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REPORT NUMBER: 214-CAL-01-01

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

GENERAL MOTORS DE MEXICO
2001 PONTIAC AZTEK
M.P.V.

NHTSA NUMBER: C10101

VERIDIAN ENGINEERING
TRANSPORTATION SCIENCES CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225



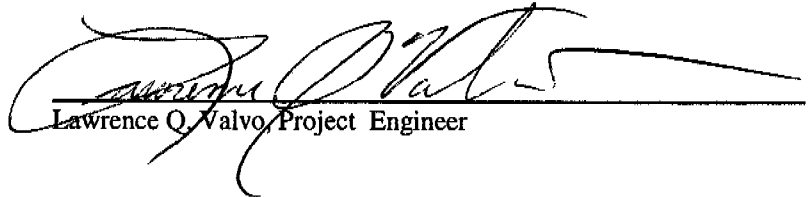
September 14, 2000

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Assurance
Office of Vehicle Compliance
400 Seventh Street, SW
Room 6115 (NSA-30)
Washington, DC 20590

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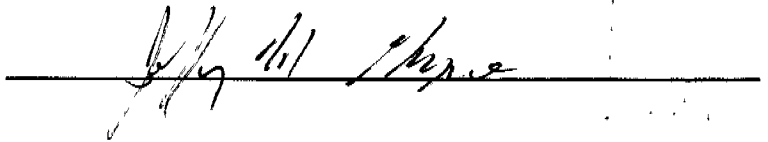

David J. Travale, Program Manager
Transportation Sciences Center

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16. Abstract <p>A 55/28 kph 90° Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject 2001 Pontiac Aztek M.P.V.. 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-04, dated September 1, 1995). This test was conducted at the Veridian Engineering Crash Test Facility in Buffalo, New York, on September 14, 2000.</p> <p>The impact velocity of the Moving Deformable Barrier (MDB) was 62.0 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21.7°C. The target vehicle post-test maximum crush was 344 mm at level 3.</p> <p>The test or target vehicle's performance is given below:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th align="center"><u>Front SID</u></th> <th></th> <th align="center"><u>Rear SID</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td align="center"><u>26</u></td> <td align="center">g's</td> <td align="center"><u>52</u></td> <td align="center">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td align="center"><u>34</u></td> <td align="center">g's</td> <td align="center"><u>67</u></td> <td align="center">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td align="center"><u>44</u></td> <td align="center">g's</td> <td align="center"><u>82</u></td> <td align="center">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td align="center"><u>39</u></td> <td align="center">g's</td> <td align="center"><u>75</u></td> <td align="center">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td align="center"><u>53</u></td> <td align="center">g's</td> <td align="center"><u>114</u></td> <td align="center">g's</td> </tr> </tbody> </table> <p>The driver door latch opened during the side impact event. The passenger door on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the event.</p>							<u>Front SID</u>		<u>Rear SID</u>		Left Upper Rib Acceleration:	<u>26</u>	g's	<u>52</u>	g's	Left Lower Rib Acceleration:	<u>34</u>	g's	<u>67</u>	g's	Lower Spine Acceleration:	<u>44</u>	g's	<u>82</u>	g's	Thoracic Trauma Index (TTI):	<u>39</u>	g's	<u>75</u>	g's	Pelvis Acceleration (PEV):	<u>53</u>	g's	<u>114</u>	g's
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17. Key Words Compliance Testing Side Impact Protection FMVSS 214 Side Impact Dummy (SID) New Car Assessment Program (NCAP)			18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Administration Technical Reference Division Room 5108 (NAD-52) 400 Seventh st., S.W. Washington, D.C. 20590 Telephone No. (202) 366-4946 ATTN: Robert Hornicle																																
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TABLE OF CONTENTS

<u>Section</u>		<u>Page No.</u>
1	PURPOSE AND TEST PROCEDURE	1-1
2	SUMMARY OF SIDE IMPACT TEST	2-1
3	VEHICLE TEST DATA	3-1
	Data Sheet 1 - General Vehicle Test Parameter Data	3-2
	Data Sheet 2 - Test Vehicle Summary of Results	3-5
	Data Sheet 3 - Moving Deformable Barrier (MDB) Summary	3-6
	Data Sheet 4 - Post Test Observations	3-7
4	OCCUPANT AND VEHICLE INFORMATION	4-1
	Data Sheet 5 - SID Instrumentation Data	4-2
	Data Sheet 6 - Vehicle Pre- And Post Test Measurements	4-3
	Data Sheet 7 - SID Longitudinal Clearance Dimensions	4-4
	Data Sheet 8 - SID Lateral Clearance Dimensions	4-5
	Data Sheet 9 - Vehicle Side Measurements	4-6
	Data Sheet 10 - Vehicle Exterior Crush Profiles - All Levels	4-7
	Data Sheet 11 - Vehicle Damage Profile Distances	4-13
	Data Sheet 12 - Exterior Static Crush For Impactor Face	4-14
	Data Sheet 13 - Test Vehicle Accelerometer Locations And Data Summary	4-16
	Data Sheet 14 - MDB Accelerometer Locations and Data Summary	4-19
	Data Sheet 15 - High Speed Camera Locations and Data	4-20
5	VEHICLE FUEL SYSTEM INTEGRITY	5-1
	Data Sheet 16 - FMVSS 301 Fuel System Integrity Data	5-2
	Data Sheet 17 - FMVSS 301 Rollover Data	5-3
APPENDIX A	PHOTOGRAPHS	A-1
APPENDIX B	VEHICLE, MDB AND SID RESPONSE DATA	B-1
APPENDIX C	SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA	C-1
APPENDIX D	TEST EQUIPMENT LIST AND CALIBRATION INFORMATION	D-1

SECTION 1

PURPOSE AND TEST PROCEDURE

This Side Impact Indicant Test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-97-C-01033. The purpose of this indicant test was to evaluate side impact protection in a 2001 Pontiac Aztek M.P.V. when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-04, dated September 1, 1995).

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-04, dated September 1, 1995).

A 2001 Pontiac Aztek M.P.V. 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 62.0 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 Veridian Engineering Transportation Sciences Center in Buffalo, New York on September 14, 2000. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the side impact dummies (SIDs) are included in Appendix A.

Two restrained Side Impact Dummies (SIDs) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OVSC Side Impact Laboratory Test Procedure. Both SIDs were certified prior to this test. The side impact test was documented by one real-time camera and 10 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SIDs were instrumented with the following accelerometers:

1. Head triaxial accelerometer (X,Y,Z-direction)
2. Left Upper Rib (LUR) uniaxial and redundant accelerometer (Y-direction)
3. Left Lower Rib (LLR) uniaxial and redundant accelerometer (Y-direction)
4. Lower Thoracic Spine (T₁₂) uniaxial and redundant accelerometer (Y-direction)
5. Pelvic (PEV) section uniaxial and redundant accelerometer (Y-direction)

A summary of the side impact dummy (SID) configuration and verification test data can be found in Appendix C. A total of 48 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	Rear SID
TTI (g)	39	75
PEV (g)	53	114

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2001 Pontiac Aztek M.P.V.

Vehicle Body Color: Blue VIN: 3G7DA03E41S503870

Vehicle NHTSA No.: C10101 Month & Year of Manufacture: 07/00

Engine Data: 6 Cylinders; - CID; 3.4 Liters; - cc

Engine Placement: - Longitudinal; or X Lateral

Transmission: 4 Speed; - Manual; X Automatic; X Overdrive

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

Odometer Reading 18 km

Options: X A/C; X Power Steering; X Pwr.Brakes; X Pwr. Windows

DATA FROM TIRE PLACARD

Tire Pressure* (at capacity); 240 kPa FRONT
240 kPa REAR

Recommended Tire Size: P215/70R15 S

Tires on Test Vehicle: P215/70R15 S ; Manufacturer: Firestone

Vehicle Capacity Data:

Number of Occupants: 2 Front; 3 Rear; - 3rd Seat; 5 Total

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

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

Vehicle Max Capacity Loading = 579.0 kg (A)

No. of Occupants x 68.04 kg. = 340.2 kg (B)

Vehicle Cargo Capacity = 238.8 kg (A-B) †

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front	=	<u>524</u> kg	Left Rear	=	<u>332</u> kg
Right Front	=	<u>530</u> kg	Right Rear	=	<u>320</u> kg
TOTAL FRONT	=	<u>1054.0</u> kg	TOTAL REAR	=	<u>652.0</u> kg
% of Total Weight	=	<u>61.8</u> %	% of Total Weight	=	<u>38.2</u> %
TOTAL WEIGHT	=	<u>1706.0</u> kg			

* Tire pressure used in test.

† Maximum of 136.1 kg used for target weight calculation.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1706.0</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>136.1</u>	kg (B)
Weight of instrumented Side Impact Dummies (1 or 2 X <u>81.2</u> kg)	=	<u>162.4</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>2004.5</u>	kg (A+B+C)

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

Left Front	=	<u>576.5</u>	kg	Left Rear	=	<u>471.5</u>	kg
Right Front	=	<u>530.5</u>	kg	Right Rear	=	<u>426.0</u>	kg
TOTAL FRONT	=	<u>1107.0</u>	kg	TOTAL REAR	=	<u>897.5</u>	kg
% of Total Weight	=	<u>55.2</u>	%	% of Total Weight	=	<u>44.8</u>	%
TOTAL TEST WEIGHT	=	<u>2004.5</u>	kg				

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

Left Front	=	<u>557.0</u>	kg	Left Rear	=	<u>470.5</u>	kg
Right Front	=	<u>539.5</u>	kg	Right Rear	=	<u>431.0</u>	kg
TOTAL FRONT	=	<u>1096.5</u>	kg	TOTAL REAR	=	<u>901.5</u>	kg
% of Total Weight	=	<u>54.9</u>	%	% of Total Weight	=	<u>45.1</u>	%
TOTAL TEST WEIGHT	=	<u>1998.0</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>772</u>	Right Front	<u>774</u>	Left Rear	<u>815</u>	Right Rear	<u>815</u>
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FULLY LOADED:

Left Front	<u>758</u>	Right Front	<u>771</u>	Left Rear	<u>767</u>	Right Rear	<u>778</u>
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READY FOR TEST:

Left Front	<u>764</u>	Right Front	<u>774</u>	Left Rear	<u>771</u>	Right Rear	<u>779</u>
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Test Vehicle Wheelbase: 2742 millimeters

C.G. = 1237 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side	=	<u>4504</u>	millimeters
Left Side	=	<u>4504</u>	millimeters
Centerline	=	<u>4632</u>	millimeters

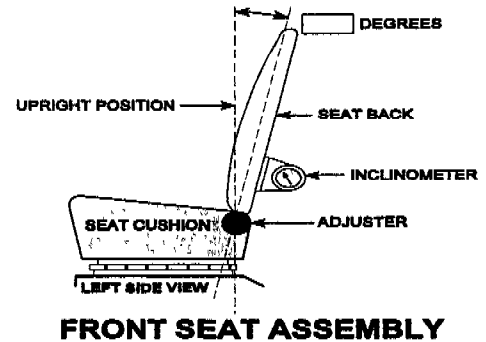
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

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 TRACK POSITION: Seat track placed in detent 8, where the forward most detent is 0.

Total Length of Adjustment Travel: 192 millimeters

Total Number of Adjustment Positions or Detents: 17

FRONT SEAT BACK ADJUSTMENT POSITION: Seat back positioned so that the seat frame is 20.5 degrees from vertical when measured 100 mm to 200 mm below the top of the seat frame with the vehicle at test attitude.

Seat Back Torso Angle: 20.5 degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: Forward most detent

ADJUSTABLE STEERING COLUMN POSITION: Mid-position

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:

68.1 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 2742 millimeters

Impact Point is 431 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 424 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2001 Pontiac Aztek

Body Style: M.P.V.

VIN: 3G7DA03E41S503870

NHTSA No.: C10101

Test Date: September 14, 2000

Overall Length = 4632 millimeters; Overall Width = 1844 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 557.0 kg Left Rear = 470.5 kg

Right Front = 539.5 kg Right Rear = 431.0 kg

TOTAL FRONT = 1096.5 kg TOTAL REAR = 901.5 kg

TOTAL VEHICLE WEIGHT 1998.0 kg

Wheelbase = 2742 millimeters

Longitudinal C.G. from Center of Front Axle = 1237 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 7 mm below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (258 mm above ground) = 268 millimeters

2. LEVEL 2 (713 mm above ground) = 343 millimeters

3. LEVEL 3 (655 mm above ground) = 344 millimeters

4. LEVEL 4 (975 mm above ground) = 277 millimeters

5. LEVEL 5 (1583 mm above ground) = 2 millimeters

Maximum Post-Test Intrusion = 344 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification 015 016

Restraints Used 3-point active seat belt
side impact airbag 3-point active seat belt

INSTRUMENTATION:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 3

Offboard = 6

TOTAL = 9

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore: 044C1299-1; 017B1299

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>62.0</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>154</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>111</u>	millimeters
3. Row C at Mid Level	=	<u>71</u>	millimeters
4. Row D at Top of Stack Level	=	<u>137</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels = 5

DATA SHEET 4

POST-TEST OBSERVATIONS

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head:	<u>Left side of head to upper portion of side impact airbag</u>	<u>Left side of head to C-pillar trim</u>
Upper Torso:	<u>Left shoulder and arm to side impact airbag</u>	<u>Left arm to rear portion of door trim and rear portion of armrest</u>
Lower Torso:	<u>Pelvis to rear portion of door trim below armrest</u>	<u>Pelvis to rear portion of door trim below armrest</u>
Left Knee:	<u>Left knee to forward portion of door trim below door handle</u>	<u>Left knee to front portion of door trim</u>
Right Knee:	<u>Right knee to left knee</u>	<u>Right knee to left knee</u>

DOOR OPENING:

	<u>LEFT DOOR</u>	<u>RIGHT DOOR</u>
Front:	<u>Open / Inoperable</u>	<u>Closed / Operable</u>
Rear:	<u>Closed / Inoperable</u>	<u>Closed / Operable</u>

MDB DISTANCE FROM TARGET IMPACT POINT:

Vertical: 7 mm below target
Horizontal: 7 mm forward of target

ARM REST LOCATIONS:

Front: 228 mm below bottom of window opening
 Rear: 222 mm below bottom of window opening

SEAT MOVEMENT:

Front: Seat back deformed inboard
 Rear: Left seat back broke free from its inboard hinge

GLAZING DAMAGE:

Windshield: None
 Window: Left side door windows shattered during the impact

PILLAR PERFORMANCE:

No visible tears or separations

SILL SEPARATION:

None

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER	REAR PASSENGER
FRONT	No	No	N/A
SIDE	Yes	N/A	N/A

OTHER NOTABLE IMPACT EFFECTS:

The left front door (driver) unlatched during the impact. The door was fully closed prior to the impact and witness marks were evident on the striker following the impact.

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID INSTRUMENTATION DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

	Front Dummy ID# 015				Rear Dummy ID# 016			
	Pos. Direction		Neg. Direction		Pos. Direction		Neg. Direction	
	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS:								
Longitudinal X	9.0	42.5	-13.6	97.3	4.1	43.2	-24.4	63.5
Lateral Y	12.2	58.1	-3.5	159.1	109.9	63.7	-14.2	43.2
Vertical Z	17.4	64.8	-2.1	31.0	50.7	64.0	-26.6	70.0
Resultant R	21.1	66.3	-	-	122.3	63.6	-	-
HIC	48				550			
RIB ACCELERATIONS:								
Upper Rib Lateral . . Y	26.4	36.9	-16.7	20.0	51.9	43.1	-2.4	80.0
Upper Rib Lateral . . Y(R)	26.9	38.1	-16.2	20.0	51.7	43.1	-2.4	80.0
Lower Rib Lateral . Y	33.5	38.2	-20.5	20.0	67.0	46.3	-4.4	83.1
Lower Rib Lateral . Y(R)	32.5	38.2	-21.1	20.0	64.9	46.3	-4.2	83.1
SPINE ACCELERATIONS:								
Lower Lateral Y	43.7	40.0	-13.8	70.7	82.0	42.5	-3.7	60.7
Lower Lateral Y(R)	44.2	40.0	-14.1	70.7	82.7	42.5	-4.2	60.6
PELVIC ACCELERATIONS:								
Lateral Y	52.6	38.2	-11.7	55.0	114.0	37.5	-13.7	52.5
Lateral Y(R)	53.1	38.8	-11.6	55.0	115.4	37.5	-14.0	53.1

REFERENCE: Positive Direction - Longitudinal (X) = forward
 Lateral (Y) = to right
 Vertical (Z) = up
 Negative Direction - Longitudinal (X) = rearward
 Lateral (Y) = to left
 Vertical (Z) = down

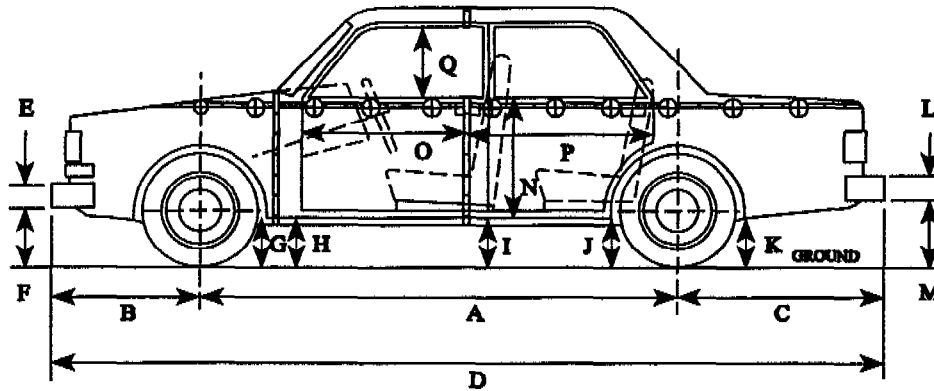
Note: Above data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.
 Head Accelerations are filtered at SAE Class 1000.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



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	2742	2742	2705	-37
B	997	-	1018	21
C	893	-	892	-1
D	4632	-	4615	-17
E	298	-	298	0
F	289	289	299	10
G	229	214	224	10
H	233	223	217	-6
I	257	229	270	41
J1	248	212	269	57
J2	272	237	288	51
K	319	274	278	4
L	185	-	186	1
M	347	292	269	-23
N	816	-	789	-27
O	893	-	890	-3
P	1244	-	1174	-70
Q	476	-	476	0
R	4504	-	4504	0
S	4504	-	4465	-39
T	1844	-	1569	-275

D = Length at Centerline
T = Width at B-Pillar

E&L = Bumper Thickness
J1 = To Pinch Weld

R = Right Side Length
J2 = To Sill

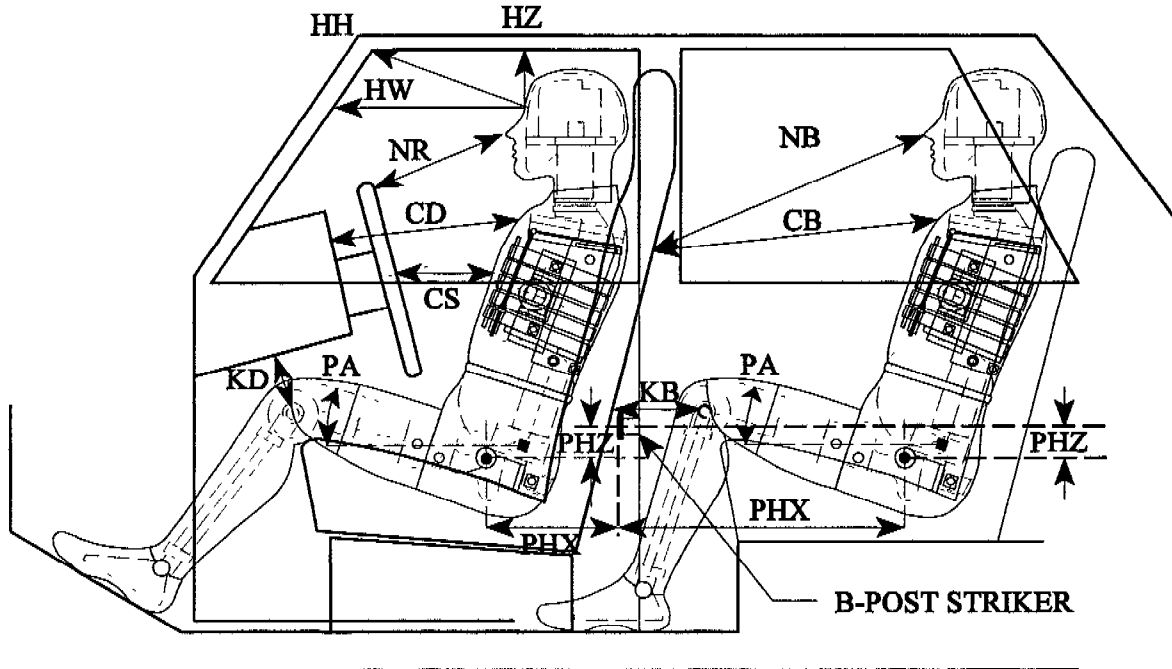
S = Left Side Length

DATA SHEET 7

SID LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



LEFT SIDE VIEW

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

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

	DRIVER ID# 015	LEFT REAR PASS. ID# 016
HH	514	N/A
HW	735	N/A
HZ	196	218
NR/NB	449	606
CD/CB	563	523
CS	300	N/A
KDL(KDA°)/KBL(KDA°)	189 / (28°)	204 / (32°)
KDR(KBA°)/KBR(KBA°)	181 / (28°)	204 / (32°)
PA°	24.1°	23.7°
PHX	194	268
PHZ	54	214

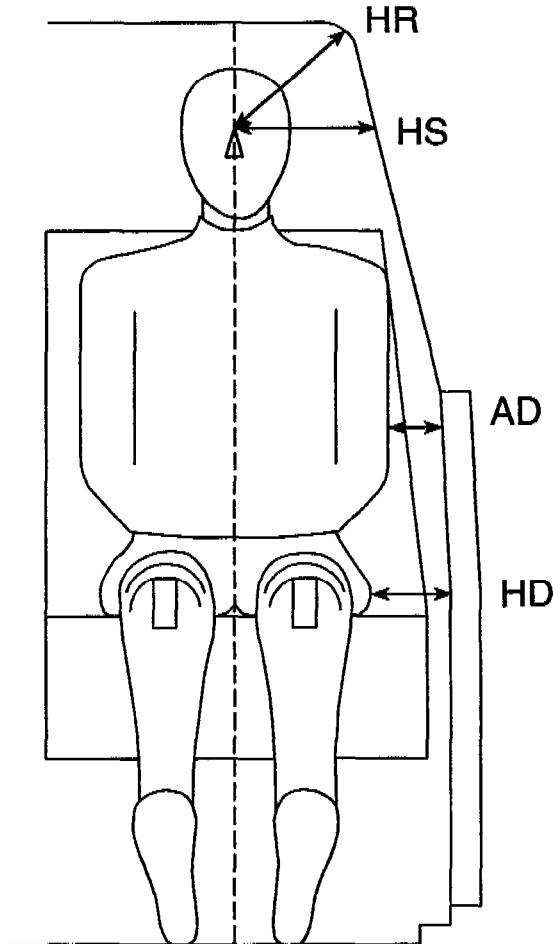
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID LATERAL CLEARANCE DIMENSIONS

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



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

	DRIVER ID # 015		LEFT REAR PASS. ID # 016	
HR	209		222	
HS	355		272	
AD*	LOWER: 130	UPPER: 118	LOWER: 153	UPPER: 111
HD	230		213	

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

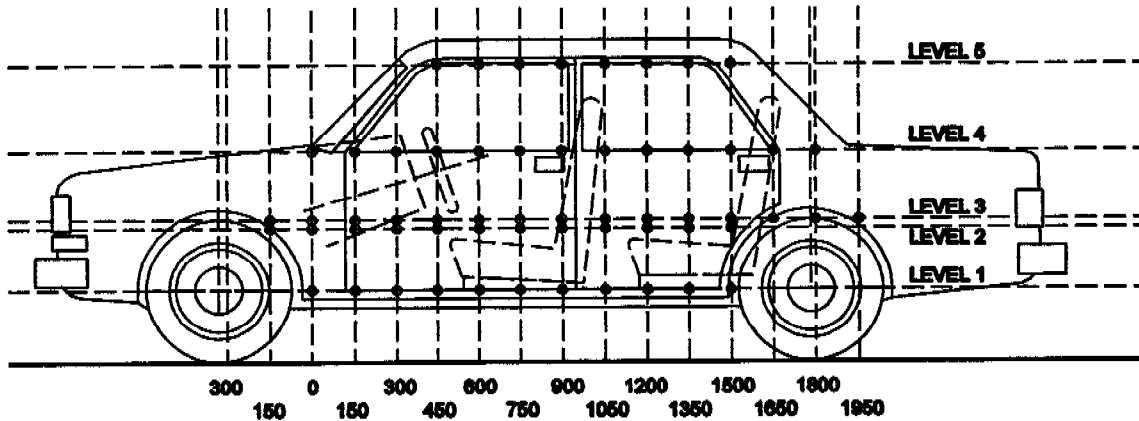
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



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 - 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>1583</u>	millimeters
Level 4 @ Window Sill	=	<u>975</u>	millimeters
Level 3 @ Mid Door	=	<u>655</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>713</u>	millimeters
Level 1 @ Sill Top Height	=	<u>258</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

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

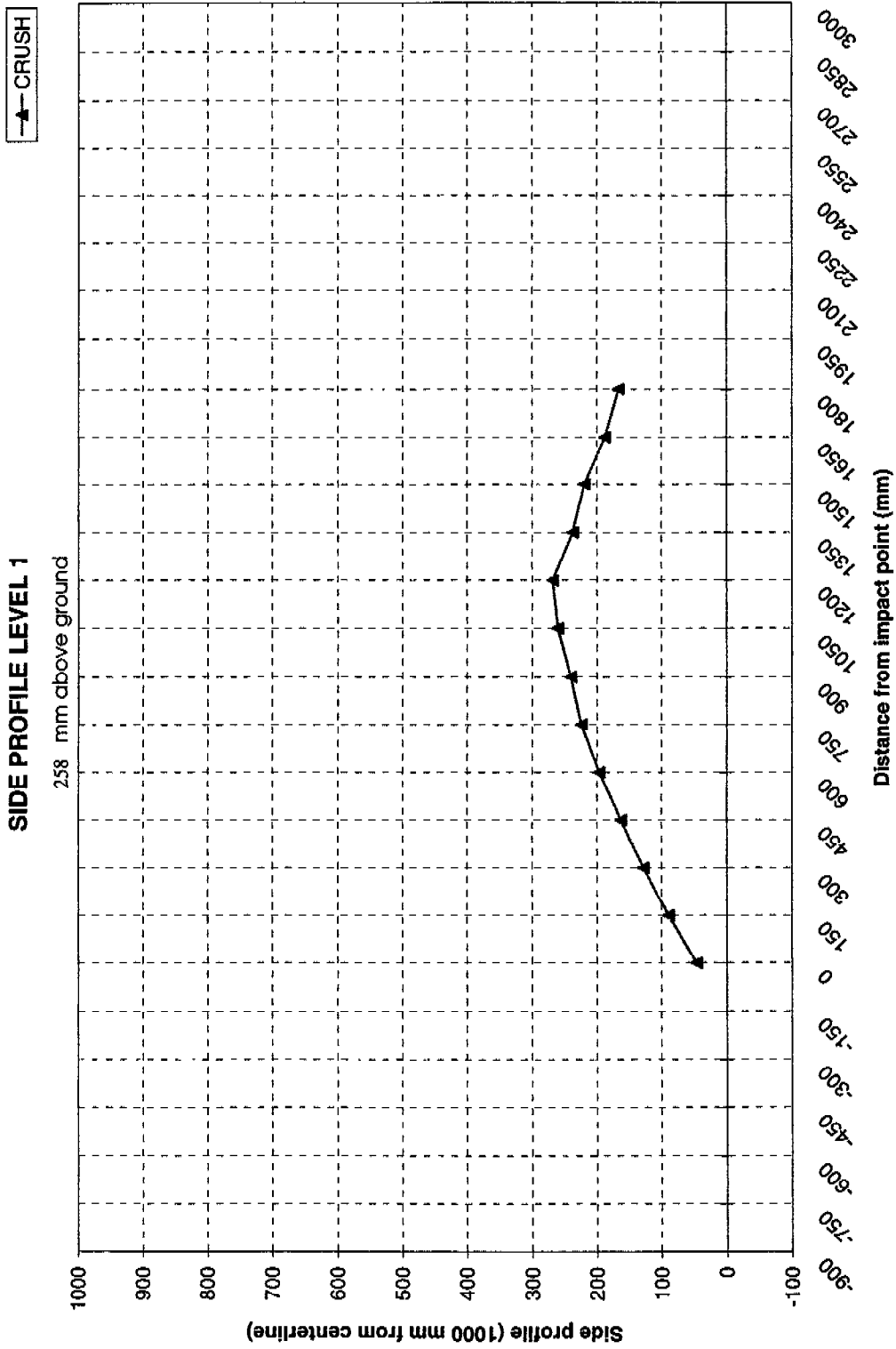
LEVEL	HEIGHT T (mm)	DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																														
		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000				
LEVEL 1																																
SIDE	258																															
SILL		N/A	N/A	N/A	N/A	N/A	N/A	46	89	128	163	196	224	240	260	268	287	219	187	166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
LEVEL 2		128	101				80	95	93	94	95	97	93	94	95	92	96	93	95	73	63											
H	713	139	123				126	314	337	336	329	320	313	300	437	435	431	435	431	294	242											
POINT		11	22	N/A	N/A	N/A	46	219	244	242	238	232	227	220	206	342	343	335	342	336	221	179	N/A	N/A	N/A	N/A	N/A	36	23	13		
LEVEL 3		121	96					95	95	97	97	96	99	100	98	95	94	89	90	85	75											
MID	665	139	125					286	366	360	353	346	331	320	294	439	428	421	407	403	277											
DOOR		18	29	N/A	N/A	N/A	N/A	191	271	263	256	250	232	220	196	344	334	332	317	318	202	N/A	N/A	N/A	N/A	N/A	N/A	26	23	12		
LEVEL 4		241	184	160	144	131	125	118	112	106	103	96	92	96	98	95	95	95	92	93	94	95	99	111	118	133	155	191				
WINDOW	975	231	179	157	144	136	132	172	175	178	181	185	185	189	188	372	355	341	337	317	254	223	199	172	158	151	162	195				
SILL		-10	-5	-3	0	5	7	54	63	72	78	89	93	93	90	277	260	246	245	234	160	128	100	61	40	18	7	4				
LEVEL 5																																
WINDOW	1583																															
TOP		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3	-232	-226	-220	-2	-28	-52	-78	2	2	-2	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

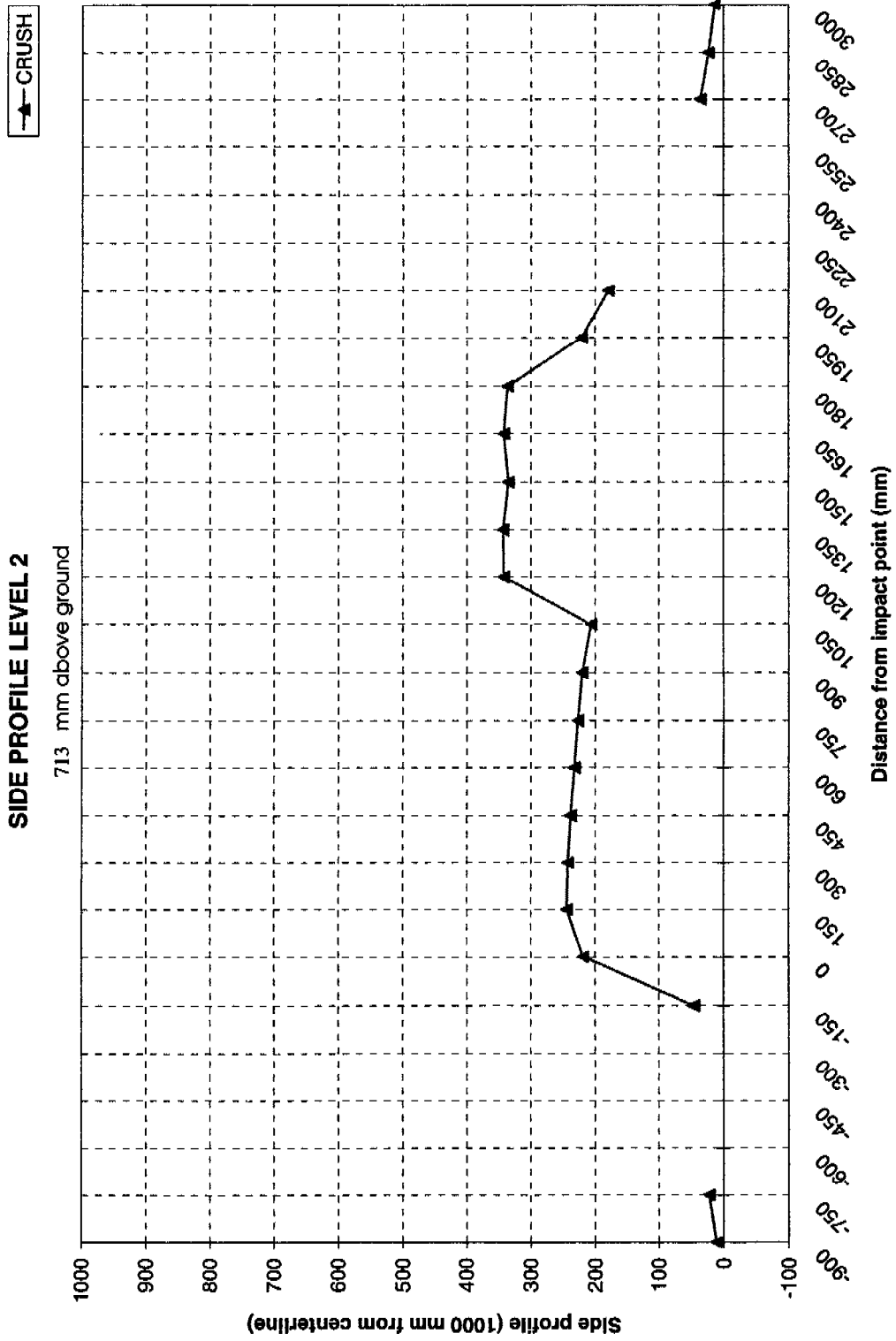


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

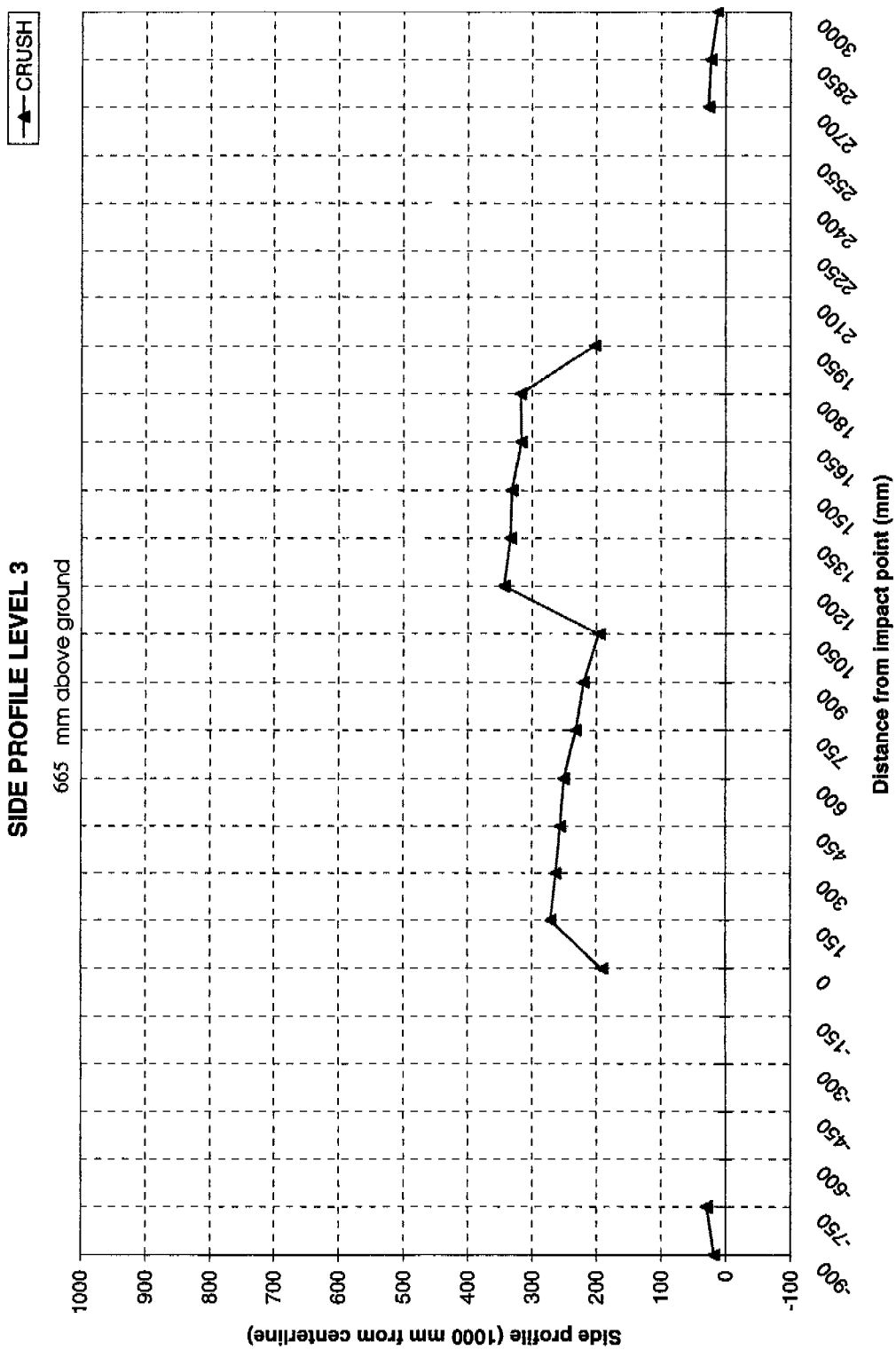


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

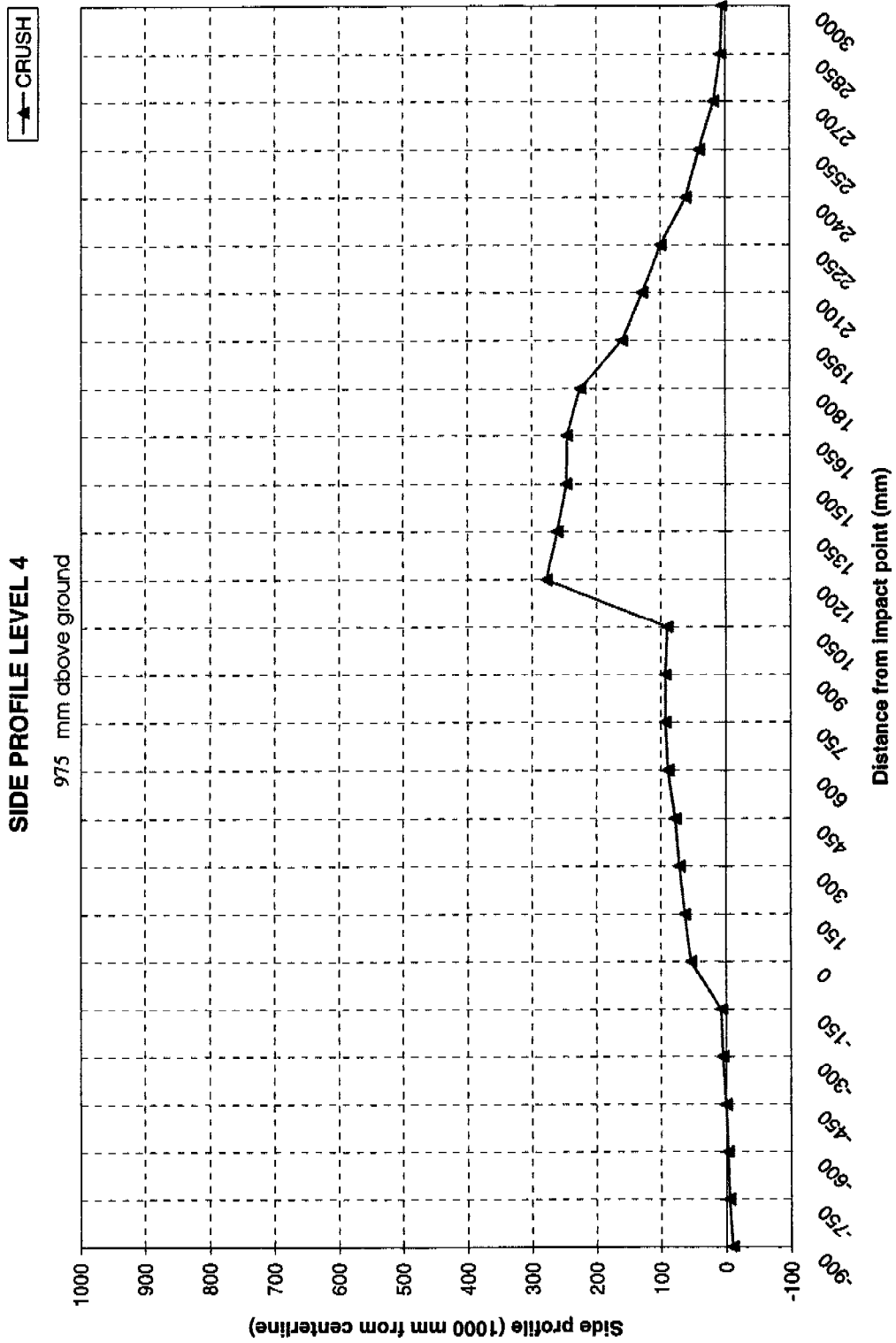


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

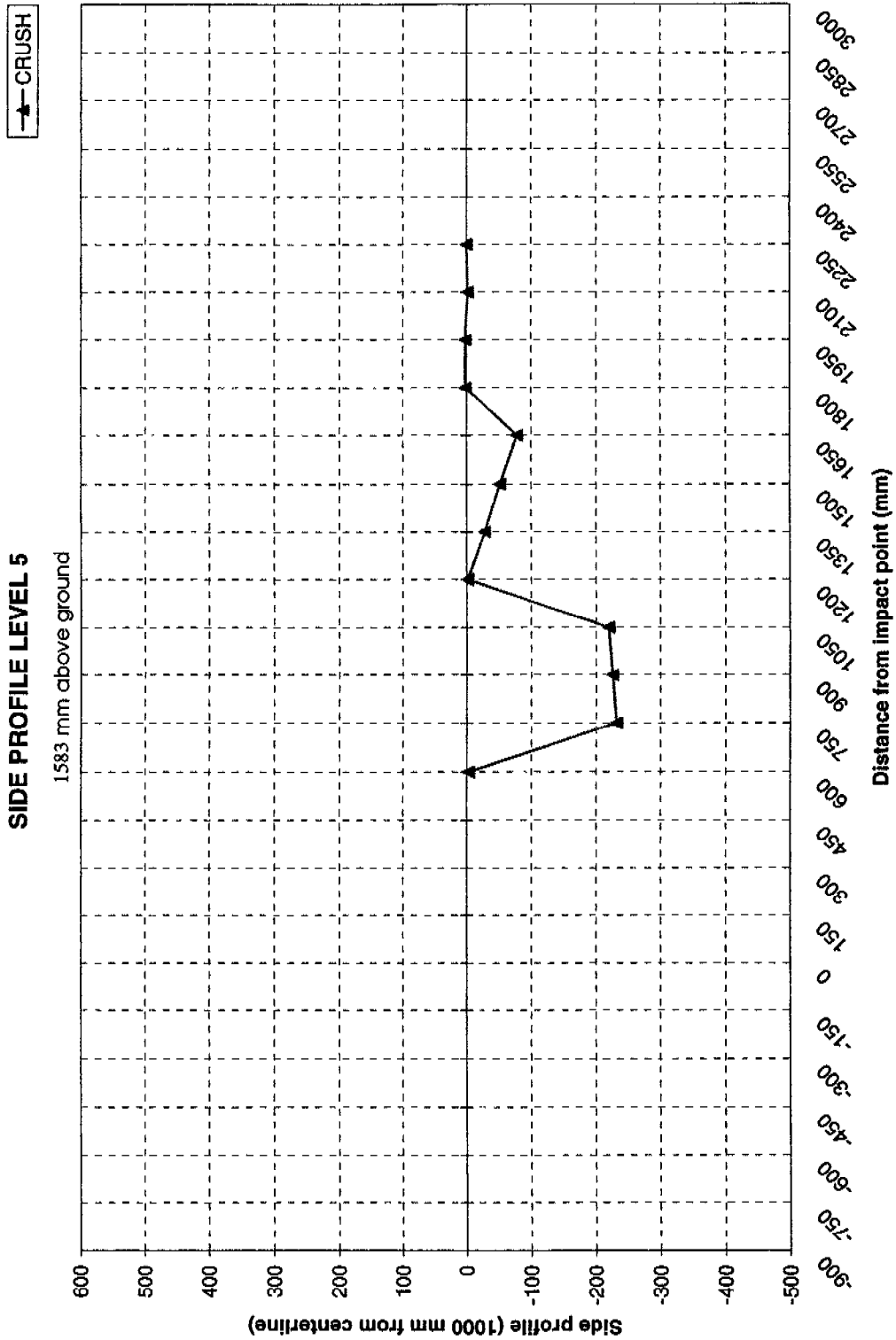


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

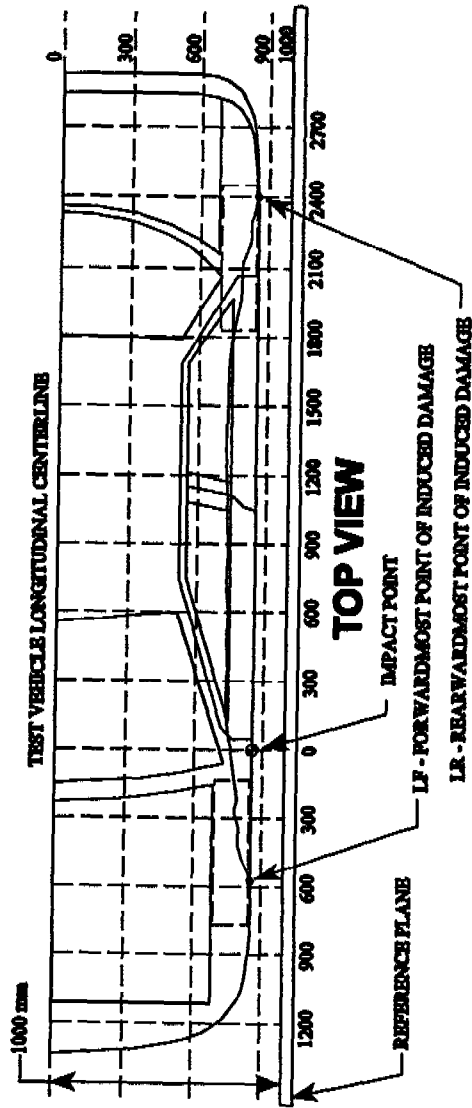


DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



MEASUREMENT CONVENTIONS:

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

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

DPD MEASUREMENTS	POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1 (LR = 3000 mm)	172	159	13
2 2220	204	98	106
3 1440	432	94	338
4 660	340	97	243
5 -120	164	83	81
6 (LF = -900 mm)	139	121	18

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE
(Grid as looking at MDB from front)

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

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

LEVEL	HEIGHT AT CL (mm)*	DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)									
		800	700	600	500	400	300	200	100		0	100	200	300	400	500	600	700	800	
LEVEL 4	813	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOP		707	677	660	651	647	653	670	669	665	665	668	668	668	678	691	710	730	756	
STACK		88	58	41	32	28	34	51	50	46	46	49	49	59	72	91	111	137		
LEVEL 3		619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
MID	686	690	673	667	655	647	642	643	642	639	639	630	630	634	641	650	662	675		
LEVEL		71	54	48	36	28	23	24	23	14	14	11	12	15	22	31	43	56		
LEVEL 2		619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOP	533	730	715	697	683	670	665	664	664	668	668	670	674	676	679	688	701			
BUMPER		111	96	78	64	51	46	45	45	49	49	51	55	57	60	69	82			
LEVEL 1		535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535		
MID	432	689	662	643	627	609	597	588	589	591	591	597	601	603	609	626	654			
BUMPER		154	143	125	109	91	79	70	71	73	73	81	83	85	91	107	119			

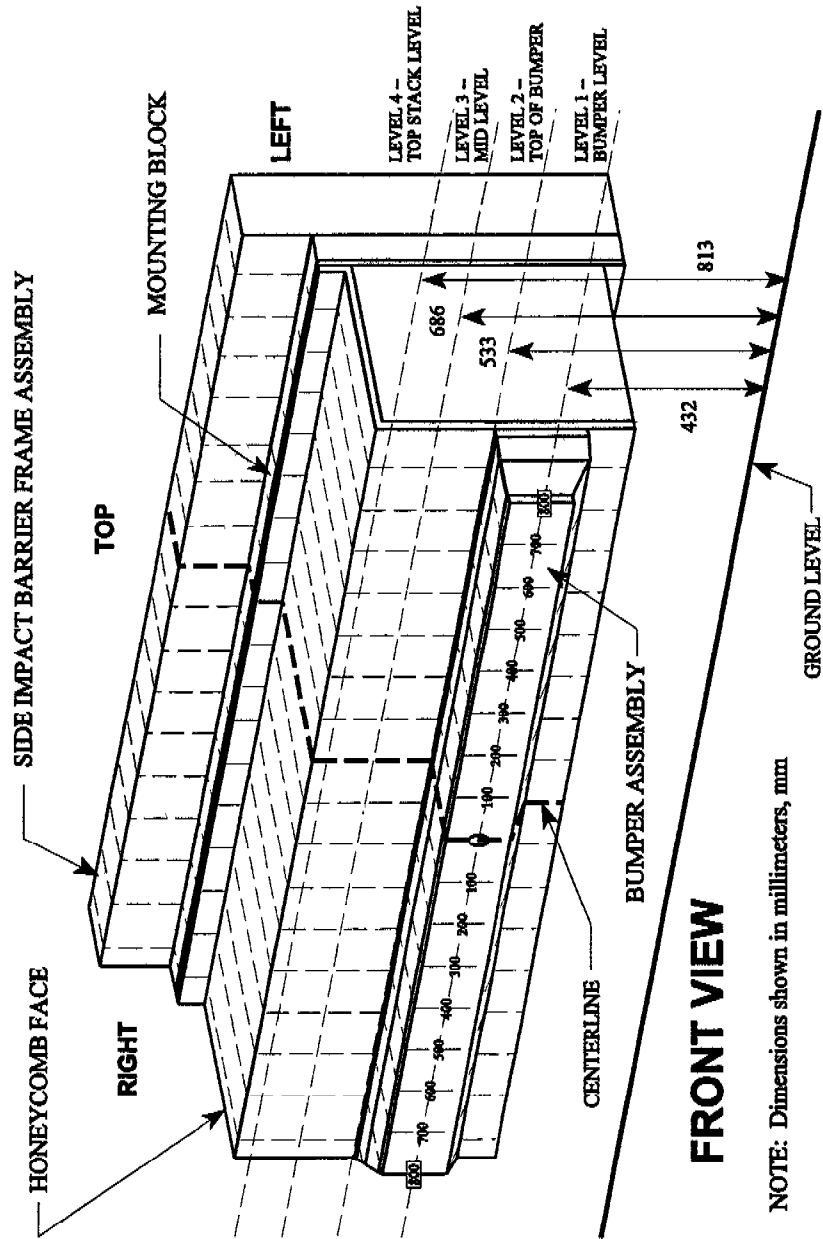
*Heights measured above ground level.

DATA SHEET 12 (continued)

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



FRONT VIEW

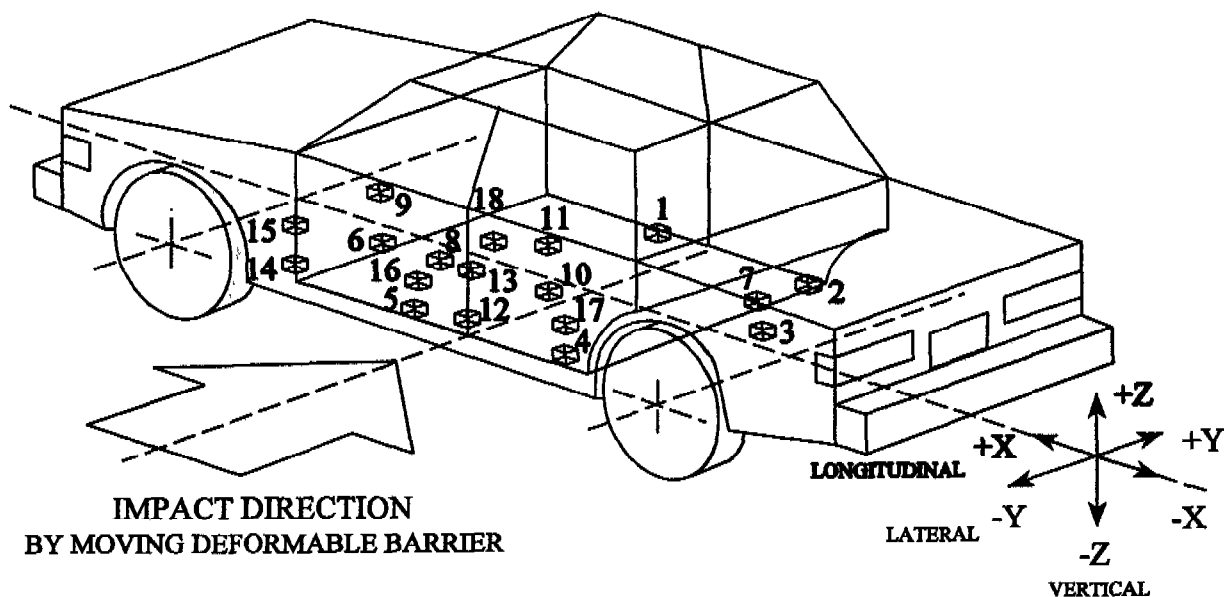
NOTE: Dimensions shown in millimeters, mm

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



- 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

NHTSA No. C10101

Vehicle: 2001 Pontiac Aztek

Accel. No.	Location	Coordinates (mm)±3			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	2717	645	373	4.8	56.4	20.2	29.9	†	-	20.2	29.9
					-5.1	32.9	-3.7	36.6	†	-	-	-
2	Right Side Sill at Rear Seat	1872	660	464	4.3	58.2	25.7	29.5	14.8	44.1	25.8	29.5
					-5.2	19.7	-2.5	123.8	-9.9	14.1	-	-
3	Rear Floorpan Above Axle	1035	0		5.3	27.3	25.4	31.8	37.2	51.1	42.9	33.8
					-13.3	35.5	-3.8	126.1	-39.3	40.1	-	-
4	Left Side Sill at Rear Seat	1872	-660	452	-	-	84.1	9.6	-	-	-	-
					-	-	-28.0	33.0	-	-	-	-
5	Left Side Sill at Front Seat	2717	-622	360	-	-	101.0	15.5	-	-	-	-
					-	-	-14.8	35.4	-	-	-	-
6**	Left Front Door on Centerline	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
7	Right Rear Occupant Compartment	1872	360	461	-	-	34.3	28.0	-	-	-	-
					-	-	-4.3	34.3	-	-	-	-
8**	Midrear of Left Front Door	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
9**	Left Front Door Upper Centerline	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
10**	Midrear of Left Rear Door	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
11**	Left Rear Door Upper Centerline	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-

*Reference: X - Rear Bumper (+ Forward)
 **Accelerometer was not requested by COTR.
 † Channel failed.

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

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

NHTSA No. C10101

Vehicle: 2001 Pontiac Aztek

Accel. No.	Location	Coordinates (mm)±3			Time (msec)	Lat. (y)		Vert. (z)		Resultant	
		X*	Y*	Z*		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
12	Left Lower B-Pillar	2072	-711	618	pos.	171.4	5.8	-	-	-	-
					neg.	-37.1	33.3	-	-	-	-
13	Left Middle B-Pillar	2054	-730	1023	pos.	126.6	6.8	-	-	-	-
					neg.	-57.7	22.2	-	-	-	-
14	Left Lower A-Pillar	3077	-718	404	pos.	76.3	4.2	-	-	-	-
					neg.	-28.1	15.7	-	-	-	-
15	Left Middle A-Pillar	3160	-678	1153	pos.	17.3	27.0	-	-	-	-
					neg.	-4.2	30.4	-	-	-	-
16	Front Seat Track	2290	-578	502	pos.	100.1	18.4	-	-	-	-
					neg.	-34.3	35.3	-	-	-	-
17	Rear Seat Track	1486	-625	543	pos.	105.4	16.4	-	-	-	-
					neg.	-46.2	29.1	-	-	-	-
18	Vehicle CG	2538	0	521	pos.	39.4	22.8	17.9	21.3	43.6	22.7
					neg.	-10.4	23.2	-40.5	30.3	-	-

*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To Right)

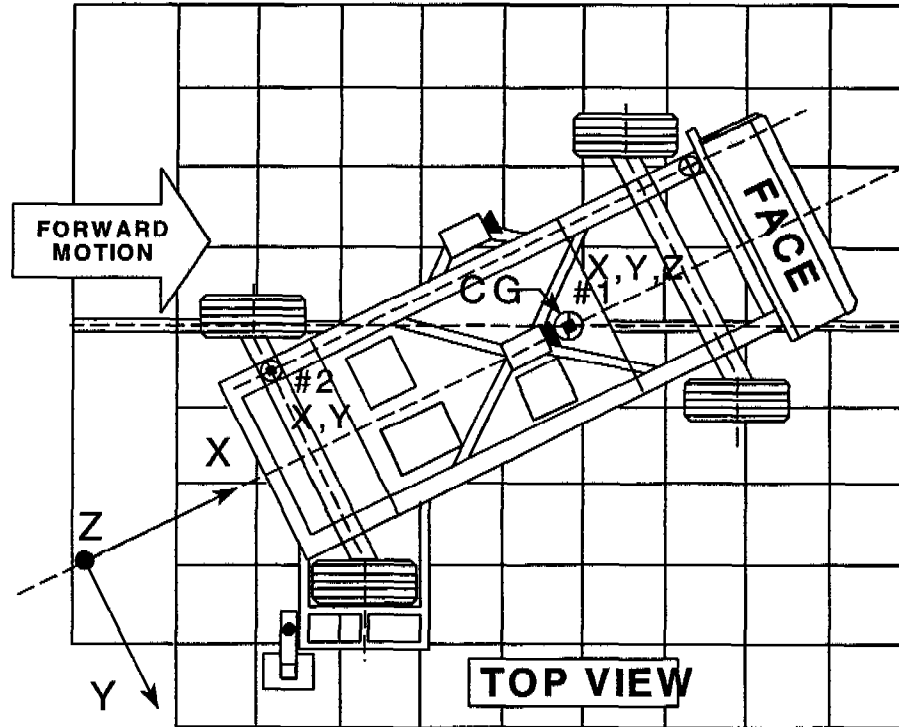
Z - Ground Level (+ Up)

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	MDB Center of Gravity							
	Longitudinal... X	1859	0	330	1.3	115.0	-21.0	46.5
	Lateral..... Y				3.1	62.9	-8.8	30.5
	Vertical..... Z				7.2	61.9	-11.2	22.1
Resultant..... R	22.1				46.5	-	-	
2	Rear Frame Member							
	Longitudinal... X	386	-660	660	1.6	108.8	-20.4	38.3
Lateral..... Y	3.7				31.3	-2.5	67.3	

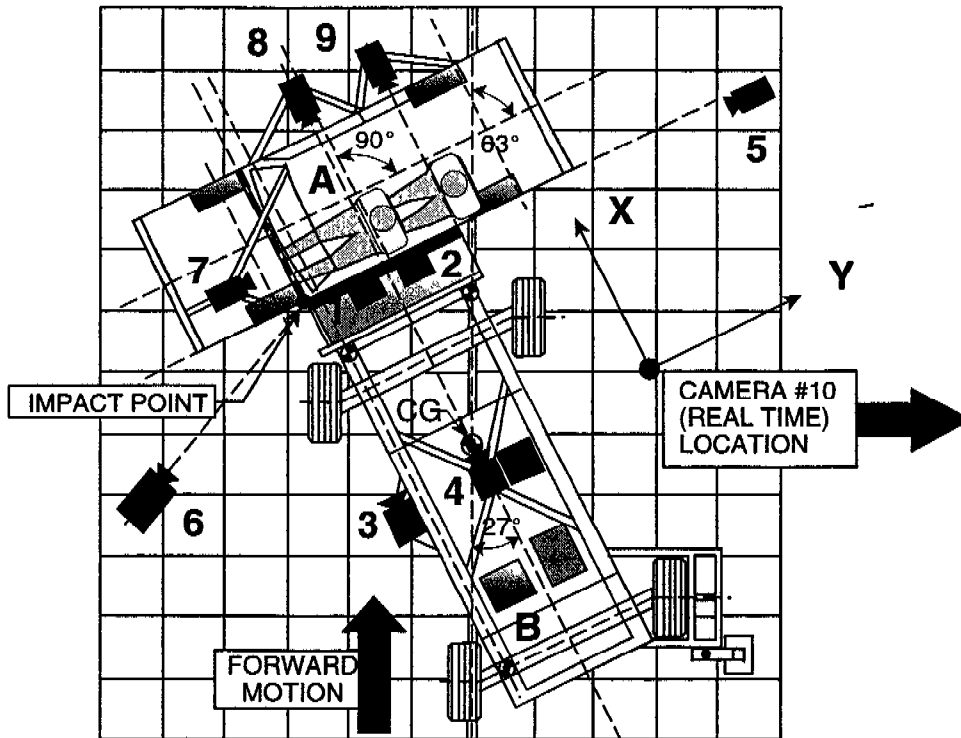
*Reference: X = Rear Bumper (+ Forward)
 Y = Vehicle Centerline (+ To Right)
 Z = Ground Level (+ Up)
 All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	62	804	4880	-90	8	1000
2	Overhead closeup view of impact plane	198	870	4880	-90	12.5	990
3	MDB onboard closeup view of impact point	-1470	0	847	0	13	1000
4	MDB onboard view of driver dummy	-1140	838	1586	-17	7.5	1010
5	Right side ground level overall view	60	9200	1104	-2	25	1000
6	Left side ground level overall view	-2015	-1705	1080	-4	13	1000
7	Test vehicle onboard driver front view	538	-500	1430	-11	13	1000
8	Test vehicle onboard driver side view	1782	710	1182	-7	8	1000
9	Test vehicle onboard passenger side view	1800	1633	1206	-9	8	1000
10	Real time film coverage of test	-	-	-	-	-	24

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

+X = Forward

+Y = To Right

+Z = Upward

SECTION 5

FUEL SYSTEM INTEGRITY

DATA SHEET 16

FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA No.: C10101

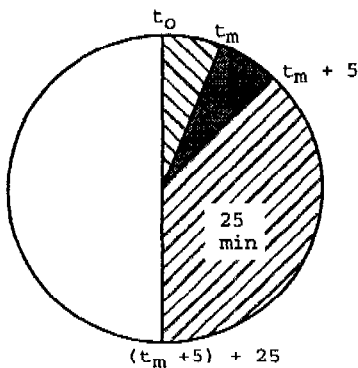
TEST DATE: September 14, 2000

Vehicle Mfgr./Make/Model : 2001 Pontiac Aztek M.P.V.

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

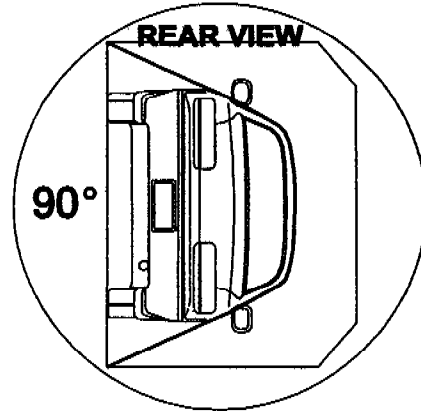
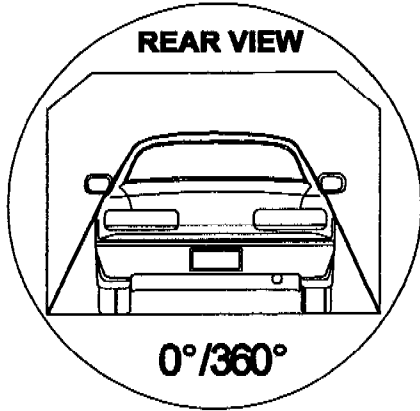
DATA SHEET 17

ROLLOVER DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

0 - 90 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time	<u>1</u> minutes	<u>14</u> seconds
(Spec. Range = 1 to 3 minutes)		
FMVSS 301 Position Hold Time +	<u>5</u> minutes	<u>0</u> seconds
TOTAL	<u>6</u> minutes	<u>14</u> seconds
Next whole minute interval	<u>7</u> minutes	

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

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

IV. SOLVENT SPILLAGE LOCATION(S) :

None

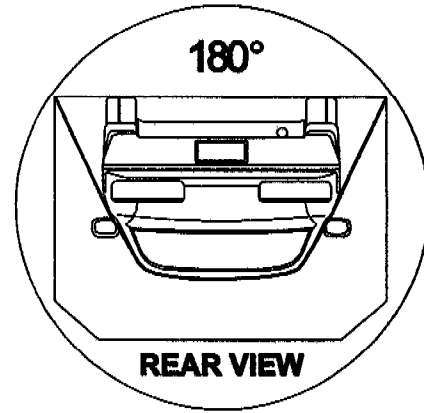
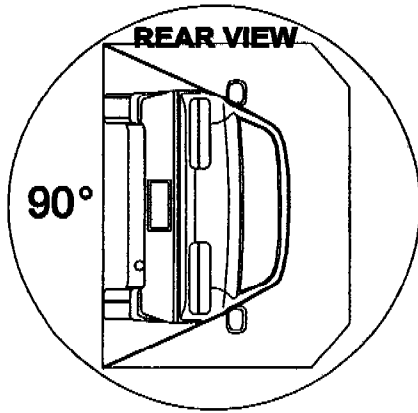
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

90 - 180 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes <u>5</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes <u>0</u> seconds
TOTAL	<u>6</u> minutes <u>5</u> seconds
Next whole minute interval	<u>7</u> minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

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

IV. SOLVENT SPILLAGE LOCATION(S) :

None

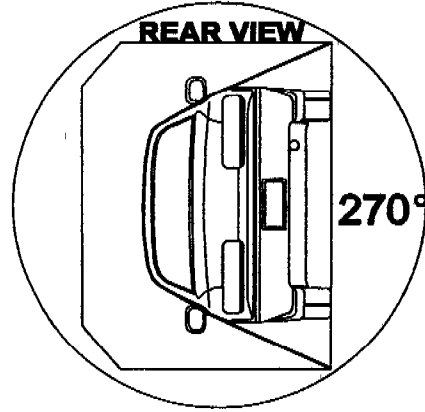
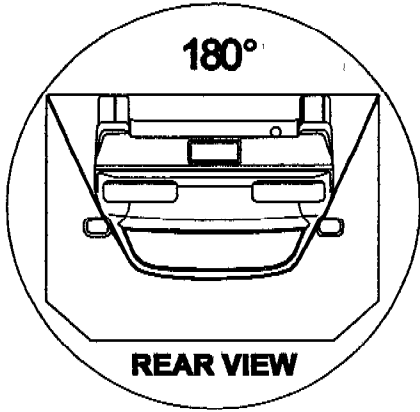
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

180 - 270 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u>	minutes	<u>4</u>	seconds
FMVSS 301 Position Hold Time +	<u>5</u>	minutes	<u>0</u>	seconds
TOTAL	<u>6</u>	minutes	<u>4</u>	seconds
Next whole minute interval	<u>7</u>	minutes		

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

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

IV. SOLVENT SPILLAGE LOCATION(S) :

None

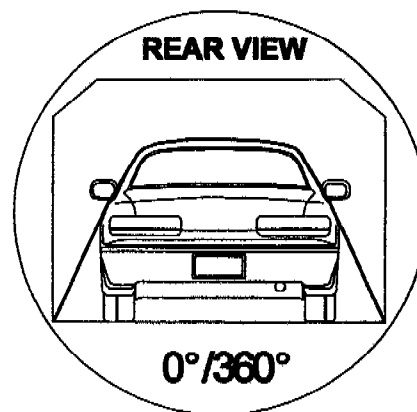
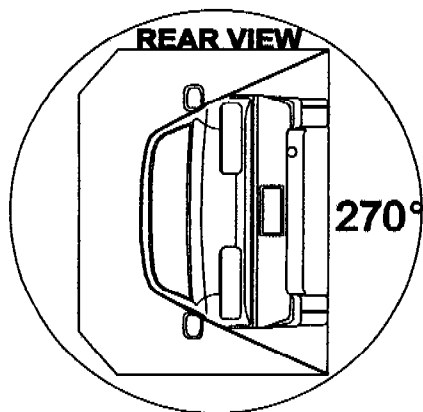
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2001 Pontiac Aztek

NHTSA No. C10101

270 - 360 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes <u>7</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes <u>0</u> seconds
TOTAL	<u>6</u> minutes <u>7</u> seconds
Next whole minute interval	<u>7</u> minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

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

IV. SOLVENT SPILLAGE LOCATION(S) :

None

APPENDIX A

PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

<u>Figure</u>	<u>Photograph Title</u>	<u>Page</u>
Figure A- 1	PRE-TEST FRONTAL VIEW OF TEST VEHICLE	A- 3
Figure A- 2	POST-TEST FRONTAL VIEW OF TEST VEHICLE	A- 4
Figure A- 3	PRE-TEST REAR VIEW OF TEST VEHICLE	A- 5
Figure A- 4	POST-TEST REAR VIEW OF TEST VEHICLE	A- 6
Figure A- 5	PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE	A- 7
Figure A- 6	POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE	A- 8
Figure A- 7	PRE-TEST FRONTAL VIEW OF IMPACTOR FACE	A- 9
Figure A- 8	POST-TEST FRONTAL VIEW OF IMPACTOR FACE	A- 10
Figure A- 9	PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE	A- 11
Figure A- 10	POST-TEST LEFT SIDE VIEW OF IMPACTOR FACE	A- 12
Figure A- 11	PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE	A- 13
Figure A- 12	POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE	A- 14
Figure A- 13	PRE-TEST TOP VIEW OF IMPACTOR FACE	A- 15
Figure A- 14	POST-TEST TOP VIEW OF IMPACTOR FACE	A- 16
Figure A- 15	PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE	A- 17
Figure A- 16	POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE	A- 18
Figure A- 17	PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID	A- 19
Figure A- 18	POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID	A- 20
Figure A- 19	PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID	A- 21
Figure A- 20	POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID	A- 22
Figure A- 21	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID	A- 23
Figure A- 22	POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID	A- 24
Figure A- 23	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID	A- 25
Figure A- 24	POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID	A- 26
Figure A- 25	PRE-TEST FRONT INTERIOR TRIM	A- 27
Figure A- 26	POST-TEST FRONT INTERIOR TRIM SHOWING SID IMPACT LOCATIONS	A- 28
Figure A- 27	PRE-TEST REAR INTERIOR TRIM	A- 29
Figure A- 28	POST-TEST REAR INTERIOR TRIM SHOWING SID IMPACT LOCATIONS	A- 30
Figure A- 29	PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION	A- 31
Figure A- 30	PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION	A- 32
Figure A- 31	POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET	A- 33
Figure A- 32	CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL	A- 34
Figure A- 33	CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL	A- 35
Figure A- 34	IMPACT PHOTO	A- 36
Figure A- 35	ROLLOVER 90 DEGREES	A- 37
Figure A- 36	ROLLOVER 180 DEGREES	A- 38
Figure A- 37	ROLLOVER 270 DEGREES	A- 39
Figure A- 38	ROLLOVER 360 DEGREES	A- 40
Figure A- 39	POST-TEST CLOSE-UP VIEW OF DRIVER DOOR	A- 41
Figure A- 40	POST-TEST CLOSE-UP VIEW OF DRIVER DOOR STRIKER	A- 42

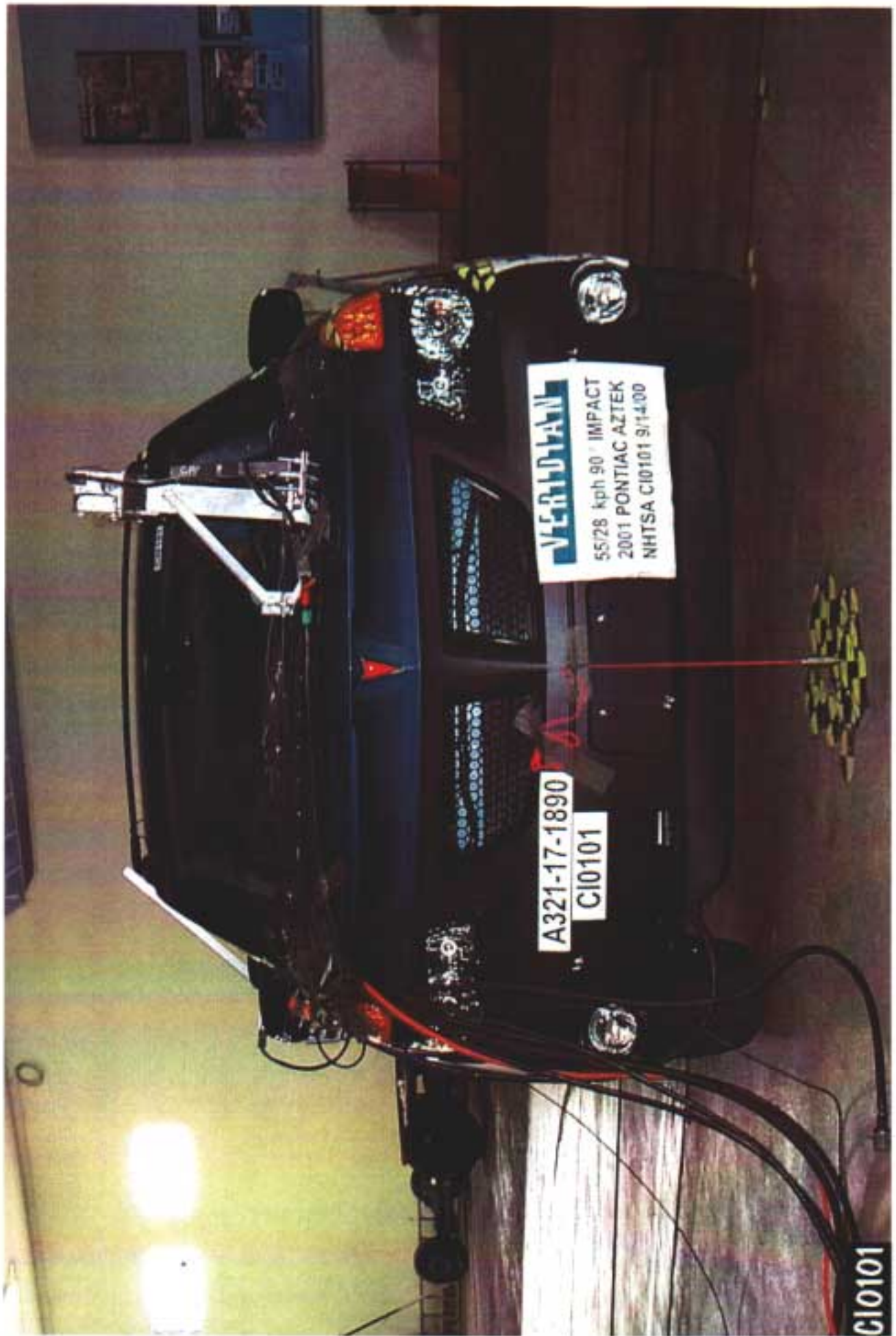


Figure A-1: PRE-TEST FRONTAL VIEW OF TEST VEHICLE



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

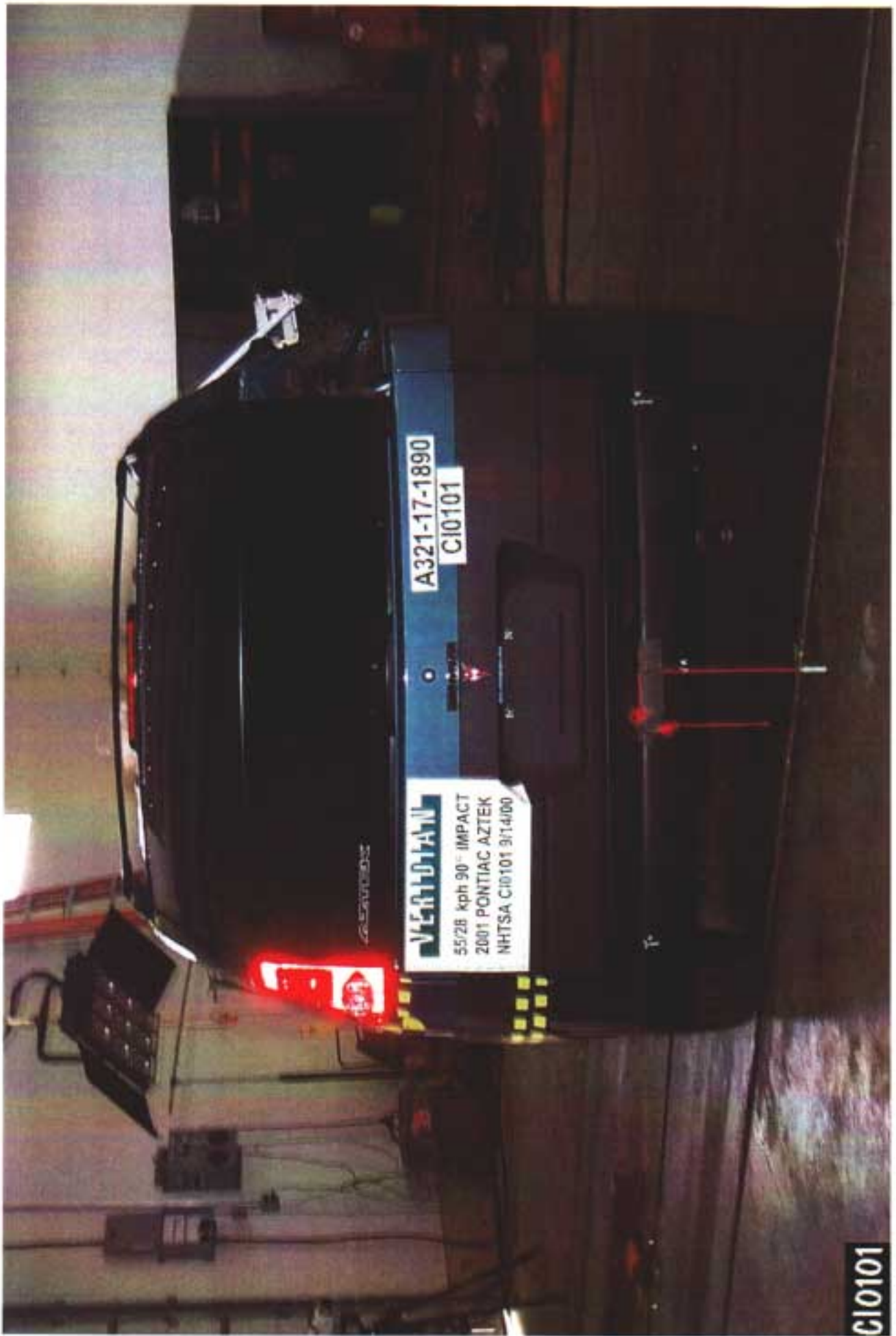


Figure A-3: PRE-TEST REAR VIEW OF TEST VEHICLE

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

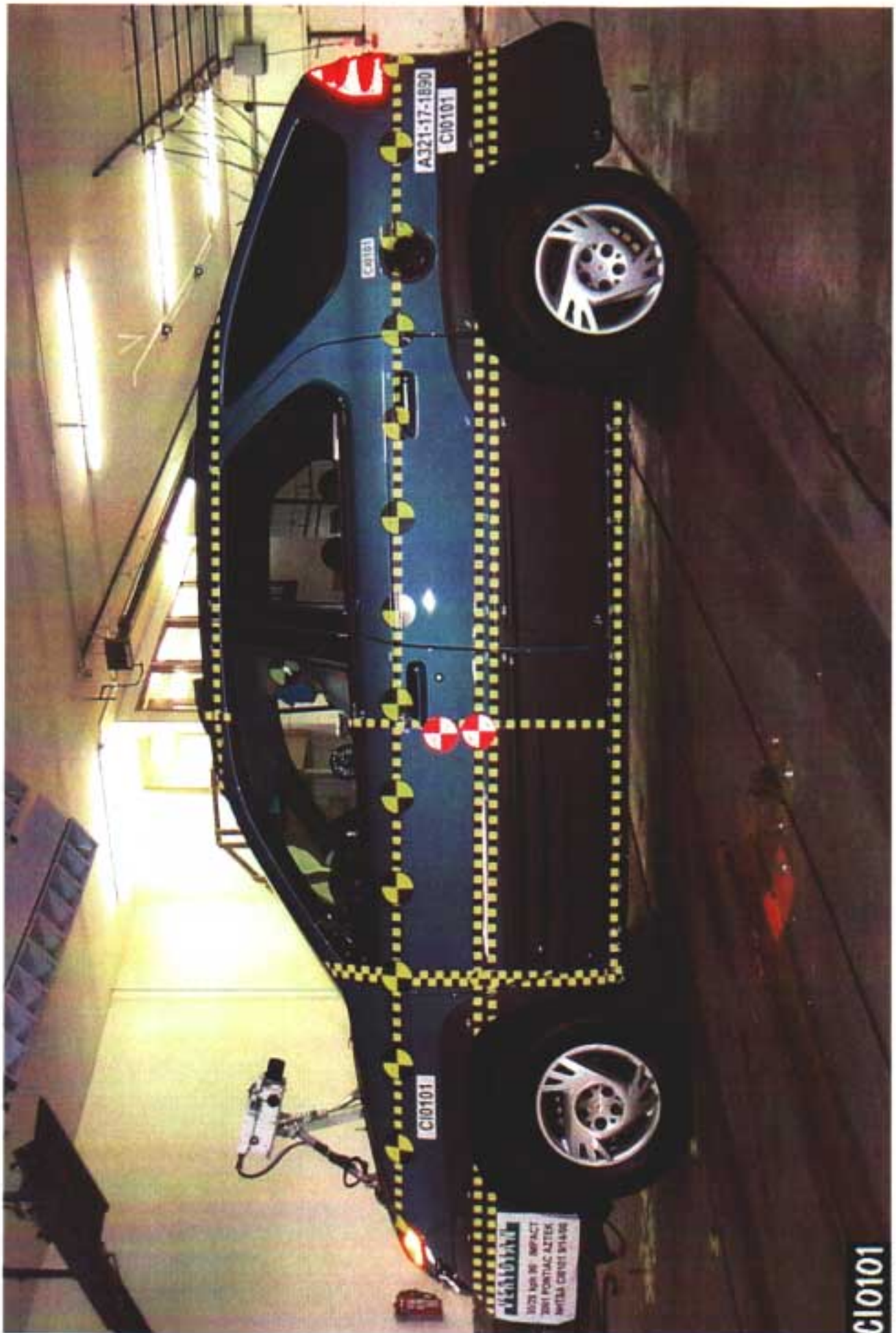


Figure A-5: PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

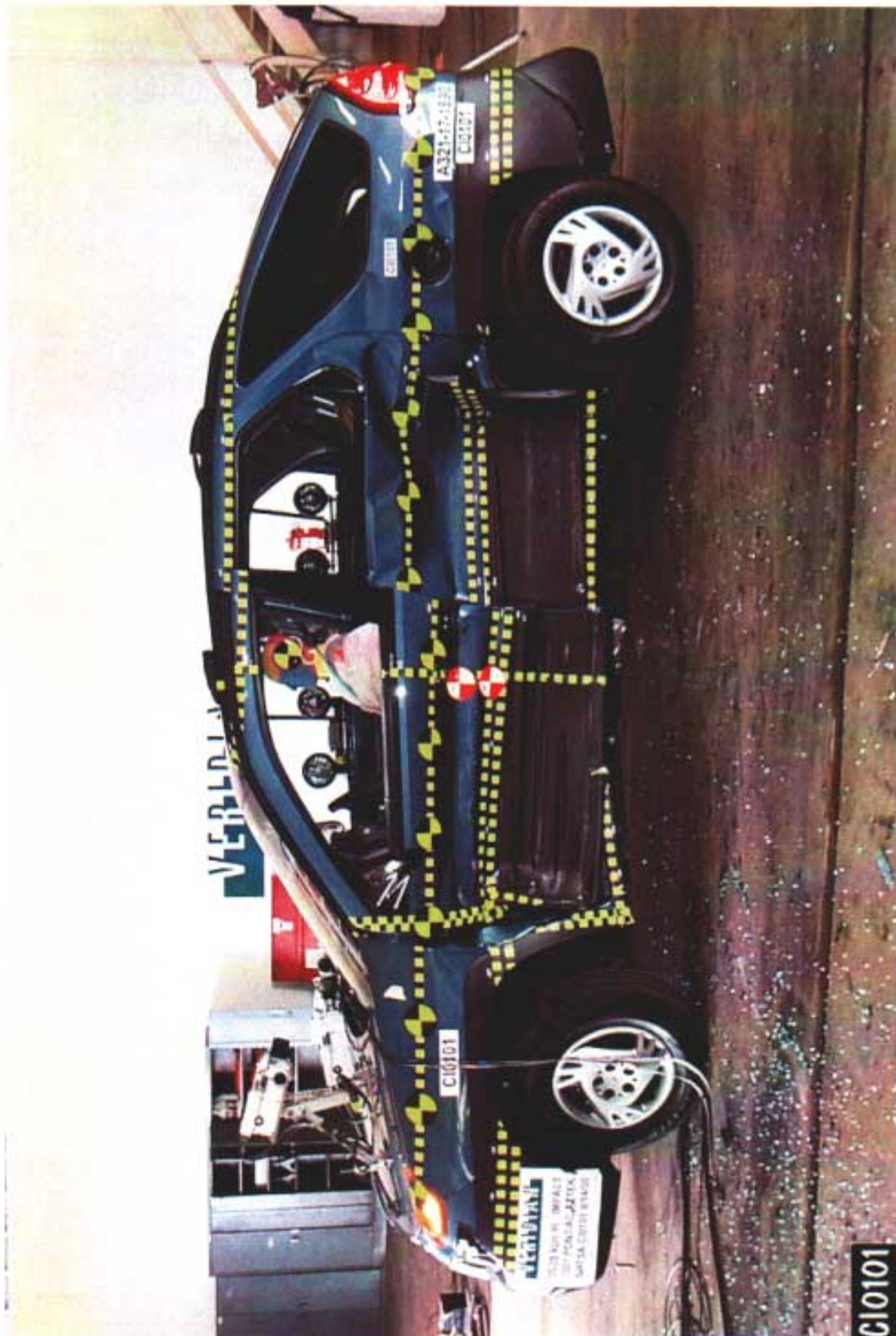


Figure A-6: POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

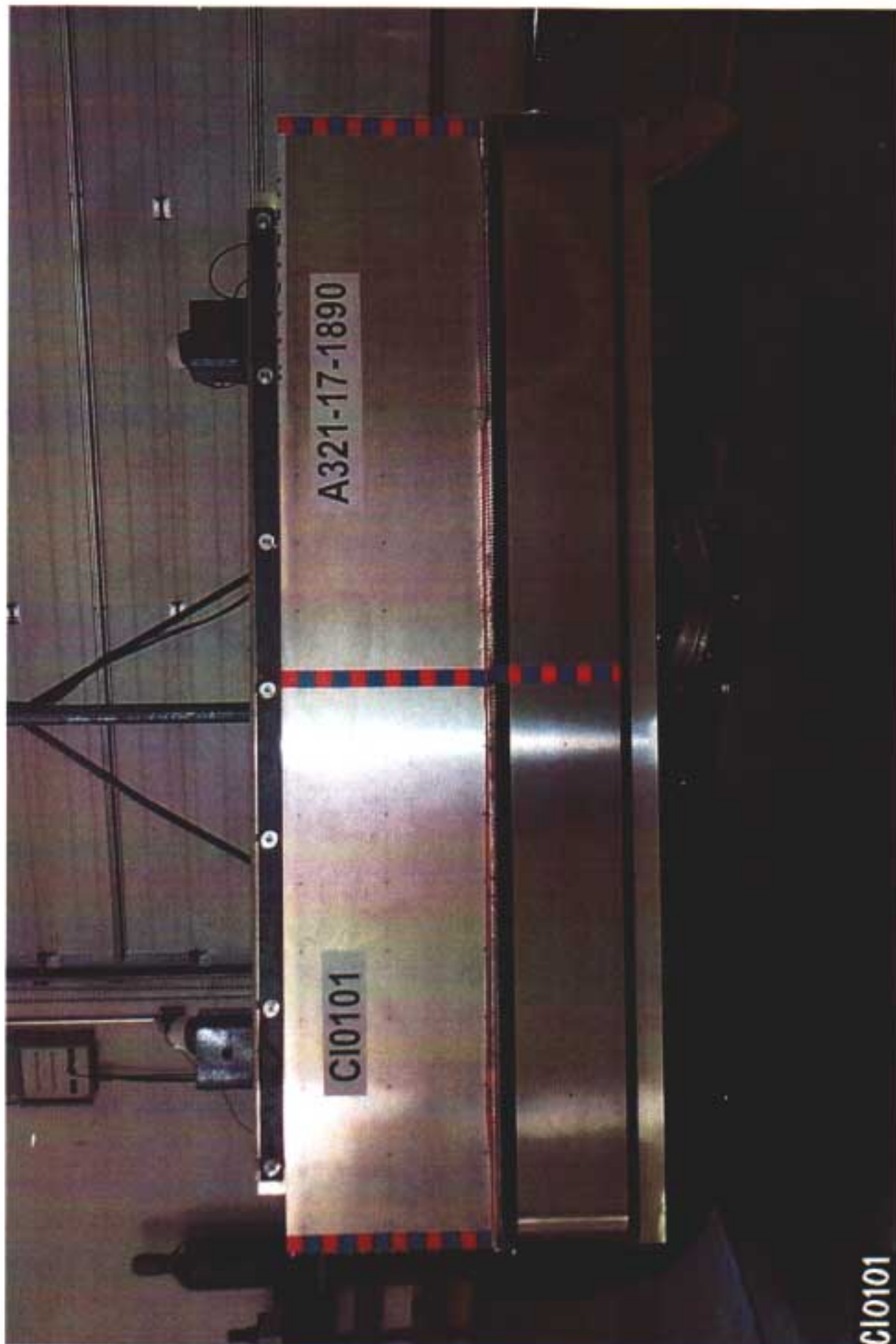


Figure A-7: PRE-TEST FRONTAL VIEW OF IMPACTOR FACE

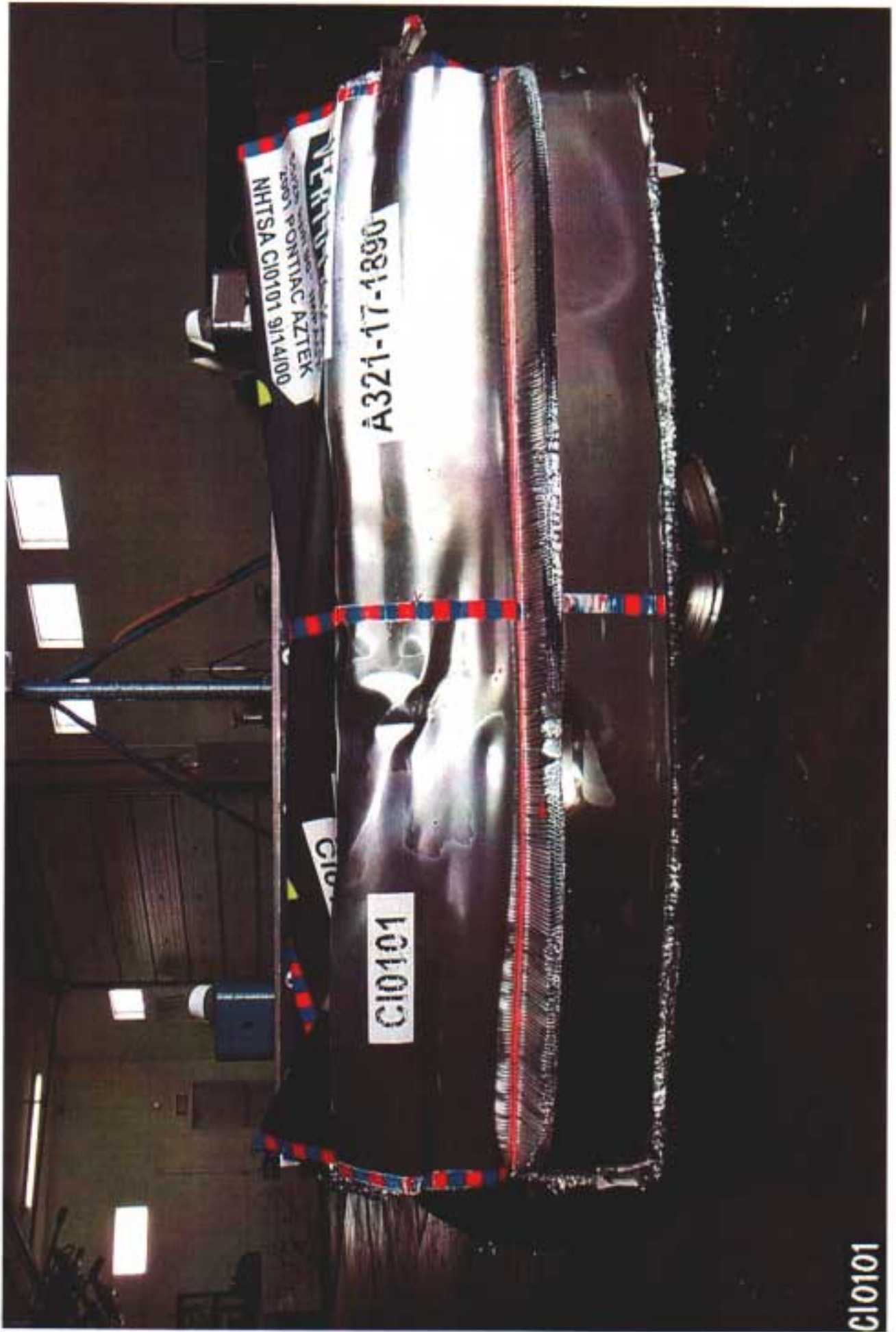


Figure A-8: POST-TEST FRONTAL VIEW OF IMPACTOR FACE

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Figure A-9: PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE



Figure A-10: POST-TEST LEFT SIDE VIEW OF IMPACTOR FACE

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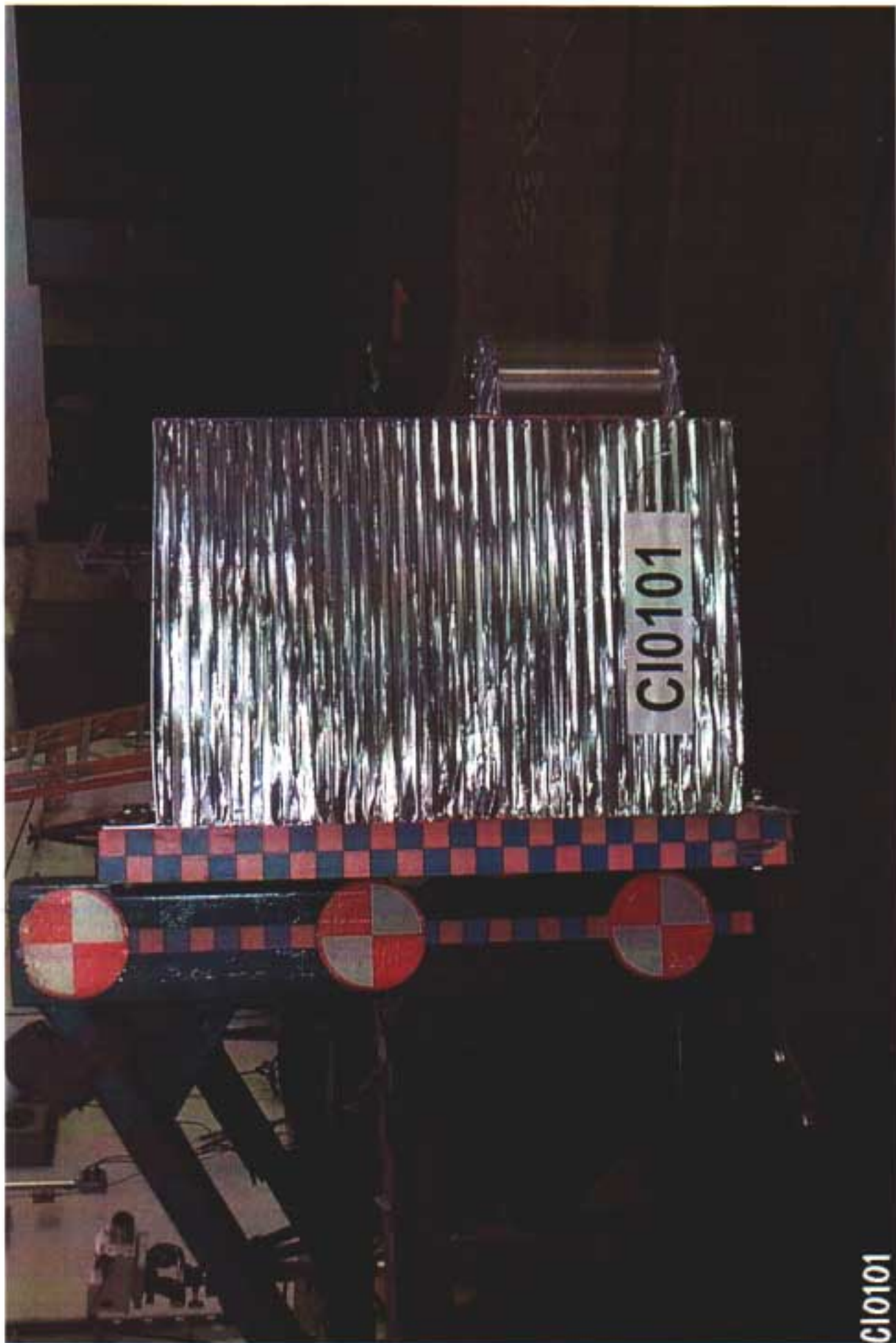


Figure A-11: PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE

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Figure A-12: POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE

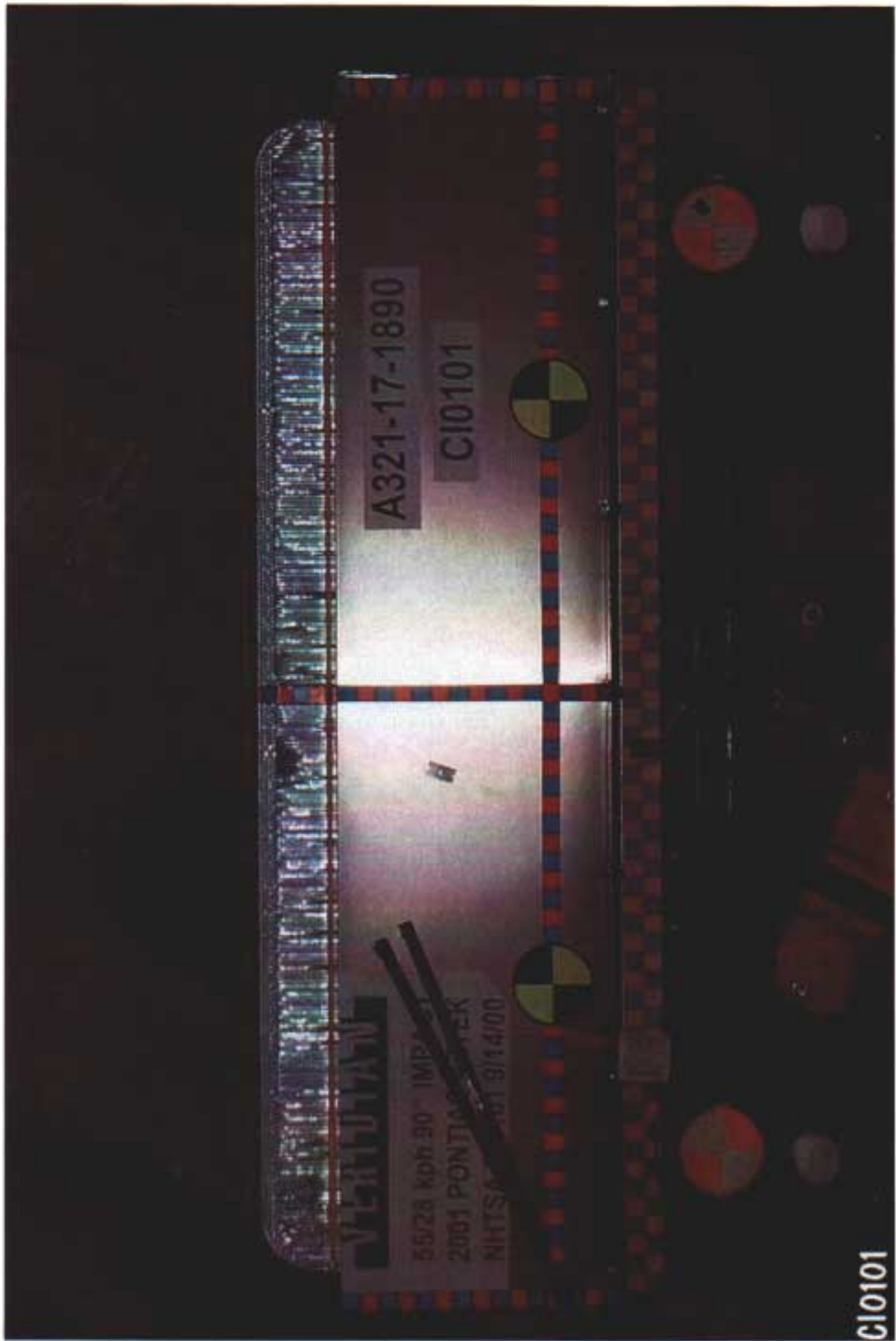


Figure A-13: PRE-TEST TOP VIEW OF IMPACTOR FACE

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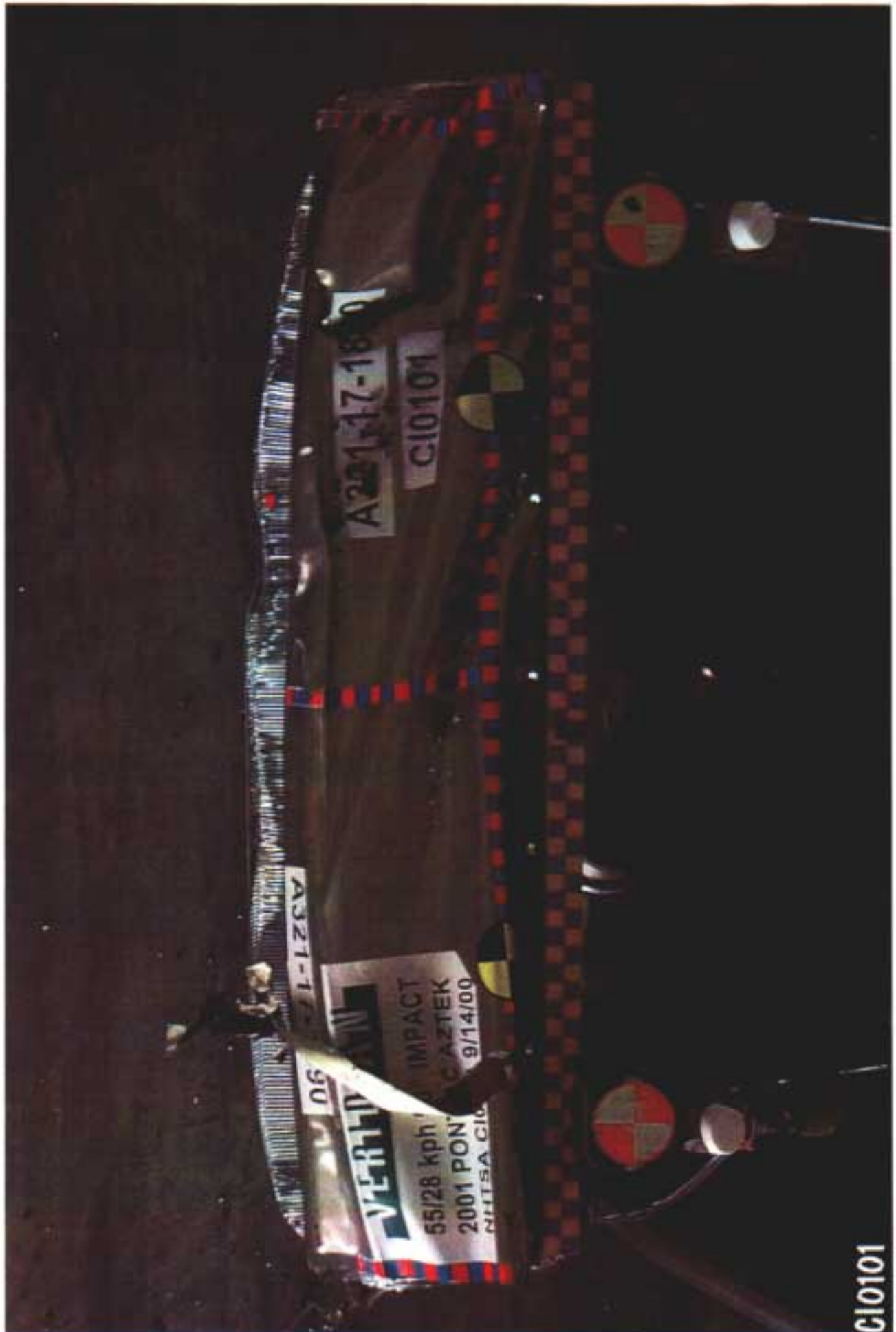


Figure A-14: POST-TEST TOP VIEW OF IMPACTOR FACE

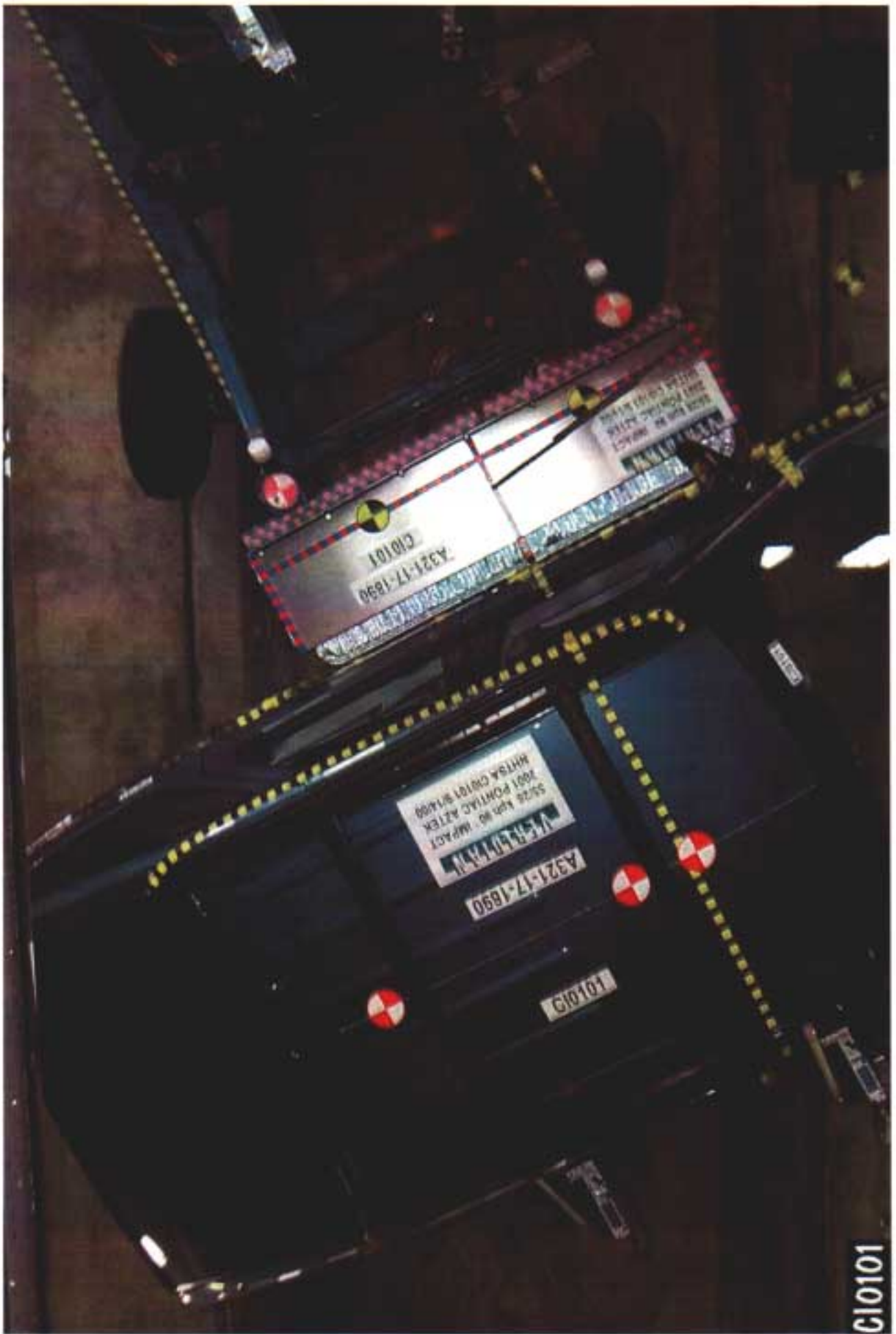


Figure A-15: PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE



Figure A-16: POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE



Figure A-17: PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID



Figure A-18: POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID

C10101

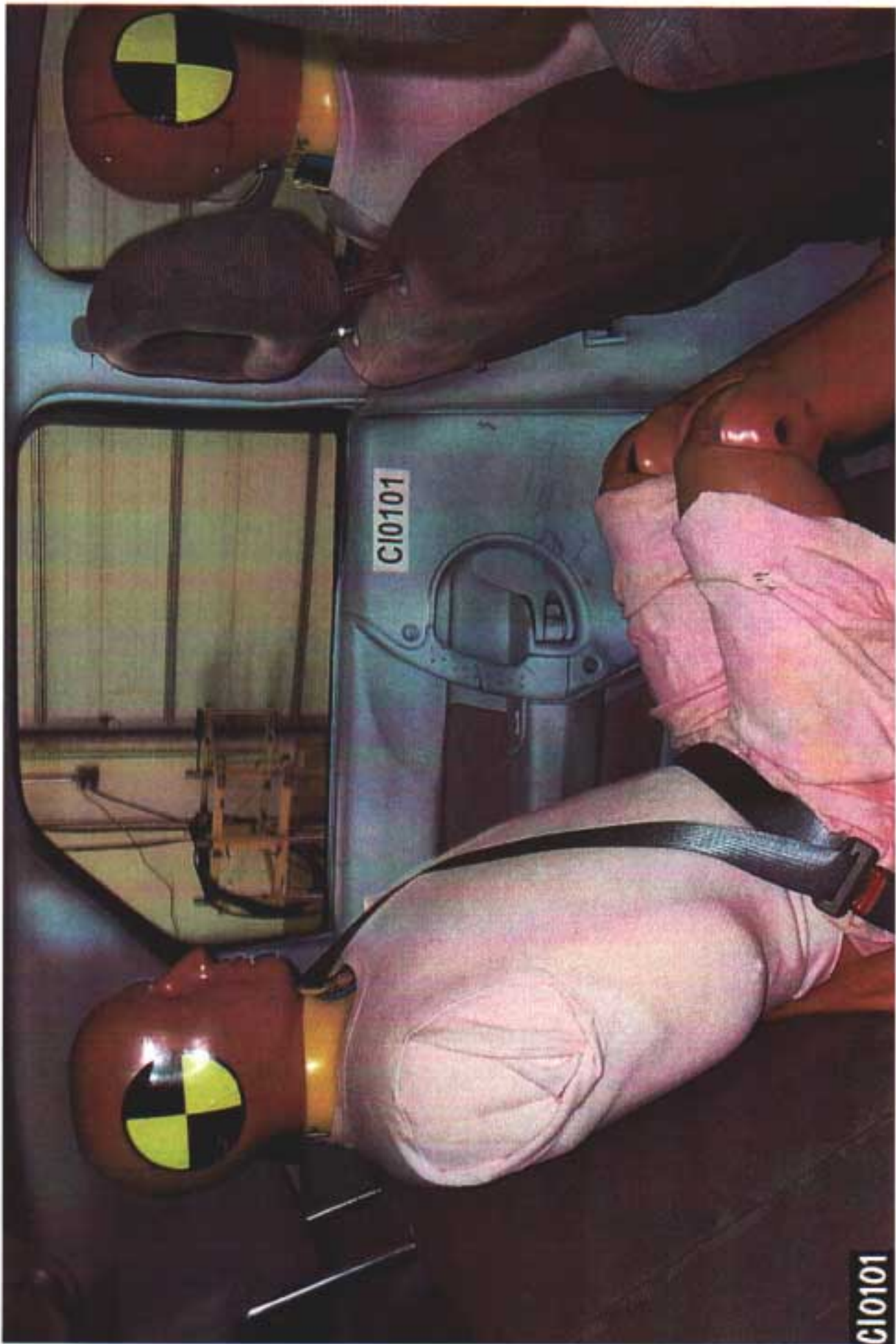


Figure A-19: PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID



Figure A-20: POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID

C10101

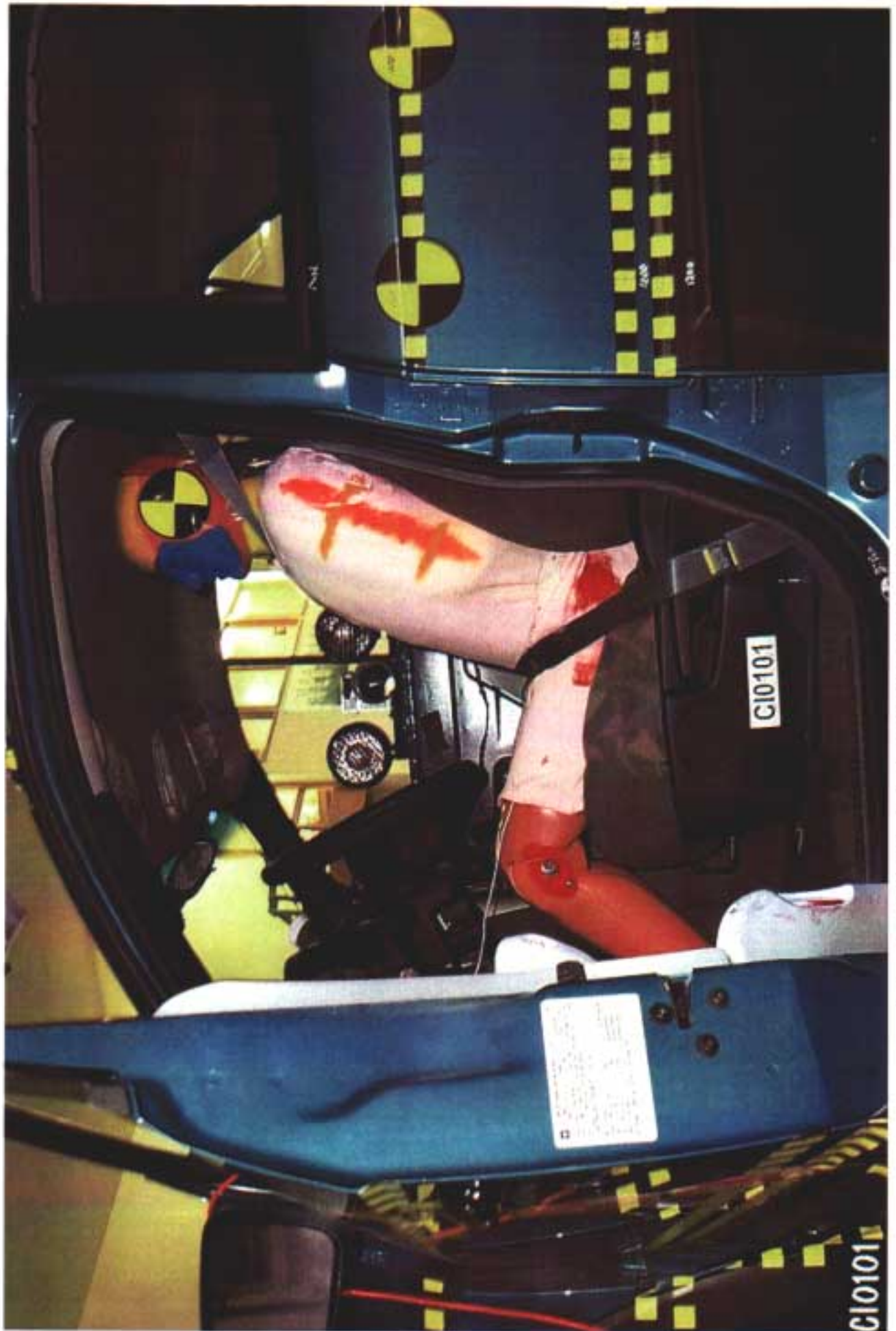


Figure A-21: PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID



Figure A-22: POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID

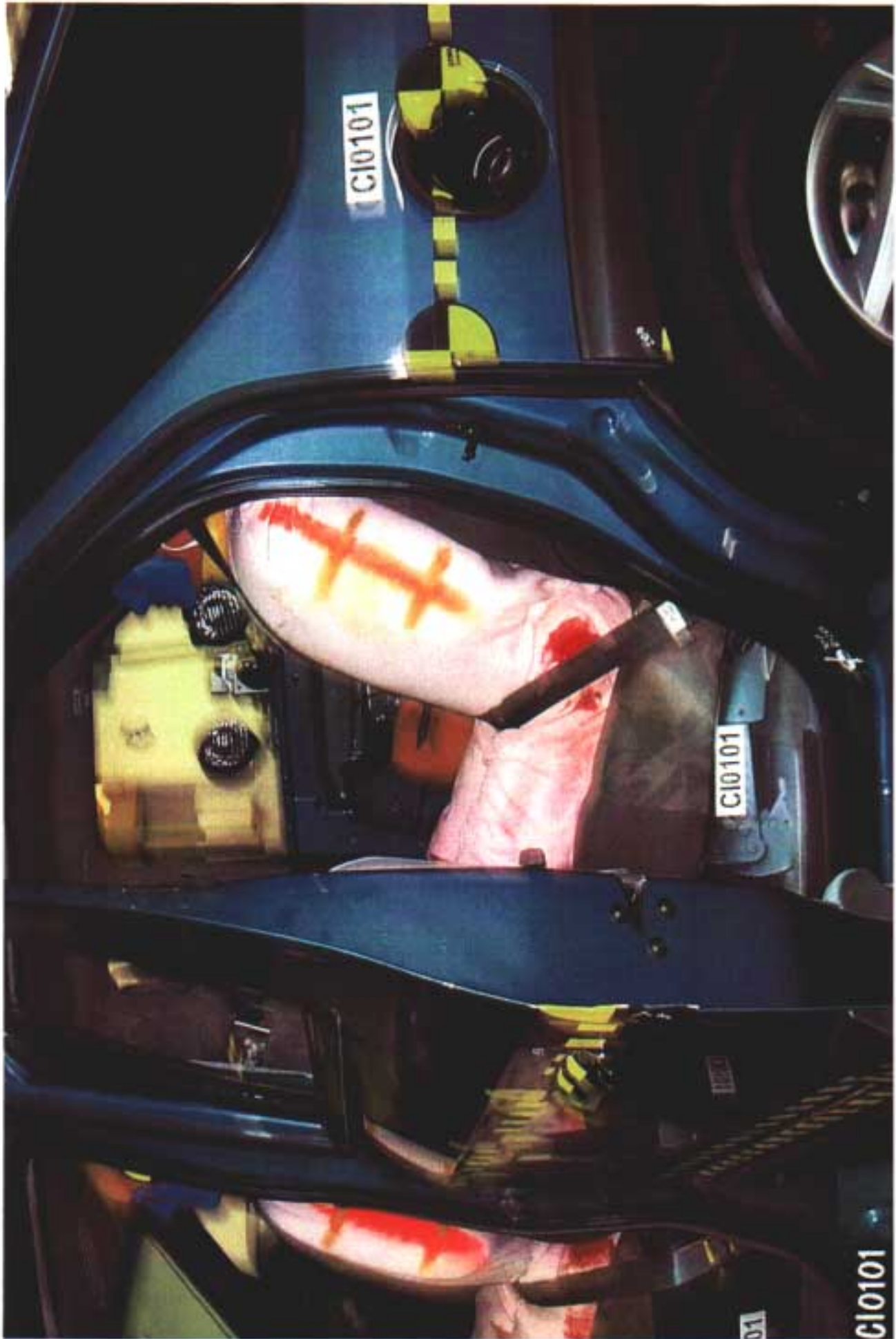


Figure A-23: PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID



Figure A-24: POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID

C10101



Figure A-25: PRE-TEST FRONT INTERIOR TRIM

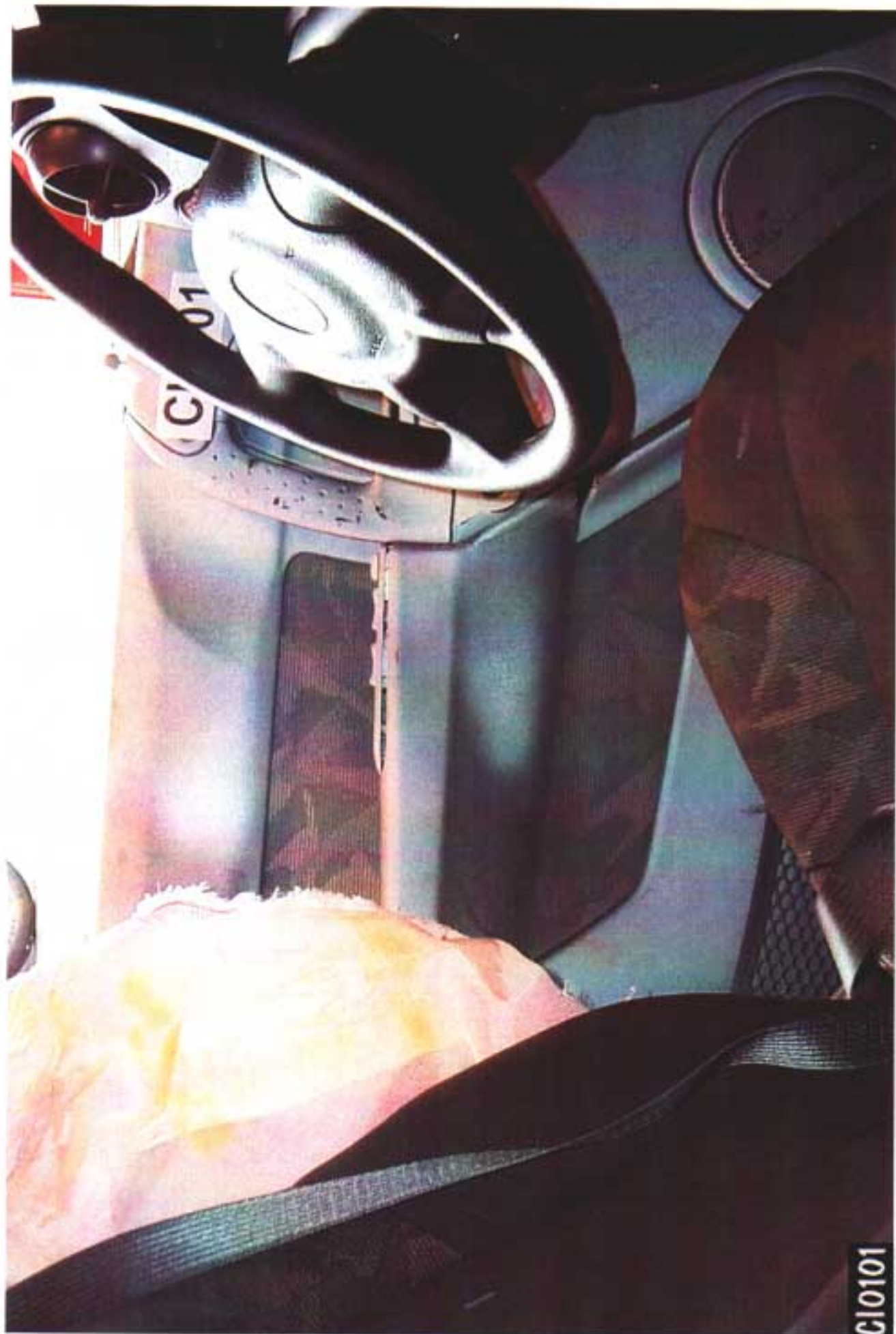
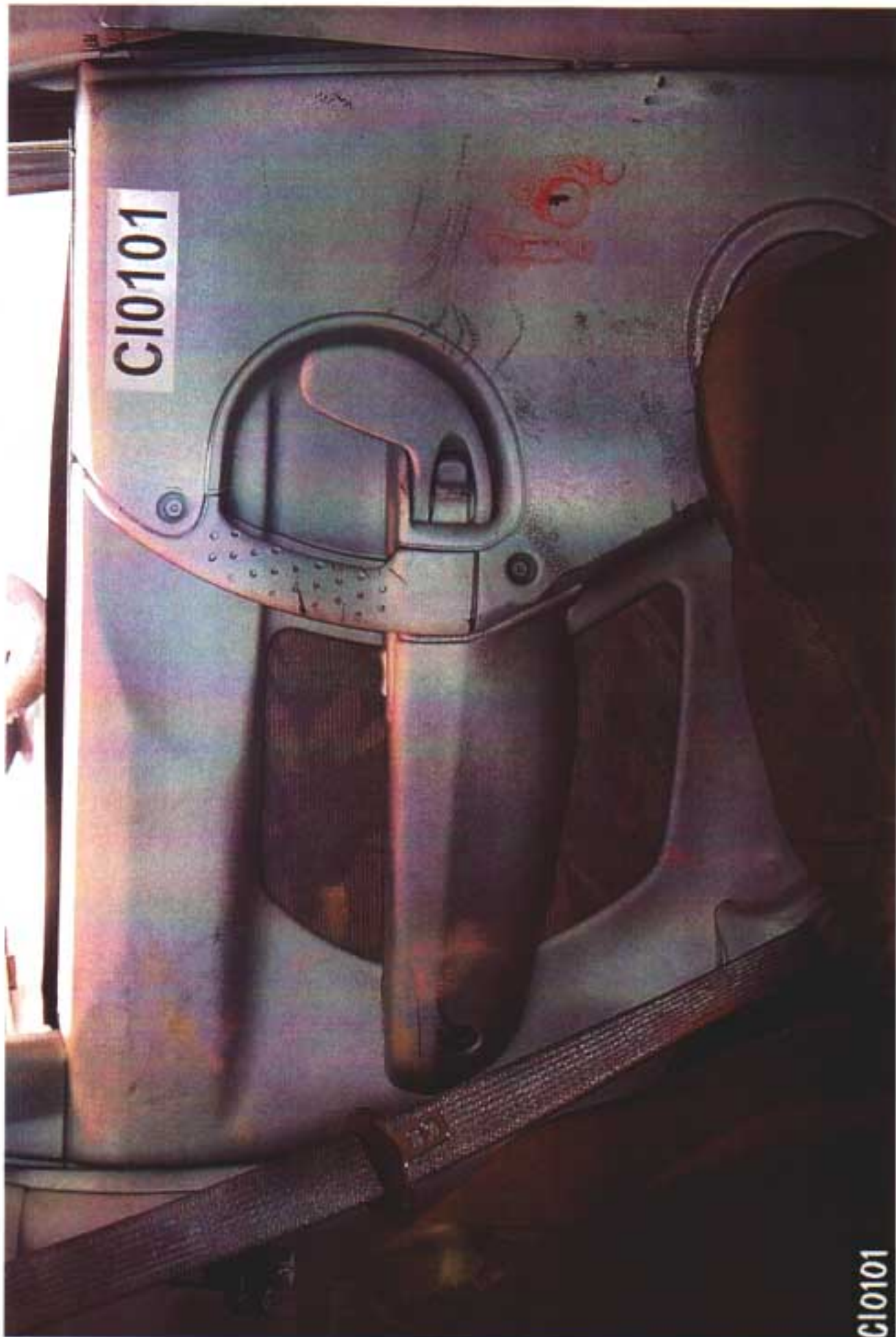


Figure A-26: POST-TEST FRONT INTERIOR TRIM SHOWING SID IMPACT LOCATIONS

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Figure A-27: PRE-TEST REAR INTERIOR TRIM



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Figure A-28: POST-TEST REAR INTERIOR TRIM SHOWING SID IMPACT LOCATIONS

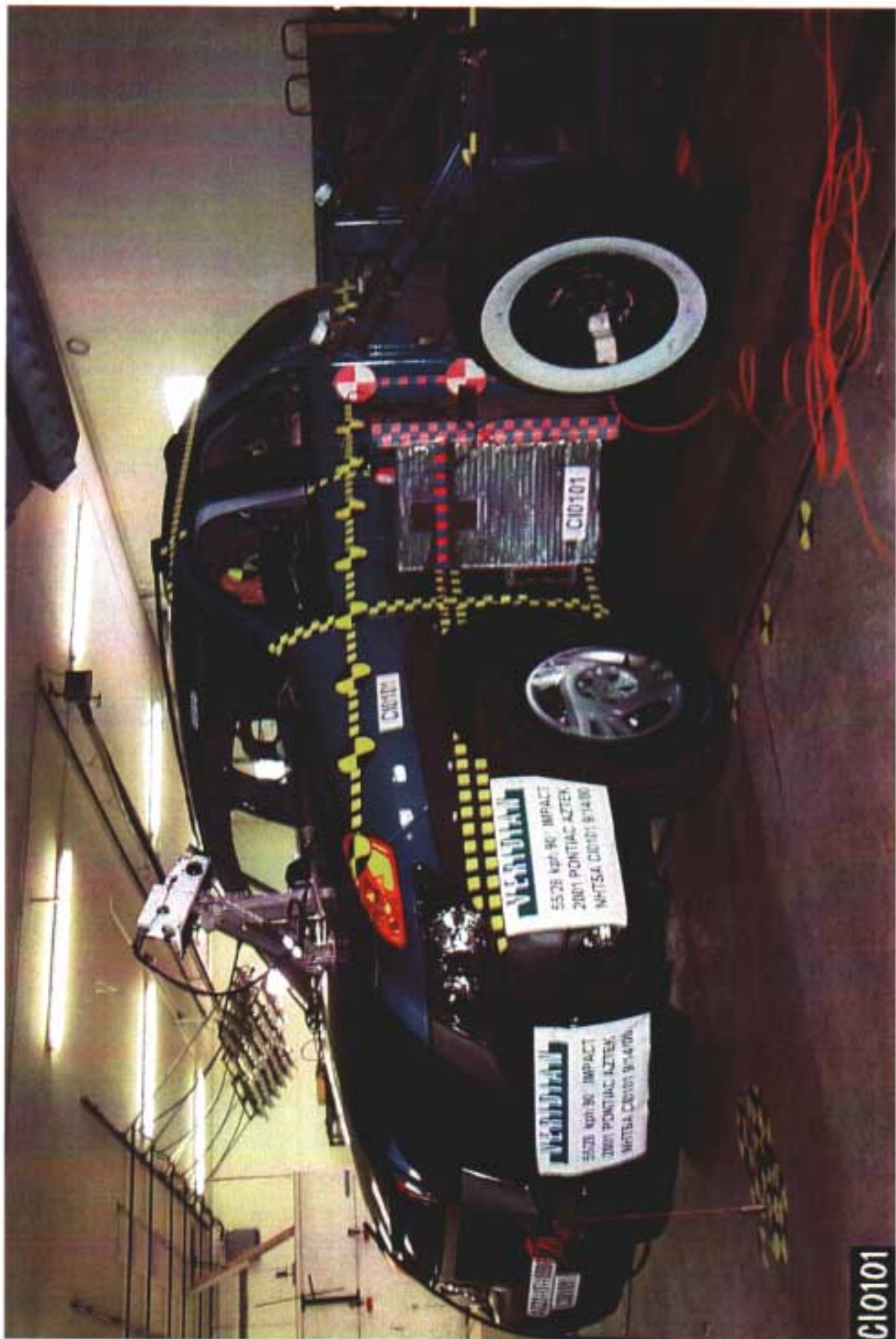


Figure A-29: PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION

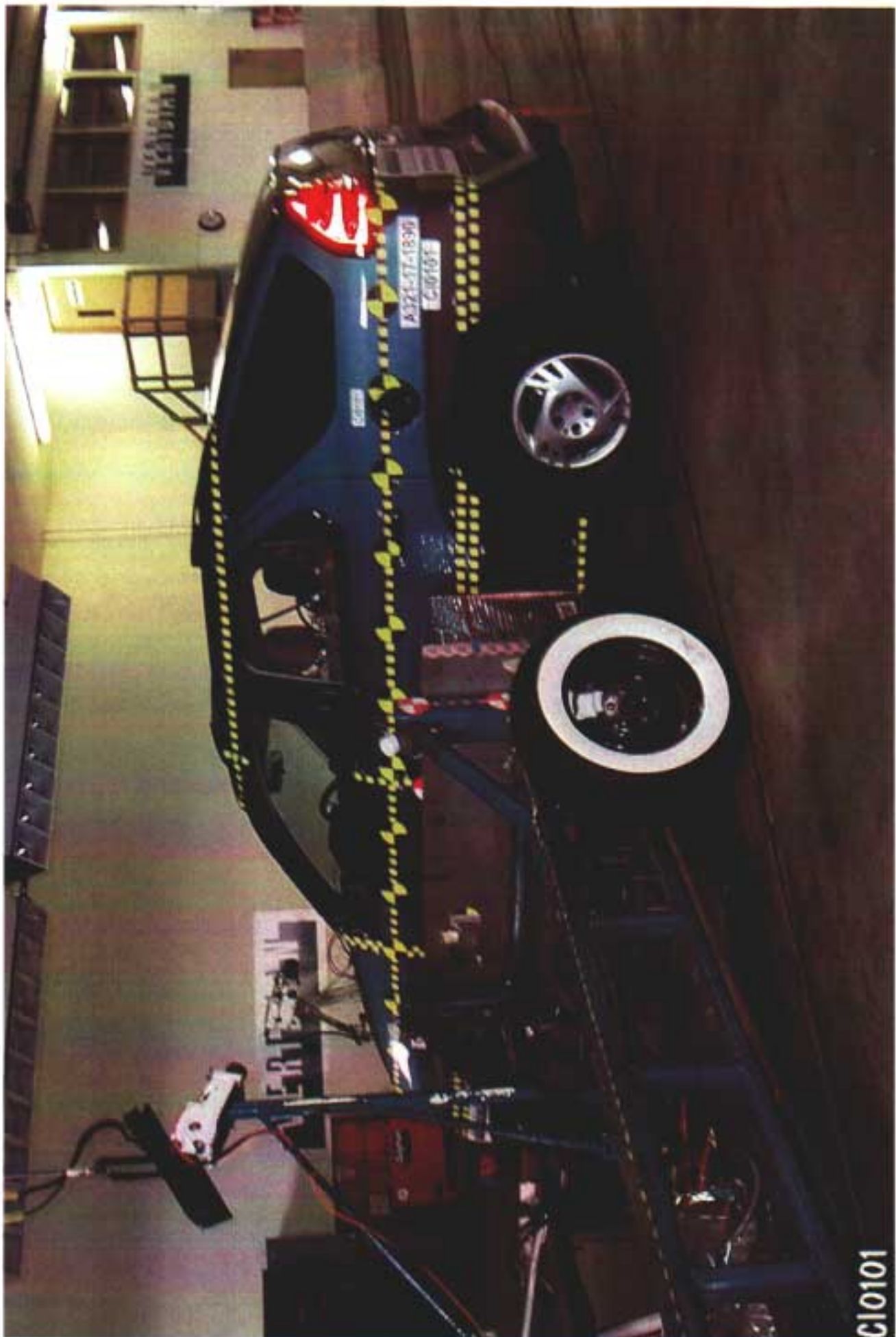


Figure A-30: PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION

C10101

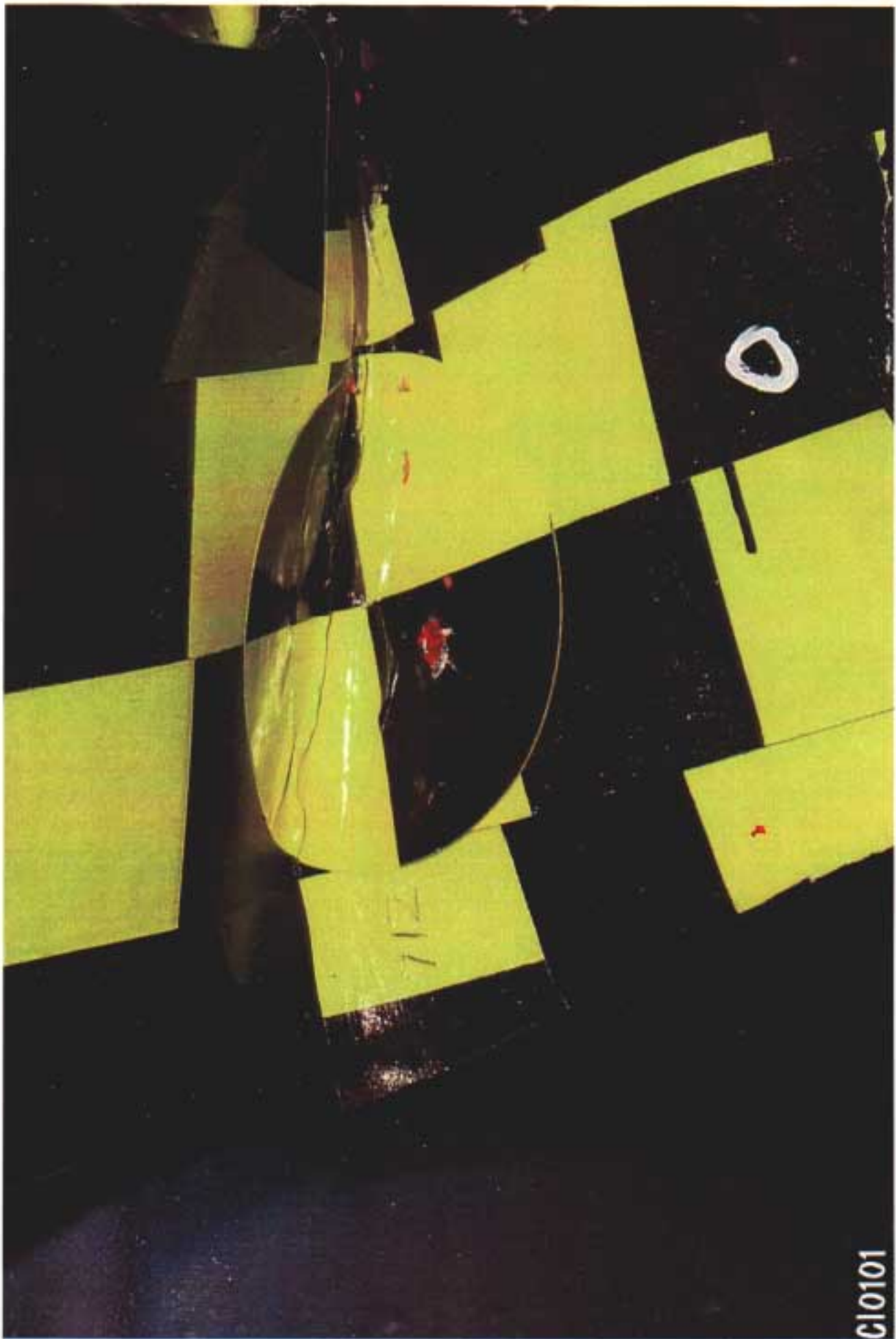


Figure A-31: POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET

CI0101



MFD BY GENERAL MOTORS DE MEXICO, S. DE R.L. DE C.V. 07/00

GVWR 2285KG(5037LB) GAWR FRT 1210KG(2667LB) GAWR RR 1075KG(2370LB)

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

3G7DA03E41S503870 TYPE: M.P.V.

MODEL: BK46

BPAS	TIRE SIZE	SPEED RTG	RIM	COLD TIRE PRESSURE
FRT	P215/70R15	S	15X6J	240KPA(35PSI)
RR	P215/70R15	S	15X6J	240KPA(35PSI)
SPA	T125/70R15	M	15X4T	420KPA(60PSI)

SEE OWNER'S MANUAL FOR MORE INFORMATION.

CI0101

Figure A-32: CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL

NOT APPLICABLE
(Tire information was located on the certification label)

Figure A-33: CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL

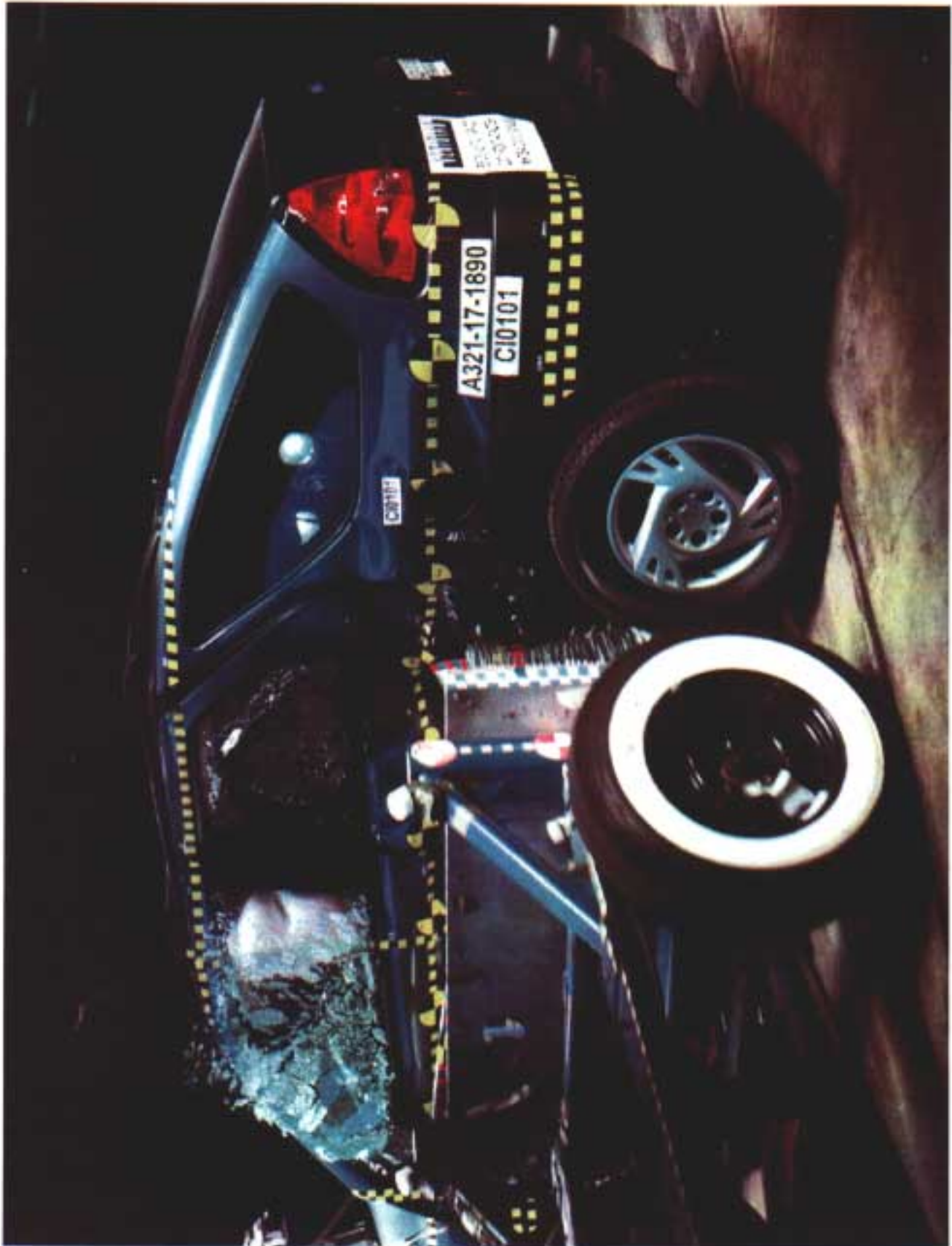


Figure A-34: IMPACT PHOTO



Figure A-35: ROLLOVER 90 DEGREES

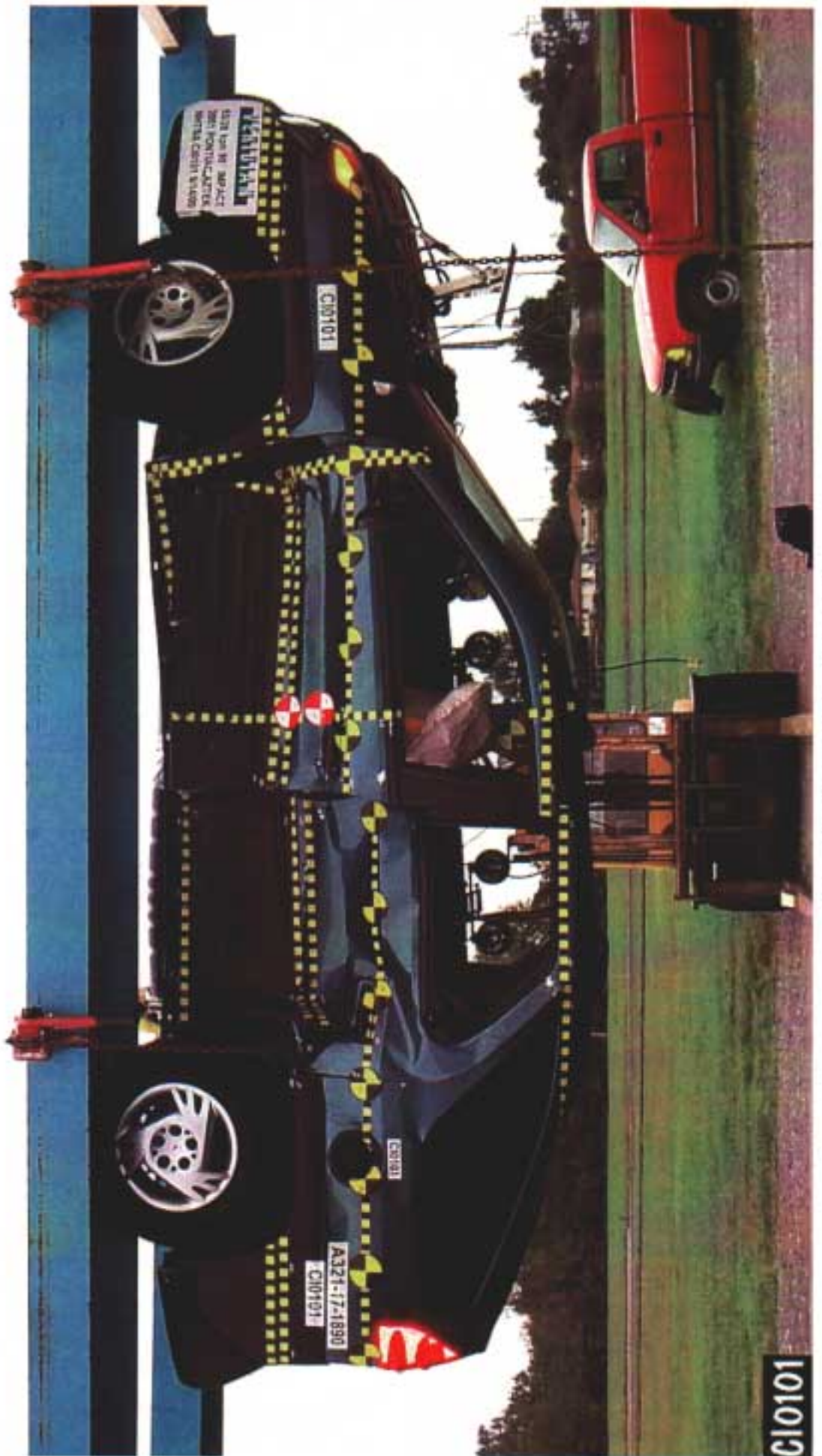


Figure A-36: ROLLOVER 180 DEGREES



Figure A-37: ROLLOVER 270 DEGREES



Figure A-38: ROLLOVER 360 DEGREES



Figure A-39: POST-TEST CLOSE-UP VIEW OF DRIVER DOOR

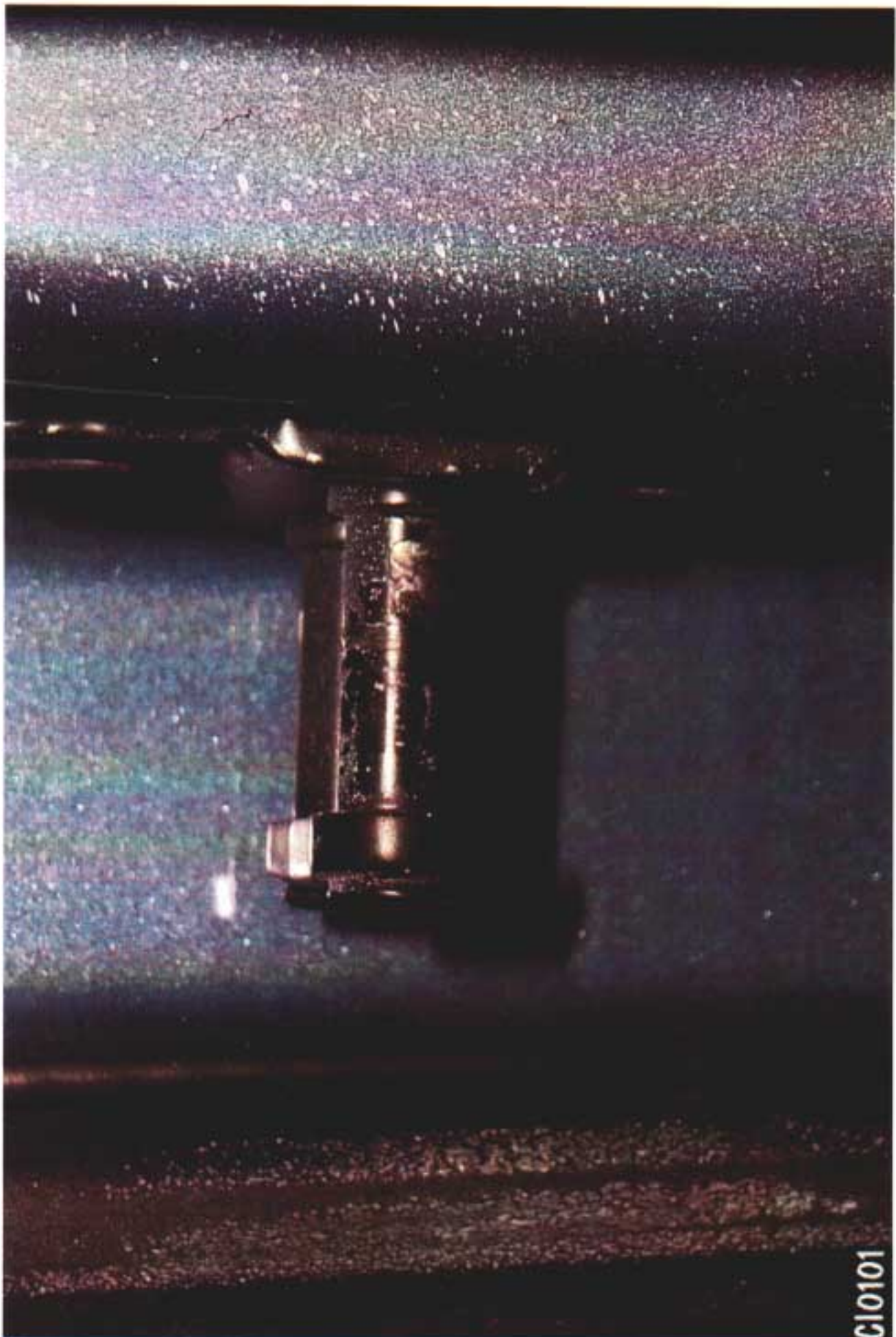


Figure A-40: POST-TEST CLOSE-UP VIEW OF DRIVER DOOR STRIKER

C10101

APPENDIX B

VEHICLE, MDB AND SID RESPONSE DATA

TABLE OF DATA PLOTS

**DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 1000
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 VS TIME	B- 12
8	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 13
9	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 14
10	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 15
11	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 16
12	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 17
13	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 18
14	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 19
15	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 20
16	PASSENGER HEAD (X) VELOCITY VS TIME	B- 21
17	PASSENGER HEAD (Y) ACCELERATION VS TIME	B- 22
18	PASSENGER HEAD (Y) VELOCITY VS TIME	B- 23
19	PASSENGER HEAD (Z) ACCELERATION VS TIME	B- 24
20	PASSENGER HEAD (Z) VELOCITY VS TIME	B- 25
21	PASSENGER HEAD RESULTANT VS TIME	B- 26
22	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 27
23	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 28
24	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 29
25	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 30
26	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 31
27	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 32
28	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 33
29	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 34
30	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 35

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

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
31	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 36
32	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 37
33	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 38
34	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 39
35	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 40
36	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 41
37	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 42
38	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 43

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>
39	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 44
40	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 45
41	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 46
42	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 47
43	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 48
44	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 49
45	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 50
46	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 51
47	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 52
48	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 53
49	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 54
50	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 55
51	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 56
52	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 57
53	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 58
54	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 59
55	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 60
56	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 61
57	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 62
58	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 63
59	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 64
60	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 65
61	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 66
62	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 67
63	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 68
64	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 69
65	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 70
66	LOWER B-POST (Y) ACCELERATION VS TIME	B- 71
67	LOWER B-POST (Y) VELOCITY VS TIME	B- 72
68	UPPER B-POST (Y) ACCELERATION VS TIME	B- 73
69	UPPER B-POST (Y) VELOCITY VS TIME	B- 74
70	LOWER A-POST (Y) ACCELERATION VS TIME	B- 75
71	LOWER A-POST (Y) VELOCITY VS TIME	B- 76
72	UPPER A-POST (Y) ACCELERATION VS TIME	B- 77
73	UPPER A-POST (Y) VELOCITY VS TIME	B- 78
74	FRONT SEAT TRACK (Y) ACCELERATION VS TIME	B- 79
75	FRONT SEAT TRACK (Y) VELOCITY VS TIME	B- 80
76	REAR SEAT TRACK (Y) ACCELERATION VS TIME	B- 81
77	REAR SEAT TRACK (Y) VELOCITY VS TIME	B- 82

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>
78	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 83
79	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 84
80	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 85
81	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 86
82	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 87
83	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 88
84	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 89

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>
85	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 90
86	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 91
87	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 92
88	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 93
89	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 94
90	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 95
91	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 96
92	MDB REAR (X) ACCELERATION VS TIME	B- 97
93	MDB REAR (X) VELOCITY VS TIME	B- 98
94	MDB REAR (Y) ACCELERATION VS TIME	B- 99
95	MDB REAR (Y) VELOCITY VS TIME	B- 100

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

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
96	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 101
97	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 102
98	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 103
99	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 104
100	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 105
101	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 106
102	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 107
103	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 108
104	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 109
105	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 110
106	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 111
107	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 112
108	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 113
109	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 114
110	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 115
111	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 116

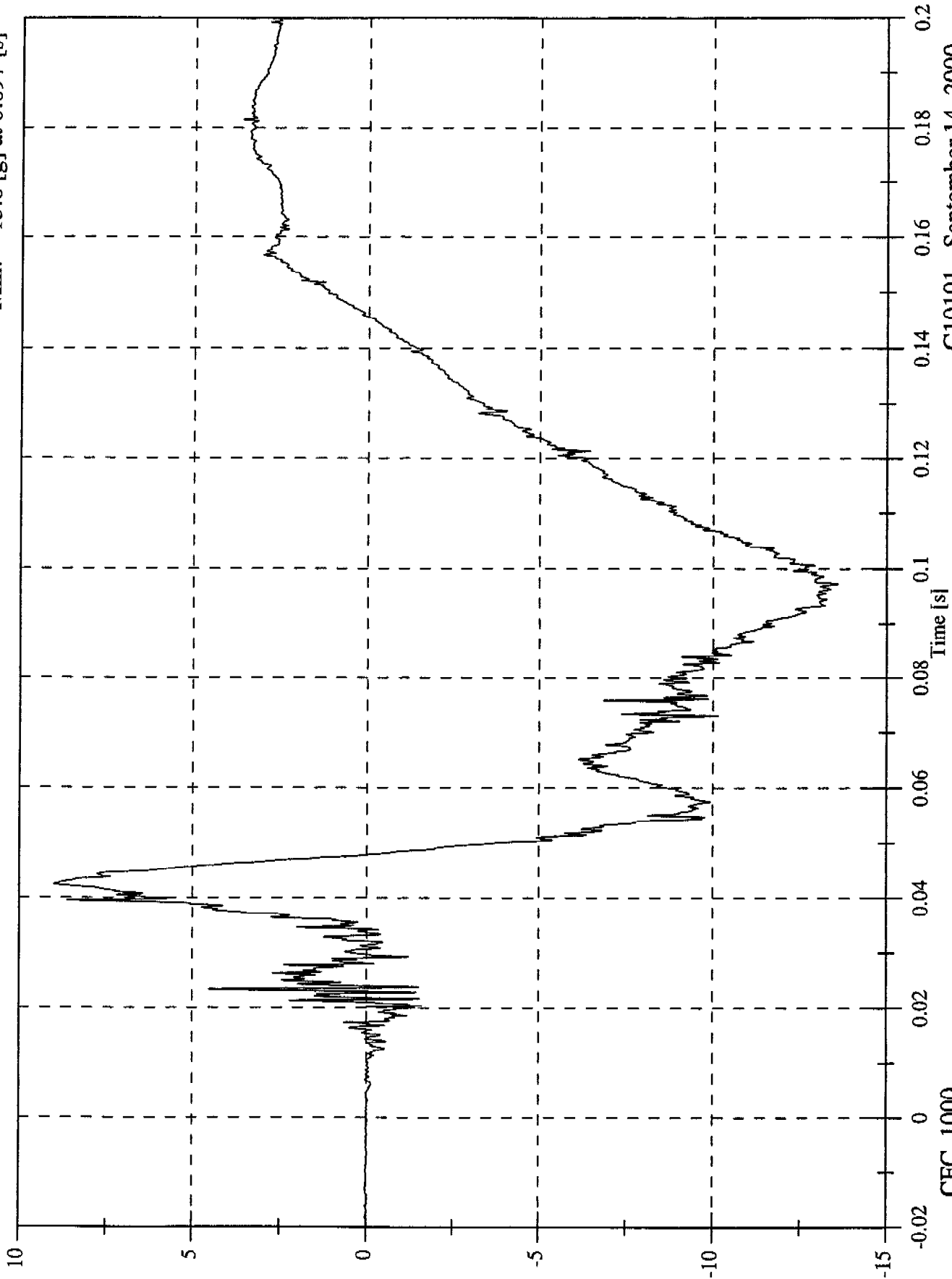
DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
 ACCELERATION DATA - FIR FILTERED

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

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 9.0 [g] at 0.042 [s]
Min: -13.6 [g] at 0.097 [s]

P1 Head x



CFC_1000

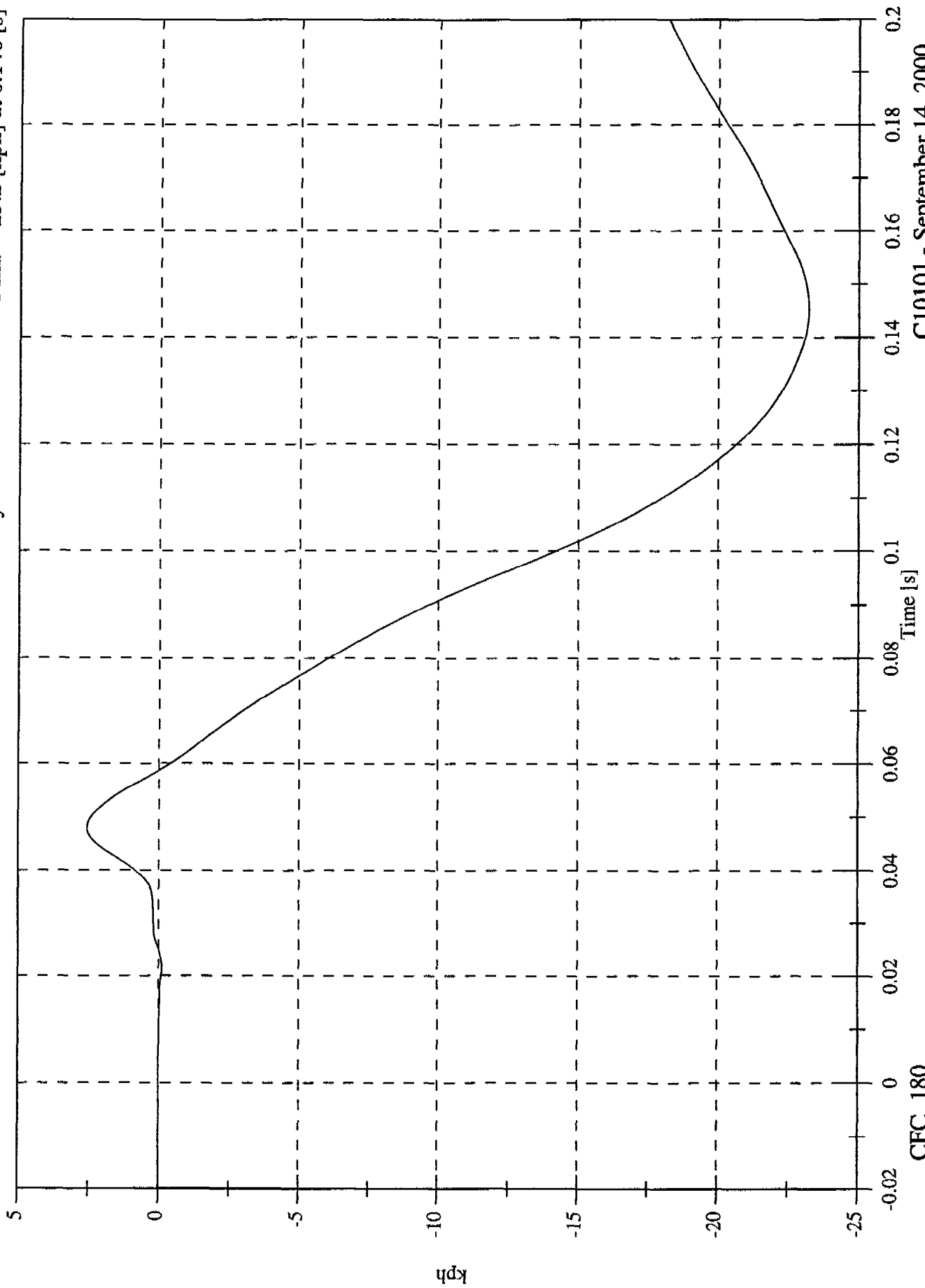
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Head x Velocity

Max: 2.5 [kph] at 0.048 [s]

Min: -23.2 [kph] at 0.146 [s]



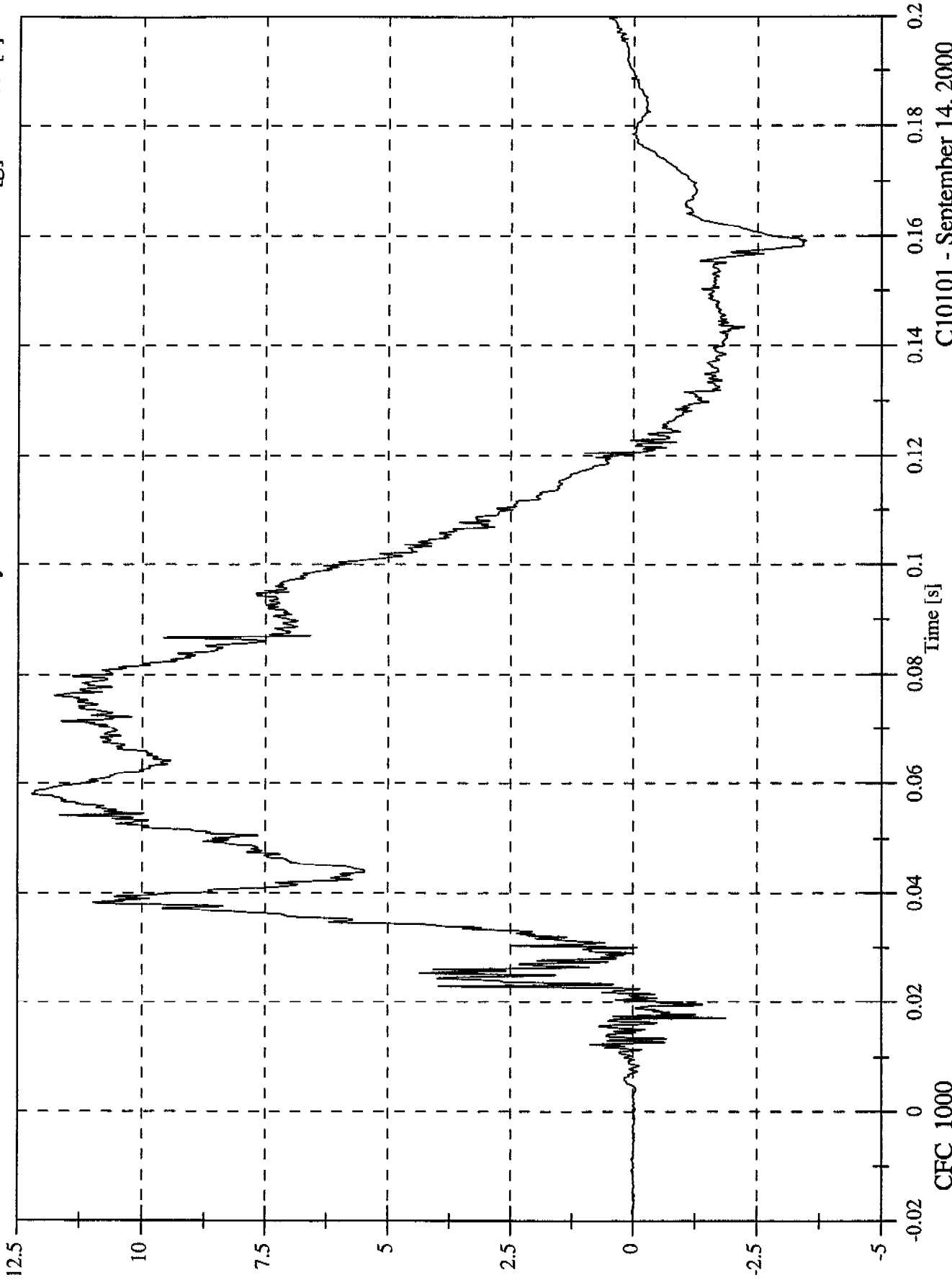
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 12.2 [g] at 0.058 [s]
Min: -3.5 [g] at 0.159 [s]

P1 Head y



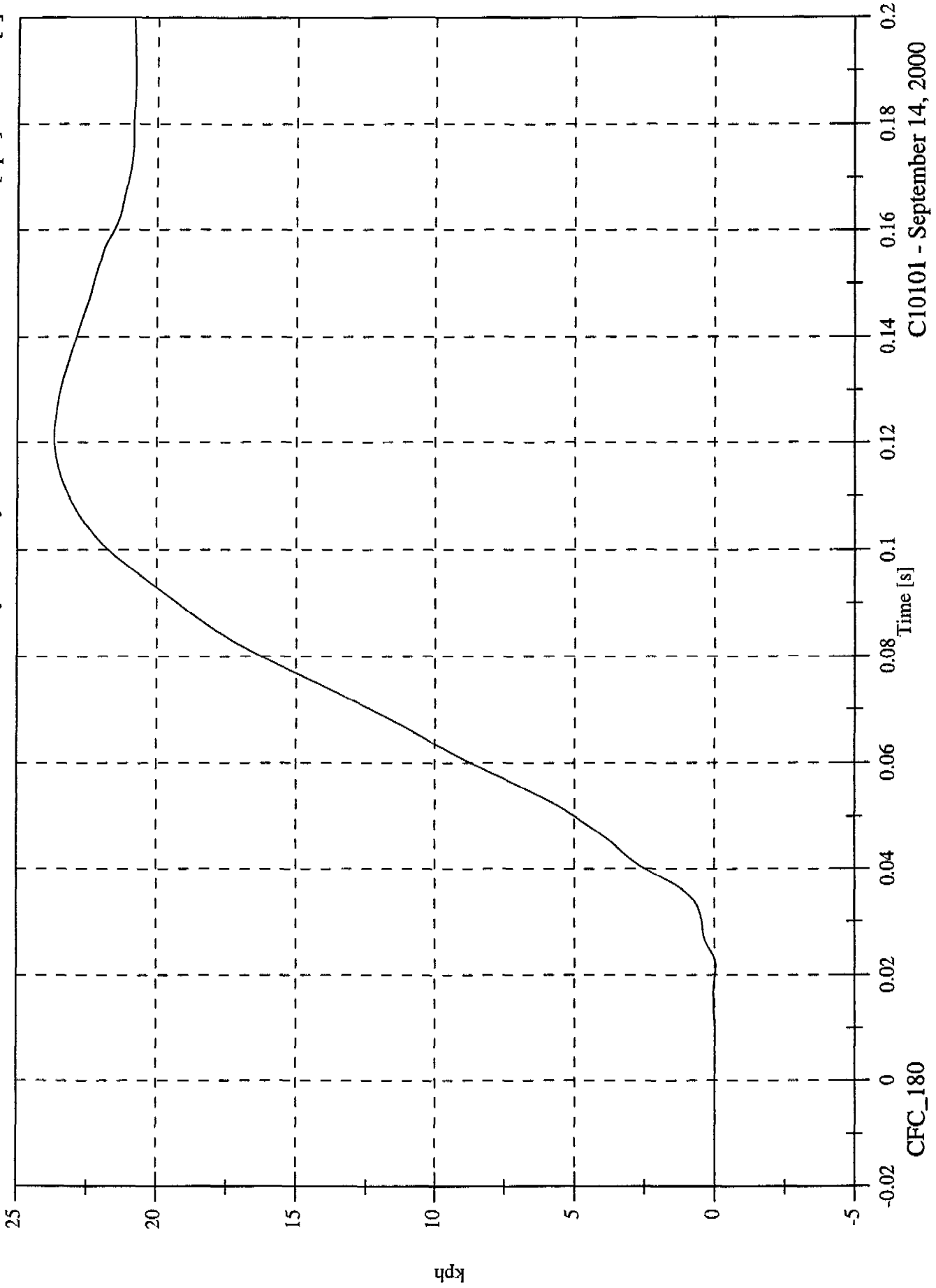
CFC_1000

C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 23.7 [kph] at 0.121 [s]
Min: -0.0 [kph] at 0.021 [s]

P1 Head y Velocity

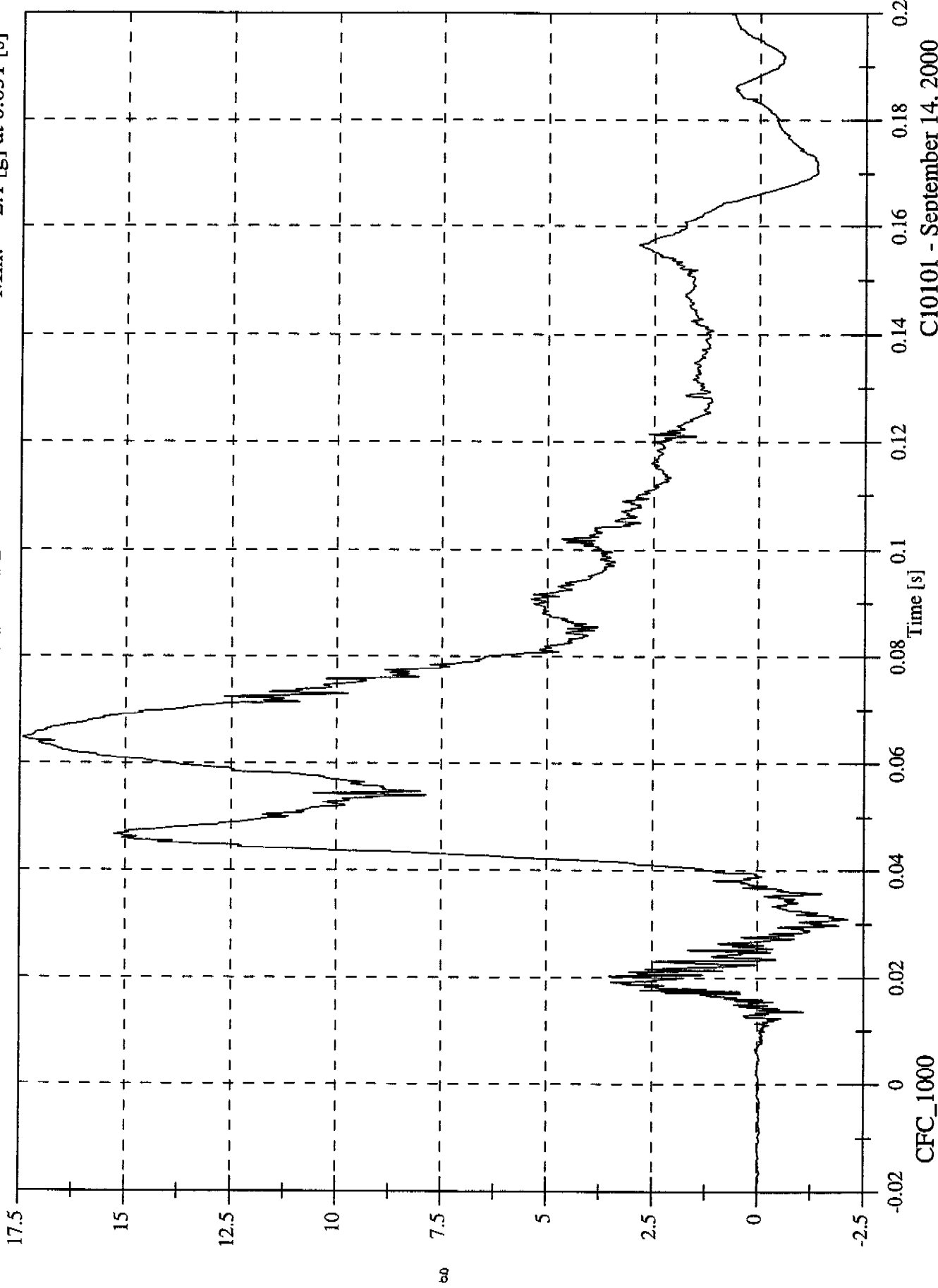


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 17.4 [g] at 0.065 [s]
Min: -2.1 [g] at 0.031 [s]

PI Head z



C10101 - September 14, 2000

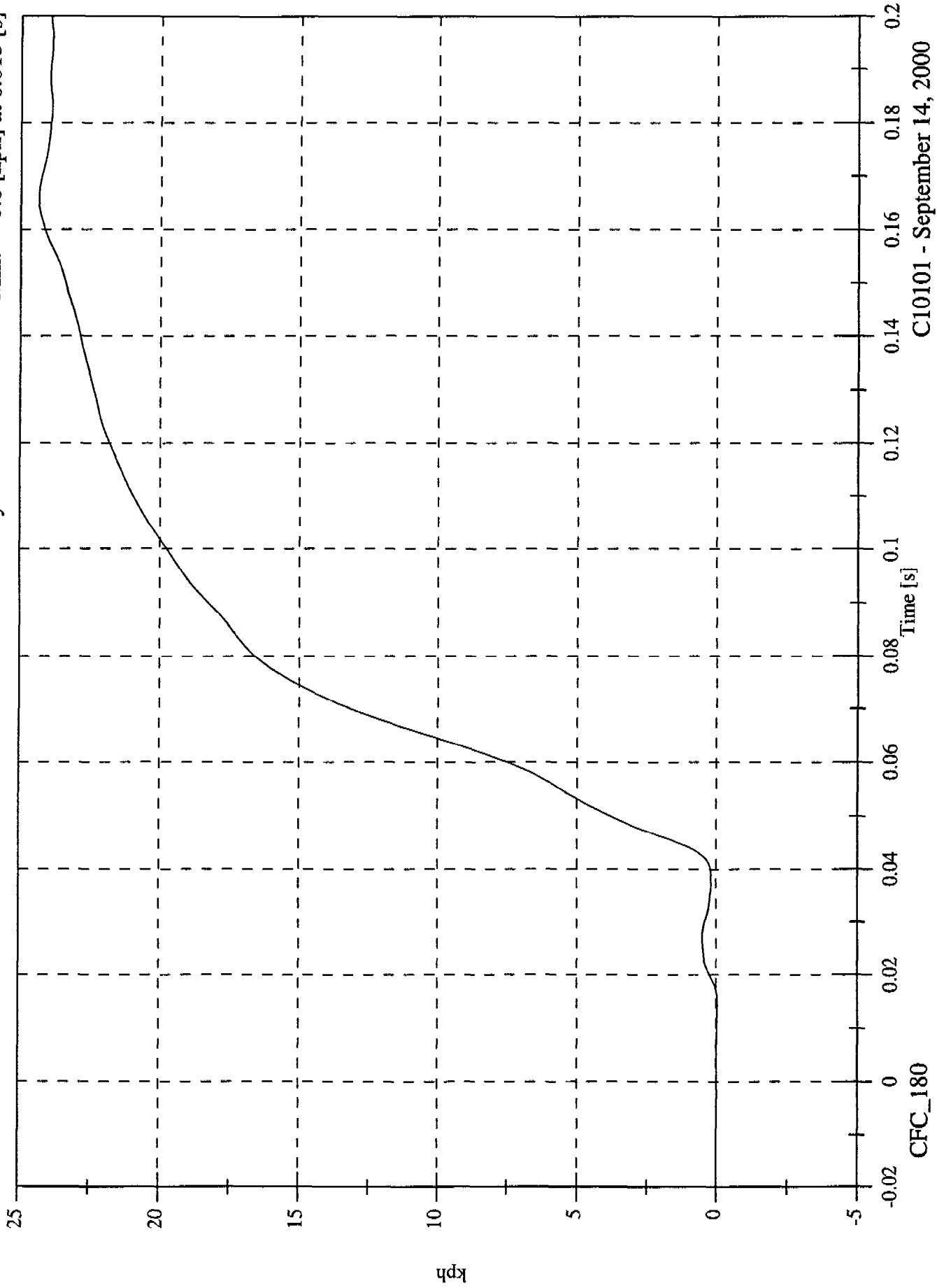
CFC_1000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Head z Velocity

Max: 24.4 [kph] at 0.166 [s]

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



C10101 - September 14, 2000

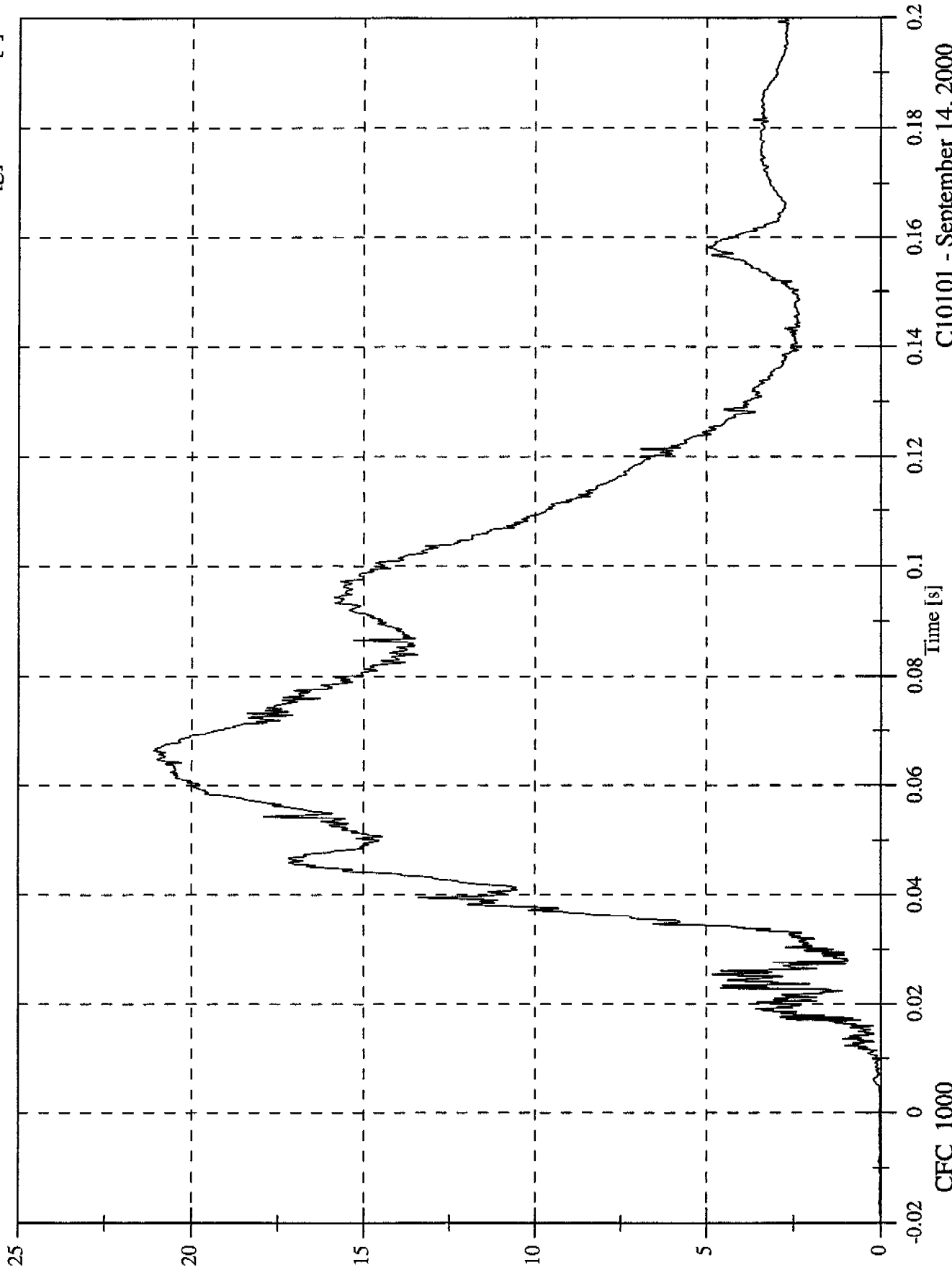
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Head Resultant

Max: 21.1 [g] at 0.066 [s]

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



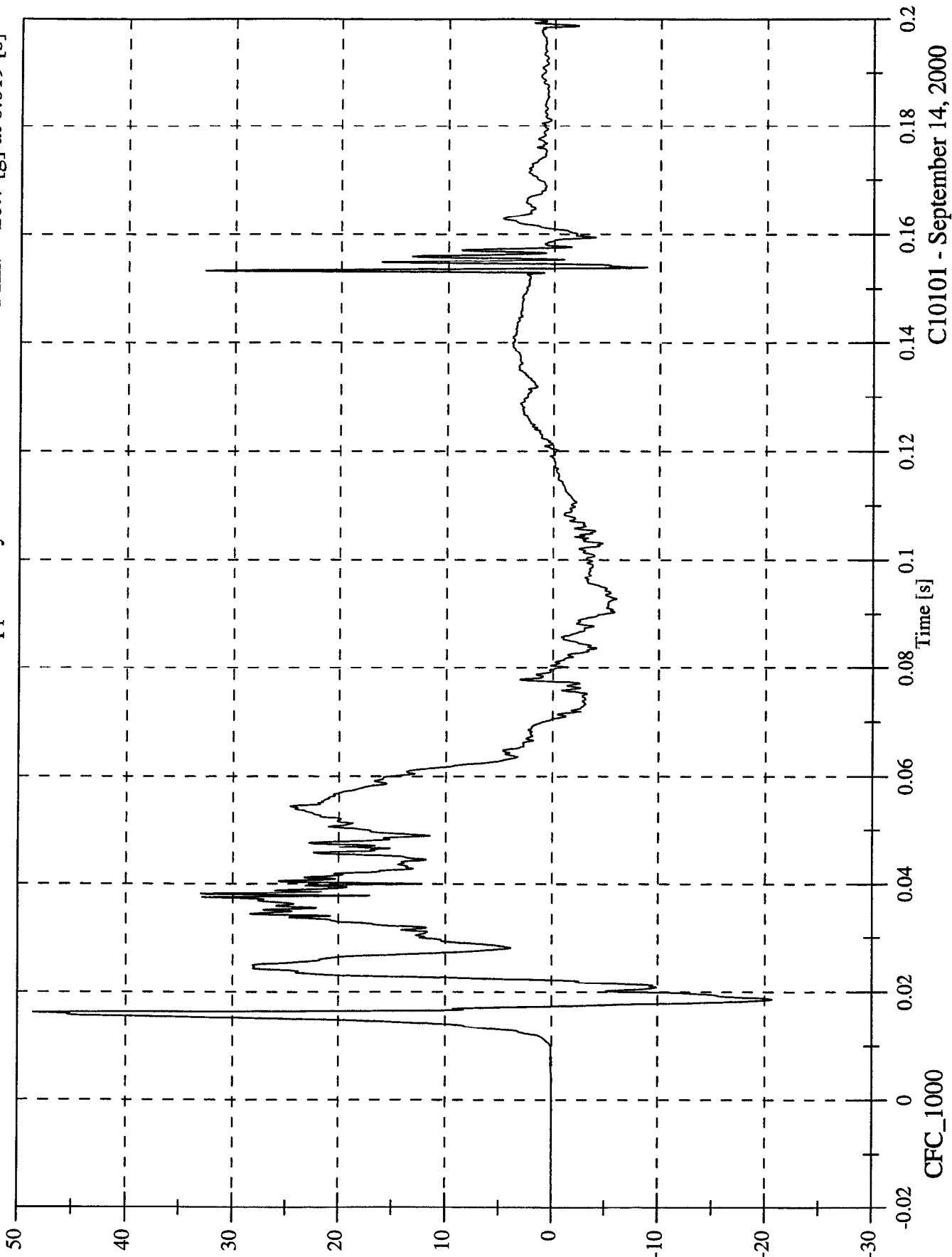
CFC_1000

C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Upper Rib y

Max: 48.6 [g] at 0.016 [s]
Min: -20.7 [g] at 0.019 [s]



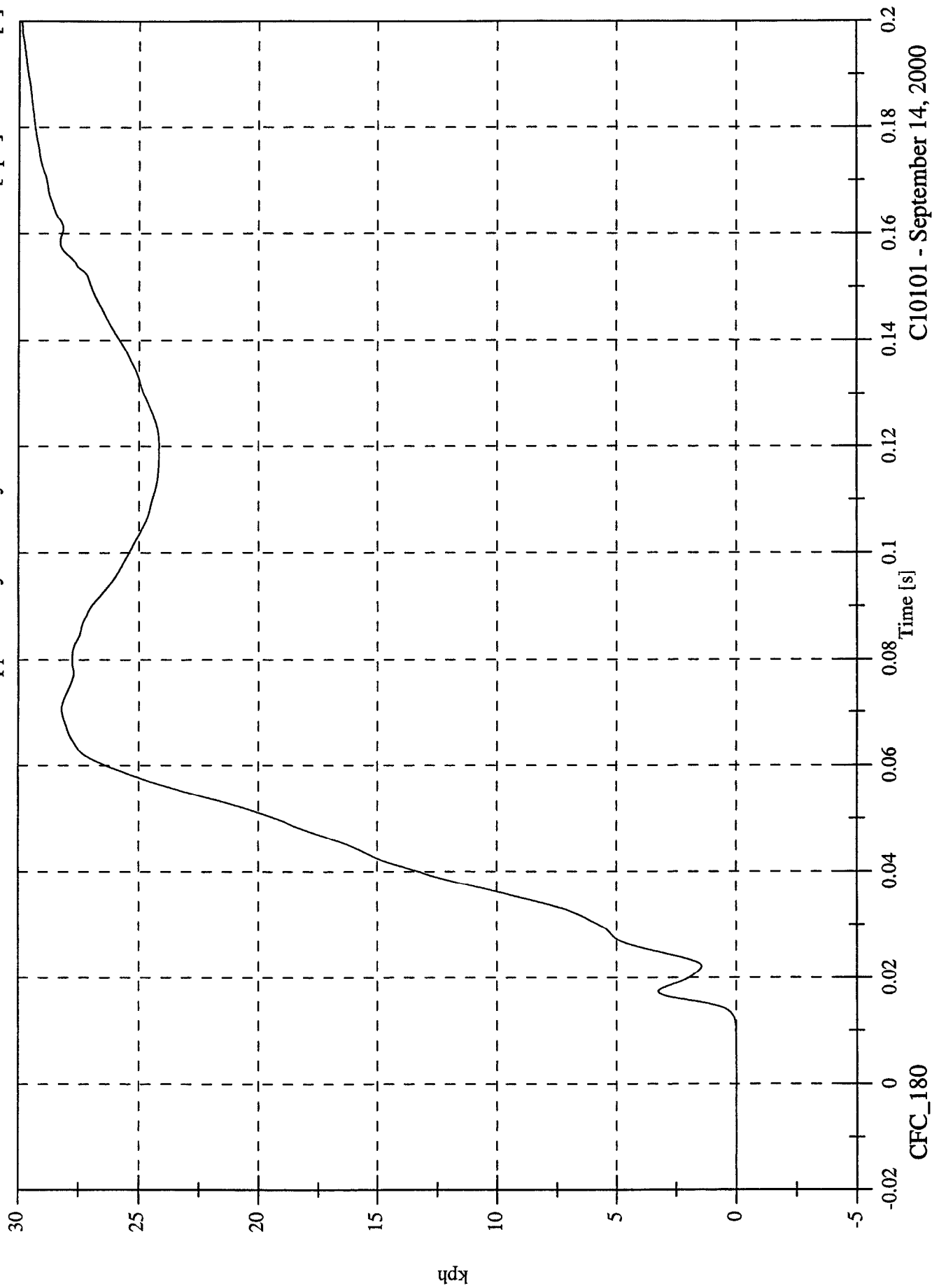
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Upper Rib y Velocity

Max: 29.9 [kph] at 0.200 [s]

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



CFC_180

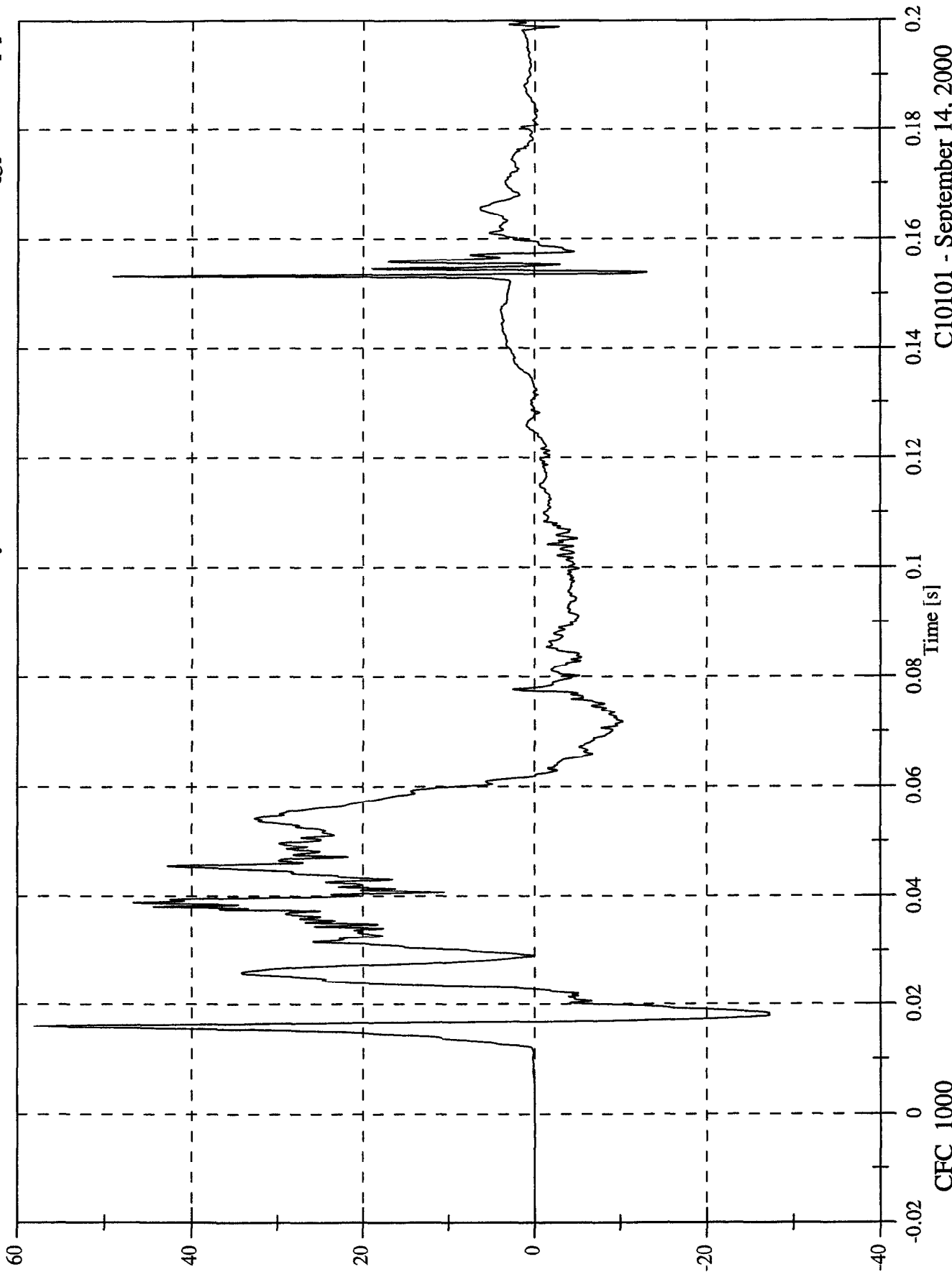
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Rib y

Max: 58.0 [g] at 0.016 [s]

Min: -27.3 [g] at 0.018 [s]



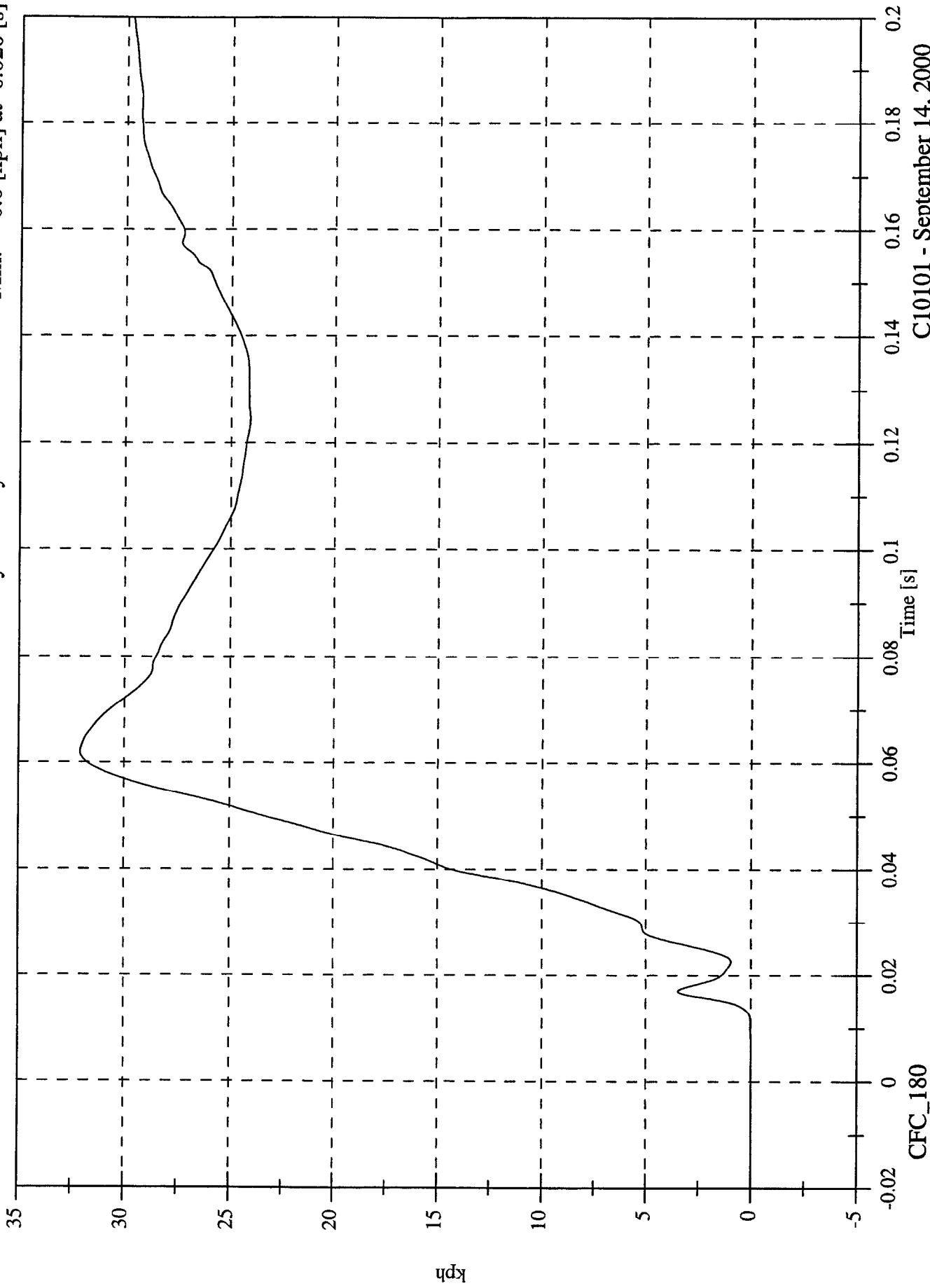
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Rib y Velocity

Max: 32.1 [kph] at 0.062 [s]

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



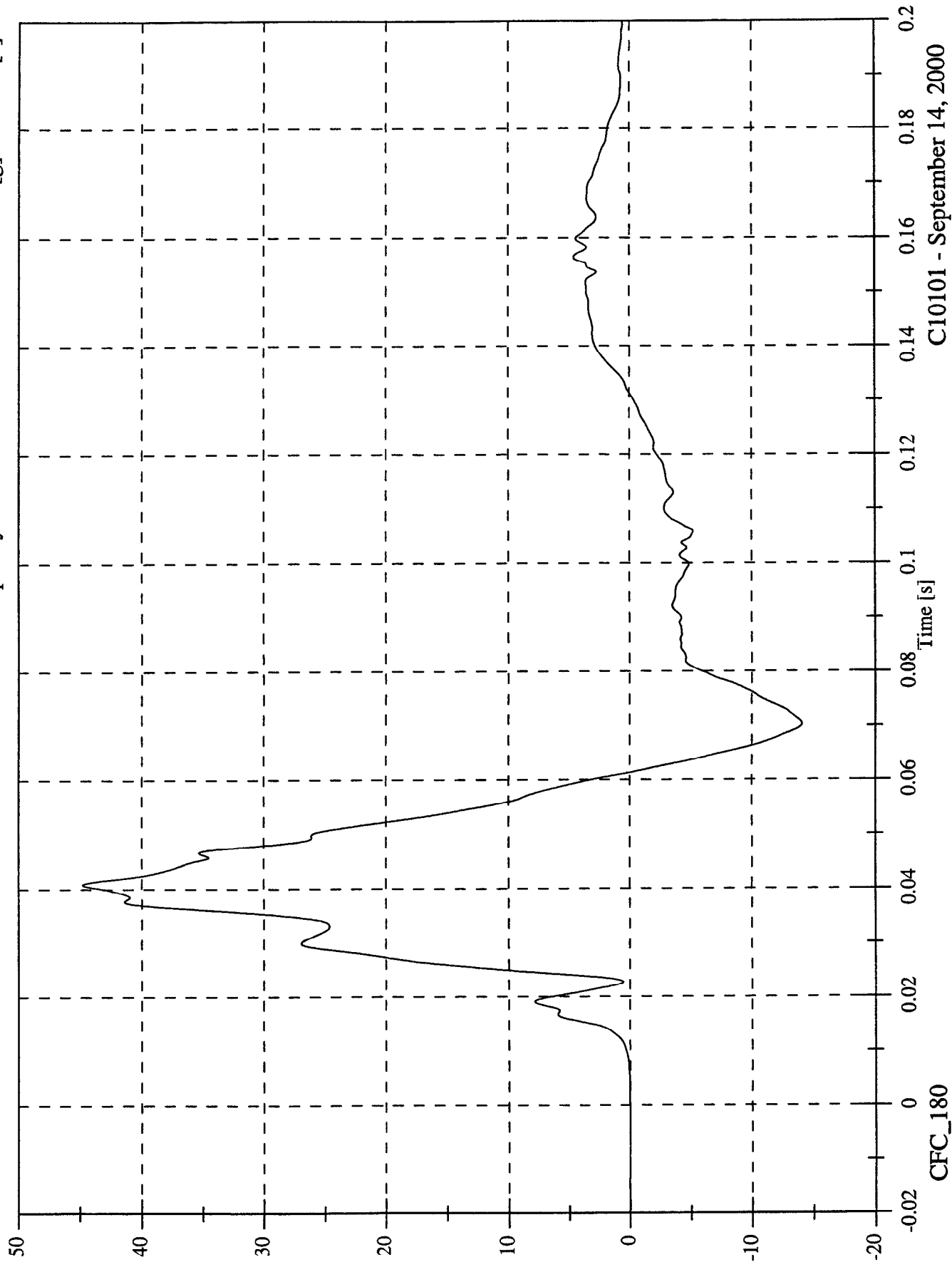
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Spine y

Max: 44.8 [g] at 0.041 [s]
Min: -14.1 [g] at 0.070 [s]



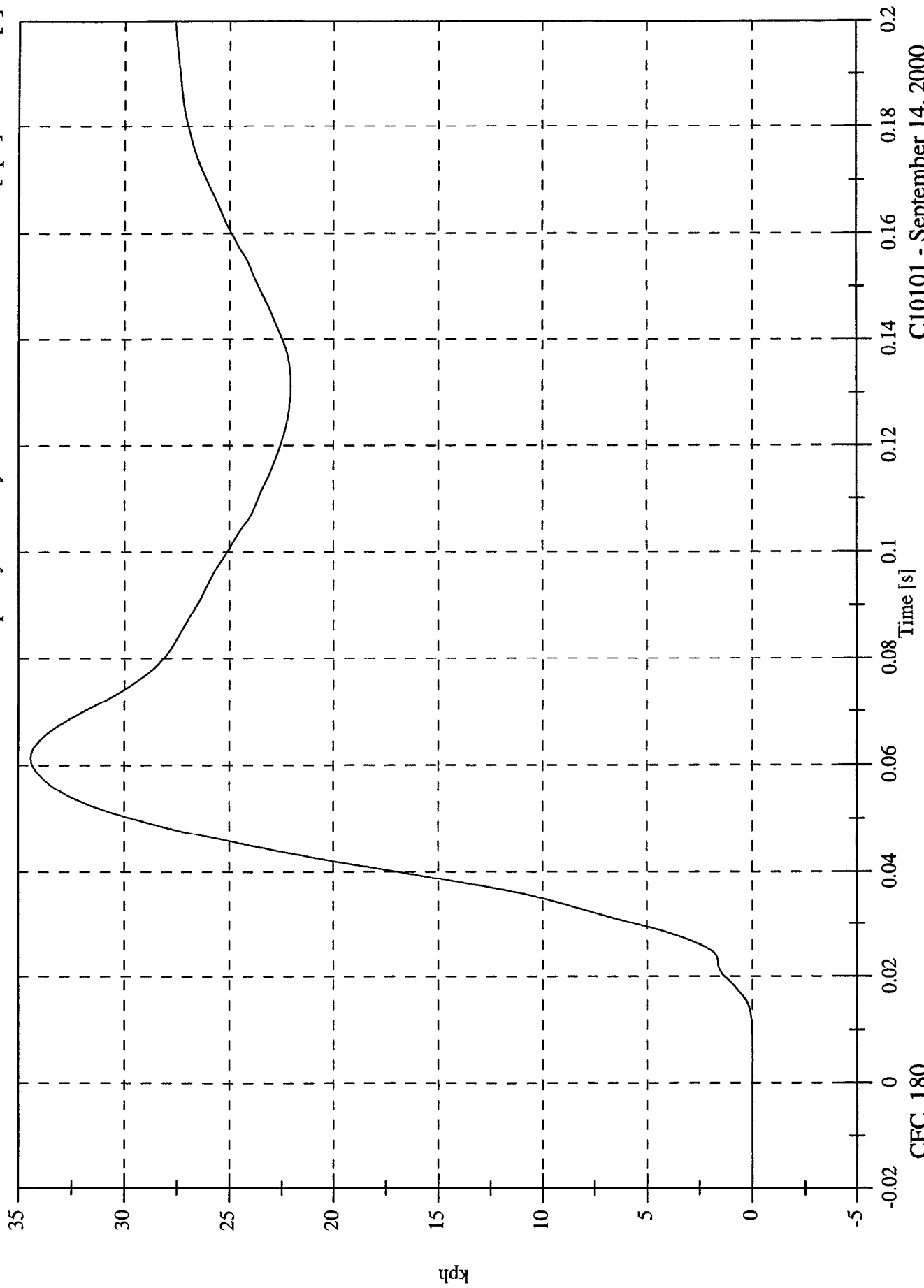
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 34.4 [kph] at 0.061 [s]

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

P1 Lower Spine y Velocity



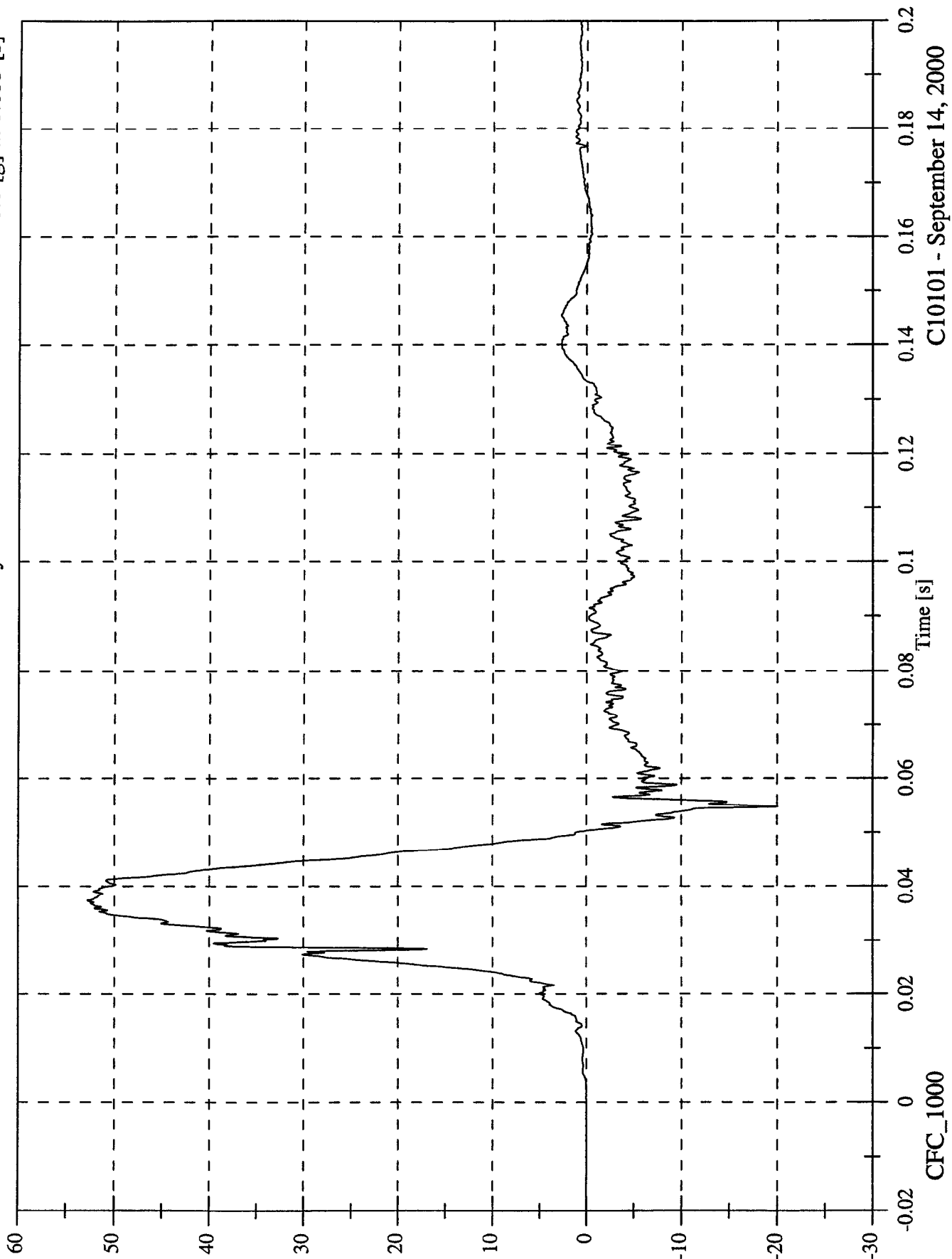
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Pelvic y

Max: 52.8 [g] at 0.037 [s]
Min: -20.0 [g] at 0.055 [s]



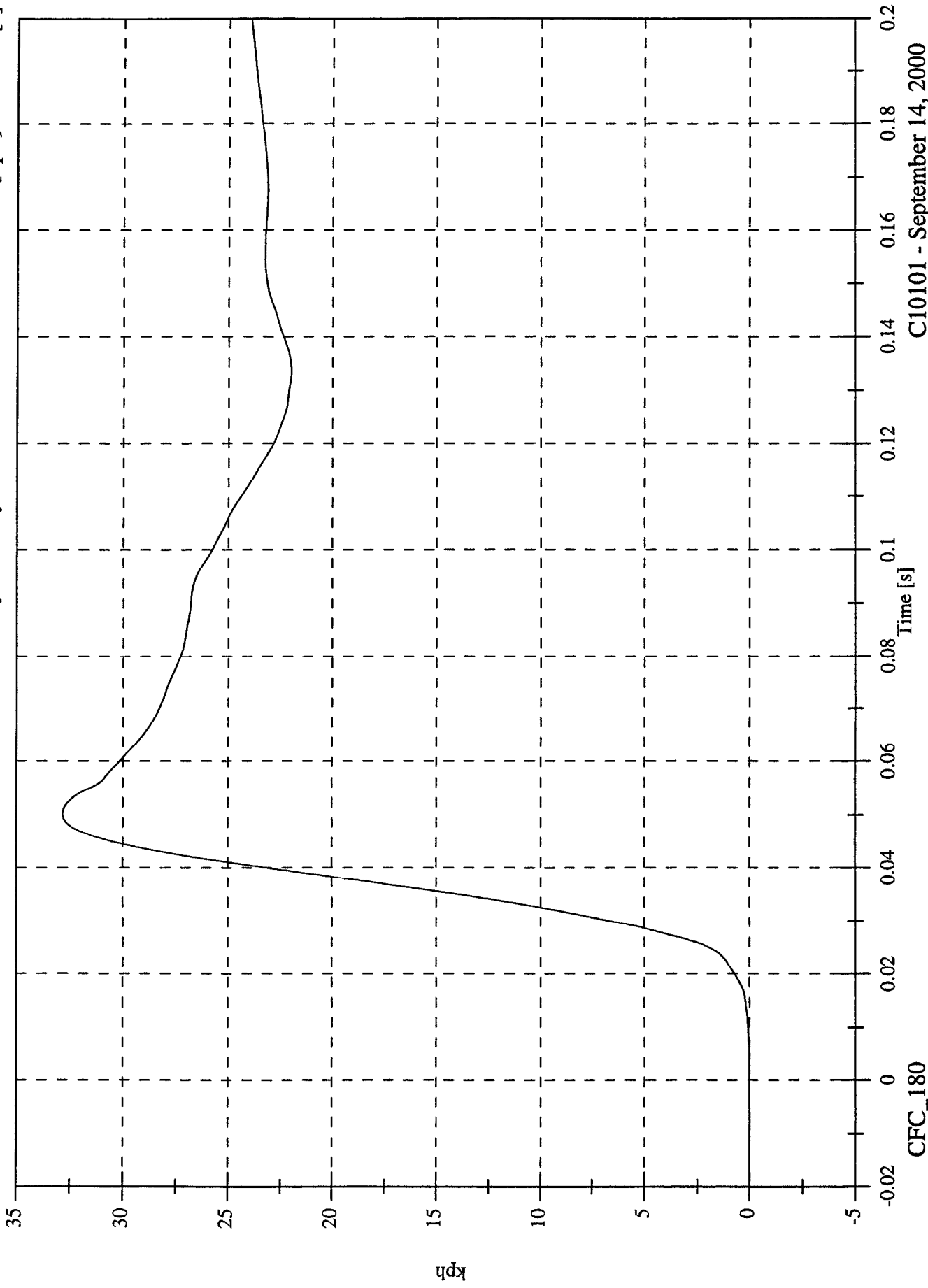
CI10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Pelvic Velocity

Max: 32.8 [kph] at 0.050 [s]

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



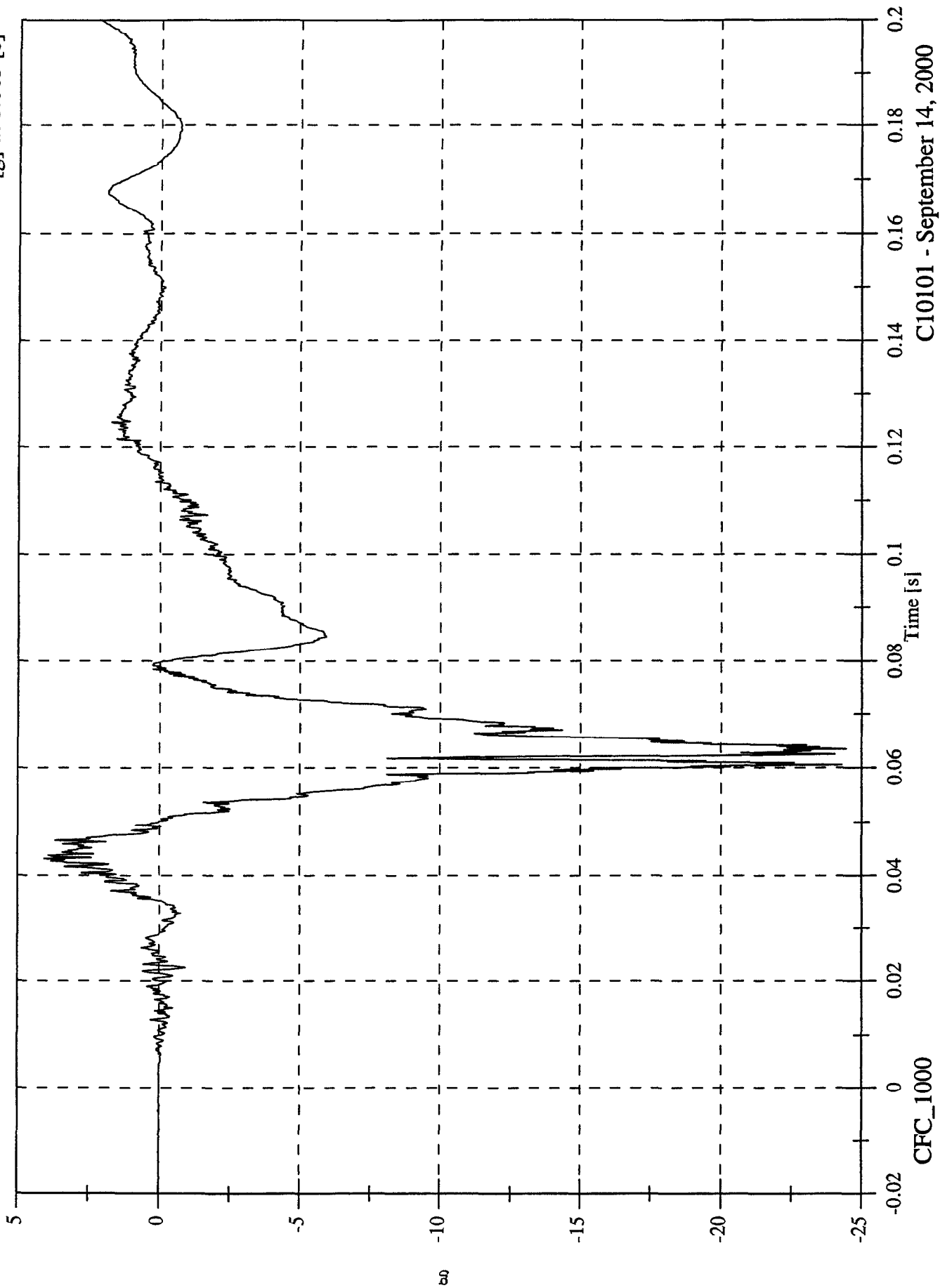
CFC_180

C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Head x

Max: 4.1 [g] at 0.043 [s]
Min: -24.4 [g] at 0.063 [s]

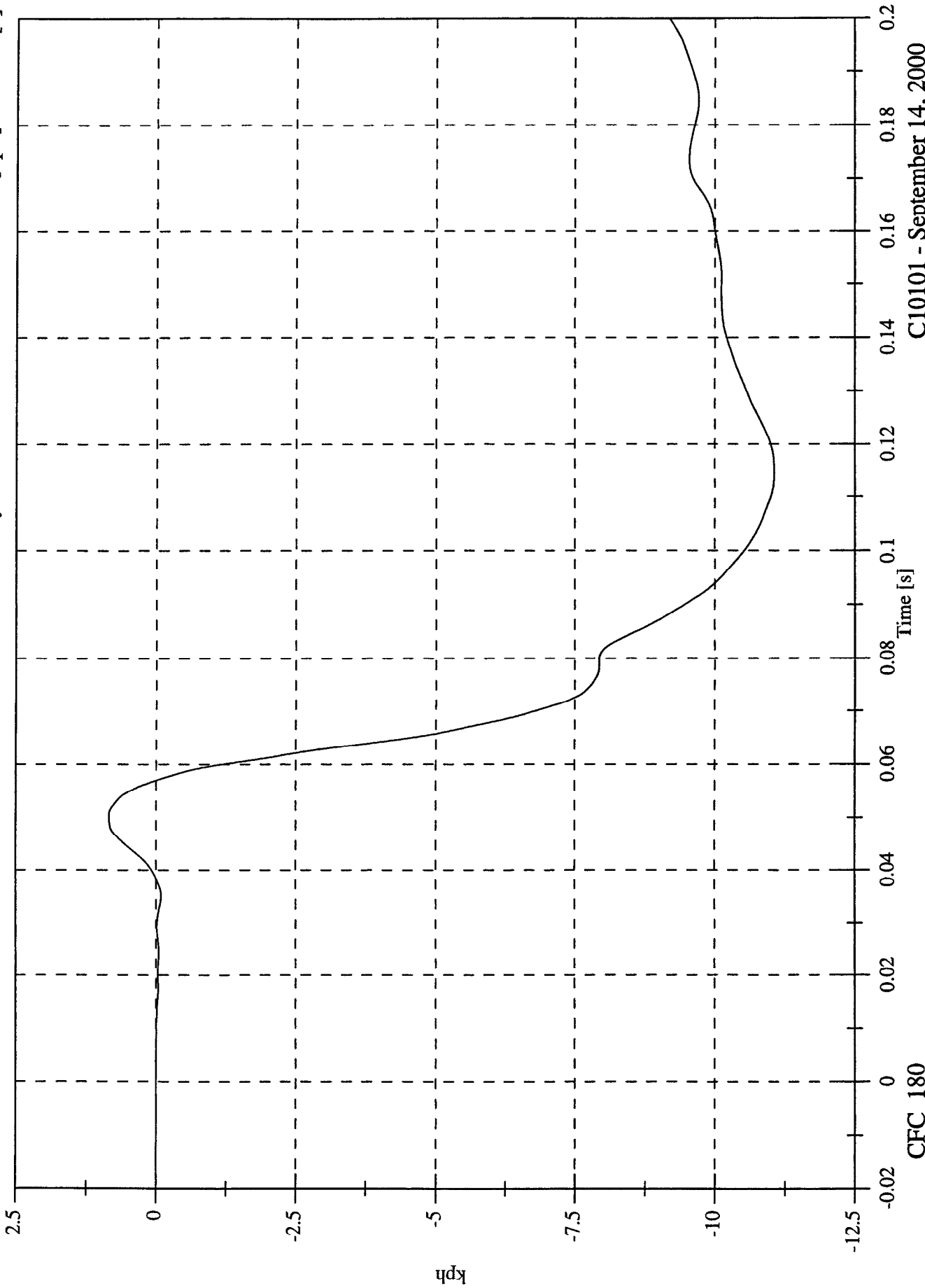


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Head x Velocity

Max: 0.8 [kph] at 0.050 [s]
Min: -11.1 [kph] at 0.114 [s]

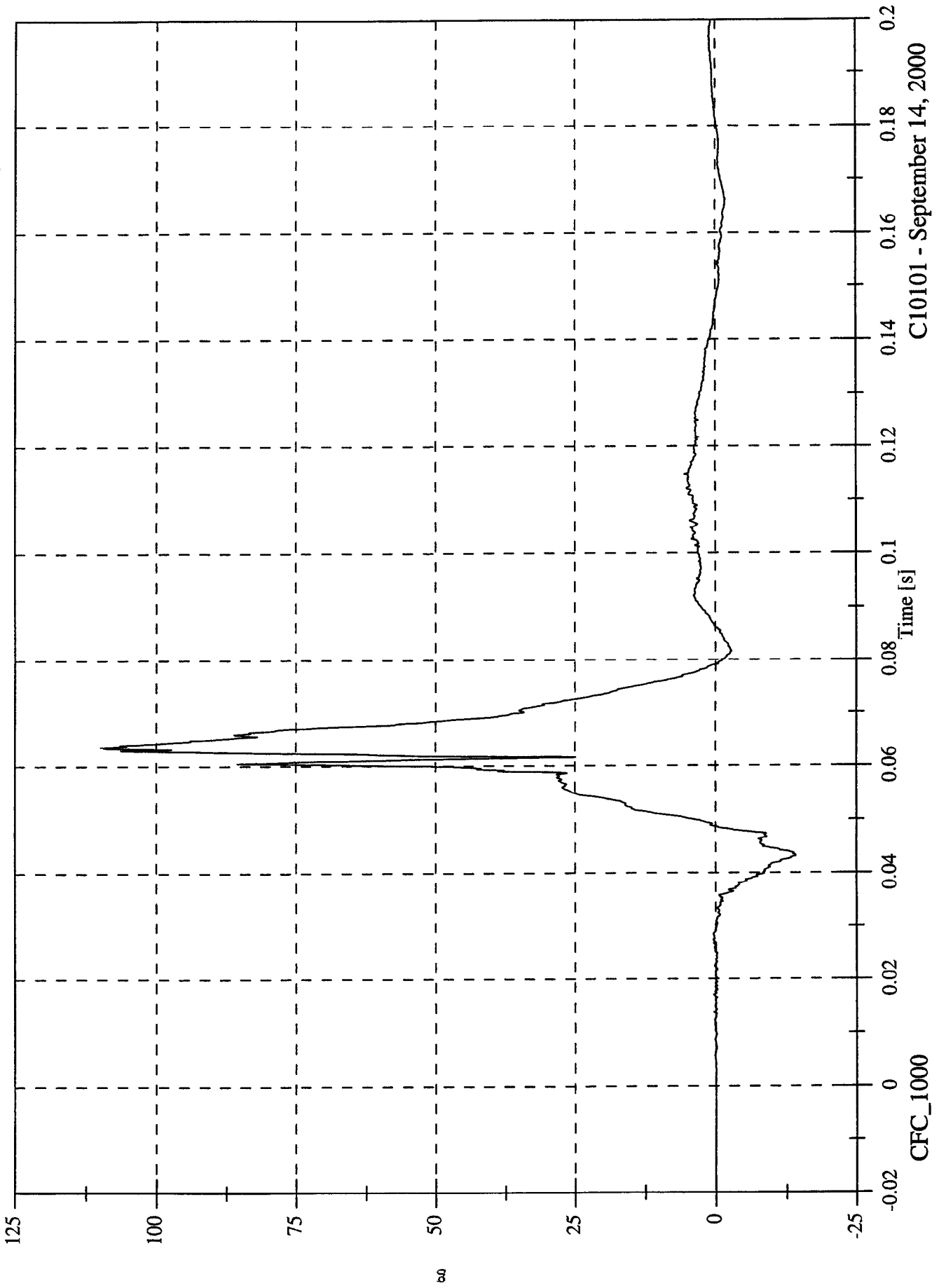


C10101 - September 14, 2000

CFC_180

Max: 109.9 [g] at 0.064 [s]
Min: -14.2 [g] at 0.043 [s]

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek
P4 Head y



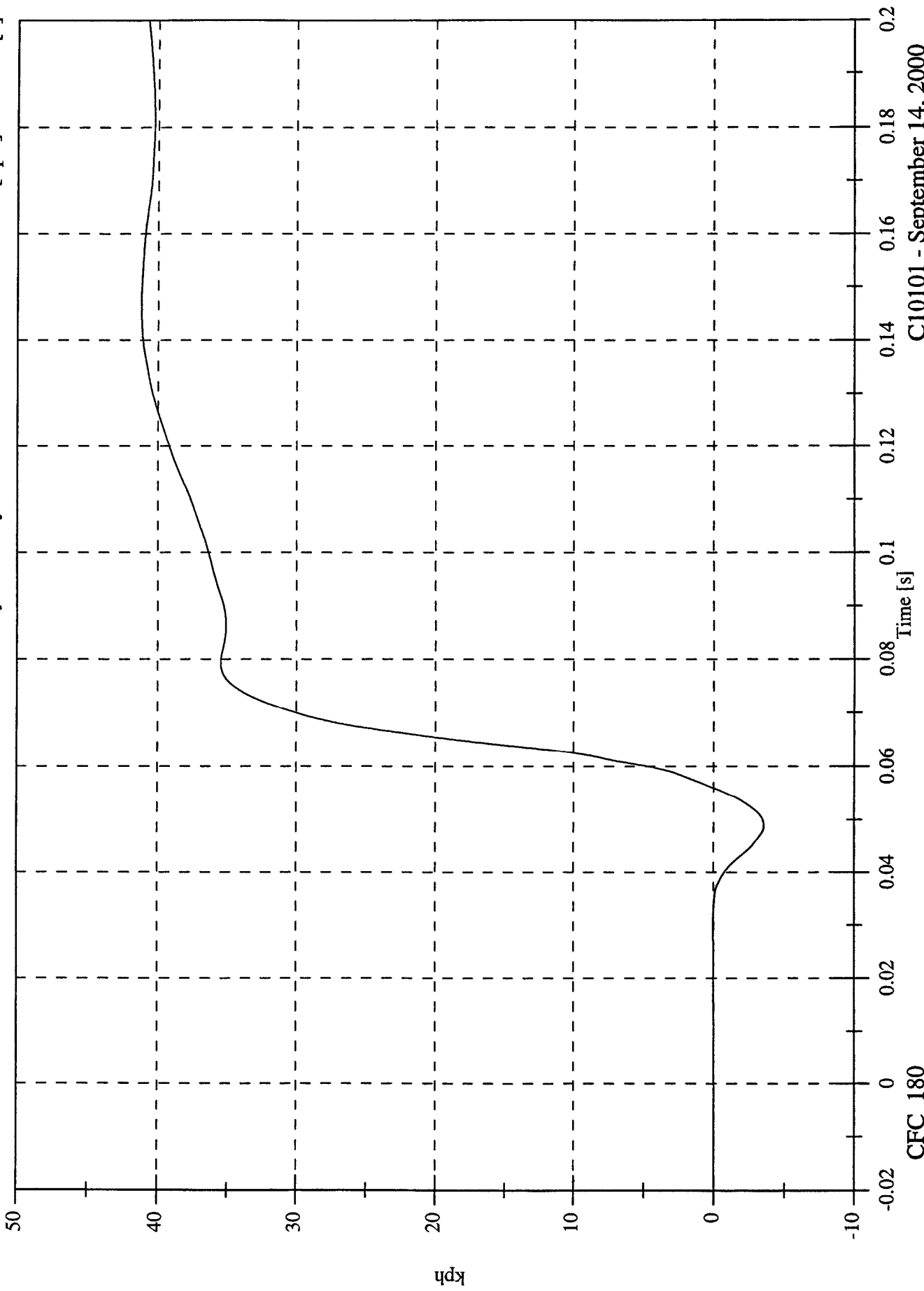
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Head y Velocity

Max: 41.2 [kph] at 0.147 [s]

Min: -3.6 [kph] at 0.049 [s]



CFC_180

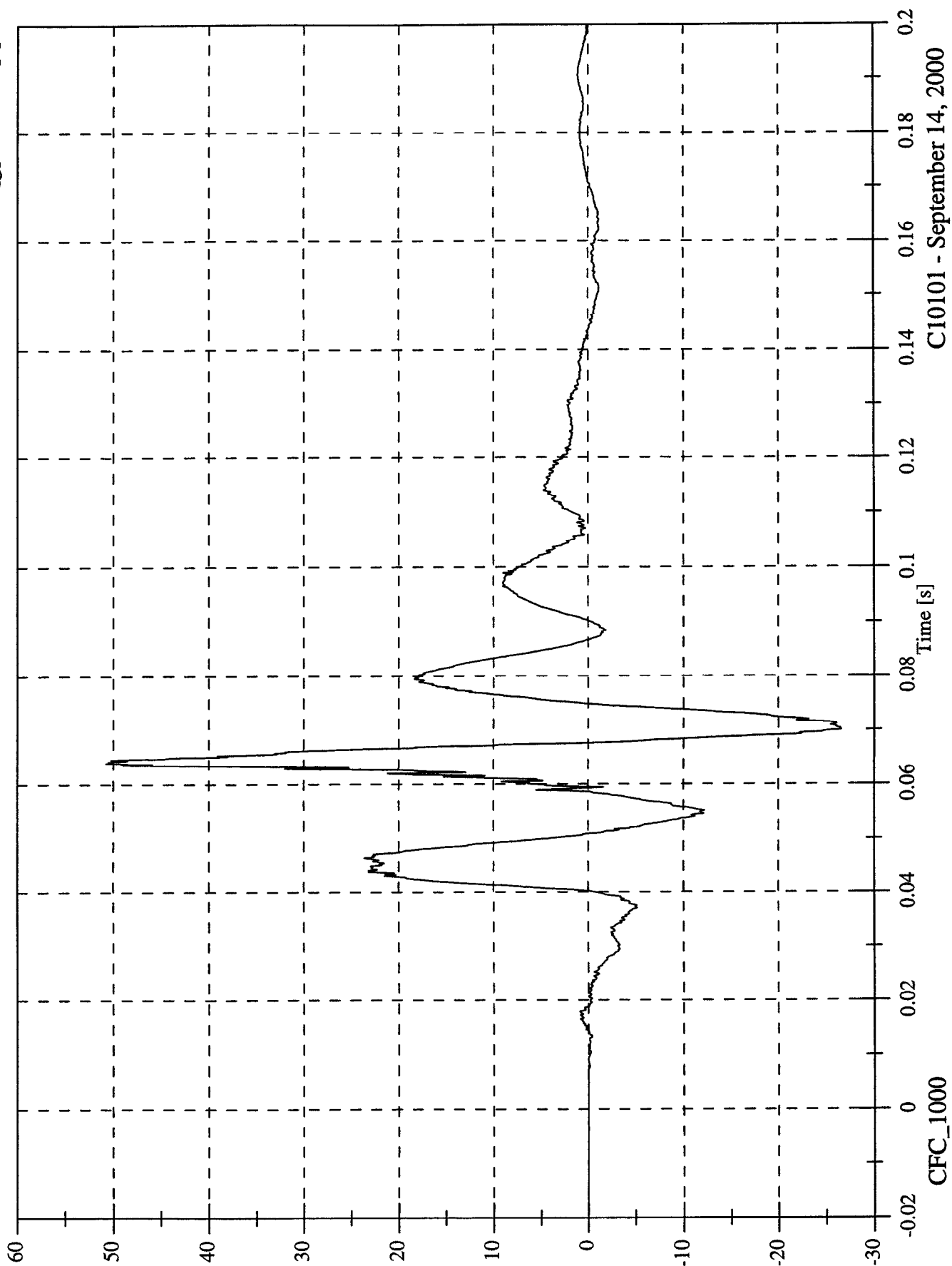
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 50.7 [g] at 0.064 [s]

Min: -26.6 [g] at 0.070 [s]

P4 Head z

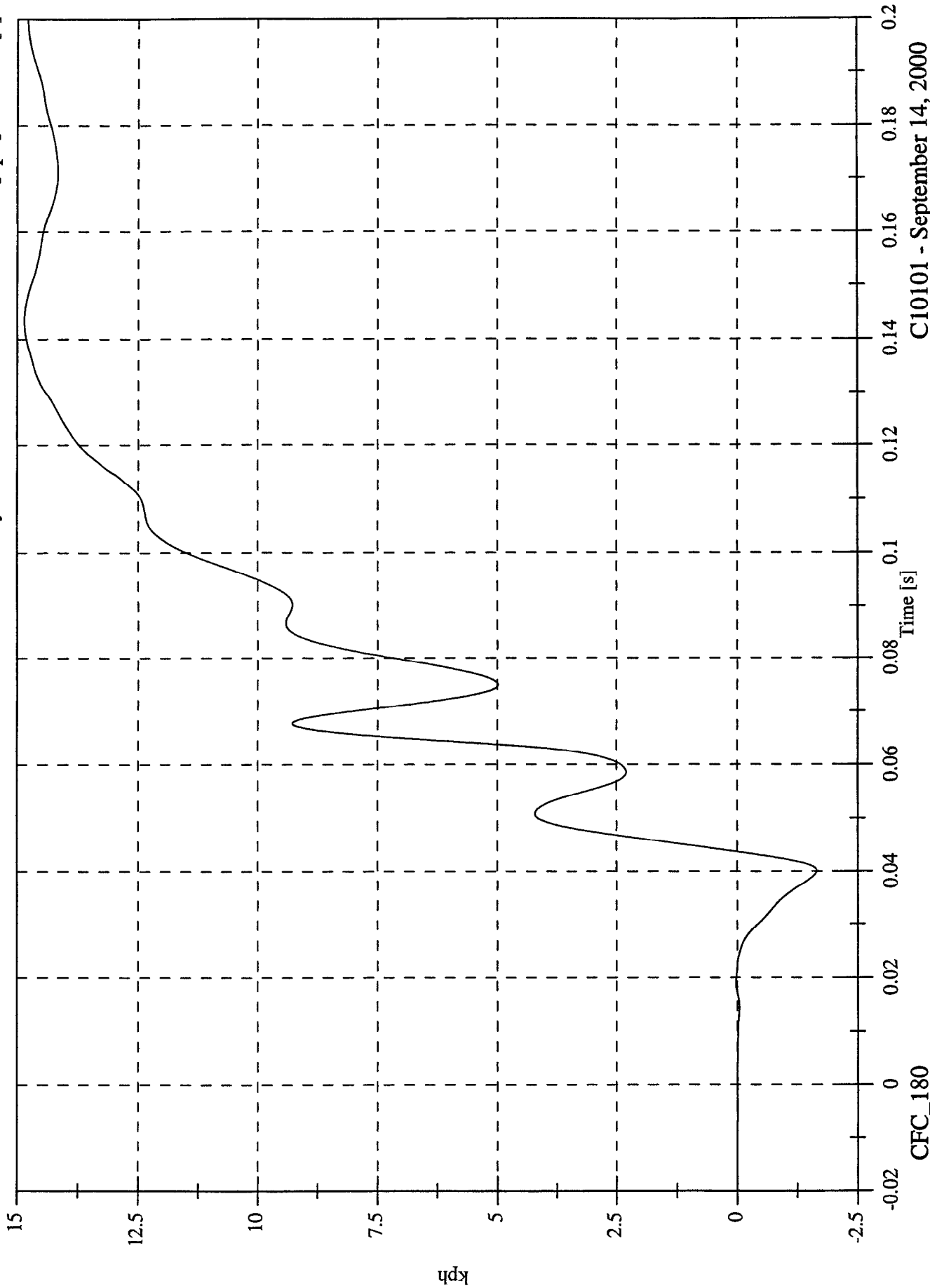


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Head z Velocity

Max: 14.9 [kph] at 0.143 [s]
Min: -1.6 [kph] at 0.040 [s]



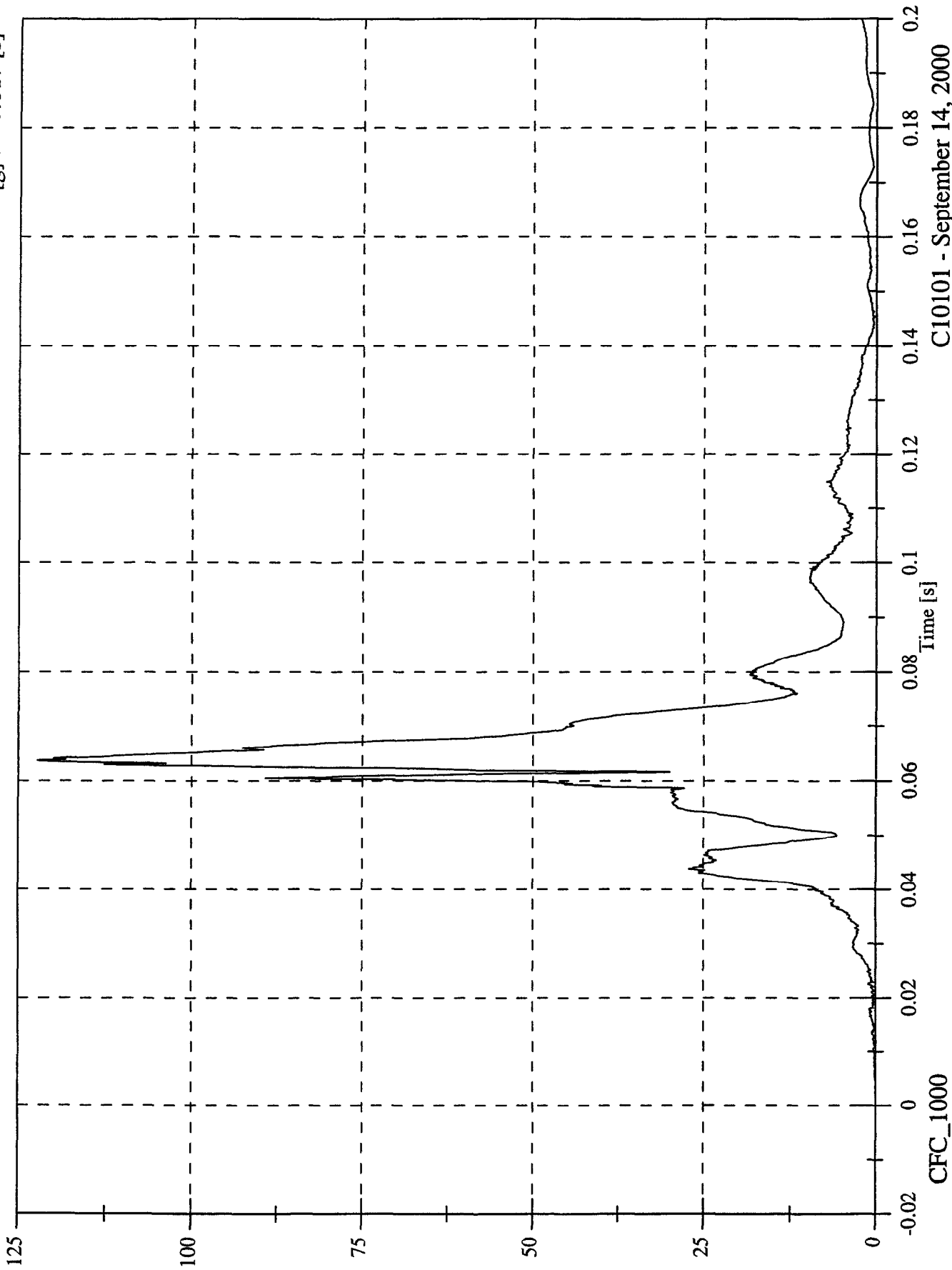
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Head Resultant

Max: 122.3 [g] at 0.064 [s]
Min: 0.0 [g] at -0.017 [s]



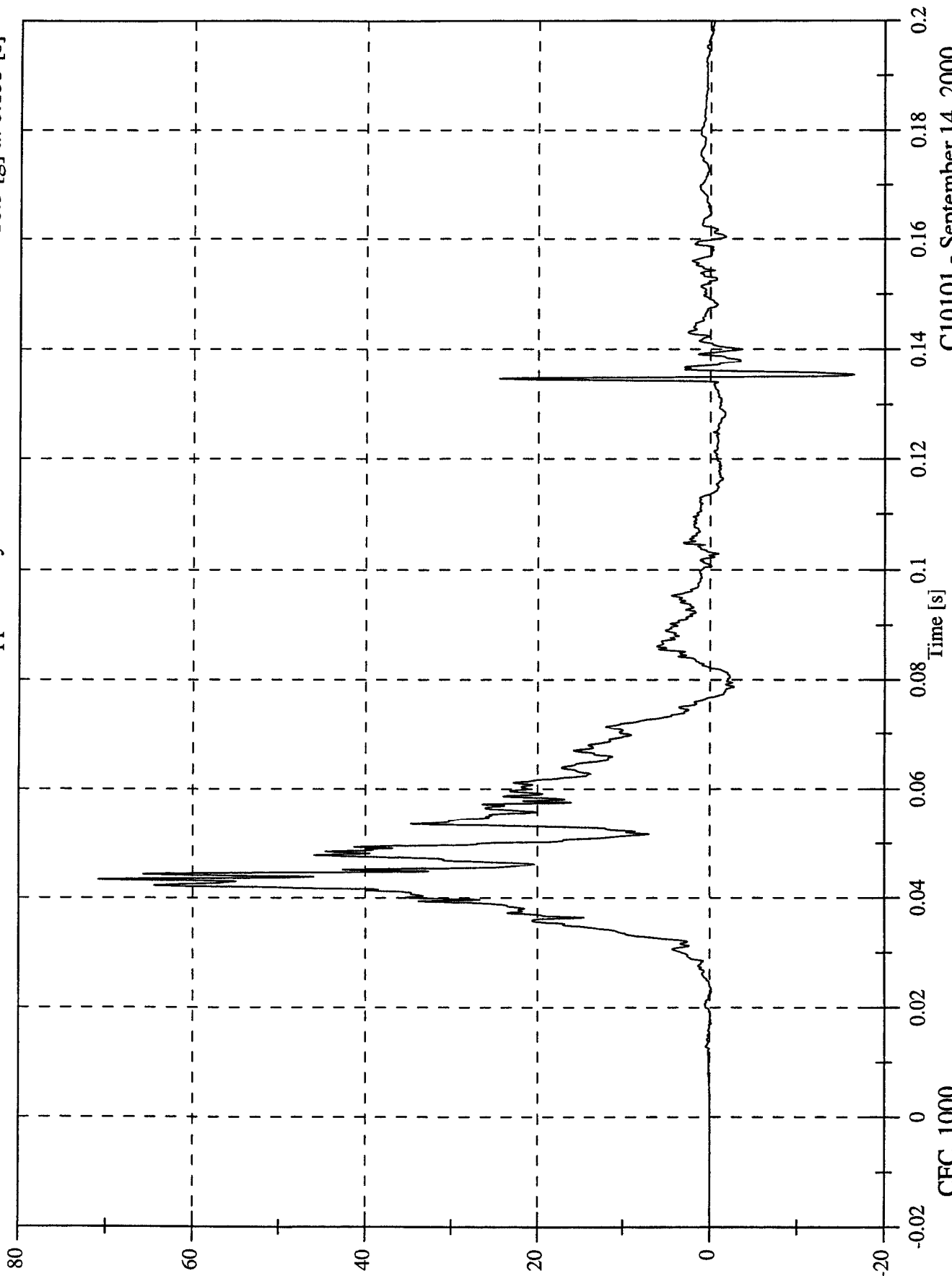
CFC_1000

C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Upper Rib y

Max: 70.9 [g] at 0.043 [s]
Min: -16.5 [g] at 0.135 [s]



C10101 - September 14, 2000

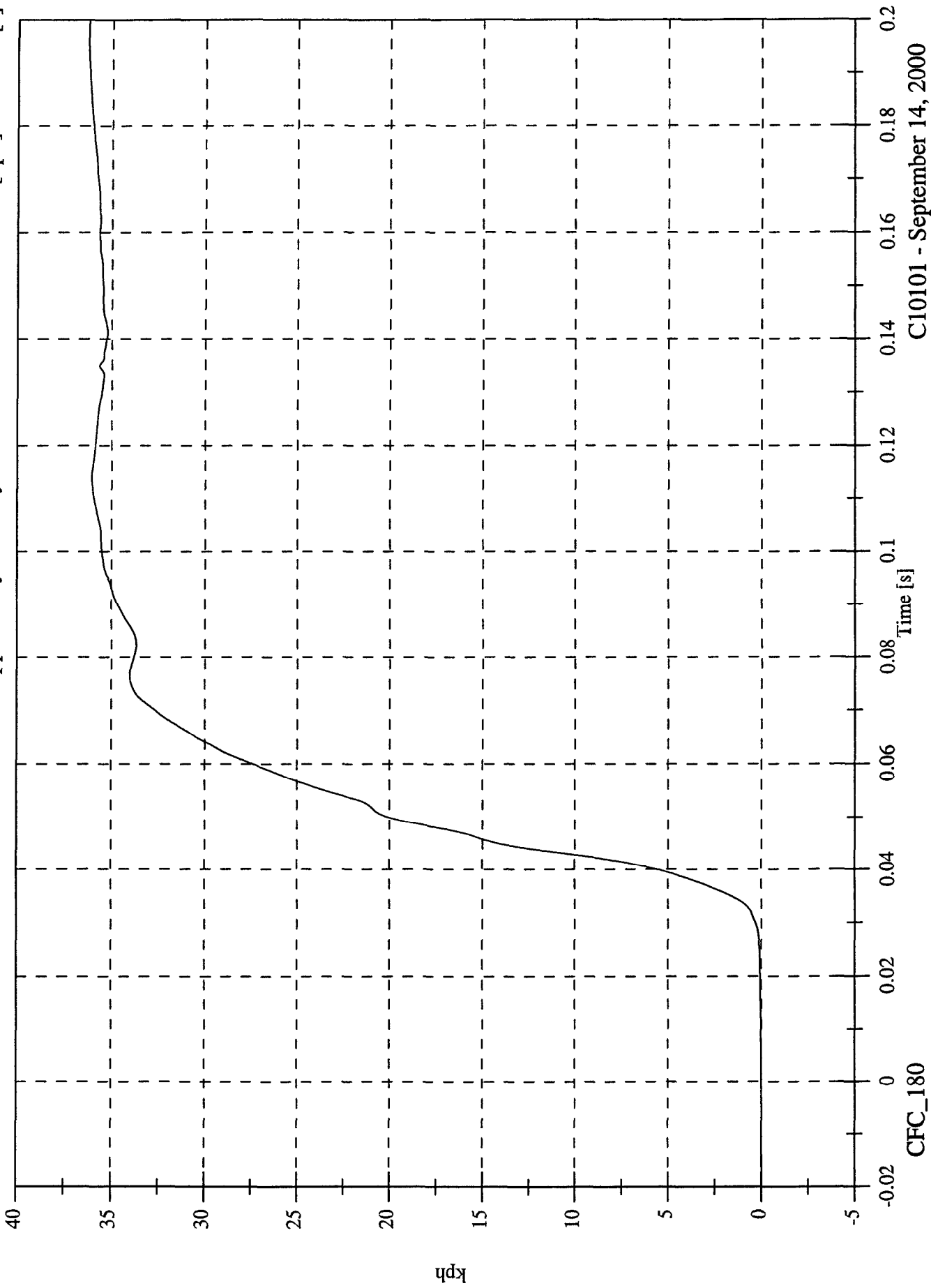
CFC_1000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Upper Rib y Velocity

Max: 36.3 [kph] at 0.197 [s]

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



C10101 - September 14, 2000

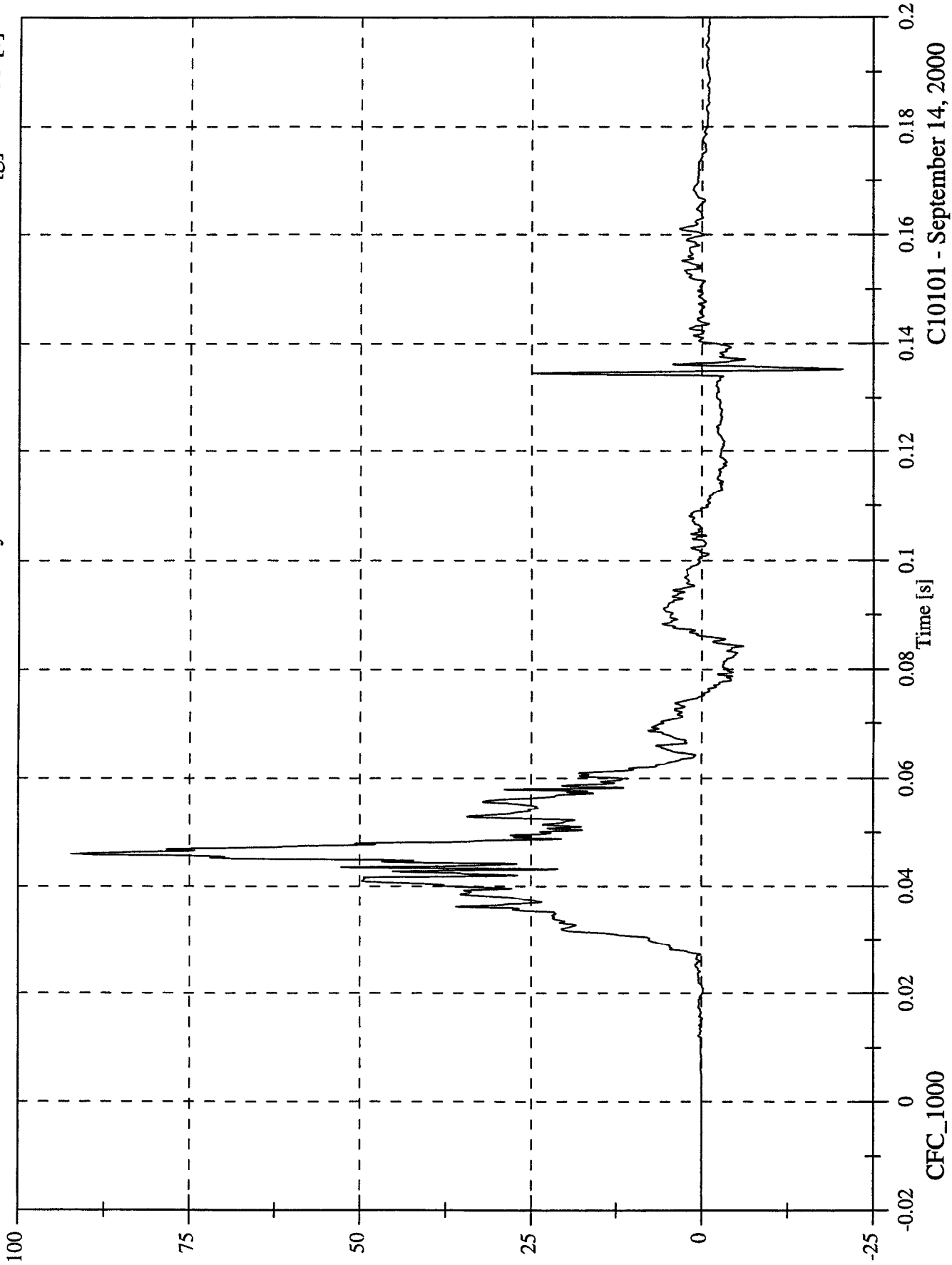
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Rib y

Max: 92.3 [g] at 0.046 [s]

Min: -20.5 [g] at 0.135 [s]



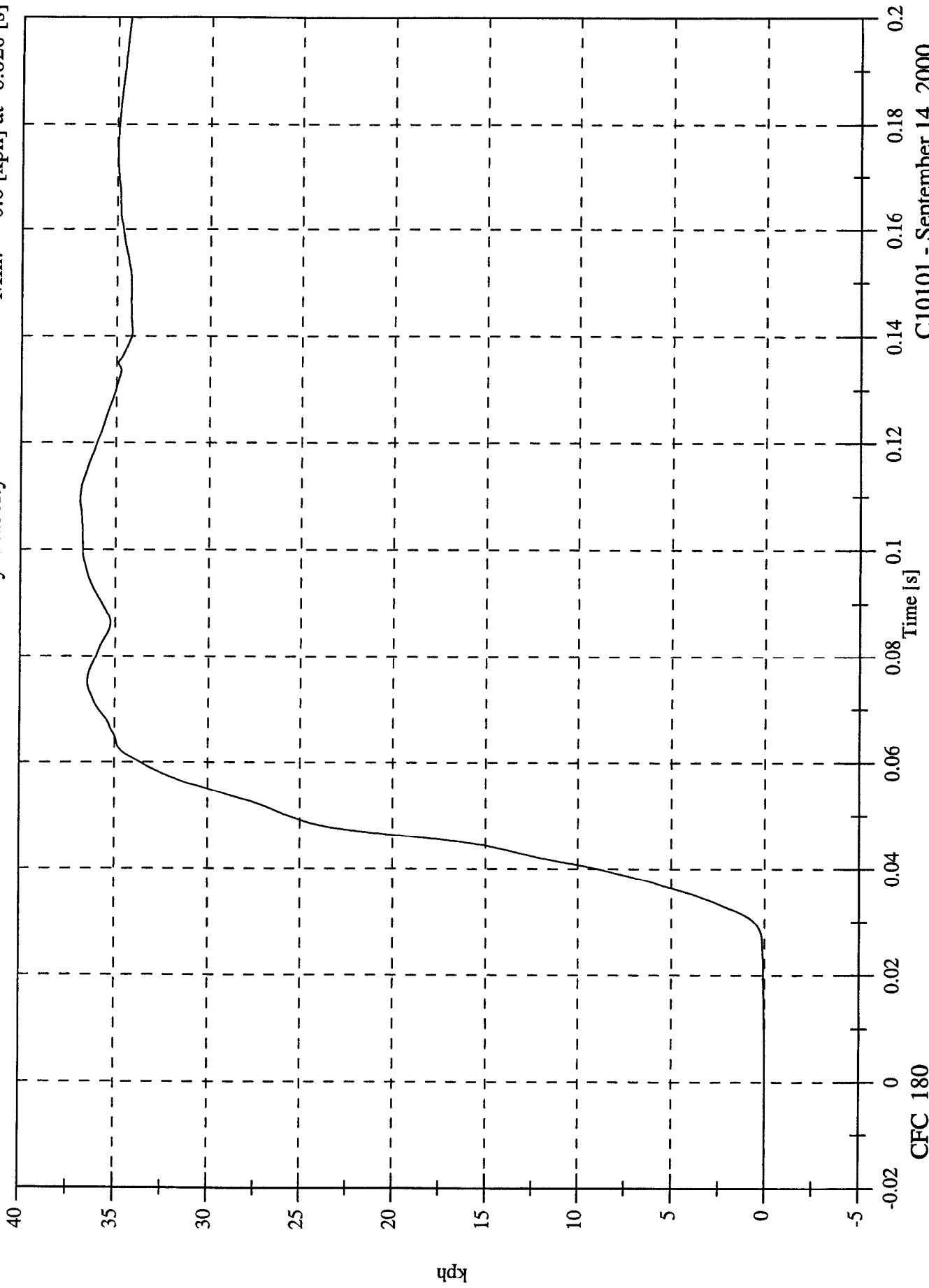
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Rib y Velocity

Max: 36.9 [kph] at 0.109 [s]

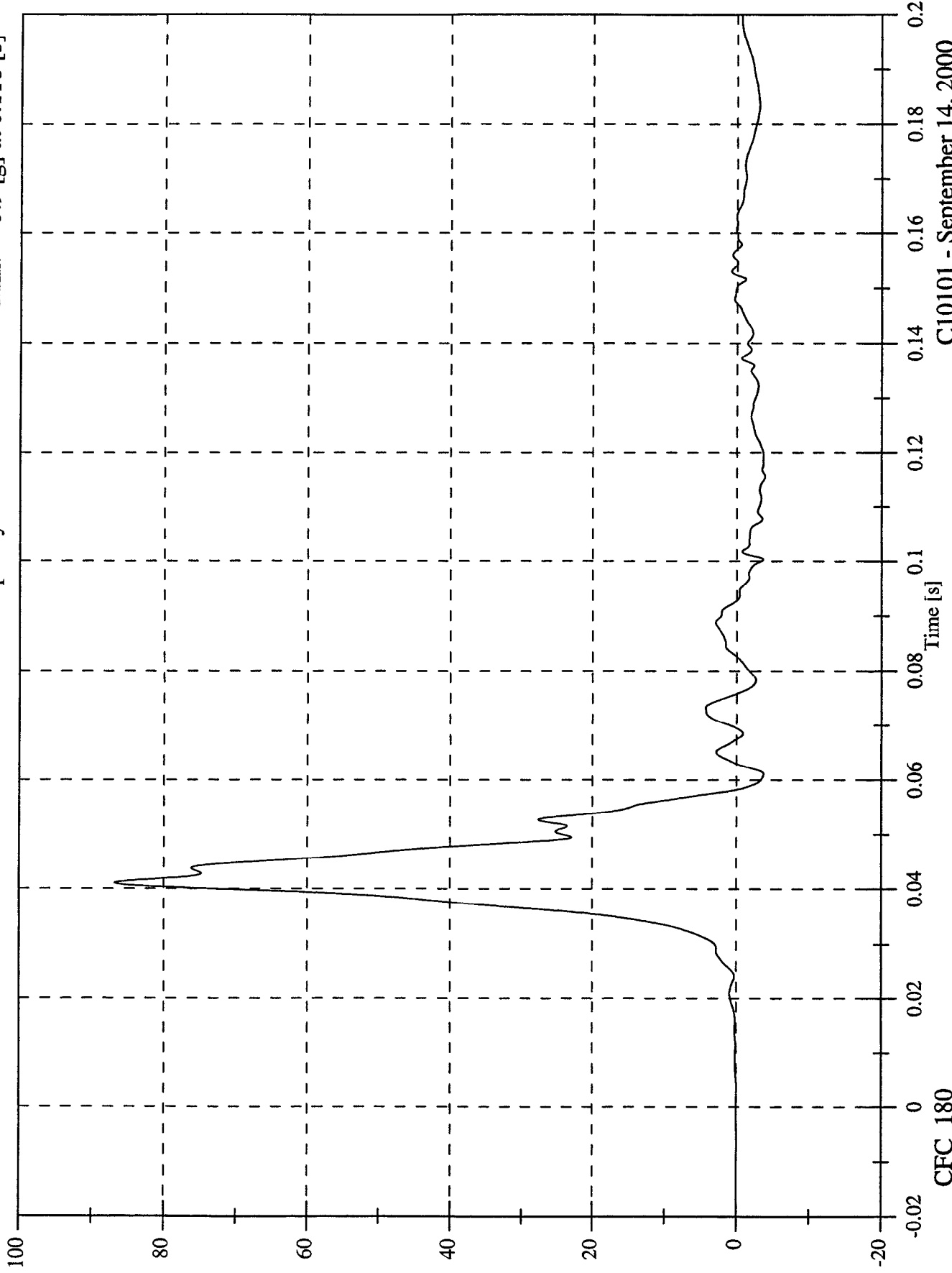
Min: -0.0 [kph] at -0.020 [s]



C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek
P4 Lower Spine y

Max: 86.8 [g] at 0.041 [s]
Min: -3.9 [g] at 0.116 [s]



C10101 - September 14, 2000

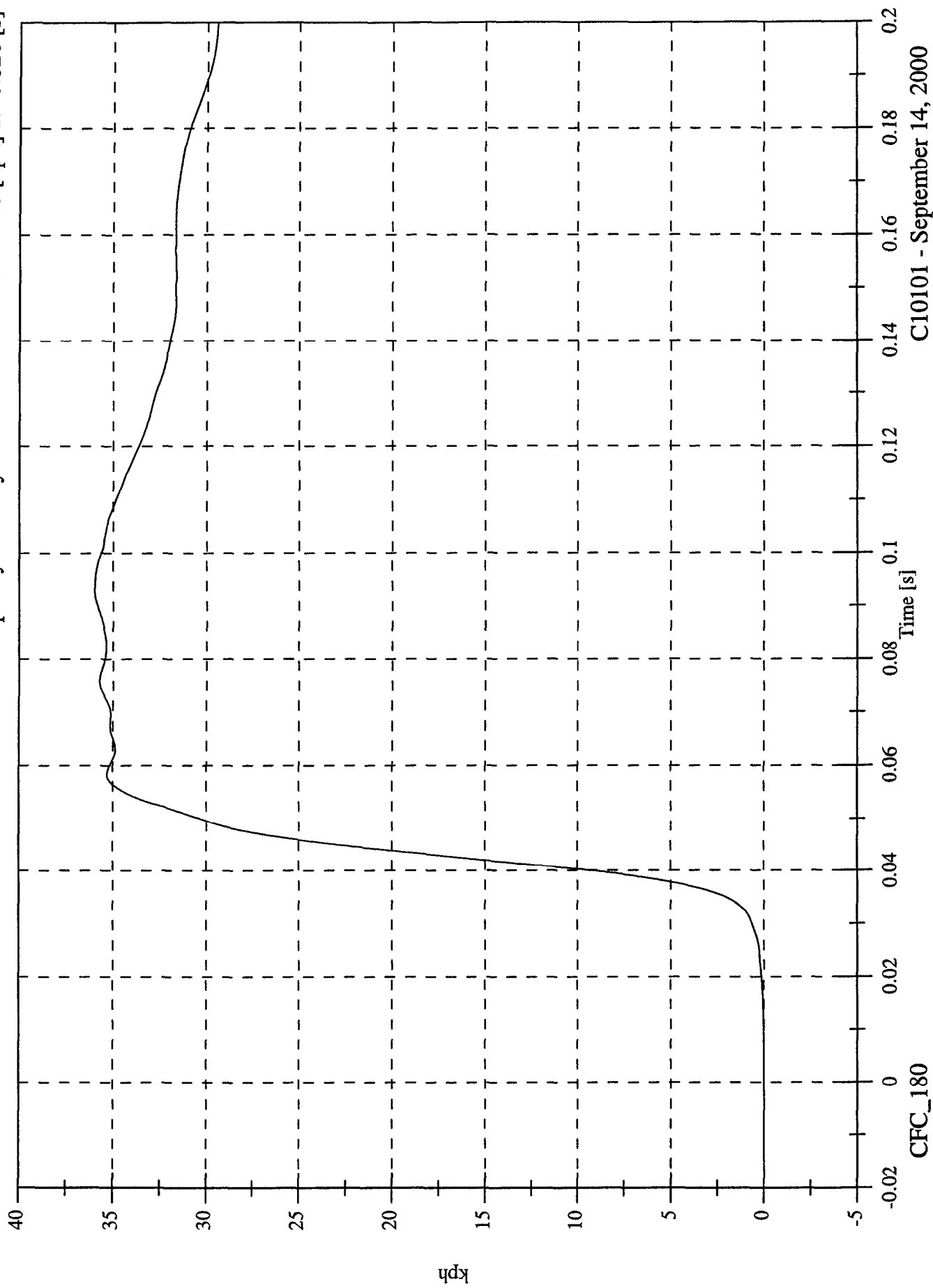
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Spine y Velocity

Max: 36.0 [kph] at 0.093 [s]

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

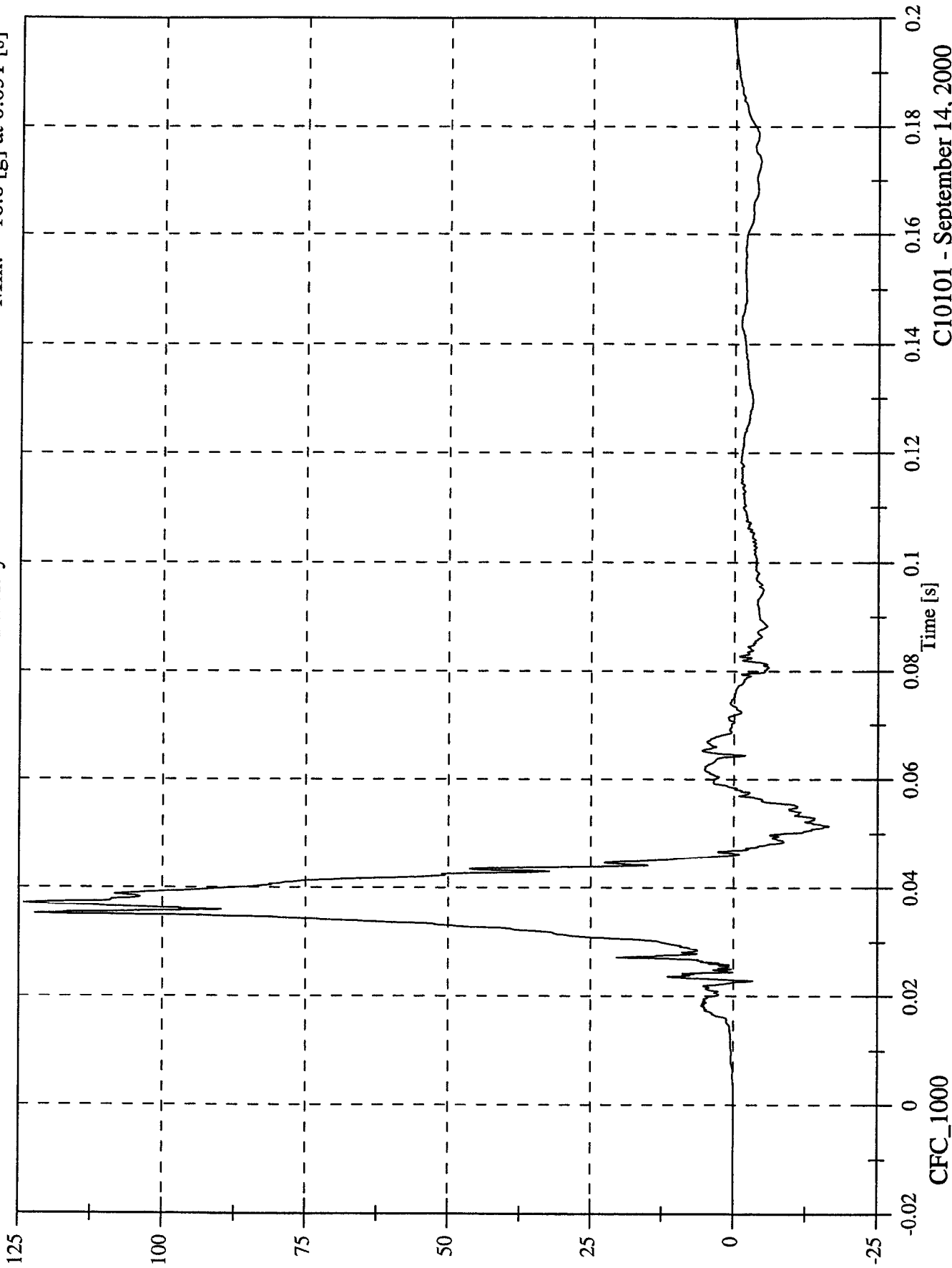


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Pelvic y

Max: 124.2 [g] at 0.037 [s]
Min: -16.6 [g] at 0.051 [s]



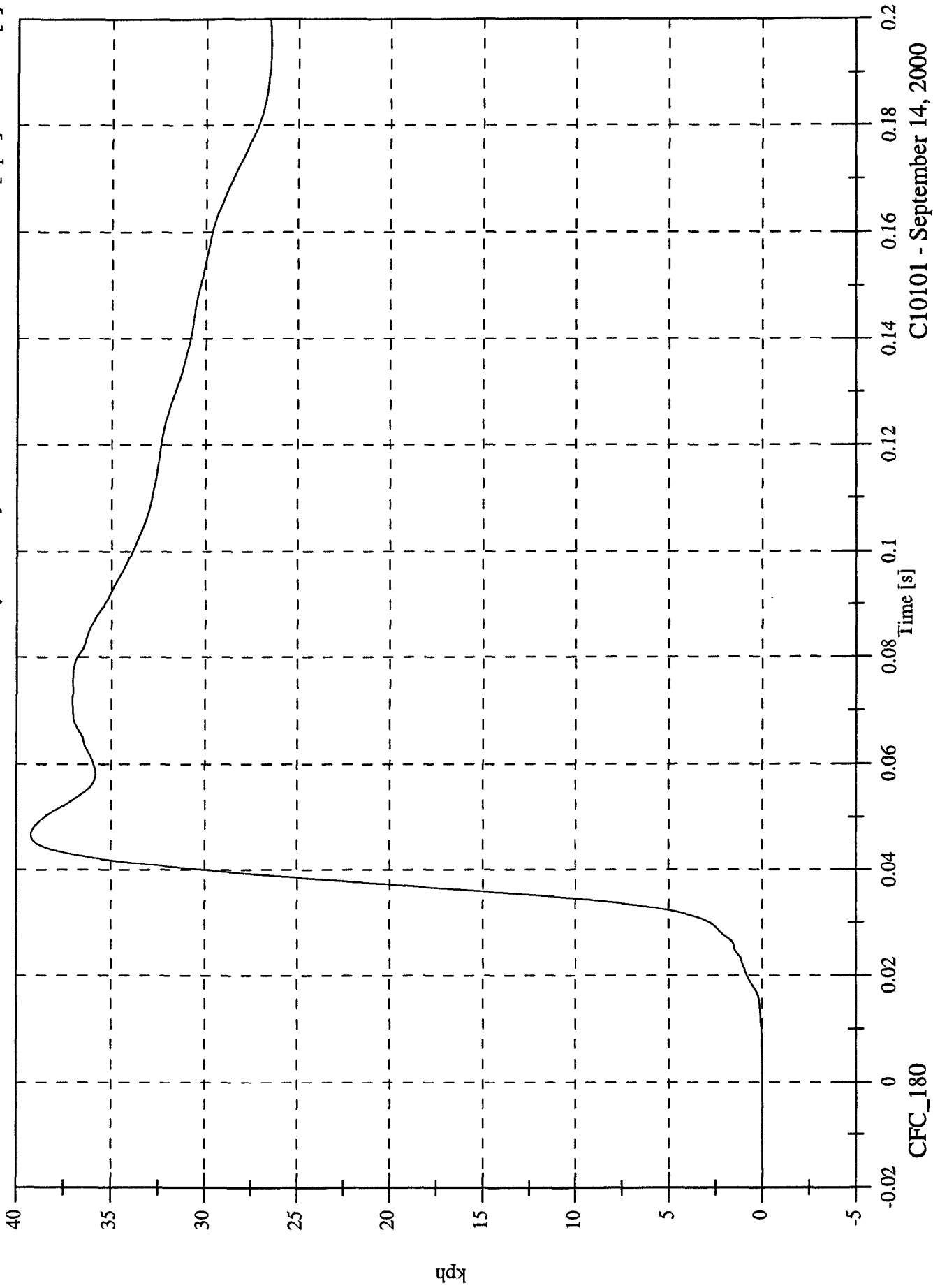
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Pelvic y Velocity

Max: 39.2 [kph] at 0.047 [s]

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



CFC_180

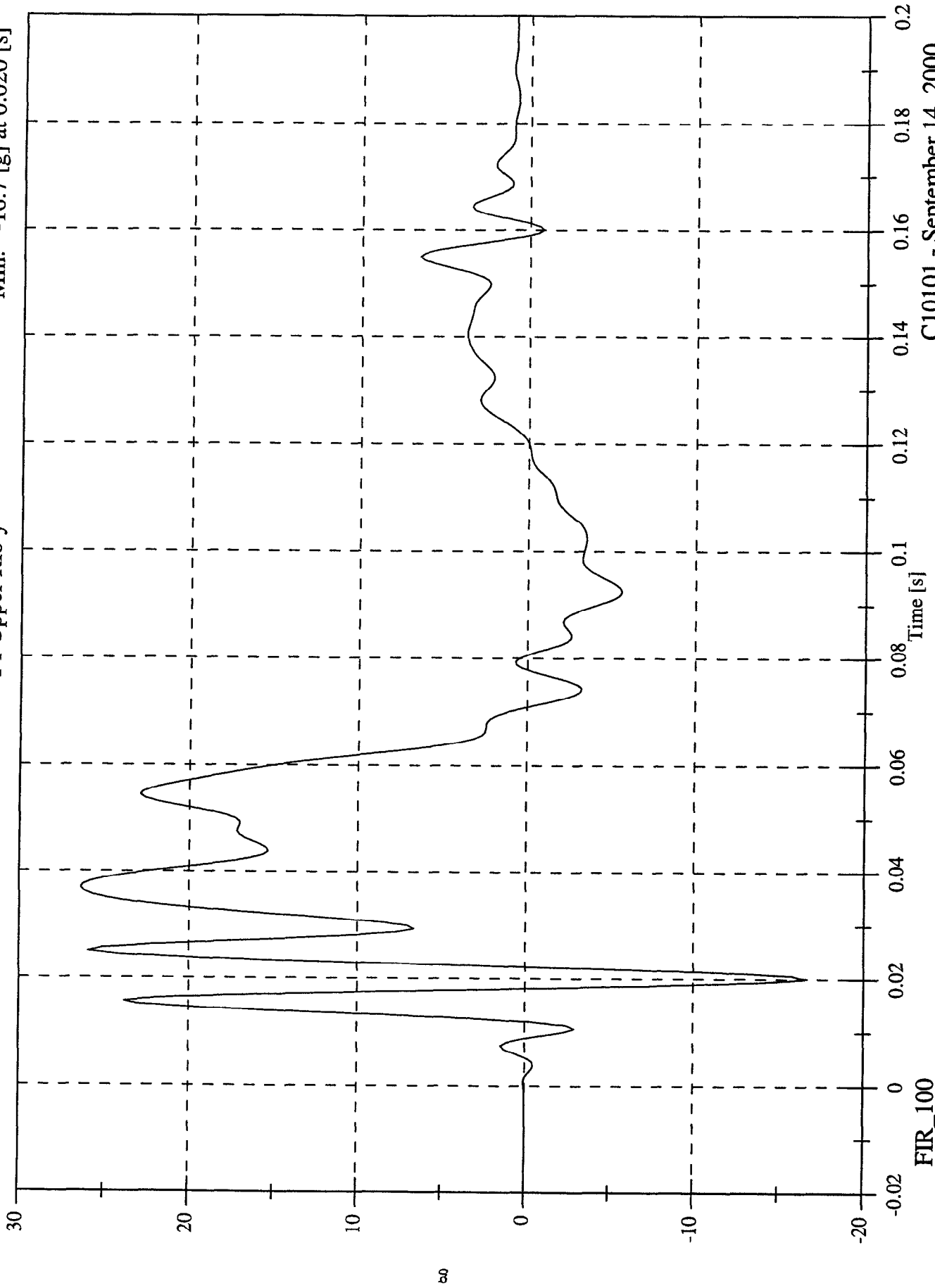
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Upper Rib y

Max: 26.4 [g] at 0.037 [s]

Min: -16.7 [g] at 0.020 [s]

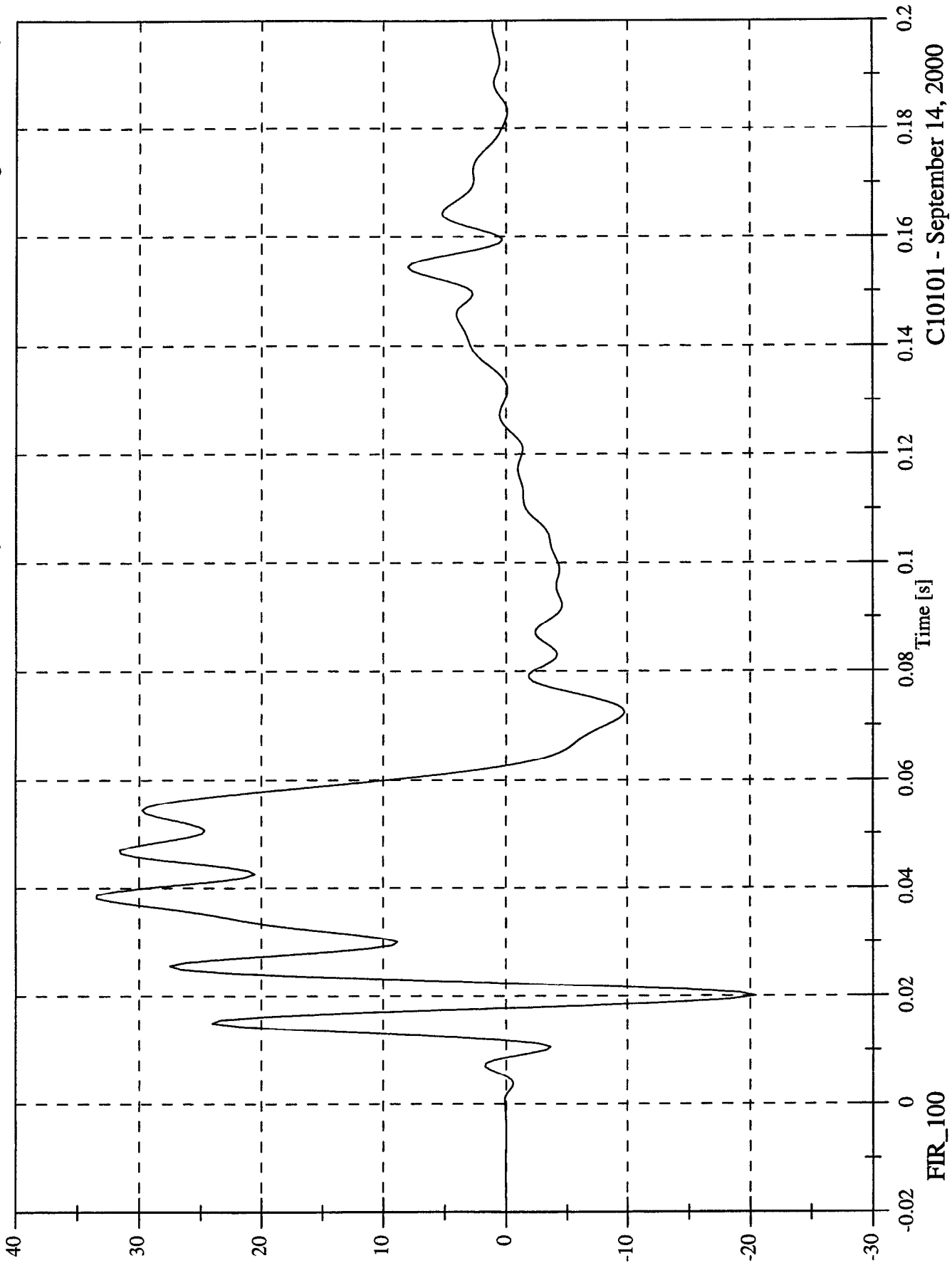


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Rib y

Max: 33.5 [g] at 0.038 [s]
Min: -20.5 [g] at 0.020 [s]



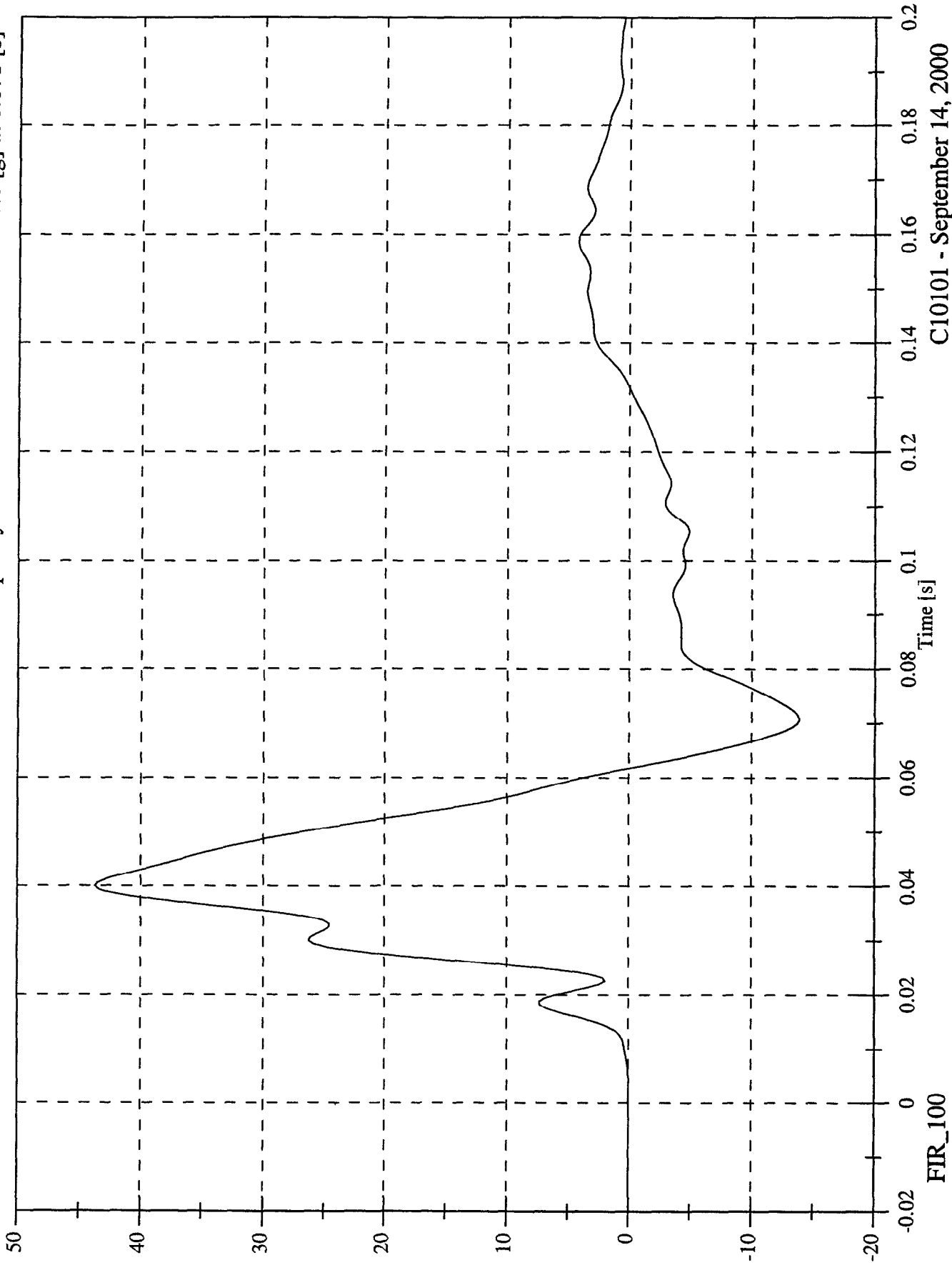
C10101 - September 14, 2000

FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Spine y

Max: 43.7 [g] at 0.040 [s]
Min: -13.8 [g] at 0.071 [s]



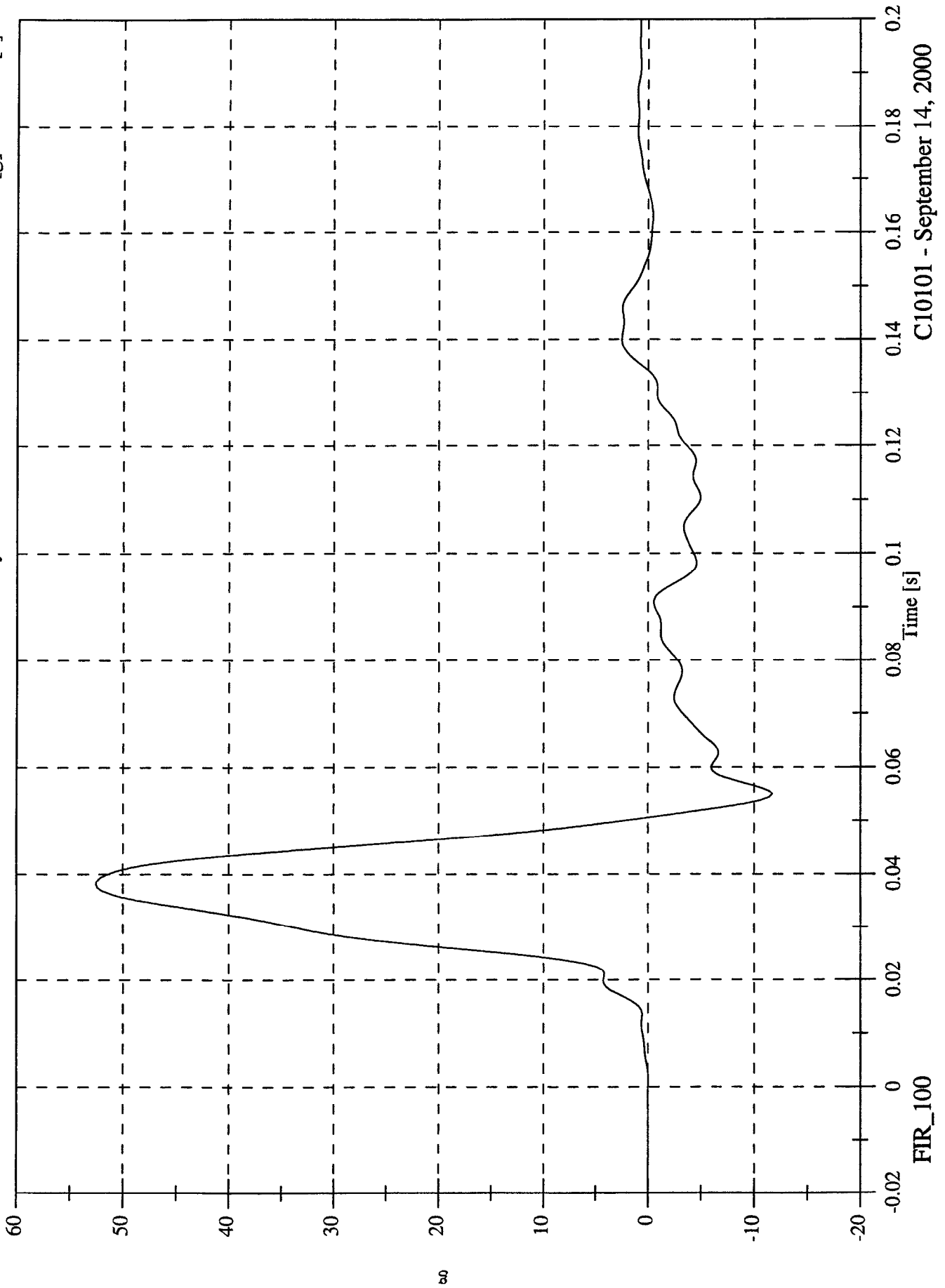
C10101 - September 14, 2000

FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Pelvic y

Max: 52.6 [g] at 0.038 [s]
Min: -11.7 [g] at 0.055 [s]



C10101 - September 14, 2000

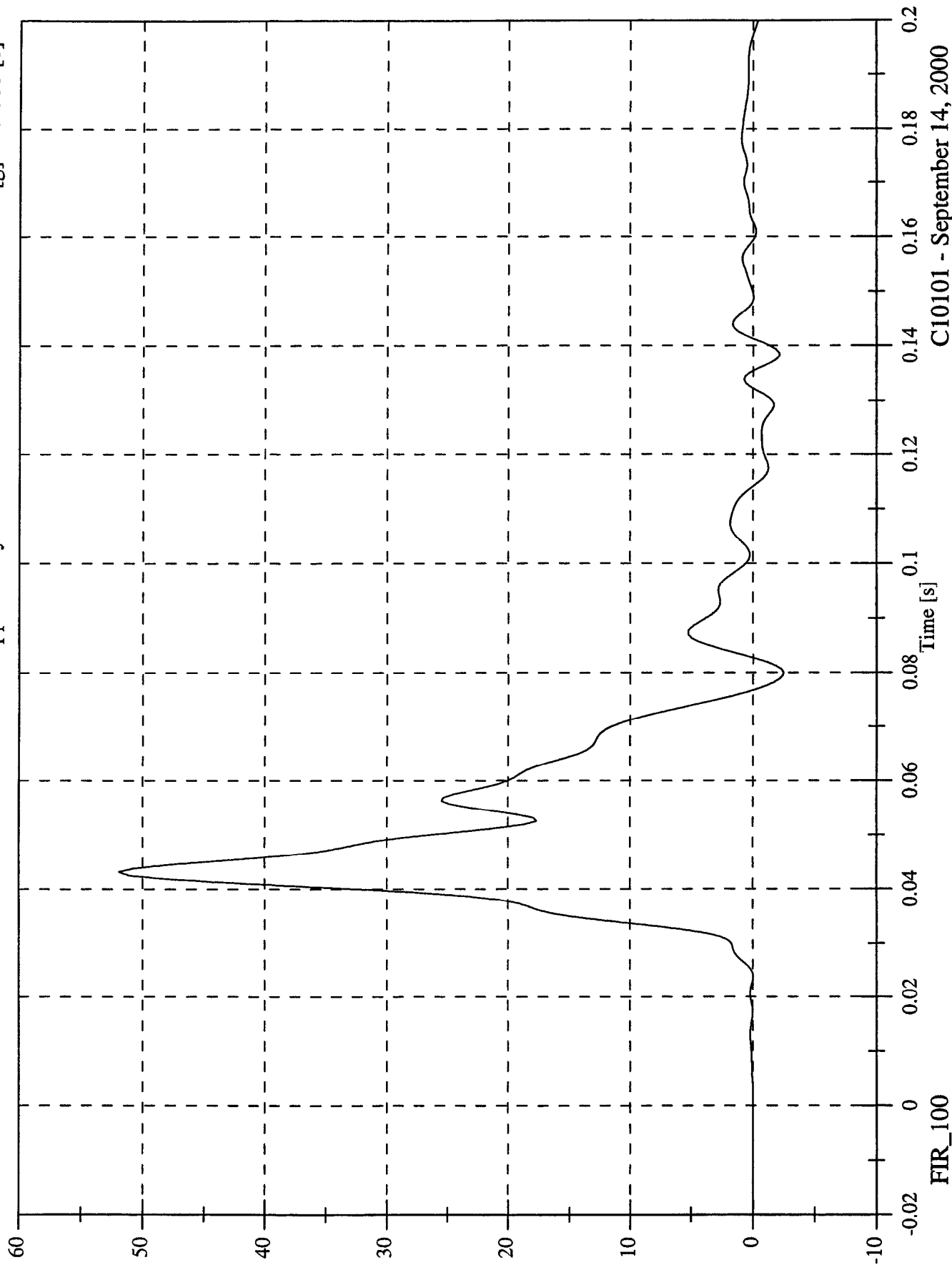
FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Upper Rib y

Max: 51.9 [g] at 0.043 [s]

Min: -2.4 [g] at 0.080 [s]



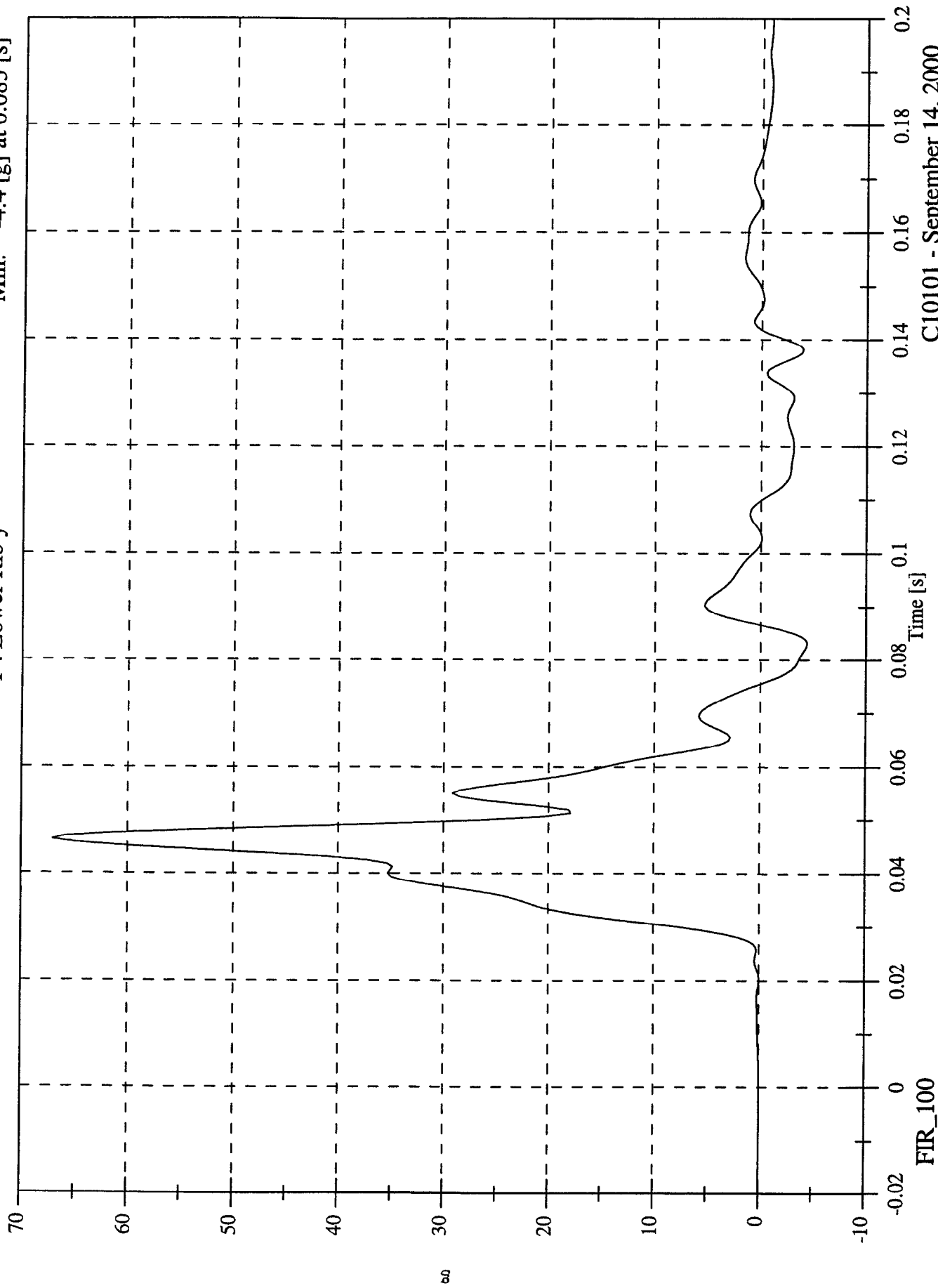
C10101 - September 14, 2000

FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Rib y

Max: 67.0 [g] at 0.046 [s]
Min: -4.4 [g] at 0.083 [s]



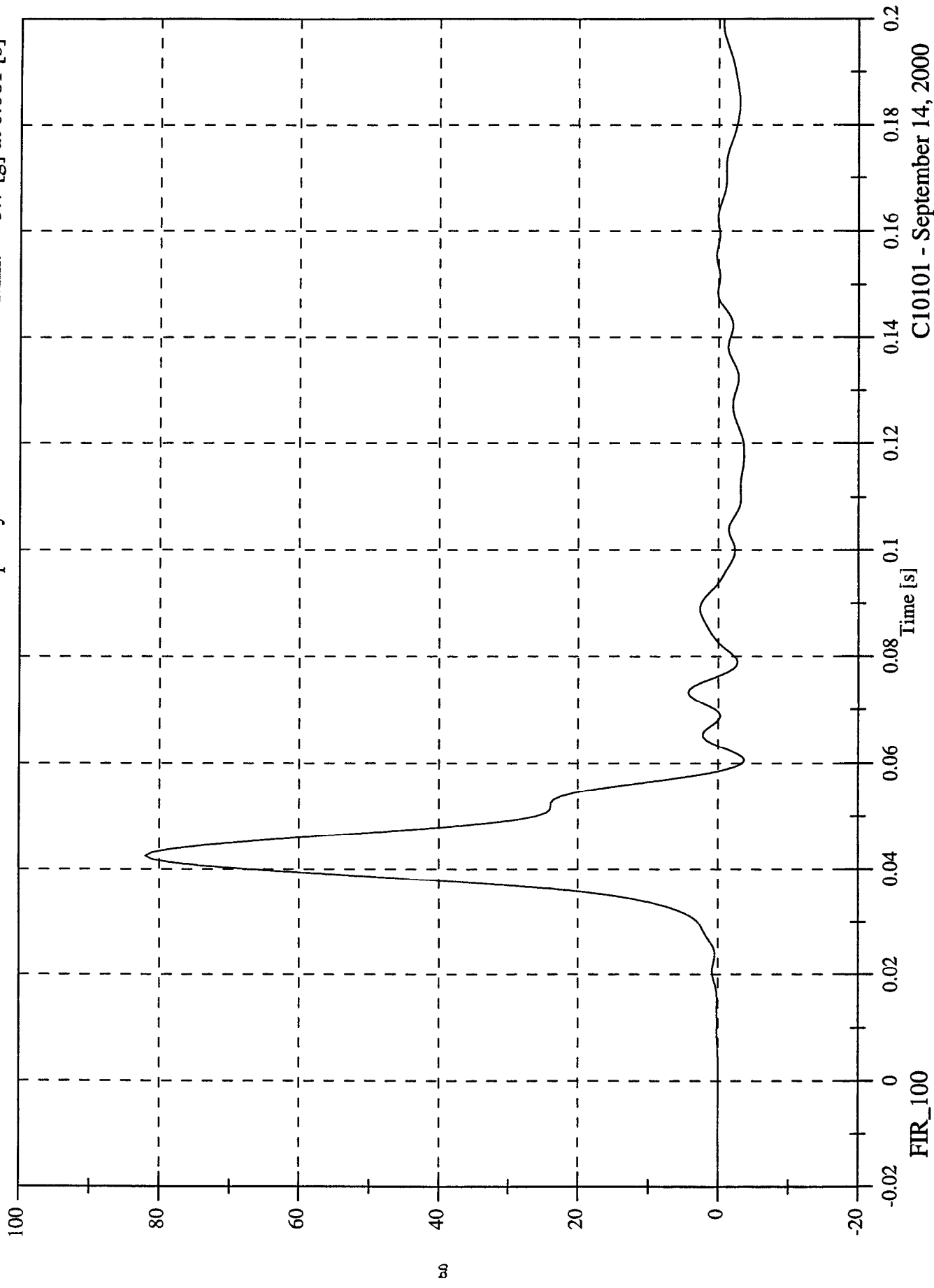
FIR_100

C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Spine y

Max: 82.0 [g] at 0.043 [s]
Min: -3.7 [g] at 0.061 [s]

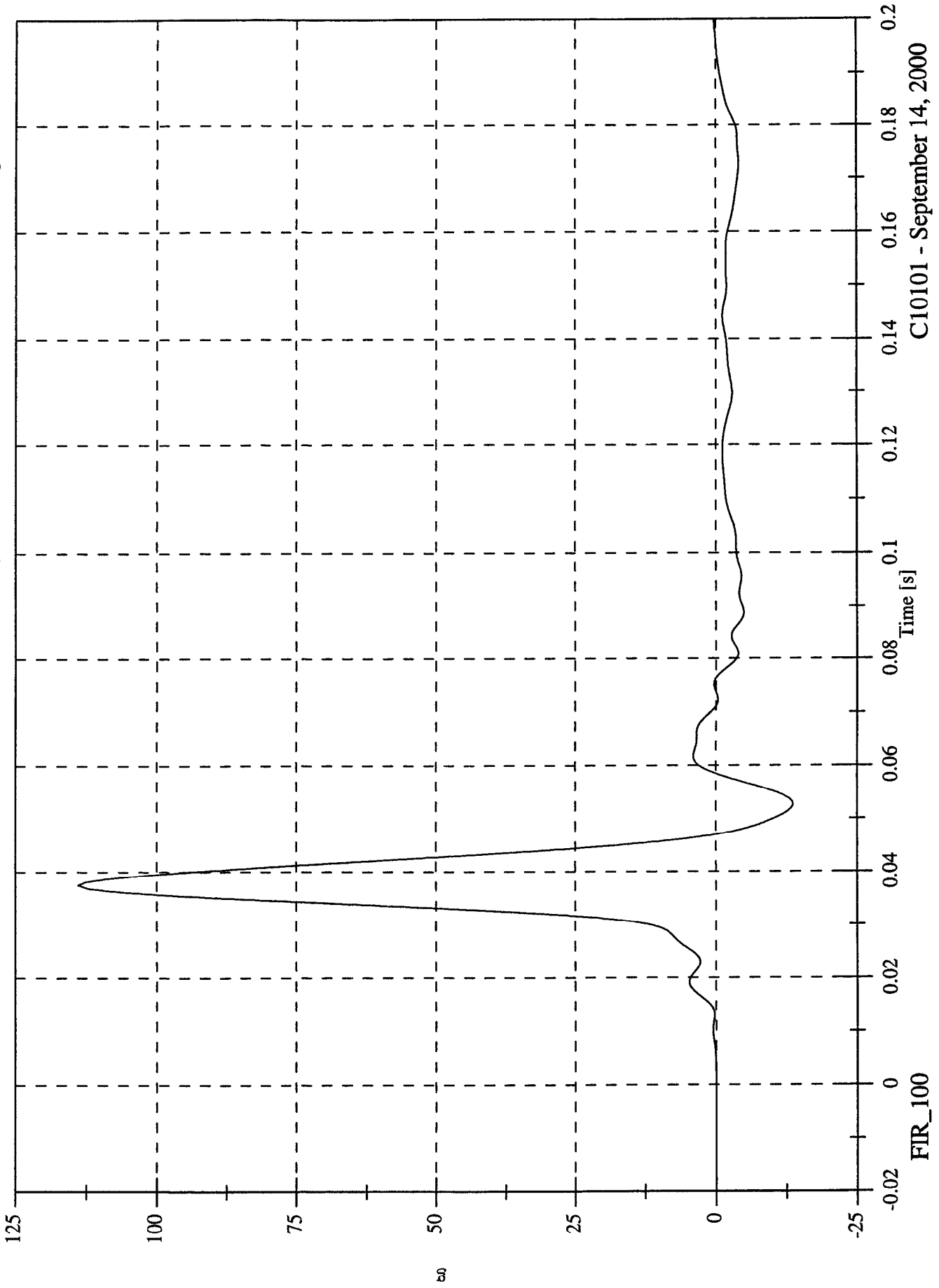


FIR_100

C10101 - September 14, 2000

Max: 114.0 [g] at 0.038 [s]
Min: -13.7 [g] at 0.053 [s]

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek
P4 Pelvic y



C10101 - September 14, 2000

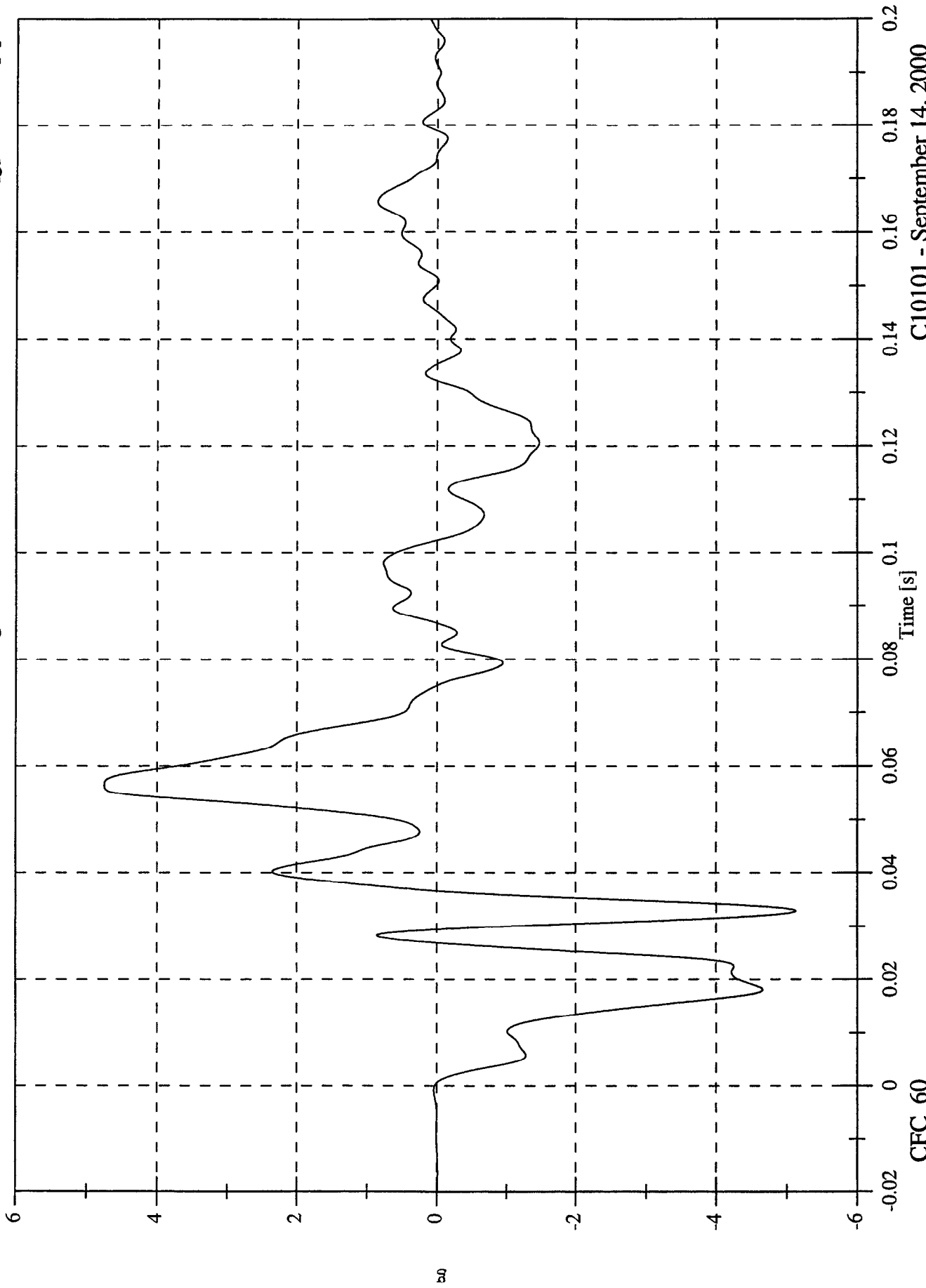
FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 1 Right Front Sill X

Max: 4.8 [g] at 0.056 [s]

Min: -5.1 [g] at 0.033 [s]



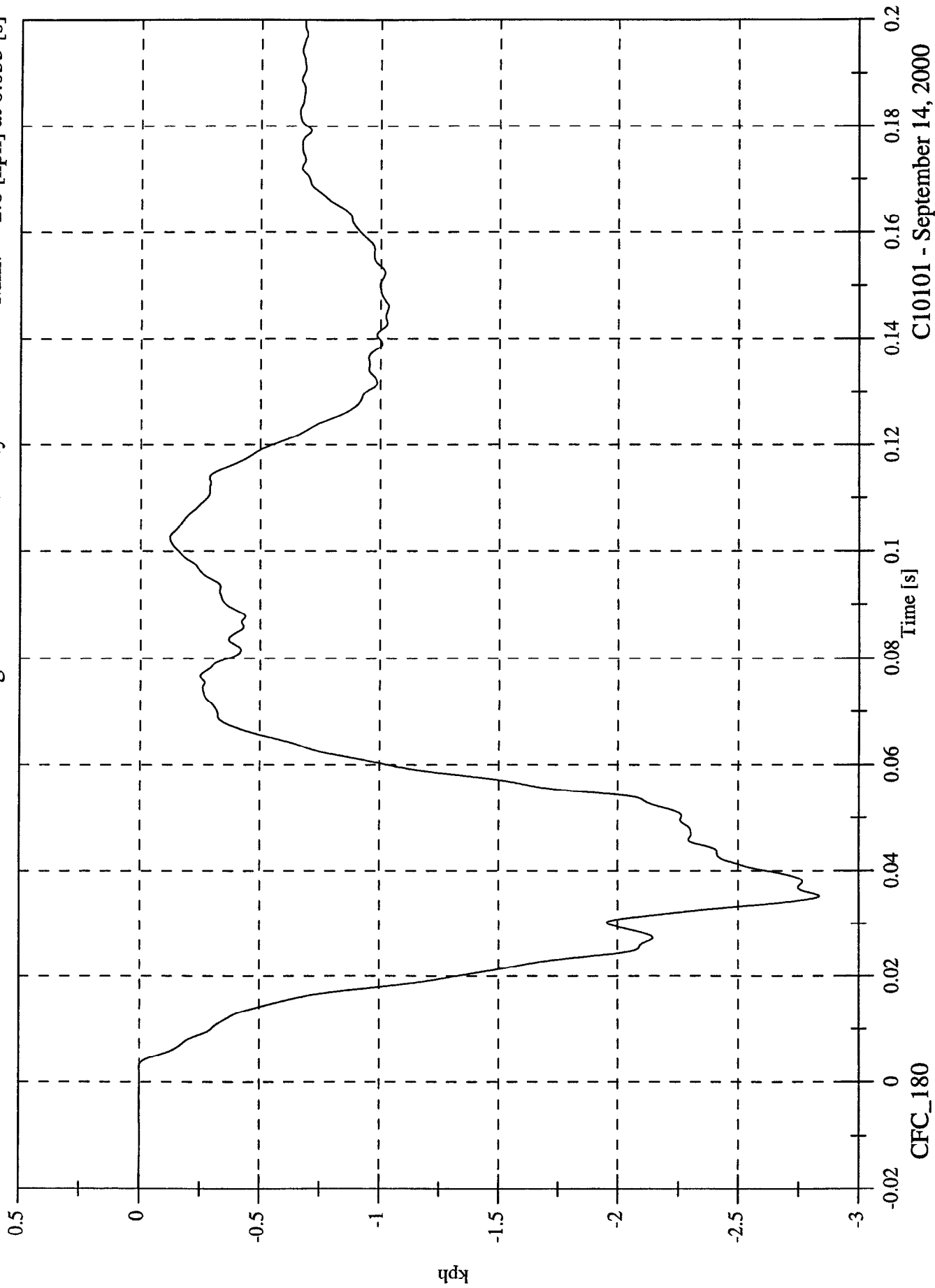
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 1 Right Front Sill X Velocity

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

Min: -2.8 [kph] at 0.035 [s]



CFC_180

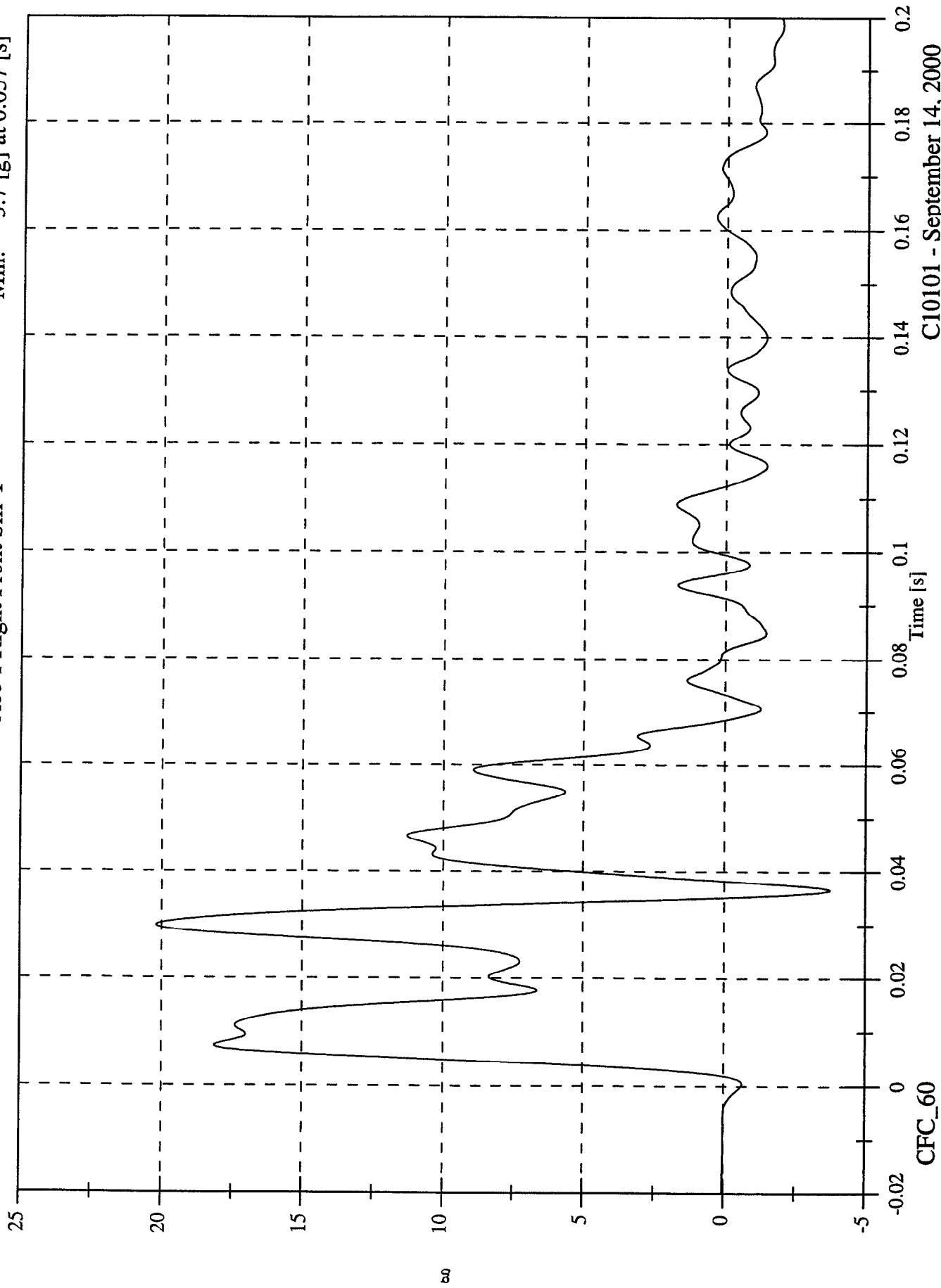
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 1 Right Front Sill Y

Max: 20.2 [g] at 0.030 [s]

Min: -3.7 [g] at 0.037 [s]



C10101 - September 14, 2000

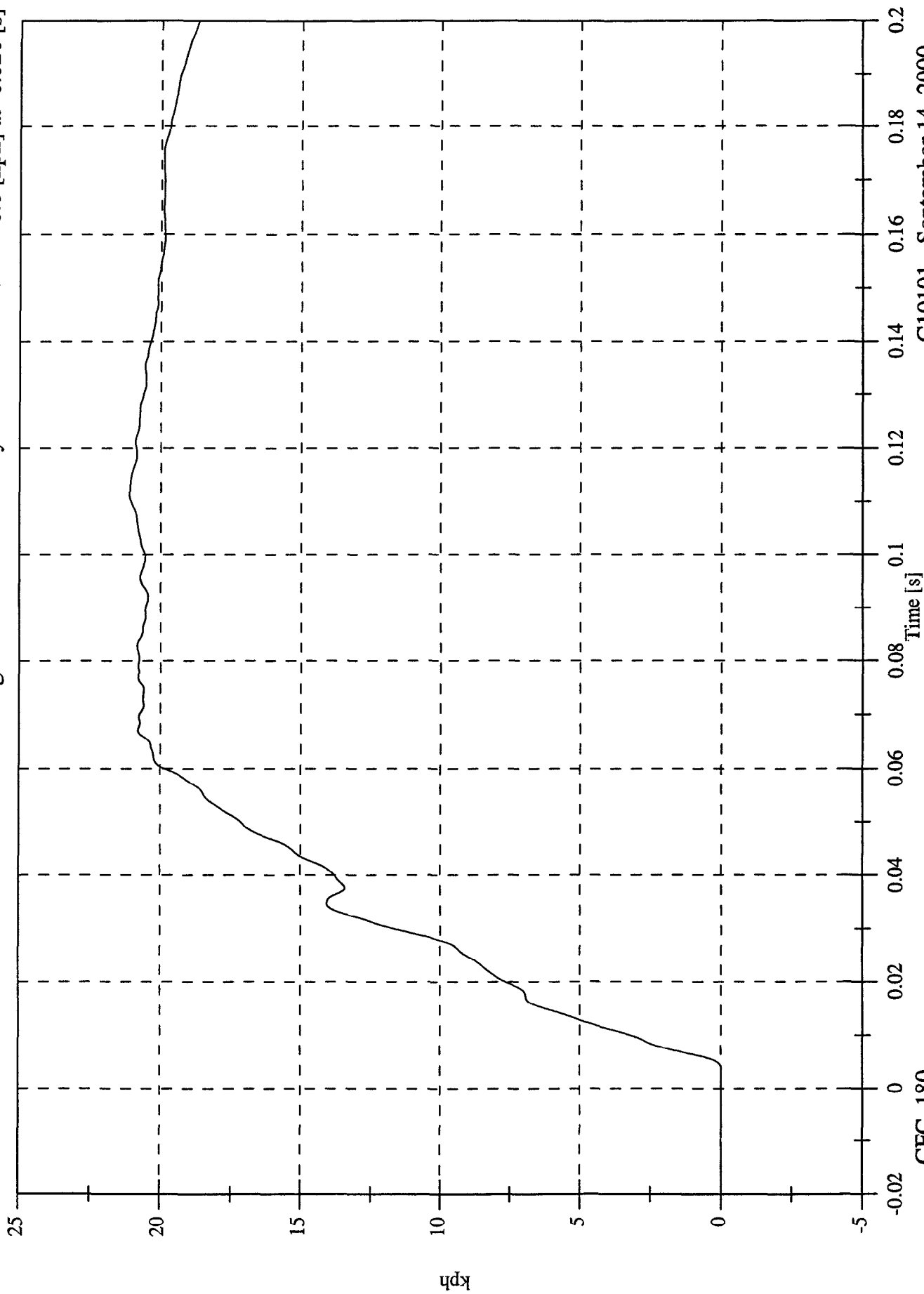
CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 1 Right Front Sill Y Velocity

Max: 21.1 [kph] at 0.111 [s]

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



C10101 - September 14, 2000

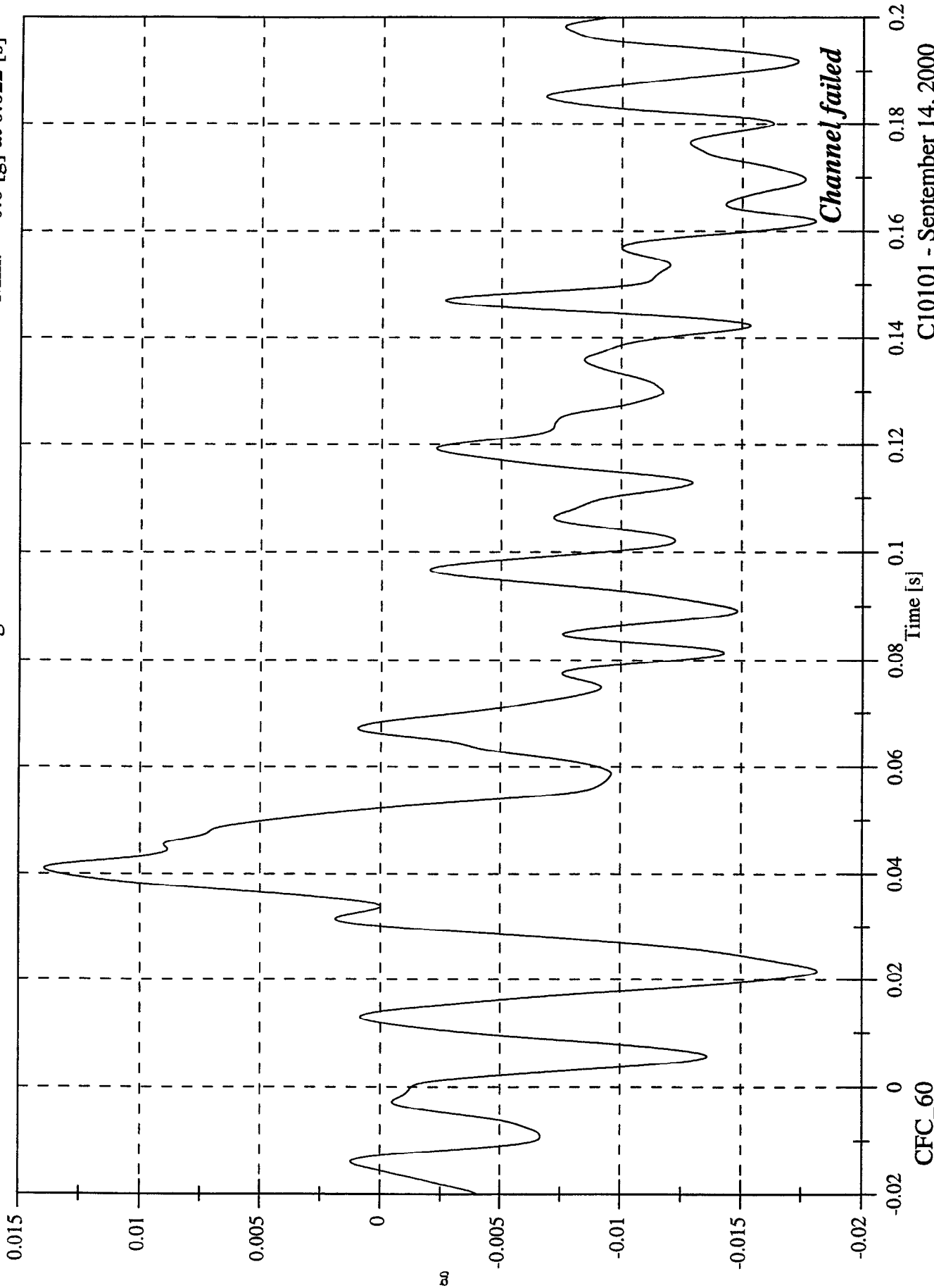
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 1 Right Front Sill Z

Max: 0.0 [g] at 0.041 [s]

Min: -0.0 [g] at 0.022 [s]



C10101 - September 14, 2000

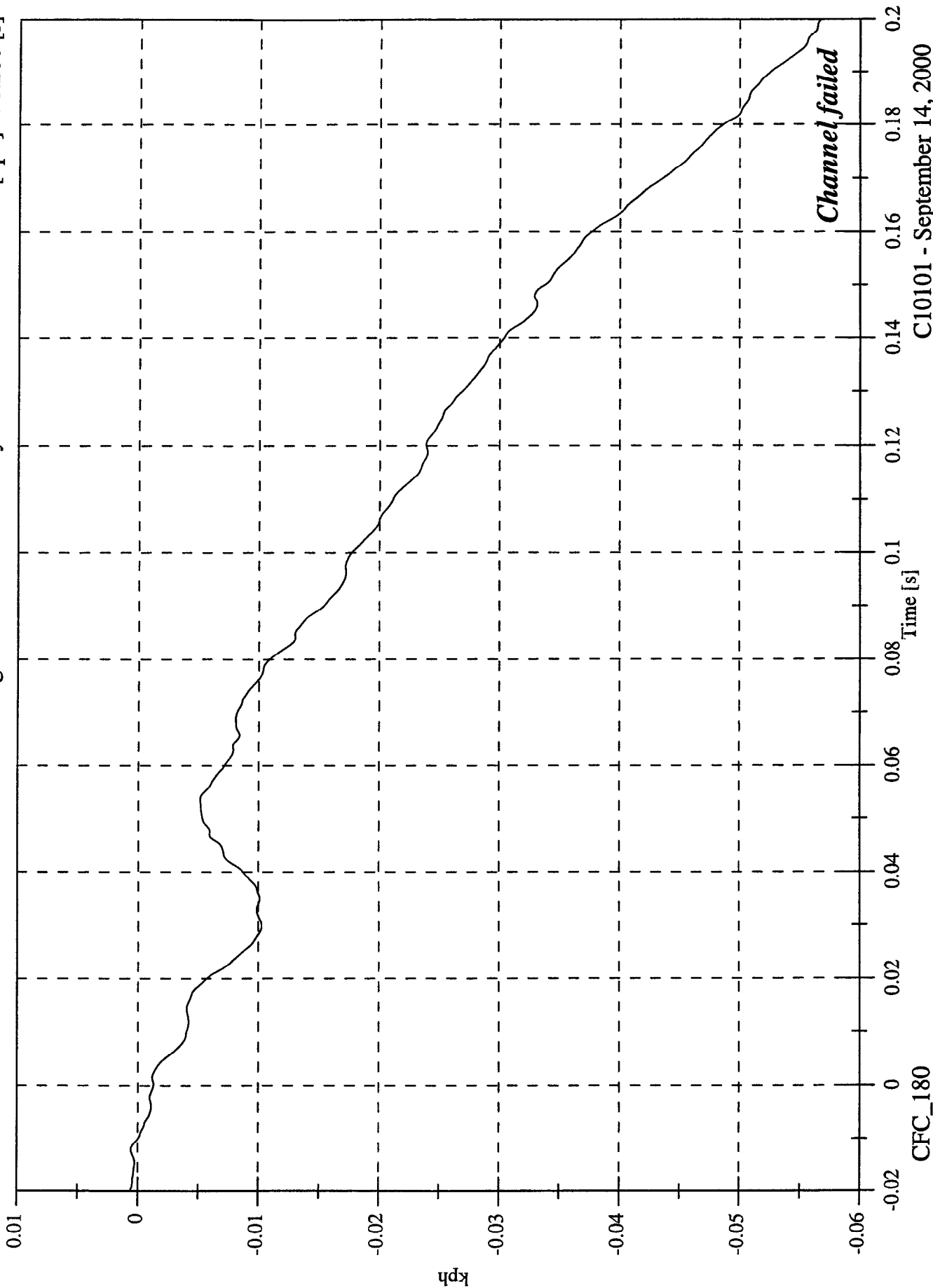
CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 1 Right Front Sill Z Velocity

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

Min: -0.1 [kph] at 0.200 [s]



C10101 - September 14, 2000

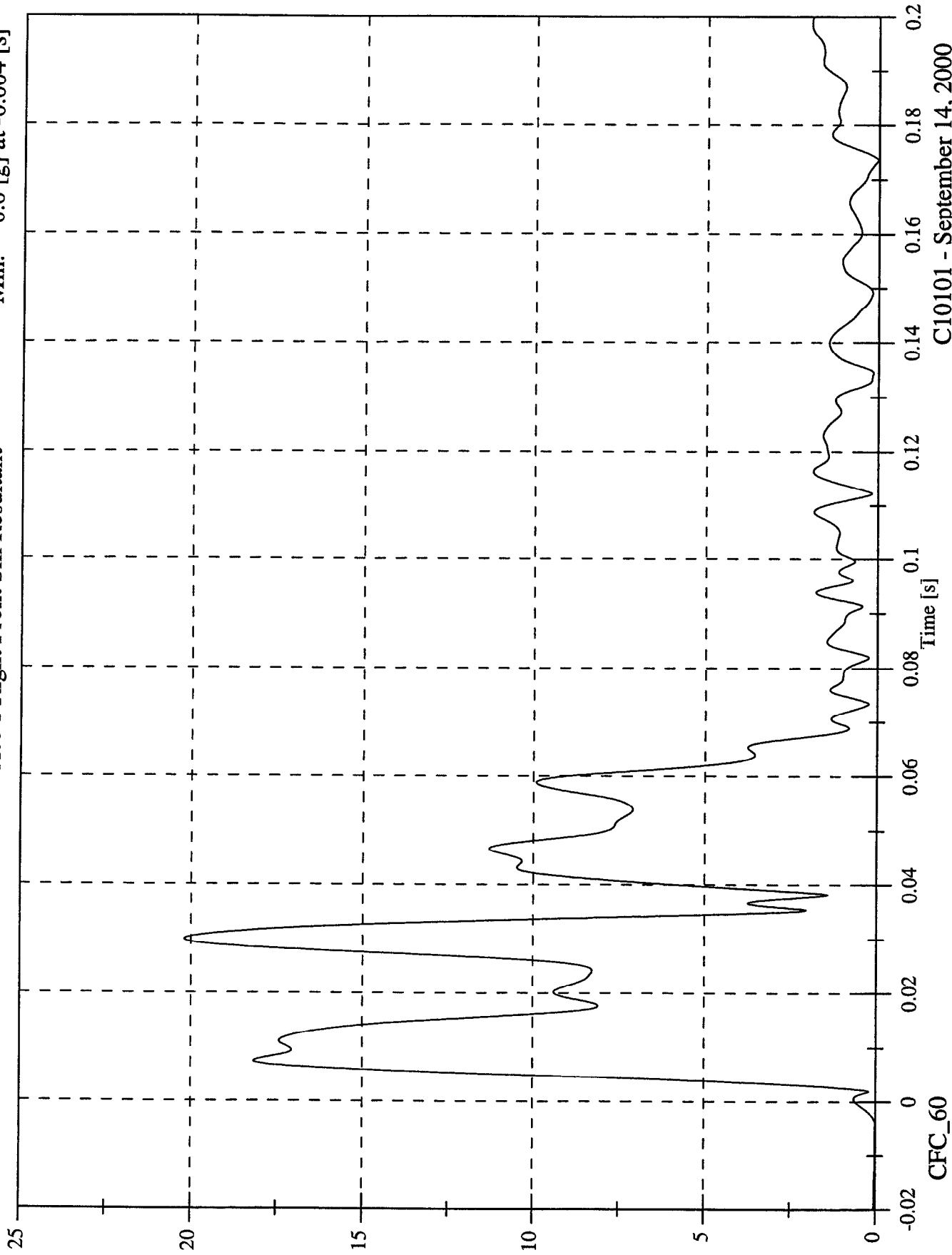
Channel failed

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 20.2 [g] at 0.030 [s]

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

Acc 1 Right Front Sill Resultant



C10101 - September 14, 2000

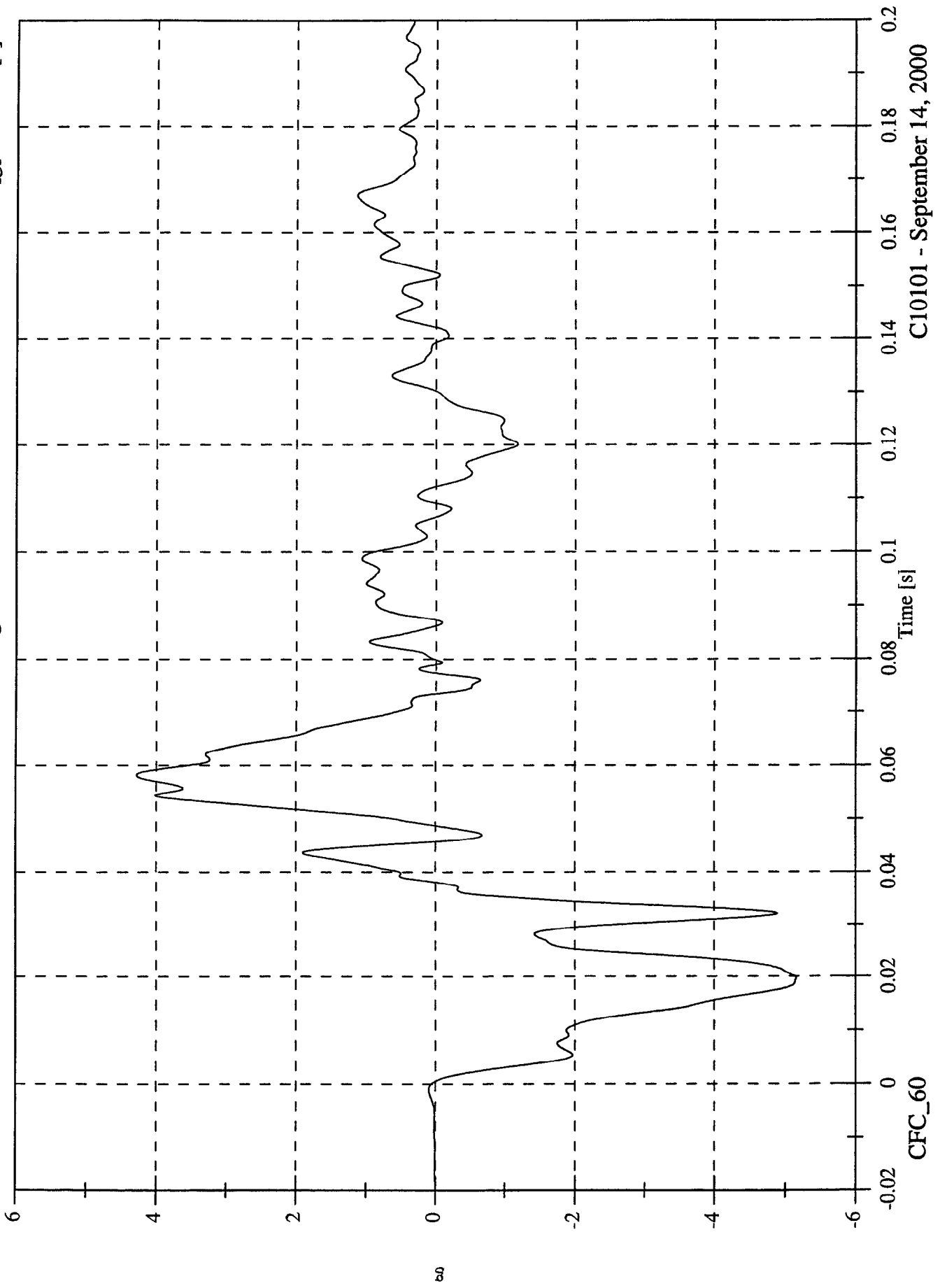
CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 2 Right Rear Sill X

Max: 4.3 [g] at 0.058 [s]

Min: -5.2 [g] at 0.020 [s]



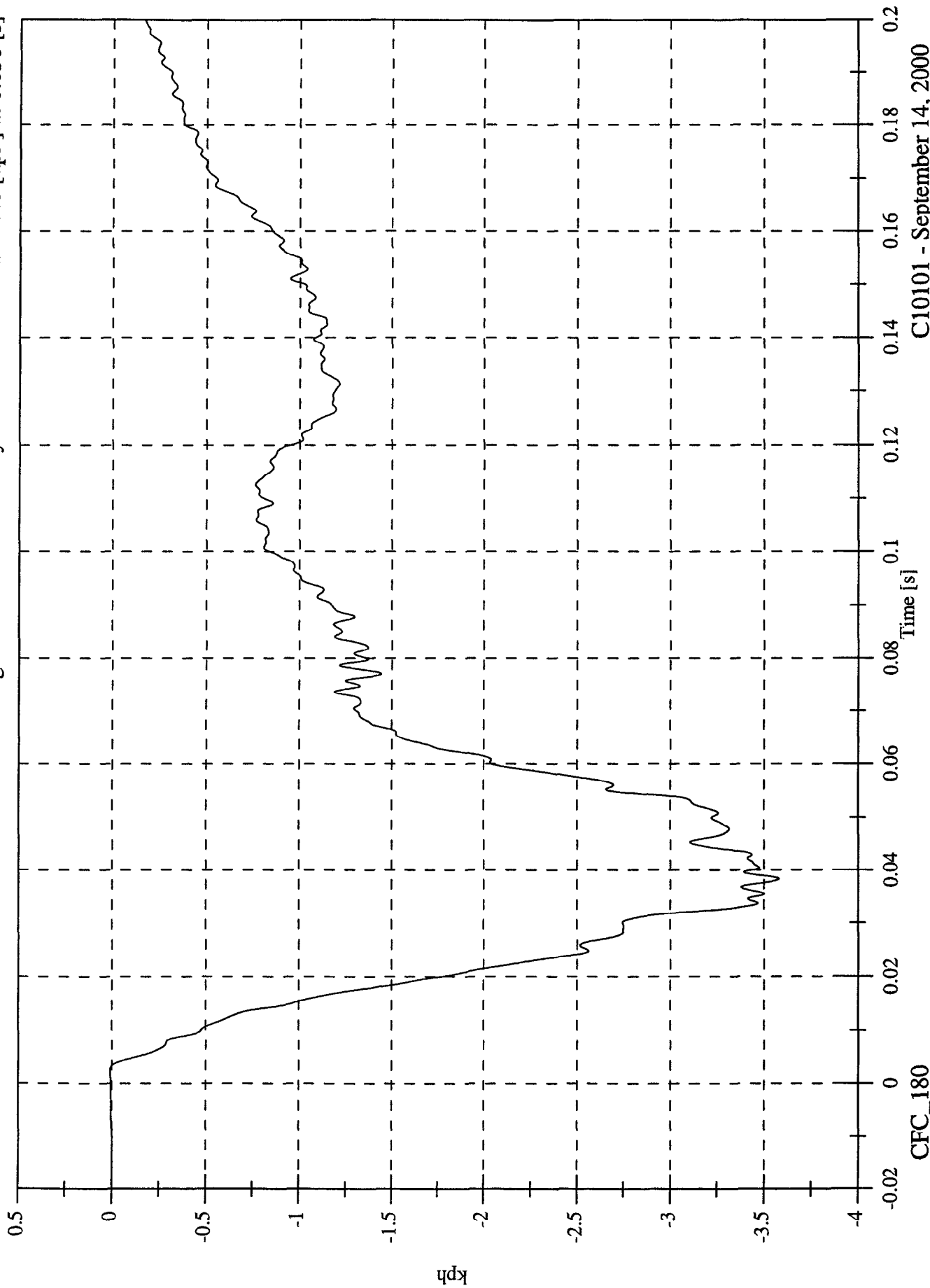
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 0.0 [kph] at 0.002 [s]

Min: -3.6 [kph] at 0.038 [s]

Acc 2 Right Rear Sill X Velocity

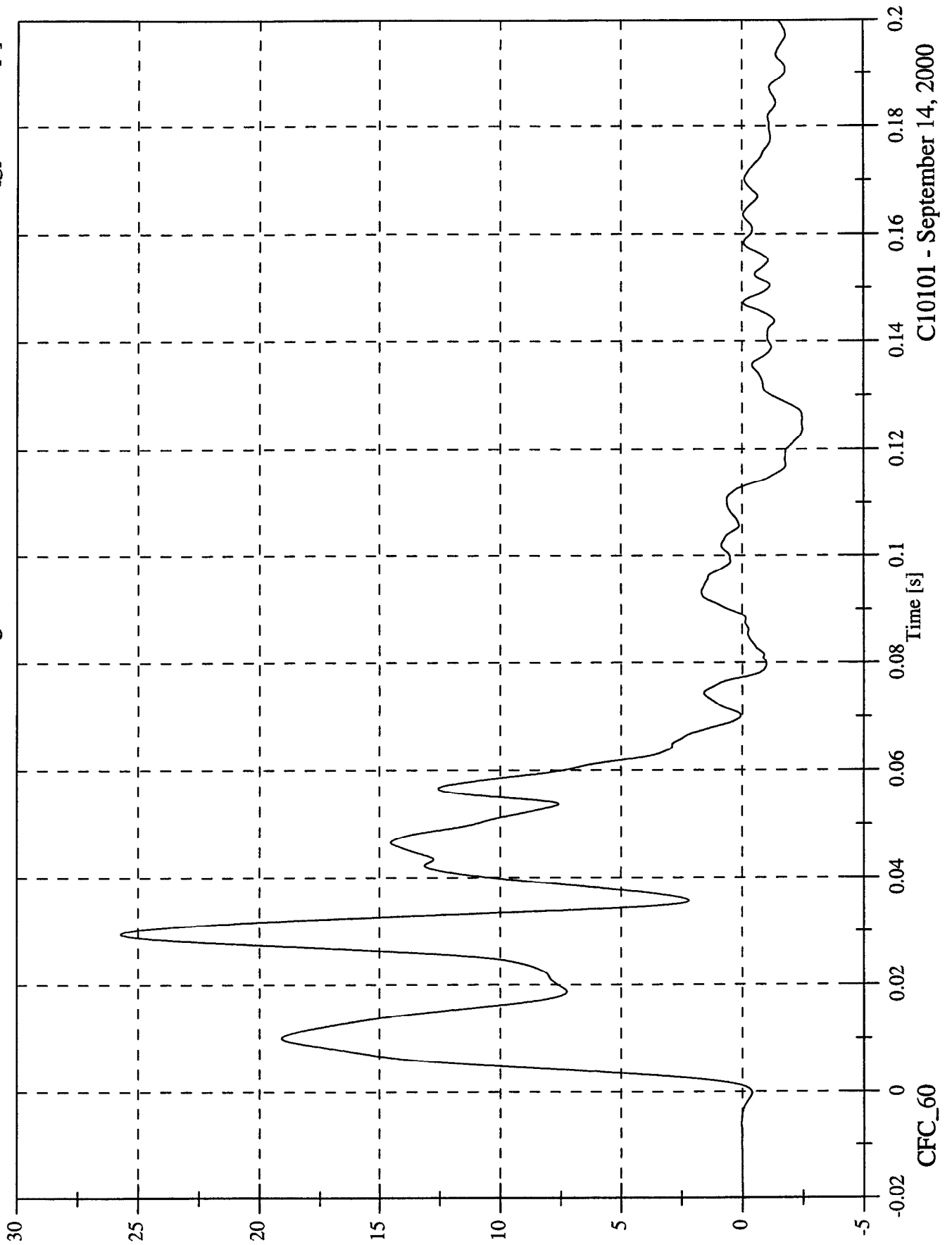


C10101 - September 14, 2000

CFC_180

Max: 25.7 [g] at 0.030 [s]
Min: -2.5 [g] at 0.124 [s]

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek
Acc 2 Right Rear Sill Y



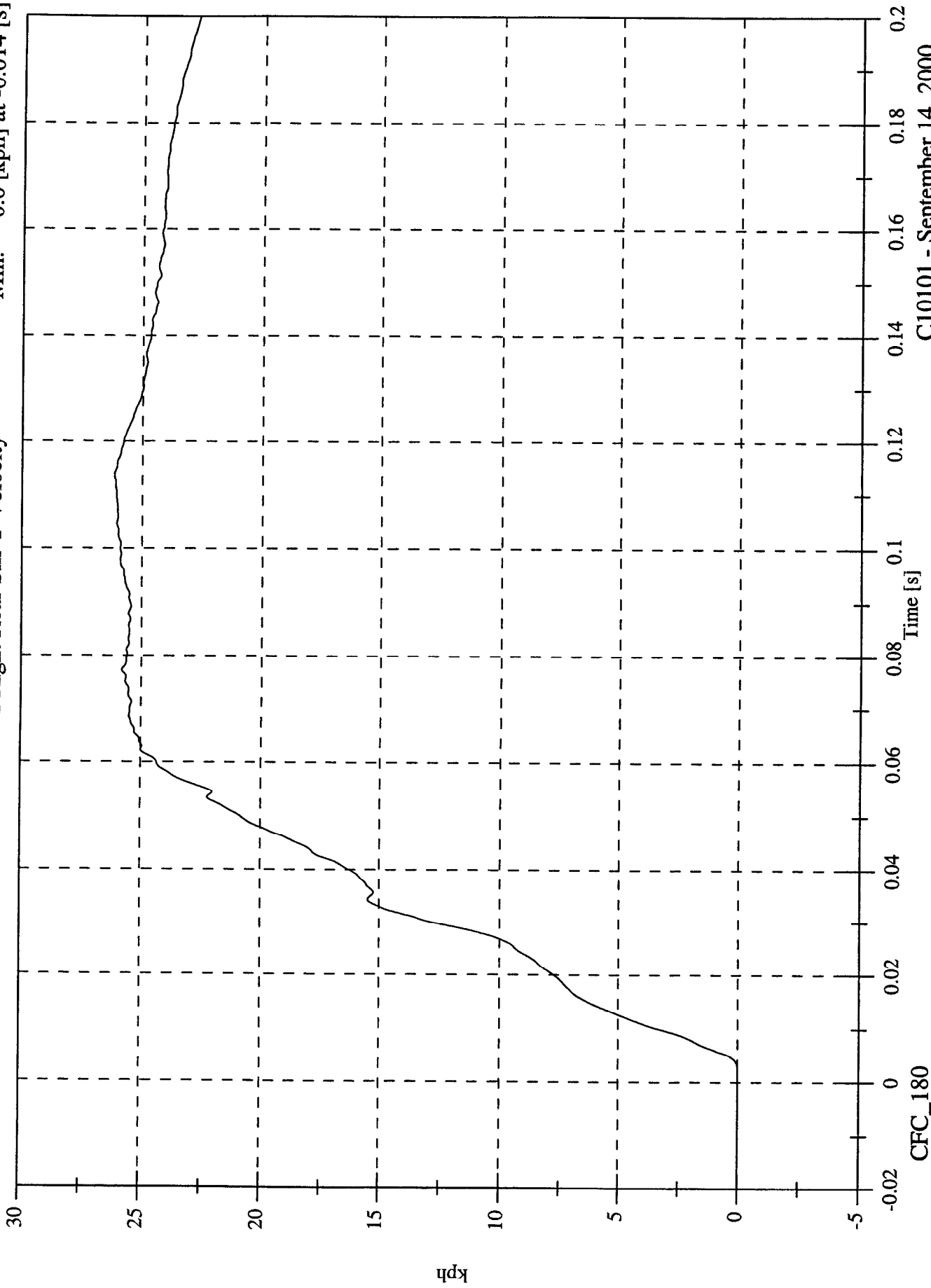
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 2 Right Rear Sill Y Velocity

Max: 26.2 [kph] at 0.114 [s]

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



C10101 - September 14, 2000

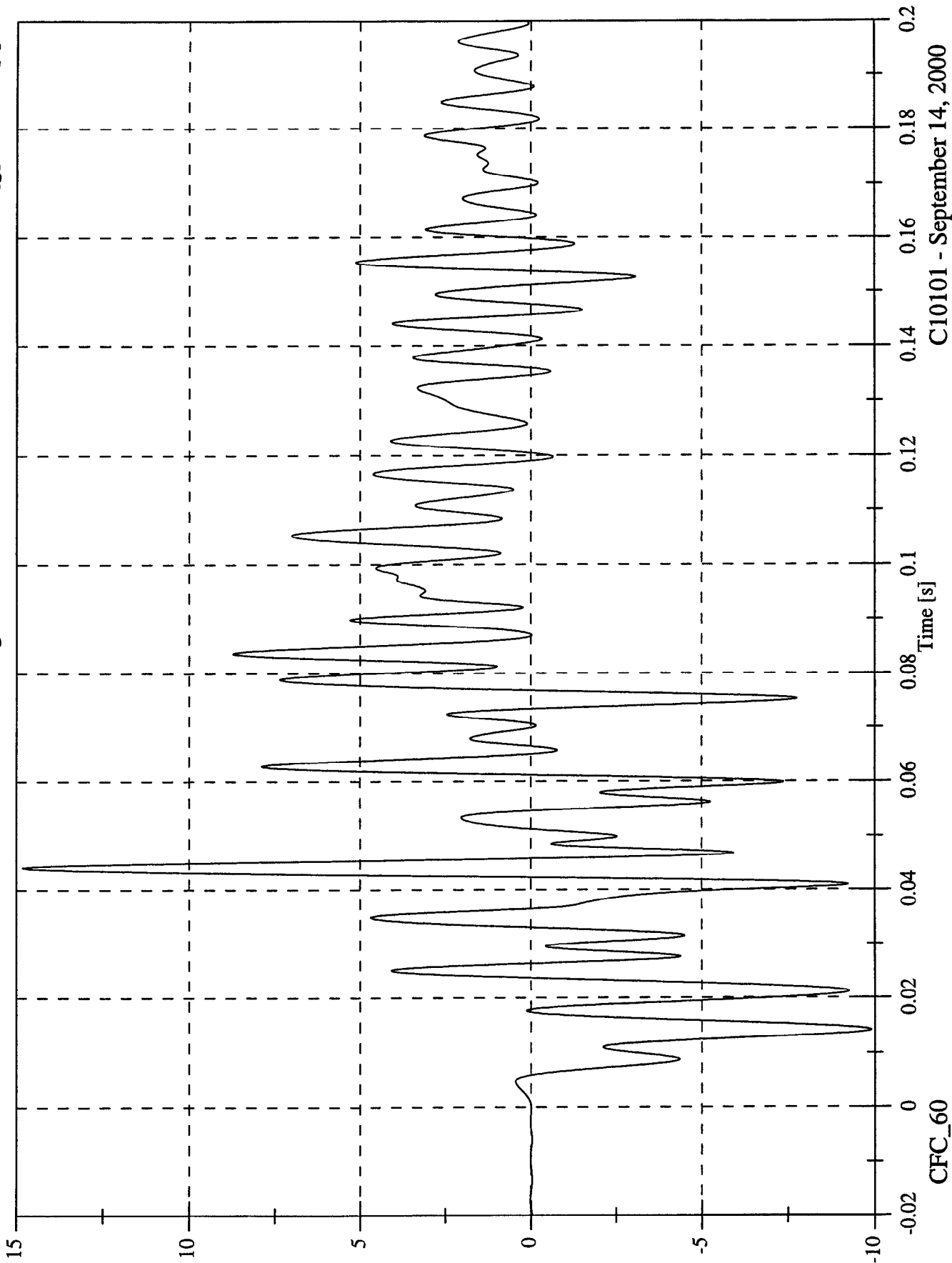
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 2 Right Rear Sill Z

Max: 14.8 [g] at 0.044 [s]

Min: -9.9 [g] at 0.014 [s]



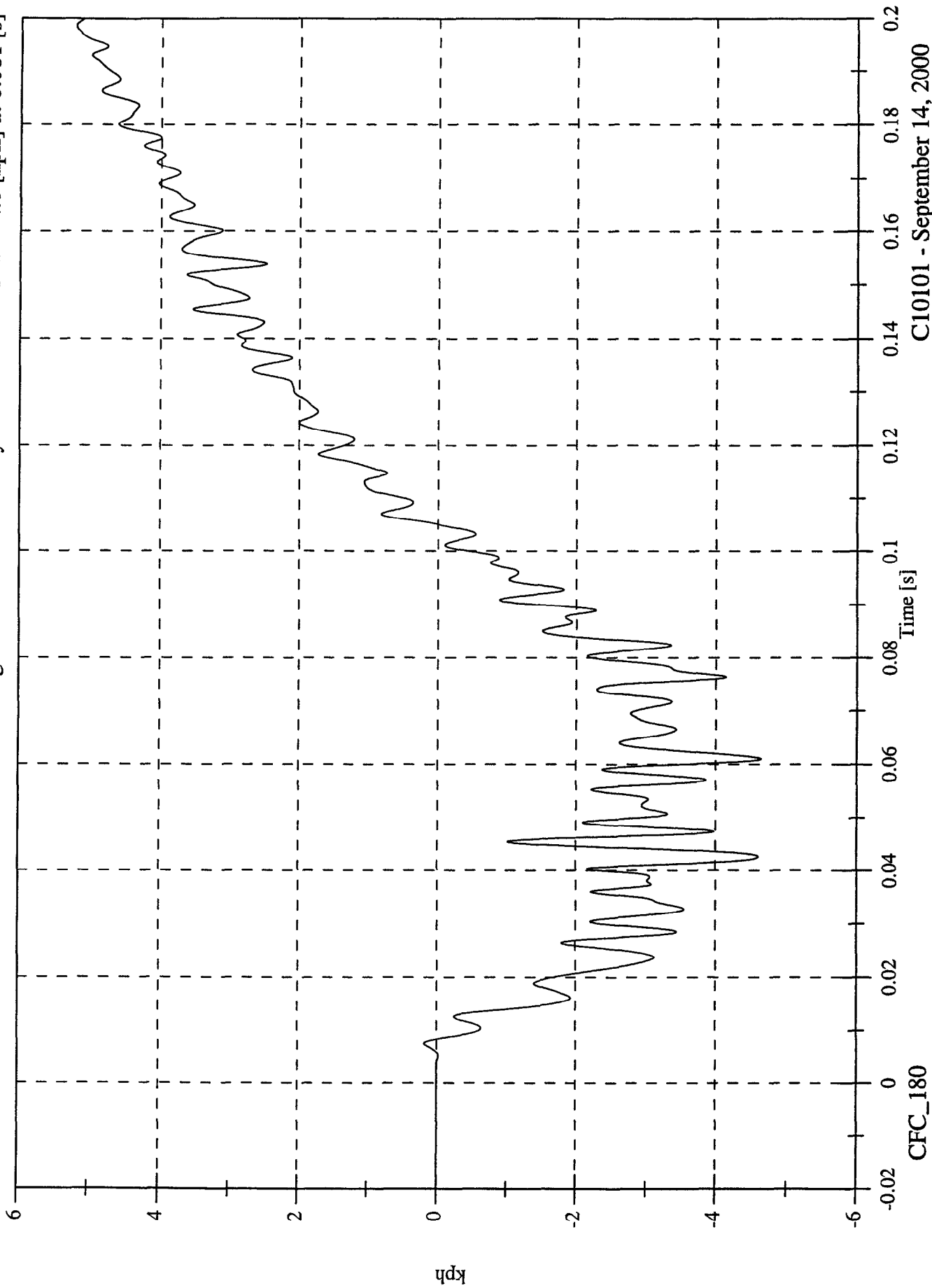
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 2 Right Rear Sill Z Velocity

Max: 5.2 [kph] at 0.199 [s]

Min: -4.6 [kph] at 0.061 [s]



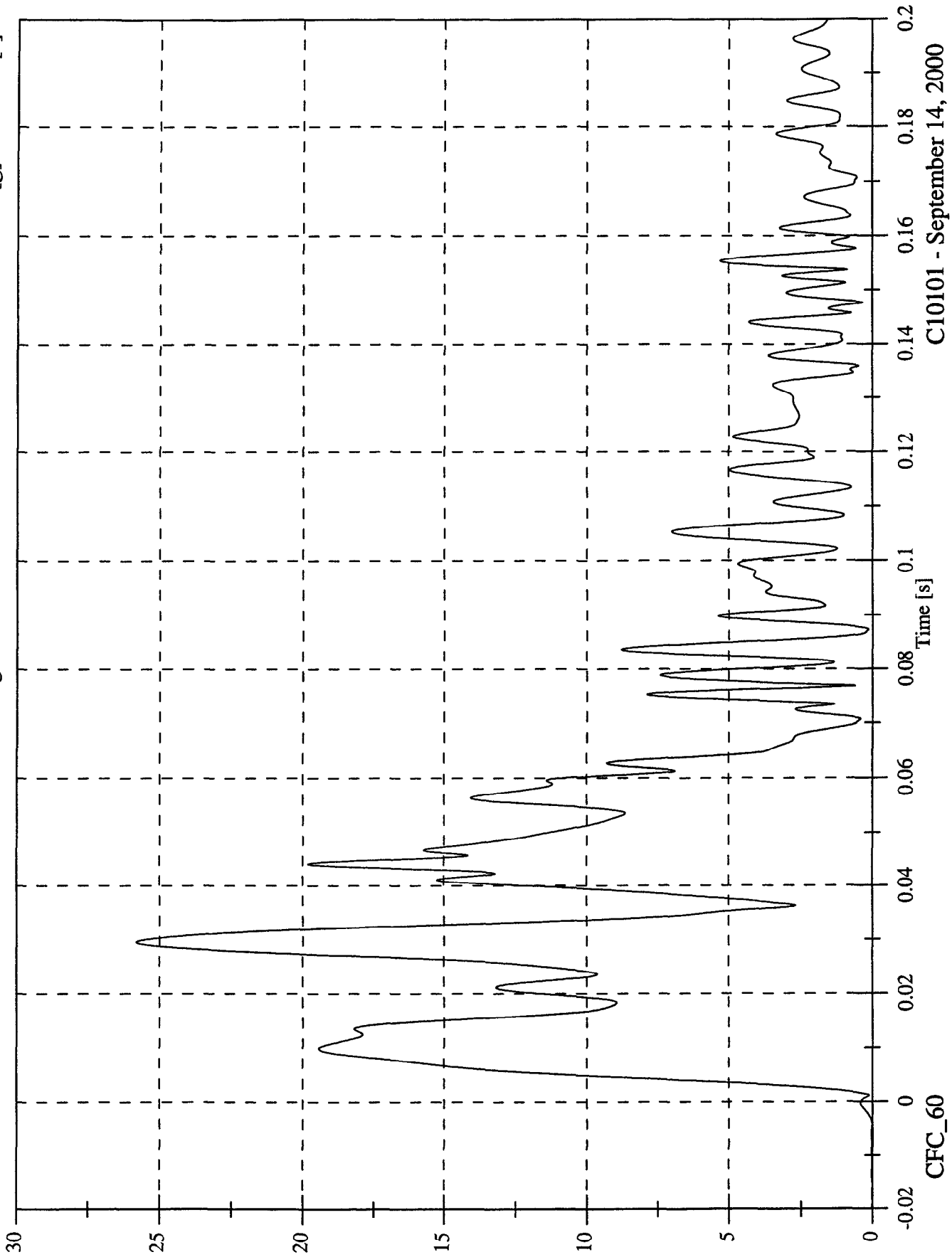
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 2 Right Rear Sill Resultant

Max: 25.8 [g] at 0.030 [s]

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



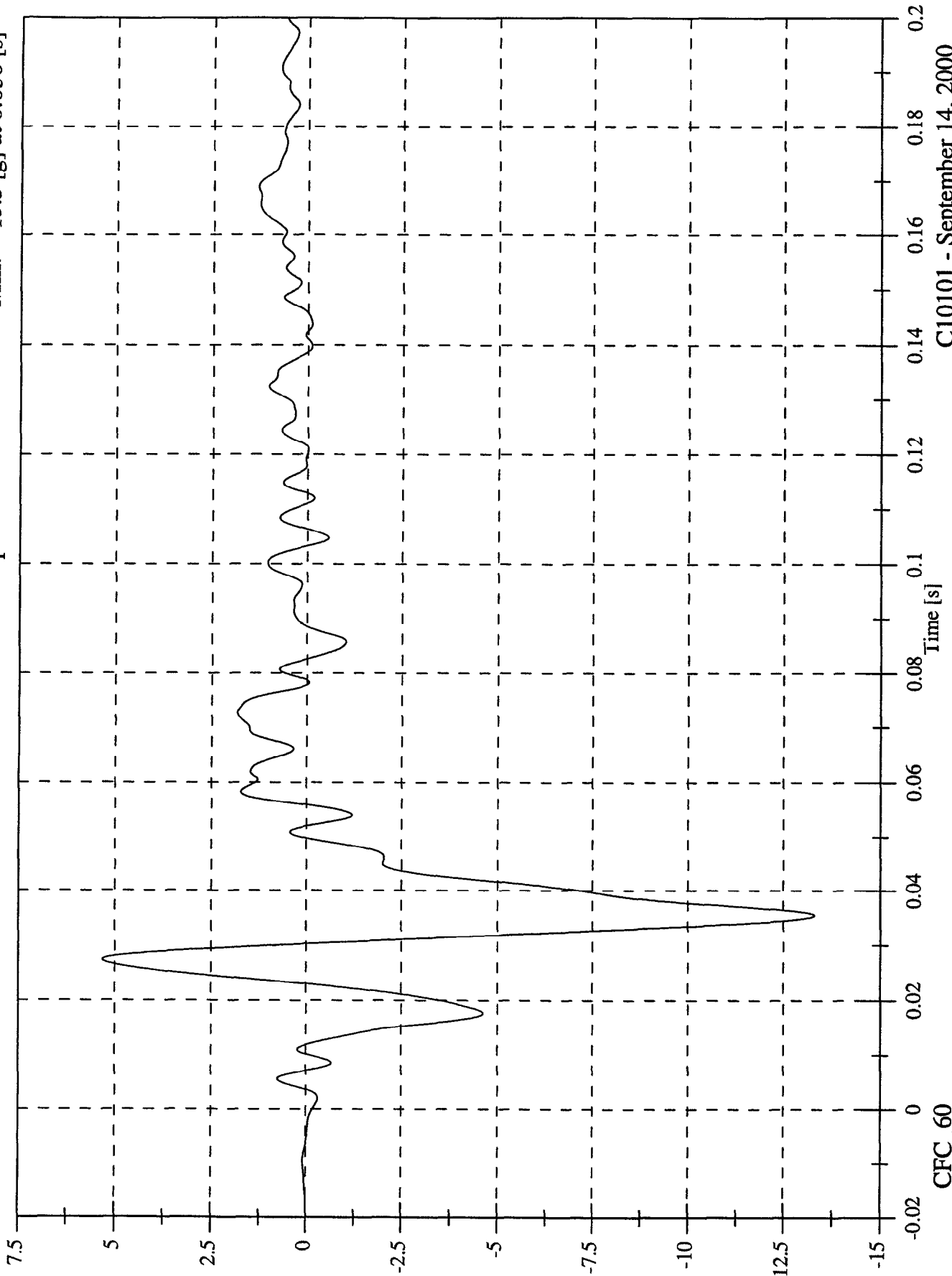
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 3 Rear Floorpan X

Max: 5.3 [g] at 0.027 [s]

Min: -13.3 [g] at 0.036 [s]



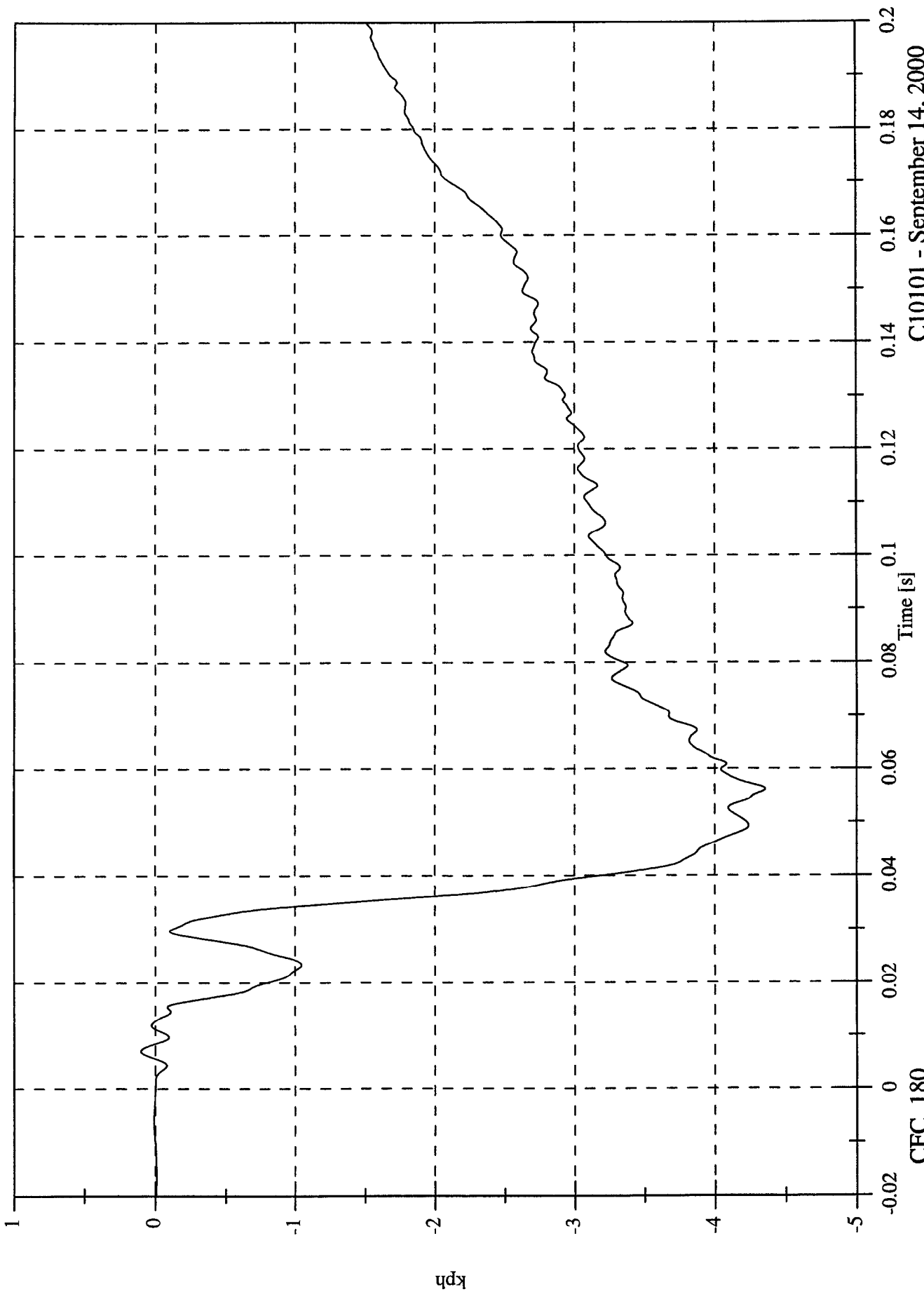
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 3 Rear Floorpan X Velocity

Max: 0.1 [kph] at 0.007 [s]

Min: -4.4 [kph] at 0.056 [s]



C10101 - September 14, 2000

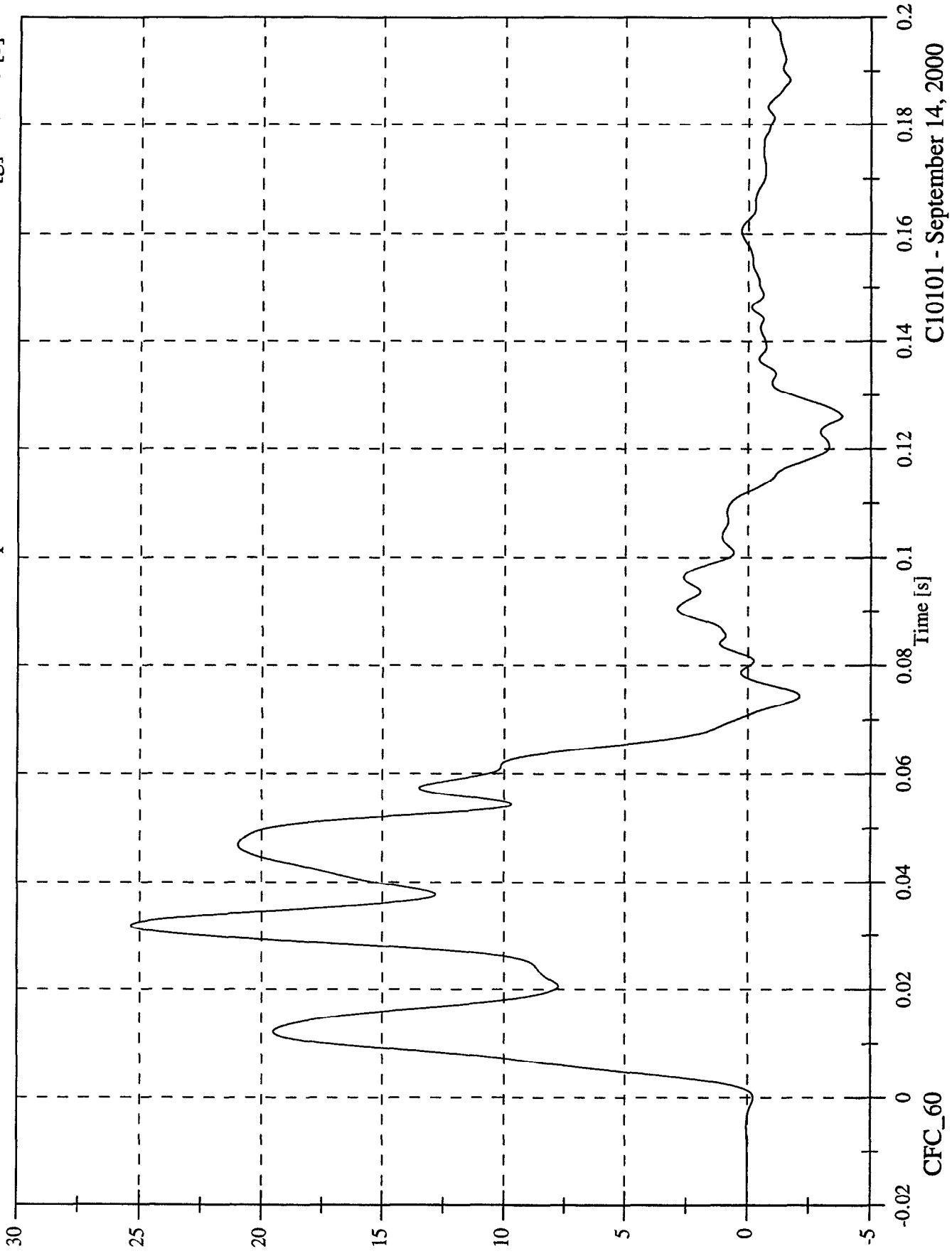
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 3 Rear Floorpan Y

Max: 25.4 [g] at 0.032 [s]

Min: -3.8 [g] at 0.126 [s]



C10101 - September 14, 2000

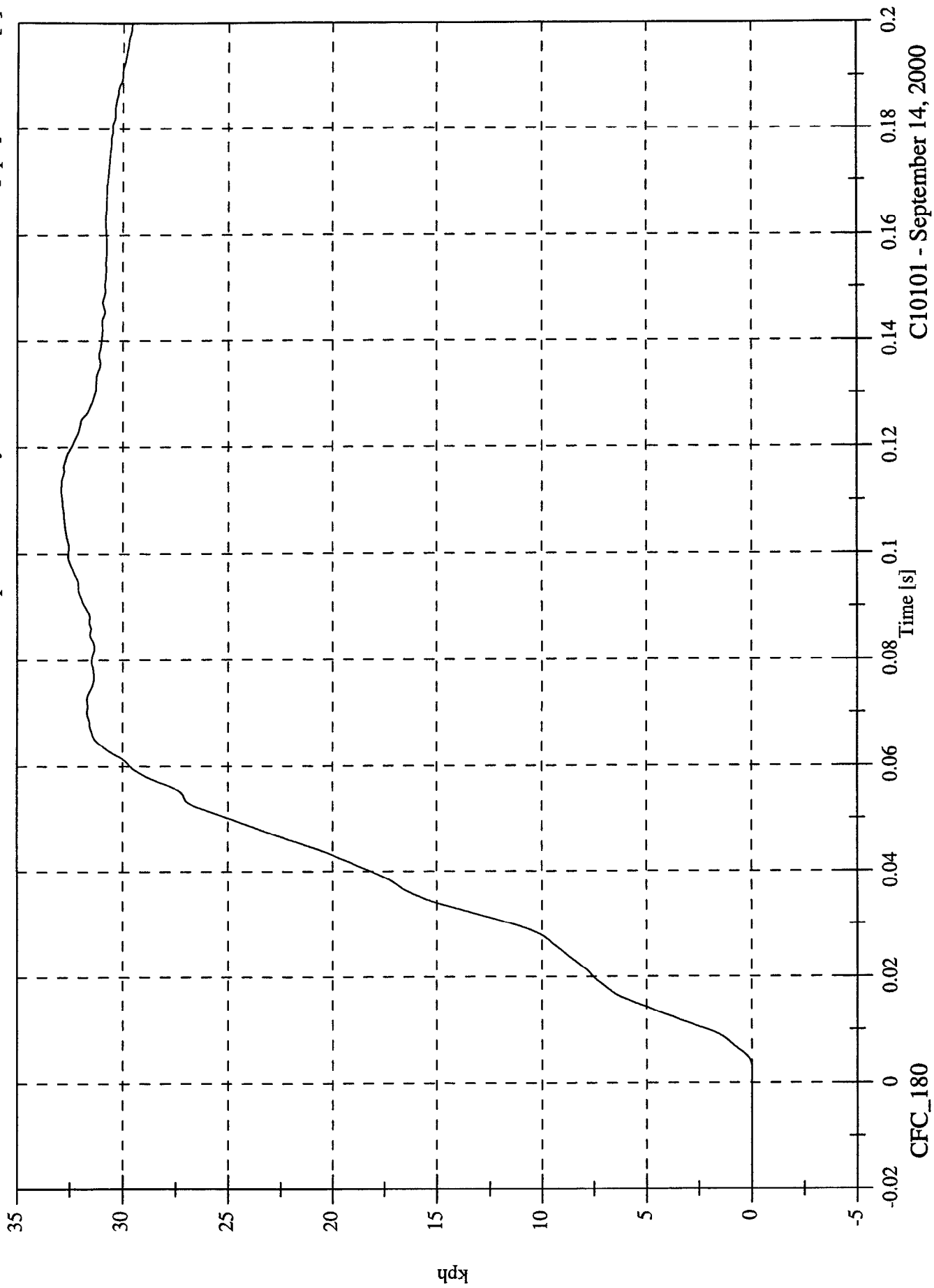
CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 32.9 [kph] at 0.112 [s]

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

Acc 3 Rear Floorpan Y Velocity



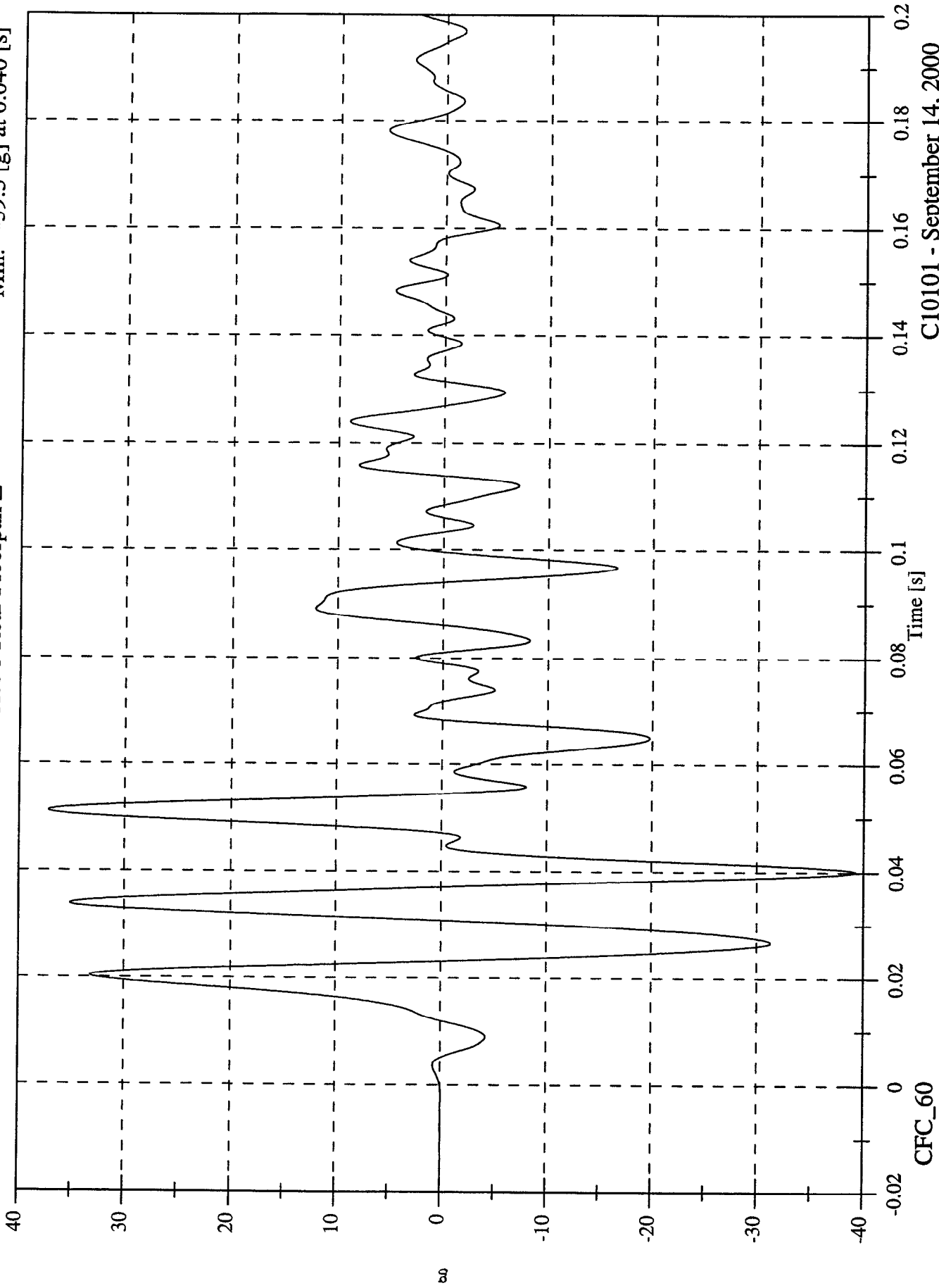
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 3 Rear Floorpan Z

Max: 37.2 [g] at 0.051 [s]

Min: -39.3 [g] at 0.040 [s]



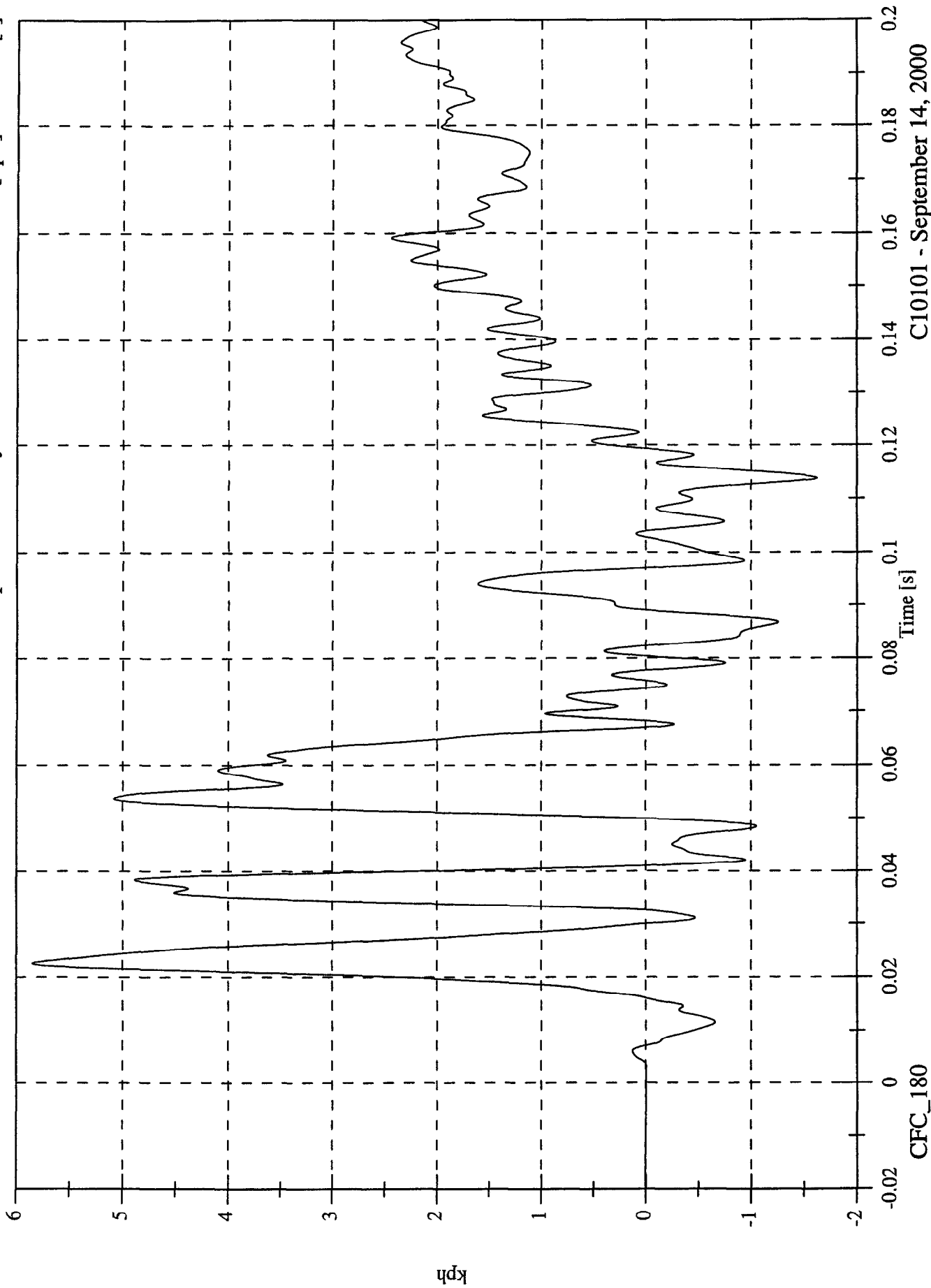
CI0101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 3 Rear Floorpan Z Velocity

Max: 5.8 [kph] at 0.023 [s]

Min: -1.6 [kph] at 0.114 [s]



CFC_180

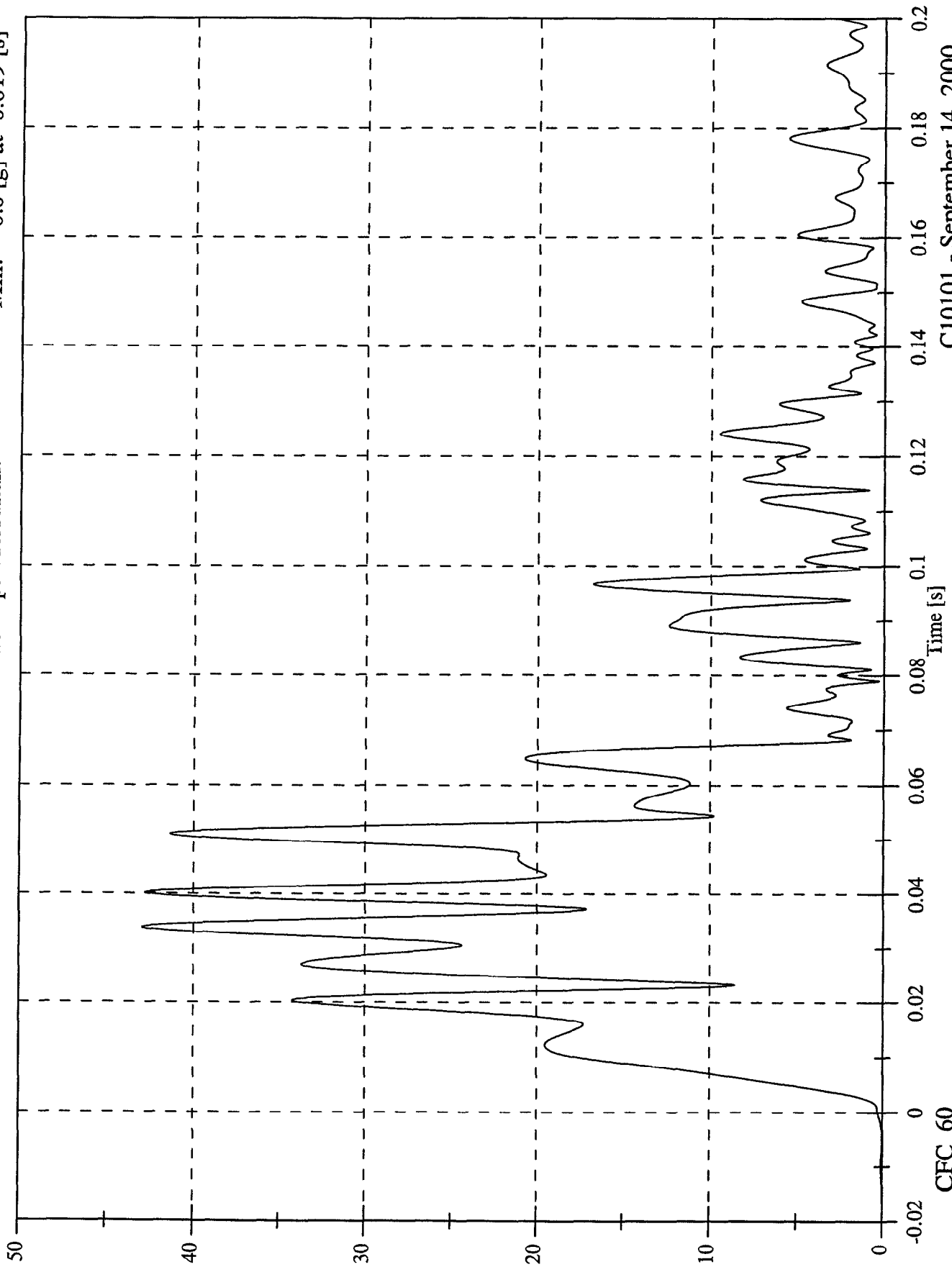
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 3 Rear Floorpan Resultant

Max: 42.9 [g] at 0.034 [s]

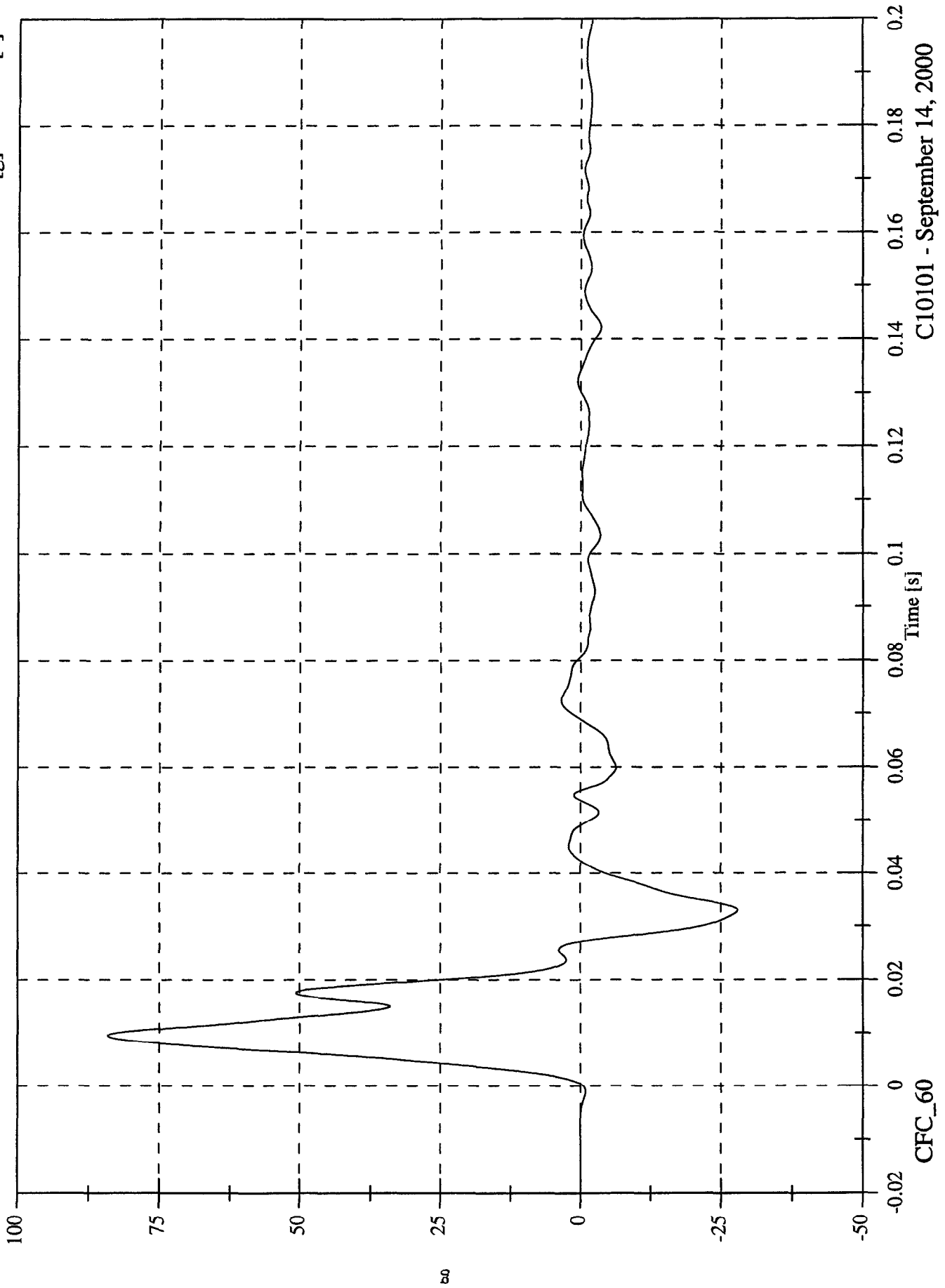
Min: 0.0 [g] at -0.019 [s]



C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek
Acc 4 Left Rear Sill Y

Max: 84.1 [g] at 0.010 [s]
Min: -28.0 [g] at 0.033 [s]



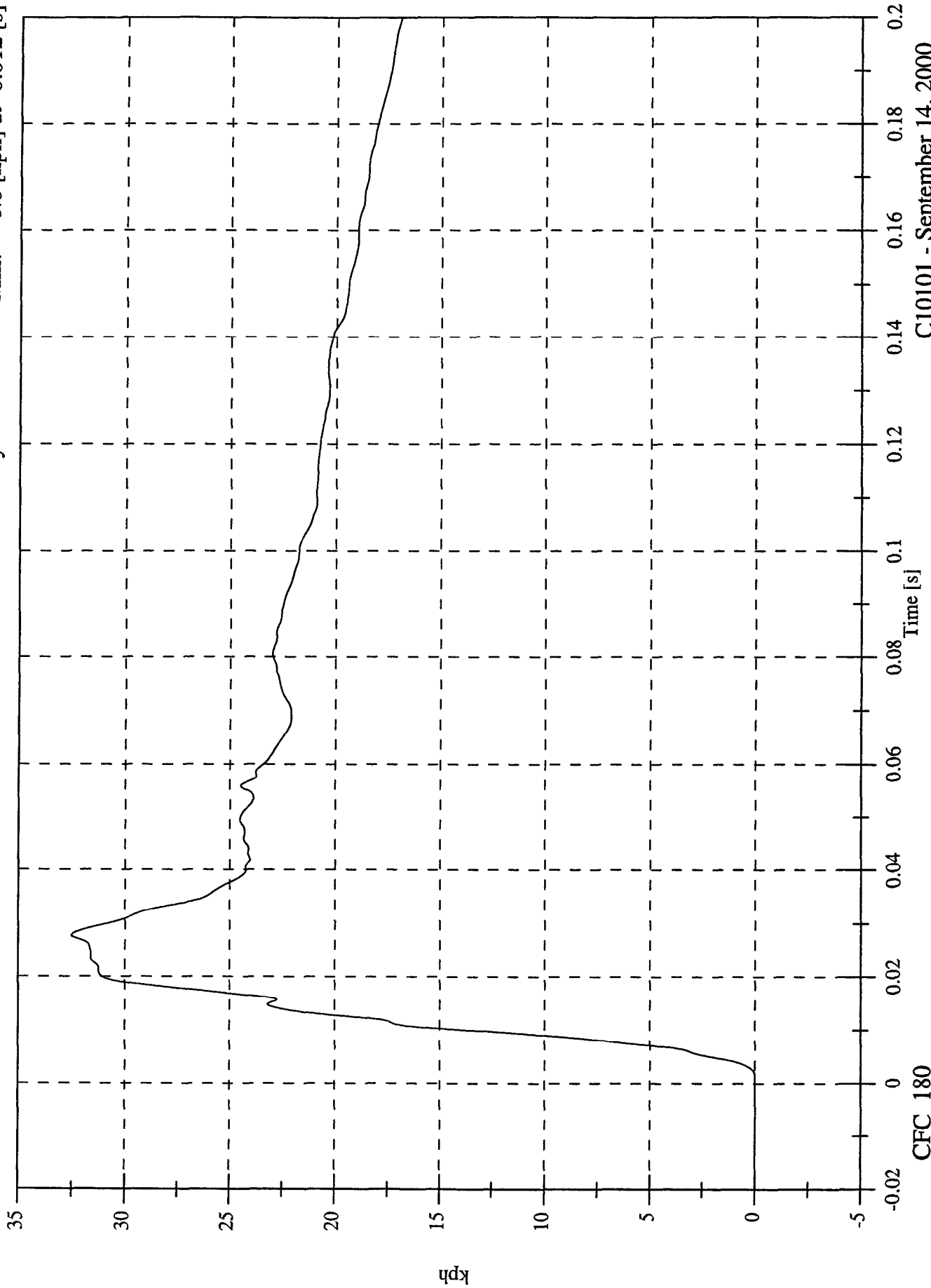
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 4 Left Rear Sill Y Velocity

Max: 32.5 [kph] at 0.028 [s]

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



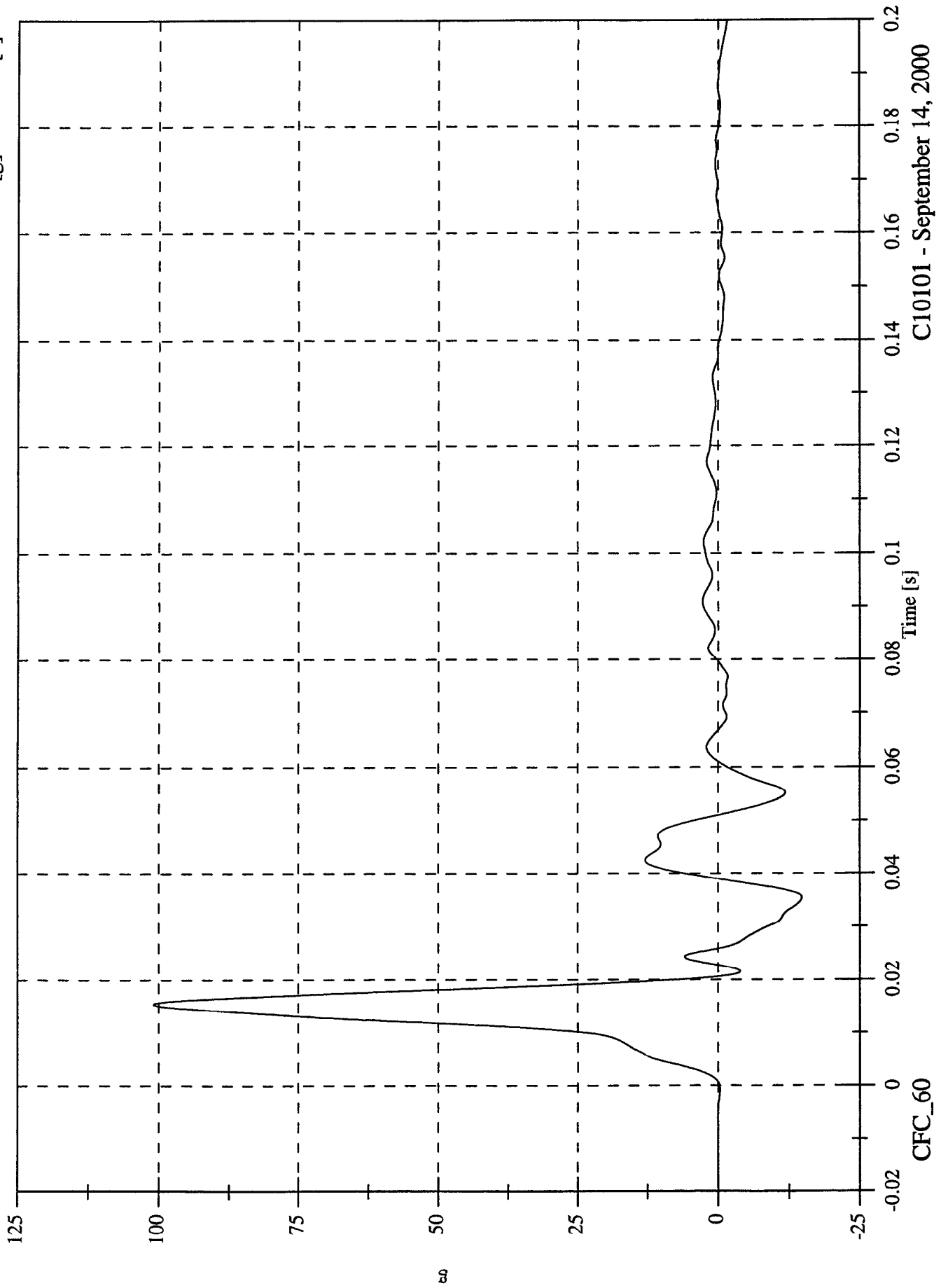
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 5 Left Front Sill Y

Max: 101.0 [g] at 0.015 [s]
Min: -14.8 [g] at 0.035 [s]



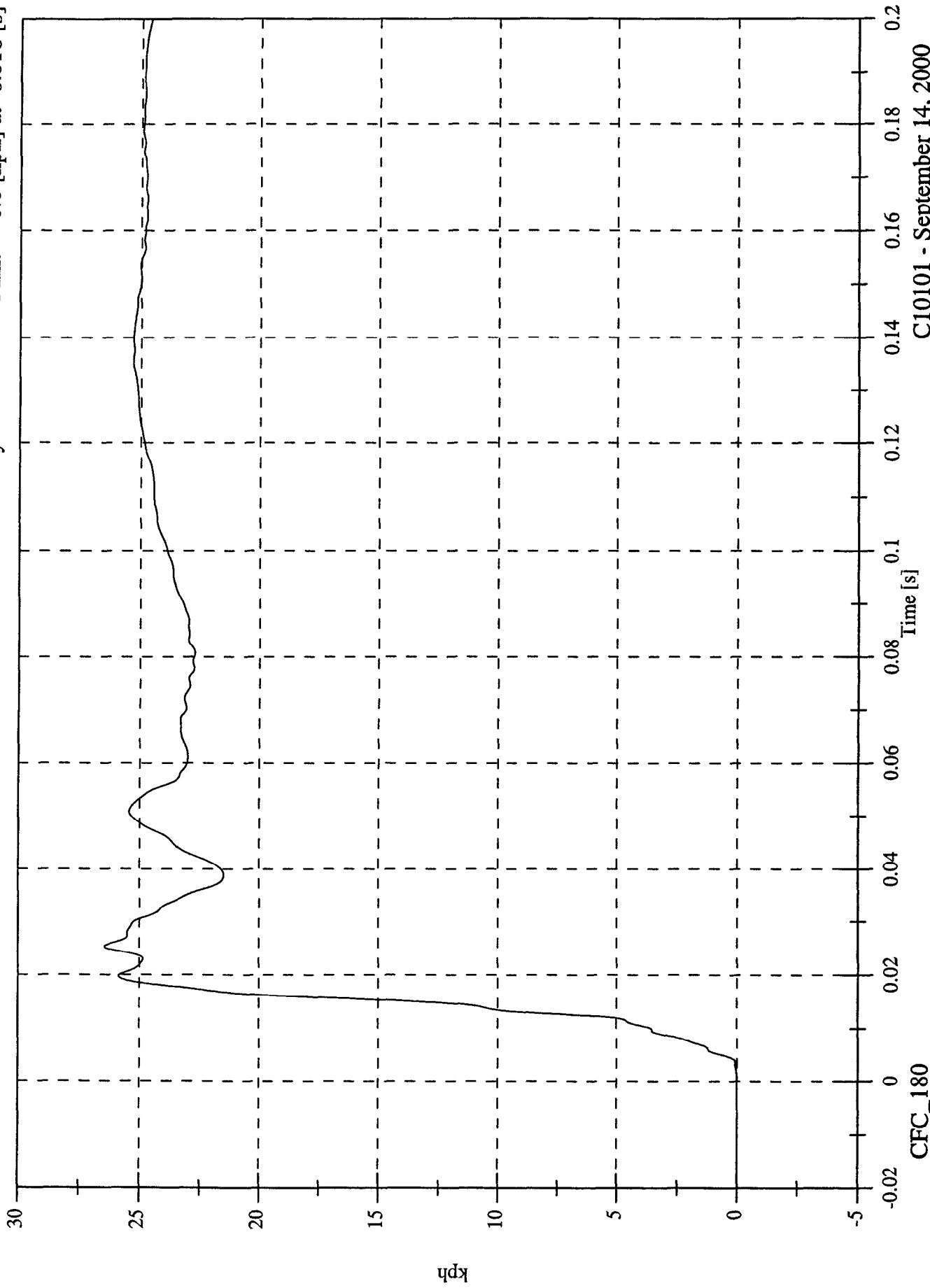
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 5 Left Front Sill Y Velocity

Max: 26.4 [kph] at 0.025 [s]

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



C10101 - September 14, 2000

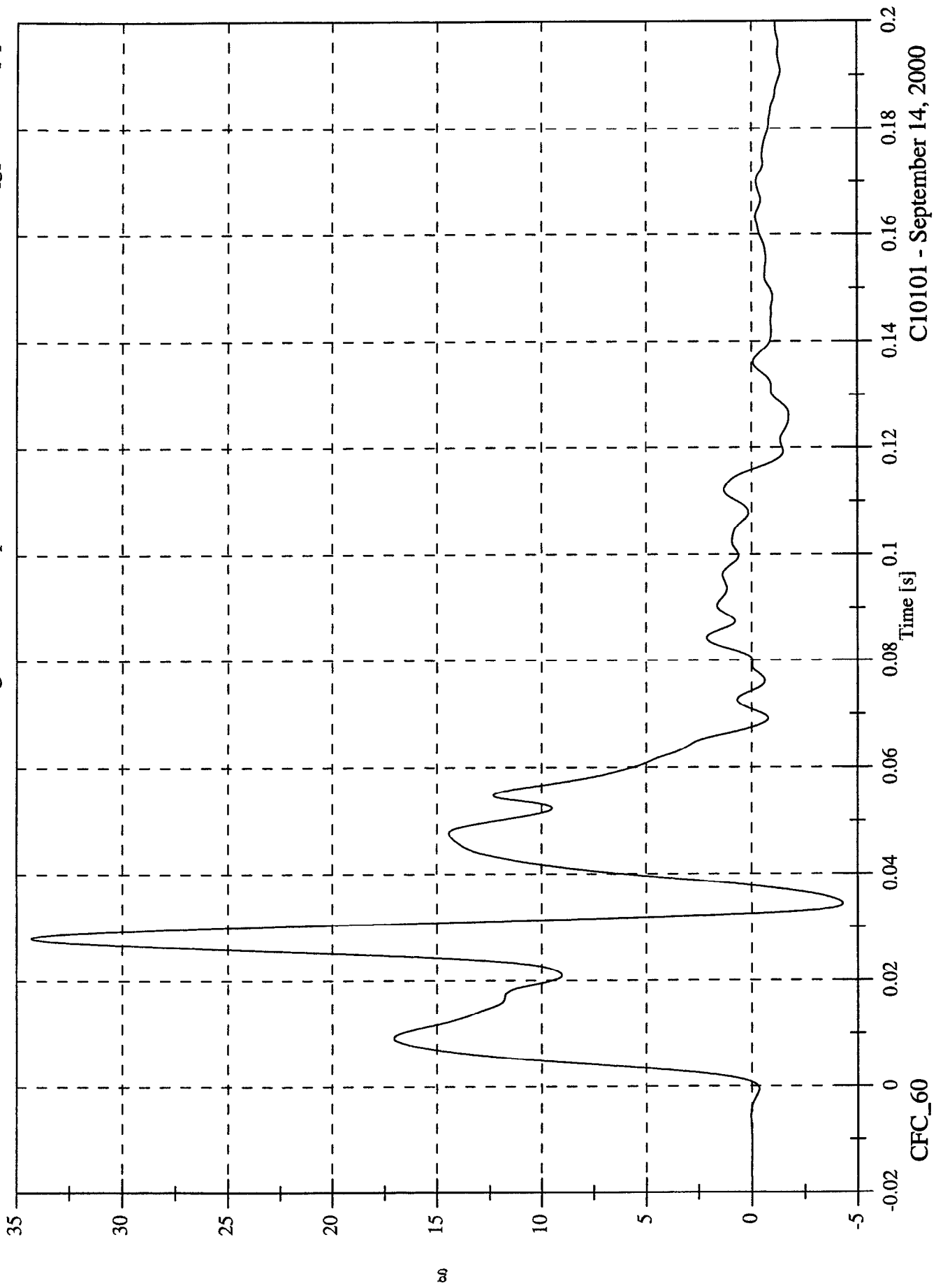
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 7 Right Rear Compartment Y

Max: 34.3 [g] at 0.028 [s]

Min: -4.3 [g] at 0.034 [s]



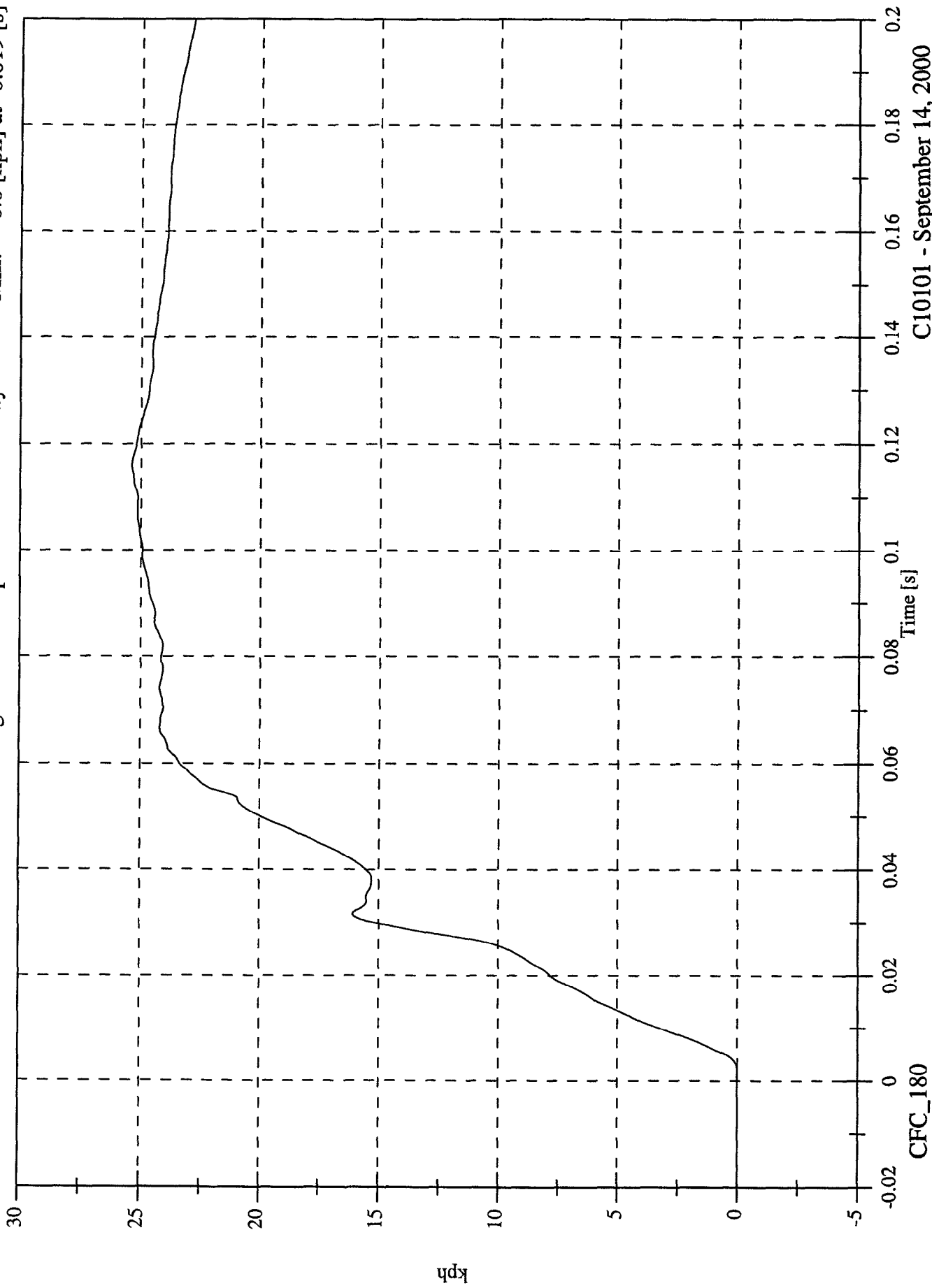
CI10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 7 Right Rear Compartment Y Velocity

Max: 25.4 [kph] at 0.116 [s]

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



C10101 - September 14, 2000

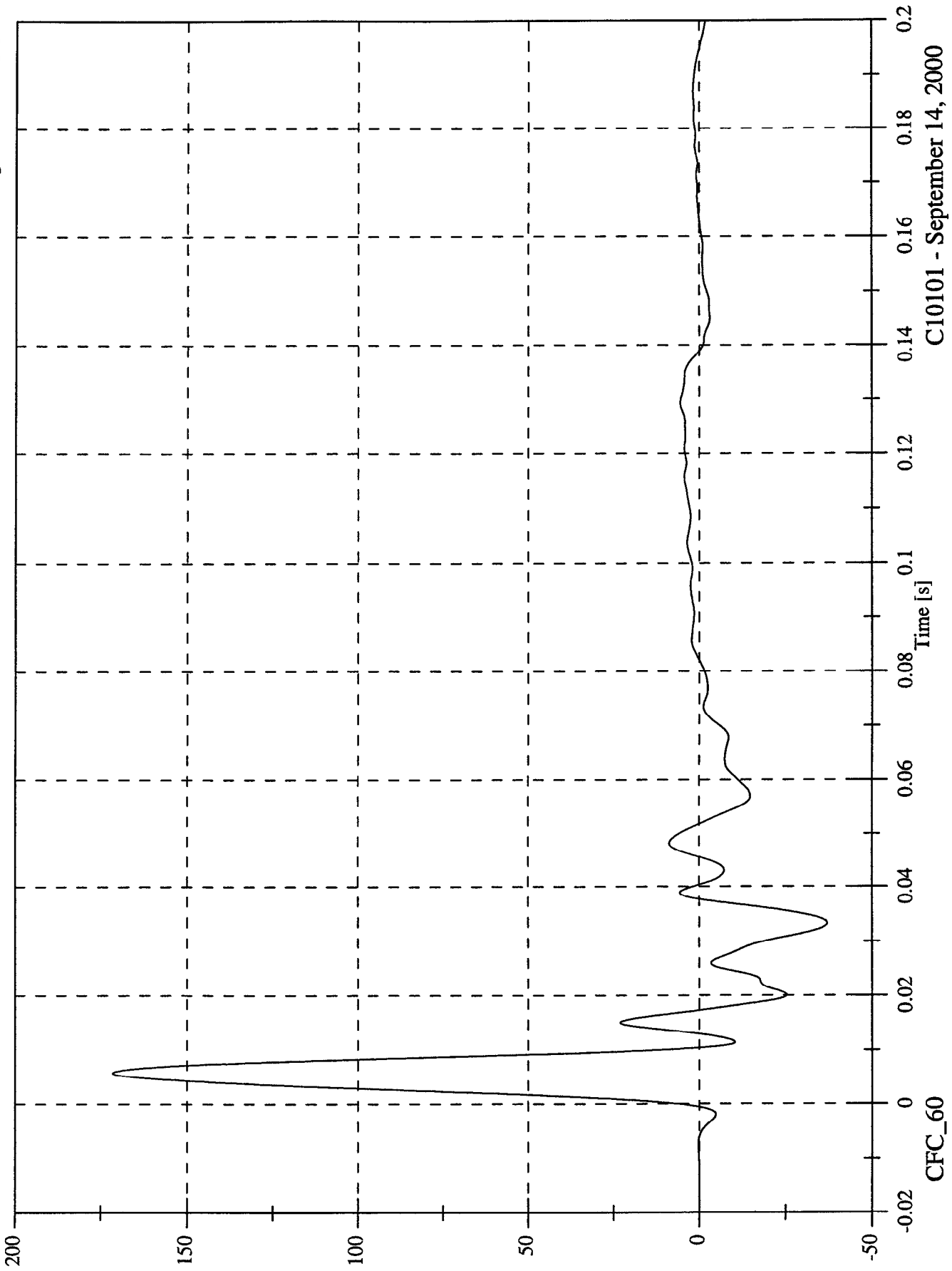
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 12 Left Lower B Post Y

Max: 171.4 [g] at 0.006 [s]

Min: -37.1 [g] at 0.033 [s]



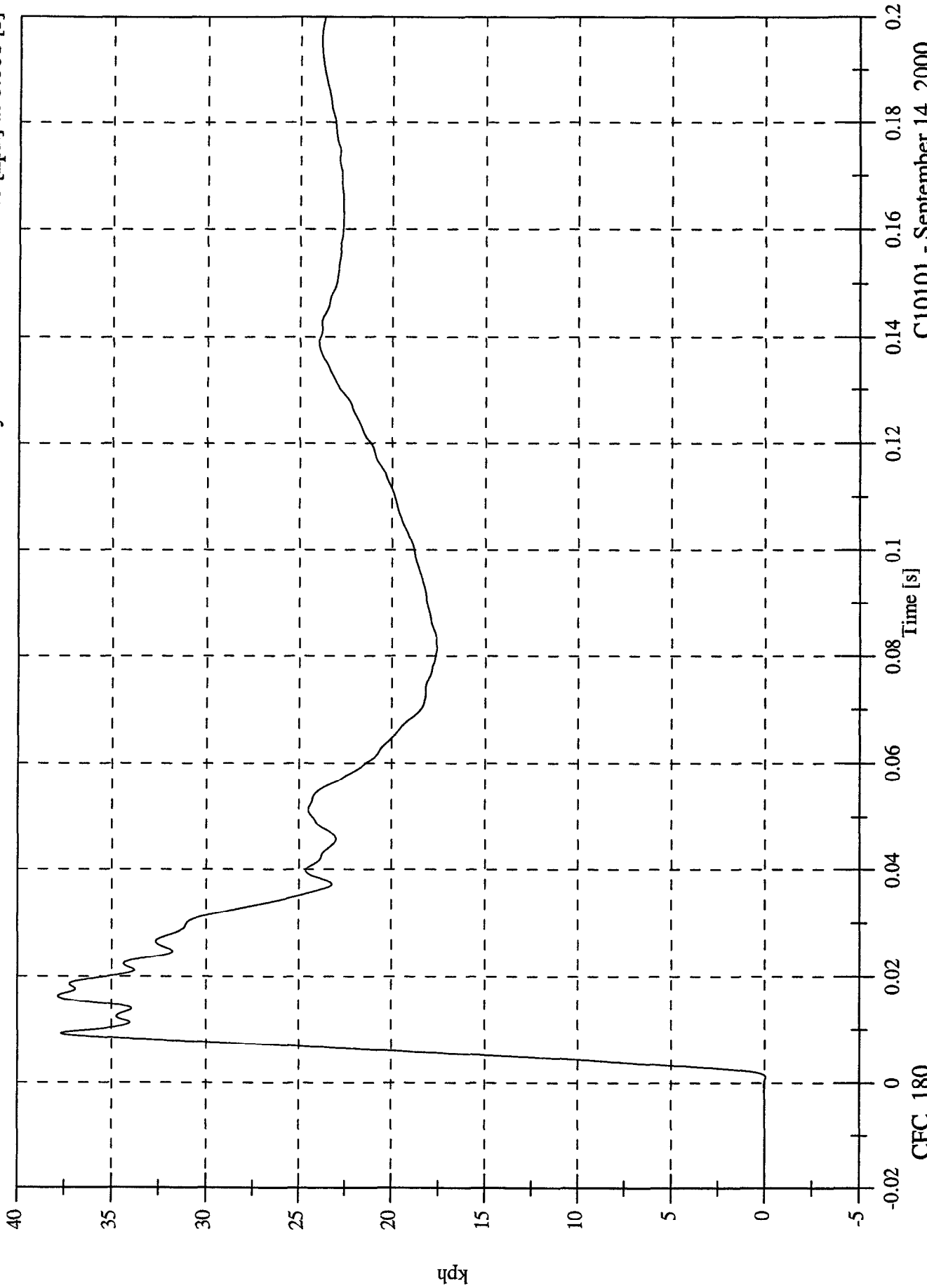
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 12 Left Lower B Post Y Velocity

Max: 37.8 [kph] at 0.016 [s]

Min: -0.0 [kph] at 0.001 [s]



C10101 - September 14, 2000

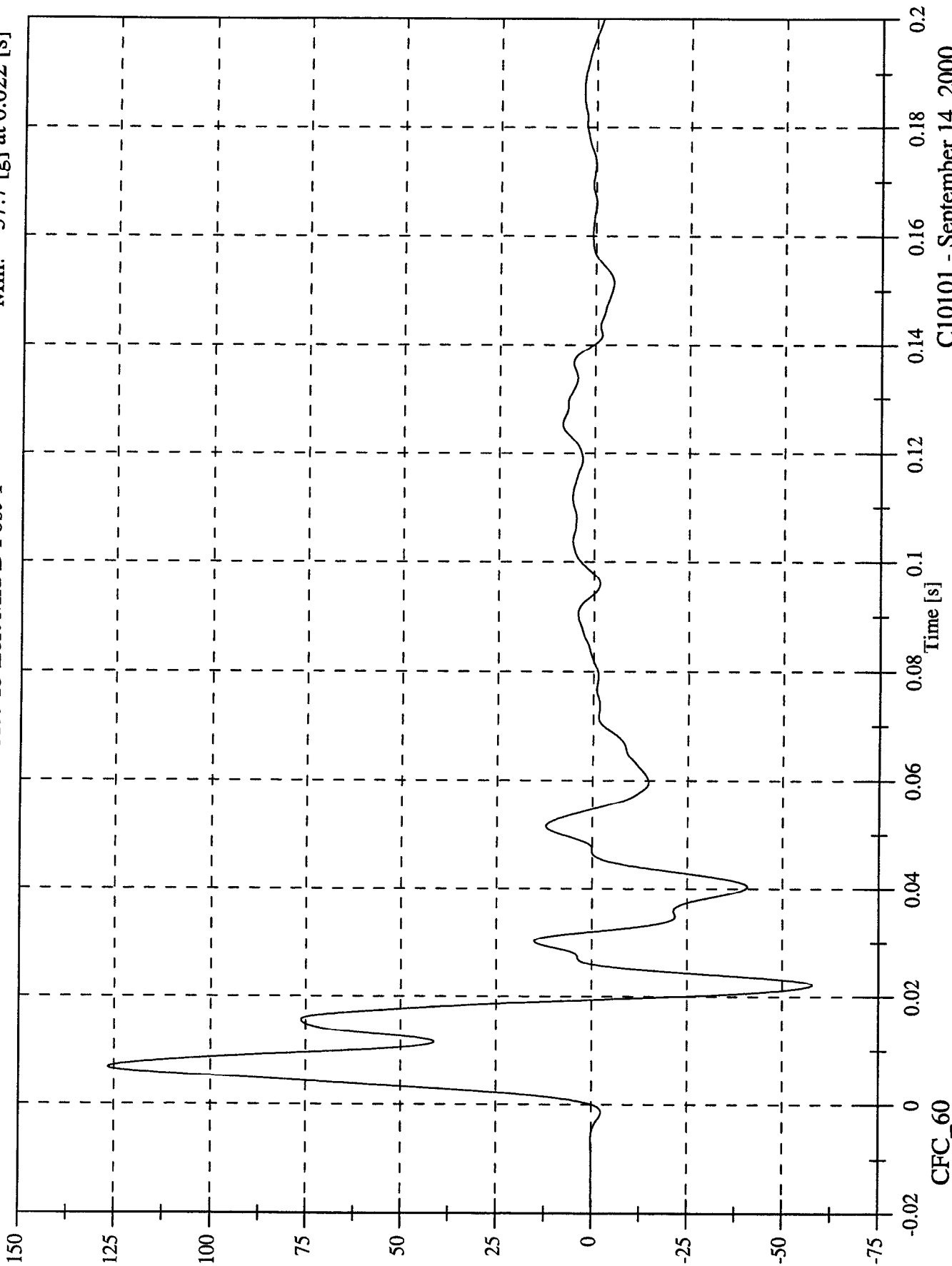
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 13 Left Mid B Post Y

Max: 126.6 [g] at 0.007 [s]

Min: -57.7 [g] at 0.022 [s]



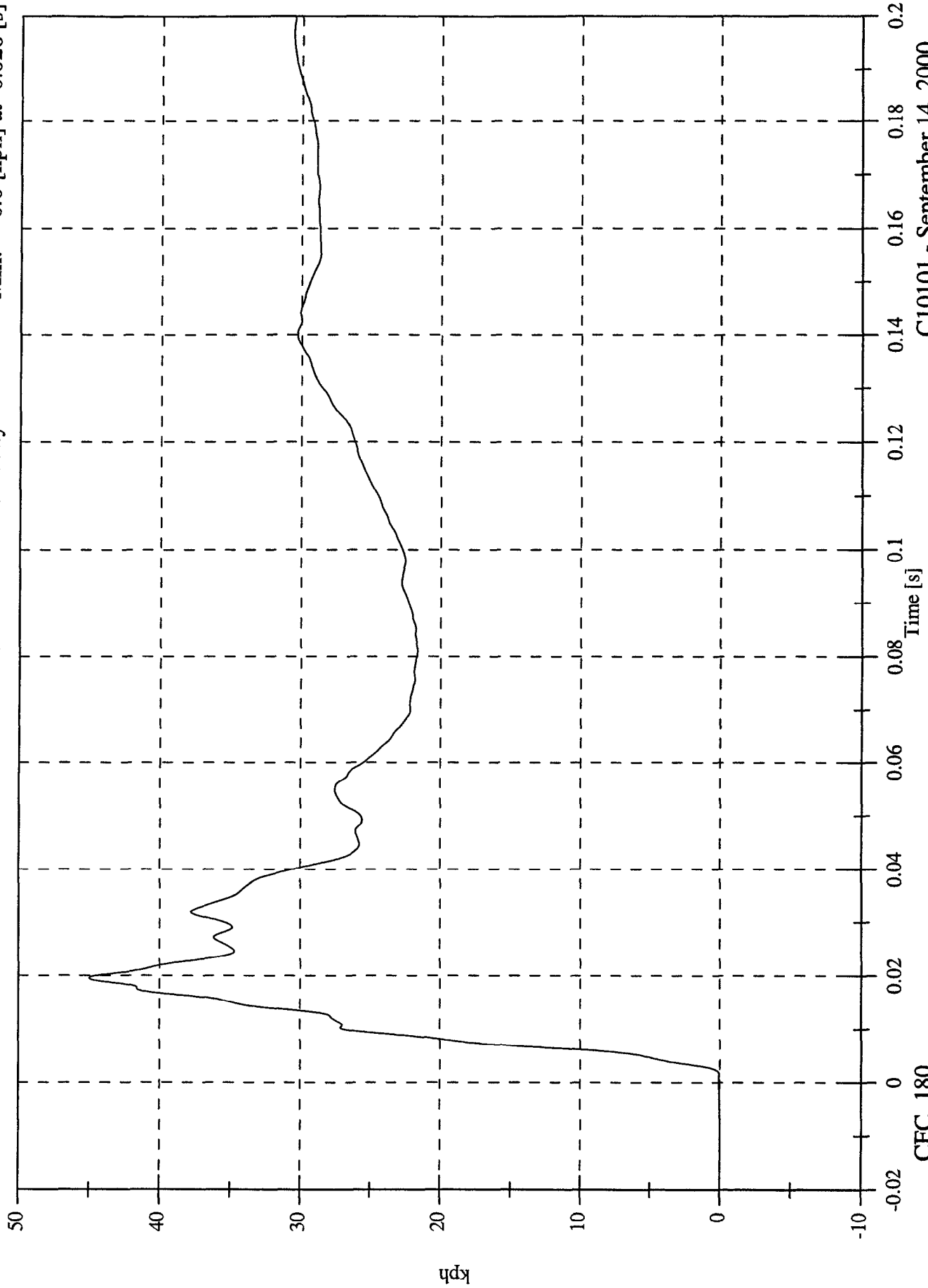
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 13 Left Mid B Post Y Velocity

Max: 45.0 [kph] at 0.020 [s]

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



C10101 - September 14, 2000

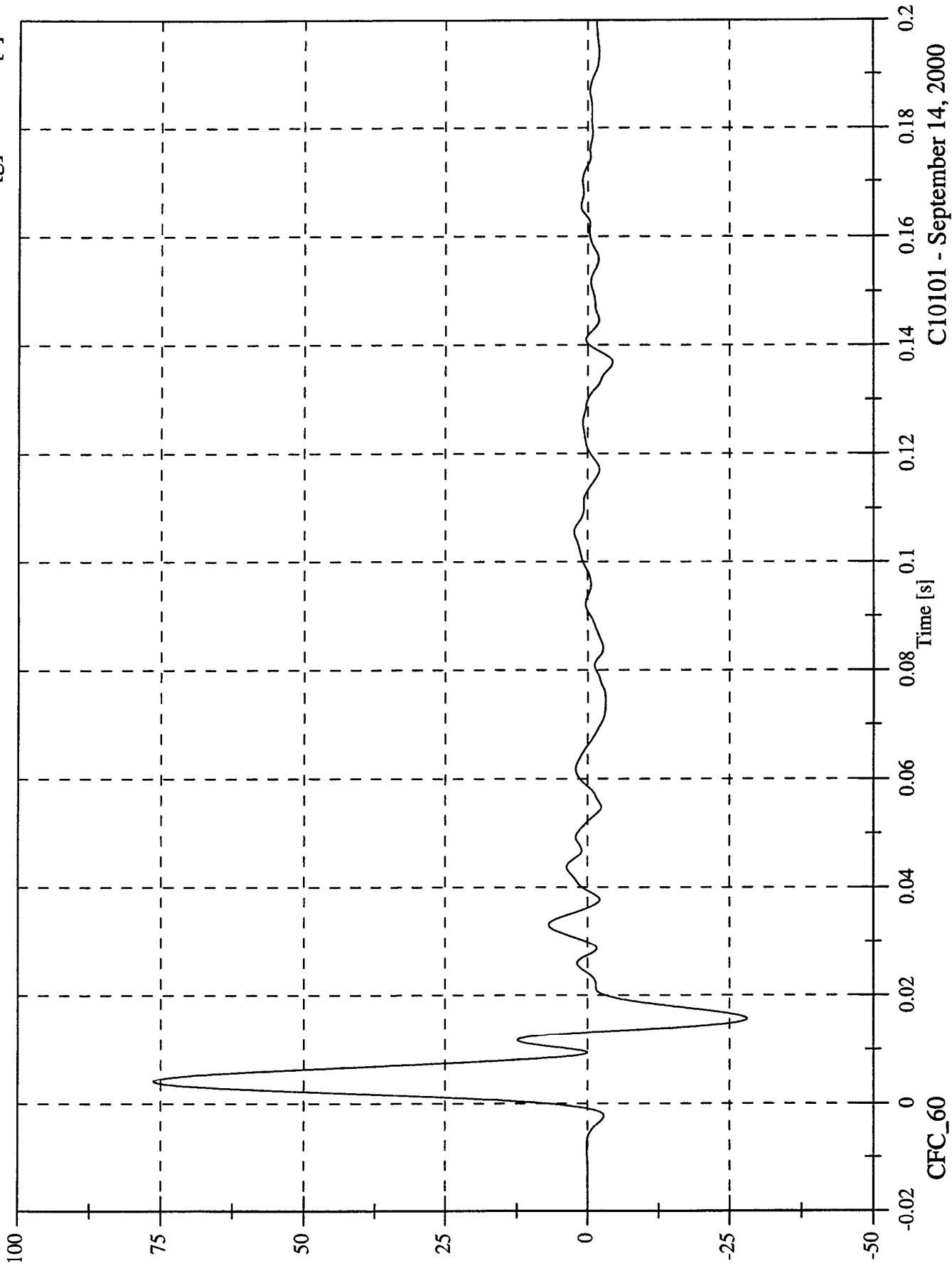
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 14 Left Lower A Post Y

Max: 76.3 [g] at 0.004 [s]

Min: -28.1 [g] at 0.016 [s]



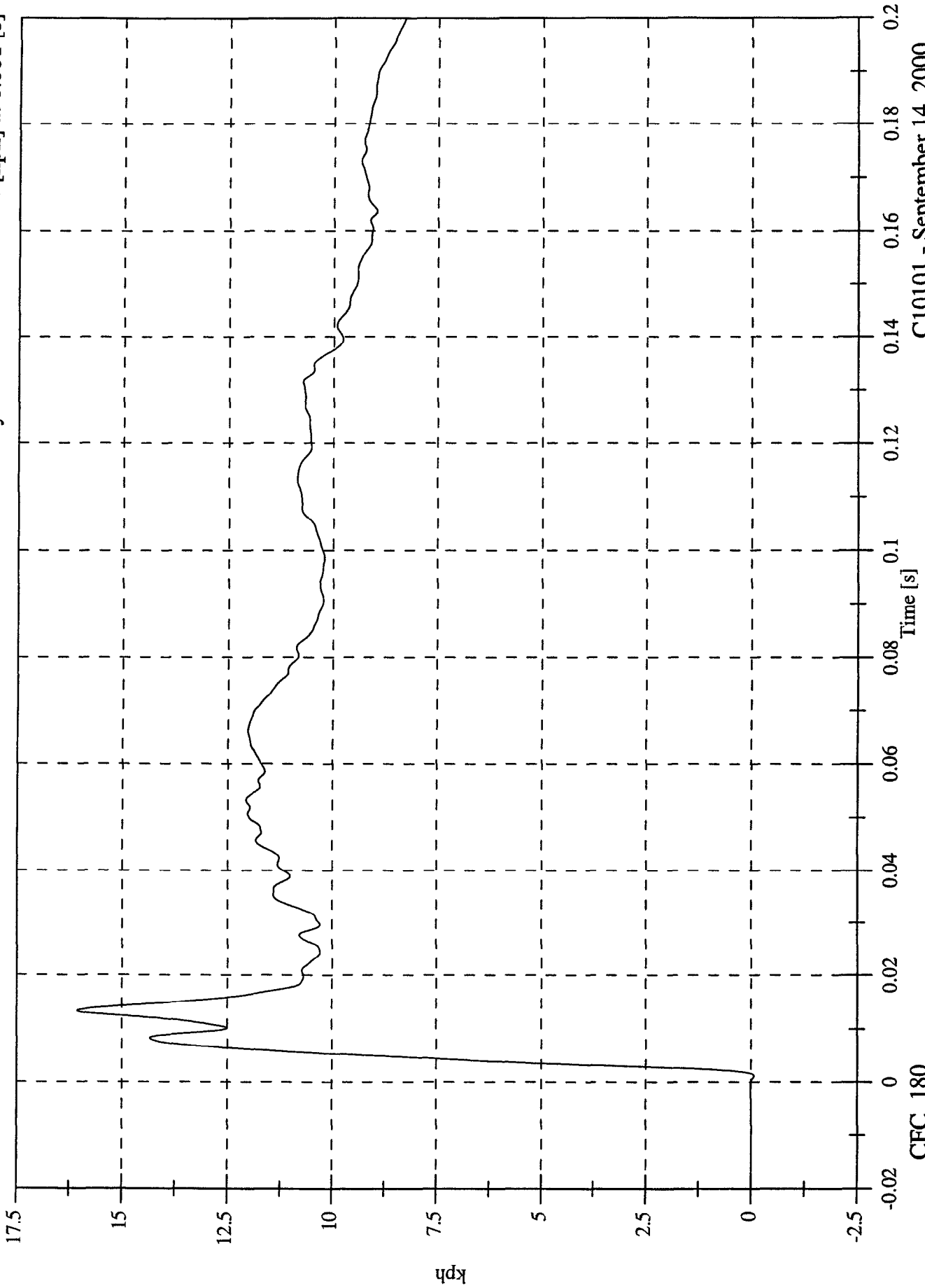
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 14 Left Lower A Post Y Velocity

Max: 16.1 [kph] at 0.013 [s]

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



CFC_180

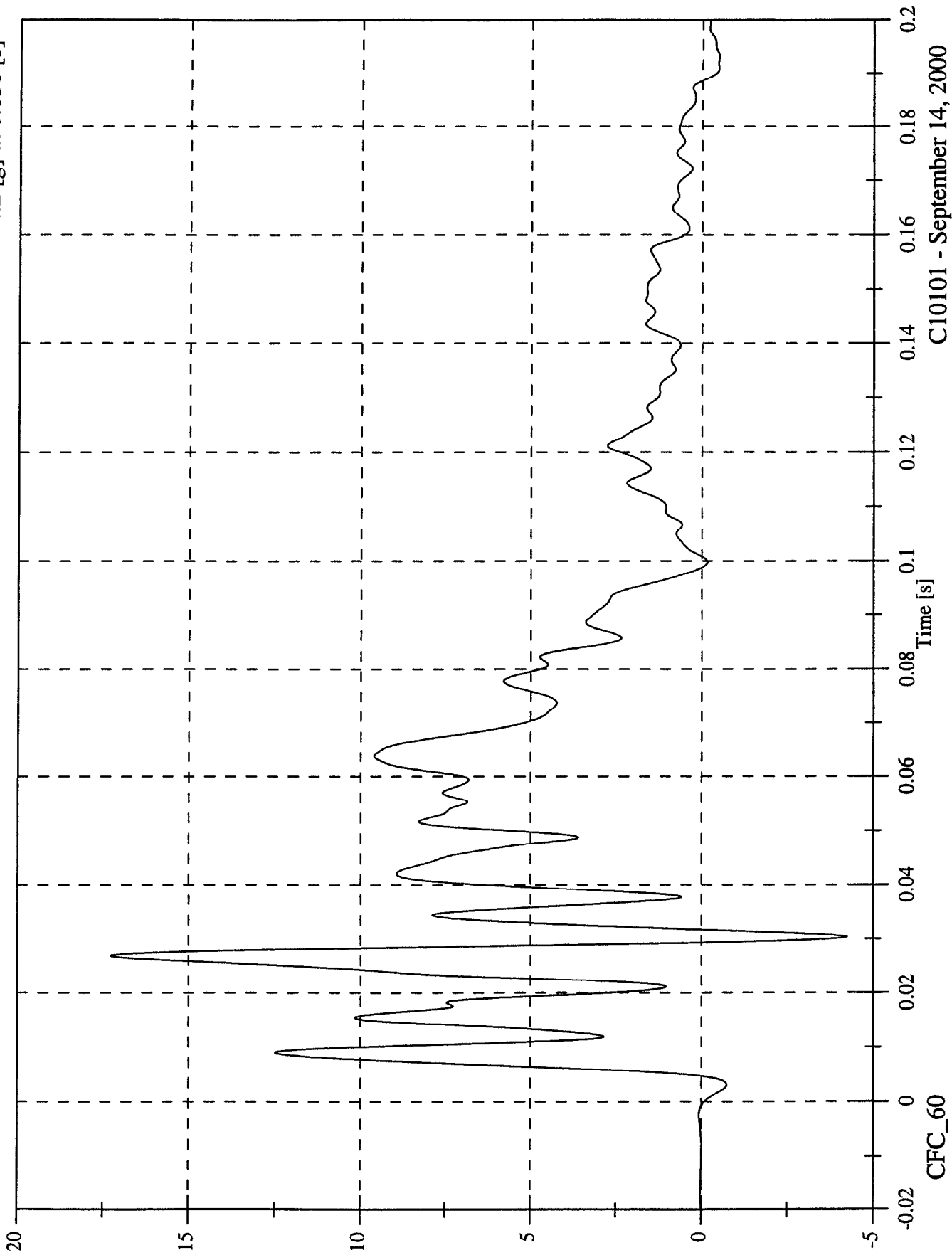
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 15 Left Mid A Post Y

Max: 17.3 [g] at 0.027 [s]

Min: -4.2 [g] at 0.030 [s]



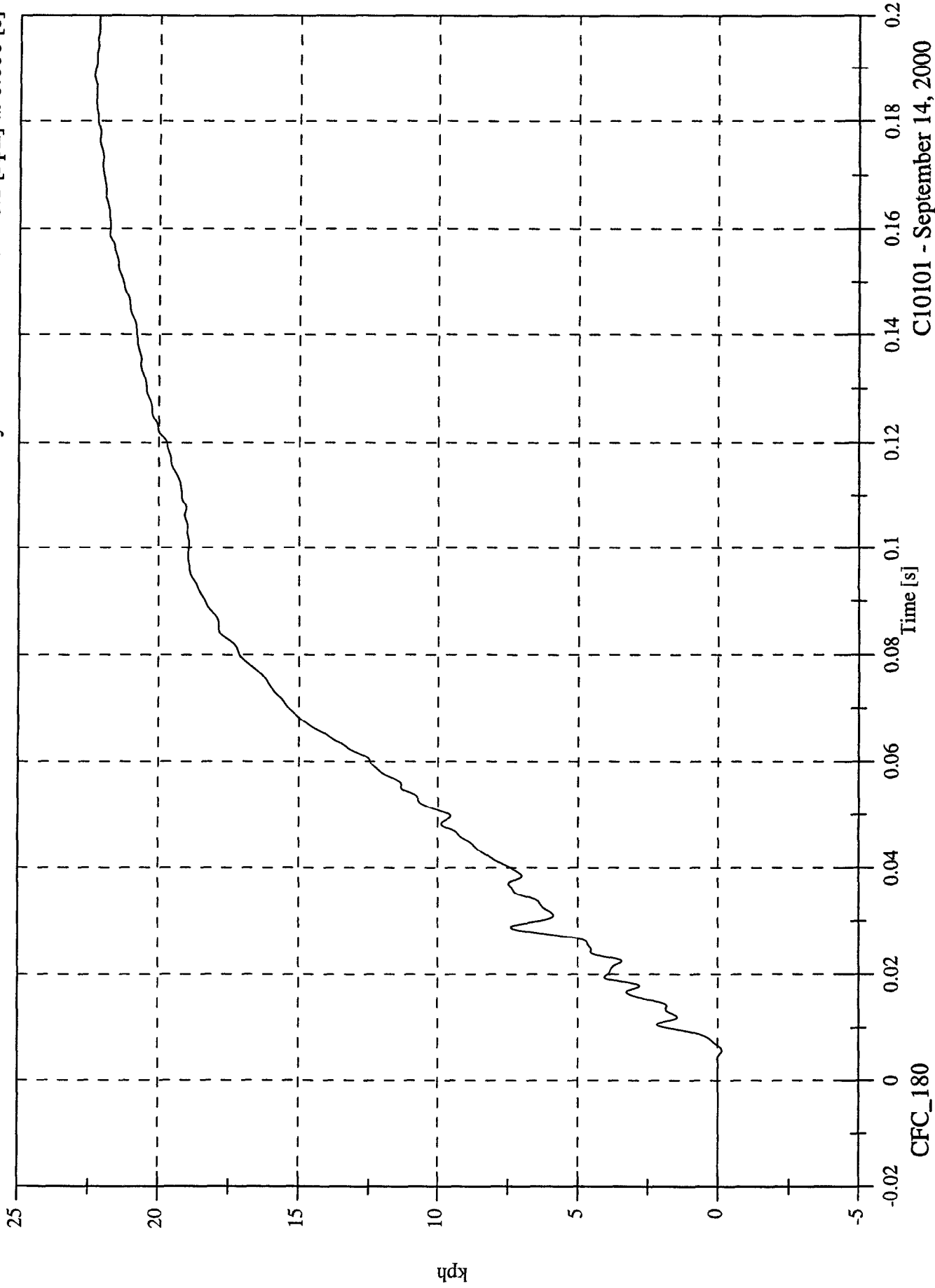
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 15 Left Mid A Post Y Velocity

Max: 22.3 [kph] at 0.189 [s]

Min: -0.1 [kph] at 0.006 [s]



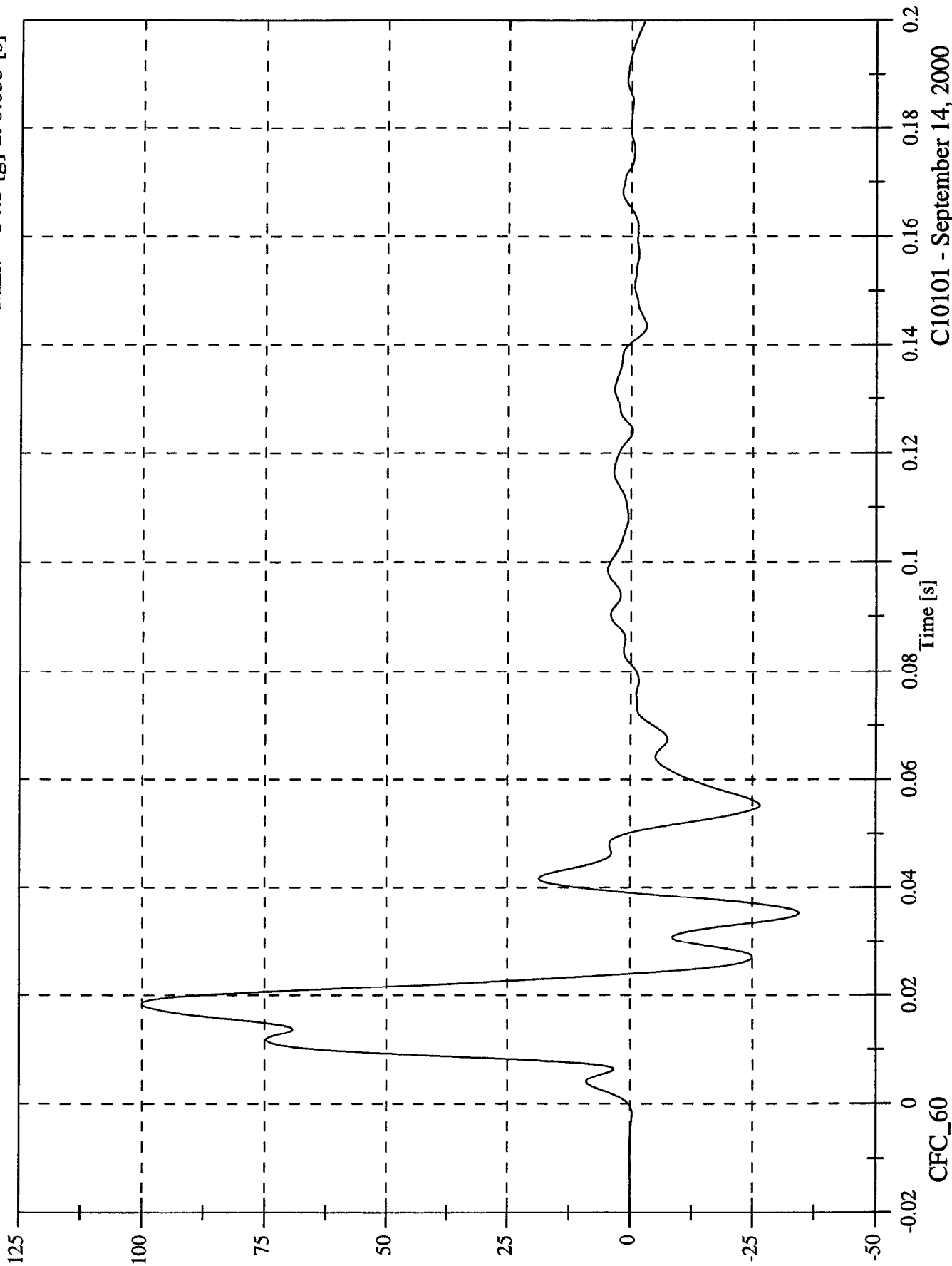
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 16 Front Seat Track Y

Max: 100.1 [g] at 0.018 [s]

Min: -34.3 [g] at 0.035 [s]



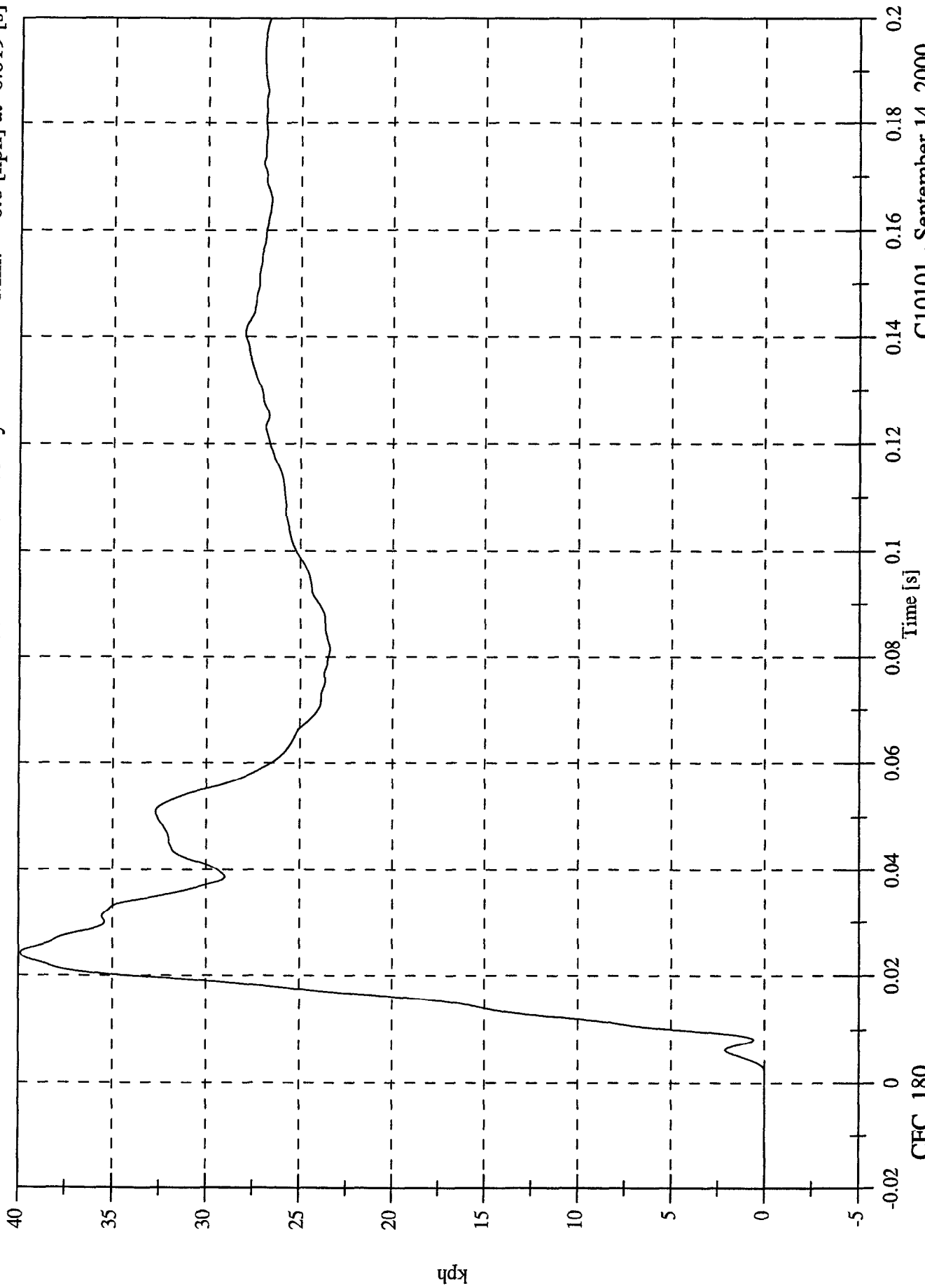
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 39.9 [kph] at 0.024 [s]

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

Acc 16 Front Seat Track Y Velocity



C10101 - September 14, 2000

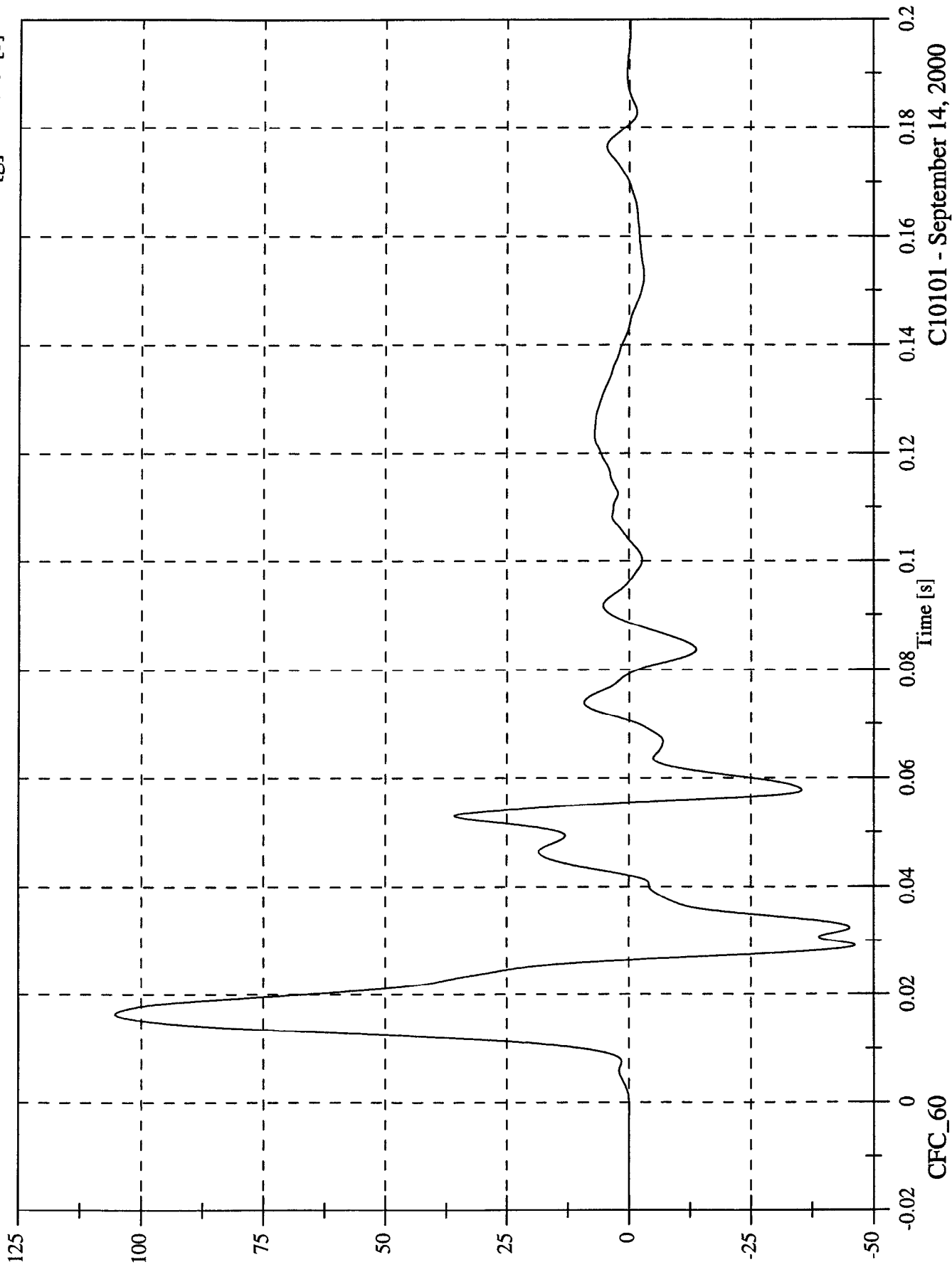
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 17 Rear Seat Track Y

Max: 105.4 [g] at 0.016 [s]

Min: -46.2 [g] at 0.029 [s]



CFC_60

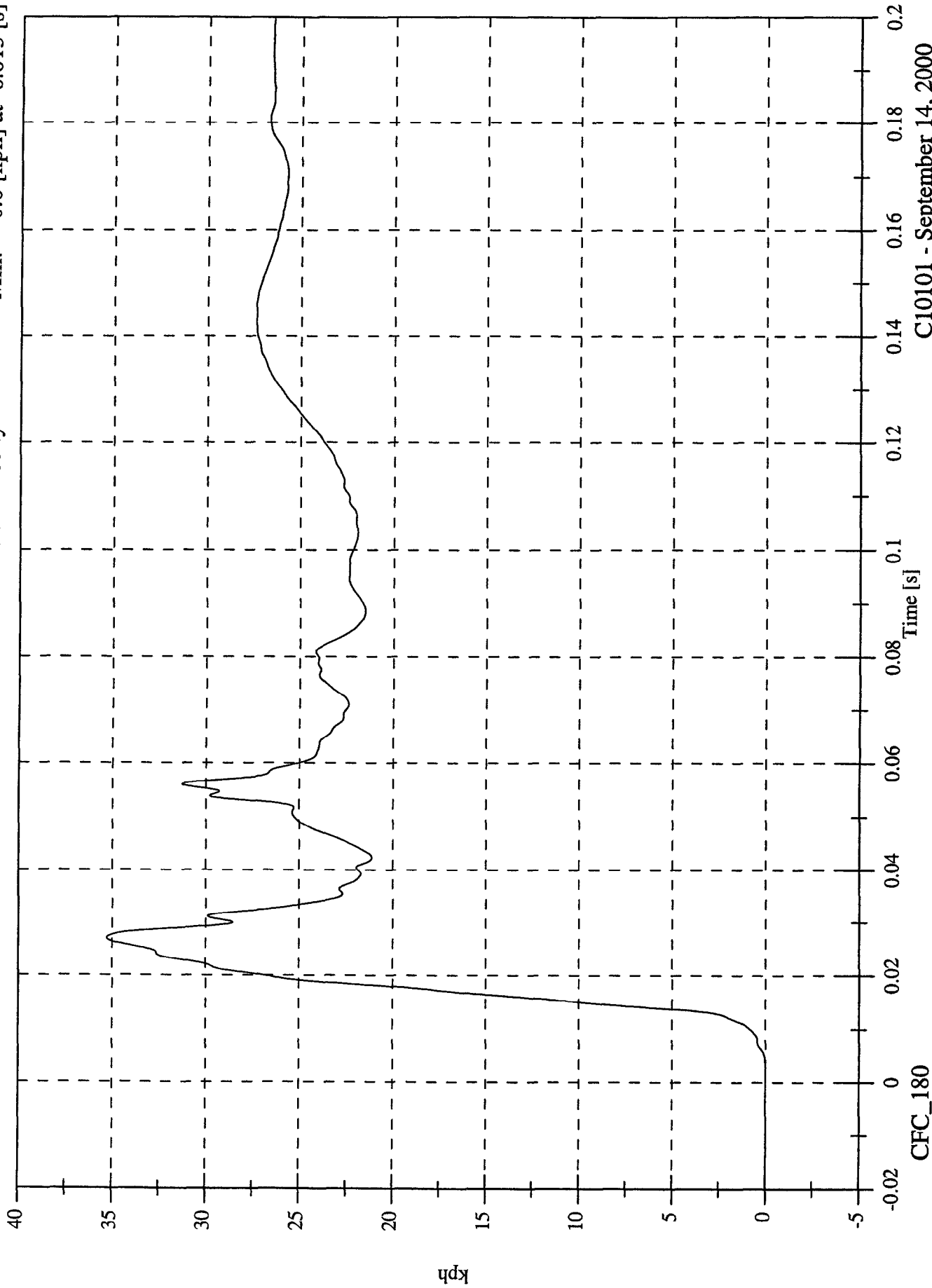
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 17 Rear Seat Track Y Velocity

Max: 35.3 [kph] at 0.027 [s]

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



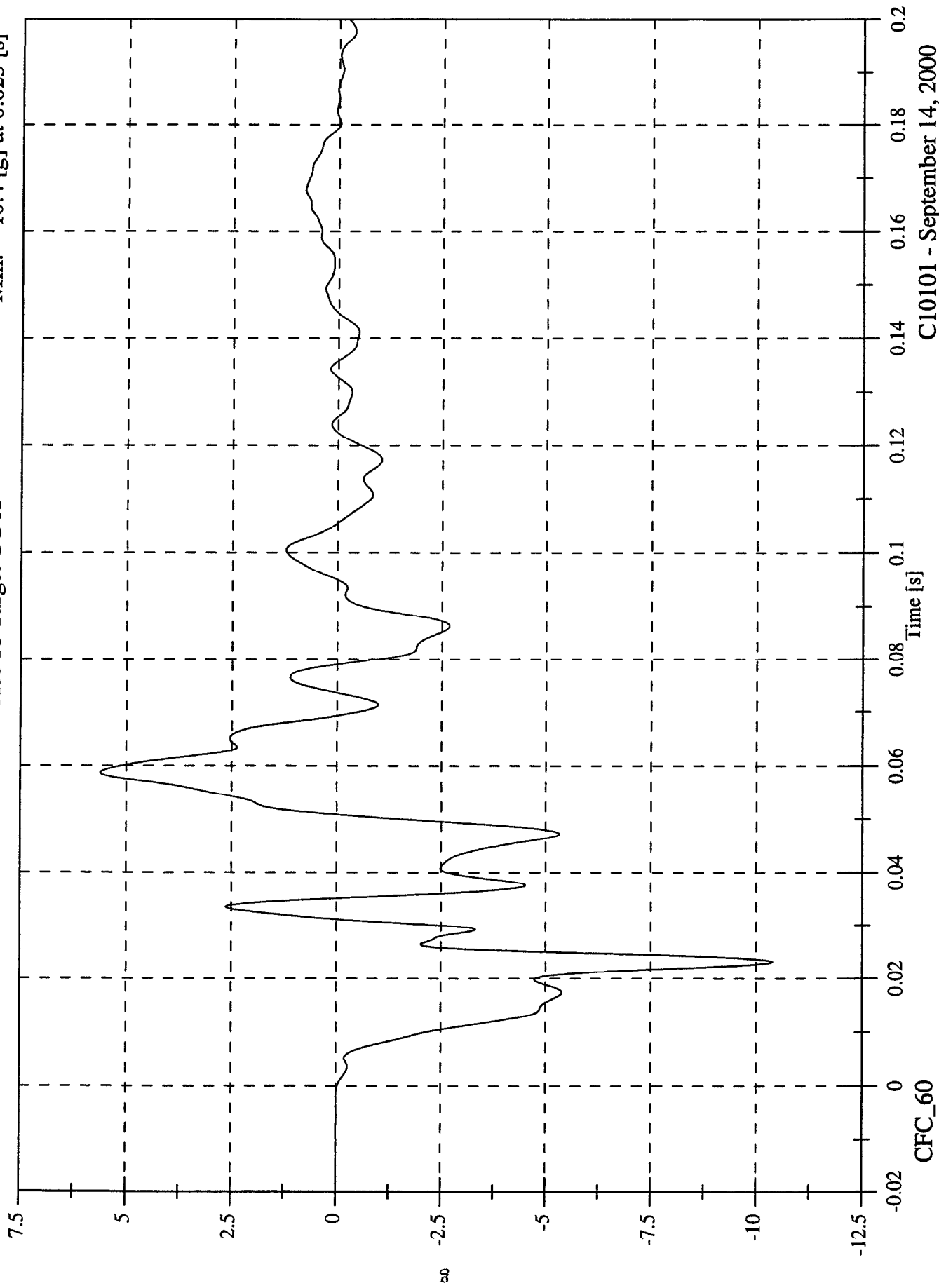
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 18 Target CG X

Max: 5.6 [g] at 0.059 [s]

Min: -10.4 [g] at 0.023 [s]



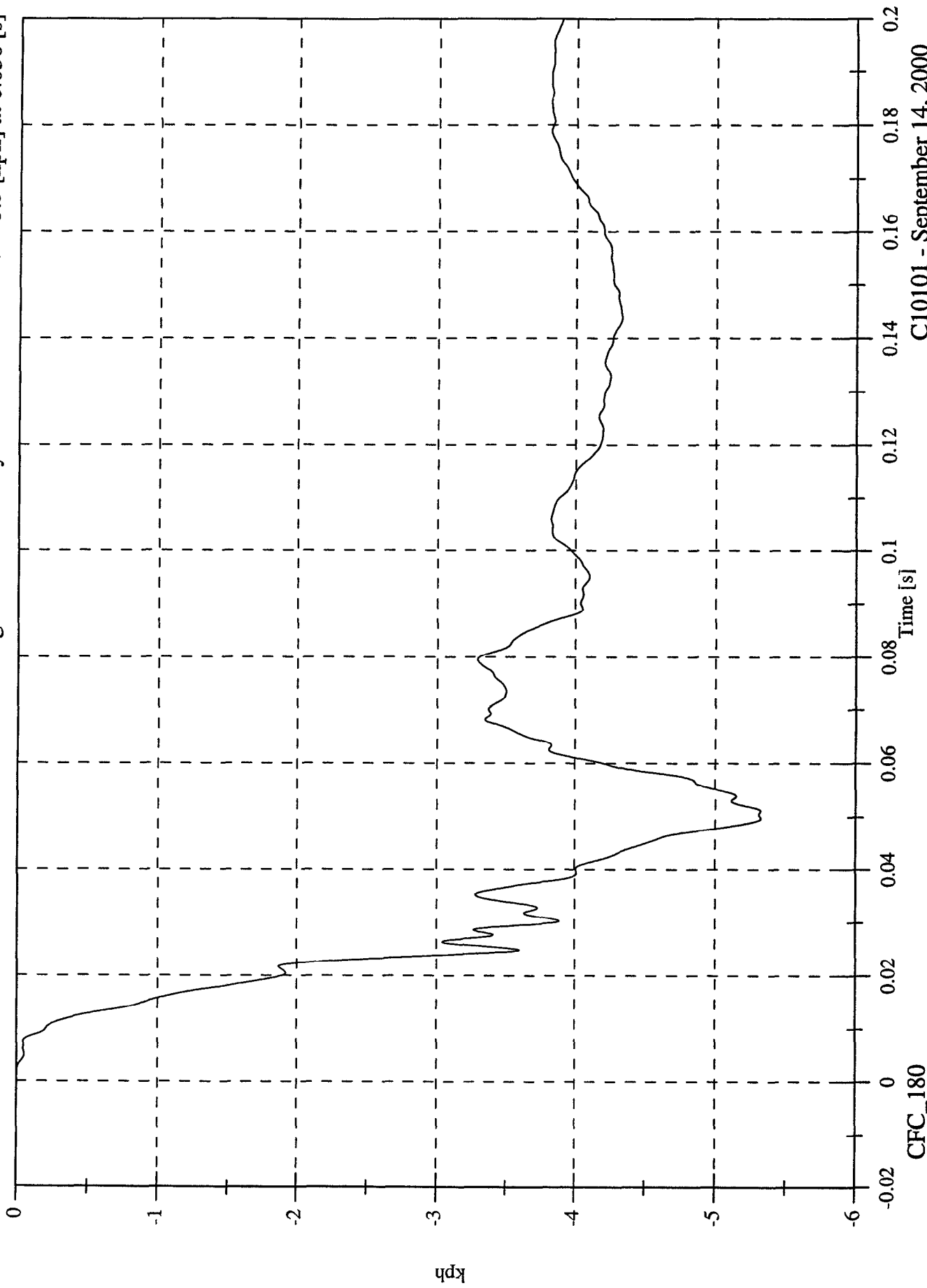
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

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

Min: -5.3 [kph] at 0.050 [s]

Acc 18 Target CG X Velocity



CFC_180

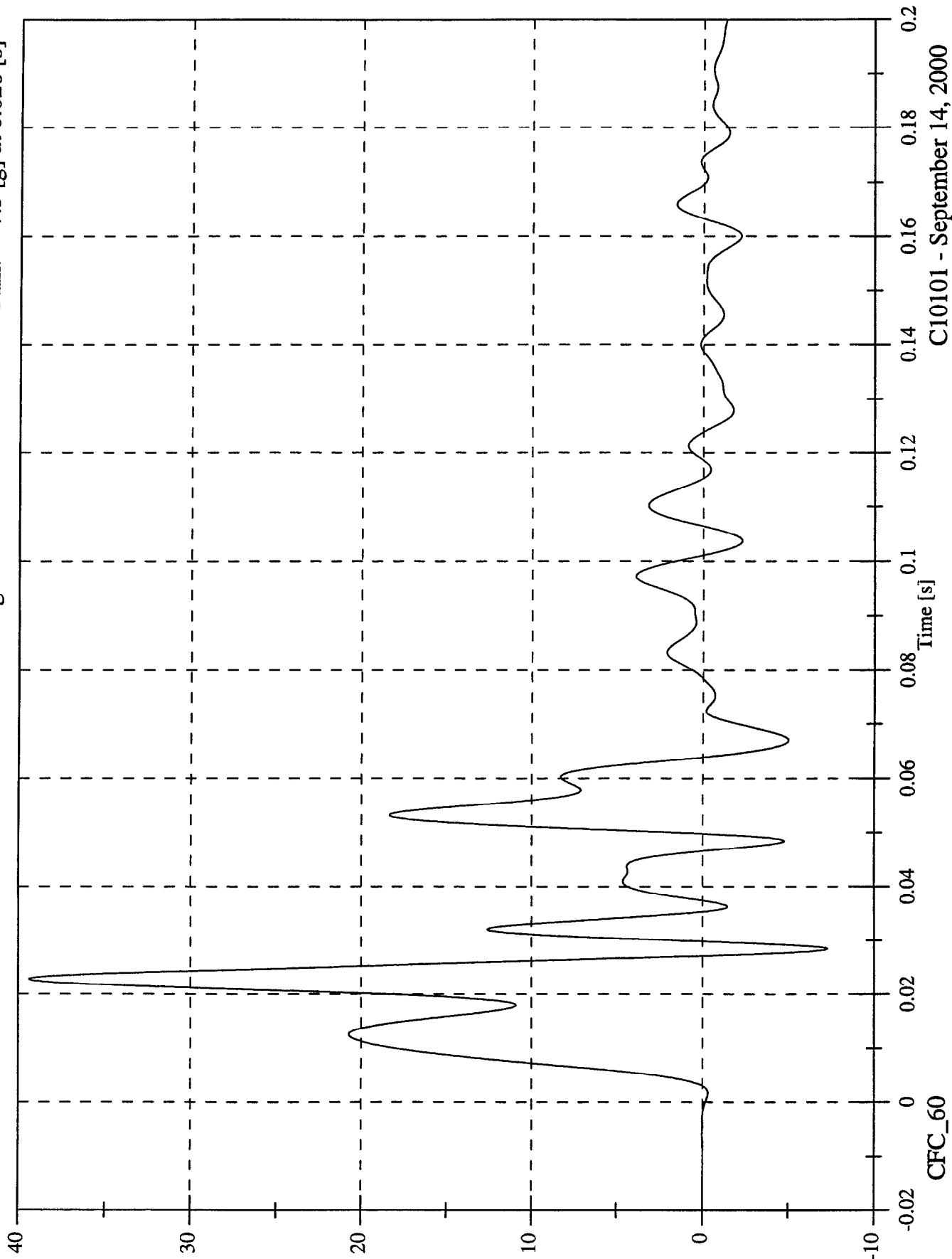
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 18 Target CG Y

Max: 39.4 [g] at 0.023 [s]

Min: -7.3 [g] at 0.028 [s]



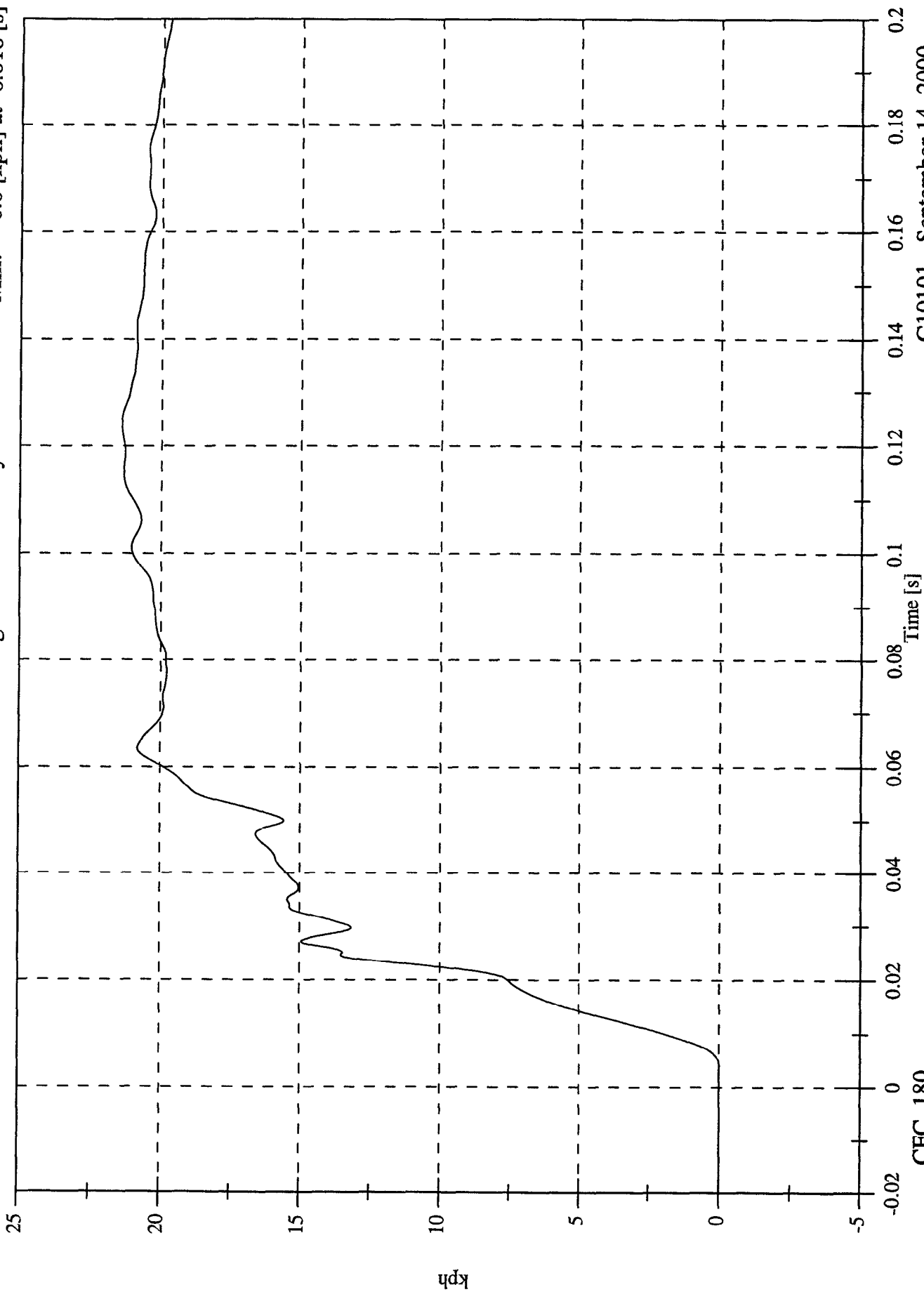
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 18 Target CG Y Velocity

Max: 21.4 [kph] at 0.124 [s]

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



C10101 - September 14, 2000

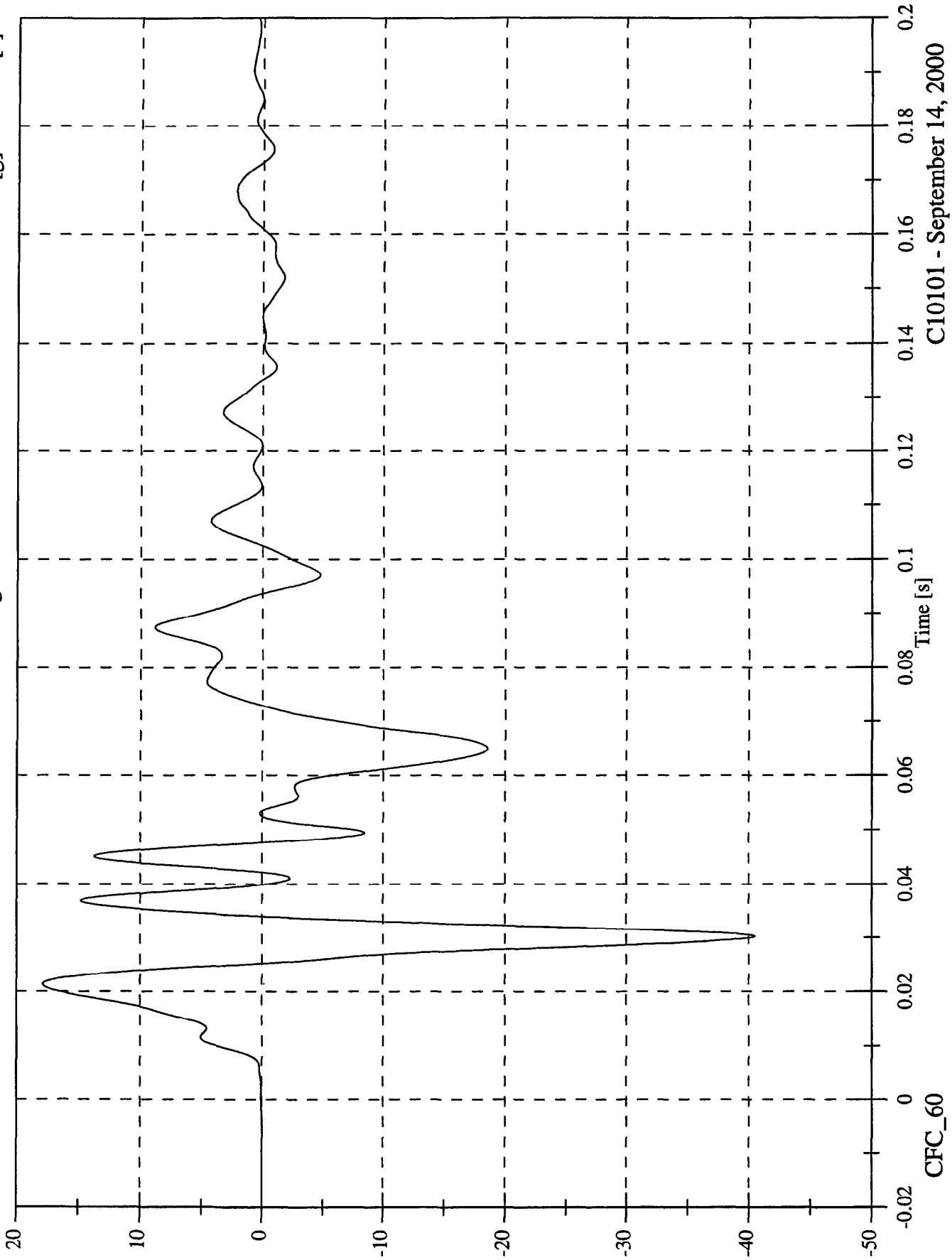
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 18 Target CGZ

Max: 17.9 [g] at 0.021 [s]

Min: -40.5 [g] at 0.030 [s]



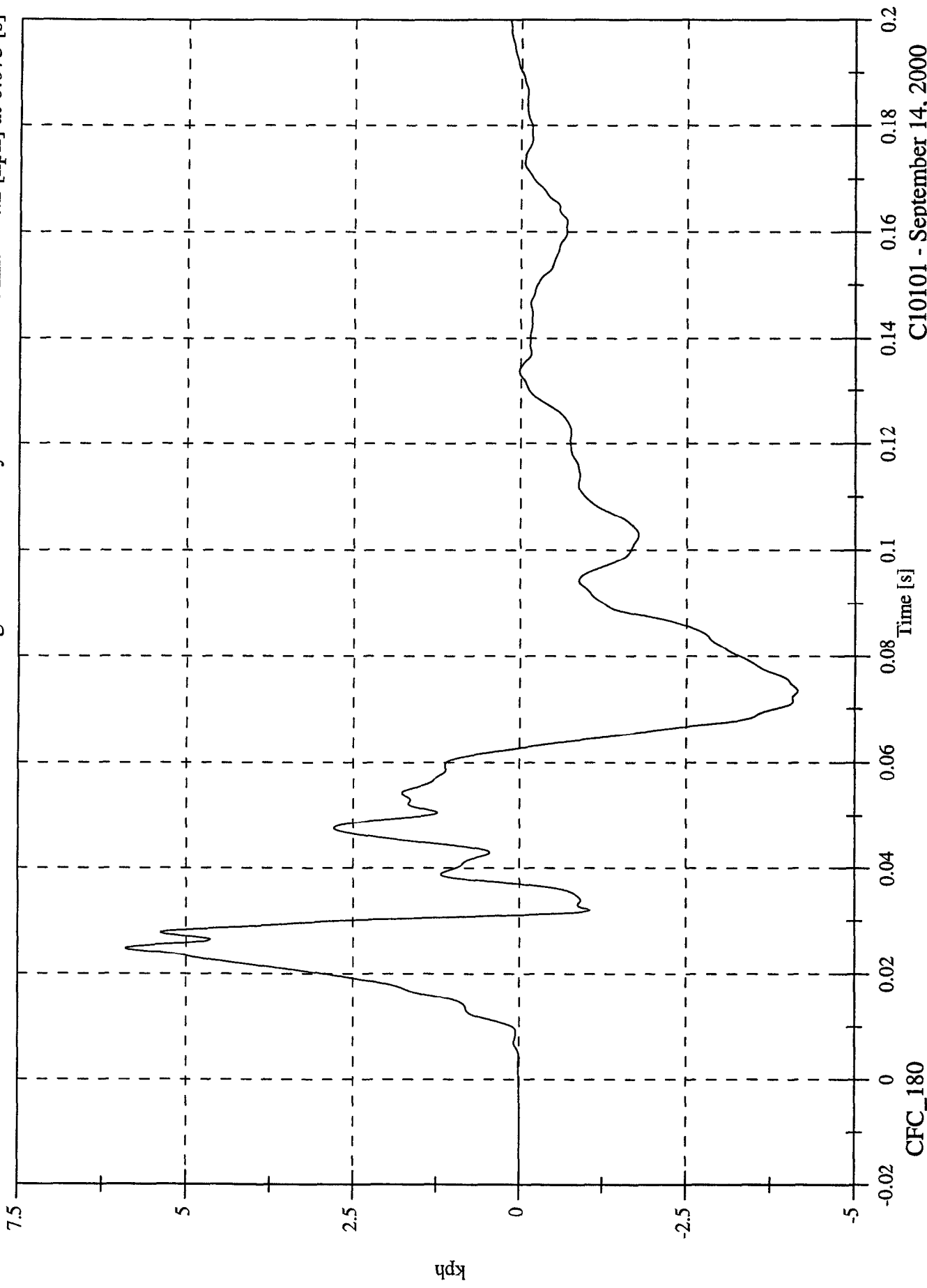
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 18 Target CG Z Velocity

Max: 5.9 [kph] at 0.025 [s]

Min: -4.2 [kph] at 0.073 [s]



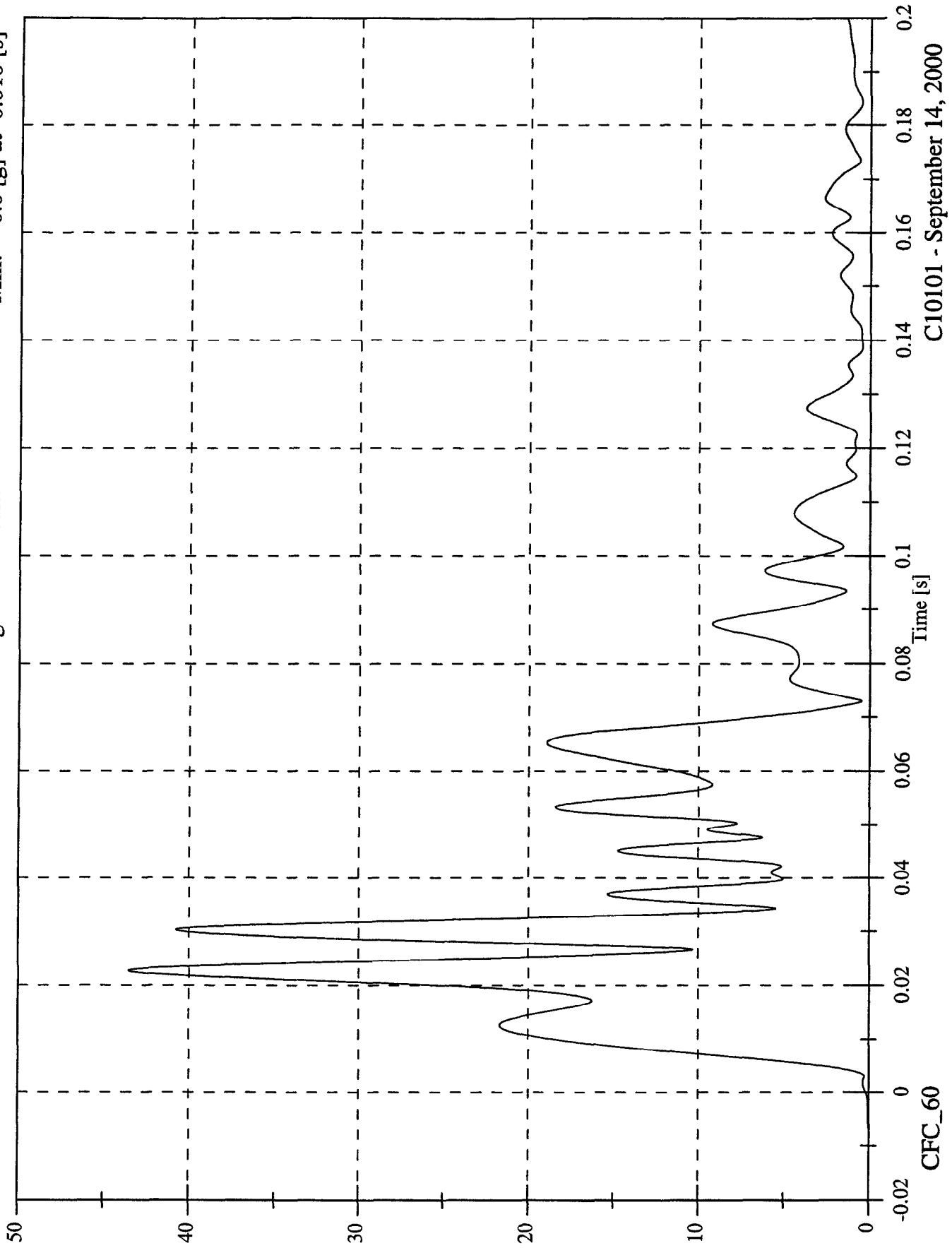
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Acc 18 Target CG Resultant

Max: 43.6 [g] at 0.023 [s]

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

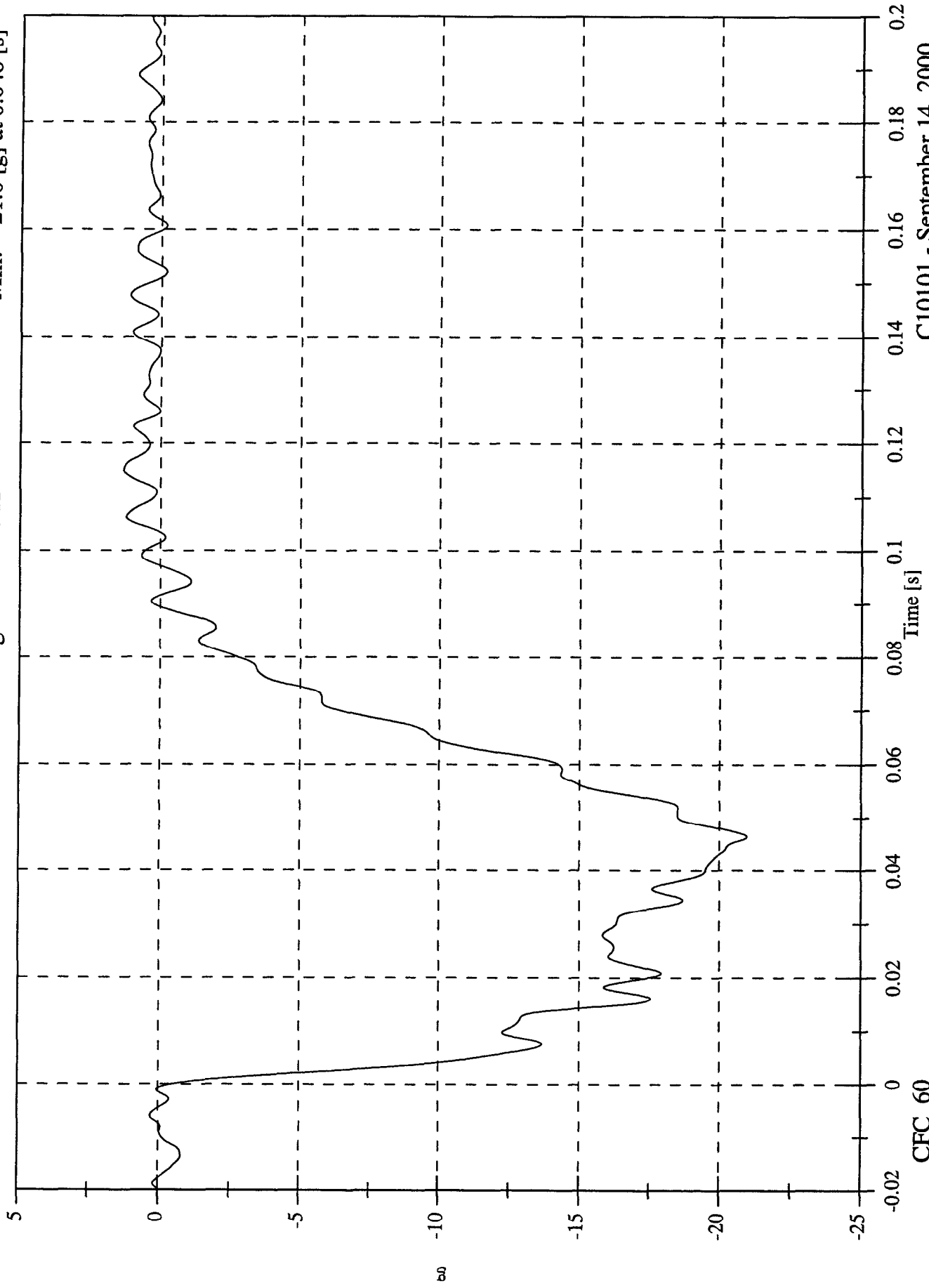


FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier CG X

Max: 1.3 [g] at 0.115 [s]

Min: -21.0 [g] at 0.046 [s]



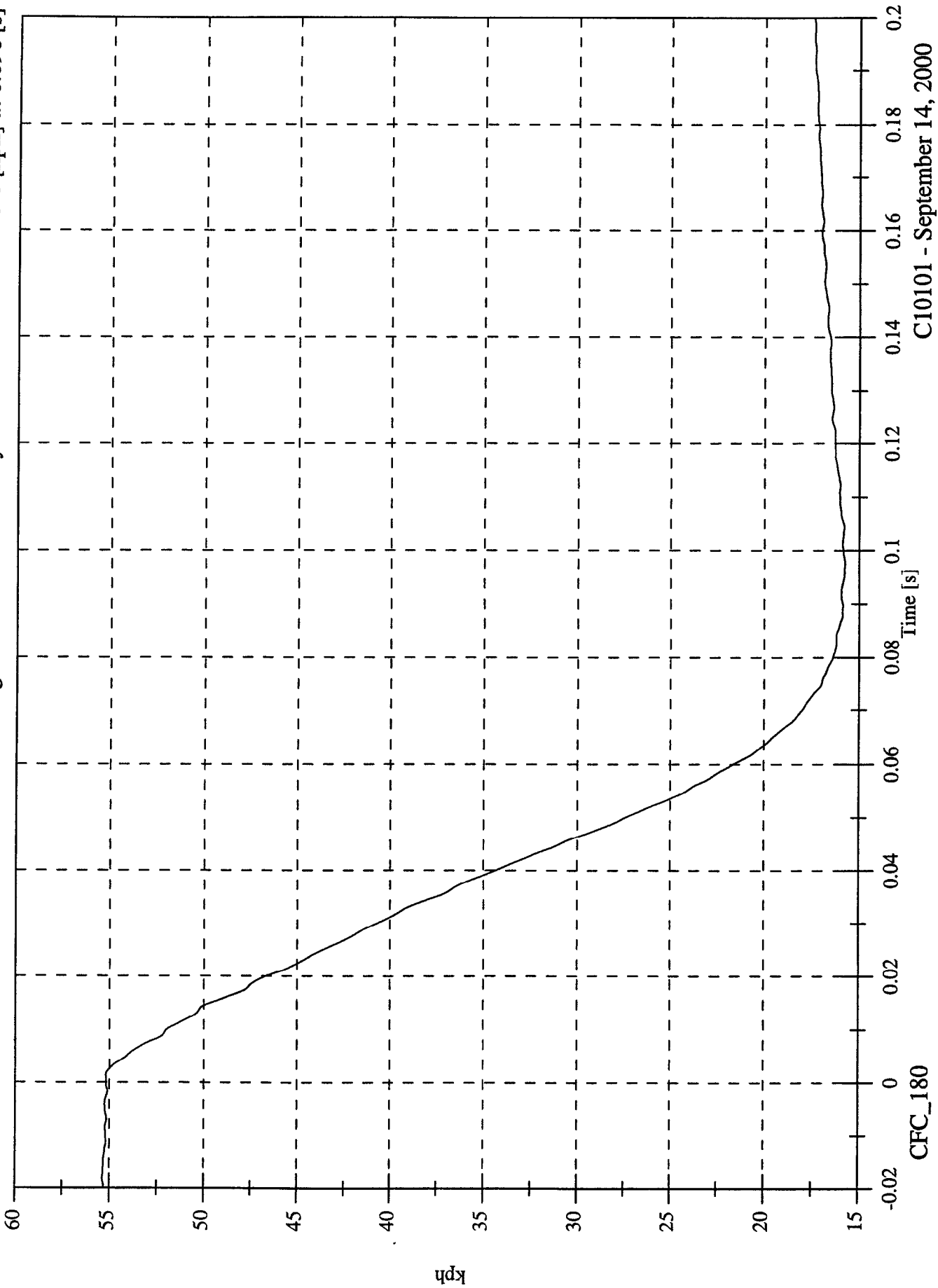
C10101 - September 14, 2000

CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 55.4 [kph] at -0.018 [s]
Min: 15.8 [kph] at 0.098 [s]

Moving Barrier CG X Velocity

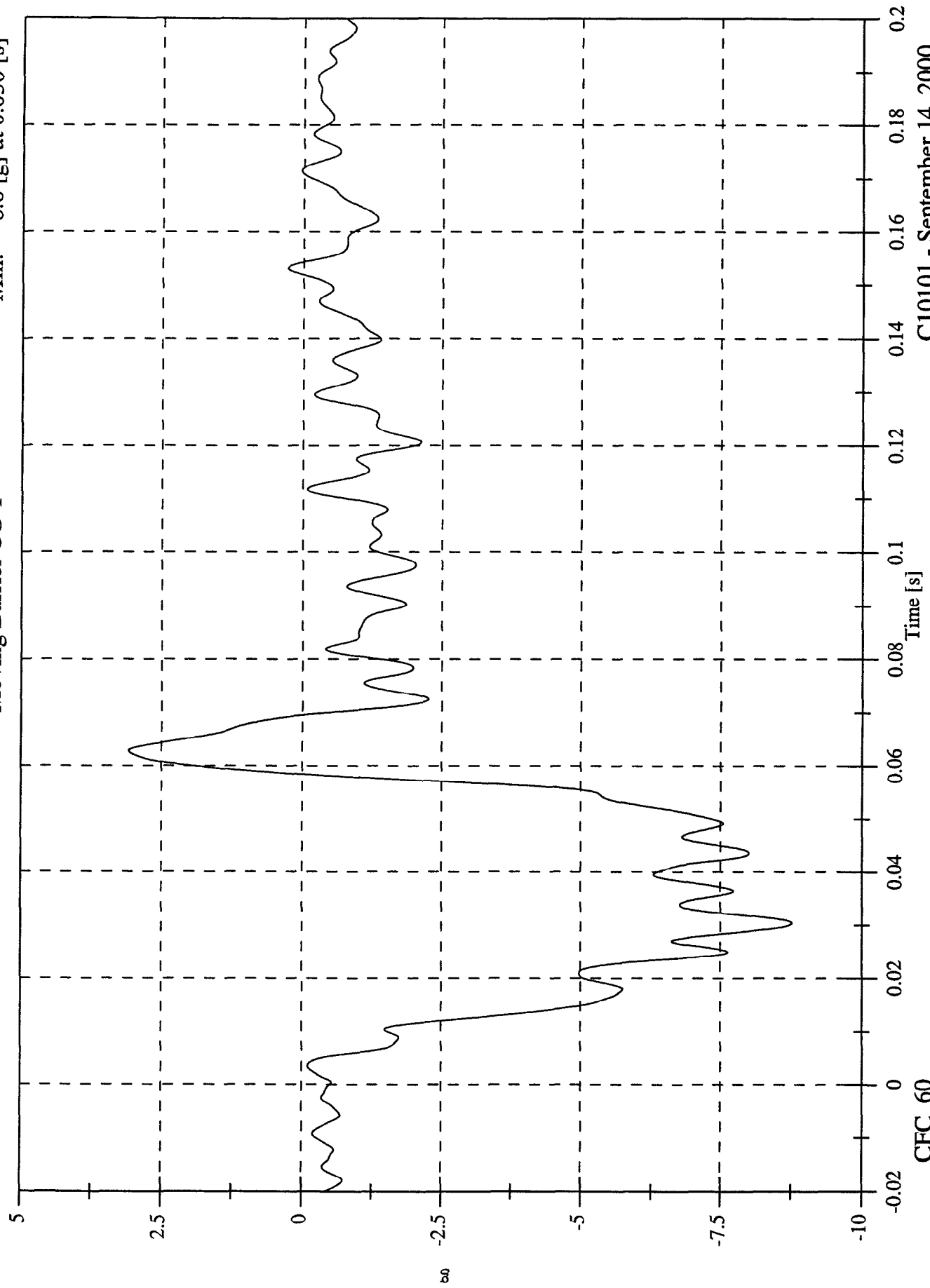


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier CG Y

Max: 3.1 [g] at 0.063 [s]
Min: -8.8 [g] at 0.030 [s]



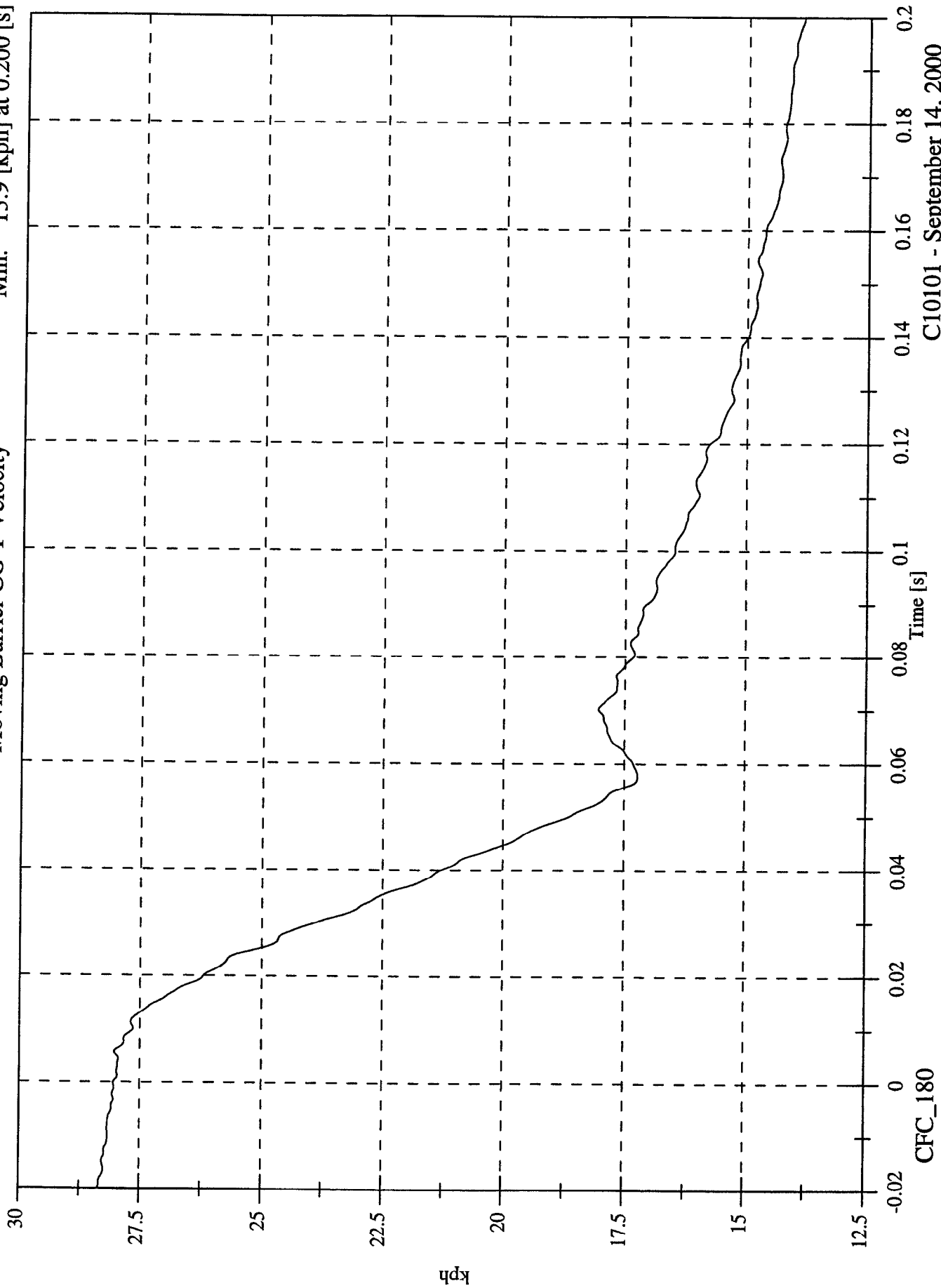
CI10101 - September 14, 2000

CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier CG Y Velocity

Max: 28.4 [kph] at -0.020 [s]
Min: 13.9 [kph] at 0.200 [s]



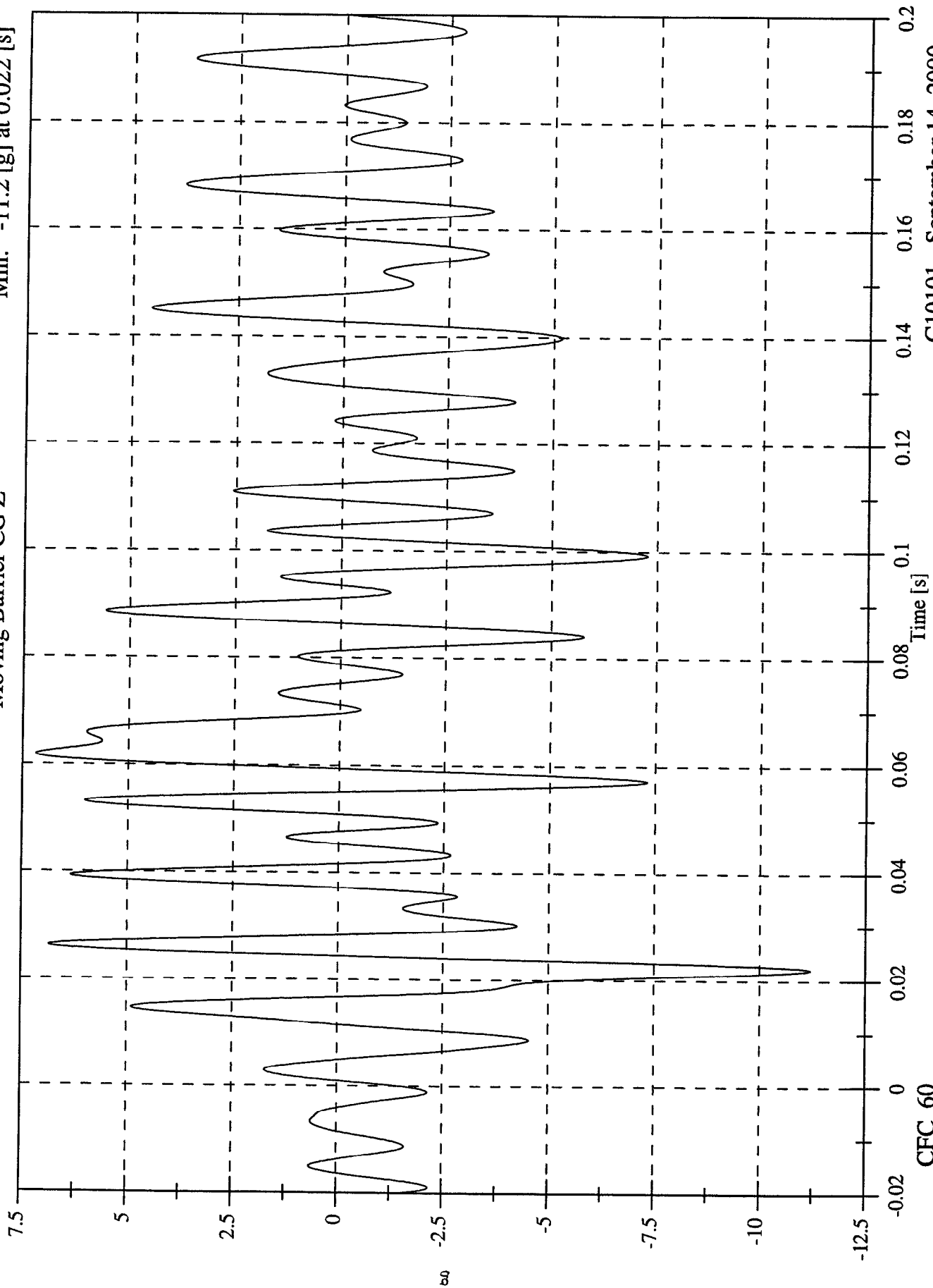
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier CG Z

Max: 7.2 [g] at 0.062 [s]

Min: -11.2 [g] at 0.022 [s]



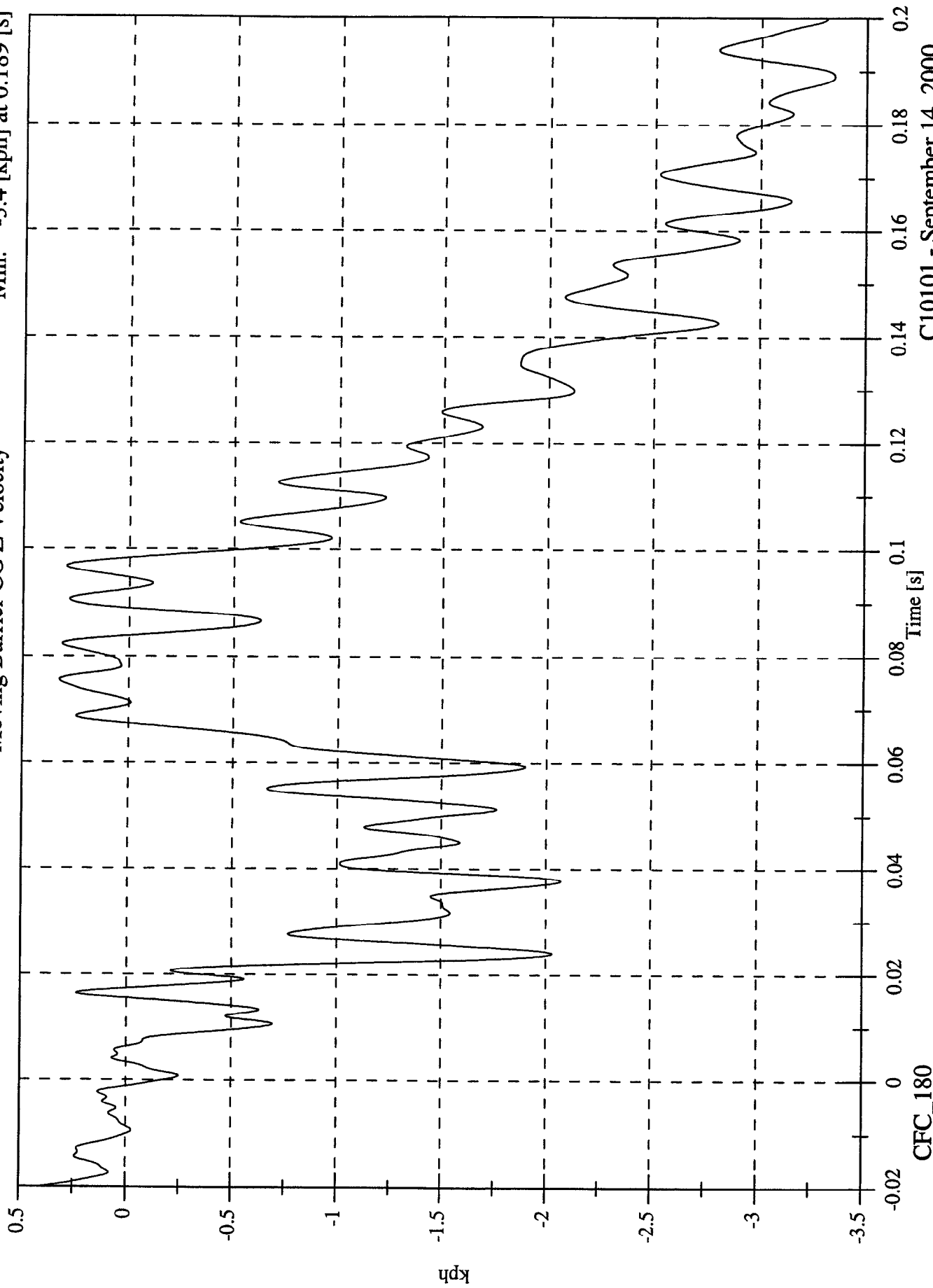
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 0.4 [kph] at -0.020 [s]

Min: -3.4 [kph] at 0.189 [s]

Moving Barrier CG Z Velocity



CFC_180

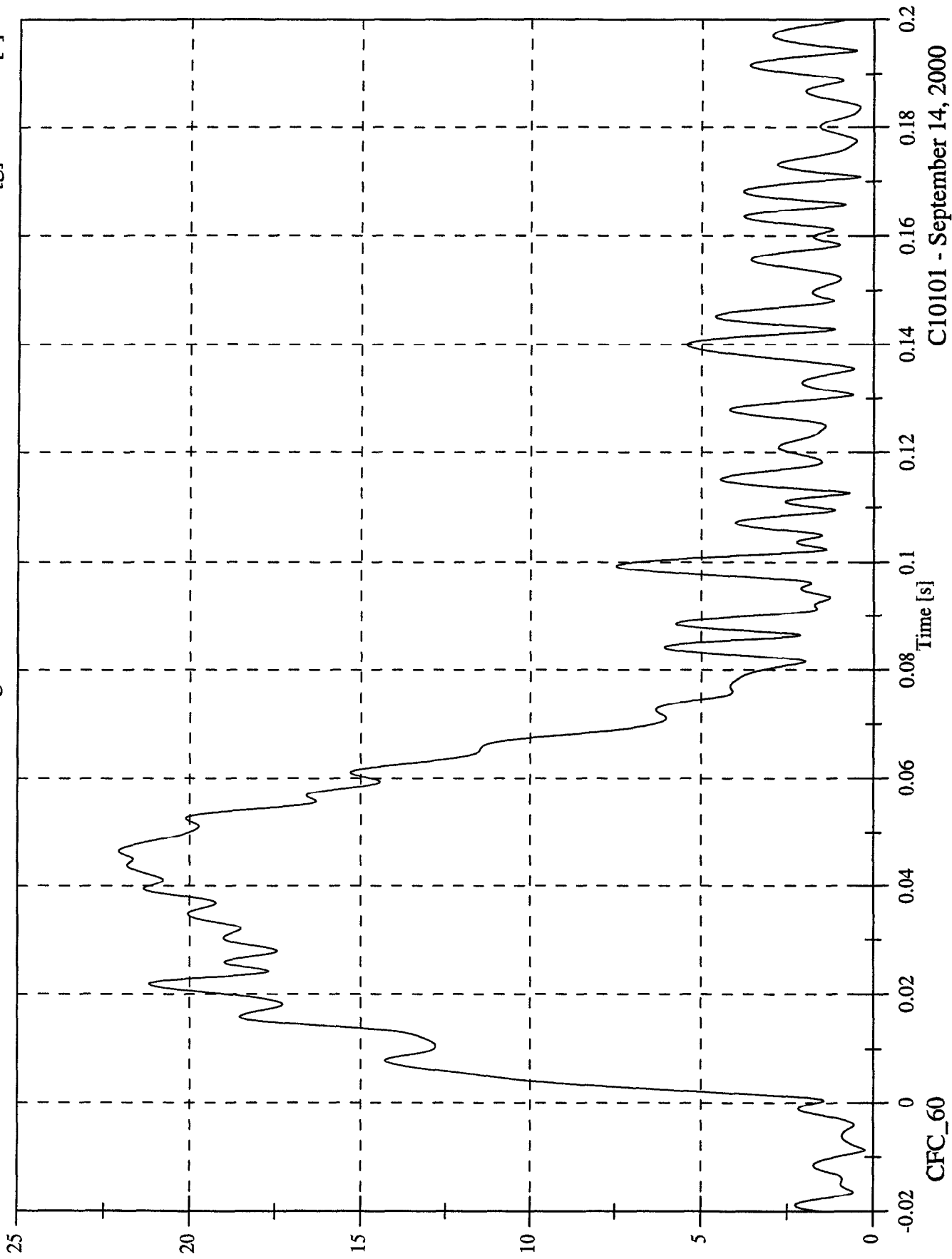
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier CG Resultant

Max: 22.1 [g] at 0.046 [s]

Min: 0.2 [g] at -0.009 [s]

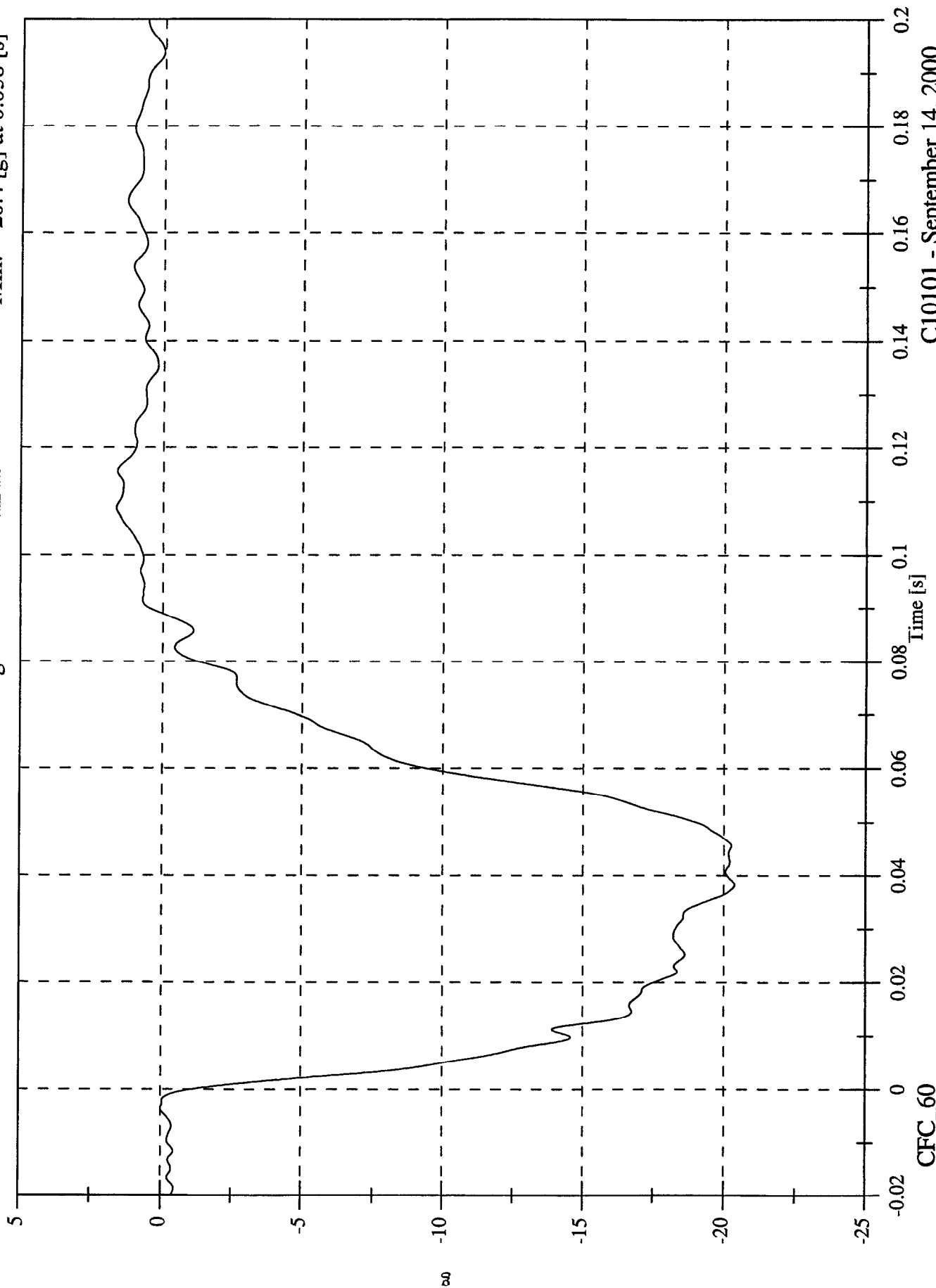


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier Left Rail X

Max: 1.6 [g] at 0.109 [s]
Min: -20.4 [g] at 0.038 [s]



C10101 - September 14, 2000

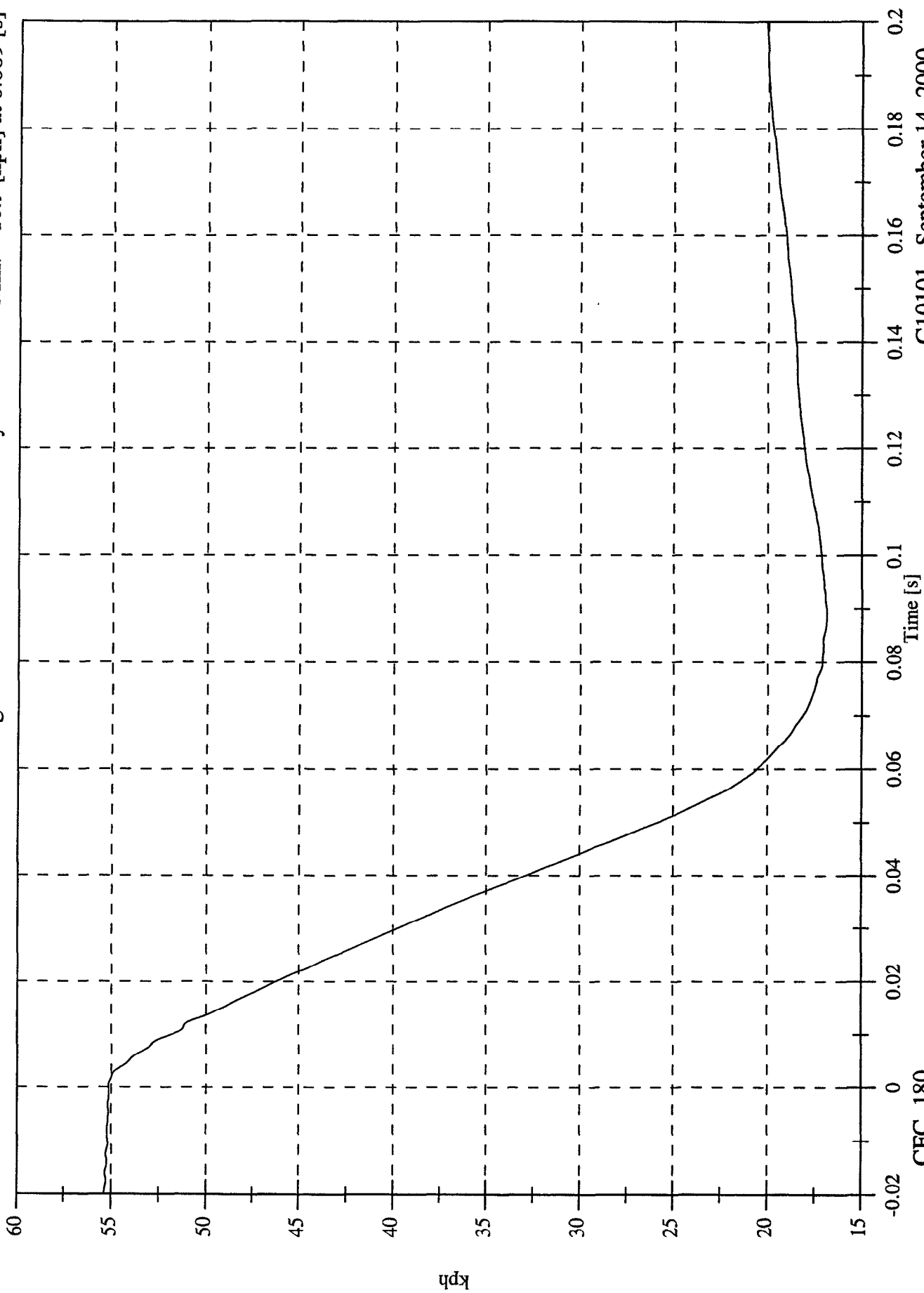
CFC_60

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier Left Rail X Velocity

Max: 55.4 [kph] at -0.020 [s]

Min: 16.9 [kph] at 0.089 [s]



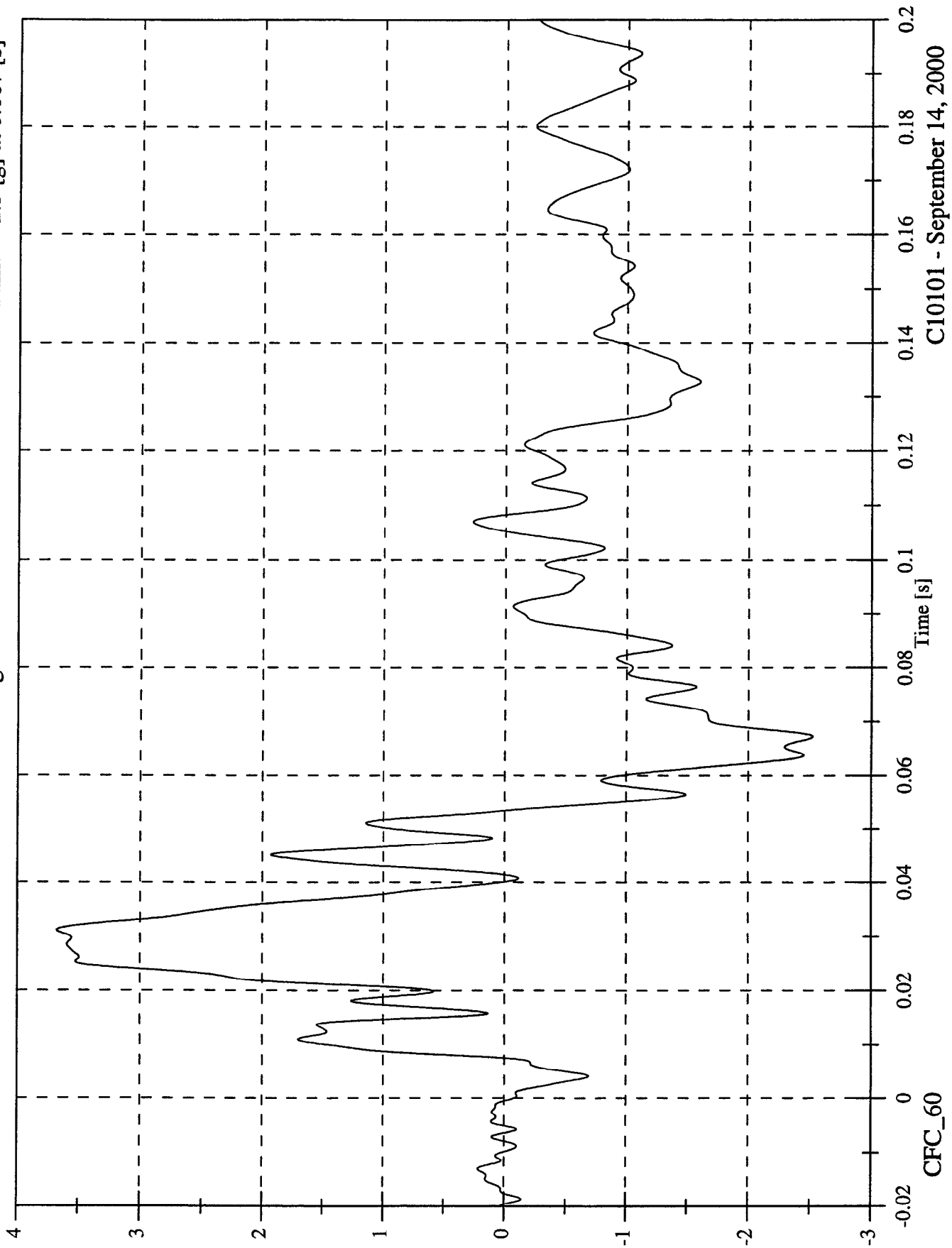
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier Left Rail Y

Max: 3.7 [g] at 0.031 [s]
Min: -2.5 [g] at 0.067 [s]



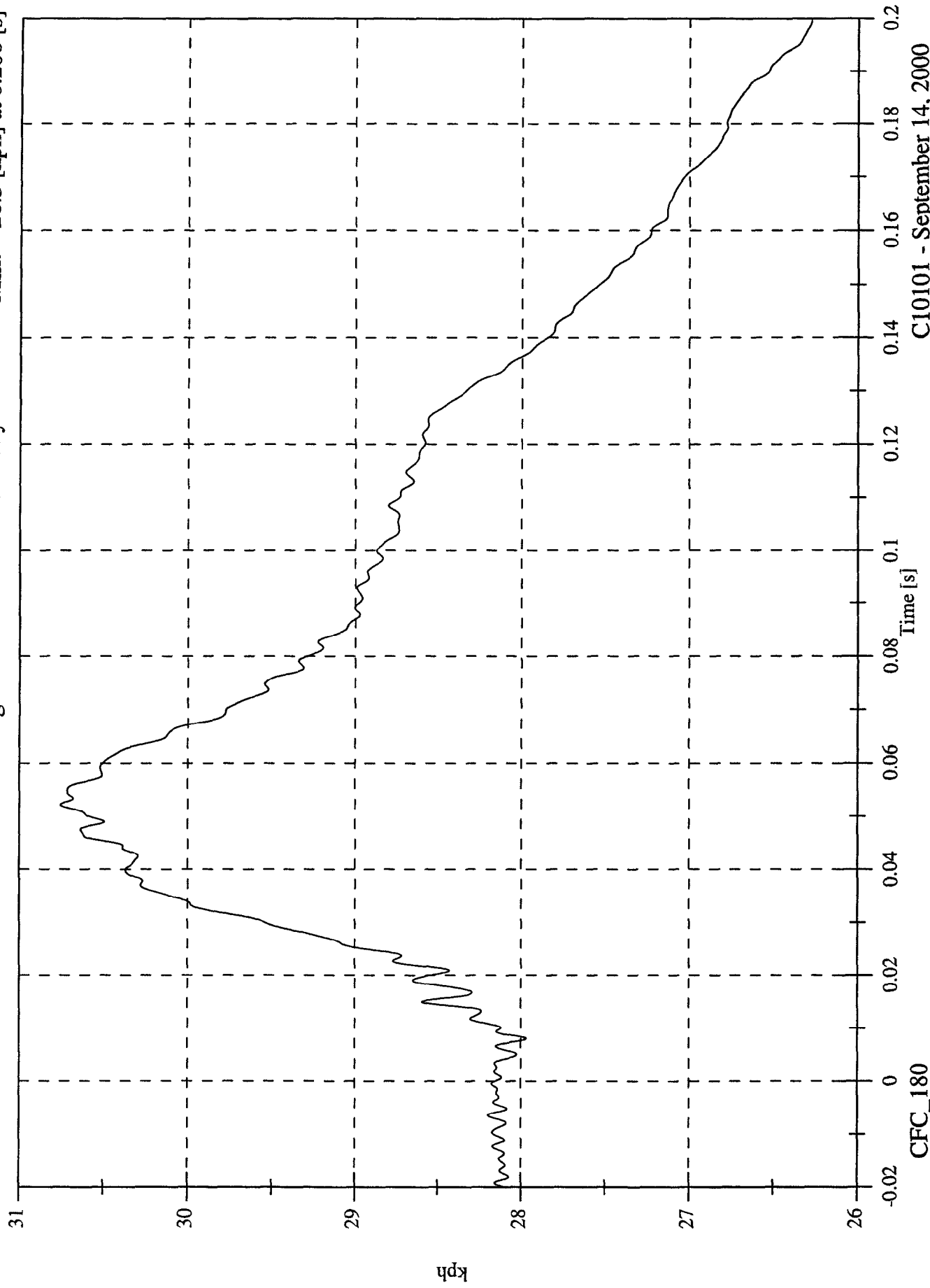
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Moving Barrier Left Rail Y Velocity

Max: 30.8 [kph] at 0.052 [s]

Min: 26.3 [kph] at 0.200 [s]



C10101 - September 14, 2000

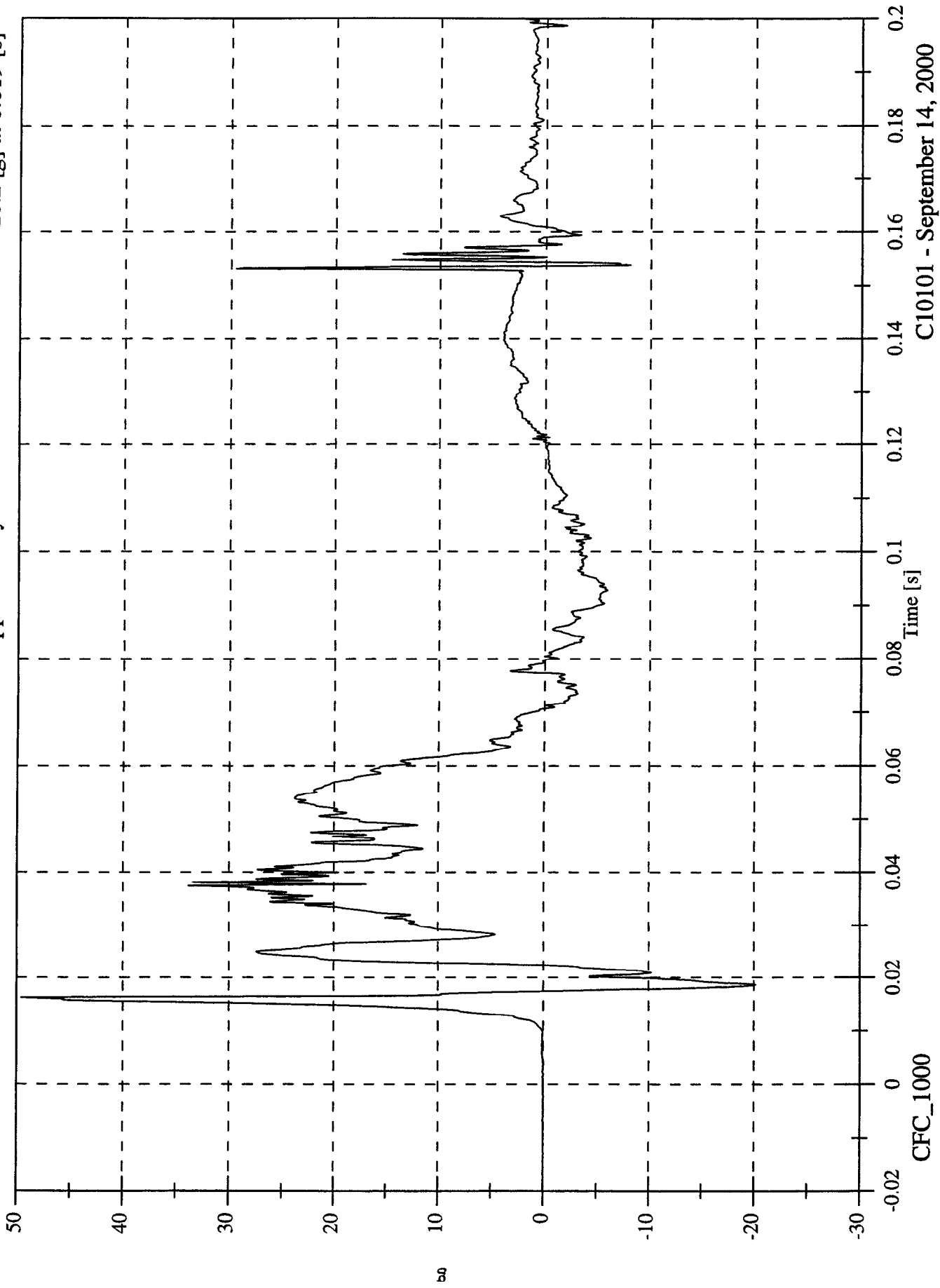
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Upper Rib Ry

Max: 49.6 [g] at 0.016 [s]

Min: -20.2 [g] at 0.019 [s]



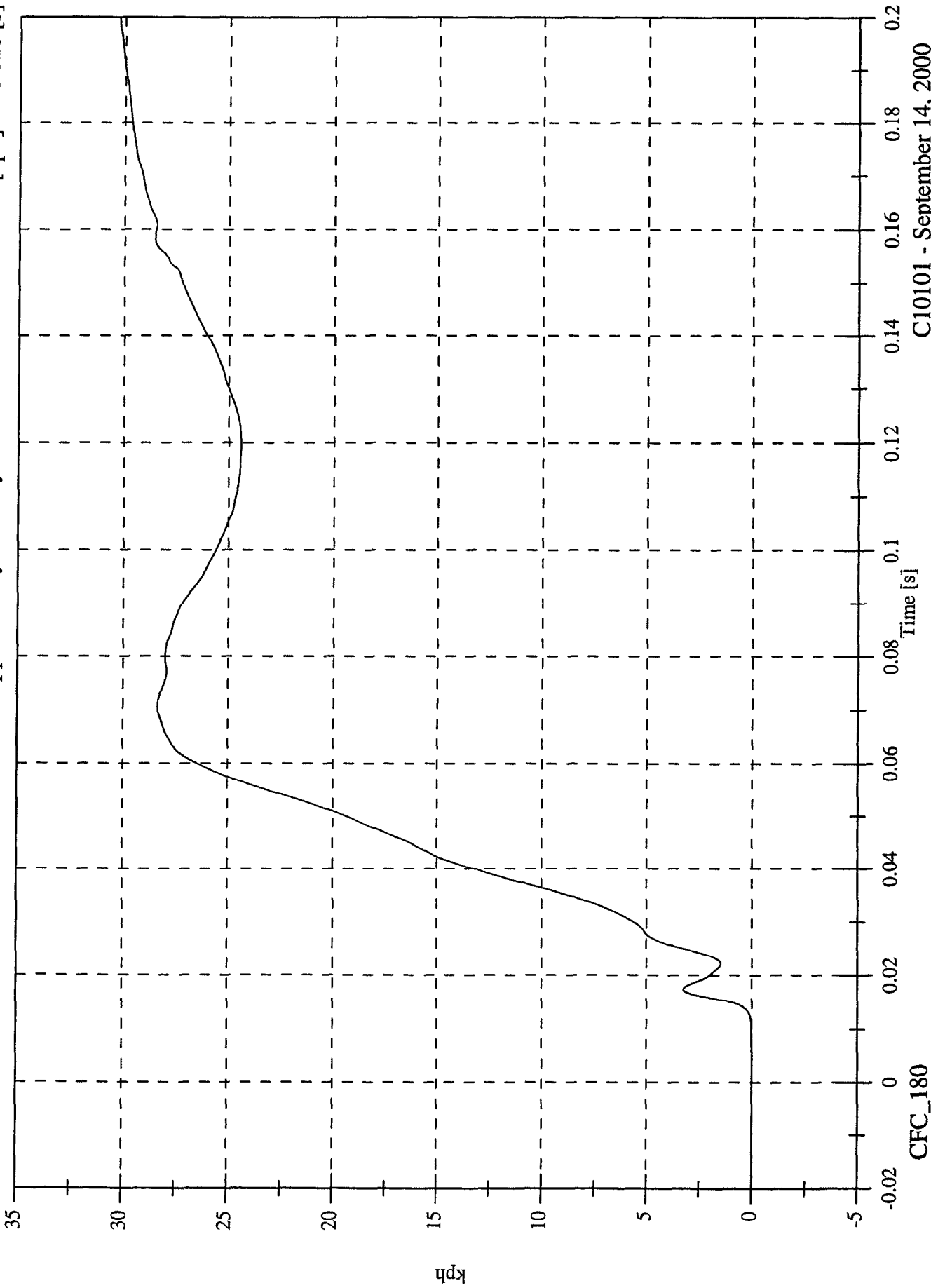
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Upper Rib Ry Velocity

Max: 30.3 [kph] at 0.200 [s]

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



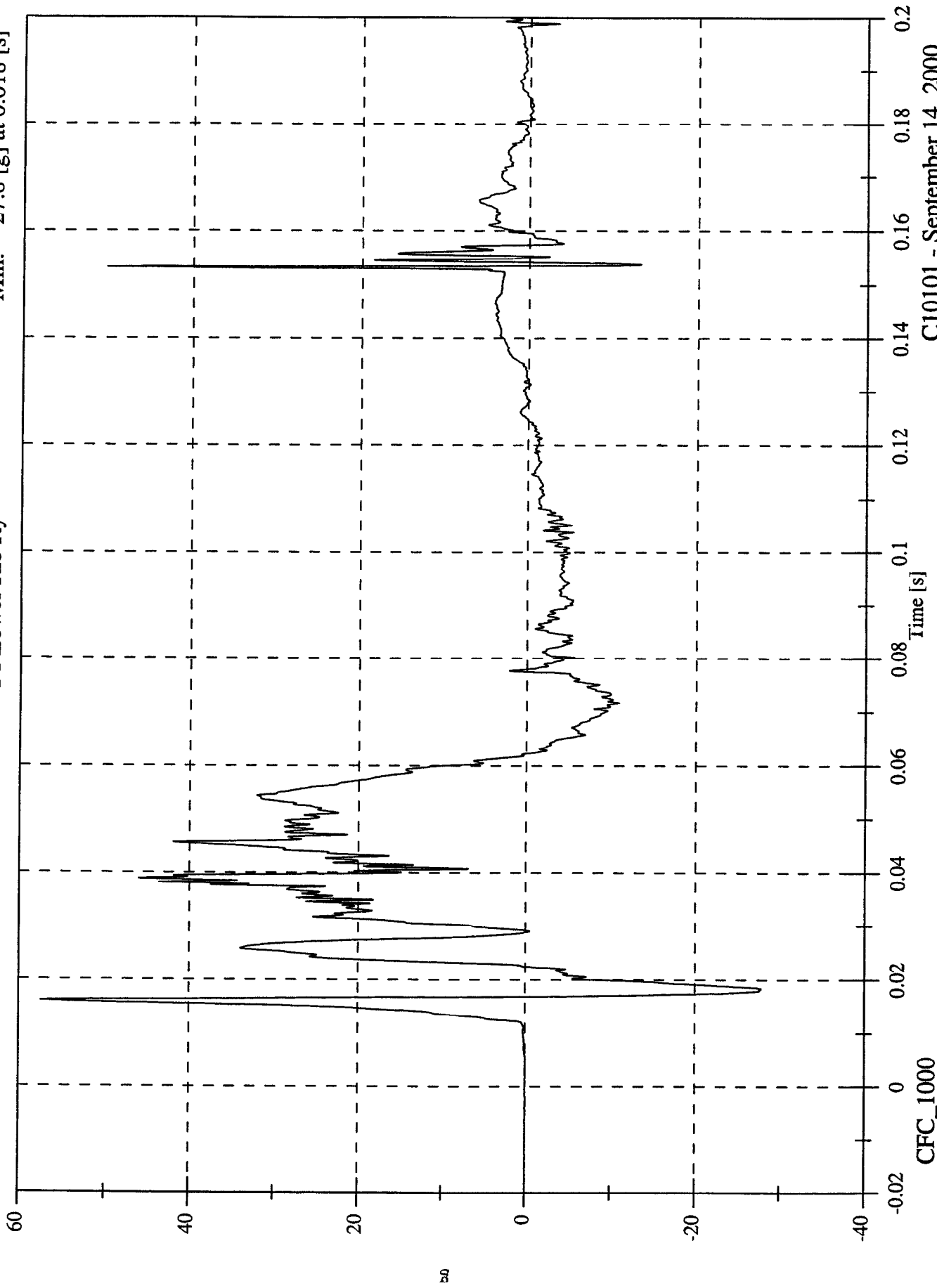
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Rib Ry

Max: 57.4 [g] at 0.016 [s]

Min: -27.8 [g] at 0.018 [s]



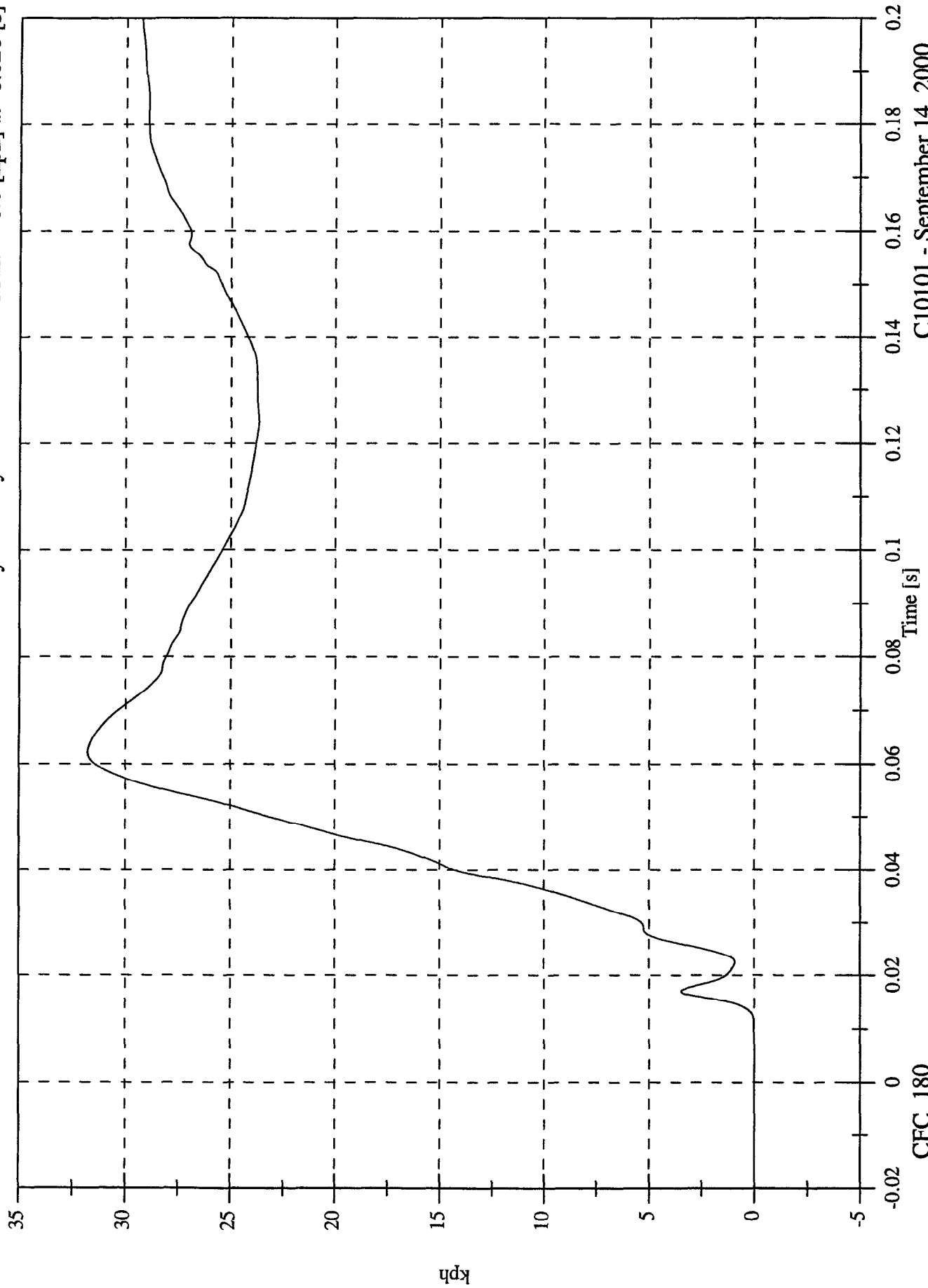
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Rib Ry Velocity

Max: 31.8 [kph] at 0.062 [s]

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



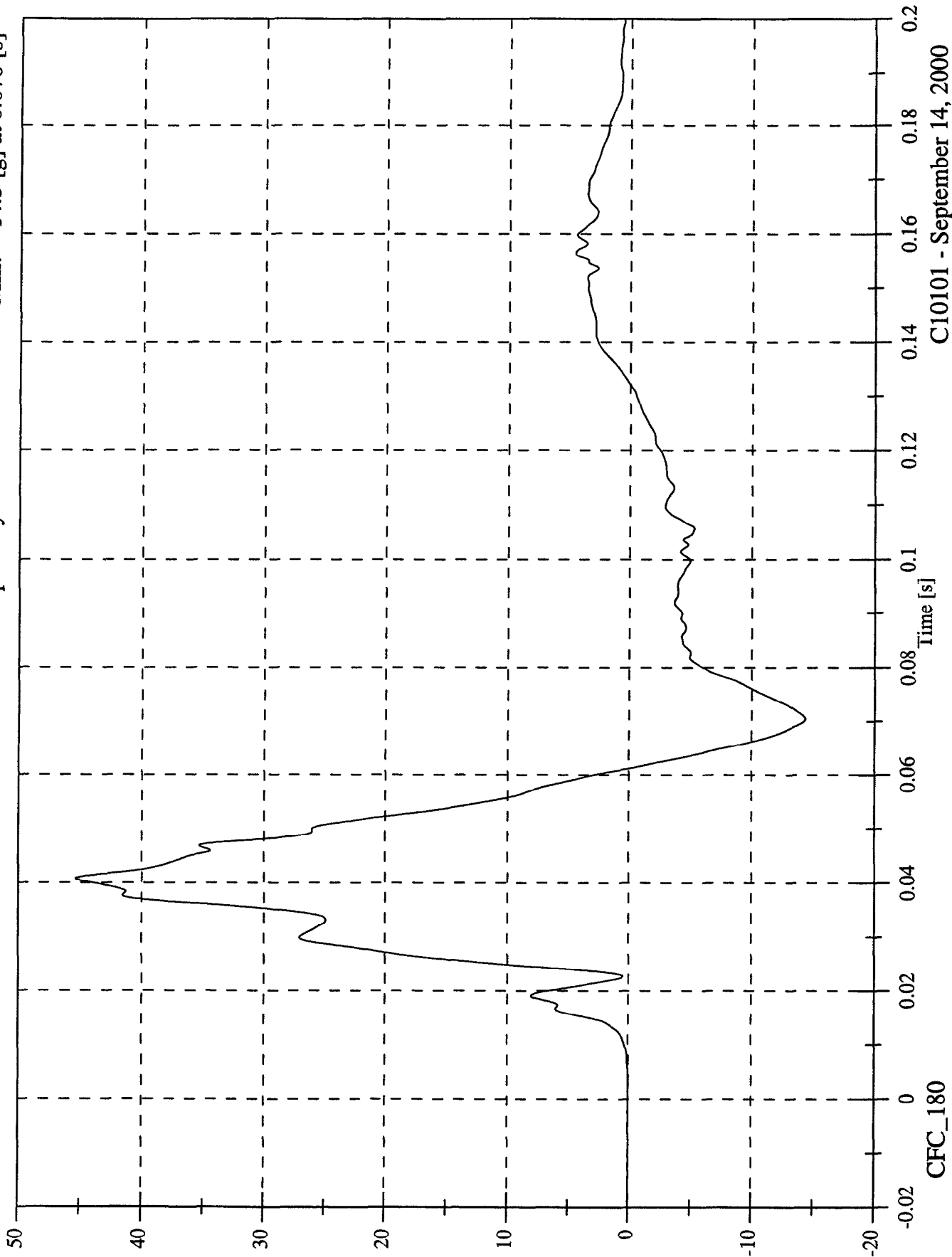
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Spine Ry

Max: 45.3 [g] at 0.041 [s]
Min: -14.3 [g] at 0.070 [s]



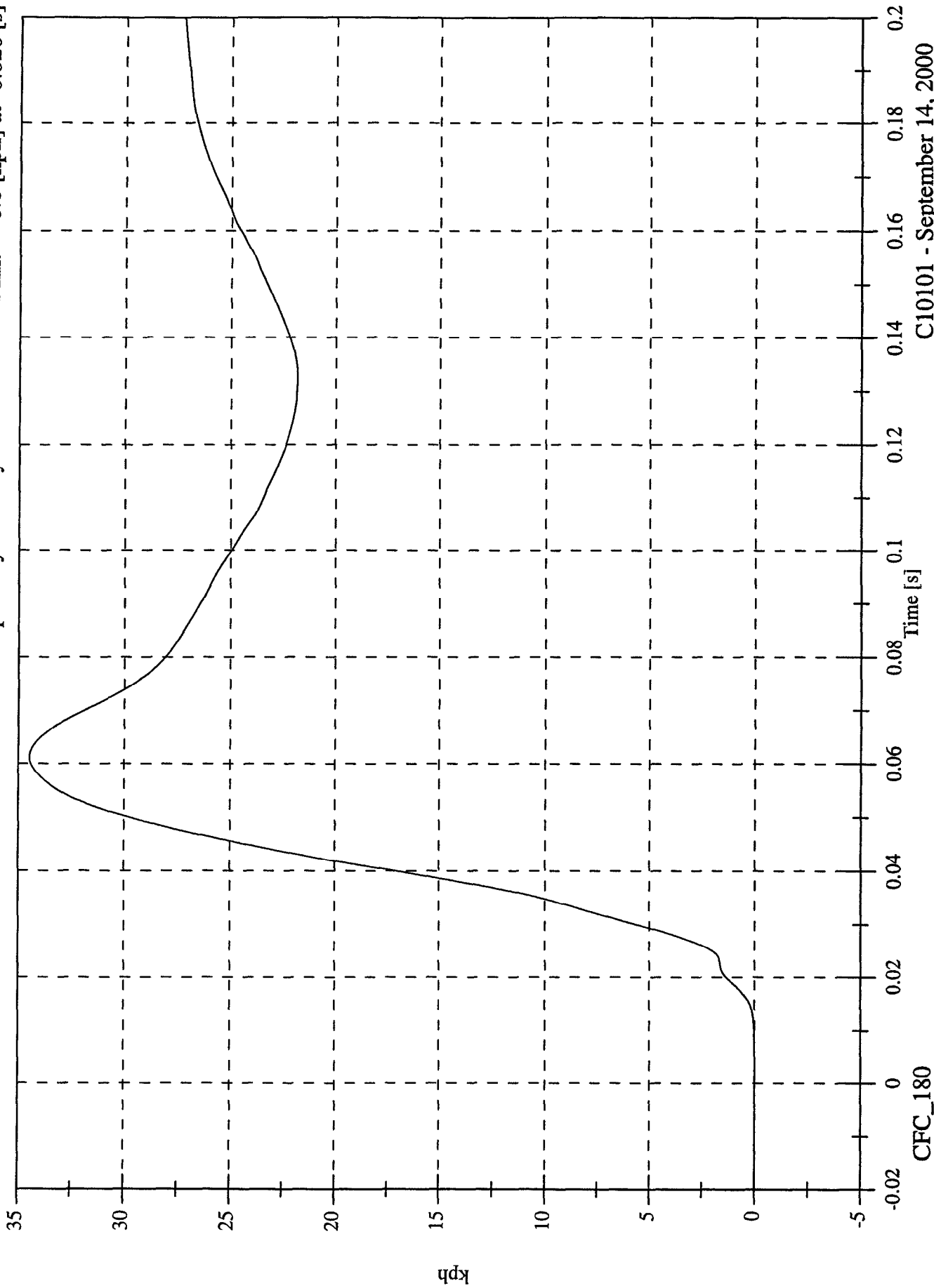
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Spine Ry Velocity

Max: 34.5 [kph] at 0.061 [s]

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



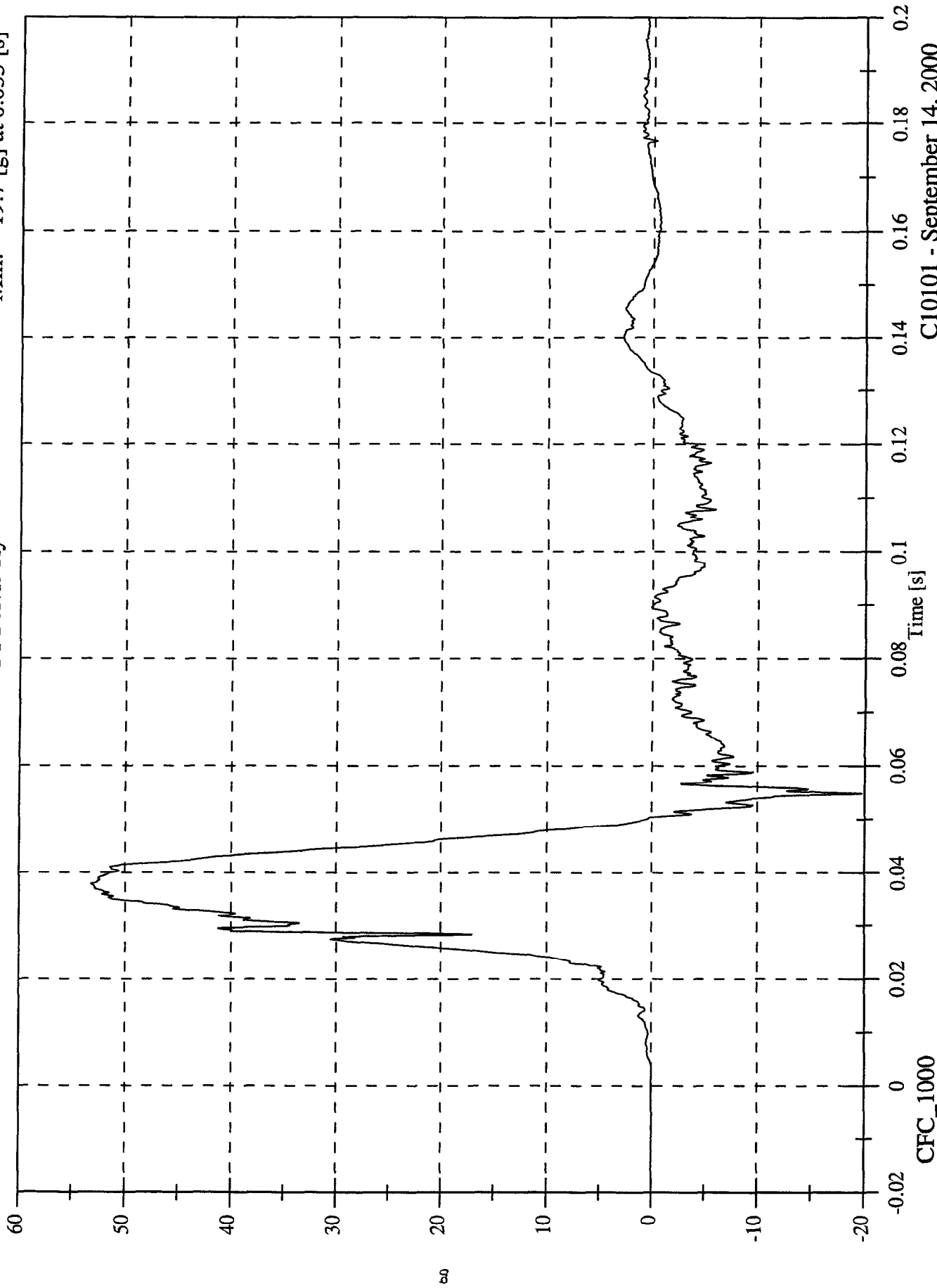
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Pelvic Ry

Max: 53.2 [g] at 0.038 [s]

Min: -19.7 [g] at 0.055 [s]



CFC_1000

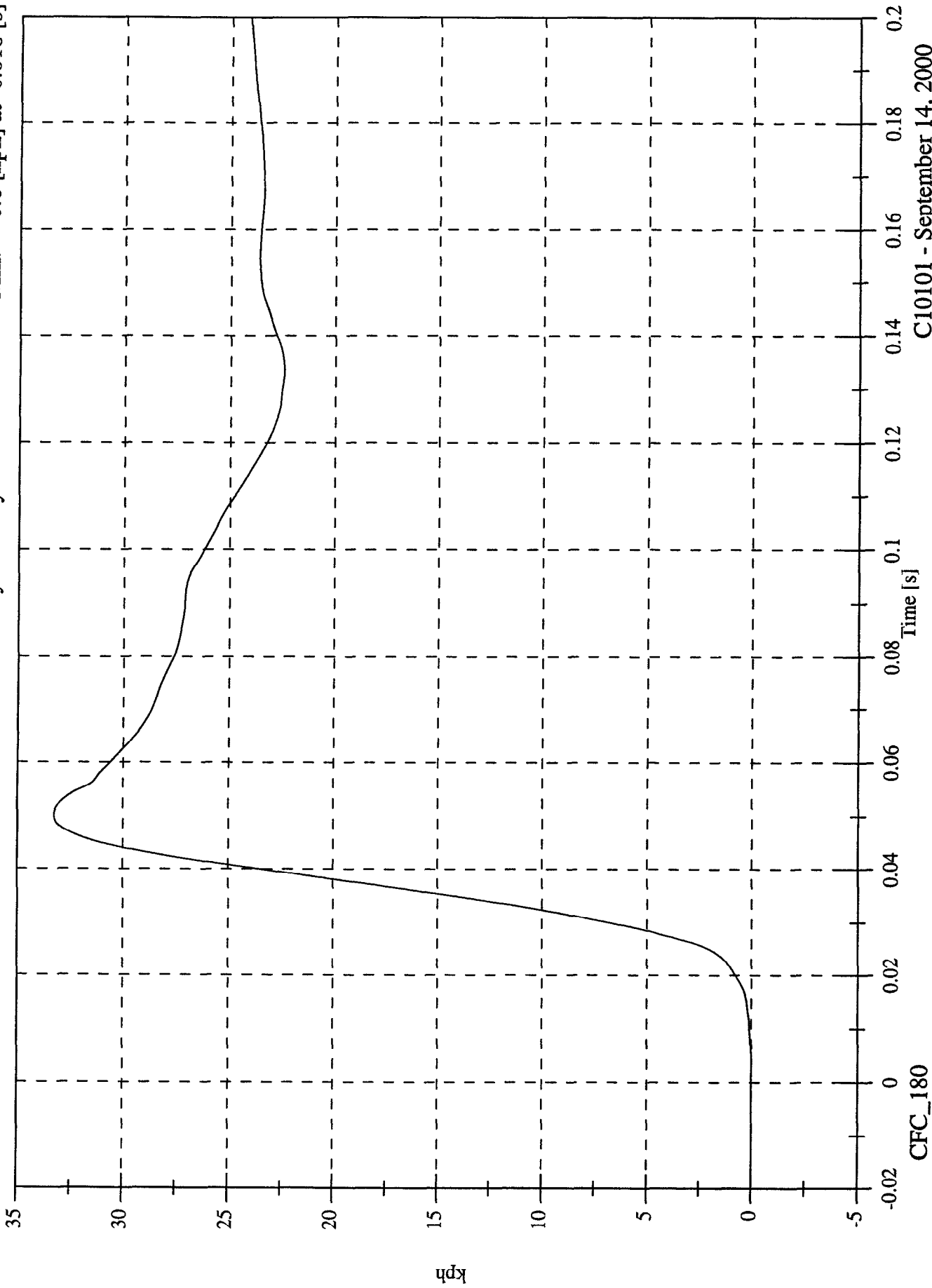
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 33.3 [kph] at 0.050 [s]

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

P1 Pelvic Ry Velocity



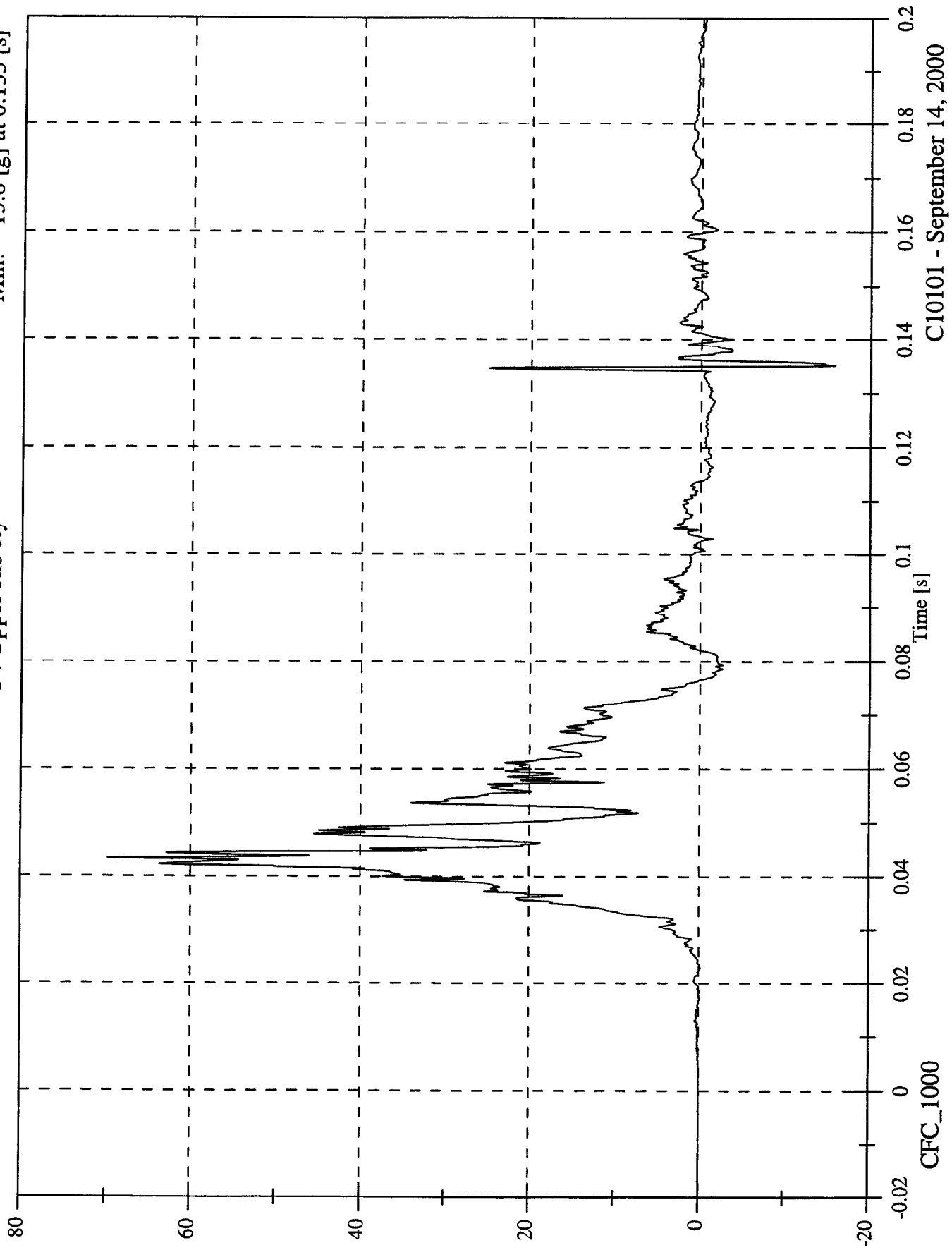
C10101 - September 14, 2000

CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Upper Rib Ry

Max: 69.8 [g] at 0.043 [s]
Min: -15.8 [g] at 0.135 [s]



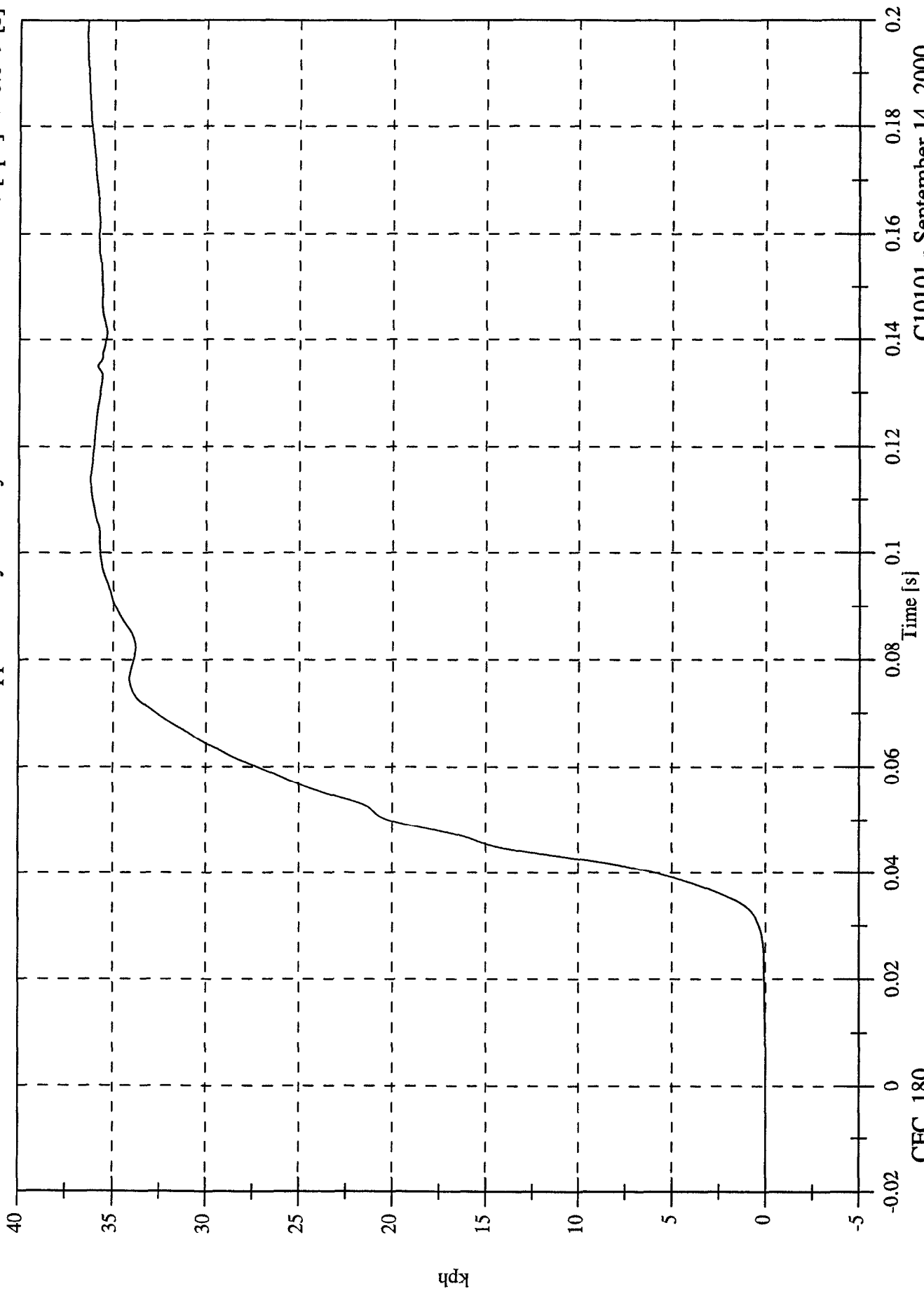
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Upper Rib Ry Velocity

Max: 36.5 [kph] at 0.197 [s]

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



C10101 - September 14, 2000

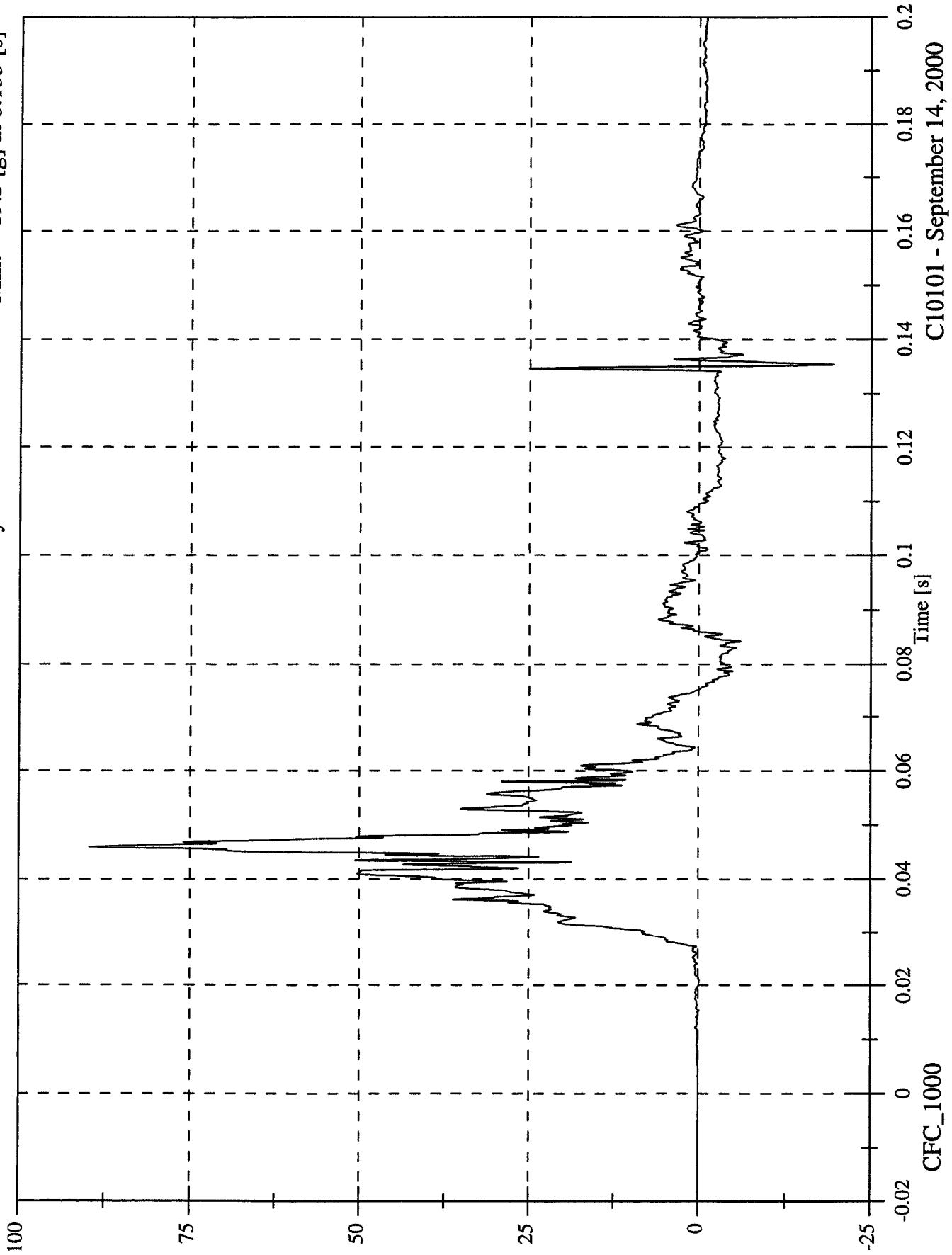
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Rib Ry

Max: 89.7 [g] at 0.046 [s]

Min: -19.5 [g] at 0.135 [s]

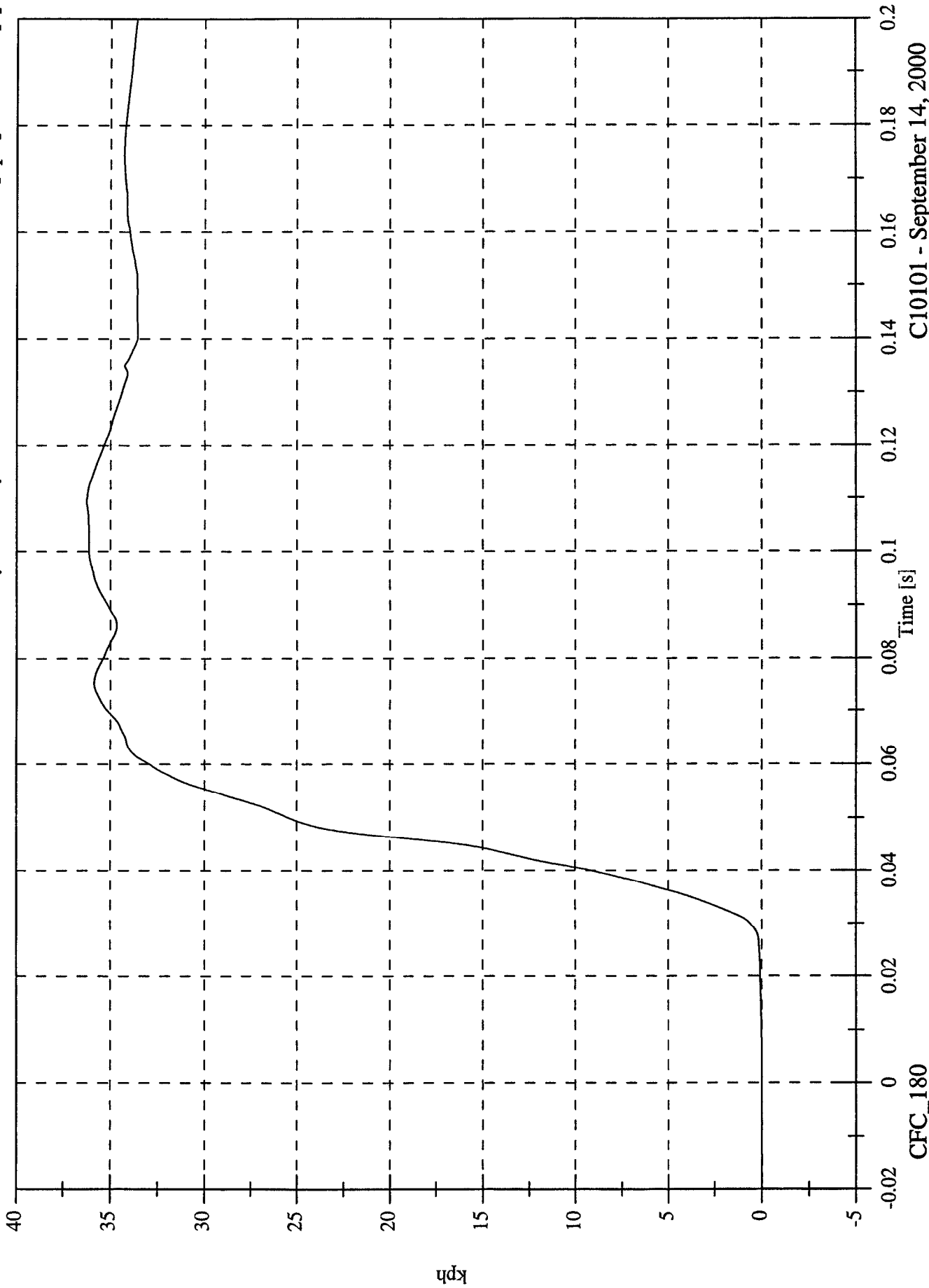


C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Rib Ry Velocity

Max: 36.2 [kph] at 0.109 [s]
Min: -0.0 [kph] at -0.019 [s]



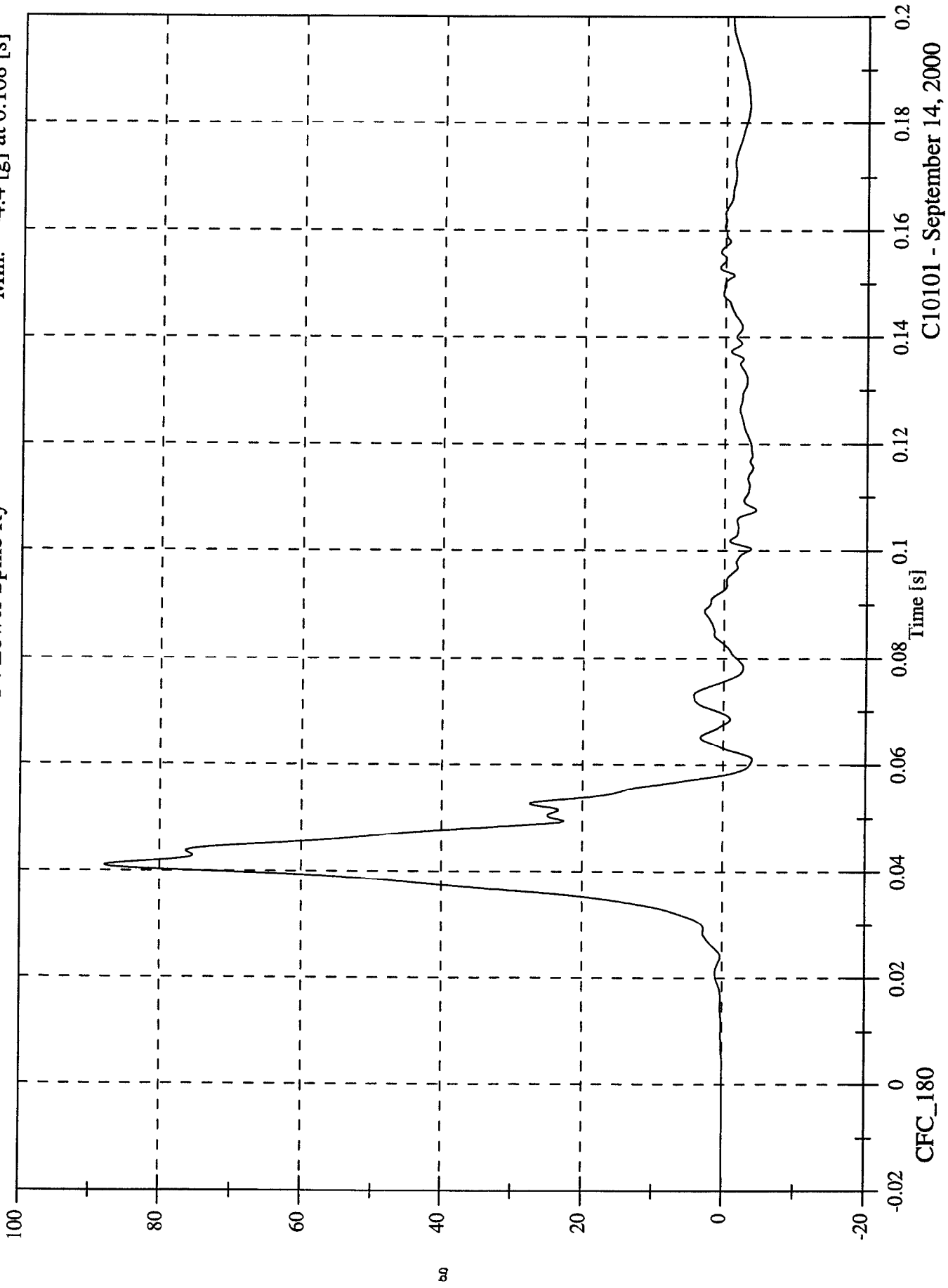
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Spine Ry

Max: 87.9 [g] at 0.041 [s]

Min: -4.4 [g] at 0.108 [s]



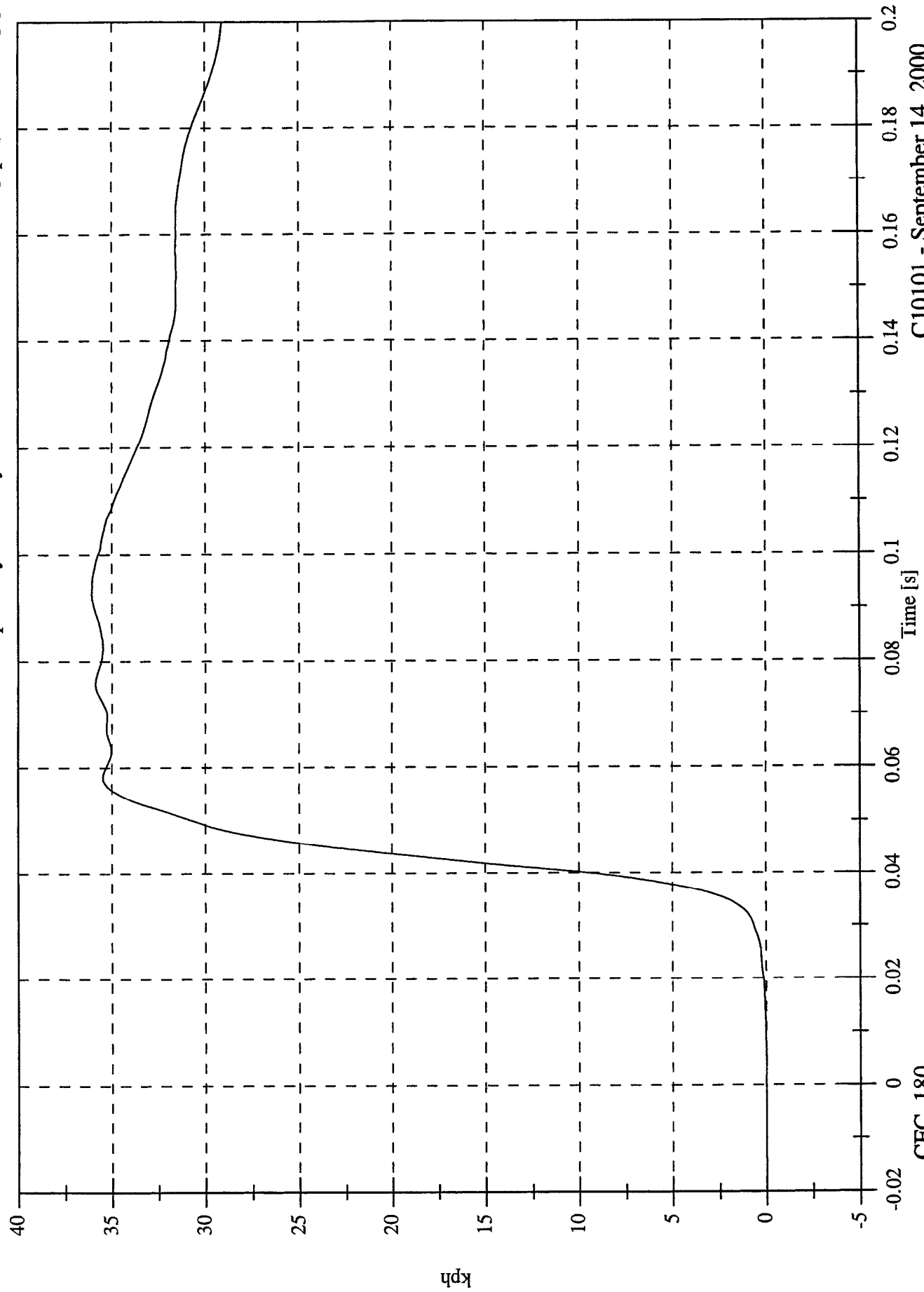
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 36.1 [kph] at 0.093 [s]

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

P4 Lower Spine Ry Velocity



C10101 - September 14, 2000

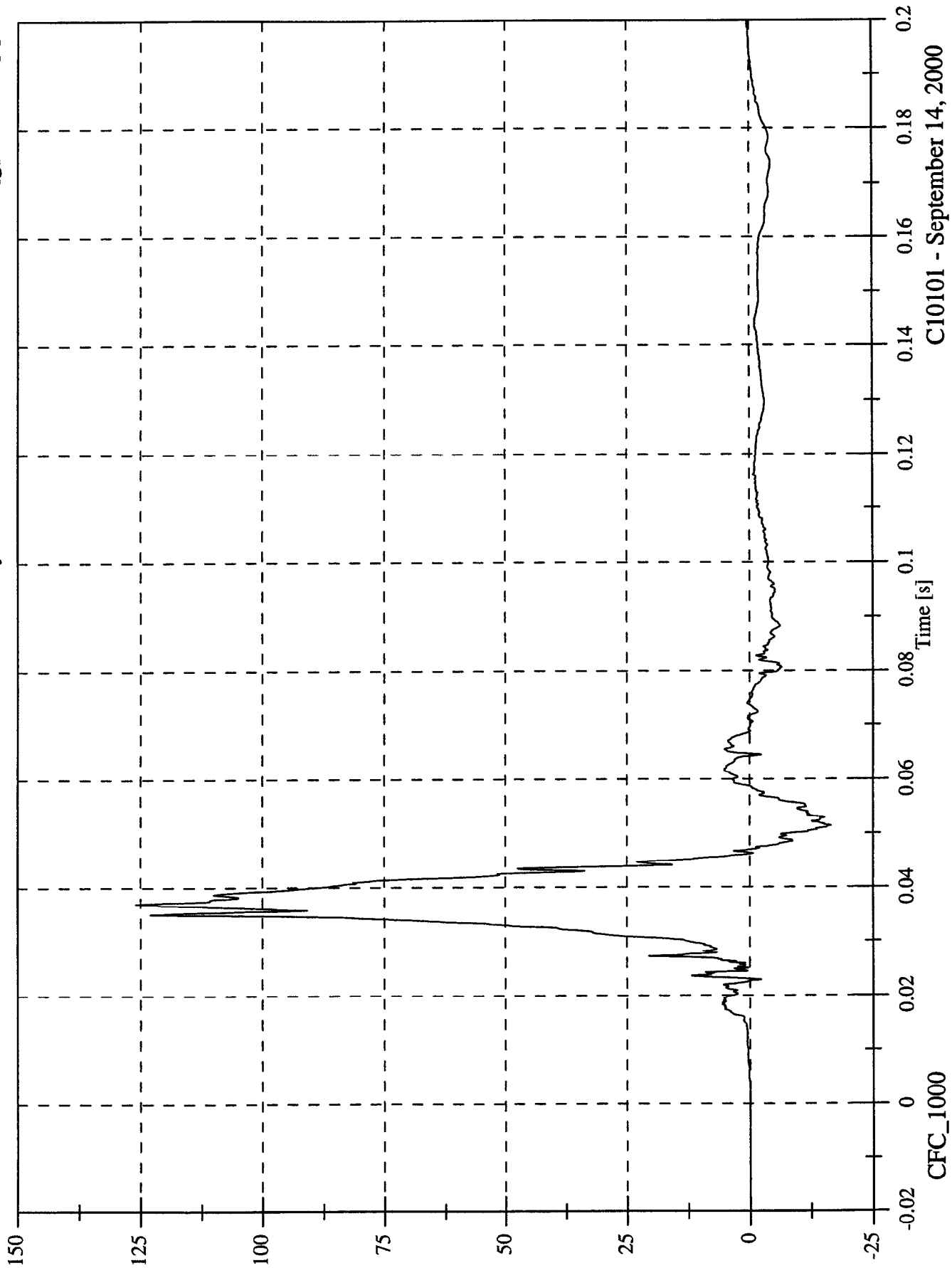
CFC_180

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Pelvic Ry

Max: 126.0 [g] at 0.037 [s]

Min: -16.5 [g] at 0.051 [s]



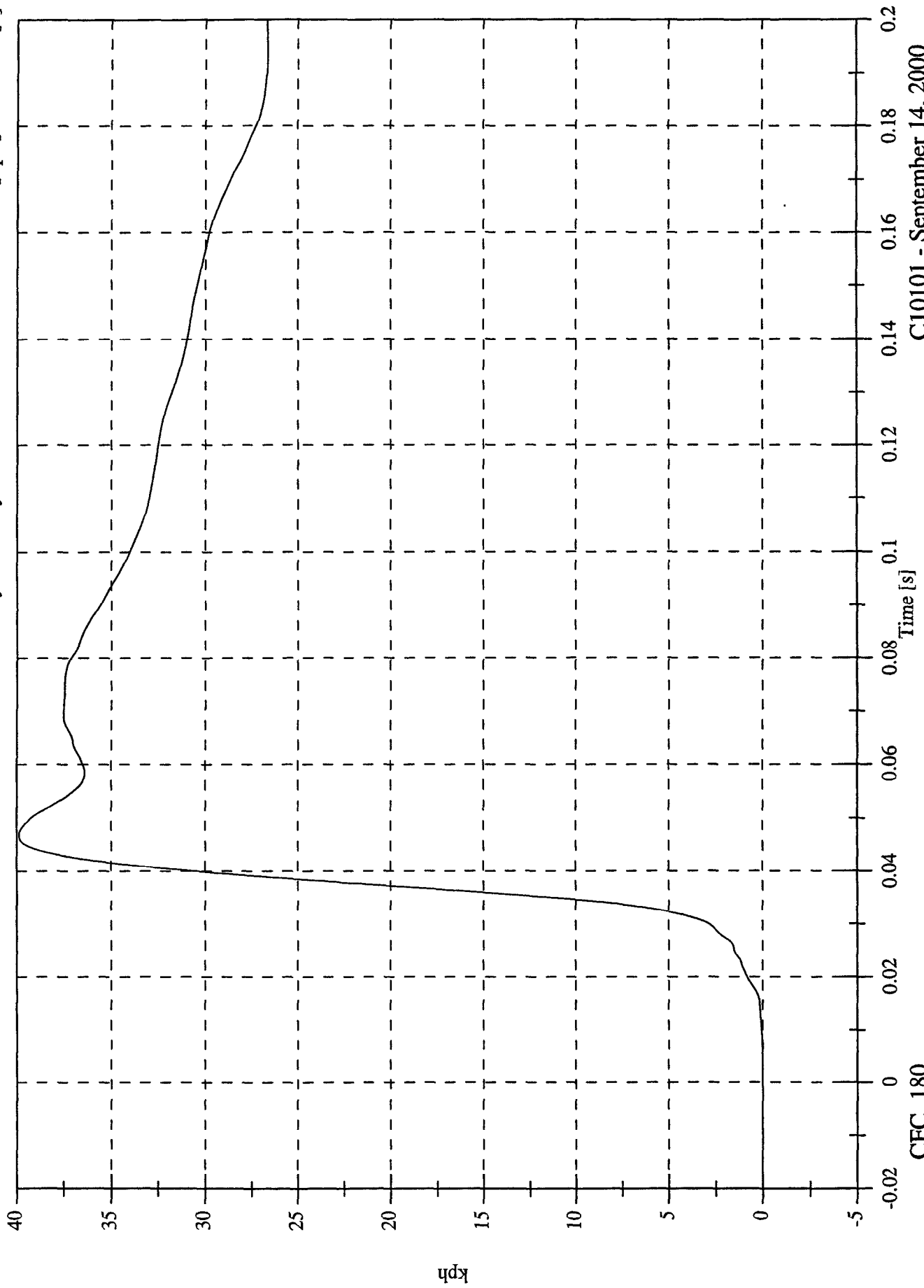
CI0101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

Max: 39.9 [kph] at 0.047 [s]

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

P4 Pelvic Ry Velocity



CFC_180

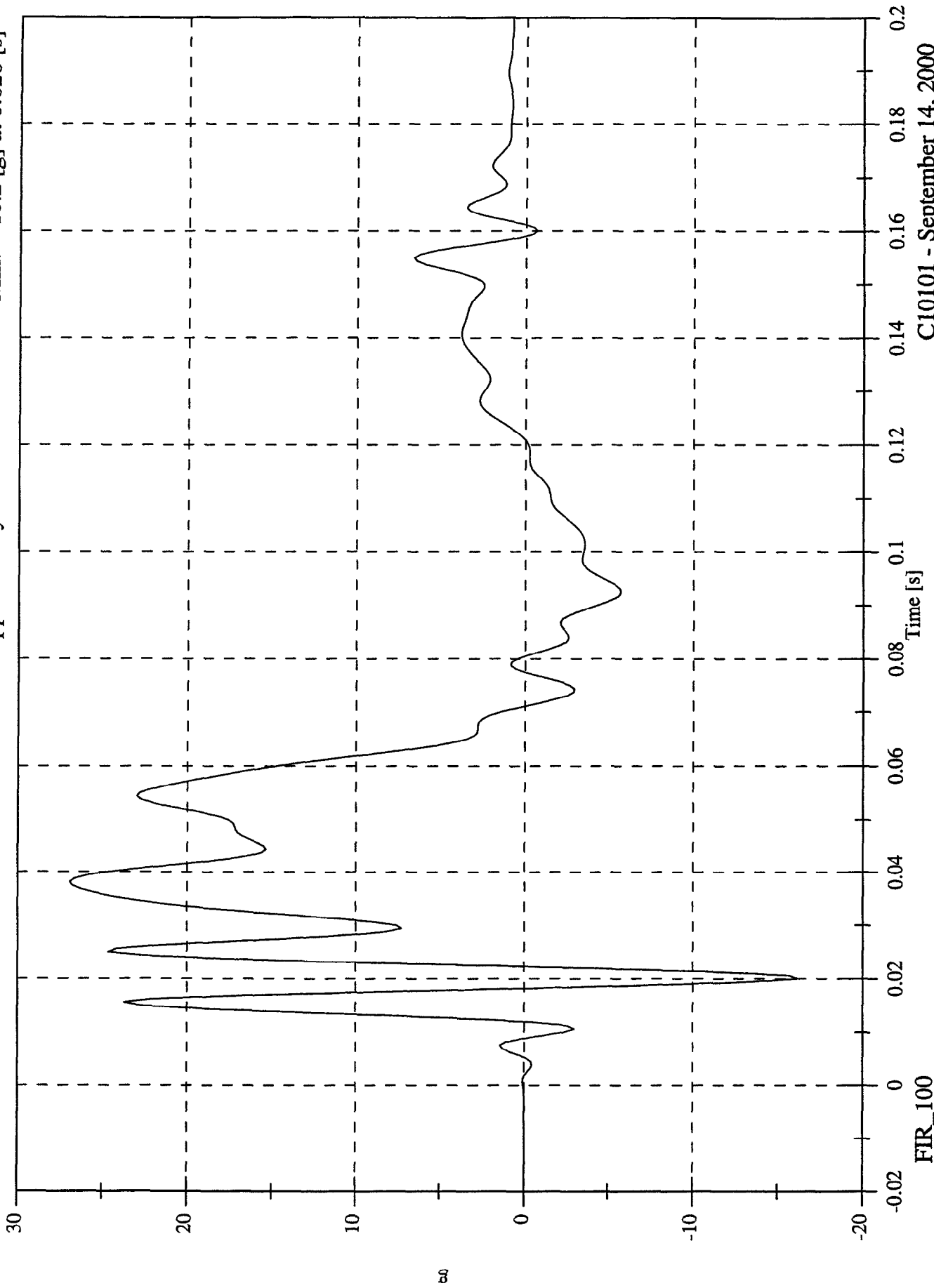
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Upper Rib Ry

Max: 26.9 [g] at 0.038 [s]

Min: -16.2 [g] at 0.020 [s]

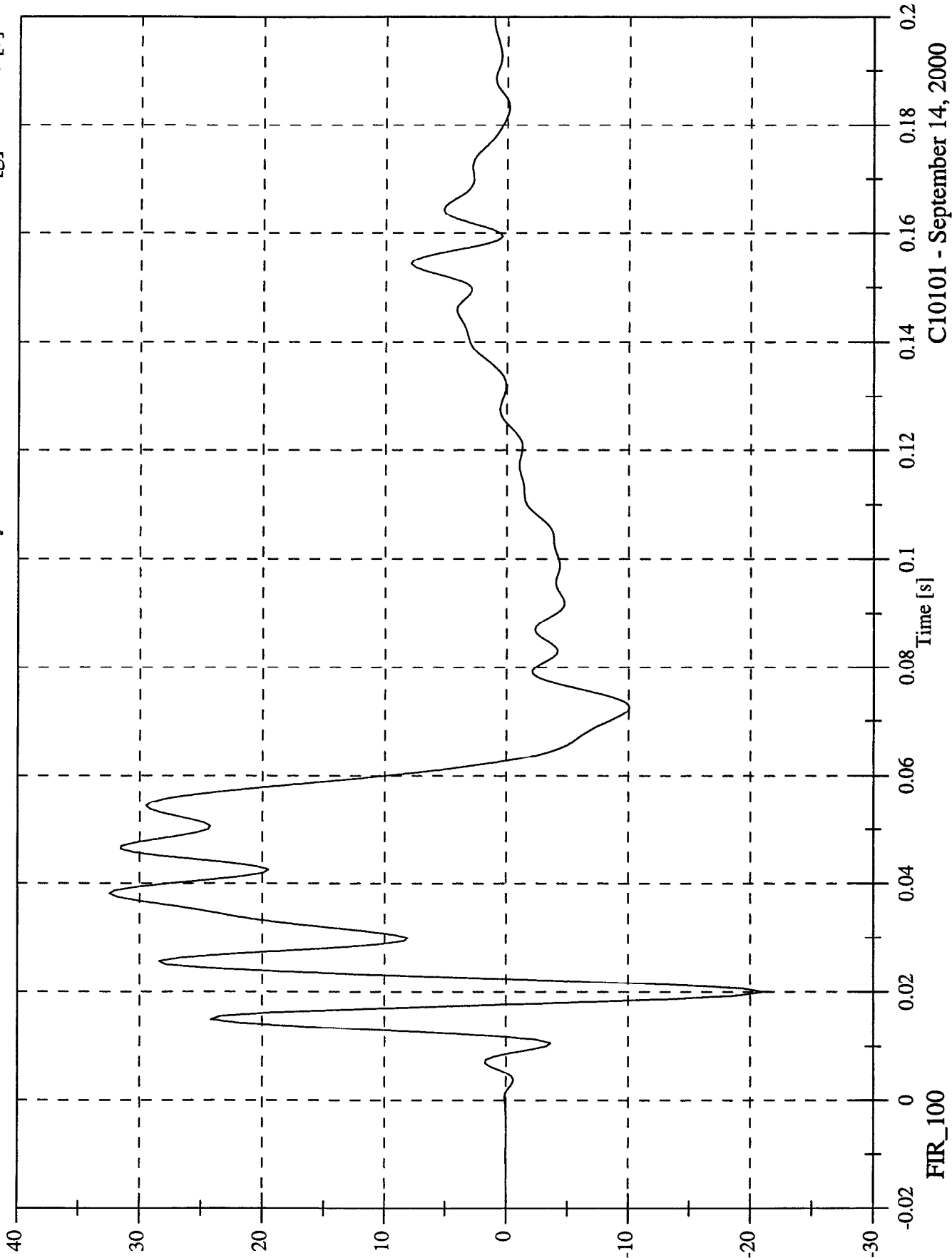


FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Rib Ry

Max: 32.5 [g] at 0.038 [s]

Min: -21.1 [g] at 0.020 [s]



C10101 - September 14, 2000

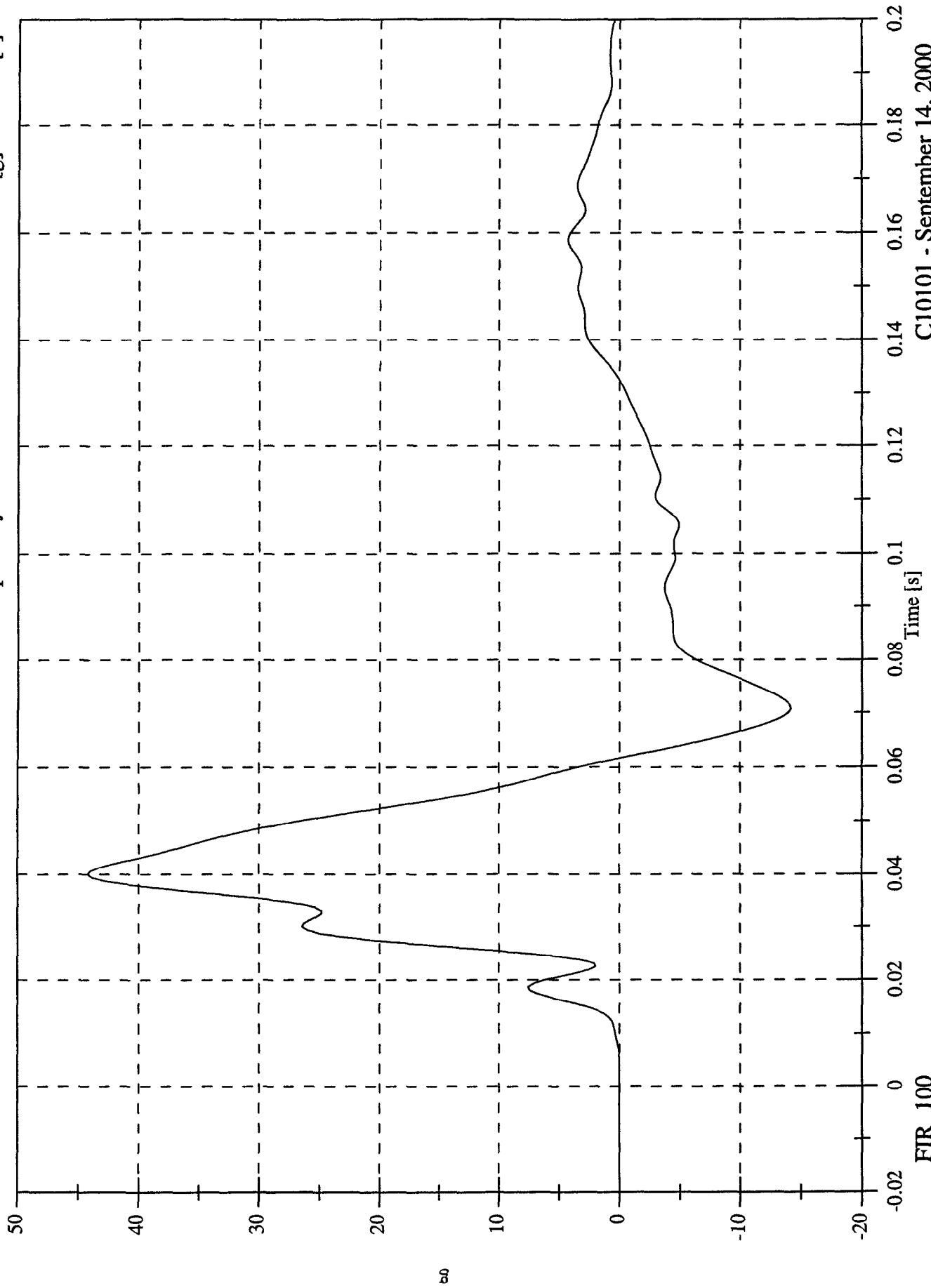
FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Lower Spine Ry

Max: 44.2 [g] at 0.040 [s]

Min: -14.1 [g] at 0.071 [s]



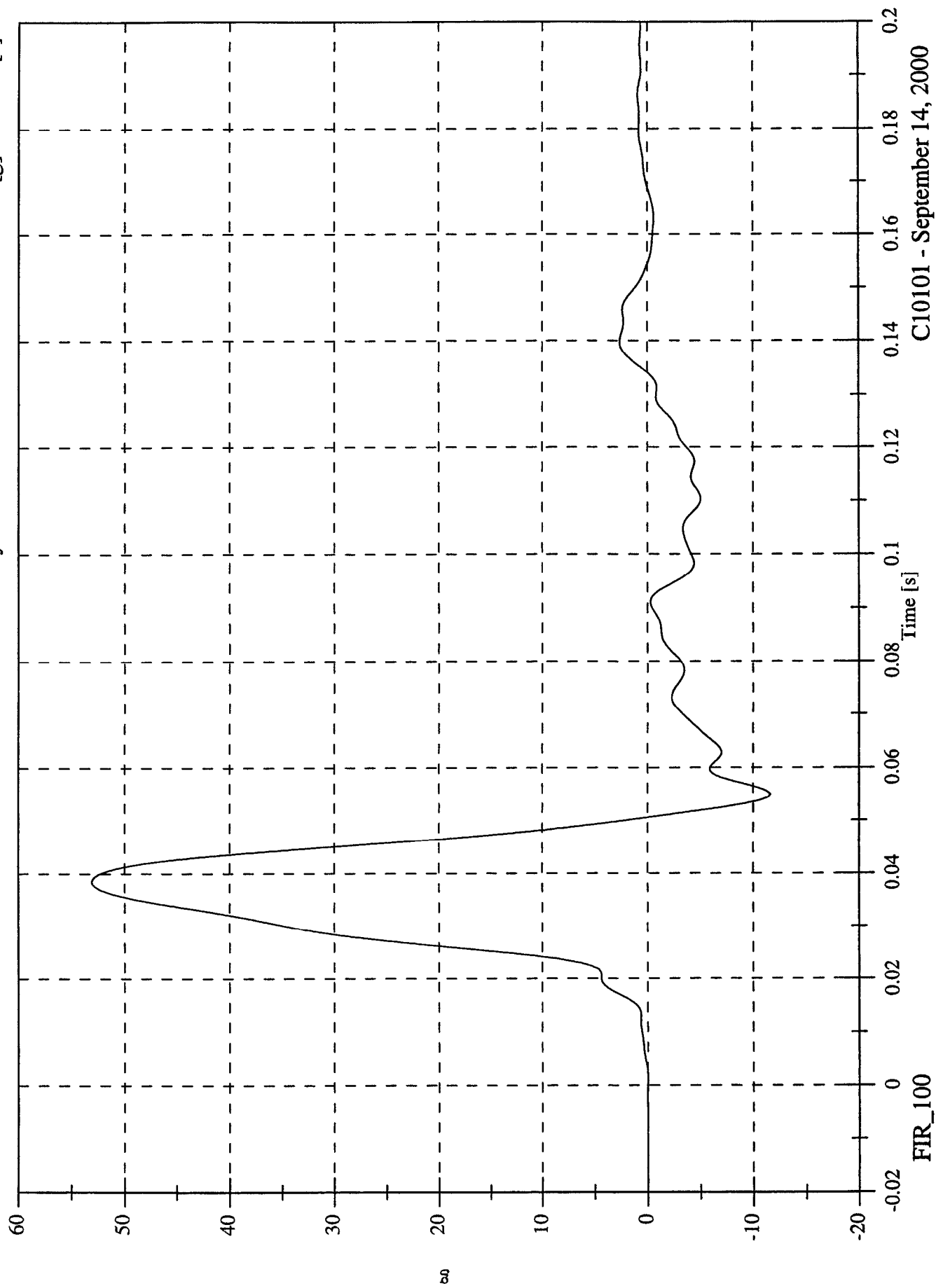
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P1 Pelvic Ry

Max: 53.1 [g] at 0.039 [s]

Min: -11.6 [g] at 0.055 [s]



FIR_100

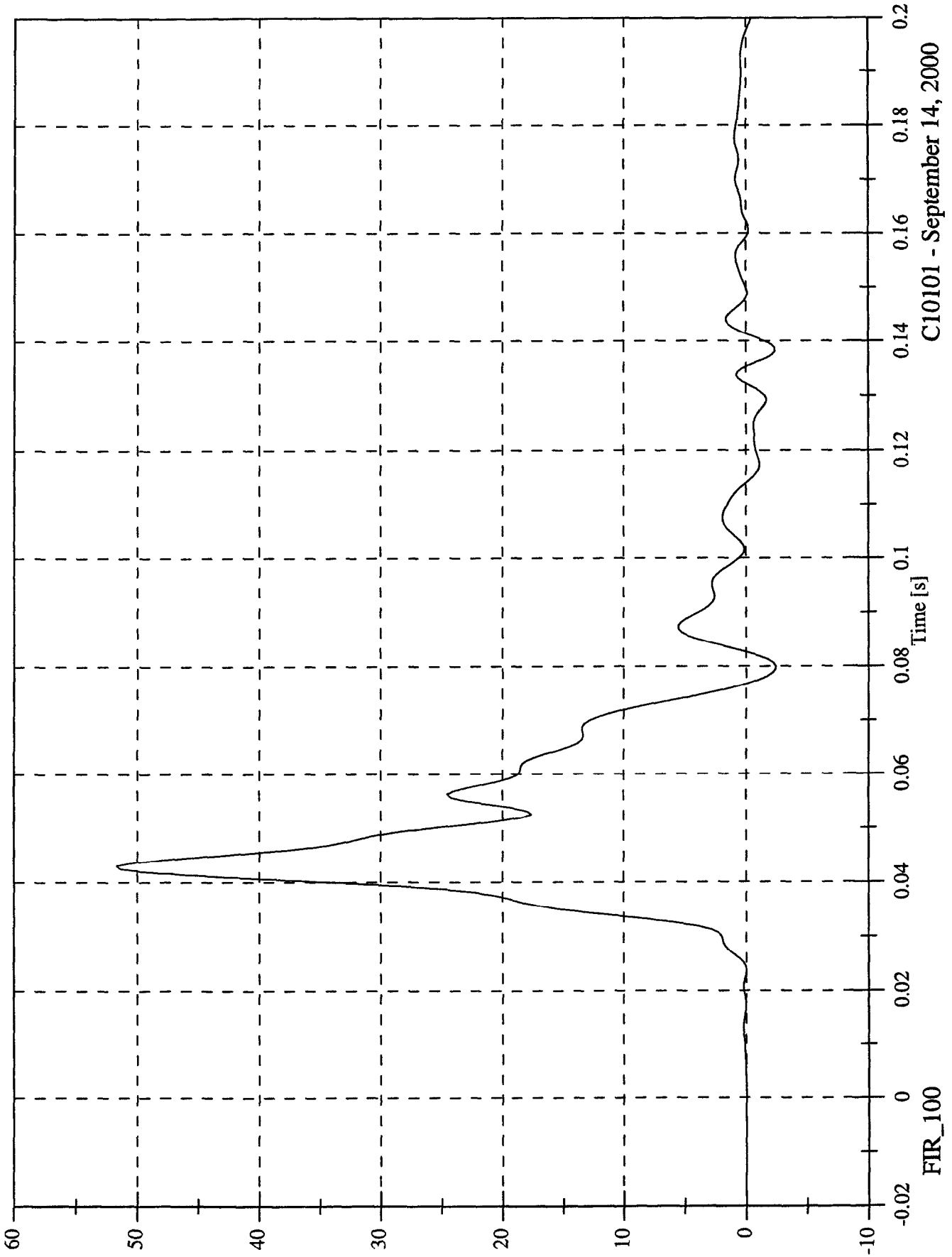
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Upper Rib Ry

Max: 51.7 [g] at 0.043 [s]

Min: -2.4 [g] at 0.080 [s]



FIR_100

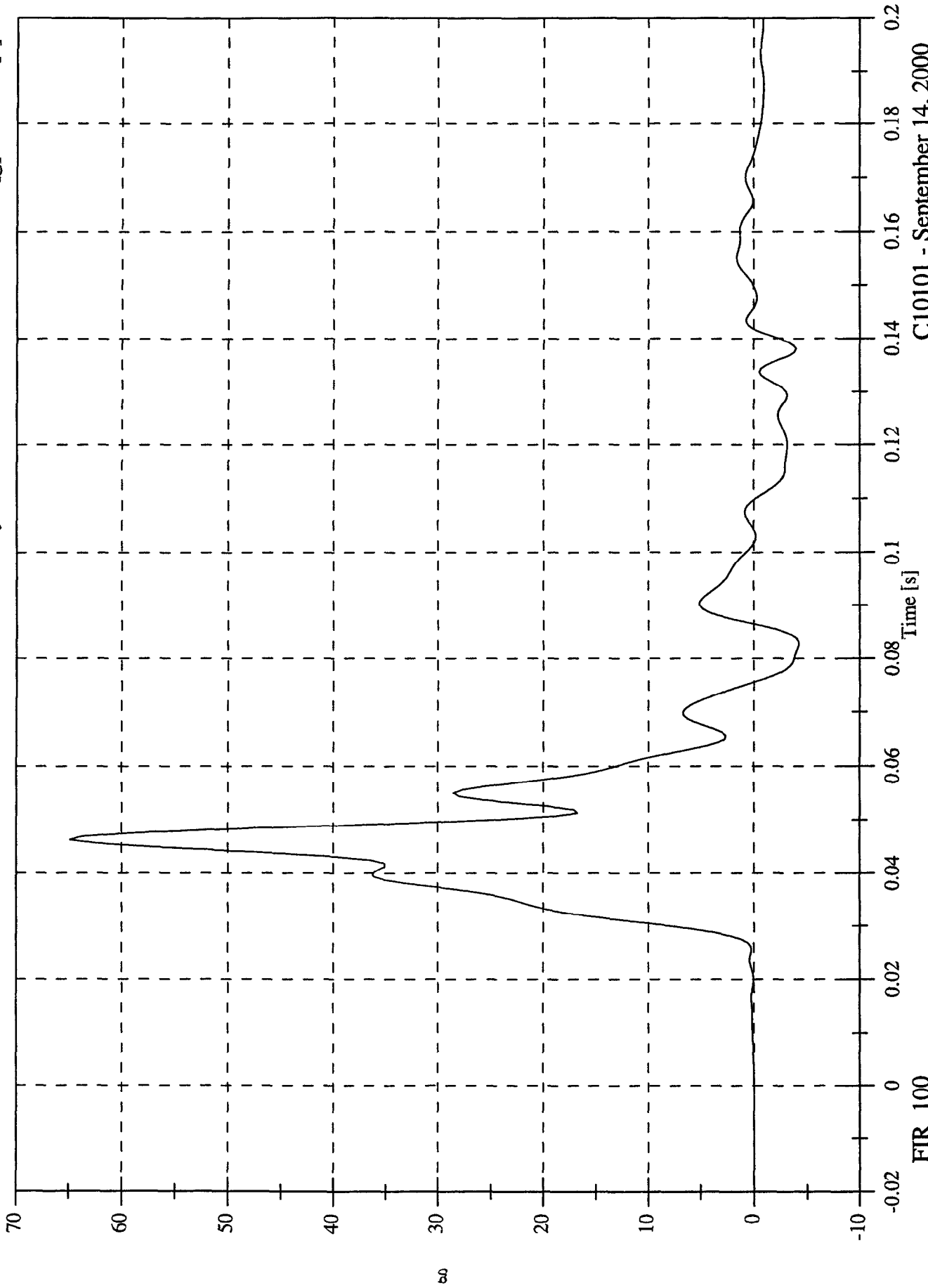
C10101 - September 14, 2000

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Rib Ry

Max: 64.9 [g] at 0.046 [s]

Min: -4.2 [g] at 0.083 [s]



C10101 - September 14, 2000

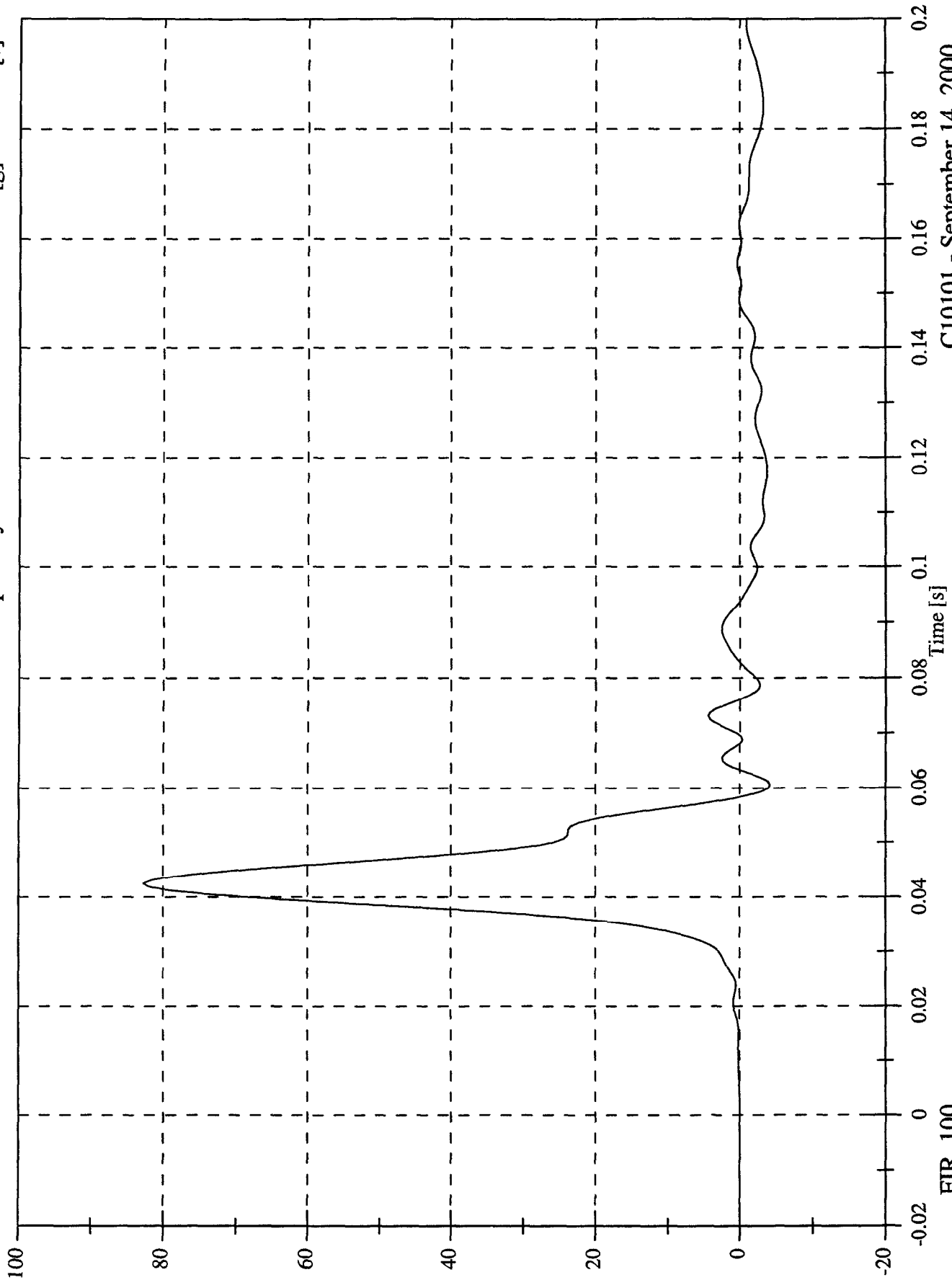
FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Lower Spine Ry

Max: 82.7 [g] at 0.043 [s]

Min: -4.2 [g] at 0.061 [s]



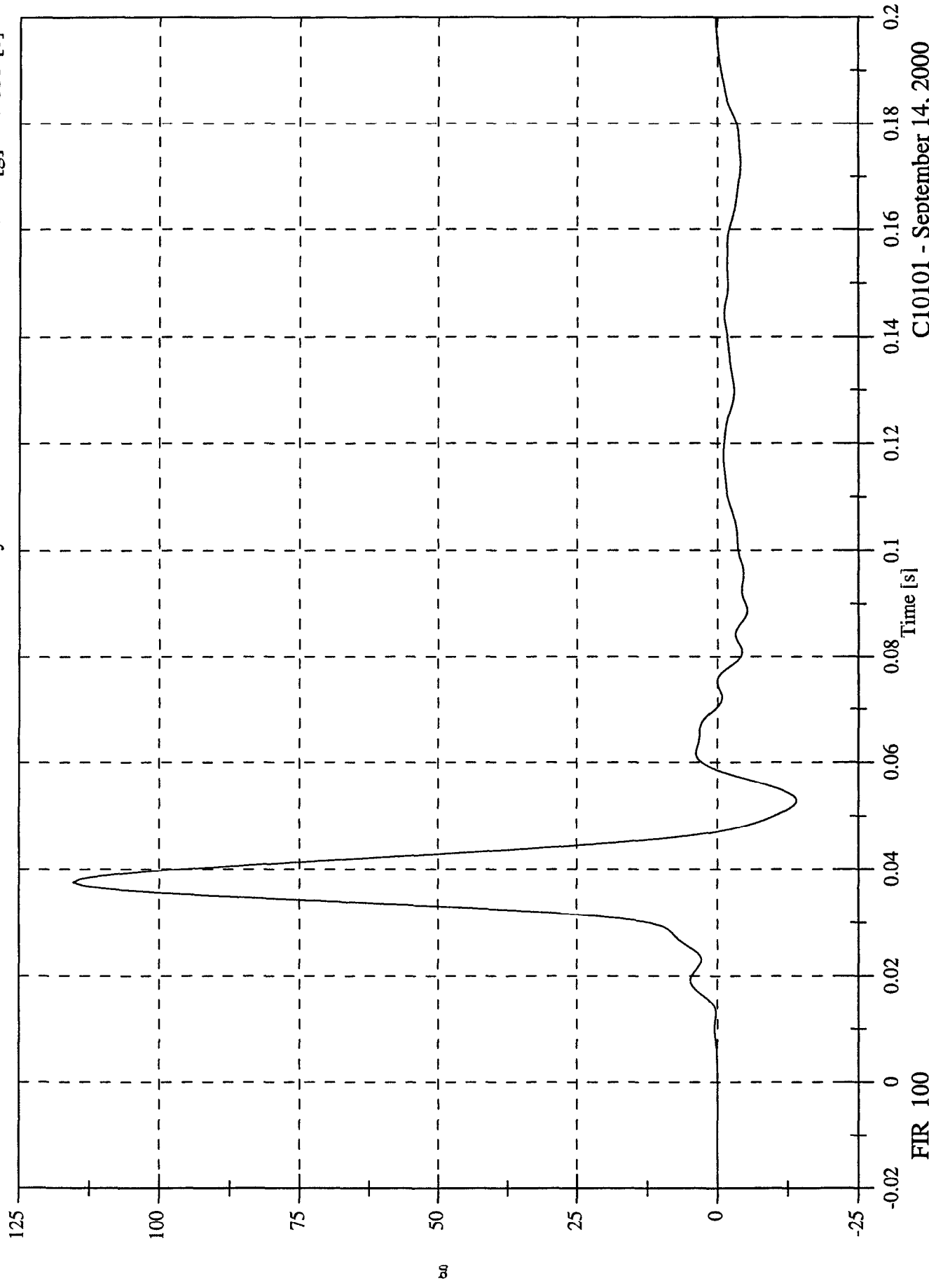
CI10101 - September 14, 2000

FIR_100

FMVSS 214D INDICANT TEST - 2001 Pontiac Aztek

P4 Pelvic Ry

Max: 115.4 [g] at 0.038 [s]
Min: -14.0 [g] at 0.053 [s]



FIR_100

C10101 - September 14, 2000

APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: 9/11/00-18/11/00;9/11/00-18/11/00

Sequential Test Number:

1.1:1.1

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID NO.: 015		SID NO.: 016	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	904	904	902	902
RH- Rib Height (mm)	501 - 521	511	511	513	513
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	236	236	239	239
KV- Knee Pivot from Back Line (mm)	511 - 526	521	521	526	526
SW- Knee Pivot to Floor (mm)	490 - 505	495	493	494	494
HW- Hip Width (mm)	356 - 391	370	371	364	366
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.7	21.7	21.7	21.7
RELATIVE HUMIDITY (%)	10 - 70	31	30	31	31
PROBE SPEED (m/s)	4.27 - 4.33	4.29	4.29	4.29	4.29
UPPER RIB (g's)	37 - 46	41.5	42.3	42.9	40.5
LOWER RIB (g's)	37 - 46	39.5	40.7	39.7	38.2
LOWER SPINE (g's)	15 - 22	21.6	21.7	21.2	19.2
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.7	21.7	21.7	21.7
RELATIVE HUMIDITY (%)	10 - 70	31	30	31	31
PROBE SPEED (m/s)	4.27 - 4.33	4.30	4.30	4.29	4.30
PELVIS (g's)	40 - 60	59.9	46.7	40.6	48.2

REMARKS: None

**CALIBRATION TEST RESULTS
PRE-TEST**

SID NO.: 015

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
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 Serial No.: 015
Date: 9/11/00

Sequential Test Number: 1
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	236
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	370

REMARKS: None

**THORACIC SHOCK ABSORBER TESTS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1.1
Date: 4/19/00 Laboratory Technician: B. Swiecicki

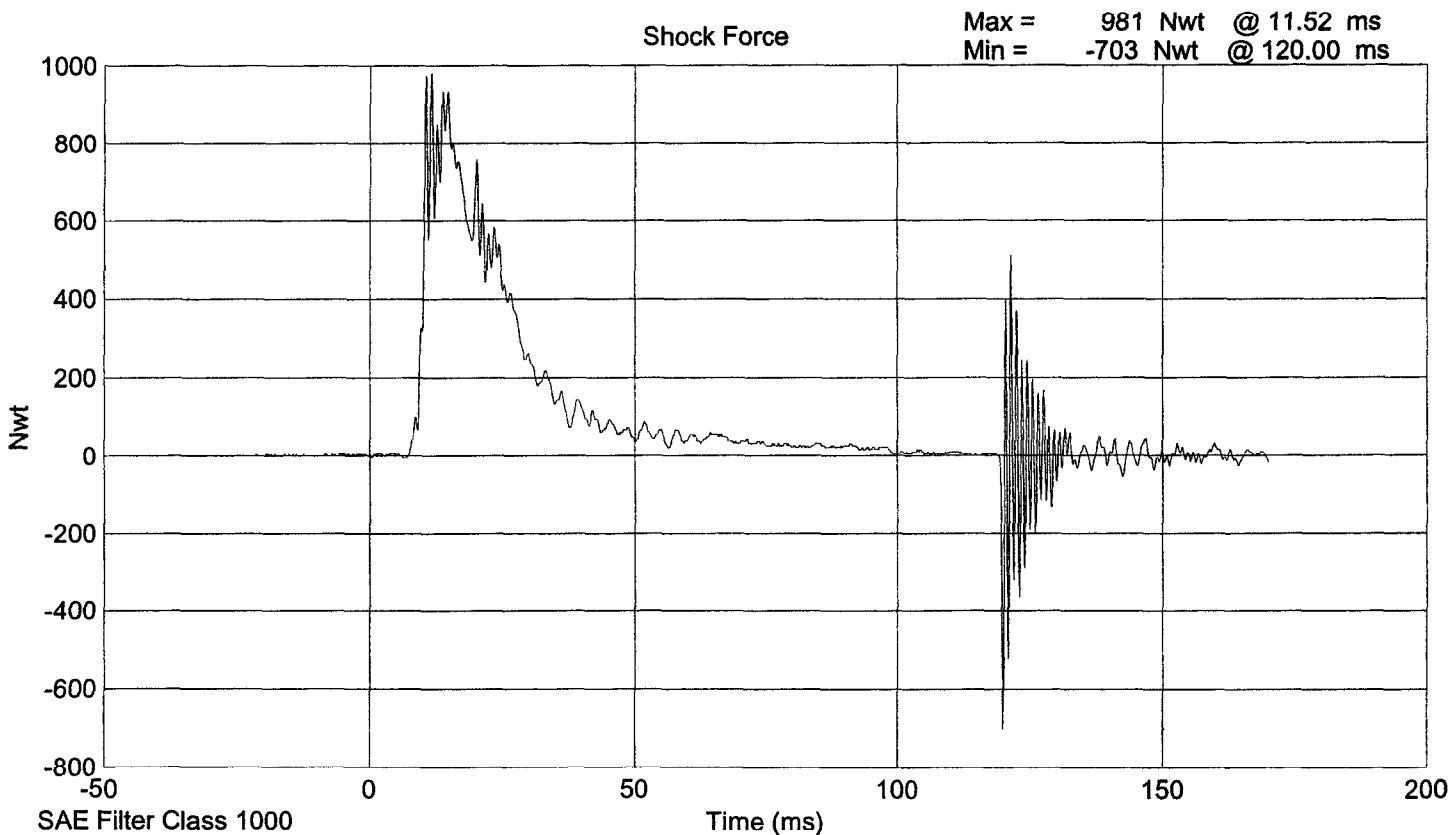
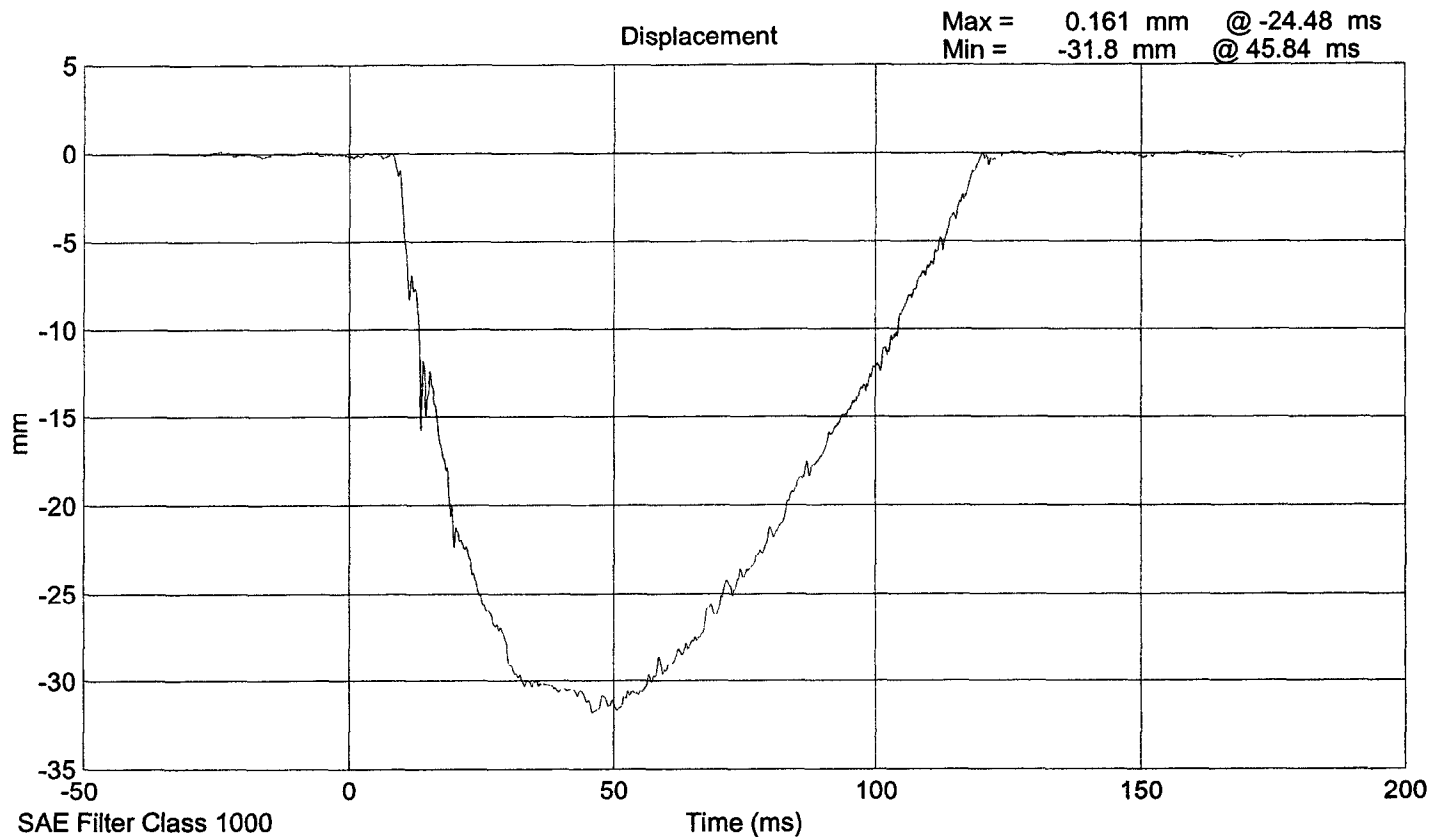
DAMPER IDENTIFICATION: 015

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)		10 - 70	30
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	981.2
	DISPLACEMENT (mm)	30 - 35	31.8
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1849.4
	DISPLACEMENT (mm)	32 - 37	34.7
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	3925.0
	DISPLACEMENT (mm)	33 - 40	35.1

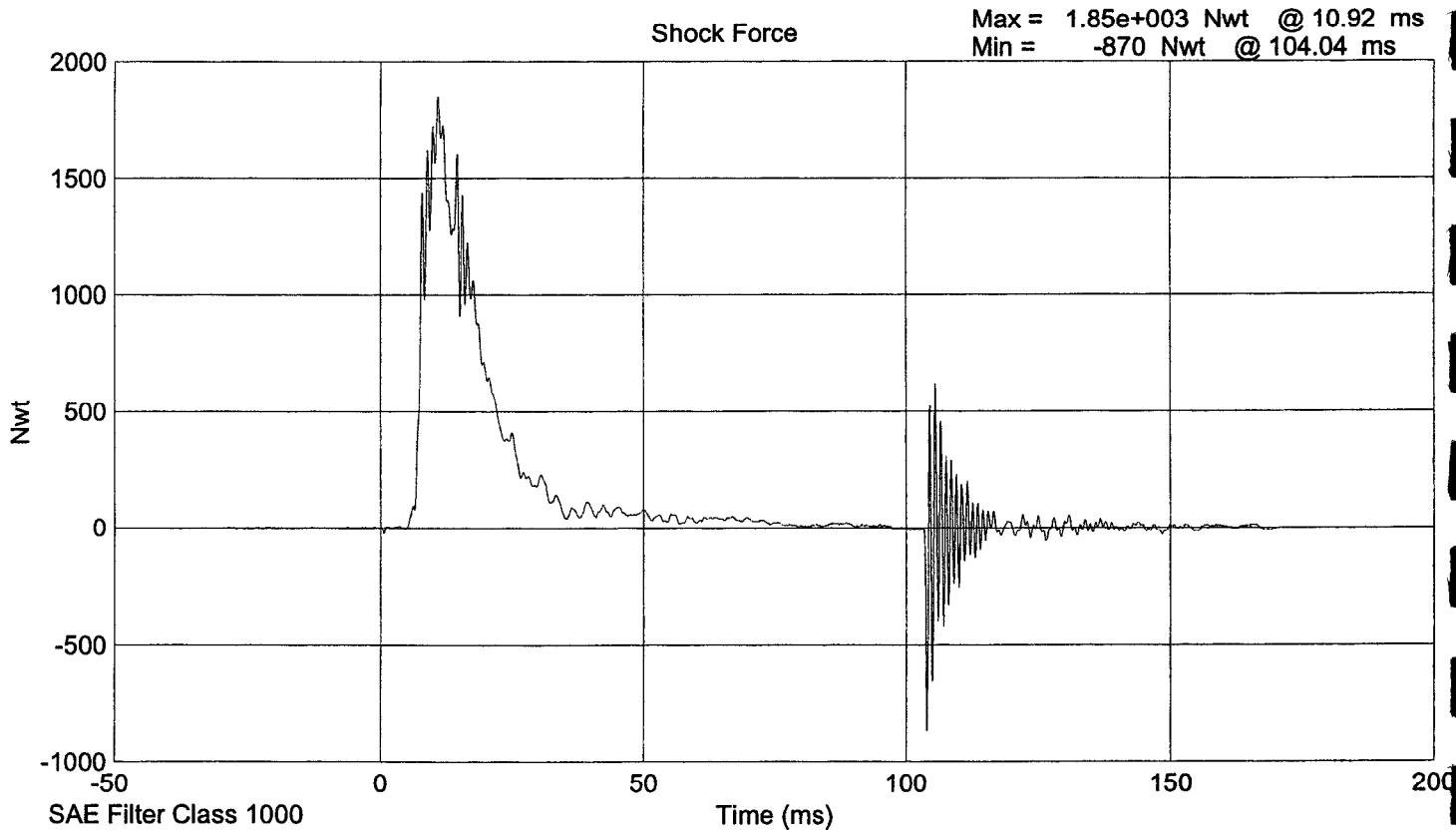
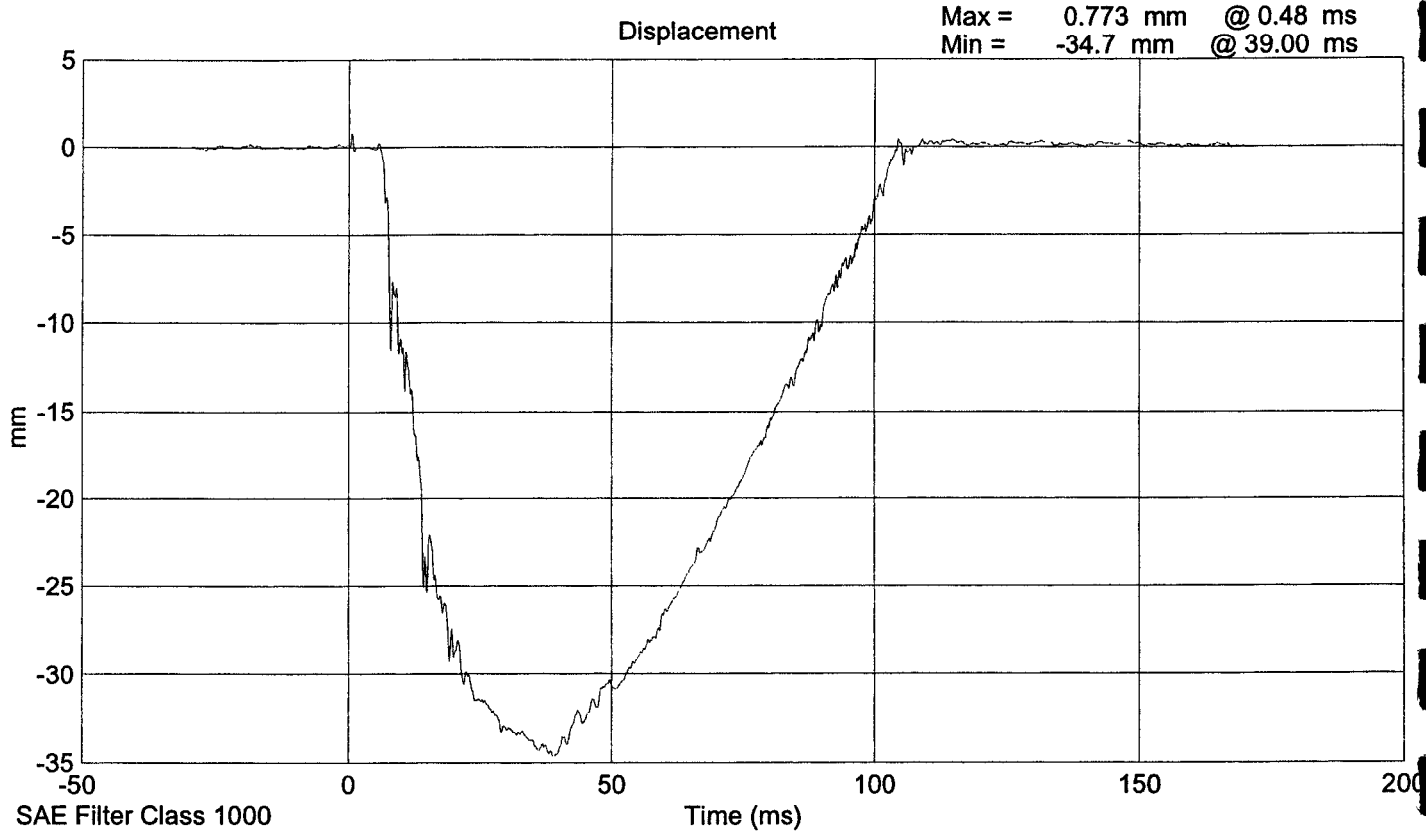
DAMPER SETTING: 5

REMARKS: None

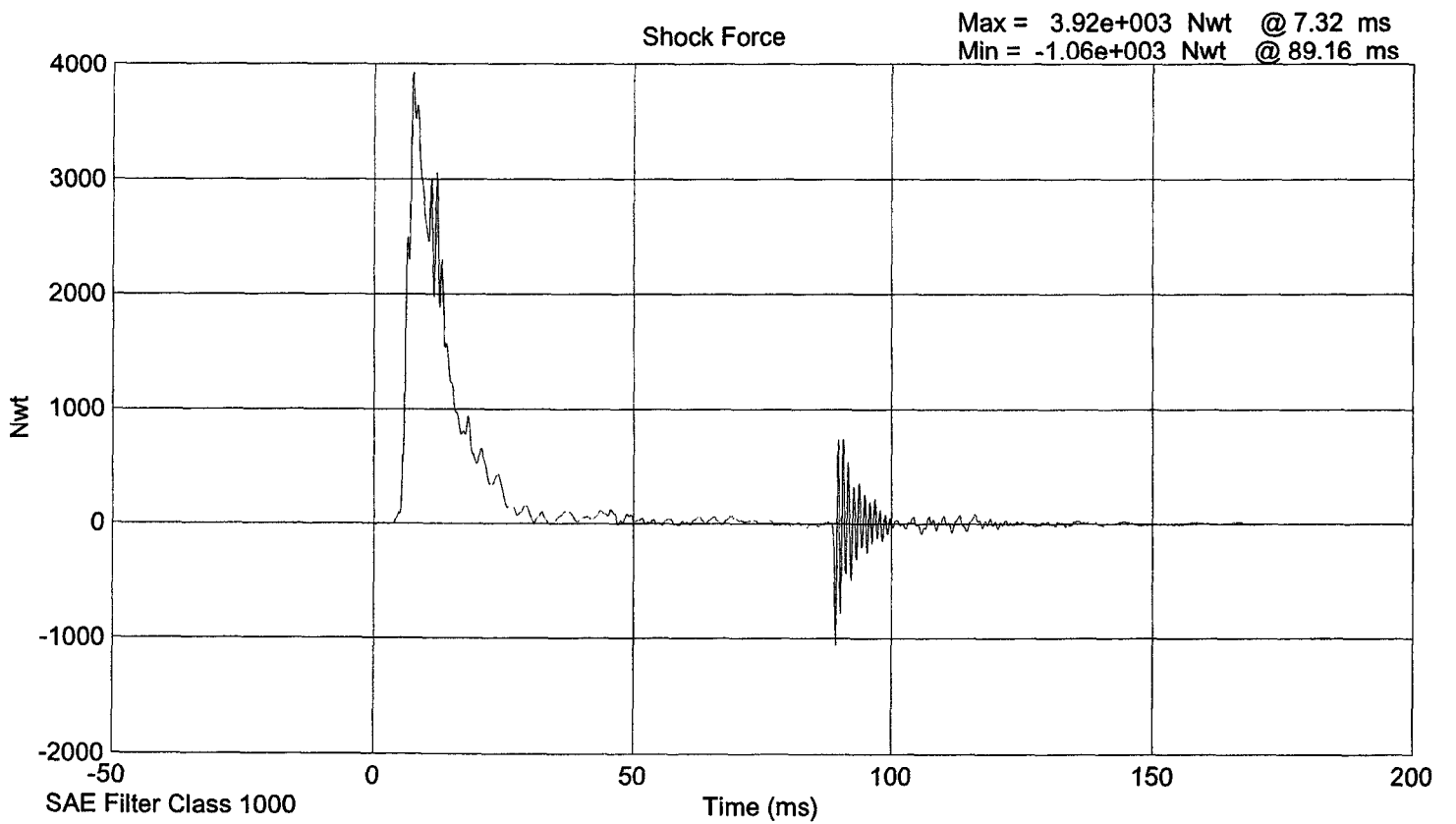
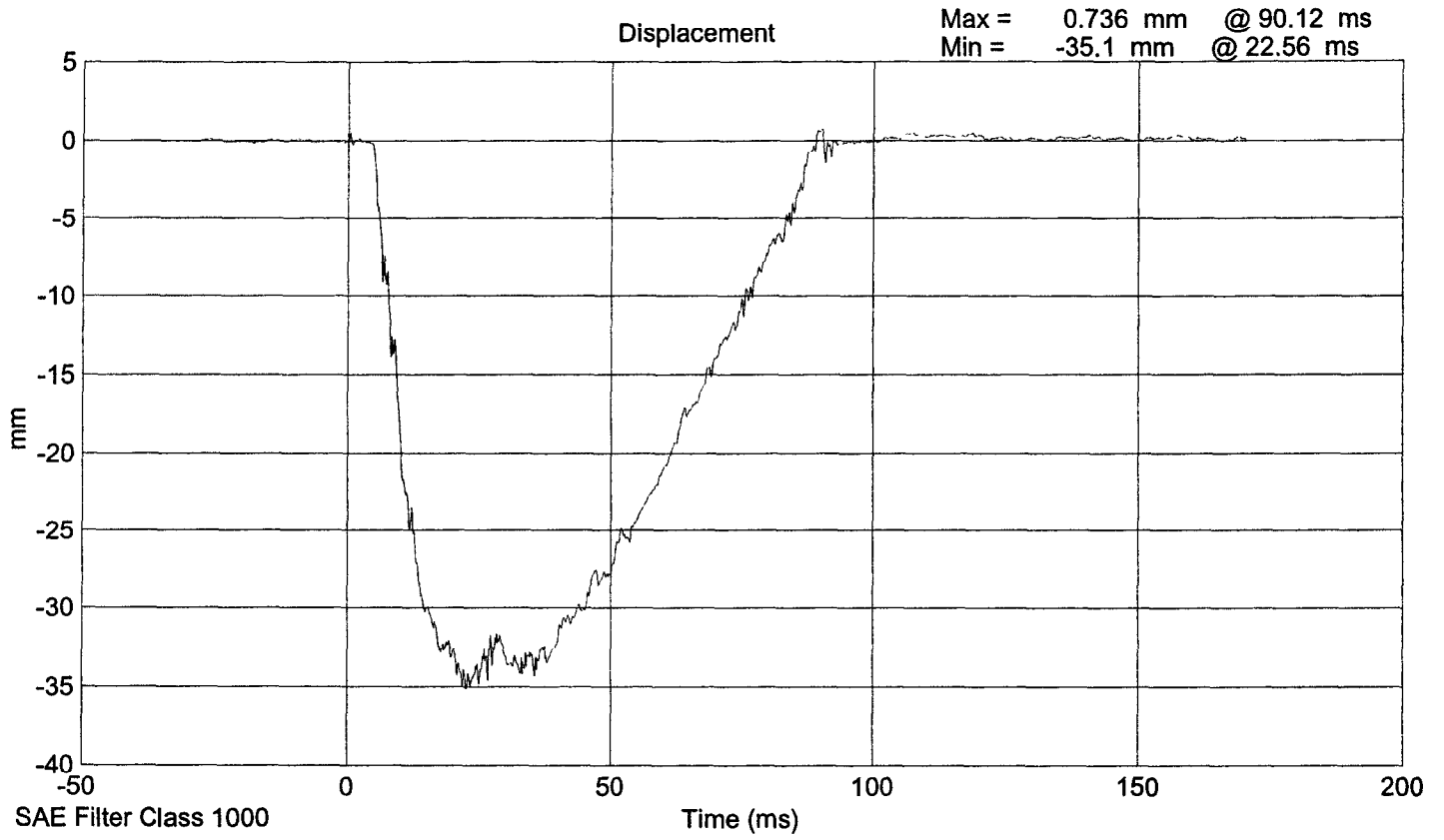
SID 015 Shock Absorber Impact Test @ 3.048 m/s



SID 015 Shock Absorber Impact Test @ 4.572 m/s



SID 015 Shock Absorber Impact Test @ 6.096 m/s



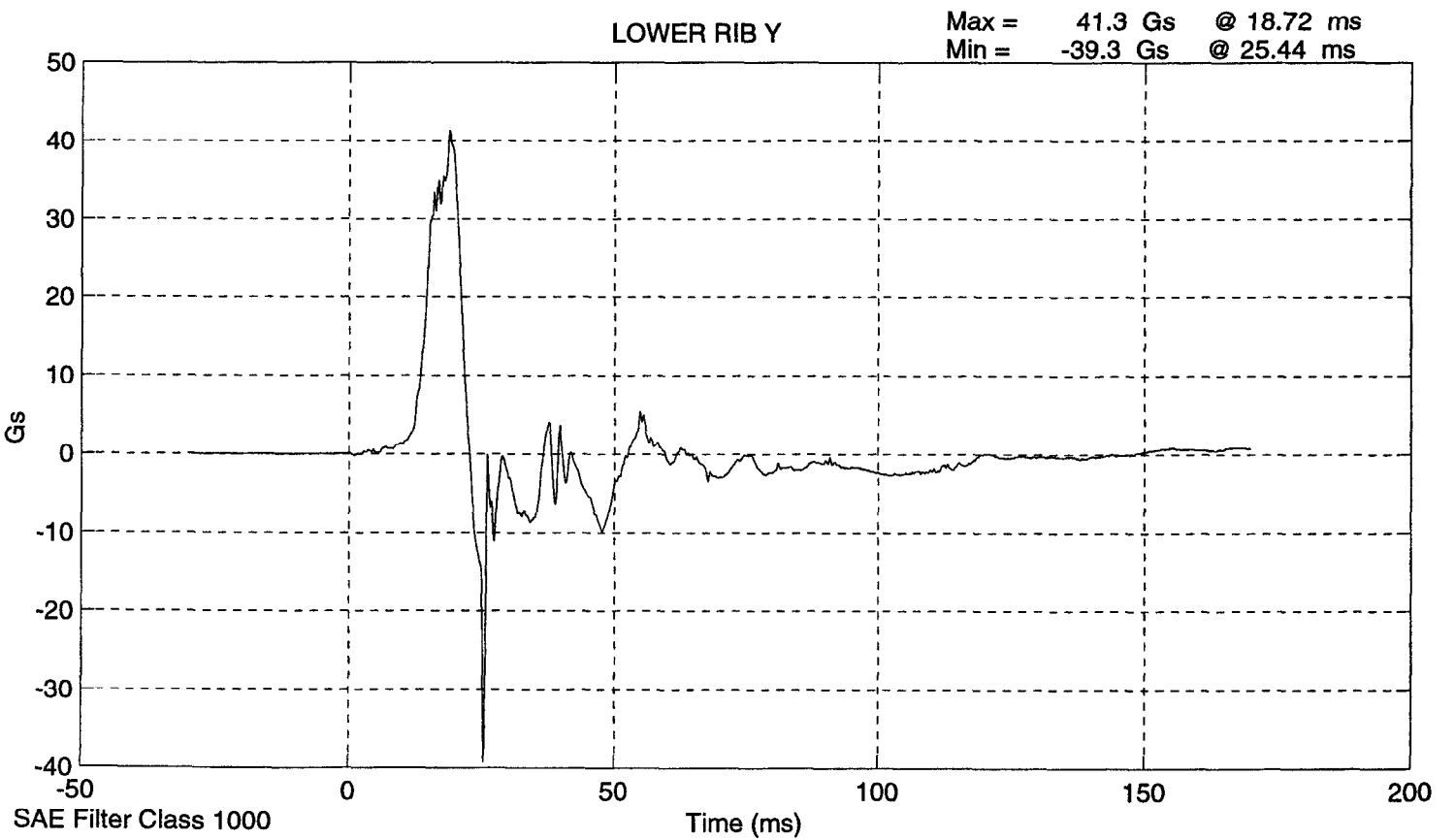
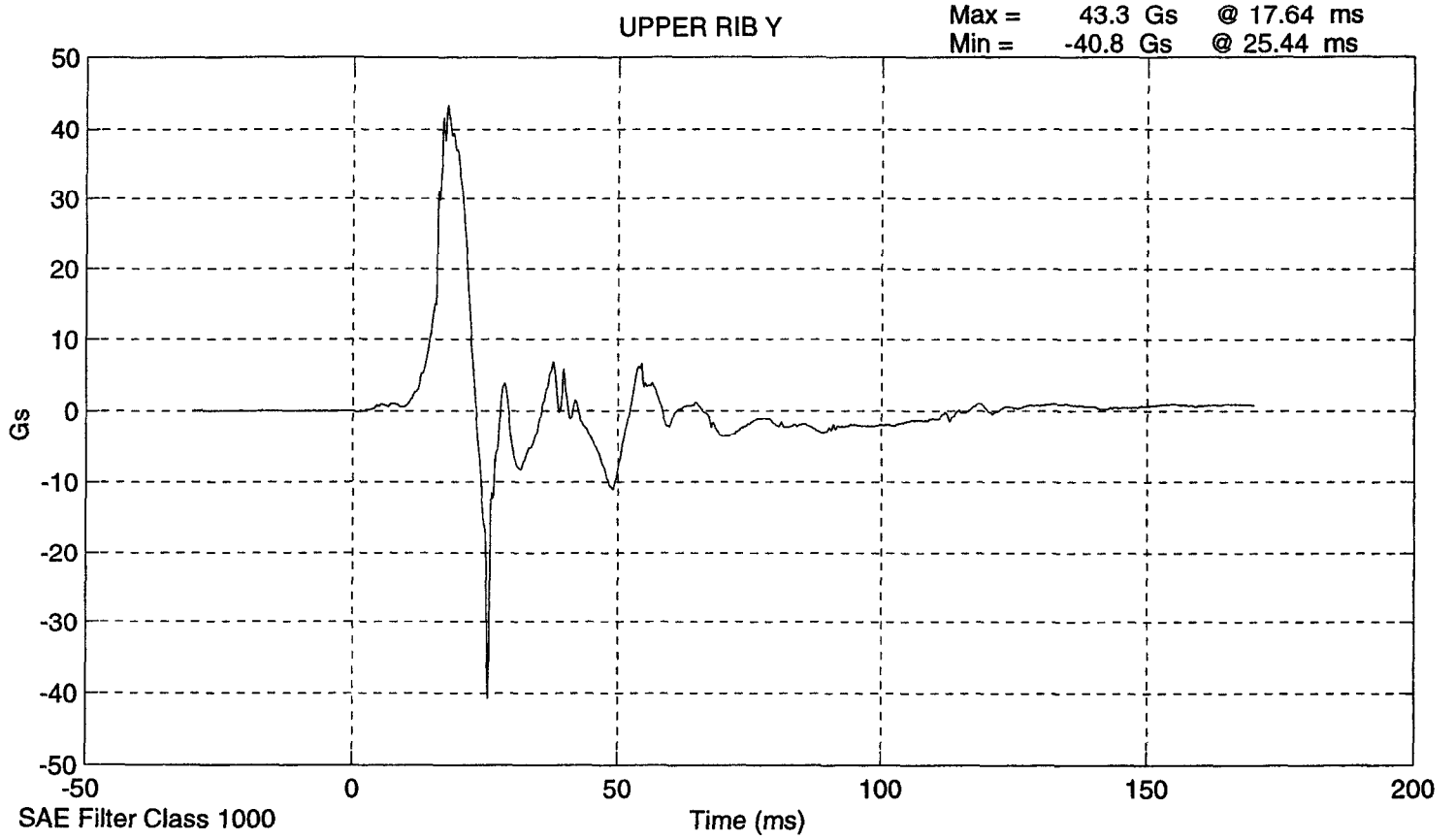
LATERAL THORAX IMPACT TEST
PRE-TEST

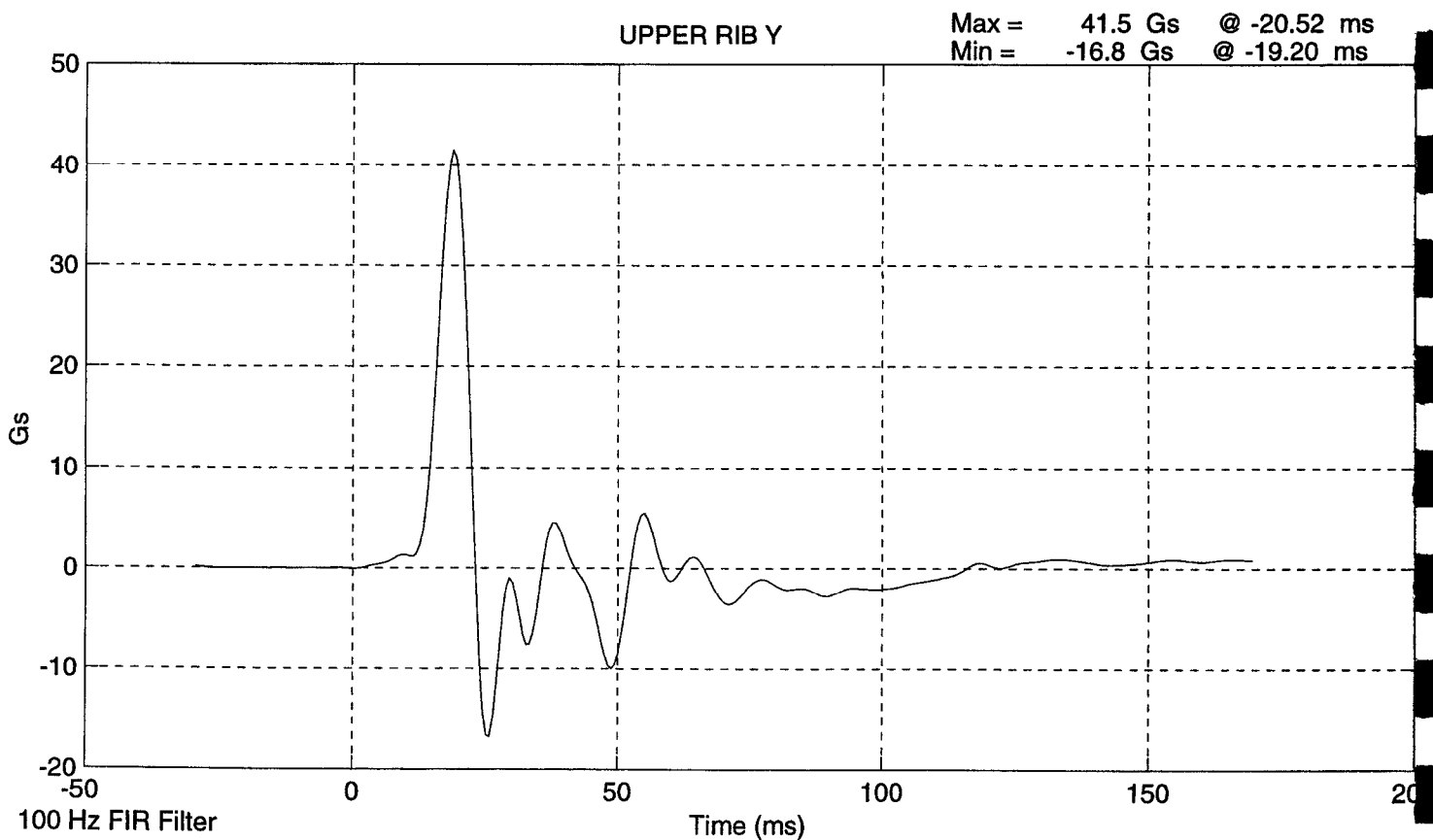
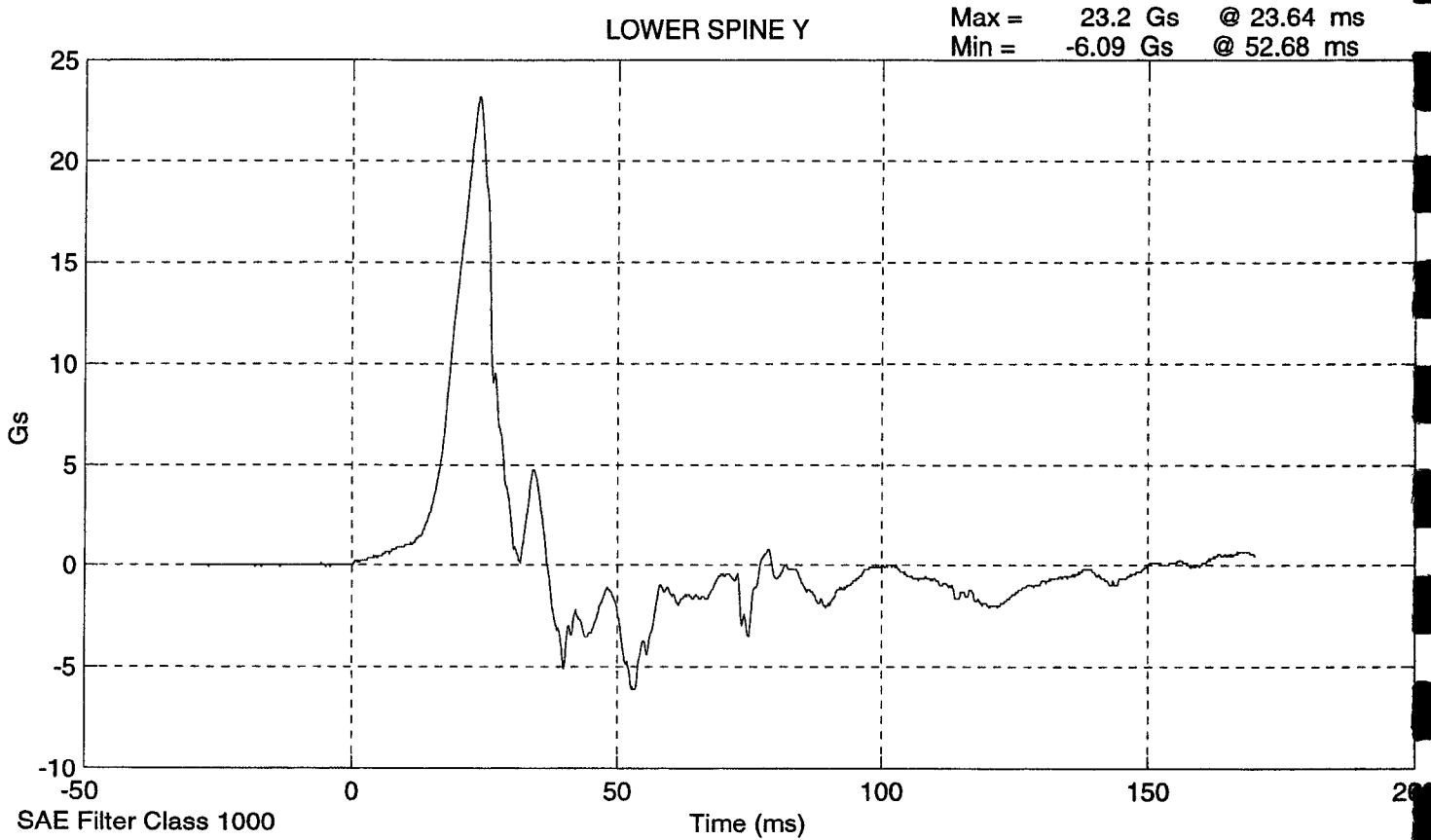
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	41.5
LOWER RIB (g's)	37 - 46	39.5
LOWER SPINE (g's)	15 - 22	21.6

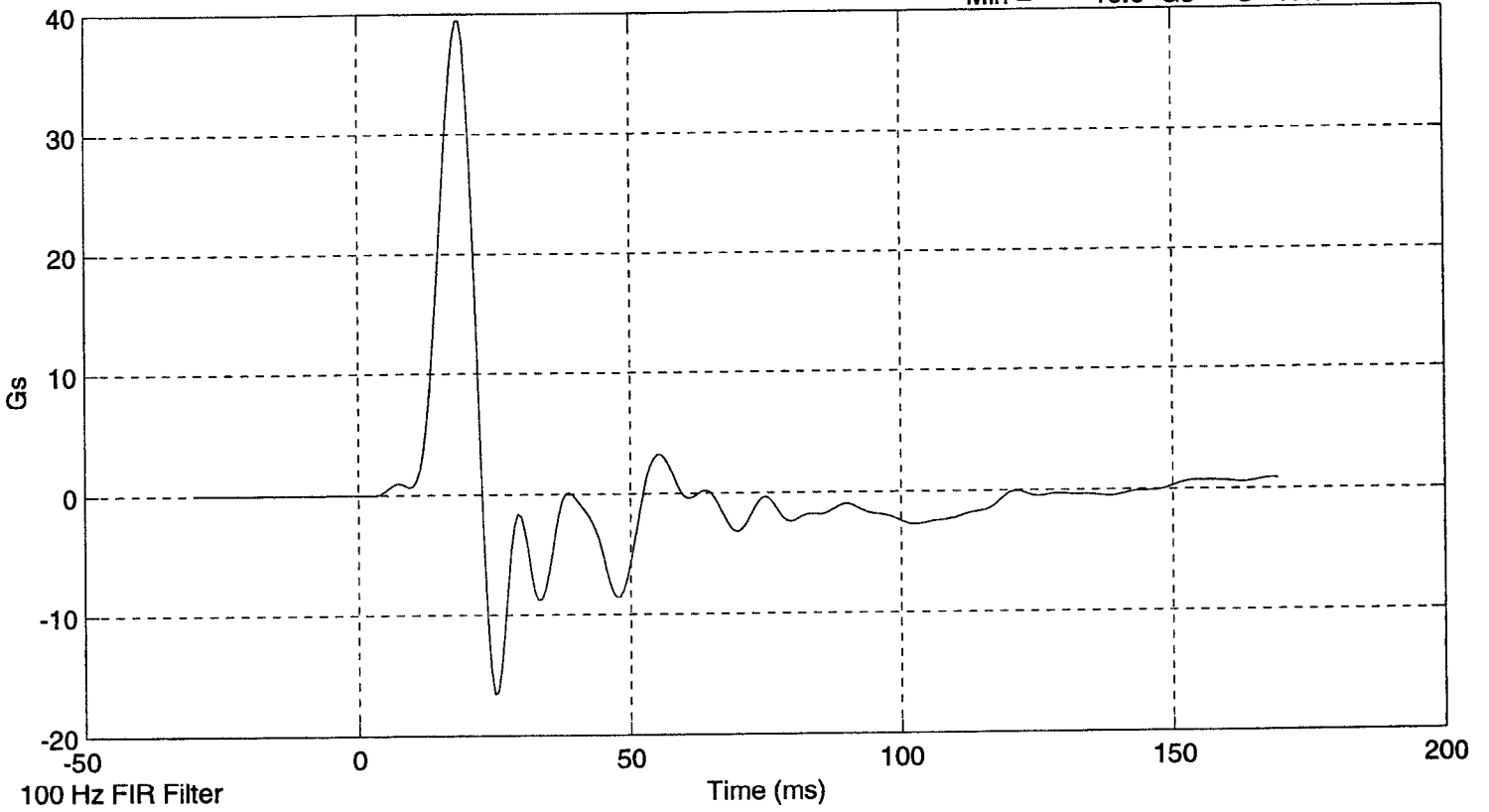
REMARKS: None





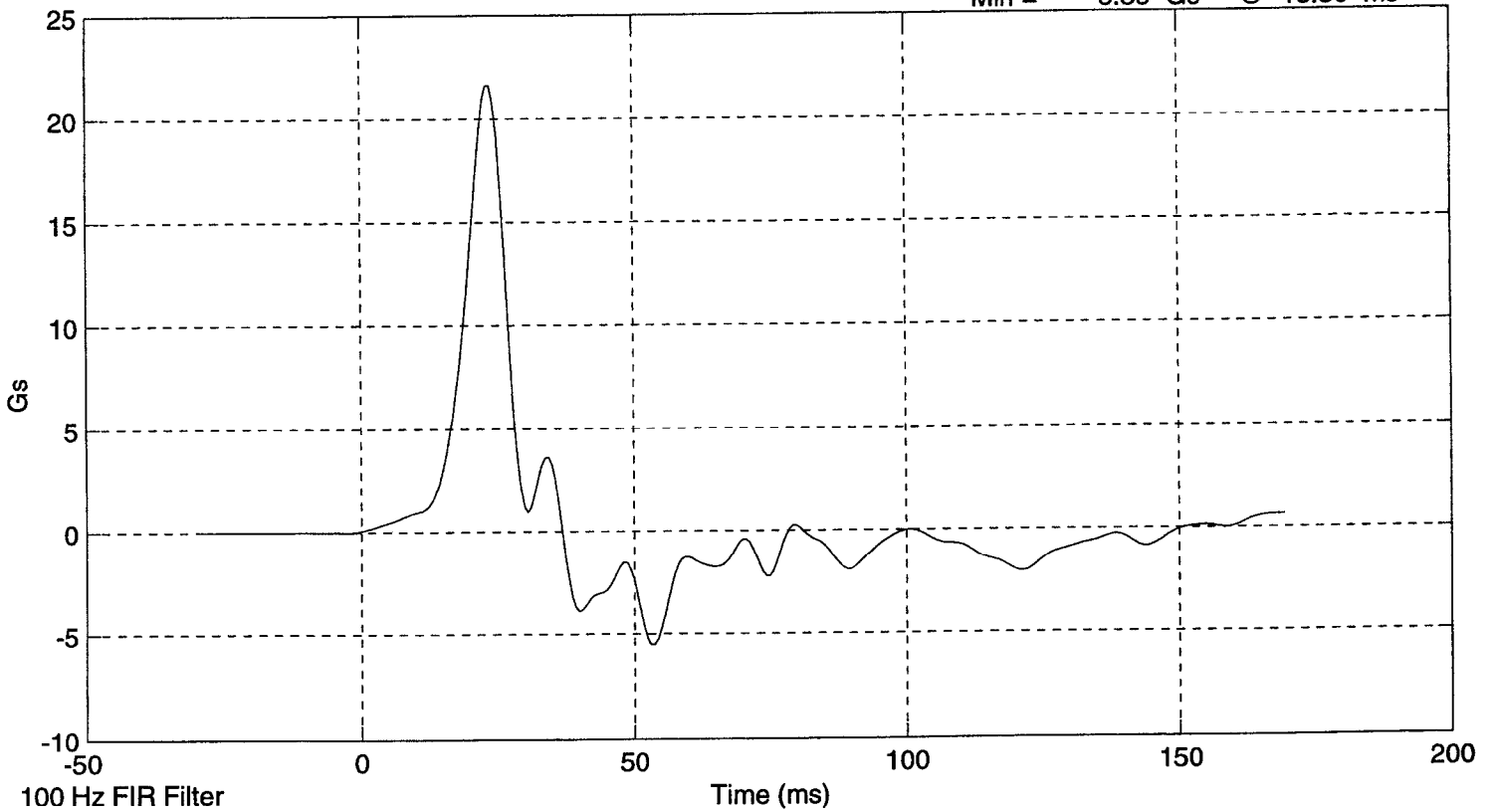
LOWER RIB Y

Max = 39.5 Gs @ -20.64 ms
Min = -16.6 Gs @ -19.32 ms



LOWER SPINE Y

Max = 21.6 Gs @ -19.56 ms
Min = -5.53 Gs @ -13.80 ms



**LATERAL PELVIS IMPACT TEST
PRE-TEST**

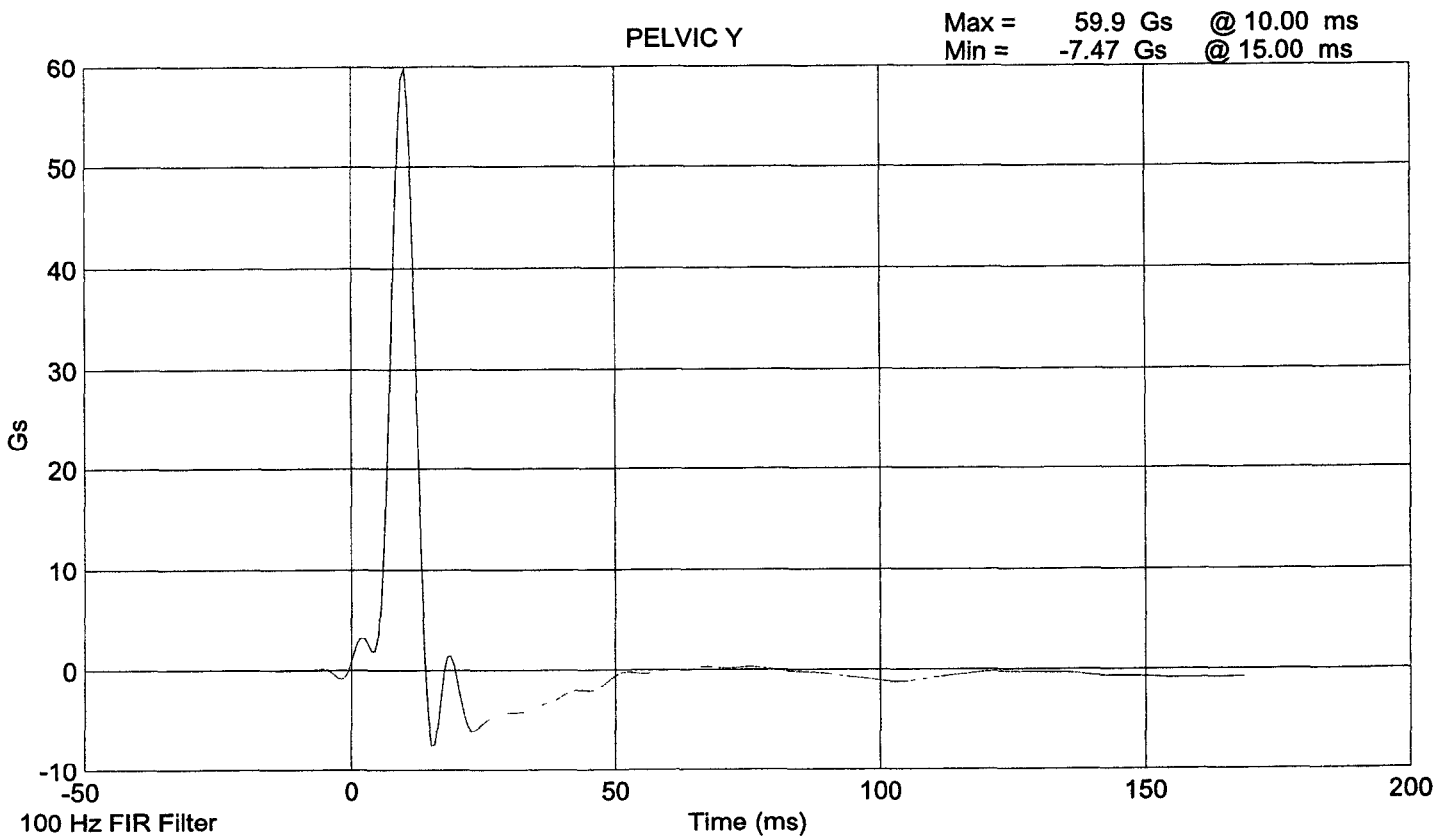
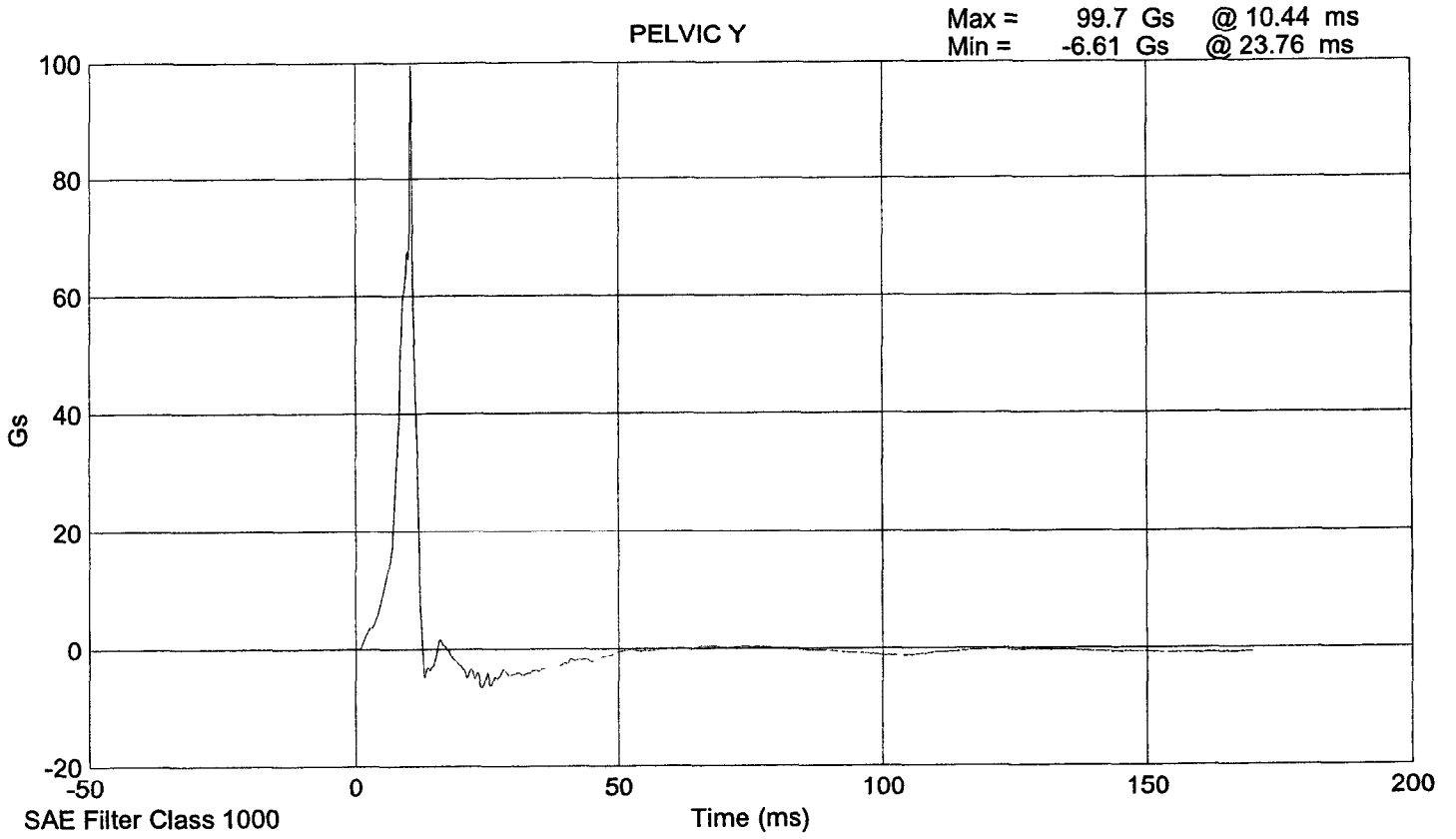
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.30
PELVIS ACCELERATION (g's)	40 - 60	59.9

REMARKS: None

SID 15 Pelvic Impact Test @ 4.3007 m/s



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

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015

Sequential Test Number: 1

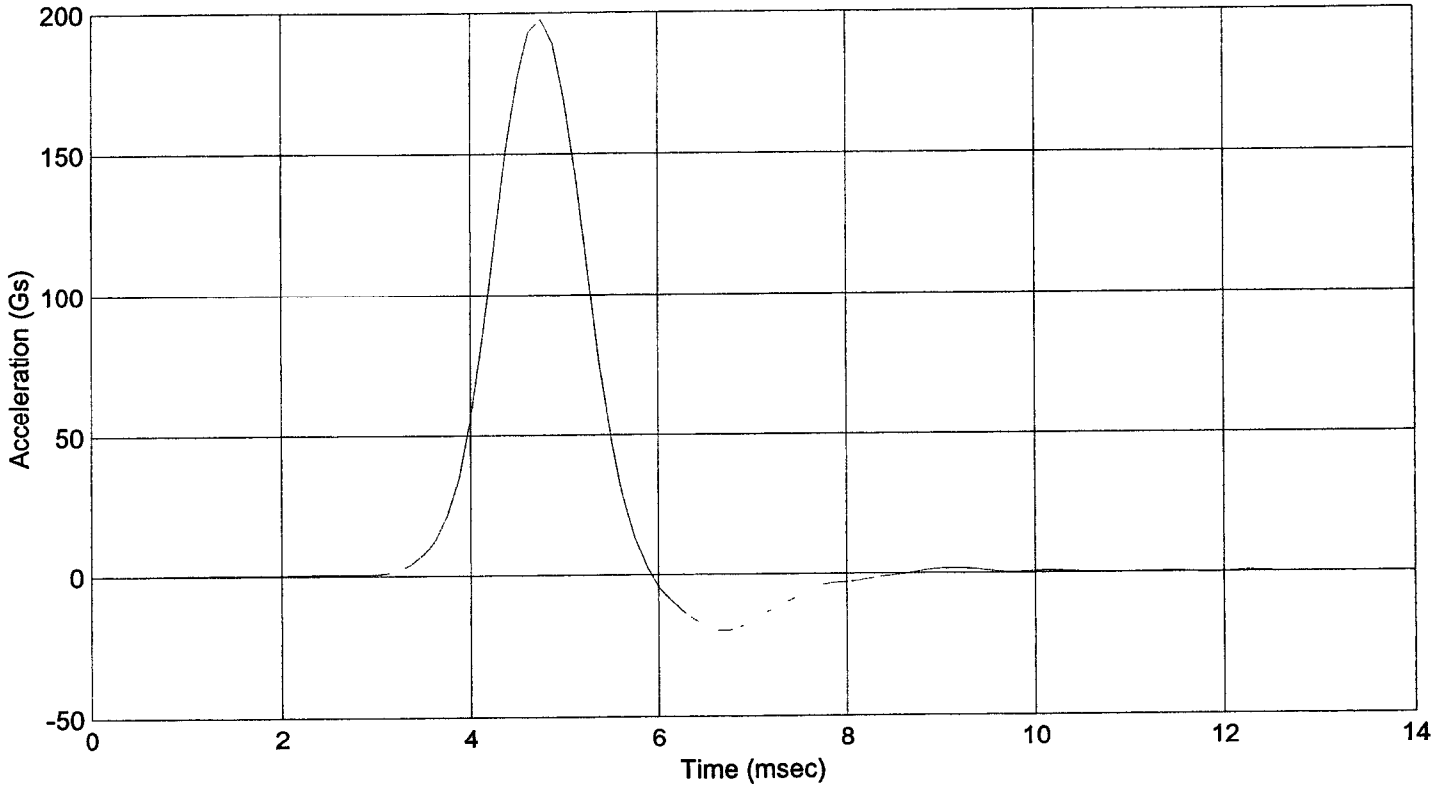
Date: 9/8/00

Laboratory Technician: B. Swiecicki

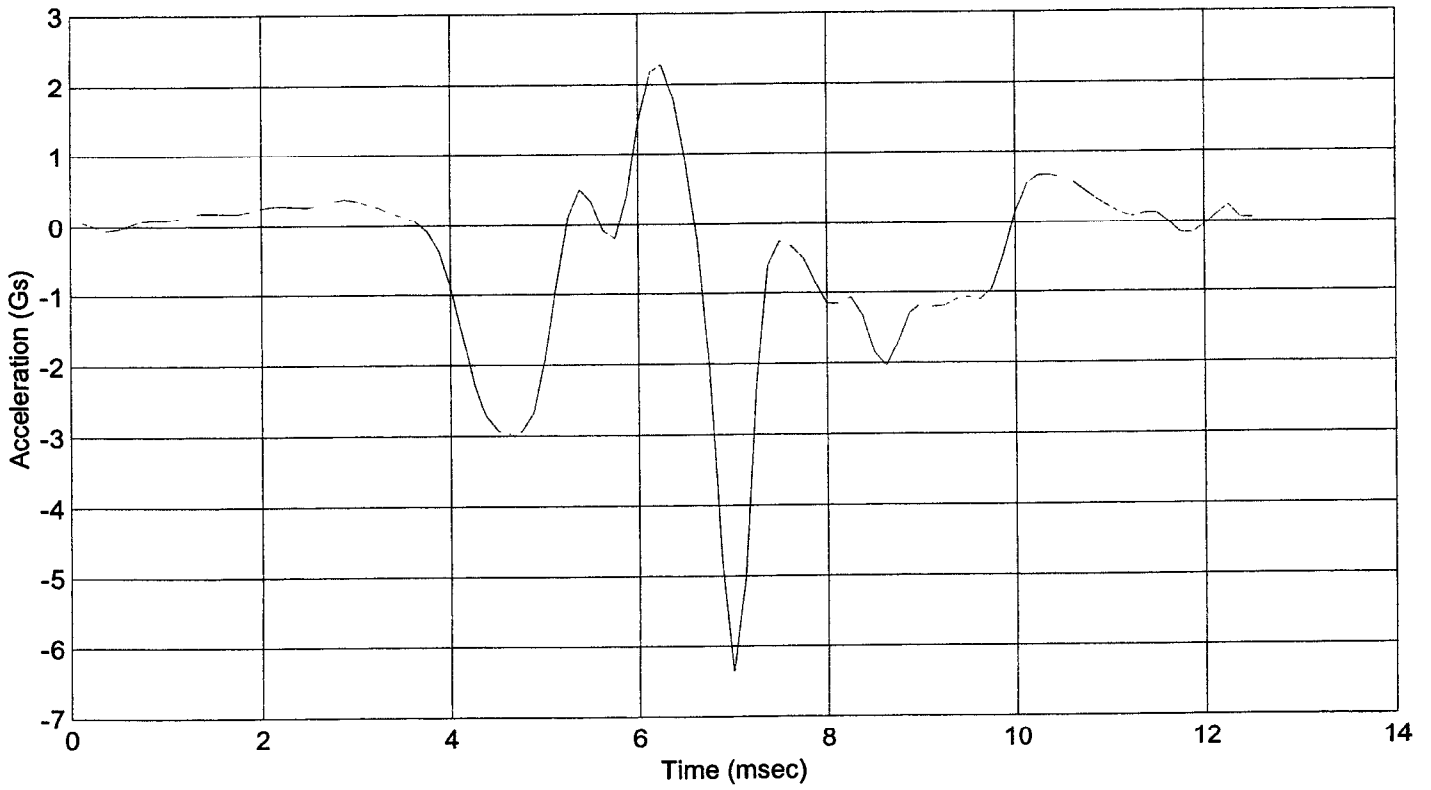
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	242.0
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	6.4
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.25

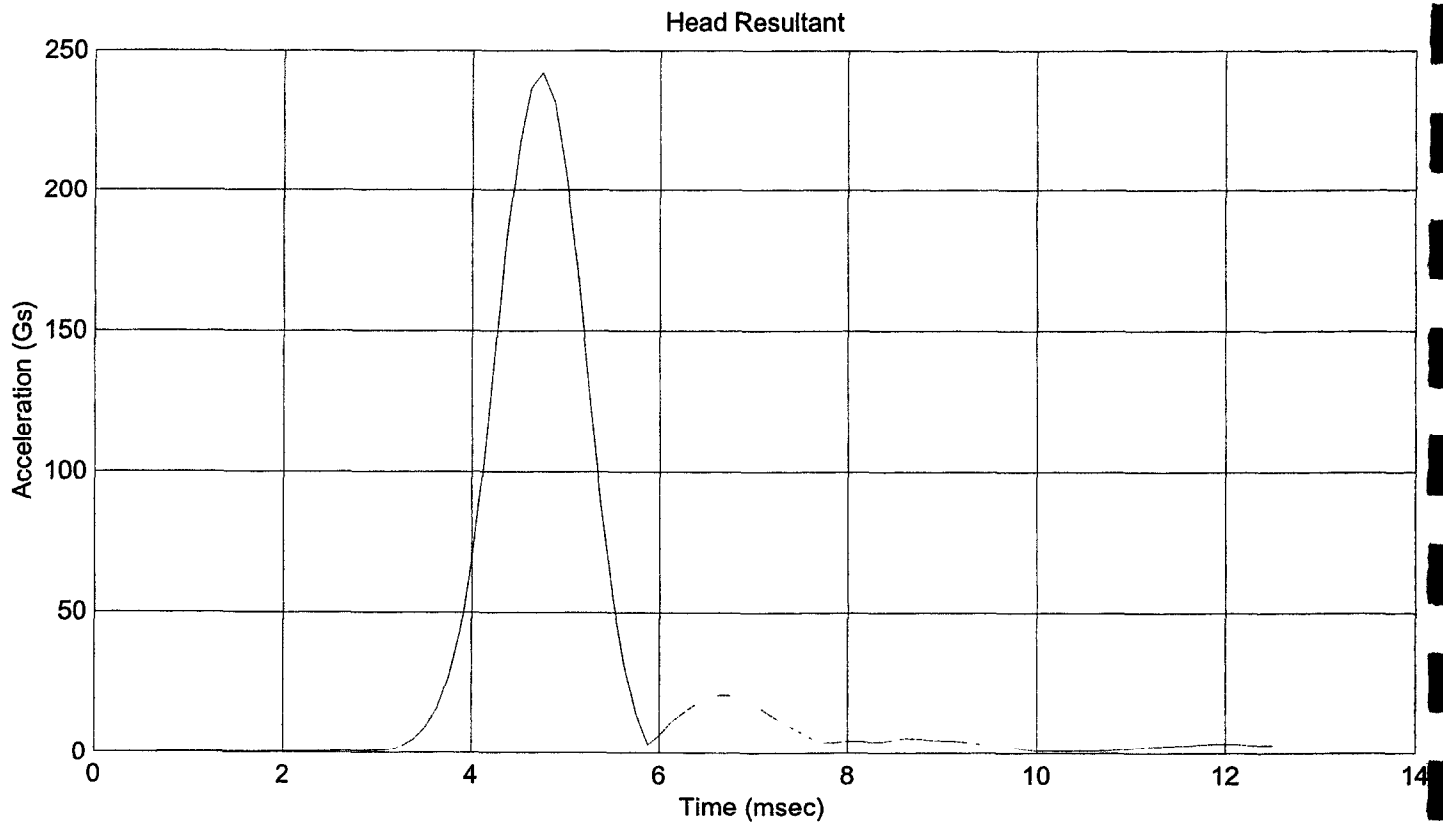
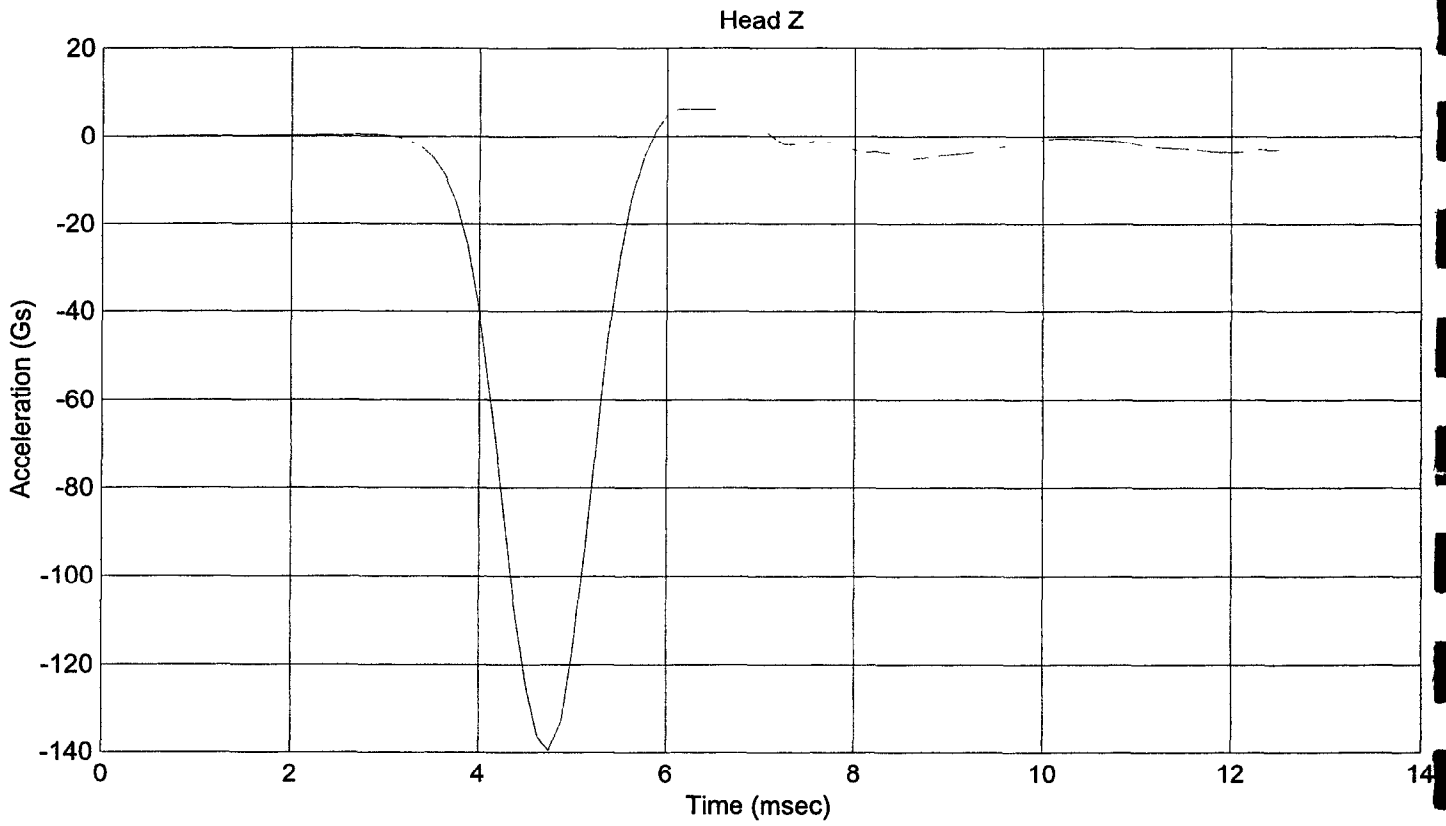
REMARKS: None

Head X



Head Y





ABDOMINAL COMPRESSION TEST

PRE-TEST

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 13 mm (N)	104 - 162	113
FORCE @ 19 mm (N)	163 - 221	178
FORCE @ 25 mm (N)	222 - 280	247
FORCE @ 33 mm (N)	325 - 391	339

REMARKS: None

Dummy S/N 015

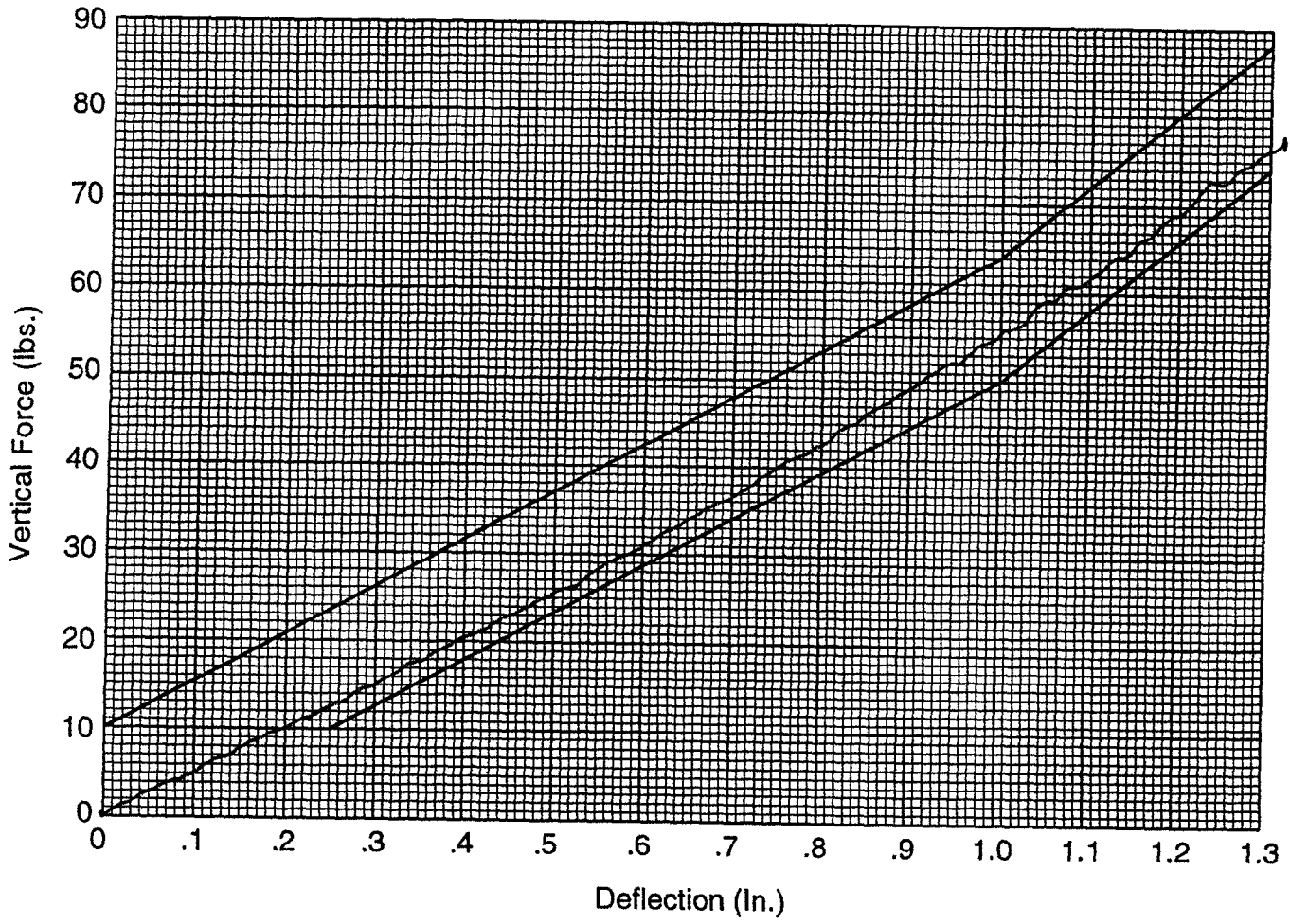
W/A _____

Date 9-11-2000

Performed By BA

Temp. 71°

Humidity 31%



Hybrid II
Abdomen Static Press

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

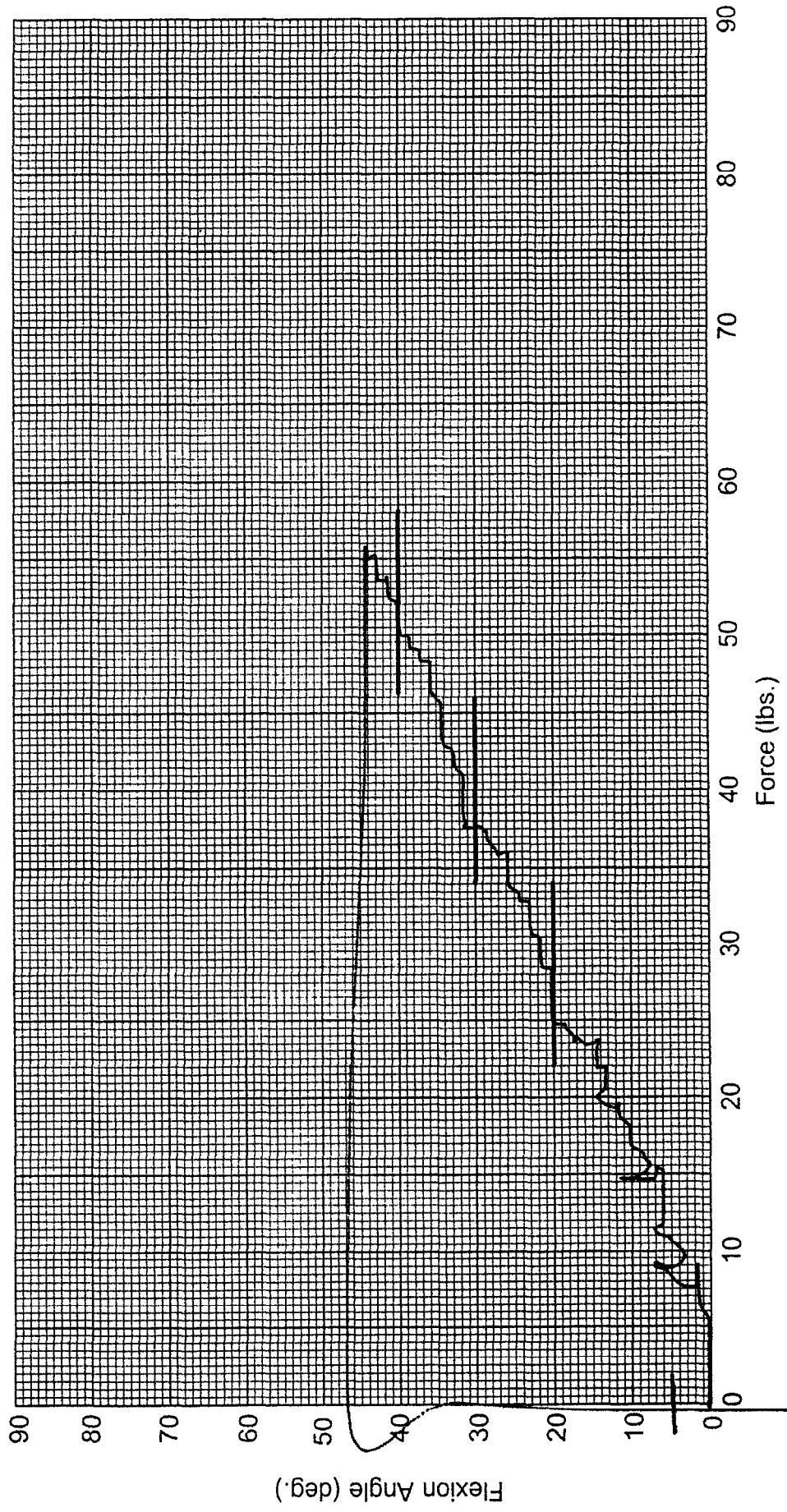
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 0° (N)	0 - 26.7	0.2
FORCE @ 20° (N)	97.8 - 151.2	110.1
FORCE @ 30° (N)	151.2 - 204.6	167.3
FORCE @ 40° (N)	204.6 - 258	228.6
RETURN ANGLE	12° max.	5°

REMARKS: None

Dummy S/N 015
W/A _____
Date 9-11-2000
Performed By [Signature]
Temp. 71°
Humidity 31%



Hybrid II Lumbar Spine Flexion Test

FM-052-CERT-005-R00

PC32/D52 ISO Forms

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015
 Date: 9/11/00

Sequential Test Number: 1
 Laboratory Technician: B. Swiecicki

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

REMARKS: None

**CALIBRATION TEST RESULTS
PRE-TEST**

SID NO.: 016

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY

PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
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 Serial No.: 016
Date: 9/11/00

Sequential Test Number: 1
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	526
KV- Knee Pivot to Floor (mm)	490 - 505	494
HW- Hip Width (mm)	356 - 391	364

REMARKS: None

**THORACIC SHOCK ABSORBER TESTS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1.1
Date: 4/19/00 Laboratory Technician: B. Swiecicki

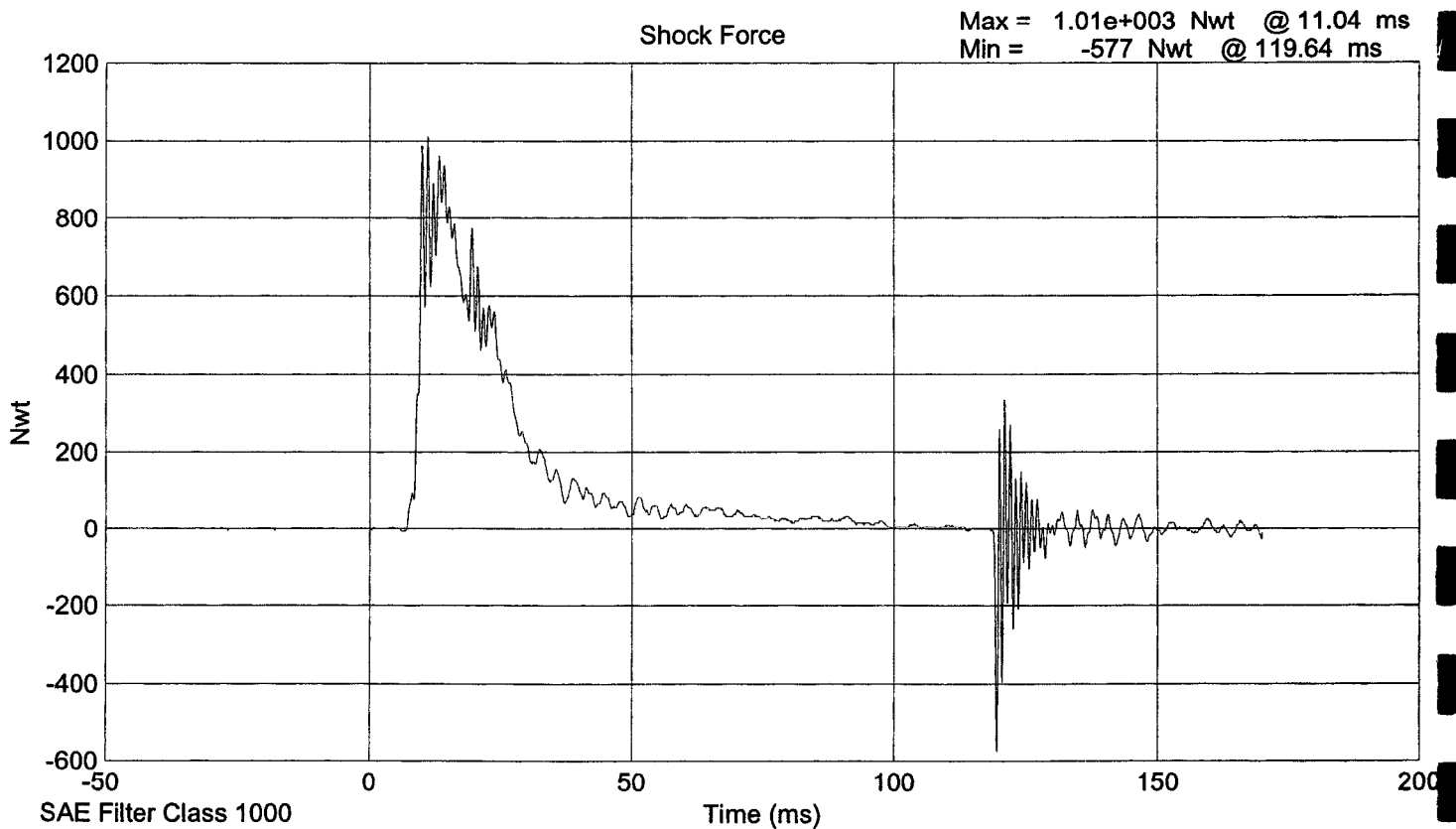
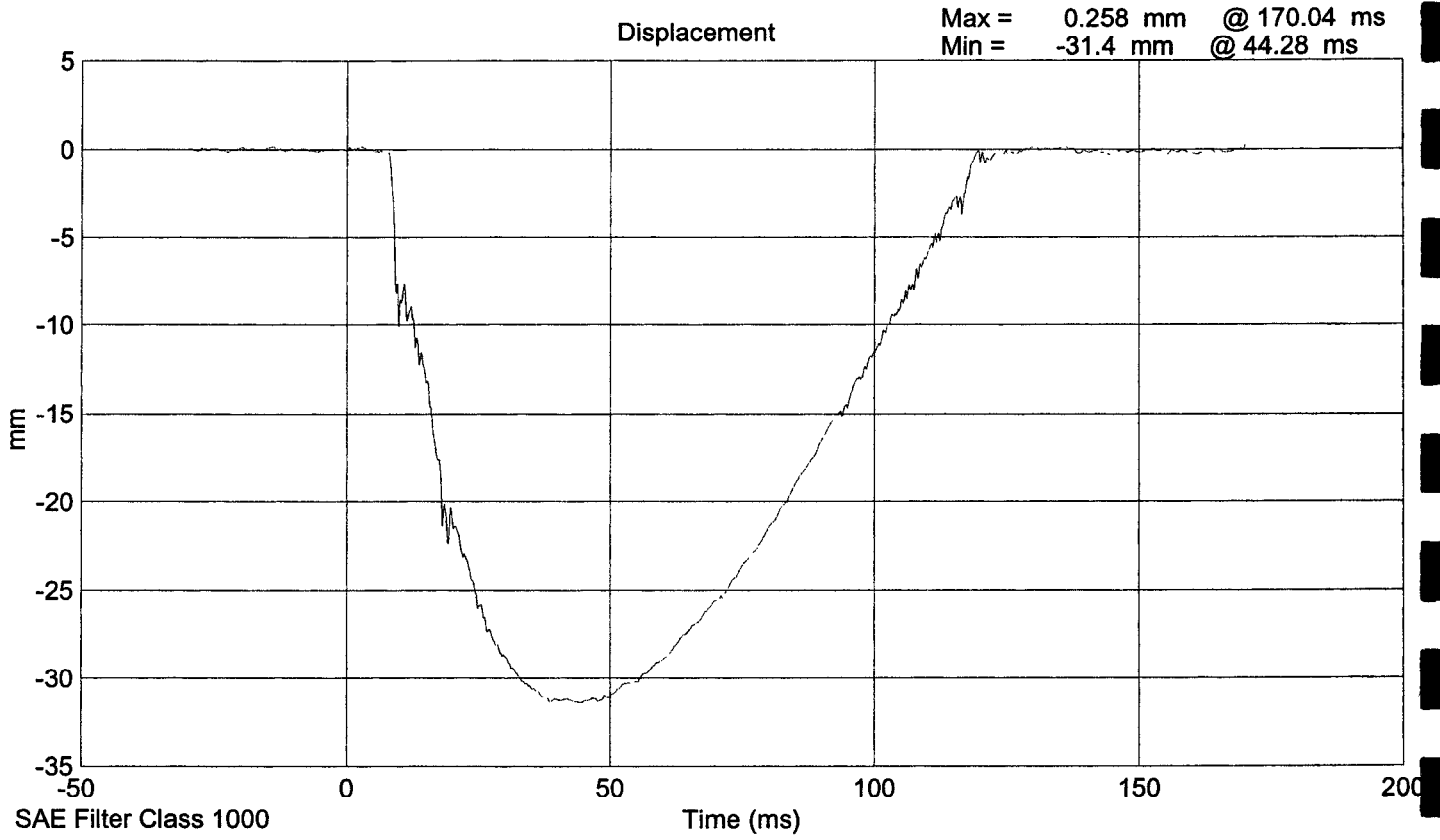
DAMPER IDENTIFICATION: 016

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)		10 - 70	30
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	1010.8
	DISPLACEMENT (mm)	30 - 35	31.4
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1821.6
	DISPLACEMENT (mm)	32 - 37	34.5
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	3946.4
	DISPLACEMENT (mm)	33 - 40	37.1

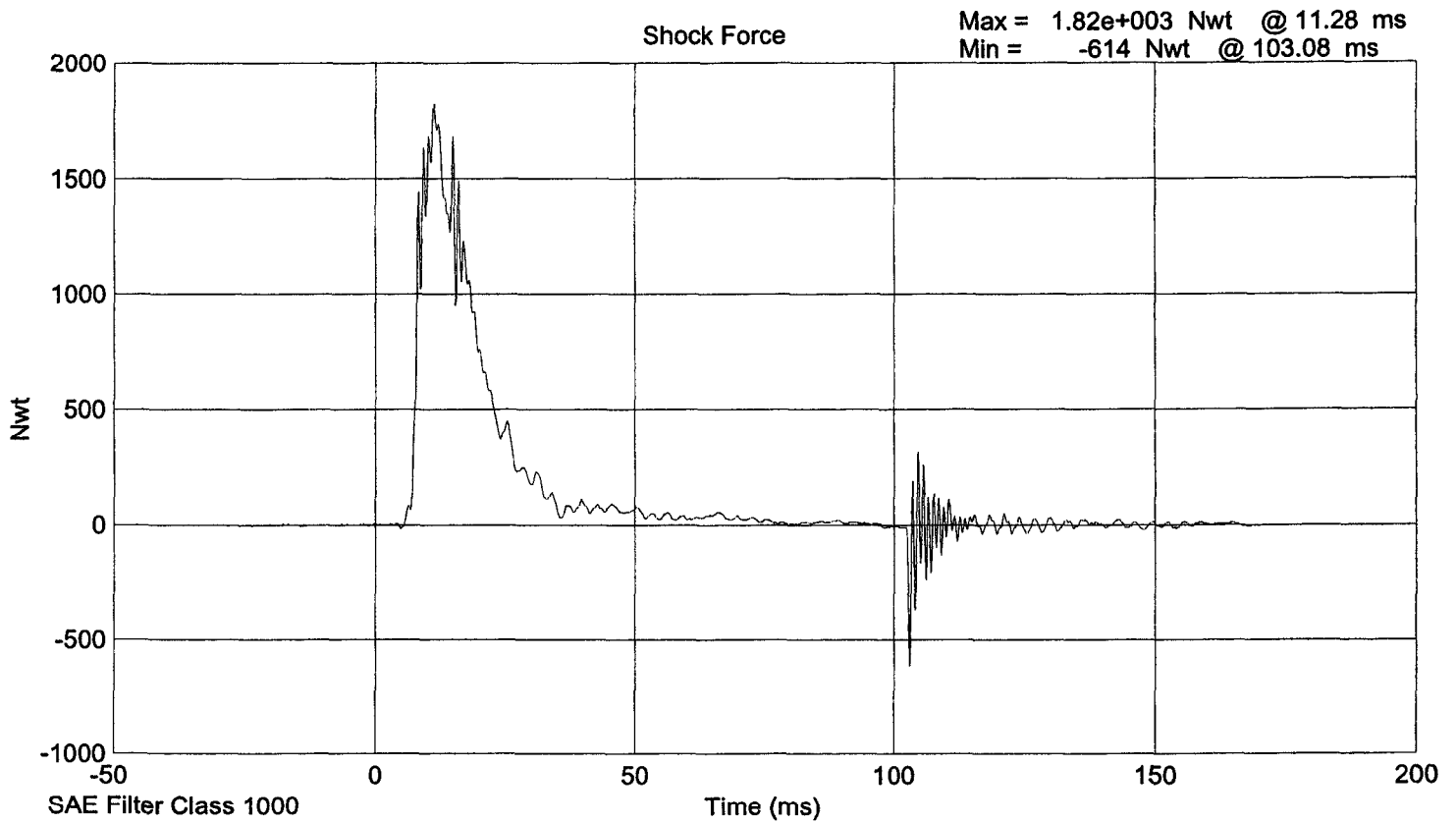
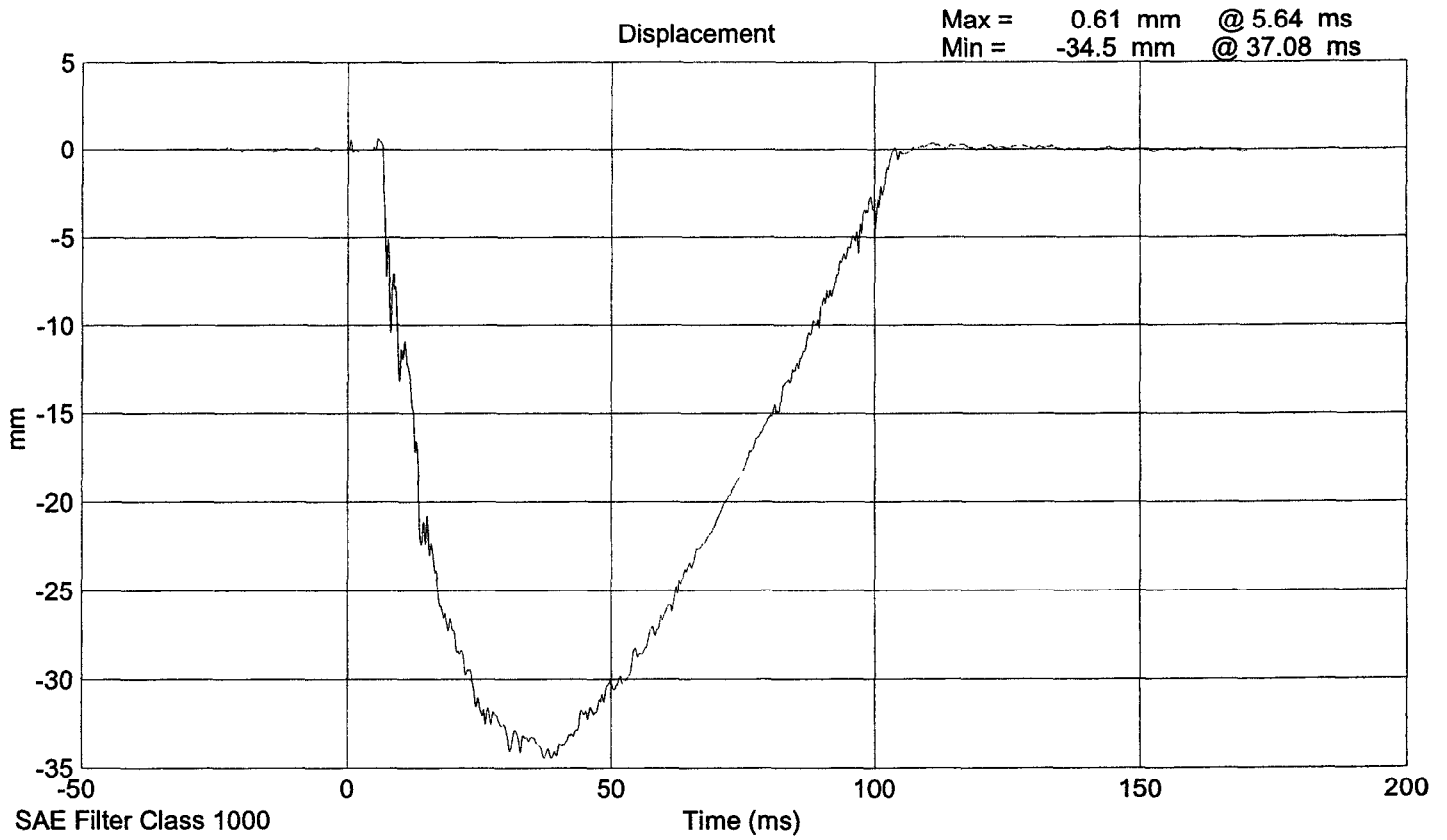
DAMPER SETTING: 5

REMARKS: None

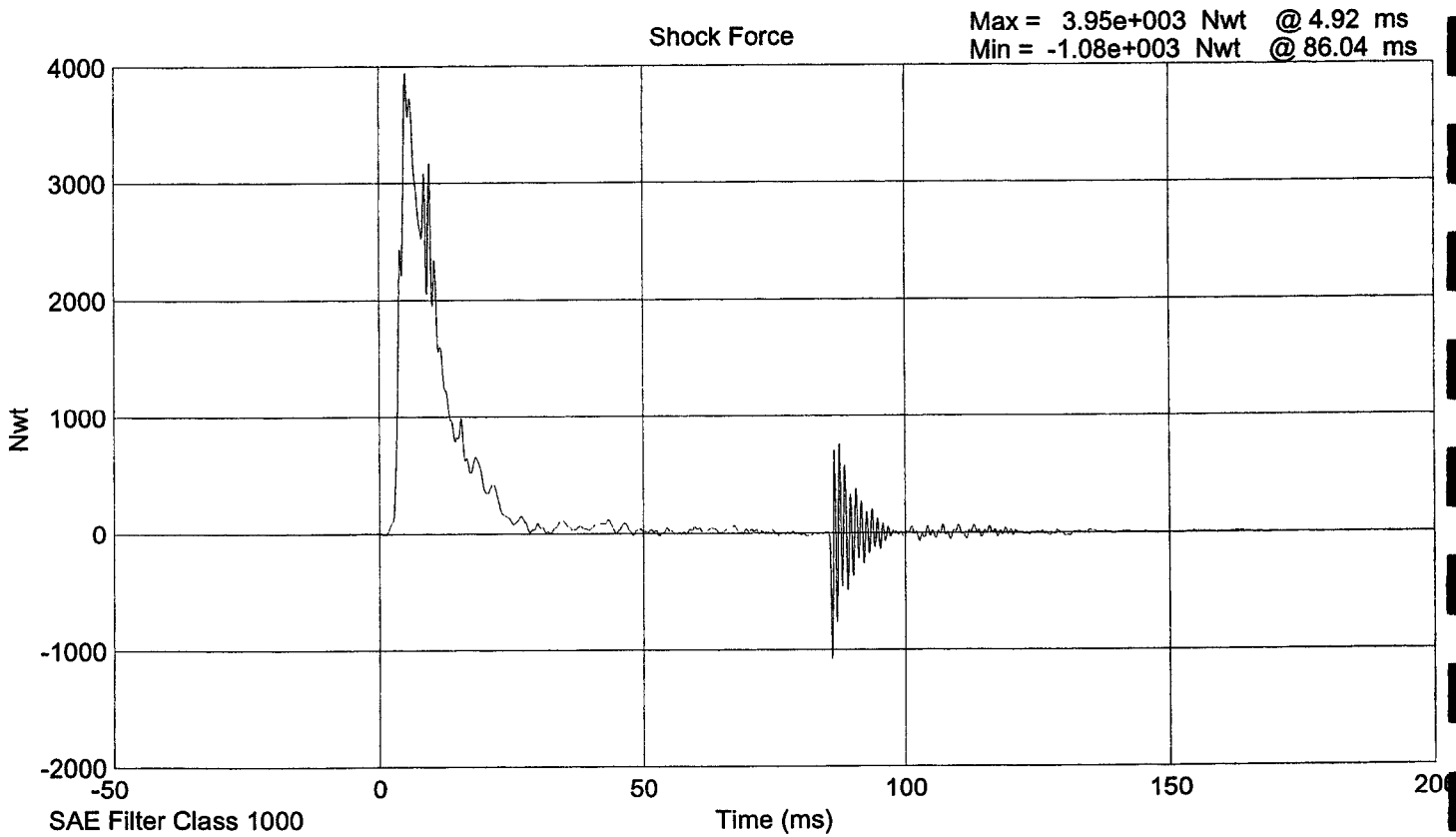
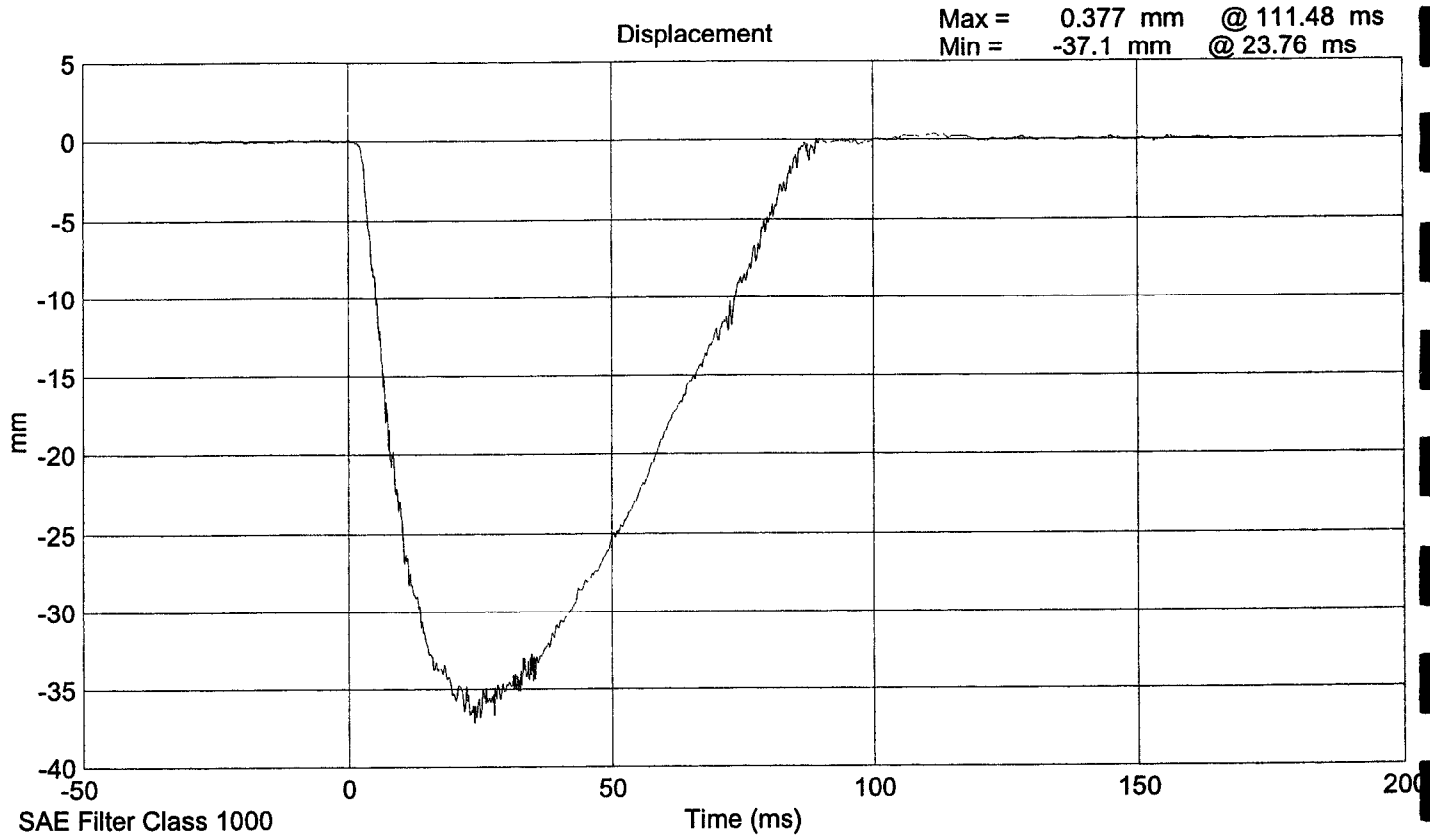
SID 016 Shock Absorber Impact Test @ 3.048 m/s



SID 016 Shock Absorber Impact Test @ 4.572 m/s



SID 016 Shock Absorber Impact Test @ 6.096 m/s



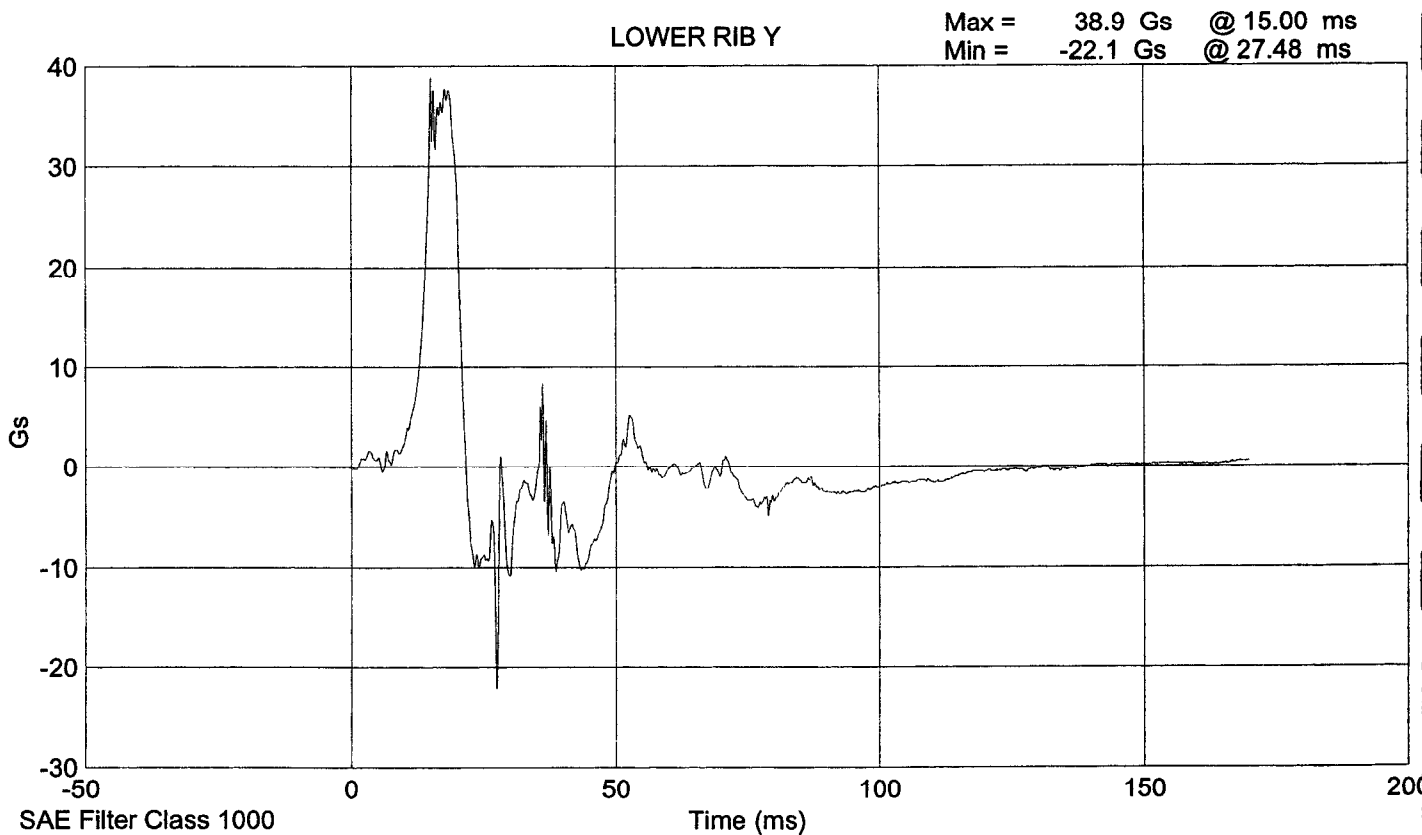
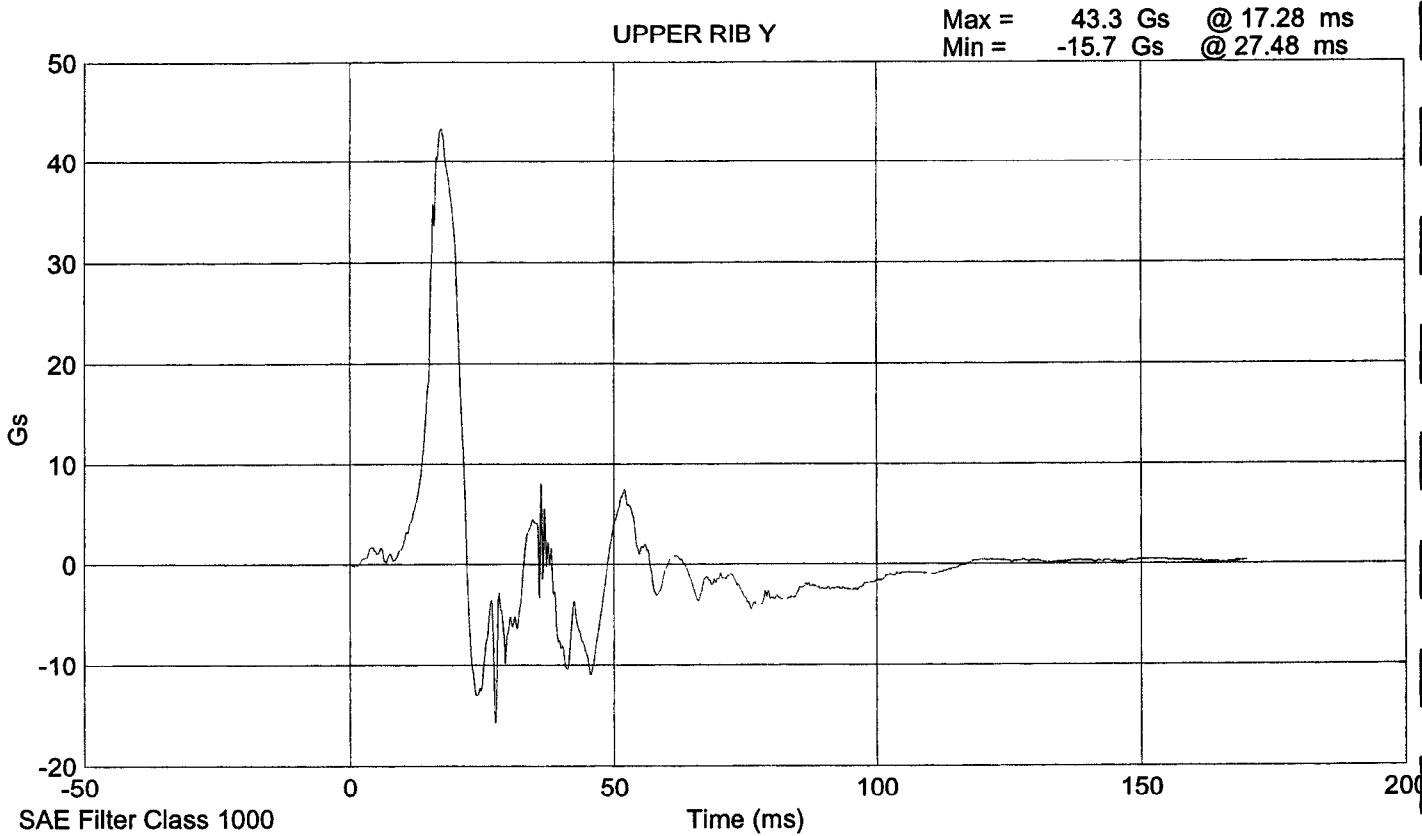
LATERAL THORAX IMPACT TEST
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

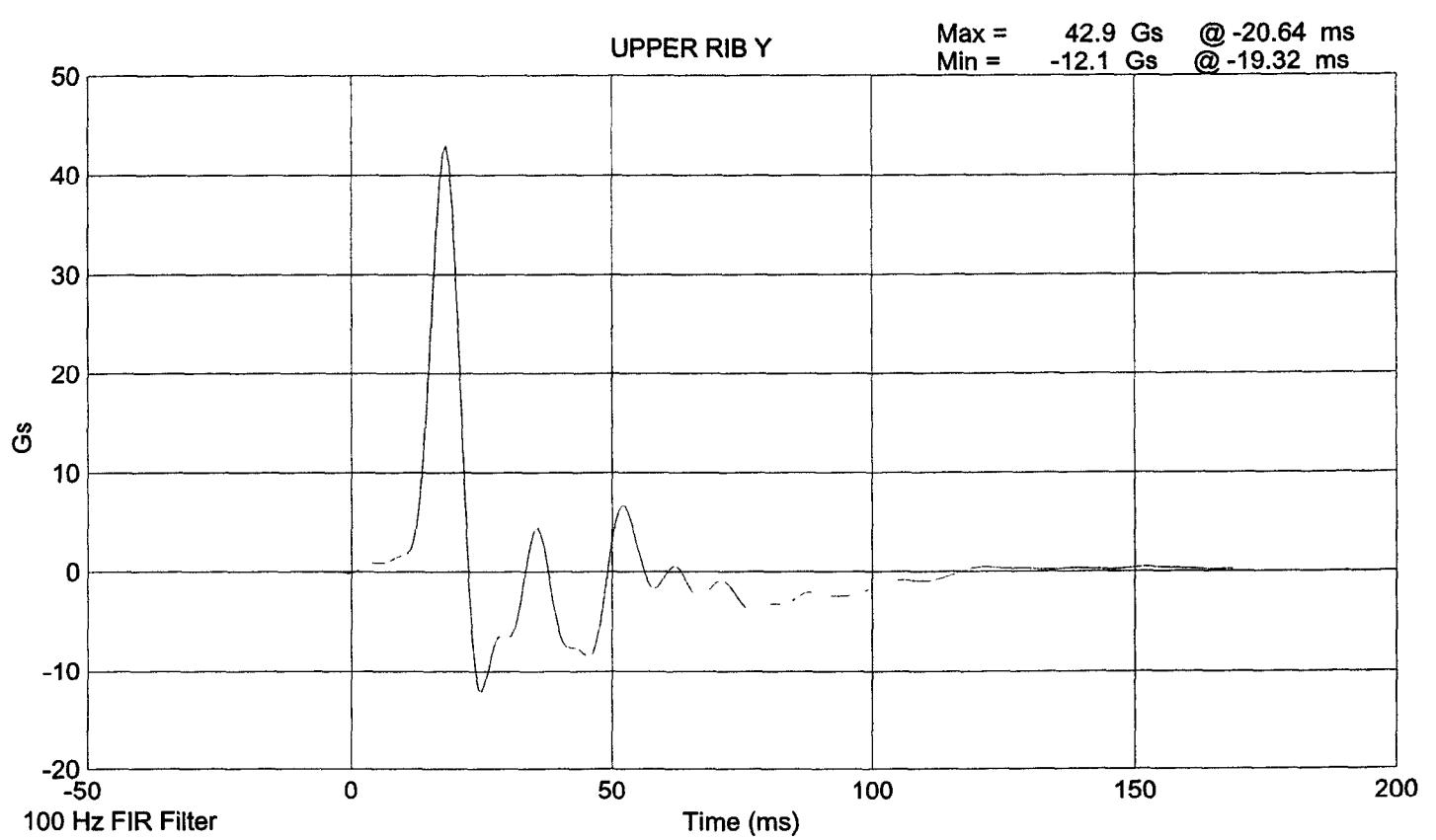
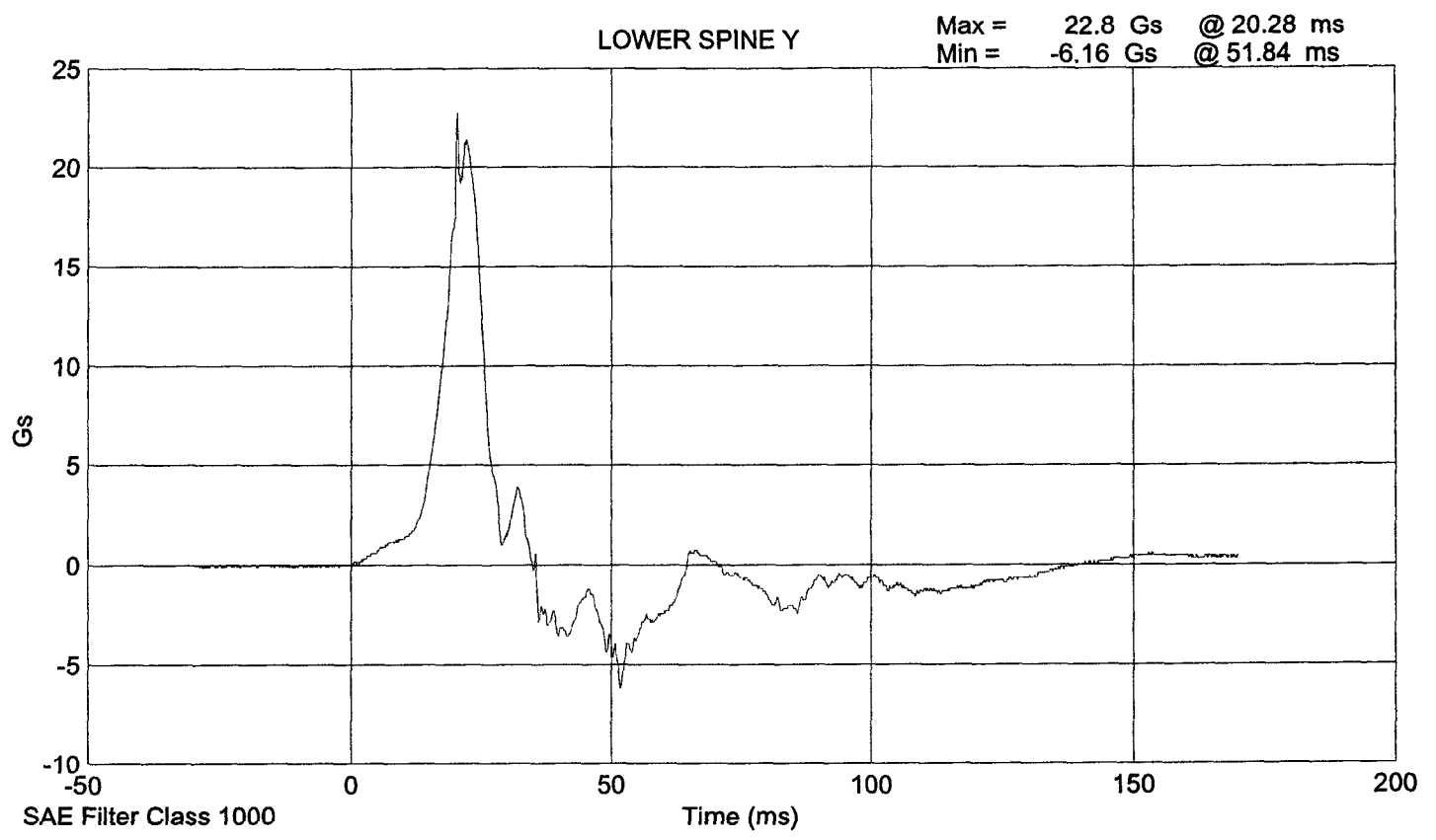
SID Serial No.: 016 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

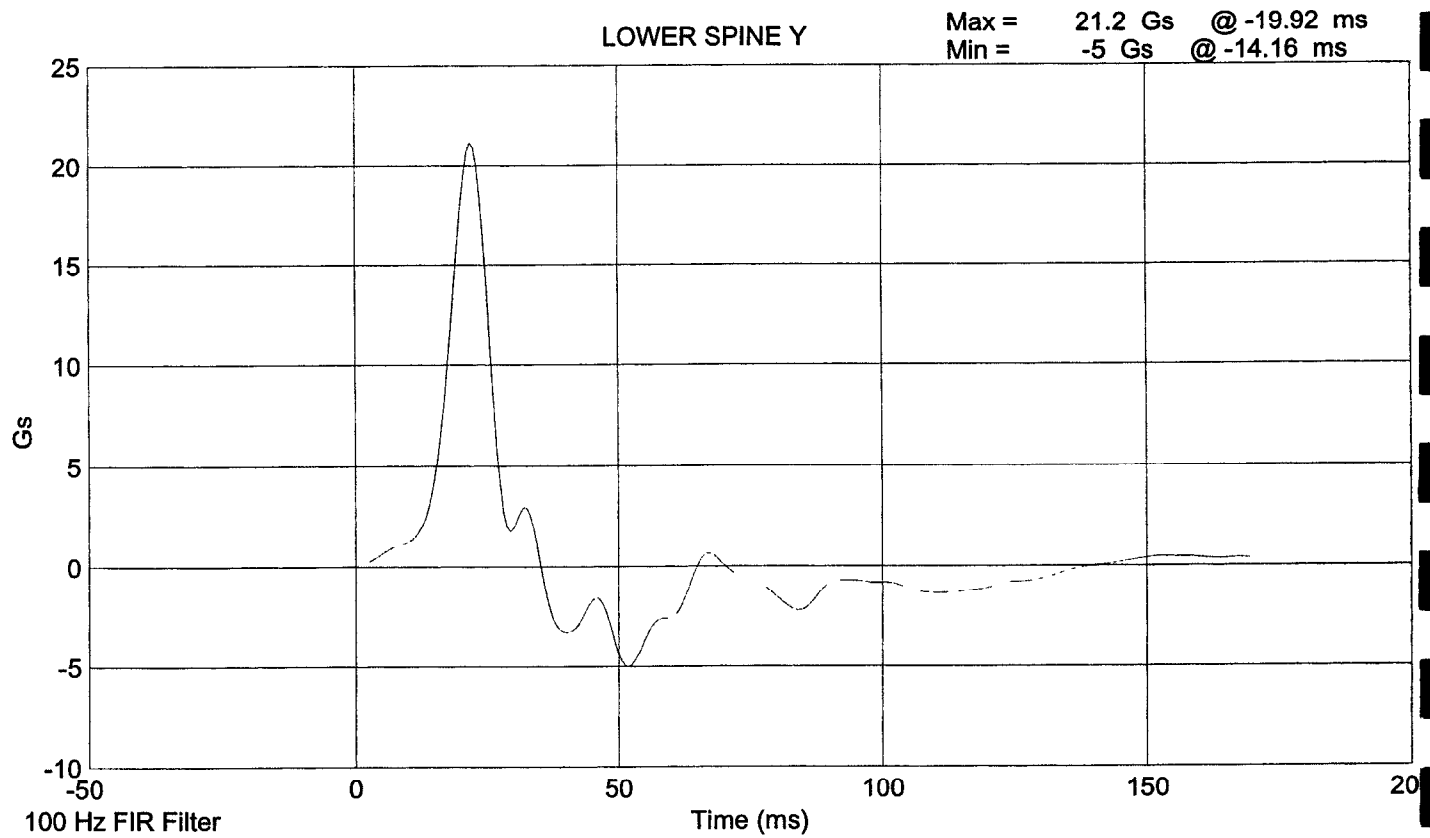
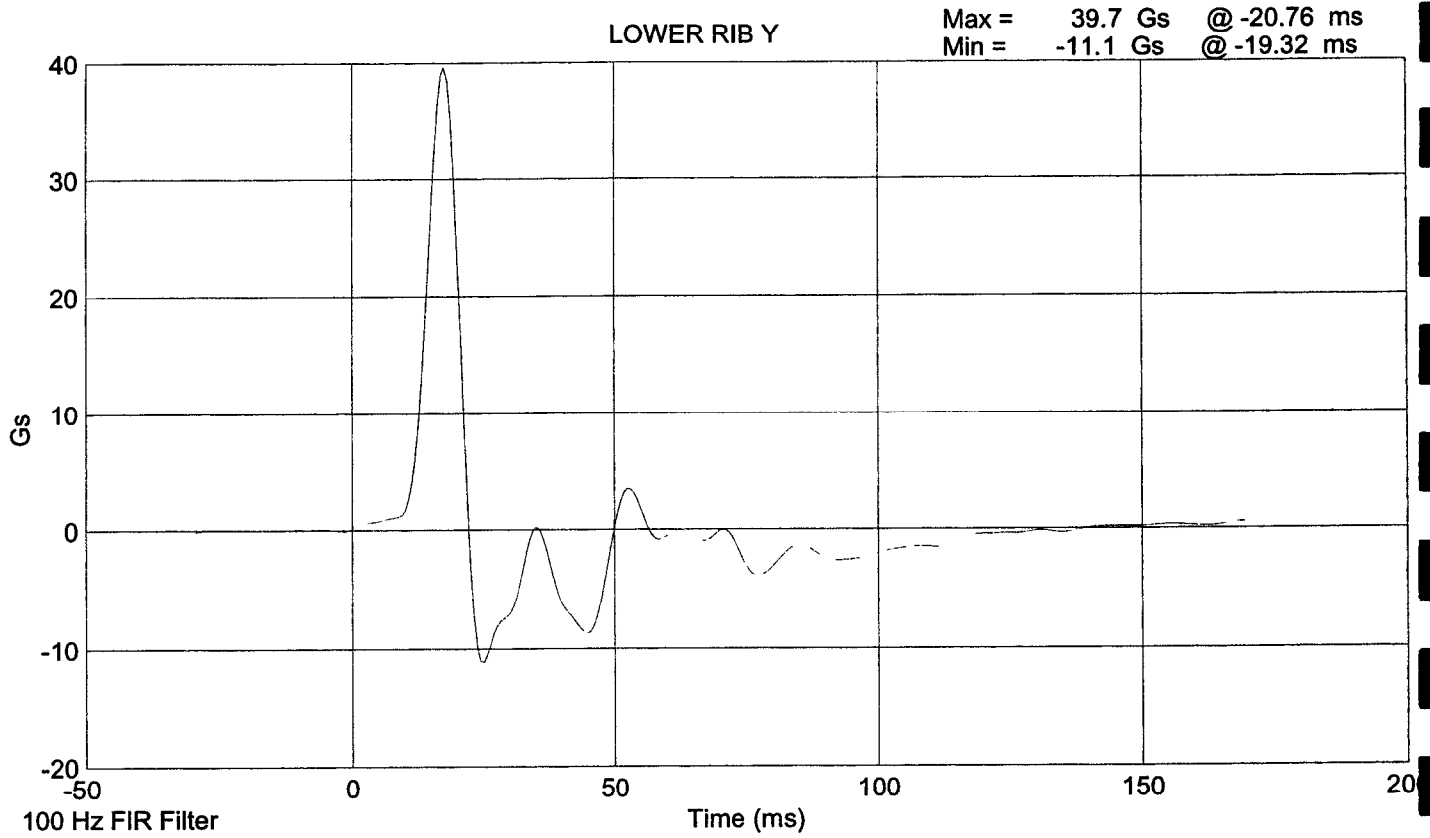
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	42.9
LOWER RIB (g's)	37 - 46	39.7
LOWER SPINE (g's)	15 - 22	21.2

REMARKS: None



SID 16 Thorax Impact Test @ 4.2885 m/s





LATERAL PELVIS IMPACT TEST
PRE-TEST

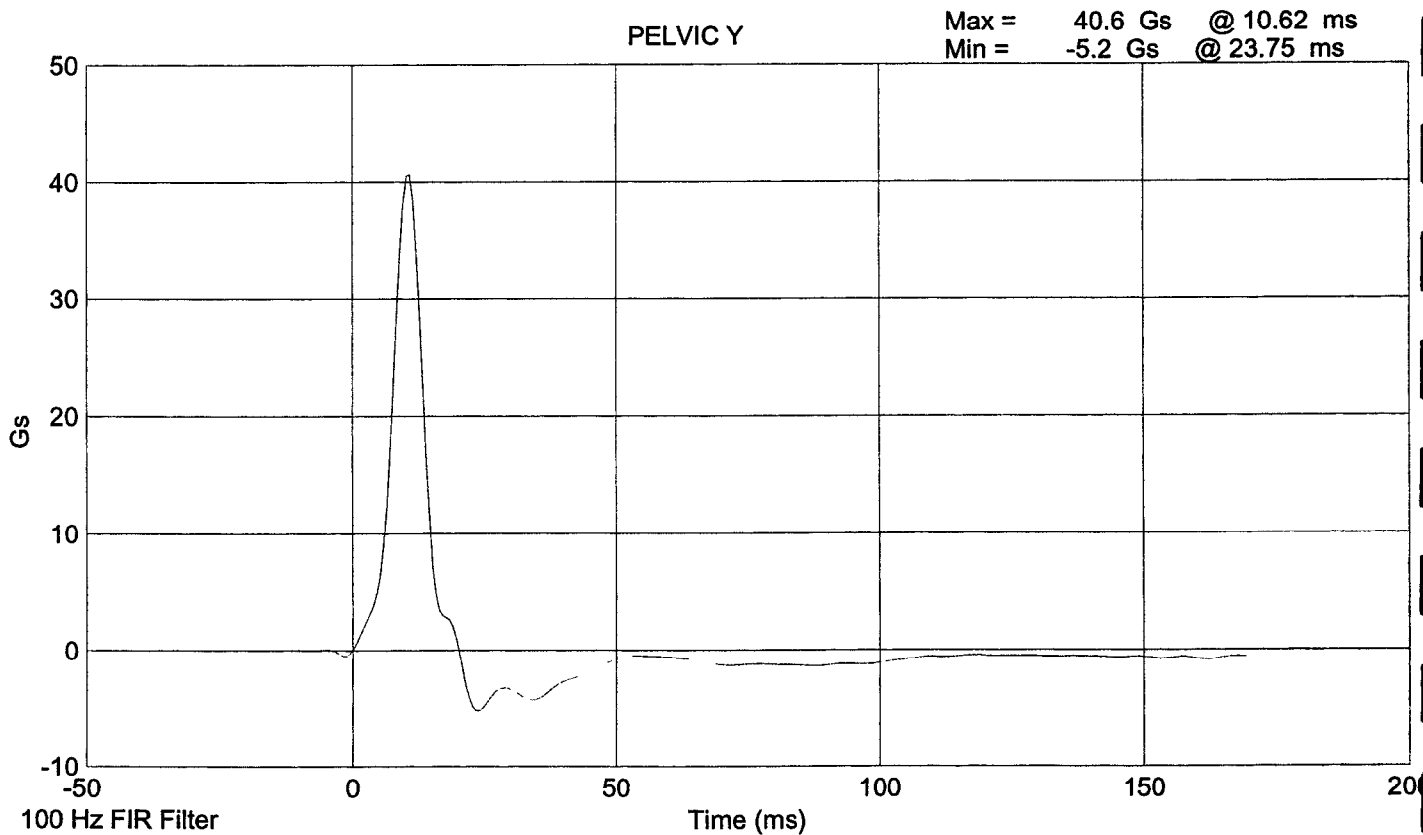
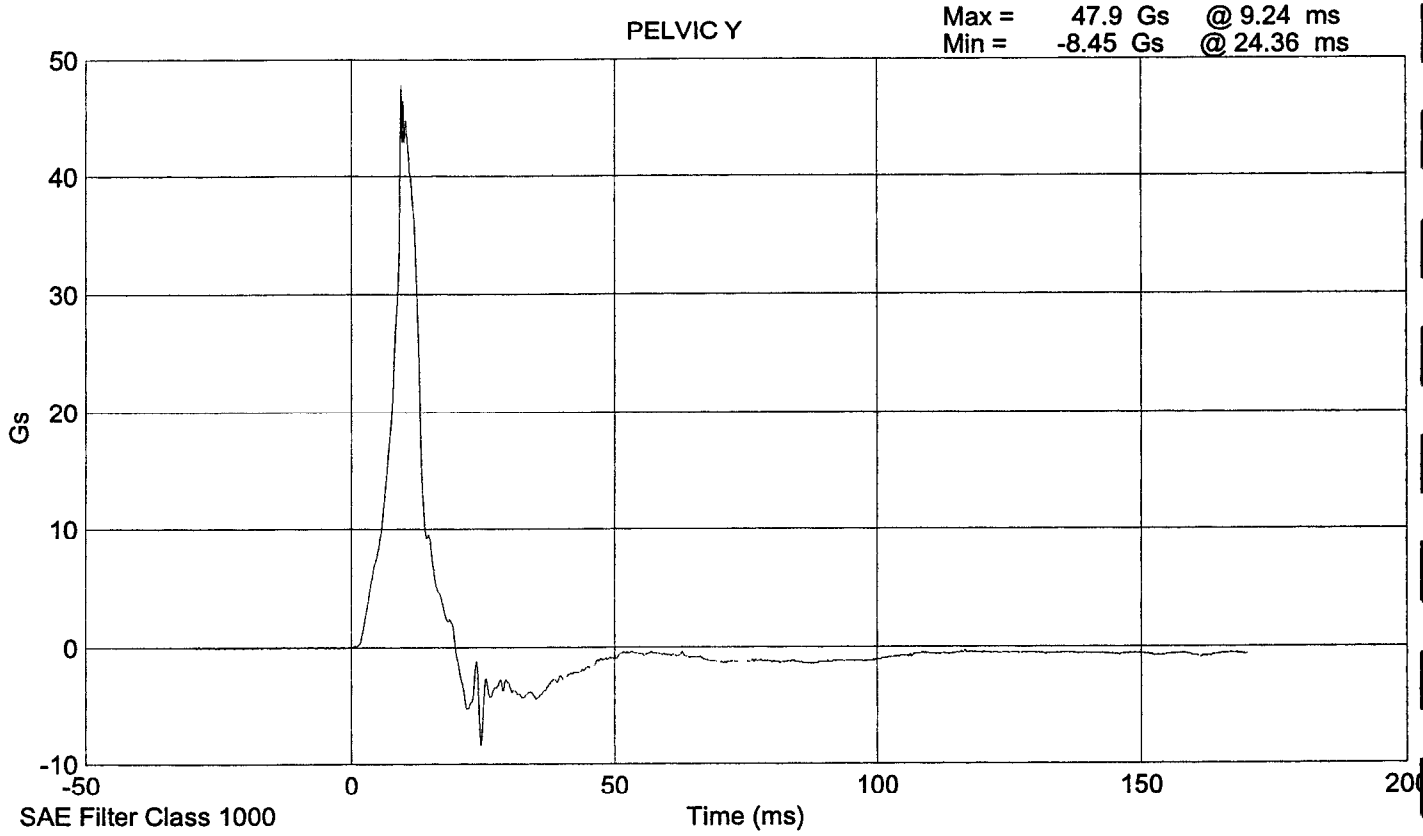
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.29
PELVIS ACCELERATION (g's)	40 - 60	40.6

REMARKS: None

SID 16 Pelvic Impact Test @ 4.2855 m/s



HEAD DROP TEST

PRE-TEST

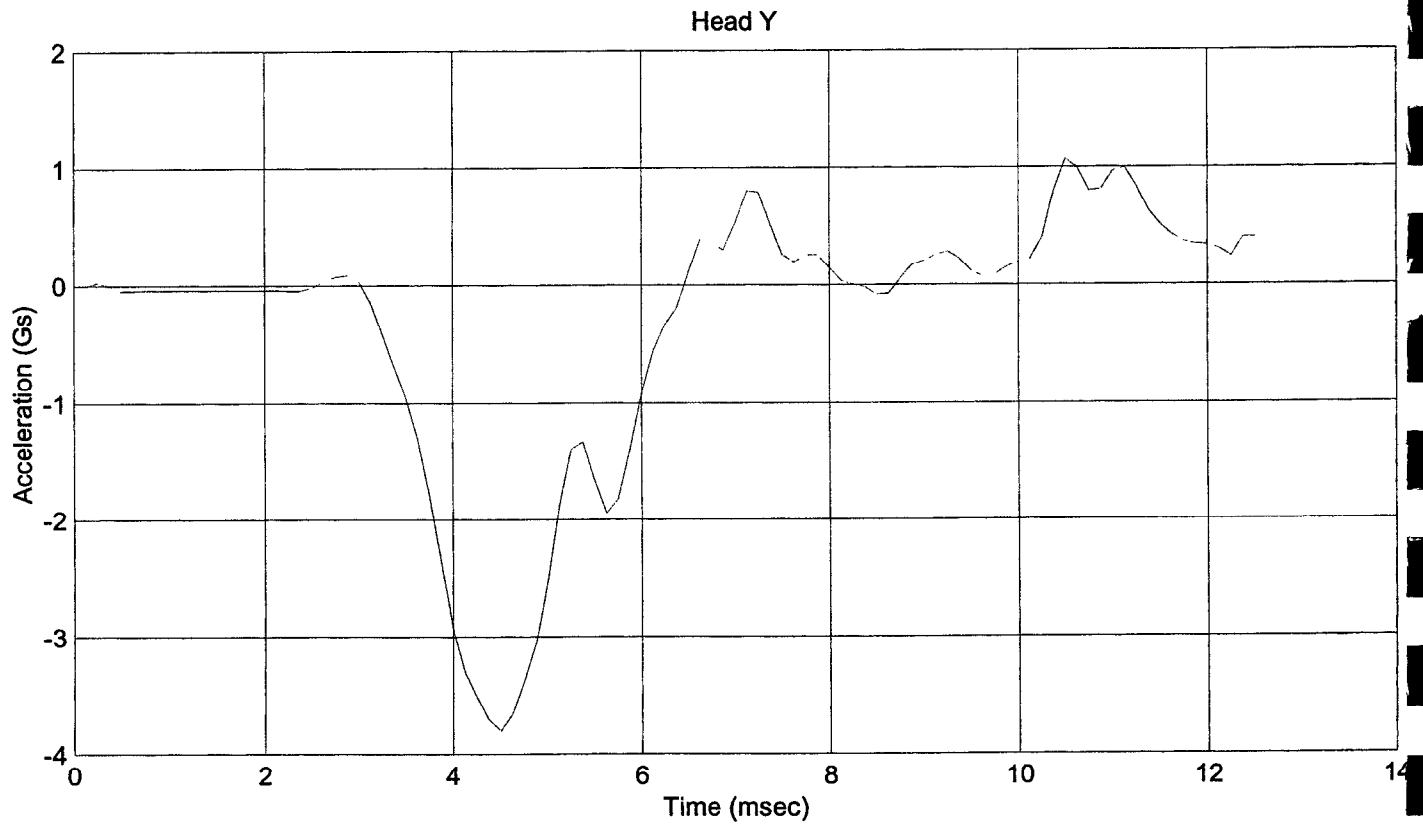
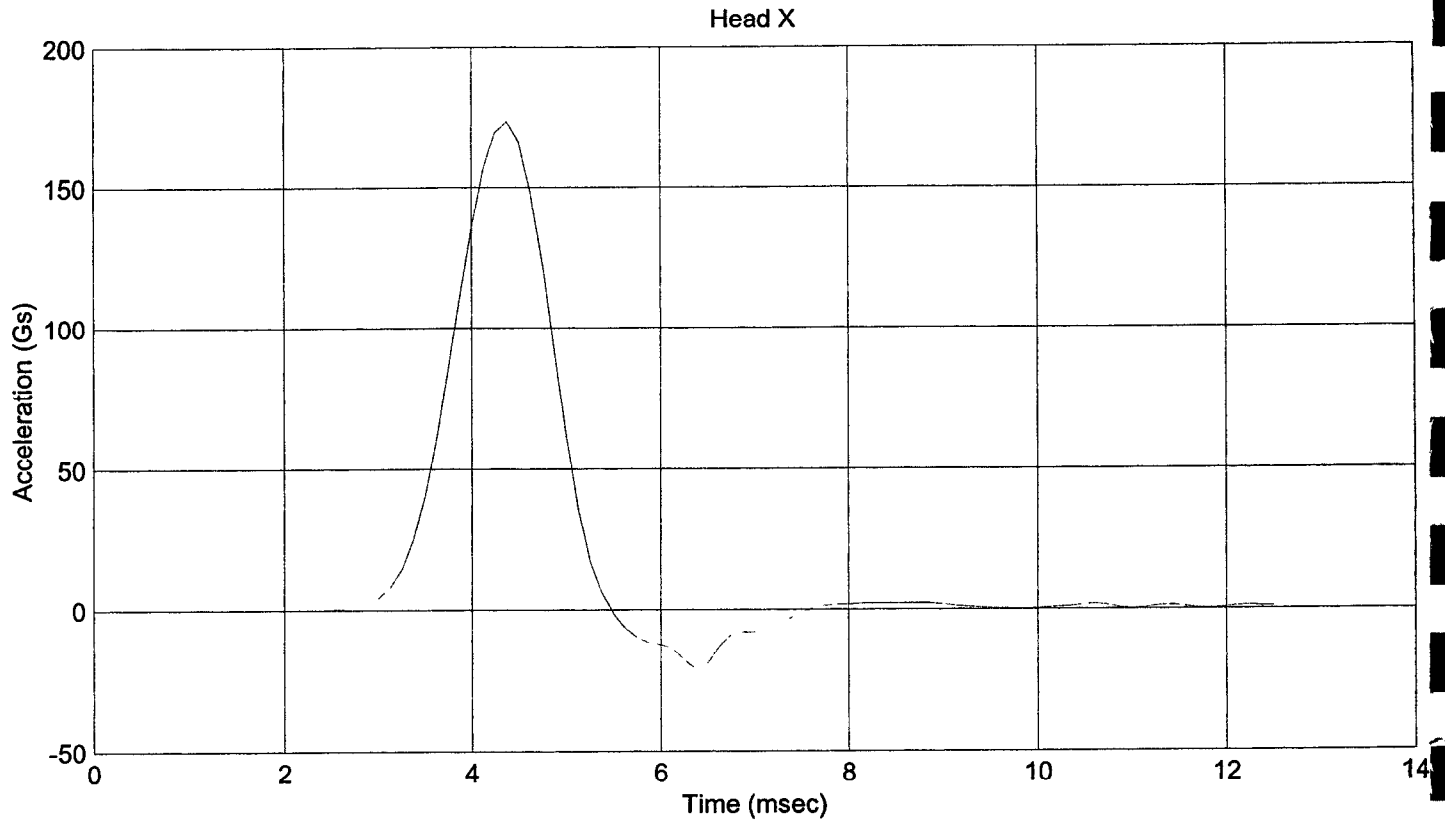
(Test not required for SID certification)

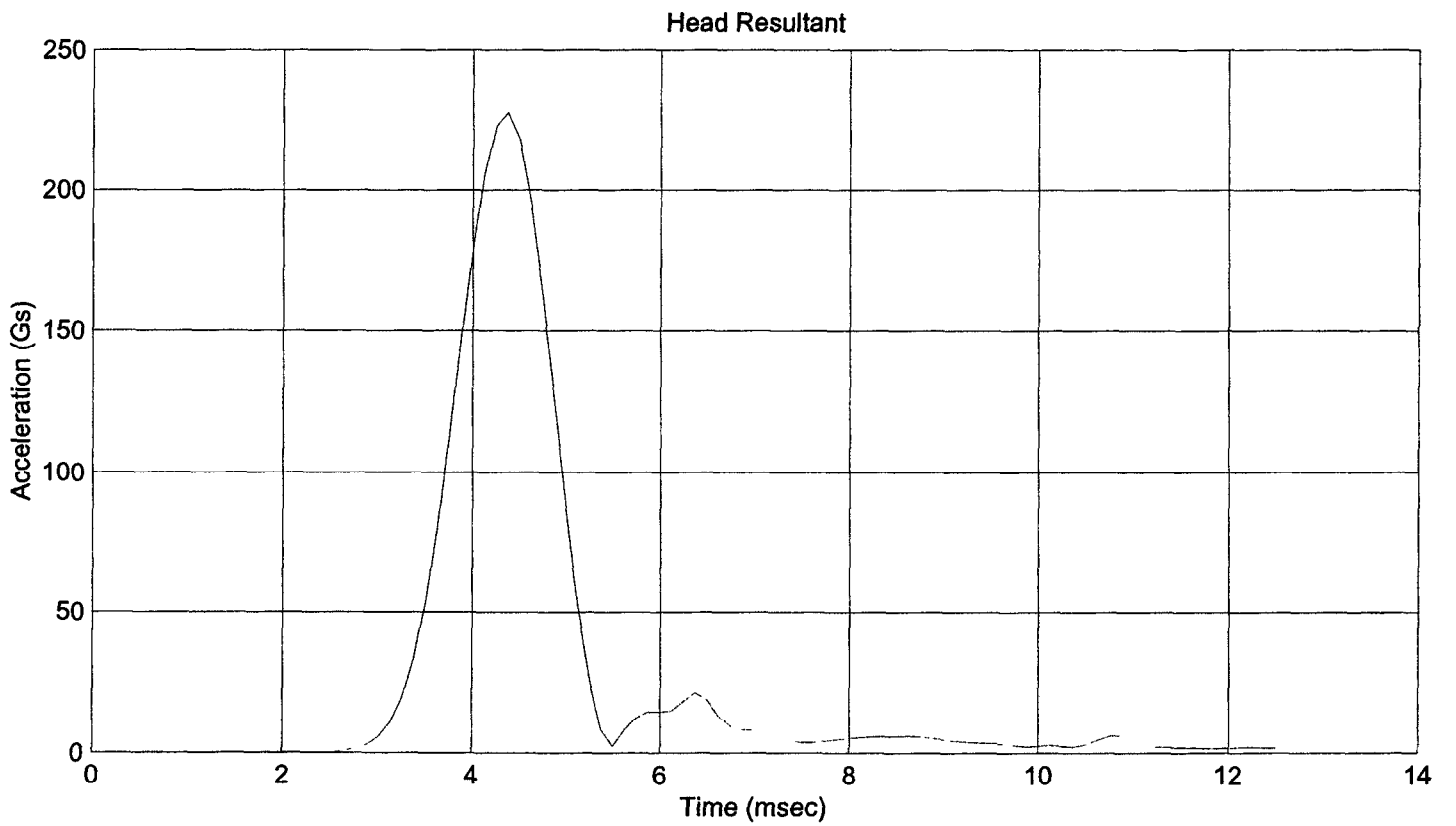
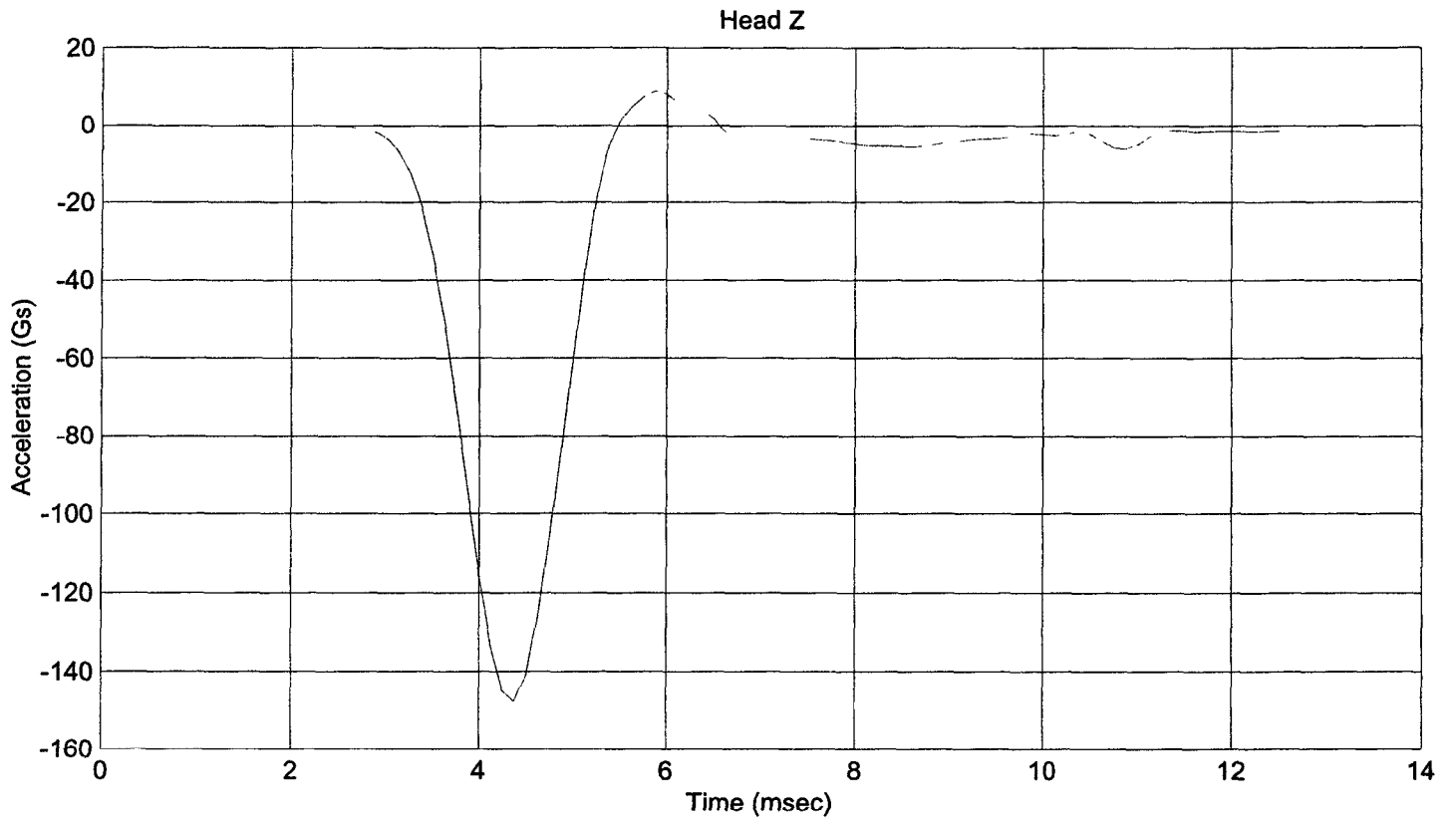
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/8/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	32
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	227.8
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	3.8
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.25

REMARKS: None





ABDOMINAL COMPRESSION TEST

PRE-TEST

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016

Sequential Test Number: 1

Date: 9/11/00

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 13 mm (N)	104 - 162	116
FORCE @ 19 mm (N)	163 - 221	177
FORCE @ 25 mm (N)	222 - 280	253
FORCE @ 33 mm (N)	325 - 391	348

REMARKS: None

Dummy S/N 016

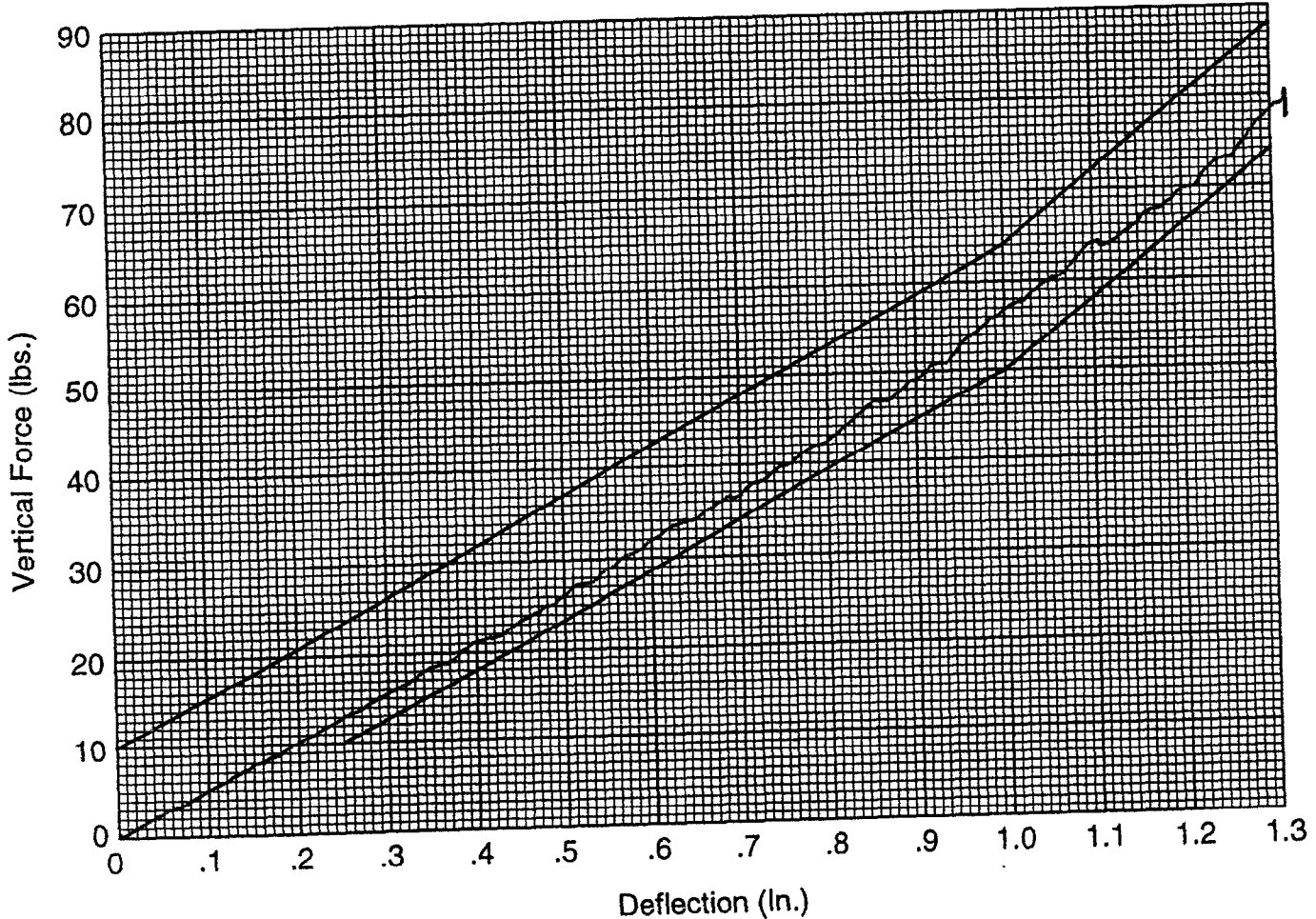
W/A _____

Date 9-11-2000

Performed By [Signature]

Temp. 71°

Humidity 31%



Hybrid II
Abdomen Static Press

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

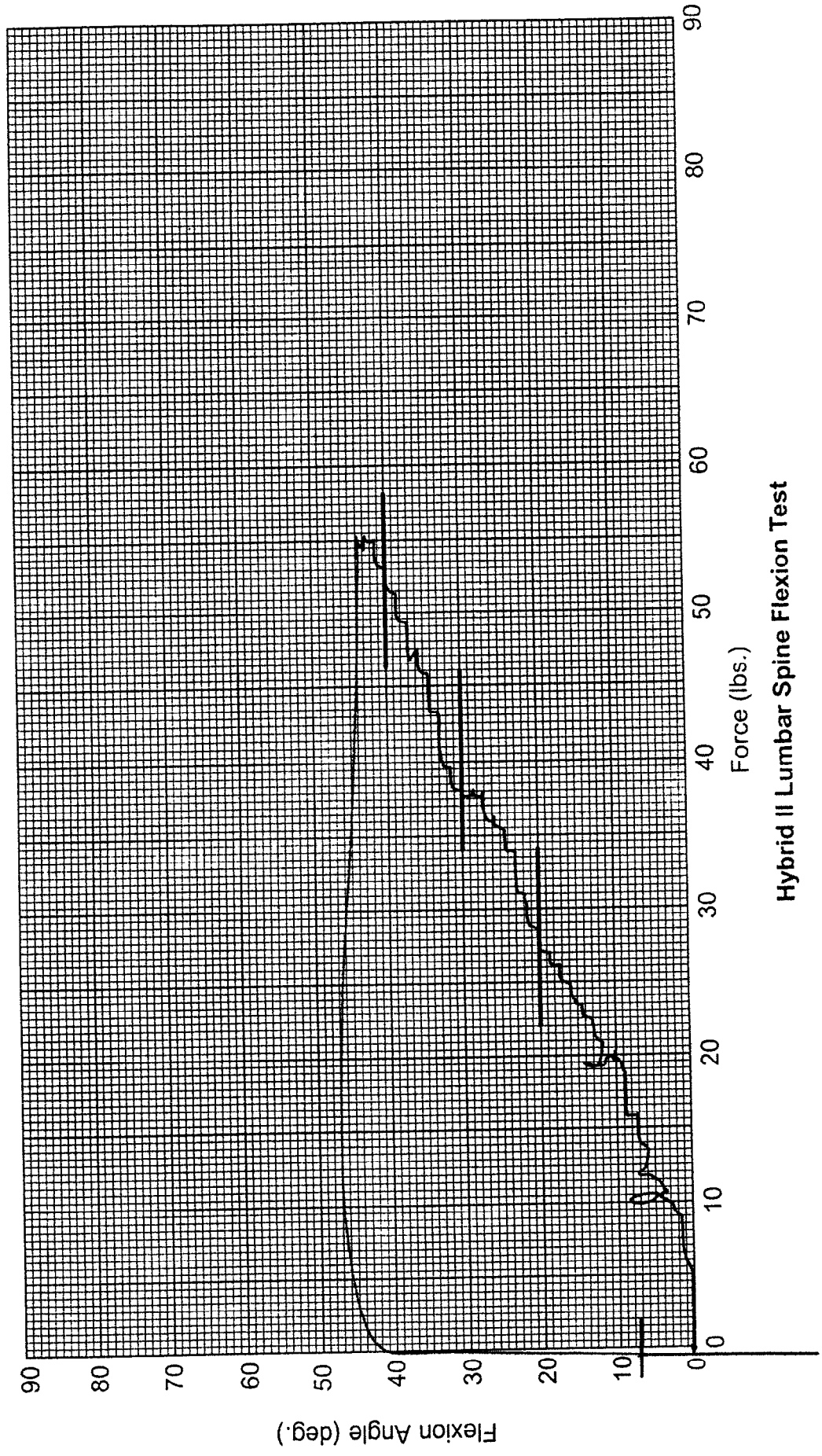
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/11/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 0° (N)	0 - 26.7	0.2
FORCE @ 20° (N)	97.8 - 151.2	124.6
FORCE @ 30° (N)	151.2 - 204.6	168.1
FORCE @ 40° (N)	204.6 - 258	233.5
RETURN ANGLE	12° max.	7.2°

REMARKS: None

Dummy S/N 016
 W/A _____
 Date 9-11-2000
 Performed By [Signature]
 Temp. 71°
 Humidity 31%



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
 Date: 9/11/00 Laboratory Technician: B. Swiecicki

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

REMARKS: None

**CALIBRATION TEST RESULTS
POST TEST**

SID NO.: 015

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/20/00 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
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 Serial No.: 015 Sequential Test Number: 1
Date: 9/19/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	236
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

LATERAL THORAX IMPACT TEST
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015

Sequential Test Number:

1

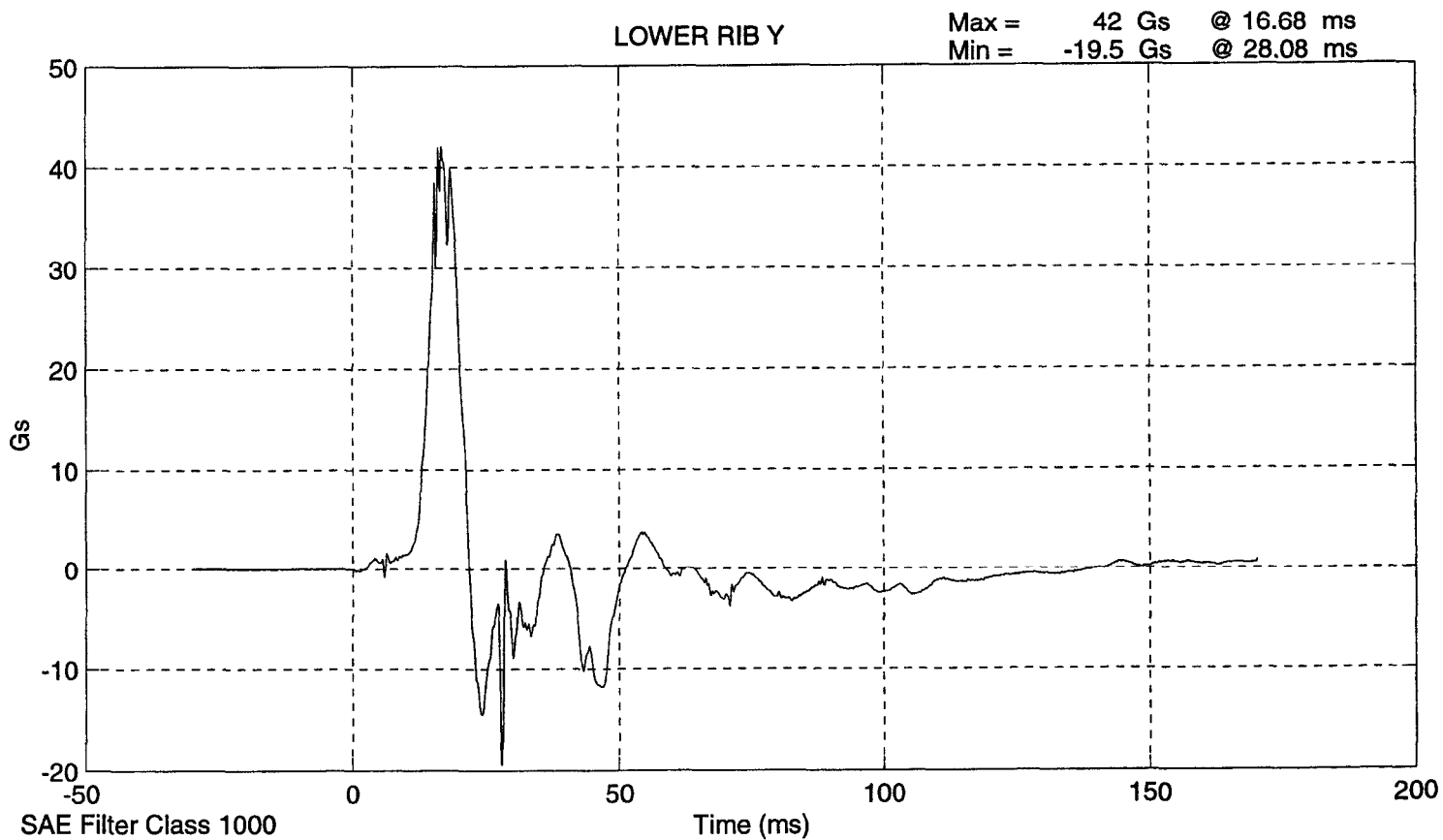
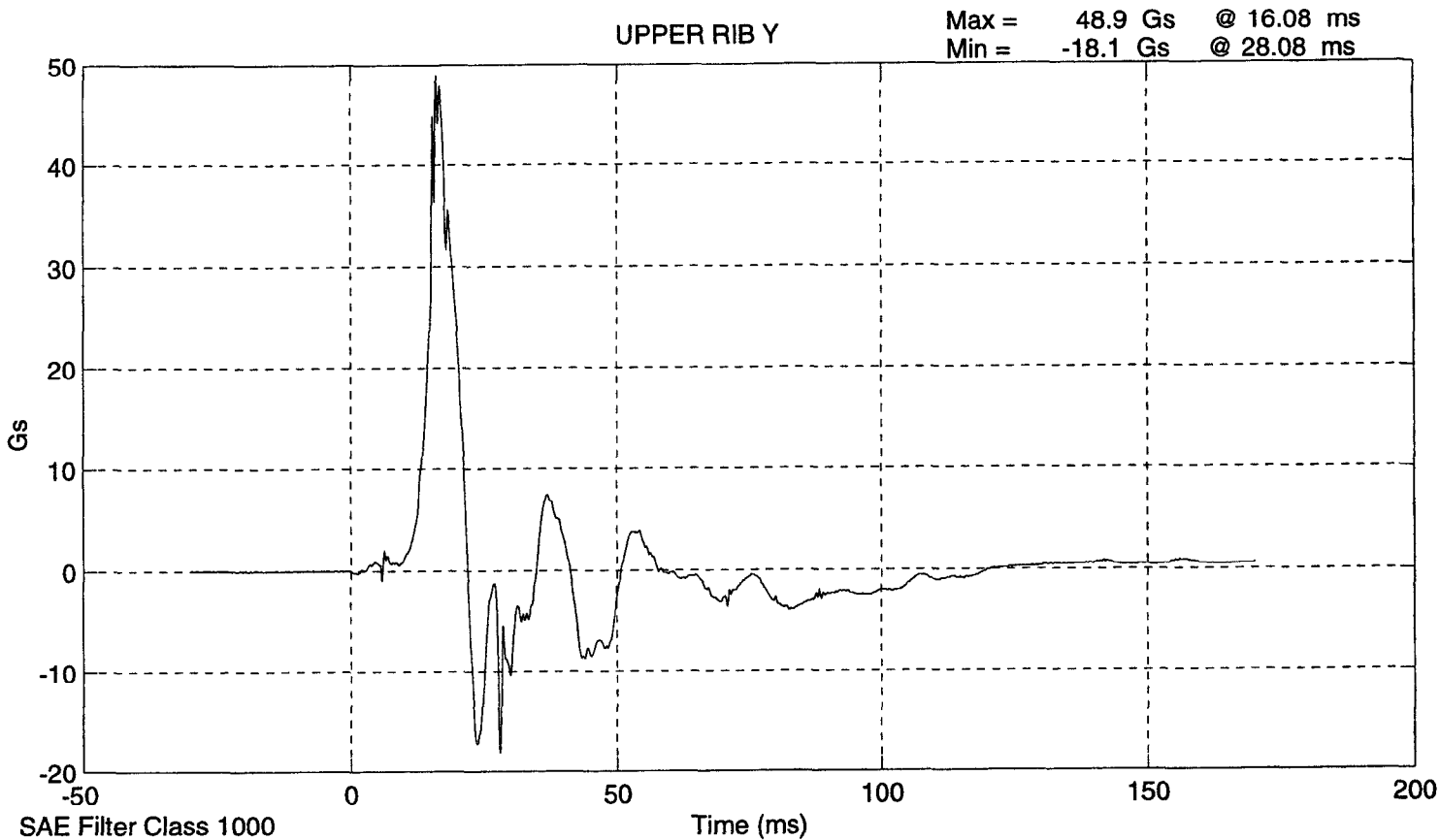
Date: 9/18/00

Laboratory Technician:

B. Swiecicki

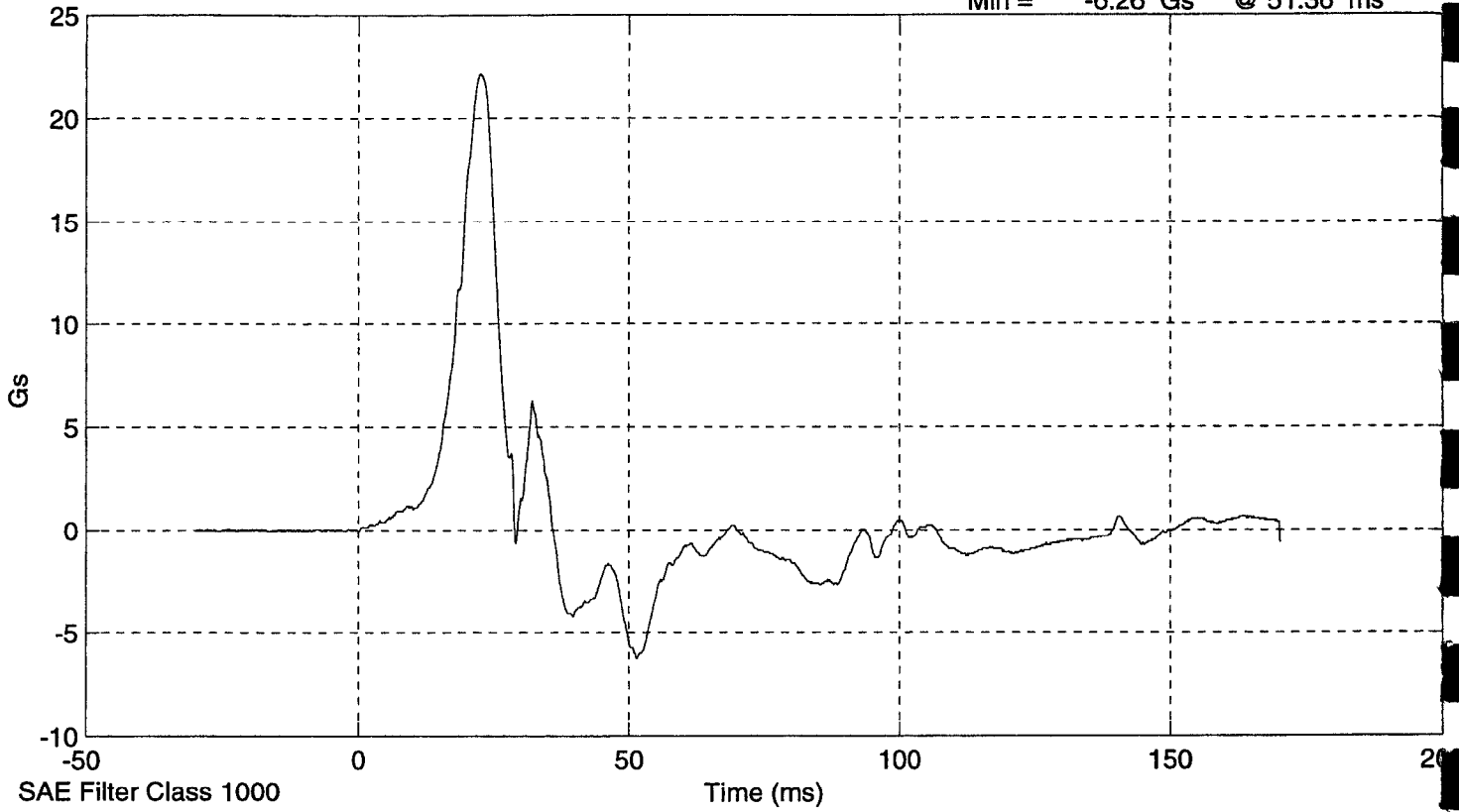
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	42.3
LOWER RIB (g's)	37 - 46	40.7
LOWER SPINE (g's)	15 - 22	21.8

REMARKS: None



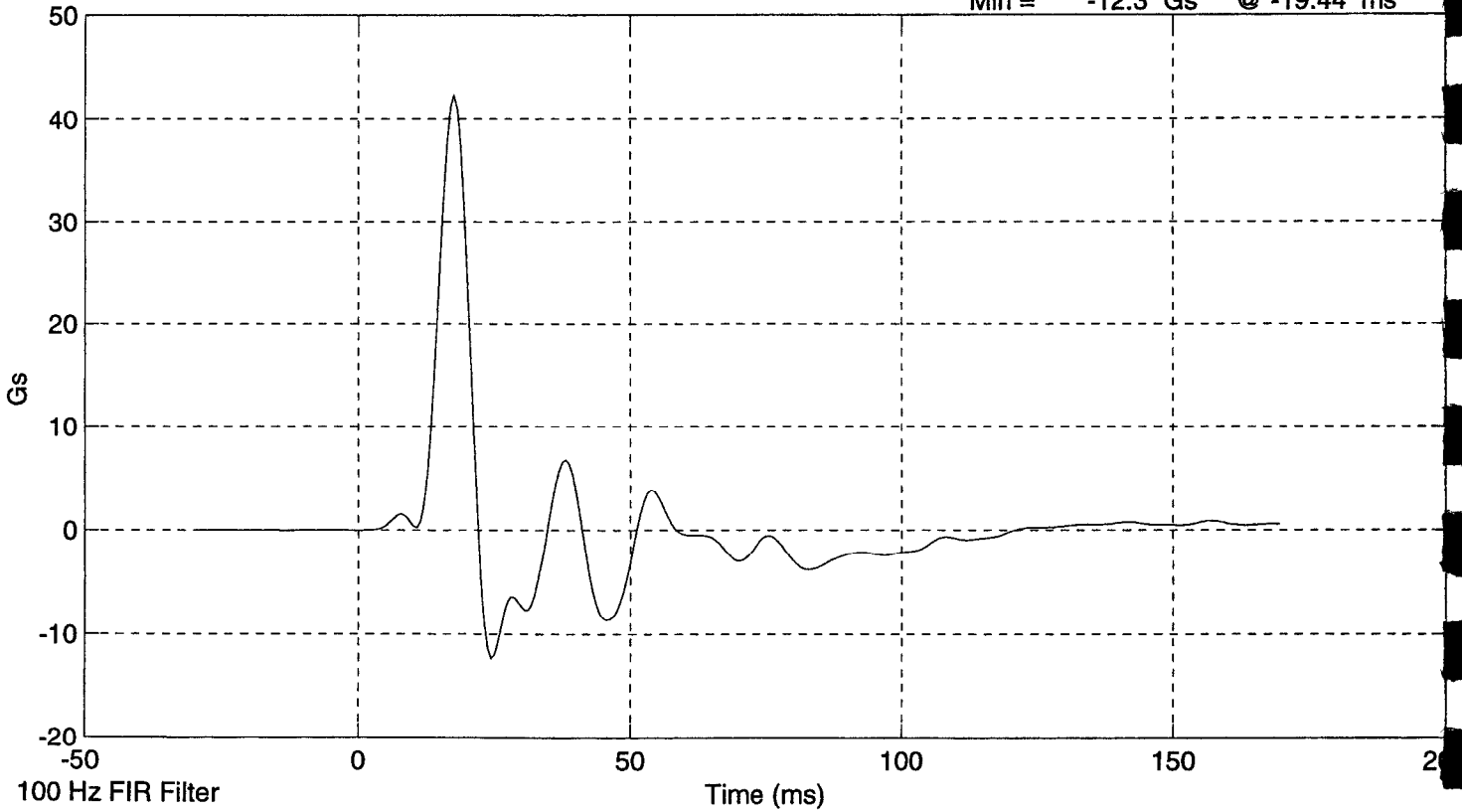
LOWER SPINE Y

Max = 22.1 Gs @ 22.44 ms
Min = -6.26 Gs @ 51.36 ms



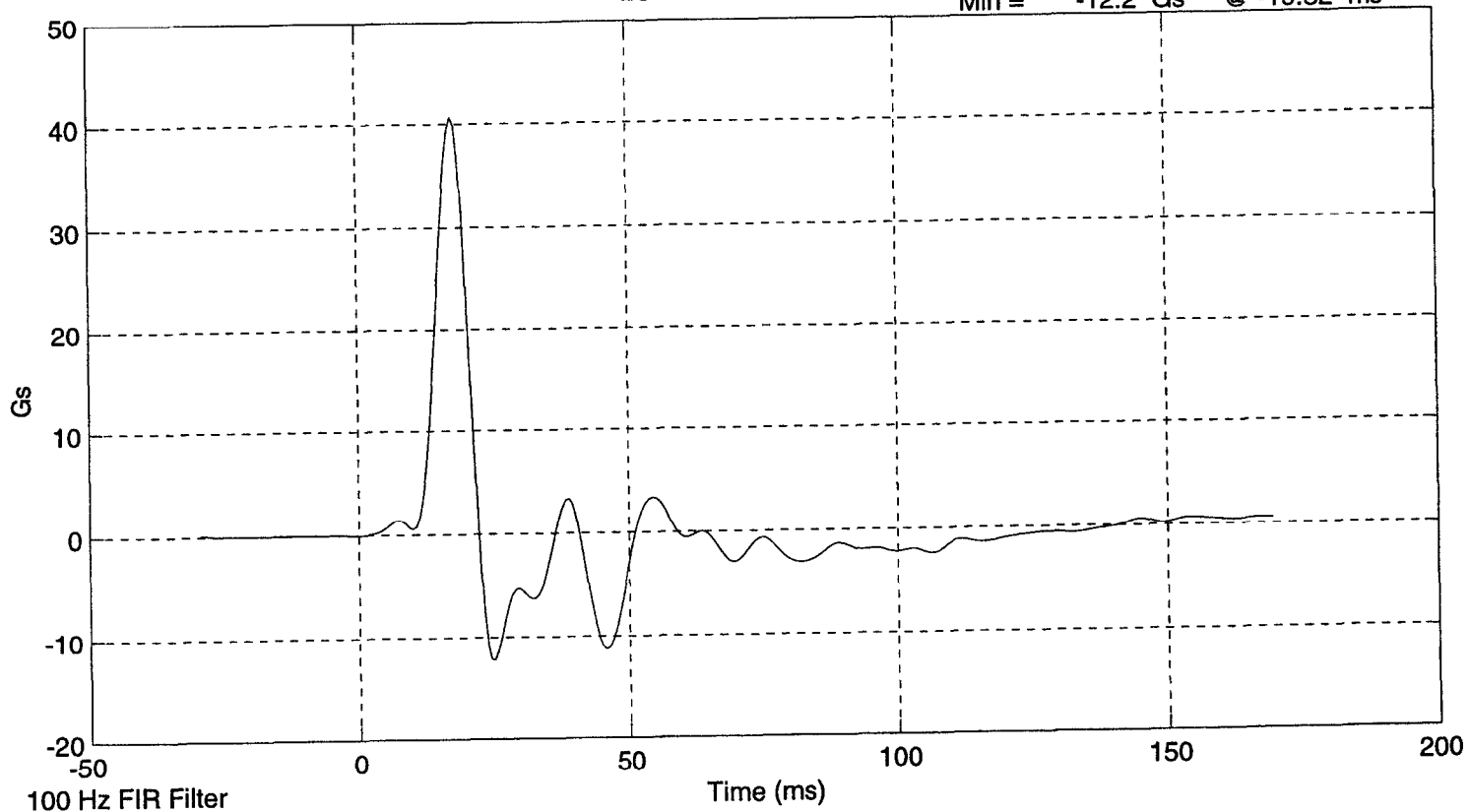
UPPER RIB Y

Max = 42.3 Gs @ -20.76 ms
Min = -12.3 Gs @ -19.44 ms



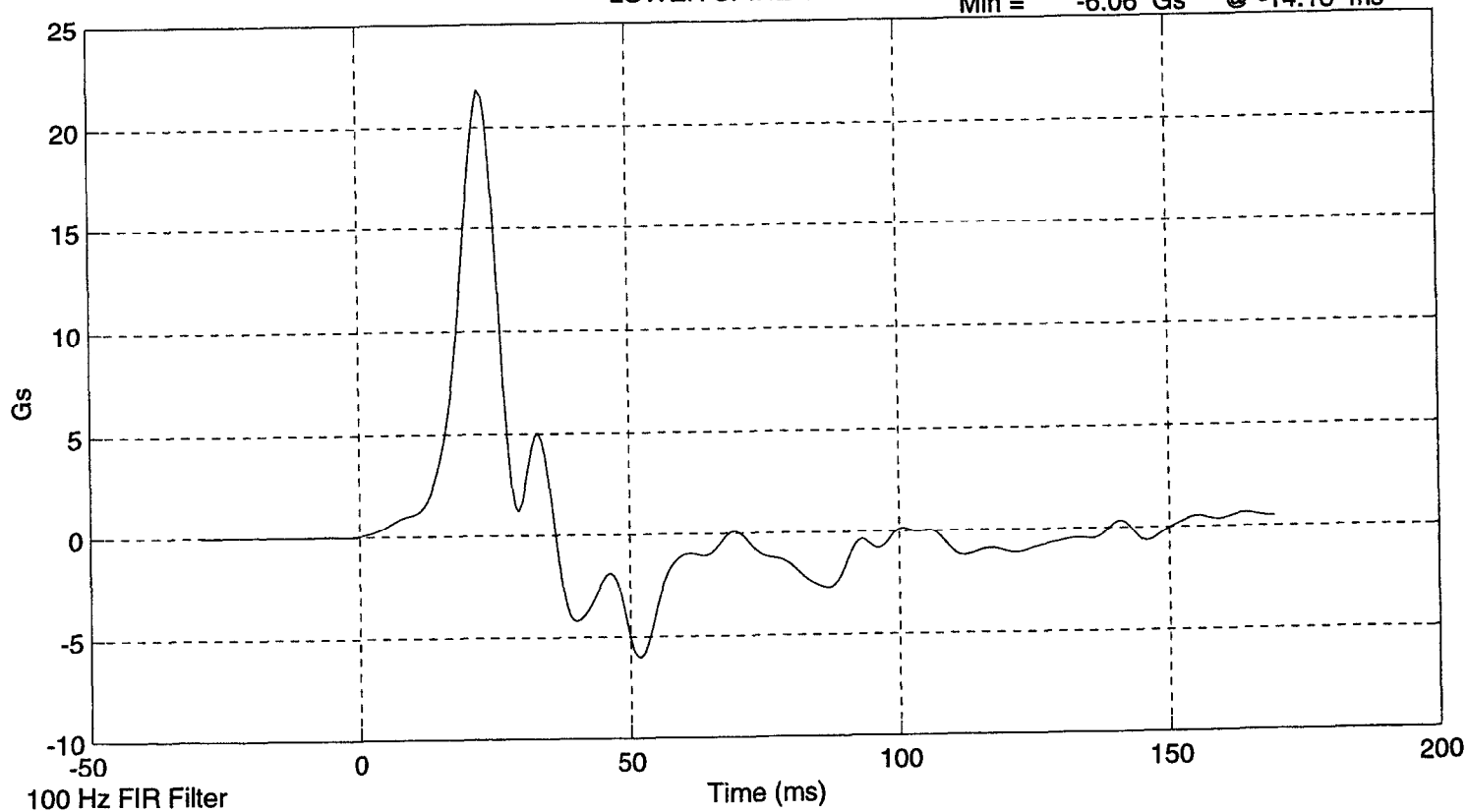
LOWER RIB Y

Max = 40.7 Gs @ -20.76 ms
Min = -12.2 Gs @ -19.32 ms



LOWER SPINE Y

Max = 21.8 Gs @ -19.80 ms
Min = -6.06 Gs @ -14.16 ms



LATERAL PELVIS IMPACT TEST
POST TEST

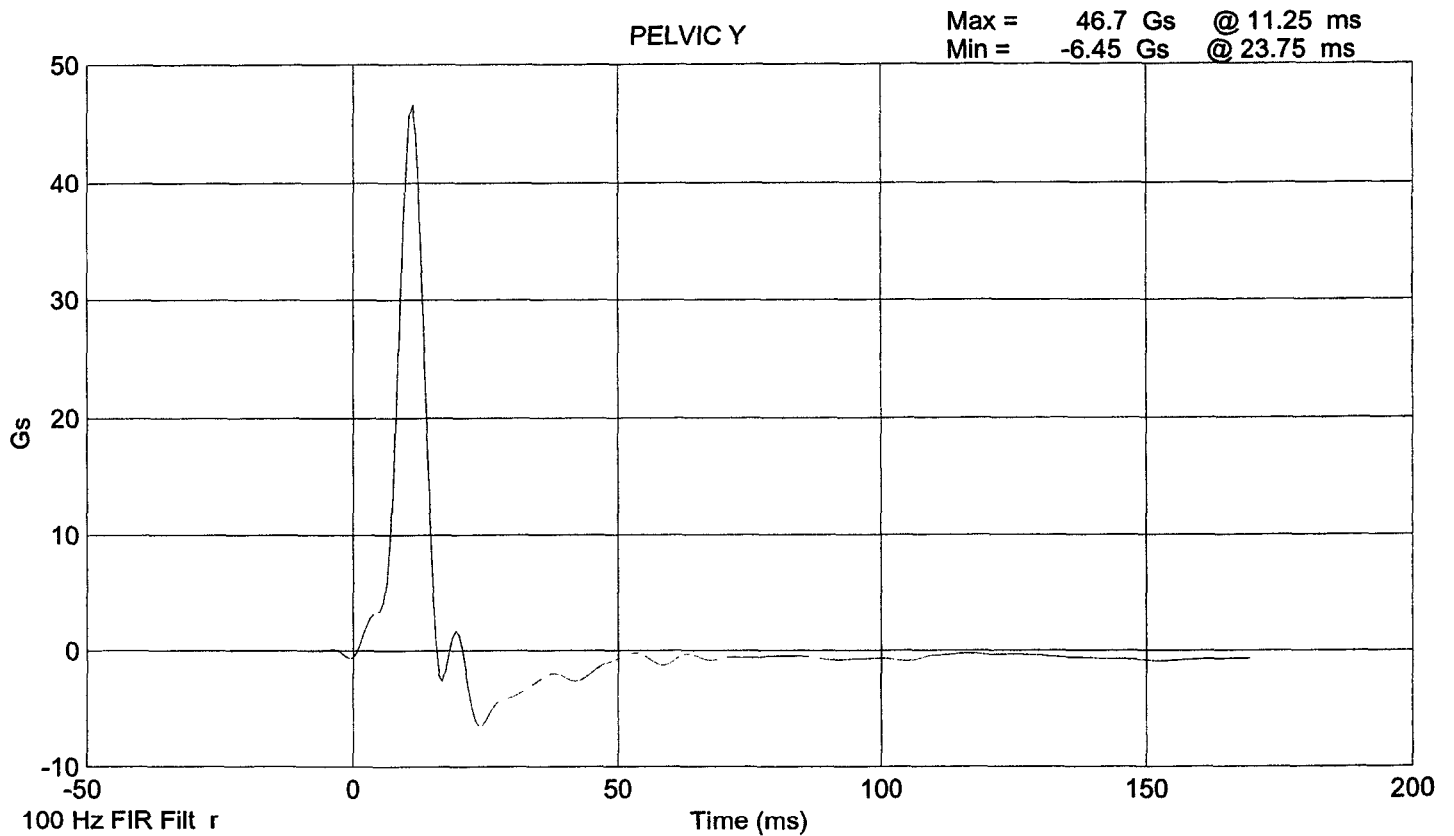
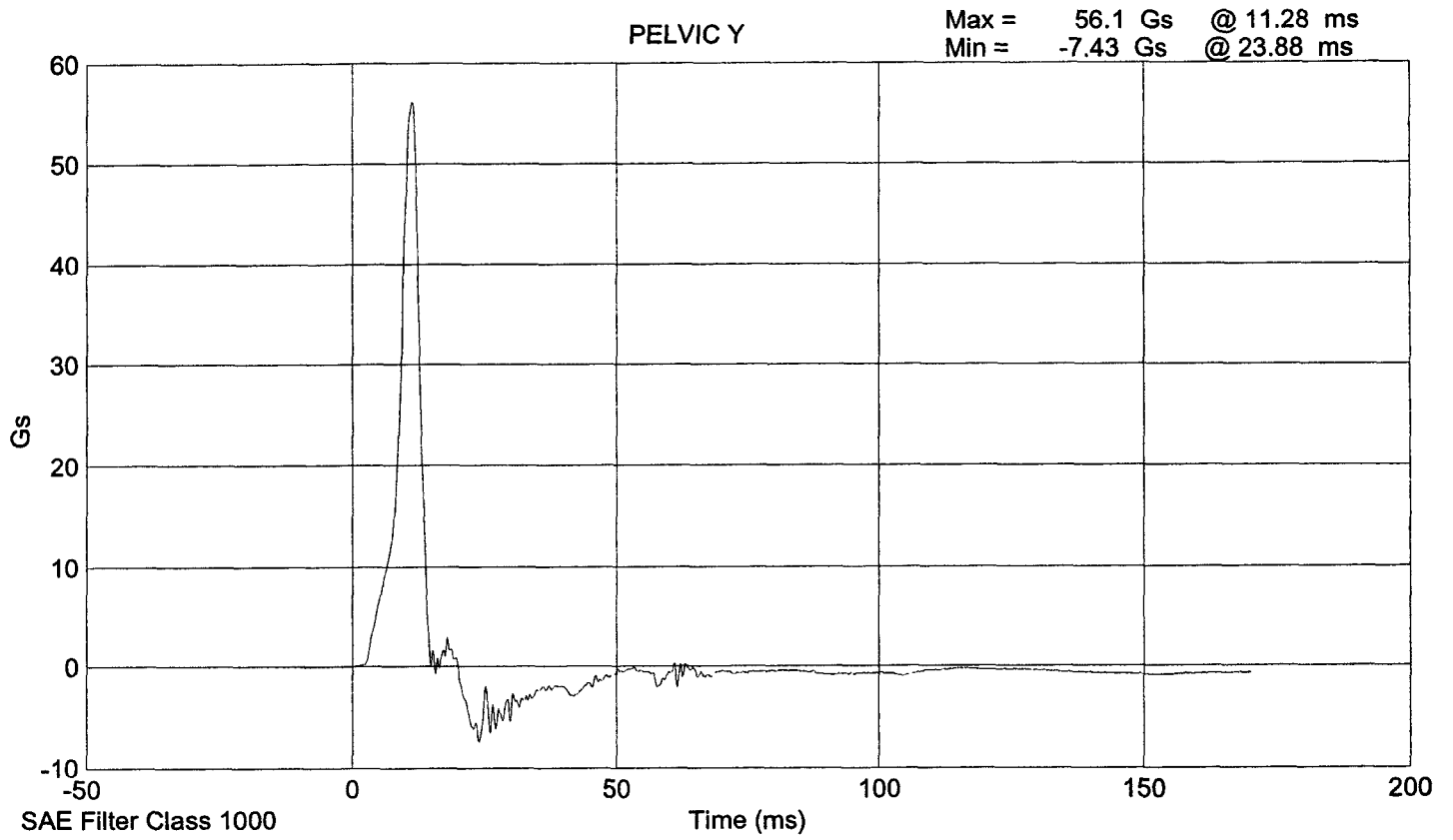
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/18/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.30
PELVIS ACCELERATION (g's)	40 - 60	46.7

REMARKS: None

SID 15 Pelvic Impact Test @ 4.3007 m/s



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

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015

Sequential Test Number: 1

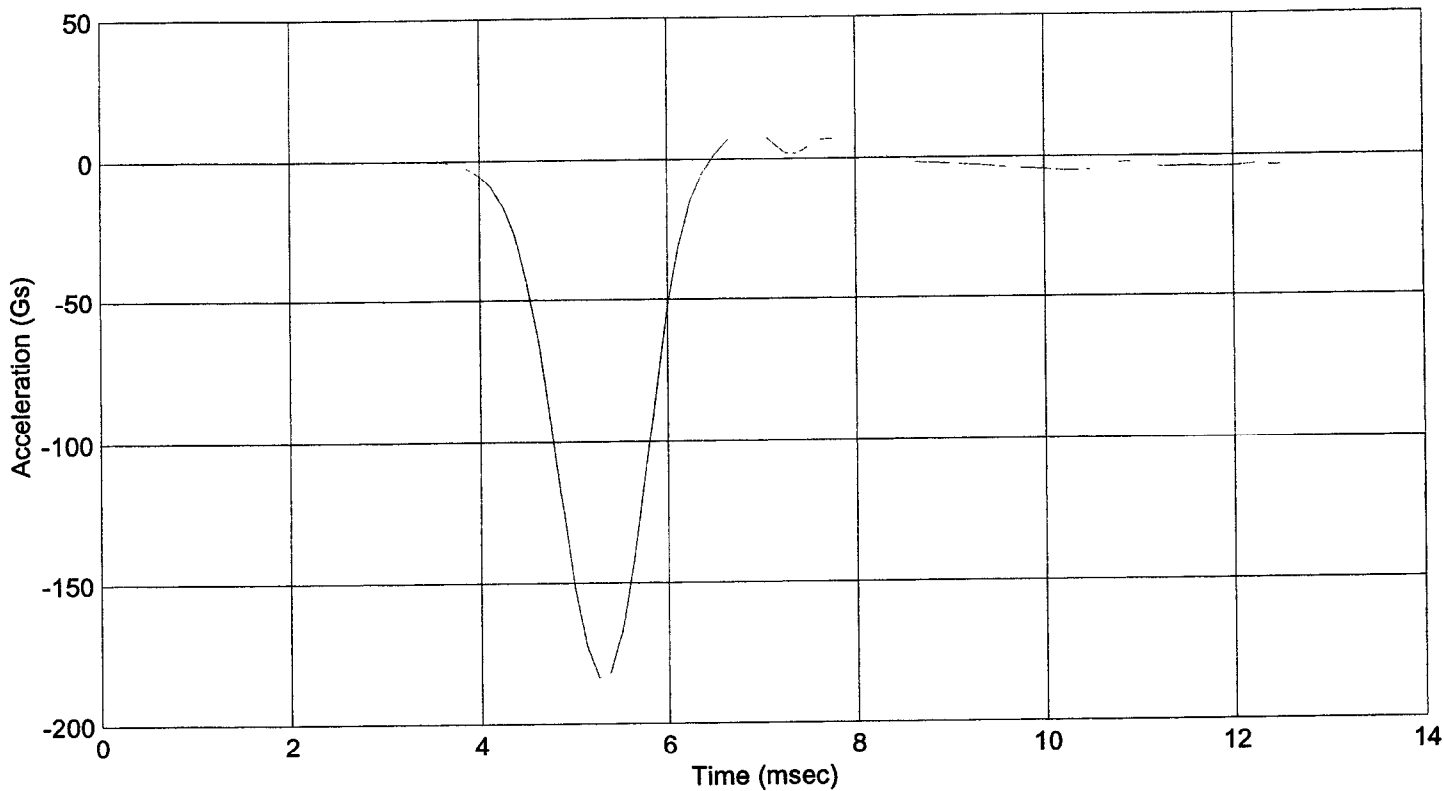
Date: 9/15/00

Laboratory Technician: B. Swiecicki

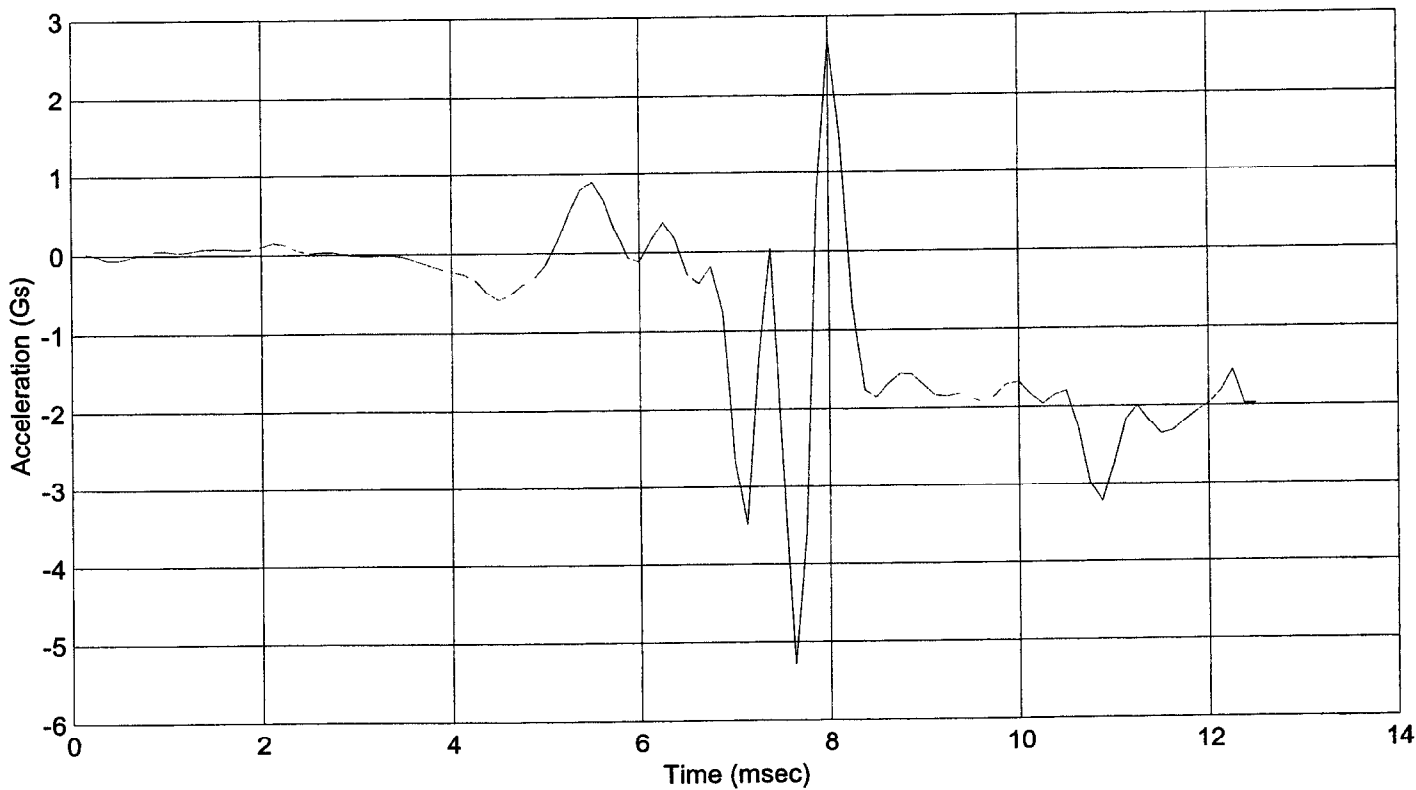
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	232.3
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	5.3
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.25

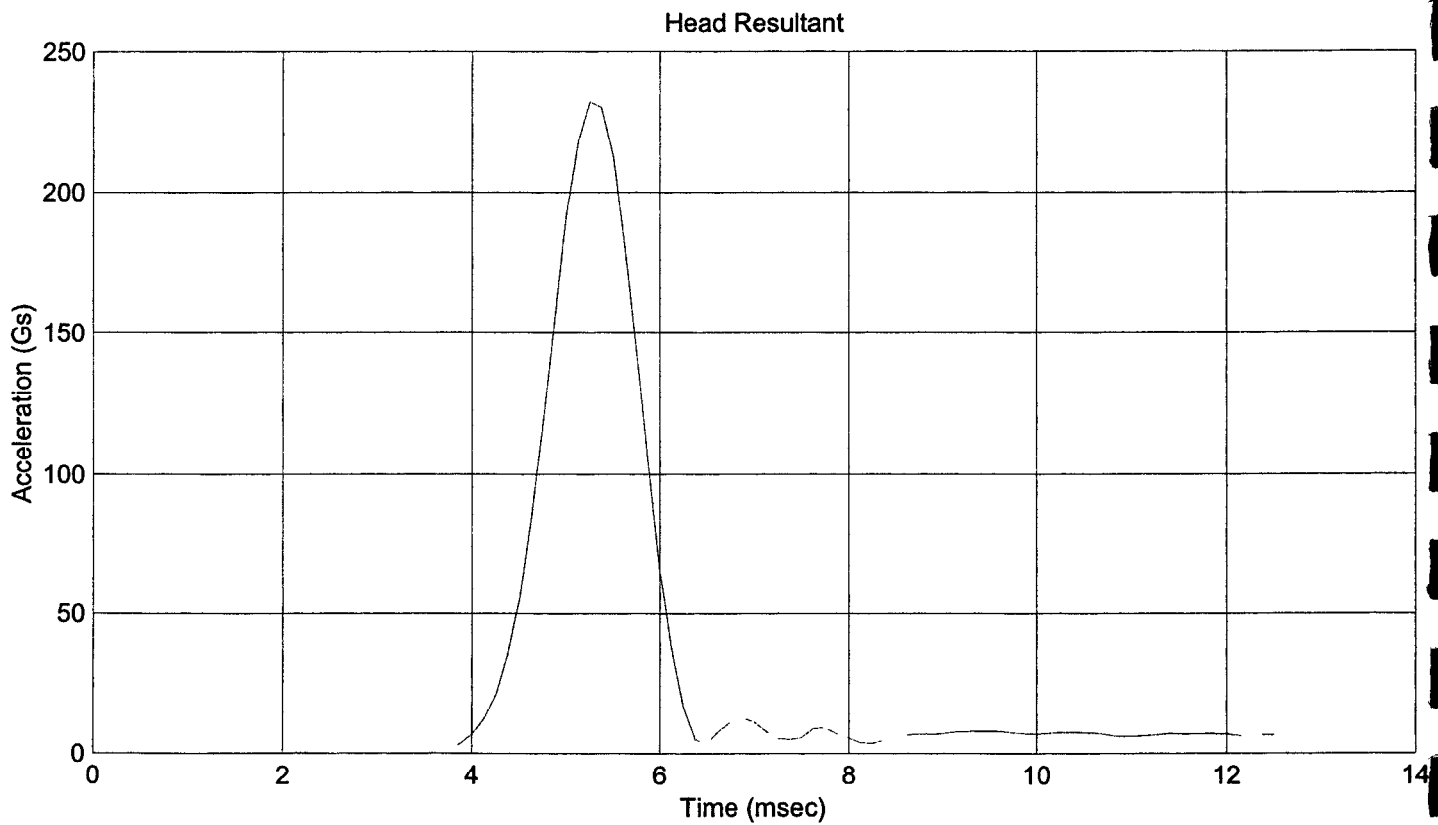
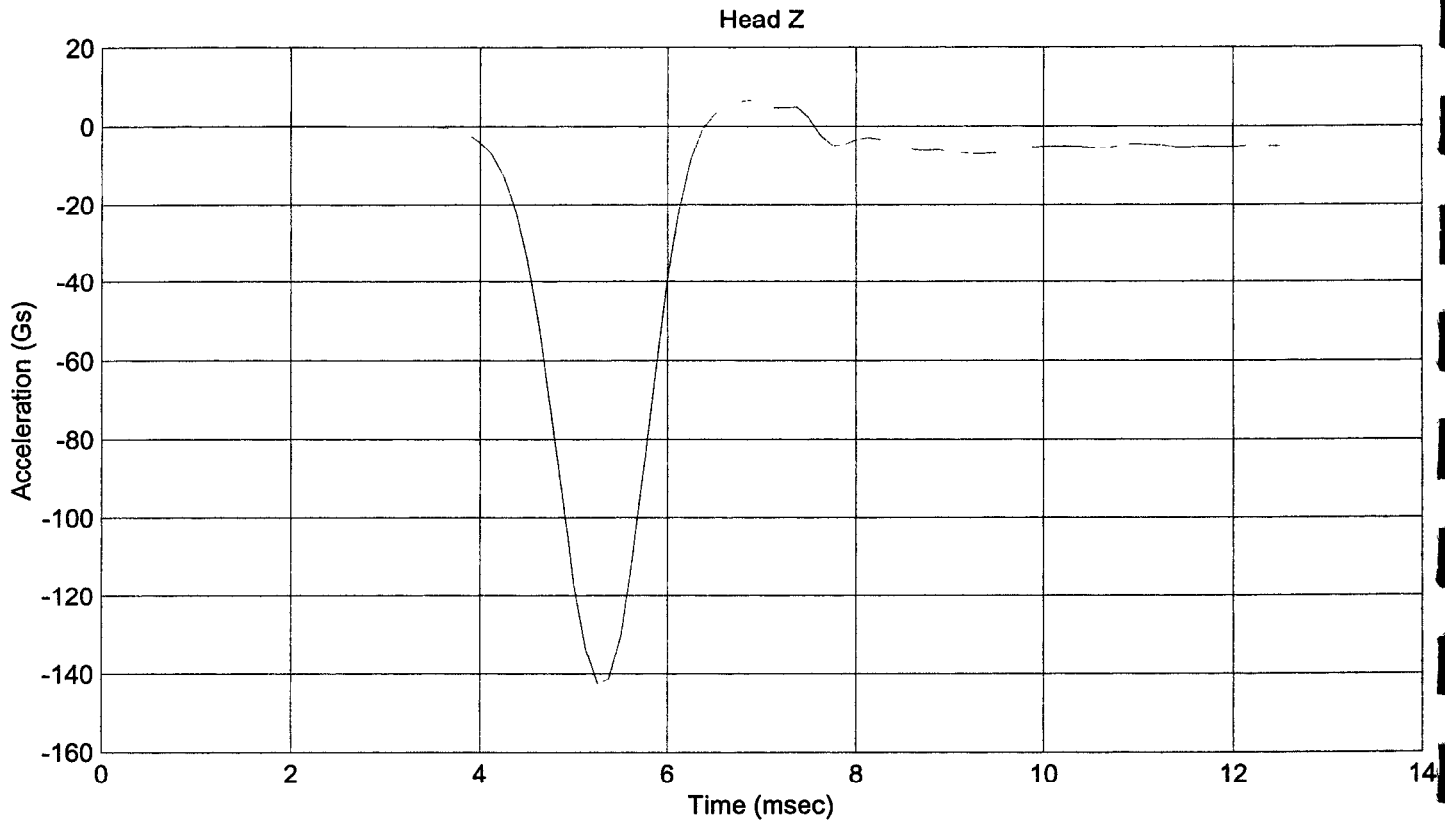
REMARKS: None

H ad X



Head Y





ABDOMINAL COMPRESSION TEST

POST TEST

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015

Sequential Test Number: 1

Date: 9/20/00

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 13 mm (N)	104 - 162	114
FORCE @ 19 mm (N)	163 - 221	178
FORCE @ 25 mm (N)	222 - 280	255
FORCE @ 33 mm (N)	325 - 391	380

REMARKS: None

Dummy S/N 015

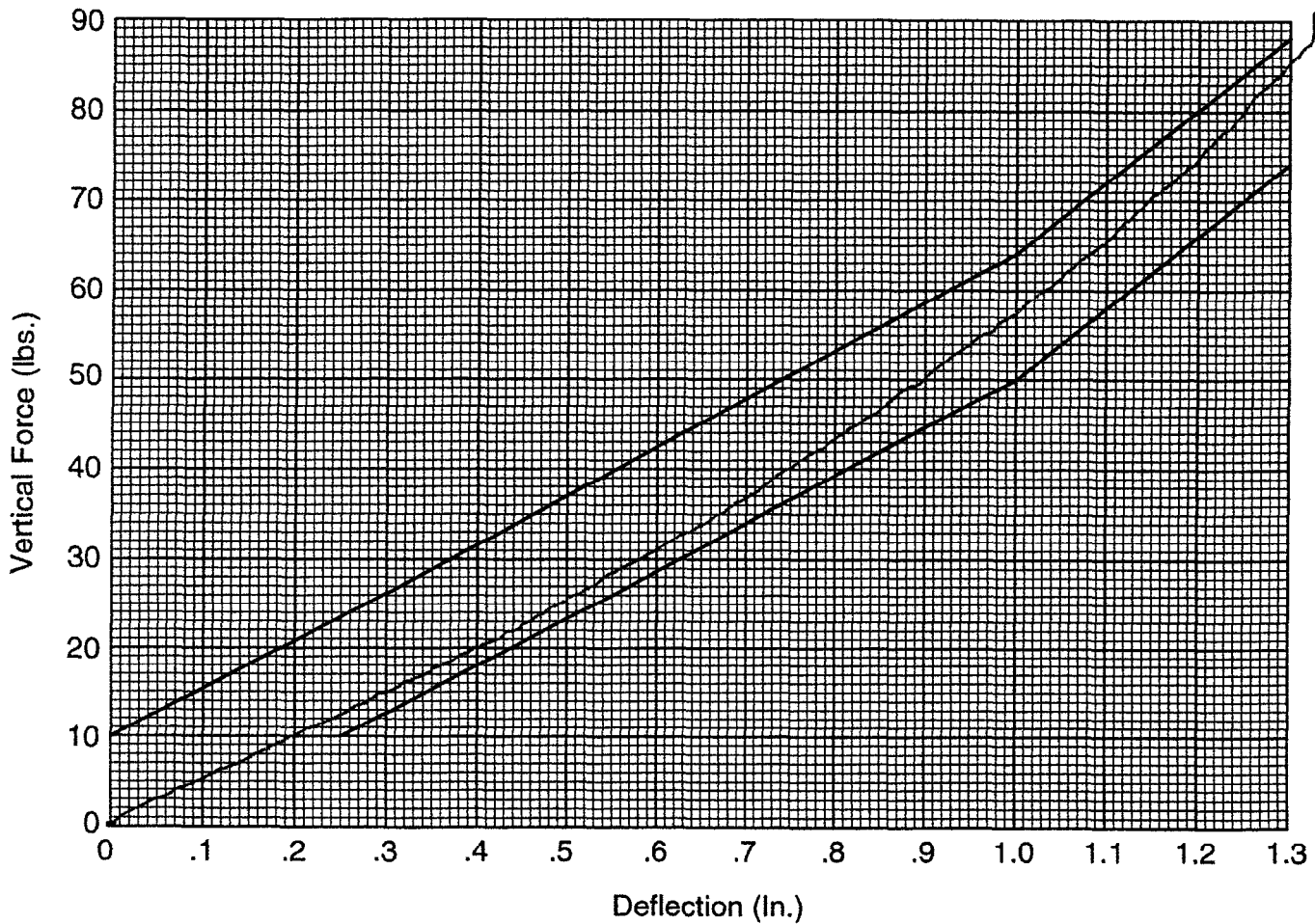
W/A _____

Date 9-20-2000

Performed By [Signature]

Temp. 71°

Humidity 30%



**Hybrid II
Abdomen Static Press**

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

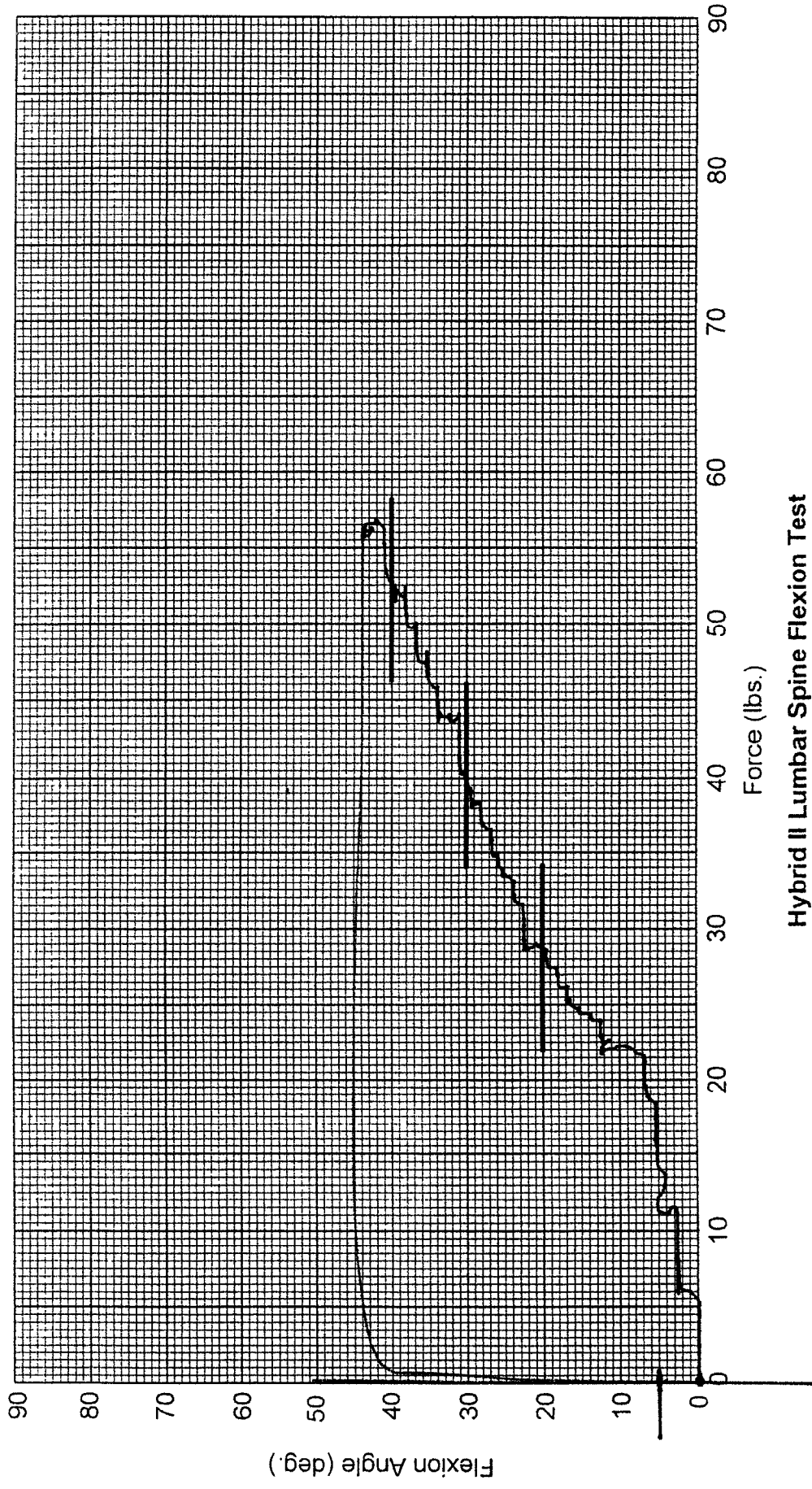
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015 Sequential Test Number: 1
Date: 9/20/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	127.9
FORCE @ 30° (N)	151.2 - 204.6	176.8
FORCE @ 40° (N)	204.6 - 258	233.5
RETURN ANGLE	12° max.	5.0°

REMARKS: None

Dummy S/N 015
 WIA _____
 Date 9-20-2000
 Performed By [Signature]
 Temp. 71°
 Humidity 31%



Hybrid II Lumbar Spine Flexion Test

POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 015
 Date: 9/19/00

Sequential Test Number: 1
 Laboratory Technician: B. Swiecicki

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

REMARKS: None

**CALIBRATION TEST RESULTS
POST TEST**

SID NO.: 016

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/20/00 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
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 Serial No.: 016 Sequential Test Number: 1
Date: 9/19/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	526
KV- Knee Pivot to Floor (mm)	490 - 505	494
HW- Hip Width (mm)	356 - 391	366

REMARKS: None

LATERAL THORAX IMPACT TEST
POST TEST

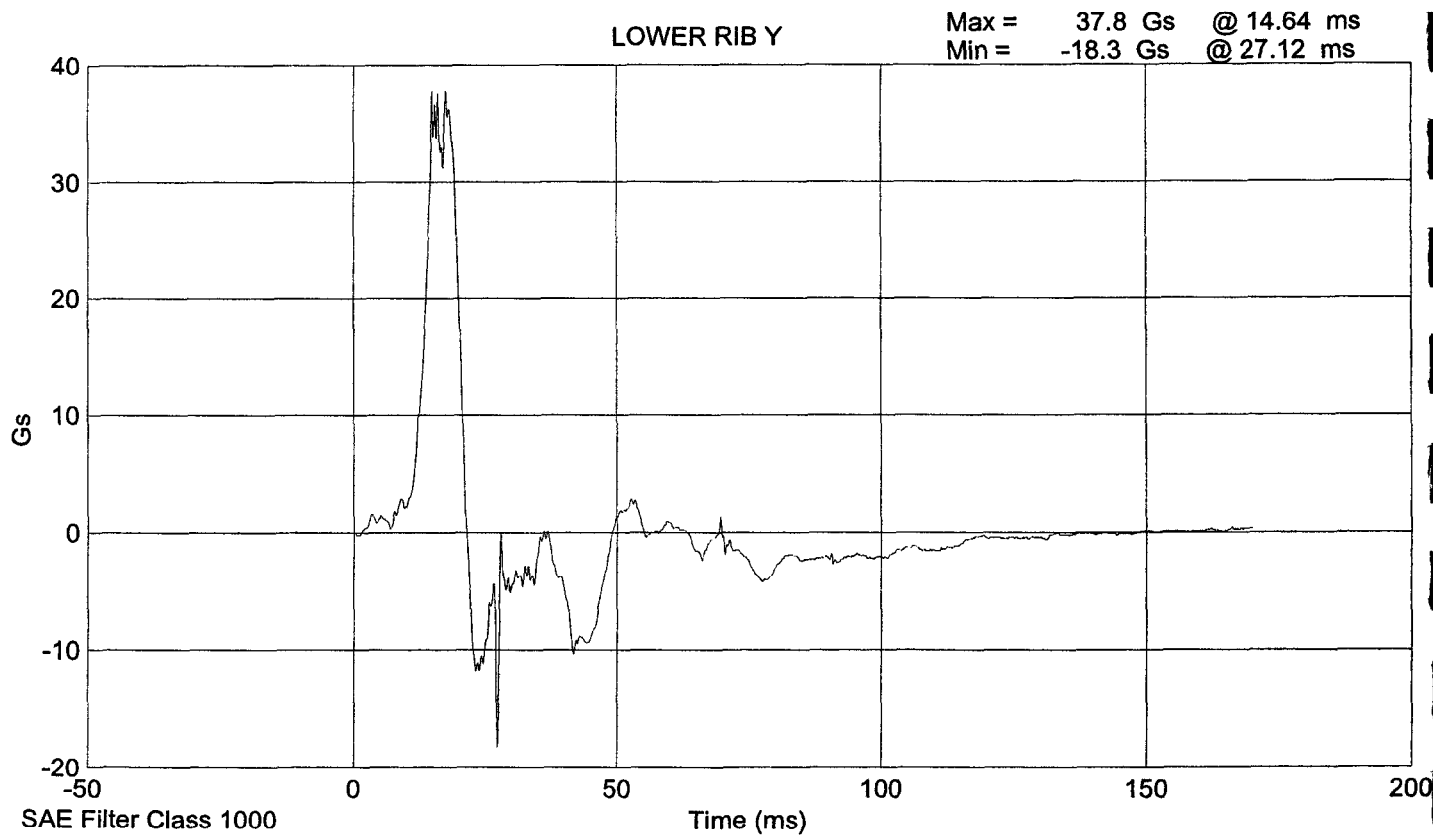
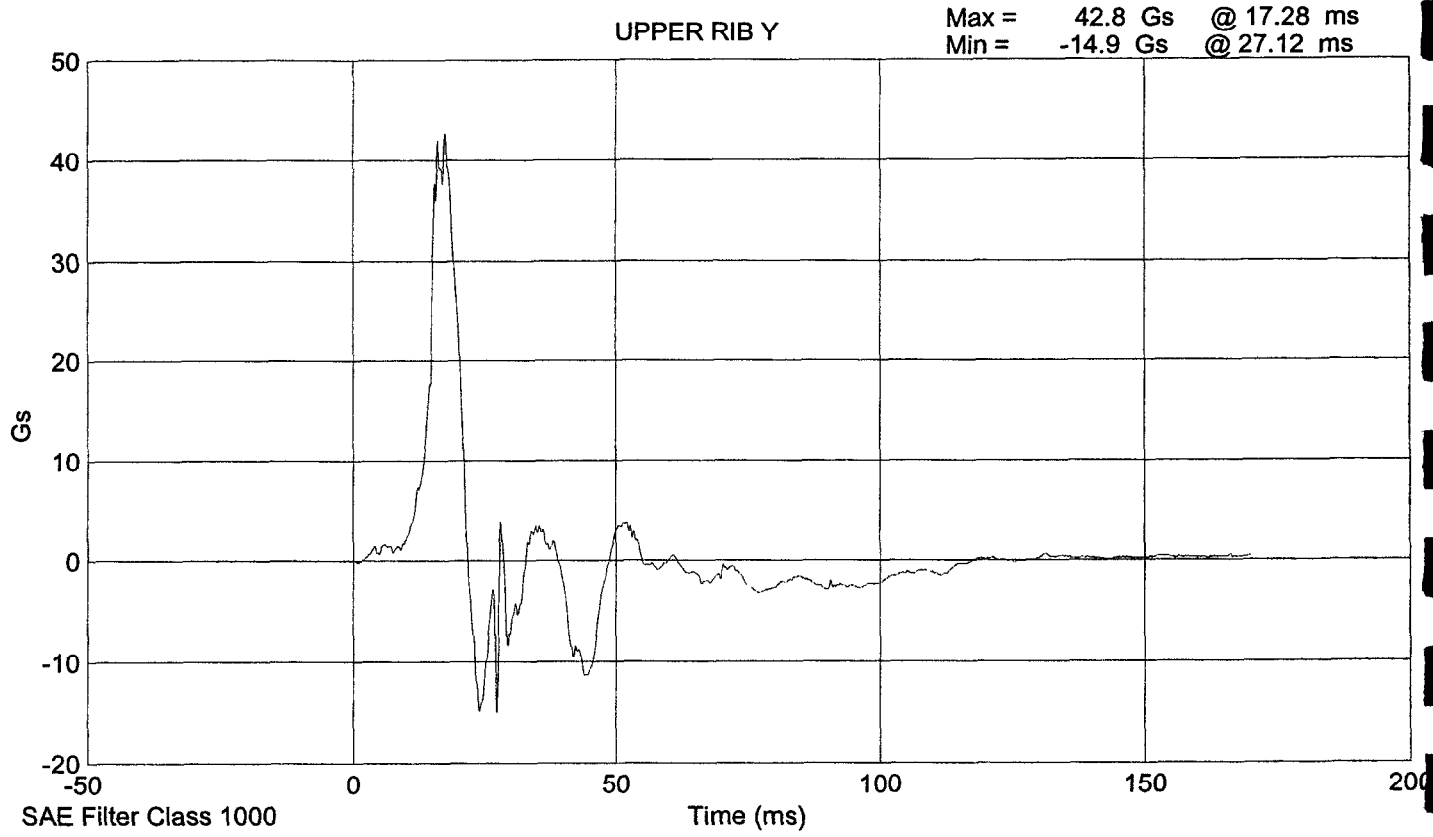
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016
Date: 9/18/00

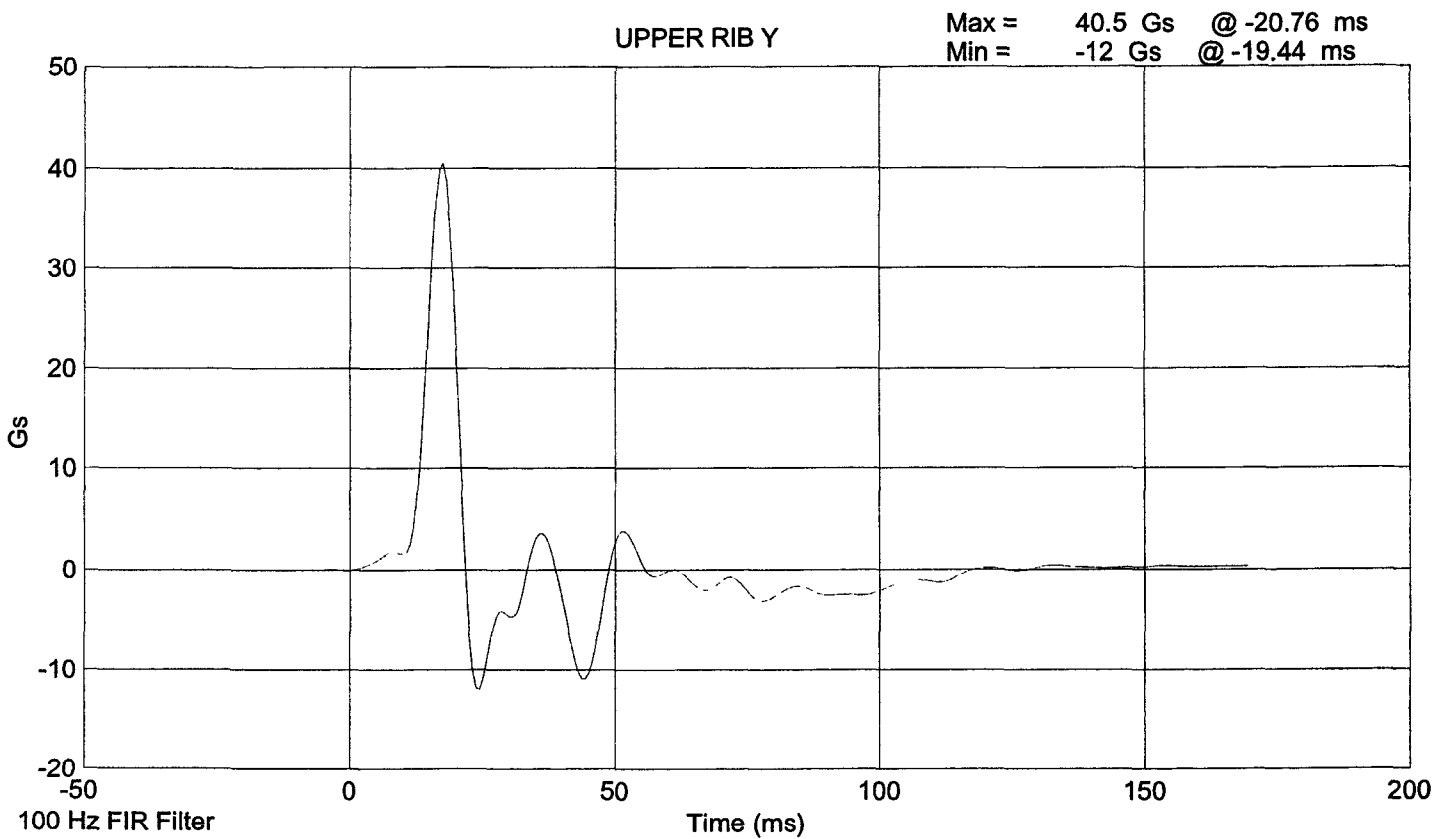
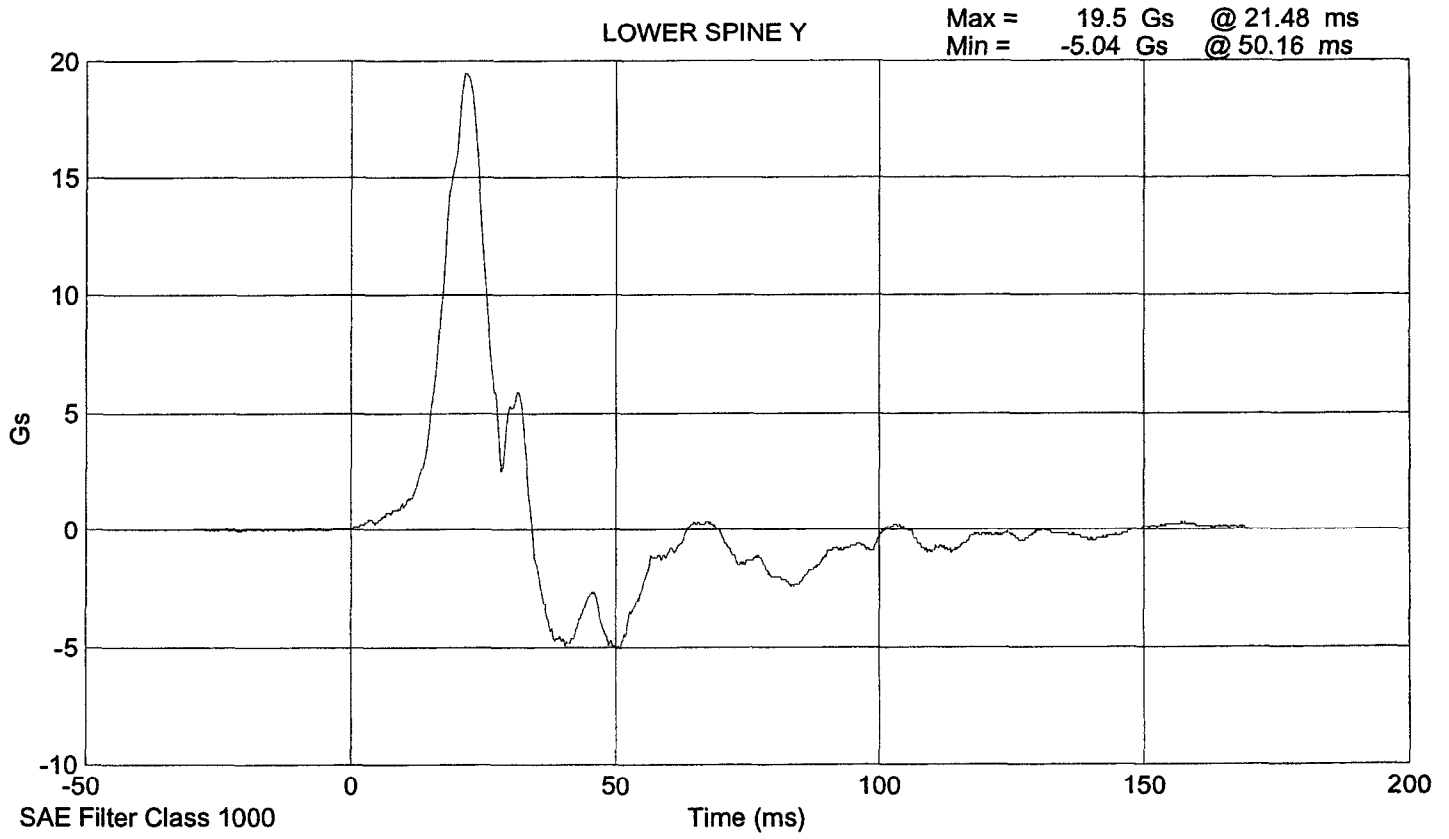
Sequential Test Number: 1
Laboratory Technician: B. Swiecicki

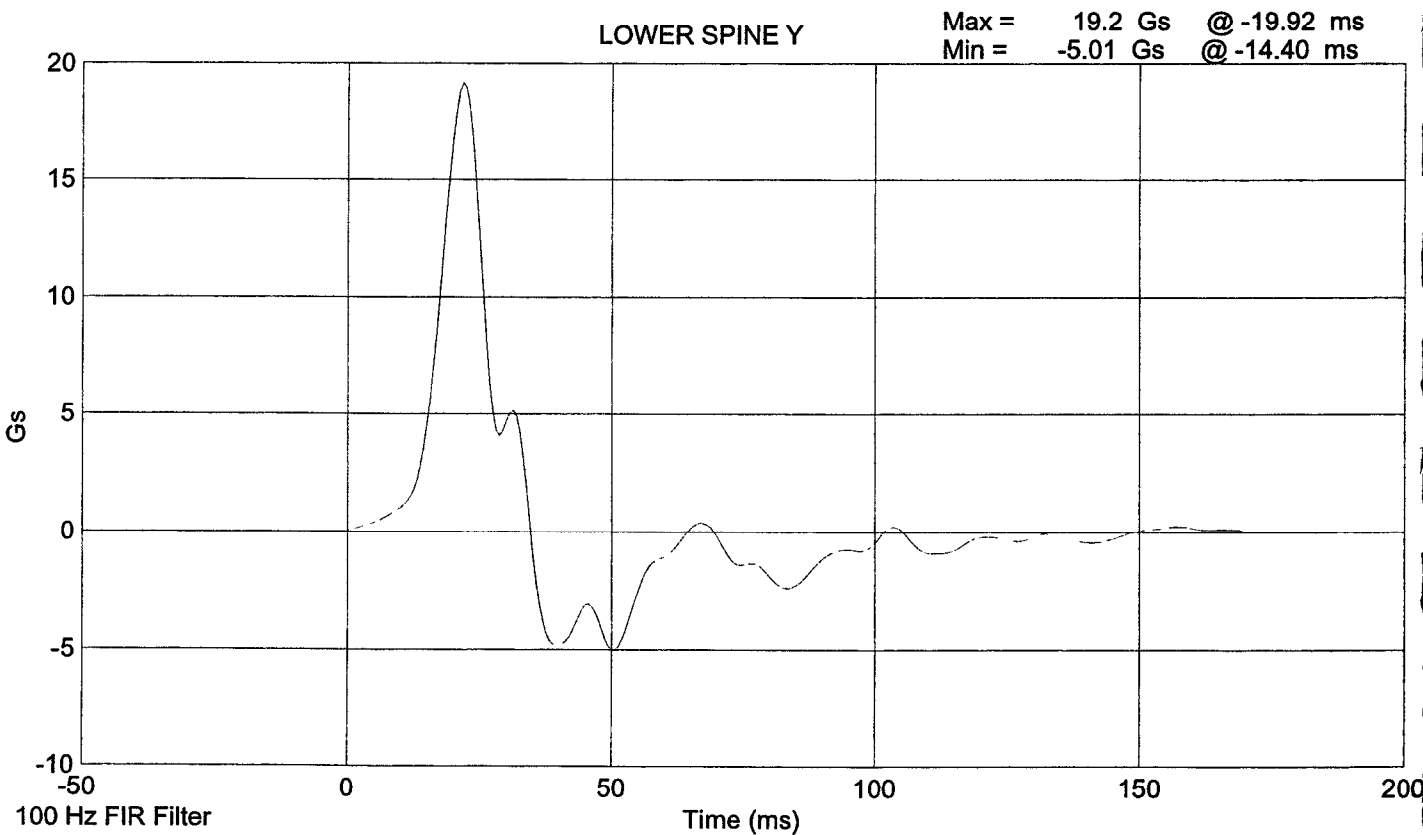
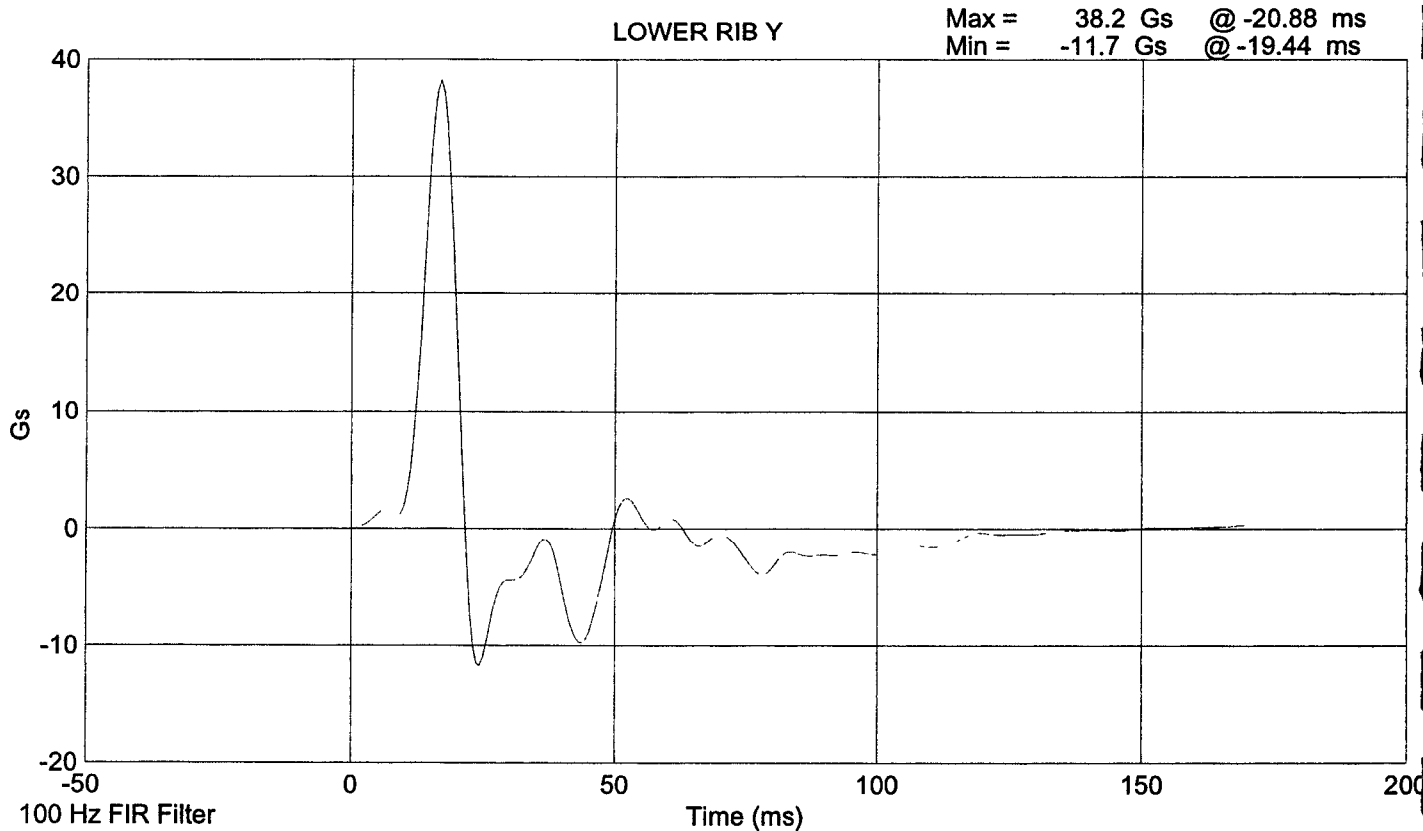
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	40.5
LOWER RIB (g's)	37 - 46	38.2
LOWER SPINE (g's)	15 - 22	19.2

REMARKS: None



SID 16 Thorax Impact Test @ 4.2916 m/s





LATERAL PELVIS IMPACT TEST
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

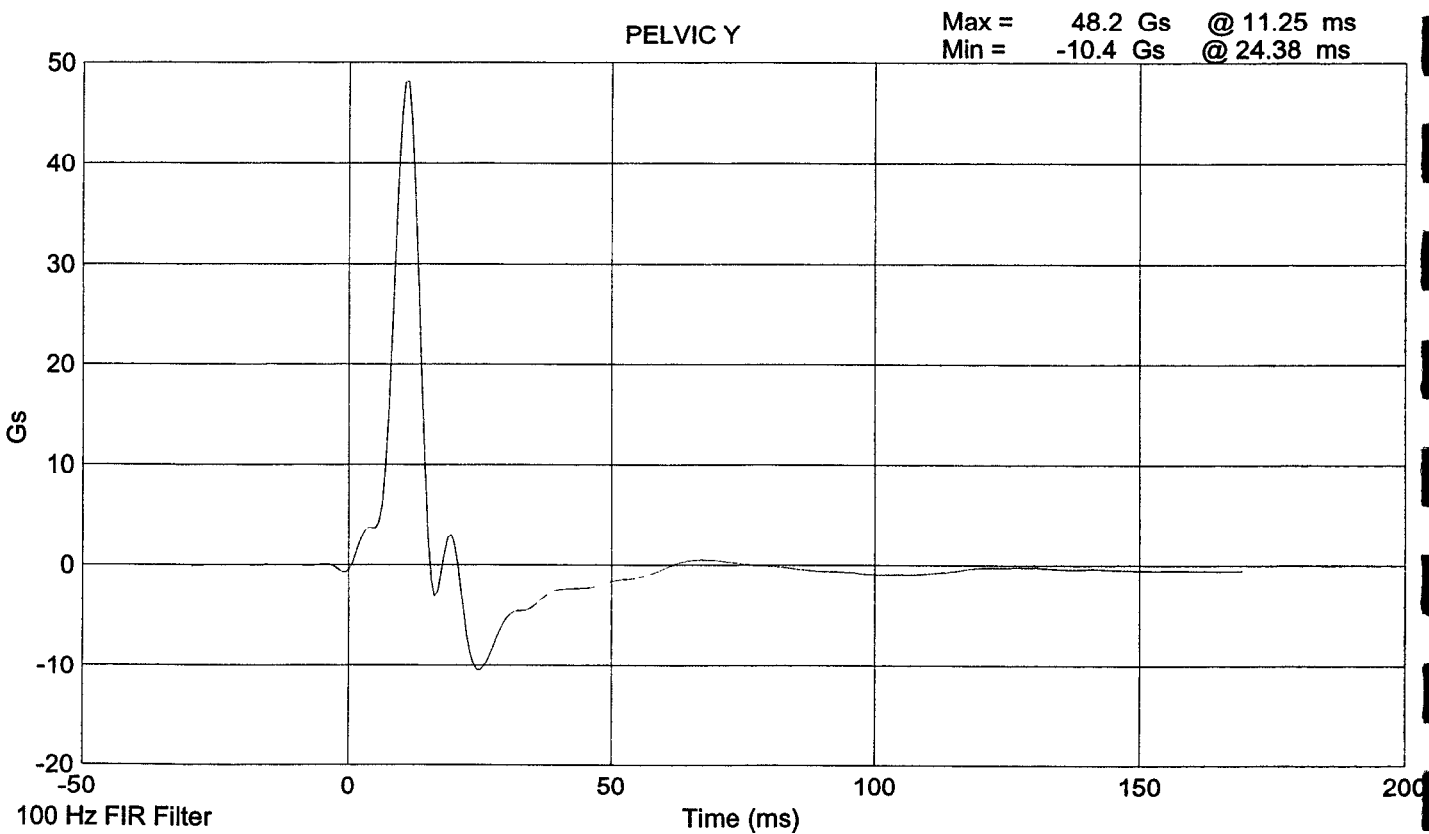
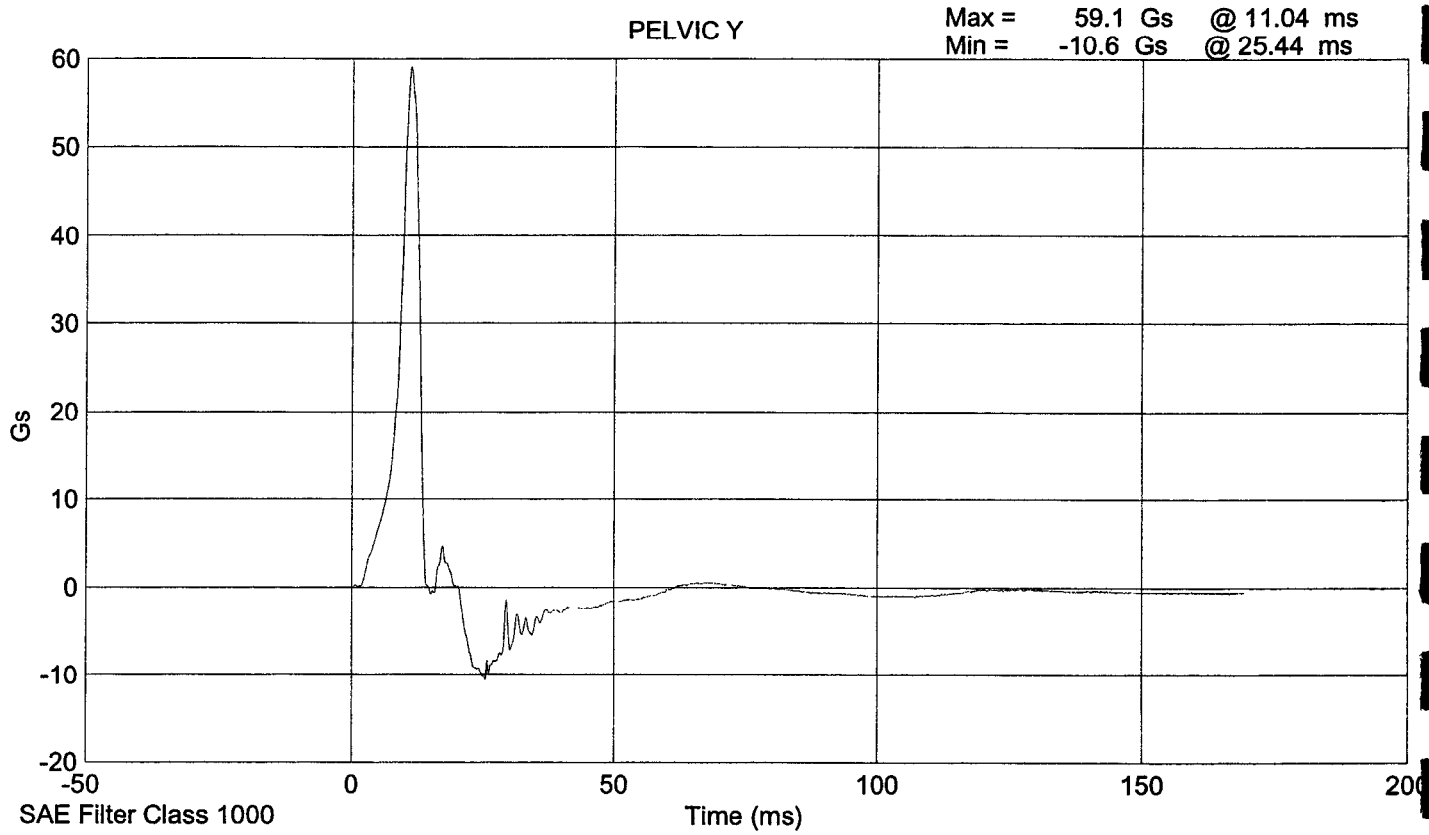
SID Serial No.: 016
Date: 9/18/00

Sequential Test Number: 1
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.30
PELVIS ACCELERATION (g's)	40 - 60	48.2

REMARKS: None

SID 16 Pelvic Impact Test @ 4.2977 m/s



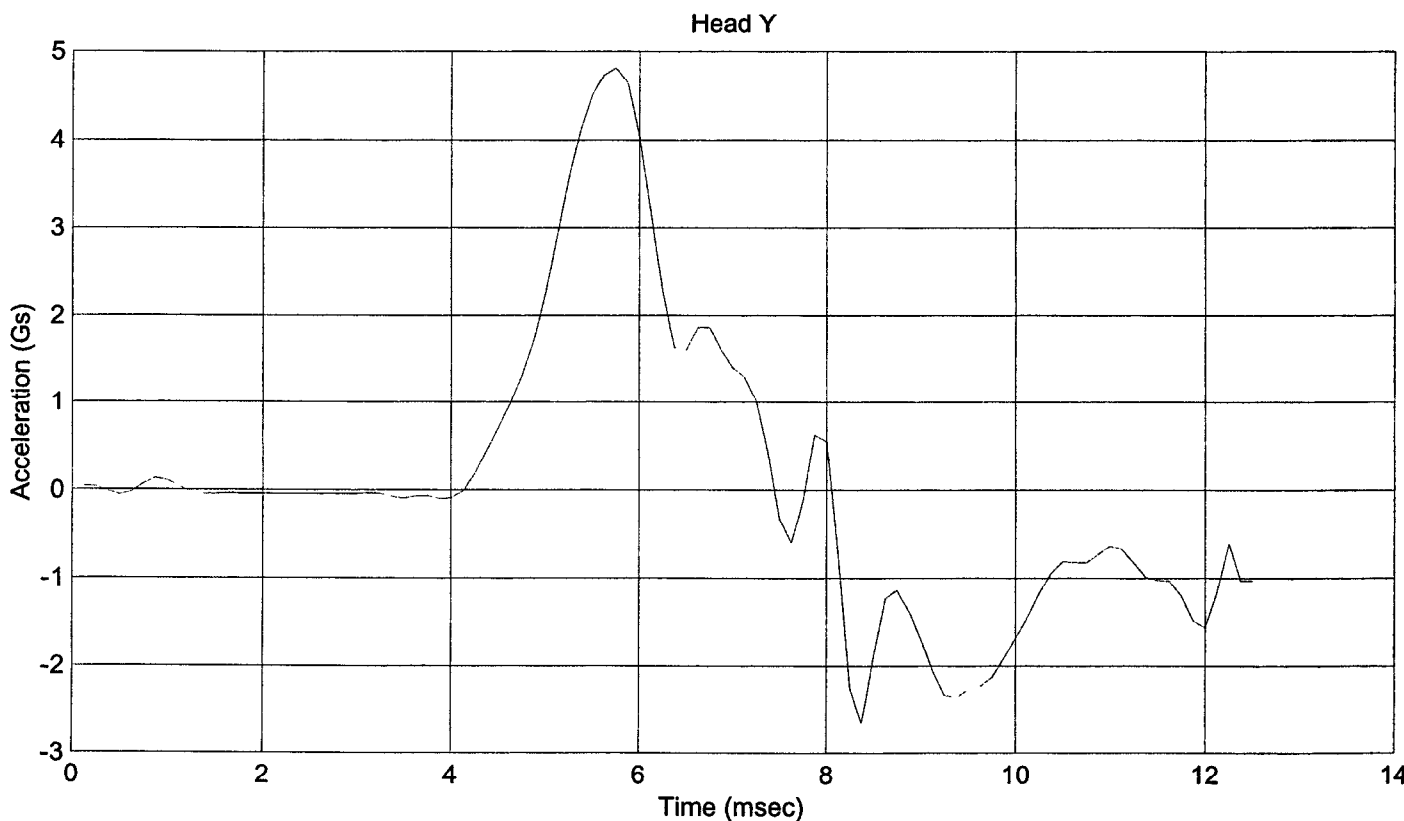
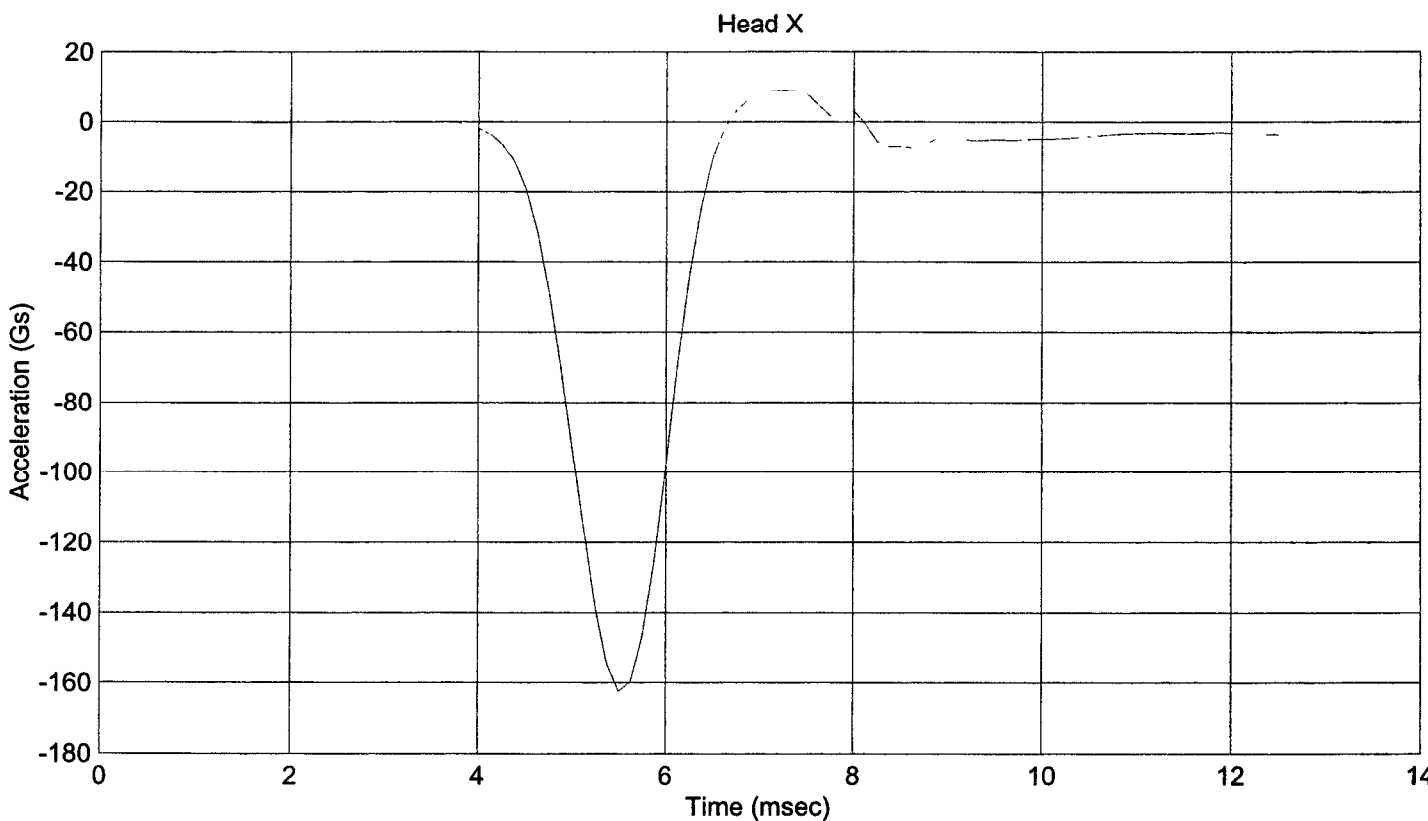
HEAD DROP TEST
POST-TEST
(Test not required for SID certification)

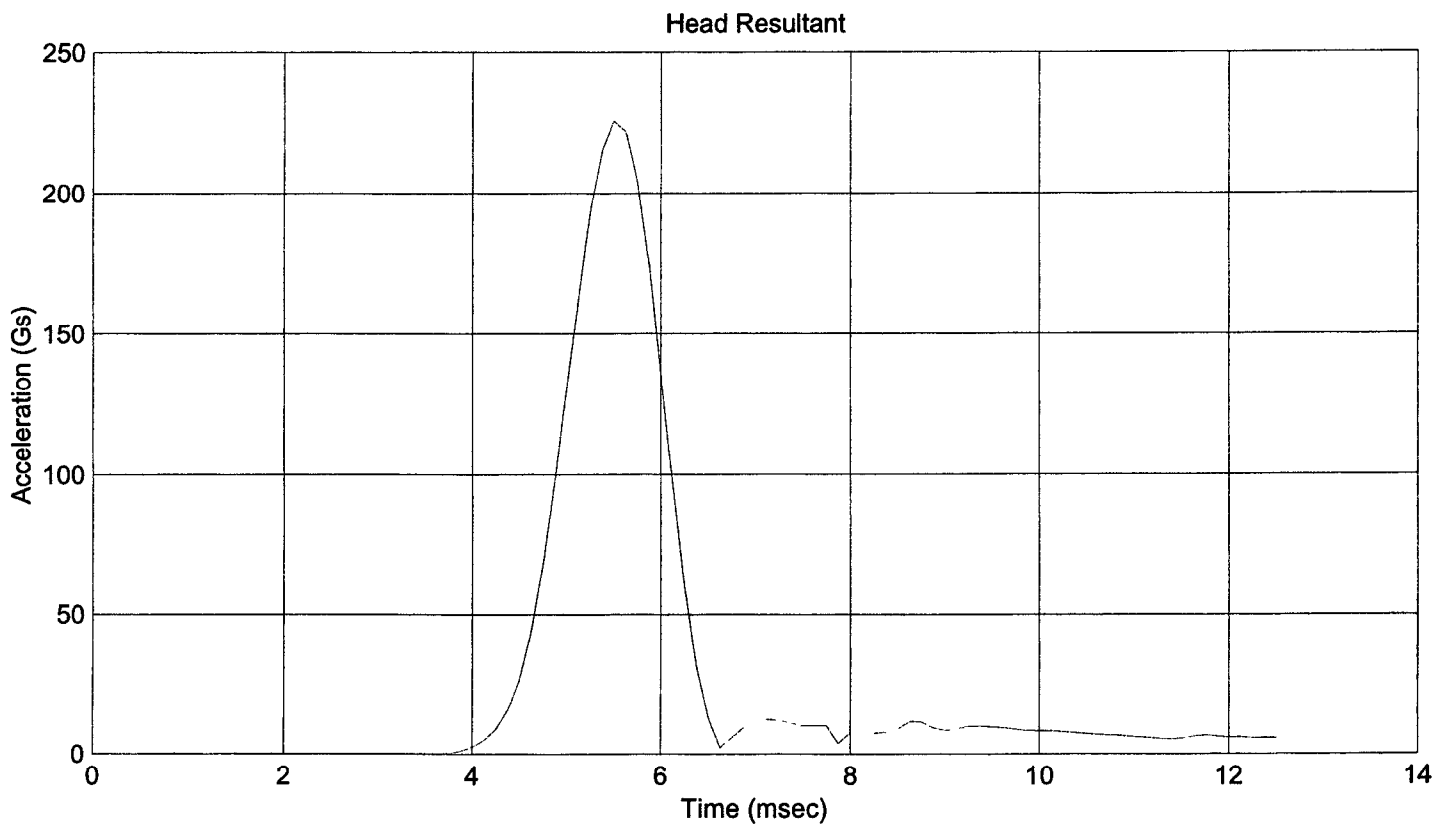
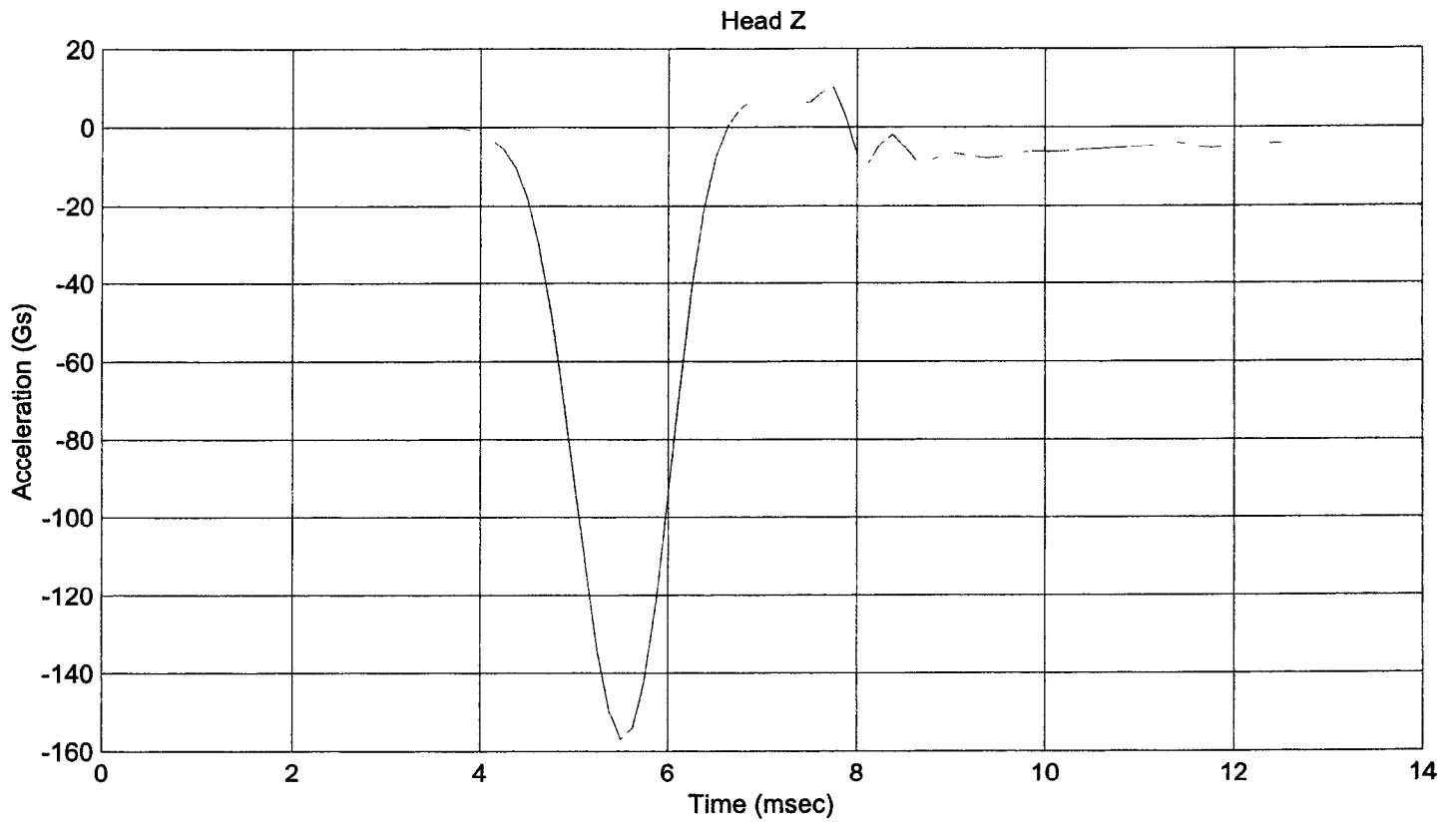
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/15/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	226.0
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	4.8
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.25

REMARKS: None





**ABDOMINAL COMPRESSION TEST
POST TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016

Sequential Test Number: 1

Date: 9/20/00

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 13 mm (N)	104 - 162	111
FORCE @ 19 mm (N)	163 - 221	177
FORCE @ 25 mm (N)	222 - 280	256
FORCE @ 33 mm (N)	325 - 391	375

REMARKS: None

Dummy S/N 016

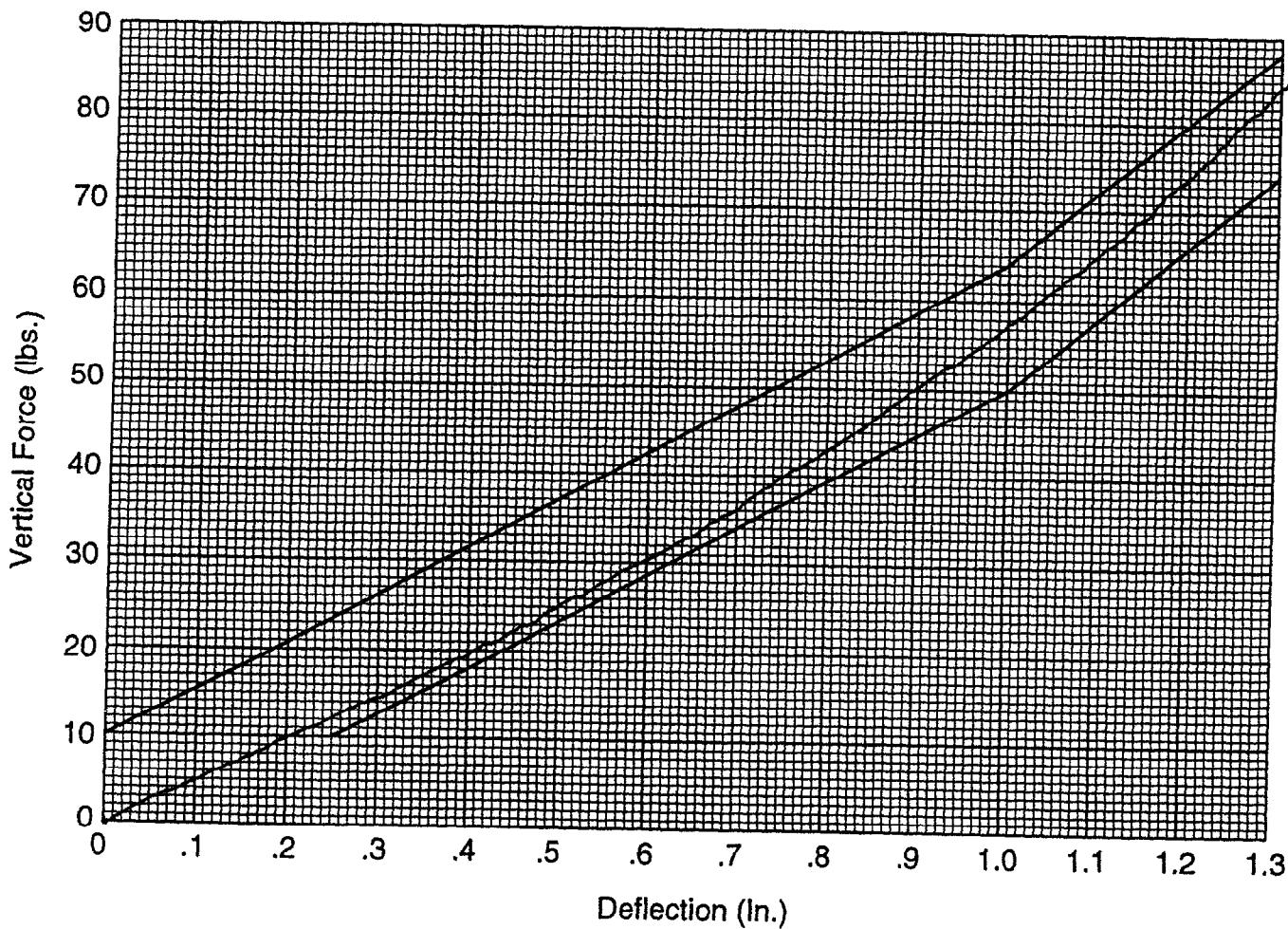
W/A _____

Date 9-20-2000

Performed By [Signature]

Temp. 71°

Humidity 30%



Hybrid II
Abdomen Static Press

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

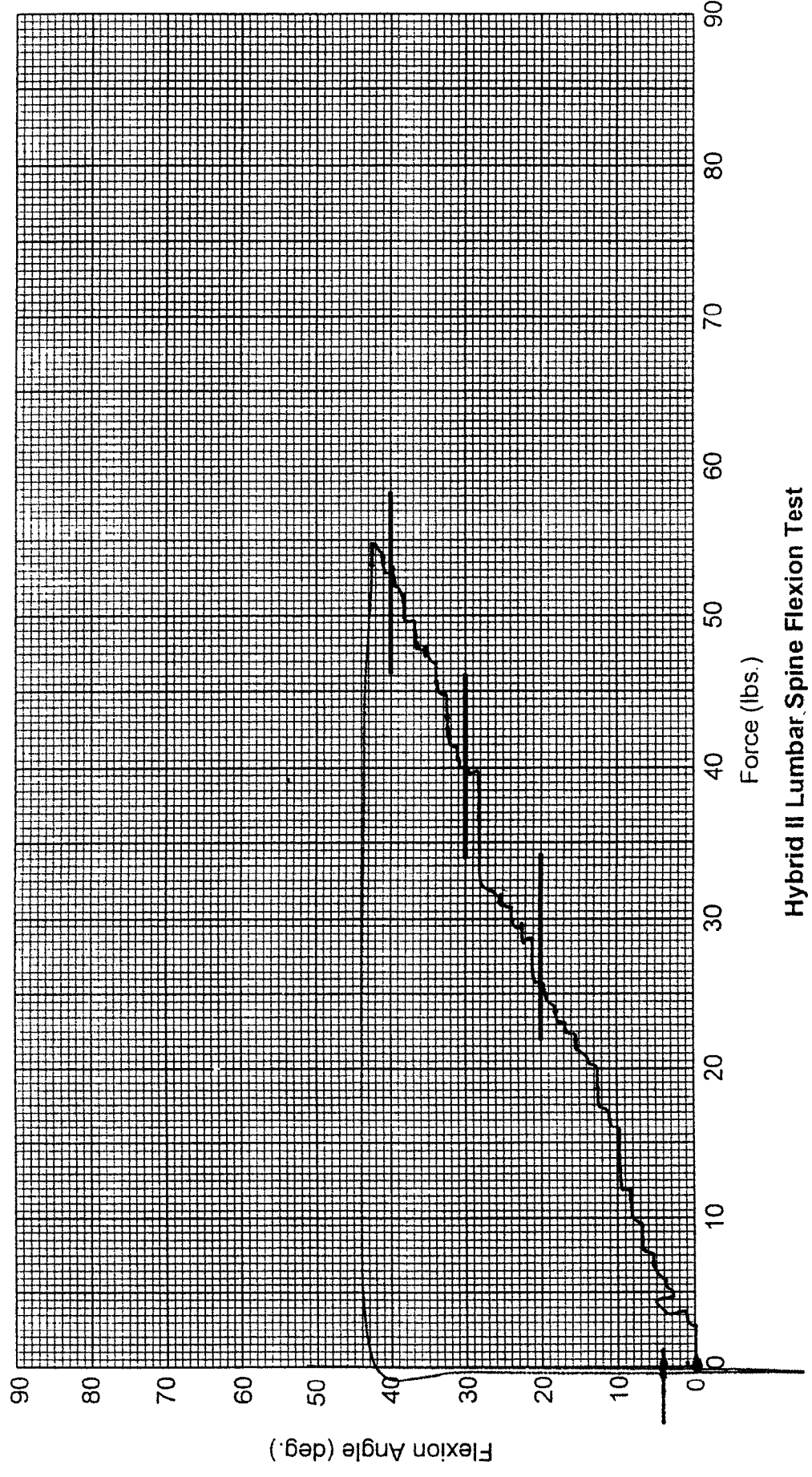
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
Date: 9/20/00 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	114.5
FORCE @ 30° (N)	151.2 - 204.6	177.9
FORCE @ 40° (N)	204.6 - 258	234.9
RETURN ANGLE	12° max.	4.2°

REMARKS: None

Dummy S/N 016
 W/A _____
 Date 9-20-2000
 Performed By [Signature]
 Temp. 71°
 Humidity 30%



Hybrid II Lumbar Spine Flexion Test

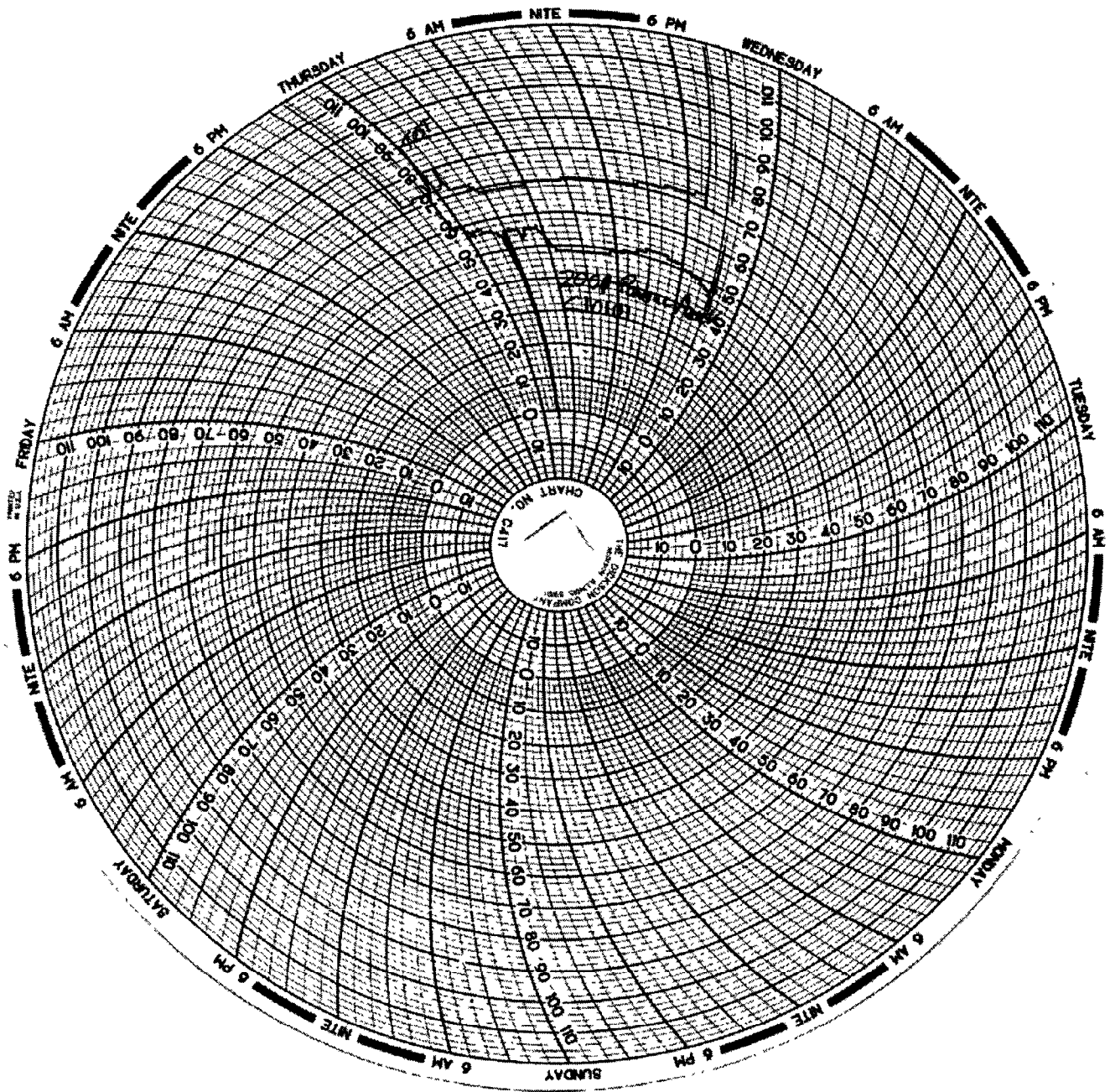
POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 016 Sequential Test Number: 1
 Date: 9/19/00 Laboratory Technician: B. Swiecicki

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

REMARKS: None



APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID INSTRUMENTATION

FRONT SID NO.: 015			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD (X)	AC-J33030	ENDEVCO	06/21/00
HEAD (Y)	AC-J33032	ENDEVCO	06/19/00
HEAD (Z)	AC-J33021	ENDEVCO	06/19/00
UPPER RIB (Y)	AC-P16862	ENDEVCO	09/07/00
LOWER RIB (Y)	AC-P16656	ENDEVCO	09/07/00
LOWER SPINE (Y)	AC-P16866	ENDEVCO	09/06/00
PELVIS (Y)	AC-P16676	ENDEVCO	09/07/00
UPPER RIB REDUNDANT (Y)	AC-P16949	ENDEVCO	09/07/00
LOWER RIB REDUNDANT (Y)	AC-P16645	ENDEVCO	09/07/00
LOWER SPINE REDUNDANT (Y)	AC-P16823	ENDEVCO	09/13/00
PELVIS REDUNDANT (Y)	AC-P16843	ENDEVCO	09/07/00

REAR SID NO.: 016			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD (X)	AC-P13331	ENDEVCO	05/26/00
HEAD (Y)	AC-P13356	ENDEVCO	05/26/00
HEAD (Z)	AC-P13323	ENDEVCO	05/26/00
UPPER RIB (Y)	AC-P16587	ENDEVCO	09/06/00
LOWER RIB (Y)	AC-P15747	ENDEVCO	09/06/00
LOWER SPINE (Y)	AC-P16576	ENDEVCO	09/06/00
PELVIS (Y)	AC-P16583	ENDEVCO	09/06/00
UPPER RIB REDUNDANT (Y)	AC-P16585	ENDEVCO	09/06/00
LOWER RIB REDUNDANT (Y)	AC-P14438	ENDEVCO	09/05/00
LOWER SPINE REDUNDANT (Y)	AC-P15534	ENDEVCO	09/06/00
PELVIS REDUNDANT (Y)	AC-P15526	ENDEVCO	09/06/00

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-J18622	ENDEVCO	04/04/00
RIGHT FRONT SILL (Y)	AC-J18649	ENDEVCO	04/04/00
RIGHT FRONT SILL (Z)	AC-APBB6	ENDEVCO	04/04/00
RIGHT REAR SILL (X)	AC-AP064	ENDEVCO	04/04/00
RIGHT REAR SILL (Y)	AC-BB14	ENDEVCO	04/04/00
RIGHT REAR SILL (Z)	AC-B10955	ENDEVCO	04/04/00
REAR FLOORPAN ABOVE AXLE (X)	AC-AP1A2	ENDEVCO	09/07/00
REAR FLOORPAN ABOVE AXLE (Y)	AC-B11073	ENDEVCO	09/07/00
REAR FLOORPAN ABOVE AXLE (Z)	AC-B10954	ENDEVCO	09/07/00
LEFT REAR SILL (Y)	AC-X93	ENDEVCO	08/10/00
LEFT FRONT SILL (Y)	AC-H20	ICS	08/11/00
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-D32	ICS	08/25/00
LOWER LEFT B-PILLAR (Y)	AC-AY03	ENDEVCO	03/27/00
MIDDLE LEFT B-PILLAR (Y)	AC-AA35	ENDEVCO	04/19/00
LOWER LEFT A-PILLAR (Y)	AC-J33376	ENDEVCO	07/06/00
UPPER LEFT A-PILLAR (Y)	AC-J32831	ENDEVCO	07/06/00
FRONT SEAT TRACK (Y)	AC-APA30	ENDEVCO	07/06/00
REAR SEAT TRACK (Y)	AC-J31026	ENDEVCO	02/29/00
VEHICLE CG (X)	AC-B11351	ENDEVCO	09/08/00
VEHICLE CG (Y)	AC-ACC06	ENDEVCO	09/08/00
VEHICLE CG (Z)	AC-B10481	ENDEVCO	09/08/00
MDB CG (X)	AC-CL60	ENDEVCO	08/31/00
MDB CG (Y)	AC-CJ54	ENDEVCO	08/31/00
MDB CG (Z)	AC-GK12	ENDEVCO	08/31/00
MDB REAR FRAME MEMBER (X)	AC-CX05	ENDEVCO	08/31/00
MDB REAR FRAME MEMBER (Y)	AC-A27F	ENDEVCO	08/31/00

REMARKS: None