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REPORT NUMBER: 214-CAL-00-3

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

HONDA OF CANADA MFG.
2000 HONDA ODYSSEY
MPV

NHTSA NUMBER: CY5300

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



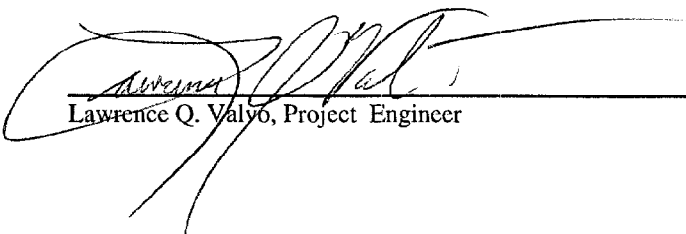
February 3, 2000

FINAL REPORT

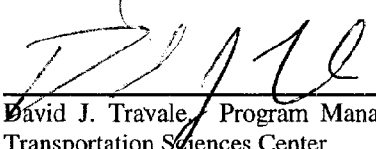
U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Assurance
Office of Vehicle Compliance
400 Seventh Street, SW
Room 6115 (NSA-30)
Washington, DC 20590

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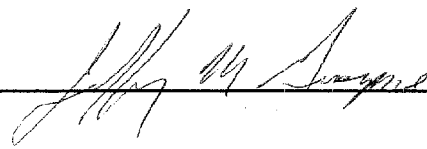

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15. Supplementary Notes																																			
16. Abstract A 55/28 kph 90° Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject 2000 Honda Odyssey MPV. This test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-04, dated September 1, 1995). This test was conducted at the Veridian Engineering Crash Test Facility in Buffalo, New York, on February 3, 2000. The impact velocity of the Moving Deformable Barrier (MDB) was 62.6 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21.1 °C. The target vehicle post-test maximum crush was 309 at level 2 The test or target vehicle's performance is given below: <table border="0"> <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">33</td> <td align="center">g's</td> <td align="center">47</td> <td align="center">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td align="center">38</td> <td align="center">g's</td> <td align="center">53</td> <td align="center">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td align="center">39</td> <td align="center">g's</td> <td align="center">44</td> <td align="center">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td align="center">38</td> <td align="center">g's</td> <td align="center">48</td> <td align="center">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td align="center">58</td> <td align="center">g's</td> <td align="center">66</td> <td align="center">g's</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.							<u>Front SID</u>		<u>Rear SID</u>		Left Upper Rib Acceleration:	33	g's	47	g's	Left Lower Rib Acceleration:	38	g's	53	g's	Lower Spine Acceleration:	39	g's	44	g's	Thoracic Trauma Index (TTI):	38	g's	48	g's	Pelvis Acceleration (PEV):	58	g's	66	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 <u>Copies of this report are available from:</u> 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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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 2000 Honda Odyssey MPV when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-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 2000 Honda Odyssey MPV was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 62.6 kph (38.9 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 February 3, 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)	38	48
PEV (g)	58	66

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2000 Honda Odyssey MPV

Vehicle Body Color: Silver VIN: 2HKRL1855YH518818

Vehicle NHTSA No.: CY5300 Month & Year of Manufacture: 10/99

Engine Data: 6 Cylinders; - CID; 3.5 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 55 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: P215/65R16

Tires on Test Vehicle: P215/65R16 ; Manufacturer: Firestone

Vehicle Capacity Data:

Number of Occupants: 2 Front; 2 Rear; 3 3rd Seat; 7 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 = 598.8 kg (A)

No. of Occupants x 68.04 kg. = 476.3 kg (B)

Vehicle Cargo Capacity = 122.5 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front	=	<u>551.5</u> kg	Left Rear	=	<u>420.5</u> kg
Right Front	=	<u>558.0</u> kg	Right Rear	=	<u>395.5</u> kg
TOTAL FRONT	=	<u>1109.5</u> kg	TOTAL REAR	=	<u>816.0</u> kg
% of Total Weight	=	<u>57.6</u> %	% of Total Weight	=	<u>42.4</u> %
TOTAL WEIGHT	=	<u>1925.5</u> kg			

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1925.5</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>122.5</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>2210.4</u>	kg (A+B+C)

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

Left Front	=	<u>620.5</u>	kg	Left Rear	=	<u>542.0</u>	kg
Right Front	=	<u>534.5</u>	kg	Right Rear	=	<u>514.0</u>	kg
TOTAL FRONT	=	<u>1155.0</u>	kg	TOTAL REAR	=	<u>1056.0</u>	kg
% of Total Weight	=	<u>52.2</u>	%	% of Total Weight	=	<u>47.8</u>	%
TOTAL TEST WEIGHT	=	<u>2211.0</u>	kg				

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

Left Front	=	<u>629.0</u>	kg	Left Rear	=	<u>541.0</u>	kg
Right Front	=	<u>543.0</u>	kg	Right Rear	=	<u>491.0</u>	kg
TOTAL FRONT	=	<u>1172.0</u>	kg	TOTAL REAR	=	<u>1032.0</u>	kg
% of Total Weight	=	<u>53.2</u>	%	% of Total Weight	=	<u>46.8</u>	%
TOTAL TEST WEIGHT	=	<u>2204.0</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>770</u>	Right Front	<u>775</u>	Left Rear	<u>776</u>	Right Rear	<u>775</u>
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FULLY LOADED:

Left Front	<u>753</u>	Right Front	<u>768</u>	Left Rear	<u>719</u>	Right Rear	<u>740</u>
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READY FOR TEST:

Left Front	<u>753</u>	Right Front	<u>774</u>	Left Rear	<u>727</u>	Right Rear	<u>746</u>
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Test Vehicle Wheelbase: 3004 millimeters

C.G. = 1407 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side	=	<u>4962</u>	millimeters
Left Side	=	<u>4960</u>	millimeters
Centerline	=	<u>5110</u>	millimeters

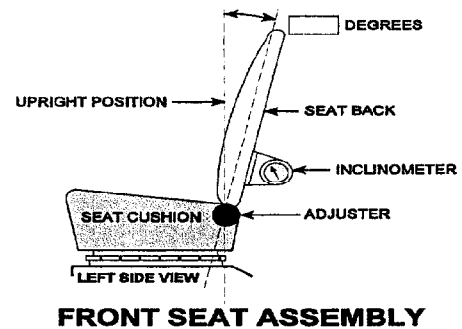
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

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



FRONT SEAT CUSHION PLACEMENT: The seat track was placed in detent 12, where the forward-most detent is 0.

Total Length of Adjustment Travel: 240 millimeters

Total Number of Adjustment Positions or Detents: 25

FRONT SEAT BACK ADJUSTMENT POSITION: The seat back was placed in detent 5, where the forward-most detent is 0.

Seat Back Torso Angle: 11 degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 180 millimeters

Seat Back Adjustment Position: The seat back was placed in detent 9, where the rear-most detent is 0.

ADJUSTABLE STEERING COLUMN POSITION: Mid-travel position

WINDOW POSITIONS: Left Front: Closed Left Rear: Closed

Right Front: Open Right Rear: Removed

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

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

75.7 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 3004 millimeters

Impact Point is 562 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 564 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2000 Honda Odyssey

Body Style: MPV

VIN: 2HKRL1855YH518818

NHTSA No.: CY5300

Test Date: February 3, 2000

Overall Length = 5110 millimeters; Overall Width = 1930 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 629.0 kg Left Rear = 541.0 kg

Right Front = 543.0 kg Right Rear = 491.0 kg

TOTAL FRONT = 1172.0 kg TOTAL REAR = 1032.0 kg

TOTAL VEHICLE WEIGHT 2204.0 kg

Wheelbase = 3004 millimeters

Longitudinal C.G. from Center of Front Axle = 1407 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 2 mm rearward of nominal impact ref. line (Lateral)

Actual Impact Point is 3 mm above nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (221 mm above ground) = 13 millimeters

2. LEVEL 2 (696 mm above ground) = 309 millimeters

3. LEVEL 3 (655 mm above ground) = 297 millimeters

4. LEVEL 4 (979 mm above ground) = 224 millimeters

5. LEVEL 5 (1638 mm above ground) = 62 millimeters

Maximum Post-Test Intrusion = 309 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification 027 268

Restraints Used 3-point active seat belt 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: 2000 Honda Odyssey

NHTSA No. CY5300

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore: 129A1098-4; 083C1098; 2324-01

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>62.6</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>202</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>107</u>	millimeters
3. Row C at Mid Level	=	<u>103</u>	millimeters
4. Row D at Top of Stack Level	=	<u>142</u>	millimeters

INSTRUMENTATION:

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

POST-TEST OBSERVATIONS

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head:	<u>Back of head to upper B-pillar</u>	<u>None</u>
Upper Torso:	<u>Upper arm to upper rear section of door trim; Lower arm to rear section of door trim above armrest</u>	<u>Upper arm to upper rear section of door trim; Lower arm to mid-rear section of door trim</u>
Lower Torso:	<u>Pelvis to rear section of door trim below armrest</u>	<u>Pelvis to middle section of door trim</u>
Left Knee:	<u>Left knee to front speaker cover</u>	<u>Left knee to mid-front 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>Closed / Inoperable</u>	<u>Closed / Operable</u>
Rear:	<u>Closed / Inoperable</u>	<u>Closed / Operable</u>

MDB DISTANCE FROM TARGET IMPACT POINT:

<u>Vertical: 3 mm above target</u>
<u>Horizontal: 2 mm rearward of target</u>

ARM REST LOCATIONS:

Front:	<u>210 mm below window opening</u>
Rear:	<u>None</u>

SEAT MOVEMENT:

Front:	<u>Seat and pedestal deformed inboard</u>
Rear:	<u>Lower seat bolster was deformed upward</u>

GLAZING DAMAGE:

Windshield:	<u>Windshield cracked along the upper left side</u>
Window:	<u>Left front door and sliding door windows shattered at impact</u>

PILLAR PERFORMANCE:

No visible tears or separations

SILL SEPARATION:

None

AIR BAG DEPLOYMENT STATUS:

	<u>DRIVER</u>	<u>FRONT PASSENGER</u>	<u>REAR PASSENGER</u>
<u>FRONT</u>	<u>No</u>	<u>No</u>	<u>N/A</u>
<u>SIDE</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

OTHER NOTABLE IMPACT EFFECTS:

Driver door lower hinge separated from the door during impact

Driver door outer sheet metal separated along its bottom and rear edges

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID INSTRUMENTATION DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

	Front Dummy ID# 027				Rear Dummy ID# 268			
	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	10.1	146.8	-14.3	81.9	11.9	86.9	-14.1	97.8
Lateral Y	21.2	61.6	-5.3	169.6	34.0	77.8	-12.3	51.0
Vertical Z	20.4	68.5	-3.9	57.0	56.6	83.2	-3.9	63.5
Resultant R	25.9	67.0	-	-	59.7	83.0	-	-
HIC	77.8				306.1			
RIB ACCELERATIONS:								
Upper Rib Lateral . . Y	33.0	53.8	-10.9	93.2	47.2	59.4	-9.1	103.2
Upper Rib Lateral . . Y(R)	31.7	54.4	-12.0	93.8	44.1	58.8	-10.1	103.8
Lower Rib Lateral . . Y	37.6	53.2	-10.0	170.0	52.6	47.5	-6.3	111.9
Lower Rib Lateral . . Y(R)	33.7	53.8	-10.7	170.0	54.2	47.5	-6.5	111.9
SPINE ACCELERATIONS:								
Lower Lateral Y	38.8	46.3	-7.5	98.2	43.5	49.4	-10.1	71.3
Lower Lateral Y(R)	38.7	45.7	-7.5	98.8	42.9	49.4	-10.7	71.3
PELVIC ACCELERATIONS:								
Lateral Y	57.8	41.3	-10.0	55.0	66.1	41.9	-15.8	70.0
Lateral Y(R)	57.7	41.3	-10.3	65.0	73.9	41.9	-17.2	70.6

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

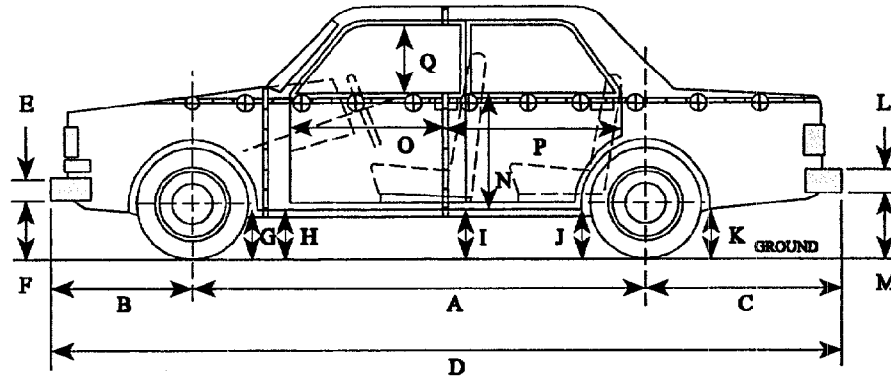
Note: Above data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.
Head Accelerations are filtered at SAE Class 1000.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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	3004	-	2992	-12
B	996	-	996	0
C	1112	-	1118	6
D	5110	-	5106	-4
E	115	-	115	0
F	440	443	461	18
G	229	205	208	3
H	227	203	208	5
I	232	196	265	69
J1	209	159	212	53
J2	214	163	227	64
K	317	260	280	20
L	180	-	180	0
M	386	322	330	8
N	860	-	695	-165
O	870	-	835	-35
P	1253	-	1200	-53
Q	588	-	601	13
R	4962	-	4974	12
S	4960	-	4957	-3
T	1930	-	1882	-48

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

E&L = Bumper Thickness
J1 = To Pinch Weld

R = Right Side Length
J2 = To Sill

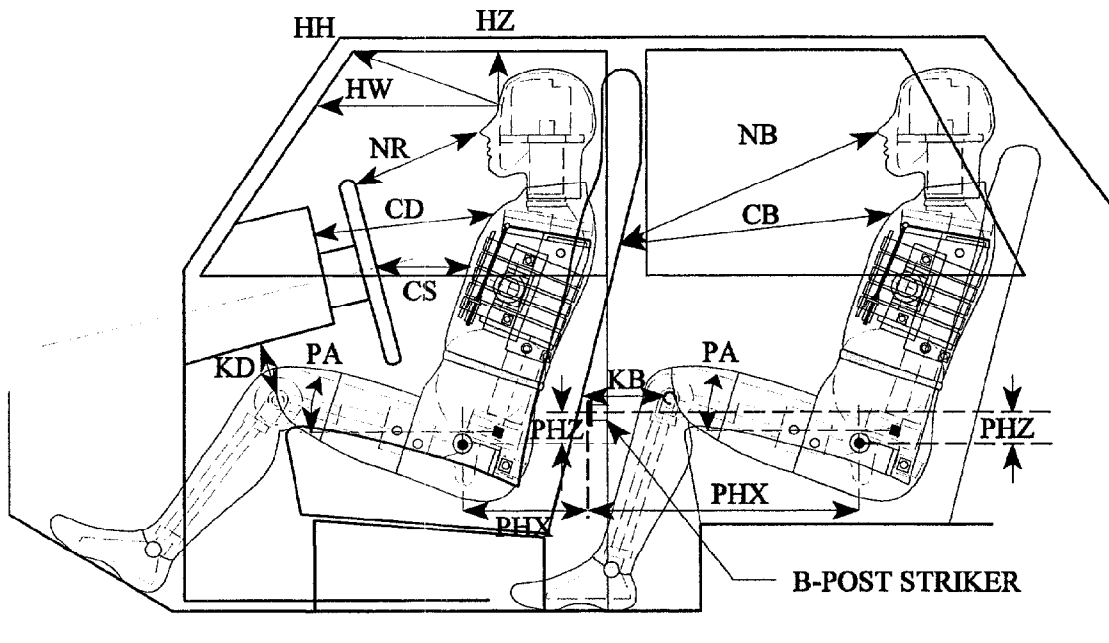
S = Left Side Length

DATA SHEET 7

SID LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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# <u>027</u>	LEFT REAR PASS. ID# <u>268</u>
HH	470	N/A
HW	745	N/A
HZ	229	223
NR/NB	490	610
CD/CB	586	520
CS	318	N/A
KDL(KDA°)/KBL(KDA°)	130 / (29°)	256 / (8°)
KDR(KBA°)/KBR(KBA°)	153 / (22°)	268 / (4°)
PA°	24.2°	23.6°
PHX	276	326
PHZ	80	45

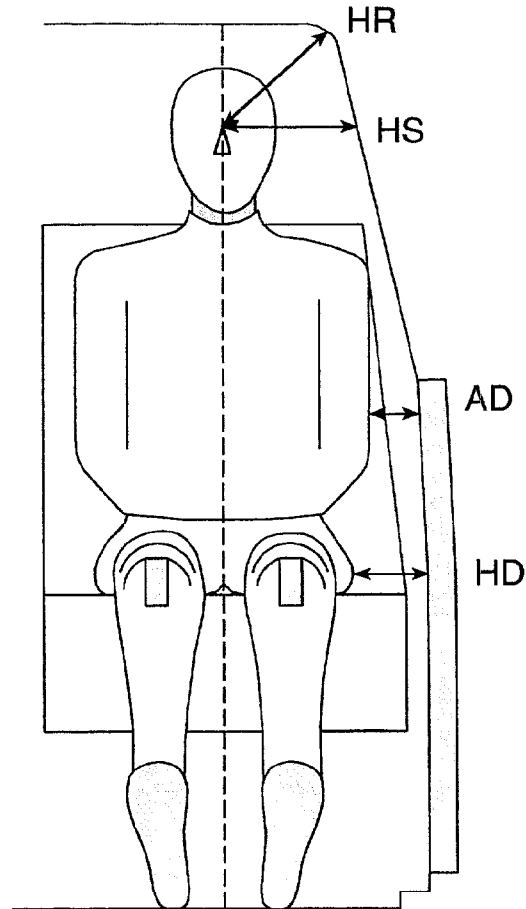
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID LATERAL CLEARANCE DIMENSIONS

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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

	DRIVER ID # <u>027</u>		LEFT REAR PASS. ID # <u>268</u>	
HR	227		206	
HS	335		355	
AD*	LOWER: 136	UPPER: 196	LOWER: 173	UPPER: 206
HD	150		271	

* 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.

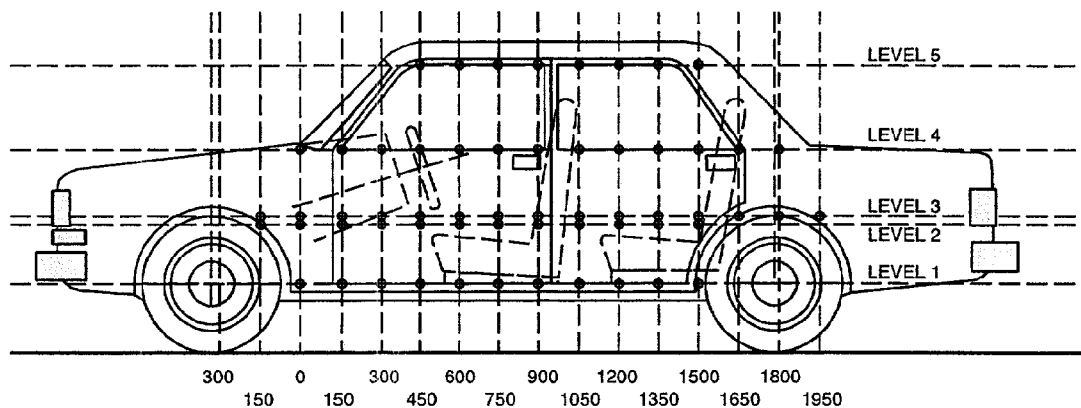
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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>1638</u>	millimeters
Level 4 @ Window Sill	=	<u>979</u>	millimeters
Level 3 @ Mid Door	=	<u>655</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>696</u>	millimeters
Level 1 @ Sill Top Height	=	<u>221</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

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

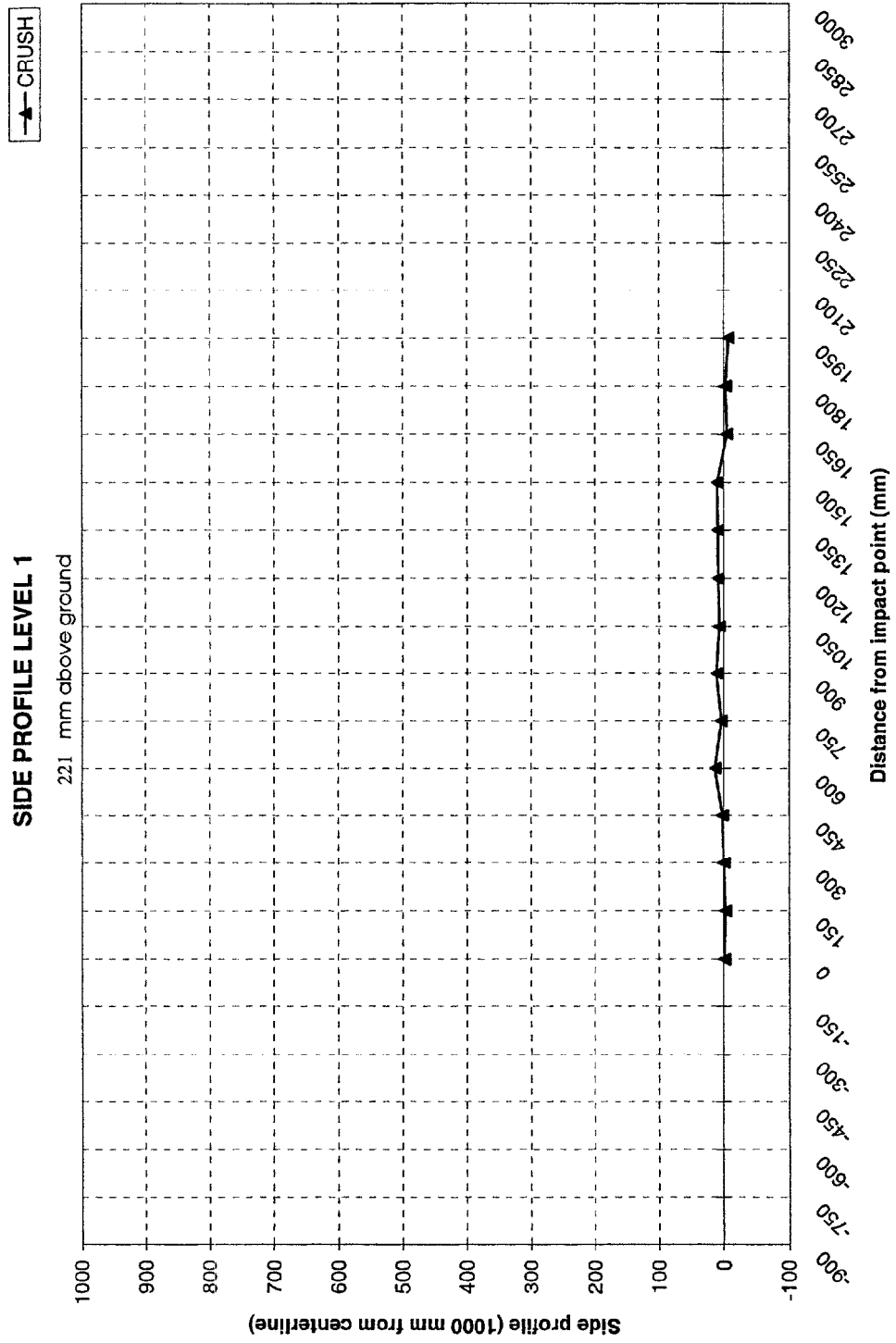
		DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
LEVEL	HEIGHT T (mm)	-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	
LEVEL 1 SIDE SILL	PRE	--	--	--	--	--	--	106	107	101	99	95	102	100	104	102	100	99	107	103	107	--	--	--	--	--	--		
	POST	--	--	--	--	--	--	105	104	101	101	108	106	111	111	110	109	109	102	100	100	--	--	--	--	--			
	CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	-1	-3	0	2	13	4	11	7	8	9	10	-5	-3	-7	N/A	N/A	N/A	N/A	N/A	N/A		
LEVEL 2 H POINT	PRE	110	79	--	--	--	63	61	63	66	59	55	59	55	54	56	56	56	56	61	63	66	60	50	--	58	79	94	
	POST	103	68	--	--	--	64	160	247	282	295	307	316	319	300	365	364	352	327	285	203	129	101	86	--	80	91	102	
	CRUSH	-7	-11	N/A	N/A	N/A	1	99	184	216	236	252	257	264	246	309	308	296	271	224	140	63	41	36	N/A	22	12	8	
LEVEL 3 MID DOOR	PRE	102	--	--	--	--	59	64	56	56	54	59	54	53	55	54	57	61	61	59	65	62	53	--	--	--	--	87	
	POST	96	--	--	--	--	60	176	232	255	275	283	291	293	289	351	344	327	307	279	208	125	99	--	--	--	99		
	CRUSH	-6	N/A	N/A	N/A	N/A	1	112	176	197	221	224	237	240	234	297	287	266	246	220	143	63	46	N/A	N/A	N/A	N/A	12	
LEVEL 4 WINDOW SILL	PRE	--	--	164	135	114	105	101	93	90	84	79	75	76	73	74	76	73	75	77	80	82	84	89	94	102	109	113	
	POST	--	--	170	133	119	127	116	179	212	221	246	280	283	286	296	300	275	254	250	176	107	134	124	118	115	117	116	
	CRUSH	N/A	N/A	6	-2	5	22	15	86	122	137	167	205	207	213	222	224	202	179	173	96	25	50	35	24	13	8	3	
LEVEL 5 WINDOW TOP	PRE	--	--	--	--	--	--	--	--	--	--	--	--	378	361	358	360	361	363	364	363	366	370	373	376	379	386	397	426
	POST	--	--	--	--	--	--	--	--	--	--	--	--	405	404	420	394	355	329	302	267	237	375	378	383	390	401	426	
	CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27	43	62	34	-6	-34	-62	-96	-129	5	5	7	6	4	4	0

DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

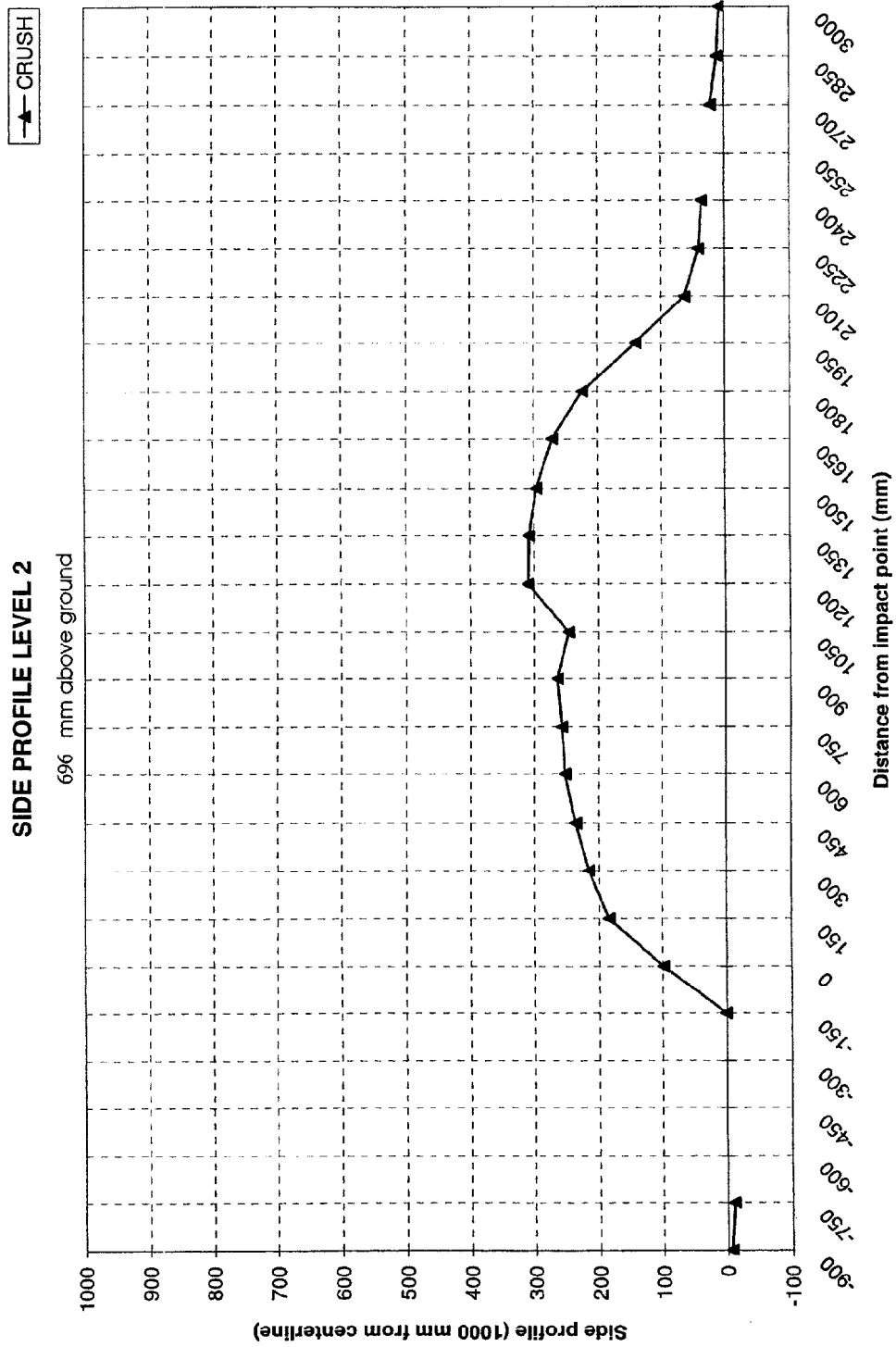


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

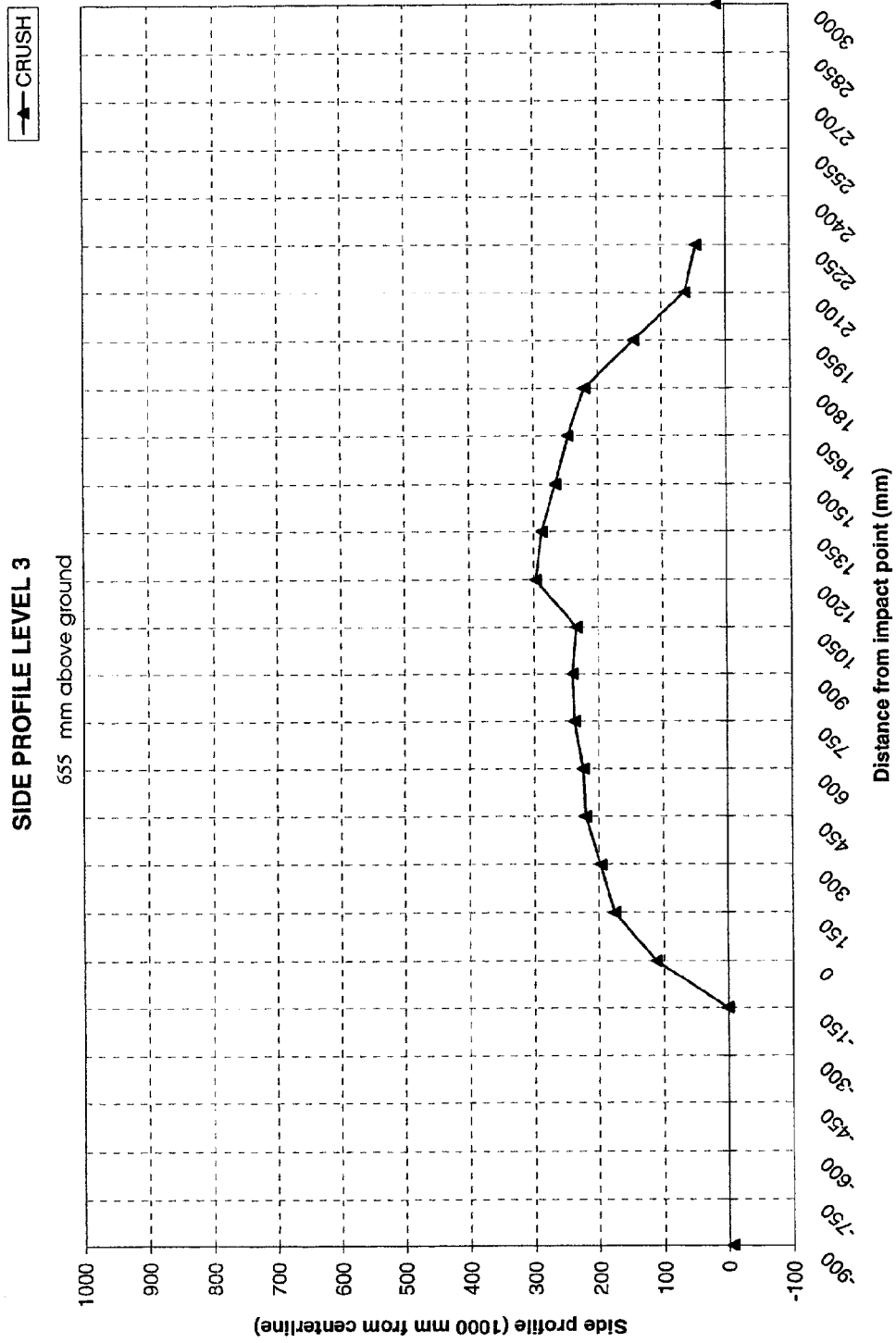


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

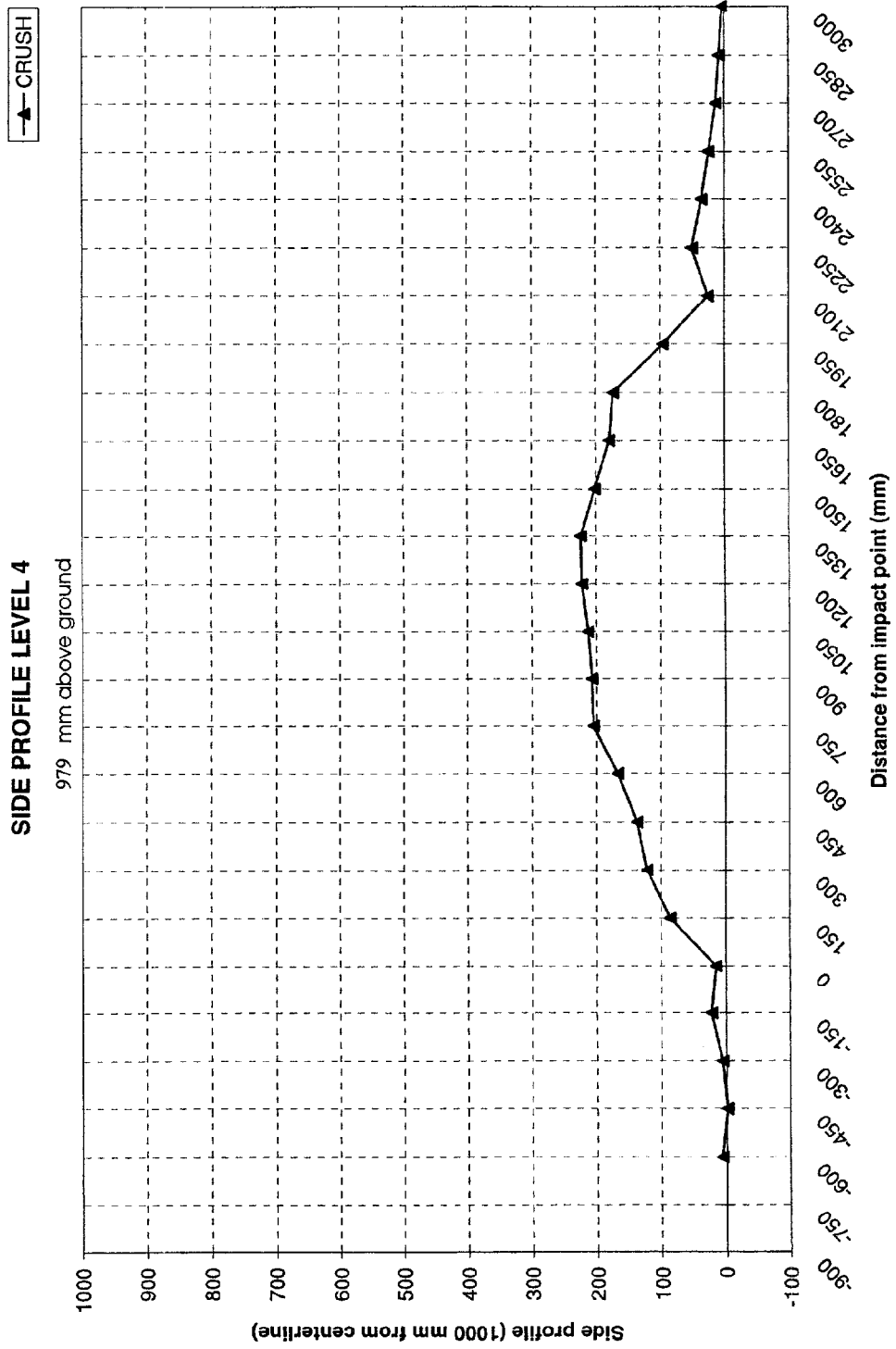


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

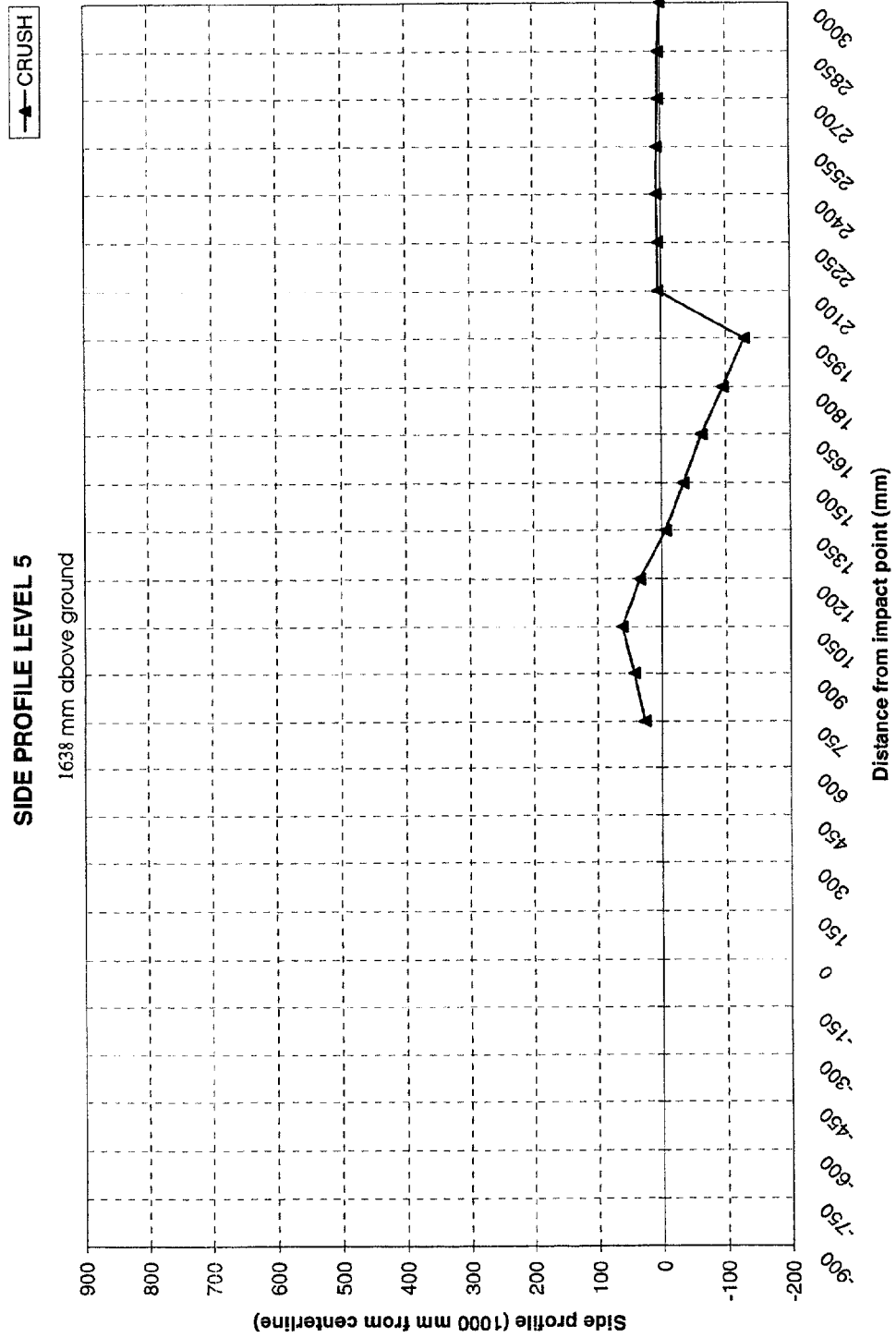


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

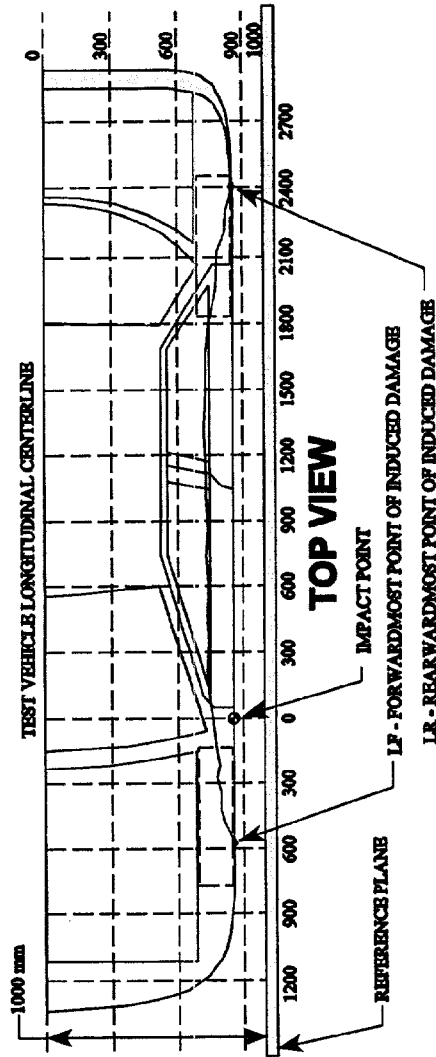


DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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

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

DPD MEASUREMENTS		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1	(LR = 2950 mm)	98	89	9
2	2290	131	85	46
3	1630	330	56	274
4	970	311	55	256
5	310	283	66	217
6	(LF = -350 mm)	124	121	3

DATA SHEET 12

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

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

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

NOTE: All dimensions are in millimeters with a tolerance of .25 mm

		DISTANCE LEFT OF CENTER (mm)																
		DISTANCE RIGHT OF CENTER (mm)								DISTANCE LEFT OF CENTER (mm)								
LEVEL	HEIGHT AT CL (mm)*	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
LEVEL 4 TOP STACK	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
	POST	732	689	662	637	624	638	659	691	699	692	686	680	680	689	708	733	761
	CRUSH	113	70	43	18	5	19	40	72	80	73	67	61	61	70	89	114	142
LEVEL 3 MID LEVEL	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
	POST	722	692	664	645	637	638	645	663	668	647	638	640	647	655	670	690	719
	CRUSH	103	73	45	26	18	19	26	44	49	28	19	21	28	36	51	71	100
LEVEL 2 TOP BUMPER	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
	POST	726	716	715	712	713	712	712	711	709	697	695	697	692	695	696	697	704
	CRUSH	107	97	96	93	94	93	93	92	90	78	76	78	73	76	77	78	85
LEVEL 1 MID BUMPER	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535
	POST	730	721	712	708	704	705	714	703	693	684	677	674	671	664	660	659	669
	CRUSH	195	202	194	190	186	187	196	185	175	166	159	156	153	146	142	140	134

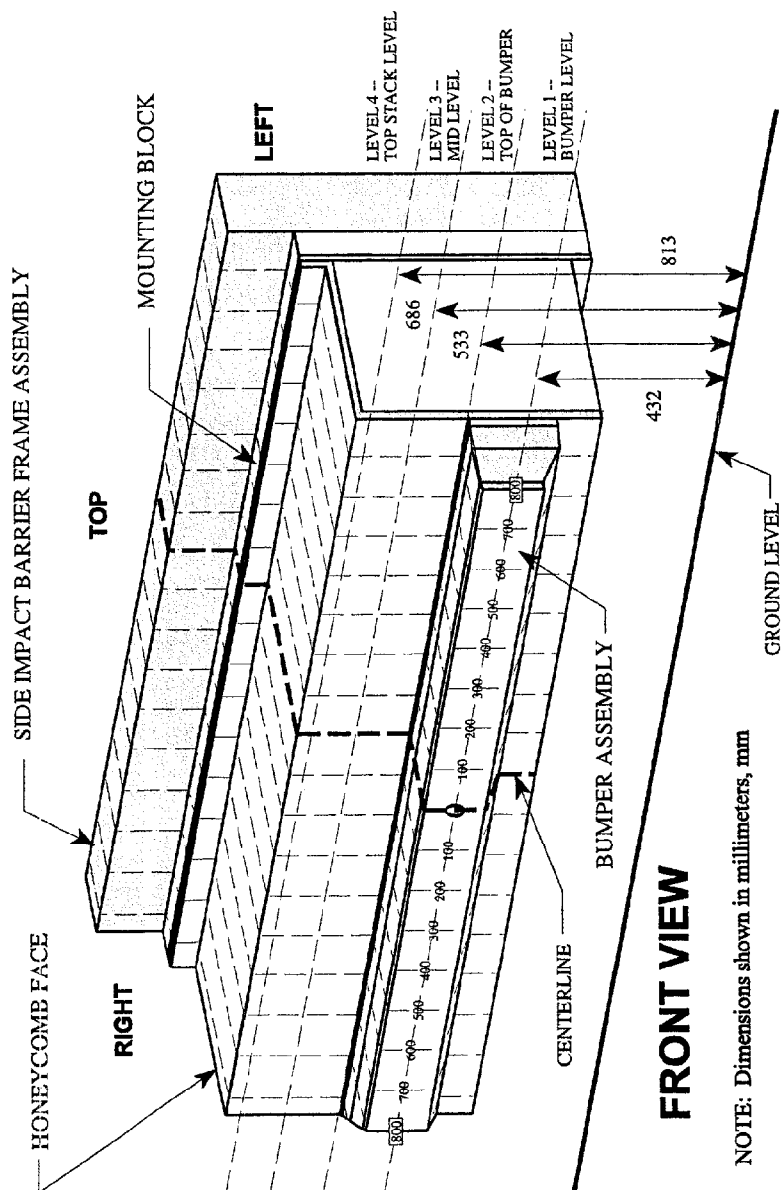
*Heights measured above ground level.

DATA SHEET 12 (continued)

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

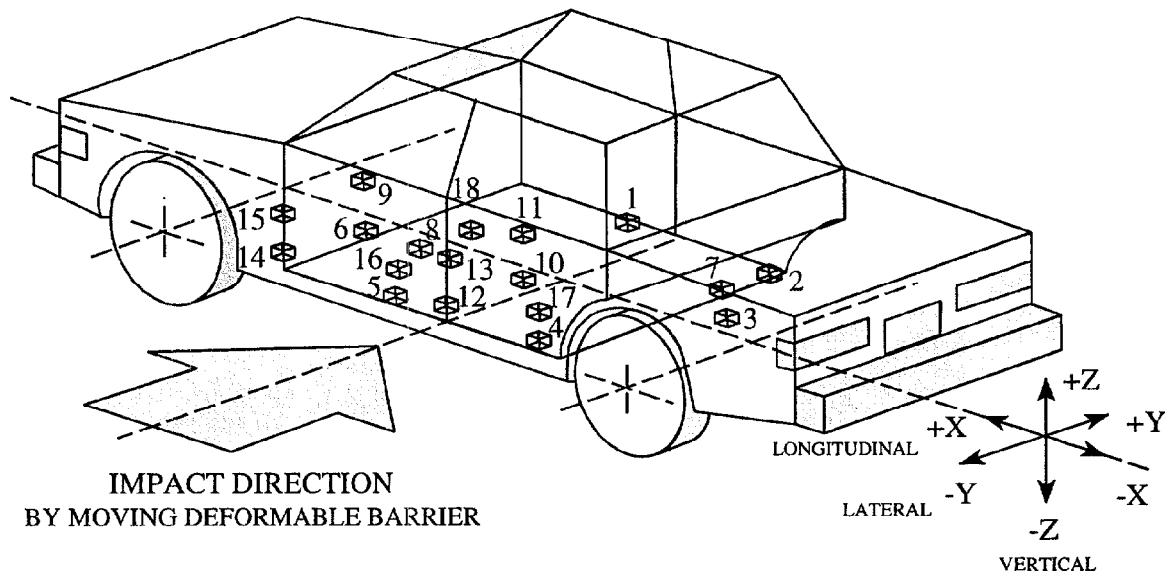


DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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

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

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

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	3234	711	361	pos.	3.9	68.6	20.1	7.5	5.1	21.3	8.3
					neg.	-4.9	20.7	-2.7	139.3	-11.6	-	-
2	Right Side Sill at Rear Seat	2307	610	384	pos.	4.1	68.7	18.5	7.7	4.6	18.9	7.8
					neg.	-4.8	20.6	-2.3	139.7	-5.2	-	-
3	Rear Floorpan Above Axle	922	0	490	pos.	1.7	72.5	15.3	60.2	4.7	15.7	60.2
					neg.	-4.9	23.5	-2.1	131.6	-5.7	-	-
4	Left Side Sill at Rear Seat	2307	-610	378	pos.	-	-	28.6	16.5	-	-	-
					neg.	-	-	-4.3	20.9	-	-	-
5	Left Side Sill at Front Seat	3234	-711	350	pos.	-	-	27.4	12.9	-	-	-
					neg.	-	-	-10.0	16.5	-	-	-
6	Left Front Door on Centerline	-	-	-	pos.	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-
7	Right Rear Occupant Compartment	2354	320	364	pos.	-	-	19.8	7.7	-	-	-
					neg.	-	-	-2.2	140.7	-	-	-
8	Midrear of Left Front Door	-	-	-	pos.	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-
9	Left Front Door Upper Centerline	-	-	-	pos.	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-
10	Midrear of Left Rear Door	-	-	-	pos.	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-
11	Left Rear Door Upper Centerline	-	-	-	pos.	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-

*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To Right)

Z - Ground Level (+ Up)

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

Accel. No.	Location	Coordinates (mm)±3			Lat. (y)			Vert. (z)			Resultant	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
12	Left Lower B-Pillar	2560	-734	435	pos.	-	163.2	11.7	-	-	-	-
					neg.	-	-224.7	16.4	-	-	-	-
13	Left Middle B-Pillar	2522	-731	1051	pos.	-	153.9	26.2	-	-	-	-
					neg.	-	-189.9	19.2	-	-	-	-
14	Left Lower A-Pillar	3648	-814	458	pos.	-	36.9	5.6	-	-	-	-
					neg.	-	-5.0	10.0	-	-	-	-
15	Left Middle A-Pillar	3707	-750	1122	pos.	-	11.6	45.3	-	-	-	-
					neg.	-	-3.0	33.4	-	-	-	-
16	Front Seat Track	2671	-645	520	pos.	-	107.6	20.8	-	-	-	-
					neg.	-	-18.7	25.9	-	-	-	-
17	Rear Seat Track	1815	-640	475	pos.	-	35.2	44.5	-	-	-	-
					neg.	-	-19.9	61.4	-	-	-	-
18	Vehicle CG	2846	0	410	pos.	2.9	18.5	6.9	27.9†	23.9†	29†	23.9†
					neg.	-5.7	-2.2	139.6	-4.7†	28.3†	-	-

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

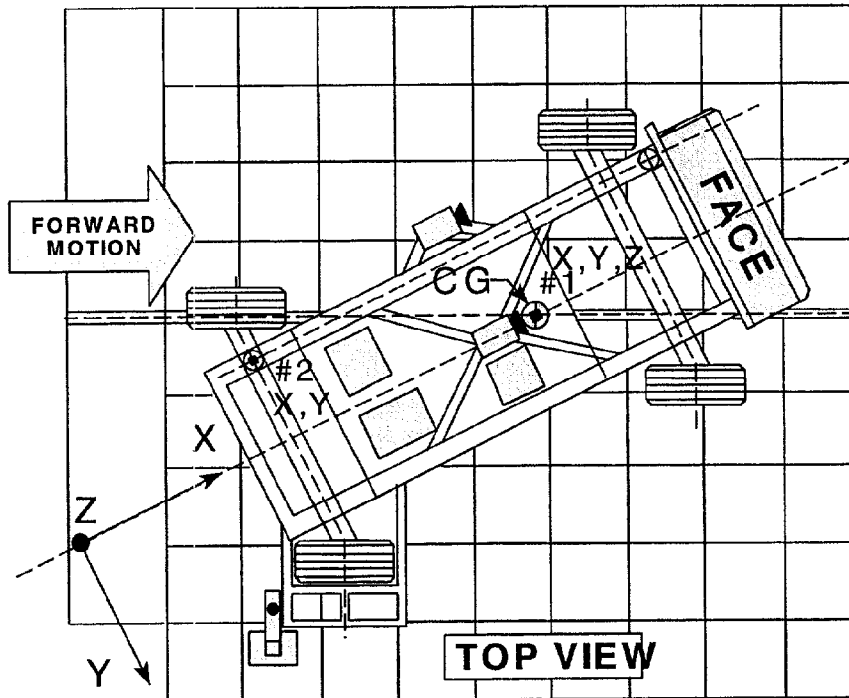
† Data is questionable.

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



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	1.4	136.3	-22.7	51.5
	Lateral..... Y				3.6	73.2	-8.8	46.9
	Vertical..... Z				12.5	12.3	-18.5	16.7
	Resultant..... R				23.7	16.7	-	-
2	Rear Frame Member							
	Longitudinal... X	386	-660	660	1.7	144.3	-22.4	46.8
	Lateral..... Y				†	†	-8.3	130.7

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

All measurements accurate to within ± 3 mm.

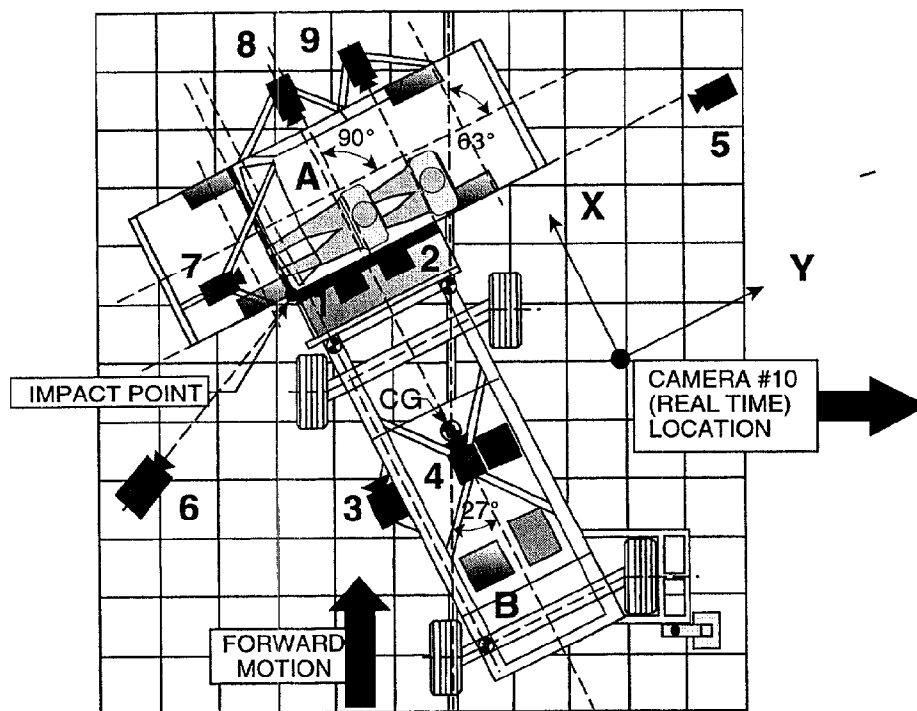
† Data invalid after 132 ms.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	132	863	4880	-90	8	1005
2	Overhead closeup view of impact plane	320	940	4880	-90	12.5	1015
3	MDB onboard closeup view of impact point	-1470	0	847	0	13	1040
4	MDB onboard view of driver dummy	-1140	838	1586	-17	7.5	†
5	Right side ground level overall view	-120	9381	1032	-2	25	1020
6	Left side ground level overall view	-1894	-1641	1085	-5	13	1030
7	Test vehicle onboard driver front view	-761	506	1348	-3	13	1000
8	Test vehicle onboard driver side view	1872	623	1130	-12	8	1020
9	Test vehicle onboard passenger side view	1842	1674	1206	-9	8	1010
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

† Camera did not run, electrical connection failed on controller circuit board.

SECTION 5

FUEL SYSTEM INTEGRITY

DATA SHEET 16

FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA No.: CY5300

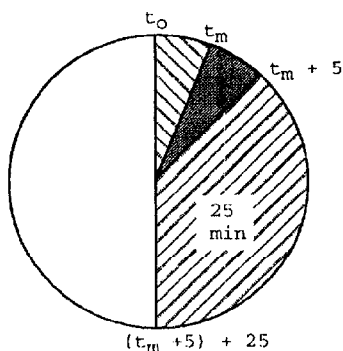
TEST DATE: February 3, 2000

Vehicle Mfgr./Make/Model : 2000 Honda Odyssey MPV

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 (62.6 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

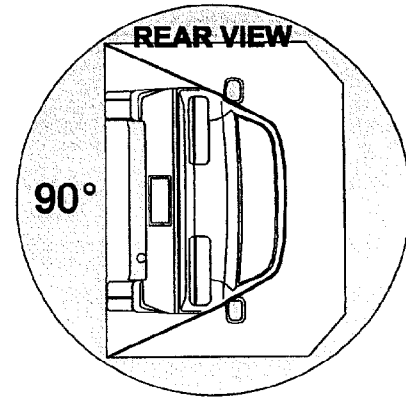
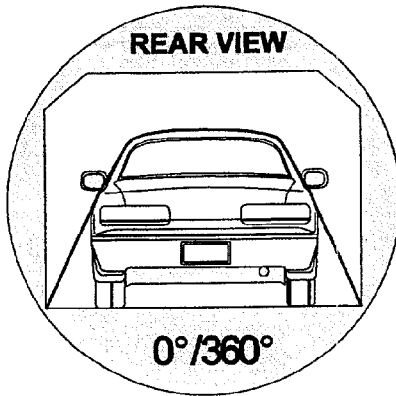
DATA SHEET 17

ROLLOVER DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

0 - 90 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time	<u>1</u> minutes <u>19</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>19</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

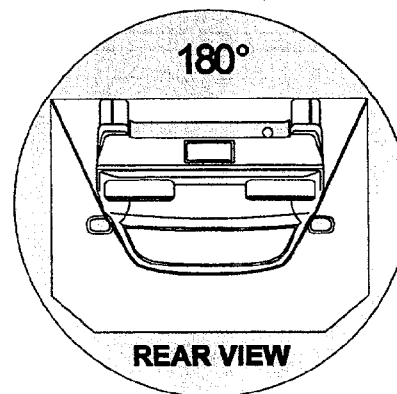
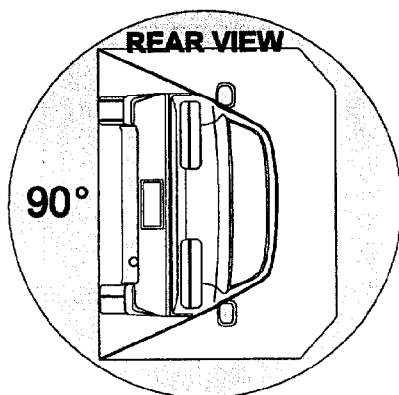
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

90 - 180 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time	<u>1</u> minutes <u>7</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>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

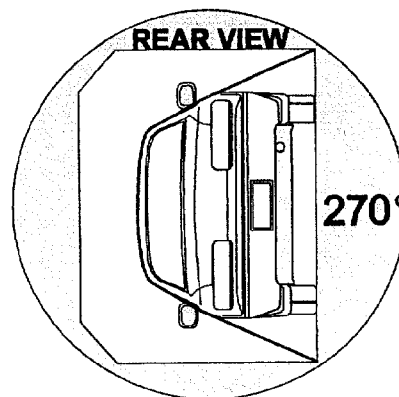
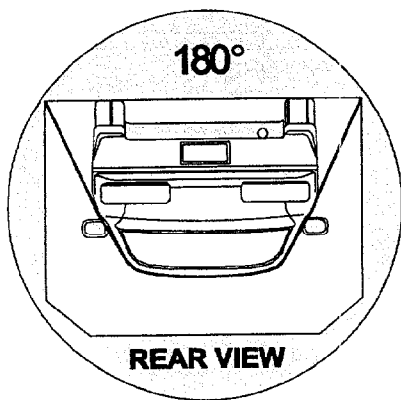
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

180 - 270 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time	<u>1</u> minutes <u>3</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>3</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

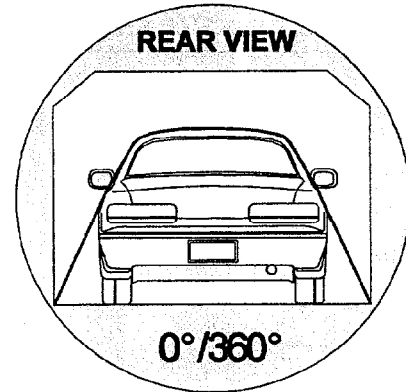
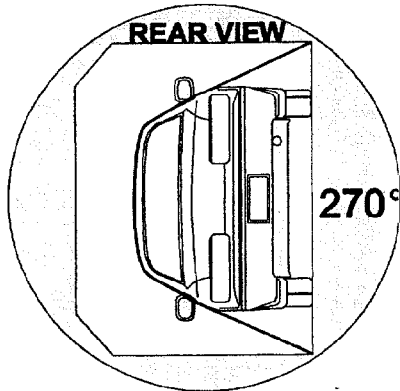
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2000 Honda Odyssey

NHTSA No. CY5300

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>10</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes <u>0</u> seconds
TOTAL	<u>6</u> minutes <u>10</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

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Figure A- 21	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID	A- 23
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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



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

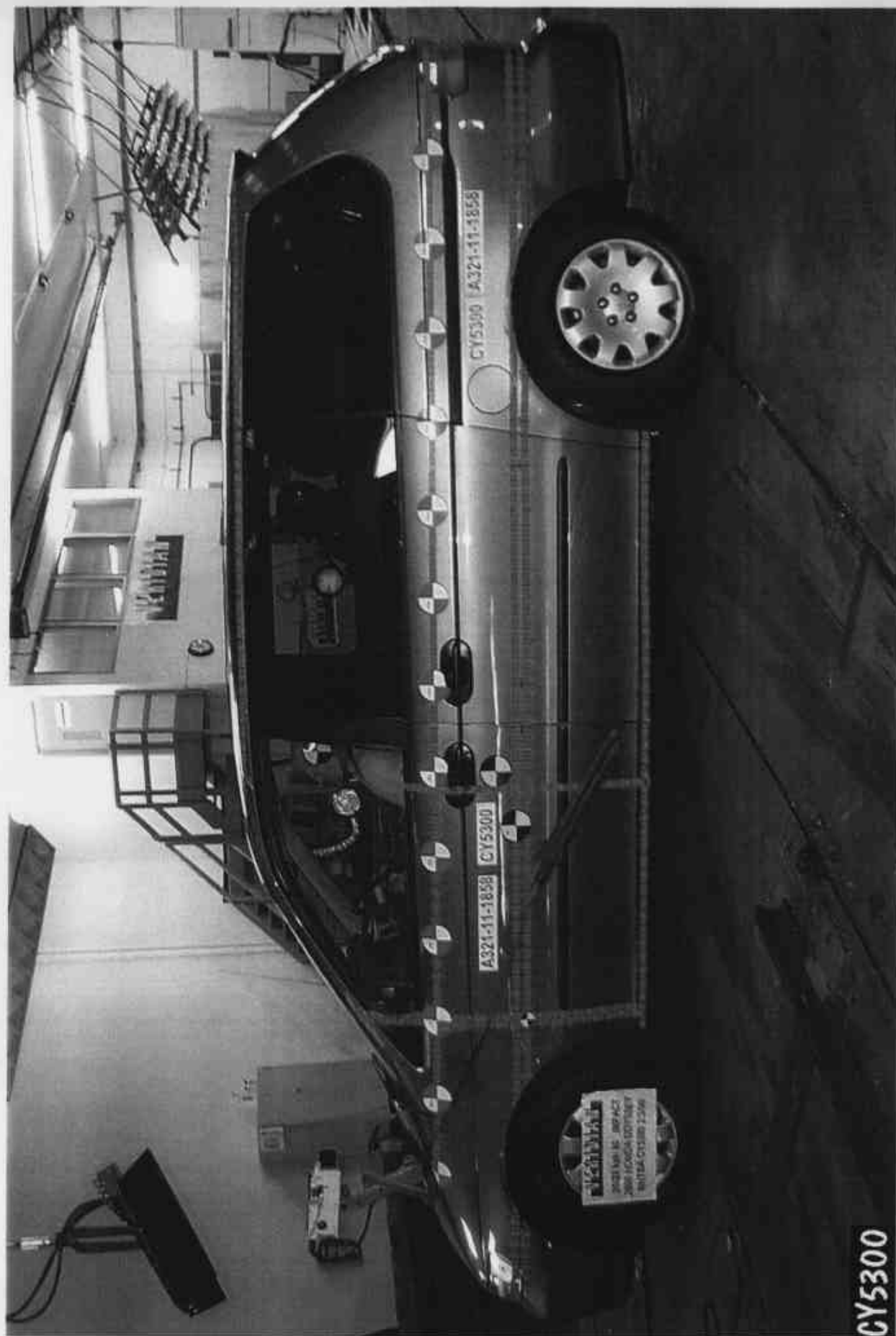


Figure A-5: PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

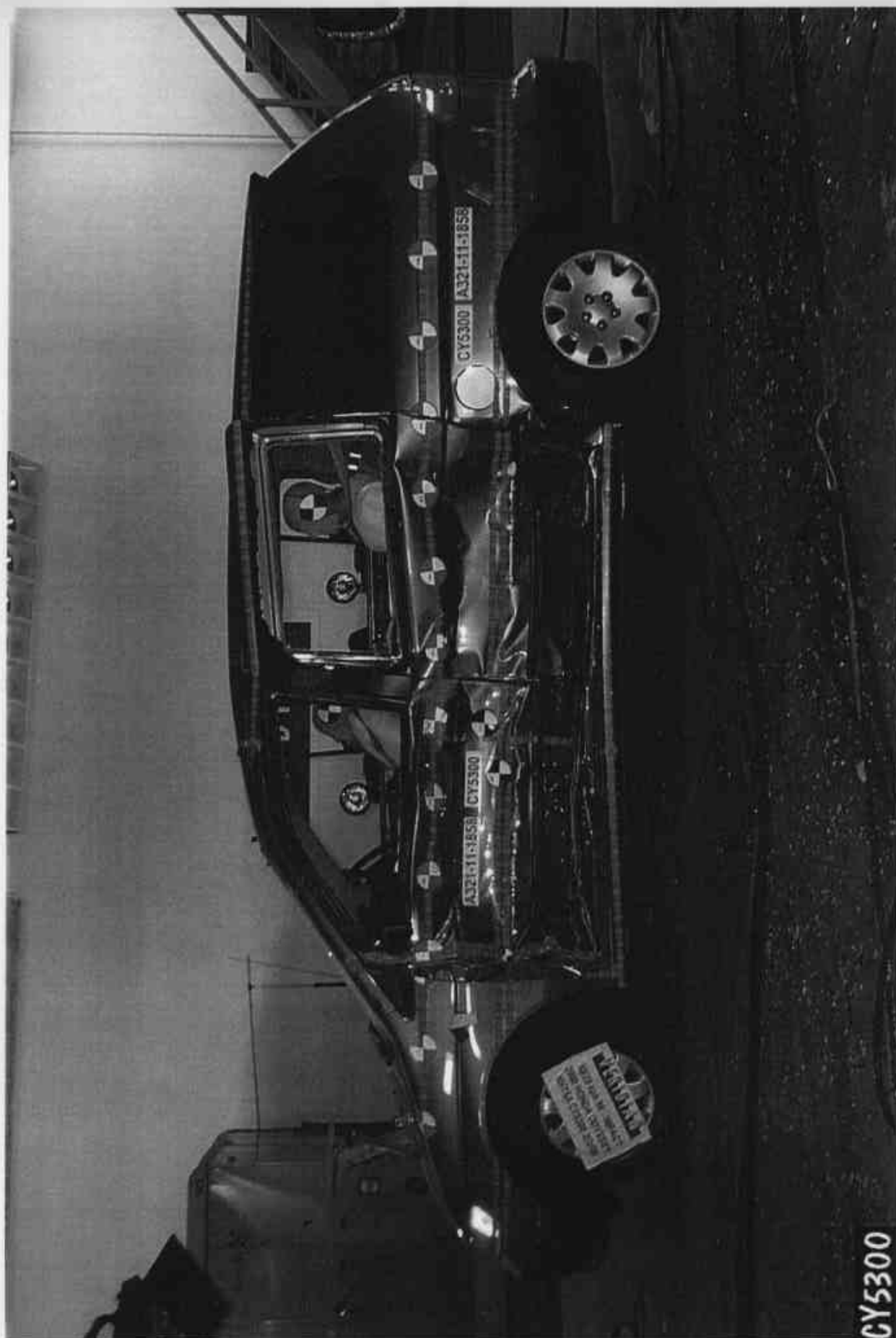


Figure A-6: POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

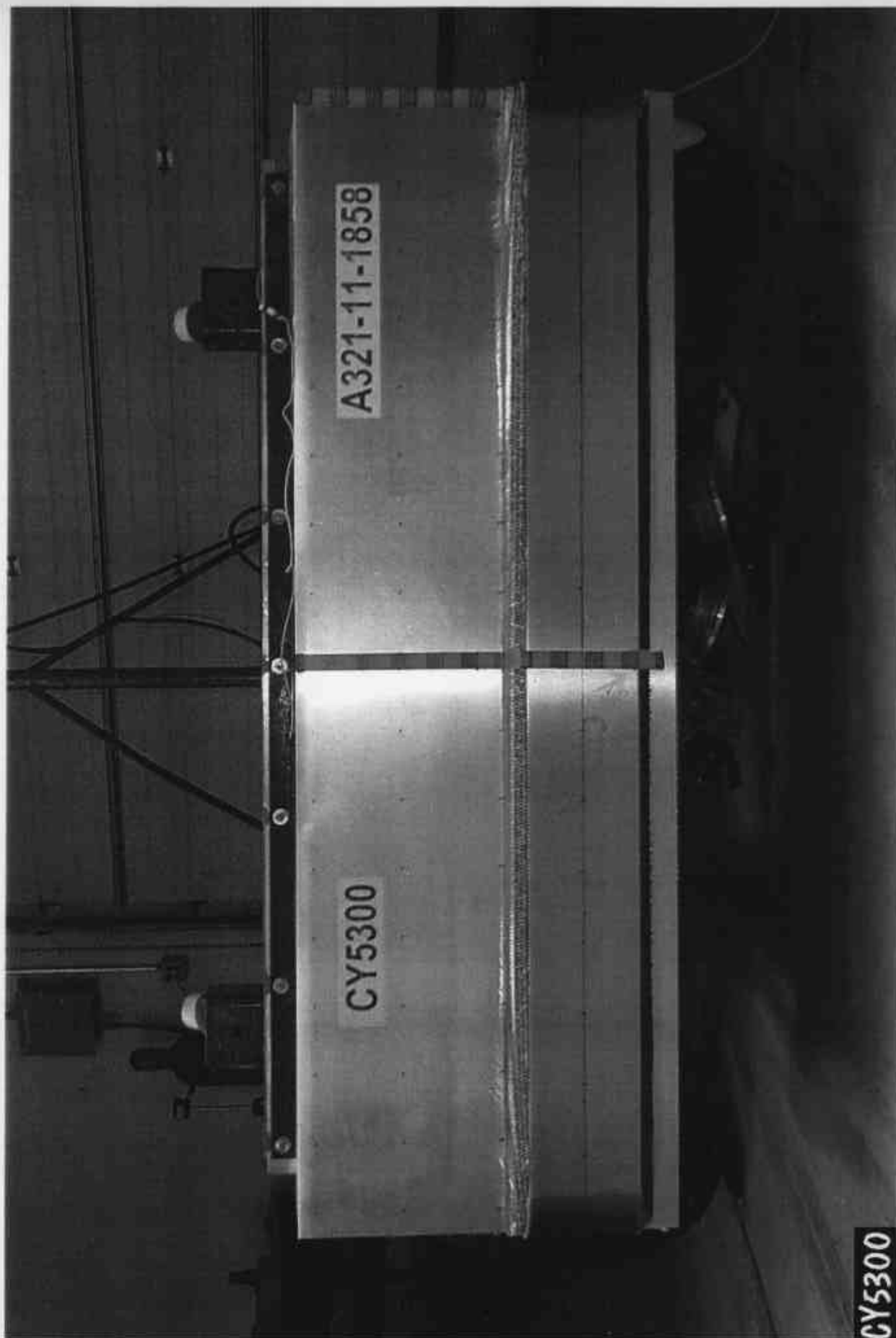


Figure A-7: PRE-TEST FRONTAL VIEW OF IMPACTOR FACE

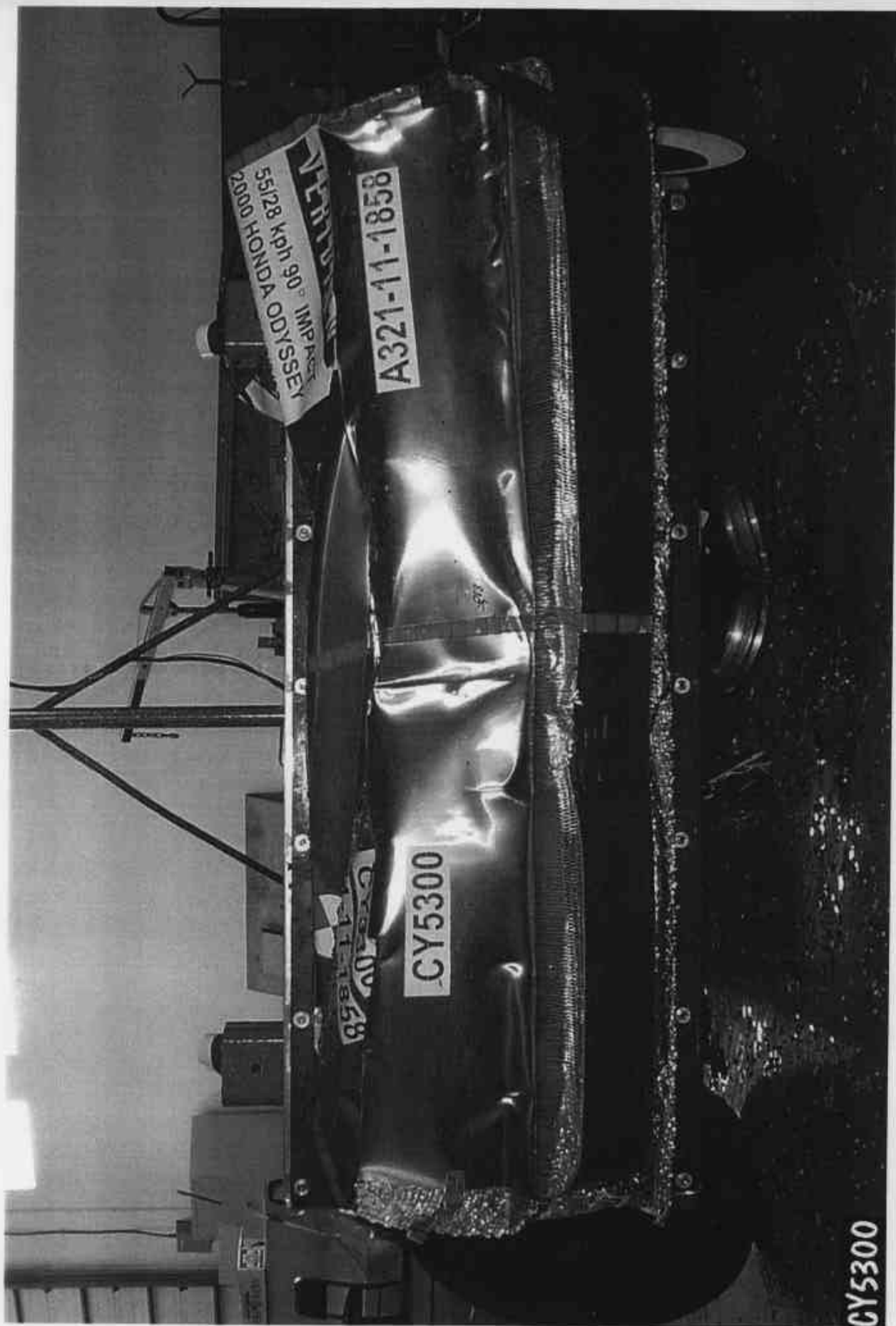


Figure A-8: POST-TEST FRONTAL VIEW OF IMPACTOR FACE



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



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



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



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

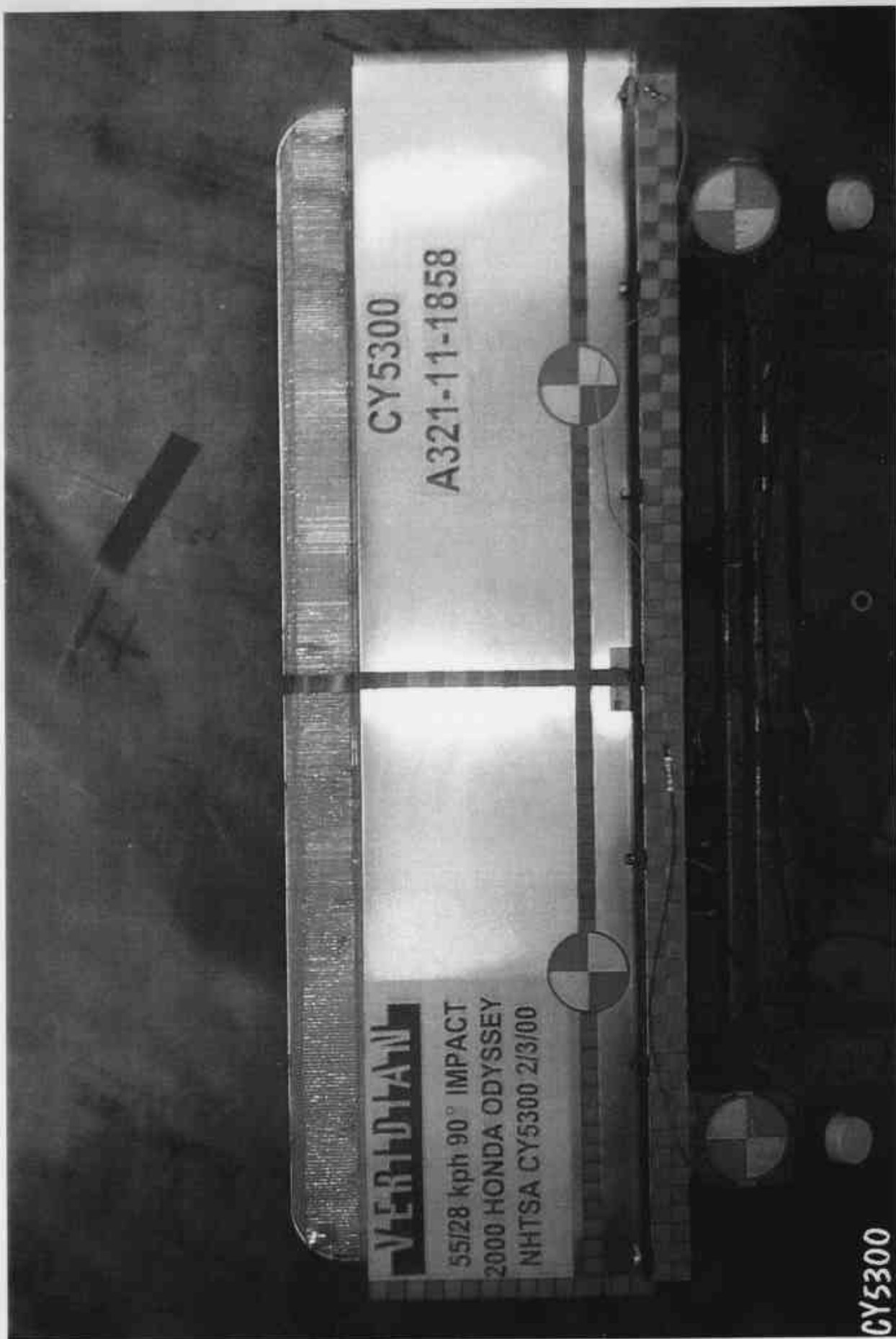


Figure A-13: PRE-TEST TOP VIEW OF IMPACTOR FACE

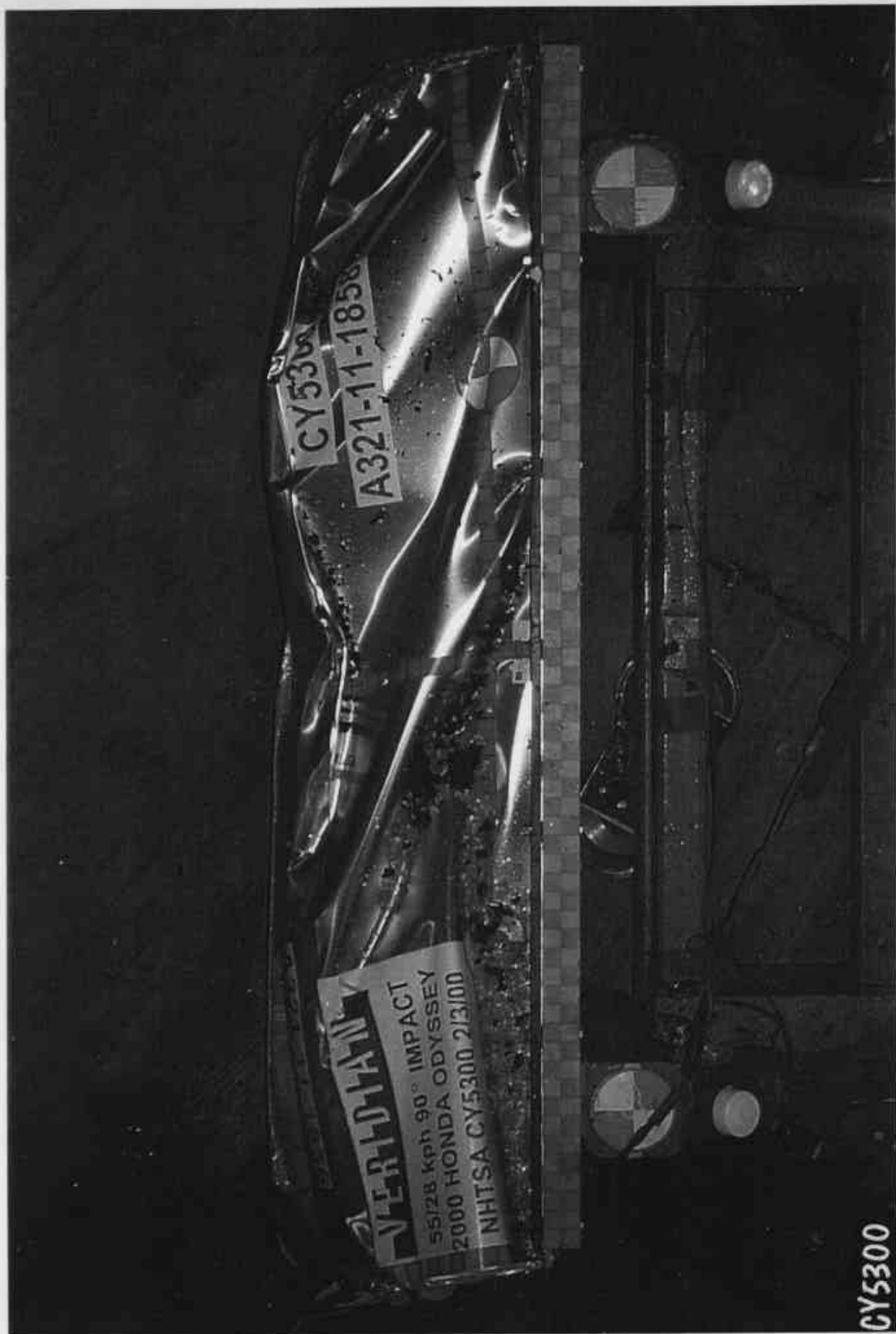


Figure A-14: POST-TEST TOP VIEW OF IMPACTOR FACE



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



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

CY5300

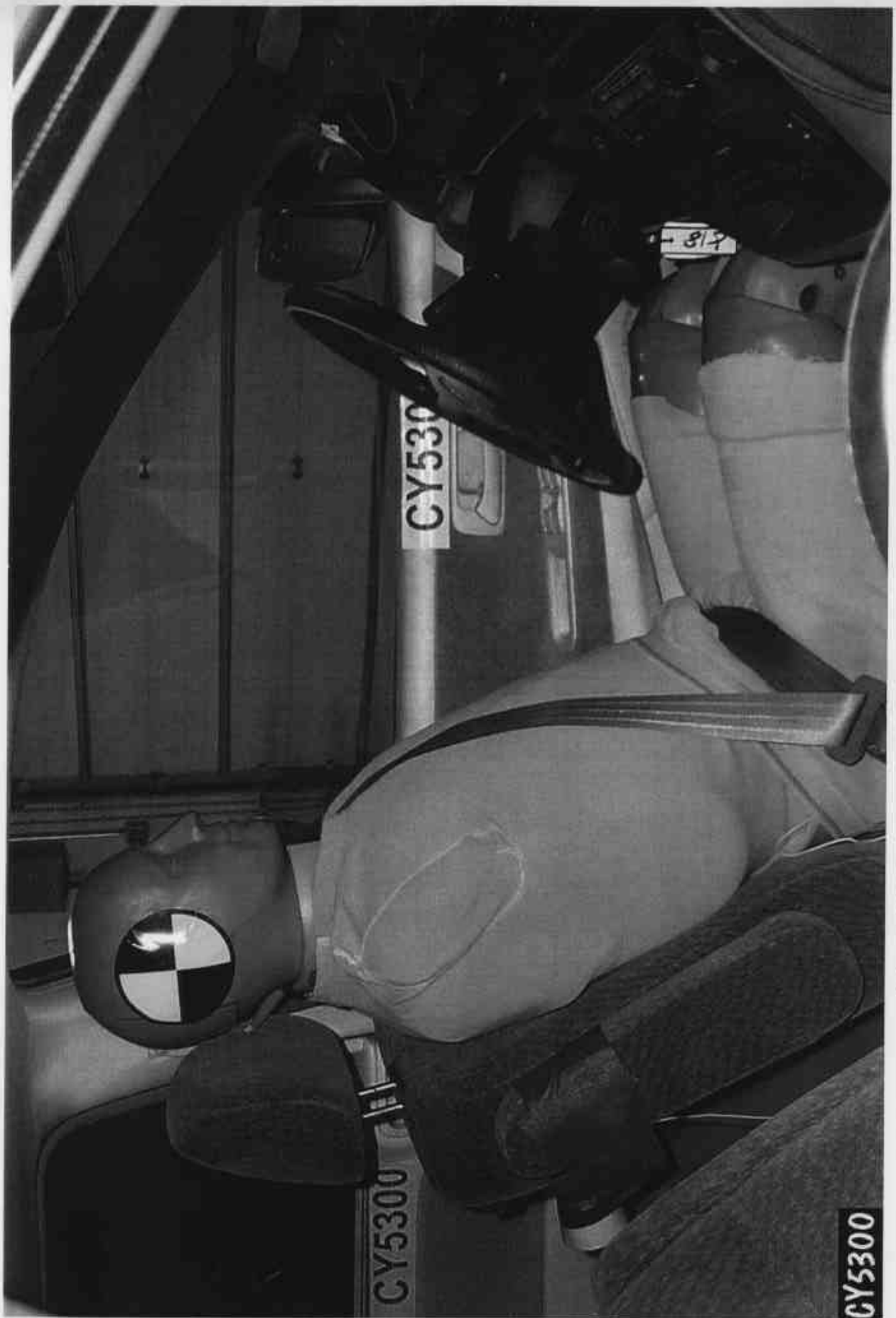


Figure A-17: PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID



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



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



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



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

CY5300

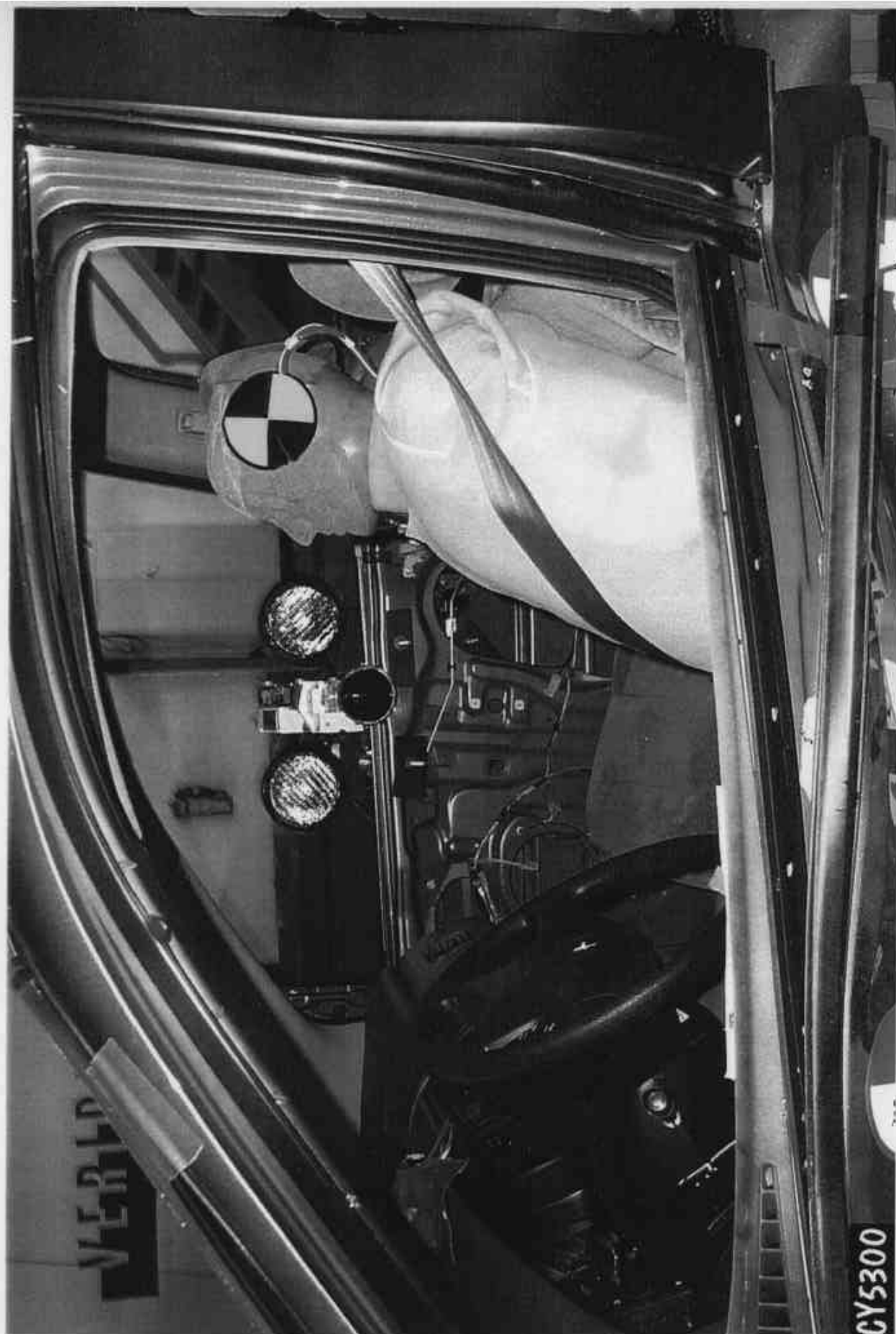


Figure A-22: POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID



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

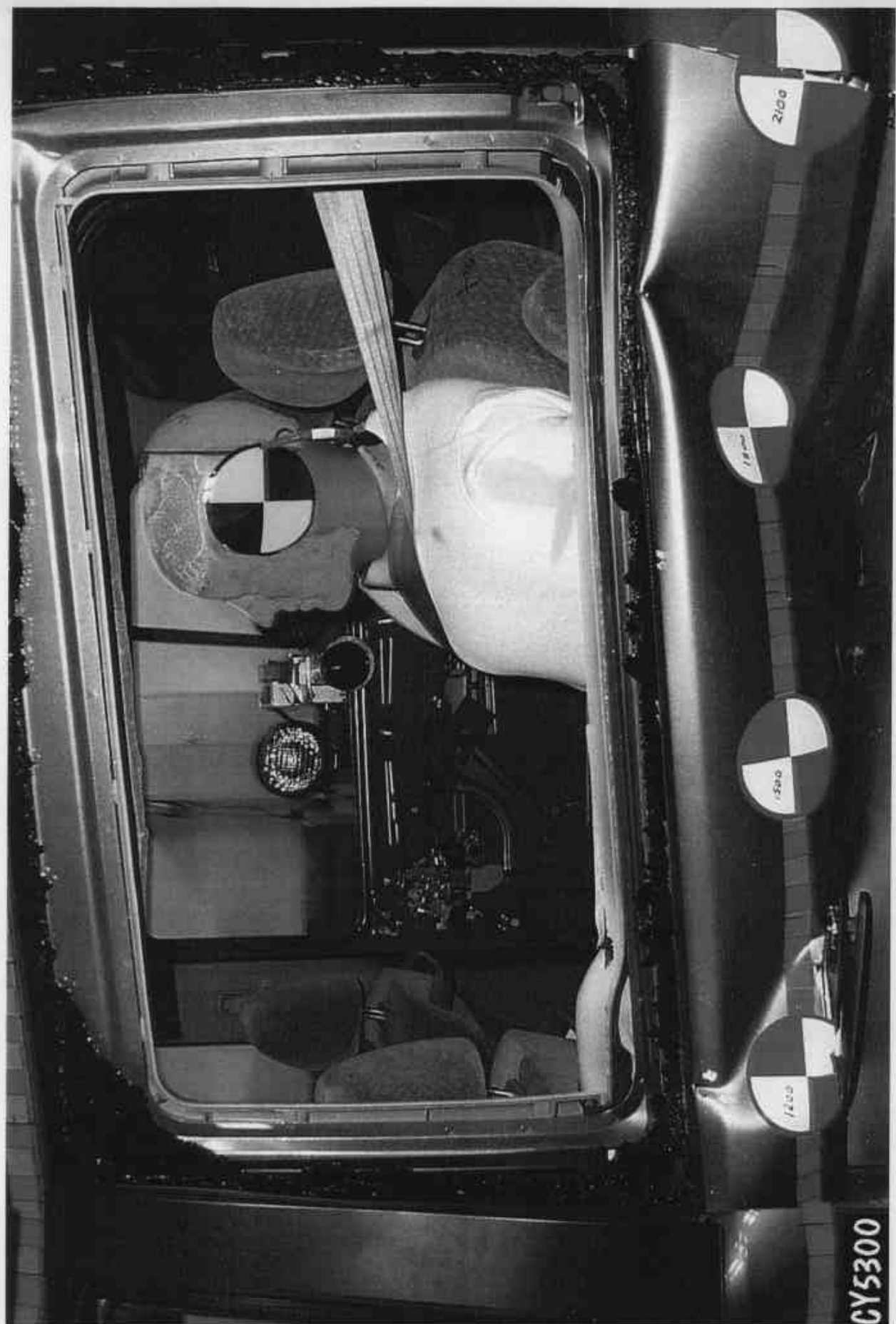


Figure A-24: POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID



Figure A-25: PRE-TEST INTERIOR OF FRONT DOOR



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



Figure A-27: PRE-TEST INTERIOR OF REAR DOOR

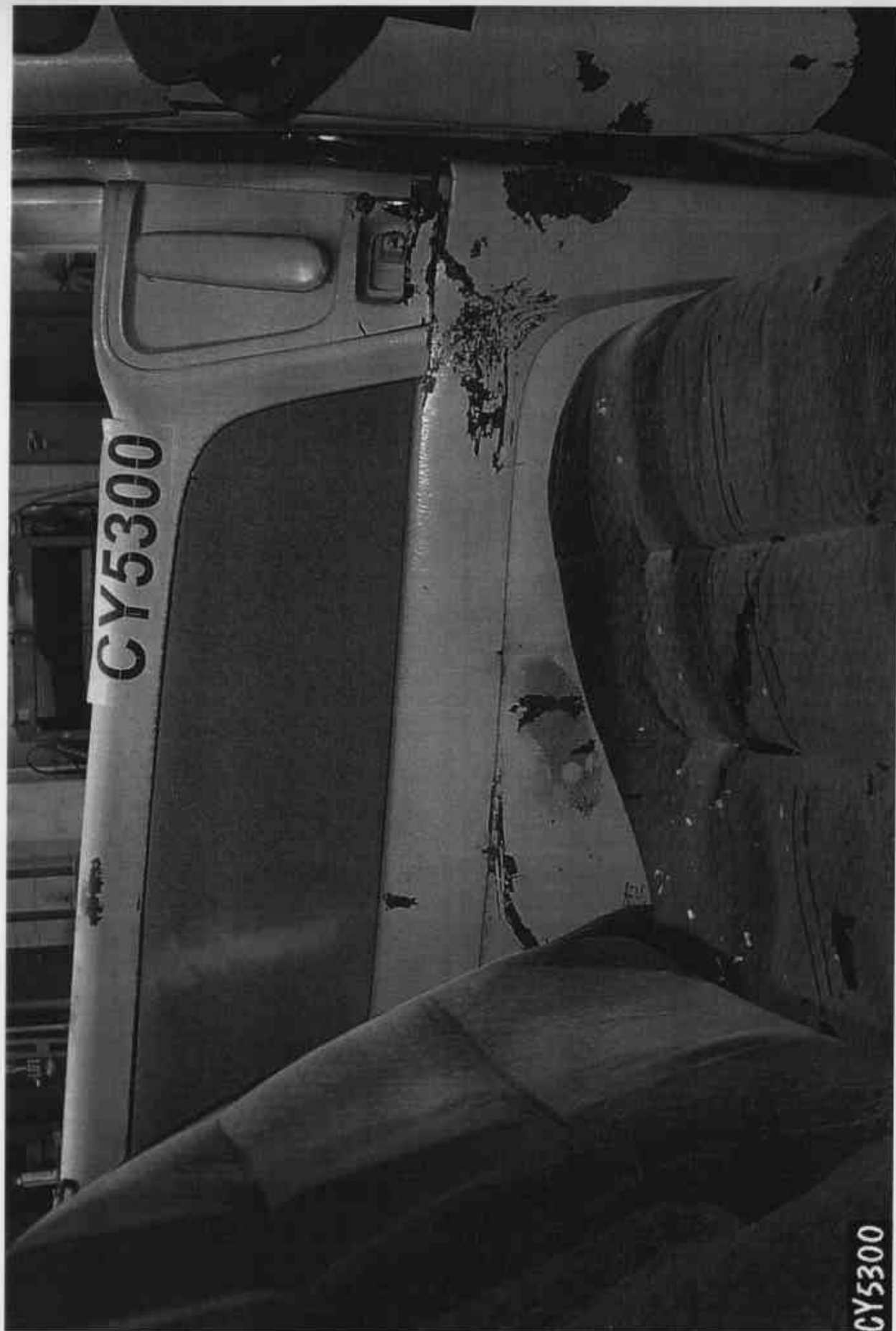


Figure A-28: POST-TEST INTERIOR OF REAR DOOR SHOWING SID IMPACT LOCATIONS



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

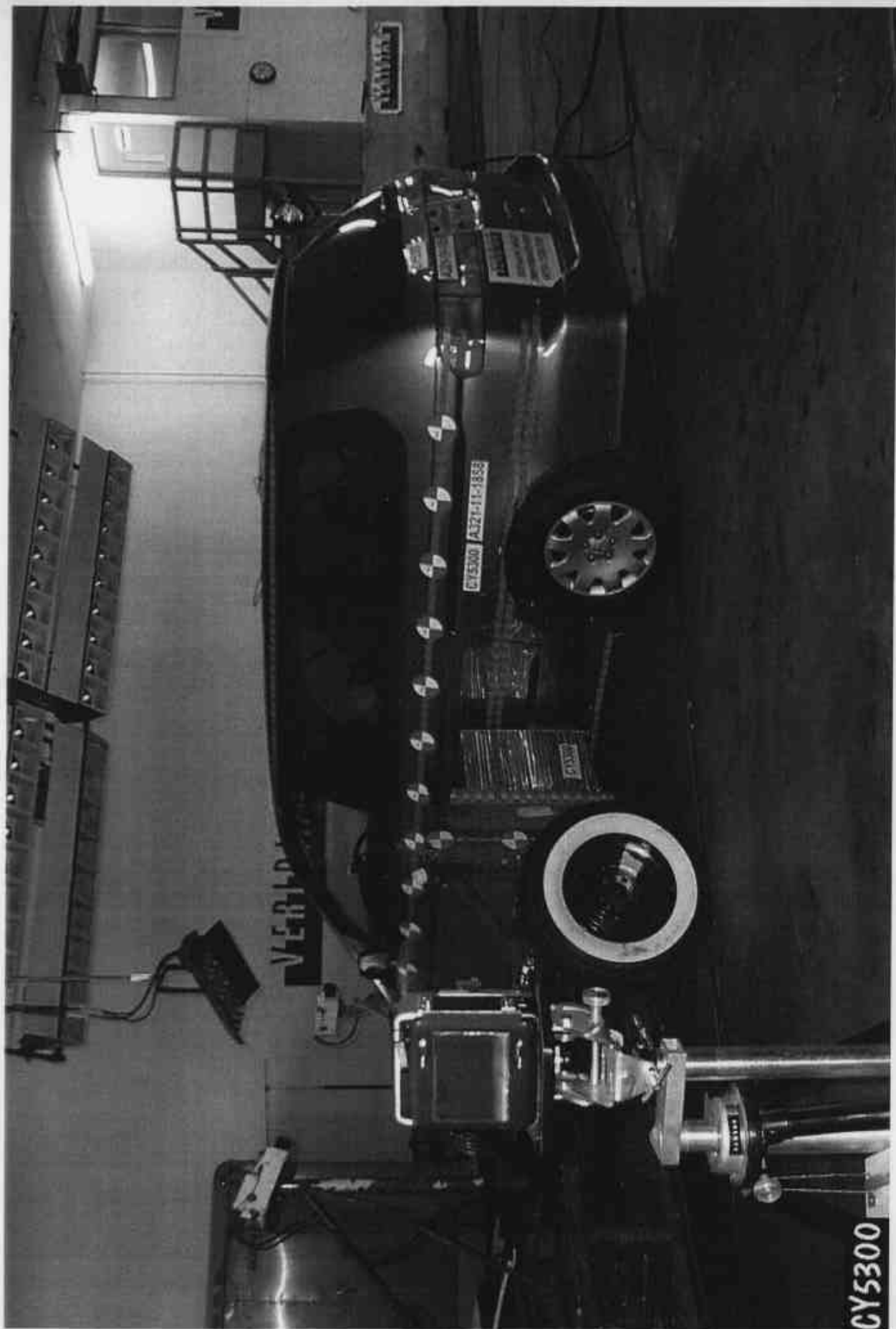


Figure A-30: PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION

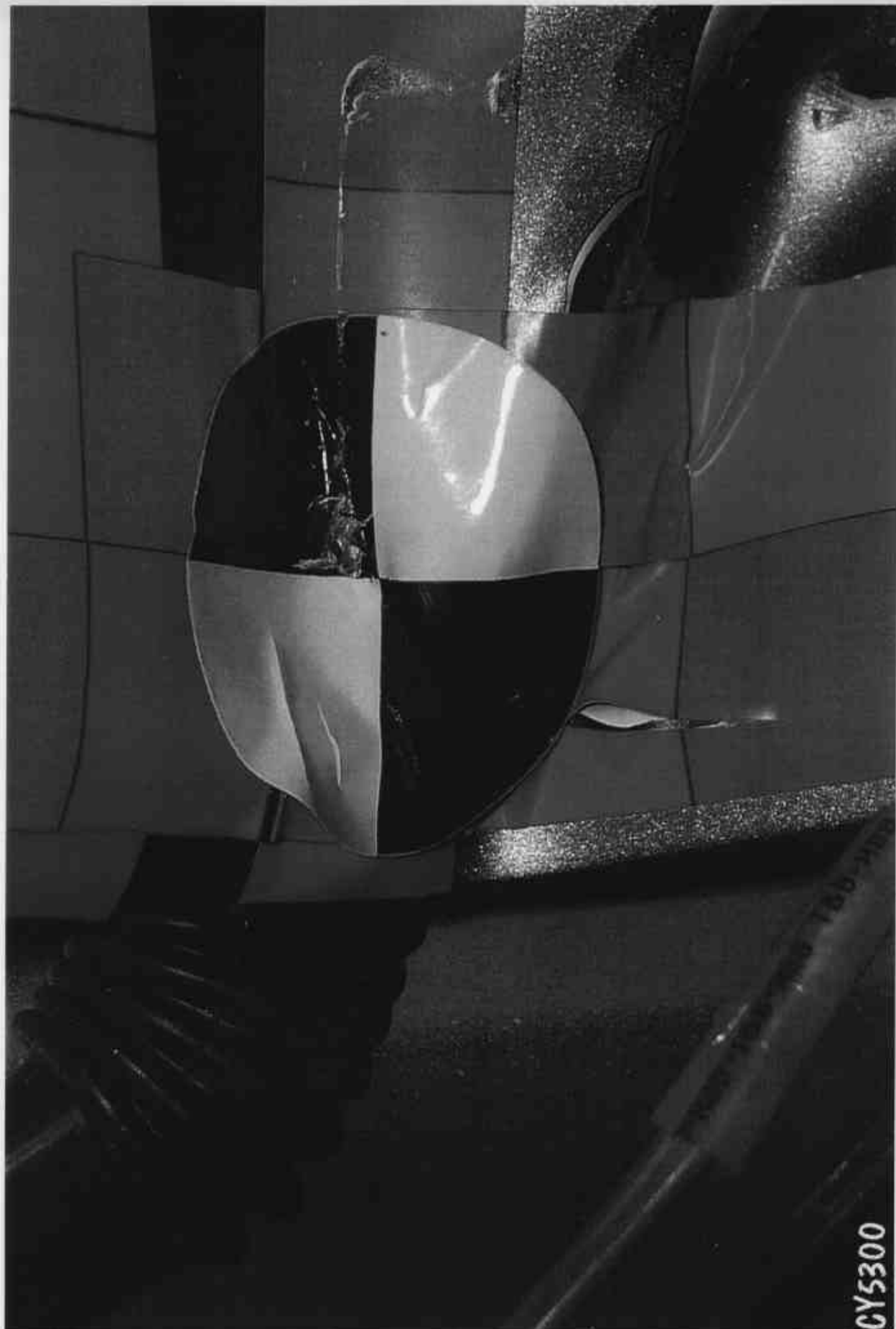
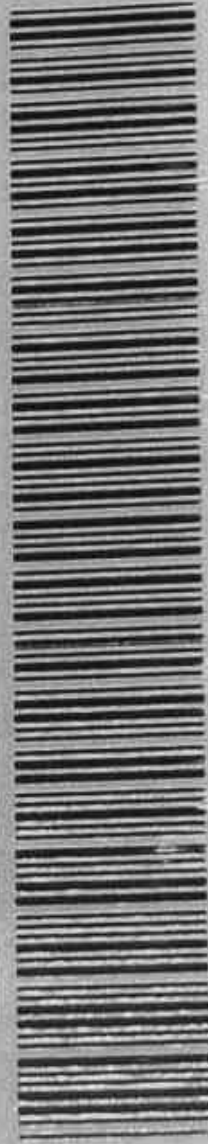


Figure A-31: POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET

MFD. BY HONDA OF CANADA MFG., 10/99
A DIVISION OF HONDA CANADA INC. CANADA
GVWR 5565LBS GAWR F 2775LBS R 2840LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY,
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE:

V.I.N. 2HKRL1855YH518818



MPV

CY5300

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

TIRE INFORMATION AO

GVWR	5565 bs	
GAWR	FRONT	REAR
	2775 bs	2840 bs
TIRE SIZE	P215/65R16 96T	
RIM SIZE	16x6 1/2 JJ	
COLD TIRE INFLATION PRESSURE	240kPa, 35psi	
	UP TO VEHICLE CAPACITY WEIGHT	
COMPACT SPARE TIRE SIZE	T135/80D16 101M	
INFLATION PRESSURE	420kPa, 60psi	
●SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION.		

CY5300

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

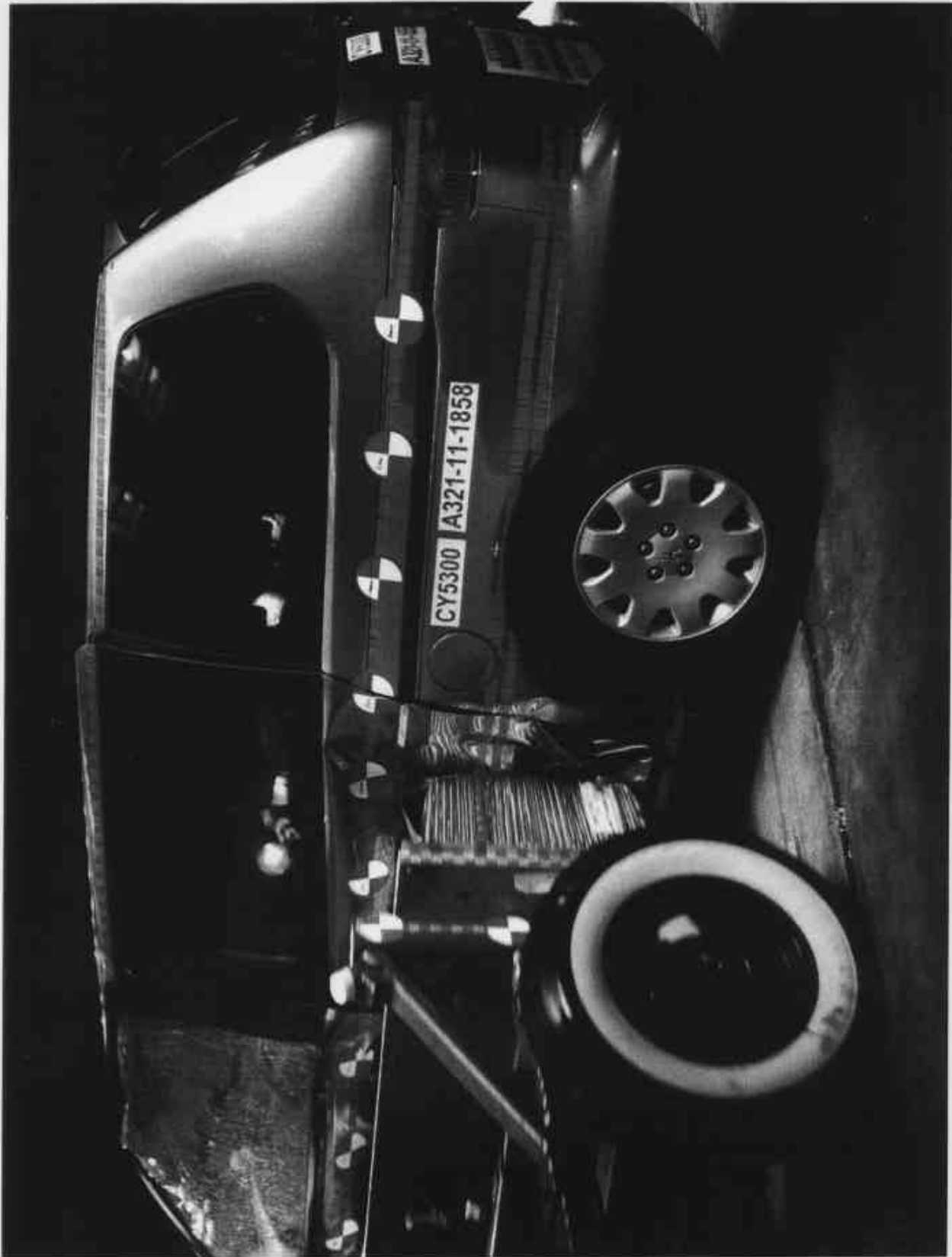


Figure A-34: IMPACT PHOTO

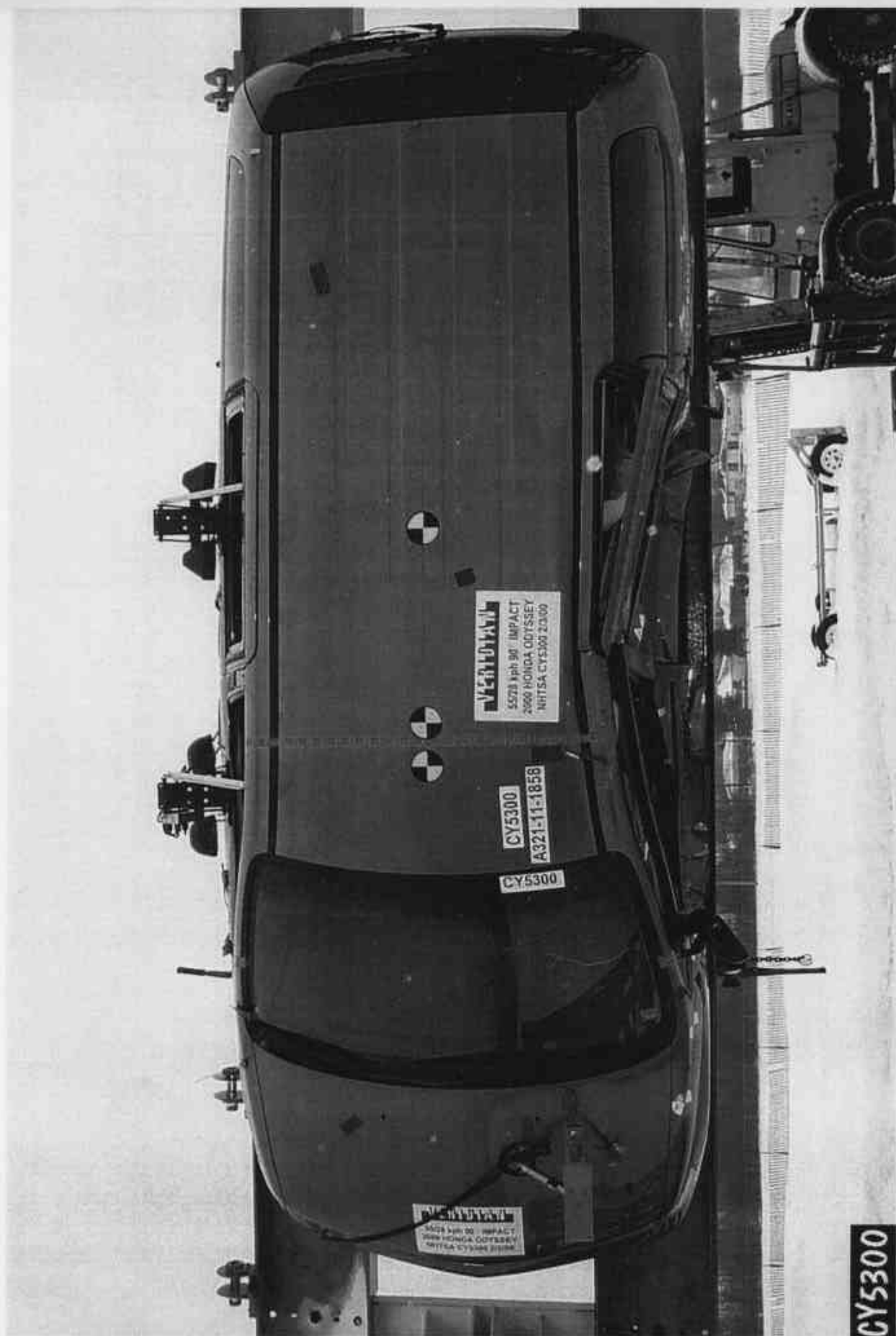


Figure A-35: ROLLOVER 90 DEGREES

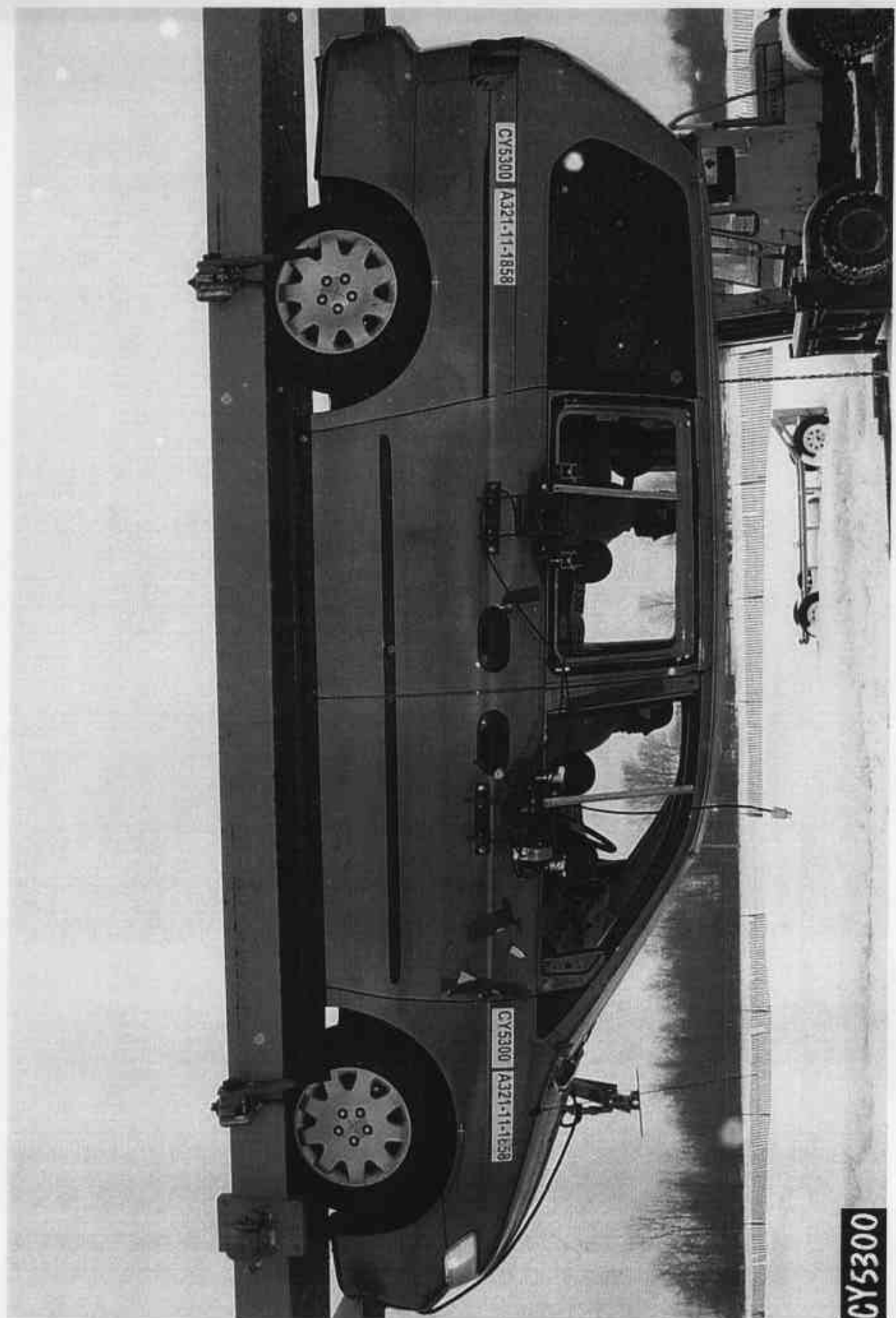


Figure A-36: ROLLOVER 180 DEGREES

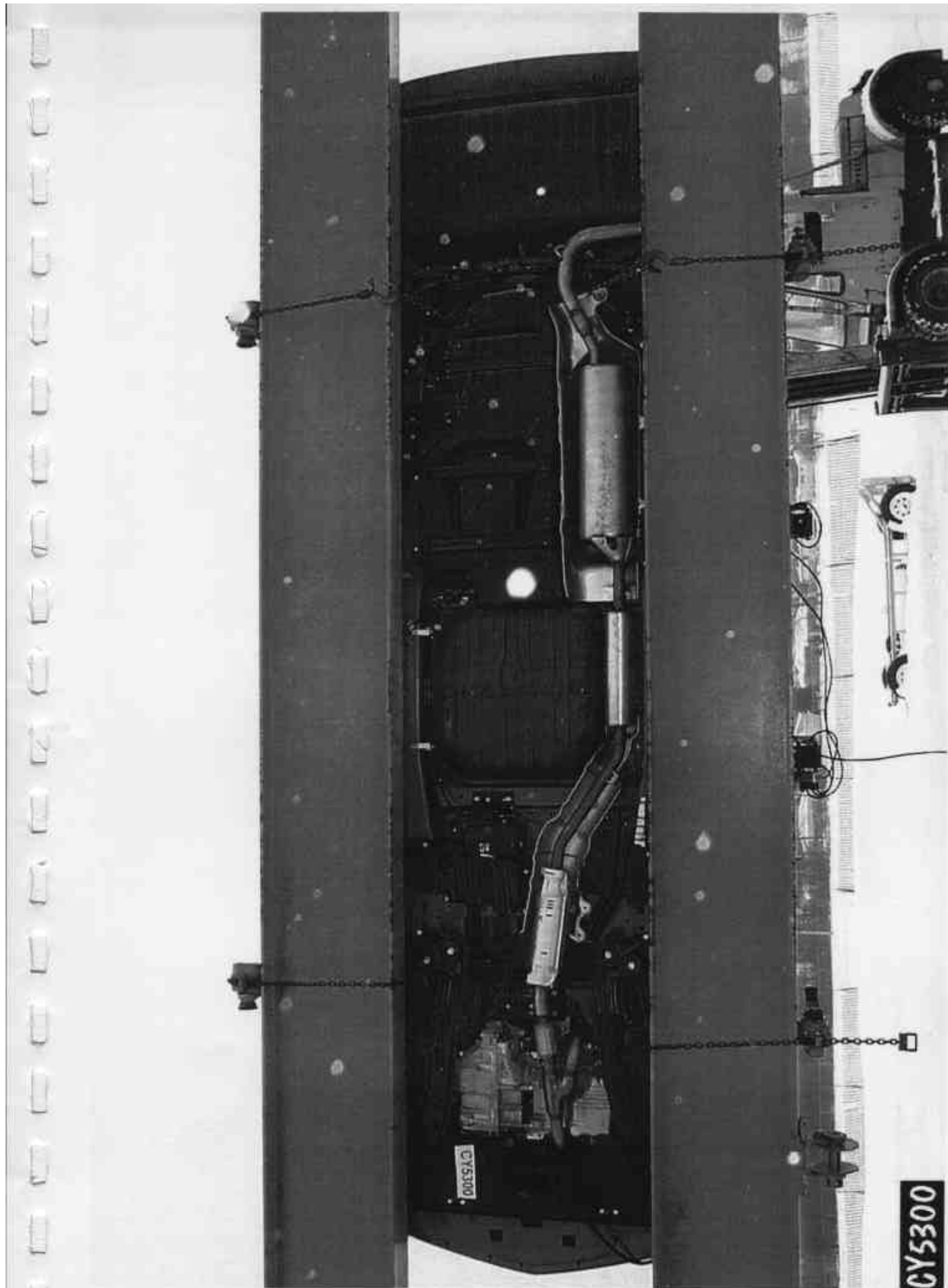


Figure A-37: ROLLOVER 270 DEGREES



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 ACCELERATION 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) ACCELERATION VS TIME	B- 21
17	PASSENGER HEAD (X) VELOCITY VS TIME	B- 22
18	PASSENGER HEAD (Y) ACCELERATION VS TIME	B- 23
19	PASSENGER HEAD (Y) VELOCITY VS TIME	B- 24
20	PASSENGER HEAD (Z) ACCELERATION VS TIME	B- 25
21	PASSENGER HEAD (Z) VELOCITY VS TIME	B- 26
22	PASSENGER HEAD RESULTANT 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

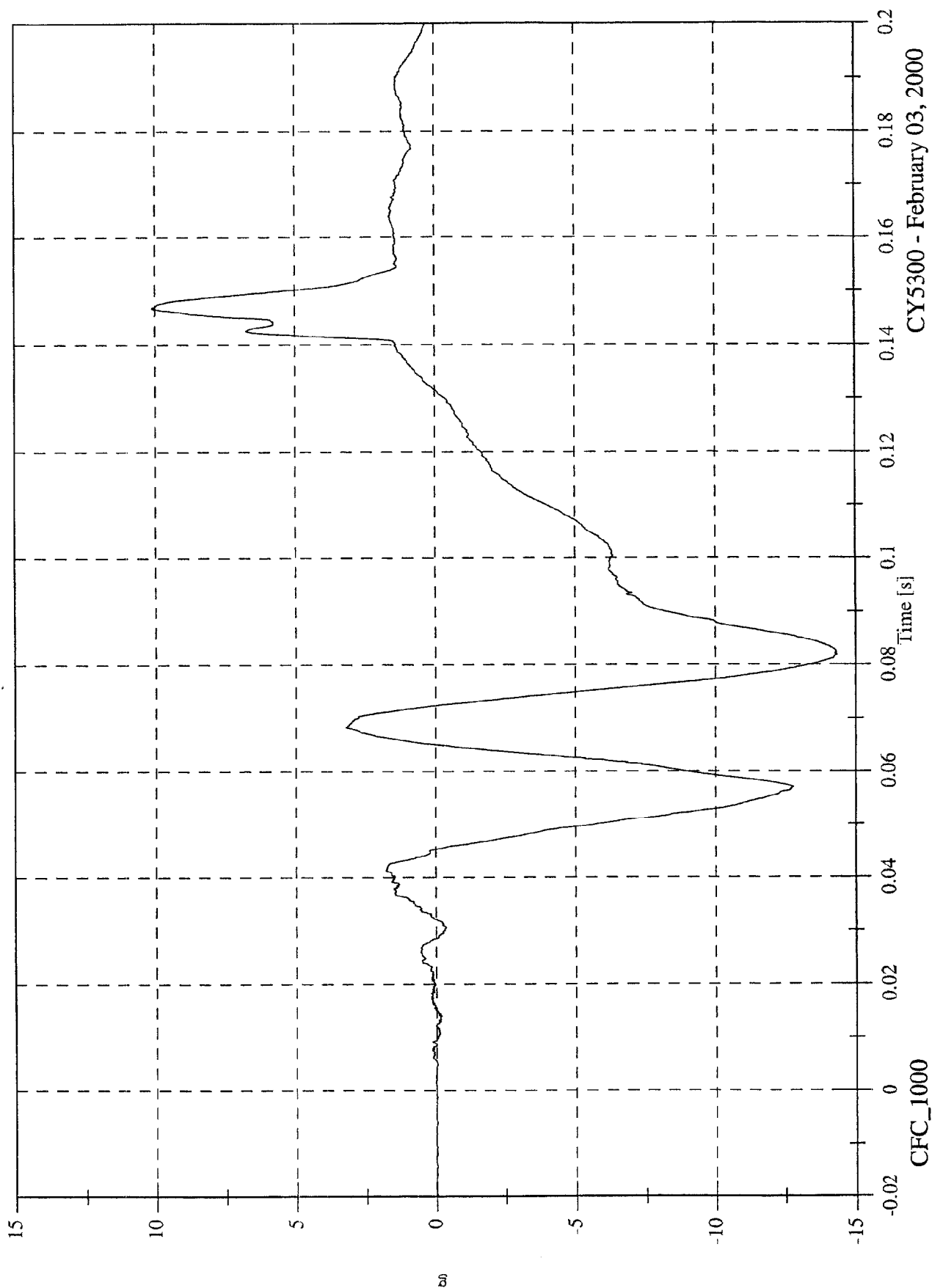
<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
112	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 117
113	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 118
114	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 119
115	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 120
116	PASSENGER UPPER RIB (Y) ACCELERATION 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 - 2000 Honda Odyssey

Max: 10.1 [g] at 0.147 [s]

Min: -14.3 [g] at 0.082 [s]

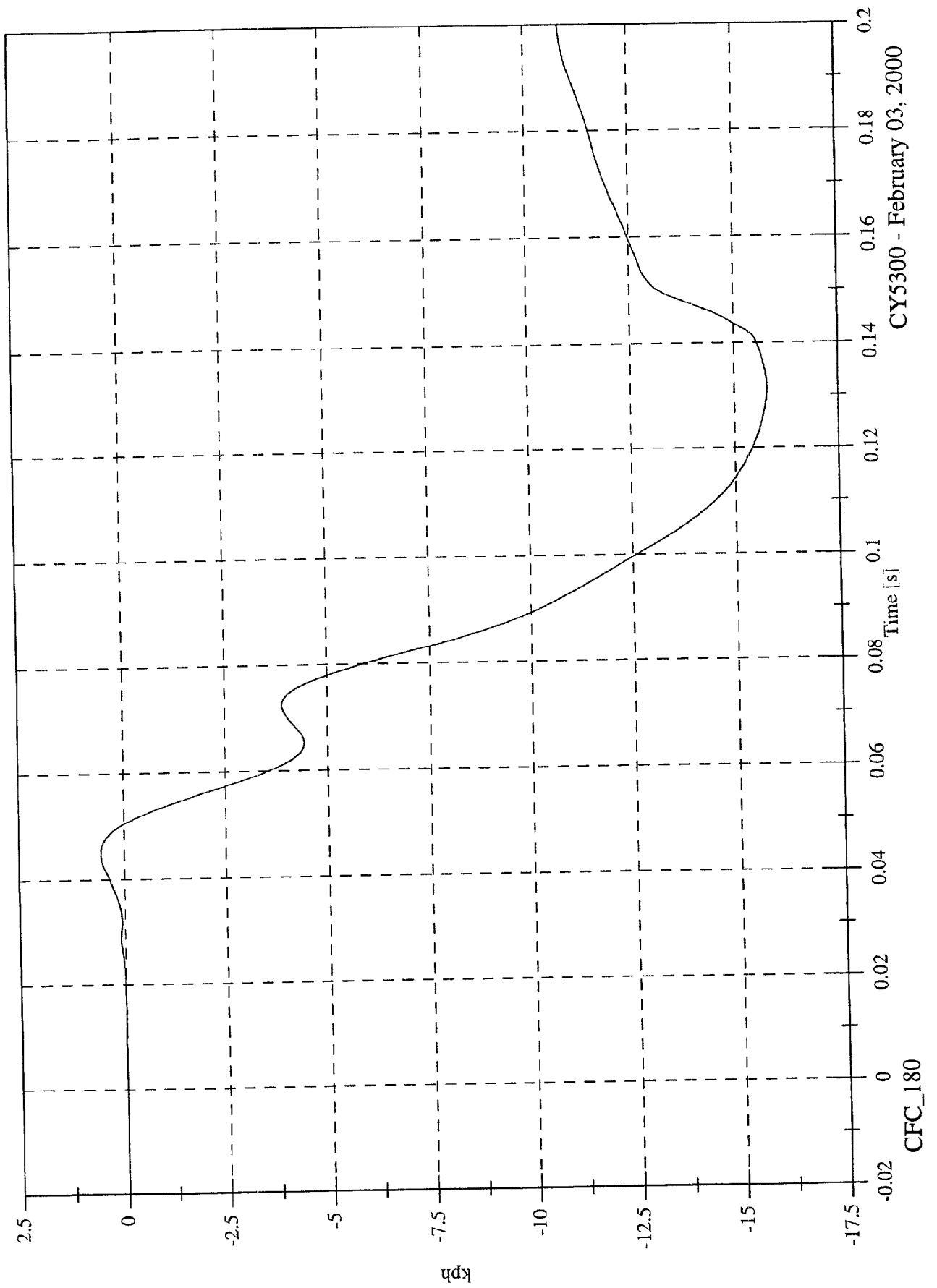
P1 Head x



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Max: 0.6 [kph] at 0.045 [s]
Min: -15.8 [kph] at 0.131 [s]

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey
P1 Head x Velocity

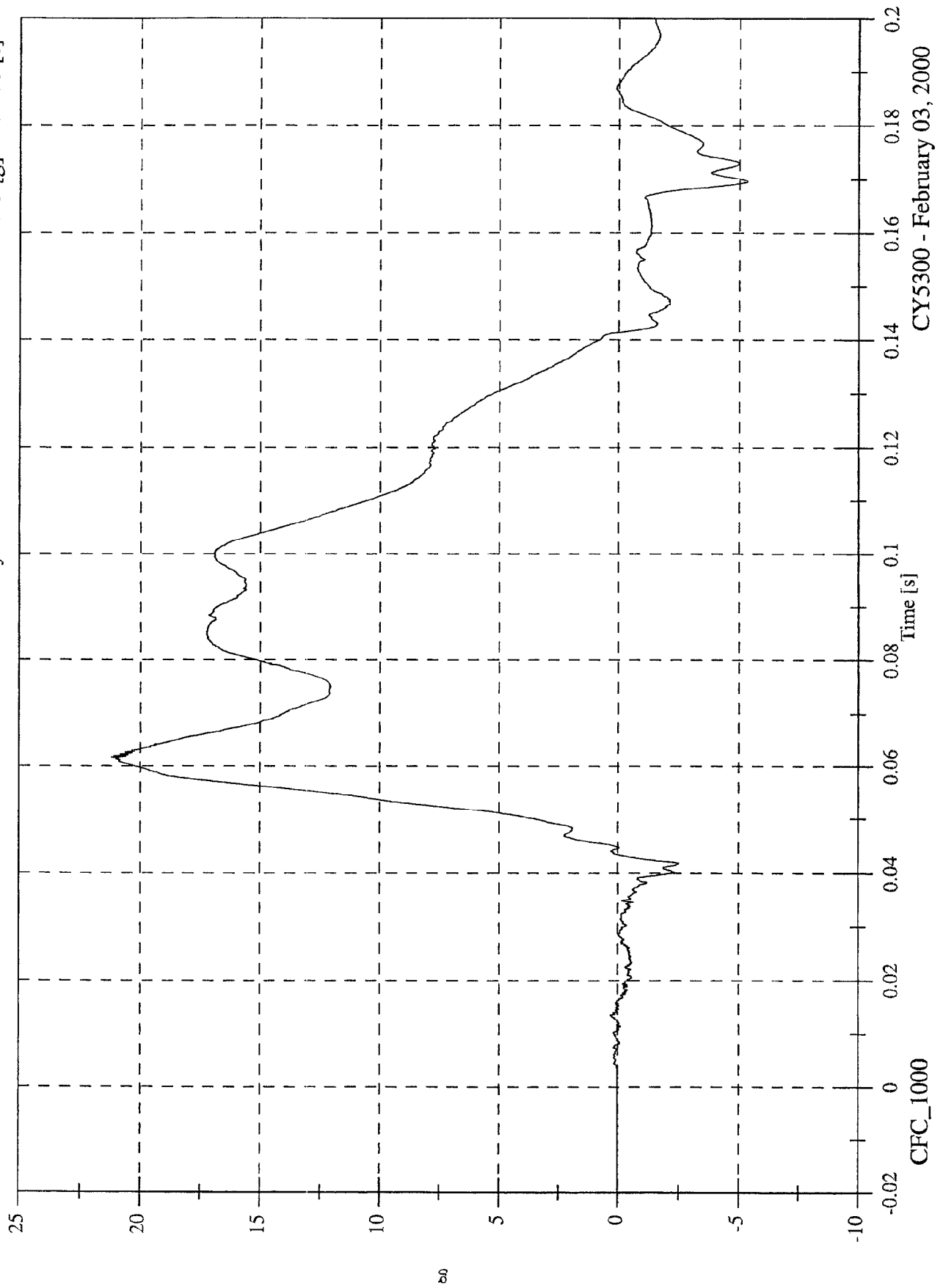


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Head y

Max: 21.2 [g] at 0.062 [s]
Min: -5.3 [g] at 0.170 [s]

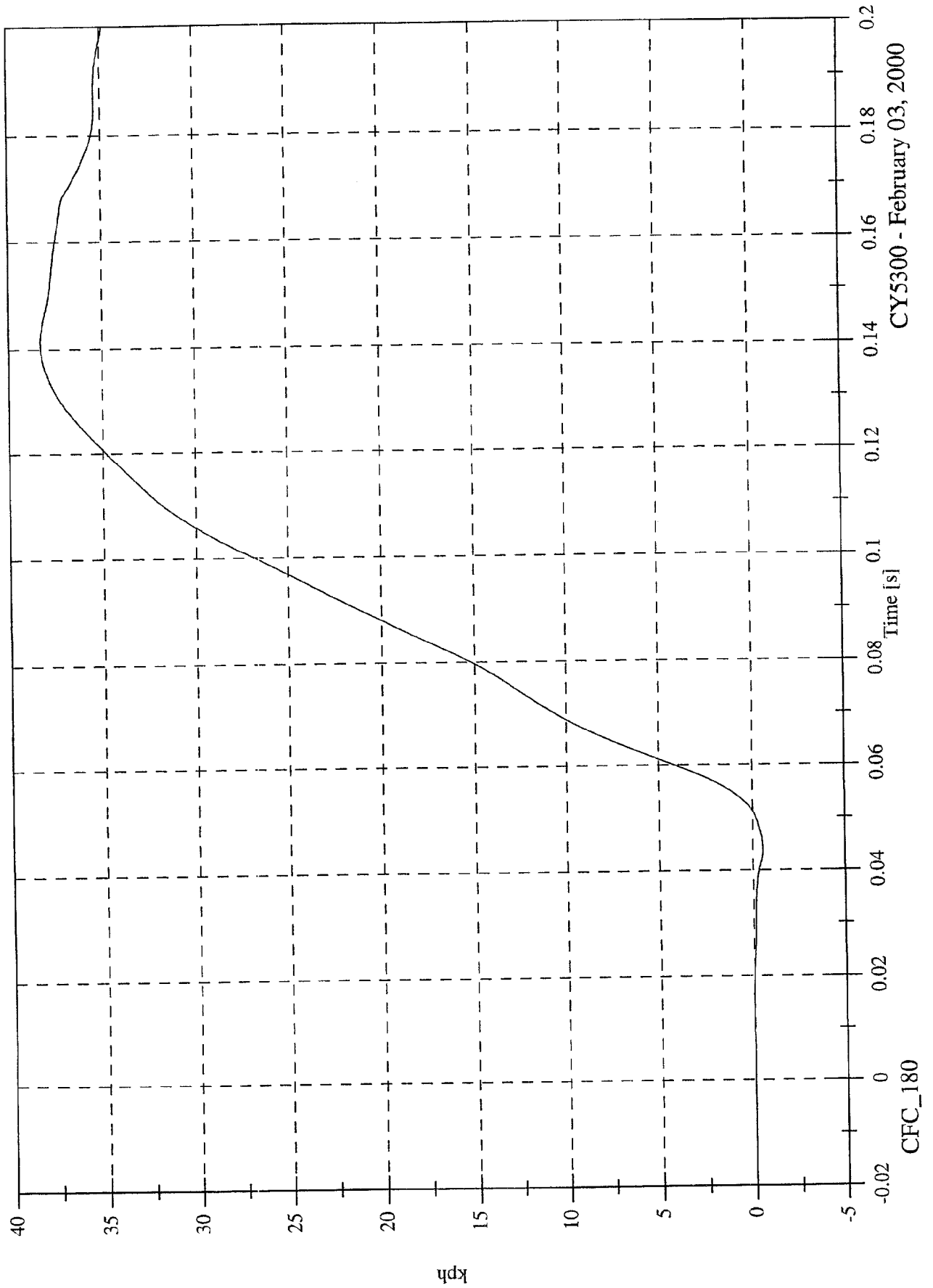


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Head y Velocity

Max: 38.3 [kph] at 0.141 [s]
Min: -0.5 [kph] at 0.044 [s]

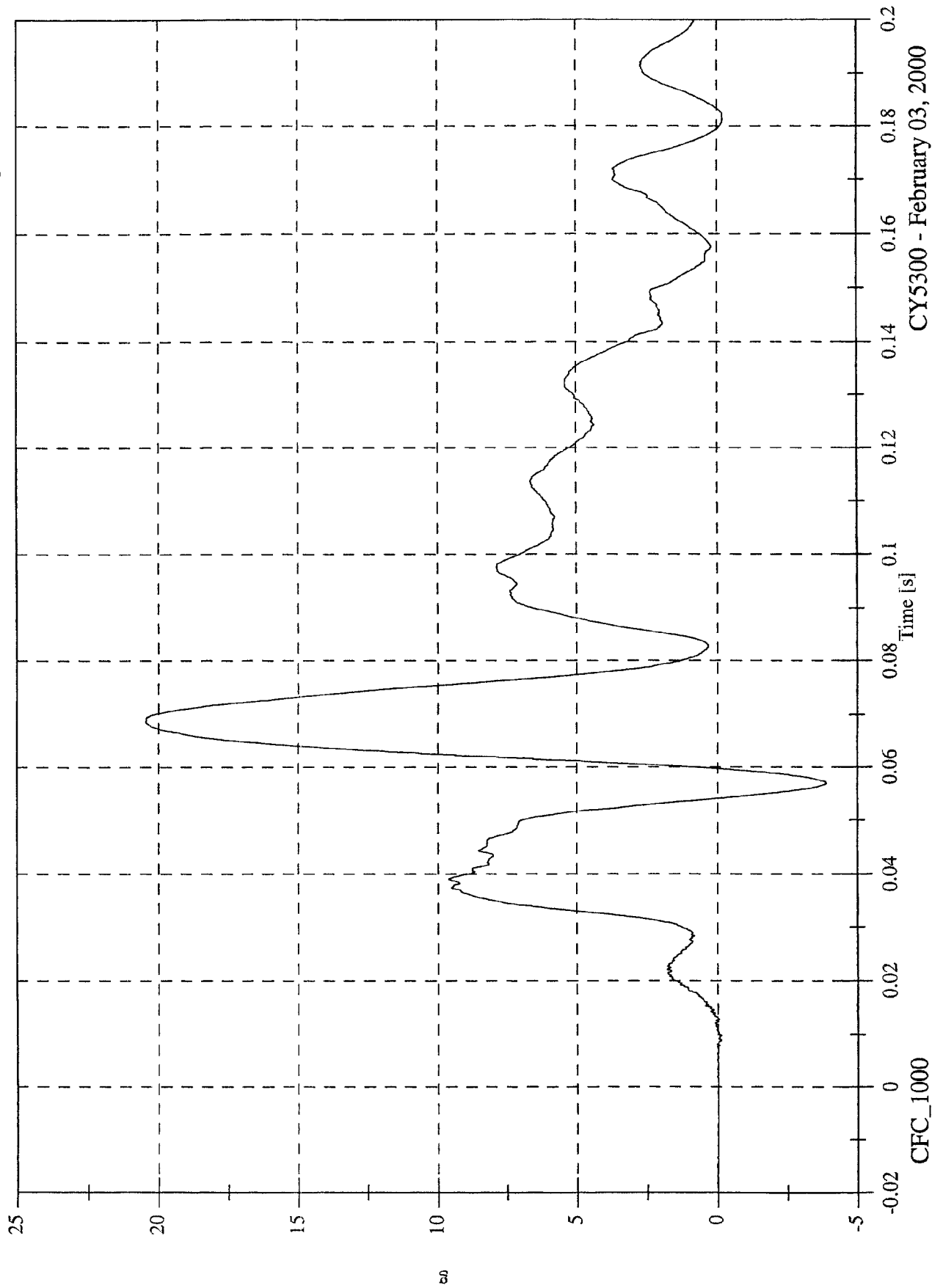


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 20.4 [g] at 0.069 [s]
 Min: -3.9 [g] at 0.057 [s]

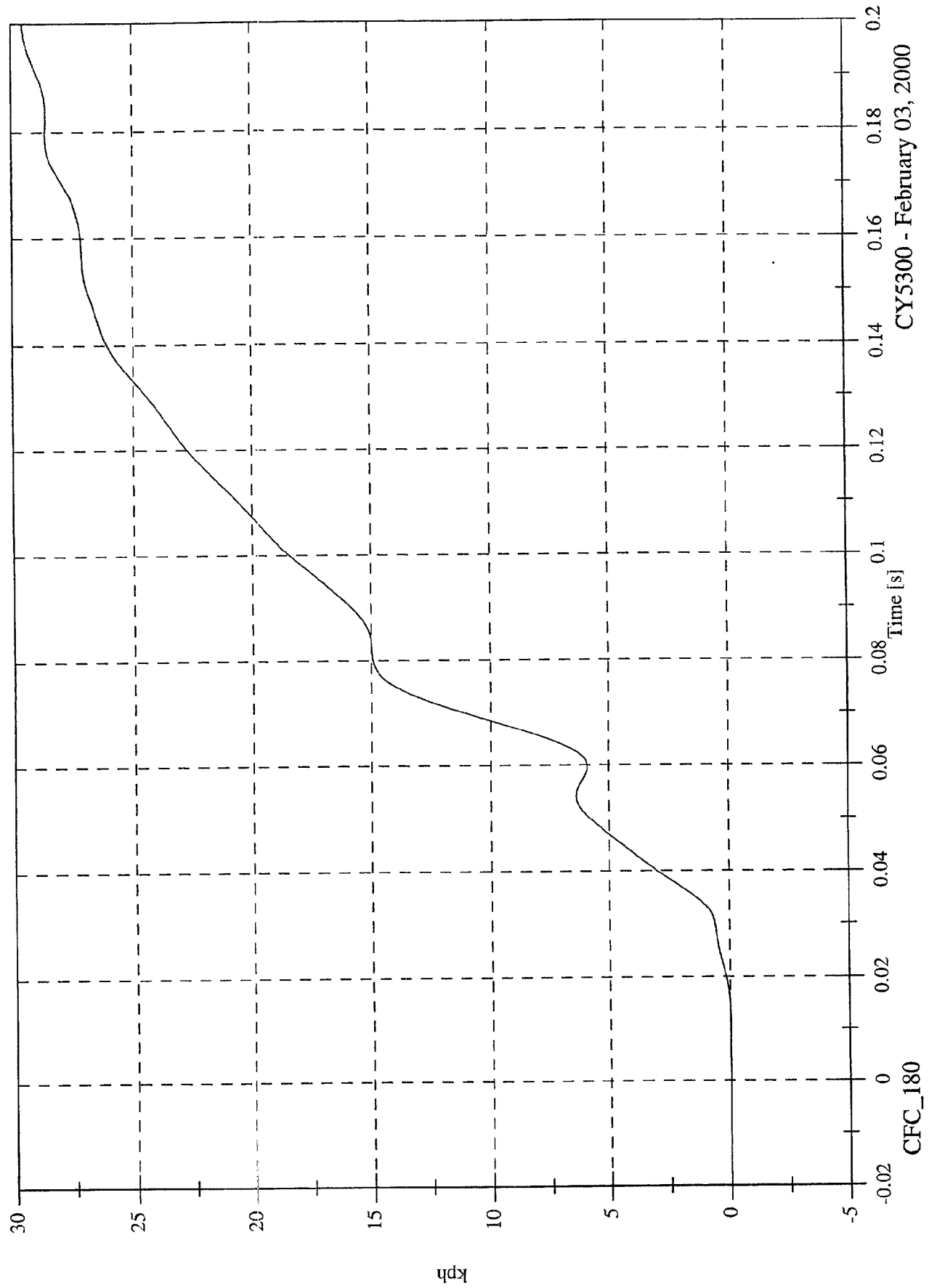
P1 Head z



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Head z Velocity

Max: 29.5 [kph] at 0.200 [s]
Min: -0.0 [kph] at 0.011 [s]

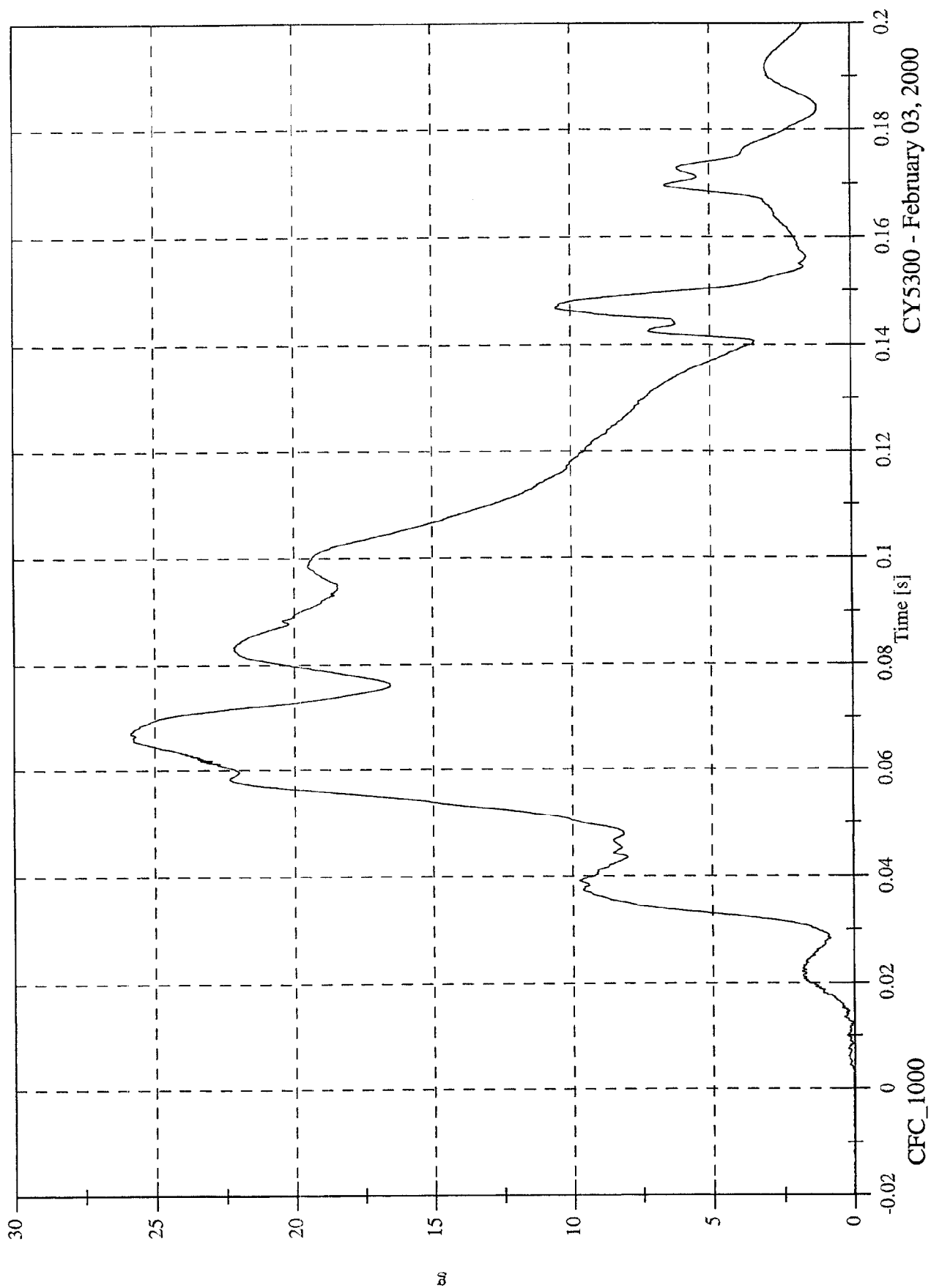


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 25.9 [g] at 0.067 [s]
 Min: 0.0 [g] at -0.002 [s]

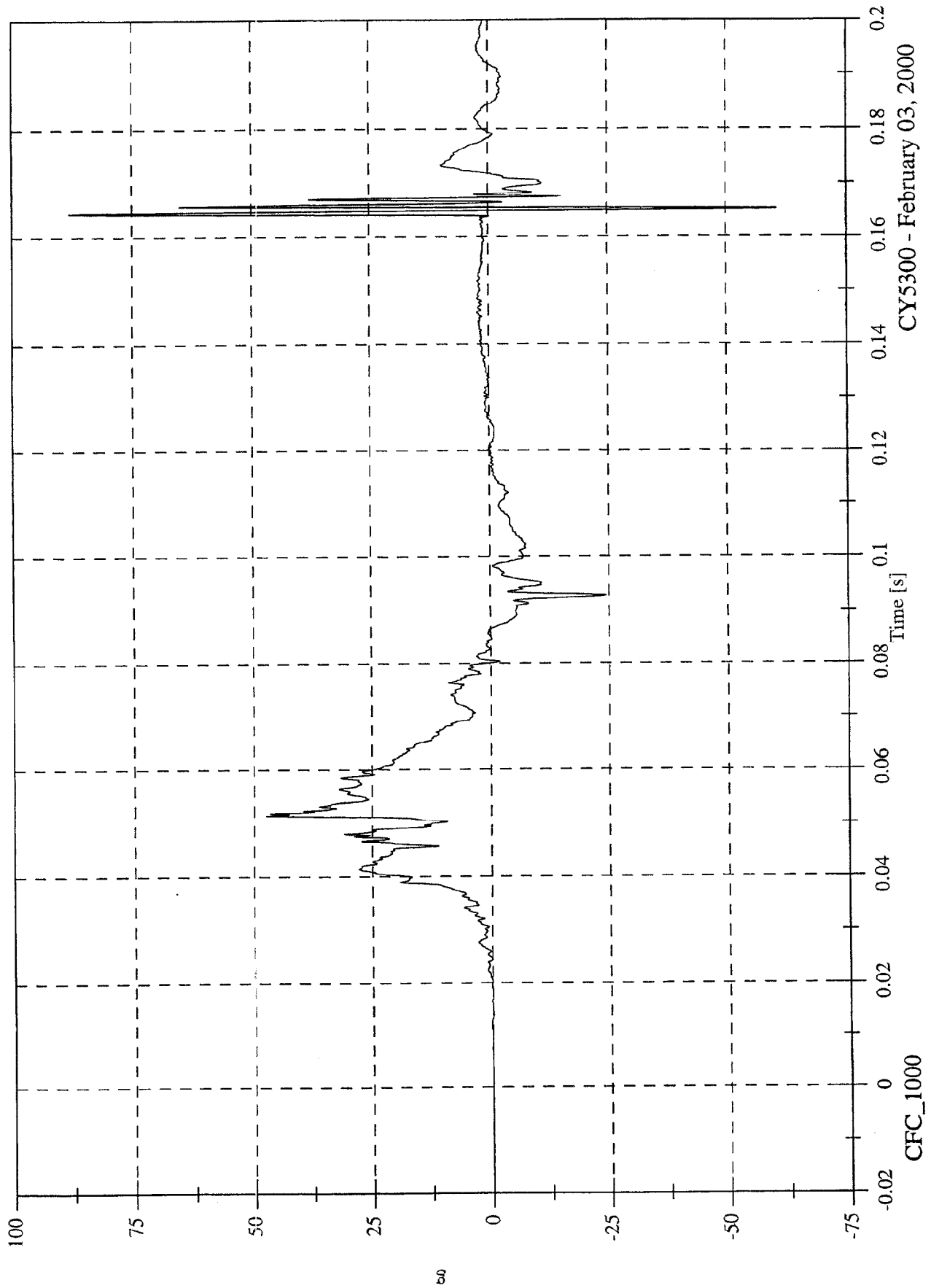
P1 Head Resultant



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Upper Rib y

Max: 87.9 [g] at 0.165 [s]
Min: -60.4 [g] at 0.165 [s]

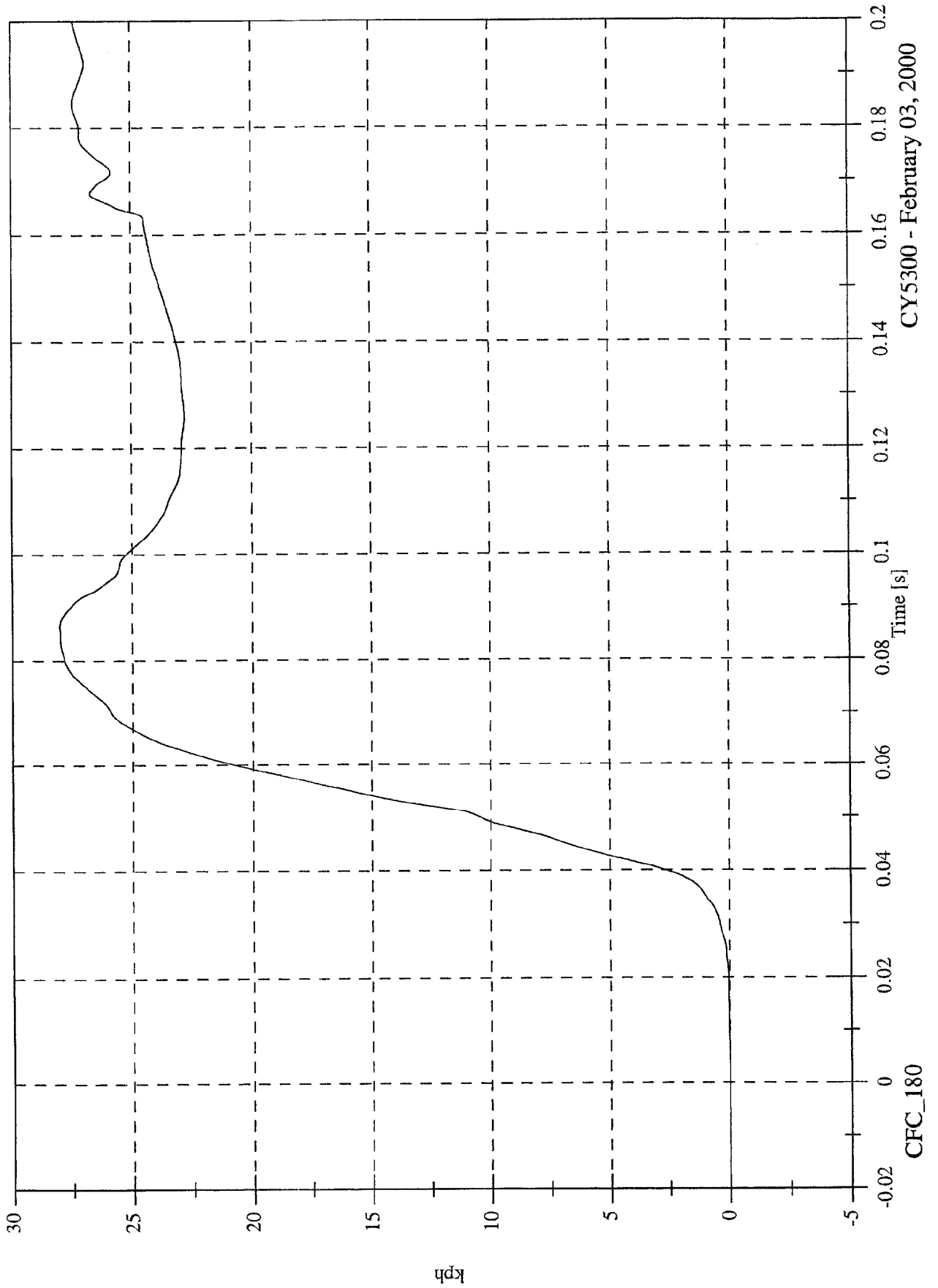


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 28.0 [kph] at 0.087 [s]

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

P1 Upper Rib y Velocity

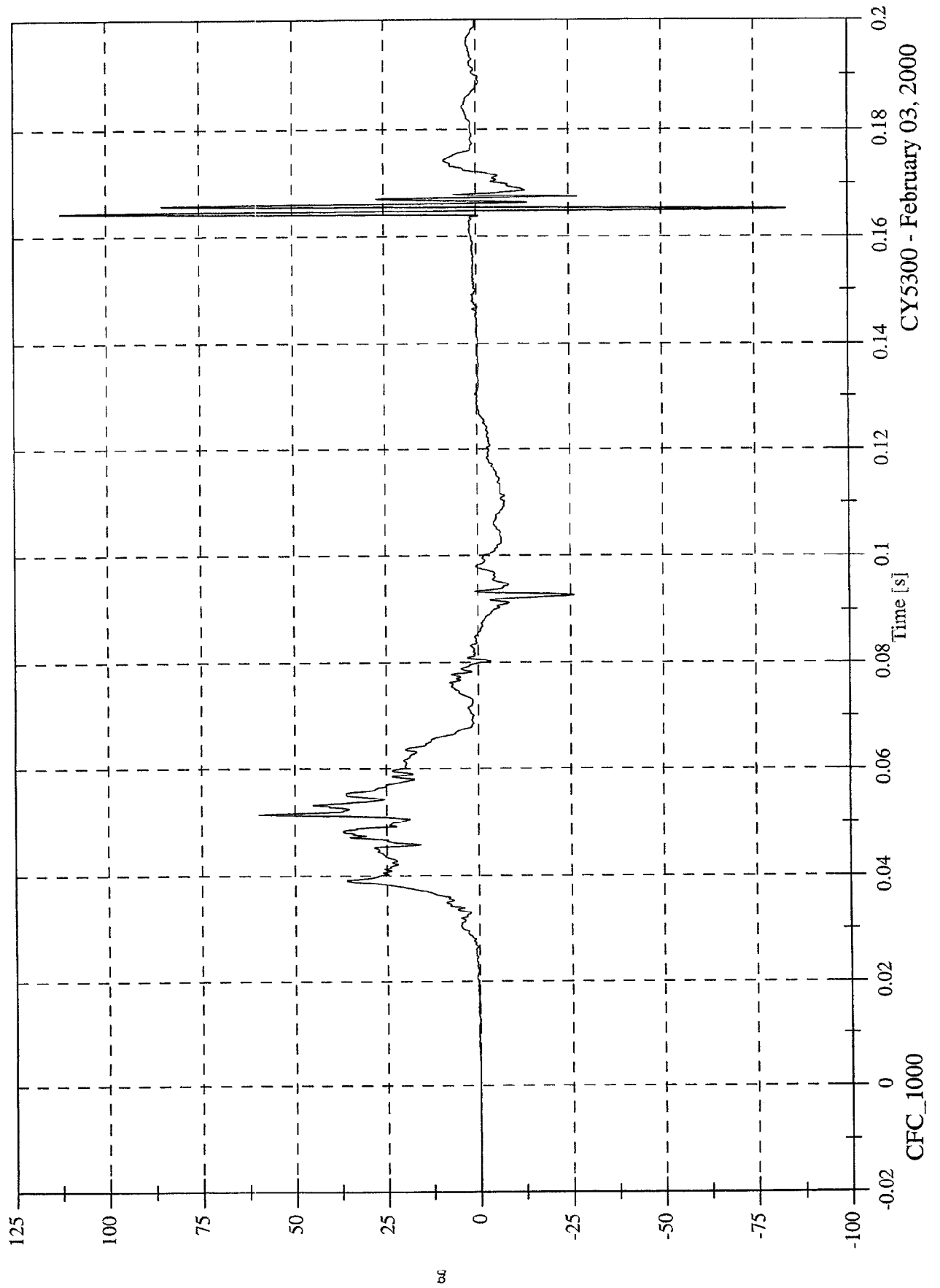


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Rib Y

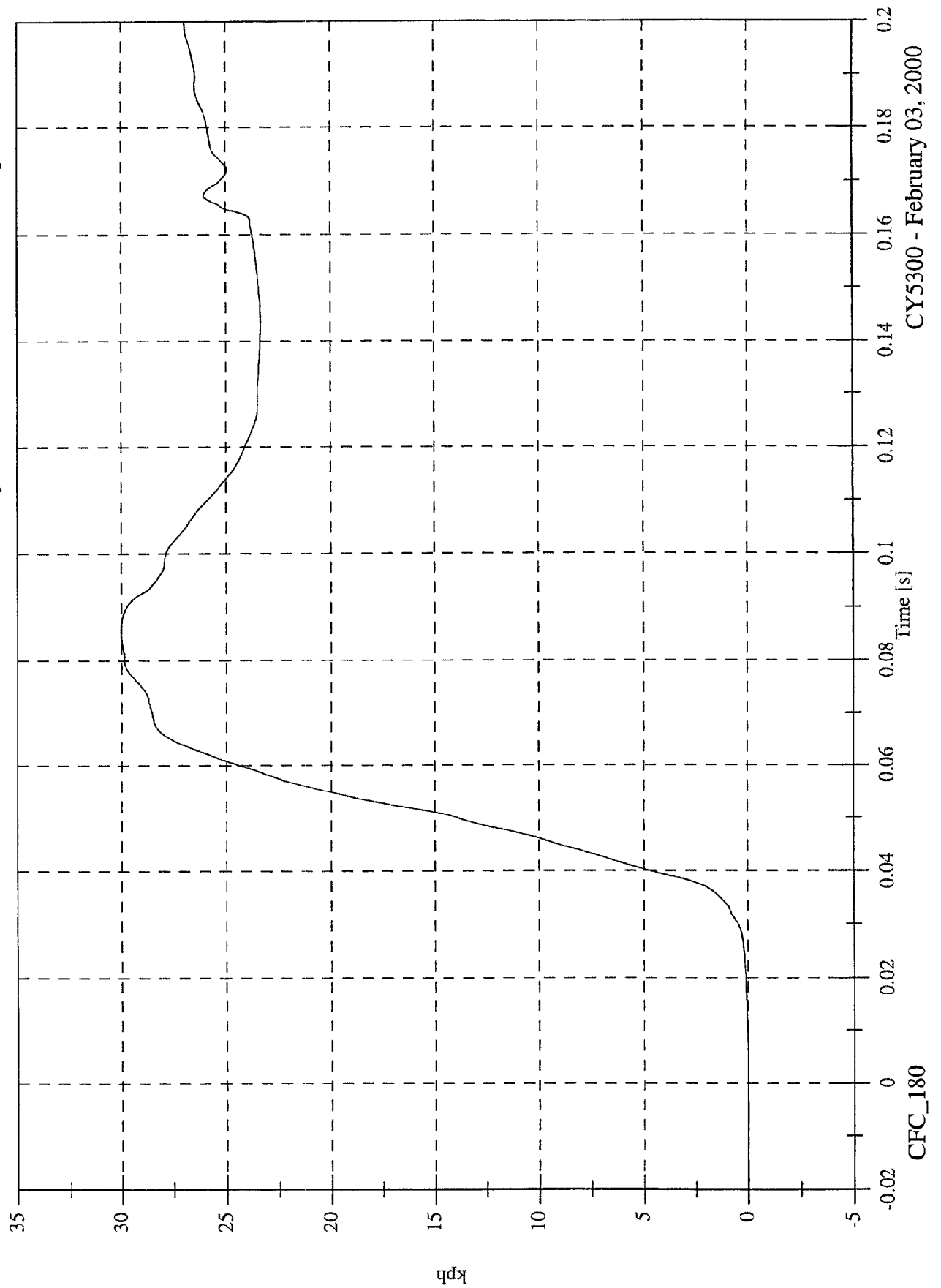
Max: 112.3 [g] at 0.164 [s]
Min: -83.6 [g] at 0.165 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 30.0 [kph] at 0.086 [s]
Min: -0.0 [kph] at -0.020 [s]

P1 Lower Rib Y Velocity



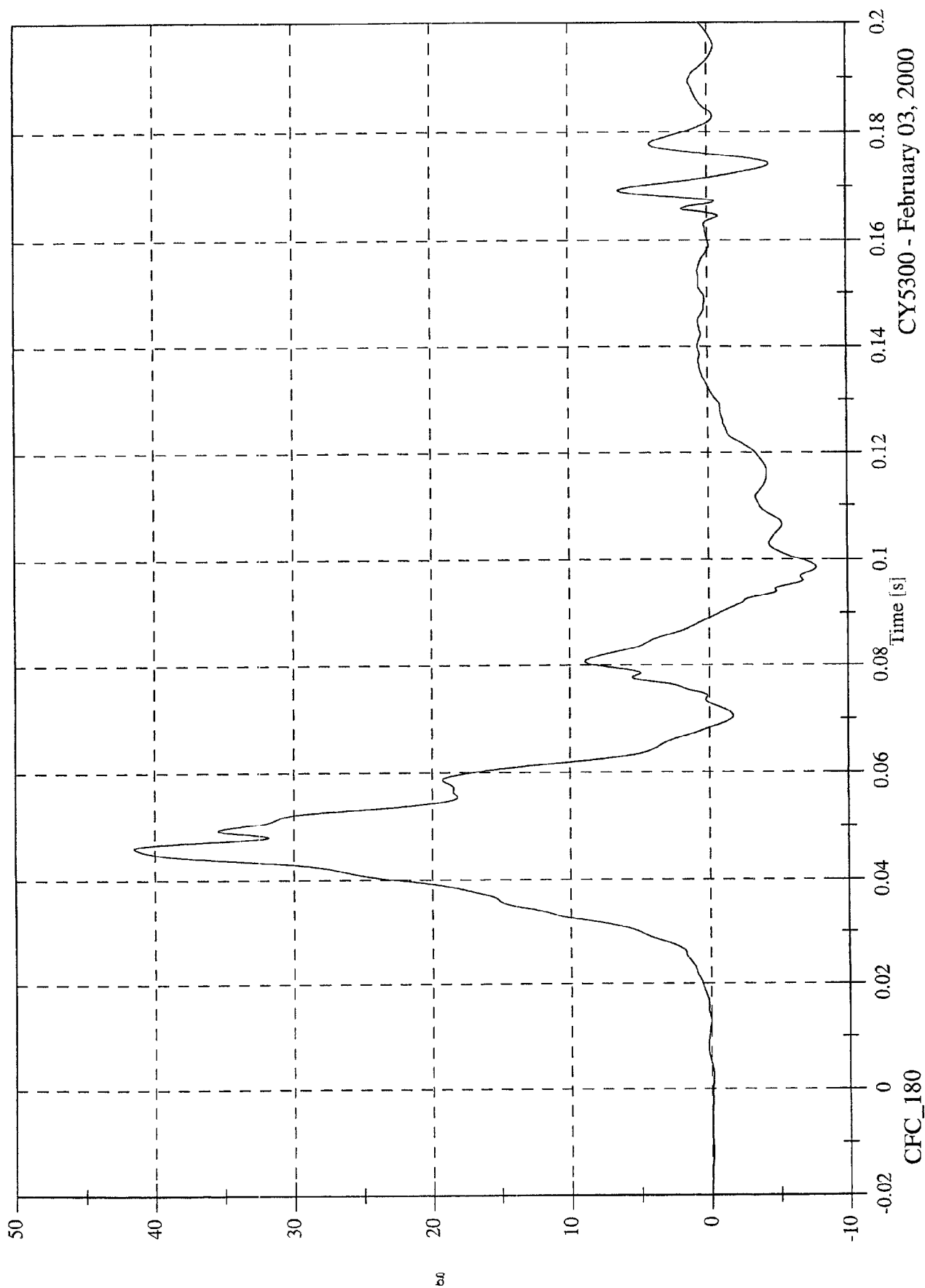
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 41.5 [g] at 0.046 [s]

Min: -7.8 [g] at 0.098 [s]

P1 Lower Spine y

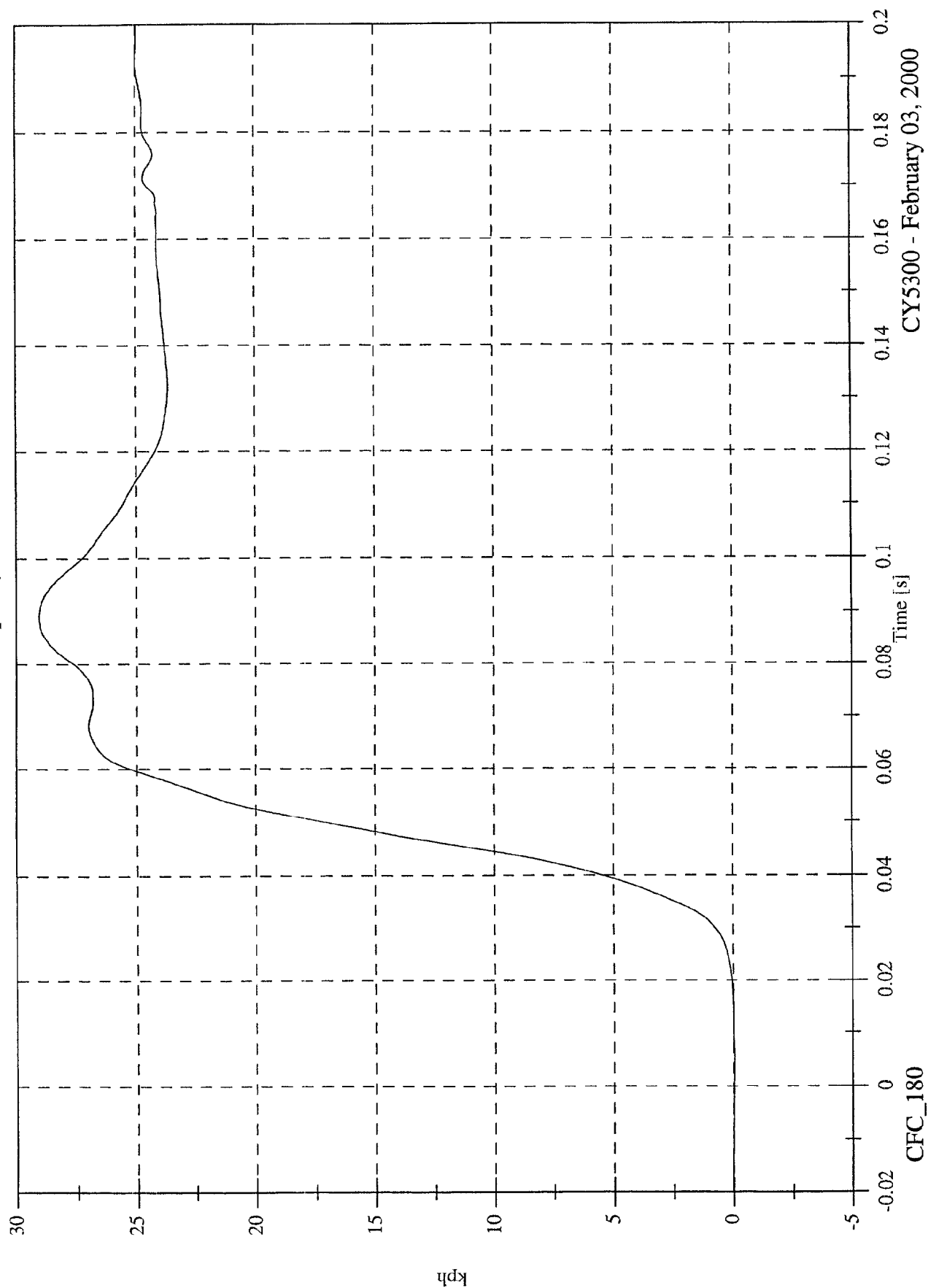


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Spine y Velocity

Max: 29.1 [kph] at 0.089 [s]
Min: -0.0 [kph] at 0.005 [s]

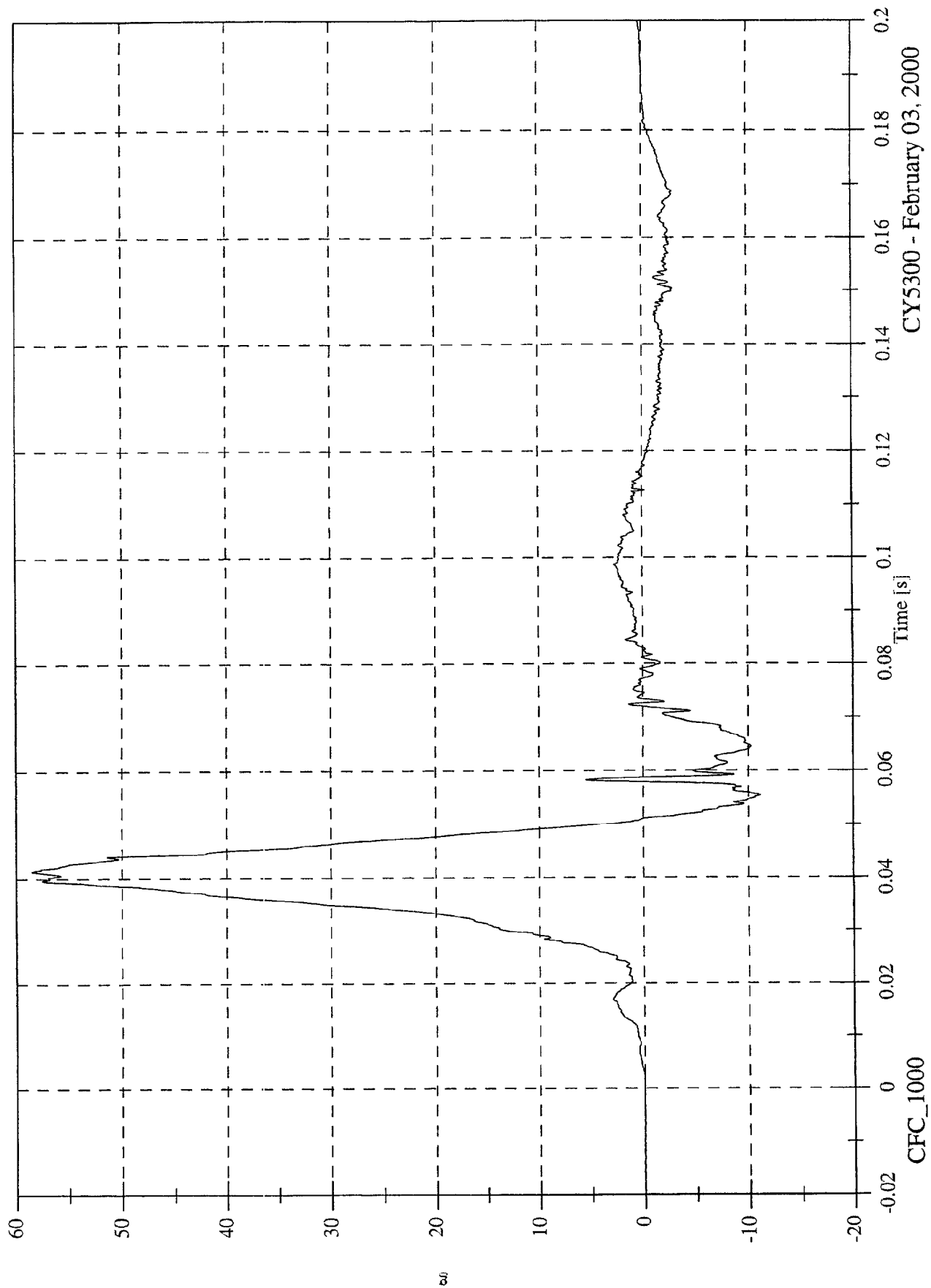


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

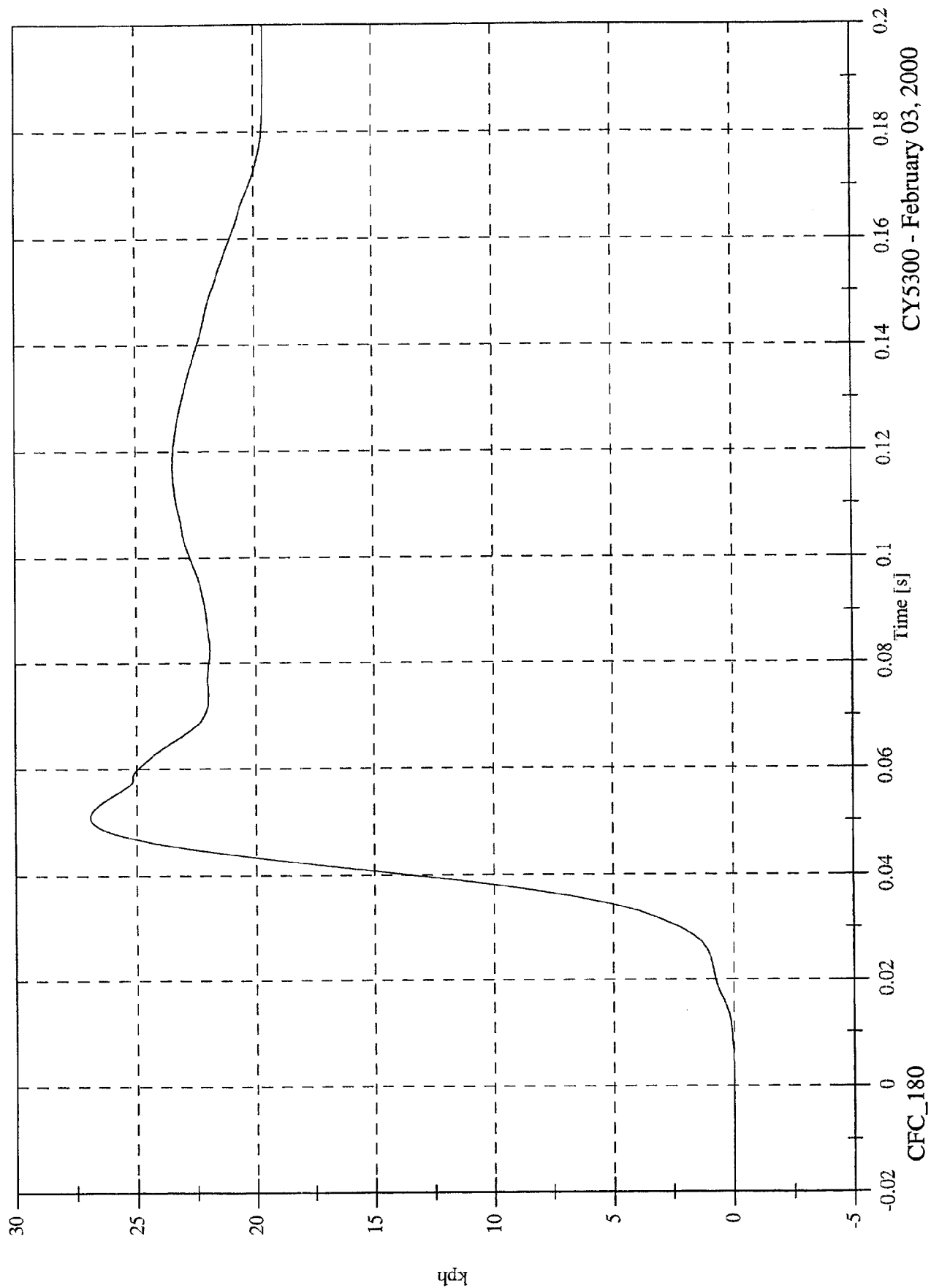
Max: 58.5 [g] at 0.041 [s]
 Min: -11.1 [g] at 0.055 [s]

P1 Pelvic Y



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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey
P1 Pelvic Y Velocity
Max: 26.9 [kph] at 0.051 [s]
Min: -0.0 [kph] at -0.016 [s]

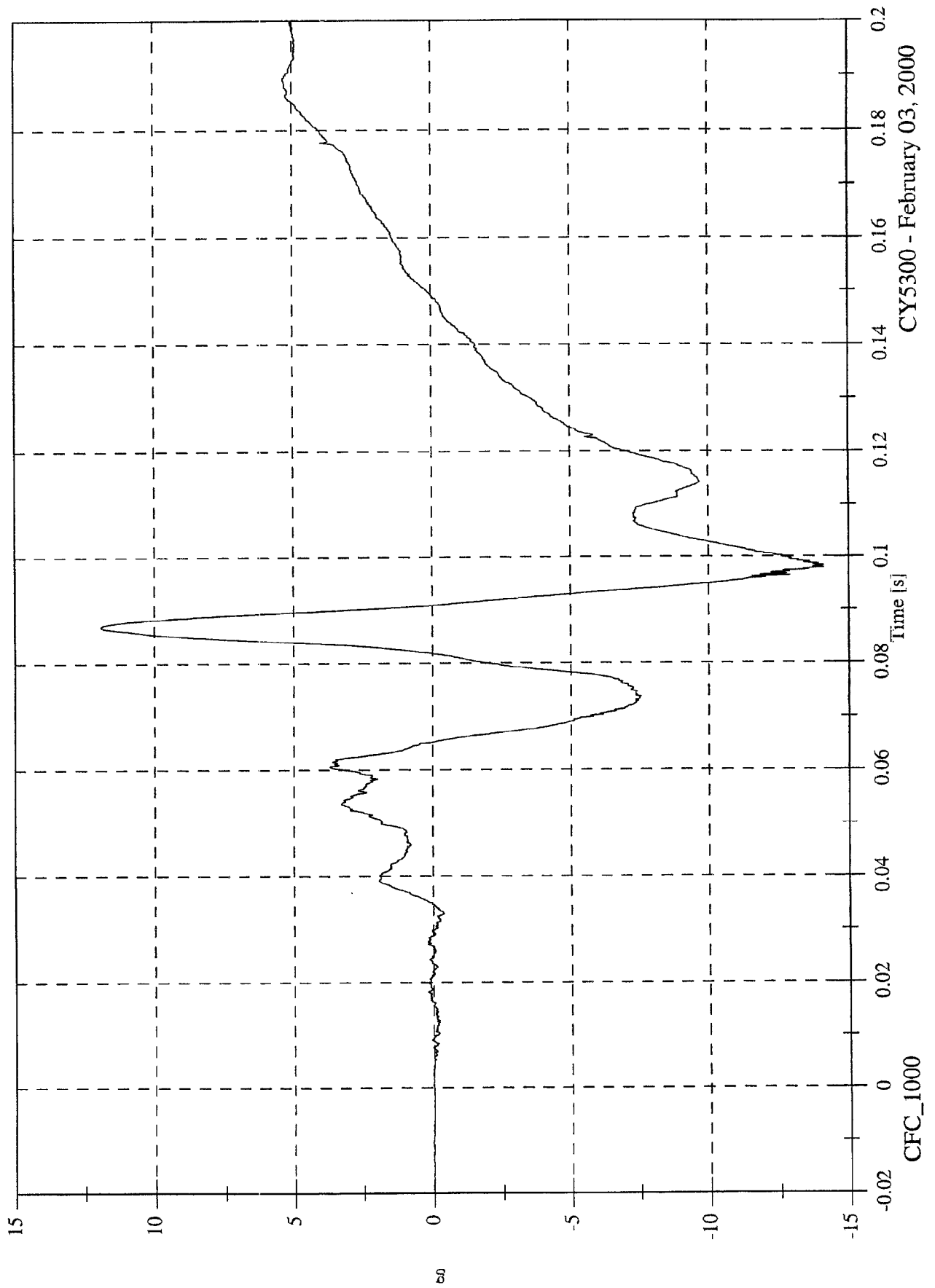


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Head x

Max: 11.9 [g] at 0.087 [s]
Min: -14.1 [g] at 0.098 [s]

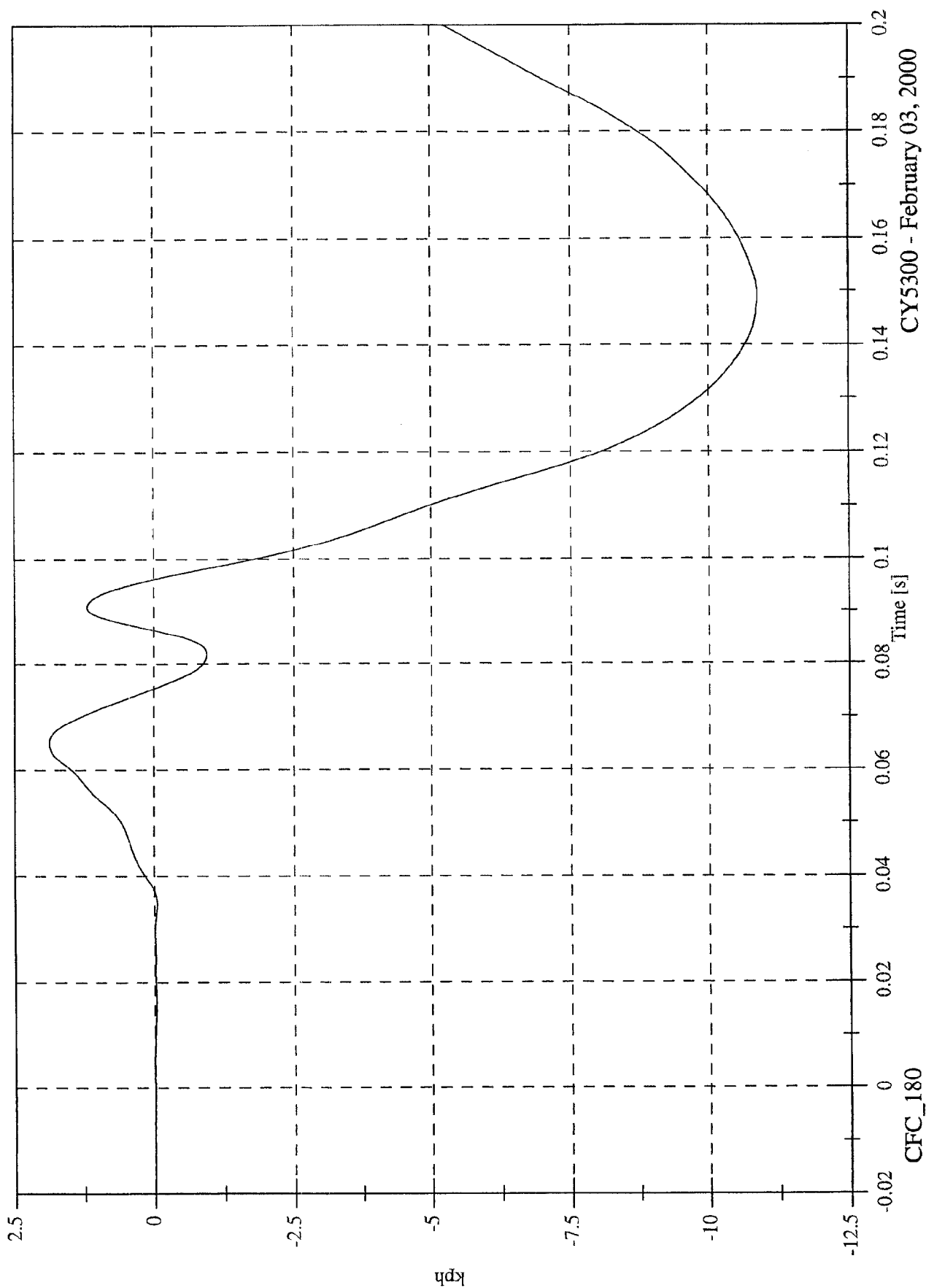


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 1.9 [kph] at 0.065 [s]
Min: -10.9 [kph] at 0.149 [s]

P4 Head x Velocity

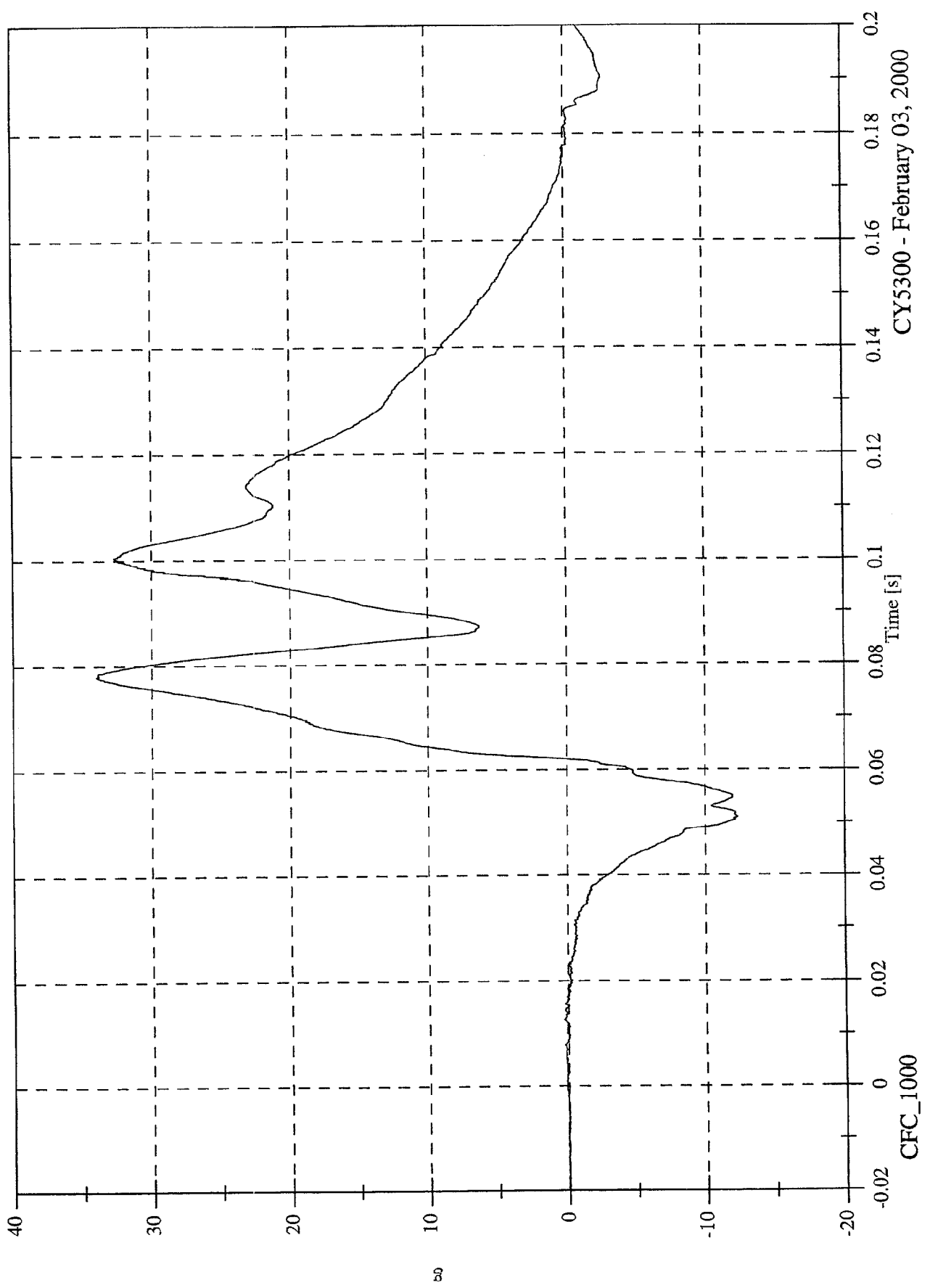


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Head y

Max: 34.0 [g] at 0.078 [s]
Min: -12.3 [g] at 0.051 [s]



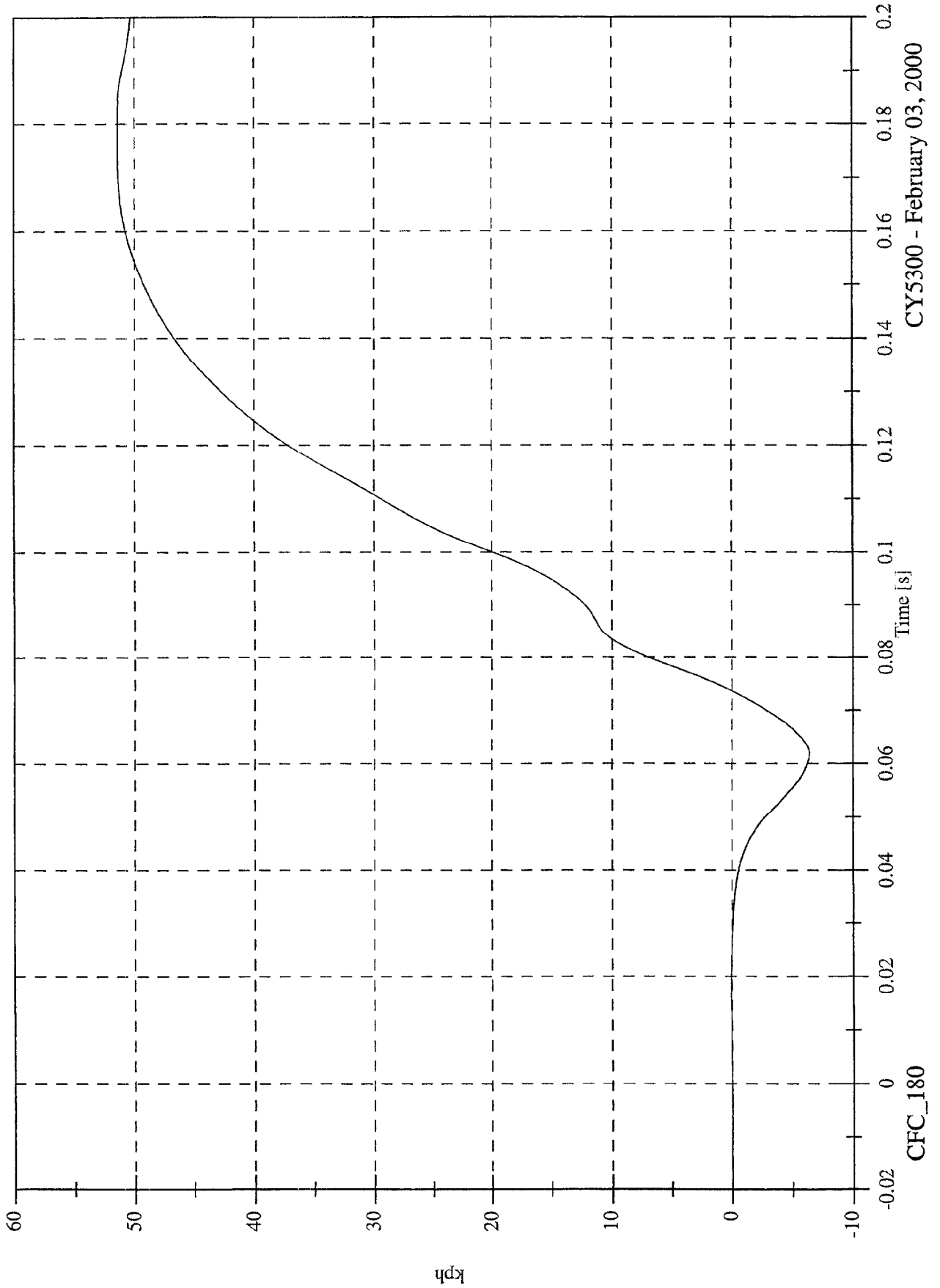
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Head y Velocity

Max: 51.4 [kph] at 0.177 [s]

Min: -6.4 [kph] at 0.062 [s]

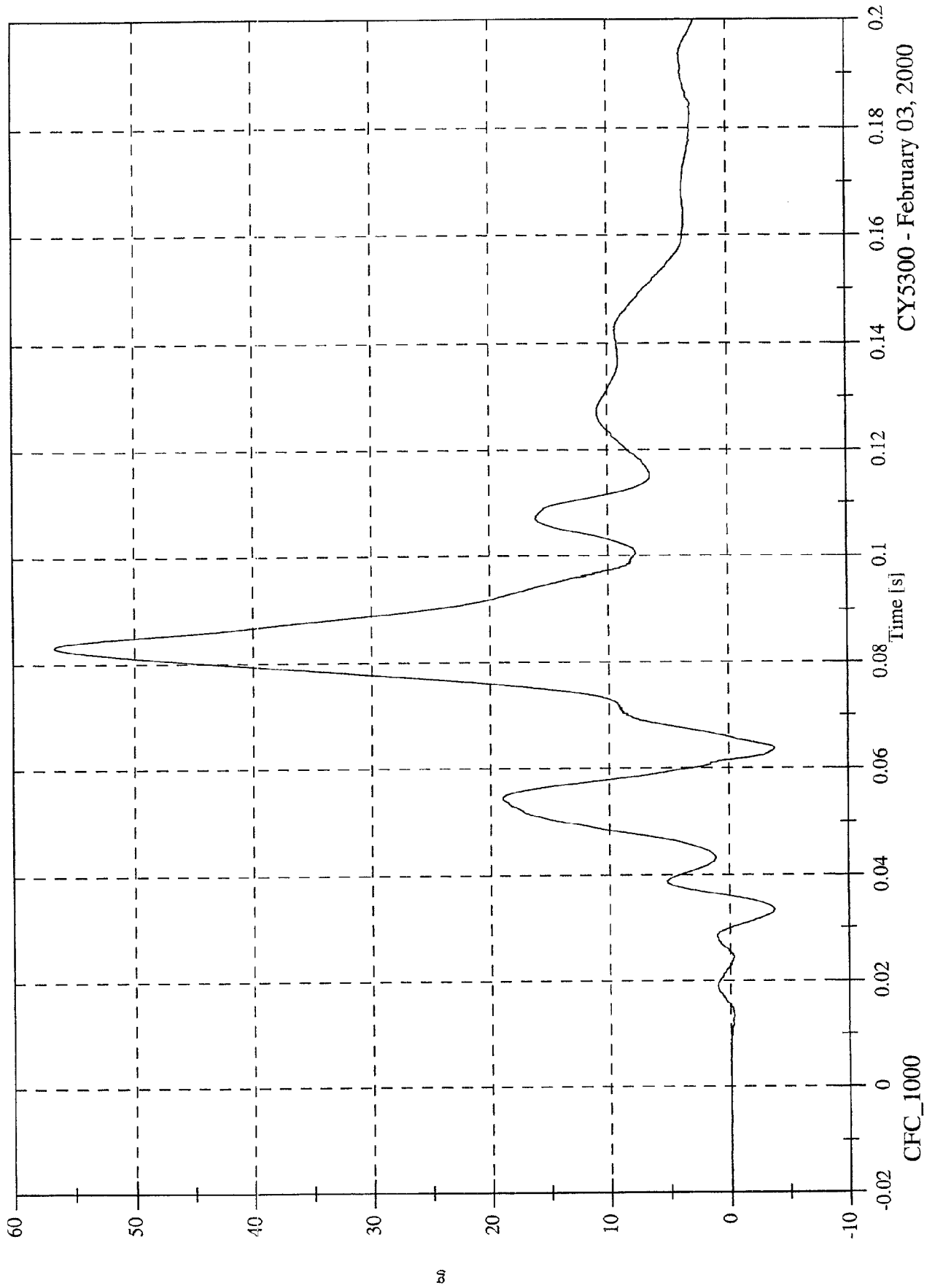


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Head z

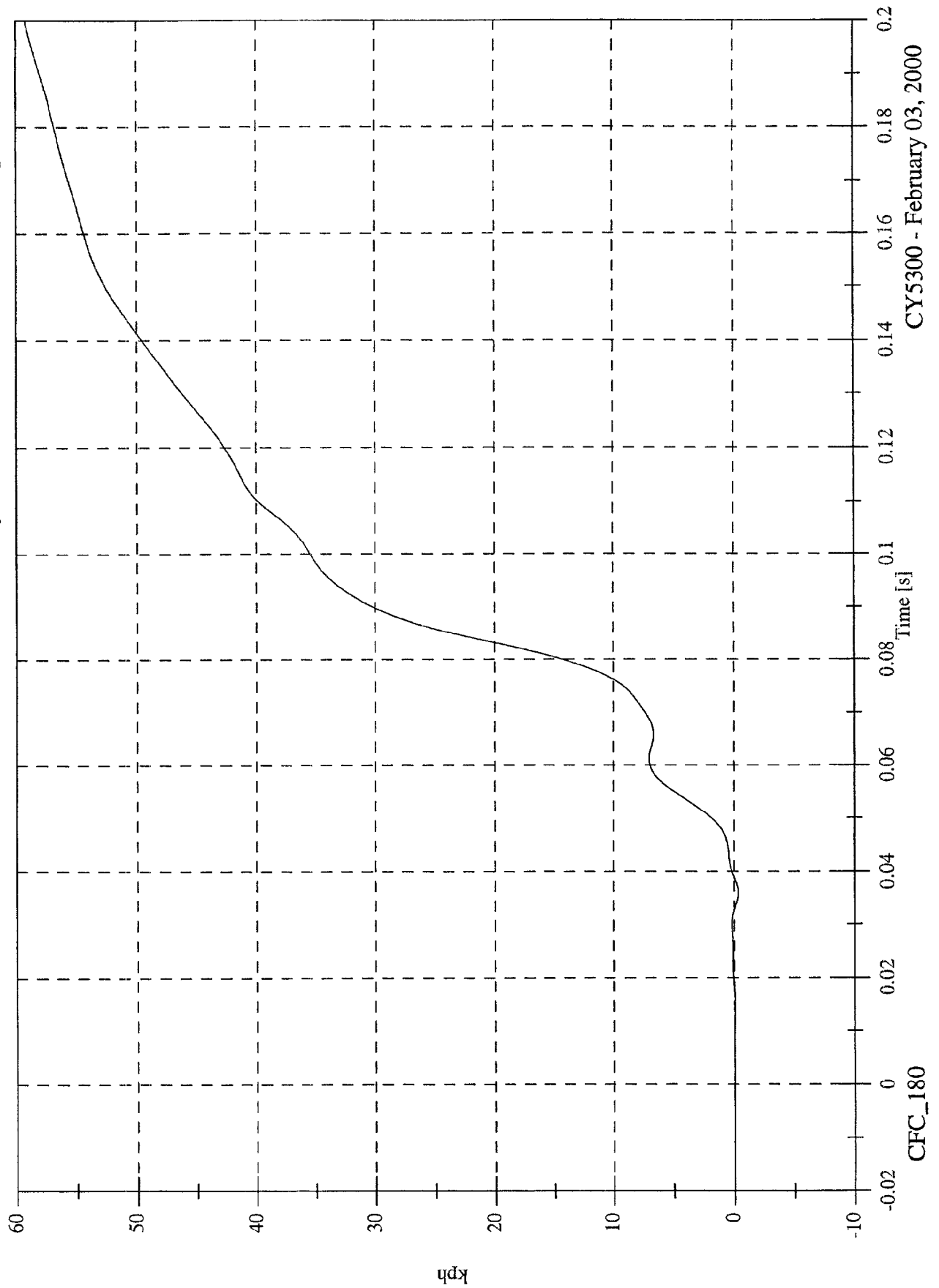
Max: 56.6 [g] at 0.083 [s]
Min: -3.9 [g] at 0.063 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 59.2 [kph] at 0.200 [s]
Min: -0.3 [kph] at 0.036 [s]

P4 Head z Velocity



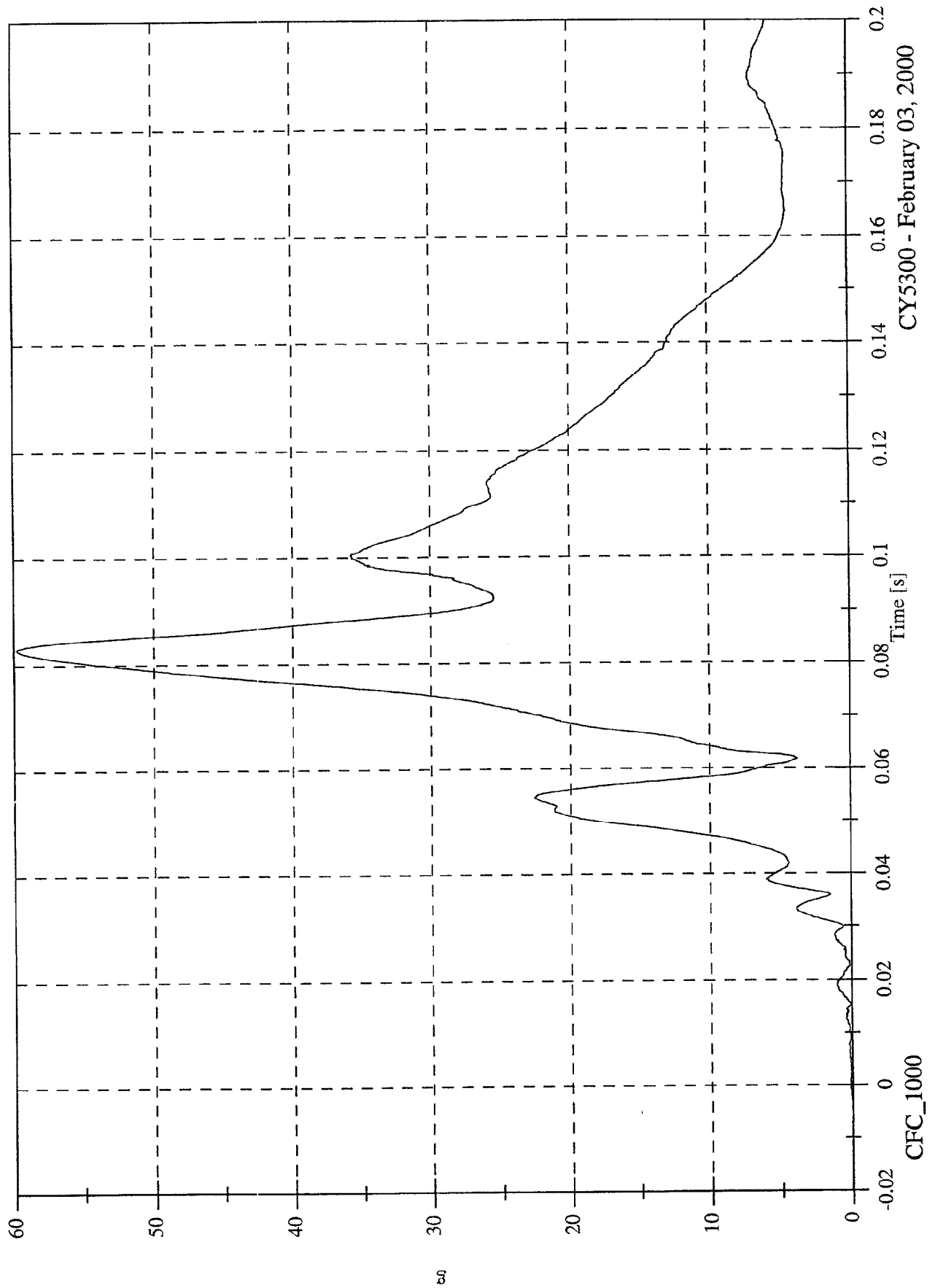
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Head Resultant

Max: 59.7 [g] at 0.083 [s]

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

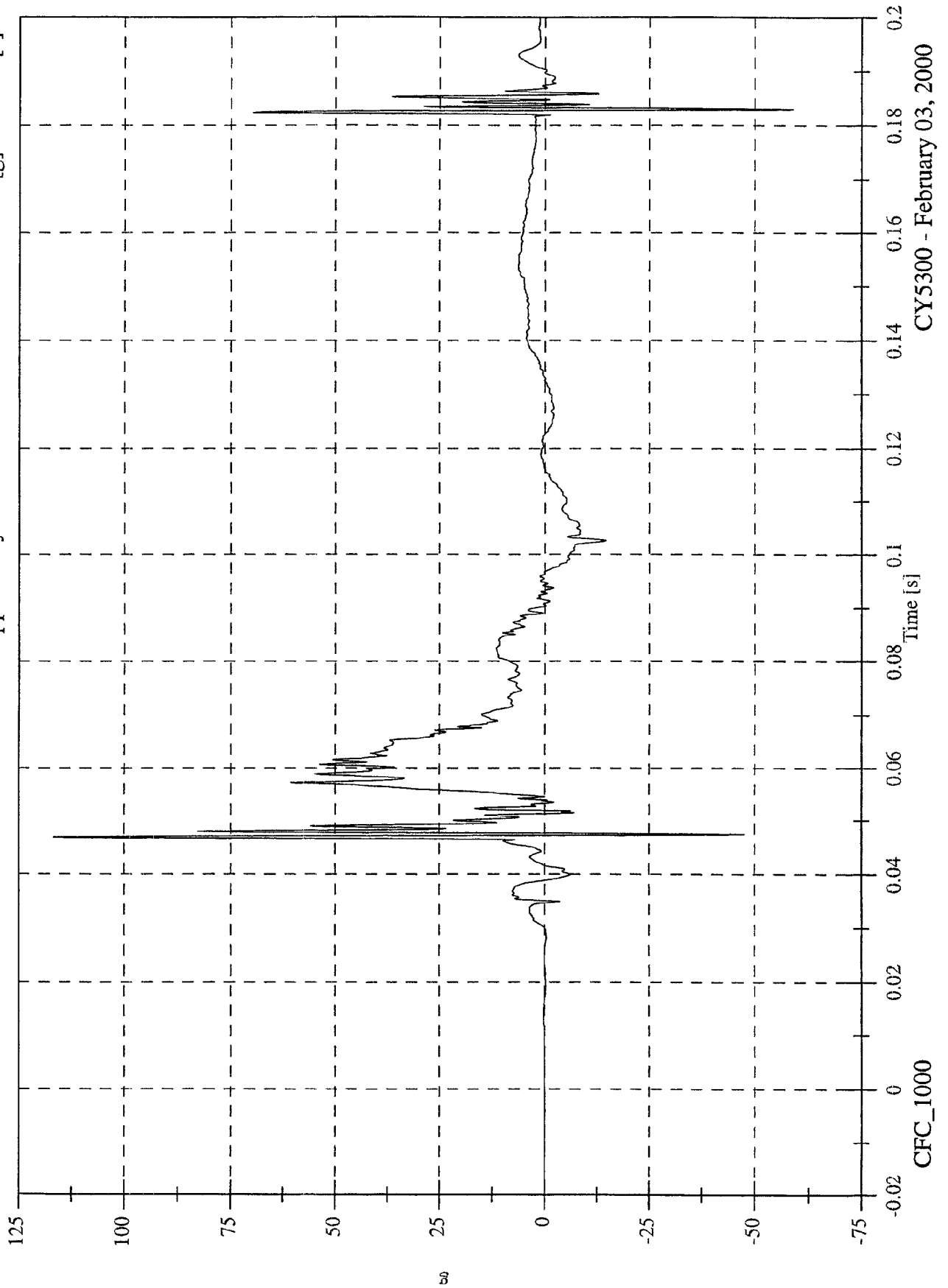


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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Upper Rib y

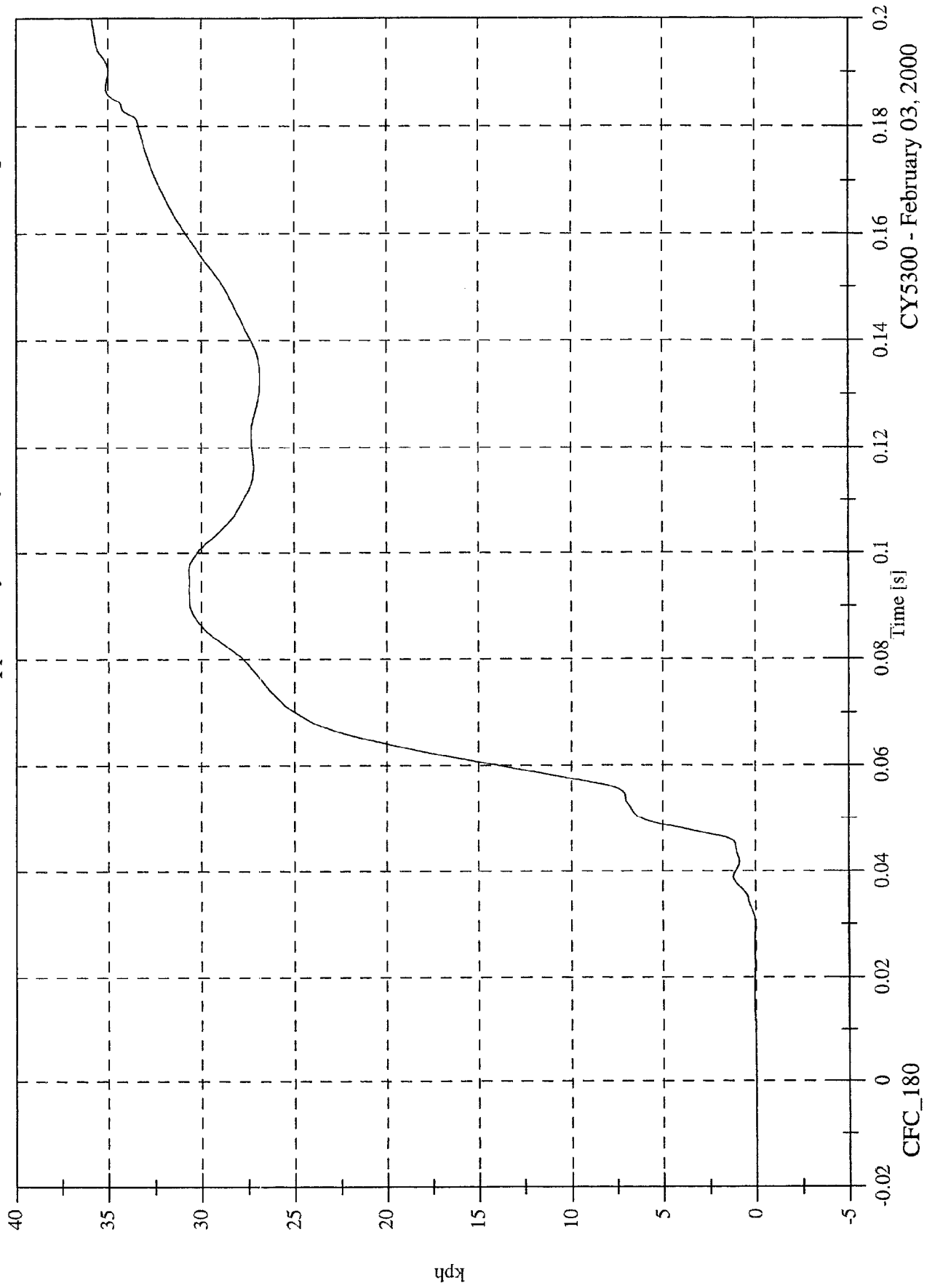
Max: 116.7 [g] at 0.047 [s]
Min: -58.9 [g] at 0.183 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Upper Rib y Velocity

Max: 35.9 [kph] at 0.200 [s]
Min: -0.0 [kph] at -0.020 [s]

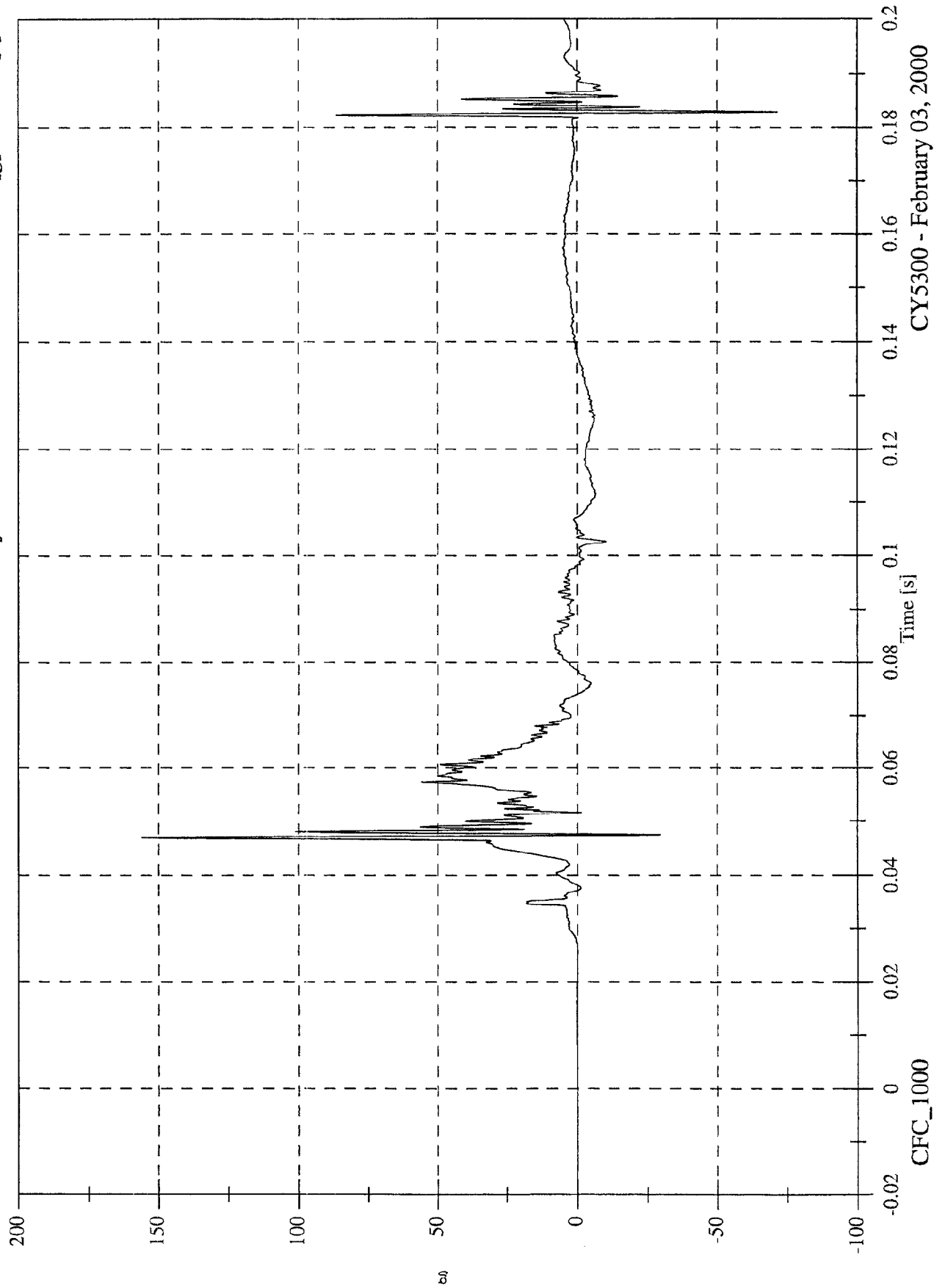


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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Rib y

Max: 156.0 [g] at 0.047 [s]
Min: -71.6 [g] at 0.183 [s]

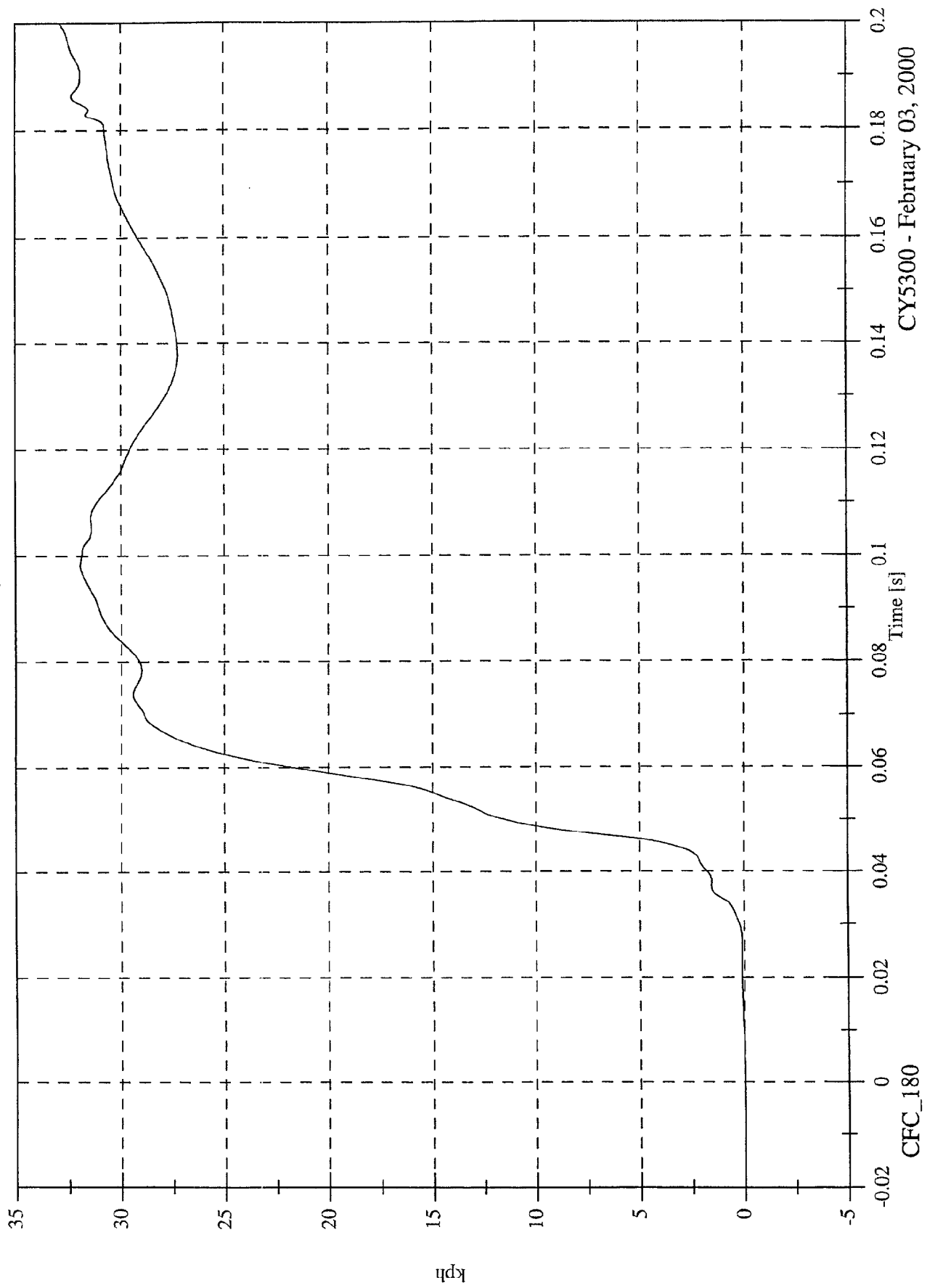


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 32.9 [kph] at 0.200 [s]

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

P4 Lower Rib y Velocity



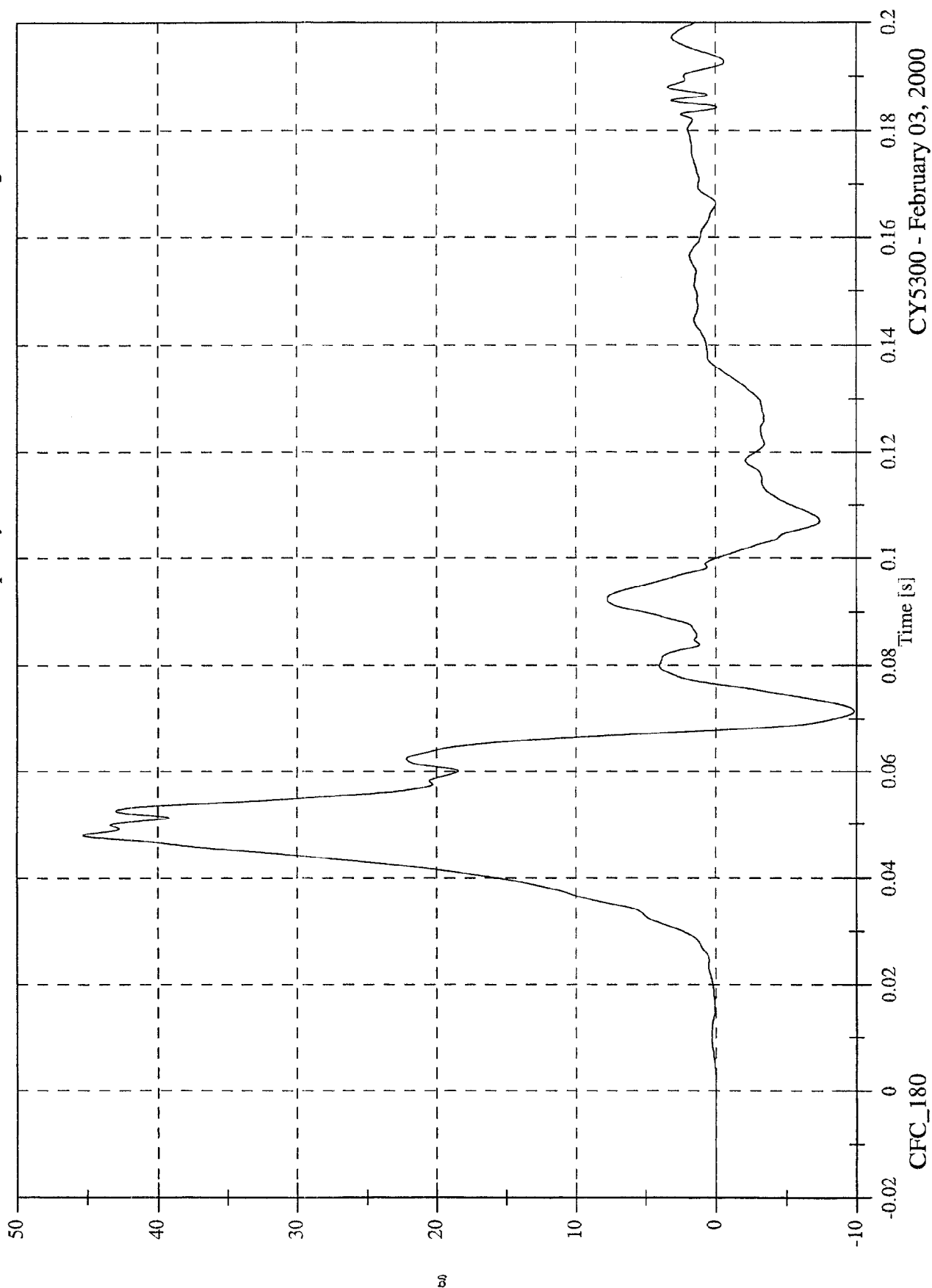
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Spine y

Max: 45.3 [g] at 0.048 [s]

Min: -9.8 [g] at 0.071 [s]

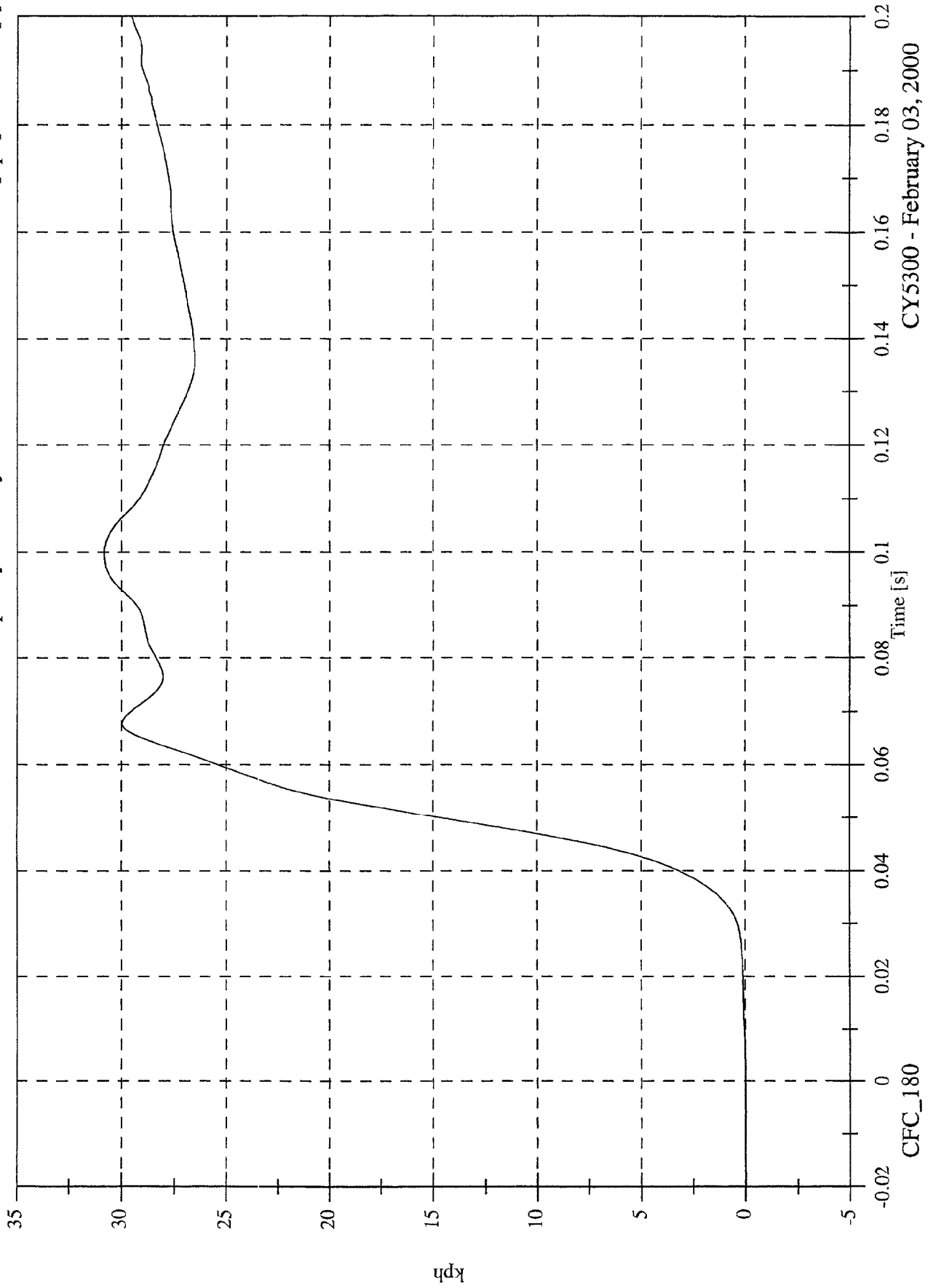


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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Spine y Velocity

Max: 30.8 [kph] at 0.100 [s]
Min: -0.0 [kph] at -0.020 [s]



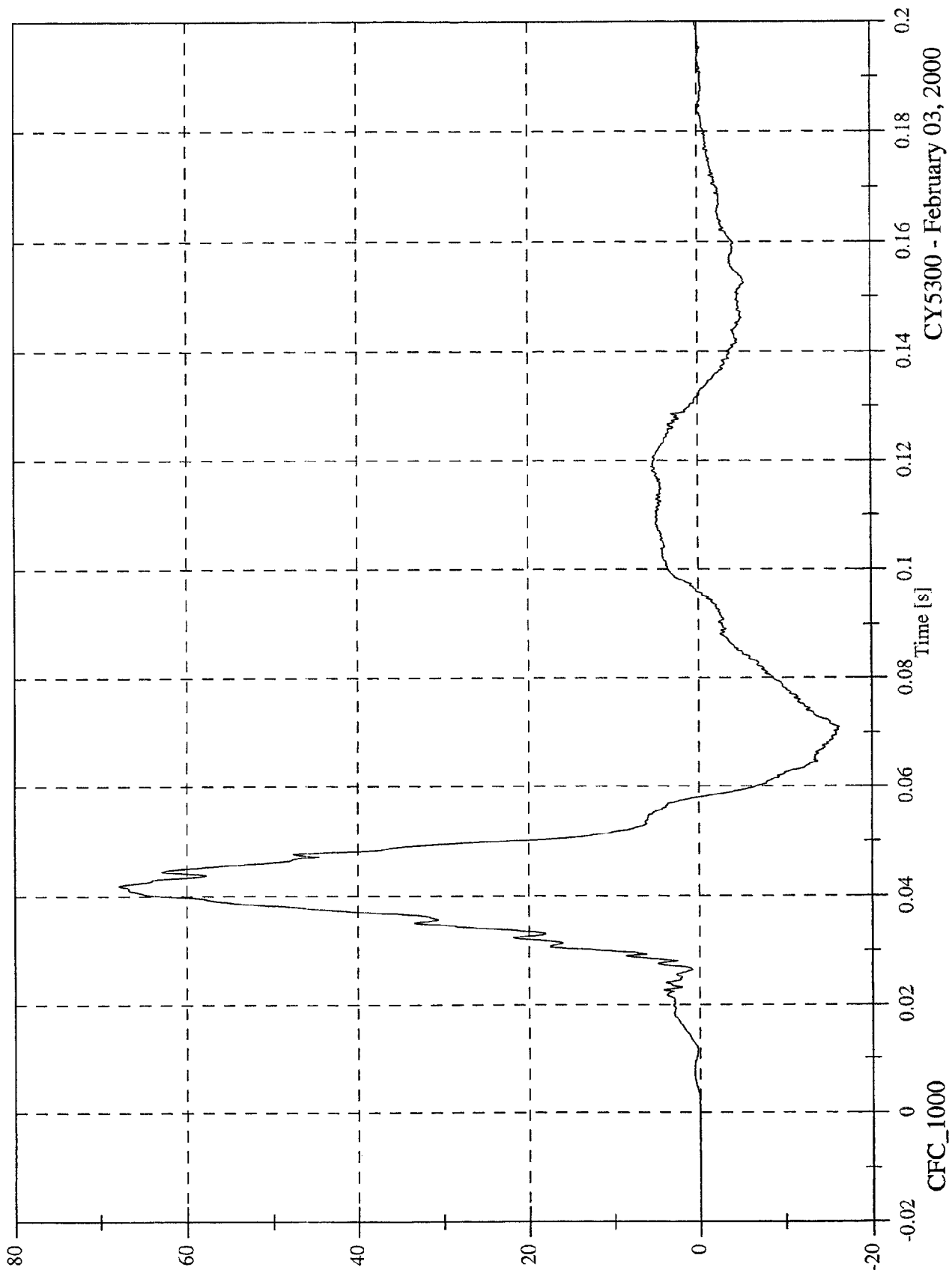
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

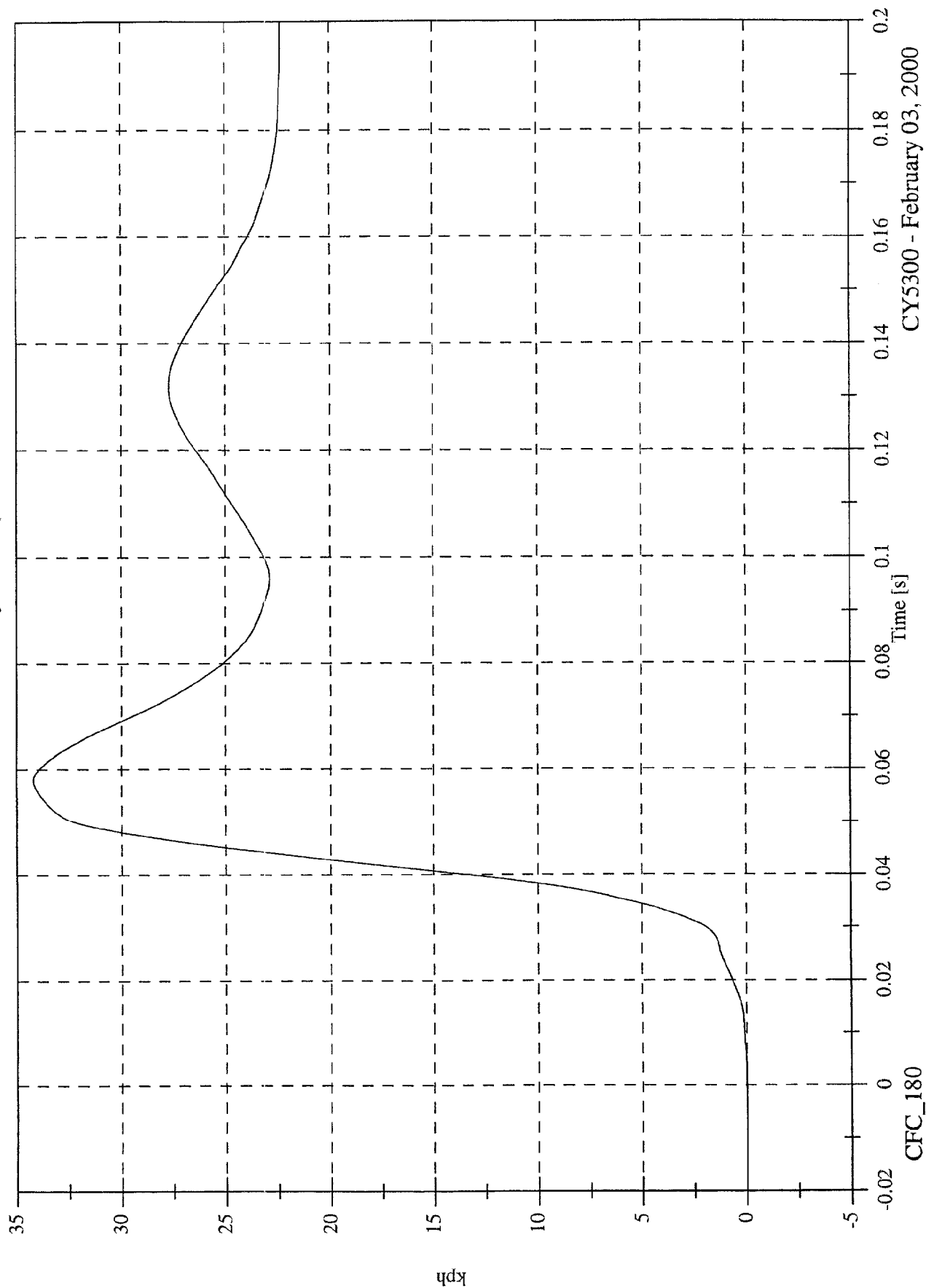
Max: 67.8 [g] at 0.042 [s]

Min: -16.2 [g] at 0.071 [s]

P4 Pelvic y



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey
P4 Pelvic y Velocity
Max: 34.2 [kph] at 0.058 [s]
Min: -0.0 [kph] at -0.020 [s]

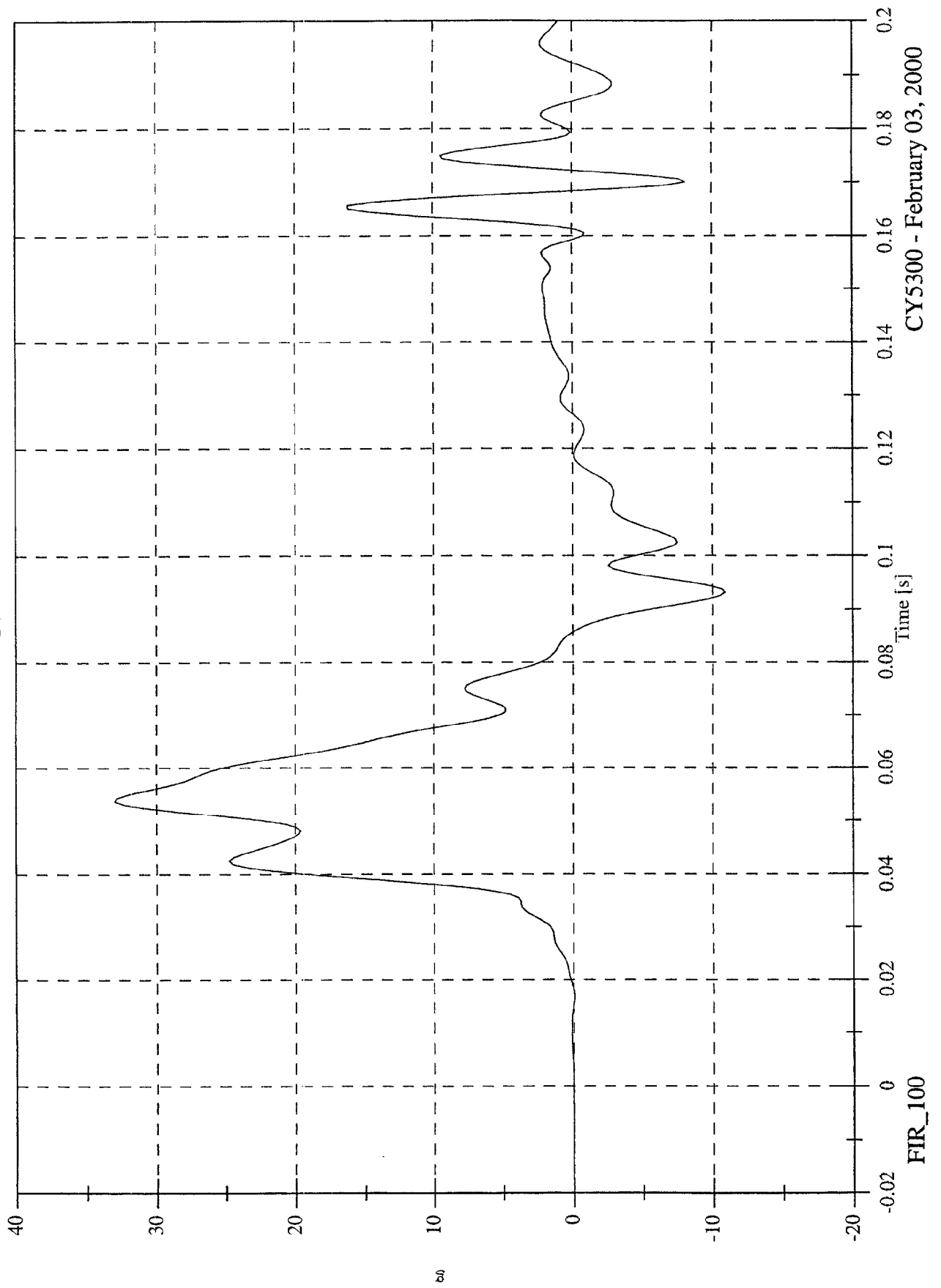


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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Upper Rib y

Max: 33.0 [g] at 0.054 [s]
Min: -10.9 [g] at 0.093 [s]

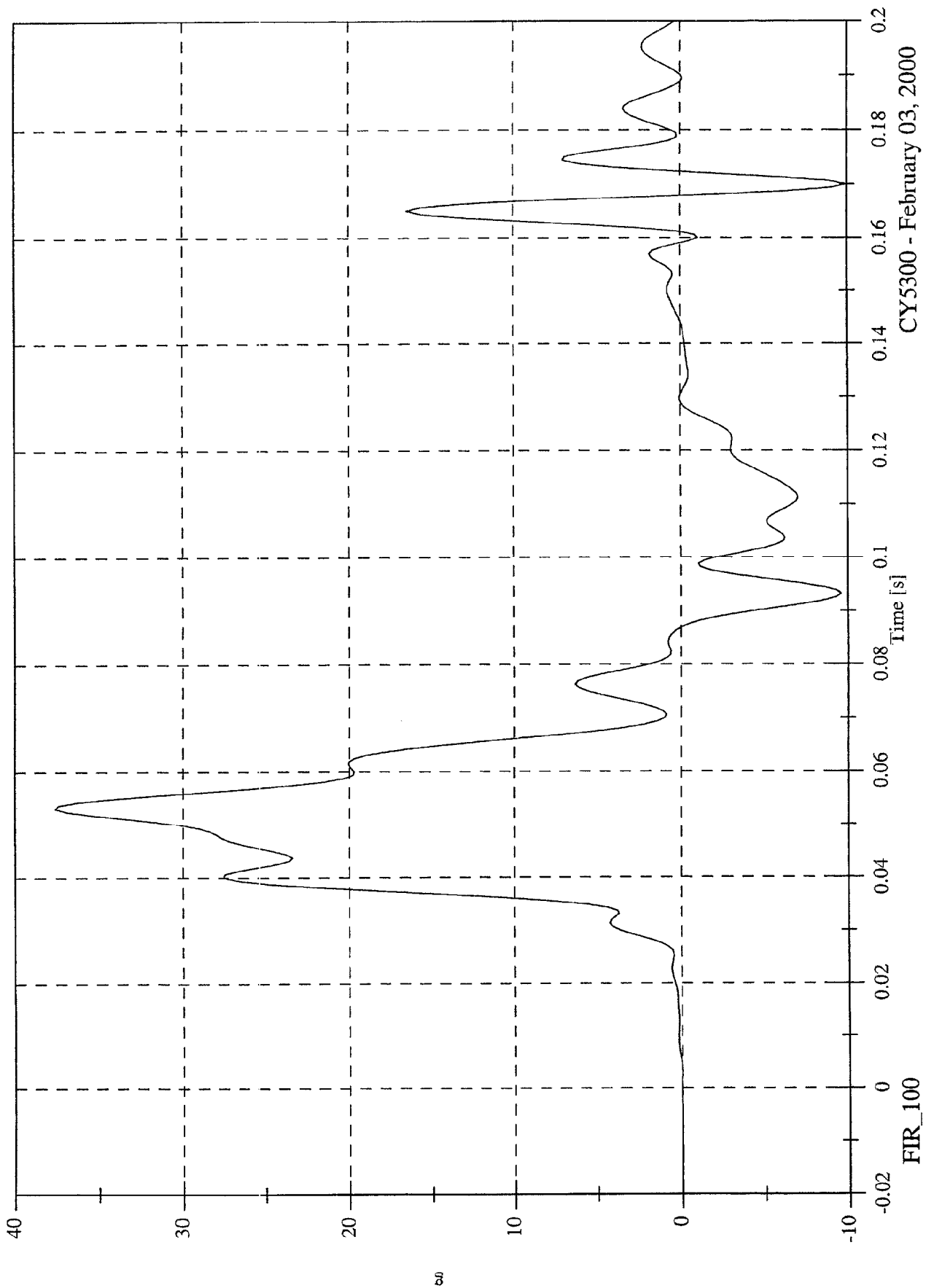


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Rib Y

Max: 37.6 [g] at 0.053 [s]
Min: -10.0 [g] at 0.170 [s]



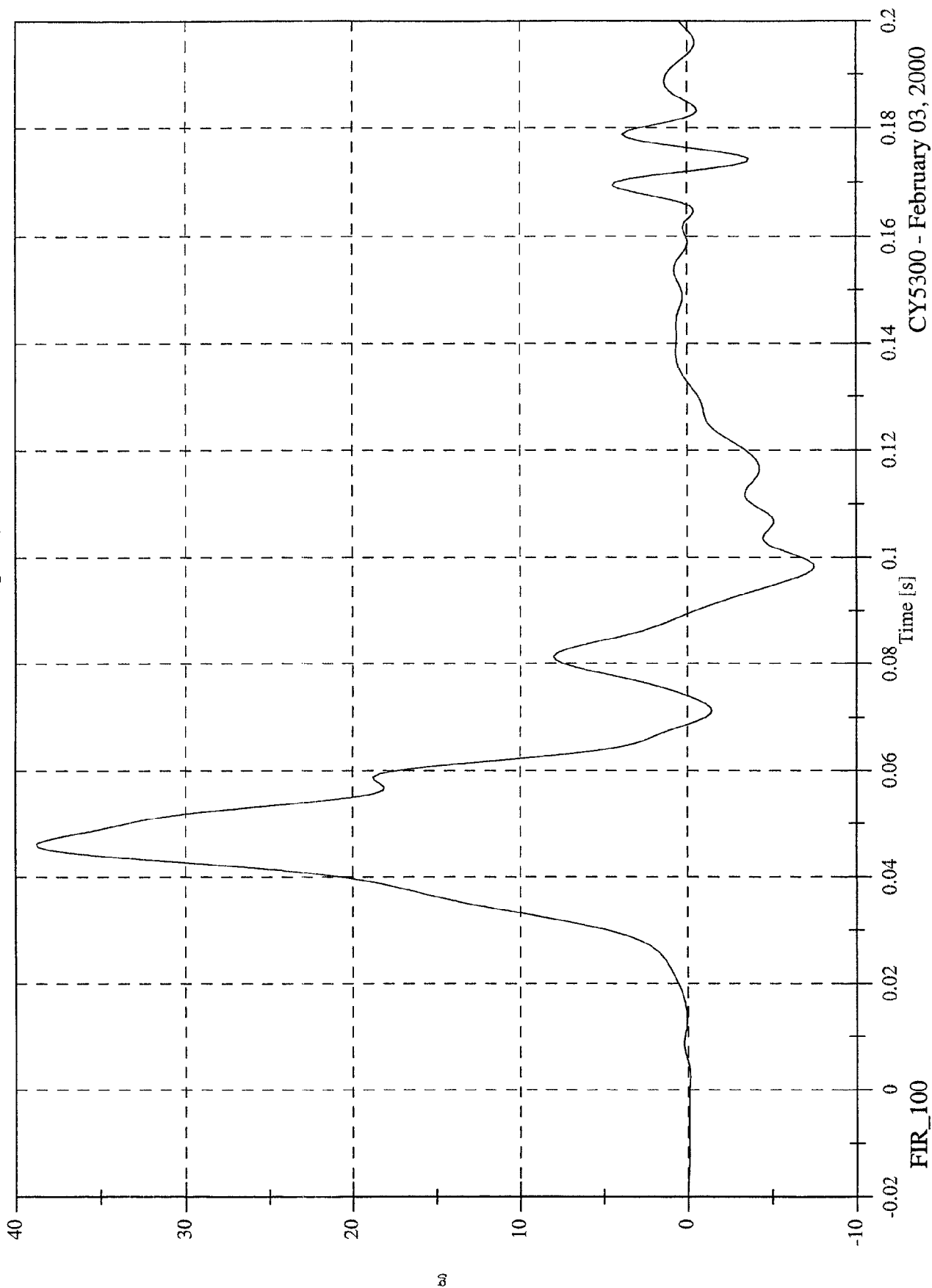
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 38.8 [g] at 0.046 [s]

Min: -7.5 [g] at 0.098 [s]

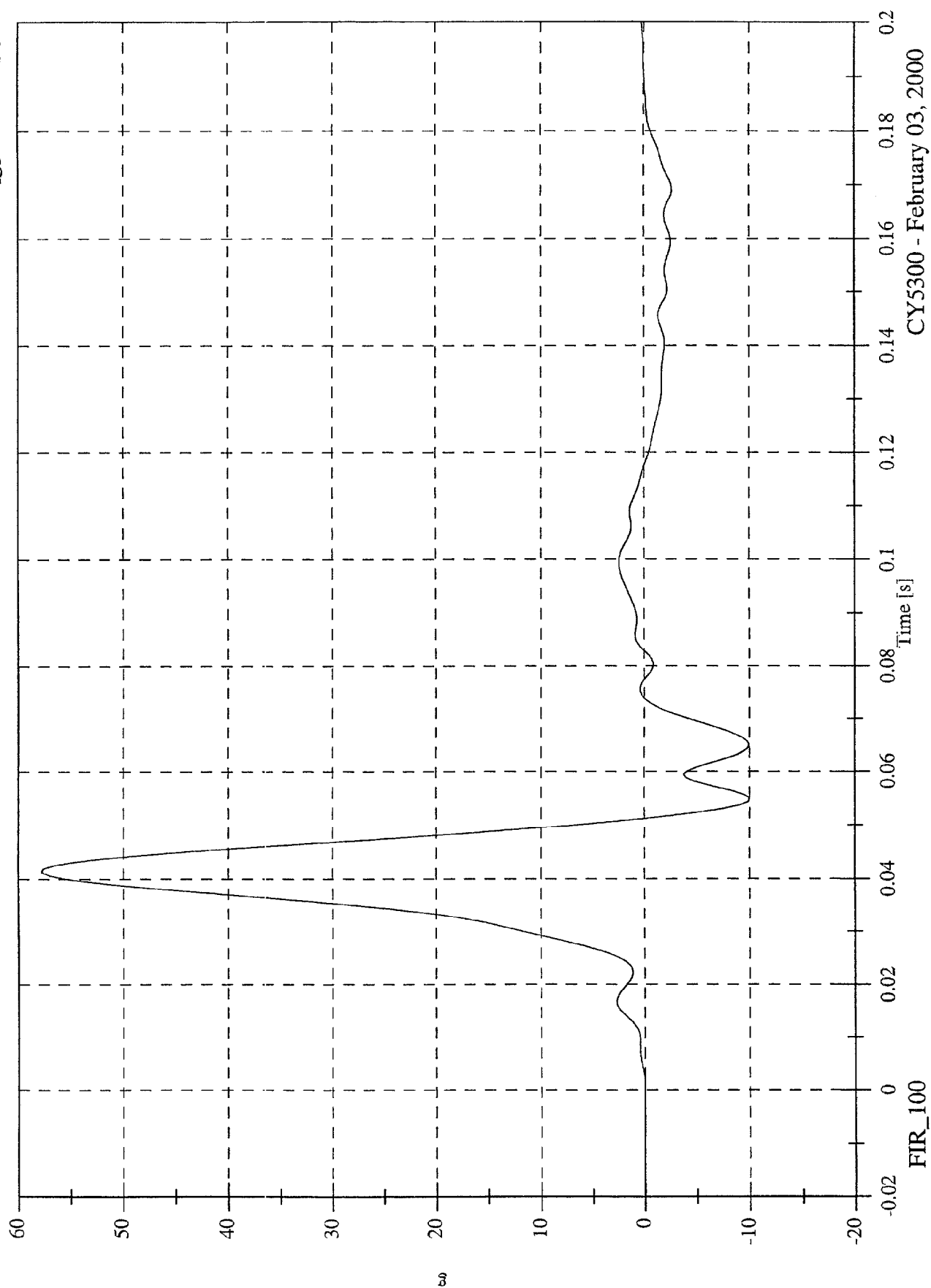
P1 Lower Spine y



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 57.8 [g] at 0.041 [s]
 Min: -10.0 [g] at 0.055 [s]

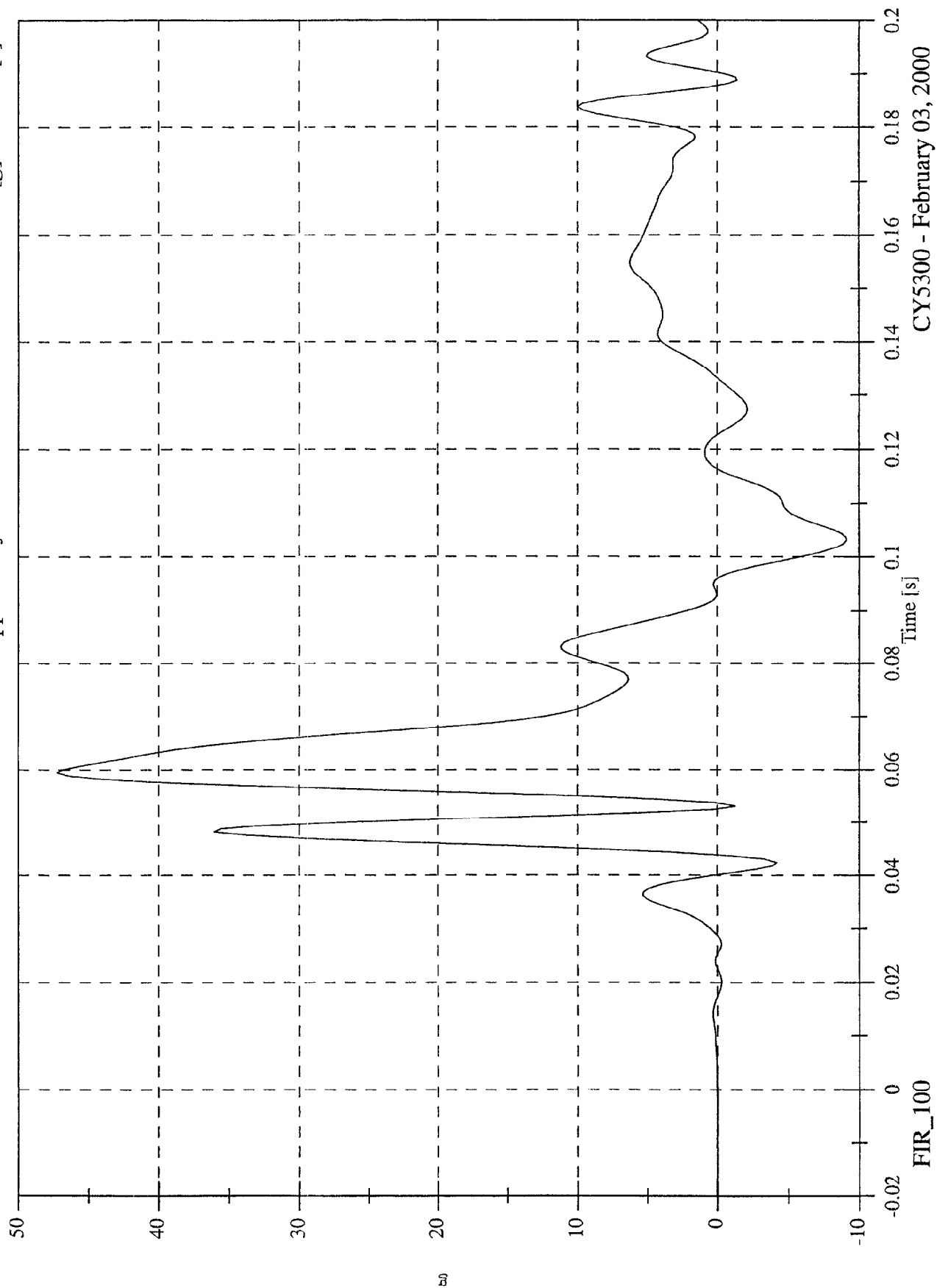
P1 Pelvic Y



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 47.2 [g] at 0.059 [s]
 Min: -9.1 [g] at 0.103 [s]

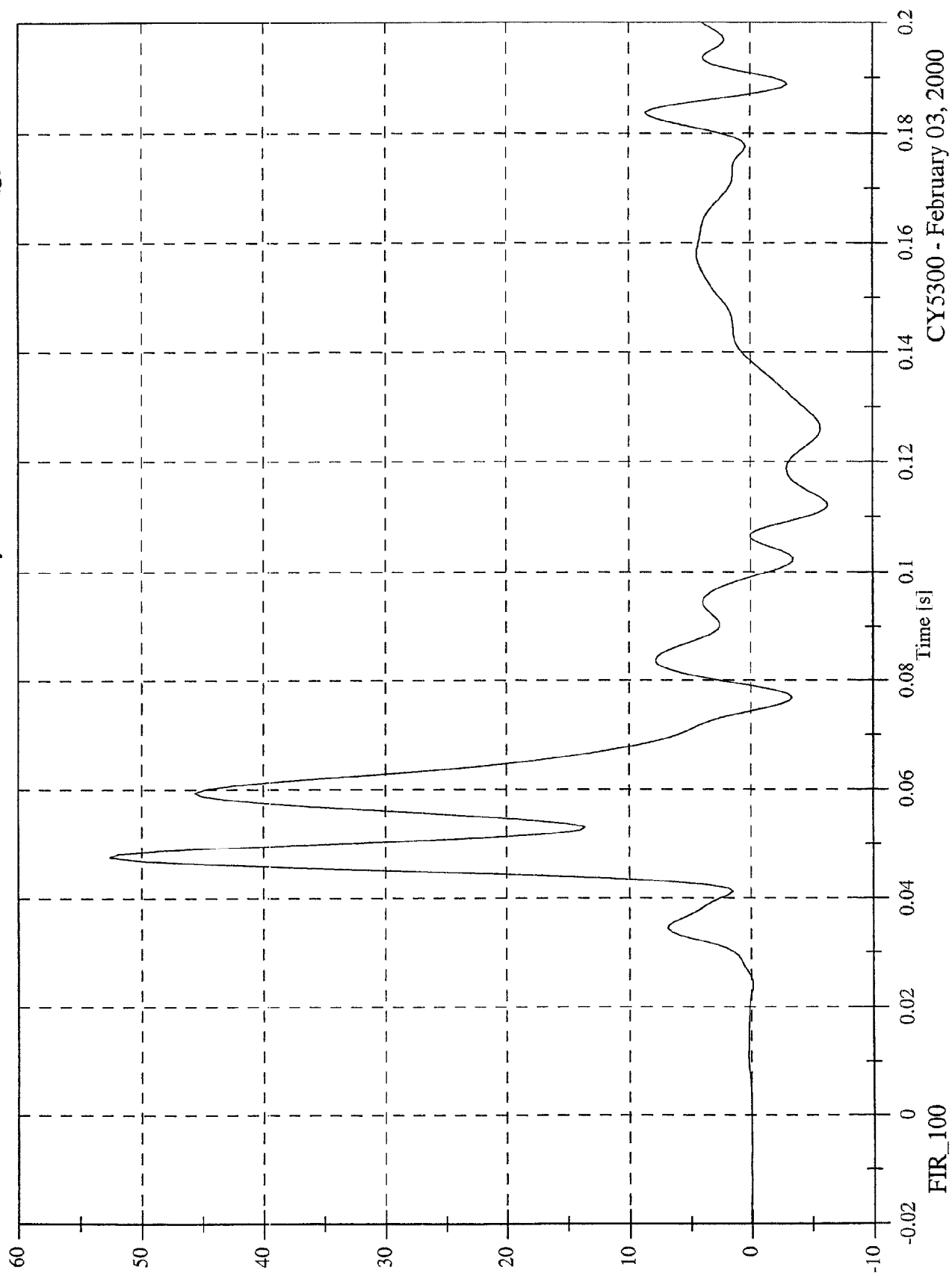
P4 Upper Rib y



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 52.6 [g] at 0.048 [s]
 Min: -6.3 [g] at 0.112 [s]

P4 Lower Rib y



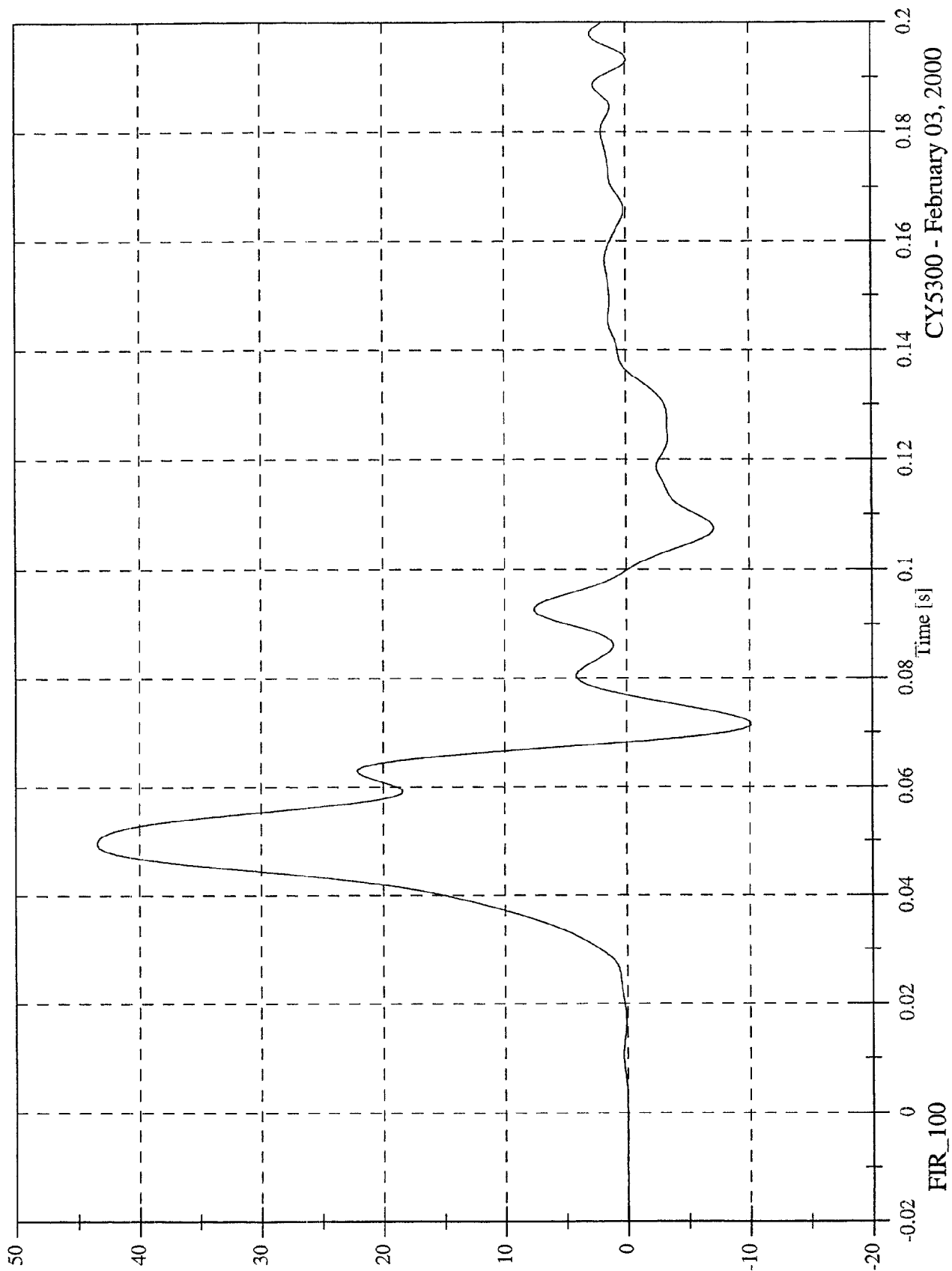
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 43.5 [g] at 0.049 [s]

Min: -10.1 [g] at 0.071 [s]

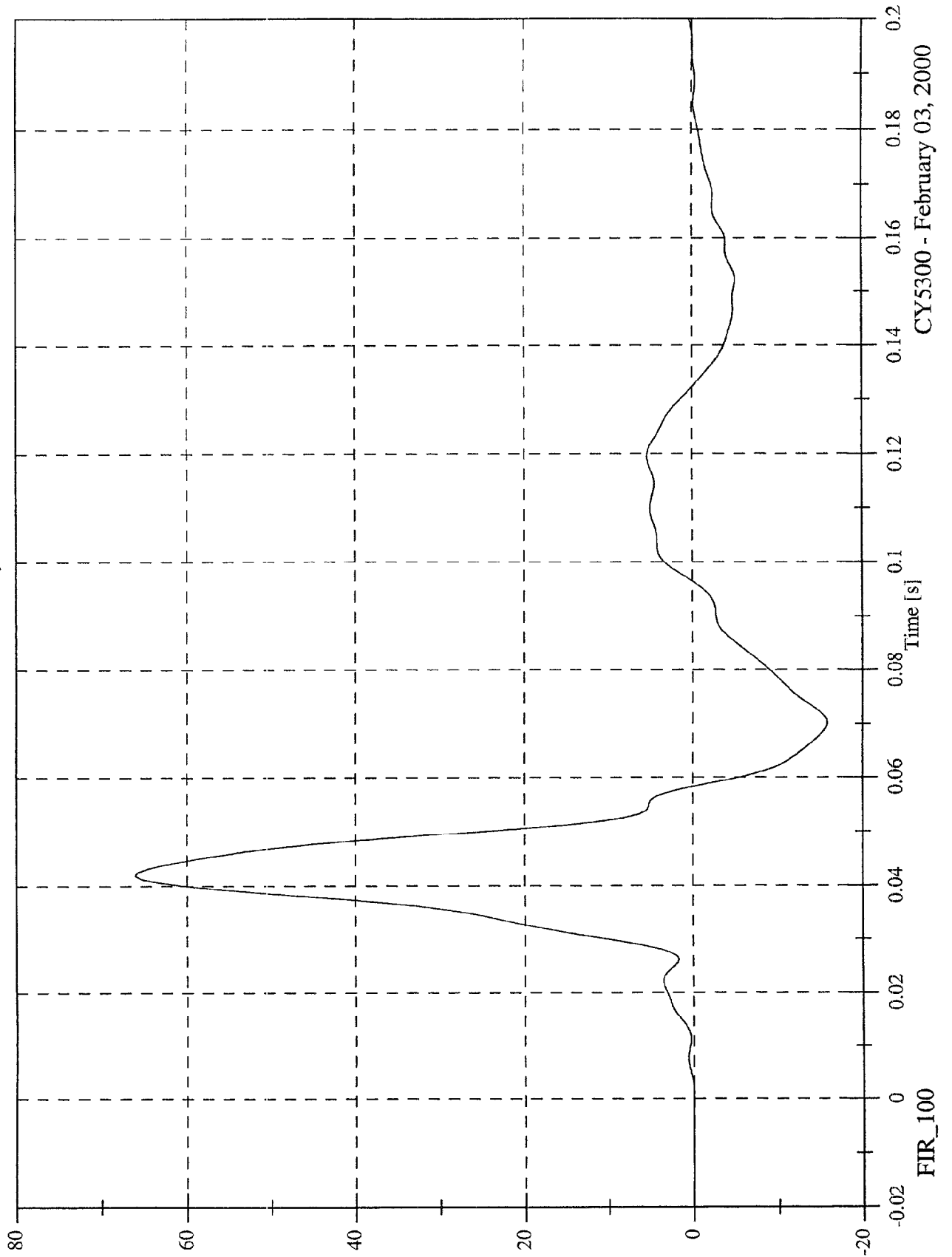
P4 Lower Spine y



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 66.1 [g] at 0.042 [s]
Min: -15.8 [g] at 0.070 [s]

P4 Pelvic y



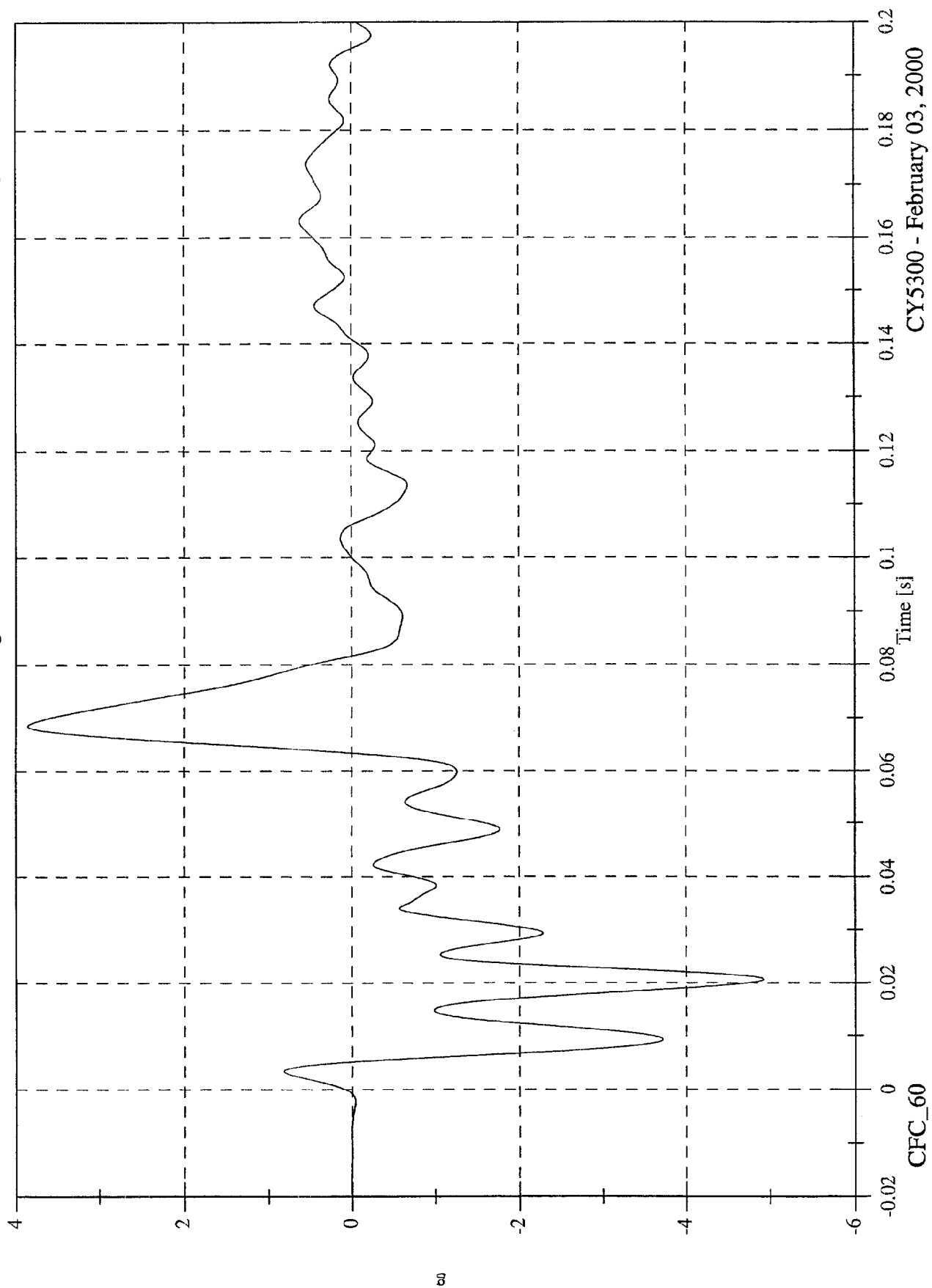
FIR_100

CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 1 Right Front Sill X

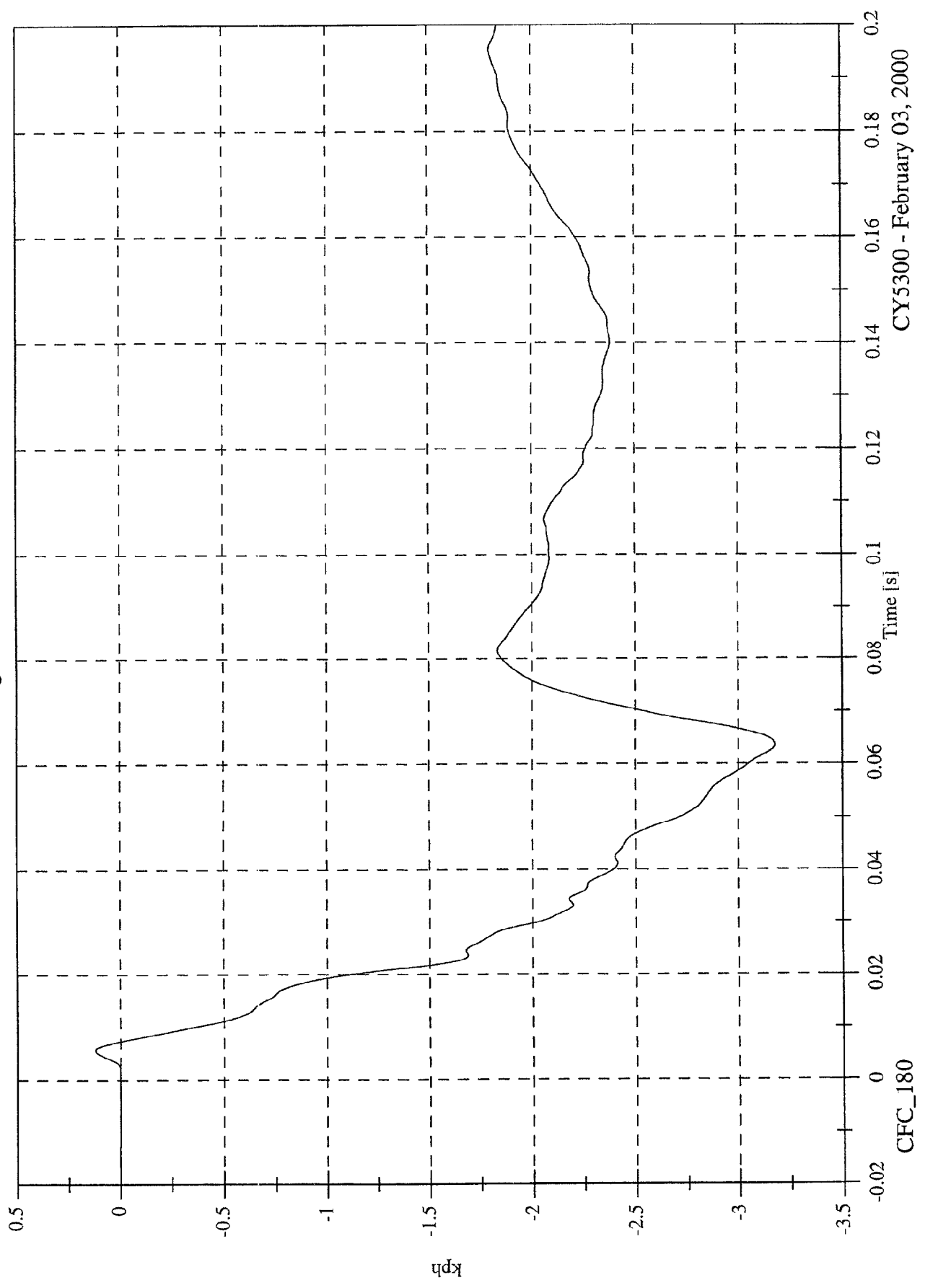
Max: 3.9 [g] at 0.069 [s]
Min: -4.9 [g] at 0.021 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 1 Right Front Sill X Velocity

Max: 0.1 [kph] at 0.006 [s]
Min: -3.2 [kph] at 0.063 [s]



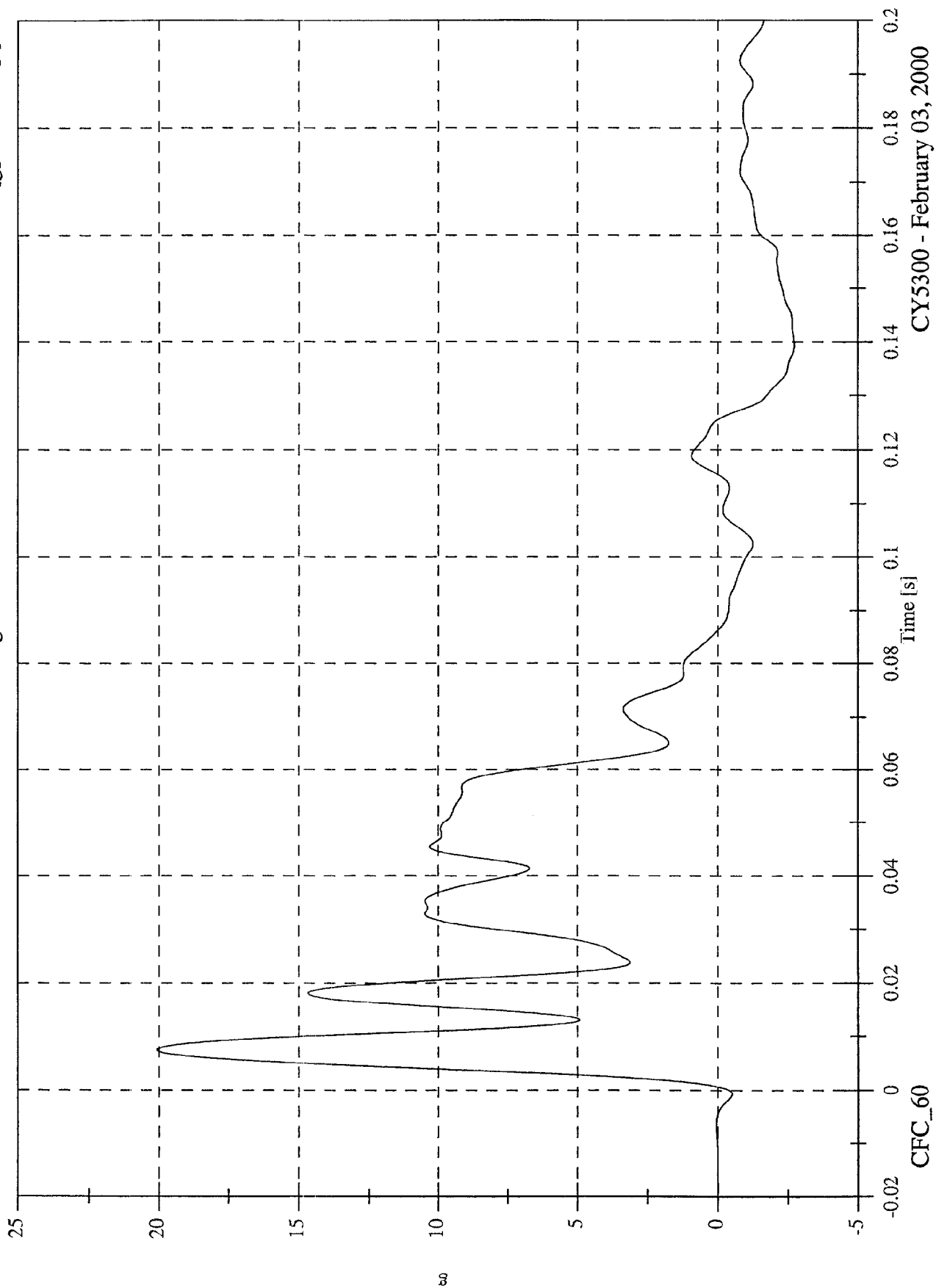
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

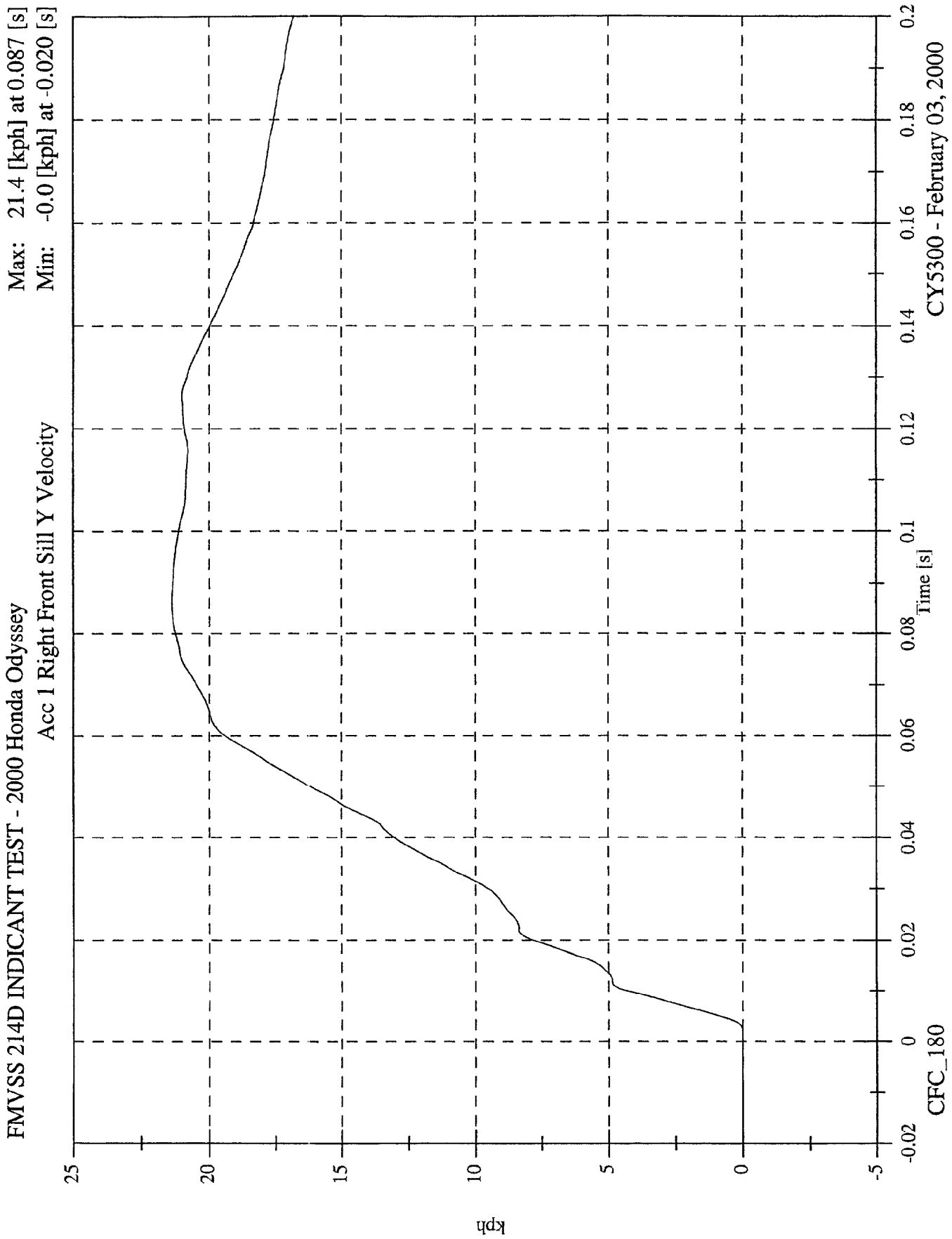
Acc 1 Right Front Sill Y

Max: 20.1 [g] at 0.008 [s]

Min: -2.7 [g] at 0.139 [s]



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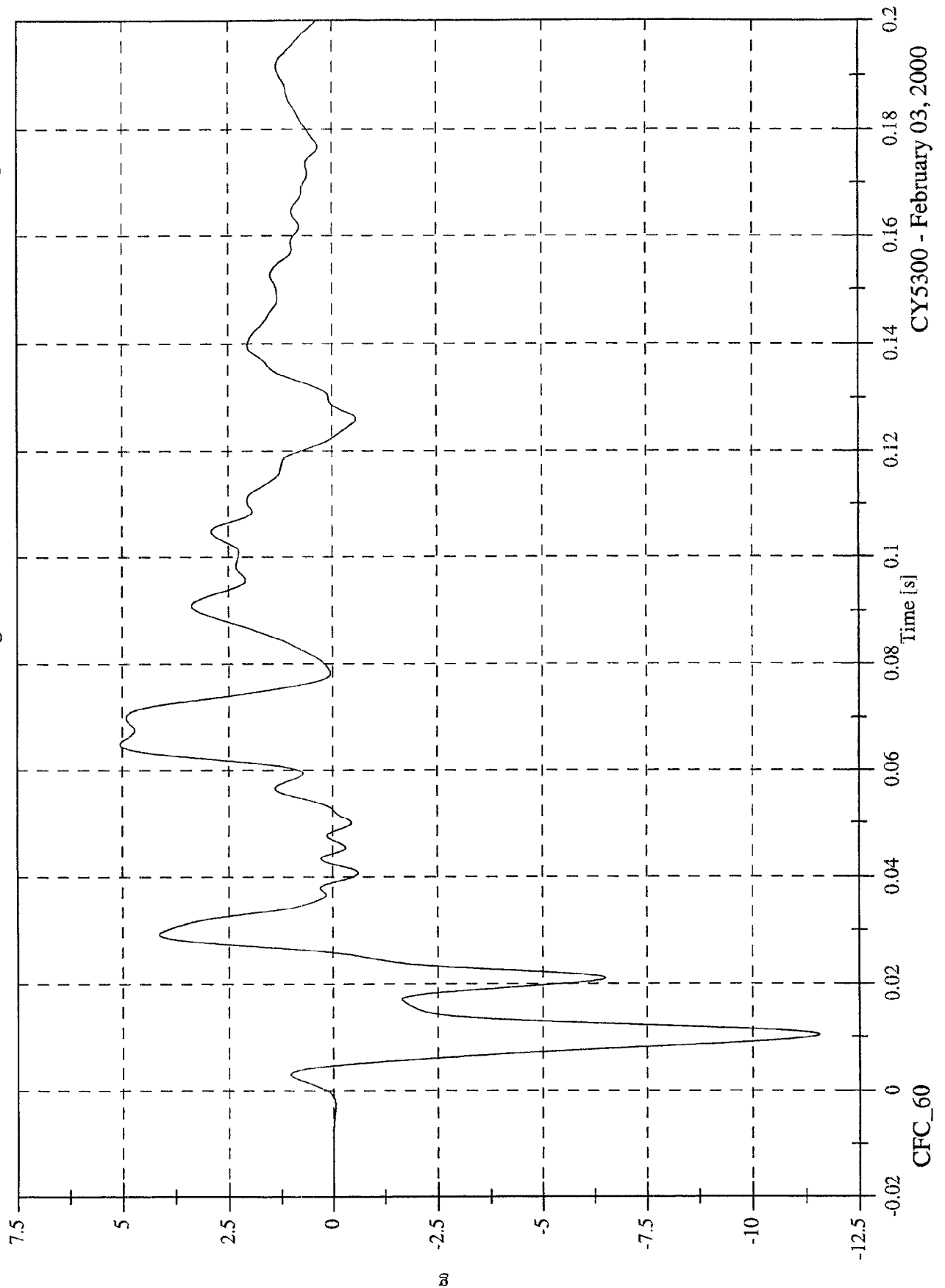
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 5.1 [g] at 0.065 [s]

Min: -11.6 [g] at 0.010 [s]

Acc 1 Right Front Sill Z

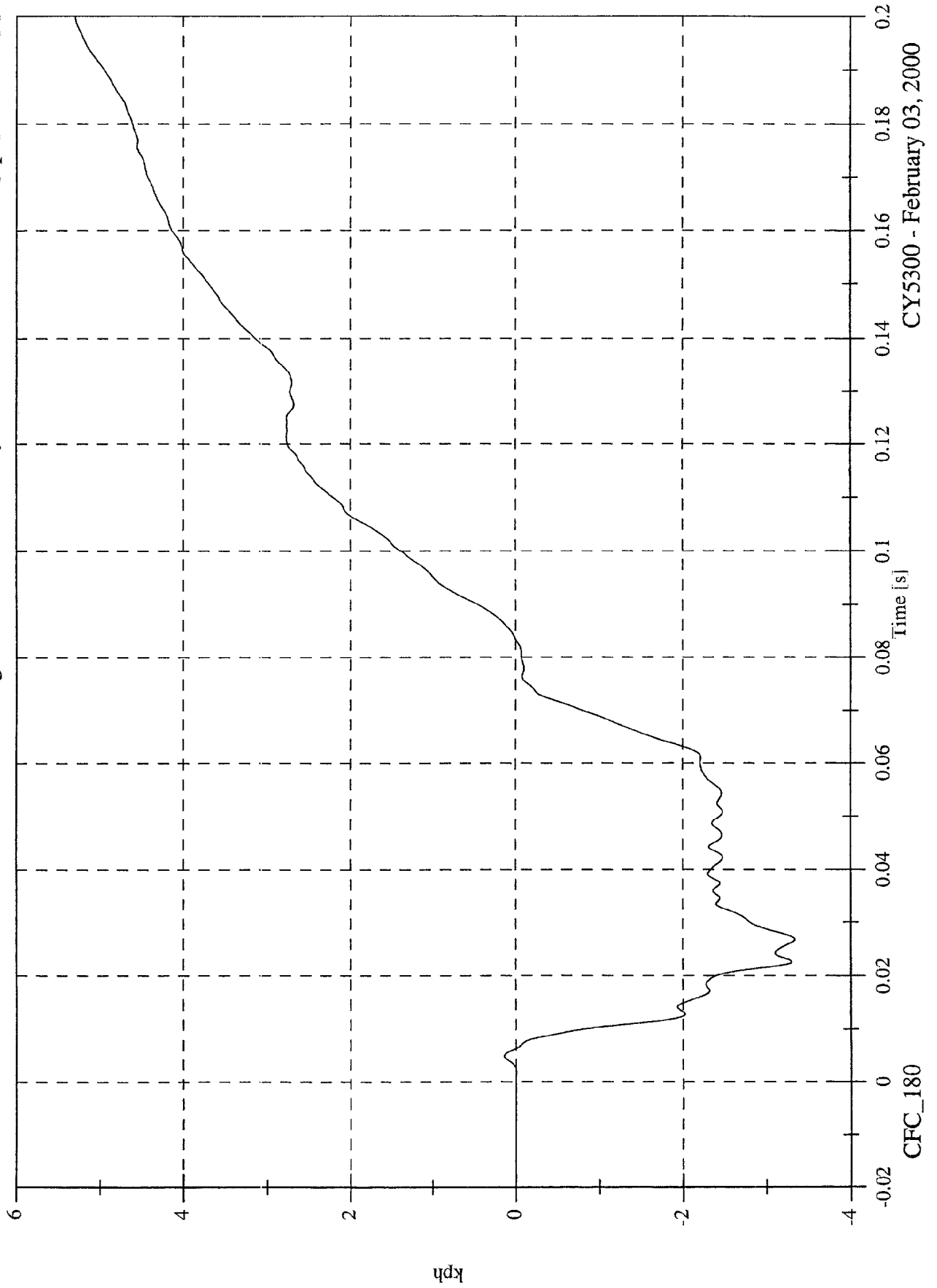


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 5.3 [kph] at 0.200 [s]
 Min: -3.3 [kph] at 0.027 [s]

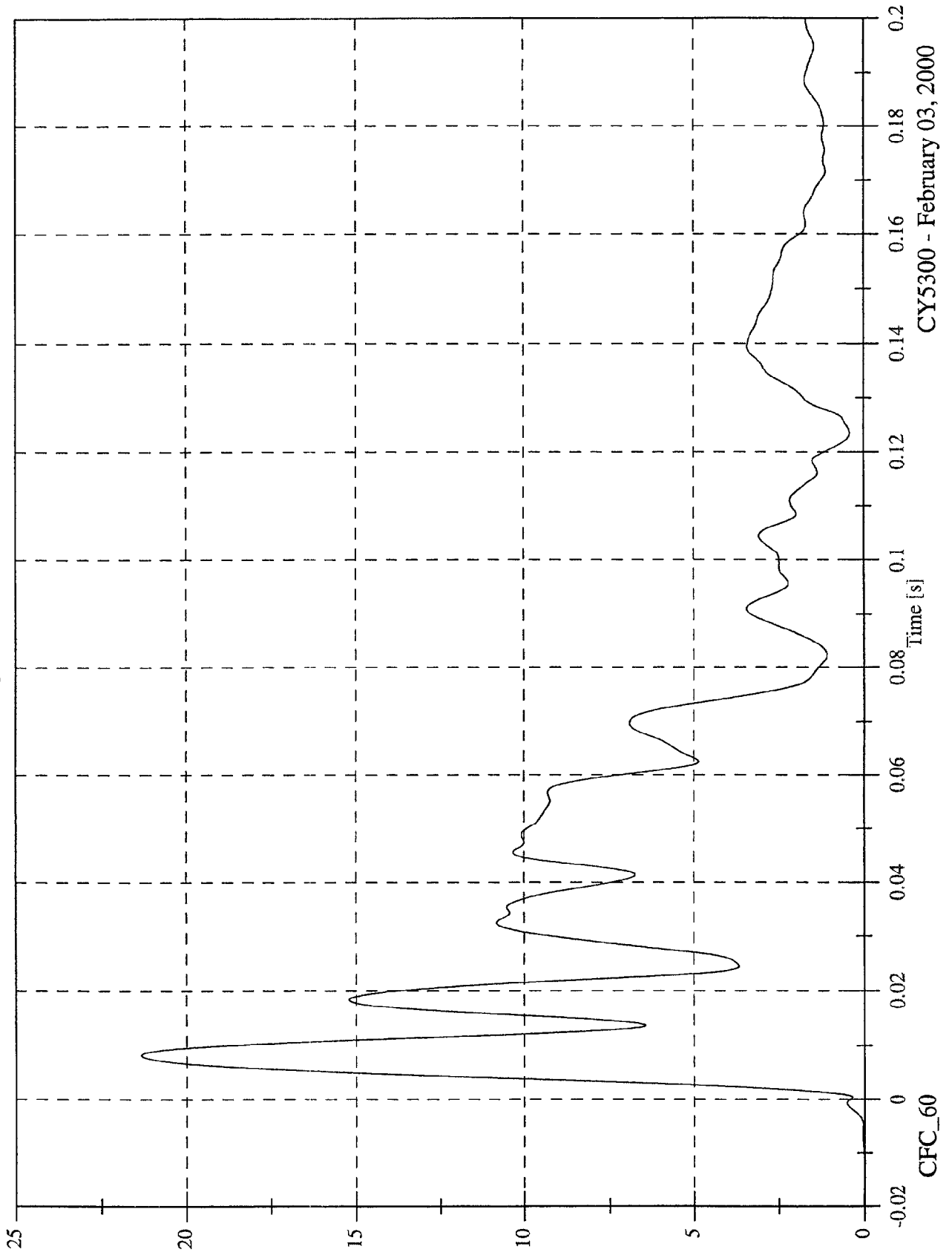
Acc 1 Right Front Sill Z Velocity



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 1 Right Front Sill Resultant

Max: 21.3 [g] at 0.008 [s]
Min: 0.0 [g] at -0.015 [s]

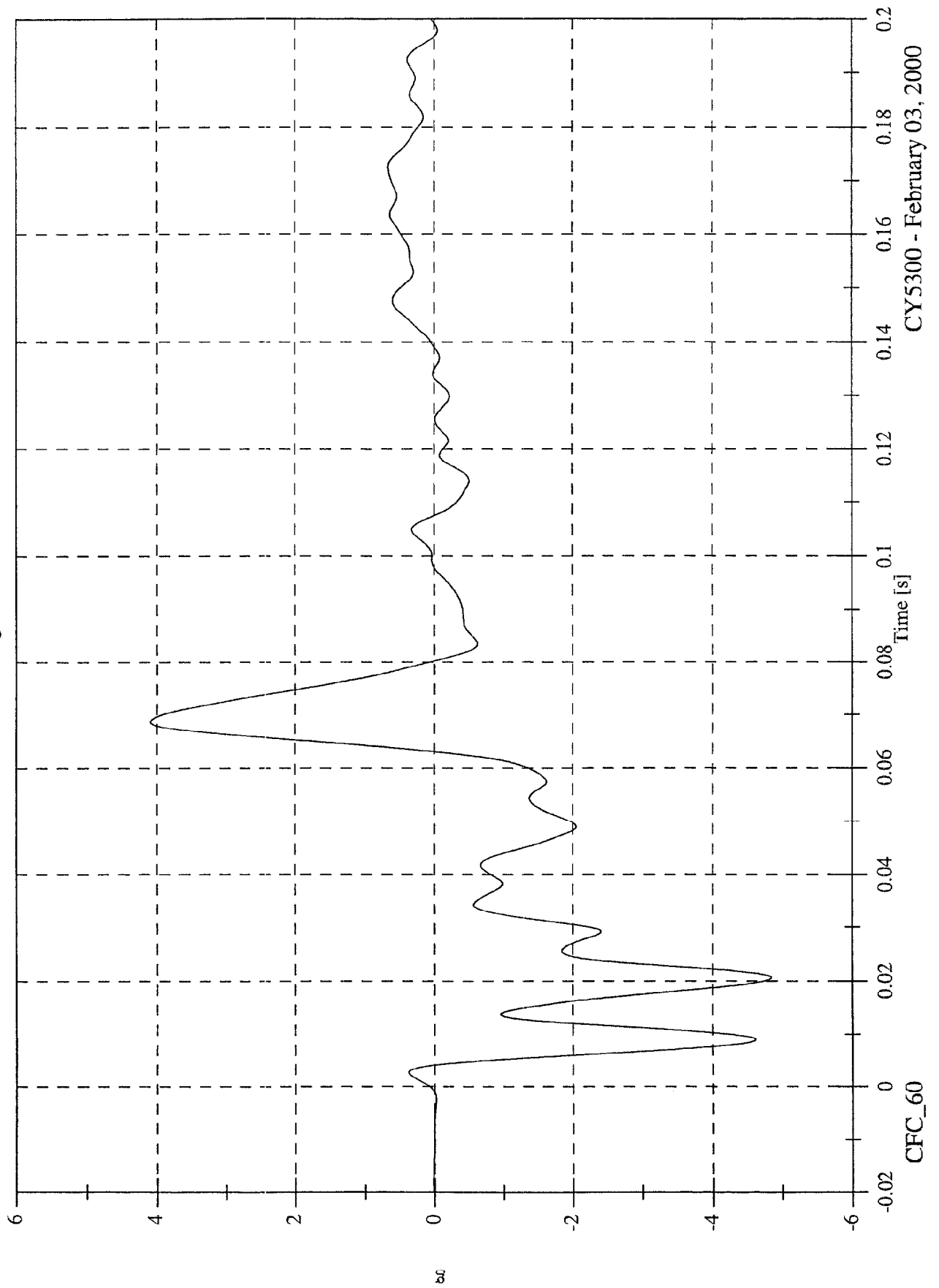


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 2 Right Rear Sill X

Max: 4.1 [g] at 0.069 [s]

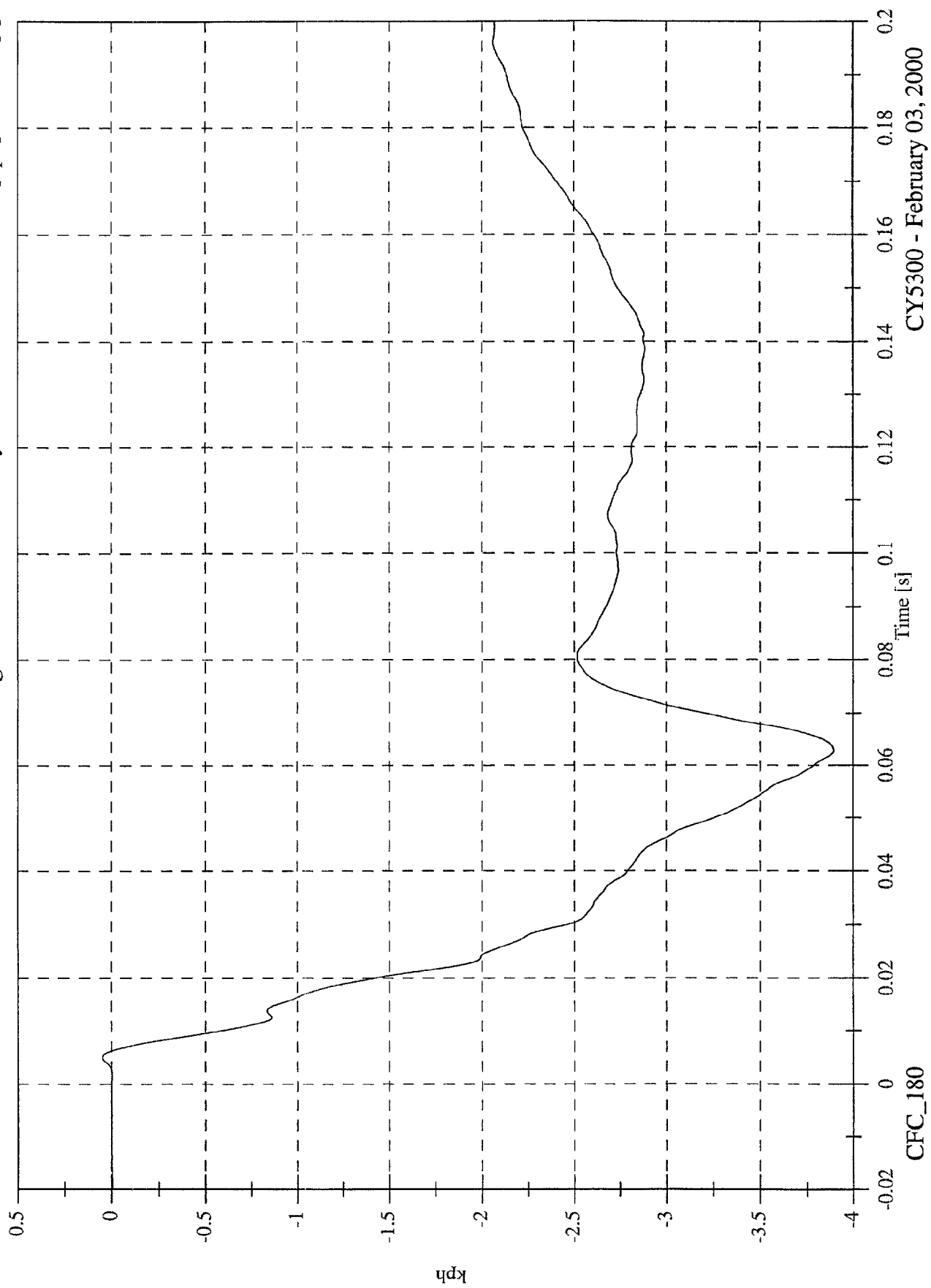
Min: -4.8 [g] at 0.021 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 0.1 [kph] at 0.005 [s]
Min: -3.9 [kph] at 0.063 [s]

Acc 2 Right Rear Sill X Velocity

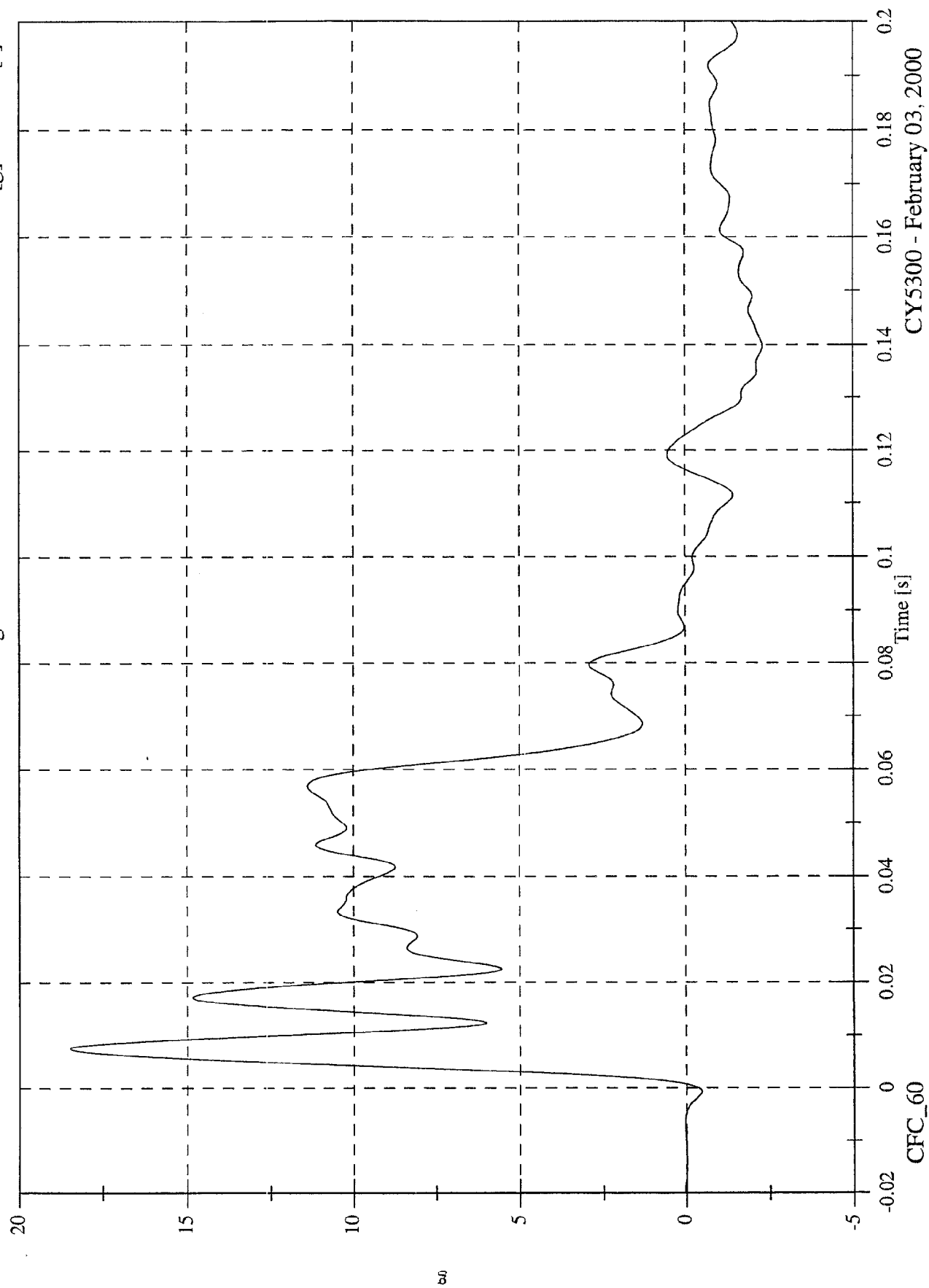


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 2 Right Rear Sill Y

Max: 18.5 [g] at 0.008 [s]
Min: -2.3 [g] at 0.140 [s]



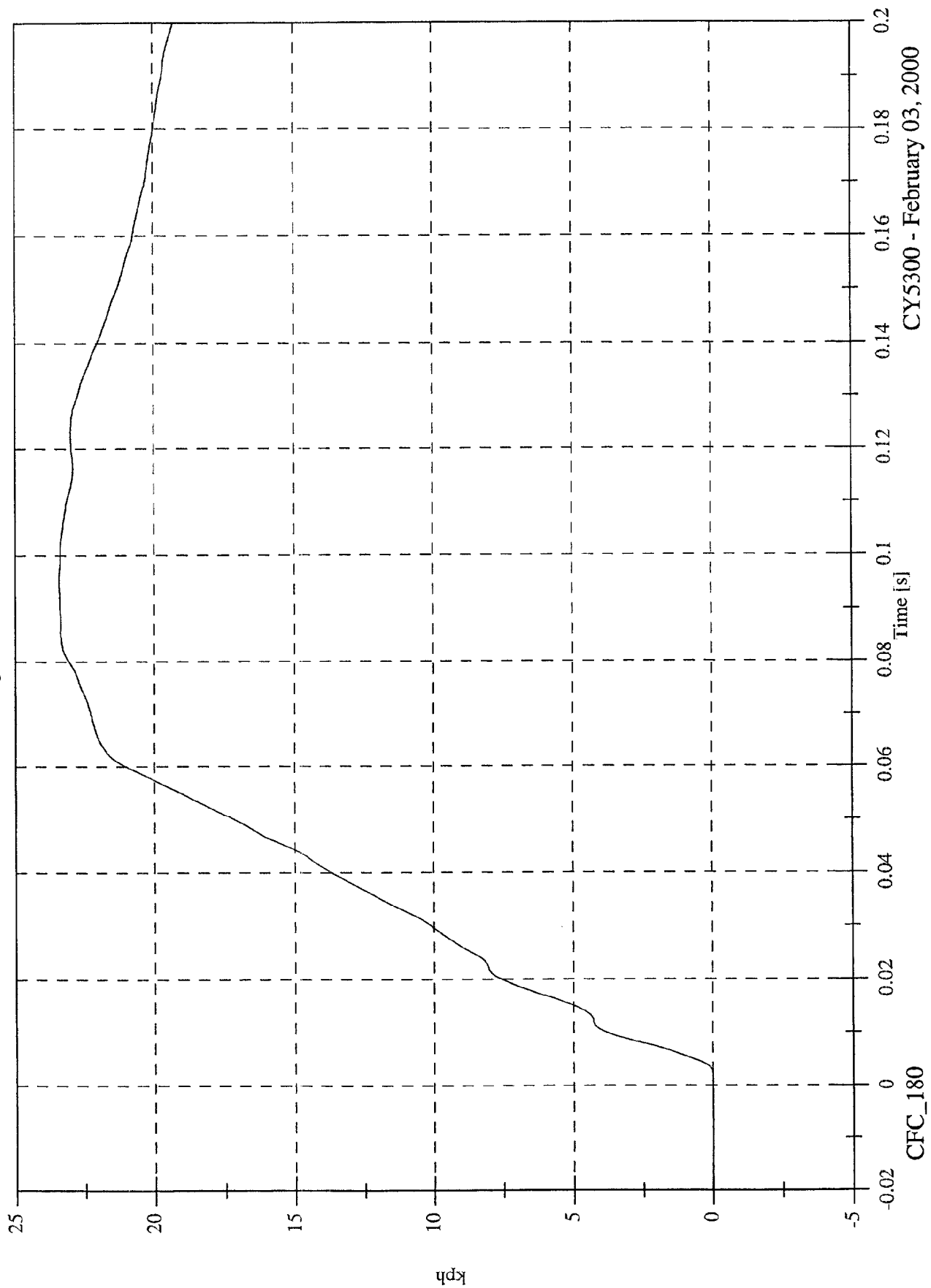
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 23.4 [kph] at 0.096 [s]

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

Acc 2 Right Rear Sill Y Velocity



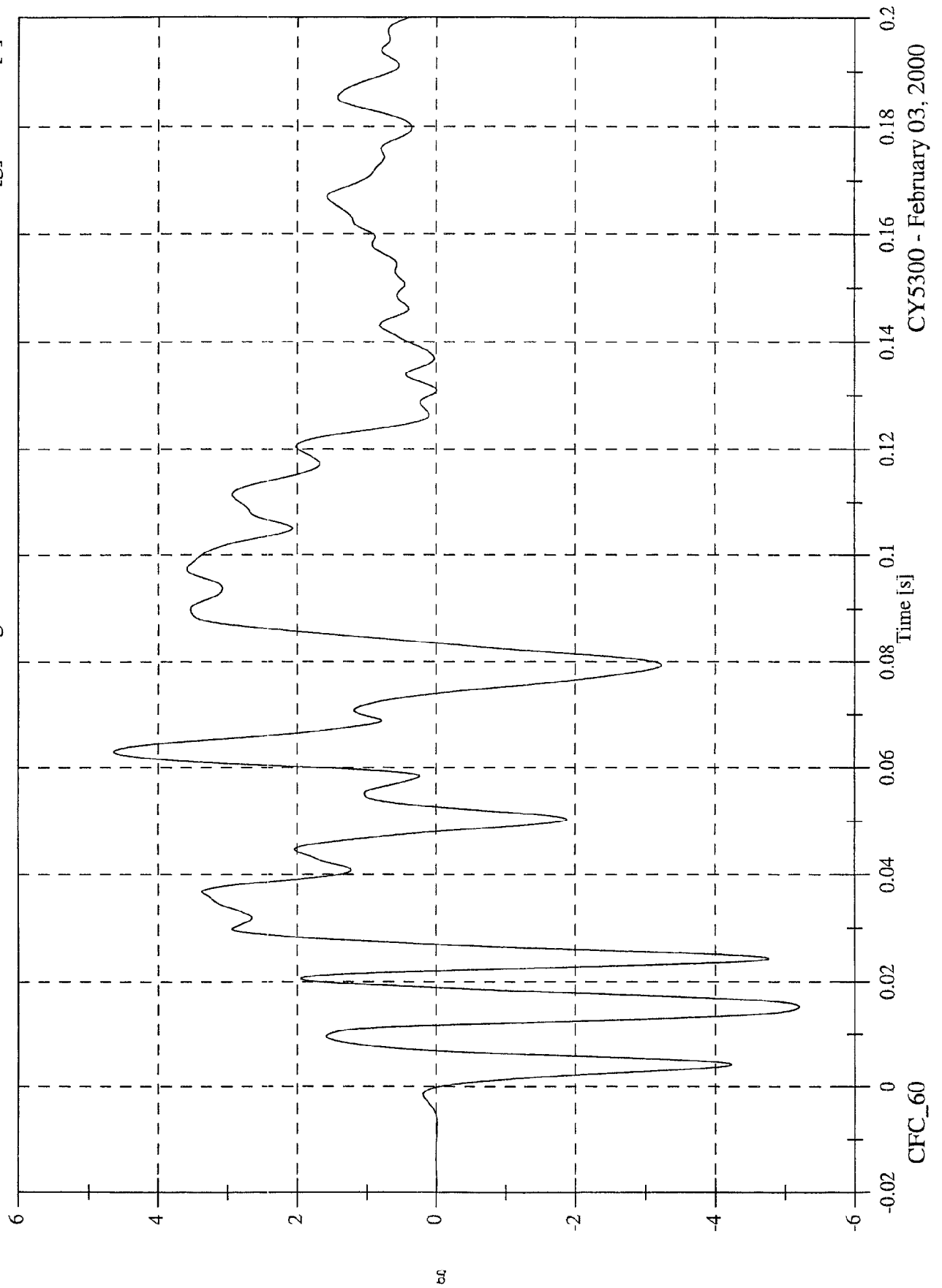
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 2 Right Rear Sill Z

Max: 4.6 [g] at 0.063 [s]

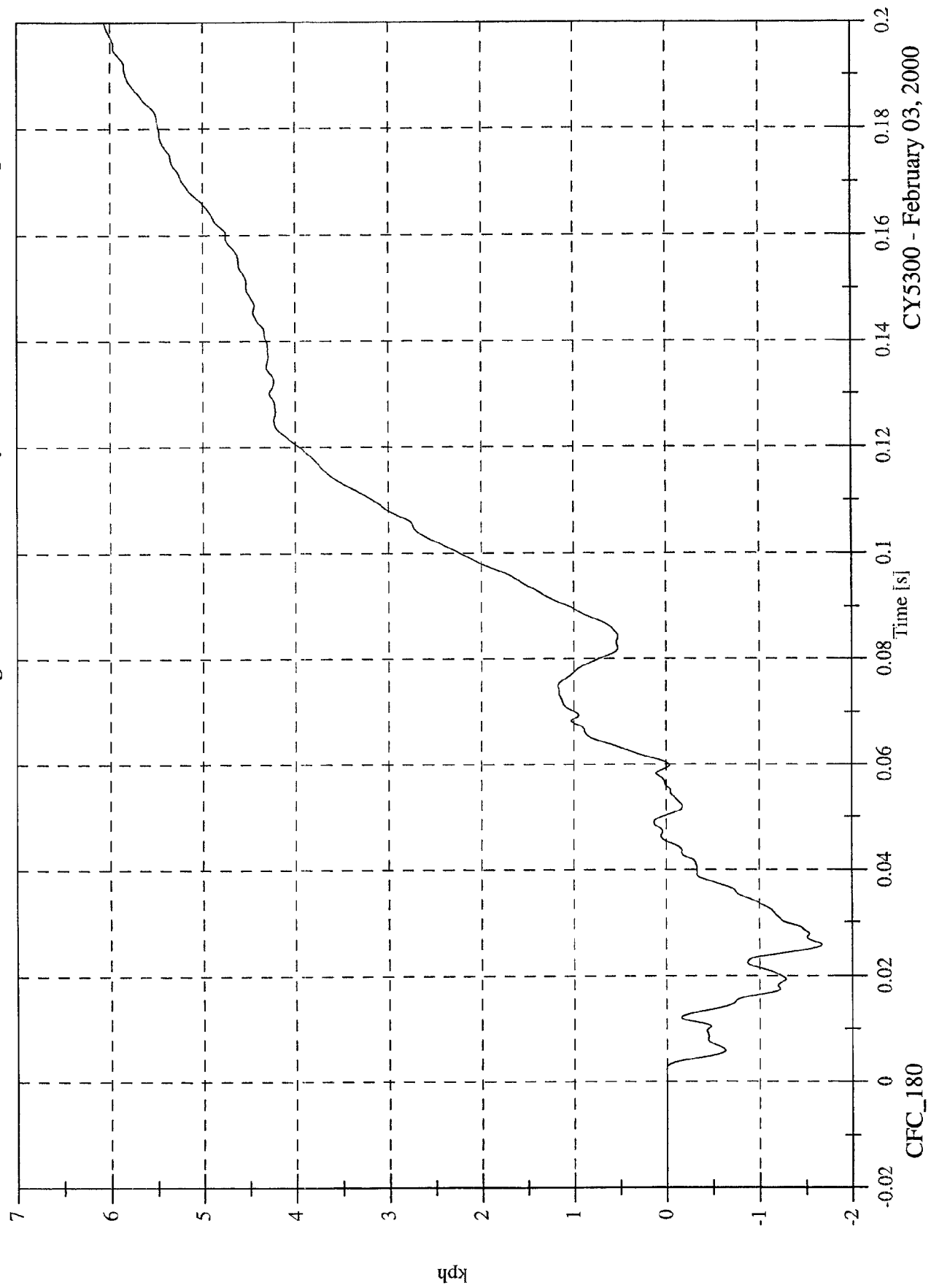
Min: -5.2 [g] at 0.015 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 2 Right Rear Sill Z Velocity

Max: 6.1 [kph] at 0.200 [s]
Min: -1.7 [kph] at 0.026 [s]

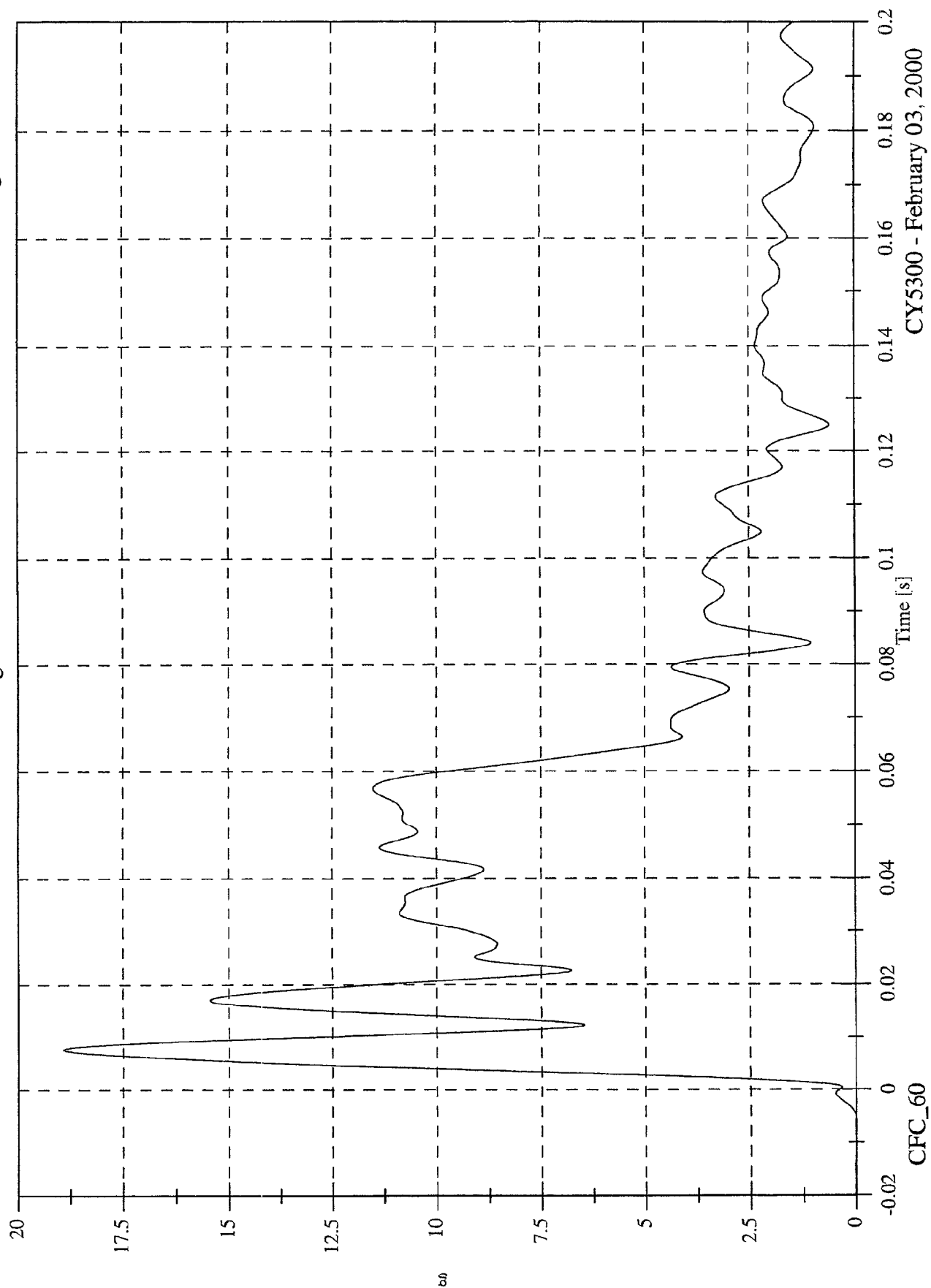


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 18.9 [g] at 0.008 [s]
 Min: 0.0 [g] at -0.010 [s]

Acc 2 Right Rear Sill Resultant



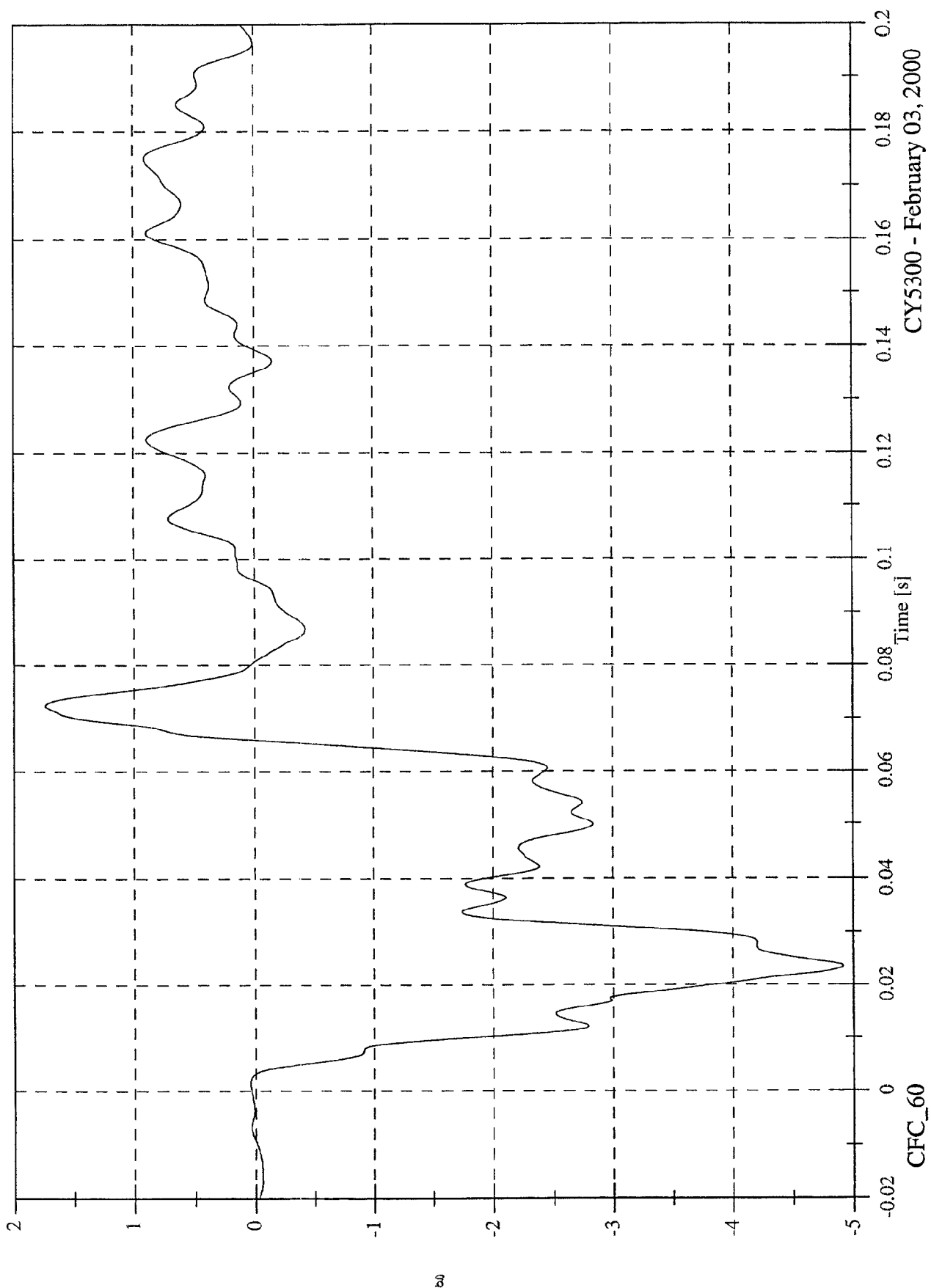
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 1.7 [g] at 0.072 [s]

Min: -4.9 [g] at 0.023 [s]

Acc 3 Rear Floorpan X

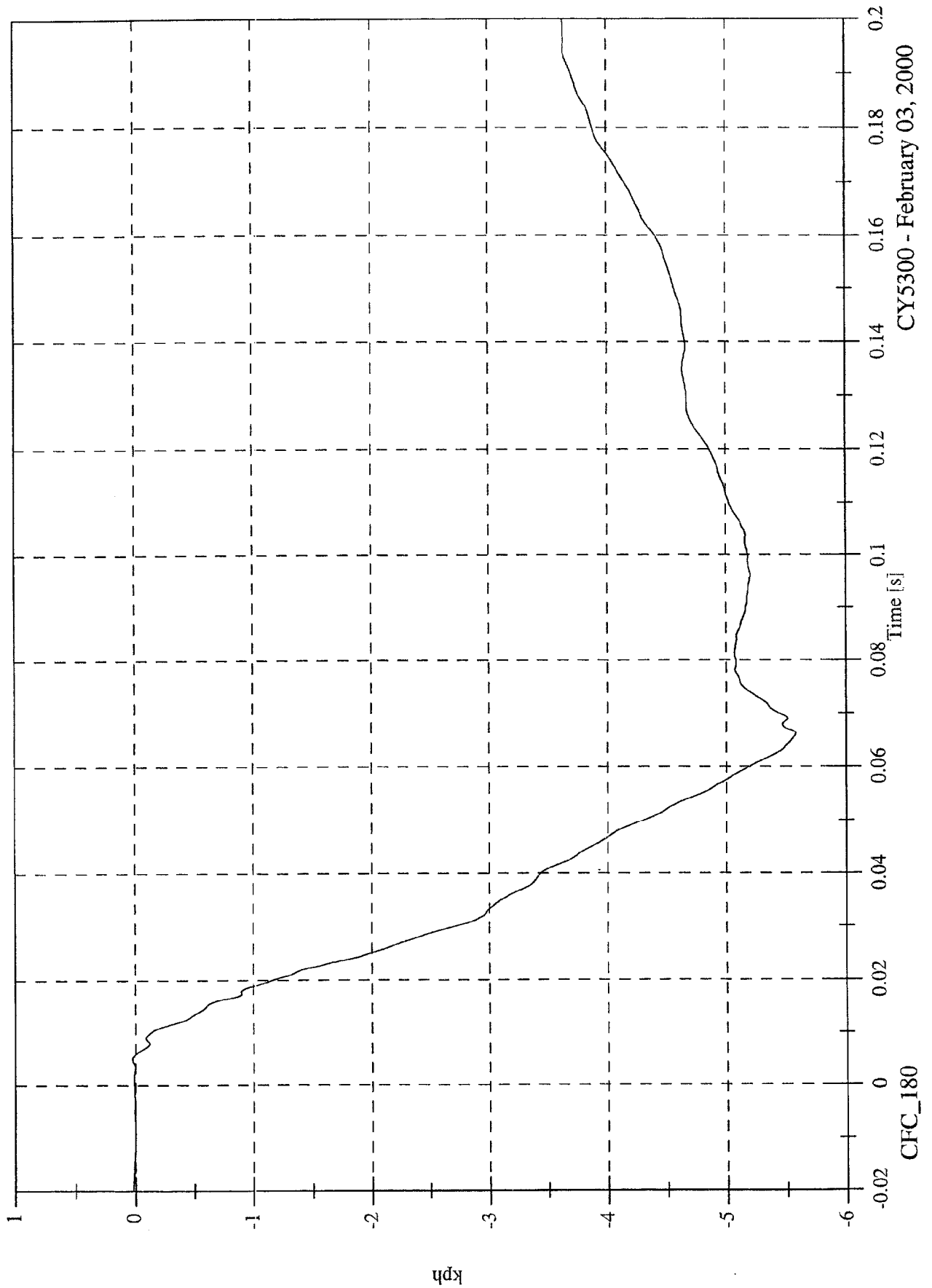


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 3 Rear Floorpan X Velocity

Max: 0.0 [kph] at 0.005 [s]
Min: -5.6 [kph] at 0.0666 [s]



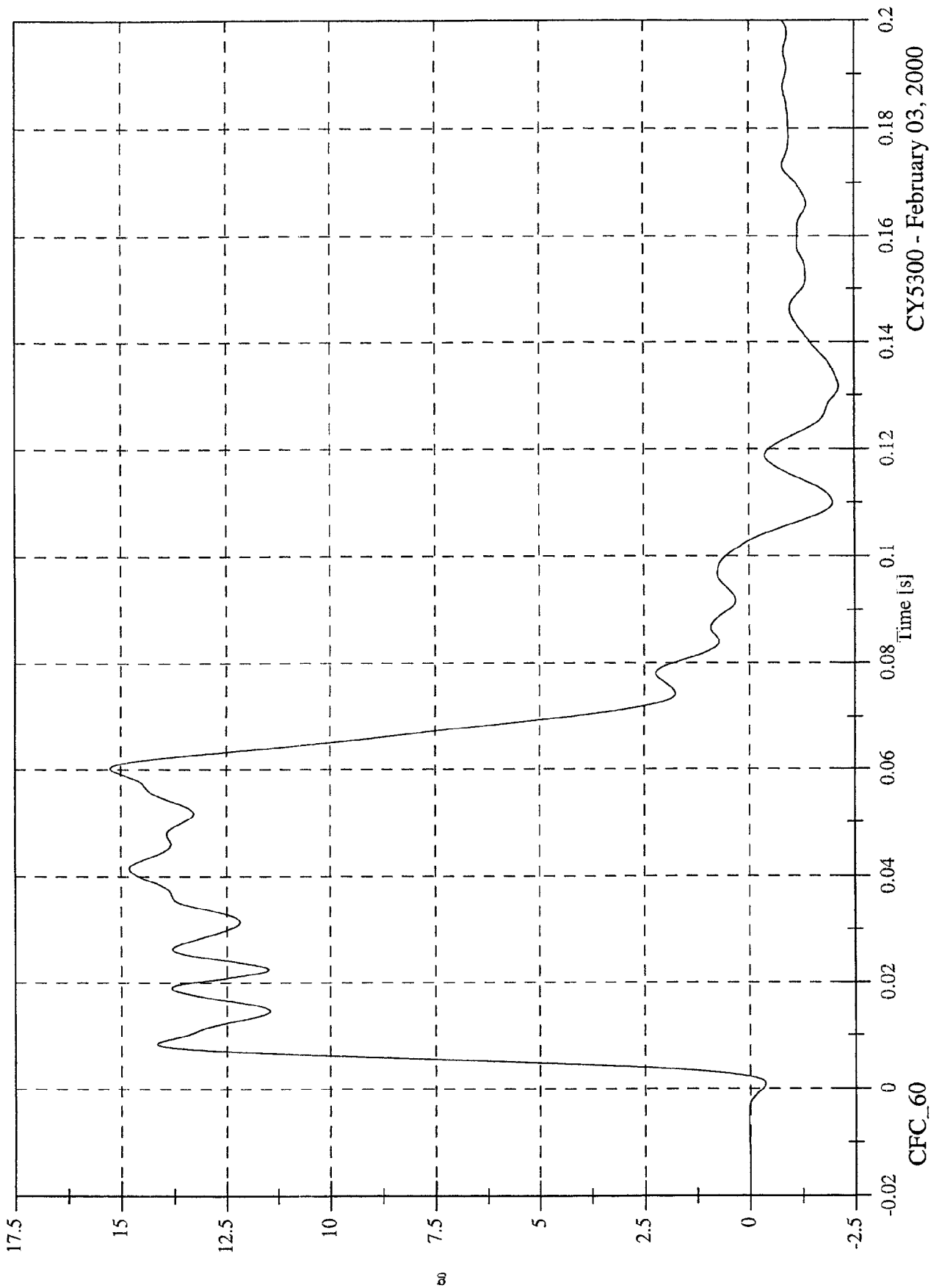
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 3 Rear Floorpan Y

Max: 15.3 [g] at 0.060 [s]

Min: -2.1 [g] at 0.132 [s]



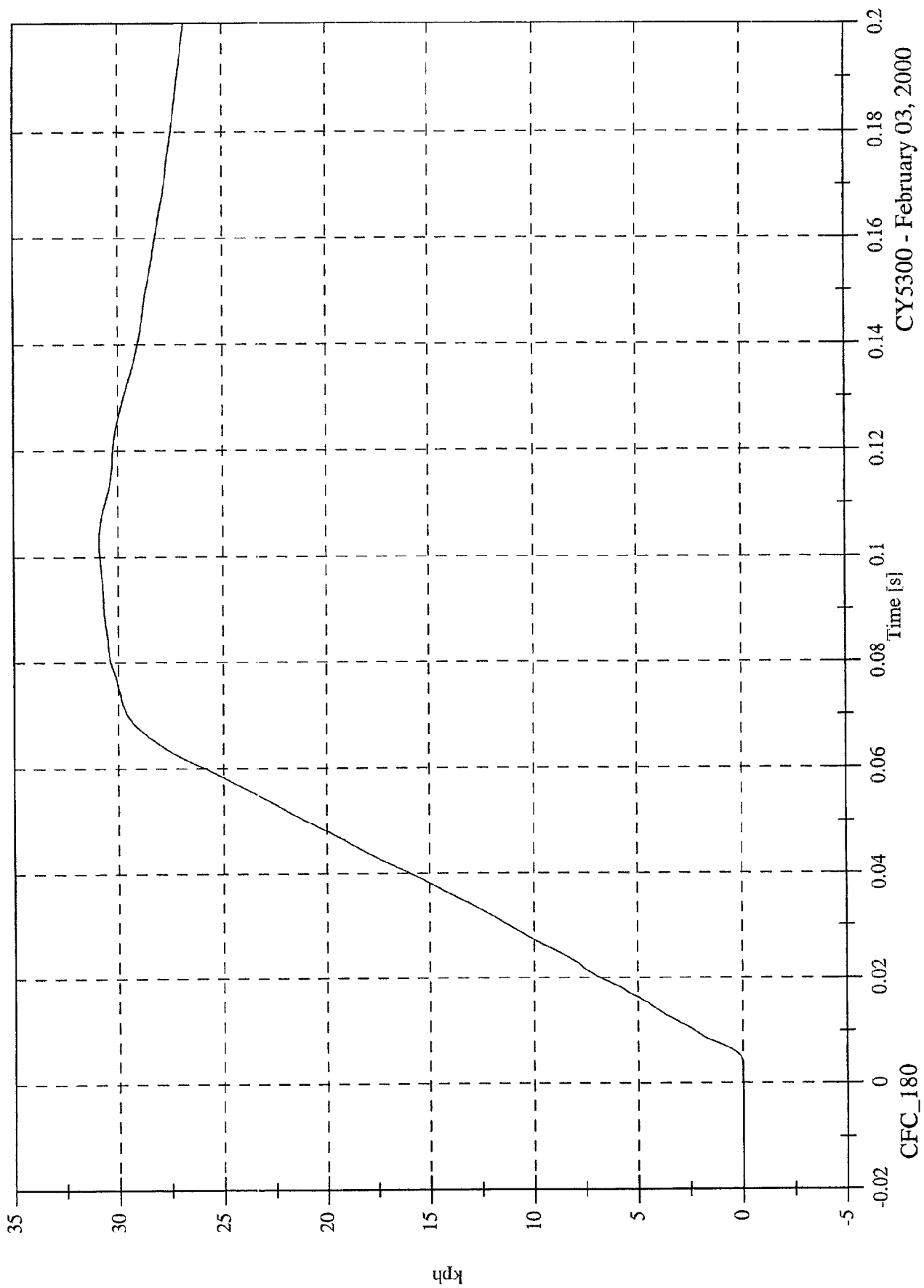
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 30.9 [kph] at 0.104 [s]

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

Acc 3 Rear Floorpan Y Velocity



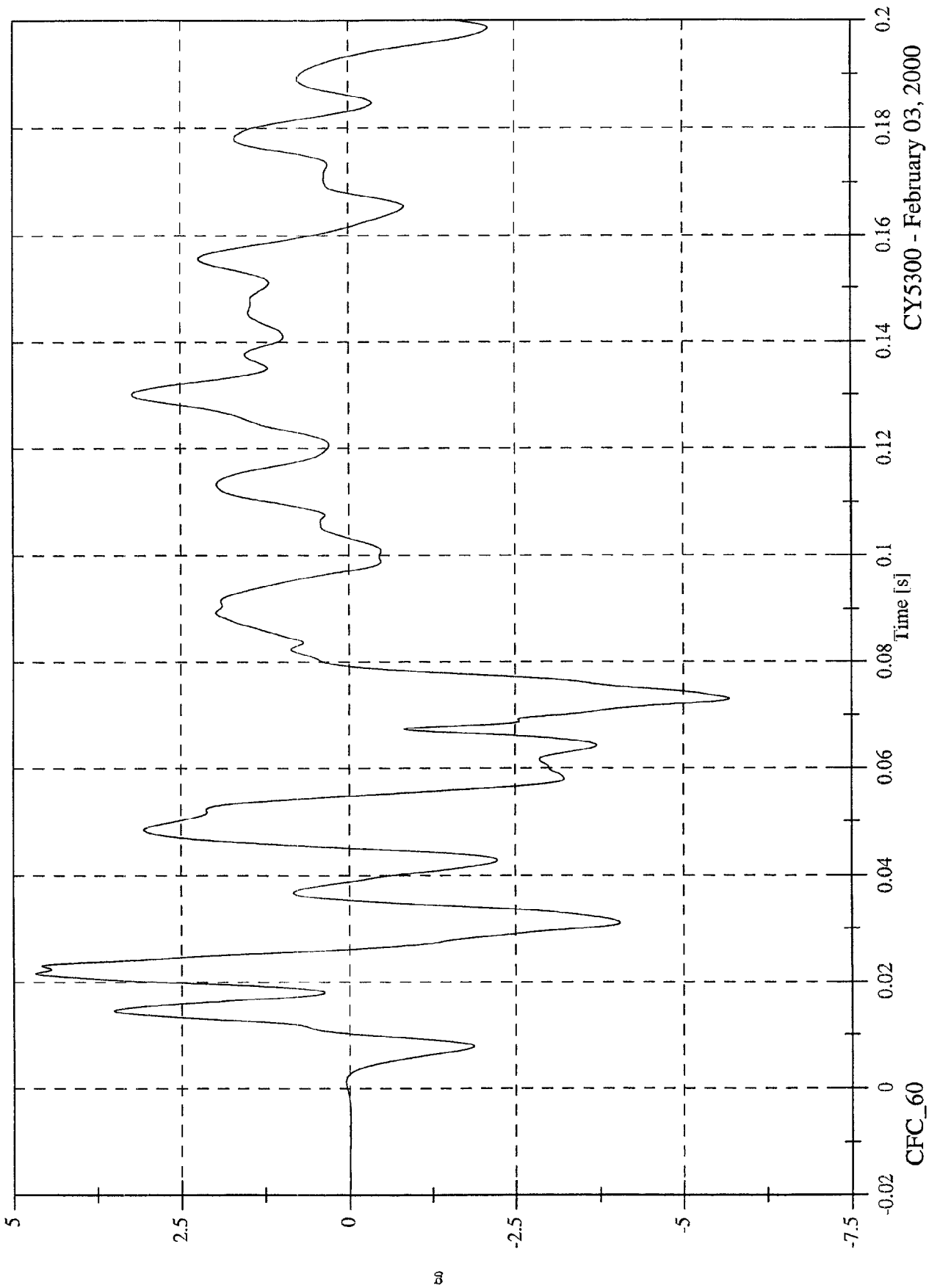
CFC_180

CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 3 Rear Floorpan Z

Max: 4.7 [g] at 0.022 [s]
Min: -5.7 [g] at 0.073 [s]



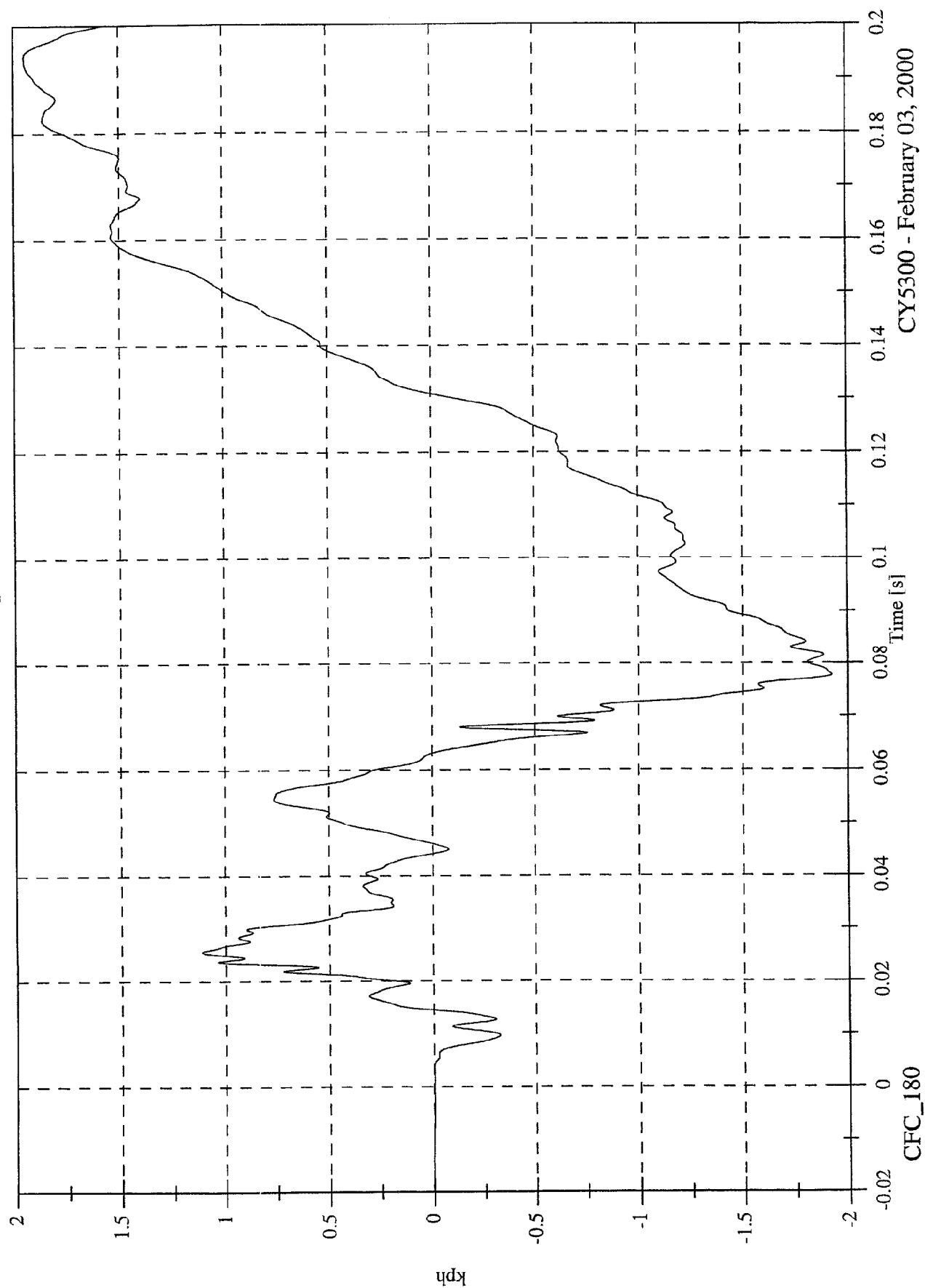
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 1.9 [kph] at 0.194 [s]

Min: -1.9 [kph] at 0.078 [s]

Acc 3 Rear Floorpan Z Velocity



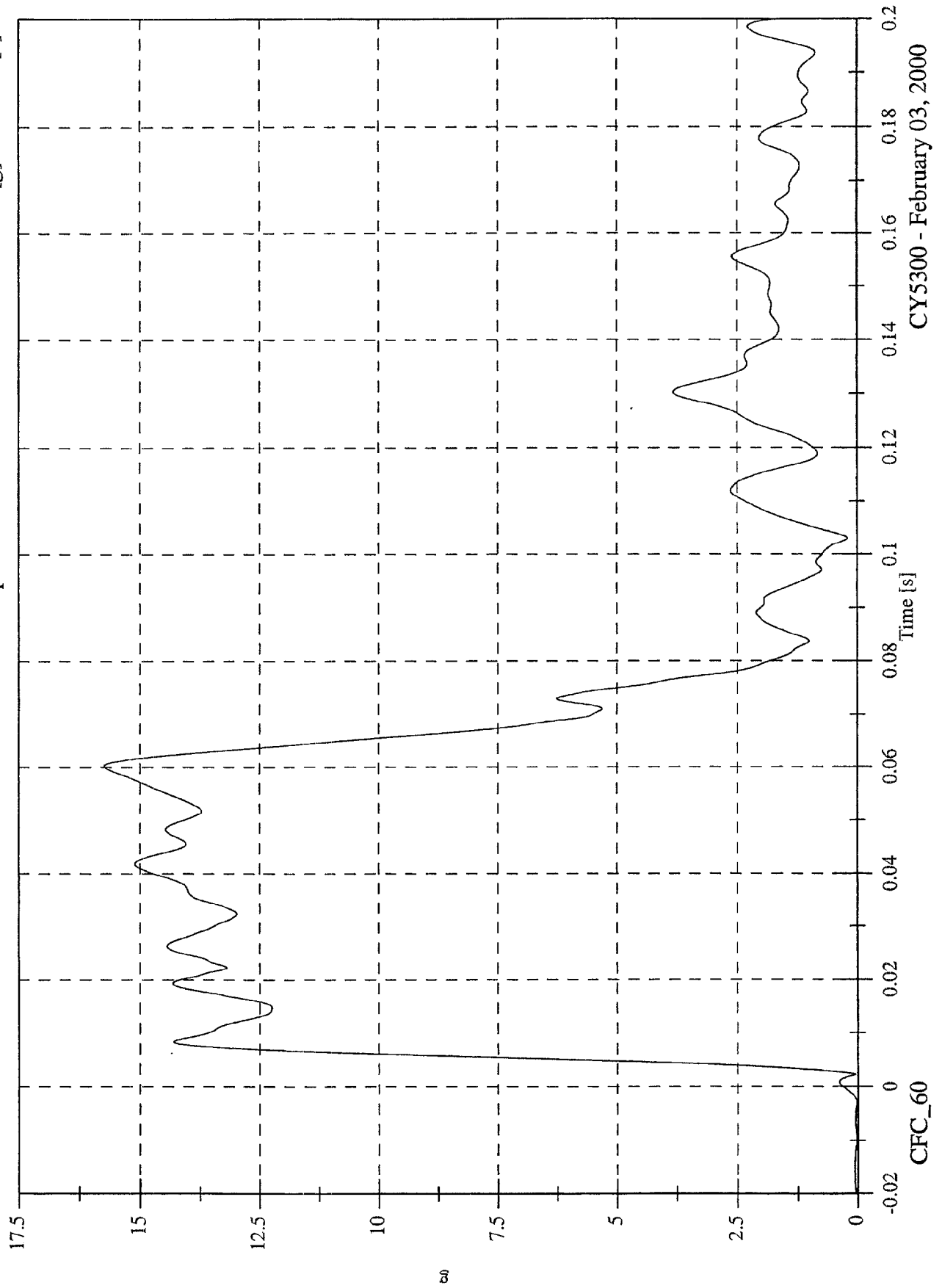
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 15.7 [g] at 0.060 [s]

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

Acc 3 Rear Floorpan Resultant



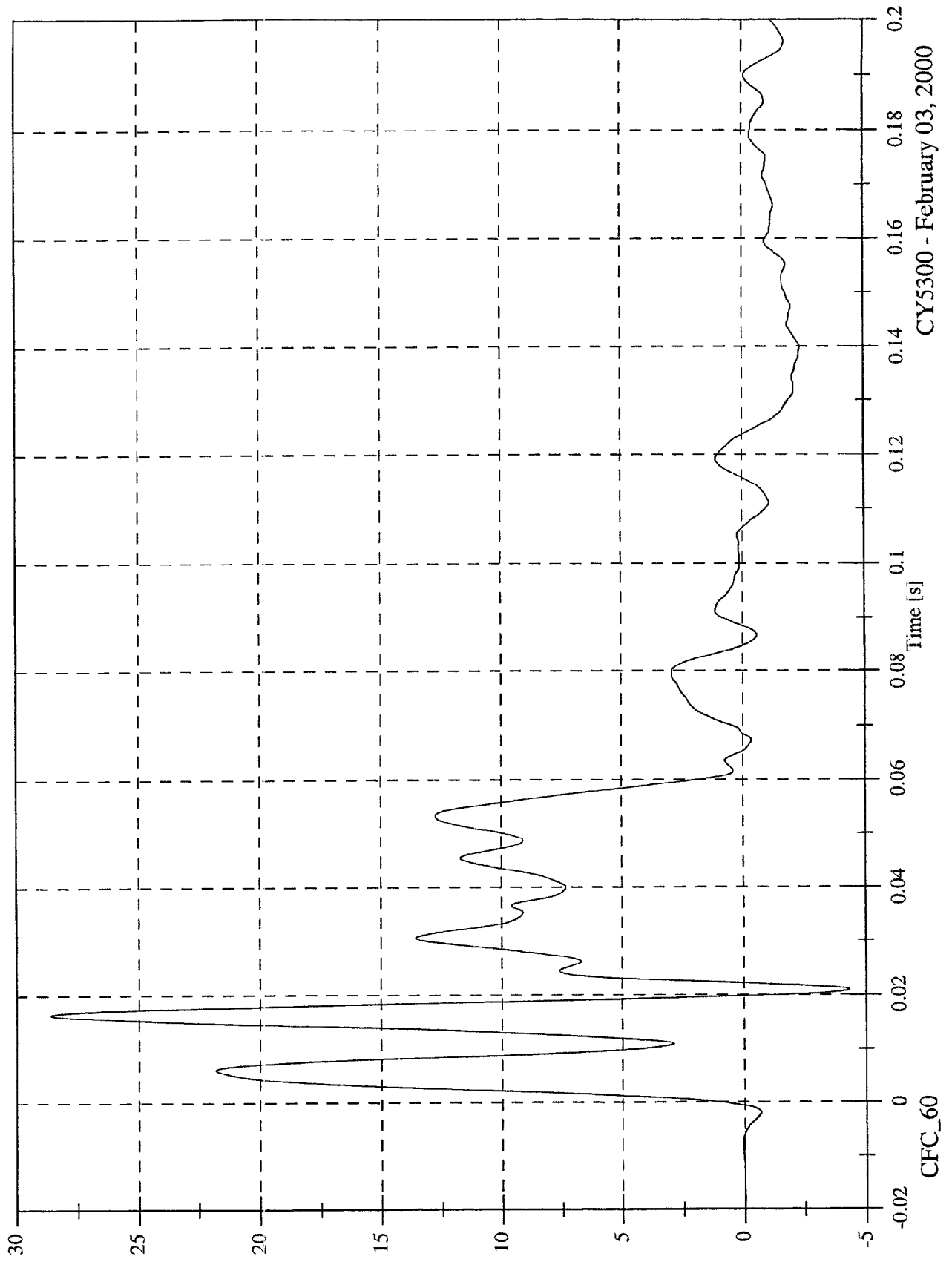
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 4 Left Rear Sill Y

Max: 28.6 [g] at 0.017 [s]

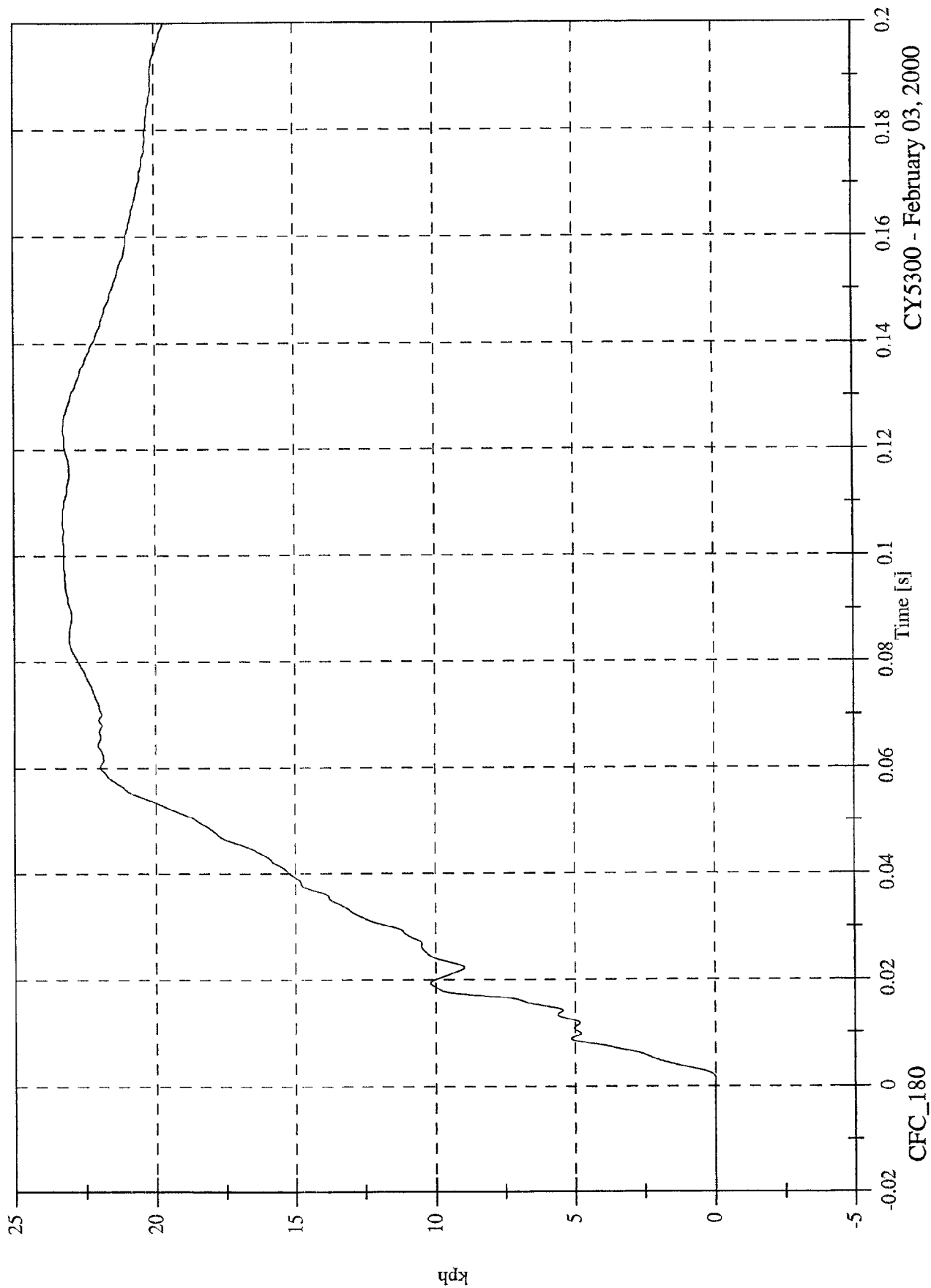
Min: -4.3 [g] at 0.021 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 23.3 [kph] at 0.106 [s]
 Min: -0.0 [kph] at 0.001 [s]

Acc 4 Left Rear Sill Y Velocity



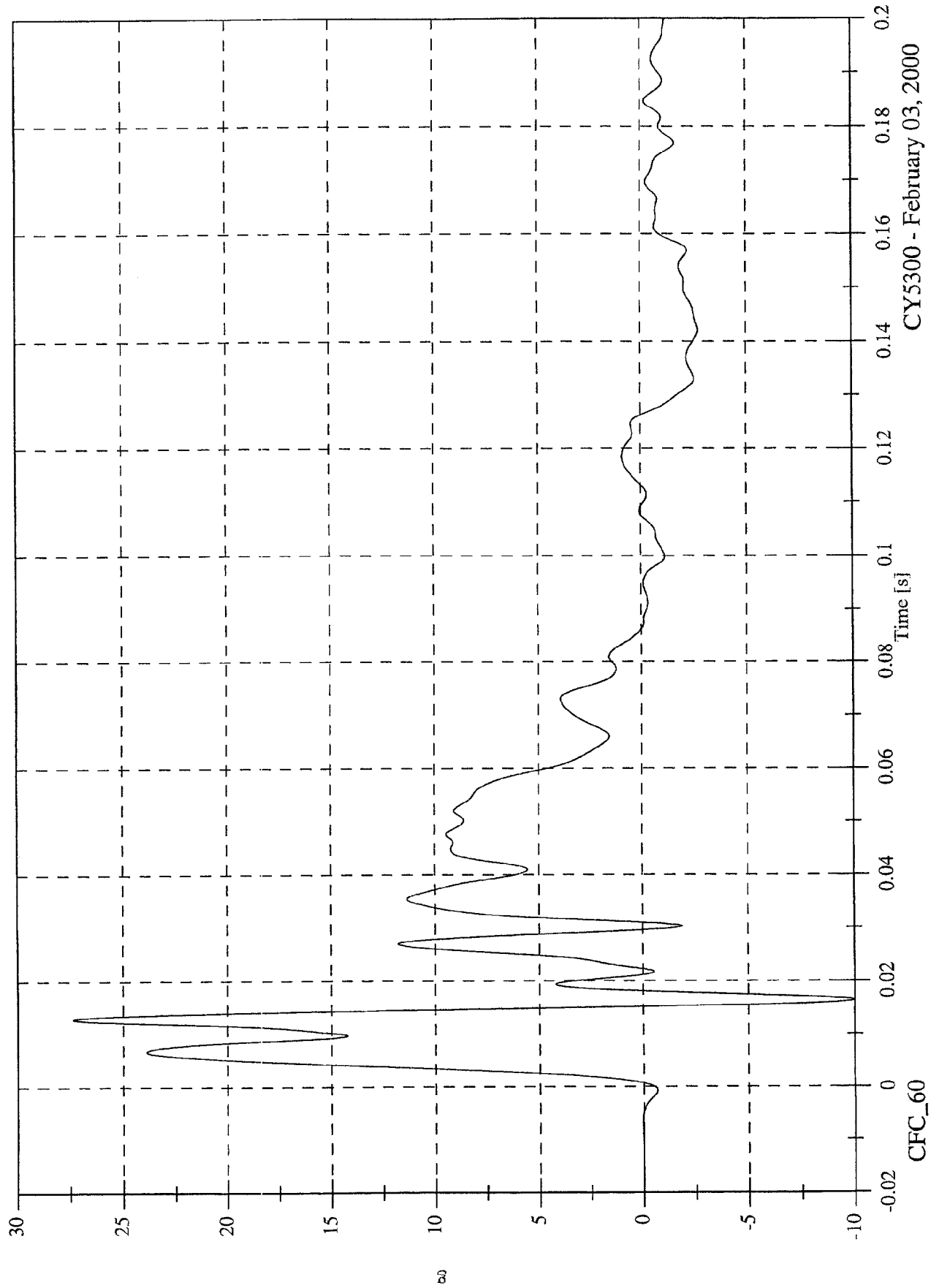
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 27.4 [g] at 0.013 [s]

Min: -10.0 [g] at 0.016 [s]

Acc 5 Left Front Sill Y



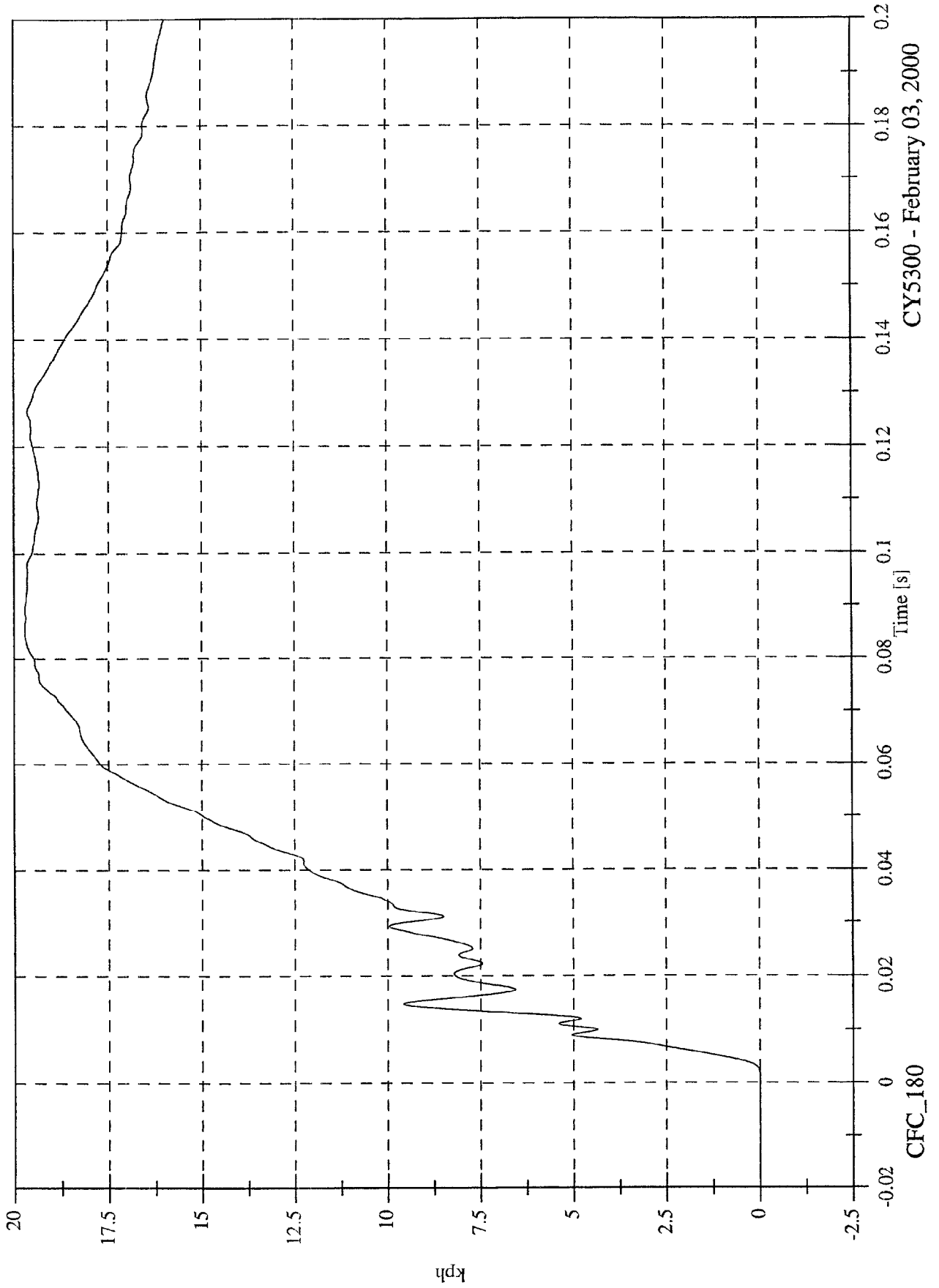
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 19.7 [kph] at 0.086 [s]

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

Acc 5 Left Front Sill Y Velocity



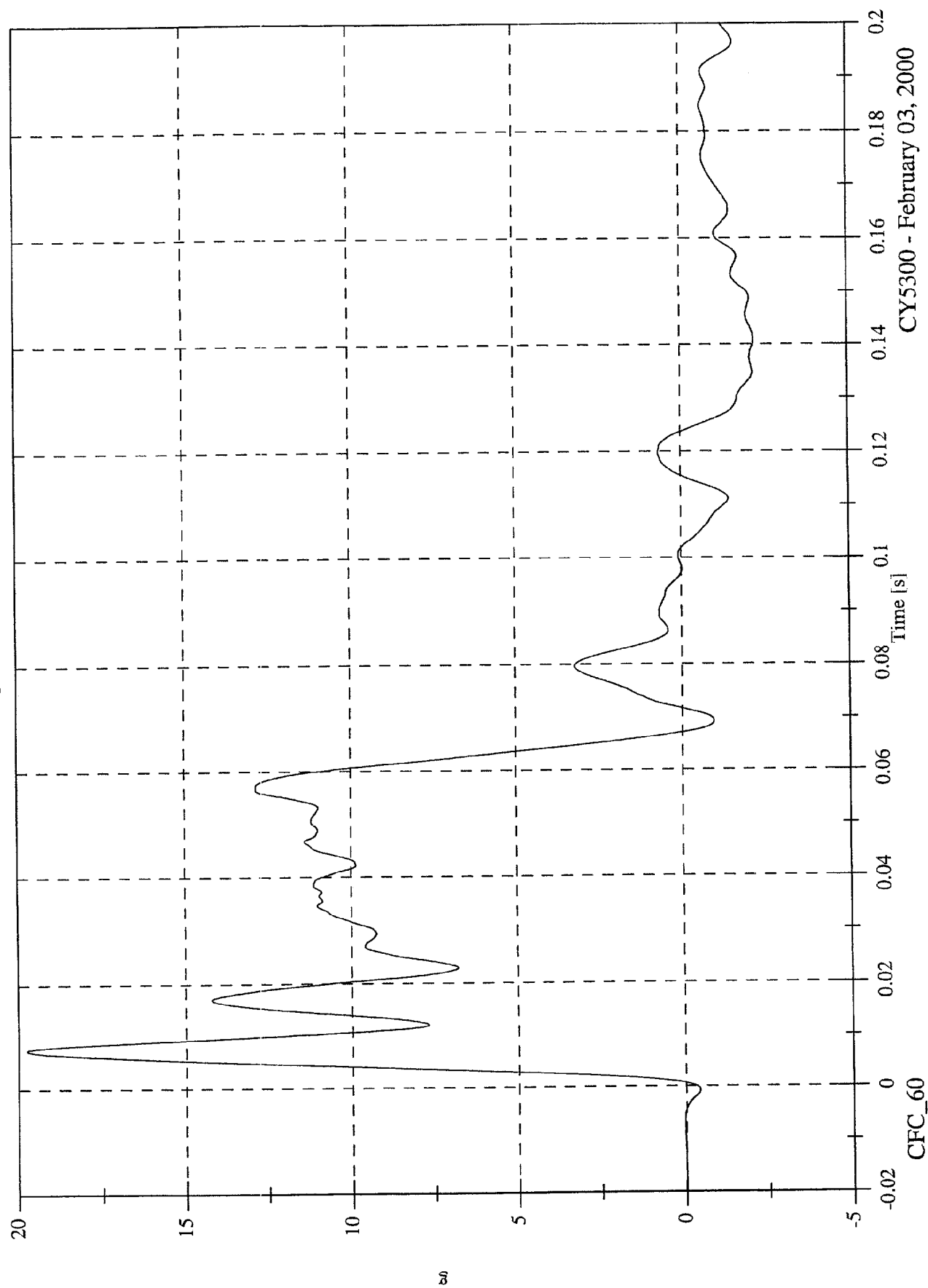
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 19.8 [g] at 0.008 [s]

Min: -2.2 [g] at 0.141 [s]

Acc 7 Right Rear Compartment Y

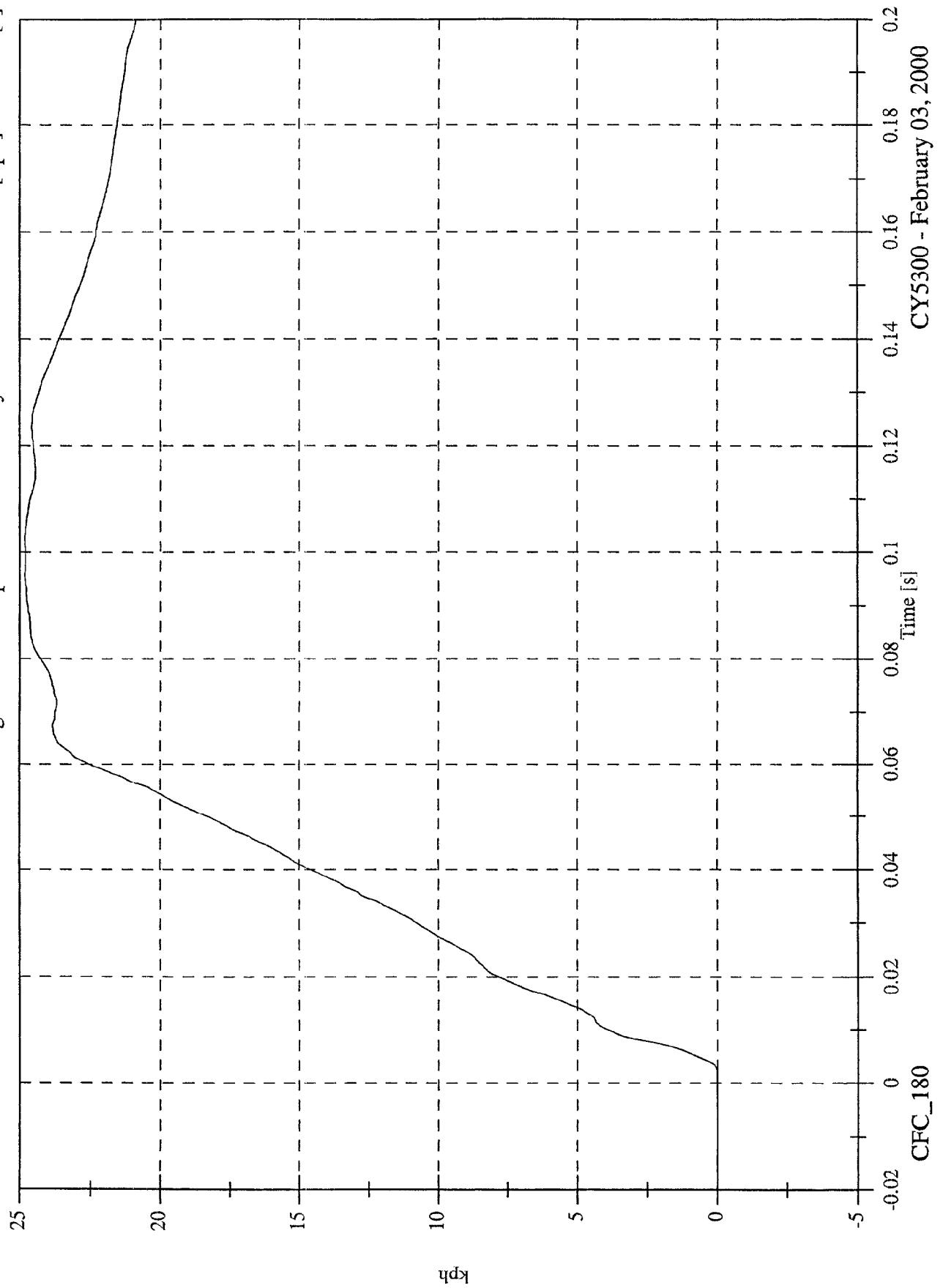


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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 24.8 [kph] at 0.103 [s]
Min: -0.0 [kph] at -0.016 [s]

Acc 7 Right Rear Compartment Y Velocity

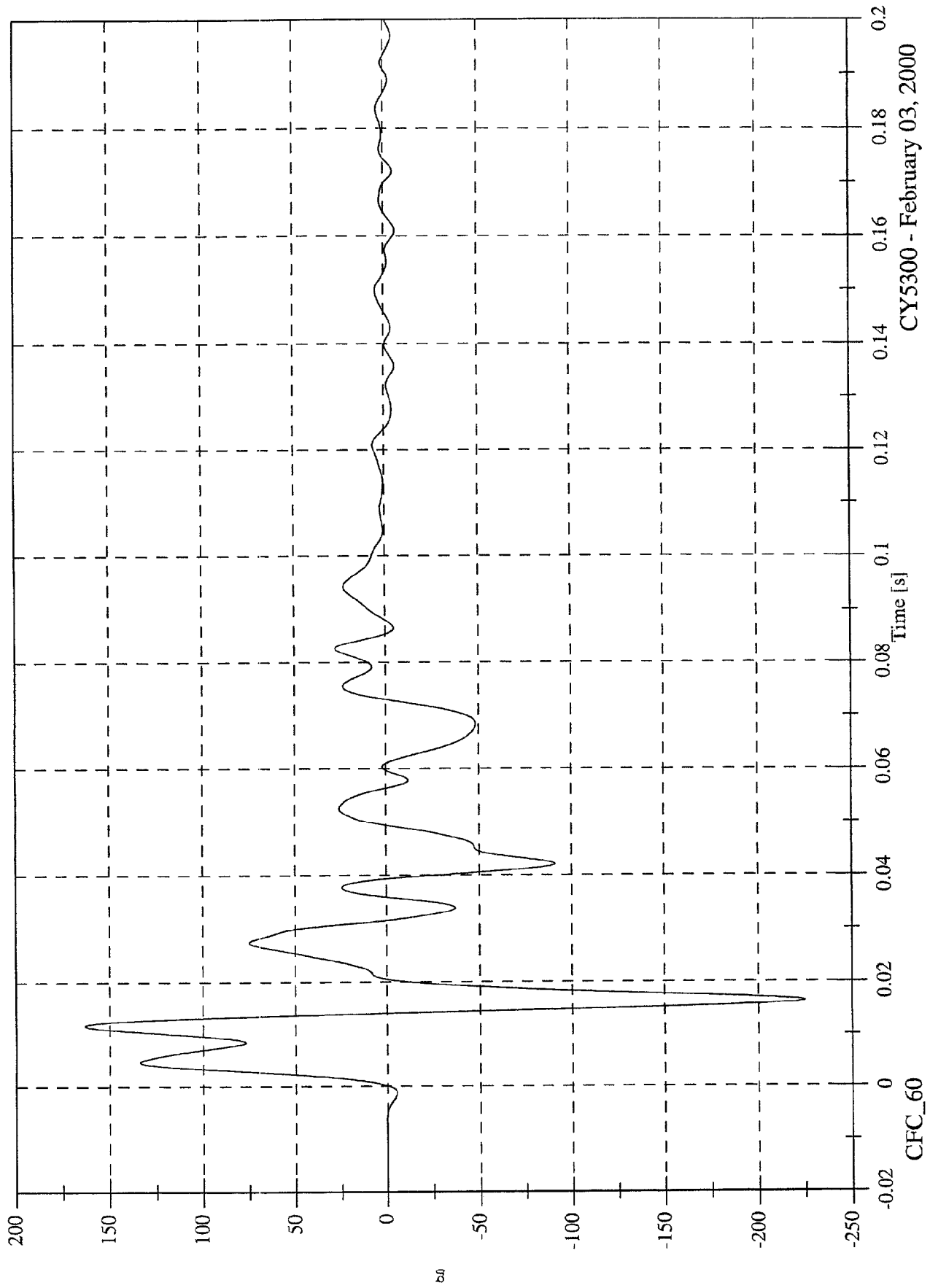


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 12 Left Lower B Post Y

Max: 163.2 [g] at 0.012 [s]
Min: -224.7 [g] at 0.016 [s]

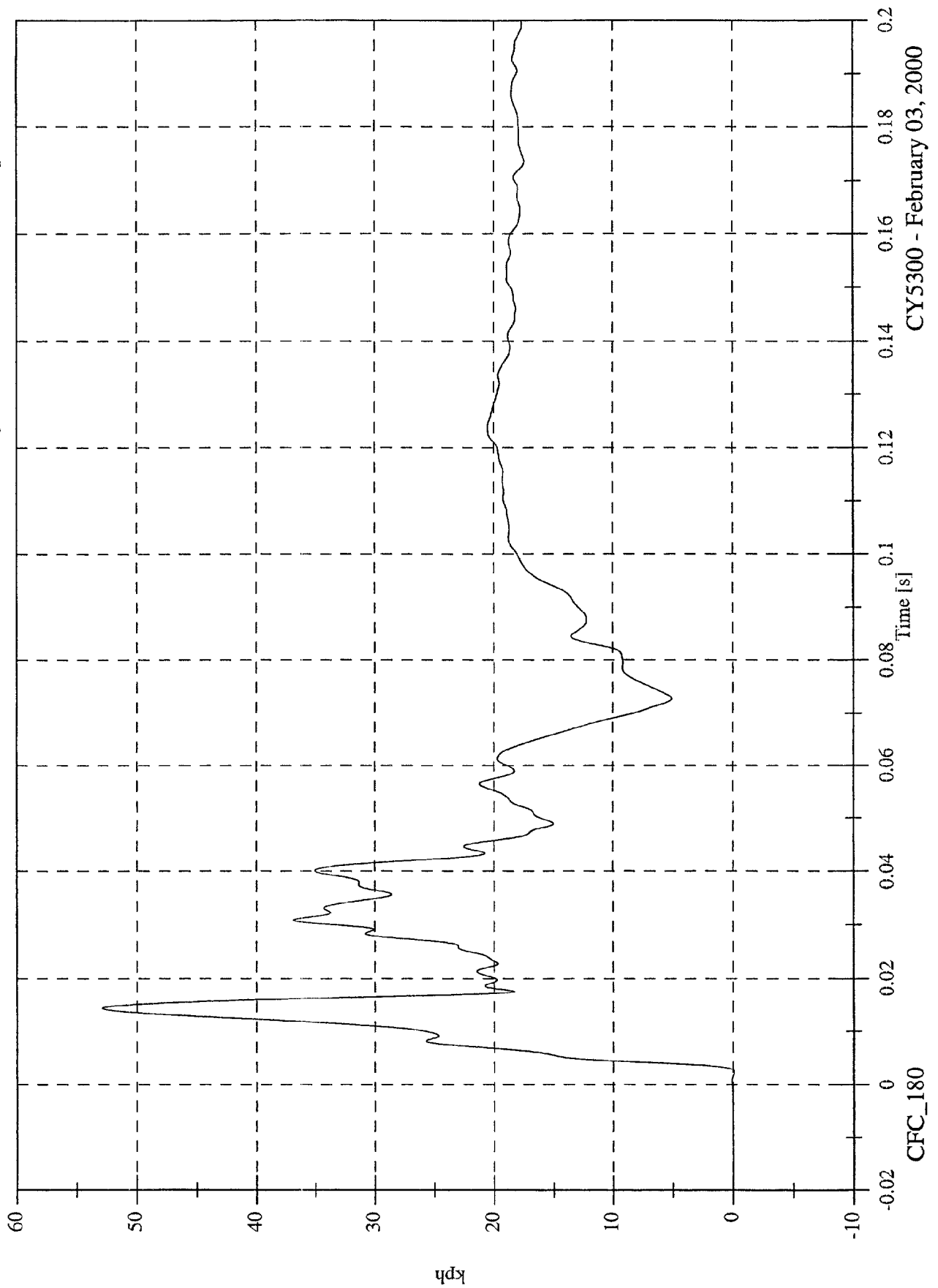


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 52.9 [kph] at 0.014 [s]

Min: -0.1 [kph] at 0.002 [s]

Acc 12 Left Lower B Post Y Velocity

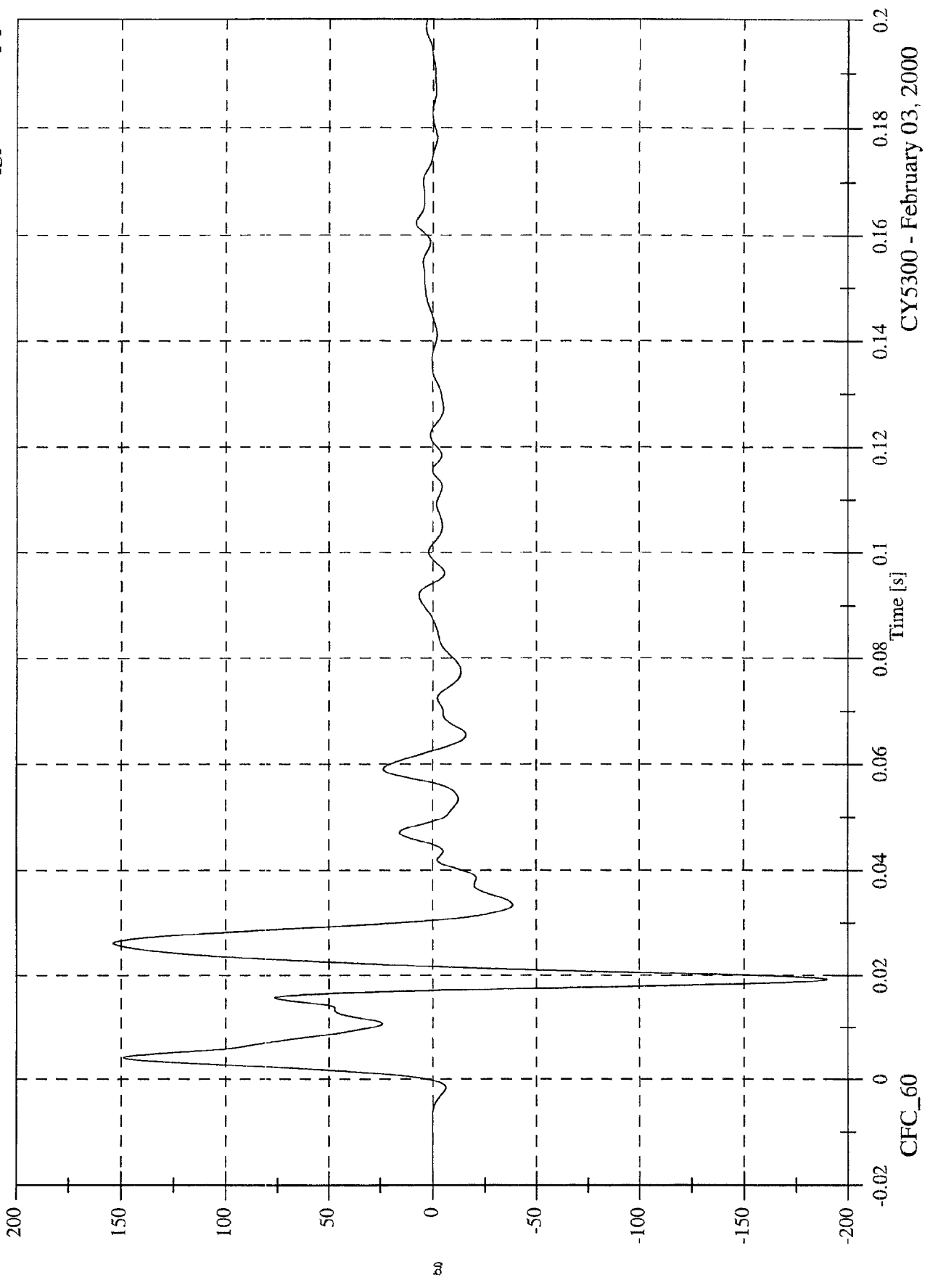


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 13 Left Mid B Post Y

Max: 153.9 [g] at 0.026 [s]
Min: -189.9 [g] at 0.019 [s]

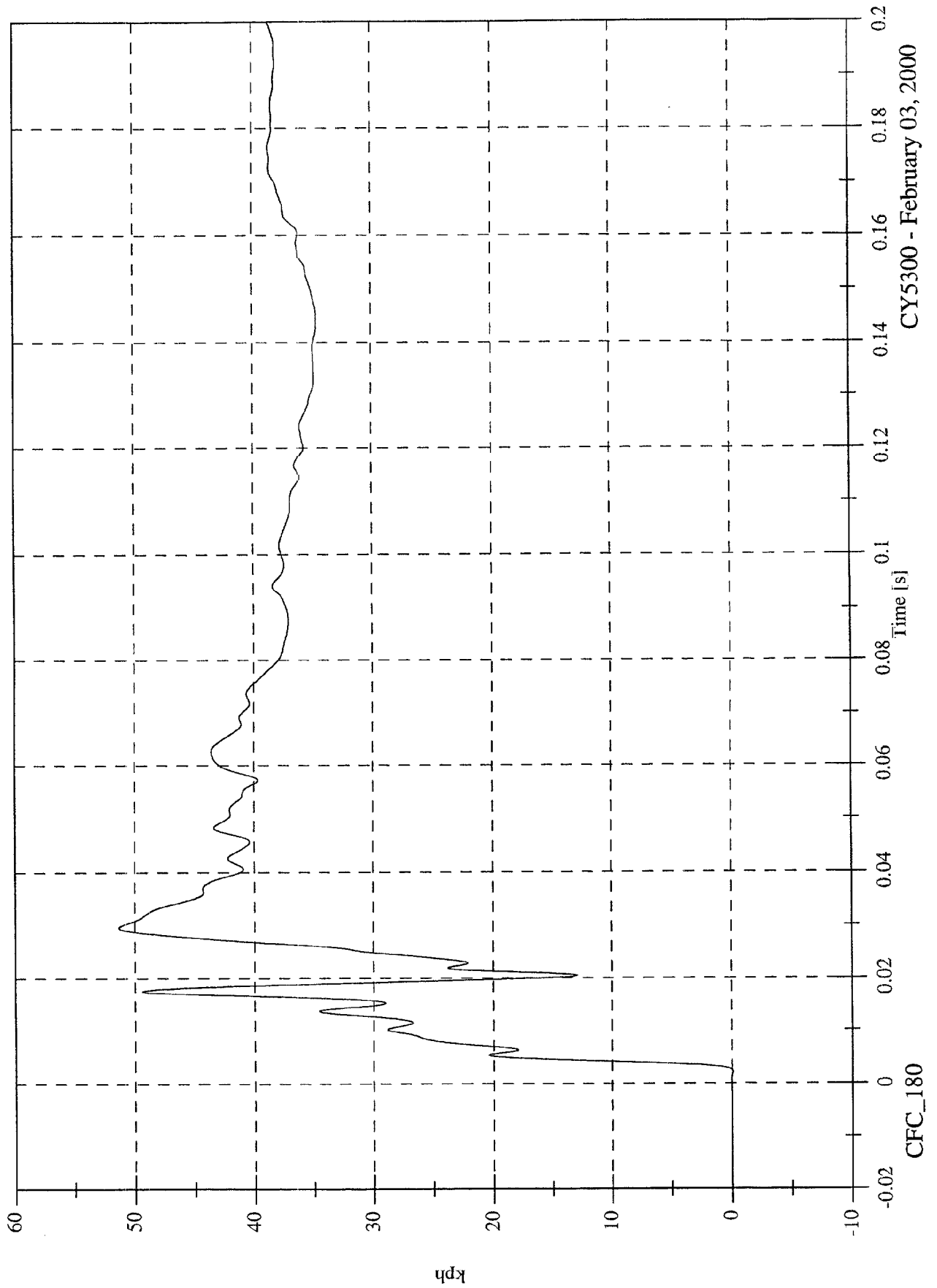


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 51.3 [kph] at 0.030 [s]

Min: -0.1 [kph] at 0.002 [s]

Acc 13 Left Mid B Post Y Velocity

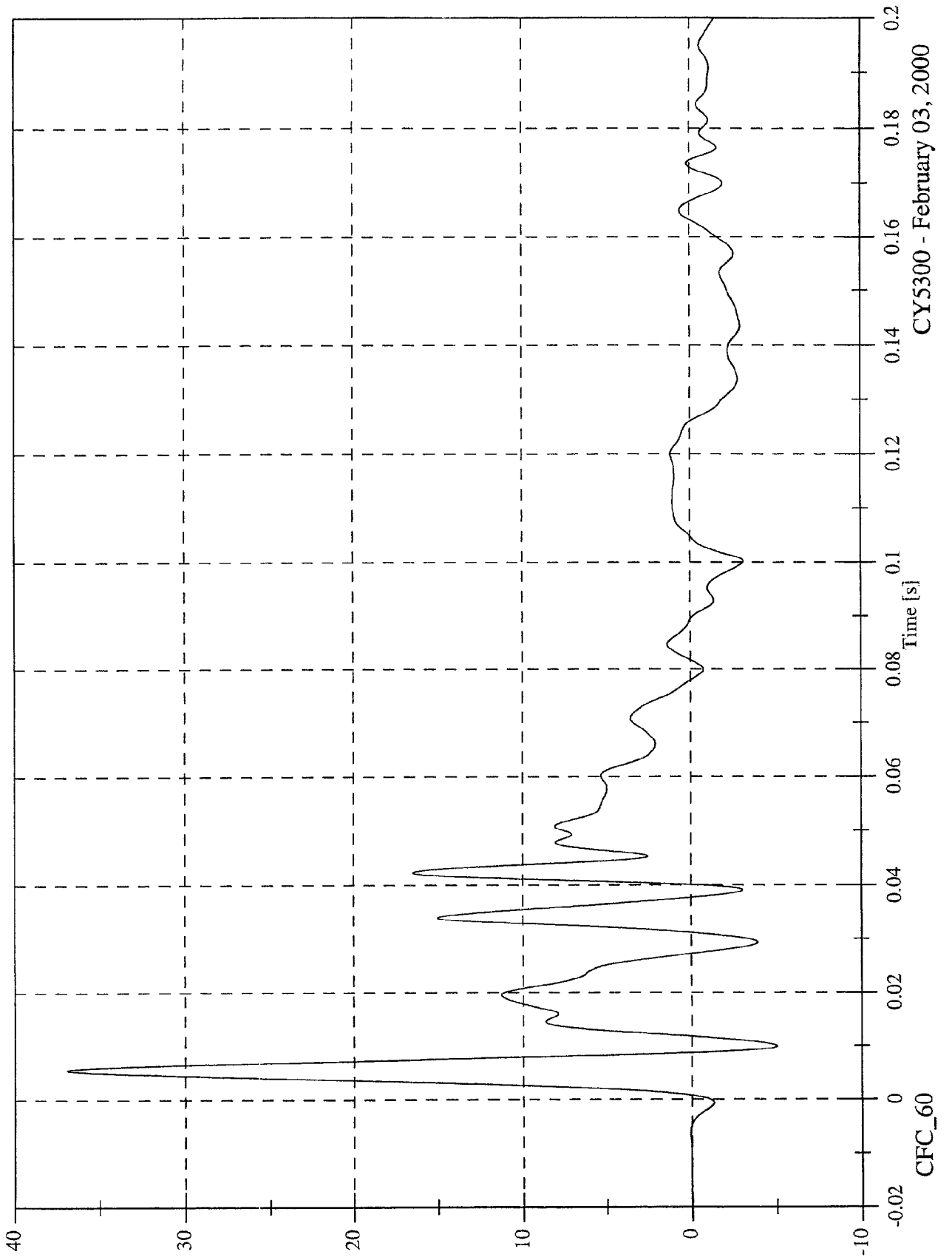


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 36.9 [g] at 0.006 [s]
 Min: -5.0 [g] at 0.010 [s]

Acc 14 Left Lower A Post Y



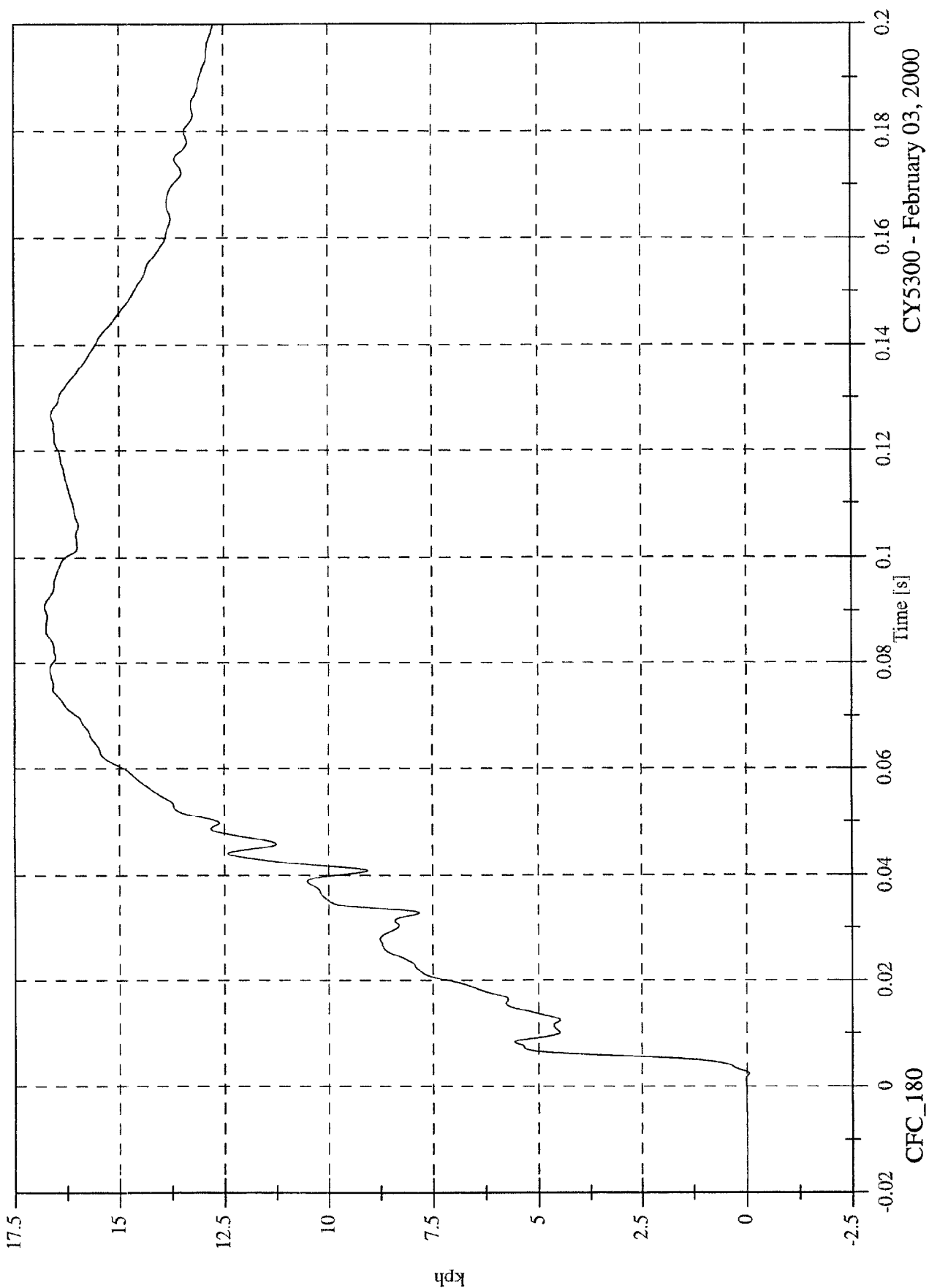
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 16.8 [kph] at 0.091 [s]

Min: -0.1 [kph] at 0.002 [s]

Acc 14 Left Lower A Post Y Velocity

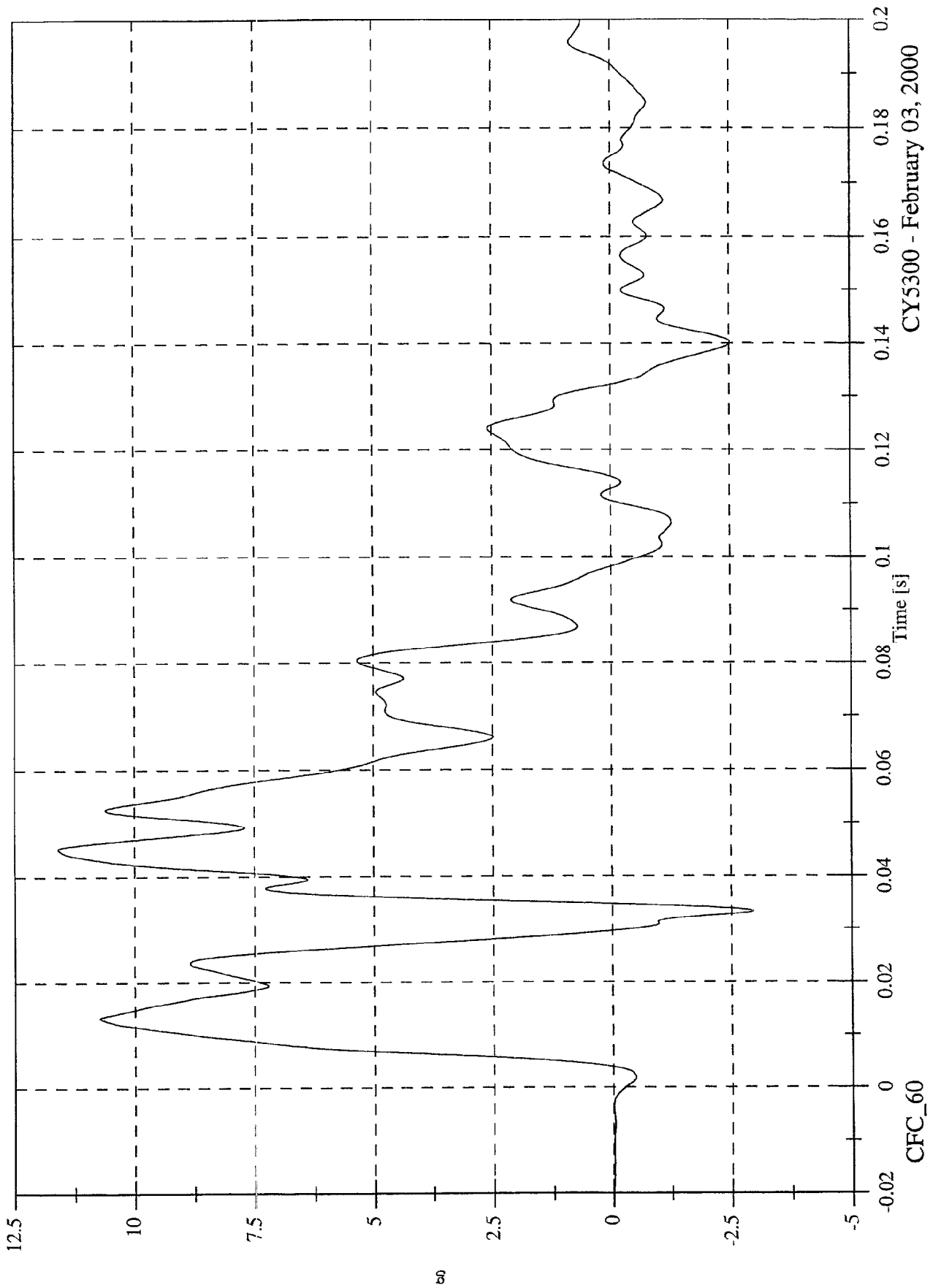


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 11.6 [g] at 0.045 [s]
Min: -3.0 [g] at 0.033 [s]

Acc 15 Left Mid A Post Y

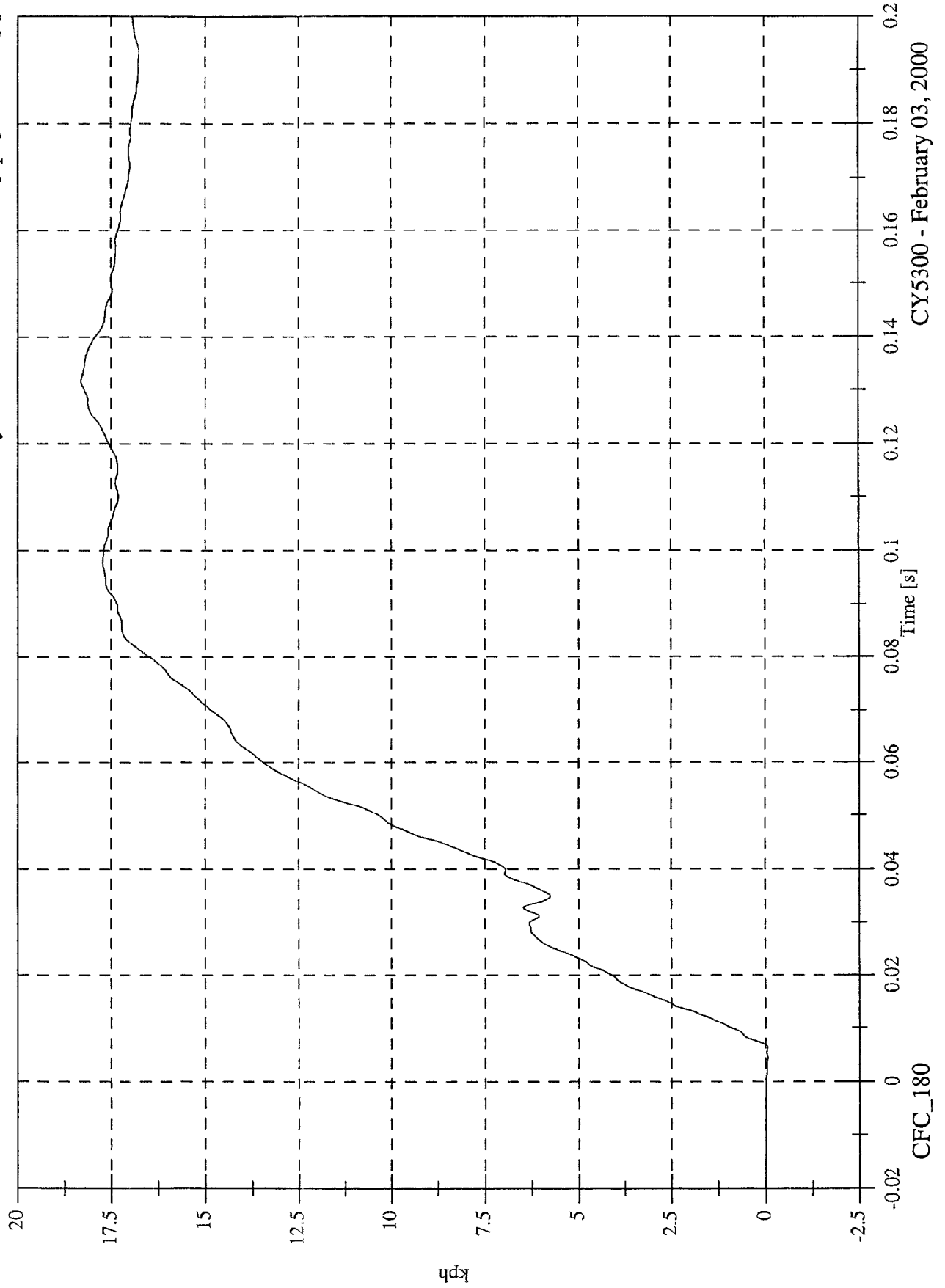


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 18.3 [kph] at 0.132 [s]

Min: -0.1 [kph] at 0.004 [s]

Acc 15 Left Mid A Post Y Velocity

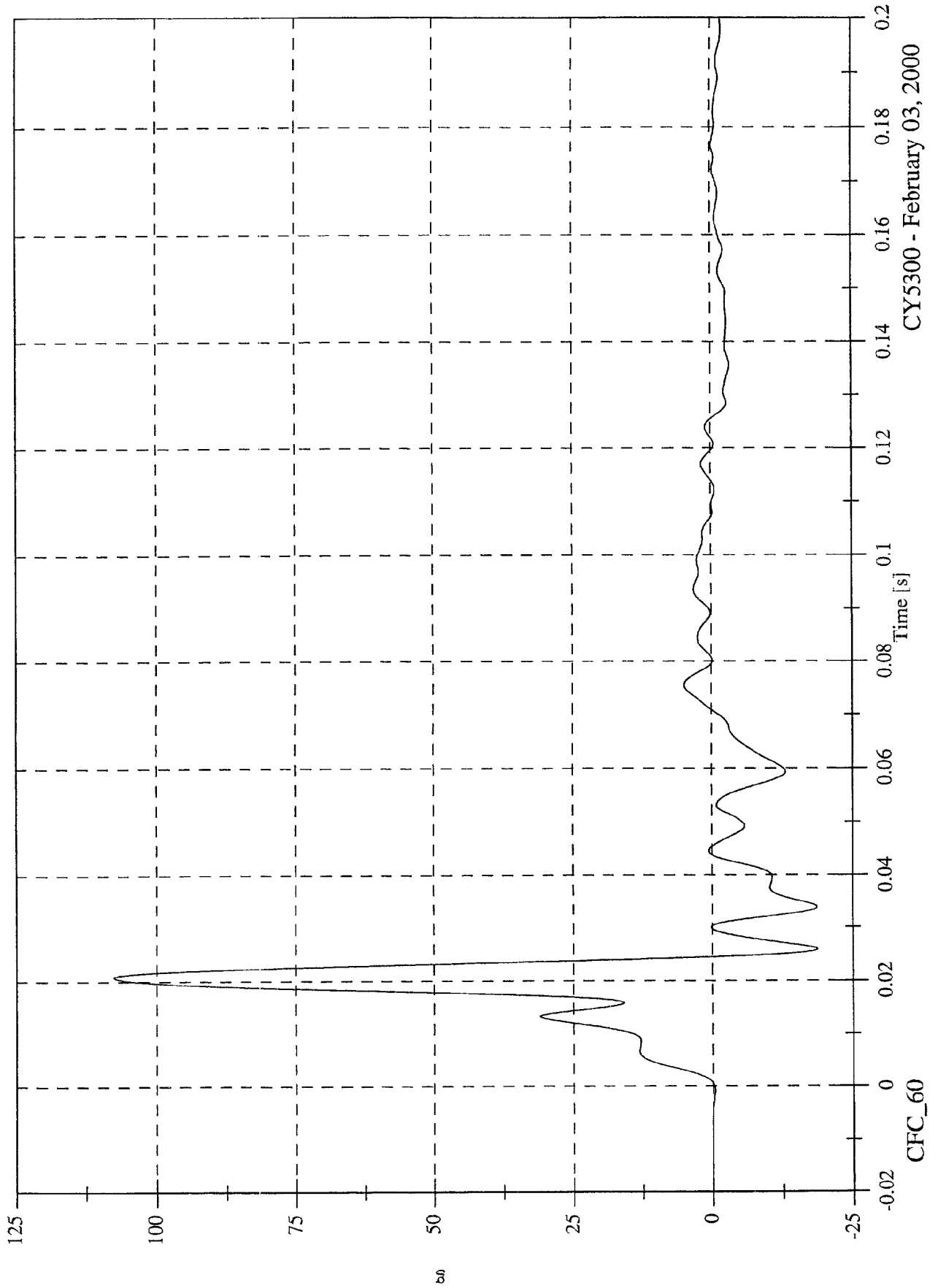


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 16 Front Seat Track Y

Max: 107.6 [g] at 0.021 [s]
Min: -18.7 [g] at 0.026 [s]



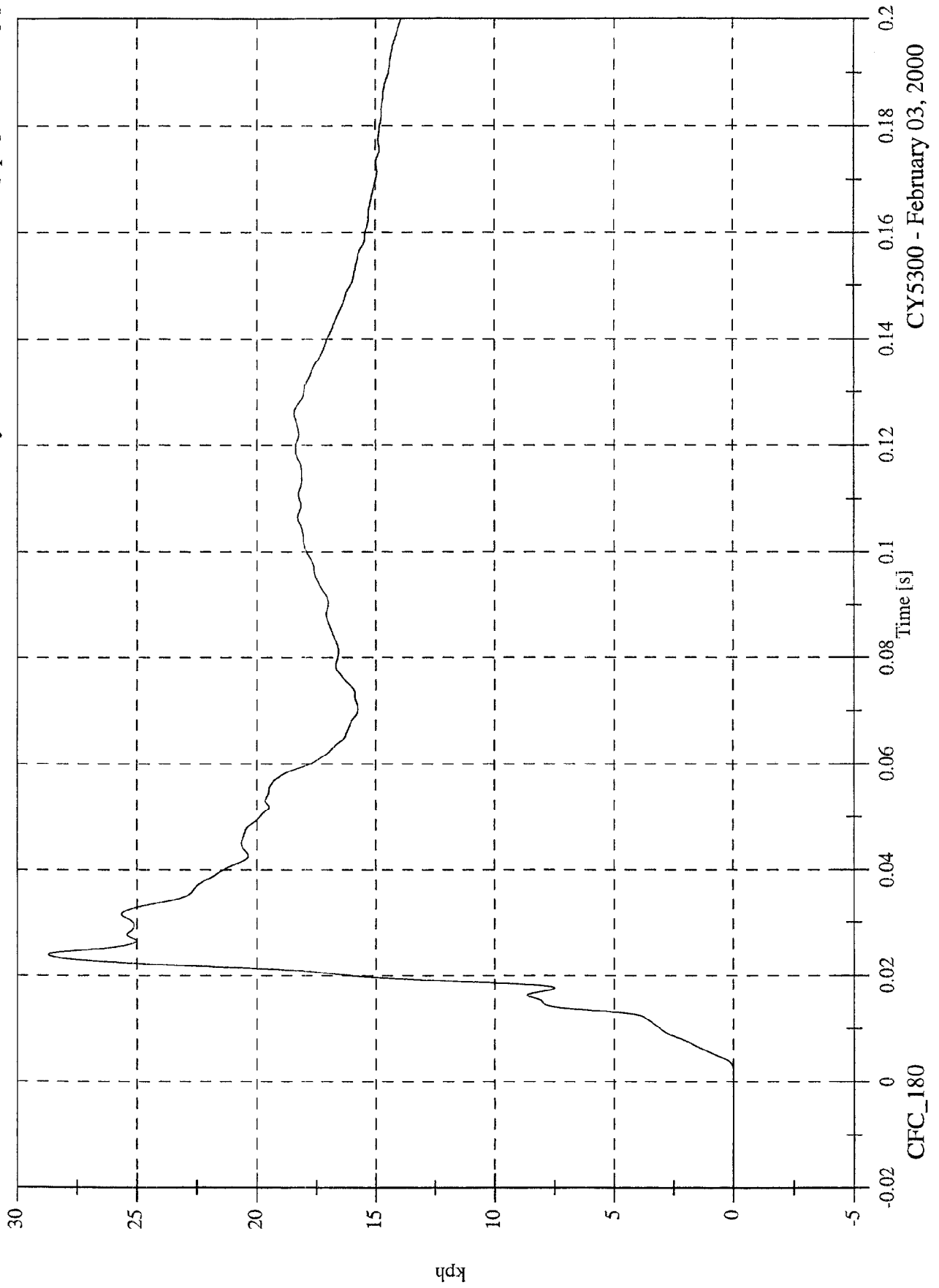
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 28.7 [kph] at 0.024 [s]

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

Acc 16 Front Seat Track Y Velocity



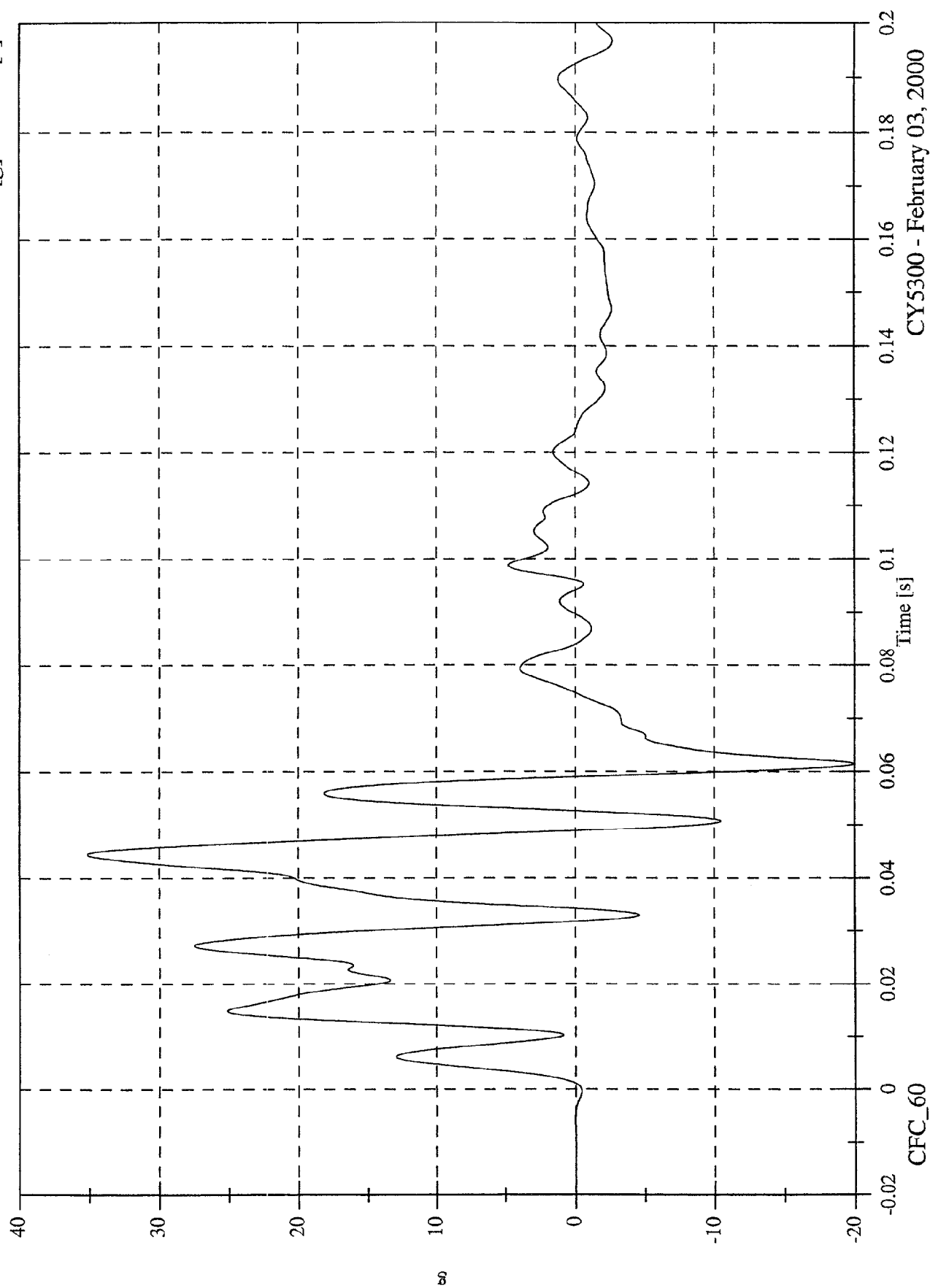
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 35.2 [g] at 0.045 [s]

Min: -19.9 [g] at 0.061 [s]

Acc 17 Rear Seat Track Y

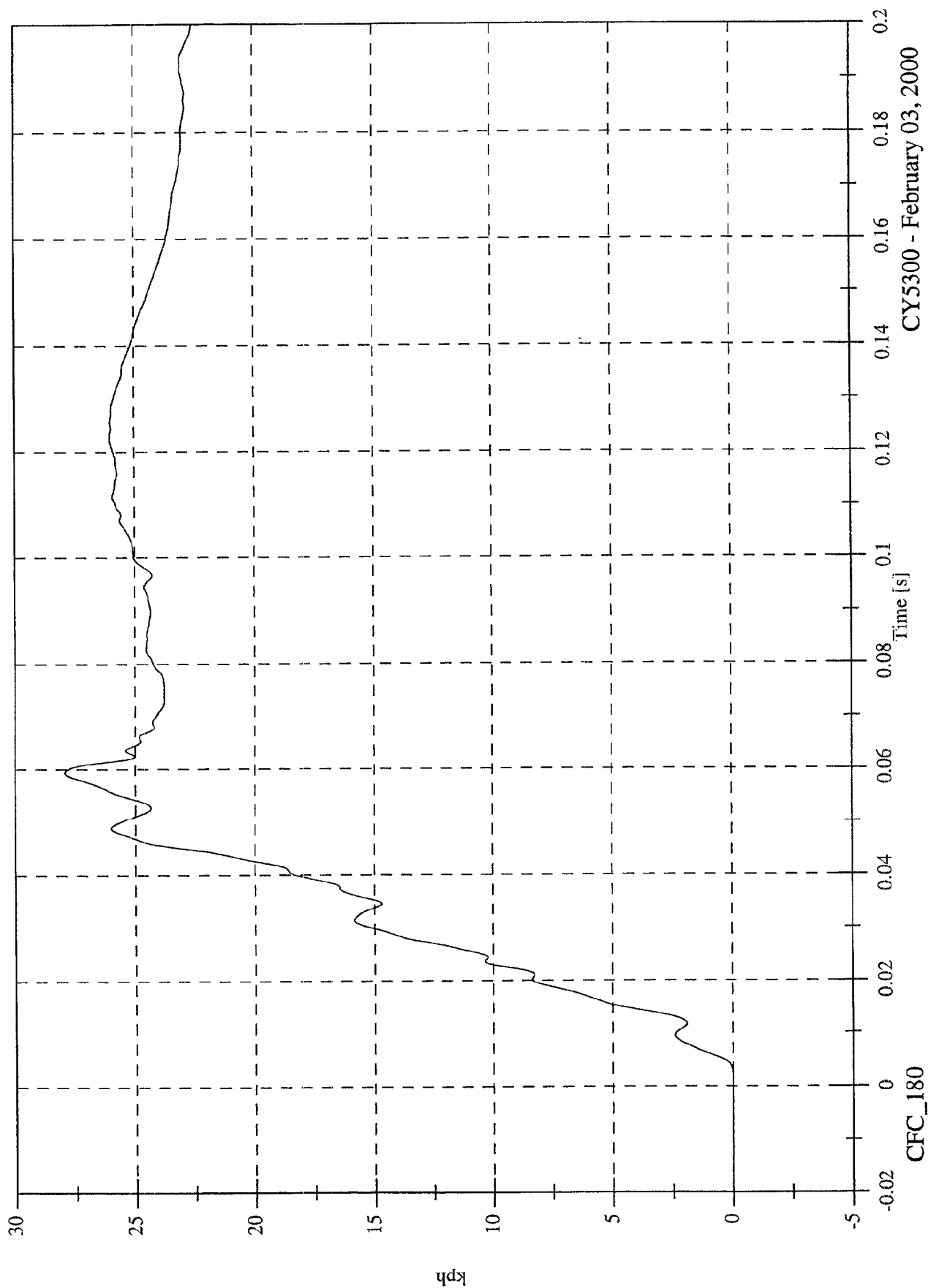


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 27.9 [kph] at 0.059 [s]
Min: -0.0 [kph] at -0.006 [s]

Acc 17 Rear Seat Track Y Velocity



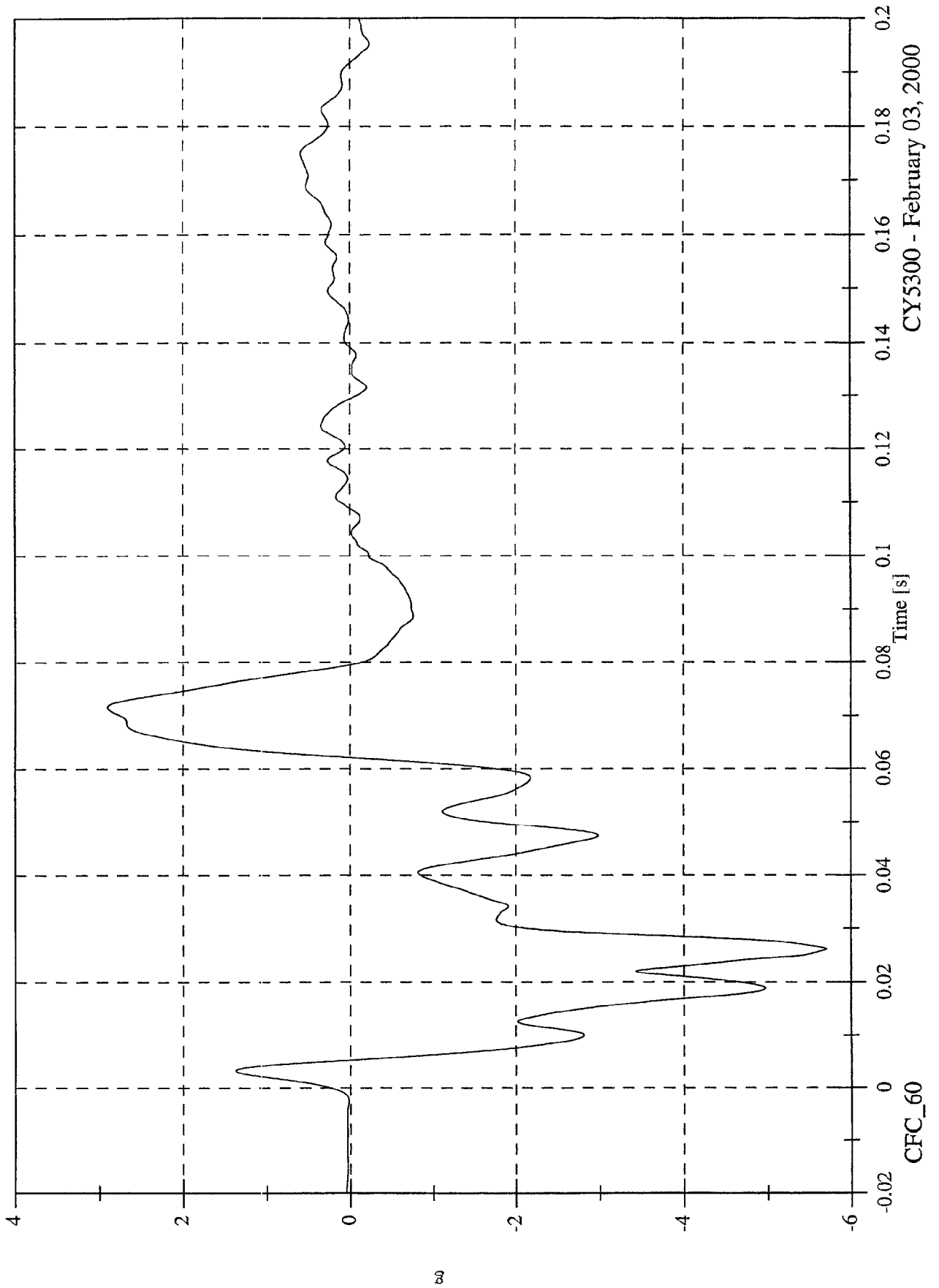
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 18 Target CG X

Max: 2.9 [g] at 0.072 [s]

Min: -5.7 [g] at 0.026 [s]



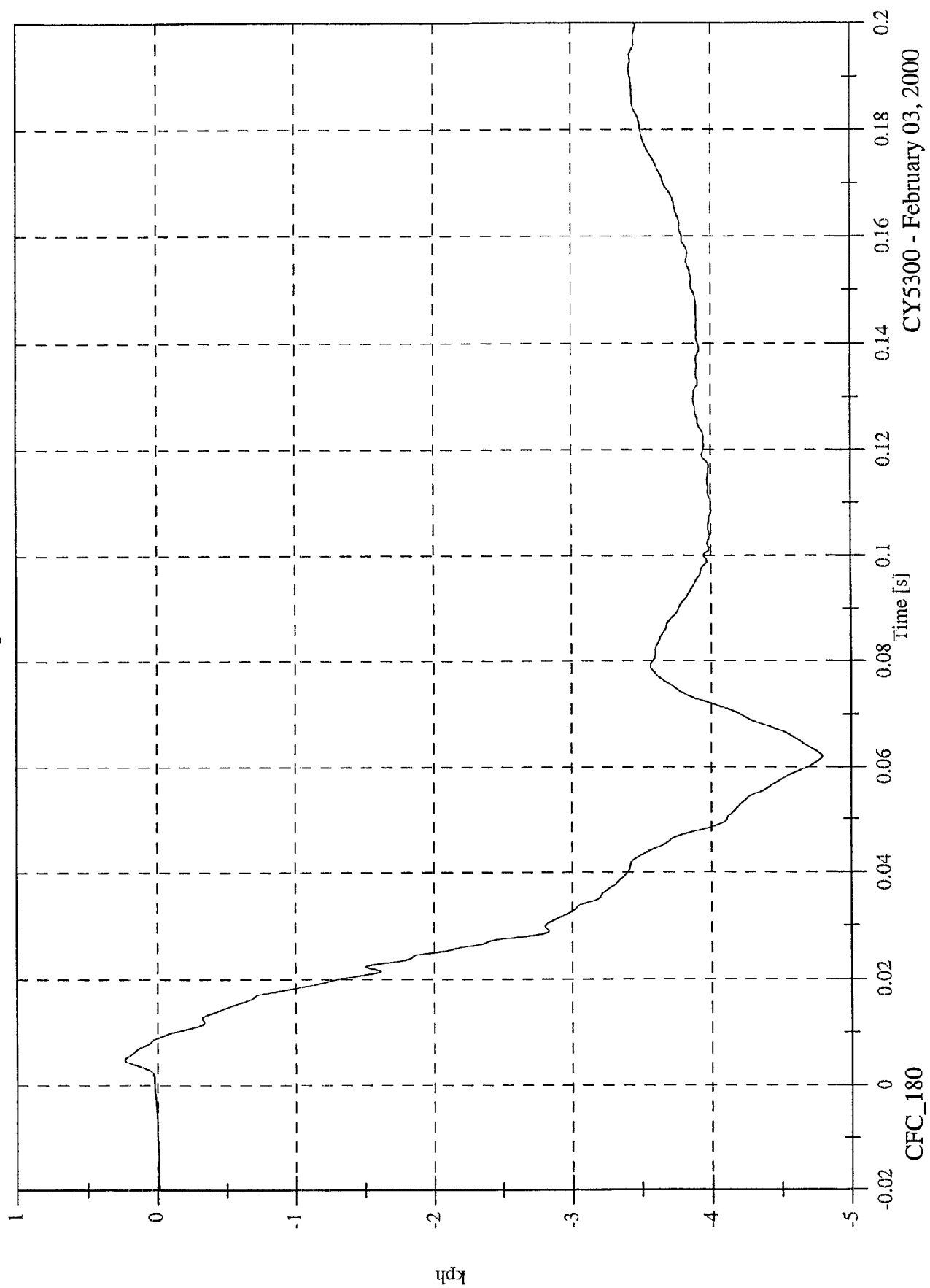
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 0.2 [kph] at 0.005 [s]

Min: -4.8 [kph] at 0.062 [s]

Acc 18 Target CG X Velocity

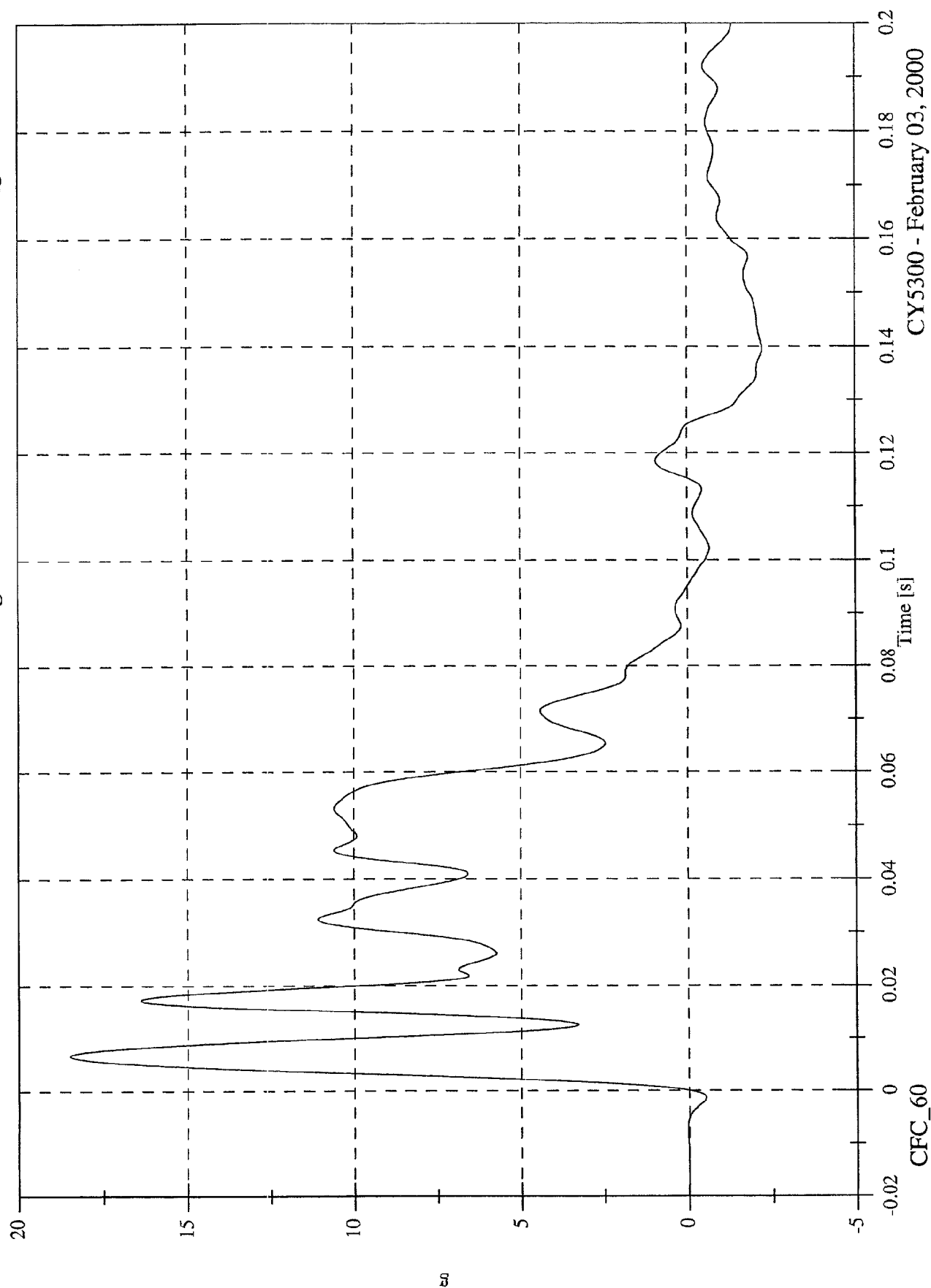


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 18 Target CG Y

Max: 18.5 [g] at 0.007 [s]
Min: -2.2 [g] at 0.140 [s]

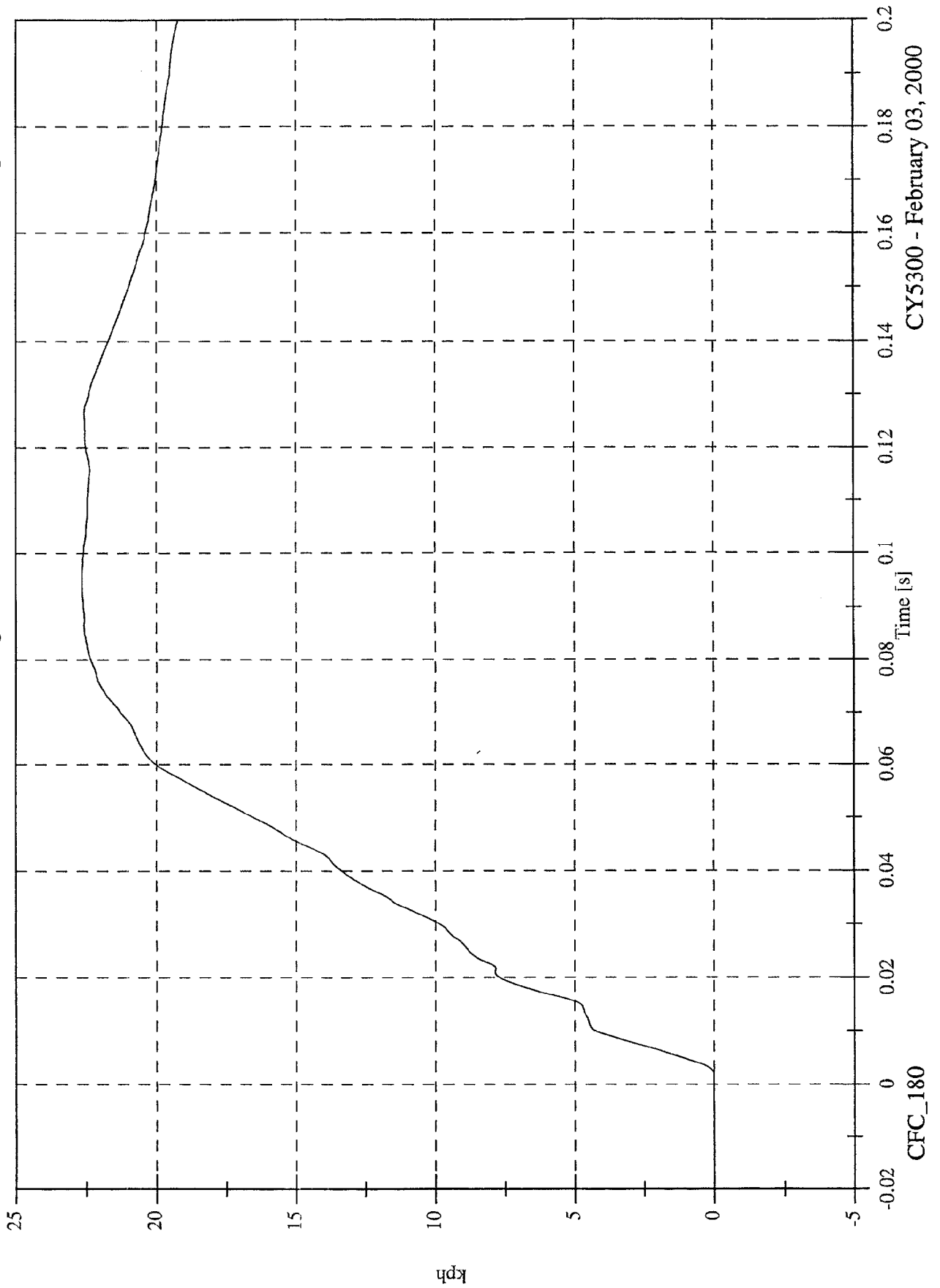


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 22.6 [kph] at 0.096 [s]
Min: -0.0 [kph] at -0.020 [s]

Acc 18 Target CG Y Velocity



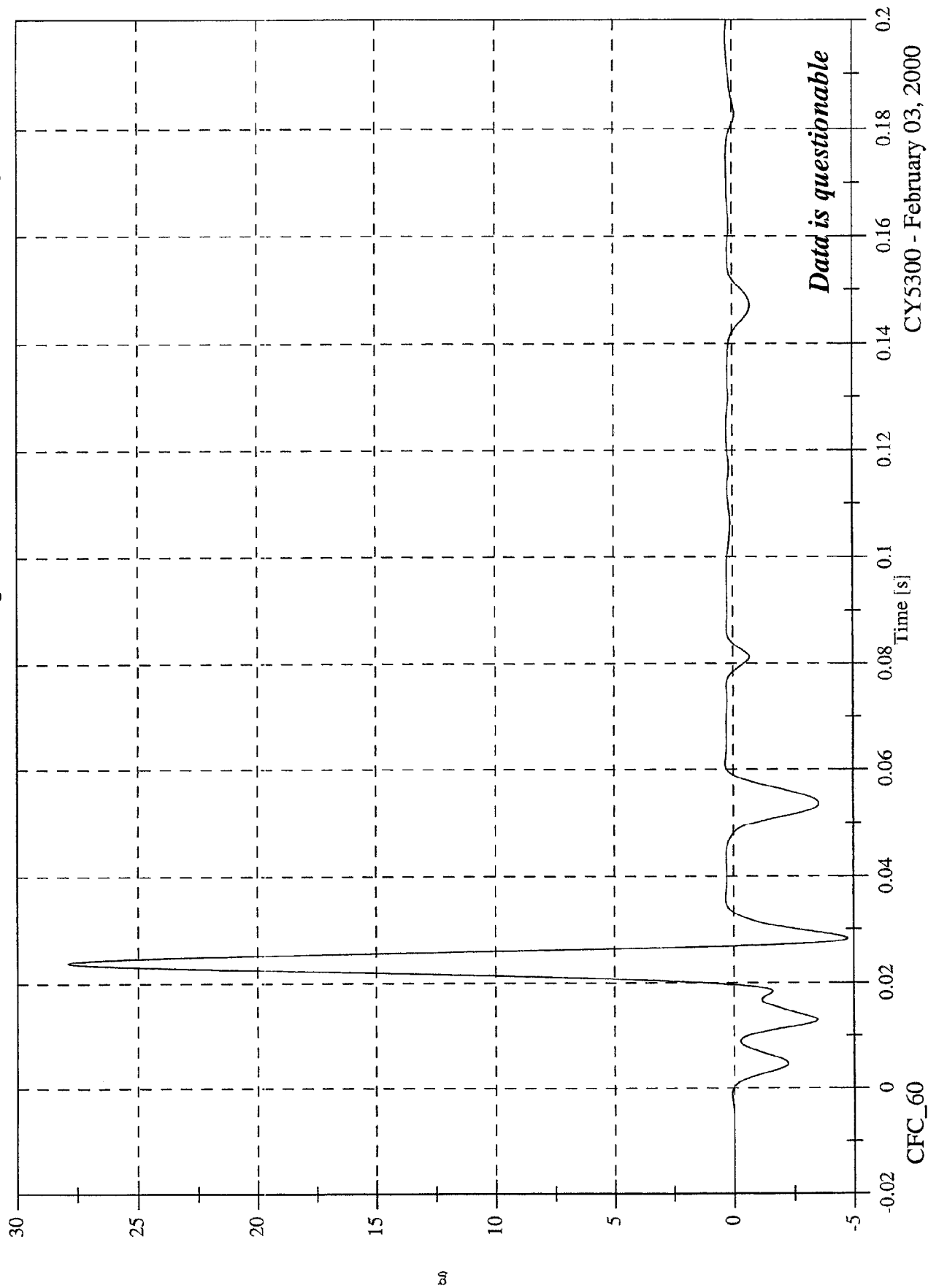
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 18 Target CG Z

Max: 27.9 [g] at 0.024 [s]

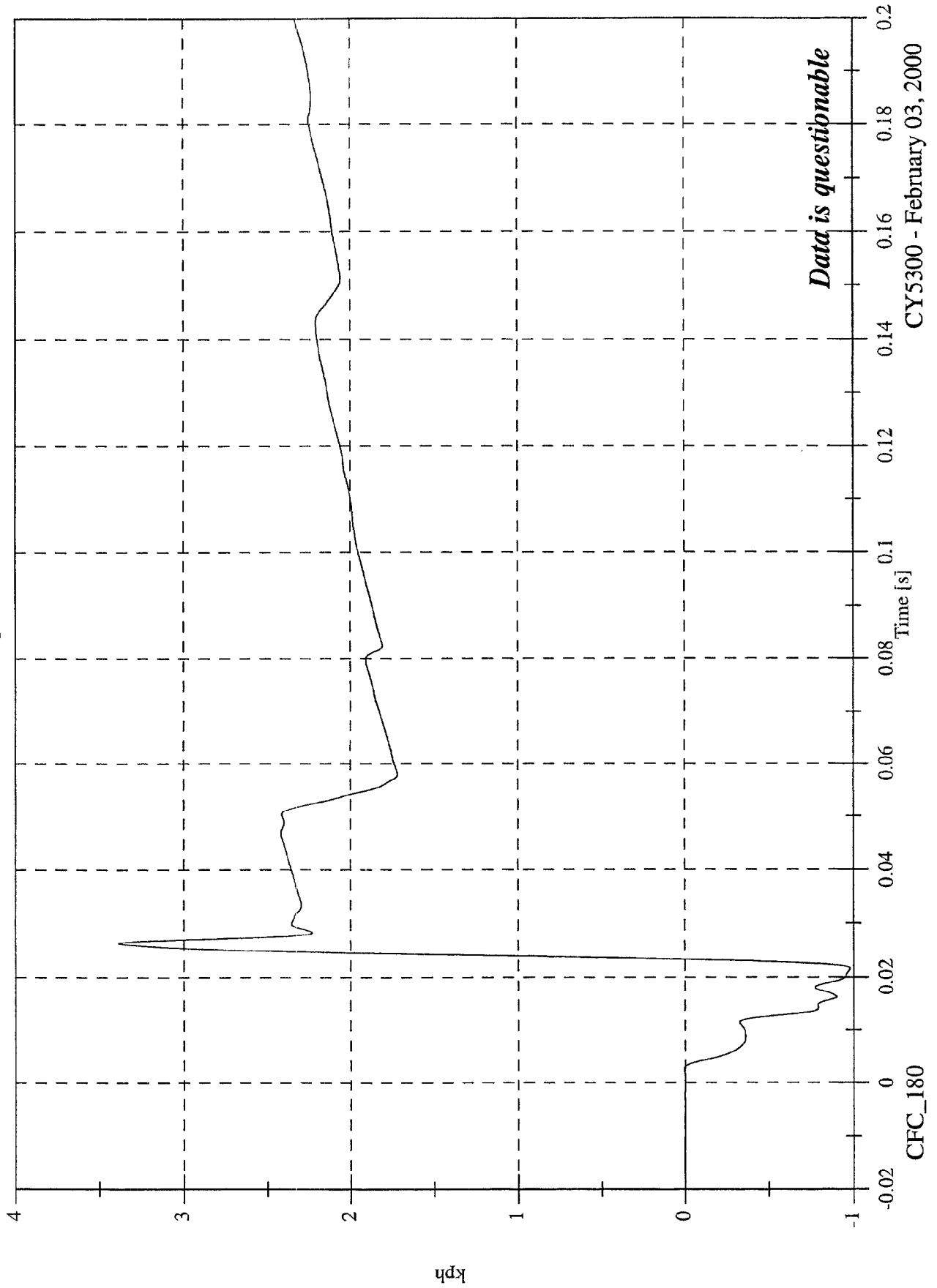
Min: -4.7 [g] at 0.028 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 3.4 [kph] at 0.026 [s]
Min: -1.0 [kph] at 0.022 [s]

Acc 18 Target CG Z Velocity

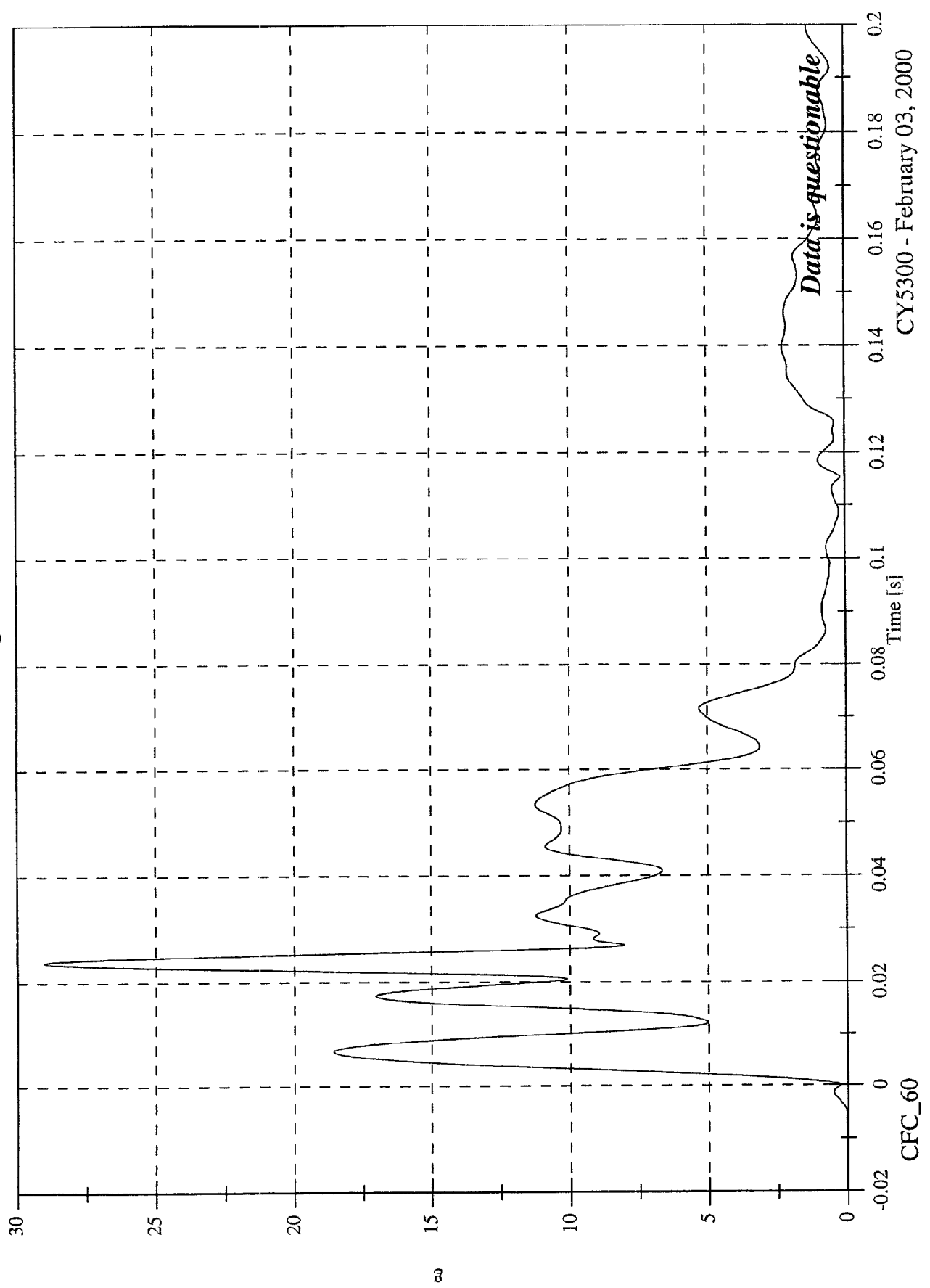


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FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Acc 18 Target CG Resultant

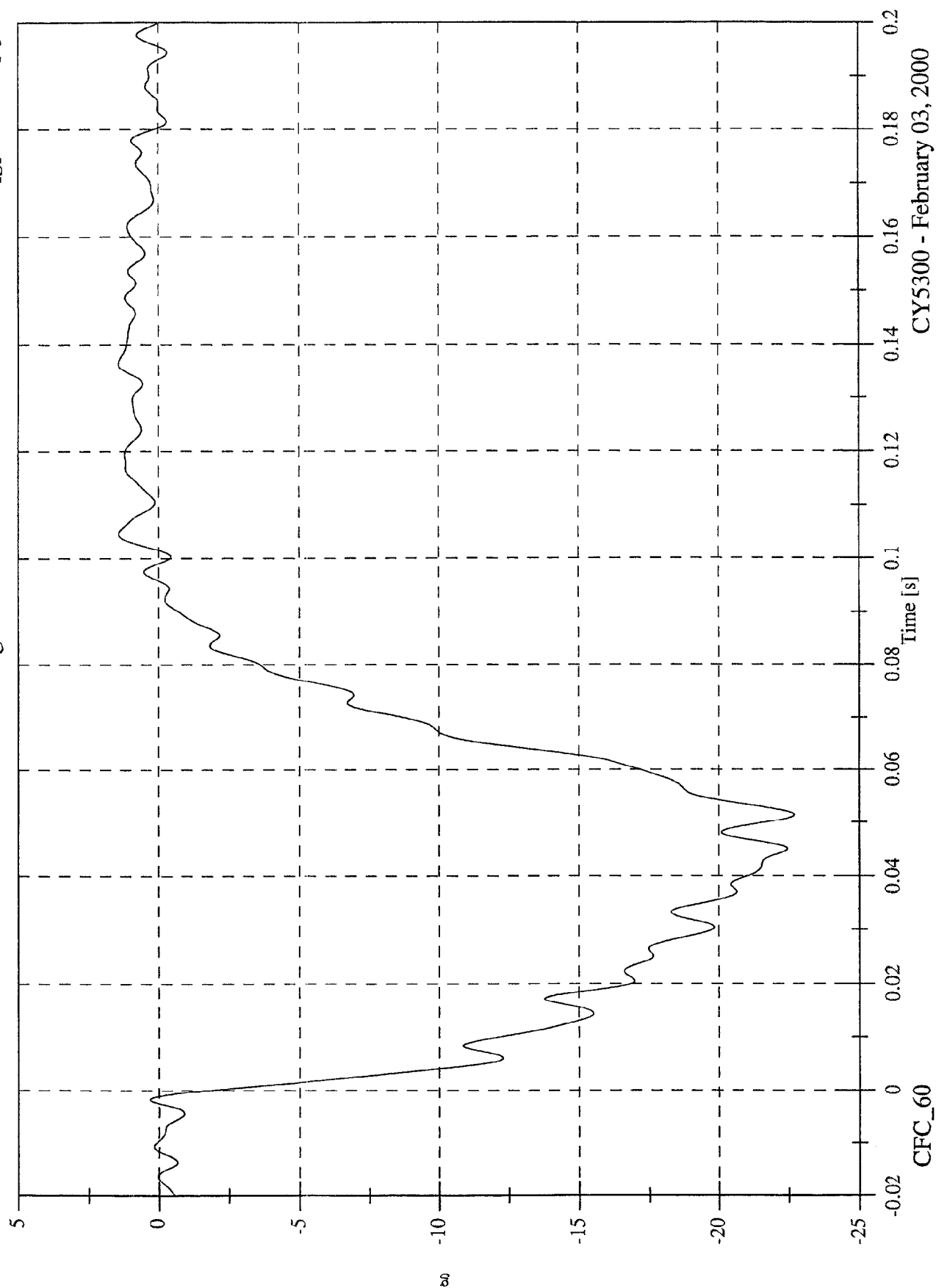
Max: 29.0 [g] at 0.024 [s]
Min: 0.0 [g] at -0.015 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier CG X

Max: 1.4 [g] at 0.136 [s]
Min: -22.7 [g] at 0.051 [s]



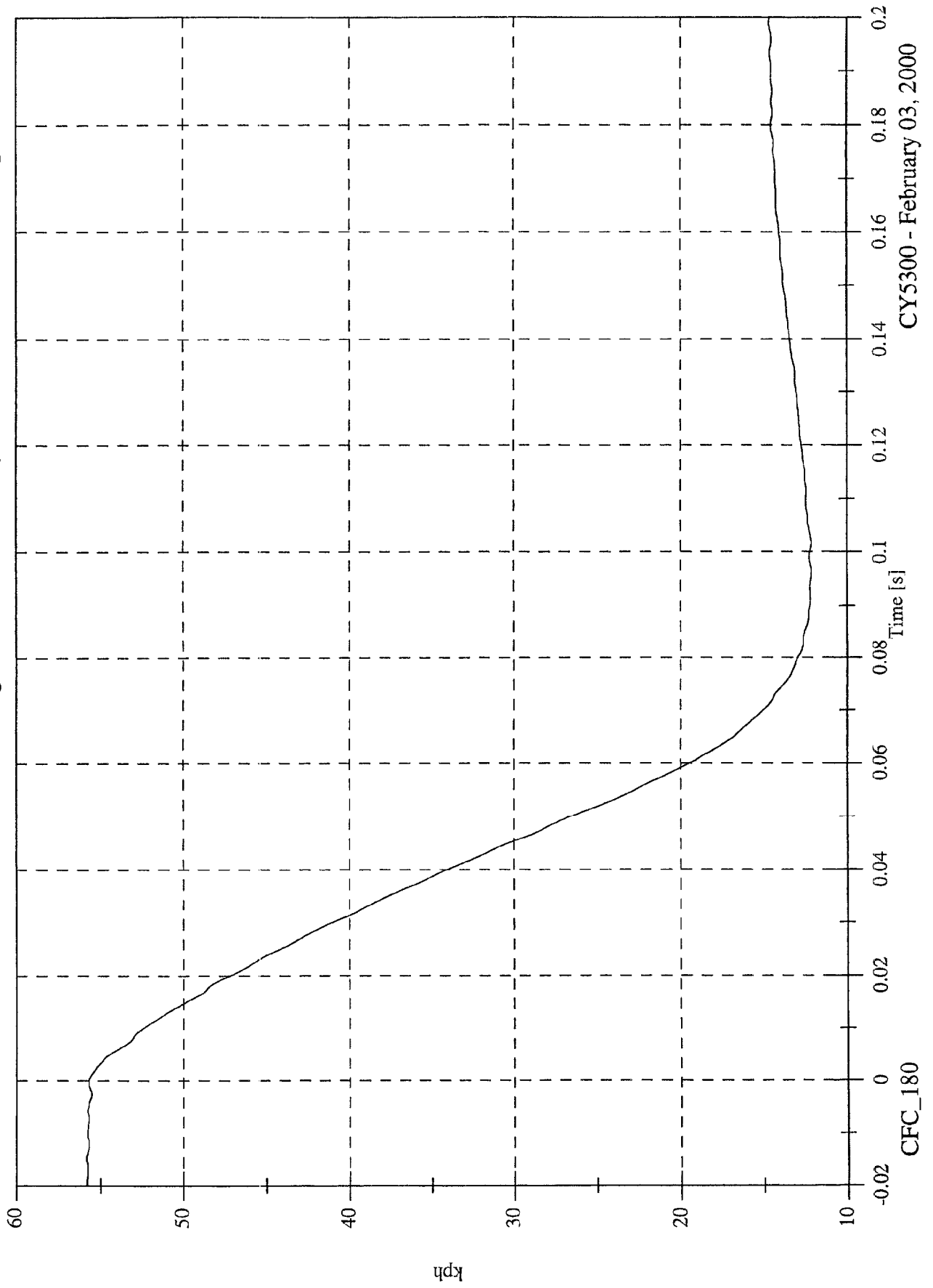
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 55.8 [kph] at -0.015 [s]

Min: 12.1 [kph] at 0.096 [s]

Moving Barrier CG X Velocity

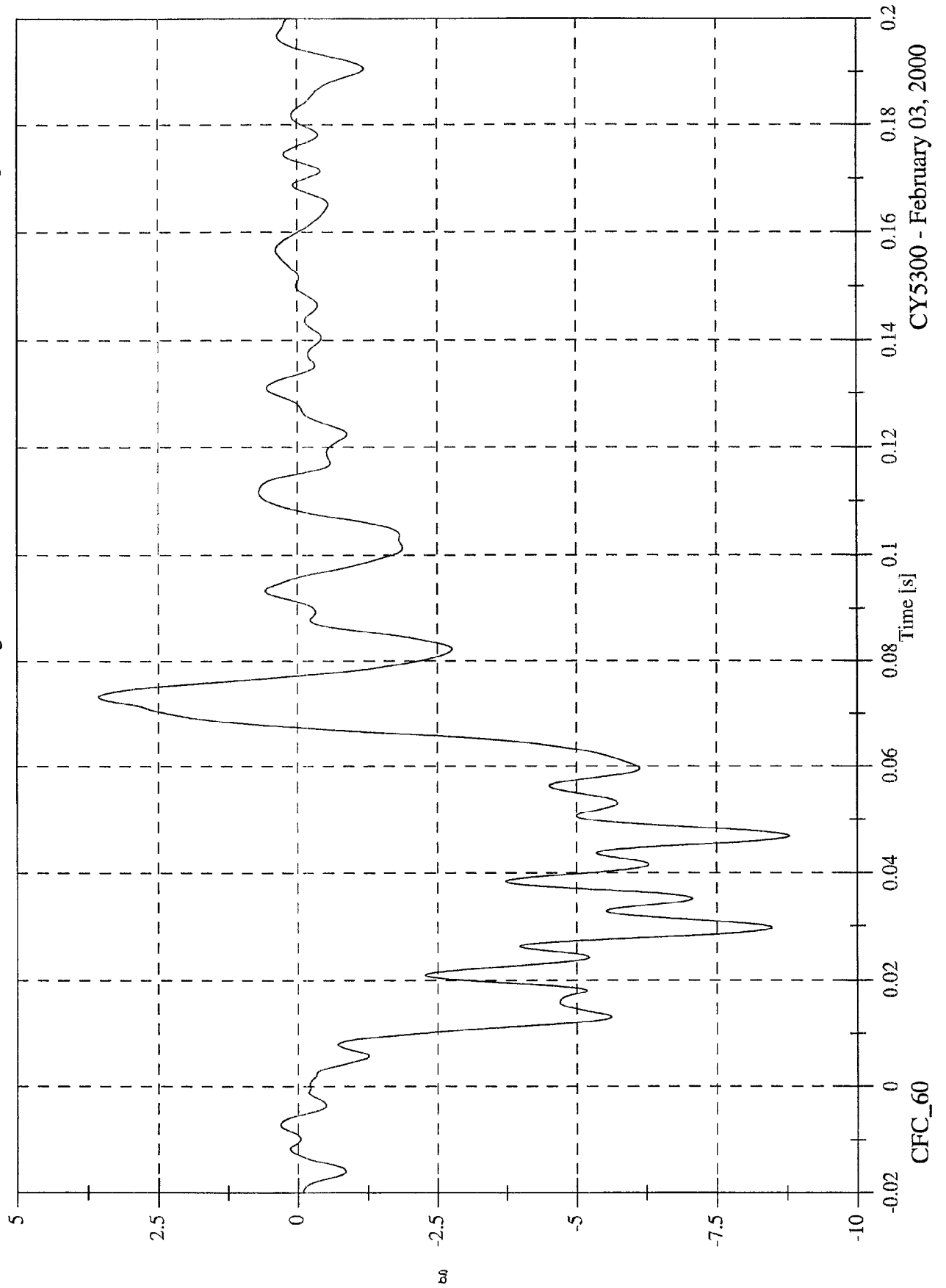


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier CG Y

Max: 3.6 [g] at 0.073 [s]
Min: -8.8 [g] at 0.047 [s]

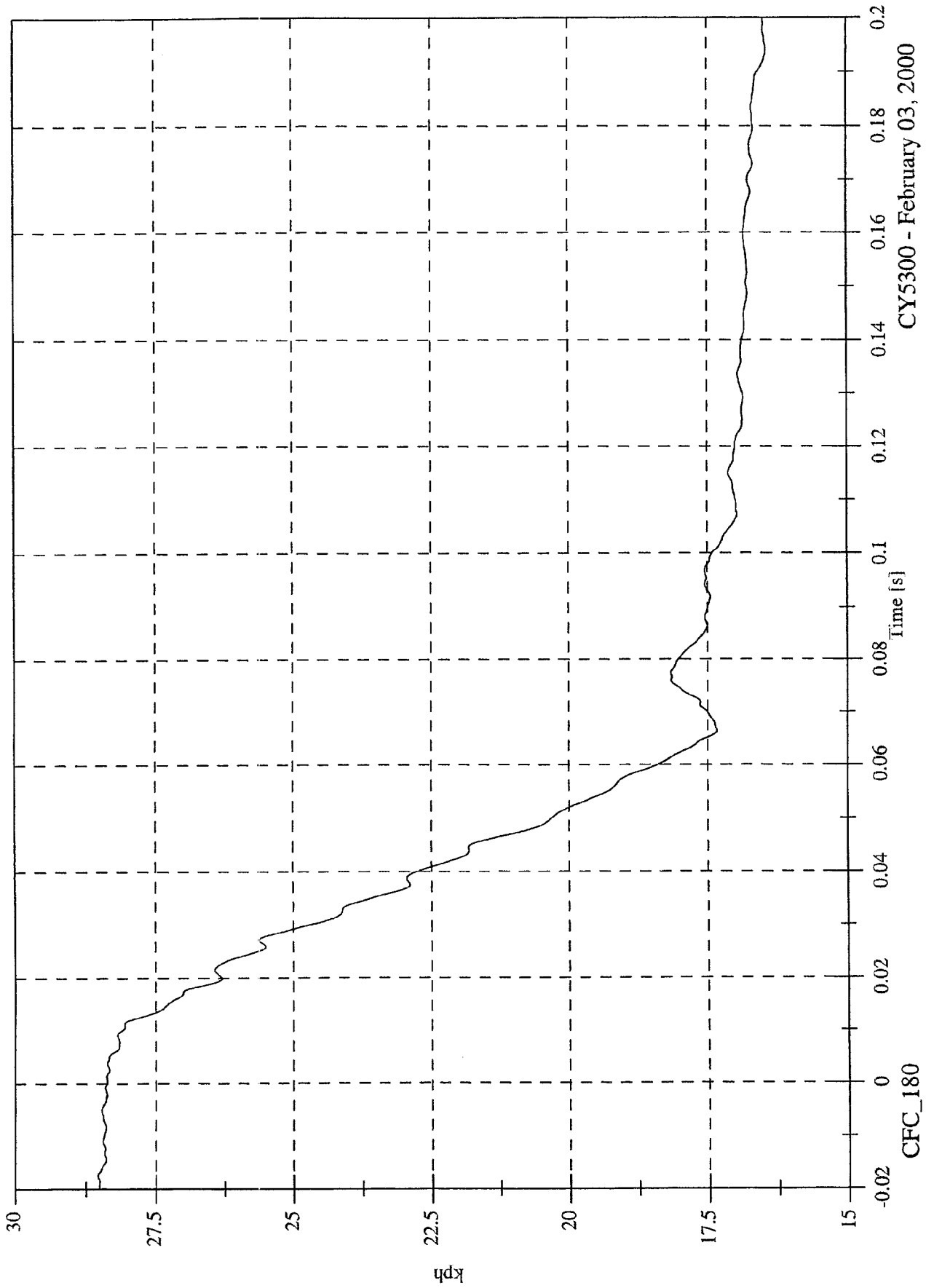


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier CG Y Velocity

Max: 28.5 [kph] at -0.018 [s]
Min: 16.5 [kph] at 0.194 [s]



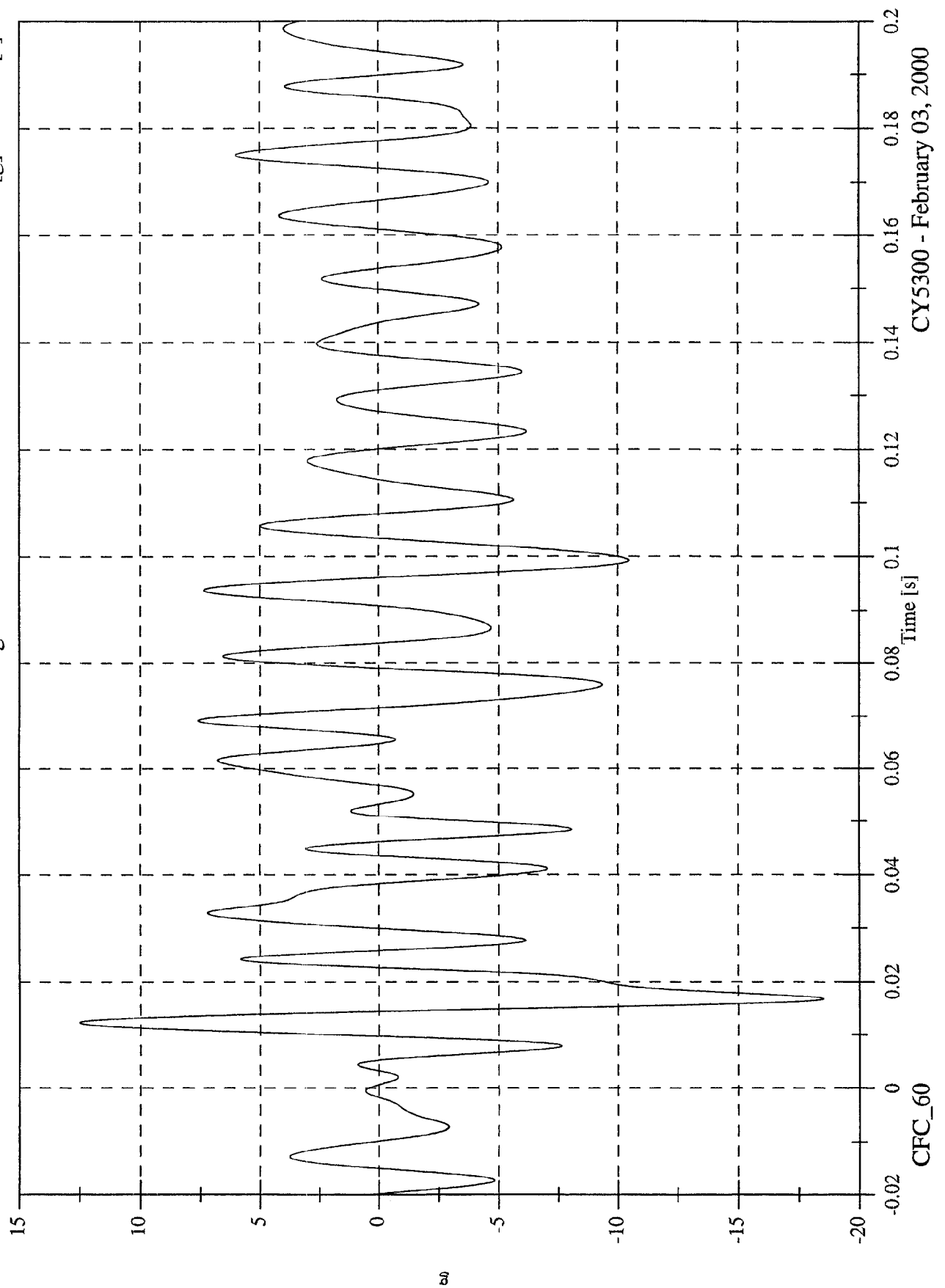
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier CG Z

Max: 12.5 [g] at 0.012 [s]

Min: -18.5 [g] at 0.017 [s]

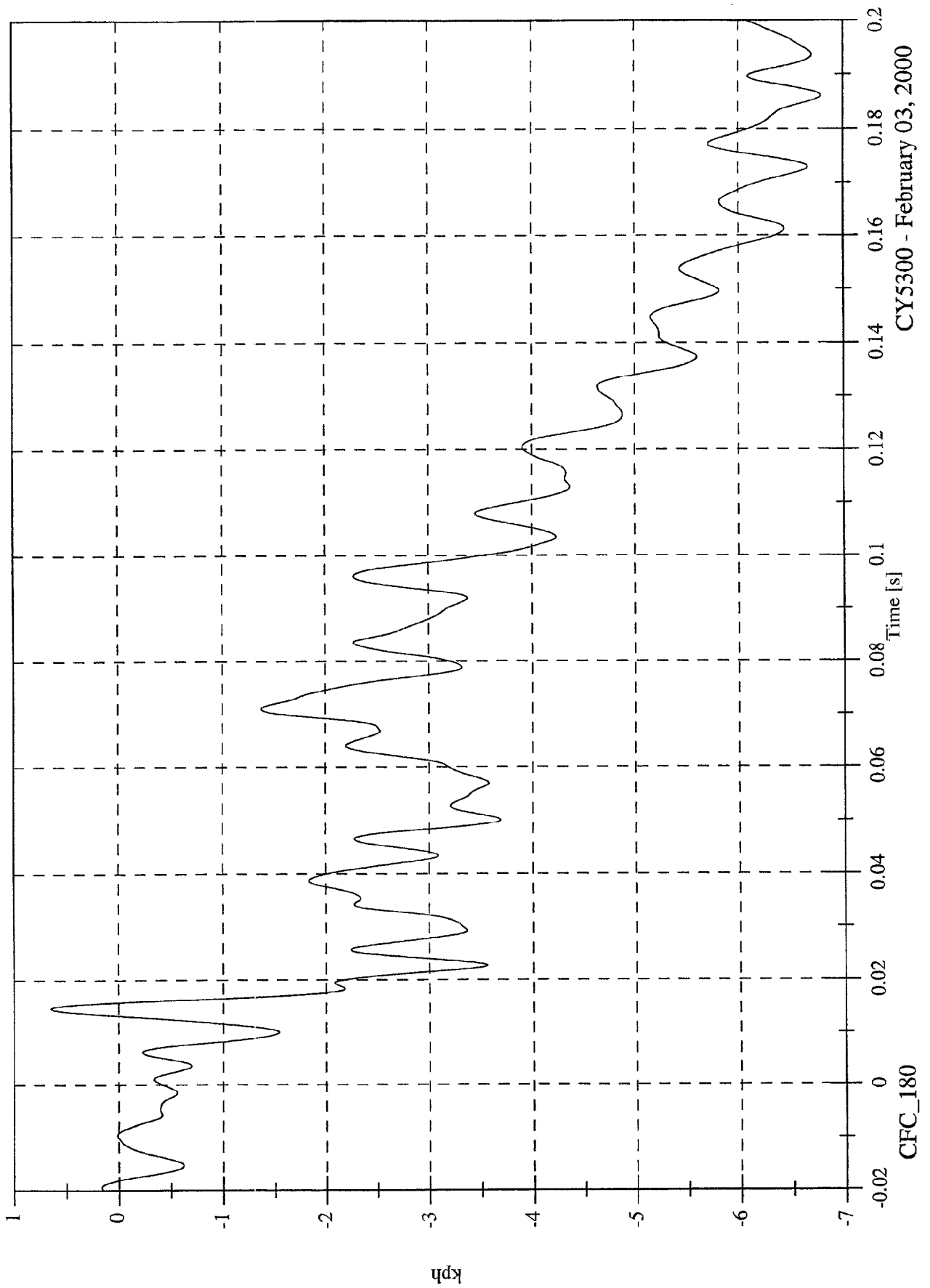


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier CG Z Velocity

Max: 0.6 [kph] at 0.015 [s]
Min: -6.8 [kph] at 0.186 [s]

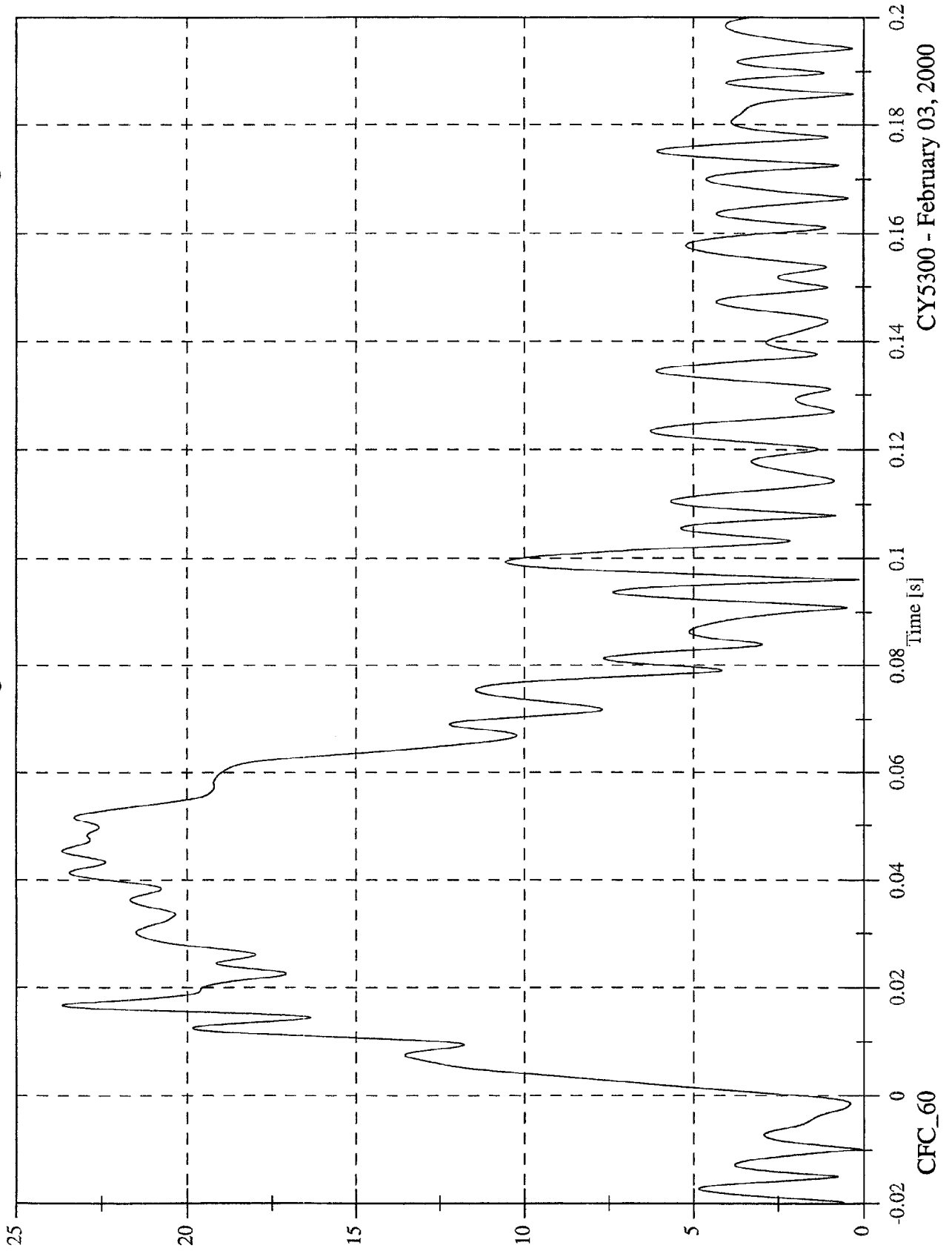


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 23.7 [g] at 0.017 [s]
 Min: 0.1 [g] at -0.010 [s]

Moving Barrier CG Resultant

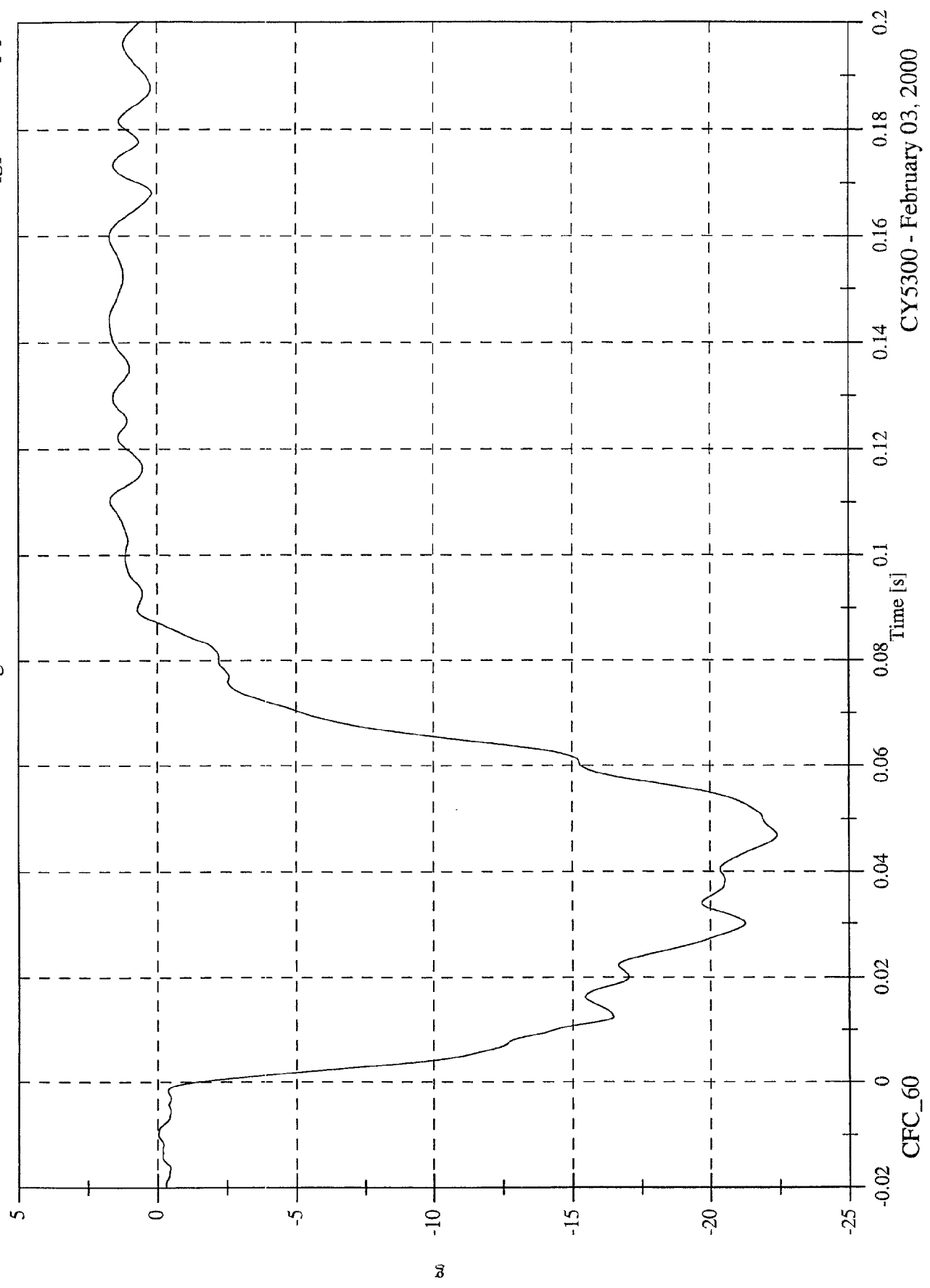


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier Left Rail X

Max: 1.7 [g] at 0.144 [s]
Min: -22.4 [g] at 0.047 [s]

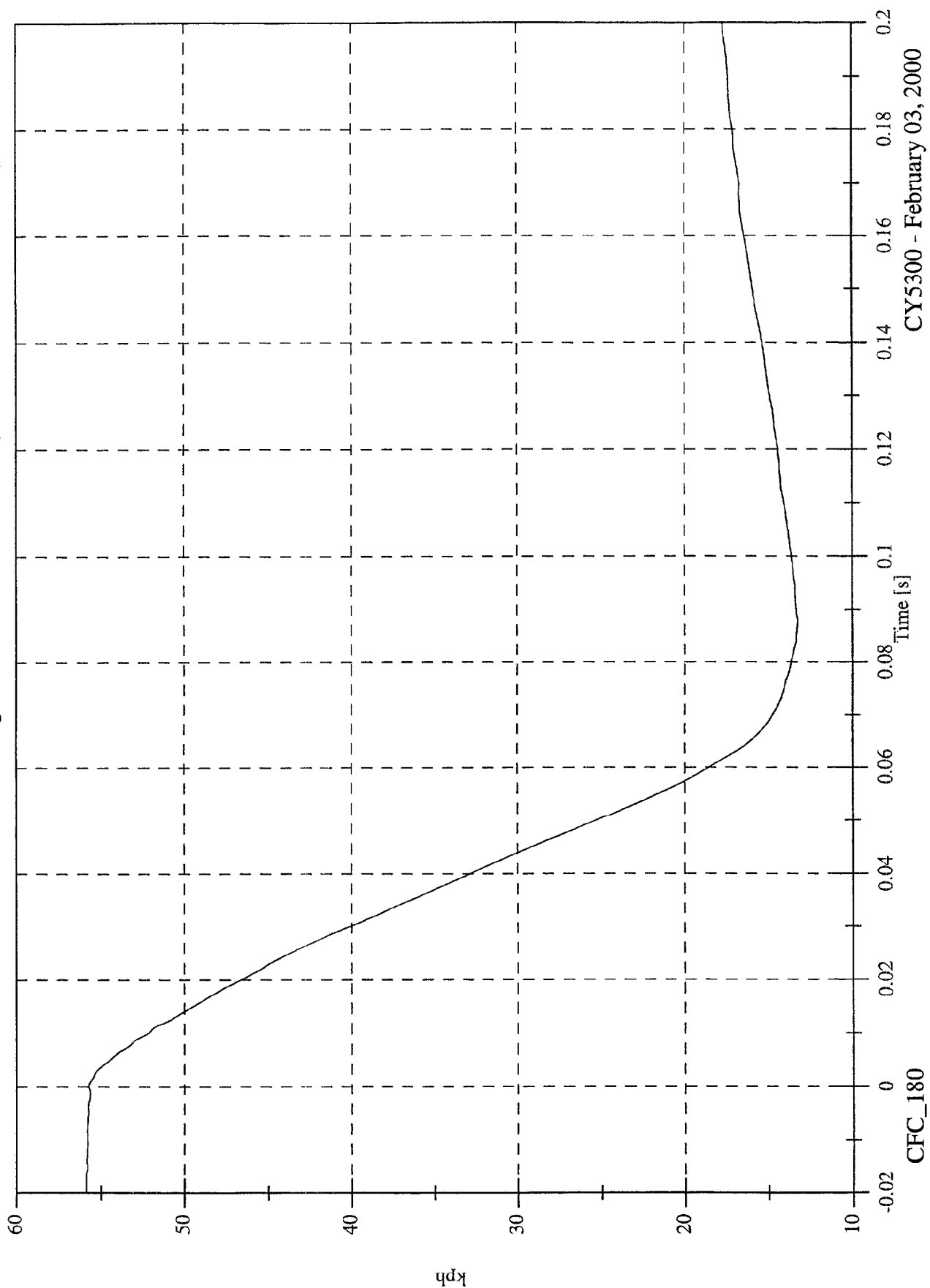


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Moving Barrier Left Rail X Velocity

Max: 55.9 [kph] at -0.019 [s]
Min: 13.3 [kph] at 0.088 [s]



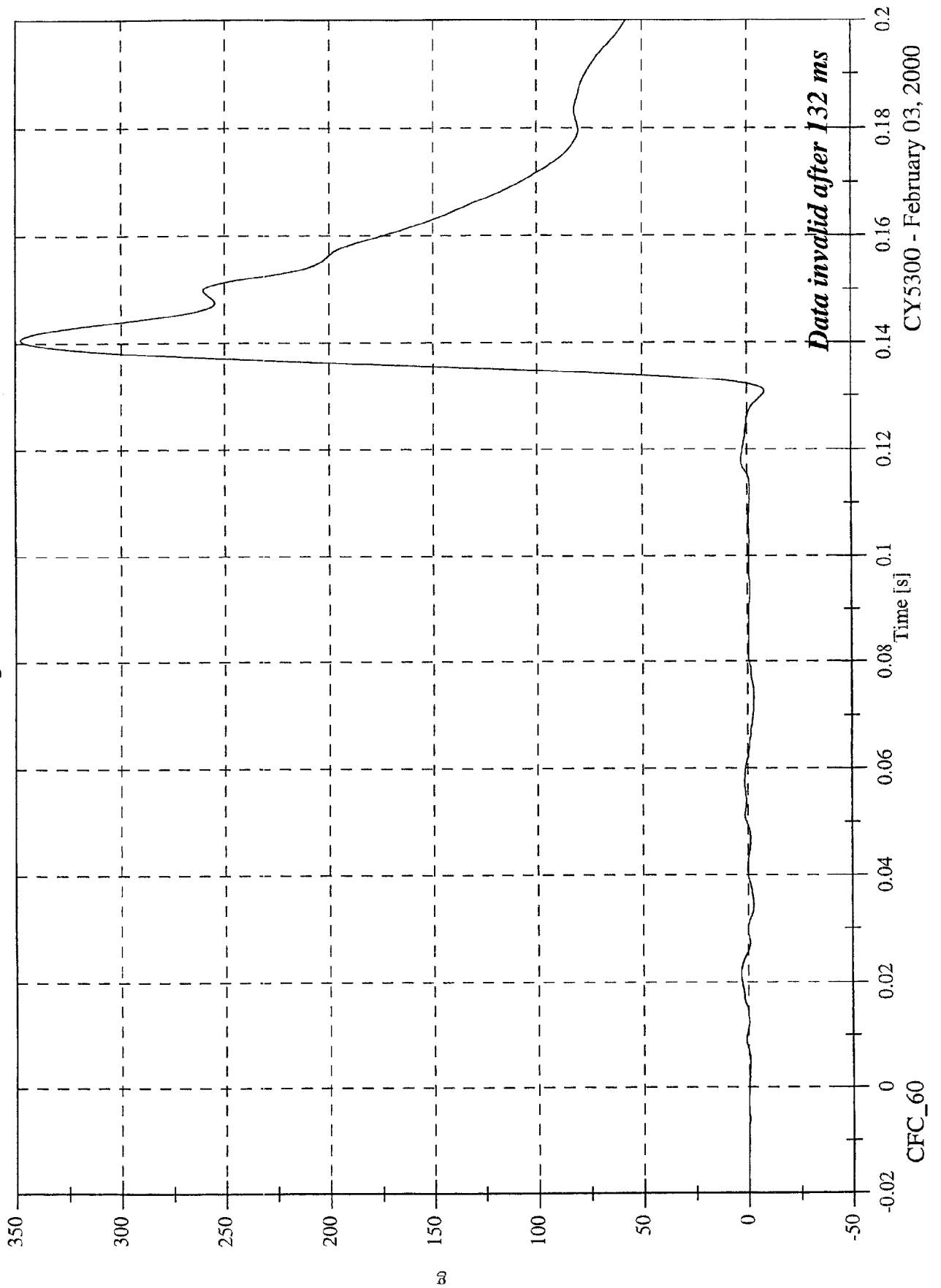
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 347.6 [g] at 0.141 [s]

Min: -8.3 [g] at 0.131 [s]

Moving Barrier Left Rail Y

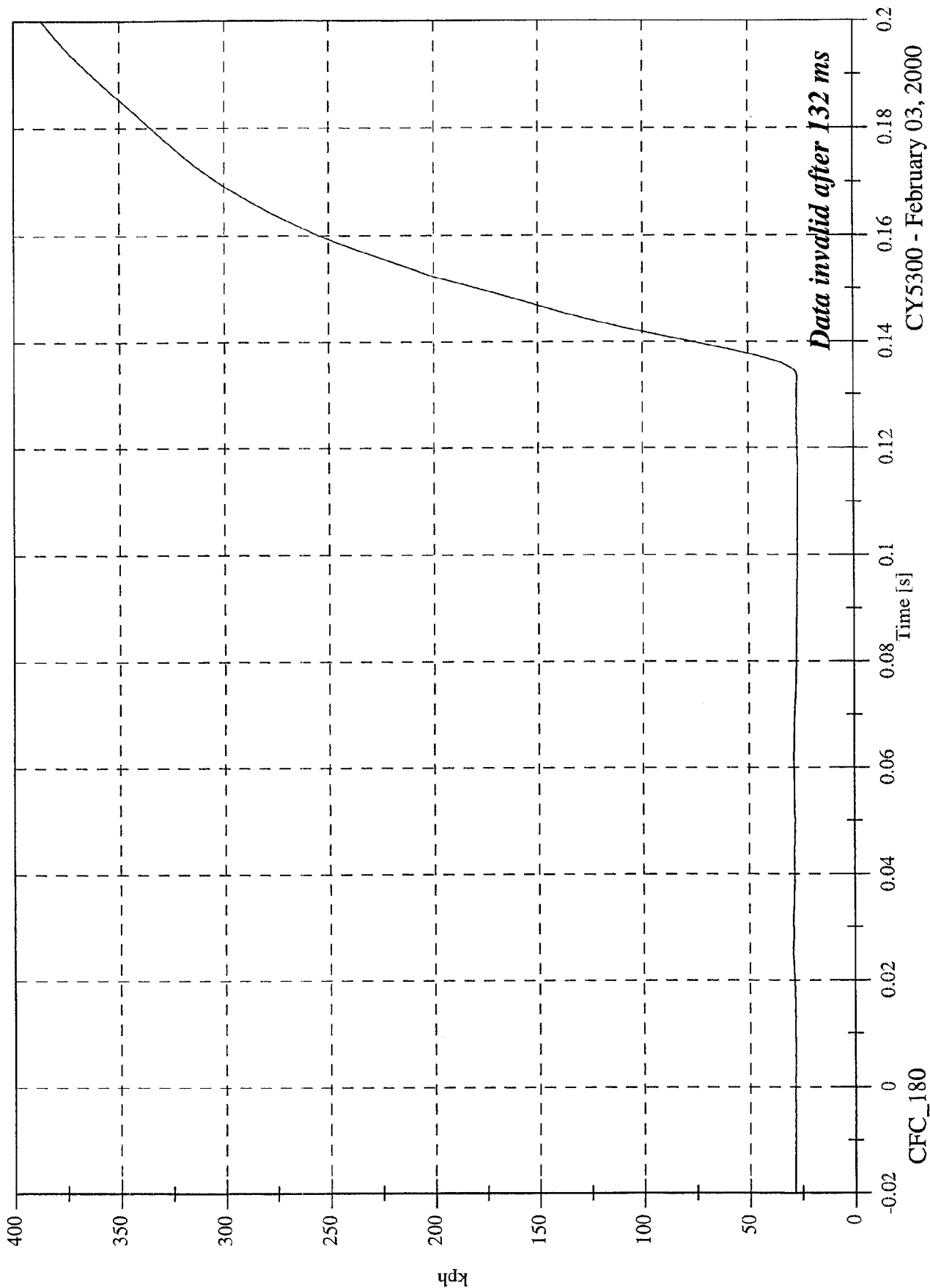


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 386.9 [kph] at 0.200 [s]
 Min: 26.3 [kph] at 0.116 [s]

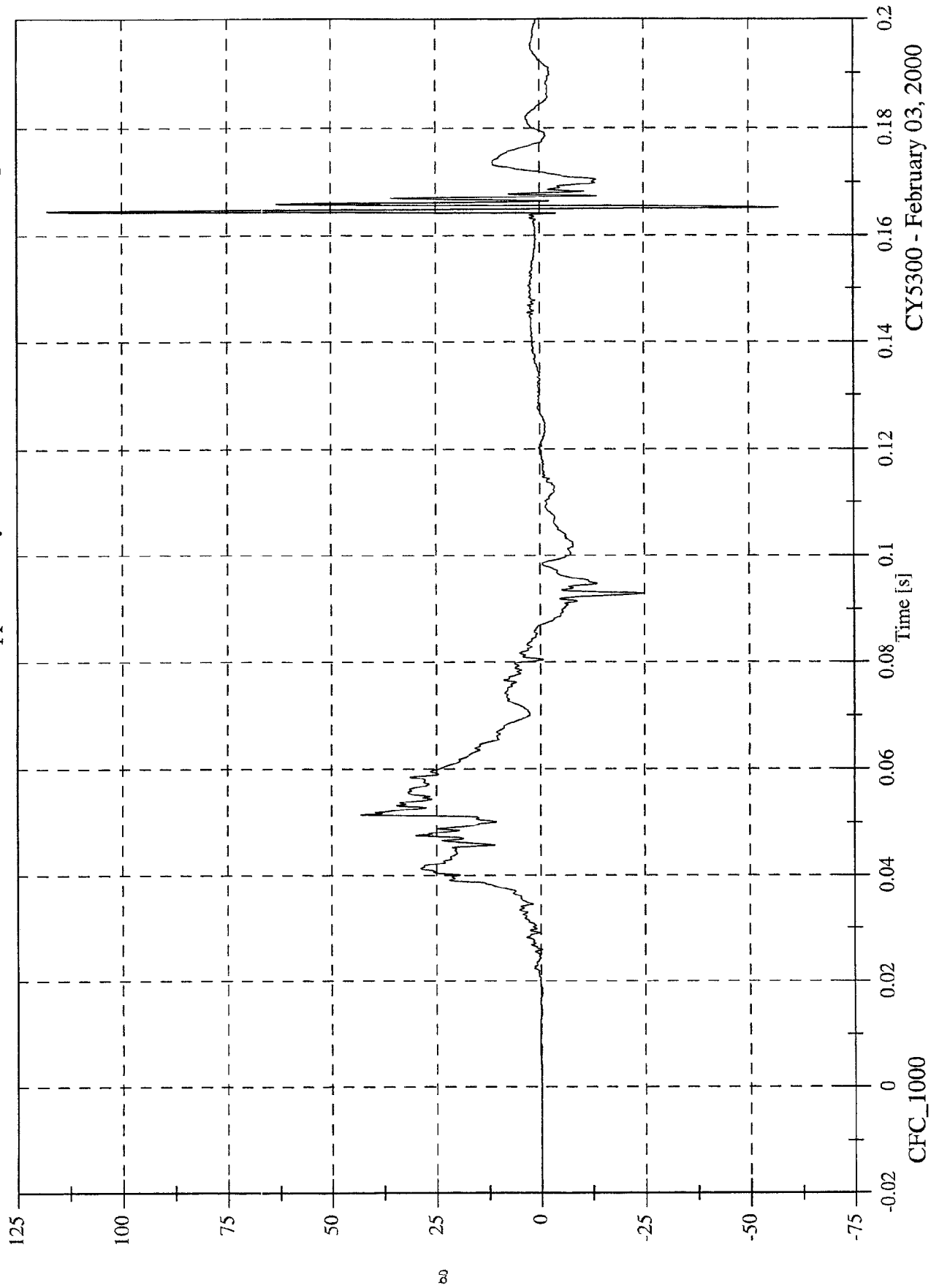
Moving Barrier Left Rail Y Velocity



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Upper Rib Ry

Max: 117.7 [g] at 0.165 [s]
Min: -57.1 [g] at 0.165 [s]

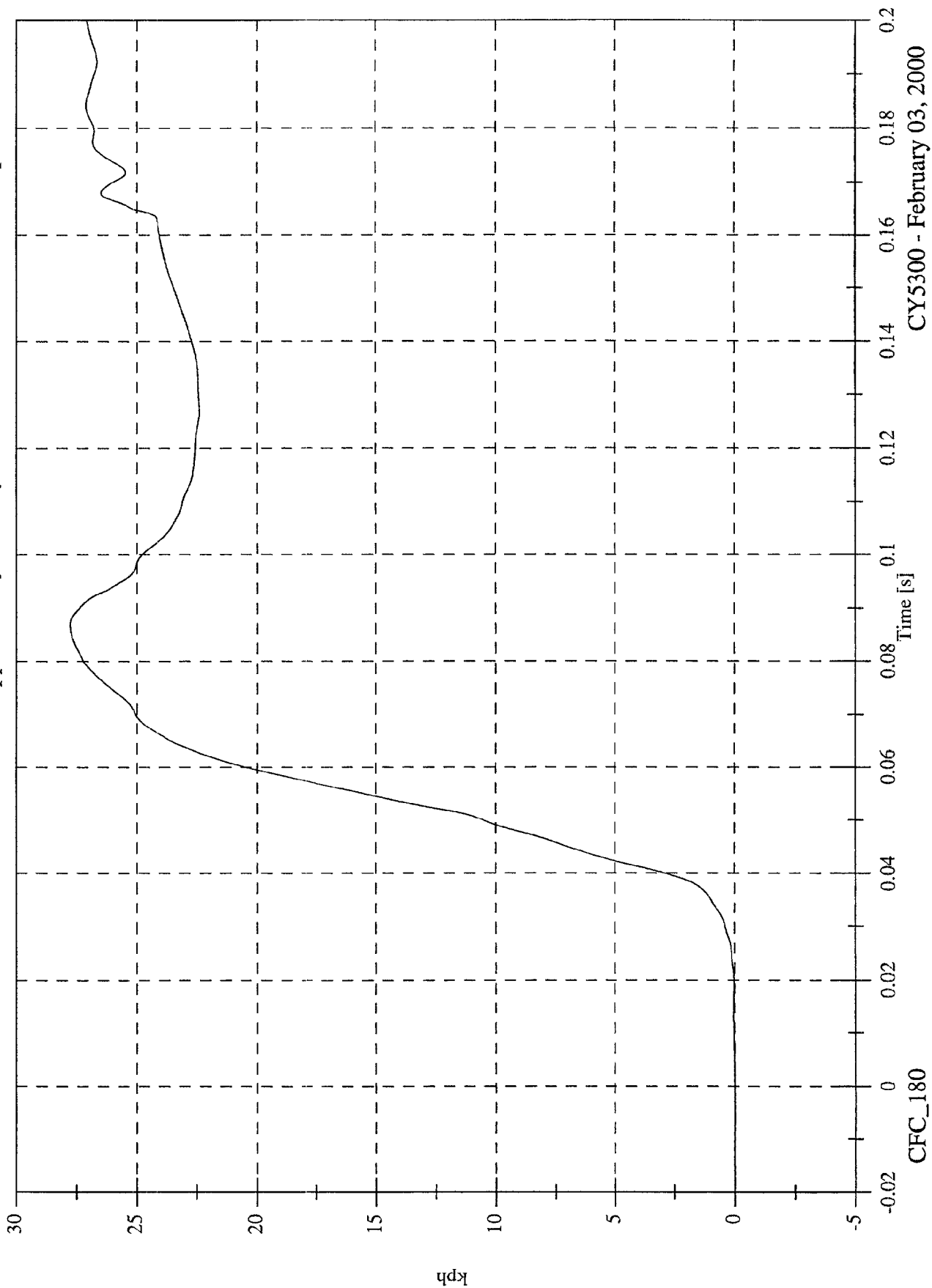


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 27.8 [kph] at 0.087 [s]

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

P1 Upper Rib Ry Velocity

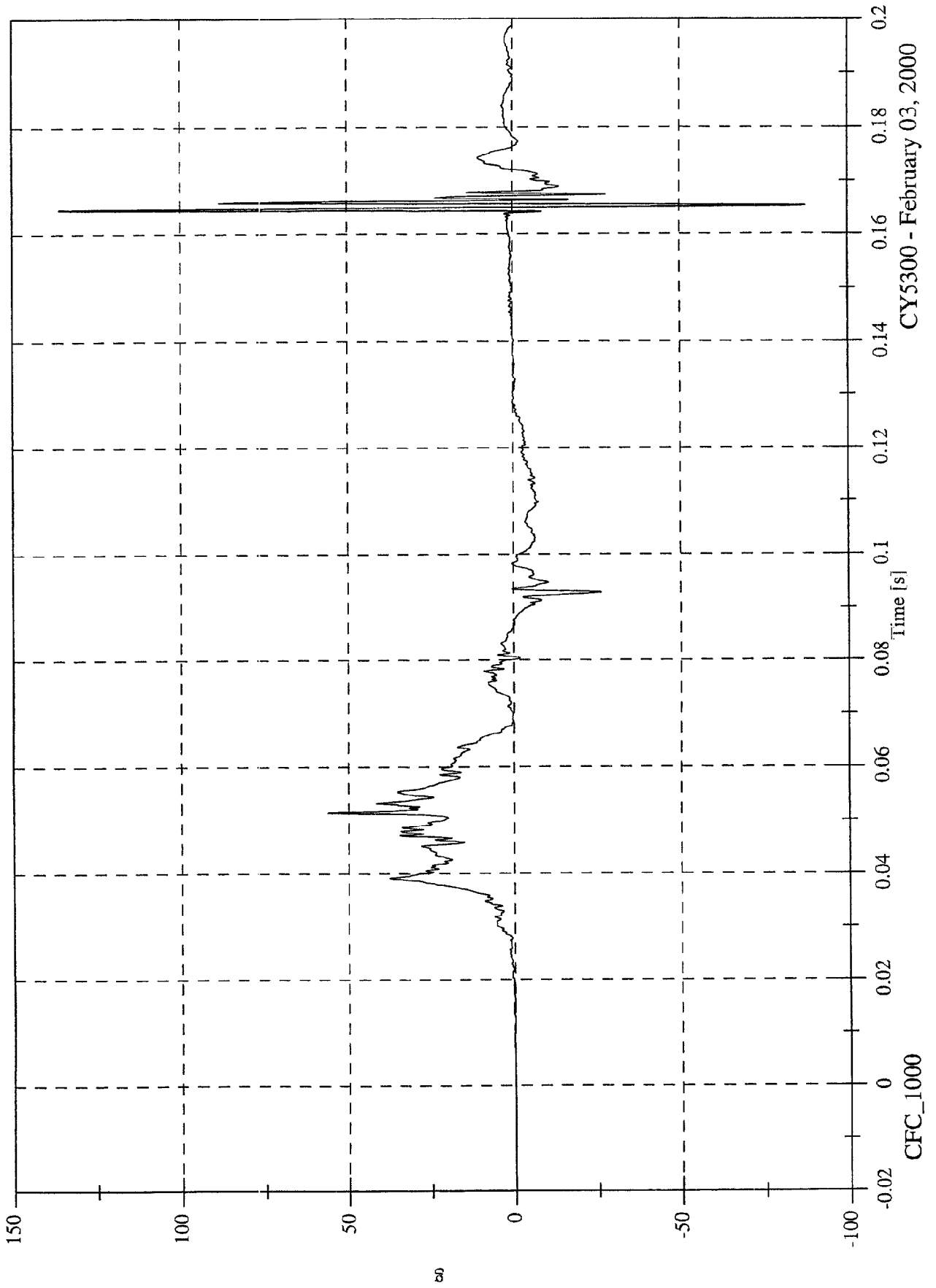


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Rib Ry

Max: 135.9 [g] at 0.165 [s]
Min: -87.4 [g] at 0.165 [s]

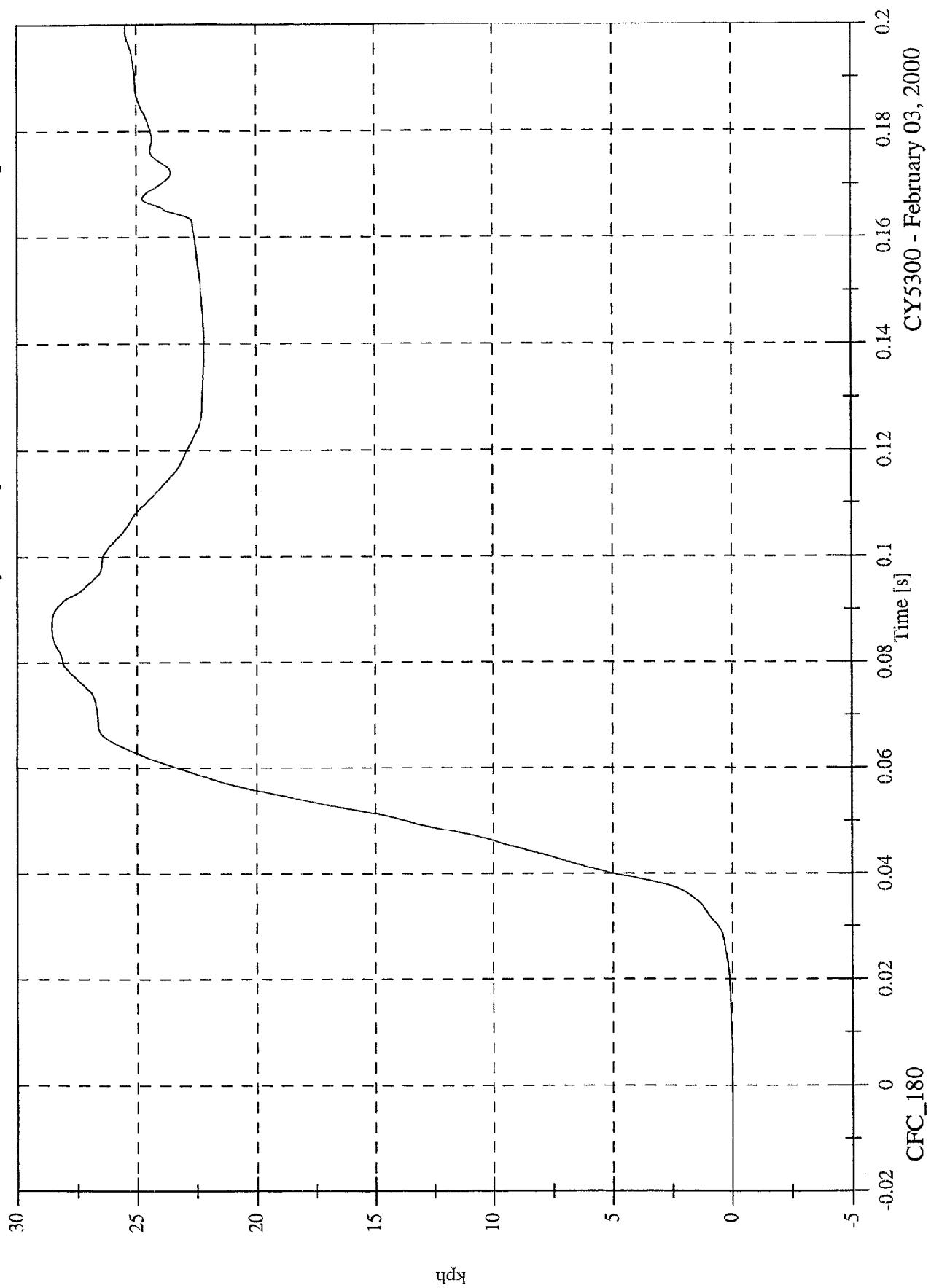


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 28.6 [kph] at 0.087 [s]

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

P1 Lower Rib Ry Velocity

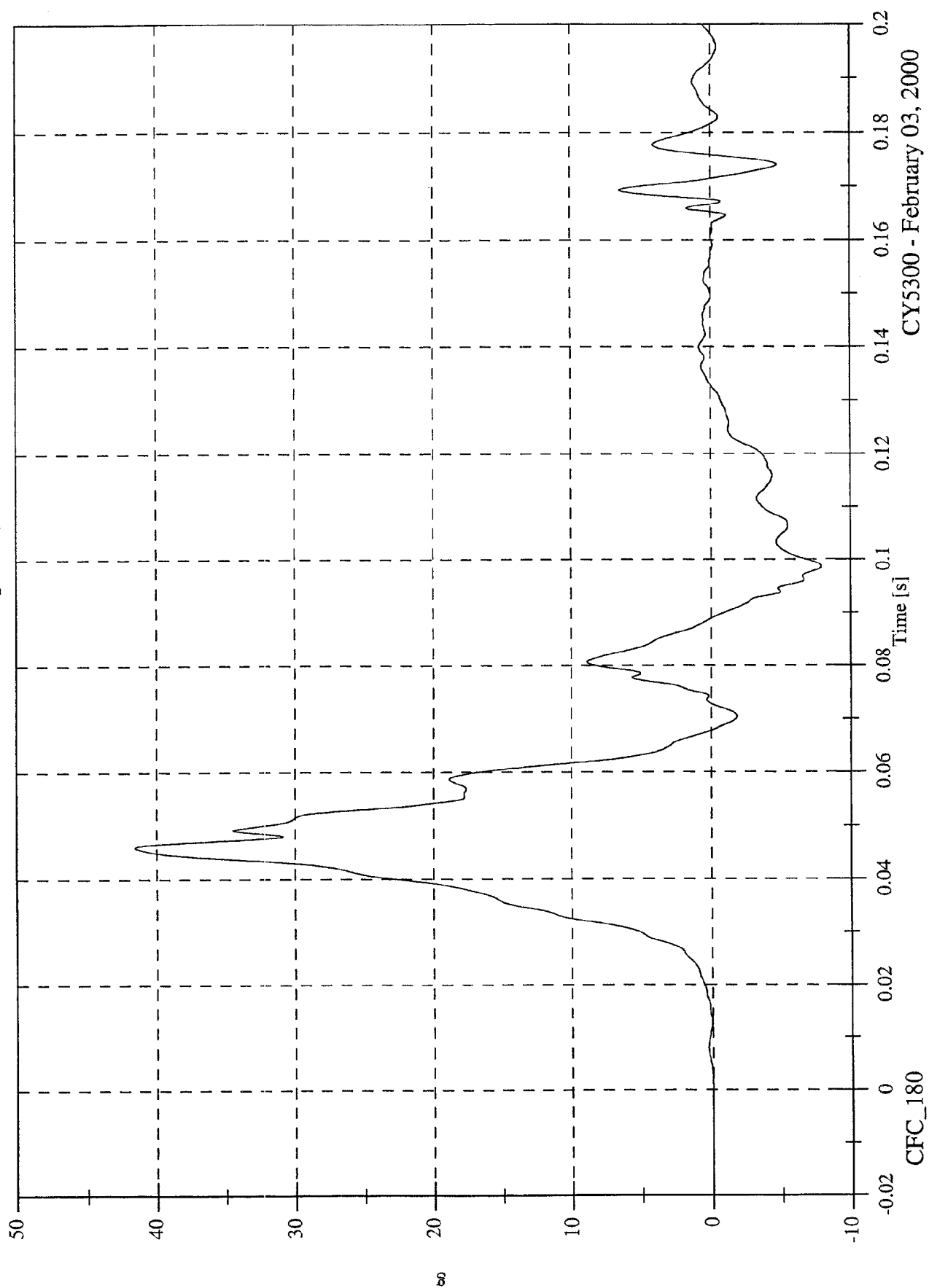


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Spine Ry

Max: 41.6 [g] at 0.046 [s]
Min: -7.9 [g] at 0.099 [s]



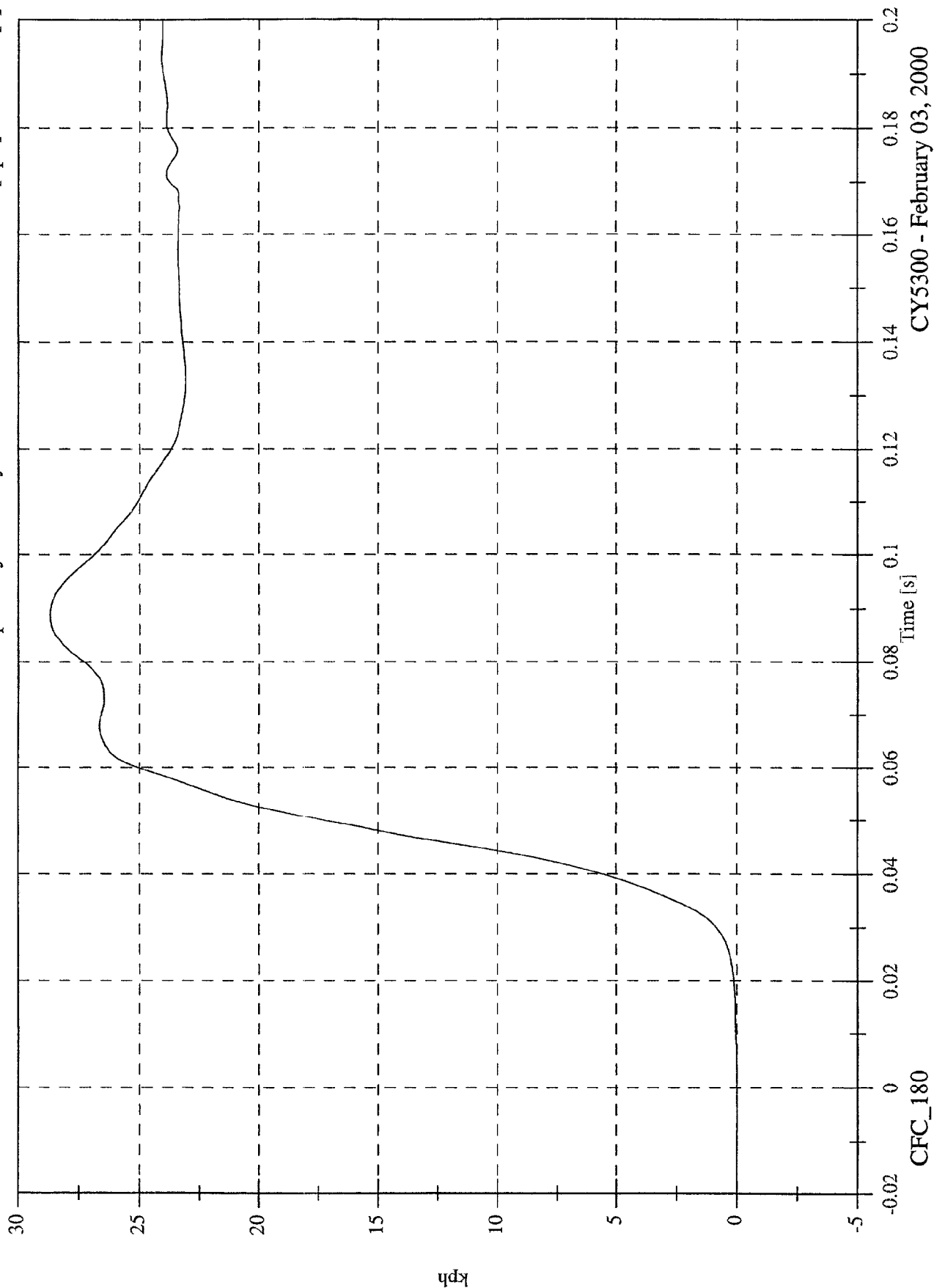
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Spine Ry Velocity

Max: 28.7 [kph] at 0.089 [s]

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



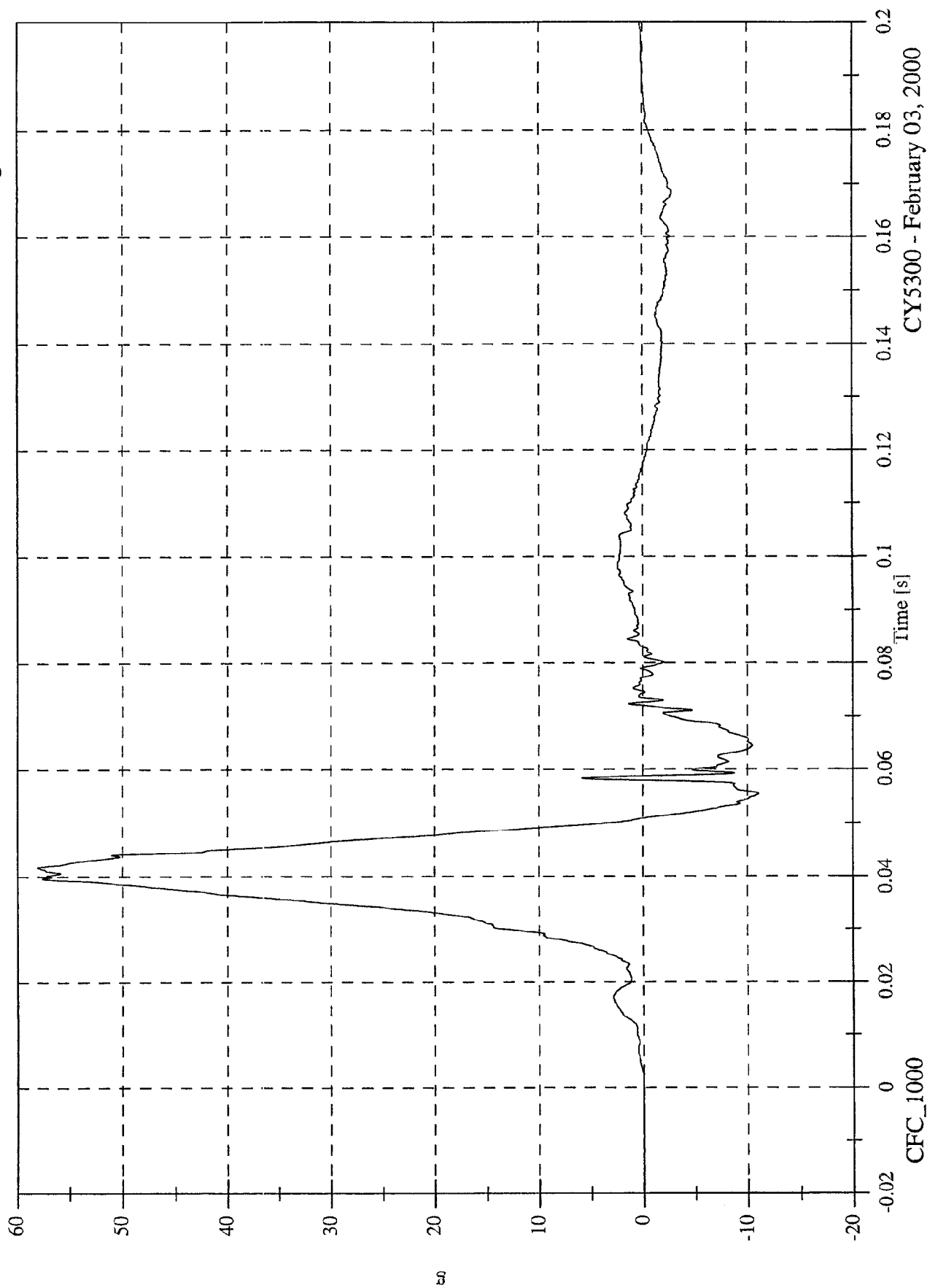
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

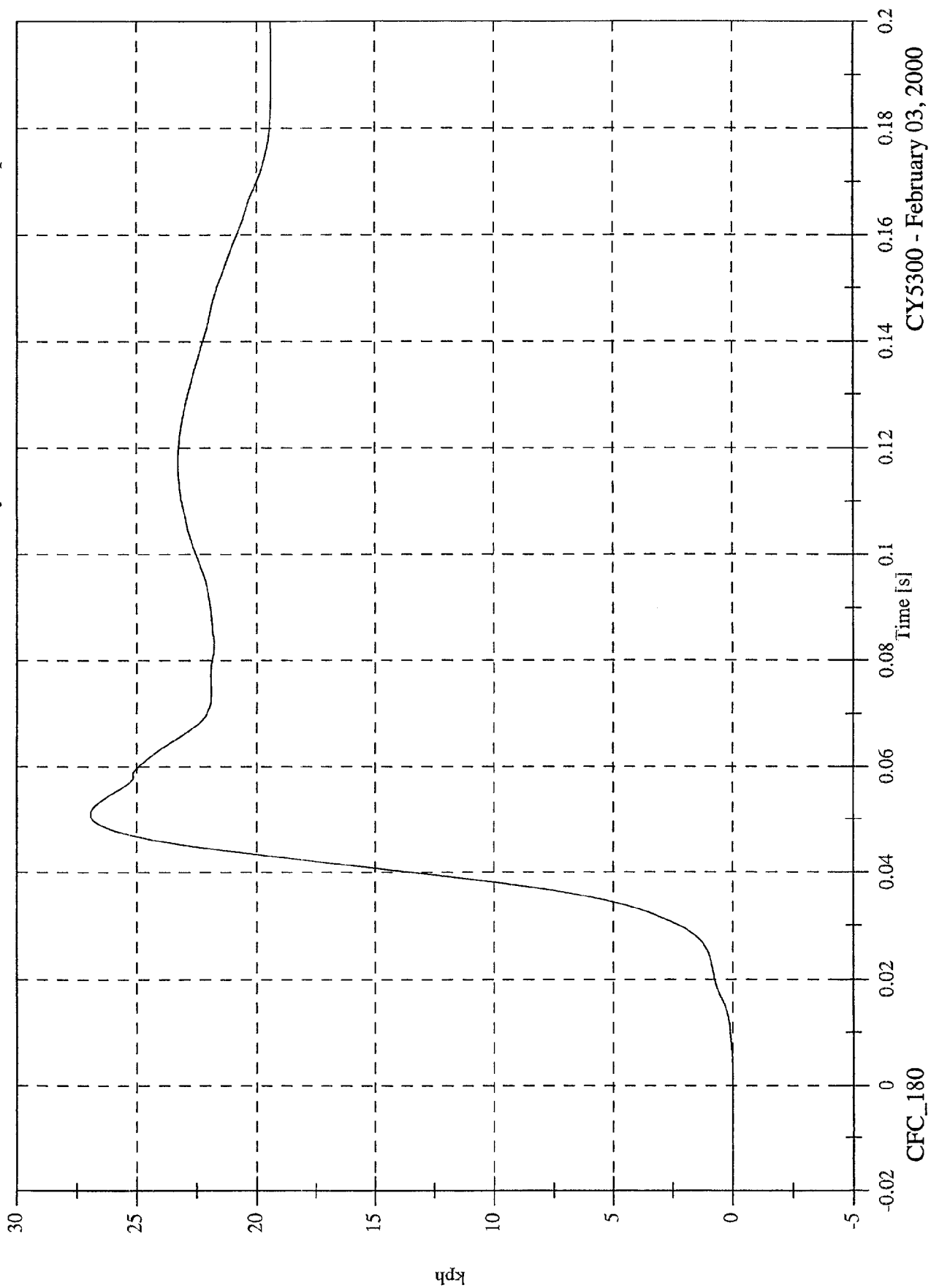
Max: 58.1 [g] at 0.042 [s]

Min: -11.1 [g] at 0.055 [s]

P1 Pelvic RY



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey
P1 Pelvic RY Velocity
Max: 26.9 [kph] at 0.051 [s]
Min: -0.0 [kph] at -0.020 [s]

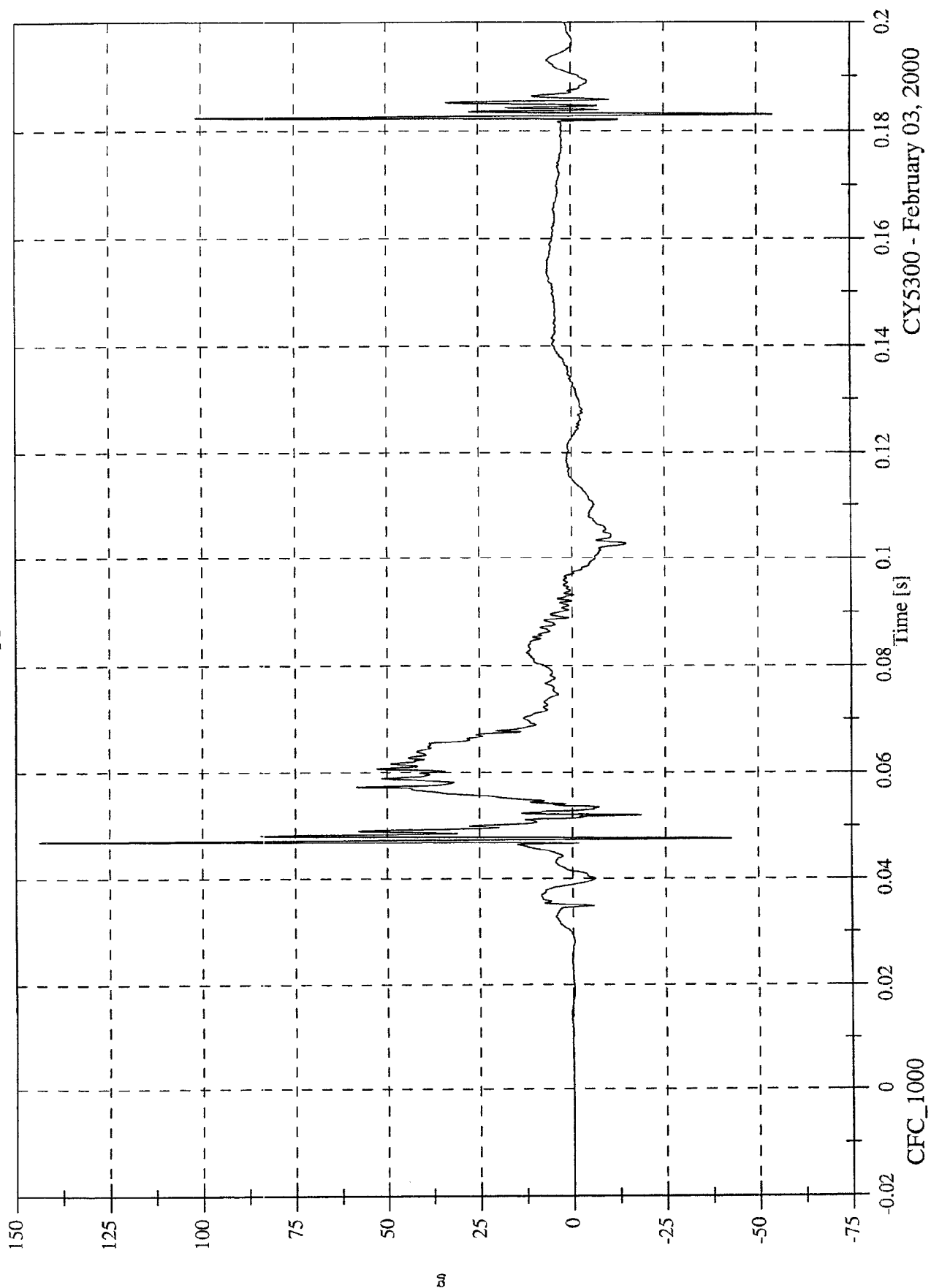


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Upper Rib Ry

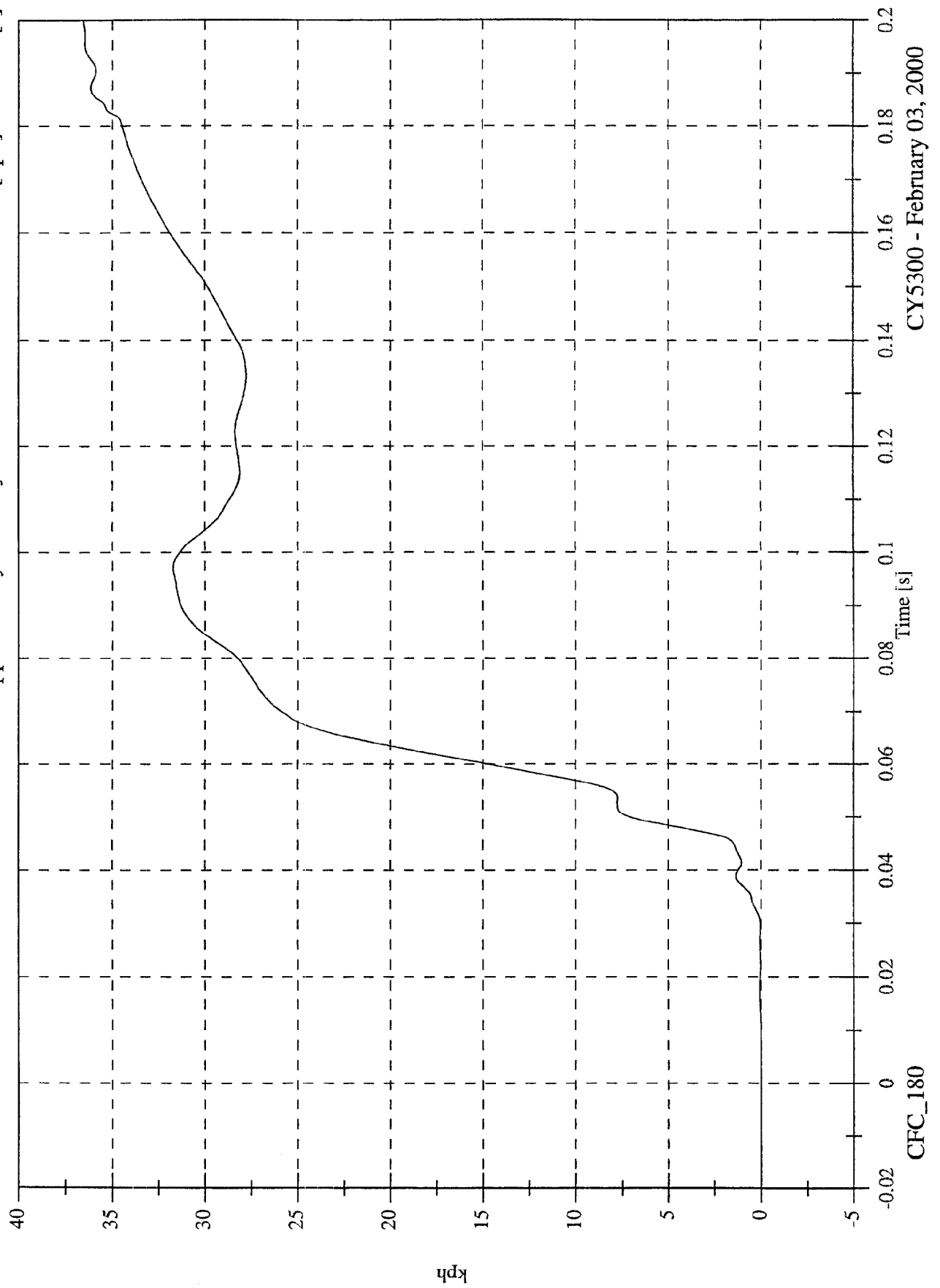
Max: 143.8 [g] at 0.047 [s]
Min: -54.3 [g] at 0.183 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Upper Rib Ry Velocity

Max: 36.6 [kph] at 0.200 [s]
Min: -0.0 [kph] at -0.020 [s]



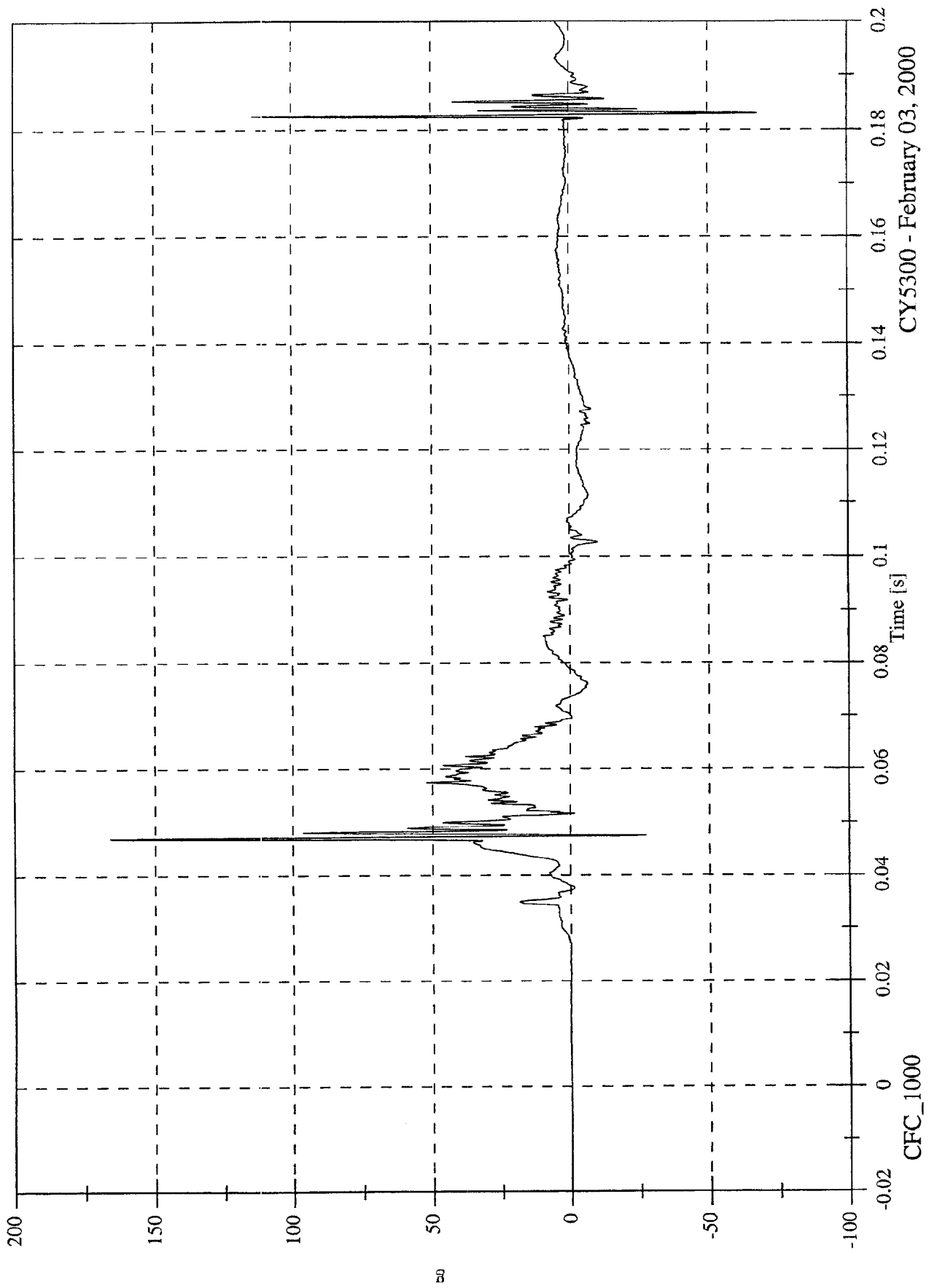
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Rib Ry

Max: 165.9 [g] at 0.047 [s]

Min: -67.6 [g] at 0.183 [s]



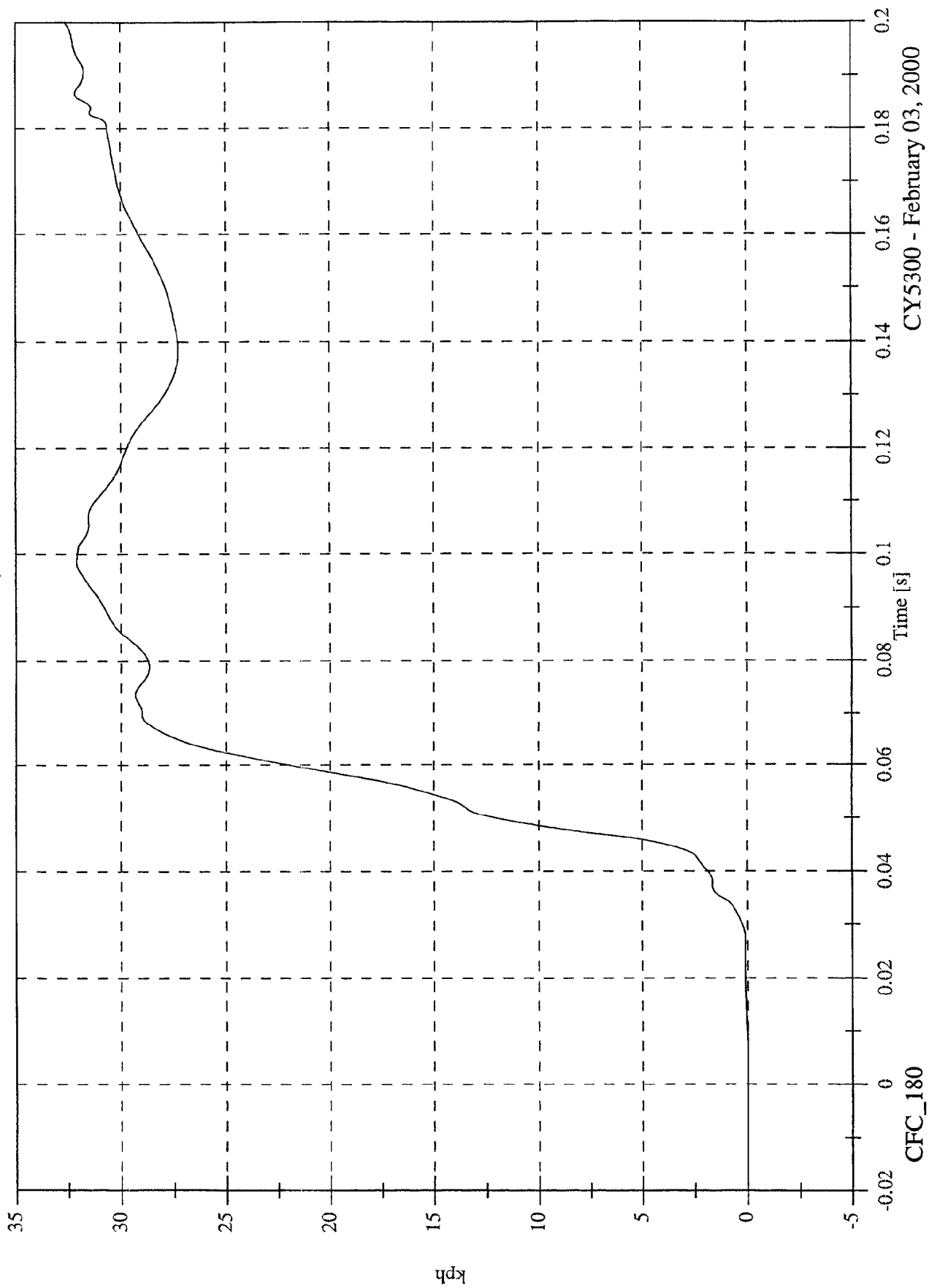
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 32.6 [kph] at 0.200 [s]

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

P4 Lower Rib Ry Velocity

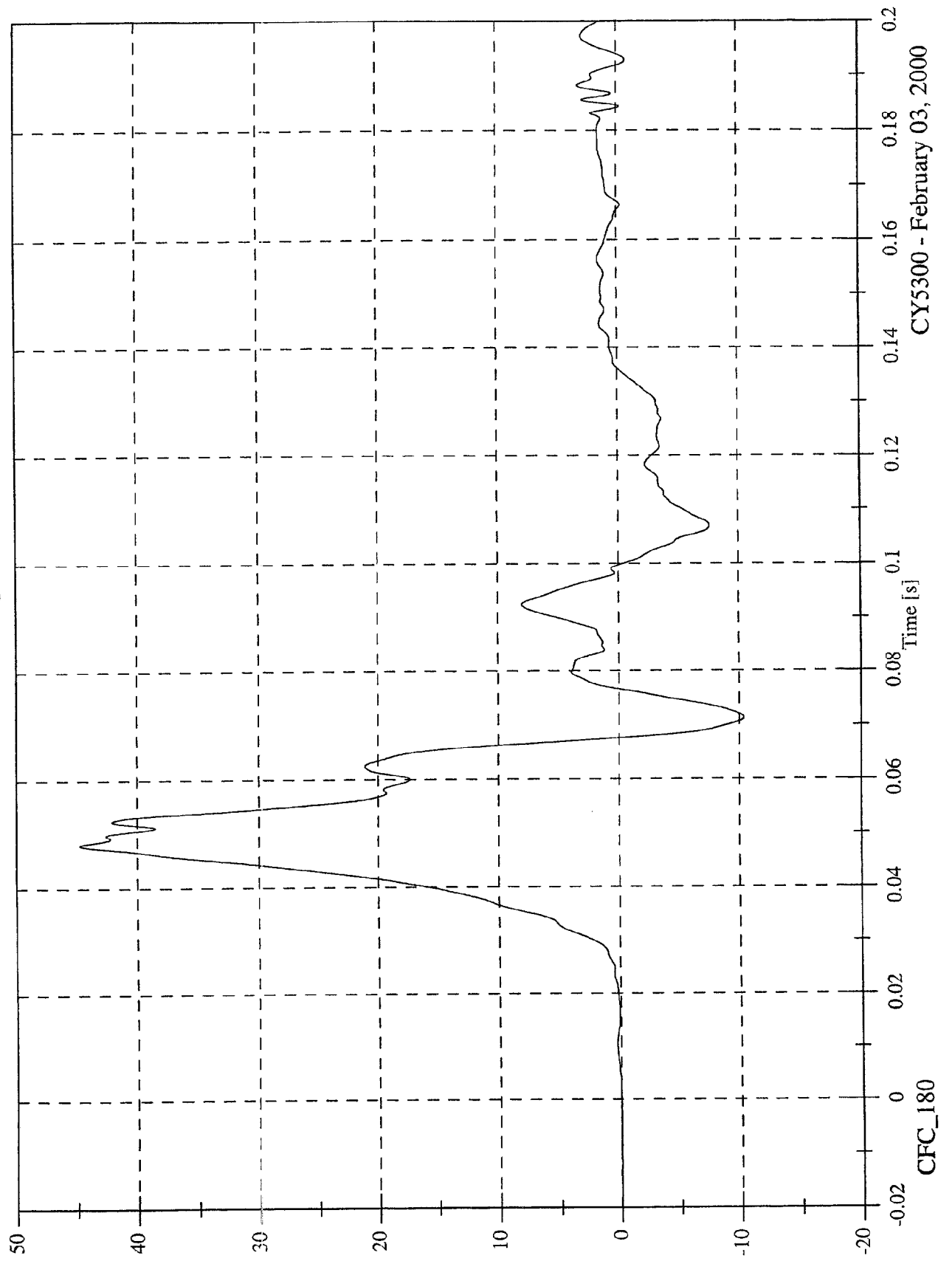


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Spine Ry

Max: 44.8 [g] at 0.048 [s]
Min: -10.4 [g] at 0.071 [s]



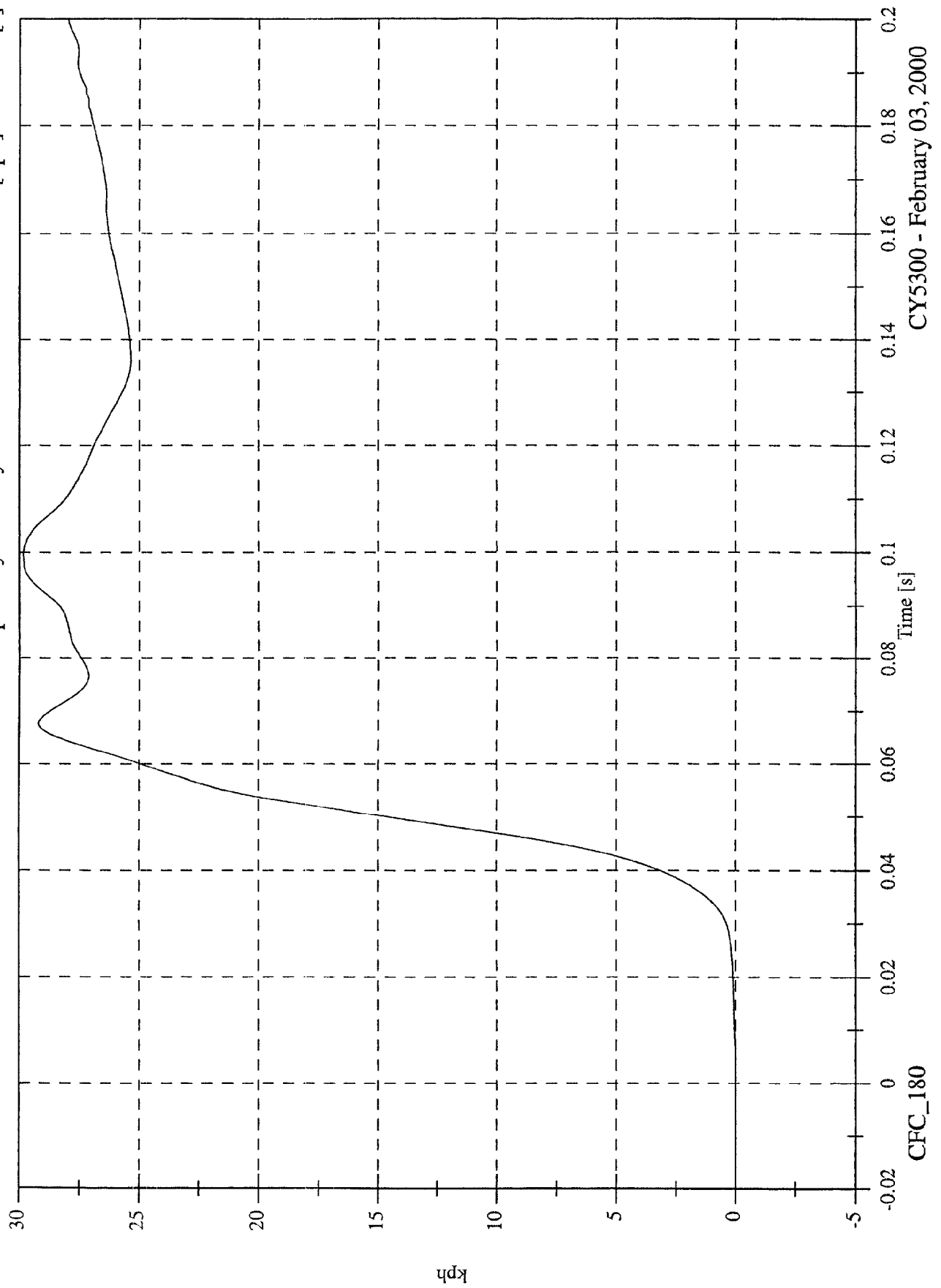
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 29.8 [kph] at 0.100 [s]

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

P4 Lower Spine Ry Velocity

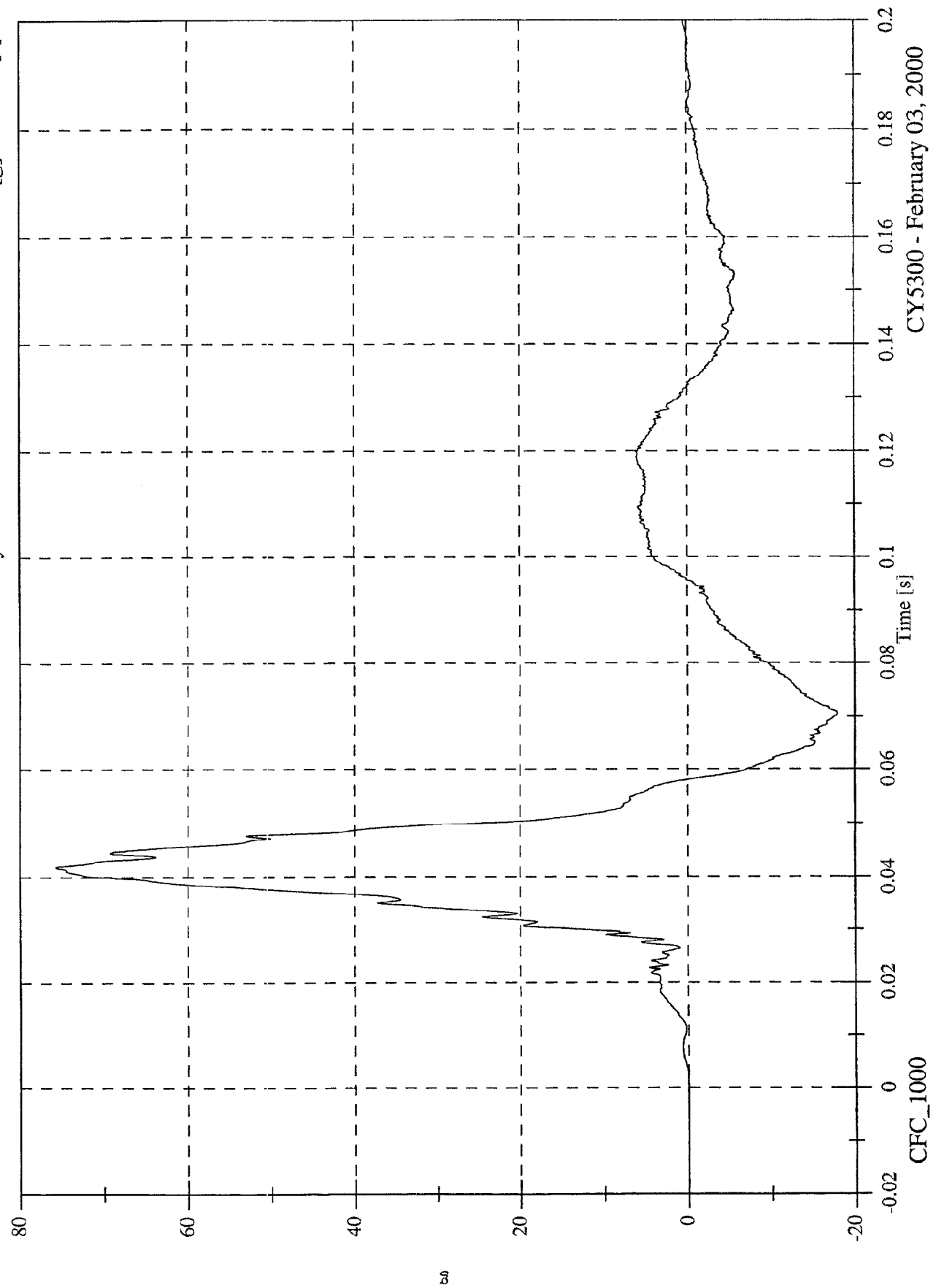


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Pelvic Ry

Max: 75.8 [g] at 0.042 [s]
Min: -17.9 [g] at 0.070 [s]

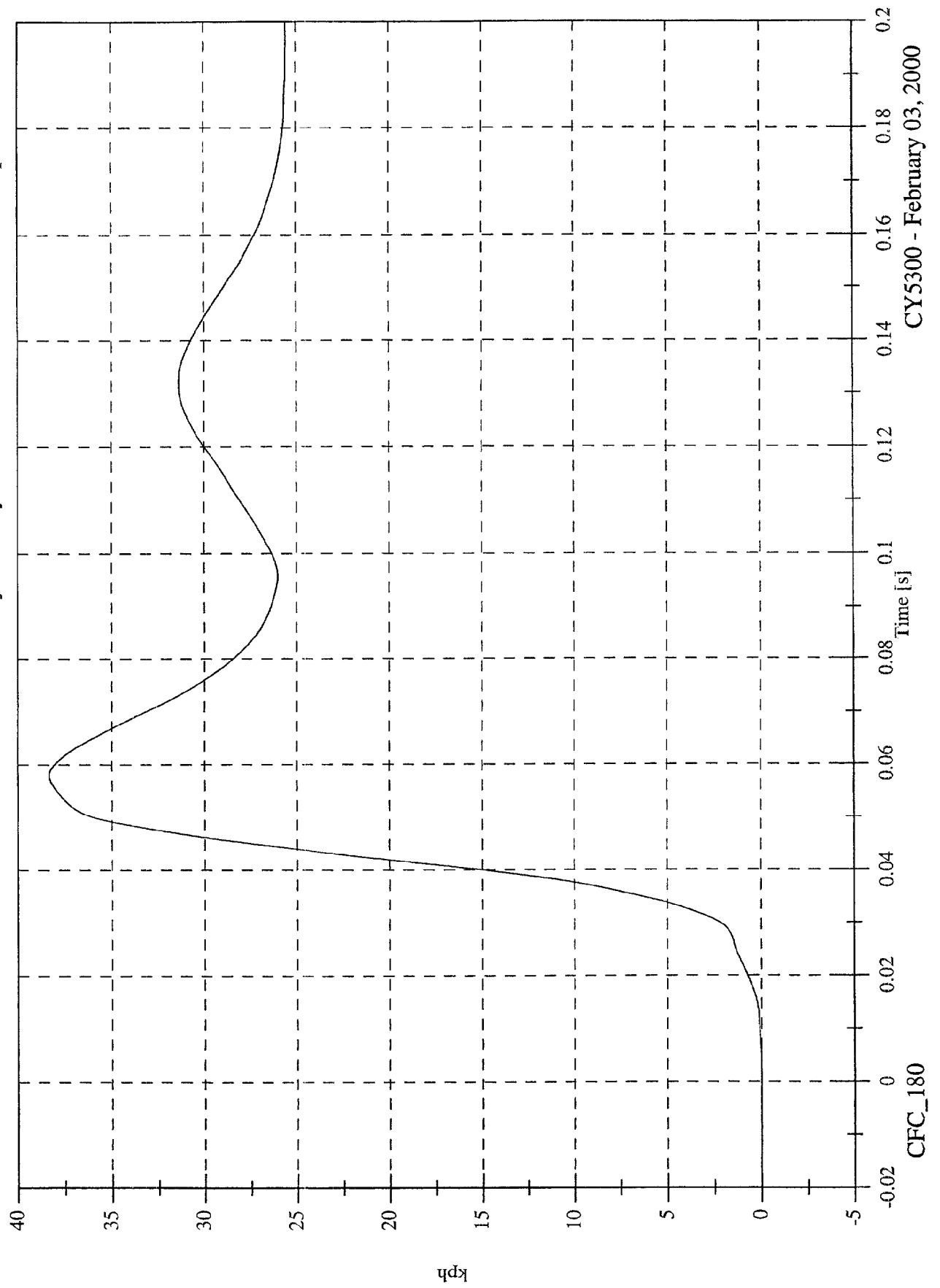


CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

Max: 38.3 [kph] at 0.058 [s]
Min: -0.0 [kph] at -0.015 [s]

P4 Pelvic Ry Velocity



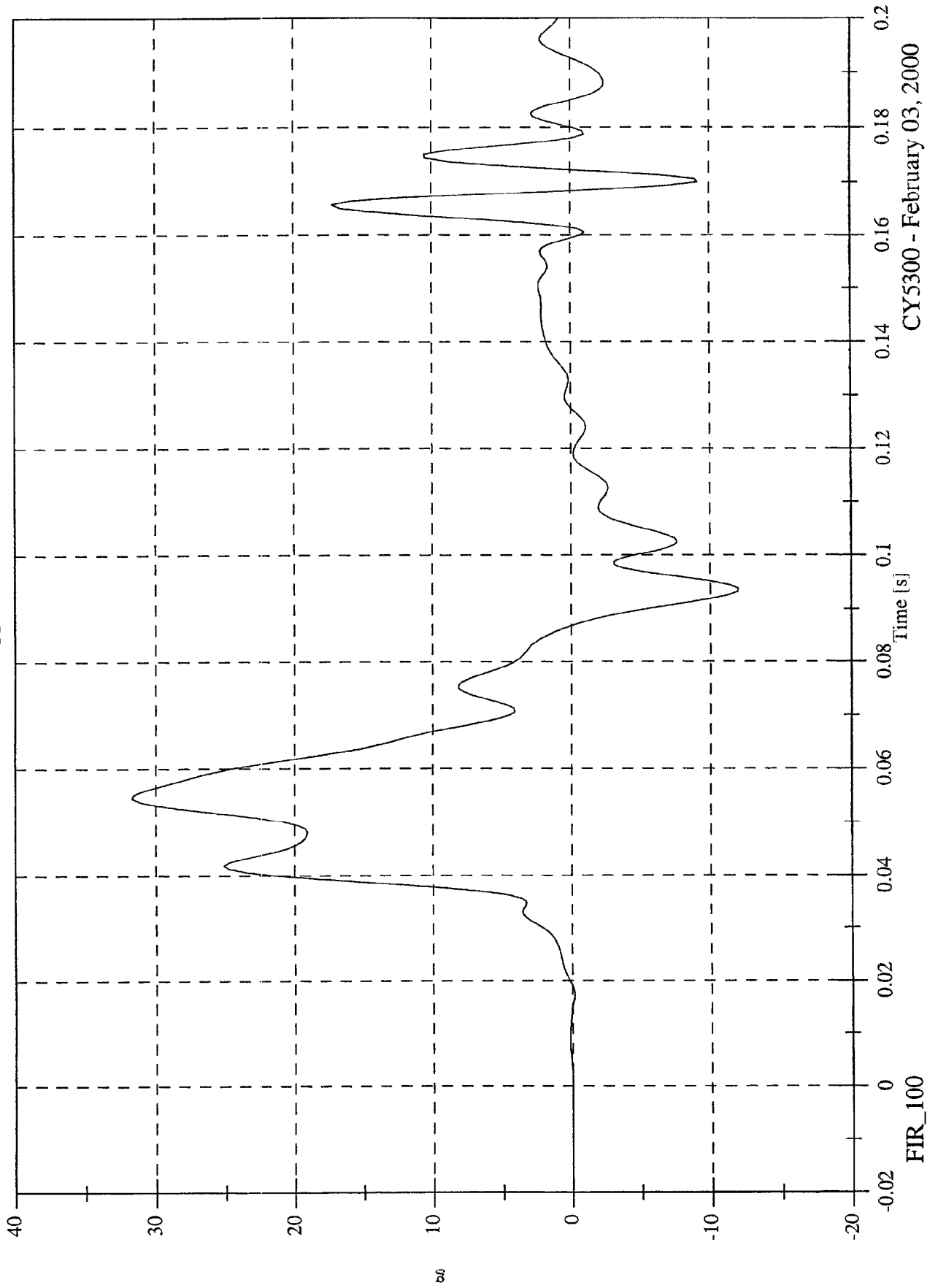
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Upper Rib Ry

Max: 31.7 [g] at 0.054 [s]

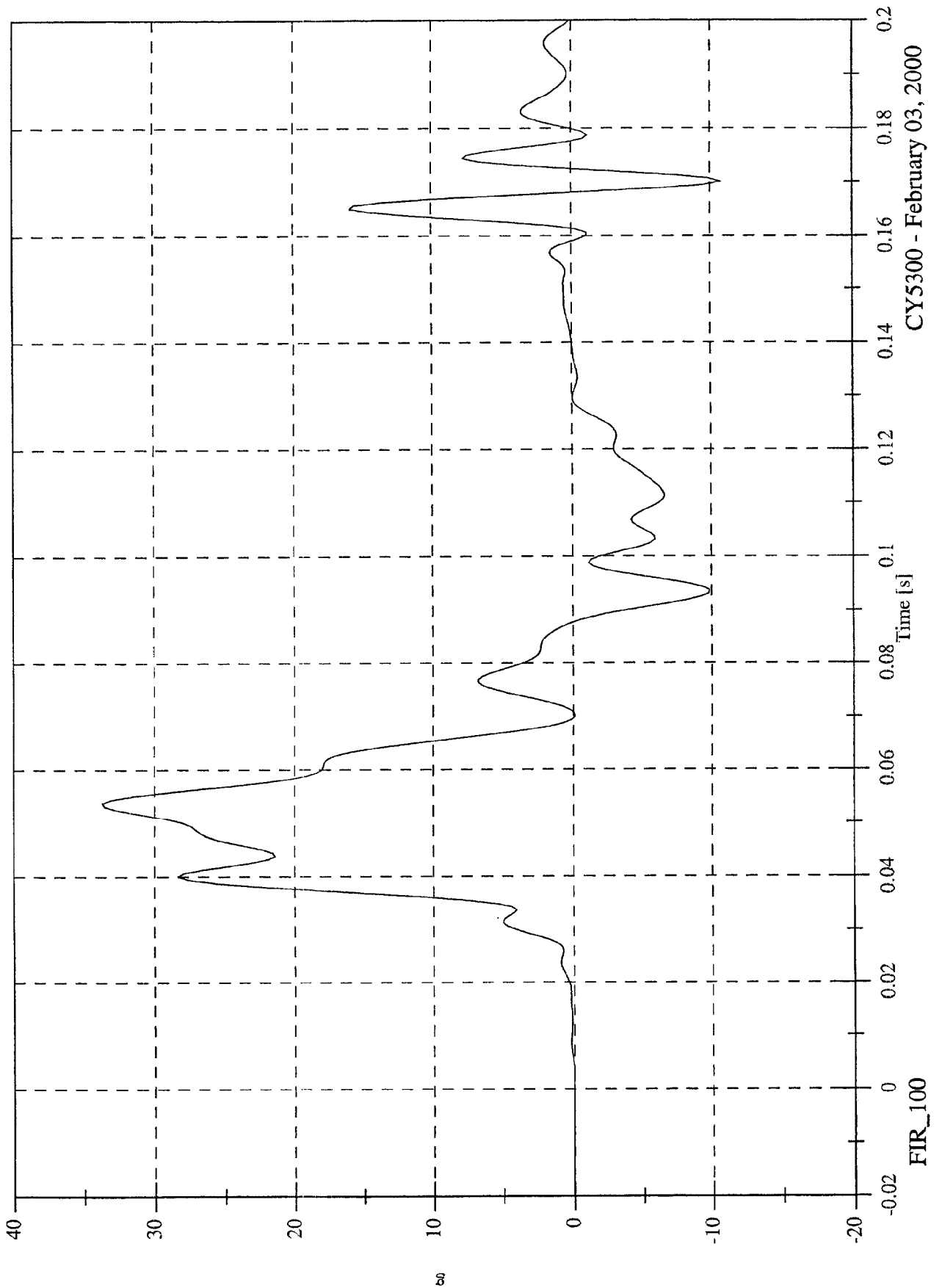
Min: -12.0 [g] at 0.094 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Rib Ry

Max: 33.7 [g] at 0.054 [s]
Min: -10.7 [g] at 0.170 [s]



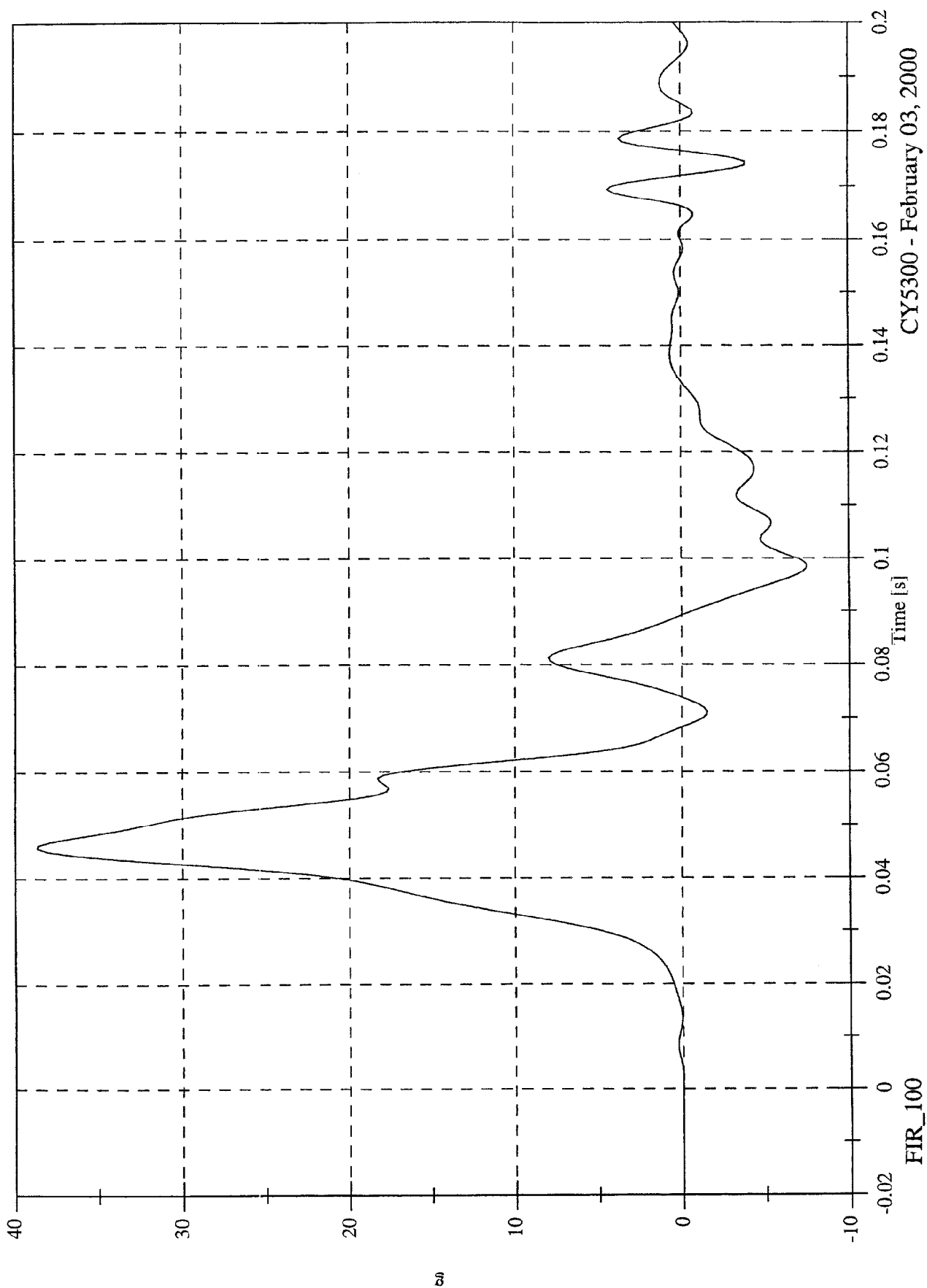
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Lower Spine Ry

Max: 38.7 [g] at 0.046 [s]

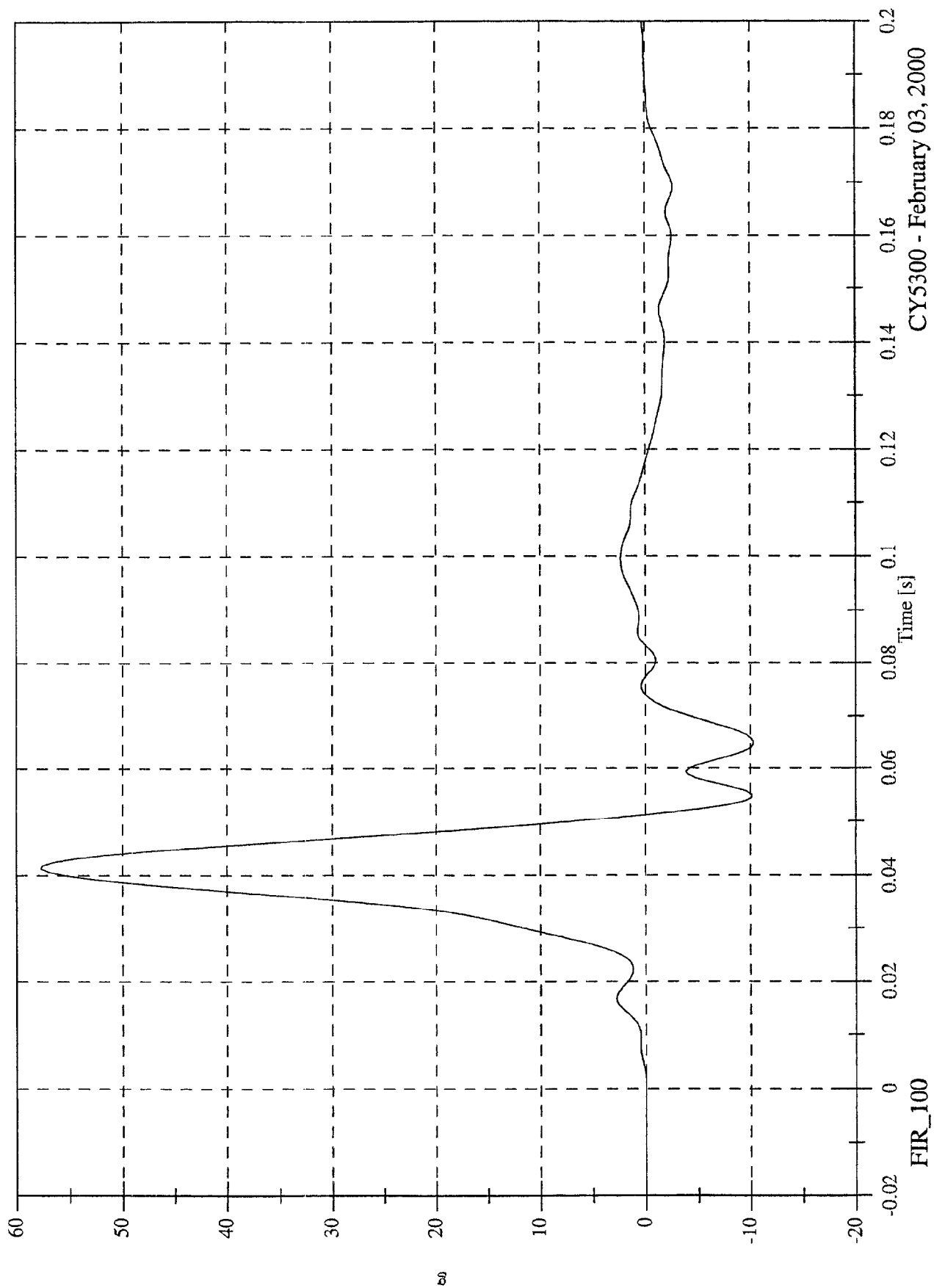
Min: -7.5 [g] at 0.099 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P1 Pelvic RY

Max: 57.7 [g] at 0.041 [s]
Min: -10.3 [g] at 0.065 [s]

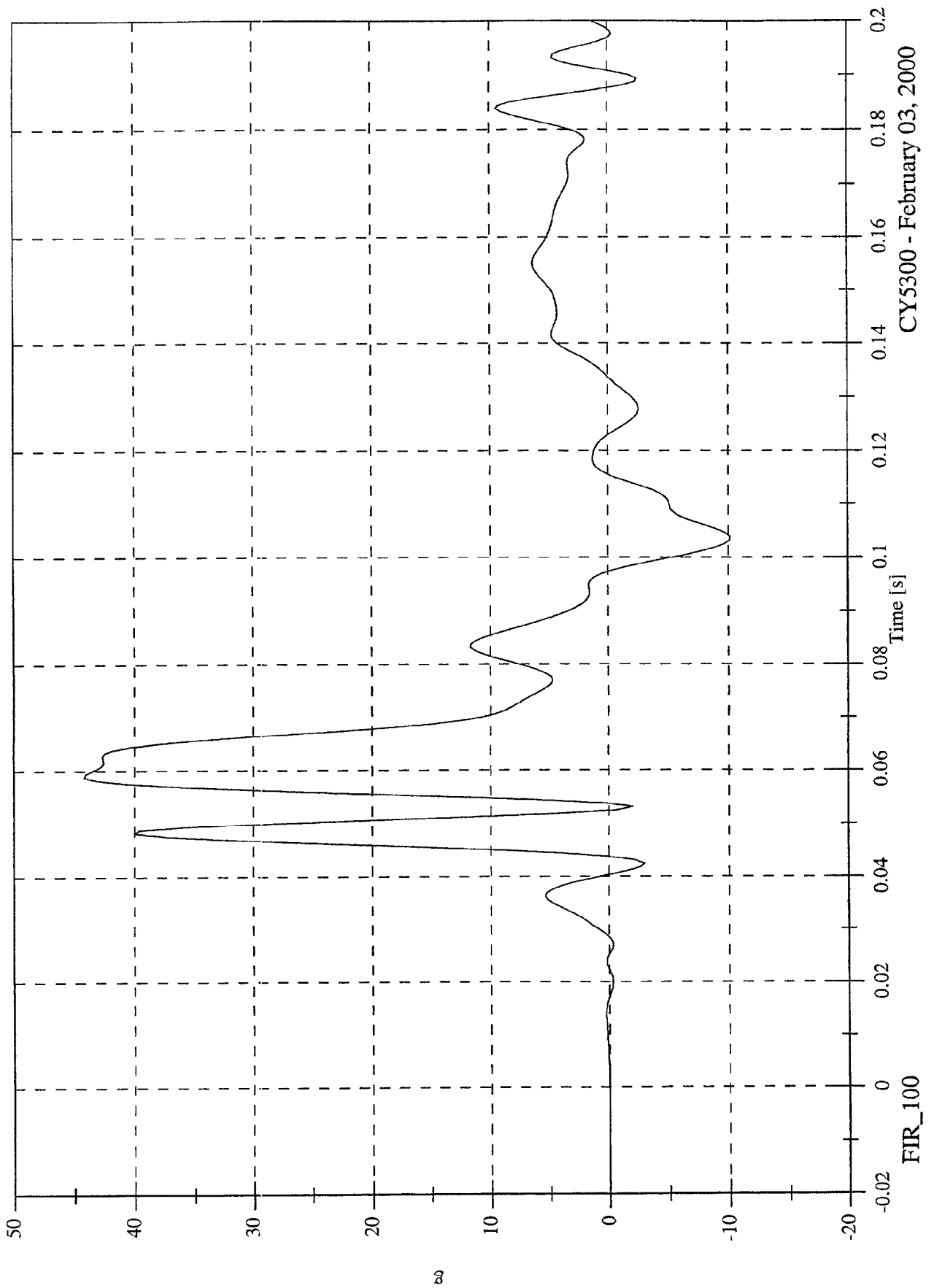


FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Upper Rib Ry

Max: 44.1 [g] at 0.059 [s]

Min: -10.1 [g] at 0.104 [s]



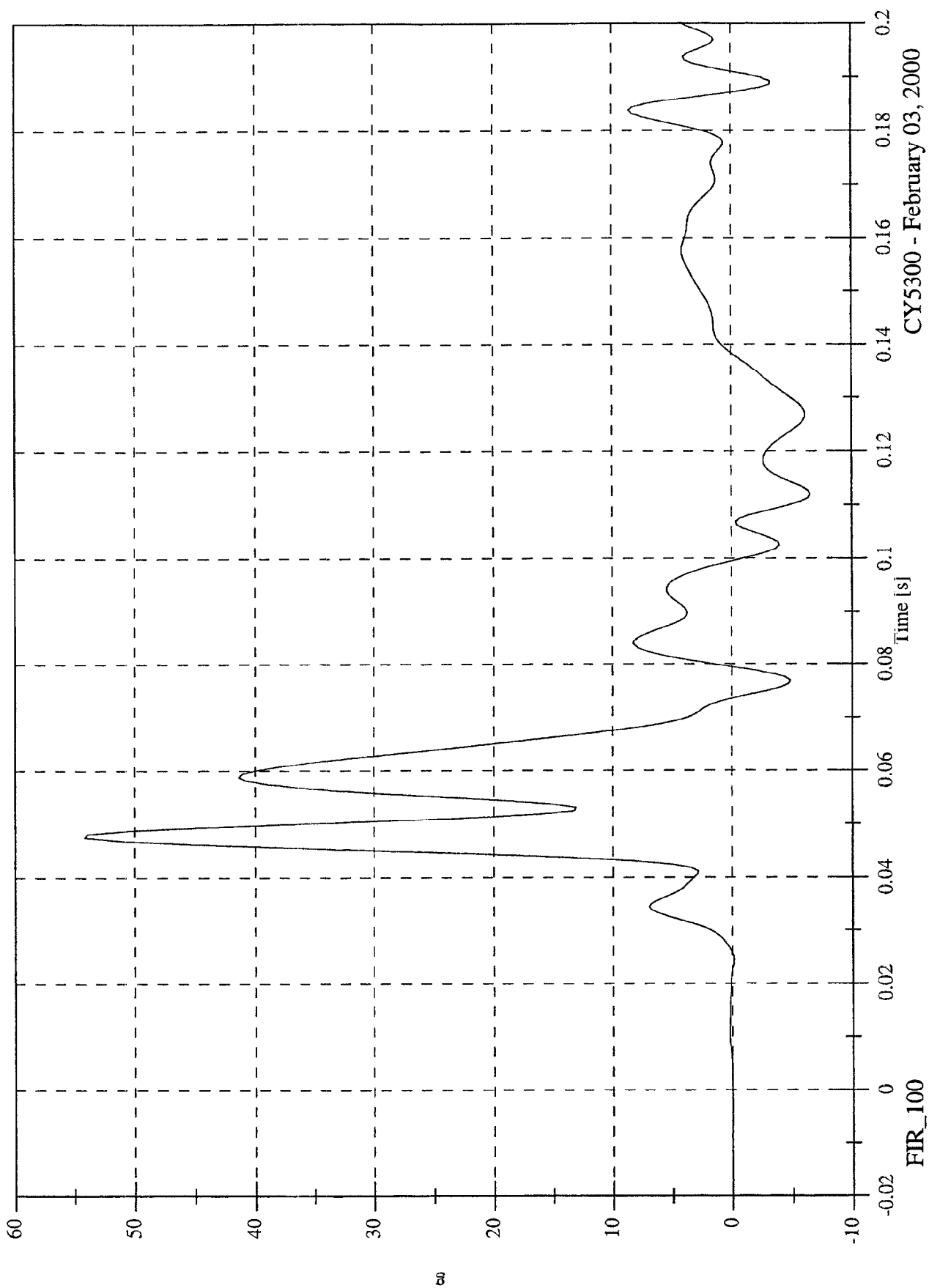
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Rib Ry

Max: 54.2 [g] at 0.048 [s]

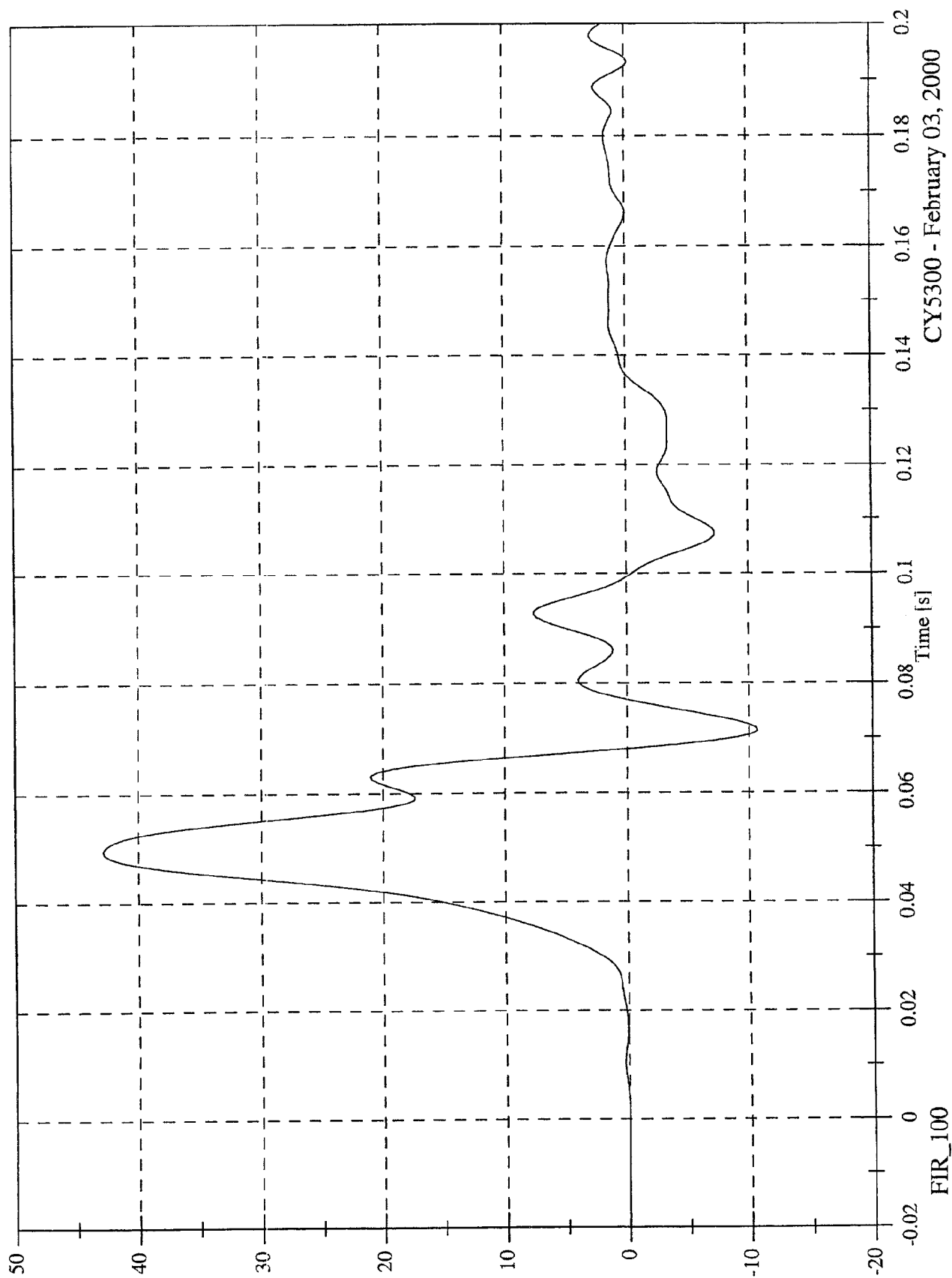
Min: -6.5 [g] at 0.112 [s]



FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Lower Spine Ry

Max: 42.9 [g] at 0.049 [s]
Min: -10.7 [g] at 0.071 [s]



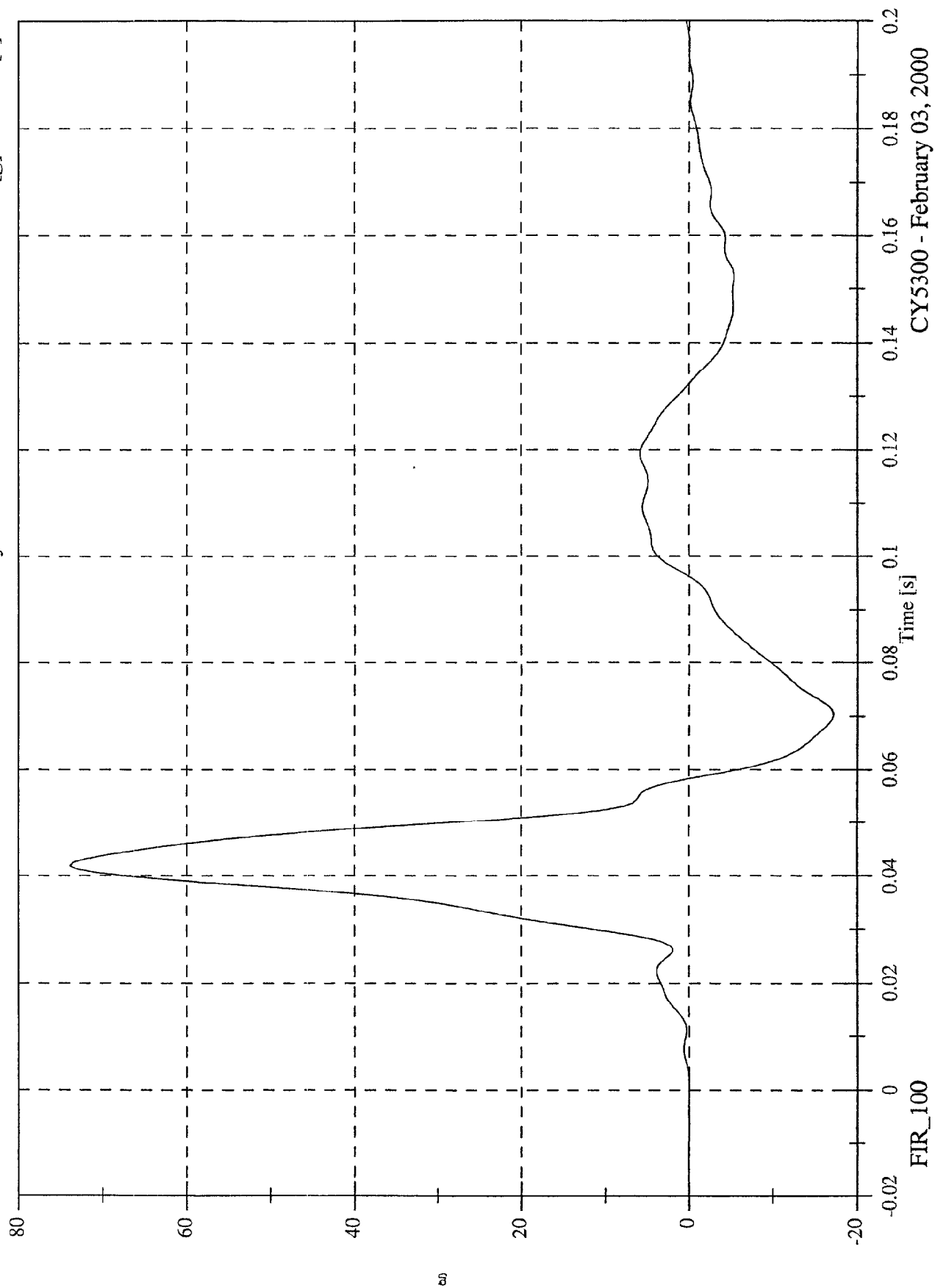
CY5300 - February 03, 2000

FMVSS 214D INDICANT TEST - 2000 Honda Odyssey

P4 Pelvic Ry

Max: 73.9 [g] at 0.042 [s]

Min: -17.2 [g] at 0.071 [s]



CY5300 - February 03, 2000

APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: January 21, 2000 - February 9, 2000

Sequential Test Number:

1; 2

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID NO.: 027		SID NO.: 268	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	907	907	899	899
RH- Rib Height (mm)	501 - 521	518	518	513	513
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	236	236	235	235
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	493	493	495	495
HW- Hip Width (mm)	356 - 391	368	368	376	376
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	30	30	30	30
PROBE SPEED (m/s)	4.27 - 4.33	4.29	4.31	4.27	4.33
UPPER RIB (g's)	37 - 46	42.6	39.7	42.4	38.3
LOWER RIB (g's)	37 - 46	43.3	39.0	40.3	38.0
LOWER SPINE (g's)	15 - 22	20.9	21.1	21.2	19.1
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	30	30	30	30
PROBE SPEED (m/s)	4.27 - 4.33	4.30	4.29	4.31	4.27
PELVIS (g's)	40 - 60	50.2	50.6	40.7	52.4

REMARKS: None

**CALIBRATION TEST RESULTS
PRE-TEST**

SID NO.: 027

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 1
Date: January 27, 2000 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.: 027 Sequential Test Number: 1
Date: January 26, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	907
RH- Rib Height (mm)	502 - 520	518
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	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	368

REMARKS: None

THORACIC SHOCK ABSORBER TESTS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 1
Date: January 21, 2000 Laboratory Technician: B. Swiecicki

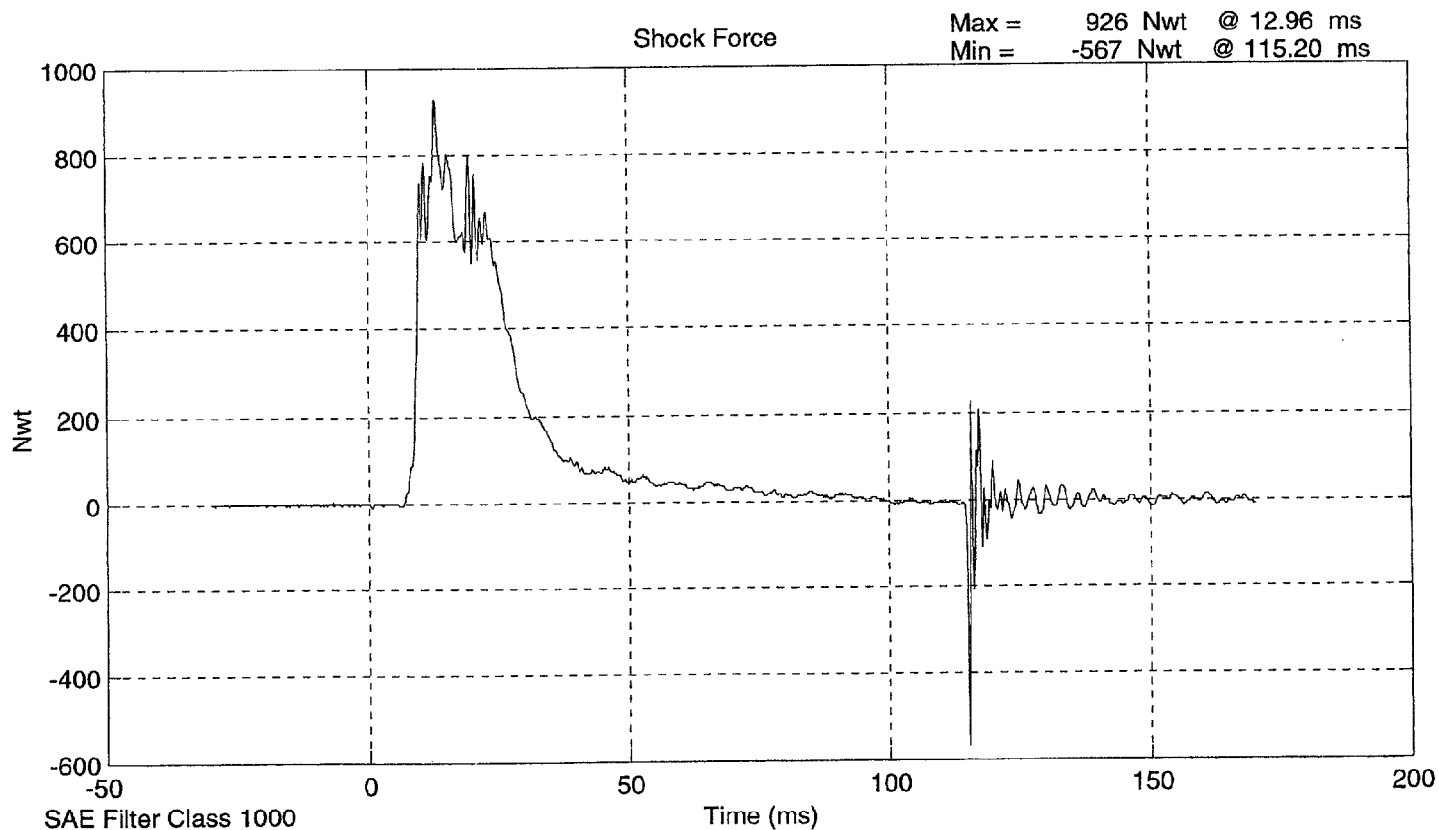
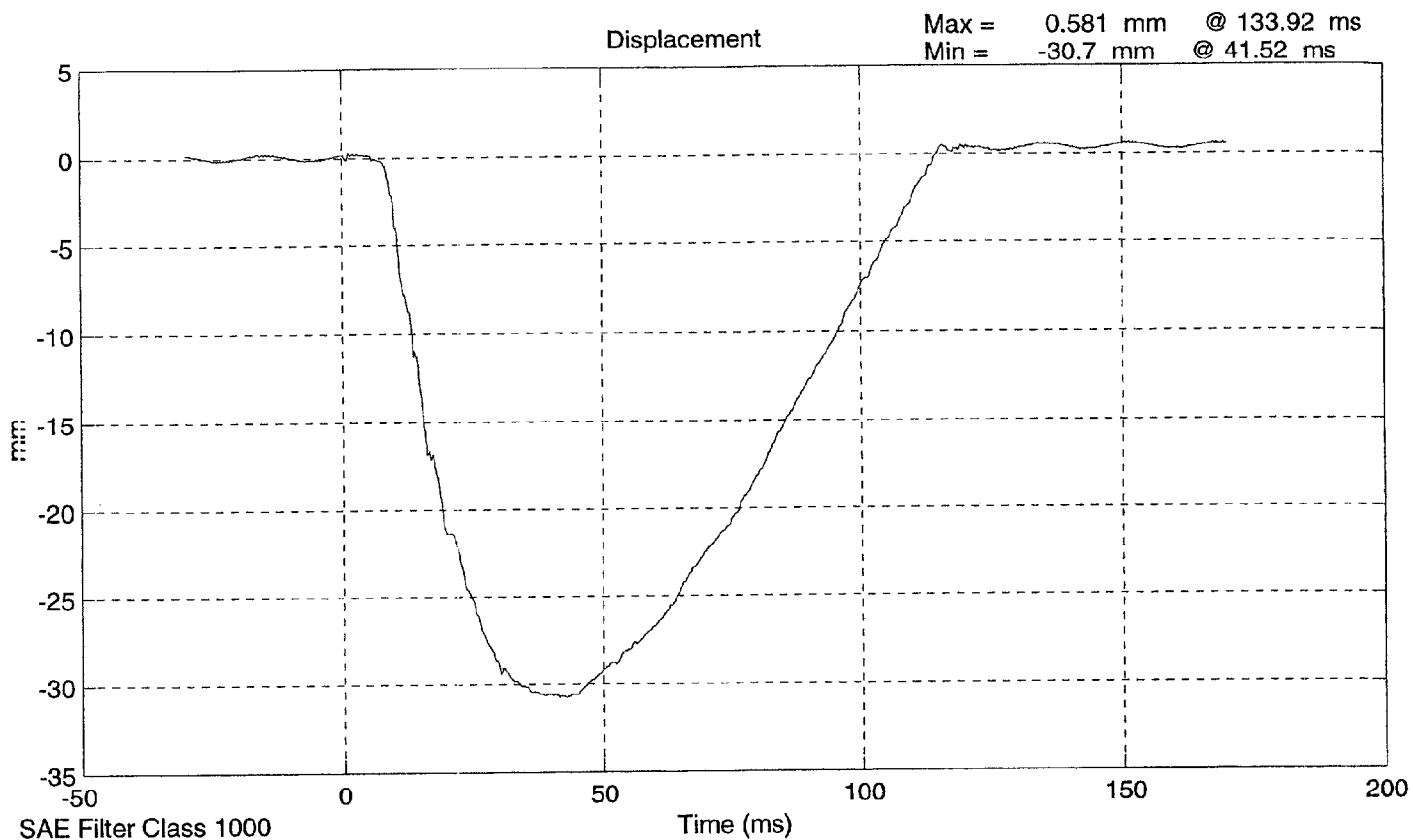
DAMPER IDENTIFICATION: 027

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)		10 - 70	30
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	926.0
	DISPLACEMENT (mm)	30 - 35	30.7
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1887.9
	DISPLACEMENT (mm)	32 - 37	32.8
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	4143.7
	DISPLACEMENT (mm)	33 - 40	35.6

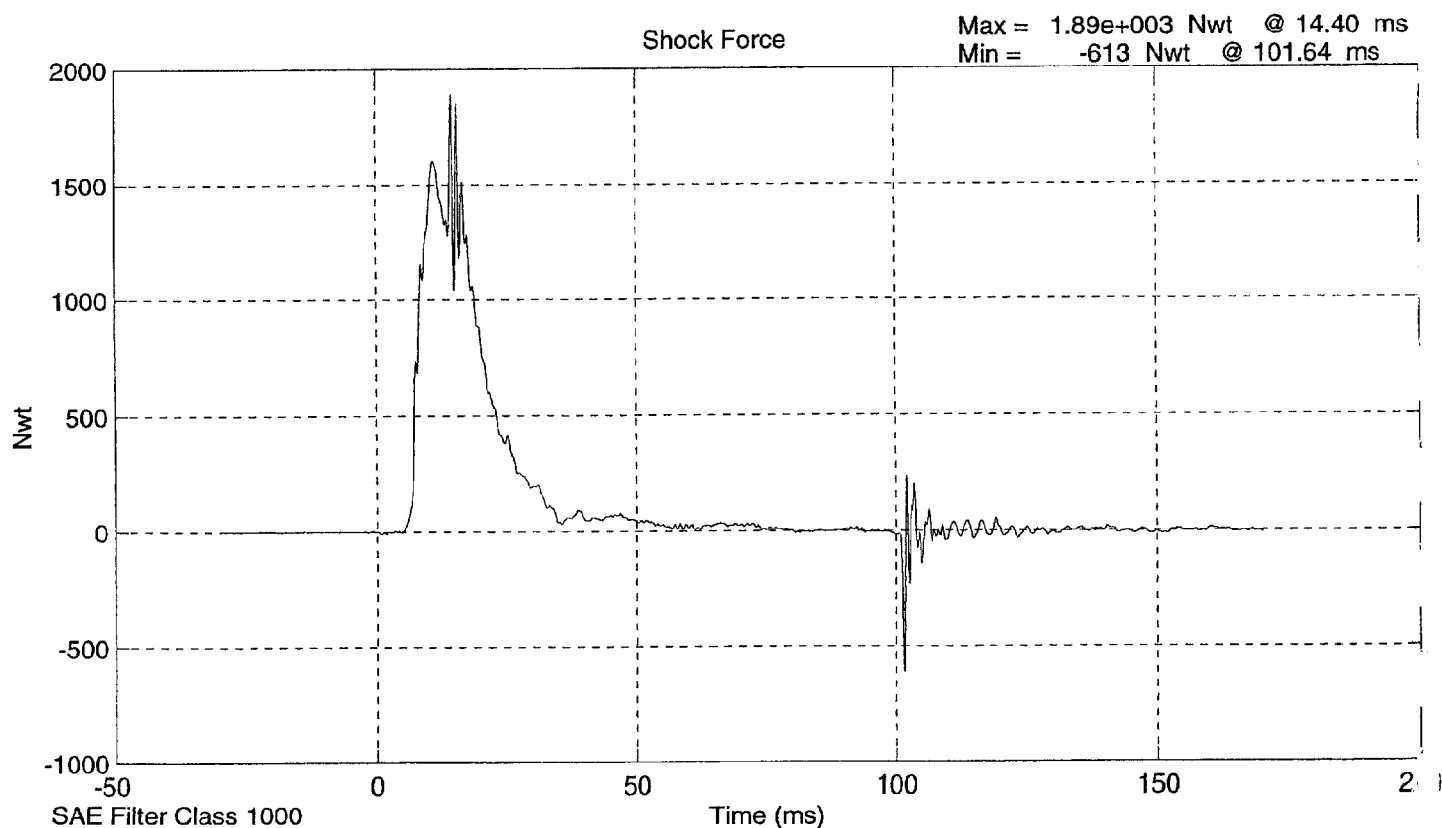
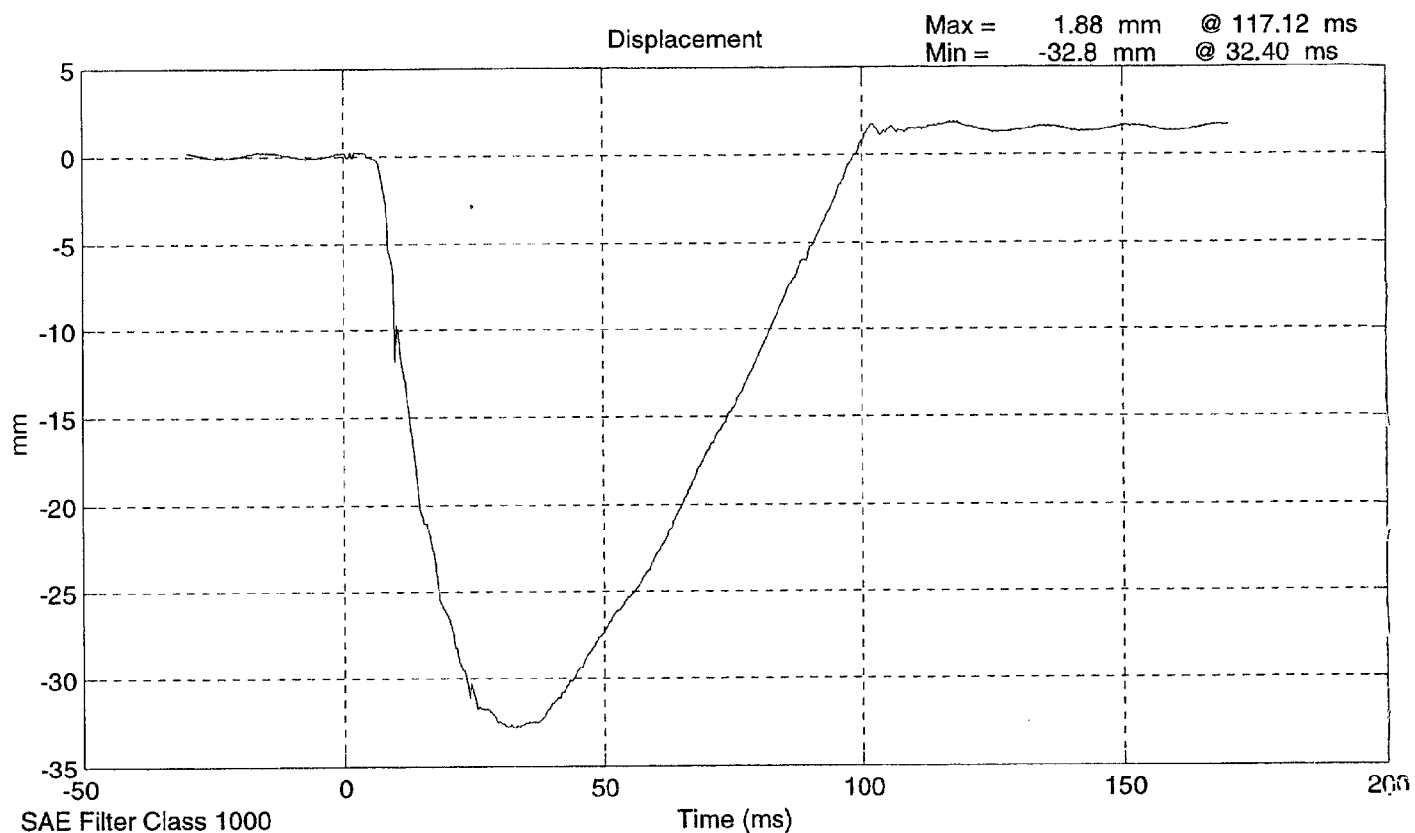
DAMPER SETTING: 5

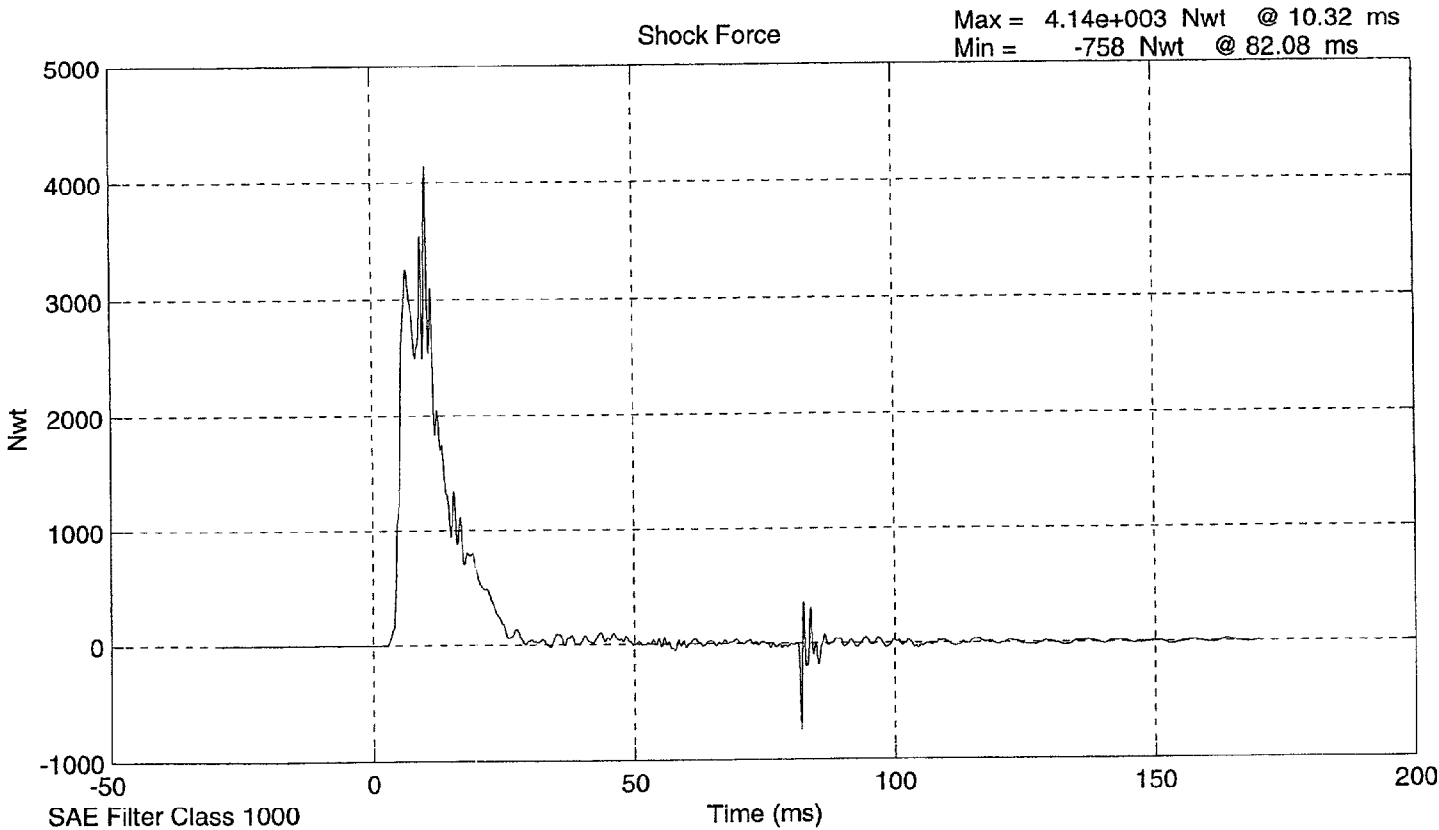
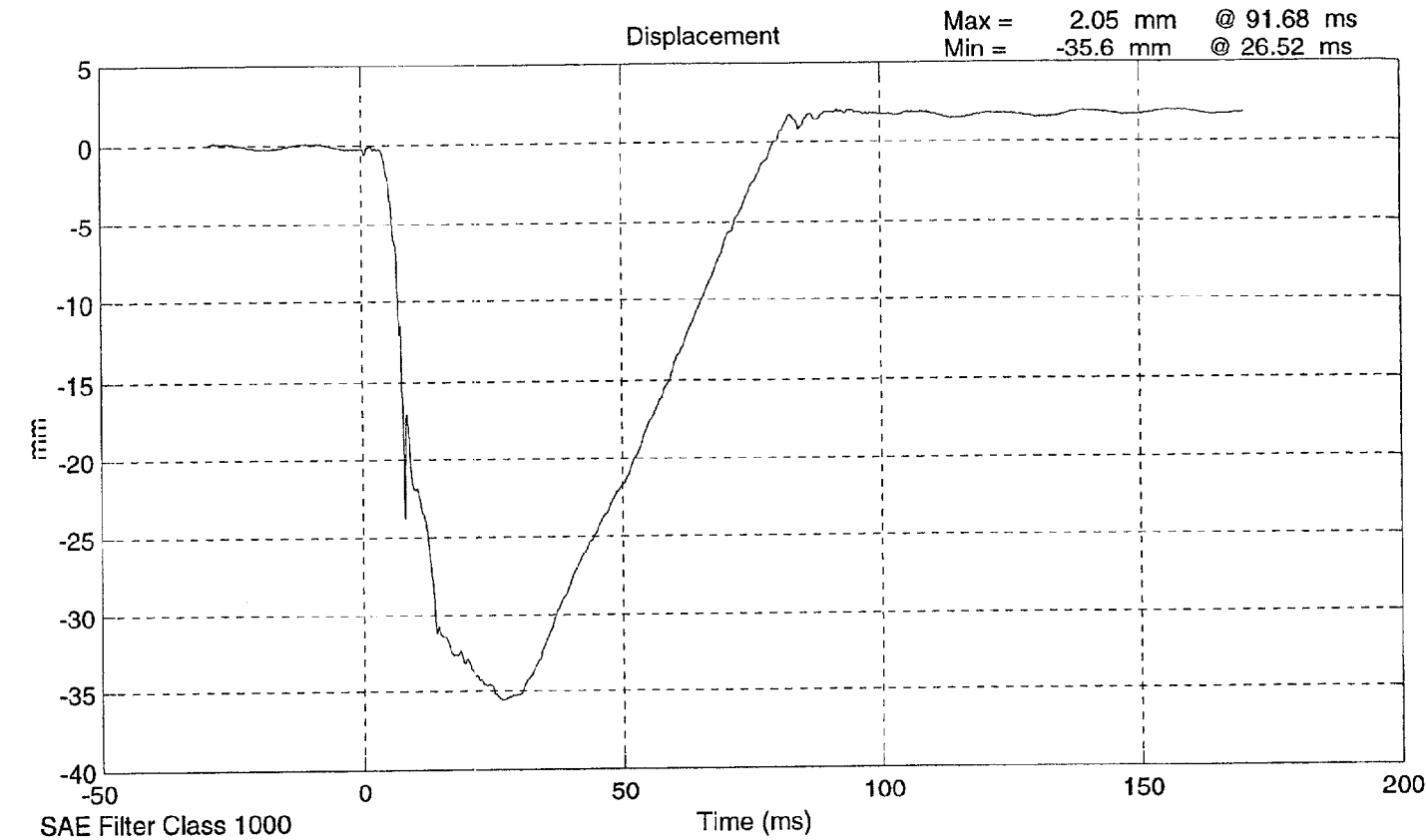
REMARKS: None

SID 027 Shock Absorber Impact Test @ 3.048 m/s



SID 027 Shock Absorber Impact Test @ 4.2672 m/s





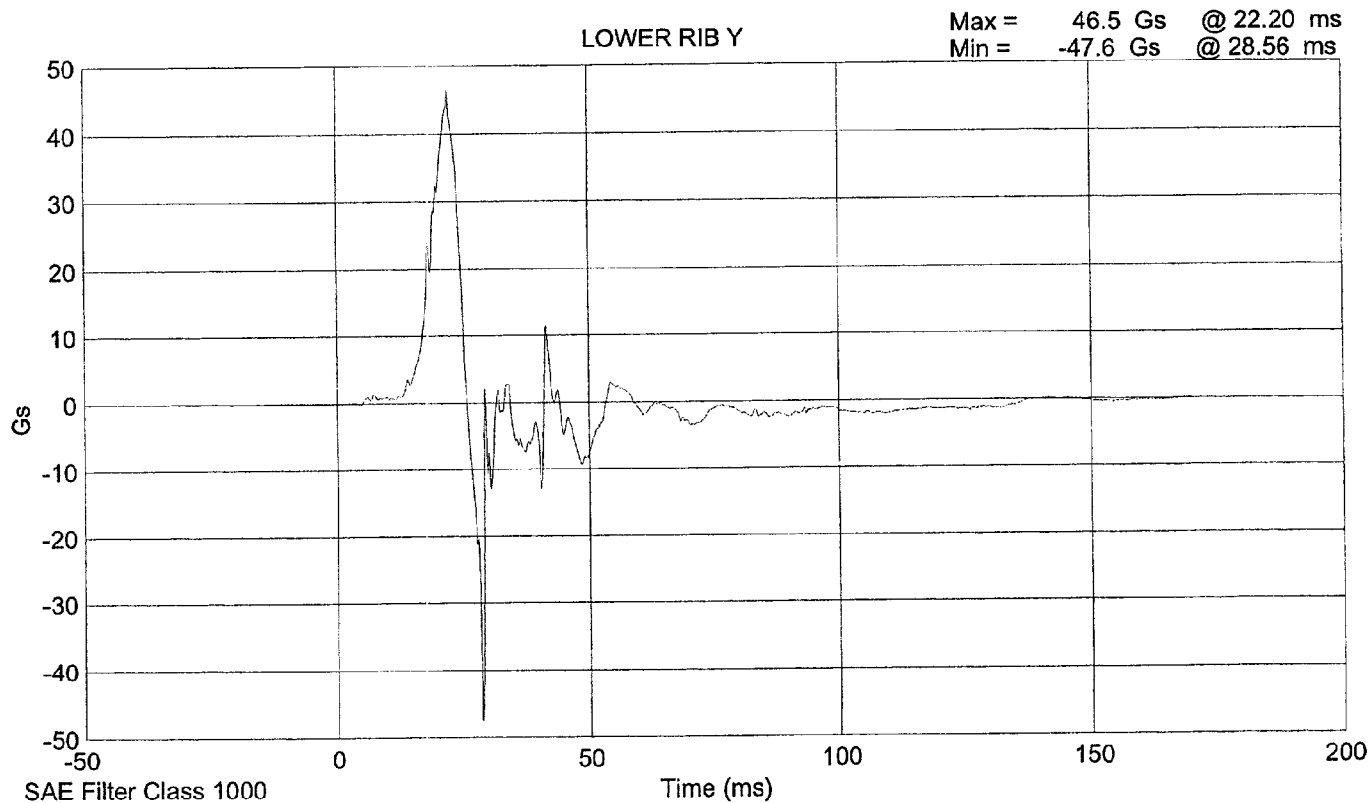
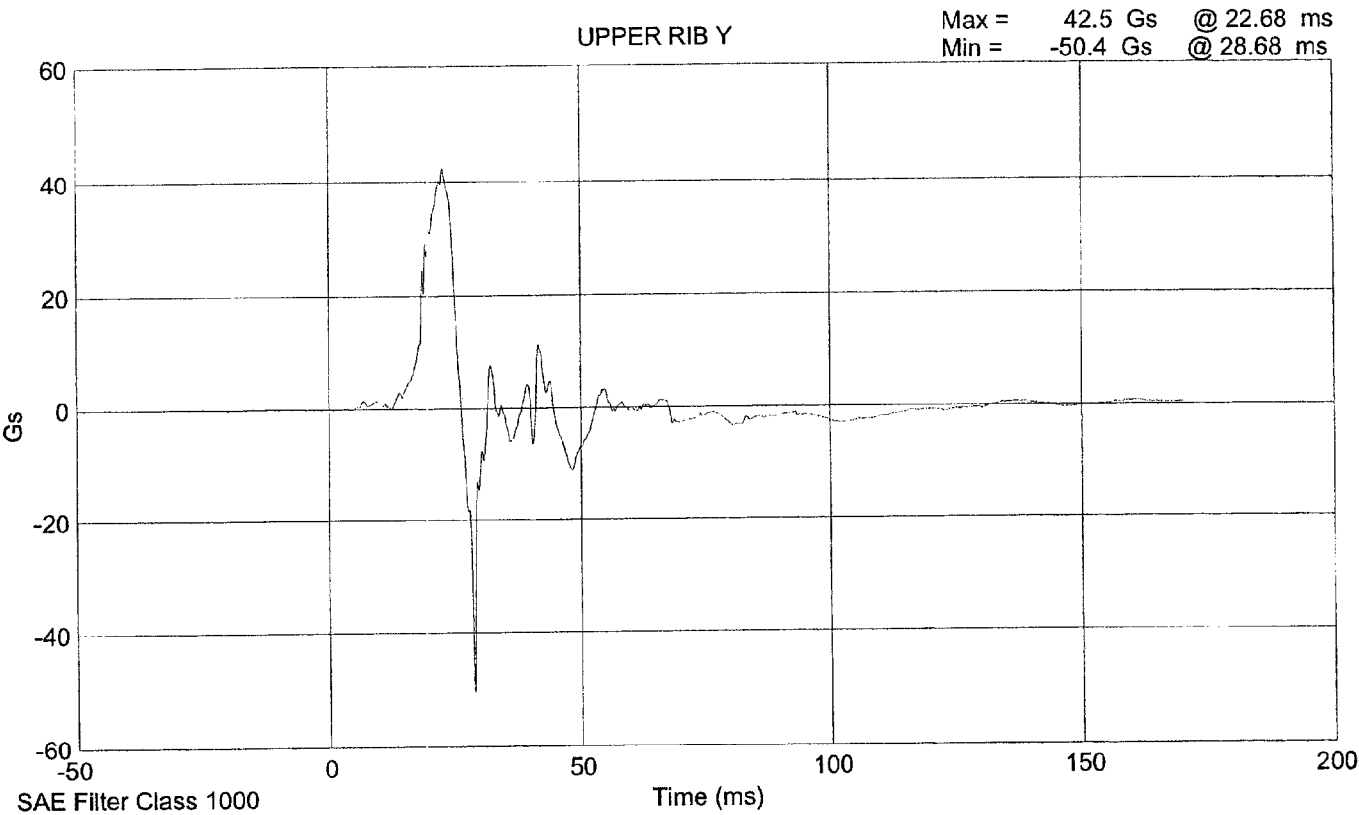
**LATERAL THORAX IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

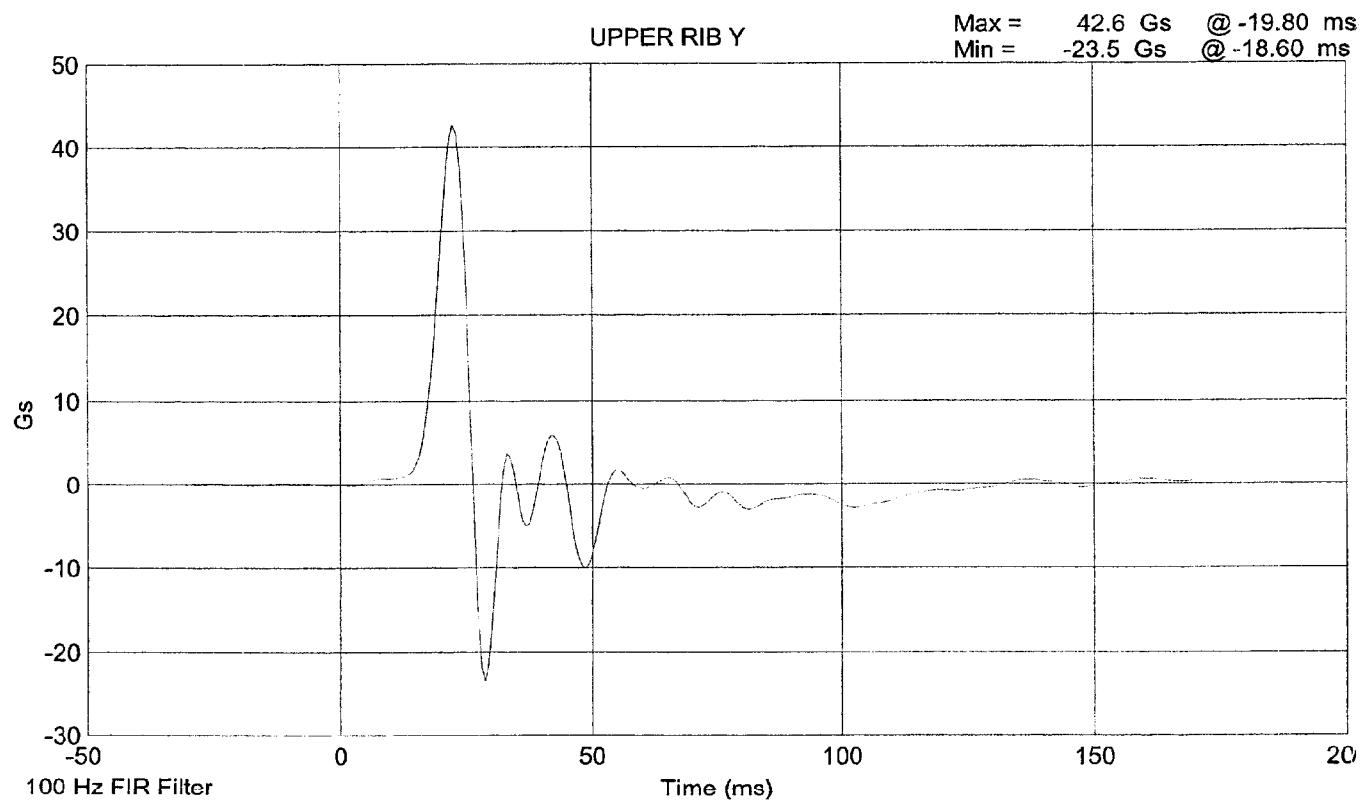
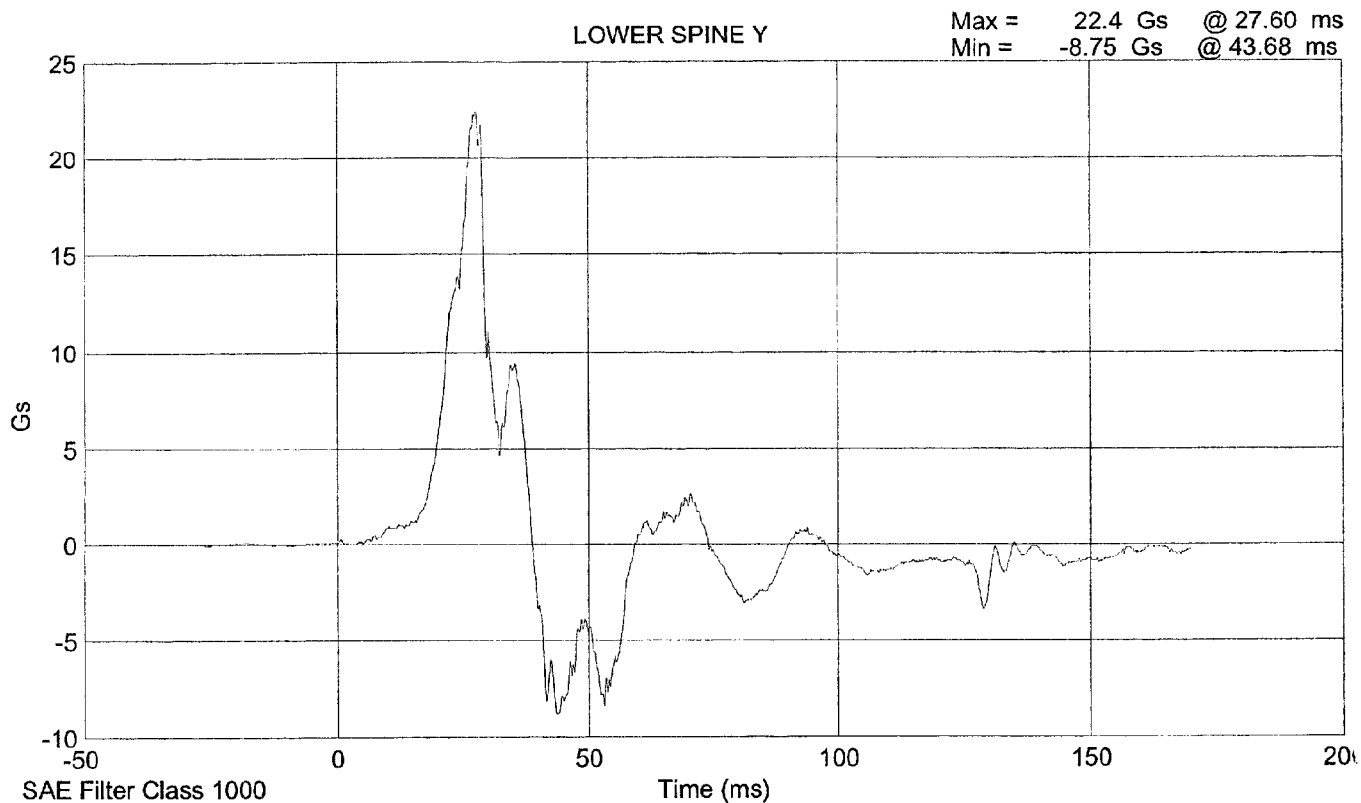
SID Serial No.: 027 Sequential Test Number: 1
Date: January 27, 2000 Laboratory Technician: B. Swiecicki

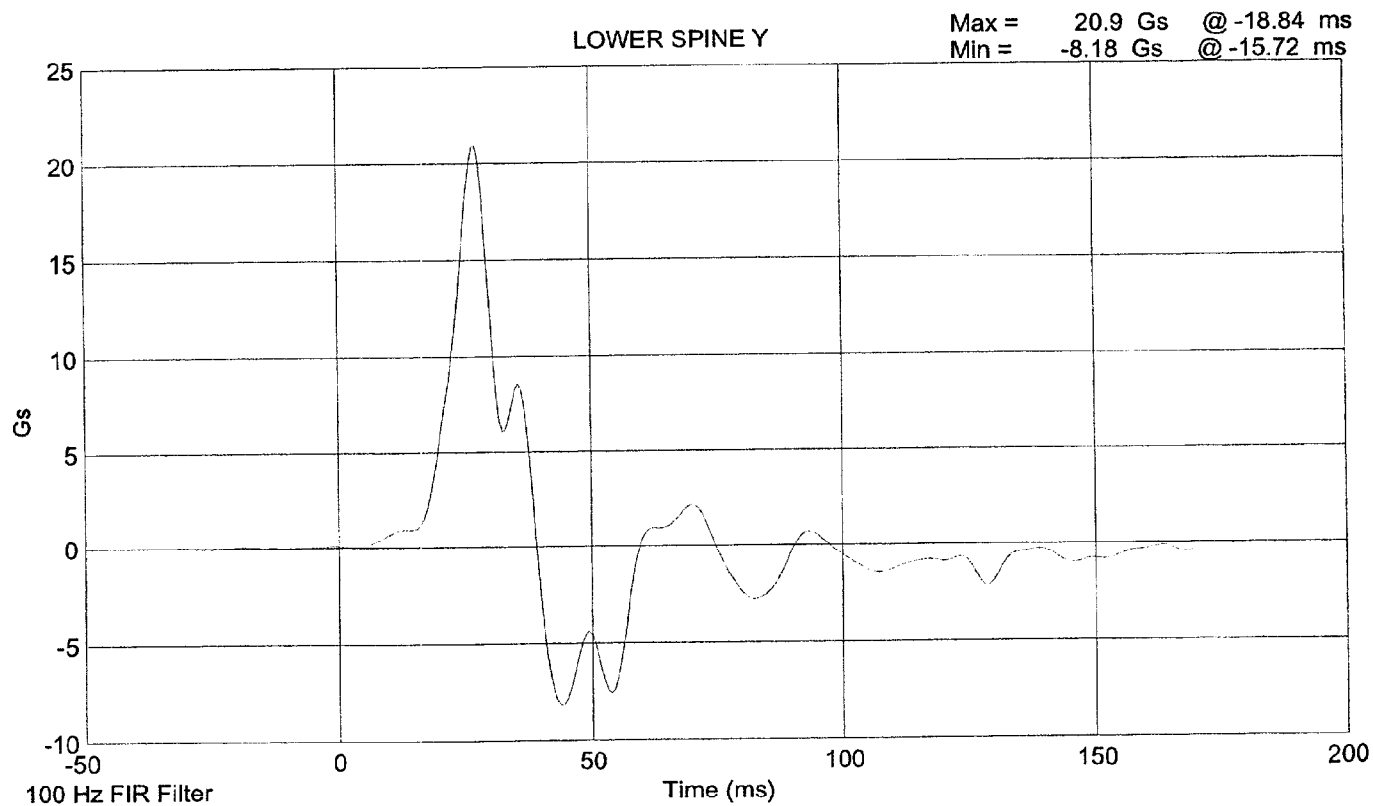
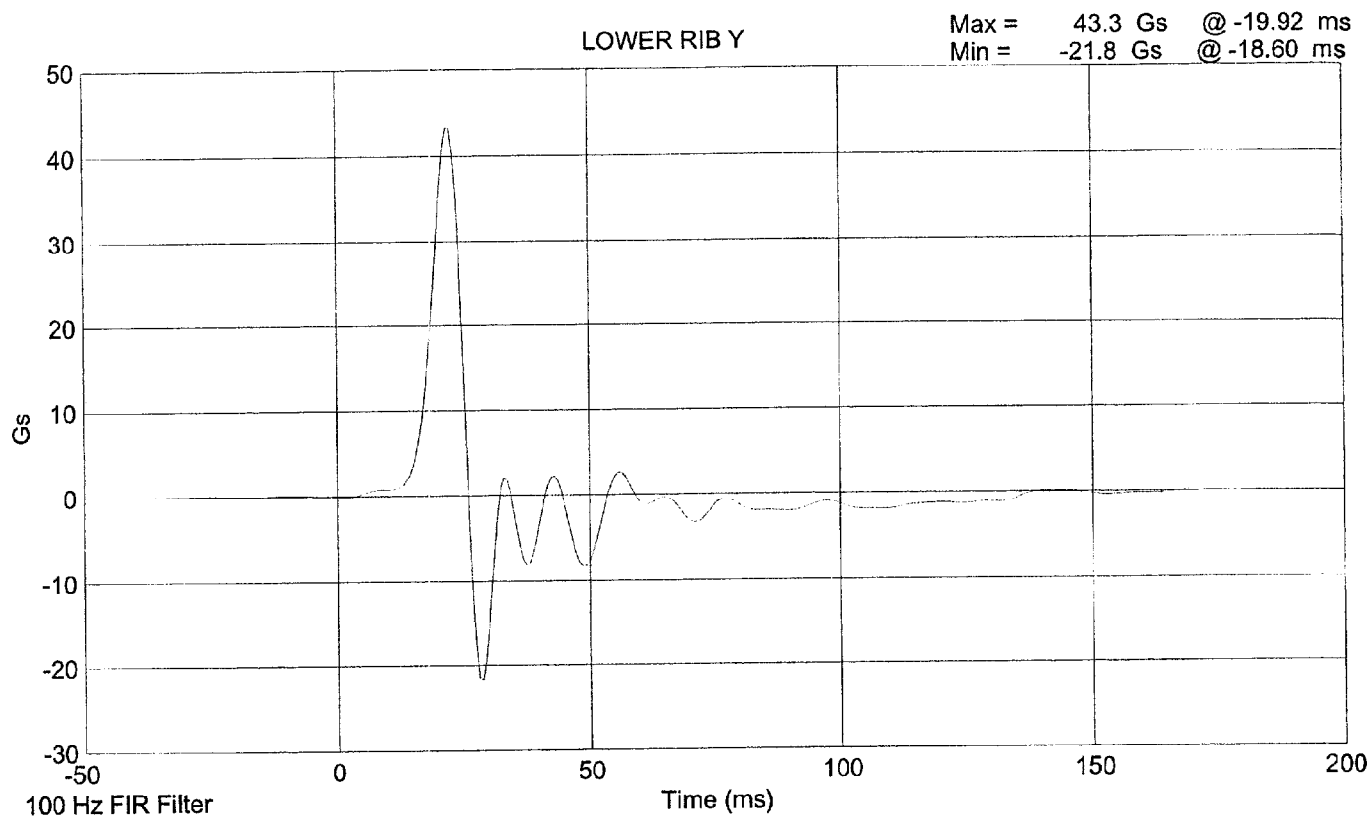
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	42.6
LOWER RIB (g's)	37 - 46	43.3
LOWER SPINE (g's)	15 - 22	20.9

REMARKS: None



SID 027 Thorax Impact Test @ 4.2885 m/s





**LATERAL PELVIS IMPACT TEST
PRE-TEST**

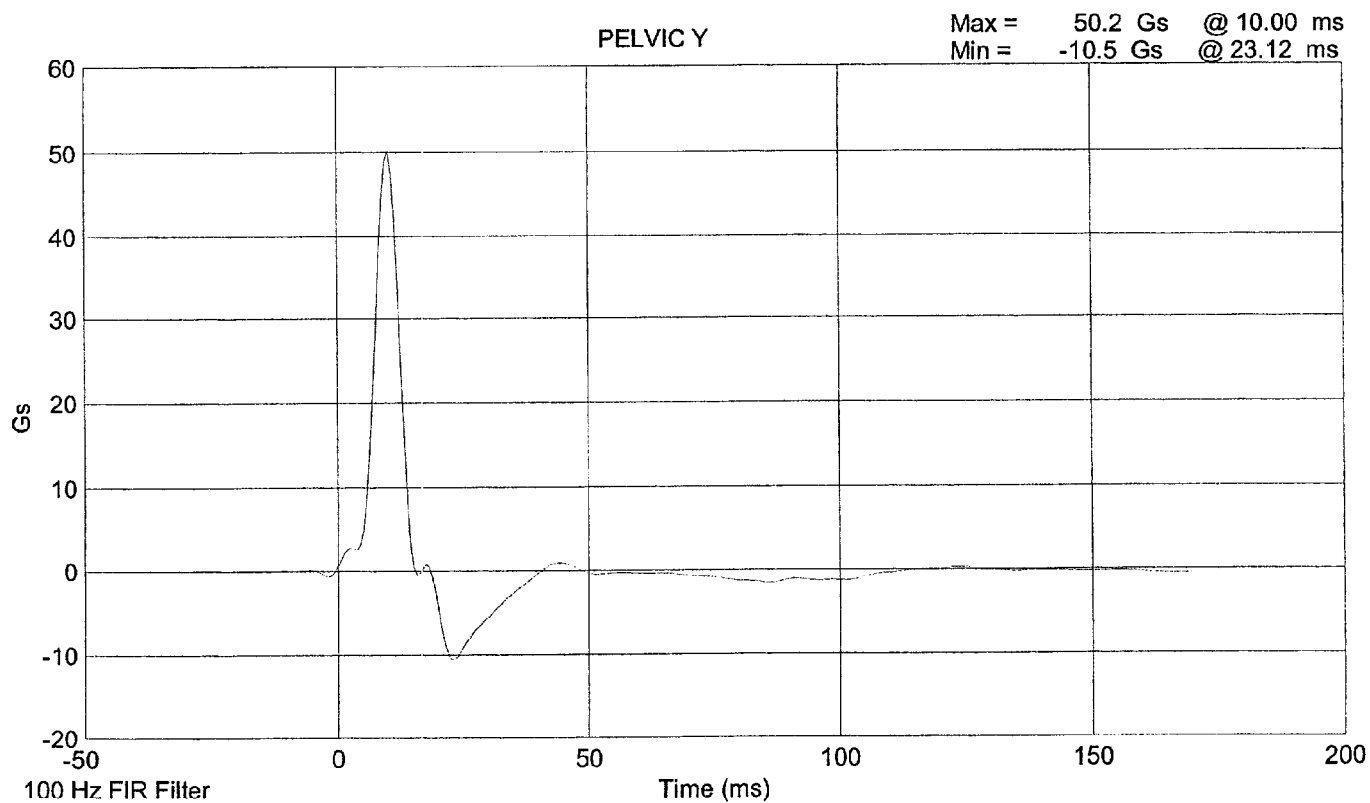
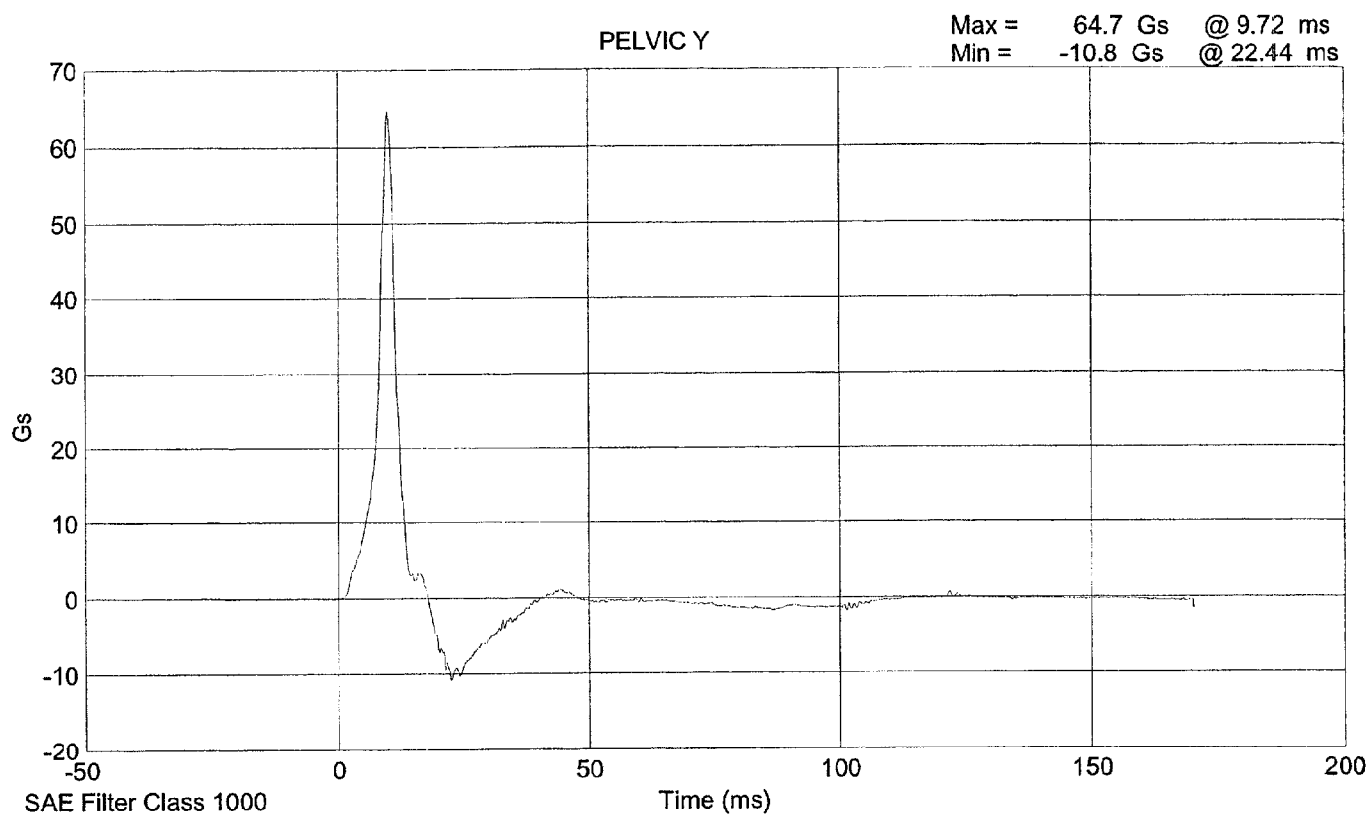
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 1
Date: January 27, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.30
PELVIS ACCELERATION (g's)	40 - 60	50.2

REMARKS: None

SID 027 Pelvic Impact Test @ 4.3038 m/s



HEAD DROP TEST

PRE-TEST

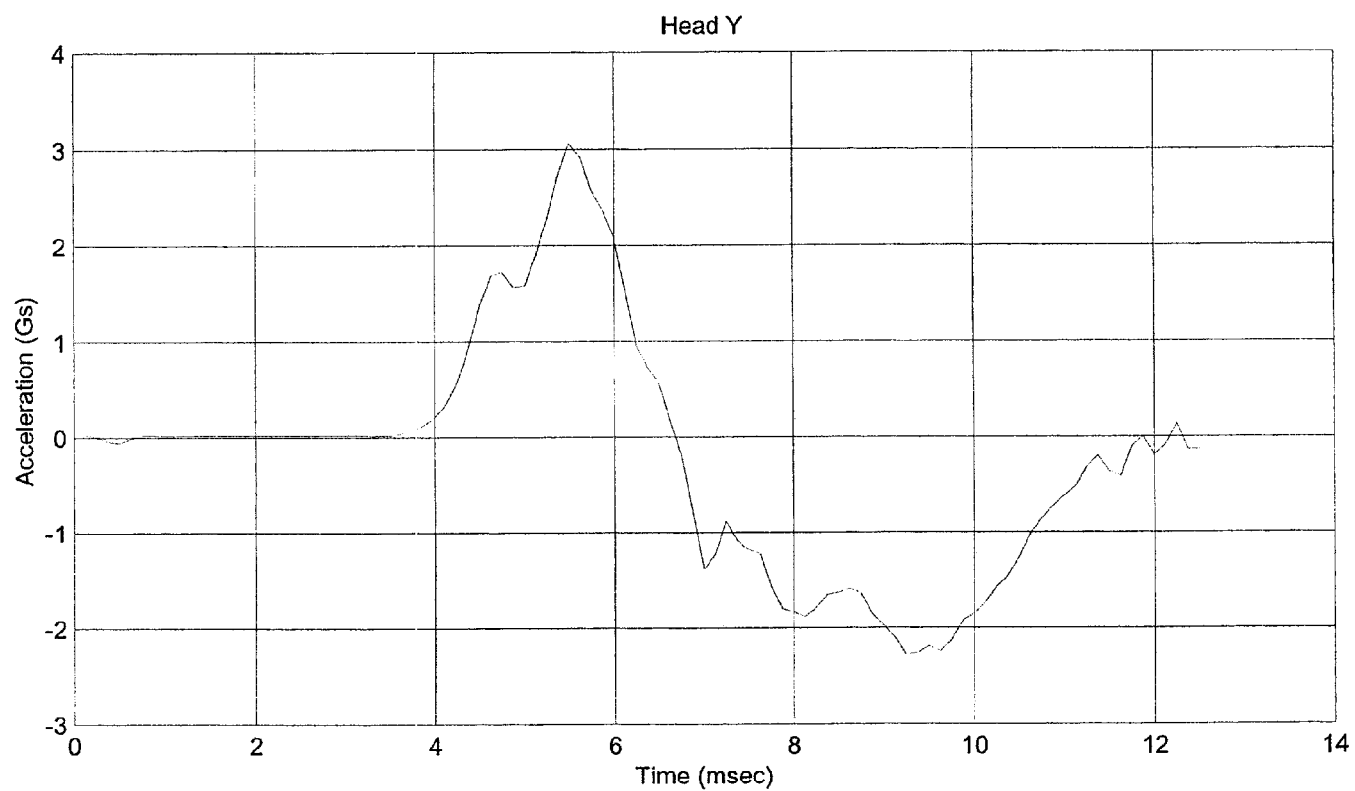
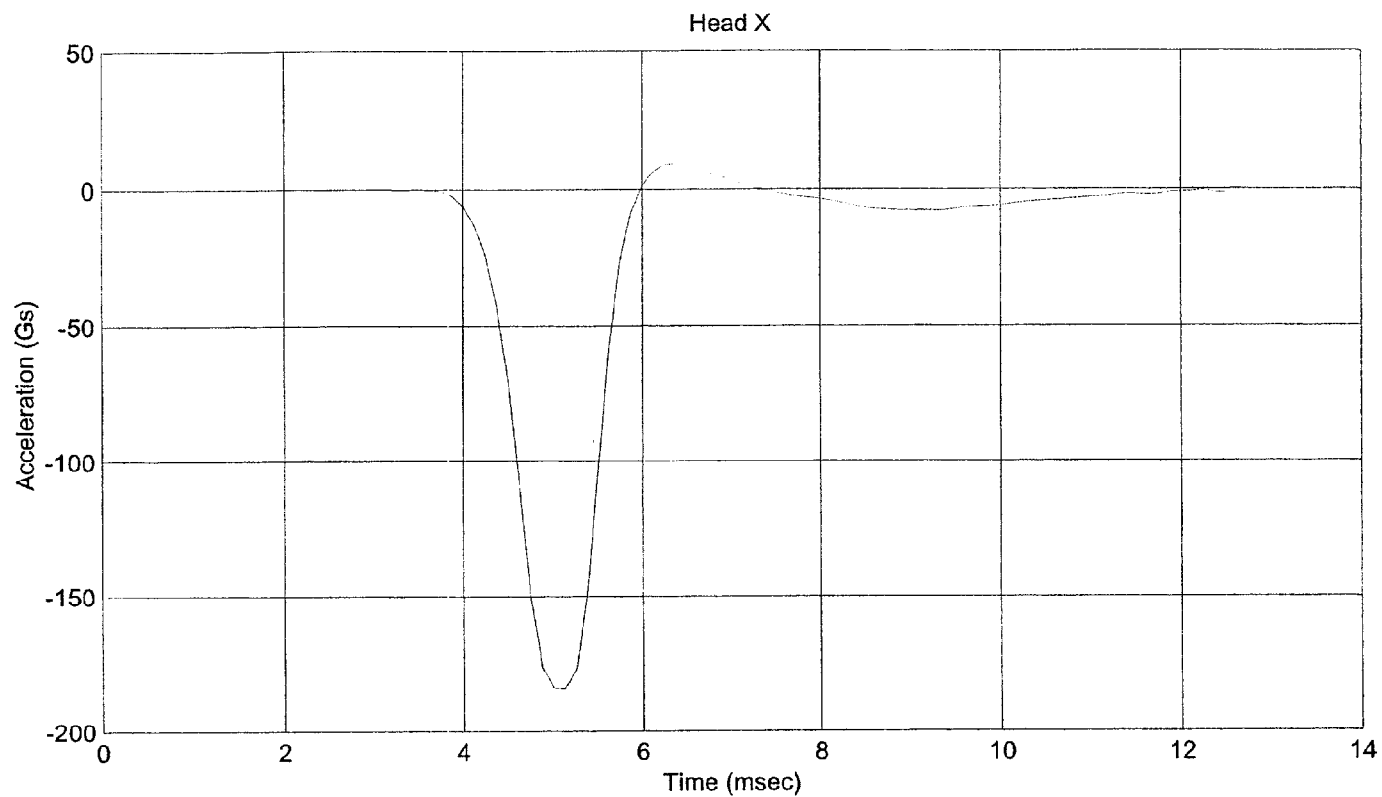
(Test not required for SID certification)

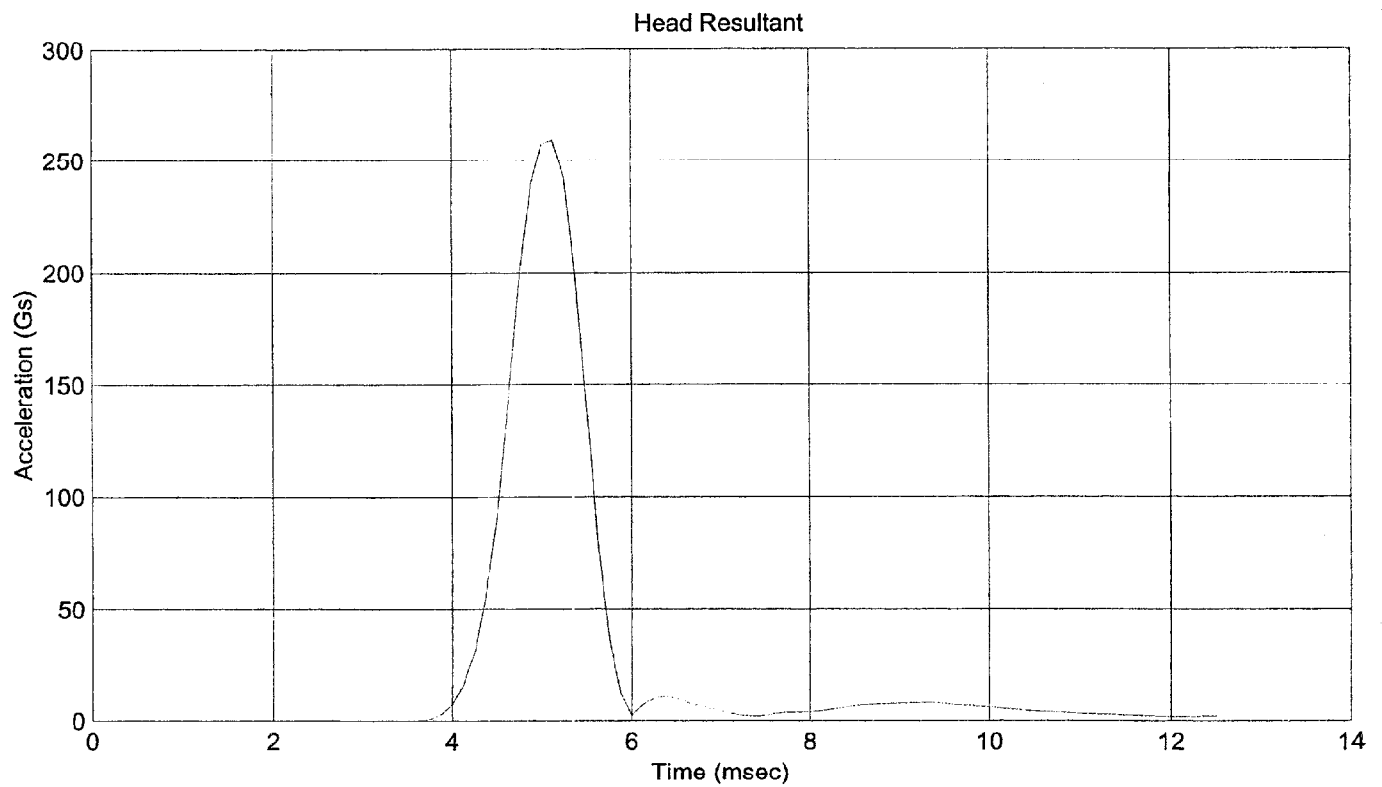
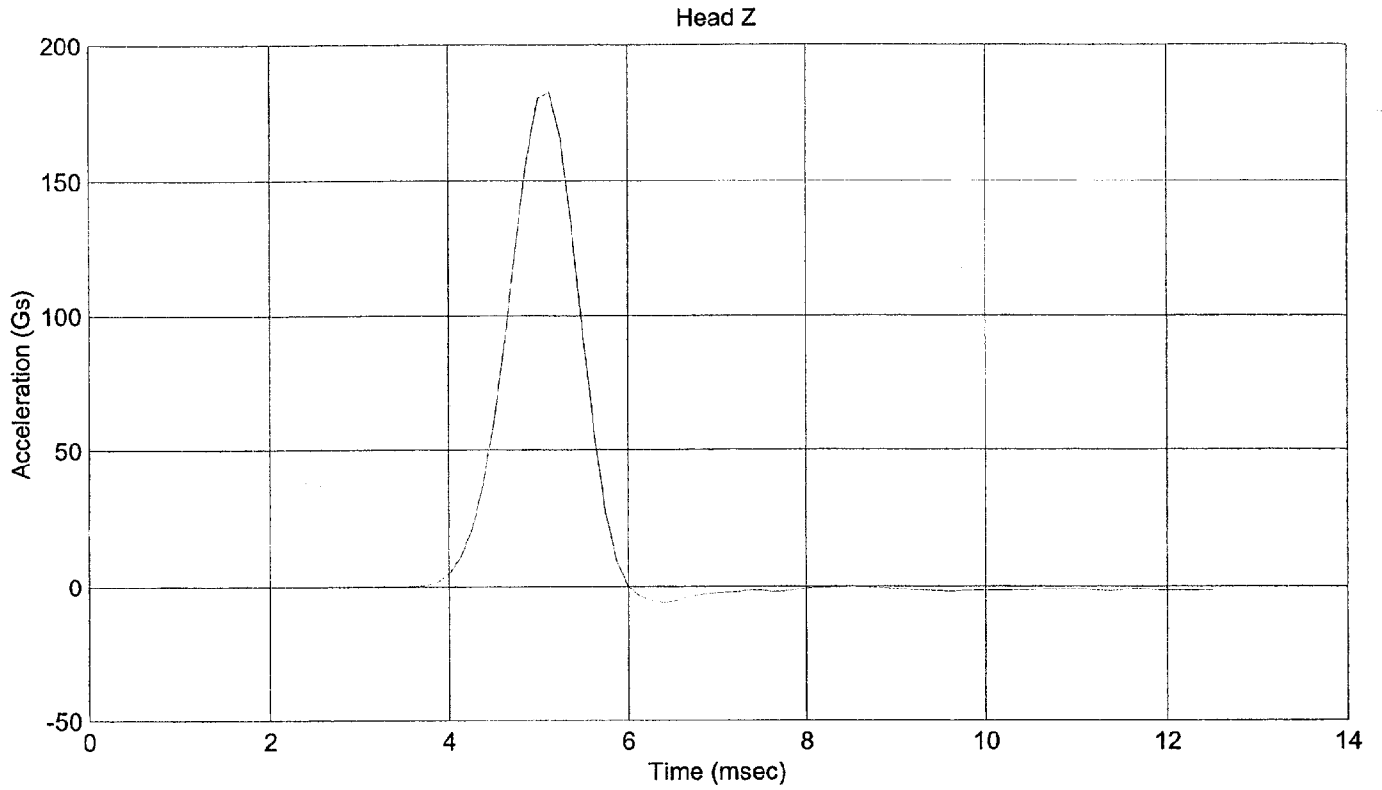
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 1
Date: January 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	33
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	259.33
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	3.06
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.12

REMARKS: None





ABDOMINAL COMPRESSION TEST**PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 1
Date: January 26, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 13 mm (N)	104 - 162	106.8
FORCE @ 19 mm (N)	163 - 221	182.4
FORCE @ 25 mm (N)	222 - 280	249.1
FORCE @ 33 mm (N)	325 - 391	358.1

REMARKS: None

Dummy S/N 27

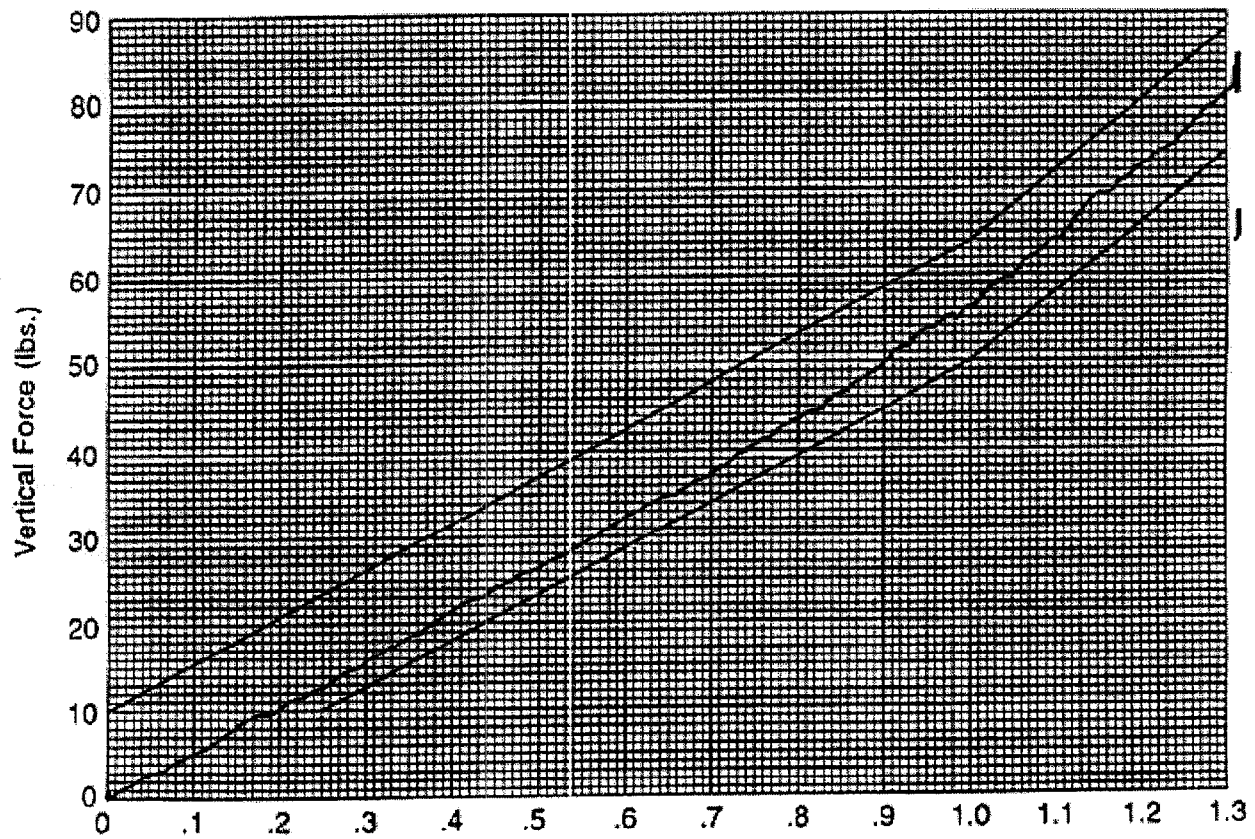
W/A _____

Date 1-26-2000

Performed By BS

Temp. 70°

Humidity 31%



Hybrid II
Abdomen Static Press

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

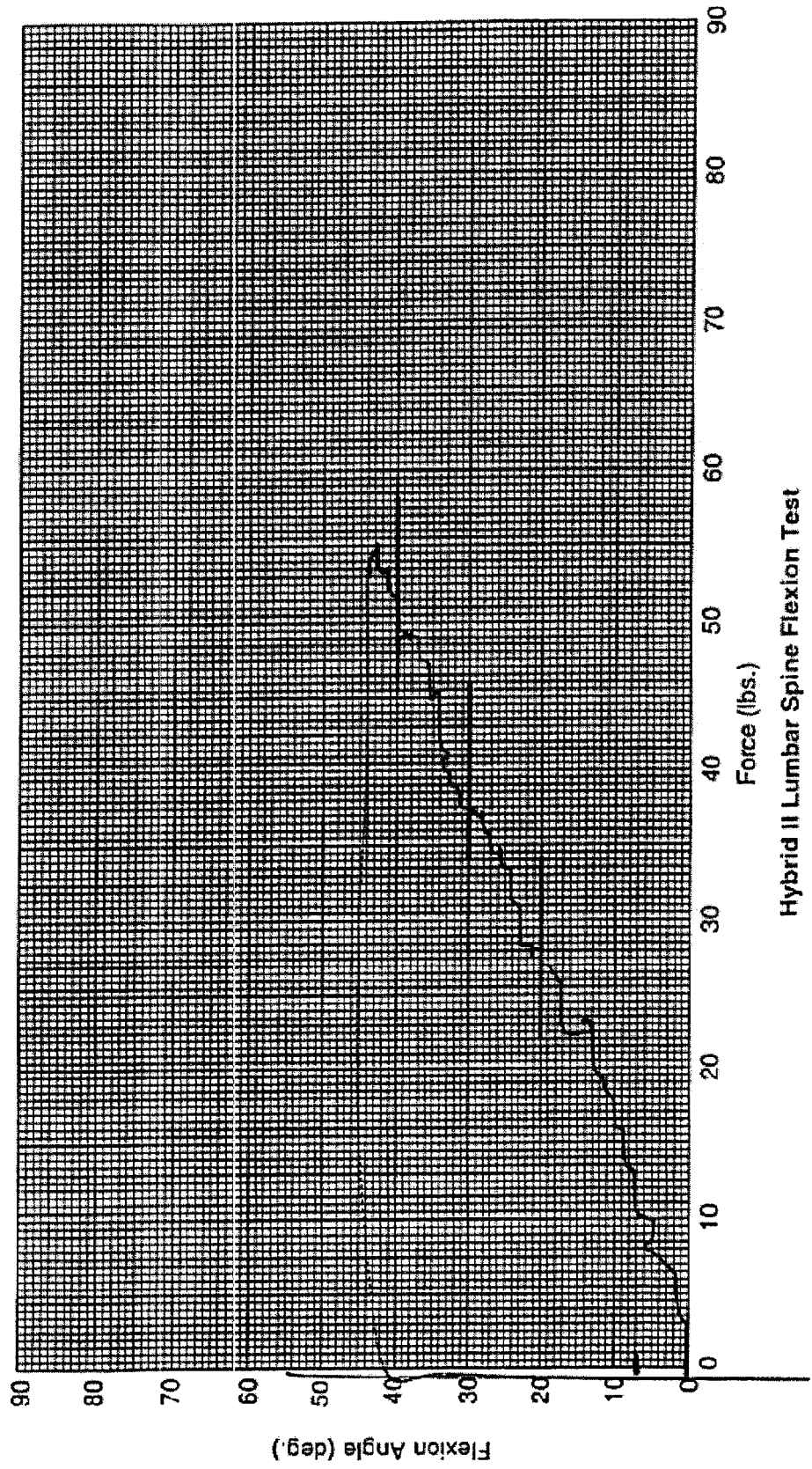
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 1
Date: January 26, 2000 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
FORCE @ 20° (N)	97.8 - 151.2	120.1
FORCE @ 30° (N)	151.2 - 204.6	166.8
FORCE @ 40° (N)	204.6 - 258	220.2
RETURN ANGLE	12° max.	7

REMARKS: None

Dummy S/N 027
W/A _____
Date 1-26-2000
Performed By BD
Temp. 71°
Humidity 31%



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027

Sequential Test Number: 1

Date: January 26, 2000

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.: 268

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 1
Date: January 27, 2000 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.: 268 Sequential Test Number: 1
Date: January 26, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	235
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	376

REMARKS: None

THORACIC SHOCK ABSORBER TESTS**PRE-TEST****CONFIGURED FOR LEFT SIDE IMPACT**SID Serial No.: 268

Sequential Test Number:

1Date: January 21, 2000

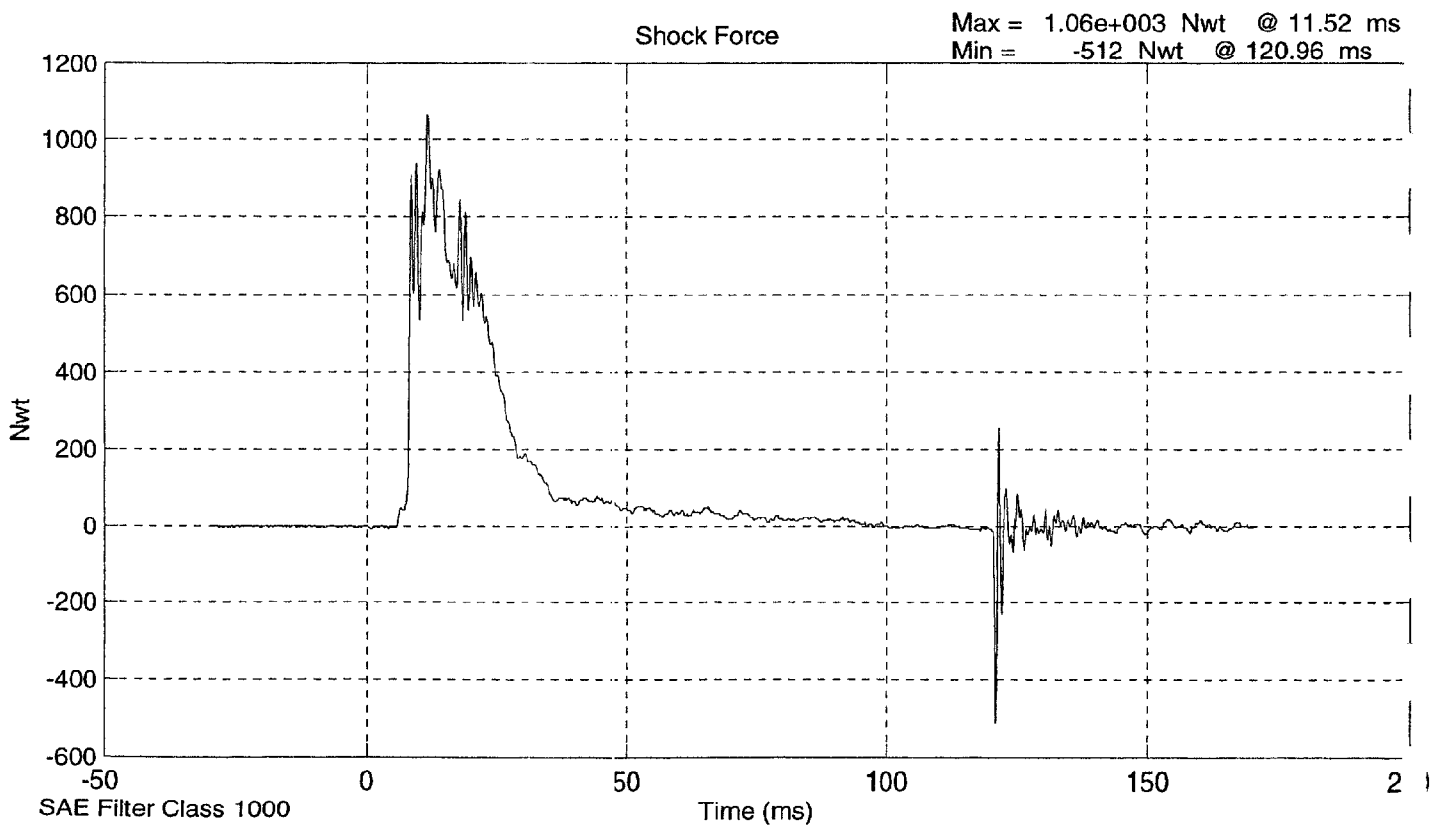
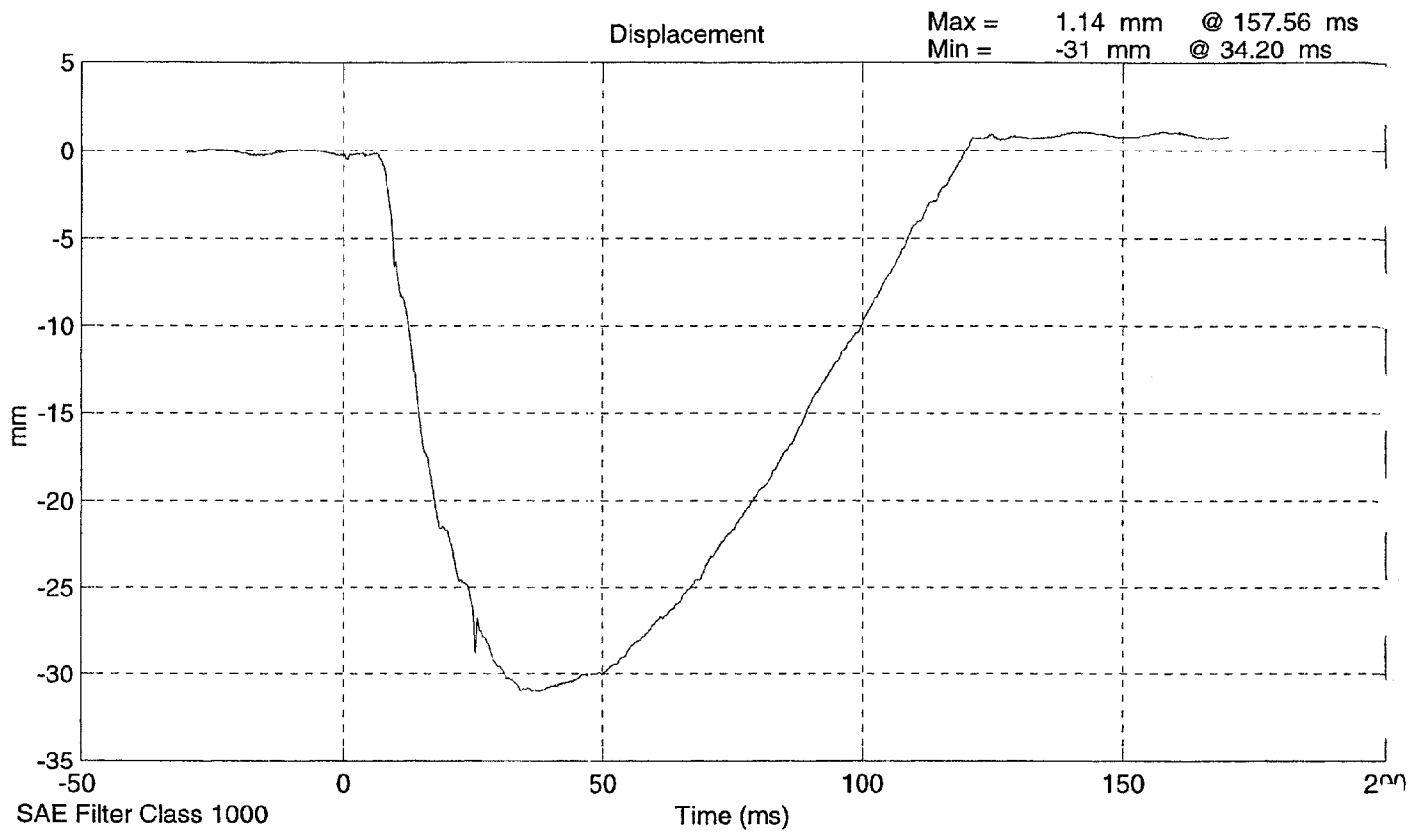
Laboratory Technician:

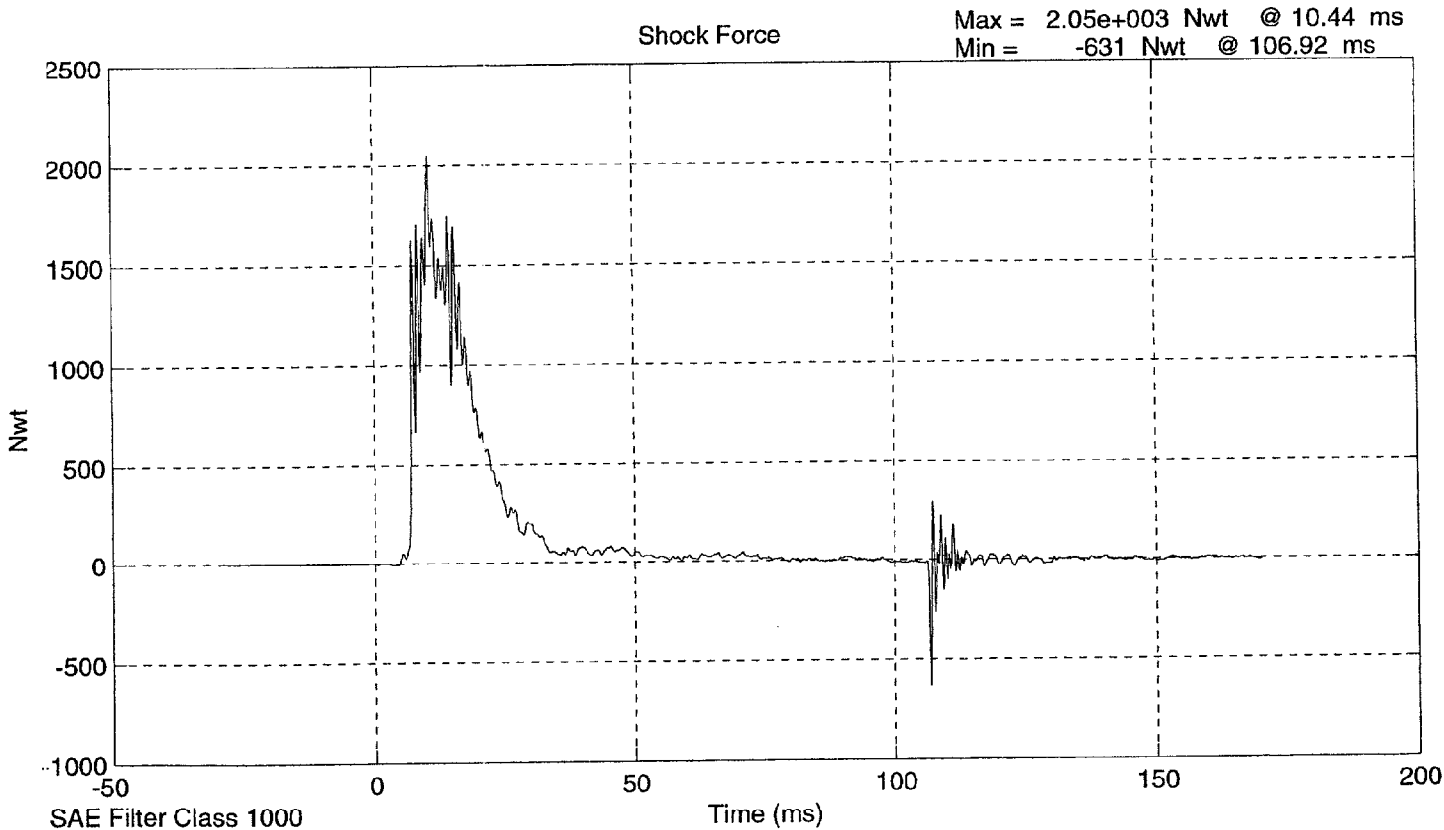
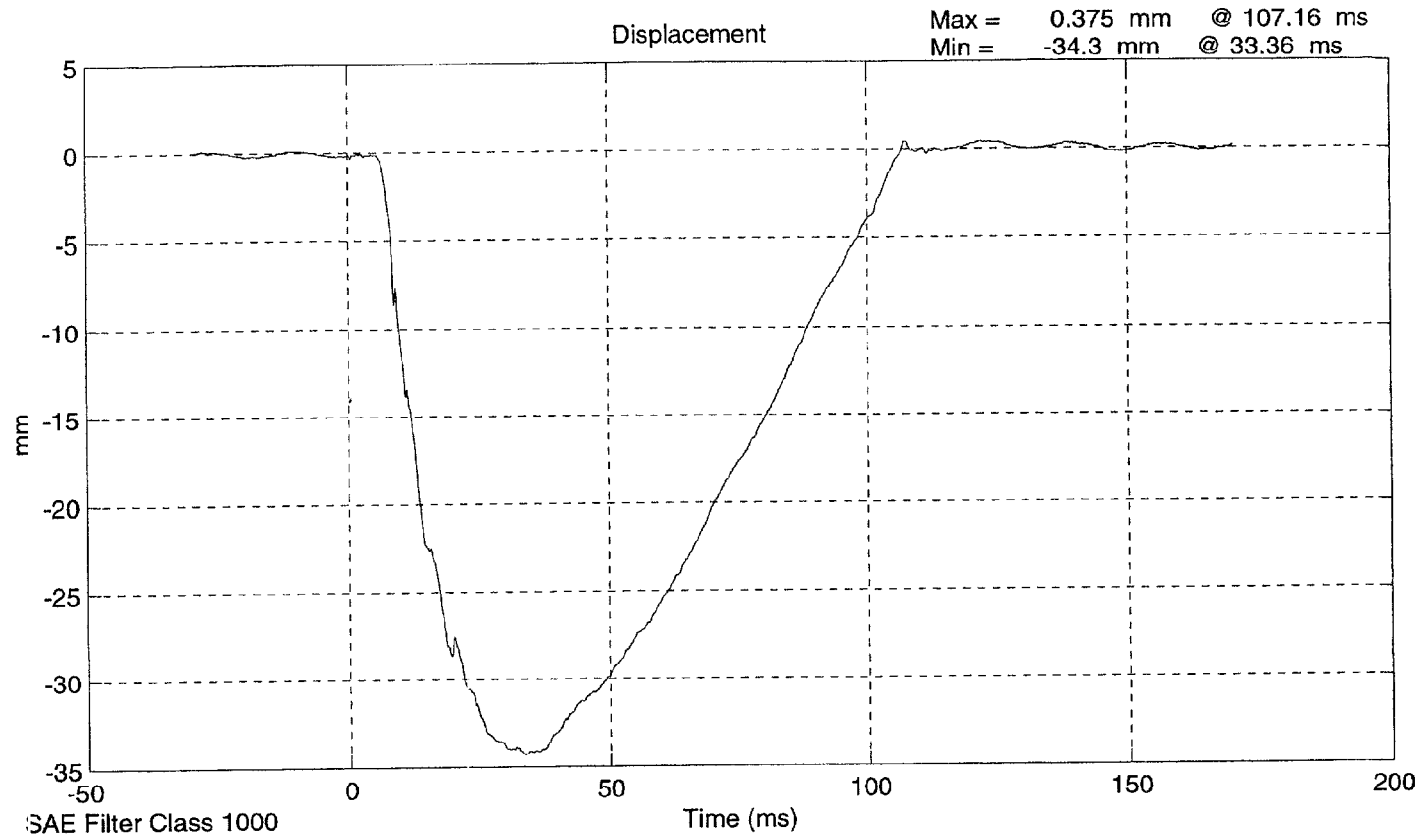
B. SwiecickiDAMPER IDENTIFICATION: 268

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)		10 - 70	30
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	1063.0
	DISPLACEMENT (mm)	30 - 35	31.0
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	2047.1
	DISPLACEMENT (mm)	32 - 37	34.3
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	3898.8
	DISPLACEMENT (mm)	33 - 40	37.2

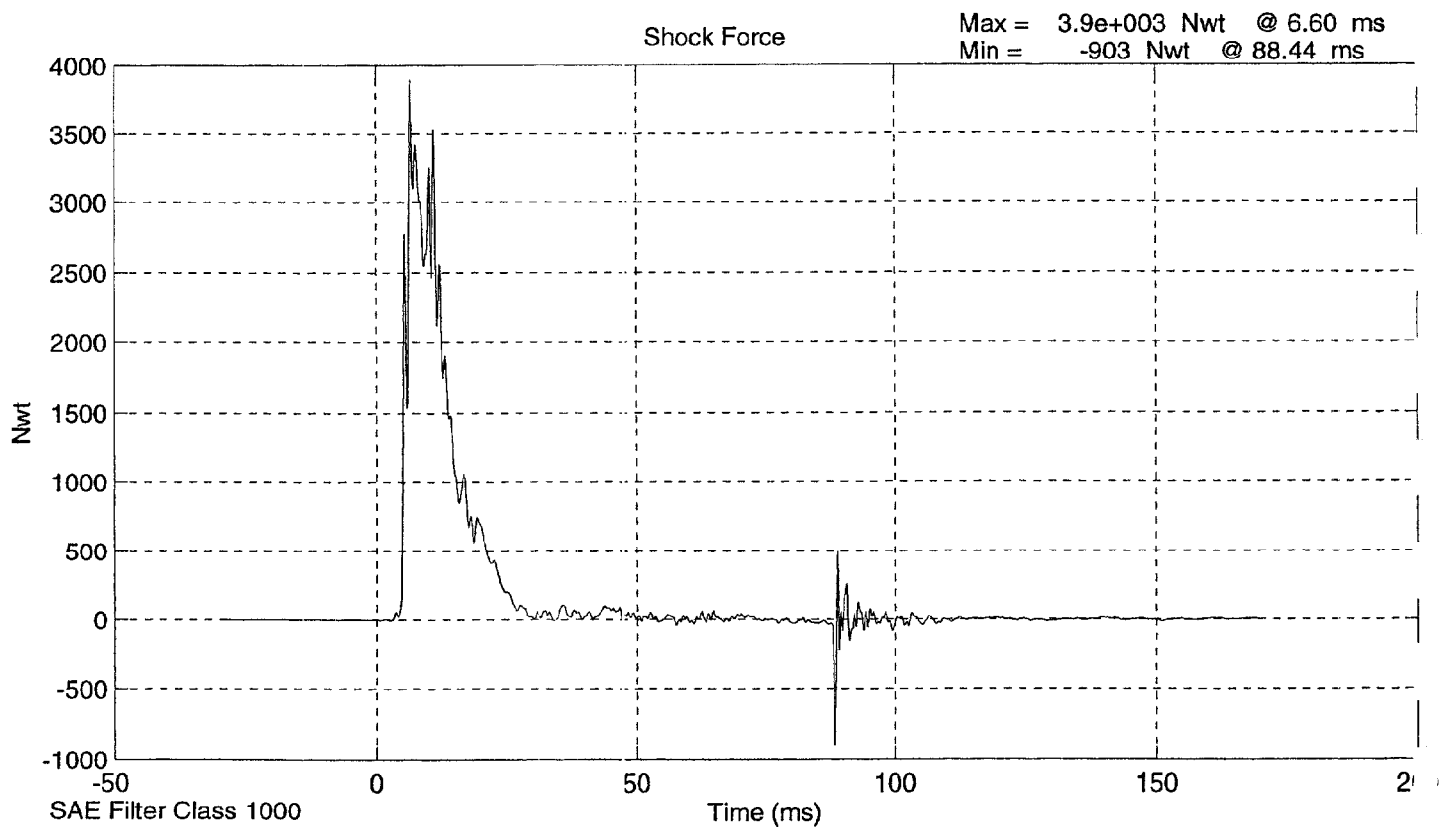
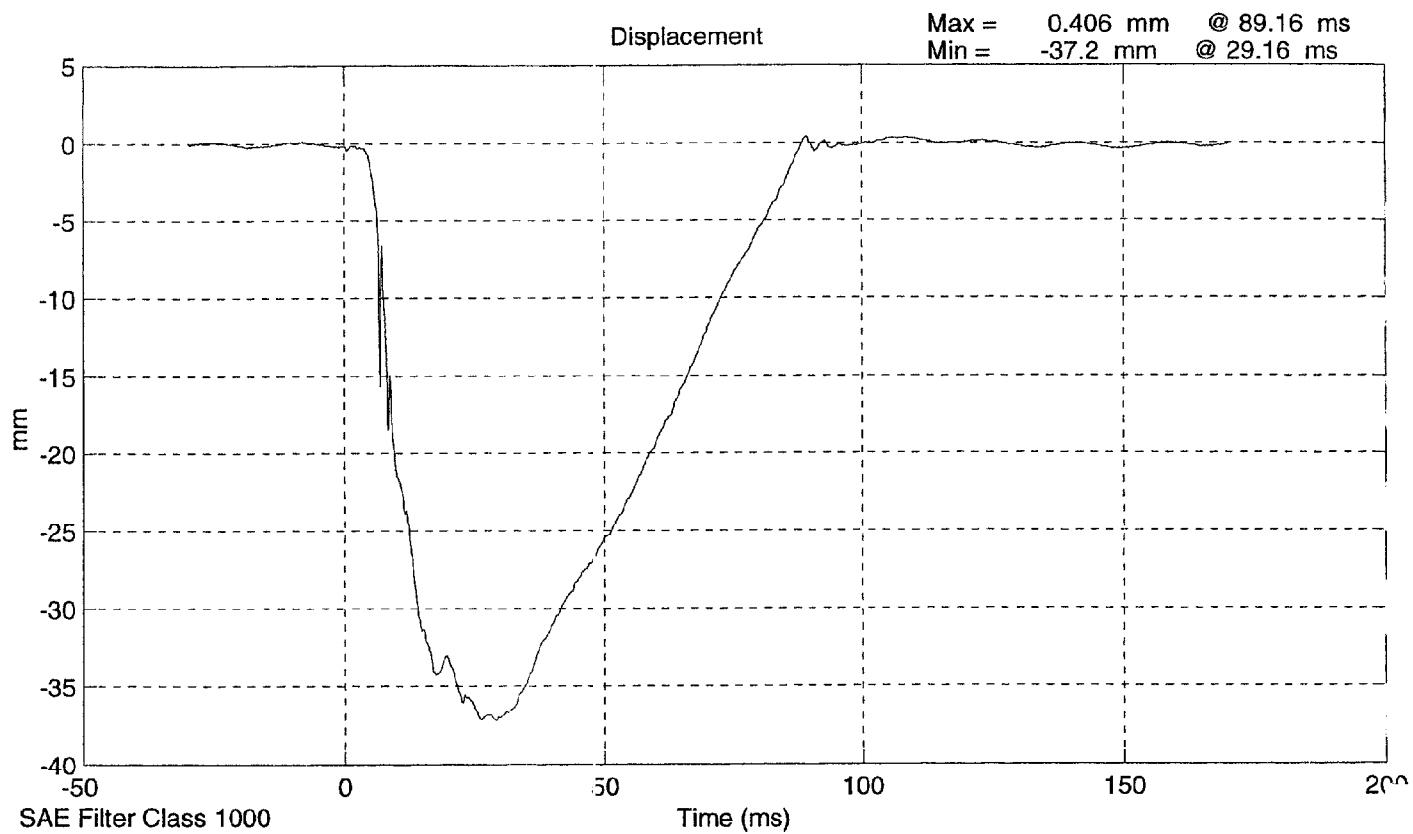
DAMPER SETTING: 5**REMARKS:** None

SID 268 Shock Absorber Impact Test @ 3.048 m/s





SID 268 Shock Absorber Impact Test @ 6.096 m/s



**LATERAL THORAX IMPACT TEST
PRE-TEST**

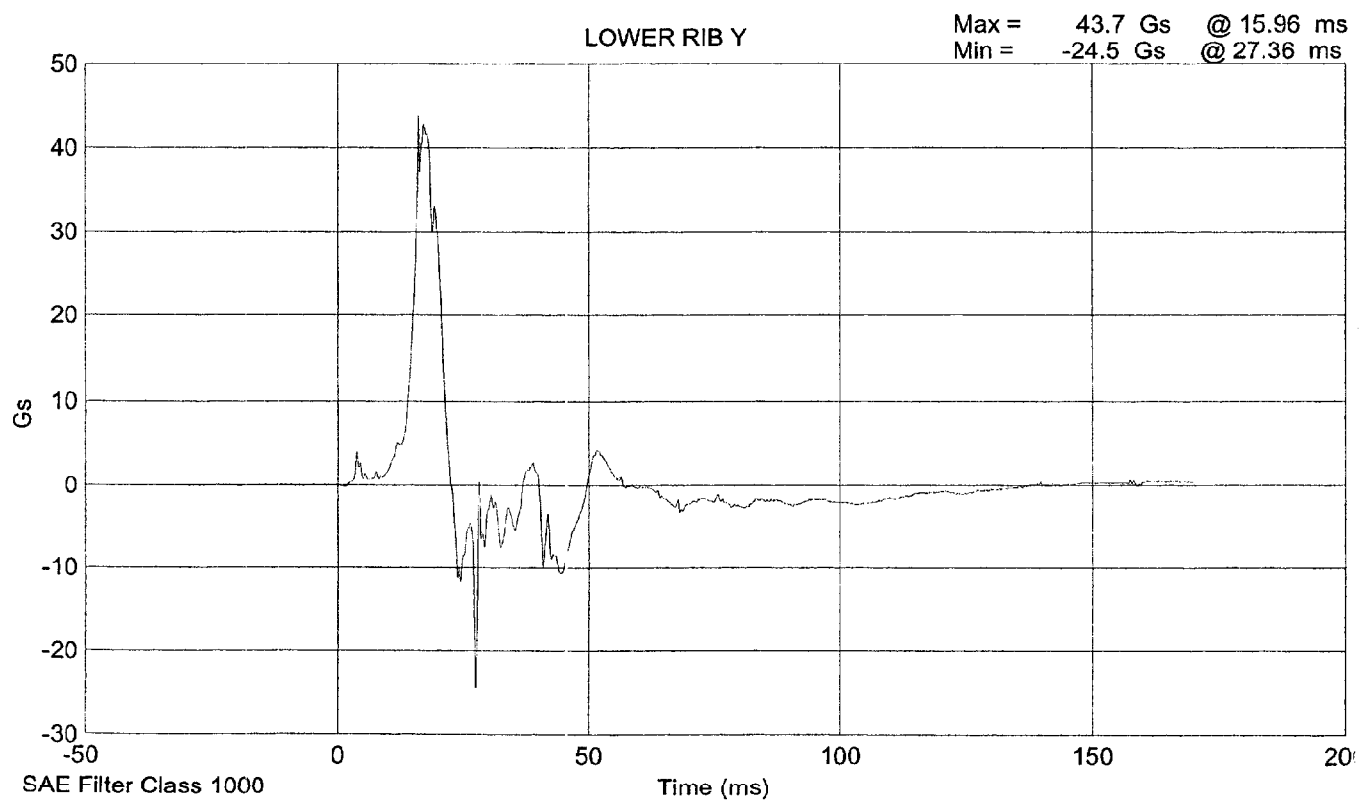
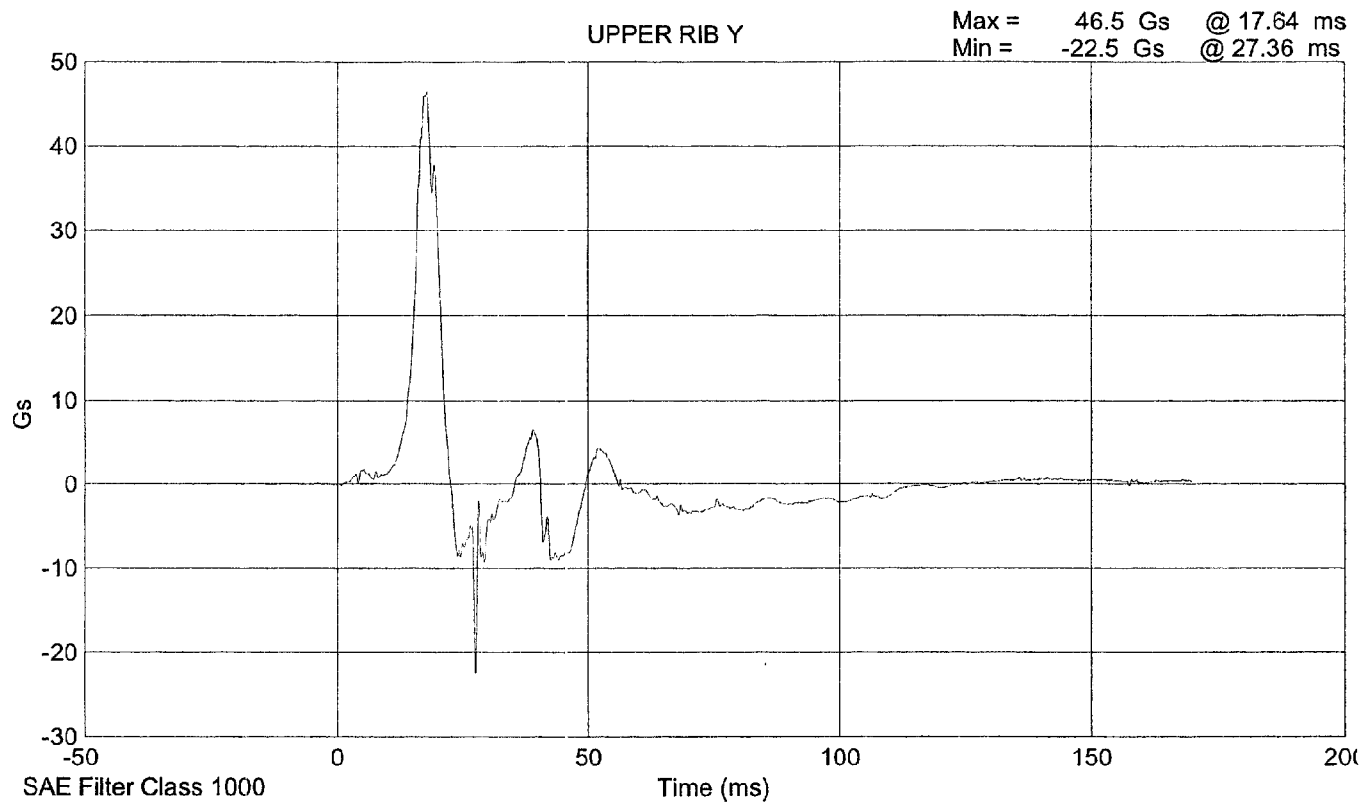
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 1
Date: January 27, 2000 Laboratory Technician: B. Swiecicki

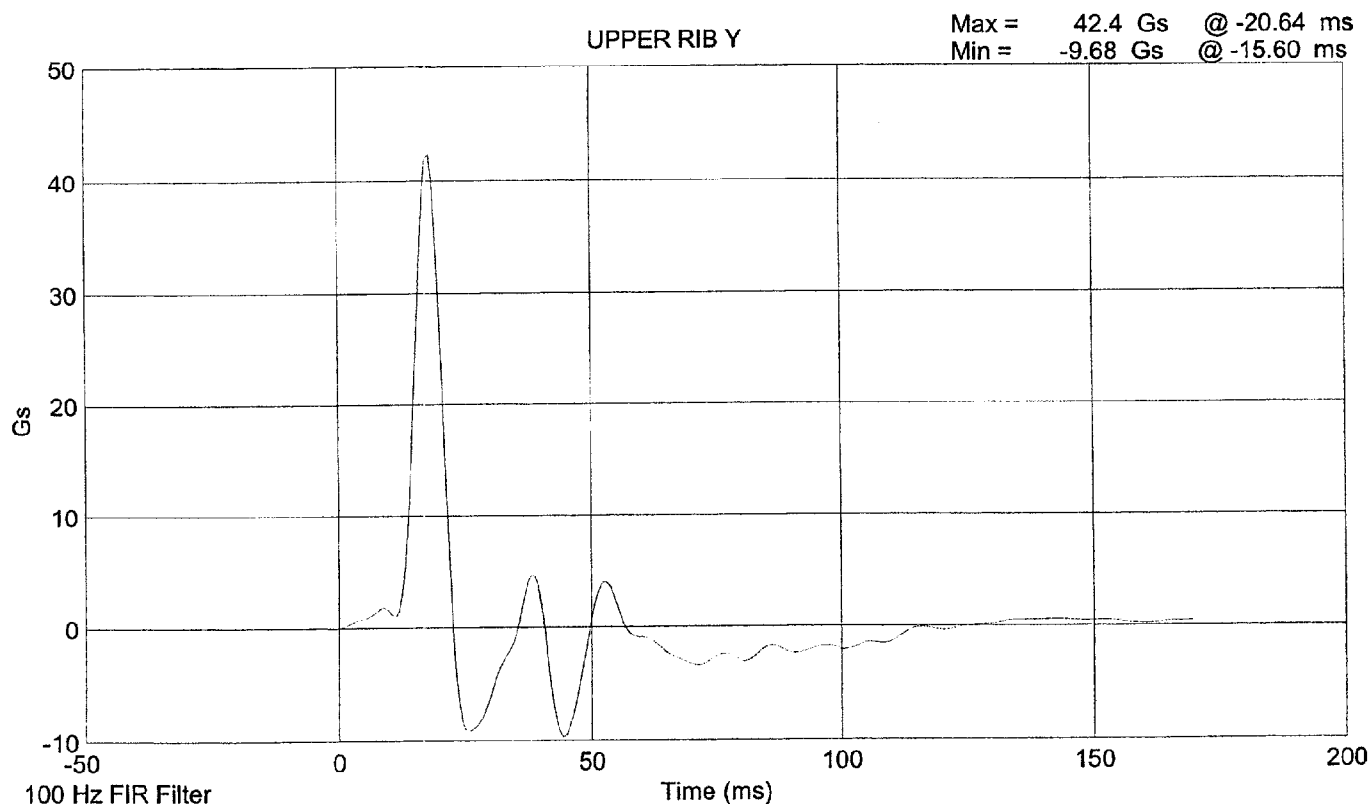
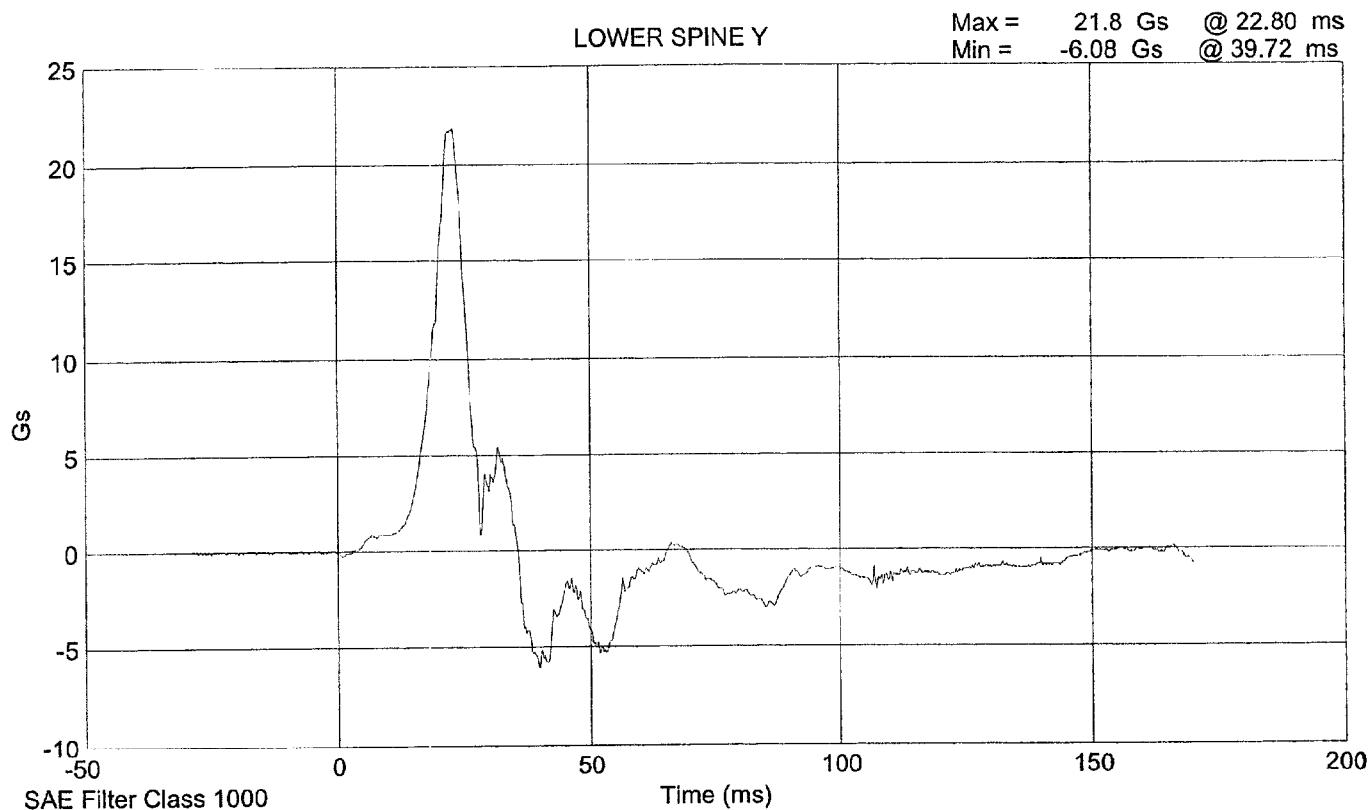
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.27
UPPER RIB (g's)	37 - 46	42.4
LOWER RIB (g's)	37 - 46	40.3
LOWER SPINE (g's)	15 - 22	21.2

REMARKS: None

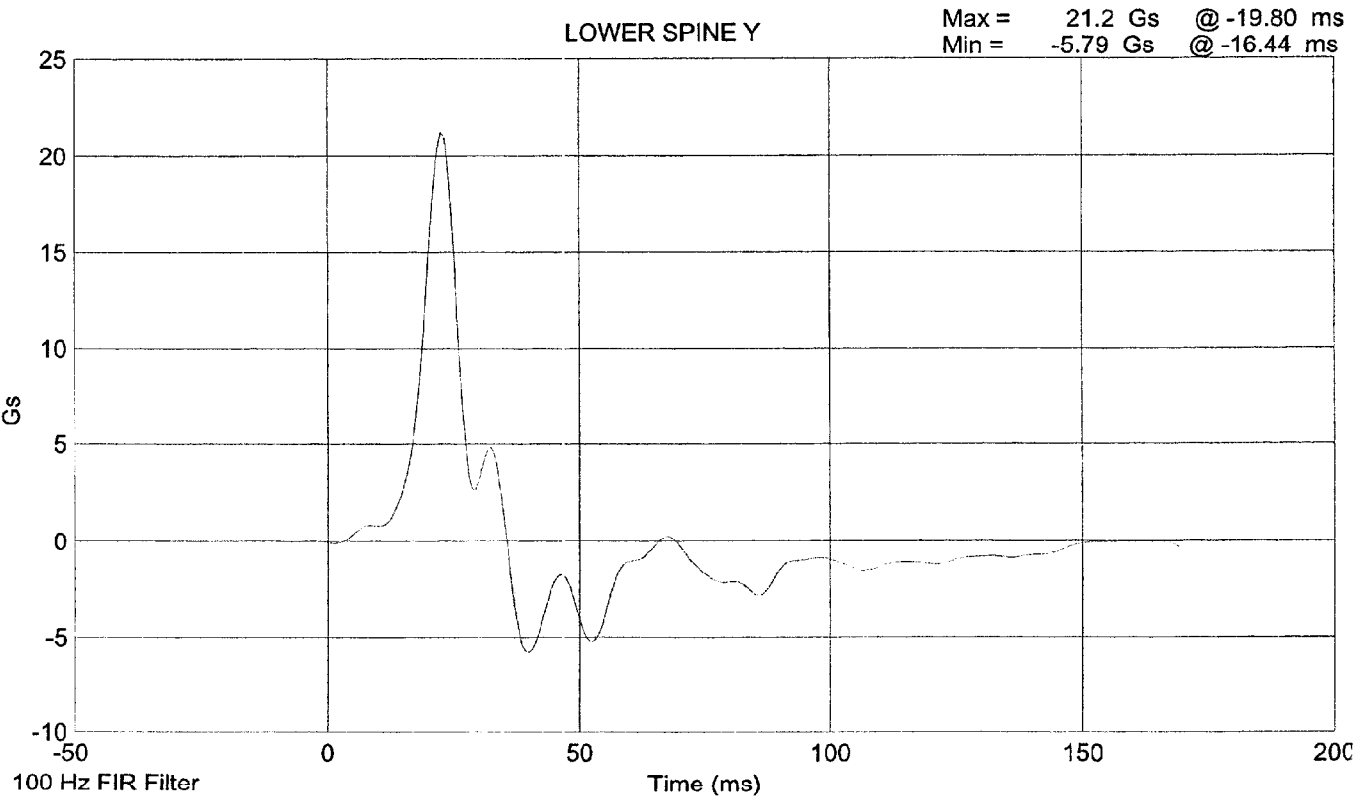
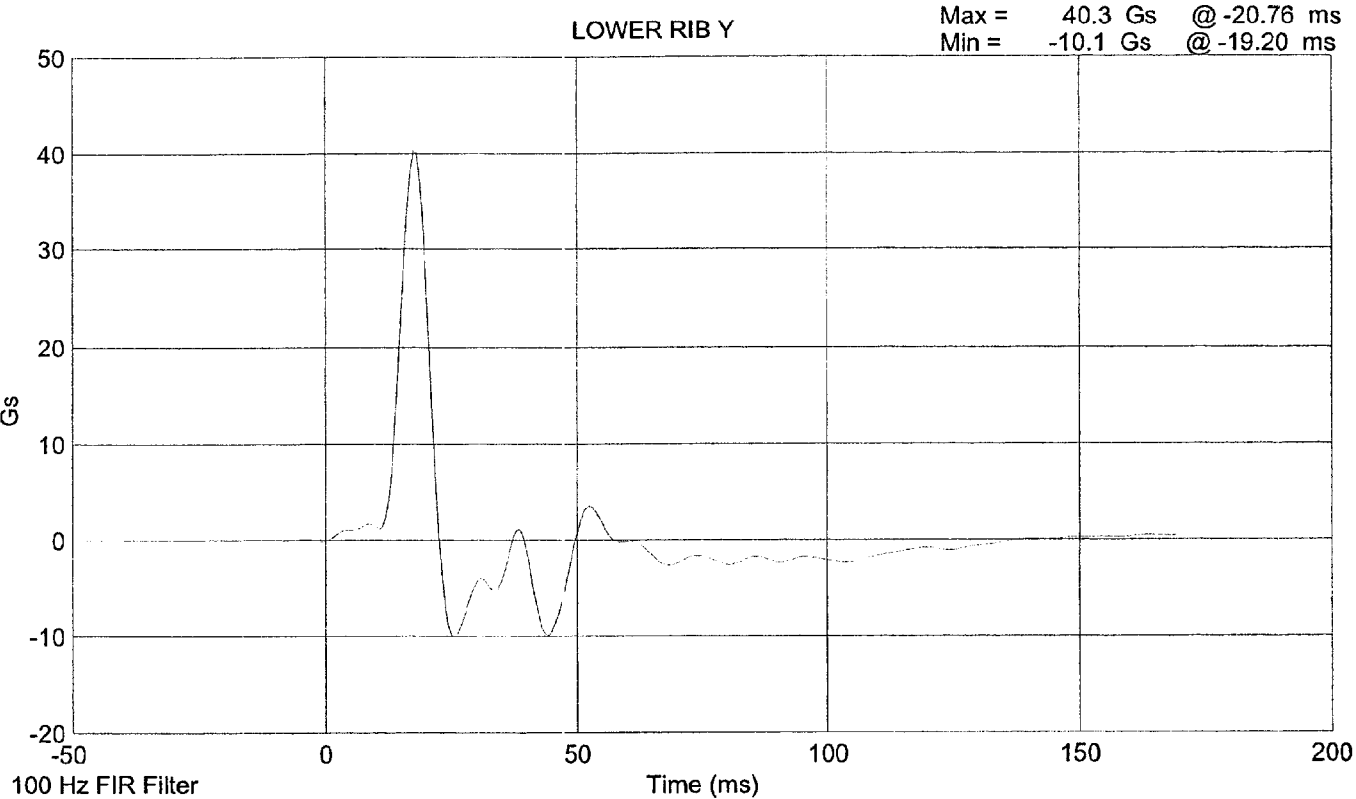
SID 268 Thorax Impact Test @ 4.2733 m/s



SID 268 Thorax Impact Test @ 4.2733 m/s



SID 268 Thorax Impact Test @ 4.2733 m/s



**LATERAL PELVIS IMPACT TEST
PRE-TEST**

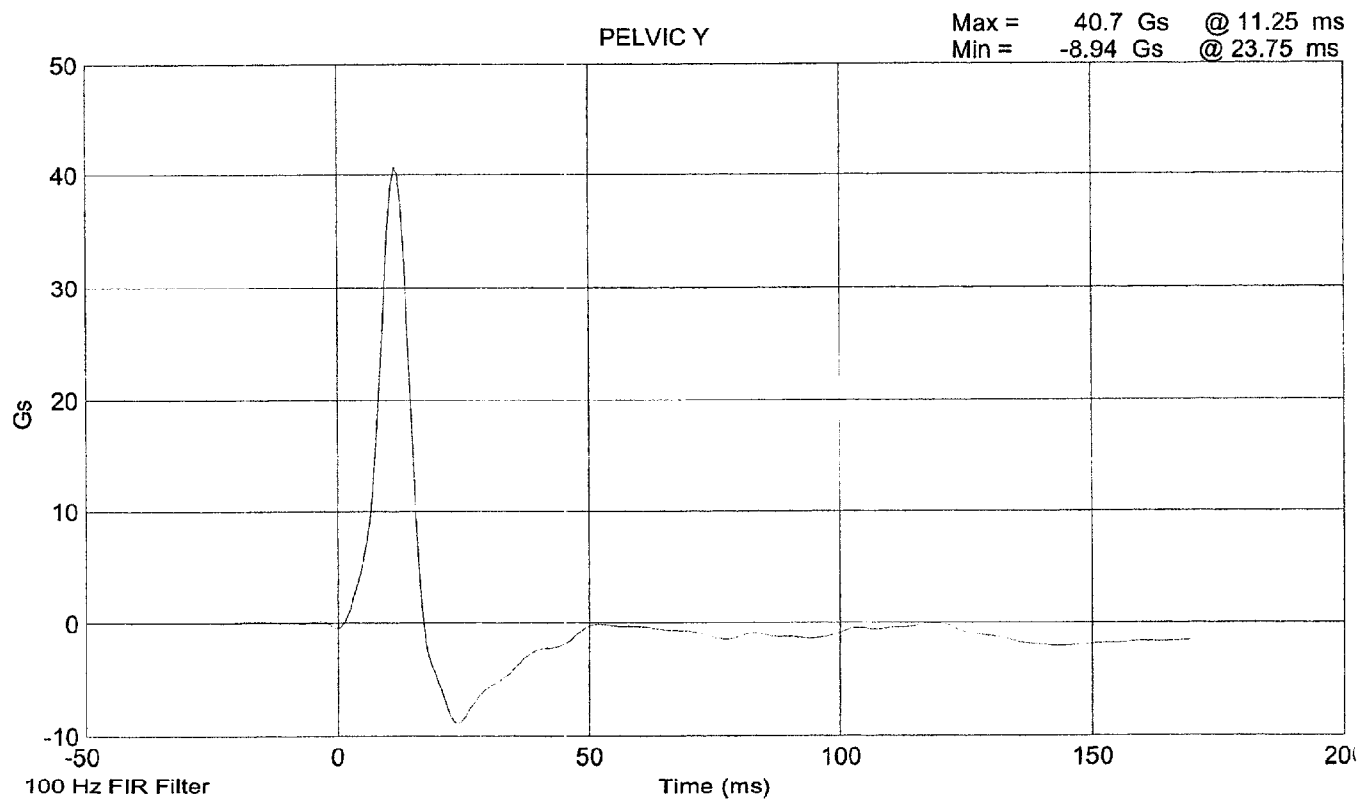
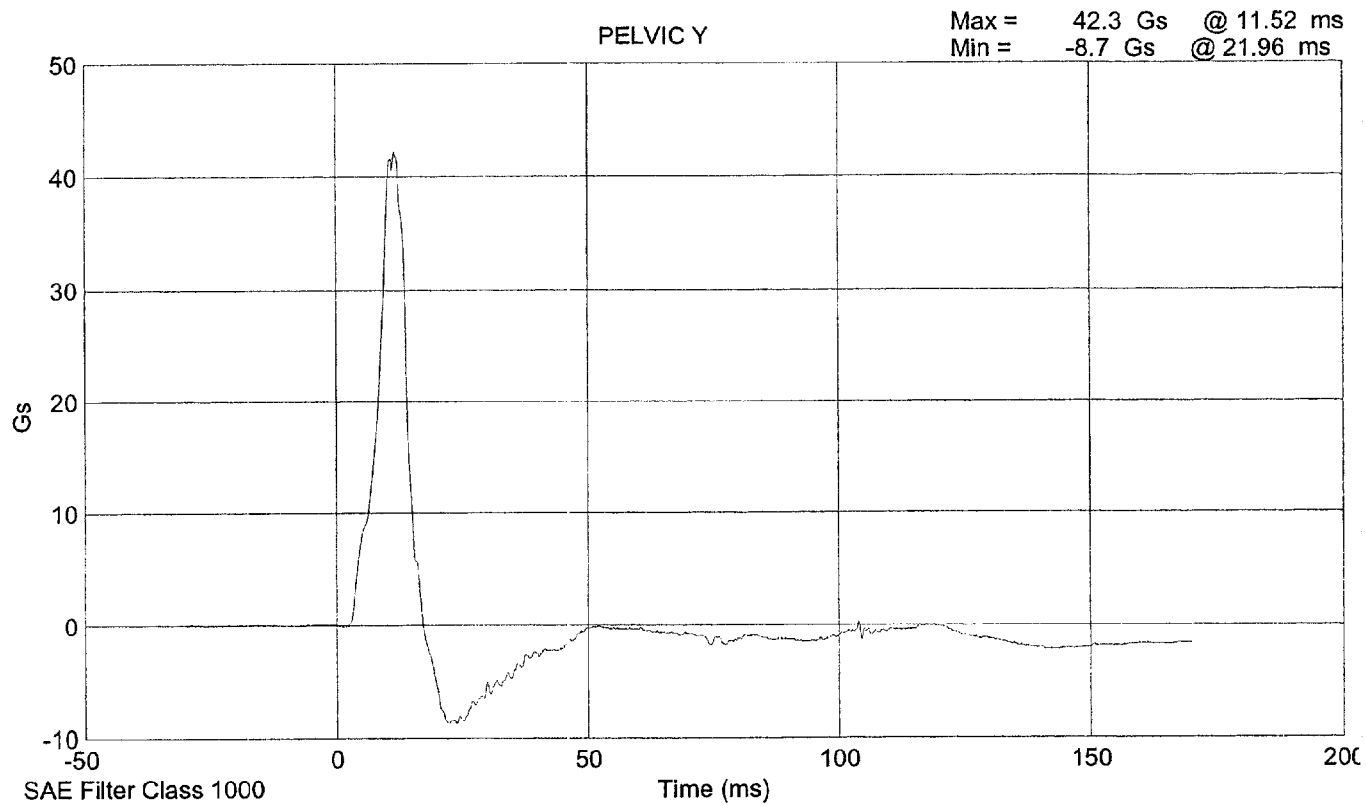
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 1
Date: January 27, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.31
PELVIS ACCELERATION (g's)	40 - 60	40.7

REMARKS: None

SID 268 Pelvic Impact Test @ 4.3129 m/s



HEAD DROP TEST**PRE-TEST**

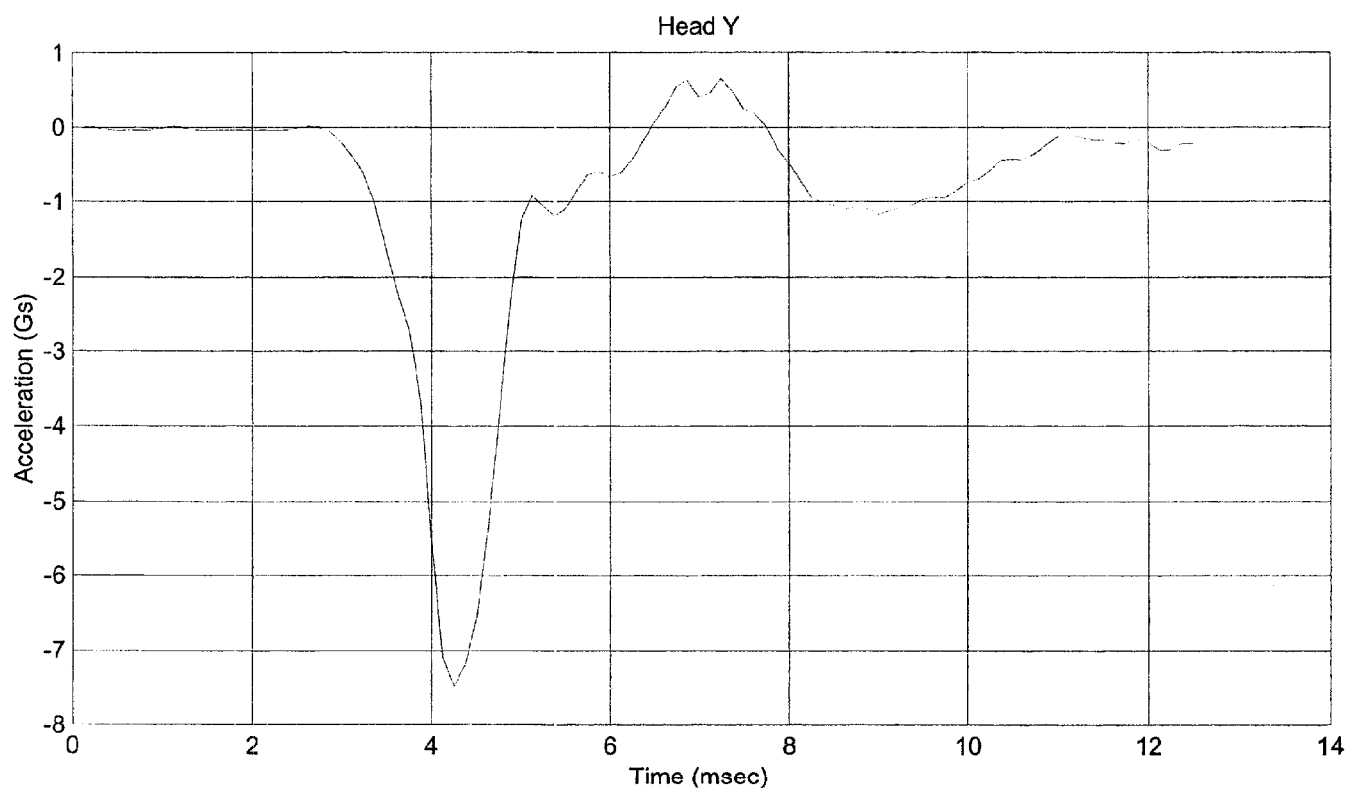
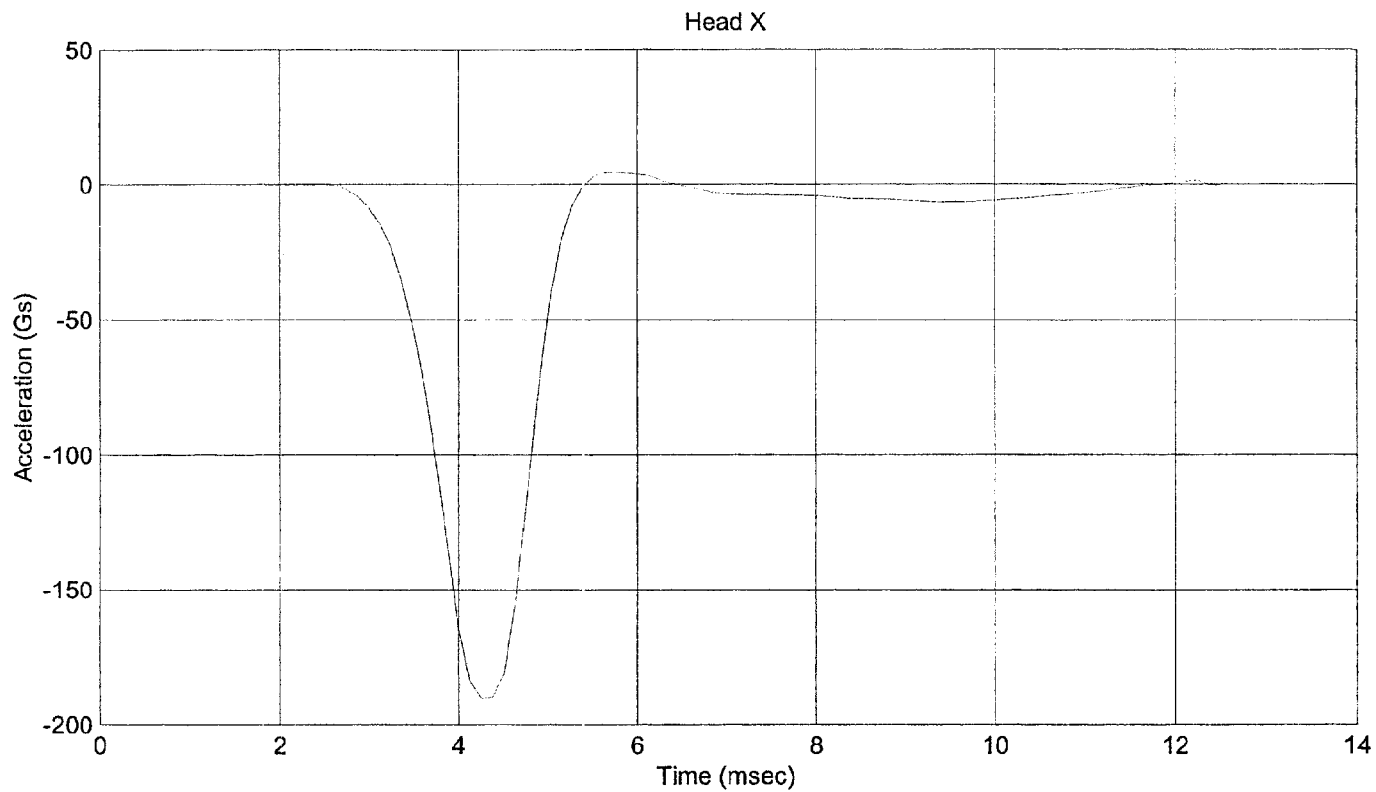
(Test not required for SID certification)

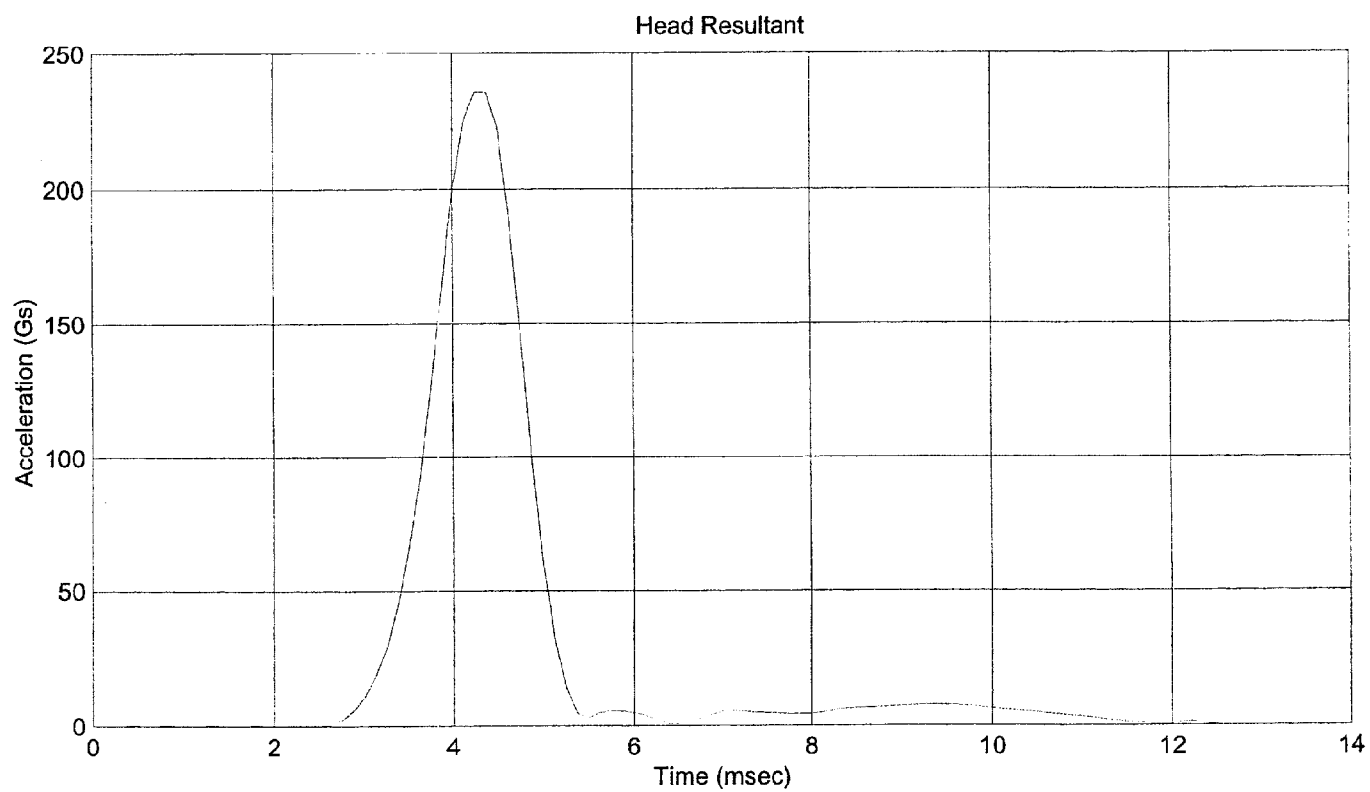
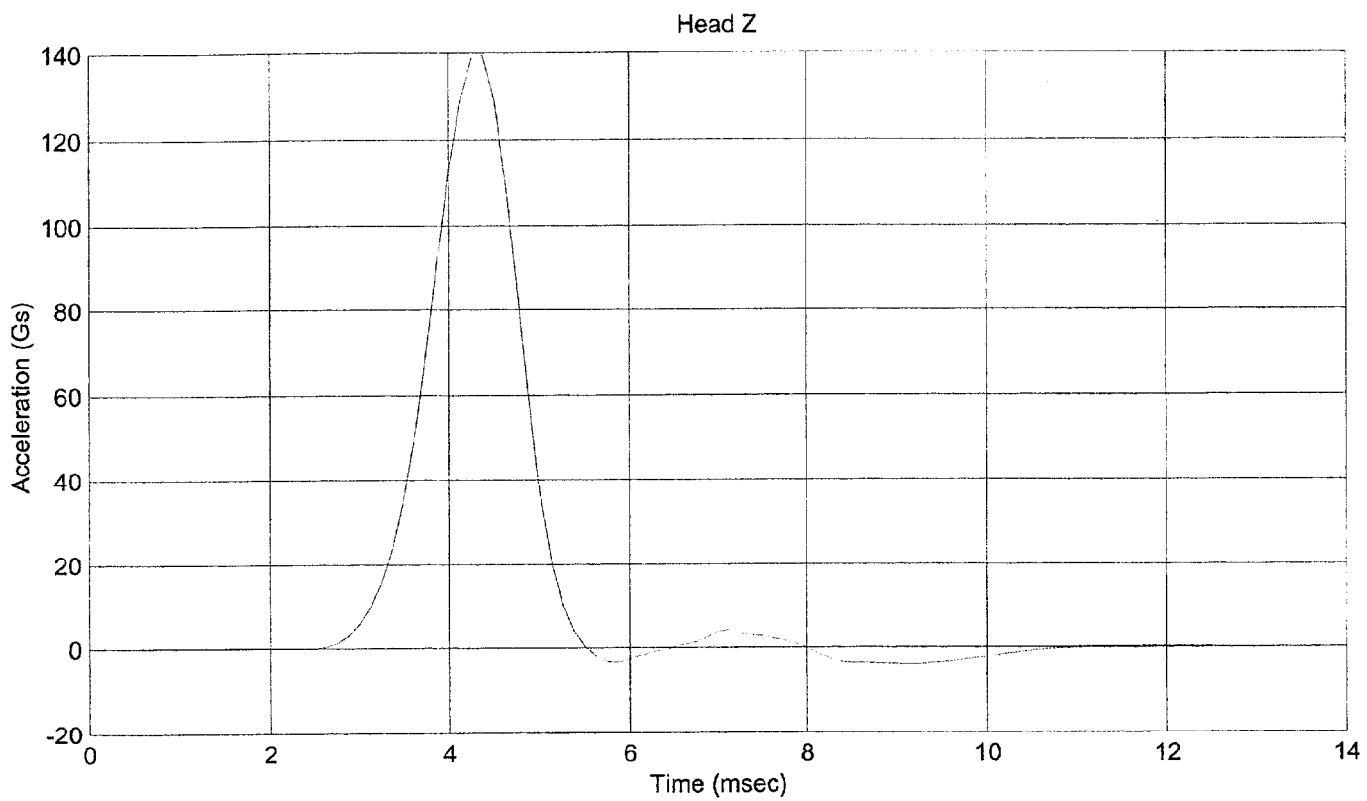
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 1
Date: January 25, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	235.64
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	7.49
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.: 268 Sequential Test Number: 1
Date: January 26, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 13 mm (N)	104 - 162	124.6
FORCE @ 19 mm (N)	163 - 221	182.4
FORCE @ 25 mm (N)	222 - 280	253.5
FORCE @ 33 mm (N)	325 - 391	362.5

REMARKS: None

Dummy S/N 268

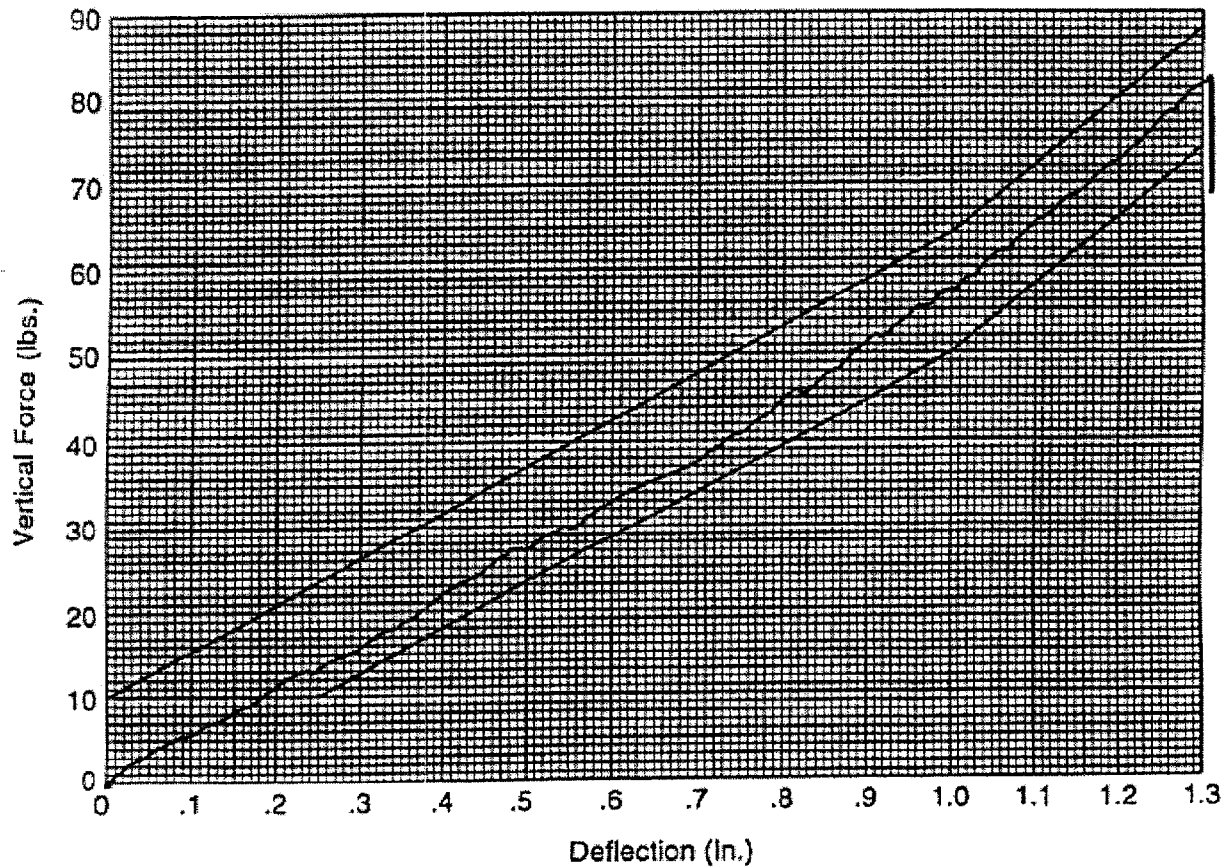
W/A _____

Date 1-26-2000

Performed By [Signature]

Temp. 70°

Humidity 31%



Hybrid II
Abdomen Static Press

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

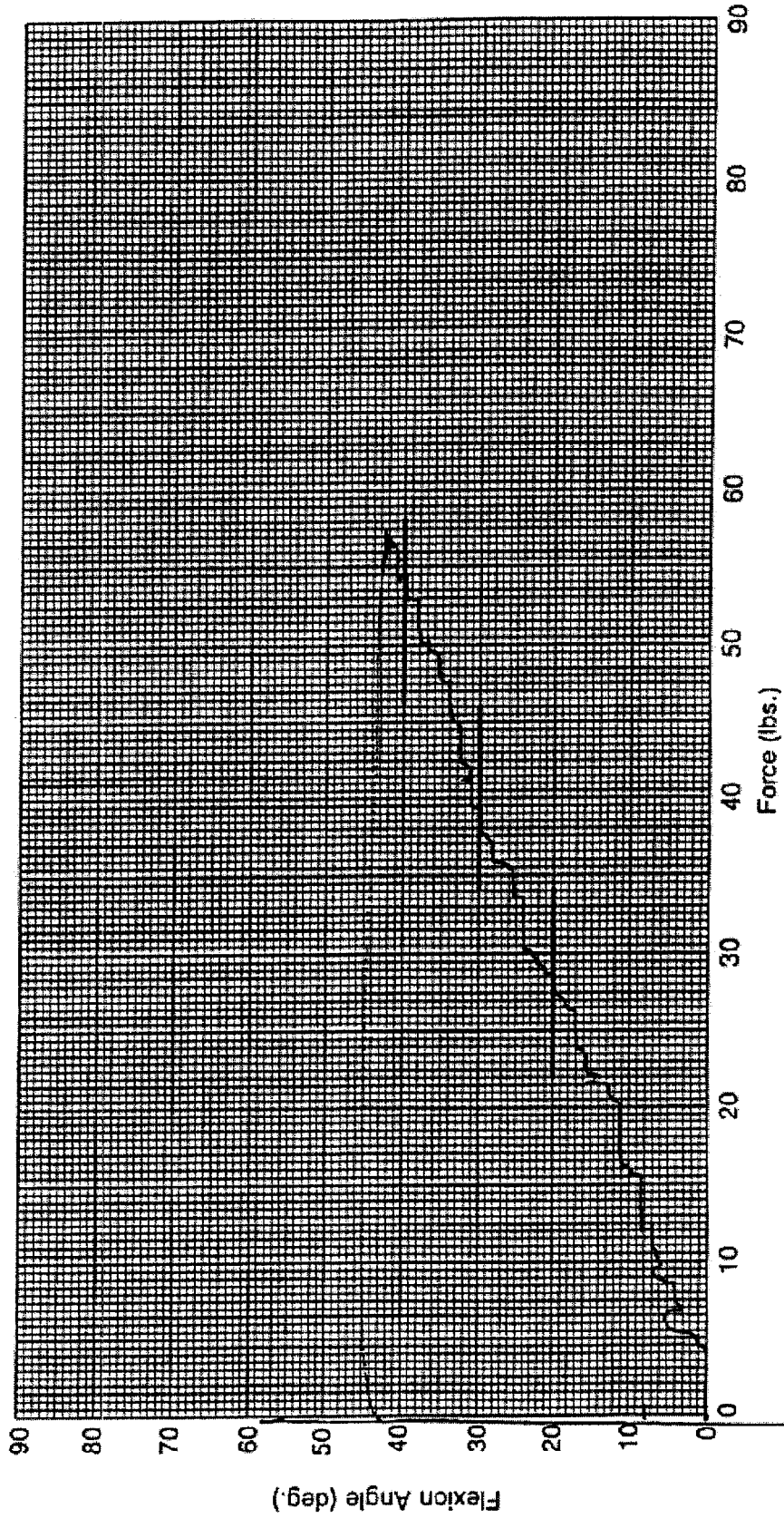
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 1
Date: January 26, 2000 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
FORCE @ 20° (N)	97.8 - 151.2	122.3
FORCE @ 30° (N)	151.2 - 204.6	166.8
FORCE @ 40° (N)	204.6 - 258	235.8
RETURN ANGLE	12° max.	8

REMARKS: None

Dummy S/N 268
W/A _____
Date 1-26-2000
Performed By BS
Temp. 71°
Humidity 31%



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 1
Date: January 27, 2000 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.: 027

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 2
Date: February 9, 2000 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.: 027 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	907
RH- Rib Height (mm)	502 - 520	518
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	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	368

REMARKS: None

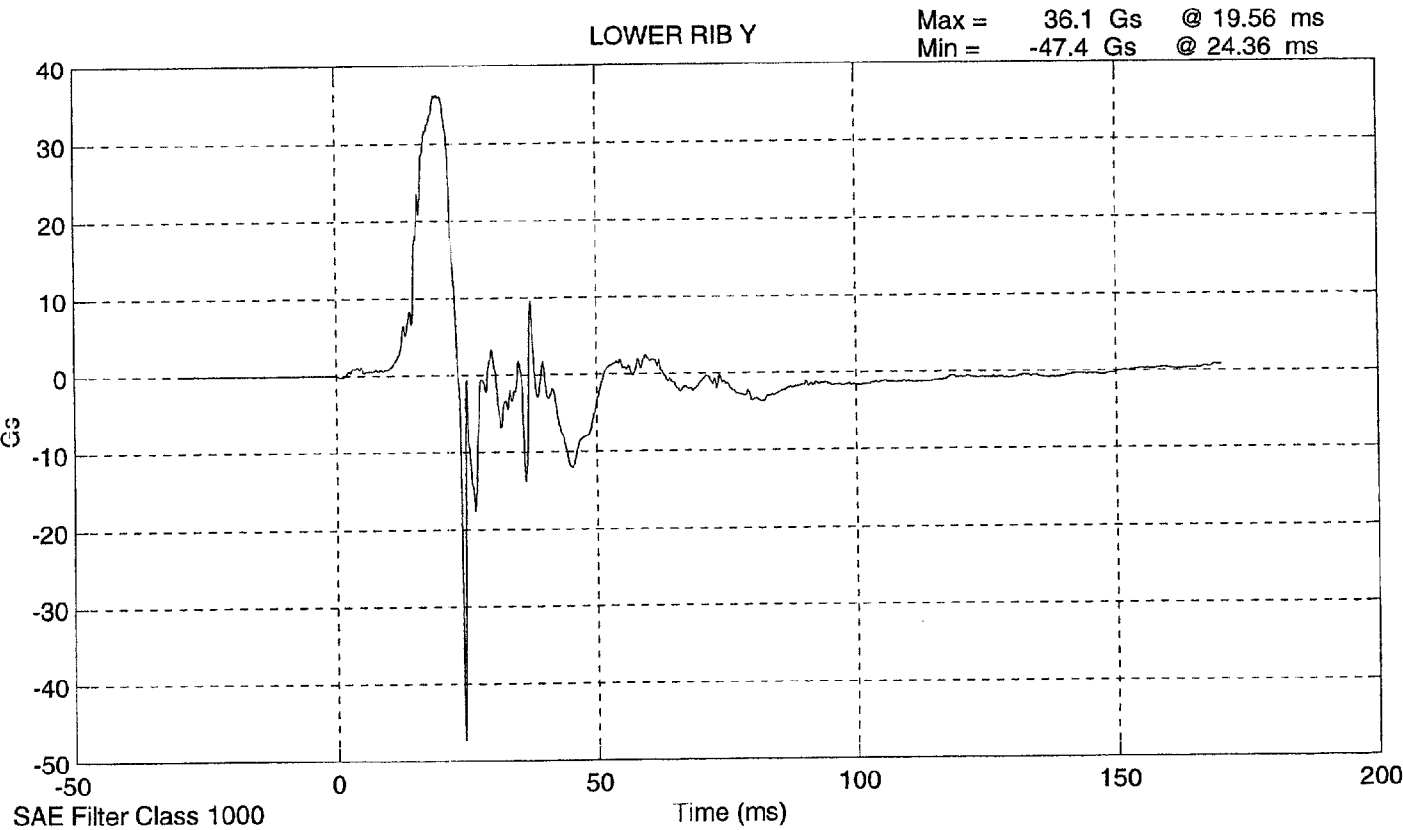
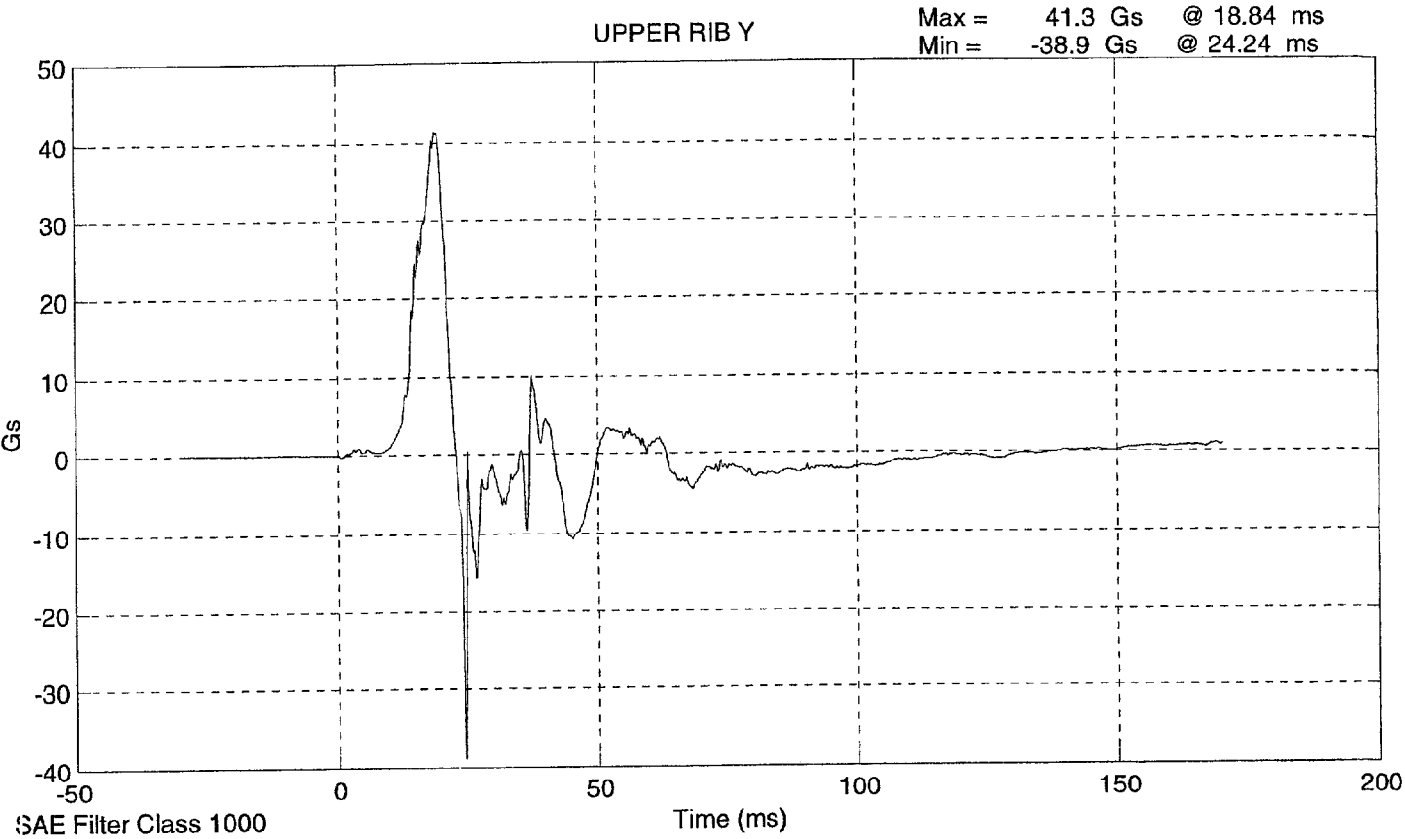
**LATERAL THORAX IMPACT TEST
POST TEST**

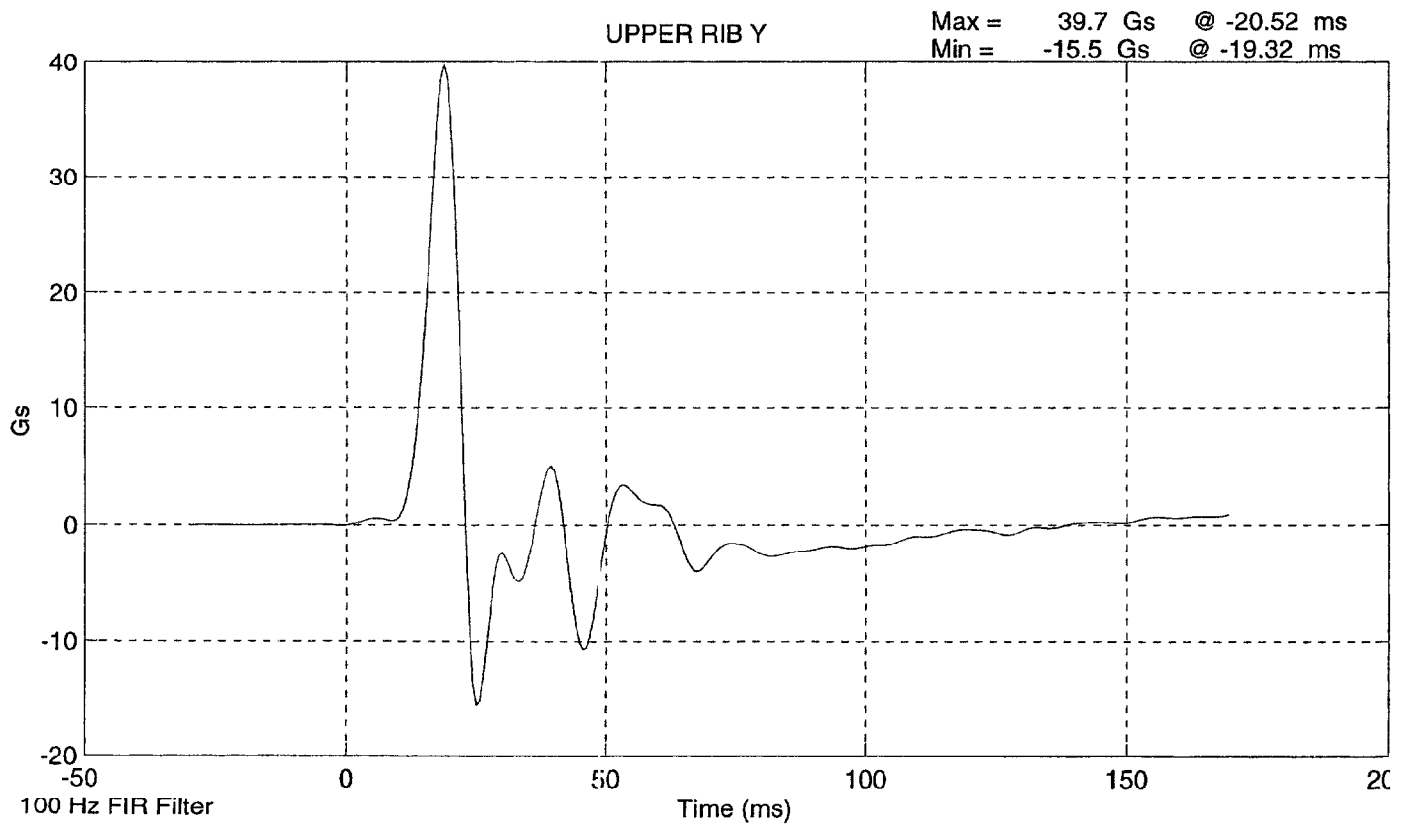
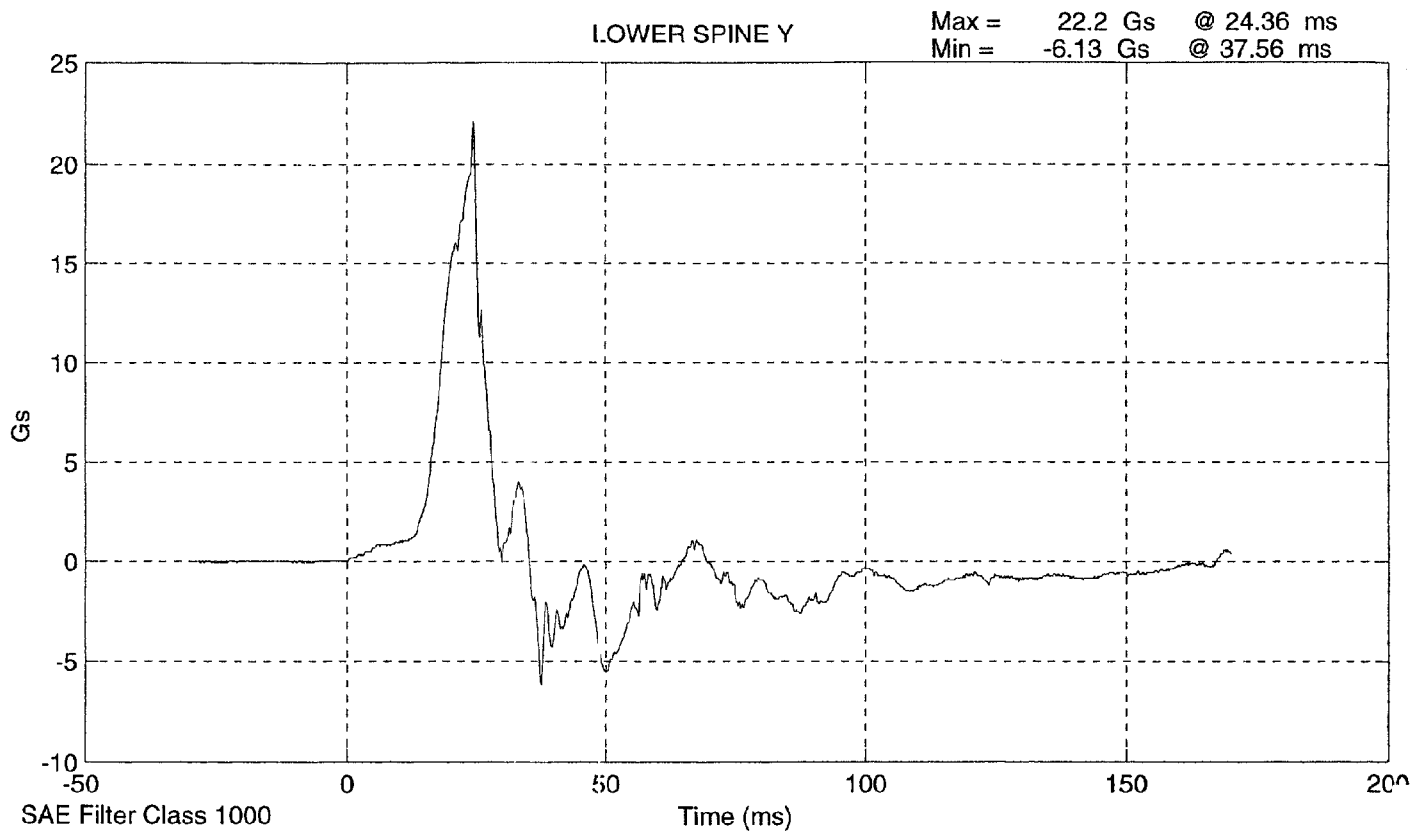
CONFIGURED FOR LEFT SIDE IMPACT

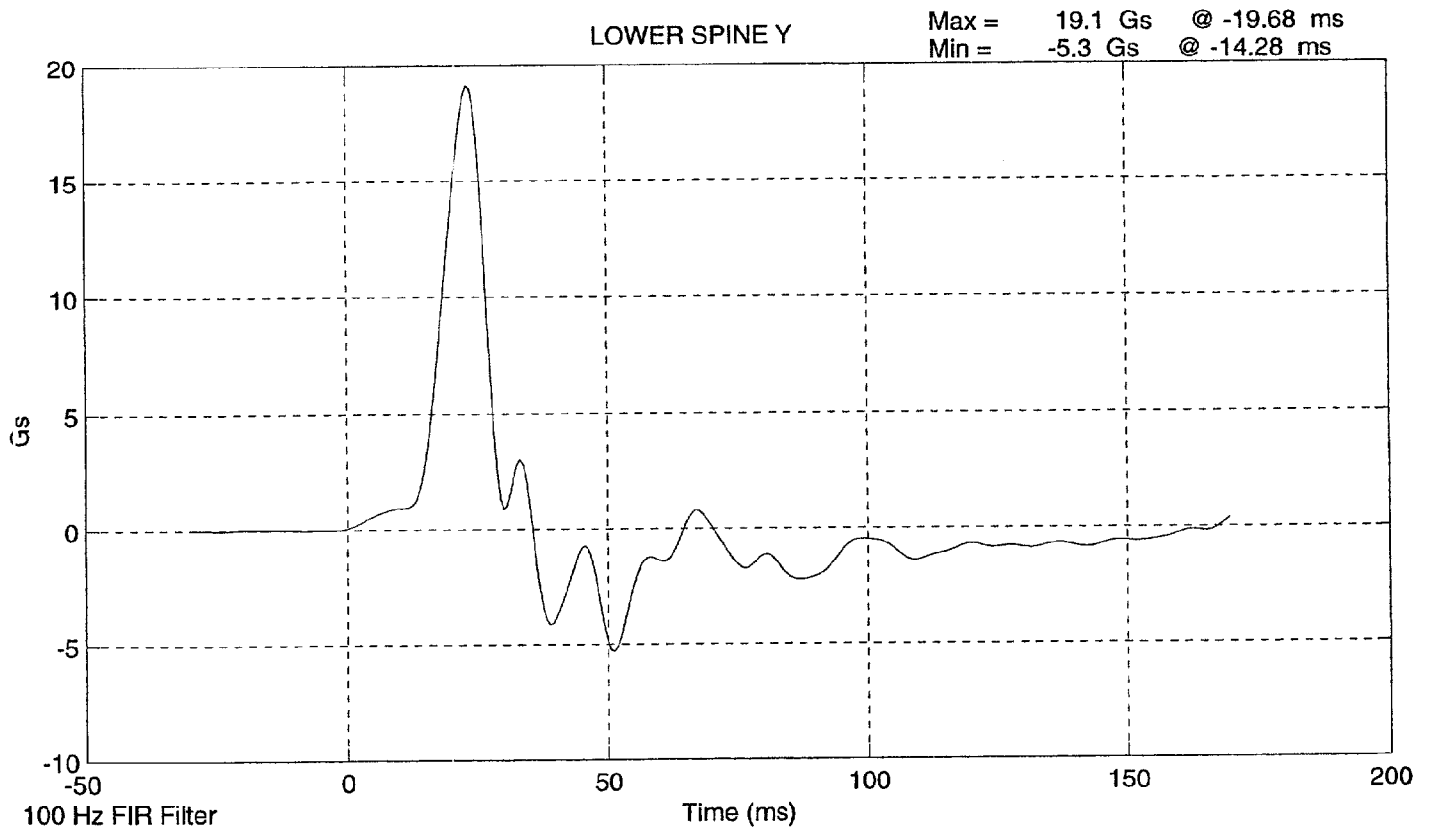
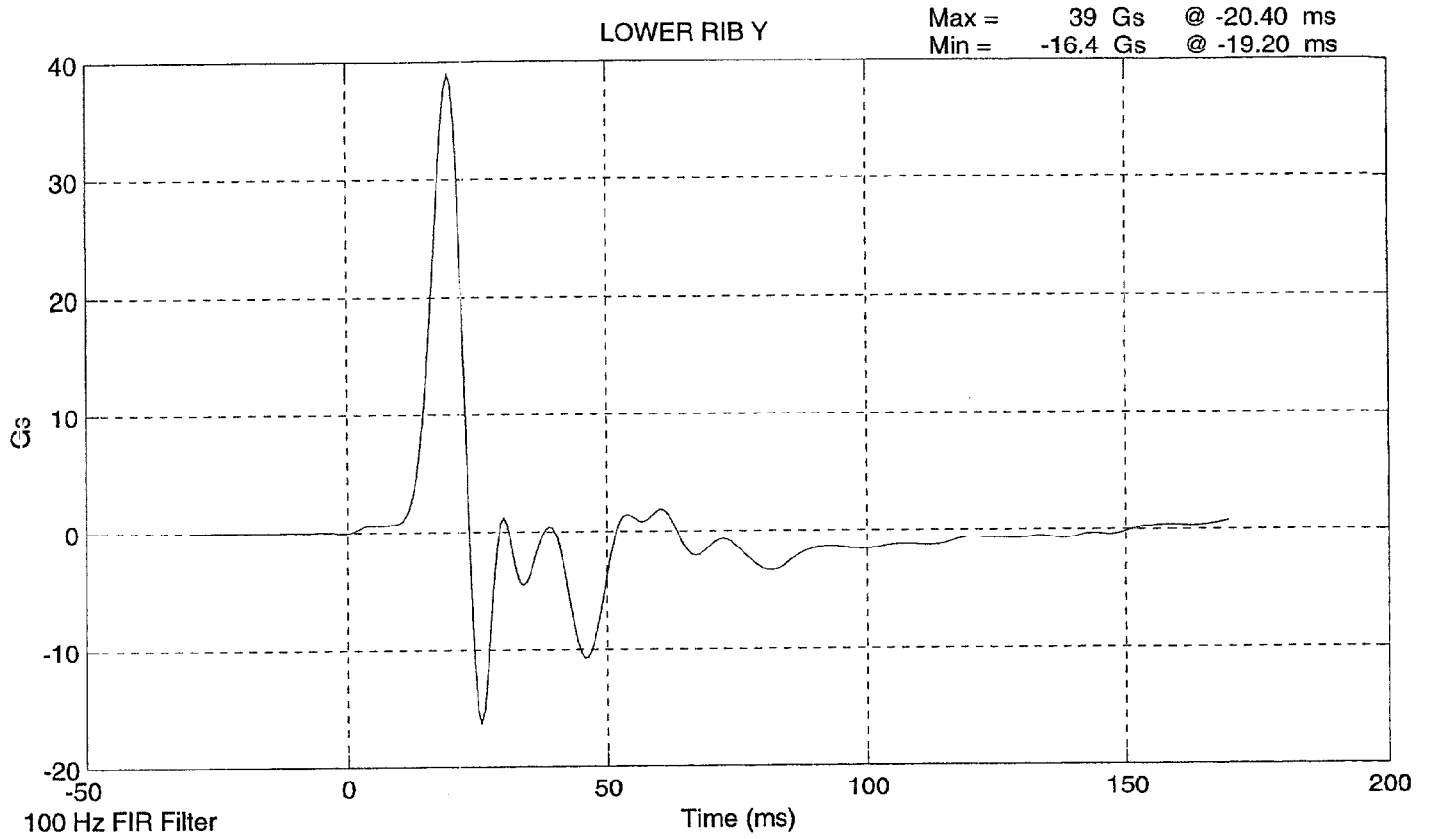
SID Serial No.: 027 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.31
UPPER RIB (g's)	37 - 46	39.7
LOWER RIB (g's)	37 - 46	39.0
LOWER SPINE (g's)	15 - 22	19.1

REMARKS: None







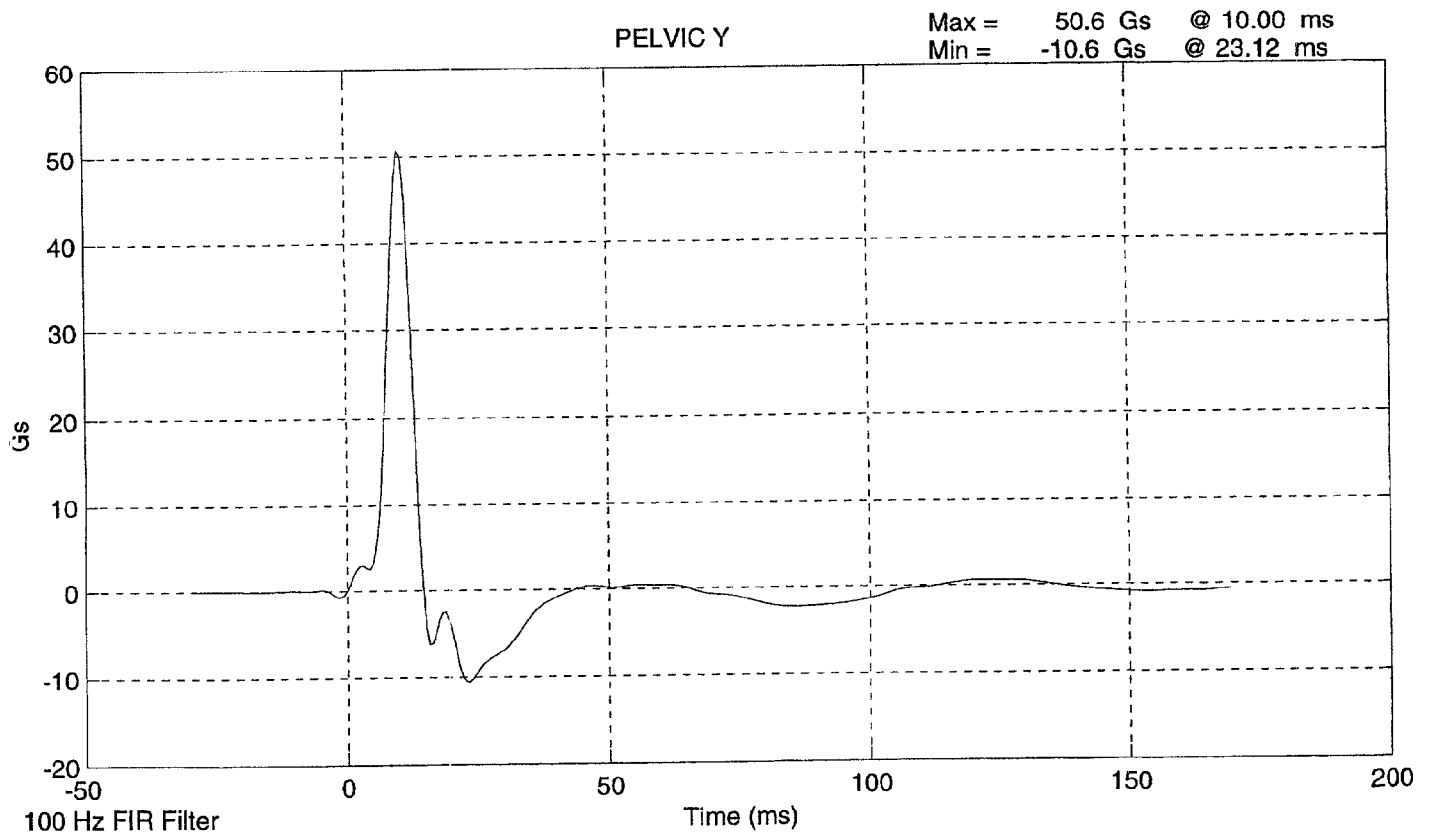
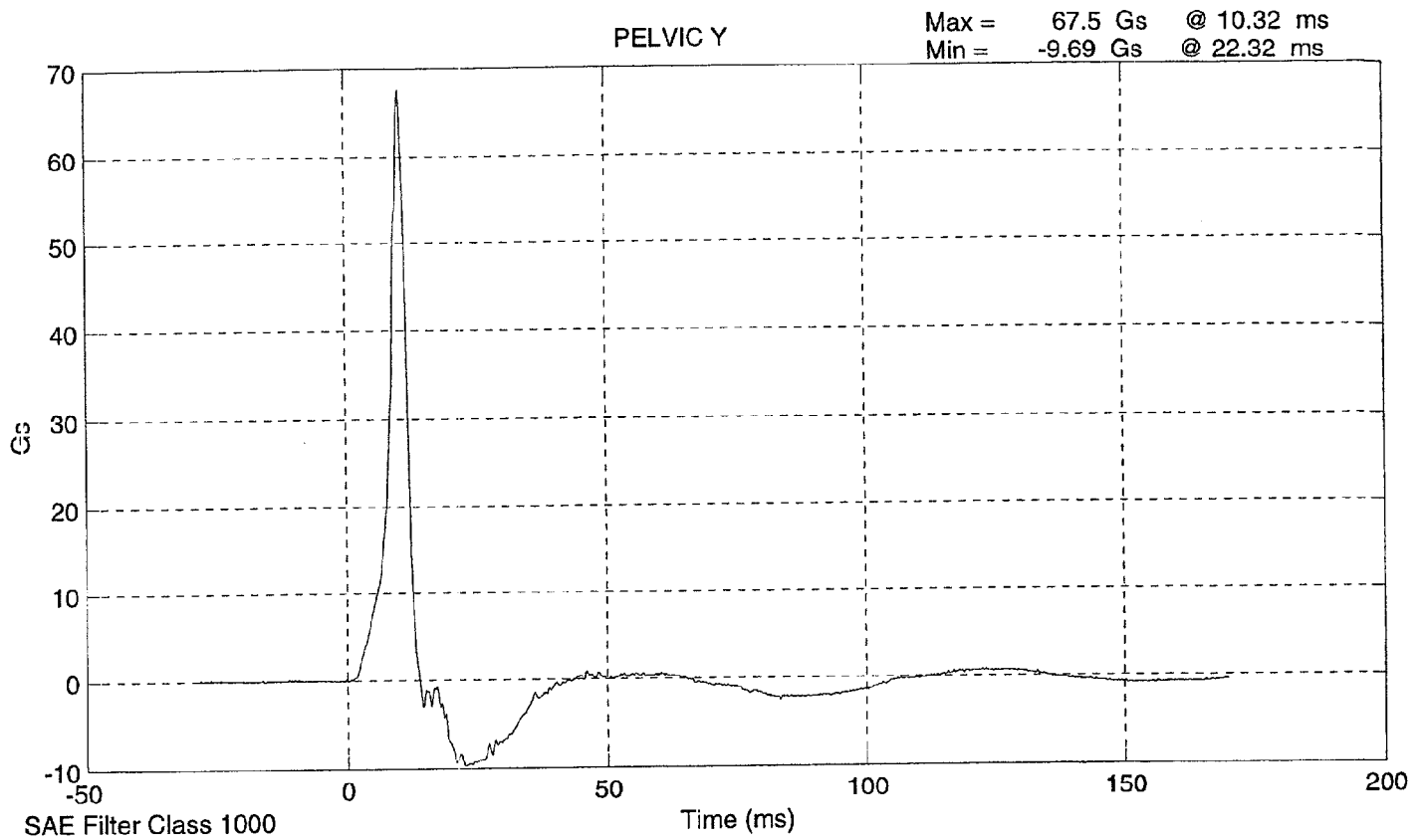
**LATERAL PELVIS IMPACT TEST
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.29
PELVIS ACCELERATION (g's)	40 - 60	50.6

REMARKS: None



1

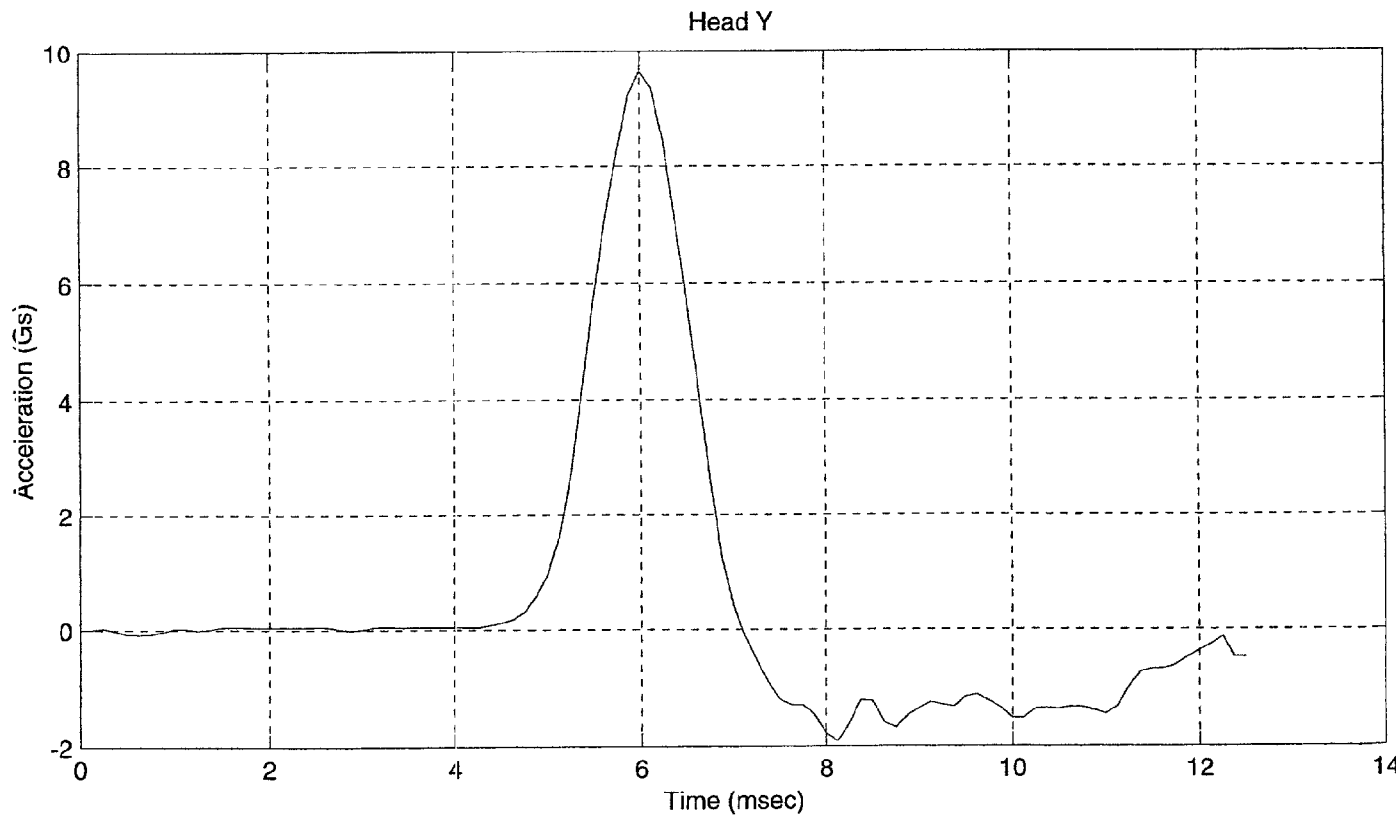
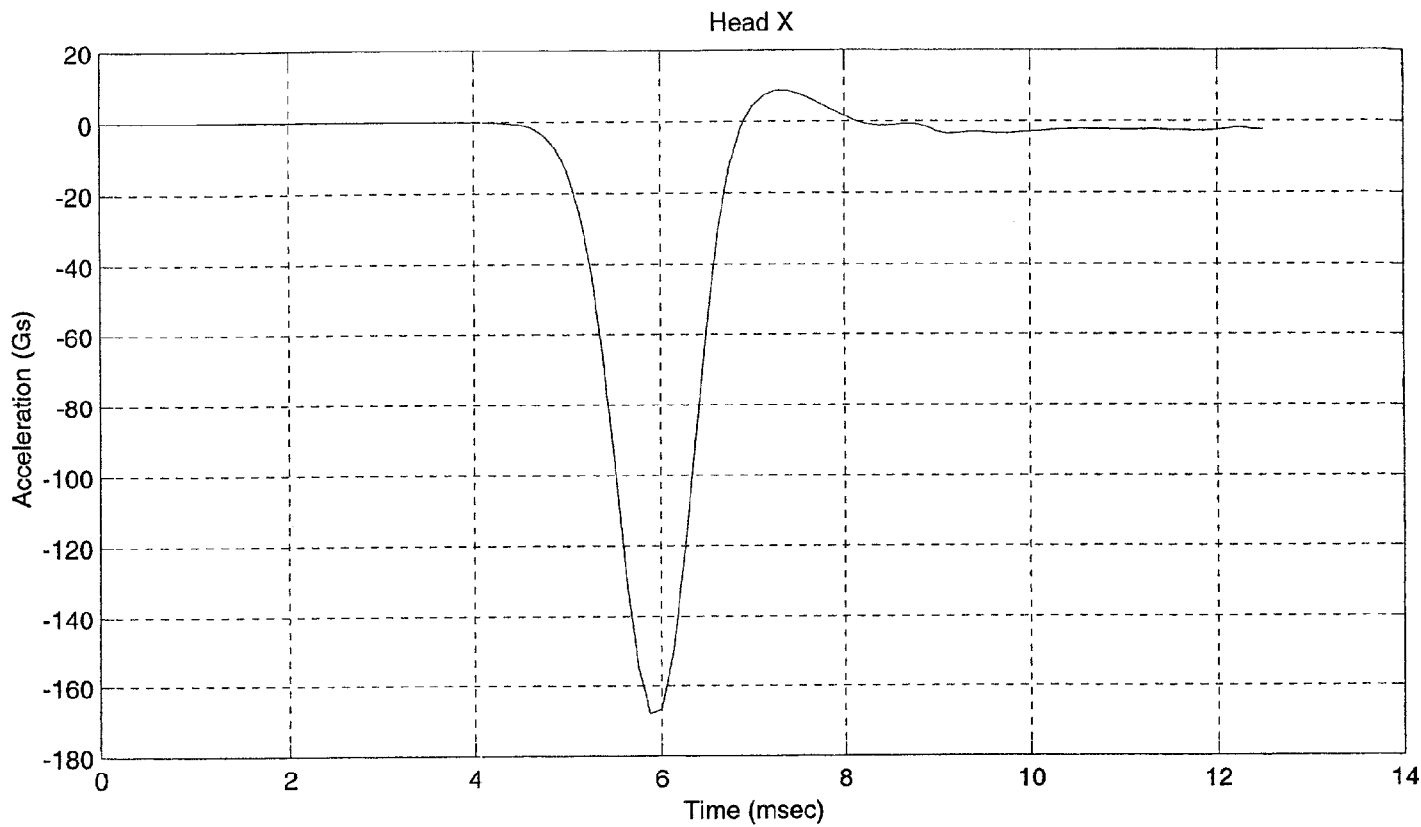
HEAD DROP TEST
POST-TEST
(Test not required for SID certification)

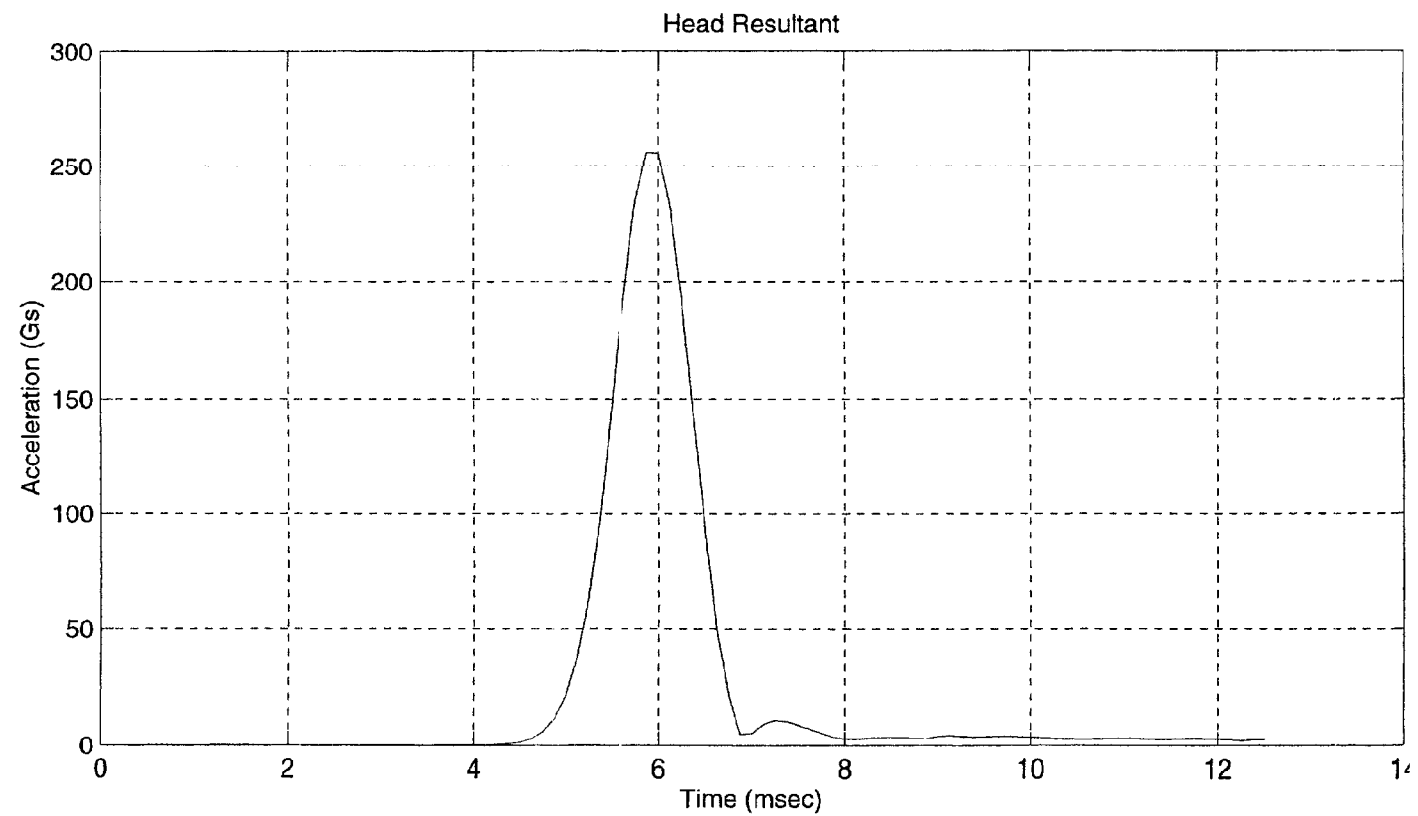
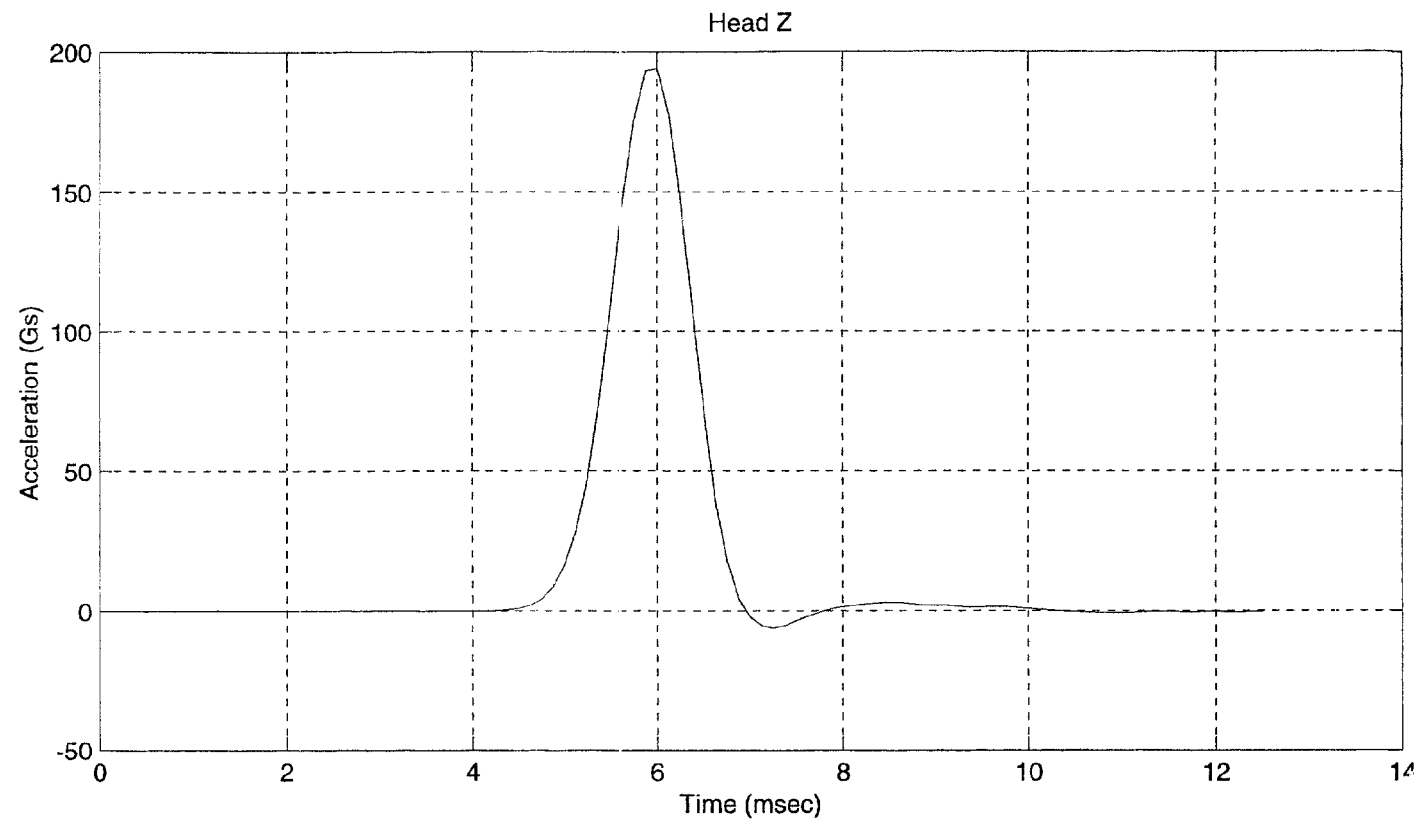
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	256.06
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	9.62
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.12

REMARKS: None





ABDOMINAL COMPRESSION TEST**POST TEST**

(Test not required for SID certification)

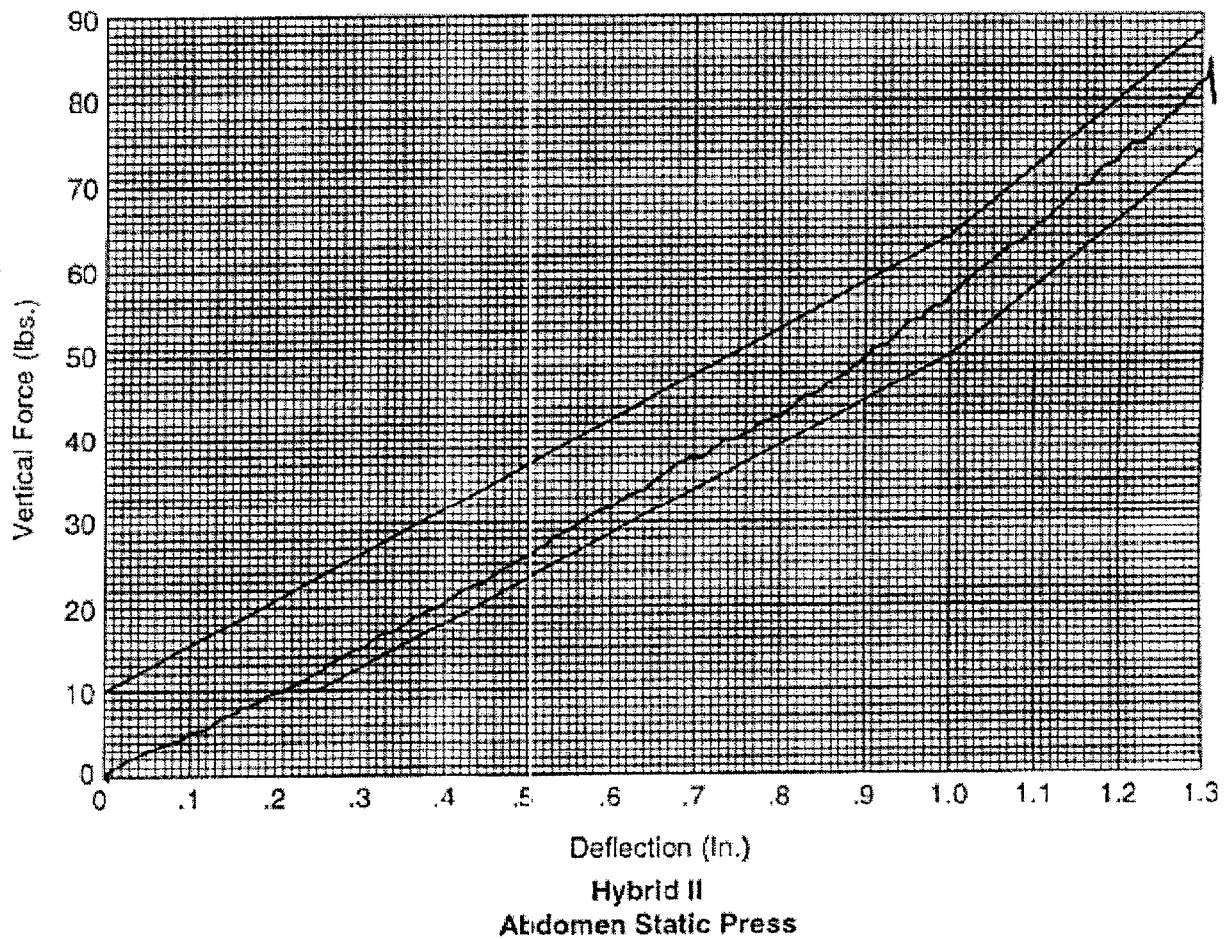
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 13 mm (N)	104 - 162	115
FORCE @ 19 mm (N)	163 - 221	178
FORCE @ 25 mm (N)	222 - 280	253
FORCE @ 33 mm (N)	325 - 391	364

REMARKS: None

Dummy S/N 027
W/A _____
Date 2-9-2000
Performed By BSW
Temp. 70
Humidity 30



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

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	129.4
FORCE @ 30° (N)	151.2 - 204.6	163.7
FORCE @ 40° (N)	204.6 - 258	226.9
RETURN ANGLE	12° max.	8

REMARKS: None

Dummy S/N 02-7

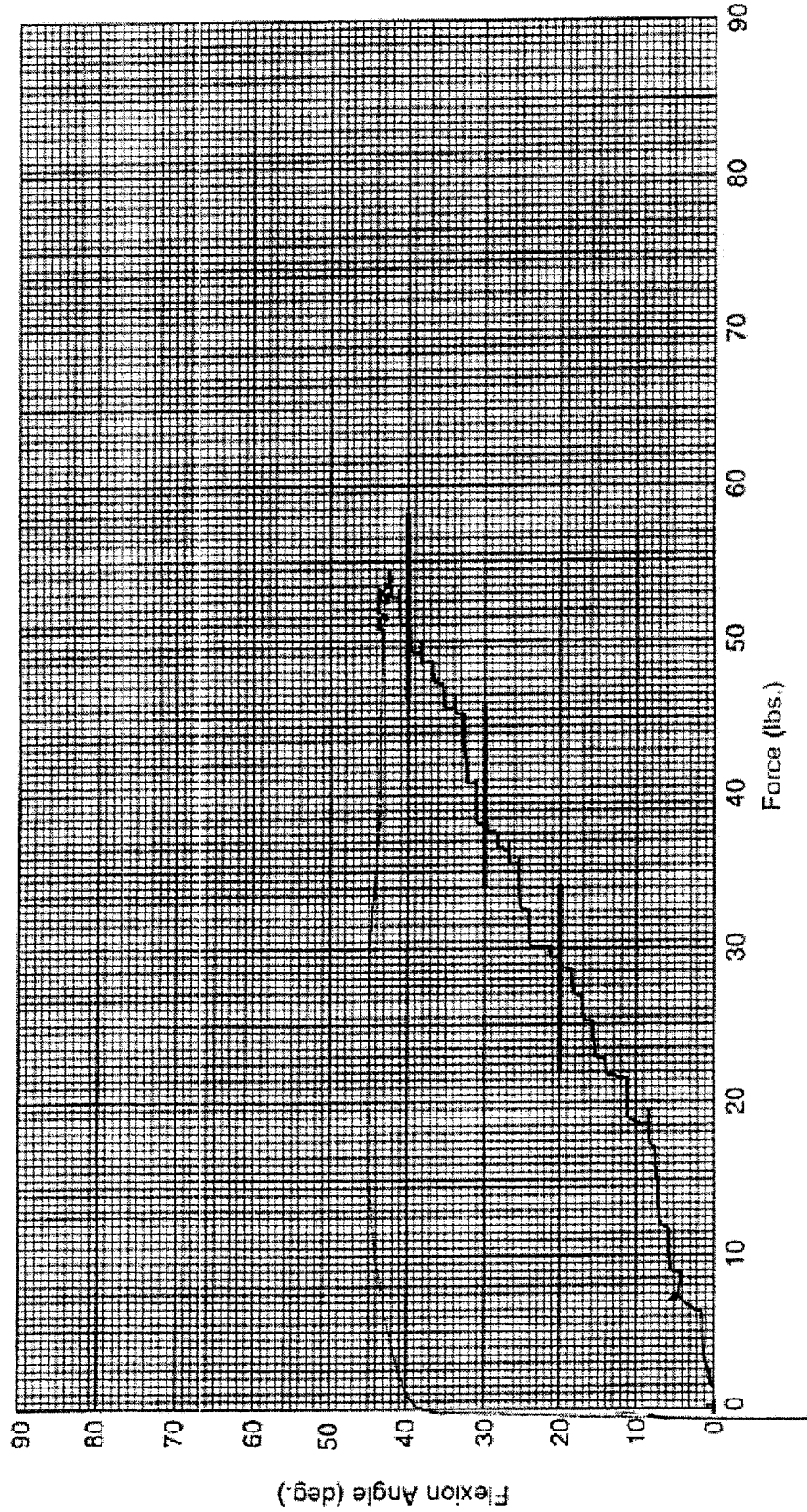
W/A _____

Date 2-9-2000

Performed By BZ

Temp. 70

Humidity 30



Hybrid II Lumbar Spine Flexion Test

POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 027

Sequential Test Number: 2

Date: February 9, 2000

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.: 268

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 2
Date: February 9, 2000 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.: 268 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	235
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	376

REMARKS: None

**LATERAL THORAX IMPACT TEST
POST TEST**

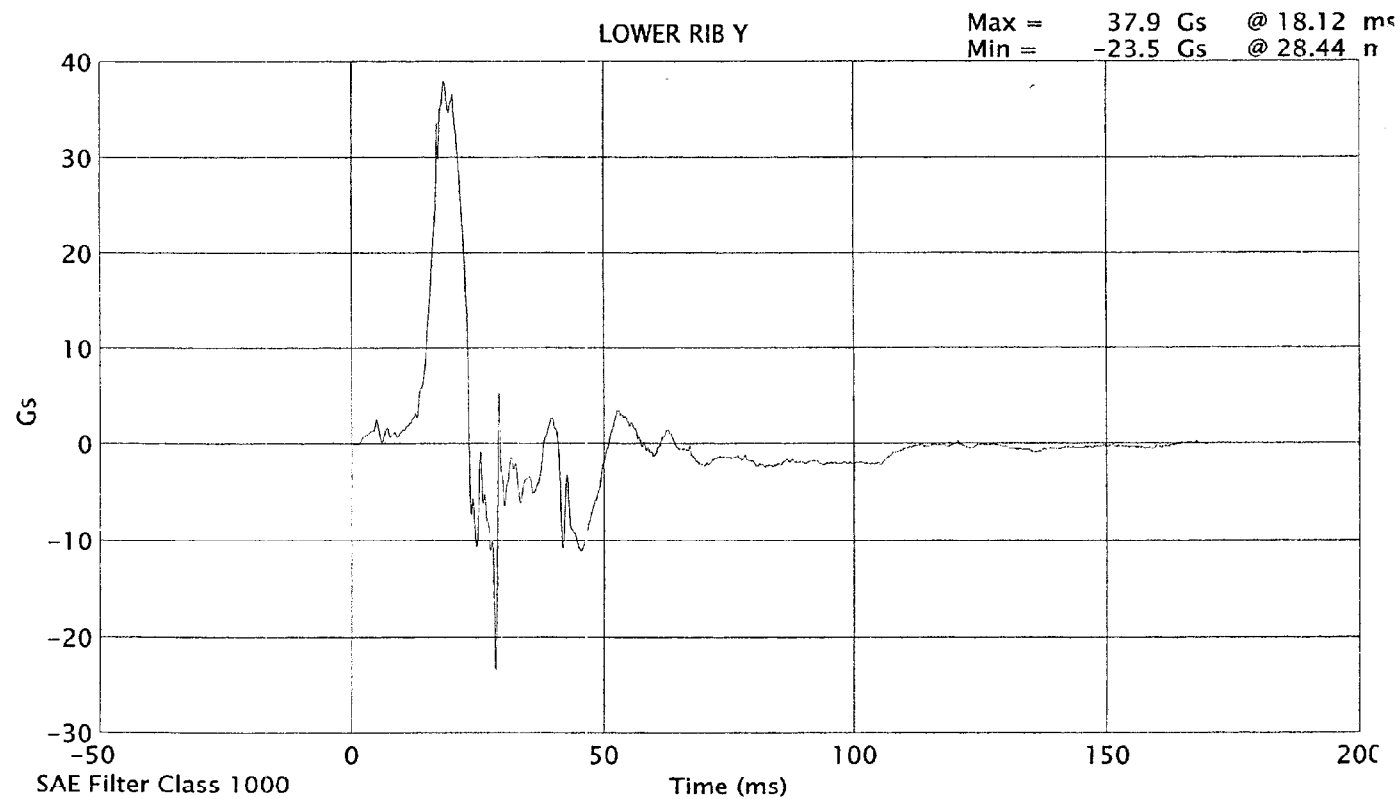
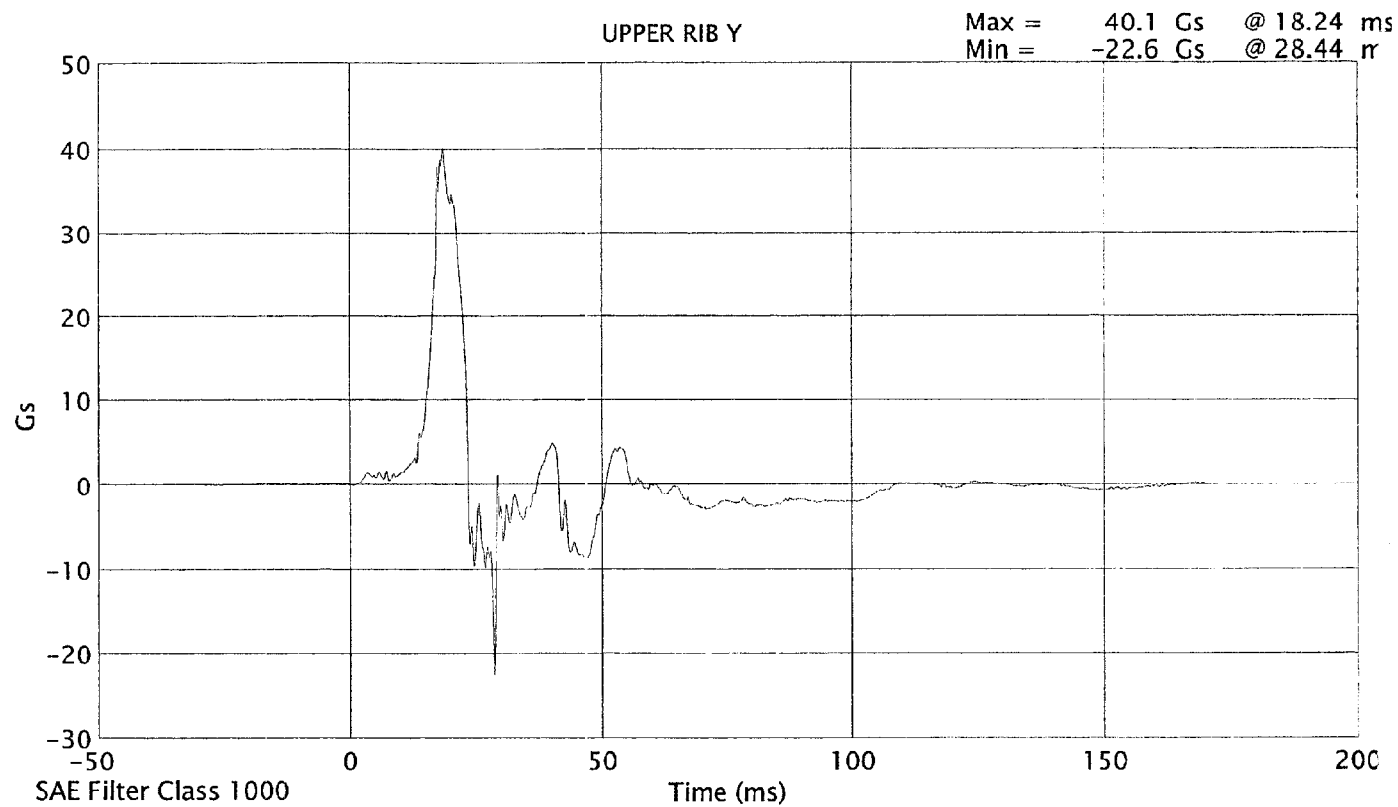
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

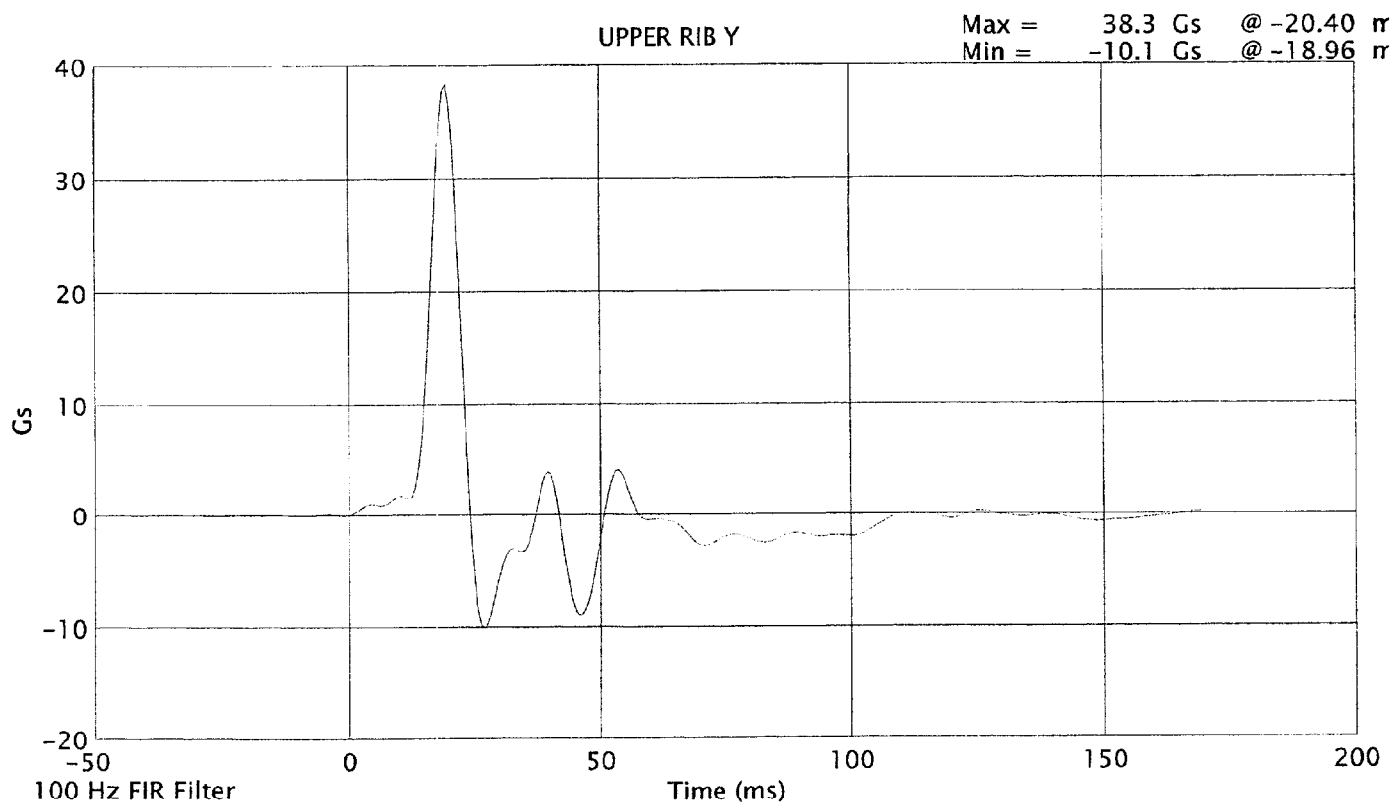
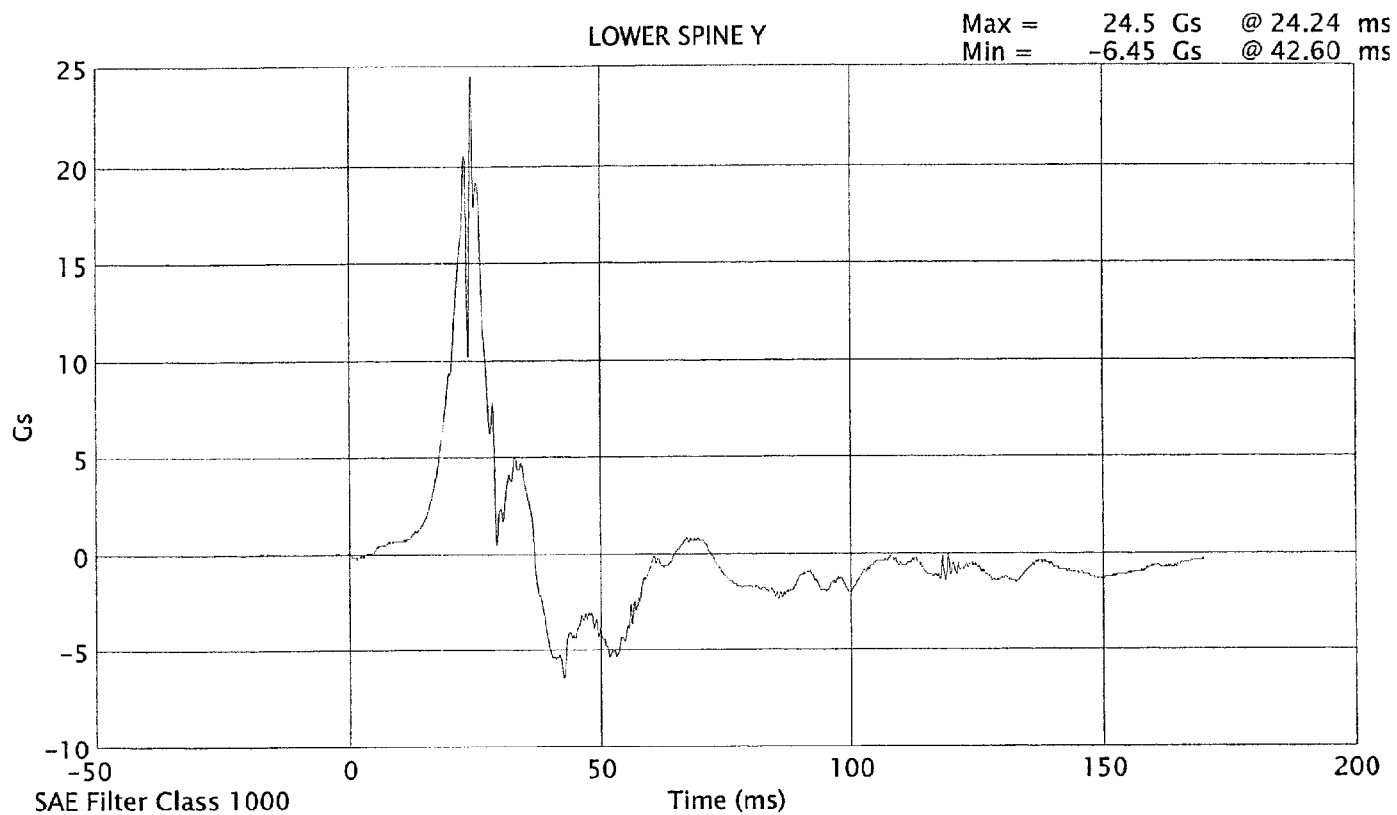
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.33
UPPER RIB (g's)	37 - 46	38.3
LOWER RIB (g's)	37 - 46	38.0
LOWER SPINE (g's)	15 - 22	19.1

REMARKS: None

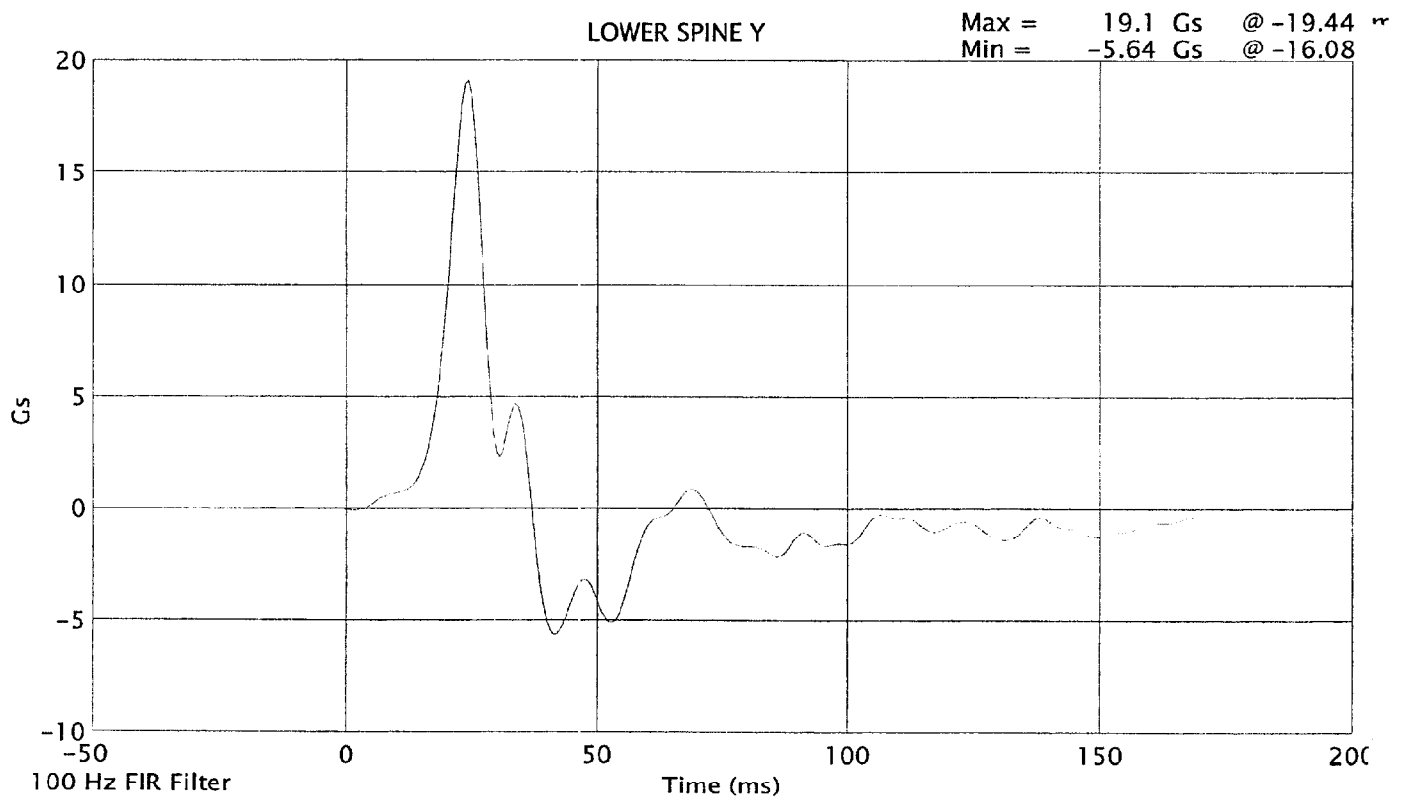
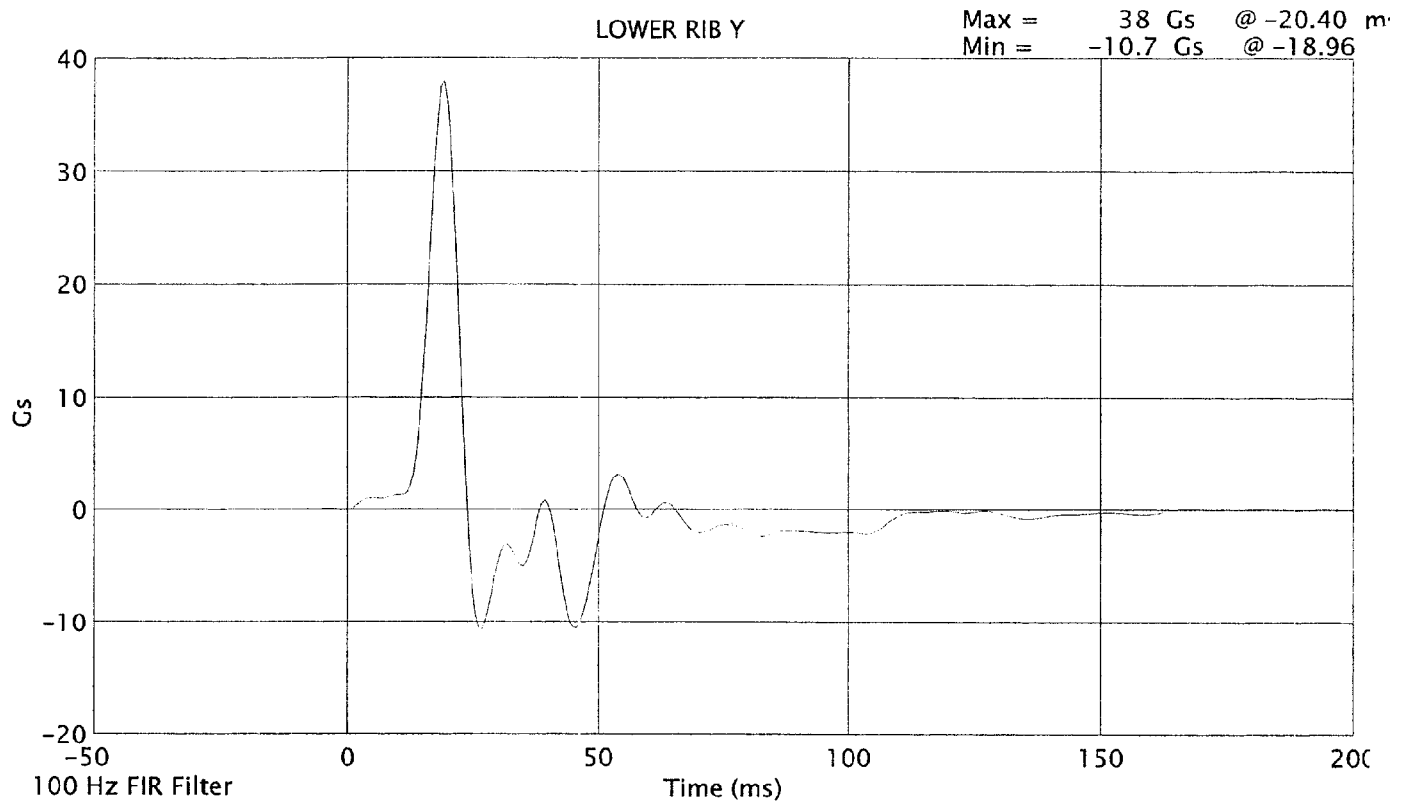
SID 268 Thorax Impact Test @ 4.3282 m/s



SID 268 Thorax Impact Test @ 4.3282 m/s



SID 268 Thorax Impact Test @ 4.3282 m/s



**LATERAL PELVIS IMPACT TEST
POST TEST**

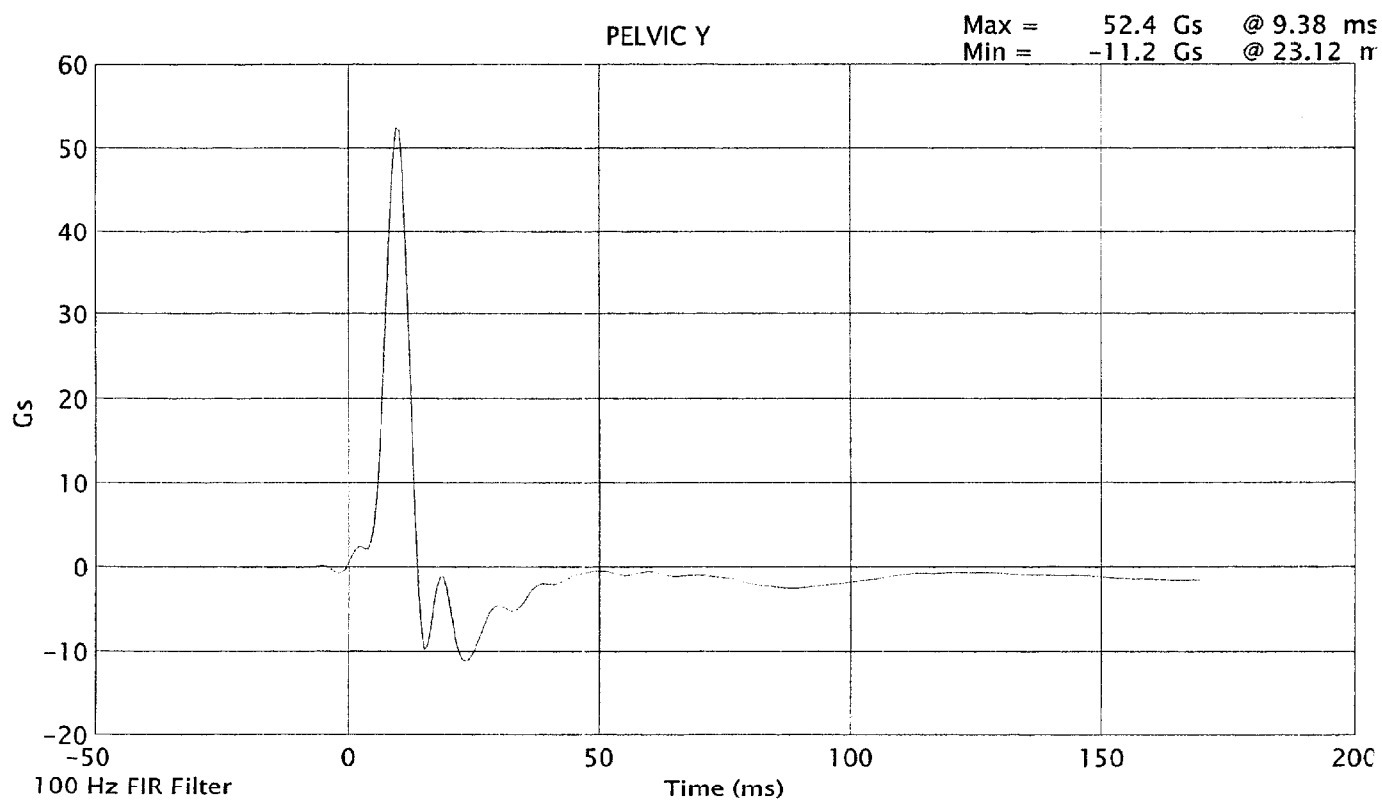
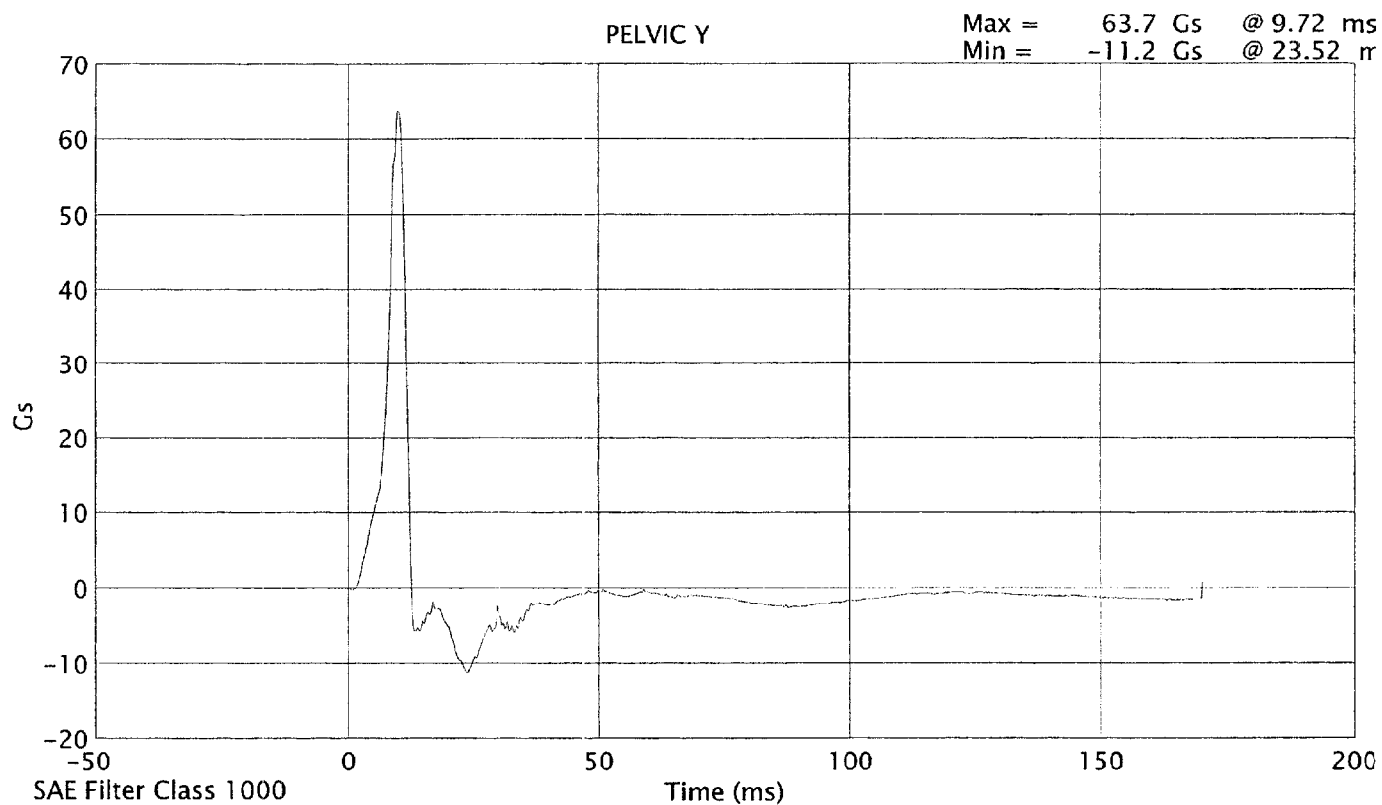
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.27
PELVIS ACCELERATION (g's)	40 - 60	52.4

REMARKS: None

SID 268 Pelvic Impact Test @ 4.2672 m/s



HEAD DROP TEST**POST-TEST**

(Test not required for SID certification)

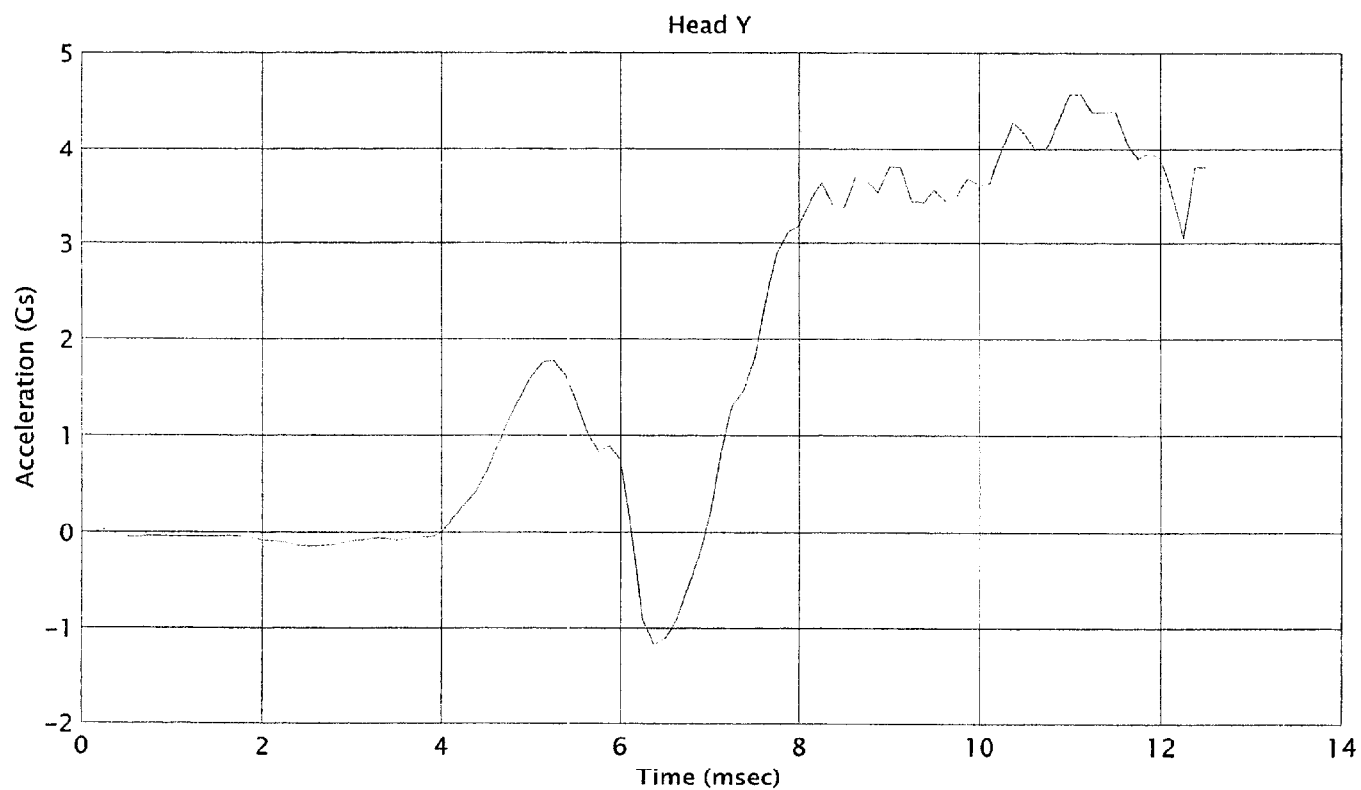
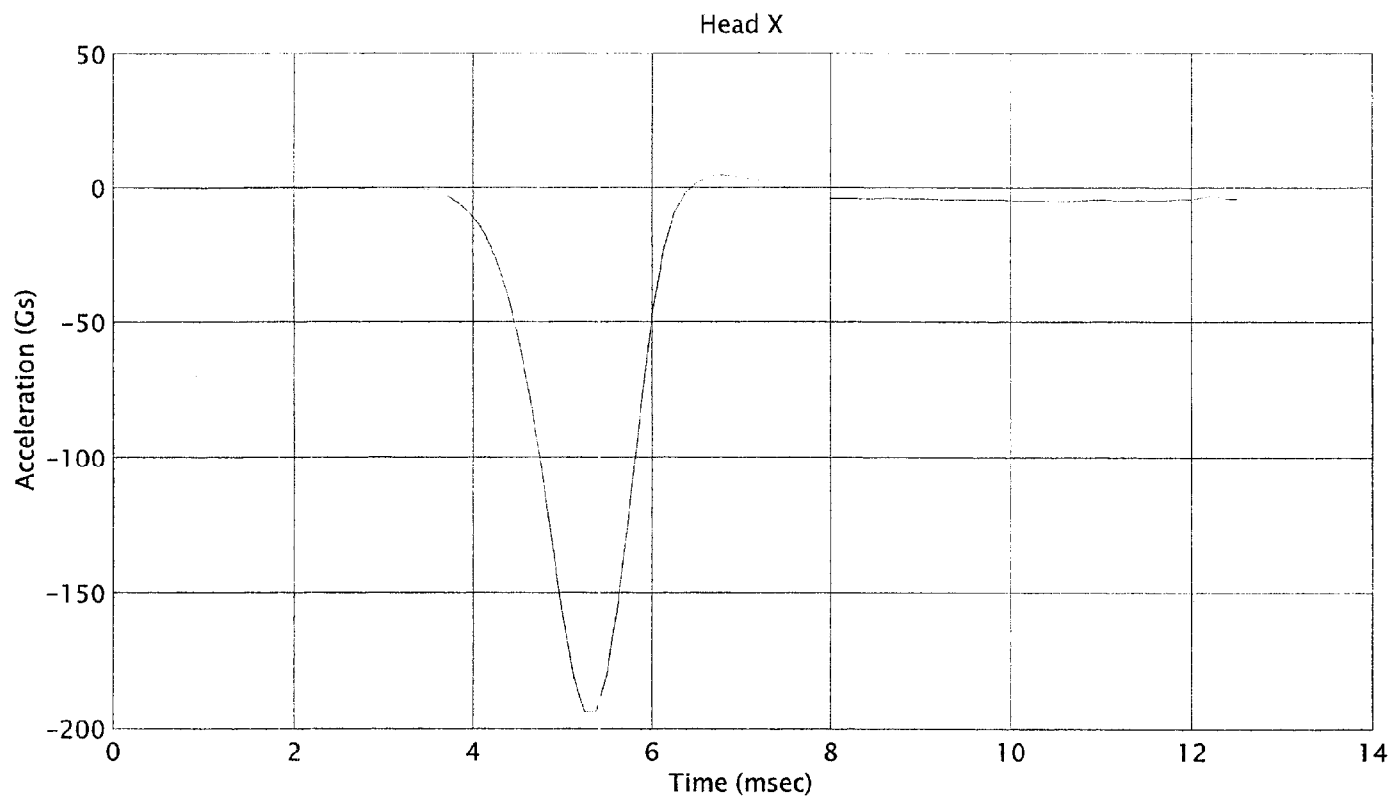
CONFIGURED FOR LEFT SIDE IMPACT

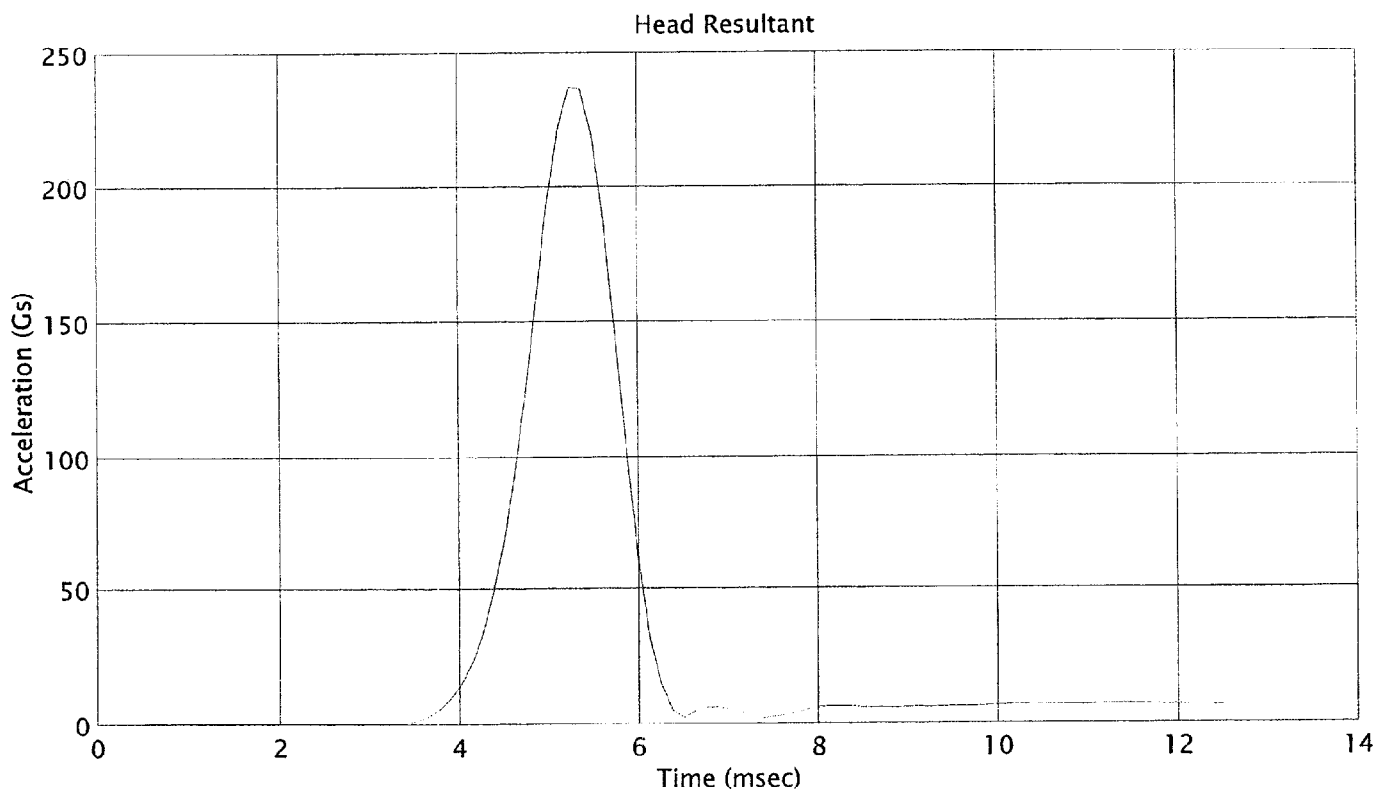
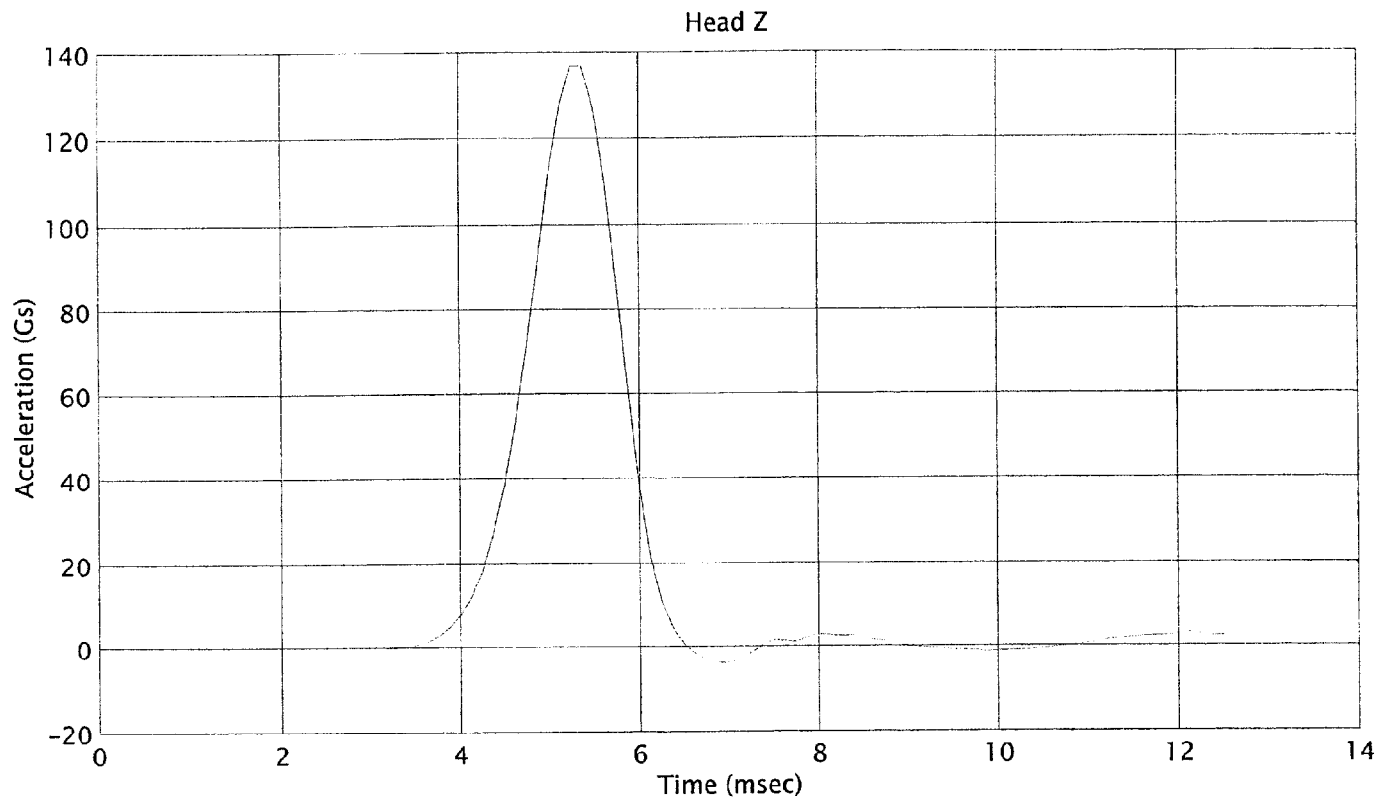
SID Serial No.: 268 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	237.23
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	4.56
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.25

REMARKS: None

Hybrid II Head Drop Calibration 268300.hdp





**ABDOMINAL COMPRESSION TEST
POST TEST**

(Test not required for SID certification)

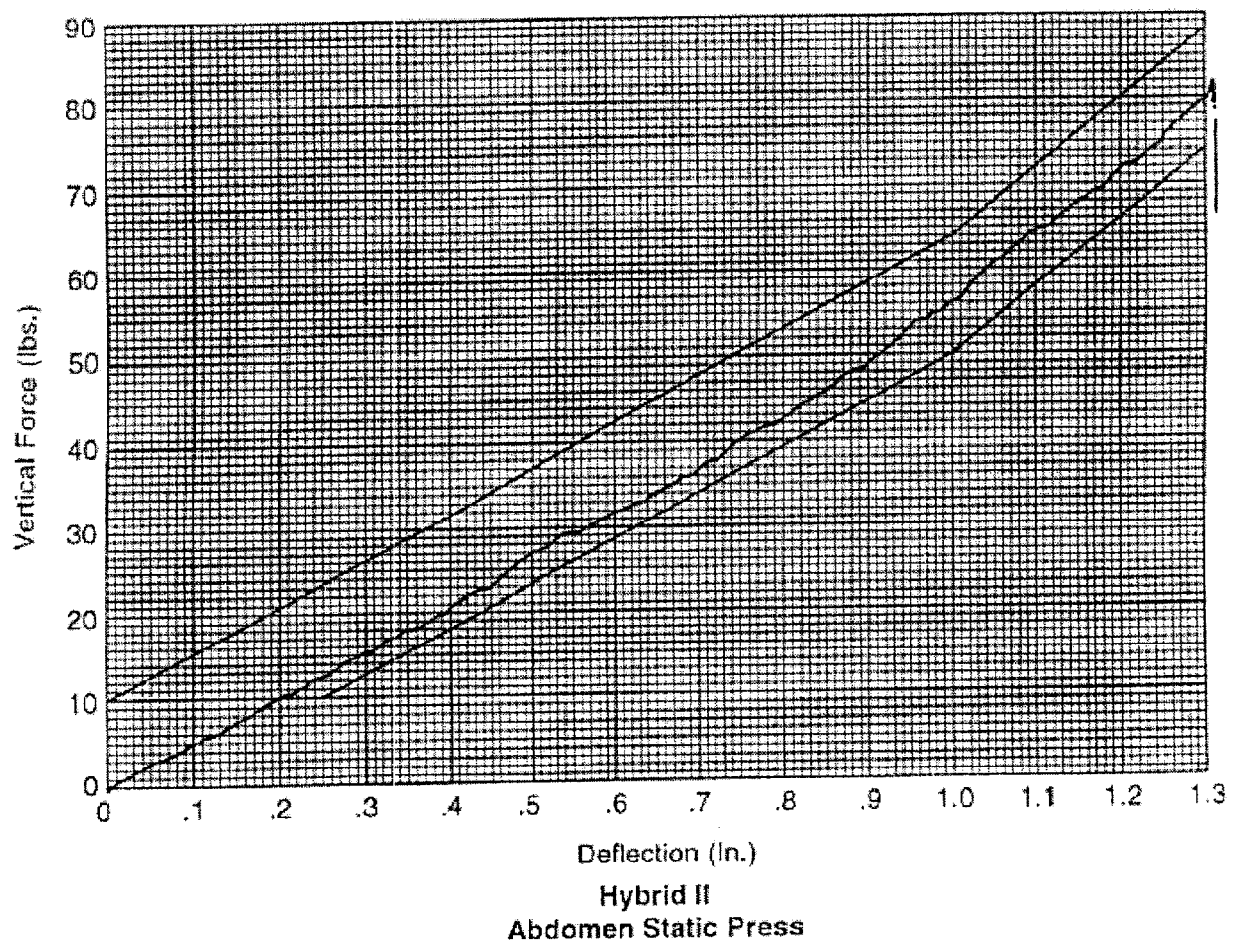
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 13 mm (N)	104 - 162	121.0
FORCE @ 19 mm (N)	163 - 221	177.9
FORCE @ 25 mm (N)	222 - 280	249.1
FORCE @ 33 mm (N)	325 - 391	353.6

REMARKS: None

Dummy S/N 268
W/A _____
Date 2-9-2000
Performed By BS
Temp. 70
Humidity 30



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

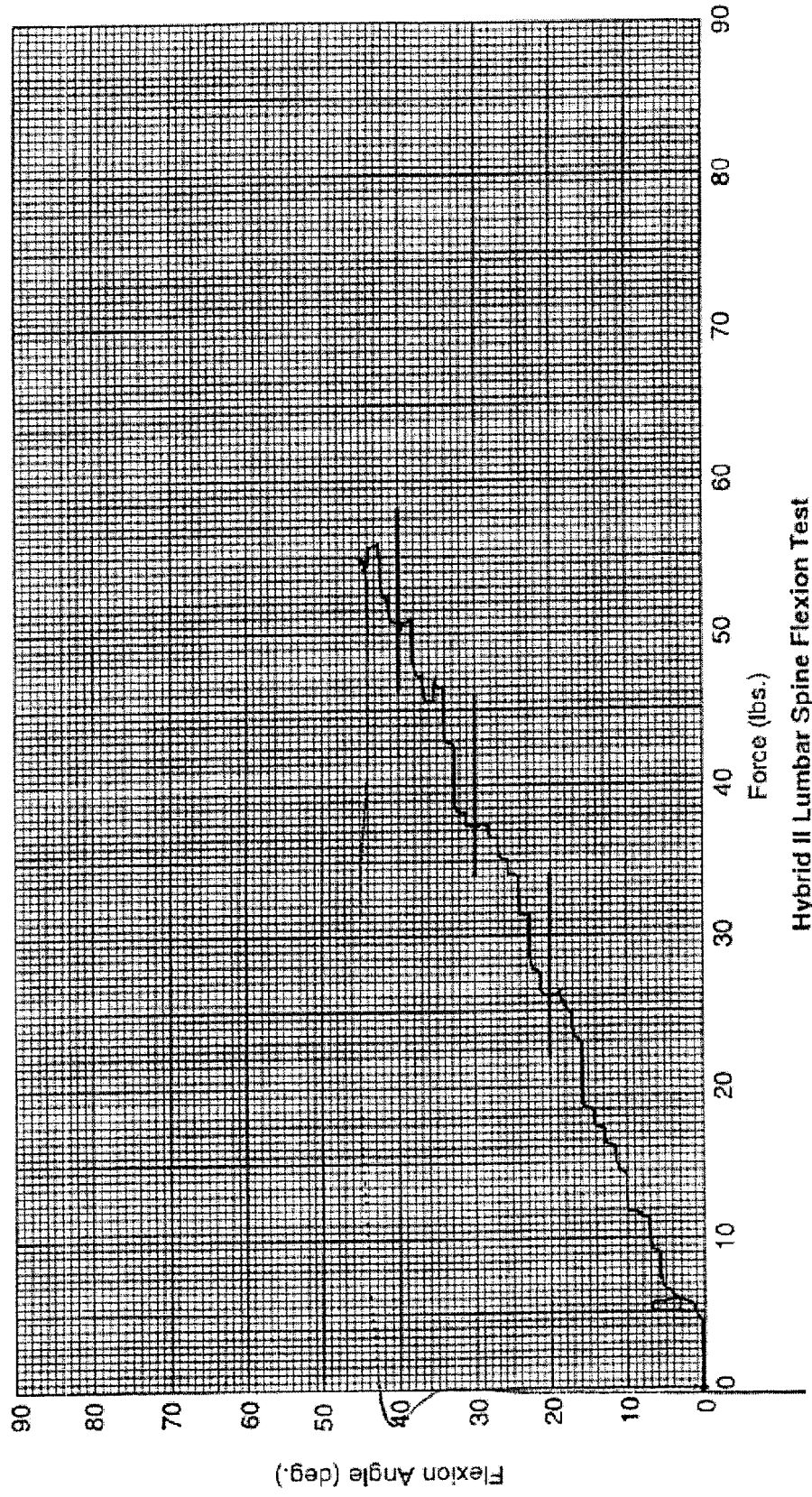
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 2
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	115.7
FORCE @ 30° (N)	151.2 - 204.6	166.8
FORCE @ 40° (N)	204.6 - 258	224.6
RETURN ANGLE	12° max.	7°

REMARKS: None

Dummy S/N 2608
 W/A _____
 Date 2-9-2000
 Performed By [Signature]
 Temp. 70
 Humidity 30



Hybrid II Lumbar Spine Flexion Test

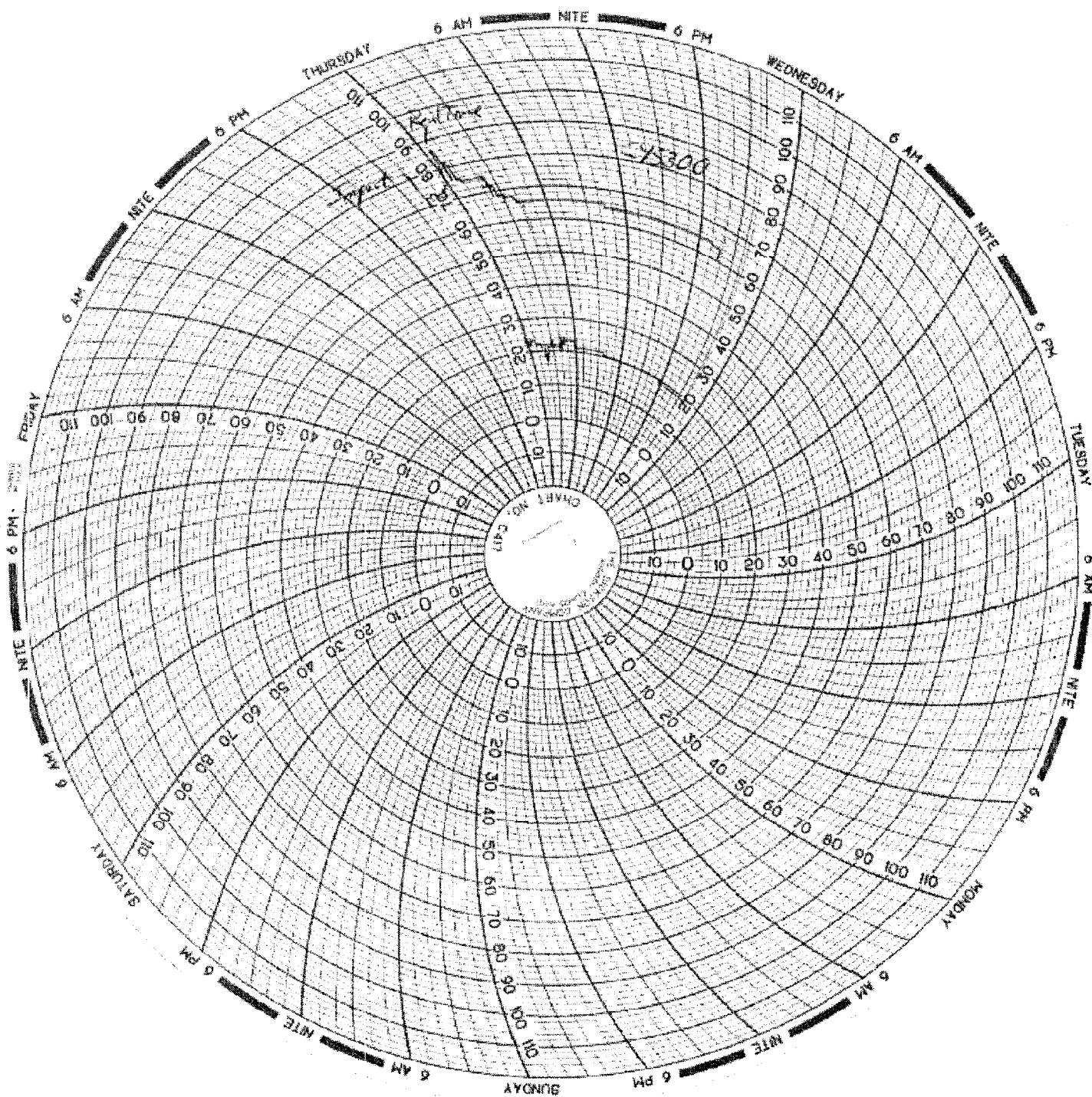
POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 268 Sequential Test Number: 2
 Date: February 9, 2000 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.: 027		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD (X)	AC-EL79	ENDEVCO	9/10/99
HEAD (Y)	AC-C382	ENDEVCO	9/10/99
HEAD (Z)	AC-AD395	ENDEVCO	9/10/99
UPPER RIB (Y)	AC-A14342	ENDEVCO	12/9/99
LOWER RIB (Y)	AC-A14261	ENDEVCO	12/9/99
LOWER SPINE (Y)	AC-APBF4	ENDEVCO	1/3/00
PELVIS (Y)	AC-A13565	ENDEVCO	12/9/99
UPPER RIB REDUNDANT (Y)	AC-A14314	ENDEVCO	12/8/99
LOWER RIB REDUNDANT (Y)	AC-A13883	ENDEVCO	12/8/99
LOWER SPINE REDUNDANT (Y)	AC-A14510	ENDEVCO	12/8/99
PELVIS REDUNDANT (Y)	AC-A14126	ENDEVCO	12/8/99

	REAR SID NO.: 268		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD (X)	AC-A16C4	ENDEVCO	9/10/99
HEAD (Y)	AC-GD52	ENDEVCO	11/12/99
HEAD (Z)	AC-AH5M9	ENDEVCO	9/10/99
UPPER RIB (Y)	AC-A13599	ENDEVCO	12/8/99
LOWER RIB (Y)	AC-A14131	ENDEVCO	12/8/99
LOWER SPINE (Y)	AC-A14381	ENDEVCO	12/8/99
PELVIS (Y)	AC-A14307	ENDEVCO	12/8/99
UPPER RIB REDUNDANT (Y)	AC-A14246	ENDEVCO	12/9/99
LOWER RIB REDUNDANT (Y)	AC-A14358	ENDEVCO	12/9/99
LOWER SPINE REDUNDANT (Y)	AC-A13926	ENDEVCO	12/9/99
PELVIS REDUNDANT (Y)	AC-A12776	ENDEVCO	12/9/99

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-ACC06	ENDEVCO	9/27/99
RIGHT FRONT SILL (Y)	AC-B11351	ENDEVCO	9/27/99
RIGHT FRONT SILL (Z)	AC-B10481	ENDEVCO	9/27/99
RIGHT REAR SILL (X)	AC-AP064	ENDEVCO	9/27/99
RIGHT REAR SILL (Y)	AC-BB14	ENDEVCO	9/27/99
RIGHT REAR SILL (Z)	AC-B10955	ENDEVCO	9/27/99
REAR FLOORPAN ABOVE AXLE (X)	AC-AP1A2	ENDEVCO	9/24/99
REAR FLOORPAN ABOVE AXLE (Y)	AC-B11073	ENDEVCO	9/24/99
REAR FLOORPAN ABOVE AXLE (Z)	AC-B10954	ENDEVCO	9/24/99
LEFT REAR SILL (Y)	AC-D82	ICS	9/15/99
LEFT FRONT SILL (Y)	AC-J18436	ENDEVCO	10/7/99
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-D29	ICS	9/1/99
LOWER LEFT B- PILLAR (Y)	AC-AP065	ENDEVCO	1/26/00
MIDDLE LEFT B-PILLAR (Y)	AC-APA30	ENDEVCO	1/26/00
LOWER LEFT A-PILLAR (Y)	AC-AC7W8	ENDEVCO	12/6/99
UPPER LEFT A-PILLAR (Y)	AC-Z02	ENTRAN	12/6/99
FRONT SEAT TRACK (Y)	AC-J18400	ENDEVCO	9/24/99
REAR SEAT TRACK (Y)	AC-J18570	ENDEVCO	12/6/99
VEHICLE CG (X)	AC-J18649	ENDEVCO	9/24/99
VEHICLE CG (Y)	AC-J18622	ENDEVCO	9/24/99
VEHICLE CG (Z)	AC-APBB6	ENDEVCO	9/24/99
MDB CG (X)	AC-CL60	ENDEVCO	1/4/00
MDB CG (Y)	AC-CJ54	ENDEVCO	1/4/00
MDB CG (Z)	AC-GK12	ENDEVCO	1/4/00
MDB REAR FRAME MEMBER (X)	AC-CX05	ENDEVCO	1/4/00
MDB REAR FRAME MEMBER (Y)	AC-A27F	ENDEVCO	1/4/00

REMARKS: None