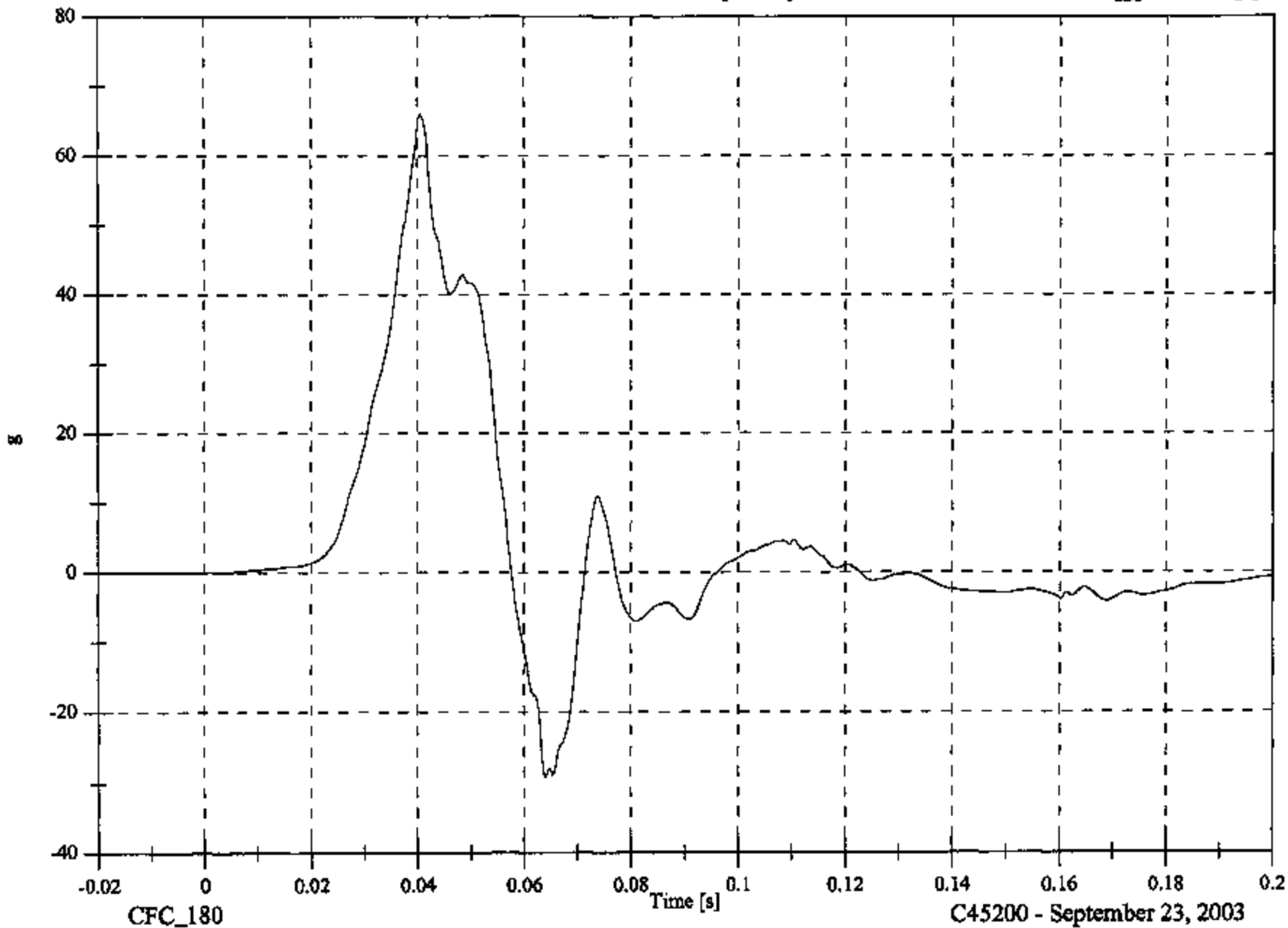
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 66.0 [g] at 0.040 [s]

V2P4 Lower Spine Ry

Min: -29.1 [g] at 0.064 [s]



B-129

8675-F214-11

CFC_180

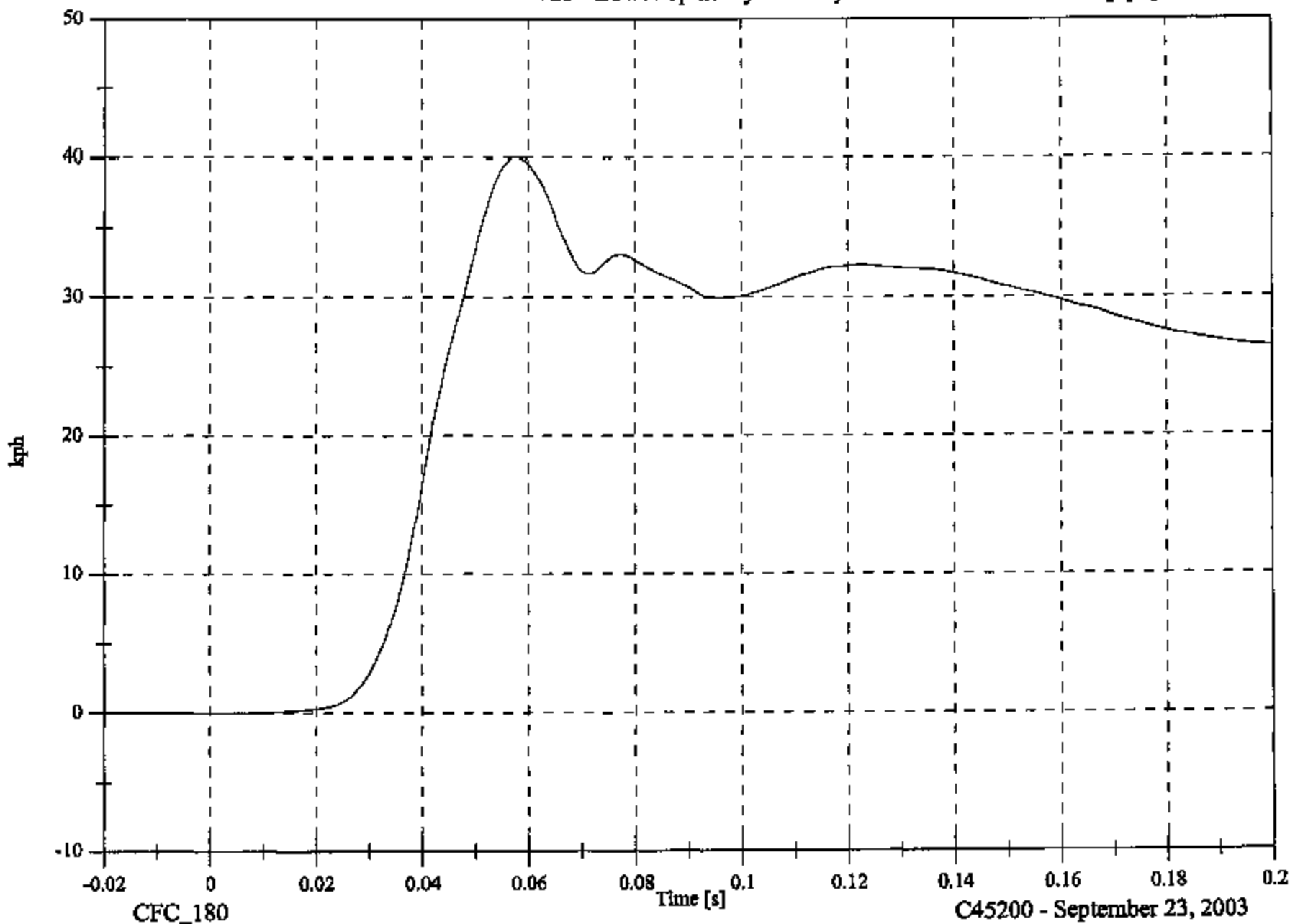
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 40.1 [kph] at 0.058 [s]

V2P4 Lower Spine Ry Velocity

Min: -0.0 [kph] at -0.014 [s]



B-130

8675-P214-11

CFC_180

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

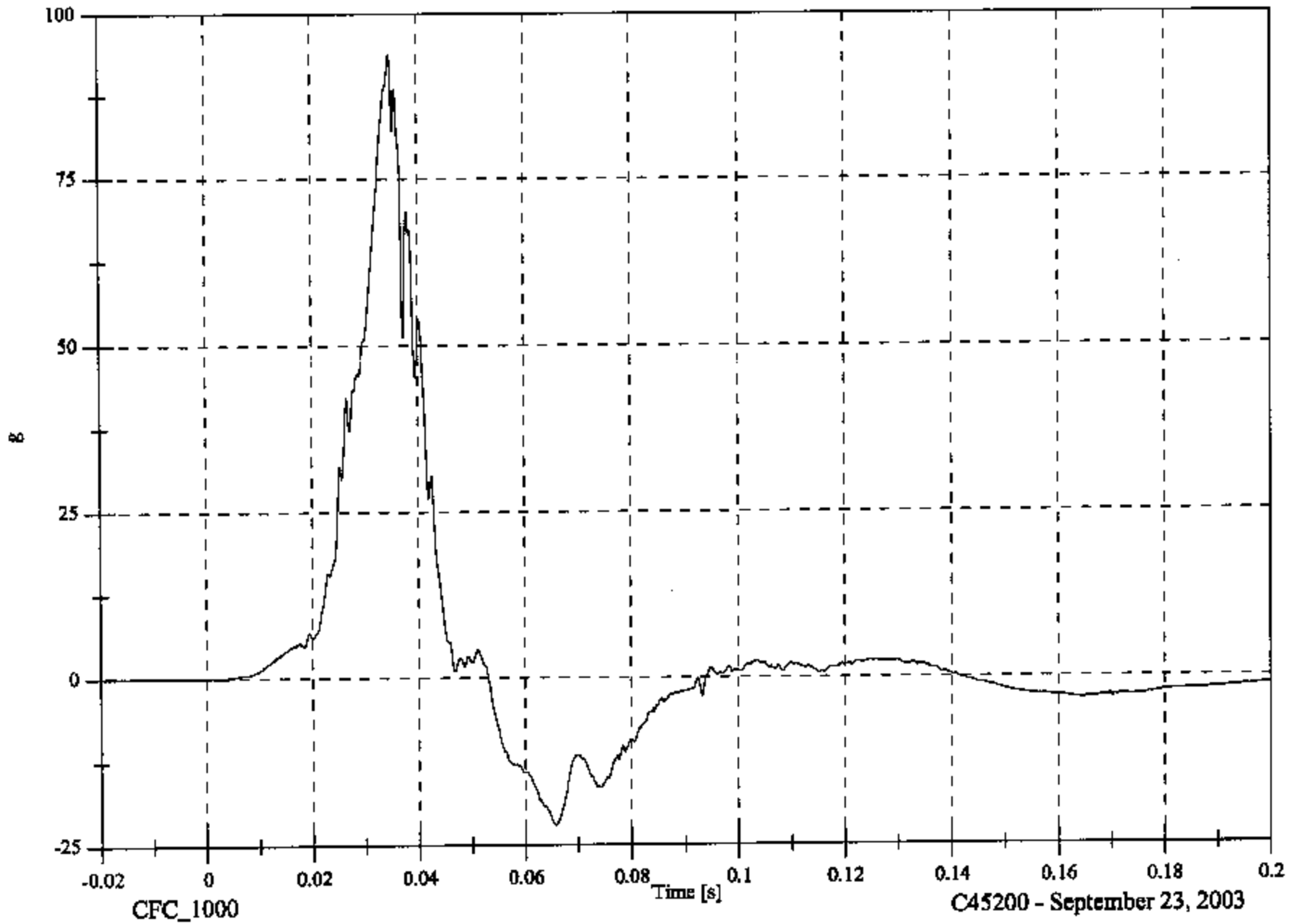
V2P4 Pelvic Ry

Max: 93.9 [g] at 0.035 [s]

Min: -22.1 [g] at 0.066 [s]

B-131

8675-F214-11

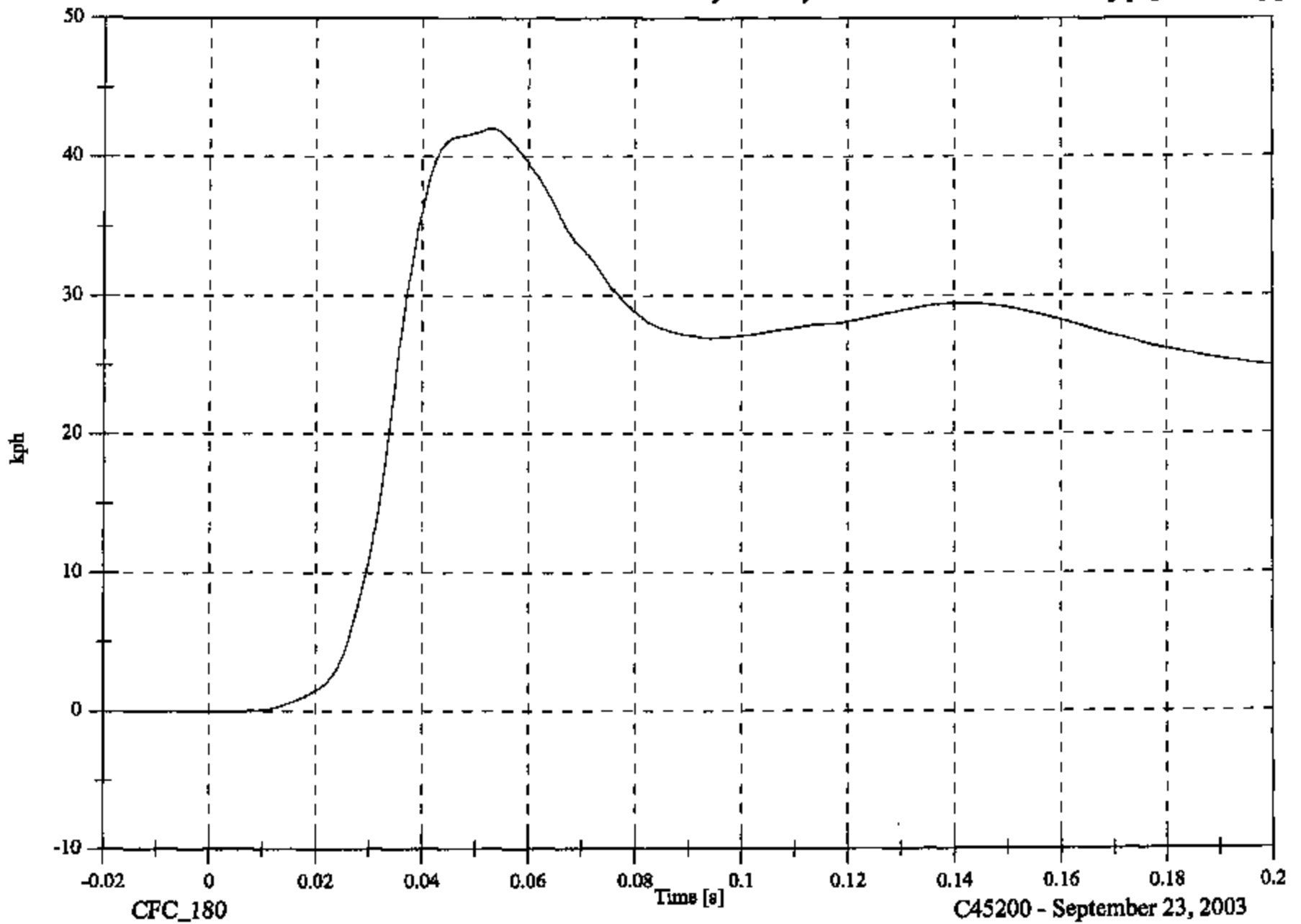


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 42.0 [kph] at 0.053 [s]

V2P4 Pelvic Ry Velocity

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



B-132

8675-F214-11

CFC_180

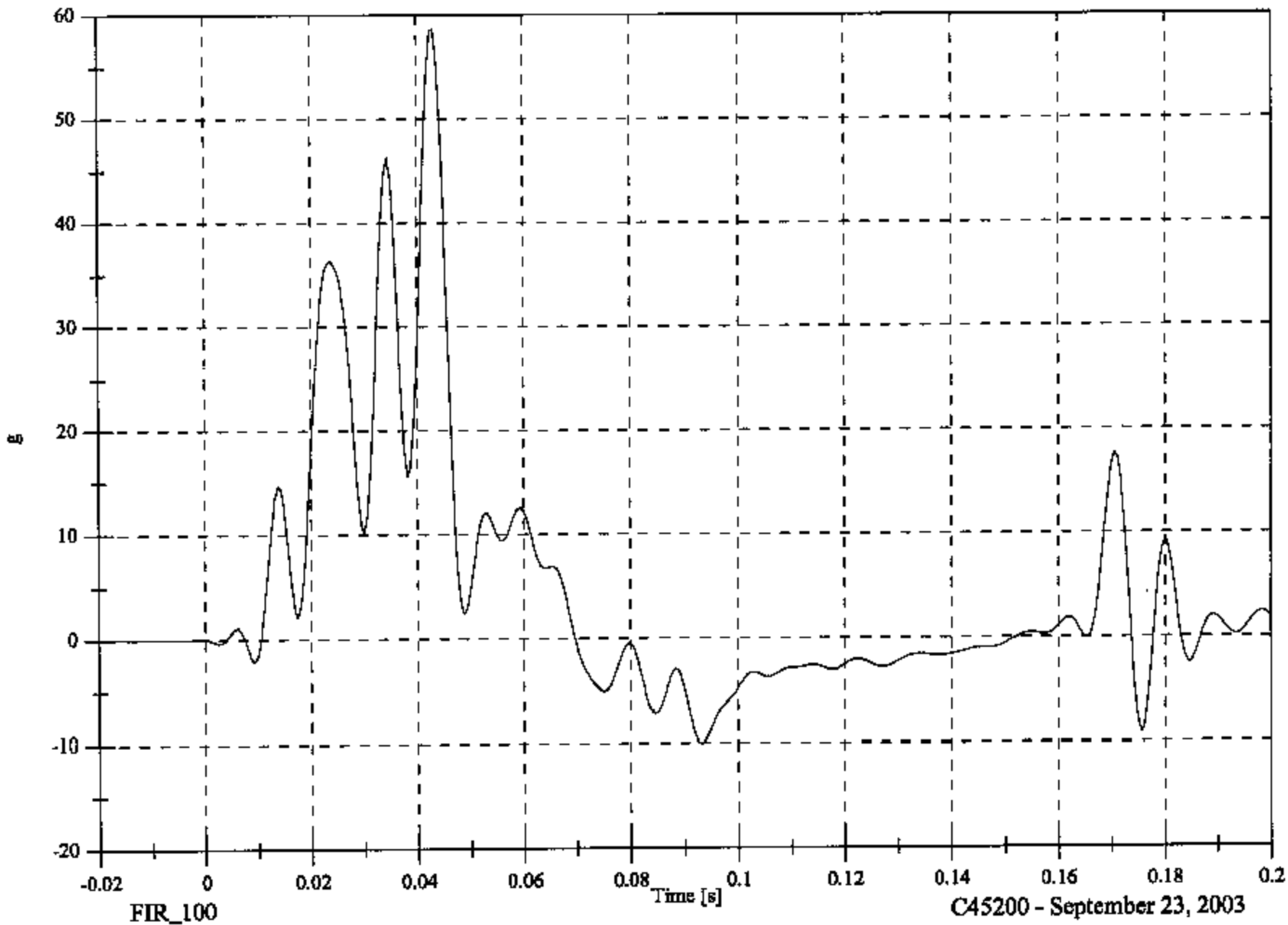
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 58.6 [g] at 0.043 [s]

V2P1 Upper Rib Ry

Min: -10.1 [g] at 0.093 [s]



B-133

8675-P214-11

FIR_100

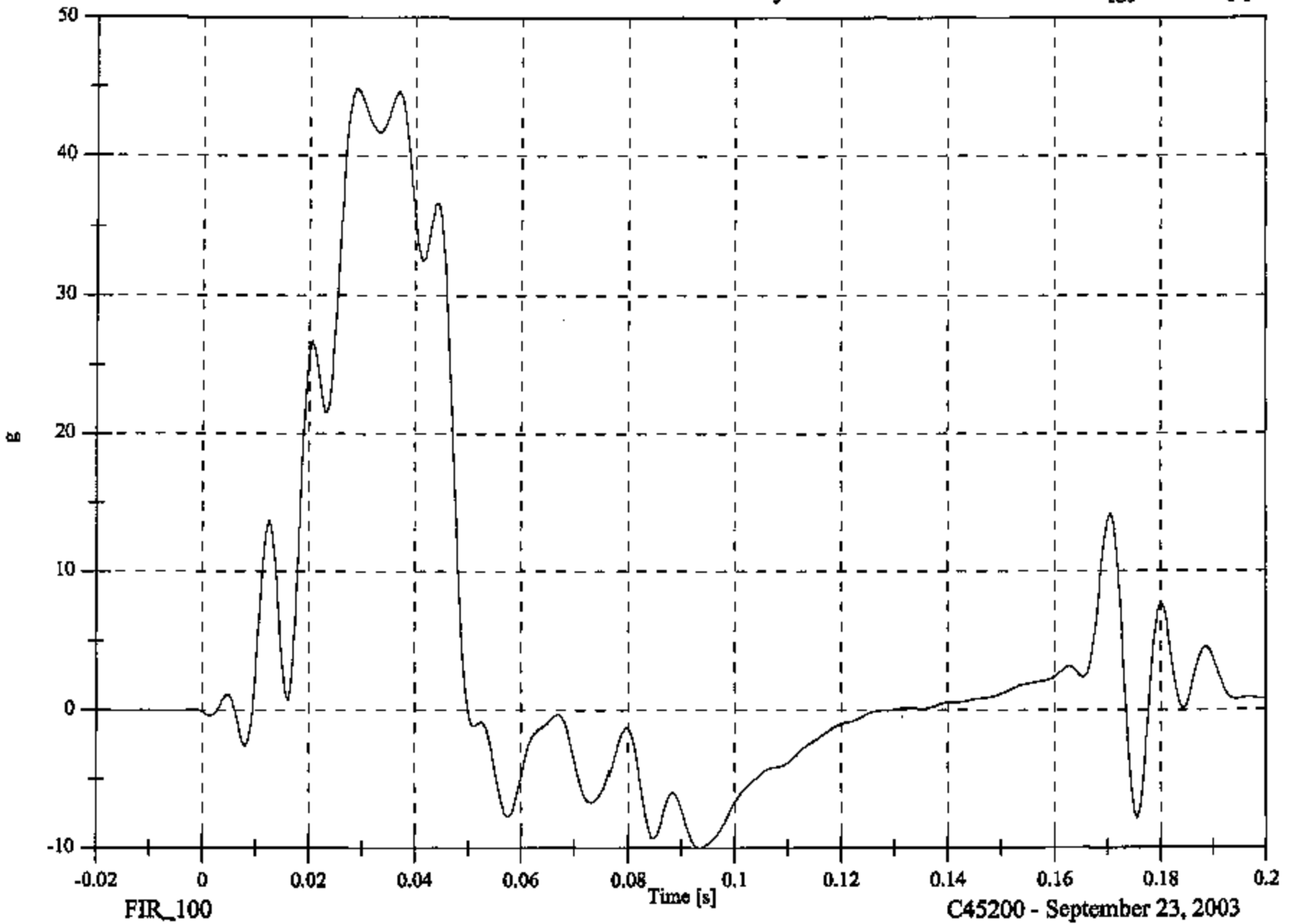
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Lower Rib Ry

Max: 44.9 [g] at 0.029 [s]

Min: -10.0 [g] at 0.094 [s]



B-134

8675-F214-11

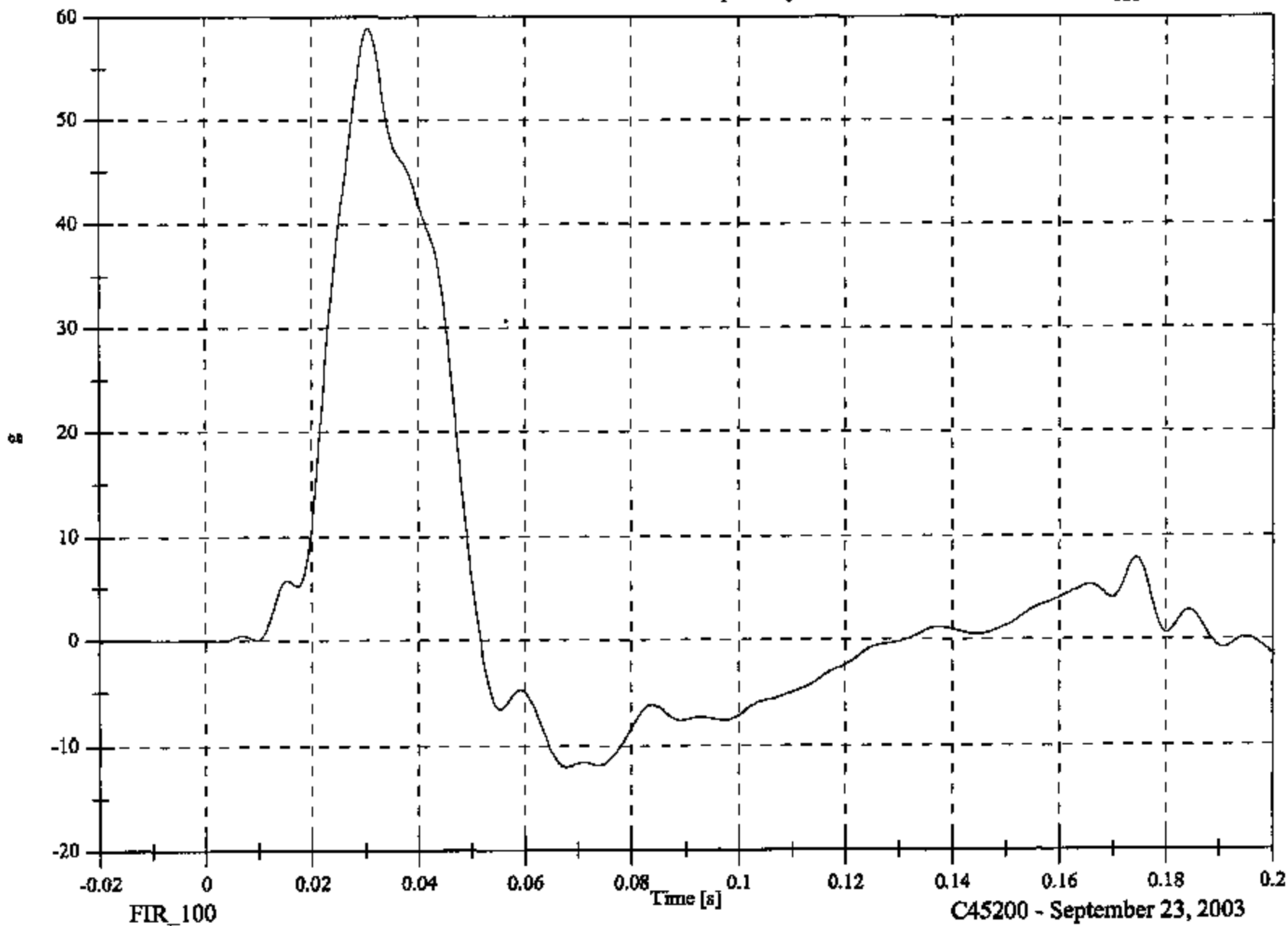
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Lower Spine Ry

Max: 59.0 [g] at 0.031 [s]

Min: -12.0 [g] at 0.068 [s]



B-135

8675-FZ14-11

FIR_100

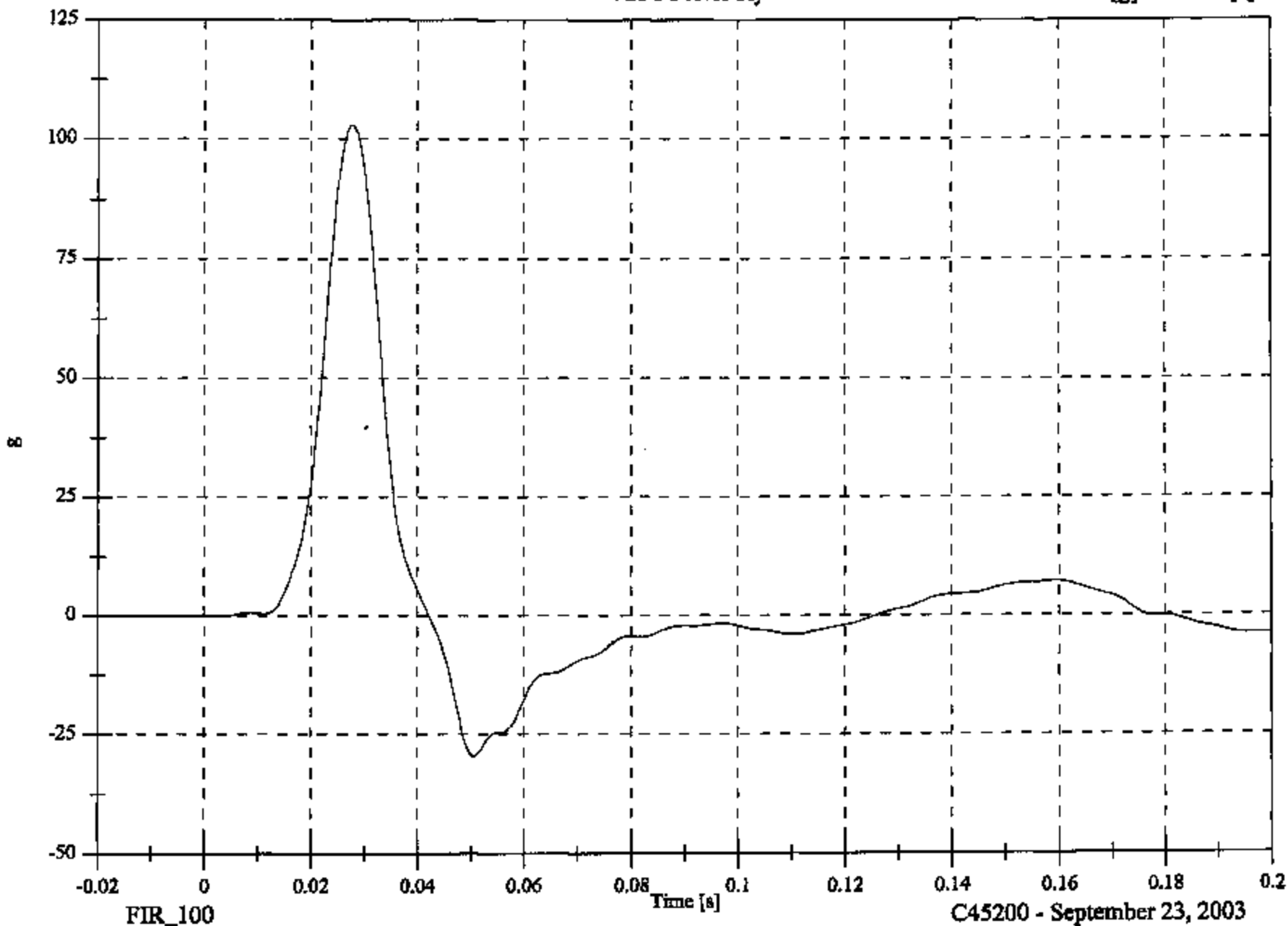
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P1 Pelvic Ry

Max: 102.9 [g] at 0.027 [s]

Min: -29.6 [g] at 0.051 [s]



B-136

8675-F214-11

FIR_100

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

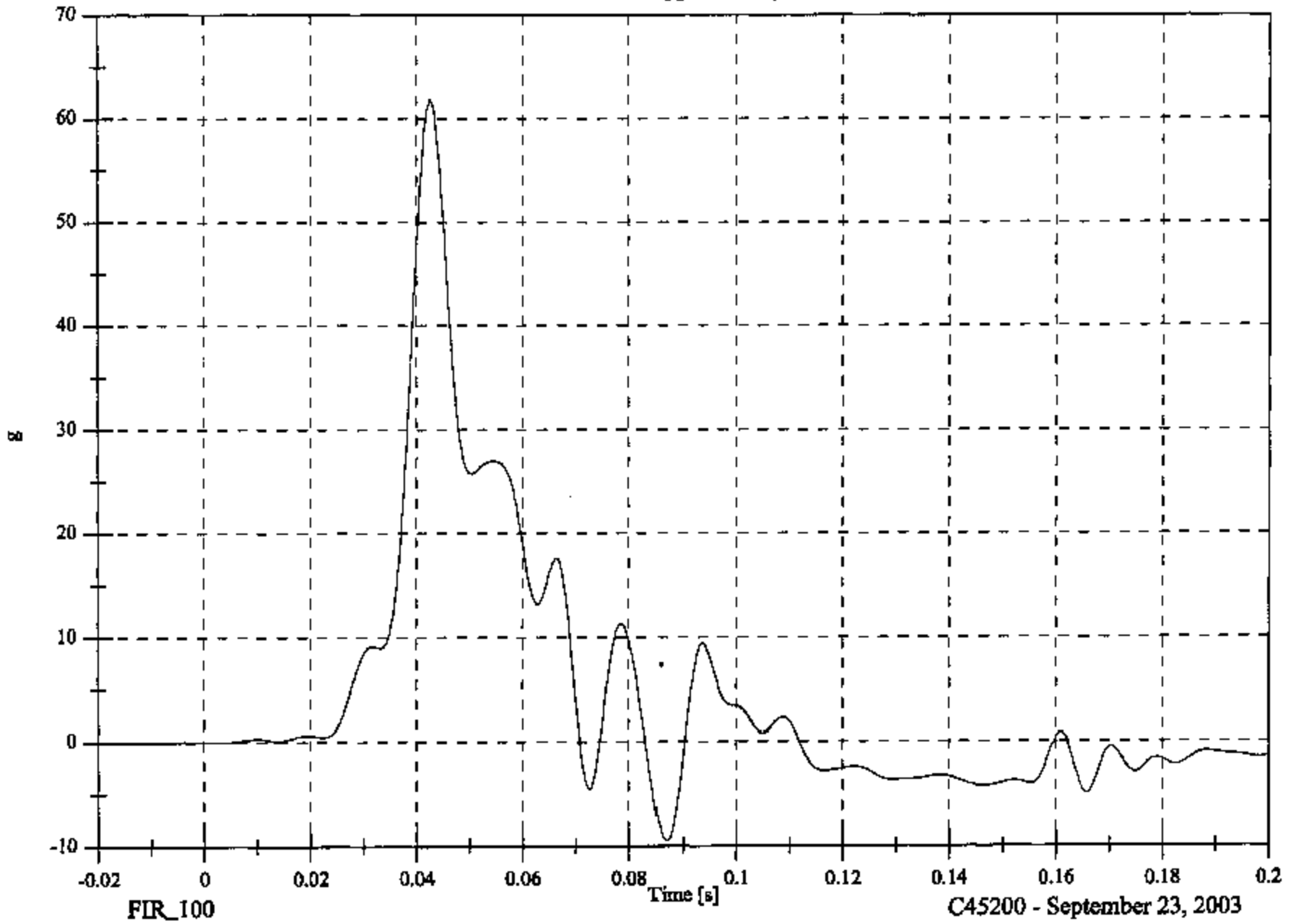
V2P4 Upper Rib Ry

Max: 61.8 [g] at 0.043 [s]

Min: -9.5 [g] at 0.087 [s]

H-137

8675-F214-11

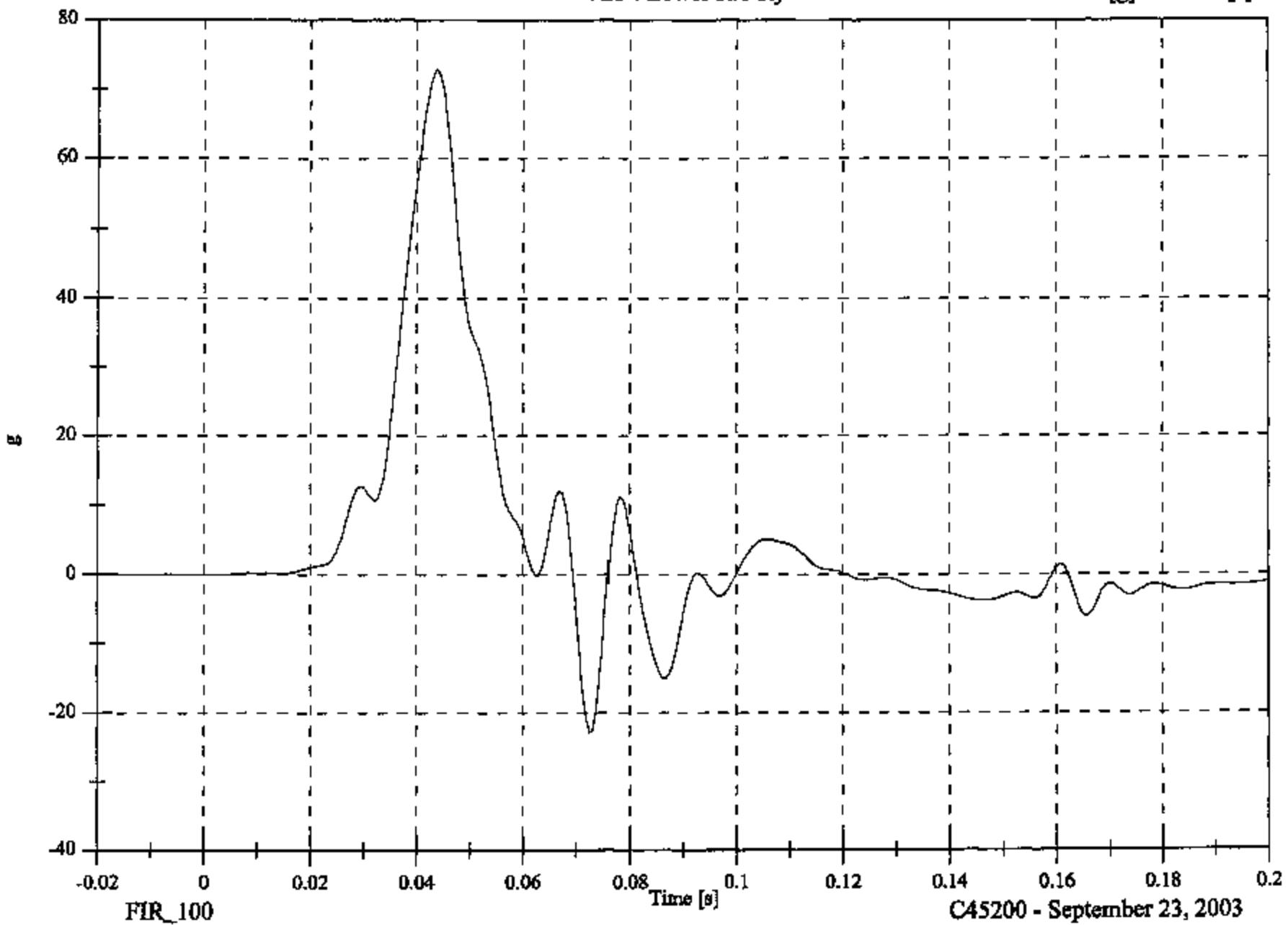


FMVSS 214D Indicant - 2004 Nissan Maxima

Max: 72.8 [g] at 0.044 [s]

V2P4 Lower Rib Ry

Min: -22.8 [g] at 0.072 [s]



B-138

8675-F214-11

FIR_100

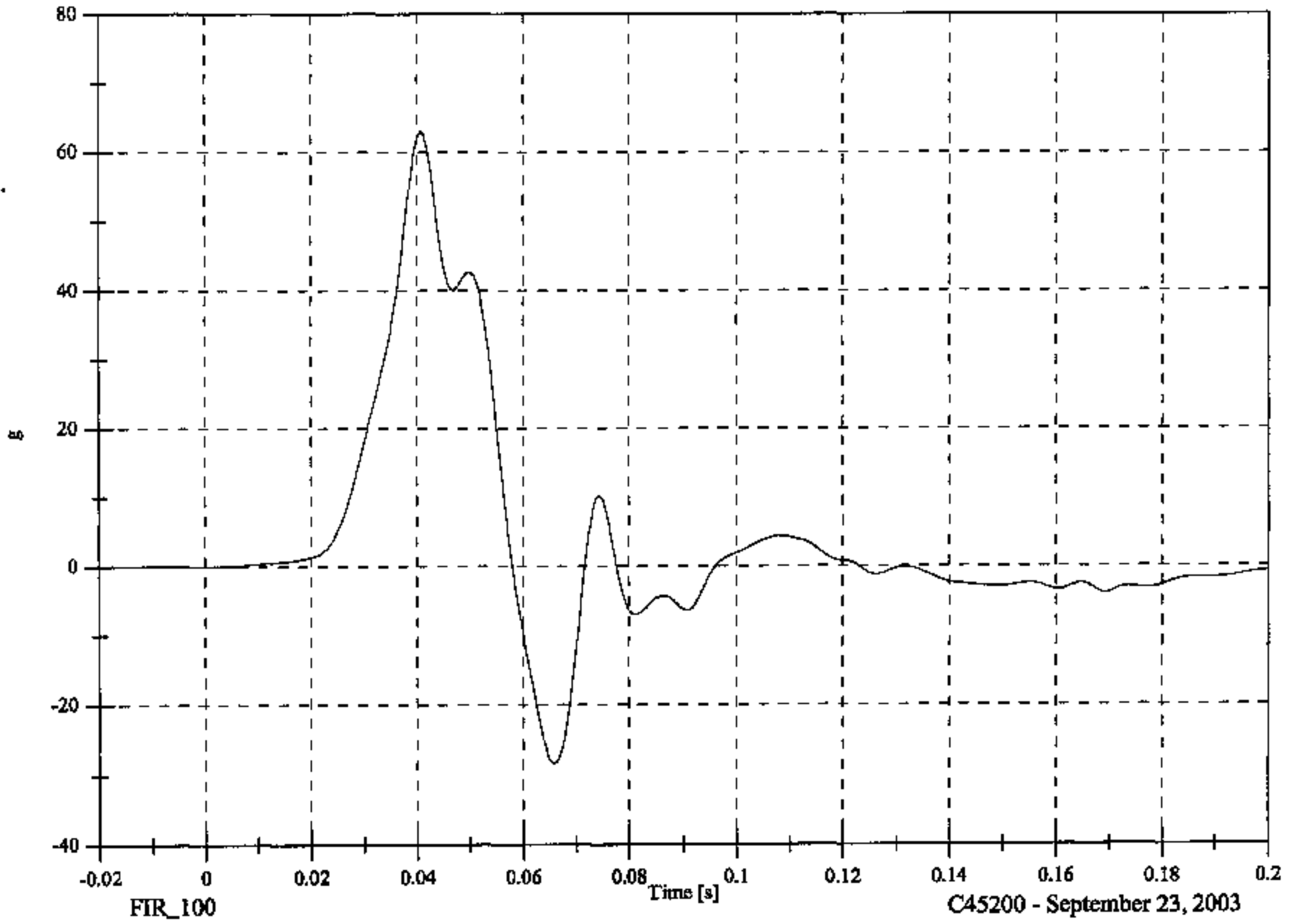
C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

V2P4 Lower Spine Ry

Max: 63.0 [g] at 0.041 [s]

Min: -28.2 [g] at 0.066 [s]



B-139

8675-F214-11

C45200 - September 23, 2003

FMVSS 214D Indicant - 2004 Nissan Maxima

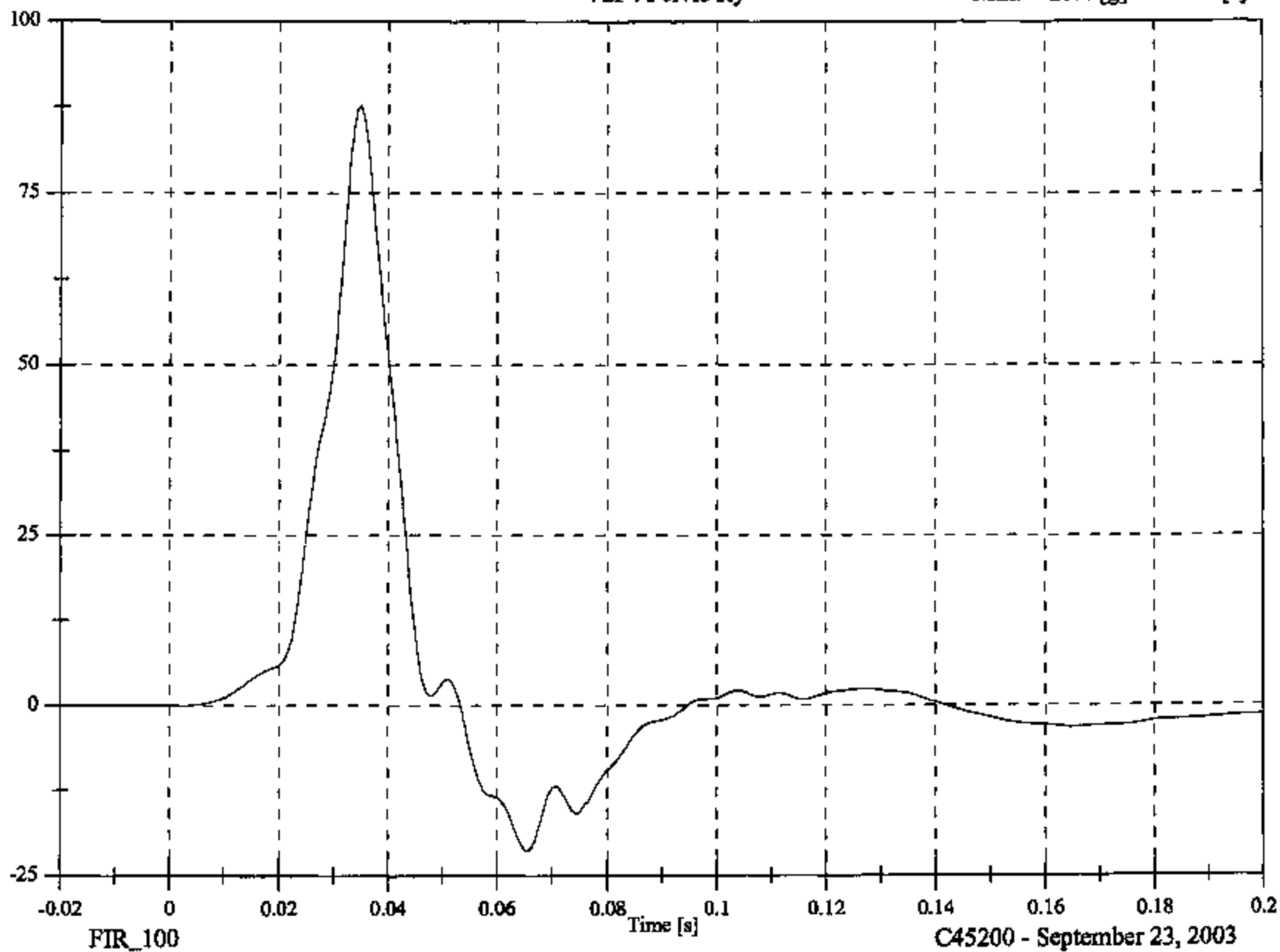
Max: 87.7 [g] at 0.035 [s]

V2P4 Pelvic Ry

Min: -21.4 [g] at 0.066 [s]

B-140

8675-F214-11



C45200 - September 23, 2003

APPENDIX C

SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA

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

Date: 9/26/2003; 9/26/2003

Sequential Test Number:

1.1; 1.1

Laboratory Technician:

TEST PARAMETER	SPECIFICATION	SID H3 269 NO.:		SID H3 270 NO.:	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	904	904	902	902
RH- Rib Height (mm)	501 - 521	505	502	505	505
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	234	234	234	234
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518	516	516
SW- Knee Pivot to Floor (mm)	490 - 505	495	495	495	495
HW- Hip Width (mm)	356 - 391	371	371	373	376
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.0	28.0	48.0	28.0
PROBE SPEED (m/s)	4.27 - 4.33	4.29	4.30	4.32	4.27
UPPER RIB (g's)	37 - 46	38.34	40.30	44.52	40.71
LOWER RIB (g's)	37 - 46	37.14	38.34	41.40	40.53
LOWER SPINE (g's)	15 - 22	17.73	17.40	20.43	20.60
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.0	28.0	48.0	28.0
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.28	4.32	4.27
PELVIS (g's)	40 - 60	50.79	50.17	44.49	42.96

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: 09/22/2003 Laboratory Technician: [REDACTED]

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.: 269 Sequential Test Number: 1
Date: 09/22/2003 Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

THORACIC SHOCK ABSORBER TEST - Shock Low (3.05 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

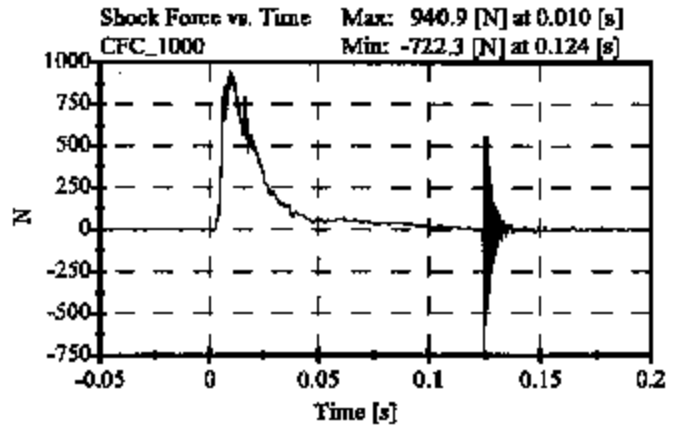
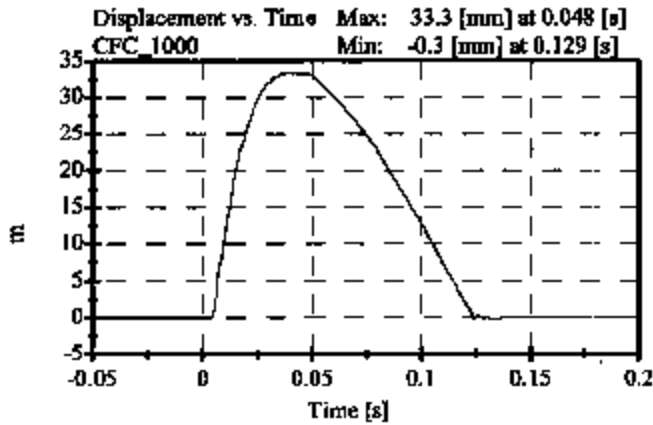
ATD Serial No: 269

Date: 09-22-03

Sequential Test Number: 1 File: 269SL1 09-22-03

Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Displacement:	30.00-35.00 mm	33.29 mm	Passed
Maximum Force:	836.00-1125.00 N	940.88 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	269		
Damper Setting:	5		



THORACIC SHOCK ABSORBER TEST - Shock Med (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269

Date: 09-22-03

Sequential Test Number: 1 File: 269SM 09-22-03

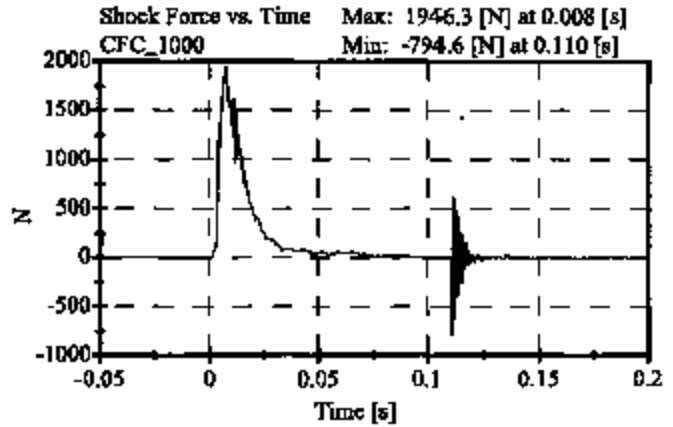
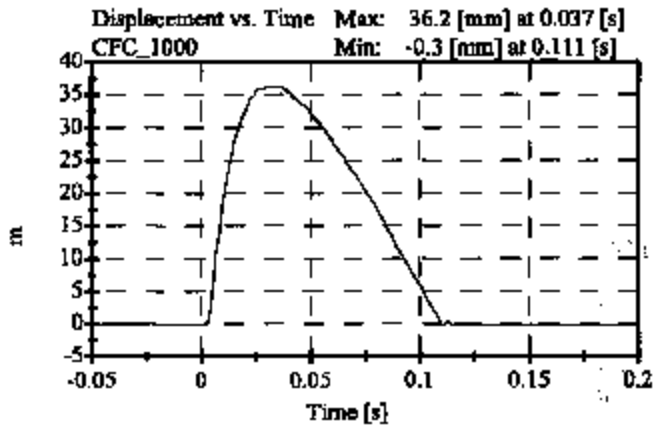
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Displacement:	32.00-37.00 mm	36.17 mm	Passed
Maximum Force:	1730.00-2099.00 N	1946.25 N	Passed

Impact Test Velocity: 4.27 m/s

Damper Identification: 269

Damper Setting: 5



THORACIC SHOCK ABSORBER TEST - Shock High (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

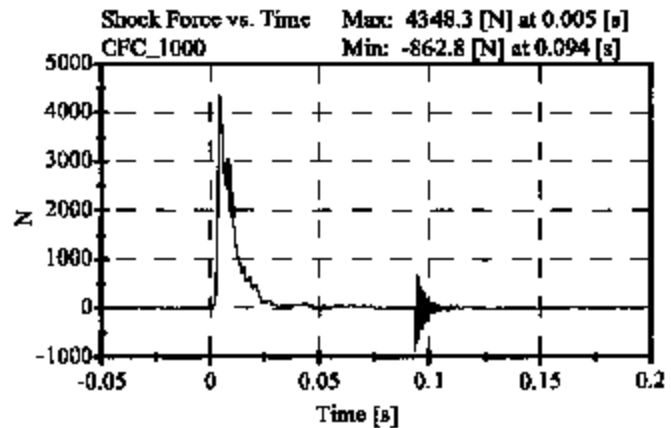
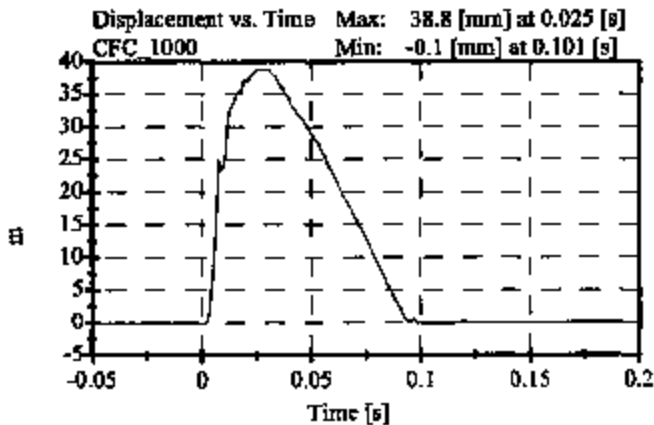
ATD Serial No: 269

Date: 09-22-03

Sequential Test Number: 1 File: 269SH 09-22-03

Laboratory Technician: XXXXXXXXXX

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Displacement:	33.00-40.00 mm	38.76 mm	Passed
Maximum Force:	3741.00-4448.00 N	4348.34 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	269		
Damper Setting:	5		



Thorax Impact

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

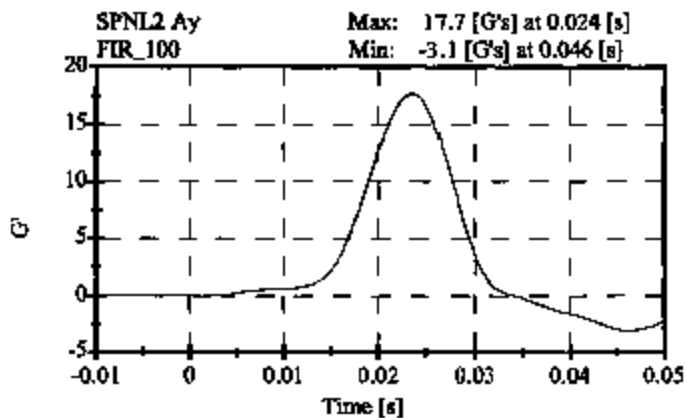
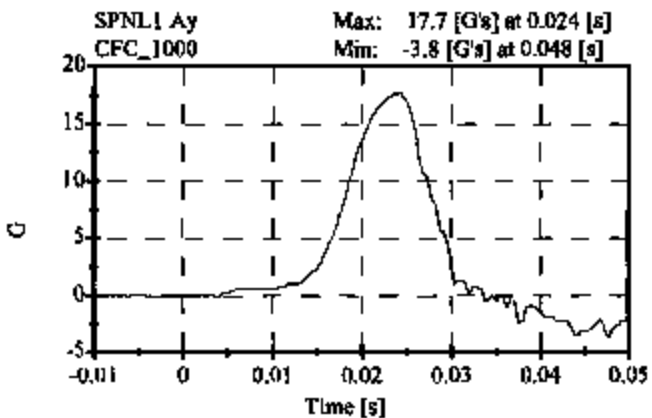
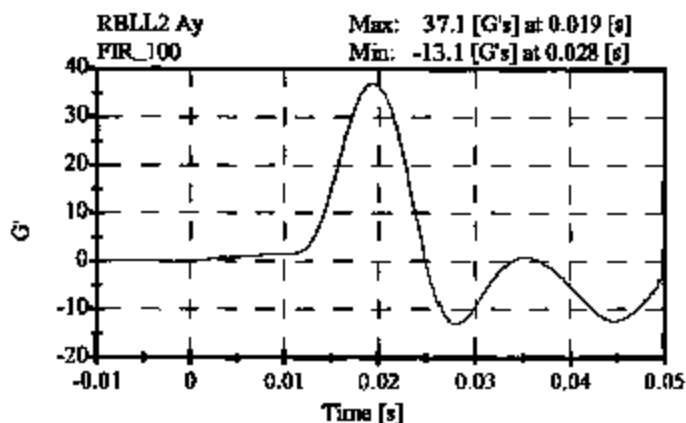
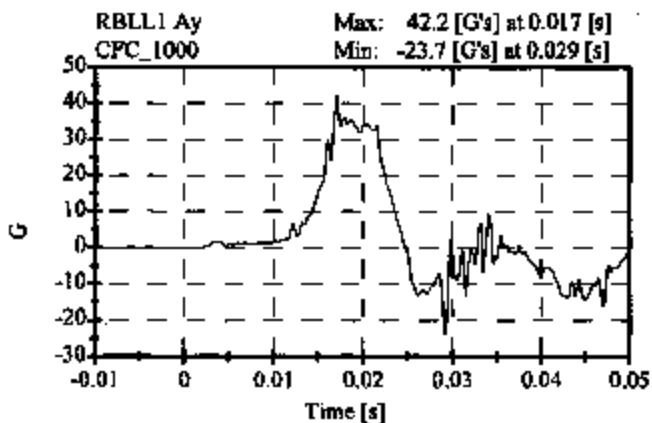
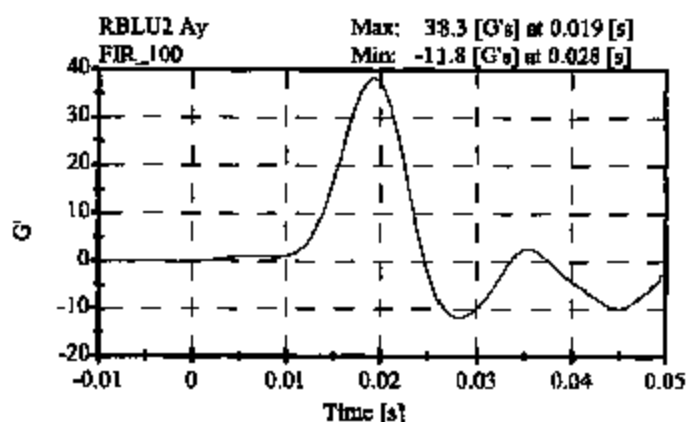
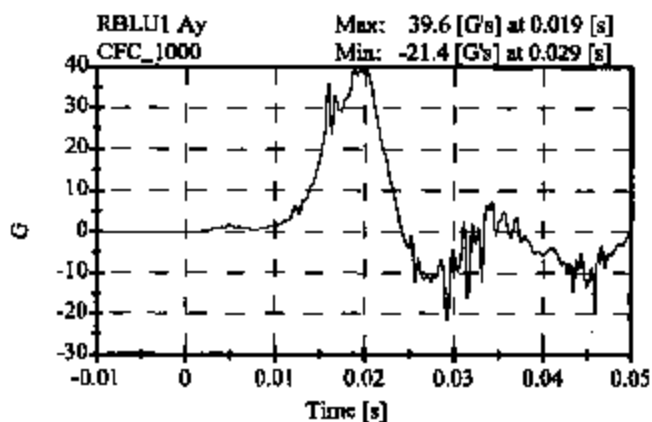
ATD Serial No: 269

Date: 09-22-03

Sequential Test Number: 1 File: 269T 09-22-03

Laboratory Technician: XXXXXXXXXX

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	38.34 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.14 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.73 G's	Passed



Pelvic Impact

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

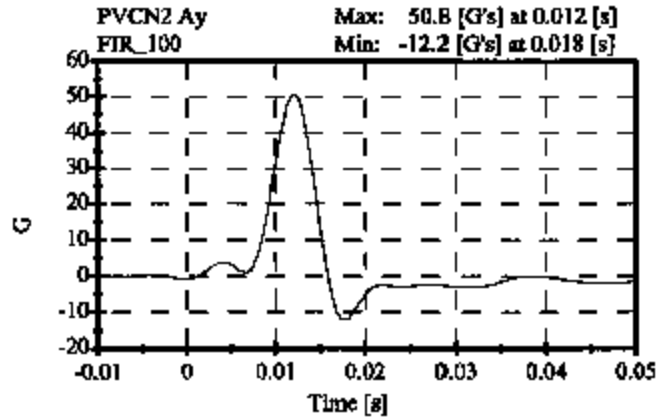
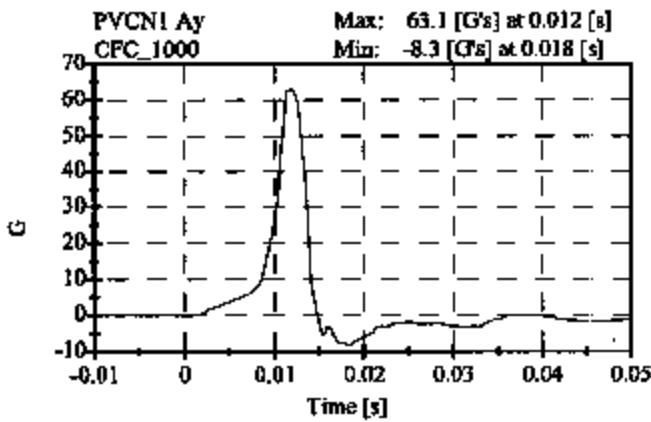
ATD Serial No: 269

Sequential Test Number: 1 File: 269P 09-22-03

Date: 09-22-03

Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.79 G's	Passed



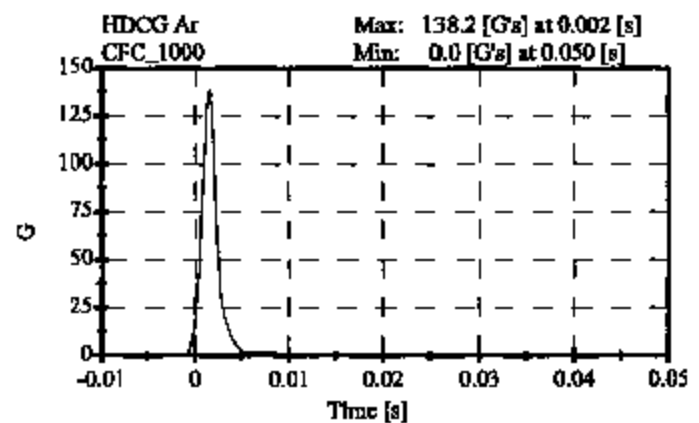
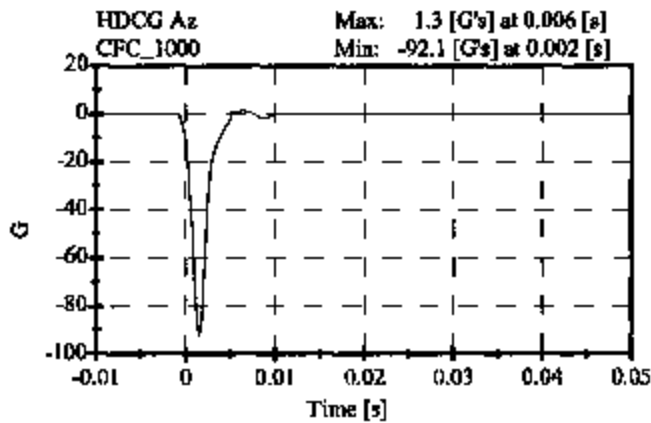
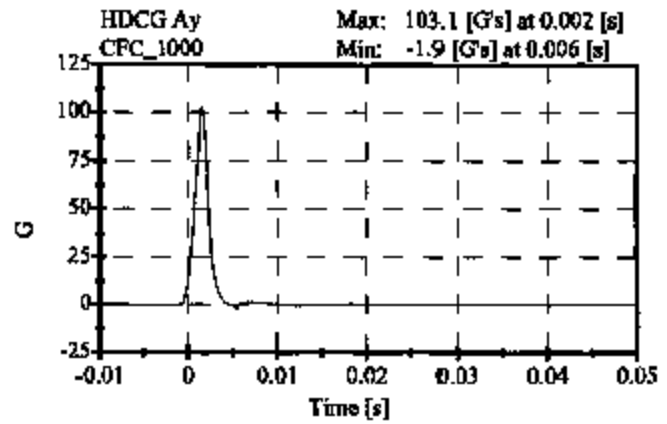
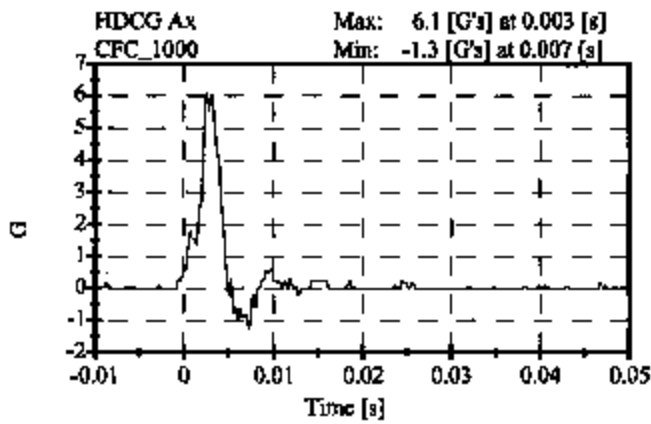
**Head Drop
PRE TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 09-18-03

Sequential Test Number: 1 File: 269H 09-18-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	38.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	138.21 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	6.10 Gs	Passed
Curve PerCent NonModal:	< 15%	1.65 %	Passed



Neck Flexion Test

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269

Sequential Test Number: 1 File: 269N1 09-19-03

Date: 09-19-03

Laboratory Technician: [REDACTED]

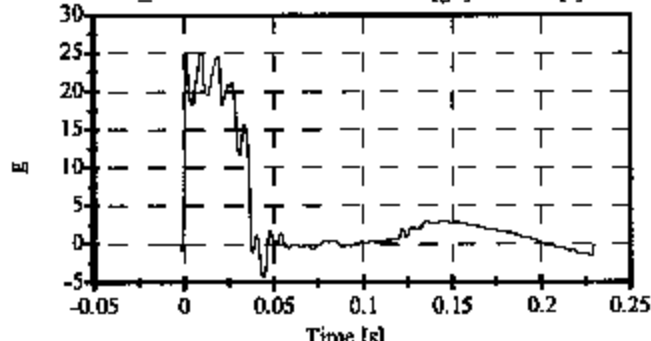
<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	44.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.01 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.08 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.26 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.16 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.02 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	72.41 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	63.80 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	90.53 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	58.80 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	11.70 ms	Passed

Neck Flexion Test
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

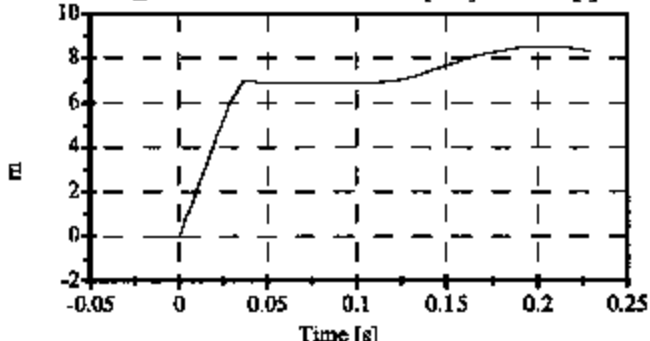
ATD Serial No: 269
 Date: 09-19-03

Sequential Test Number: 1 File: 269N1 09-19-03
 Laboratory Technician: [REDACTED]

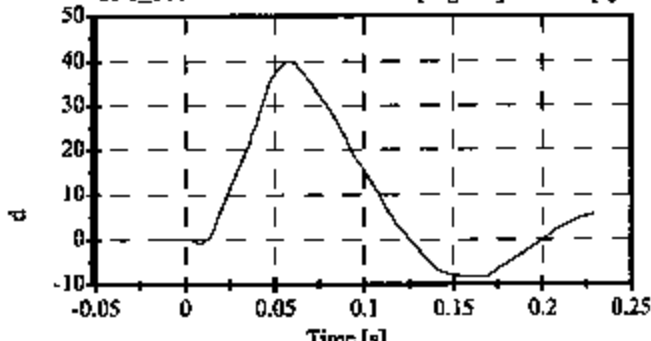
Pend Ax
 CFC_180
 Max: 25.2 [g's] at 0.009 [s]
 Min: -4.3 [g's] at 0.044 [s]



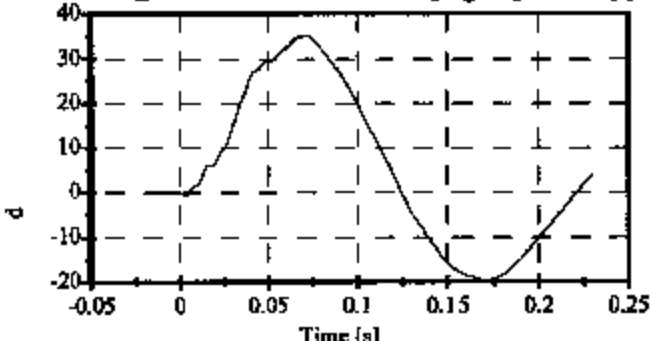
Pend Vx
 CFC_180
 Max: 8.5 [m/s] at 0.202 [s]
 Min: -0.0 [m/s] at -0.001 [s]



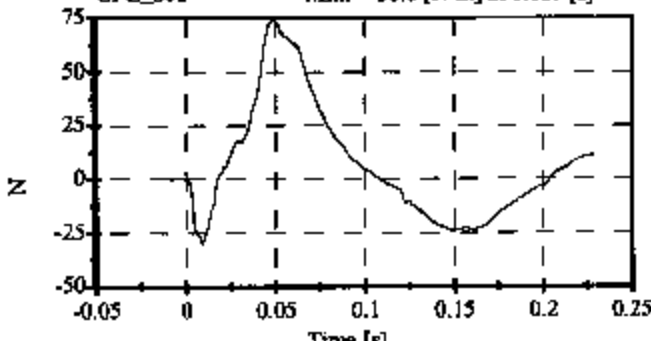
Head Rot
 CFC_180
 Max: 40.0 [degrees] at 0.059 [s]
 Min: -8.1 [degrees] at 0.161 [s]



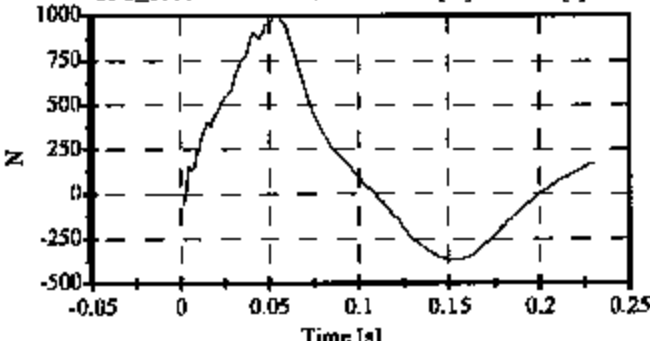
Arm Rot
 CFC_180
 Max: 35.0 [degrees] at 0.072 [s]
 Min: -19.5 [degrees] at 0.169 [s]



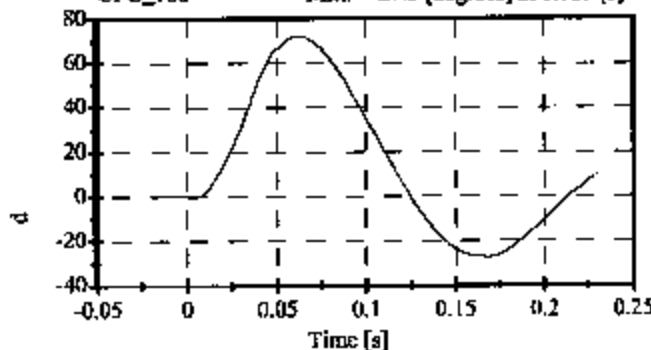
Neck Mx
 CFC_600
 Max: 73.6 [N-m] at 0.049 [s]
 Min: -30.8 [N-m] at 0.009 [s]



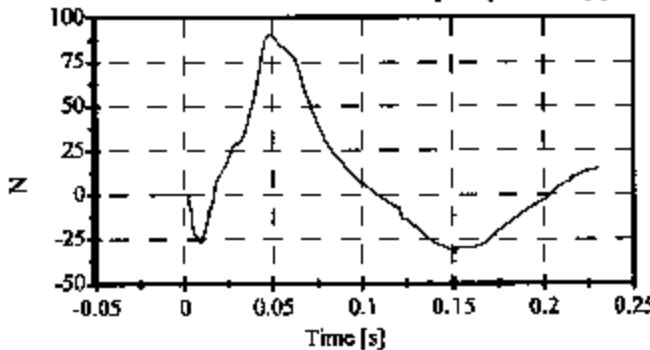
Neck Py
 CFC_1000
 Max: 999.3 [N] at 0.054 [s]
 Min: -372.4 [N] at 0.154 [s]



Tot Rot
 CFC_180
 Max: 72.4 [degrees] at 0.061 [s]
 Min: -27.5 [degrees] at 0.169 [s]



Mocv
 Max: 90.5 [N-m] at 0.049 [s]
 Min: -30.3 [N-m] at 0.151 [s]

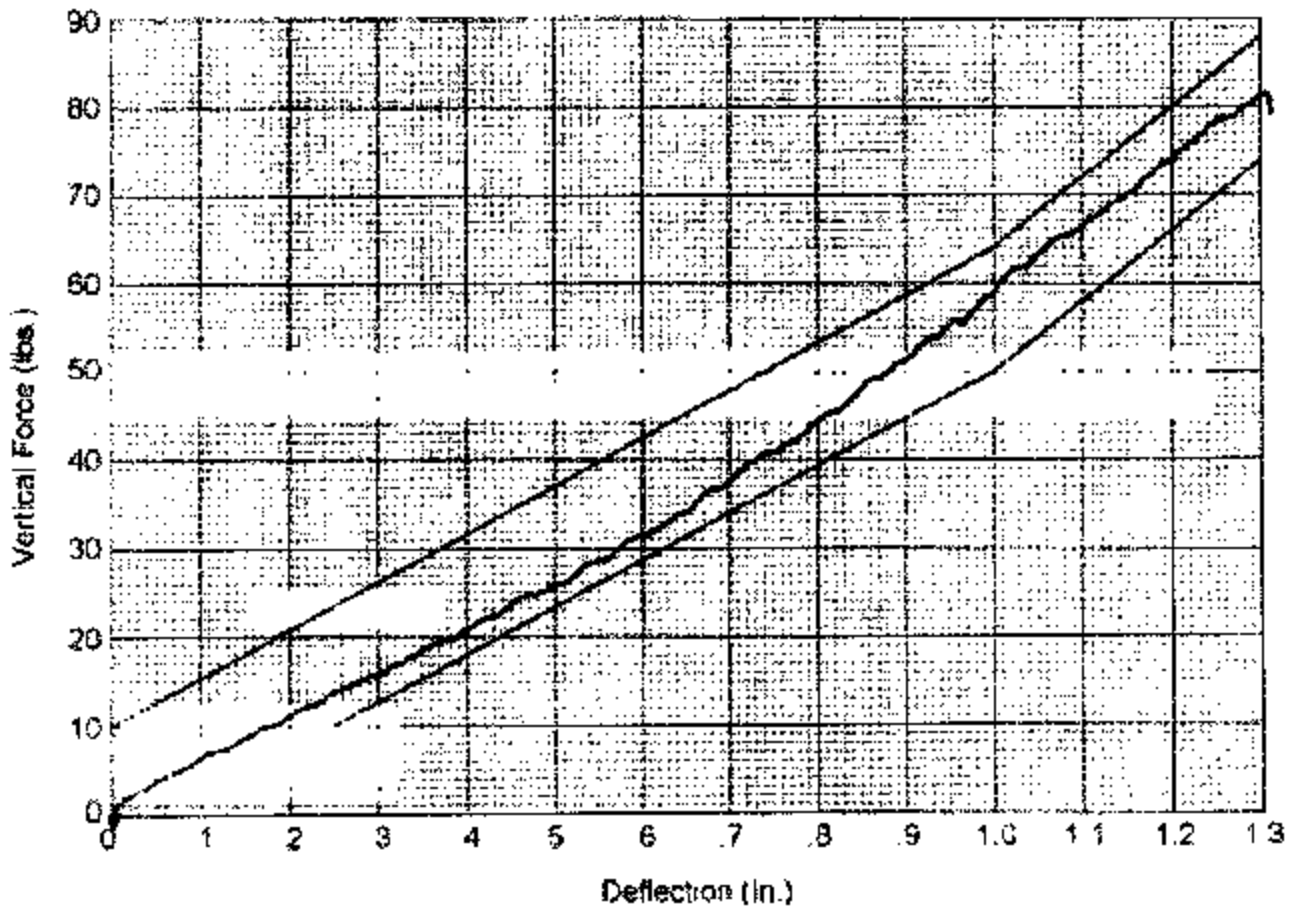


**ABDOMINAL COMPRESSION TEST
PRE-TEST
(Test not required for SID certification)**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
 Date: 09/22/2003 Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	33
FORCE @ 13 mm (N)	104 - 162	114.8
FORCE @ 19 mm (N)	163 - 221	181.5
FORCE @ 25 mm (N)	222 - 280	262.4
FORCE @ 33 mm (N)	325 - 391	361.6



**Hybrid II
Abdomen Static Press**

REMARKS: None

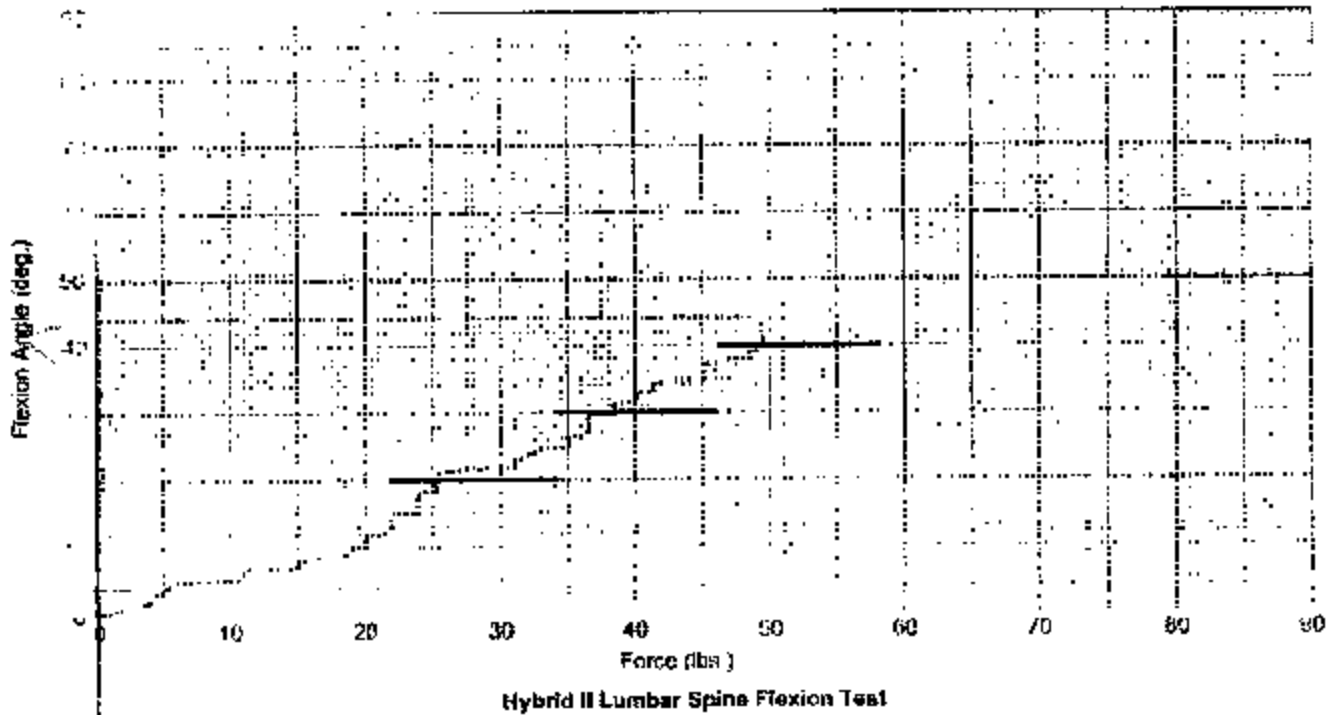
**LUMBAR FLEXION TEST
PRE-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269
Date: 09/22/2003

Sequential Test Number: 1
Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	112.5
FORCE @ 30° (N)	151.2 - 204.6	171.3
FORCE @ 40° (N)	204.6 - 258	218.0
RETURN ANGLE	12° max.	4.0°



REMARKS: None

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
 Date: 09/22/2003 Laboratory Technician: [REDACTED]

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.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST
CONFIGURED FOR LEFT SIDE IMPACT**

SID H3 Serial No.: 270 Sequential Test Number: _____
Date: 08/08/2003 Laboratory Technician: _____

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.: 270
Date: 08/08/2003

Sequential Test Number: 1
Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	516
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	373

REMARKS: None

THORACIC SHOCK ABSORBER TEST - Shock Low (3.05 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

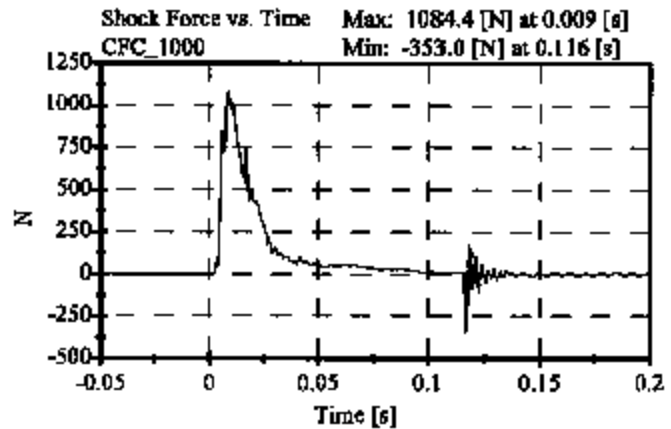
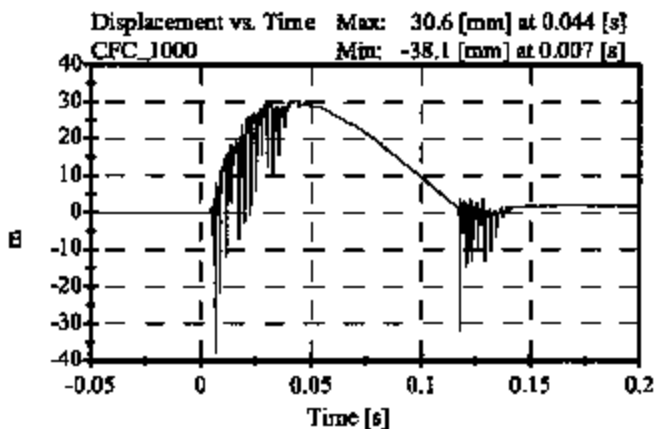
ATD Serial No: 270

Date: 07-15-03

Sequential Test Number: 1 File: 270SL2 7-15-03

Laboratory Technician: XXXXXXXXXX

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	27.00 %	Passed
Displacement:	30.00-35.00 mm	30.58 mm	Passed
Maximum Force:	836.00-1125.00 N	1084.44 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	270		
Damper Setting:	5		



THORACIC SHOCK ABSORBER TEST - Shock Med (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270

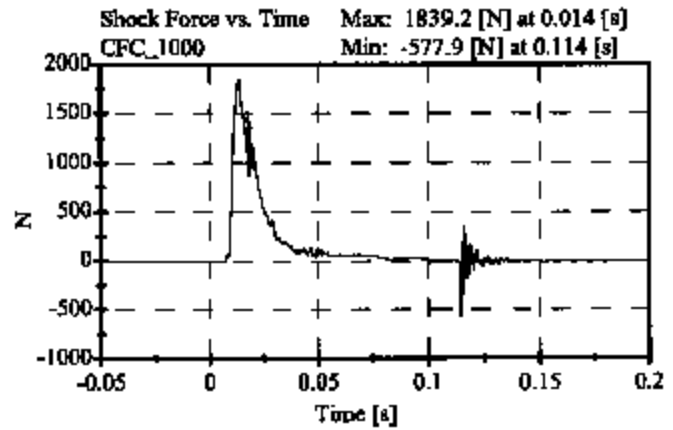
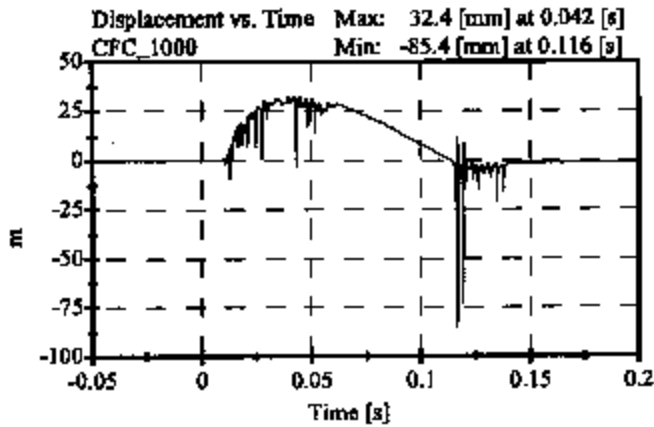
Date: 07-15-03

Sequential Test Number: 1 File: 270SM2 7-15-03

Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	27.00 %	Passed
Displacement:	32.00-37.00 mm	32.36 mm	Passed
Maximum Force:	1730.00-2099.00 N	1839.24 N	Passed

Impact Test Velocity: 4.27 m/s
Damper Identification: 270
Damper Setting: 5



THORACIC SHOCK ABSORBER TEST - Shock High (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

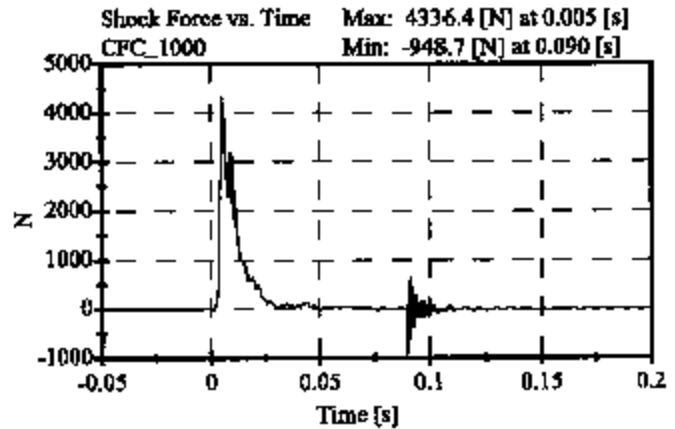
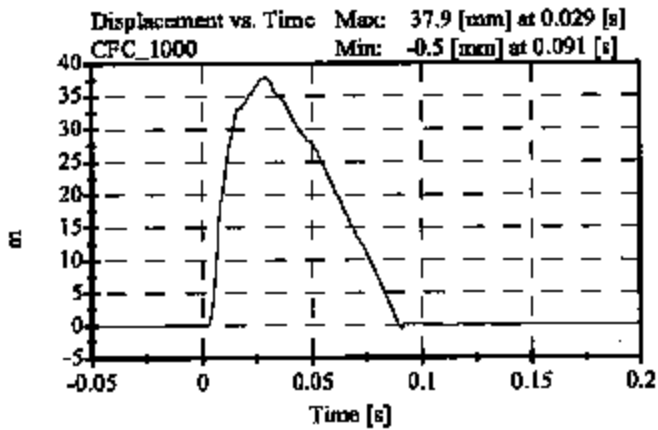
ATD Serial No: 270

Date: 07-15-03

Sequential Test Number: 1 File: 270SH1 7-15-03

Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	27.00 %	Passed
Displacement:	33.00-40.00 mm	37.86 mm	Passed
Maximum Force:	3741.00-4448.00 N	4336.39 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	270		
Damper Setting:	5		



Thorax Impact

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

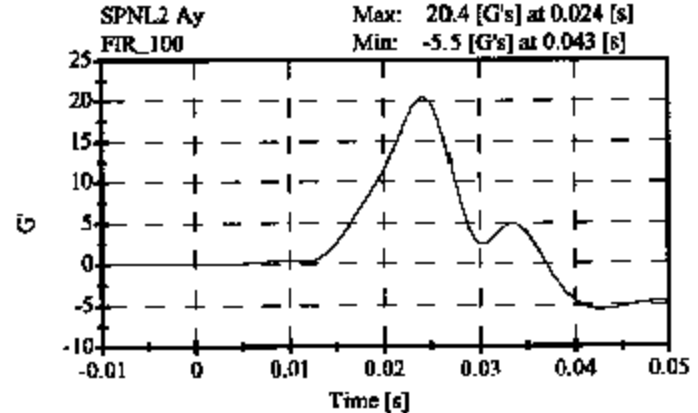
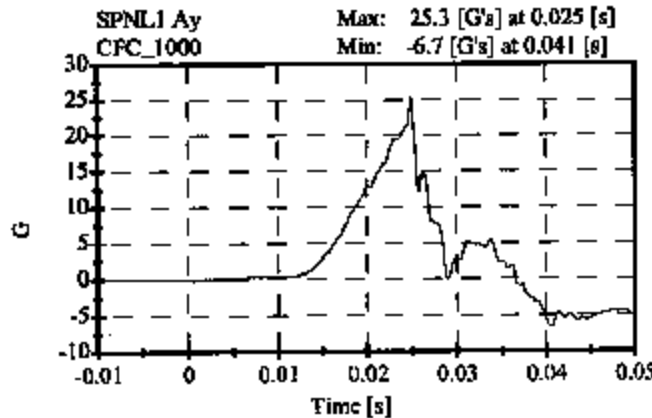
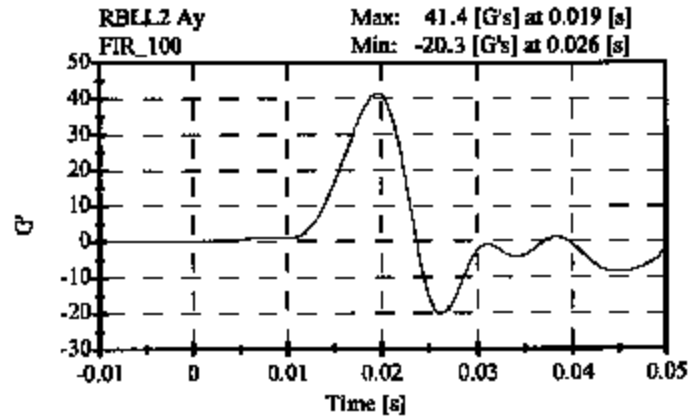
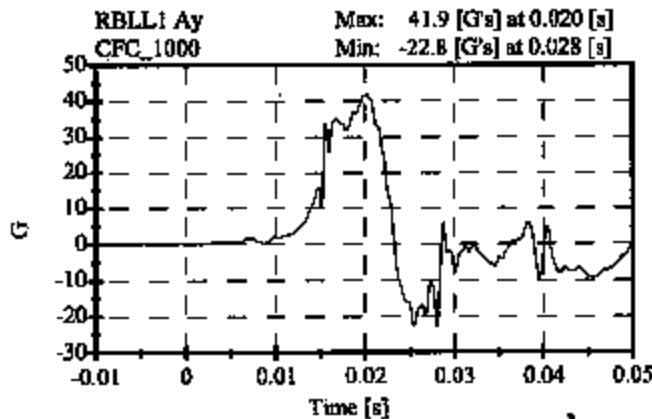
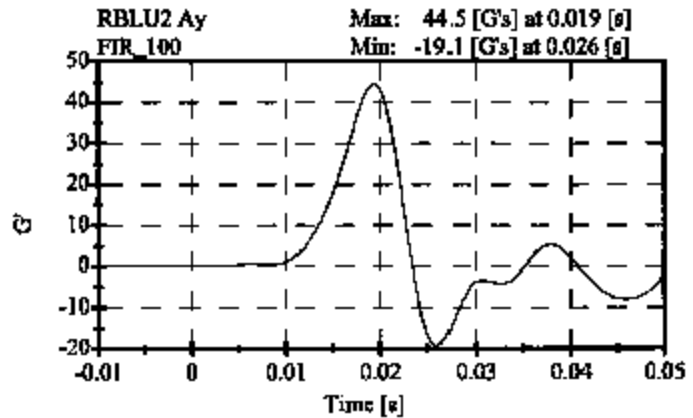
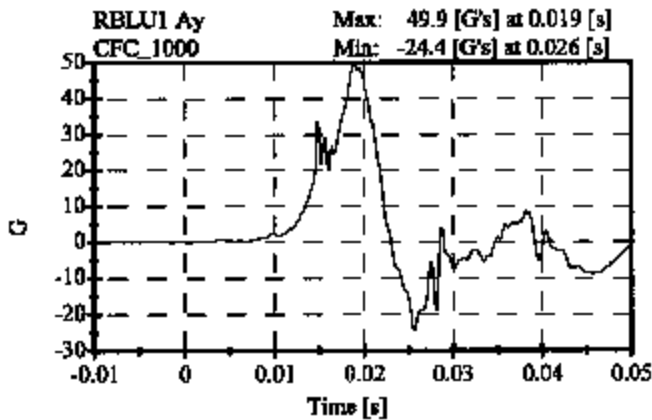
ATD Serial No: 270

Date: 08-08-03

Sequential Test Number: 1 File: 270T 08-08-03

Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	44.52 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.40 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.43 G's	Passed



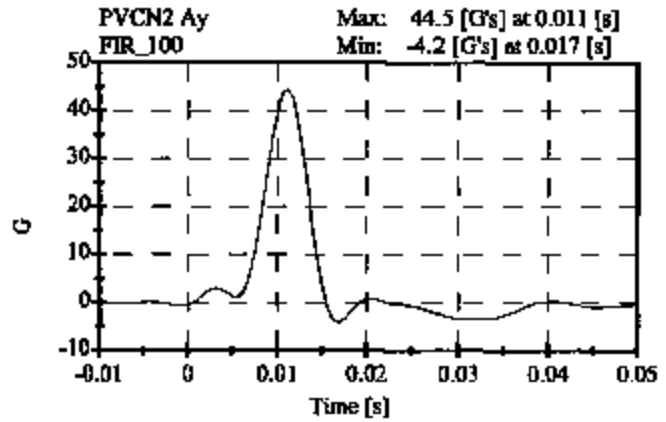
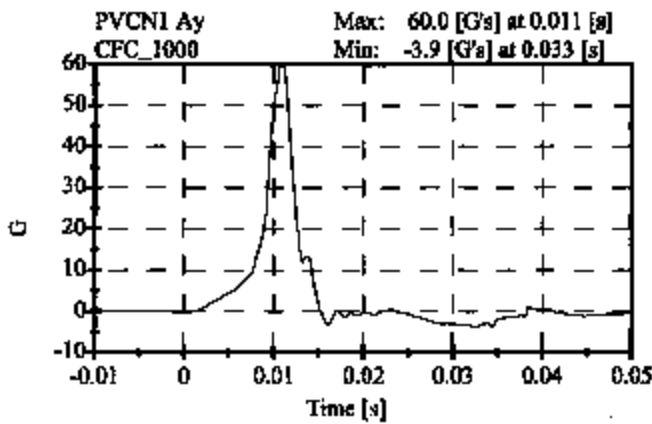
**Pelvis Impact
PRE TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 08-08-03

Sequential Test Number: 1 File: 270P 08-08-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	48.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	44.49 G's	Passed



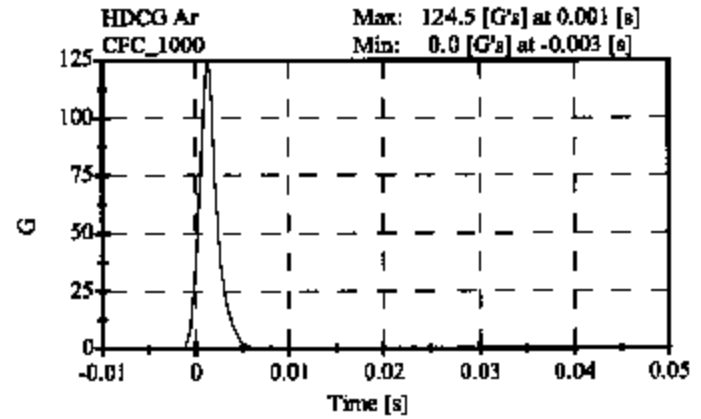
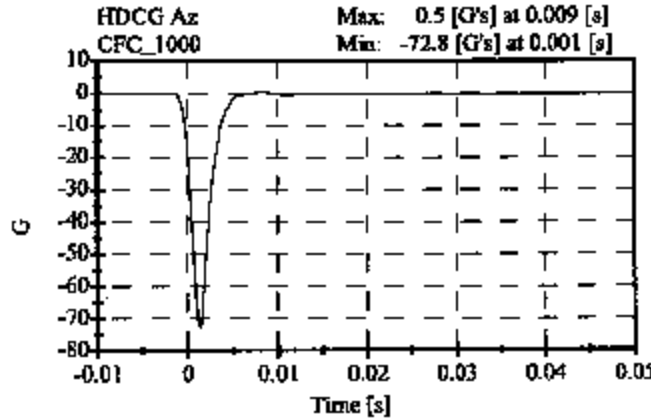
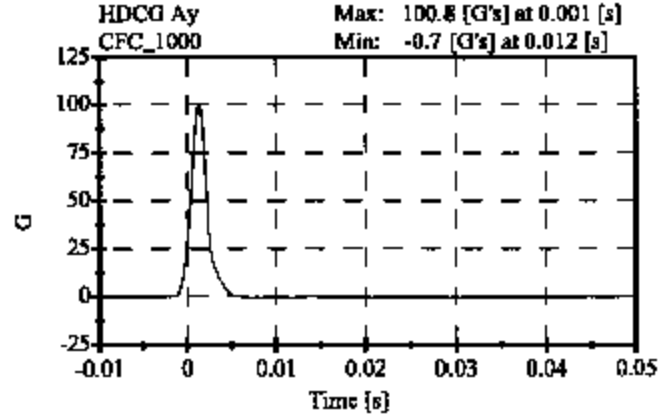
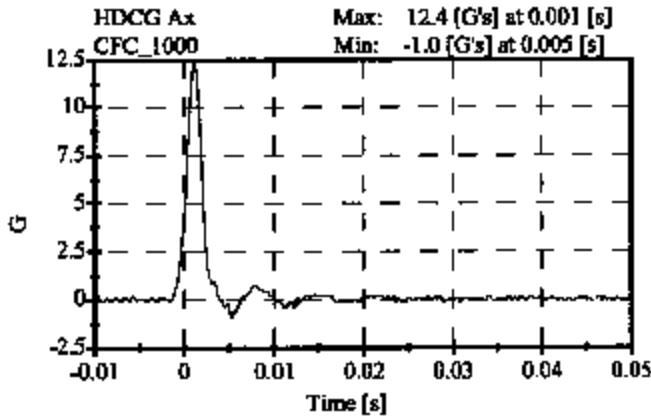
**Head Drop
PRE TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 08-06-03

Sequential Test Number: 1 File: 270H1 08-06-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	45.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	124.54 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	12.38 Gs	Passed
Curve PerCent NonModal:	< 15%	1.96 %	Passed



**Neck Test
PRE TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 08-07-03

Sequential Test Number: 1 File: 270N1 08-07-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	38.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.91 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.16 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.27 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.07 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.03 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	75.51 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	63.80 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	89.05 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	54.50 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	8.40 ms	Passed

**Neck Test
PRE TEST**

CONFIGURED FOR LEFT SIDE IMPACT

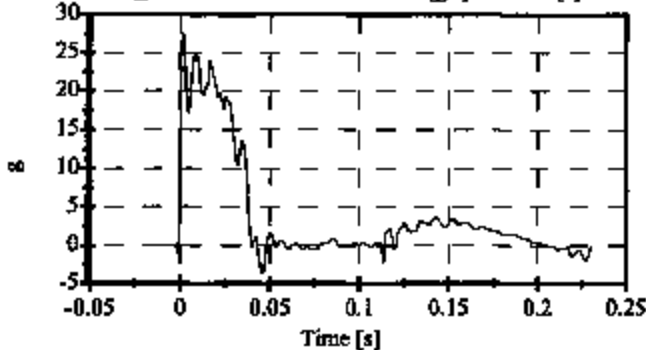
ATD Serial No: 270

Date: 08-07-03

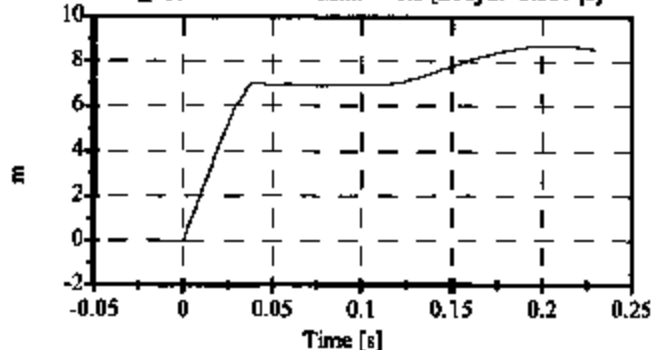
Sequential Test Number: 1 File: 270N1 08-07-03

Laboratory Technician: [REDACTED]

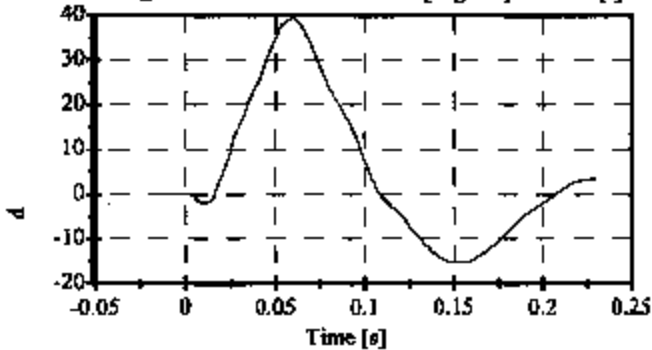
Pend Ax
CFC_180
Max: 27.4 [g's] at 0.002 [s]
Min: -3.7 [g's] at 0.046 [s]



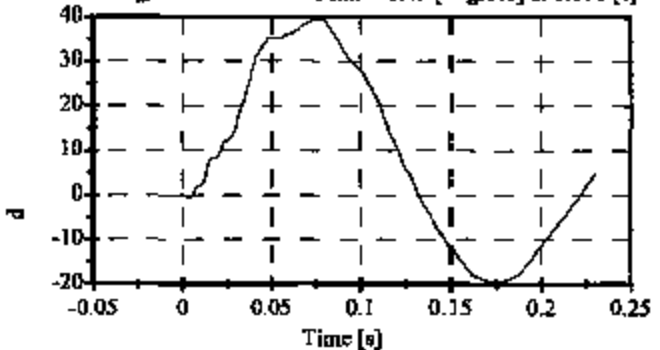
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.206 [s]
Min: -0.0 [m/s] at -0.001 [s]



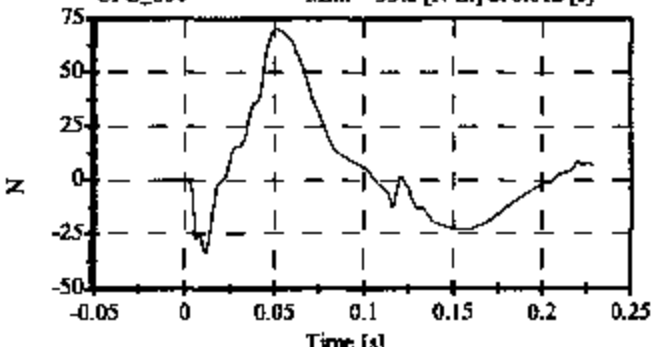
Head Rot
CFC_180
Max: 39.3 [degrees] at 0.060 [s]
Min: -15.3 [degrees] at 0.150 [s]



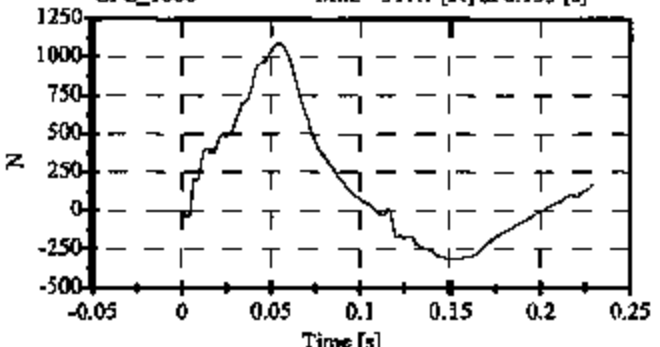
Arm Rot
CFC_180
Max: 39.6 [degrees] at 0.077 [s]
Min: -19.3 [degrees] at 0.171 [s]



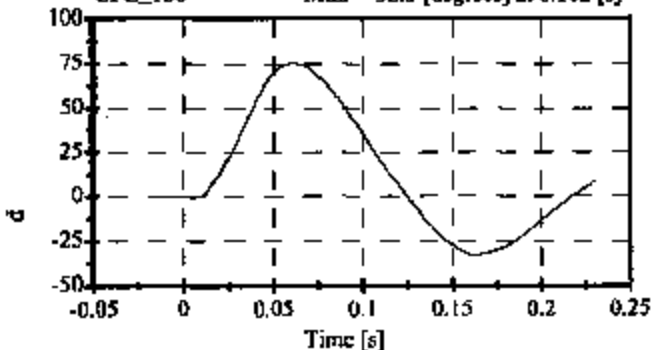
Neck Mx
CFC_600
Max: 70.1 [N-m] at 0.051 [s]
Min: -33.6 [N-m] at 0.012 [s]



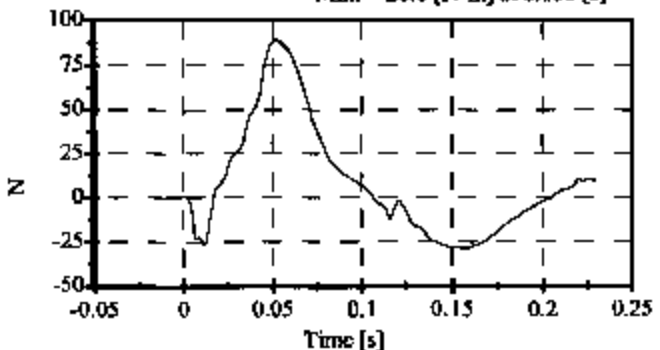
Neck Fy
CFC_1000
Max: 1087.8 [N] at 0.055 [s]
Min: -317.7 [N] at 0.153 [s]



Tot Rot
CFC_180
Max: 75.5 [degrees] at 0.060 [s]
Min: -32.5 [degrees] at 0.162 [s]



Mocyc
Max: 89.1 [N-m] at 0.052 [s]
Min: -28.8 [N-m] at 0.156 [s]



**ABDOMINAL COMPRESSION TEST
PRE-TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

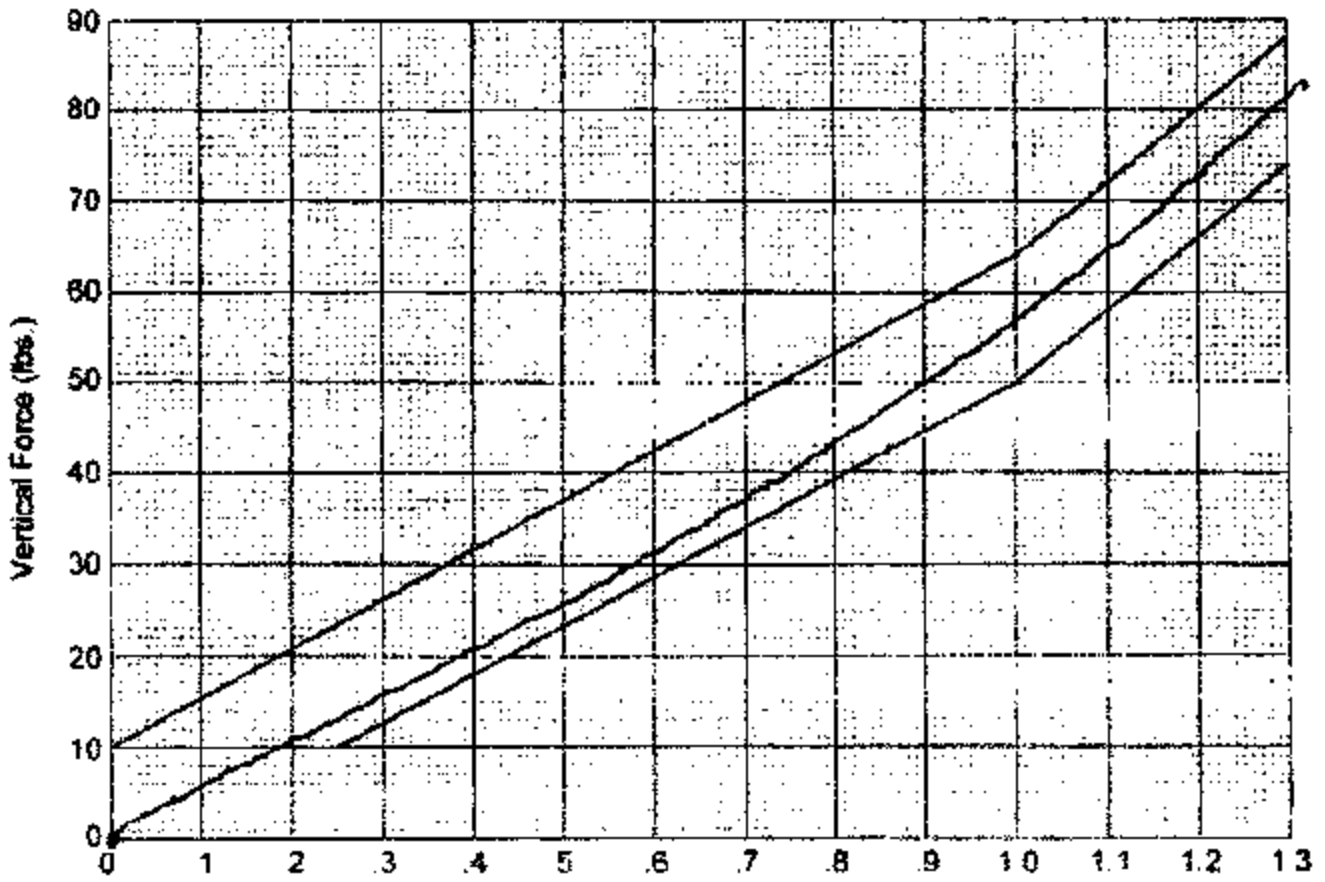
SID H3 Serial No.: 270

Sequential Test Number: 1

Date: 08/08/2003

Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	48
FORCE @ 13 mm (N)	104 - 162	114.7
FORCE @ 19 mm (N)	163 - 221	178.8
FORCE @ 25 mm (N)	222 - 280	252.7
FORCE @ 33 mm (N)	325 - 391	362.1



Hybrid II
Abdomen Static Press

REMARKS: None

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

CONFIGURED FOR LEFT SIDE IMPACT

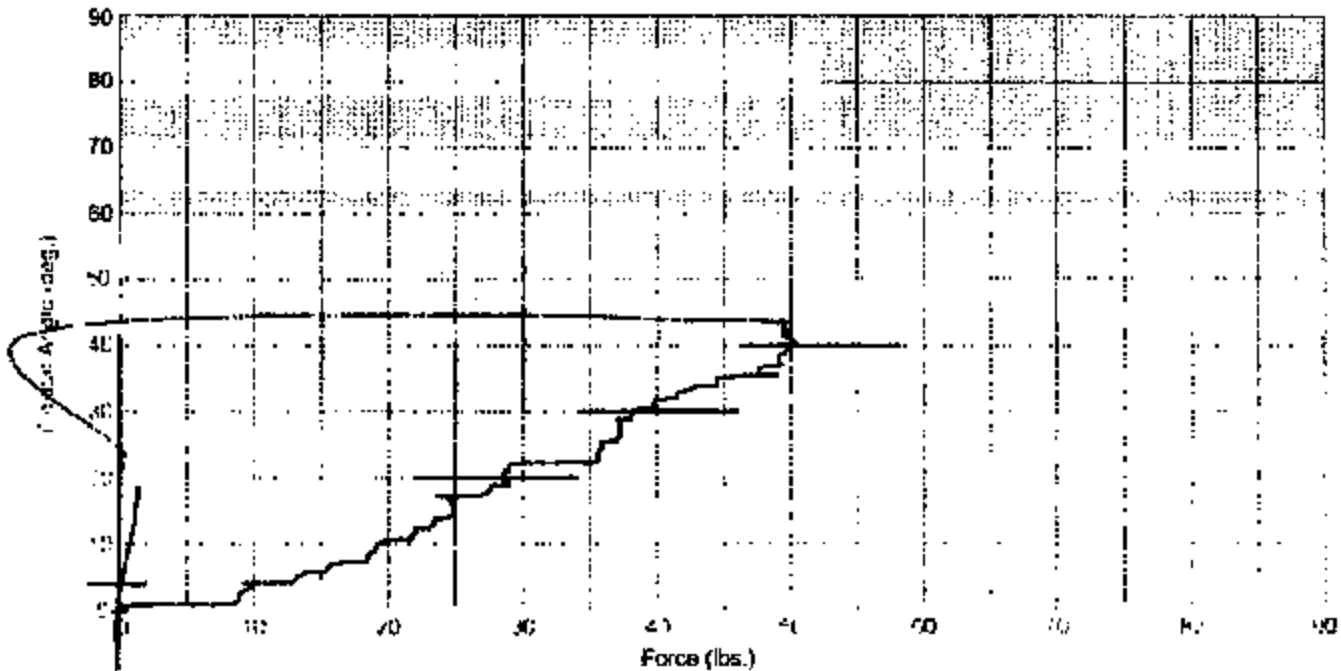
SID H3 Serial No.: 270

Sequential Test Number: 1

Date: 08/08/2003

Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	48.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	127.2
FORCE @ 30° (N)	151.2 - 204.6	169.9
FORCE @ 40° (N)	204.6 - 258	221.5
RETURN ANGLE	12° max.	3.8°



Hybrid II Lumbar Spine Flexion Test

REMARKS: None

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270

Sequential Test Number:

1

Date: 08/08/2003

Laboratory Technician:

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.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269

Sequential Test Number: 1

Date: 09/26/2003

Laboratory Technician: [REDACTED]

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.: 269
Date: 9/26/2003

Sequential Test Number: 1
Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	502
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

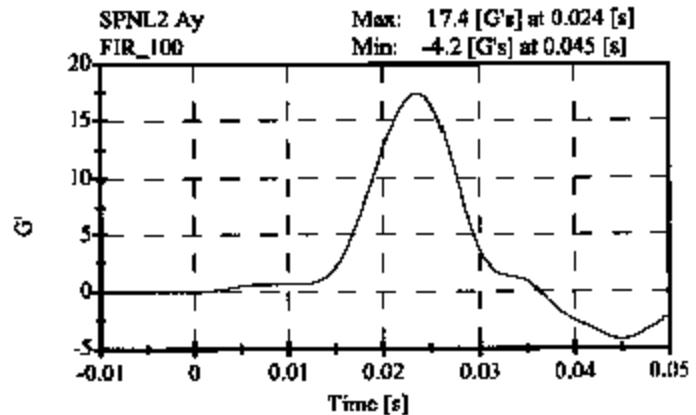
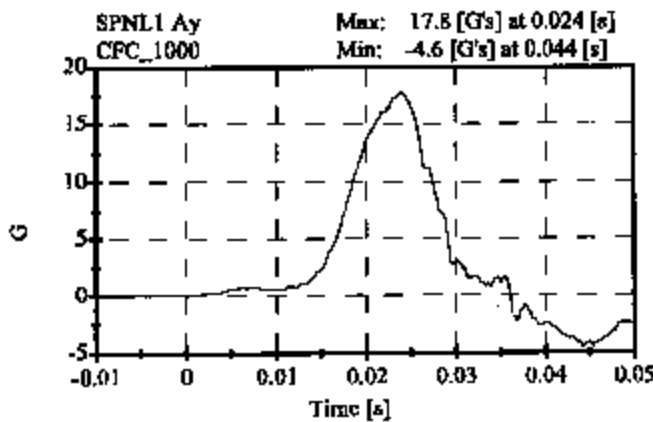
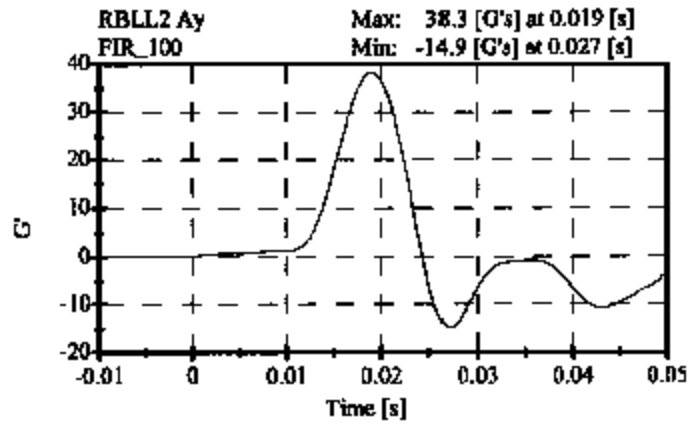
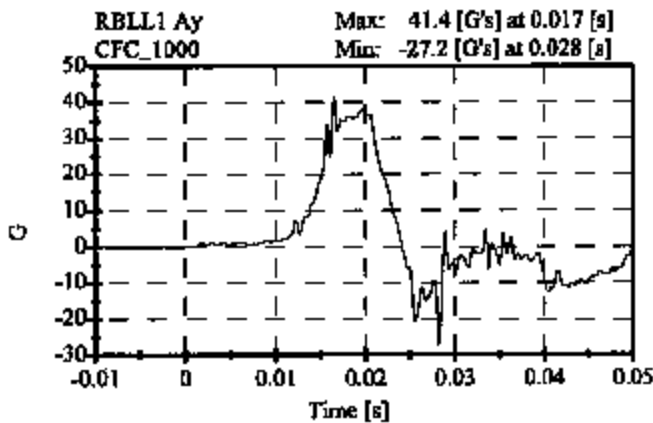
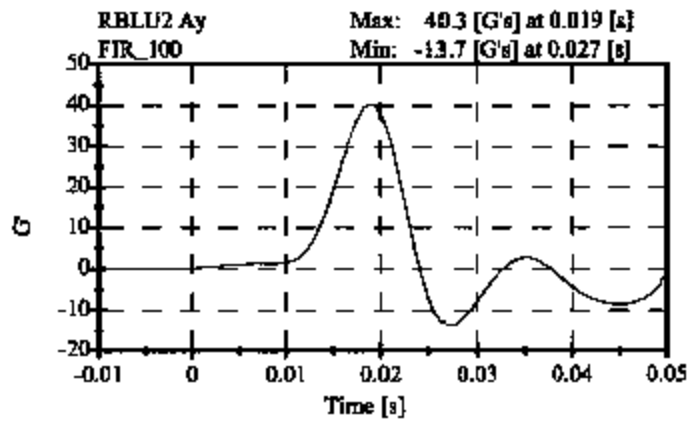
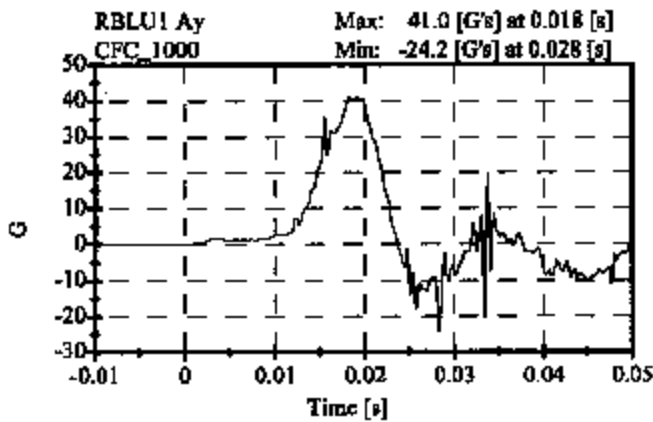
REMARKS: None

**Thorax Impact
POST TEST
CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 269
Date: 09-26-03

Sequential Test Number: 1 File: 269T 09-26-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.30 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	38.34 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.40 G's	Passed



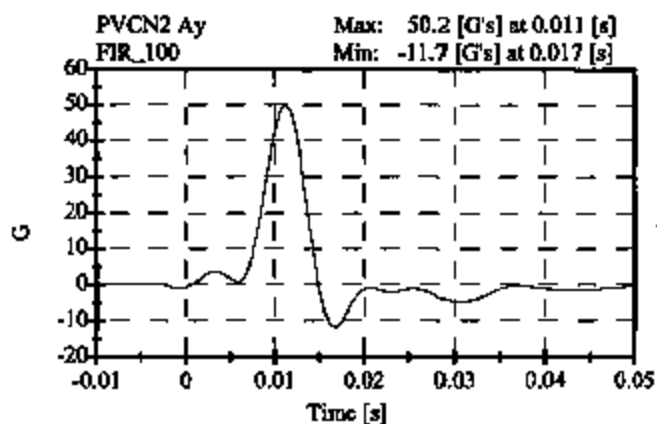
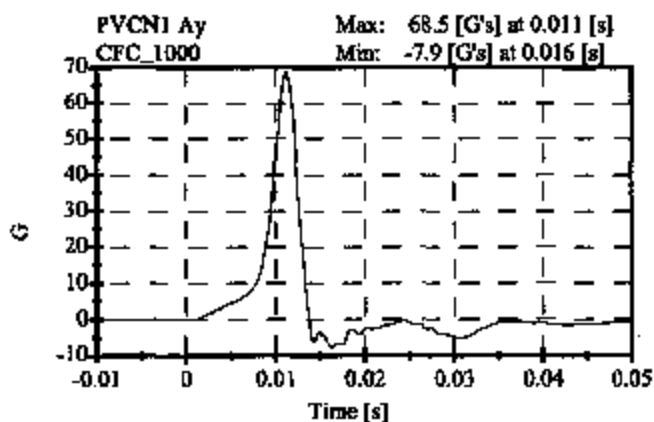
**Pelvic Impact
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 09-26-03

Sequential Test Number: 1 File: 269P 09-26-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.17 G's	Passed



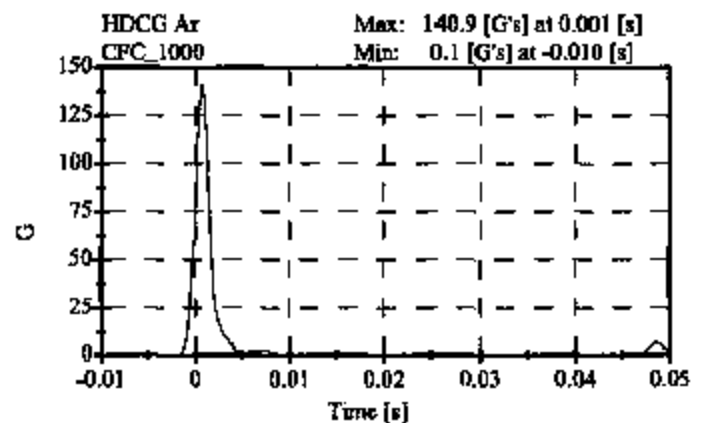
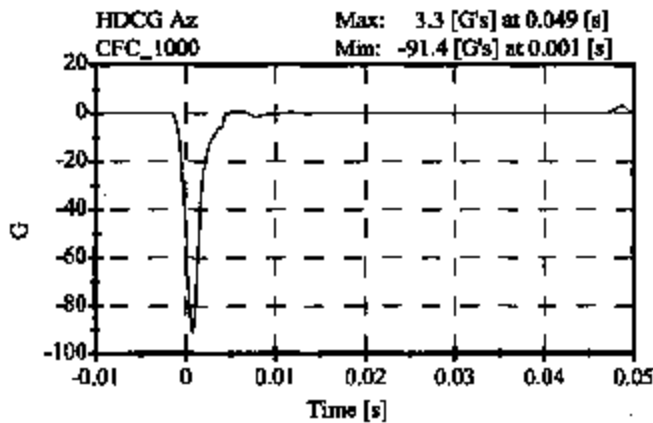
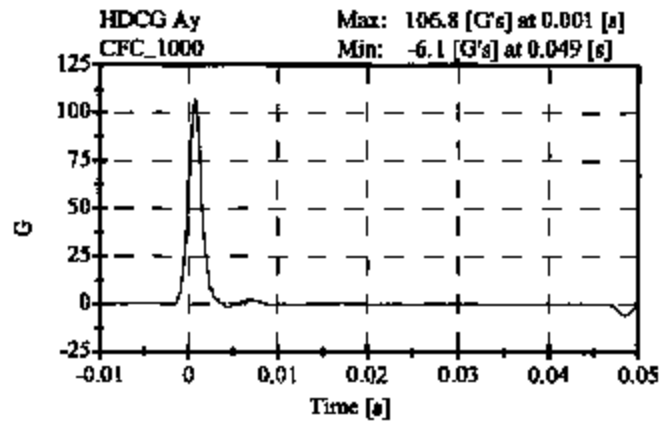
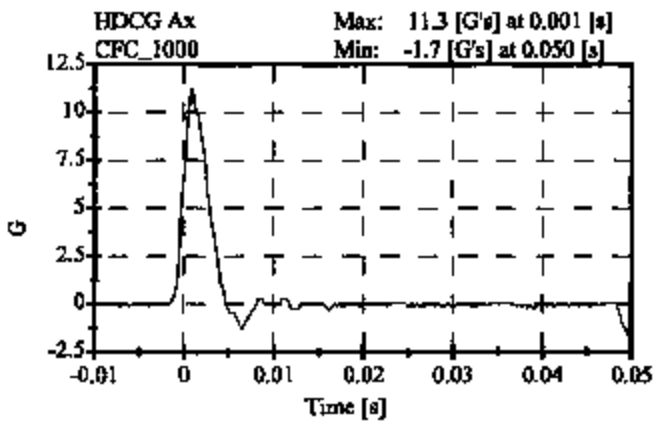
**Head Drop
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 09-24-03

Sequential Test Number: 1 File: 269H 09-24-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	140.88 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	11.26 Gs	Passed
Curve PerCent NonModal:	< 15%	4.92 %	Passed



**Neck Test
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 09-25-03

Sequential Test Number: 1 File: 269N 09-25-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.92 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.05 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.18 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.06 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.00 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	73.49 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	62.90 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	88.27 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	57.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	10.90 ms	Passed

**Neck Test
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269

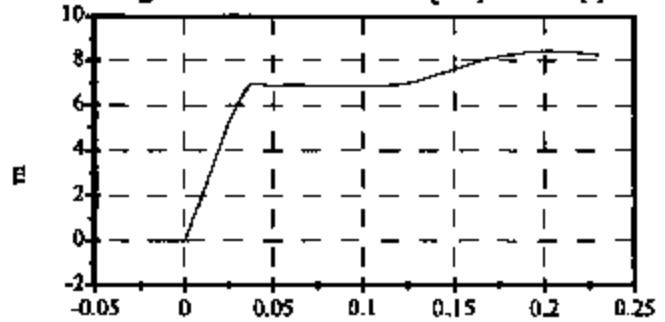
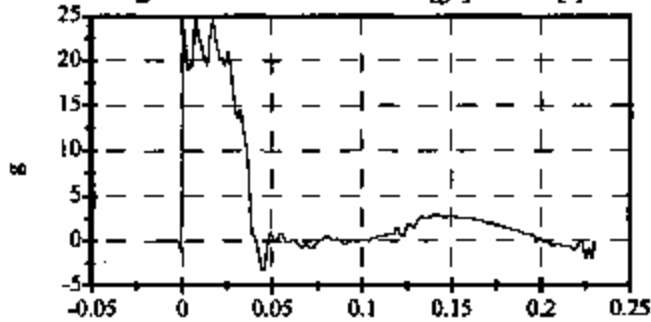
Date: 09-25-03

Sequential Test Number: 1 File: 269N 09-25-03

Laboratory Technician

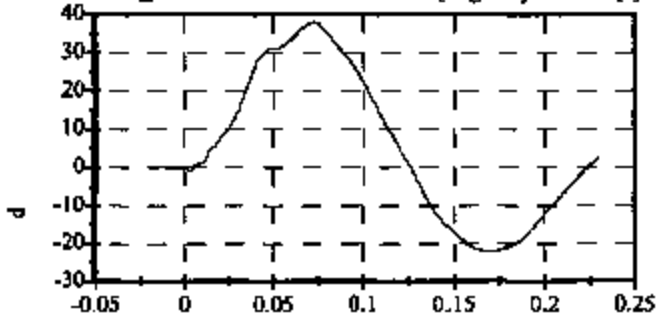
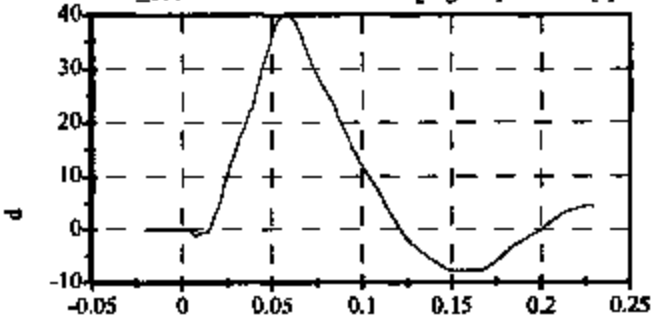
Pend Ax
CFC_180 Max: 24.7 [g's] at 0.008 [s]
 Min: -3.4 [g's] at 0.045 [s]

Pend Vx
CFC_180 Max: 8.4 [m/s] at 0.201 [s]
 Min: -0.0 [m/s] at -0.001 [s]



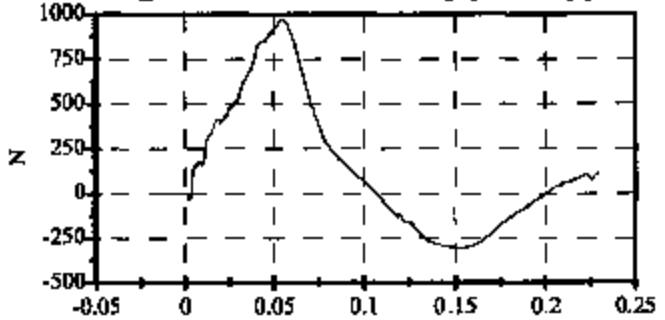
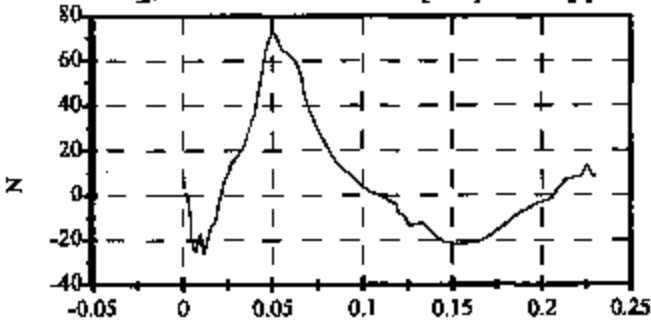
Head Rot
CFC_180 Max: 39.8 [degrees] at 0.060 [s]
 Min: -7.8 [degrees] at 0.152 [s]

Arm Rot
CFC_180 Max: 37.9 [degrees] at 0.073 [s]
 Min: -22.1 [degrees] at 0.168 [s]



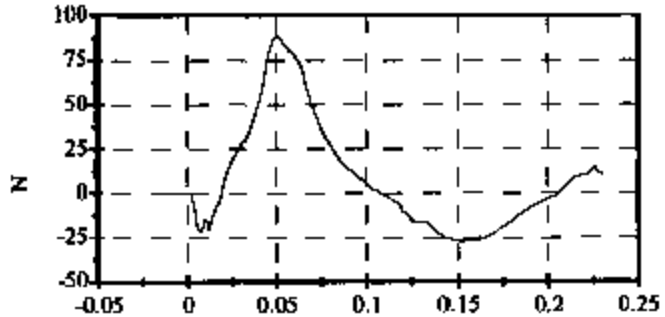
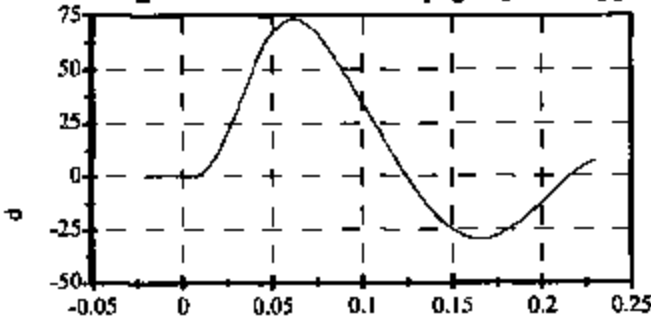
Neck Mx
CFC_600 Max: 71.9 [N-m] at 0.051 [s]
 Min: -25.6 [N-m] at 0.012 [s]

Neck Py
CFC_1000 Max: 967.5 [N] at 0.055 [s]
 Min: -307.7 [N] at 0.153 [s]



Tot Rot
CFC_180 Max: 73.5 [degrees] at 0.062 [s]
 Min: -29.7 [degrees] at 0.167 [s]

Mocy
 Max: 88.3 [N-m] at 0.051 [s]
 Min: -27.3 [N-m] at 0.153 [s]

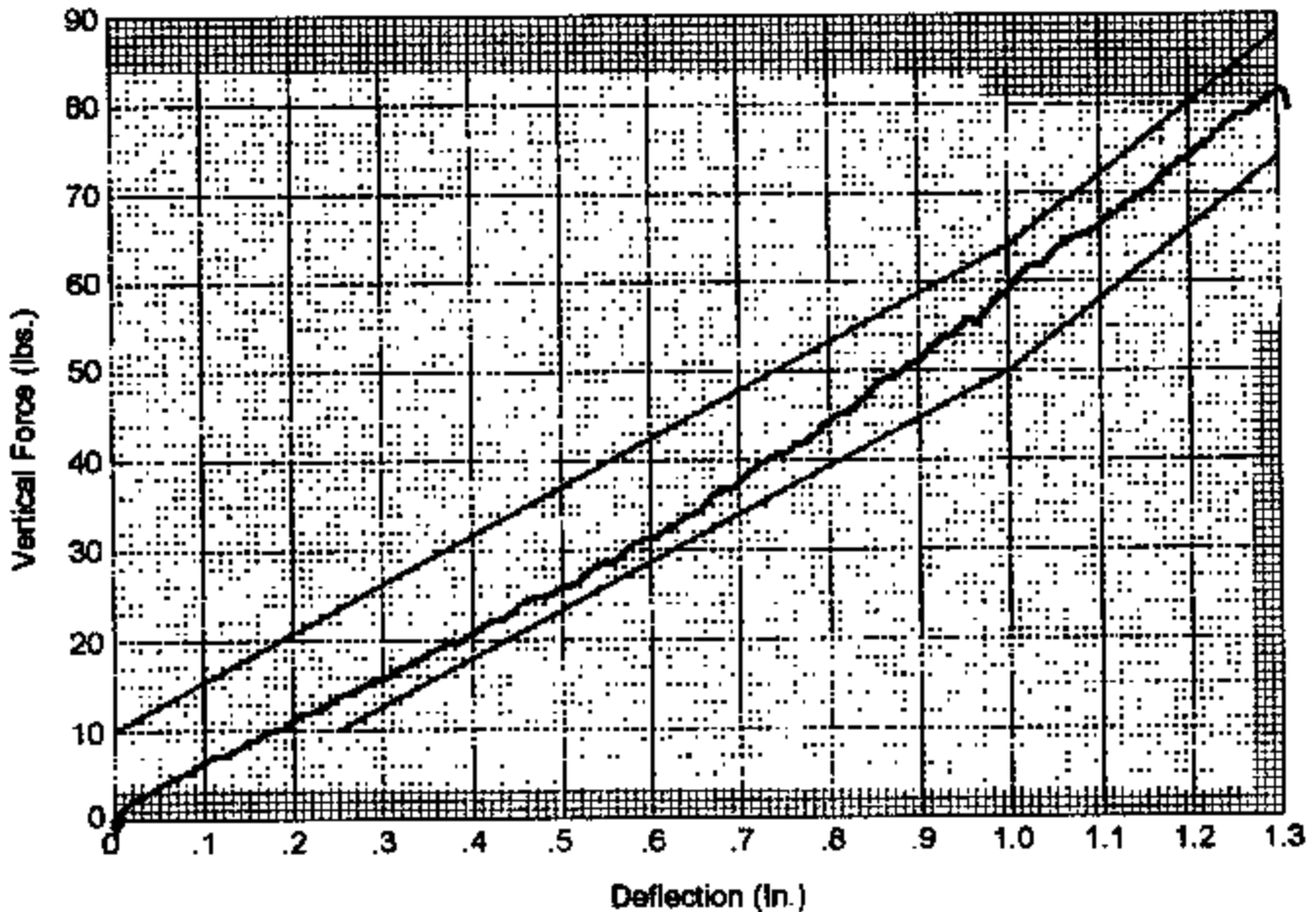


**ABDOMINAL COMPRESSION TEST
POST TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
 Date: 09/26/2003 Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28.0
FORCE @ 13 mm (N)	104 - 162	114.8
FORCE @ 19 mm (N)	163 - 221	182.4
FORCE @ 25 mm (N)	222 - 280	262.0
FORCE @ 33 mm (N)	325 - 391	362.1



**Hybrid II
Abdomen Static Press**

REMARKS: None

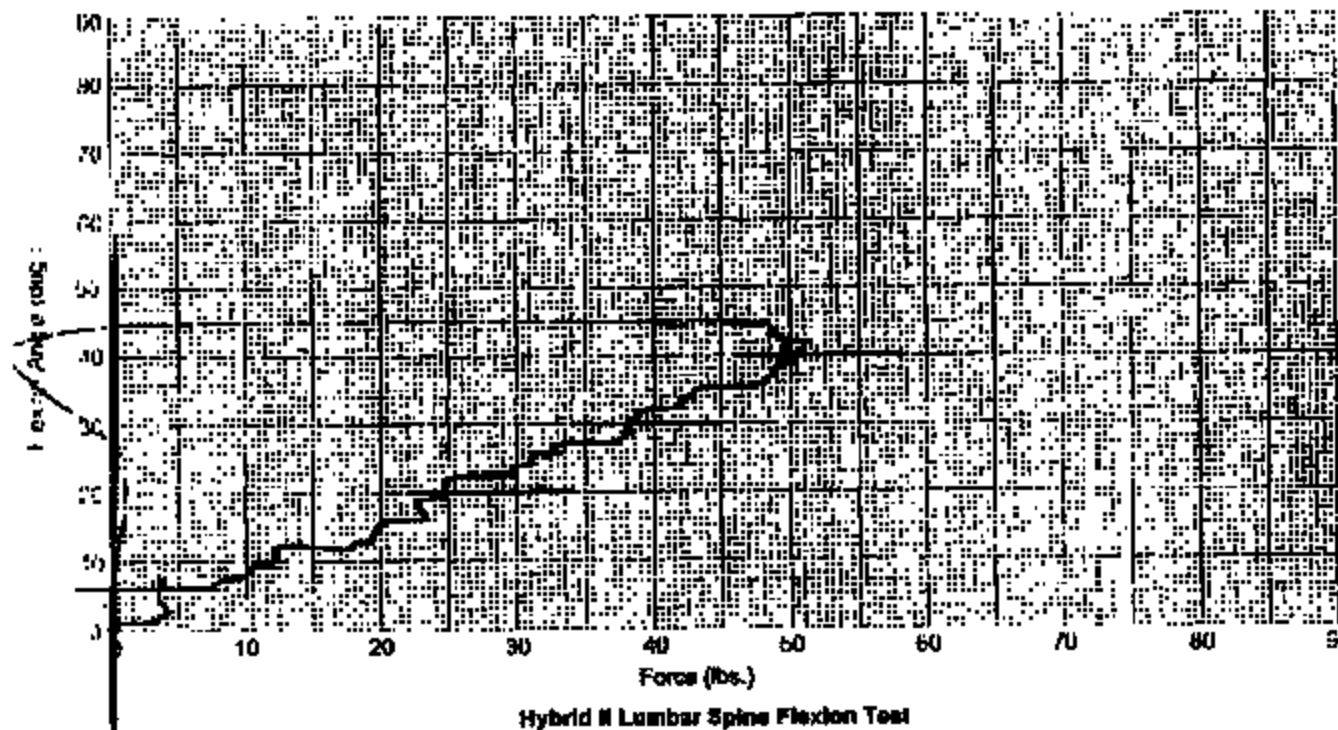
**LUMBAR FLEXION TEST
POST TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269
Date: 09/26/2003

Sequential Test Number: _____
Laboratory Technician: _____

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	110.3
FORCE @ 30° (N)	151.2 - 204.6	171.7
FORCE @ 40° (N)	204.6 - 258	219.3
RETURN ANGLE	12° MAX.	6.2°



REMARKS: None

POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269

Sequential Test Number: 1

Date: 9/26/2003

Laboratory Technician: [REDACTED]

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.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270
Date: 09/26/2003

Sequential Test Number: 1
Laboratory Technician: [REDACTED]

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.: 270

Sequential Test Number: 1

Date: 09/26/2003

Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	516
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	376

REMARKS: None

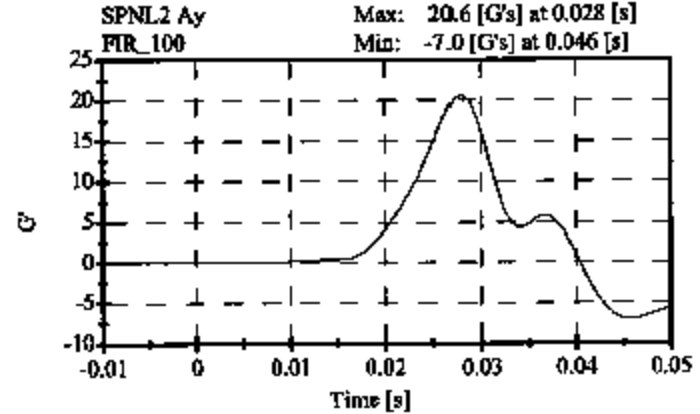
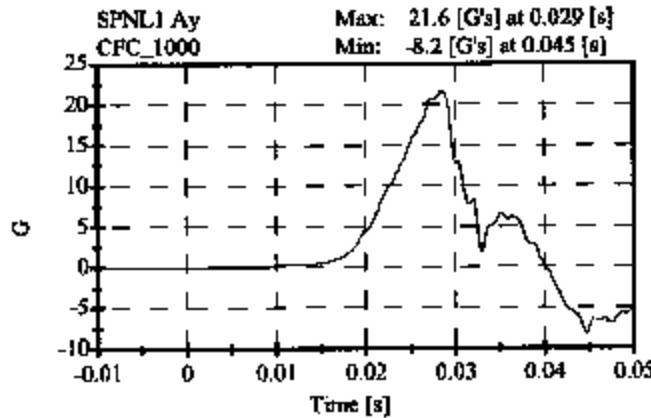
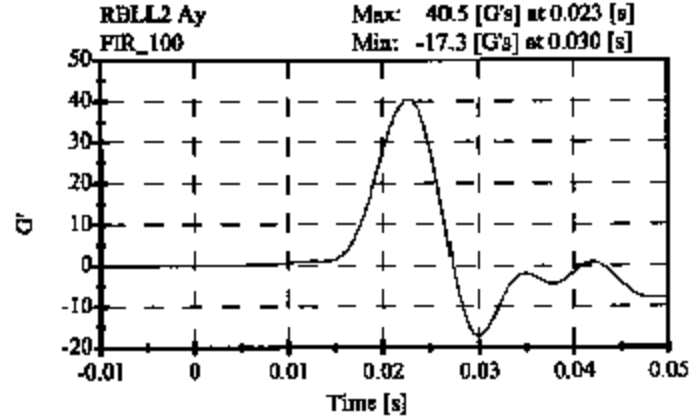
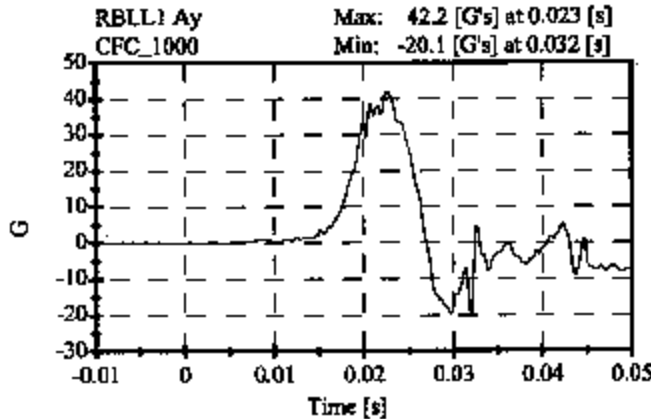
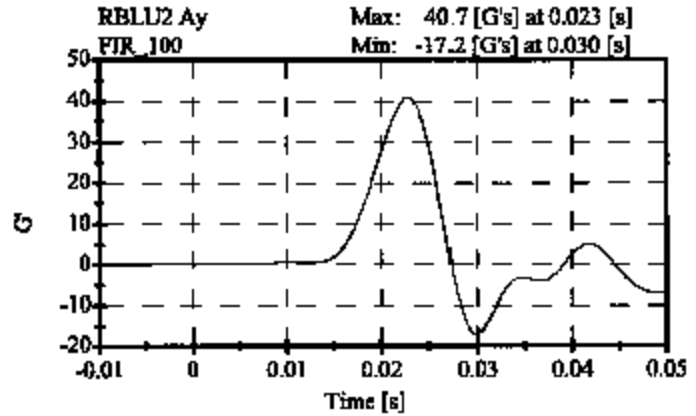
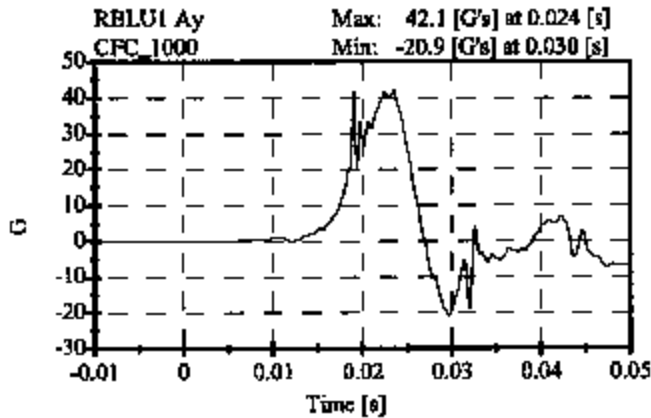
**Thorax Impact
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 09-26-03

Sequential Test Number: 1 File: 270T 09-26-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.71 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	40.53 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	20.60 G's	Passed



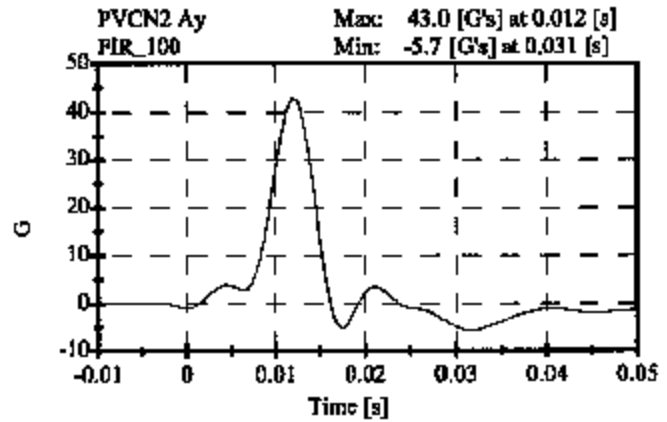
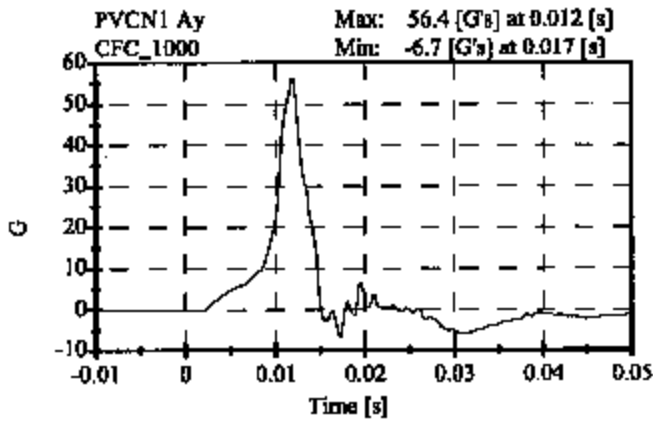
**Pelvic Impact
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 09-26-03

Sequential Test Number: 1 File: 270P 09-26-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	42.96 G's	Passed



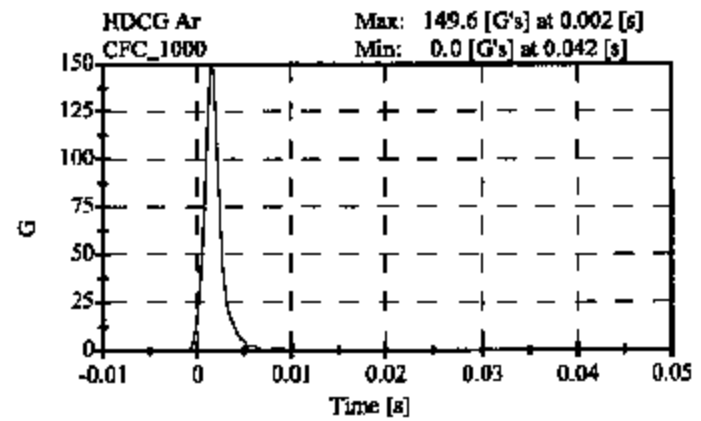
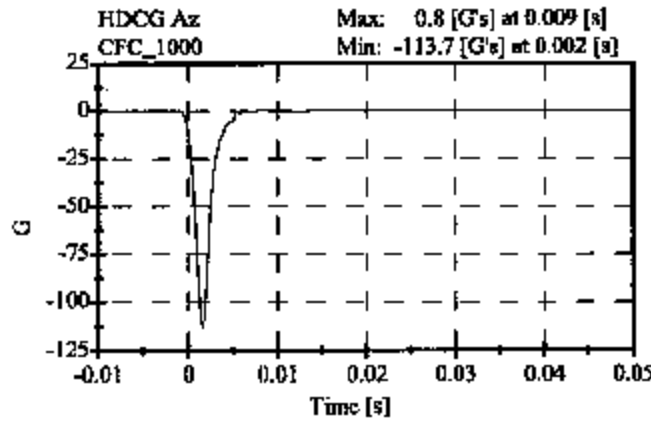
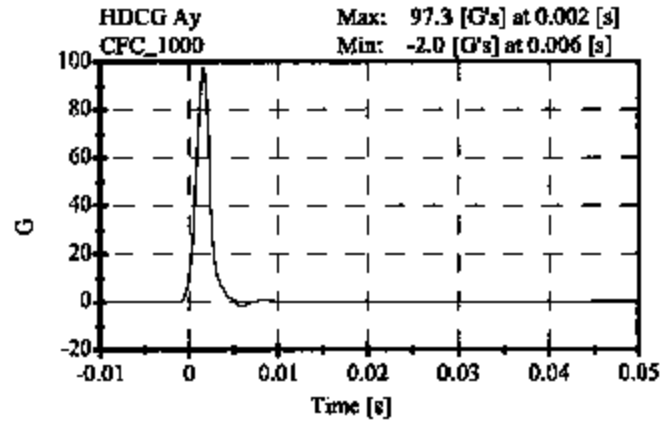
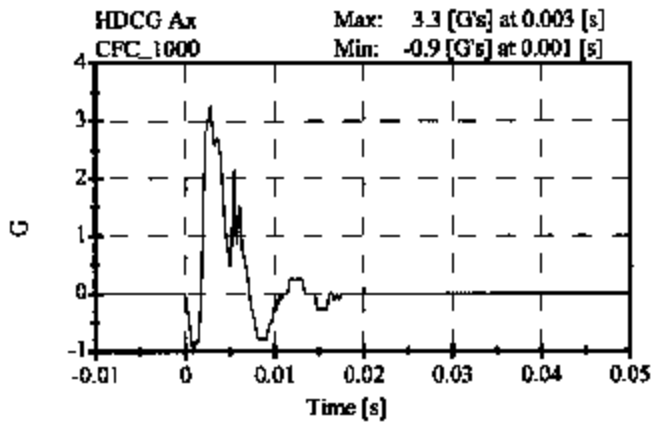
**Head Drop
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 09-24-03

Sequential Test Number: 1 File: 270H 09-24-03
Laboratory Technician: [REDACTED]

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	149.57 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	3.26 Gs	Passed
Curve PerCent NonModal:	< 15%	3.75 %	Passed



**Neck Test
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 09-25-03

Sequential Test Number: 1 File: 270N 09-25-03
Laboratory Technician: XXXXXXXXXX

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.89 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.01 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.13 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.97 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.11 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	73.71 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	60.70 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	88.13 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	53.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	10.40 ms	Passed

Neck Test

POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

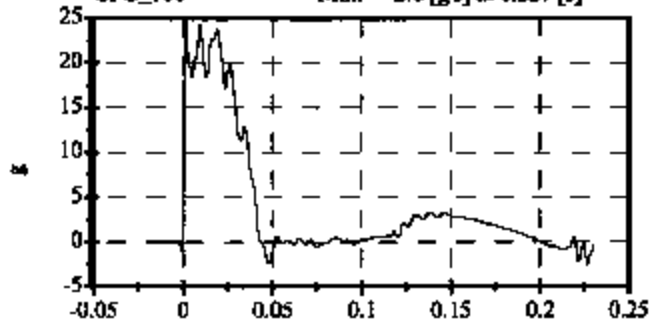
ATD Serial No: 270

Date: 09-25-03

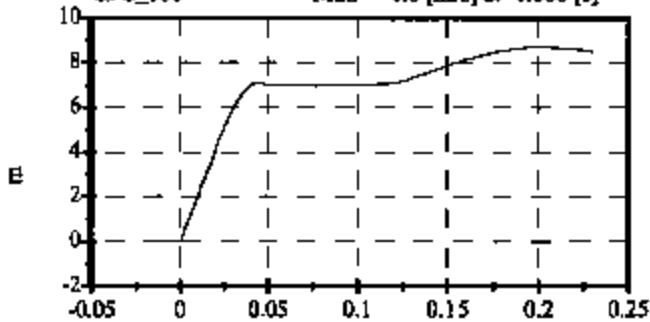
Sequential Test Number: 1 File: 270N 09-25-03

Laboratory Technician: [REDACTED]

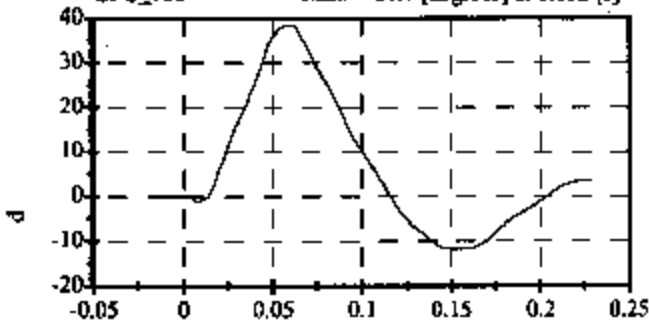
Pend Ax
CFC_180
Max: 24.9 [g's] at 0.001 [s]
Min: -2.6 [g's] at 0.227 [s]



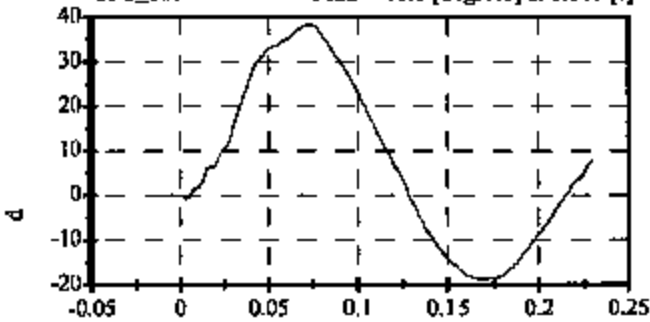
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



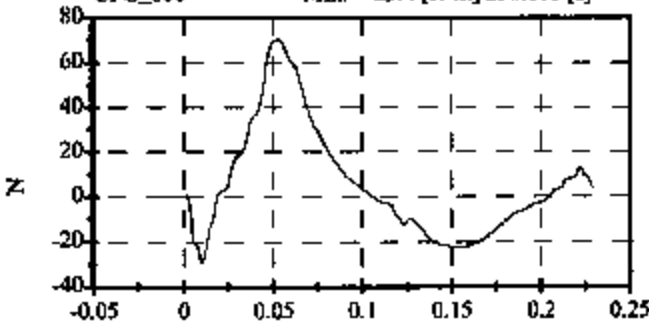
Head Rot
CFC_180
Max: 38.3 [degrees] at 0.058 [s]
Min: -11.7 [degrees] at 0.152 [s]



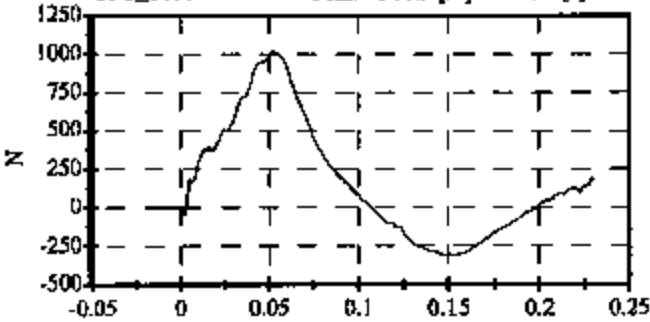
Arm Rot
CFC_180
Max: 38.2 [degrees] at 0.071 [s]
Min: -18.6 [degrees] at 0.167 [s]



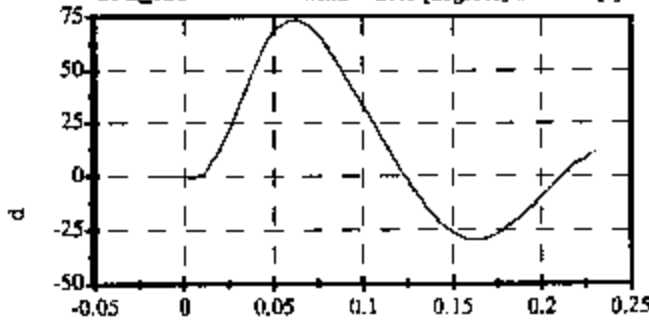
Neck Mx
CFC_600
Max: 70.0 [N-m] at 0.052 [s]
Min: -29.4 [N-m] at 0.010 [s]



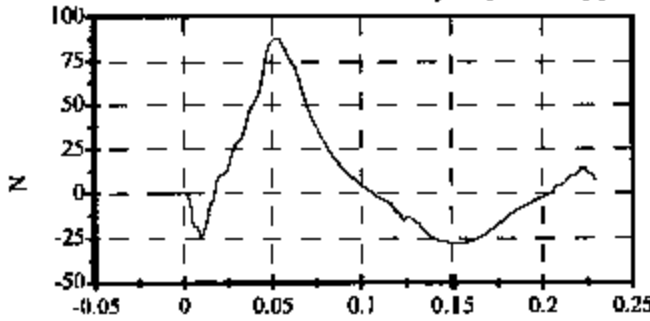
Neck Fy
CFC_1000
Max: 1017.3 [N] at 0.053 [s]
Min: -306.9 [N] at 0.152 [s]



Tot Rot
CFC_180
Max: 73.7 [degrees] at 0.063 [s]
Min: -29.8 [degrees] at 0.162 [s]



Mocv
Max: 88.1 [N-m] at 0.052 [s]
Min: -27.9 [N-m] at 0.152 [s]



**ABDOMINAL COMPRESSION TEST
POST TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

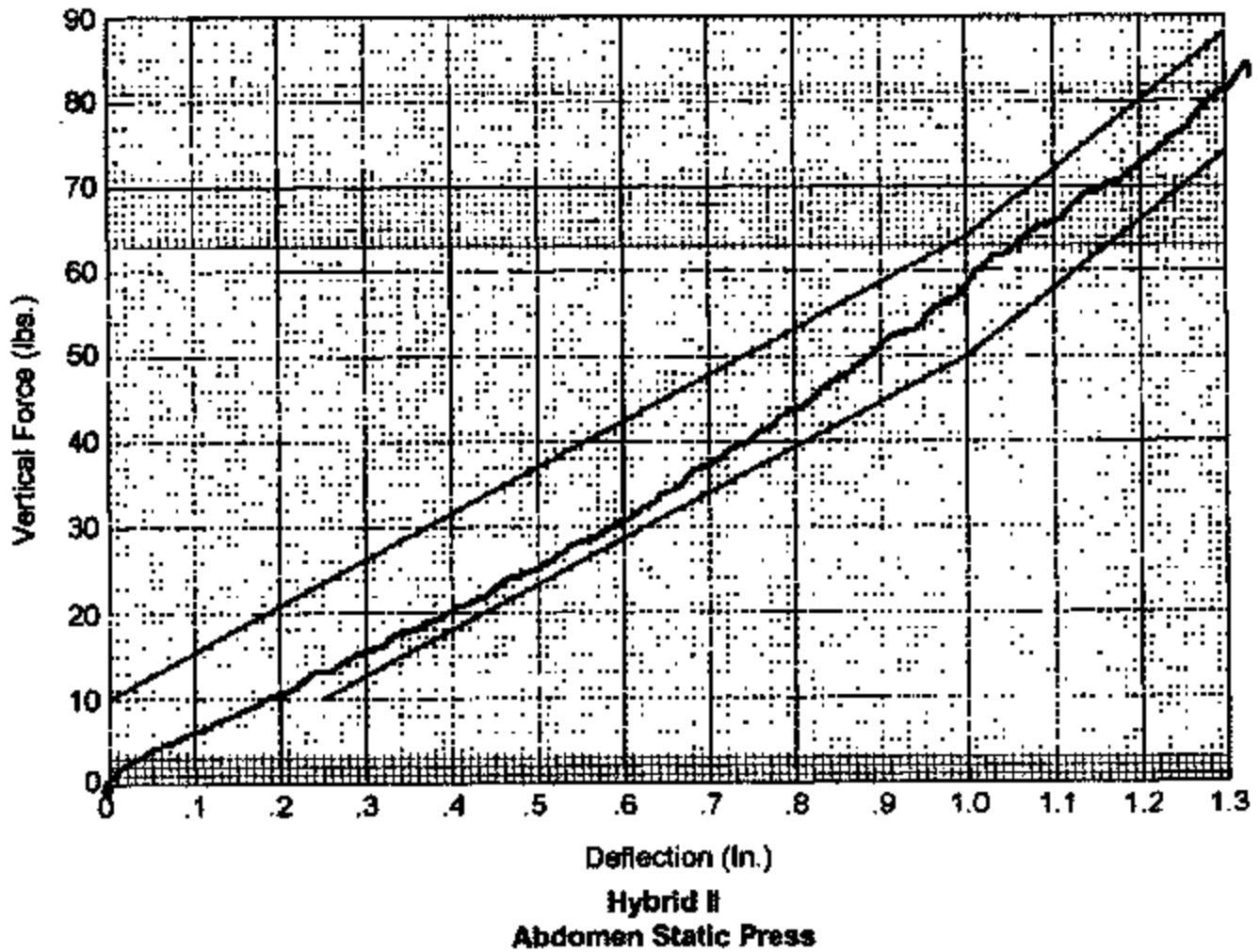
SID H3 Serial No.: 270

Sequential Test Number: 1

Date: 09/26/2003

Laboratory Technician: [REDACTED]

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28.0
FORCE @ 13 mm (N)	104 - 162	112.1
FORCE @ 19 mm (N)	163 - 221	179.7
FORCE @ 25 mm (N)	222 - 280	258.9
FORCE @ 33 mm (N)	325 - 391	361.6



REMARKS: None

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

CONFIGURED FOR LEFT SIDE IMPACT

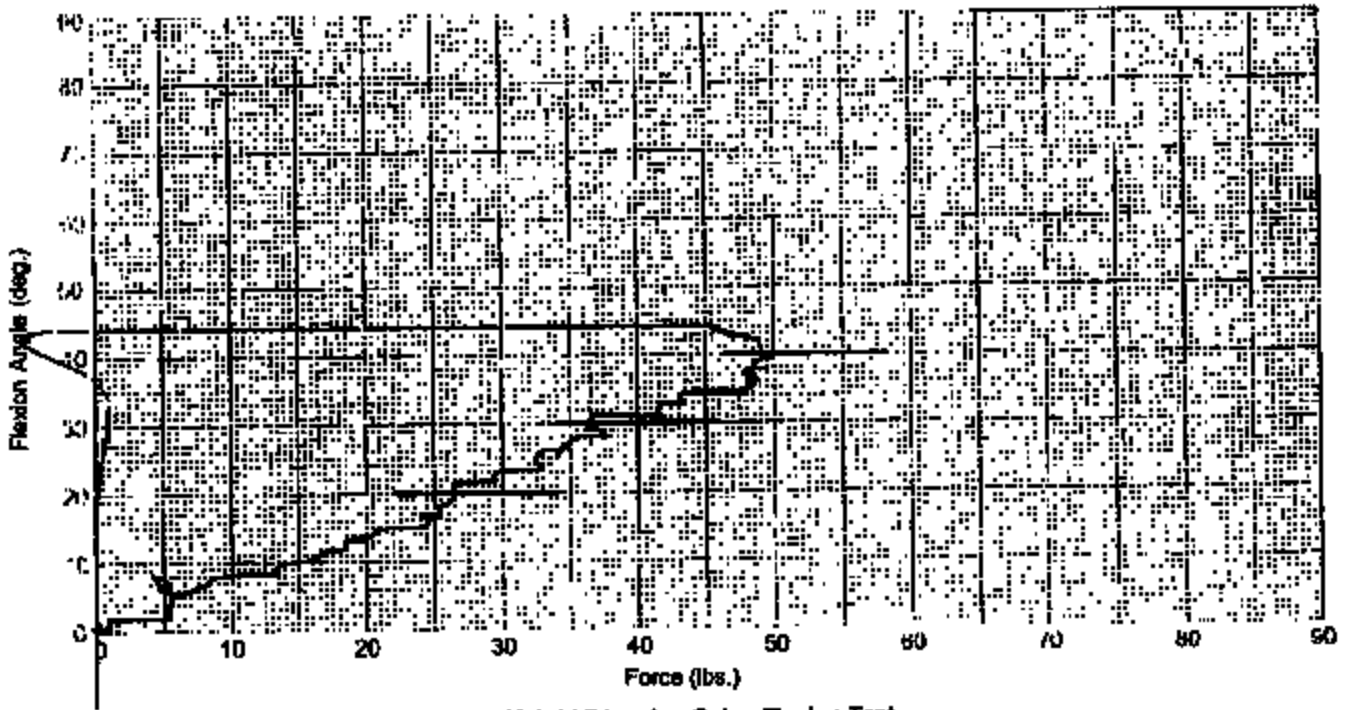
SID H3 Serial No.: 270

Sequential Test Number: 1

Date: 09/26/2003

Laboratory Technician: XXXXXXXXXX

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	117.9
FORCE @ 30° (N)	151.2 - 204.6	161.5
FORCE @ 40° (N)	204.6 - 258	219.1
RETURN ANGLE	12° max.	1.3°



REMARKS: None

POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270

Sequential Test Number: _____

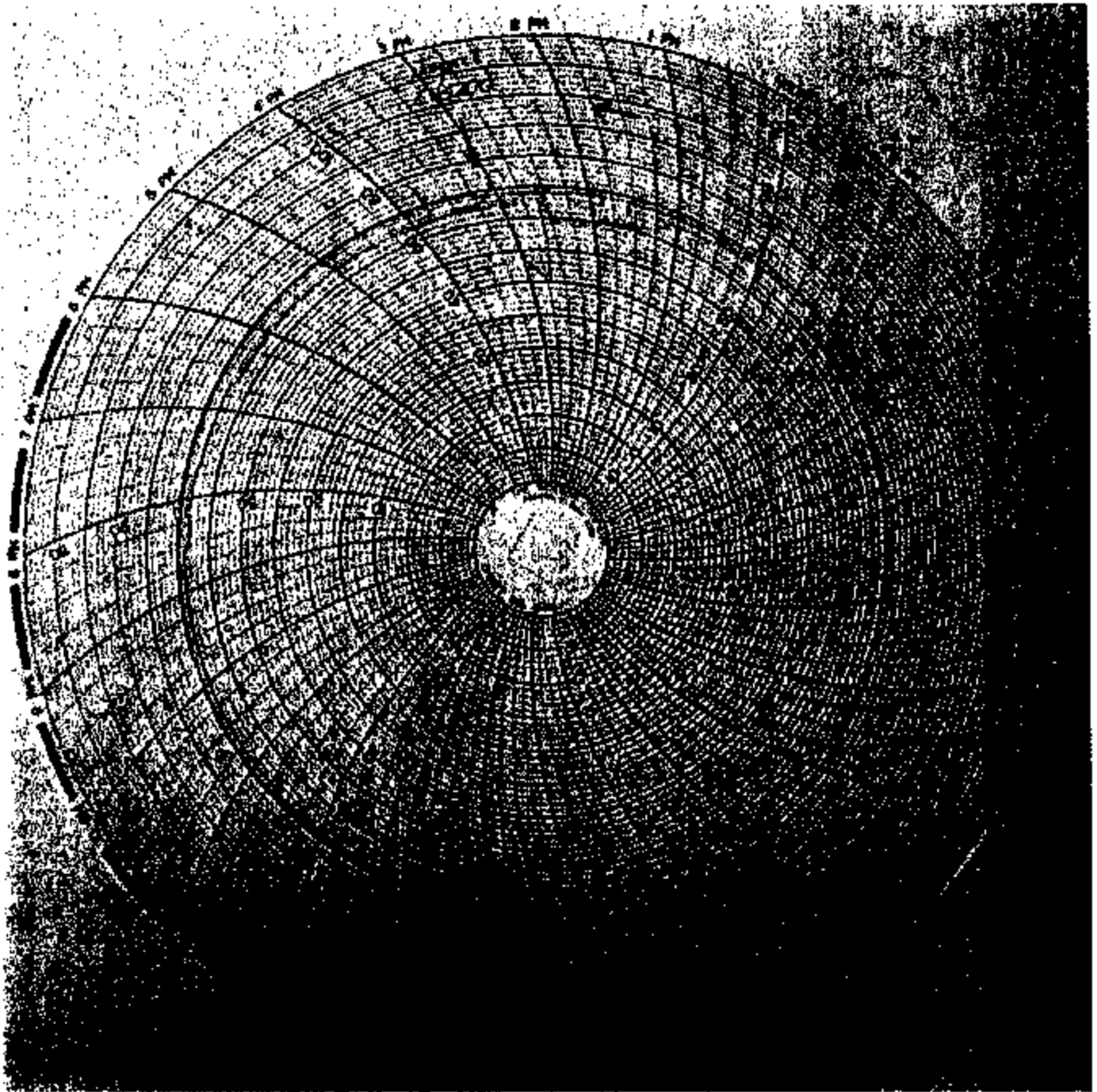
Date: 09/26/2003

Laboratory Technician: _____

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.: 269			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P23993	ENDEVCO	09/16/03
HEAD AY	AC-P23939	ENDEVCO	09/16/03
HEAD AZ	AC-P23999	ENDEVCO	09/16/03
UPPER NECK FX	LC-440Fx	DENTON	06/18/03
UPPER NECK FY	LC-440Fy	DENTON	06/18/03
UPPER NECK FZ	LC-440Fz	DENTON	06/18/03
UPPER NECK MX	LC-440Mx	DENTON	06/18/03
UPPER NECK MY	LC-440My	DENTON	06/18/03
UPPER NECK MZ	LC-440Mz	DENTON	06/18/03
UPPER RIB	AC-P16862	ENDEVCO	09/16/03
LOWER RIB	AC-P16656	ENDEVCO	09/16/03
LOWER SPINE	AC-P16866	ENDEVCO	09/16/03
PELVIS	AC-P16676	ENDEVCO	09/16/03
UPPER RIB REDUNDANT	AC-P23156	ENDEVCO	09/16/03
LOWER RIB REDUNDANT	AC-P16645	ENDEVCO	09/16/03
LOWER SPINE REDUNDANT	AC-P19343	ENDEVCO	09/16/03
PELVIS REDUNDANT	AC-P16843	ENDEVCO	09/16/03

REAR SID NO.: 270			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P23960	ENDEVCO	06/10/03
HEAD AY	AC-P23940	ENDEVCO	06/10/03
HEAD AZ	AC-P23899	ENDEVCO	06/10/03
UPPER NECK FX	LC-205Fx	DENTON	06/18/03
UPPER NECK FY	LC-205Fy	DENTON	06/18/03
UPPER NECK FZ	LC-205Fz	DENTON	06/18/03
UPPER NECK MX	LC-205Mx	DENTON	06/18/03
UPPER NECK MY	LC-205My	DENTON	06/18/03
UPPER NECK MZ	LC-205Mz	DENTON	06/18/03
UPPER RIB	AC-P18524	ENDEVCO	09/17/03
LOWER RIB	AC-P18533	ENDEVCO	09/17/03
LOWER SPINE	AC-P18514	ENDEVCO	09/17/03
PELVIS	AC-P18519	ENDEVCO	09/17/03
UPPER RIB REDUNDANT	AC-P18528	ENDEVCO	09/17/03
LOWER RIB REDUNDANT	AC-P18518	ENDEVCO	09/17/03
LOWER SPINE REDUNDANT	AC-P18688	ENDEVCO	09/17/03
PELVIS REDUNDANT	AC-P18531	ENDEVCO	09/17/03

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-B10827	ENDEVCO	04/10/03
RIGHT FRONT SILL (Y)	AC-A13513	ENDEVCO	04/10/03
RIGHT FRONT SILL (Z)	AC-B11408	ENDEVCO	04/10/03
RIGHT REAR SILL (X)	AC-P16585	ENDEVCO	04/14/03
RIGHT REAR SILL (Y)	AC-P14438	ENDEVCO	04/14/03
RIGHT REAR SILL (Z)	AC-P15747	ENDEVCO	04/14/03
REAR FLOORPAN ABOVE AXLE (X)	AC-P21392	ENDEVCO	09/10/03
REAR FLOORPAN ABOVE AXLE (Y)	AC-P19253	ENDEVCO	09/10/03
REAR FLOORPAN ABOVE AXLE (Z)	AC-P23138	ENDEVCO	09/10/03
LEFT REAR SILL (Y)	AC-9444-038	GS SENSORS	06/10/03
LEFT FRONT SILL (Y)	AC-9440-032	GS SENSORS	06/02/03
LEFT FRONT DOOR CENTERLINE (Y)	-	-	-
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-9440-028	GS SENSORS	06/06/03
MID REAR OF LEFT FRONT DOOR (Y)	-	-	-
LEFT FRONT DOOR UPPER CL (Y)	-	-	-
MID REAR OF LEFT REAR DOOR (Y)	-	-	-
LEFT REAR DOOR UPPER CL (Y)	-	-	-
LOWER LEFT B-PILLAR (Y)	AC-9440-023	GS SENSORS	06/06/03
MIDDLE LEFT B-PILLAR (Y)	AC-9440-039	GS SENSORS	06/02/03
LOWER LEFT A-PILLAR (Y)	AC-9440-024	GS SENSORS	06/02/03
UPPER LEFT A-PILLAR (Y)	AC-9440-046	GS SENSORS	06/06/03
FRONT SEAT TRACK (Y)	AC-9440-008	GS SENSORS	06/10/03
REAR SEAT TRACK (Y)	AC-9440-022	GS SENSORS	06/06/03
VEHICLE CG (X)	AC-J32143	ENDEVCO	04/21/03
VEHICLE CG (Y)	AC-J32838	ENDEVCO	04/21/03
VEHICLE CG (Z)	AC-J32174	ENDEVCO	04/21/03
MDB CG (X)	AC-C16433	ENDEVCO	04/17/03
MDB CG (Y)	AC-C16416	ENDEVCO	04/17/03
MDB CG (Z)	AC-C16499	ENDEVCO	04/17/03
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	04/17/03
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	04/15/03

REMARKS: None