

3280

REPORT NUMBER: 214-CAL-00-4

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

**FORD MOTOR COMPANY  
2000 FORD FOCUS  
3-DOOR HATCHBACK**

NHTSA NUMBER: CY0206

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

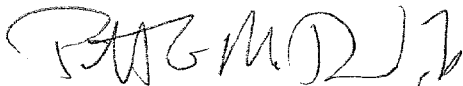


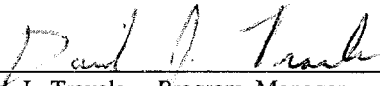
February 16, 2000

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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16. Abstract A 55/28 kph 90° Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject 2000 Ford Focus 3-Door Hatchback. 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 16, 2000. The impact velocity of the Moving Deformable Barrier (MDB) was 61.3 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21 °C. The target vehicle post-test maximum crush was 340 mm at level 2. The test or target vehicle's performance is given below:																																	
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: center;"><u>Front SID</u></th> <th style="width: 10%;"></th> <th style="width: 15%; text-align: center;"><u>Rear SID</u></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td style="text-align: center;">63</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">97</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td style="text-align: center;">61</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">125</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td style="text-align: center;">74</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">95</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td style="text-align: center;">69</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">110</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td style="text-align: center;">84</td> <td style="text-align: center;">g's</td> <td style="text-align: center;">91</td> <td style="text-align: center;">g's</td> </tr> </tbody> </table>					<u>Front SID</u>		<u>Rear SID</u>		Left Upper Rib Acceleration:	63	g's	97	g's	Left Lower Rib Acceleration:	61	g's	125	g's	Lower Spine Acceleration:	74	g's	95	g's	Thoracic Trauma Index (TTI):	69	g's	110	g's	Pelvis Acceleration (PEV):	84	g's	91	g's
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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.																																	
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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 Ford Focus 3-Door Hatchback 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 Ford Focus 3-Door Hatchback was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 61.3 kph (38.1 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 16, 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 (T<sub>12</sub>) 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 47 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)	69	110
PEV (g)	84	91

**SECTION 3**

**SUMMARY OF TEST RESULTS**

**DATA SHEET 1**

**GENERAL TEST AND VEHICLE PARAMETER DATA**

**TEST VEHICLE INFORMATION:**

Year/Make/Model/Body Style: 2000 Ford Focus 3-Door Hatchback  
 Vehicle Body Color: Green VIN: 3FAFP3136YR133167  
 Vehicle NHTSA No.: CY0206 Month & Year of Manufacture: 12-99  
 Engine Data: 4 Cylinders; - CID; 2.0 Liters; - cc  
 Engine Placement: - Longitudinal; or X Lateral  
 Transmission: 5 Speed; X Manual; - Automatic; X Overdrive  
 Final Drive: - Rear Wheel Drive; X Front Wheel Drive; - Four Wheel  
 Odometer Reading 256 km  
 Options: - A/C; X Power Steering; X Pwr.Brakes; - Pwr. Windows

**DATA FROM TIRE PLACARD**

Tire Pressure\* (at capacity); 221 kPa FRONT  
221 kPa REAR  
 Recommended Tire Size: 195/60R15  
 Tires on Test Vehicle: 195/60R15 ; Manufacturer: Goodyear  
 Vehicle Capacity Data:  
 Number of Occupants: 2 Front; 3 Rear; - 3rd Seat; 5 Total  
 Type of Front Seats: X Bucket; - Bench; - Split Bench  
 Type of Front Seat Back: - Fixed; X Adjustable with X Lever or - Knob  
 Vehicle Max Capacity Loading = 400.0 kg (A)  
 No. of Occupants x 68.04 kg. = 340.2 kg (B)  
 Vehicle Cargo Capacity = 59.8 kg (A-B)

**TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:**

Left Front	=	<u>363.0</u> kg	Left Rear	=	<u>238.5</u> kg
Right Front	=	<u>359.5</u> kg	Right Rear	=	<u>218.5</u> kg
TOTAL FRONT	=	<u>722.5</u> kg	TOTAL REAR	=	<u>457.0</u> kg
% of Total Weight	=	<u>61.3</u> %	% of Total Weight	=	<u>38.7</u> %
TOTAL WEIGHT	=	<u>1179.5</u> kg			

\* Tire pressure used in test.

**DATA SHEET 1 (continued)**

**GENERAL TEST VEHICLE PARAMETER DATA**

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1179.5</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>59.8</u>	kg (B)
Weight of instrumented Side Impact Dummies (1 or 2 X <u>81.2</u> kg)	=	<u>162.4</u>	kg (C)
<b>TEST VEHICLE TARGET WEIGHT:</b>	=	<u>1401.7</u>	kg (A+B+C)

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

Left Front	=	<u>400.0</u>	kg	Left Rear	=	<u>341.5</u>	kg
Right Front	=	<u>374.5</u>	kg	Right Rear	=	<u>286.5</u>	kg
TOTAL FRONT	=	<u>774.5</u>	kg	TOTAL REAR	=	<u>628.0</u>	kg
% of Total Weight	=	<u>55.2</u>	%	% of Total Weight	=	<u>44.8</u>	%
TOTAL TEST WEIGHT	=	<u>1402.5</u>	kg				

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

Left Front	=	<u>394.0</u>	kg	Left Rear	=	<u>335.5</u>	kg
Right Front	=	<u>380.5</u>	kg	Right Rear	=	<u>283.5</u>	kg
TOTAL FRONT	=	<u>774.5</u>	kg	TOTAL REAR	=	<u>619.0</u>	kg
% of Total Weight	=	<u>55.6</u>	%	% of Total Weight	=	<u>44.4</u>	%
TOTAL TEST WEIGHT	=	<u>1393.5</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>690</u>	Right Front	<u>697</u>	Left Rear	<u>697</u>	Right Rear	<u>702</u>
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FULLY LOADED:

Left Front	<u>670</u>	Right Front	<u>690</u>	Left Rear	<u>649</u>	Right Rear	<u>661</u>
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READY FOR TEST:

Left Front	<u>675</u>	Right Front	<u>691</u>	Left Rear	<u>655</u>	Right Rear	<u>665</u>
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Test Vehicle Wheelbase: 2615 millimeters

C.G. = 1161.6 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side	=	<u>4190</u>	millimeters
Left Side	=	<u>4180</u>	millimeters
Centerline	=	<u>4265</u>	millimeters

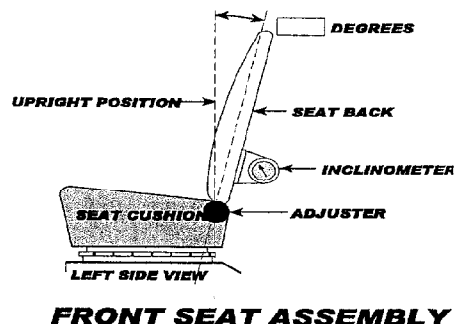
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

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



FRONT SEAT CUSHION PLACEMENT: mid-position

Total Length of Adjustment Travel: 240 millimeters

Total Number of Adjustment Positions or Detents: 17 total - place at position 8 from 0 (foremost)

FRONT SEAT BACK ADJUSTMENT POSITION: recline seatback to 24° from vertical on frame

Seat Back Torso Angle: 24° degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: N/A

ADJUSTABLE STEERING COLUMN POSITION: N/A

WINDOW POSITIONS: Left Front: Closed Left Rear: Fixed

Right Front: Removed 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:

50.0 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 2615 millimeters

Impact Point is 368 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 373 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2000 Ford Focus

Body Style: 3-Door Hatchback

VIN: 3FAFP3136YR133167

NHTSA No.: CY0206

Test Date: February 16, 2000

Overall Length = 4265 millimeters; Overall Width = 1695 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 394.0 kg      Left Rear = 335.5 kg

Right Front = 380.5 kg      Right Rear = 283.5 kg

TOTAL FRONT = 774.5 kg      TOTAL REAR = 619.0 kg

TOTAL VEHICLE WEIGHT 1393.5 kg

Wheelbase = 2615 millimeters

Longitudinal C.G. from Center of Front Axle = 1161.6 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 5 mm rearward of nominal impact ref. line (Lateral)

Actual Impact Point is 5 mm below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 ( 283 mm above ground) = 228 millimeters

2. LEVEL 2 ( 536 mm above ground) = 340 millimeters

3. LEVEL 3 ( 594 mm above ground) = 311 millimeters

4. LEVEL 4 ( 844 mm above ground) = 290 millimeters

5. LEVEL 5 ( 1366 mm above ground) = 34 millimeters

Maximum Post-Test Intrusion = 340 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification 016 268

Restraints Used 3-Point Seatbelt 3-Point Seatbelt

INSTRUMENTATION:

Number of Vehicle Data Channels: = 42

Number of Cameras:      Onboard = 3

                                 Offboard = 7

                                 TOTAL = 10

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore, Inc. 128A1098-4 08301098 2324-01

POSITION OF IMPACT (MDB) ON MONORAIL:

Crabbed 27° to left

MDB DETAILS:

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

MDB WEIGHT:

Left Front = 409.5 kg      Left Rear = 281.5 kg  
Right Front = 372.5 kg      Right Rear = 299.0 kg  
TOTAL FRONT = 782.0 kg      TOTAL REAR = 580.5 kg  
TOTAL MDB WEIGHT = 1362.5 kg  
Impact Angle (MDB C/L to Target Vehicle C/L) = 90 degrees  
Impact Speed = 61.3 kph

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level = 132 millimeters  
2. Row B at Top of Bumper Level = 79 millimeters  
3. Row C at Mid Level = 105 millimeters  
4. Row D at Top of Stack Level = 155 millimeters

INSTRUMENTATION:

Number of MDB Data Channels = 5

DATA SHEET 4

POST-TEST OBSERVATIONS

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head:	Side of Face to the Left Shoulder; Back of the Head to the Side of the Headrest.	Top of Head to the Headliner; Back of the Head to the C-Pillar Trim.
Upper Torso:	Interior Door Panel Trim	Rear Interior Trim Panel
Lower Torso:	Interior Door Panel Trim	Rear Interior Trim Panel
Left Knee:	Interior Door Panel Trim	Rear Interior Trim Panel
Right Knee:	Left Knee	Left Knee

DOOR OPENING:

	<u>LEFT DOOR</u>	<u>RIGHT DOOR</u>	<u>LIFTGATE</u>
Front:	Closed/Inoperable	Closed/Operable	N/A
Rear:	N/A	N/A	Closed/Operable

MDB DISTANCE FROM TARGET IMPACT POINT:

Vertical: 5 mm Below  
Horizontal: 5 mm Rearward

ARM REST LOCATIONS:

Front: The front arm rest was pushed inboard during the event.  
Rear: The rear armrest was pushed inboard and rotated down during the event.

SEAT MOVEMENT:

Front: The front seat cushion was pushed inboard during the event.  
Rear: The rear seat cushion was pushed inboard and bowed after the event.

GLAZING DAMAGE:

Windshield: The windshield was cracked along the left A-Pillar and in front of the right front passenger seat  
Window: The side glass shattered during the event.

PILLAR PERFORMANCE:

The A- and B-Pillars were pushed inboard during the event.

SILL SEPARATION:

None

AIR BAG DEPLOYMENT STATUS:

	<u>DRIVER</u>	<u>FRONT PASSENGER</u>	<u>REAR PASSENGER</u>
<u>FRONT</u>	Yes	Yes	N/A
<u>SIDE</u>	N/A	N/A	N/A

OTHER NOTABLE IMPACT EFFECTS:

The Left front corner of the vehicle and the left front corner of the barrier face were still in contact after the event.  
The right side front seat tracks were inoperable after the event.

**SECTION 4**

**OCCUPANT AND VEHICLE INFORMATION**

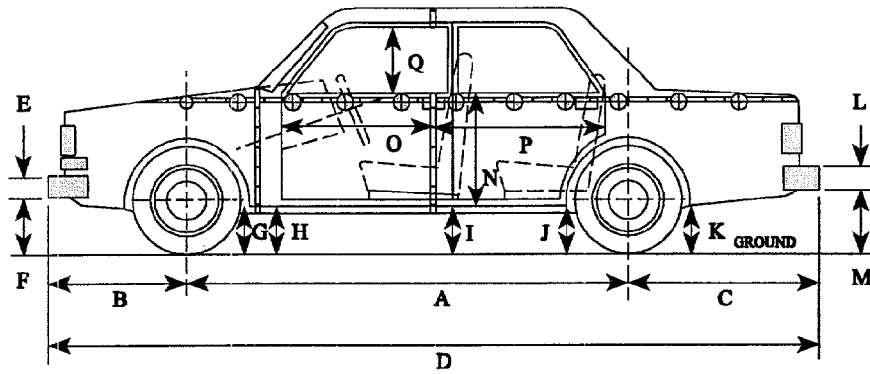


DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



**LEFT SIDE VIEW**

NOTE: all dimensions are in millimeters with tolerance of  $\pm 3$  mm

	PRE-TEST (as delivered)	PRE-TEST (as tested)	POST-TEST (as tested)	$\Delta$ CHANGE
A	2615	-	2558	-57
B	892	-	885	-7
C	758	-	785	27
D	4265	-	4228	-37
E	140	-	140	0
F	425	421	450	29
G	210	185	214	29
H	212	185	210	25
I	218	180	250	70
J1	197	154	180	26
J2	234	185	243	58
K	293	245	260	15
L	180	-	180	0
M	449	400	417	17
N	695	-	625	-70
O	752	-	742	-10
P	589	-	586	-3
Q	465	-	449	-16
R	4190	-	4180	-10
S	4180	-	4137	-43
T	1695	-	1509	-186

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

E&L = Bumper Thickness  
J1 = To Pinch Weld

R = Right Side Length  
J2 = To Sill

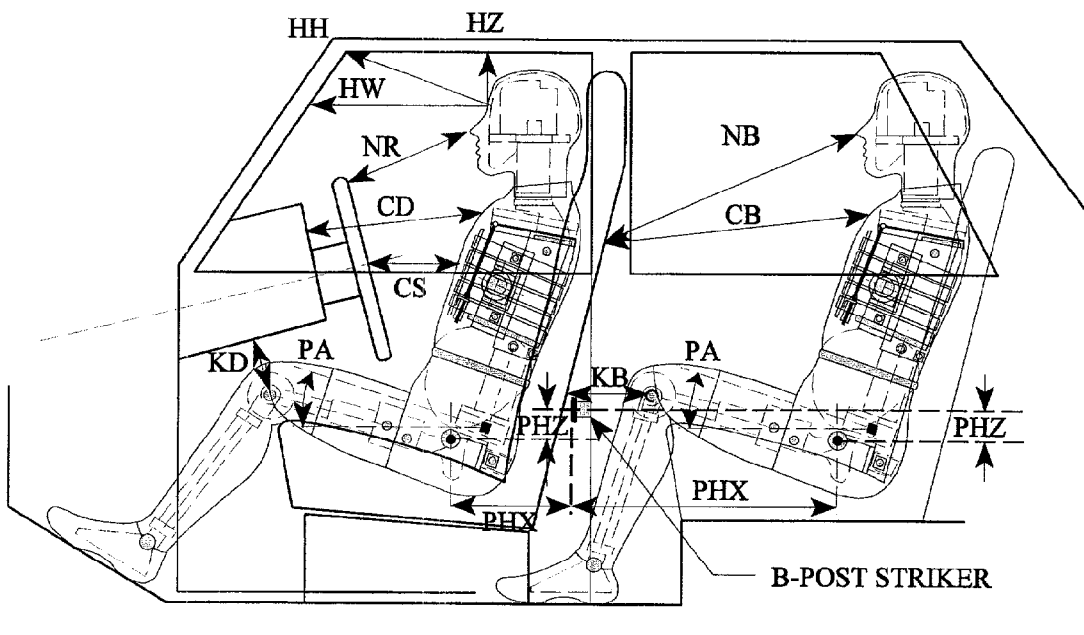
S = Left Side Length

DATA SHEET 7

SID LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



**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  $\pm 3$  mm

	DRIVER ID# <u>016</u>	LEFT REAR PASS. ID# <u>268</u>
HH	423	N/A
HW	705	N/A
HZ	169	180
NR/NB	507	524
CD/CB	572	449
CS	317	N/A
KDL(KDA°)/KBL(KDA°)	163 / ( 31 °)	168 / ( 25 °)
KDR(KBA°)/KBR(KBA°)	158 / ( 18 °)	165 / ( 16 °)
PA°	24.5 °	24.1 °
PHX	449	-422
PHZ	129	125

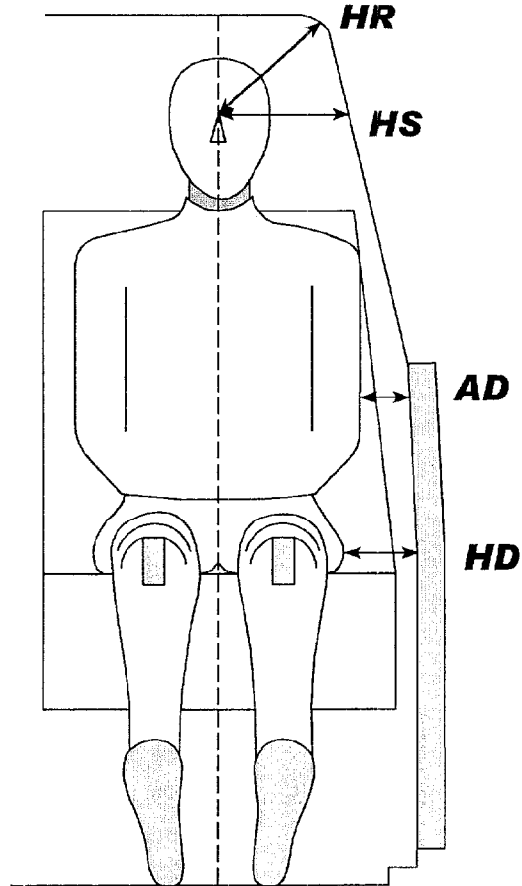
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID LATERAL CLEARANCE DIMENSIONS

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



NOTE: All dimensions are in millimeters with tolerance of  $\pm 3$  mm

	DRIVER ID # 016		LEFT REAR PASS. ID # 268	
HR	162 to grab handle		185	
HS	291		305	
AD*	LOWER: 95	UPPER: 95	LOWER: 103	UPPER: 85
HD	115		115	

\* 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.

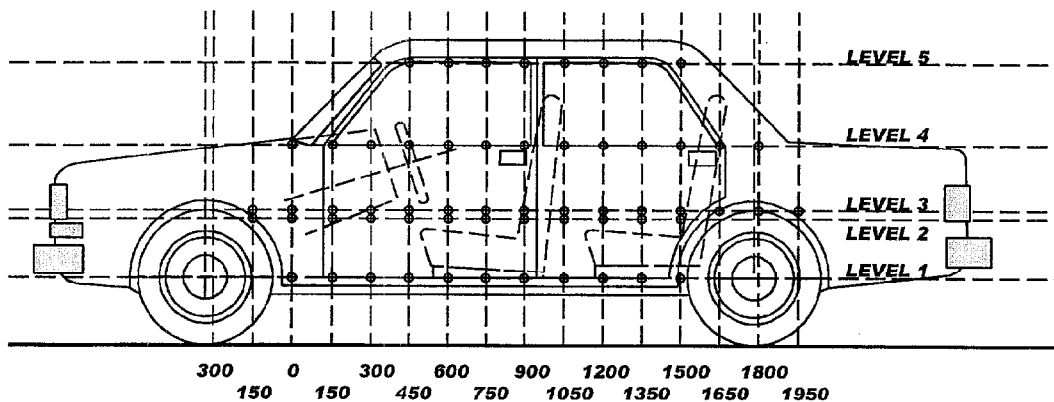
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



**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>1366</u>	millimeters
Level 4 @ Window Sill	=	<u>844</u>	millimeters
Level 3 @ Mid Door	=	<u>594</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>536</u>	millimeters
Level 1 @ Sill Top Height	=	<u>283</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

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

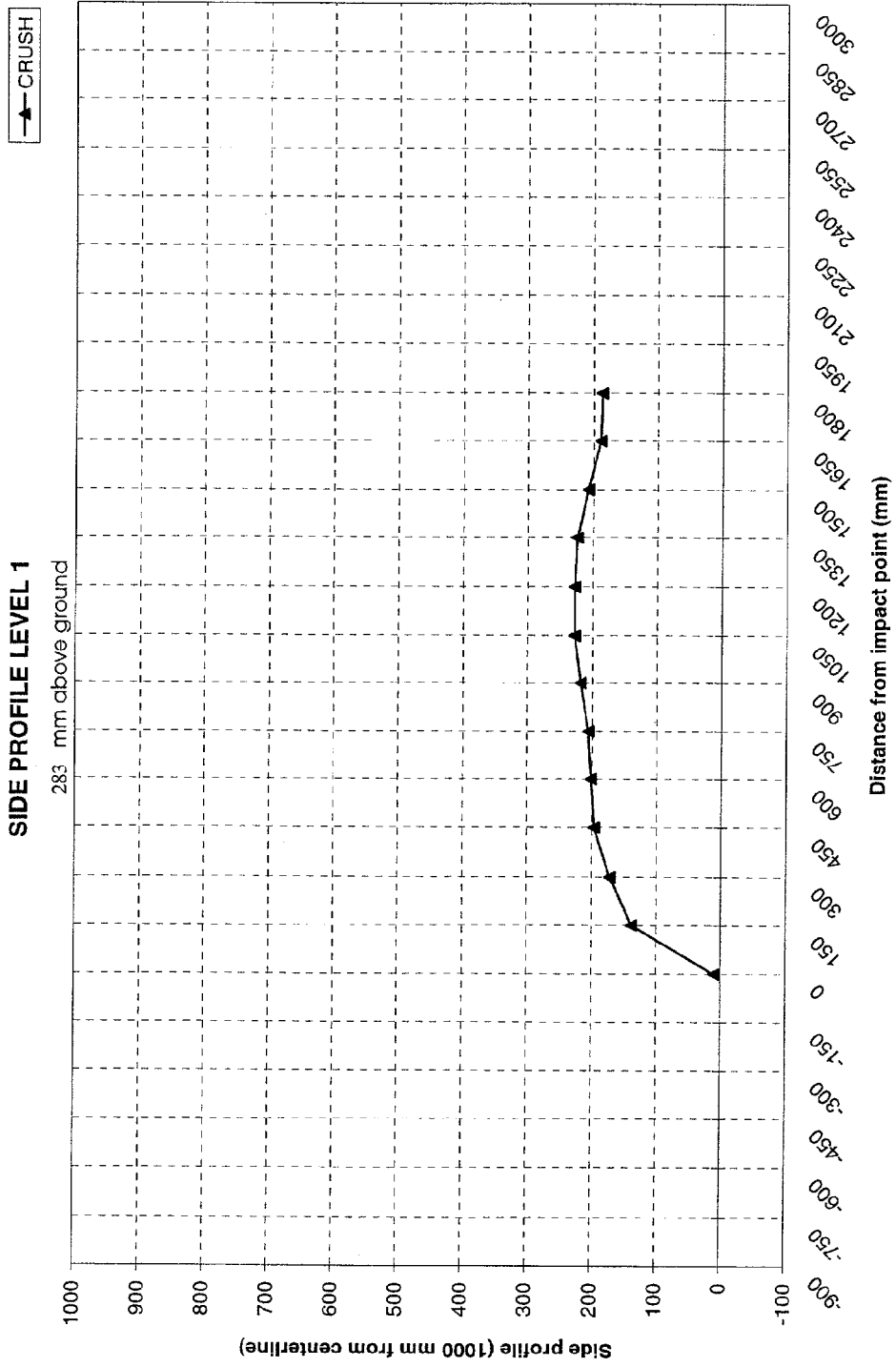
LEVEL	HEIGHT (mm)	DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																										
		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
LEVEL 1 SIDE SILL	PRE	--	--	--	--	--	--	175	172	182	181	185	187	185	183	197	196	182	188	176	--	--	--	--	--	--	--	--
	POST	--	--	--	--	--	--	185	316	354	377	386	393	403	411	415	410	389	376	362	--	--	--	--	--	--	--	--
	CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	10	138	172	196	201	206	218	228	228	224	207	188	186	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	PRE	219	177	--	--	--	--	146	148	145	145	145	139	137	136	135	137	142	143	150	146	--	--	--	--	159	186	--
	POST	173	136	--	--	--	--	153	379	429	432	449	442	433	434	444	448	482	461	431	311	--	--	--	--	195	198	--
	CRUSH	-46	-41	N/A	N/A	N/A	N/A	7	231	284	287	304	303	296	298	309	311	340	318	281	165	N/A	N/A	N/A	N/A	36	12	N/A
LEVEL 3 MID DOOR	PRE	230	184	151	--	--	145	147	144	140	145	141	143	140	142	136	139	143	146	151	155	143	--	--	--	173	209	--
	POST	188	158	135	--	--	150	165	367	386	393	402	403	409	418	421	431	446	457	444	330	269	--	--	212	220	--	
	CRUSH	-42	-26	-16	N/A	N/A	5	18	223	246	248	261	260	269	276	285	292	303	311	293	175	126	N/A	N/A	39	11	N/A	
LEVEL 4 WINDOW SILL	PRE	--	389	296	233	219	201	187	181	183	180	174	173	173	169	148	168	169	171	172	189	183	192	198	214	252	--	
	POST	--	334	259	213	189	190	198	275	334	382	391	408	420	430	424	449	459	456	400	331	270	267	251	244	266	--	
	CRUSH	N/A	-55	-37	-20	-30	-11	11	94	151	202	217	235	247	261	276	281	290	285	238	142	87	75	53	30	14	N/A	
LEVEL 5 WINDOW TOP	PRE	--	--	--	--	--	--	--	--	--	--	443	420	419	423	424	421	422	442	442	475	509	557	--	--	--	--	
	POST	--	--	--	--	--	--	--	--	--	--	433	329	347	371	396	455	440	434	447	475	511	551	--	--	--		
	CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-10	-91	-72	-52	-38	34	18	12	5	0	2	-6	N/A	N/A	N/A		

DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

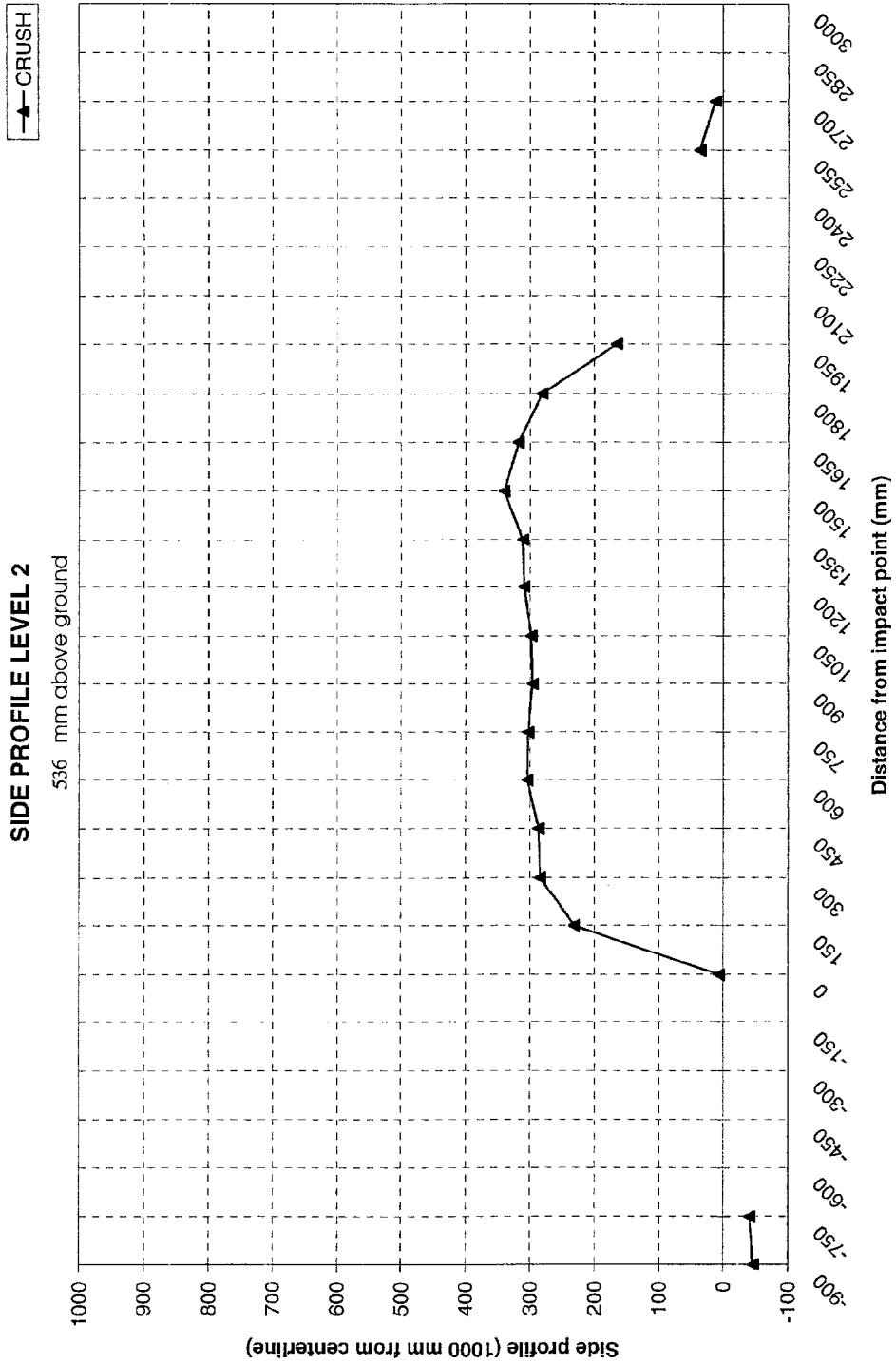


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

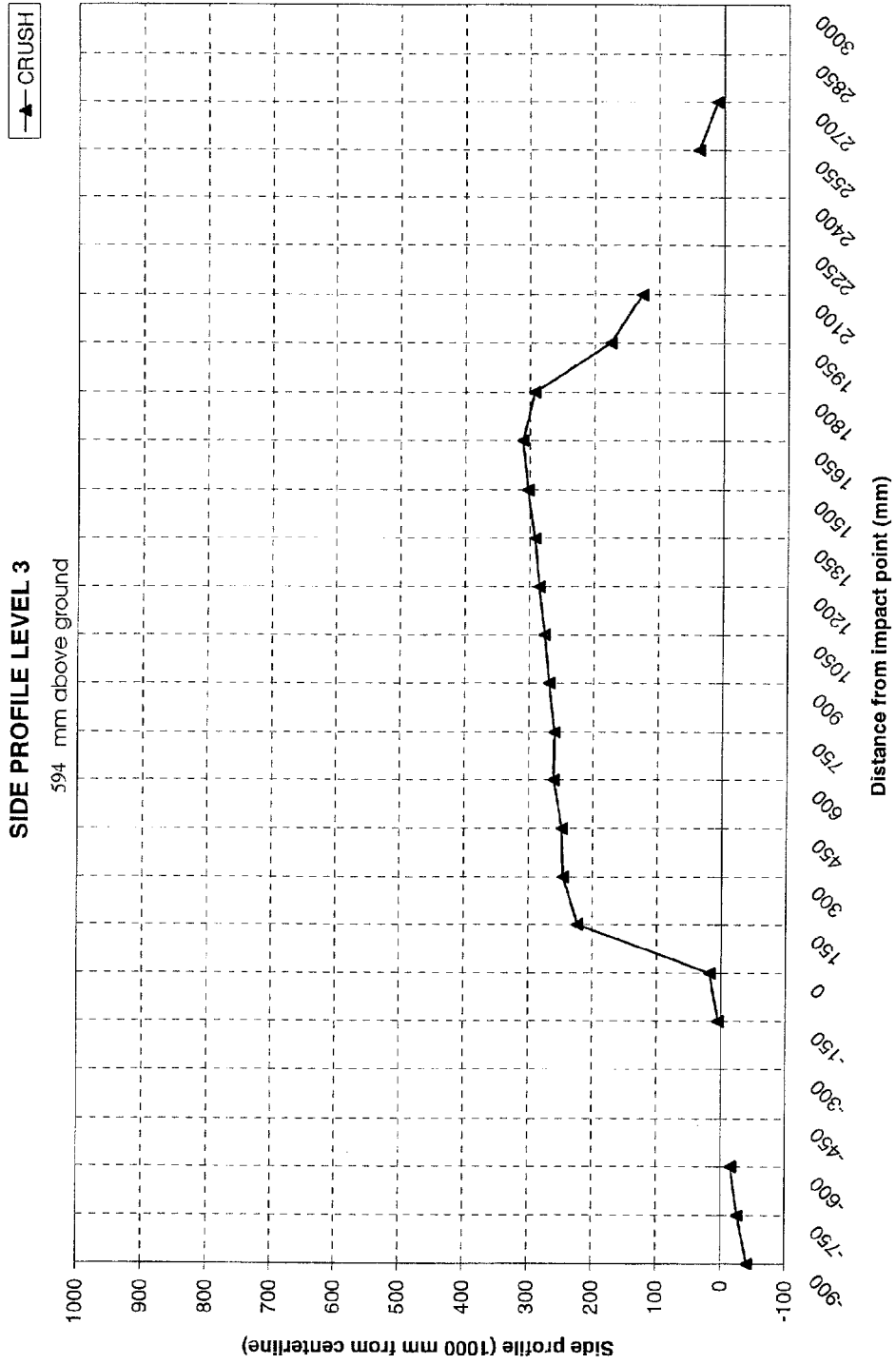


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

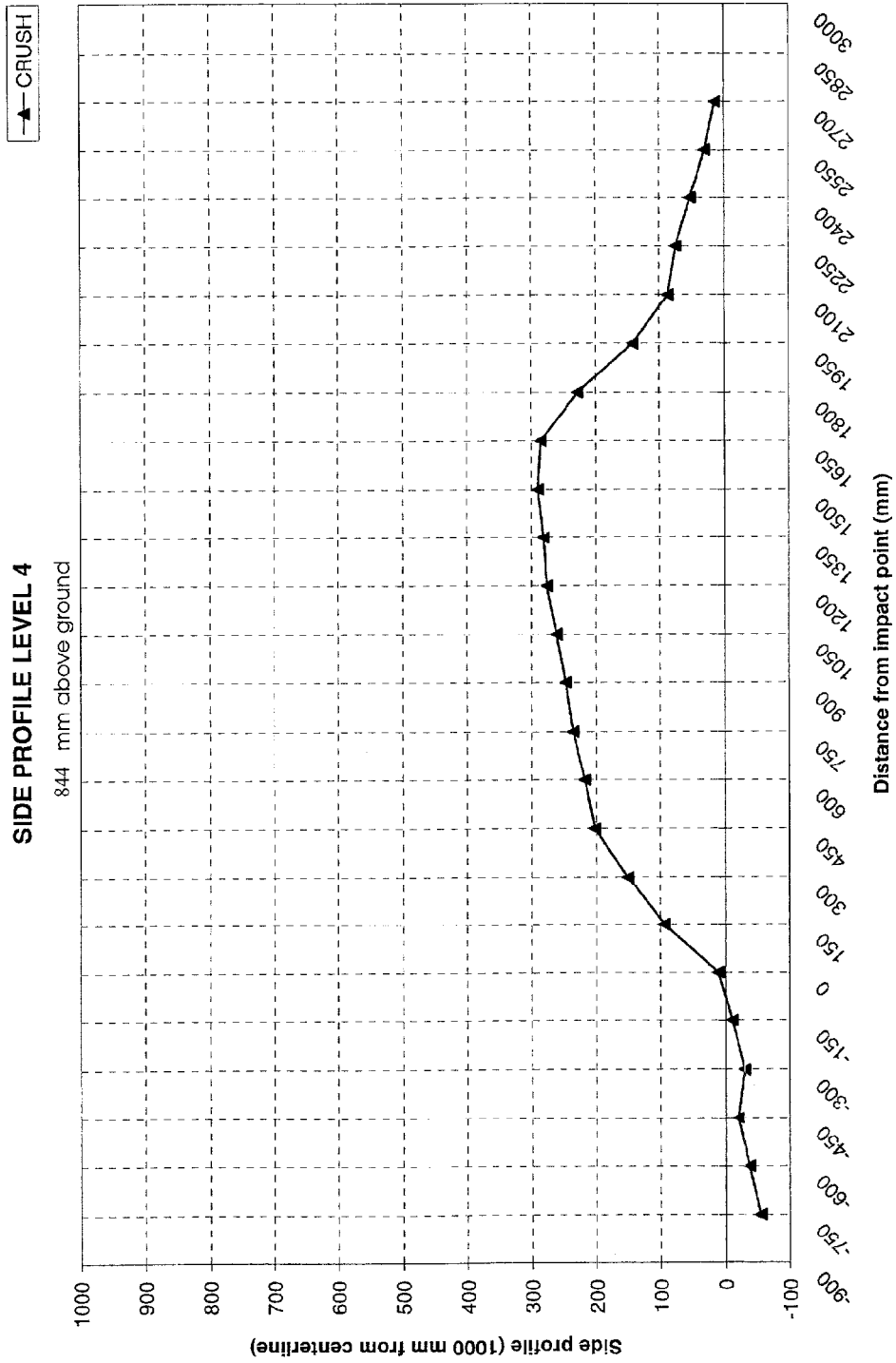


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

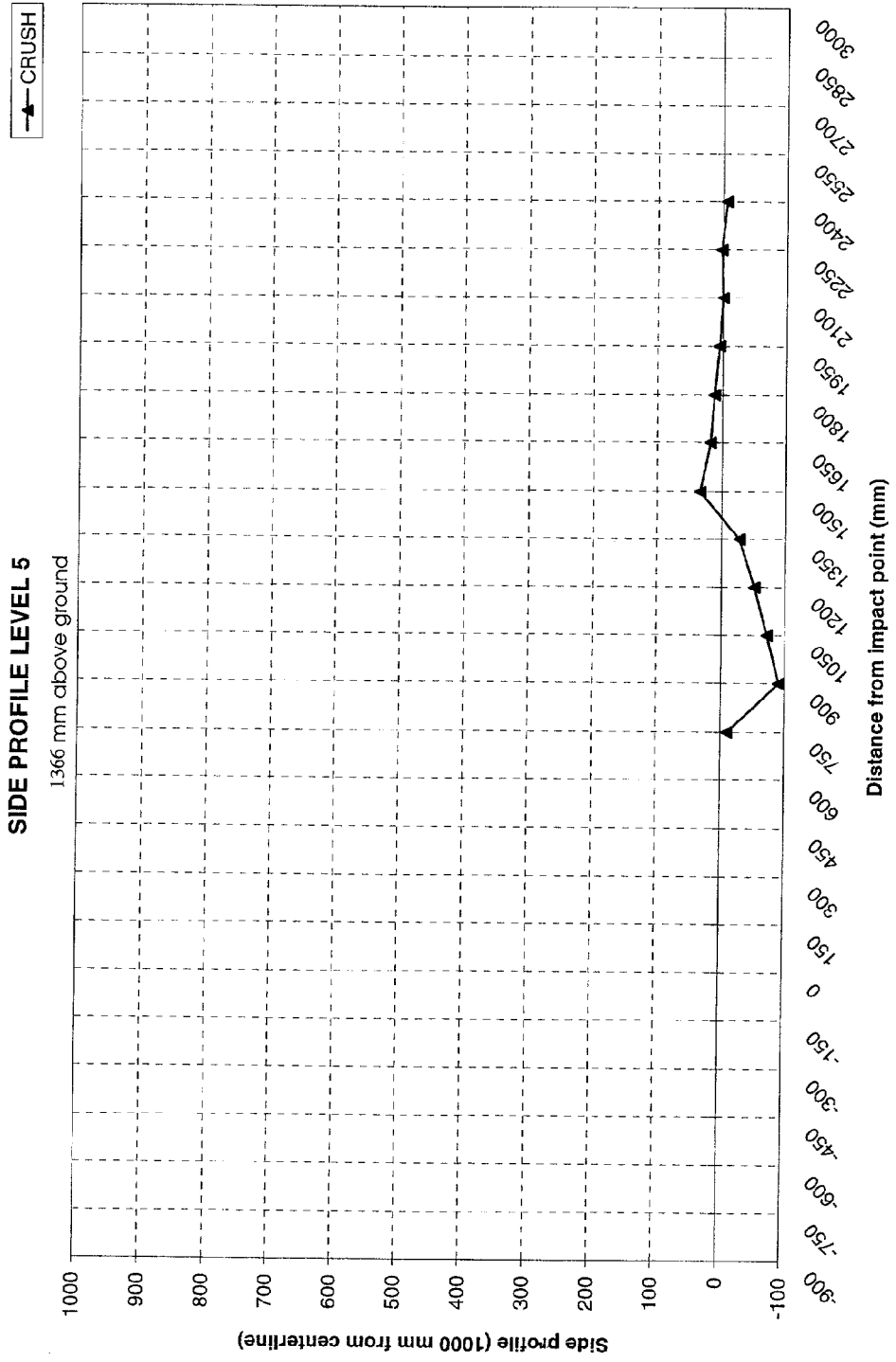


DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

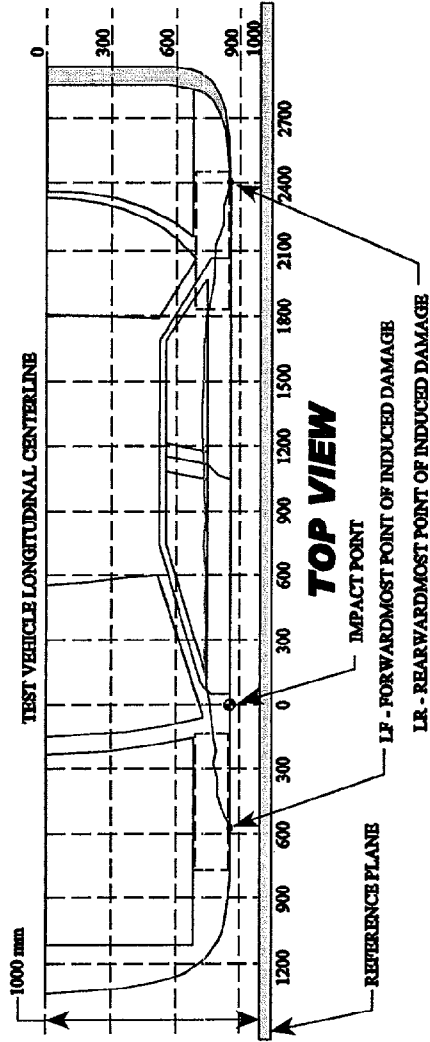


DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



MEASUREMENT CONVENTIONS:

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

NOTE: All dimensions are in millimeters with tolerance of  $\pm 3$  mm.

DPD MEASUREMENTS	POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1 (LR = <u>2600</u> mm)	215	185	30
2 2070	281	145	136
3 1540	476	142	334
4 1010	434	136	298
5 480	435	145	290
6 (LF = <u>-50</u> mm)	160	146	14

DATA SHEET 12

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

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

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

LEVEL	HEIGHT AT CL (mm)*	DISTANCE RIGHT OF CENTER (mm)								DISTANCE LEFT OF CENTER (mm)								
		800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
LEVEL 4																		
TOP	813	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
STACK		683	638	621	628	635	639	639	627	627	631	648	656	671	691	728	774	
		64	19	2	9	16	20	20	8	8	12	29	37	52	72	109	155	
LEVEL 3		619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
MID	686	649	625	622	631	637	623	621	620	621	625	629	632	641	655	681	724	
LEVEL		30	6	3	12	18	4	2	1	2	6	10	13	22	36	62	105	
LEVEL 2		619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOP	533	698	686	672	666	660	658	659	661	659	666	667	669	667	671	684	698	
BUMPER		79	67	53	47	41	39	40	42	40	47	46	50	48	52	65	79	
LEVEL 1		535	519	518	518	518	518	518	518	518	518	518	518	518	518	519	535	
MID	432	667	639	626	609	599	598	592	590	594	589	596	601	602	596	628	618	
BUMPER		132	120	108	91	81	80	74	72	76	71	73	78	83	78	109	83	

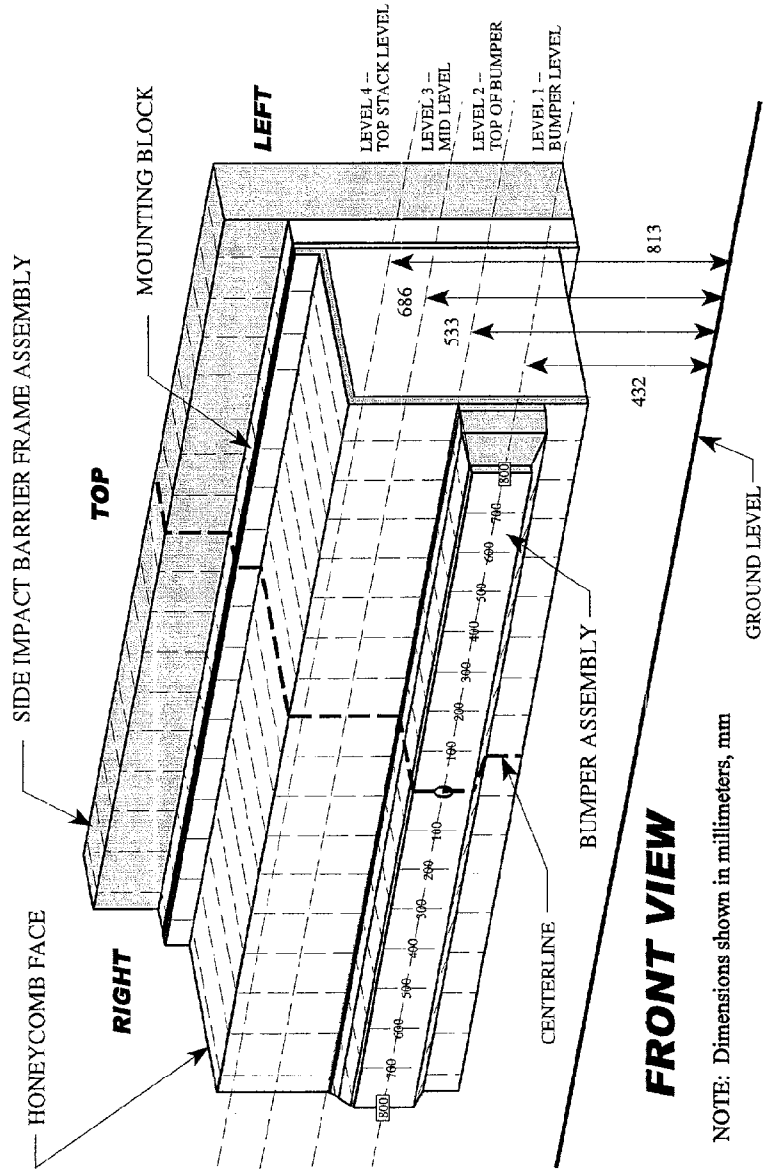
\*Heights measured above ground level.

DATA SHEET 12 (continued)

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



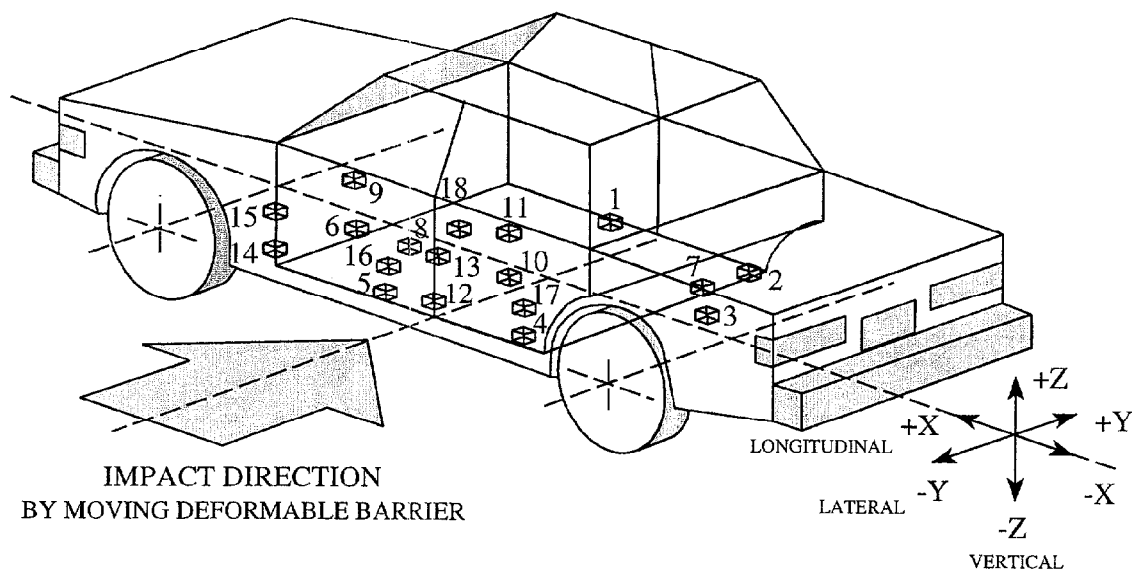
NOTE: Dimensions shown in millimeters, mm

# DATA SHEET 13

## TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



- 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 Ford Focus

NHTSA No. CY0206

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	2704	670	335	4.5	63.7	29.3	29.9	8.6	48.7	29.4	29.9
					-4.2	15.3	-4.7	68.2	-6.7	14.2	0.0	-4.0
2	Right Side Sill at Rear Seat	1769	610	295	4.1	63.3	23.6	29.4	5.9	32.2	23.8	29.4
					-4.9	14.4	-2.9	84.1	-9.3	20.5	0.0	-10.8
3	Rear Floorpan Above Axle	898	0	524	3.8	79.5	22.2	32.1	14.2	84.3	24.0	79.5
					-9.2	38.5	-3.6	76.4	-23.7	79.5	0.0	-14.0
4	Left Side Sill at Rear Seat	1769	-610	295	-	-	63.9	12.4	-	-	-	-
					-	-	-29.4	21.0	-	-	-	-
5	Left Side Sill at Front Seat	2704	-670	335	-	-	81.9	3.6	-	-	-	-
					-	-	-55.3	11.6	-	-	-	-
6	Left Front Door on Centerline	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
7	Right Rear Occupant Compartment	1754	-324	215	-	-	A	A	-	-	-	-
					-	-	A	A	-	-	-	-
8	Midrear of Left Front Door	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
9	Left Front Door Upper Centerline	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
10	Midrear of Left Rear Door	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-
11	Left Rear Door Upper Centerline	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-

\*Reference: X - Rear Bumper (+ Forward)

\*\*Accelerometer was not requested by COTR.

Y - Vehicle Centerline (+ To Right)

A - Data is not accurate.

Z - Ground Level (+ Up)

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

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)
12	Left Lower B-Pillar	1642	-610	345	-	-	114.7	5.4	-	-	-	-
					pos.		neg.	10.5	-	-	-	-
13	Left Middle B-Pillar	1642	-610	988	-	-	232.0	24.4	-	-	-	-
					pos.		neg.	41.5	-	-	-	-
14	Left Lower A-Pillar	2826	-665	645	-	-	148.7	3.7	-	-	-	-
					pos.		neg.	17.0	-	-	-	-
15	Left Middle A-Pillar	-	-	-	-	-	N	N	-	-	-	-
					pos.		neg.	N	N	-	-	-
16	Front Seat Track	2064	-523	378	-	-	63.4	7.9	-	-	-	-
					pos.		neg.	23.3	-	-	-	-
17	Rear Seat Track	842	-687	848	-	-	75.1	6.9	-	-	-	-
					pos.		neg.	35.4	-	-	-	-
18	Vehicle CG	1878	0	455	7.0	61.5	33.6	13.0	29.5	31.2	35.9	13.4
					pos.	9.4	neg.	51.7	-18.2	16.1	0.0	-15.4

\*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To Right)

Z - Ground Level (+ Up)

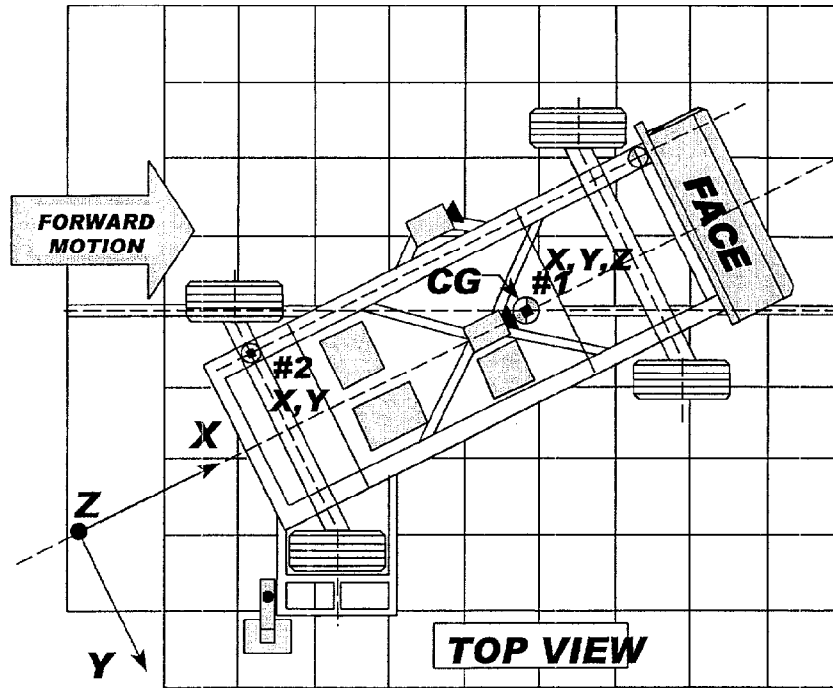
N - No Data Recorded

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	MDB Center of Gravity							
	Longitudinal... X	1859	0	330	1.3	115.6	-24.0	39.8
	Lateral..... Y				3.7	56.8	-9.2	31.0
	Vertical..... Z				7.4	34.3	-13.6	43.6
Resultant..... R	24.9				43.0	0.2	172.8	
2	Rear Frame Member							
	Longitudinal... X	386	-660	660	2.3	88.4	-21.3	31.5
Lateral..... Y	4.4				33.1	-1.3	112.2	

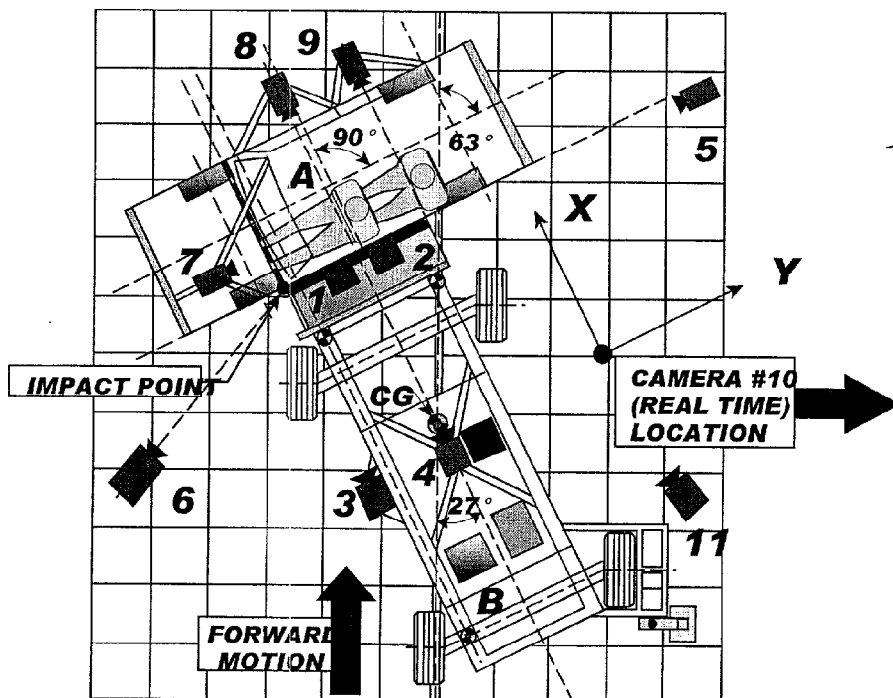
\*Reference: X = Rear Bumper (+ Forward)  
 Y = Vehicle Centerline (+ To Right)  
 Z = Ground Level (+ Up)  
 All measurements accurate to within ±3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2000 Ford Focus

NHTSA No. CY0206



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	105	825	4880	-90	8	1010
2	Overhead closeup view of impact plane	232	884	4880	-90	12.5	1020
3	MDB onboard closeup view of impact point	-1470	0	847	0	13	1030
4	MDB onboard view of driver dummy	-1140	838	1586	-17	7.5	1020
5	Right side ground level overall view	321	8832	1030	-3.3	25	1040
6	Left side ground level overall view	-1872	-1696	1038	-7.1	13	1050
7	Test vehicle onboard driver front view	465	-495	1291	-7.0	13	980
8	Test vehicle onboard driver side view	1654	872	1015	-10.9	8	1040
9	Test vehicle onboard passenger side view	1634	1807	1084	-12.6	8	1020
10	Real time film coverage of test	-	-	-	-	-	24

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

- +X = Forward
- +Y = To Right
- +Z = Upward

**SECTION 5**

**FUEL SYSTEM INTEGRITY**

**DATA SHEET 16**

**FMVSS 301 FUEL SYSTEM INTEGRITY DATA**

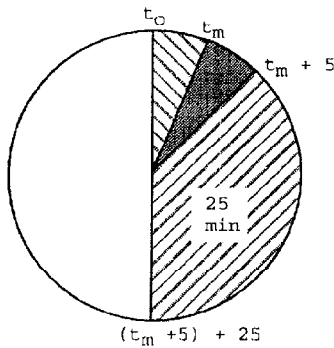
NHTSA No.:           CY0206           TEST DATE:           February 16, 2000            
 Vehicle Mfgr./Make/Model :           2000 Ford Focus 3-Door Hatchback          

\*\*\*\*\*

**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 (61.31 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

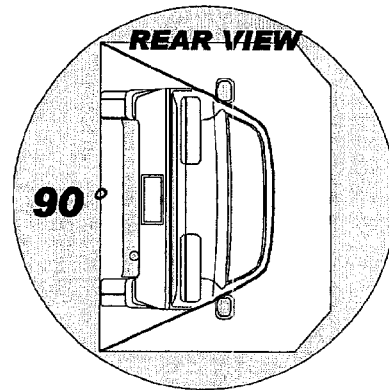
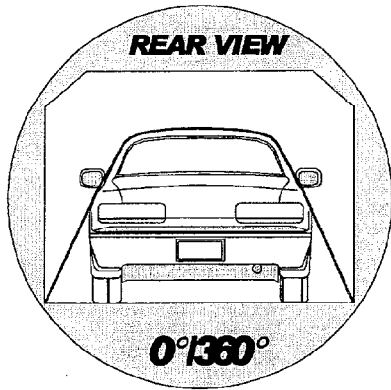
DATA SHEET 17

ROLLOVER DATA

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

0 - 90 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes <u>18</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes <u>0</u> seconds
TOTAL	<u>6</u> minutes <u>18</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

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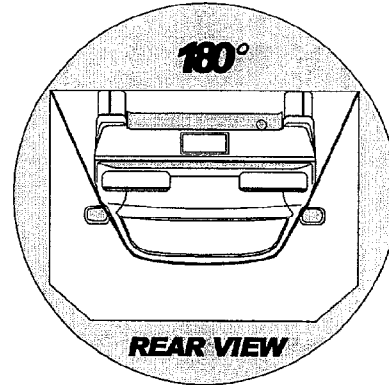
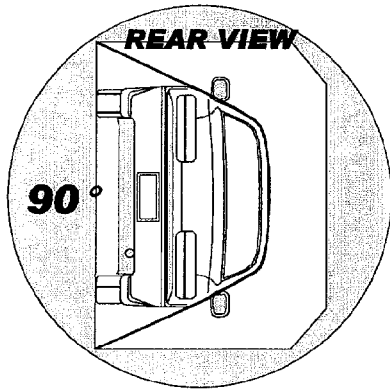
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

90 - 180 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes <u>03</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes <u>0</u> seconds
<b>TOTAL</b>	<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

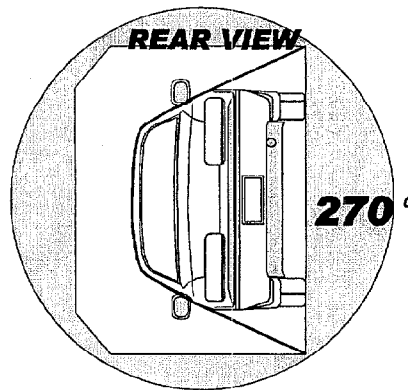
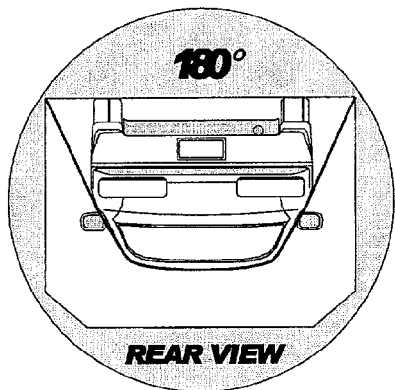
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

180 - 270 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	1	minutes	04	seconds
FMVSS 301 Position Hold Time +	5	minutes	0	seconds
TOTAL	6	minutes	4	seconds
Next whole minute interval	7	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

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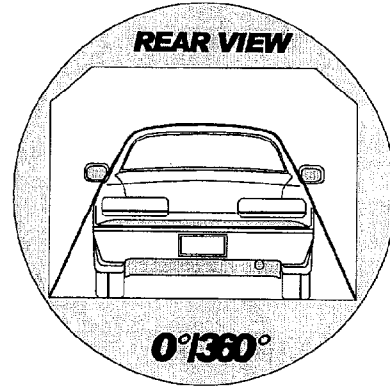
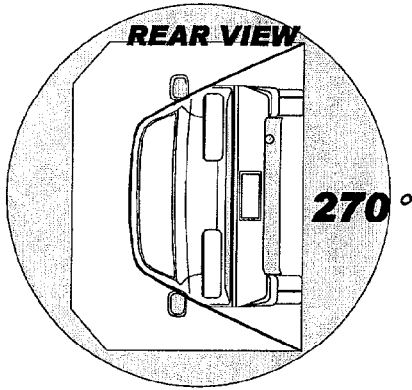
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 2000 Ford Focus

NHTSA No. CY0206

270 - 360 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time	<u>1</u> minutes <u>13</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>13</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

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**APPENDIX A**  
**PHOTOGRAPHS**

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

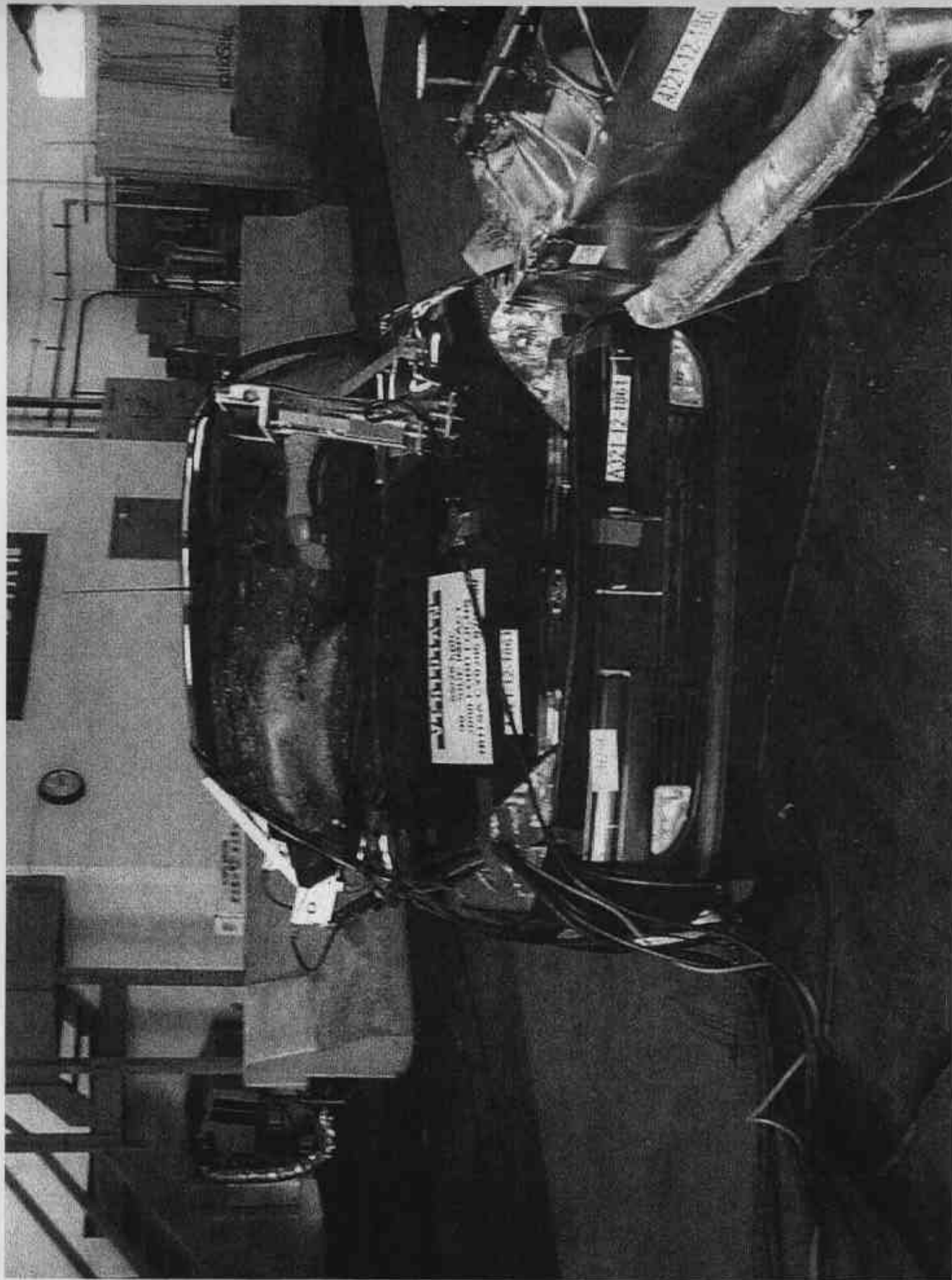


Figure A-2 POST-TEST FRONTAL VIEW OF TEST VEHICLE

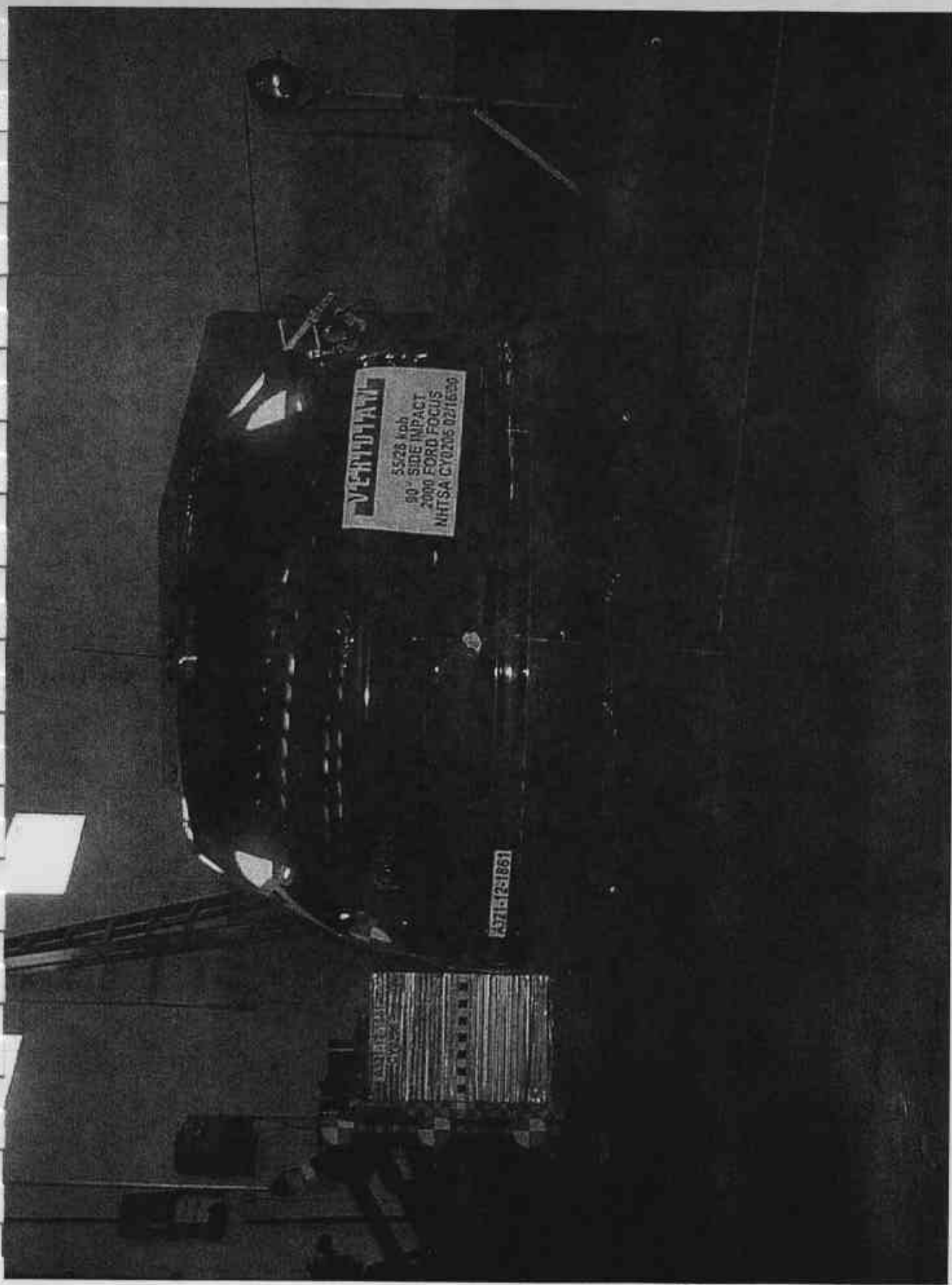


Figure A-3 PRE-TEST REAR VIEW OF TEST VEHICLE

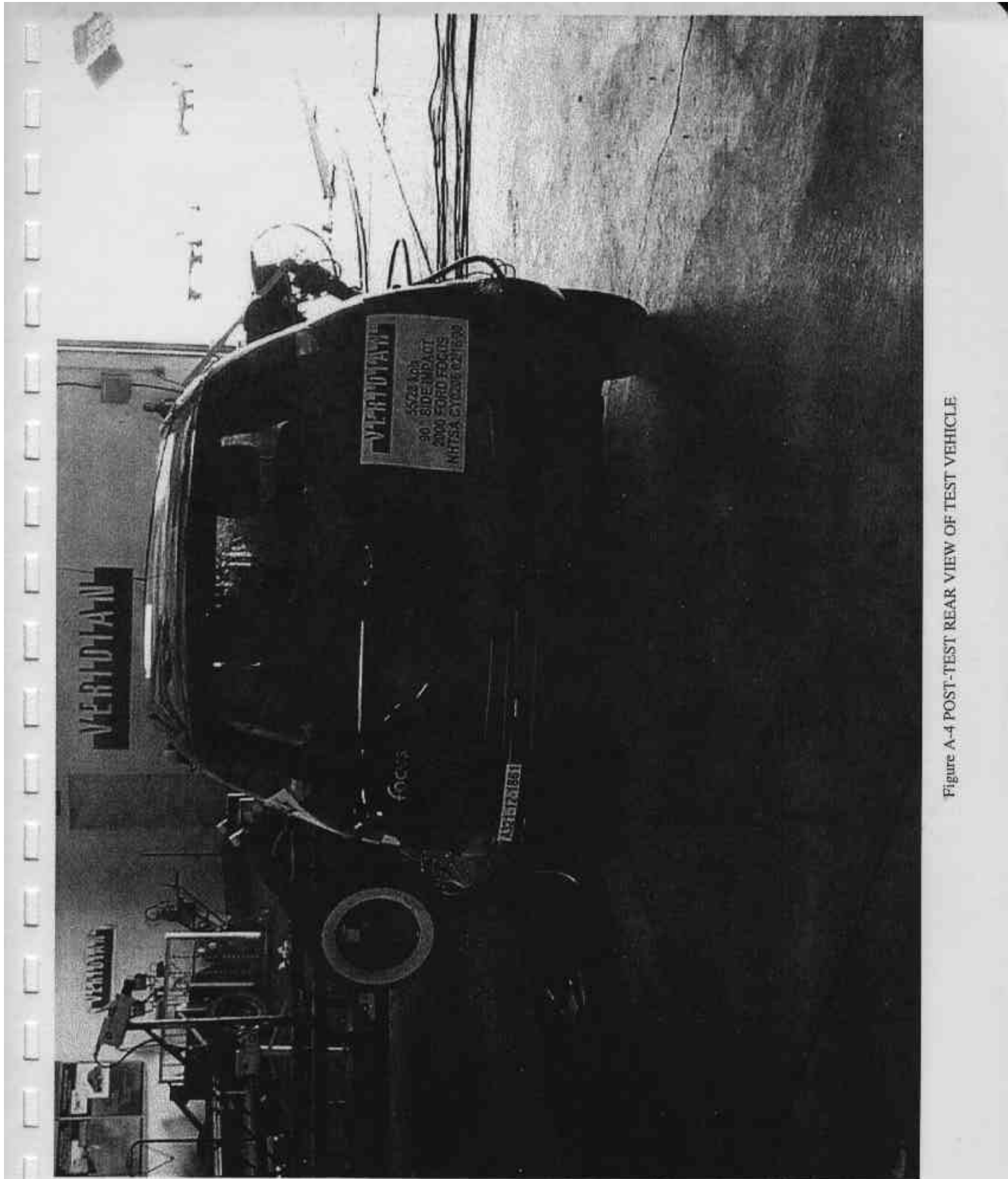


Figure A-4 POST-TEST REAR VIEW OF TEST VEHICLE

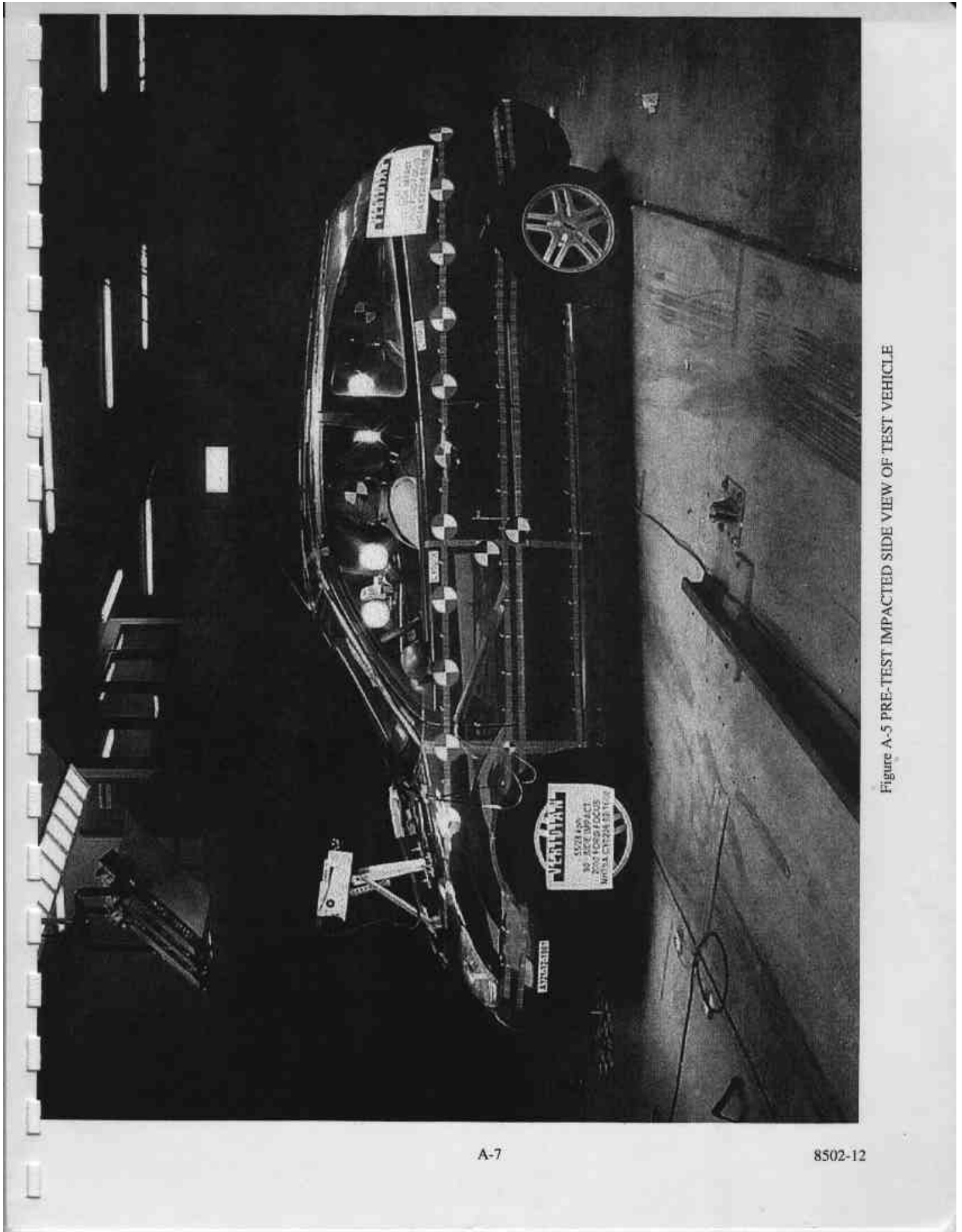


Figure A-5 PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

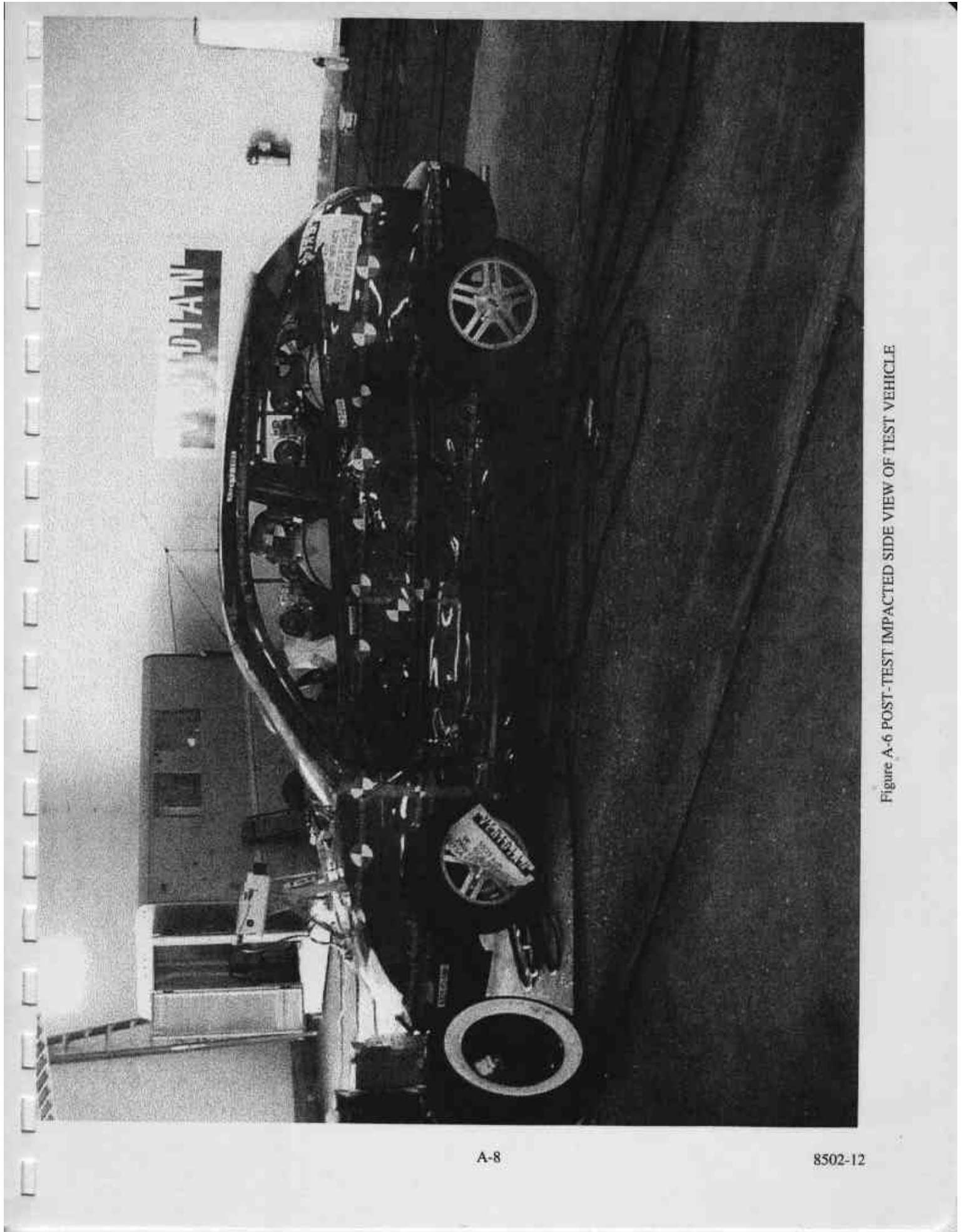


Figure A-6 POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE

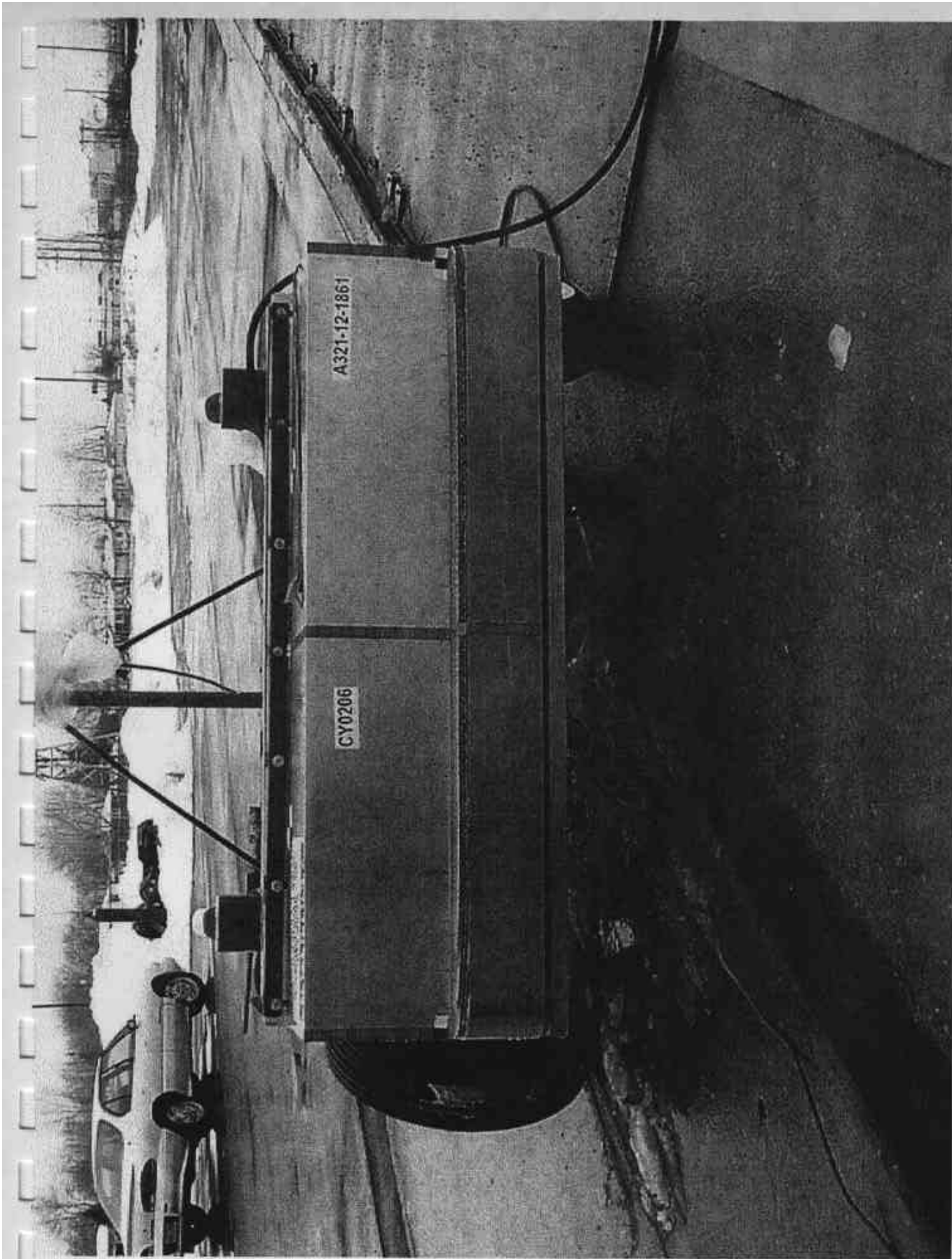


Figure A-7 PRE-TEST FRONTAL VIEW OF IMPACTOR FACE

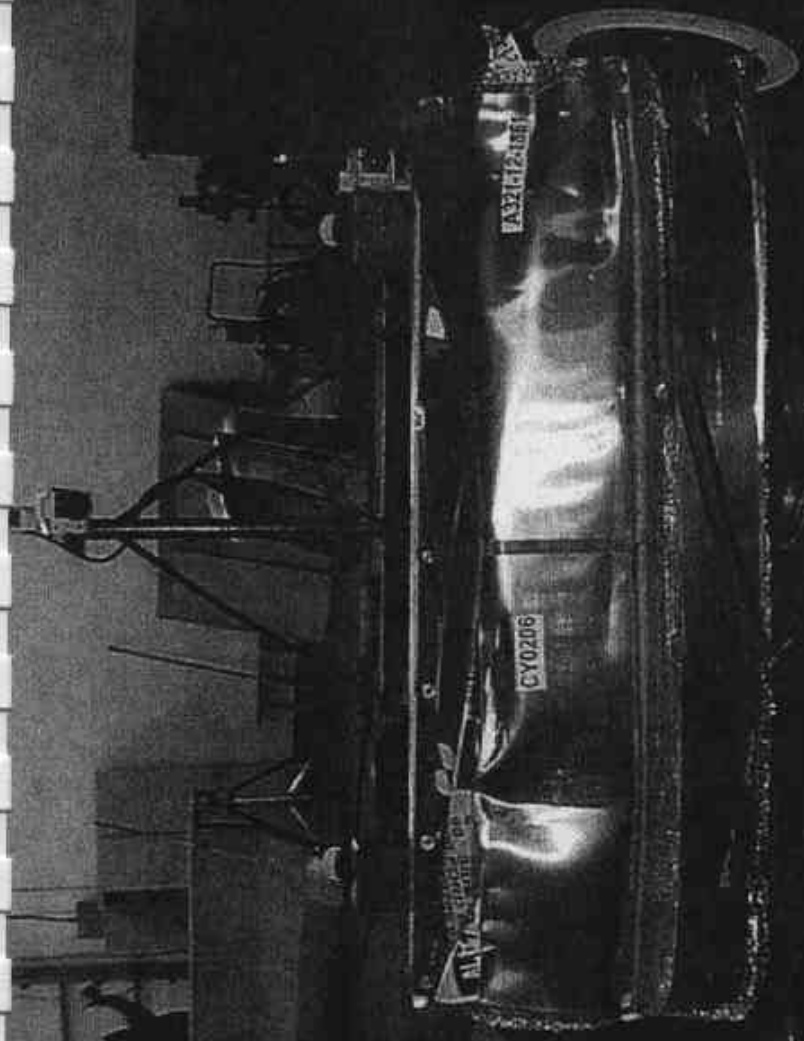


Figure A-8 POST-TEST FRONTAL VIEW OF IMPACTOR FACE



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

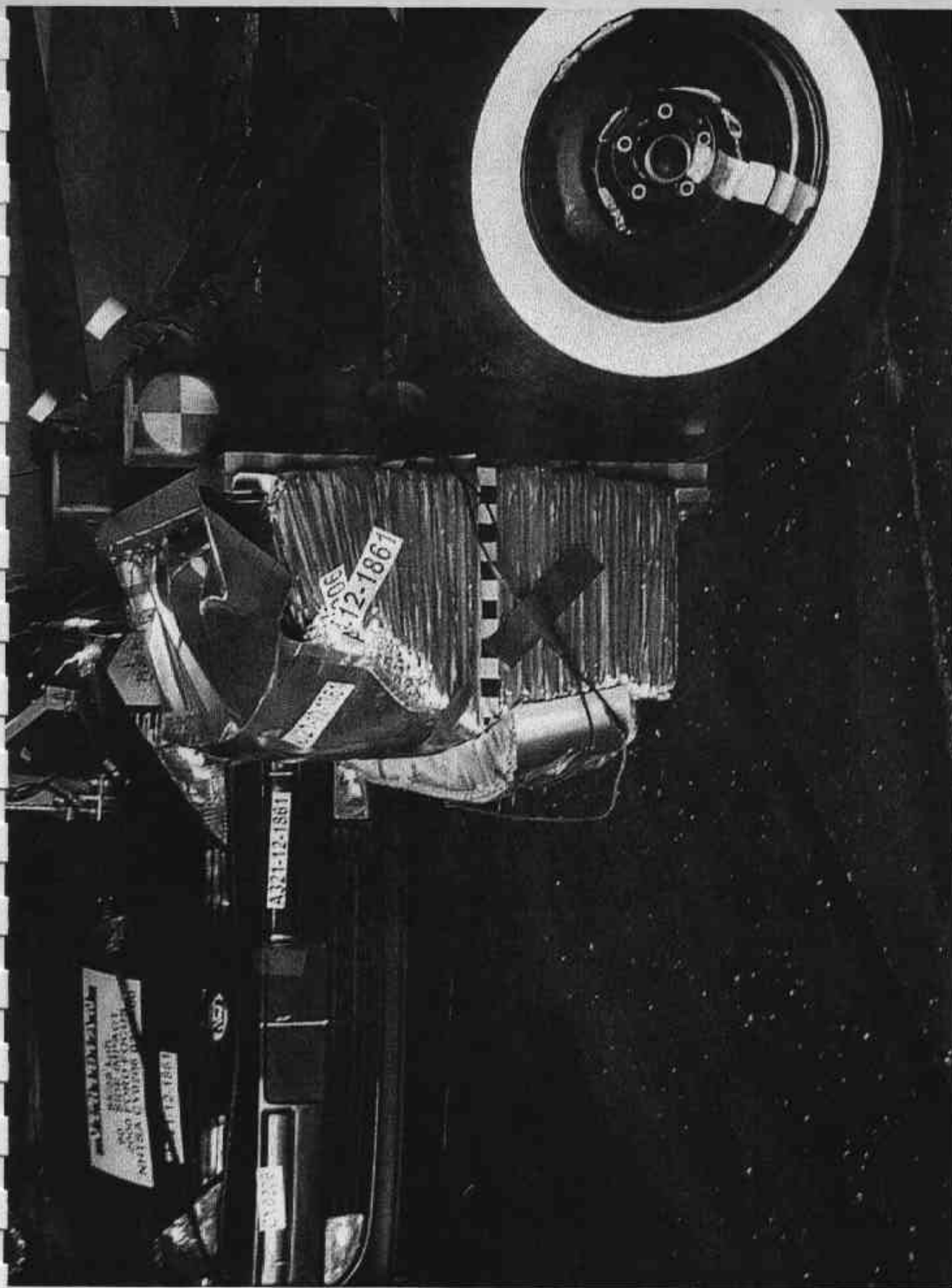


Figure A-10 POST-TEST LEFT SIDE VIEW OF IMPACTOR FACE

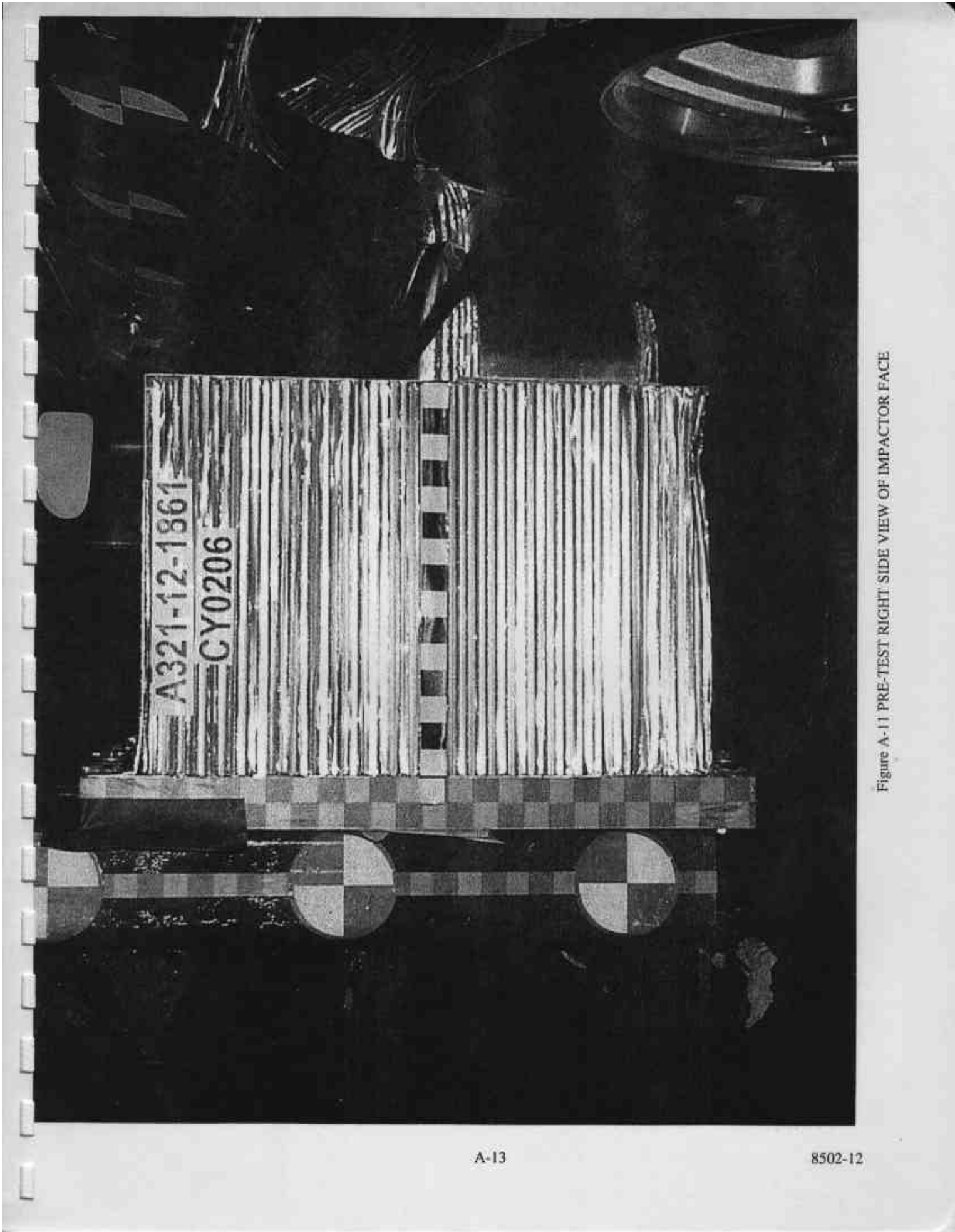


Figure A-11 PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE



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



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

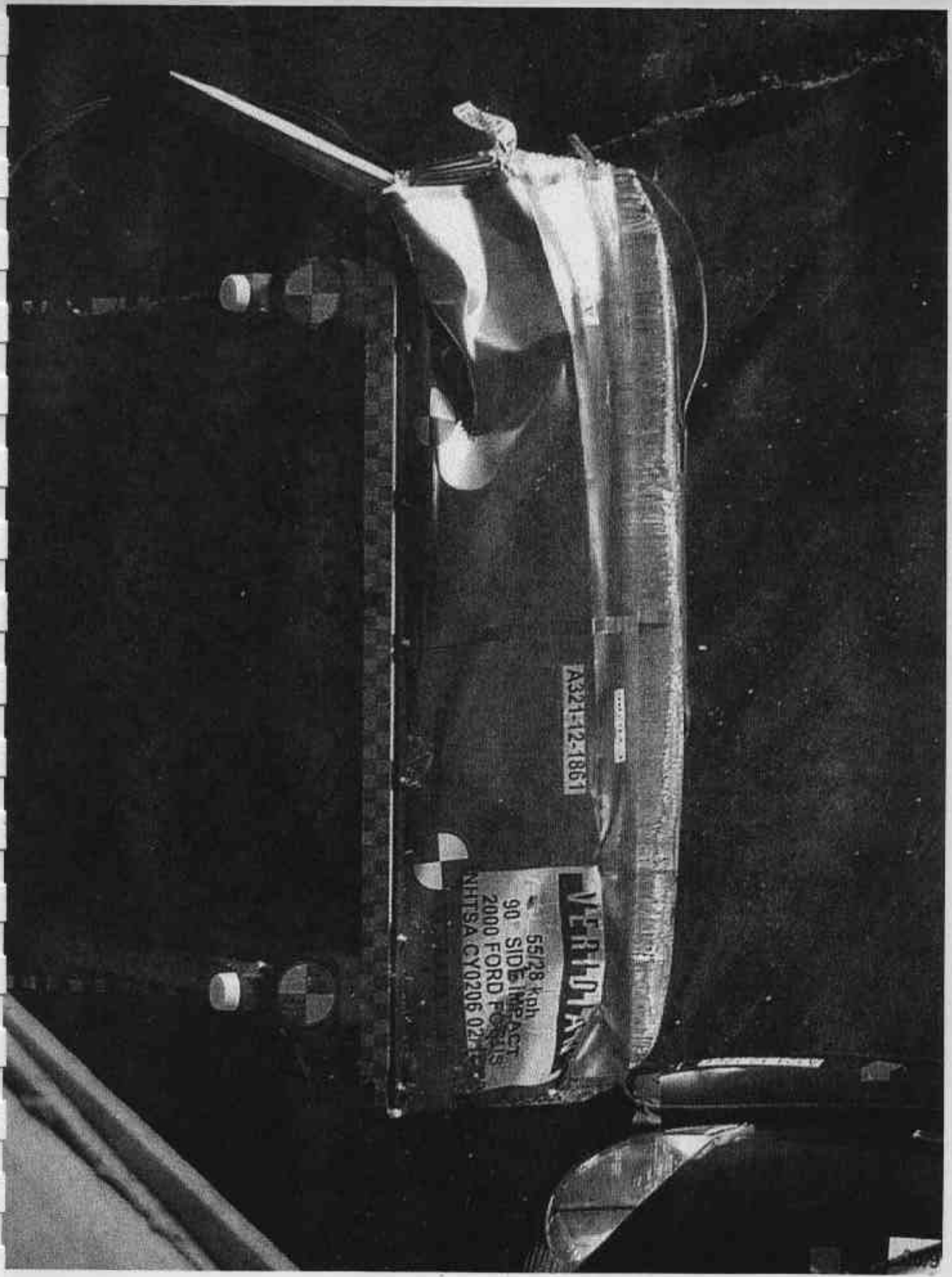


Figure A-14 POST-TEST TOP VIEW OF IMPACTOR FACE



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

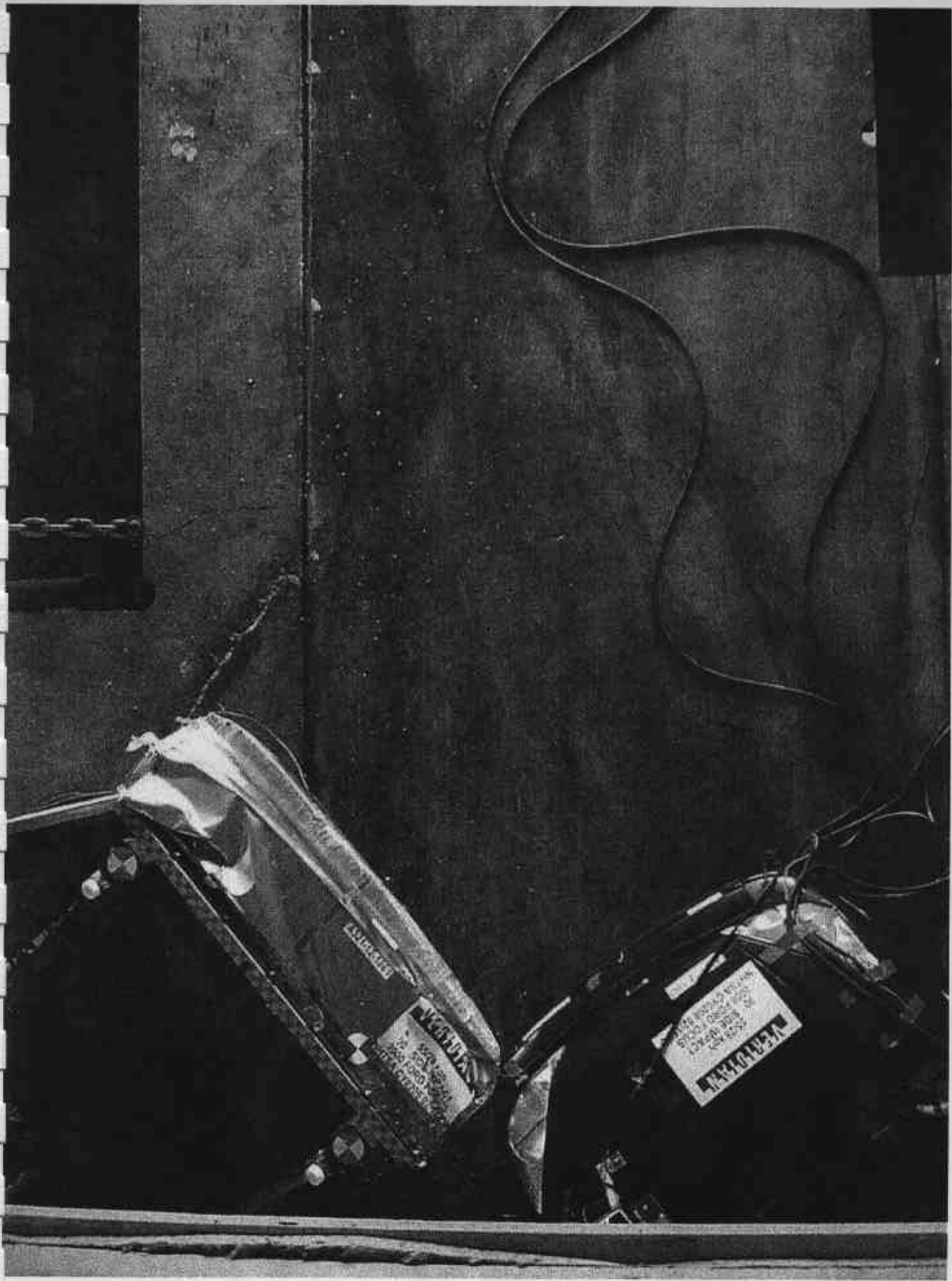


Figure A-16 POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE

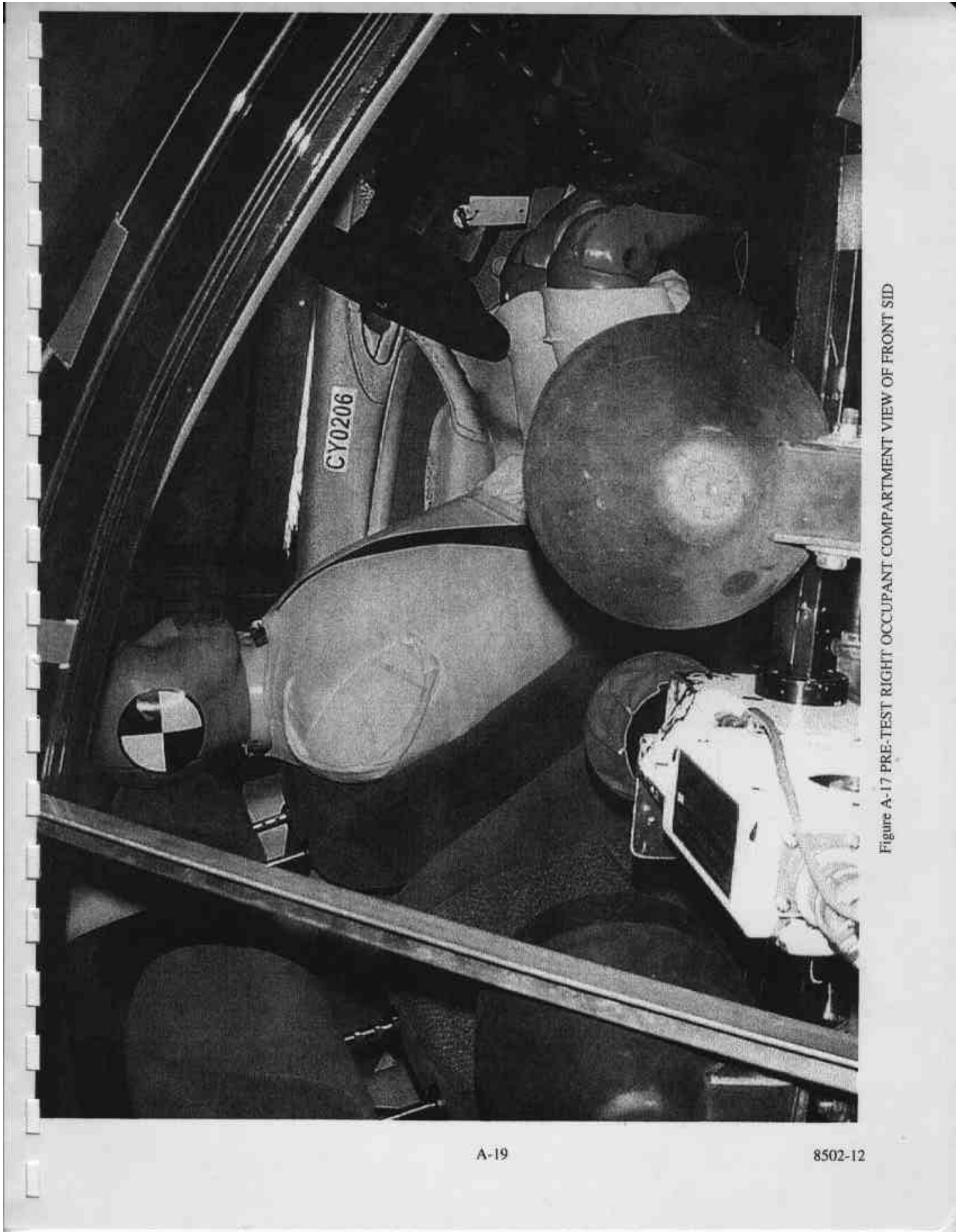


Figure A-17 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID



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

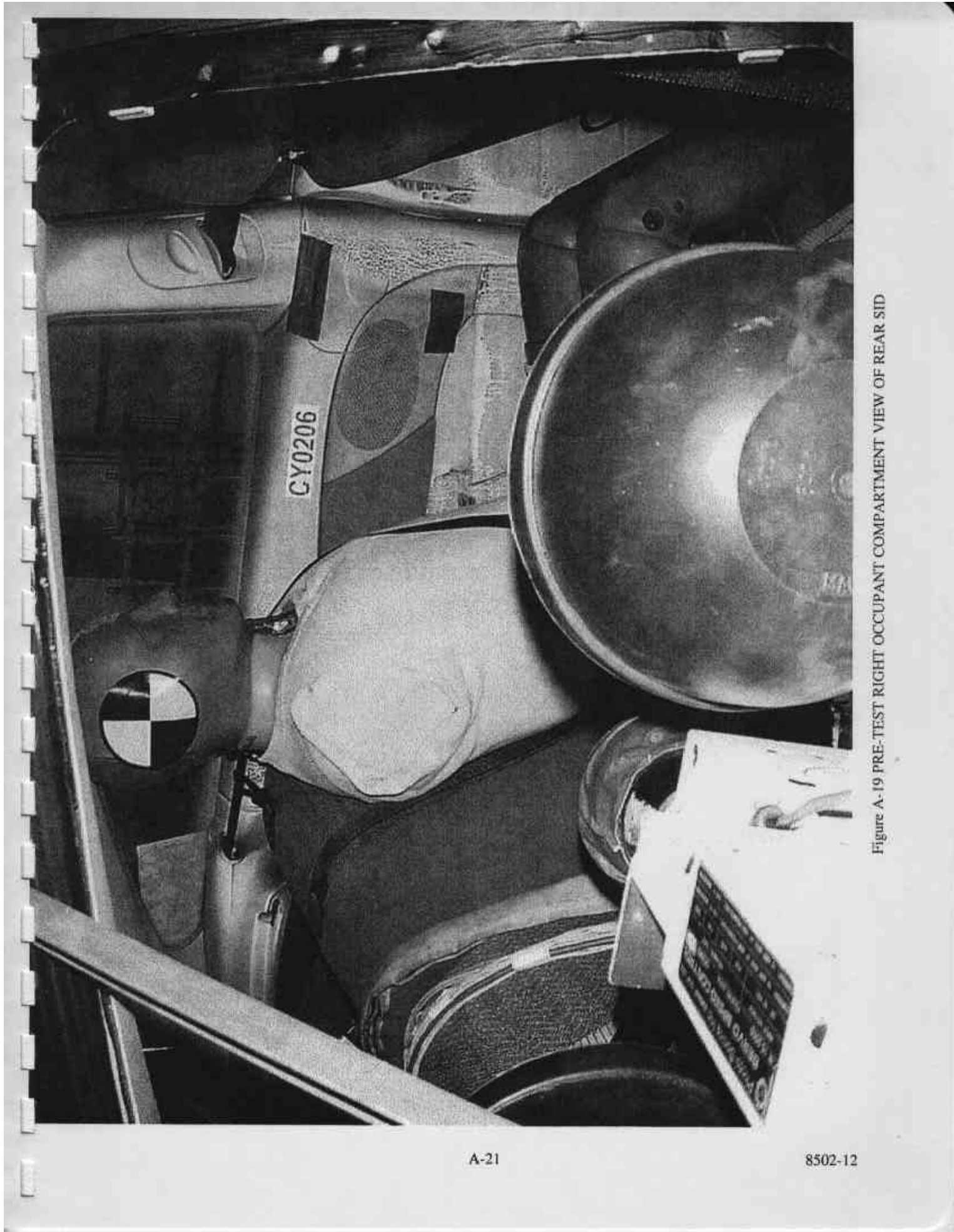


Figure A-19 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID

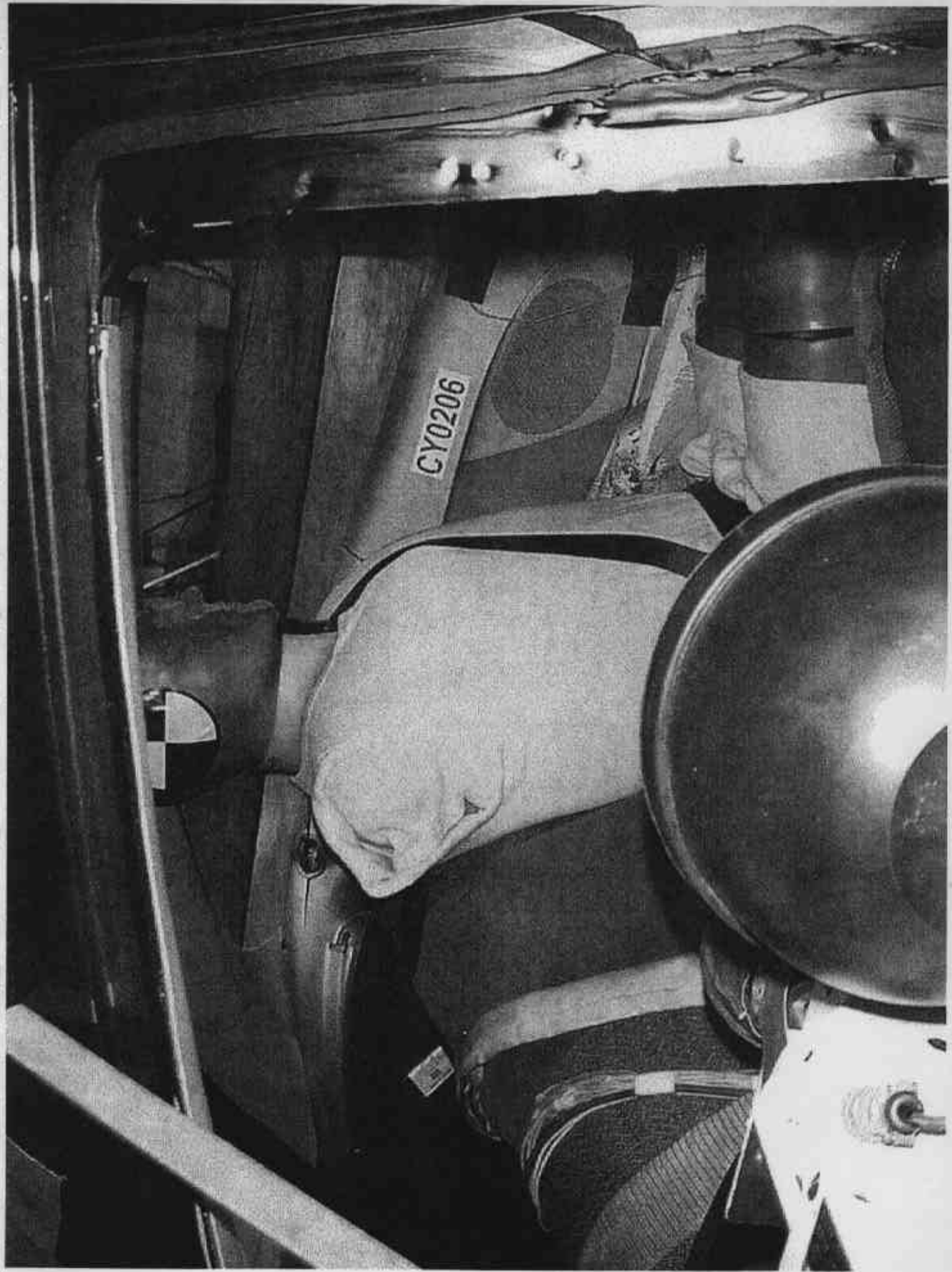


Figure A-20 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID



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

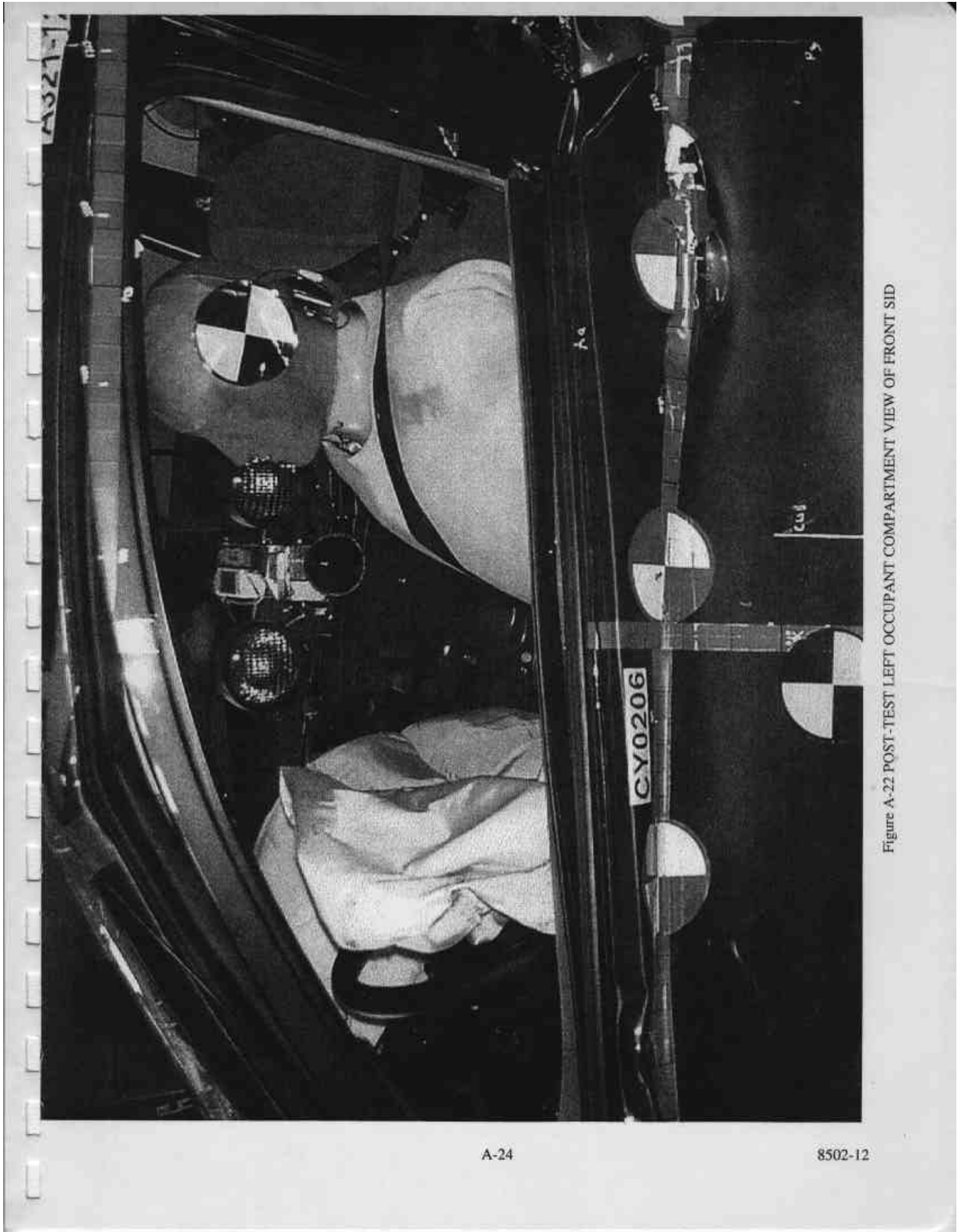


Figure A-22 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID

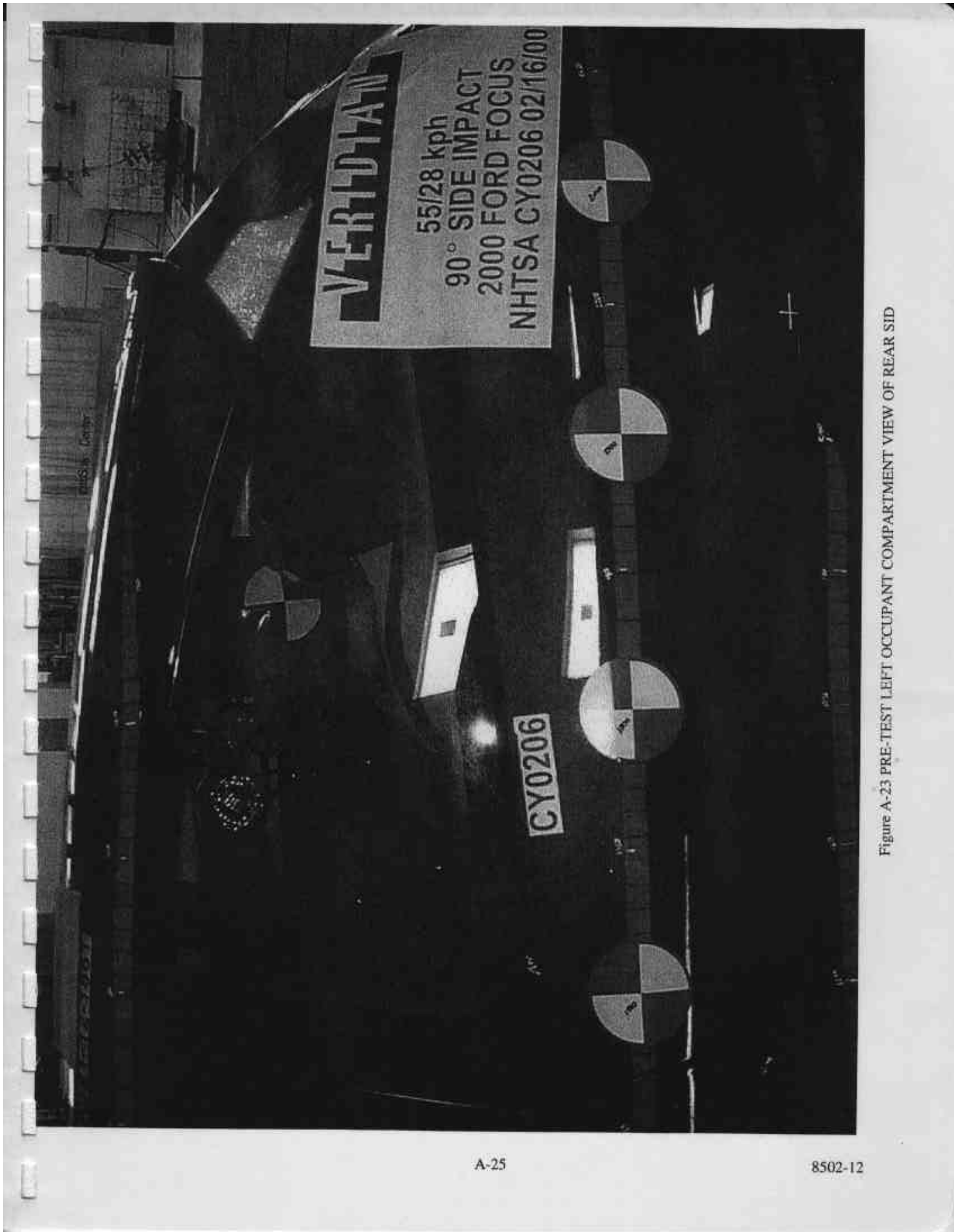


Figure A-23 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID

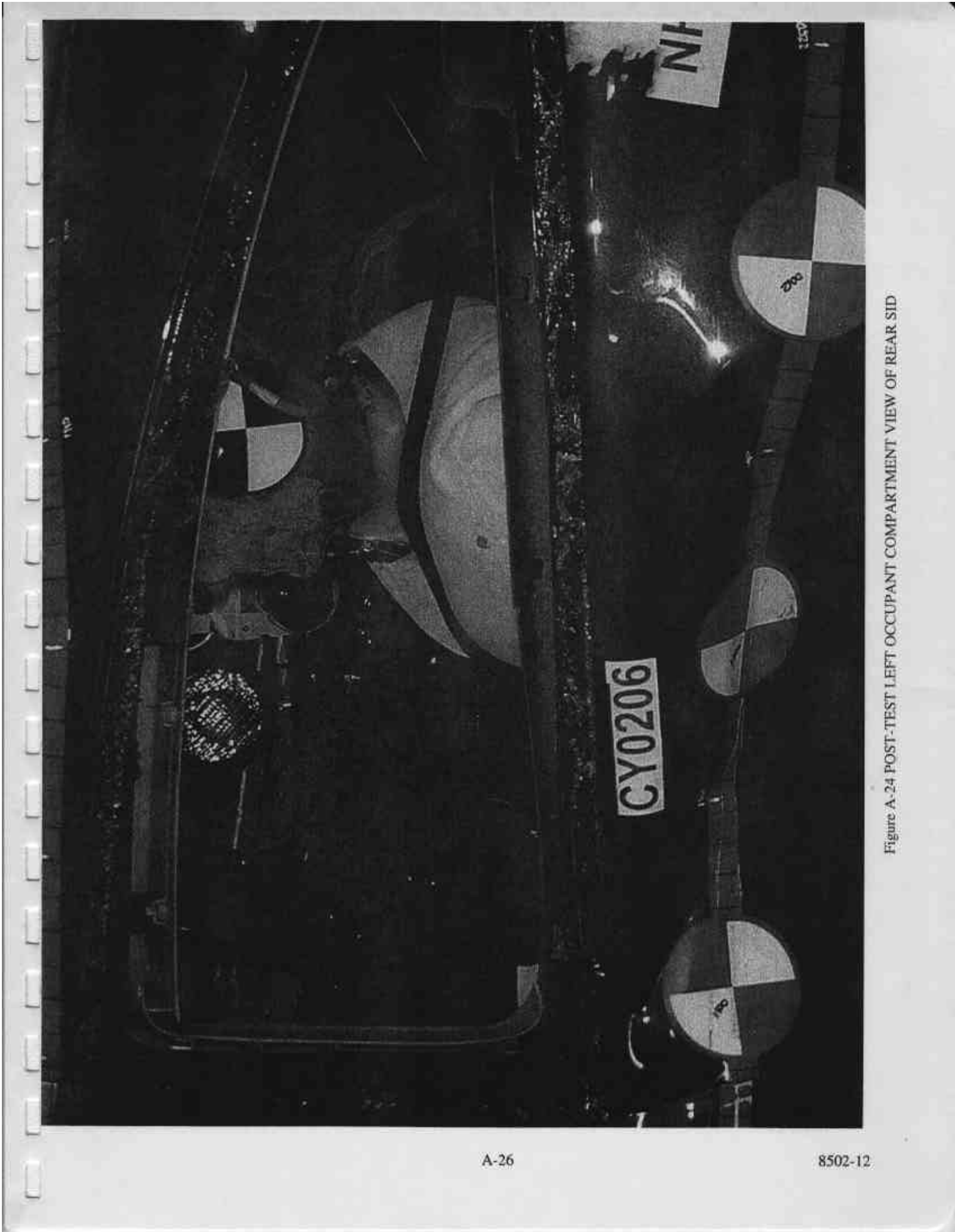


Figure A-24 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID



Figure A-25 PRE-TEST INTERIOR OF FRONT DOOR

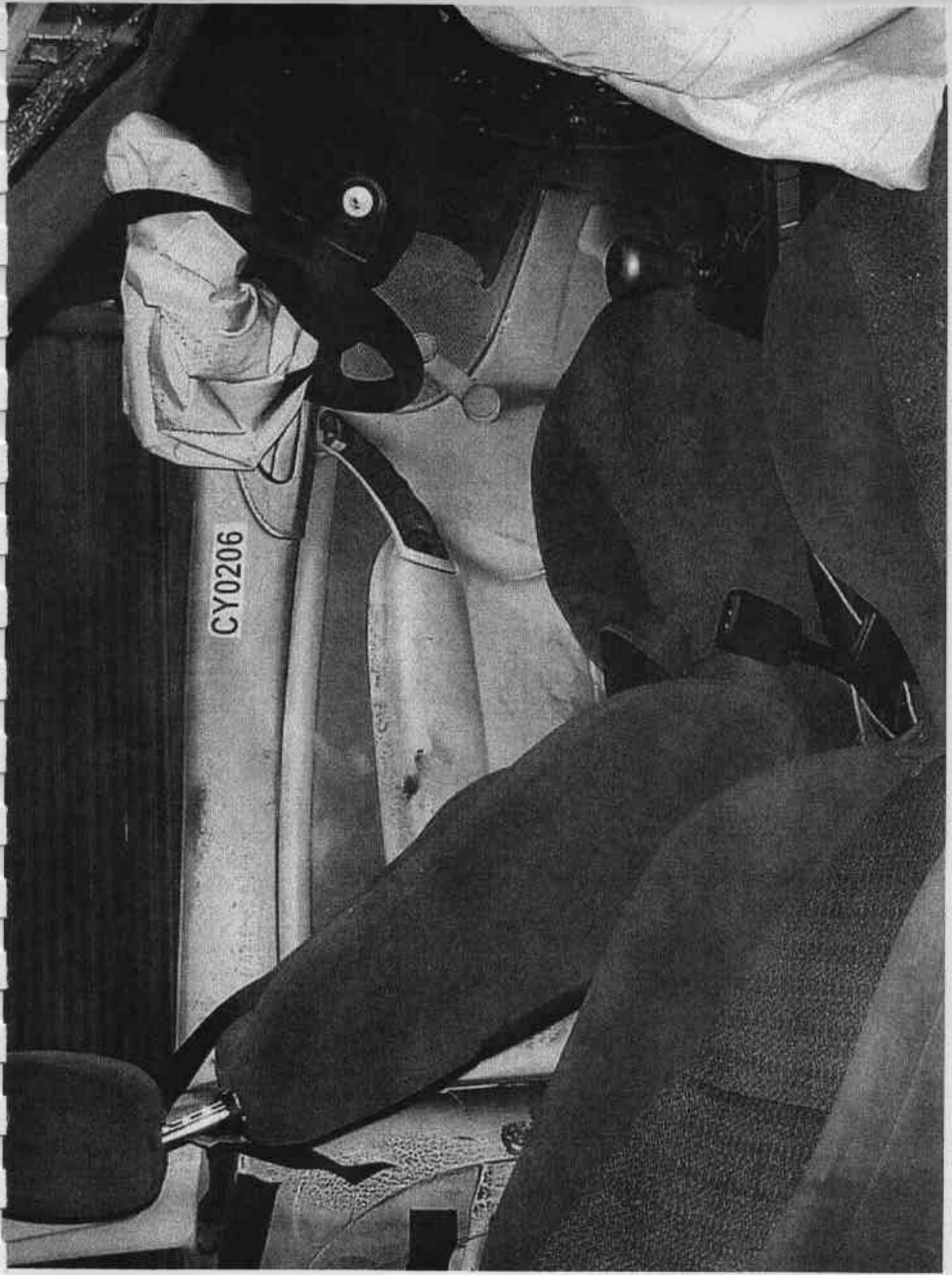


Figure A-26 POST-TEST INTERIOR OF FRONT DOOR SHOWING SID IMPACT LOCATIONS

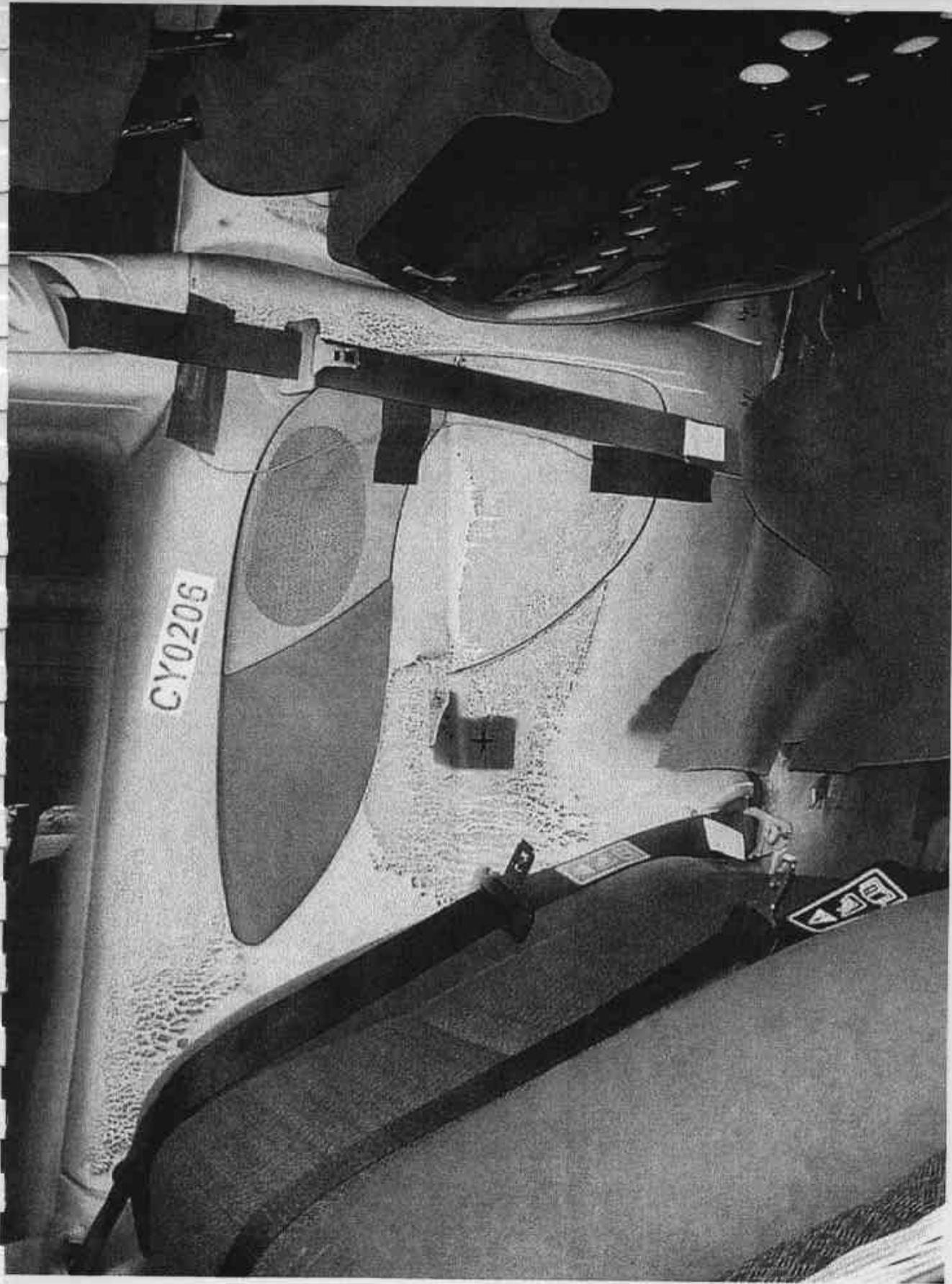


Figure A-27 PRE-TEST INTERIOR OF REAR PANEL



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

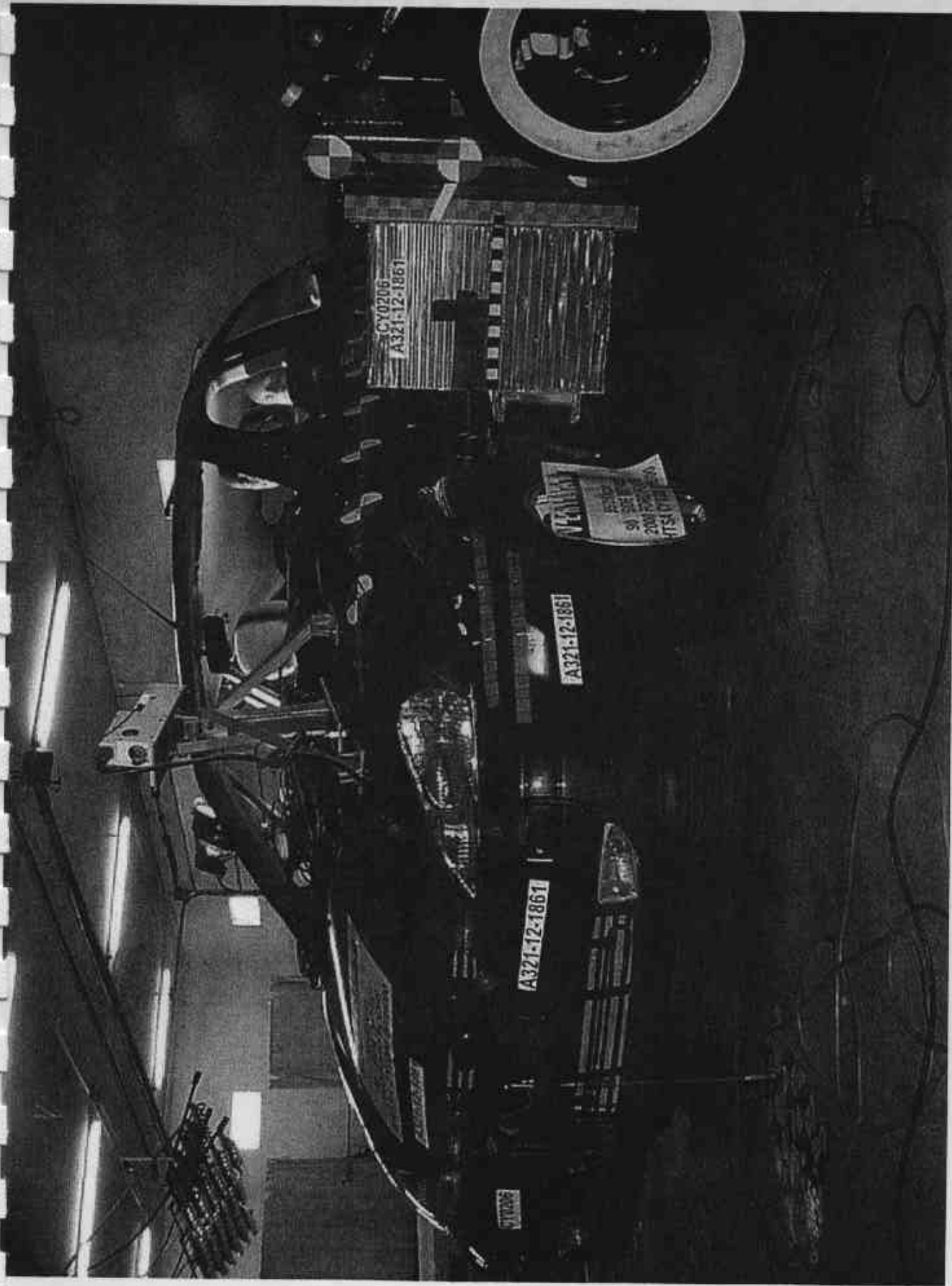


Figure A-29 PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION

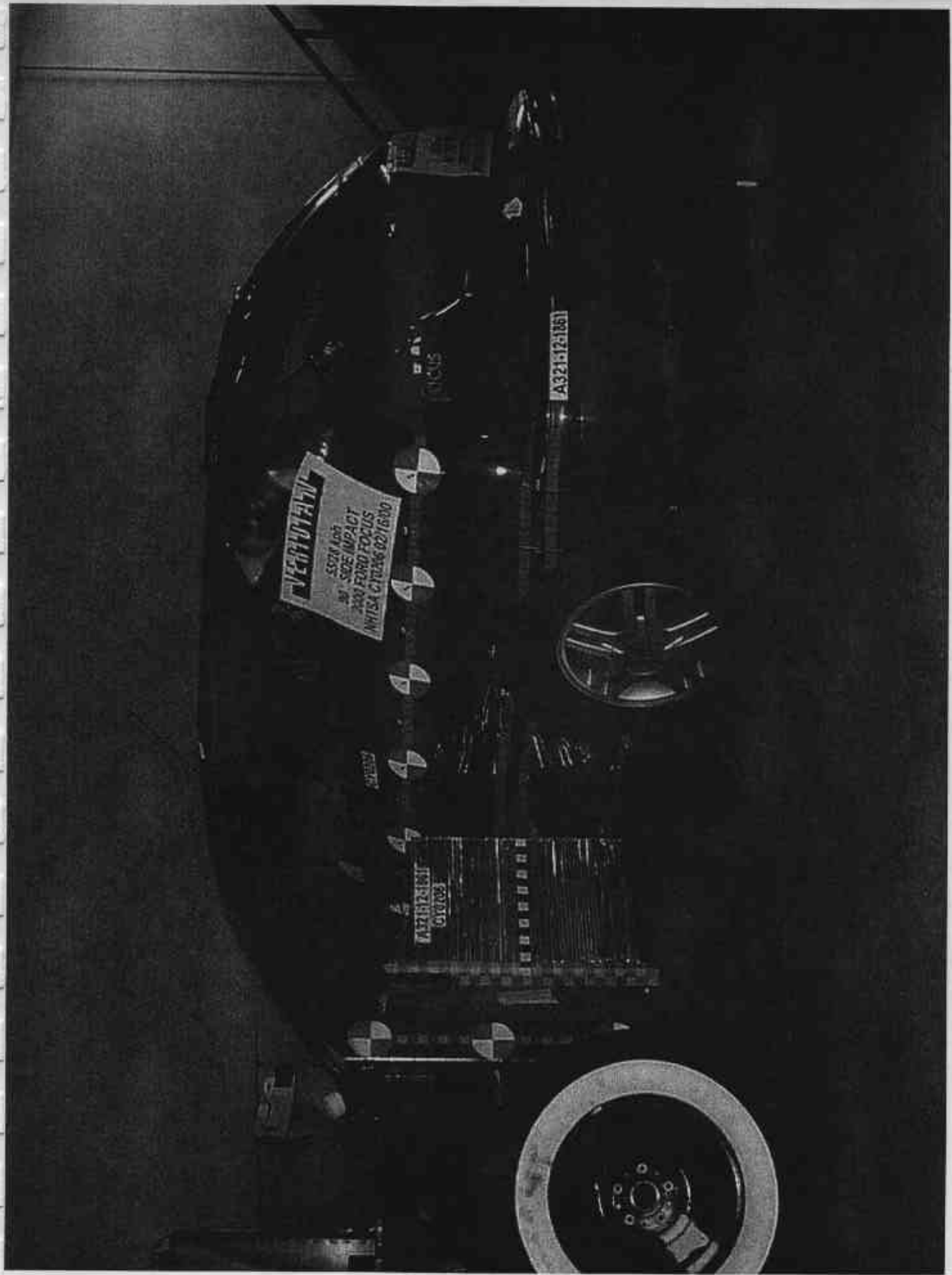


Figure A-30 PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION

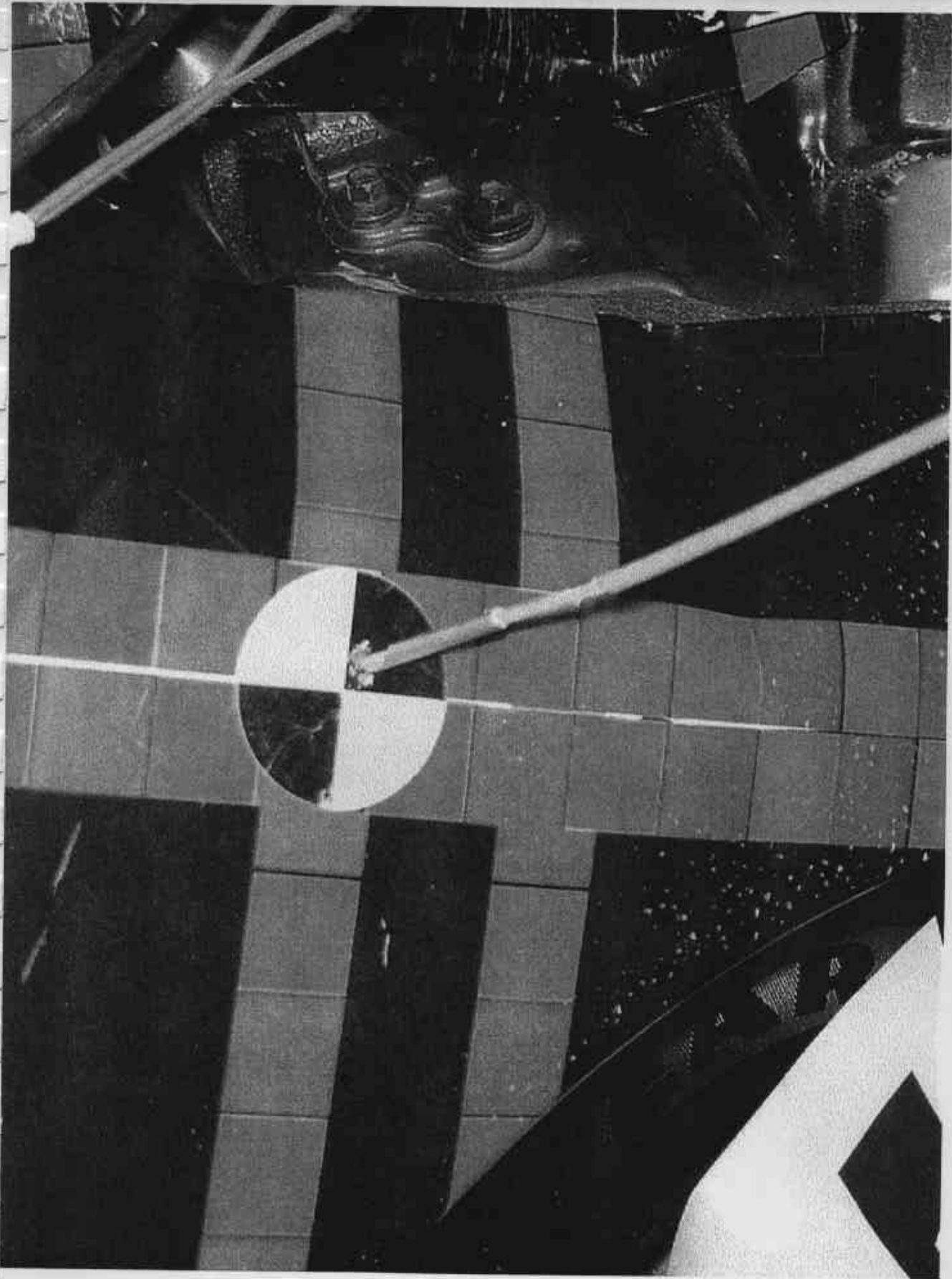


Figure A-31 POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET

**MFD. BY FORD MOTOR COMPANY**

**GVWR: 3550LB/1610KG**

**DATE: 12/99**

**FRONT GAWR: 1984LB 899KG**

**REAR GAWR: 1690LB 766KG**

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

**VIN: 3FAFP3136YR133167**

**F0067**

**R0045**

**TYPE: PASSENGER**



EXT. PNT:	SU	IRC:	44	DSO:	
BRK	INT TR	TP/PS	R	AXLE	TR
A	DA	3	UU	MPU	5
<b>MADE IN MEXICO</b>					<b>0AK25</b>
					<b>Z05</b>
					<b>▽ F85B-1520472-AB</b>

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

**focus**

**RECOMMENDED TIRE SIZE AND INFLATION PRESSURE (COLD)**  
**DIMENSIONS DES PNEUS et PRESSIONS DE GONFLAGE RECOMMANDÉES (À FROID)**

**A**

TIRE SIZE DIMENSIONS DES PNEUS	LOAD RANGE CHARGE NOMINALE	PRESSURE PRESSION	
		FRONT AVANT	REAR ARRIERE
P175/70 R14 84S*	ALL	221 kpa / 32 PSI	221 kpa / 32 PSI
P185/65 R14 85S*	ALL	221 kpa / 32 PSI	221 kpa / 32 PSI
P195/60 R15 87T*	ALL	221 kpa / 32 PSI	221 kpa / 32 PSI
T125/80 R15 95M* TEMPORAL SPARE PNEU DE SECOURS PROVISOIRE	ALL	415 kpa / 60 PSI	415 kpa / 60 PSI

\*MUST BE REPLACED WITH AN EQUIVALENT TYPE SPEED RATED TIRE.  
 \*NE REMPLACER QUE PAR UN PNEU DONT L'INDICE DE VITESSE EST LE MEME.

TOTAL LOAD = OCCUPANTS PLUS LUGGAGE CHARGE TOTALE = OCCUPANTS PLUS BAGAGES	
OCCUPANTS OCCUPANTS	DISTRIBUTION REPARTITION
5	FRONT AVANT 2 REAR ARRIERE 3
400 kg / 880 lb	LUGGAGE BAGAGES 60 kg / 130 lb

FOR SUSTAINED HIGH SPEED TRAILER TOWING, RECREATIONAL ACCESSORIES OR TEMPORAL SPARE INFORMATION - SEE OWNER GUIDE.  
 POUR DES VITESSES SUSTENUES, TRACTION D'UNI, REMORQUES, PNEU DE SECOURS PROVISOIRE OU ACCESSOIRES DE LOISIRS ET - CONSULTEZ LE MANUEL DE PROPRIÉTAIRE

VX51-F0509-AB

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



Figure A-34 IMPACT PHOTO

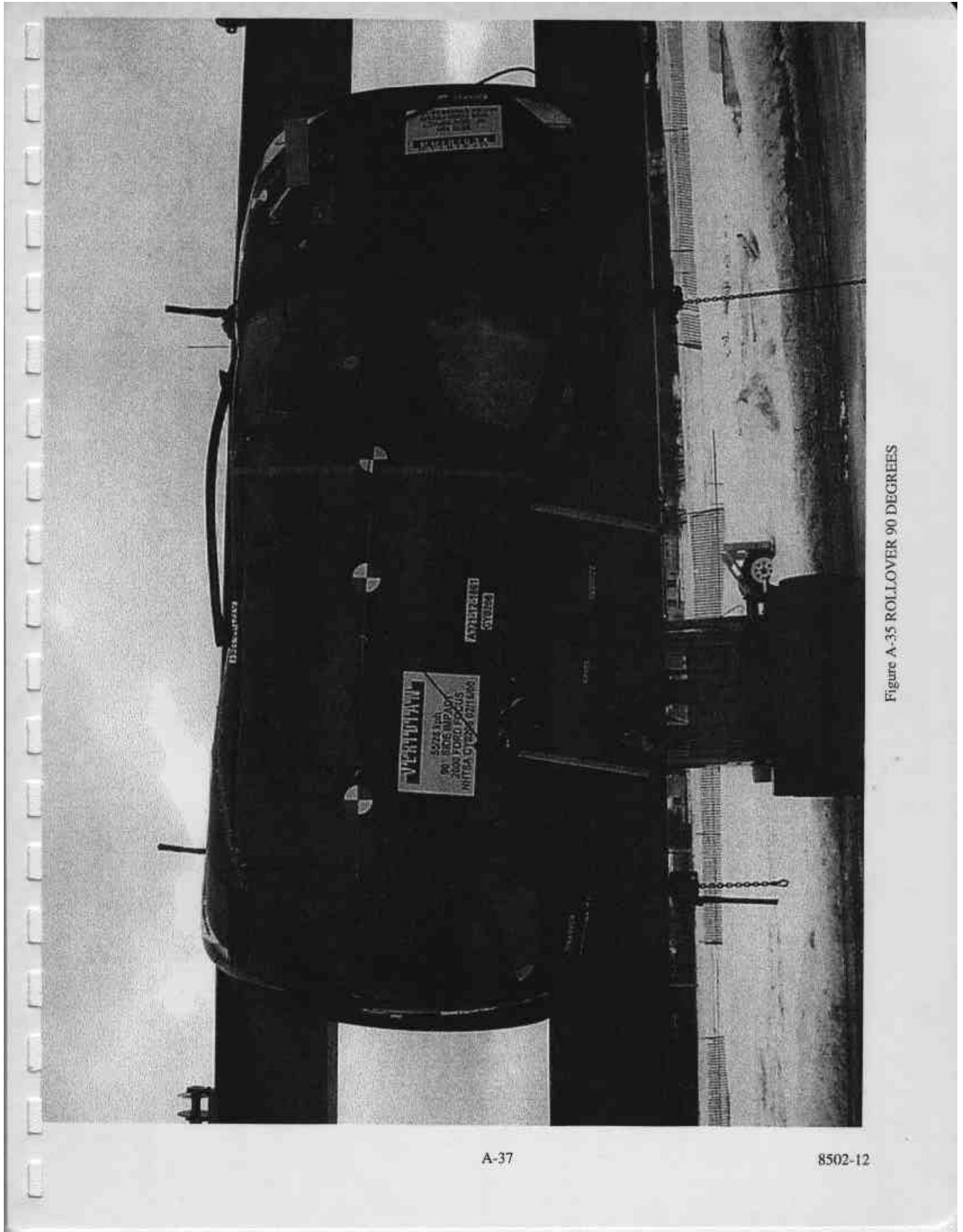


Figure A-35 ROLLOVER 90 DEGREES



Figure A-36 ROLLOVER 180 DEGREES

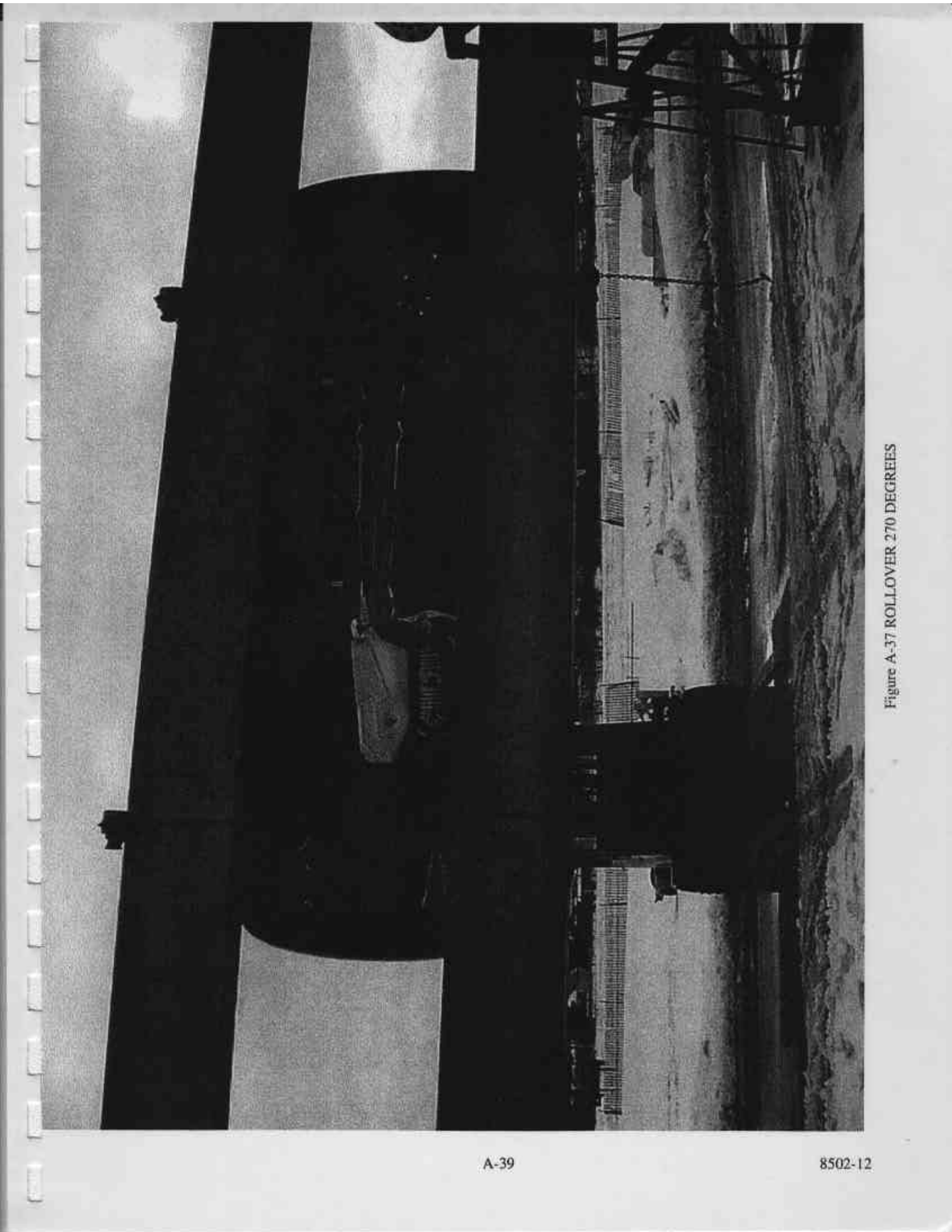


Figure A-37 ROLLOVER 270 DEGREES

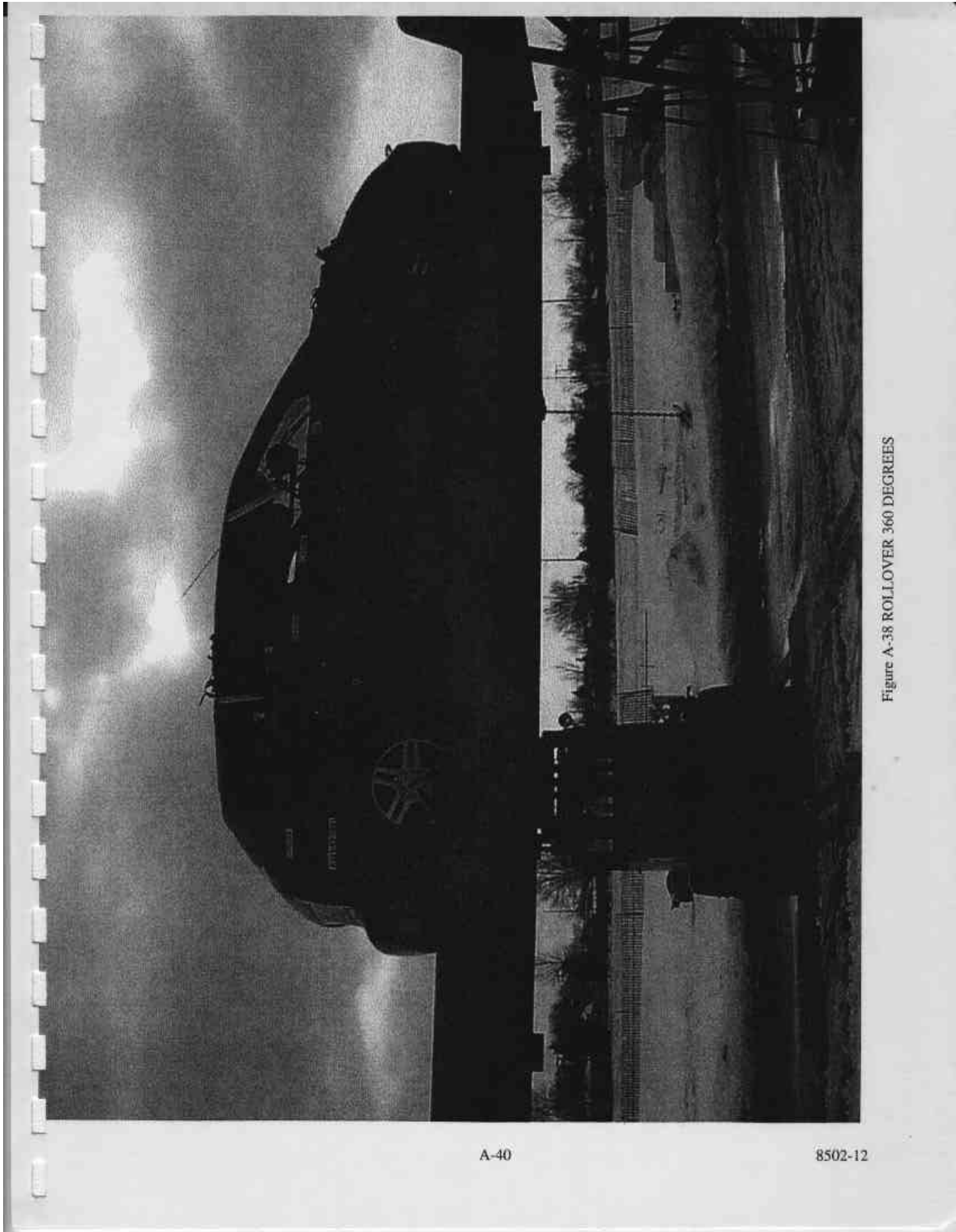


Figure A-38 ROLLOVER 360 DEGREES

**APPENDIX B**

**VEHICLE, MDB AND SID RESPONSE DATA**

**TABLE OF DATA PLOTS**

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

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
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

**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>
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
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, LOWER SPINE - FILTER CLASS 180**  
**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

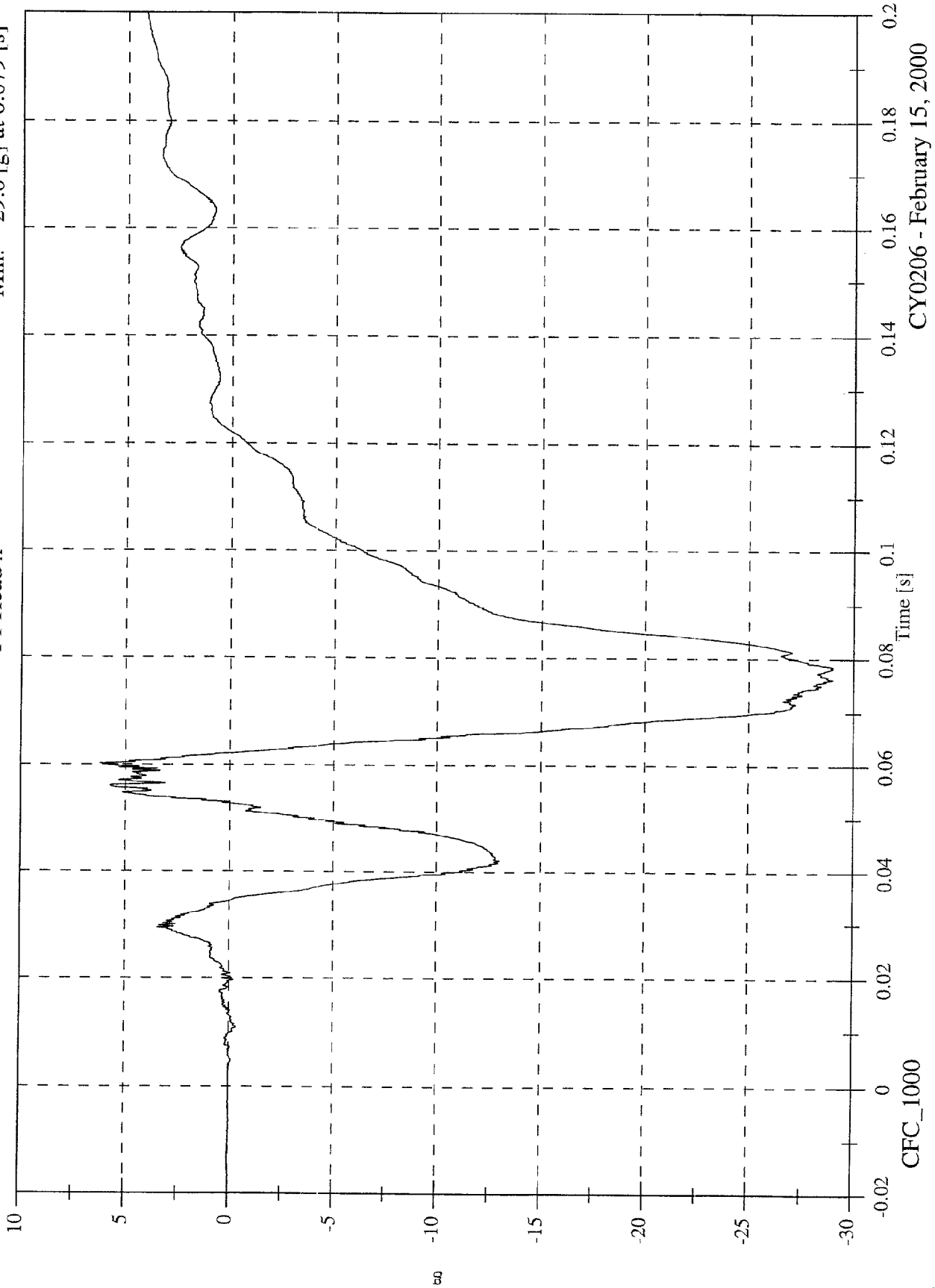
**DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)**  
**ACCELERATION DATA - FIR FILTERED**

<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 #4 - 2000 Ford Focus Three Door

P1 Head x

Max: 6.2 [g] at 0.060 [s]  
Min: -29.0 [g] at 0.079 [s]

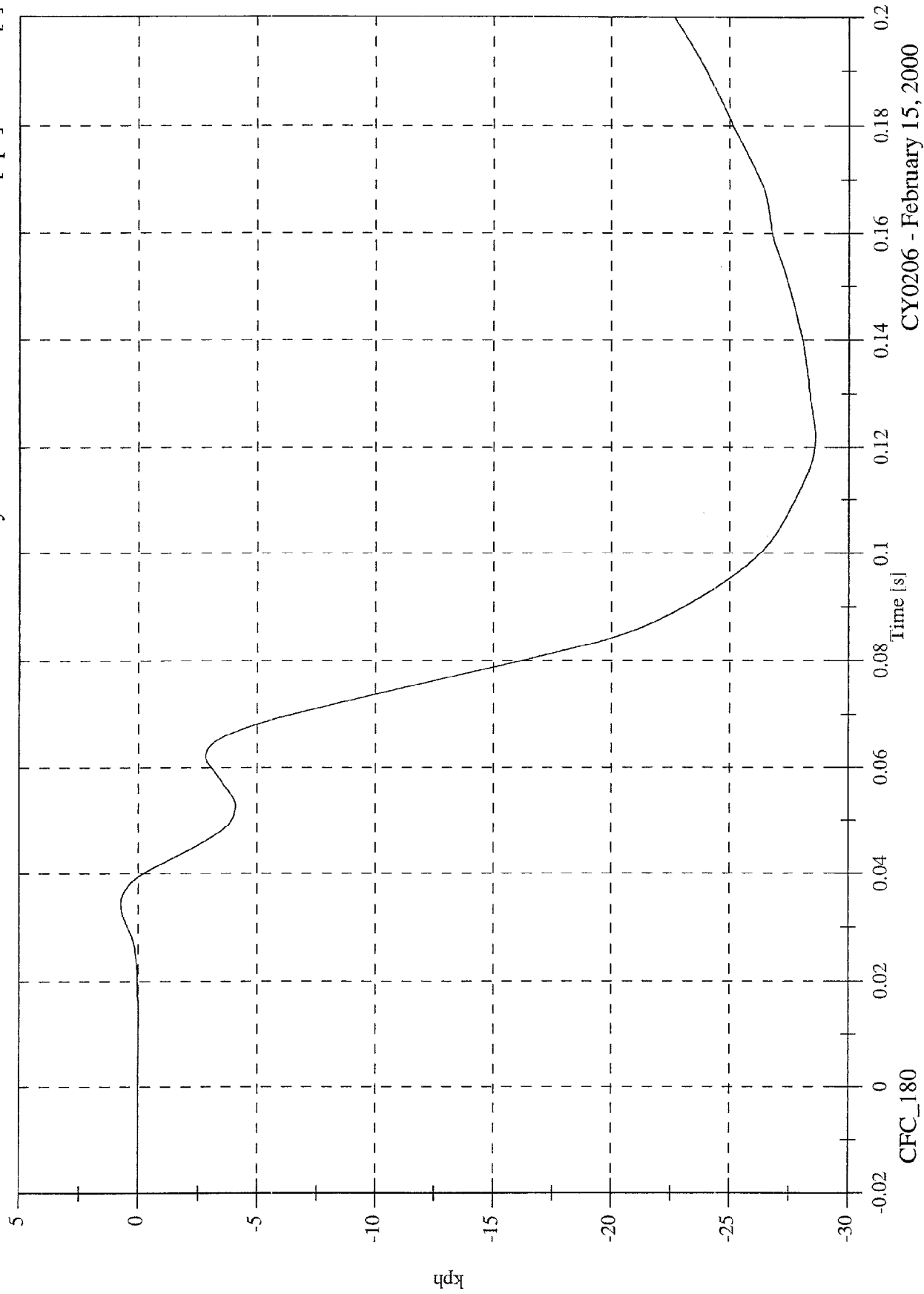


FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Max: 0.7 [kph] at 0.035 [s]

Min: -28.6 [kph] at 0.122 [s]

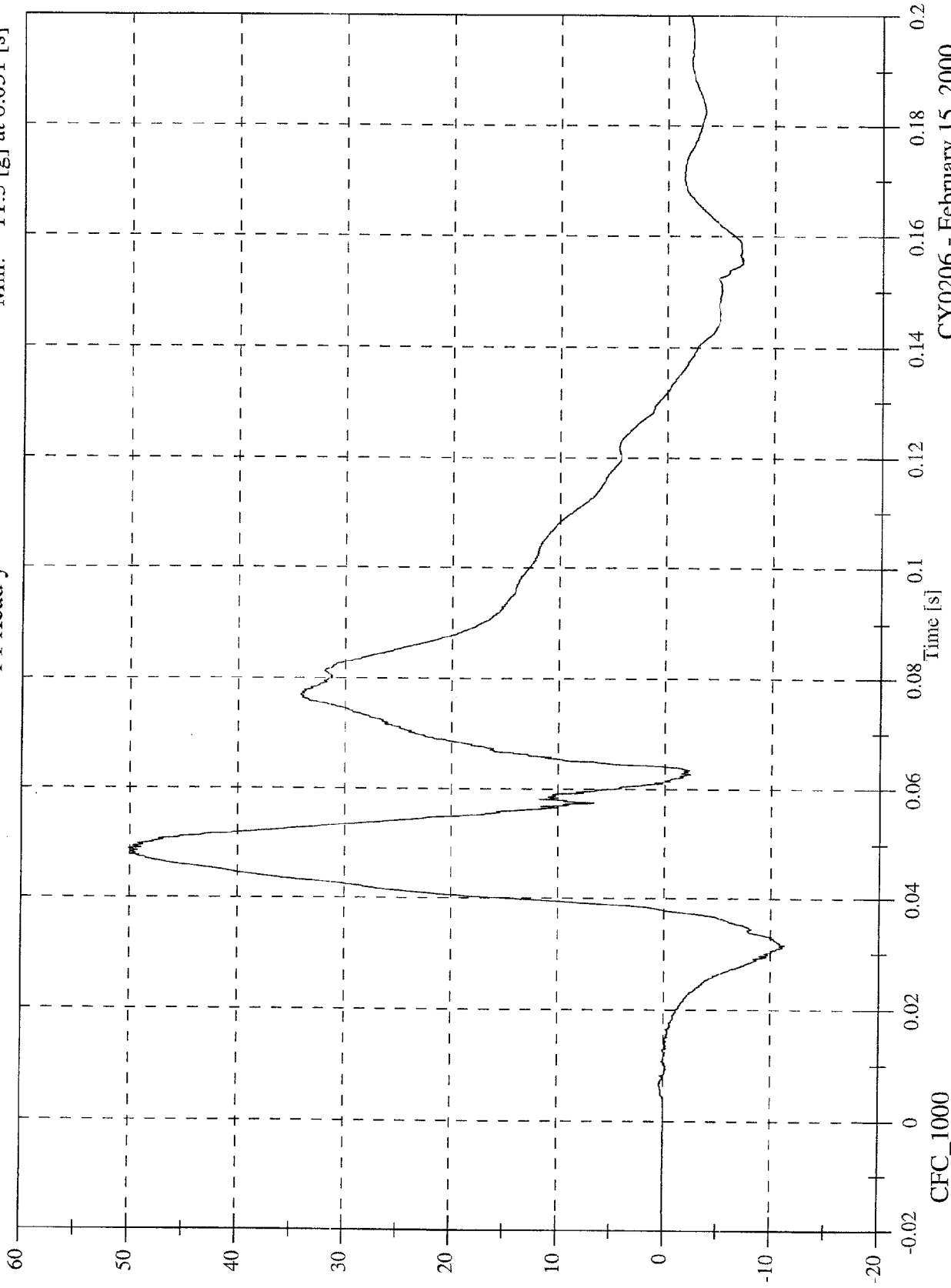
P1 Head x Velocity



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
PI Head y

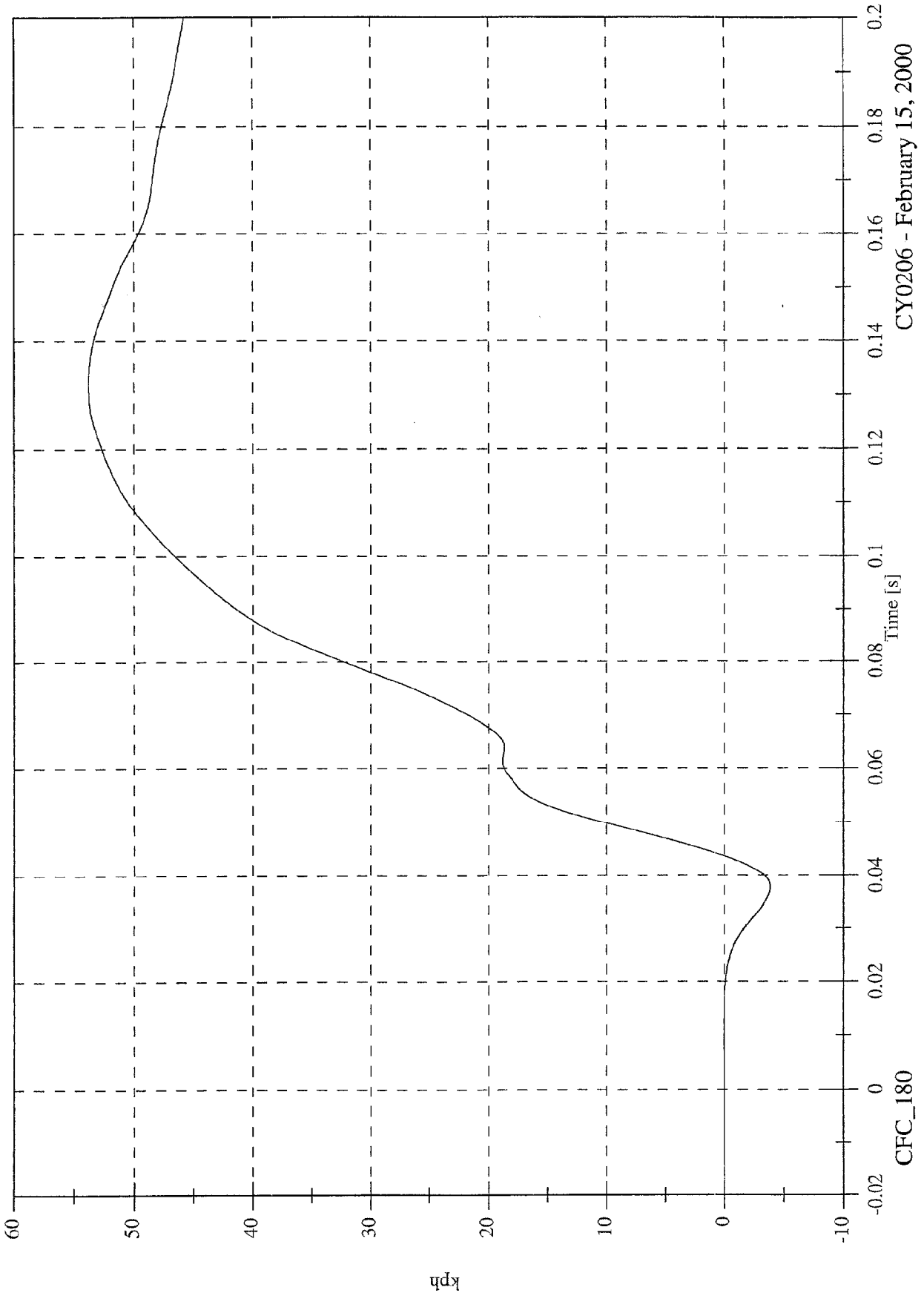
Max: 50.1 [g] at 0.049 [s]  
Min: -11.3 [g] at 0.031 [s]



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
P1 Head y Velocity

Max: 53.8 [kph] at 0.132 [s]  
Min: -3.8 [kph] at 0.038 [s]

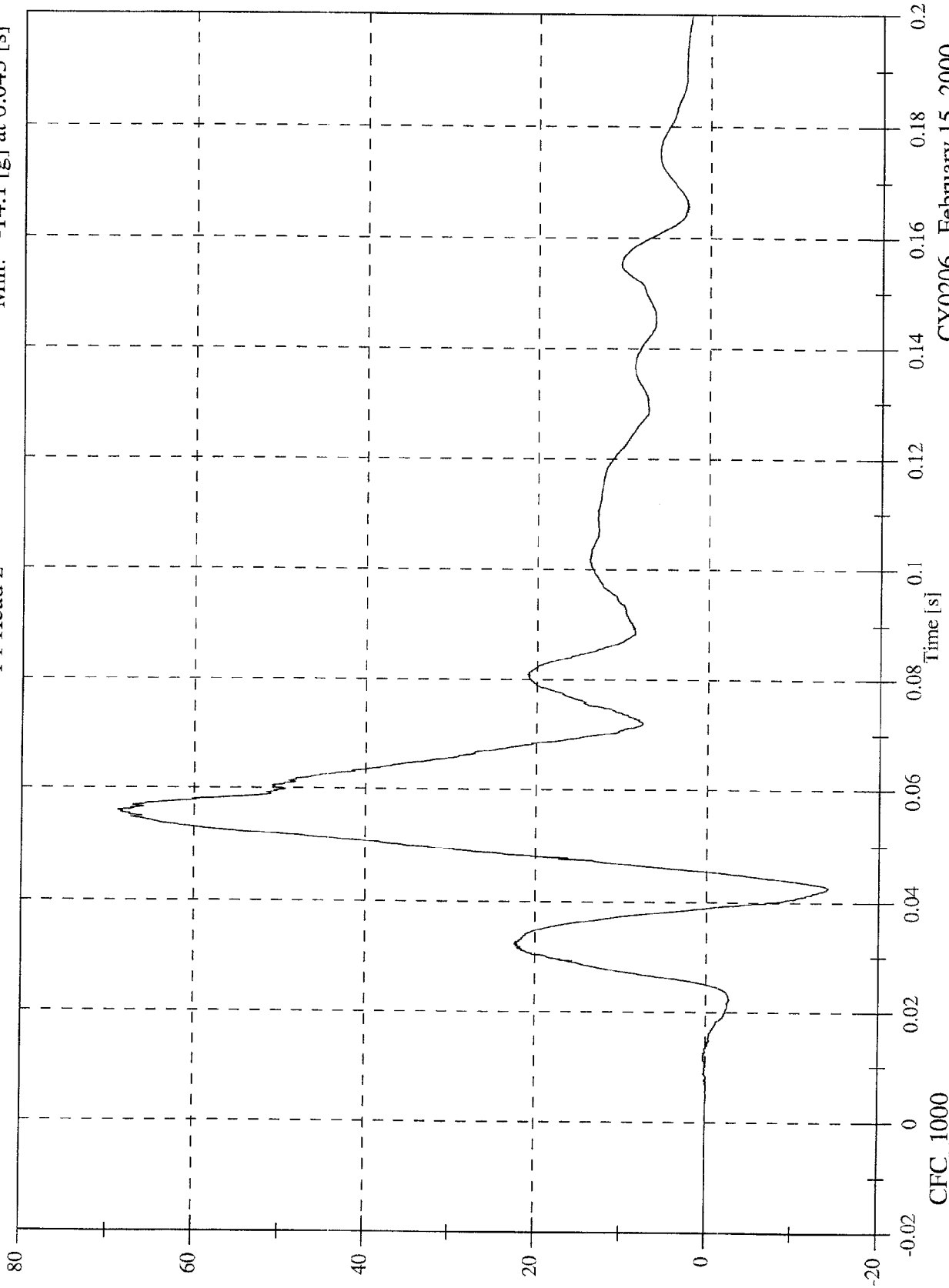


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

PI Head z

Max: 68.9 [g] at 0.056 [s]  
Min: -14.1 [g] at 0.043 [s]

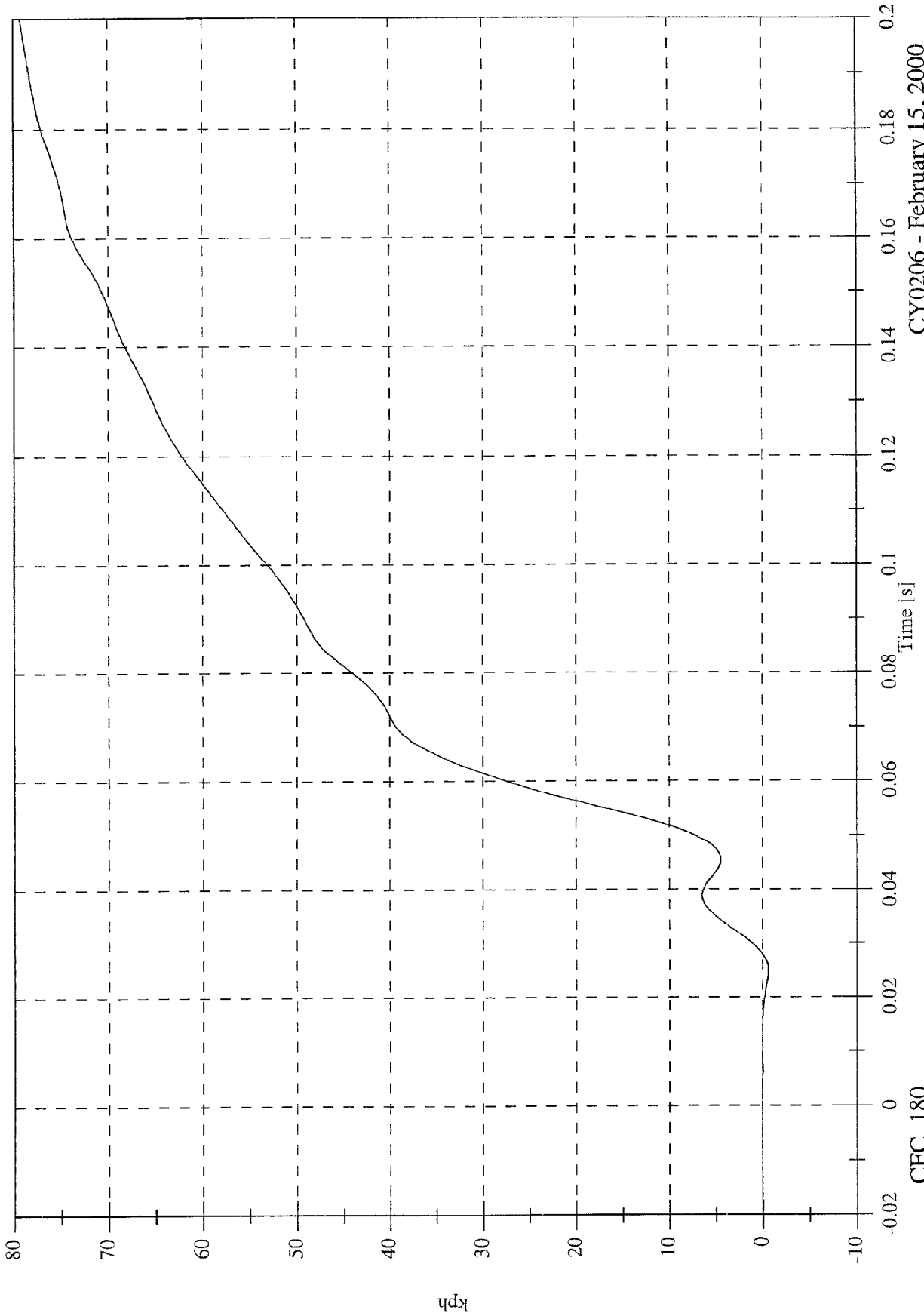


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Head z Velocity

Max: 79.3 [kph] at 0.200 [s]  
Min: -0.6 [kph] at 0.025 [s]

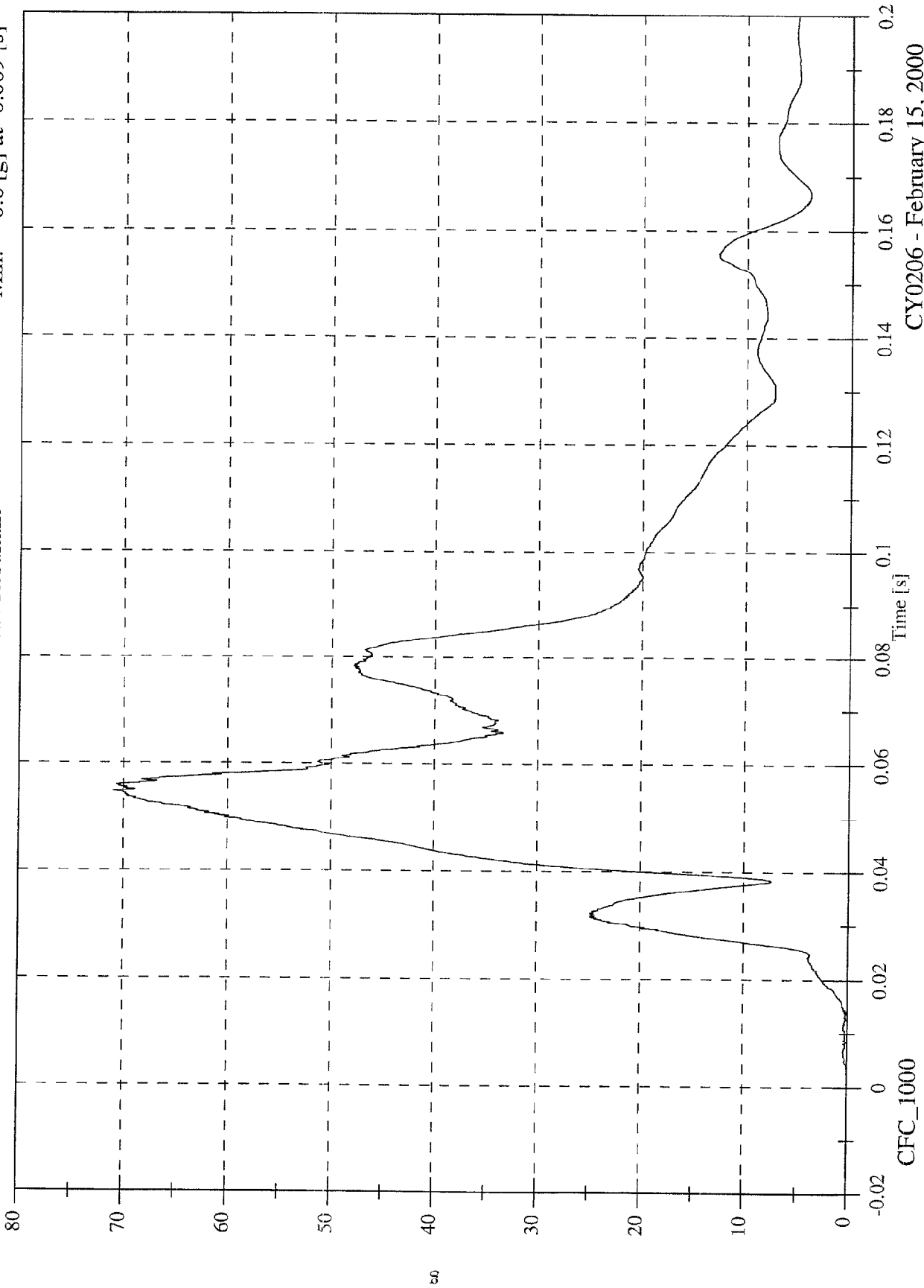


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Head Resultant

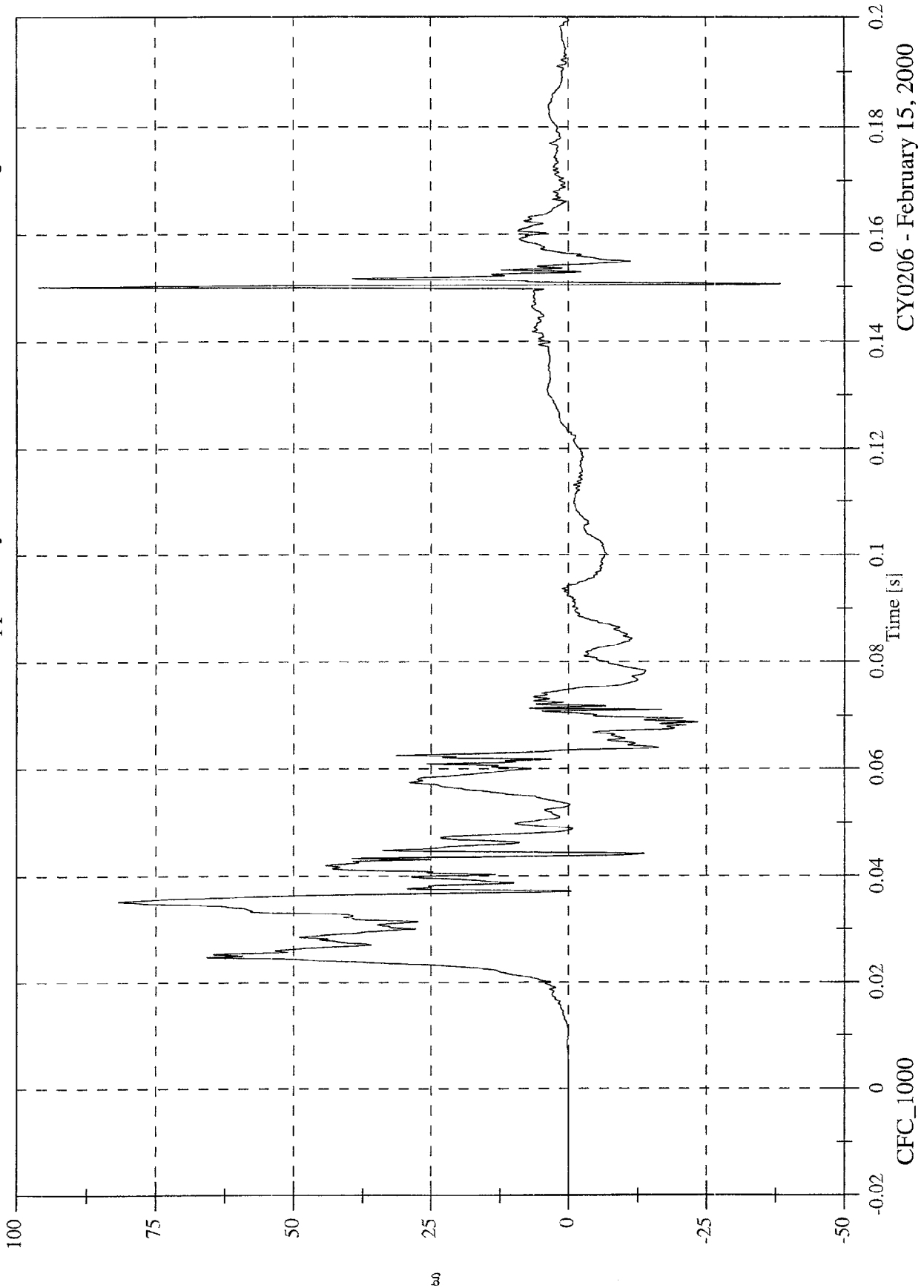
Max: 71.0 [g] at 0.055 [s]  
Min: 0.0 [g] at -0.009 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Upper Rib y

Max: 96.0 [g] at 0.150 [s]  
Min: -38.4 [g] at 0.151 [s]

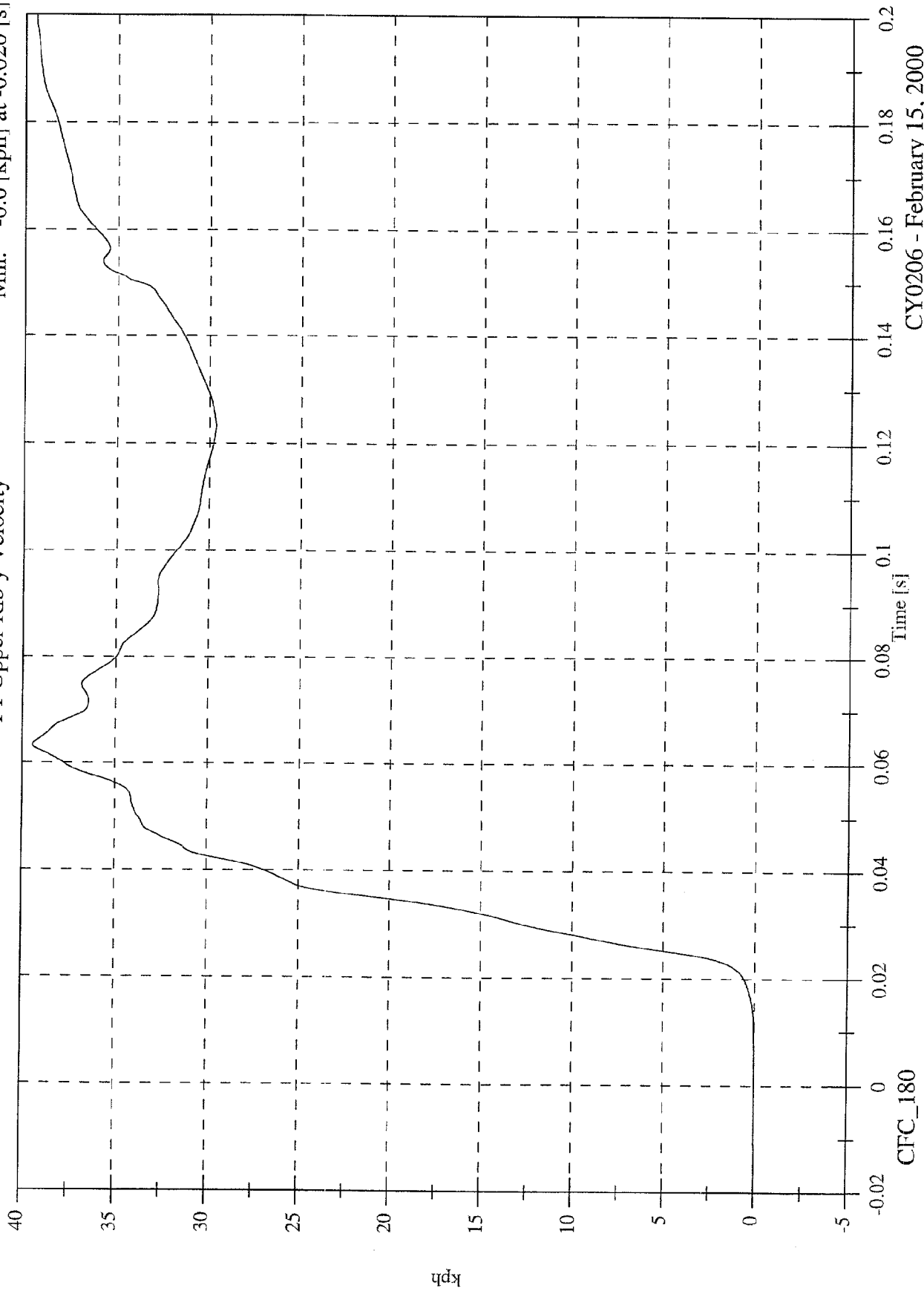


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Upper Rib y Velocity

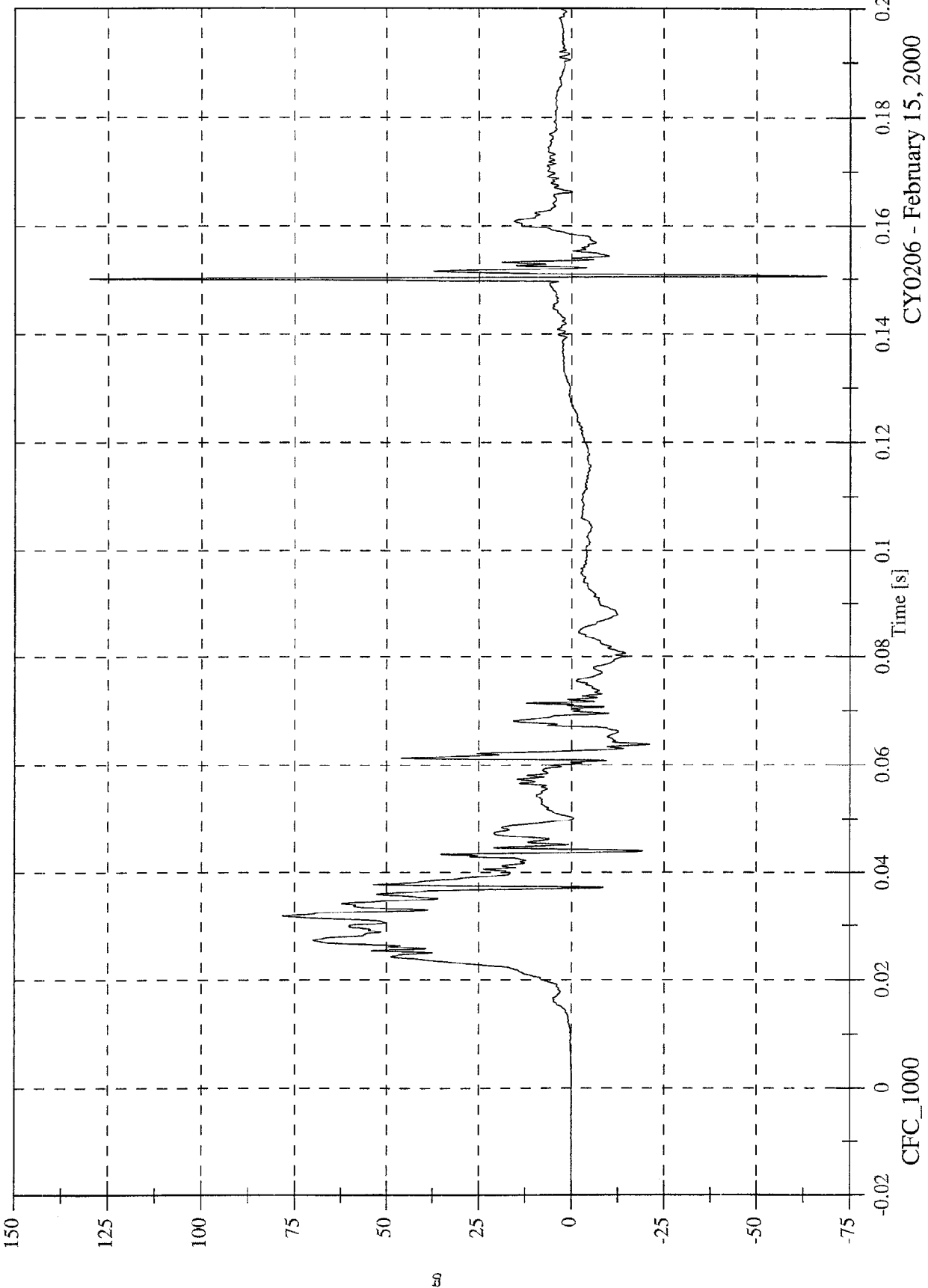
Max: 39.5 [kph] at 0.063 [s]  
Min: -0.0 [kph] at -0.020 [s]



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Max: 129.9 [g] at 0.150 [s]  
Min: -68.6 [g] at 0.151 [s]

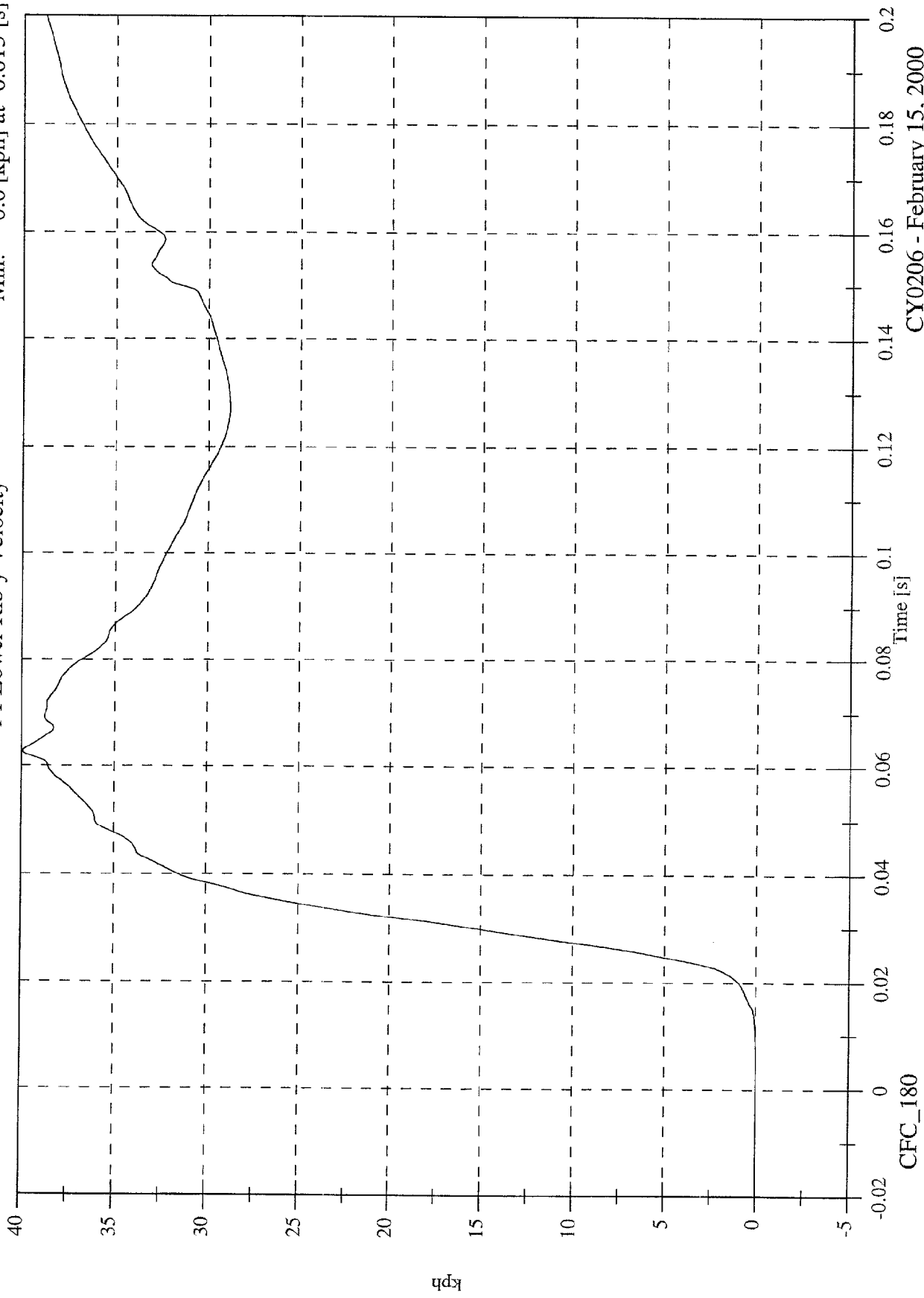
FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
P1 Lower Rib y



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Lower Rib y Velocity

Max: 39.9 [kph] at 0.063 [s]  
Min: -0.0 [kph] at -0.015 [s]

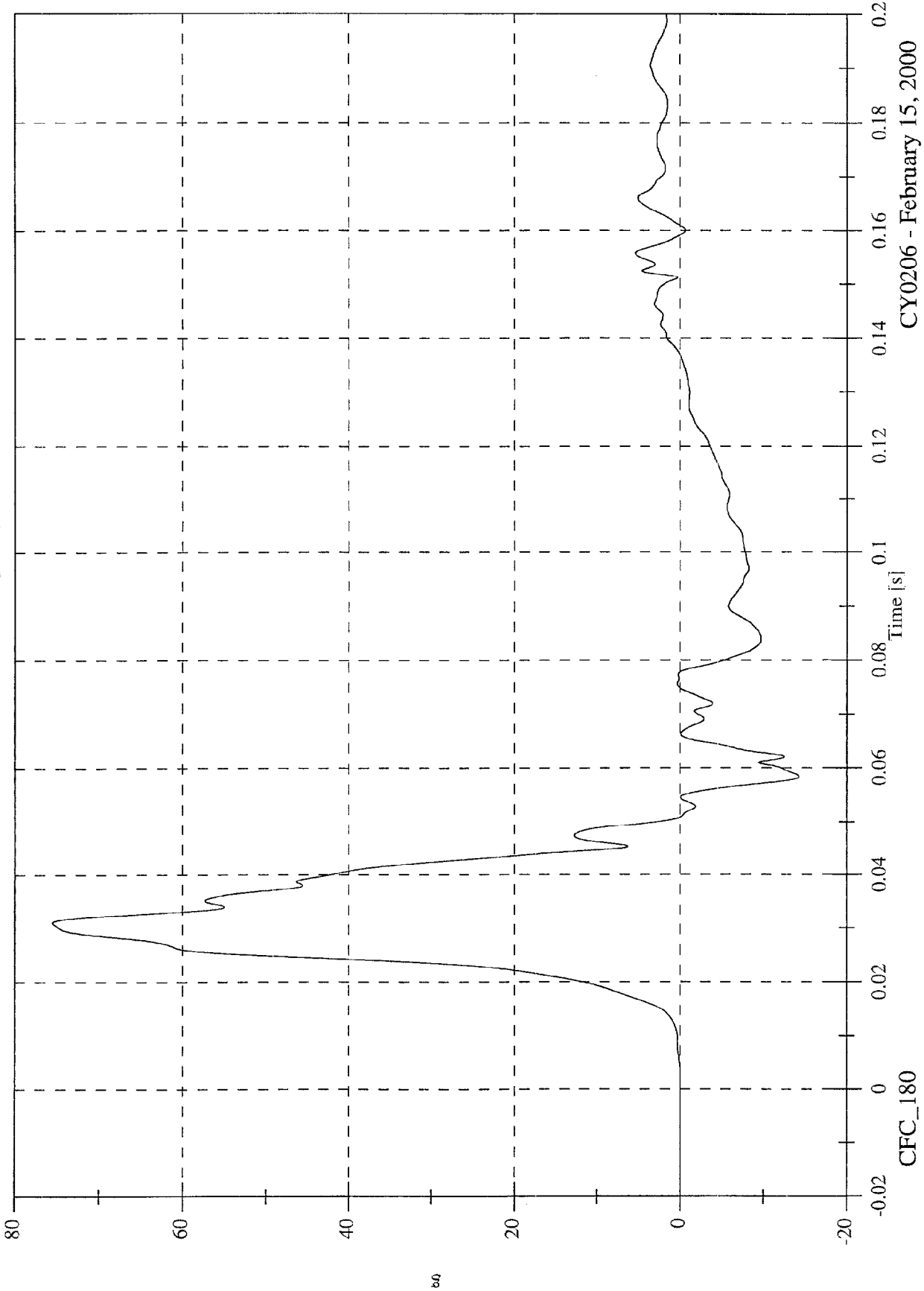


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Lower Spine y

Max: 75.5 [g] at 0.031 [s]  
Min: -14.3 [g] at 0.058 [s]



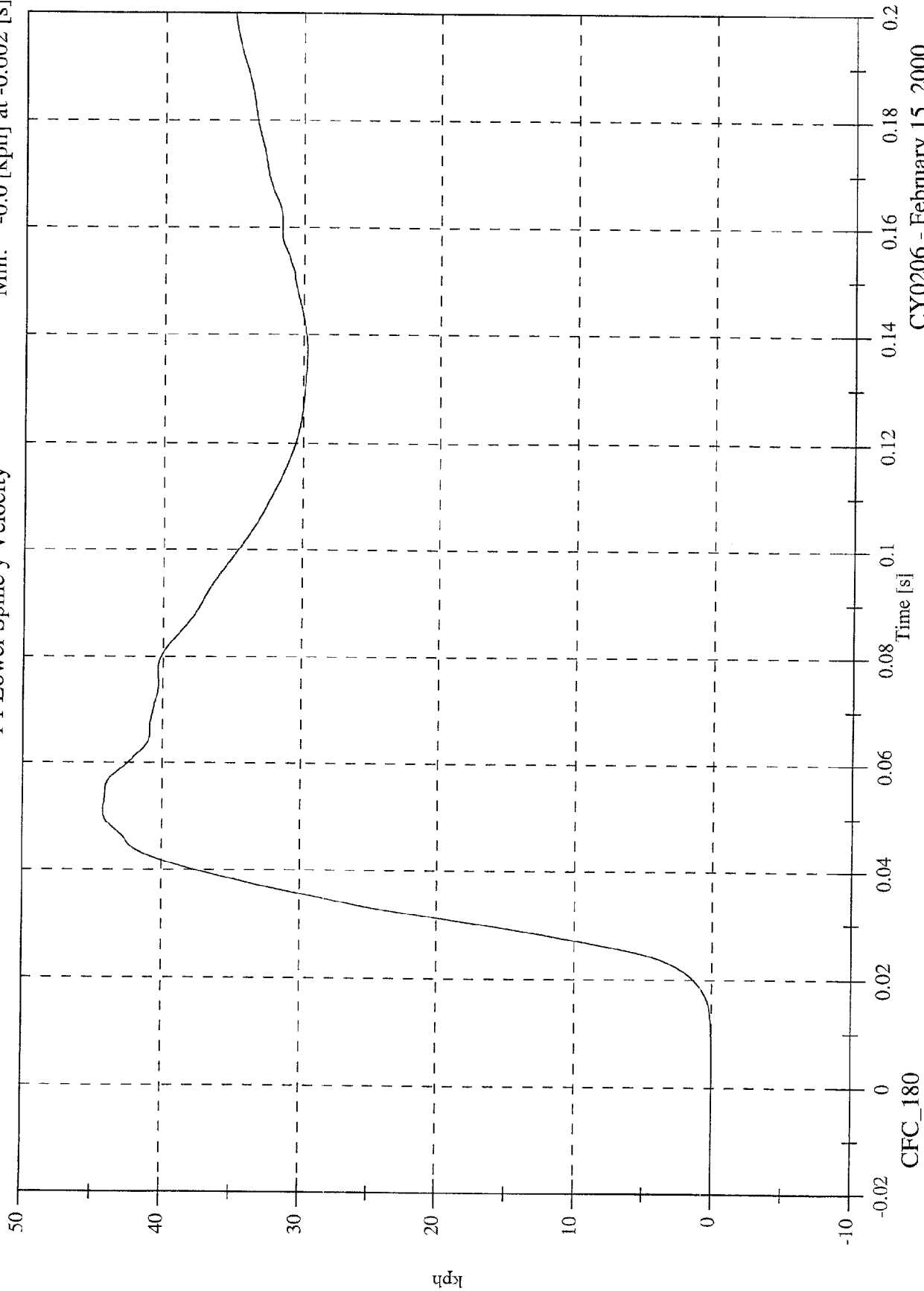
CY0206 - February 15, 2000

CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Lower Spine y Velocity

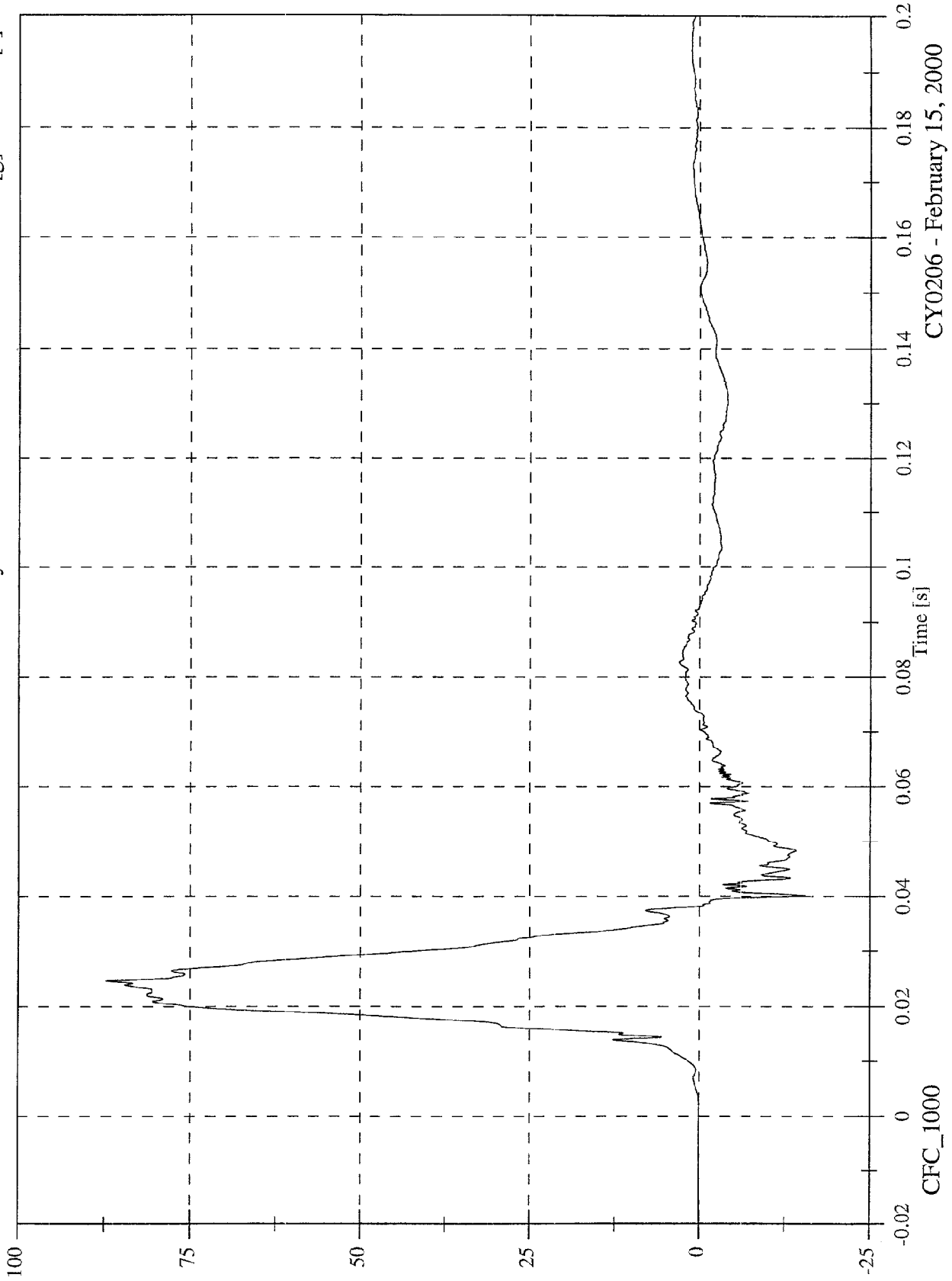
Max: 44.2 [kph] at 0.051 [s]  
Min: -0.0 [kph] at -0.002 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Pelvic y

Max: 87.2 [g] at 0.025 [s]  
Min: -15.5 [g] at 0.040 [s]

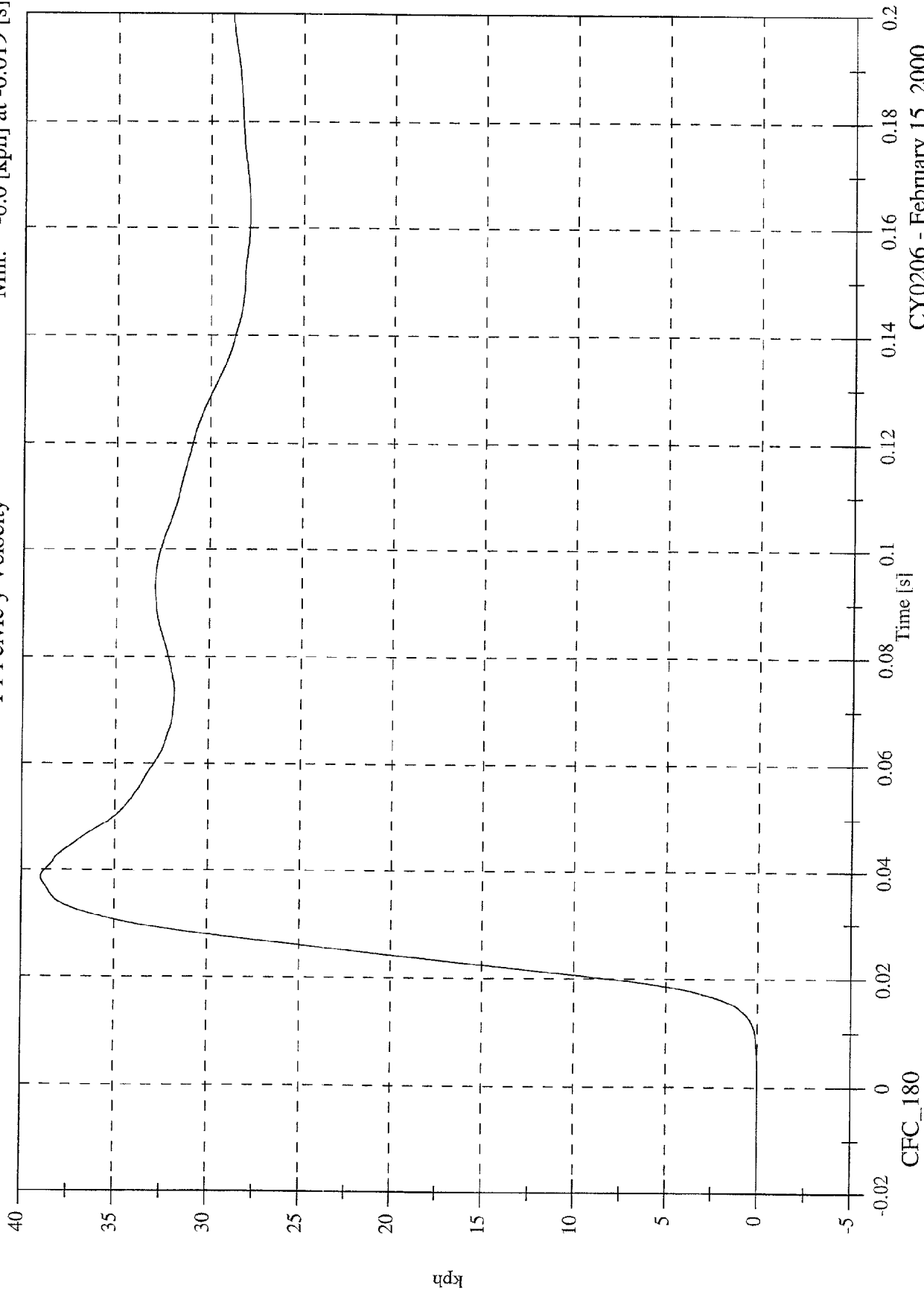


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Pelvic y Velocity

Max: 39.0 [kph] at 0.039 [s]  
Min: -0.0 [kph] at -0.019 [s]



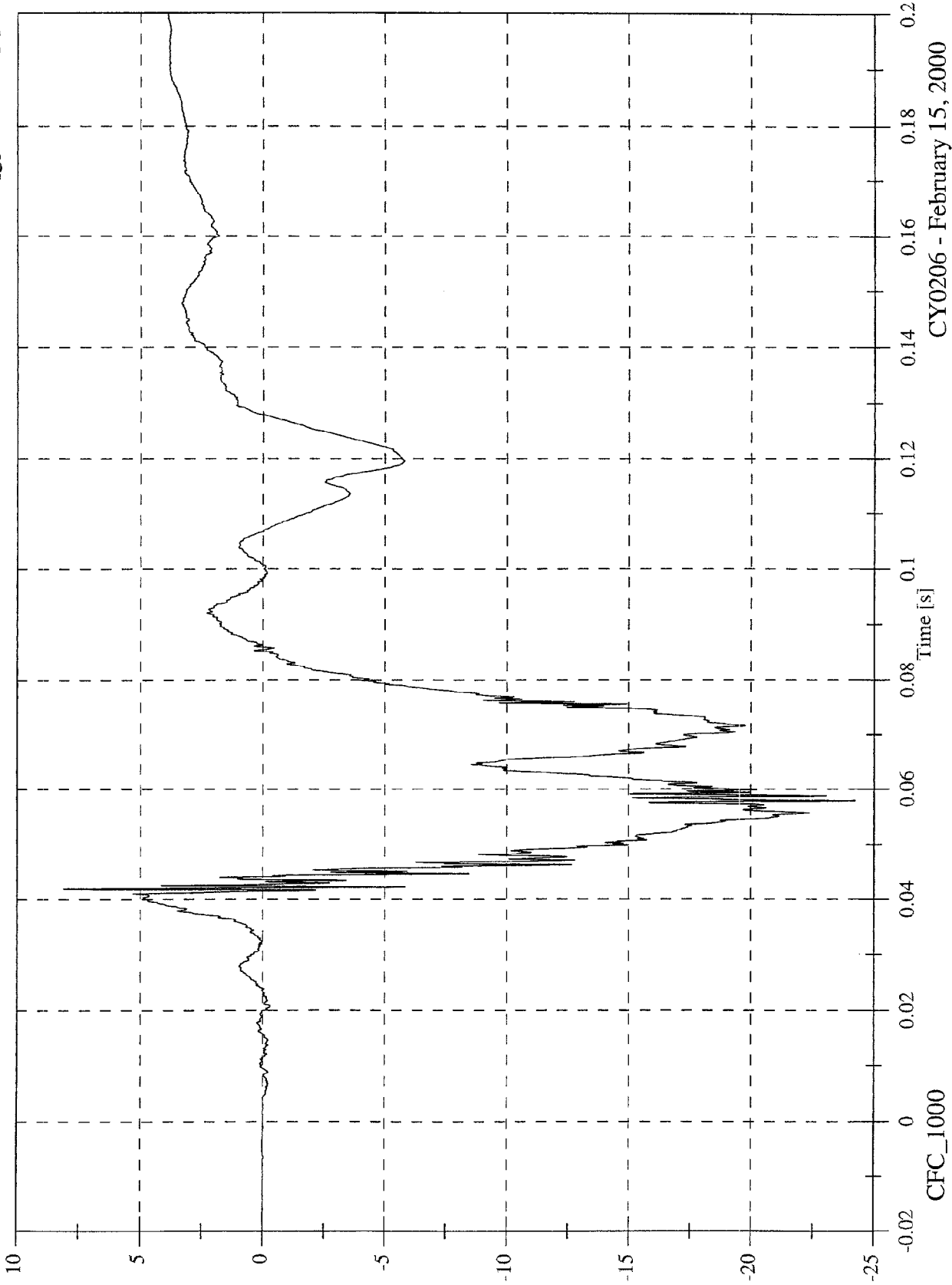
CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P4 Head x

Max: 8.1 [g] at 0.042 [s]

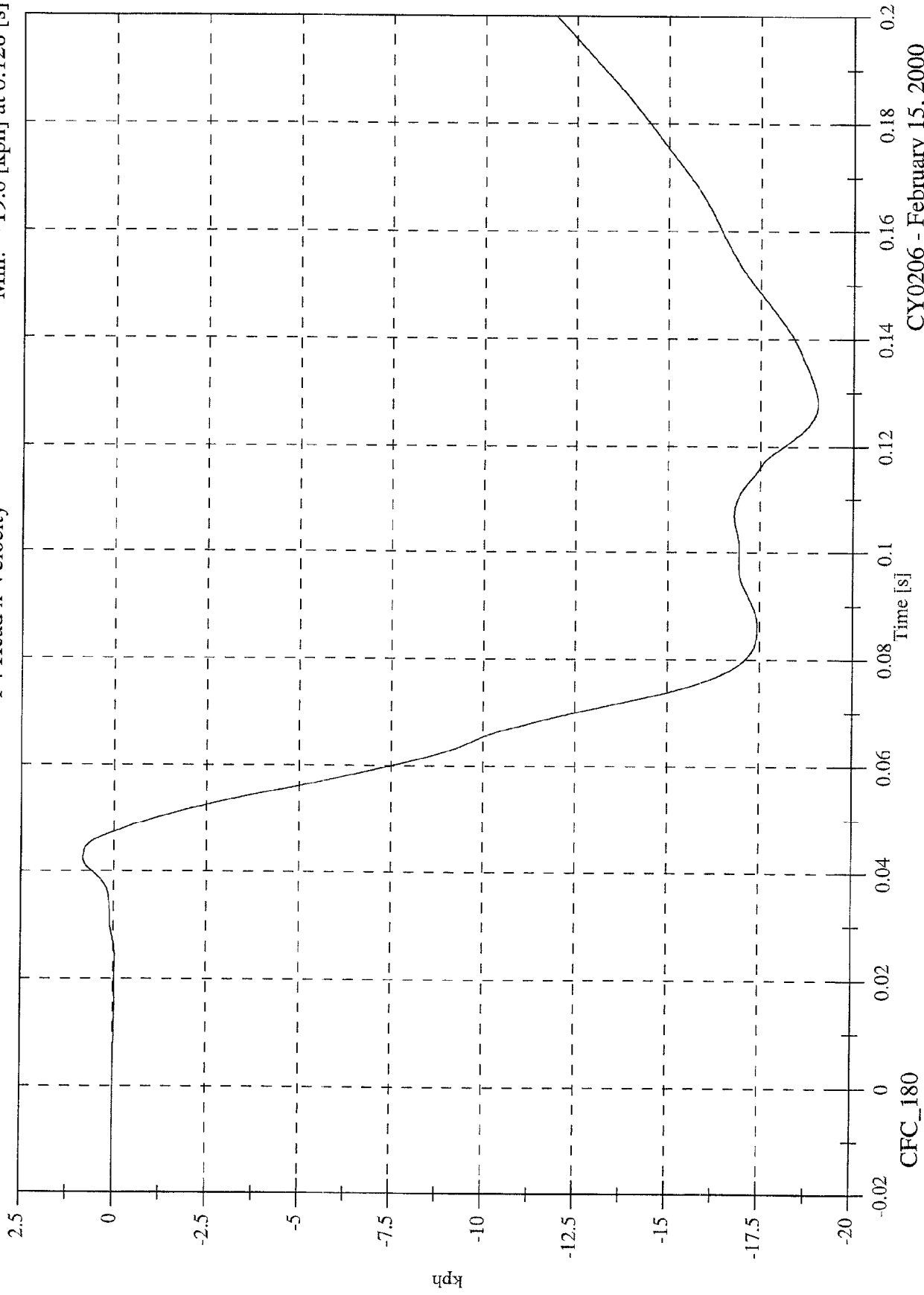
Min: -24.2 [g] at 0.058 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Head x Velocity

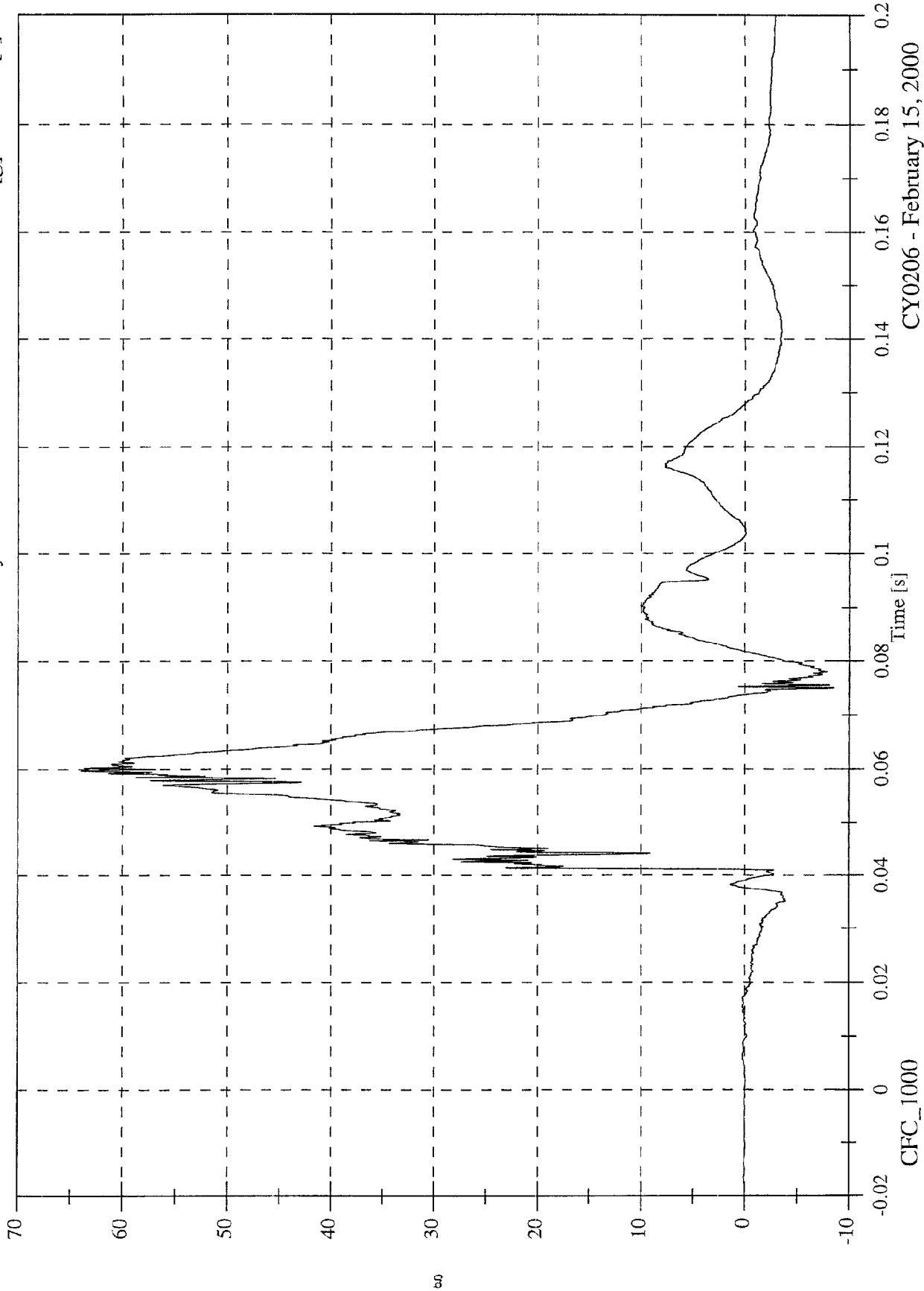
Max: 0.8 [kph] at 0.042 [s]  
Min: -19.0 [kph] at 0.128 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Head y

Max: 64.0 [g] at 0.060 [s]  
Min: -8.5 [g] at 0.075 [s]

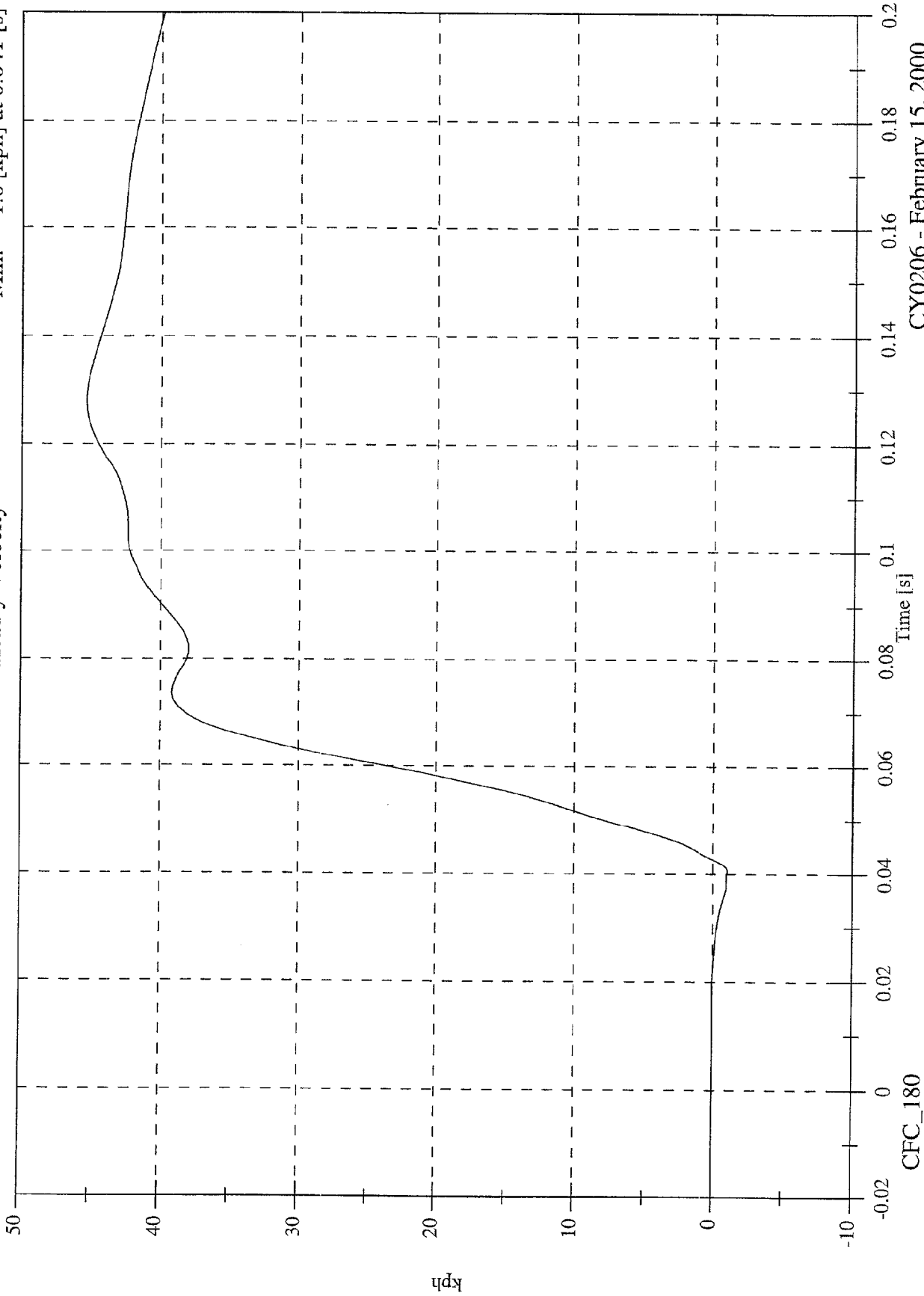


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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door

P4 Head y Velocity

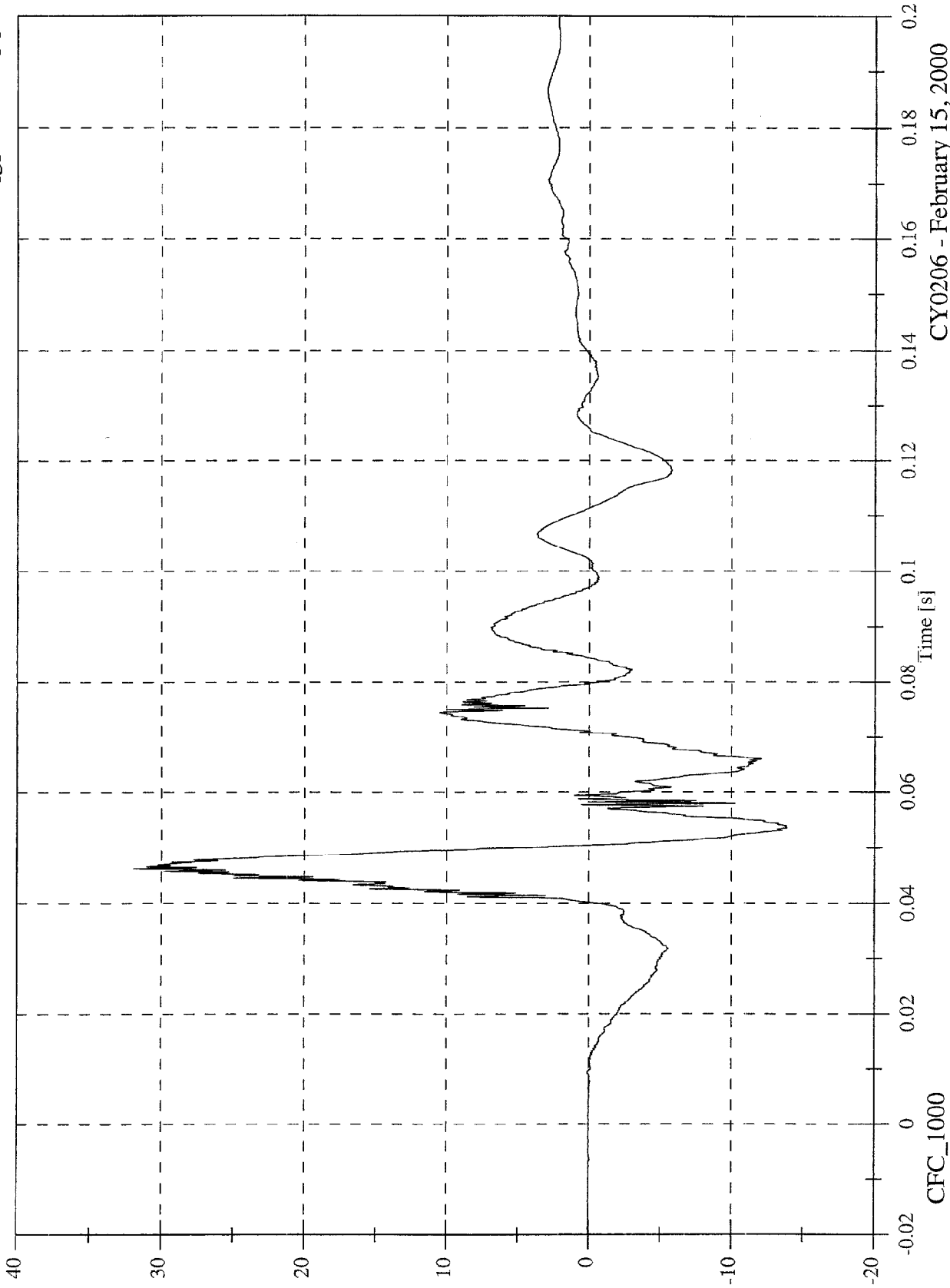
Max: 45.4 [kph] at 0.128 [s]  
Min: -1.0 [kph] at 0.041 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Head z

Max: 31.9 [g] at 0.046 [s]  
Min: -13.9 [g] at 0.054 [s]

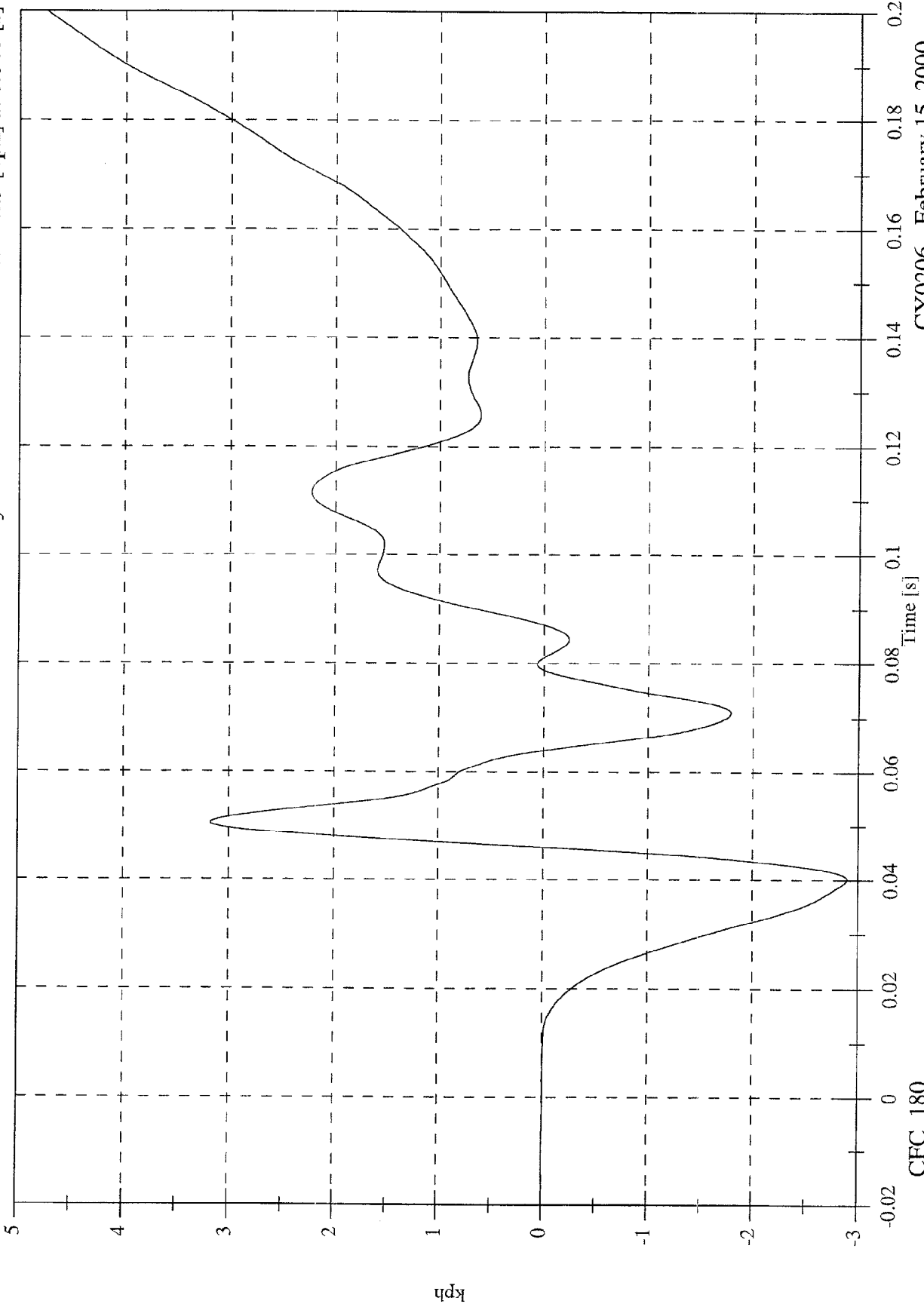


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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
P4 Head z Velocity

Max: 4.7 [kph] at 0.200 [s]

Min: -2.9 [kph] at 0.040 [s]



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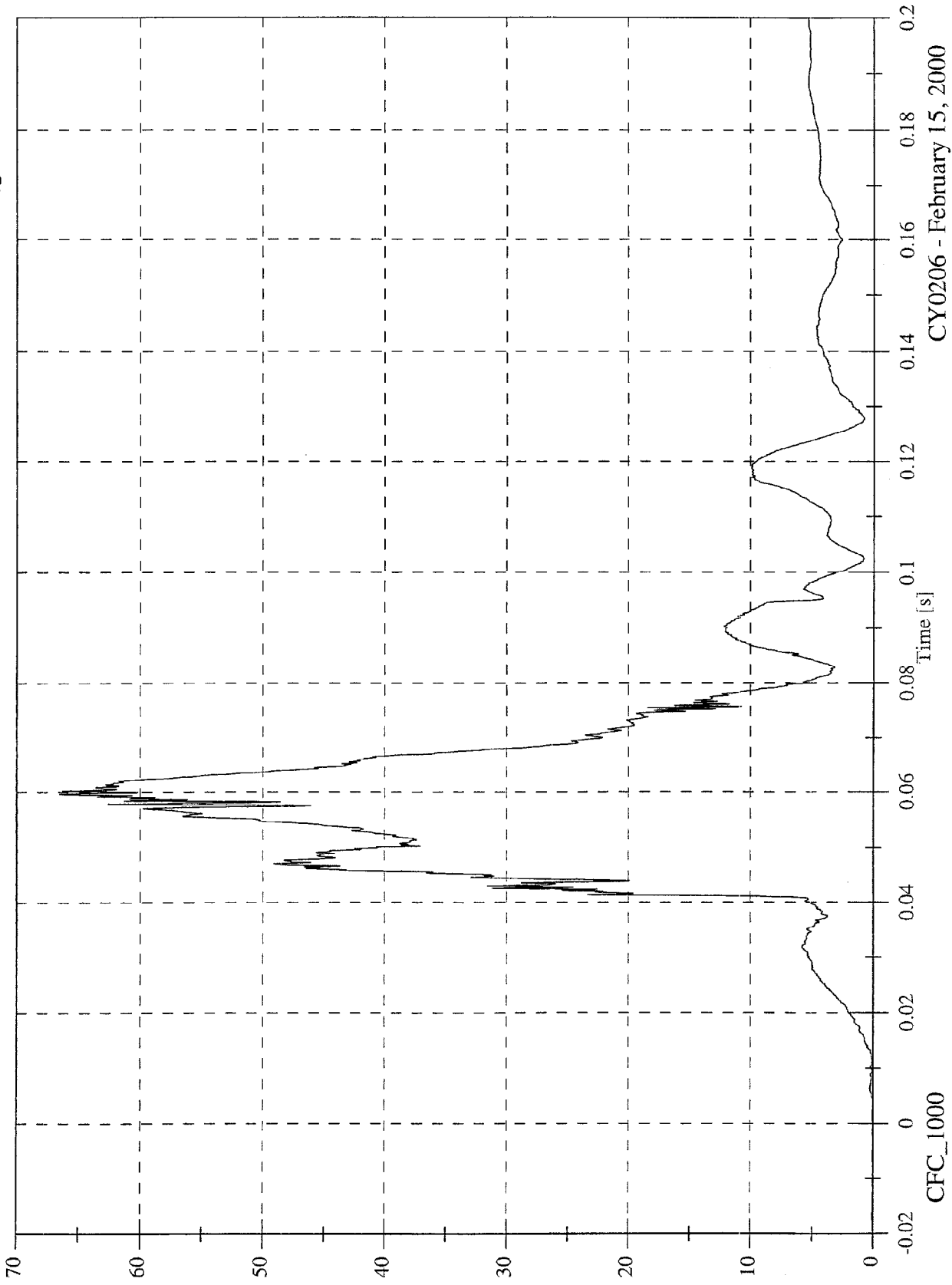
CFC\_180

FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door

P4 Head Resultant

Max: 66.5 [g] at 0.060 [s]

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



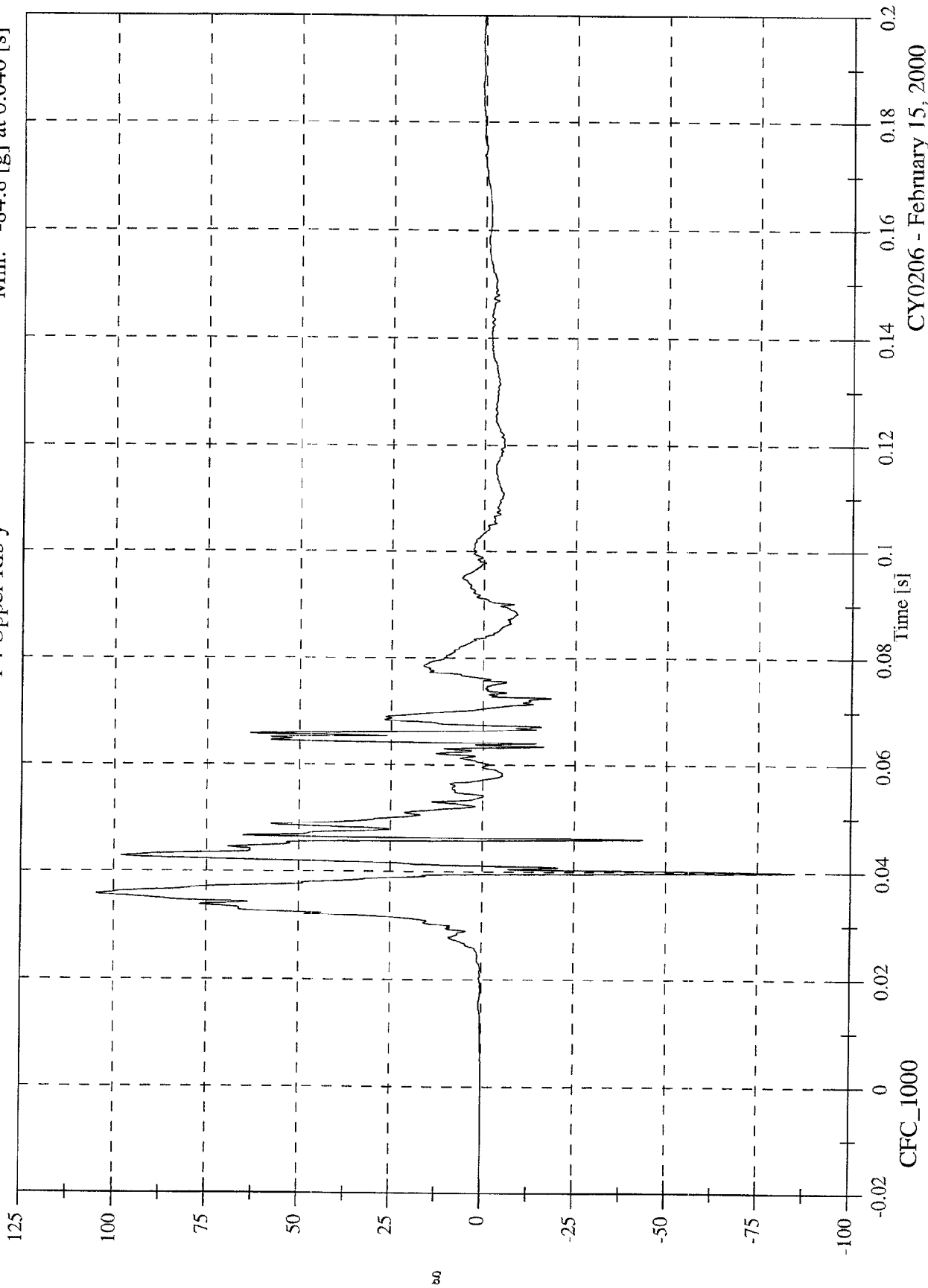
CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P4 Upper Rib y

Max: 104.7 [g] at 0.036 [s]

Min: -84.8 [g] at 0.040 [s]

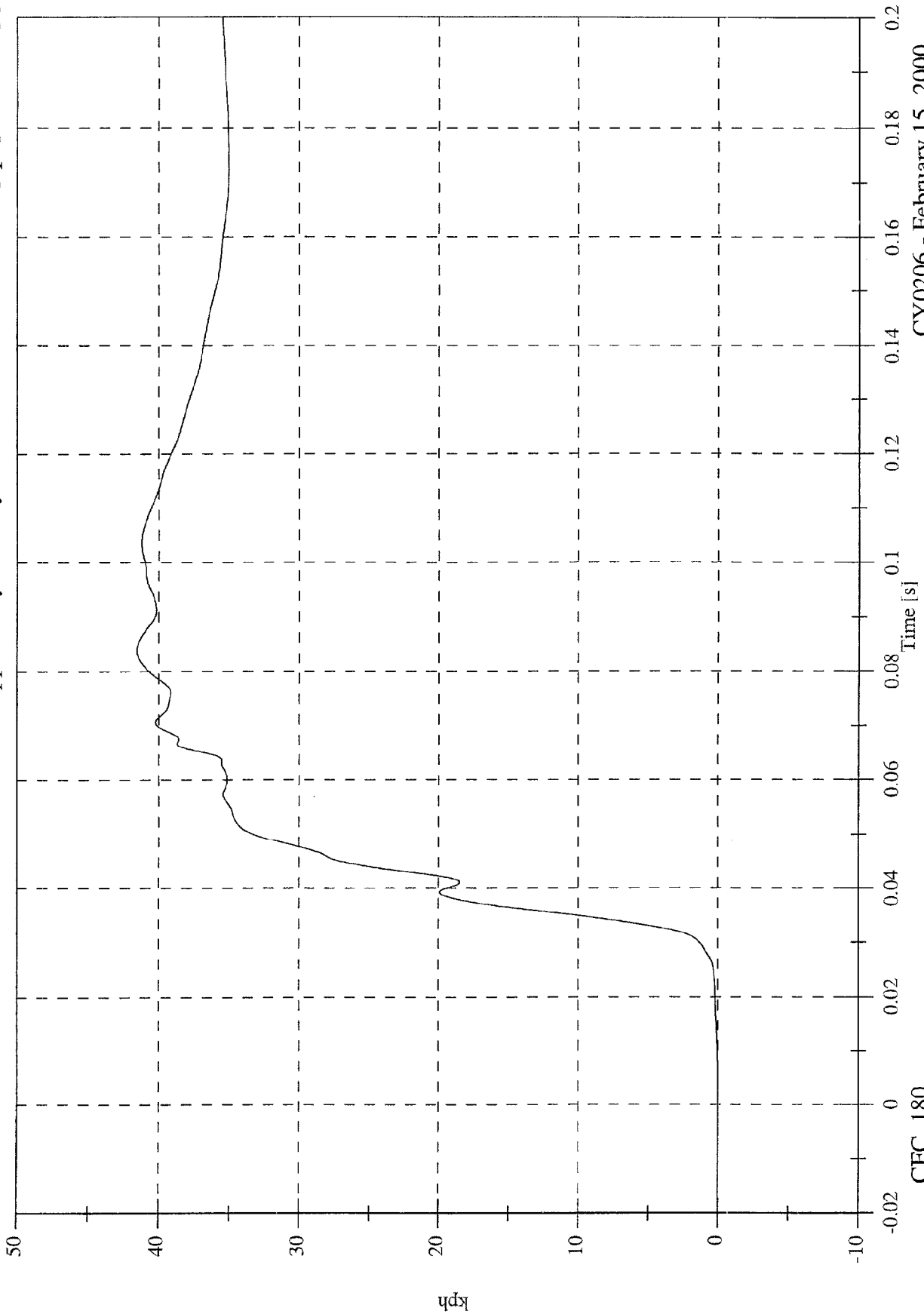


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Max: 41.5 [kph] at 0.084 [s]  
Min: -0.0 [kph] at -0.017 [s]

P4 Upper Rib y Velocity

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

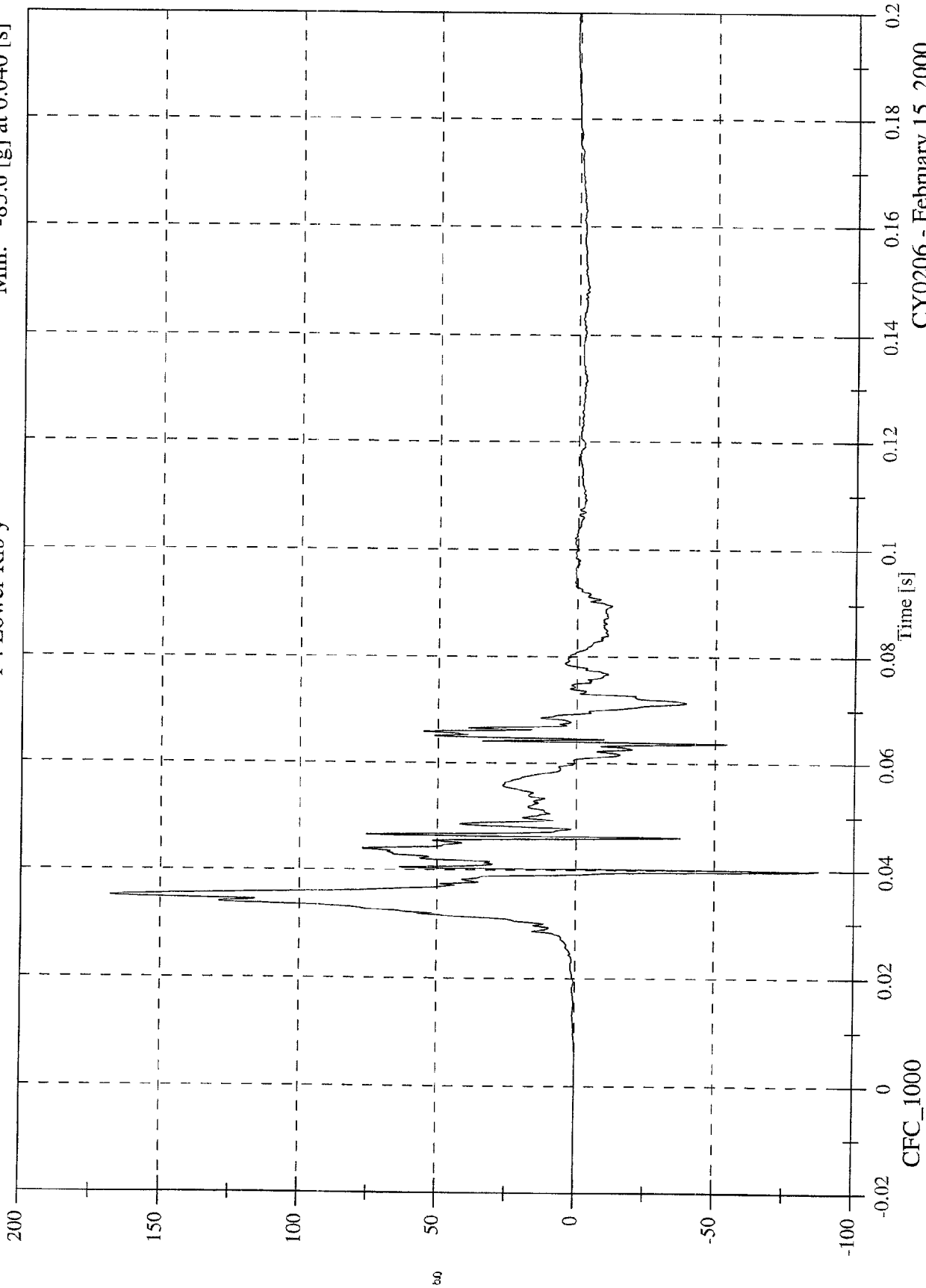


CY0206 - February 15, 2000

CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Rib y

Max: 168.0 [g] at 0.035 [s]  
Min: -85.6 [g] at 0.040 [s]

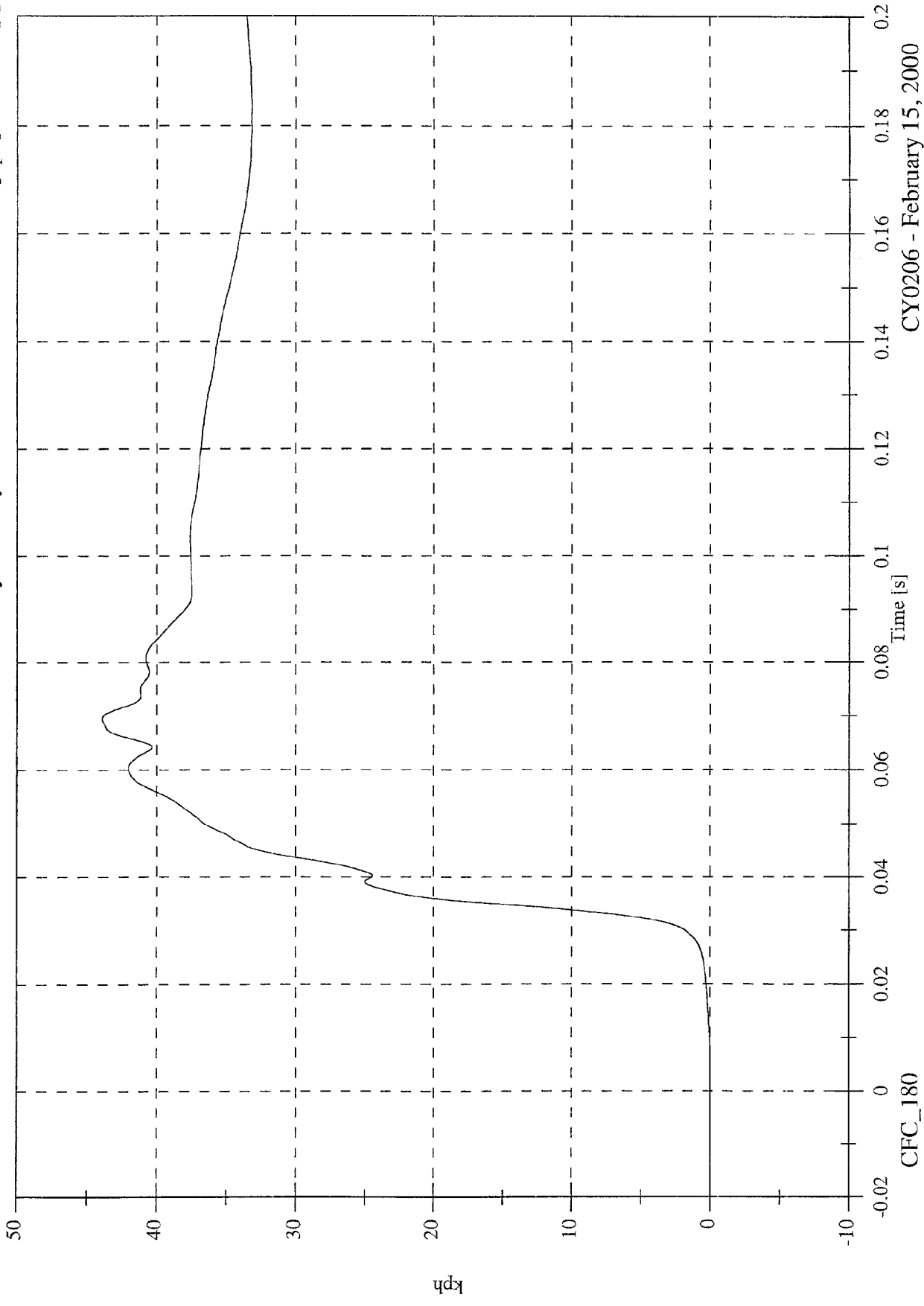


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Rib y Velocity

Max: 43.9 [kph] at 0.069 [s]

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

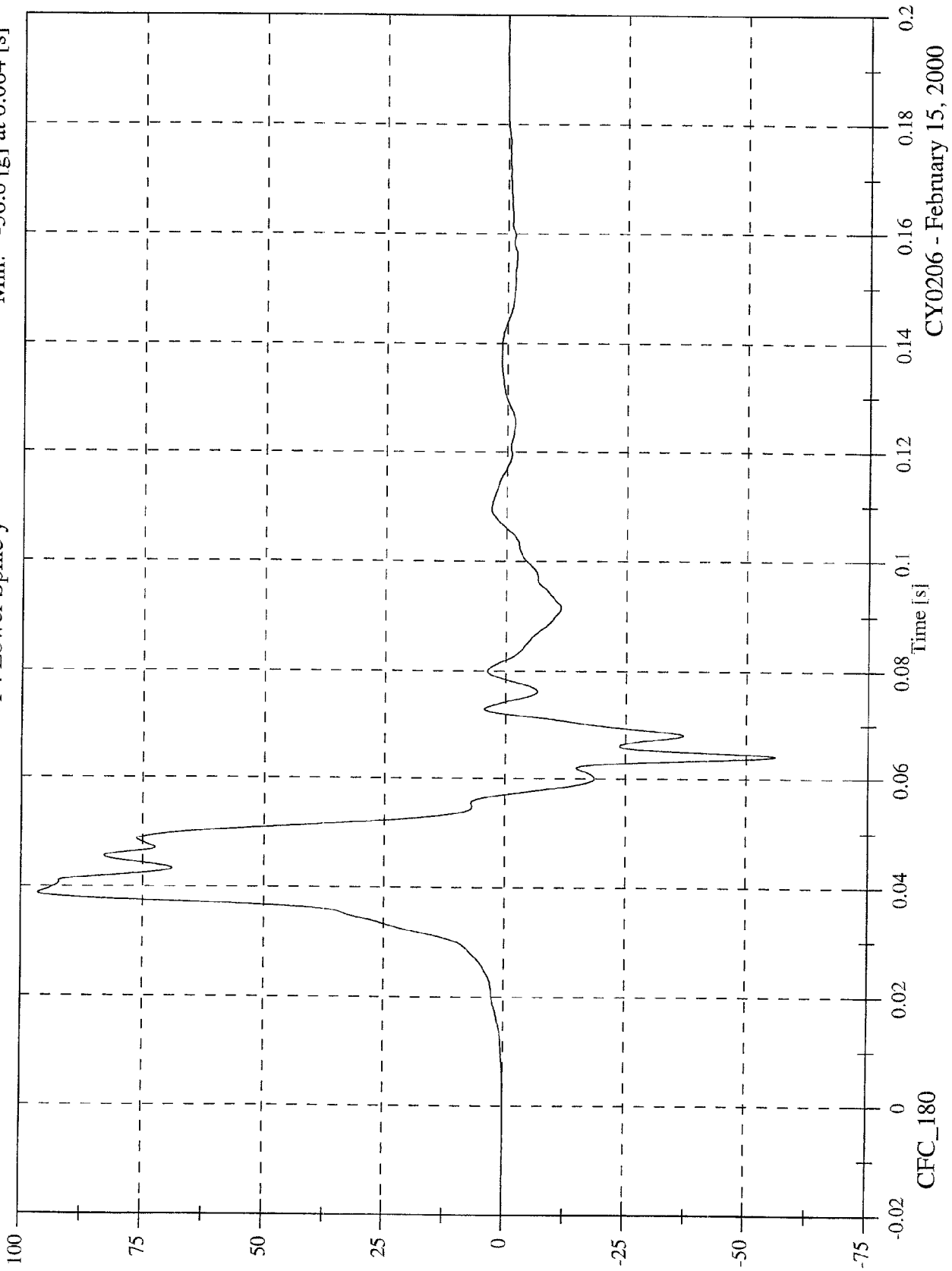


CY0206 - February 15, 2000

CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Spine y

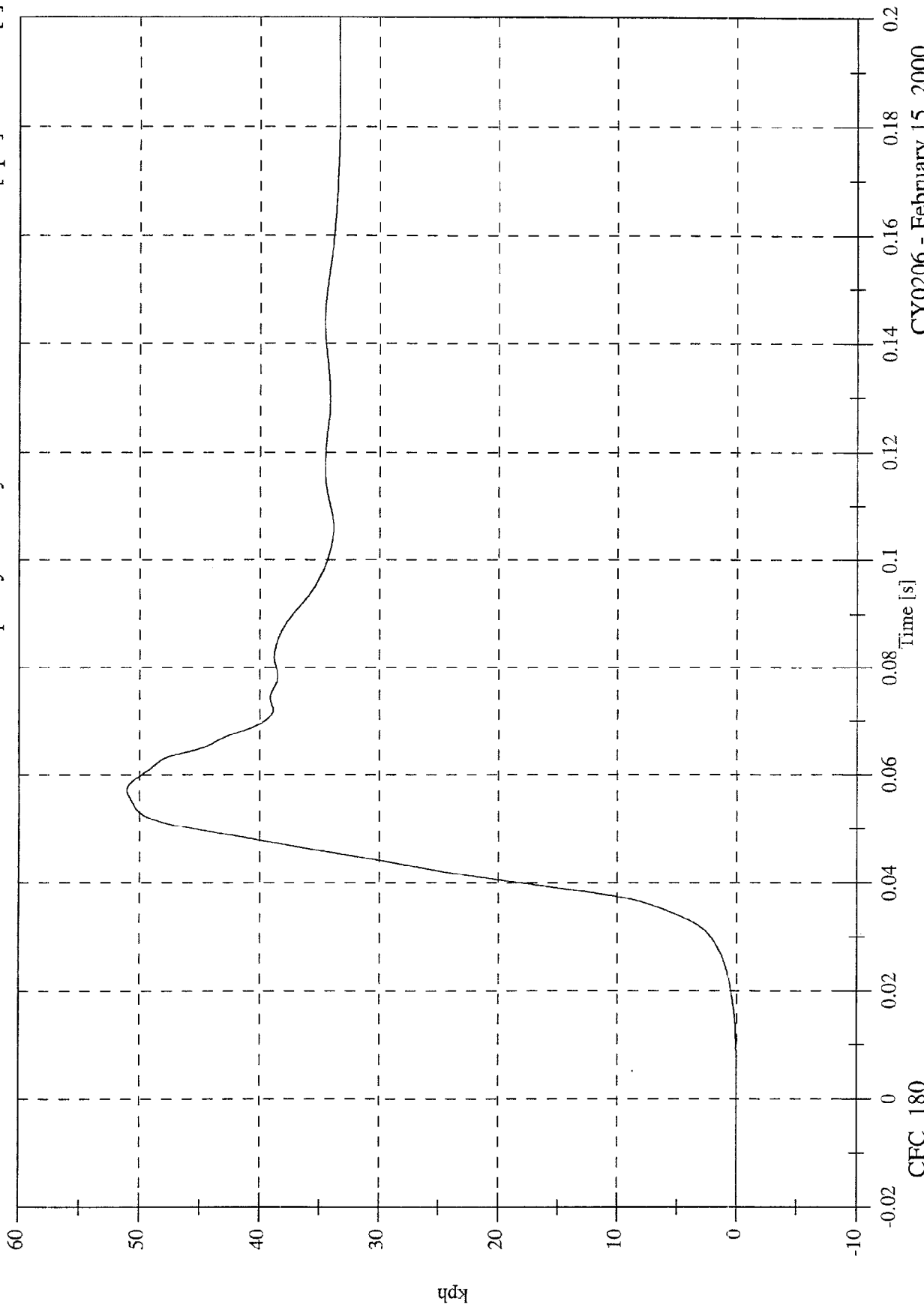
Max: 96.5 [g] at 0.039 [s]  
Min: -56.0 [g] at 0.064 [s]



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Spine y Velocity

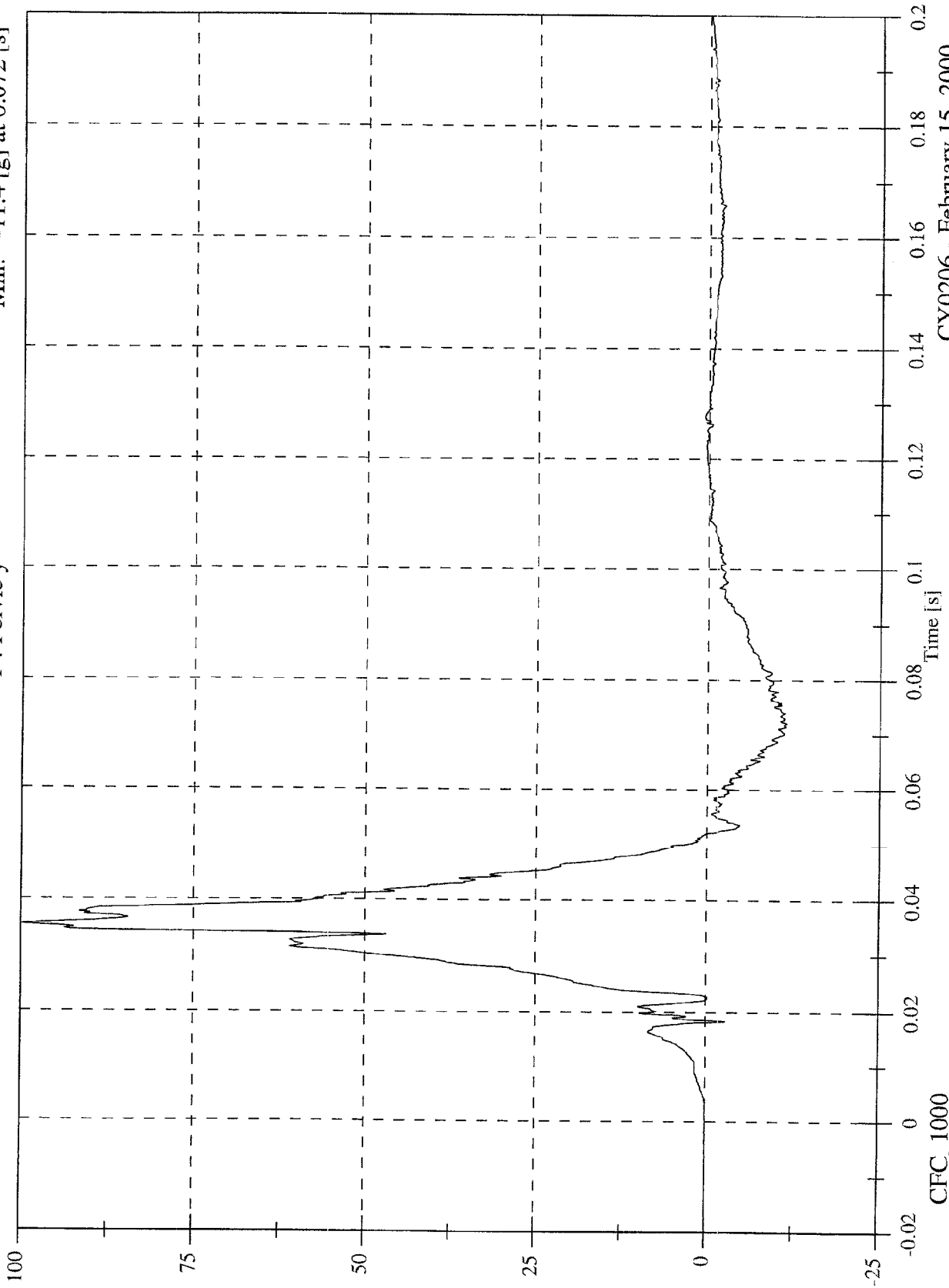
Max: 51.0 [kph] at 0.057 [s]  
Min: -0.0 [kph] at -0.016 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Pelvic y

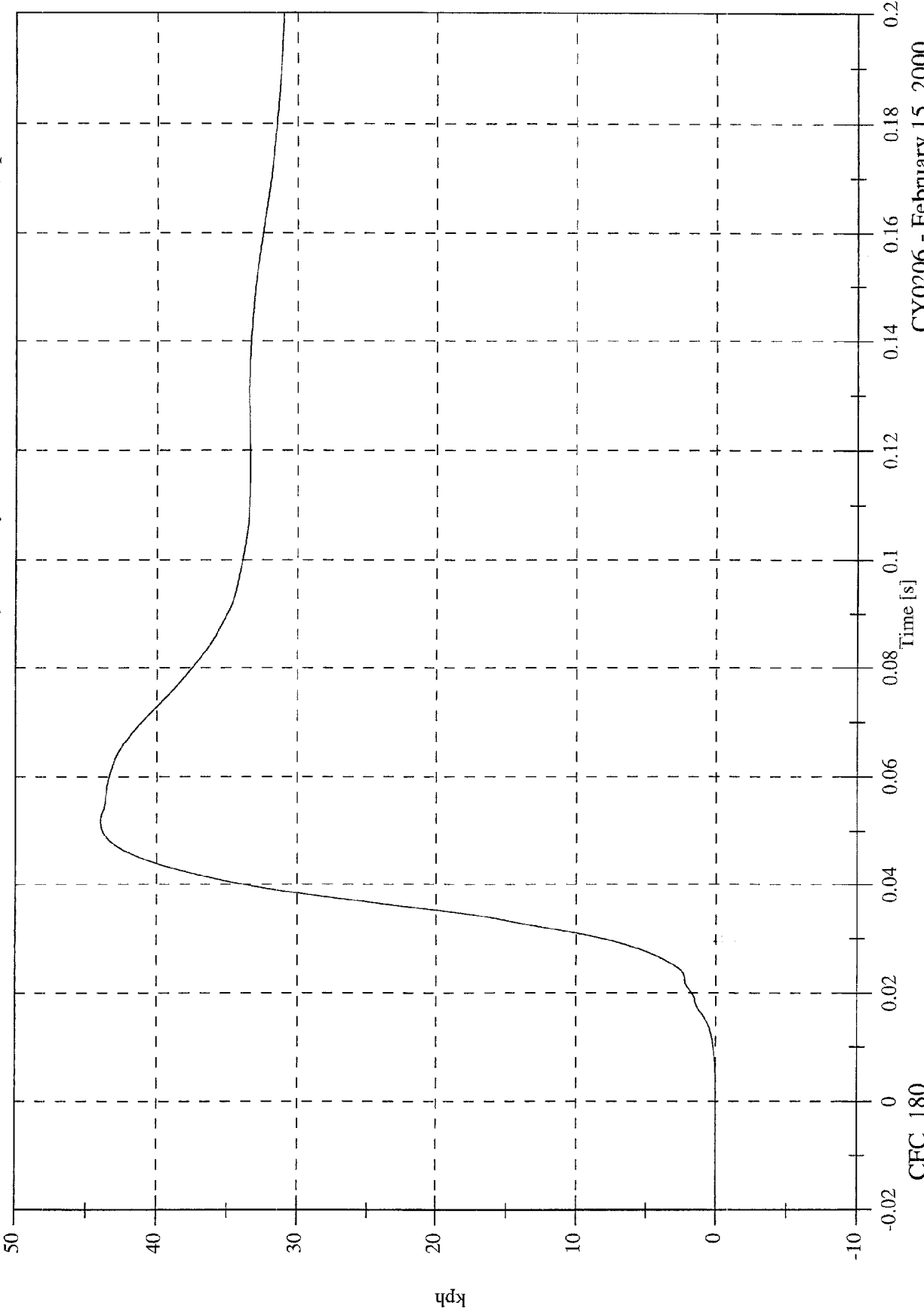
Max: 99.8 [g] at 0.036 [s]  
Min: -11.4 [g] at 0.072 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Pelvic y Velocity

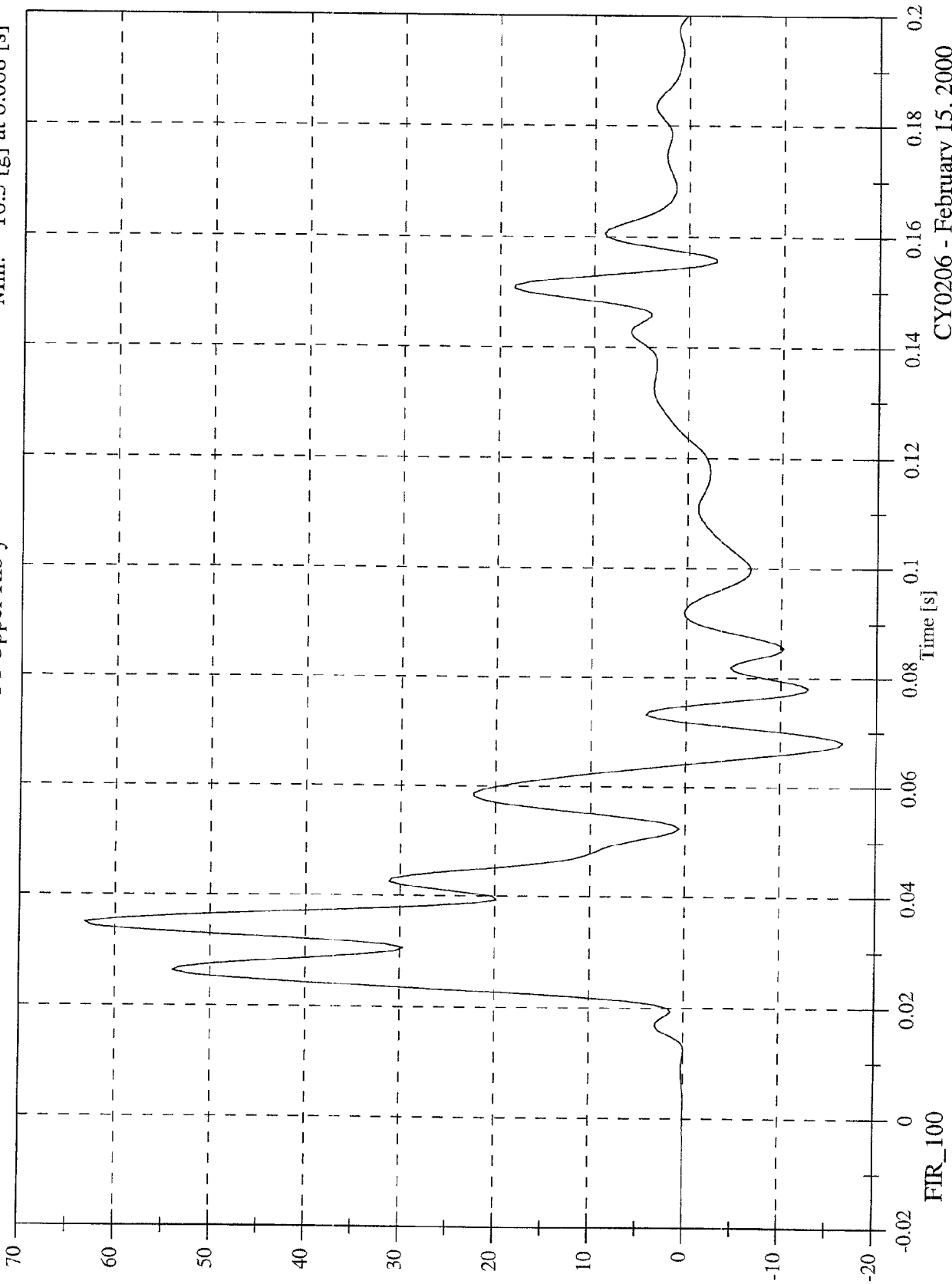
Max: 44.0 [kph] at 0.052 [s]  
Min: -0.0 [kph] at -0.020 [s]



CYC206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Upper Rib y

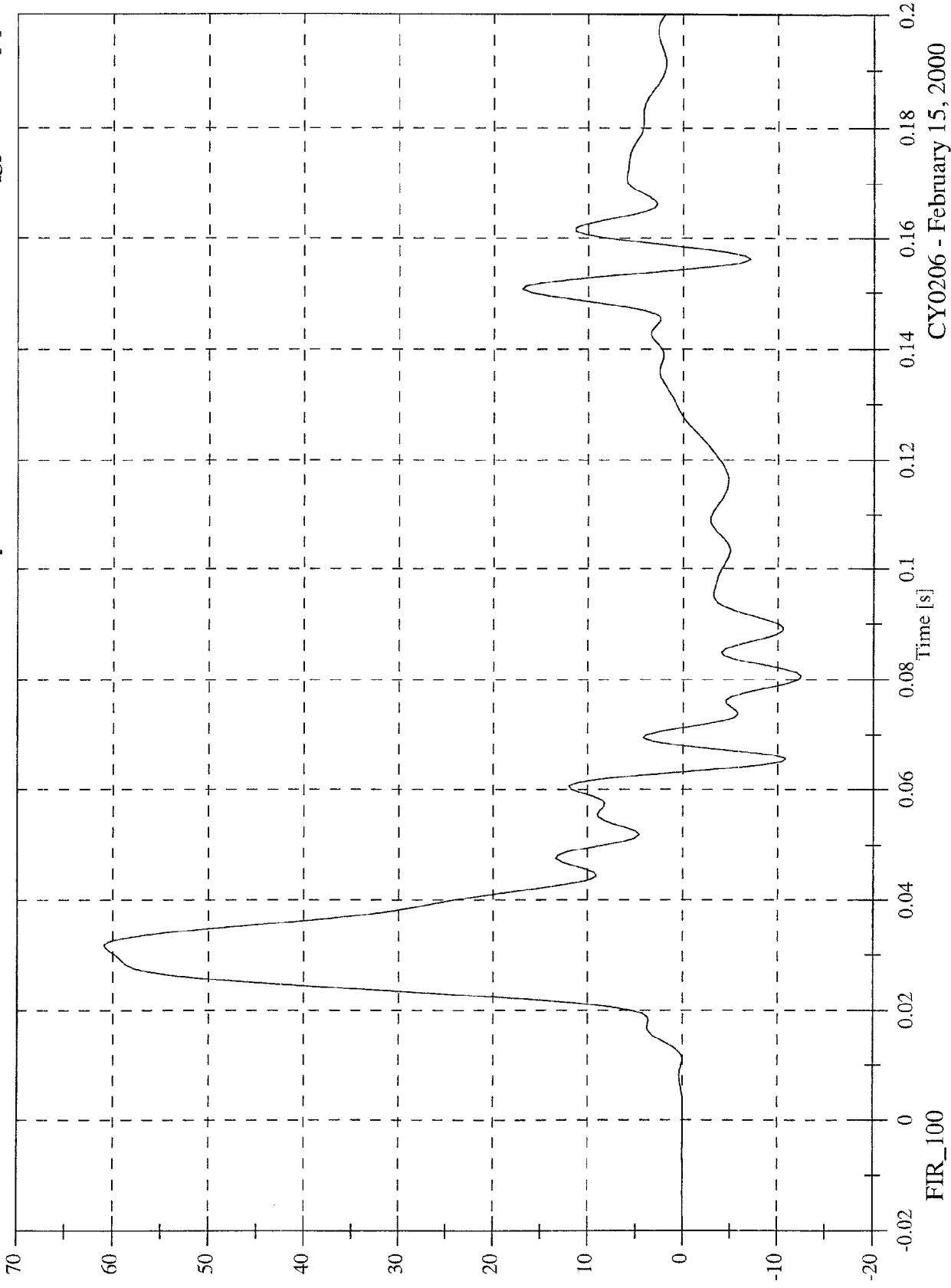
Max: 63.2 [g] at 0.035 [s]  
Min: -16.5 [g] at 0.068 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Lower Rib y

Max: 60.9 [g] at 0.032 [s]  
Min: -12.4 [g] at 0.081 [s]



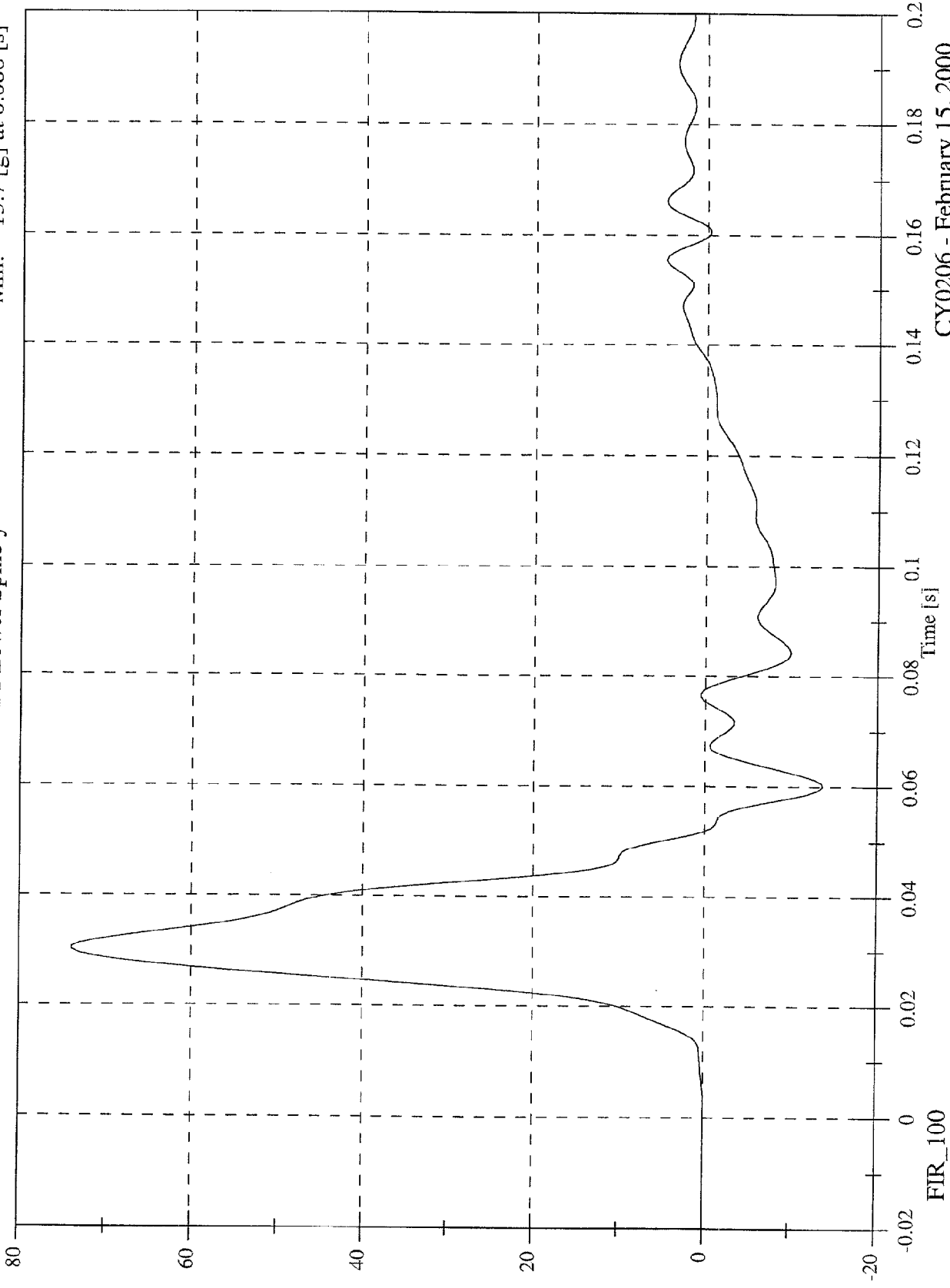
CY0206 - February 15, 2000

FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door

P1 Lower Spine y

Max: 73.9 [g] at 0.030 [s]

Min: -13.7 [g] at 0.060 [s]

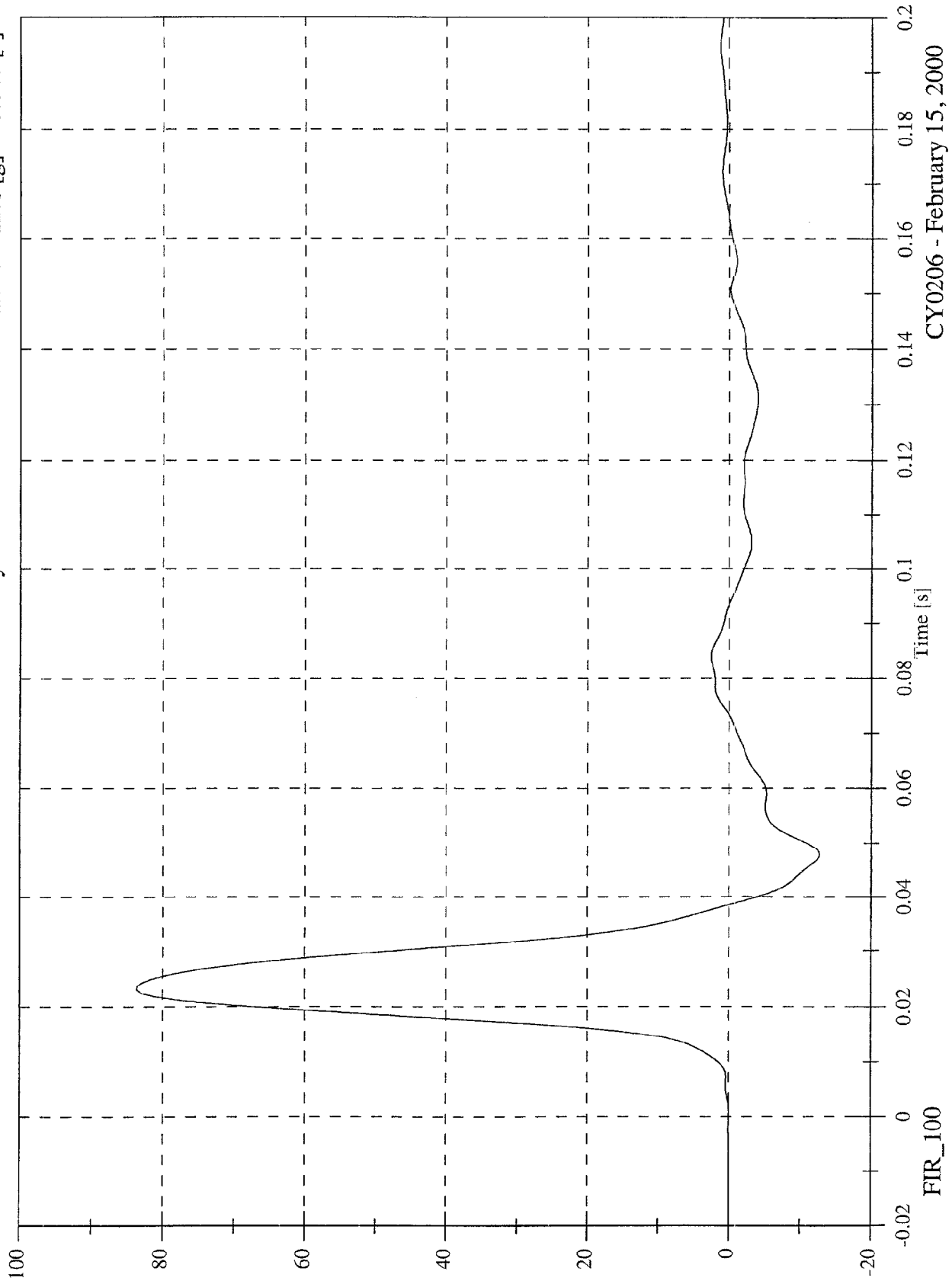


CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Pelvic y

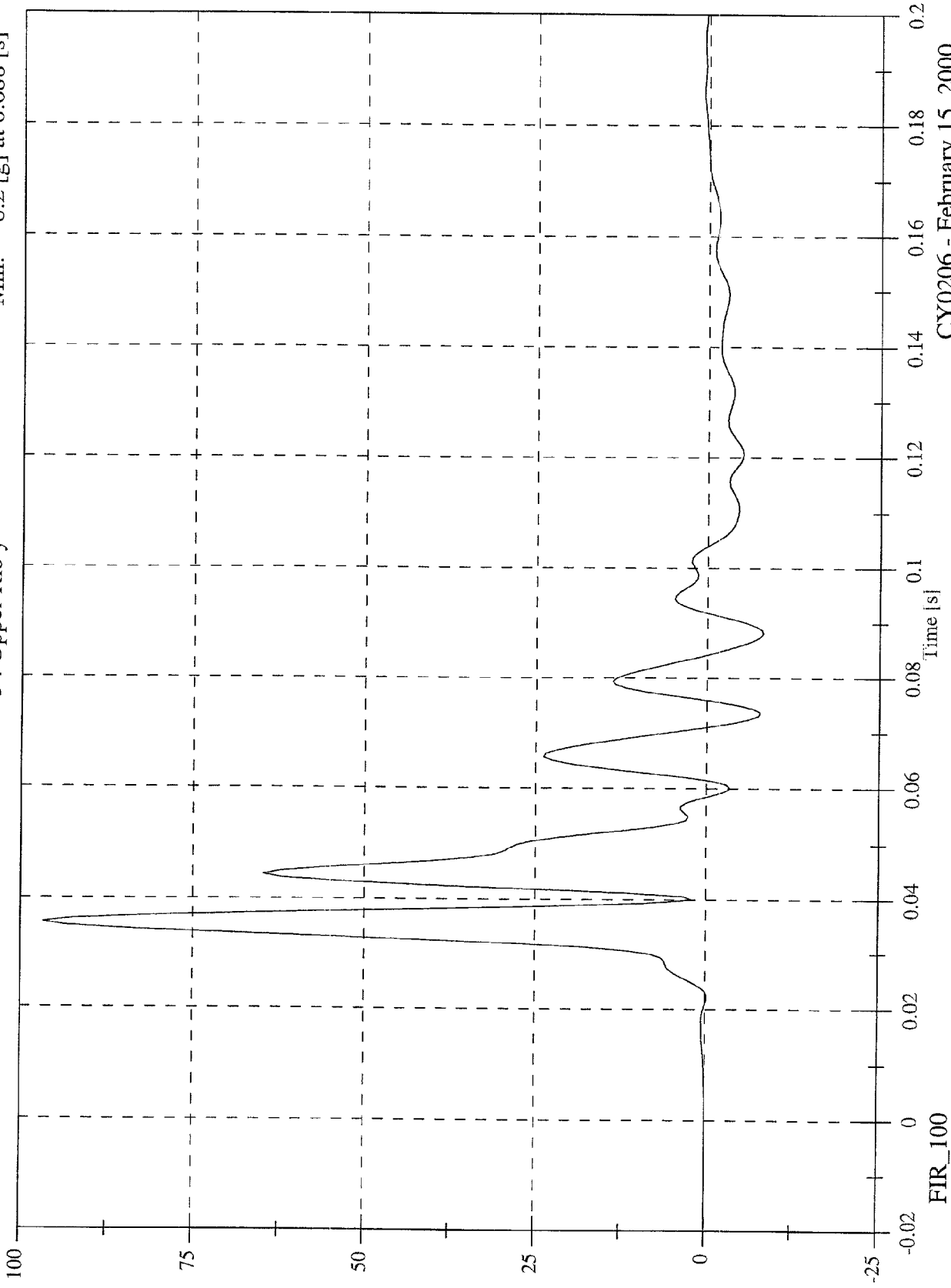
Max: 83.7 [g] at 0.023 [s]  
Min: -12.8 [g] at 0.048 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Upper Rib y

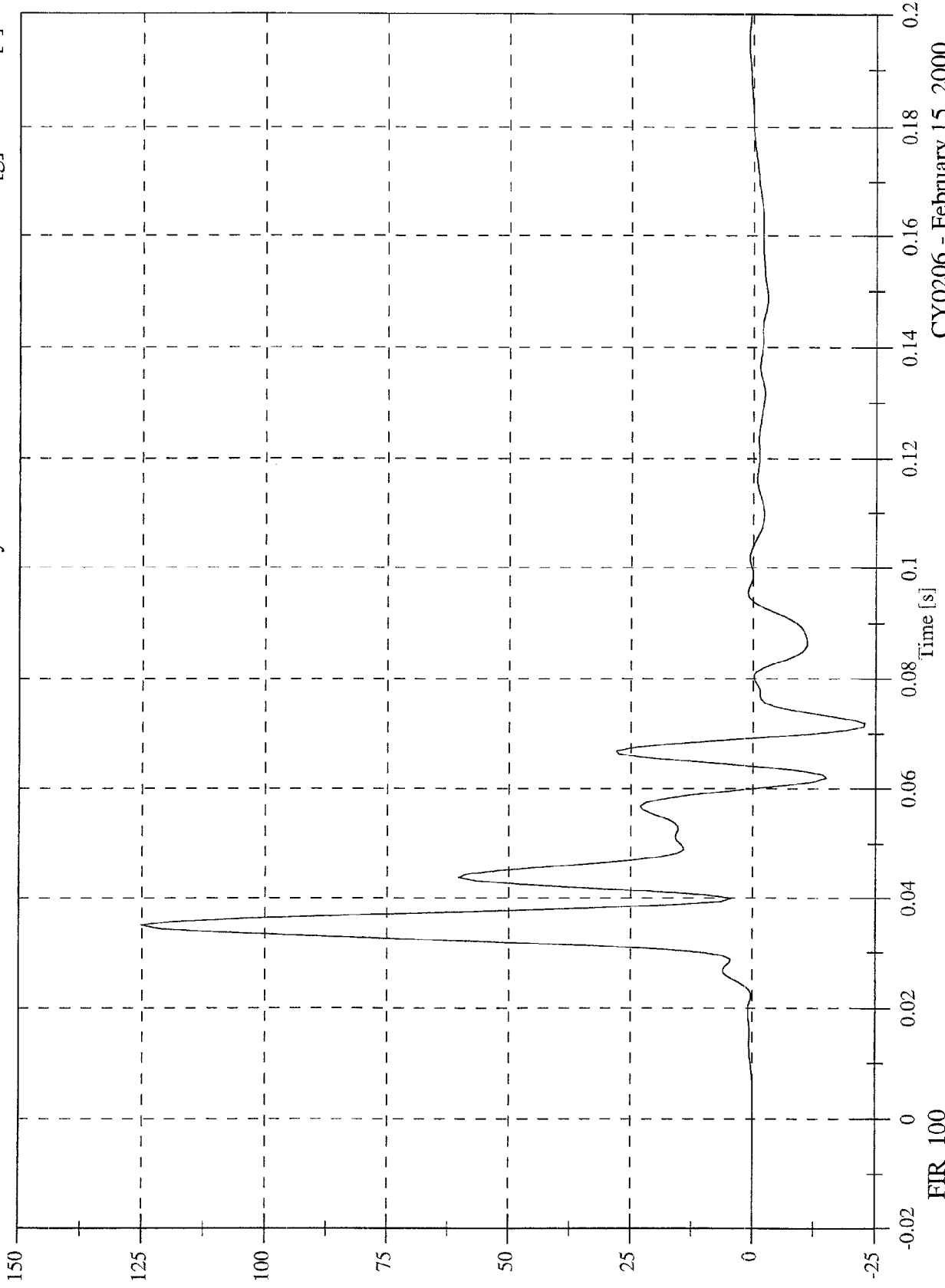
Max: 96.7 [g] at 0.036 [s]  
Min: -8.2 [g] at 0.088 [s]



CY0206 - February 15, 2000

FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Rib y

Max: 125.2 [g] at 0.035 [s]  
Min: -22.8 [g] at 0.072 [s]



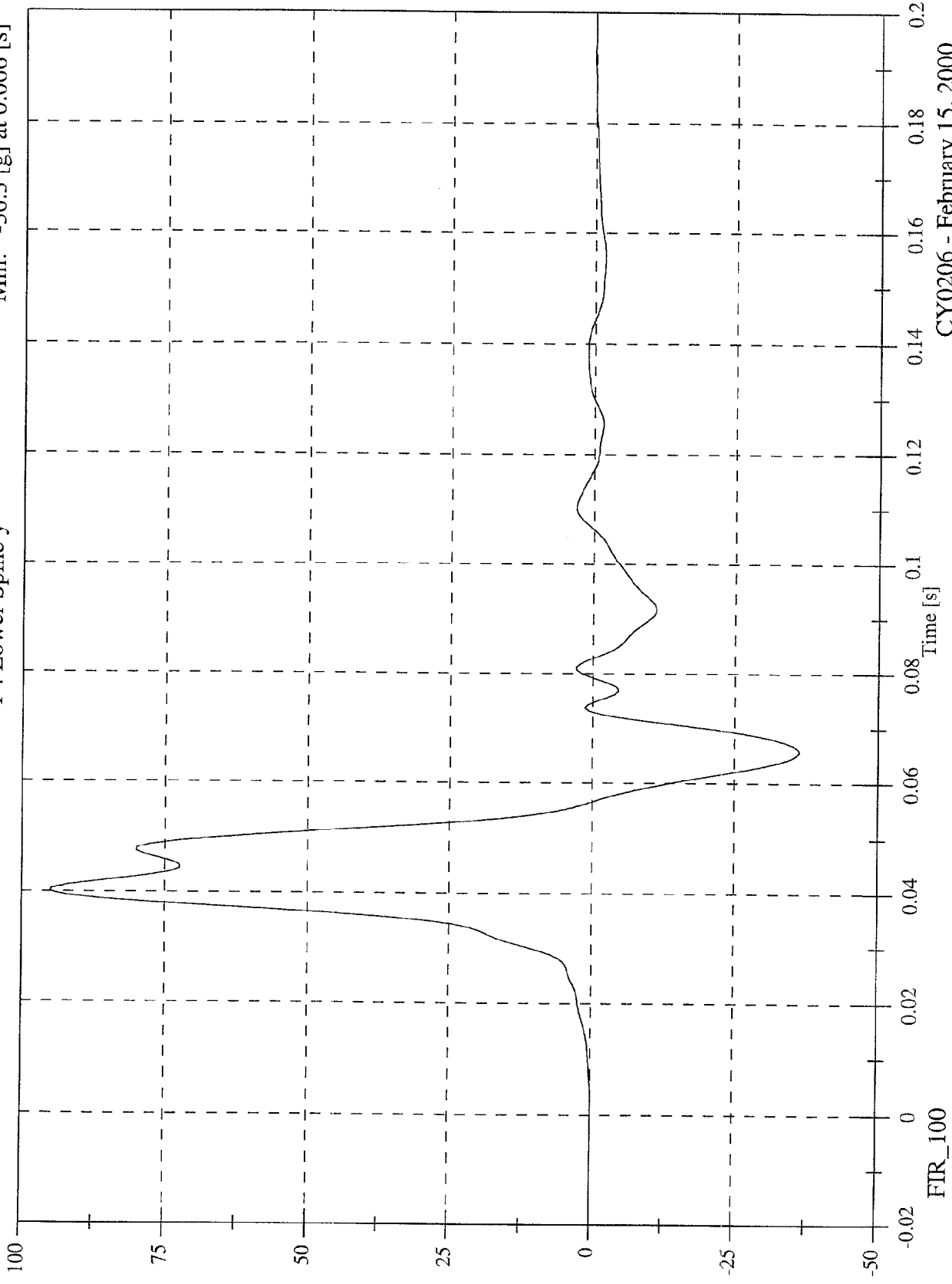
CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P4 Lower Spine y

Max: 95.0 [g] at 0.040 [s]

Min: -36.3 [g] at 0.066 [s]



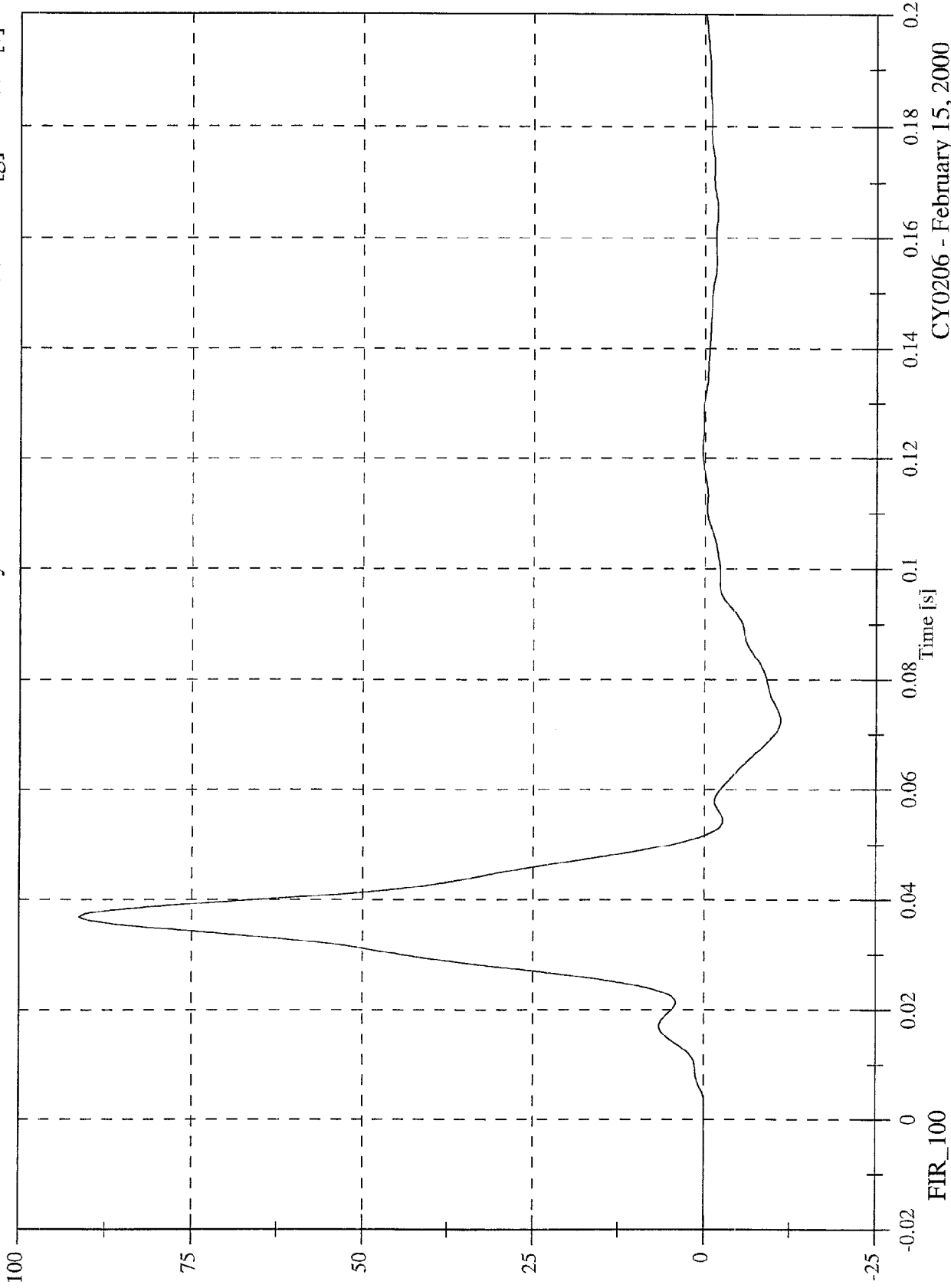
CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Max: 91.3 [g] at 0.037 [s]

Min: -11.1 [g] at 0.072 [s]

P4 Pelvic y



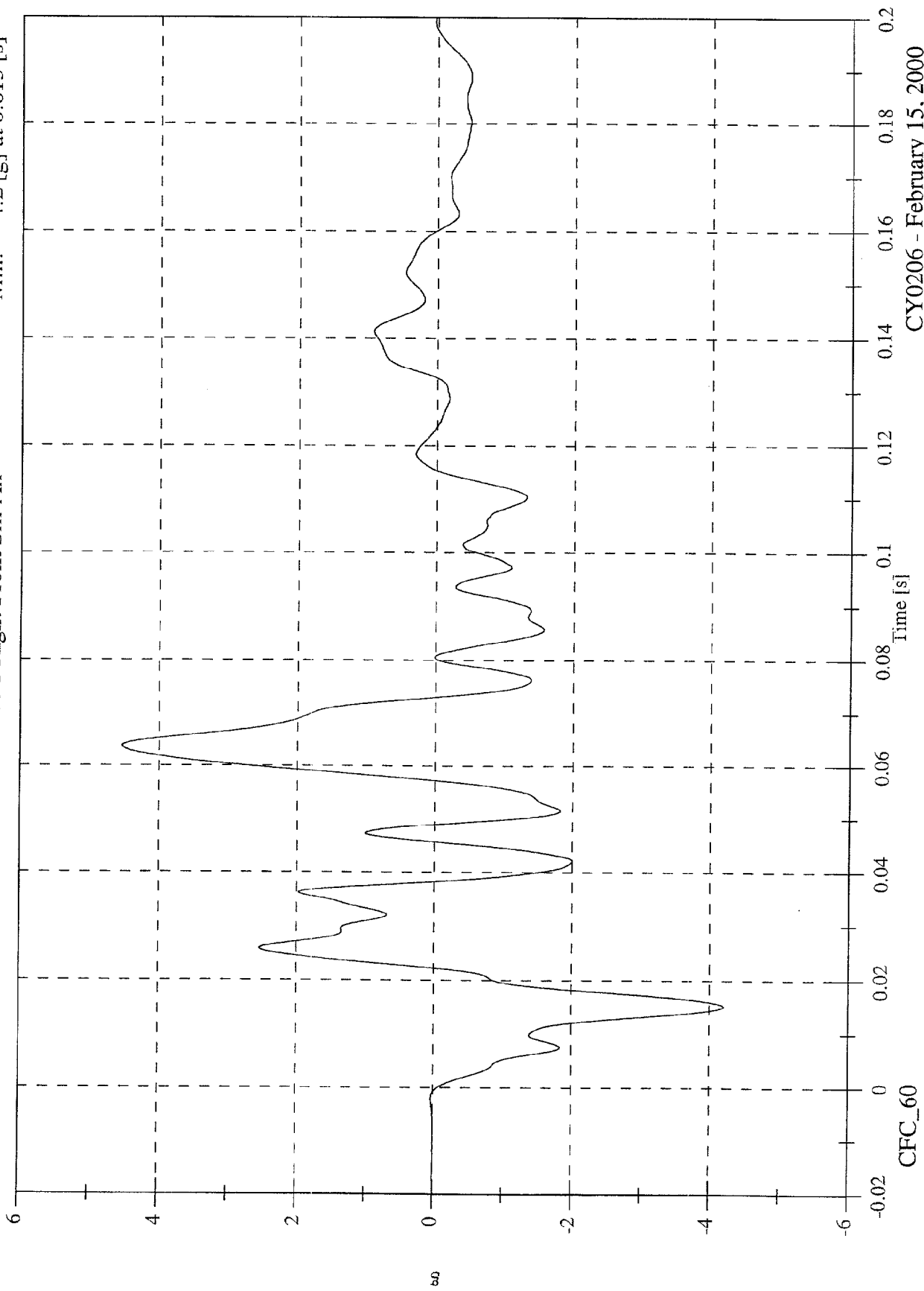
CY0206 - February 15, 2000

FIR\_100

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

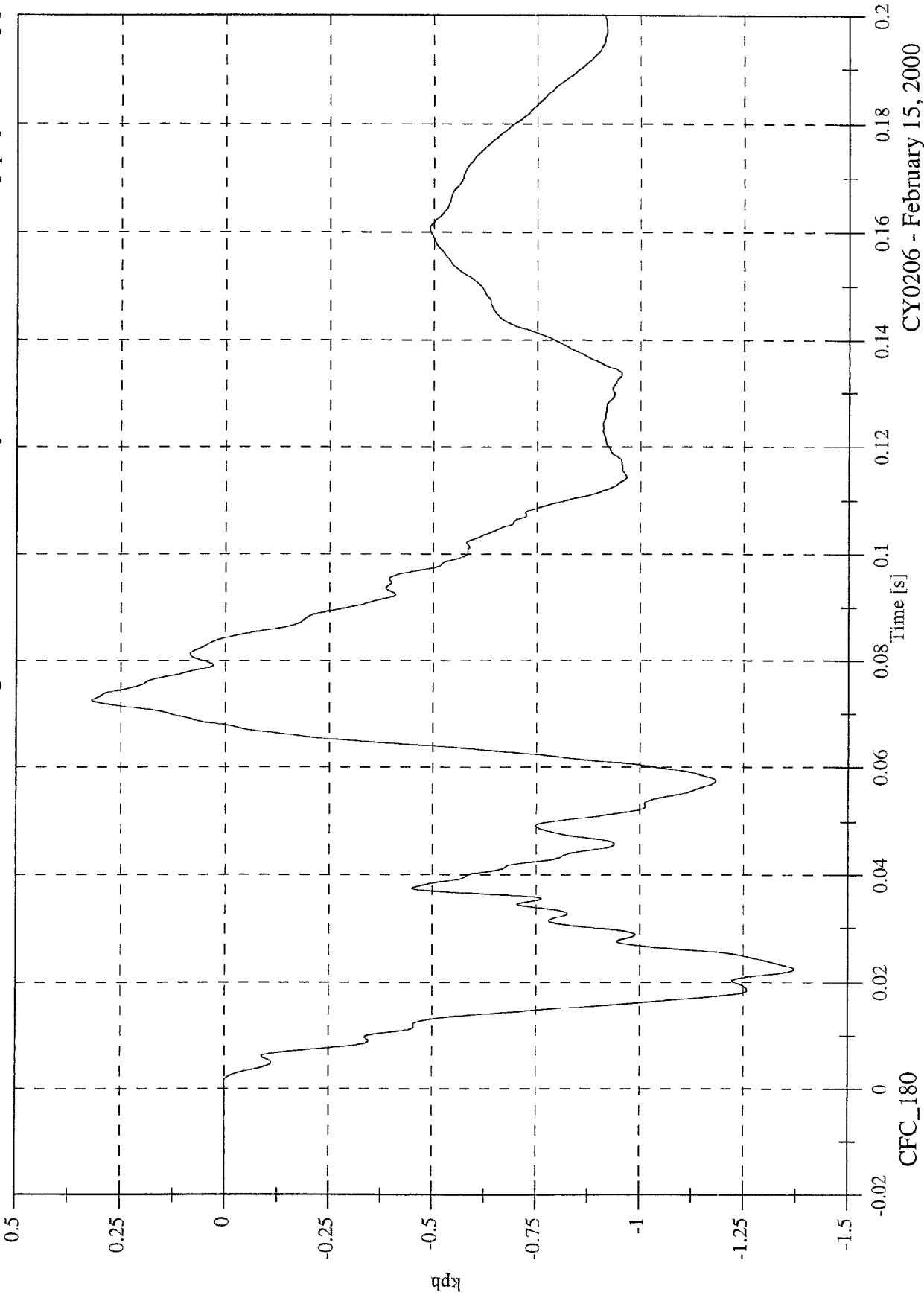
Max: 4.5 [g] at 0.064 [s]  
Min: -4.2 [g] at 0.015 [s]

Acc 1 Right Front Sill Ax



FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 1 Right Front Sill Ax Velocity

Max: 0.3 [kph] at 0.073 [s]  
Min: -1.4 [kph] at 0.022 [s]

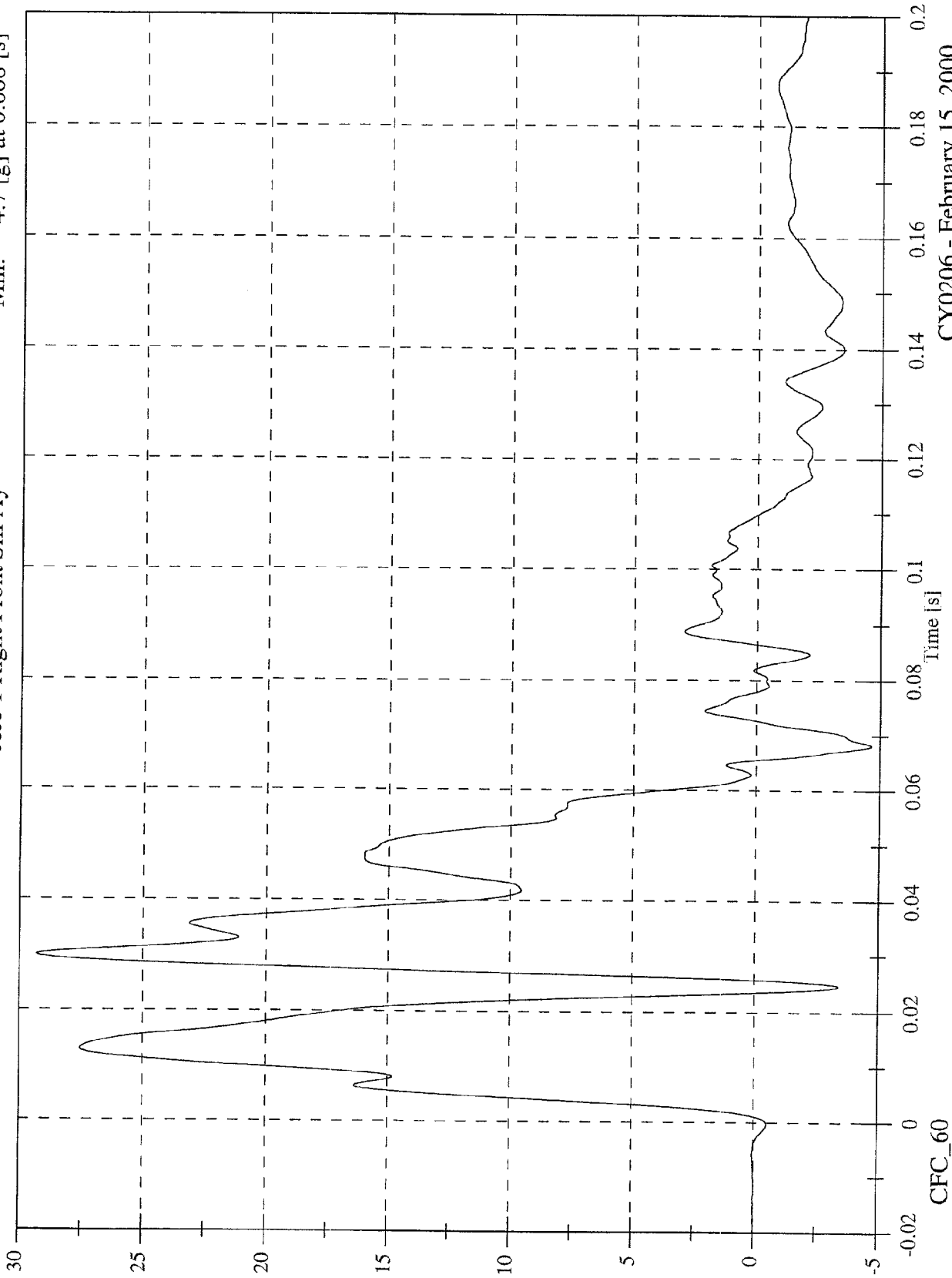


CY0206 - February 15, 2000

CFC\_180

Max: 29.3 [g] at 0.030 [s]  
Min: -4.7 [g] at 0.068 [s]

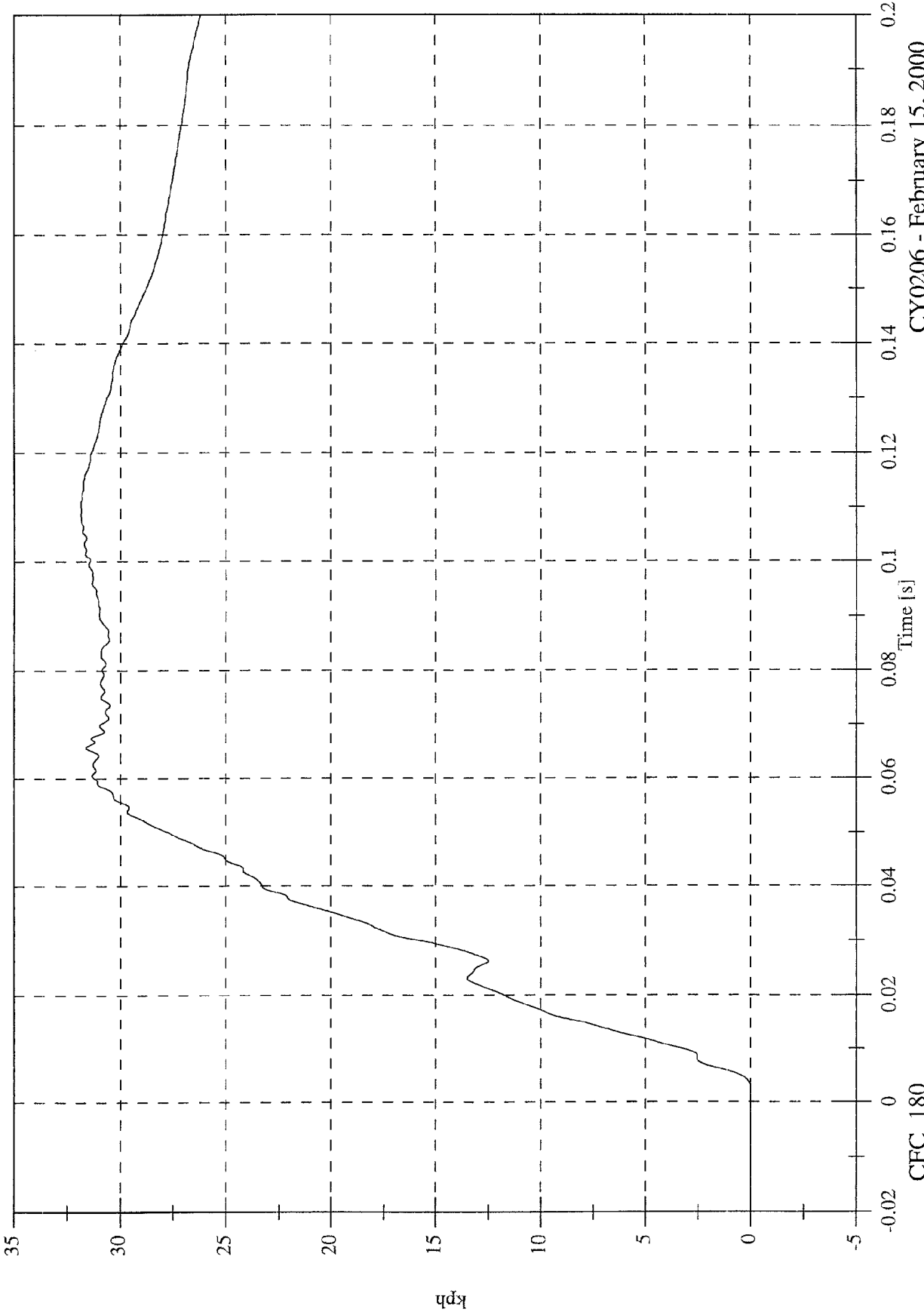
FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 1 Right Front Sill Ay



CY0206 - February 15, 2000

FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Acc 1 Right Front Sill Ay Velocity

Max: 31.9 [kph] at 0.111 [s]  
Min: -0.0 [kph] at -0.016 [s]

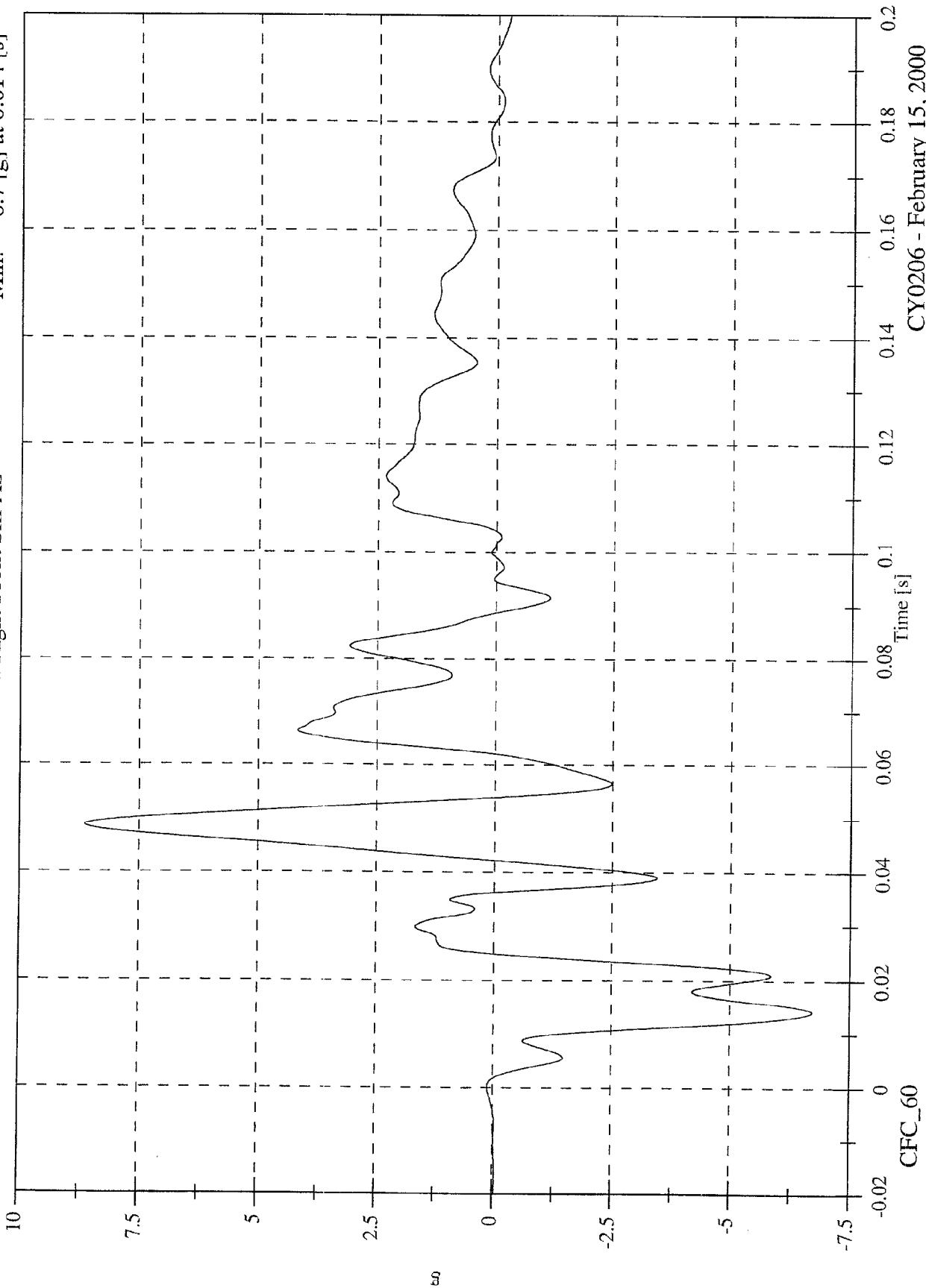


CY0206 - February 15, 2000

CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 1 Right Front Sill Az

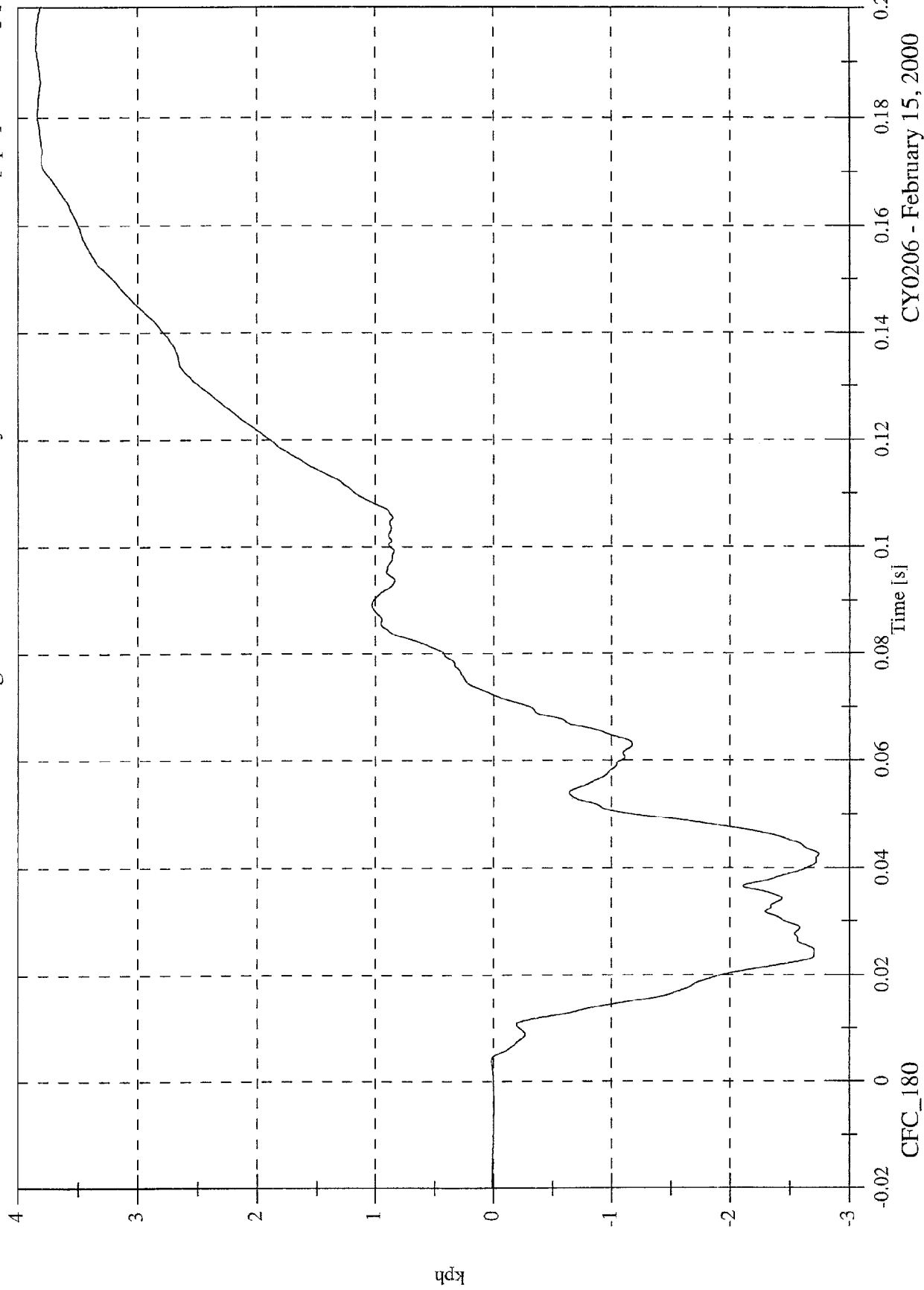
Max: 8.6 [g] at 0.049 [s]  
Min: -6.7 [g] at 0.014 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 1 Right Front Sill Az Velocity

Max: 3.9 [kph] at 0.192 [s]  
Min: -2.7 [kph] at 0.043 [s]



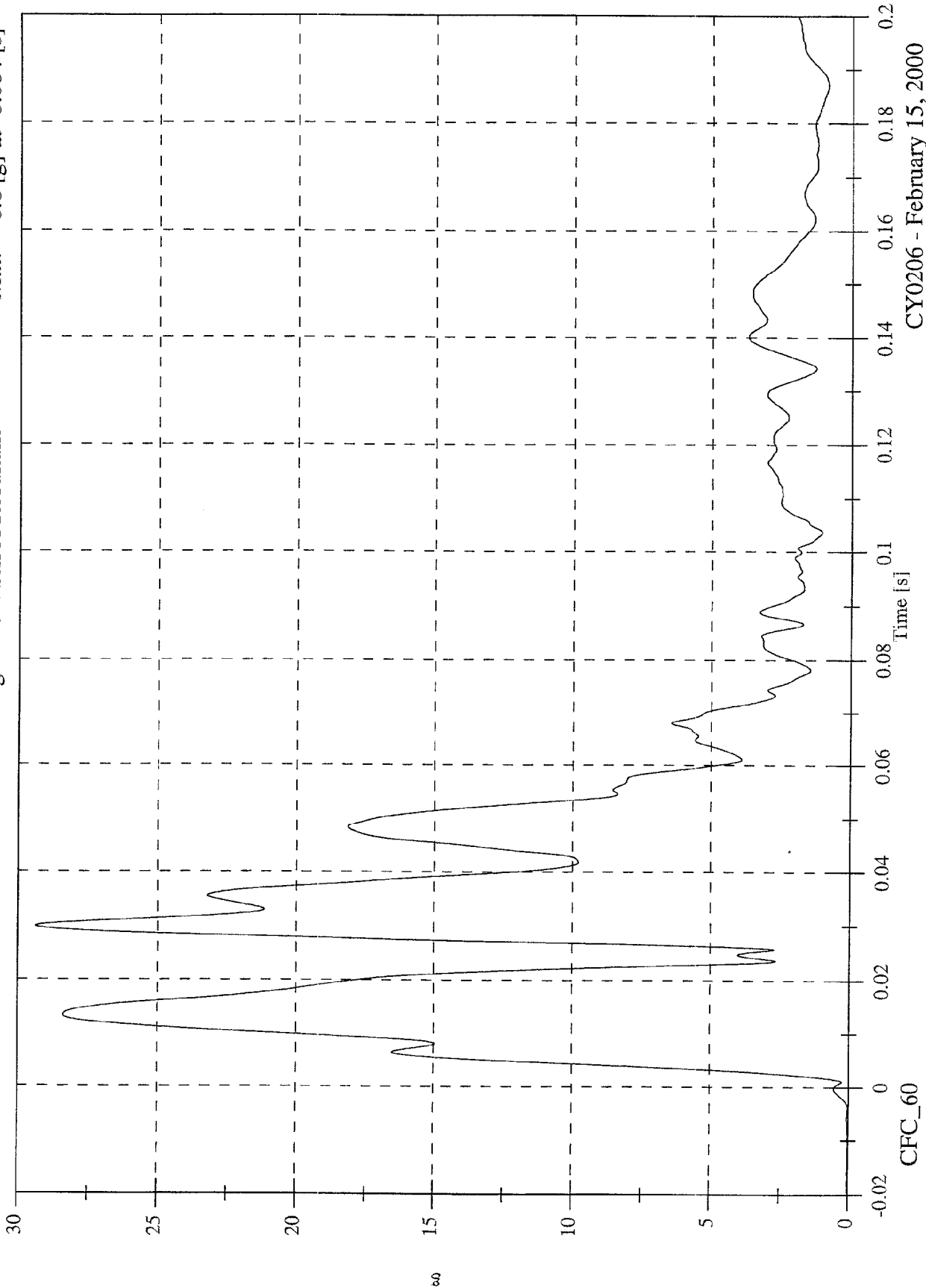
CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Acc 1 Right Front Sill A Resultant

Max: 29.4 [g] at 0.030 [s]

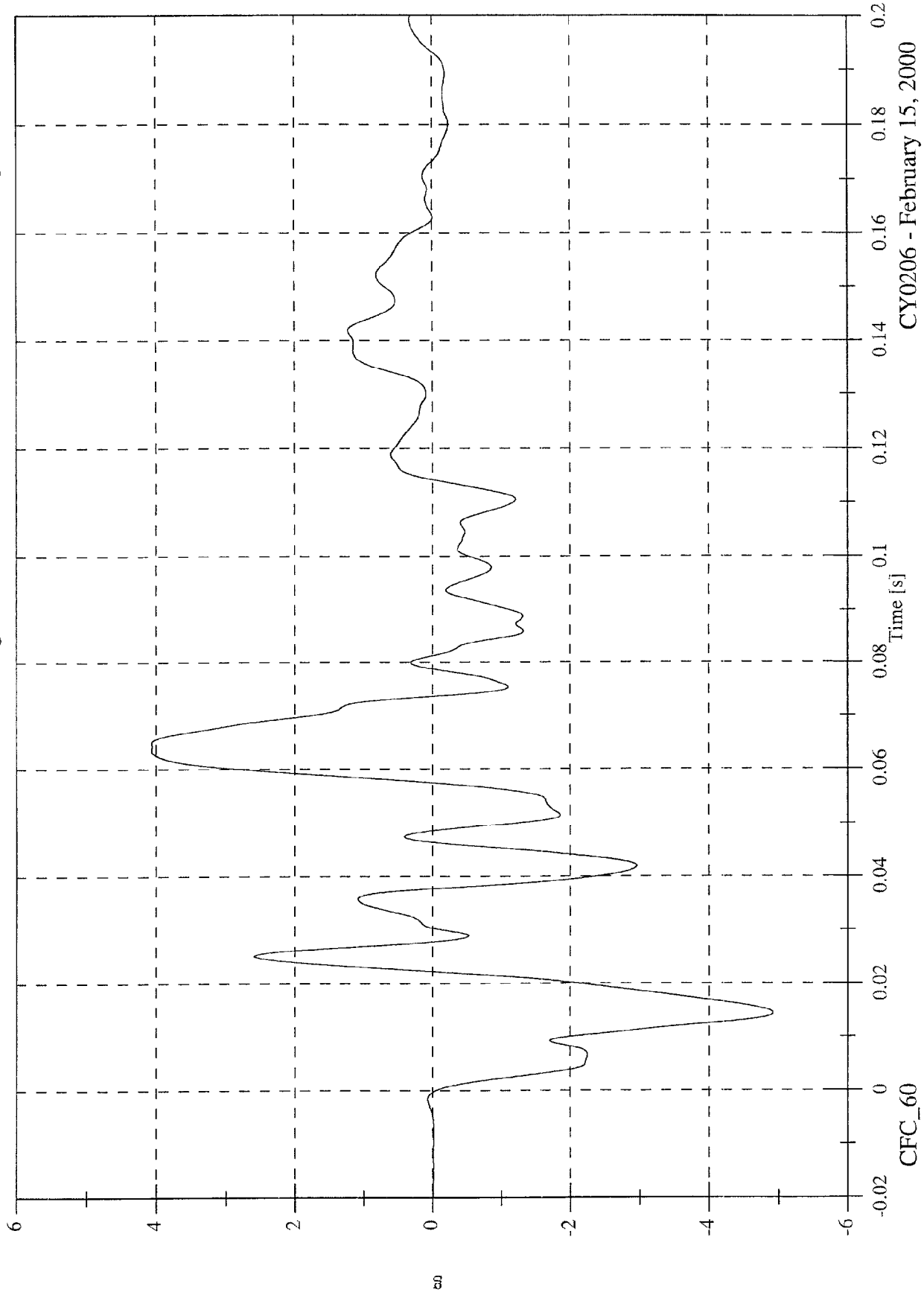
Min: 0.0 [g] at -0.004 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 2 Right Rear Sill Ax

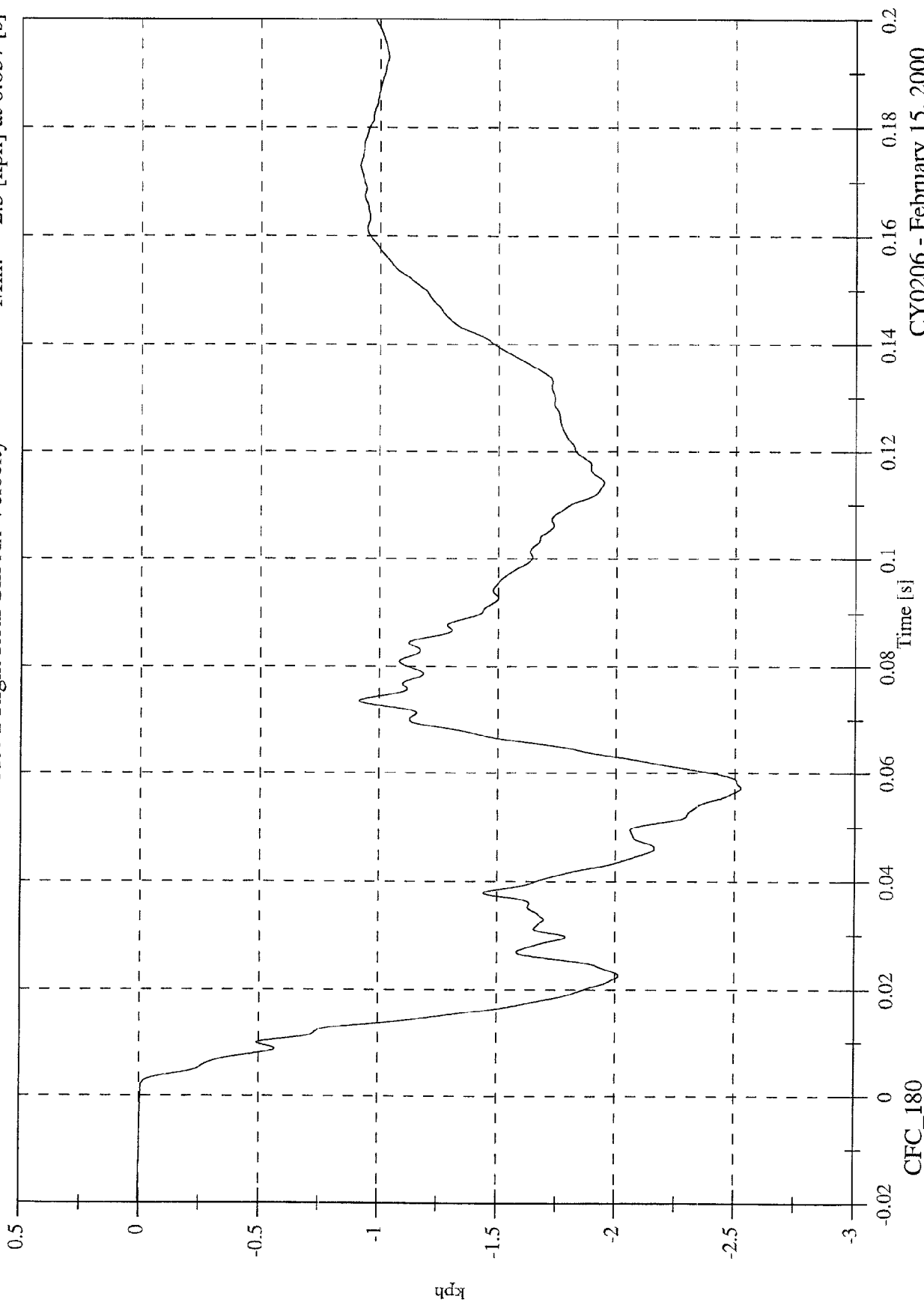
Max: 4.1 [g] at 0.063 [s]  
Min: -4.9 [g] at 0.014 [s]



FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 2 Right Rear Sill Ax Velocity

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

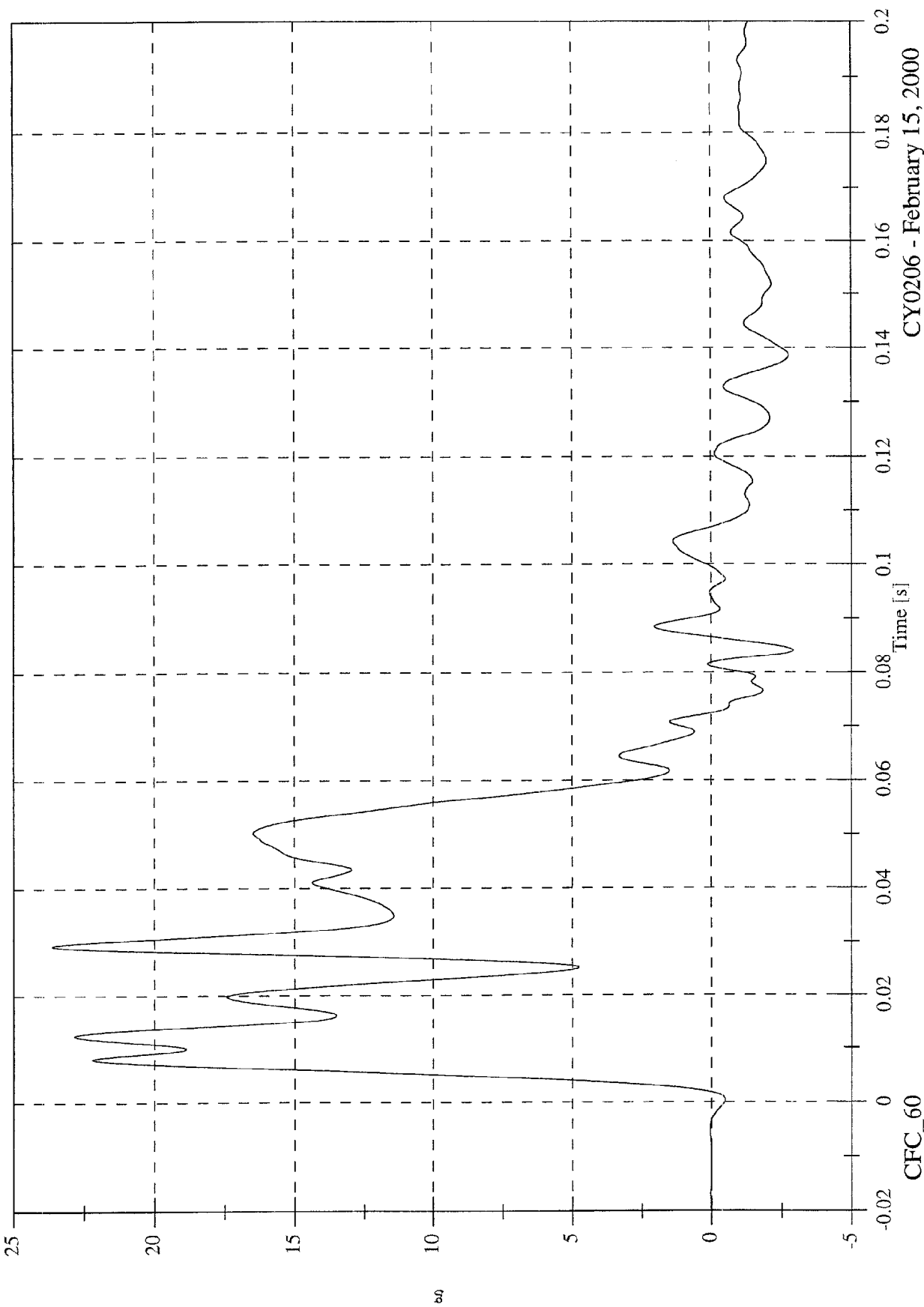
Min: -2.5 [kph] at 0.057 [s]

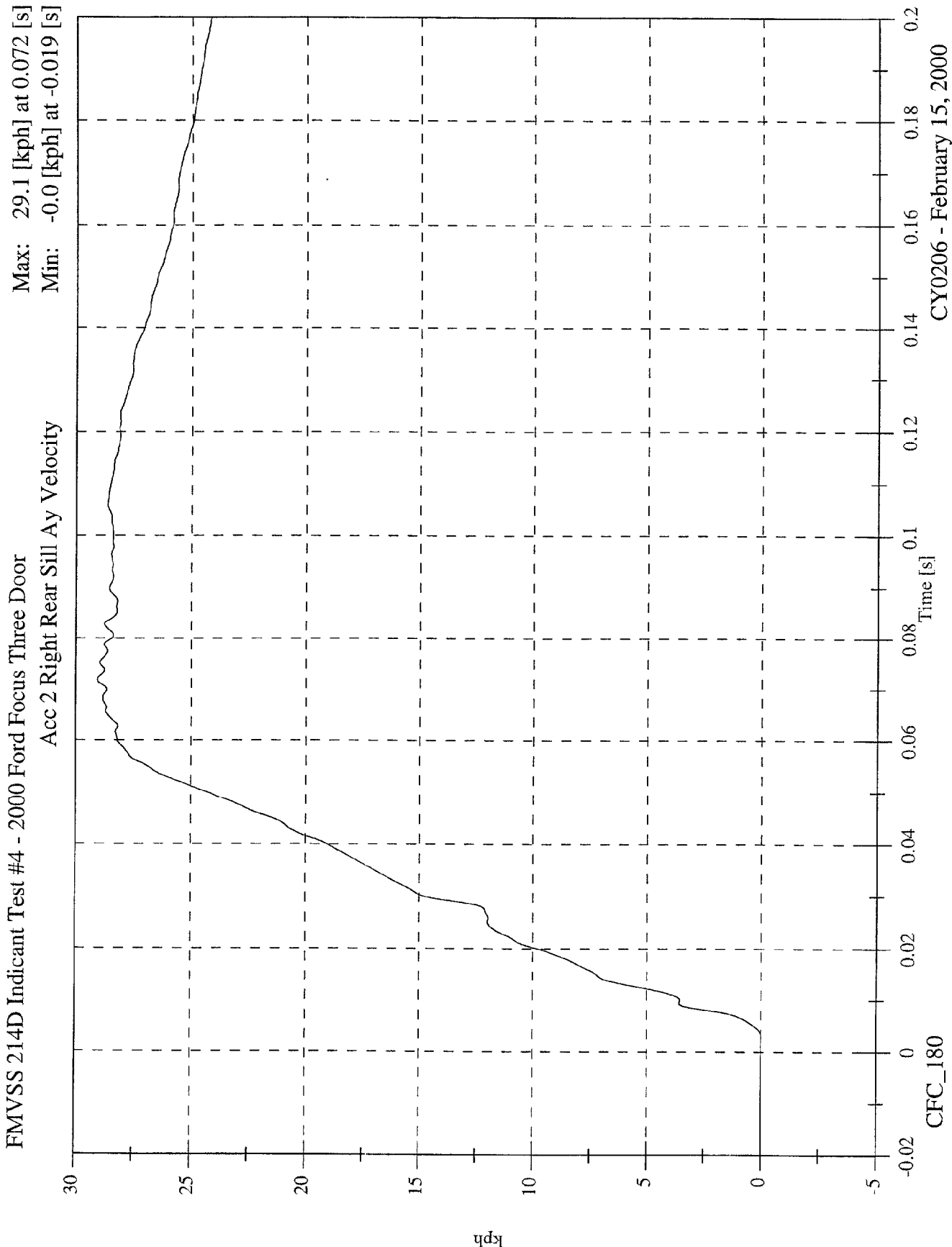


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 2 Right Rear Sill Ay

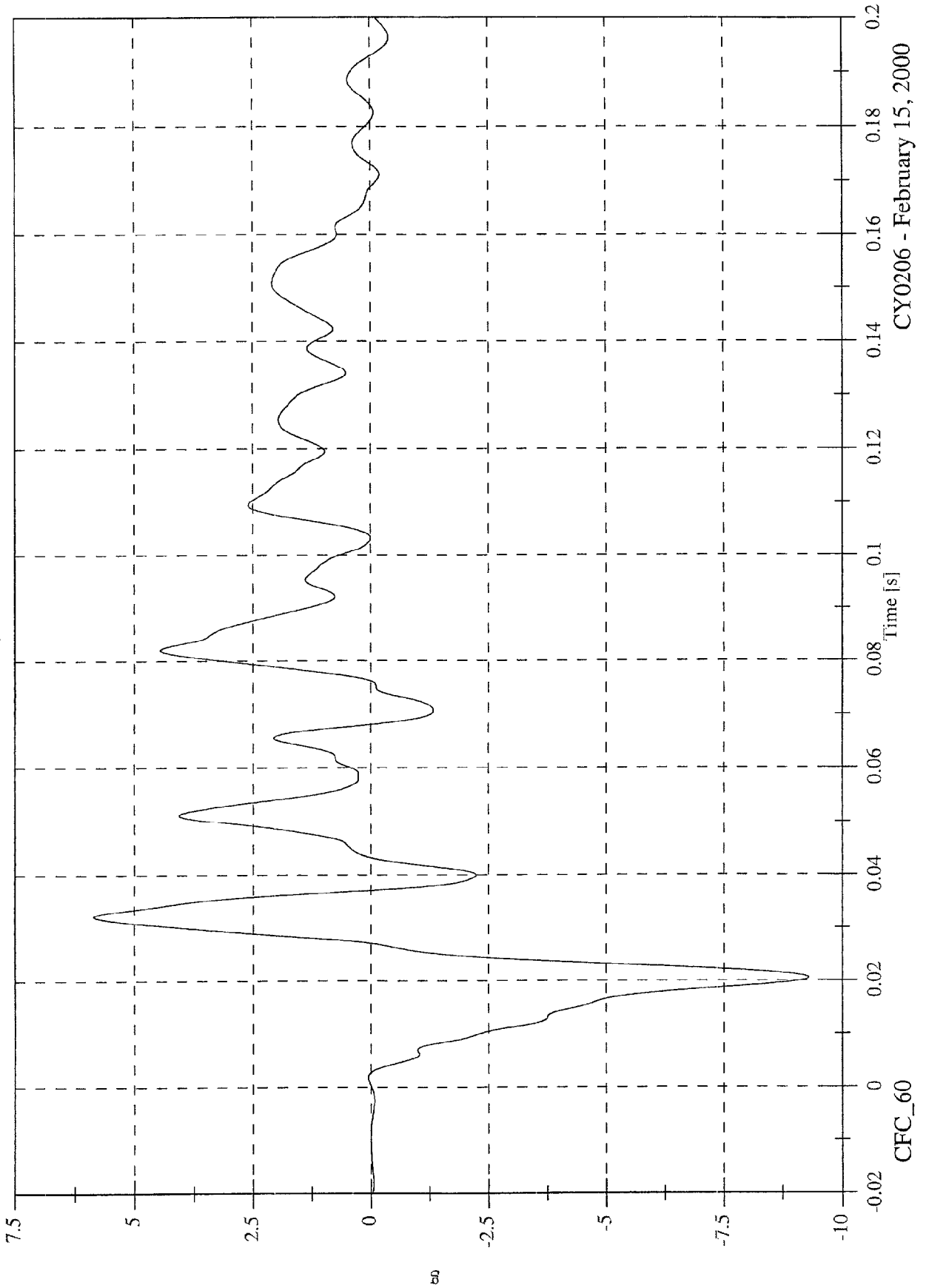
Max: 23.6 [g] at 0.029 [s]  
Min: -2.9 [g] at 0.084 [s]





FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 2 Right Rear Sill Az

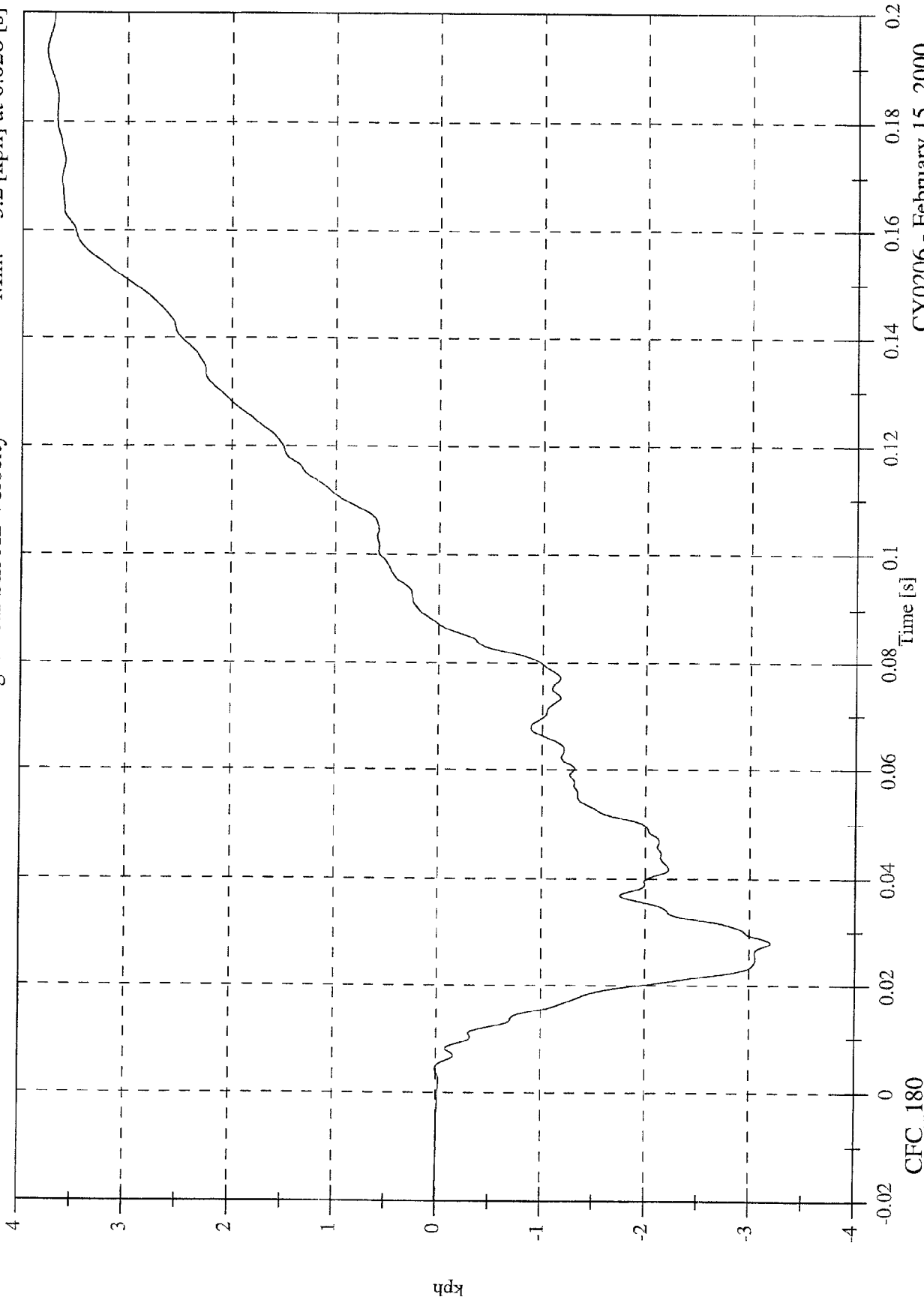
Max: 5.9 [g] at 0.032 [s]  
Min: -9.3 [g] at 0.020 [s]



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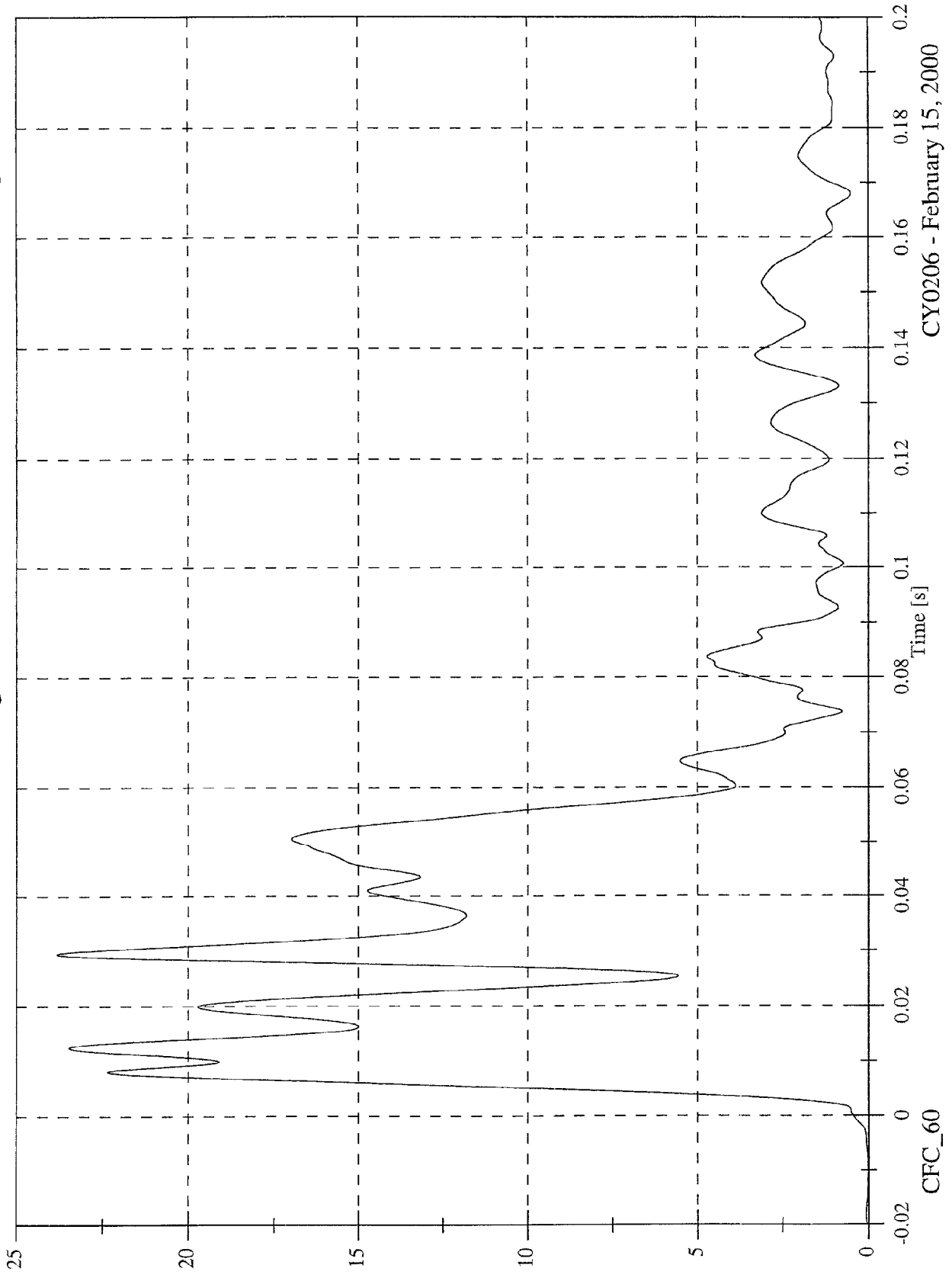
FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Max: 3.8 [kph] at 0.193 [s]  
Min: -3.2 [kph] at 0.028 [s]

Acc 2 Right Rear Sill Az Velocity



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
 Acc 2 Right Rear Sill A Resultant  
 Max: 23.8 [g] at 0.029 [s]  
 Min: 0.0 [g] at -0.011 [s]

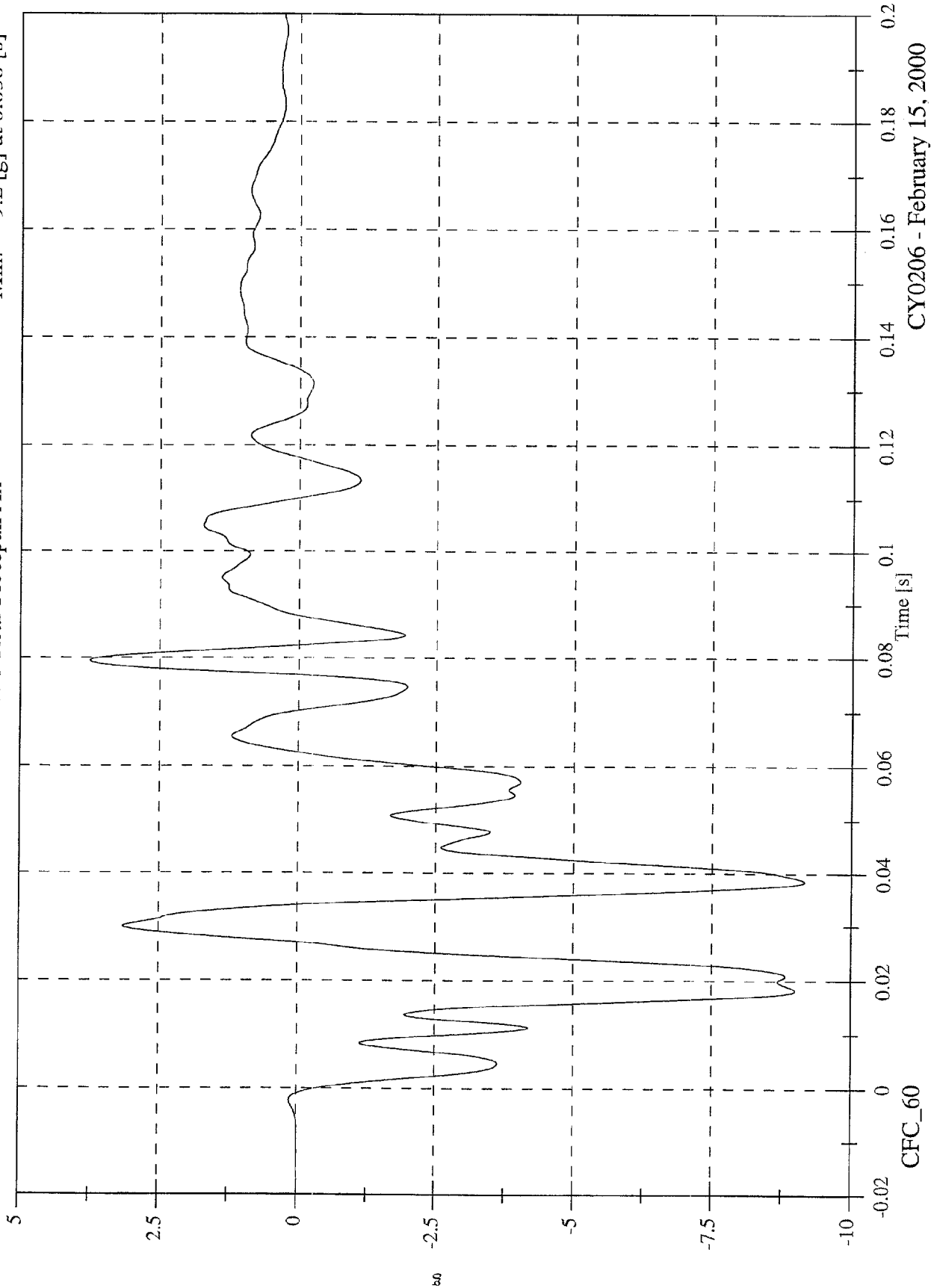


FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Max: 3.8 [g] at 0.079 [s]

Min: -9.2 [g] at 0.038 [s]

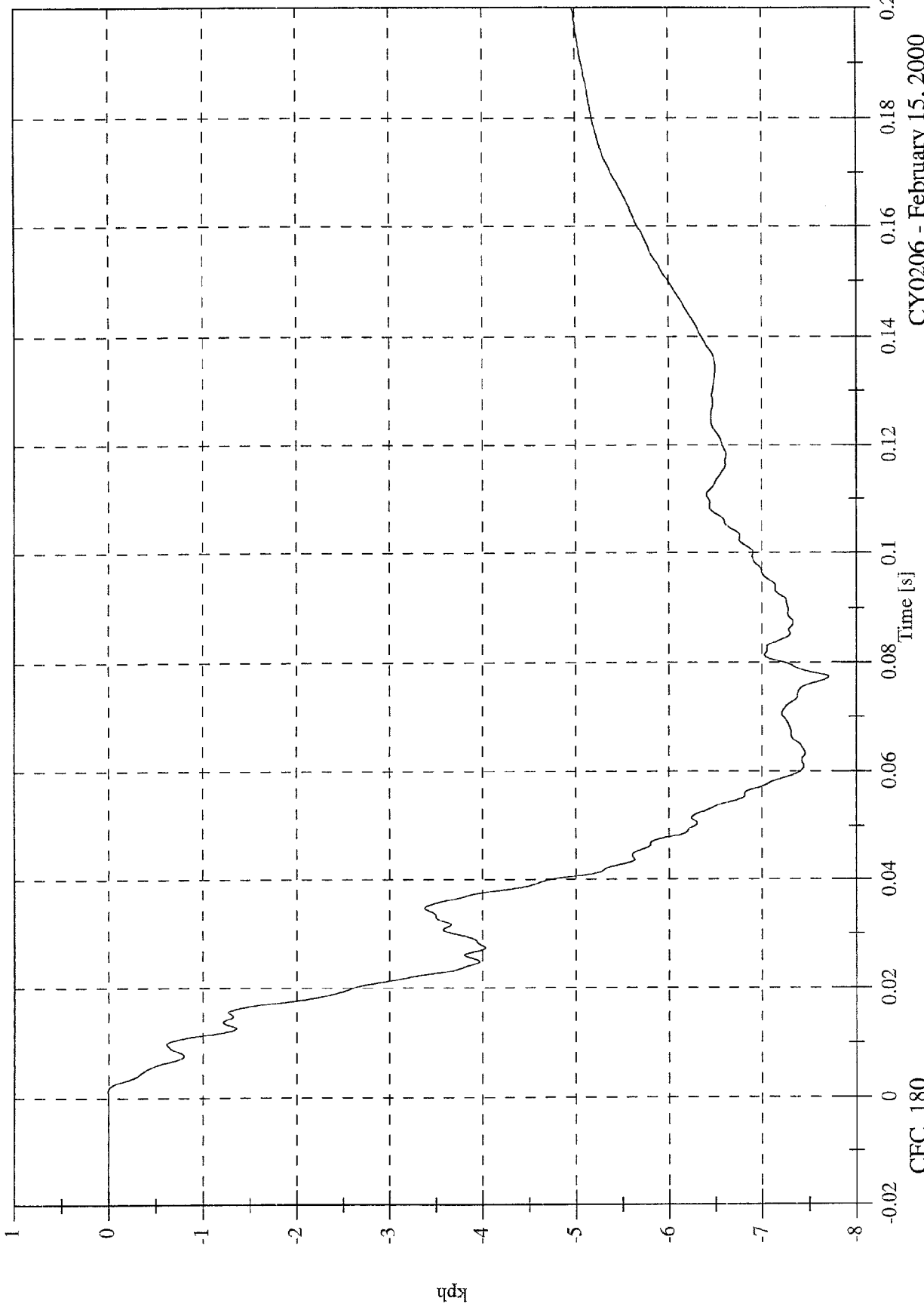
Acc 3 Rear Floorpan Ax



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Acc 3 Rear Floorpan Ax Velocity

Max: 0.0 [kph] at 0.001 [s]  
Min: -7.7 [kph] at 0.077 [s]



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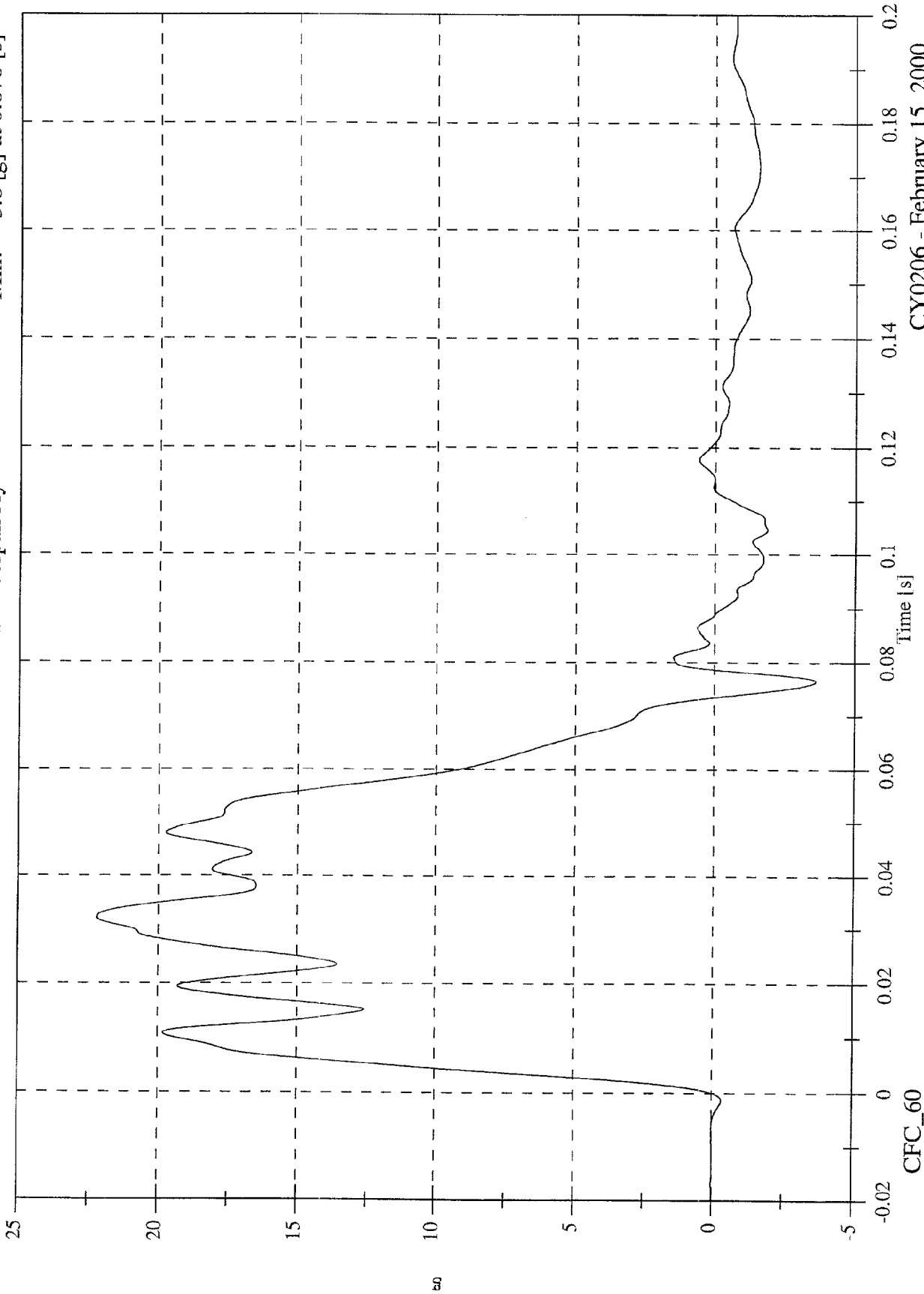
CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Acc 3 Rear Floorpan Ay

Max: 22.2 [g] at 0.032 [s]

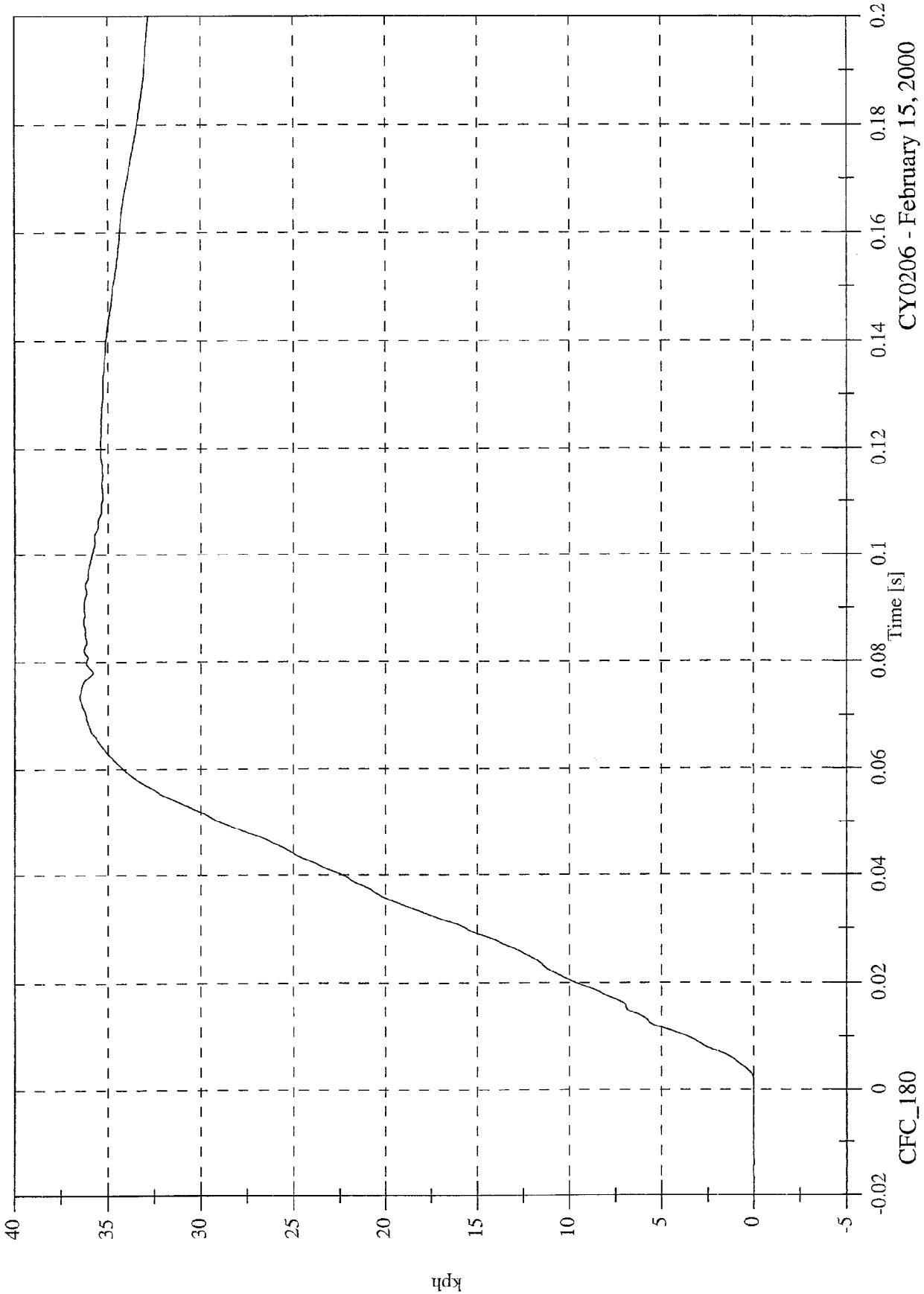
Min: -3.6 [g] at 0.076 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 3 Rear Floorpan Ay Velocity

Max: 36.5 [kph] at 0.074 [s]  
Min: -0.0 [kph] at -0.018 [s]



CFC\_180

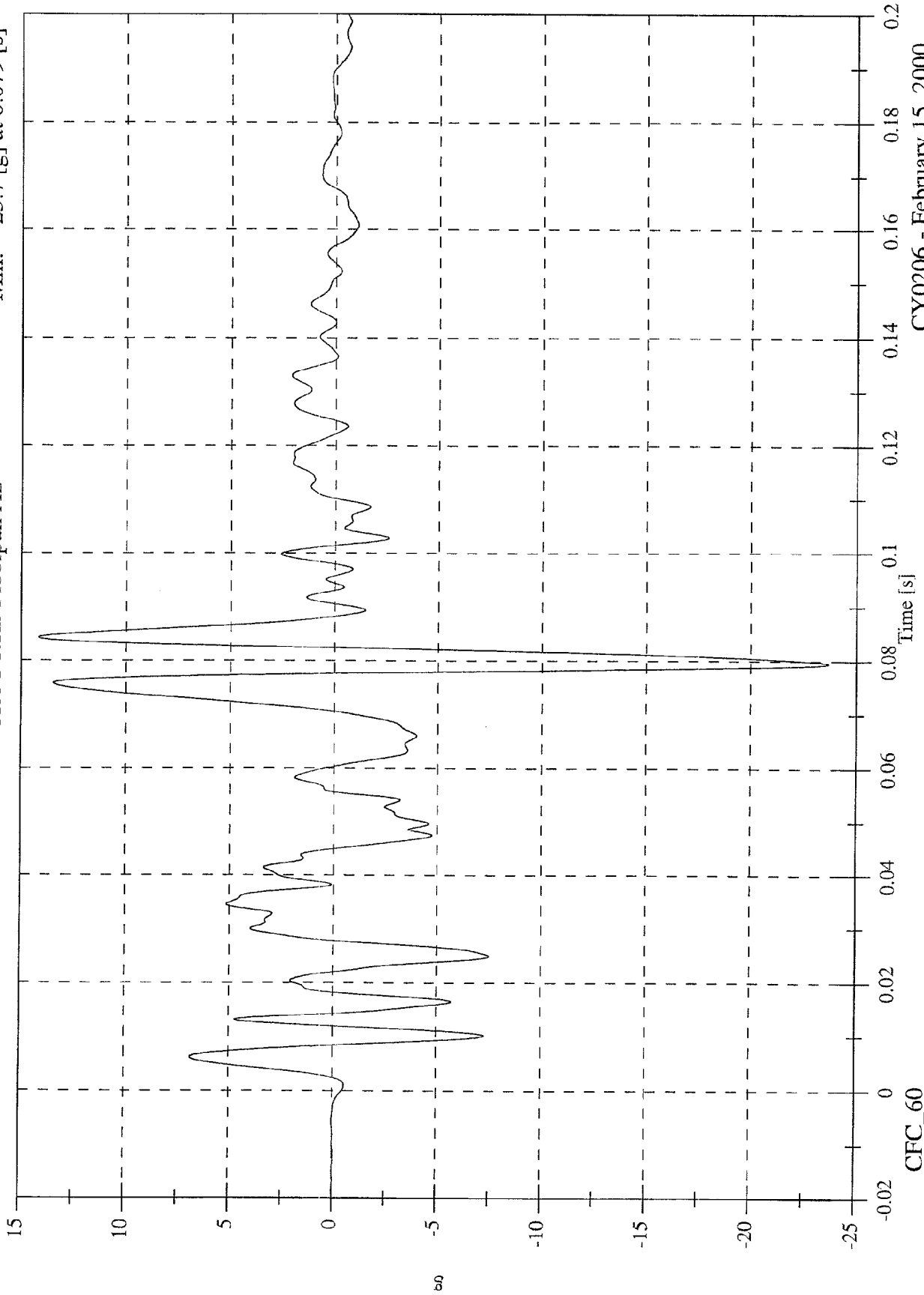
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Acc 3 Rear Floorpan Az

Max: 14.2 [g] at 0.084 [s]

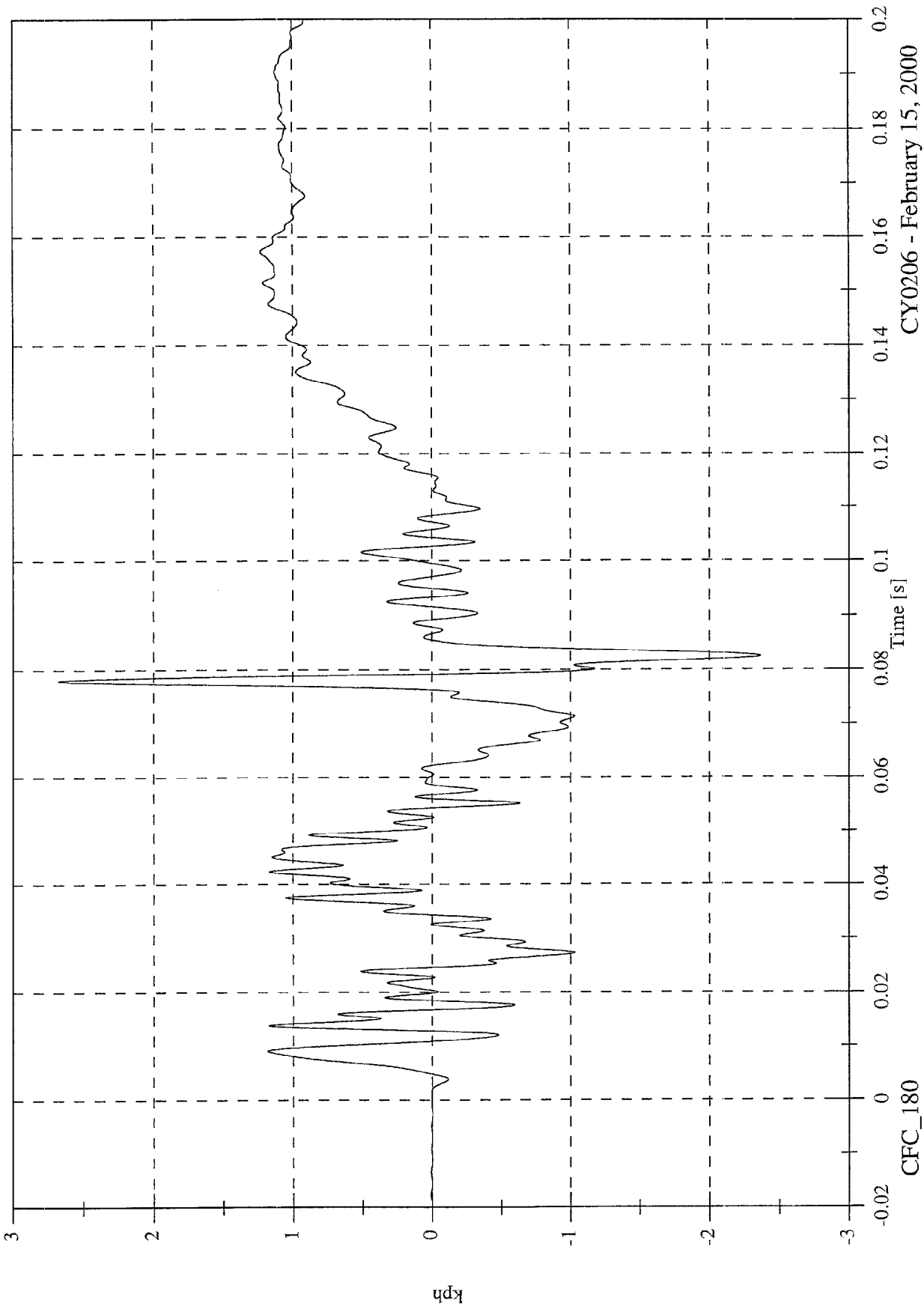
Min: -23.7 [g] at 0.079 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 3 Rear Floorpan Az Velocity

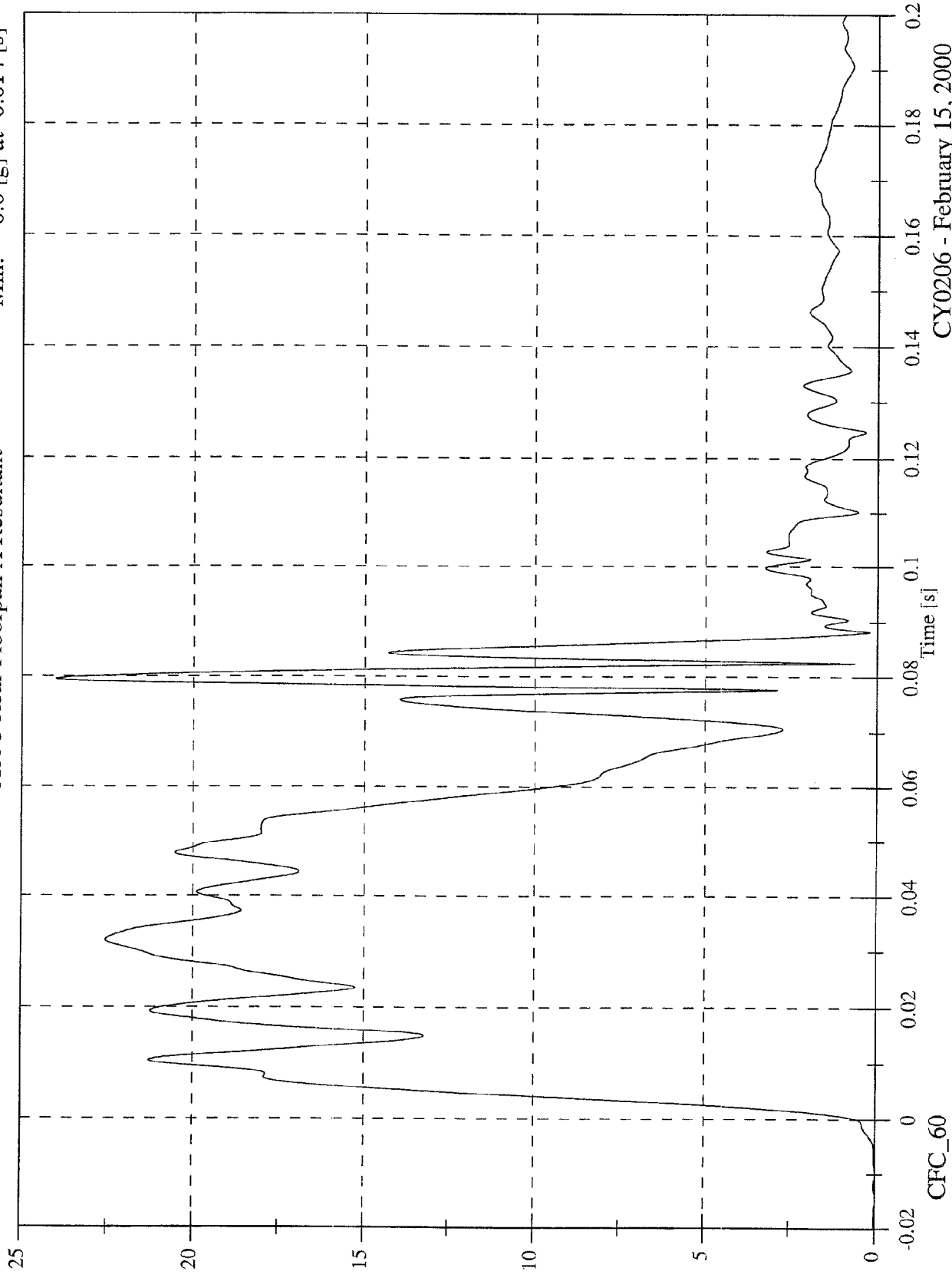
Max: 2.7 [kph] at 0.078 [s]  
Min: -2.4 [kph] at 0.082 [s]



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Max: 24.0 [g] at 0.079 [s]  
Min: 0.0 [g] at -0.014 [s]

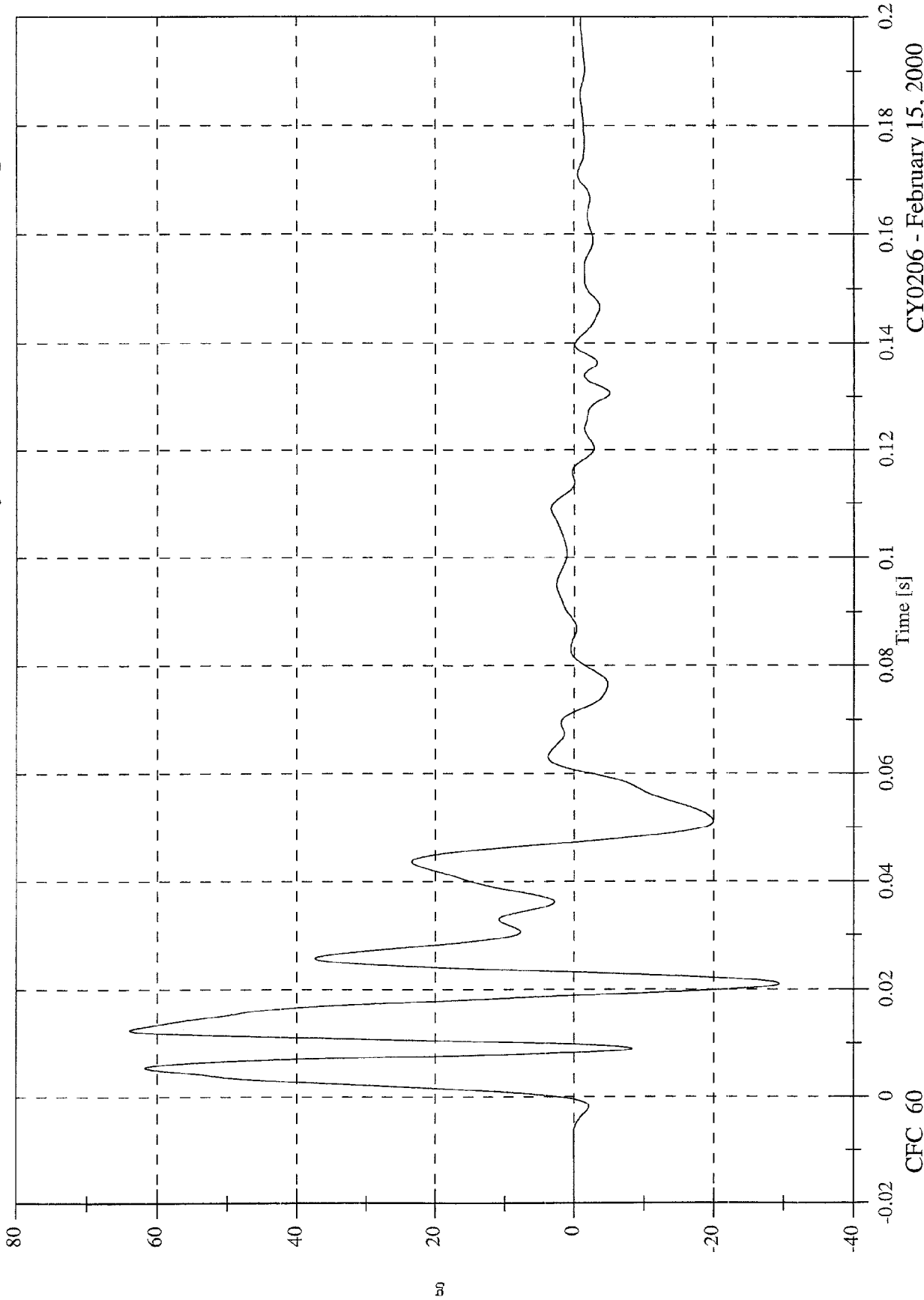
FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 3 Rear Floorpan A Resultant



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 4 Left Rear Sill Ay

Max: 63.9 [g] at 0.012 [s]  
Min: -29.4 [g] at 0.021 [s]

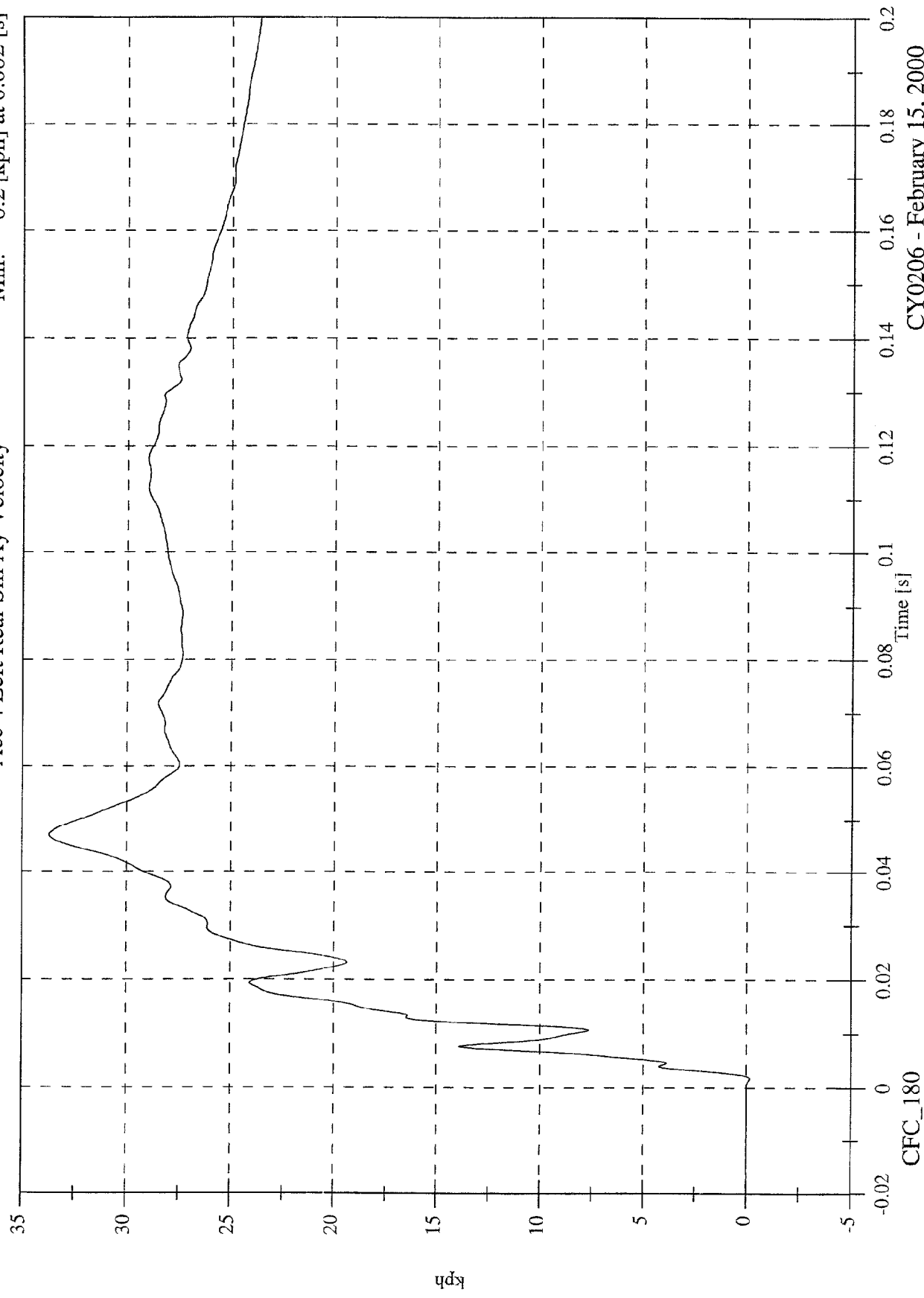


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 4 Left Rear Sill Ay Velocity

Max: 33.7 [kph] at 0.047 [s]

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

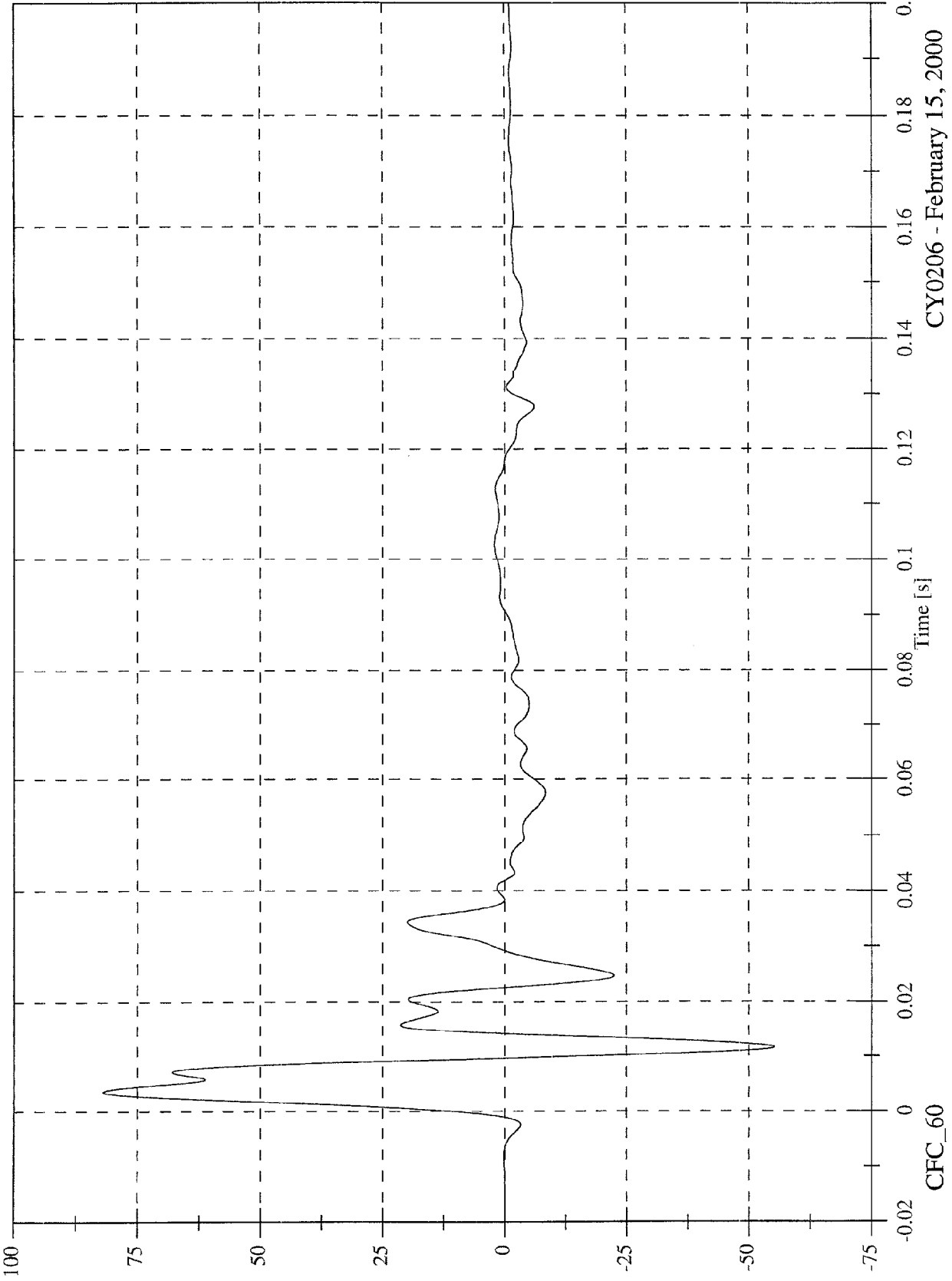


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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Acc 5 Left Front Sill Ay

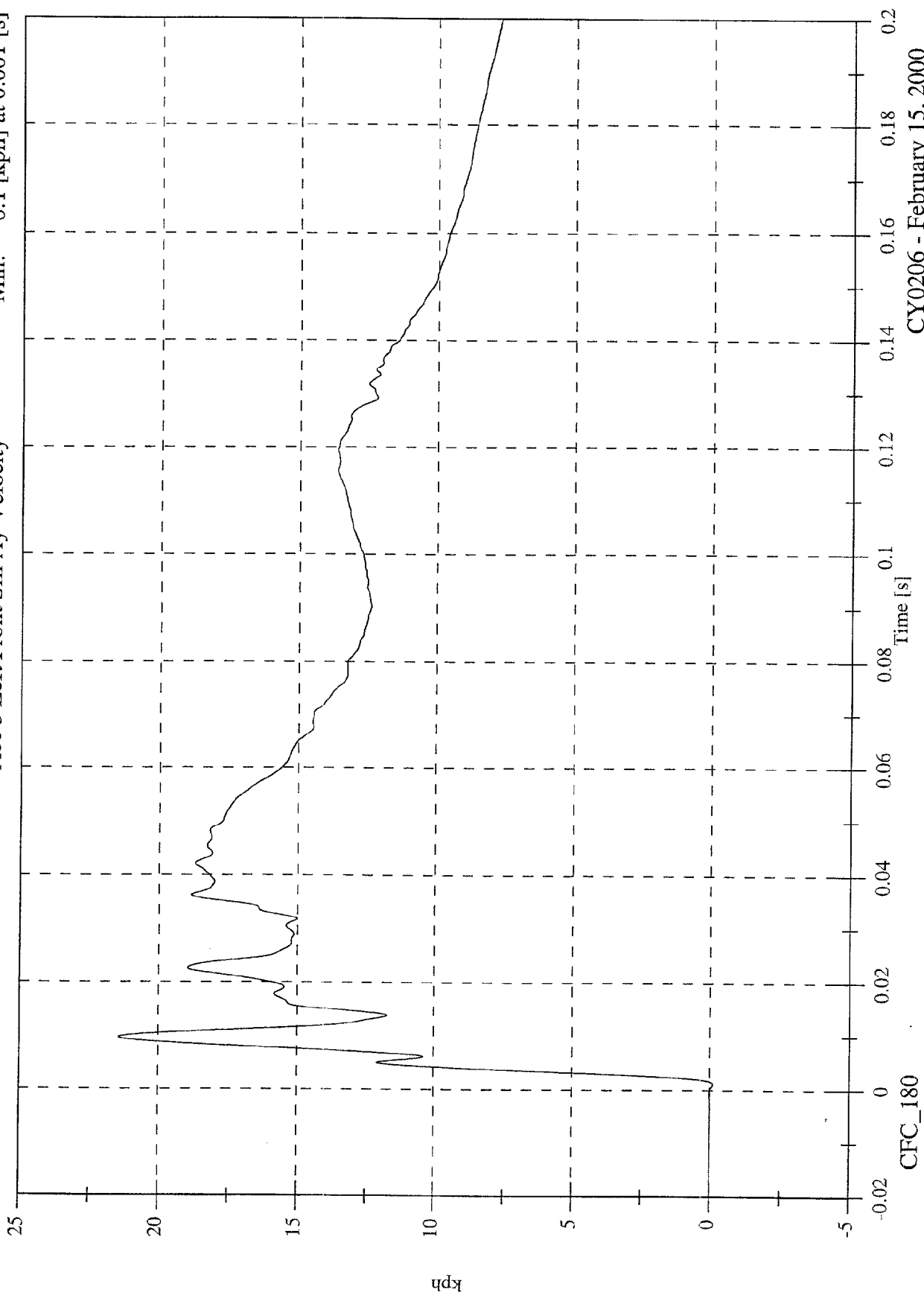
Max: 81.9 [g] at 0.004 [s]  
Min: -55.3 [g] at 0.012 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 5 Left Front Sill Ay Velocity

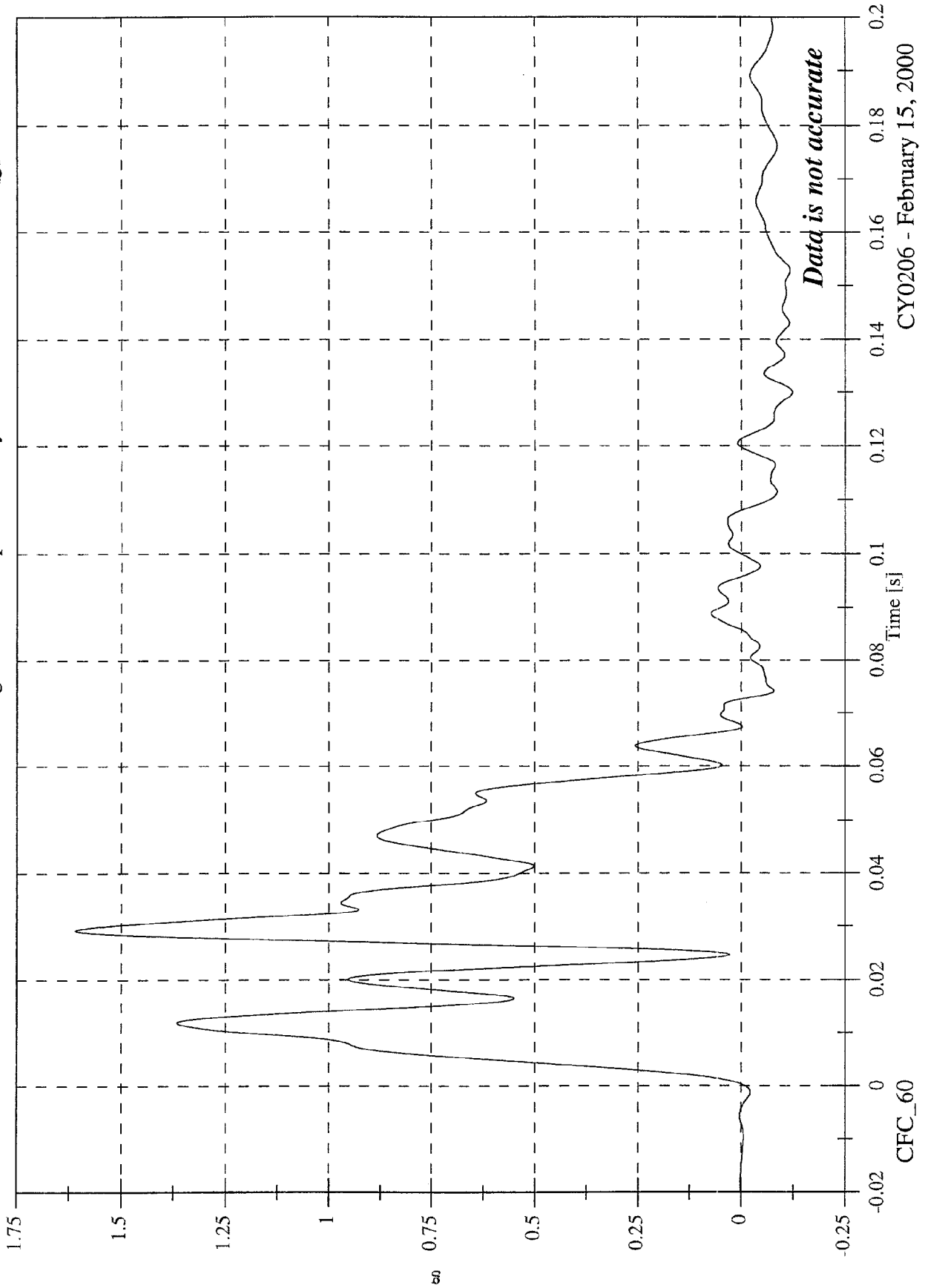
Max: 21.4 [kph] at 0.010 [s]  
Min: -0.1 [kph] at 0.001 [s]



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Acc 7 Right Rear Compartment Ay

Max: 1.6 [g] at 0.029 [s]  
Min: -0.1 [g] at 0.130 [s]



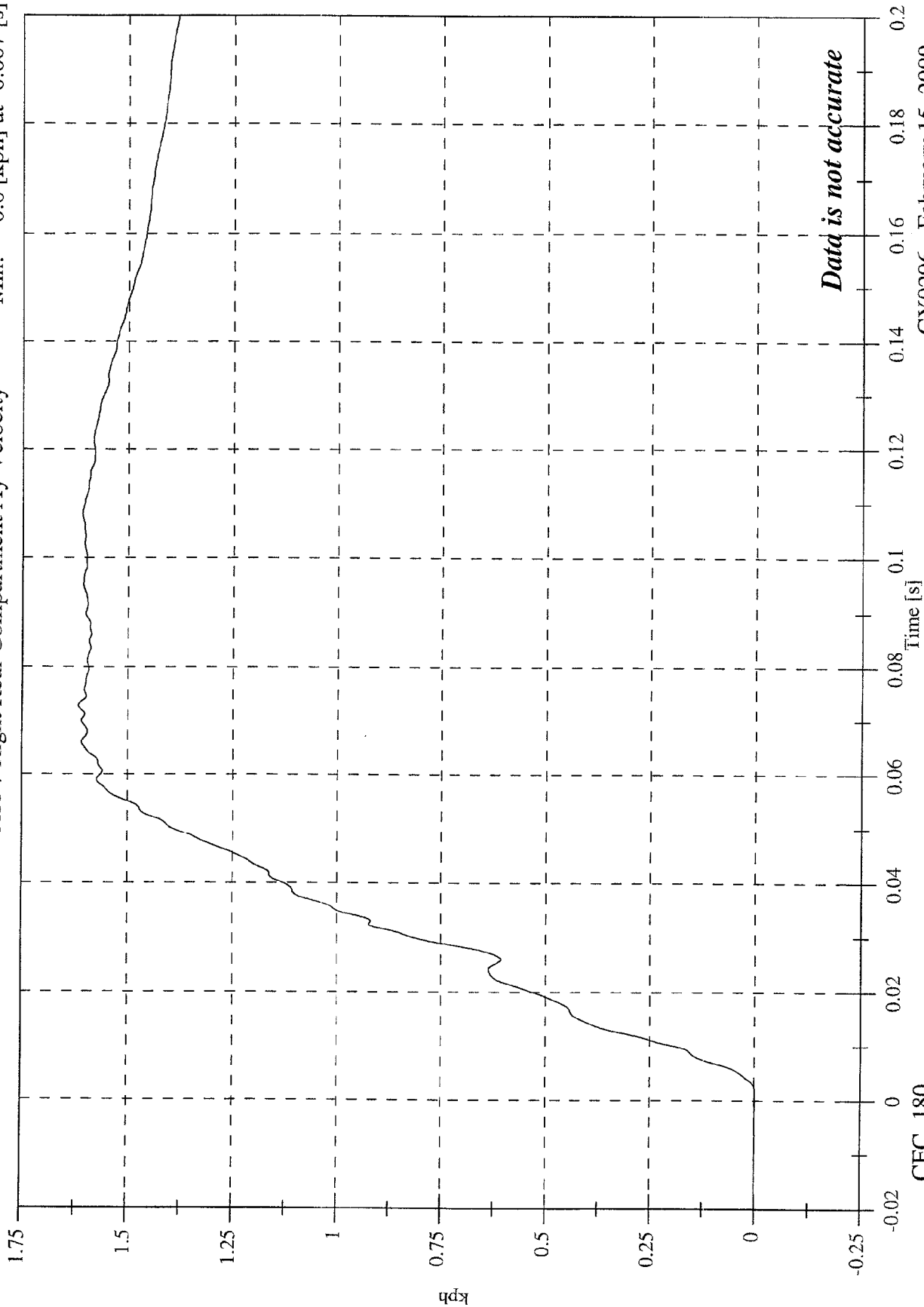
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Max: 1.6 [kph] at 0.073 [s]

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

Acc 7 Right Rear Compartment Ay Velocity



*Data is not accurate*

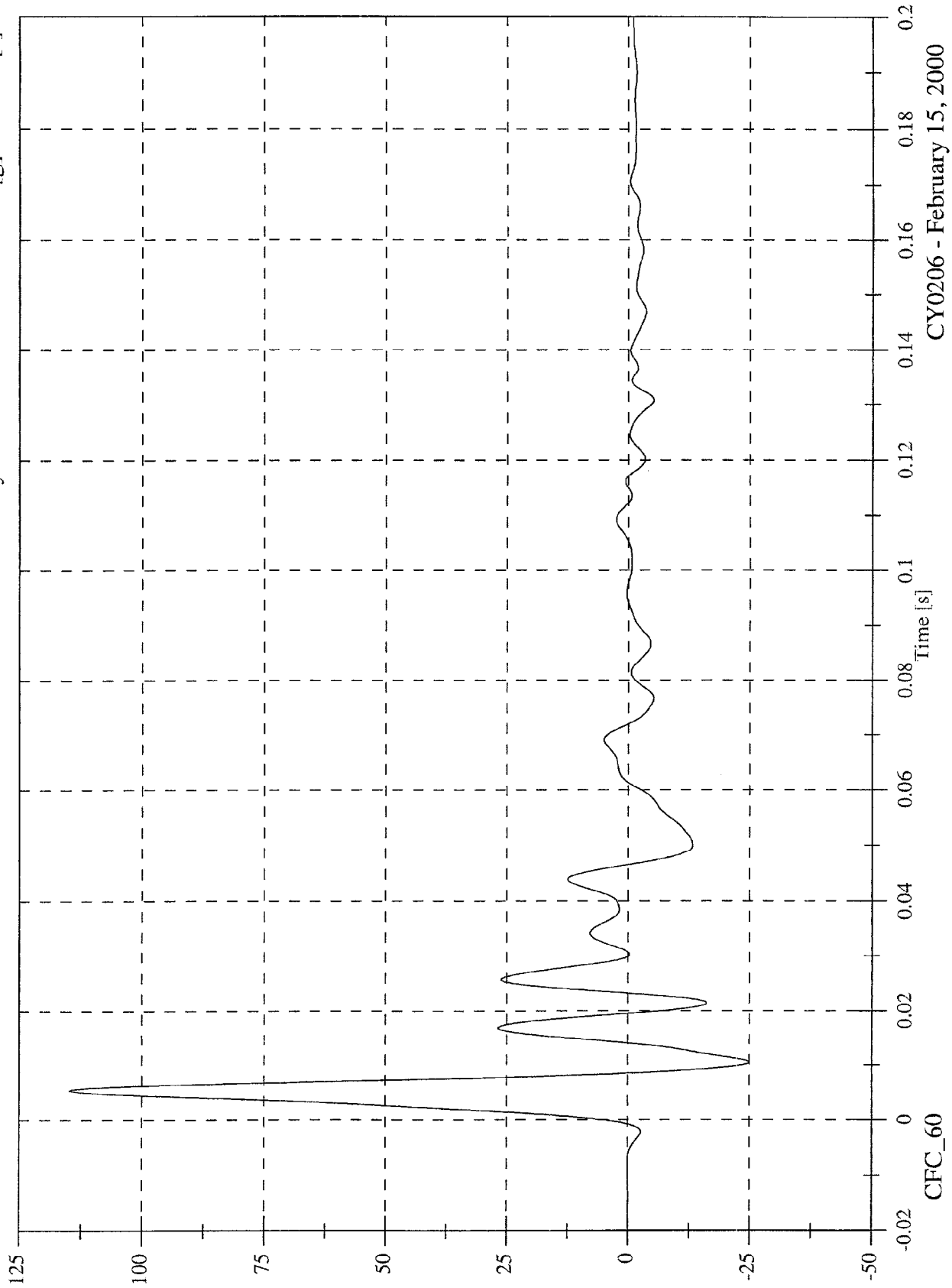
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 12 Left Lower B Post Ay

Max: 114.7 [g] at 0.005 [s]

Min: -25.1 [g] at 0.010 [s]

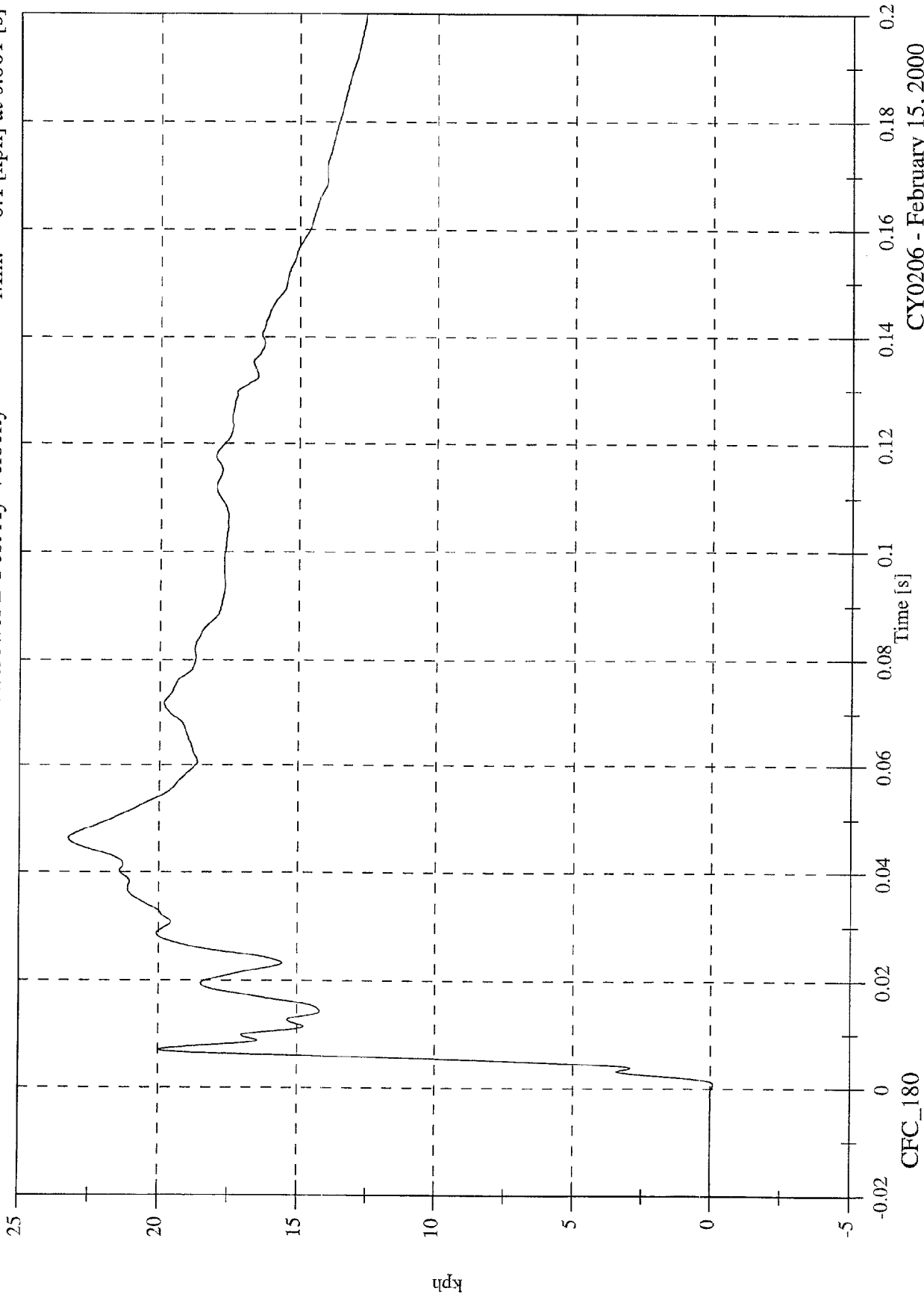


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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door

Max: 23.2 [kph] at 0.046 [s]  
Min: -0.1 [kph] at 0.001 [s]

Acc 12 Left Lower B Post Ay Velocity

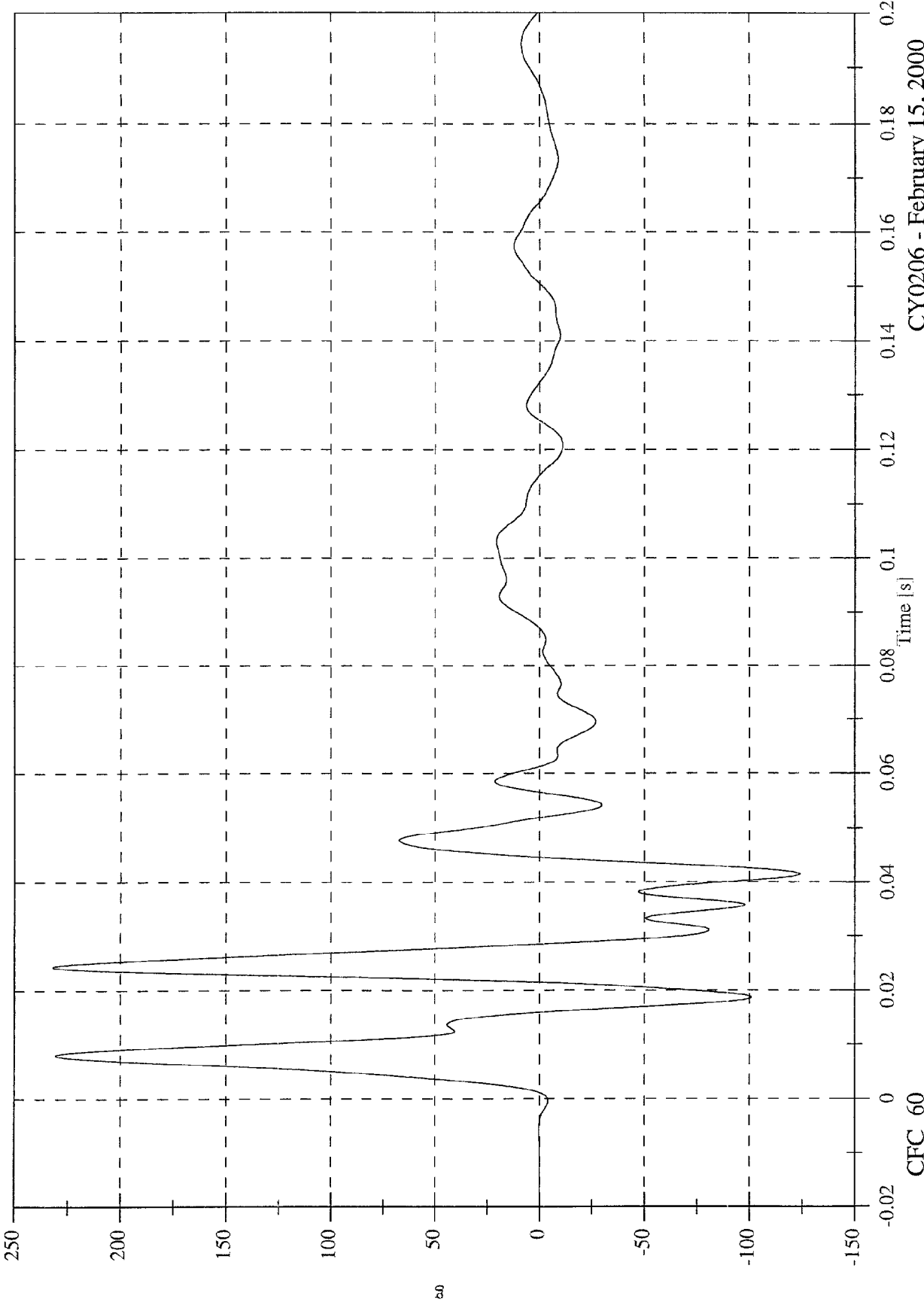


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CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 13 Left Mid B Post Ay

Max: 232.0 [g] at 0.024 [s]  
Min: -123.9 [g] at 0.041 [s]

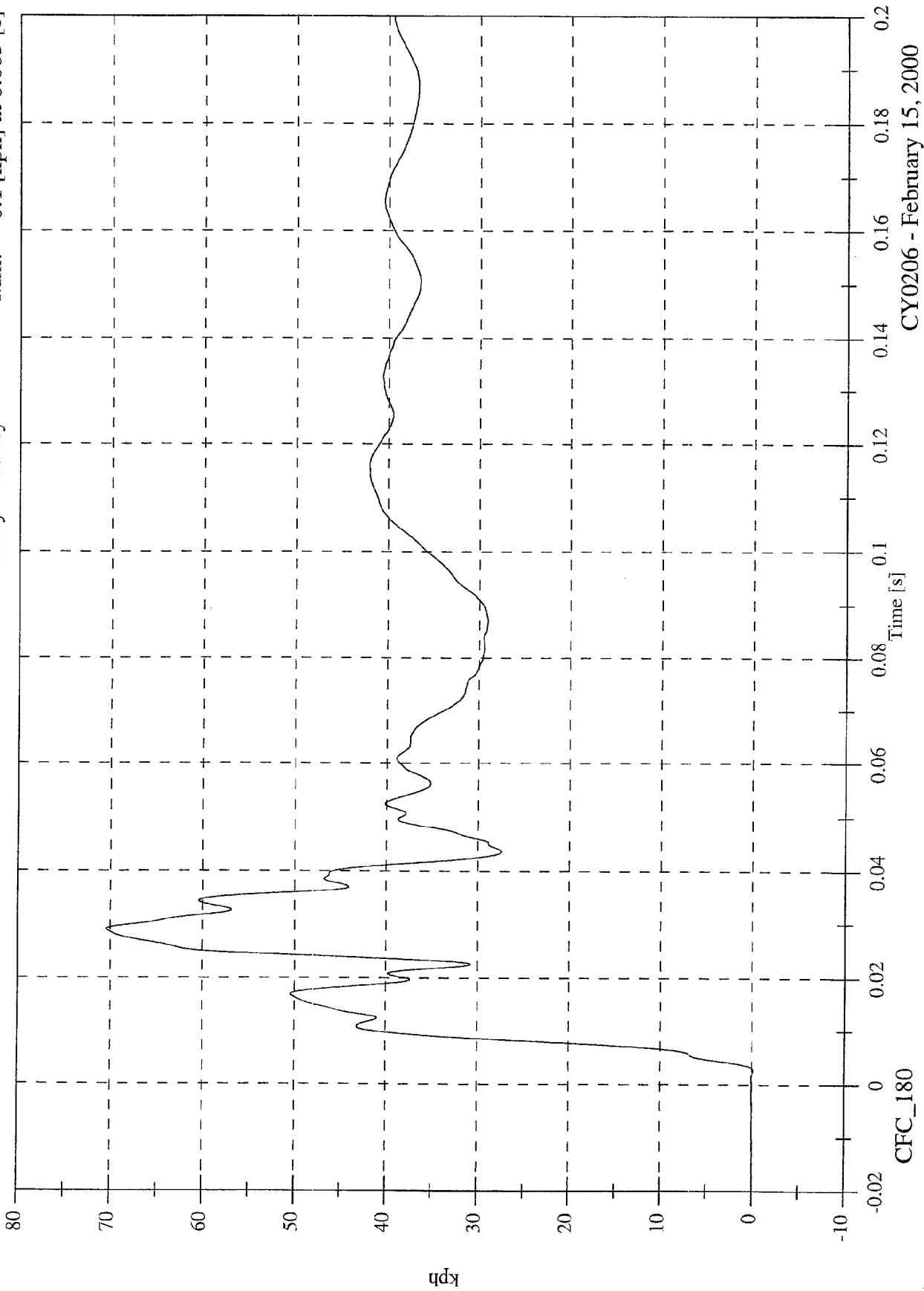


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 13 Left Mid B Post Ay Velocity

Max: 70.5 [kph] at 0.029 [s]

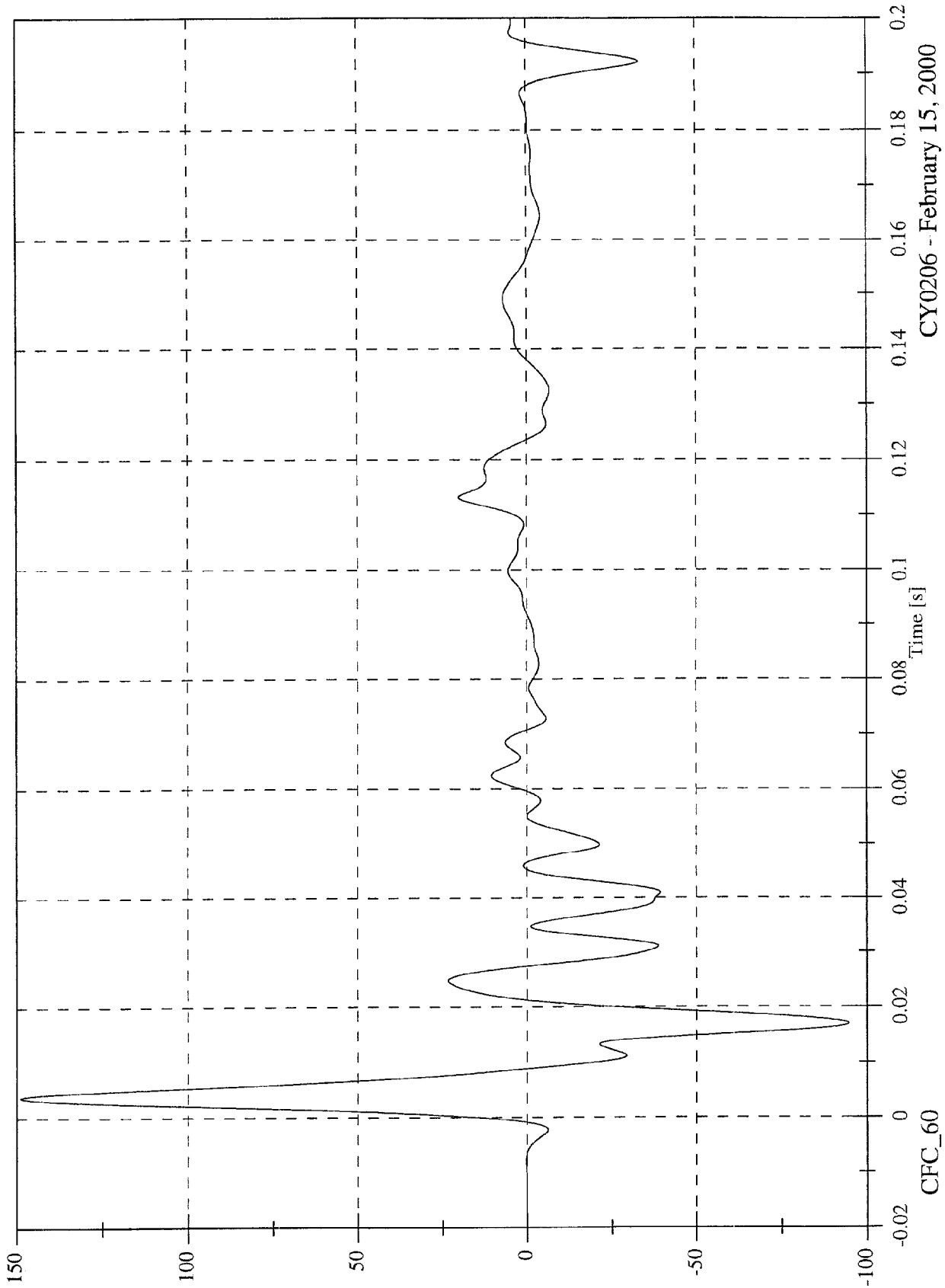
Min: -0.1 [kph] at 0.003 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 14 Left Lower A Post Ay

Max: 148.7 [g] at 0.004 [s]  
Min: -94.7 [g] at 0.017 [s]

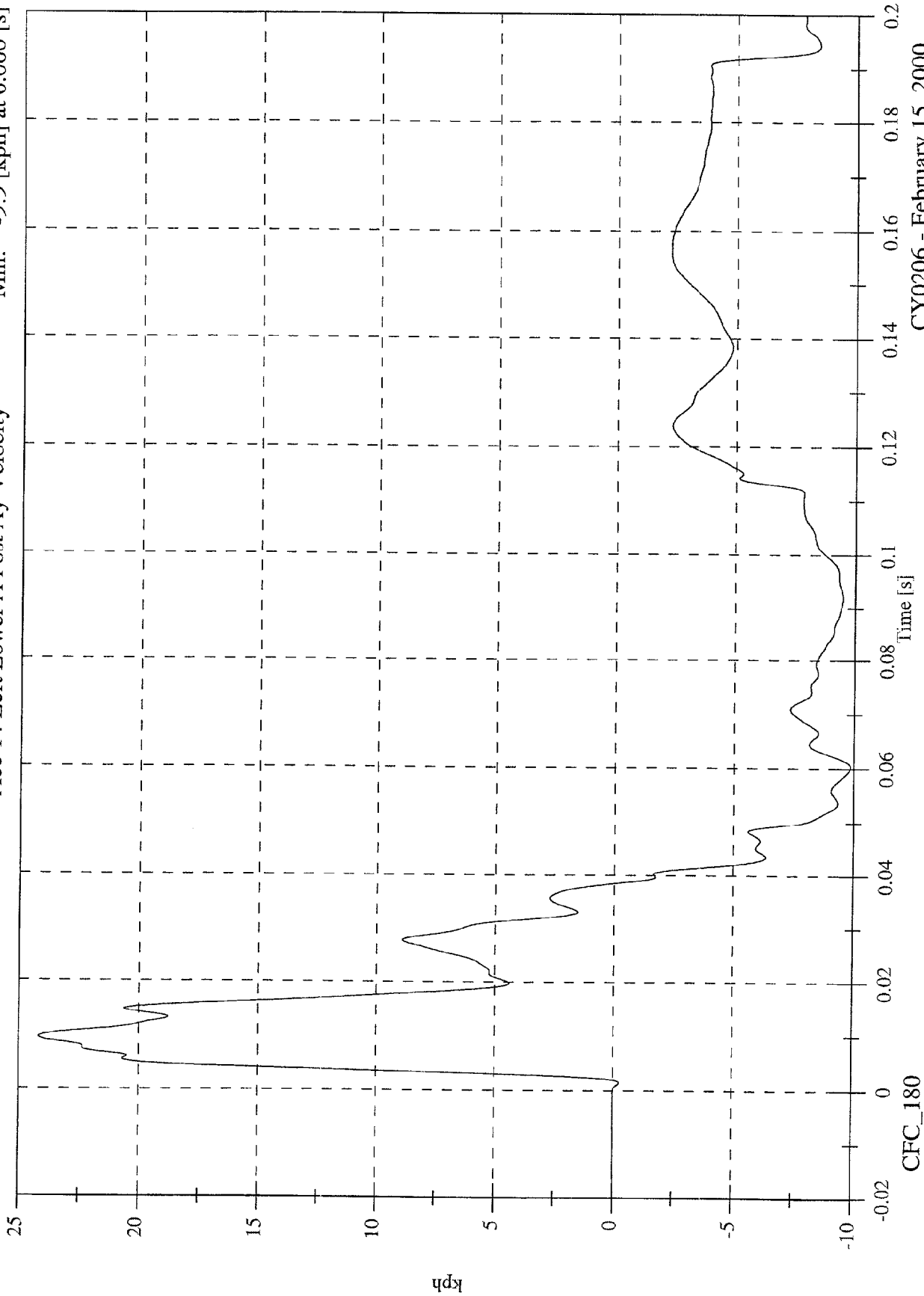


FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Acc 14 Left Lower A Post Ay Velocity

Max: 24.2 [kph] at 0.009 [s]

Min: -9.9 [kph] at 0.060 [s]



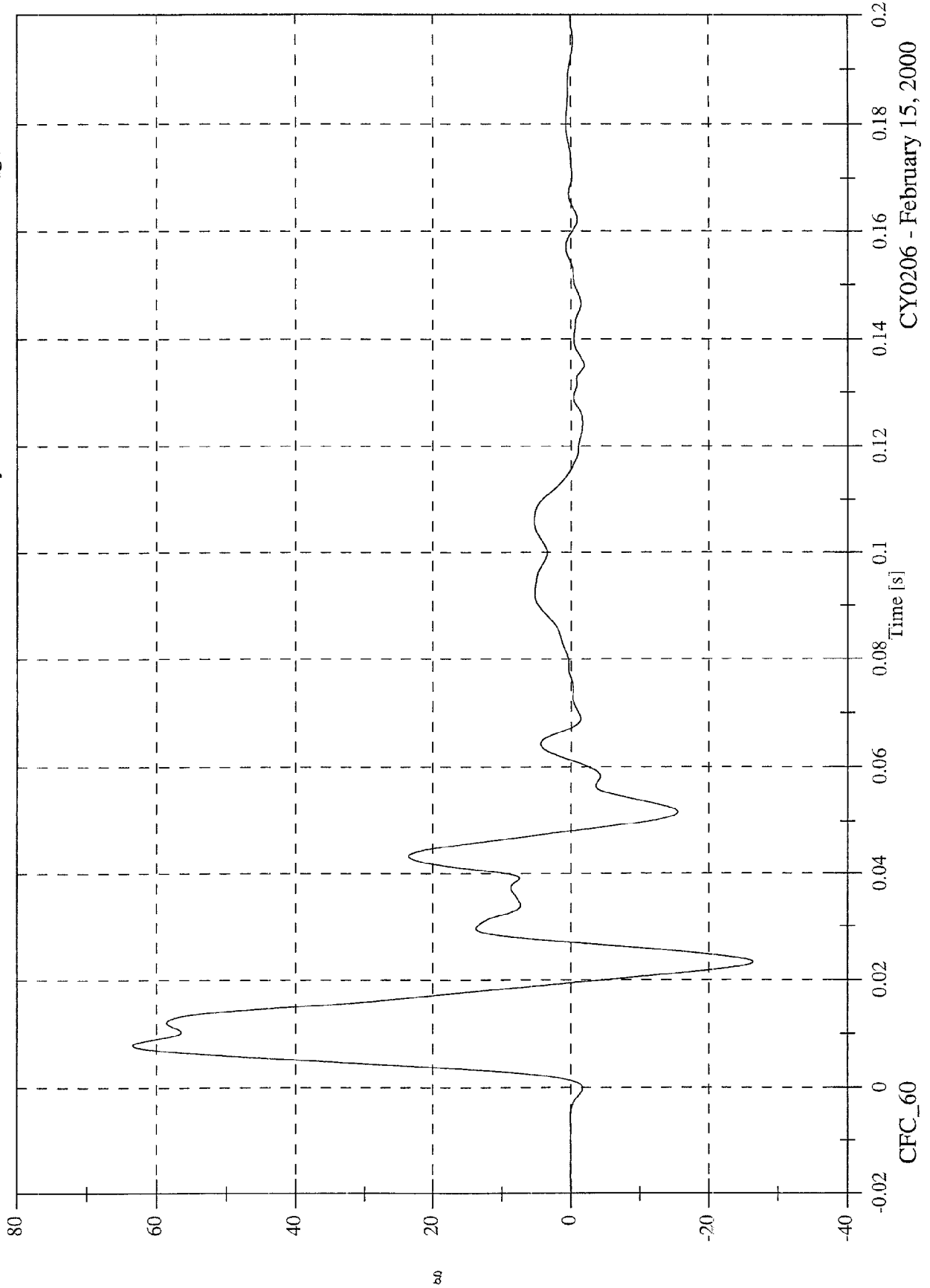
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Acc 16 Front Seat Track Ay

Max: 63.4 [g] at 0.008 [s]

Min: -26.4 [g] at 0.023 [s]

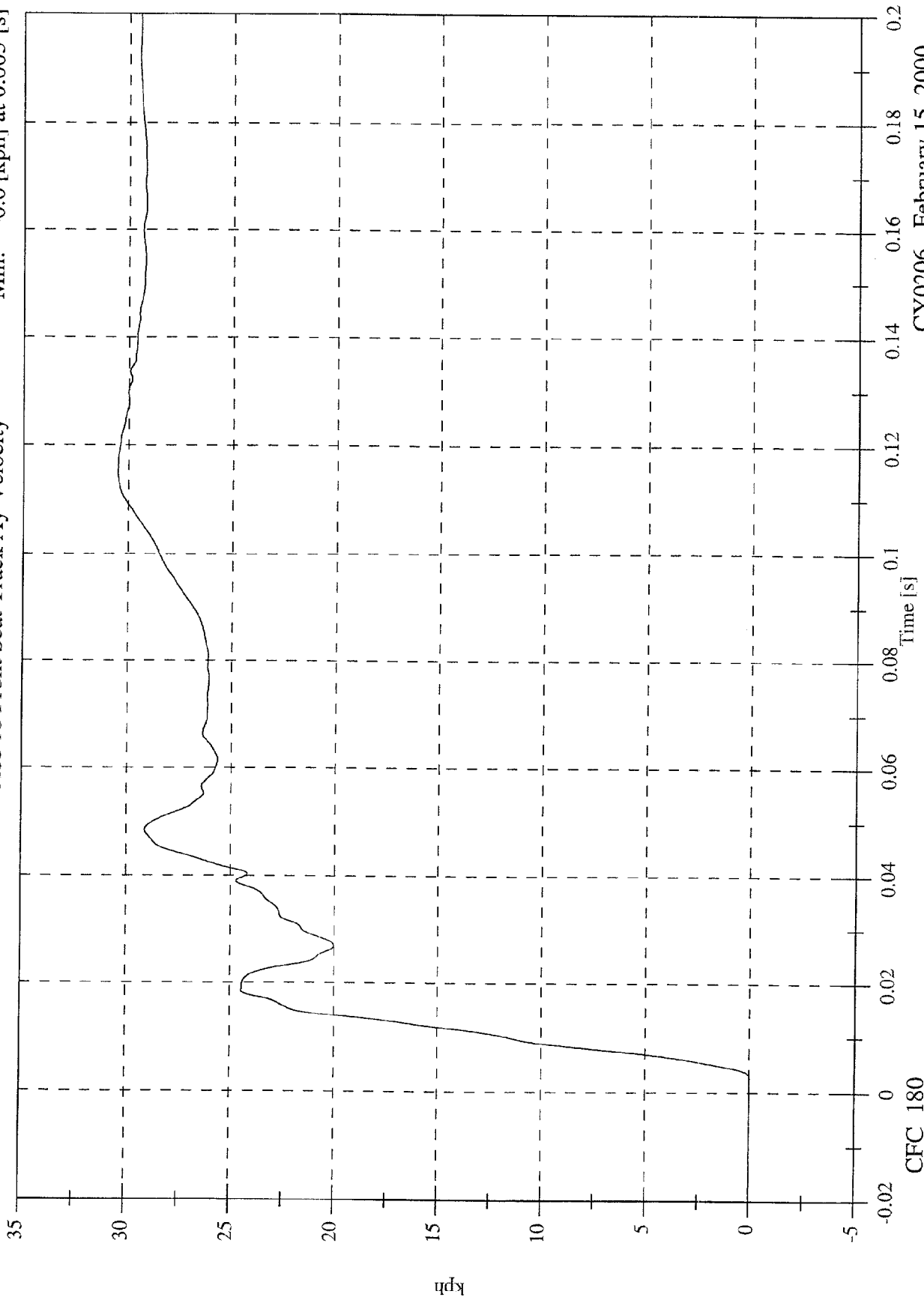


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 16 Front Seat Track Ay Velocity

Max: 30.5 [kph] at 0.115 [s]

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

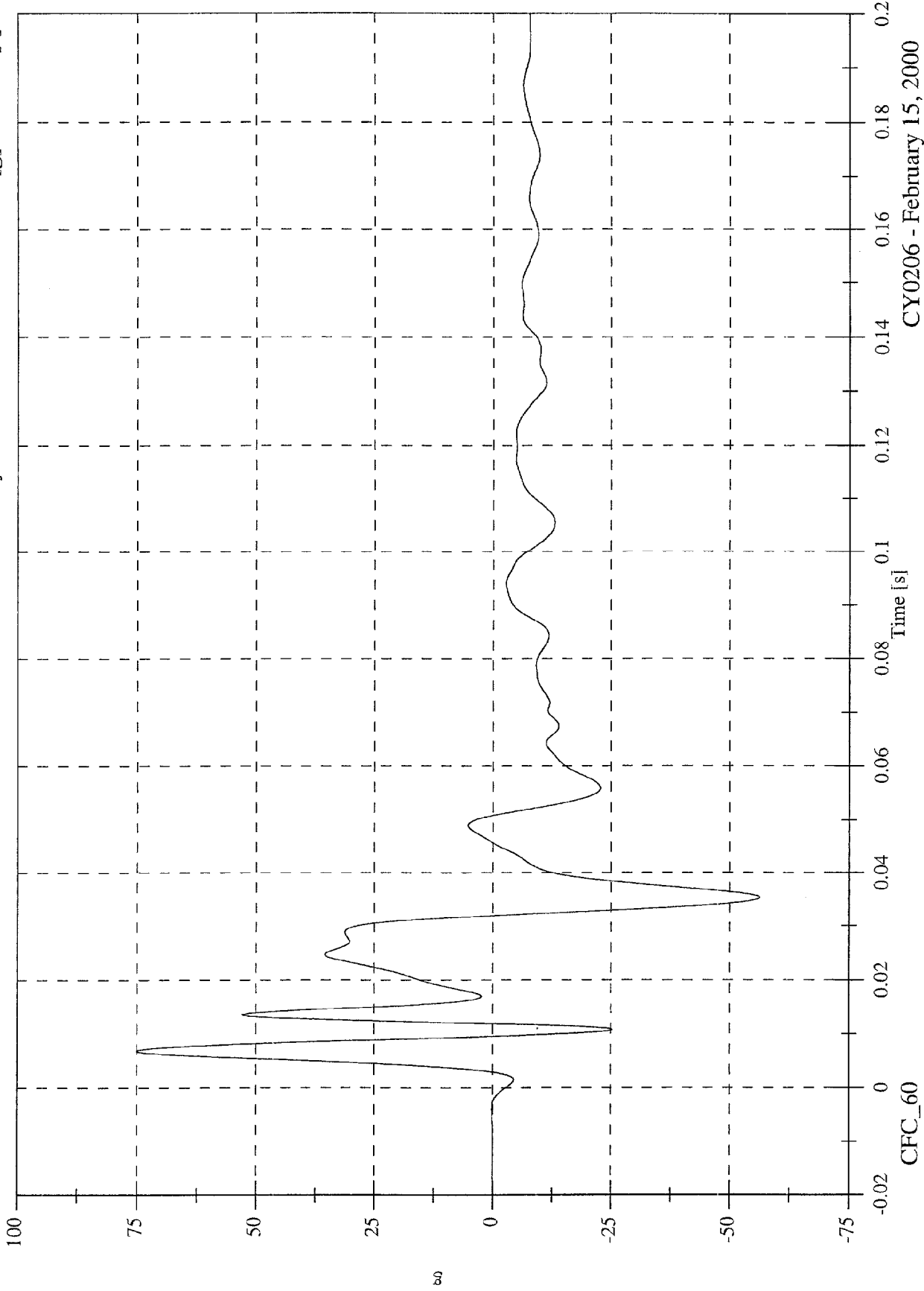


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 17 Rear Seat Track Ay

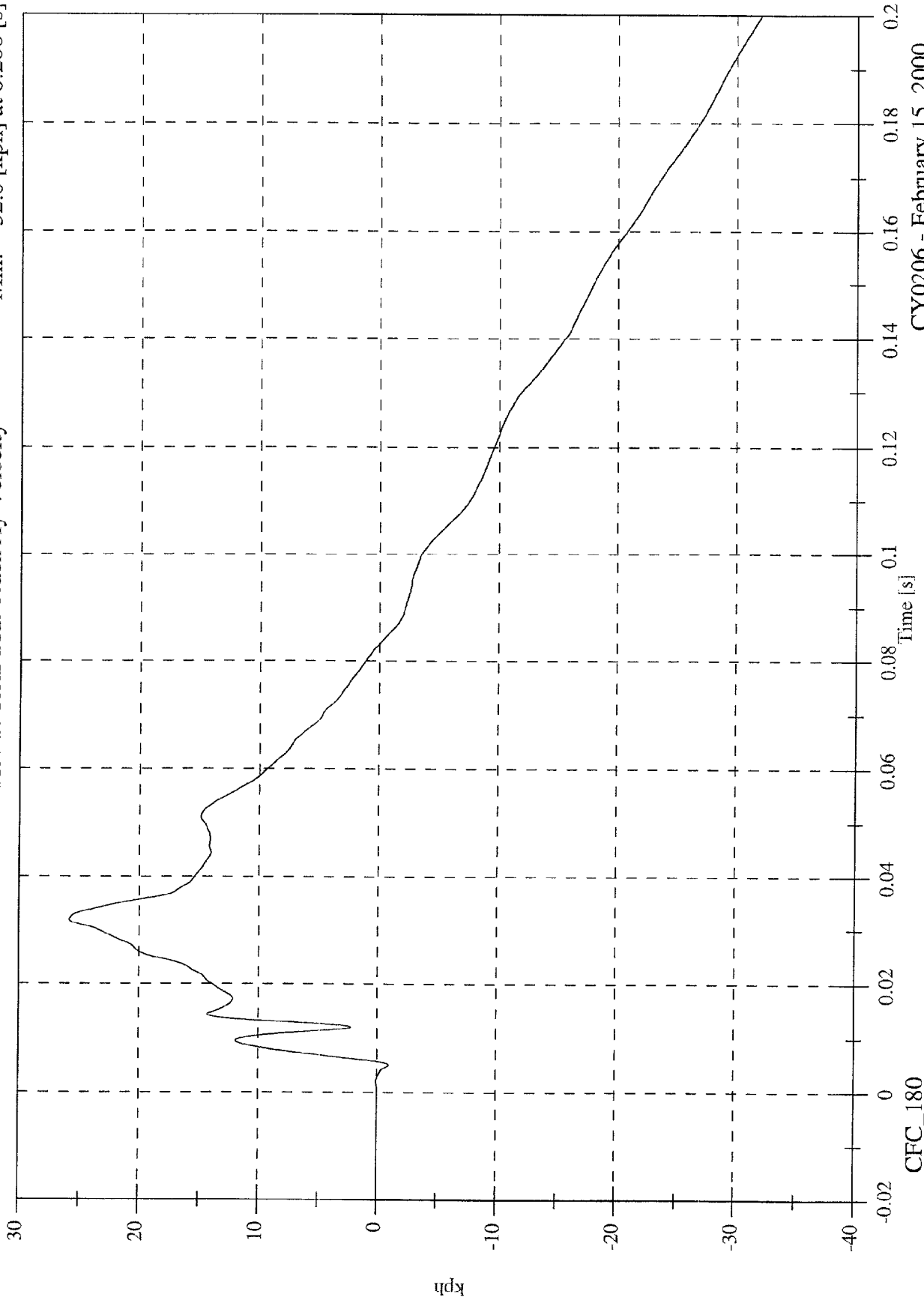
Max: 75.1 [g] at 0.007 [s]  
Min: -56.3 [g] at 0.035 [s]



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Max: 25.9 [kph] at 0.032 [s]  
Min: -32.0 [kph] at 0.200 [s]

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 17 Rear Seat Track Ay Velocity



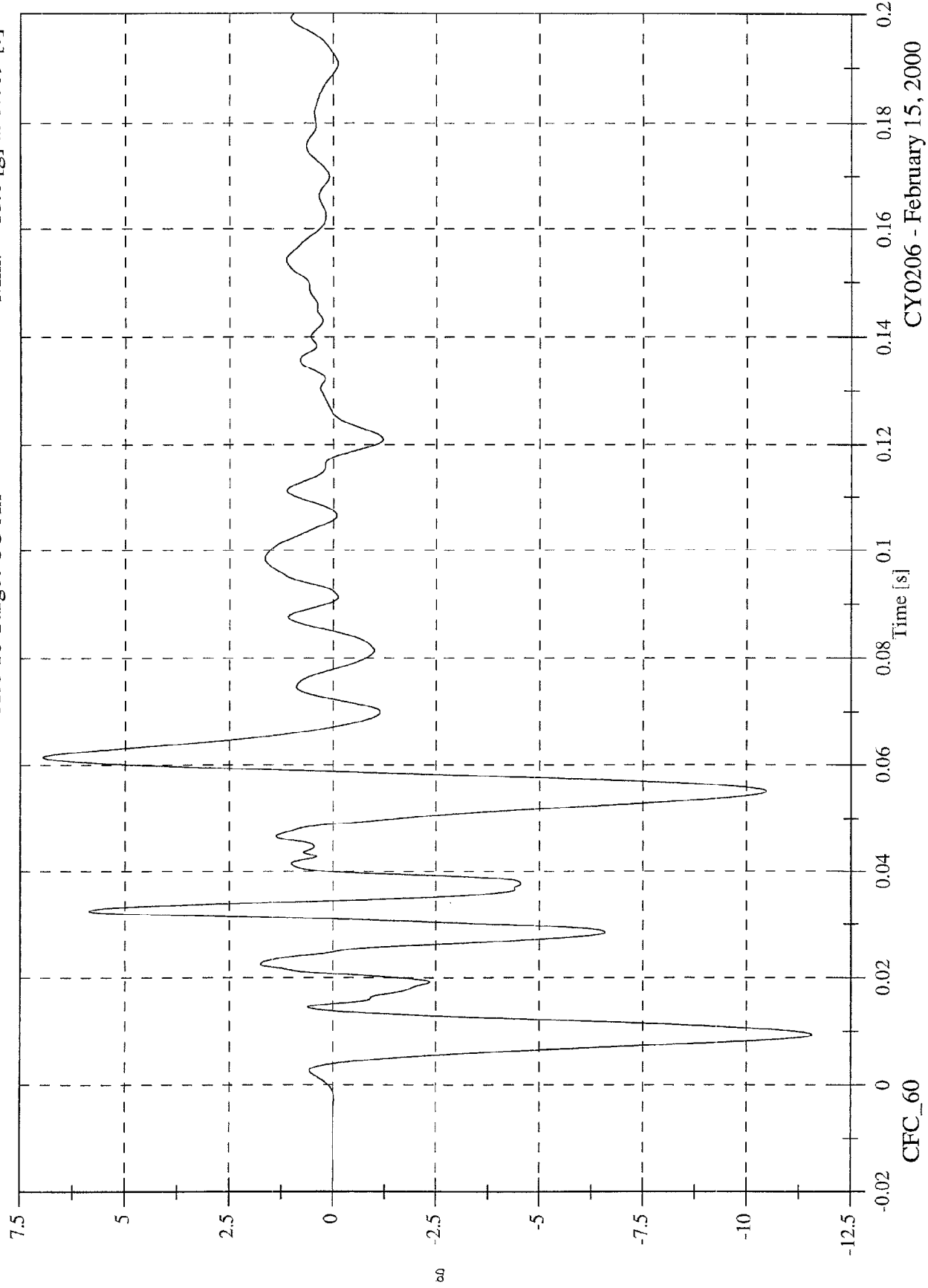
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 18 Target CG Ax

Max: 7.0 [g] at 0.061 [s]

Min: -11.6 [g] at 0.009 [s]

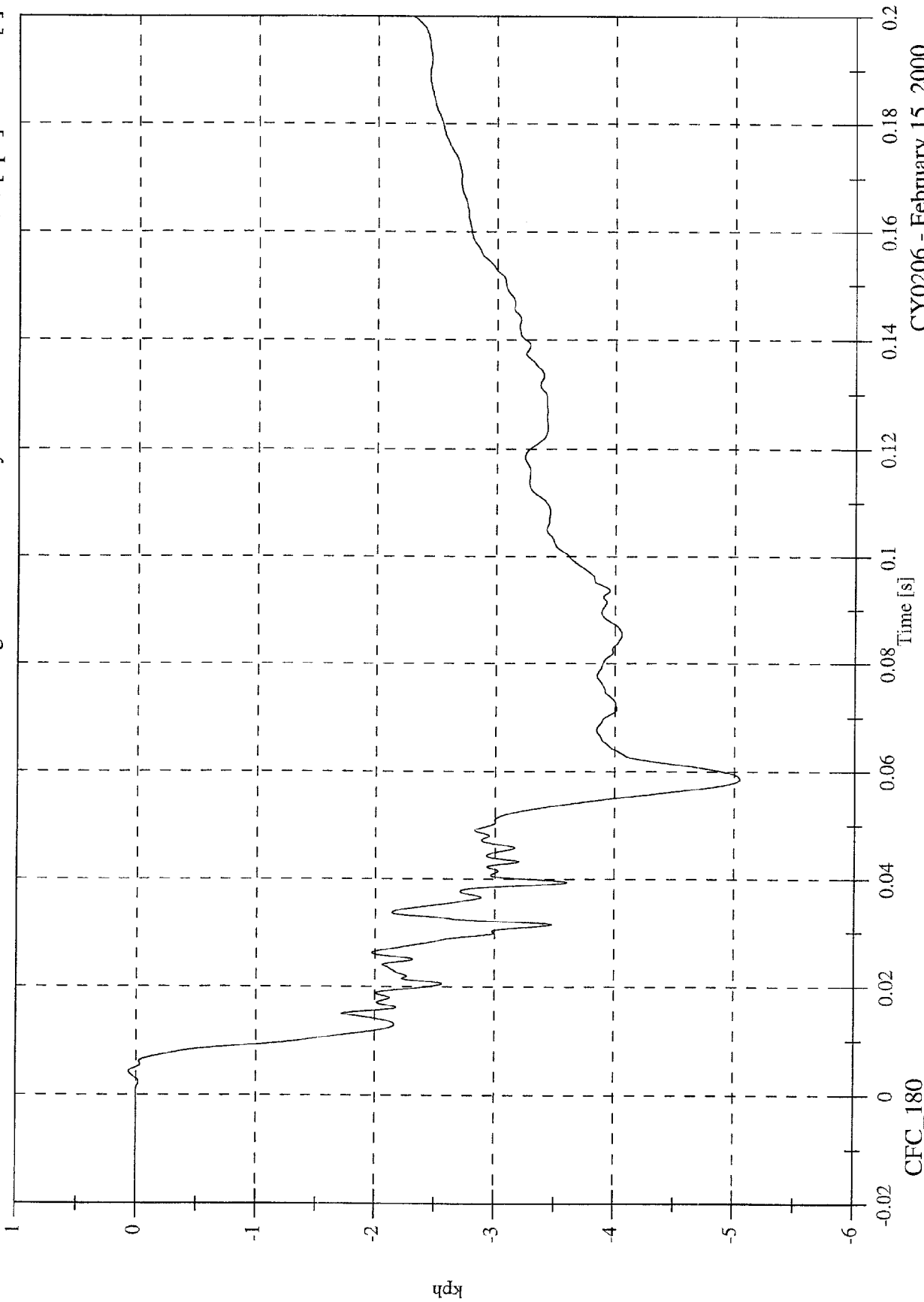


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 18 Target CG Ax Velocity

Max: 0.1 [kph] at 0.004 [s]

Min: -5.0 [kph] at 0.059 [s]

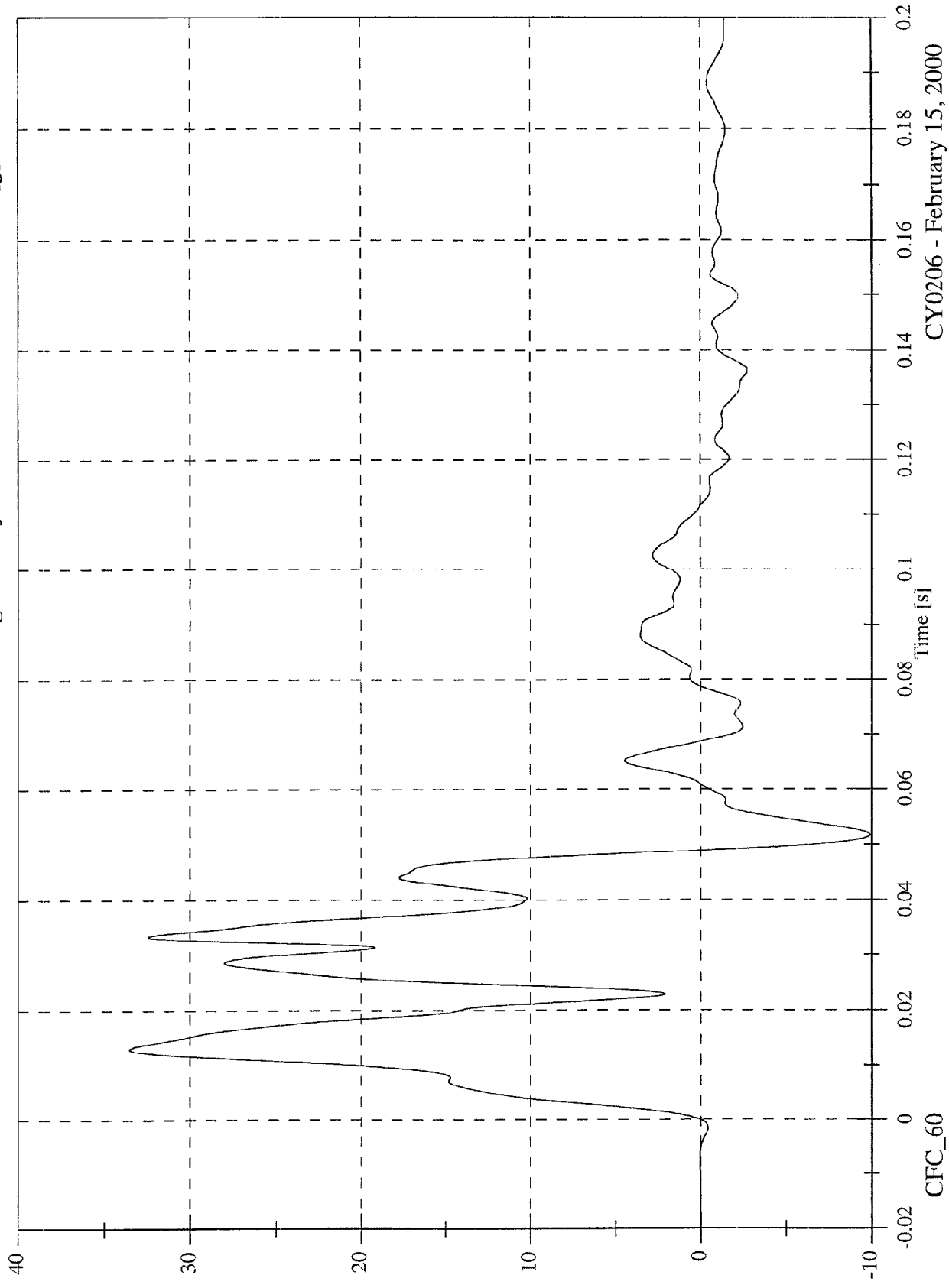


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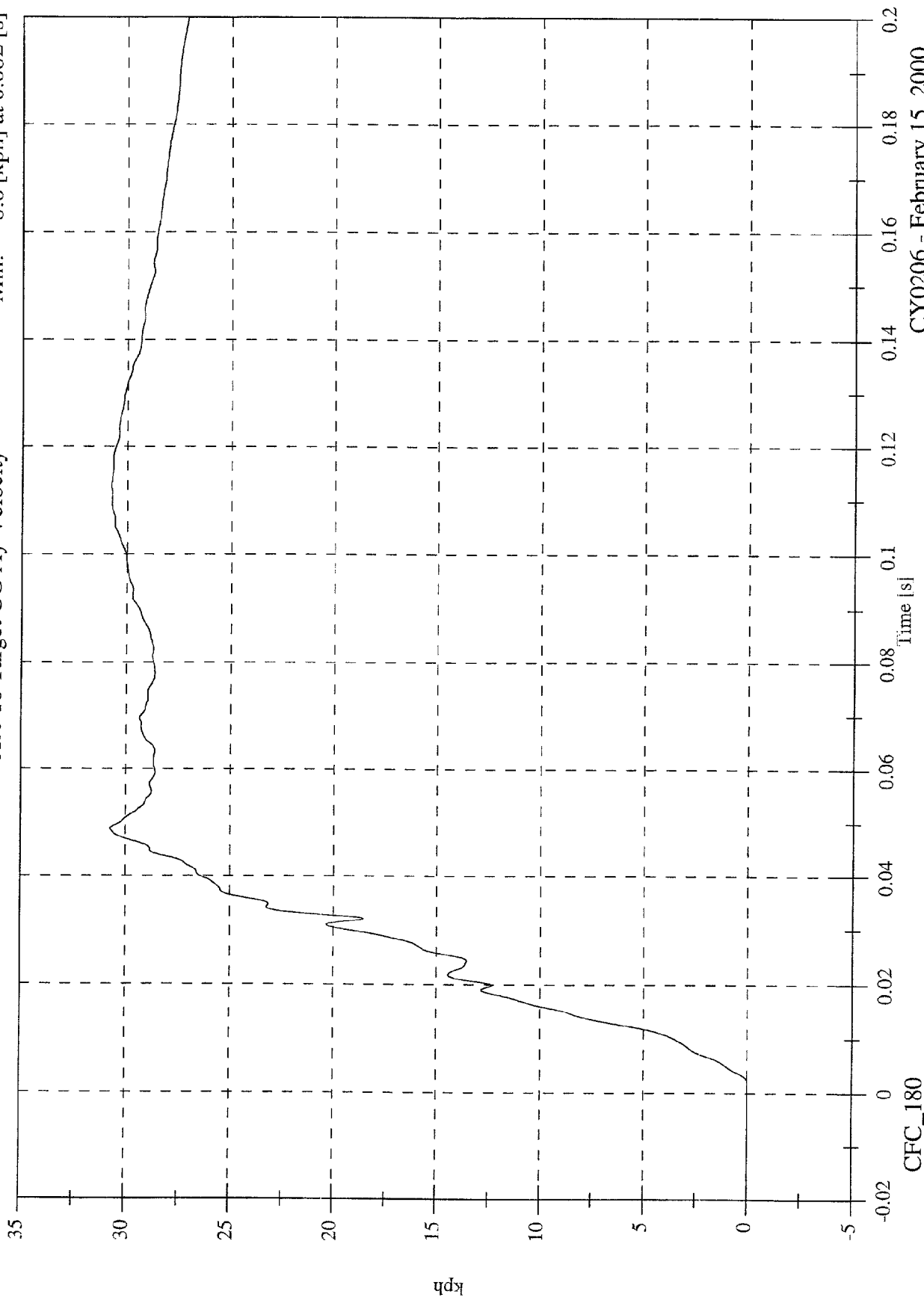
CFC\_180

Max: 33.6 [g] at 0.013 [s]  
Min: -9.9 [g] at 0.052 [s]

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 18 Target CG Ay



FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Acc 18 Target CG Ay Velocity  
Max: 30.8 [kph] at 0.113 [s]  
Min: -0.0 [kph] at 0.002 [s]



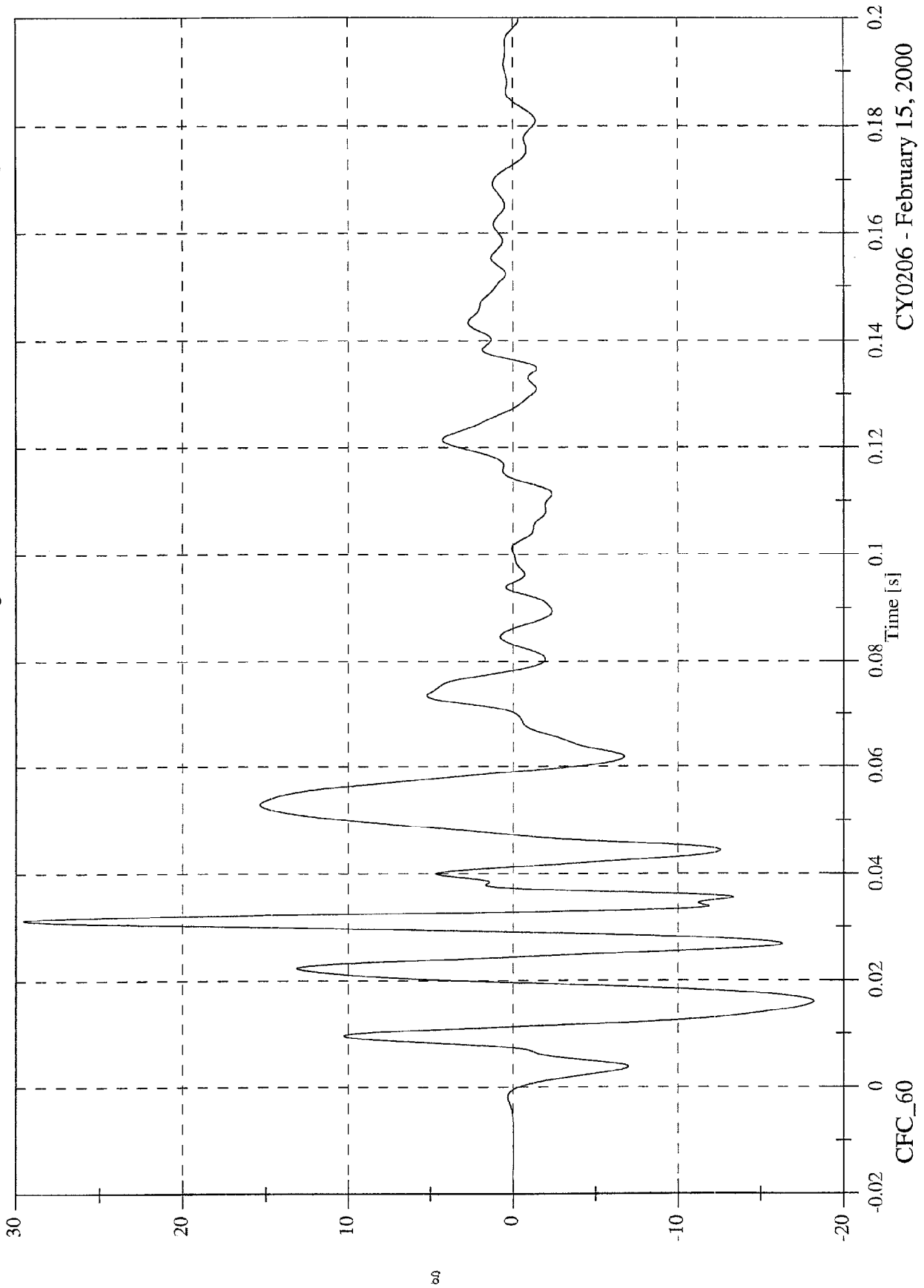
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Acc 18 Target CG Az

Max: 29.5 [g] at 0.031 [s]

Min: -18.2 [g] at 0.016 [s]

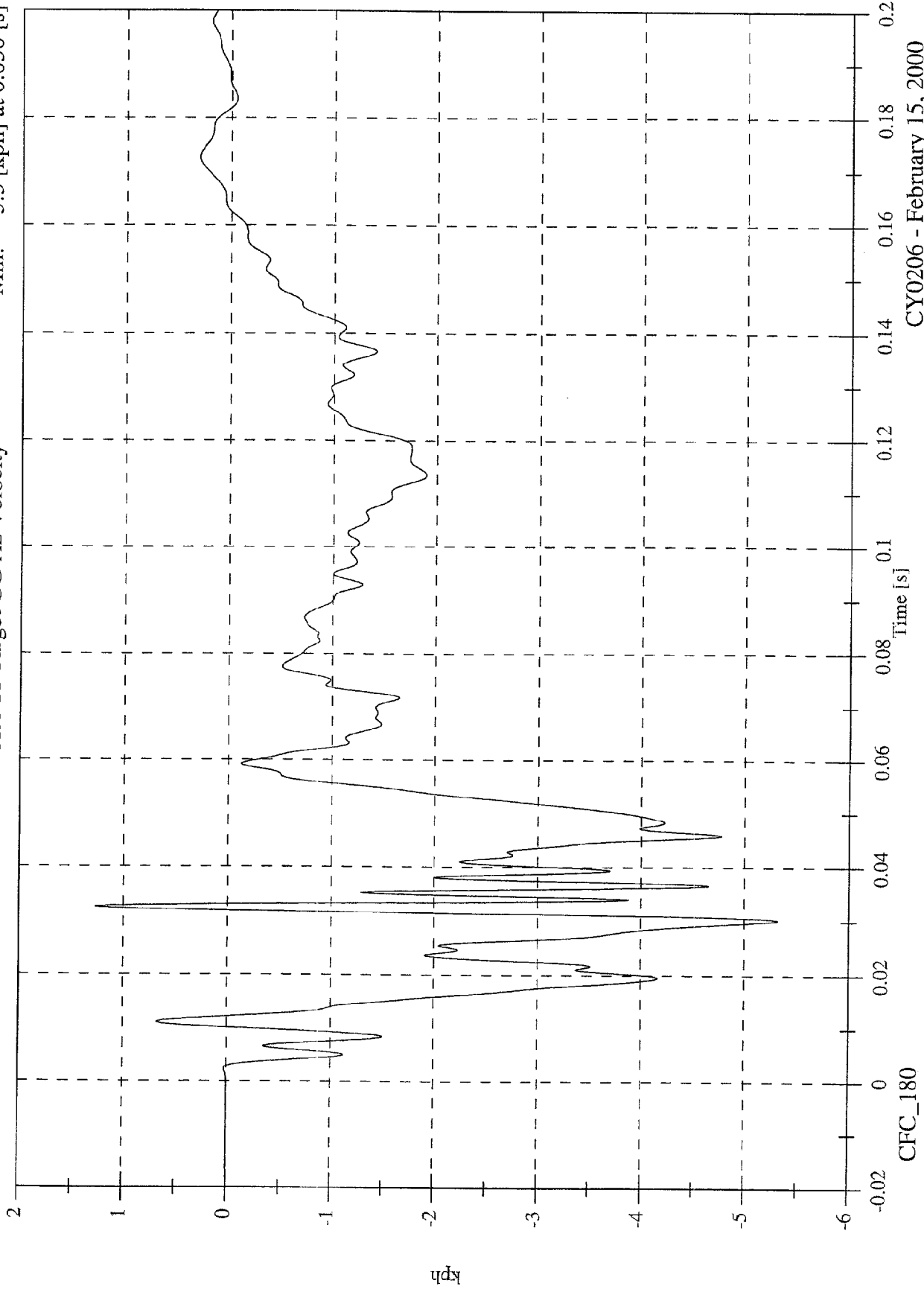


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 18 Target CG Az Velocity

Max: 1.3 [kph] at 0.033 [s]

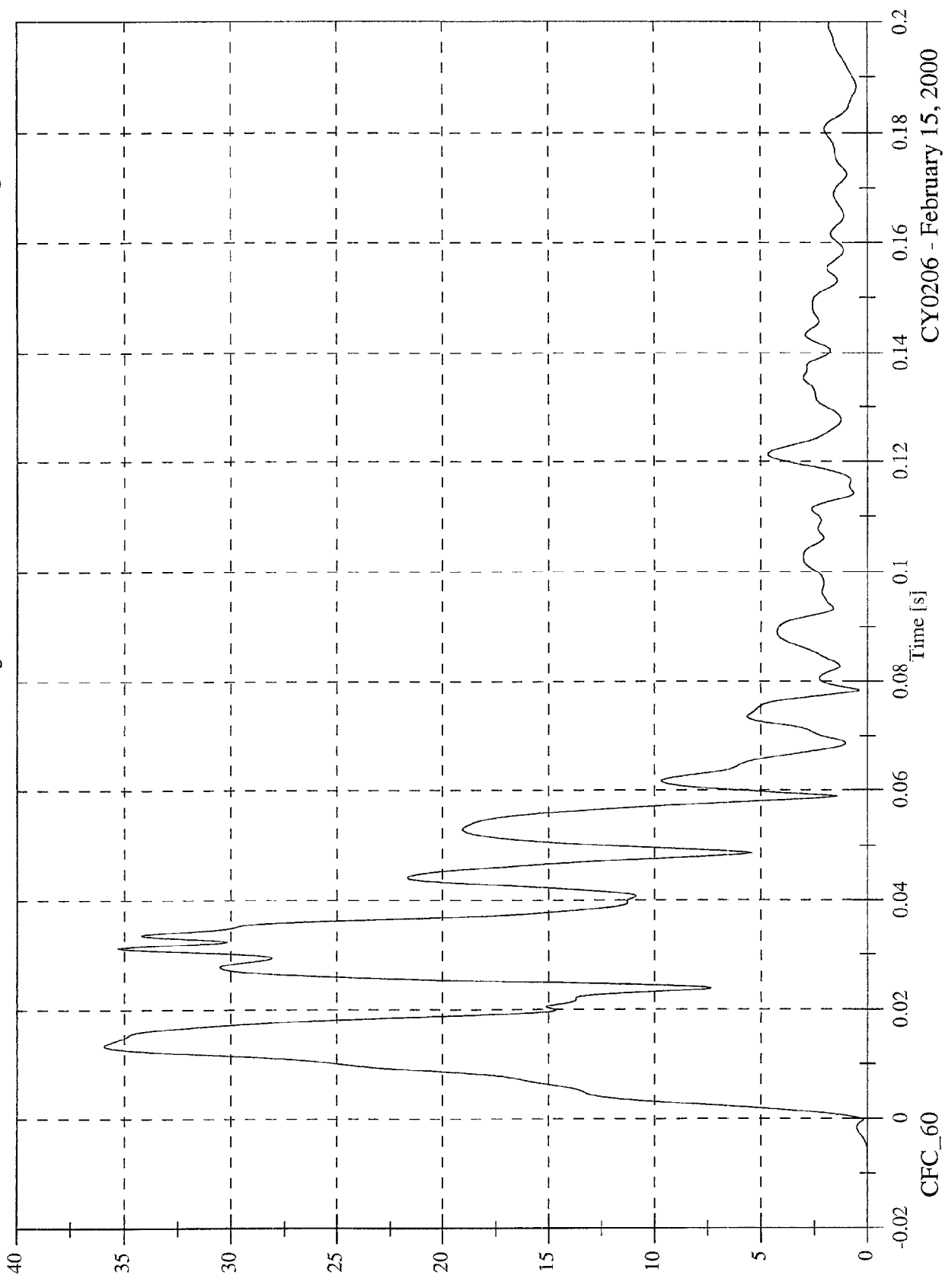
Min: -5.3 [kph] at 0.030 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Acc 18 Target CG A Resultant

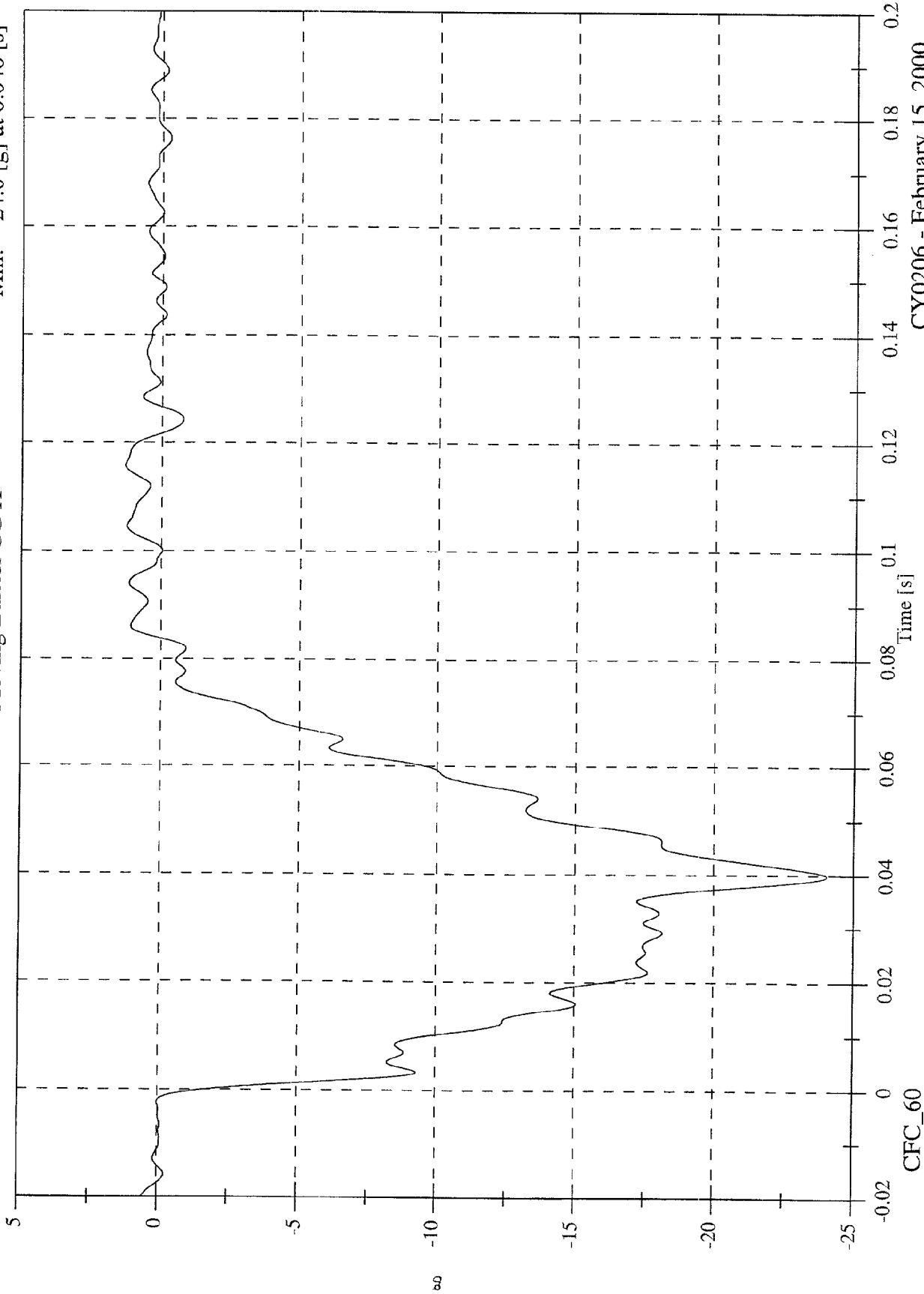
Max: 35.9 [g] at 0.013 [s]  
Min: 0.0 [g] at -0.015 [s]



FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier CG X

Max: 1.3 [g] at 0.116 [s]

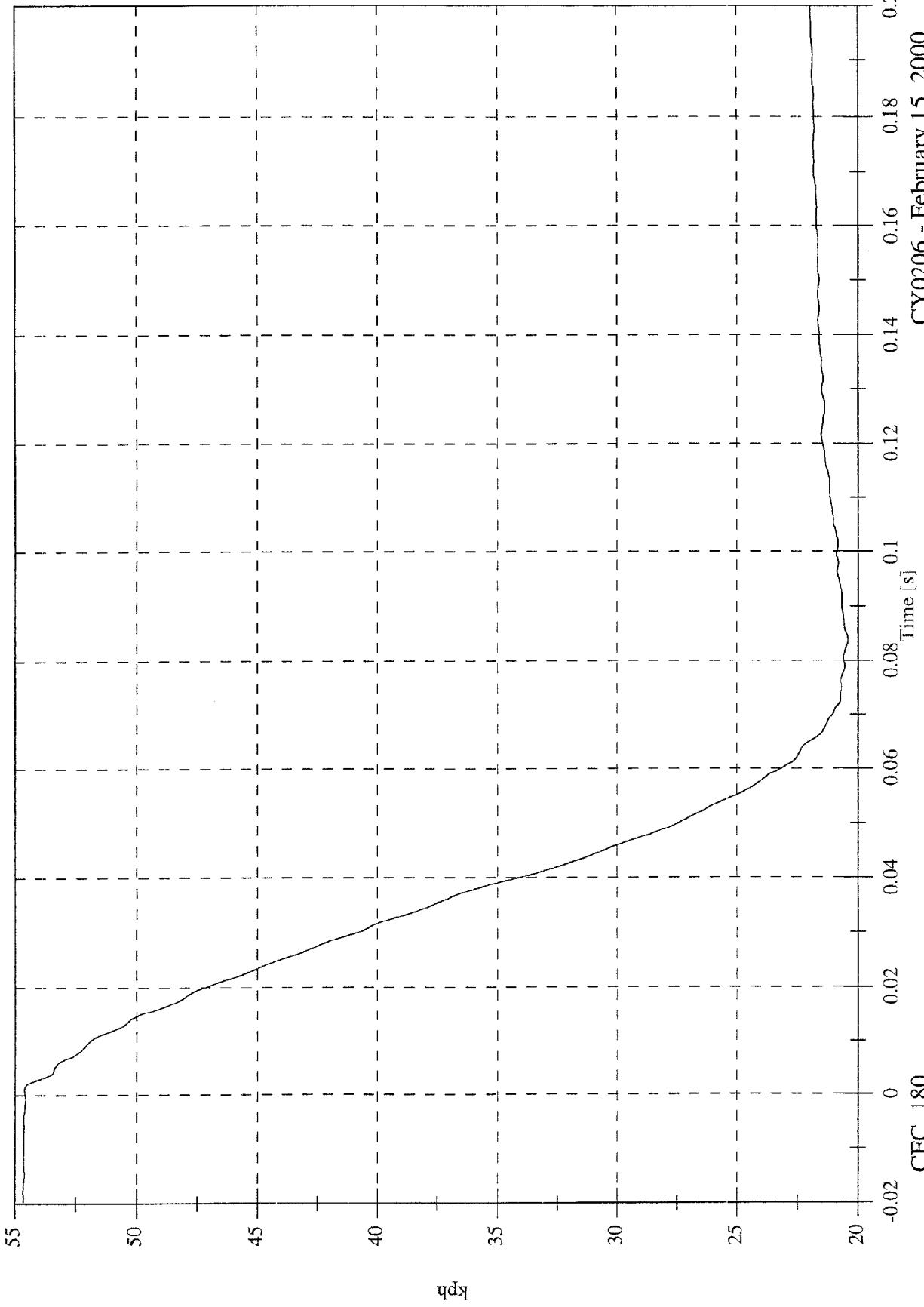
Min: -24.0 [g] at 0.040 [s]



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Max: 54.7 [kph] at -0.018 [s]  
Min: 20.4 [kph] at 0.084 [s]

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier CG X Velocity



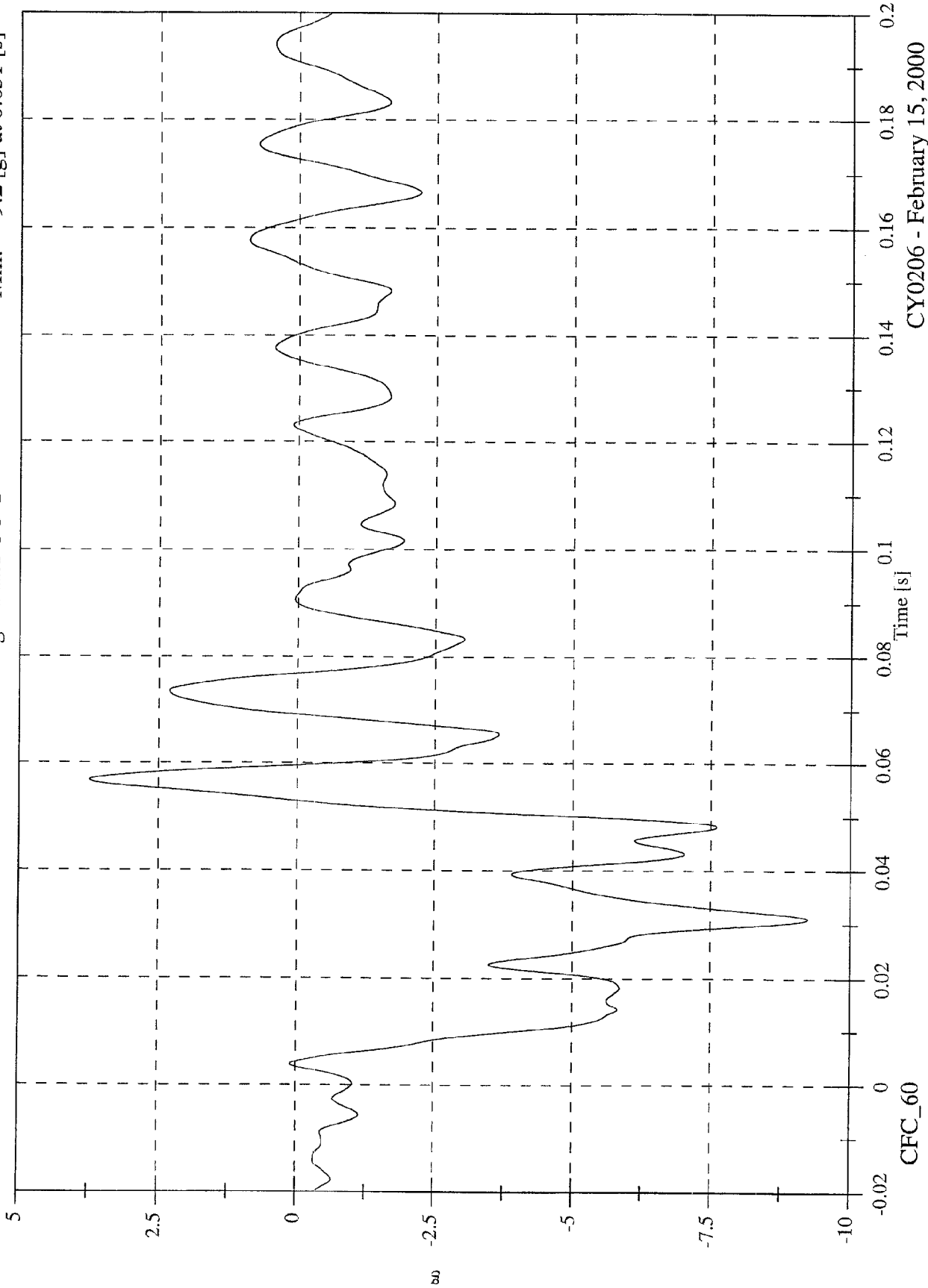
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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Moving Barrier CG Y

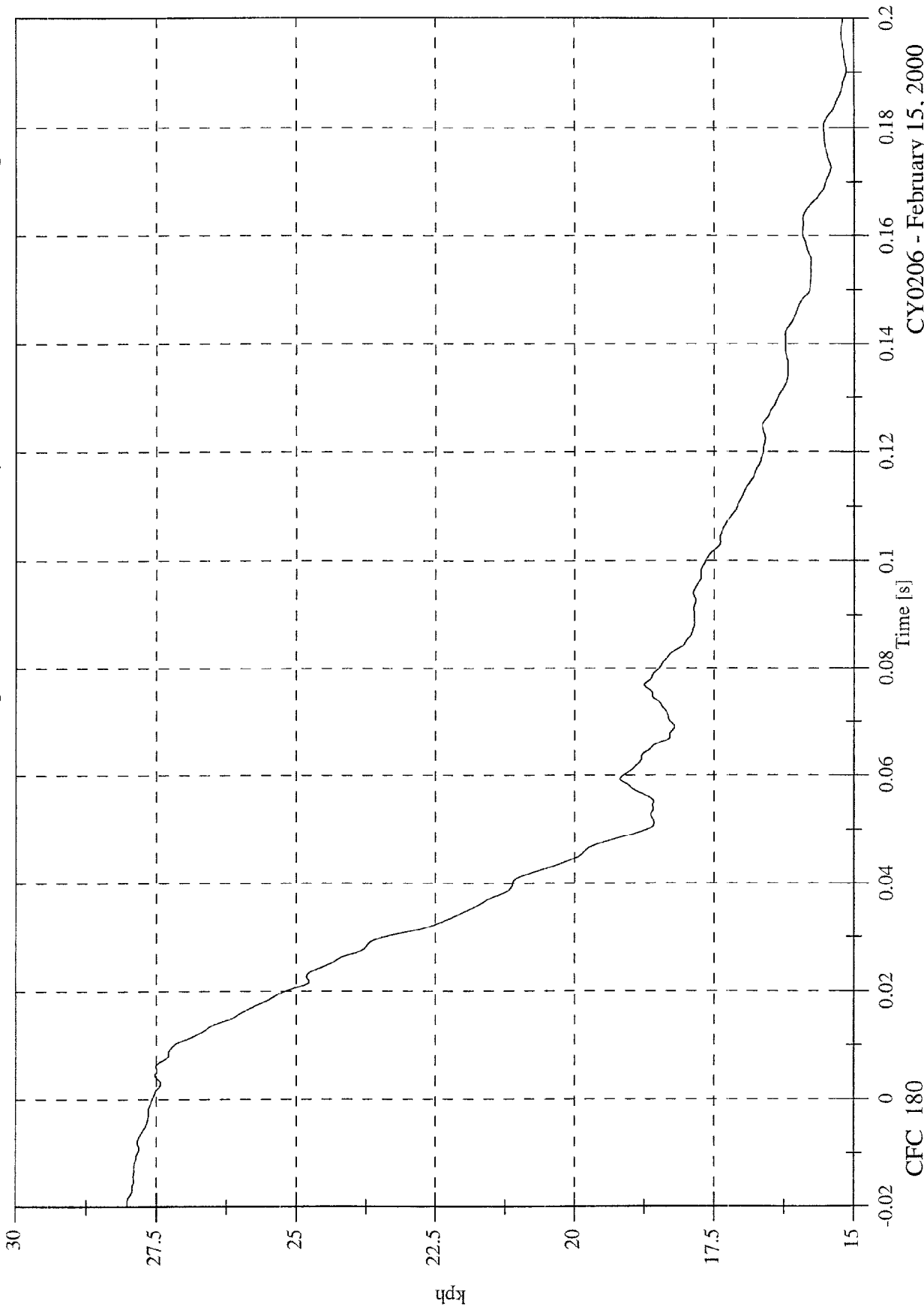
Max: 3.7 [g] at 0.057 [s]  
Min: -9.2 [g] at 0.031 [s]



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Max: 28.0 [kph] at -0.020 [s]  
Min: 15.1 [kph] at 0.190 [s]

FIMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier CG Y Velocity



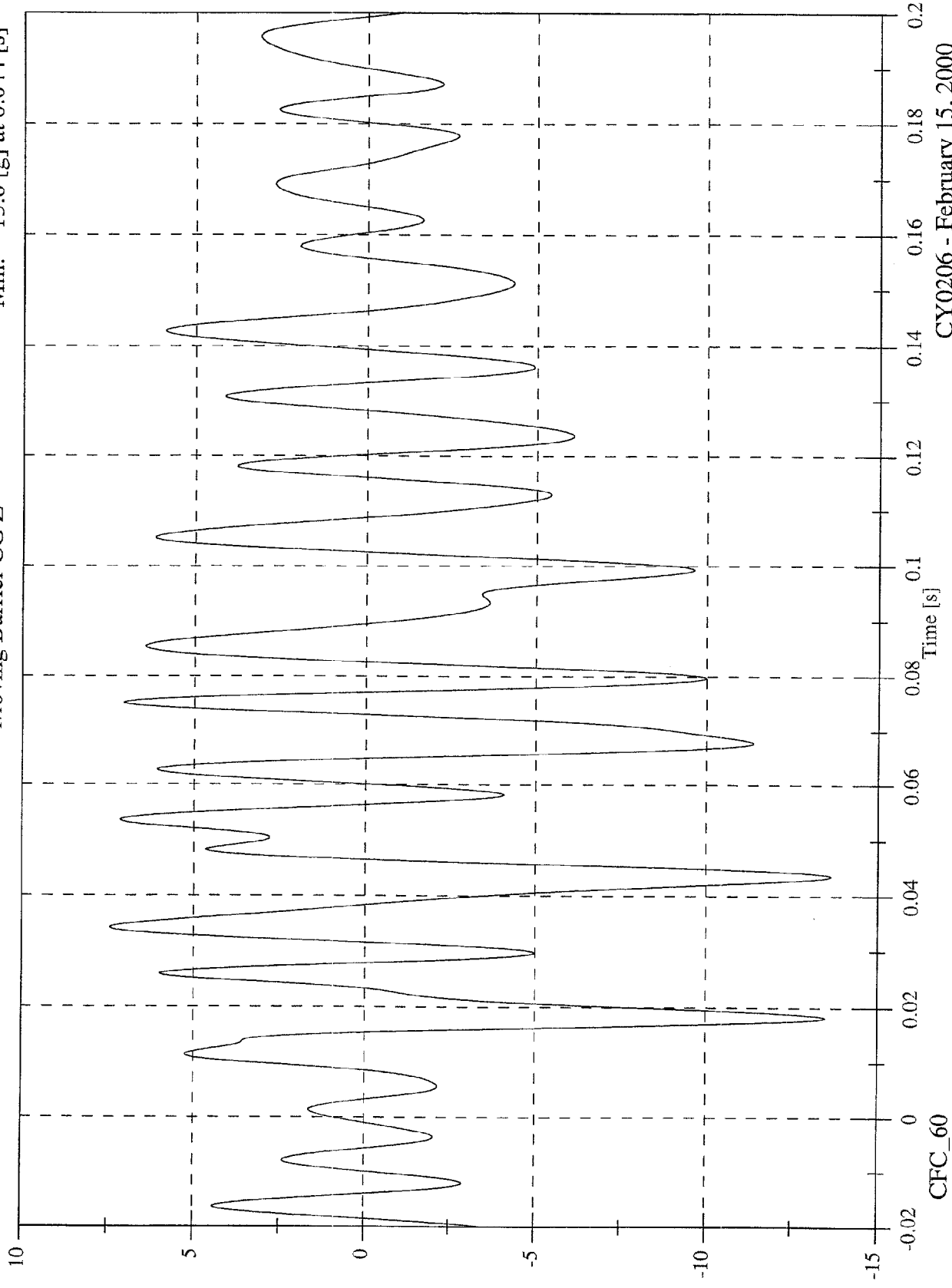
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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door

Max: 7.4 [g] at 0.034 [s]

Min: -13.6 [g] at 0.044 [s]

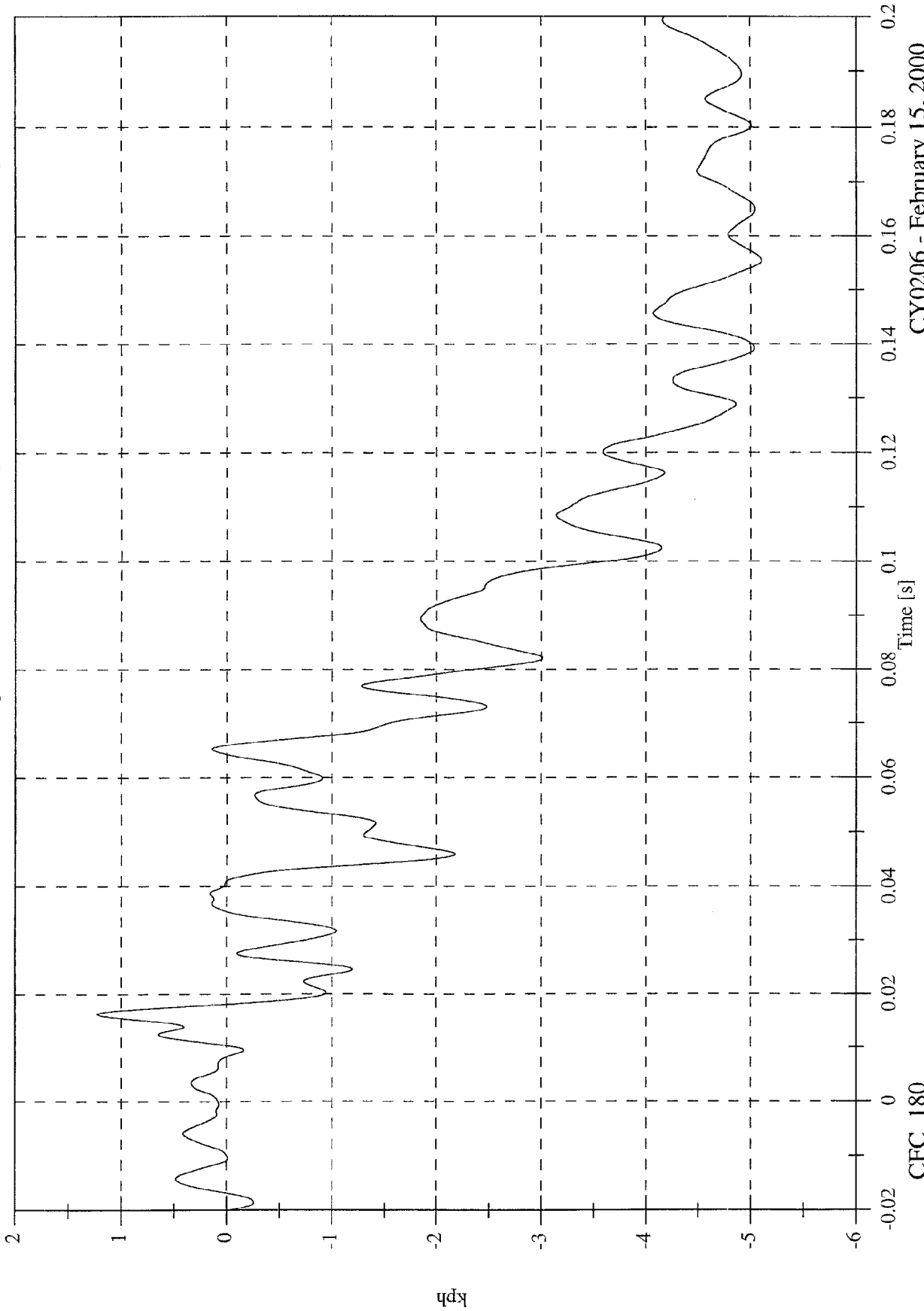
Moving Barrier CG Z



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier CG Z Velocity

Max: 1.2 [kph] at 0.016 [s]  
Min: -5.1 [kph] at 0.156 [s]

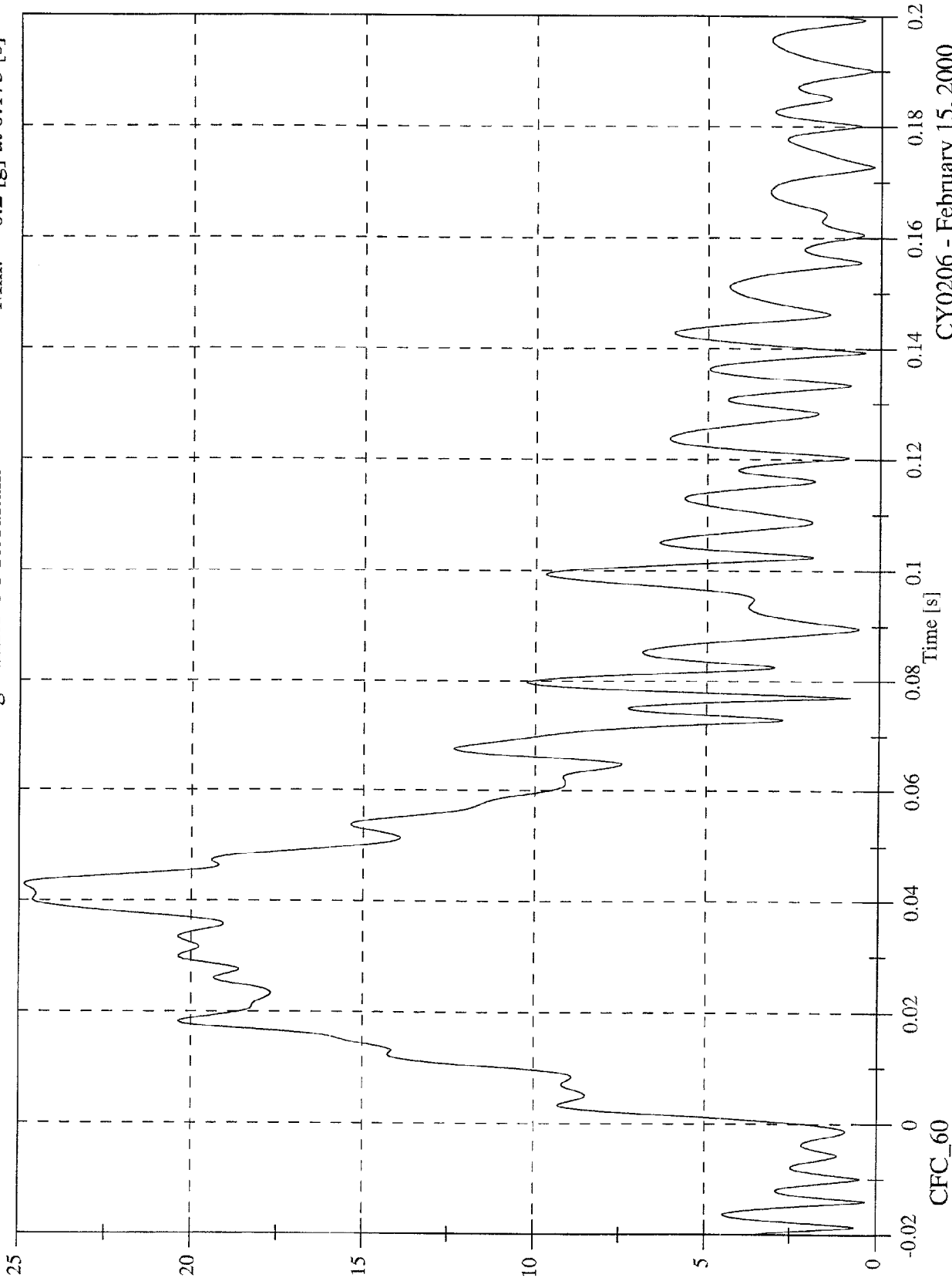


CFC\_180

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Max: 24.9 [g] at 0.043 [s]  
Min: 0.2 [g] at 0.173 [s]

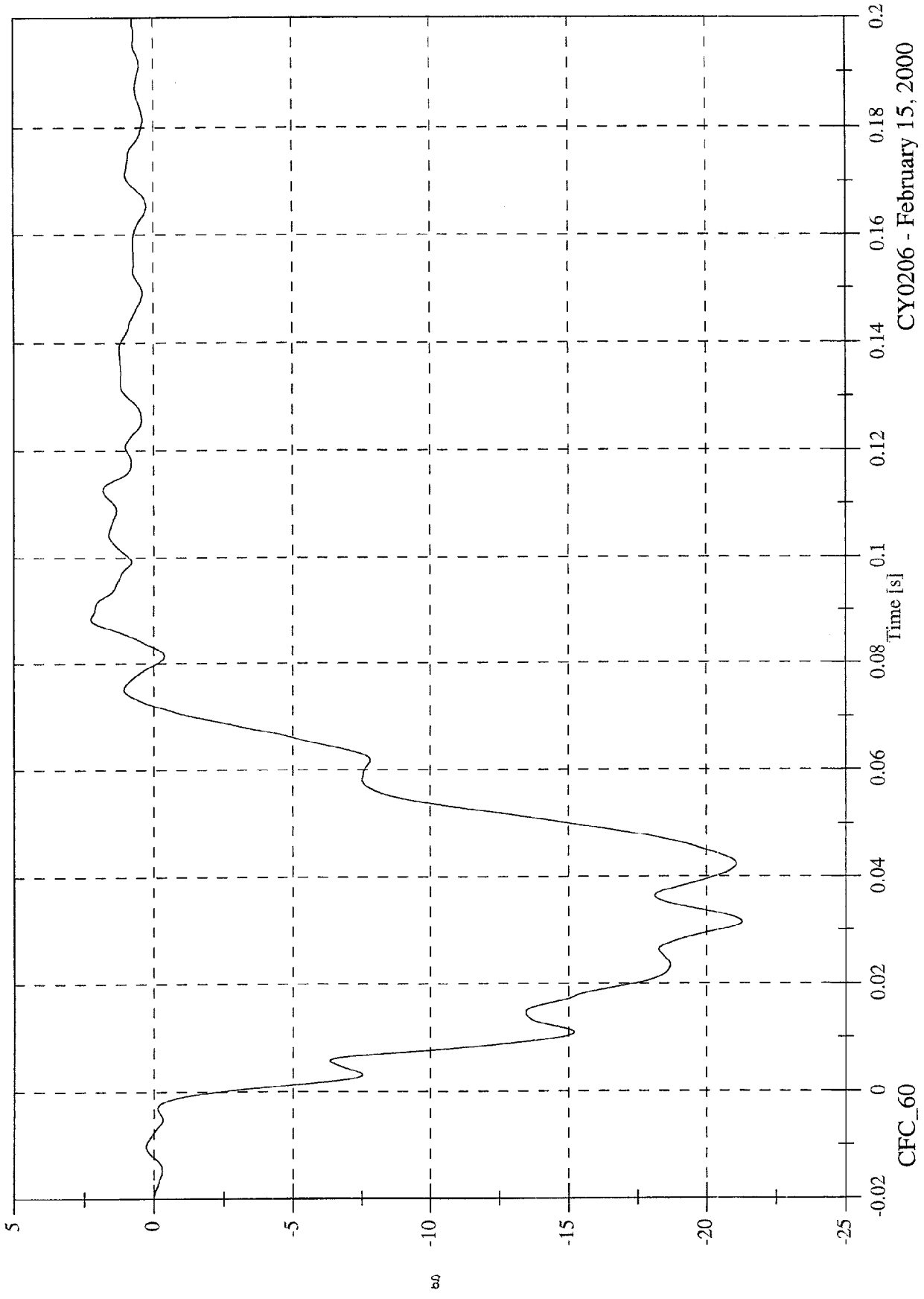
FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier CG Resultant



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier Left Rail X

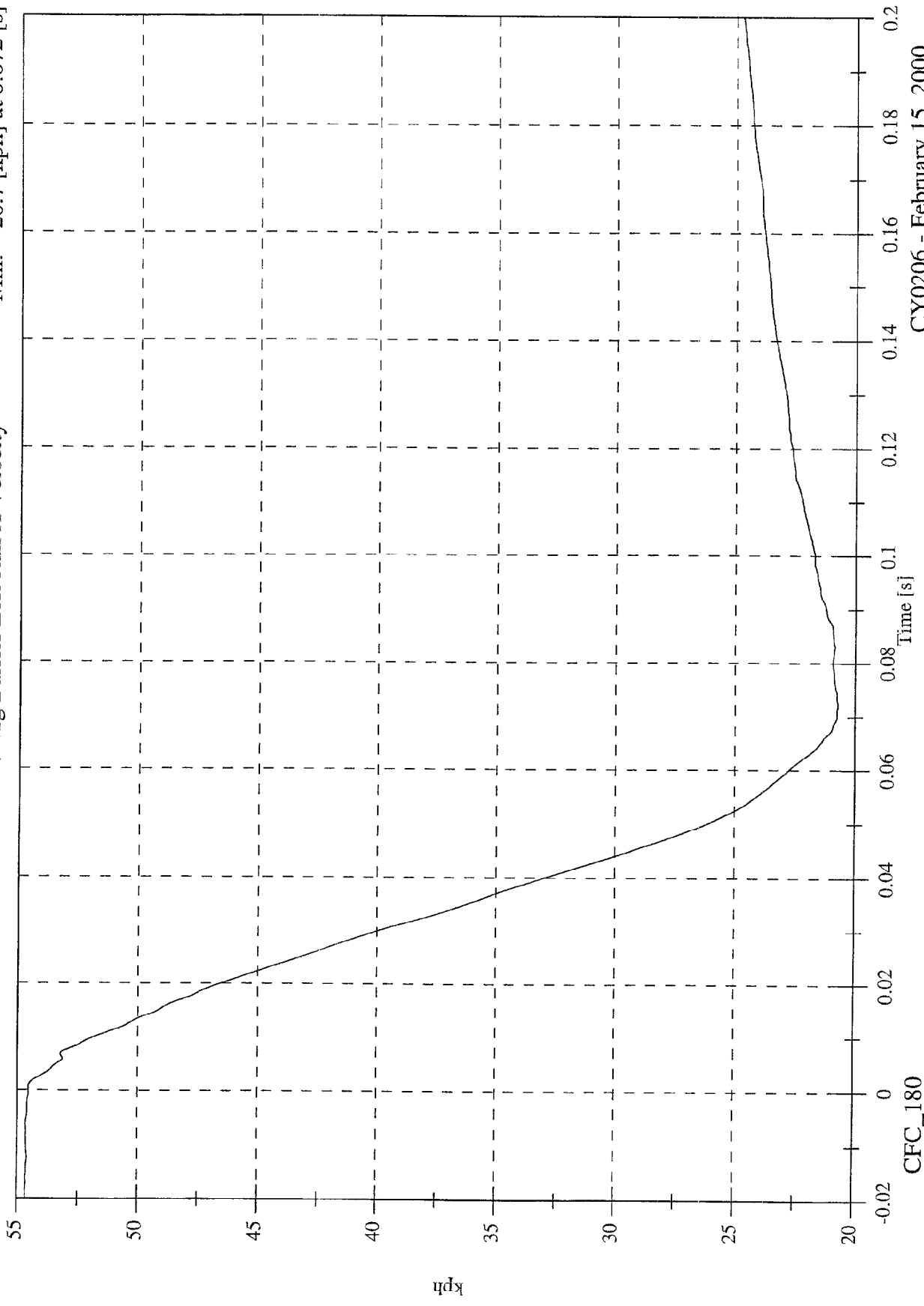
Max: 2.3 [g] at 0.088 [s]  
Min: -21.3 [g] at 0.031 [s]



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Max: 54.7 [kph] at -0.018 [s]  
Min: 20.7 [kph] at 0.072 [s]

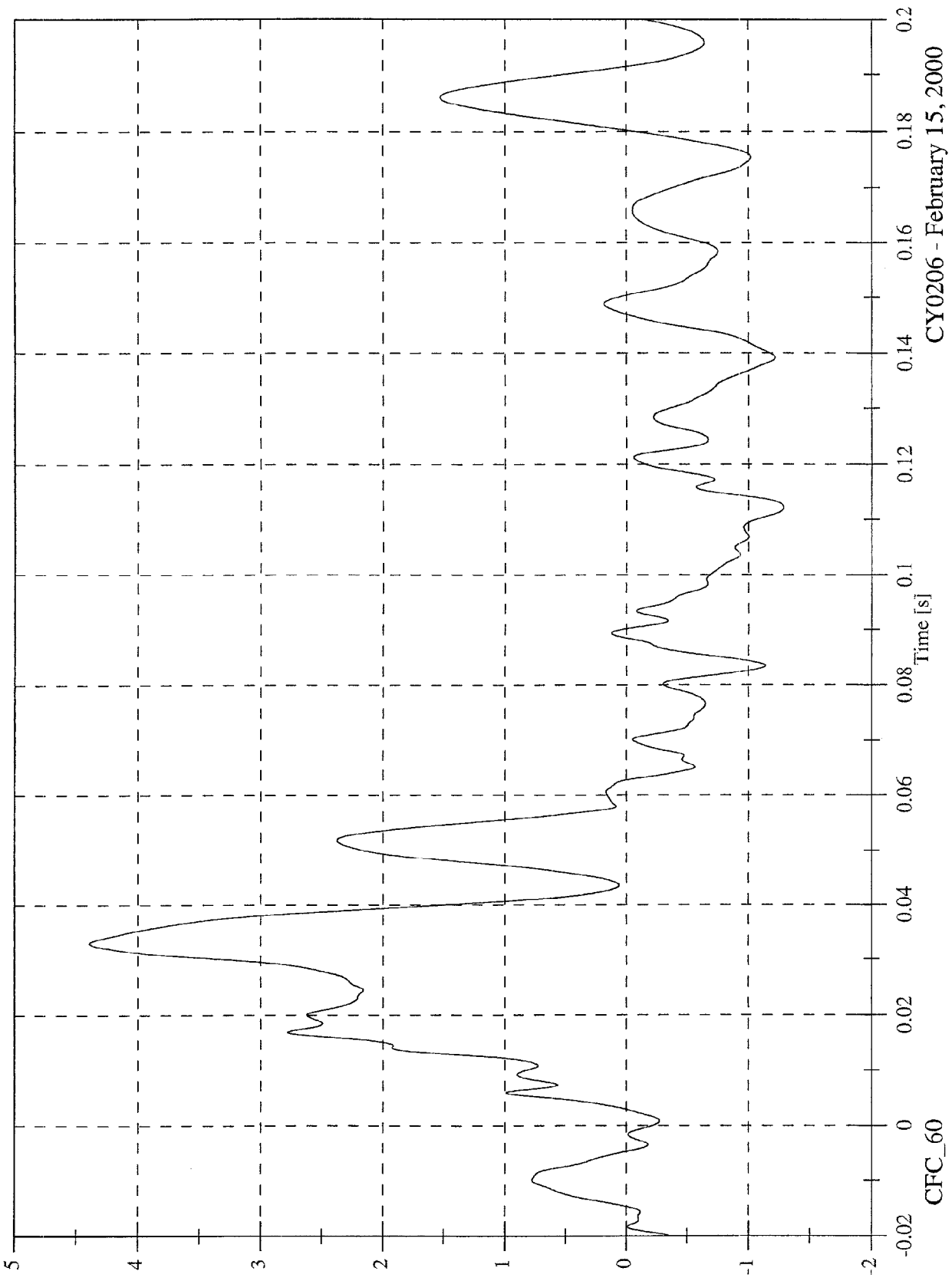
FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier Left Rail X Velocity



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier Left Rail Y

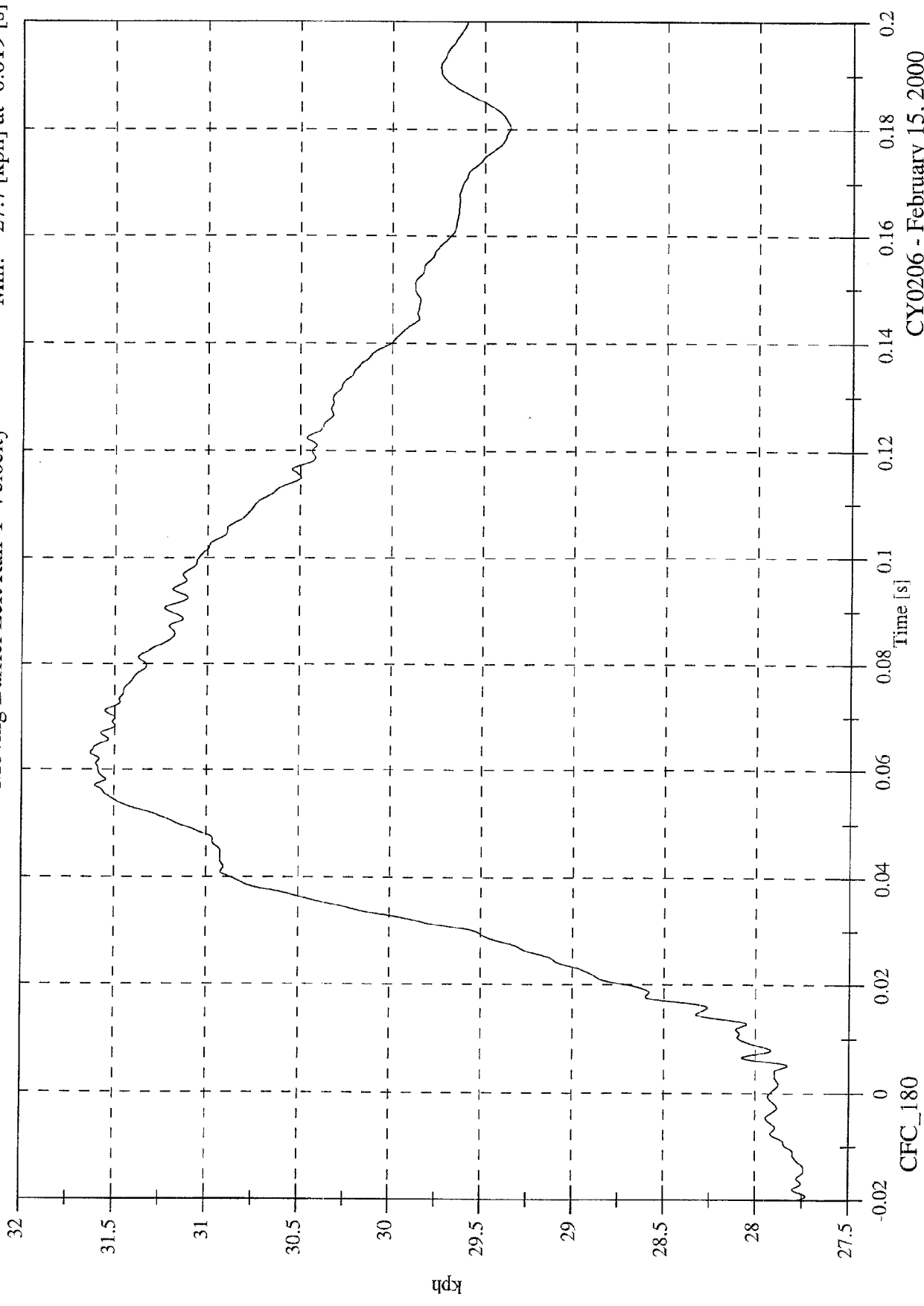
Max: 4.4 [g] at 0.033 [s]  
Min: -1.3 [g] at 0.112 [s]



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FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door  
Moving Barrier Left Rail Y Velocity

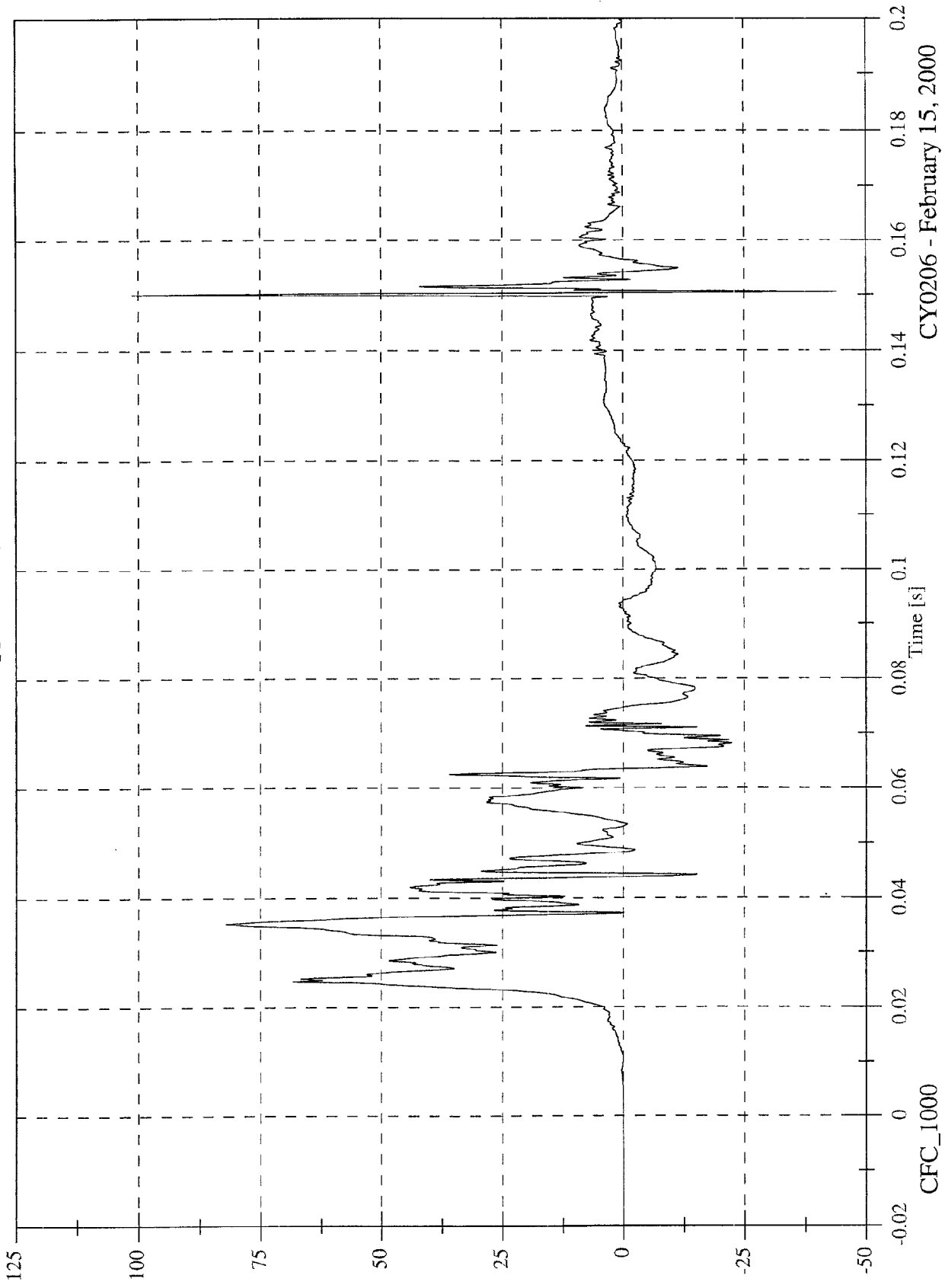
Max: 31.6 [kph] at 0.063 [s]  
Min: 27.7 [kph] at -0.019 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Upper Rib Ry

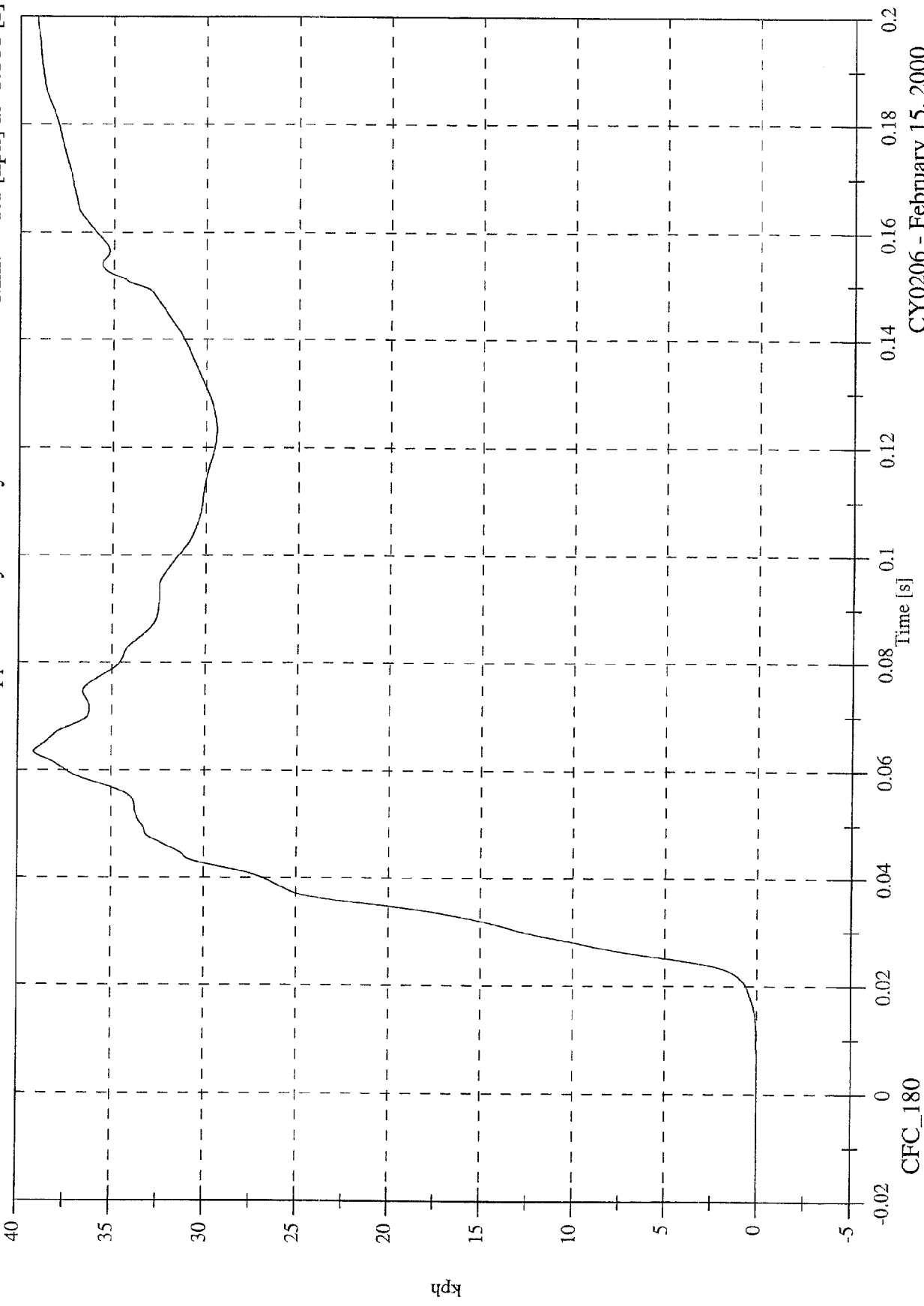
Max: 101.2 [g] at 0.150 [s]  
Min: -43.9 [g] at 0.151 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Upper Rib Ry Velocity

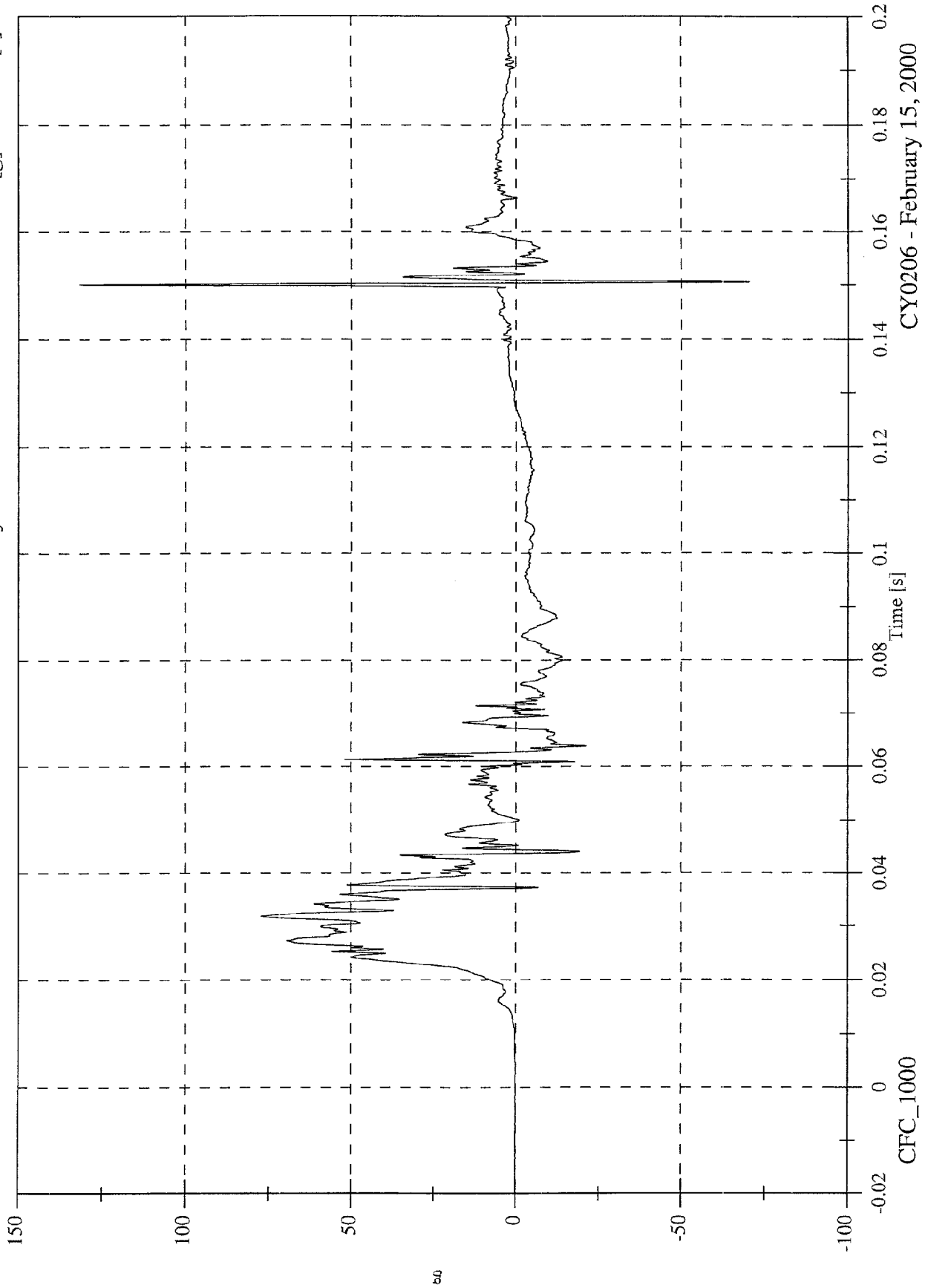
Max: 39.1 [kph] at 0.063 [s]  
Min: -0.0 [kph] at -0.006 [s]



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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Lower Rib Ry

Max: 131.8 [g] at 0.150 [s]  
Min: -70.5 [g] at 0.151 [s]

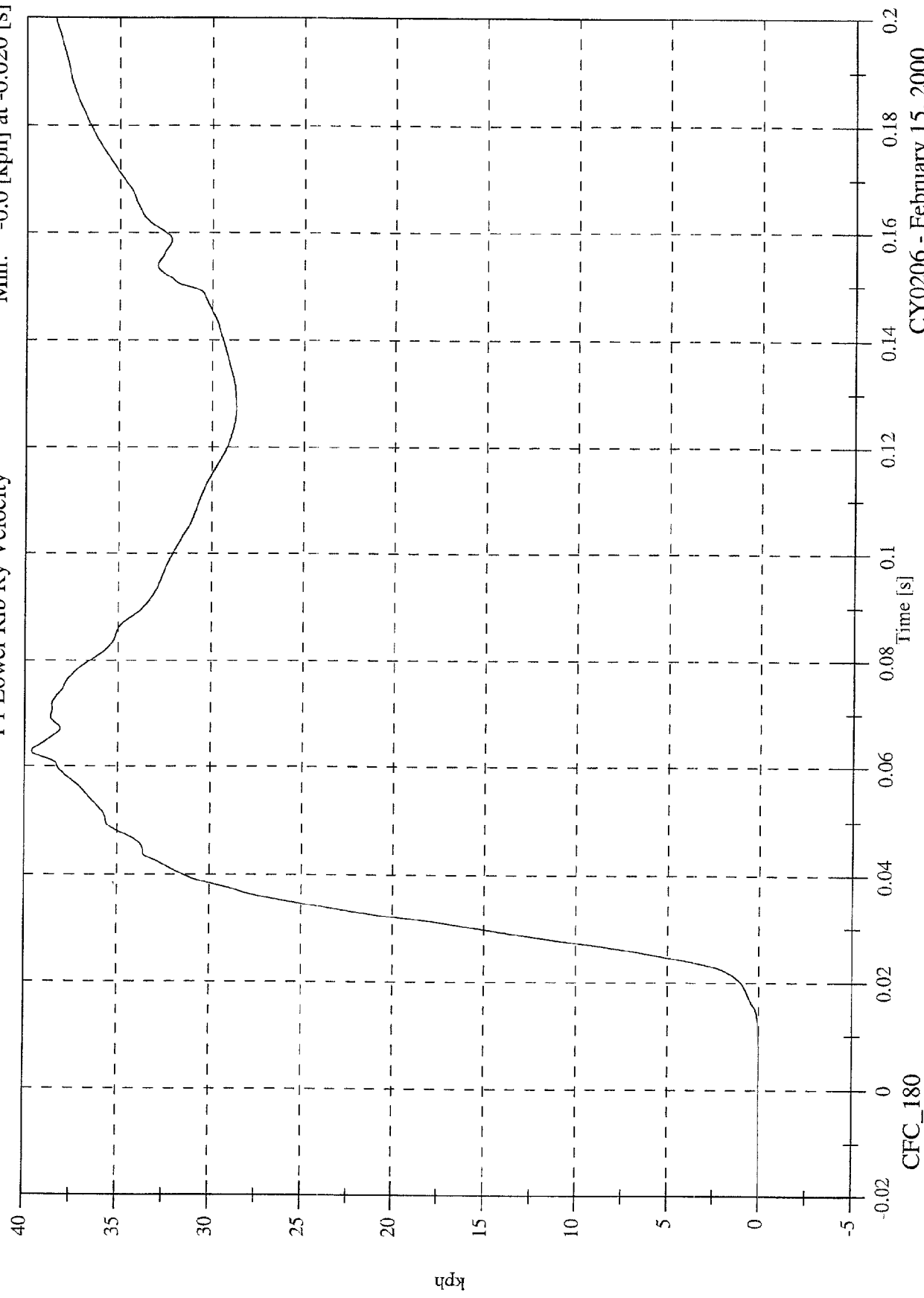


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FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

Max: 39.6 [kph] at 0.063 [s]  
Min: -0.0 [kph] at -0.020 [s]

P1 Lower Rib Ry Velocity



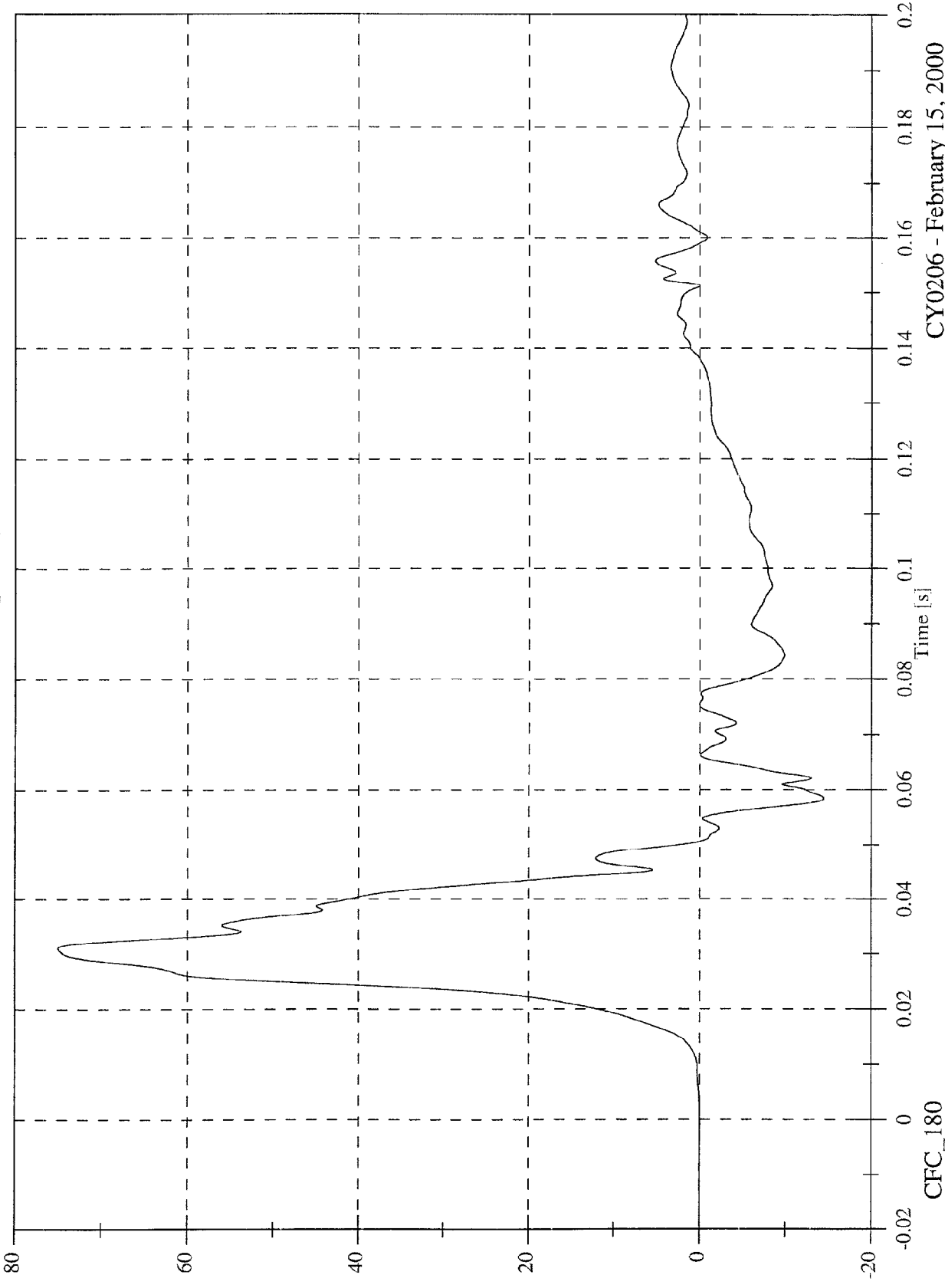
CY0206 - February 15, 2000

CFC\_180

FMVSS 214D Inducant Test #4 - 2000 Ford Focus Three Door

P1 Lower Spine Ry

Max: 75.0 [g] at 0.031 [s]  
Min: -14.5 [g] at 0.058 [s]



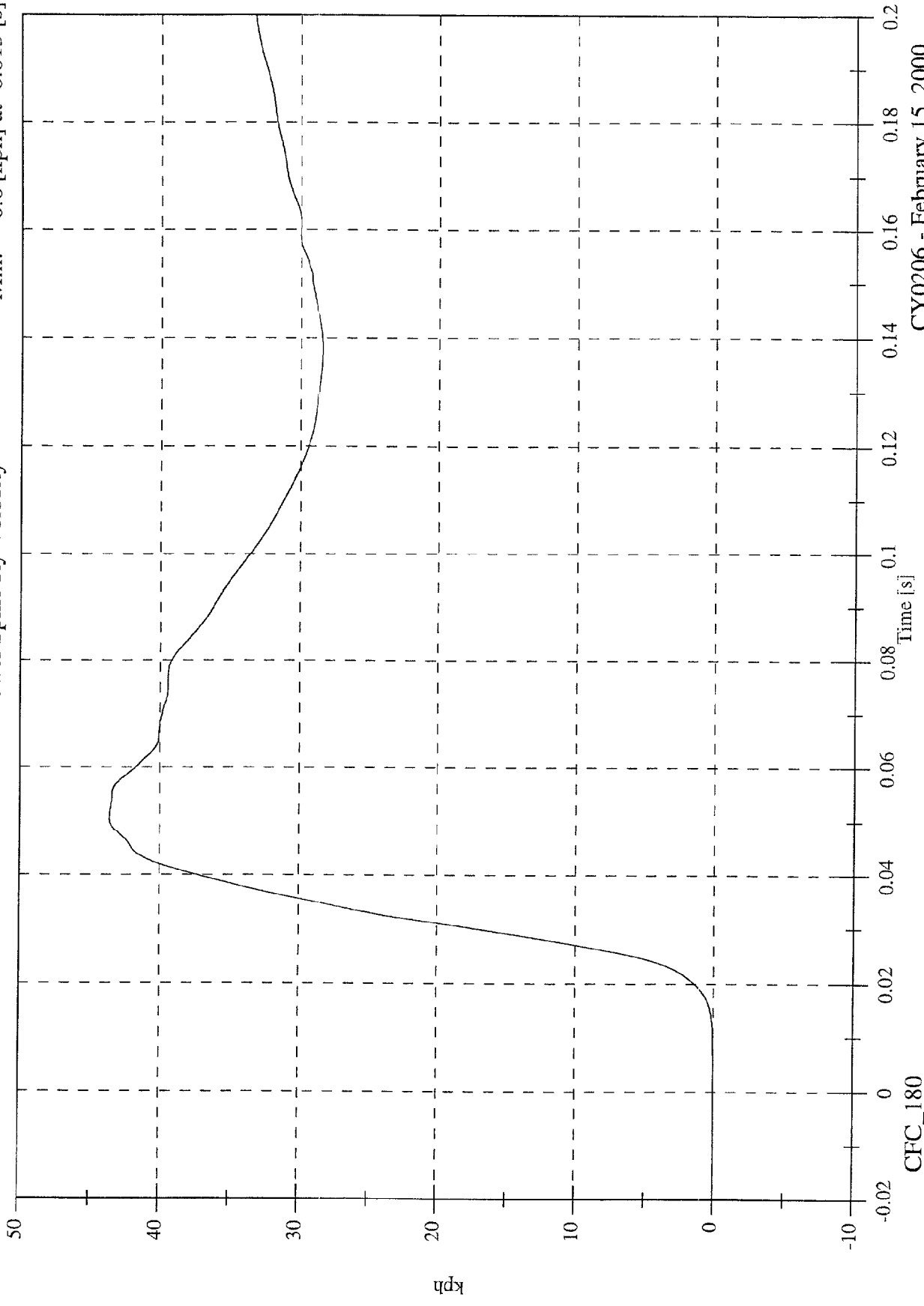
CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Lower Spine Ry Velocity

Max: 43.6 [kph] at 0.051 [s]

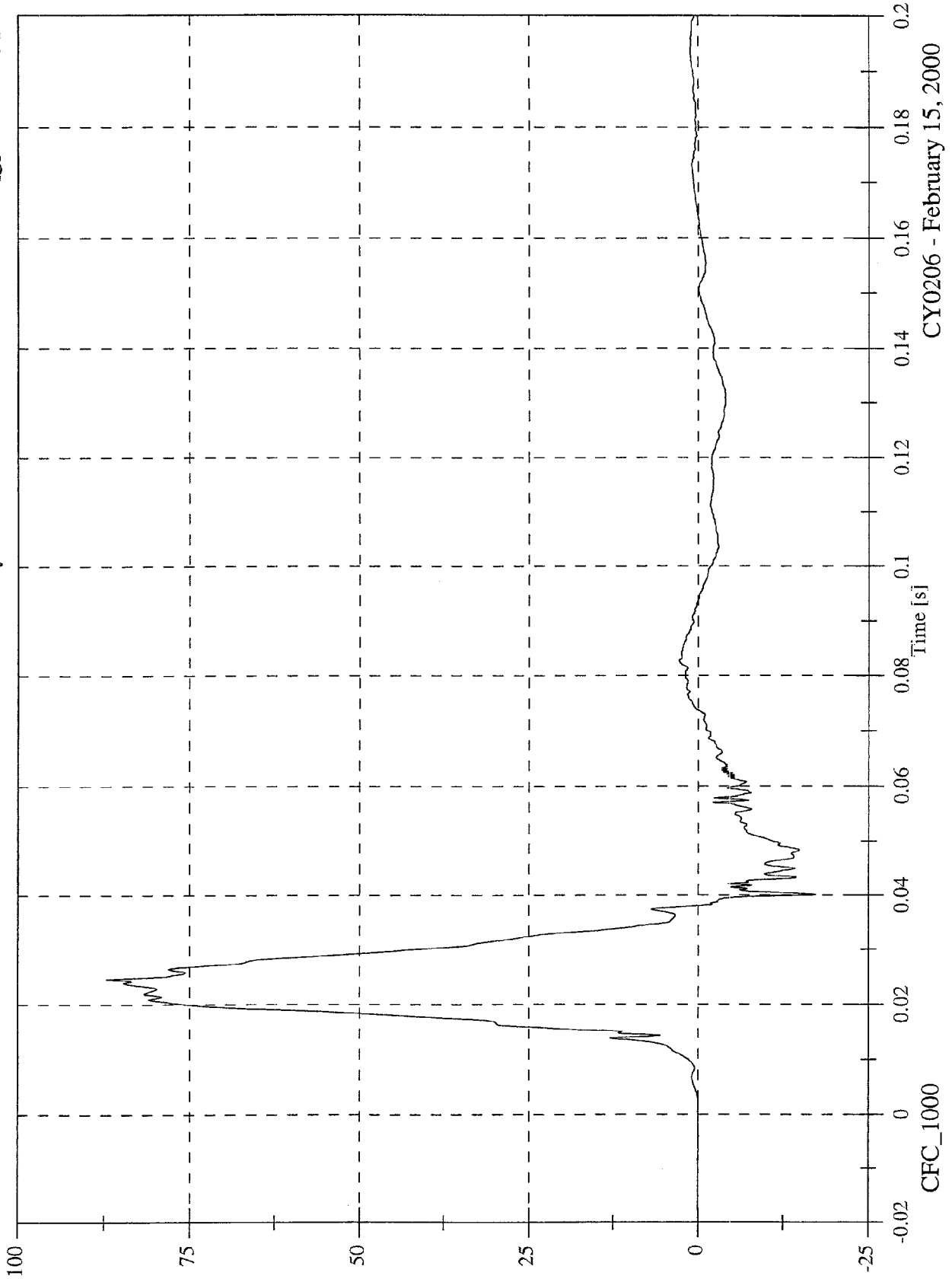
Min: -0.0 [kph] at -0.013 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Pelvic Ry

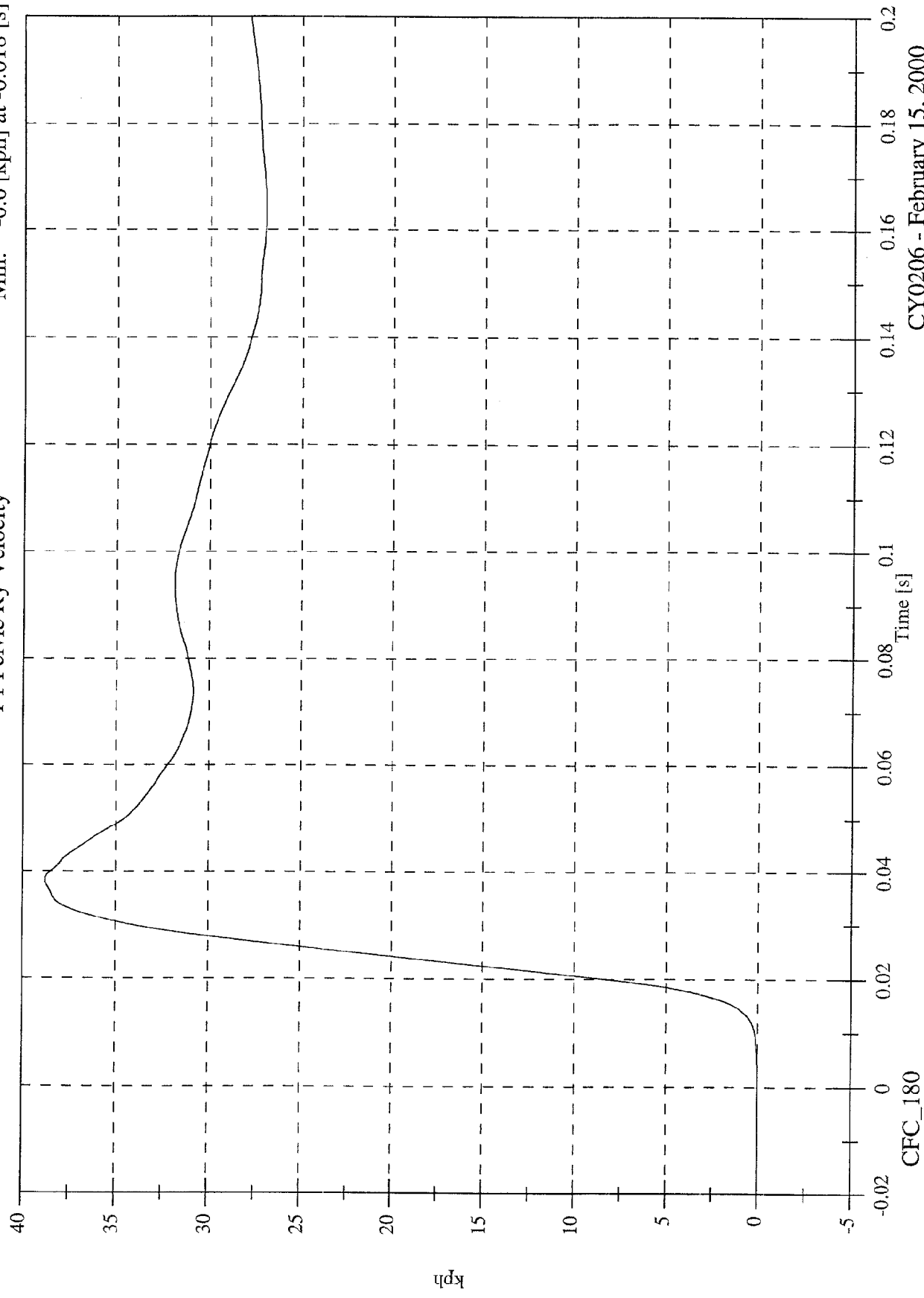
Max: 87.1 [g] at 0.025 [s]  
Min: -17.3 [g] at 0.040 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Pelvic Ry Velocity

Max: 38.8 [kph] at 0.038 [s]  
Min: -0.0 [kph] at -0.018 [s]



CY0206 - February 15, 2000

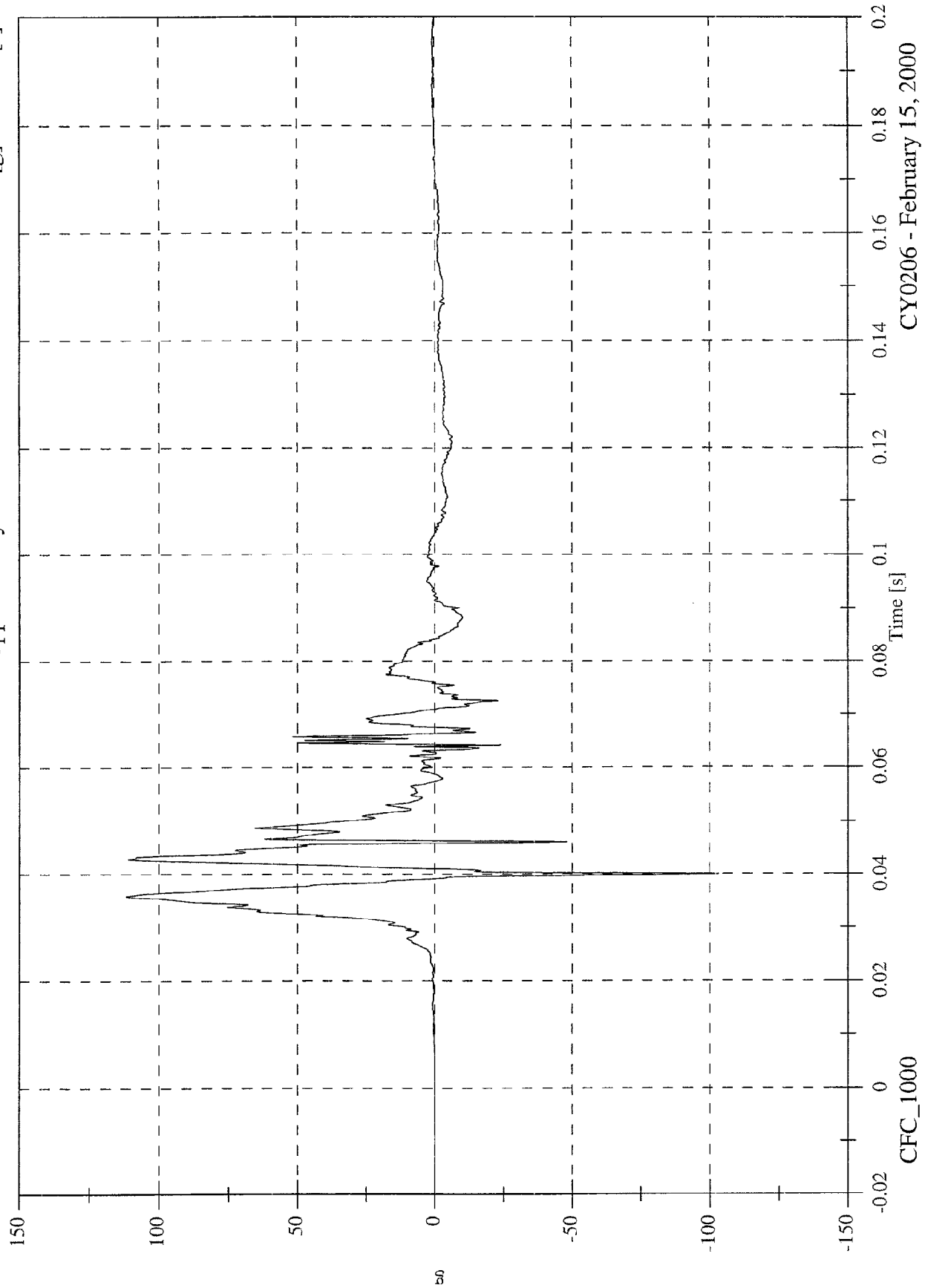
CFC\_180

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P4 Upper Rib Ry

Max: 111.7 [g] at 0.036 [s]

Min: -103.1 [g] at 0.040 [s]

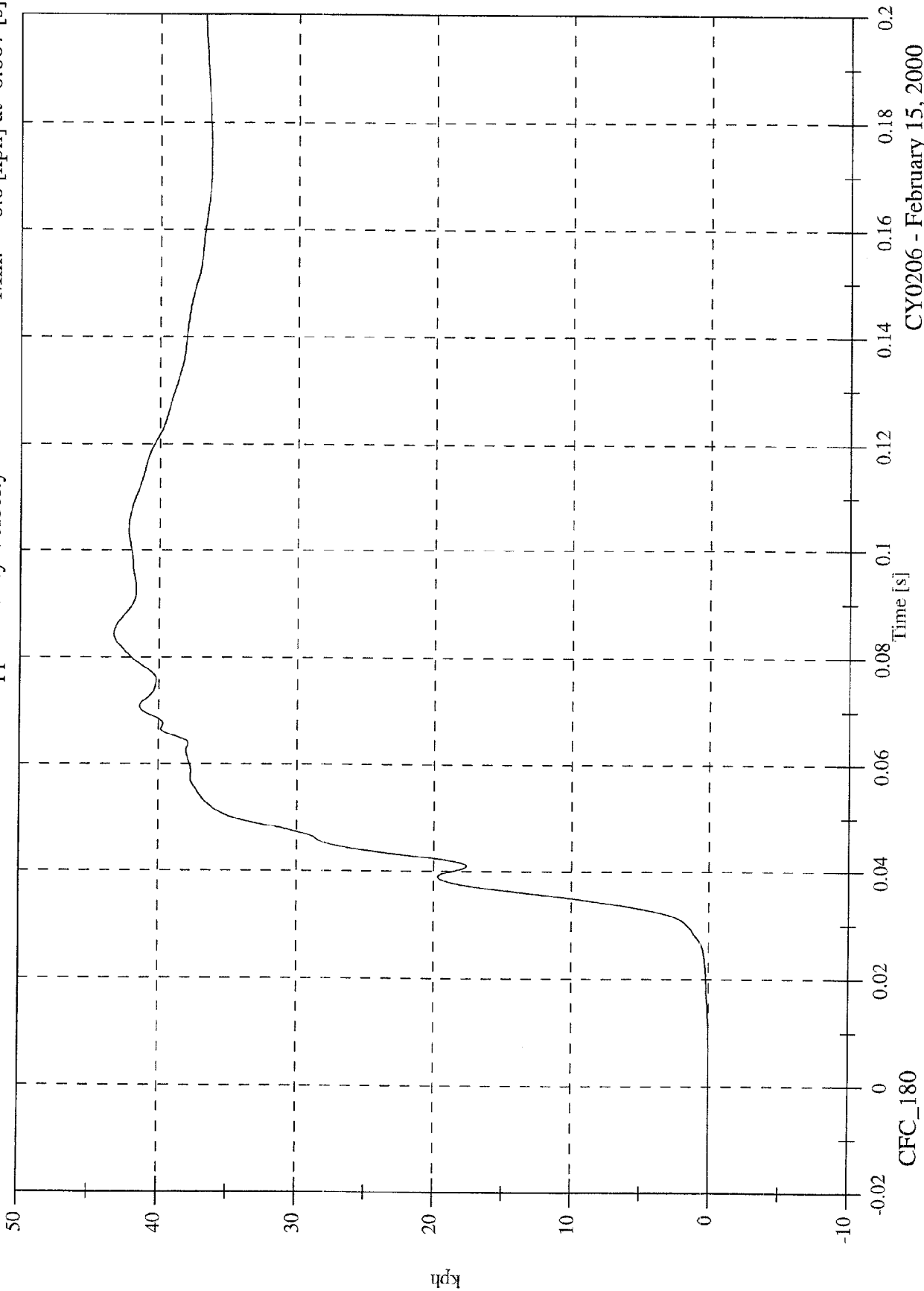


CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Upper Rib Ry Velocity

Max: 43.3 [kph] at 0.084 [s]

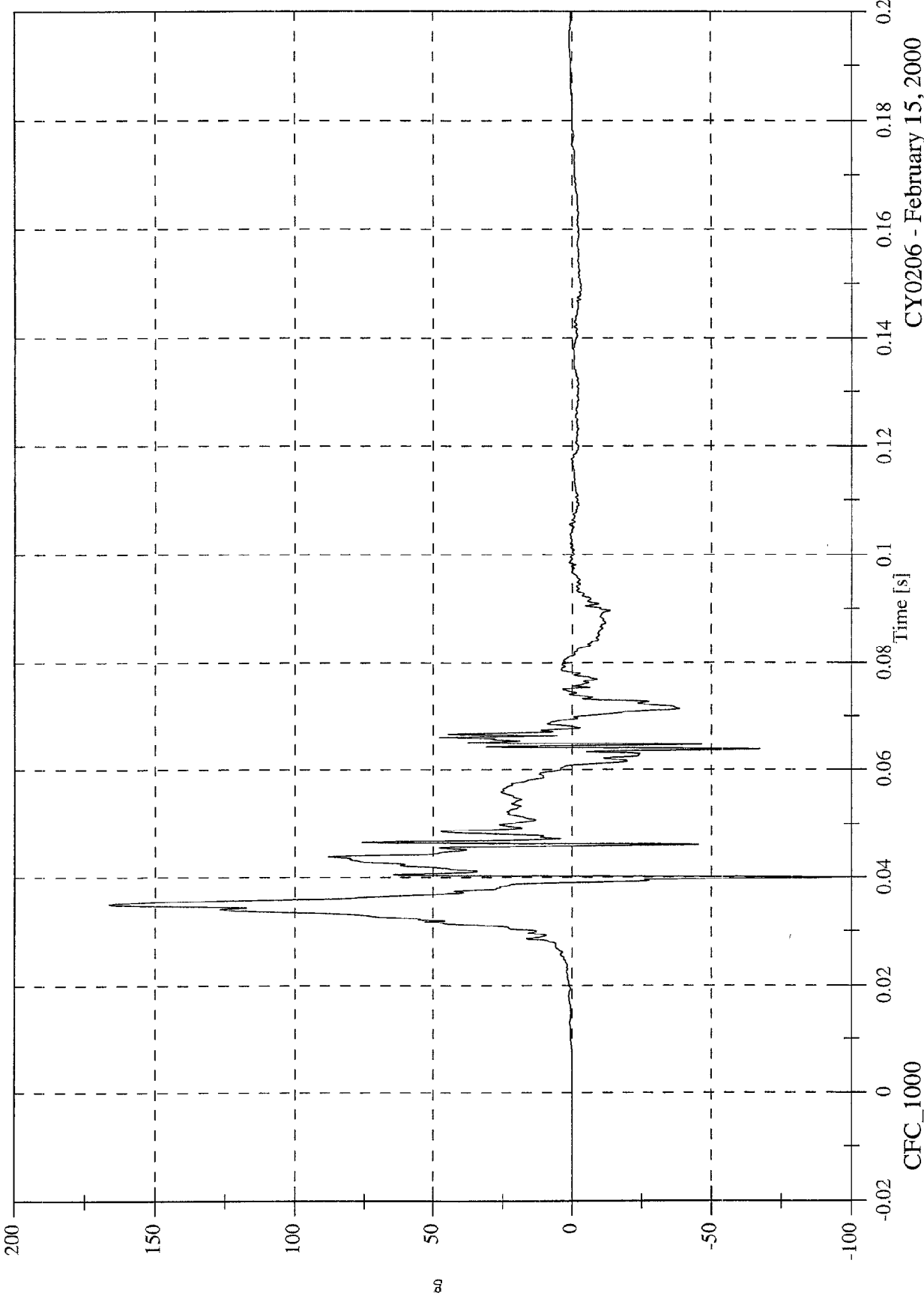
Min: -0.0 [kph] at -0.007 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Rib Ry

Max: 166.5 [g] at 0.035 [s]  
Min: -96.7 [g] at 0.040 [s]

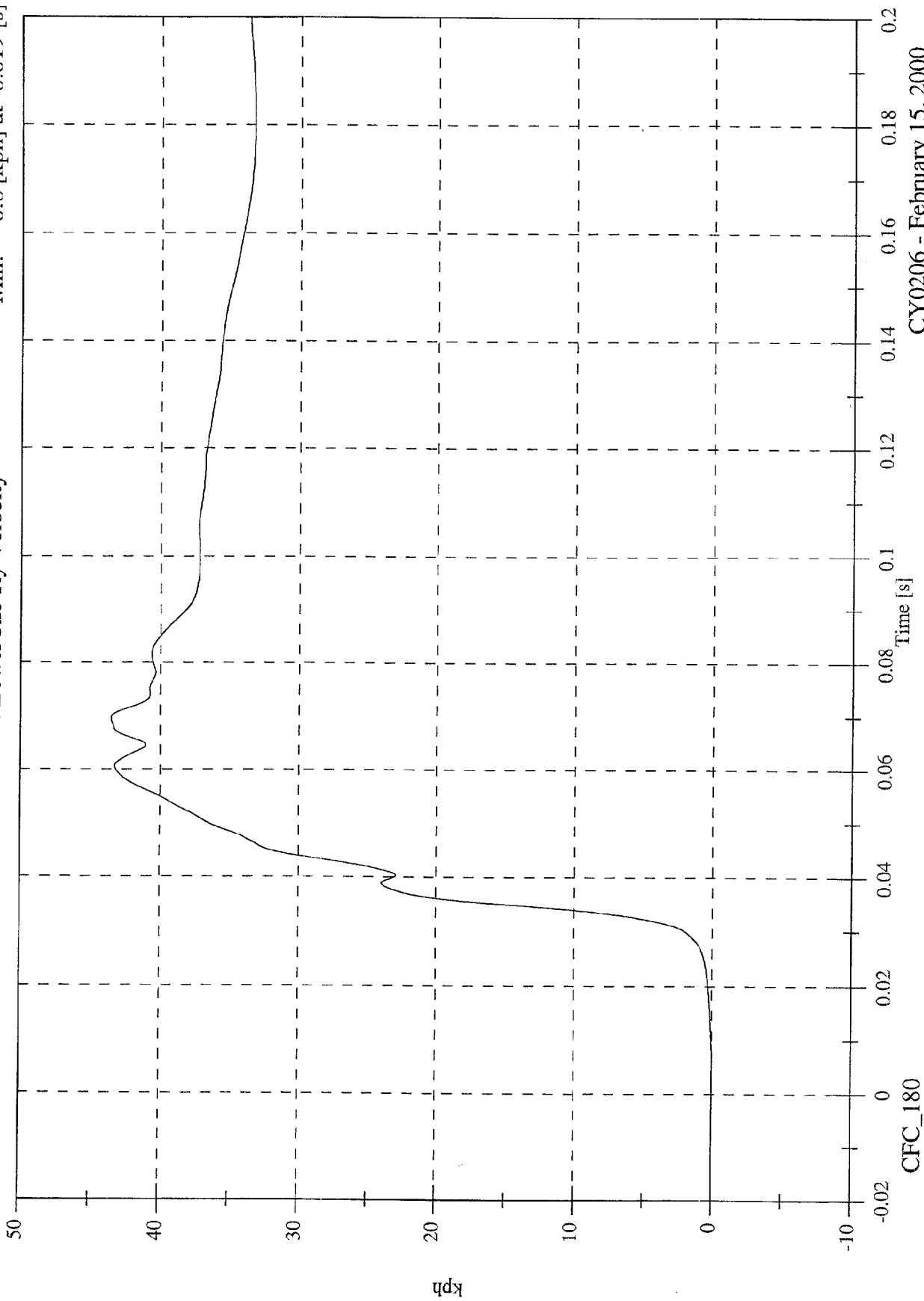


CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Rib Ry Velocity

Max: 43.5 [kph] at 0.070 [s]

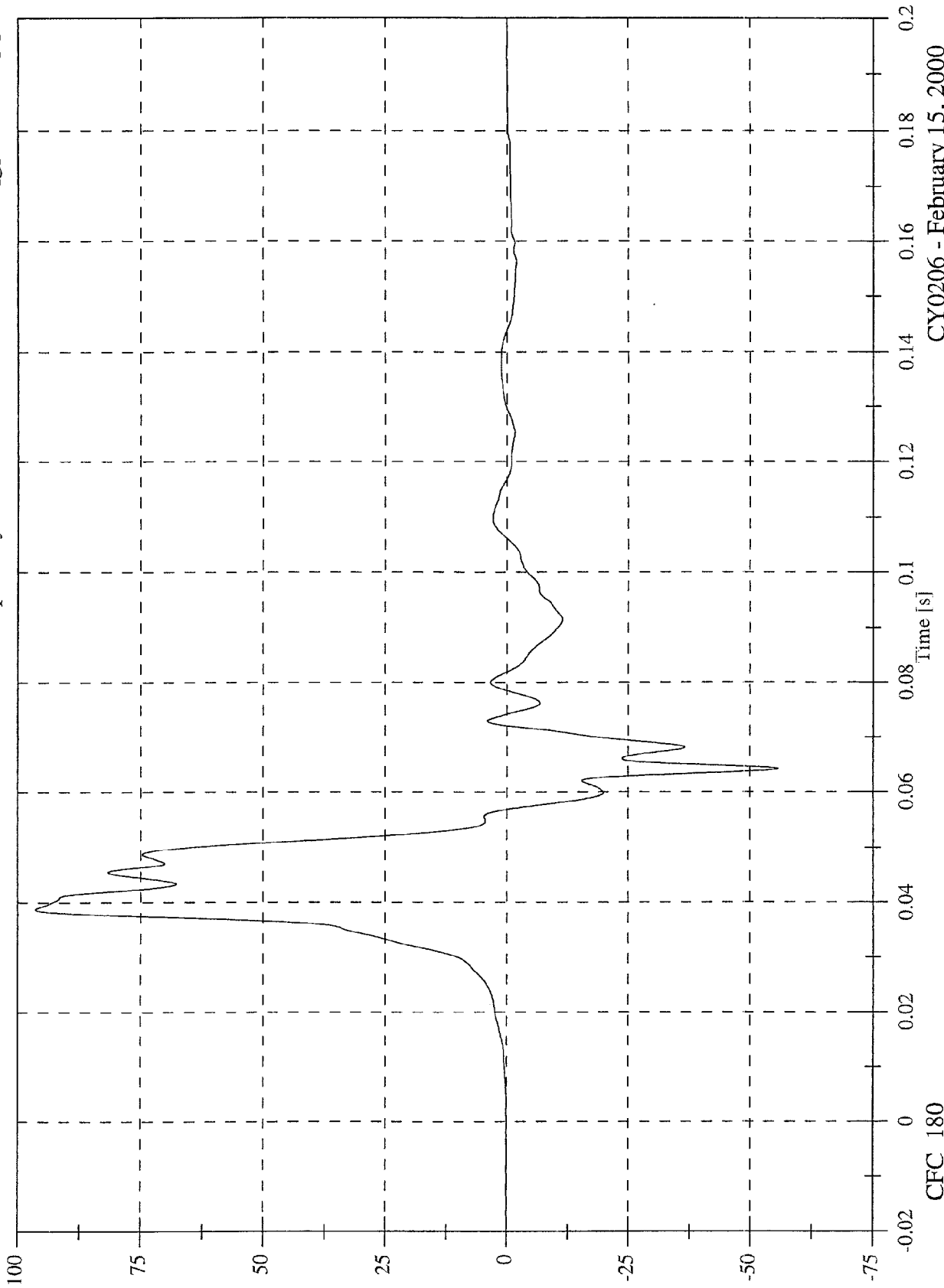
Min: -0.0 [kph] at -0.019 [s]



CY0206 - February 15, 2000

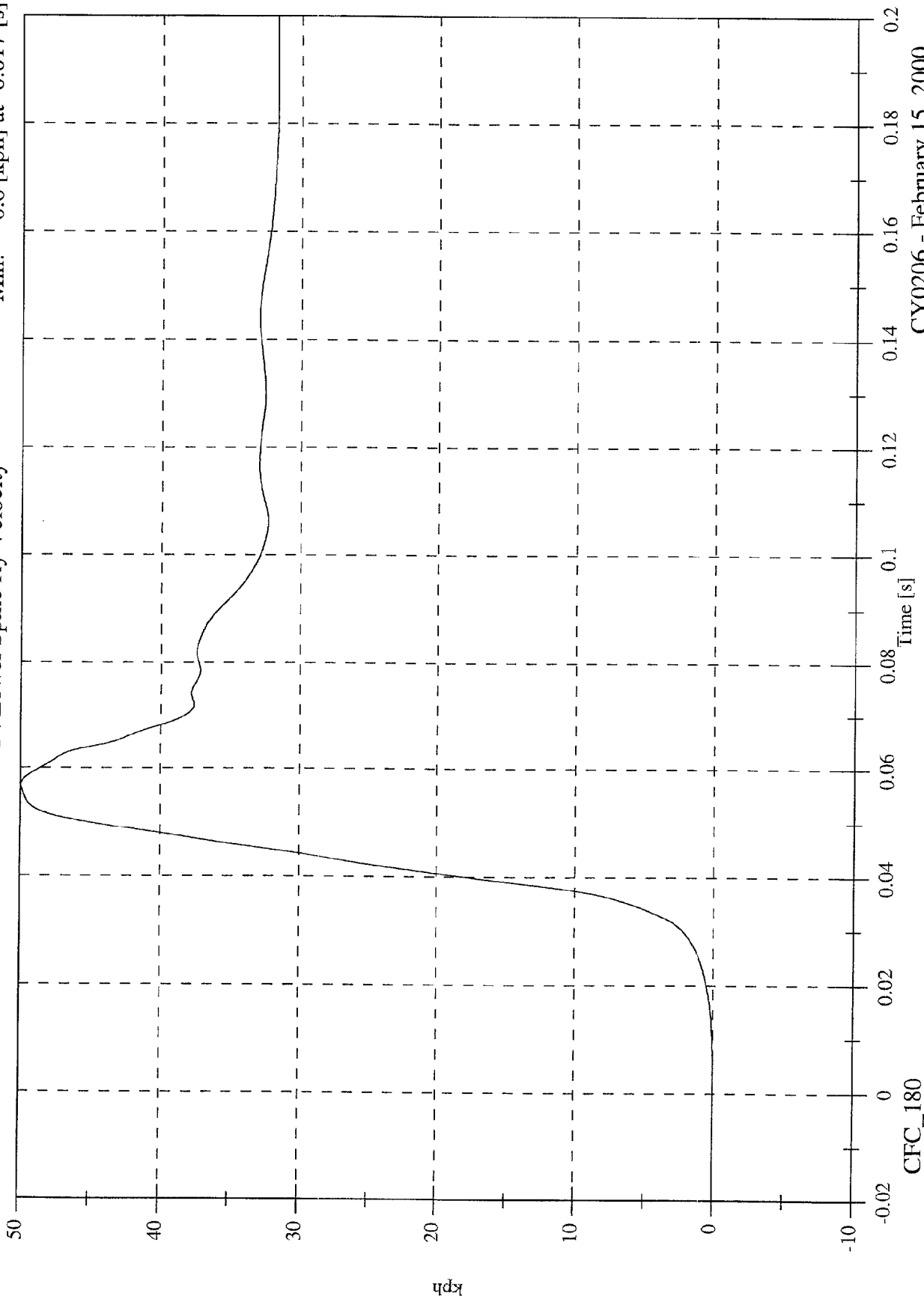
FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Spine Ry

Max: 96.3 [g] at 0.039 [s]  
Min: -55.7 [g] at 0.064 [s]



CY0206 - February 15, 2000

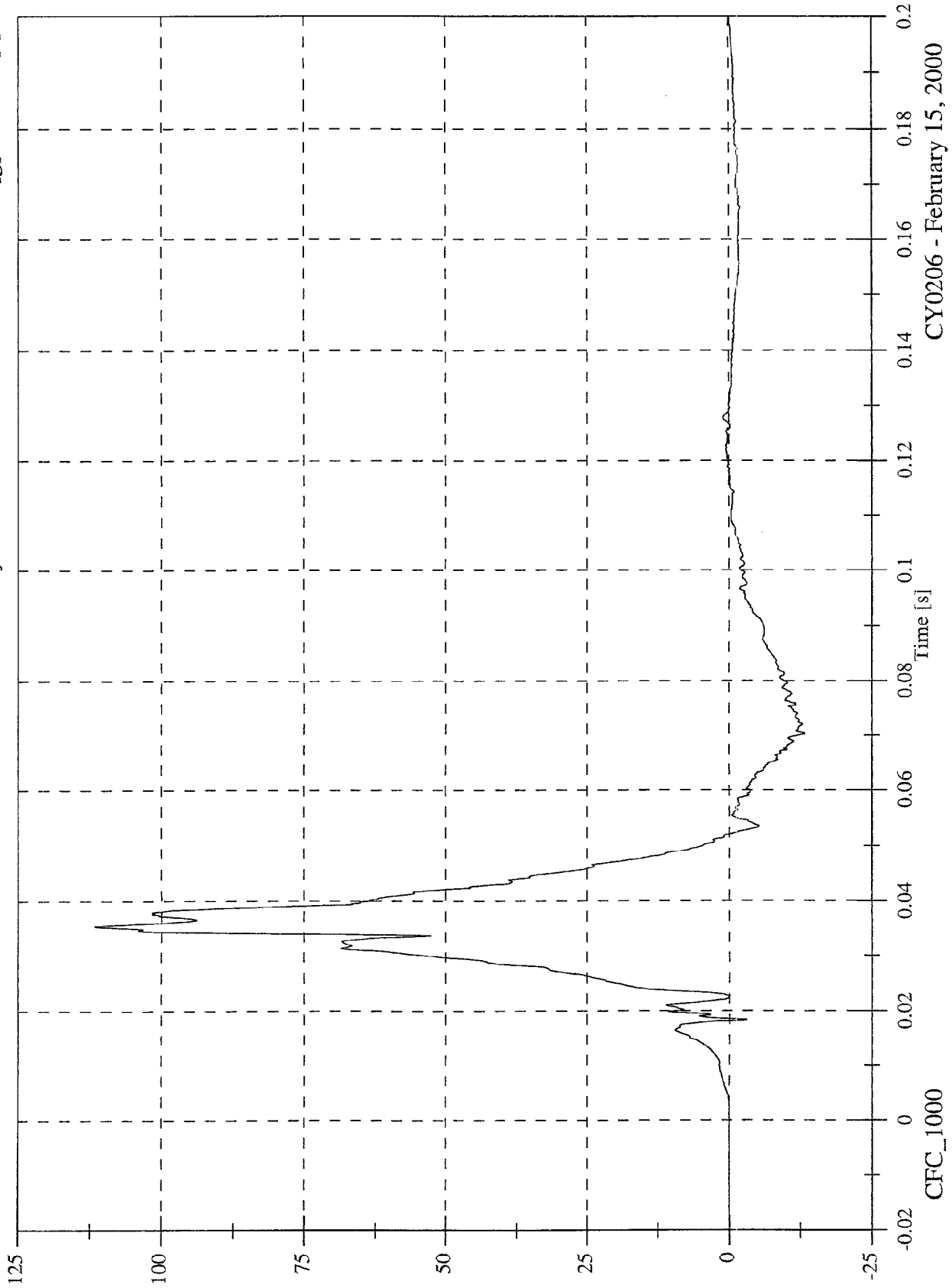
FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Spine Ry Velocity  
Max: 50.0 [kph] at 0.057 [s]  
Min: -0.0 [kph] at -0.017 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Pelvic Ry

Max: 111.6 [g] at 0.036 [s]  
Min: -13.3 [g] at 0.070 [s]

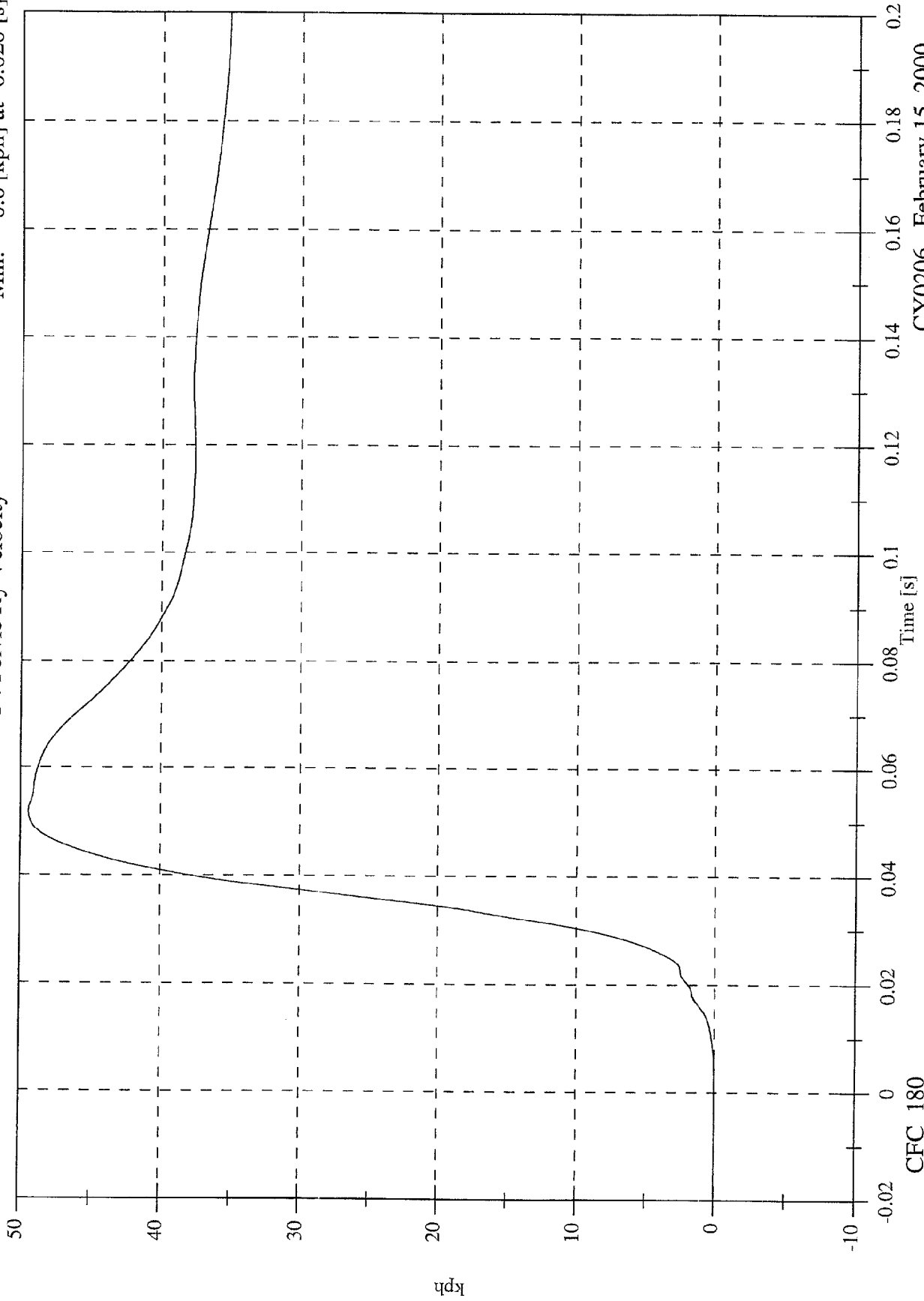


CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P4 Pelvic Ry Velocity

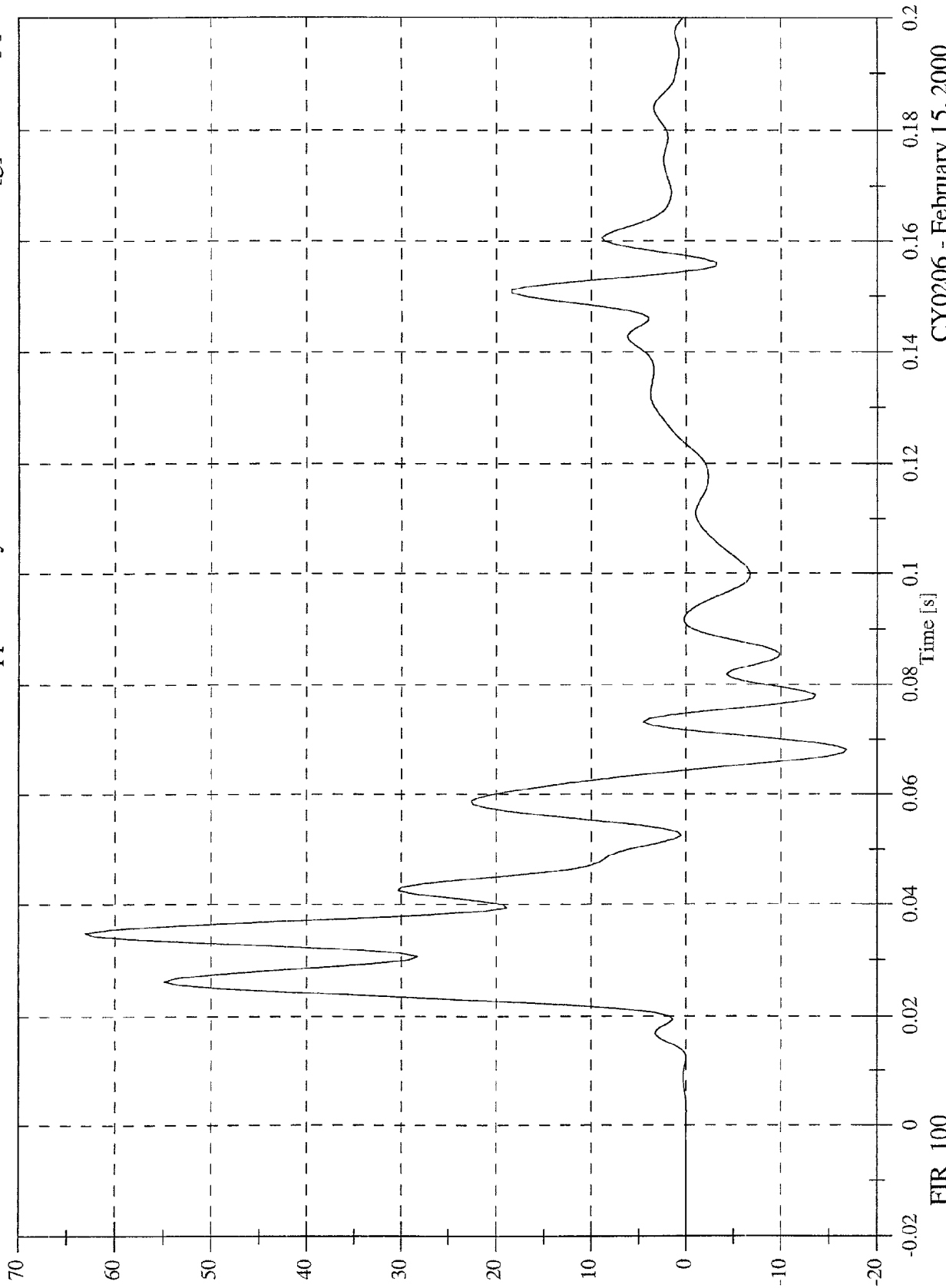
Max: 49.4 [kph] at 0.052 [s]  
Min: -0.0 [kph] at -0.020 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Upper Rib Ry

Max: 63.1 [g] at 0.035 [s]  
Min: -16.8 [g] at 0.068 [s]

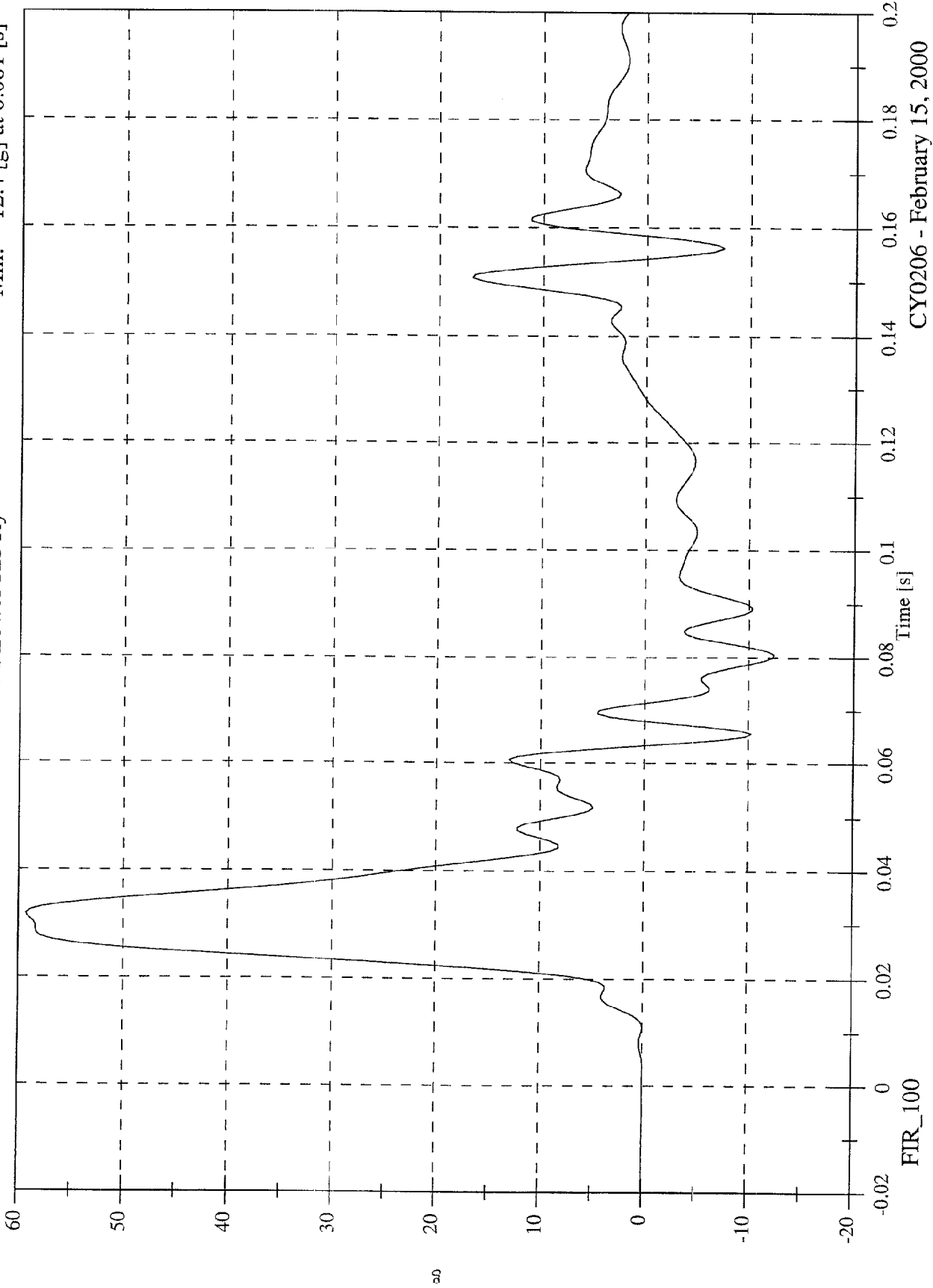


CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Lower Rib Ry

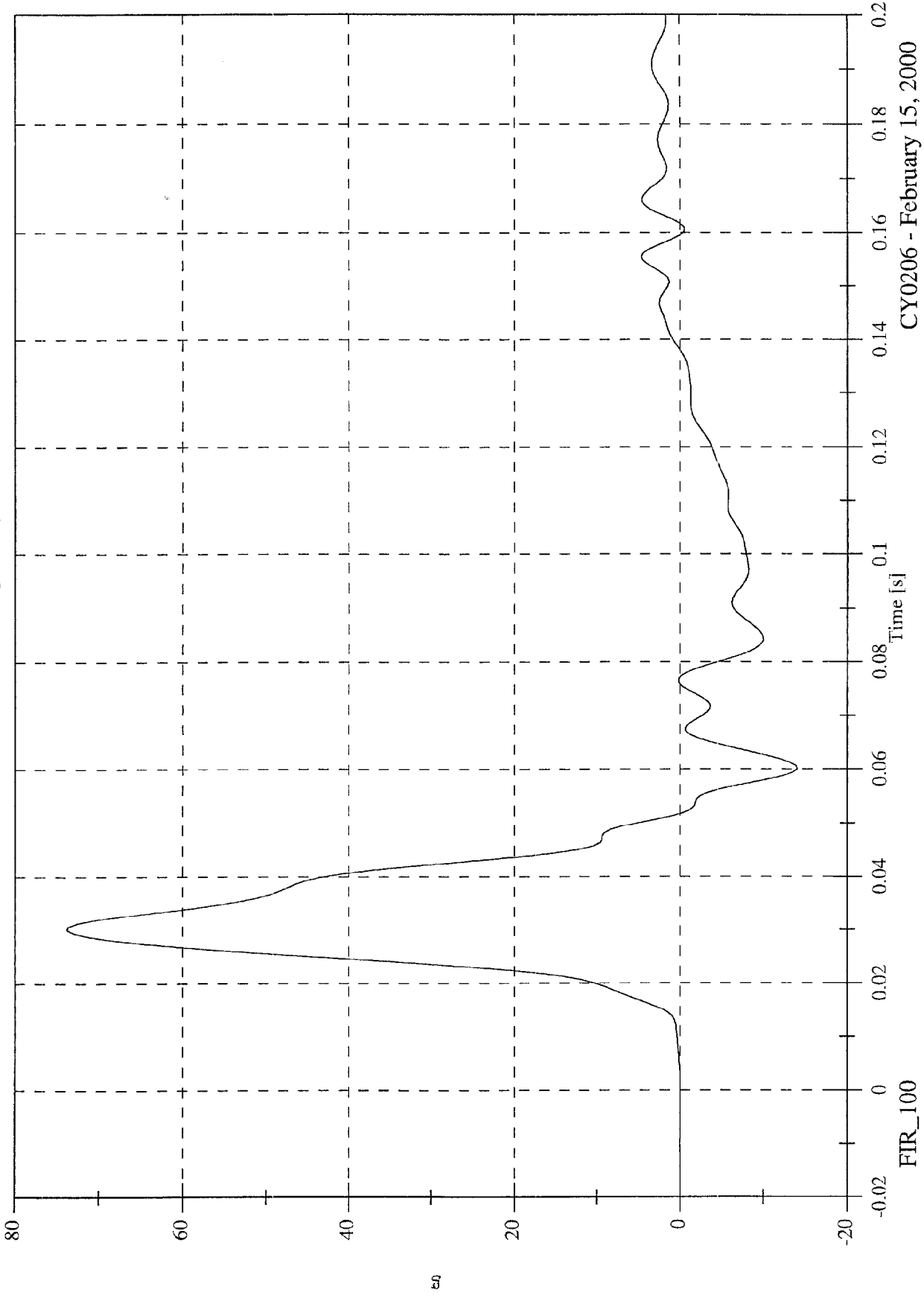
Max: 59.3 [g] at 0.032 [s]  
Min: -12.4 [g] at 0.081 [s]



CY0206 - February 15, 2000

FIMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P1 Lower Spine Ry

Max: 73.8 [g] at 0.030 [s]  
Min: -14.0 [g] at 0.060 [s]

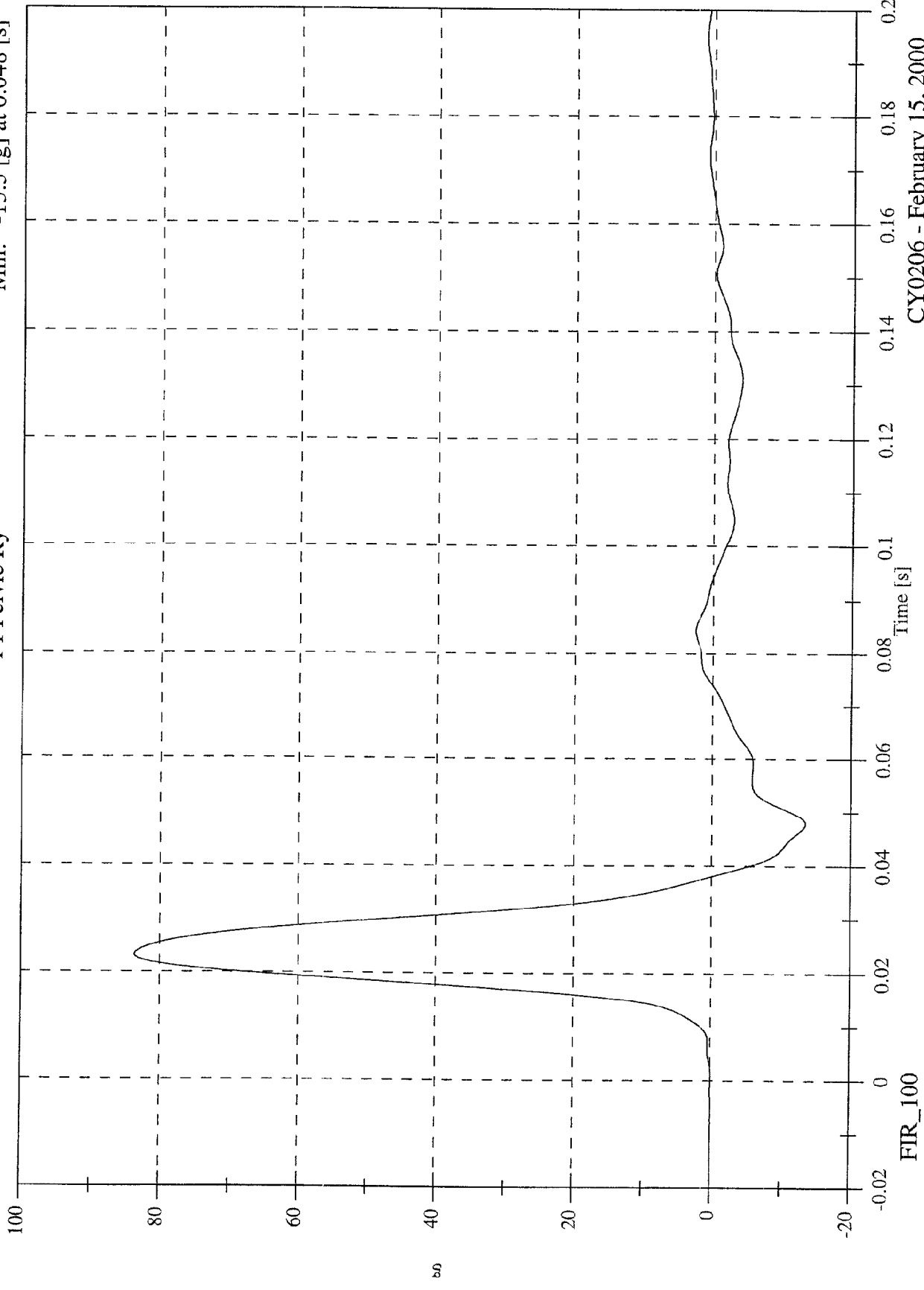


CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door

P1 Pelvic Ry

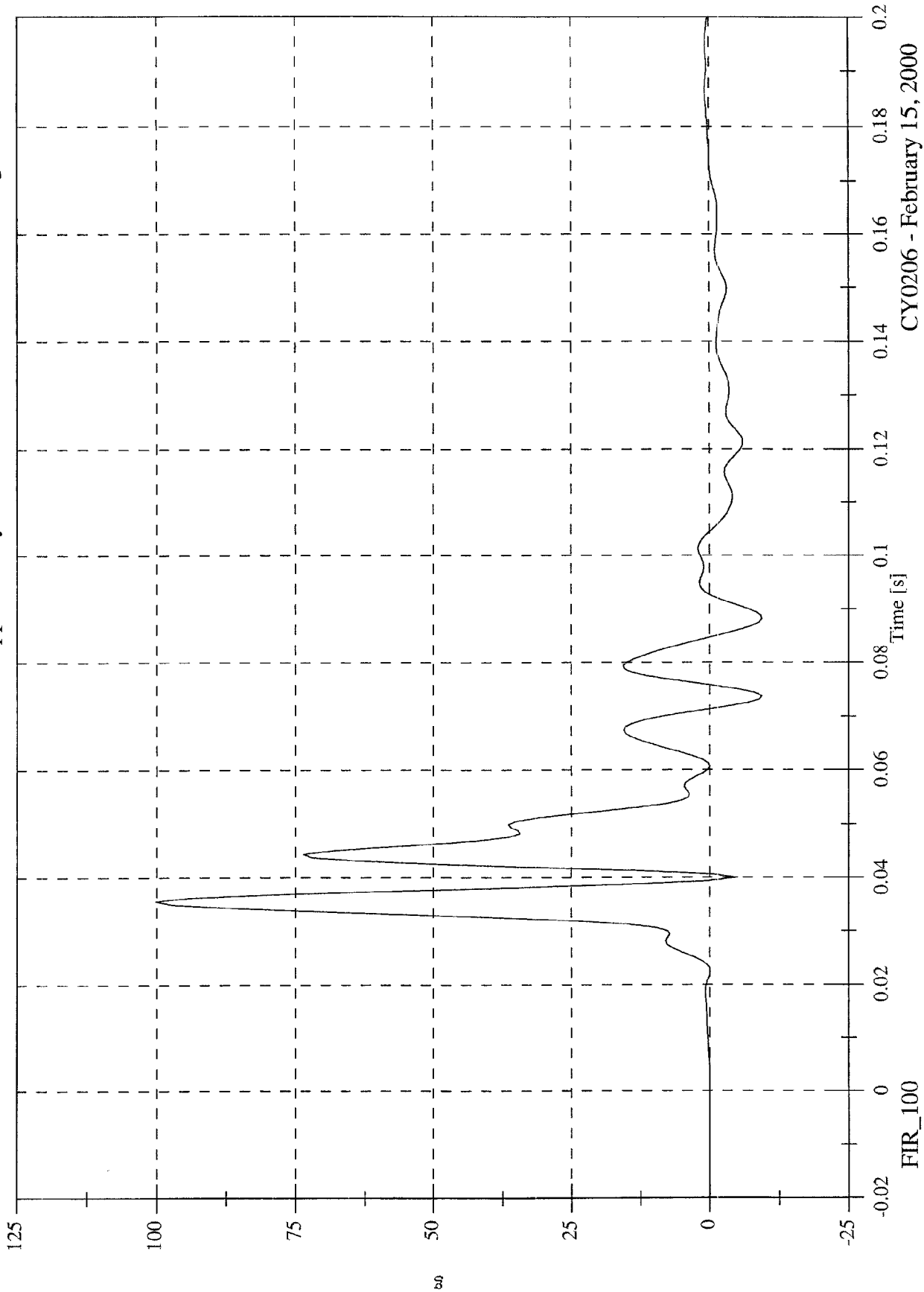
Max: 83.7 [g] at 0.023 [s]  
Min: -13.5 [g] at 0.048 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Upper Rib Ry

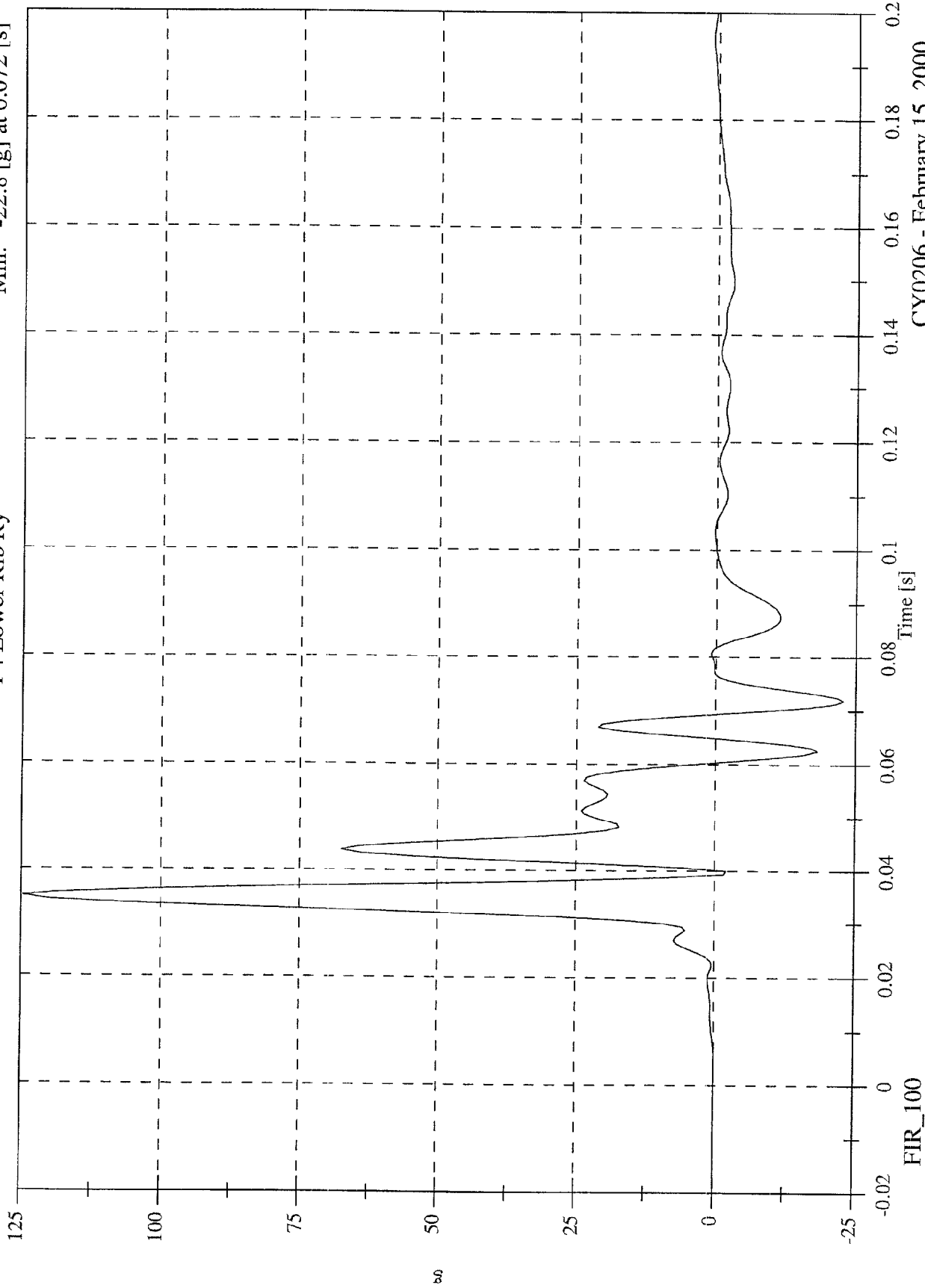
Max: 100.1 [g] at 0.036 [s]  
Min: -9.5 [g] at 0.074 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Rib Ry

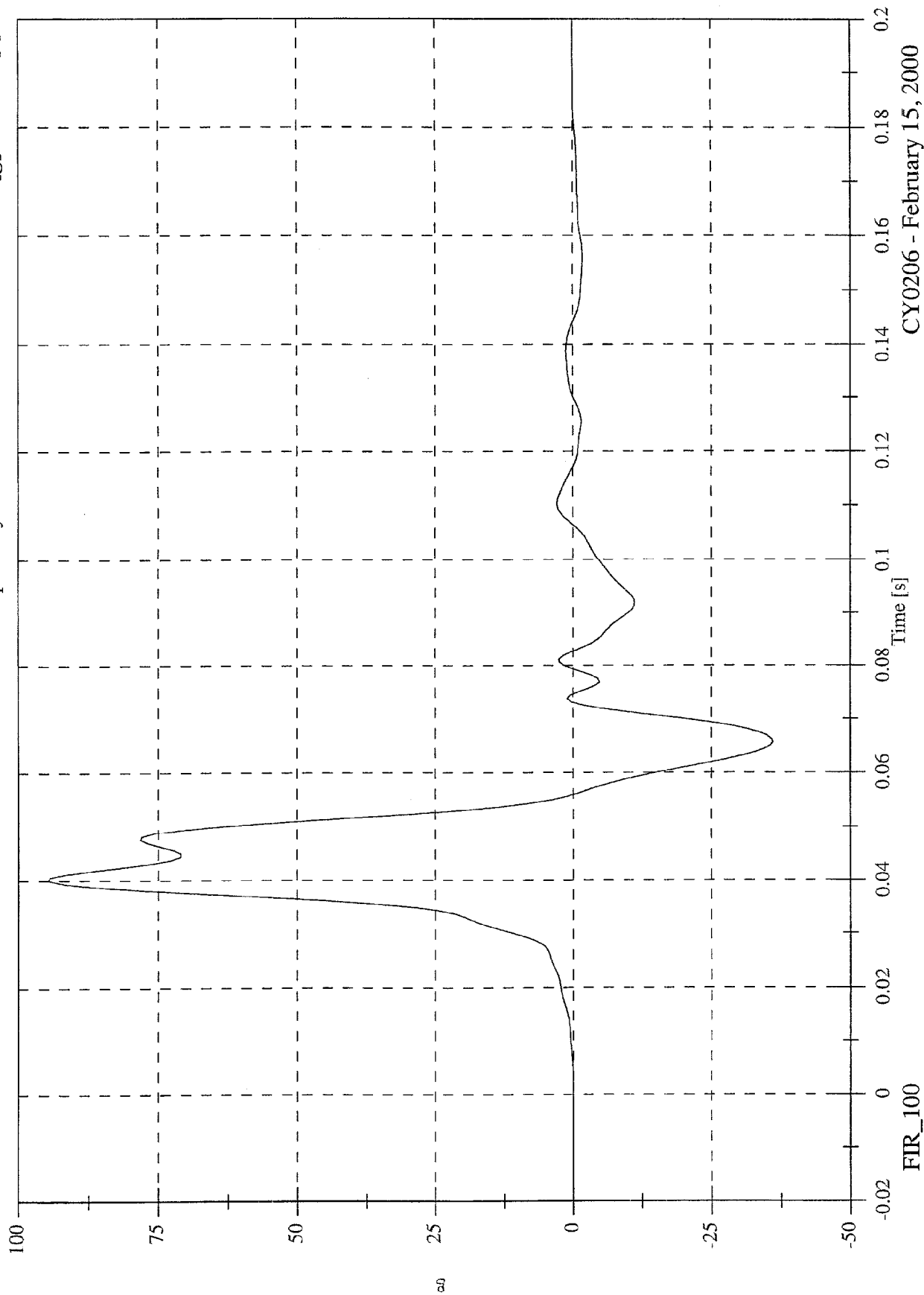
Max: 124.6 [g] at 0.035 [s]  
Min: -22.8 [g] at 0.072 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Lower Spine Ry

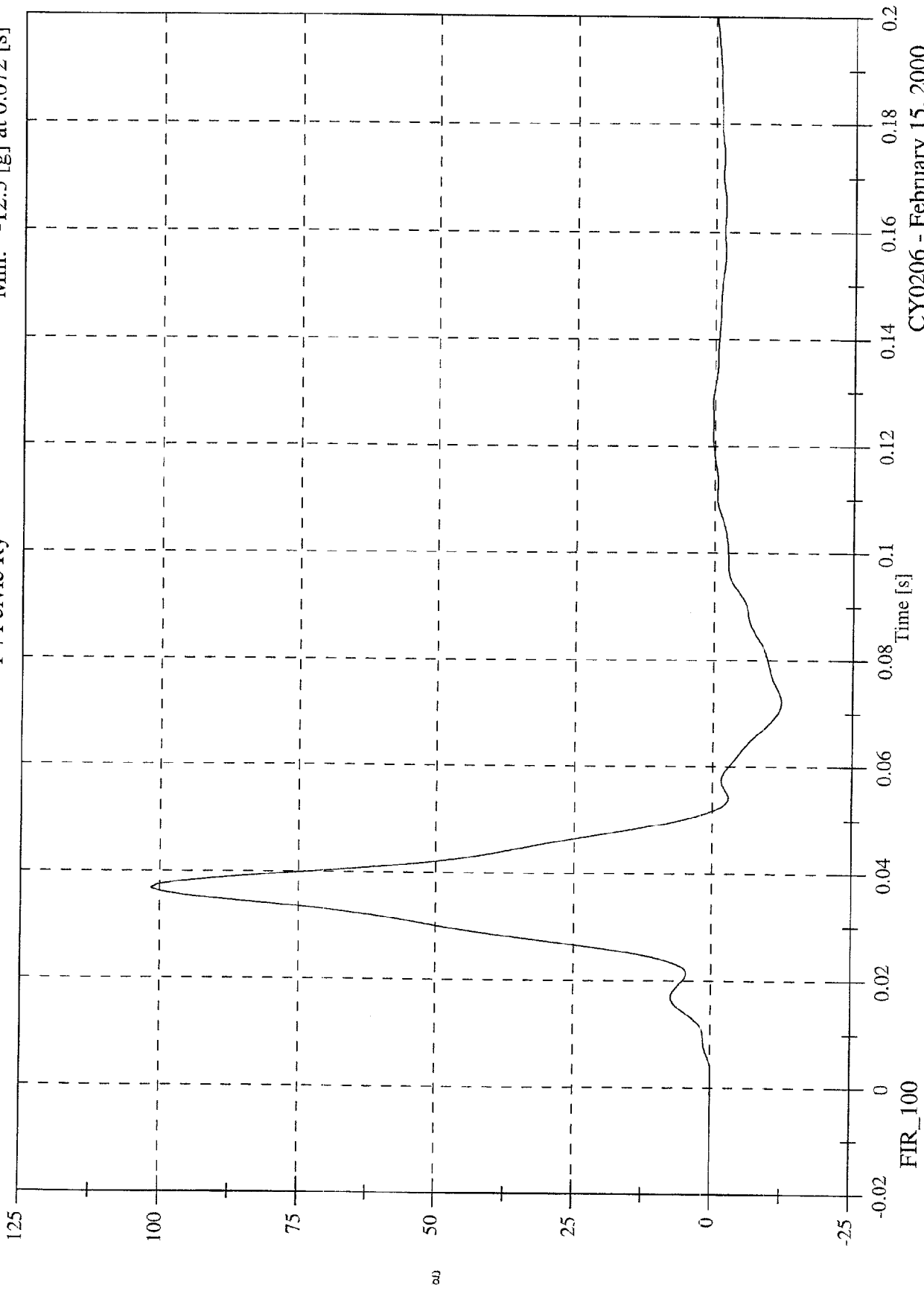
Max: 94.7 [g] at 0.040 [s]  
Min: -36.1 [g] at 0.066 [s]



CY0206 - February 15, 2000

FMVSS 214D Indicant Test #4 - 2000 Ford Focus Three Door  
P4 Pelvic Ry

Max: 101.6 [g] at 0.037 [s]  
Min: -12.3 [g] at 0.072 [s]



CY0206 - February 15, 2000

**APPENDIX C**

**SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA**

**SUMMARY  
SID PRE & POST TEST CALIBRATION**

**CONFIGURED FOR LEFT SIDE IMPACT**

Date: 2/1/2000, 2/9/2000; 2/28/2000

Sequential Test Number:

1, 2; 2,3

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID NO.: 016		SID NO.: 268	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	902	902	899	899
RH- Rib Height (mm)	501 - 521	514	513	513	513
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	239	239	235	236
KV- Knee Pivot from Back Line (mm)	511 - 526	526	526	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	494	494	495	495
HW- Hip Width (mm)	356 - 391	361	362	376	376
<b>THORAX IMPACTS</b>					
TEMPERATURE (°C)	18.9 - 25.5	21.7	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	31	29	30	29
PROBE SPEED (m/s)	4.27 - 4.33	4.30	4.31	4.33	4.29
UPPER RIB (g's)	37 - 46	42.6	40.2	38.3	38.6
LOWER RIB (g's)	37 - 46	42.2	41.3	38.0	37.2
LOWER SPINE (g's)	15 - 22	21.7	21.1	19.1	19.2
<b>PELVIS IMPACT</b>					
TEMPERATURE (°C)	18.9 - 25.5	21.7	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	31	29	30	29
PROBE SPEED (m/s)	4.27 - 4.33	4.31	4.30	4.27	4.28
PELVIS (g's)	40 - 60	54.5	46.4	52.4	54.0

**REMARKS:** None

**CALIBRATION TEST RESULTS  
PRE-TEST**

**SID NO.: 016**

**CONFIGURED FOR LEFT SIDE IMPACT**

**CALIBRATION TEST RESULTS SUMMARY  
PRE-TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 1  
Date: February 1, 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.: 016 Sequential Test Number: 1  
Date: February 1, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	514
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	526
KV- Knee Pivot to Floor (mm)	490 - 505	494
HW- Hip Width (mm)	356 - 391	361

**REMARKS:** None

**THORACIC SHOCK ABSORBER TESTS  
PRE-TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 1

Date: February 1, 2000 Laboratory Technician: B. Swiecicki

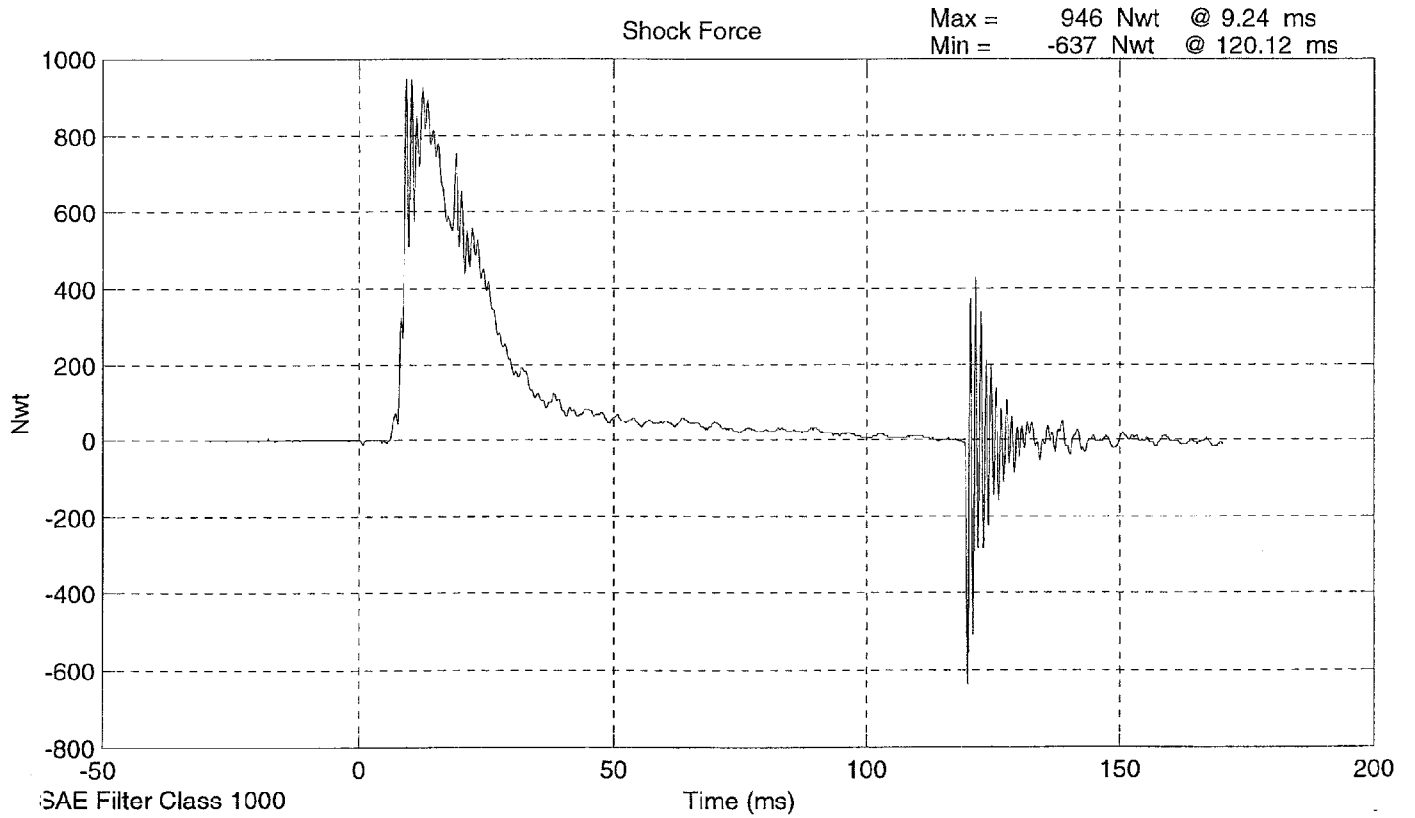
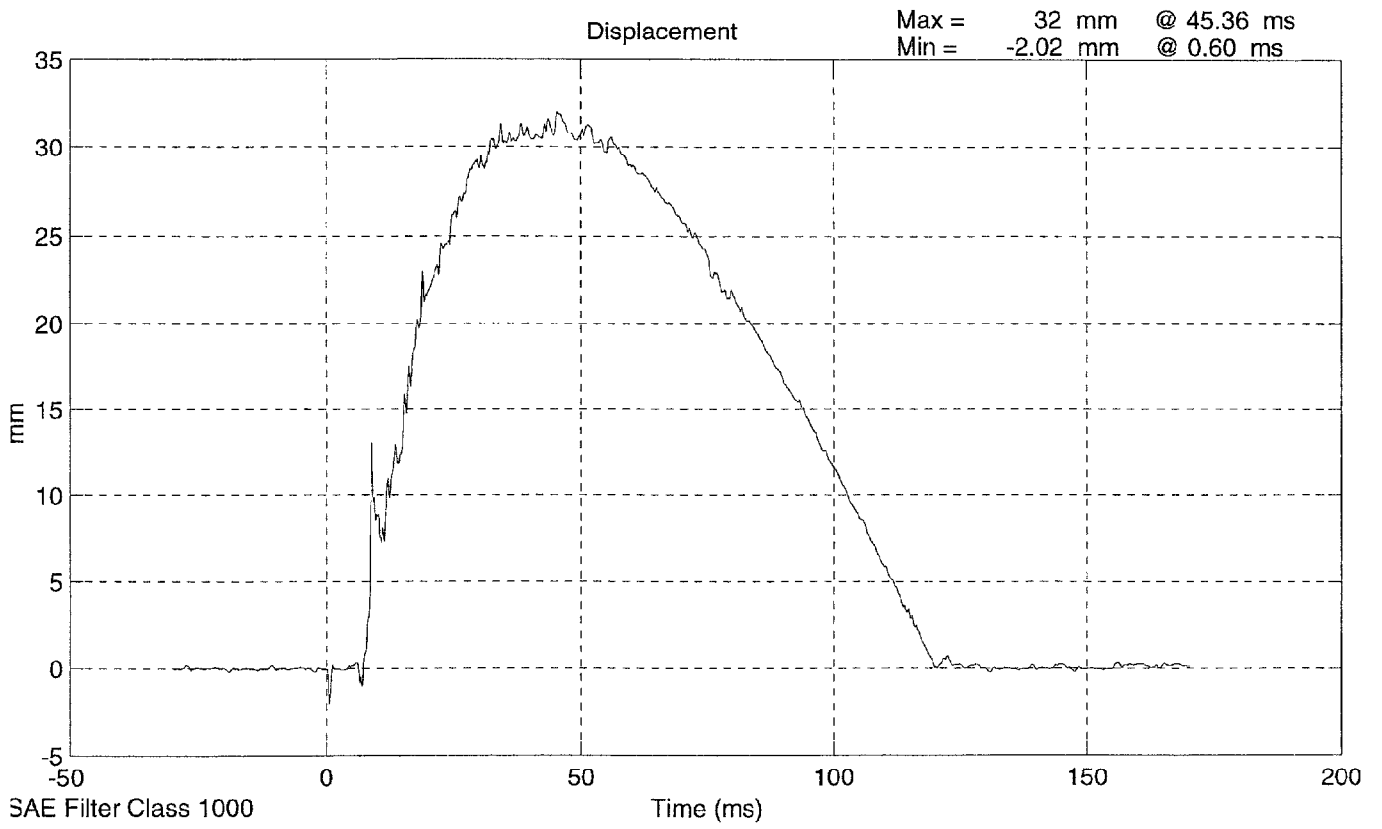
DAMPER IDENTIFICATION: 016

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)		18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)		10 - 70	31
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	946.4
	DISPLACEMENT (mm)	30 - 35	32.0
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1798.6
	DISPLACEMENT (mm)	32 - 37	34.6
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	3836.7
	DISPLACEMENT (mm)	33 - 40	35.9

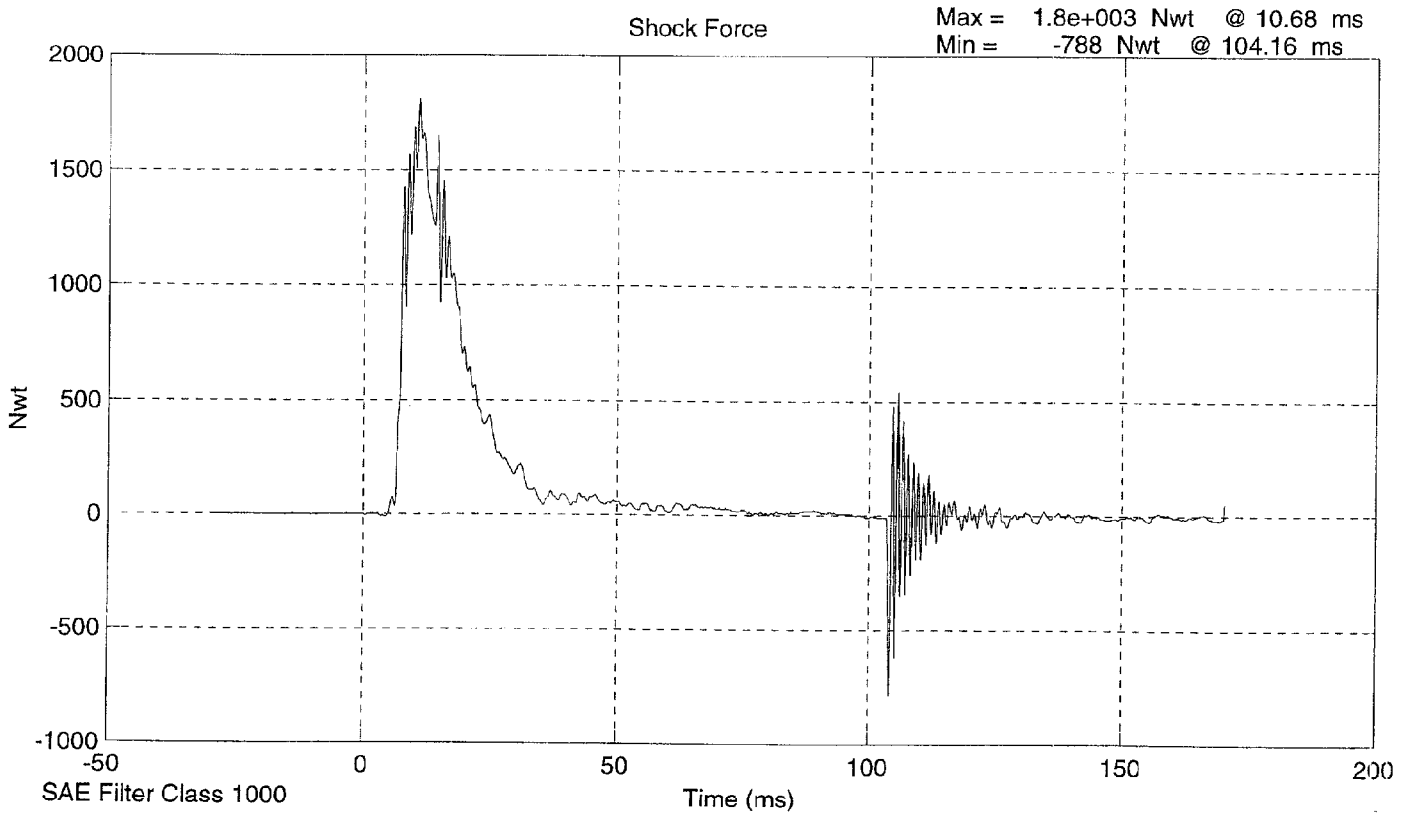
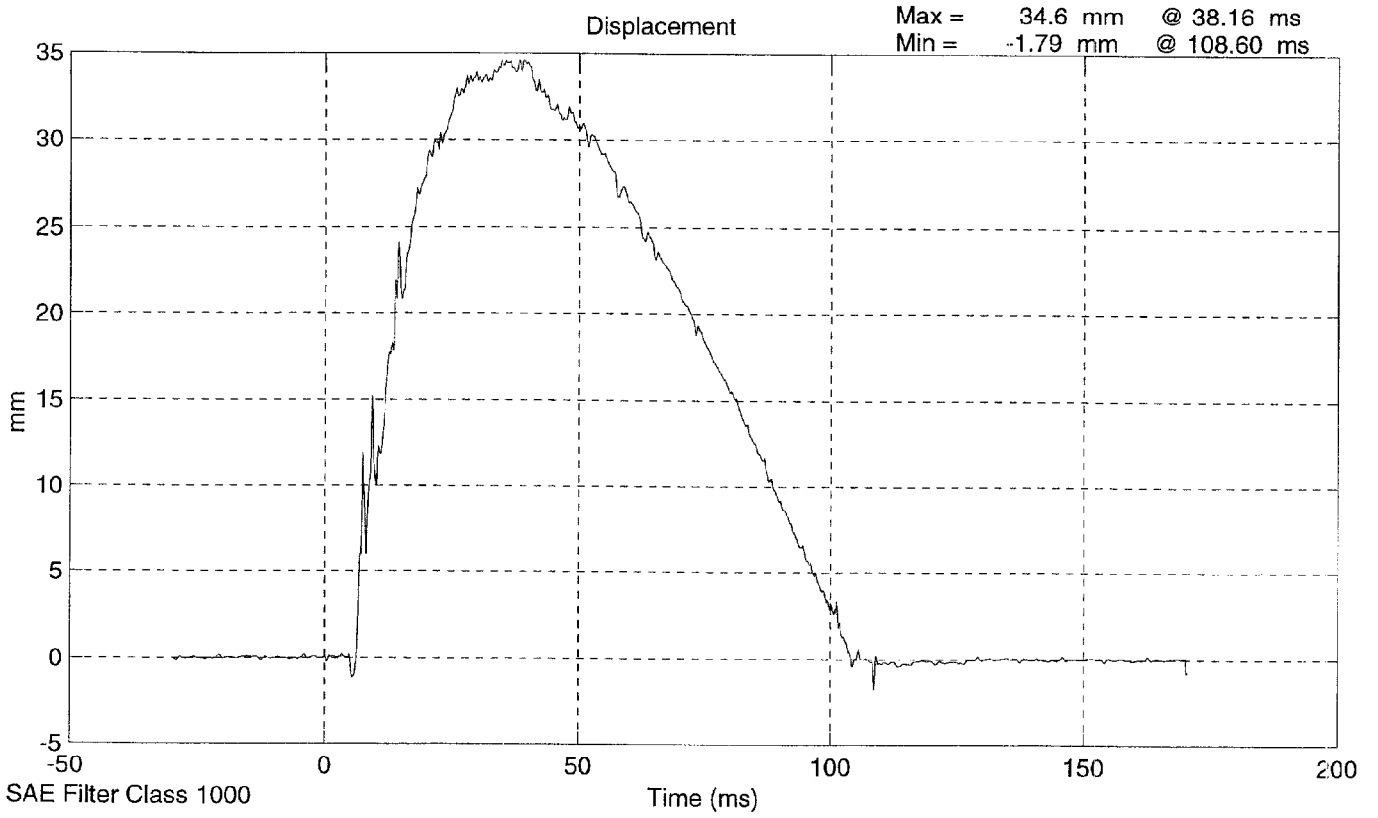
DAMPER SETTING: 5

REMARKS: None

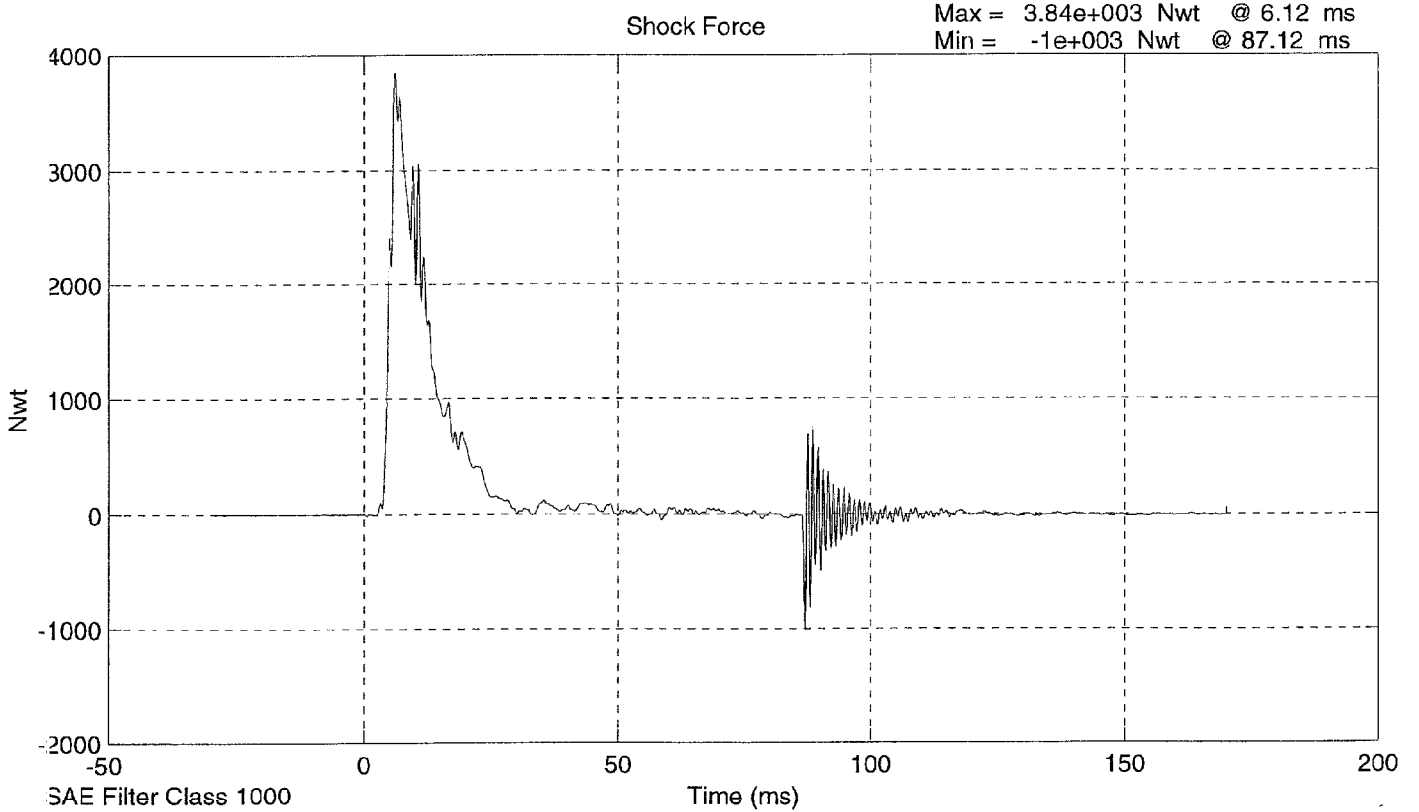
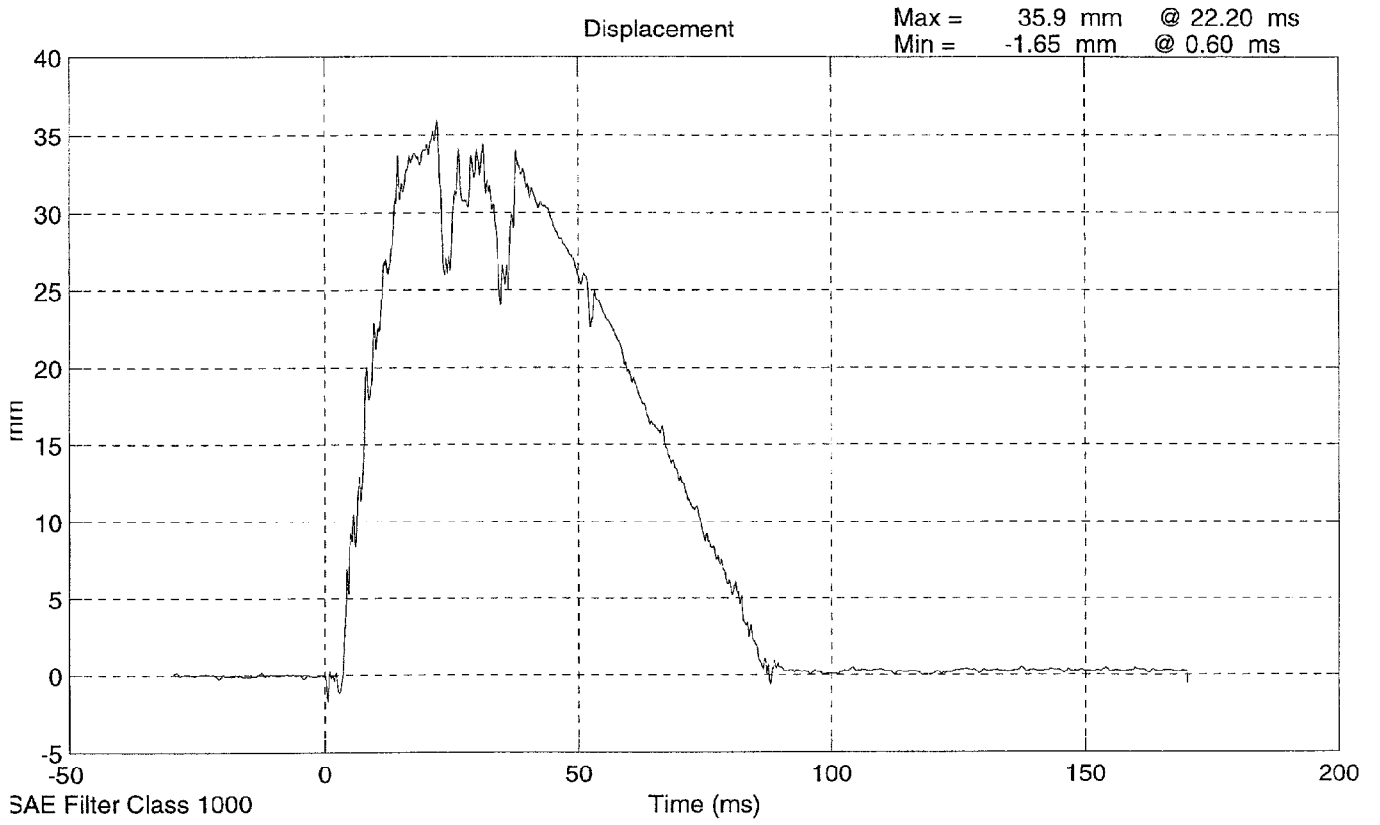
SID 016 Shock Absorber Impact Test @ 3.048 m/s



SID 016 Shock Absorber Impact Test @ 4.2672 m/s



SID 016 Shock Absorber Impact Test @ 6.096 m/s



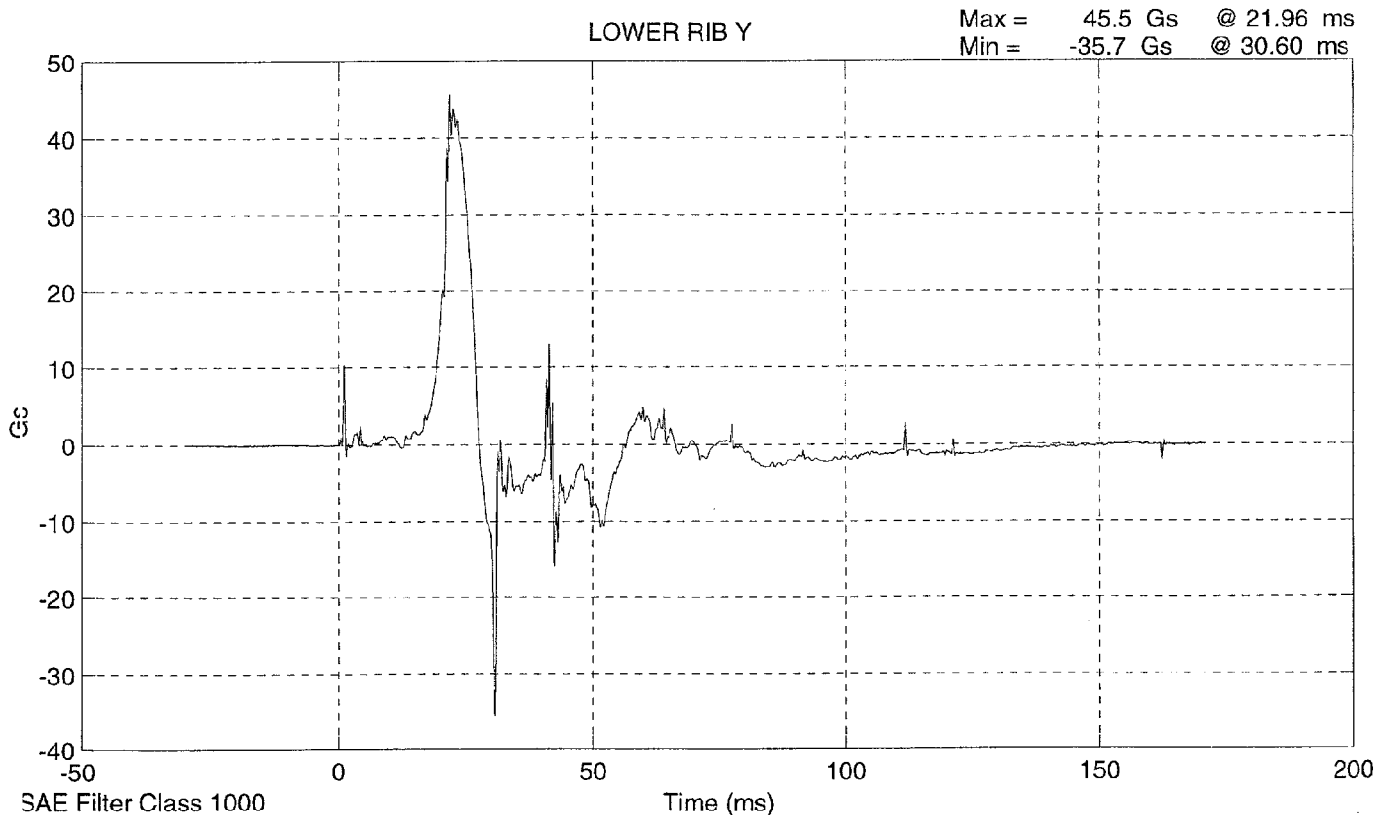
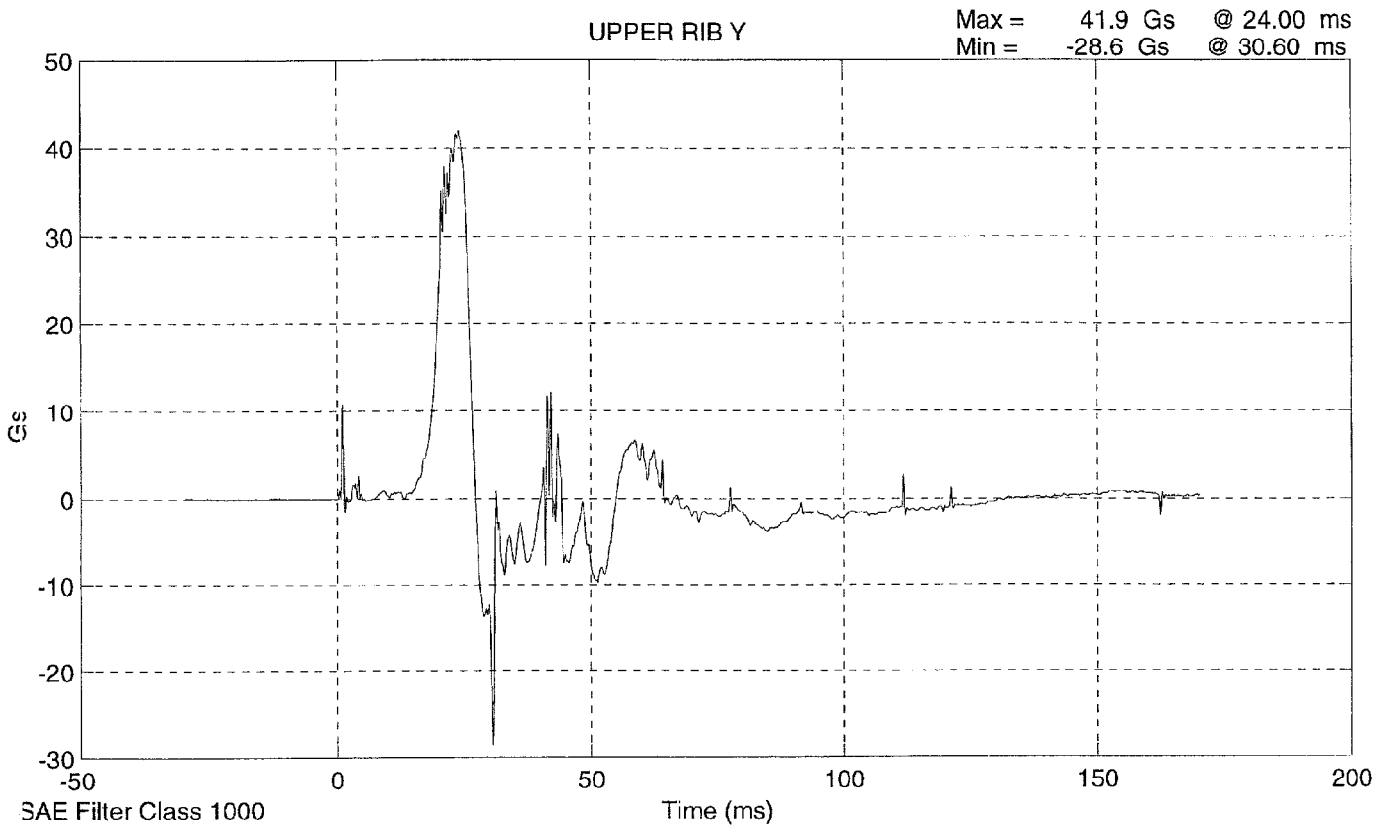
**LATERAL THORAX IMPACT TEST  
PRE-TEST**

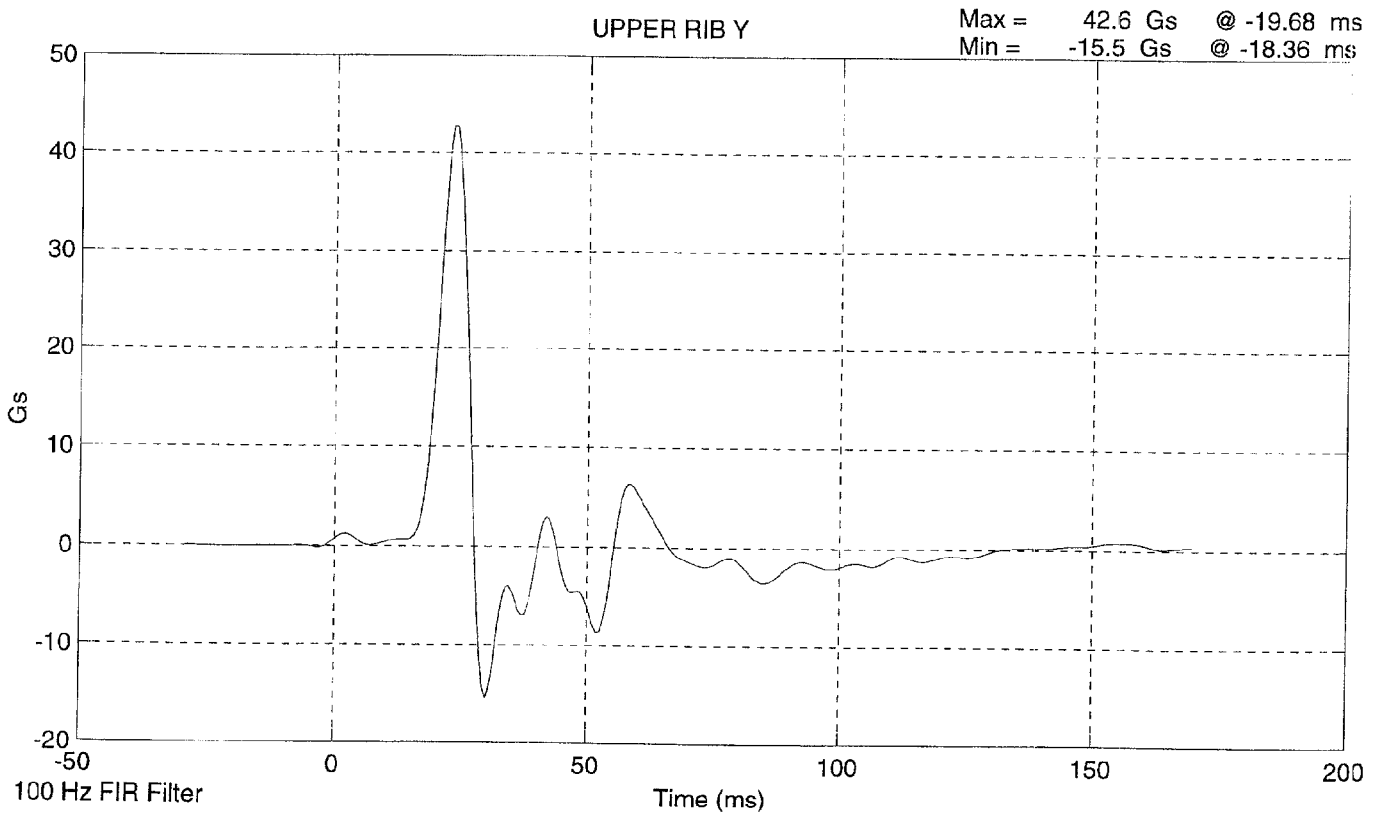
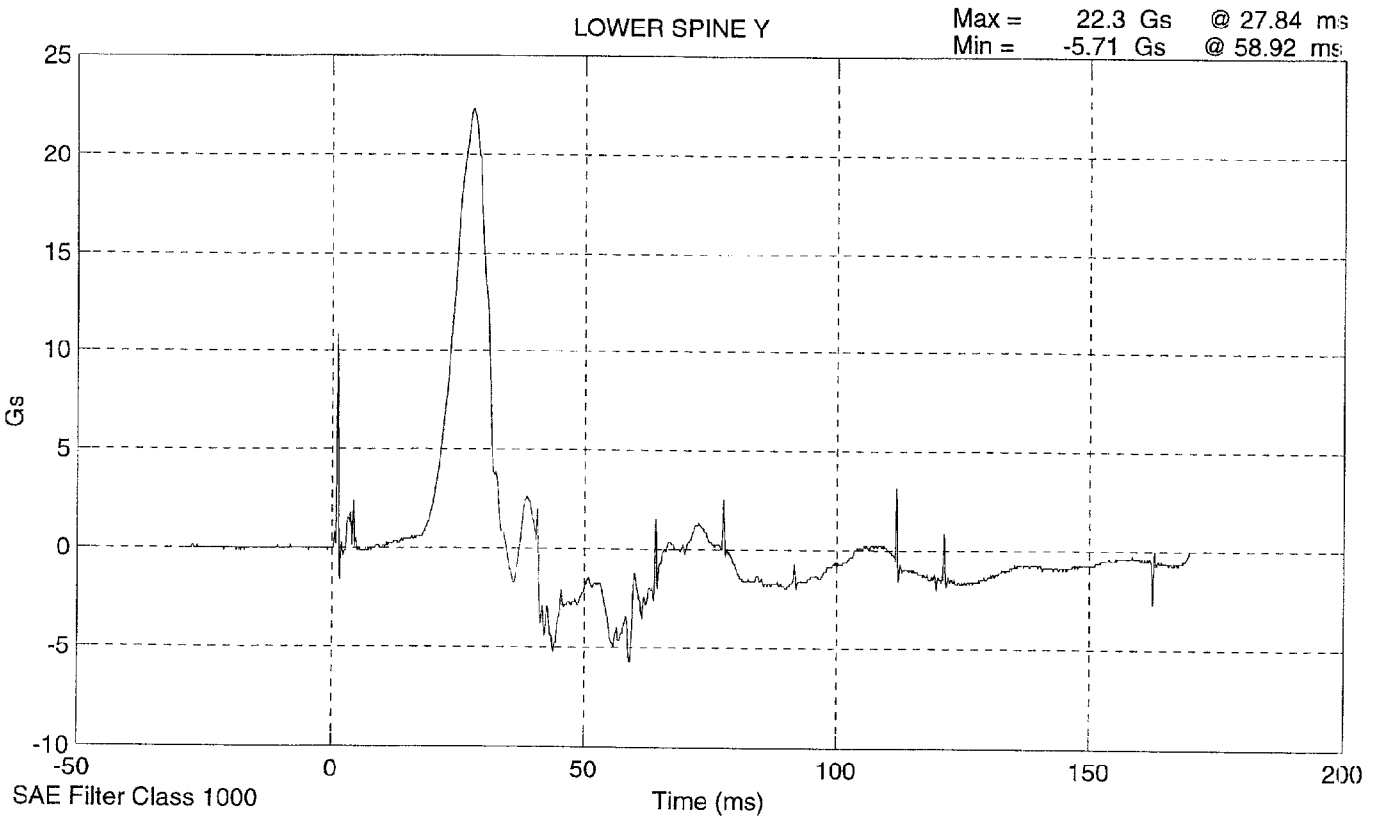
**CONFIGURED FOR LEFT SIDE IMPACT**

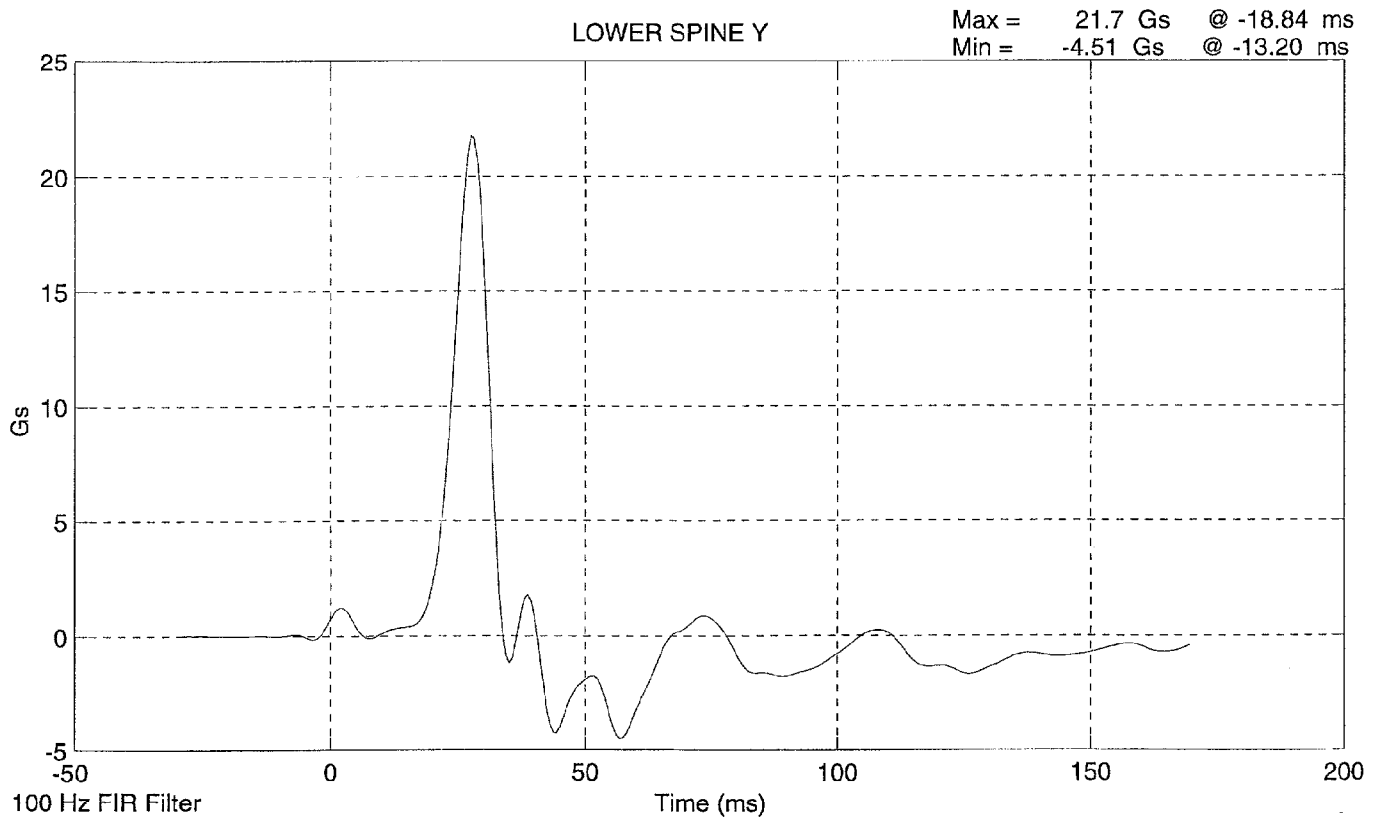
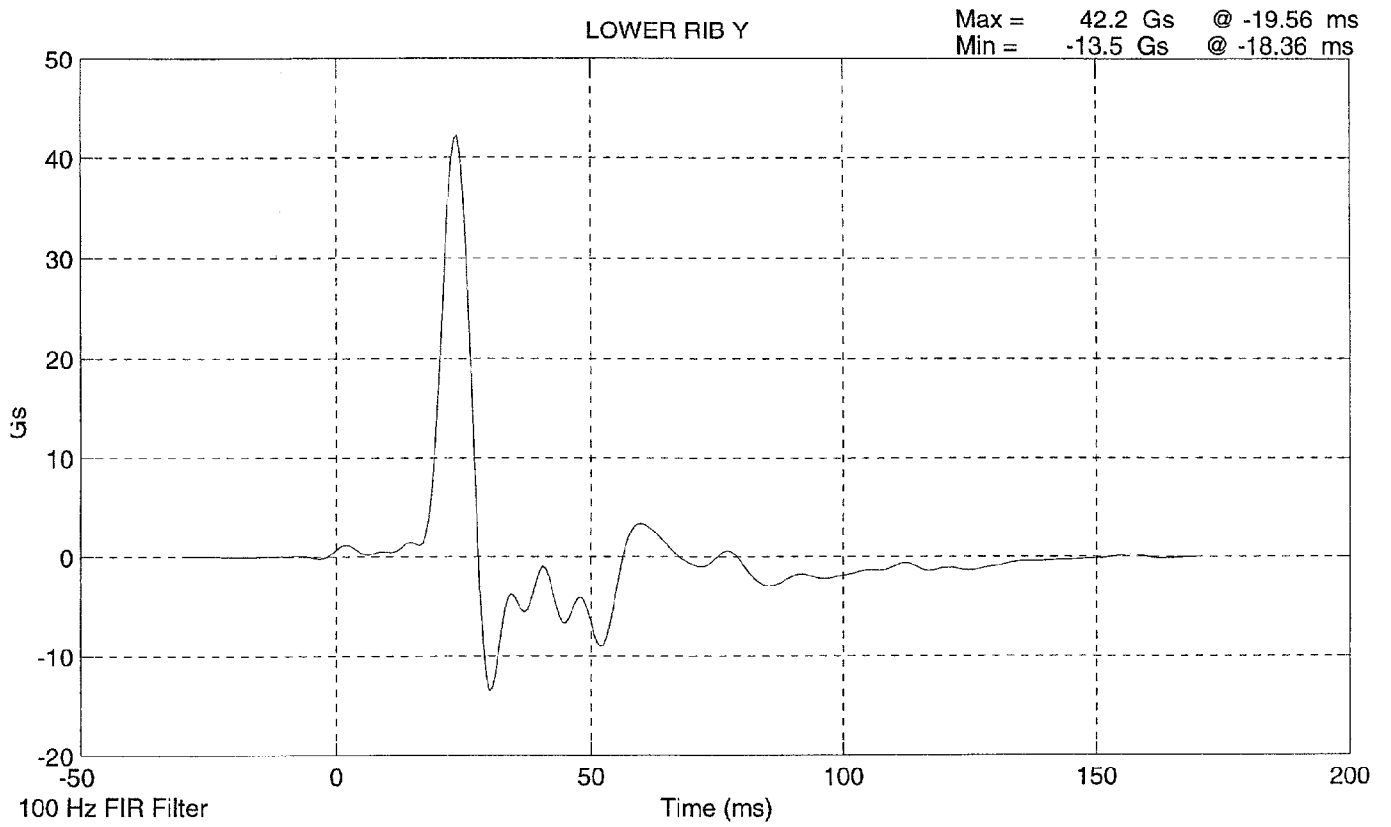
SID Serial No.: 016 Sequential Test Number: 1  
Date: February 1, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.30
UPPER RIB (g's)	37 - 46	42.6
LOWER RIB (g's)	37 - 46	42.2
LOWER SPINE (g's)	15 - 22	21.7

REMARKS: None







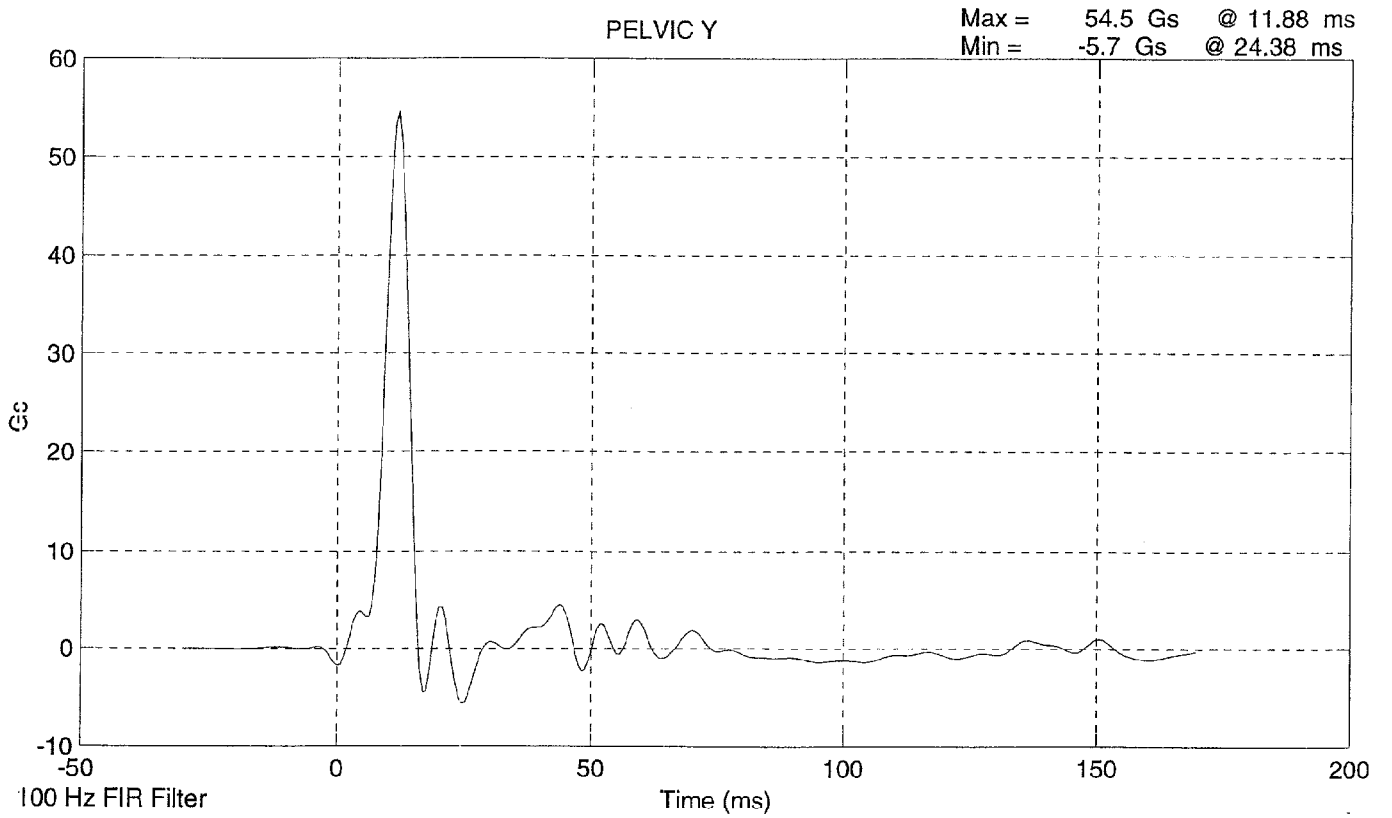
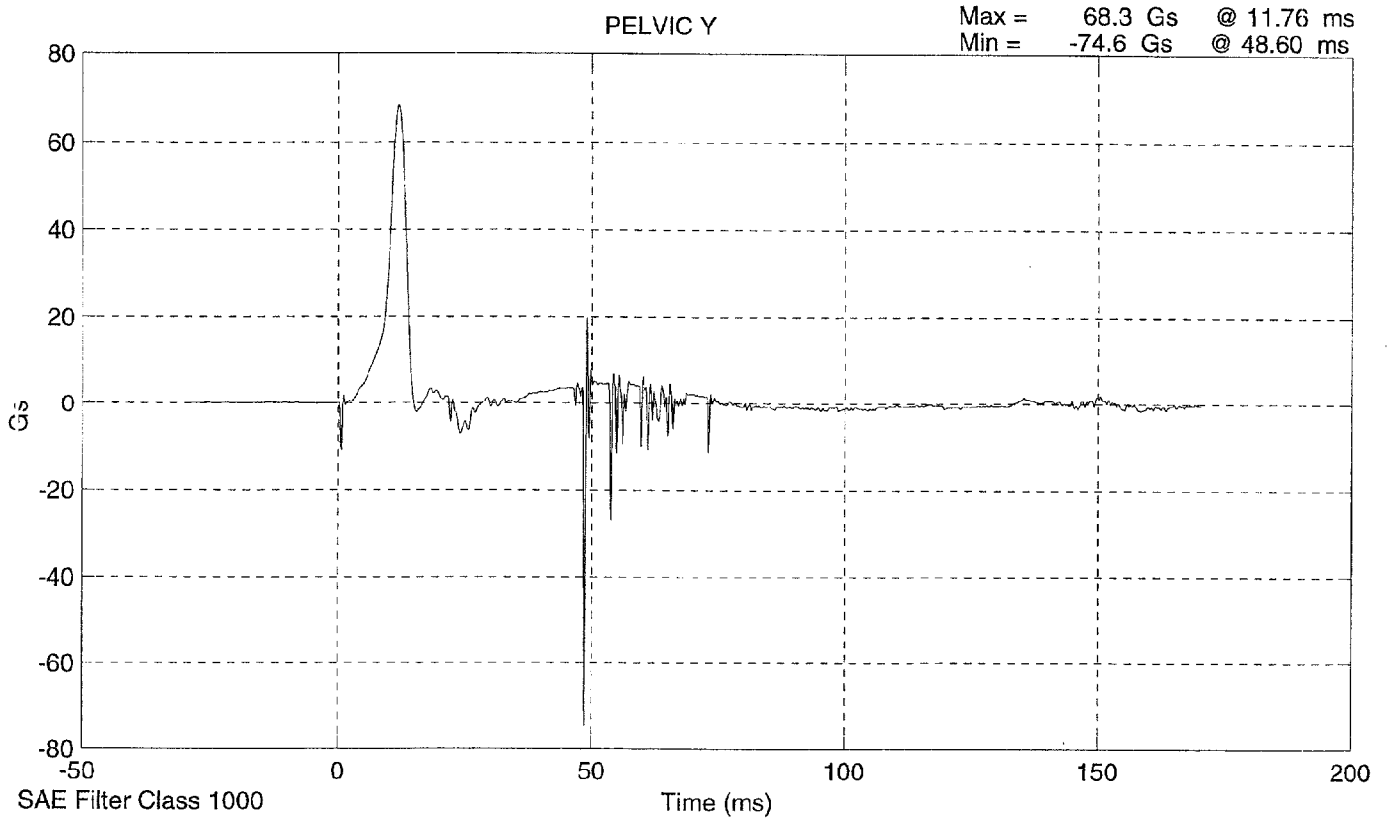
**LATERAL PELVIS IMPACT TEST  
PRE-TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 1  
Date: February 1, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PROBE SPEED (m/s)	4.27 - 4.33	4.31
PELVIS ACCELERATION (g's)	40 - 60	54.5

**REMARKS:** None



**HEAD DROP TEST**

**PRE-TEST**

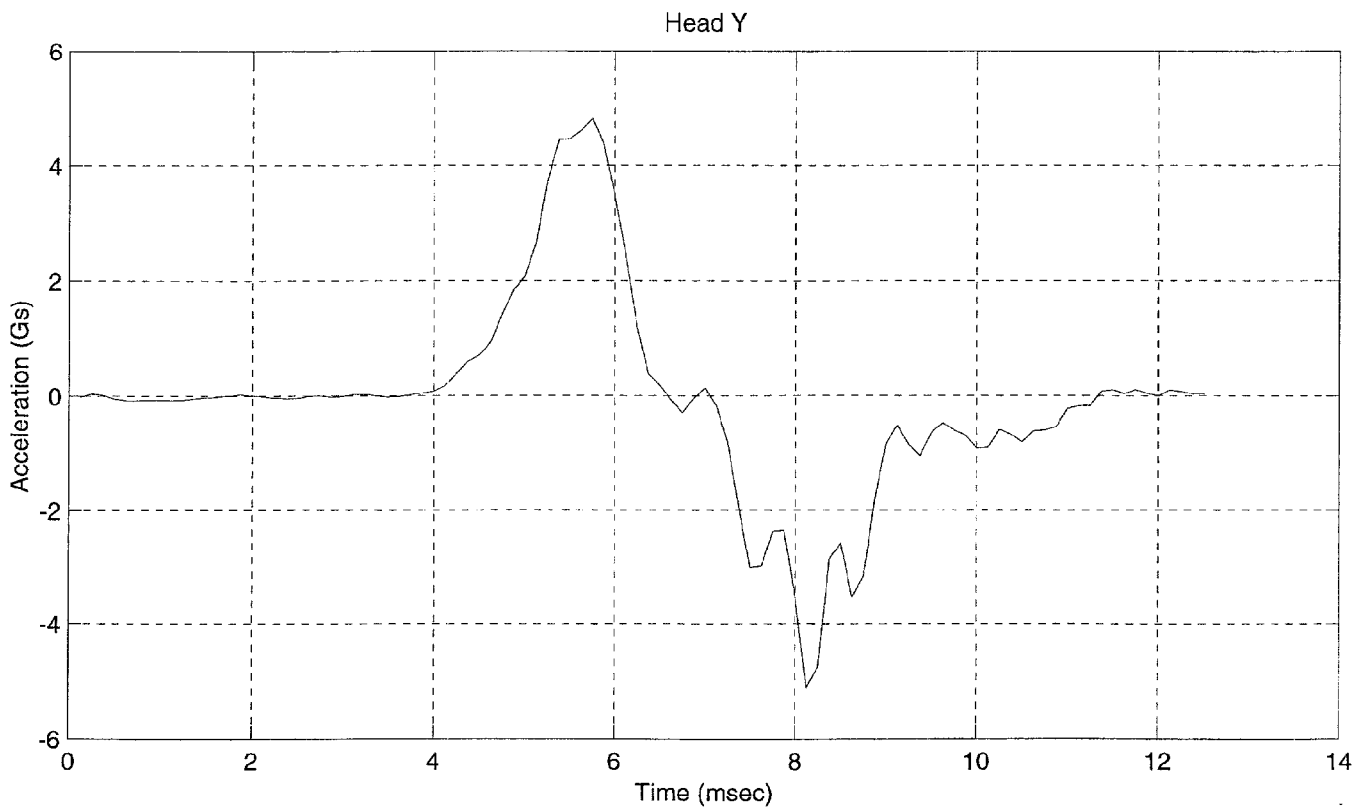
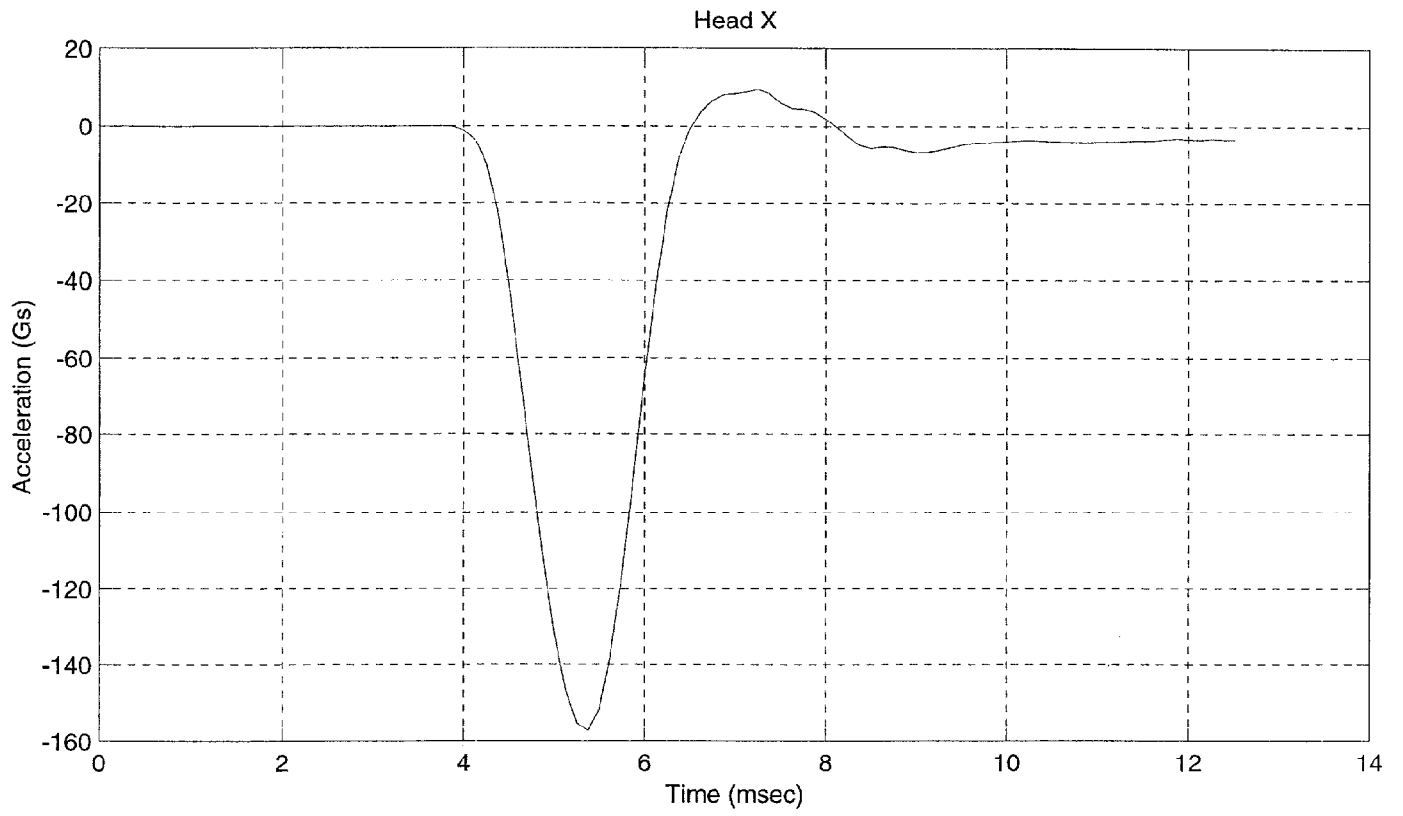
(Test not required for SID certification)

**CONFIGURED FOR LEFT SIDE IMPACT**

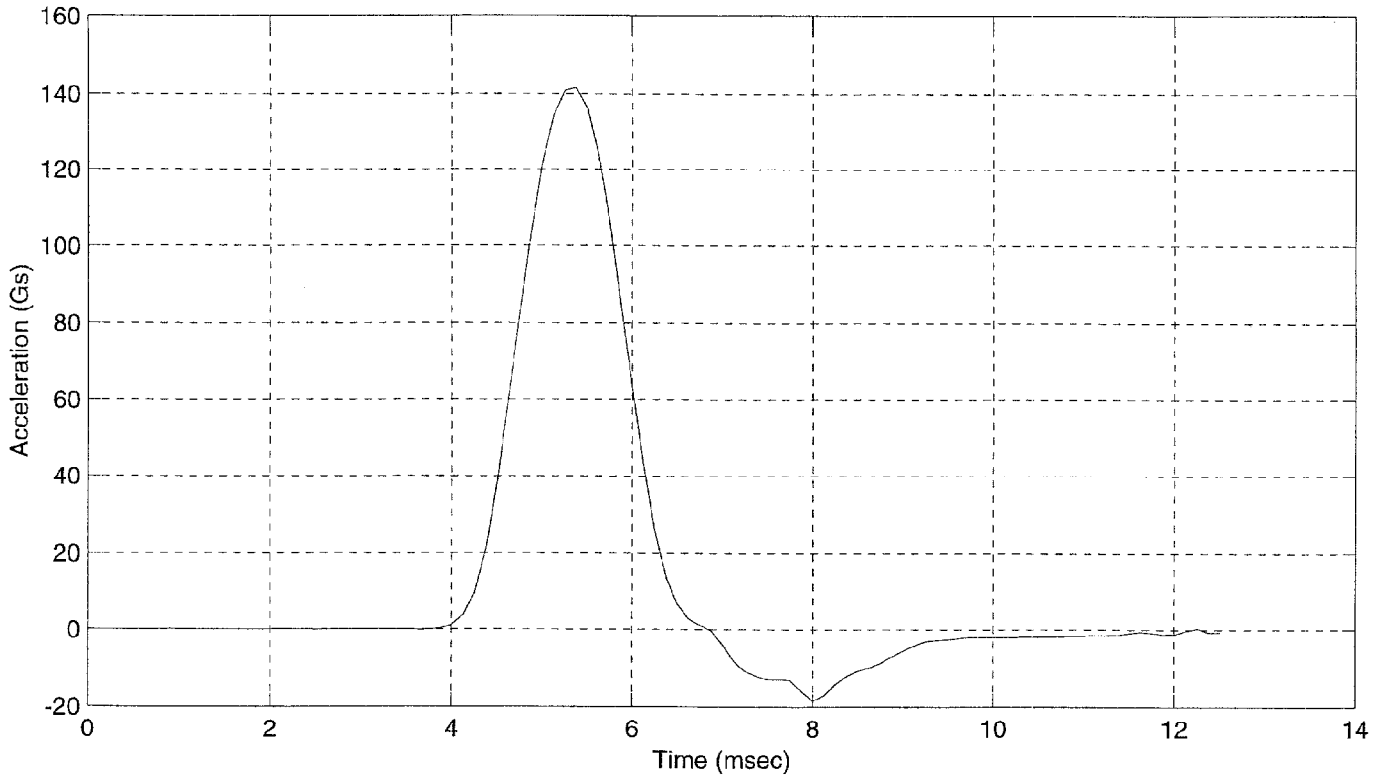
SID Serial No.: 016 Sequential Test Number: 1  
Date: February 1, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	31
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	211.53
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	5.11
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.38

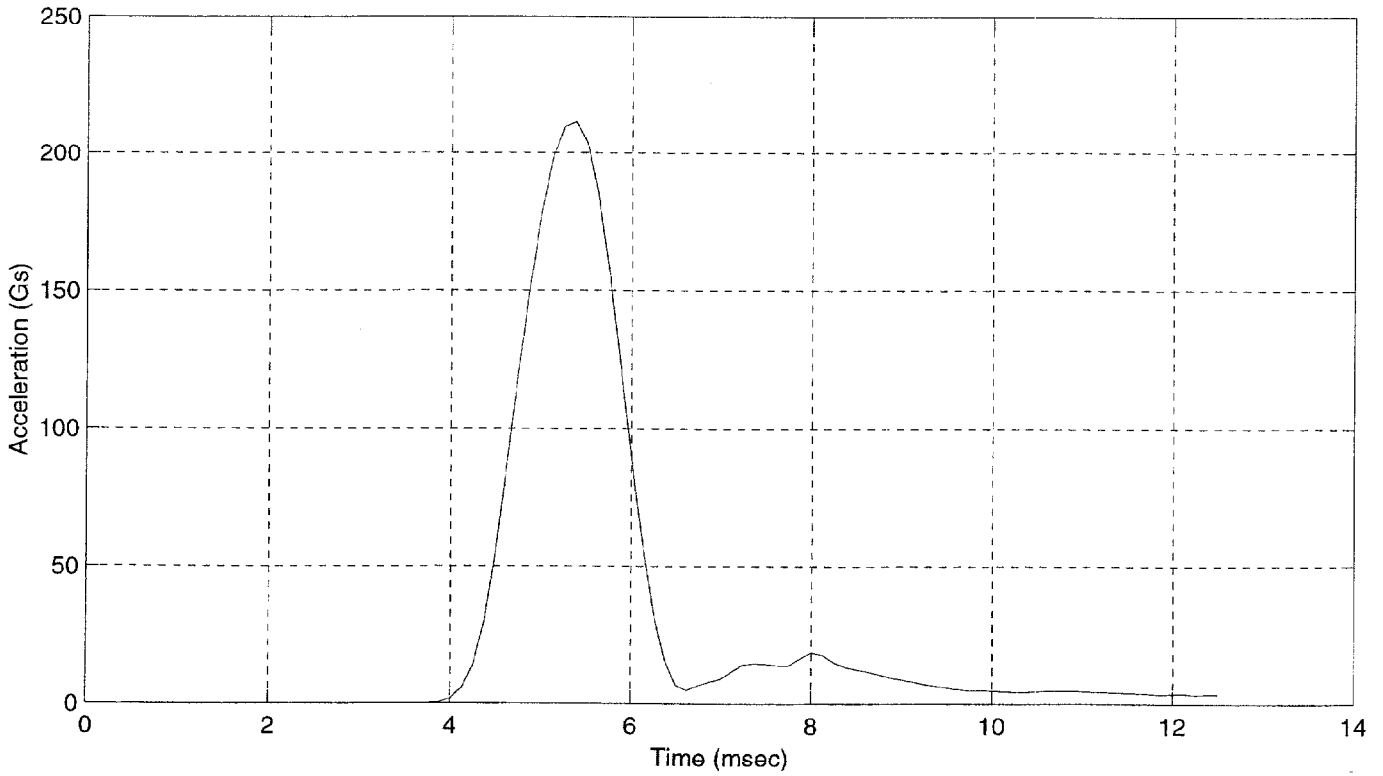
**REMARKS:** None



Head Z



Head Resultant



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

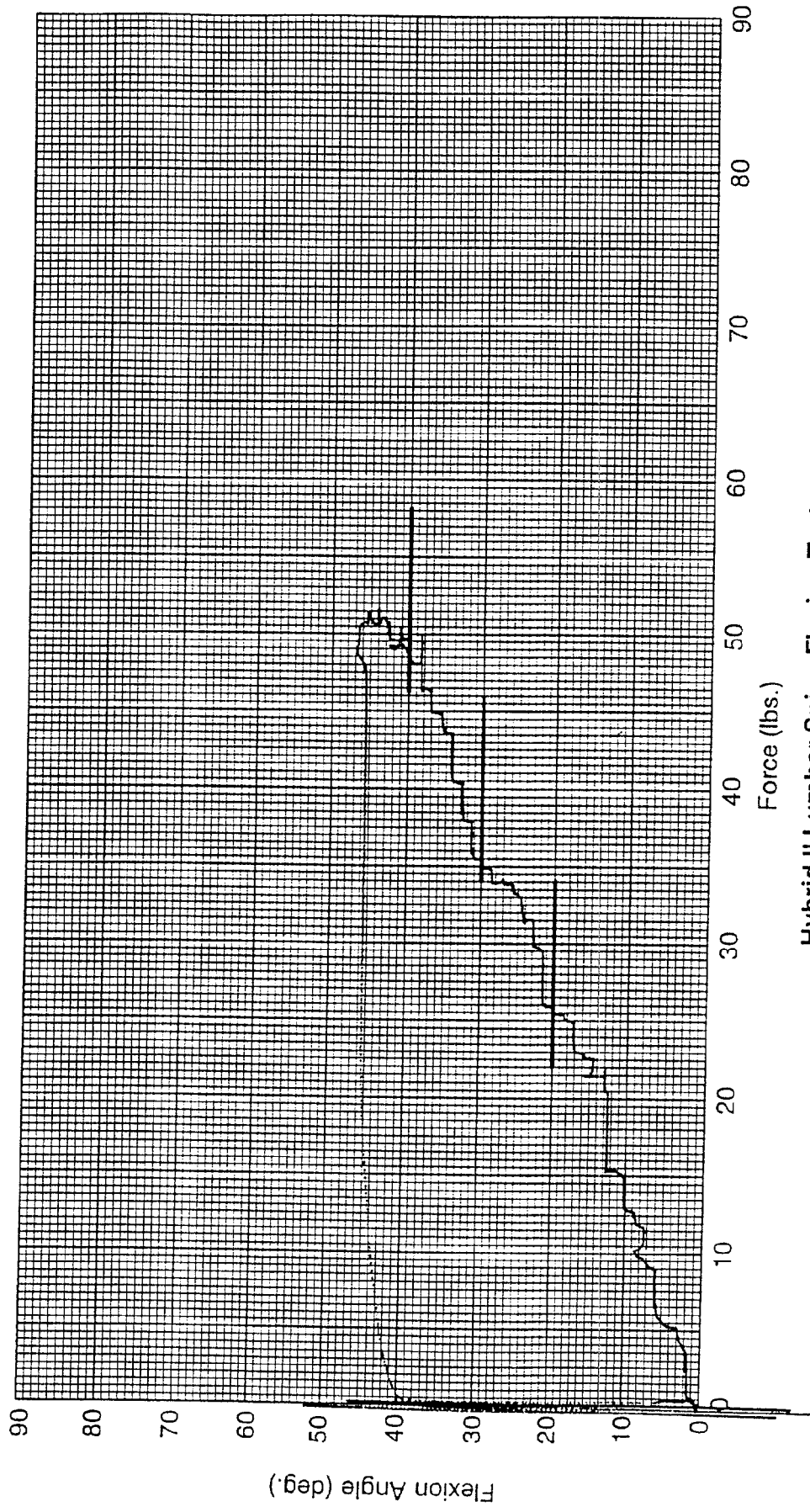
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 1  
Date: February 1, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 13 mm (N)	104 - 162	120.1
FORCE @ 19 mm (N)	163 - 221	177.9
FORCE @ 25 mm (N)	222 - 280	246.9
FORCE @ 33 mm (N)	325 - 391	347.0

**REMARKS:** None

Dummy S/N 16  
 W/A \_\_\_\_\_  
 Date 2-1-2000  
 Performed By [Signature]  
 Temp. 70  
 Humidity 30



Hybrid II Lumbar Spine Flexion Test

**PRE-TEST DUMMY INSPECTION LIST**  
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 1  
 Date: February 1, 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: 2  
Date: February 9, 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: 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

**THORACIC SHOCK ABSORBER TESTS  
PRE-TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 268 Sequential Test Number: 2  
 Date: January 21, 2000 Laboratory Technician: B. Swiecicki

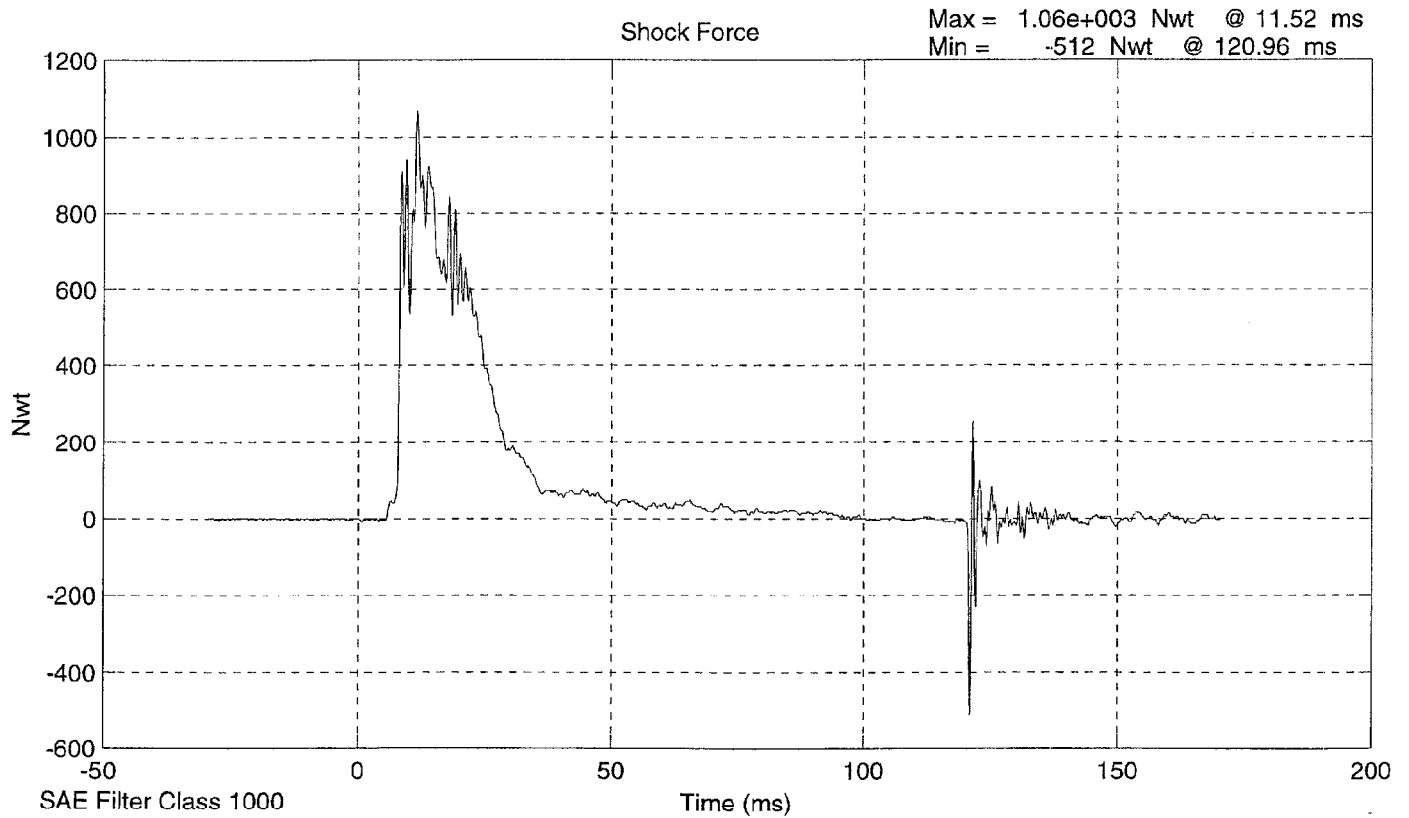
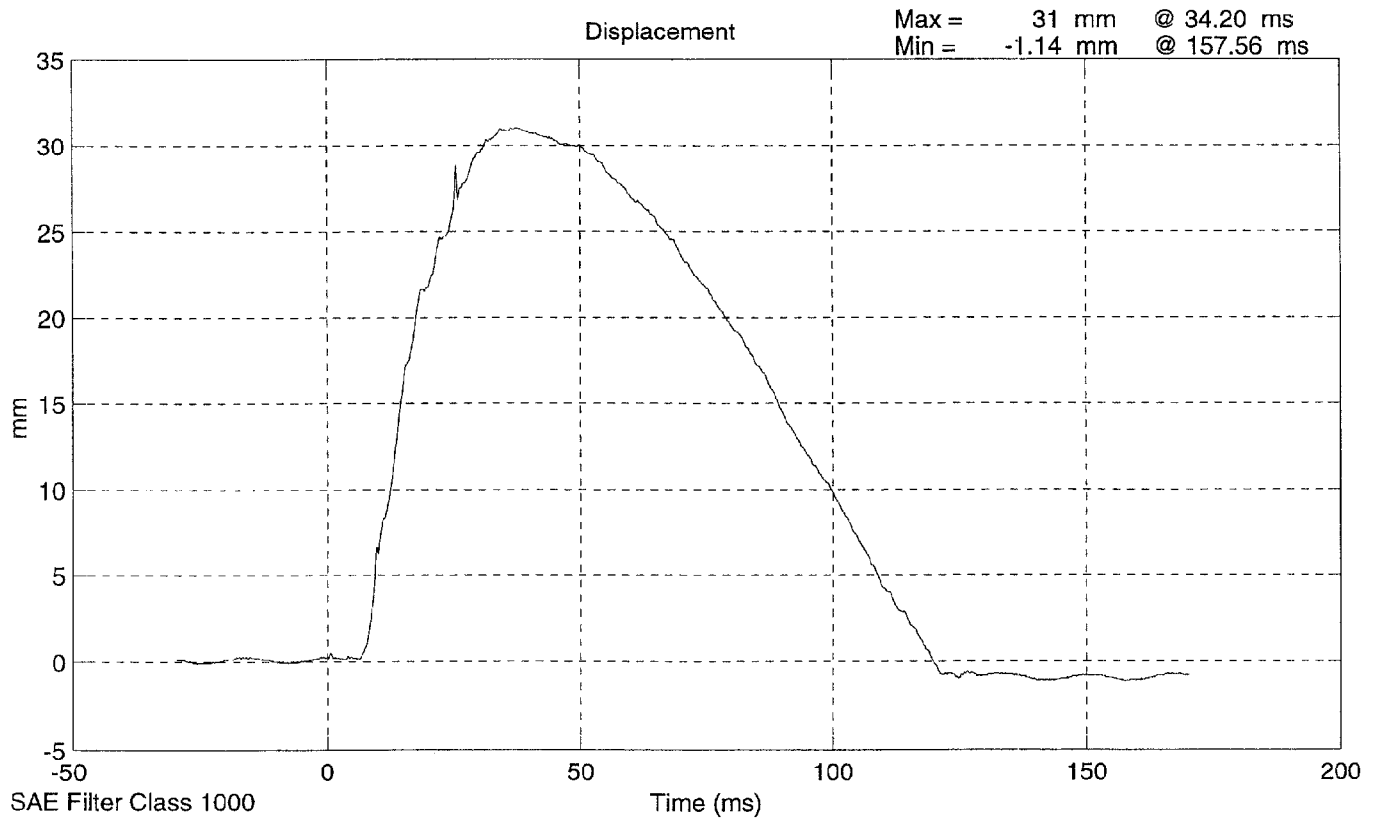
DAMPER IDENTIFICATION: 268

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

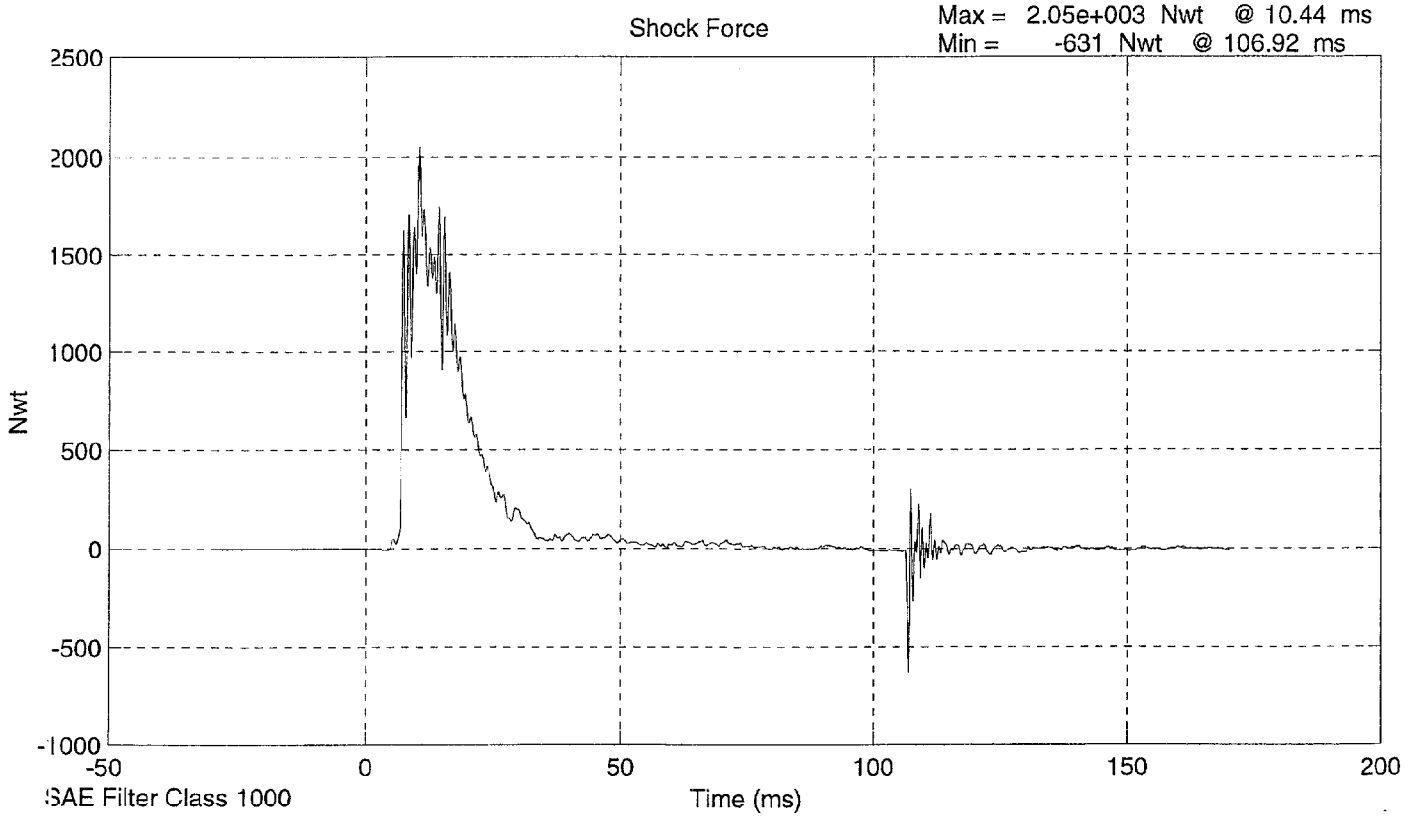
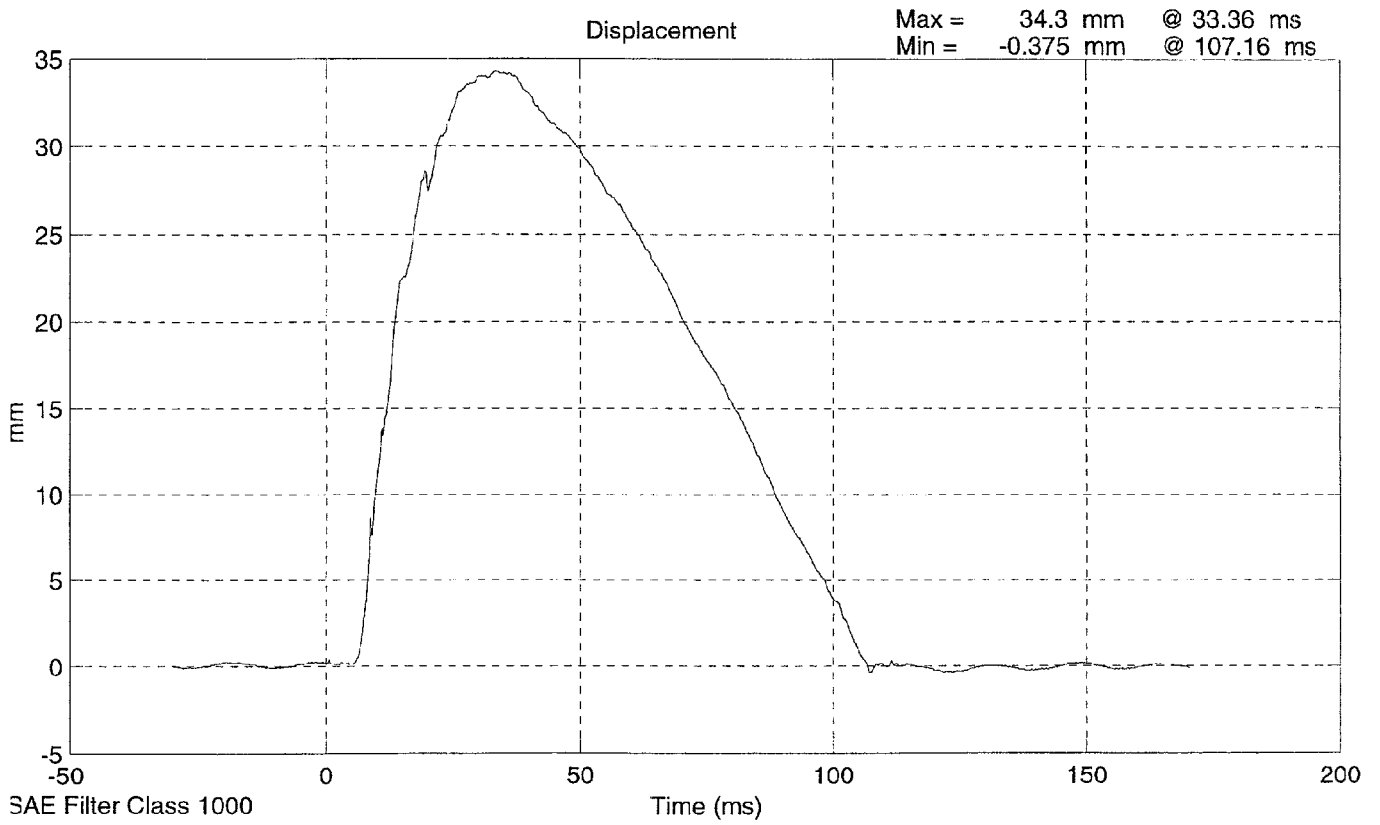
DAMPER SETTING: 5

REMARKS: None

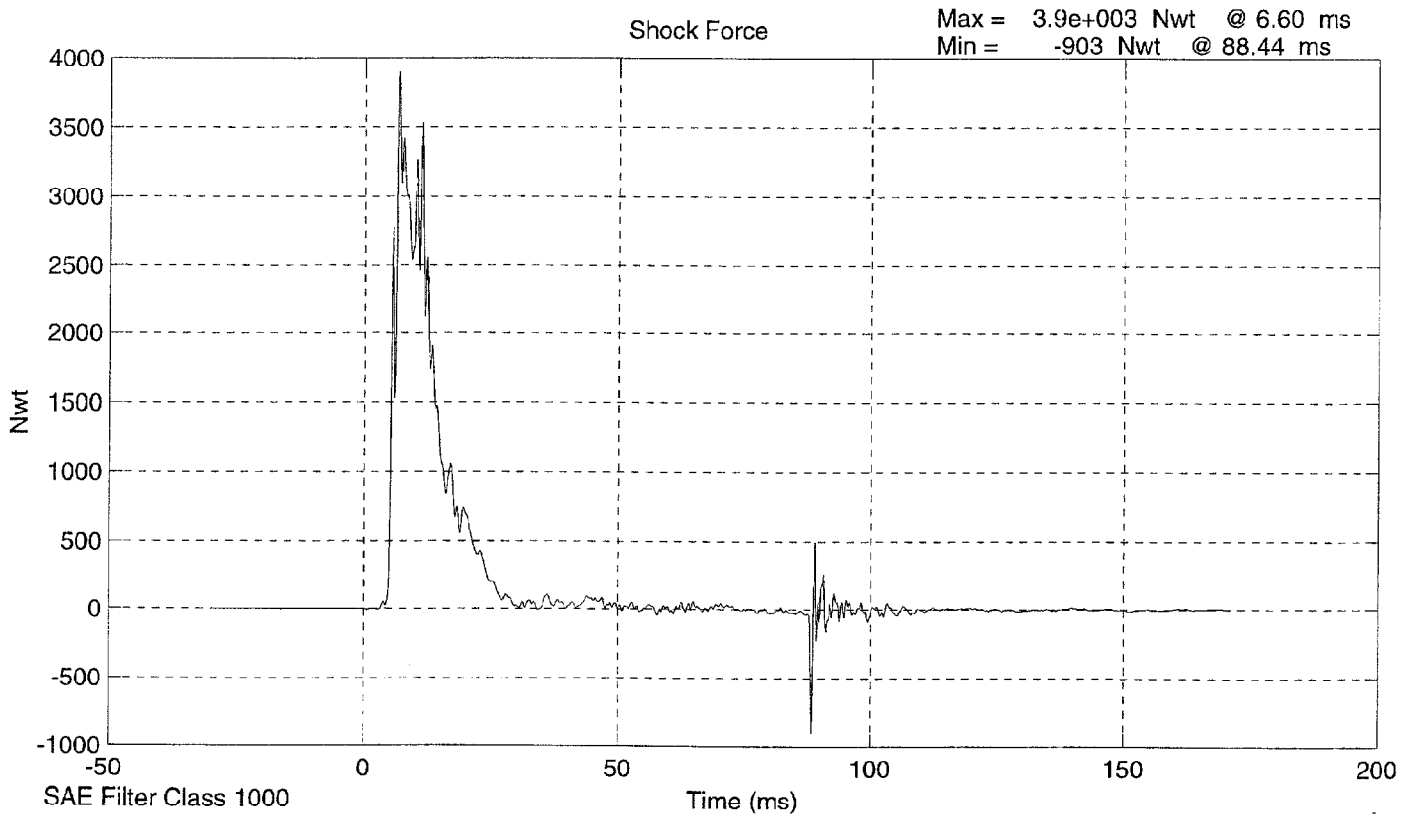
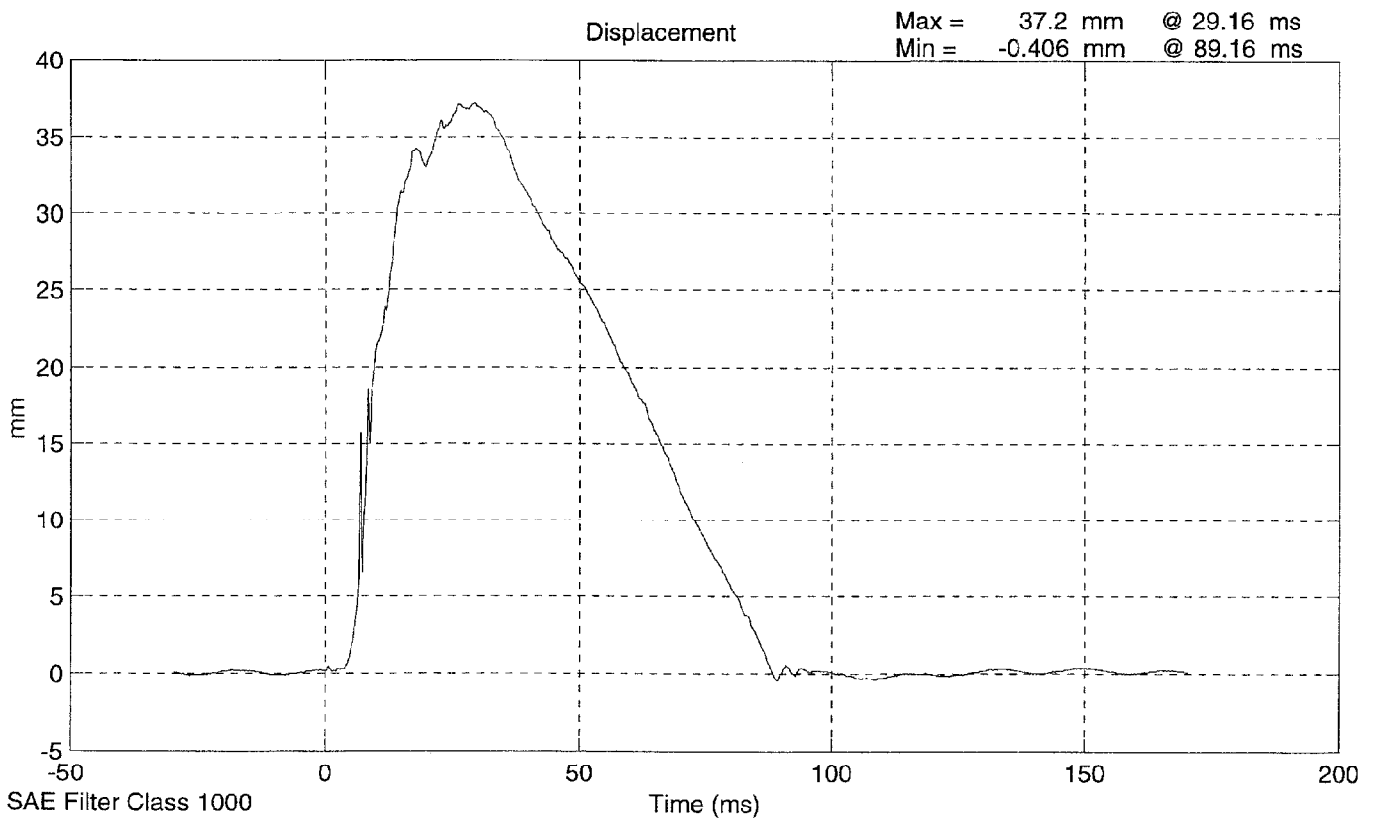
SID 268 Shock Absorber Impact Test @ 3.048 m/s



SID 268 Shock Absorber Impact Test @ 4.2672 m/s



SID 268 Shock Absorber Impact Test @ 6.096 m/s



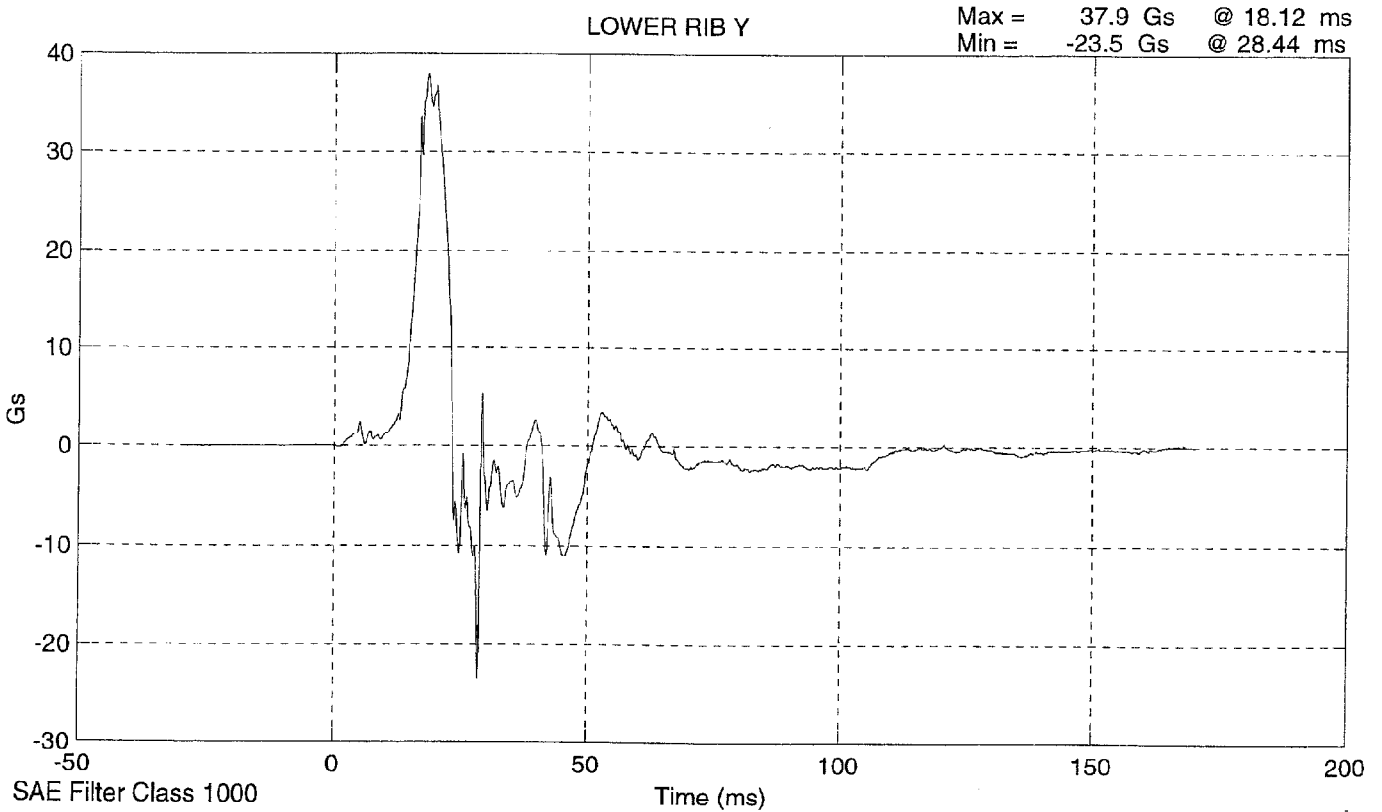
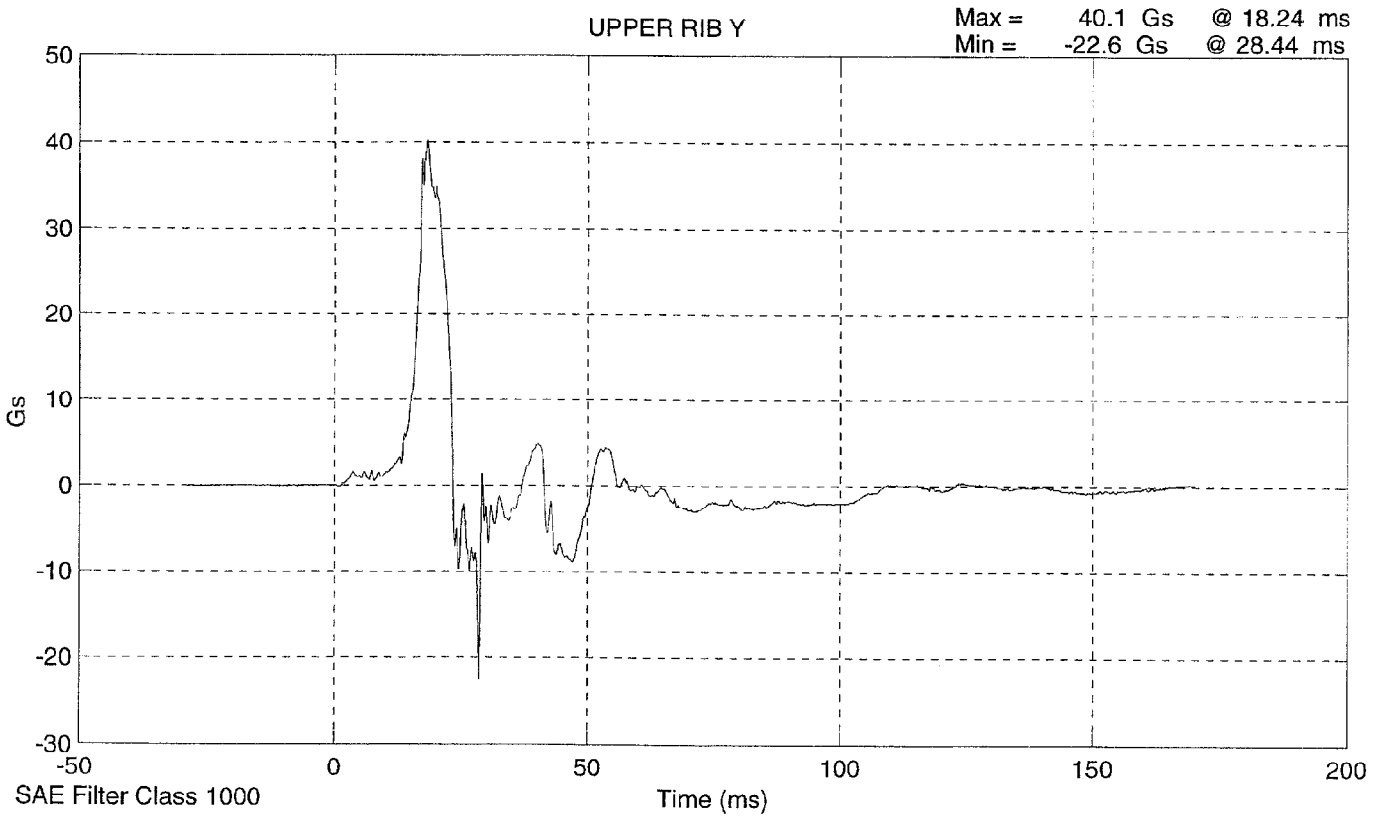
**LATERAL THORAX IMPACT TEST  
PRE-TEST**

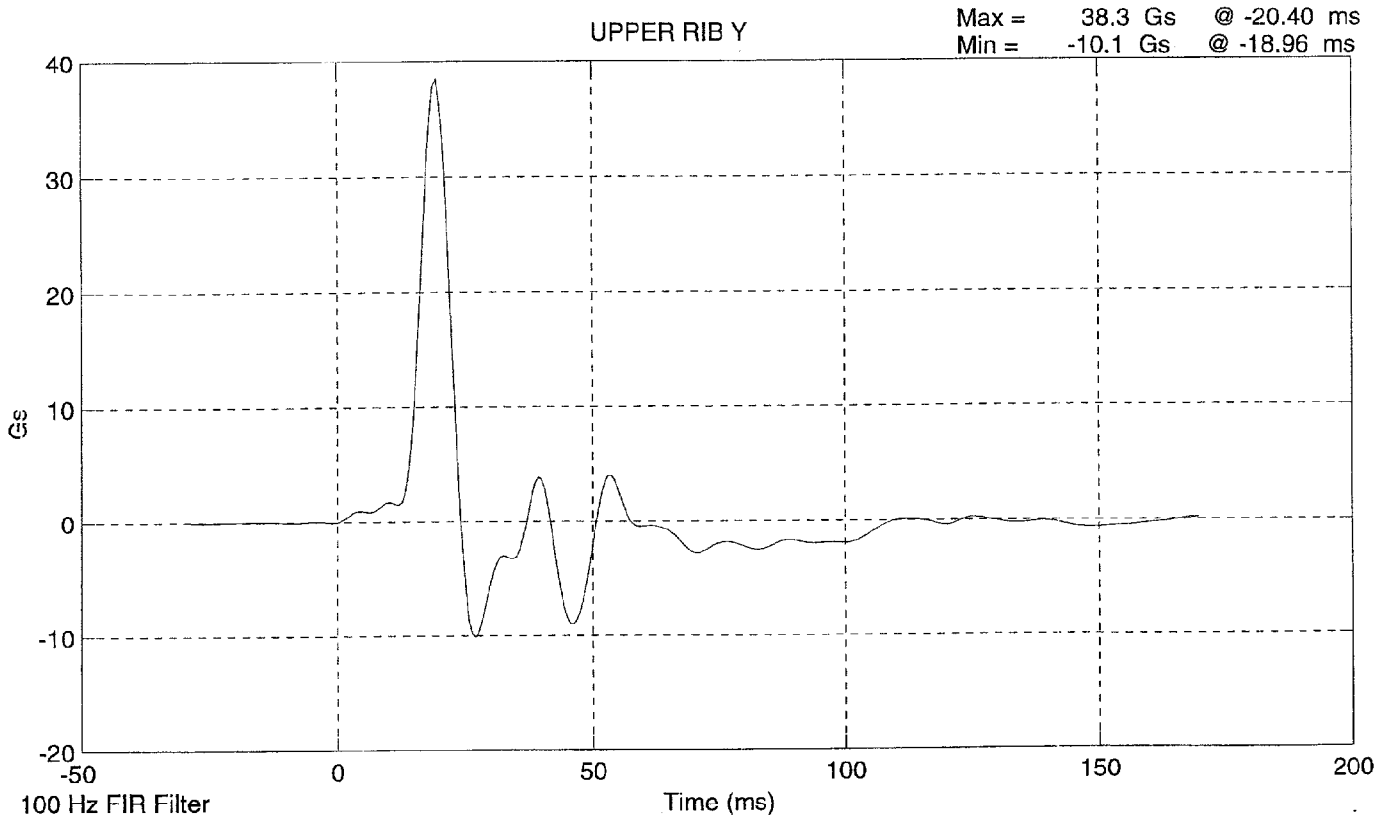
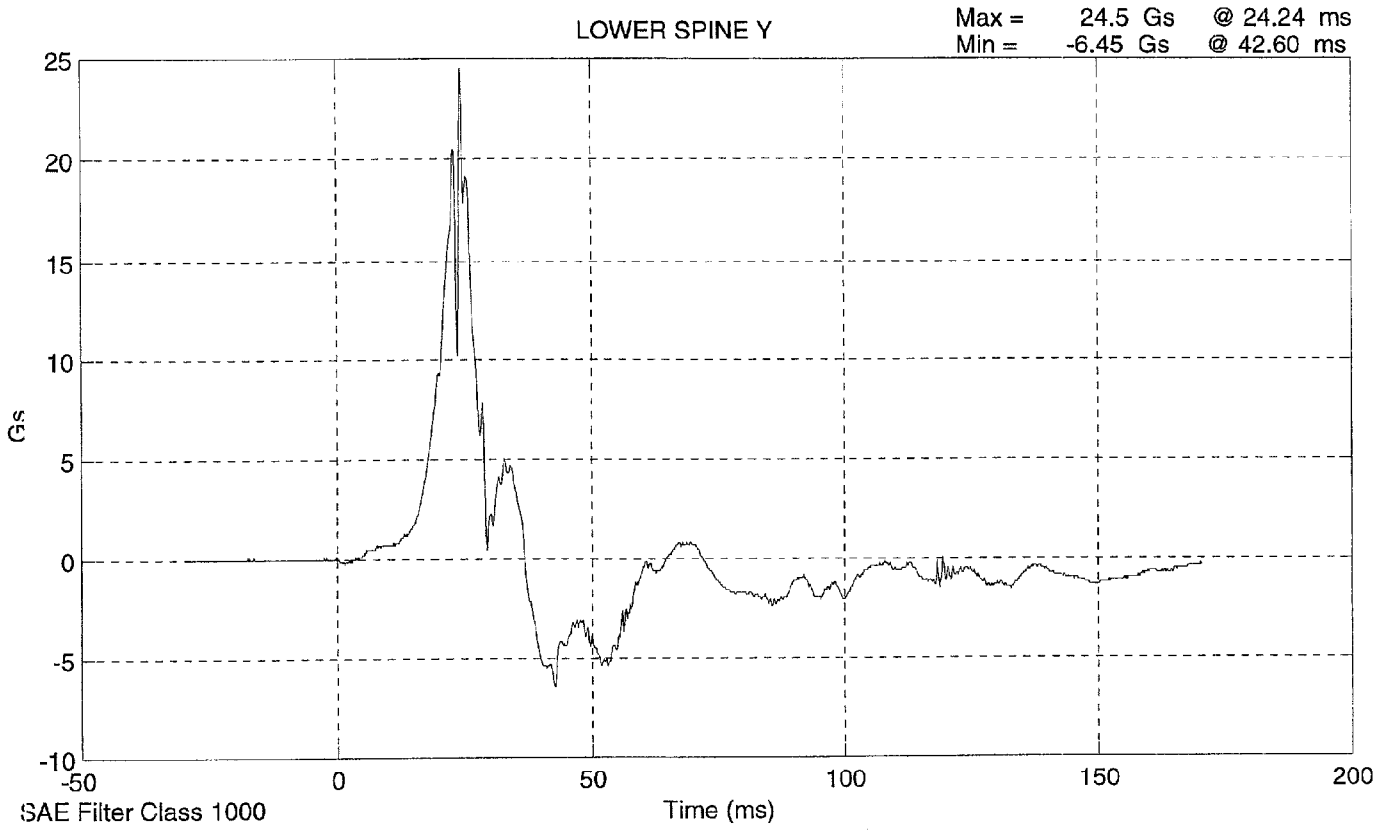
**CONFIGURED FOR LEFT SIDE IMPACT**

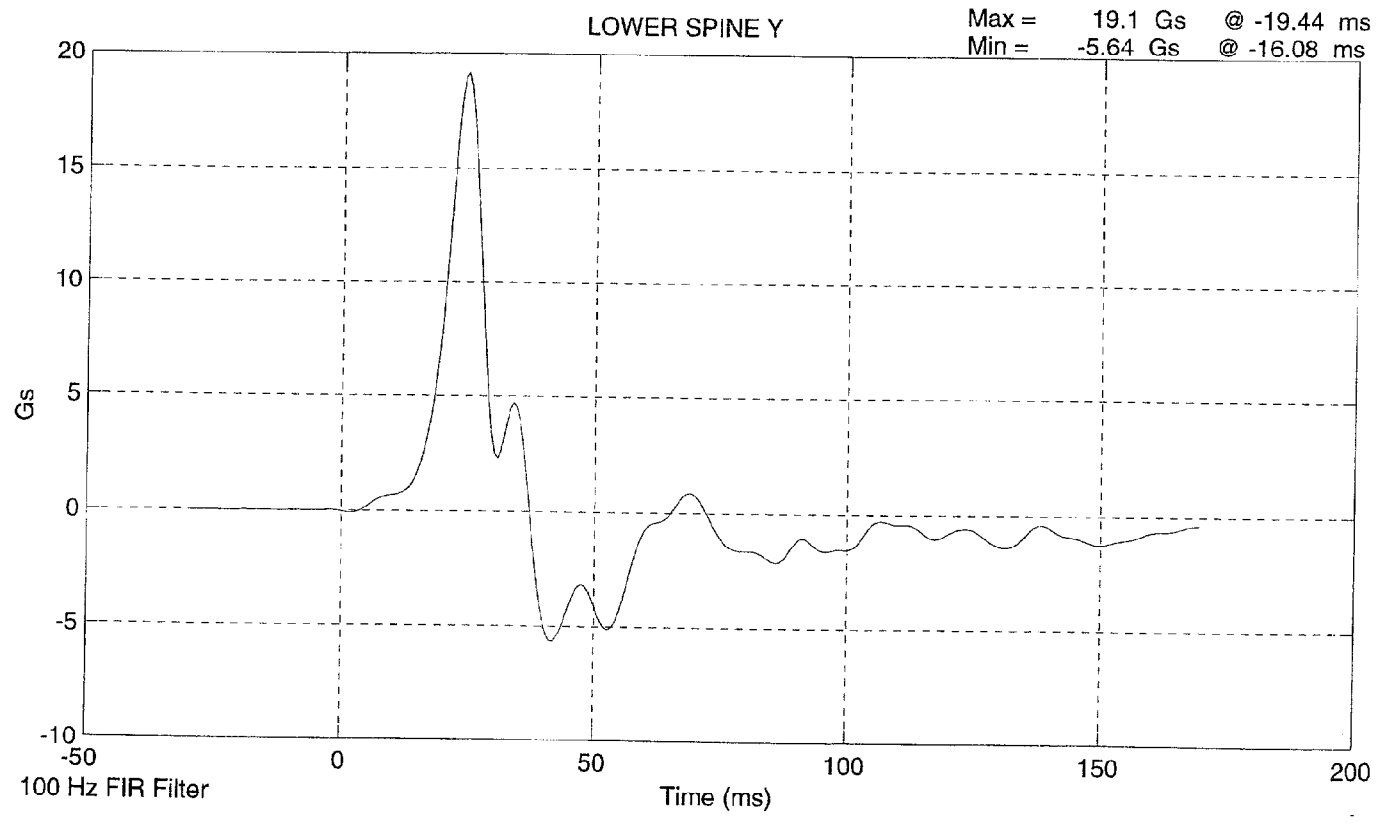
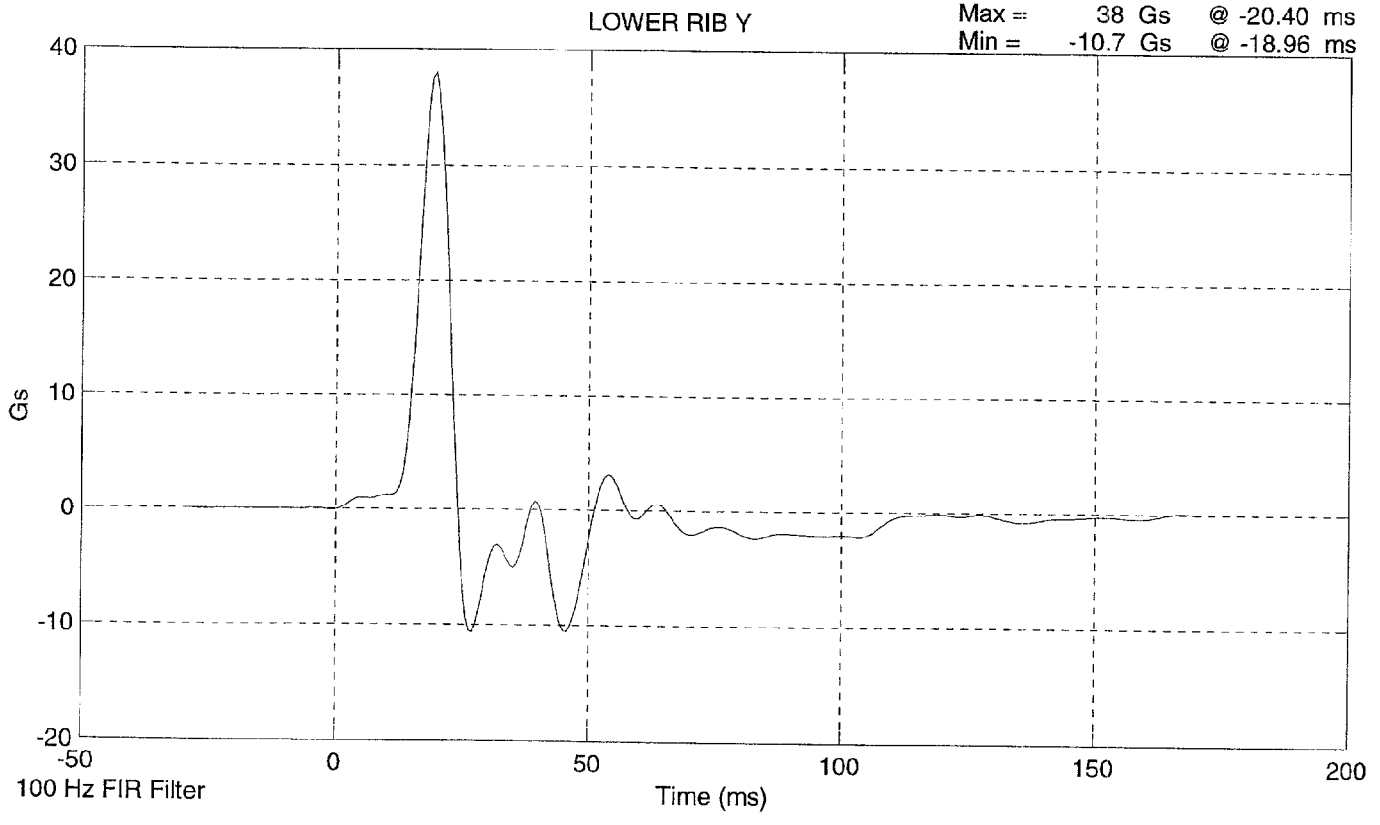
SID Serial No.: 268 Sequential Test Number: 2  
Date: February 9, 2000 Laboratory Technician: B. Swiecicki

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







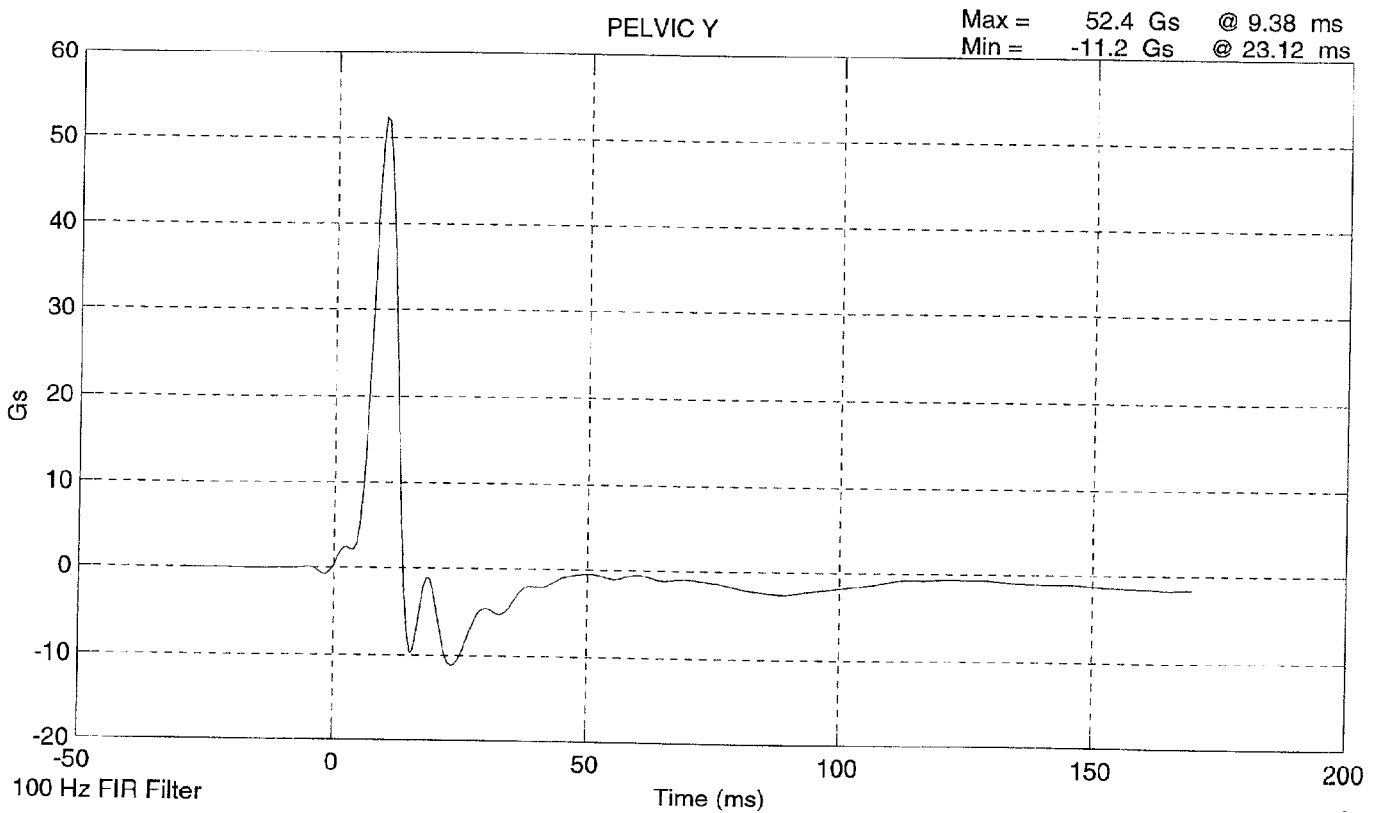
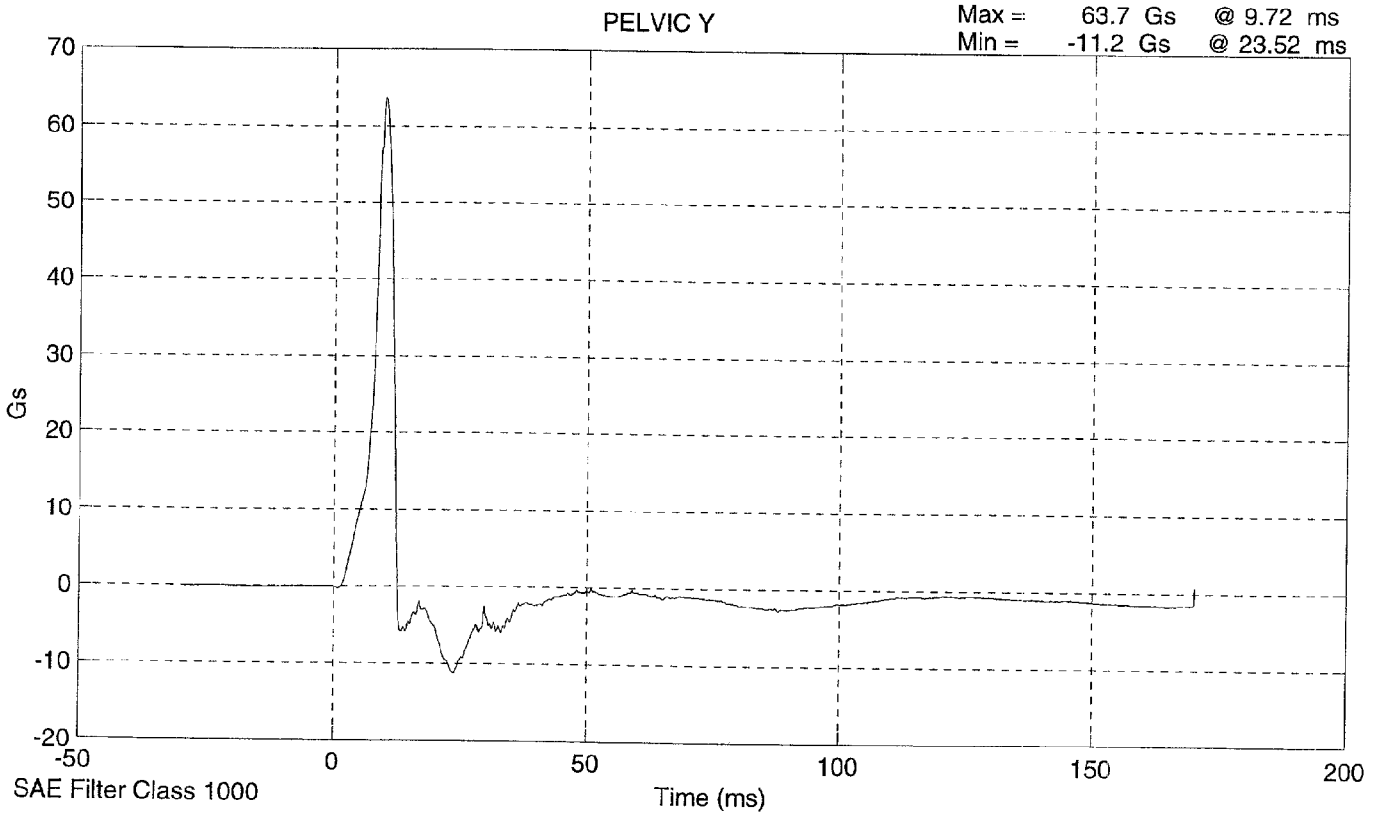
**LATERAL PELVIS IMPACT TEST  
PRE-TEST**

**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



**HEAD DROP TEST**

**PRE-TEST**

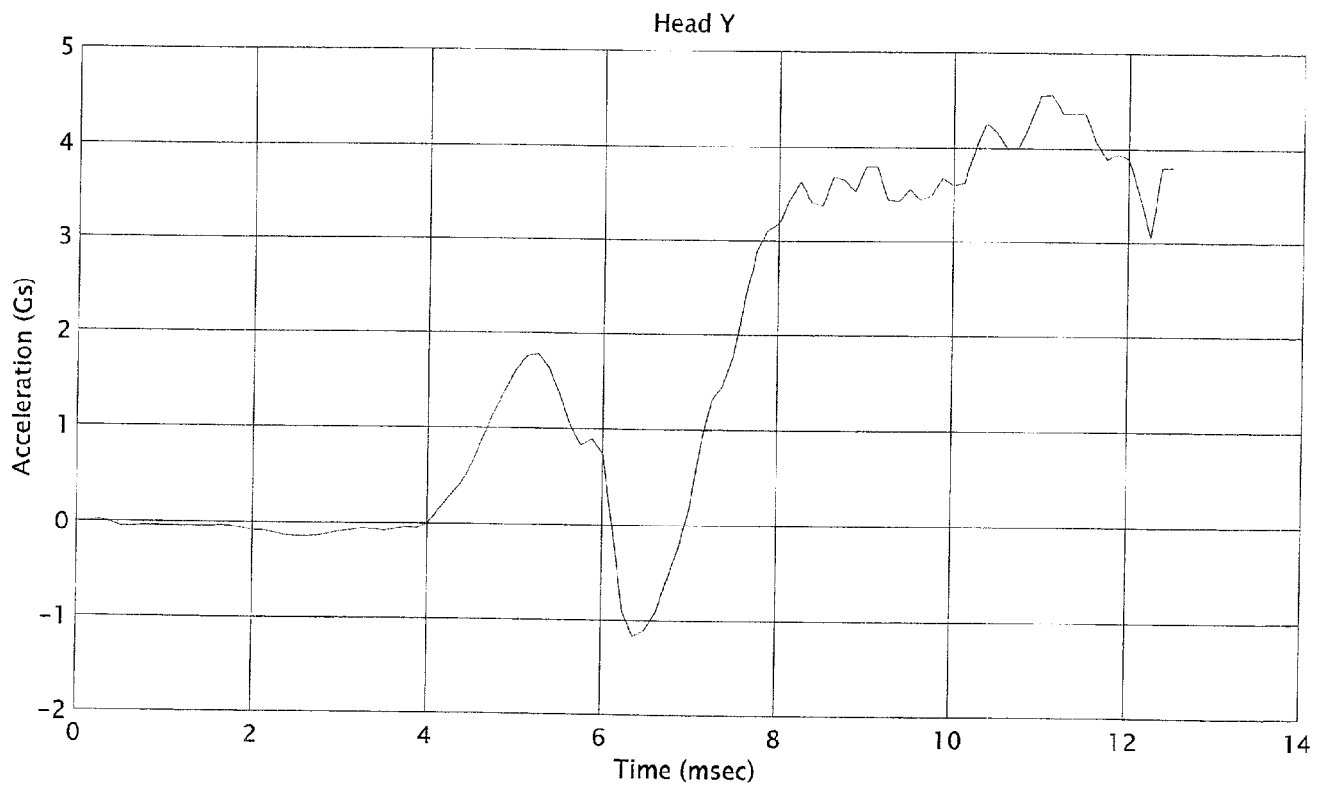
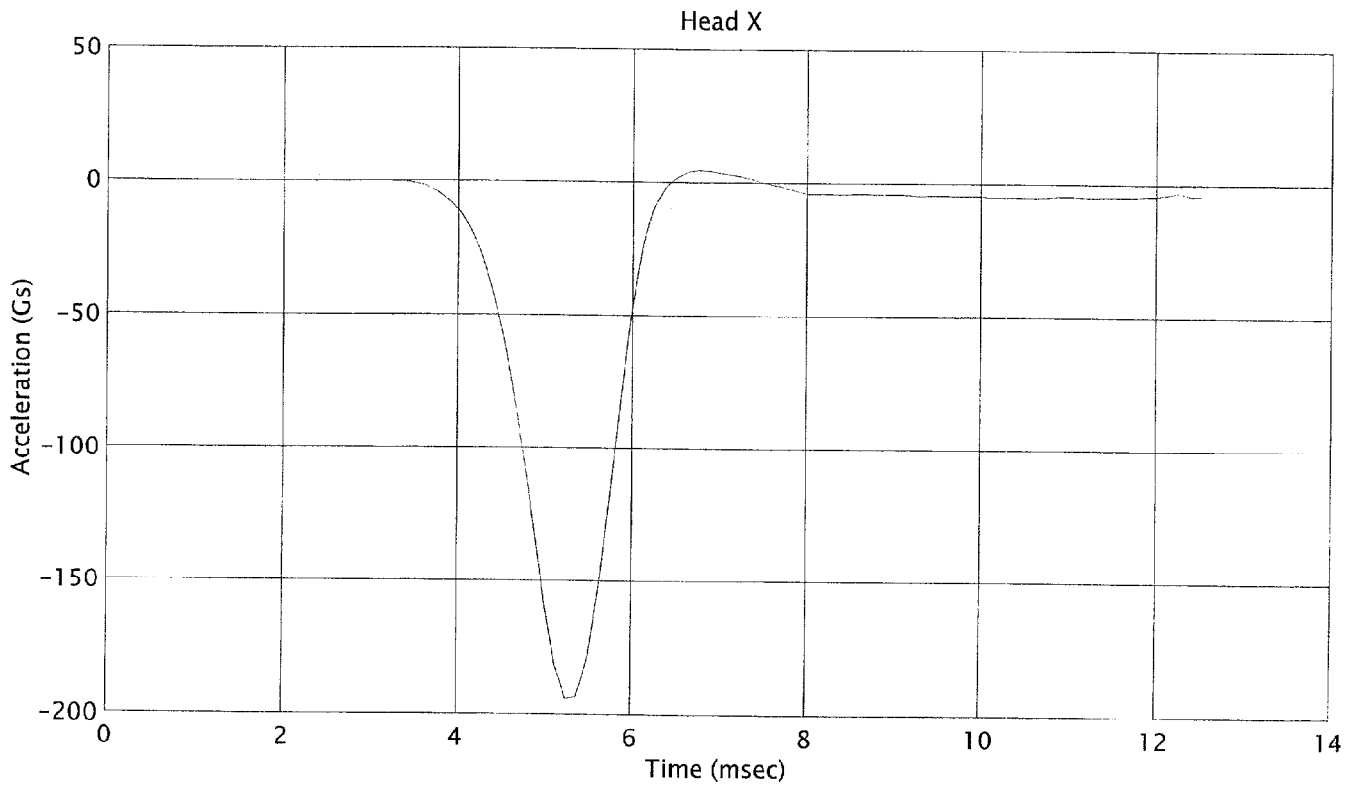
(Test not required for SID certification)

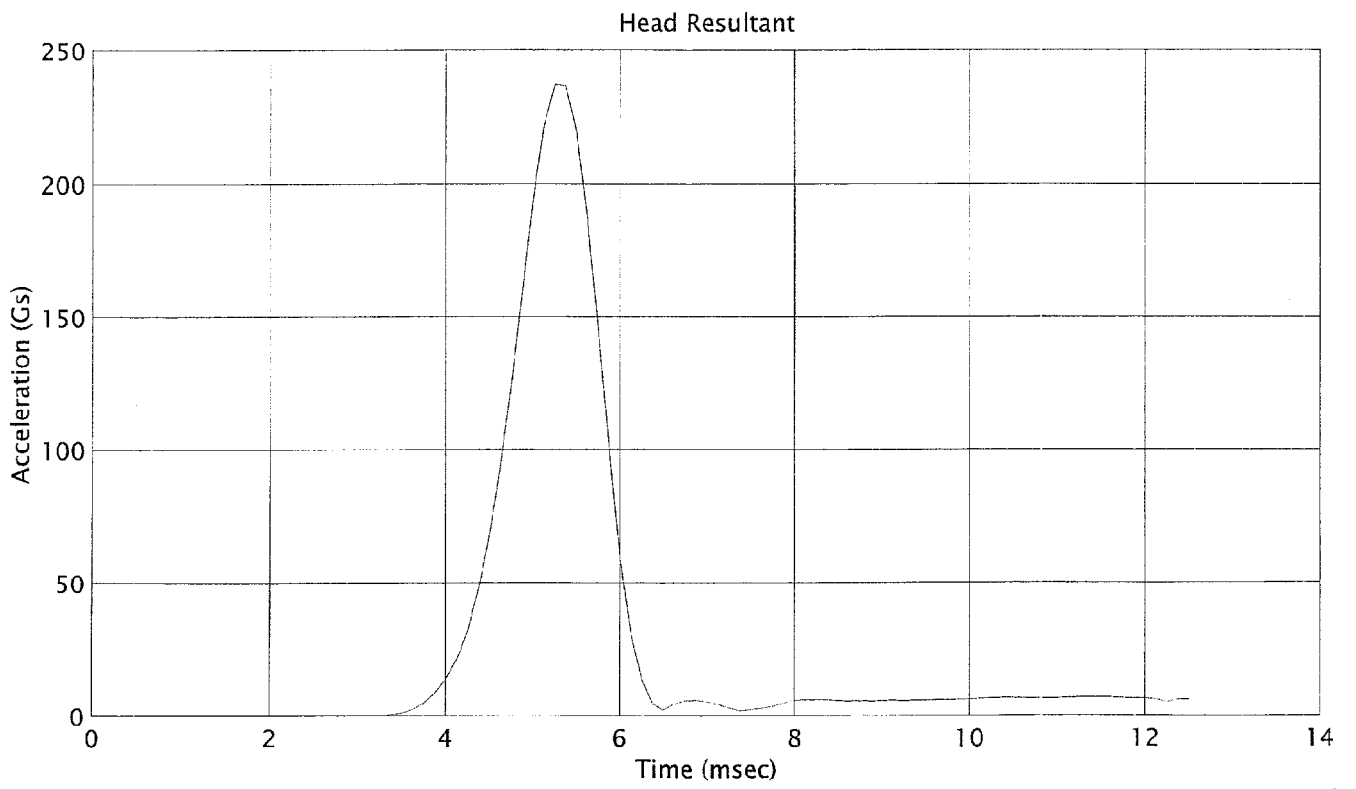
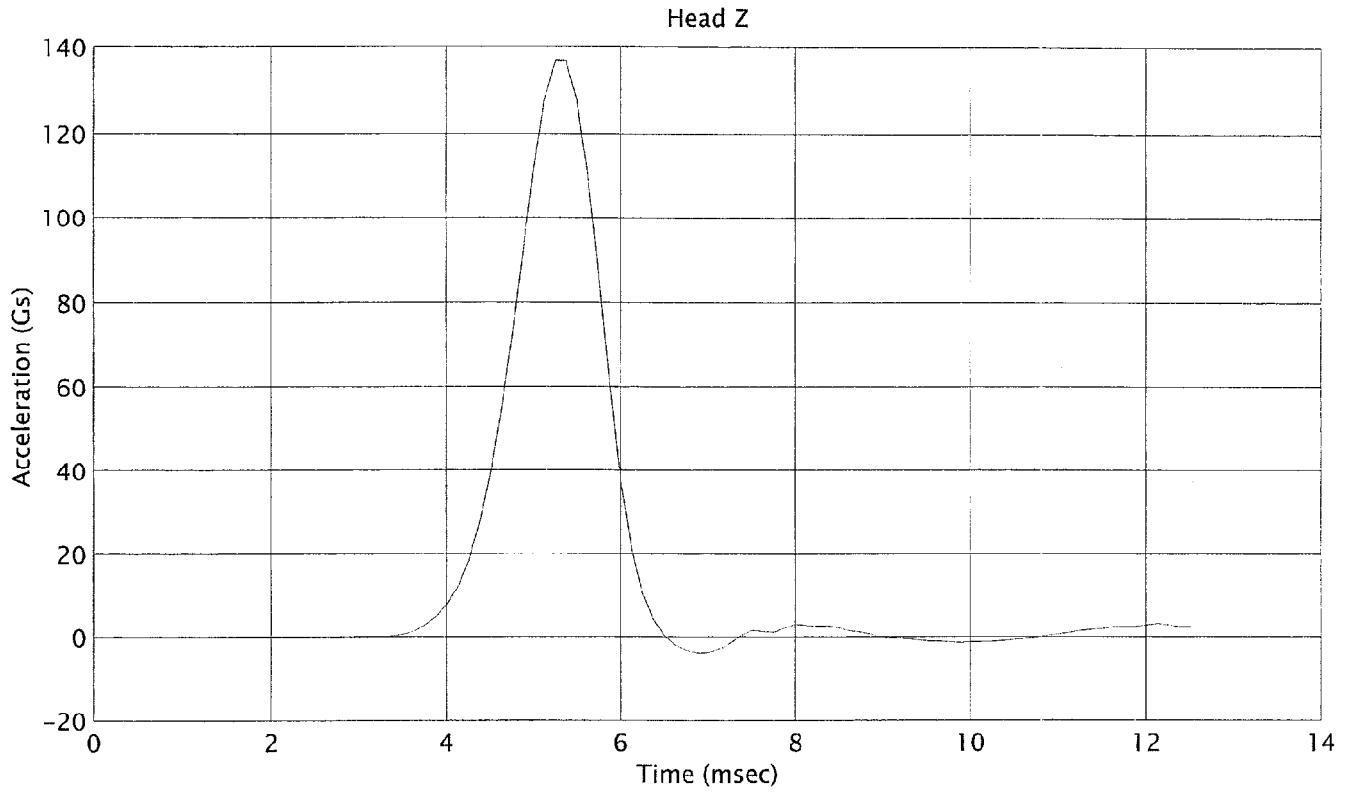
**CONFIGURED FOR LEFT SIDE IMPACT**

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





**ABDOMINAL COMPRESSION TEST  
PRE-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

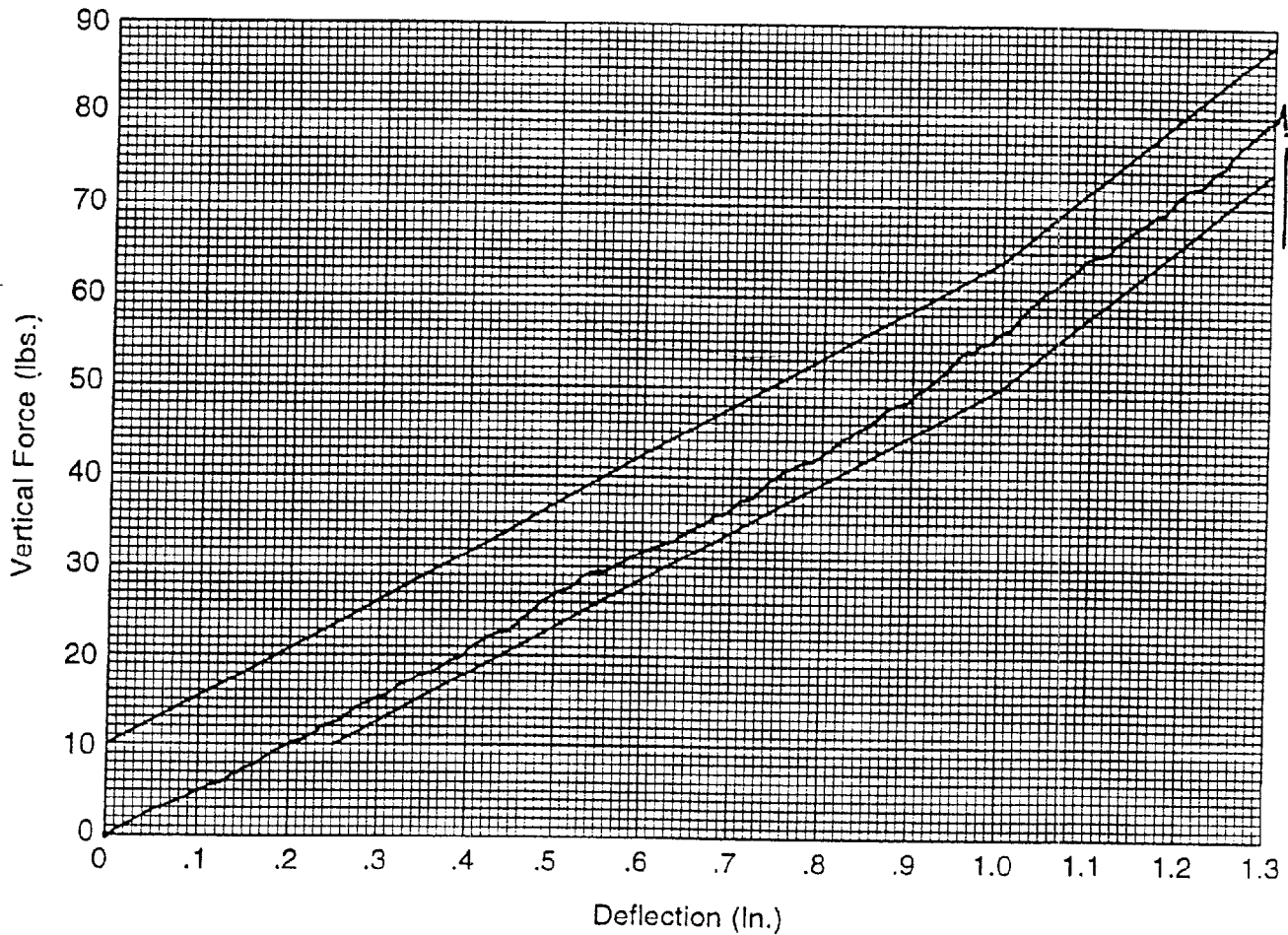
W/A \_\_\_\_\_

Date 2-9-2000

Performed By BD

Temp. 70

Humidity 30



Hybrid II  
Abdomen Static Press

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

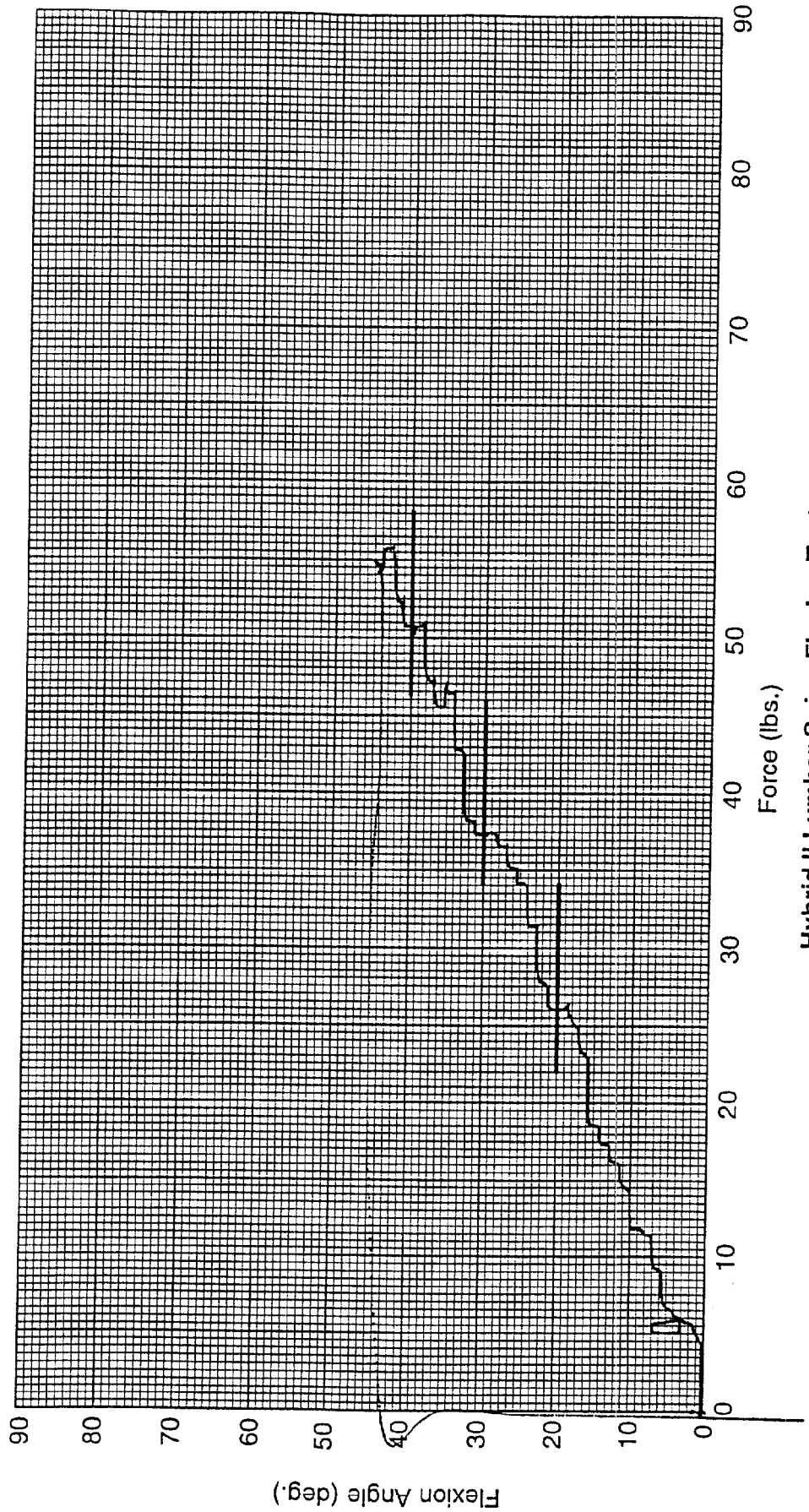
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 268 Sequential Test Number: 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 2688  
 W/A \_\_\_\_\_  
 Date 2-9-2000  
 Performed By [Signature]  
 Temp. 70  
 Humidity 30



Hybrid II Lumbar Spine Flexion Test

**PRE-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

**CALIBRATION TEST RESULTS  
POST TEST**

**SID NO.: 016**

**CONFIGURED FOR LEFT SIDE IMPACT**

**CALIBRATION TEST RESULTS SUMMARY  
POST TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 2  
Date: February 28, 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.: 016 Sequential Test Number: 2  
Date: February 28, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	526
KV- Knee Pivot to Floor (mm)	490 - 505	494
HW- Hip Width (mm)	356 - 391	362

**REMARKS:** None

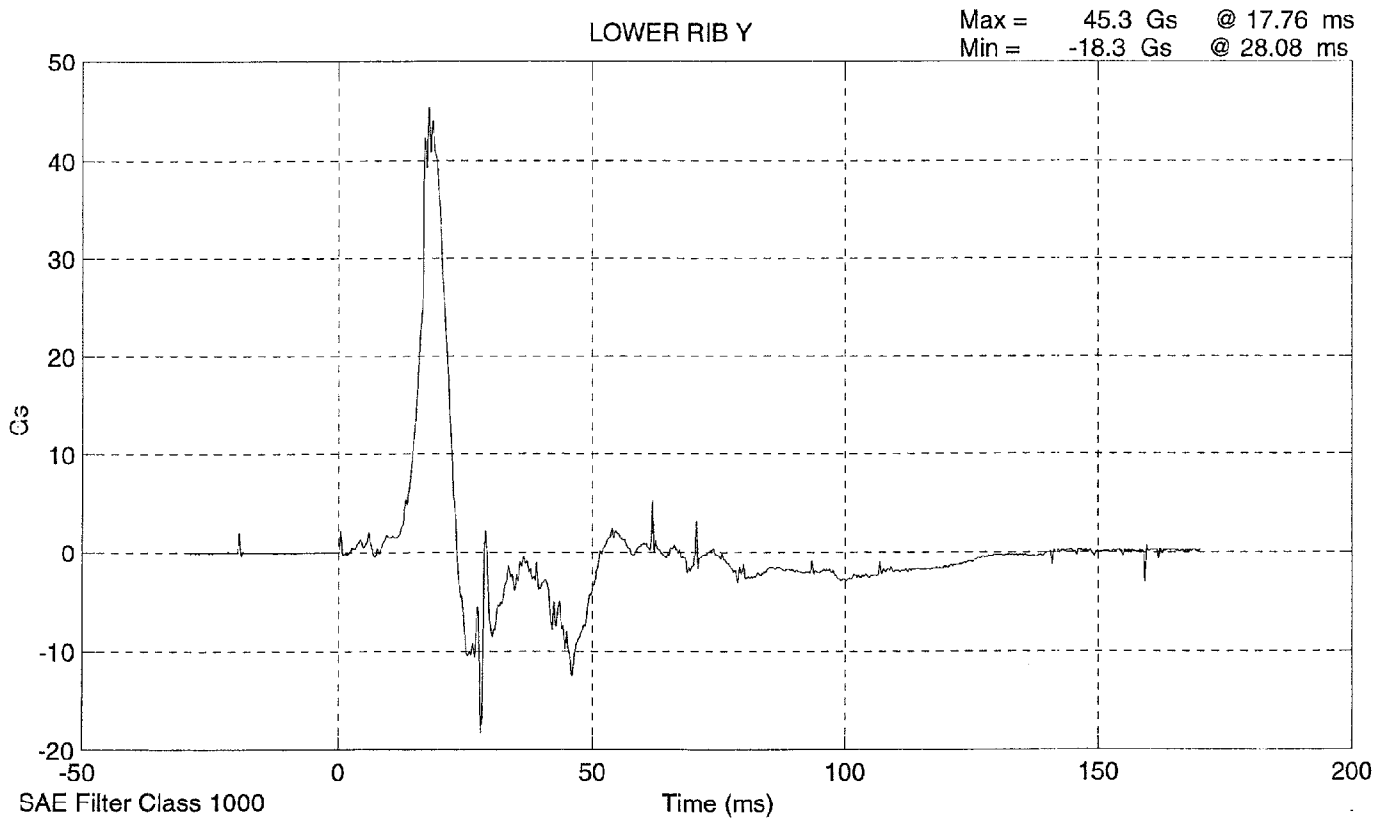
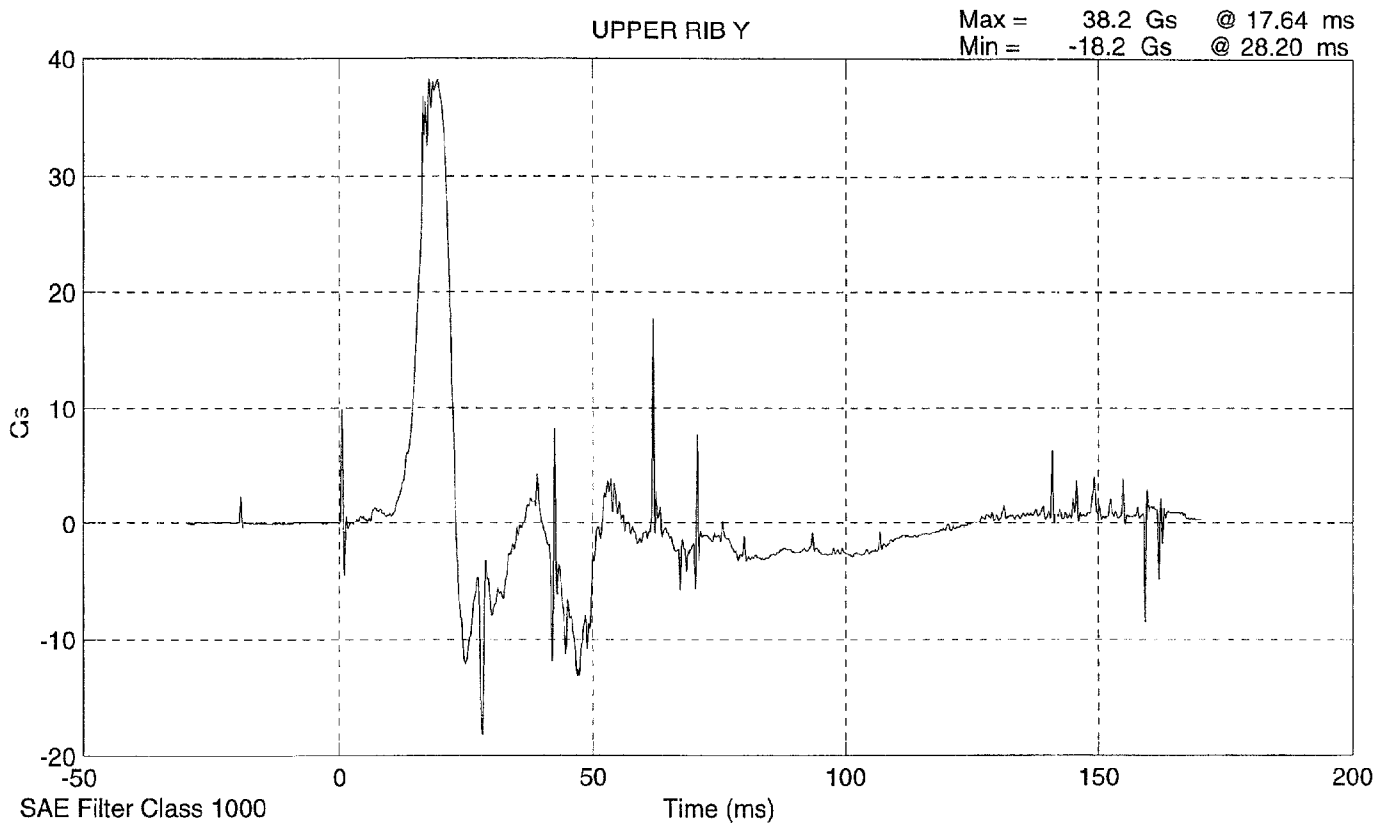
**LATERAL THORAX IMPACT TEST  
POST TEST**

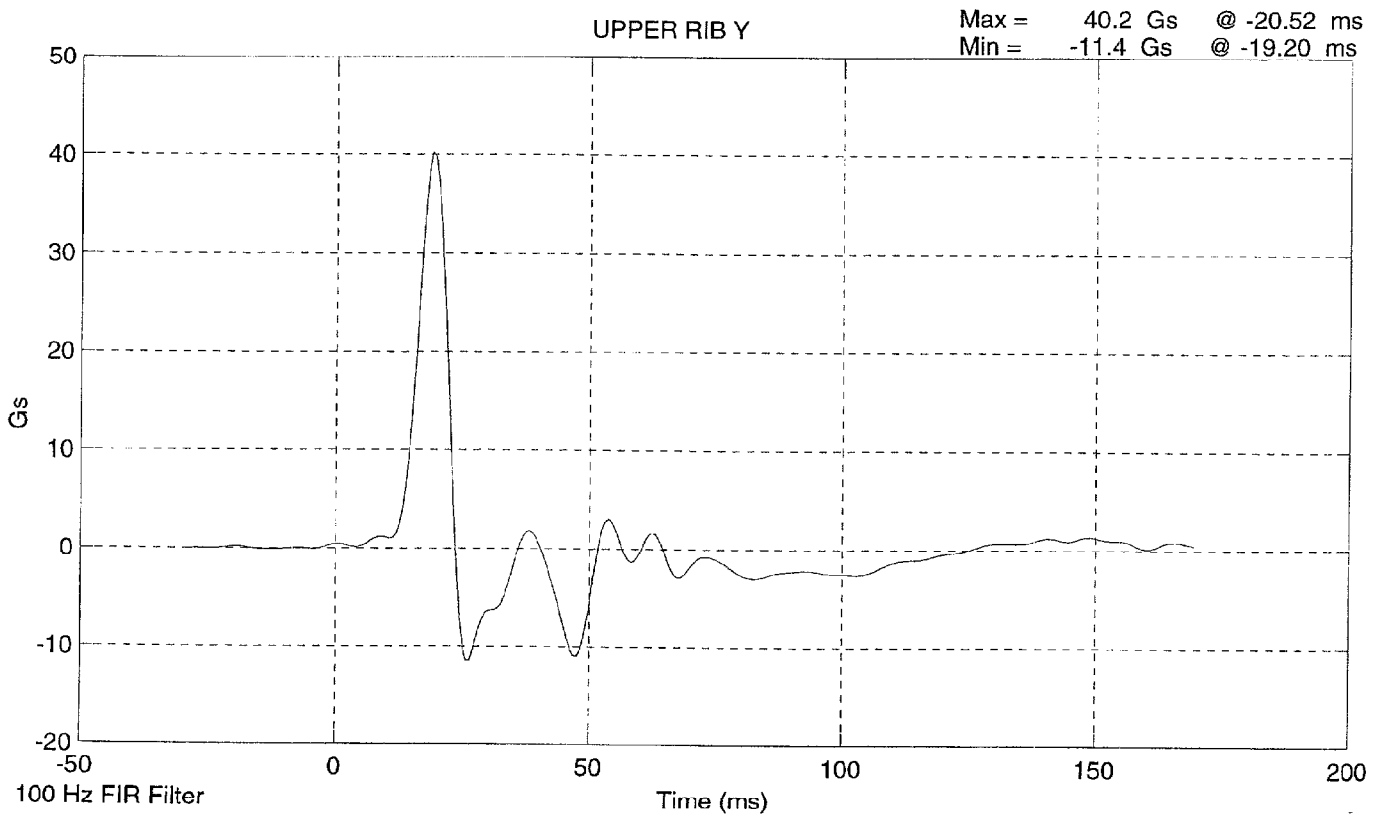
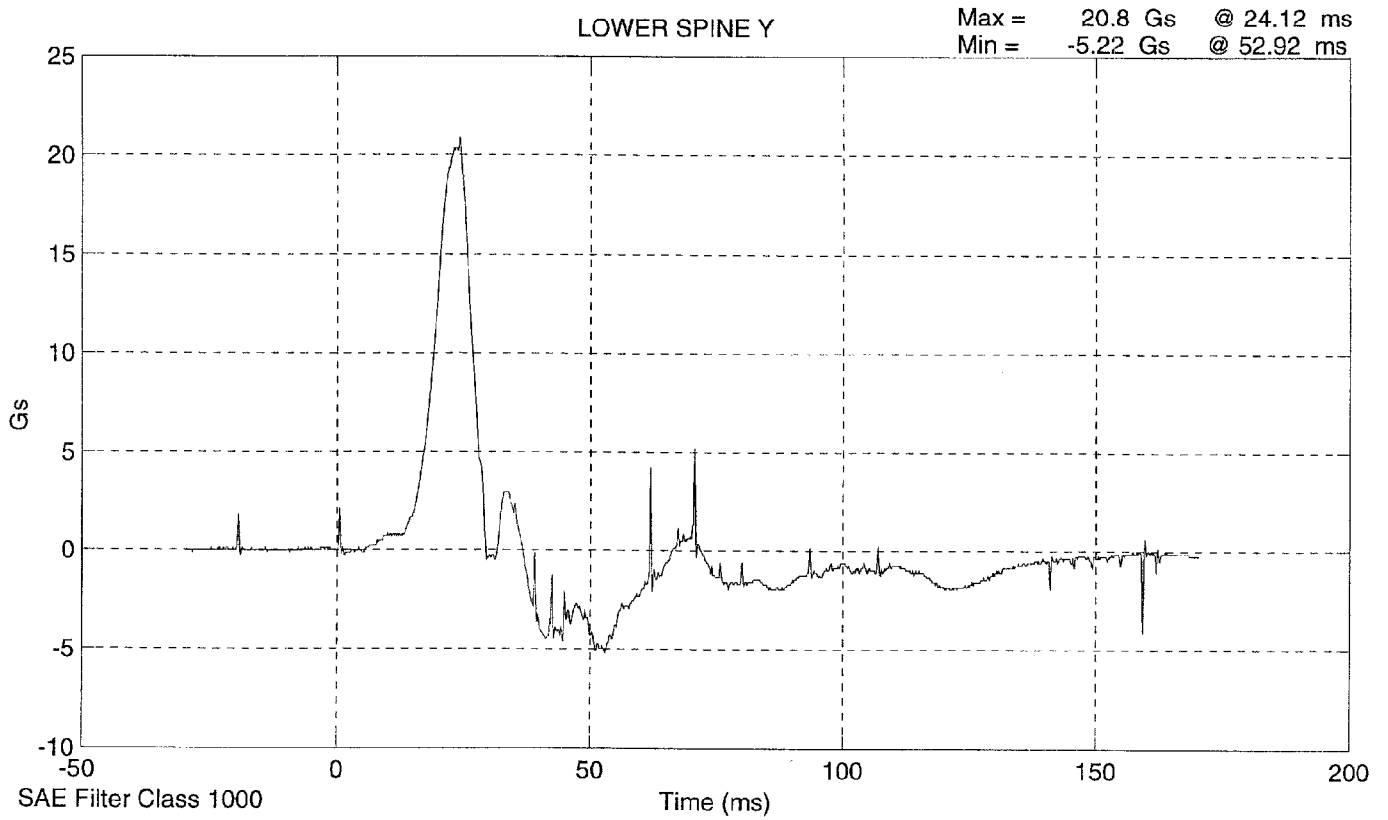
**CONFIGURED FOR LEFT SIDE IMPACT**

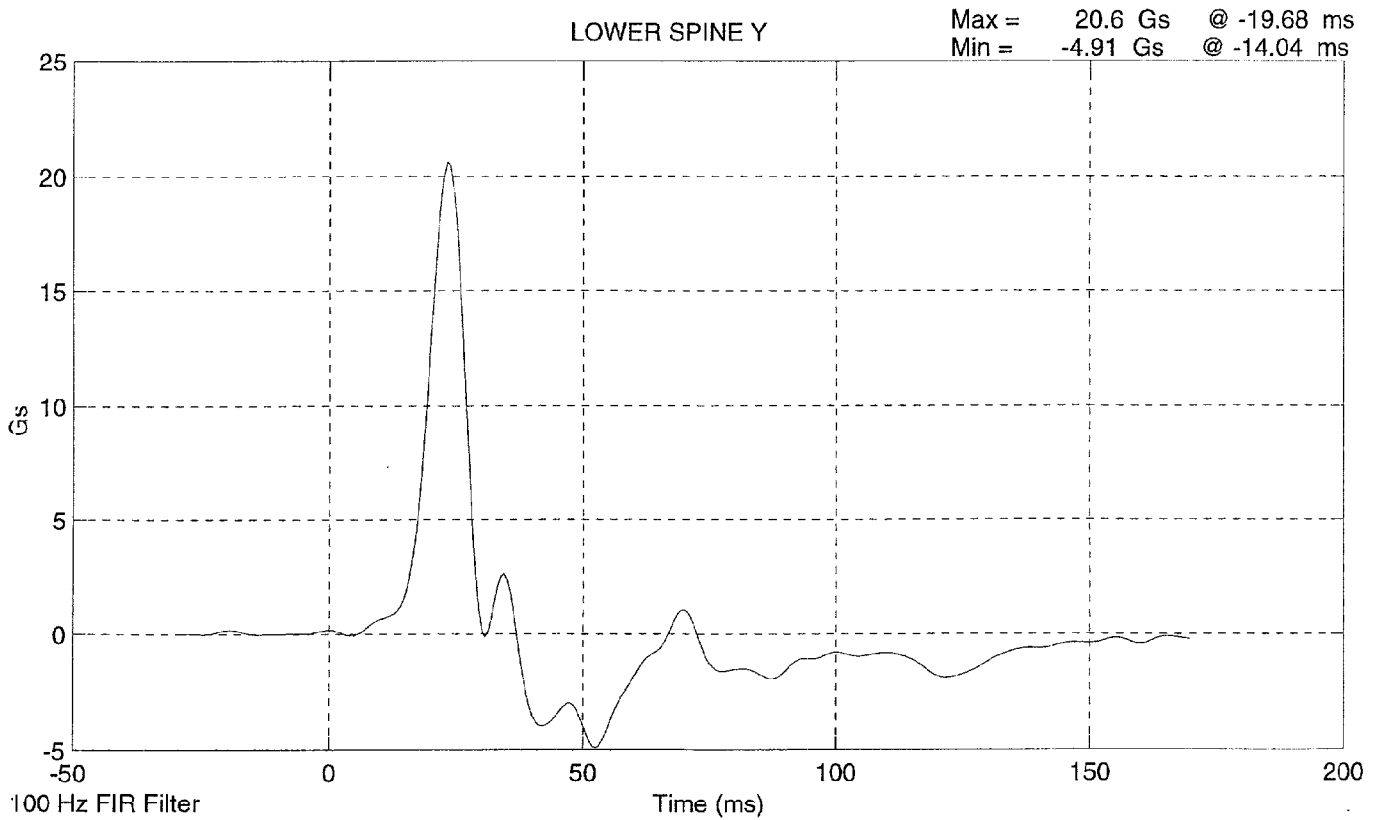
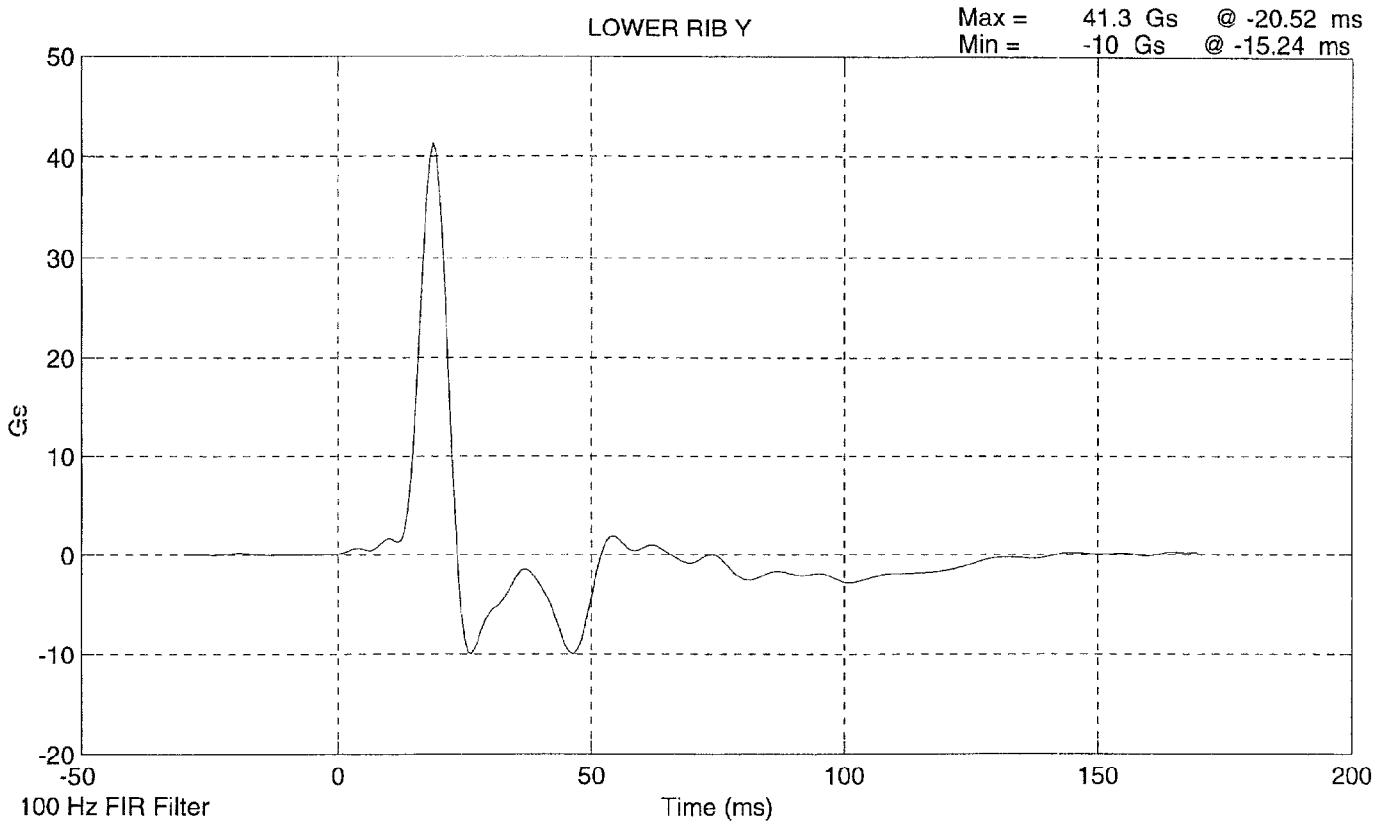
SID Serial No.: 016 Sequential Test Number: 2  
Date: February 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
PROBE SPEED (m/s)	4.27 - 4.33	4.31
UPPER RIB (g's)	37 - 46	40.2
LOWER RIB (g's)	37 - 46	41.3
LOWER SPINE (g's)	15 - 22	20.6

REMARKS: None







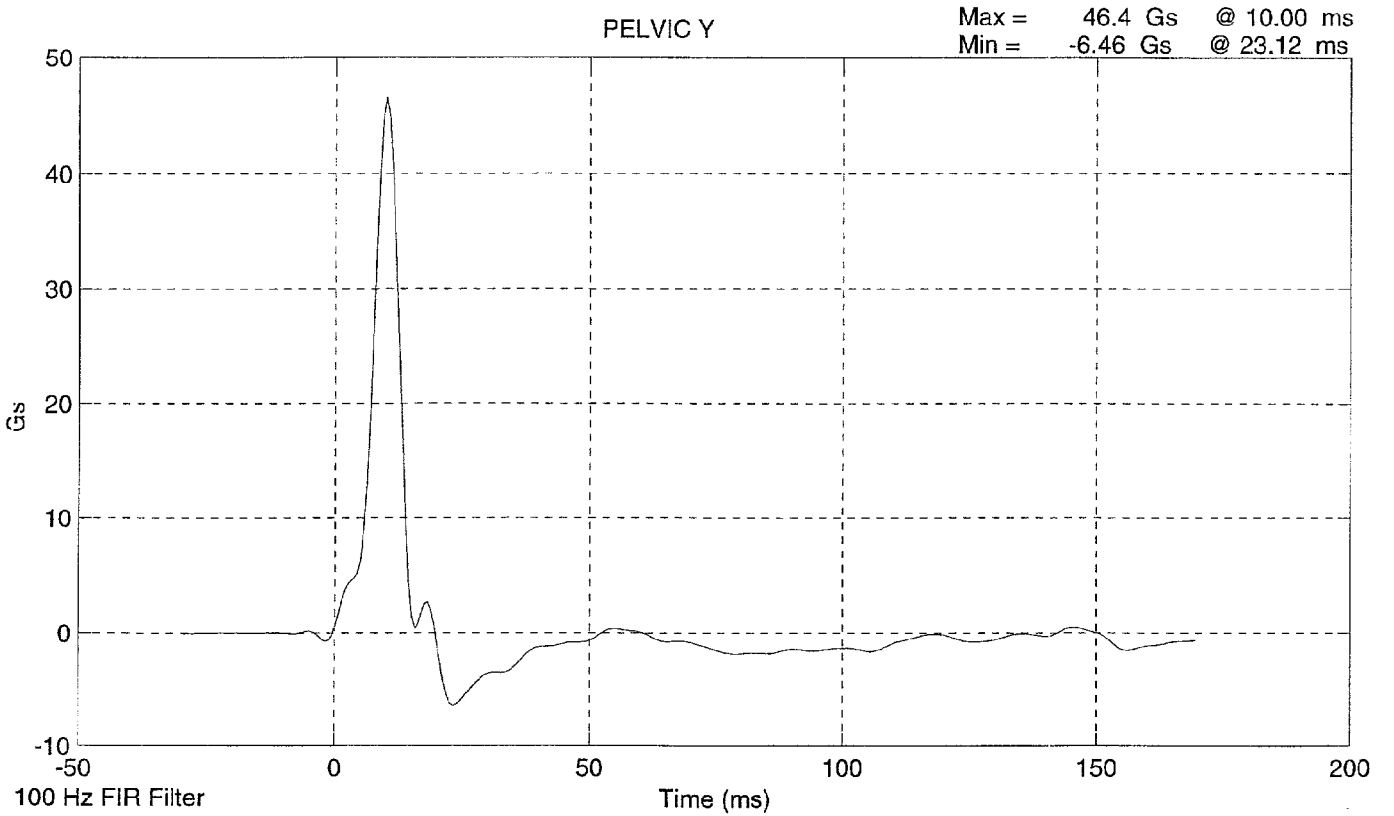
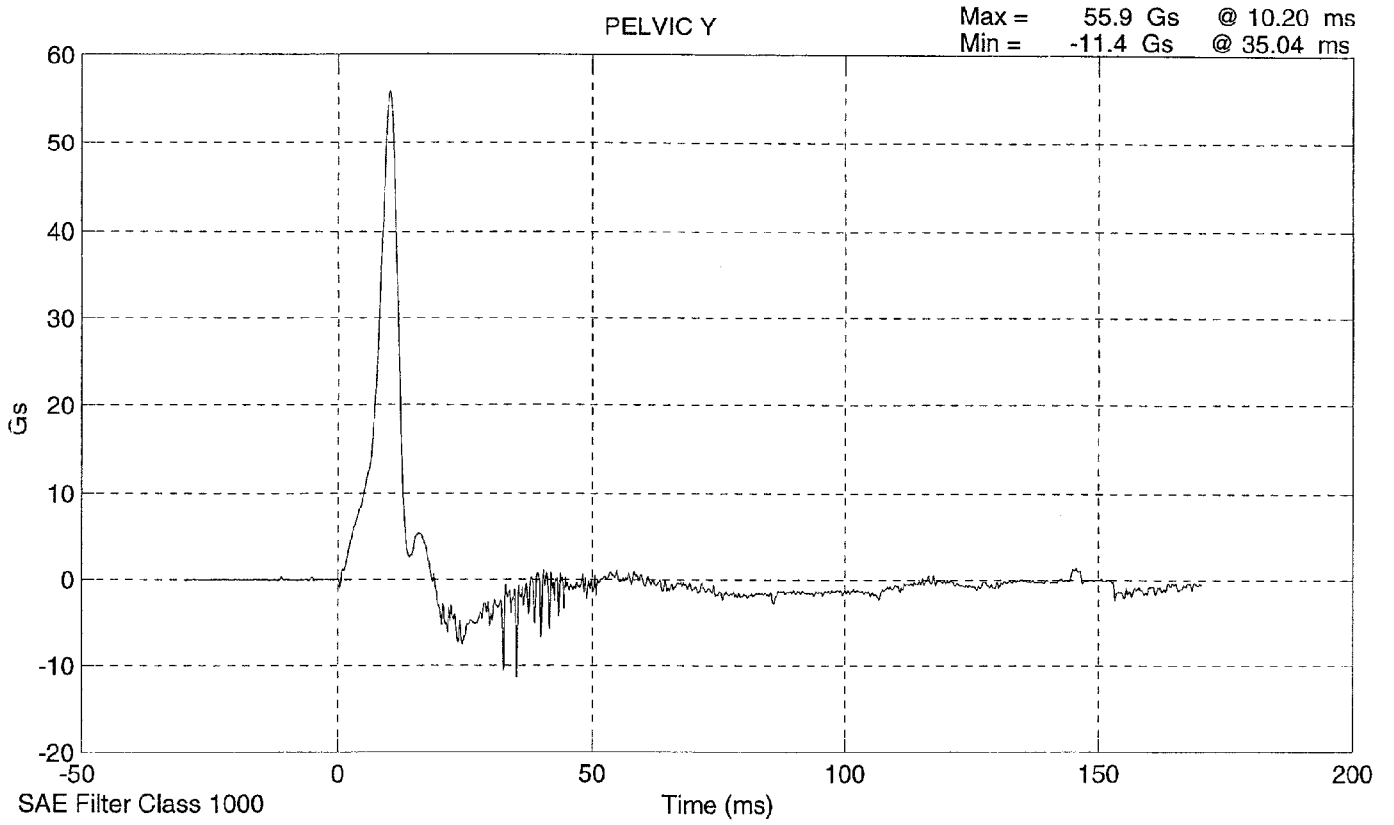
**LATERAL PELVIS IMPACT TEST  
POST TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 2  
Date: February 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
PROBE SPEED (m/s)	4.27 - 4.33	4.30
PELVIS ACCELERATION (g's)	40 - 60	46.4

**REMARKS:** None



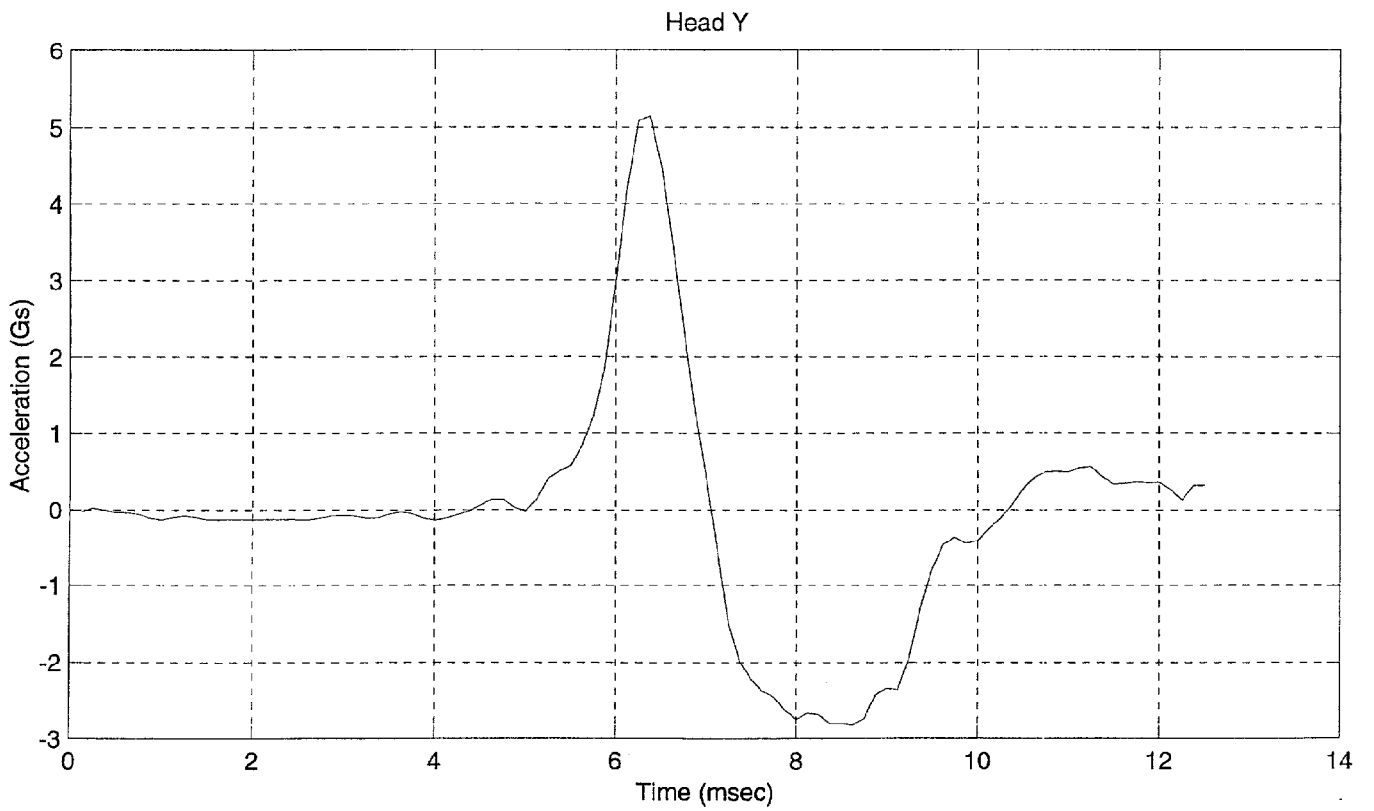
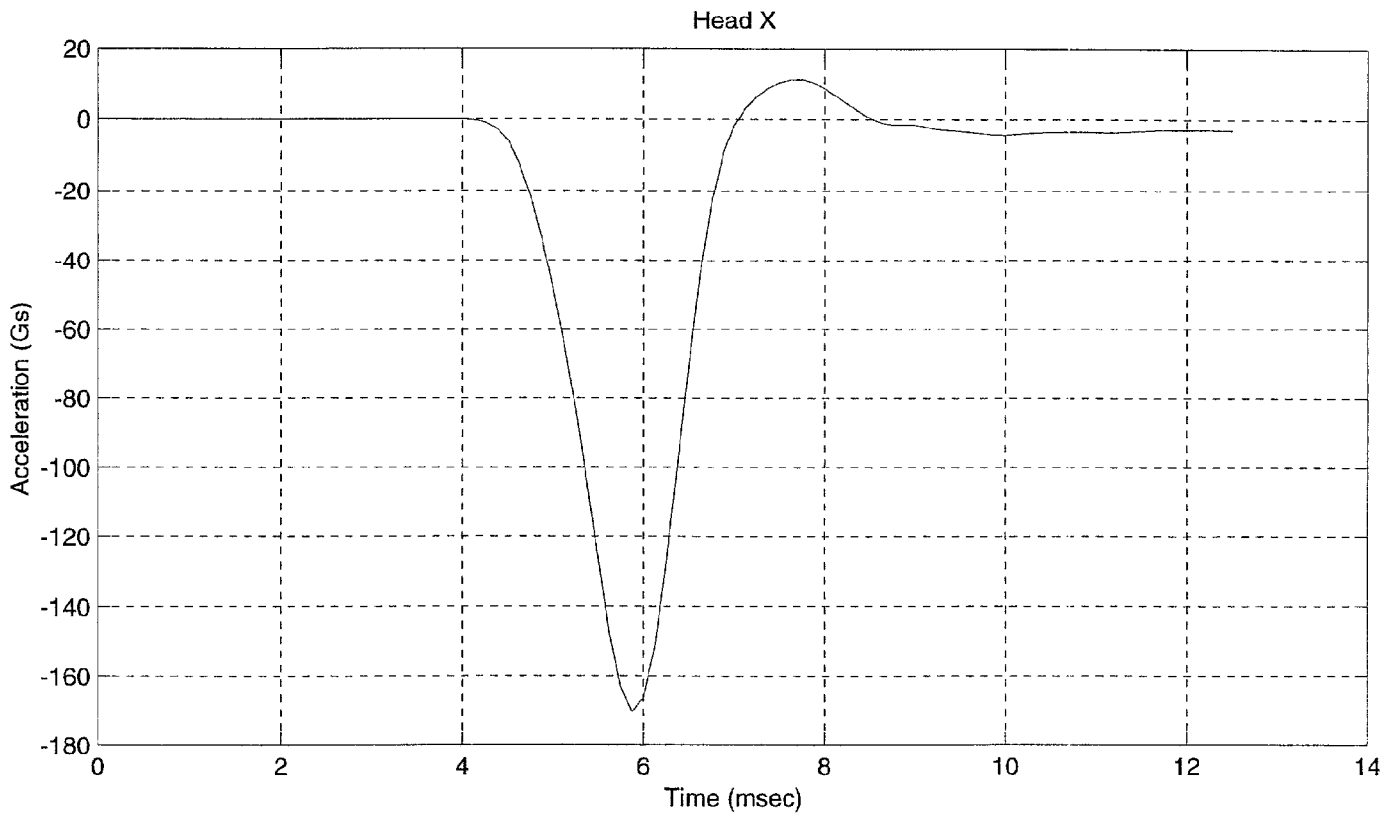
**HEAD DROP TEST**  
**POST-TEST**  
 (Test not required for SID certification)

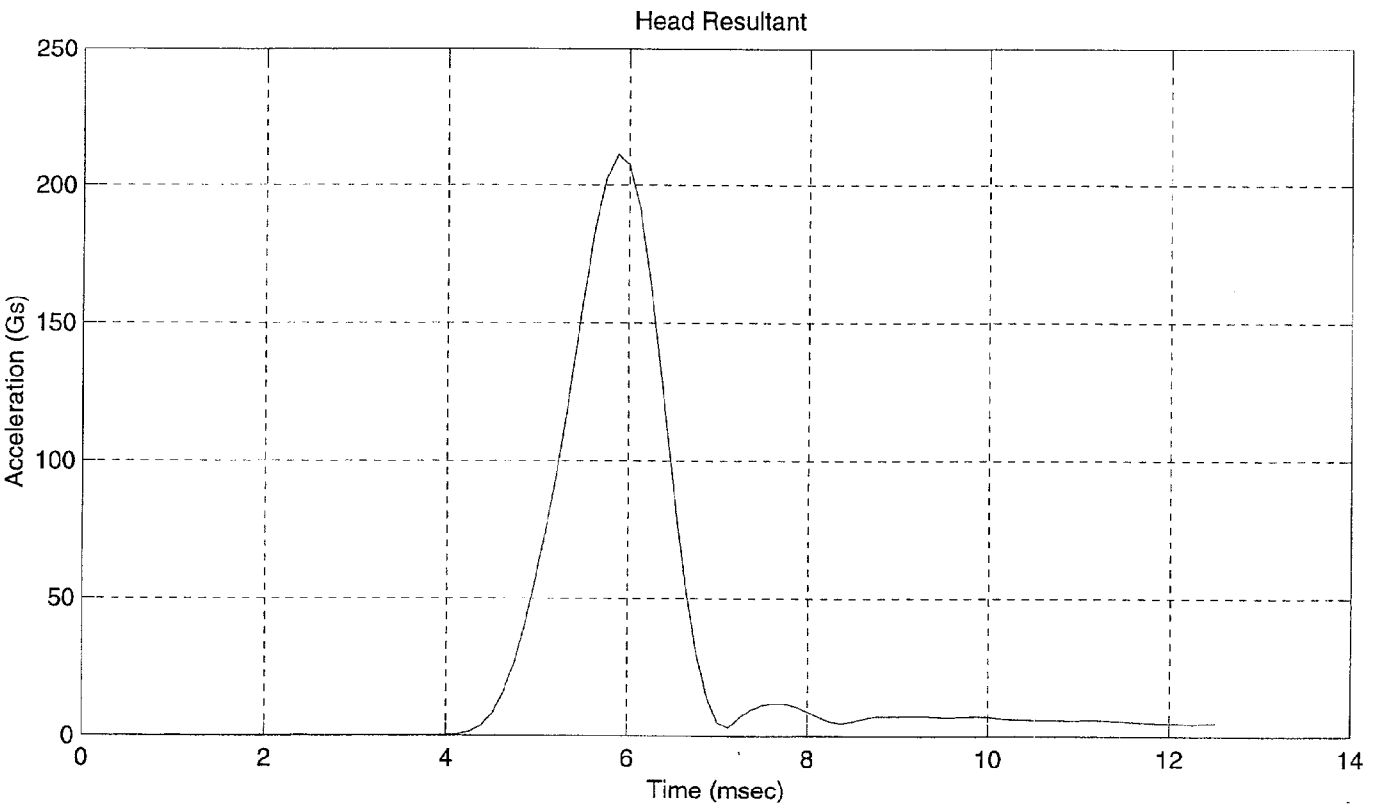
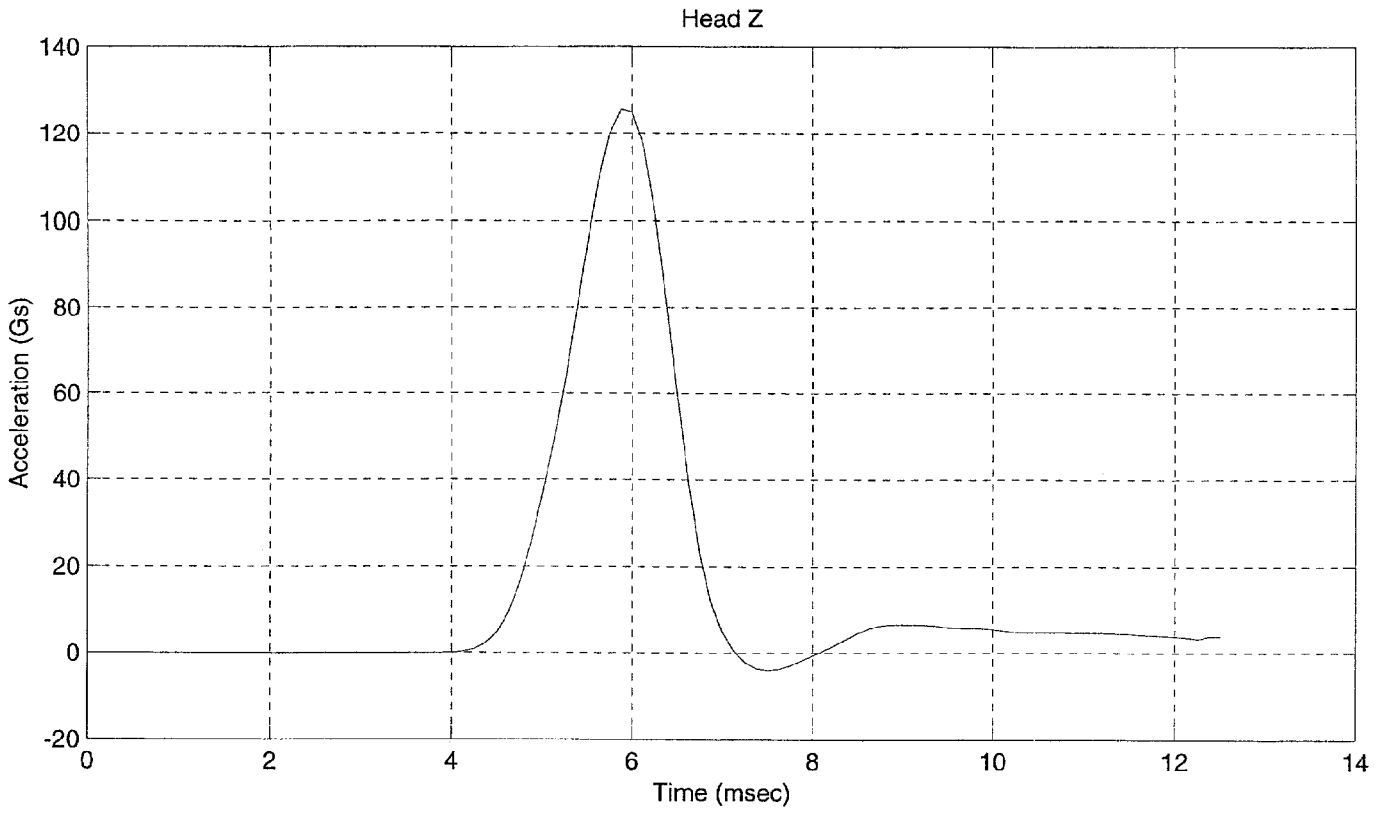
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 2  
 Date: February 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	211.56
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	5.14
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.25

**REMARKS:** None





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

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 2  
Date: February 28, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	32
FORCE @ 13 mm (N)	104 - 162	115.7
FORCE @ 19 mm (N)	163 - 221	175.7
FORCE @ 25 mm (N)	222 - 280	249.1
FORCE @ 33 mm (N)	325 - 391	351.4

REMARKS: None

Dummy S/N 316

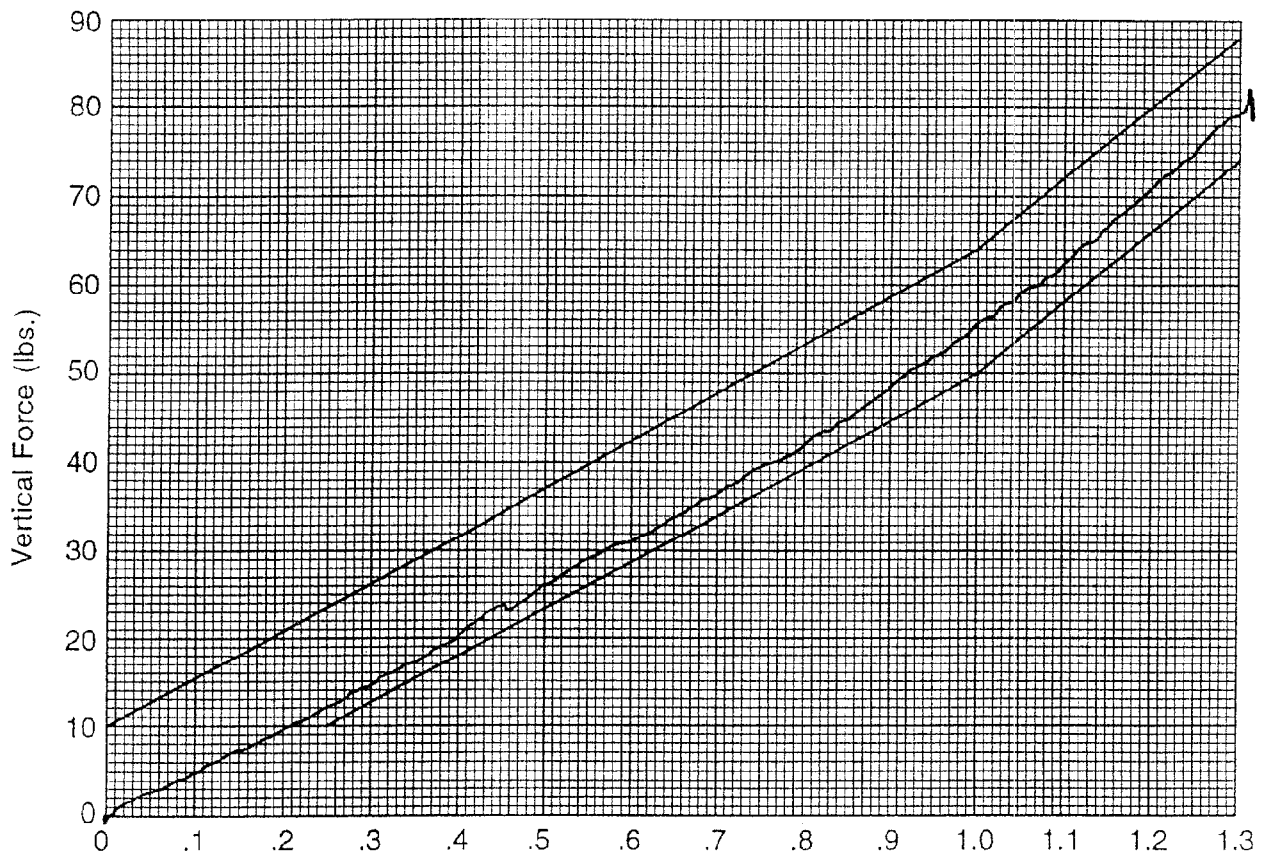
W/A \_\_\_\_\_

Date 2-28-2000

Performed By [Signature]

Temp. 71°

Humidity 32°



Hybrid II  
Abdomen Static Press

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

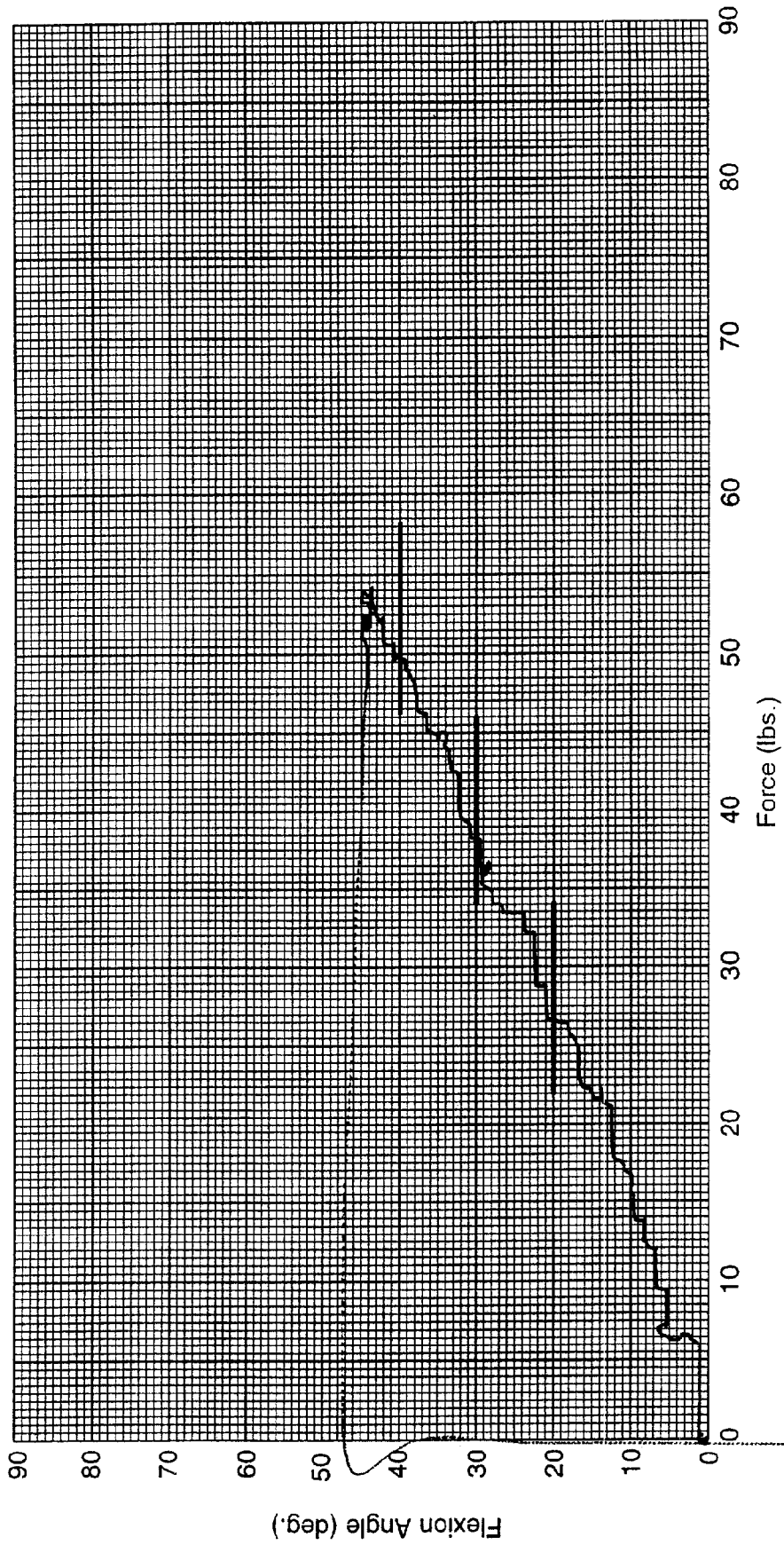
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 2  
 Date: February 28, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	32
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	117.9
FORCE @ 30° (N)	151.2 - 204.6	170.1
FORCE @ 40° (N)	204.6 - 258	221.3
RETURN ANGLE	12° max.	8

**REMARKS:** None

Dummy S/N 016  
 W/A \_\_\_\_\_  
 Date 2-28-2000  
 Performed By BSA  
 Temp. 70°  
 Humidity 32%



Hybrid II Lumbar Spine Flexion Test

**POST TEST DUMMY INSPECTION LIST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 016 Sequential Test Number: 2  
 Date: February 28, 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: 3  
Date: February 28, 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: 3  
Date: February 28, 2000 Laboratory Technician: B. Swiccicki

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	236
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

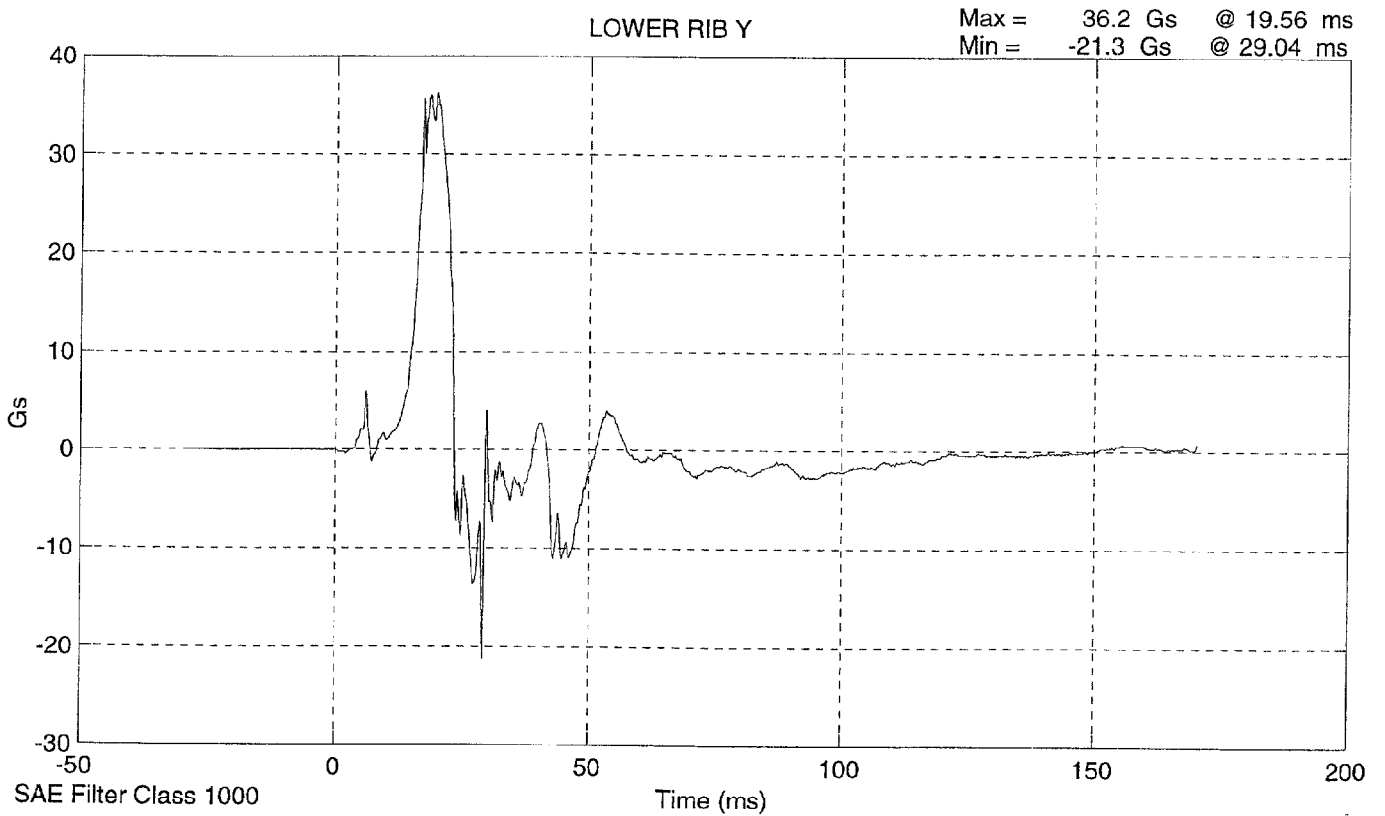
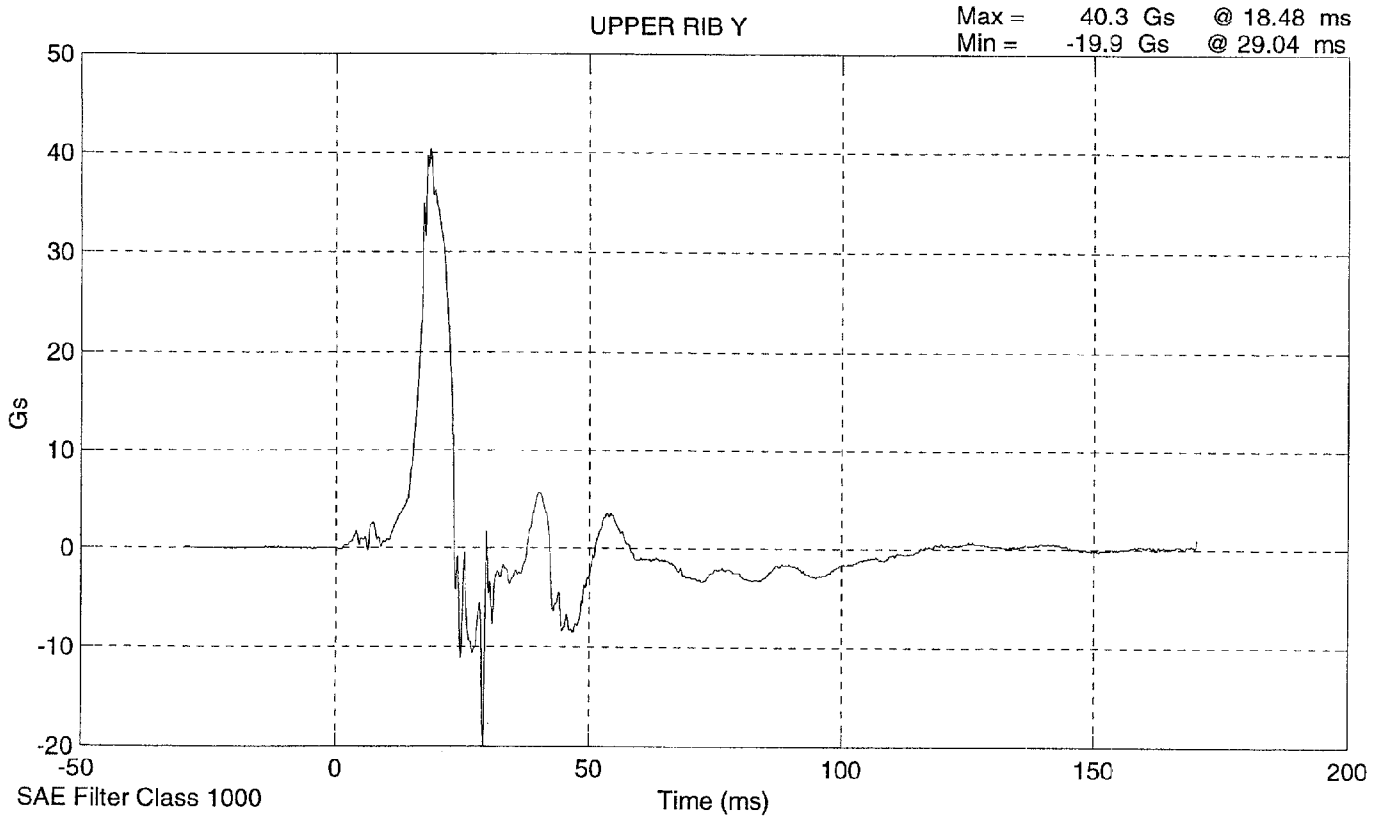
**LATERAL THORAX IMPACT TEST  
POST TEST**

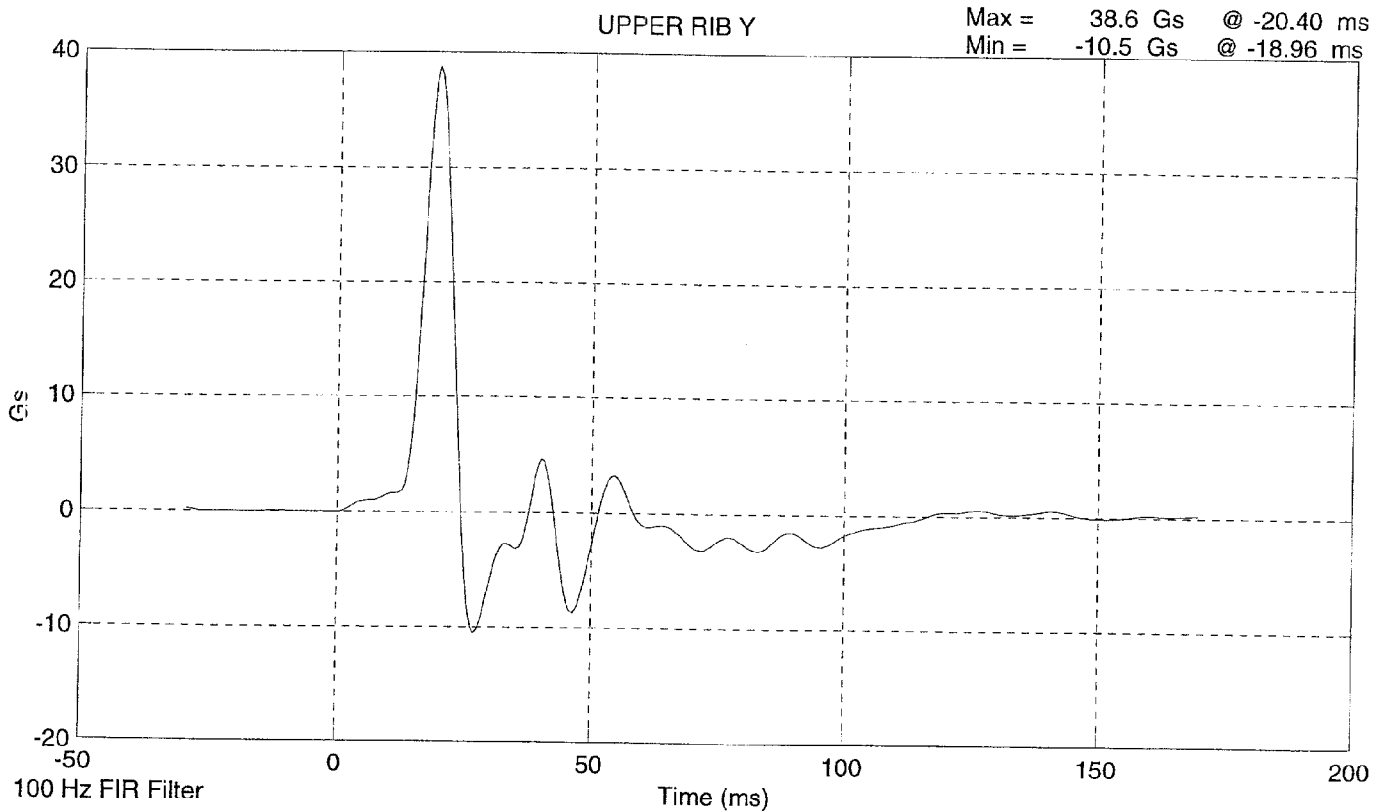
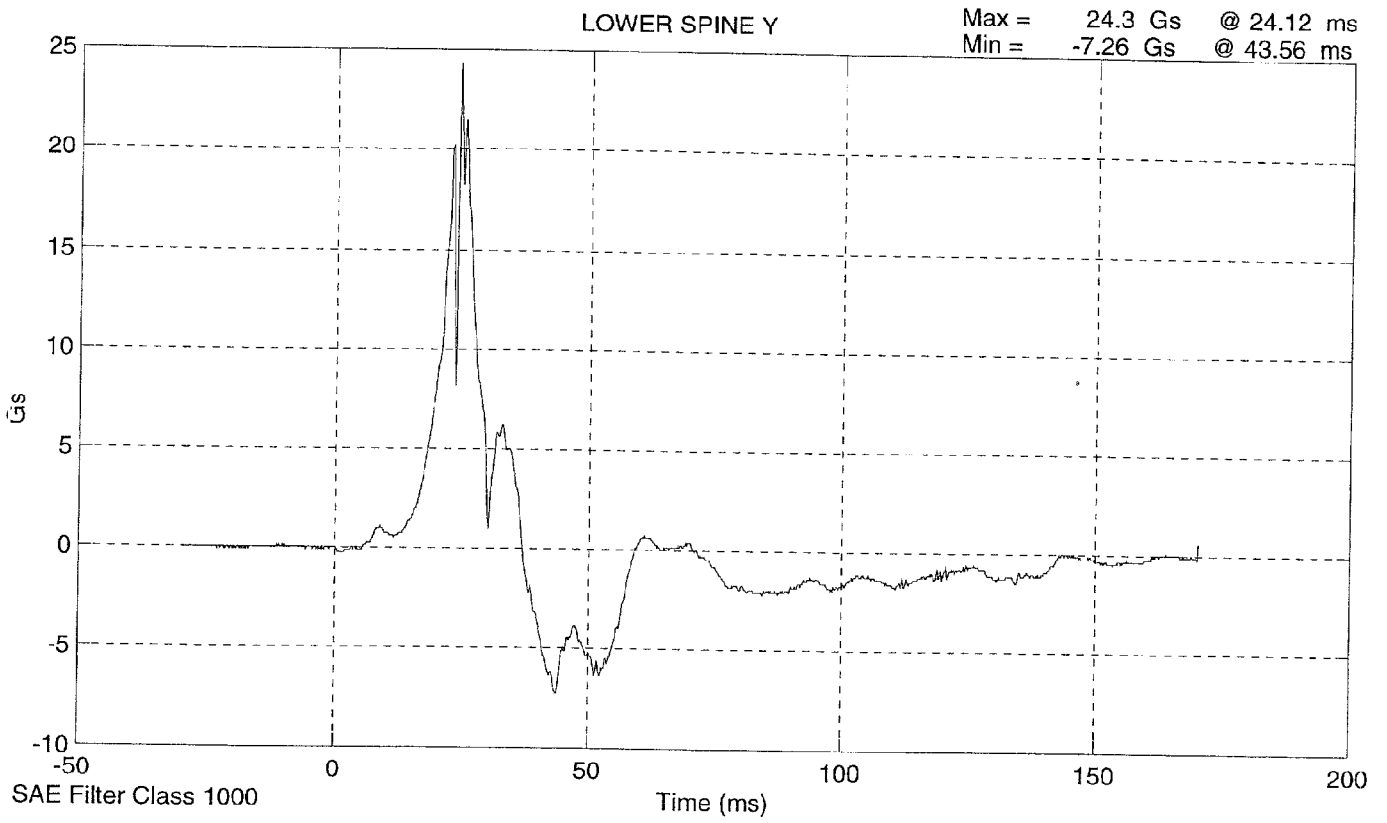
**CONFIGURED FOR LEFT SIDE IMPACT**

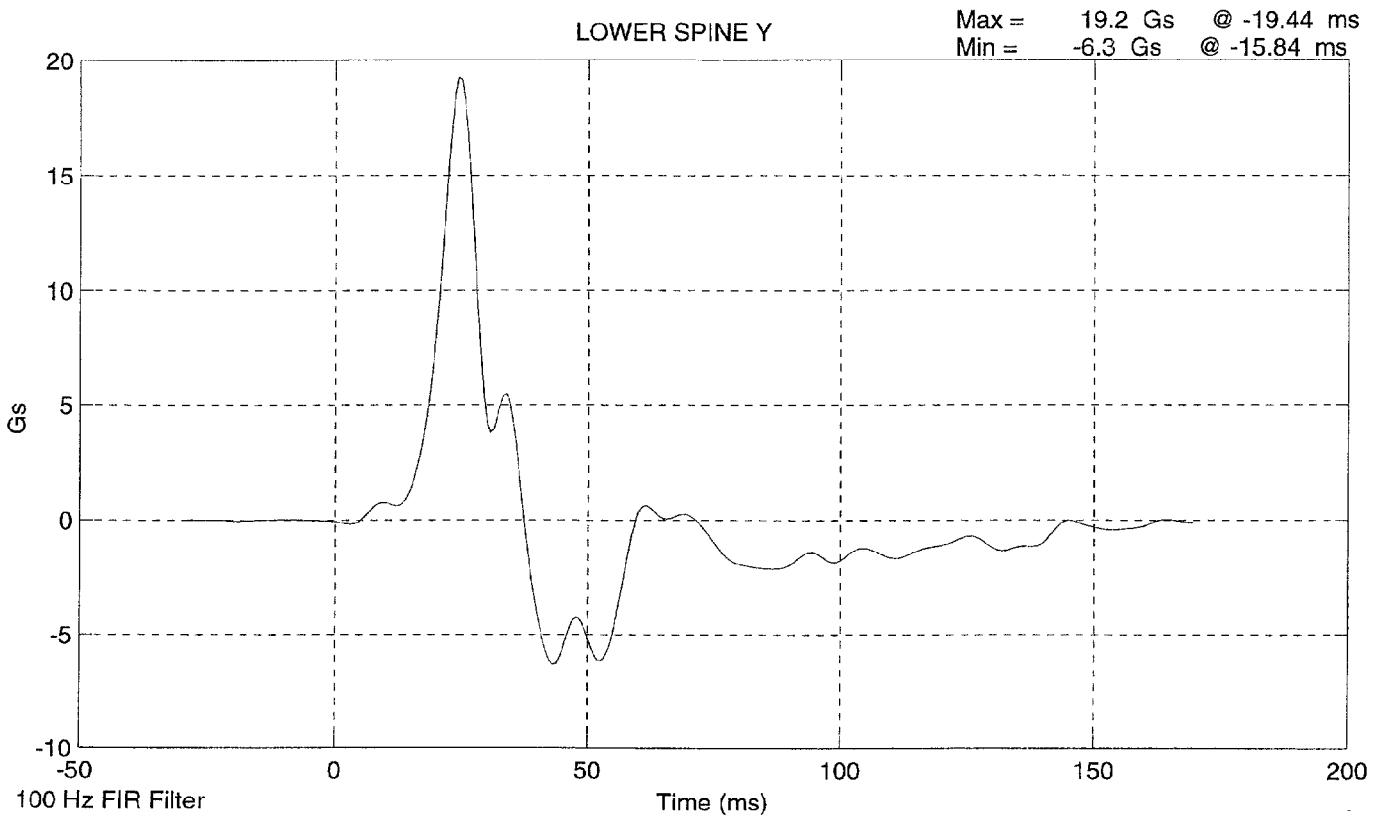
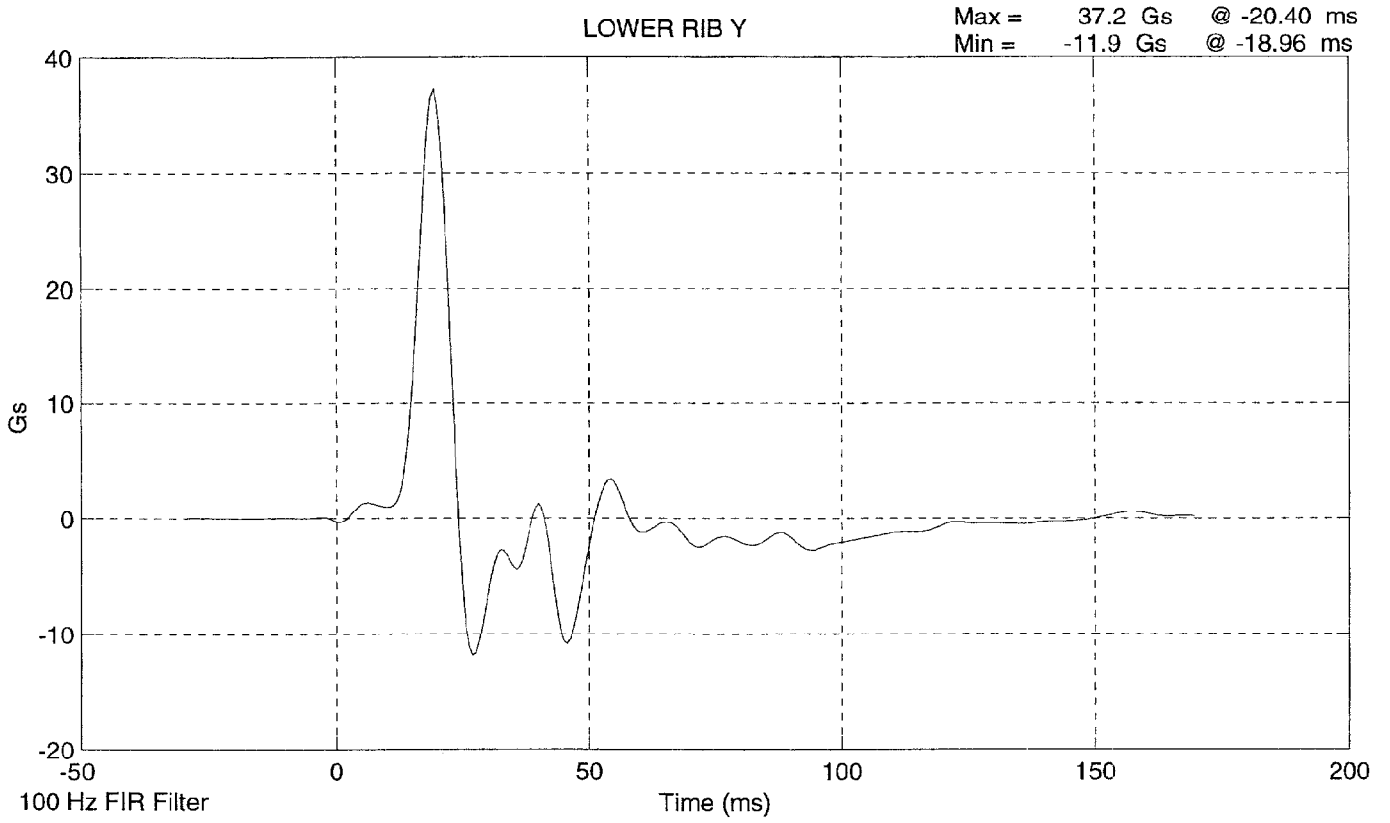
SID Serial No.: 268 Sequential Test Number: 3  
Date: February 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46	38.6
LOWER RIB (g's)	37 - 46	37.2
LOWER SPINE (g's)	15 - 22	19.2

**REMARKS:** None







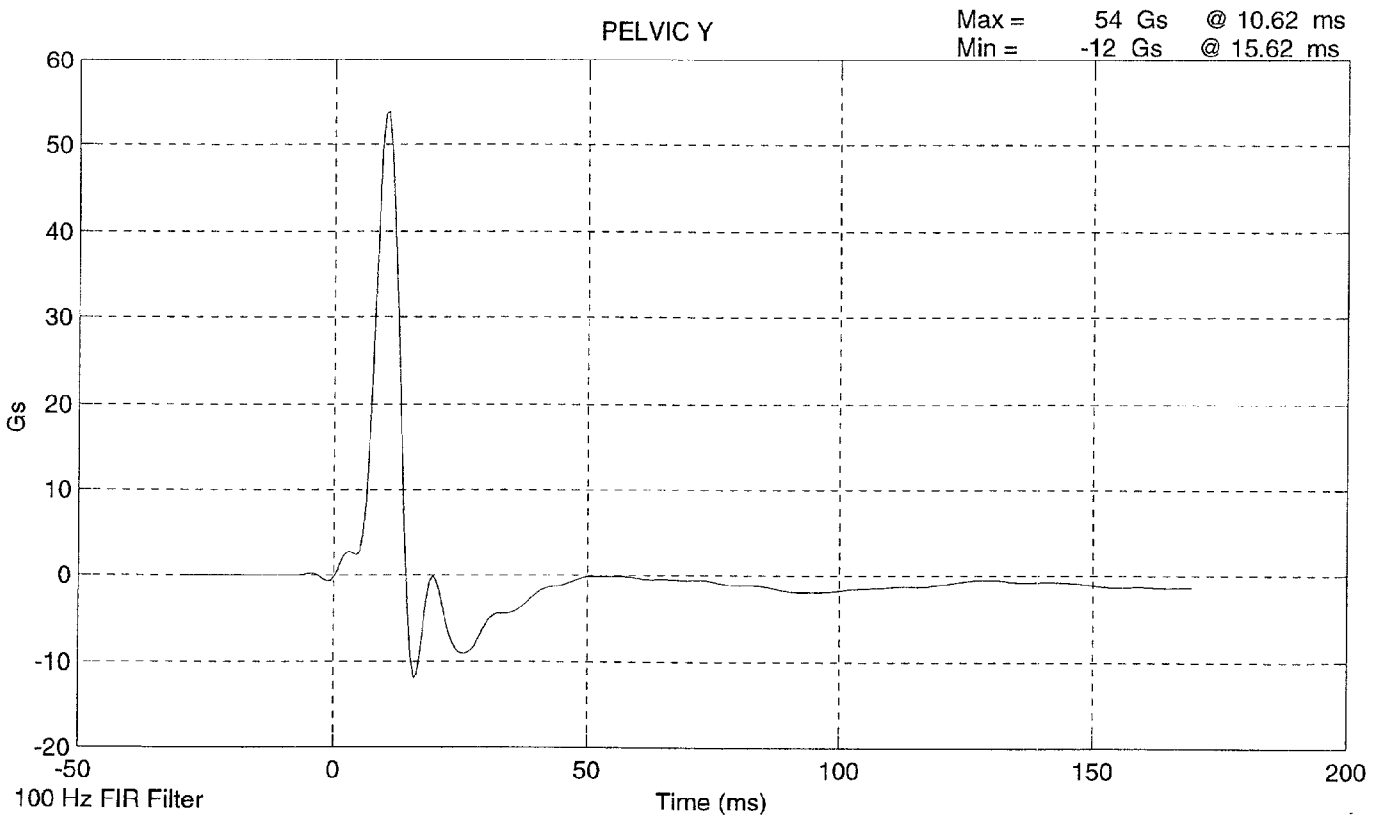
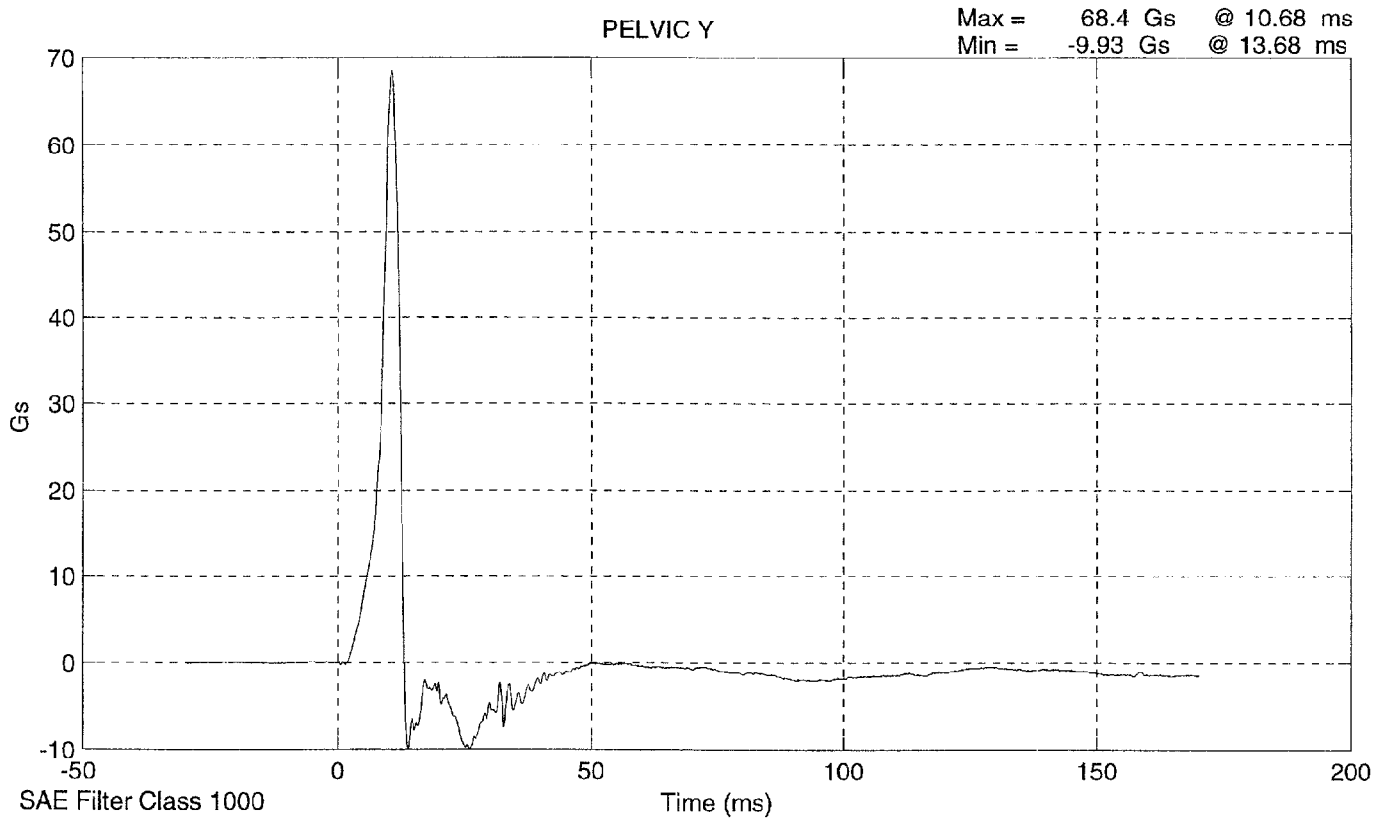
**LATERAL PELVIS IMPACT TEST  
POST TEST**

**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 268 Sequential Test Number: 3  
Date: February 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
PROBE SPEED (m/s)	4.27 - 4.33	4.28
PELVIS ACCELERATION (g's)	40 - 60	54.0

REMARKS: None



**HEAD DROP TEST**

**POST-TEST**

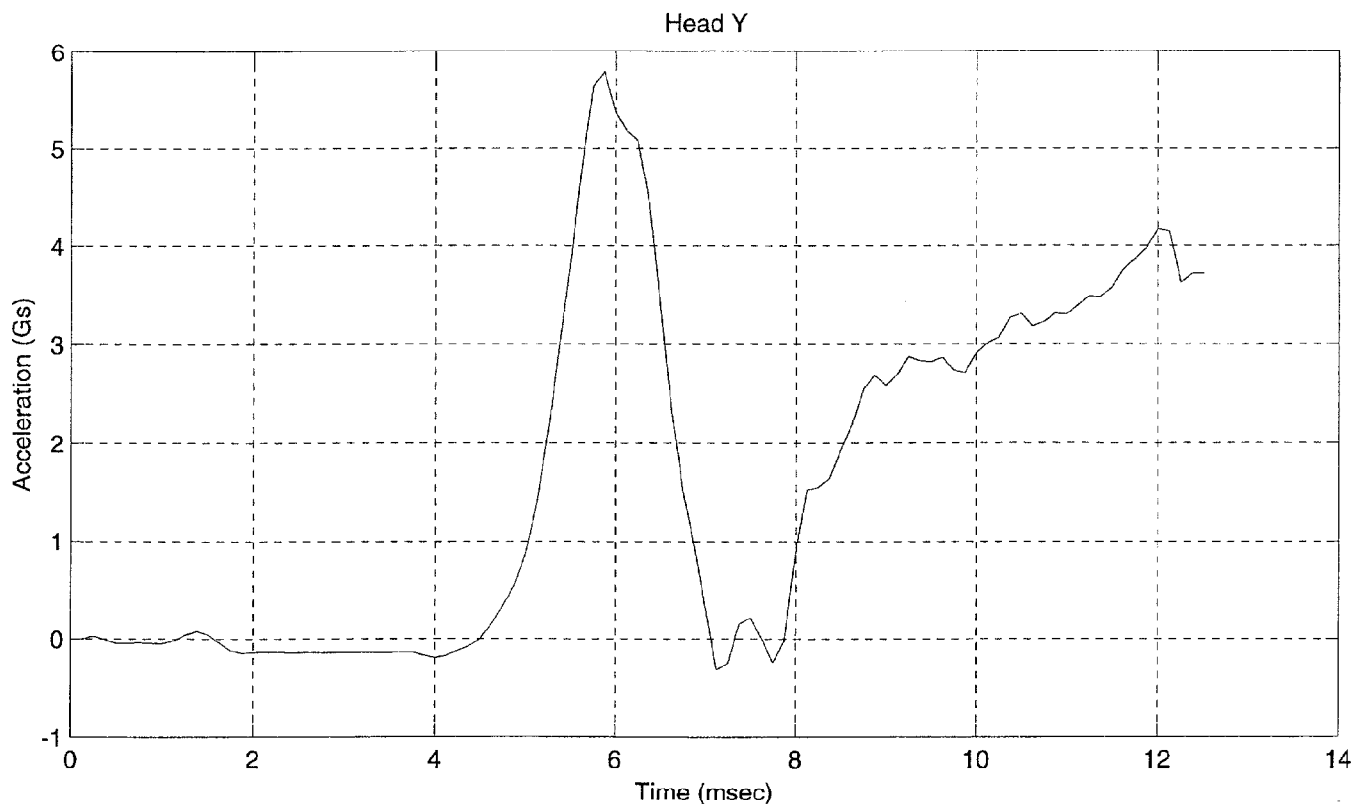
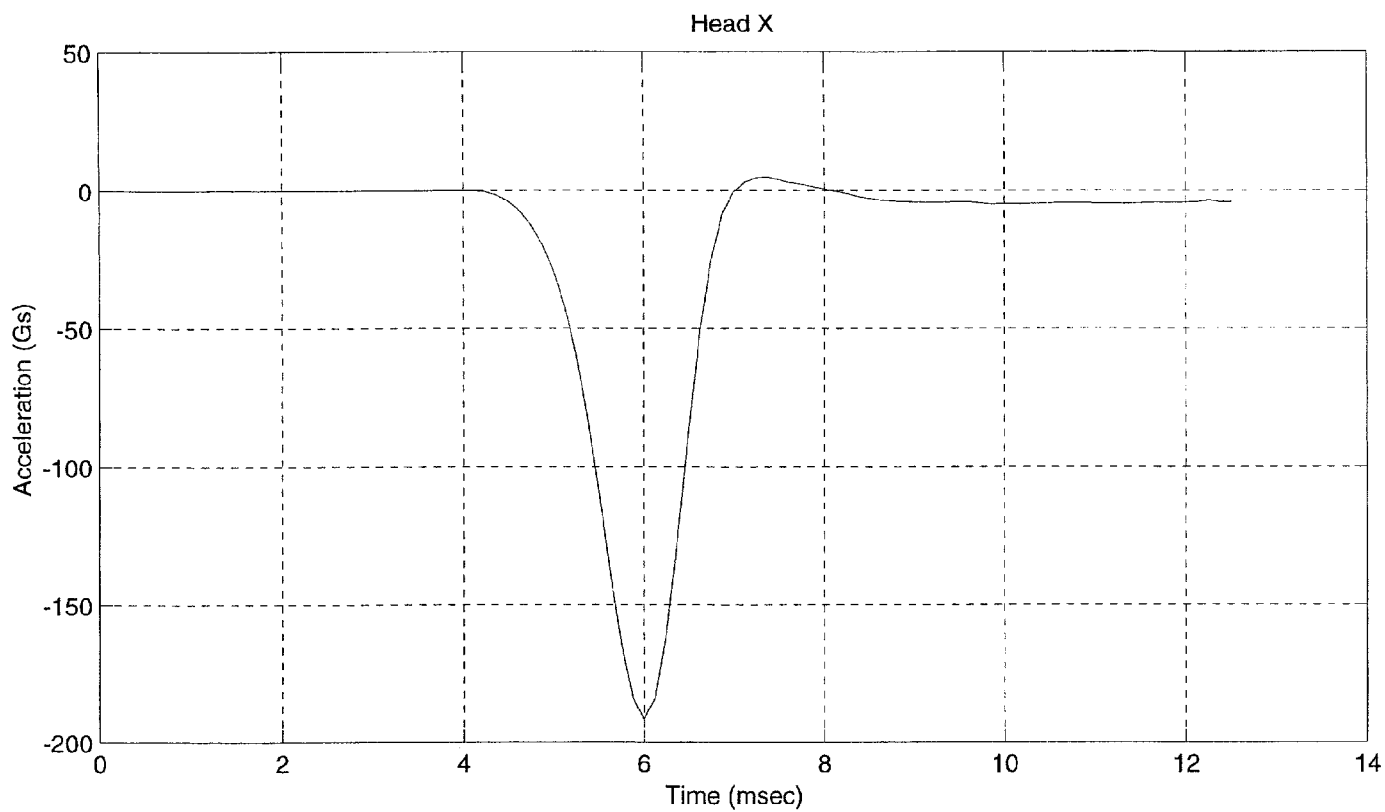
(Test not required for SID certification)

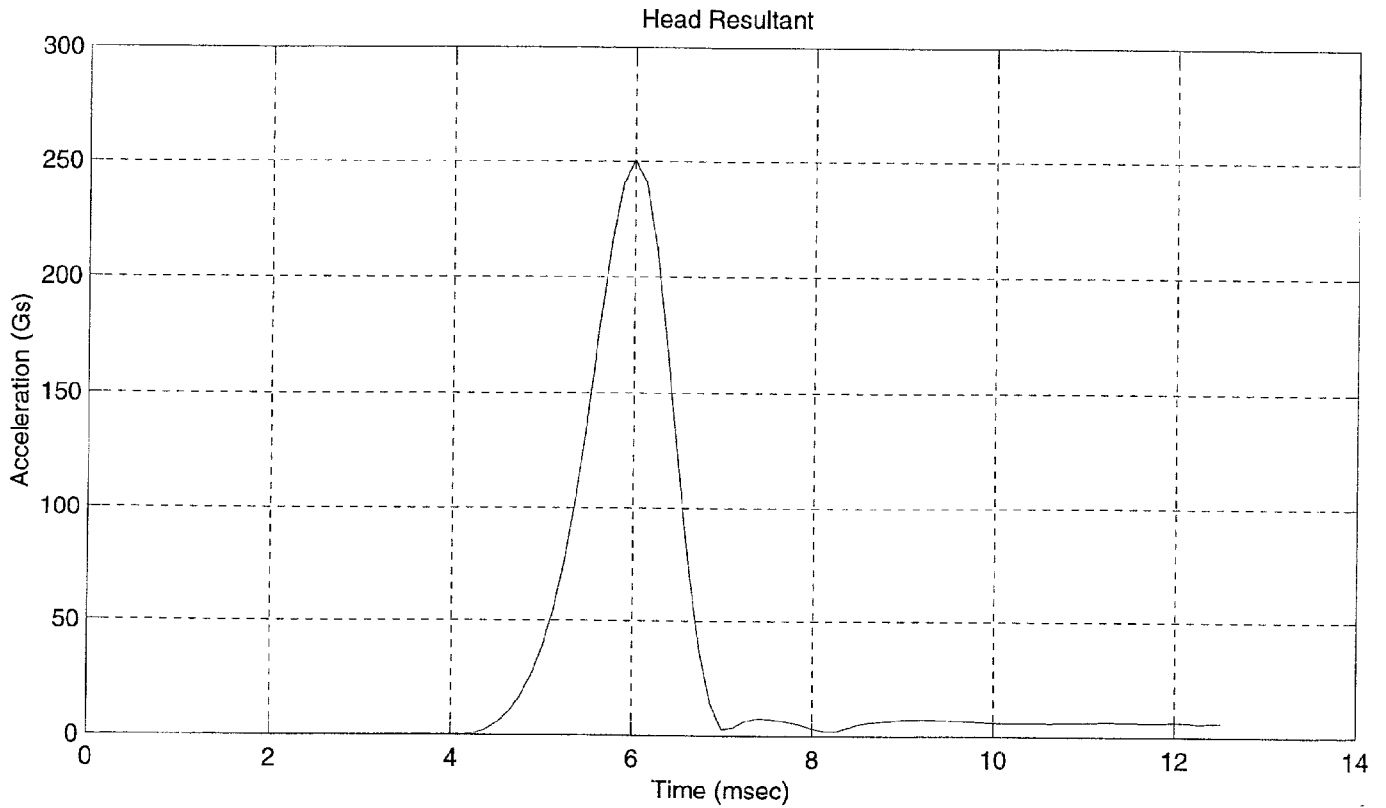
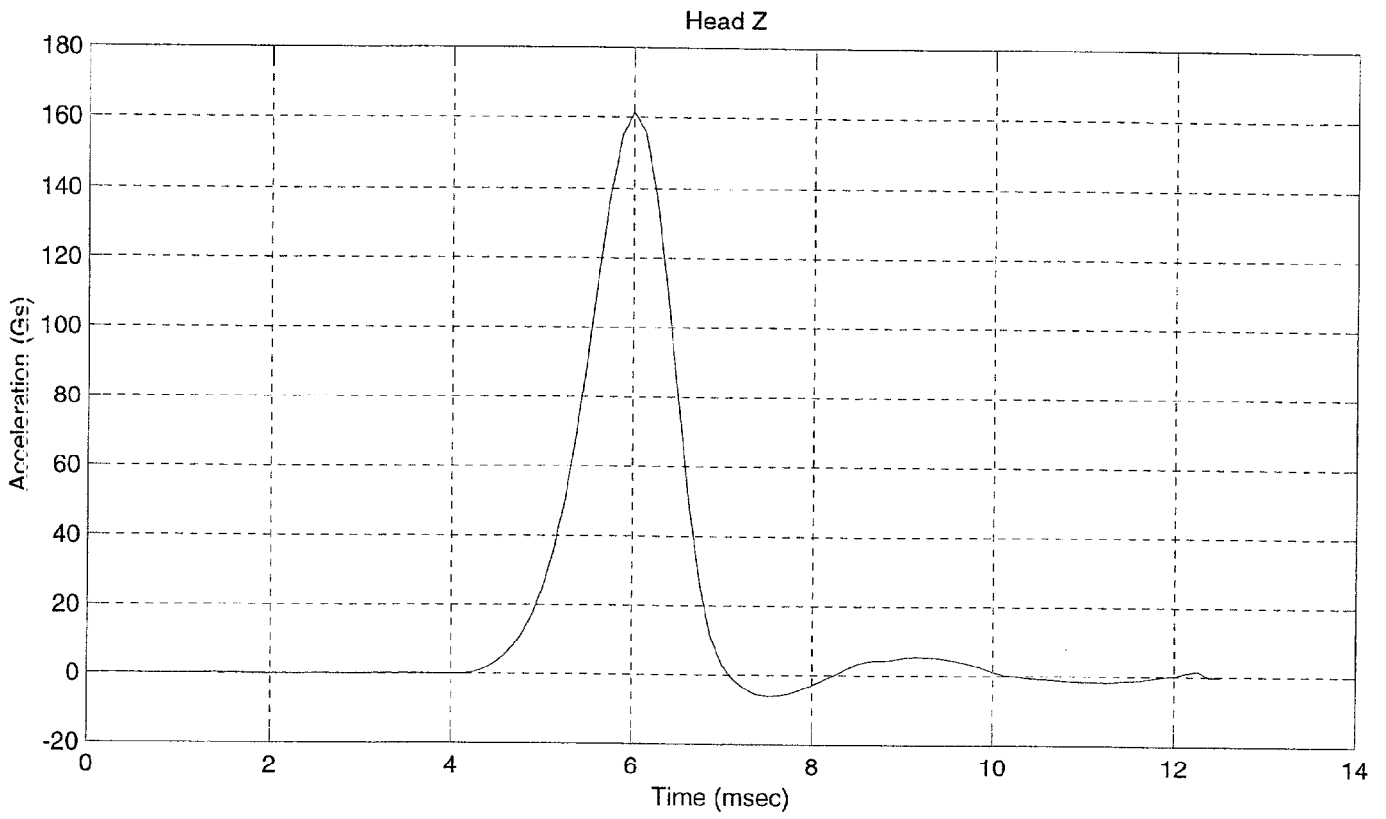
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 268 Sequential Test Number: 3  
Date: February 22, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	250.64
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	5.79
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.: 268 Sequential Test Number: 3  
Date: February 28, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	32
FORCE @ 13 mm (N)	104 - 162	115.7
FORCE @ 19 mm (N)	163 - 221	173.5
FORCE @ 25 mm (N)	222 - 280	275.8
FORCE @ 33 mm (N)	325 - 391	349.2

**REMARKS:** None

Dummy S/N 268

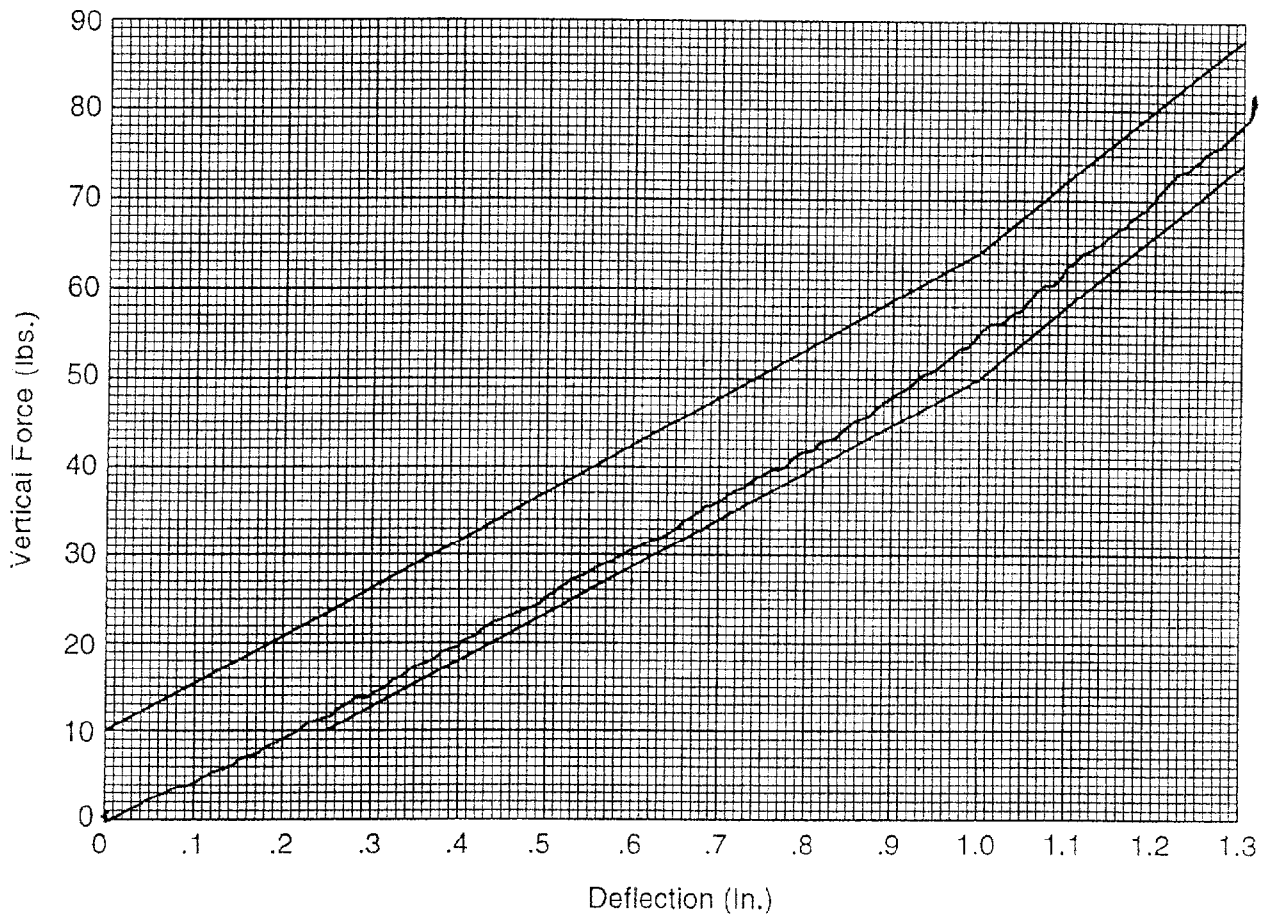
W/A \_\_\_\_\_

Date 2-28-2000

Performed By BT

Temp. 71°

Humidity 32°



Hybrid II  
Abdomen Static Press

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

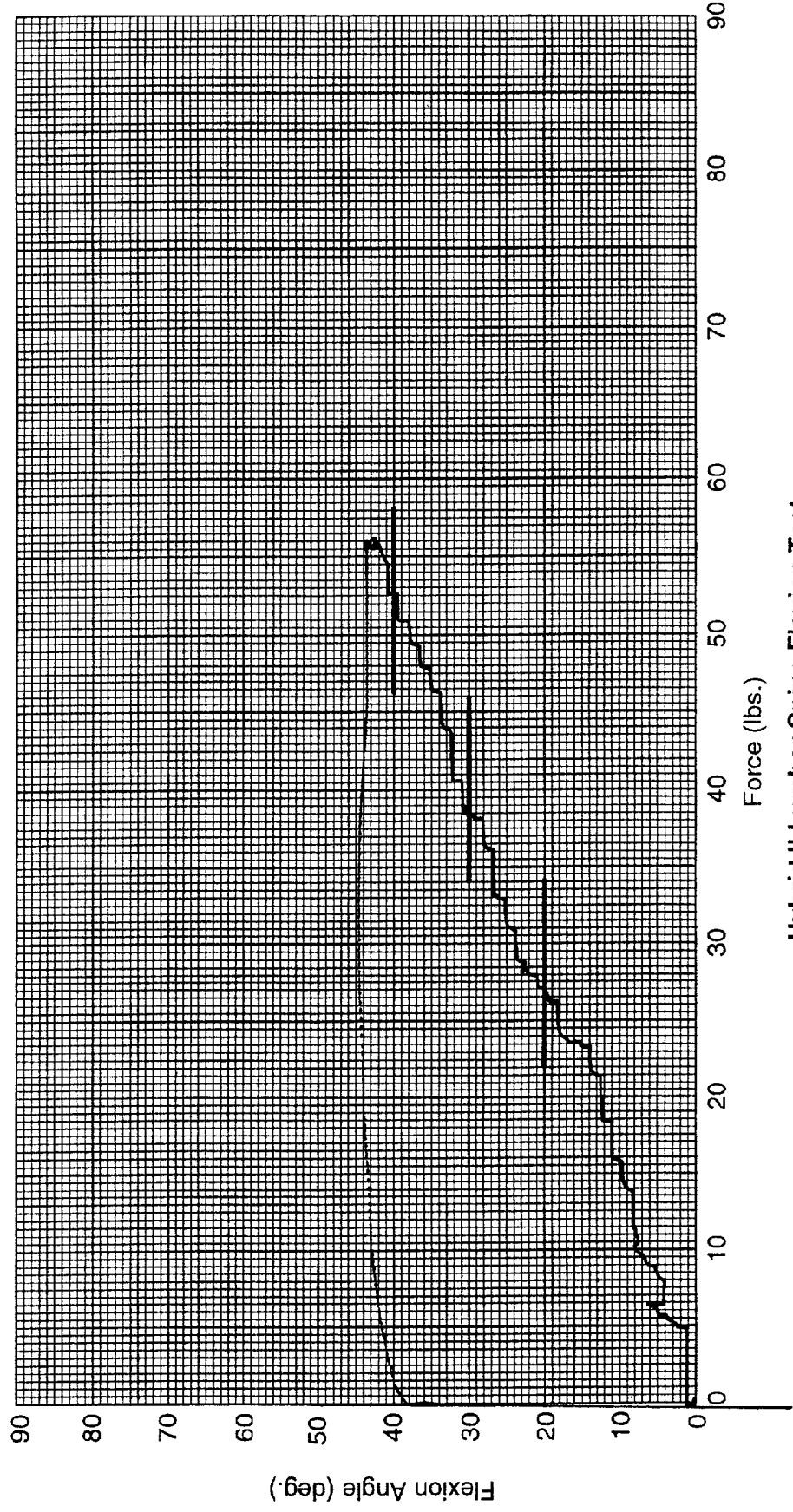
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 268 Sequential Test Number: 3  
Date: February 28, 2000 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	32
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	117.9
FORCE @ 30° (N)	151.2 - 204.6	171.3
FORCE @ 40° (N)	204.6 - 258	233.5
RETURN ANGLE	12° max.	6

REMARKS: None

Dummy S/N 268  
 W/A \_\_\_\_\_  
 Date 2-28-2000  
 Performed By [Signature]  
 Temp. 70°  
 Humidity 32°



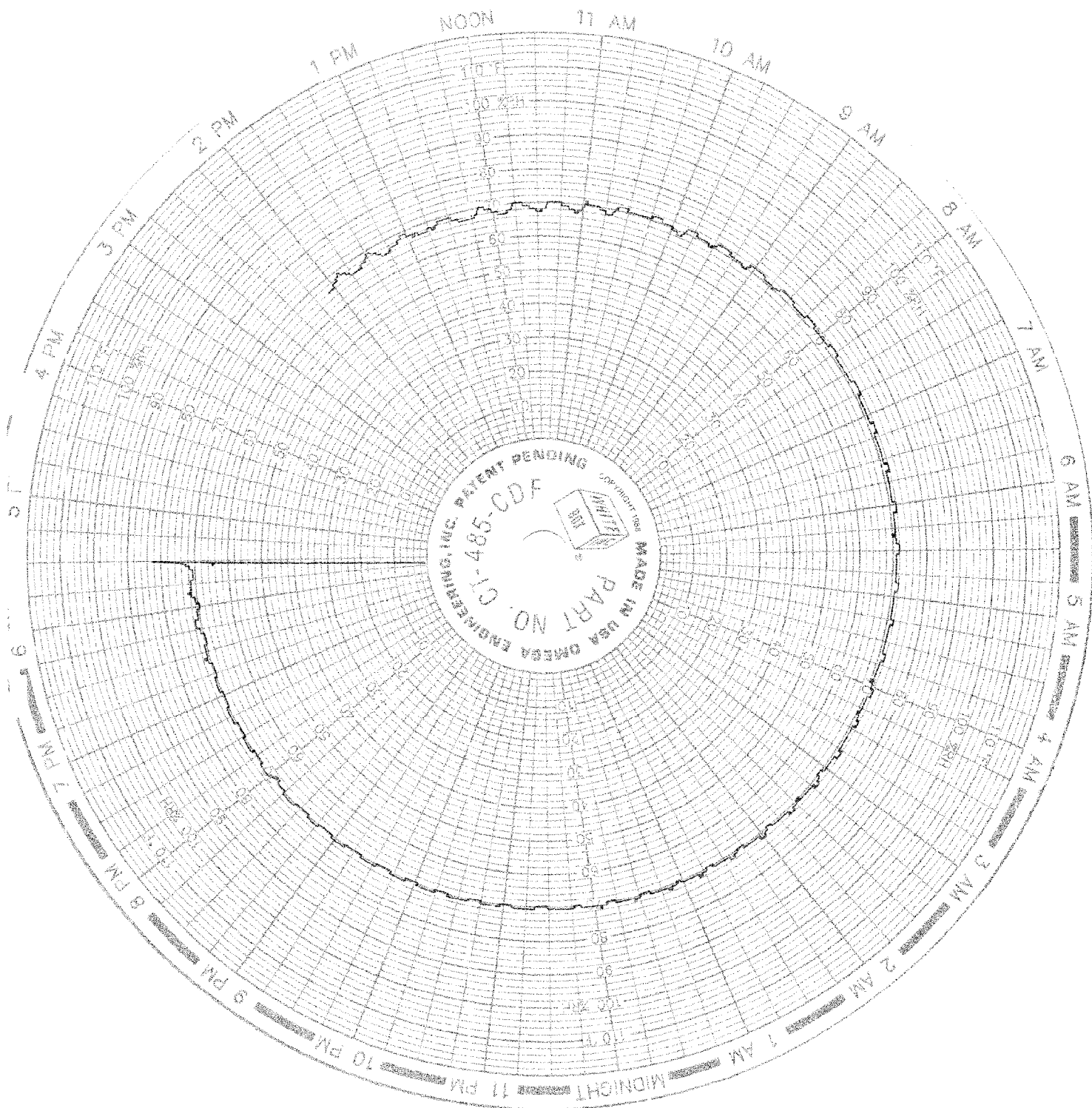
Hybrid II Lumbar Spine Flexion Test

**POST TEST DUMMY INSPECTION LIST**  
**CONFIGURED FOR LEFT SIDE IMPACT**

SID Serial No.: 268 Sequential Test Number: 3  
 Date: February 28, 2000 Laboratory Technician: B. Swiccicki

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.: 016			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD (X)	AC-AE8T7	ENDEVCO	1-Sep-99
HEAD (Y)	AC-AD4A9	ENDEVCO	17-Dec-99
HEAD (Z)	AC-A27A	ENDEVCO	17-Nov-99
UPPER RIB (Y)	AC-J33019	ENDEVCO	19-Jan-00
LOWER RIB (Y)	AC-J33018	ENDEVCO	19-Jan-00
LOWER SPINE (Y)	AC-J33032	ENDEVCO	19-Jan-00
PELVIS (Y)	AC-J33030	ENDEVCO	19-Jan-00
UPPER RIB REDUNDANT (Y)	AC-J34019	ENDEVCO	19-Jan-00
LOWER RIB REDUNDANT (Y)	AC-J32783	ENDEVCO	19-Jan-00
LOWER SPINE REDUNDANT (Y)	AC-J33021	ENDEVCO	19-Jan-00
PELVIS REDUNDANT (Y)	AC-J32782	ENDEVCO	19-Jan-00

REAR SID NO.: 268			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD (X)	AC-AL6C4	ENDEVCO	4-Feb-00
HEAD (Y)	AC-GD52	ENDEVCO	4-Feb-00
HEAD (Z)	AC-AH5M9	ENDEVCO	4-Feb-00
UPPER RIB (Y)	AC-A13599	ENDEVCO	8-Dec-99
LOWER RIB (Y)	AC-A14131	ENDEVCO	8-Dec-99
LOWER SPINE (Y)	AC-A14381	ENDEVCO	8-Dec-99
PELVIS (Y)	AC-A14307	ENDEVCO	8-Dec-99
UPPER RIB REDUNDANT (Y)	AC-A14314	ENDEVCO	8-Dec-99
LOWER RIB REDUNDANT (Y)	AC-A13883	ENDEVCO	8-Dec-99
LOWER SPINE REDUNDANT (Y)	AC-A14510	ENDEVCO	8-Dec-99
PELVIS REDUNDANT (Y)	AC-A14126	ENDEVCO	8-Dec-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-B11073	ENDEVCO	7-Feb-00
RIGHT FRONT SILL (Y)	AC-B10954	ENDEVCO	7-Feb-00
RIGHT FRONT SILL (Z)	AC-AP1A2	ENDEVCO	7-Feb-00
RIGHT REAR SILL (X)	AC-J18622	ENDEVCO	4-Feb-00
RIGHT REAR SILL (Y)	AC-APBB6	ENDEVCO	4-Feb-00
RIGHT REAR SILL (Z)	AC-J18649	ENDEVCO	4-Feb-00
REAR FLOORPAN ABOVE AXLE (X)	AC-BB14	ENDEVCO	4-Feb-00
REAR FLOORPAN ABOVE AXLE (Y)	AC-AP064	ENDEVCO	4-Feb-00
REAR FLOORPAN ABOVE AXLE (Z)	AC-B10955	ENDEVCO	4-Feb-00
LEFT REAR SILL (Y)	AC-J18400	ENDEVCO	4-Feb-00
LEFT FRONT SILL (Y)	AC-AC7W8	ENDEVCO	6-Dec-99
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-D82	ICS	15-Sep-99
LOWER LEFT B- PILLAR (Y)	AC-J18570	ENDEVCO	6-Dec-99
MIDDLE LEFT B-PILLAR (Y)	AC-AP065	ENDEVCO	26-Jan-00
LOWER LEFT A-PILLAR (Y)	AC-APA30	ENDEVCO	26-Jan-00
UPPER LEFT A-PILLAR (Y)	-	-	-
FRONT SEAT TRACK (Y)	AC-J18436	ENDEVCO	7-Oct-99
REAR SEAT TRACK (Y)	AC-B10951	ENDEVCO	7-Oct-99
VEHICLE CG (X)	AC-B11351	ENDEVCO	7-Feb-00
VEHICLE CG (Y)	AC-ACC06	ENDEVCO	7-Feb-00
VEHICLE CG (Z)	AC-B10481	ENDEVCO	7-Feb-00
MDB CG (X)	AC-CL60	ENDEVCO	4-Jan-00
MDB CG (Y)	AC-CJ54	ENDEVCO	4-Jan-00
MDB CG (Z)	AC-GK12	ENDEVCO	4-Jan-00
MDB REAR FRAME MEMBER (X)	AC-CX05	ENDEVCO	4-Jan-00
MDB REAR FRAME MEMBER (Y)	AC-A27F	ENDEVCO	4-Jan-00

**REMARKS:** None