

3300

REPORT NUMBER KAR20003-05

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST

GENERAL MOTORS CORPORATION
2000 CADILLAC DEVILLE
4 DOOR SEDAN
NHTSA NUMBER: MY0103

PREPARED BY:
KARCO ENGINEERING
9270 HOLLY ROAD
ADELANTO, CALIFORNIA 92301



APRIL 4, 2000

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY PERFORMANCE STANDARDS
OFFICE OF CRASHWORTHINESS STANDARDS
MAIL CODE: NPS-10
400 SEVENTH STREET, SW, ROOM 5313
WASHINGTON, D.C. 20590

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-99-D-02041.

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

Prepared by: James E. Gorth Date: APRIL 4, 2000
Mr. James E. Gorth, Project Engineer
KARCO Engineering

Reviewed by: Jerry L. Kratzke Date: APRIL 4, 2000
Mr. Jerry L. Kratzke, Director of Operations
KARCO Engineering

Approved by: Frank D. Richardson Date: APRIL 4, 2000
Mr. Frank D. Richardson, Program Manager
KARCO Engineering

FINAL REPORT ACCEPTED BY:

Manager, Side Impact NCAP

Date of Acceptance

Technical Report Documentation Page

1. Report No. KAR20003-05	2. Government Accession No.	3. Recipients Catalog No.																									
4. Title and Subtitle Final Report of New Car Assessment Program Testing Side Impact Testing of a 2000 Cadillac Deville DHS NHTSA NO. MY0103		5. Report Date April 4, 2000																									
		6. Performing Organization Code KAR																									
7. Author(s) Mr. James E Gorth, Project Engineer, Karco Mr. Frank Richardson, Project Manager, Karco		8. Performing Organization Report No. KAR-20003-05																									
9. Performing Organization Name and Address KARCO Engineering 9270 Holly Road Adelanto, CA 92301		10. Work Unit No.																									
		11. Contract or Grant No. DTNH22-99-D-02041																									
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Safety Performance Standards Office of Crashworthiness Standards Mail Code: NPS-10 400 Seventh Street, SW, Room 5313 Washington, D.C. 20590		13. Type of Report and Period Covered Final Test Report Option Year 1																									
		14. Sponsoring Agency Code DOT/NHTSA/NRM/OCS																									
15. Supplementary Notes																											
16. Abstract A 55/28 km/h 90° Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2000 Cadillac Deville DHS in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. The test was conducted at KARCO Engineering laboratories in Adelanto, California, on March 3, 2000. The impact velocity of the Moving Deformable Barrier was 62.55 km/h, and the ambient temperature at the struck side (driver's) of the vehicle was 17.7 C. The target vehicle's maximum post test static crush was 376 mm located at level 2. The test vehicle's occupant performance is as follows:																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Measurement Description</th> <th style="width: 20%;">Driver SID</th> <th style="width: 20%;">Passenger SID</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td style="text-align: center;">63</td> <td style="text-align: center;">50</td> <td></td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">53</td> <td style="text-align: center;">72</td> <td></td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">73</td> <td style="text-align: center;">64</td> <td></td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">68</td> <td style="text-align: center;">68</td> <td></td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">61</td> <td style="text-align: center;">76</td> <td></td> </tr> </tbody> </table>				Measurement Description	Driver SID	Passenger SID		Left Upper Rib (LUR) G's	63	50		Left Lower Rib (LLR) G's	53	72		Lower Spine (T ₁₂) G's	73	64		Thoracic Trauma Index (TTI) G's	68	68		Pelvis (PEV) G's	61	76	
Measurement Description	Driver SID	Passenger SID																									
Left Upper Rib (LUR) G's	63	50																									
Left Lower Rib (LLR) G's	53	72																									
Lower Spine (T ₁₂) G's	73	64																									
Thoracic Trauma Index (TTI) G's	68	68																									
Pelvis (PEV) G's	61	76																									
17. Key Words New Car Assessment Program (NCAP) Side Impact Moving Deformable Barrier (MDB) Side Impact Dummy (SID)		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Admin. NHTSA Technical Reference Division 400 Seventh St., SW, Room 5108 Washington, DC 20590																									
19. Security Classification(of this report) UNCLASSIFIED	20. Security Classification(of this page) UNCLASSIFIED	21. No. of Pages 244	22. Price																								

Form DOT F1700.7 (8-72)

TABLE OF CONTENTS

Section		Page
1	Purpose and Test Procedure	1
2	Summary of Side Impact Test	2
3	Side Impact Dummy (SID) and Vehicle Test Data	3
4	Occupant and Vehicle Information	11

Data Sheet No.		Page
1	General Test and Vehicle Parameter Data	4
2	Test Vehicle Summary of Results	8
3	Moving Deformable Barrier (MDB) Summary of Results	9
4	Post Test Observations	10
5	SID Injury Criteria and Sensor Data	12
6	Vehicle Pre-Test and Post-Test Measurements	13
7	SID Longitudinal Clearance Dimensions	14
8	SID Lateral Clearance Dimensions	15
9	Vehicle Side Measurements	16
10	Vehicle Exterior Crush Profiles	17
11	Vehicle Damage Profile Distances	19
12	Deformable Barrier Honeycomb Face Static Crush	20
13	Vehicle Accelerometer Locations and Data Summary	21
14	MDB Accelerometer Location and Data Summary	23
15	High Speed Camera Locations and Data	24
16	FMVSS 301 Fuel System Integrity Post Impact Data	25
17	FMVSS 301 Static Rollover Data Sheet	26

Appendix		
A	Photographs	A
B	SID, Vehicle, and MDB Response Data	B
C	SID Configuration and Performance Verification Data	C
D	Test Equipment List and Calibration Information	D

SECTION 1
PURPOSE and TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2000 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-99-D-02041. The purpose of this test is to generate comparative side impact data on a 2000 Cadillac Deville DHS manufactured by General Motors Corporation.

1.2 TEST PROCEDURE

The side impact test was conducted in accordance with the current National Highway Traffic Safety Administration (NHTSA), Office of Crashworthiness Standards (OCS), laboratory test procedure NCAP Side Impact Testing, dated July 1997 and the corresponding KARCO Engineering Test Procedure KTP-214D, dated November 18, 1998. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2
SUMMARY OF SIDE IMPACT TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2000 Cadillac Deville DHS was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.55 km/h. The specified impact velocity range is from 61.1 to 62.7 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 2080 kg. and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering in Adelanto, California, on March 3, 2000.

One (1) real-time motion picture camera and ten (10) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID can be found in Appendix A. Two 50th percentile adult male Side Impact Dummy's (SID's) were placed in the driver's and left rear passenger designated seating positions according to the test procedure. Each SID is instrumented with contact switches on the pelvis and thorax, and eleven accelerometers in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y, and Z axes)

The test vehicle was instrumented with twenty-five (25) structural accelerometers and the MDB was instrumented with five (5) accelerometers and a one (1) contact switch on the right bumper to compare left side to right side bumper impact timing. All data channels were recorded with a fully self contained on-board Test Data Acquisition System (TDAS). The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 376 mm at level 2, 1650mm rearward of the left vertical impact point. The driver SID, Serial No. 057 and the passenger SID, Serial No. 56 were calibrated just prior to this test. The SID injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	68	68
Peak Pelvic G's (PEV)	G's	61	76

Tests summaries and post-test observations are presented in Section 3. The vehicle, camera, and occupant measurements are presented in Section 4. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID's, vehicle, and MDB response data traces. Appendix C contains the SID's Configuration and performance verification data. Appendix D contains the test equipment information.

SECTION 3

SIDE IMPACT DUMMY (SID) AND VEHICLE TEST DATA

Test Vehicle: 2000 Cadillac Deville DHS

NHTSA No. MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	$=(tf - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 3/3/2000

TEST VEHICLE INFORMATION

Make	Cadillac
Model	Deville
Body Style	DHS
PROJECT No.	KAR20003-05
VIN	1G6KE57Y2YU228978
Color	Midnight Blue
Delivery Date	2/15/2000
Odometer Reading (mile)	113
Dealer	General Motors Corp.
Transmission	4-Speed Automatic
Final Drive	Front
Number of Cylinders	V8
Engine Displacement (L)	4.6
Engine Placement	Transverse

TEST VEHICLE OPTIONS

Driver Airbag	Yes
Passenger Airbag	Yes
Power Windows	Yes
Power Steering	Yes
Power Door Locks	Yes
Tilt Wheel	Yes
Air Conditioning	Yes
Power Brakes	Yes
Disc Brakes, Front	Yes
Disc Brakes, Rear	Yes
Anti-lock Brakes	Yes
AM/FM/Cassette	Yes
Anti-Theft System	Yes
Cruise Control	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors Corporation	GVWR (kg)	2347
		GAWR Front (kg)	1252
Date of Manufacture	December-99	GAWR Rear (kg)	1094

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	210	210
Cold Pressure (kPa)	210	210
Recommend Tire Size	P225/60/R16	P225/60/R16
Tire Size on Vehicle	P225/60/R16	P225/60/R16
Tire Manufacturer	Michelin	Michelin

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	Bench	
Number of Occupants	3	3	0	6
Capacity Wt. (VCW) (kg)				492
Cargo Weight (RCLW) (kg)				84

DATA SHEET NO. 1...(continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 3/3/2000

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	555	365		595	474	
Right	kg	565	356		566	445	
Ratio	%	60.8	39.2		55.8	44.2	
Totals	kg	1120	721	1841	1161	919	2080

TARGET TEST WEIGHT CALCULATION*

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1841
Weight of 2 P572F Side Impact Dummies	kg	162
Rated Cargo/Luggage Weight (RCLW)	kg	84
Calculated Vehicle Target Weight (TVTW)	kg	2087

*Actual As Tested Weight (ATW) will be TVTW -5/-10 kg

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	710	712	731	736	1146
As Tested	mm	700	710	702	715	1292
Fully Loaded	mm	699	715	702	715	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	2925
Total Vehicle Length at Left Side	mm	3745
Total Vehicle Length at Centerline	mm	5250
Total Vehicle Length at Right Side	mm	3745
Weight of Ballast In Cargo Area	kg	77
Amount of Stoddard Solvent in Fuel Tank	Liters	63.3

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	2925
Target Impact Point Aft of Front Axle	mm	508
Actual Impact Point Aft of Front Axle	mm	514

DATA SHEET NO. 1...(continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2000 Cadillac Deville DHS

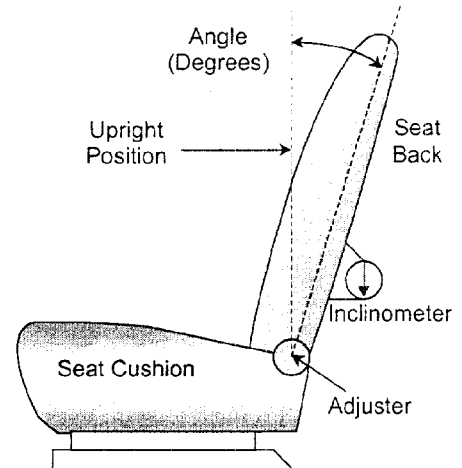
NHTSA No. MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00

NOMINAL DESIGN RIDING POSITION

The driver's seat back is positioned to the manufacturers designated angle. The procedure for the seat is as follows:
 A slit is cut into fabric of the seat at the outboard edge, approximately 10-13 inches above the pivot point to expose the frame of the seat. An inclinometer is firmly placed against the flat portion of the frame surface and the seat back is adjusted to the manufacturers designated angle. The rear passenger seat is fixed; no adjustments can be made.



FRONT SEAT ASSEMBLY

Driver seat back angle: 18.5° with a seated dummy

Rear seat back angle: 18.5° at the headrest.

SEAT FORE/AFT POSITIONS

The driver's seat is electronically operated and the rear passenger seat has no adjustments. The fore/aft is set to the middle position for the driver's seat. The first detent is numbered "1".

Driver seat fore/aft total travel: 216mm of total travel

Rear seat fore/aft total travel: Seat is fixed

Driver seat fore/aft position: Seat Set 108mm of travel, midpoint.

Rear seat fore/aft position: Seat is fixed

SEAT BELT UPPER ANCHORAGE

The test vehicle is equipped with a "D" ring anchorage for the driver's seat positions. There is 57mm of travel. The driver's "D" ring anchorage is placed at 28mm of travel. The rear seat has a motorized anchor fixed on the seat back.

DATA SHEET NO. 1...(continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

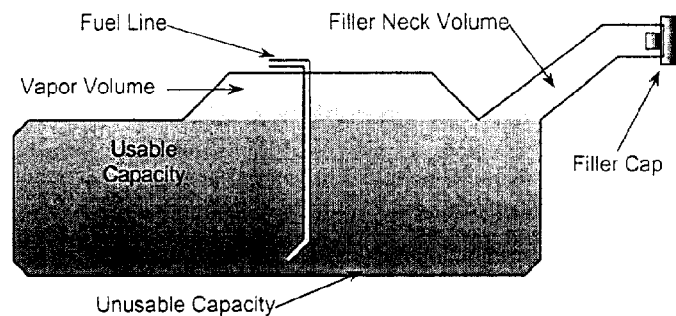
Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. MY0103
 Test Date: 03/03/00

FUEL TANK CAPACITY DATA

The "Usable Capacity" of the standard equipment fuel tank is: 68.1 liters
 The "Usable Capacity" of any optional equipment fuel tank is: N/A liters
 92-94% of "Usable Capacity" for certification to FMVSS 301 requirement: 62.6 to 64.0 liters
 Actual amount of Stoddard solvent added to vehicle for certification test: 63.3 liters

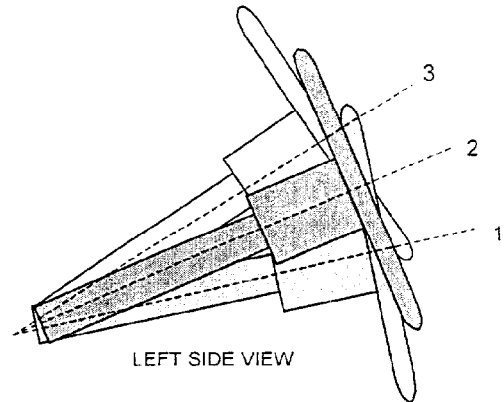
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes, when it is moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed onto the plate and the angle is measured. The tested vehicle has its steering column set at position 2 as indicated in the drawing at right and the angle below.



STEERING COLUMN ASSEMBLY

Lowermost, position 1: 10°
 Geometric center, position 2: 21.5°
 Uppermost, position 3: 33°

**DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS**

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 3/3/2000

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	555	365		595	474	
Right	kg	565	356		566	445	
Weight Ratio	%	60.8	39.2		55.8	44.2	
Totals	kg	1120	721	1841	1161	919	2080

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	194	209
Level 2	Occupant H-Point	mm	376	490
Level 3	Mid Door	mm	338	596
Level 4	Window Sill	mm	363	897
Level 5	Window Top	mm	44	1367
N/A	Maximum Penetration	mm	376	596

INSTRUMENTATION

Driver SID Accelerometers	11
Passenger SID Accelerometers	11
Vehicle Structure Accelerometers	25
MDB Accelerometers	5
Total	52

16mm MOVIE COVERAGE

High Speed, Vehicle On-Board	3
High Speed, Off-Board	5
High Speed, MDB On-Board	2
Real Time, Panning	1
Total	11

**DATA SHEET NO. 3
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 3/3/2000

MDB SPECIFICATIONS (mm)

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length Including Honeycomb Face	4115
Wheel base of Framework Carriage	2590
C.G. Location aft of Front Axle	1127

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	384	308	
Right	kg	385	284	
Ratio	%	56.5	43.5	
Totals	kg	769	592	1361

SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.55
Trap No. 2 Velocity (Redn.)	km/h	61.1 to 62.7	62.61
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Row	Vertical Location		From Centerline		Max Crush
	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Left	187
B	Top of Bumper	533	800	Left	100
C	Mid Level	686	800	Left	144
D	Top of Stack	813	800	Left	141

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	2

**DATA SHEET NO. 4
POST TEST OBSERVATIONS**

Test Vehicle: 2000 Cadillac DeVille DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0103
 Test Date: 03/03/00

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID	Rear Seat SID
Dummy Type / Serial No.	P572F, SID / No. 056	P572F, SID / No. 057
Head Contact	Side Bag	C-Pillar/Head Rest
Upper Torso Contact	Air Bag/Door Panel	Seat/Door Panel
Lower Torso Contact	Door Panel	Door Panel
Left Knee Contact	Knee	Door Panel
Right Knee Contact	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Opened on Impact	Remained closed, inoperable
Right Side Door Opening	Remained closed operable	Remained closed, operable
Seat Movement	None	None
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Pillars pushed inward with no apparent failure
Sill Separation	No Apparent Visible Failure
Windshield Damage	Glazing Cracks on Struck Side Only
Window Damage	Both Left Side Windows Broke
Other Notable Effects	Rear seat side airbag did not deploy properly.

AIR BAG DEPLOYMENT

	Driver	Front Passenger	Rear Passenger
Front	No Deployment	No Deployment	
Side	Deployed Properly	No Deployment	Not Deployed Properly

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	4 (right)
Vertical Offset	mm	+/- 20	6 (above)

**SECTION 4
OCCUPANT AND VEHICLE INFORMATION**

DATA SHEET NO. 5
SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2000 Cadillac Deville DHS

NHTSA No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00

THORAX AND PELVIS PEAK ACCELERATIONS, PRIMARY (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	62.7	36.7	-15.2	76.1	50.3	47.8	-15.8	75.4
Lower Rib (LLR)	Y	G's	52.6	36.7	-17.5	86.4	71.6	46.6	-18.9	75.7
Lower Spine (T ₁₂)	Y	G's	73.0	37.8	-29.1	66.6	64.3	42.2	-34.5	70.2
Pelvis (PEV)	Y	G's	61.0	28.8	-21.7	75.1	75.5	38.2	-25.4	68.4

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, PRIMARY (FIR 100 Filtered)

Location	Driver				Passenger			
	LUR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	62.699	72.992	68	61	71.553	64.317	68	76

THORAX AND PELVIS PEAK ACCELERATIONS, REDUNDANT (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	62.6	36.8	-15.9	76.3	51.1	47.8	-14.7	75.4
Lower Rib (LLR)	Y	G's	52.5	37.4	-17.3	86.1	71.9	46.5	-18.5	75.7
Lower Spine (T ₁₂)	Y	G's	72.7	37.9	-30.6	66.7	64.8	42.3	-31.8	70.5
Pelvis (PEV)	Y	G's	61.6	29.0	-21.7	75.1	74.8	37.9	-24.2	69.5

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, REDUNDANT (FIR 100 Filtered)

Location	Driver				Passenger			
	LUR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	62.555	72.688	68	62	71.888	64.839	68	75

HEAD CG PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	10.3	175.6	-56.6	74.2	13.6	54.7	-19.6	73.4
Head CG	Y	G's	101.0	74.2	-10.2	189.6	64.0	50.1	-13.0	189.6
Head CG	Z	G's	39.9	54.3	-1.8	20.9	32.8	49.4	-62.2	60.1
Head CG Resultant	N/A	G's	116.1	74.2			71.1	50.1		

HEAD INJURY CRITERIA (SAE CLASS 1000 Filtered)

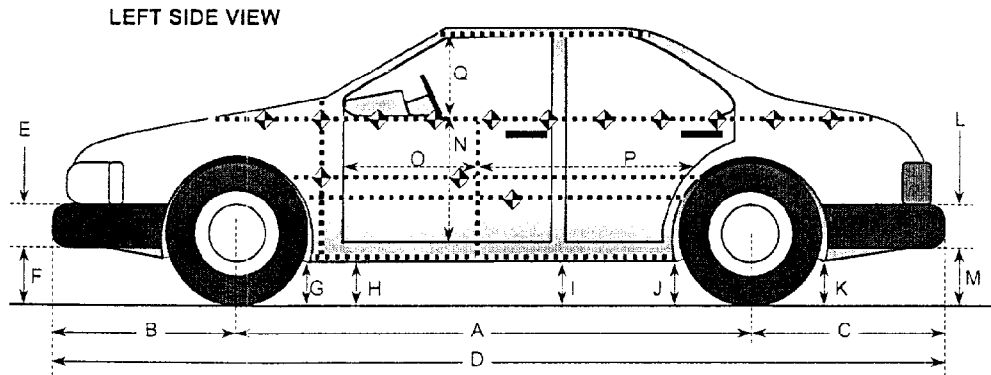
Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G's	HIC	T ¹	T ²	Avg G's
Head CG	557.6	46.8	82.7	47.5	491.5	47.0	66.7	57.3

Positive Acceleration Polarities: Longitudinal (X) = Forward
 (Conforms to SAE J211) Lateral (Y) = Right
 Vertical (Z) = Down

DATA SHEET NO. 6
VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 03/03/00



All Measurements in mm

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2925	2880	45
B	Front Axle To FSOV	1084	1116	-32
C	Rear Axle to RSOV	1241	1241	0
D	Total Length at Centerline	5250	5237	13
E	Front Bumper Thickness	270	270	0
F	Front Bumper Bottom to Ground	158	186	-28
G	Sill Height at Front Wheel Well	185	203	-18
H	Sill Height at Front Door Leading Edge	181	236	-55
I	Sill Height at "B" Pillar	176	266	-90
J1	Sill Height at Rear Wheel Well	162	226	-64
J2	Pinch Weld Height at Rear Wheel Well	179	246	-67
K	Sill Height aft of Rear Wheel Well	214	279	-65
L	Rear Bumper Thickness	270	270	0
M	Rear Bumper Bottom to Ground	313	385	-72
N	Sill Height to Window Bottom Sill	701	620	81
O	Front Door Leading Edge to Impact CL	877	805	72
P	Rear Door Trailing Edge to Impact CL	1432	1290	142
Q	Front Window Opening	429	360	69
R	Right Side Length	3745	3720	25
S	Left Side Length	3745	3610	135
T	Vehicle Width at "B" Post	1905	1691	214

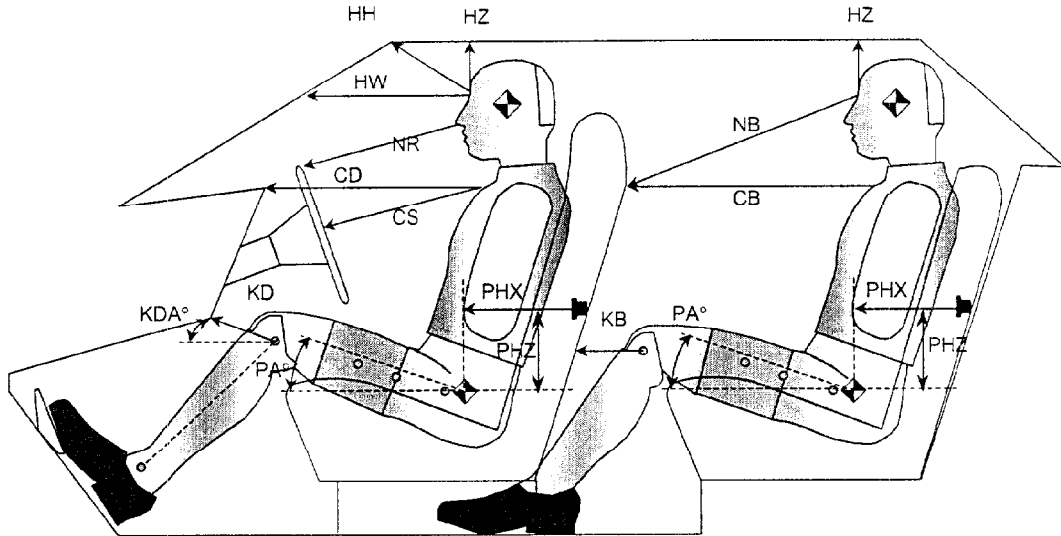
DATA SHEET NO. 7
SID LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2000 Cadillac Deville DHS

PROJECT No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00



Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH	HH	Head to Header	365	15		
HW	HW	Head to Windshield	629			
HZ	HZ	Head to Roof	195	90	180	90
NR	NR	Nose to Rim/Nose to Seatback	425	6	720	21
CD	CB	Chest to Dash or Seatback	542	6	580	8
CS		Chest to Steering Wheel	315	0		
KDL	KBL	Left Knee to Dash or Seatback	157	21	280	
KDR	KBR	Right Knee to Dash or Seatback	140		272	
PA	PA	Pelvic Angle		20.5		23
PHX	PHX	H-Point to Striker (X-Axis)	210		257	0
PHZ	PHZ	H-Point to Striker (Z-Axis)	142		302	90

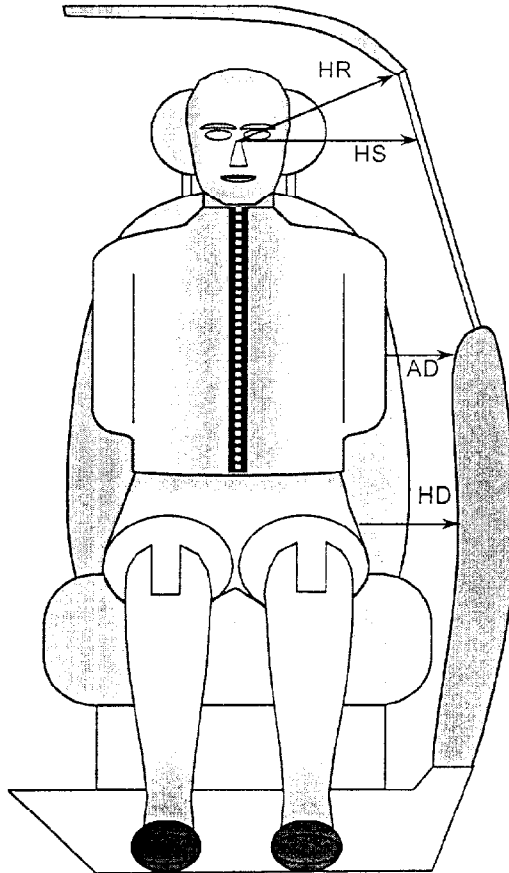
DATA SHEET NO. 8
SID LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2000 Cadillac Deville DHS

PROJECT No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00



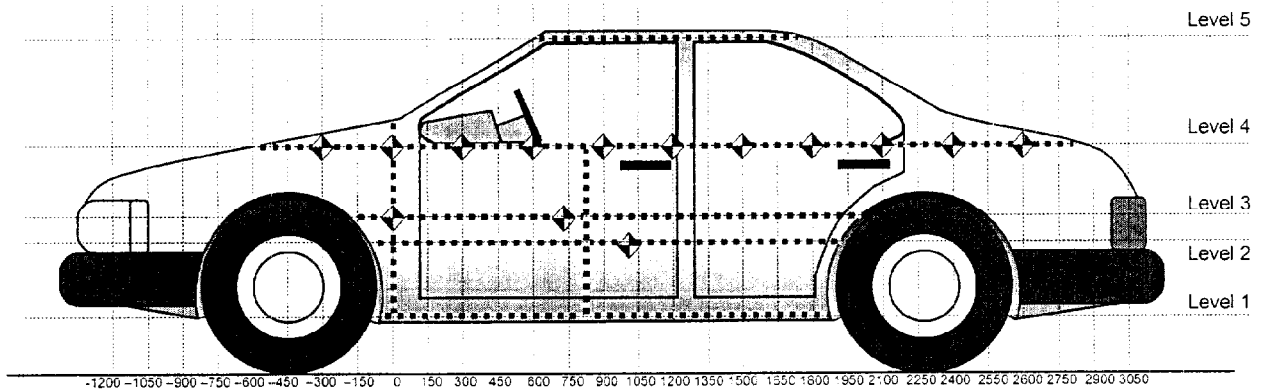
FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	282	220
HS	Head to Side Window	mm	425	334
AD	Arm to Door	mm	145	99
HD	H-Point to Door	mm	157	142

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 03/03/00



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.
 Measurements taken 900mm right of impact reference.
 All measurements below in mm.

Level	Measurement Description	Height Above Ground
5	Window Top	1367
4	Window Sill	897
3	Mid Door	596
2	Occupant H-Point	490
1	Sill Top	209

DATA SHEET NO. 10 - VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2000 Cadillac Deville DHS

PROJECT No.: MY0103

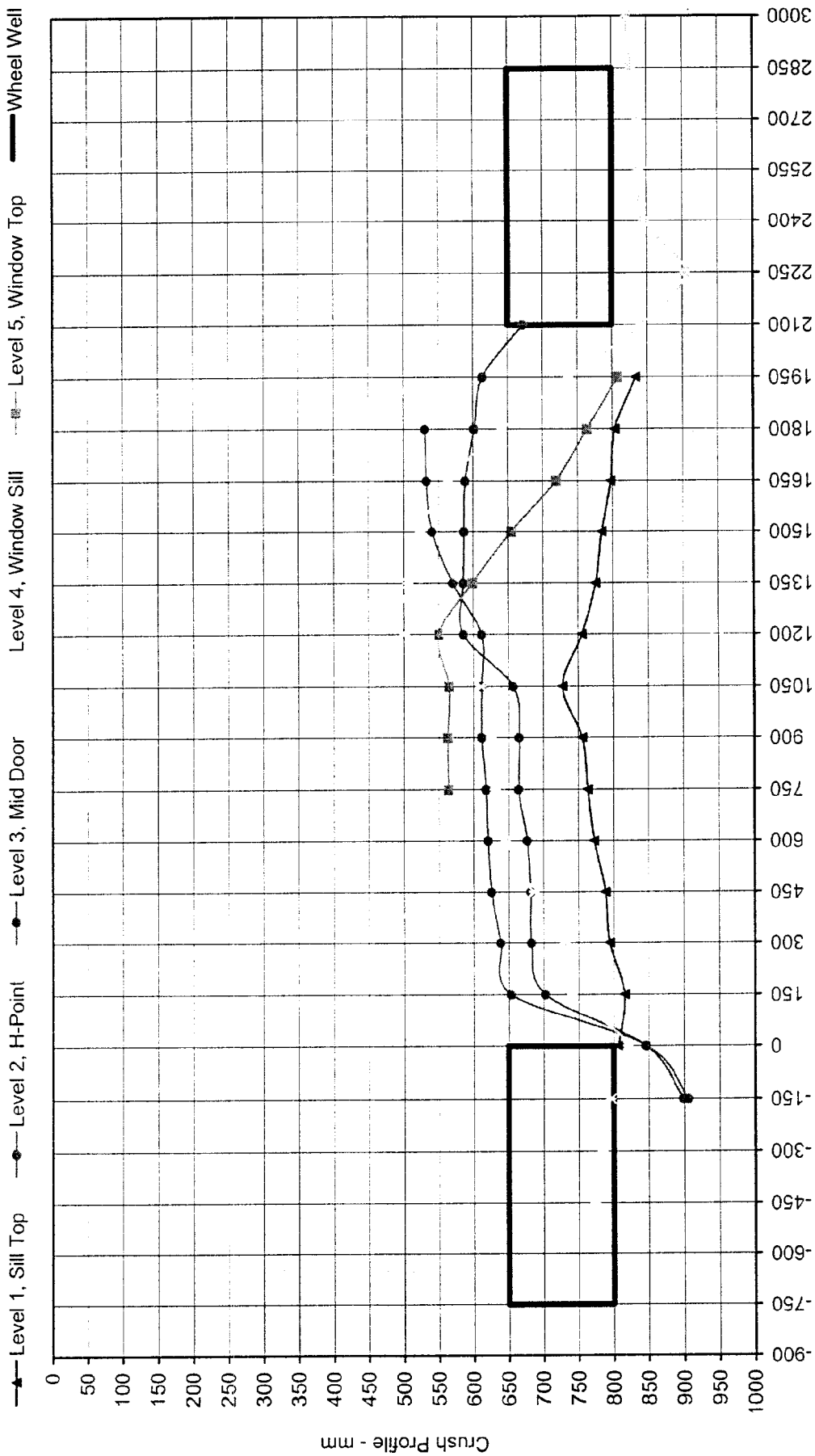
Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 3/3/2000

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600															
-450				781					774					7	
-300				802					784					18	
-150		914	921	822			906	899	797			8	22	25	
0	934	916	912	834		807	847	846	820		127	69	66	14	
150	932	916	914	838		816	654	703	741		116	262	211	97	
300	924	916	918	844		795	639	683	731		129	277	235	113	
450	922	915	917	845		789	626	682	687		133	289	235	158	
600	922	916	920	852		773	621	677	646		149	295	243	206	
750	922	916	921	856	579	764	618	665	631	564	158	298	256	225	15
900	922	916	923	860	581	756	612	666	625	563	166	304	257	235	18
1050	922	915	923	861	584	728	612	657	611	565	194	303	266	250	19
1200	922	918	924	864	594	756	612	586	501	550	166	306	338	363	44
1350	920	916	923	864	596	776	571	586	506	599	144	345	337	358	-3
1500	920	914	922	864	596	785	541	587	523	655	135	373	335	341	-59
1650	920	909	917	862	595	798	533	589	564	719	122	376	328	298	-124
1800	916	906	913	860	595	804	531	602	642	764	112	375	311	218	-169
1950	924		909	856	596	834		614	738	808	90		295	118	-212
2100			911	854				672	842				239	12	
2250				847					904					-57	
2400				844					846					-2	
2550				837					839					-2	
2700				829					837					-8	
2850				814					828					-14	
3000				812					820					-8	

Pre-Test and Post-Test dimensions are actual distance from centerline of test vehicle.

DATA SHEET NO. 10...(continued)



Reference - mm

Test Program: 55/28 km/h 90° Side Impact NCAP No.: MY0203

Test Vehicle: 2000 Cadillac Deville DHS

Test Date: 3/3/2000

Maximum Crush, Level 1: 194 mm at 1050 mm

Maximum Crush, Level 2: 376 mm at 1650 mm

Maximum Crush, Level 3: 338 mm at 1200 mm

Maximum Crush, Level 4: mm at 1200 mm

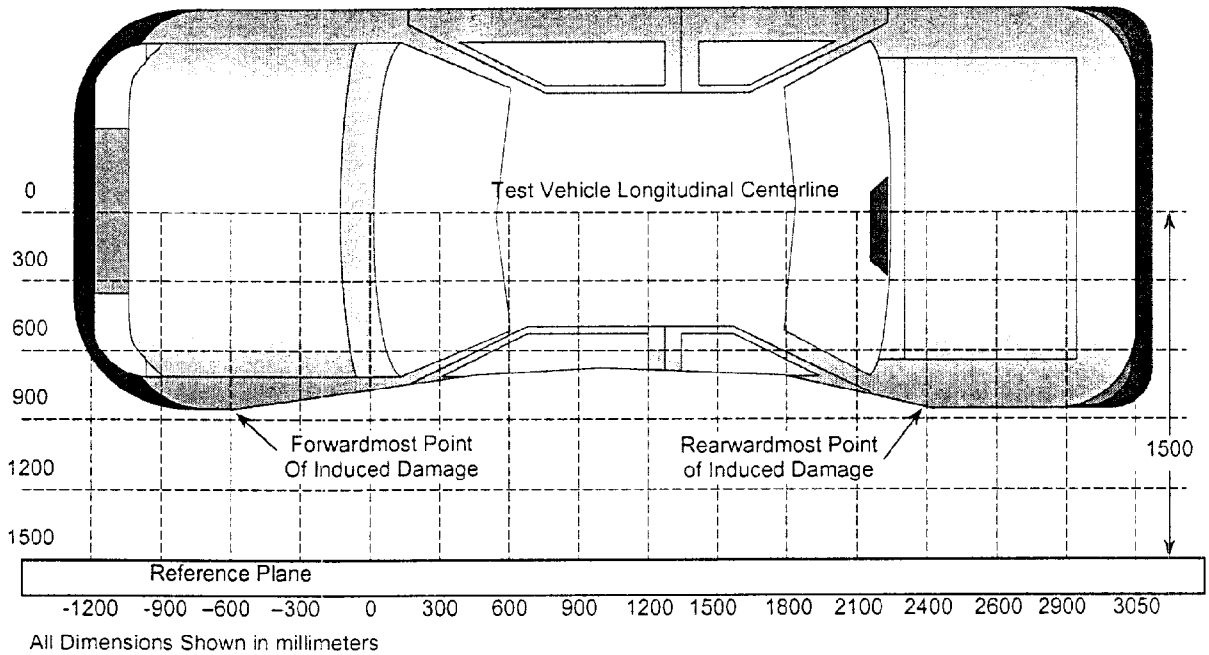
Maximum Crush, Level 5: 41 mm at 1200 mm



DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

PROJECT No.: MY0103
 Test Date: 2/29/00



TOP VIEW

Damage Profile Distances

DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	-450 mm	4	781	774	7
2	300 mm	2	916	639	277
3	1050 mm	2	915	612	303
4	1800 mm	2	906	531	375
5	2400 mm	4	844	846	-2
6	3000 mm	4	812	820	-8

Pre-Test and Post-Test measurements are distance from vehicle centerline.

DATA SHEET NO. 12

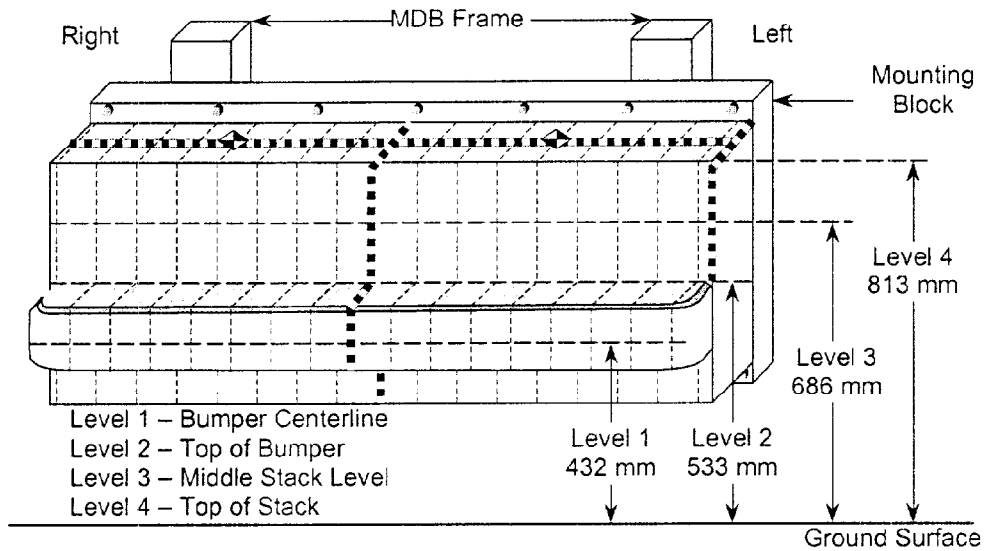
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2000 Cadillac Deville DHS

PROJECT No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 2/29/00



DEFORMABLE BARRIER STATIC CRUSH

Stack	Distance Right of Center									C _L	Distance Left of Center								
	800	700	600	500	400	300	200	100	0		100	200	300	400	500	600	700	800	
1	187	158	151	148	147	142	140	138	134	140	149	152	136	134	132	138	149		
2	100	81	70	69	67	64	60	56	55	54	62	64	54	45	44	48	53		
3	144	107	78	59	38	29	22	20	28	33	21	8	6	7	18	34	54		
4	141	110	76	53	40	26	21	15	12	8	6	-2	-9	-9	-6	20	61		

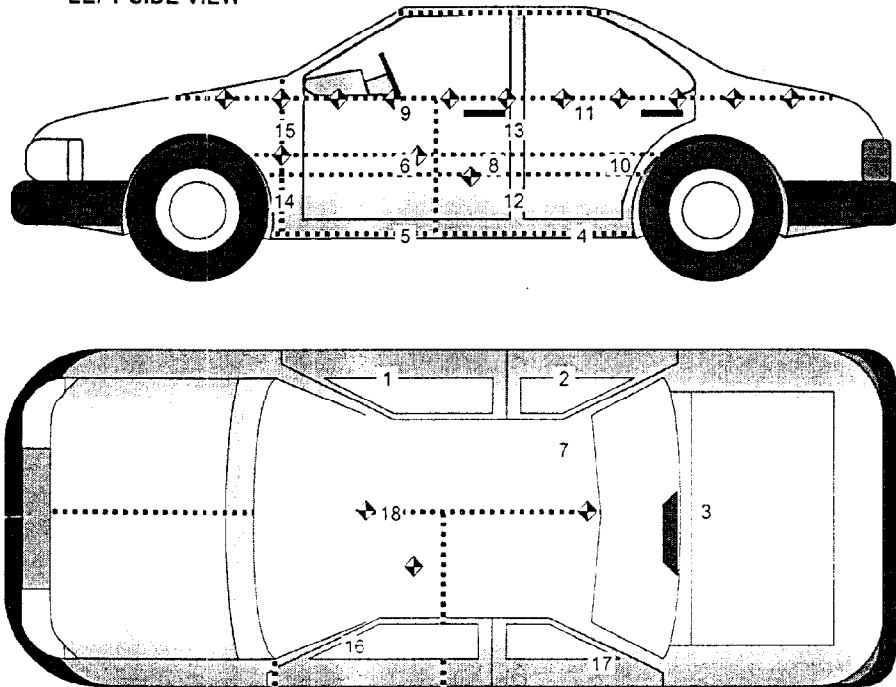
All Dimensions in mm

DATA SHEET NO. 13
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Cadillac Deville DHS
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0103
 Test Date: 03/03/00

LEFT SIDE VIEW



No.	Location
1	Right Sill at Front Seat
2	Right Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Sill at Rear Door
5	Left Sill at Front Door
6	Left Front Door Centerline
7	Right Rear Occupant Compartment
8	Left Front Door Mid-Rear
9	Left Front Door Upper Centerline

No.	Location
10	Left Rear Door Mid-Rear
11	Left Rear Door Upper Centerline
12	Left Lower B-Post
13	Left Middle B-Post
14	Left Lower A-Post
15	Left Middle A-Post
16	Front Seat Track
17	Rear Seat Track or Structure
18	Vehicle CG

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Cadillac Deville DHS

NHTSA No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	Right Sill at Front Seat	2780	740	400	X	1.5	62.3	-6.6	14.9
					Y	24.1	11.8	-2.4	181.8
					Z	3.0	52.5	-6.6	15.2
					RES	24.7	11.9		
2	Right Sill at Rear Seat	1845	775	455	X	1.6	61.6	-6.5	15.0
					Y	19.9	10.3	-2.2	181.9
					Z	4.4	35.3	-4.6	17.3
					RES	20.2	10.4		
3	Rear Floorpan Above Axle	835	50	560	X	1.9	52.6	-4.4	26.0
					Y	16.6	27.1	-2.8	133.7
					Z	9.3	34.6	-4.1	38.0
					RES	17.1	26.9		
4	Left Sill at Rear Door	1900	-695	275	Y	65.5	6.8	-5.6	189.9
5	Left Sill at Front Door	2700	-735	275	Y	54.5	17.6	-3.9	59.4
6	Front Door Centerline	2880	-830	775	Y	141.6	14.2	-91.5	25.6*
7	Rear Occupant Compartment	2260	500	2150	Y	20.8	11.0	-2.4	182.7
8	Front Door Mid-Rear	2520	-825	795	Y	149.0	6.3	-46.3	24.7
9	Front Door Upper Centerline	2795	-855	995	Y	207.3	13.7	-68.8	24.9
10	Rear Door Mid-Rear	1615	-855	795	Y	97.3	4.0	-40.7	28.8
11	Rear Door Upper Centerline	1865	-860	1005	Y	145.7	16.0	-33.7	29.3
12	B-Post Lower	2160	-810	620	Y	0.0	0.0	0.0	0.0*
13	B-Post Middle	2160	-800	825	Y	146.4	4.8	-6.3	8.6*
14	A-Post Lower	3620	-830	495	Y	48.7	8.8	-28.8	22.0
15	A-Post Middle	3620	-830	815	Y	56.7	14.2	-39.5	20.3
16	Front Seat Track	2800	-685	405	Y	16.0	162.9	0.0	0.0
17	Rear Seat Structure	1960	-420	540	Y	21.8	10.1	-2.5	184.2
18	Vehicle CG	2820	35	395	X	1.8	58.2	-5.5	27.3
					Y	20.0	8.8	-1.8	181.4
					Z	12.5	27.0	-11.2	8.7
					RES	23.1	8.7		

*Channel failed, check plot for time of failure.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Cadillac Deville DHS

NHTSA No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00

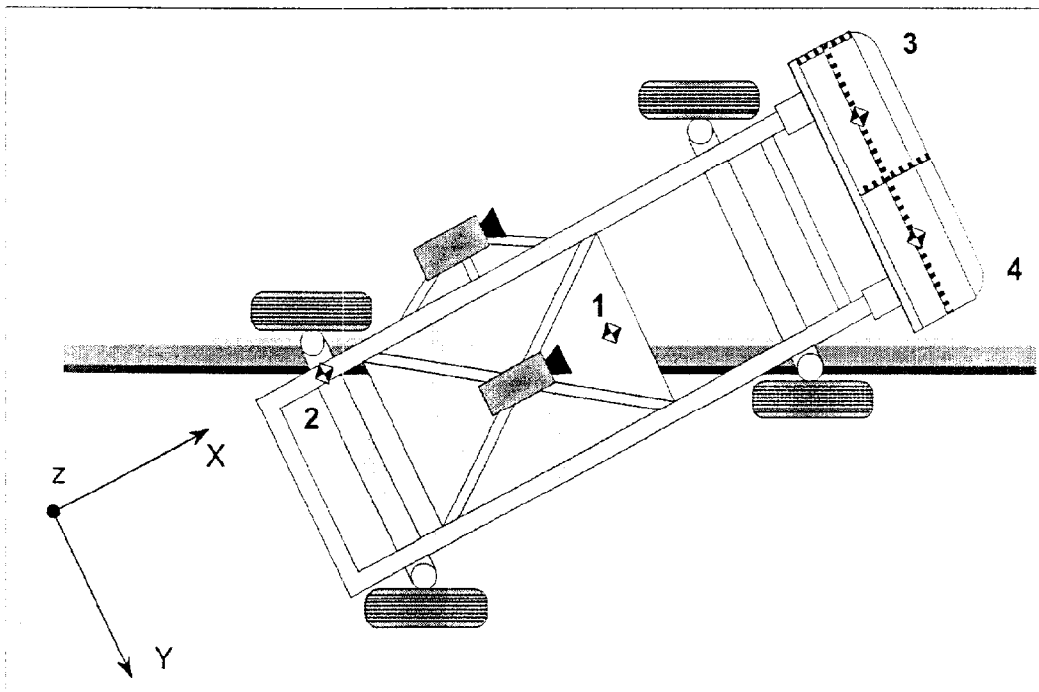
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1195	0	430	X	3.1	132.4	-18.9	37.7
					Y	3.2	62.3	-7.8	26.1
					Z	12.9	135.4	-14.9	28.1
					RES	23.1	28.1		
2	MDB Rear	-2642	-593	608	X	2.6	114.2	-21.2	36.4
					Y	3.1	160.1	-7.0	23.2

Reference Points X - MDB Front Axle Y - MDB Centerline Z - Ground Plane

MDB BUMPER CONTACT SWITCH DATA

Loc. No.	Contact Switch Location	Units	Peak and 50% Crossing Point			
			Max	Time	50%	Time
3	MDB Left Bumper (T=0)	% F.S	100.0	0.0	0.0	0.0
4	MDB Right Bumper	% F.S.	100.9	28.2	50.4	0.4



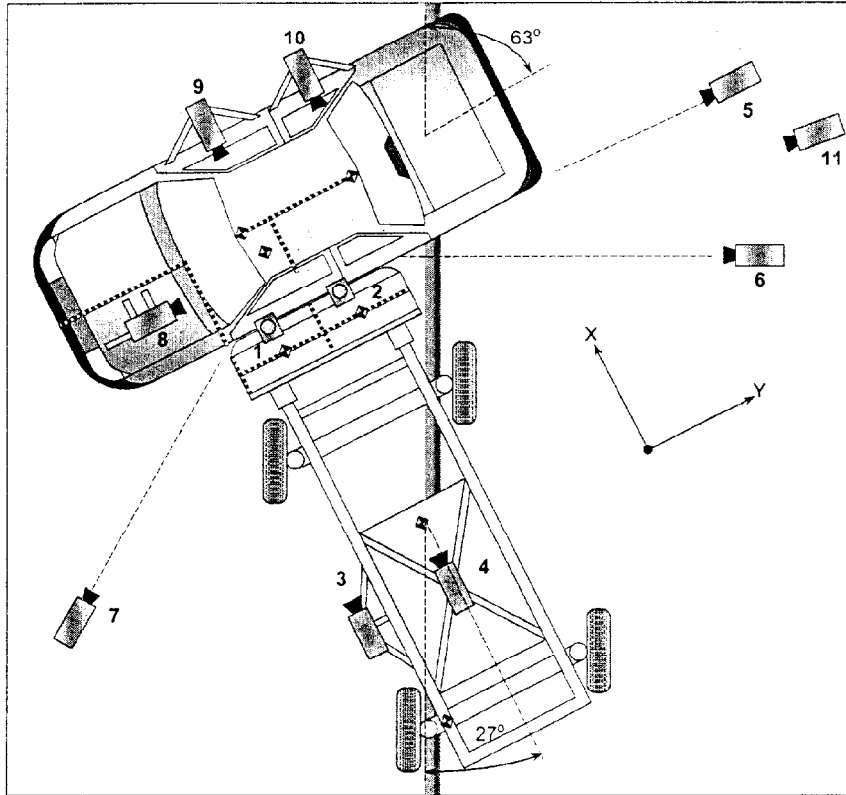
DATA SHEET NO. 15
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2000 Cadillac Deville DHS

NHTSA No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	2260	750	5490	90	10	990
2	Overhead Close-up	0	0	5490	90	24	1020
3	MDB Onboard, Impact Point Close-Up	2200	840	1110	7	13	1000
4	MDB Onboard, Centerline of Impact	3420	660	1815	11	13	1010
5	Right Side, Ground Level, Overall	8700	17820	1570	0	25	1030
6	Right Side, Ground Level, Close-up	4300	4270	1495	5	12	1000
7	Left Side, Ground Level, Close-up	440	3785	1670	12	19	1030
8	Vehicle Onboard Front SID, Front	2085	2303	1187	3	10	1000
9	Vehicle Onboard Front SID, Side	2085	1425	1210	2	10	1020
10	Vehicle Onboard Rear SID, Side	1370	19020	725	0	70	1030
11	Real Time Coverage	3000	19300	587	2	Zoom	24

DATA SHEET NO. 16

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2000 Cadillac Deville DHS

NHTSA No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 03/03/00

Test Time: 1:06 PM

Temperature at Time of Impact: 17.7 °C

STODDARD SOLVENT SPILLAGE MEASUREMENTS

- A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)
- D. Spillage Details: No leakage occurred

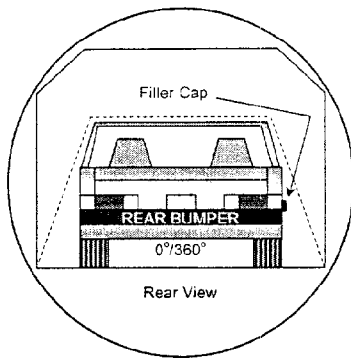
DATA SHEET NO. 17
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2000 Cadillac Deville DHS

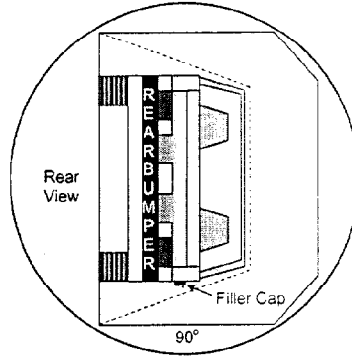
NHTSA No.: MY0103

Test Program: 55/28 km/h 90° Side Impact NCAP

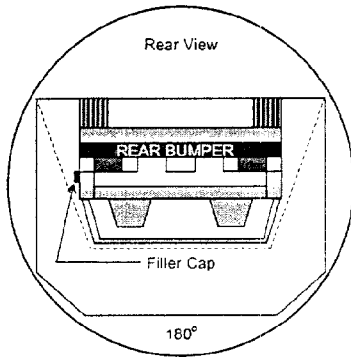
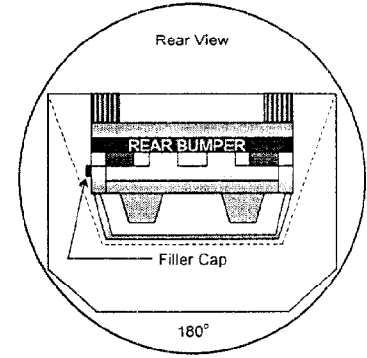
Test Date: 03/03/00



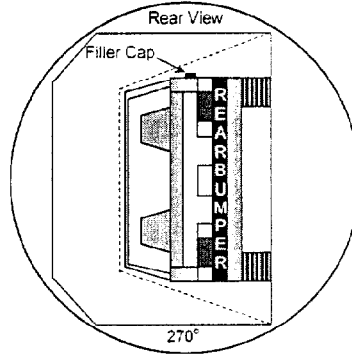
0° TO 90°



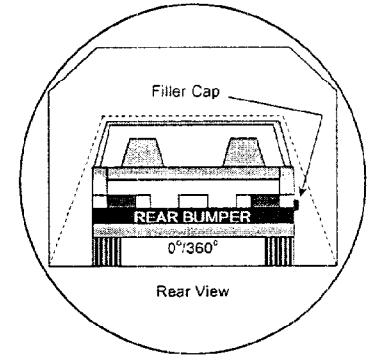
90° TO 180°



180° TO 270°



270° TO 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations:

No solvent leakage occurred during static rollover testing.

Rollover Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° TO 90°	83	300	0.0
90° TO 180°	81	300	0.0
180° TO 270°	79	300	0.0
270° TO 360°	81	300	0.0

**APPENDIX A
PHOTOGRAPHS**

LIST OF PHOTOGRAPHS

Figure		Page
A-1	Left Front as Received	A-1
A-2	Right Rear as Received	A-2
A-3	Vehicle's Certification Label	A-3
A-4	Vehicle's Tire Placard	A-4
A-5	Pre-test Front View	A-5
A-6	Post-test Front View	A-6
A-7	Pre-test Rear View	A-7
A-8	Post-test Rear View	A-8
A-9	Pre-test Left Side View (Struck Side)	A-9
A-10	Post-test Left Side View (Struck Side)	A-10
A-11	Pre-test Overall Overhead View (At Impact Position)	A-11
A-12	Pre-test Overall Overhead View	A-12
A-13	Post-test Overall Overhead View	A-13
A-14	Pre-test MDB Left Side View (At Impact Position)	A-14
A-15	Pre-test MDB Right Side View (At Impact Position)	A-15
A-16	Pre-test Impact Point Target Close-up	A-16
A-17	Post-test Impact Point Target Close-up	A-17
A-18	Pre-test Driver Dummy Left Side (Door Open)	A-18
A-19	Pre-test Driver Dummy Left Side	A-19
A-20	Post-test Driver Dummy Left Side	A-20
A-21	Pre-test Driver Dummy Clearance	A-21
A-22	Post-test Driver Dummy Clearance	A-22
A-23	Pre-test Driver Dummy (Inside View)	A-23
A-24	Post-test Driver Dummy (Inside View)	A-24
A-25	Pre-test Driver Door (Inside View)	A-25
A-26	Post-test Driver Dummy Contact Points (Inside View)	A-26
A-27	Pre-test Passenger Dummy Left Side (Door Open)	A-27
A-28	Pre-test Passenger Dummy Left Side View	A-28
A-29	Post-test Passenger Dummy Left Side View	A-29
A-30	Pre-test Passenger Dummy Clearance	A-30
A-31	Post-test Passenger Dummy Clearance	A-31
A-32	Pre-test Passenger Dummy (Inside View)	A-32
A-33	Post-test Passenger Dummy (Inside View)	A-33

LIST OF PHOTOGRAPHS, ...(Continued)

Figure		Page
A-34	Pre-test Passenger Door (Inside View)	A-34
A-35	Post-test Passenger Dummy Contact Points (Inside View)	A-35
A-36	Pre-test Front View of Deformable Barrier	A-36
A-37	Post-test Front View of Deformable Barrier	A-37
A-38	Pre-test Top View of Deformable Barrier	A-38
A-39	Post-test Top View of Deformable Barrier	A-39
A-40	Pre-test Right Side View of Deformable Barrier	A-40
A-41	Post-test Right Side View of Deformable Barrier	A-41
A-42	Pre-test Left Side View of Deformable Barrier	A-42
A-43	Post-test Left Side View of Deformable Barrier	A-43
A-44	Vehicle On Rollover Top View	A-44
A-45	Vehicle During Impact	A-45
A-46	Post-test Passenger Airbag (Close-up)	A-46
A-47	Post-test Passenger Airbag (Top View)	A-47
A-48	Post-test Roof Separation	A-48



Figure A-1: Left Front, as Received

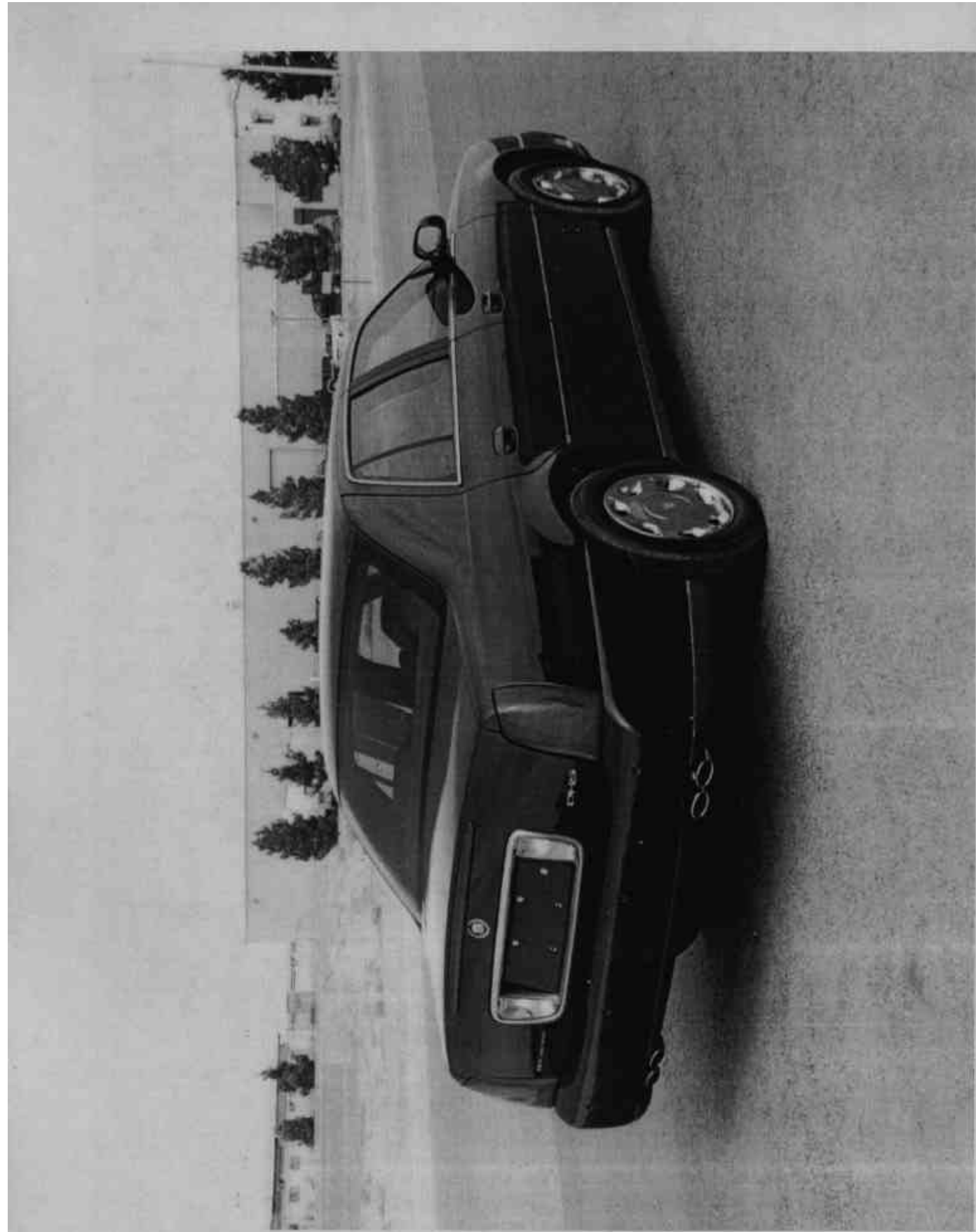


Figure A-2: Right Rear, as Received



MFD BY GENERAL MOTORS CORP

DATE
12/99

GVWR
2346 KG
5174 LB

GAWR FRT
1252 KG
2761 LB

GAWR RR
1094 KG
2413 LB

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

1G6KE57Y2YU228978

TYPE: PASS CAR

Figure A-3: Vehicle Certification Label



TIRE - LOADING INFORMATION

OCCUPANTS		VEHICLE CAP. WT.		
FRT.	RR.	TOTAL	KG	LBS
3	0	3	492	1085

MAX. LOADING @ GVWR SAME AS VEHICLE CAPACITY WEIGHT.
1G6KE57Y2YU228978

MODEL: KE69 KDK

TIRE SIZE

- FRT P225/60R16 S
- RR P225/60R16 S
- SPA T125/70R16 M

COLD TIRE PRESSURE

- 210KPA(30PSI)
- 210KPA(30PSI)
- 420KPA(60PSI)

IF TIRES ARE HOT, ADD 28KPA(4PSI)

See Owner's Manual for tire pressure needed at 160 Km/H (100 mph) or higher speeds, where legal, and for additional tire information.

Figure A-4: Vehicle Tire Label



Figure A-5: Front View, Pre-Test



Figure A-6: Front View, Post-Test



Figure A-7: Rear View, Pre-Test



Figure A-8: Rear View, Post-Test

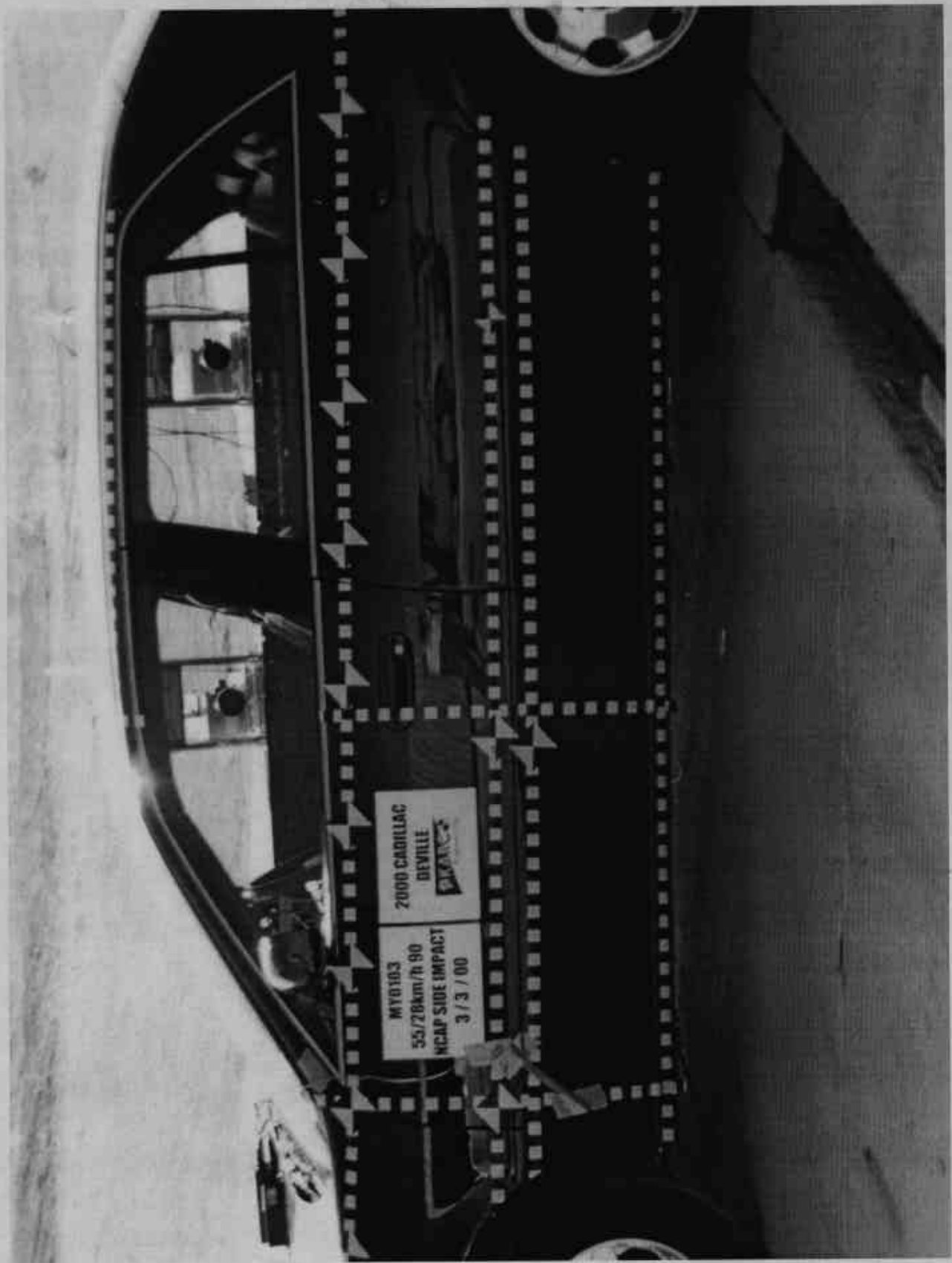


Figure A-9: Left (Impacted) Side View, Pre-Test

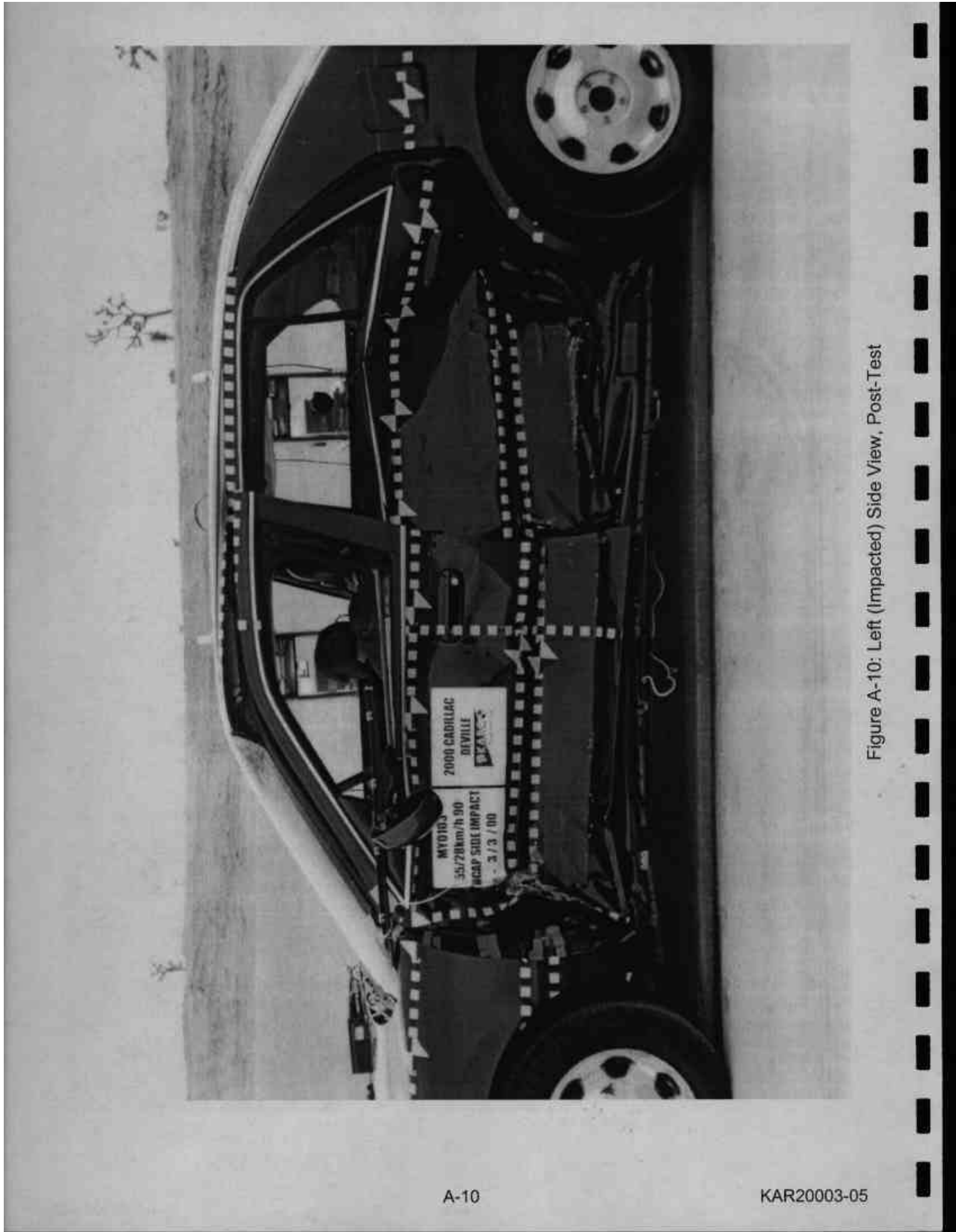


Figure A-10: Left (Impacted) Side View, Post-Test

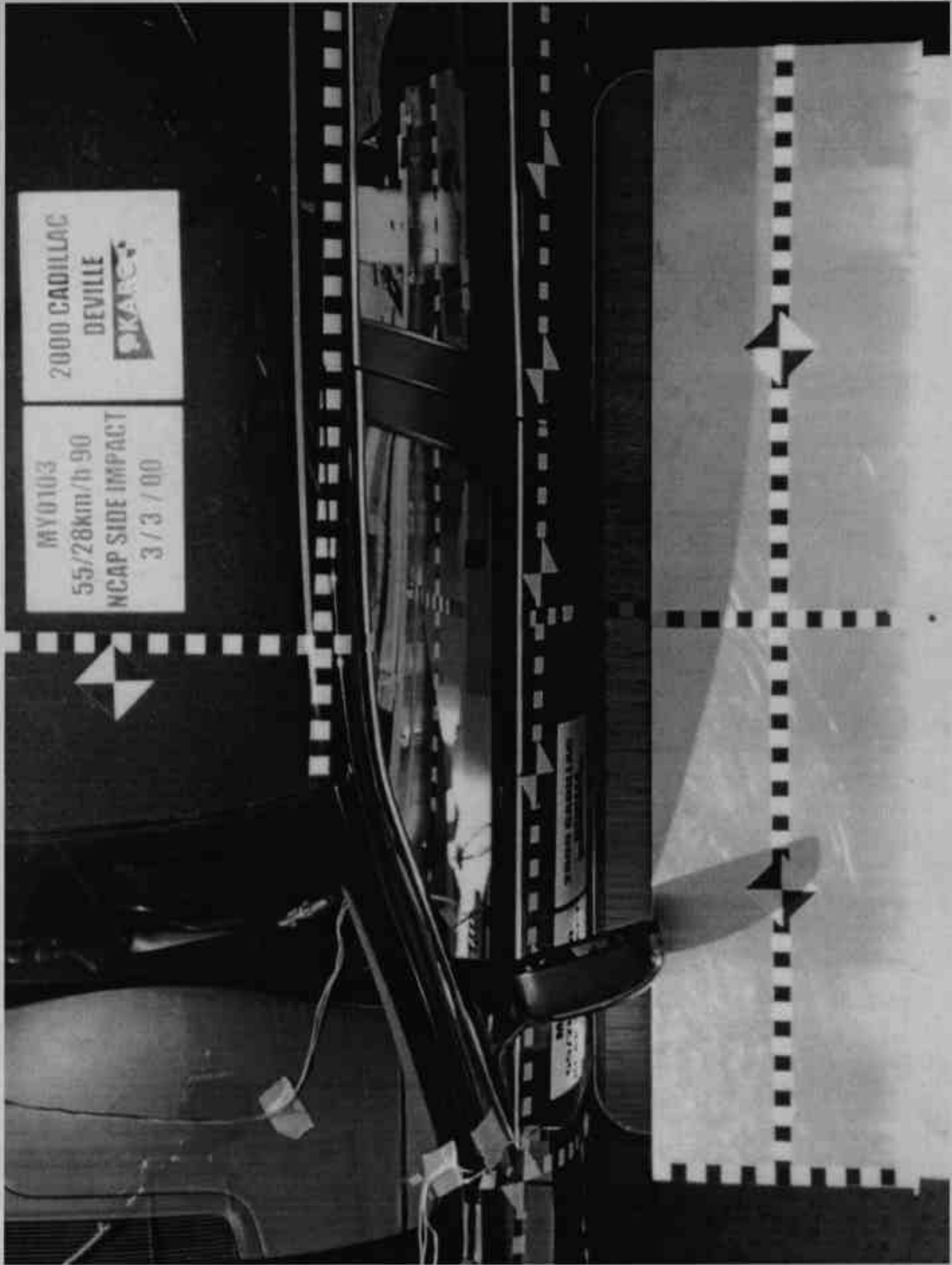


Figure A-11: Overhead Close-up View at Impact Position, Pre-Test



Figure A-12: Overhead Overall View, Pre-Test

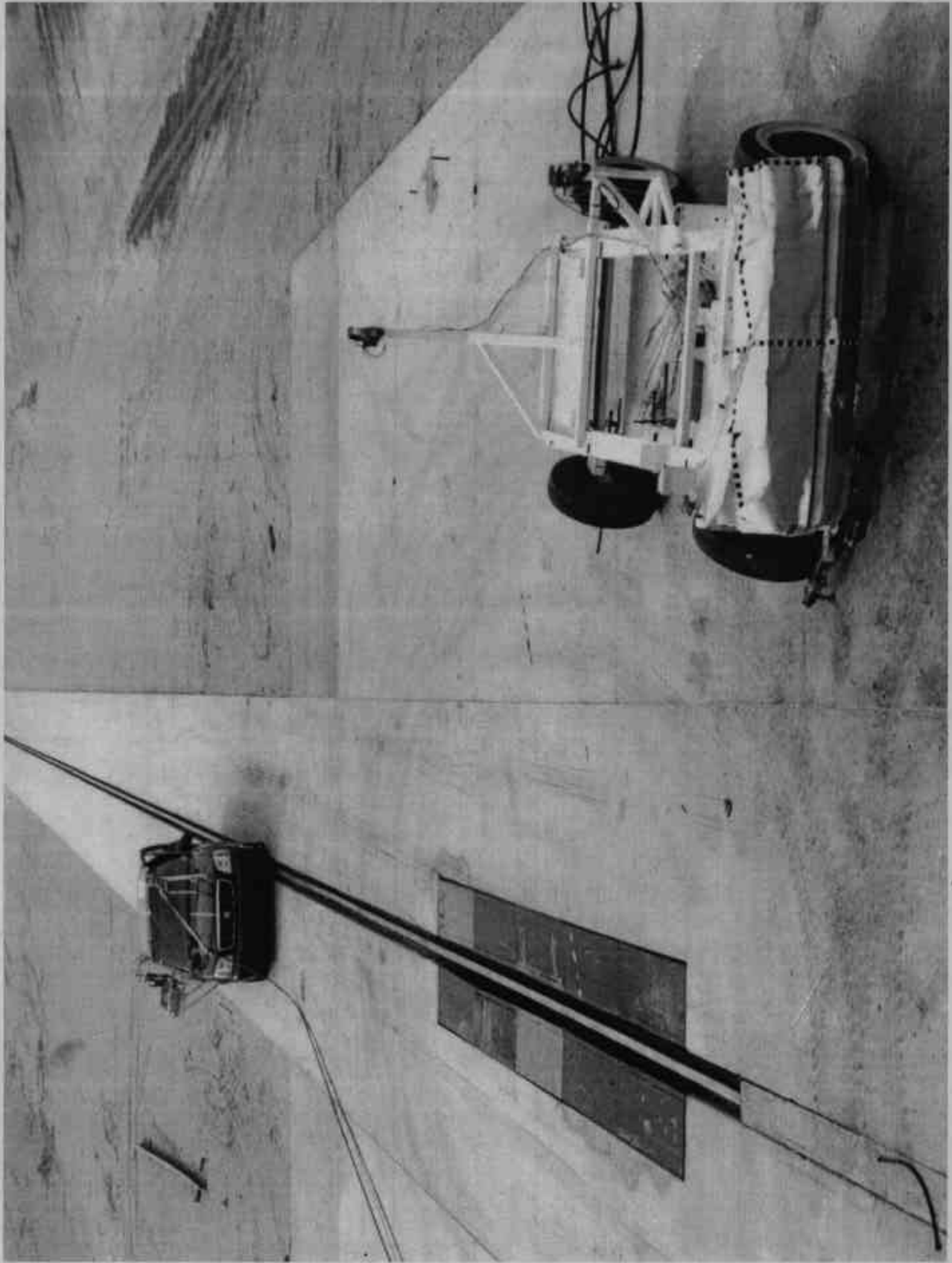


Figure A-13: Overhead Overall View, Post-Test



Figure A-14: MDB Left Side View at Impact Position, Pre-Test



Figure A-15: MDB Right Side View at Impact Position, Pre-Test



Figure A-16: Impact Point Target Close-up, Pre-Test



Figure A-17: Impact Point Target Close-up, Post-Test



Figure A-18: Driver Dummy Left Side with Door Open, Pre-Test

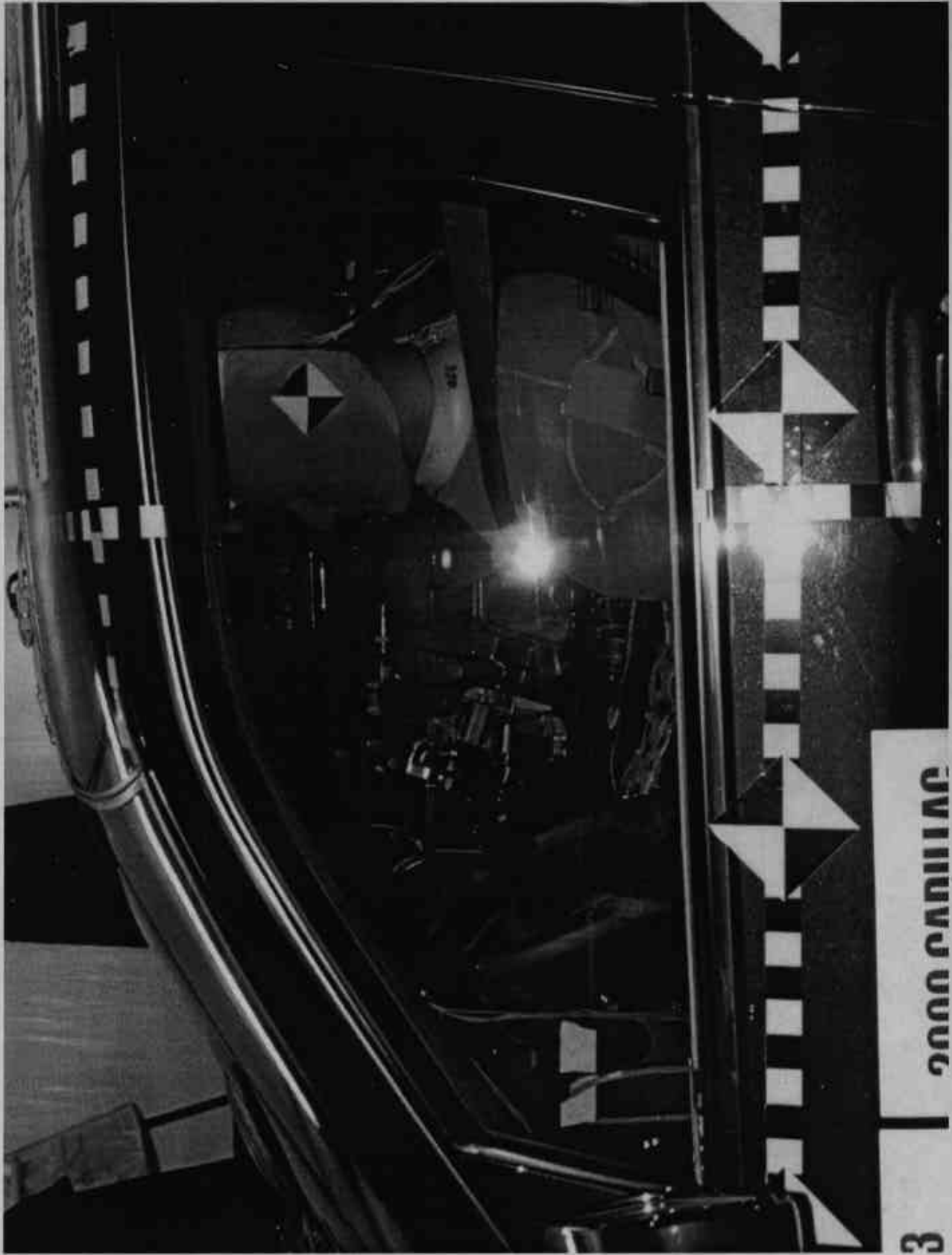


Figure A-19: Driver Dummy Left Side, Pre-test

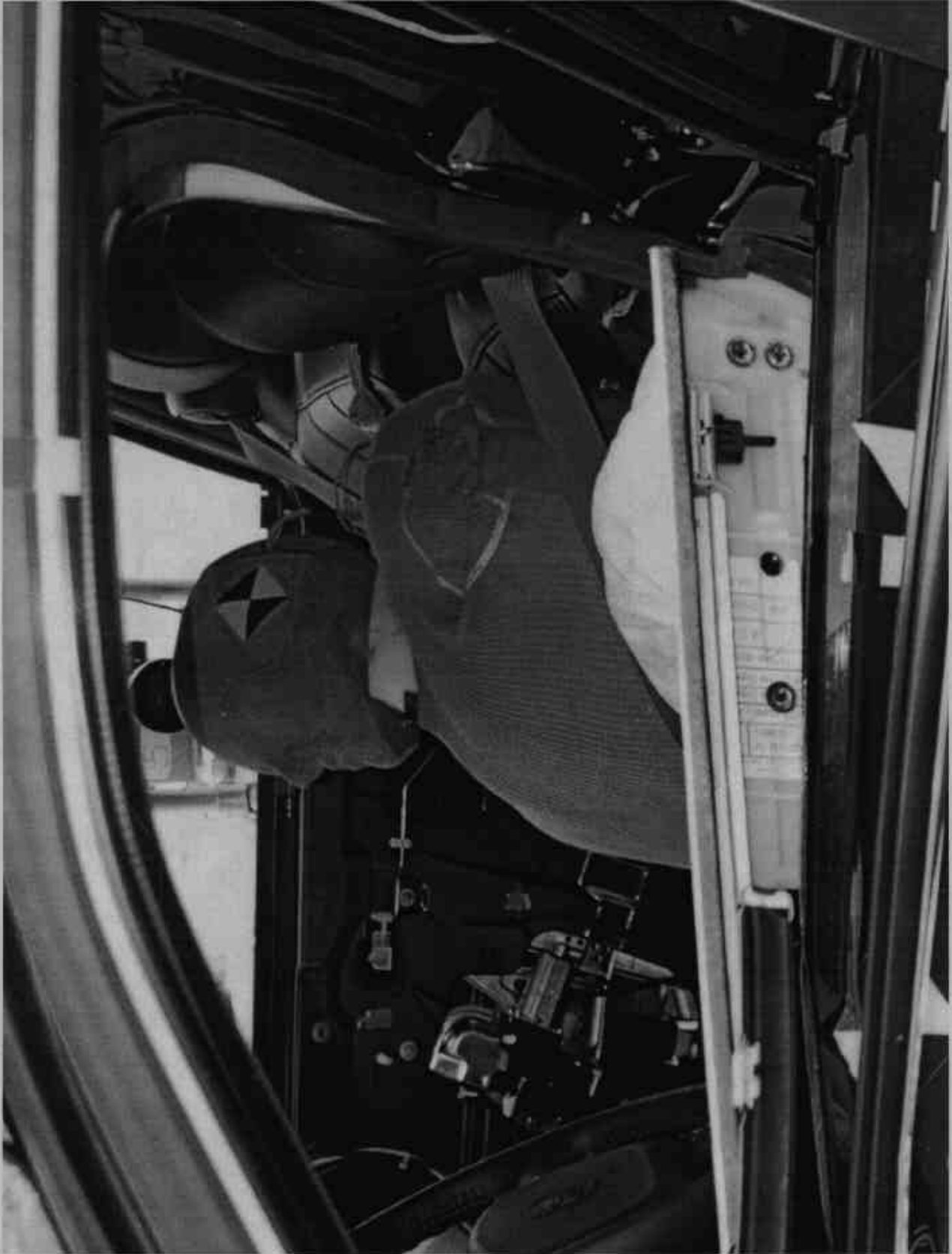


Figure A-20: Driver Dummy Left Side, Post-Test

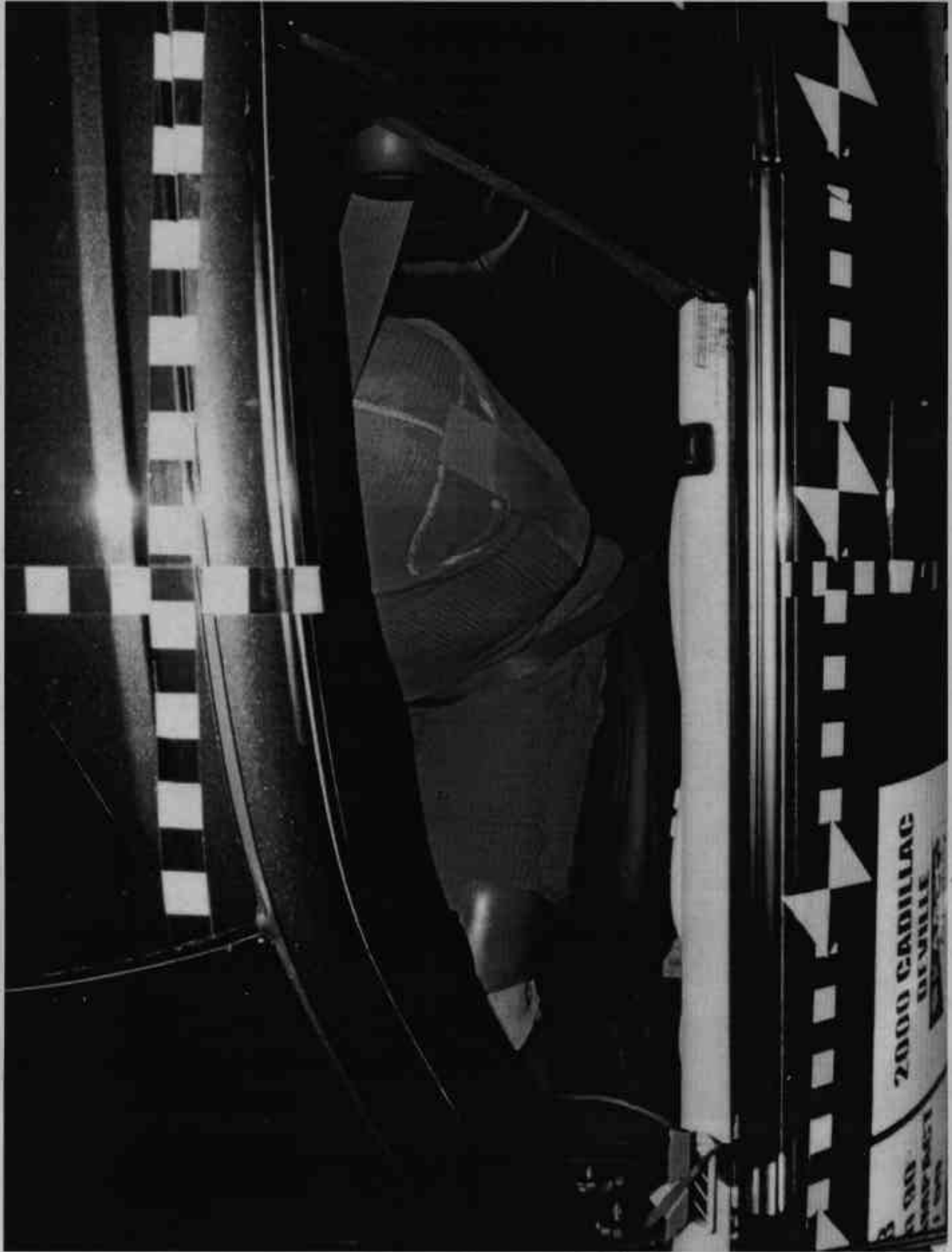


Figure A-21: Driver Dummy Clearance, Pre-Test



Figure A-22: Driver Dummy Clearance, Post-Test

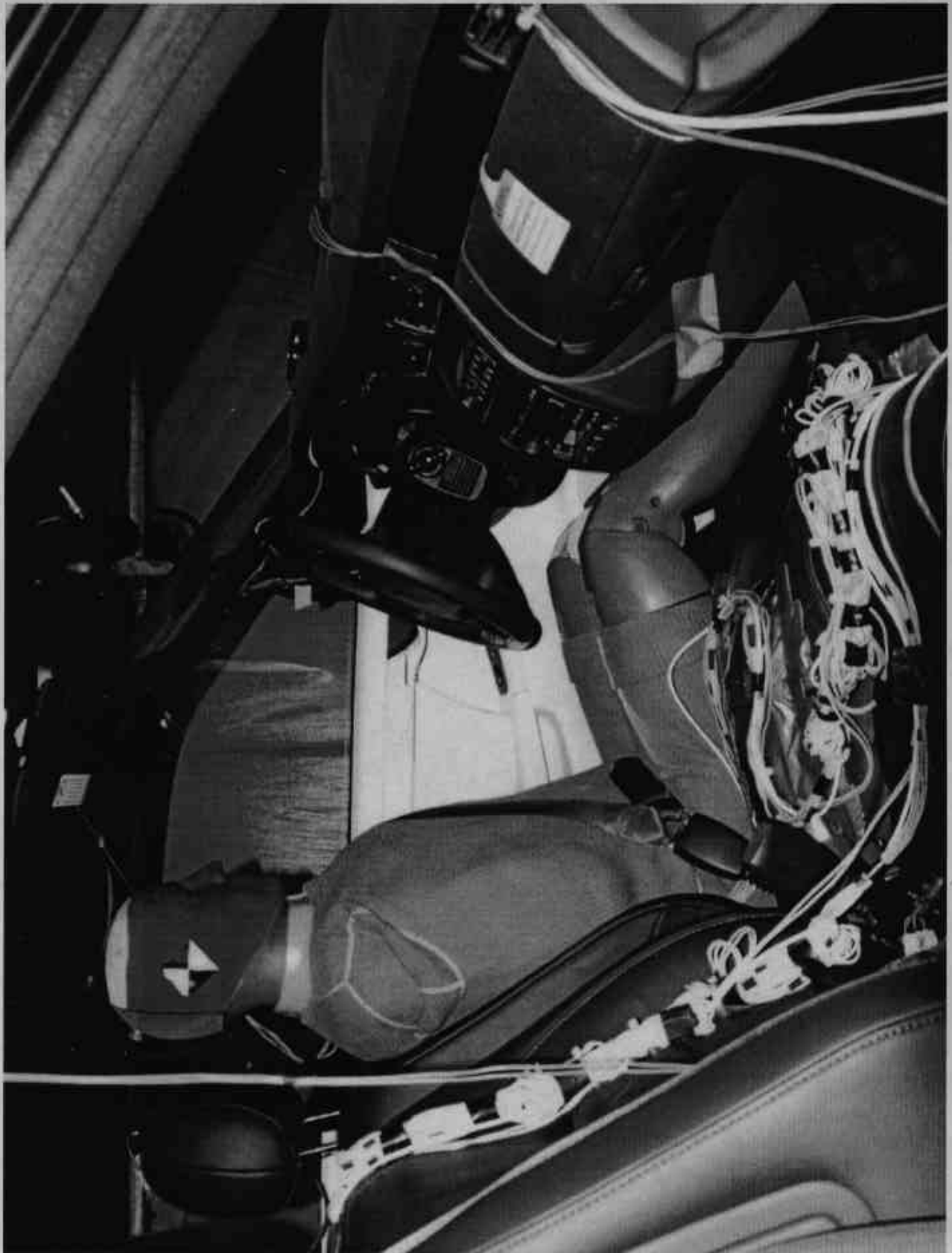


Figure A-23: Driver Dummy Inside View, Pre-Test



Figure A-24: Driver Dummy Inside View, Post-Test



Figure A-25: Driver Door Inside View, Pre-Test



Figure A-26: Driver Dummy Contact Points Inside View, Post-Test



Figure A-27: Passenger Dummy Left Side with Door Open, Pre-Test

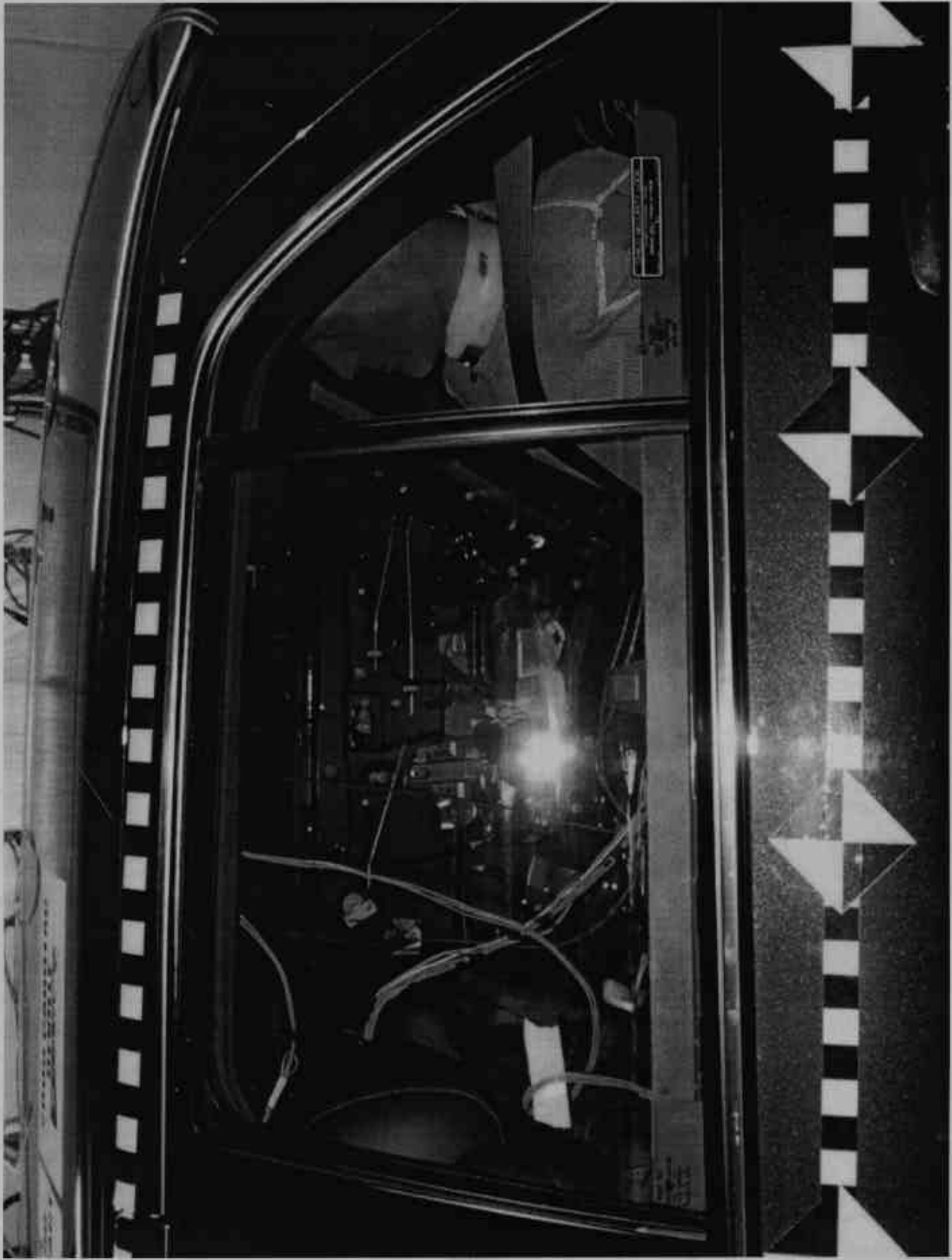


Figure A-28: Passenger Dummy Left Side, Pre-Test

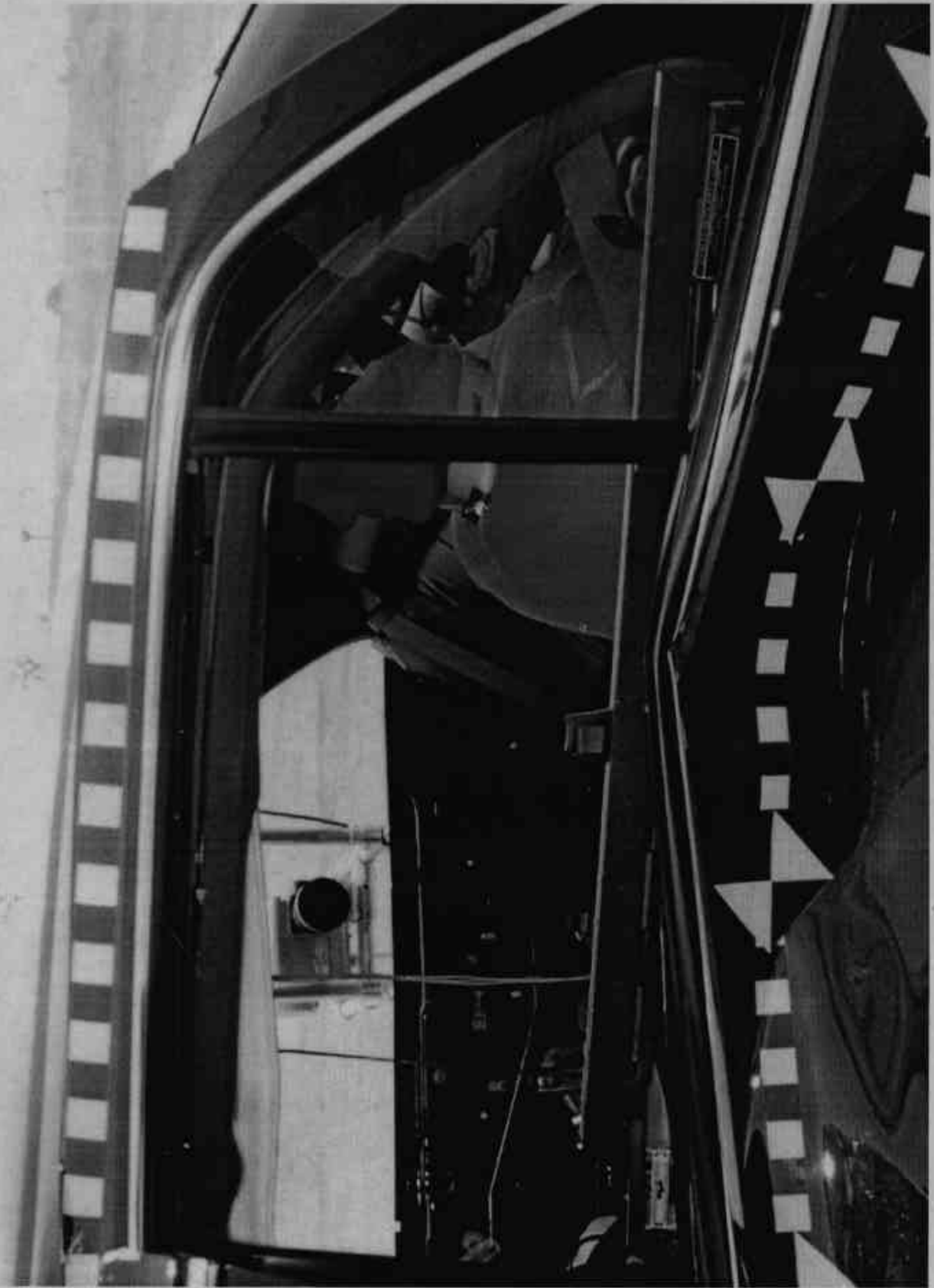


Figure A-29: Passenger Dummy Left Side, Post-Test



Figure A-30: Passenger Dummy Clearance, Pre-Test



Figure A-31: Passenger Dummy Clearance, Post-Test



Figure A-32: Passenger Dummy Inside View, Pre-Test

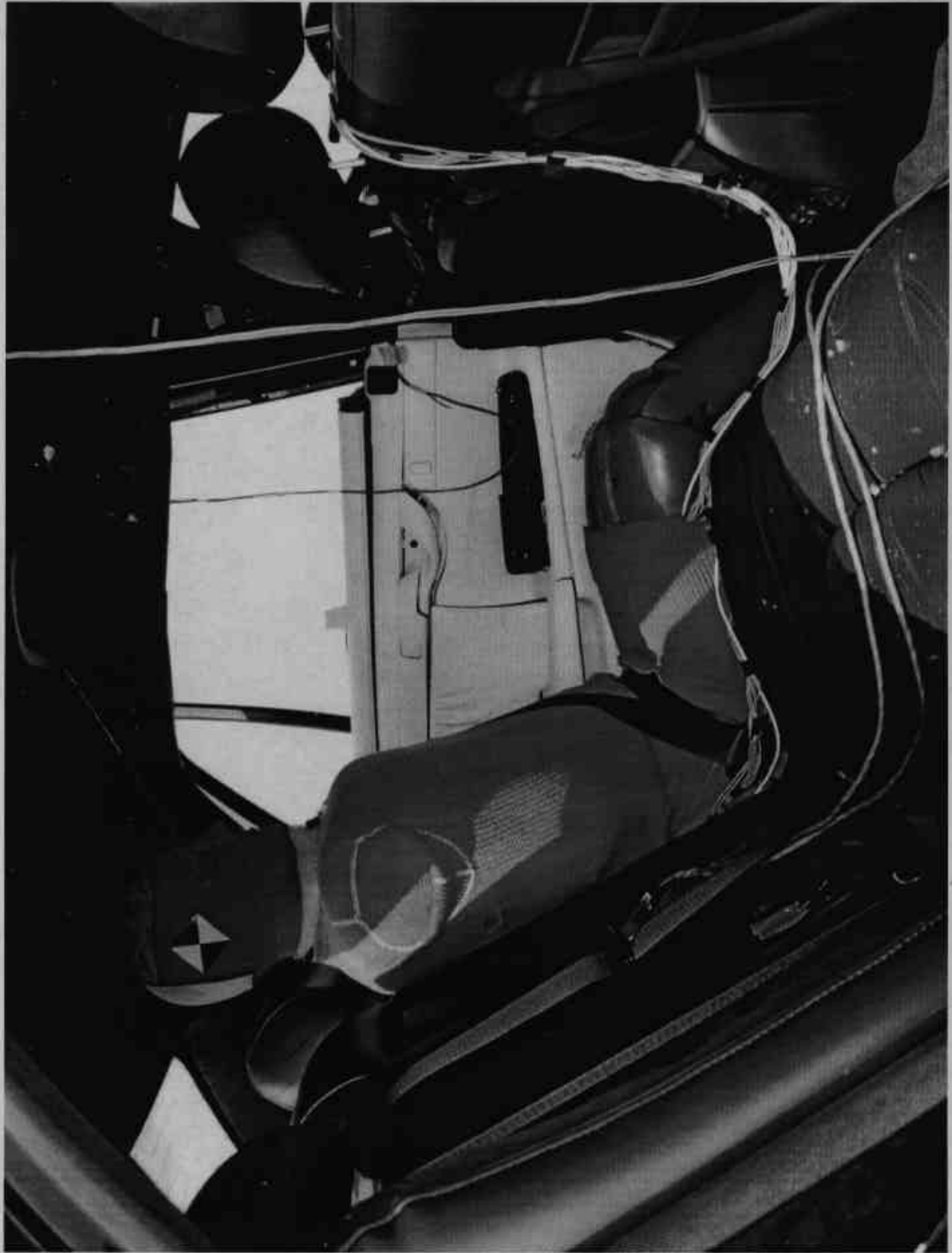


Figure A-33: Passenger Dummy Inside View, Post-Test

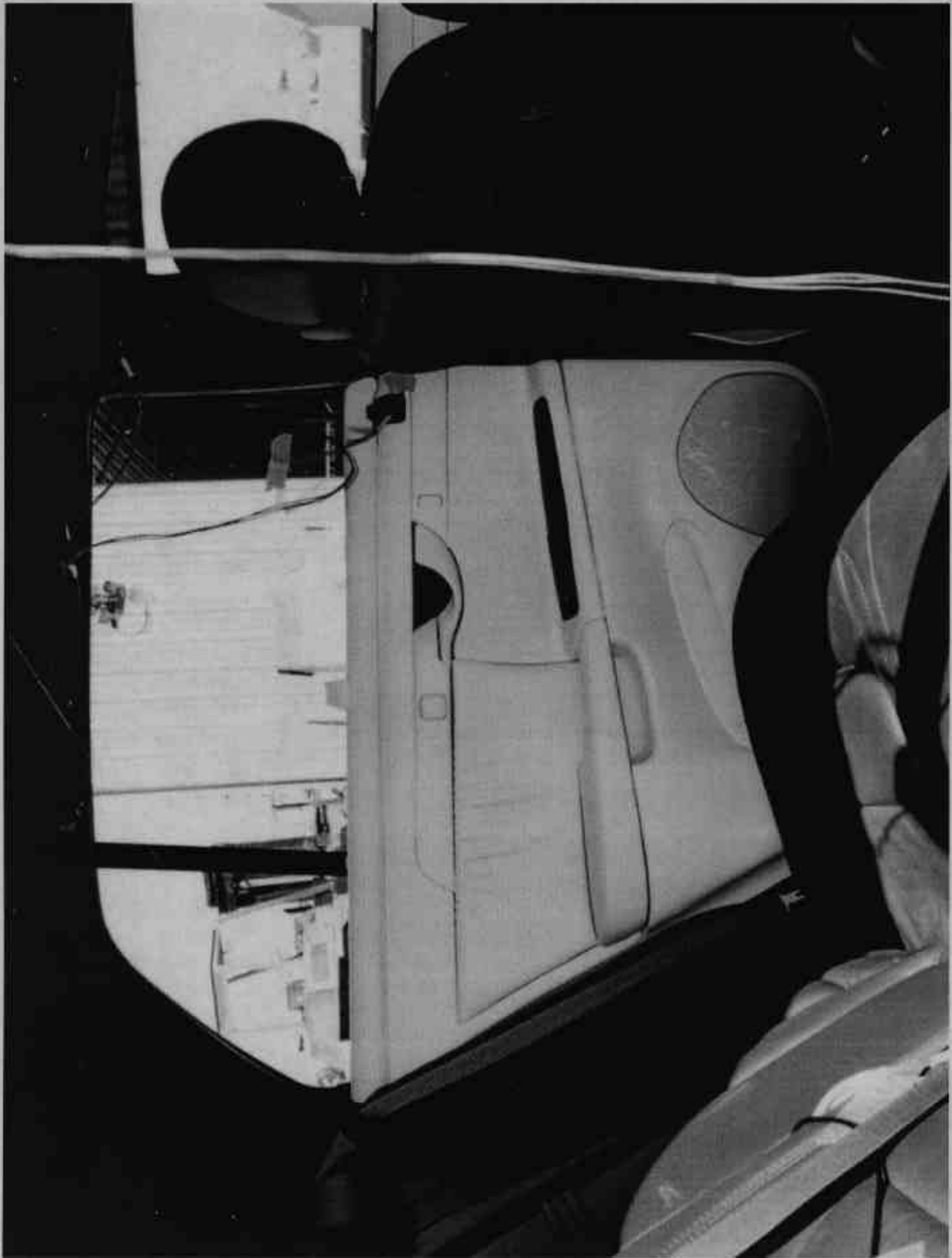


Figure A-34: Passenger Door Inside View, Pre-Test

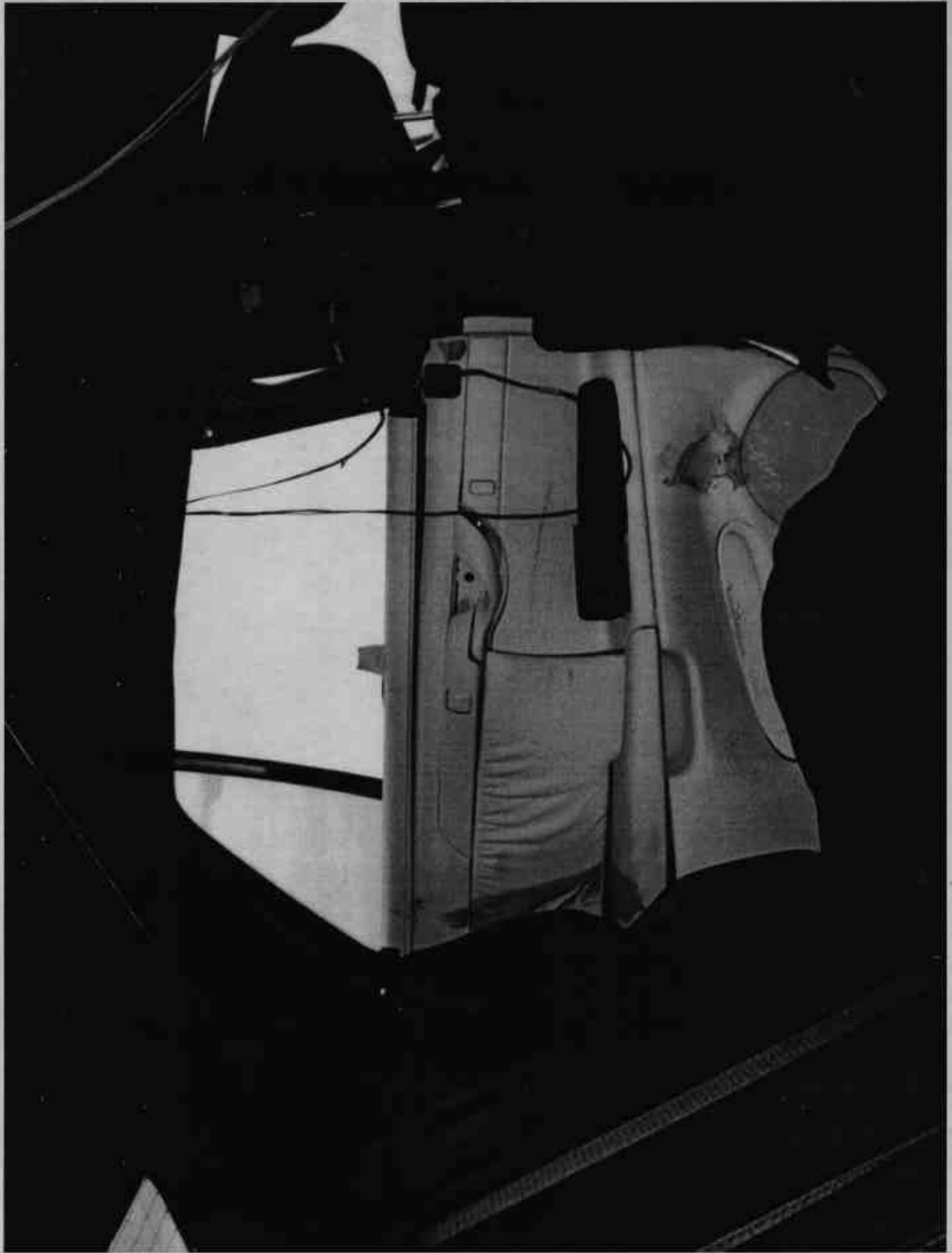


Figure A-35: Passenger Dummy Contact Points Inside View, Post-Test

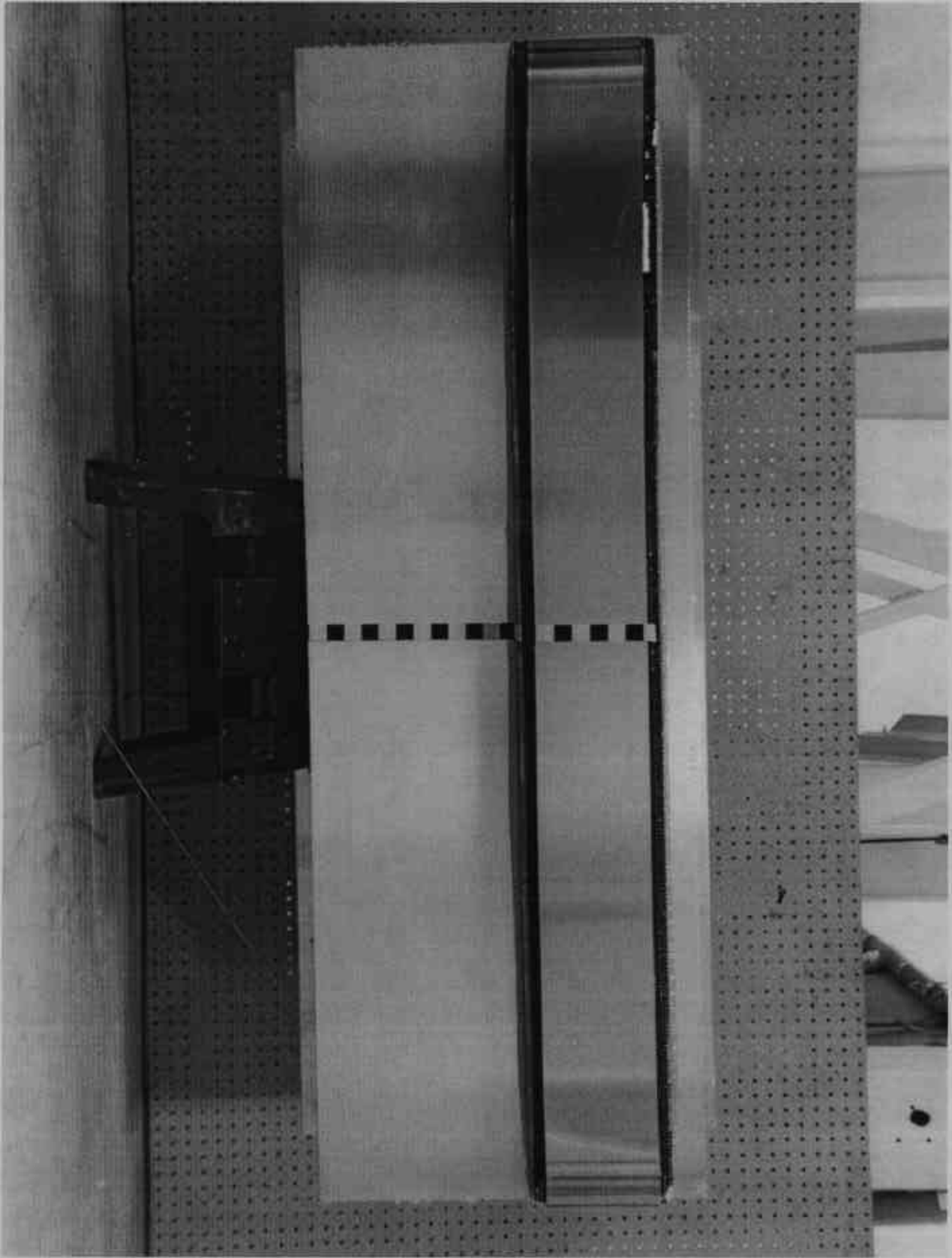


Figure A-36: Front View of Deformable Barrier, Pre-Test

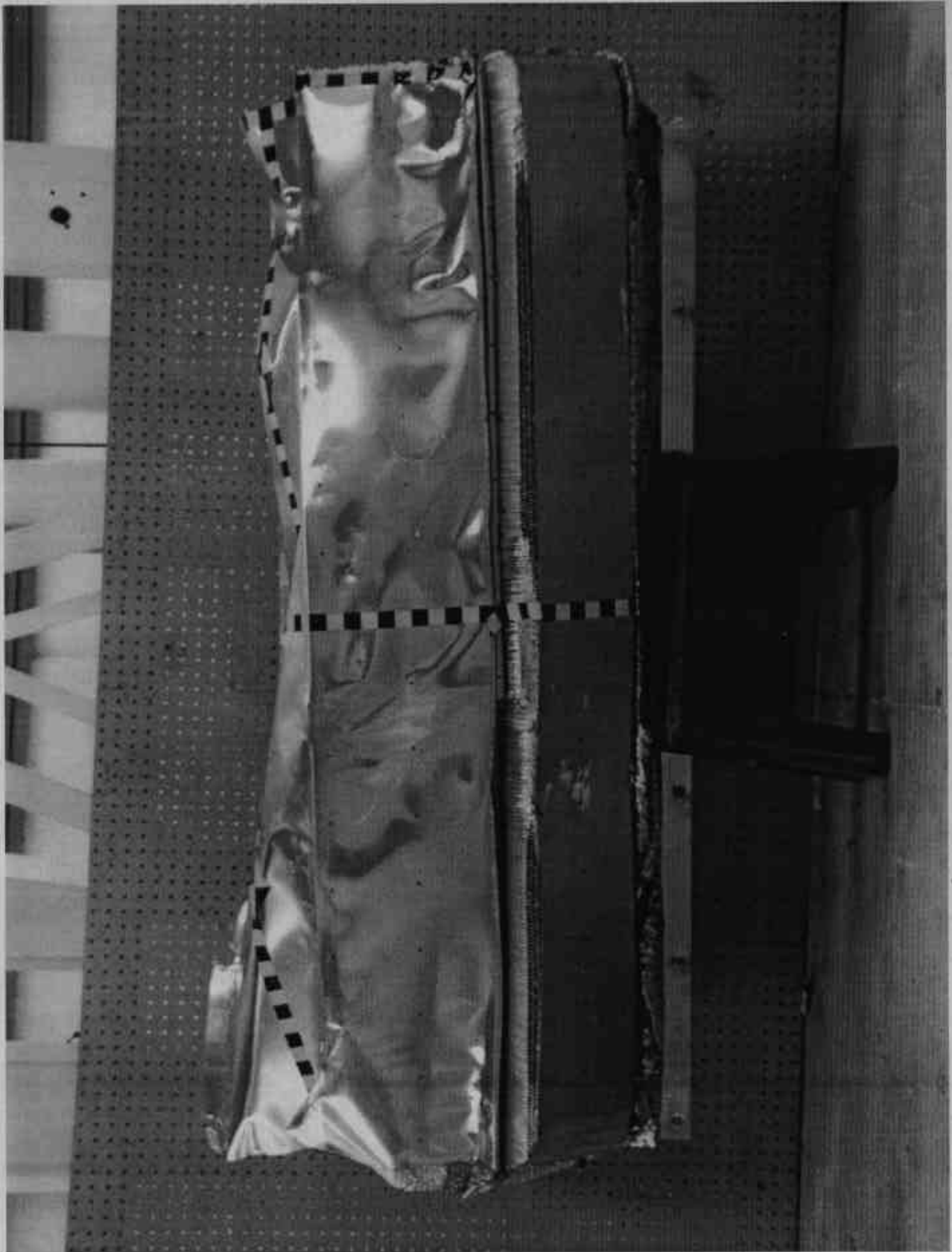


Figure A-37: Front View of Deformable Barrier, Post-Test

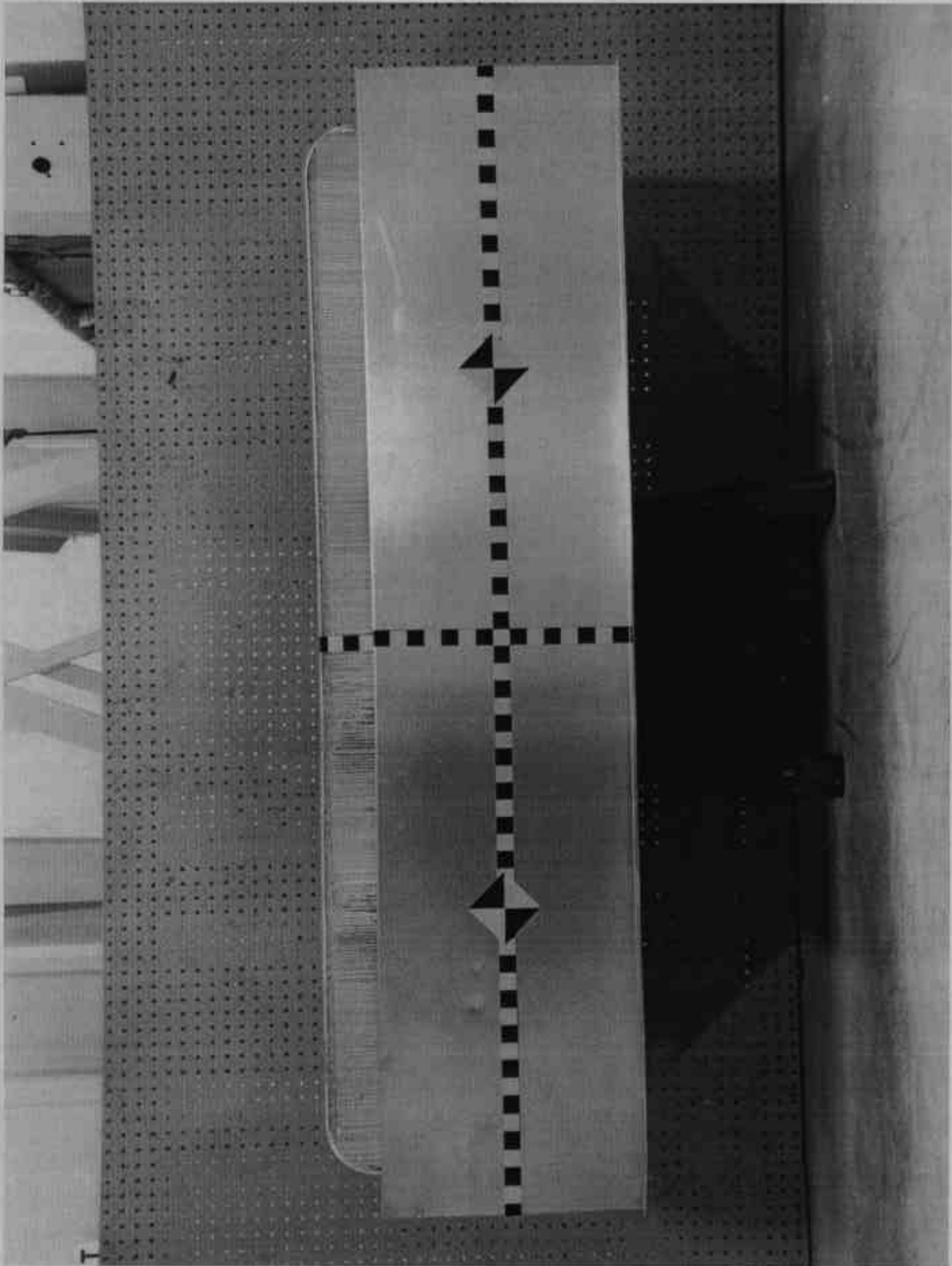


Figure A-38: Top View of Deformable Barrier, Pre-Test

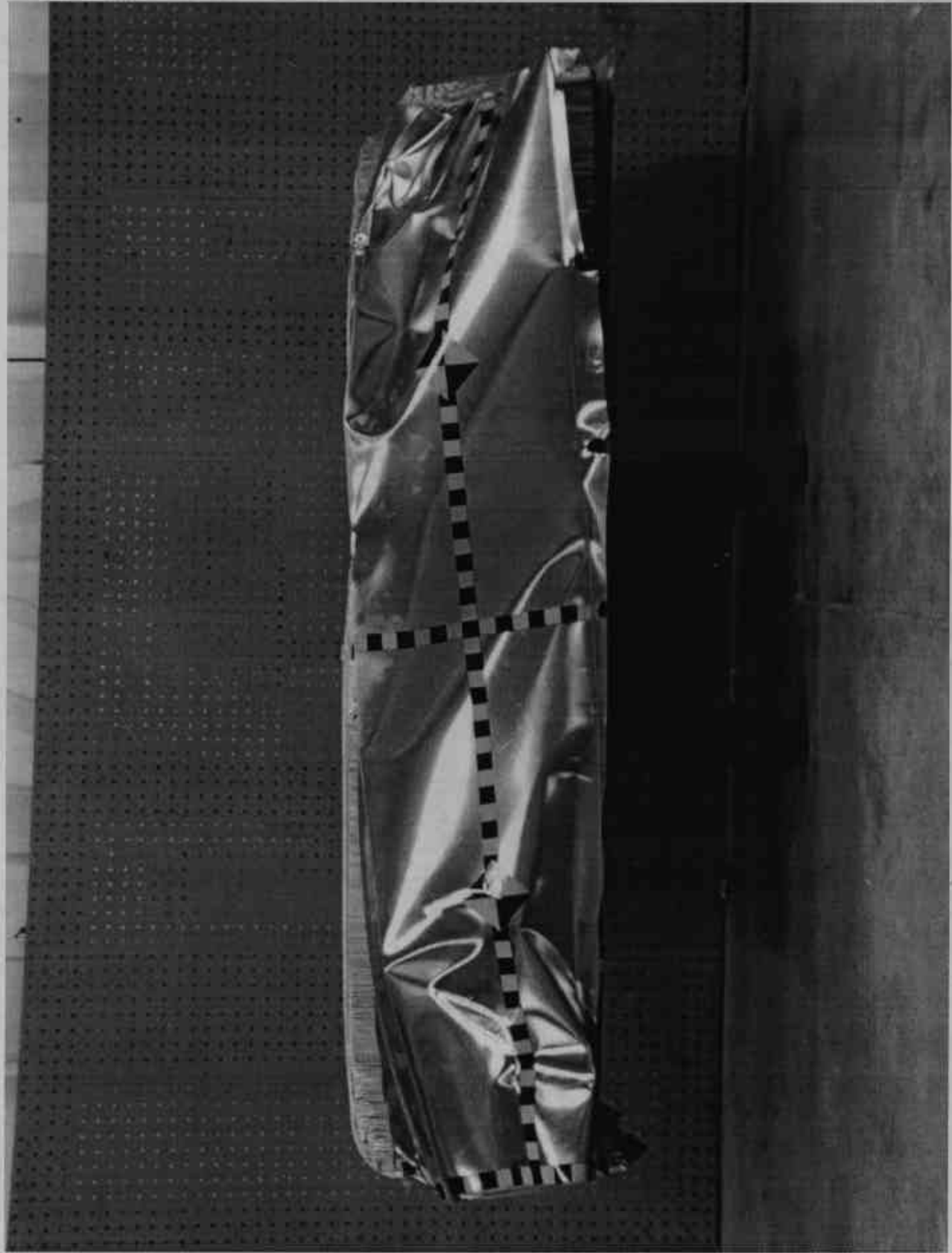


Figure A-39: Top View of Deformable Barrier, Post-Test

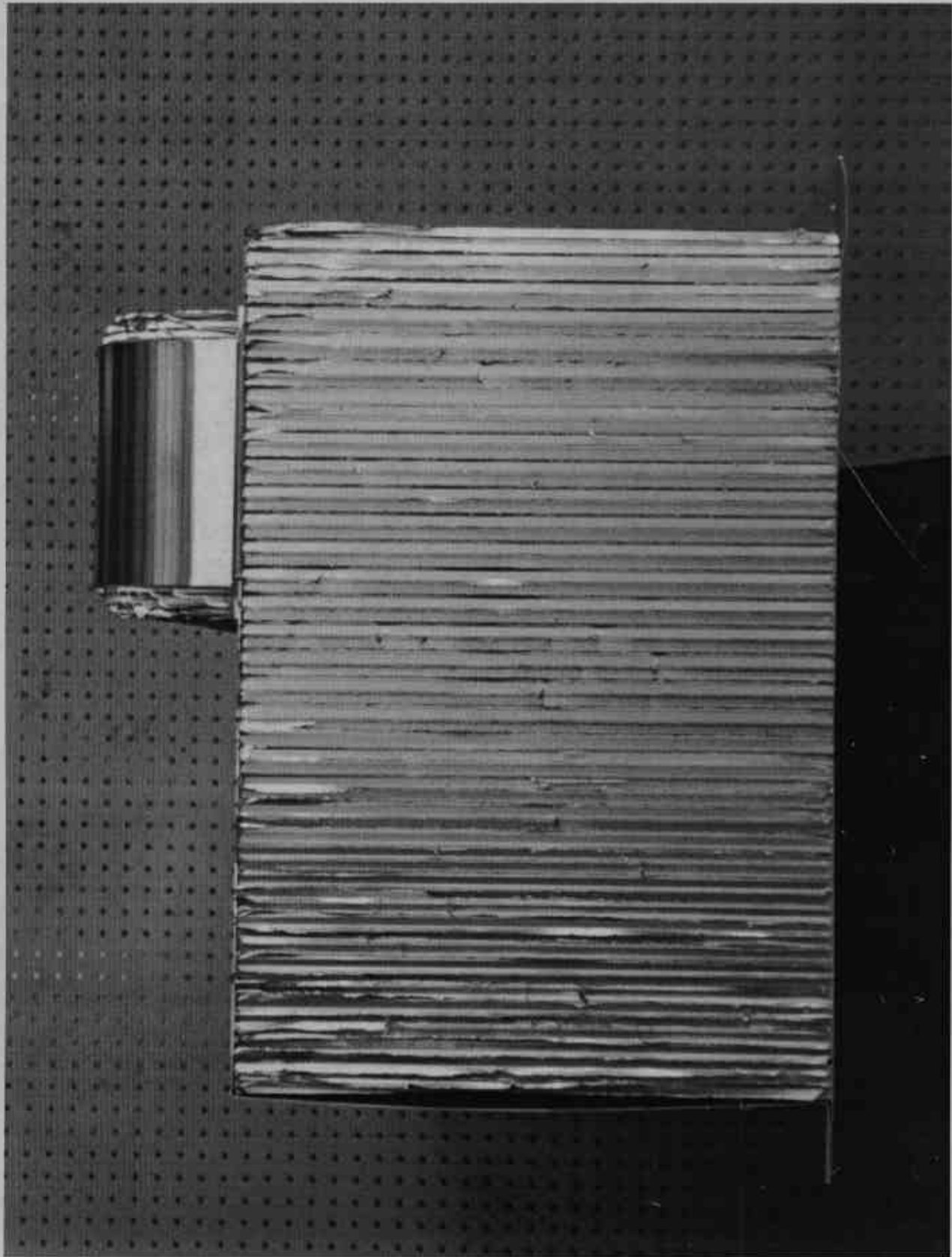


Figure A-40: Right Side View of Deformable Barrier, Pre-Test

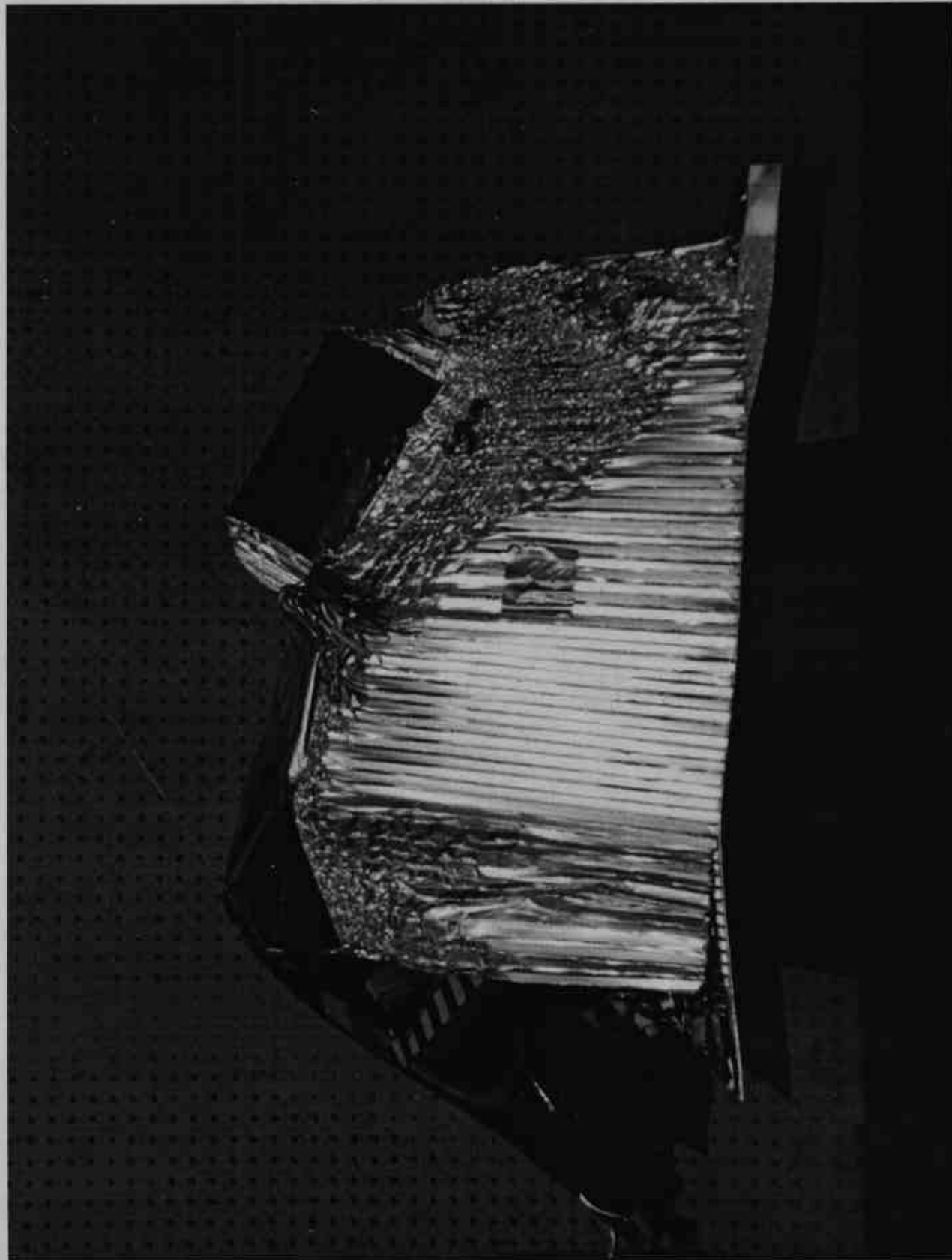


Figure A-41: Right Side View of Deformable Barrier, Post-Test

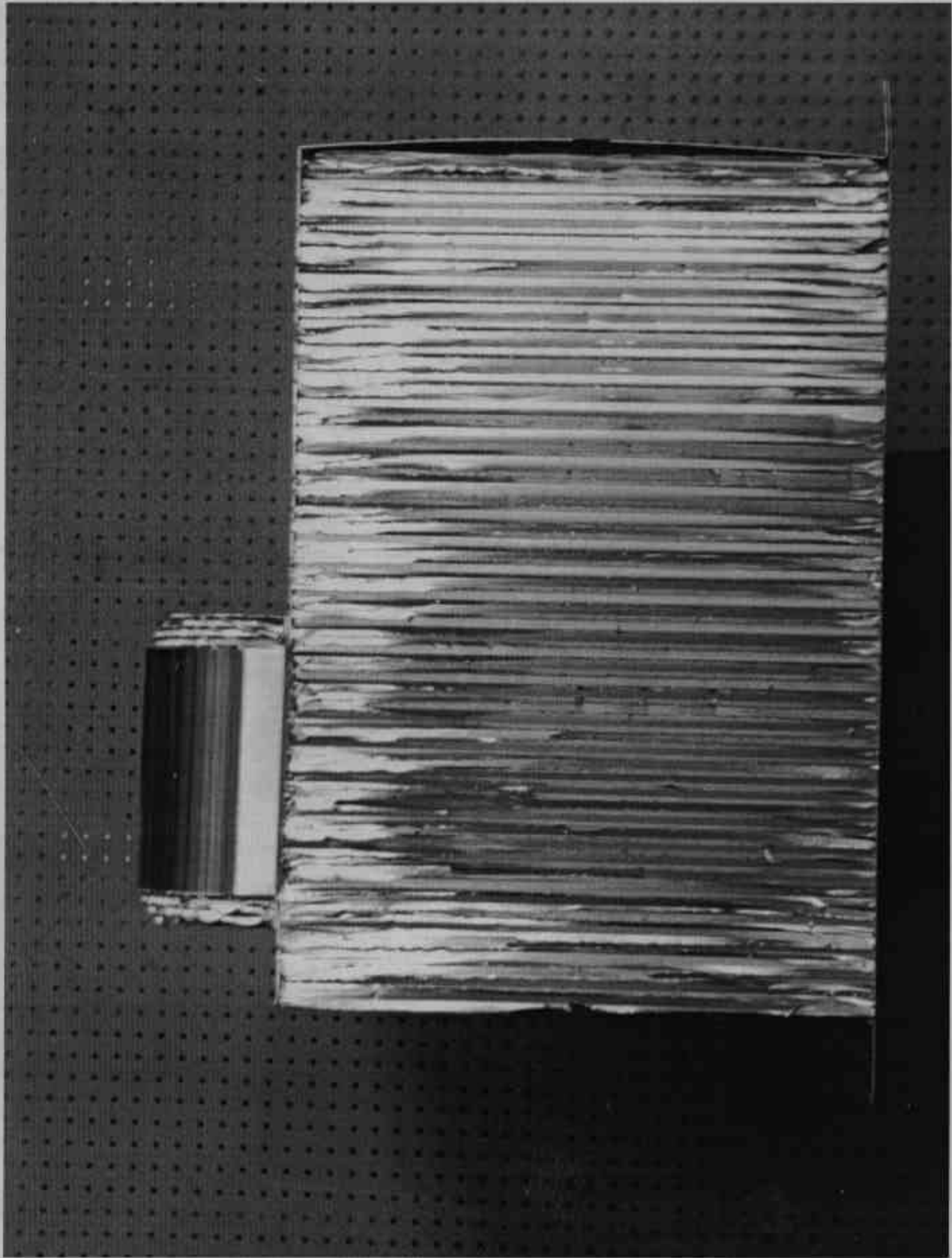


Figure A-42: Left Side View of Deformable Barrier, Pre-Test



Figure A-43: Left Side View of Deformable Barrier, Post-Test



Figure A-44: Vehicle on Rollover Device, Top View



Figure A-45: Vehicle During Impact



Figure A-46: Rear Seat Side Airbag, Post-Test



Figure A-47: Rear Seat Side Airbag Close-Up, Post-Test



Figure A-48: Left (Impacted) Side Roof Close-Up, Post-Test

APPENDIX B
SID, VEHICLE, AND MDB RESPONSE DATA

LIST OF DATA PLOTS

Data Plot	Page
B-1 Driver Head CG X	B-1
B-2 Driver Head CG X Velocity	B-2
B-3 Driver Head CG Y	B-3
B-4 Driver Head CG Y Velocity	B-4
B-5 Driver Head CG Z	B-5
B-6 Driver Head CG Z Velocity	B-6
B-7 Driver Head CG Resultant	B-7
B-8 Driver Upper Rib Primary	B-8
B-9 Driver Upper Rib Primary Y Velocity	B-9
B-10 Driver Lower Rib Primary	B-10
B-11 Driver Lower Rib Primary Y Velocity	B-11
B-12 Driver Lower Spine Primary	B-12
B-13 Driver Lower Spine Primary Y Velocity	B-13
B-14 Driver Pelvis Primary Y	B-14
B-15 Driver Pelvis Primary Y Velocity	B-15
B-16 Driver Upper Rib Redundant	B-16
B-17 Driver Upper Rib Redundant Y Velocity	B-17
B-18 Driver Lower Rib Redundant	B-18
B-19 Driver Lower Rib Redundant Y Velocity	B-19
B-20 Driver Lower Spine Redundant	B-20
B-21 Driver Lower Spine Redundant Y Velocity	B-21
B-22 Driver Pelvis Redundant Y	B-22
B-23 Driver Pelvis Redundant Y Velocity	B-23
B-24 Driver Thorax Contact	B-24
B-25 Driver Pelvis Contact	B-25
B-26 Passenger Head CG X	B-26
B-27 Passenger Head CG X Velocity	B-27
B-28 Passenger Head CG Y	B-28
B-29 Passenger Head CG Y Velocity	B-29
B-30 Passenger Head CG Z	B-30
B-31 Passenger Head CG Z Velocity	B-31
B-32 Passenger Head CG Resultant	B-32
B-33 Passenger Upper Rib Primary	B-33

LIST OF DATA PLOTS

Data Plot	Page	
B-34	Passenger Upper Rib Primary Y Velocity	B-34
B-35	Passenger Lower Rib Primary	B-35
B-36	Passenger Lower Rib Primary Y Velocity	B-36
B-37	Passenger Lower Spine Primary	B-37
B-38	Passenger Lower Spine Primary Y Velocity	B-38
B-39	Passenger Pelvis Primary Y	B-39
B-40	Passenger Pelvis Primary Y Velocity	B-40
B-41	Passenger Upper Rib Redundant	B-41
B-42	Passenger Upper Rib Redundant Y Velocity	B-42
B-43	Passenger Lower Rib Redundant	B-43
B-44	Passenger Lower Rib Redundant Y Velocity	B-44
B-45	Passenger Lower Spine Redundant	B-45
B-46	Passenger Lower Spine Redundant Y Velocity	B-46
B-47	Passenger Pelvis Redundant Y	B-47
B-48	Passenger Pelvis Redundant Y Velocity	B-48
B-49	Passenger Thorax Contact	B-49
B-50	Passenger Pelvis Contact	B-50
B-51	Right Sill at Front Seat X	B-51
B-52	Right Sill at Front Seat X Velocity	B-52
B-53	Right Sill at Front Seat Y	B-53
B-54	Right Sill at Front Seat Y Velocity	B-54
B-55	Right Sill at Front Seat Z	B-55
B-56	Right Sill at Front Seat Z Velocity	B-56
B-57	Right Sill at Front Seat Resultant	B-57
B-58	Right Sill at Rear Seat X	B-58
B-59	Right Sill at Rear Seat X Velocity	B-59
B-60	Right Sill at Rear Seat Y	B-60
B-61	Right Sill at Rear Seat Y Velocity	B-61
B-62	Right Sill at Rear Seat Z	B-62
B-63	Right Sill at Rear Seat Z Velocity	B-63
B-64	Right Sill at Rear Seat Resultant	B-64
B-65	Rear Floorpan Above Axle X	B-65

LIST OF DATA PLOTS

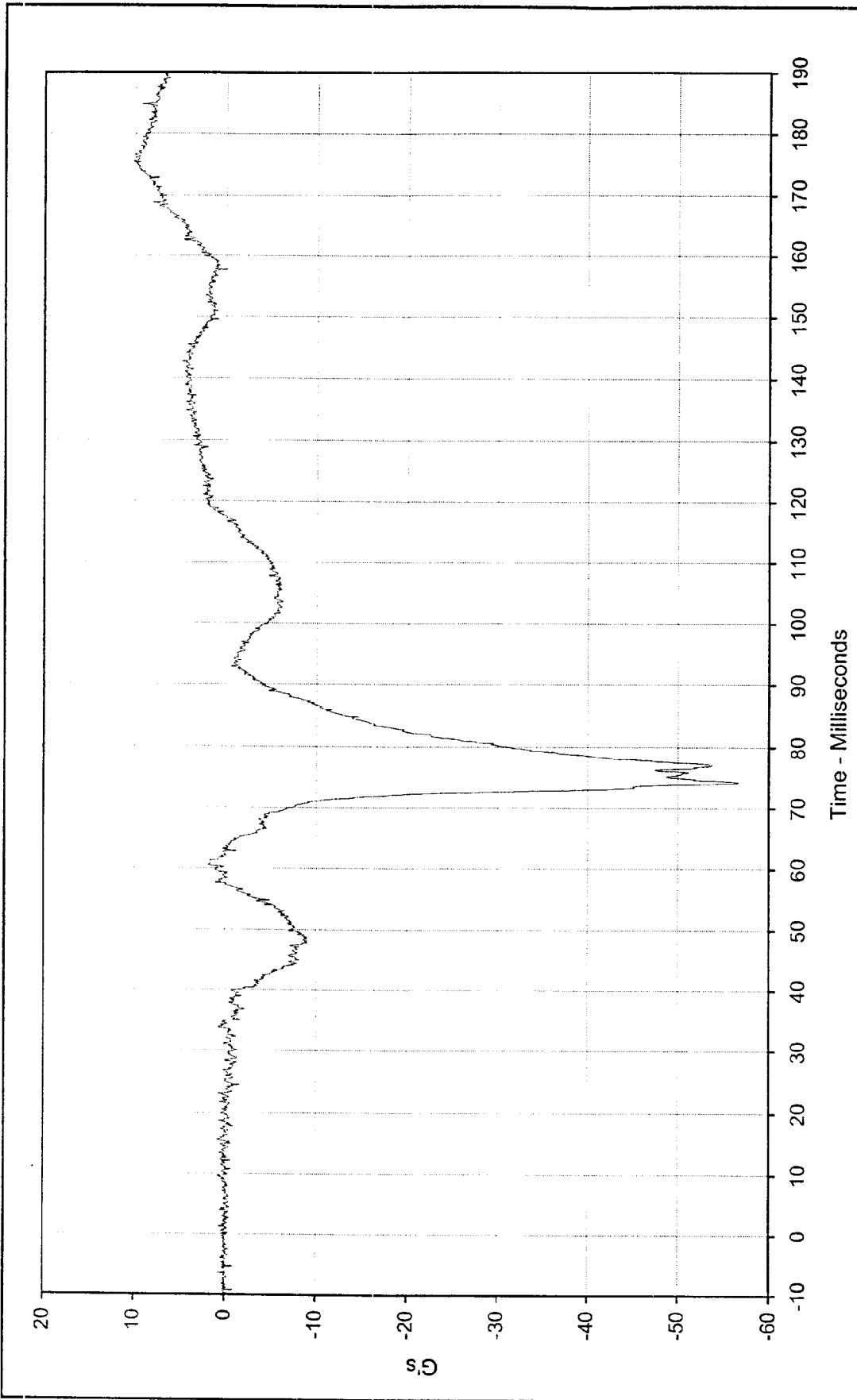
Data Plot	Page	
B-66	Rear Floorpan Above Axle X	B-66
B-67	Rear Floorpan Above Axle Y	B-67
B-68	Rear Floorpan Above Axle Y Velocity	B-68
B-69	Rear Floor Above Axle Z	B-69
B-70	Rear Floorpan Above Axle Z Velocity	B-70
B-71	Rear Floor Above Axle Resultant	B-71
B-72	Left Sill at Rear Door Y	B-72
B-73	Left Sill at Rear Door Y Velocity	B-73
B-74	Left Sill at Front Door Y	B-74
B-75	Left Sill at Front Door Y Velocity	B-75
B-76	Left Front Door Centerline Y	B-76
B-77	Left Front Door Centerline Y Velocity	B-77
B-78	Right Rear Occupant Compartment Y	B-78
B-79	Right Rear Occupant Compartment Y Velocity	B-79
B-80	Left Front Door Mid Rear Y	B-80
B-81	Left Front Door Mid Rear Y Velocity	B-81
B-82	Left Front Door Upper Centerline Y	B-82
B-83	Left Front Door Upper Centerline Y Velocity	B-83
B-84	Left Rear Door Mid Rear Y	B-84
B-85	Left Rear Door Mid Rear Y Velocity	B-85
B-86	Left Rear Door Upper Centerline Y	B-86
B-87	Left Rear Door Upper Centerline Y Velocity	B-87
B-88	Left B-Post Lower Y	B-88
B-89	Left B-Post Lower Y Velocity	B-89
B-90	Left B-Post Middle Y	B-90
B-91	Left B-Post Middle Y Velocity	B-91
B-92	Left A-Post Lower Y	B-92
B-93	Left A-Post Lower Y Velocity	B-93
B-94	Left A-Post Middle Y	B-94
B-95	Left A-Post Middle Y Velocity	B-95

LIST OF DATA PLOTS

Data Plot	Page	
B-96	Left Front Seat Track Y	B-96
B-97	Left Front Seat Track Y Velocity	B-97
B-98	Left Rear Seat Structure Y	B-98
B-99	Left Rear Seat Structure Y Velocity	B-99
B-100	Vehicle CG X	B-100
B-101	Vehicle CG X Velocity	B-101
B-102	Vehicle CG Y	B-102
B-103	Vehicle CG Y Velocity	B-103
B-104	Vehicle CG Z	B-104
B-105	Vehicle CG Z Velocity	B-105
B-106	Vehicle CG Resultant	B-106
B-107	Moving Deformable Barrier CG X	B-107
B-108	Moving Deformable Barrier CG X Velocity	B-108
B-109	Moving Deformable Barrier CG Y	B-109
B-110	Moving Deformable Barrier CG Y Velocity	B-110
B-111	Moving Deformable Barrier CG Z	B-111
B-112	Moving Deformable Barrier CG Z Velocity	B-112
B-113	Moving Deformable Barrier CG Resultant	B-113
B-114	Moving Deformable Barrier Rear X	B-114
B-115	Moving Deformable Barrier Rear X Velocity	B-115
B-116	Moving Deformable Barrier Rear Y	B-116
B-117	Moving Deformable Barrier Rear Y Velocity	B-117
B-118	Moving Deformable Barrier Right Bumper Contact Time	B-118
B-119	Driver Upper Rib Primary	B-119
B-120	Driver Lower Rib Primary	B-120
B-121	Driver Lower Spine Primary	B-121
B-122	Driver Pelvis Primary Y	B-122
B-123	Driver Upper Rib Redundant	B-123
B-124	Driver Lower Rib Redundant	B-124
B-125	Driver Lower Spine Redundant	B-125

LIST OF DATA PLOTS

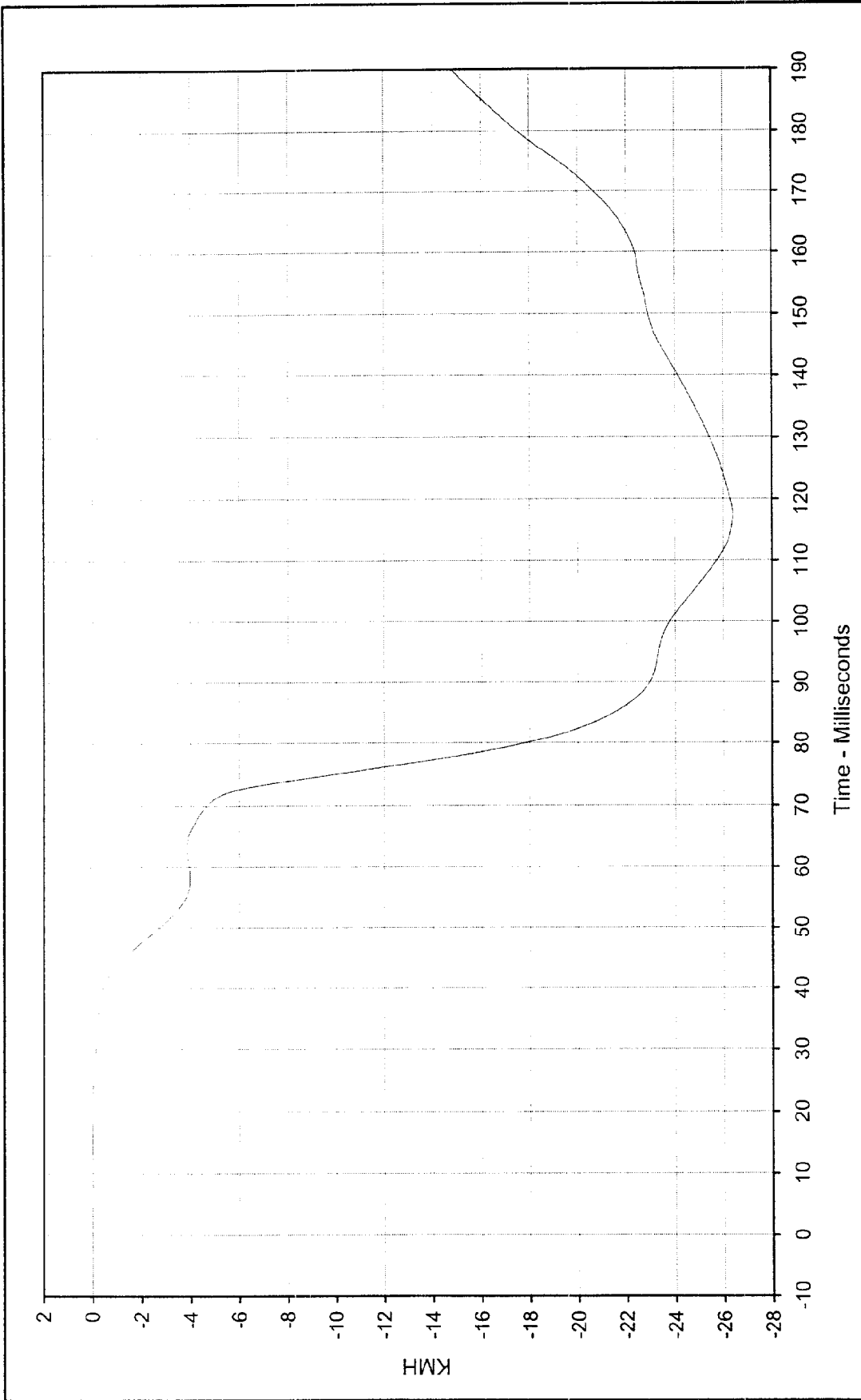
Data Plot		Page
B-126	Driver Pelvis Redundant Y	B-126
B-127	Passenger Upper Rib Primary	B-127
B-128	Passenger Lower Rib Primary	B-128
B-129	Passenger Lower Spine Primary	B-129
B-130	Passenger Pelvis Primary Y	B-130
B-131	Passenger Upper Rib Redundant	B-131
B-132	Passenger Lower Rib Redundant	B-132
B-133	Passenger Lower Spine Redundant	B-133
B-134	Passenger Pelvis Redundant Y	B-134



Time - Milliseconds

Curve Description:	Driver Head CG X	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0103	
Maximum Value:	10.3	at	175.6	Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS
Minimum Value:	-56.6	at	74.2	Milliseconds		
SAE Filter Class:	1000					
Date of Test:	03/03/00					
Curve Number:	FIL-001					





Curve Description: Driver Head CG X Velocity

Maximum Value: 0.0 at 1.7 Milliseconds

Minimum Value: -26.4 at 117.5 Milliseconds

SAE Filter Class: 180

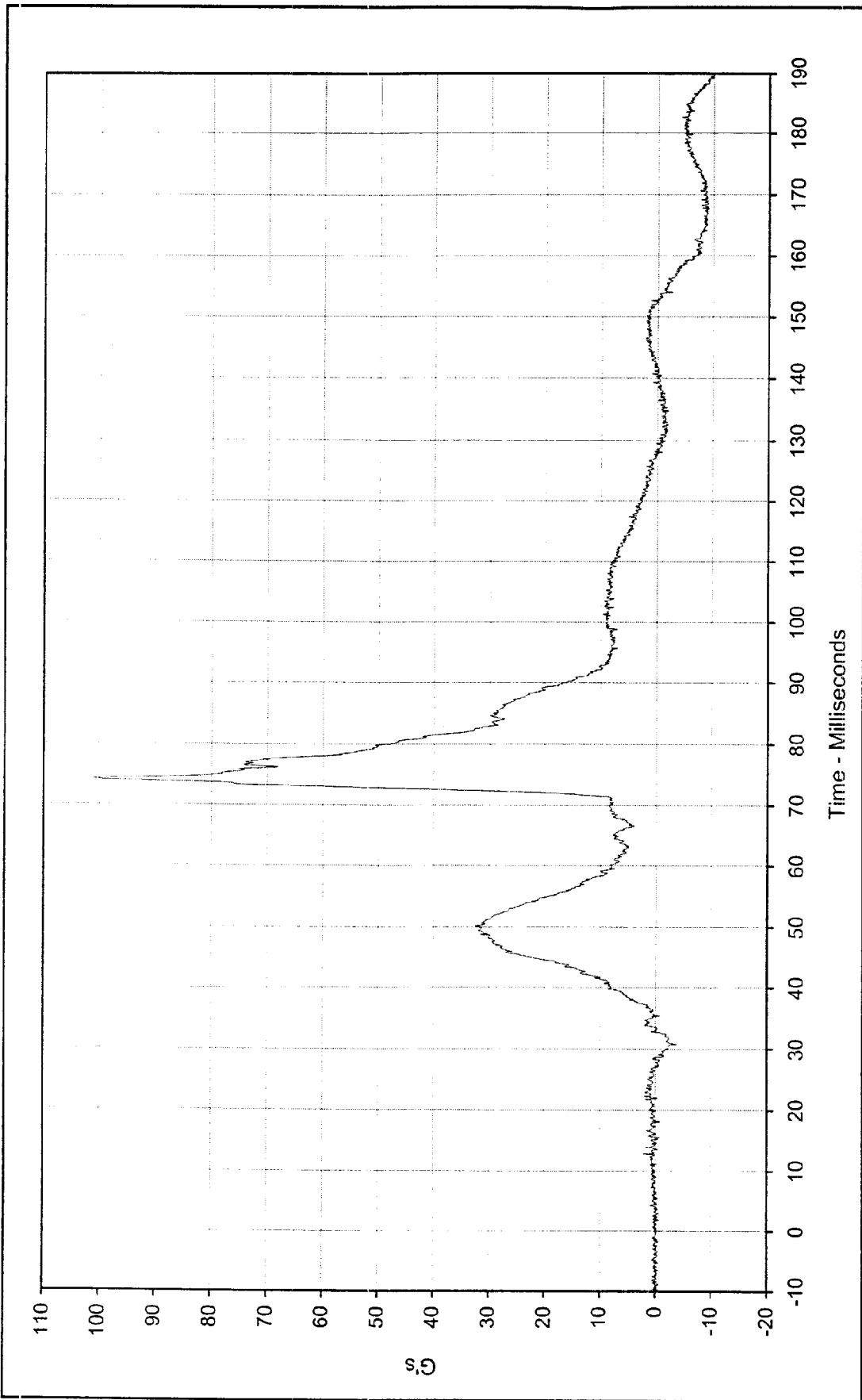
Date of Test: 03/03/00

Curve Number: IN1-001

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Test Vehicle: 2000 Cadillac Deville DHS

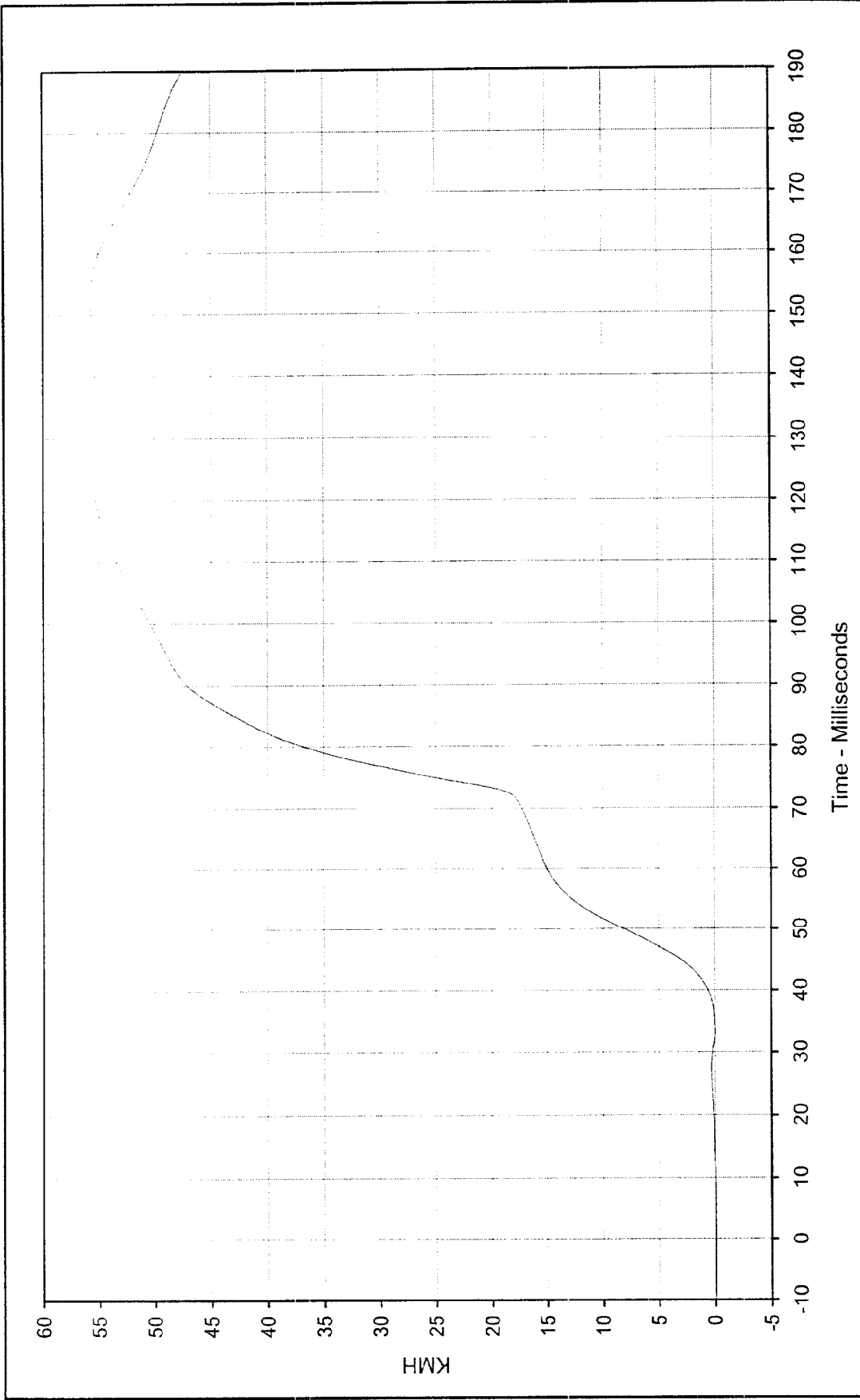




Curve Description: Driver Head CG Y
 Maximum Value: 101.0 at 74.2 Milliseconds
 Minimum Value: -10.2 at 189.6 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-002

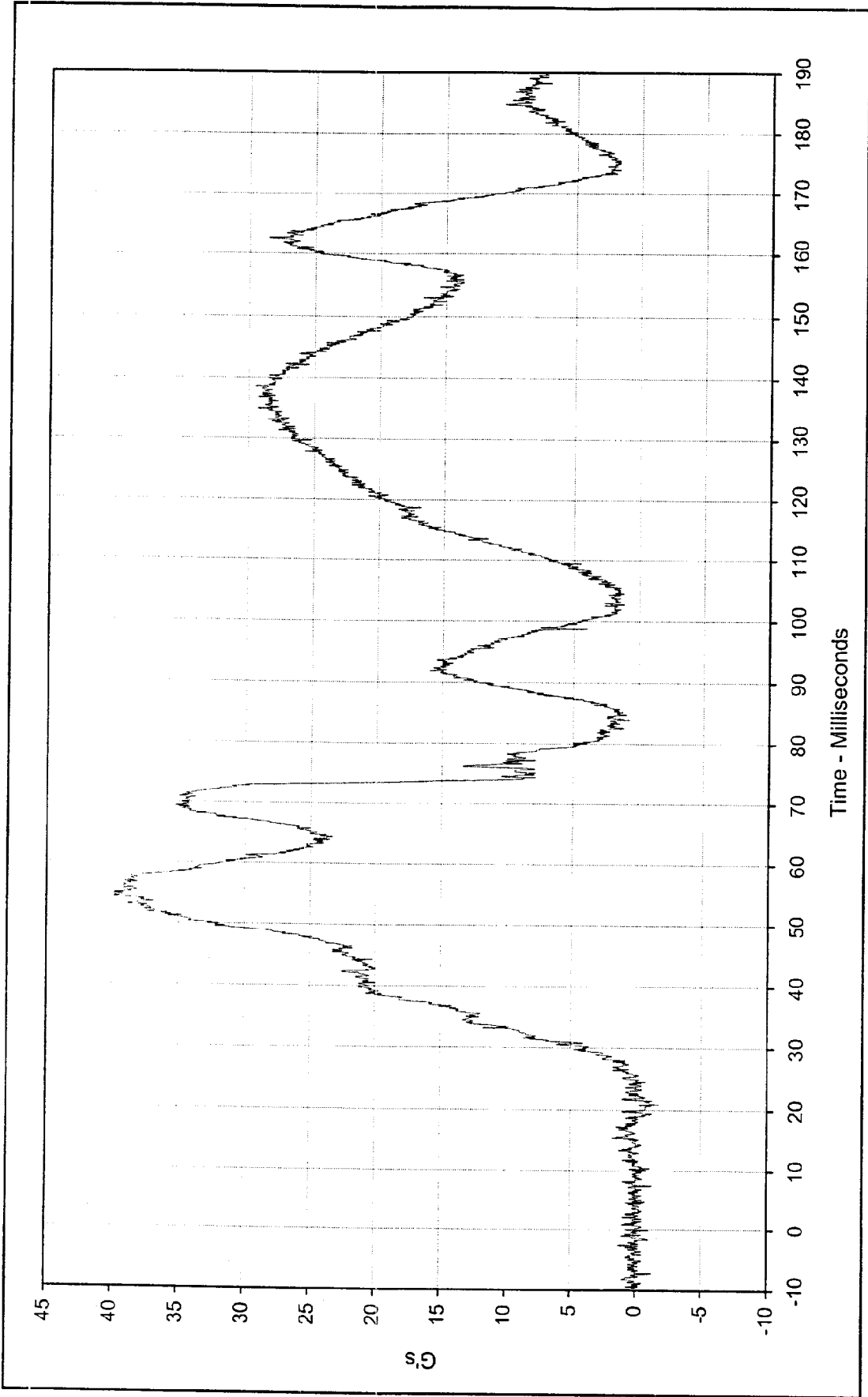
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





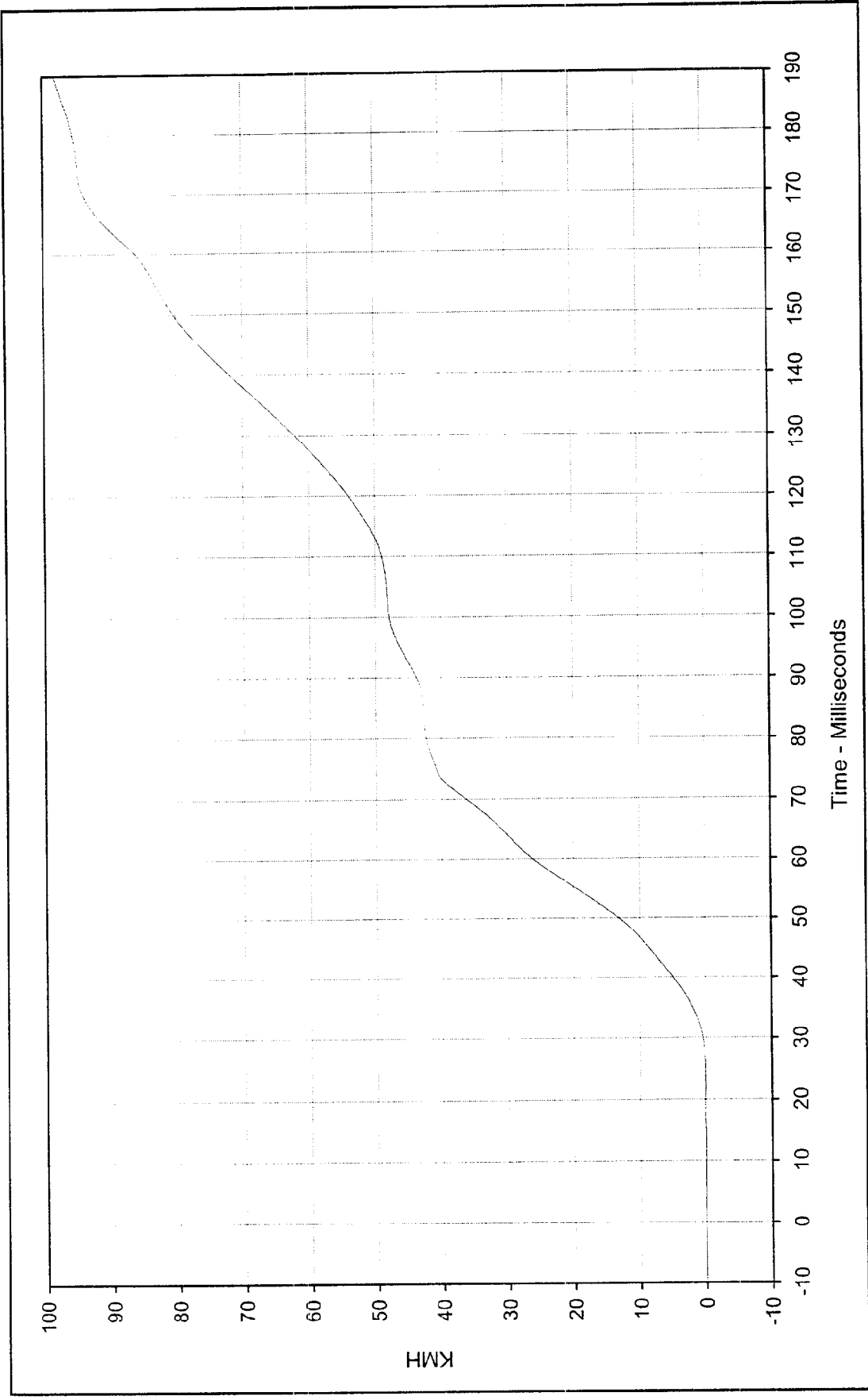
Curve Description: Driver Head CG Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 55.8 at 152.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -0.1 at 4.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-002





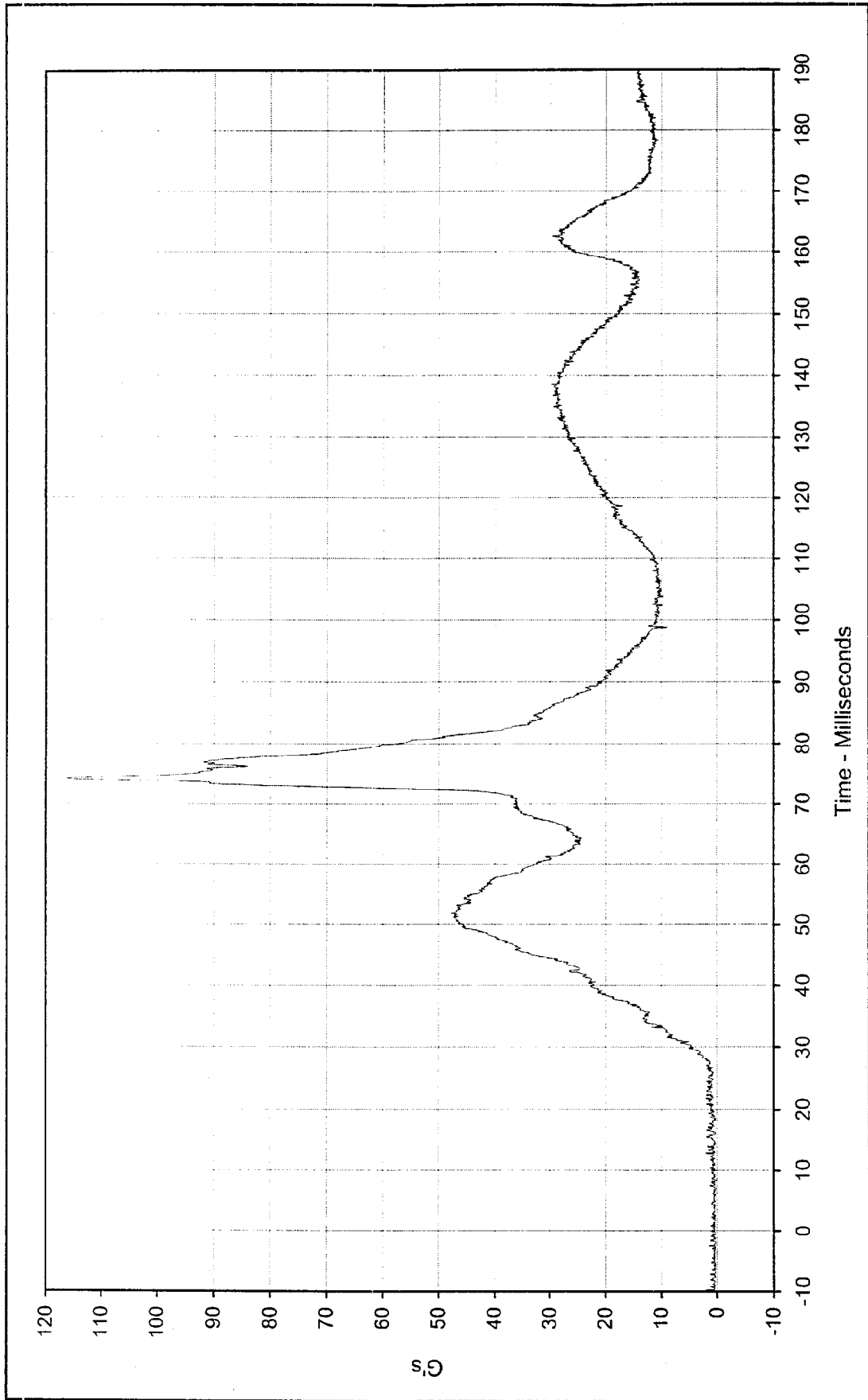
Curve Description: Driver Head CG Z
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS
 Maximum Value: 39.9 at 54.3 Milliseconds
 Minimum Value: -1.8 at 20.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-003





Curve Description: Driver Head CG Z Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 98.2 at 189.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.1 at 11.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-003

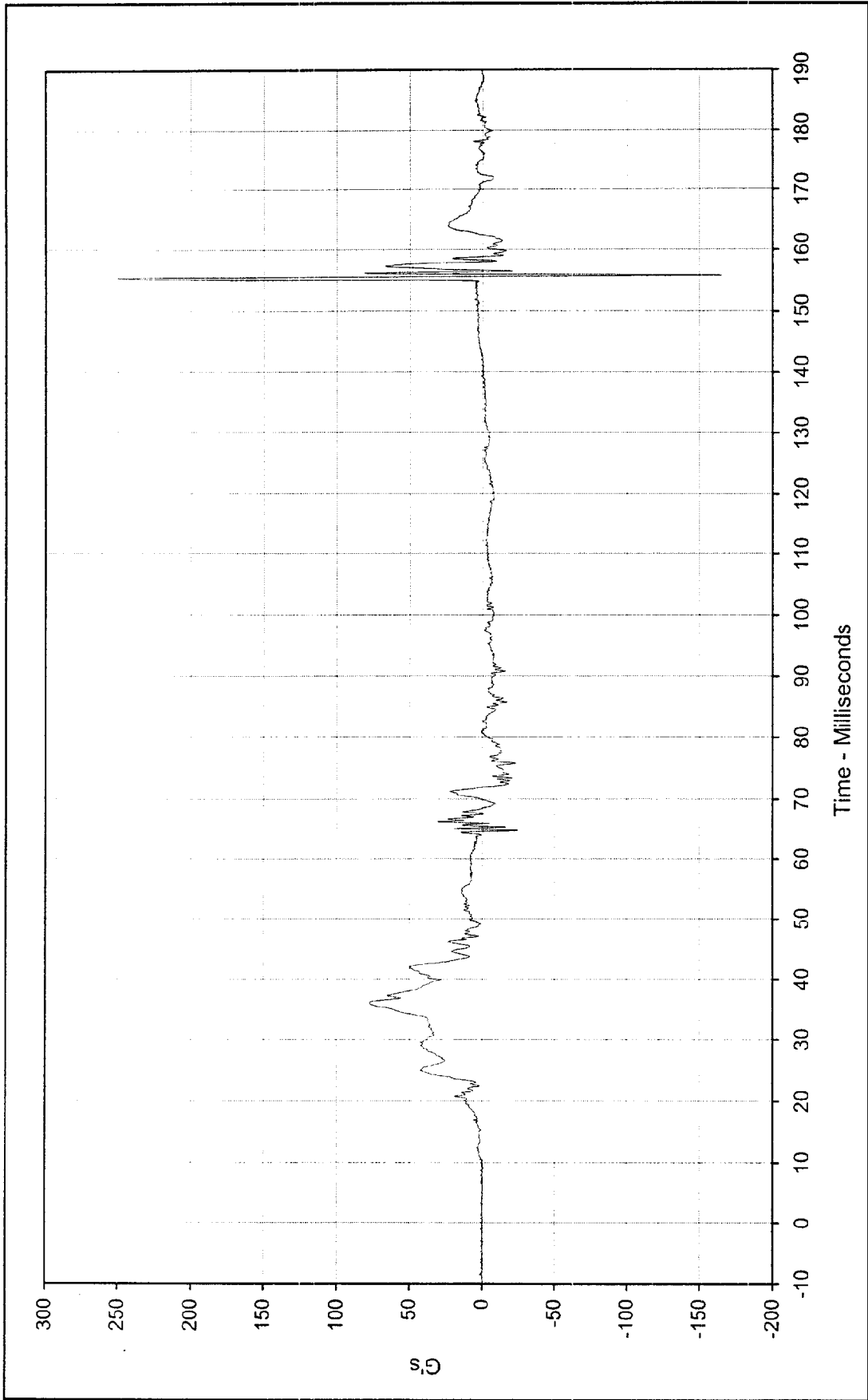




Curve Description: Driver Head CG Resultant Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 116.1 at 74.2 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.1 at 8.4 Milliseconds

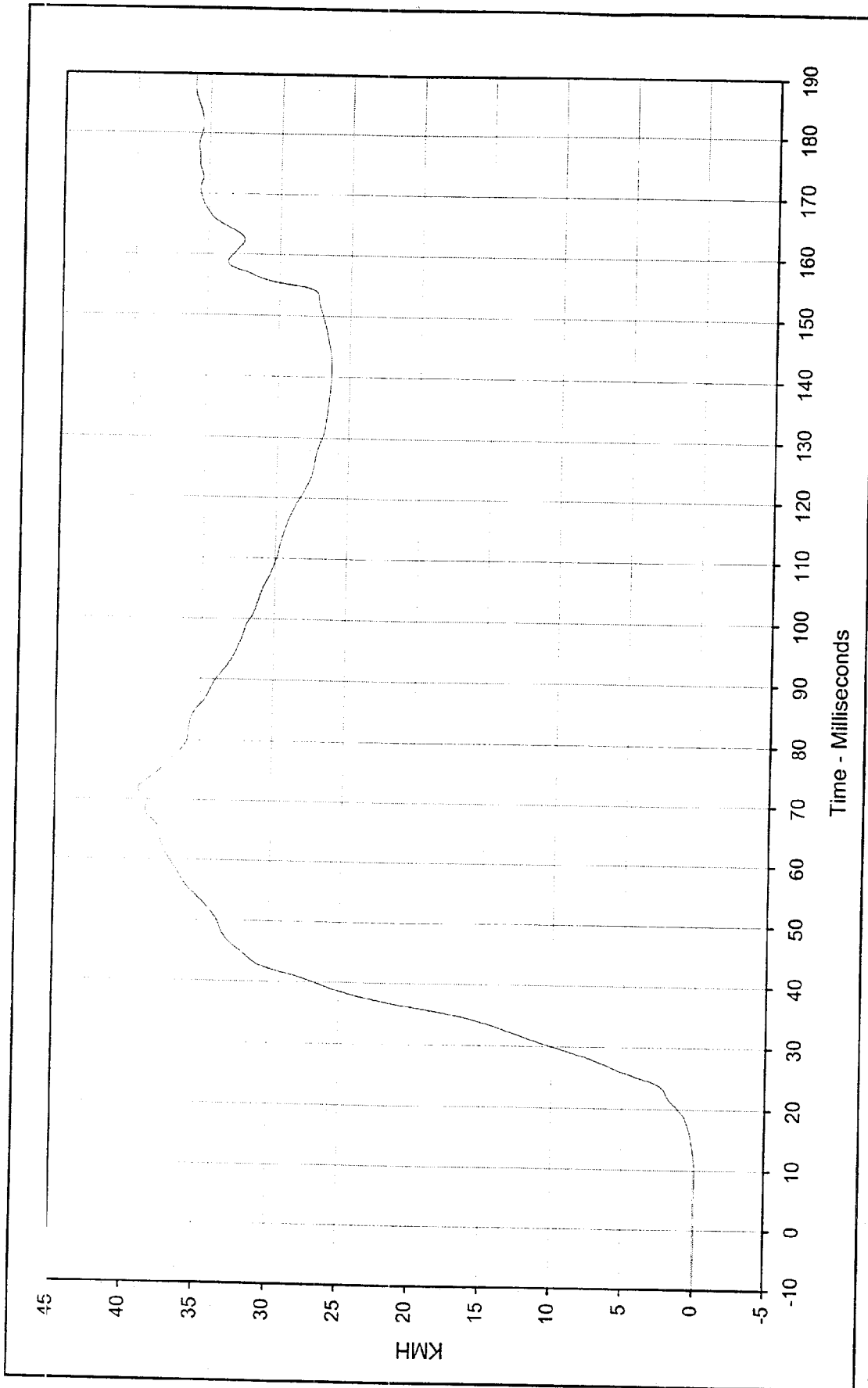


SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: RES-001



Curve Description: Driver Upper Rib Primary Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 250.4 at 155.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -165.0 at 155.7 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-004

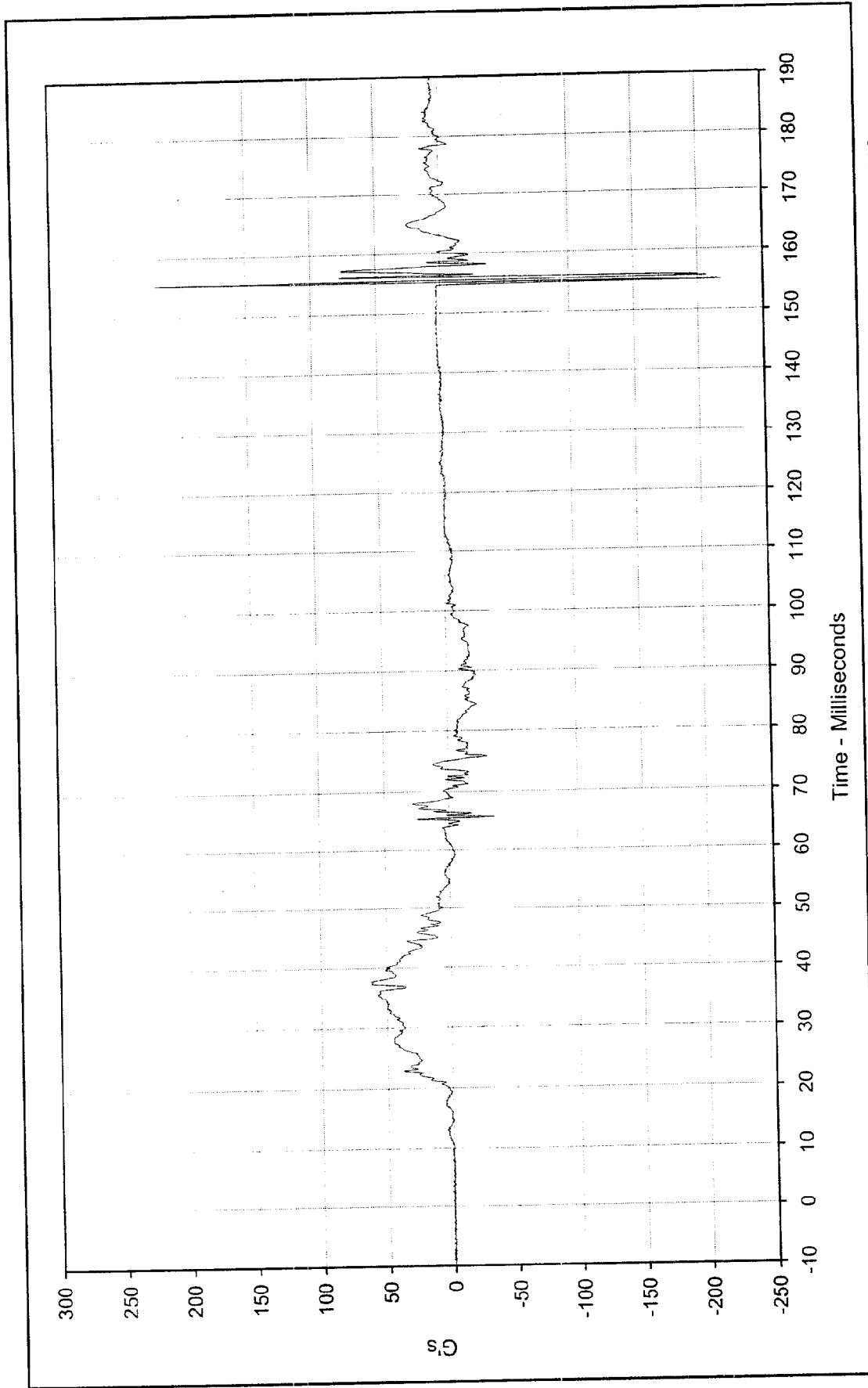




Curve Description: Driver Upper Rib Primary Y Velocity
 Maximum Value: 39.2 at 71.9 Milliseconds
 Minimum Value: -0.1 at 10.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-004

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

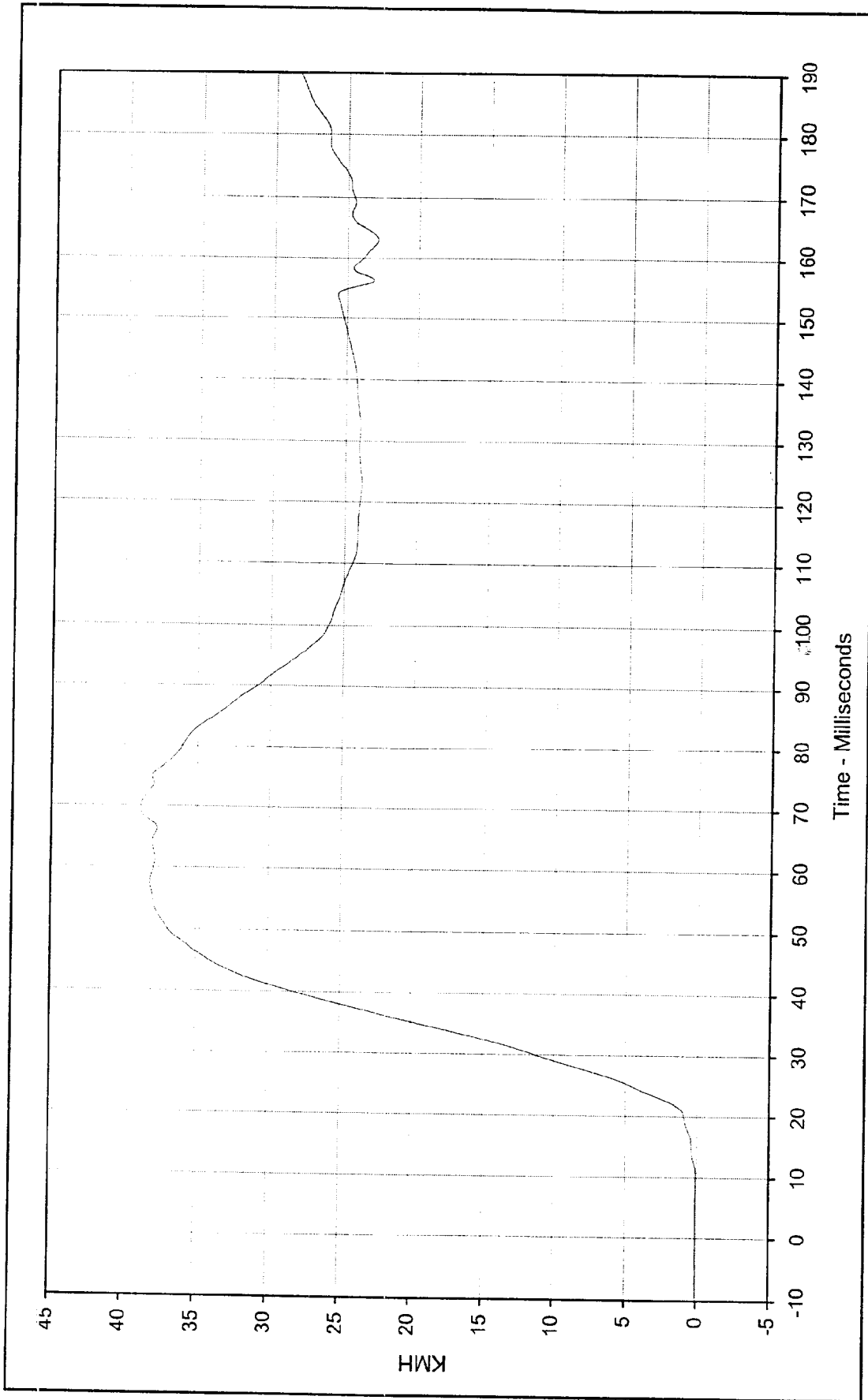




Curve Description: Driver Lower Rib Primary
 Maximum Value: 217.8 at 155.3 Milliseconds
 Minimum Value: -218.1 at 155.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-005

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

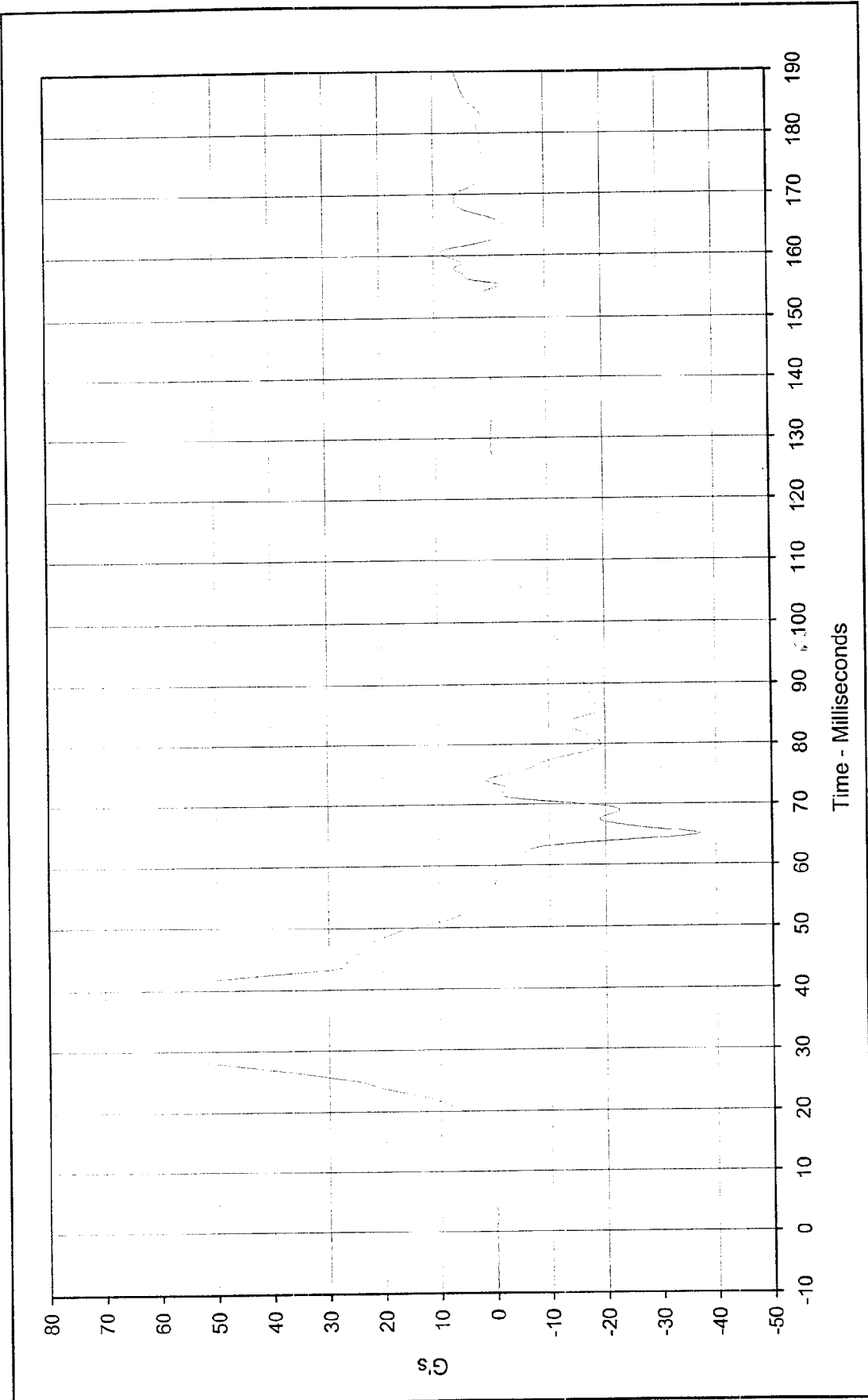




Curve Description: Driver Lower Rib Primary Y Velocity
 Maximum Value: 38.8 at 69.8 Milliseconds
 Minimum Value: 0.0 at 8.4 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-005

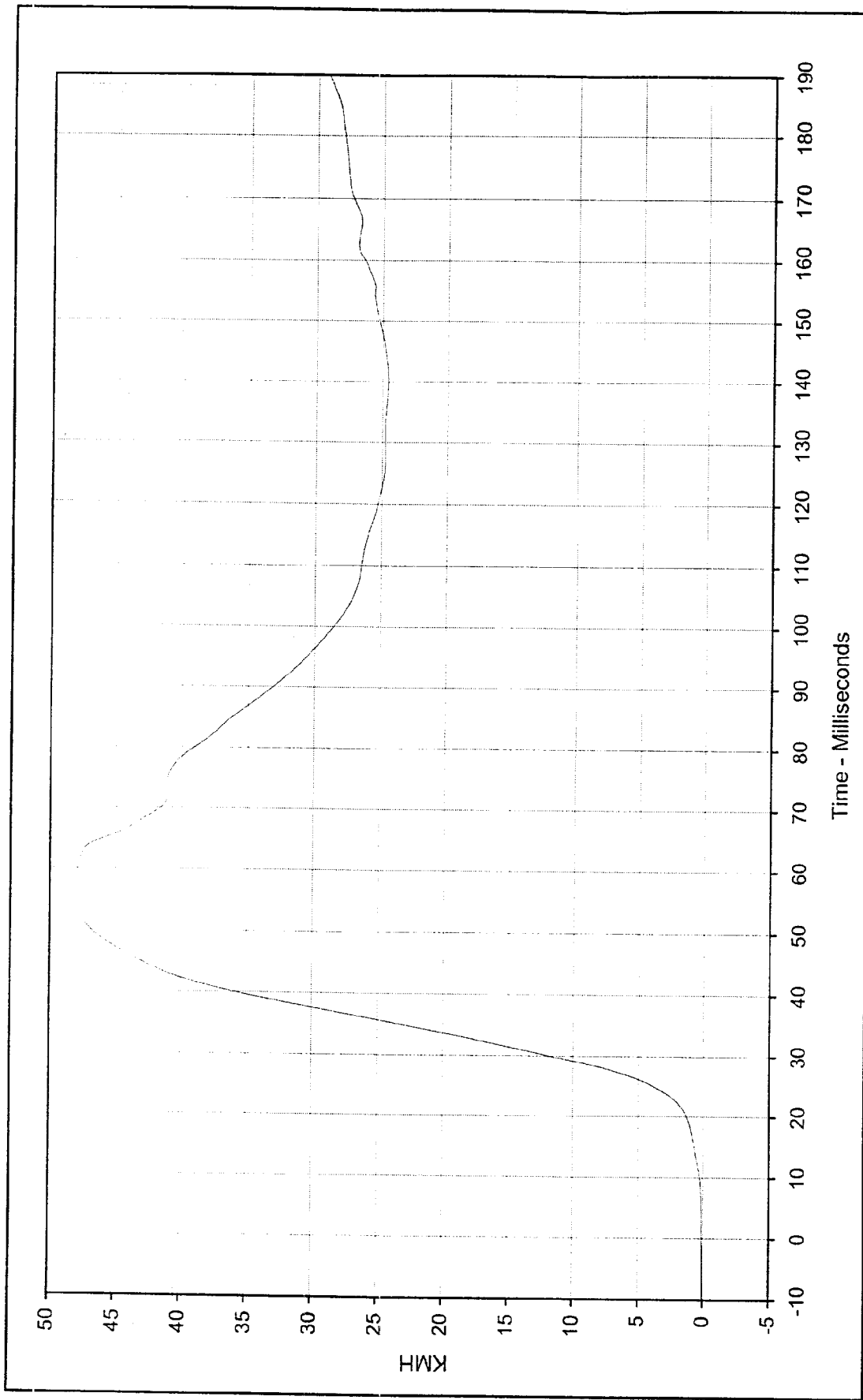
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Driver Lower Spine Primary Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 72.8 at 36.9 Milliseconds
 Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -37.2 at 65.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: FIL-006

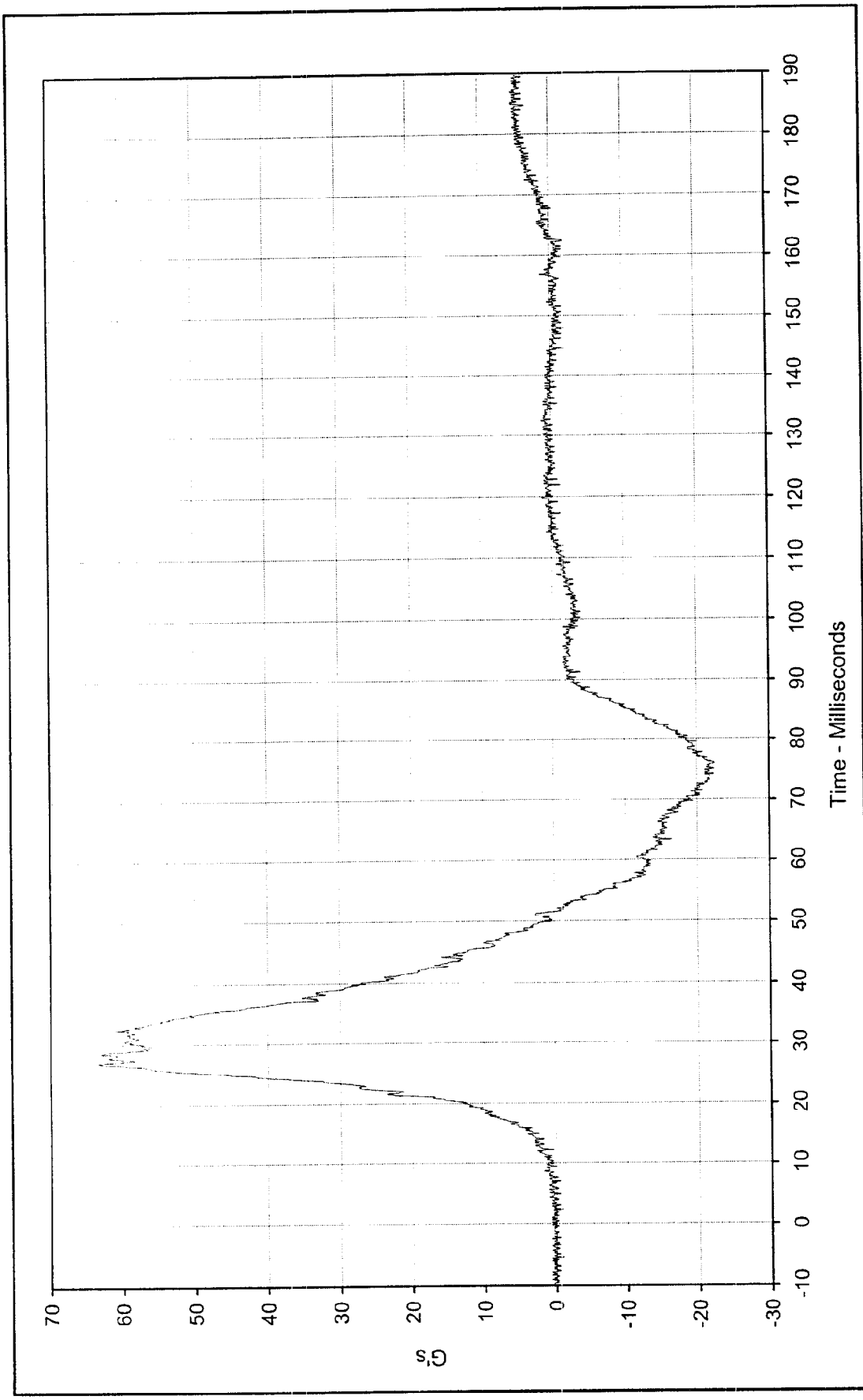




Curve Description: Driver Lower Spine Primary Y Velocity
 Maximum Value: 48.0 at 57.1 Milliseconds
 Minimum Value: 0.1 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-006

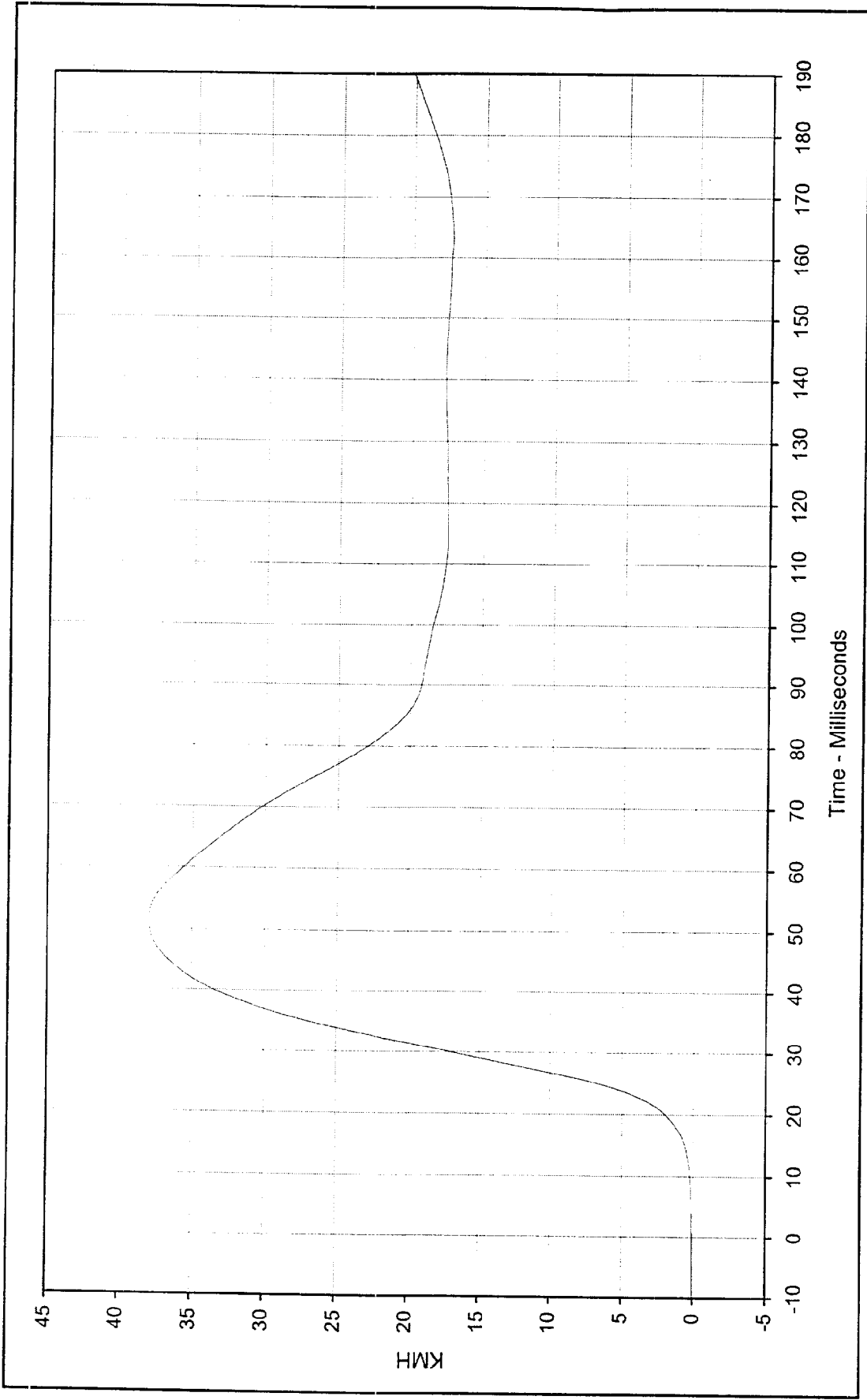
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Driver Pelvis Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 63.3 at 26.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -22.4 at 74.2 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-007



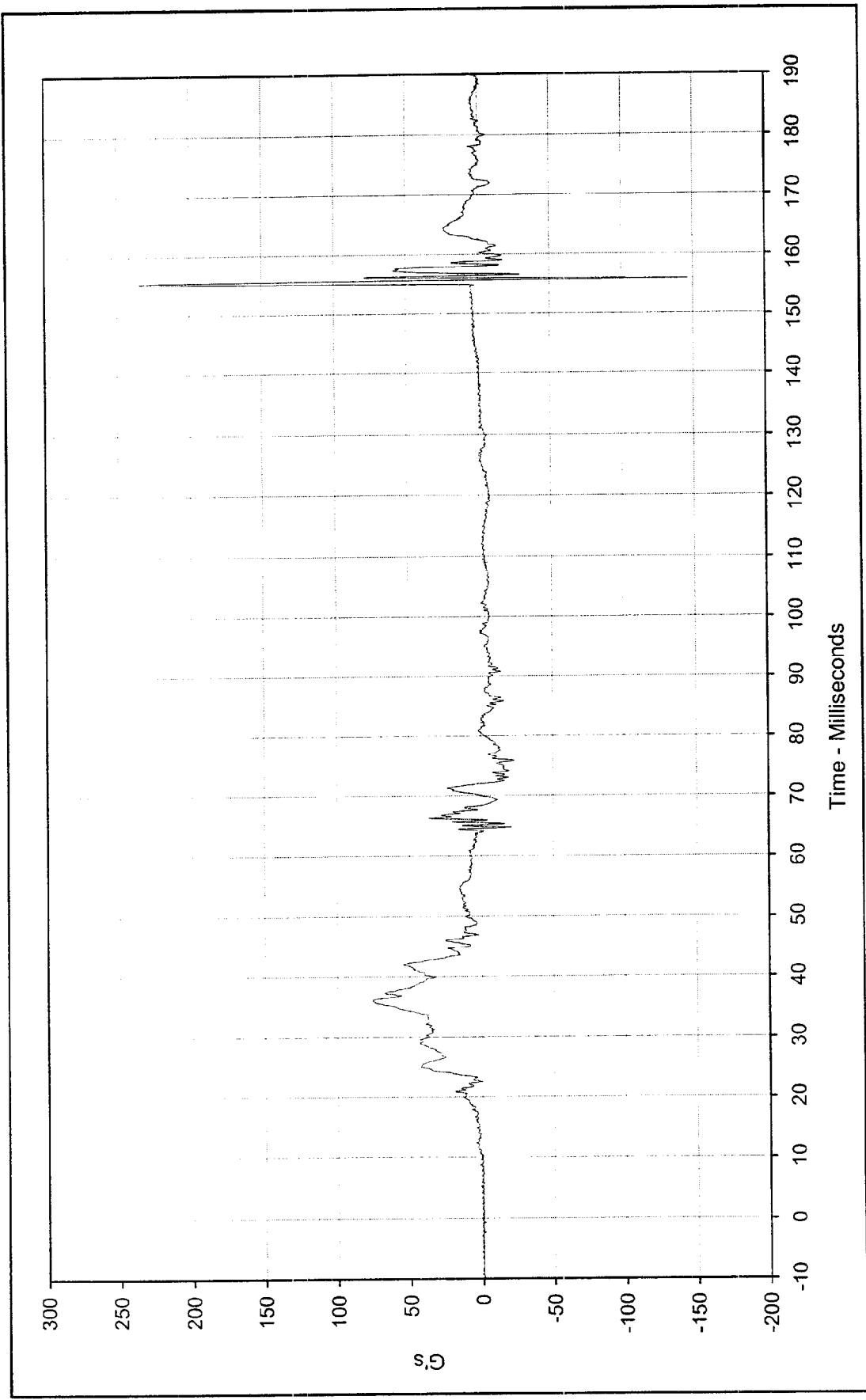


Time - Milliseconds

Curve Description: Driver Pelvis Primary Y Velocity
 Maximum Value: 37.9 at 51.8 Milliseconds
 Minimum Value: 0.1 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-007

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

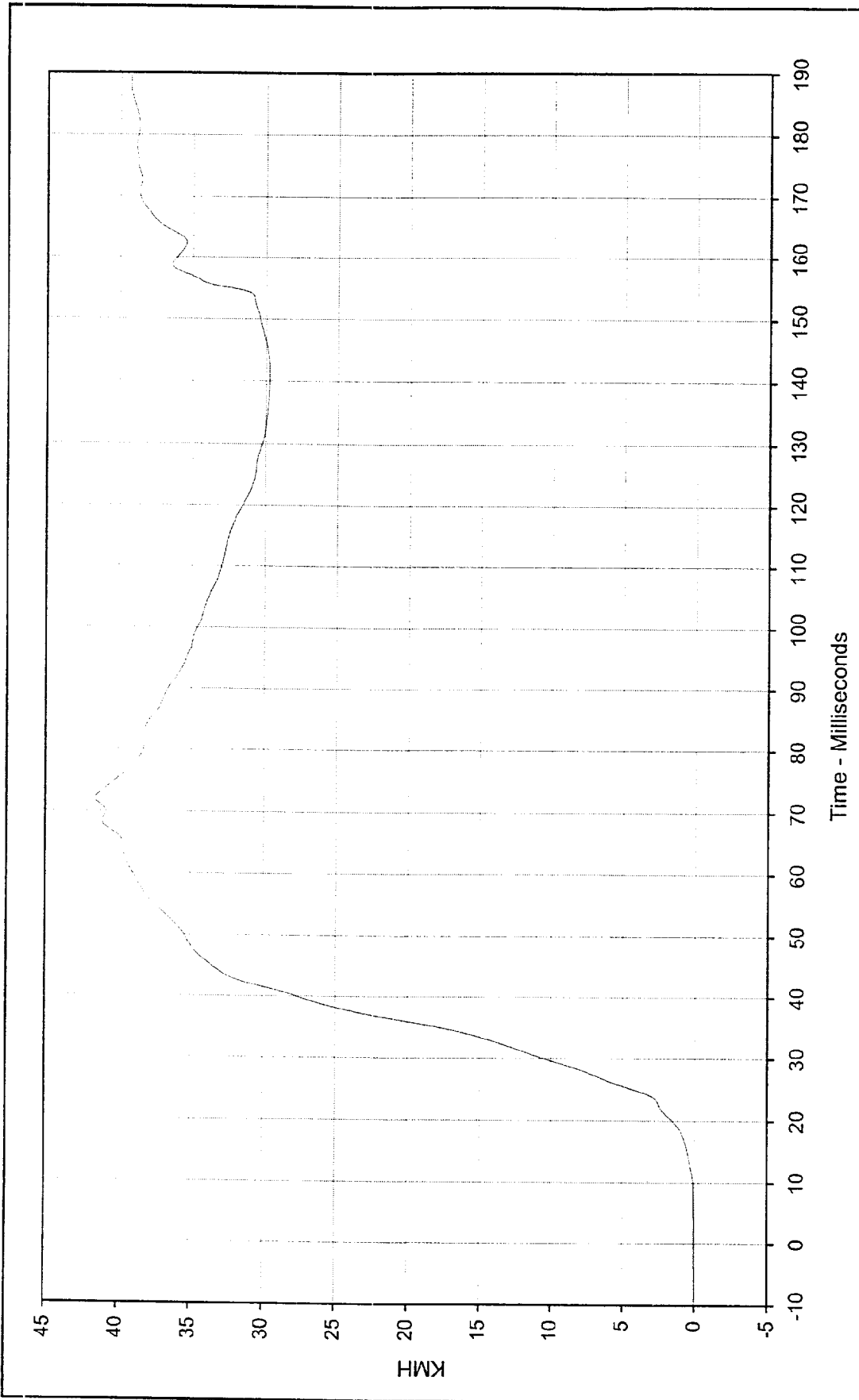




Curve Description: Driver Upper Rib Redundant
 Maximum Value: 234.6 at 155.3 Milliseconds
 Minimum Value: -146.2 at 155.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-008

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

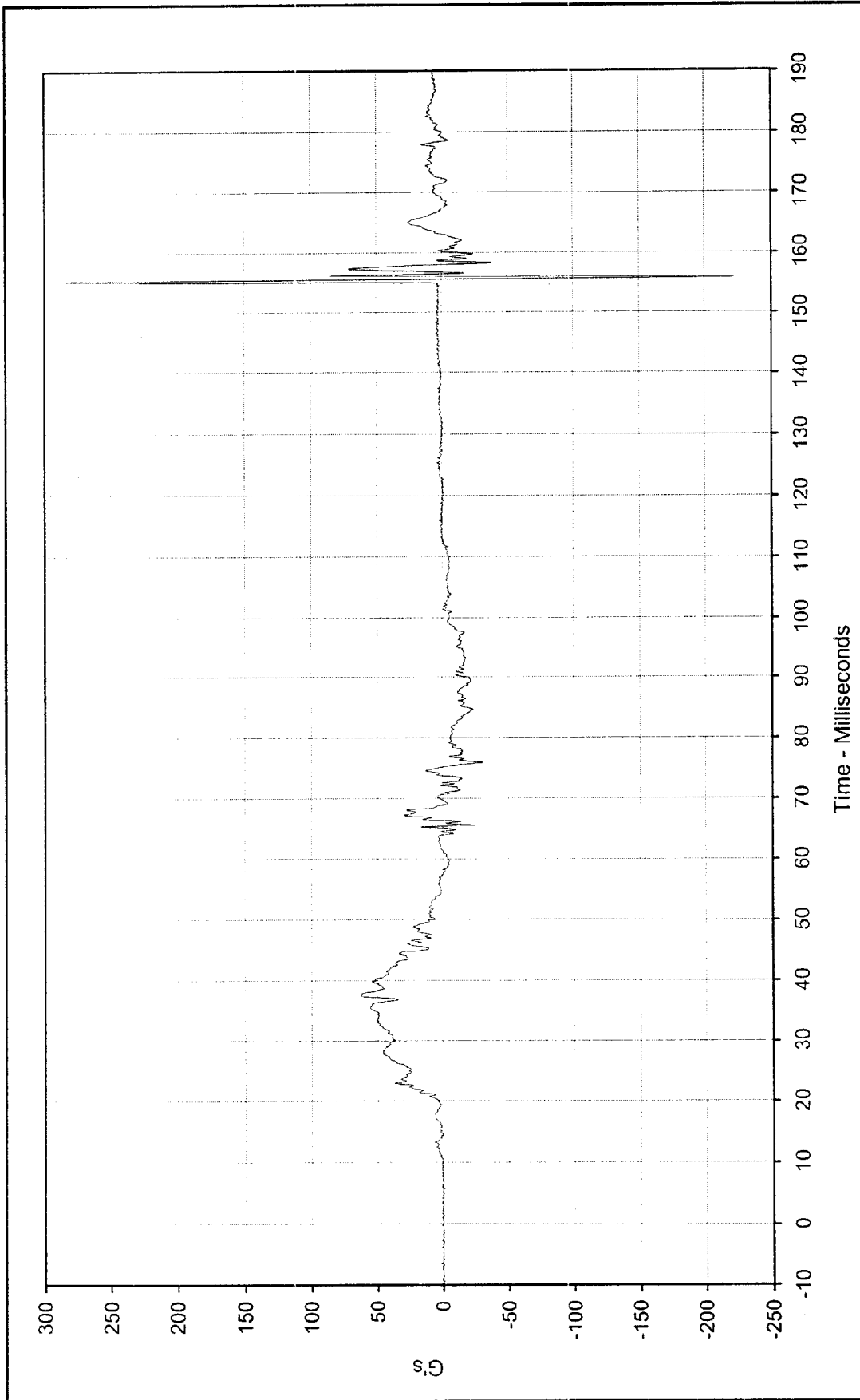




Curve Description: Driver Upper Rib Redundant Y Velocity
 Maximum Value: 41.6 at 72.0 Milliseconds
 Minimum Value: 0.0 at 1.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-008

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

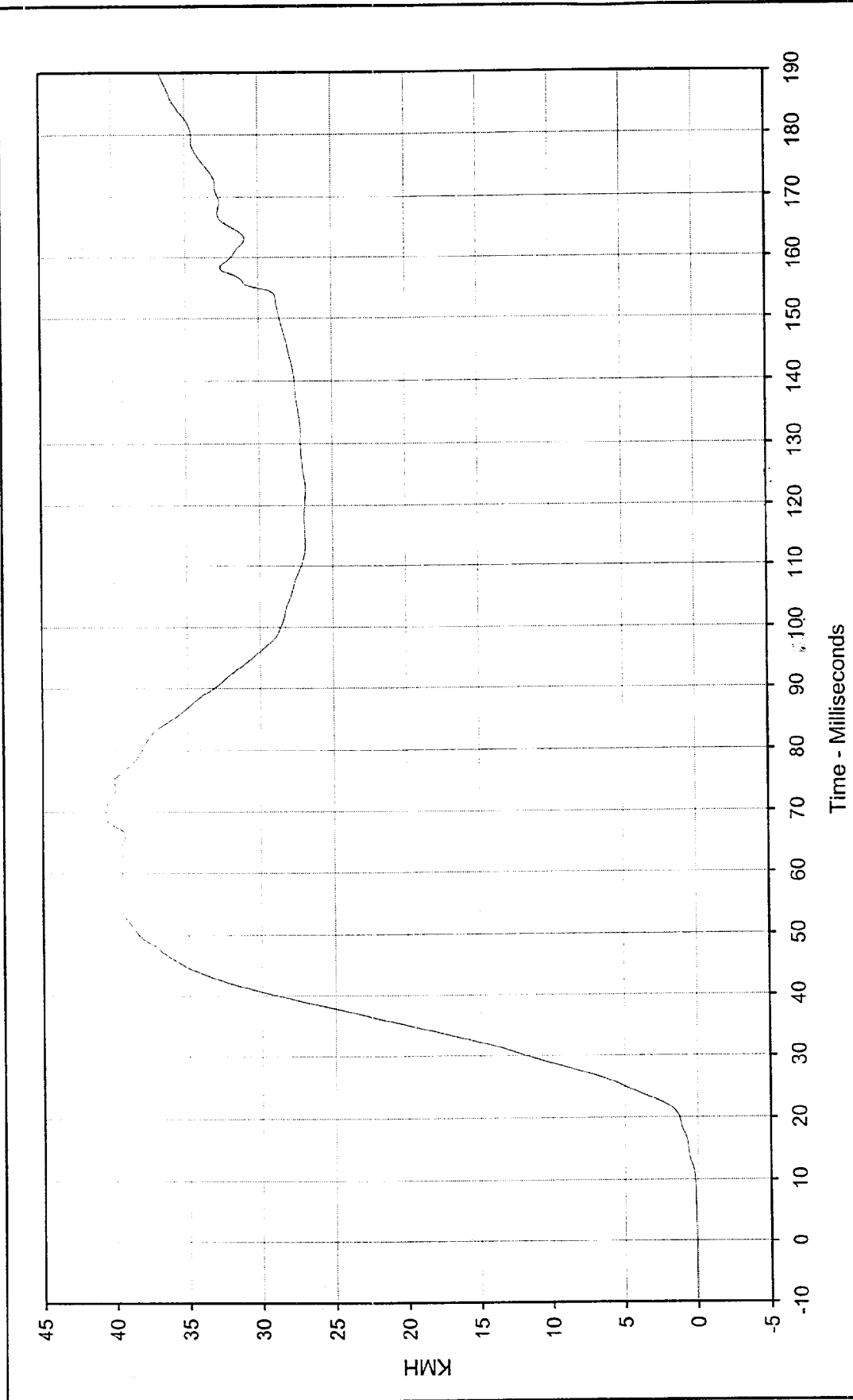




Curve Description: Driver Lower Rib Redundant
 Maximum Value: 286.2 at 155.3 Milliseconds
 Minimum Value: -222.0 at 155.7 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-009

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

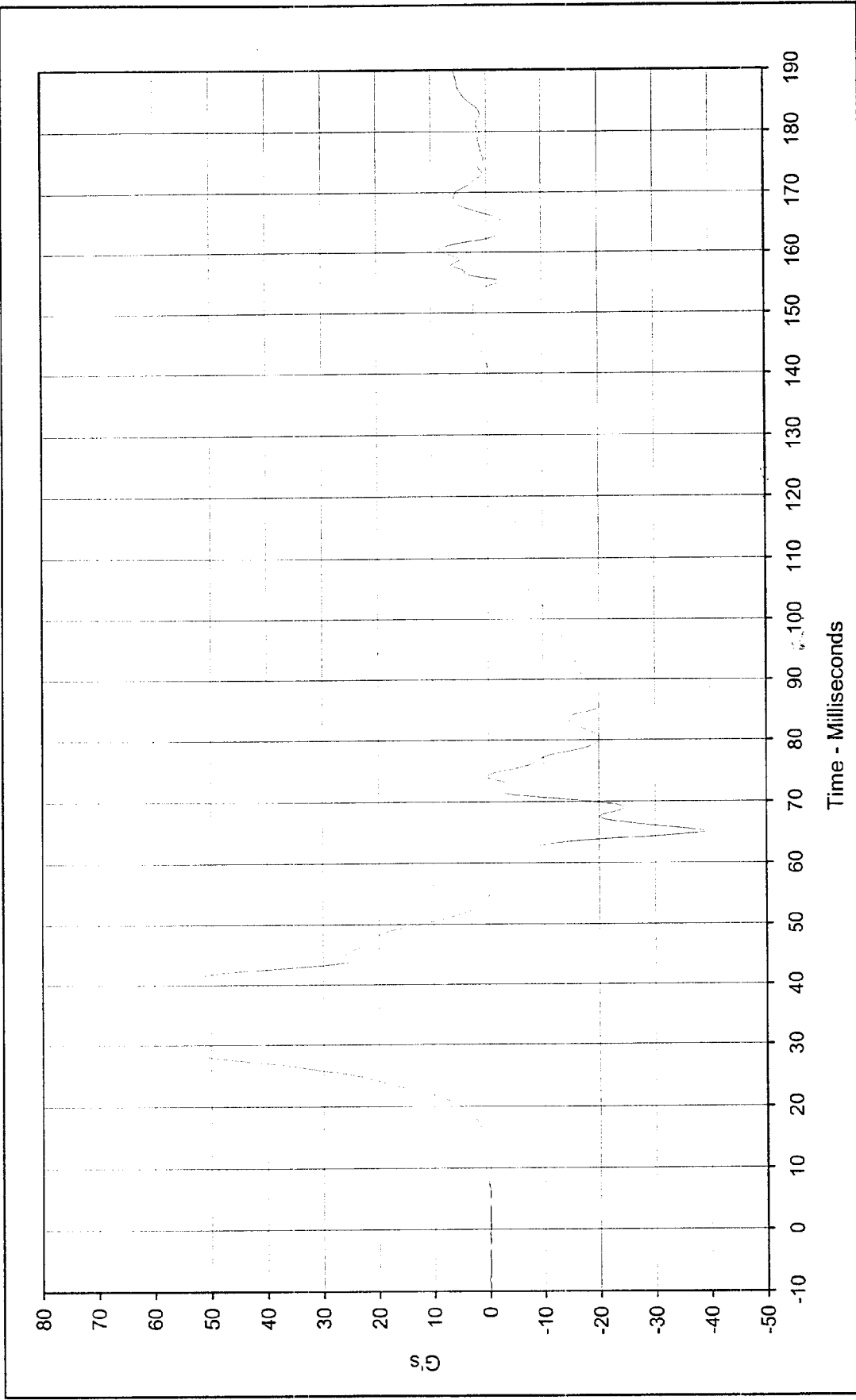




Curve Description: Driver Lower Rib Redundant Y Velocity
 Maximum Value: 40.7 at 69.4 Milliseconds
 Minimum Value: 0.1 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-009

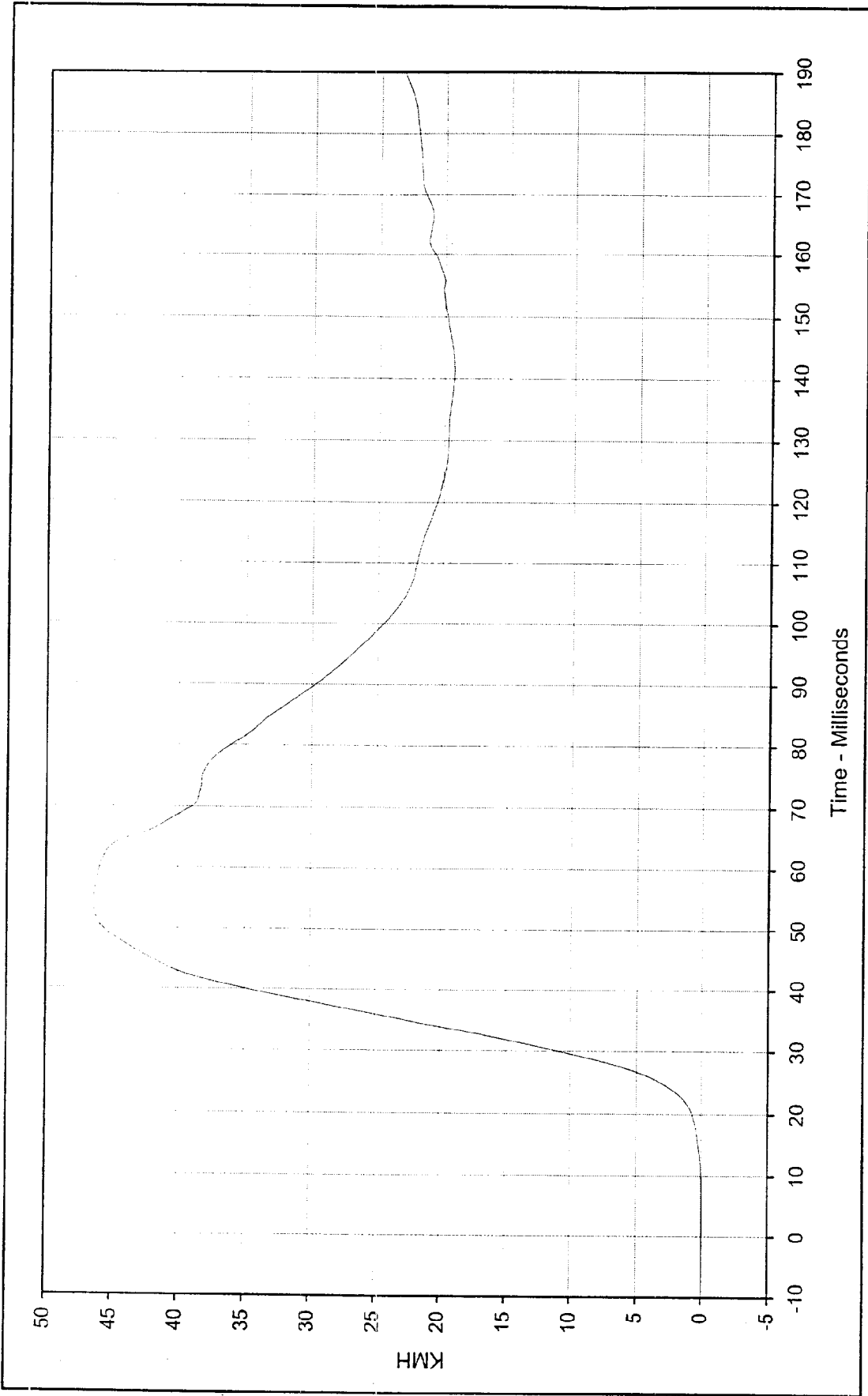
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Driver Lower Spine Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 72.4 at 37.0 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -39.0 at 65.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: FIL-010





Curve Description: Driver Lower Spine Redundant Y Velocity

Maximum Value: 46.4 at 54.7 Milliseconds

Minimum Value: -0.1 at 6.6 Milliseconds

SAE Filter Class: 180

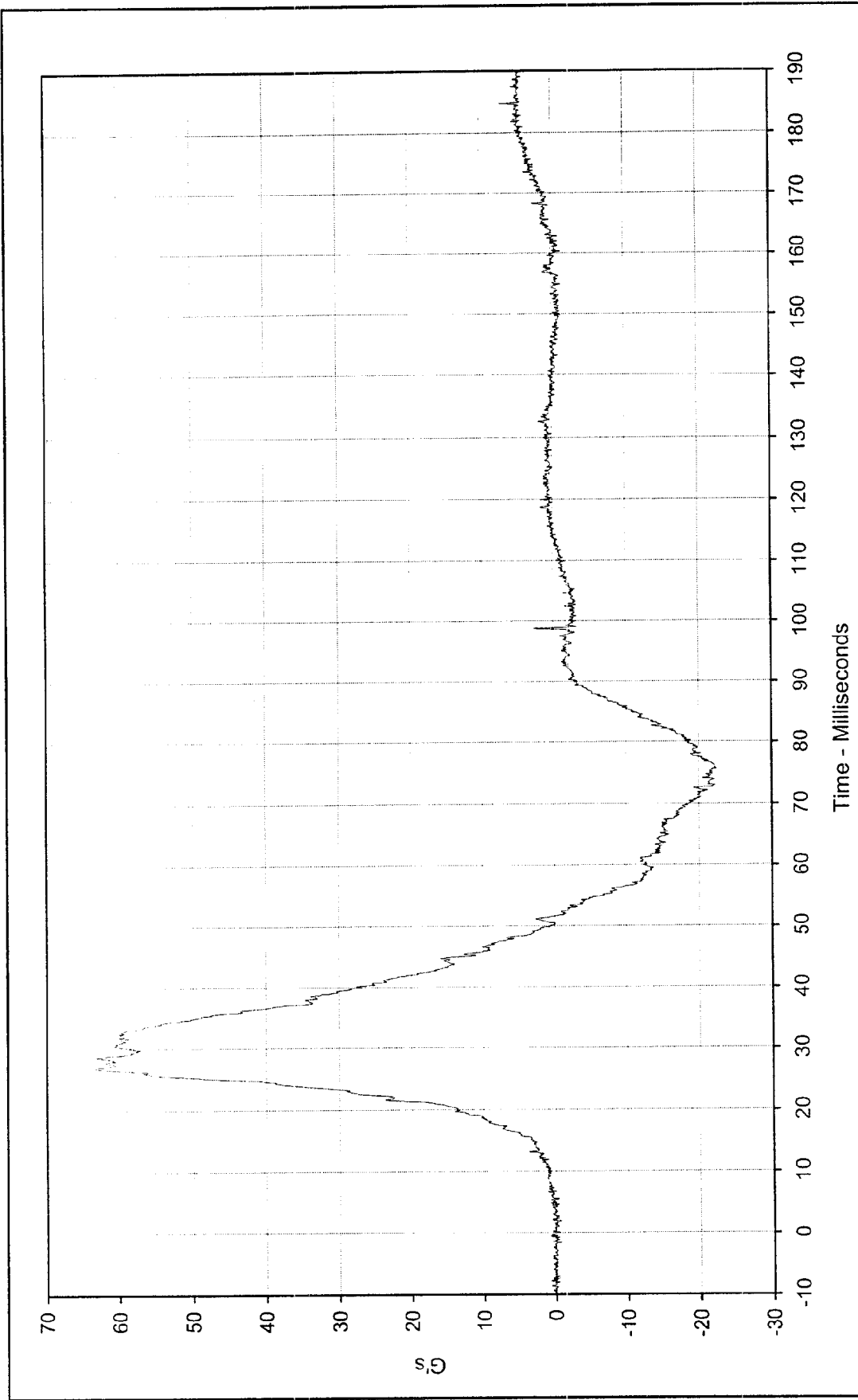
Date of Test: 03/03/00

Curve Number: IN1-0010

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

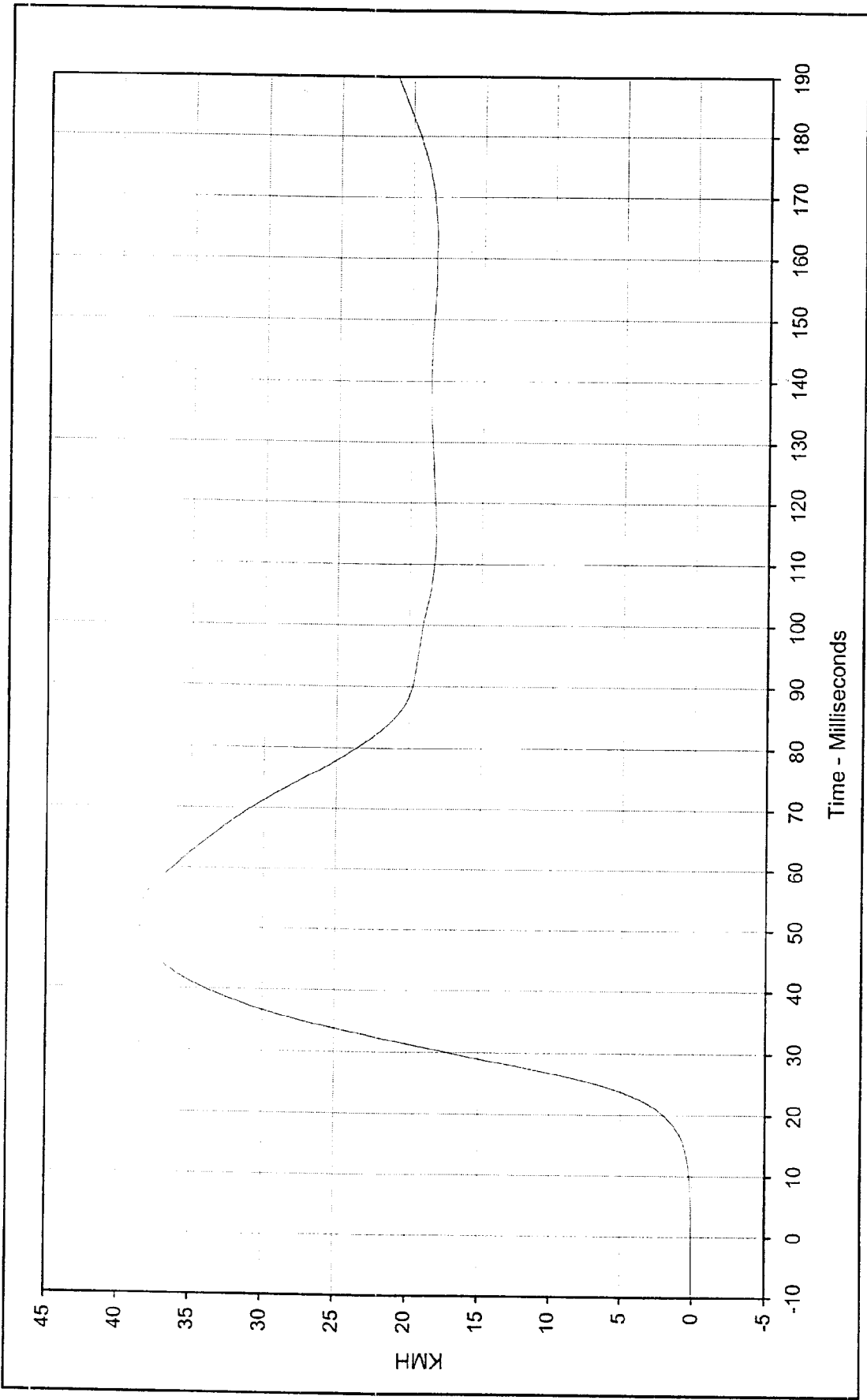
Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Driver Pelvis Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 63.3 at 26.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -22.4 at 75.7 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-011

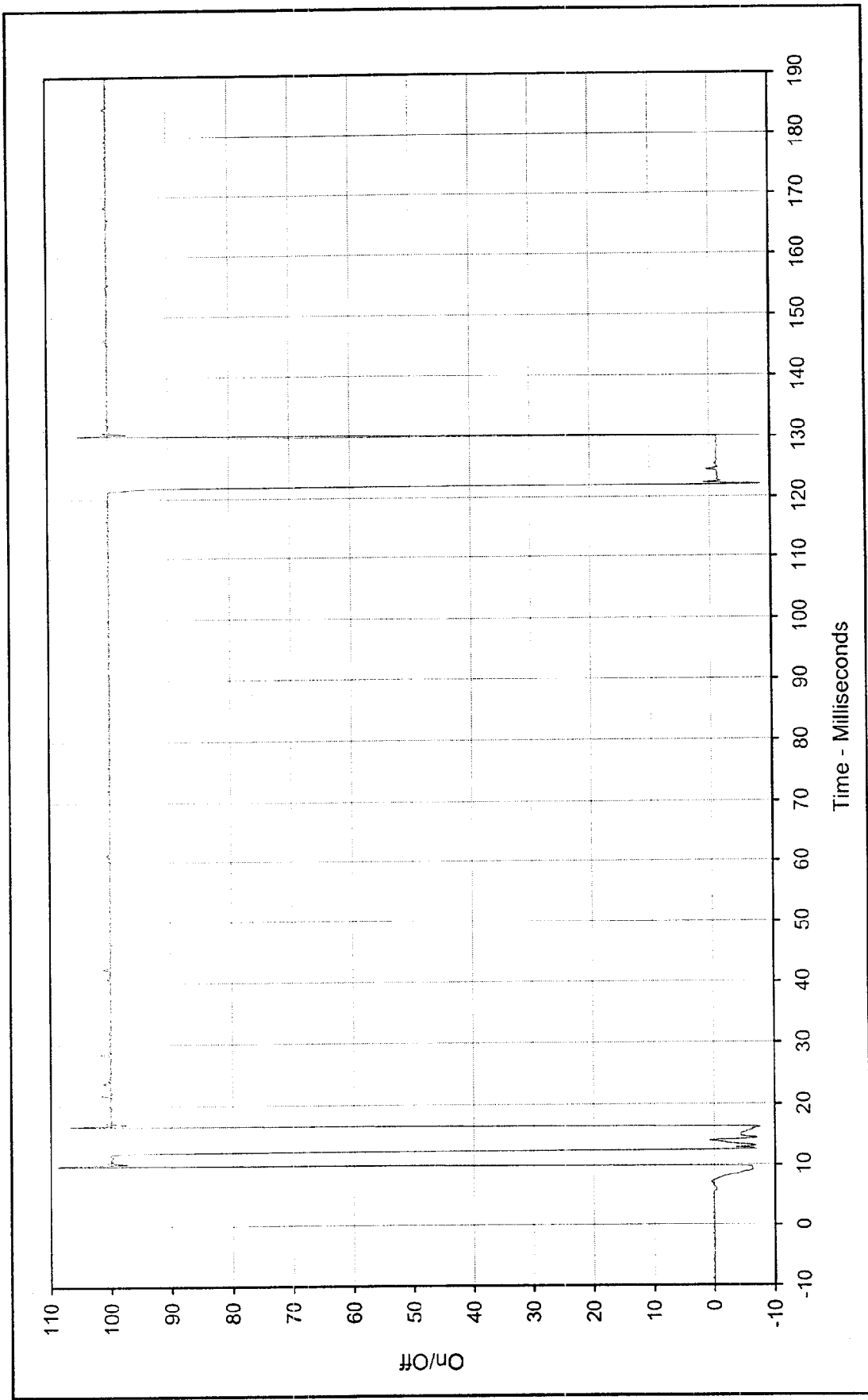




Curve Description: Driver Pelvis Redundant Y Velocity
 Maximum Value: 38.5 at 51.7 Milliseconds
 Minimum Value: 0.1 at 2.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-011

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Driver Thorax Contact Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 108.6 at 10.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

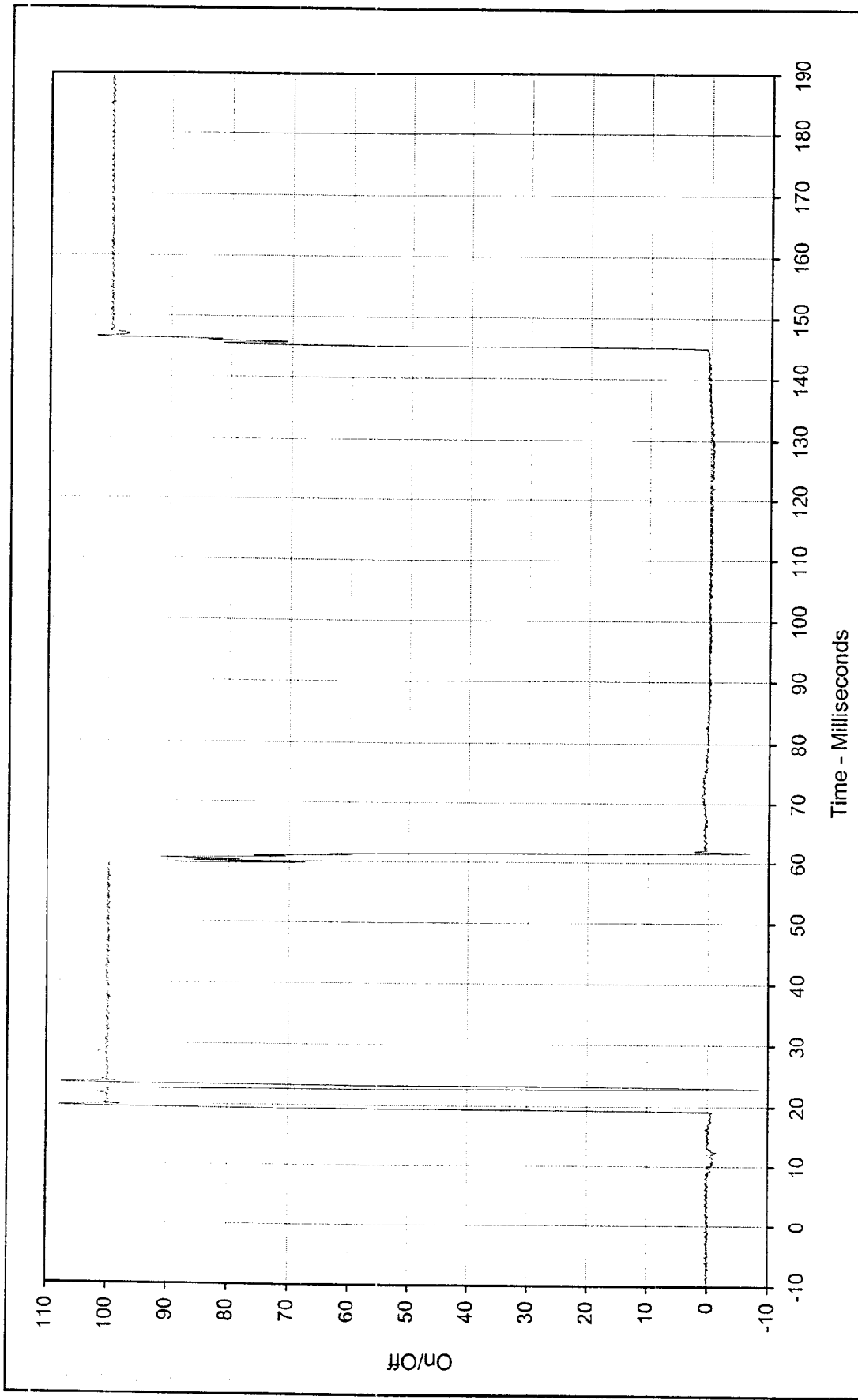
Crossing Point: 50% at 10.0 Milliseconds

SAE Filter Class: 1000

Date of Test: 03/03/00

Curve Number: FIL-012

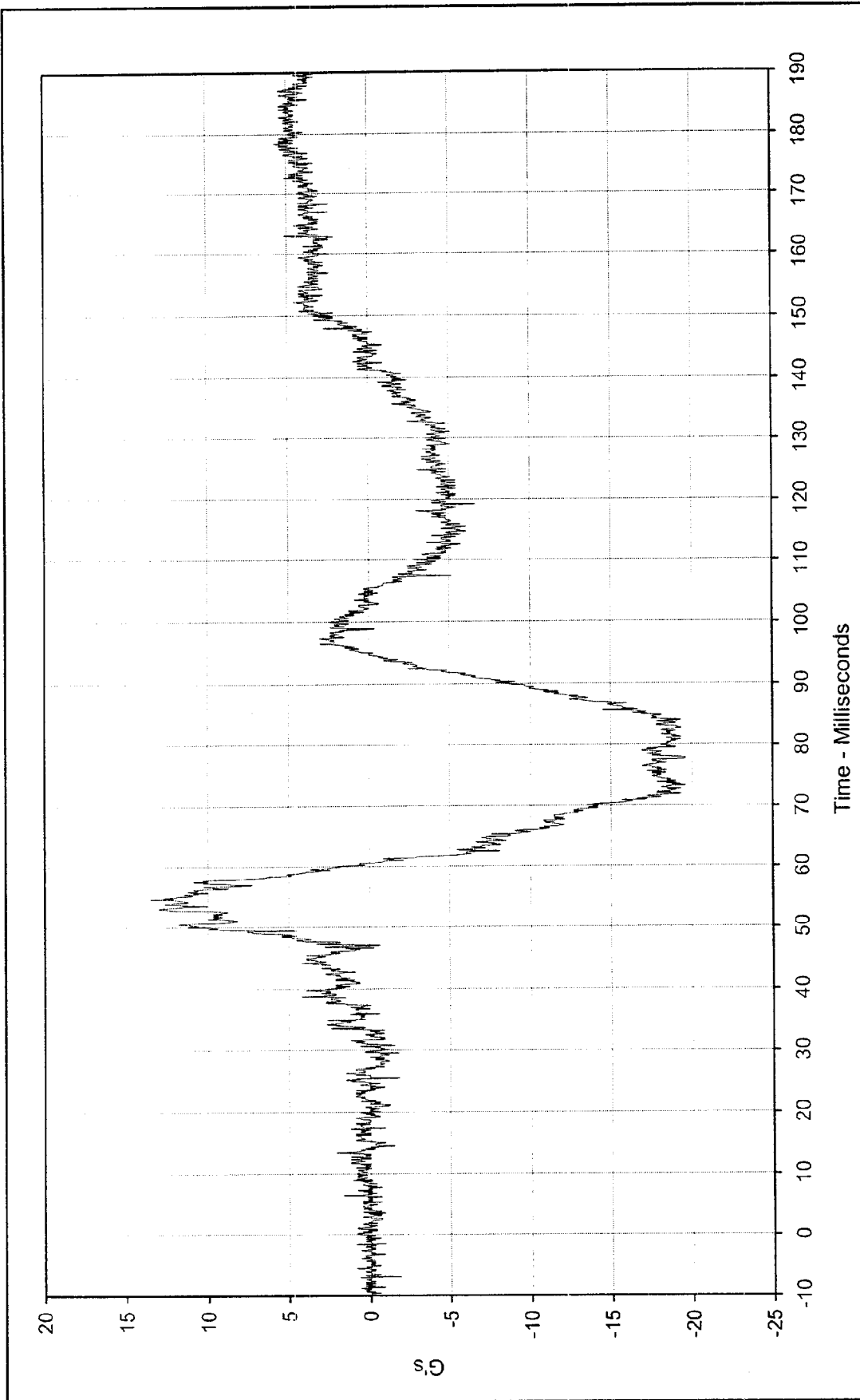




Time - Milliseconds

Curve Description:	Driver Pelvis Contact	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0103	
Maximum Value:	107.8	at	19.7	Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS
Crossing Point:	50%	at	19.5	Milliseconds		
SAE Filter Class:	1000					
Date of Test:	03/03/00					
Curve Number:	FIL-013					





Curve Description: Pass. Head CG X Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 13.6 at 54.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

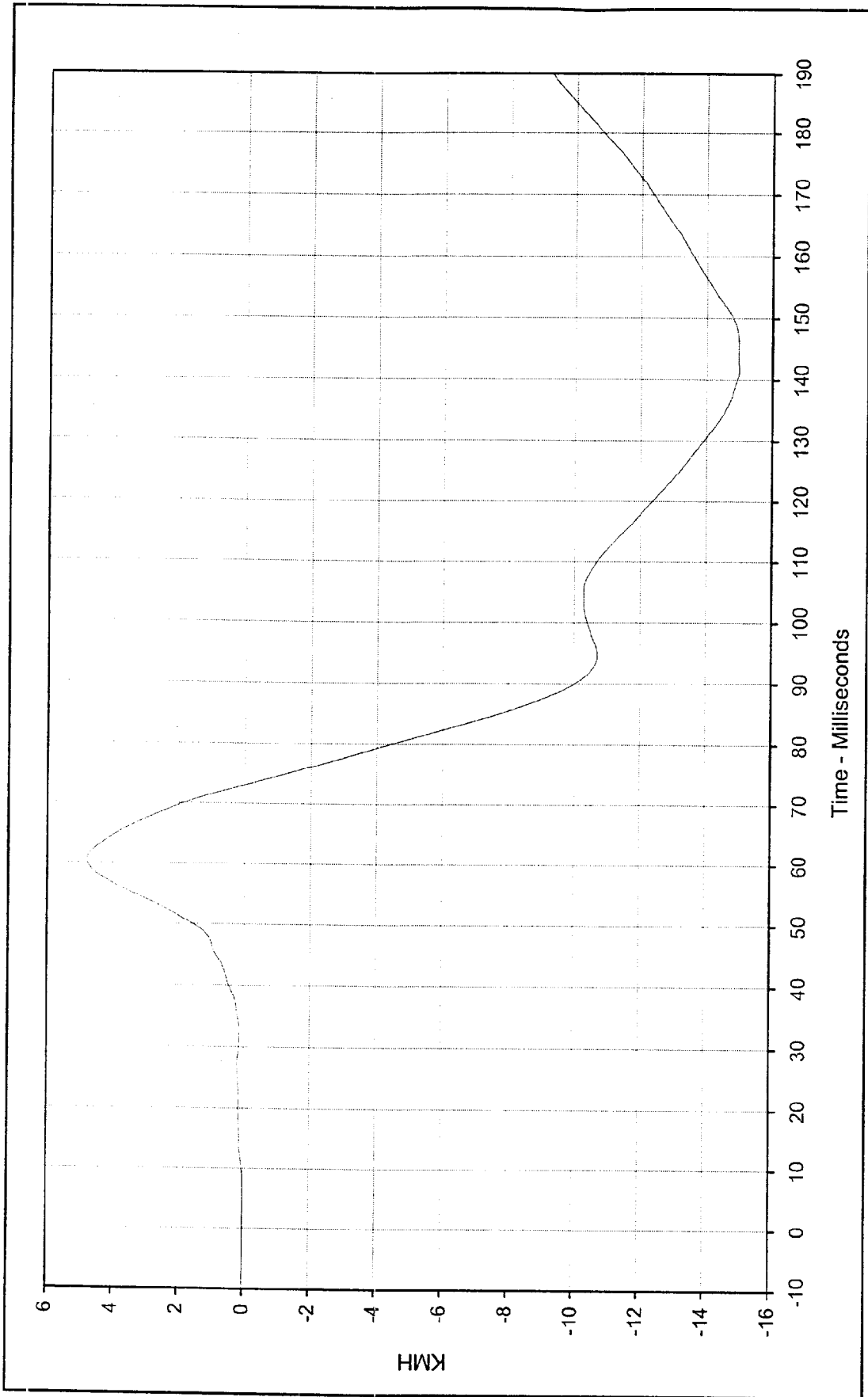
Minimum Value: -19.6 at 73.4 Milliseconds

SAE Filter Class: 1000

Date of Test: 03/03/00

Curve Number: FIL-014

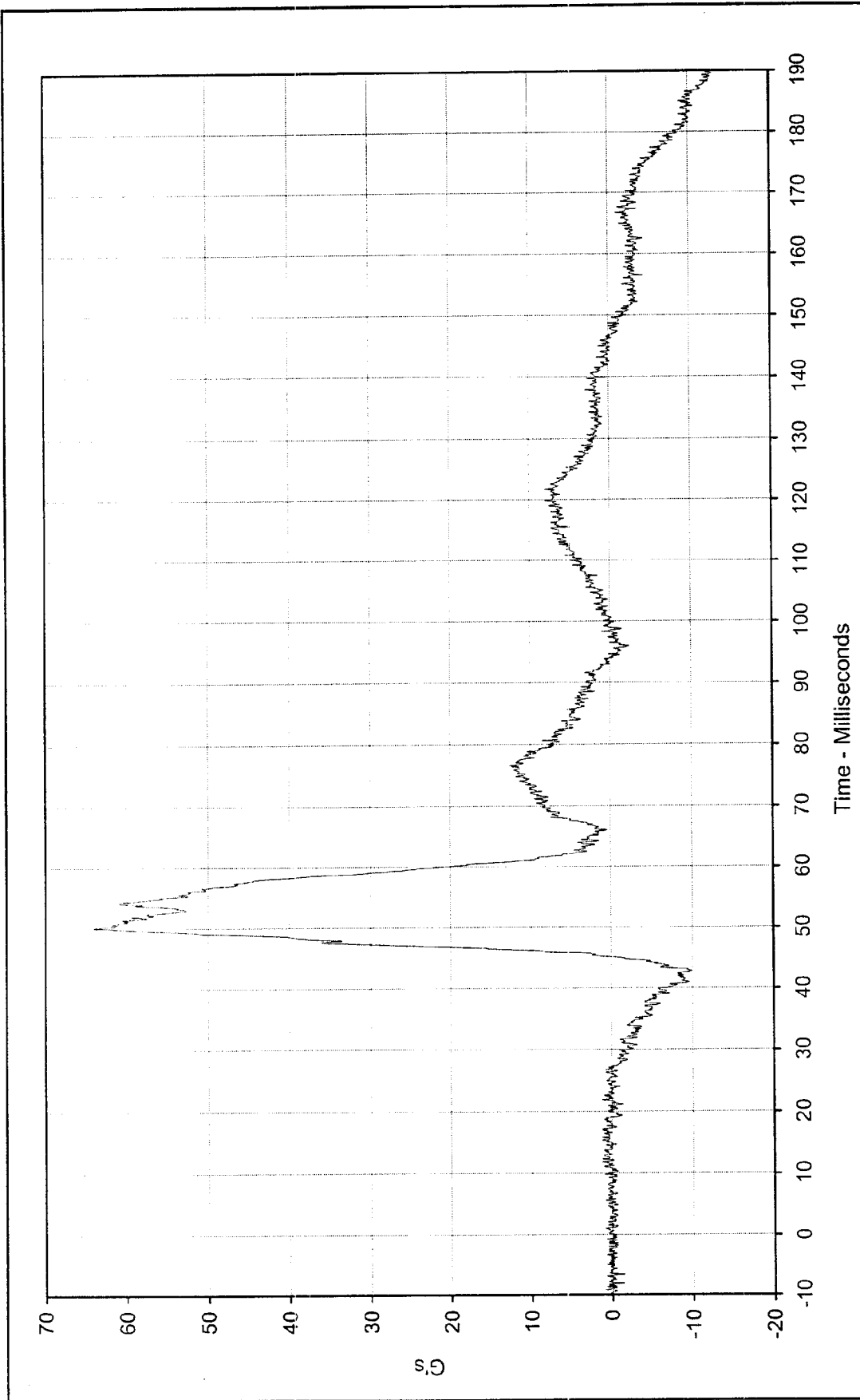




Curve Description: Pass. Head CG X Velocity
 Maximum Value: 4.8 at 60.6 Milliseconds
 Minimum Value: -15.0 at 141.7 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-014

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Pass. Head CG Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 64.0 at 50.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

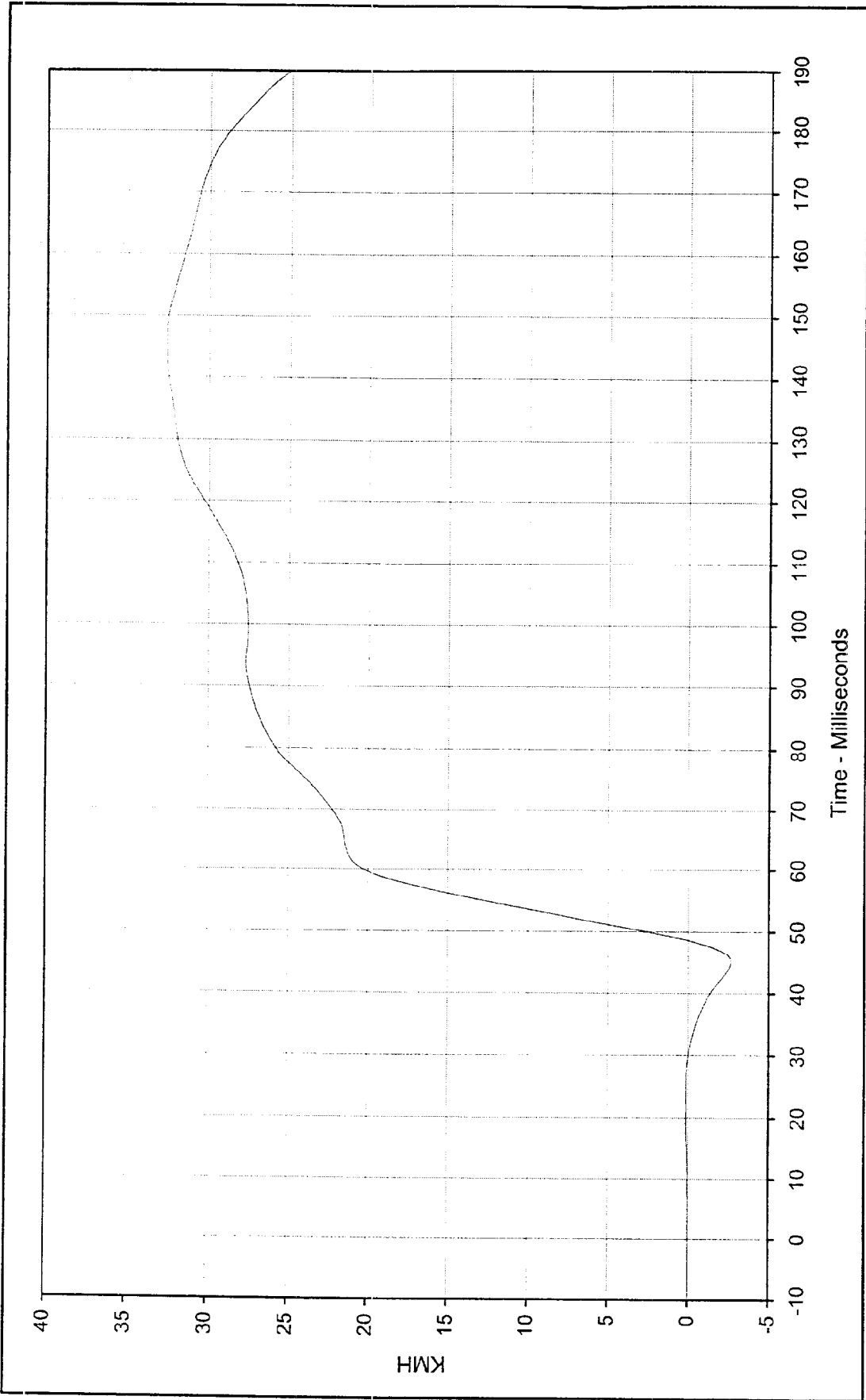
Minimum Value: -13.0 at 189.6 Milliseconds

SAE Filter Class: 1000

Date of Test: 03/03/00

Curve Number: FIL-015

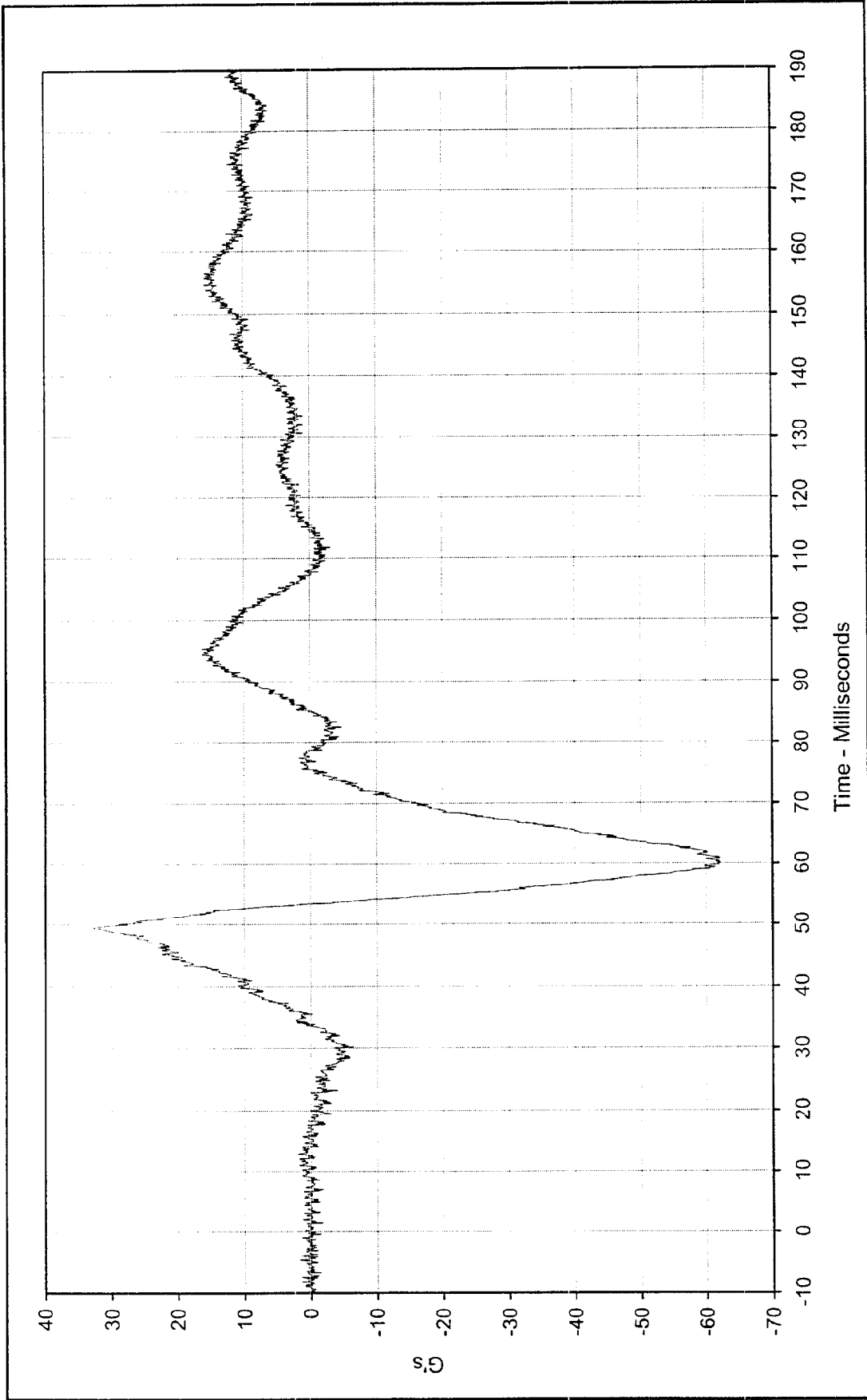




Curve Description: Pass. Head CG Y Velocity
 Maximum Value: 32.6 at 146.4 Milliseconds
 Minimum Value: -2.6 at 45.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-015

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Pass. Head C/G Z Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 32.8 at 49.4 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

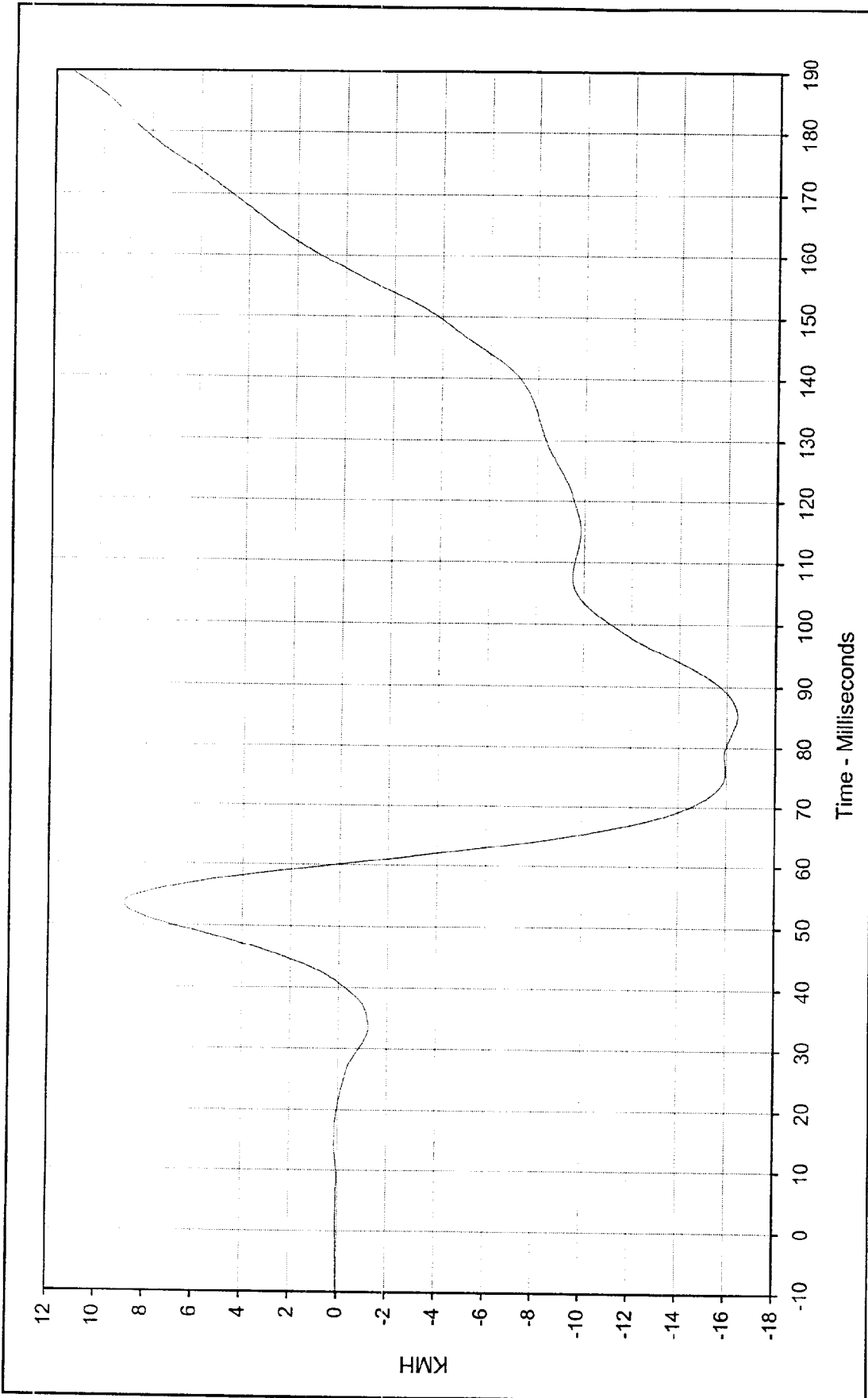
Minimum Value: -62.2 at 60.1 Milliseconds

SAE Filter Class: 1000

Date of Test: 03/03/00

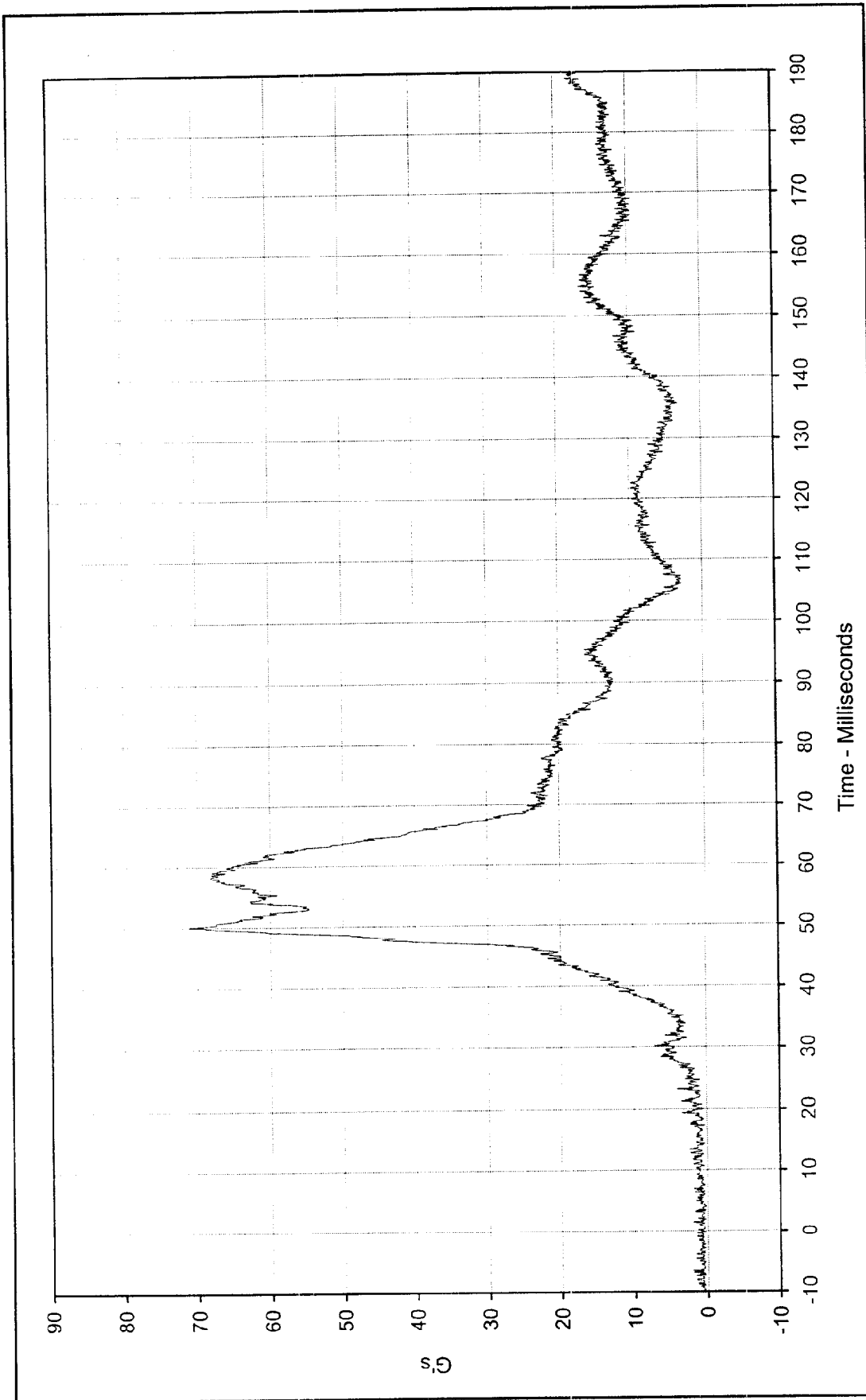
Curve Number: FIL-016





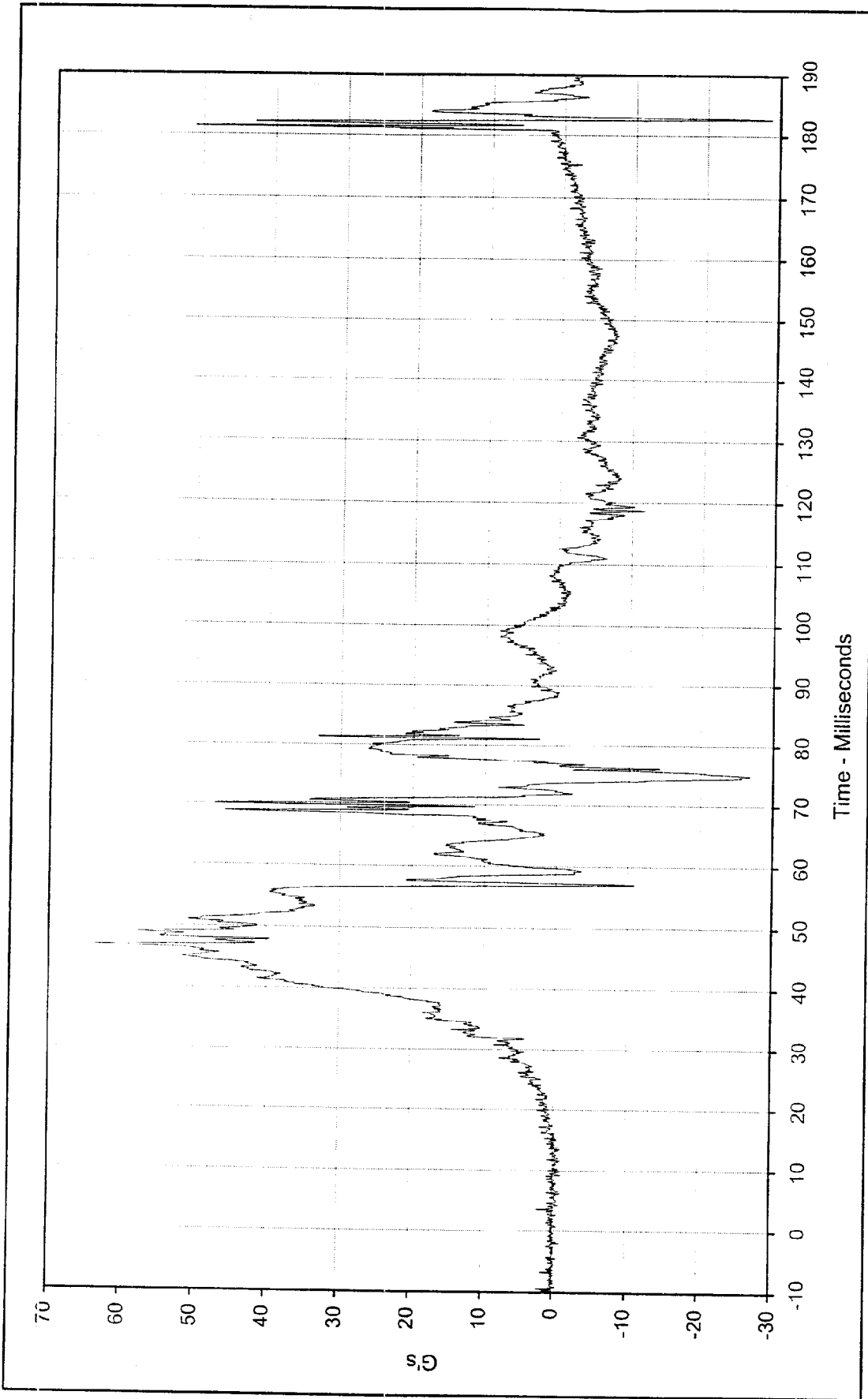
Curve Description: Pass. Head CG Z Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 11.4 at 189.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -16.4 at 85.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-016





Curve Description: Pass. Head CG Resultant Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 71.1 at 50.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.1 at 4.2 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: RES-014





Curve Description: Pass. Upper Rib Primary

Maximum Value: 63.7 at 46.9 Milliseconds

Minimum Value: -28.7 at 182.6 Milliseconds

SAE Filter Class: 1000

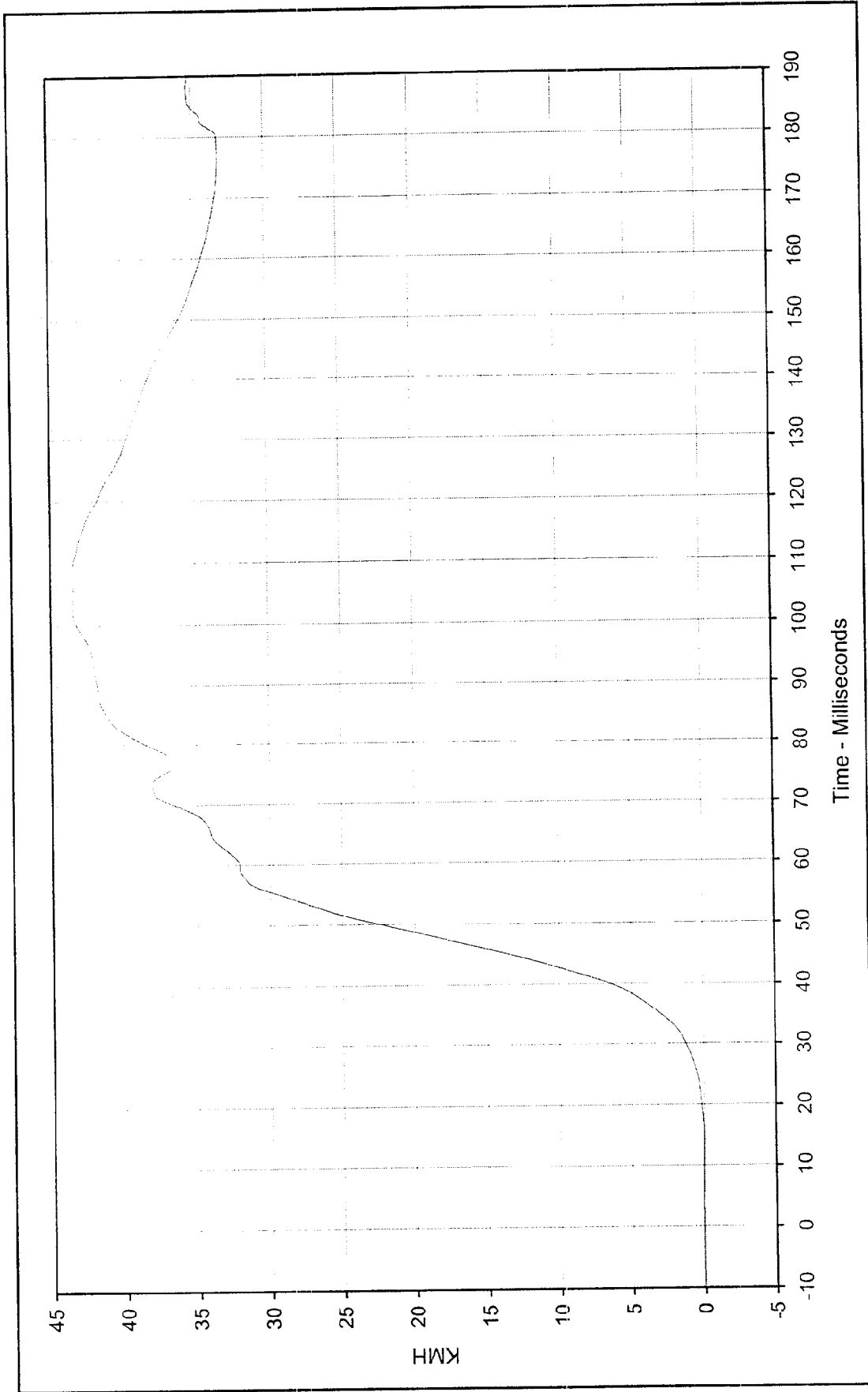
Date of Test: 03/03/00

Curve Number: FIL-017

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Test Vehicle: 2000 Cadillac Deville DHS

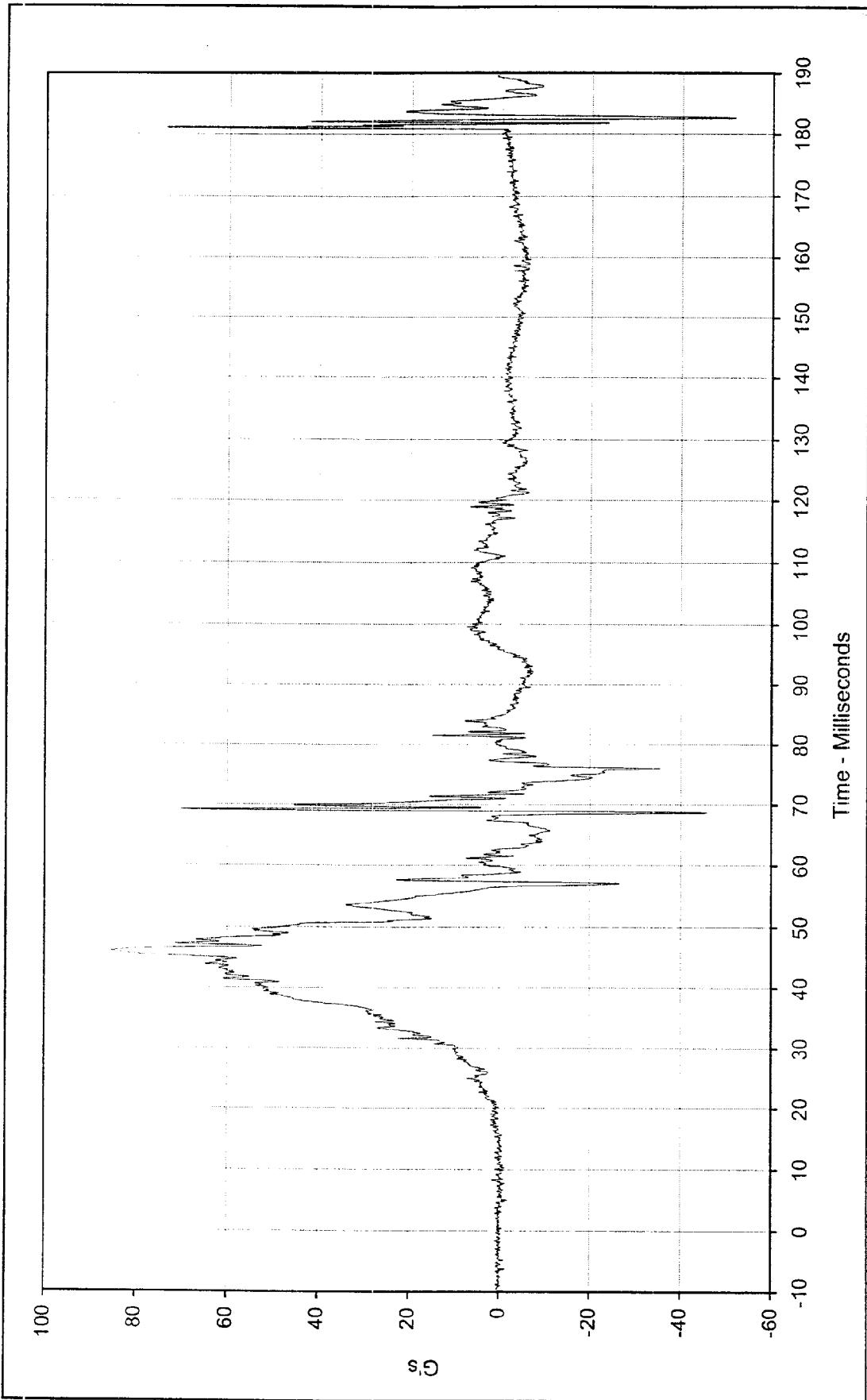




Curve Description: Pass. Upper Rib Primary Y Velocity
 Maximum Value: 43.5 at 103.1 Milliseconds
 Minimum Value: 0.0 at 14.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-017

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

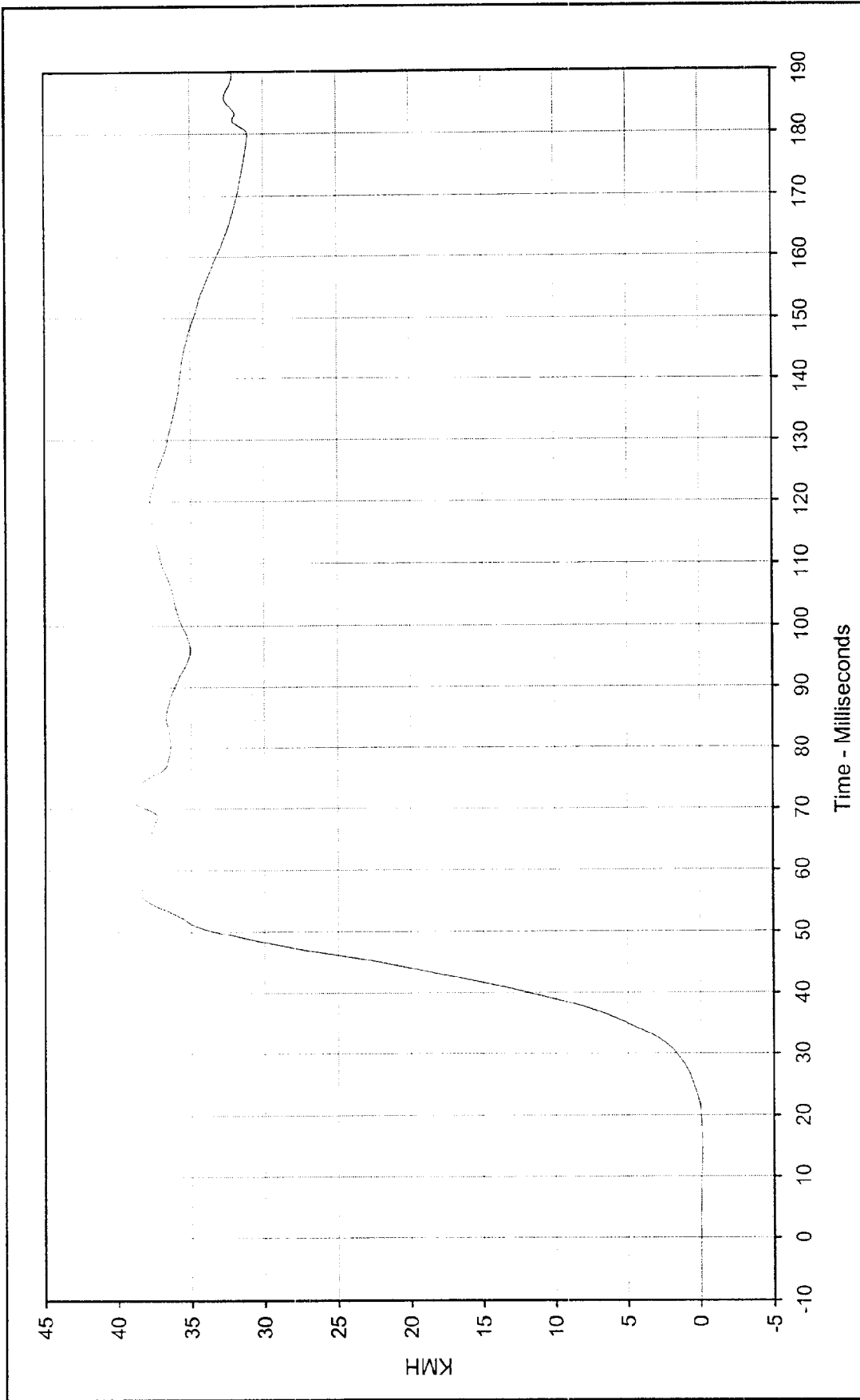




Curve Description: Pass. Lower Rib Primary
 Maximum Value: 85.4 at 46.1 Milliseconds
 Minimum Value: -51.8 at 182.6 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-018

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

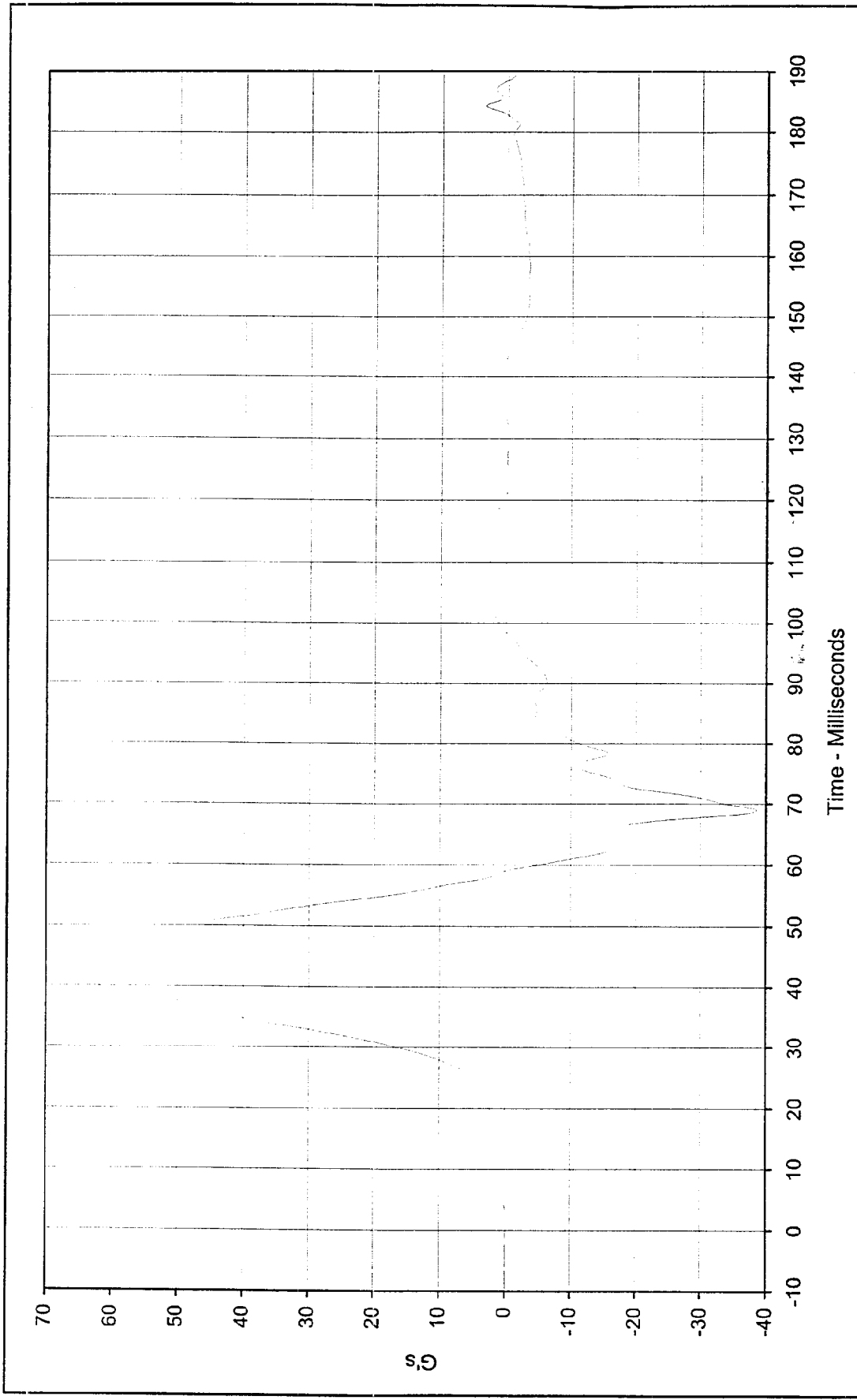




Curve Description: Pass. Lower Rib Primary Y Velocity
 Maximum Value: 39.0 at 71.9 Milliseconds
 Minimum Value: -0.1 at 15.5 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-018

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

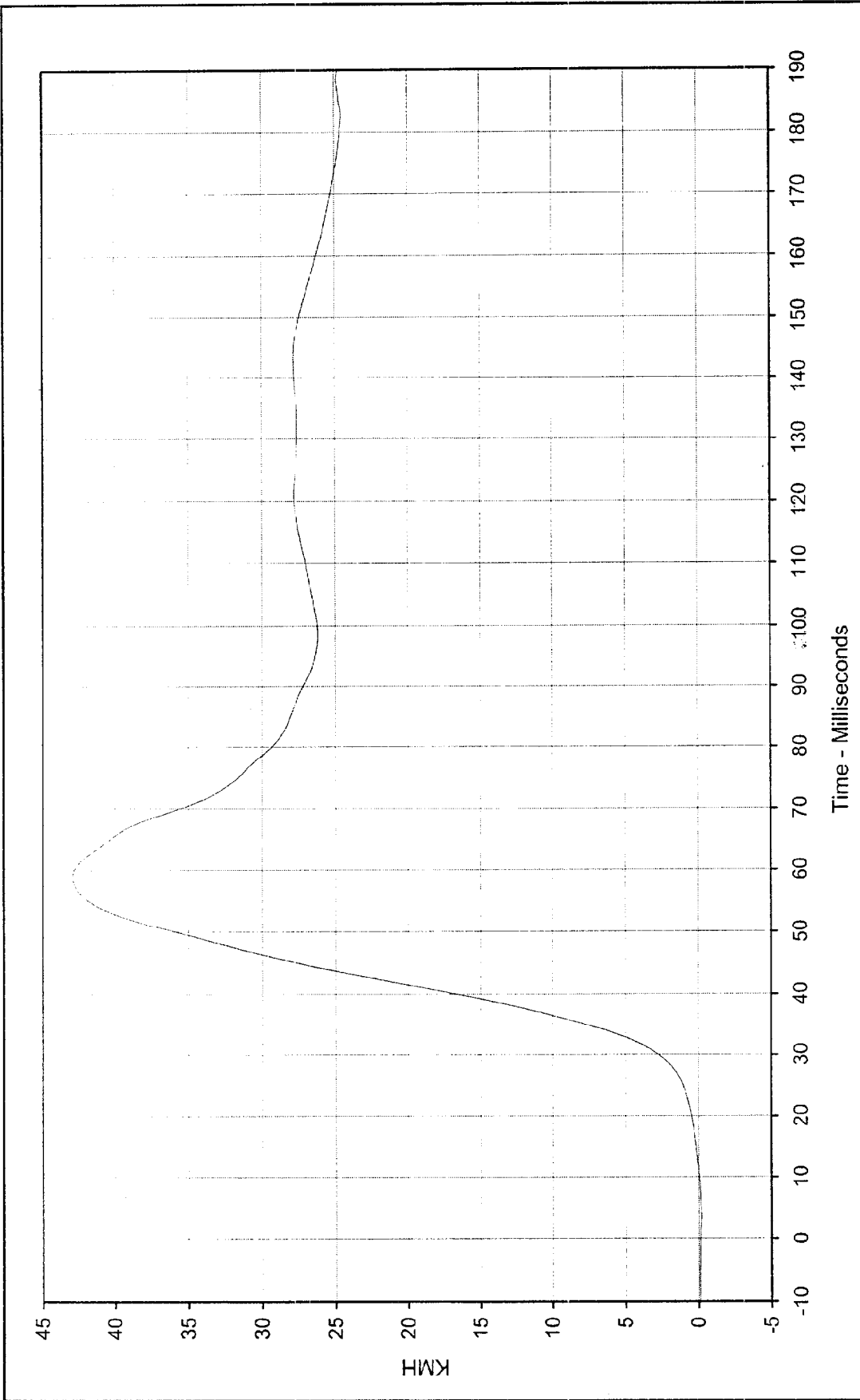




Time - Milliseconds

Curve Description: Pass. Lower Spine Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 64.6 at 42.2 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -38.6 at 69.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: FIL-019





Curve Description: Pass. Lower Spine Primary Y Velocity

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Test Vehicle: 2000 Cadillac Deville DHS

Maximum Value: 42.9 at 59.0 Milliseconds

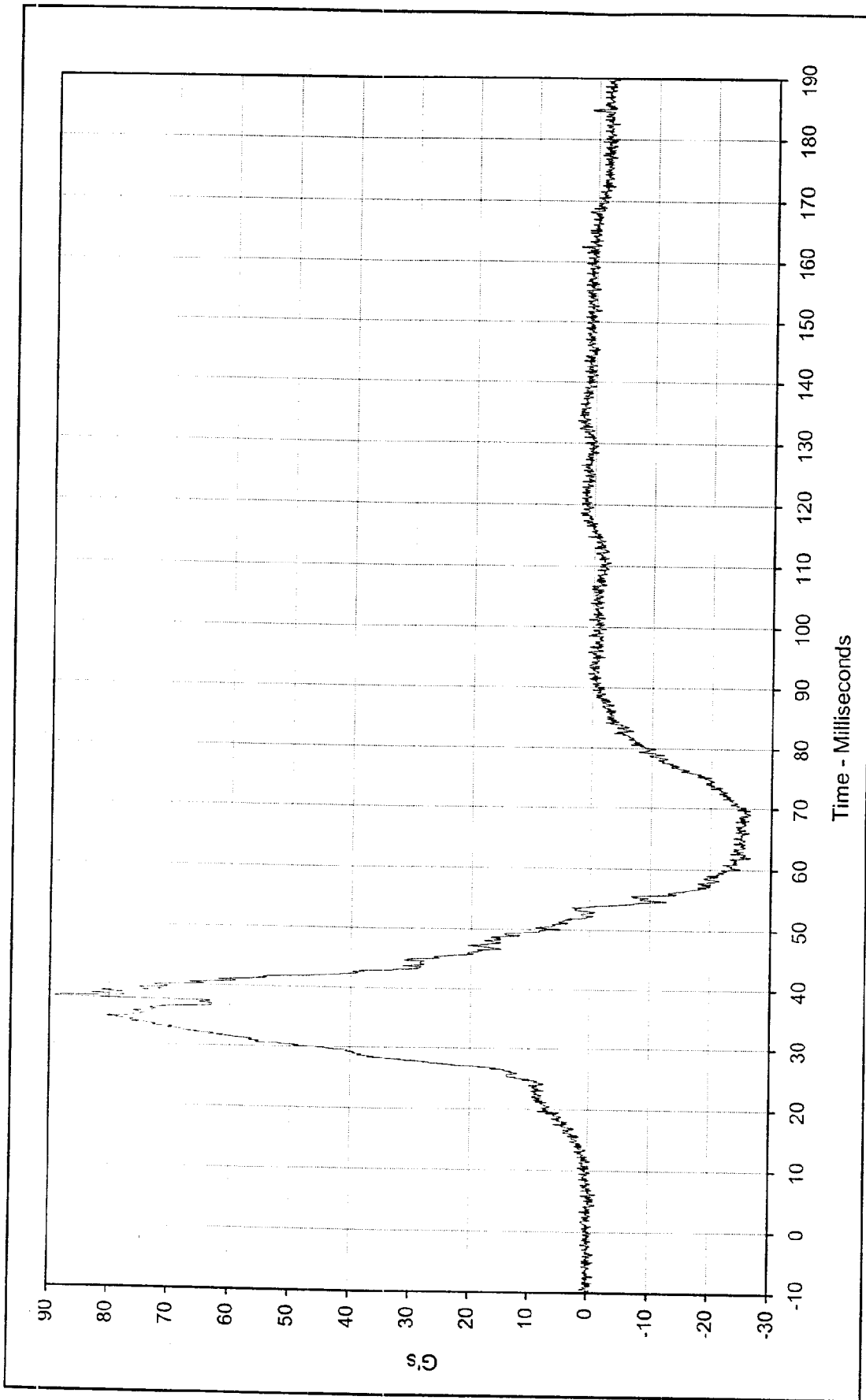
Minimum Value: -0.2 at 3.8 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-019





Curve Description: Pass, Pelvis Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 89.1 at 37.8 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

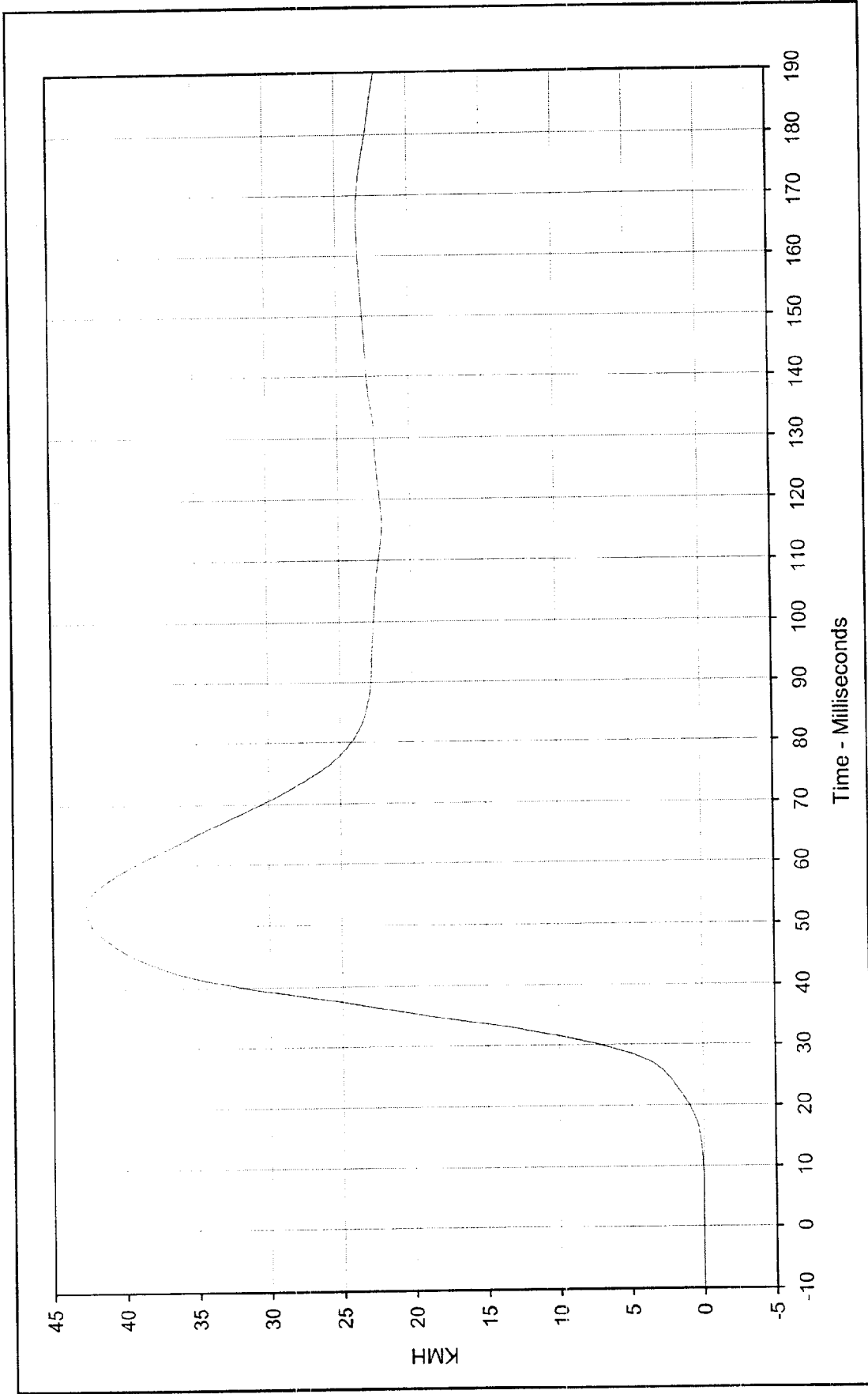
Minimum Value: -26.6 at 61.9 Milliseconds

SAE Filter Class: 1000

Date of Test: 03/03/00

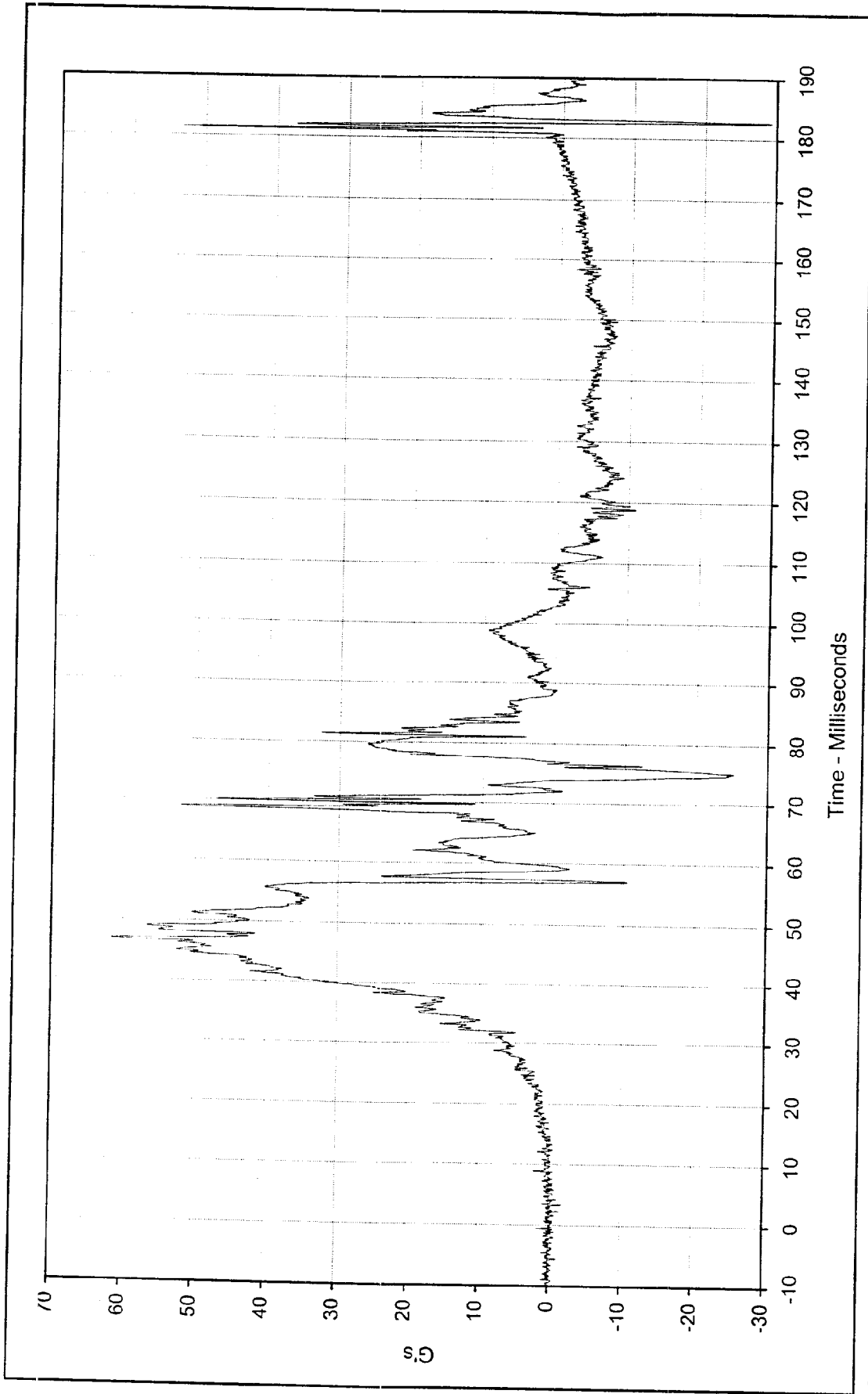
Curve Number: FIL-020





Curve Description: Pass. Pelvis Primary Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 42.7 at 53.5 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.0 at 6.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-020





Curve Description: Pass. Upper Rib Redundant Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 61.5 at 46.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

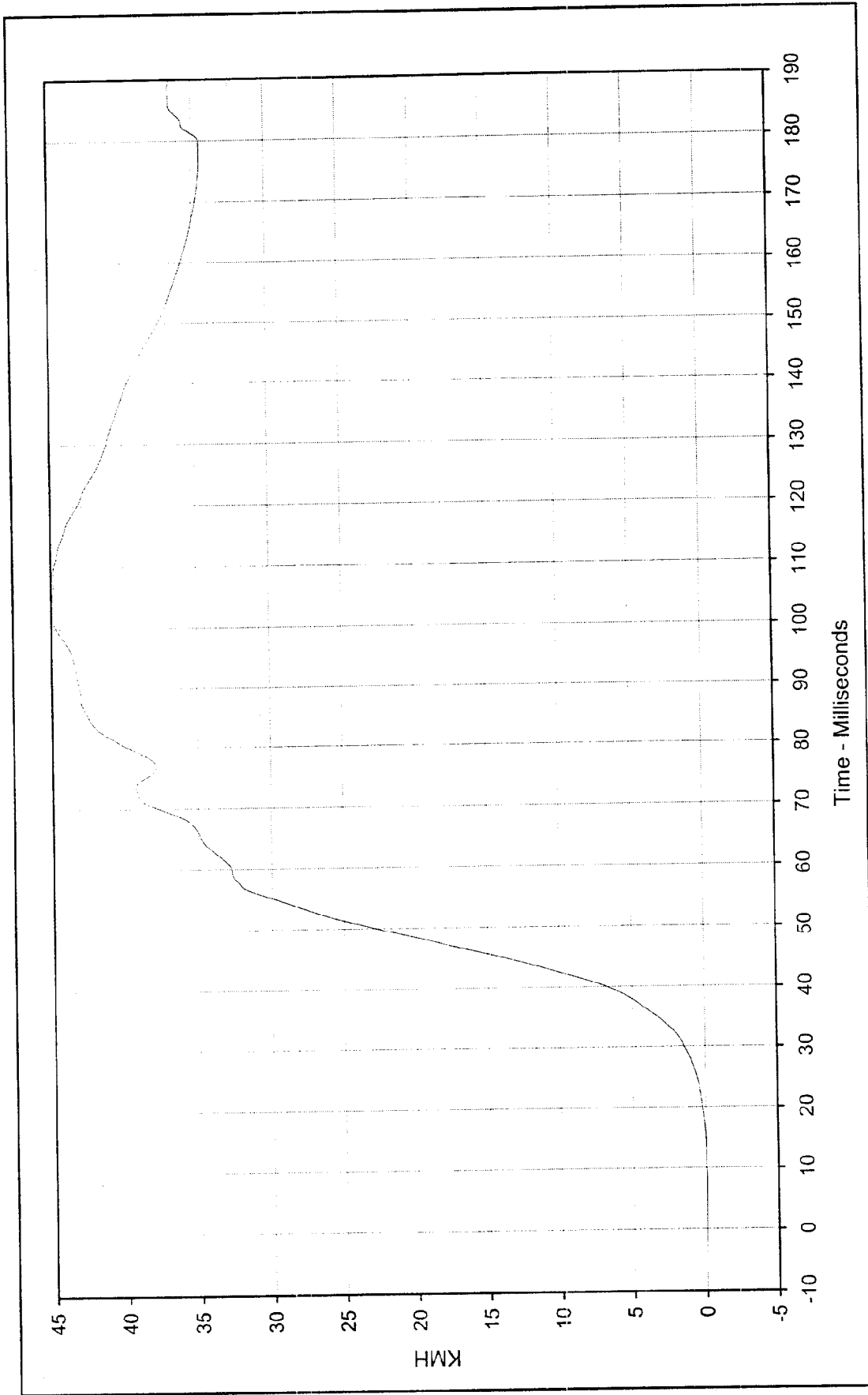
Minimum Value: -29.2 at 182.7 Milliseconds

SAE Filter Class: 1000

Date of Test: 03/03/00

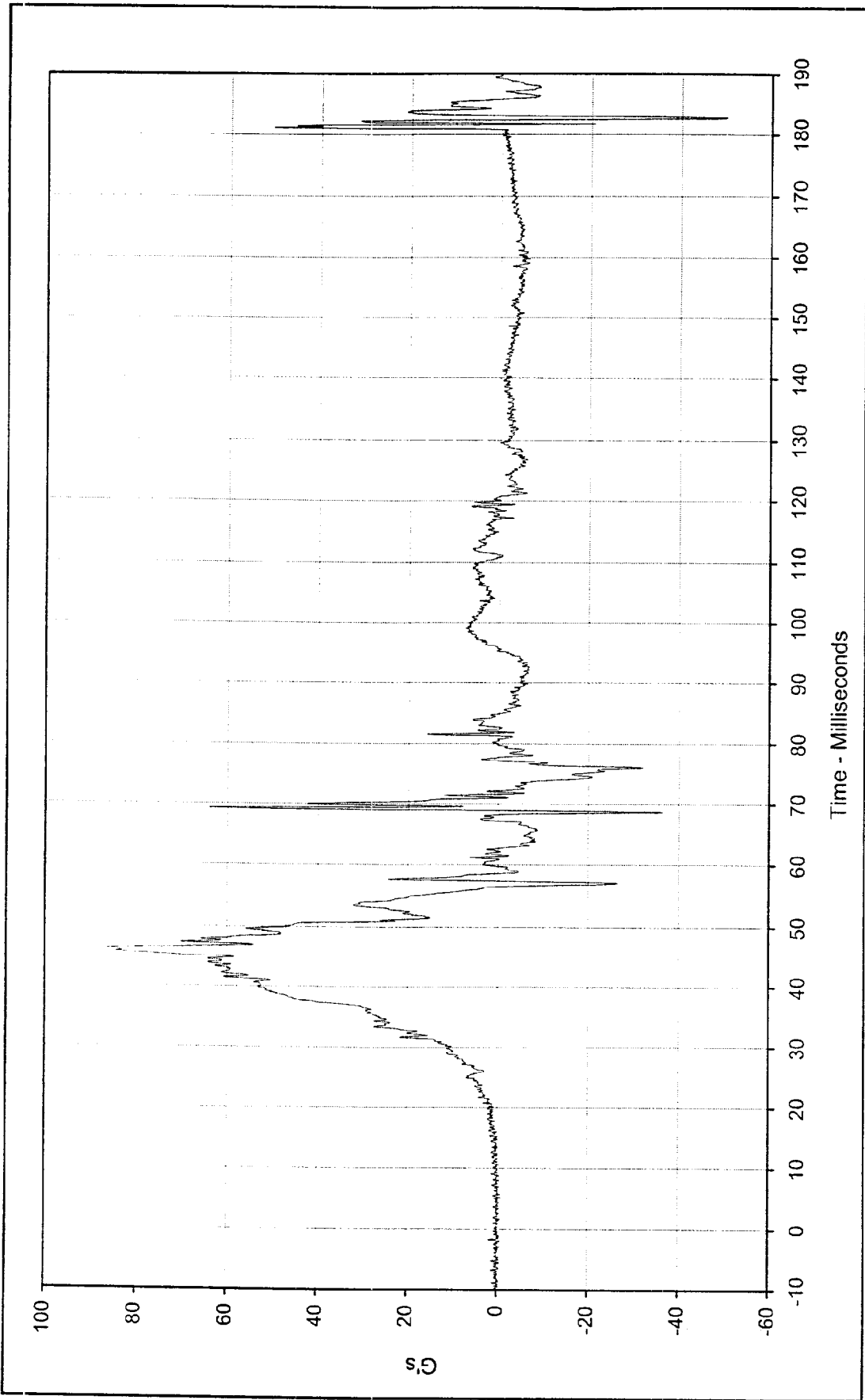
Curve Number: FIL-021





Curve Description: Pass. Upper Rib Redundant Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS
 Maximum Value: 45.0 at 102.9 Milliseconds
 Minimum Value: 0.0 at 5.8 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-021

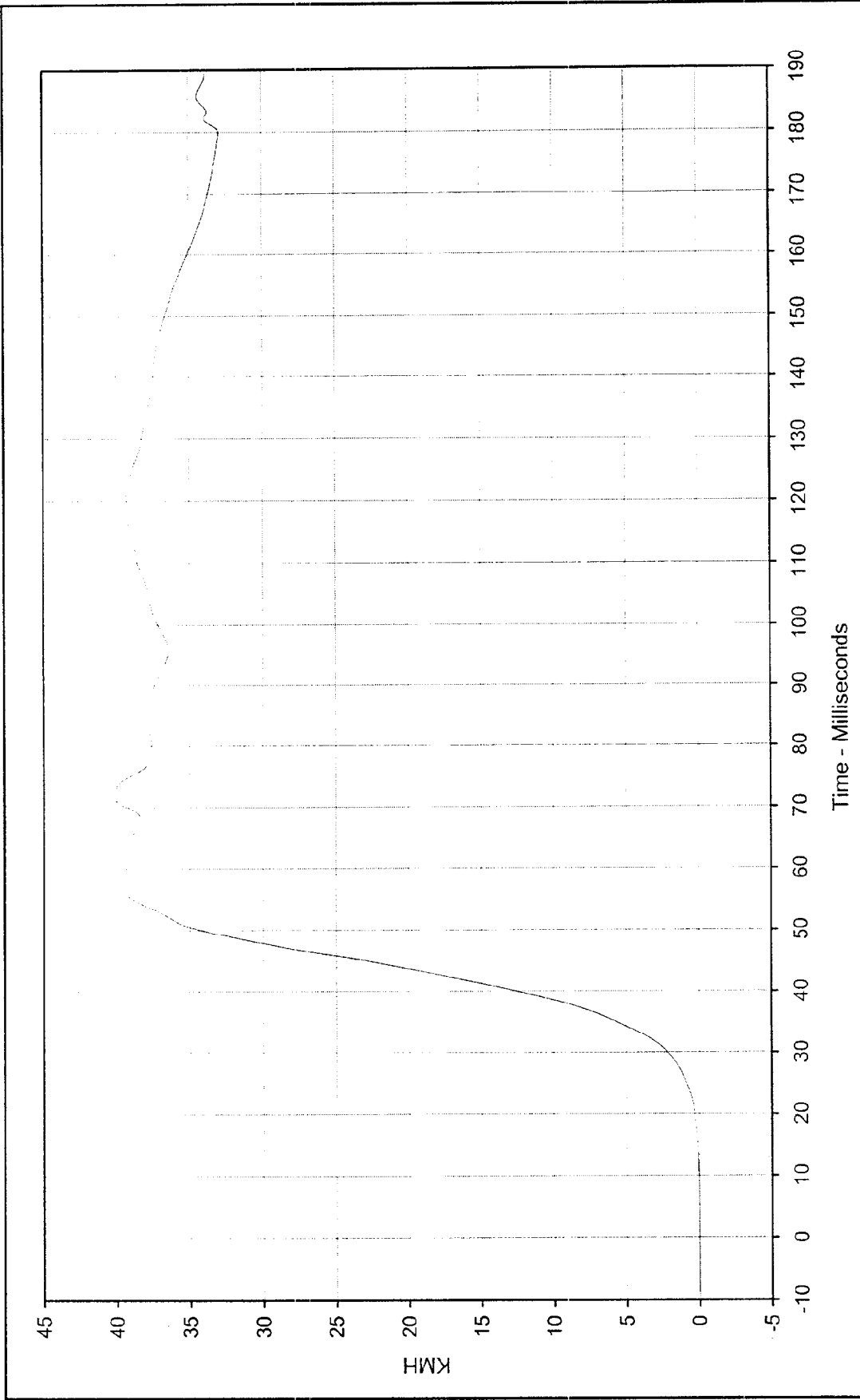




Time - Milliseconds

Curve Description:	Pass. Lower Rib Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0103
Maximum Value:	86.3 at 46.3 Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS		
Minimum Value:	-50.0 at 182.7 Milliseconds				
SAE Filter Class:	1000				
Date of Test:	03/03/00				
Curve Number:	FIL-022				

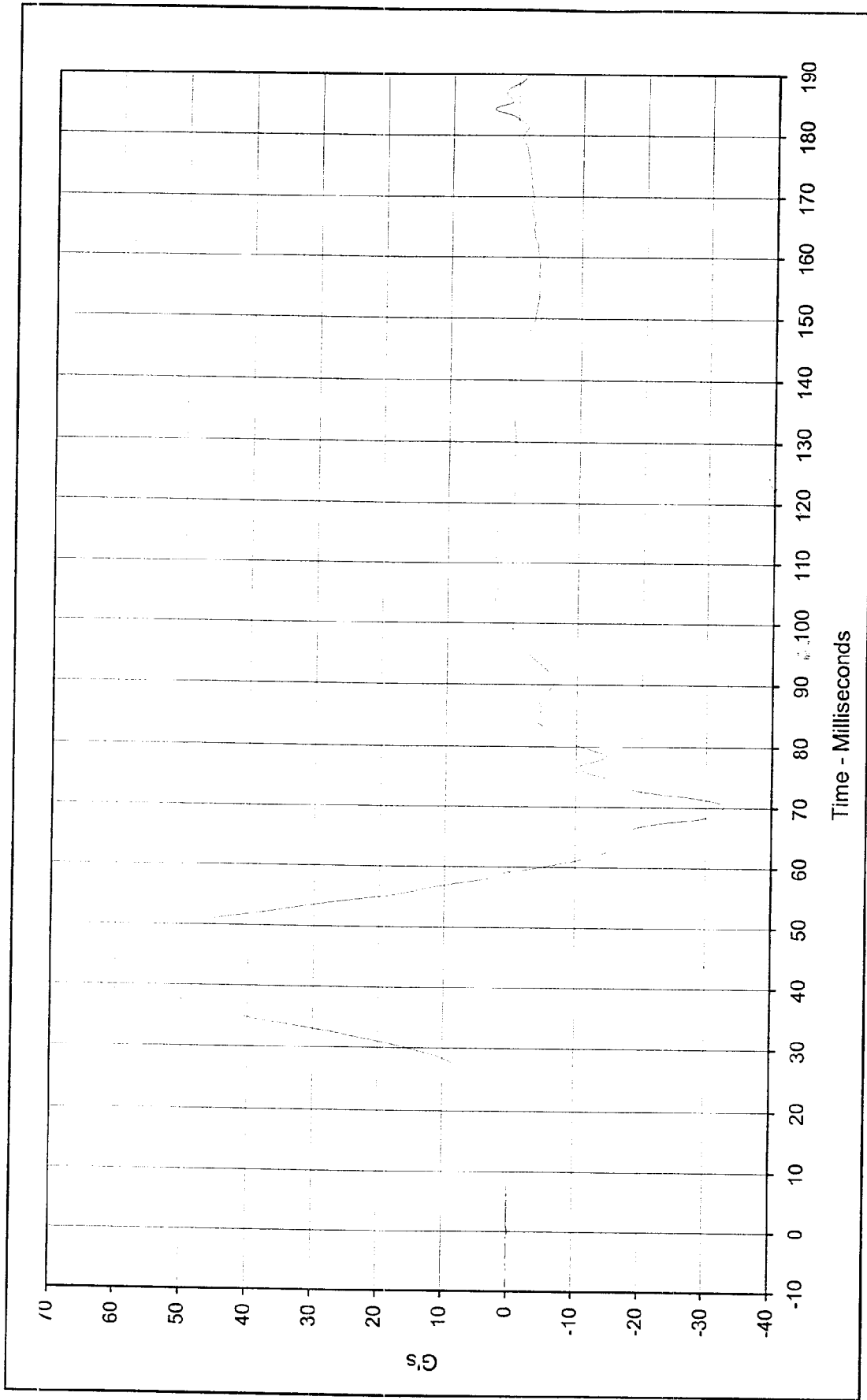




Curve Description: Pass. Lower Rib Redundant Y Velocity
 Maximum Value: 40.2 at 71.9 Milliseconds
 Minimum Value: 0.0 at 6.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-022

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

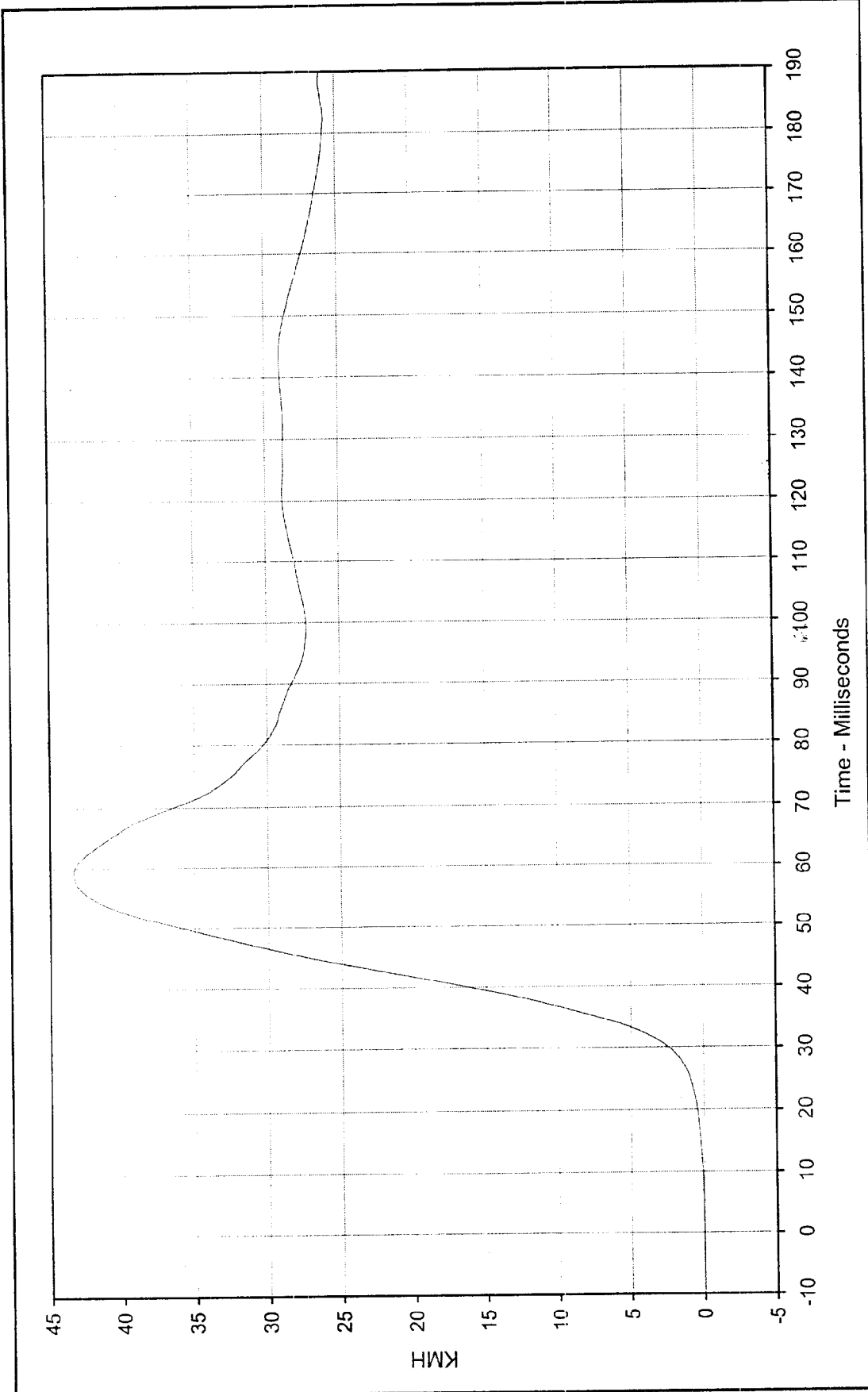




Curve Description: Pass. Lower Spine Redundant Y
 Maximum Value: 65.1 at 42.2 Milliseconds
 Minimum Value: -32.8 at 70.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: FIL-023

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

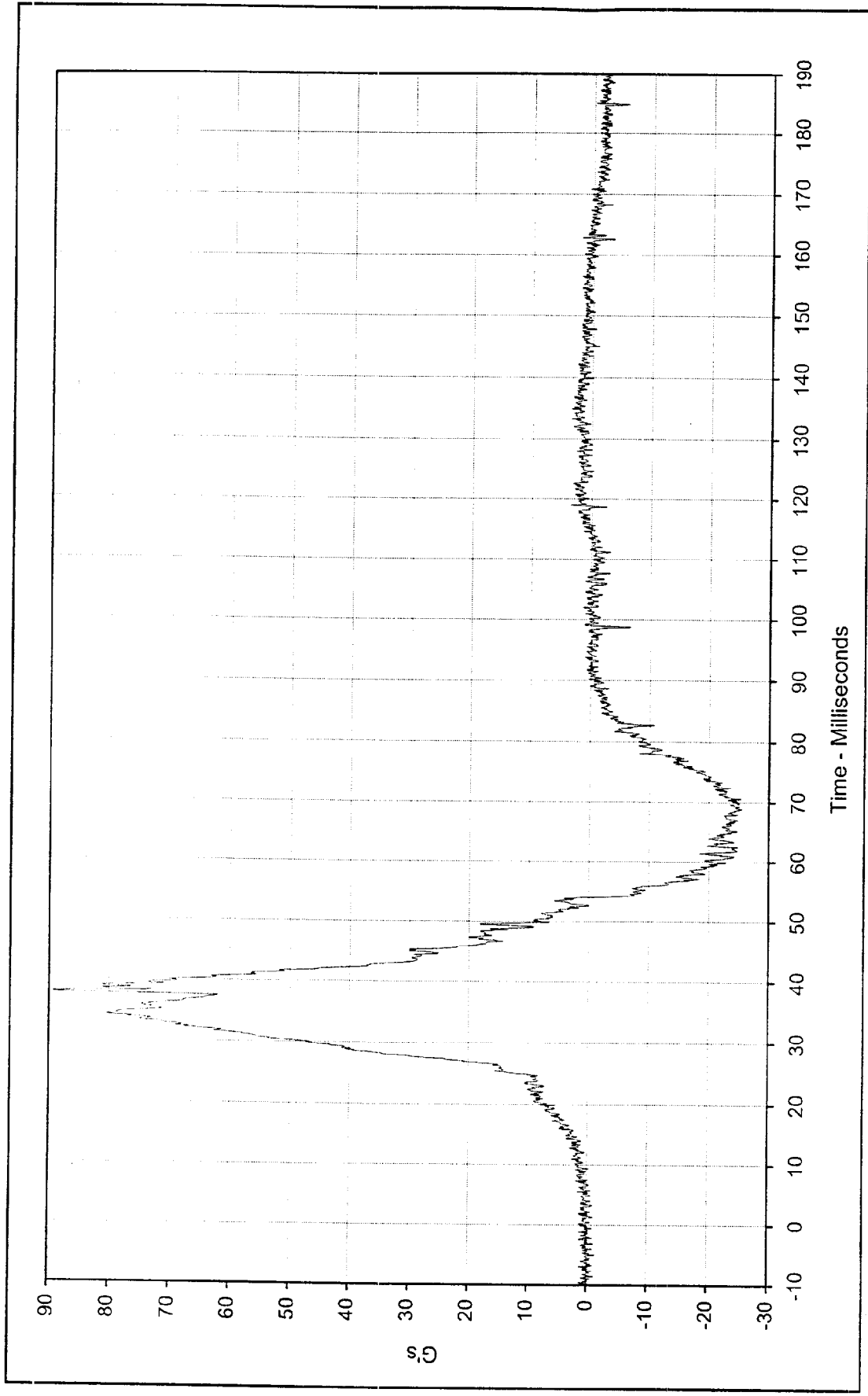




Curve Description: Pass. Lower Spine Redundant Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

Maximum Value: 43.4 at 59.2 Milliseconds
 Minimum Value: 0.0 at 0.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-023

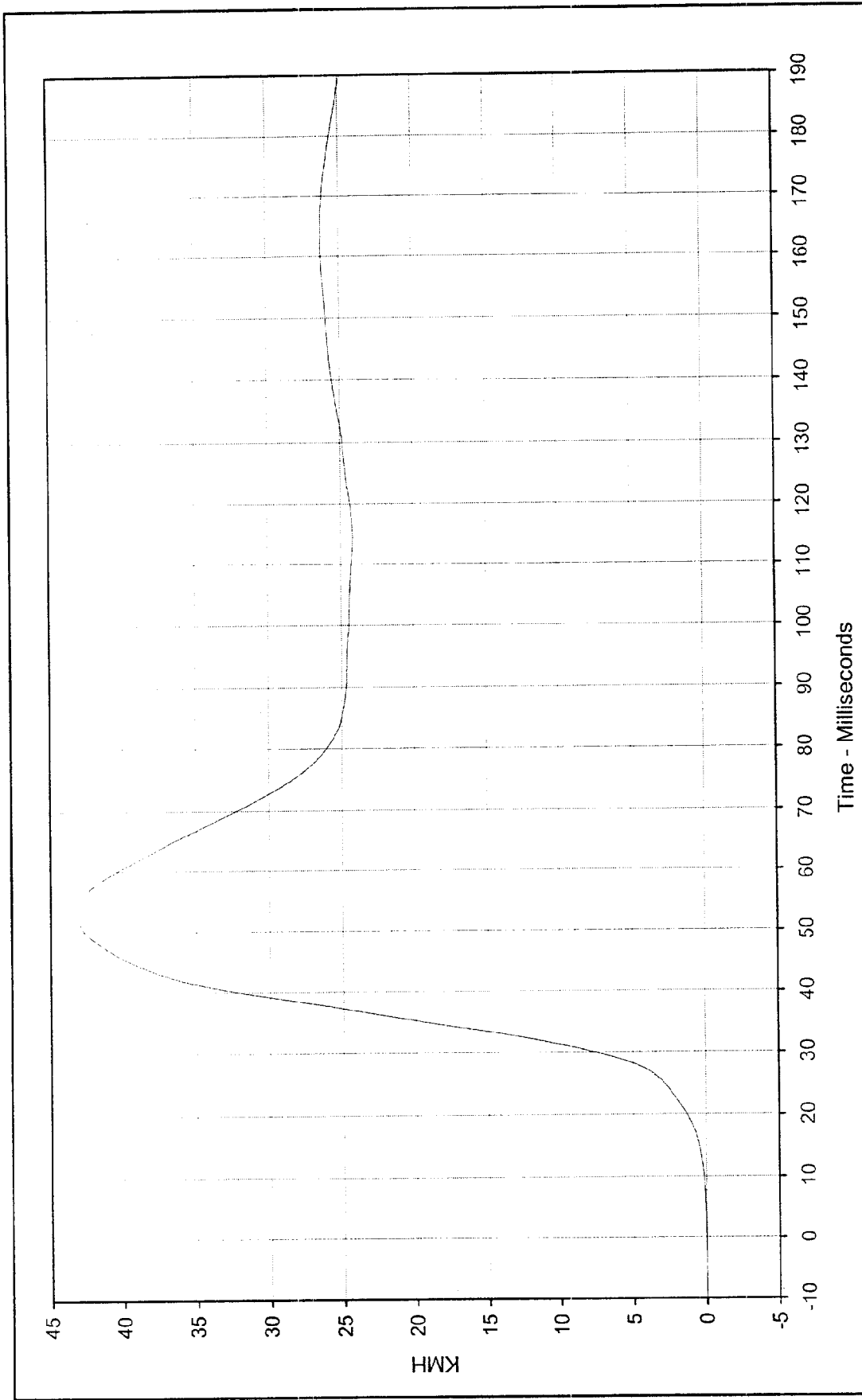




Time - Milliseconds

Curve Description: Pass. Pelvis Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 89.3 at 37.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -25.4 at 68.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-024





Curve Description: Pass. Pelvis Redundant Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 43.3 at 53.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

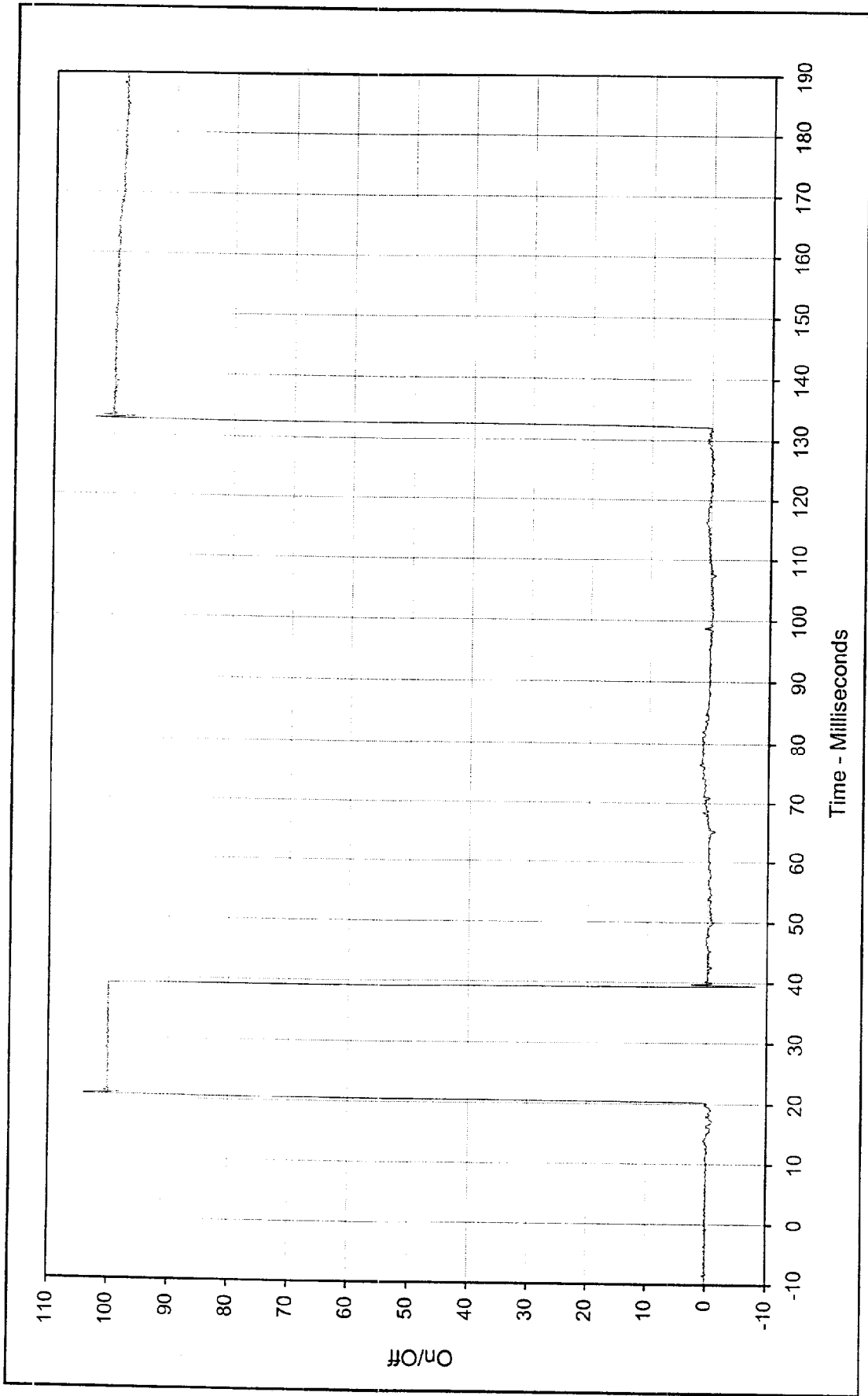
Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-024

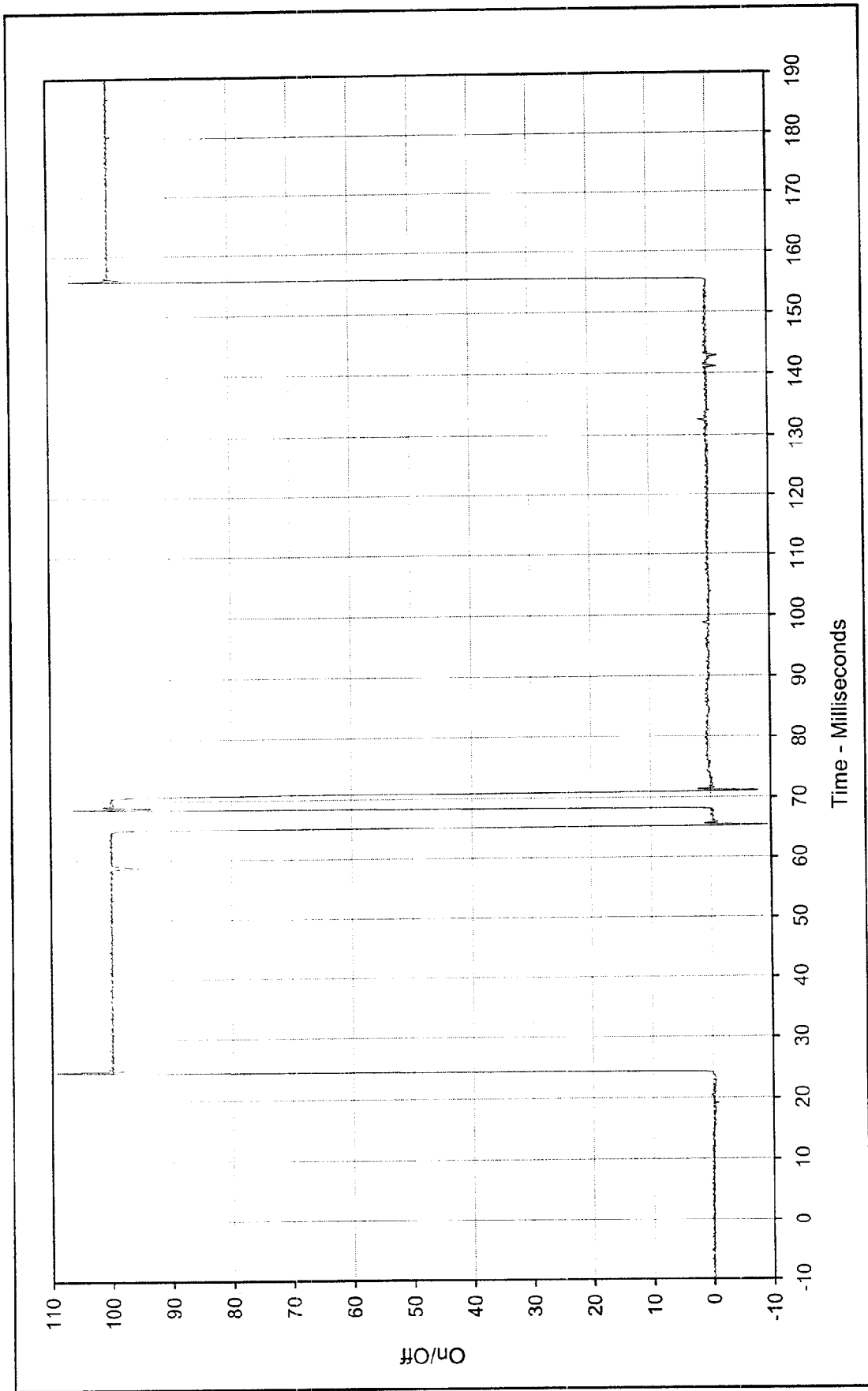




Curve Description: Pass Thorax Contact
 Maximum Value: 104.1 at 20.7 Milliseconds
 Crossing Point: 50% at 20.6 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-025

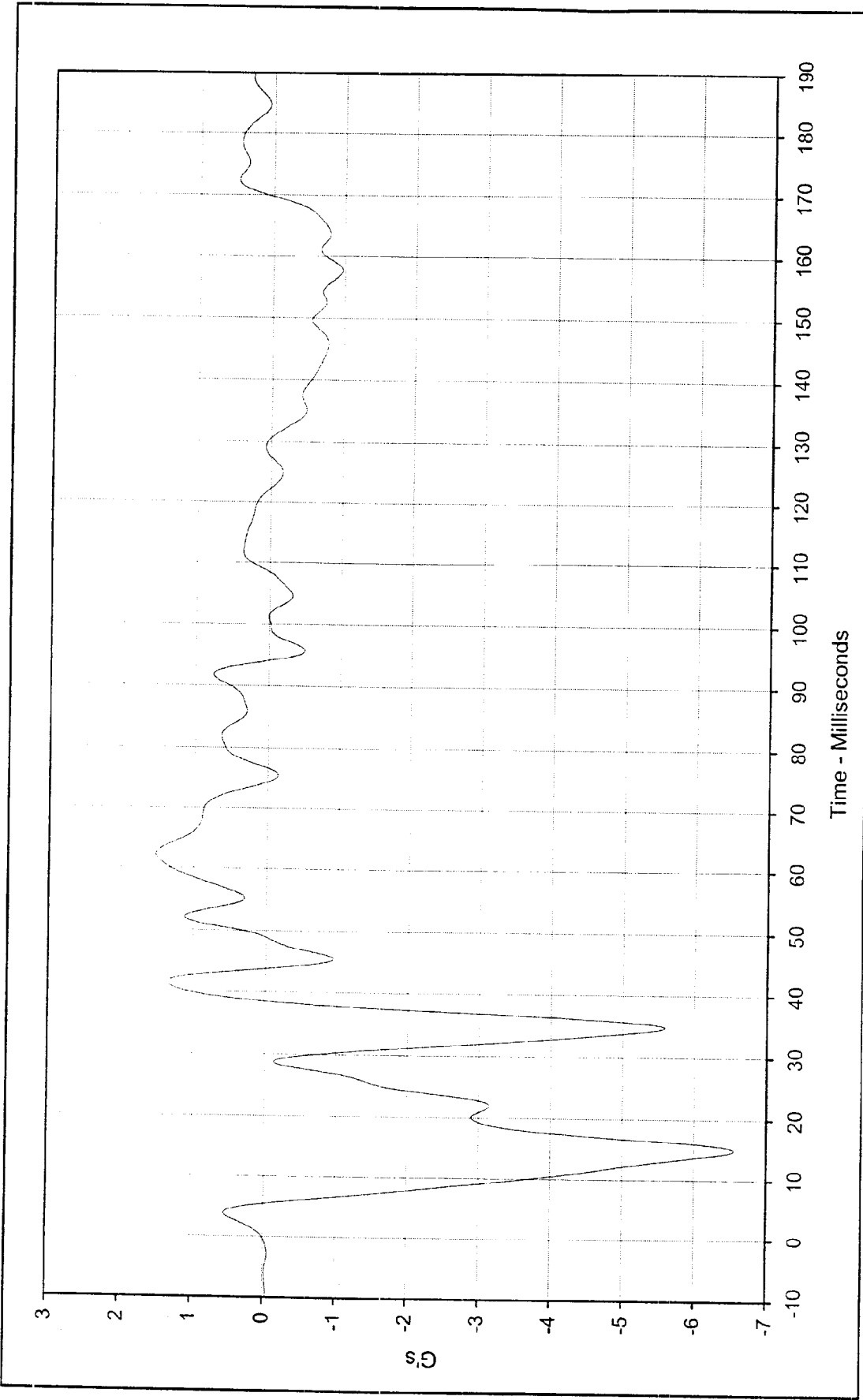
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Pass. Pelvis Contact Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 109.0 at 24.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Crossing Point: 50% at 24.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-026





Curve Description: Right Side at Front Seat X Test Program: 5528 km/h Side Impact NCAP No.: MY0103

Maximum Value: 1.5 at 62.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

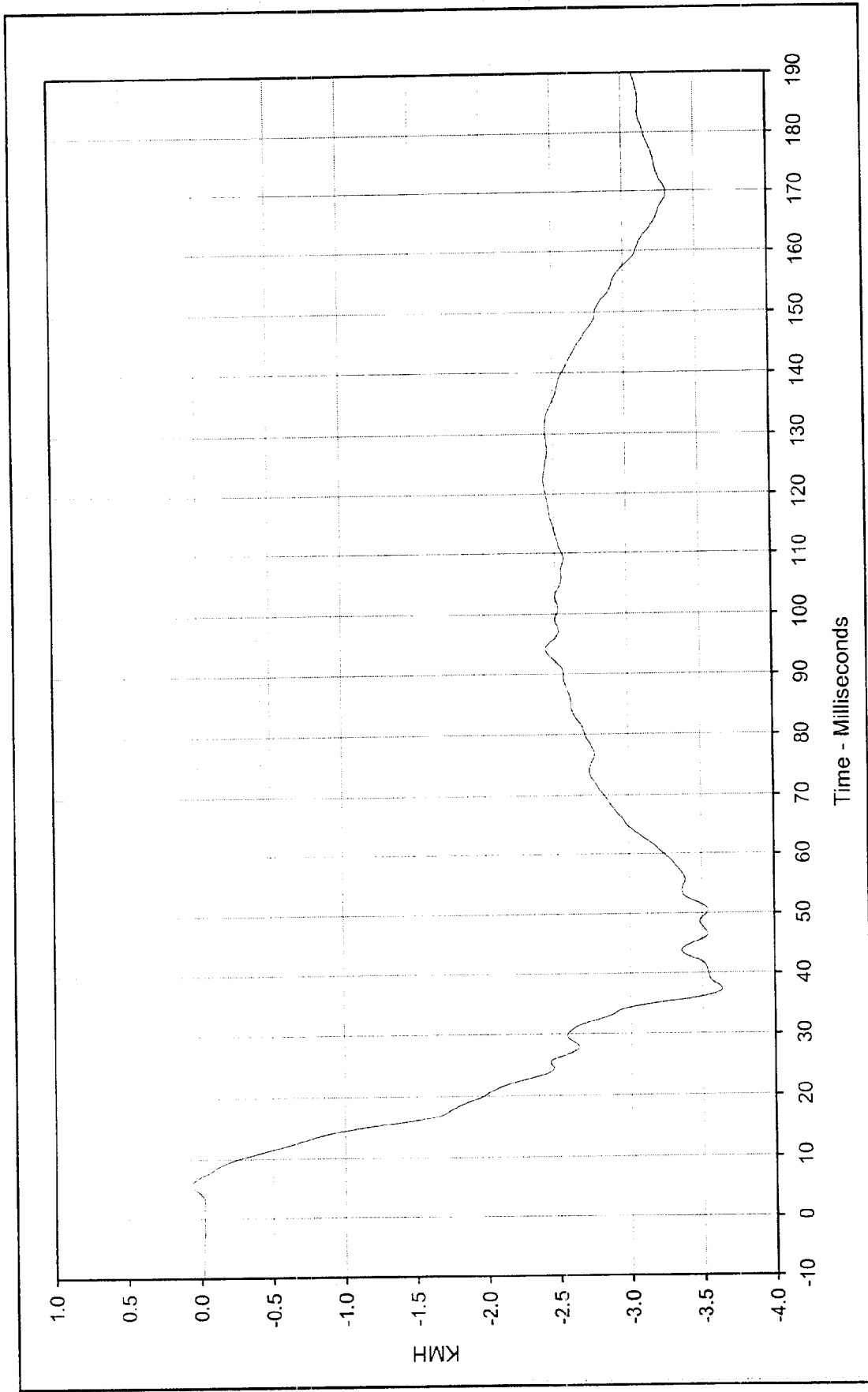
Minimum Value: -6.6 at 14.9 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

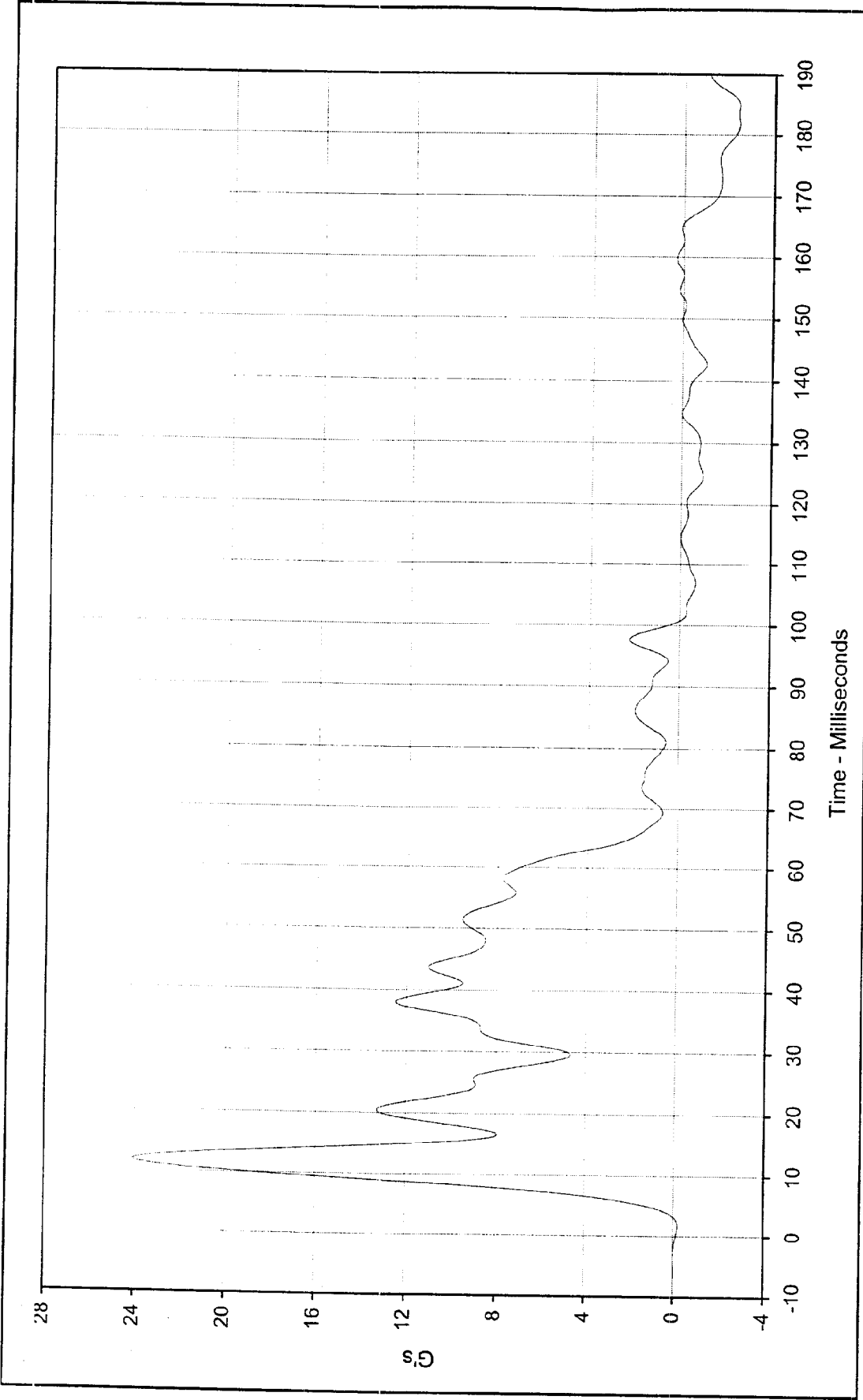
Curve Number: FIL-027





Curve Description: Right Sill at Front Seat X Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 0.1 at 5.7 Milliseconds
 Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -3.6 at 37.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-027





Curve Description: Right Sill at Front Seat Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 24.1 at 11.8 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

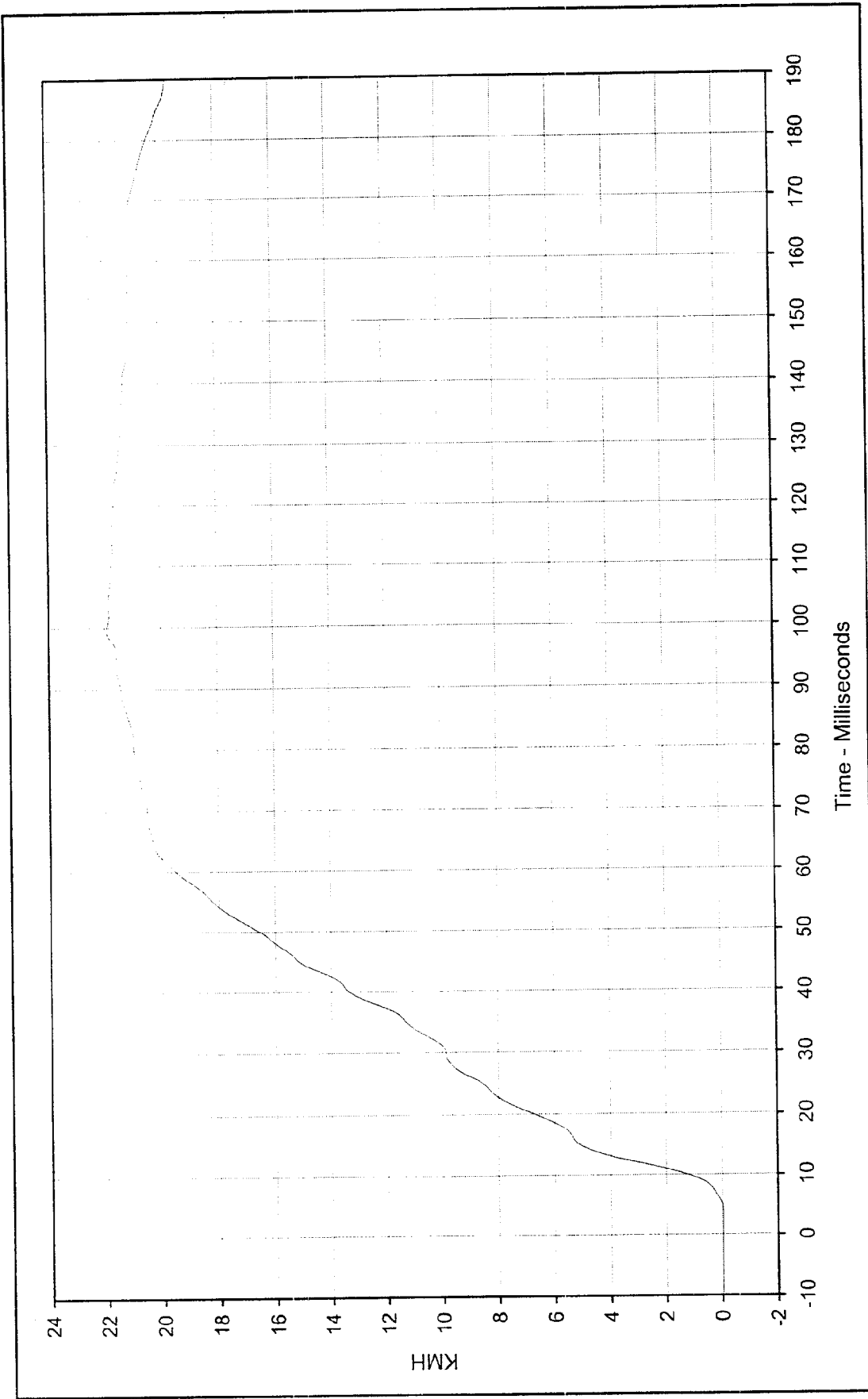
Minimum Value: -2.4 at 181.8 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

Curve Number: FIL-028

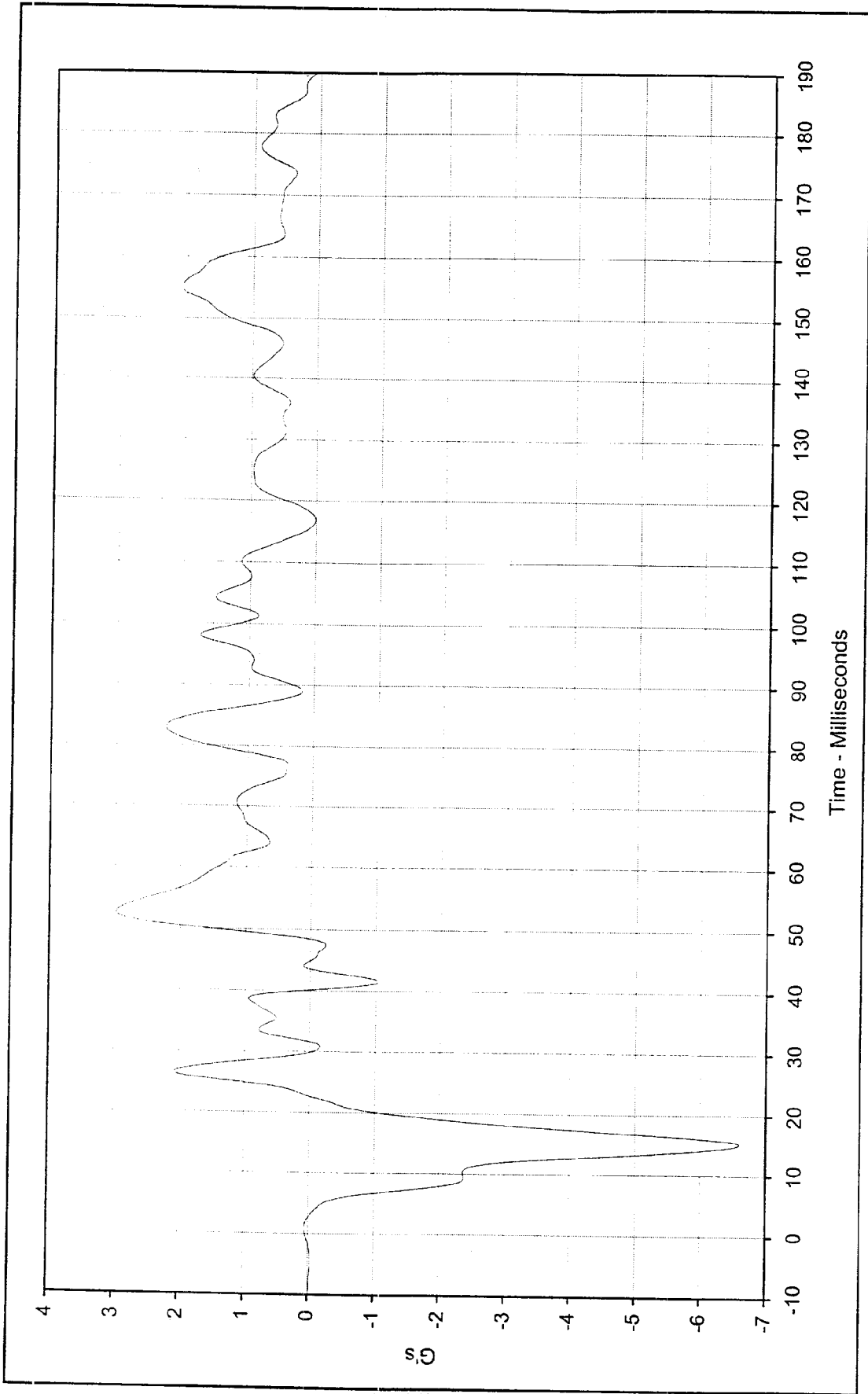




Curve Description: Right Sill at Front Seat Y Velocity
 Maximum Value: 21.9 at 99.5 Milliseconds
 Minimum Value: 0.0 at 3.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-028

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

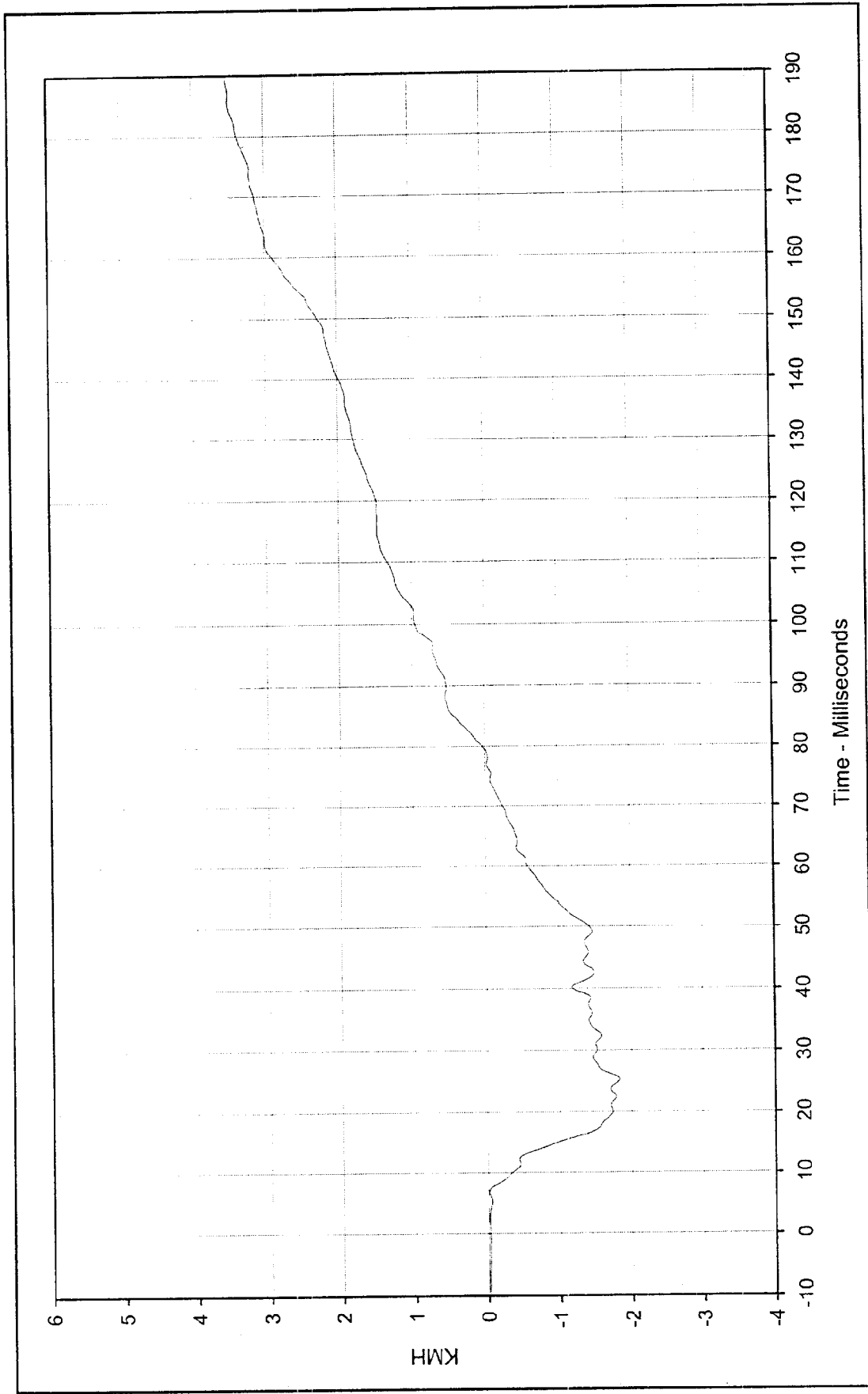




Time - Milliseconds

Curve Description:	Right Sill at Front Seat Z	Test Program:	55/28 km/h Side Impact NCAP No.: MY0103
Maximum Value:	3.0 at 52.5 Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS
Minimum Value:	-6.6 at 15.2 Milliseconds		
SAE Filter Class:	60		
Date of Test:	03/03/00		
Curve Number:	FIL-029		





Curve Description: Right Sill at Front Seat Z Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 3.5 at 189.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

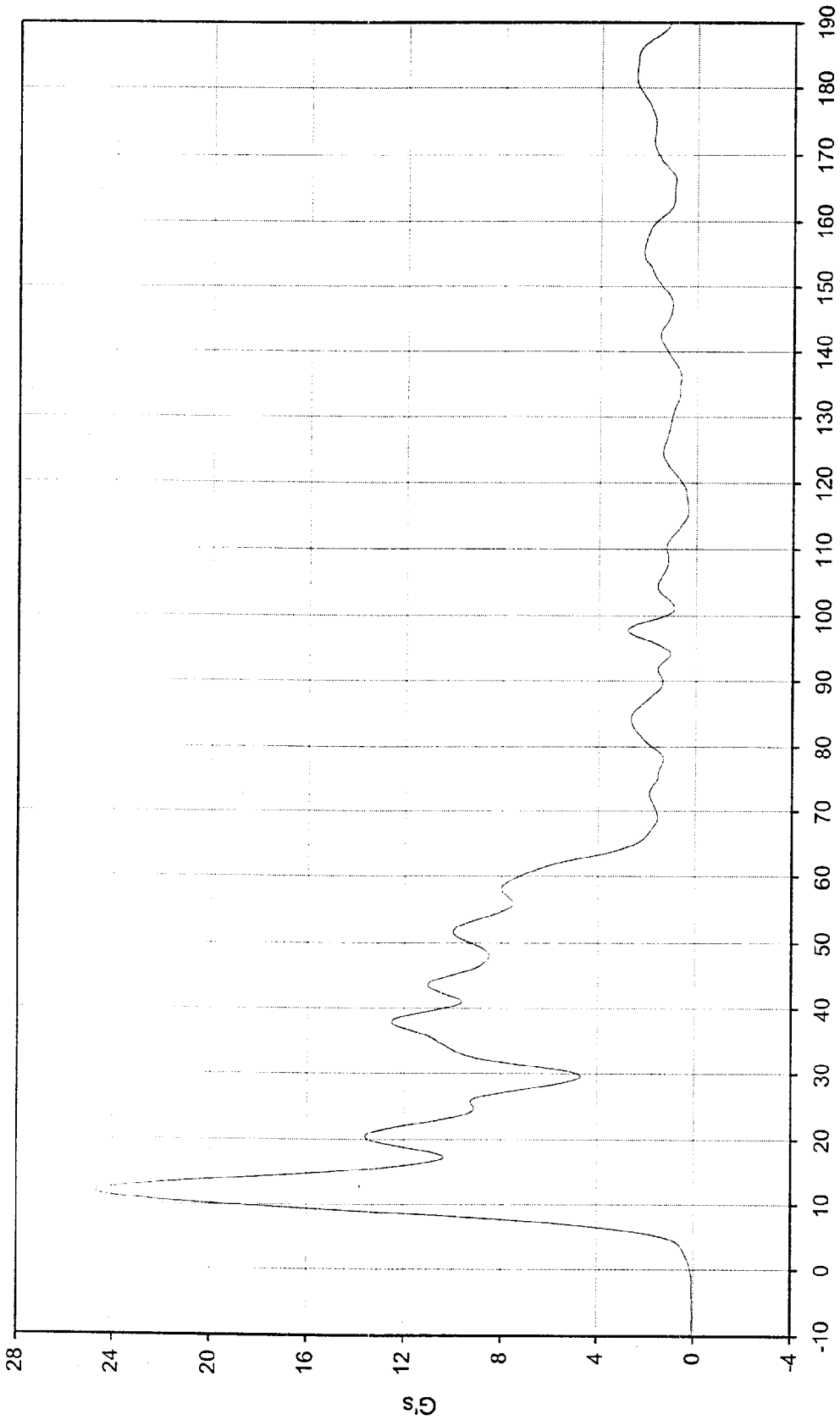
Minimum Value: -1.8 at 25.2 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-029

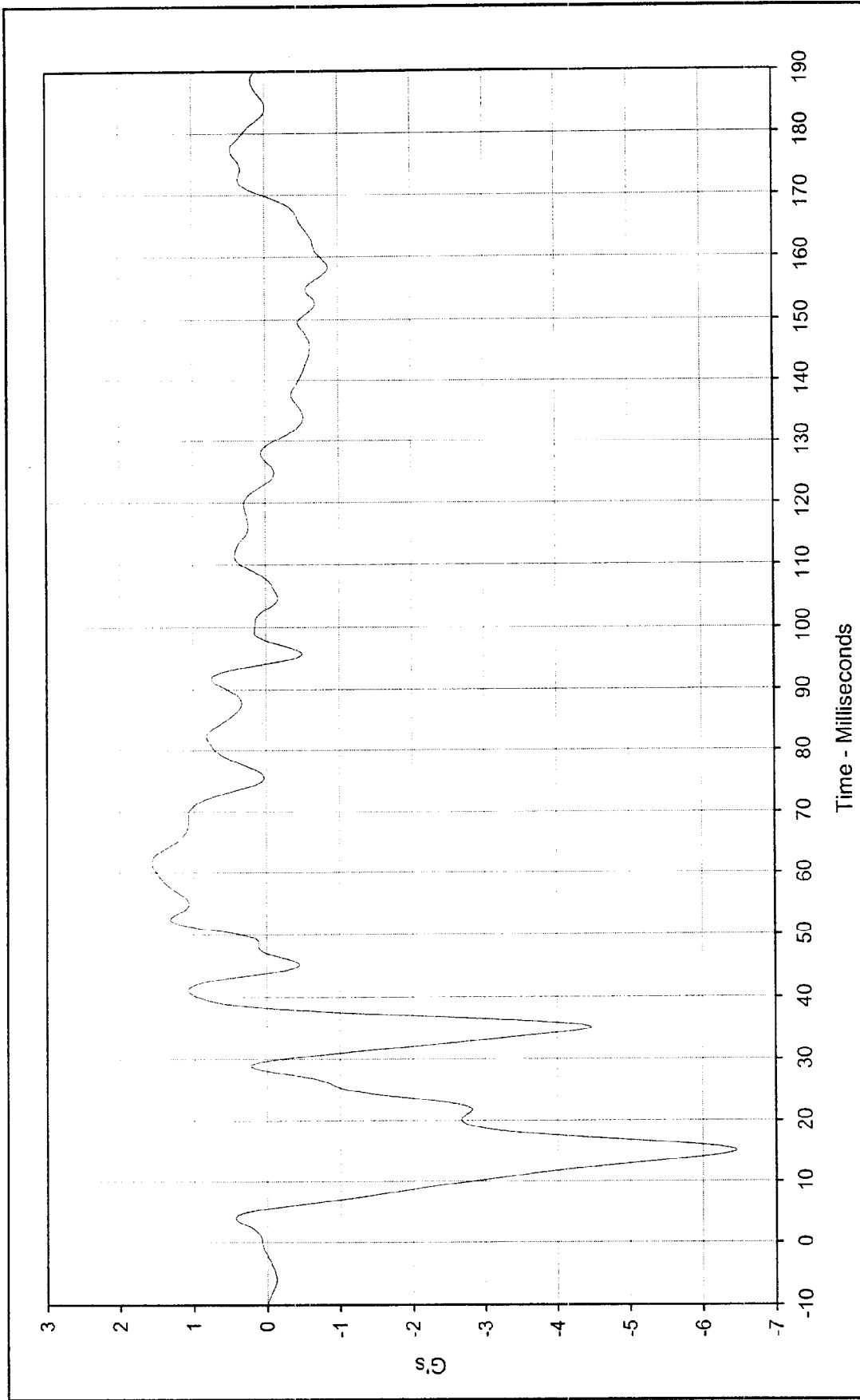




Time - Milliseconds

Curve Description:	Right Sill at Front Seat Resultant	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0103	
Maximum Value:	24.7	at	11.9	Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS
Minimum Value:	0.1	at	0.0	Milliseconds		
SAE Filler Class:	60					
Date of Test:	03/03/00					
Curve Number:	RES-027					

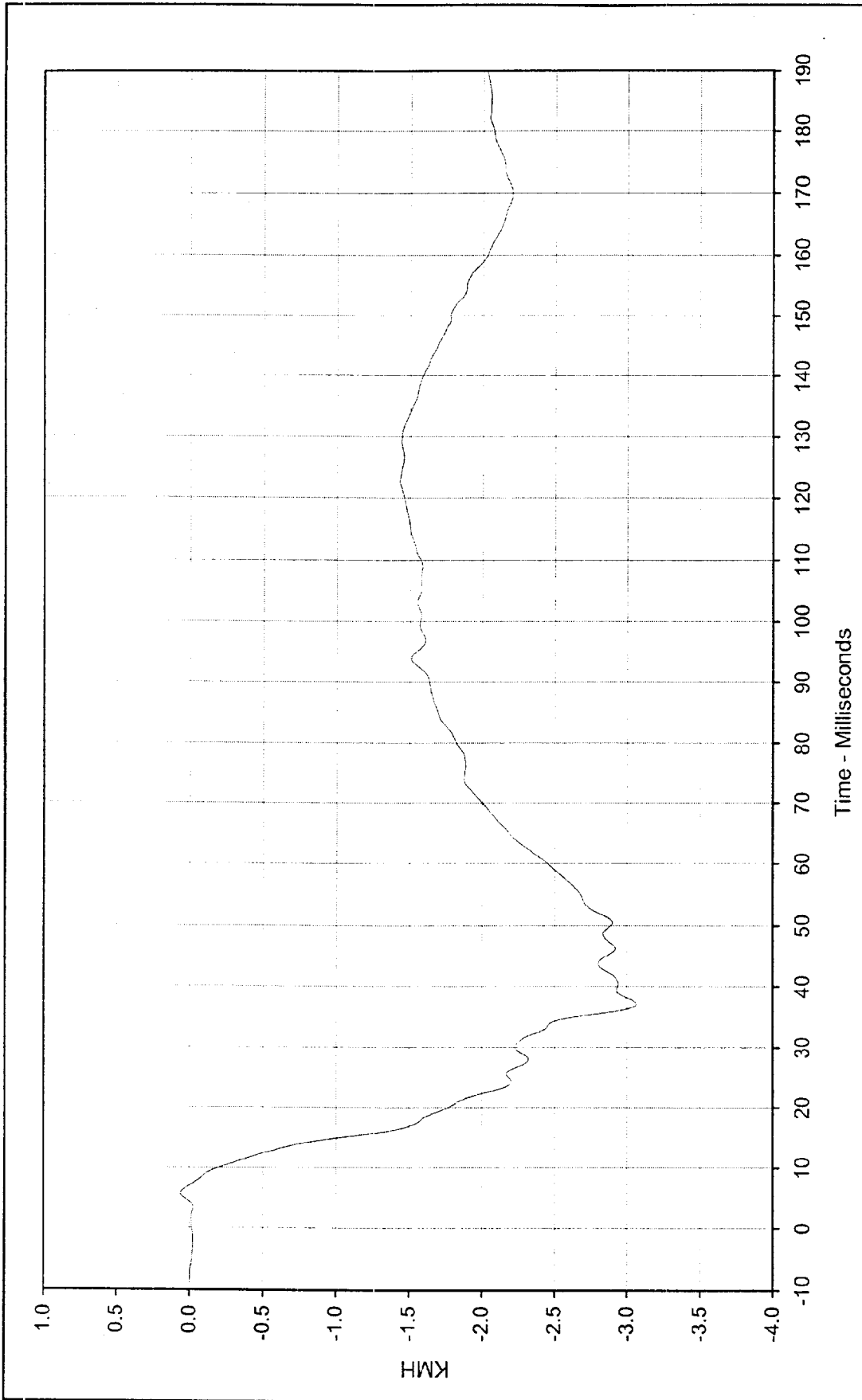




Curve Description: Right Sill at Rear Seat X
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

Maximum Value: 1.6 at 61.6 Milliseconds
 Minimum Value: -6.5 at 15.0 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-030

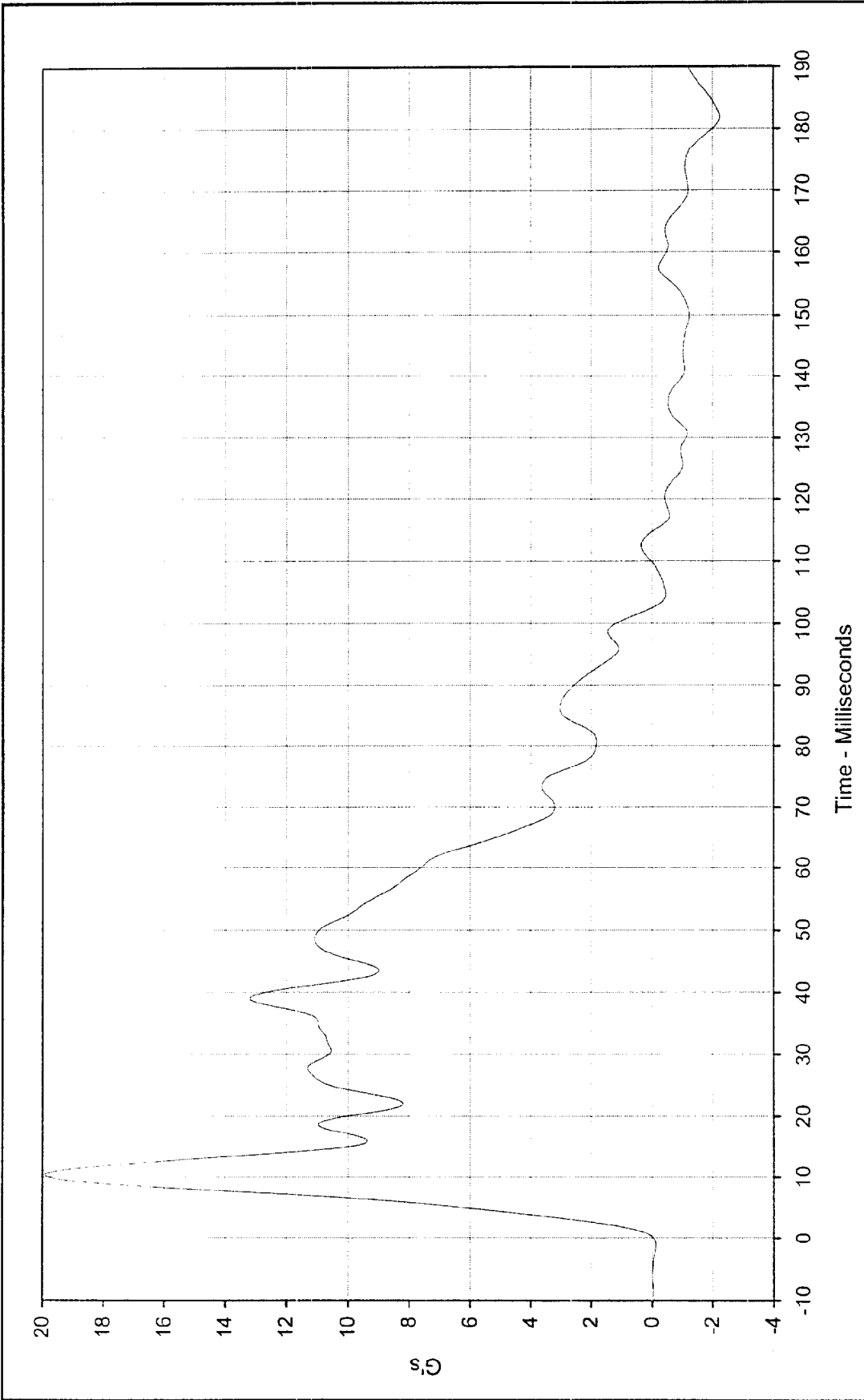




Curve Description: Right Sill at Rear Seat X Velocity
 Maximum Value: 0.1 at 5.8 Milliseconds
 Minimum Value: -3.1 at 37.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-030

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Right Sill at Rear Seat Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 19.9 at 10.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

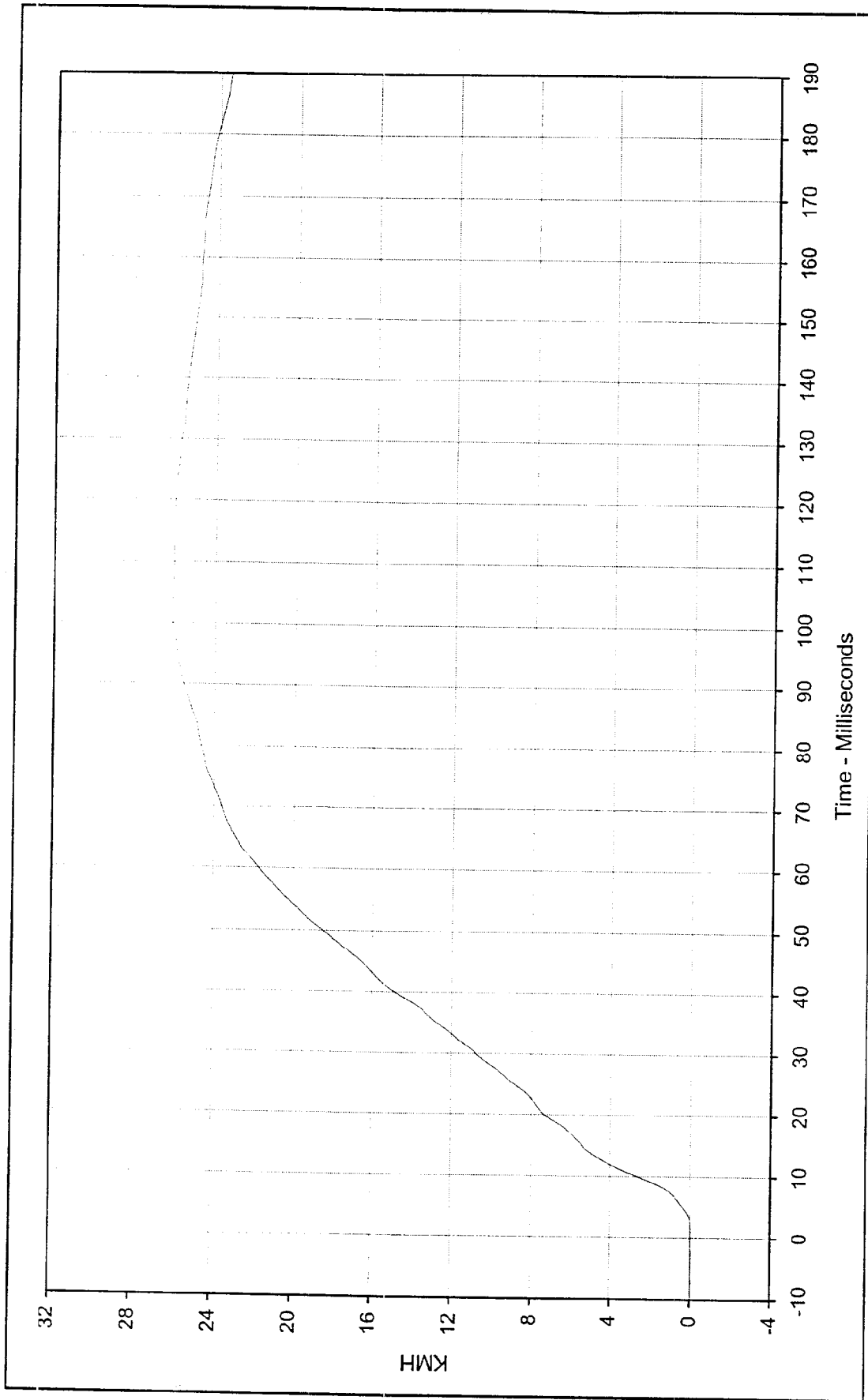
Minimum Value: -2.2 at 181.9 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

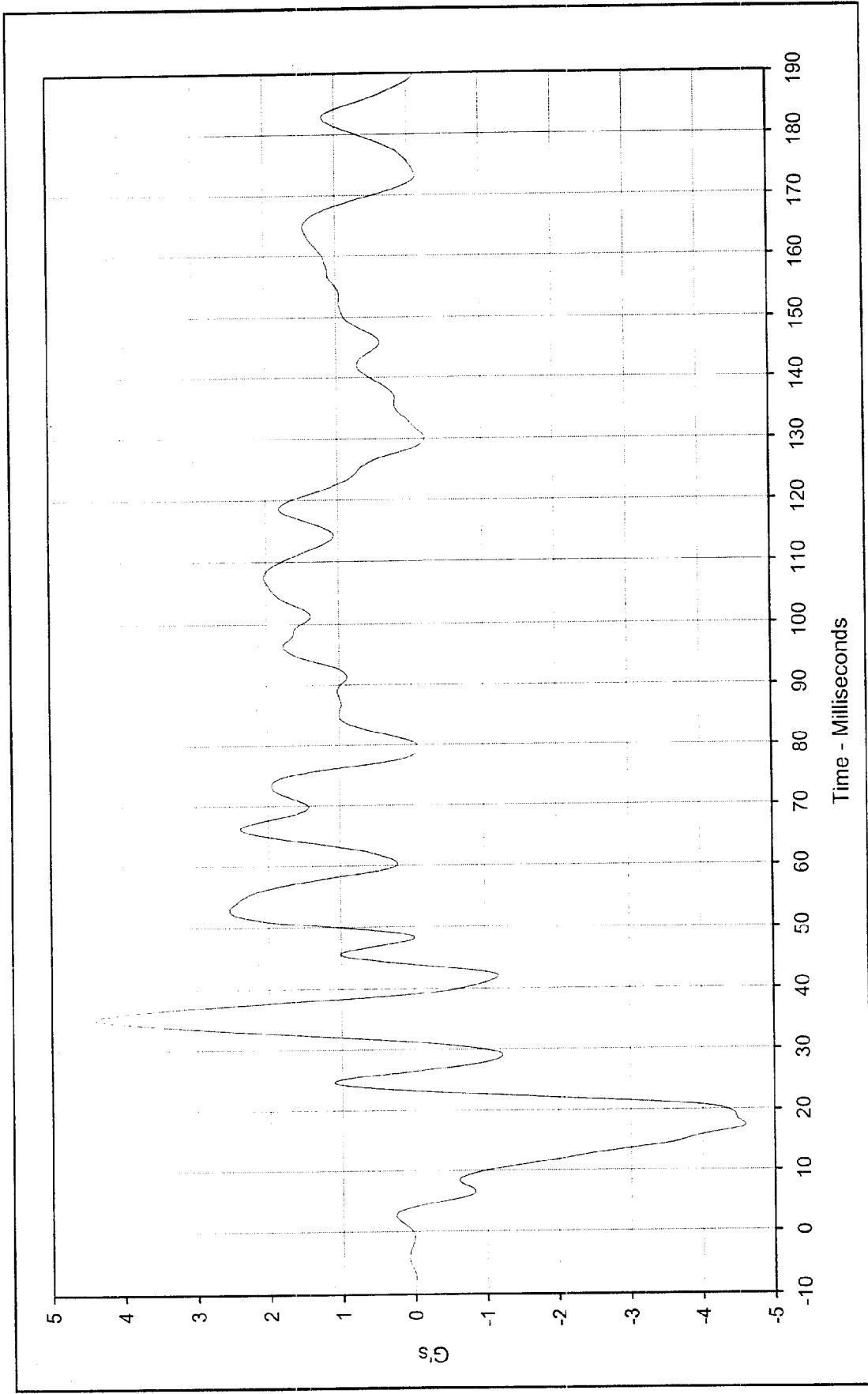
Curve Number: FIL-031





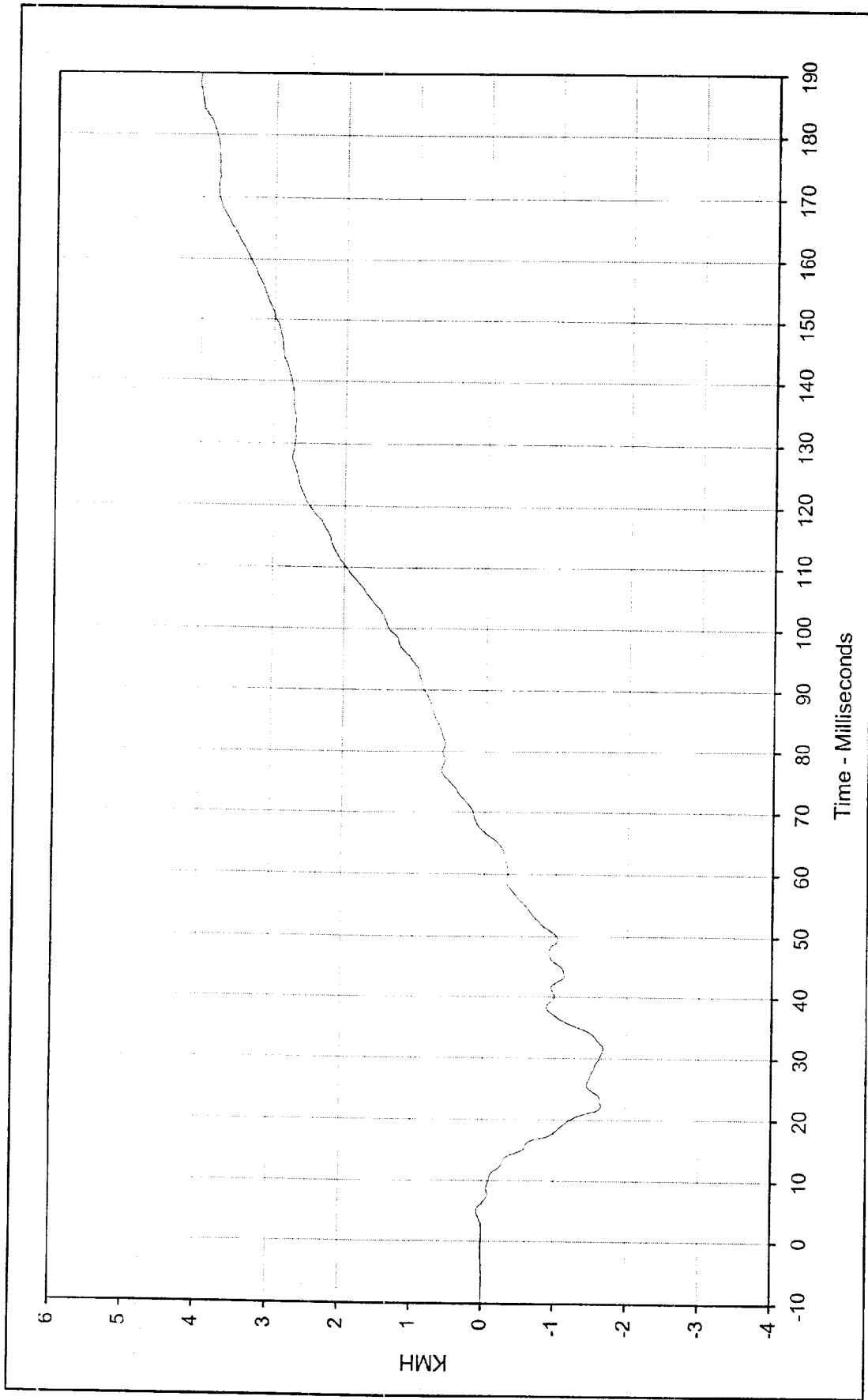
Curve Description: Right Sill at Rear Seat Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 26.1 at 102.3 Milliseconds
 Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-031





Curve Description: Right Sill at Rear Seat Z Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 4.4 at 35.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -4.6 at 17.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-032





Curve Description: Right Still at Rear Seat Z Velocity

Maximum Value: 4.0 at 188.5 Milliseconds

Minimum Value: -1.7 at 31.6 Milliseconds

SAE Filter Class: 180

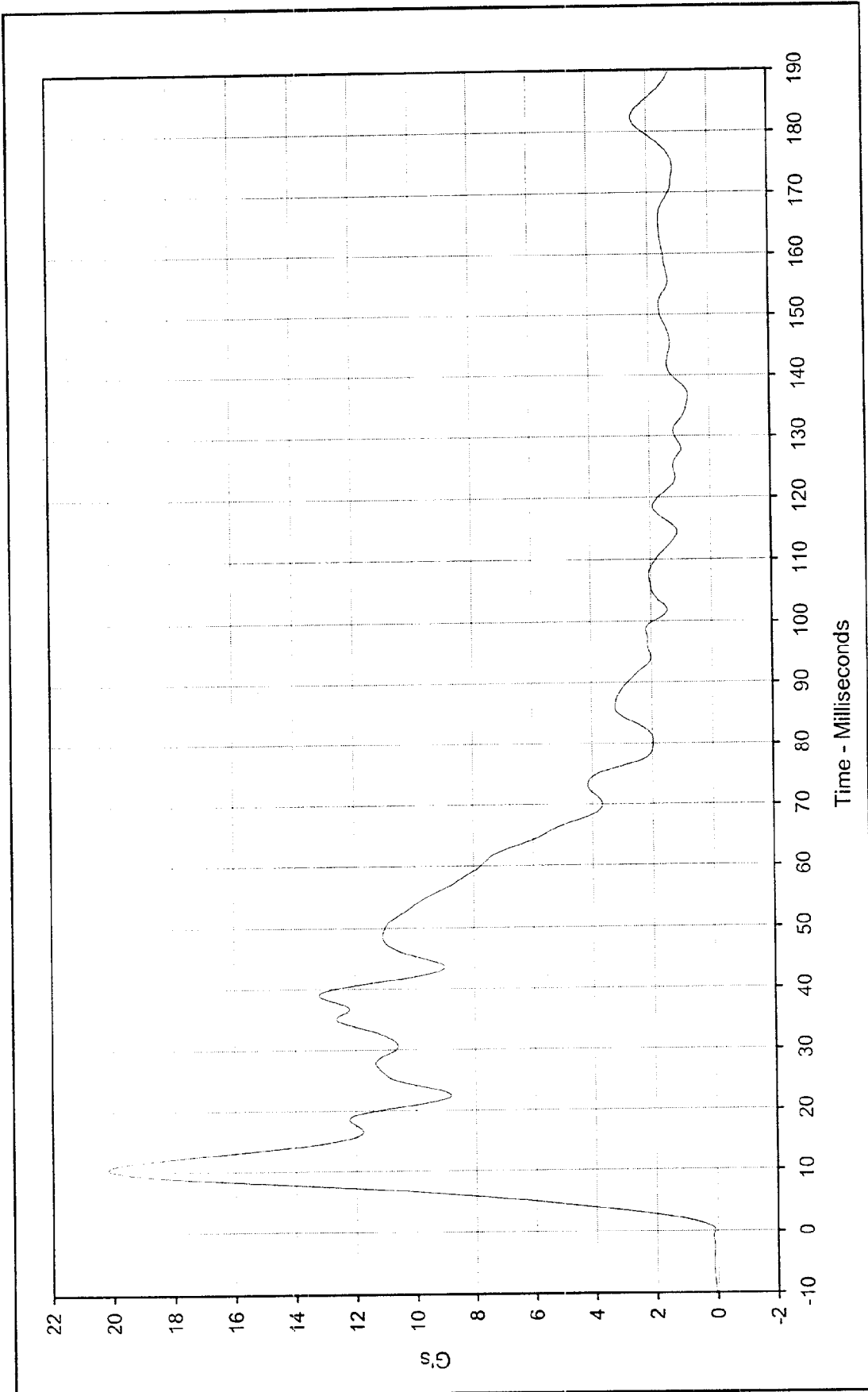
Date of Test: 03/03/00

Curve Number: IN1-032

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Test Vehicle: 2000 Cadillac Deville DHS

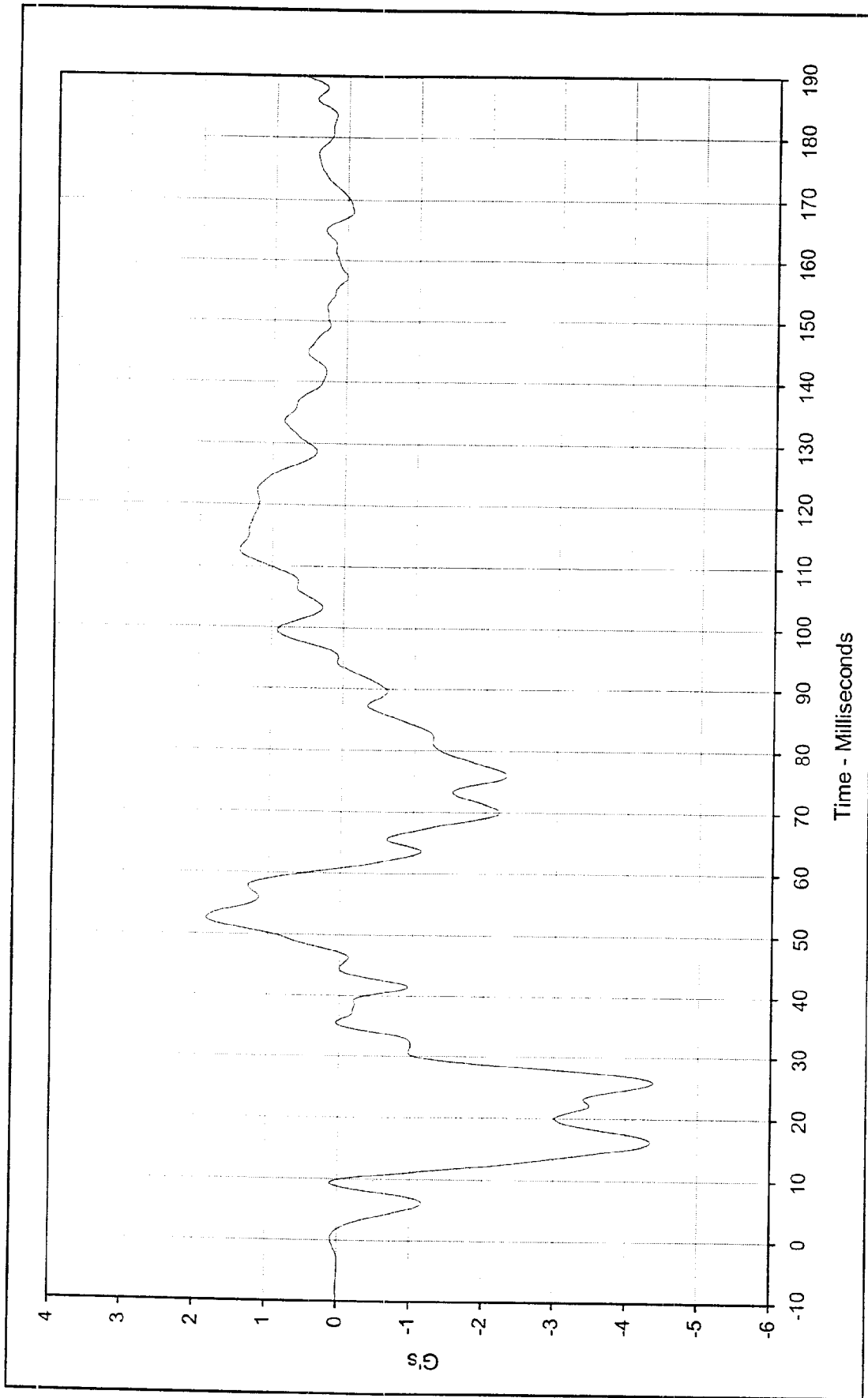




Curve Description: Right Sill at Rear Seat Resultant
 Maximum Value: 20.2 at 10.4 Milliseconds
 Minimum Value: 0.1 at 0.1 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: RES-030

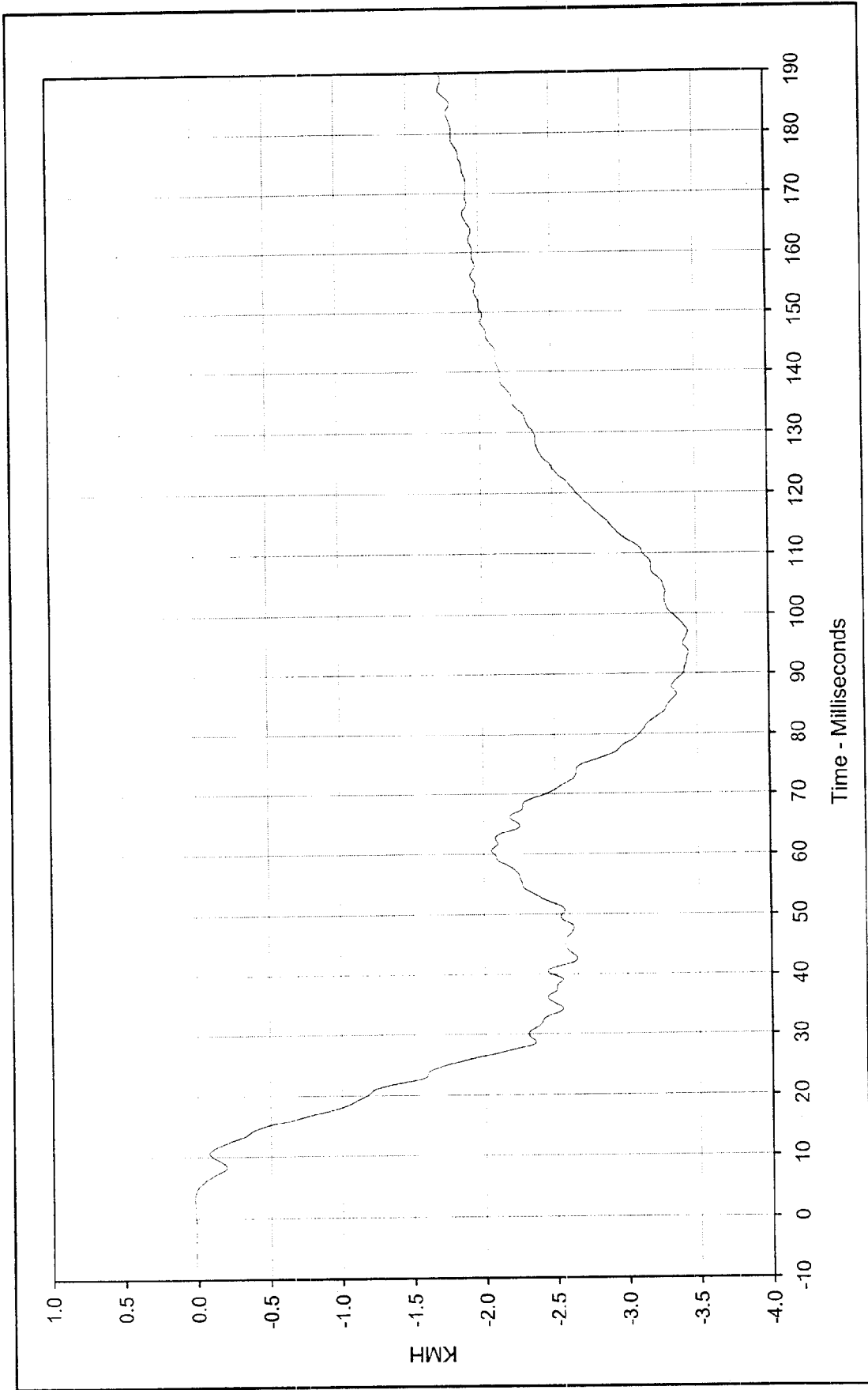
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





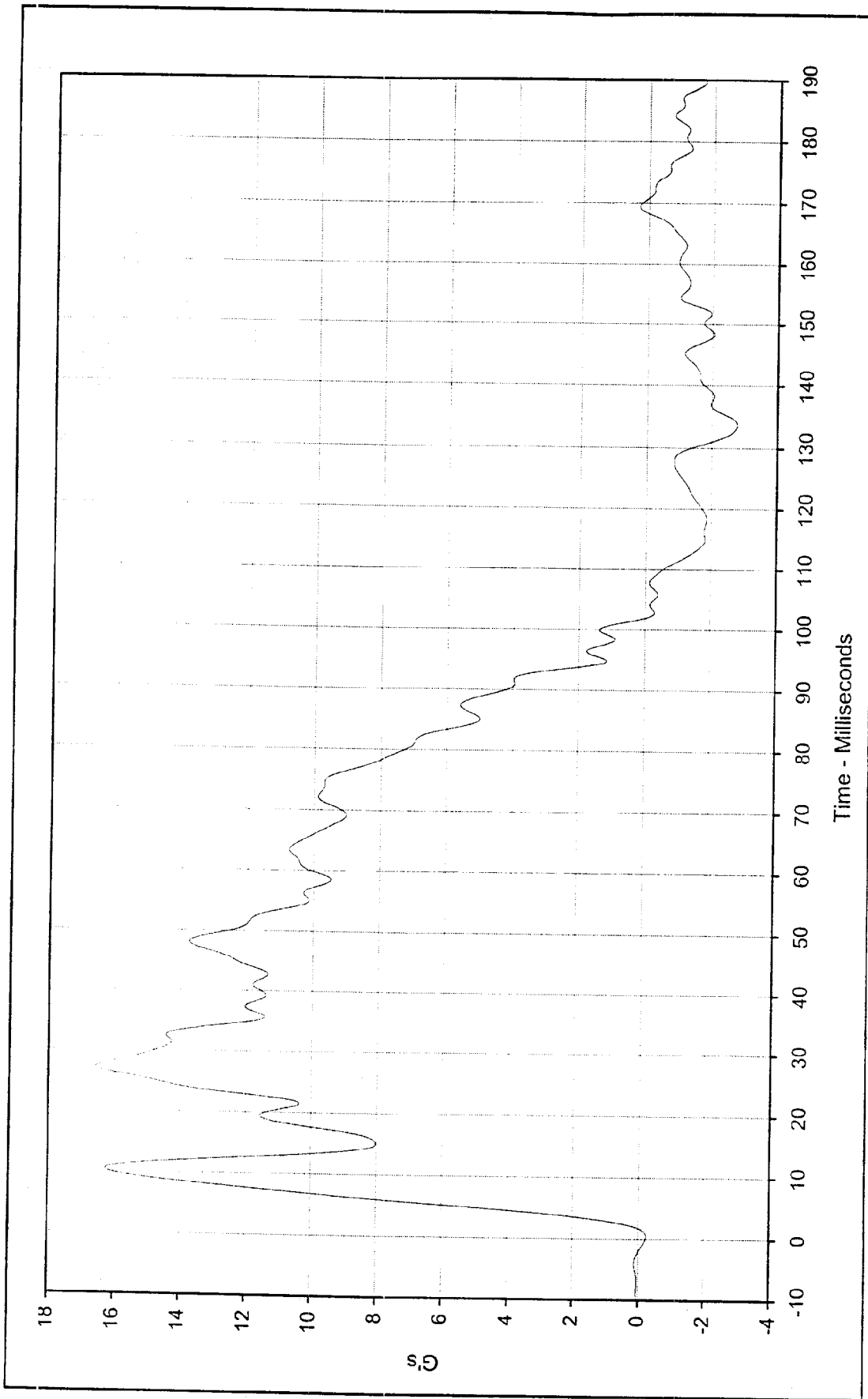
Curve Description: Rear Floor Above Axle X Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 1.9 at 52.6 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -4.4 at 26.0 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-033





Curve Description: Rear Floor Above Axle X Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 0.0 at 3.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -3.4 at 93.5 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-033

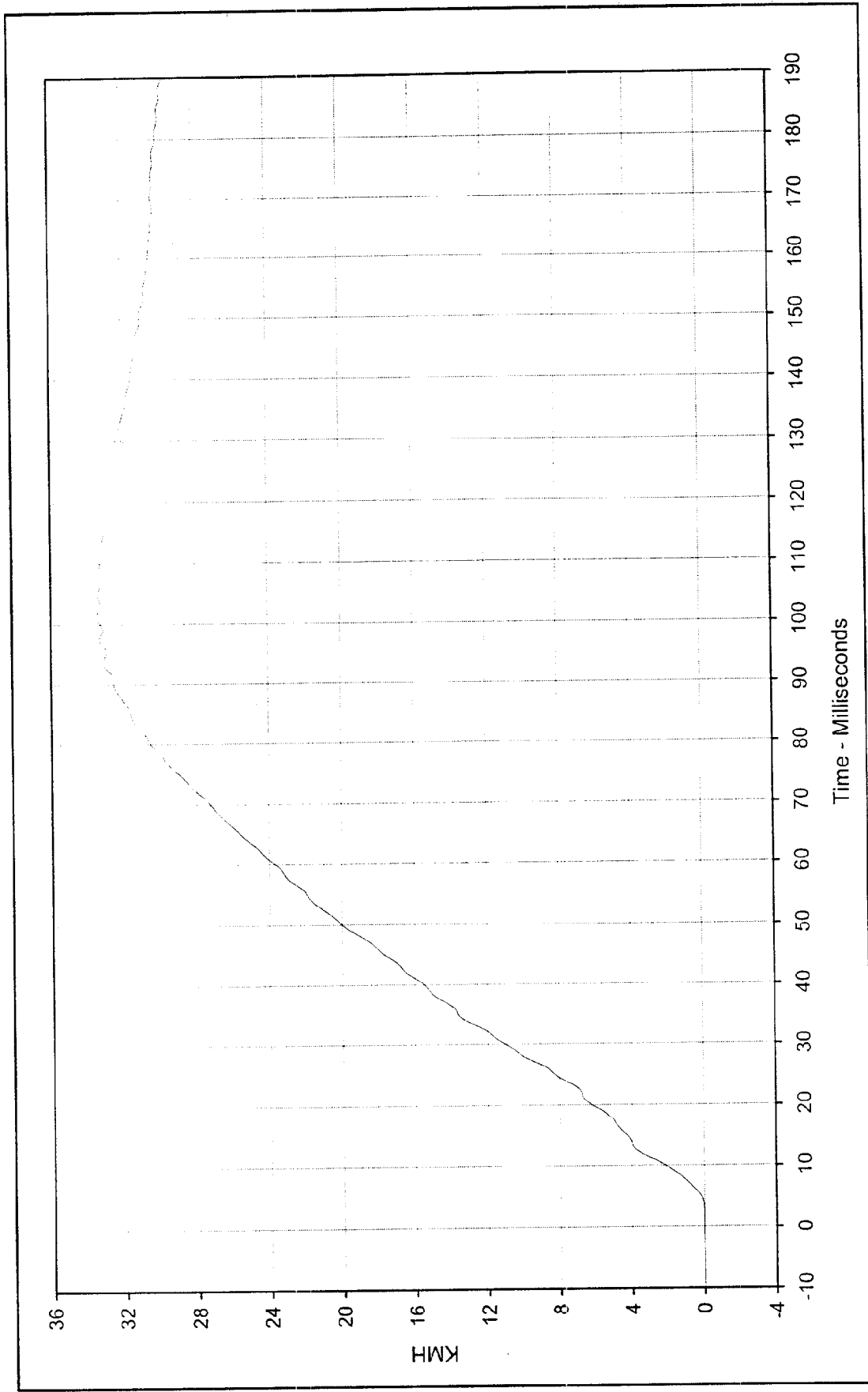




Curve Description: Rear Floor Above Axle Y
 Maximum Value: 16.6 at 27.1 Milliseconds
 Minimum Value: -2.8 at 133.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-034

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

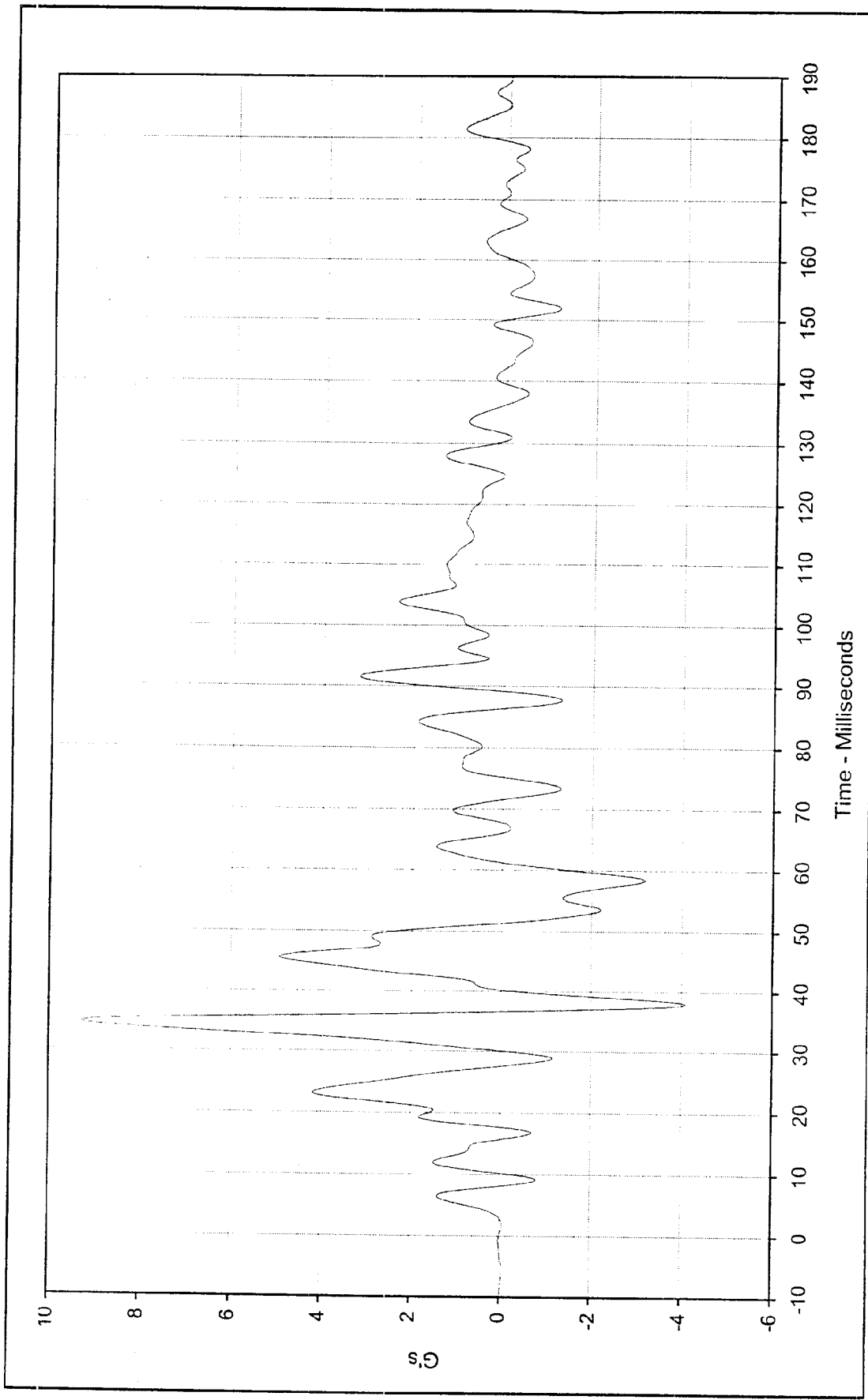




Curve Description: Rear Filter Above Axle Y Velocity
 Maximum Value: 33.4 at 101.2 Milliseconds
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-034

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Rear Floor Above Axle Z

Test Program: 55/28 Earth Side Impact NCAP No.: MY0103

Test Vehicle: 2000 Cadillac Deville DHS

Maximum Value: 9.3 at 34.6 Milliseconds

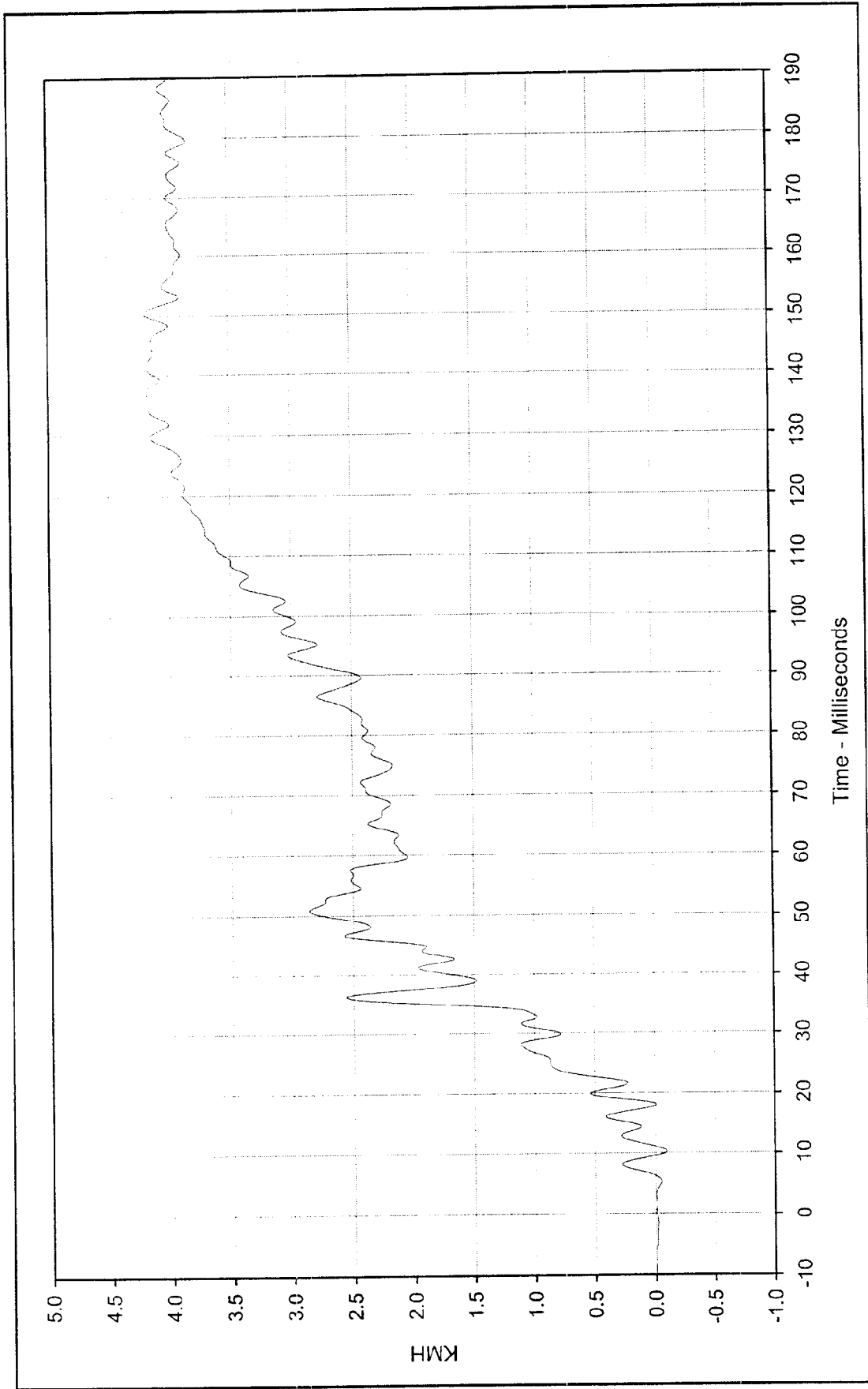
Minimum Value: -4.1 at 38.0 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

Curve Number: FIL-035





Curve Description: Rear Floor Above Aisle 7 Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 4.2 at 150.5 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

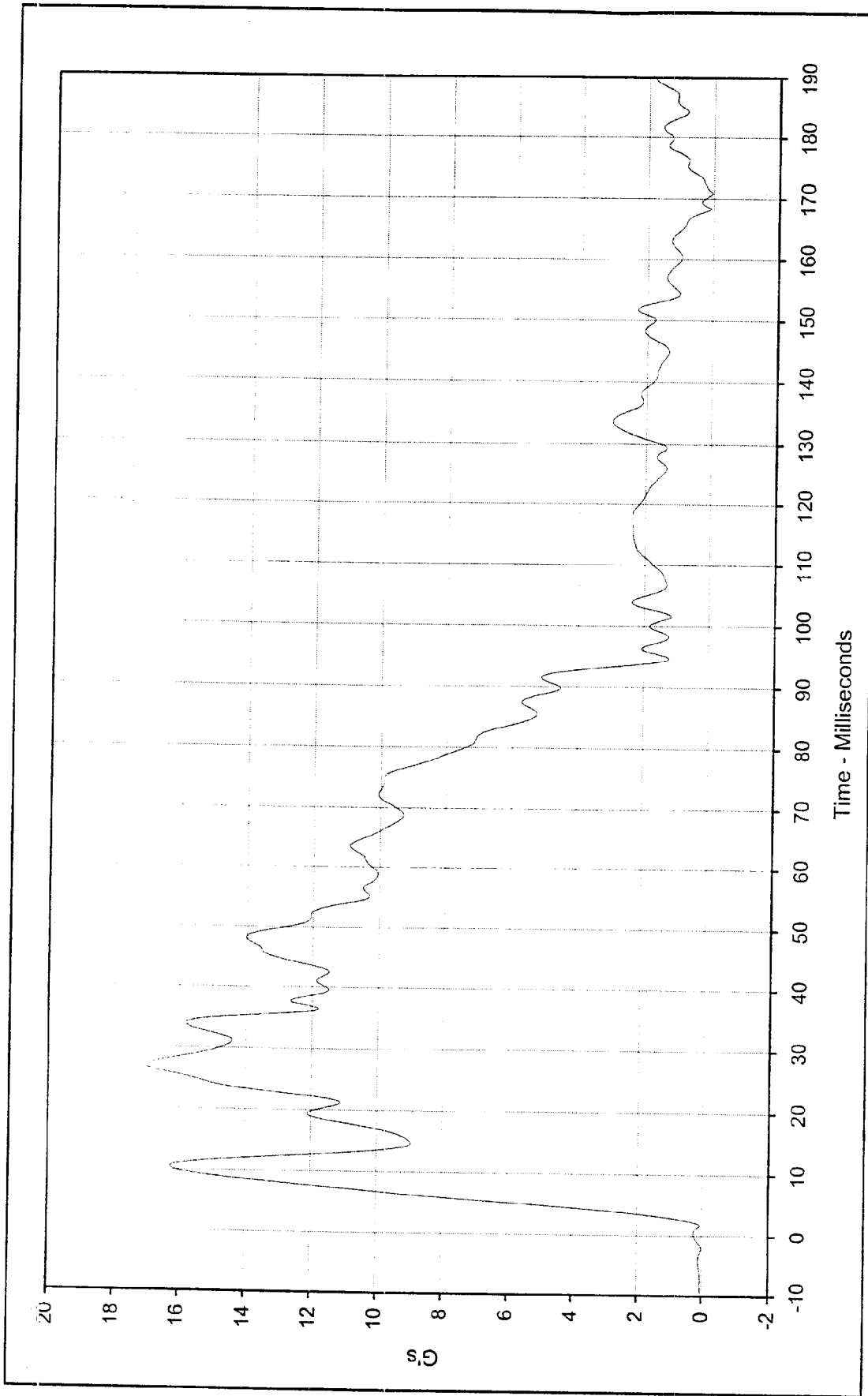
Minimum Value: -0.1 at 10.3 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-035

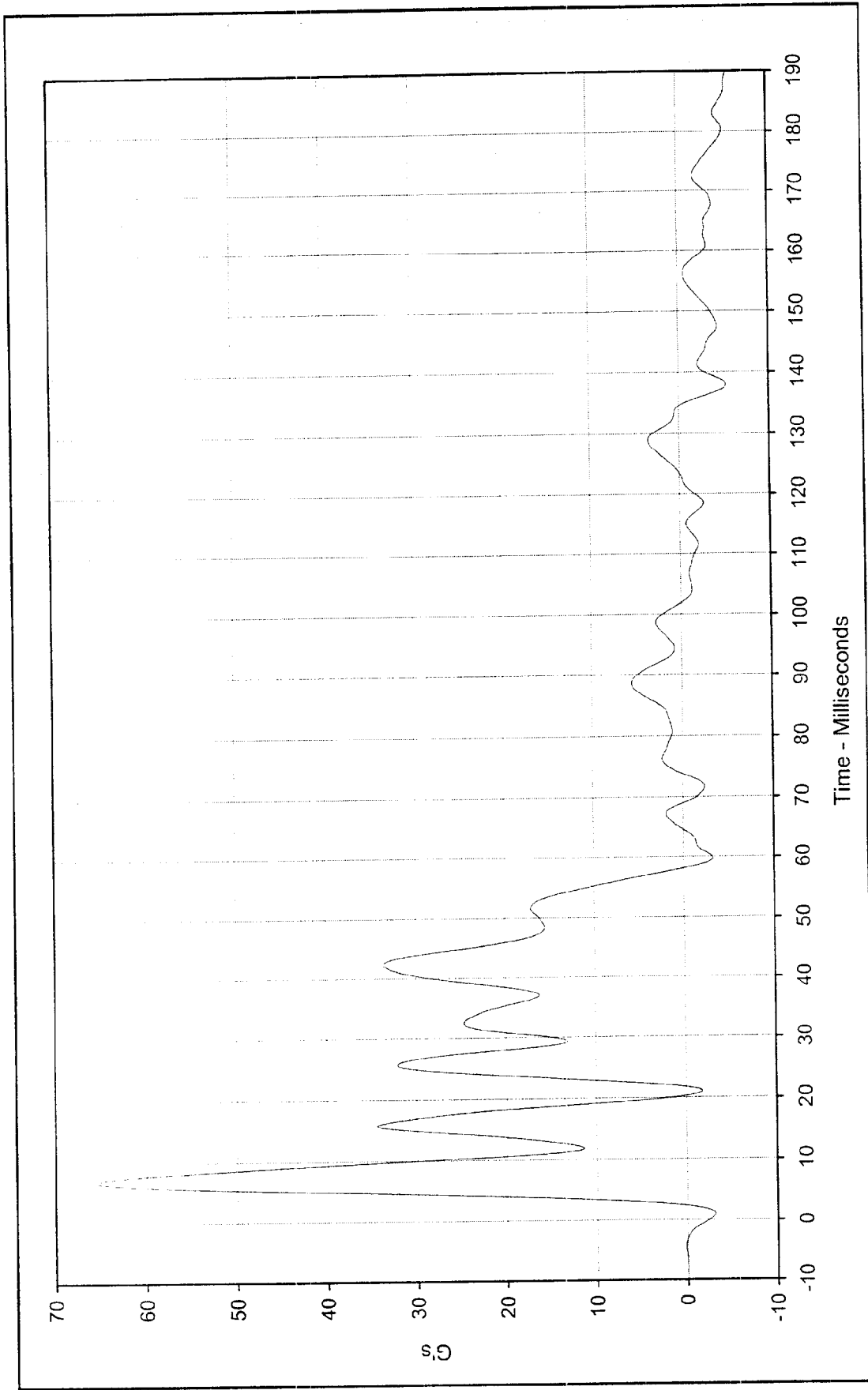




Curve Description: Rear Floor Above Axle Postulant
 Maximum Value: 17.1 at 26.9 Milliseconds
 Minimum Value: 0.0 at 170.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: RES-033

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

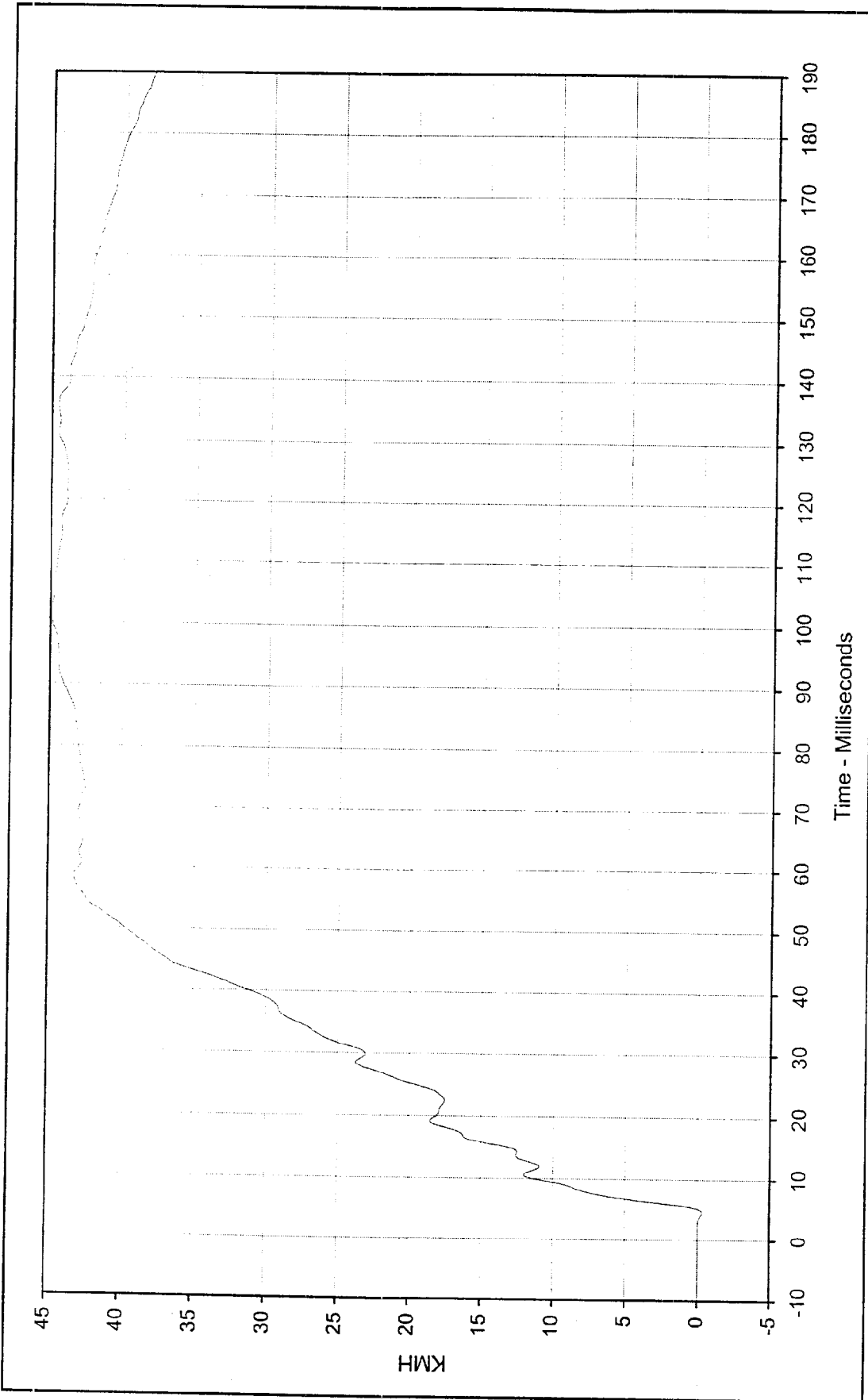




Time - Milliseconds

Curve Description:	Left Side of Rear Door Y	Test Program:	55.08 km/h Side Impact NCAP No. MY0103
Maximum Value:	65.5 at 6.8 Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS
Minimum Value:	-5.6 at 189.9 Milliseconds		
SAE Filter Class:	60		
Date of Test:	03/03/00		
Curve Number:	FIL-036		





Curve Description: Left Side of Car, Deer Velocity

Maximum Value: 44.9 at 102.1 Milliseconds

Minimum Value: -0.3 at 4.6 Milliseconds

SAE Filter Class: 180

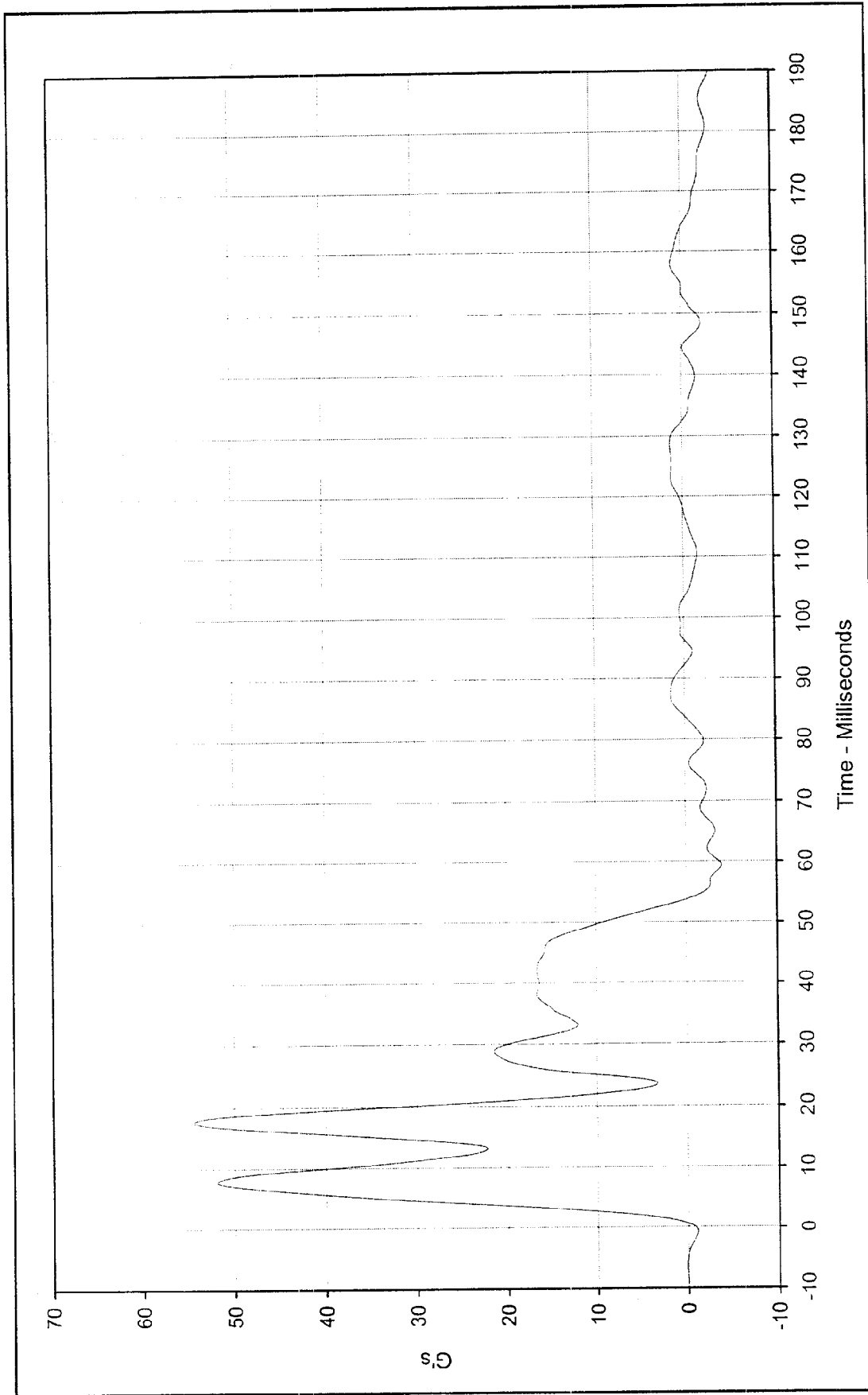
Date of Test: 03/03/00

Curve Number: IN1-036

Test Program: 2000 km/h Side Impact NCAP No. MY0103

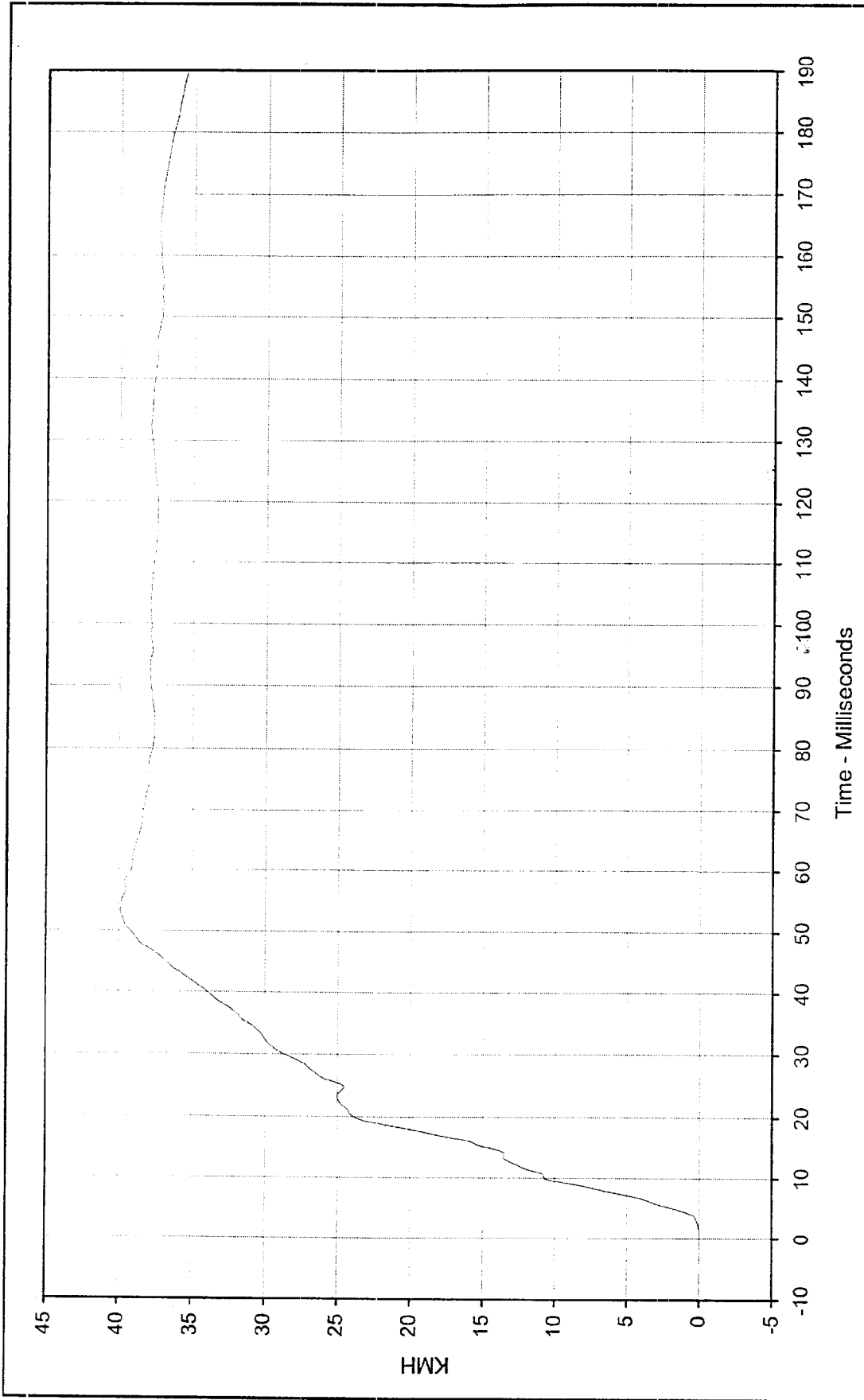
Test Vehicle: 2000 Cadillac Deville DHS





Curve Description:	Left car at Front Drive V		Test Program:	FE98 km/h Side Impact NCAP	Mo: MY0103
Maximum Value:	54.5	at 17.6	Test Vehicle:	2000 Cadillac Deville DHS	
Minimum Value:	-3.9	at 59.4			
SAE Filter Class:	60				
Date of Test:	03/03/00				
Curve Number:	FIL-037				

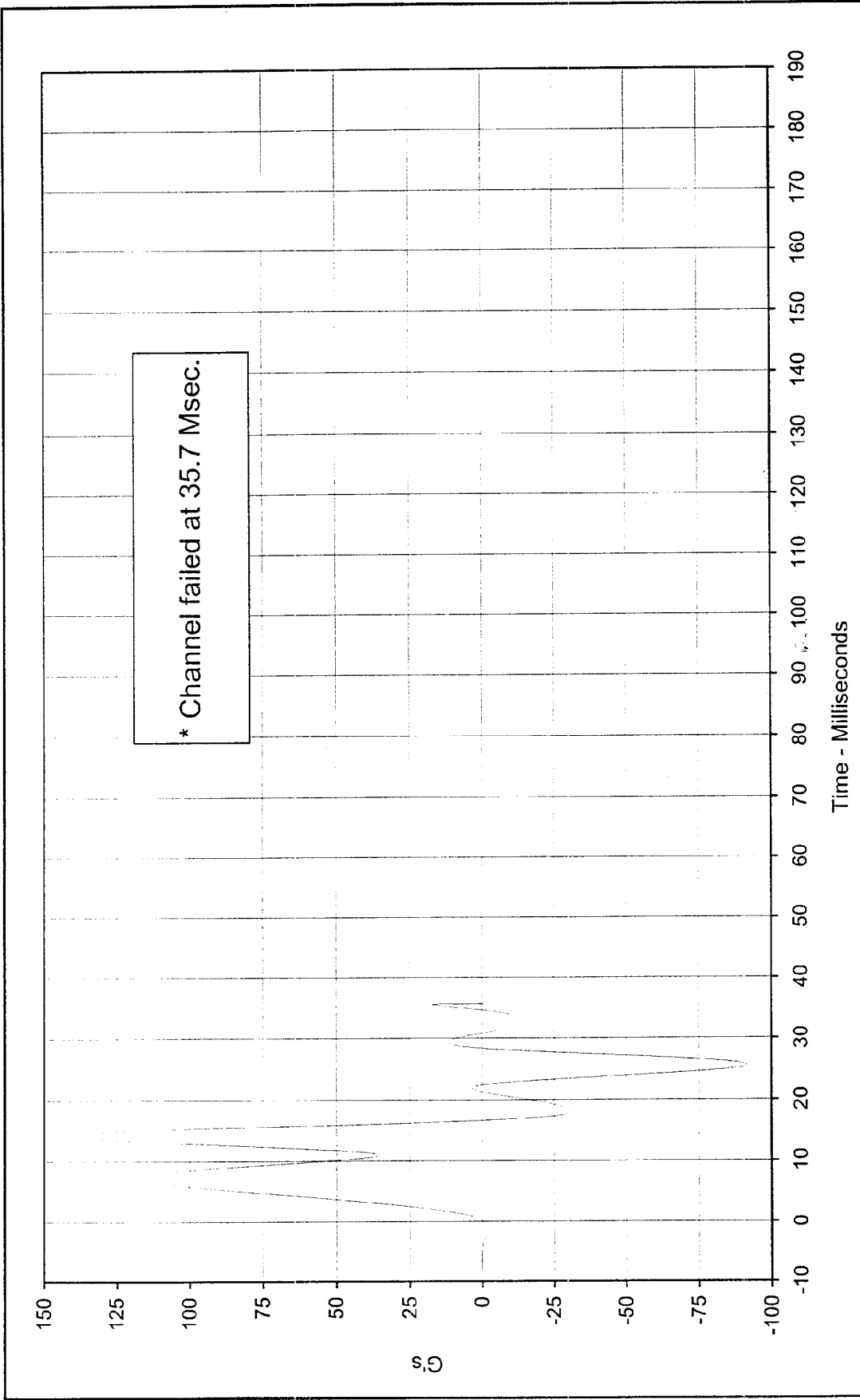




Curve Description: Left Coll. at Front Door Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

Maximum Value: 39.9 at 53.3 Milliseconds
 Minimum Value: 0.0 at 0.5 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-037

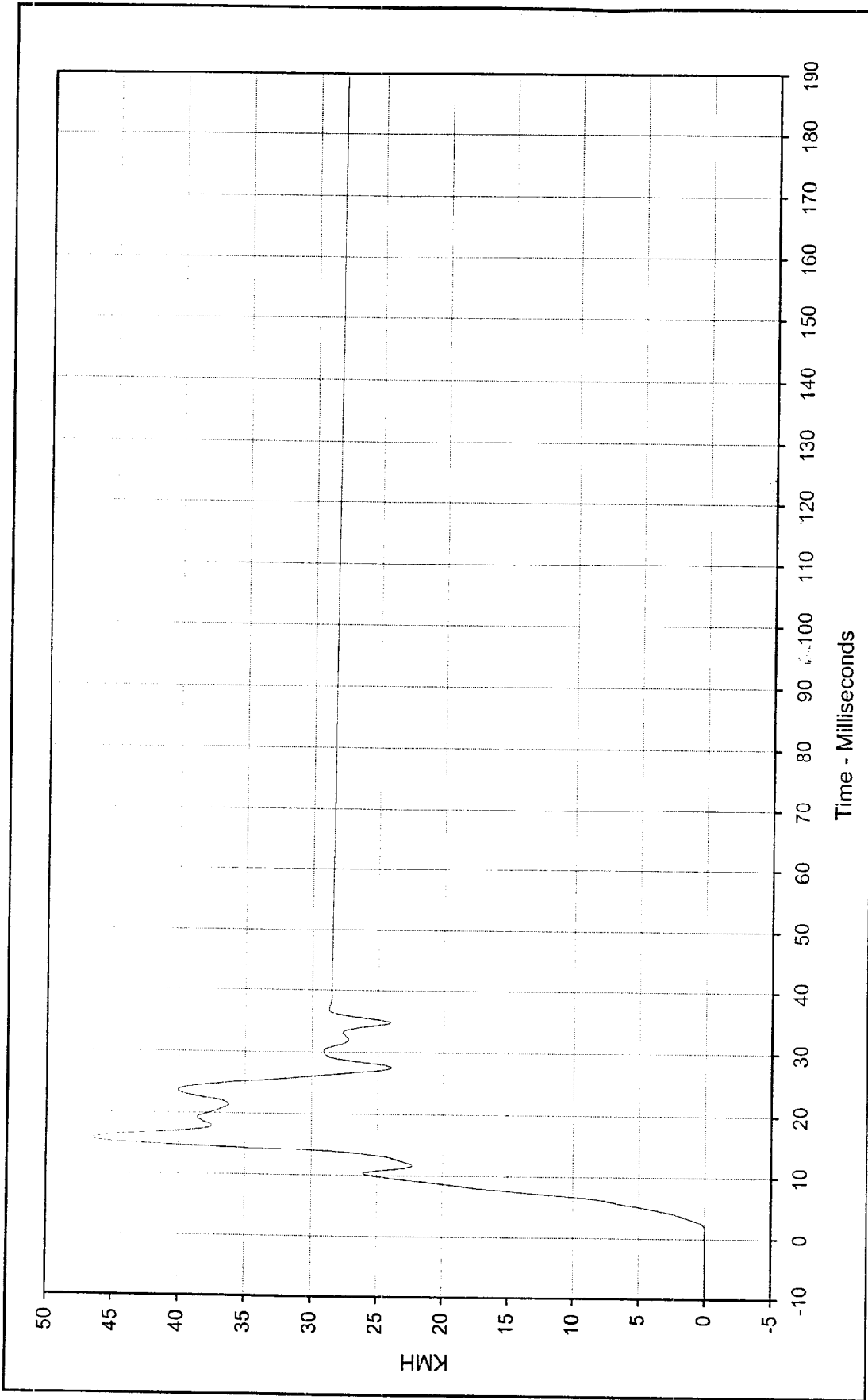




Curve Description:	Left Front Door Centerline Y	*	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0103
Maximum Value:	141.6	at 14.2	Test Vehicle:	2000 Cadillac Deville DHS	
Minimum Value:	-91.5	at 25.6			
SAE Filter Class:	60				
Date of Test:	03/03/00				
Curve Number:	FIL-038				

* Channel failed at 35.7 Msec.

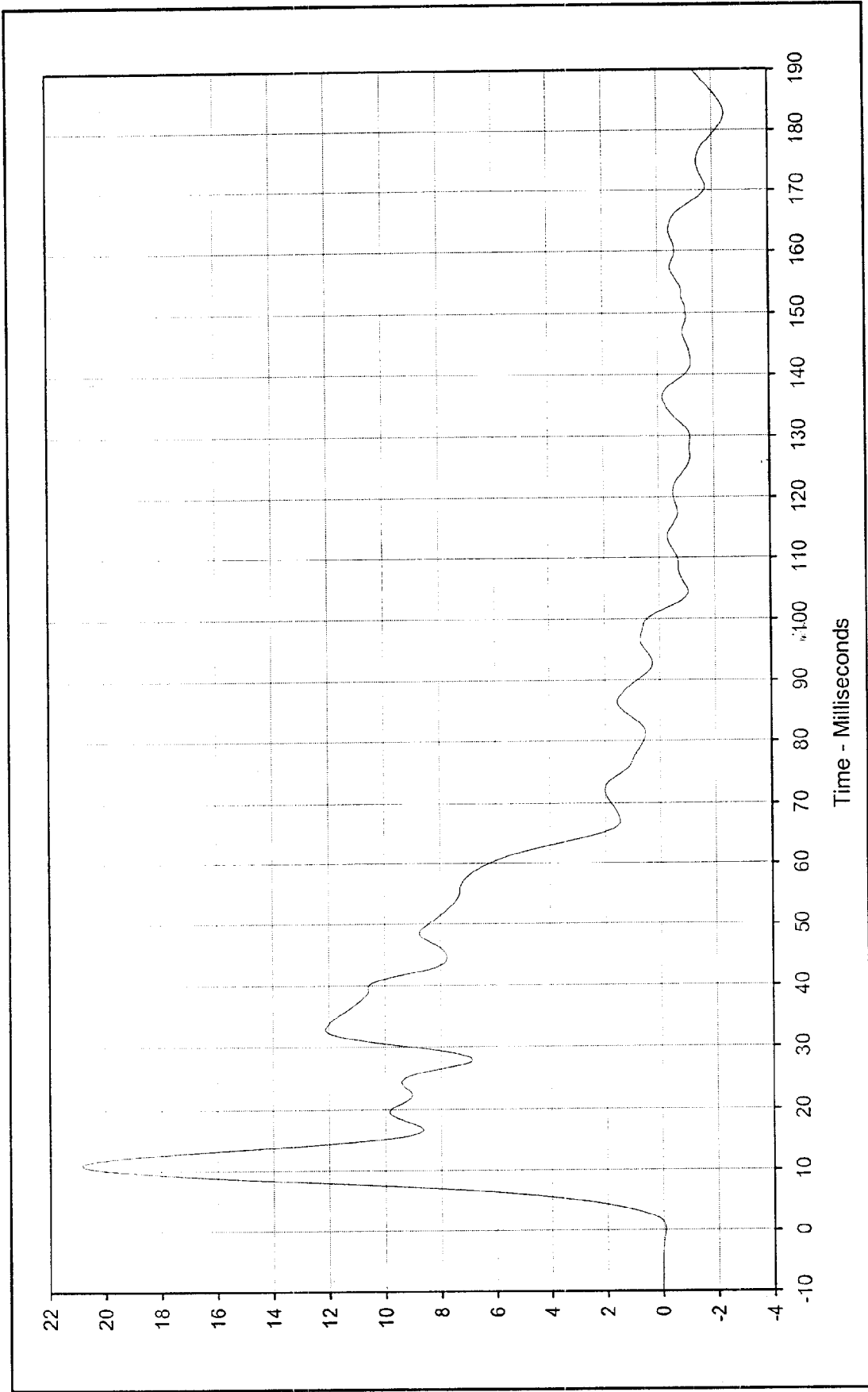




Curve Description: 1.6 Front Drive Clutch Test Program: FM200 Launch Side Impact NCAP - Inc. MY0103
 Maximum Value: 46.4 at 15.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.0 at 1.4 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-038



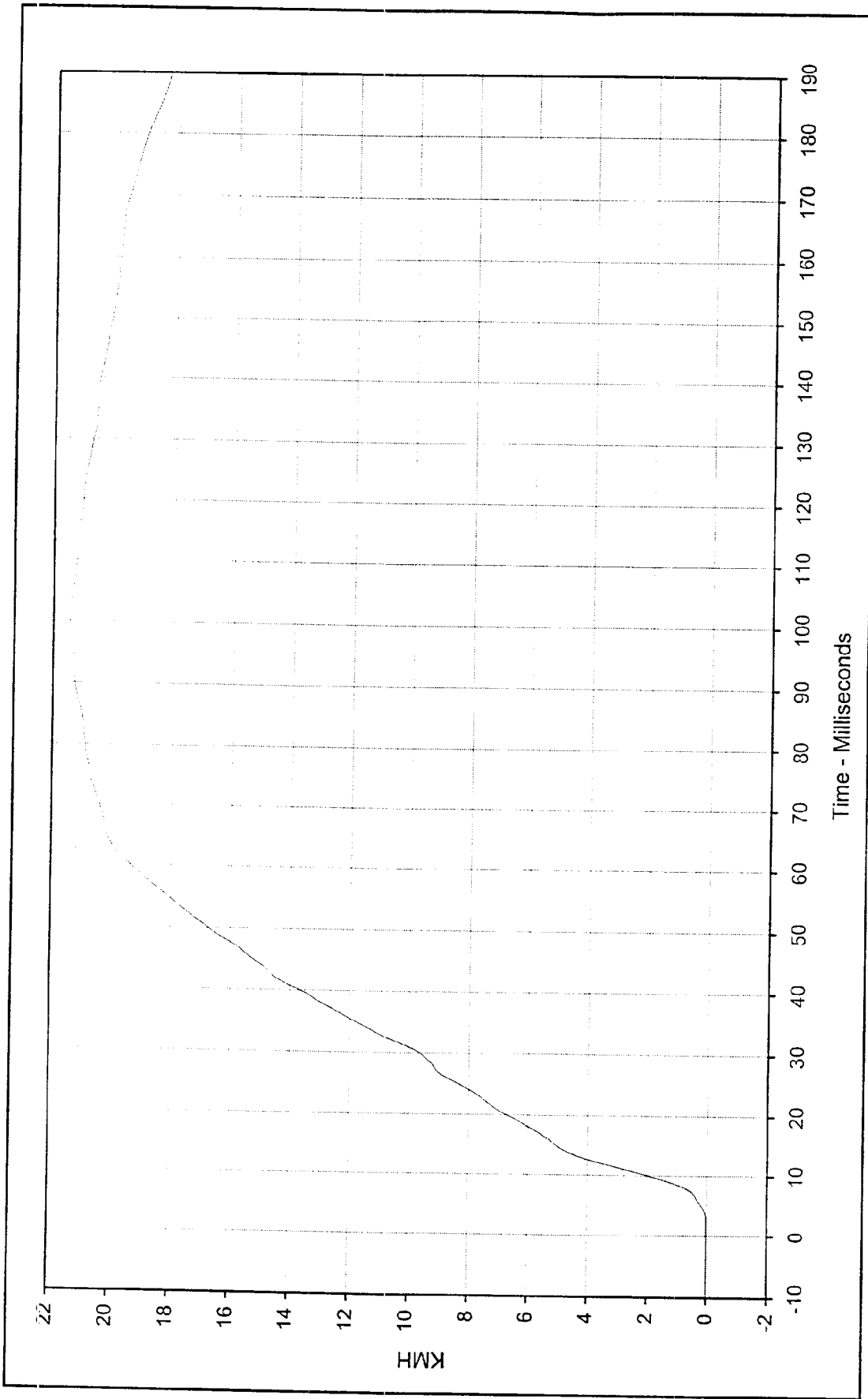
* Channel failed at 35.7 Msec.



Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

Curve Description: Right Rear Occ. Compartment Y
 Maximum Value: 20.8 at 11.0 Milliseconds
 Minimum Value: -2.4 at 182.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-039

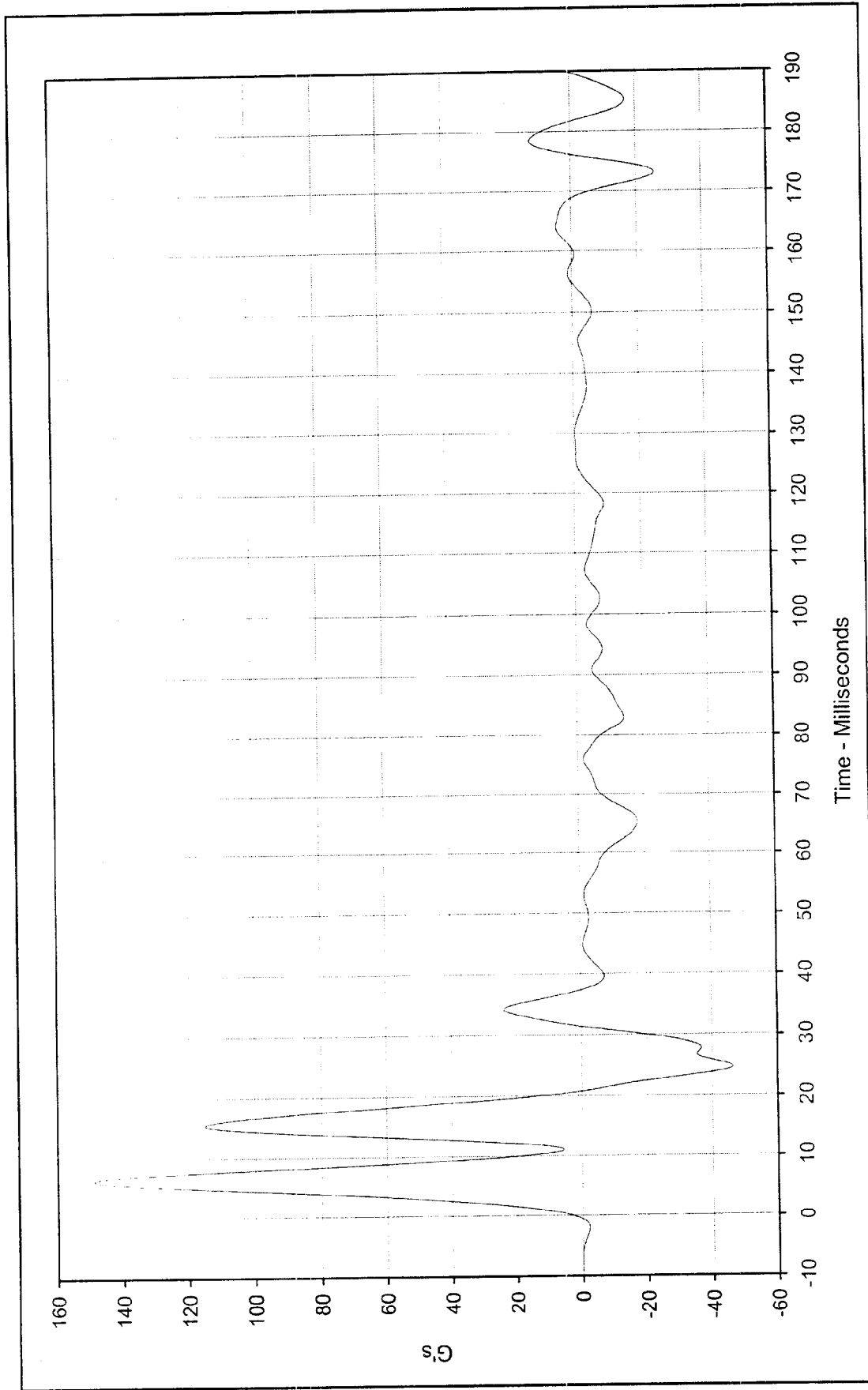




Curve Description: Right Rear Occ. Comp. Y Velocity
 Maximum Value: 21.5 at 101.5 Milliseconds
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-039

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Left Front Door Mid Post Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 149.0 at 6.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

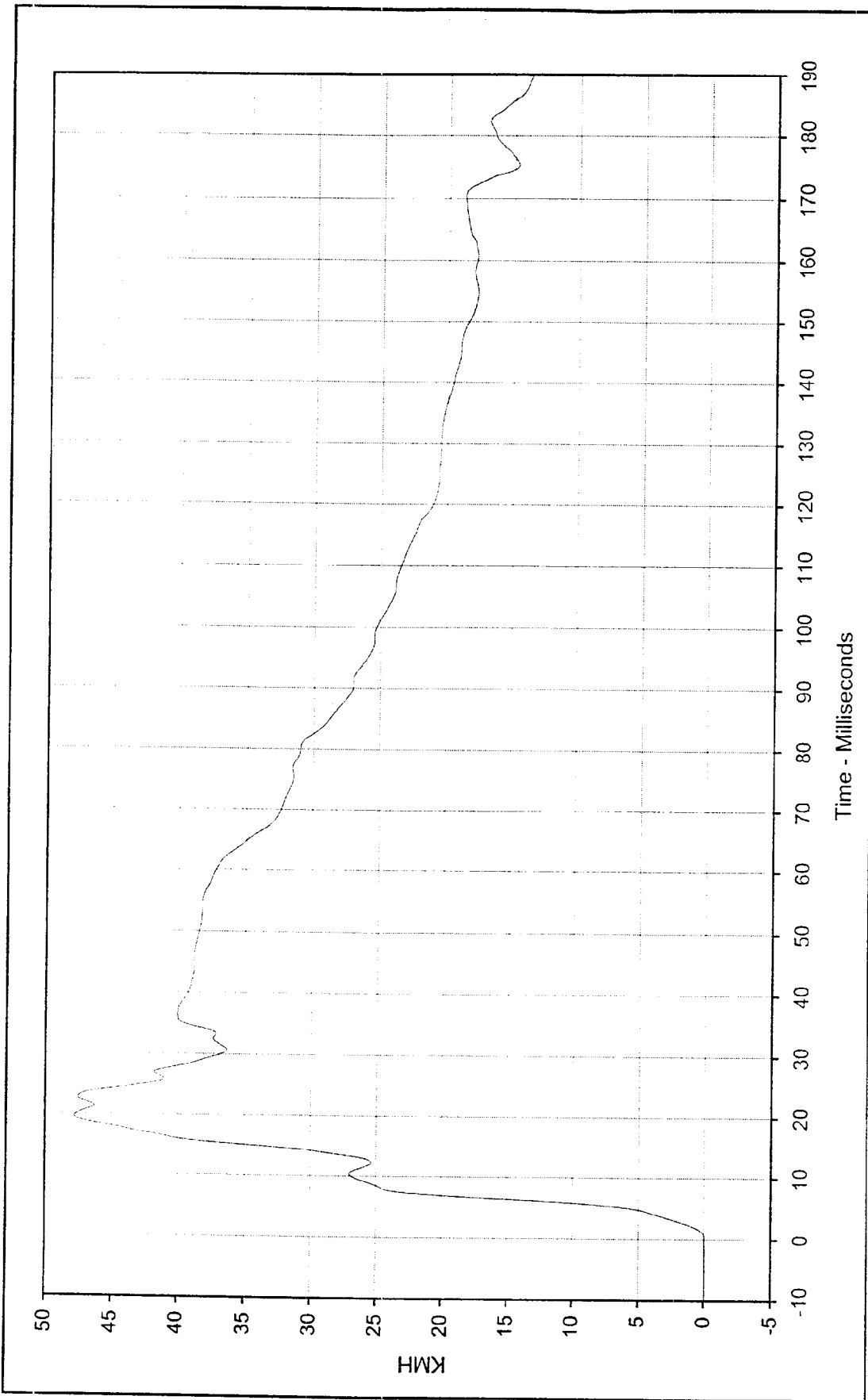
Minimum Value: -46.3 at 24.7 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

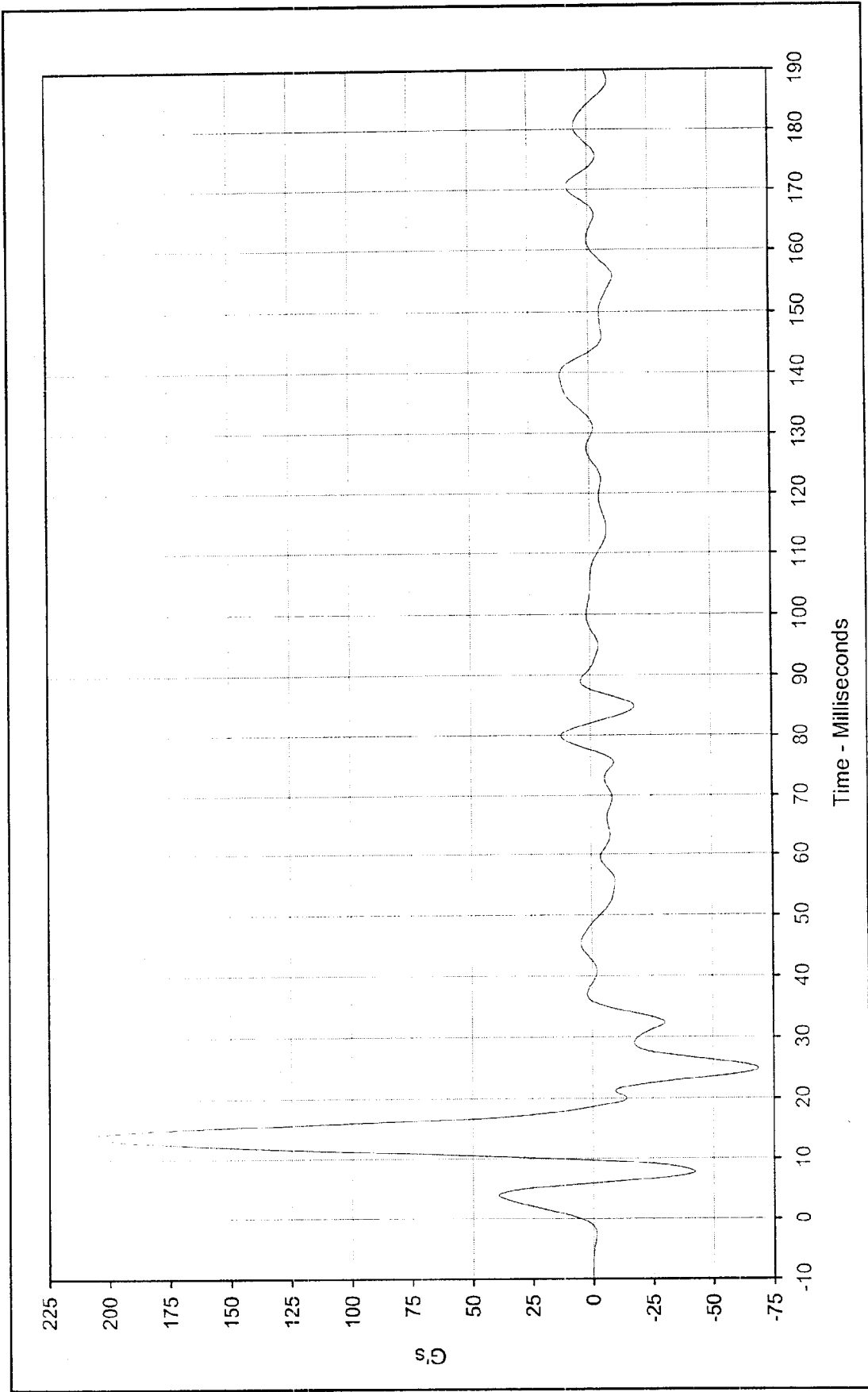
Curve Number: FIL-040





Curve Description: Left Front Door Mid-Rear Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 47.8 at 19.6 Milliseconds
 Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-040





Curve Description: Left Front Door Upper Cl. Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 207.3 at 13.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

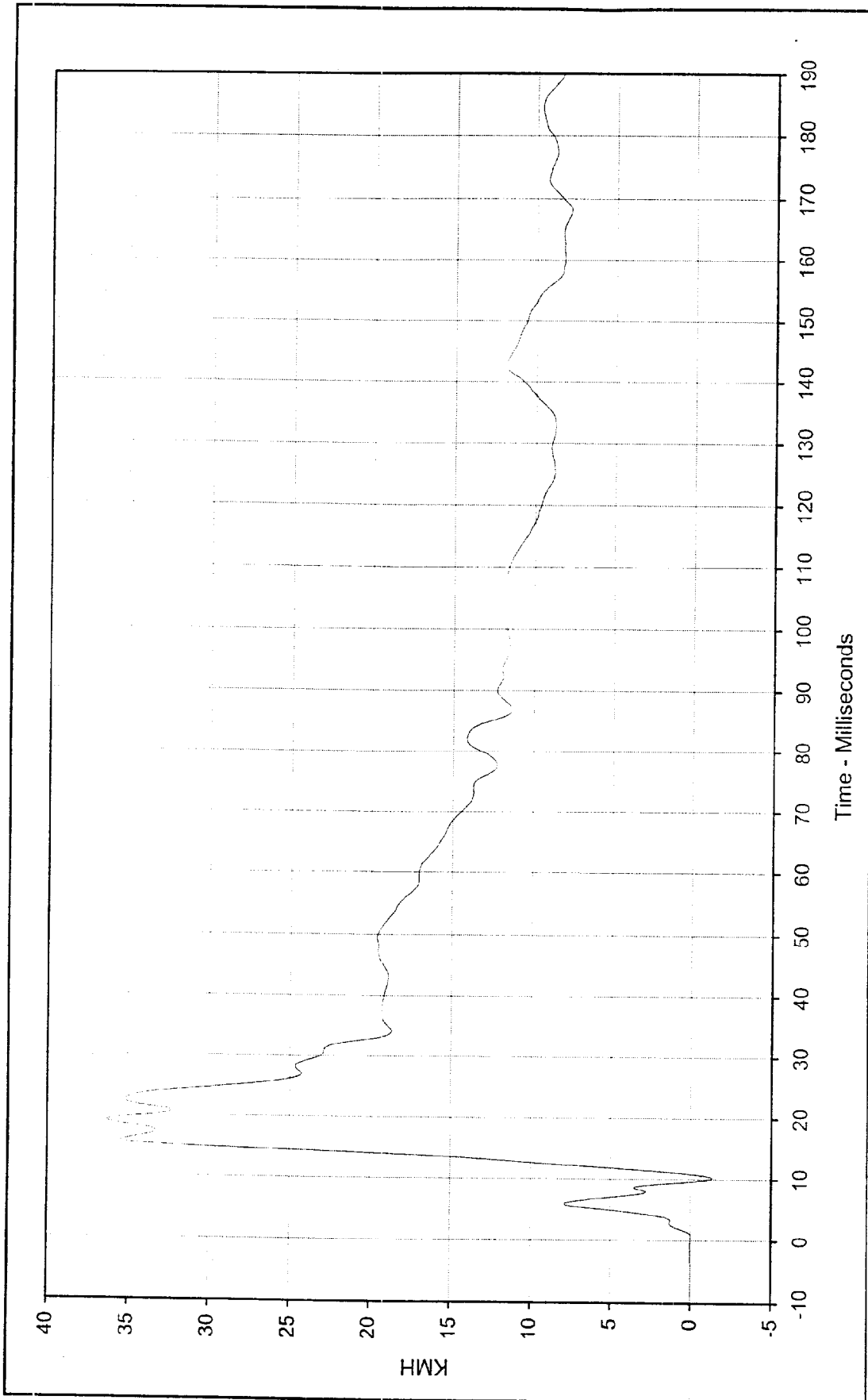
Minimum Value: -68.8 at 24.9 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

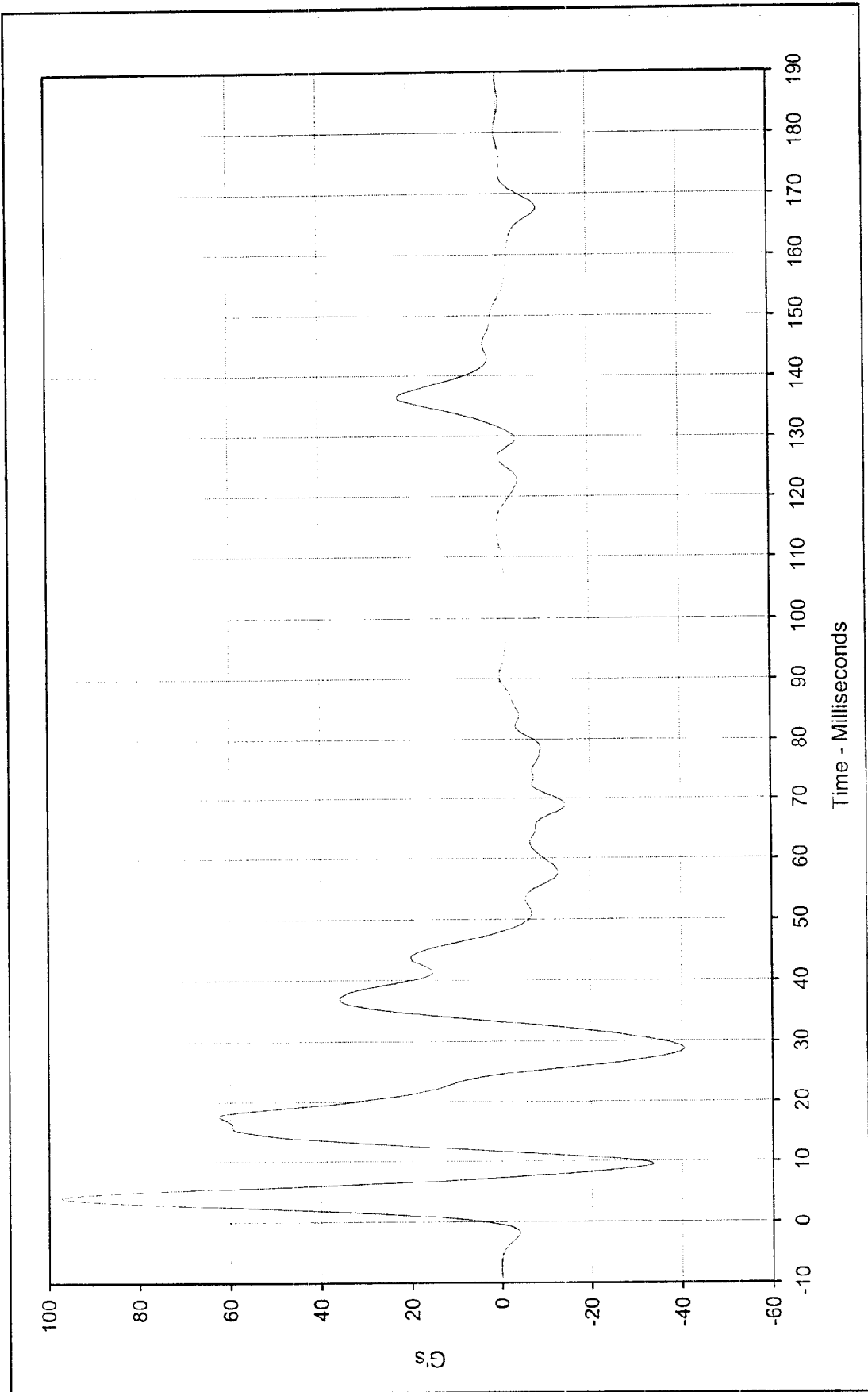
Curve Number: FIL-041





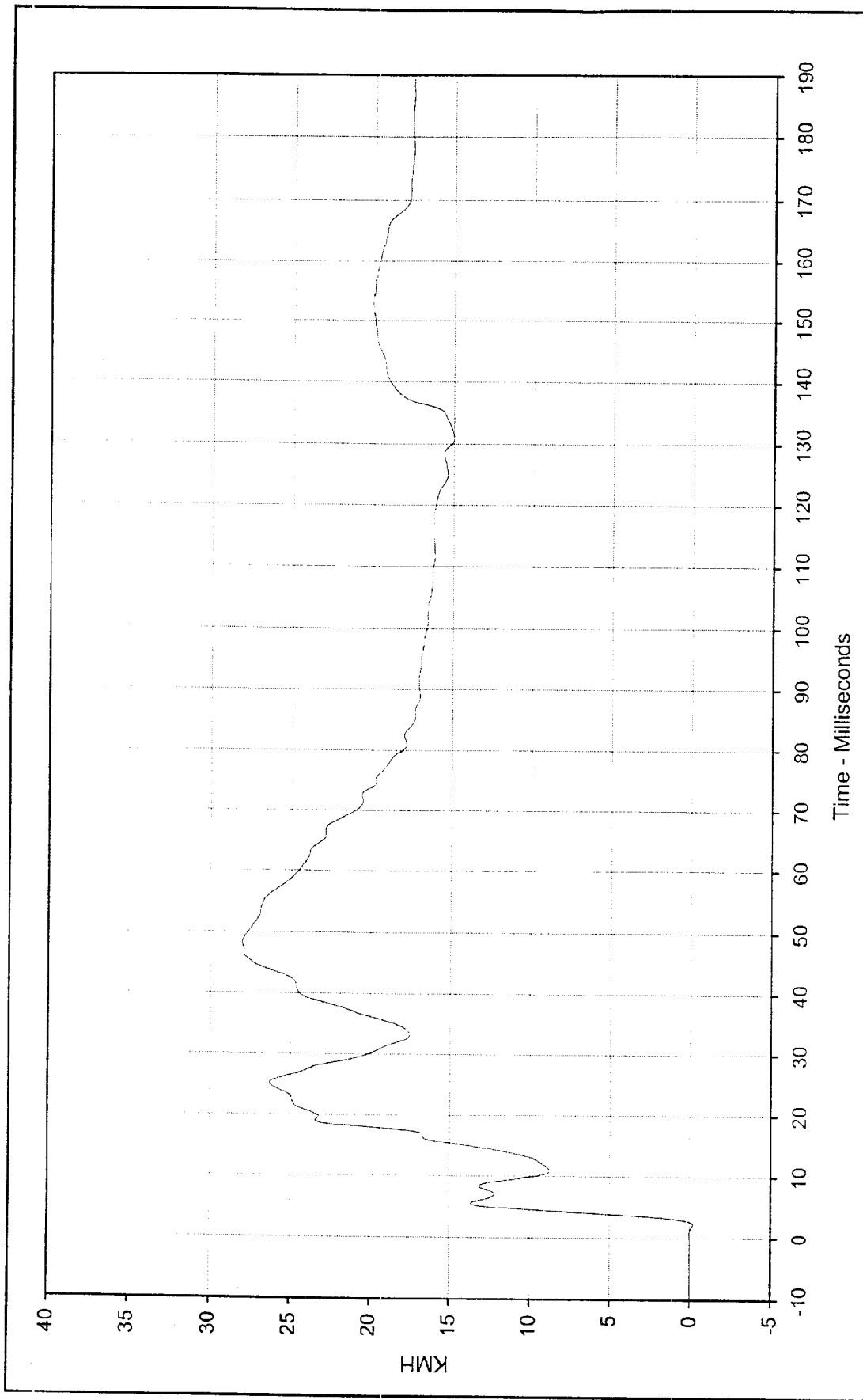
Curve Description: Left Front Door Upper CL Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 36.3 at 19.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -1.3 at 10.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-041





Curve Description: Left Rear Door Mid Rear Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 97.3 at 4.0 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -40.7 at 28.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-042





Curve Description: Left Rear Door Mid Rear Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 28.0 at 48.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

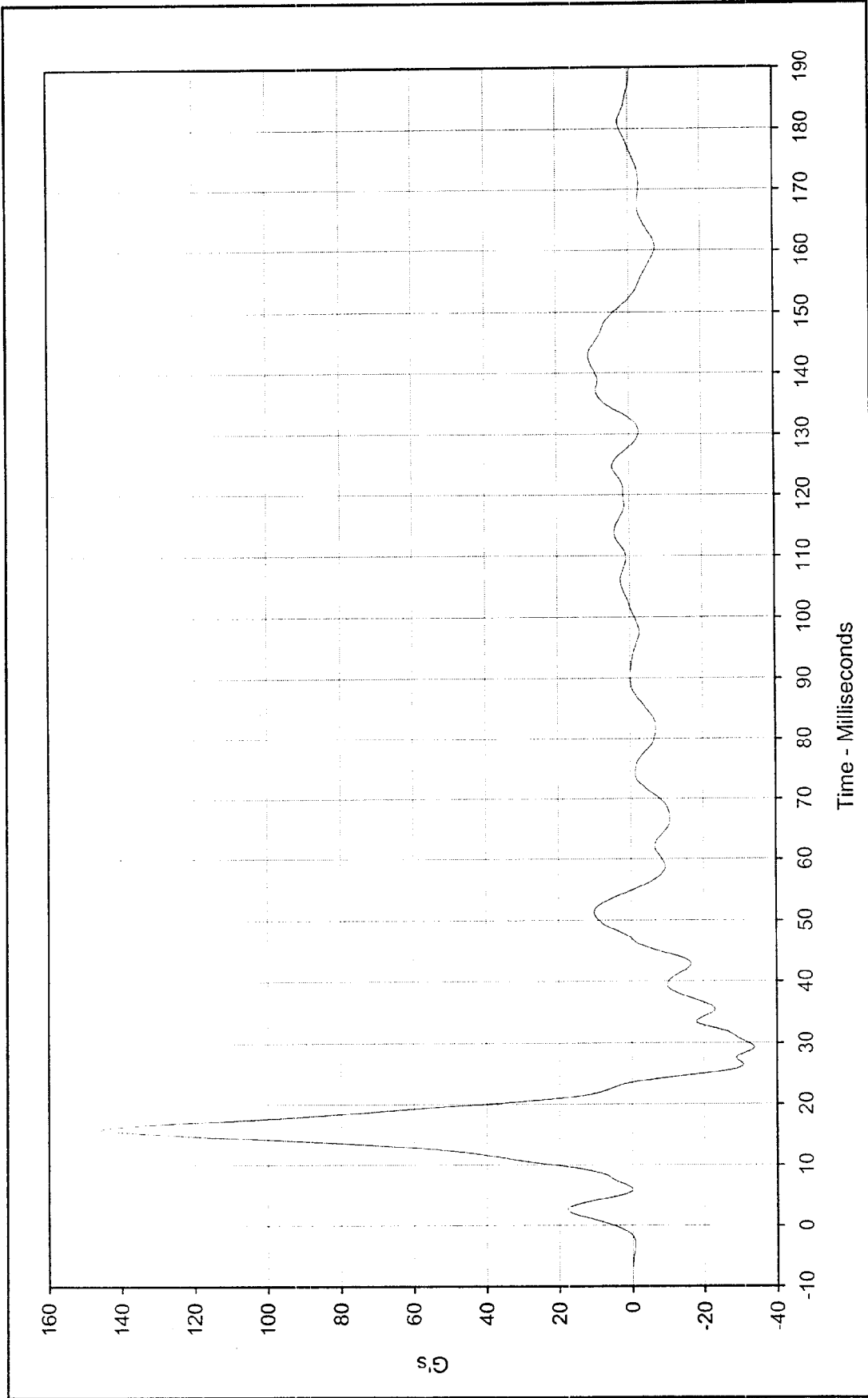
Minimum Value: -0.2 at 2.3 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

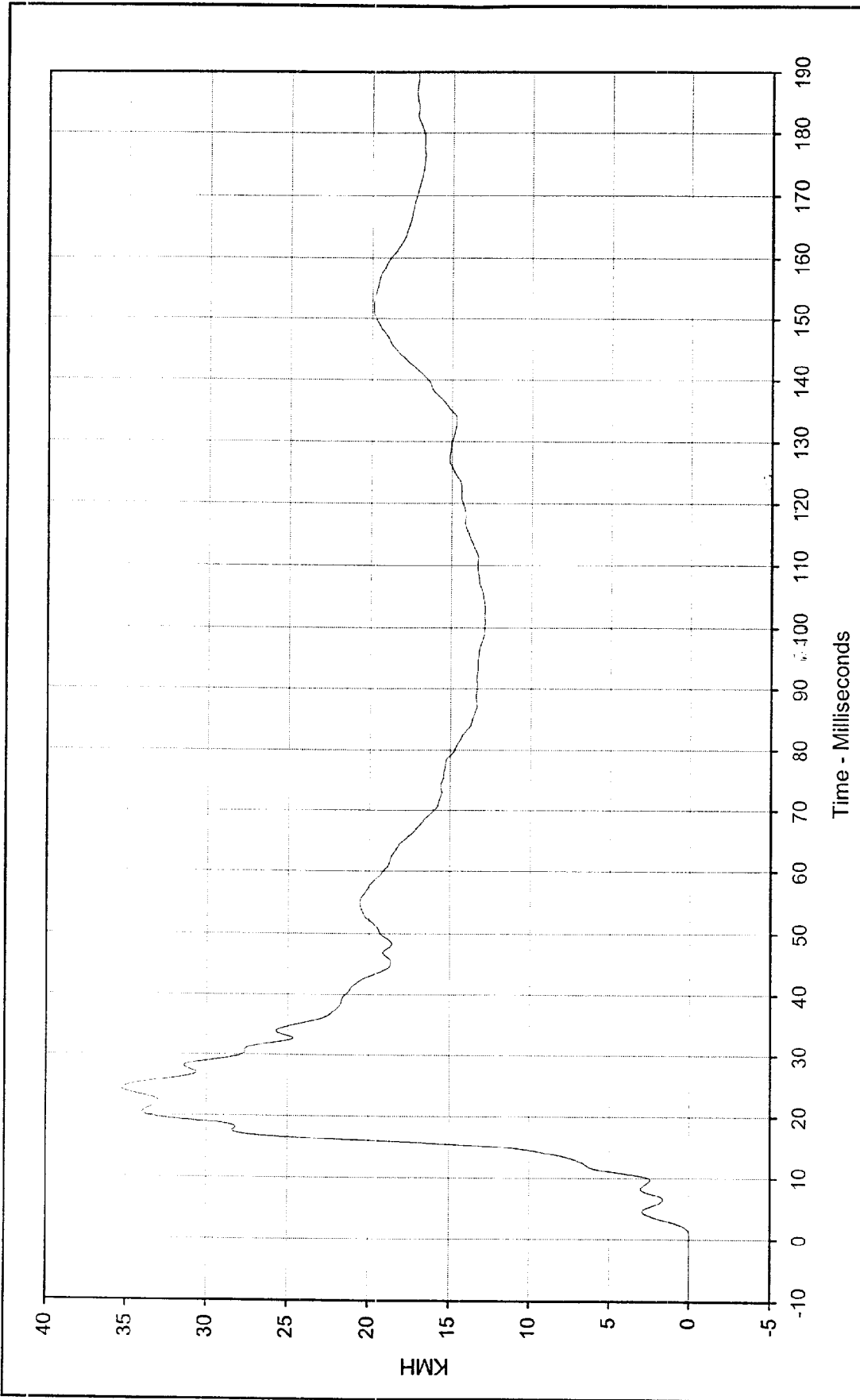
Curve Number: IN1-042





Curve Description: Left Rear Door Upper CL Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 145.7 at 16.0 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -33.7 at 29.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-043





Time - Milliseconds

Curve Description: Left Rear Door Upper CL Y Velocity

Test Program: 55/28 km/h Side Impact NCAP

Maximum Value: 35.3 at 24.4 Milliseconds

No.: MY0103

Test Vehicle: 2000 Cadillac Deville DHS

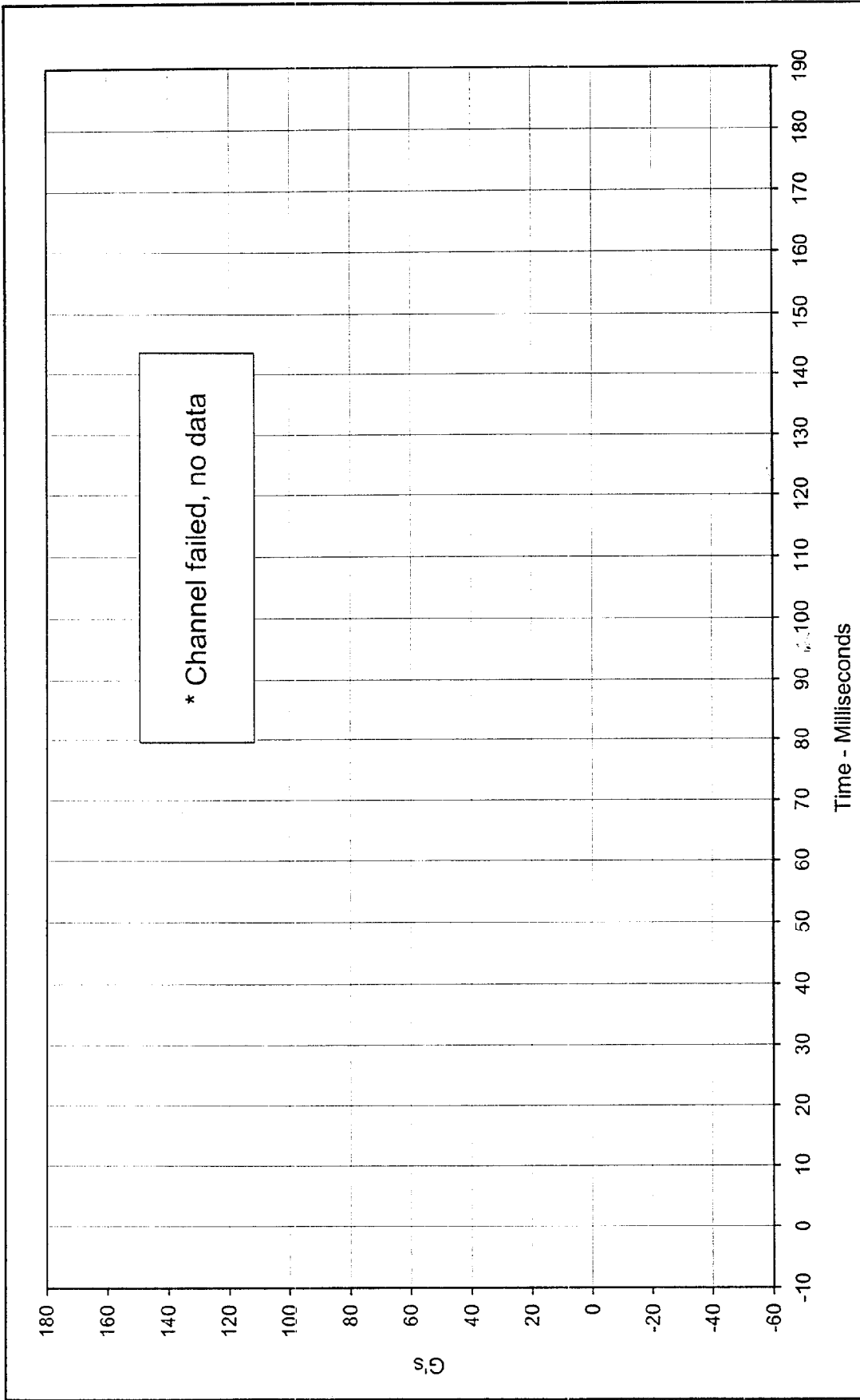
Minimum Value: 0.0 at 0.7 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00



Curve Number: IN1-043



Curve Description: Left B-Post Lower Y * Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

Minimum Value: 0.0 at 0.0 Milliseconds

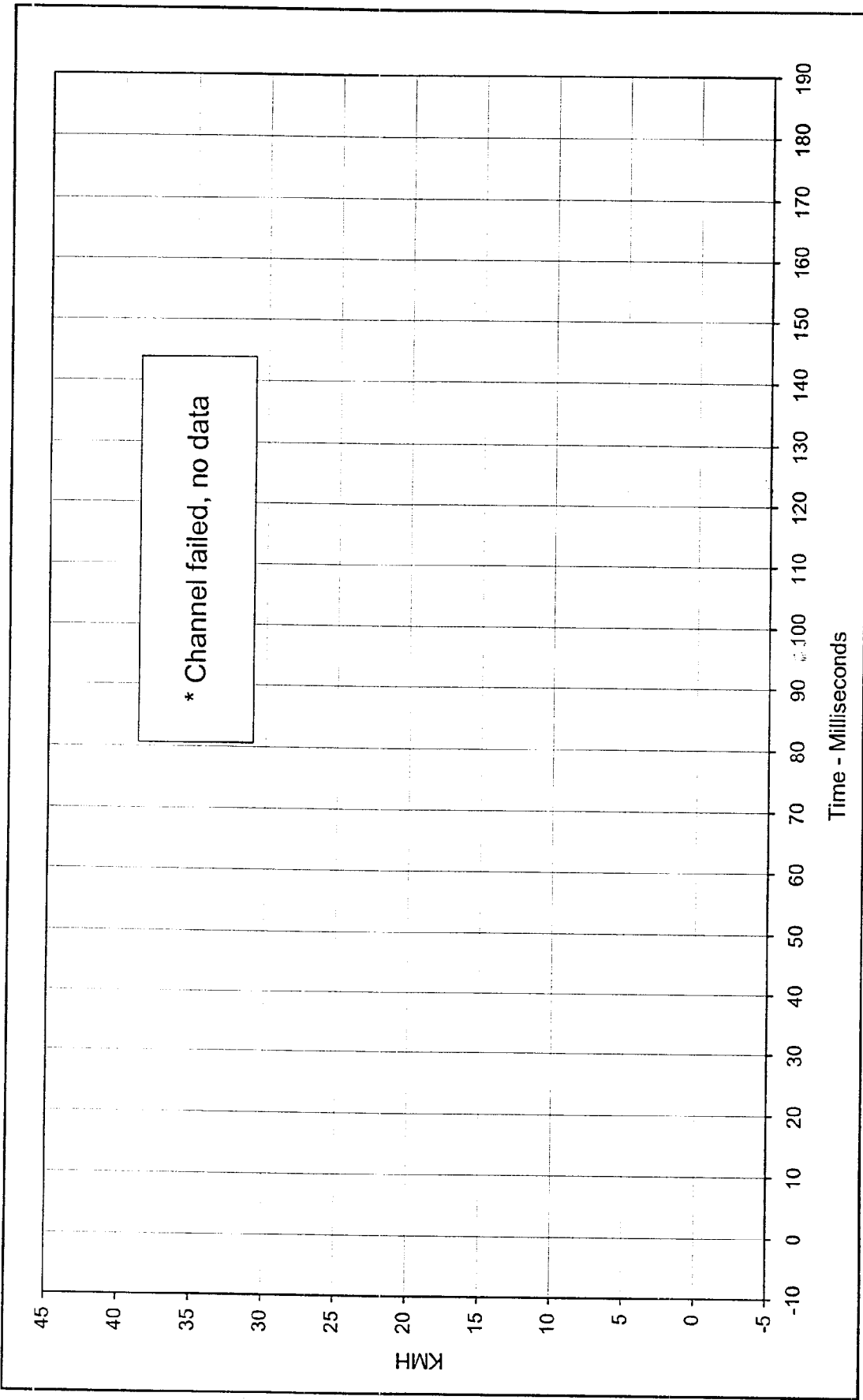
SAE Filter Class: 60

Date of Test: 03/03/00

Curve Number: FIL-044

* Channel failed, no data





Curve Description: Left B-Post Lower Y Velocity * Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

Minimum Value: 0.0 at 0.0 Milliseconds

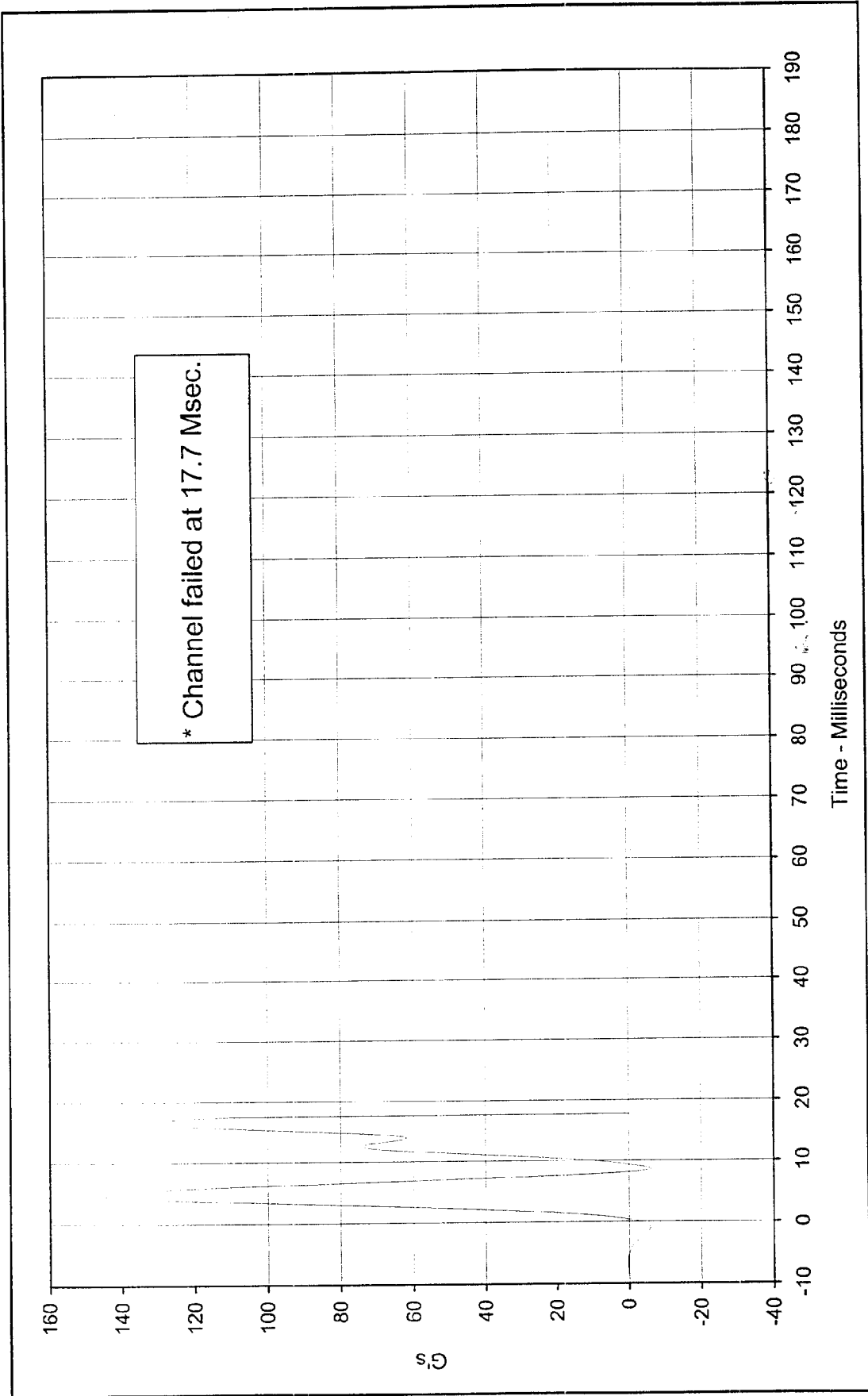
SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-044



* Channel failed, no data

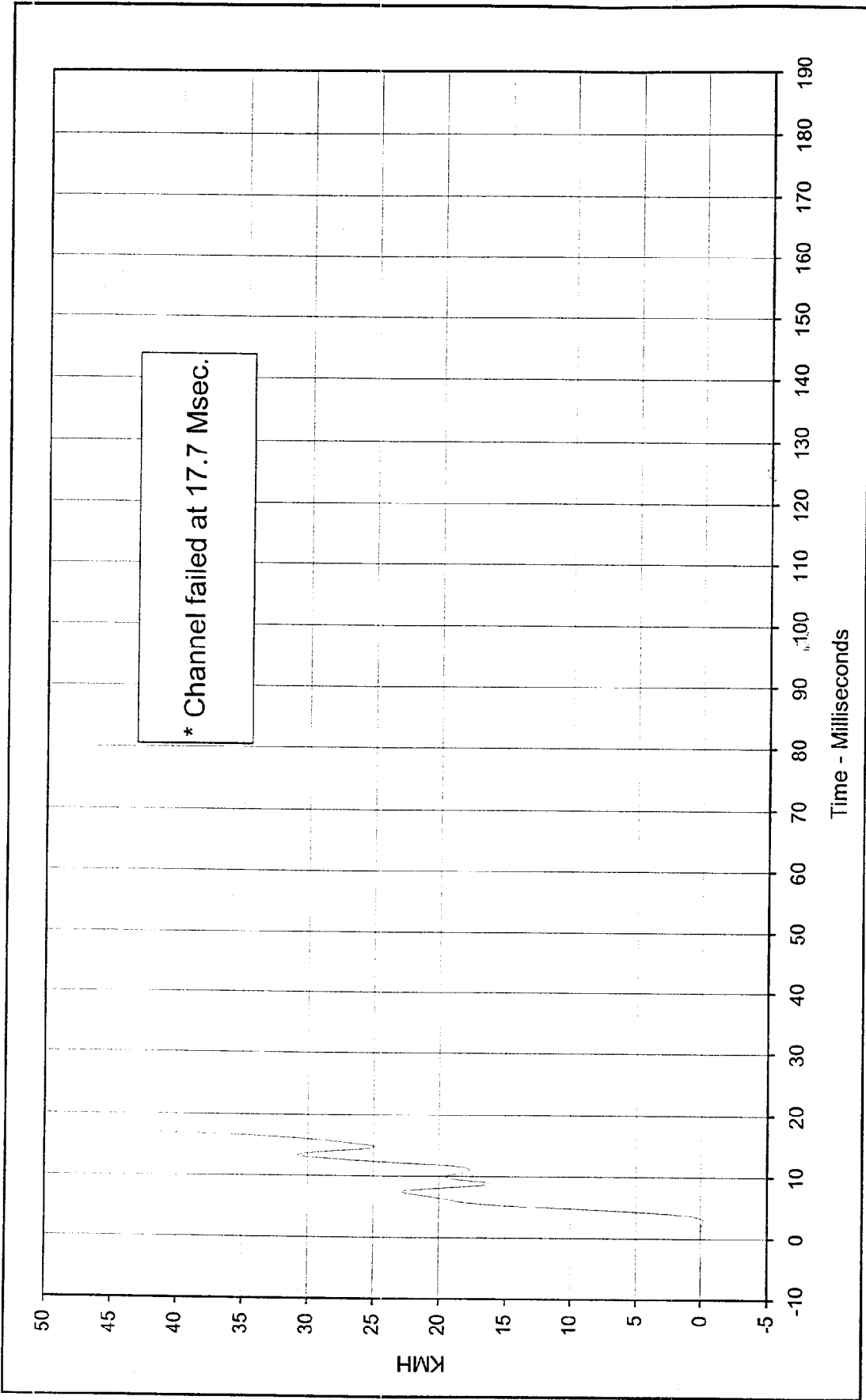


Curve Description: Left B-Post Middle Y *
 Maximum Value: 146.4 at 4.8 Milliseconds
 Minimum Value: -6.3 at 8.6 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-045

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

* Channel failed at 17.7 Msec.



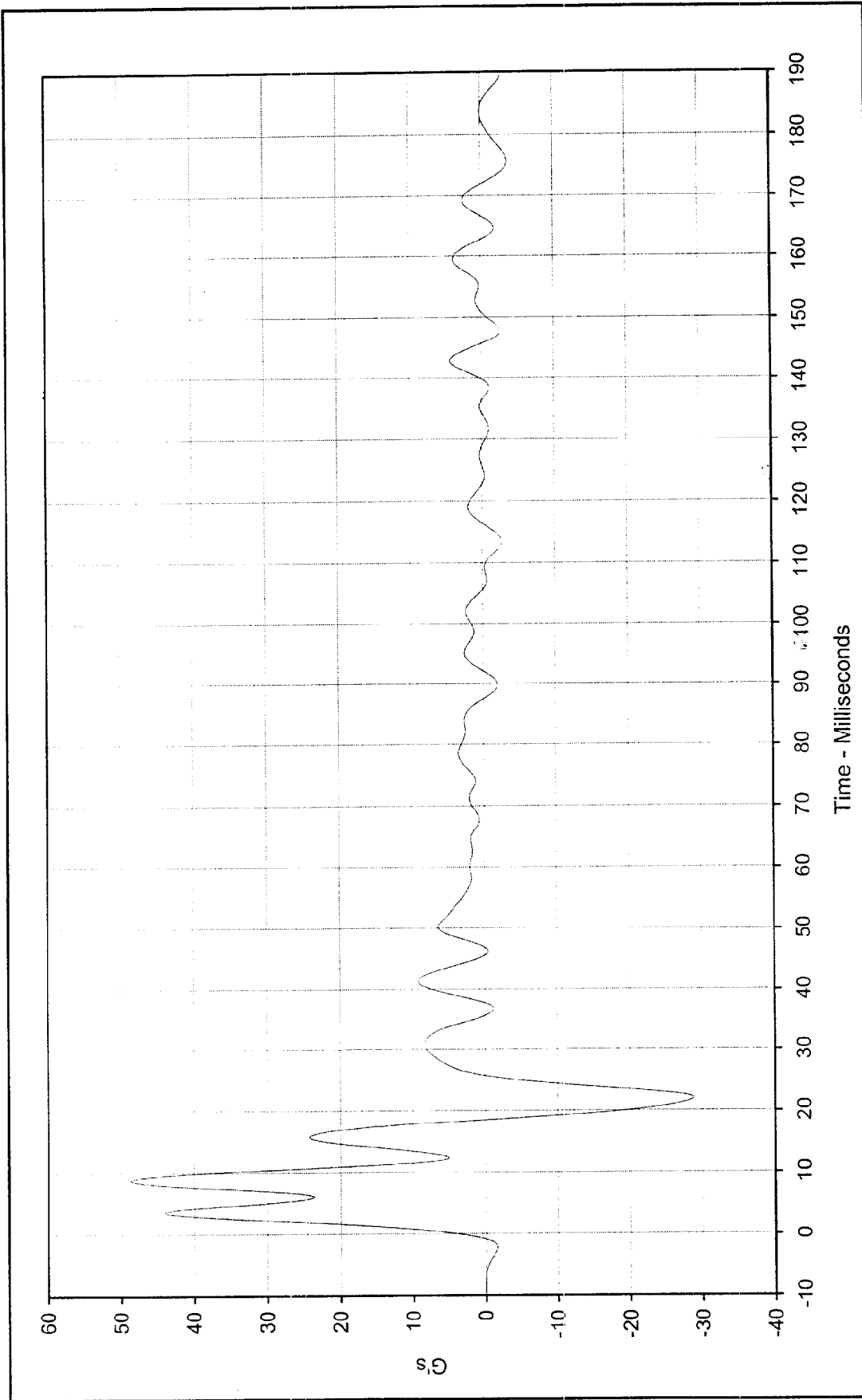


Curve Description: Left B-Post Middle Y Velocity *
 Maximum Value: 44.7 at 17.7 Milliseconds
 Minimum Value: -0.2 at 2.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-045

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

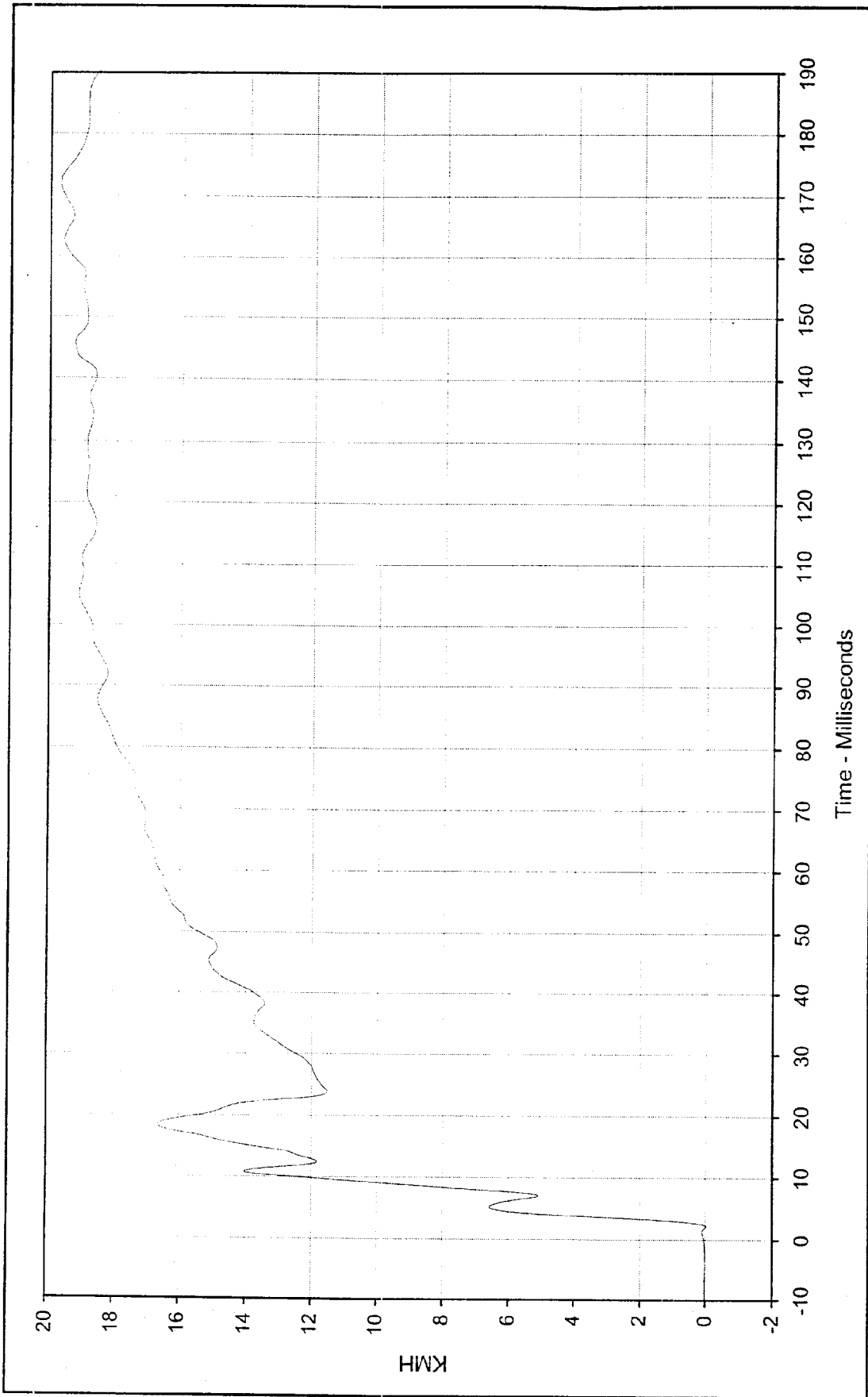


* Channel failed at 17.7 Msec.



Curve Description: Left A-Post Lower Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 48.7 at 8.8 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -28.8 at 22.0 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-046

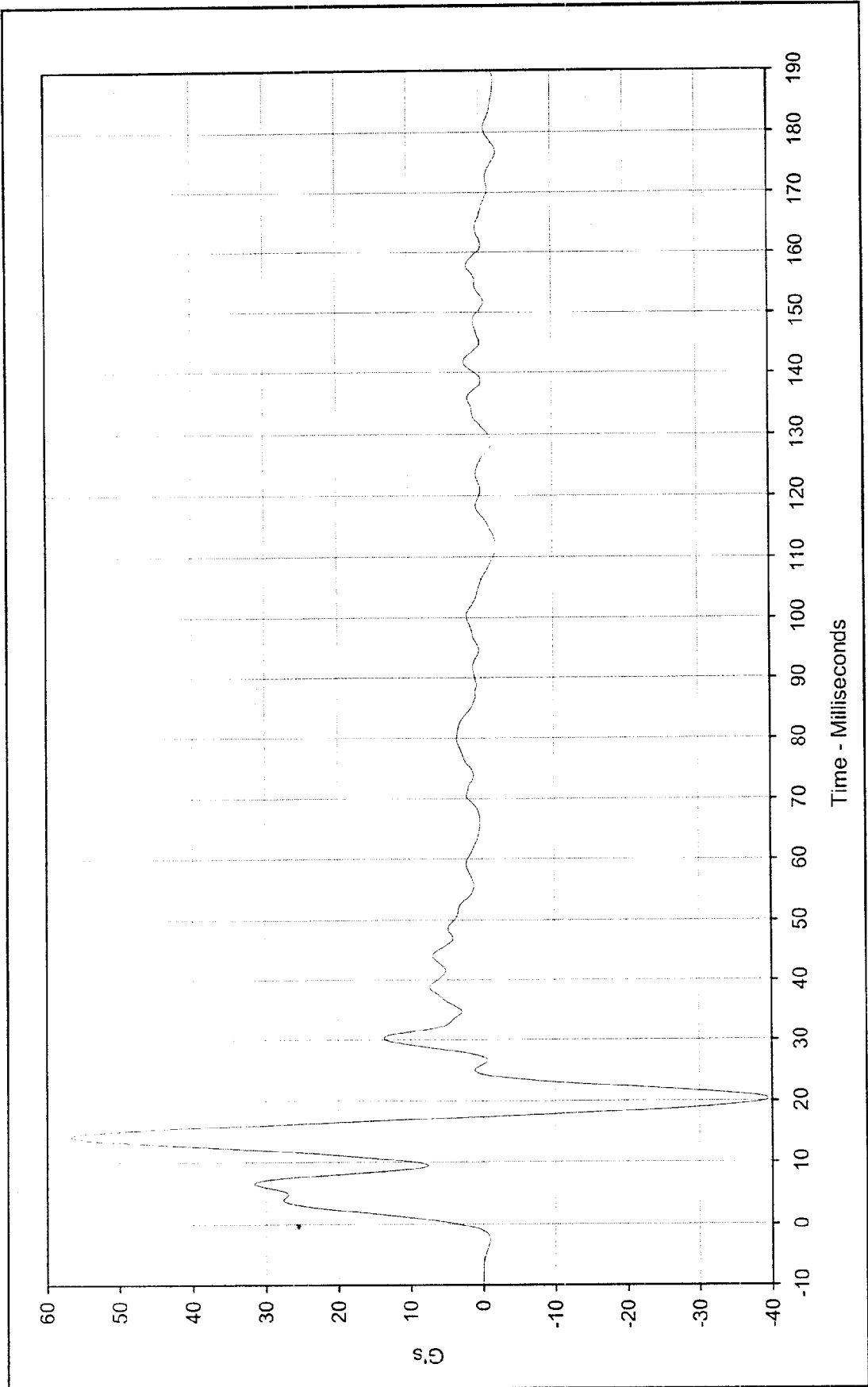




Time - Milliseconds

Curve Description: Left A-Post Lower Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 19.7 at 171.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: 0.0 at 2.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-046

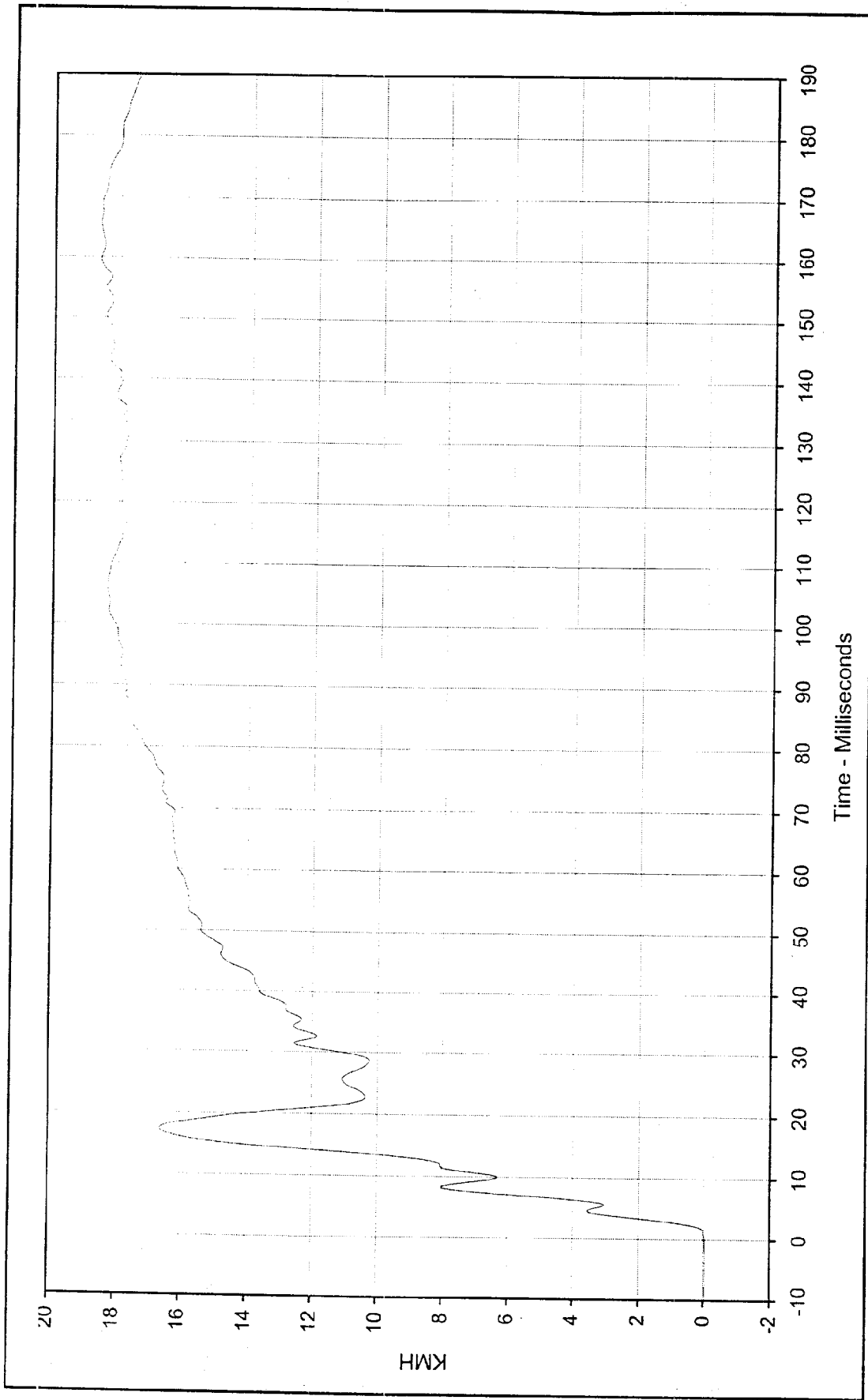




Curve Description: Left A-Post Middle Y
 Maximum Value: 56.7 at 14.2 Milliseconds
 Minimum Value: -39.5 at 20.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-047

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Left A-Post Middle Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 18.6 at 165.5 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

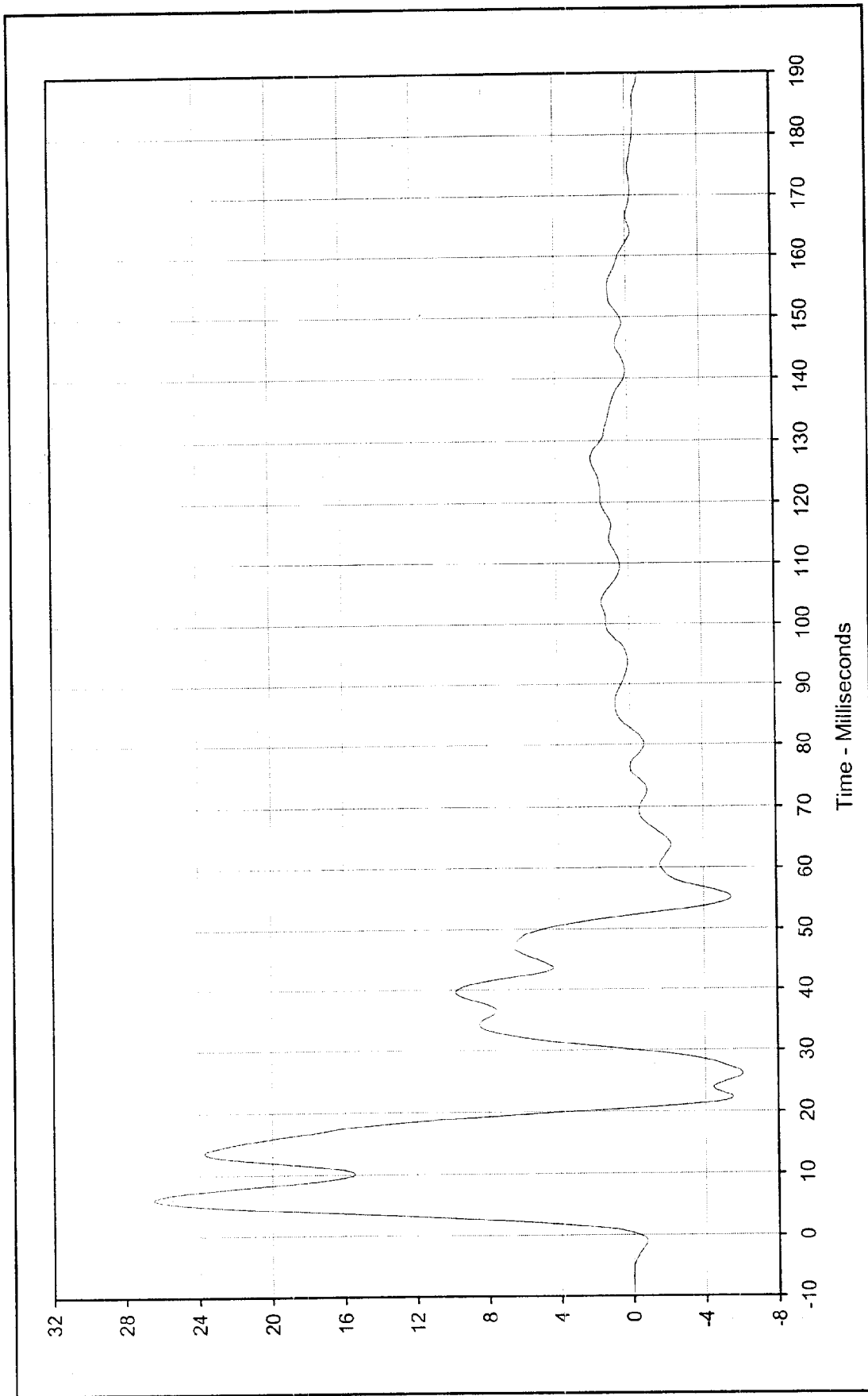
Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-047

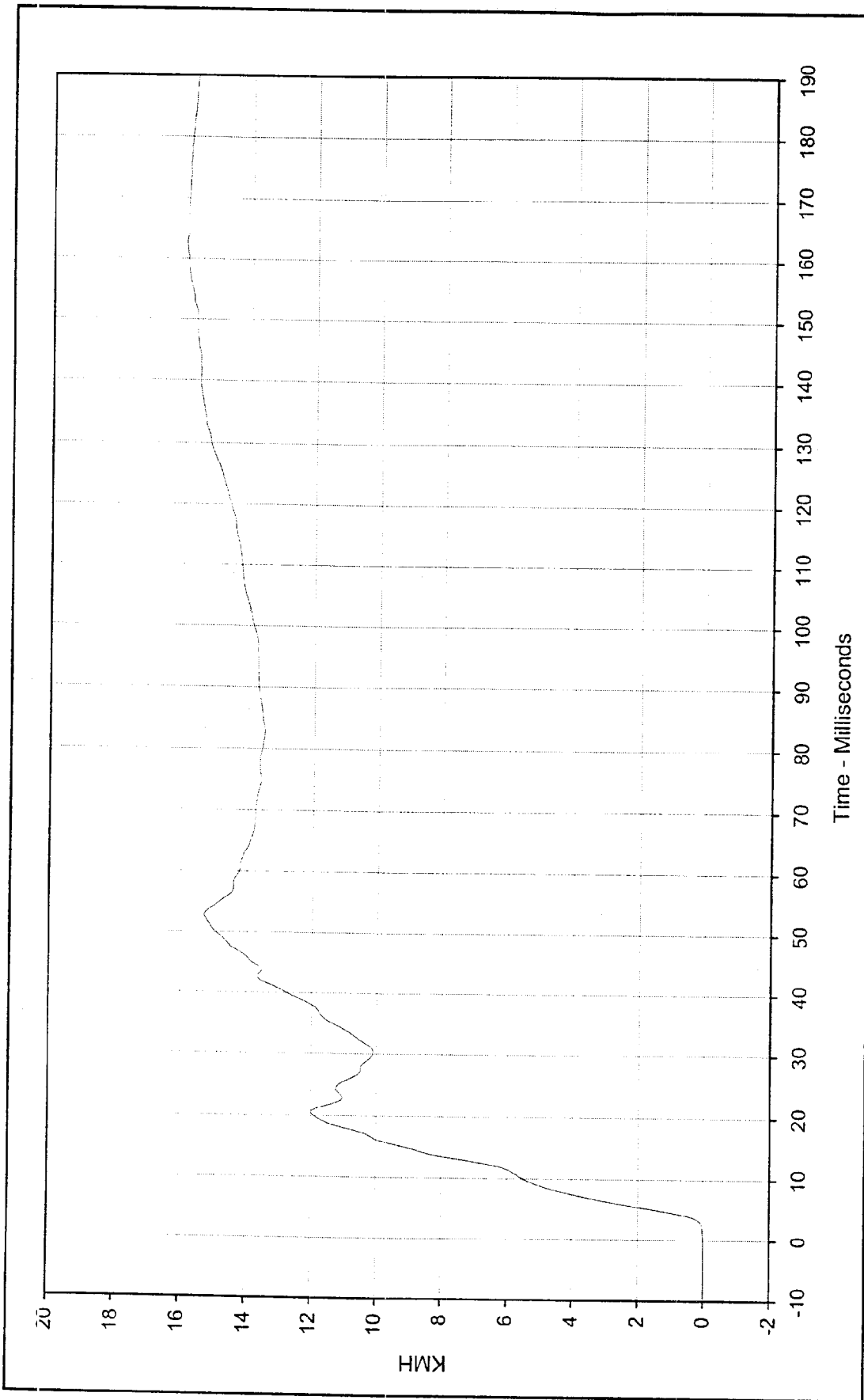




Curve Description: Left Front Seat Track Y
 Maximum Value: 26.5 at 6.0 Milliseconds
 Minimum Value: -6.1 at 26.2 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-048

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

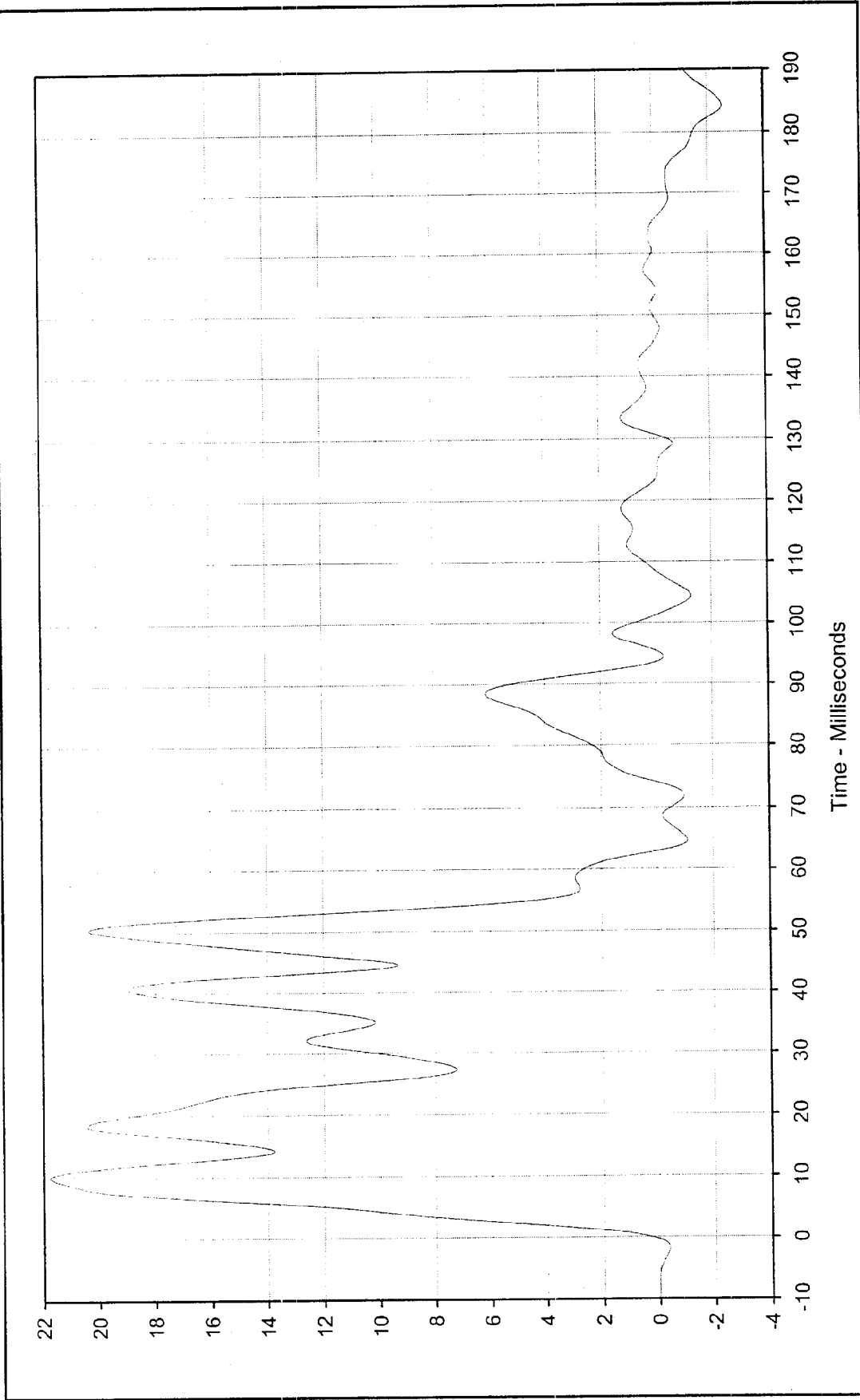




Curve Description: Left Front Seat Track Y Velocity
 Maximum Value: 16.0 at 162.9 Milliseconds
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-048

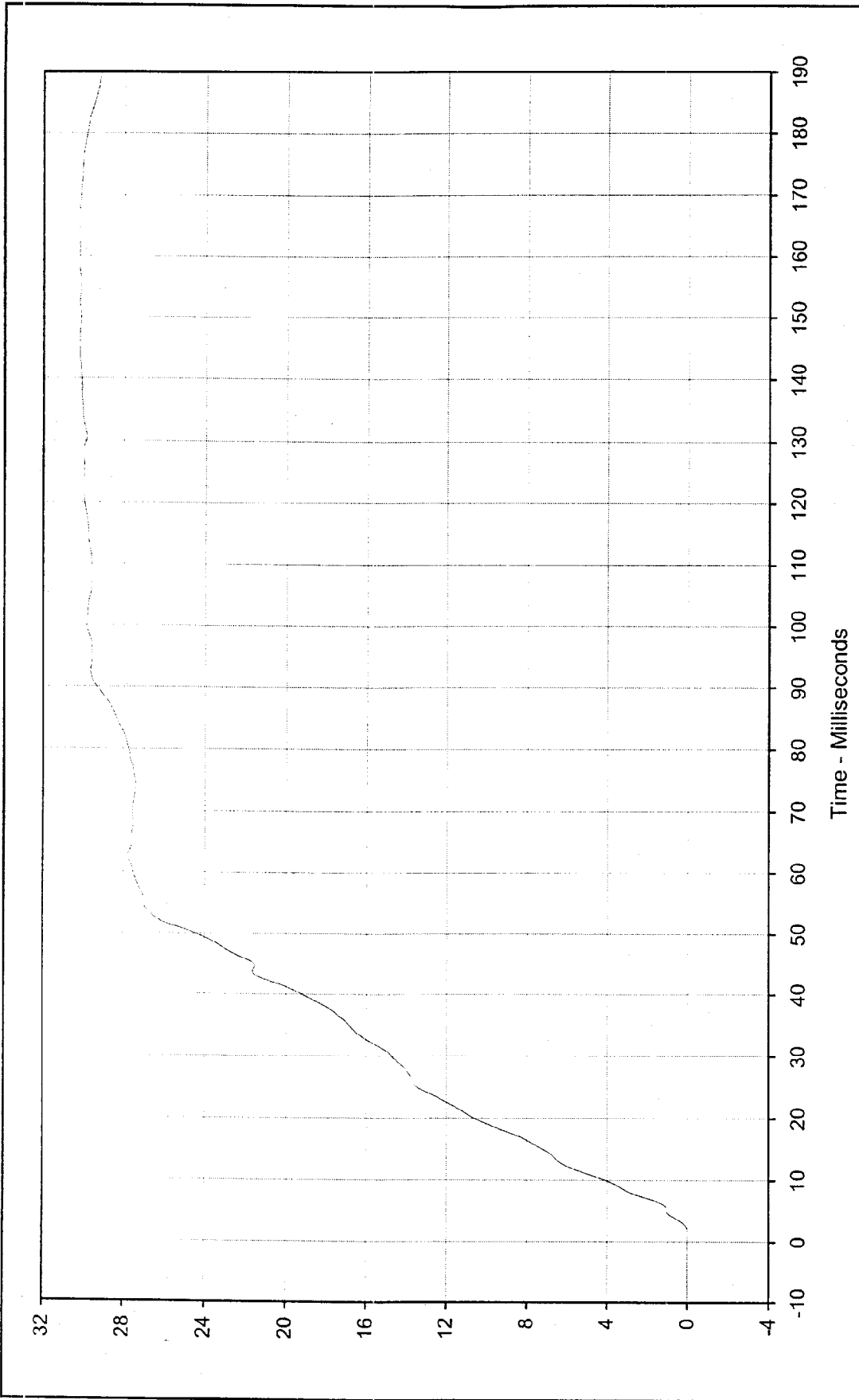
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: Left Rear Seat Structure Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 21.8 at 10.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -2.5 at 184.2 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-049





Curve Description: Left Rear Seat Structure Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 30.2 at 165.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

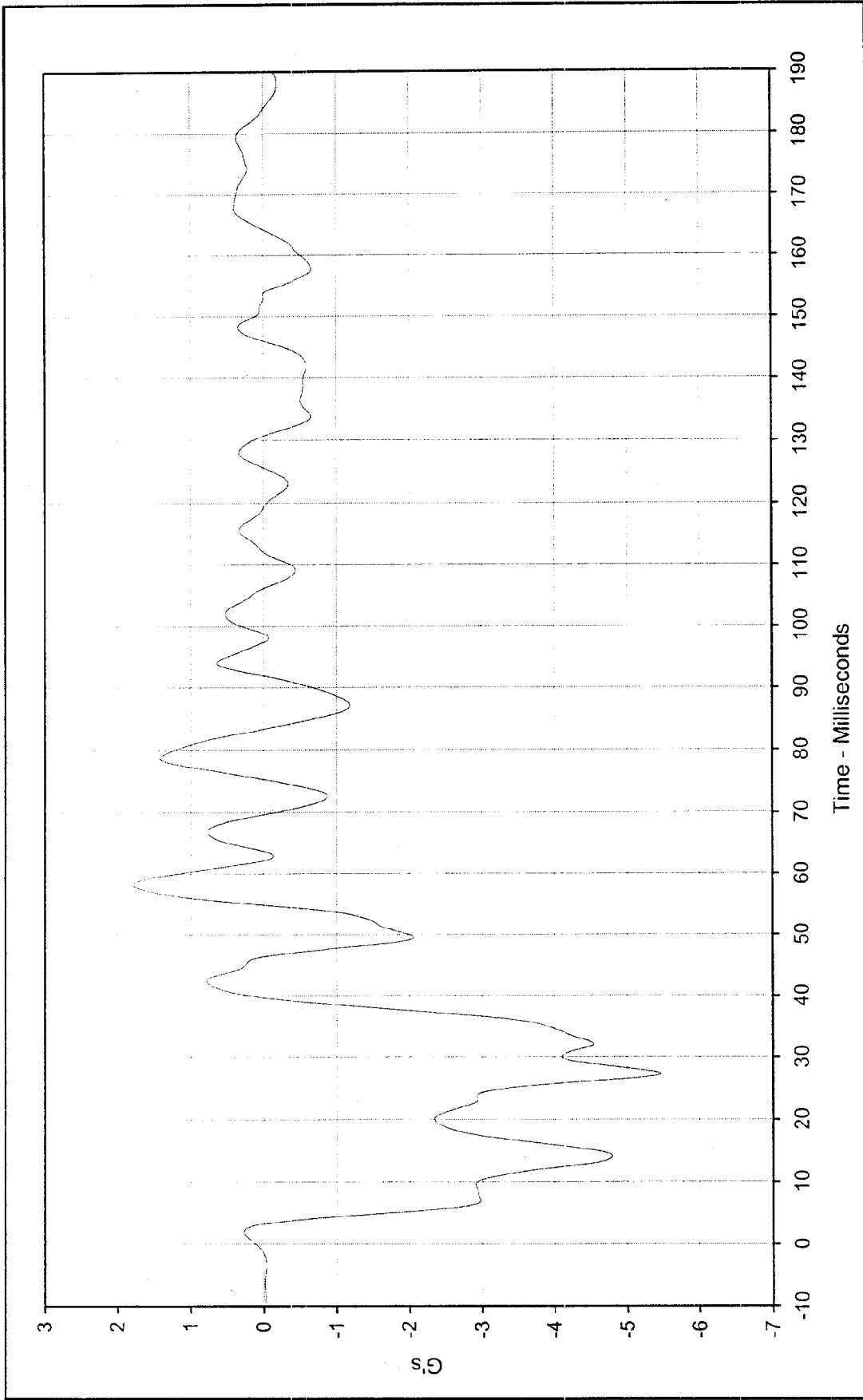
Minimum Value: 0.0 at 1.5 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-049

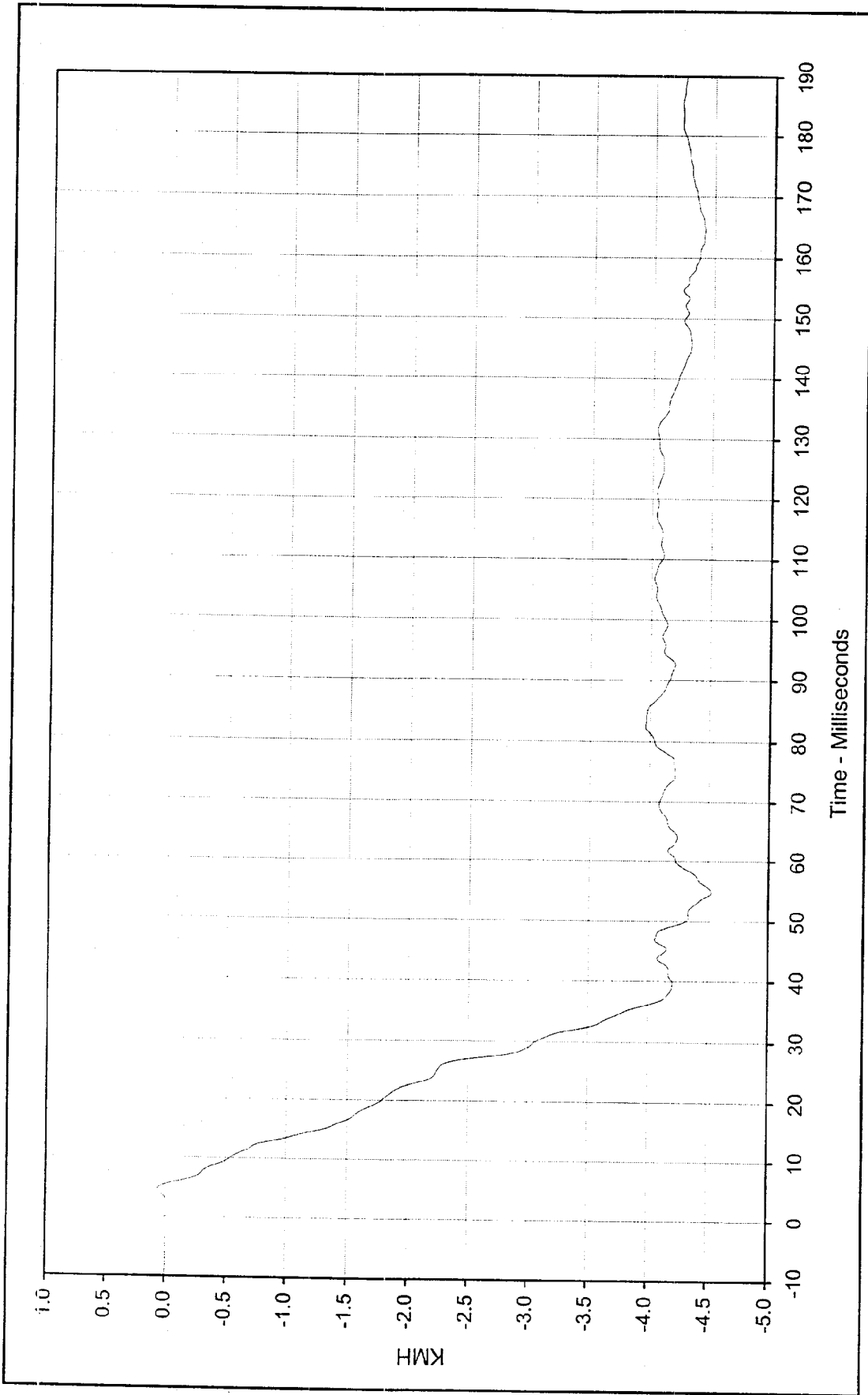




Curve Description: Vehicle CG X
 Maximum Value: 1.8 at 58.2 Milliseconds
 Minimum Value: -5.5 at 27.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-050

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

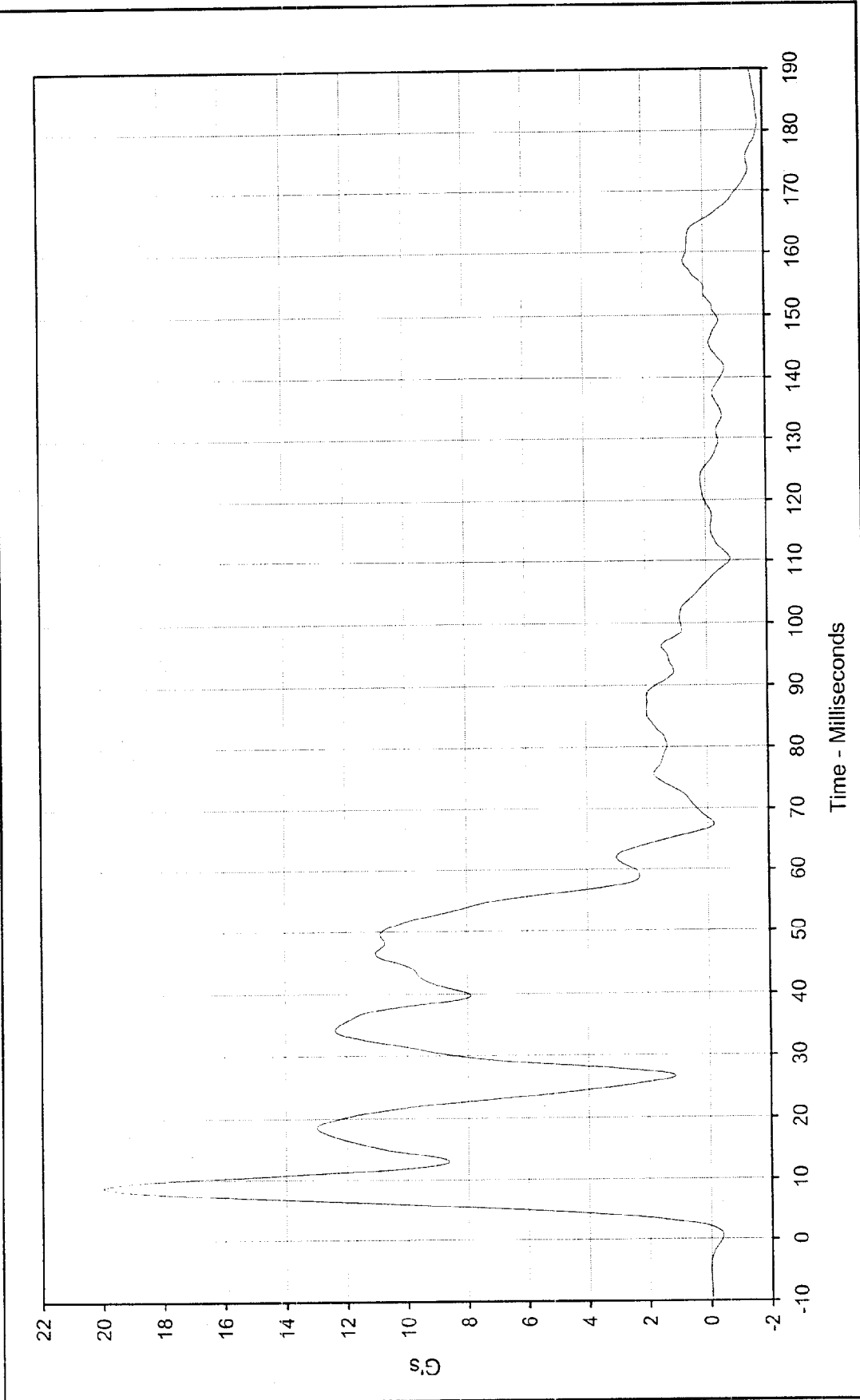




Curve Description: Vehicle CG X Velocity
 Maximum Value: 0.1 at 4.7 Milliseconds
 Minimum Value: -4.5 at 54.8 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-050

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

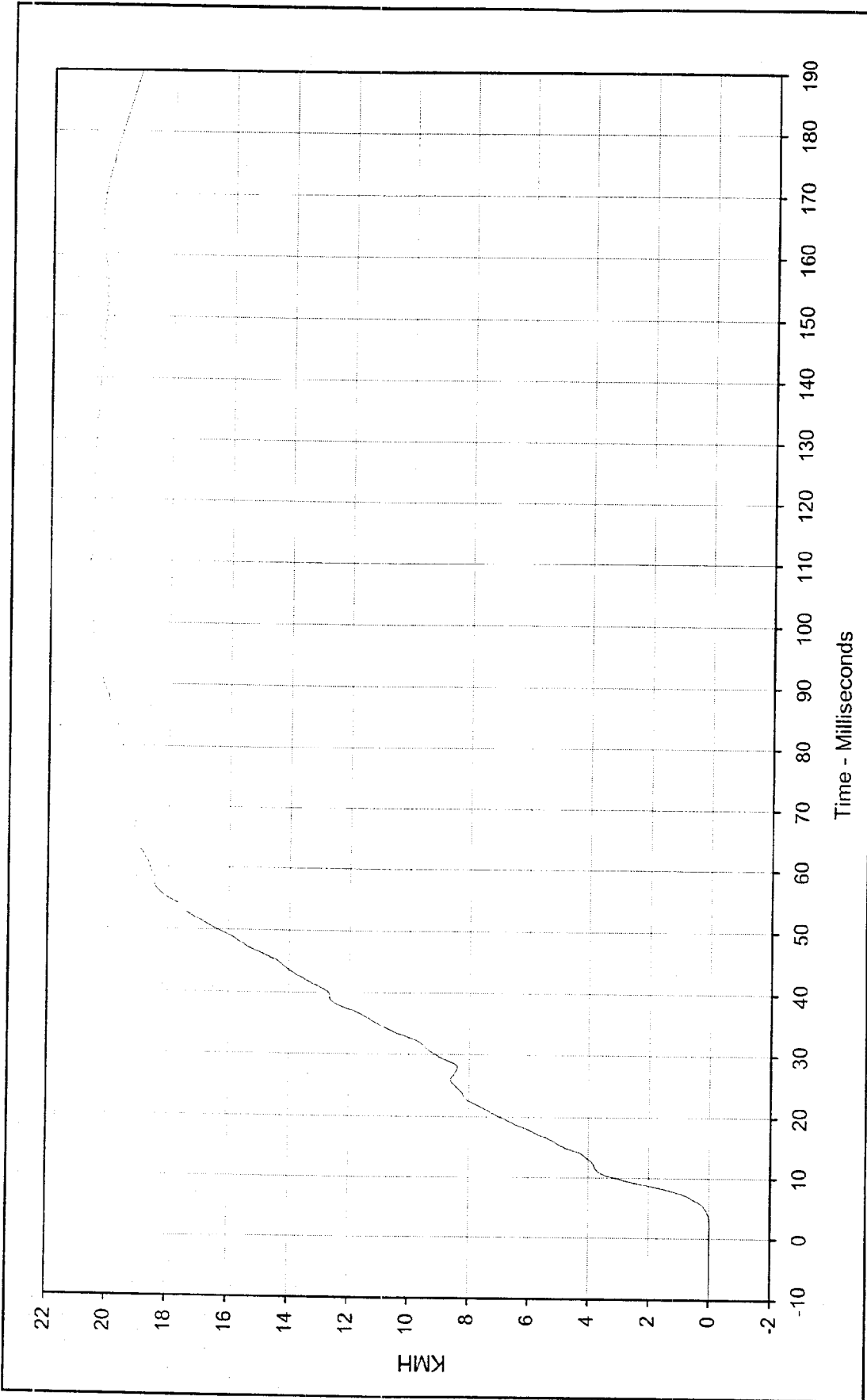




Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

Curve Description: Vehicle CG Y
 Maximum Value: 20.0 at 8.8 Milliseconds
 Minimum Value: -1.8 at 181.4 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-051





Curve Description: 55/28 km/h Side Impact NCAP No.: MY0103

Test Program: 2000 Cadillac Deville DHS

Maximum Value: 20.7 at 106.2 Milliseconds

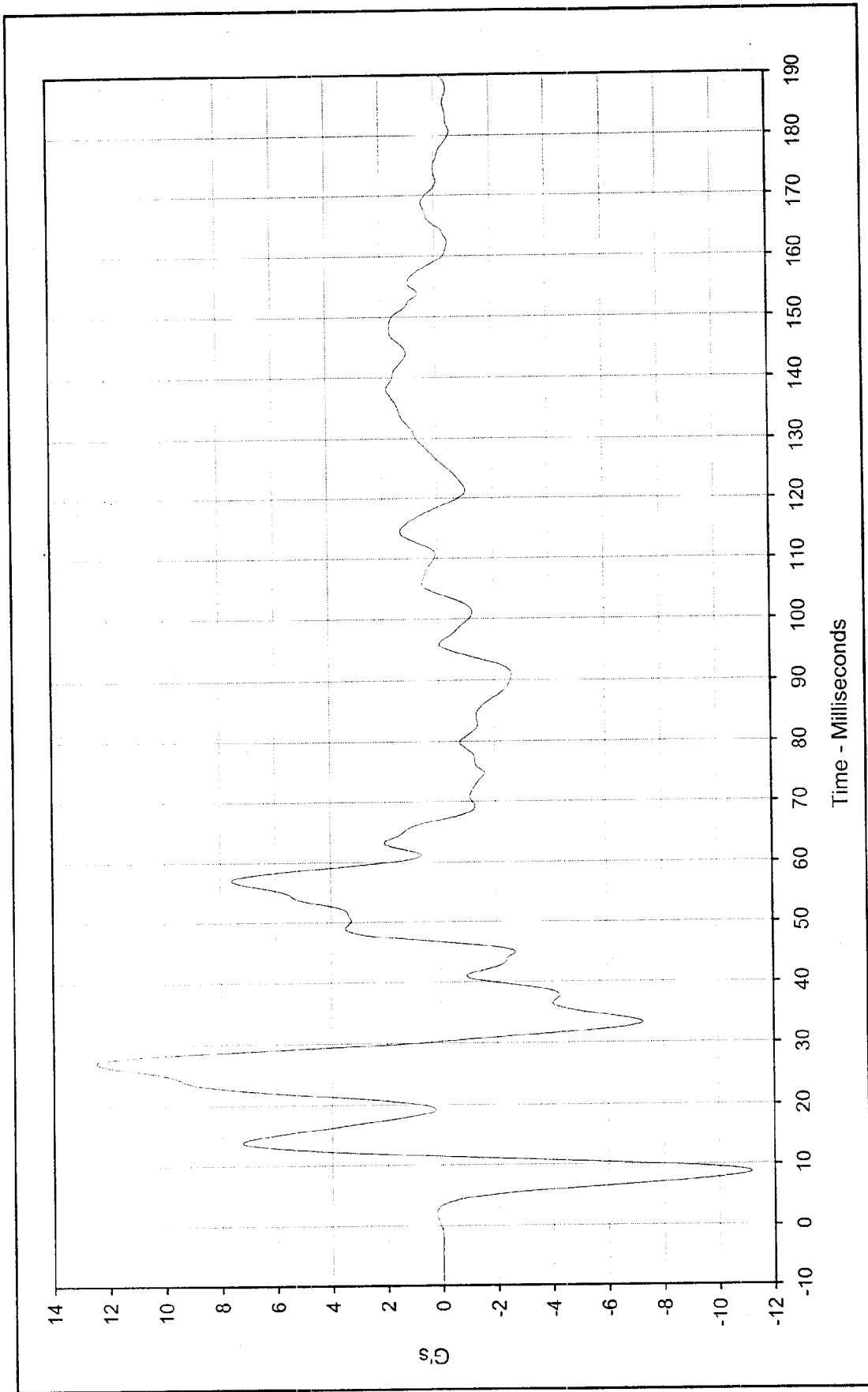
Minimum Value: 0.0 at 2.1 Milliseconds

SAE Filter Class: 180

Date of Test: 03/03/00

Curve Number: IN1-051

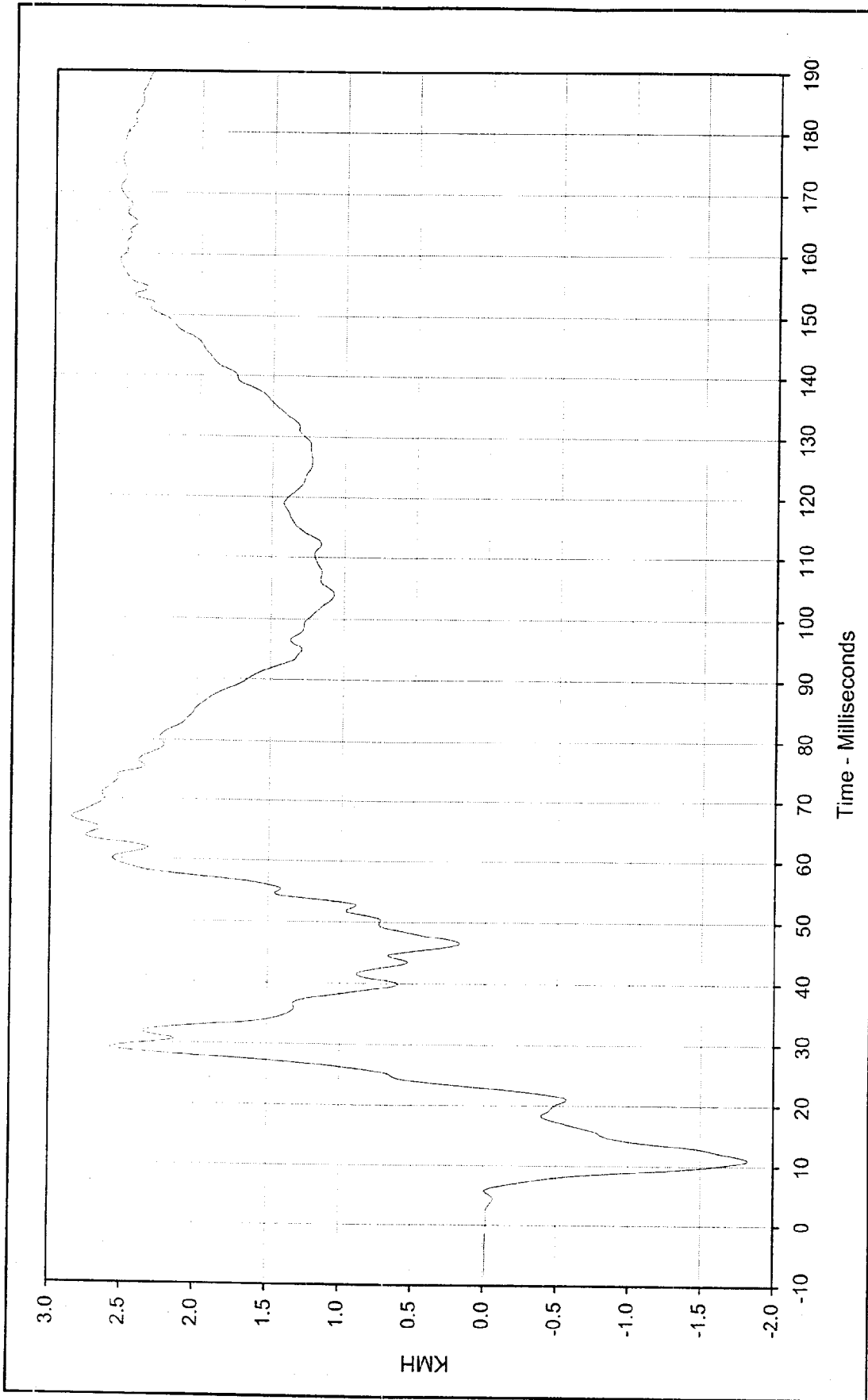




Curve Description: Vehicle CG Z
 Maximum Value: 12.5 at 27.0 Milliseconds
 Minimum Value: -11.2 at 8.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-052

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

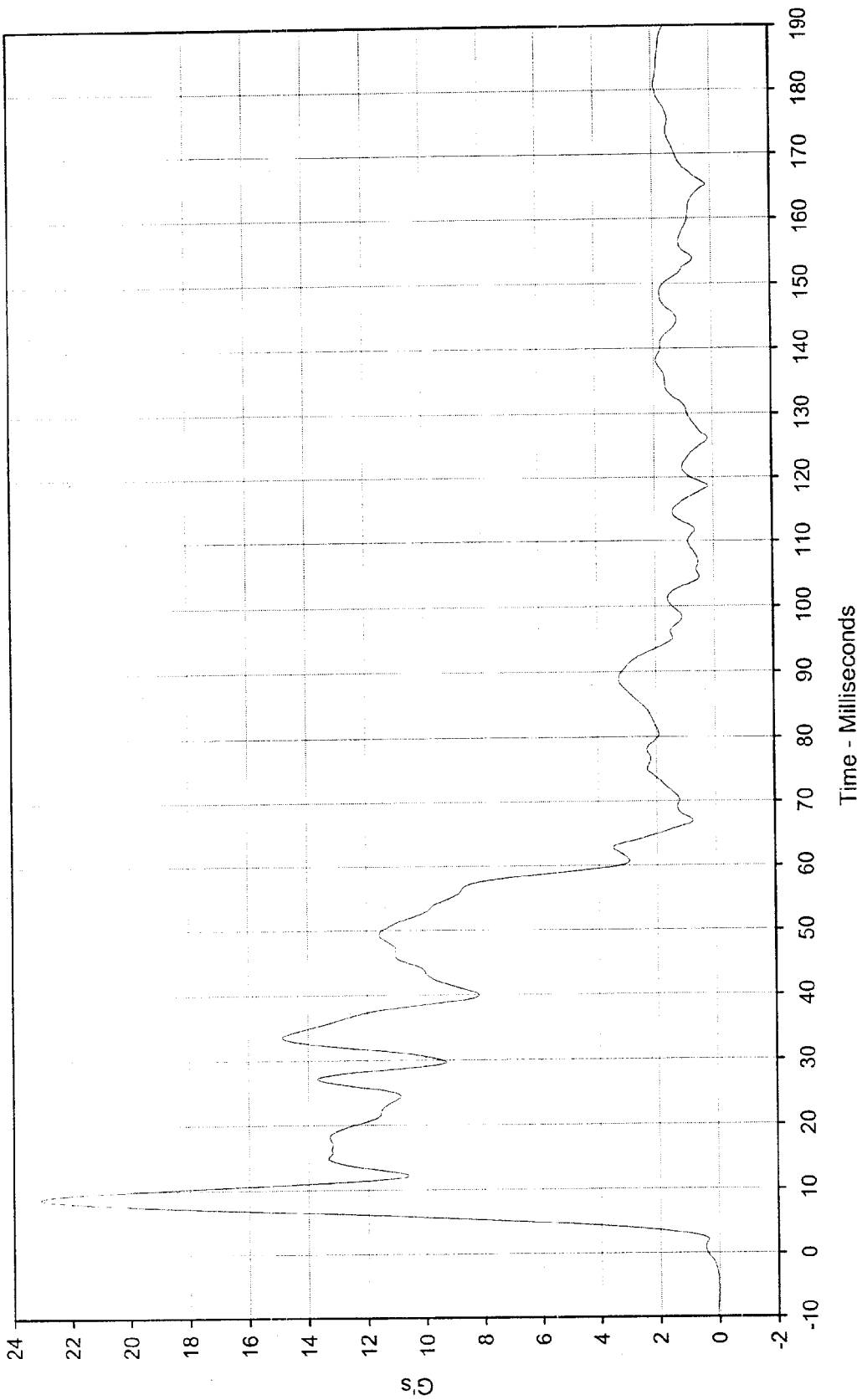




Curve Description: Vehicle CG Z Velocity
 Maximum Value: 2.9 at 67.0 Milliseconds
 Minimum Value: -1.8 at 11.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-052

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

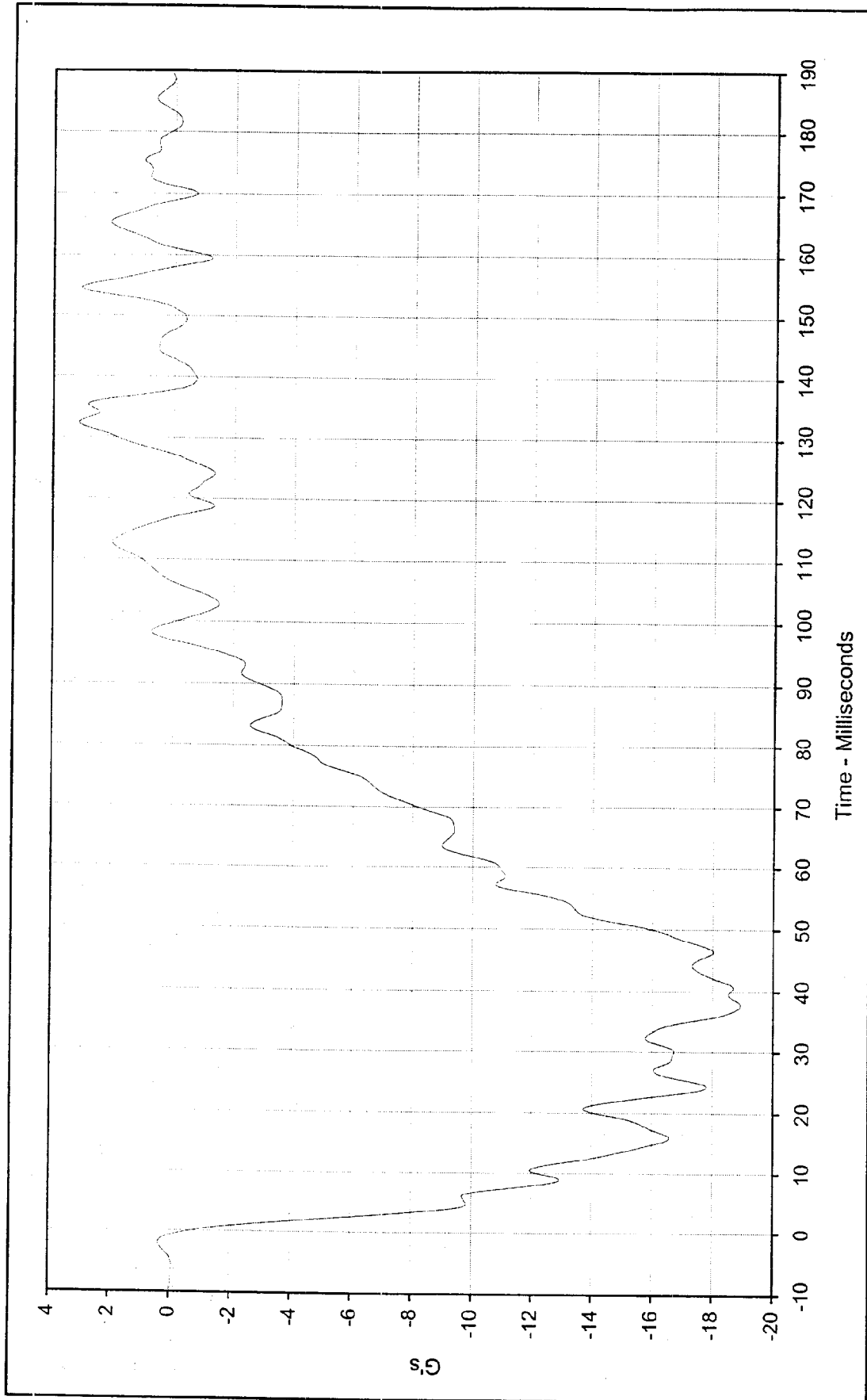




Curve Description: _____ Vehicle CG Resultant _____
 Maximum Value: 23.1 at 8.7 Milliseconds
 Minimum Value: 0.2 at 118.6 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: RES-050

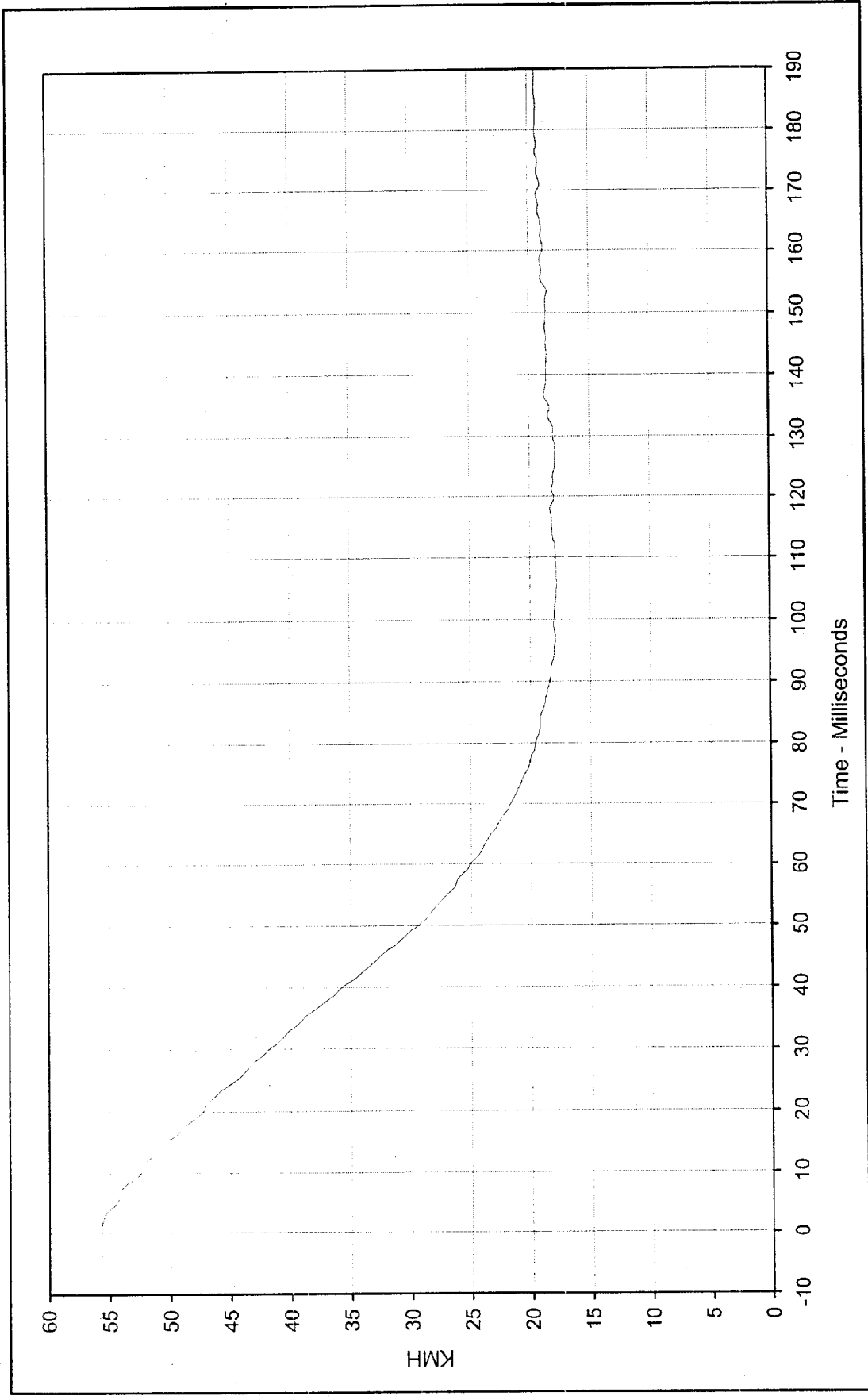
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description:	MDB CG X	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0103	
Maximum Value:	3.1	at	132.4	Milliseconds	Test Vehicle:	2000 Cadillac Deville DHS
Minimum Value:	-18.9	at	37.7	Milliseconds		
SAE Filter Class:	60					
Date of Test:	03/03/00					
Curve Number:	FIL-053					

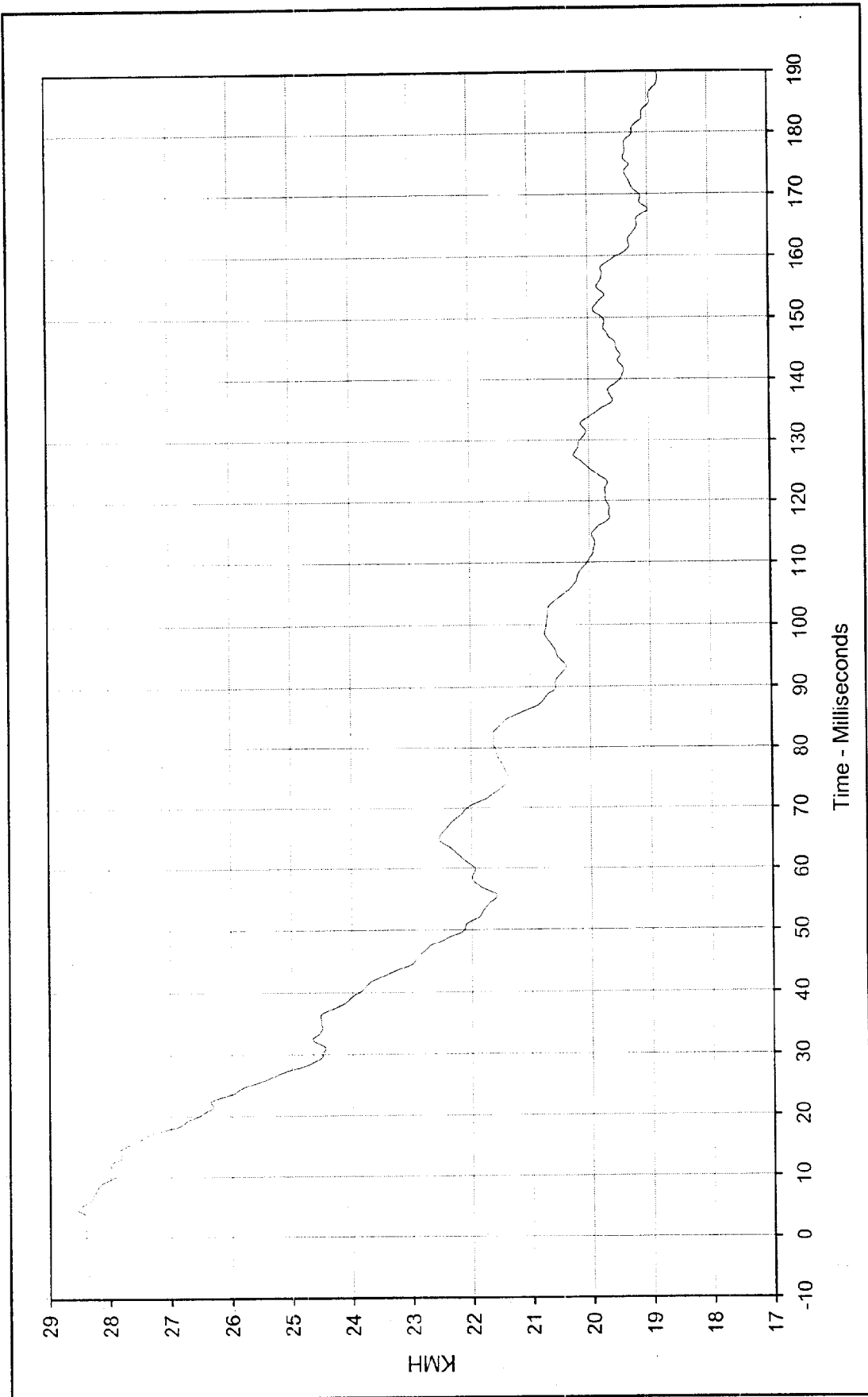




Curve Description: MDB CG X Velocity
 Maximum Value: 55.7 at 0.2 Milliseconds
 Minimum Value: 17.8 at 105.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-053

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

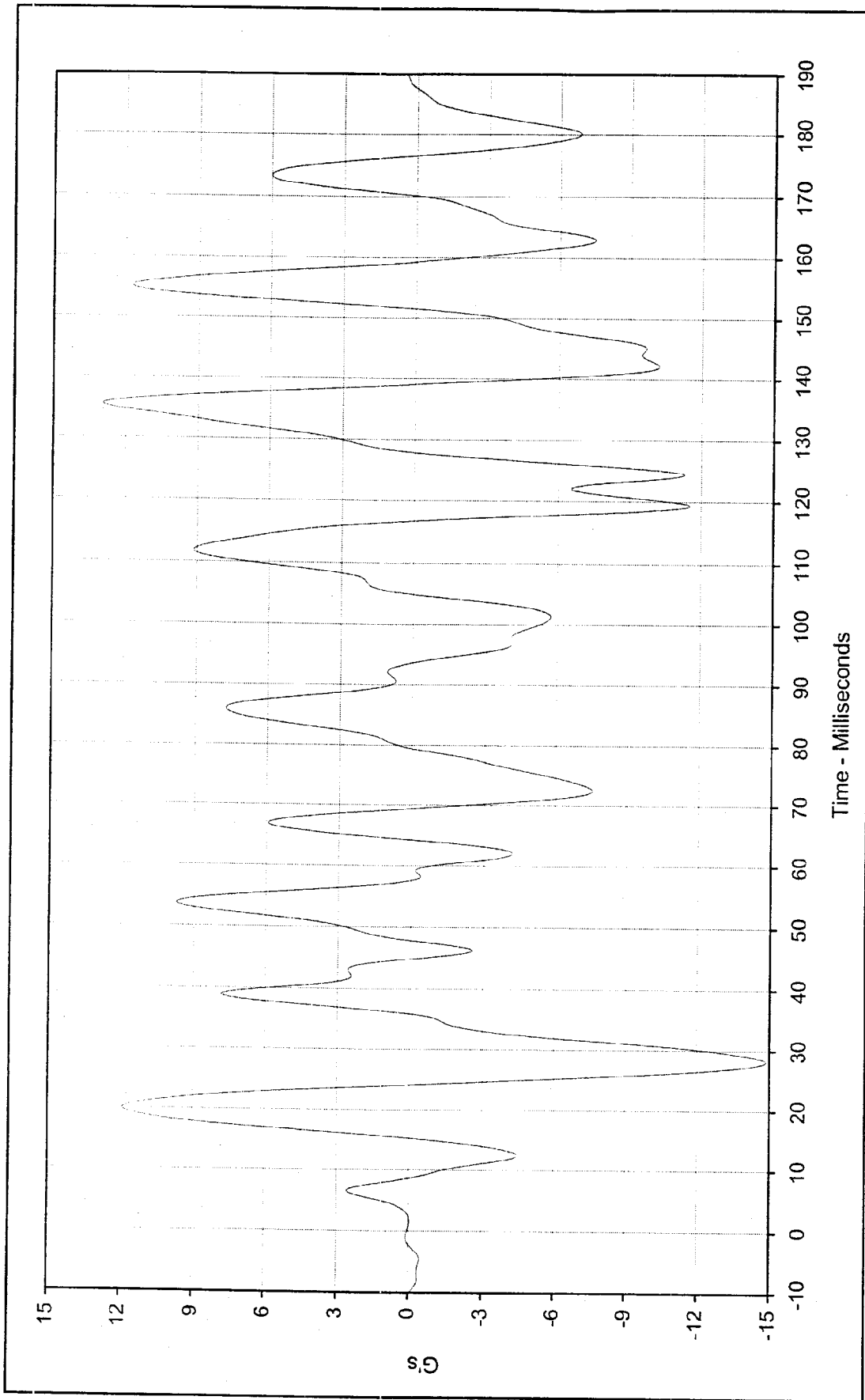




Curve Description: MDB CG Y Velocity
 Maximum Value: 28.5 at 4.8 Milliseconds
 Minimum Value: 18.8 at 189.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-054

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: MDB CG Z Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 12.9 at 135.4 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

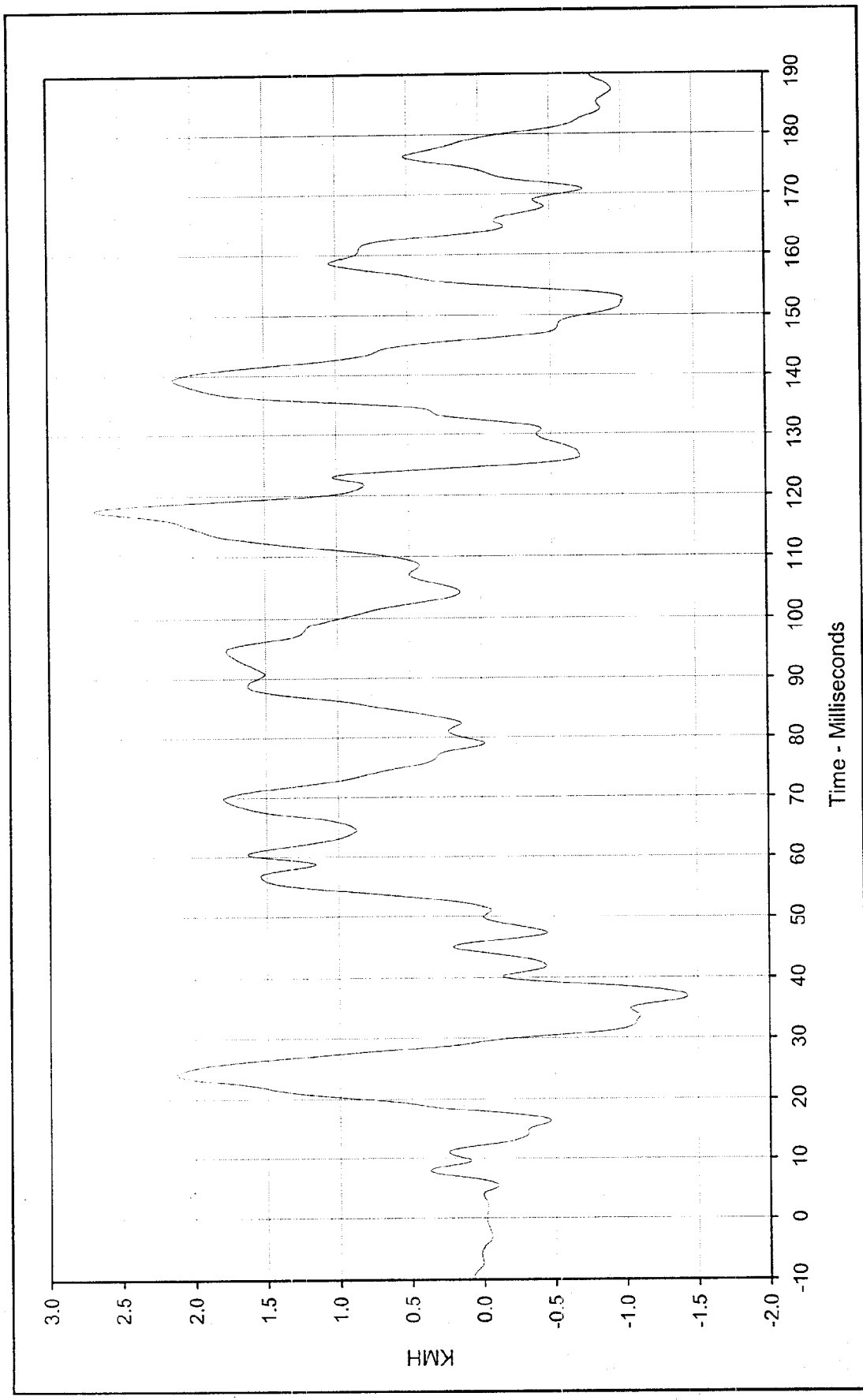
Minimum Value: -14.9 at 28.1 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

Curve Number: FIL-055

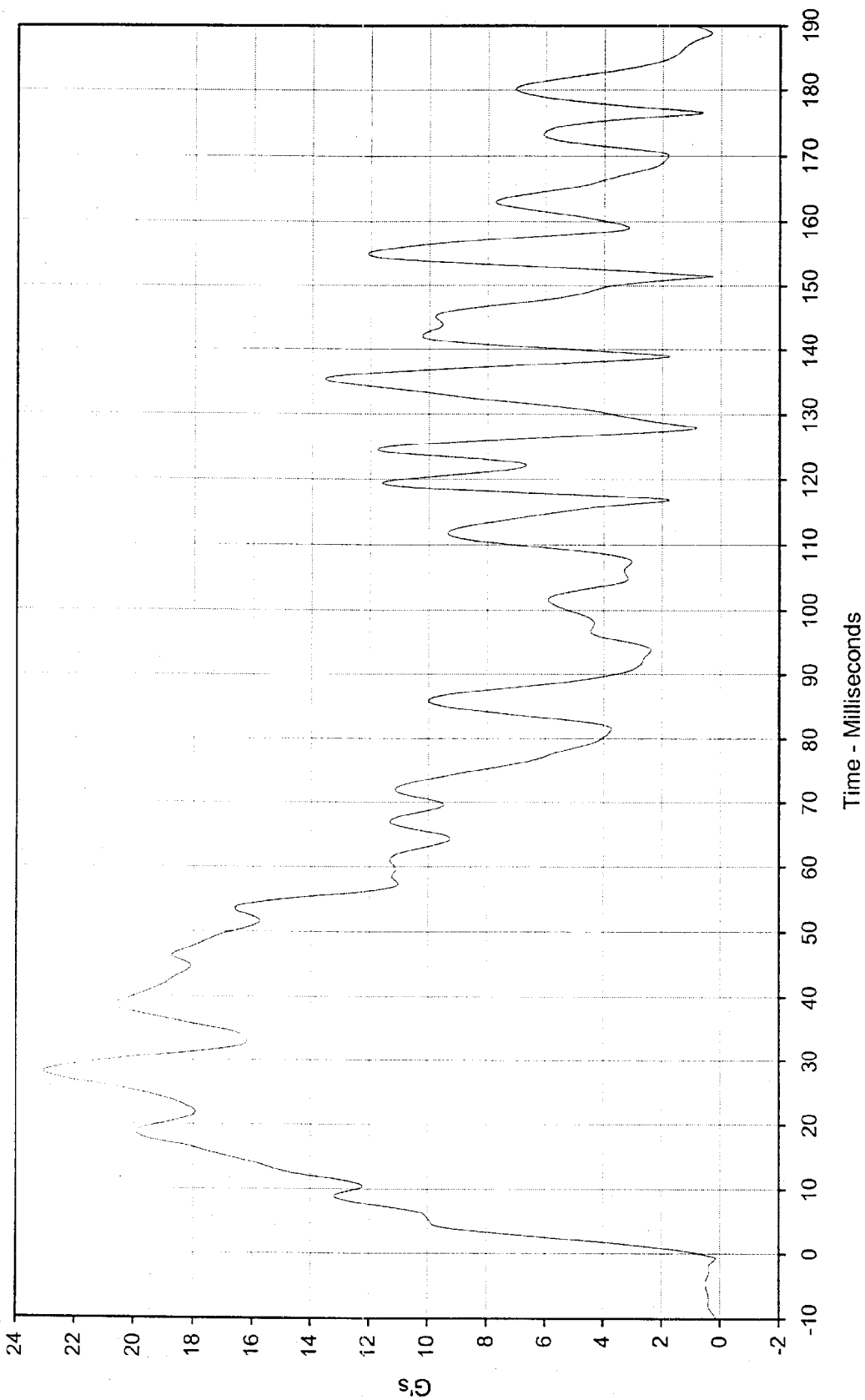




Curve Description: MDB CG Z Velocity
 Maximum Value: 2.7 at 117.7 Milliseconds
 Minimum Value: -1.4 at 36.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-055

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: MDB CG Resultant Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 23.1 at 28.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

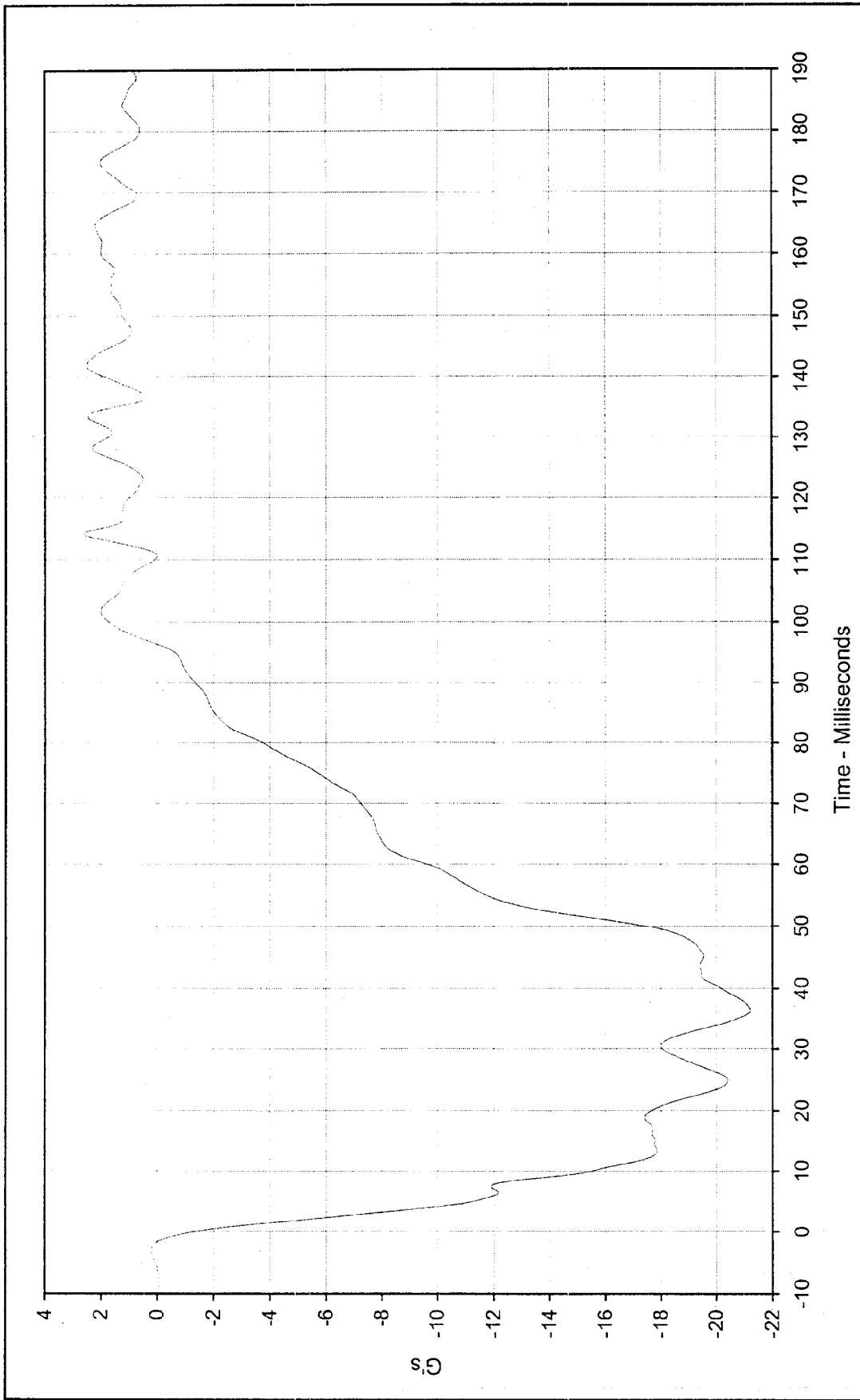
Minimum Value: 0.3 at 151.6 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

Curve Number: RES-053

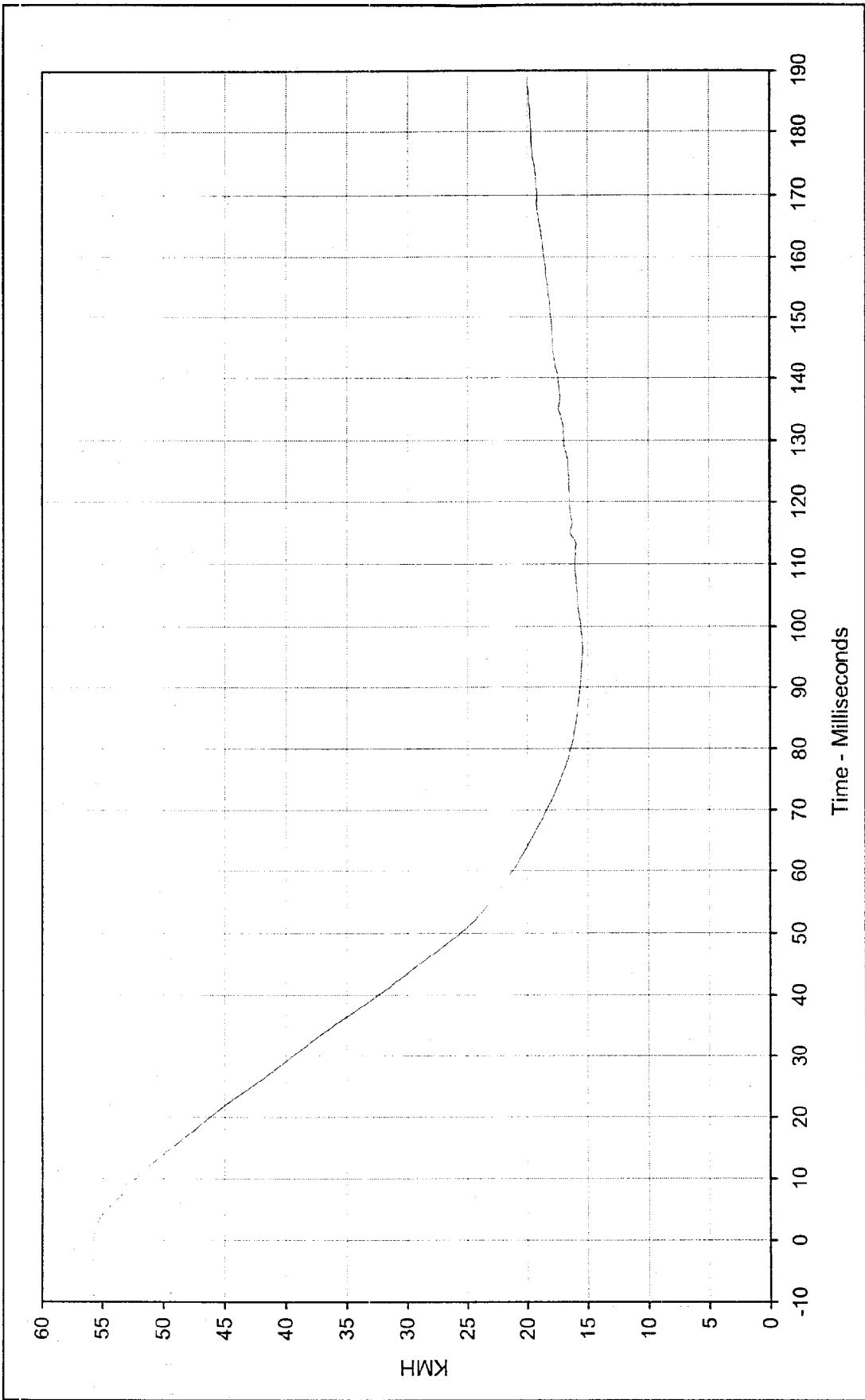




Curve Description: MDB Rear X
 Maximum Value: 2.6 at 114.2 Milliseconds
 Minimum Value: -21.2 at 36.4 Milliseconds
 SAE Filter Class: 60
 Date of Test: 03/03/00
 Curve Number: FIL-056

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

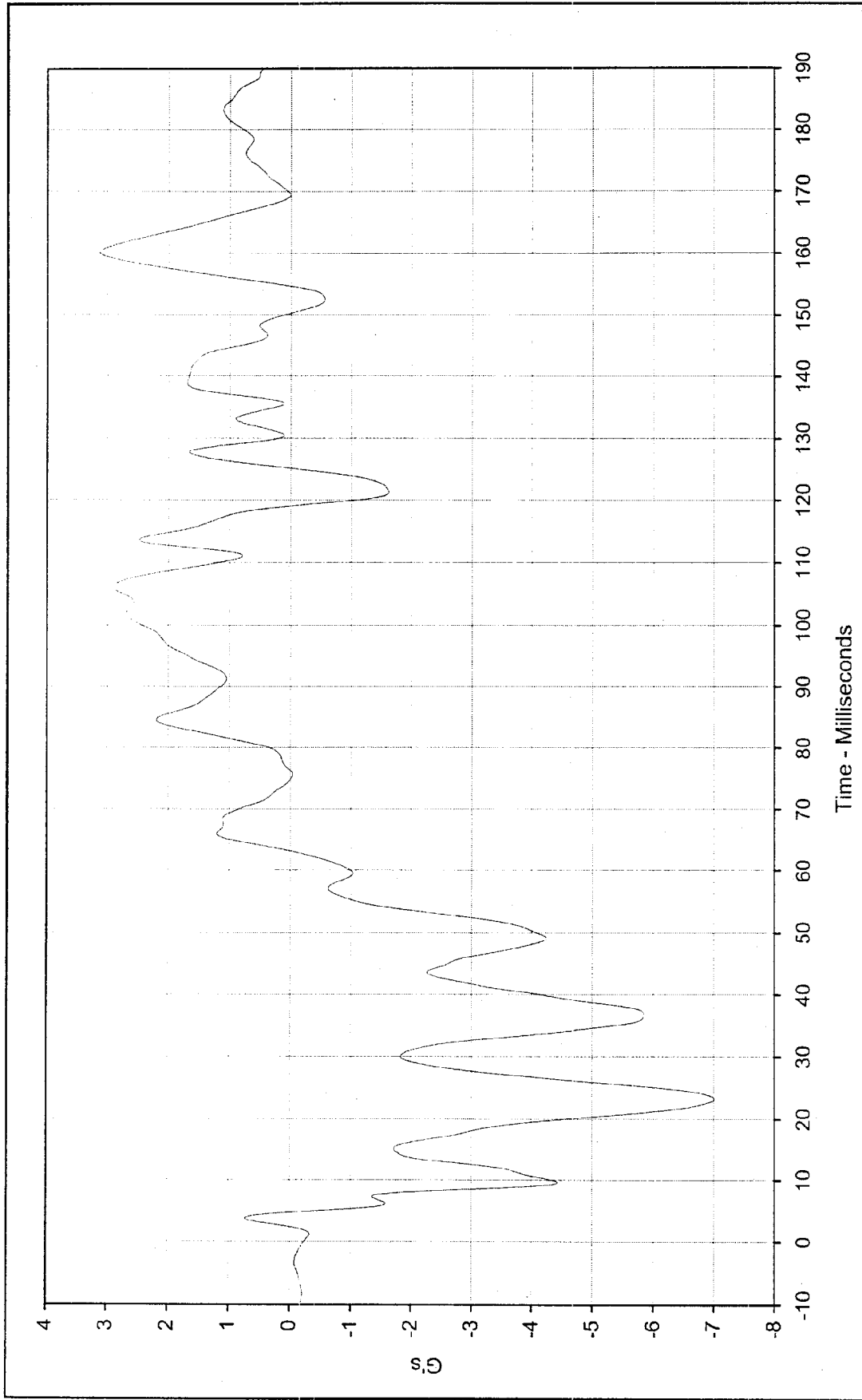




Curve Description: MDB Rear X Velocity
 Maximum Value: 55.7 at 0.0 Milliseconds
 Minimum Value: 15.4 at 96.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-056

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





Curve Description: MDB Rear Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

Maximum Value: 3.1 at 160.1 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS

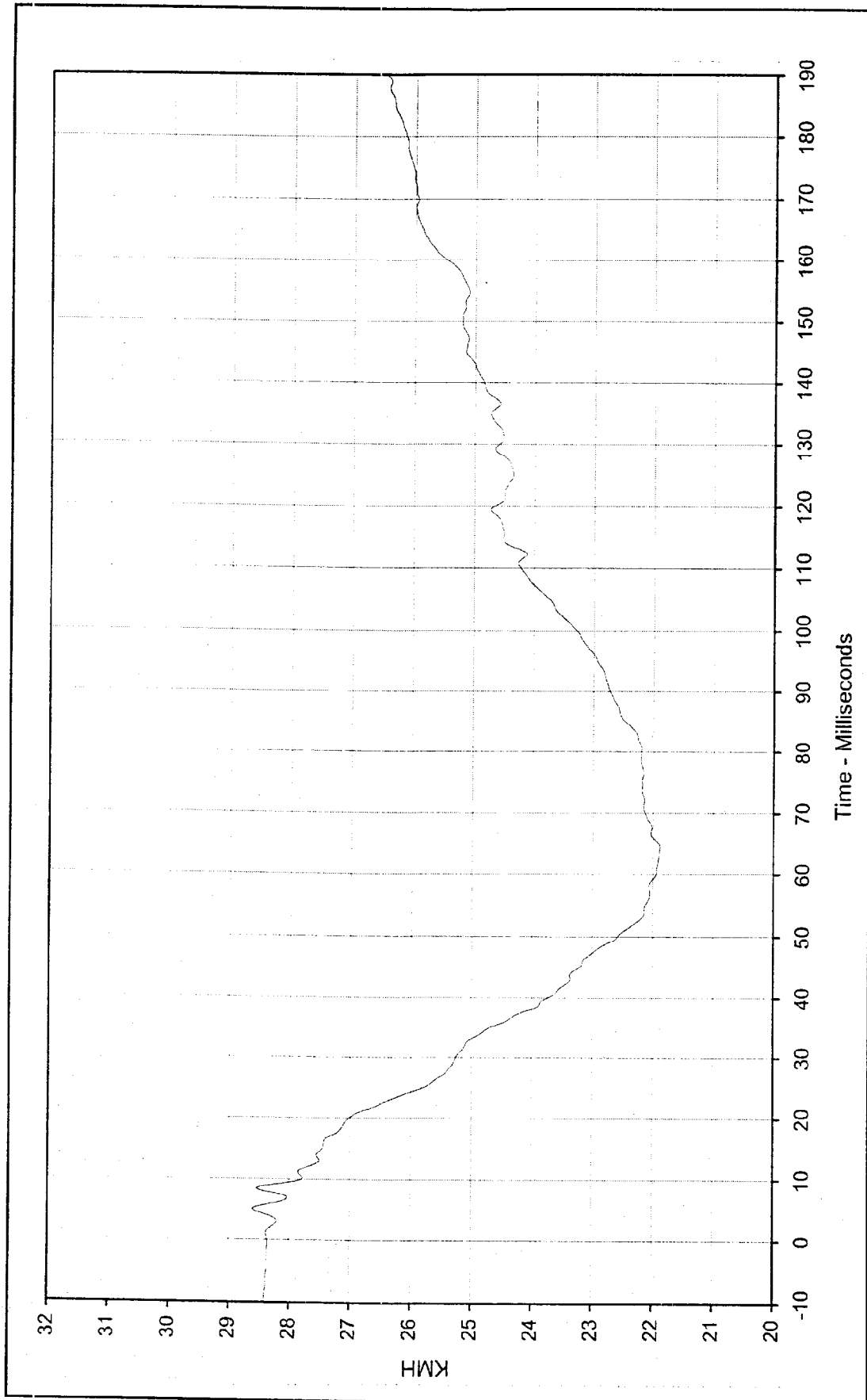
Minimum Value: -7.0 at 23.2 Milliseconds

SAE Filter Class: 60

Date of Test: 03/03/00

Curve Number: FIL-057

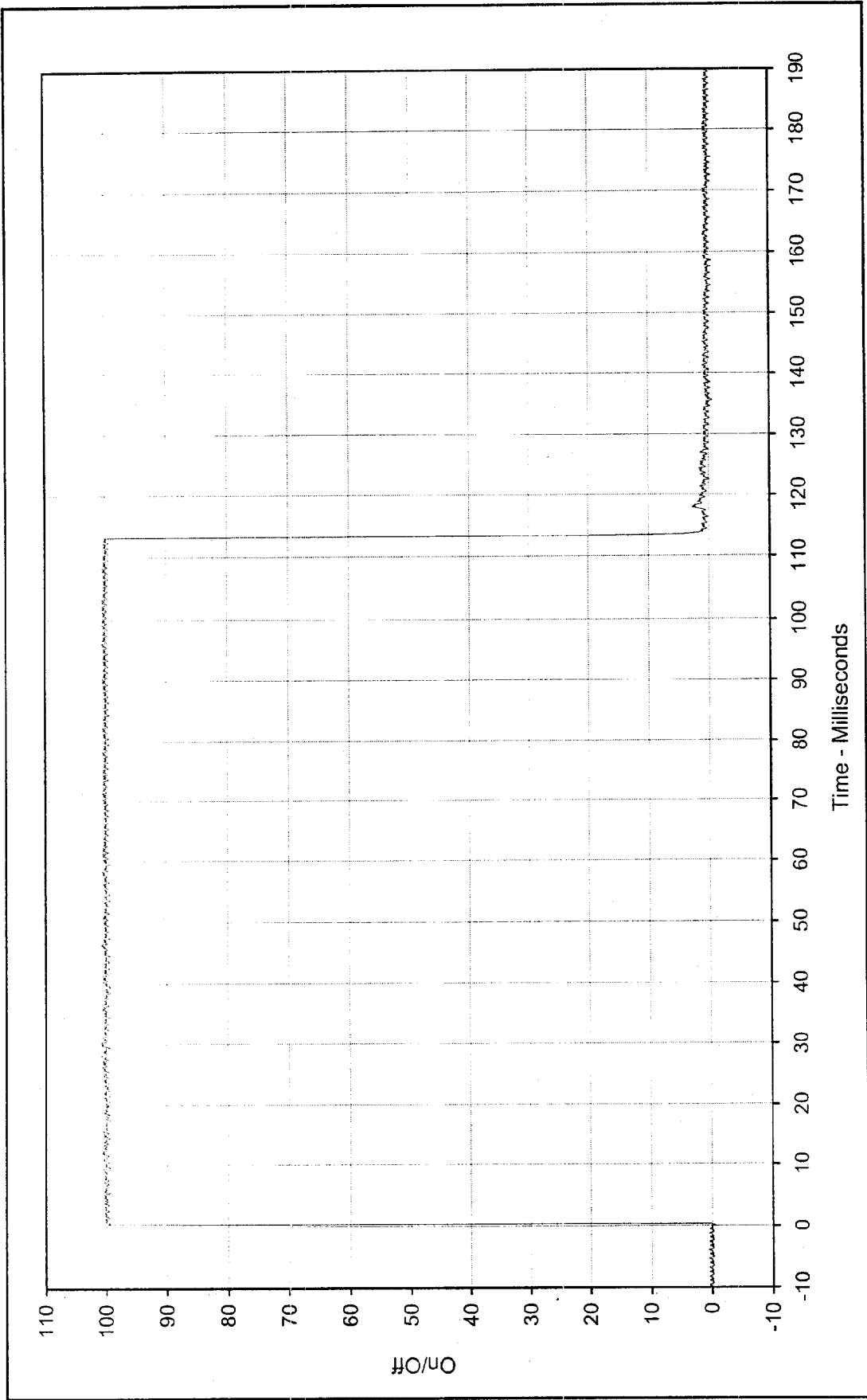




Curve Description: MDB Rear Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

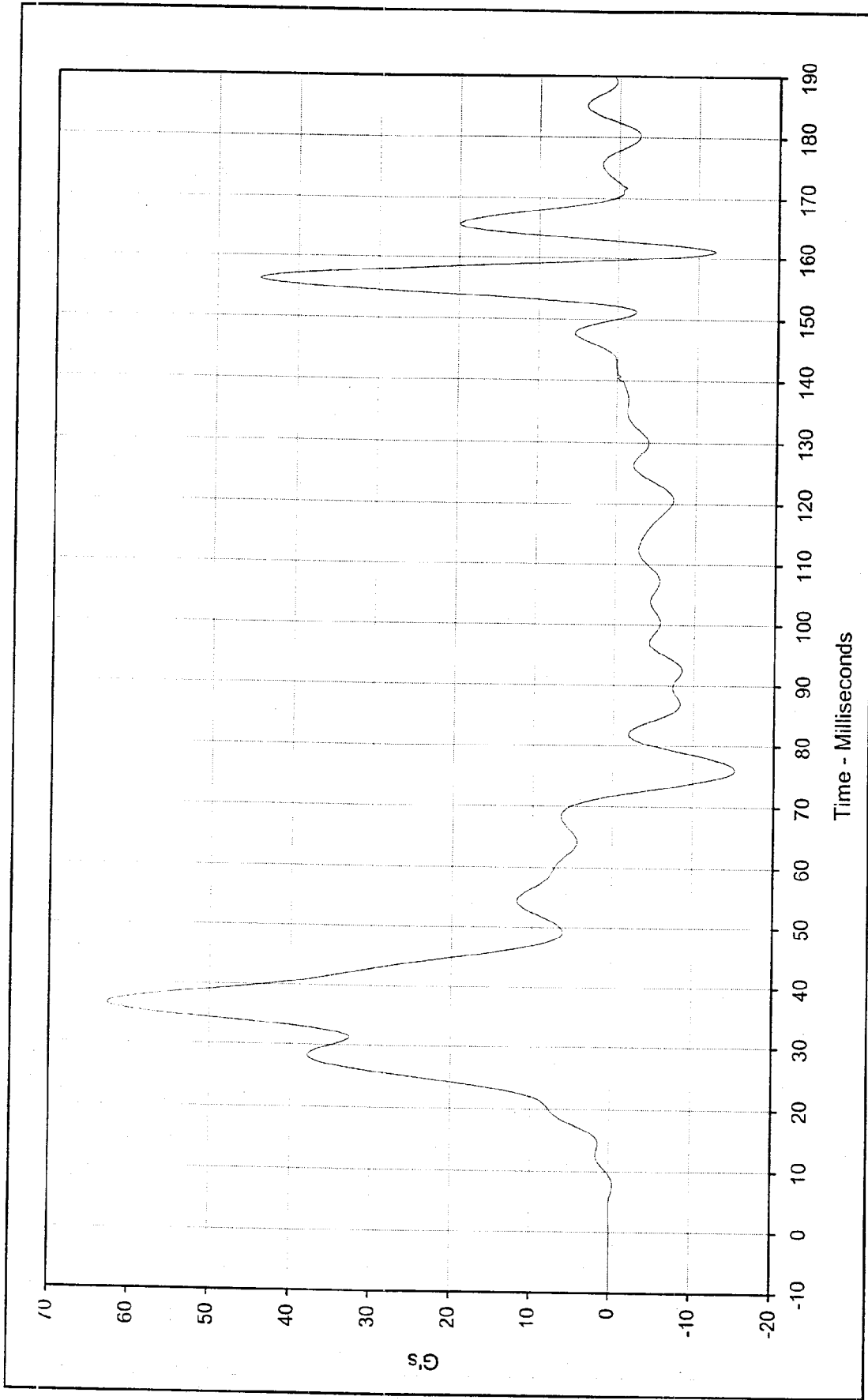
Maximum Value: 28.6 at 5.1 Milliseconds
 Minimum Value: 21.9 at 64.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 03/03/00
 Curve Number: IN1-057





Curve Description: MDB Right Bumper Contact Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 100.9 at 28.2 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Crossing Point: 50% at 0.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 03/03/00
 Curve Number: FIL-058





Curve Description: Driver Upper Rib Primary Y

Maximum Value: 62.7 at 36.7 Milliseconds

Minimum Value: -15.2 at 76.1 Milliseconds

SAE Filter Class: FIR 100

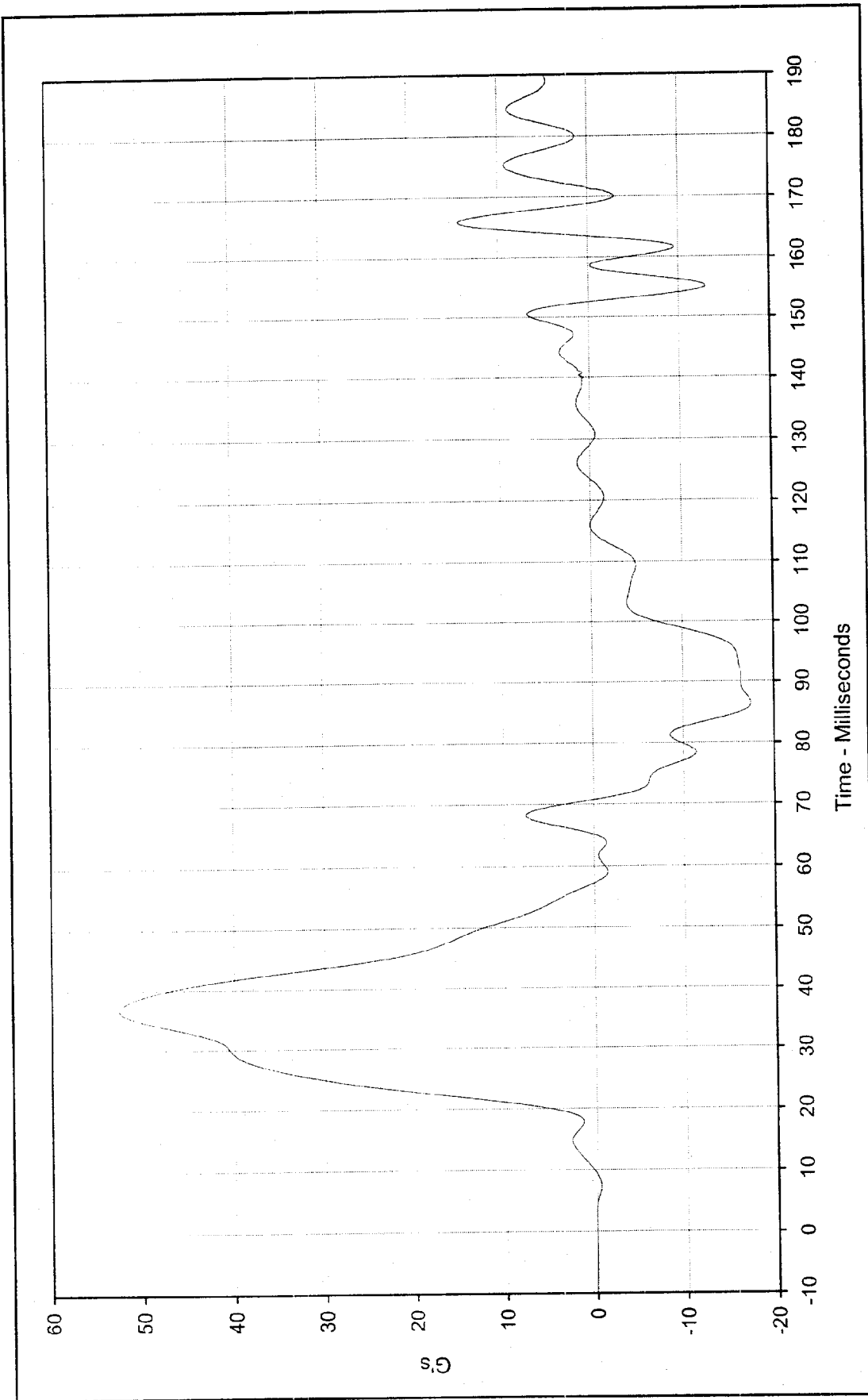
Date of Test: 03/03/00

Curve Number: FIR-004

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103

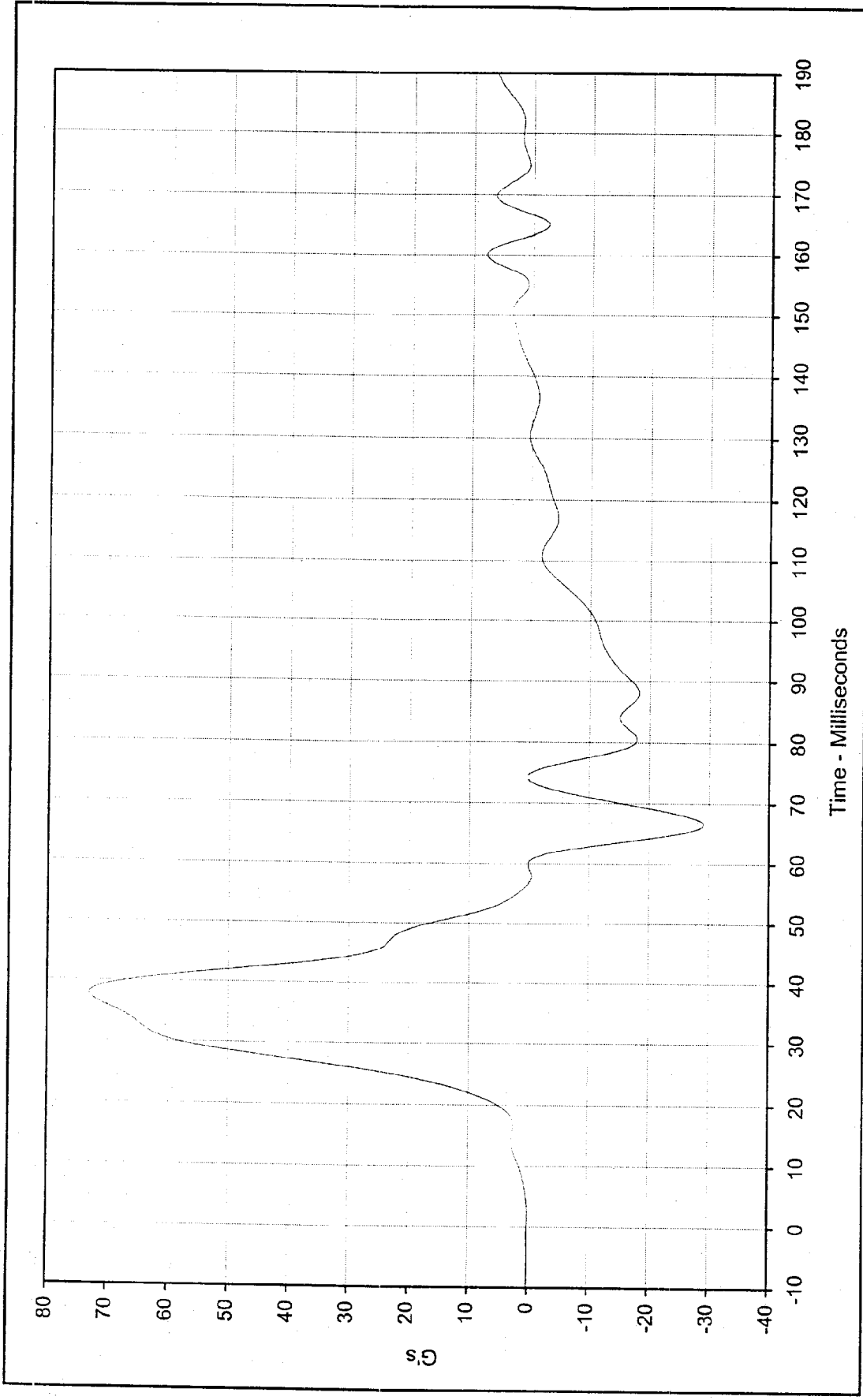
Test Vehicle: 2000 Cadillac Deville DHS





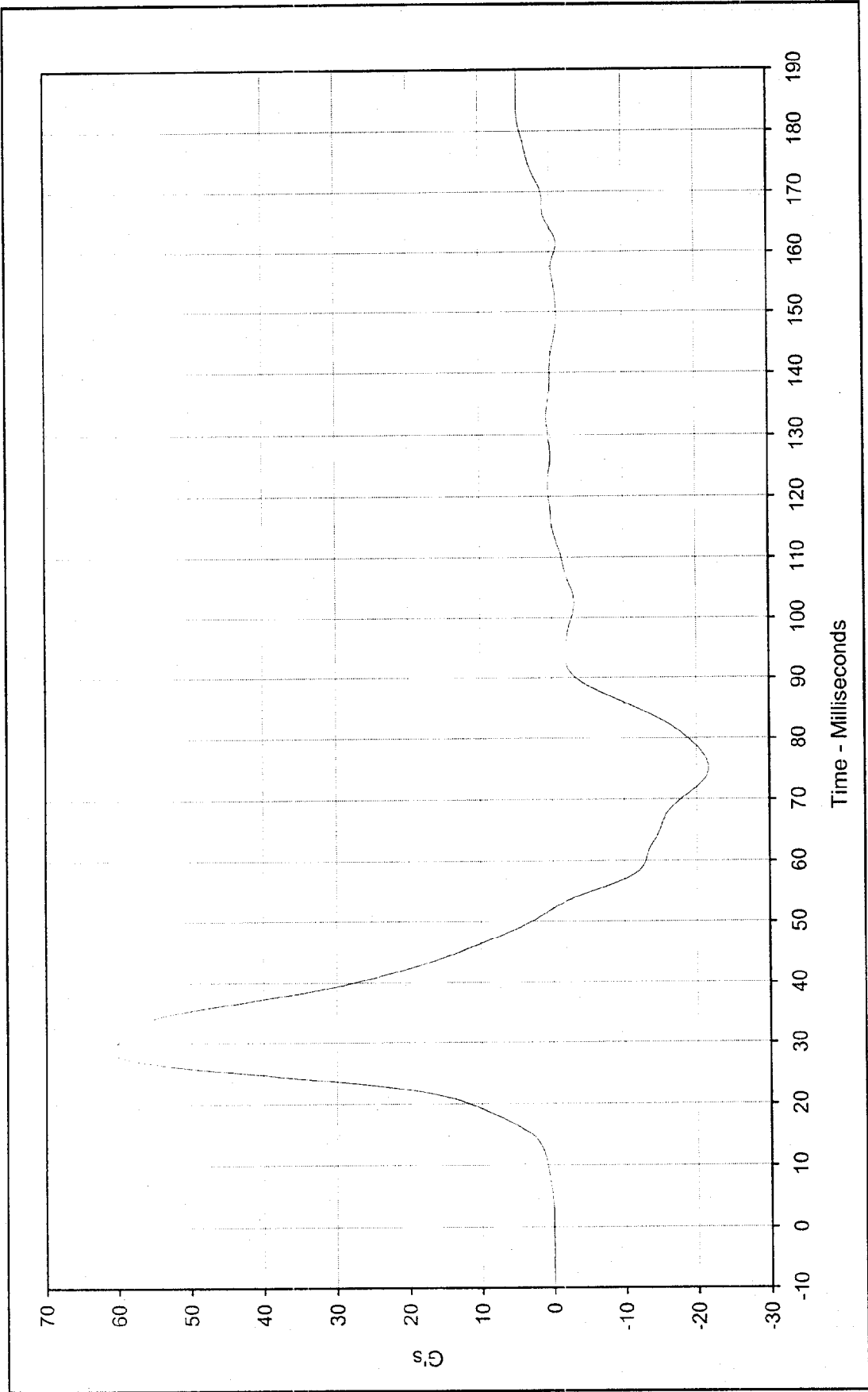
Curve Description: Driver Lower Rib Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 52.6 at 36.7 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -17.5 at 86.4 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-005





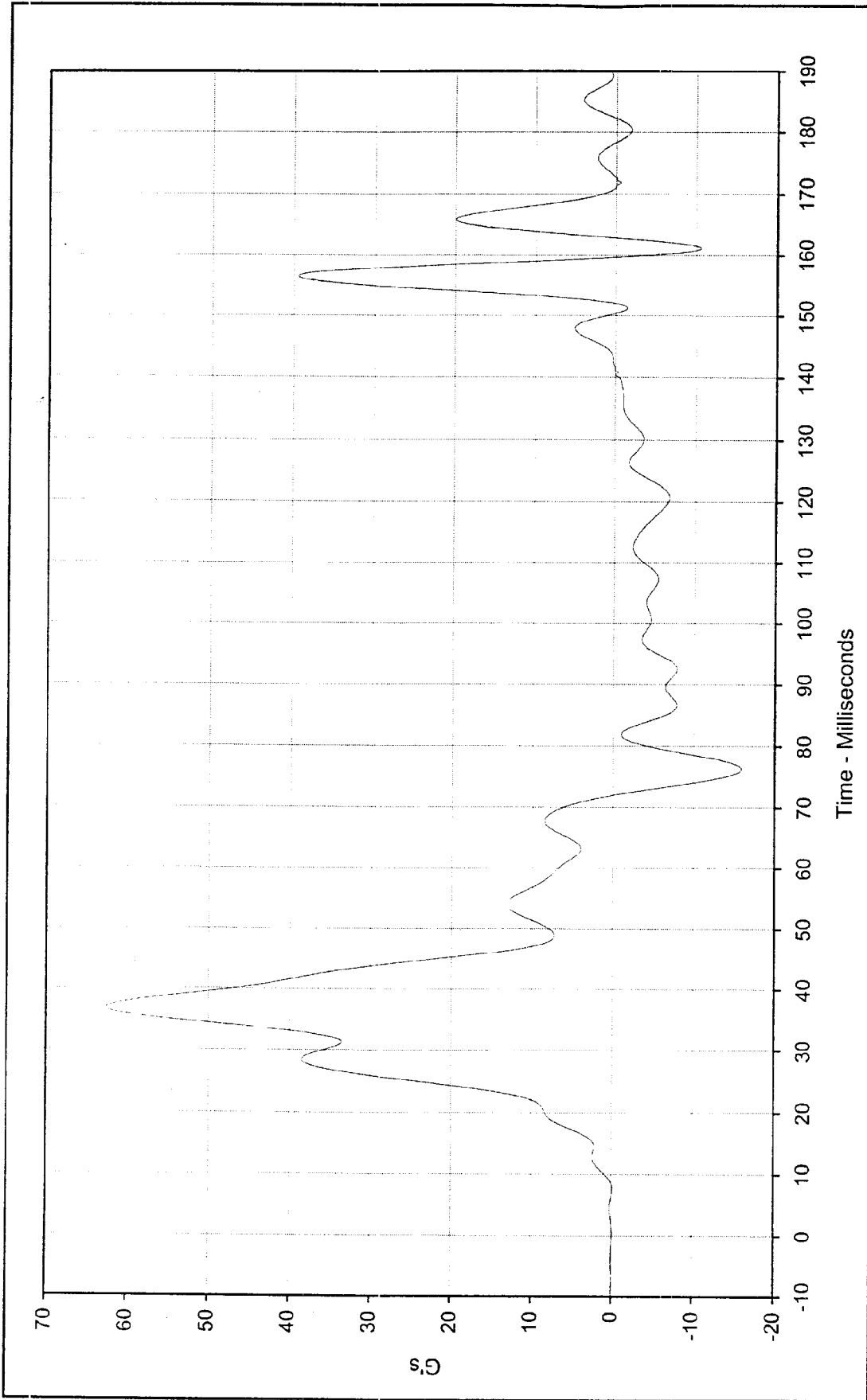
Curve Description: Driver Lower Spine Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 73.0 at 37.8 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -29.1 at 66.6 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-006





Curve Description: Driver Pelvis Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 61.0 at 28.8 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -21.7 at 75.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-007

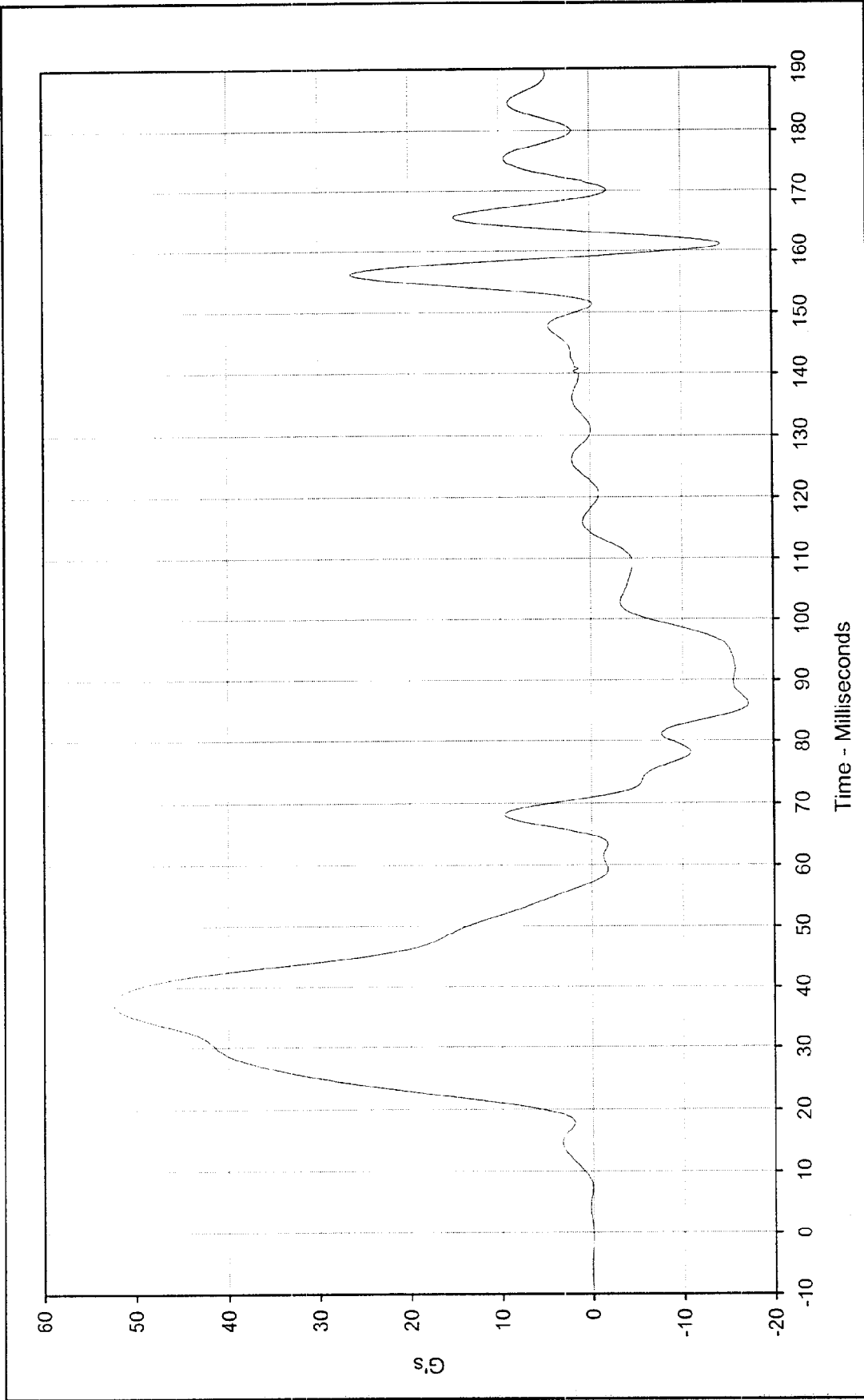




Curve Description: Driver Upper Rib Redundant Y
 Maximum Value: 62.6 at 36.8 Milliseconds
 Minimum Value: -15.9 at 76.3 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-008

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

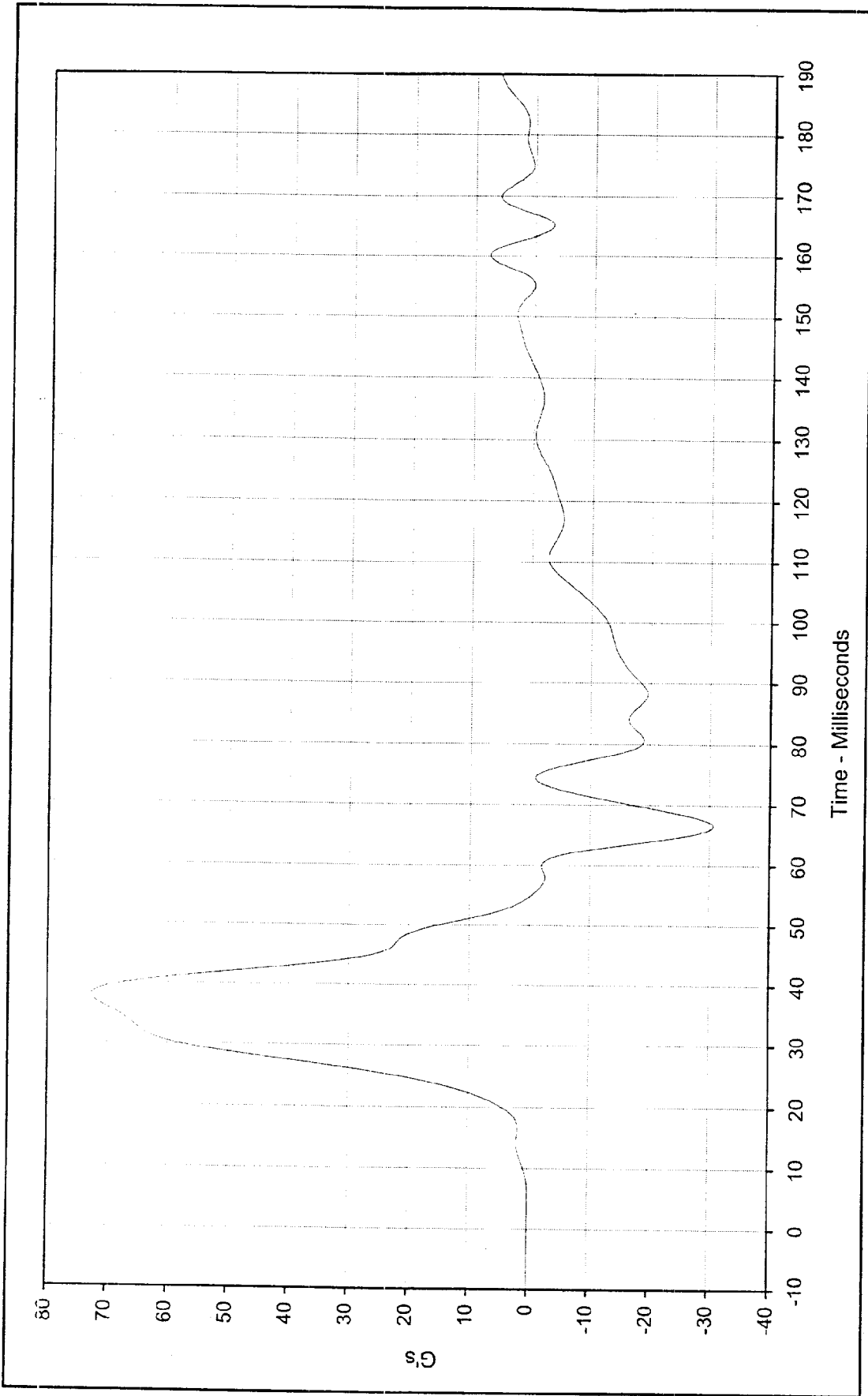




Curve Description: Driver Lower Rib Redundant Y
 Maximum Value: 52.5 at 37.4 Milliseconds
 Minimum Value: -17.3 at 86.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-009

Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS

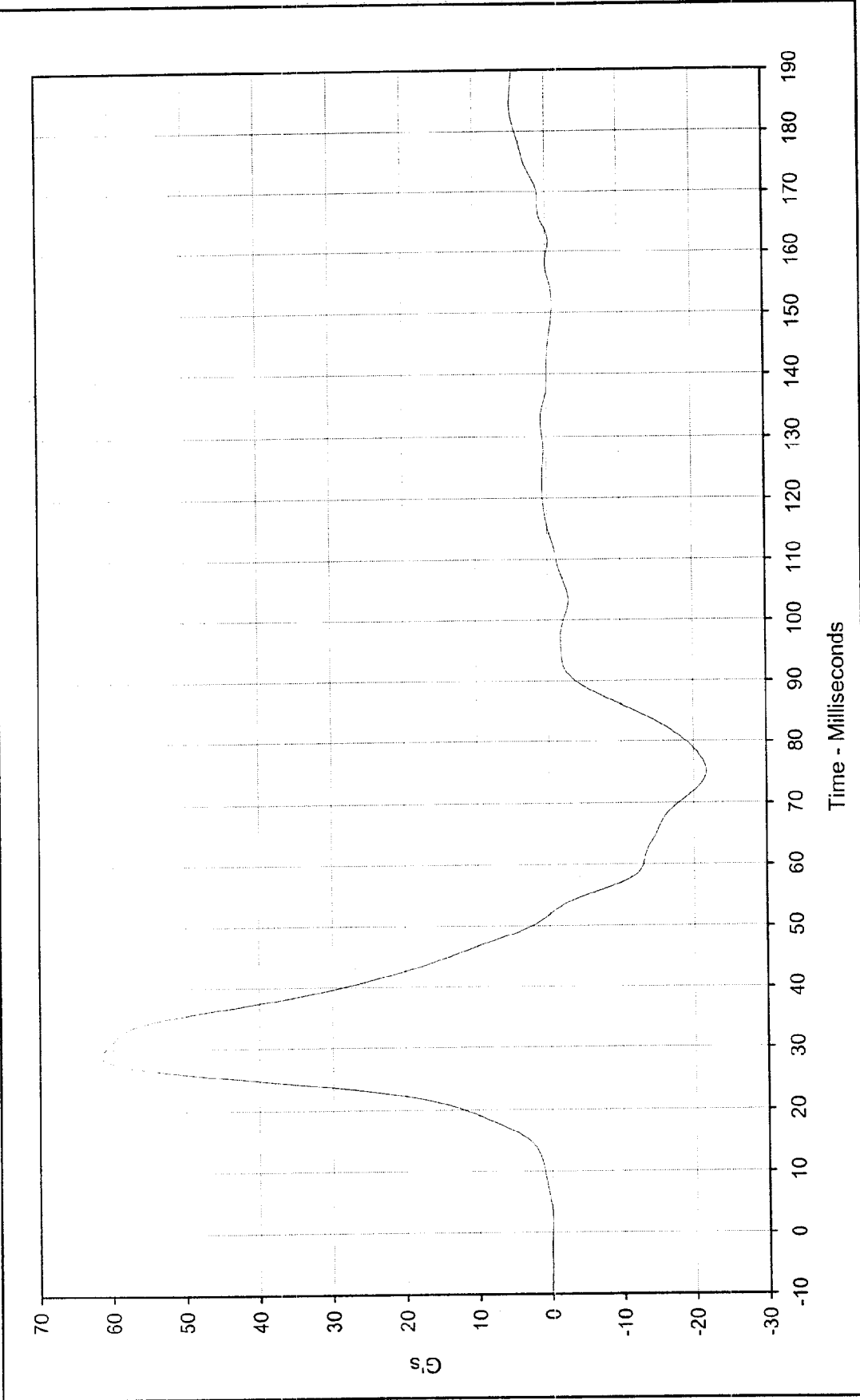




Curve Description: Driver Lower Spine Redundant Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 72.7 at 37.9 Milliseconds
 Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -30.6 at 66.7 Milliseconds



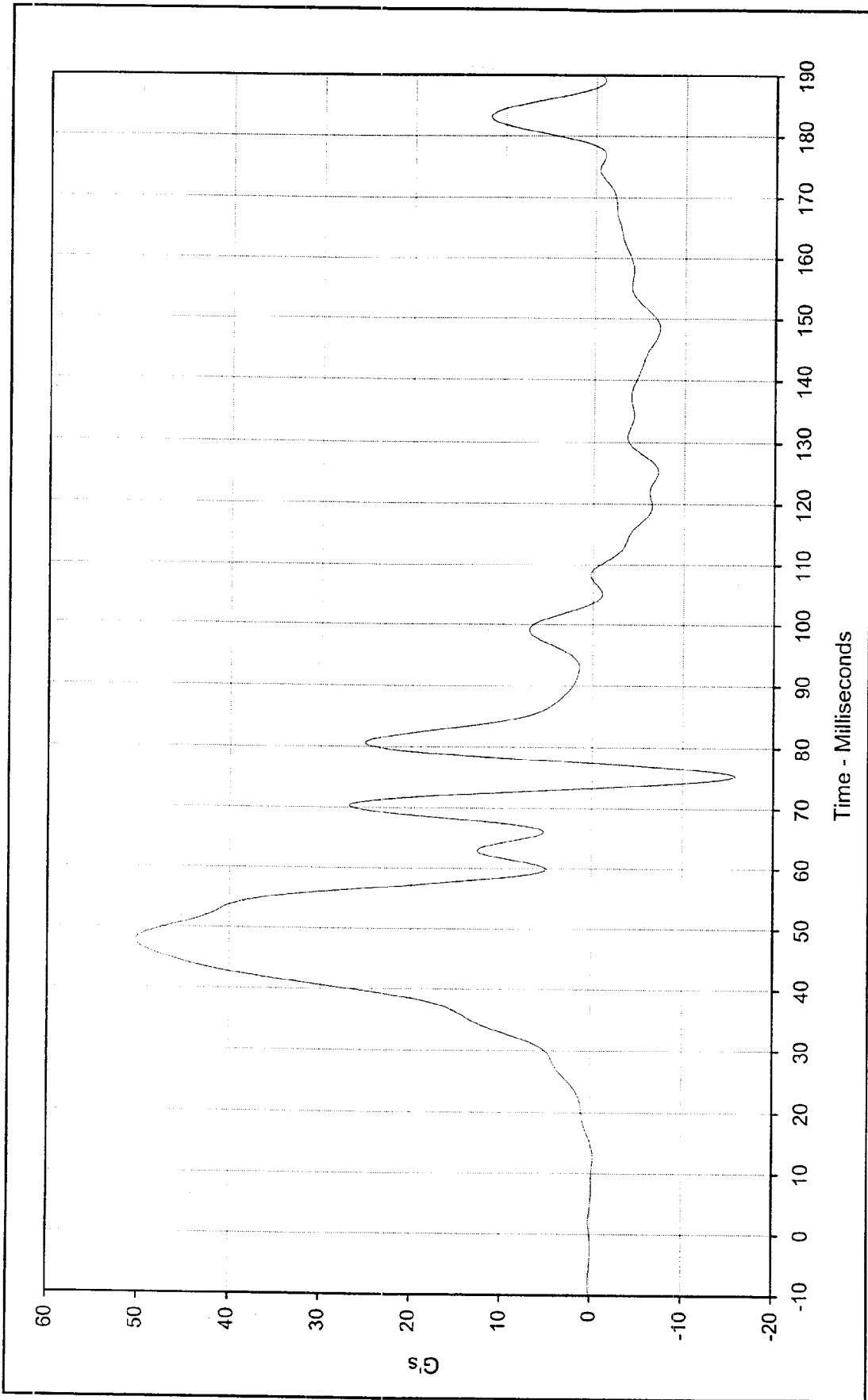
SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-010



Curve Description: Driver Pelvis Redundant Y
 Maximum Value: 61.6 at 29.0 Milliseconds
 Minimum Value: -21.7 at 75.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-011

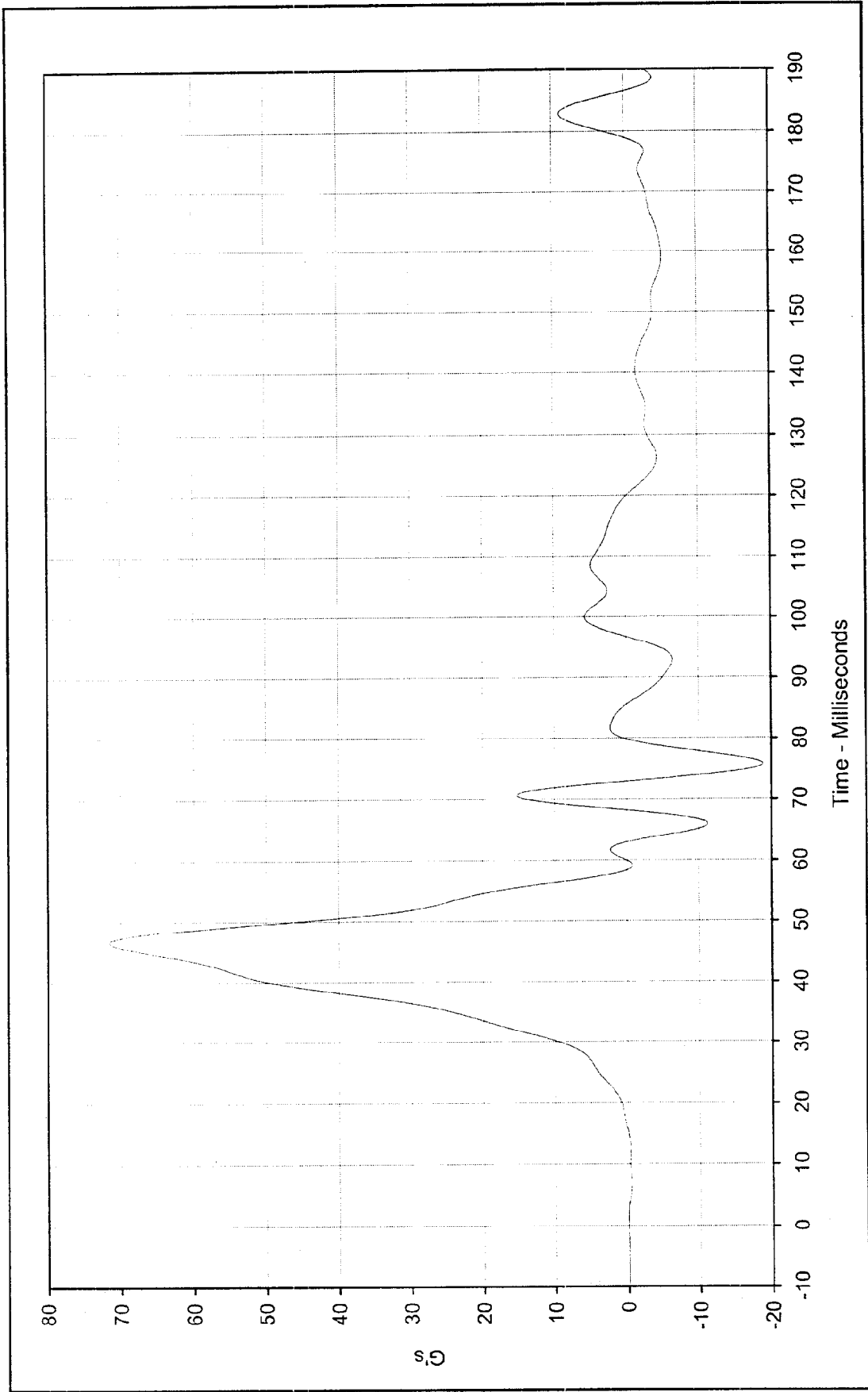
Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Test Vehicle: 2000 Cadillac Deville DHS





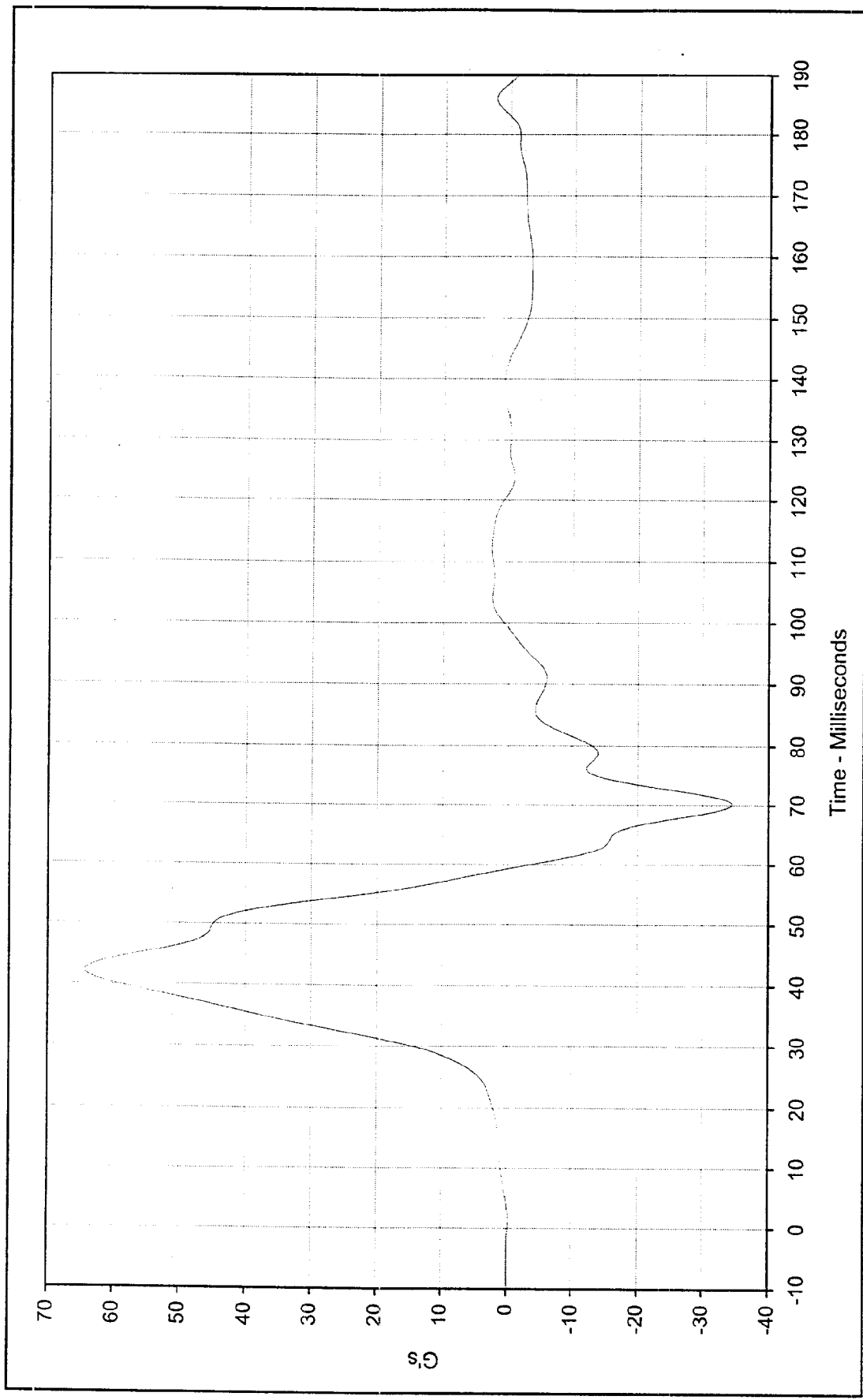
Curve Description: Pass, Upper Rib Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 50.3 at 47.8 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -15.8 at 75.4 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-017





Curve Description: Pass. Lower Rib Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 71.6 at 46.6 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -18.9 at 75.7 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-018

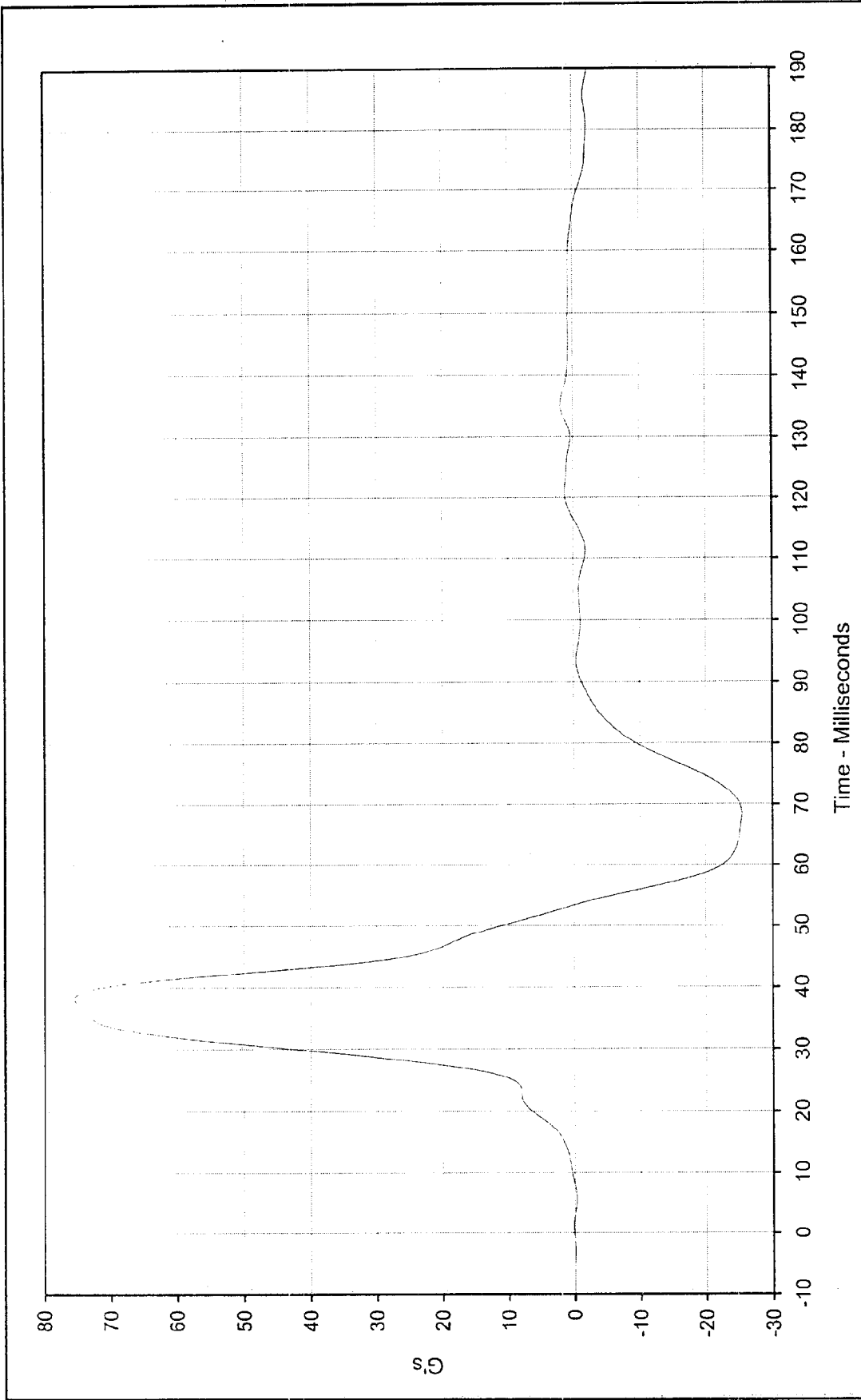




Curve Description: Pass. Lower Spine Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 64.3 at 42.2 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -34.5 at 70.2 Milliseconds

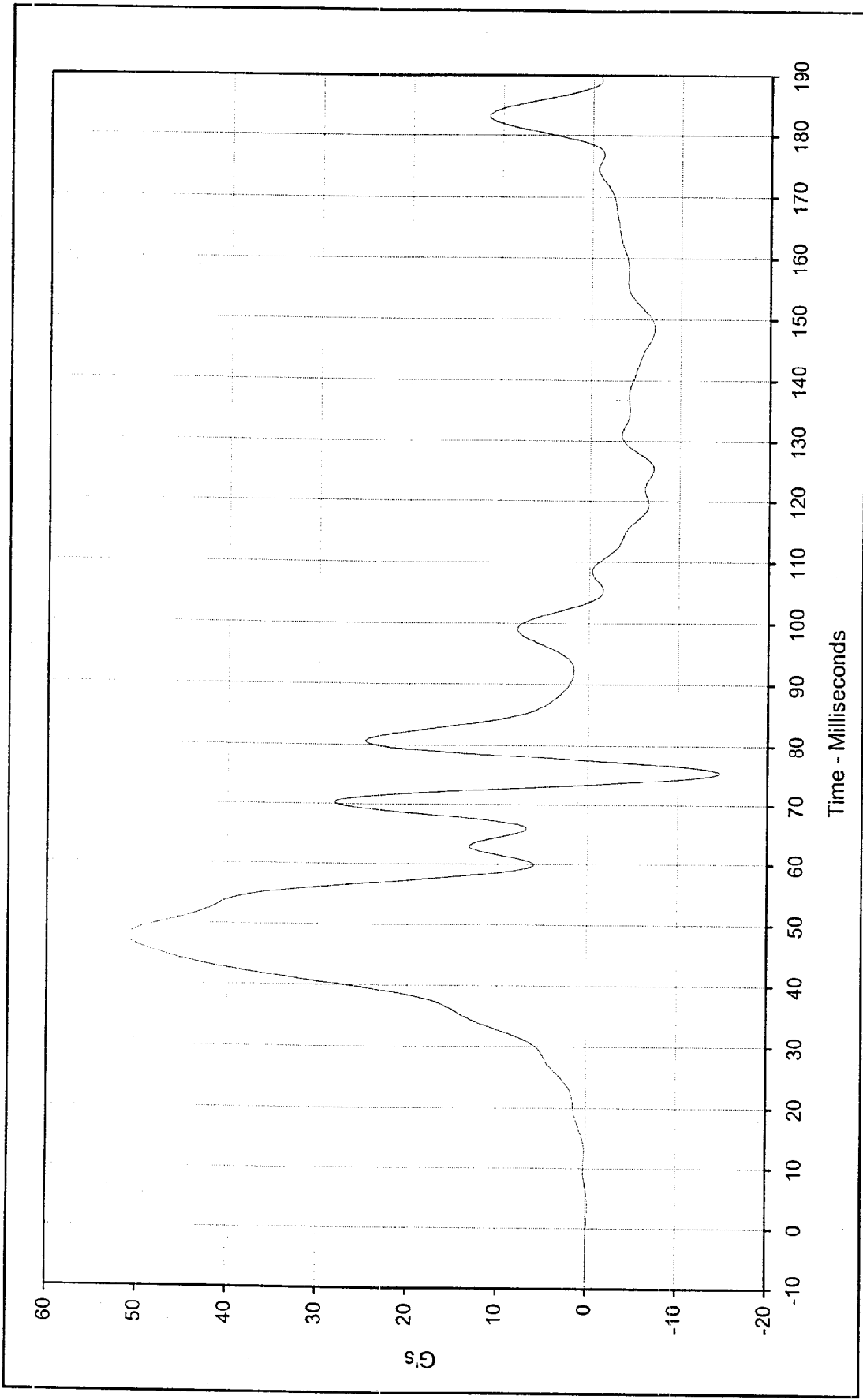


SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-019



Curve Description: Pass. Pelvis Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 75.5 at 38.2 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -25.4 at 68.4 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-020

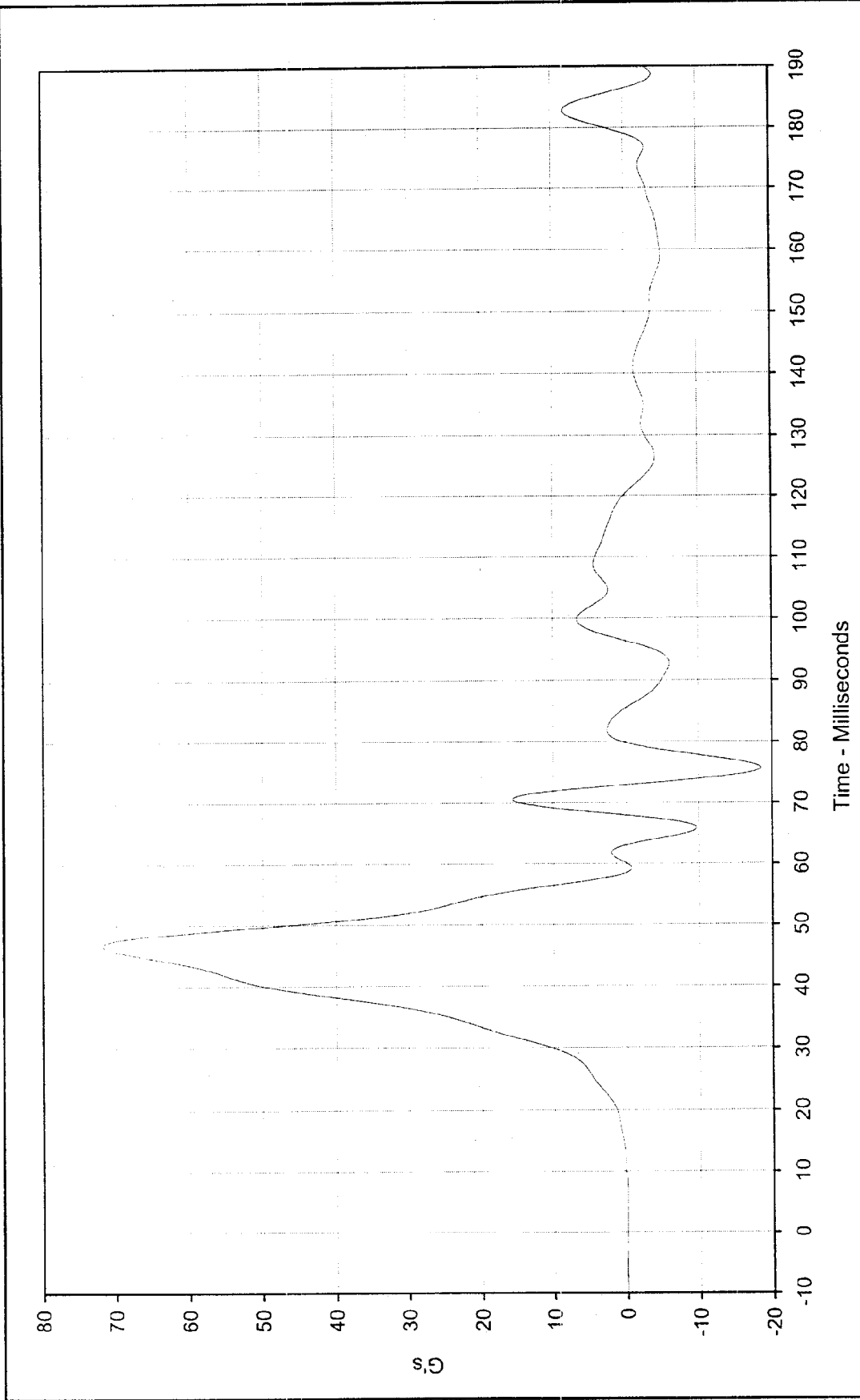




Curve Description: Pass. Upper Rib Redundant Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 51.1 at 47.8 Milliseconds
 Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -14.7 at 75.4 Milliseconds

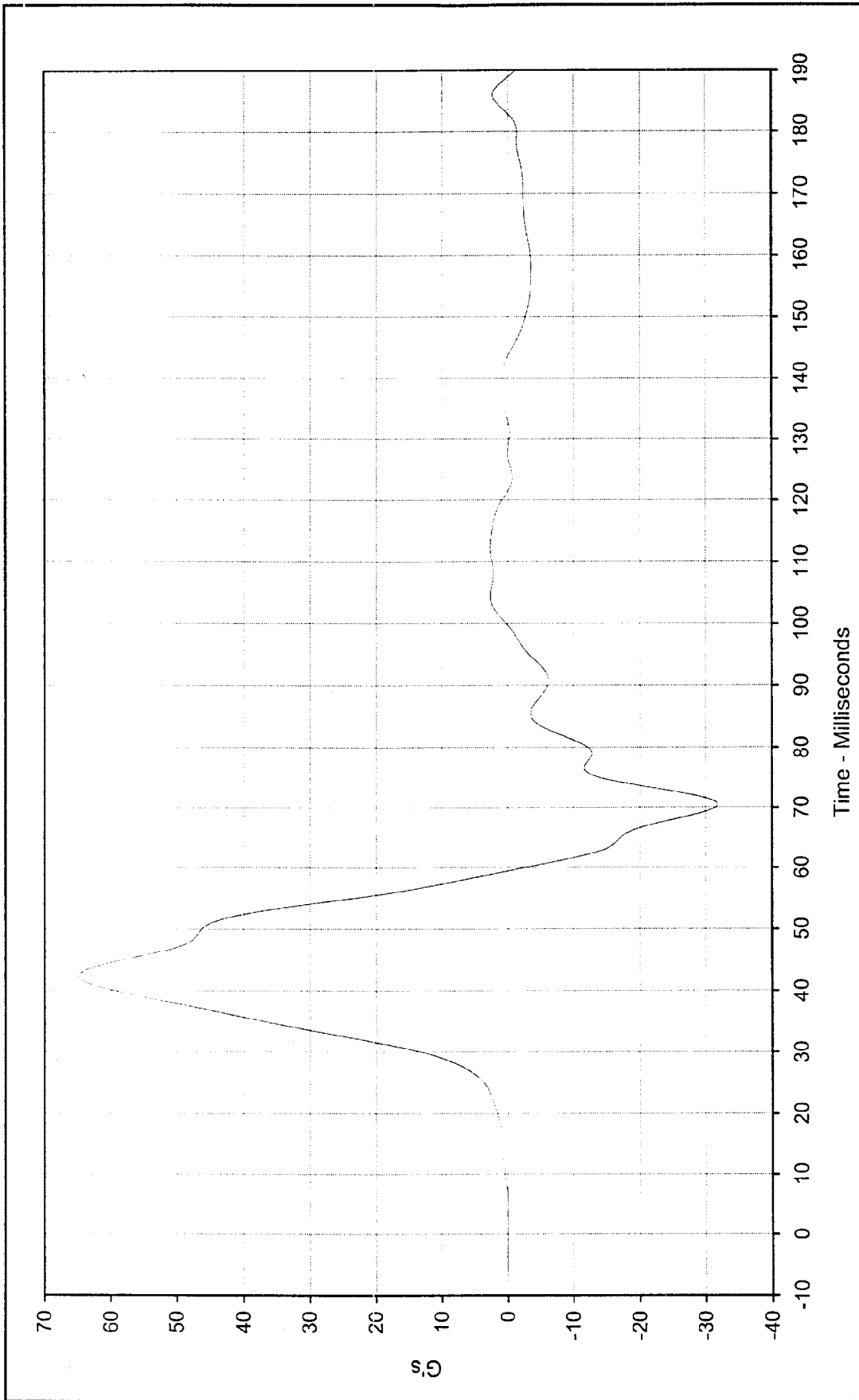


SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-021



Curve Description: Pass. Lower Rib Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 71.9 at 46.5 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -18.5 at 75.7 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-022

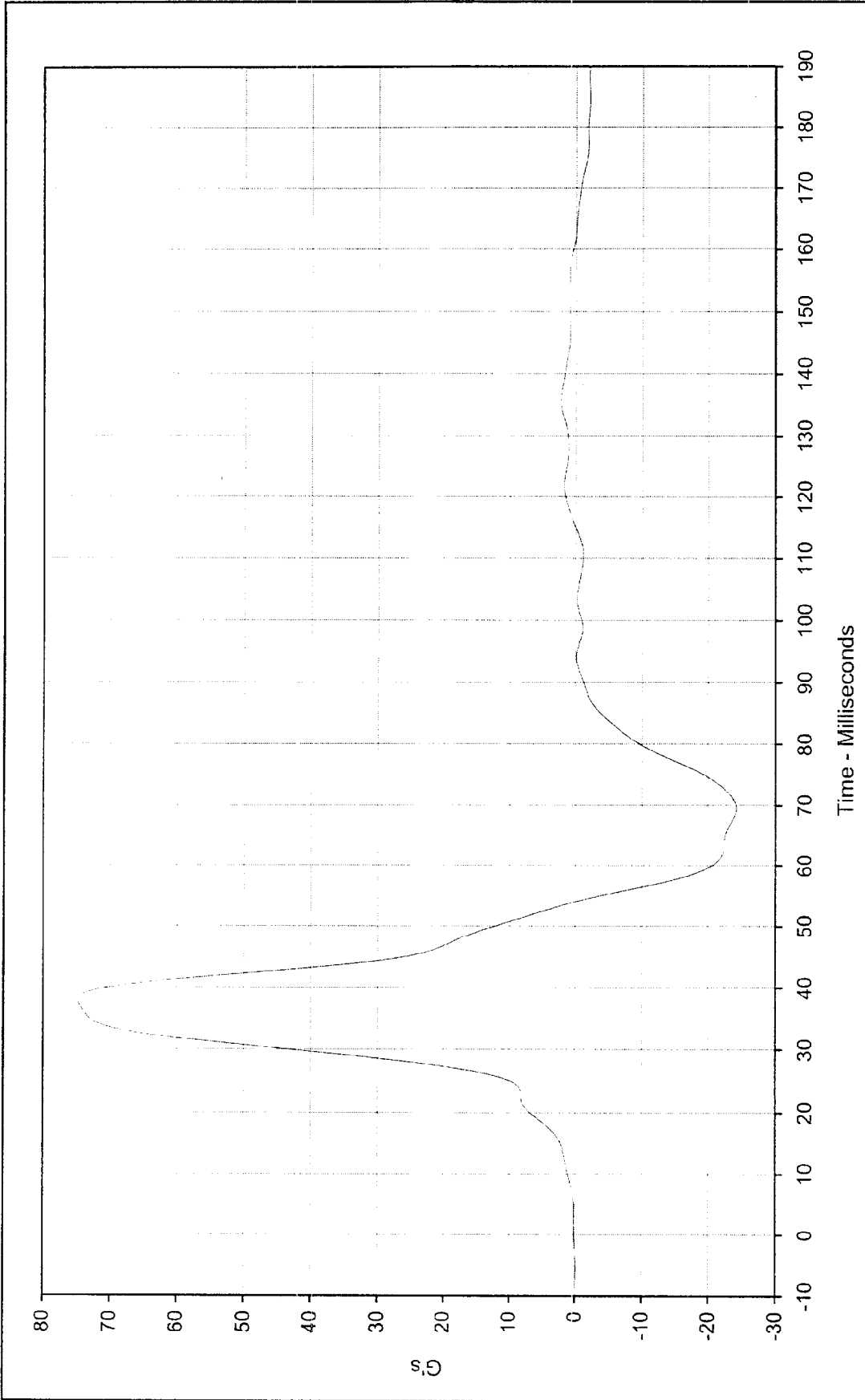




Curve Description: Pass. Lower Spine Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 64.8 at 42.3 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -31.8 at 70.5 Milliseconds



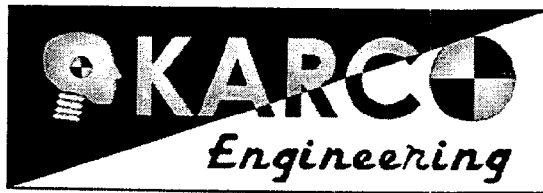
SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-023



Curve Description: Pass. Pelvis Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0103
 Maximum Value: 74.8 at 37.9 Milliseconds Test Vehicle: 2000 Cadillac Deville DHS
 Minimum Value: -24.2 at 69.5 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 03/03/00
 Curve Number: FIR-024



APPENDIX C
SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA



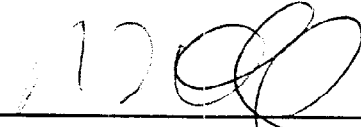
Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.6	Pass
Laboratory relative humidity	%	10 to 70	29	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	521	Pass
KV- Knee Pivot From Floor	mm	490 to 505	501	Pass
HW- Hip Width	mm	356 to 391	363	Pass
Overall Test Results				Pass



Laboratory Technician

March 2, 2000

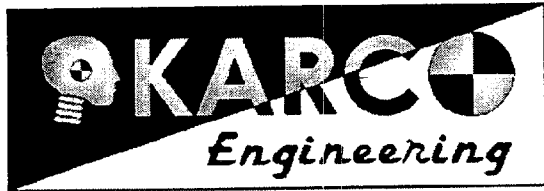
Test Date



Approved By

3/2/00

Date



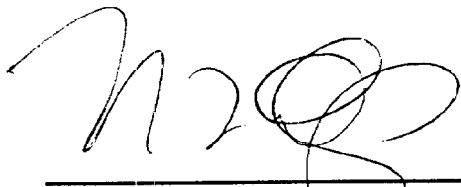
**Performance Verification Data
Side Impact Dummy (SID)
Thorax Lateral Impact**

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: TI02D

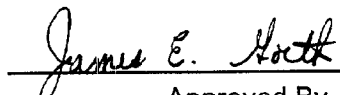
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.8	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Left Upper Spine Acceleration	G's	37.0 to 46.0	39.0	Pass
Left Lower Spine Acceleration	G's	37.0 to 46.0	38.7	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.6	Pass
Overall Test Results				Pass



 Laboratory Technician

March 1, 2000

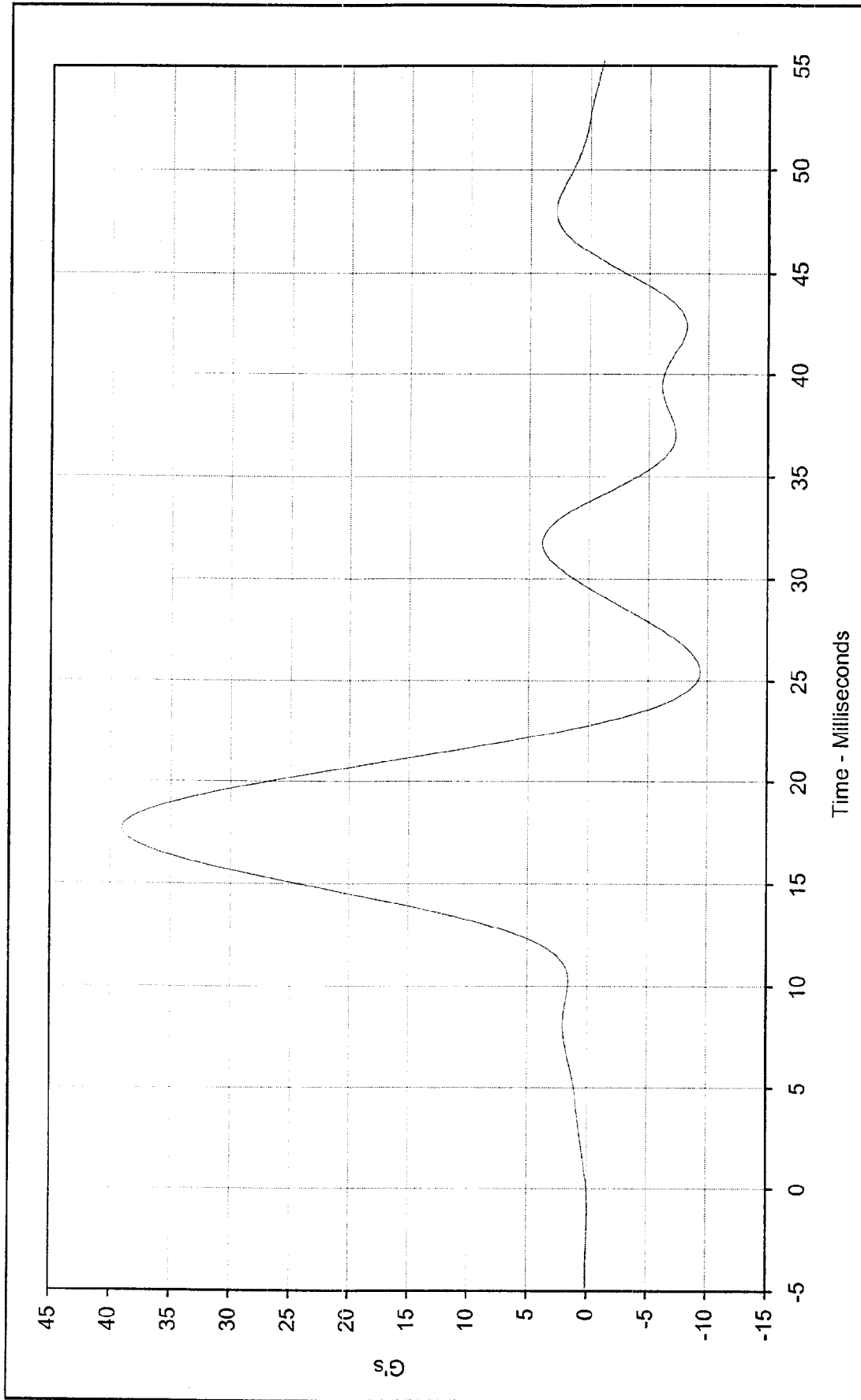
 Test Date



 Approved By

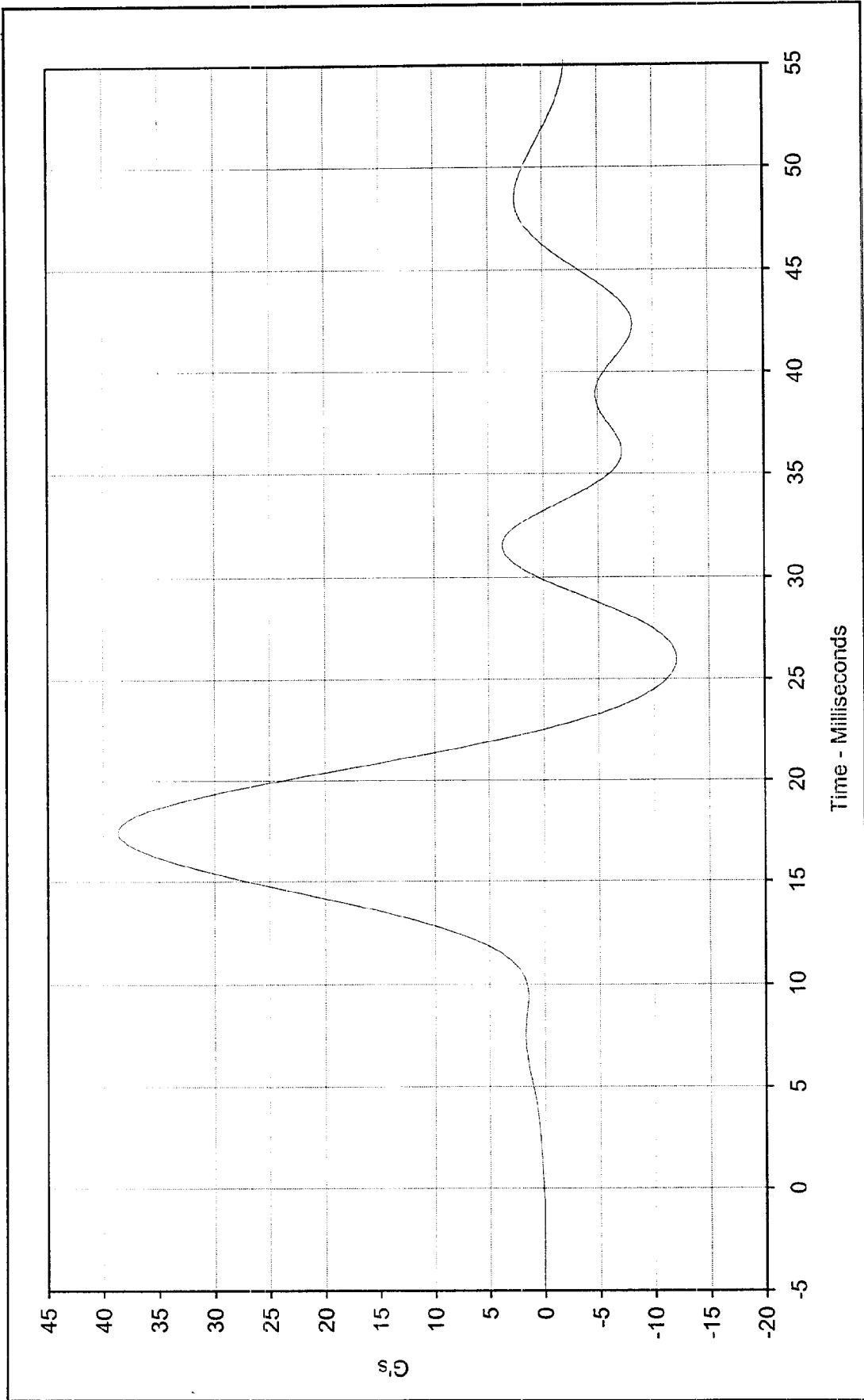
3/1/00

 Date



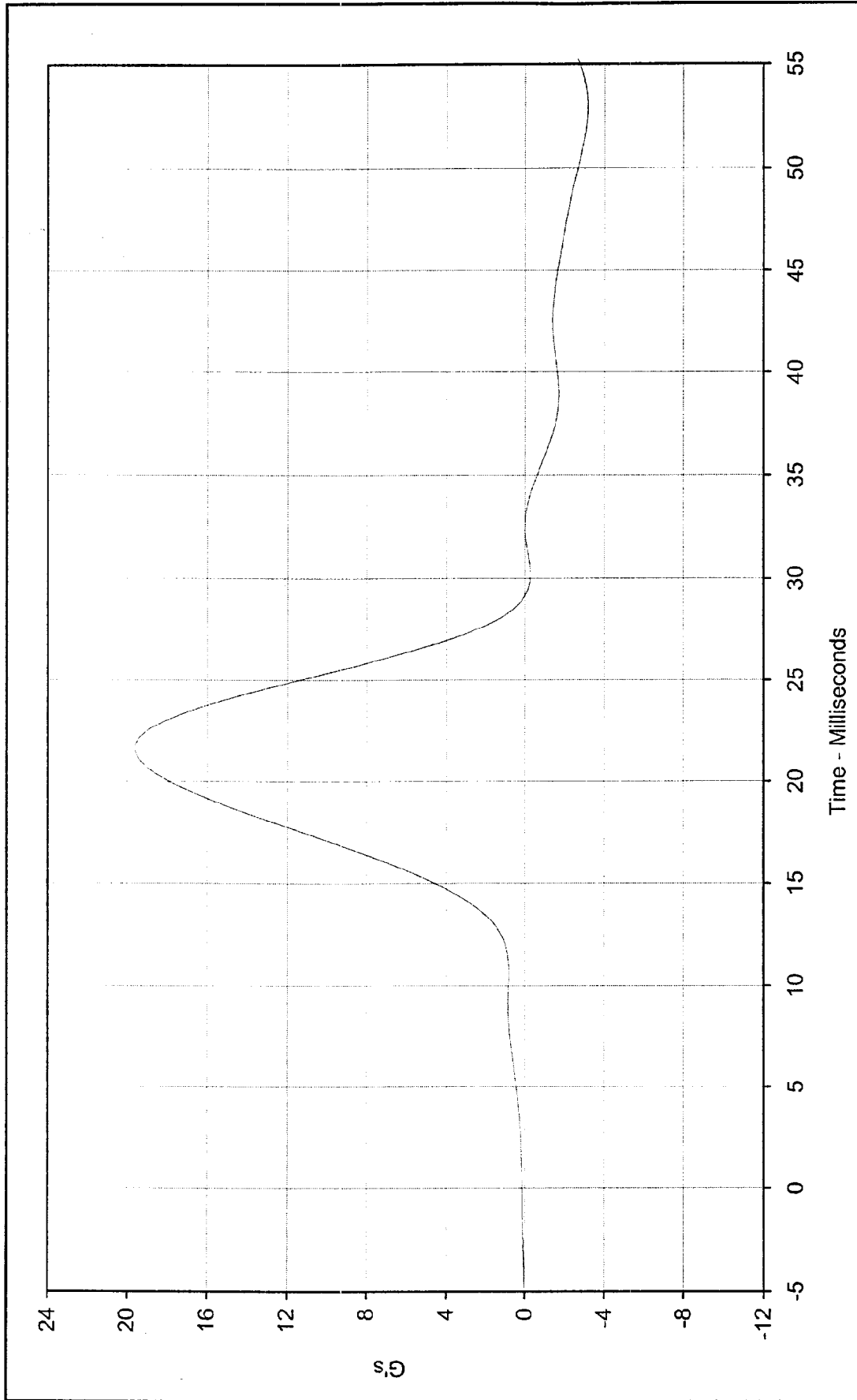
Curve Description: Left Upper Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 39.0 at 17.7 Milliseconds Test Information: SID S/N: 056 Test I.D.: T102D
 Minimum Value: -9.4 at 25.5 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00





Curve Description: Left Lower Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 38.7 at 17.4 Milliseconds Test Information: SID S/N: 056 Test I.D.: TI02D
 Minimum Value: -12.1 at 26.0 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00

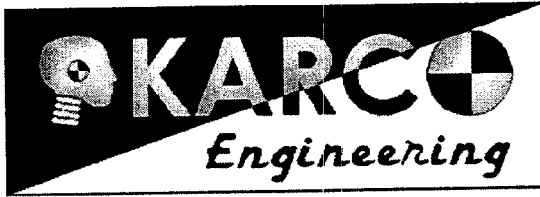




Curve Description: Lower Spine Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 19.6 at 21.6 Milliseconds Test Information: SID S/N: 056 Test I.D.: T102D

SAE Filter Class: FIR 100
 Date of Test: 3/1/00





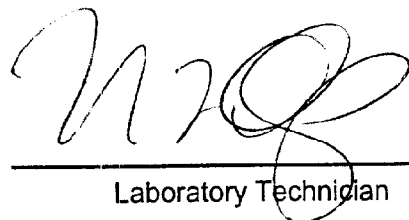
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: PI01F

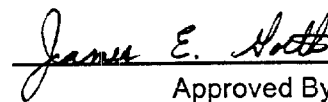
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Pelvis Acceleration	G's	40.0 to 60.0	43.2	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician

March 1, 2000

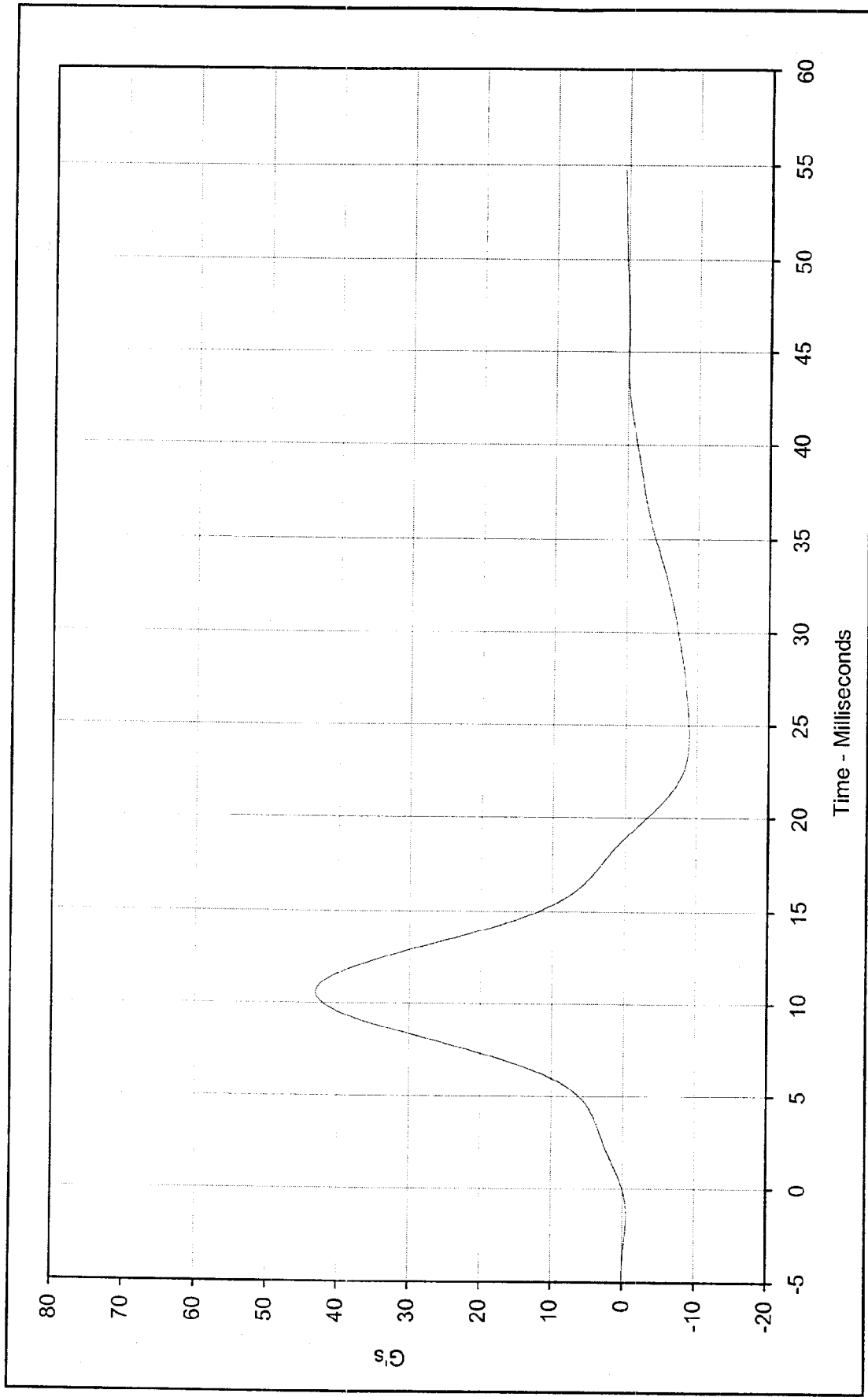
Test Date



Approved By

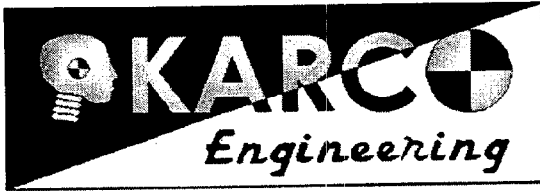
3/1/00

Date



Curve Description: Pelvis Y Axis Acceleration Test Program: Left Side Pelvis Lateral Impact
 Maximum Value: 43.2 at 10.6 Milliseconds SID S/N: 056 Test I.D.: P101F
 Minimum Value: -8.9 at 24.3 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00





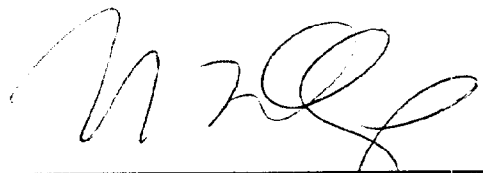
**Performance Verification Data
Side Impact Dummy (SID)
Abdominal Compression Test**

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: AB01A

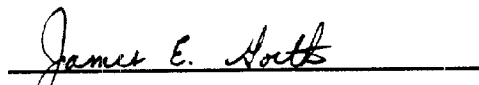
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	32.1	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	44.7	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	58.3	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	79.3	Pass
Overall Test Results				Pass



 Laboratory Technician

March 2, 2000

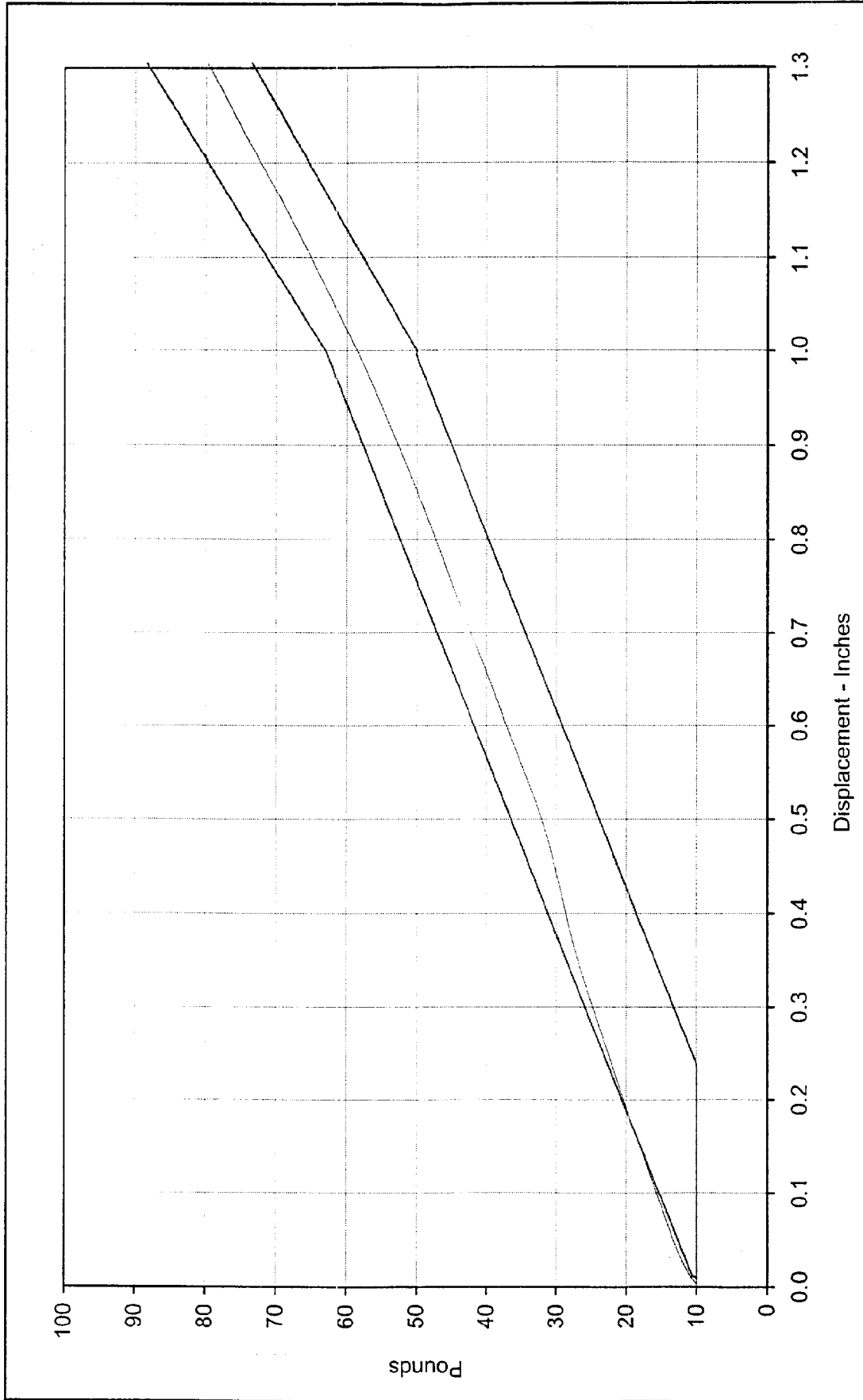
_____ Test Date



 Approved By

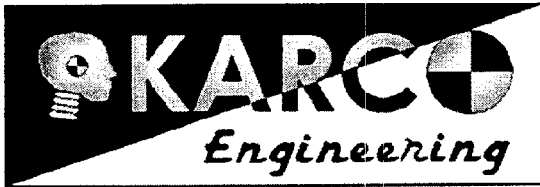
3/2/00

_____ Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
 Force at 0.5 In.: 32.1 Pounds Test Information: SID S/N: 056 Test I.D.: AB01A
 Force at 0.75 In.: 44.7 Pounds
 Force at 1.0 In.: 58.3 Pounds
 Force at 1.3 In.: 79.3 Pounds
 Date of Test: 3/2/00





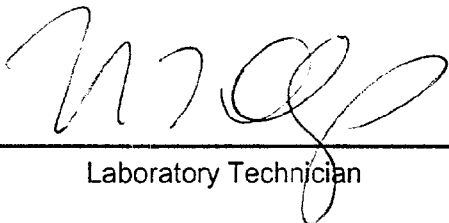
Performance Verification Data Side Impact Dummy (SID) Lumbar Flexion Test

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: LM01A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Applied Force at 0° of Flexion	Pounds	0.0	0.0	Pass
Applied Force at 20° of Flexion	Pounds	22.0 to 34.0	22.8	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	36.0	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	51.4	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	4.1	Pass
Overall Test Results				Pass



Laboratory Technician

March 2, 2000

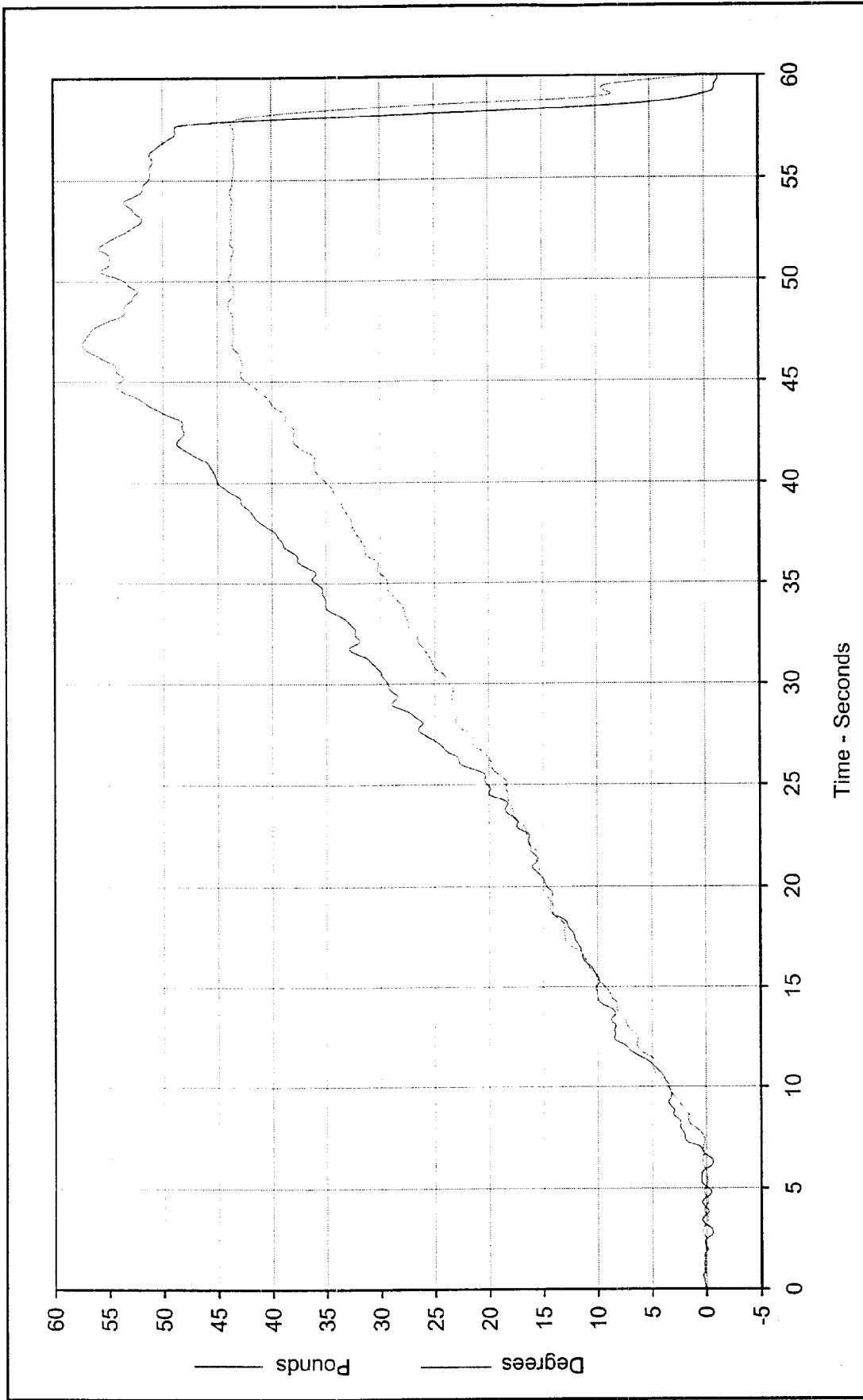
Test Date



Approved By

3/2/00

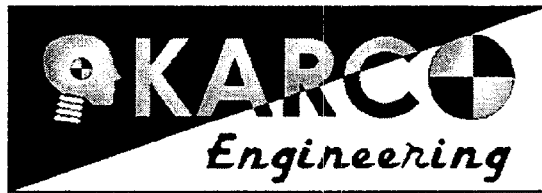
Date



Test Program: Hybrid II Lumbar Flexion
 Test Information: SID S/N: 056 Test I.D.: LM01A



Curve Description:	Applied Lumbar Force And Angle
Force at 20°:	22.8 Pounds
Force at 30°:	36.0 Pounds
Force at 40°:	51.4 Pounds
Return Angle:	4.1 Degrees
Test Date:	3/2/00



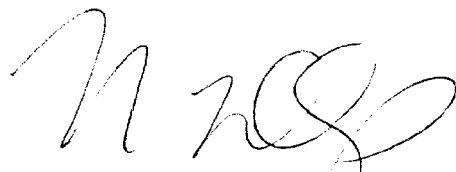
Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: HD01A

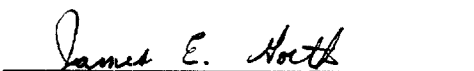
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	256.4	Pass
Peak Lateral Acceleration	G's	≤10.0	2.9	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.2	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



 Laboratory Technician

March 1, 2000

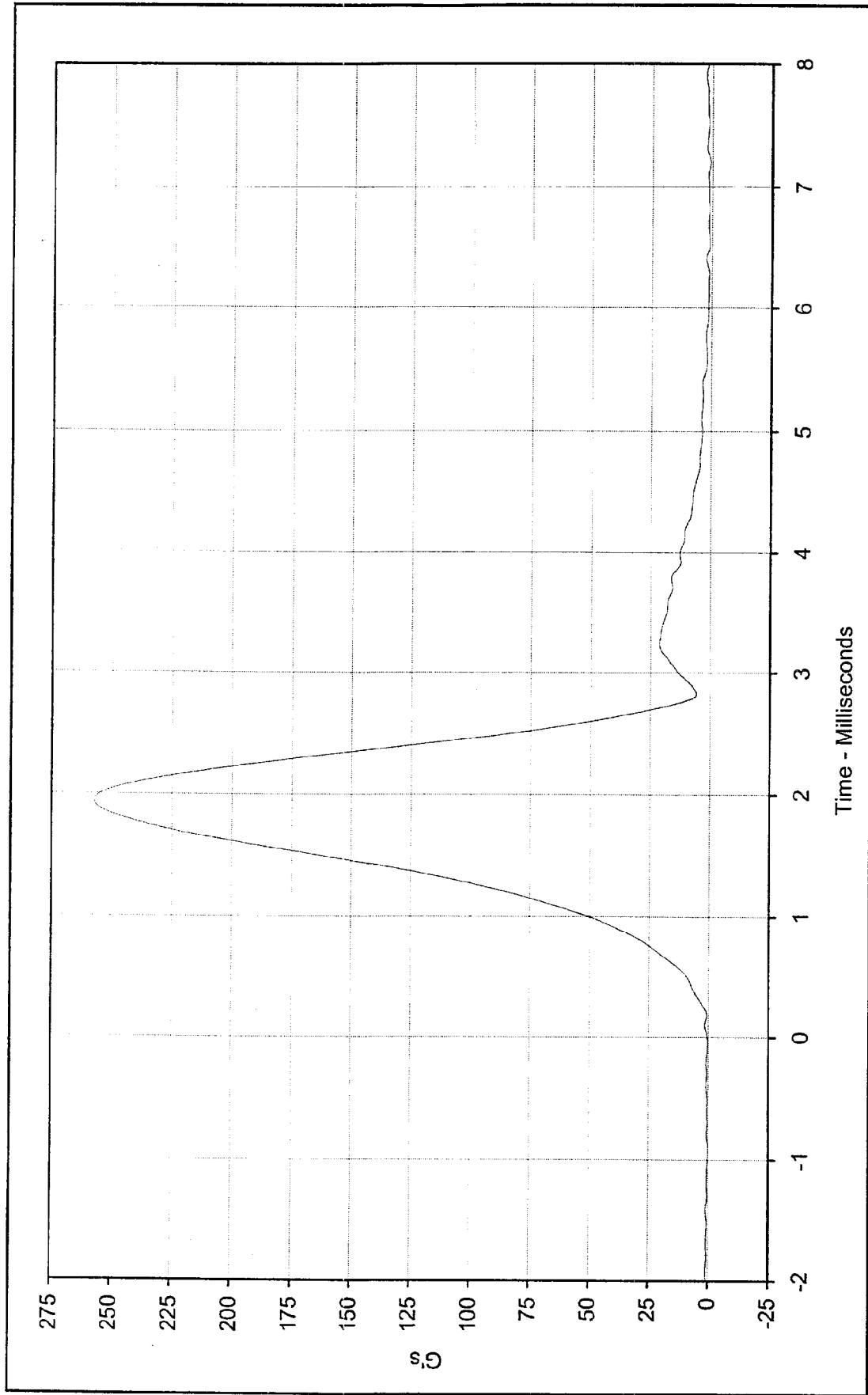
Test Date



 Approved By

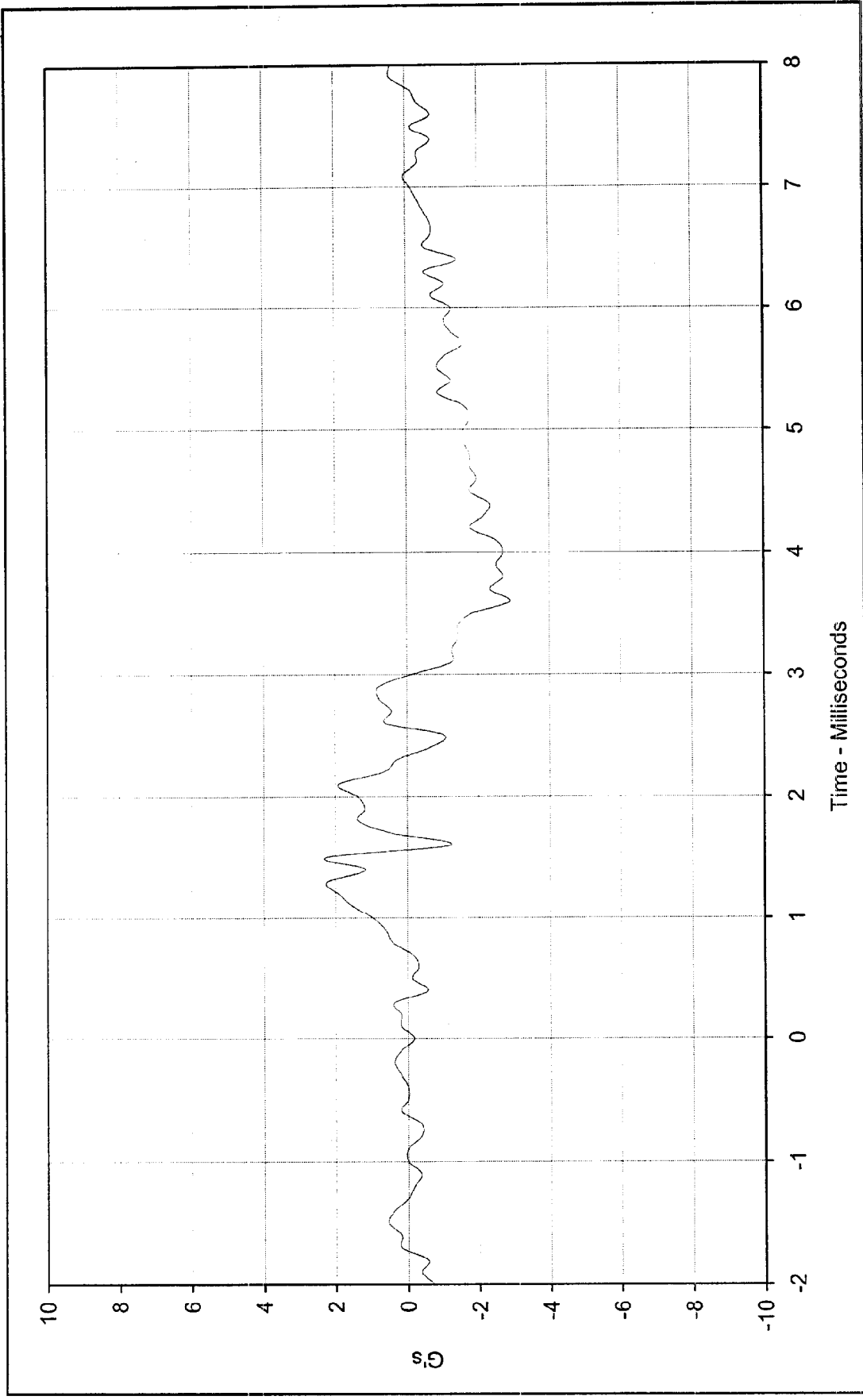
3/1/00

Date



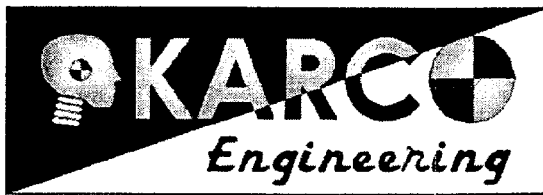
Curve Description: Head Resultant Acceleration Test Program: Hybrid II Head Drop Calibration
 Maximum Value: 256.4 at 1.9 Milliseconds Test Information: SID S/N: 056 Test I.D.: HD01A
 Minimum Value: 0.5 at 0.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 3/1/00





Curve Description:	Head Y Axis Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	2.3 at 1.5 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: HD01A
Minimum Value:	-2.9 at 3.6 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	3/1/00		





Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.7	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	901	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	505	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	522	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	364	Pass
Overall Test Results				Pass

Laboratory Technician

March 2, 2000

Test Date

Approved By

3/2/00

Date



**Performance Verification Data
Side Impact Dummy (SID)
Thorax Lateral Impact**

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: TI02C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.8	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Left Upper Spine Acceleration	G's	37.0 to 46.0	41.0	Pass
Left Lower Spine Acceleration	G's	37.0 to 46.0	38.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	21.0	Pass
Overall Test Results				Pass

Laboratory Technician

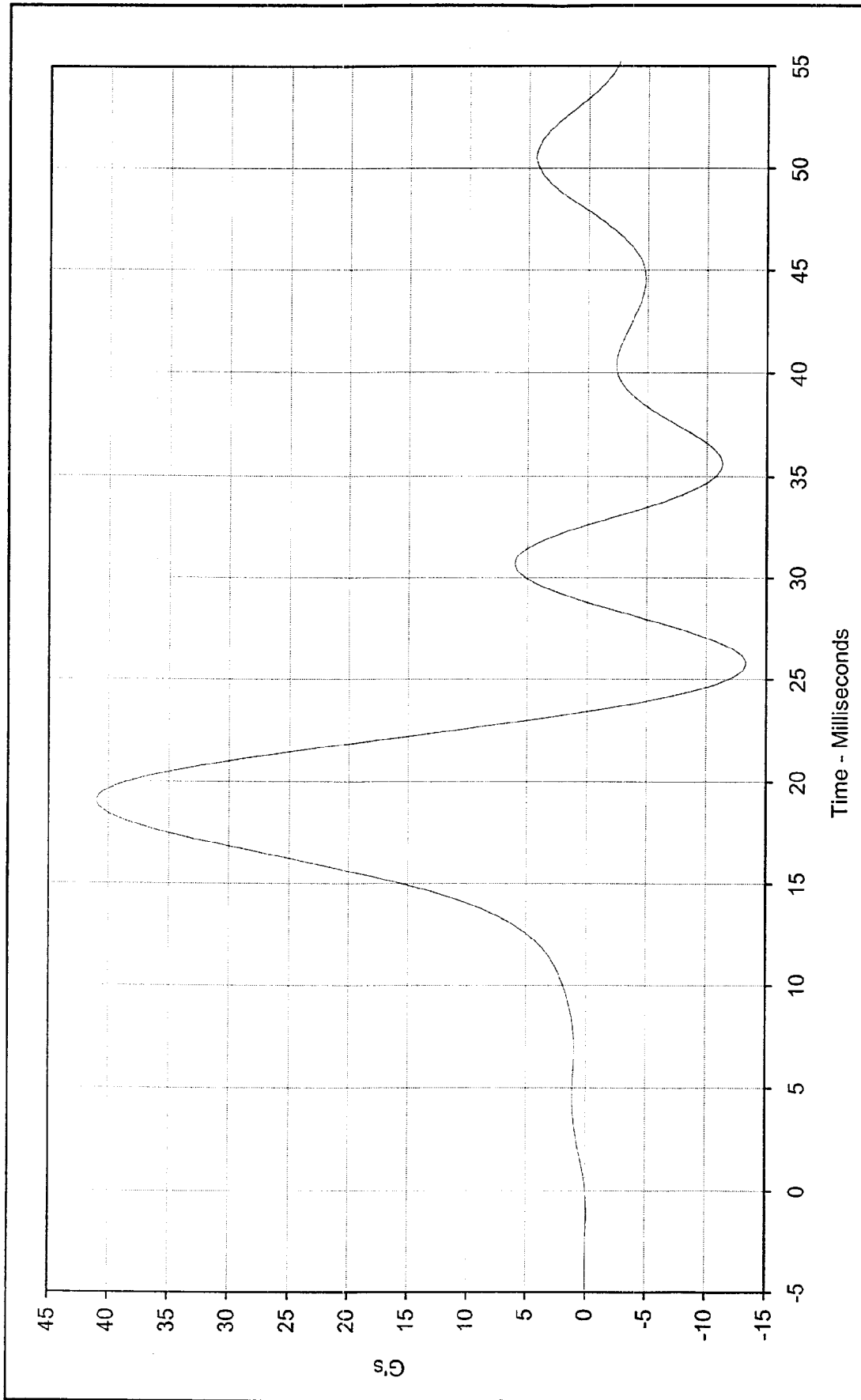
March 1, 2000

Test Date

Approved By

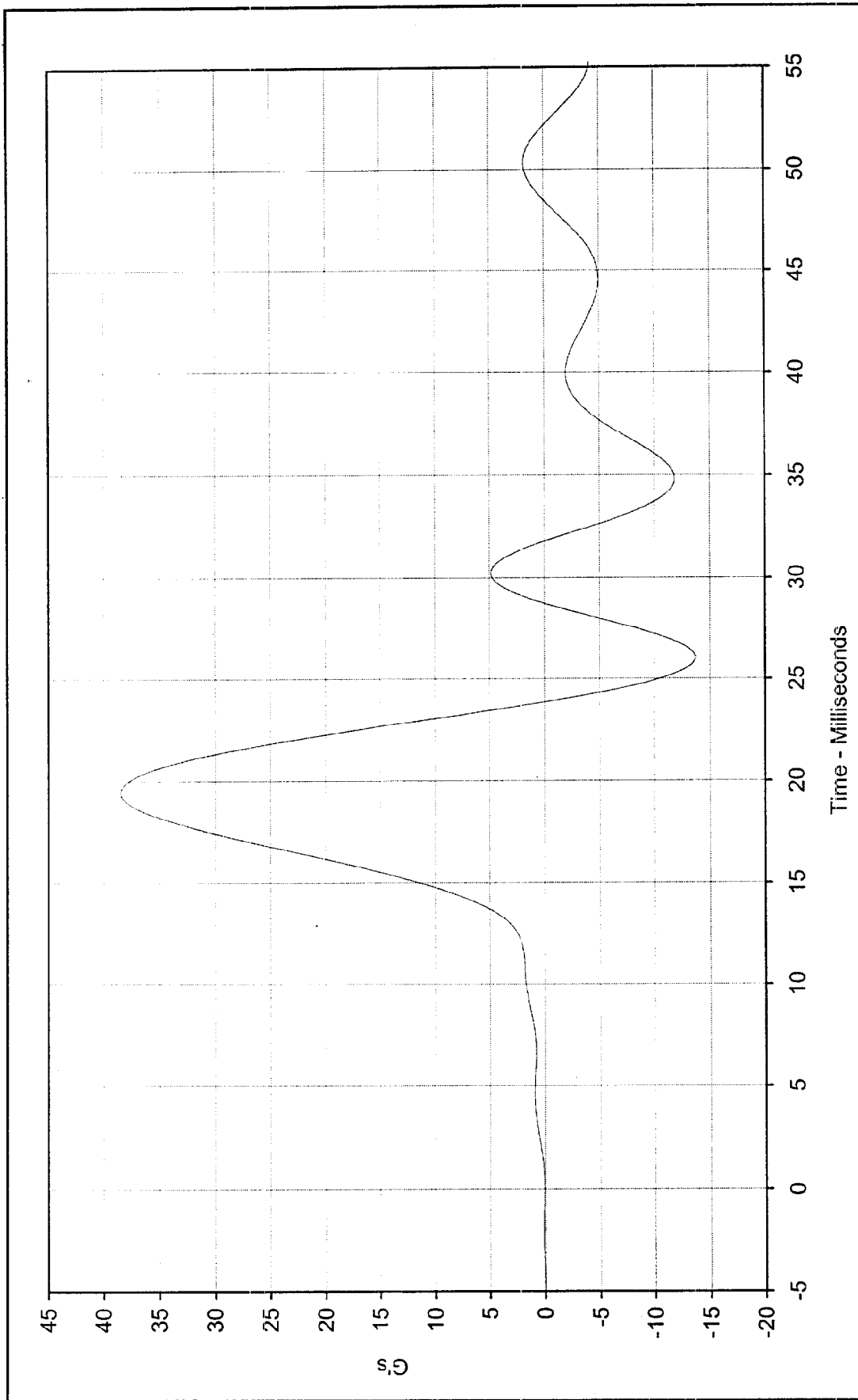
3/1/00

Date



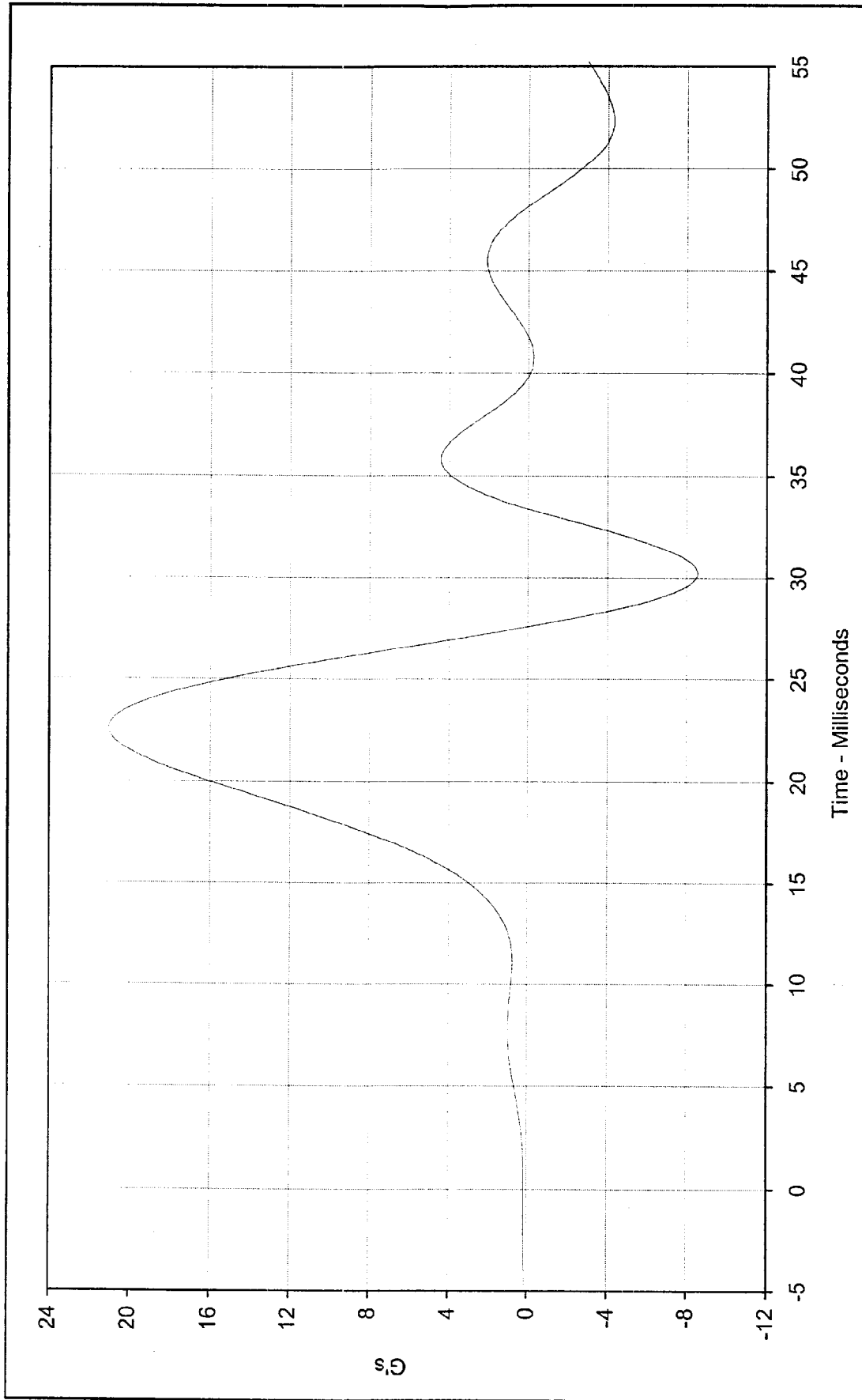
Curve Description: Left Upper Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 41.0 at 19.1 Milliseconds Test Information: SID S/N: 057 Test I.D.: TI02C
 Minimum Value: -13.3 at 25.8 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00





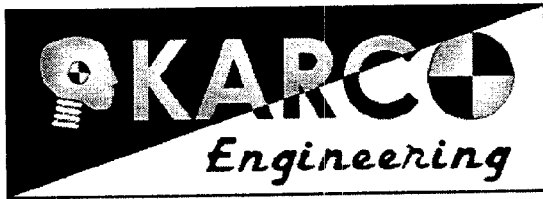
Curve Description: Left Lower Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 38.5 at 19.5 Milliseconds Test Information: SID S/N: 057 Test I.D.: T102C
 Minimum Value: -13.7 at 26.0 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00





Curve Description: Lower Spine Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 21.0 at 22.6 Milliseconds Test Information: SID S/N: 057 Test I.D.: TI02C
 Minimum Value: -8.6 at 30.2 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00





**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: PI01E

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Pelvis Acceleration	G's	40.0 to 60.0	44.9	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

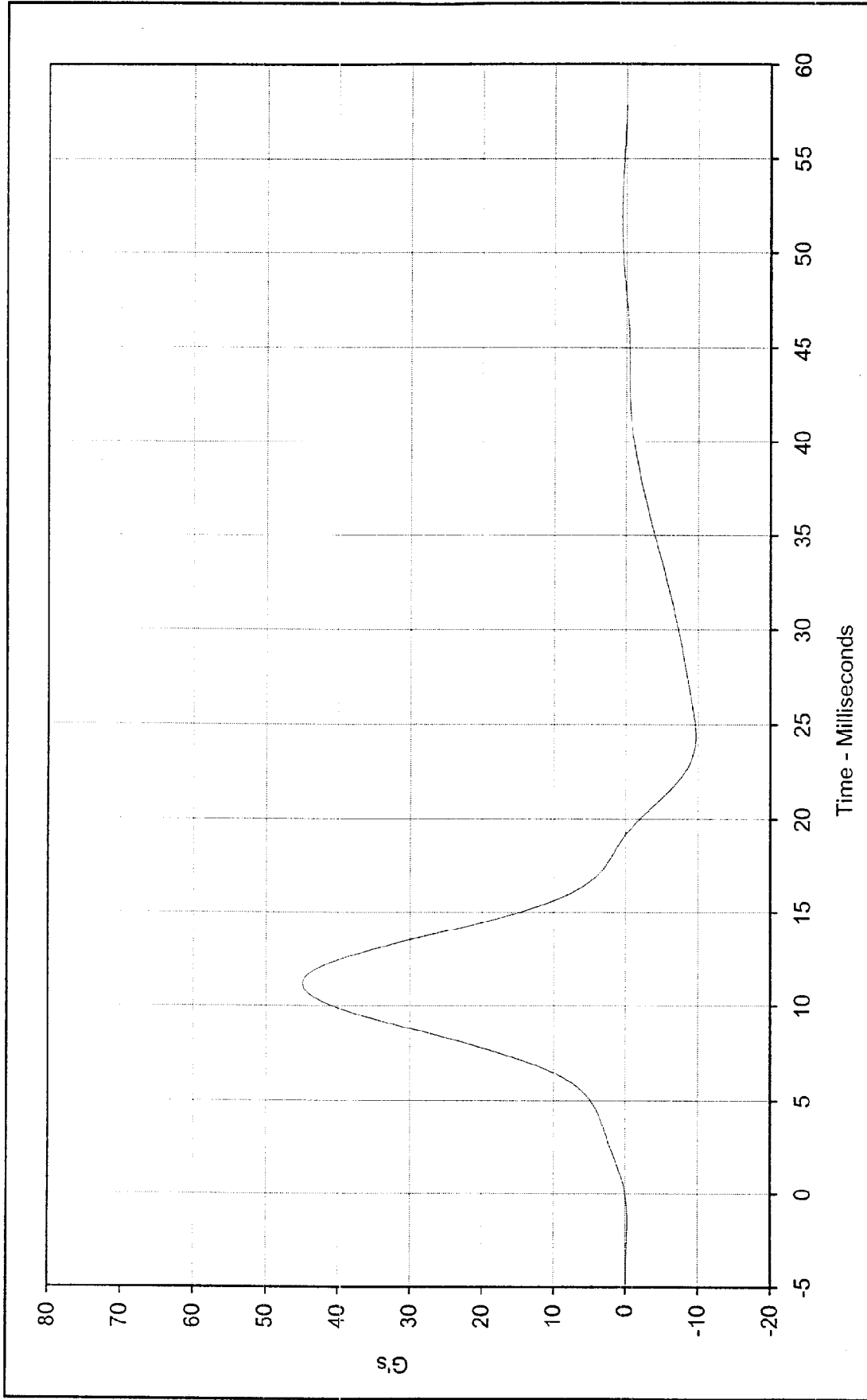
March 1, 2000

Test Date

Approved By

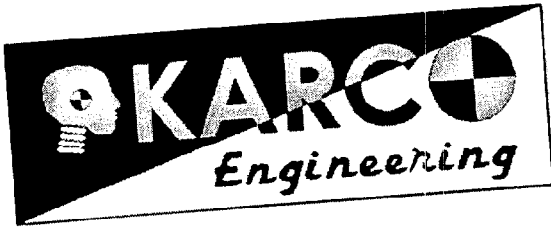
3/1/00

Date



Curve Description: Pelvis Y Axis Acceleration Test Program: Left Side Pelvis Lateral Impact
 Maximum Value: 44.9 at 11.1 Milliseconds / Test Information: SID SN: 057 Test I.D.: PI01E
 Minimum Value: -9.7 at 24.4 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/1/00





Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: AB01B

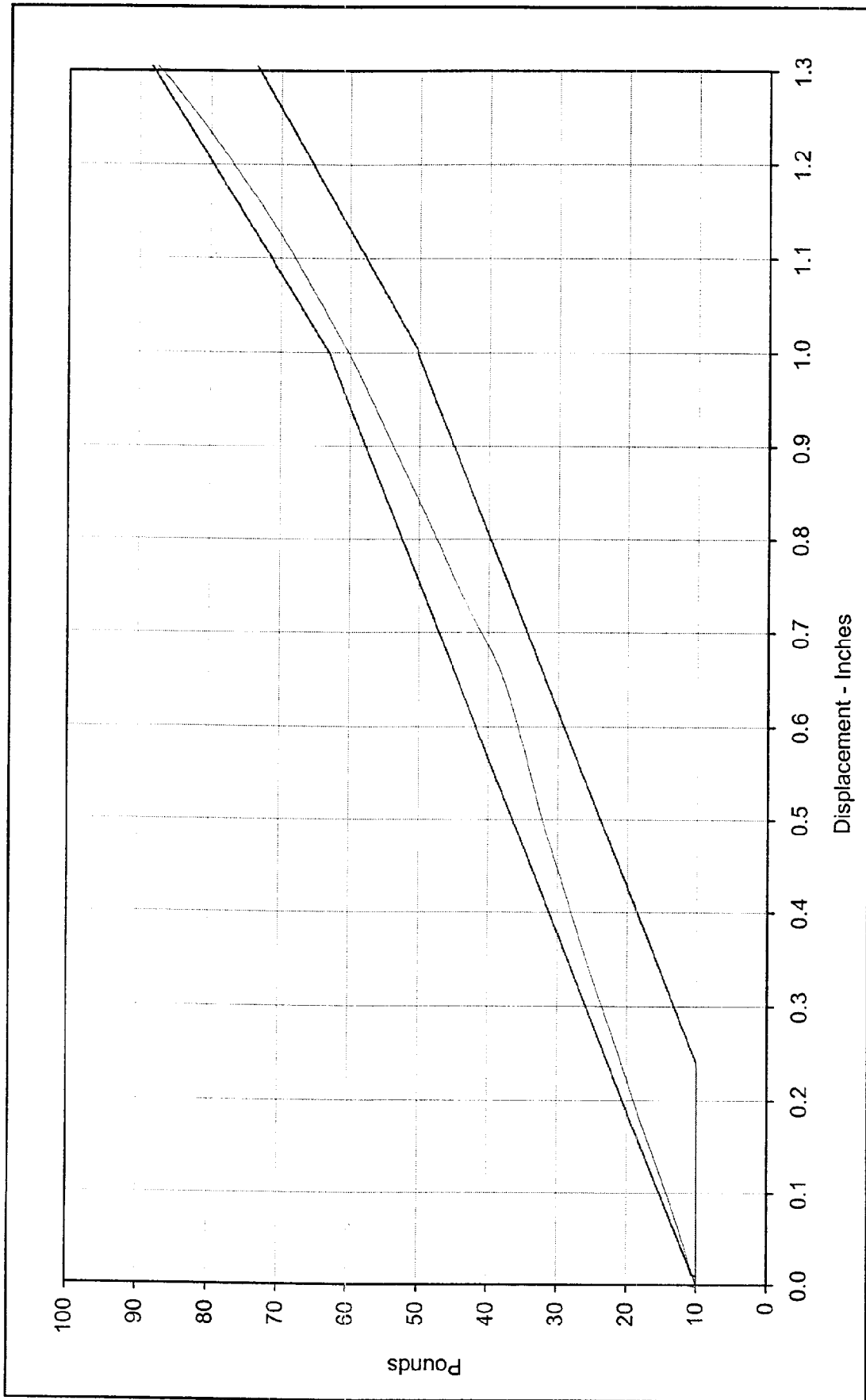
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	32.2	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	44.4	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	60.2	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	86.8	Pass
Overall Test Results				Pass

N. Lopez
Laboratory Technician

March 2, 2000
Test Date

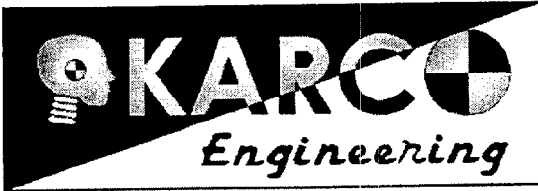
James E. Hatt
Approved By

3/2/00
Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
 Force at 0.5 In.: 32.2 Pounds Test Information: SID S/N: 057 Test I.D.: AB01B
 Force at 0.75 In.: 44.4 Pounds
 Force at 1.0 In.: 60.2 Pounds
 Force at 1.3 In.: 86.8 Pounds
 Date of Test: 3/2/00





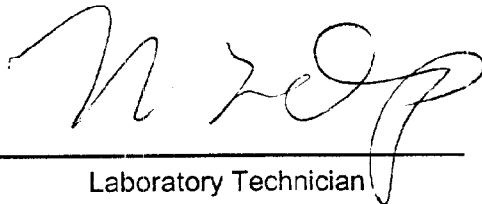
Performance Verification Data Side Impact Dummy (SID) Lumbar Flexion Test

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: LM01B

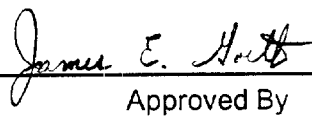
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Applied Force at 0° of Flexion	Pounds	0.0	0.0	Pass
Applied Force at 20° of Flexion	Pounds	22.0 to 34.0	27.4	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	39.3	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	46.9	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	5.6	Pass
Overall Test Results				Pass



Laboratory Technician

March 2, 2000

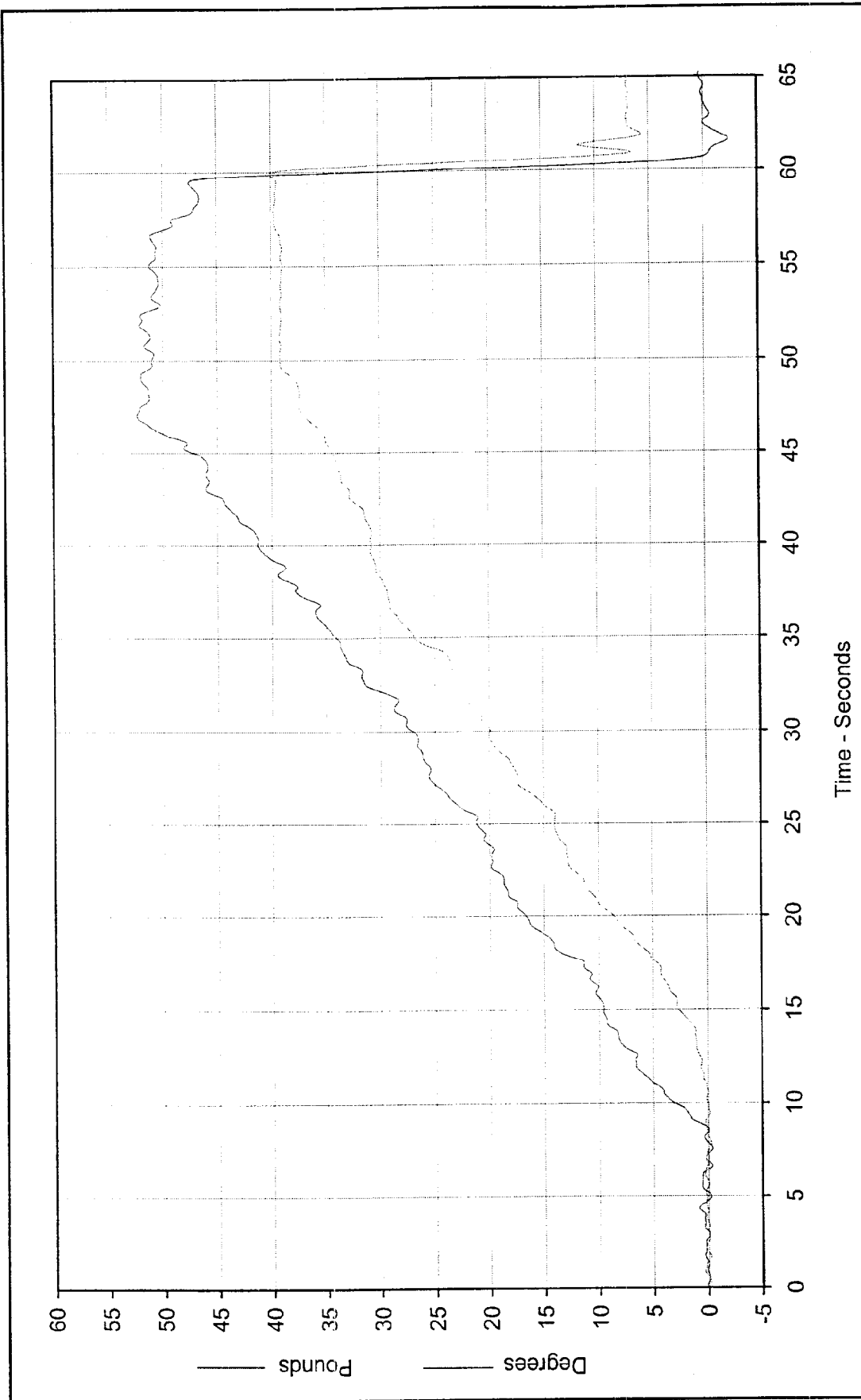
Test Date



Approved By

3/2/00

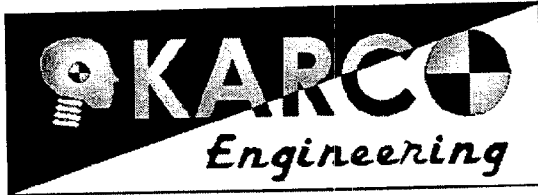
Date



Test Program: Hybrid II Lumbar Flexion
 Test Information: SID S/N: 056 Test I.D.: LM01B



Curve Description:	Applied Lumbar Force And Angle
Force at 20°:	27.4 Pounds
Force at 30°:	39.3 Pounds
Force at 40°:	46.9 Pounds
Return Angle:	5.6 Degrees
Test Date:	3/2/00




Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: HD01B

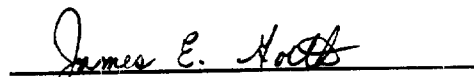
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	256.4	Pass
Peak Lateral Acceleration	G's	≤10.0	2.9	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.2	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician

March 1, 2000

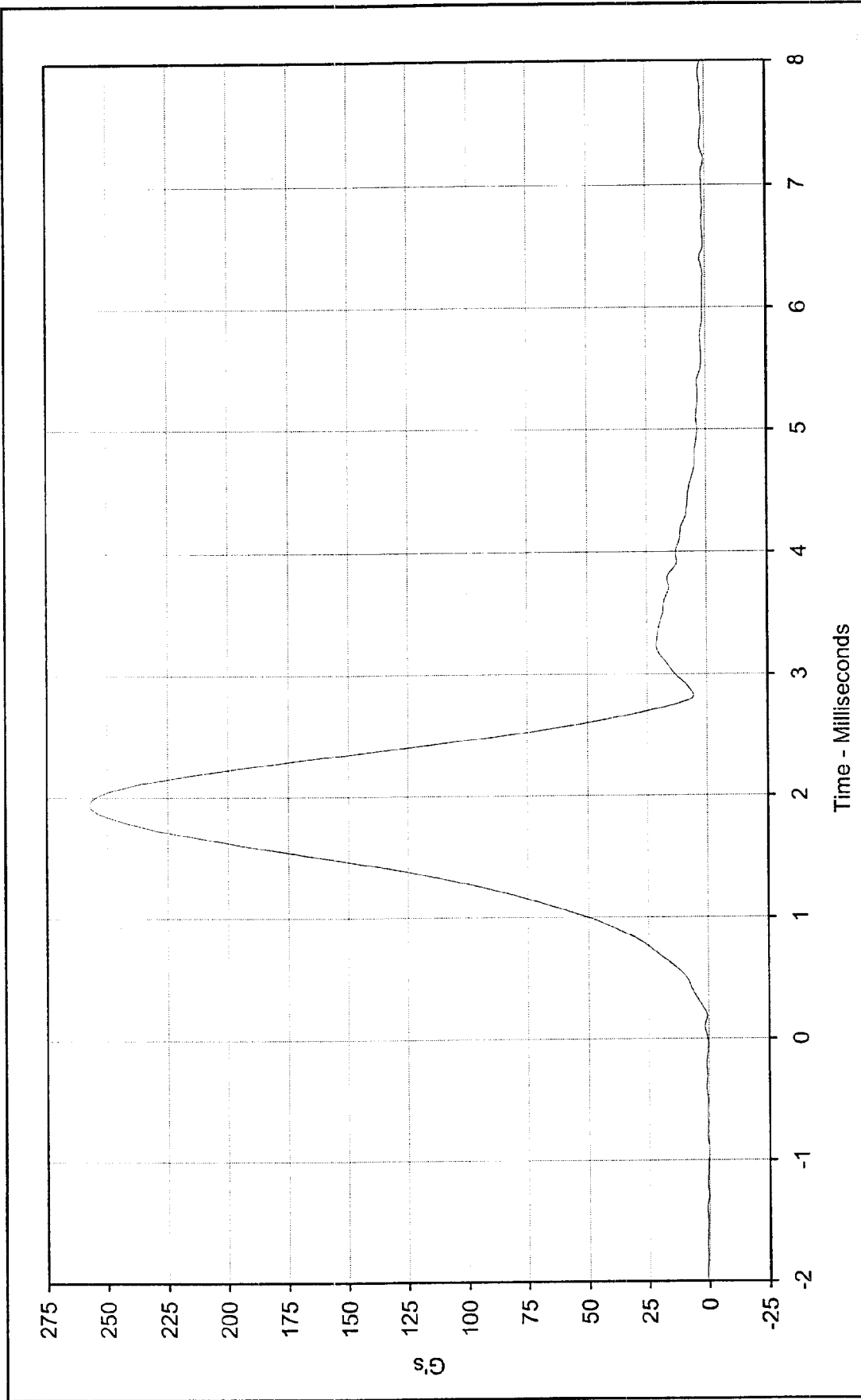
Test Date



Approved By

3/1/00

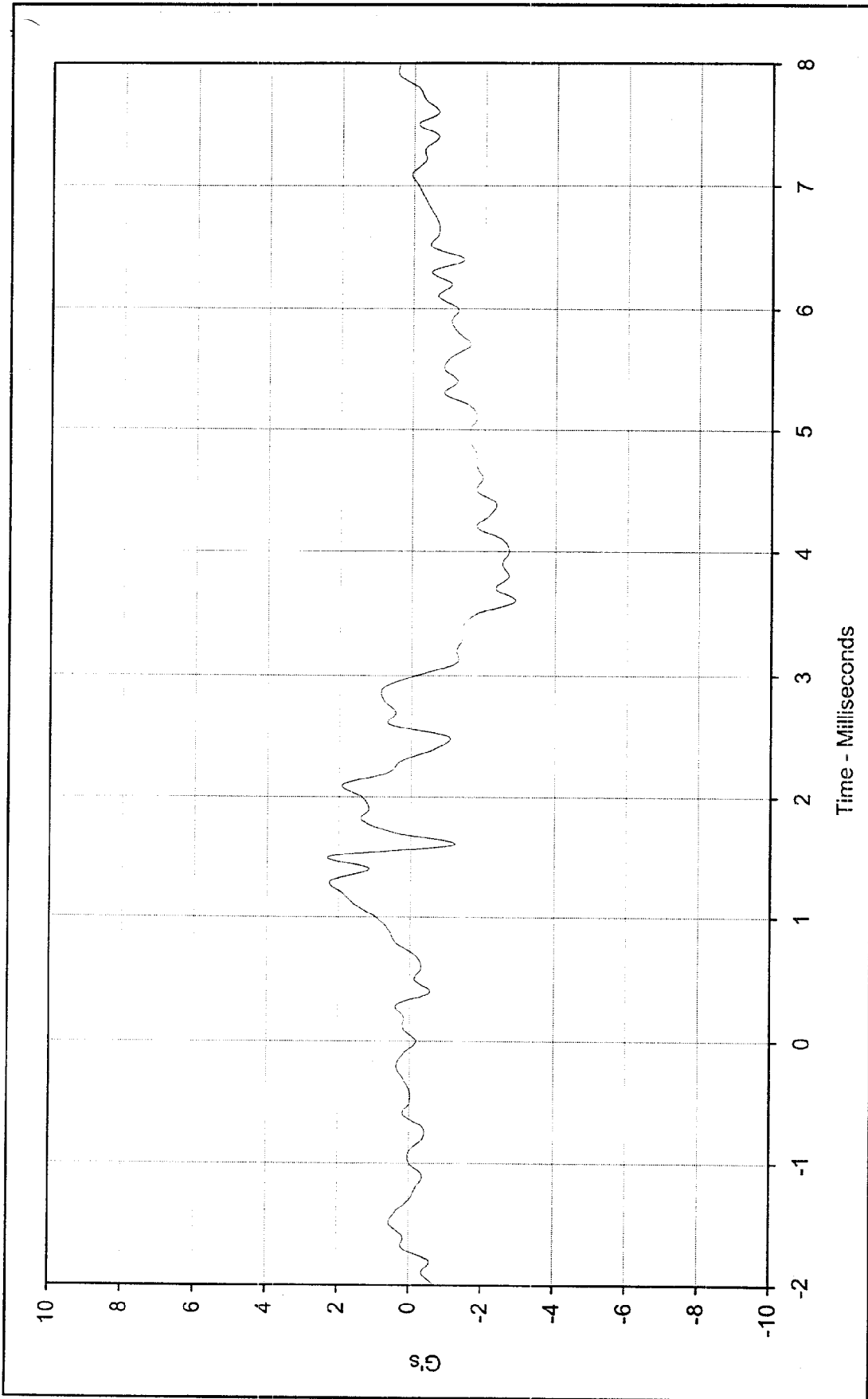
Date



Curve Description: Head Resultant Acceleration
 Test Program: Hybrid II Head Drop Calibration
 Maximum Value: 256.4 at 1.9 Milliseconds
 Test Information: SID S/N: 057 Test I.D.: HD01B
 Minimum Value: 0.5 at 0.0 Milliseconds

SAE Filter Class: 1000
 Date of Test: 3/1/00





Curve Description: Head Y Axis Acceleration Test Program: Hybrid II Head Drop Calibration

Maximum Value: 2.3 at 1.5 Milliseconds

Minimum Value: -2.9 at 3.6 Milliseconds

SAE Filter Class: 1000

Date of Test: 3/1/00

Test Information: SID S/N: 057 Test I.D.: HD01B





Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.6	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	521	Pass
KV- Knee Pivot From Floor	mm	490 to 505	501	Pass
HW- Hip Width	mm	356 to 391	363	Pass
Overall Test Results				Pass

Laboratory Technician

March 10, 2000

Test Date

Approved By

3/10/00

Date



Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: TI03N

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Left Upper Rib Acceleration	G's	37.0 to 46.0	37.6	Pass
Left Lower Rib Acceleration	G's	37.0 to 46.0	37.9	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.6	Pass
Overall Test Results				Pass

Laboratory Technician

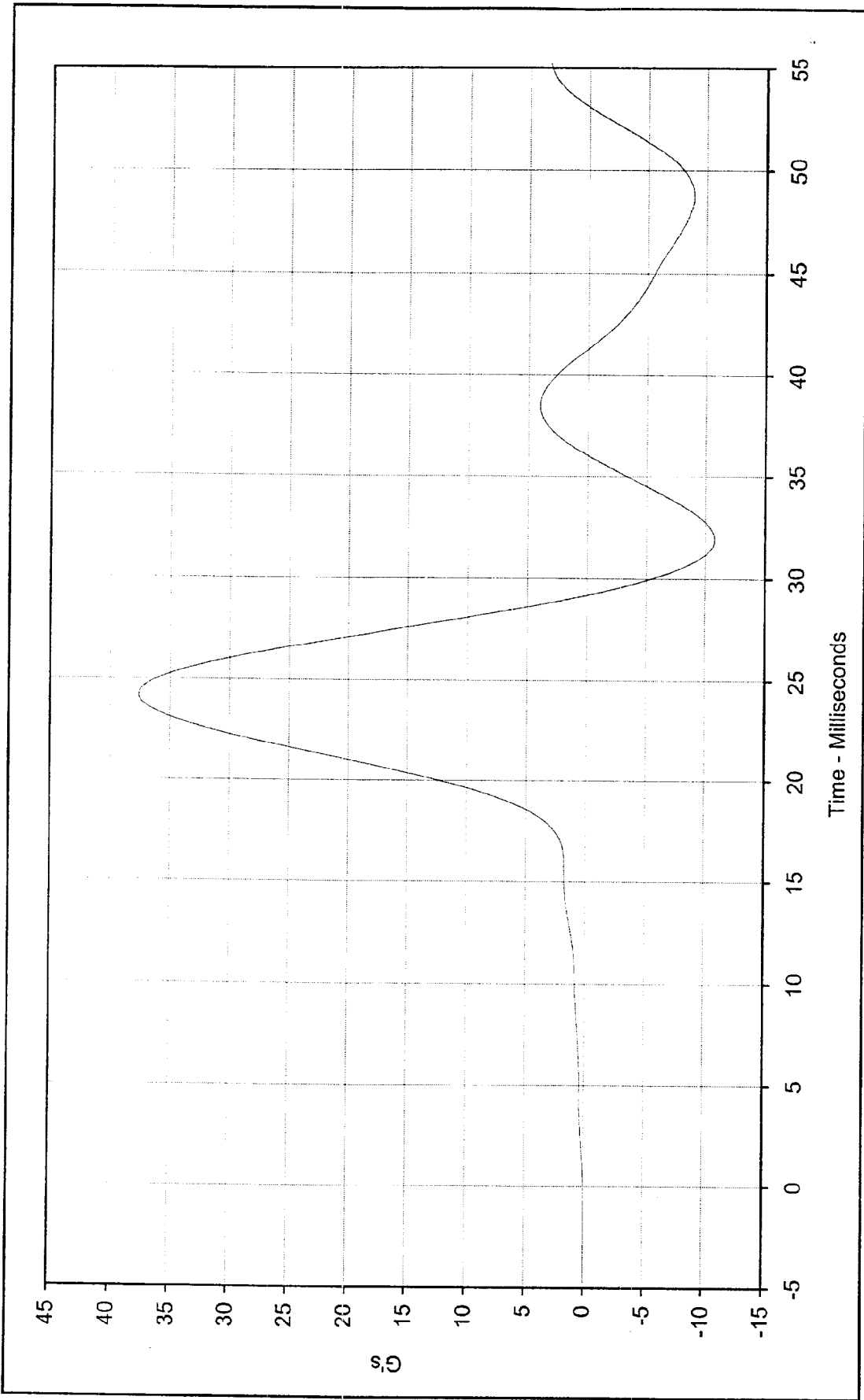
March 7, 2000

Test Date

Approved By

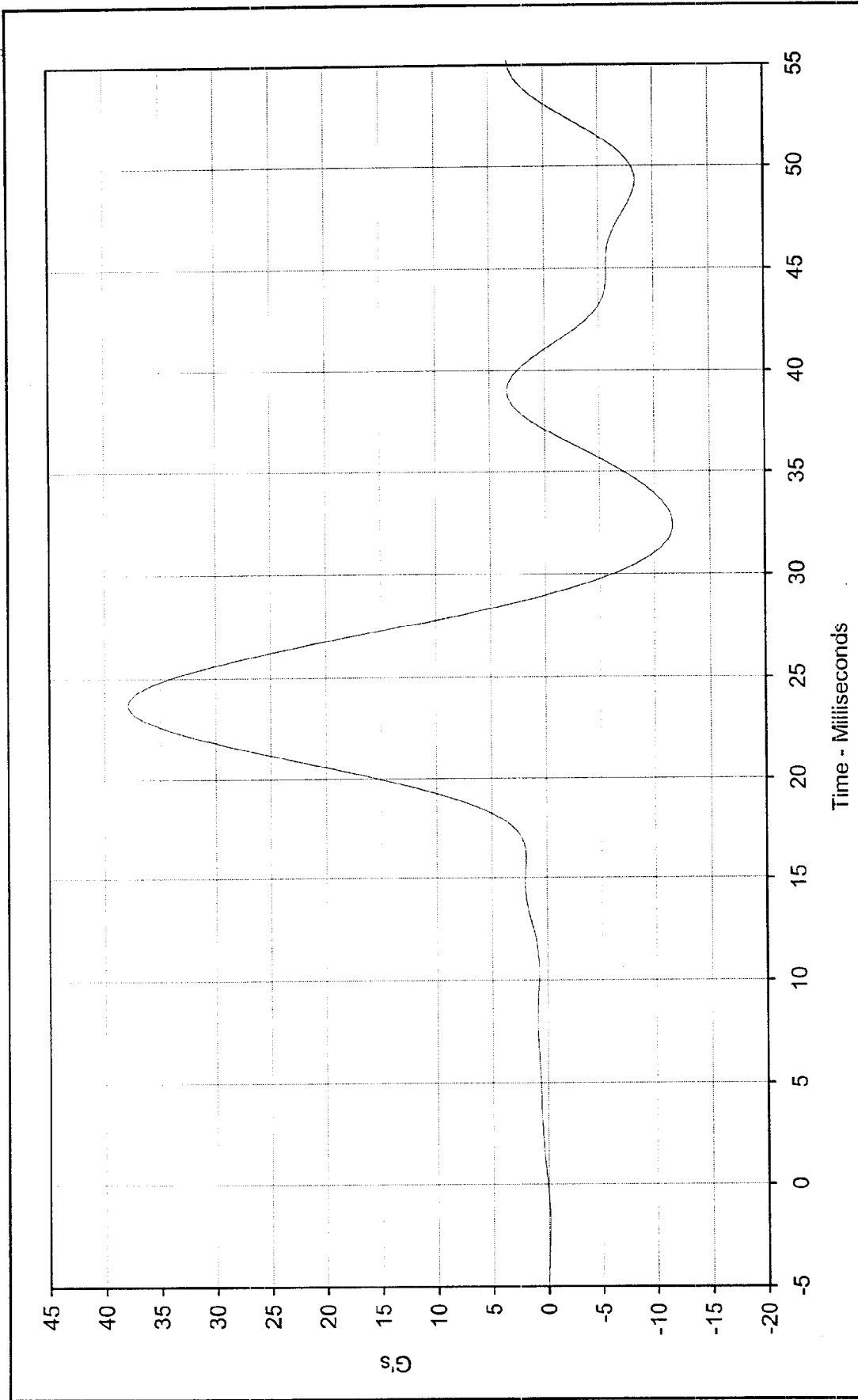
3/7/00

Date



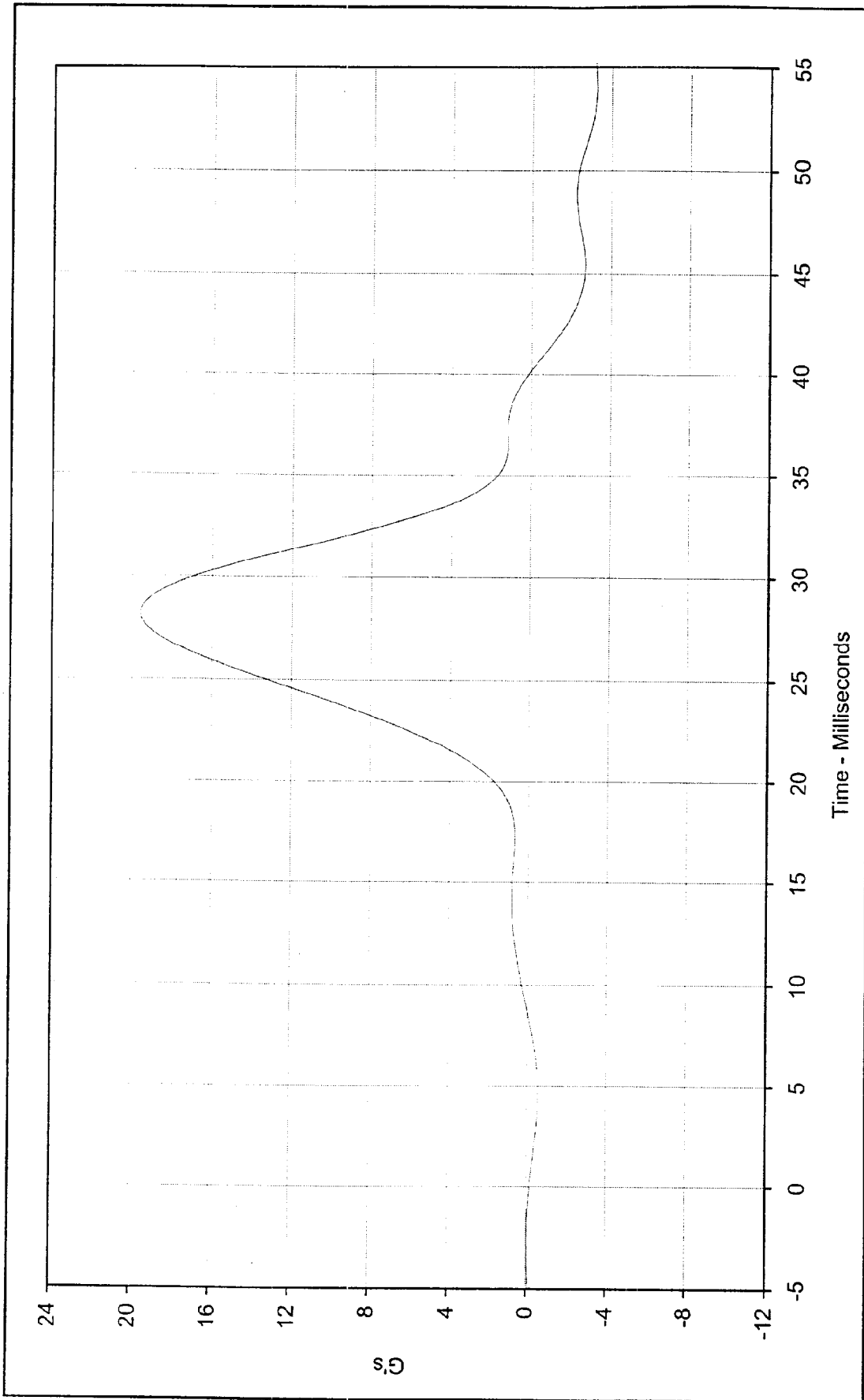
Curve Description: Left Upper Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 37.6 at 24.2 Milliseconds Test Information: SID S/N: 056 Test I.D.: T103N
 Minimum Value: -10.8 at 31.9 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





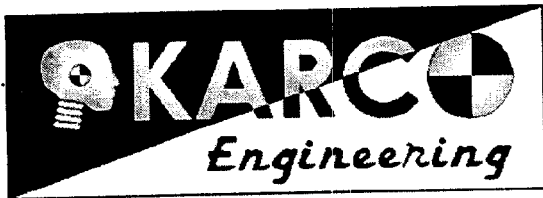
Curve Description: Left Lower Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 37.9 at 23.7 Milliseconds Test Information: SID S/N: 056 Test I.D.: T103N
 Minimum Value: -11.7 at 32.4 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





Curve Description: Lower Spine Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 19.6 at 28.2 Milliseconds Test Information: SID S/N: 056 Test I.D.: T103N
 Minimum Value: -3.2 at 54.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





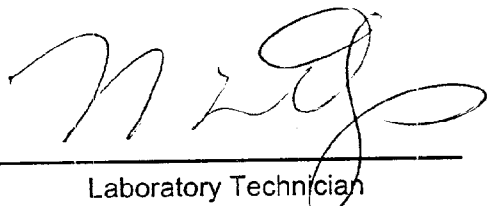
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: PI03H

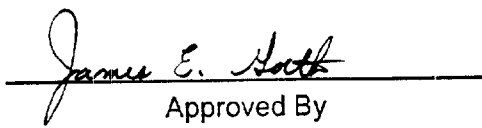
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.31	Pass
Pelvis Acceleration	G's	40.0 to 60.0	42.4	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.4	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician

March 7, 2000

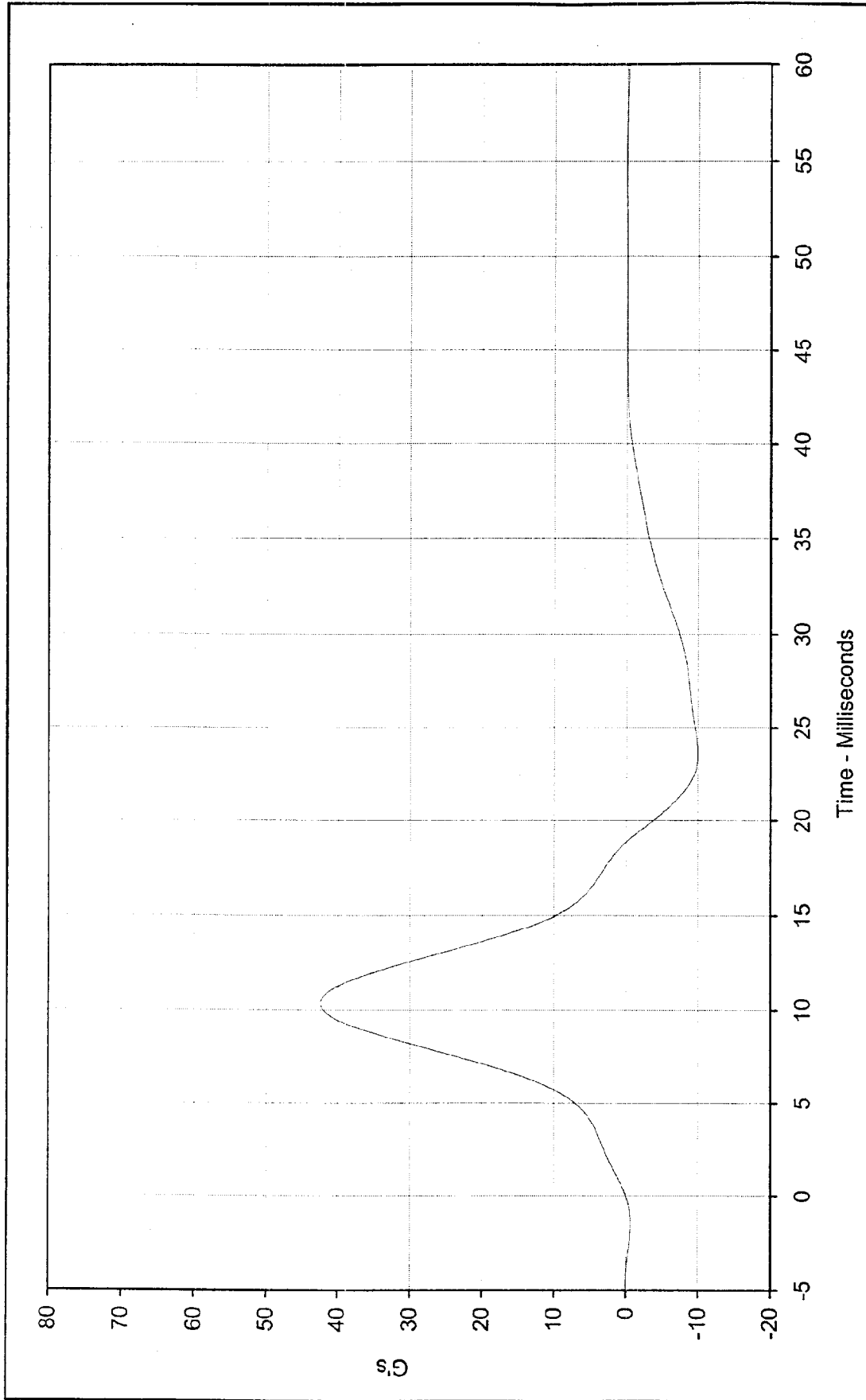
Test Date



Approved By

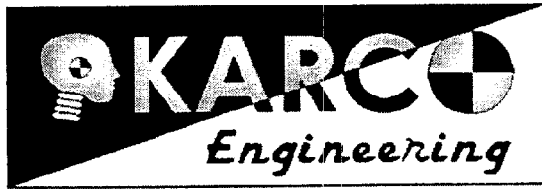
3/7/00

Date



Curve Description: Pelvis Y Axis Acceleration Test Program: Left Side Pelvis Lateral Impact
 Maximum Value: 42.4 at 10.4 Milliseconds Test Information: SID S/N: 056 Test I.D.: PI03H
 Minimum Value: -10.0 at 23.5 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





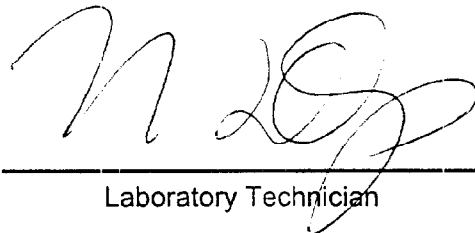
**Performance Verification Data
Side Impact Dummy (SID)
Abdominal Compression Test**

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: AB03A

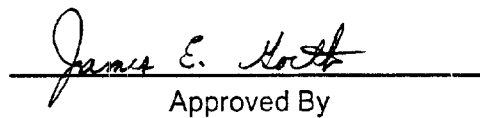
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	28.7	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	41.5	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	57.6	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	78.9	Pass
Overall Test Results				Pass



Laboratory Technician

March 7, 2000

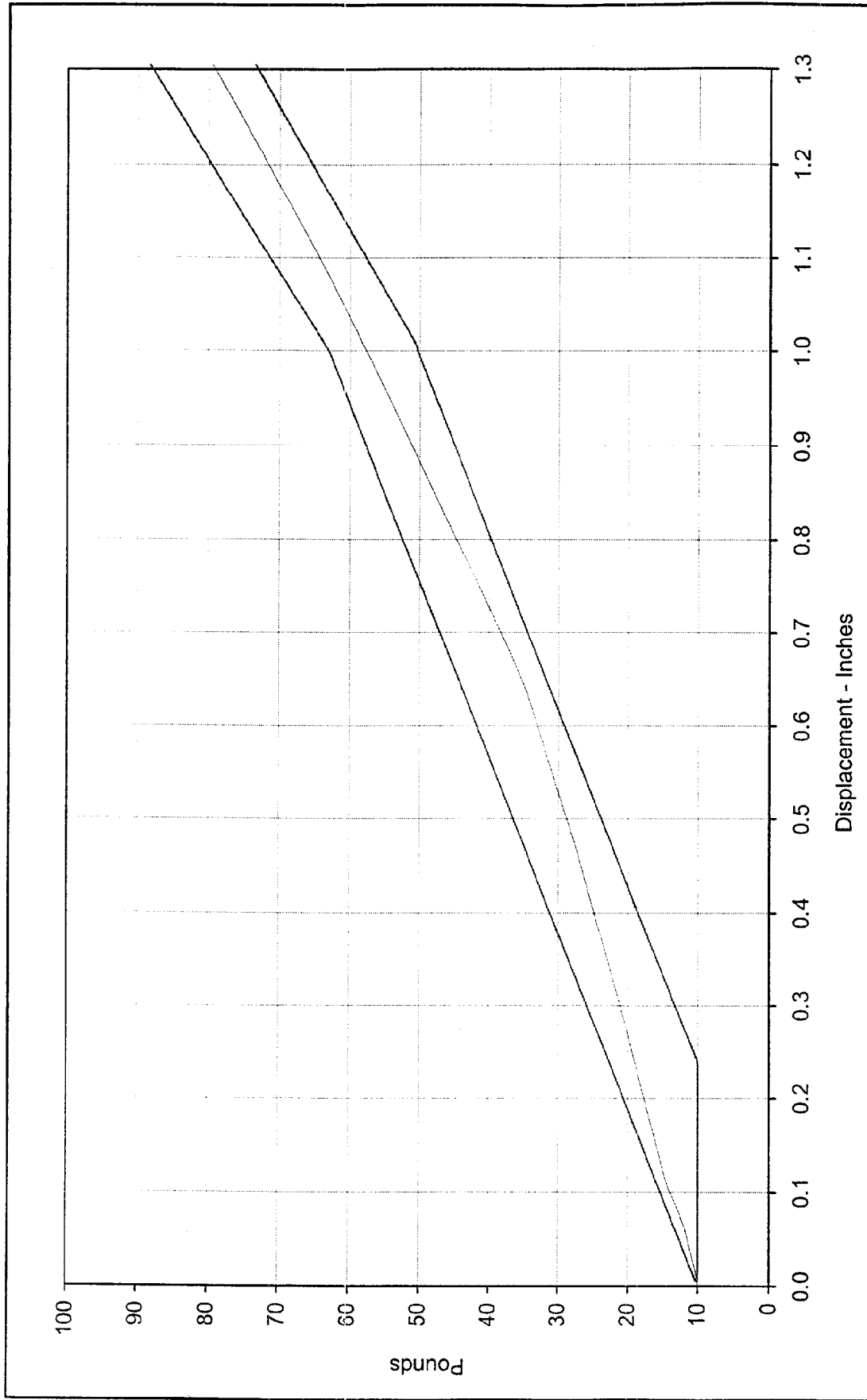
Test Date



Approved By

3/7/00

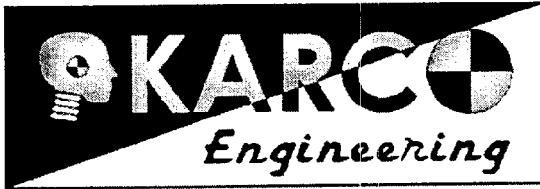
Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
 Force at 0.5 In.: 28.7 Pounds Test Information: SID S/N: 056 Test I.D.: AB03A



Force at 0.75 In.: 41.5 Pounds
 Force at 1.0 In.: 57.6 Pounds
 Force at 1.3 In.: 78.9 Pounds
 Date of Test: 3/7/00



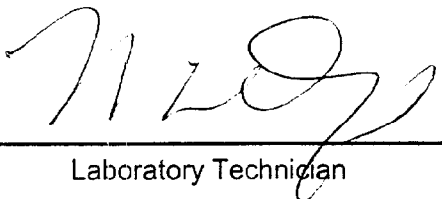
**Performance Verification Data
Side Impact Dummy (SID)
Lumbar Flexion Test**

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: LF03A

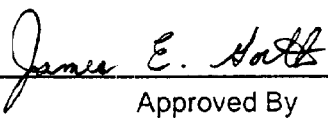
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Applied Force at 0° of Flexion	Pounds	0.0	0.0	Pass
Applied Force at 20° of Flexion	Pounds	22.0 to 34.0	27.7	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	38.6	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	53.7	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	6.0	Pass
Overall Test Results				Pass



Laboratory Technician

March 7, 2000

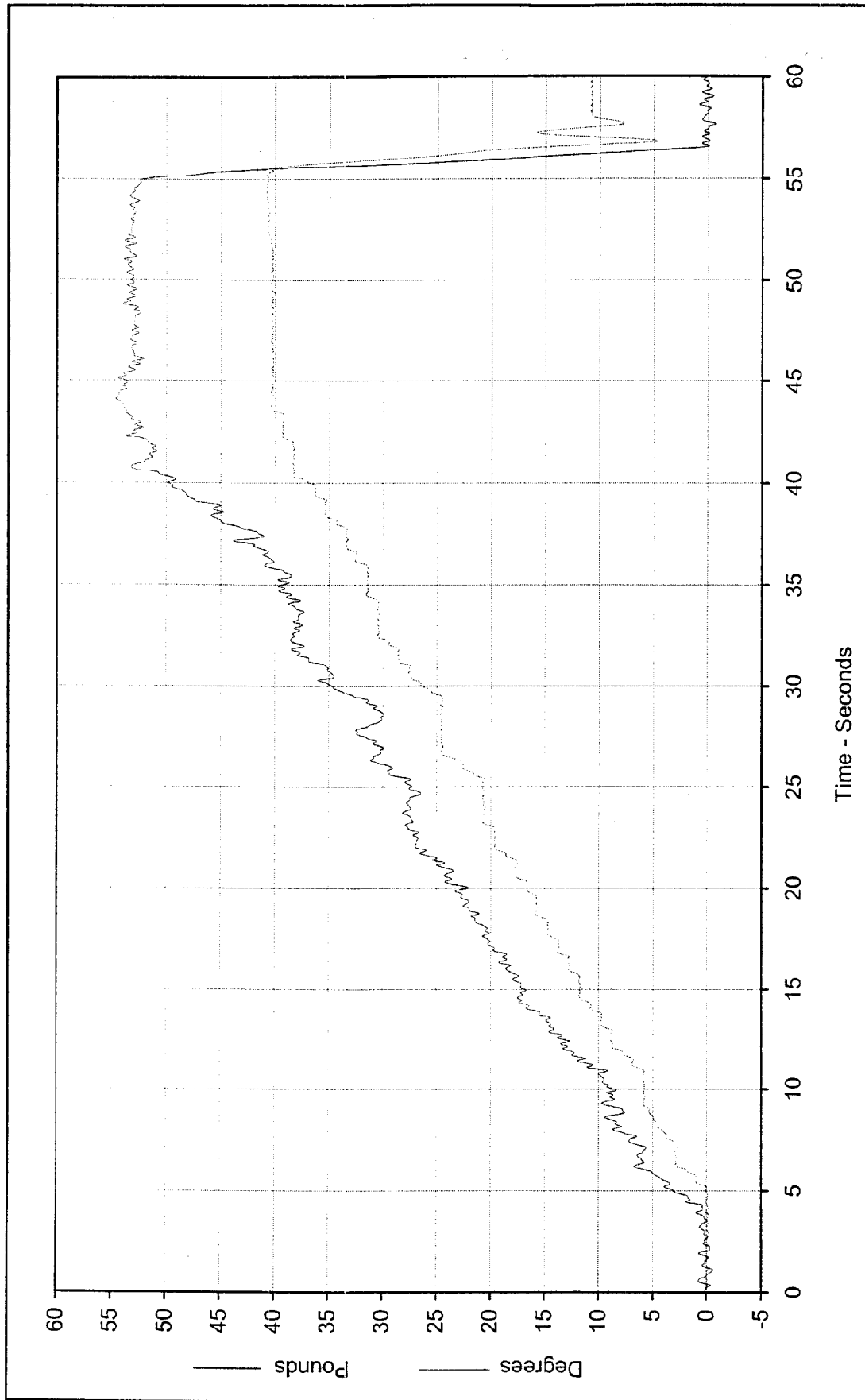
Test Date



Approved By

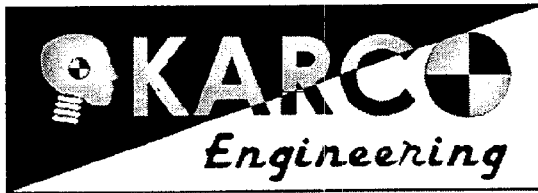
3/7/00

Date



Curve Description: Applied Lumbar Force And Angle Test Program: Hybrid II Lumbar Flexion
 Force at 20°: 27.7 Pounds Test Information: SID S/N: 056 Test I.D.: LF03A
 Force at 30°: 38.6 Pounds
 Force at 40°: 53.7 Pounds
 Return Angle: 6.0 Degrees
 Test Date: 3/7/00





Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: HD03A

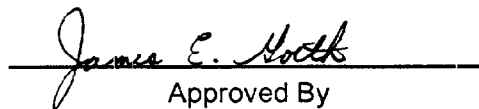
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	238.3	Pass
Peak Lateral Acceleration	G's	≤10.0	5.3	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.0	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician

March 7, 2000

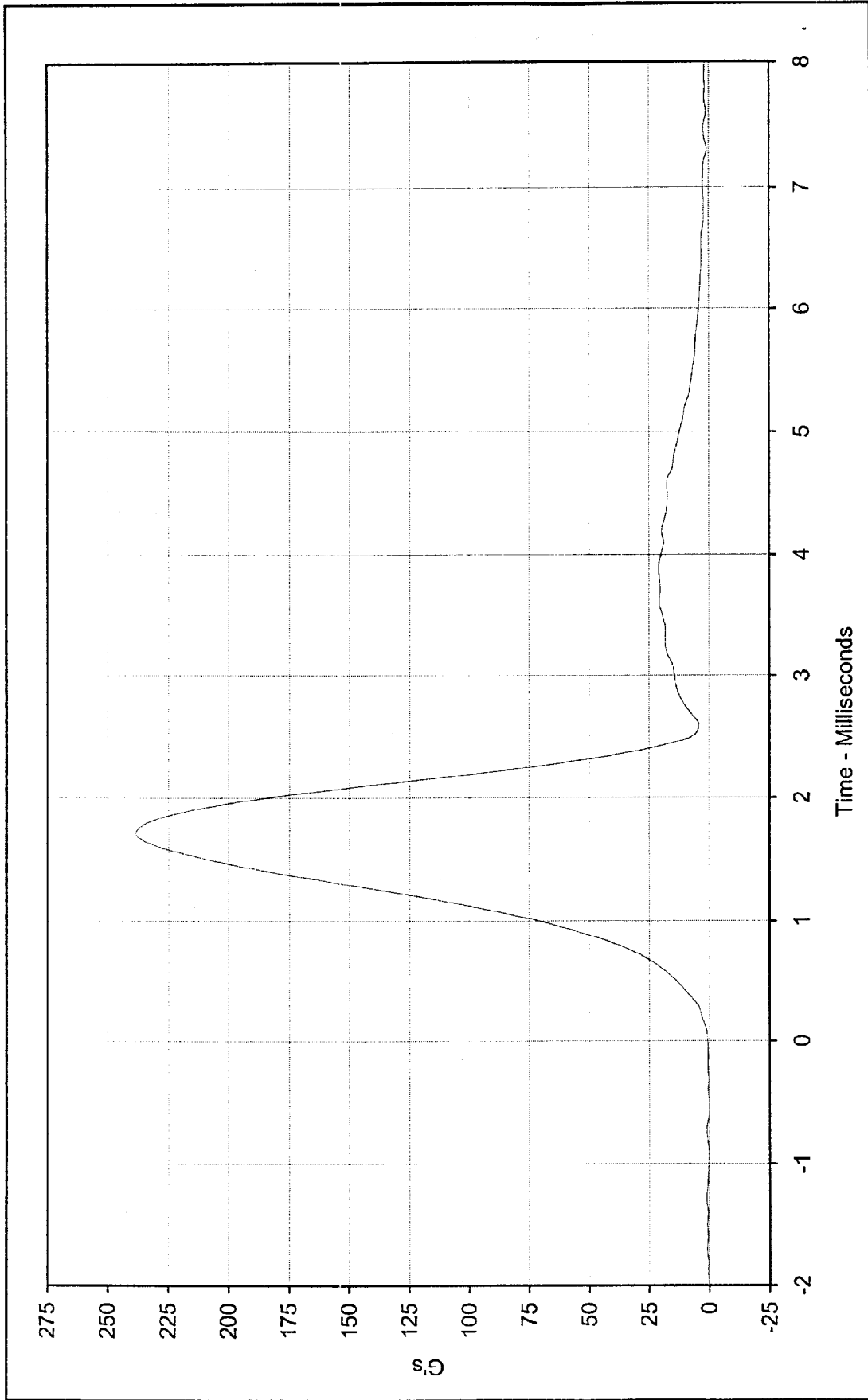
Test Date



Approved By

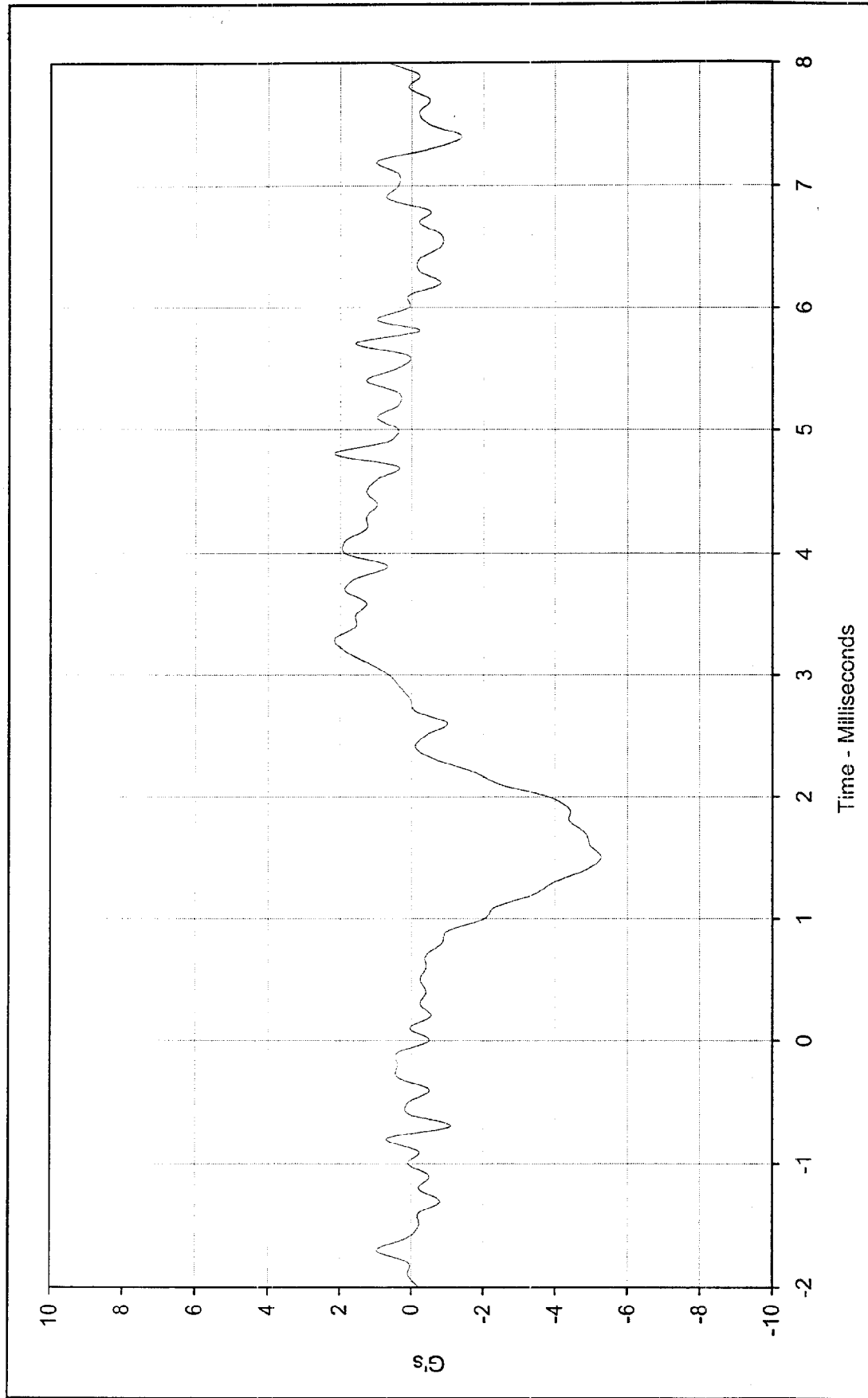
3/7/00

Date



Curve Description: Head Resultant Acceleration Test Program: Hybrid II Head Drop Calibration
 Maximum Value: 238.3 at 1.7 Milliseconds Test Information: SID S/N: 056 Test I.D.: HD03A
 Minimum Value: 0.8 at 0.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 3/7/00





Curve Description:	Head Y Axis Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	2.2 at 3.3 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: HD03A
Minimum Value:	-5.3 at 1.5 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	3/7/00		





Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: N/A

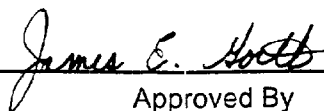
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.6	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	901	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	508	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	502	Pass
HW- Hip Width	mm	356 to 391	359	Pass
Overall Test Results				Pass



Laboratory Technician

March 10, 2000

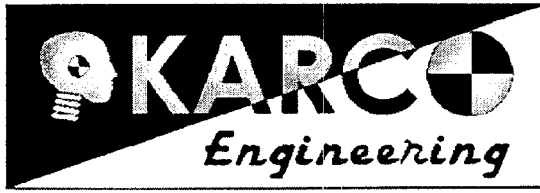
Test Date



Approved By

3/10/00

Date



Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: TI03G

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.32	Pass
Left Upper Rib Acceleration	G's	37.0 to 46.0	38.5	Pass
Left Lower Rib Acceleration	G's	37.0 to 46.0	38.0	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.0	Pass
Overall Test Results				Pass

Laboratory Technician

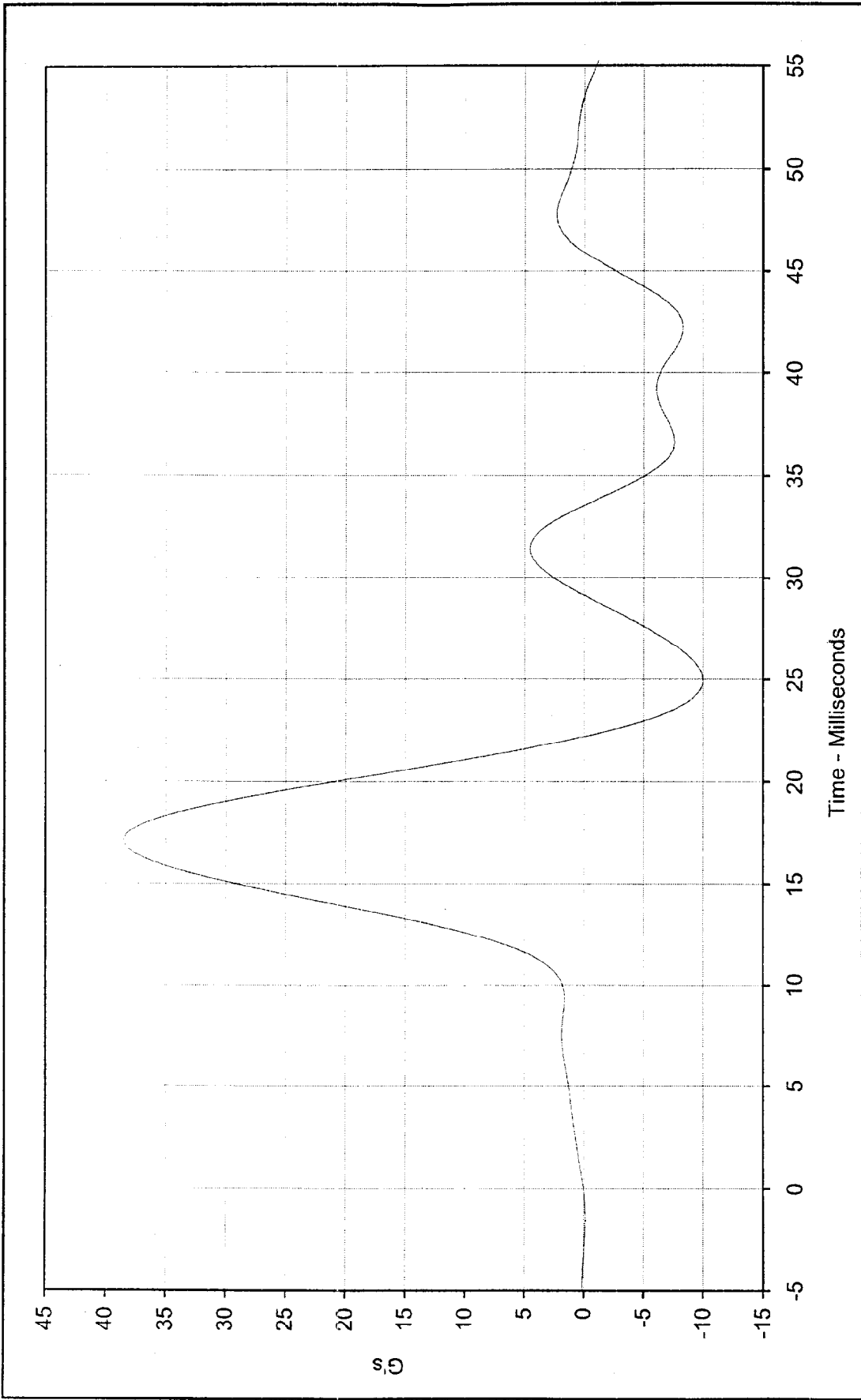
March 7, 2000

Test Date

Approved By

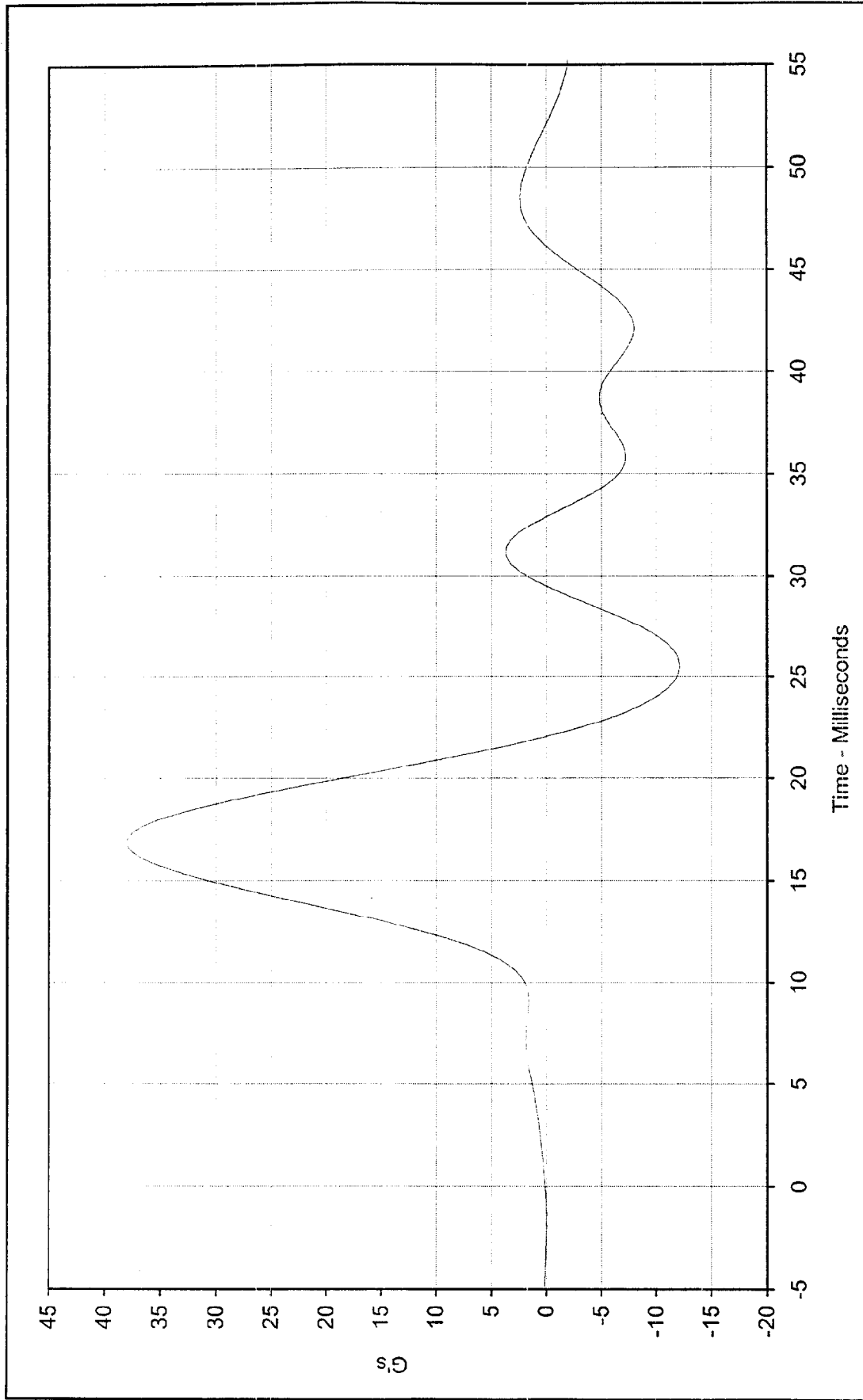
3/7/00

Date



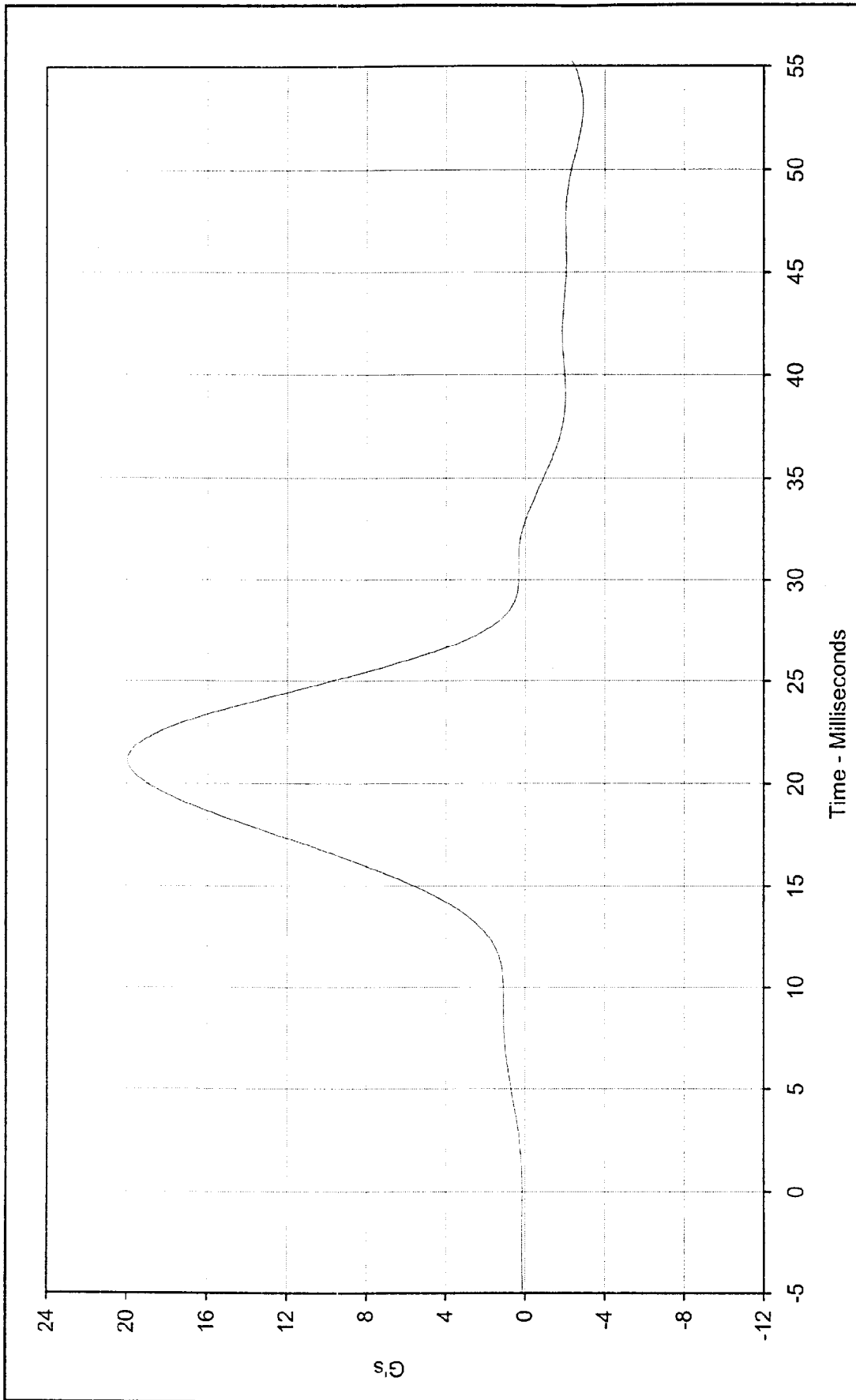
Curve Description: Left Upper Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 38.5 at 17.1 Milliseconds Test Information: SID S/N: 057 Test I.D.: T103G
 Minimum Value: -10.0 at 25.0 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





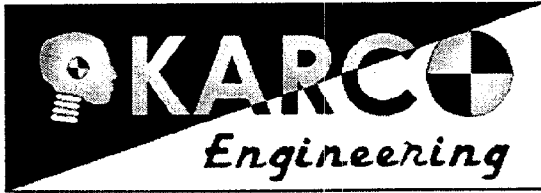
Curve Description: Left Lower Rib Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 38.0 at 16.9 Milliseconds Test Information: SID S/N: 057 Test I.D.: TI03G
 Minimum Value: -12.1 at 25.5 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





Curve Description: Lower Spine Y Acceleration Test Program: SID Thorax Lateral Impact Test
 Maximum Value: 20.0 at 21.2 Milliseconds Test Information: SID S/N: 057 Test I.D.: T103G
 Minimum Value: -2.9 at 53.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/7/00





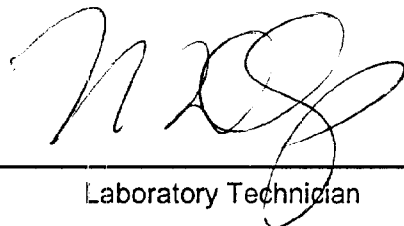
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: PI03G

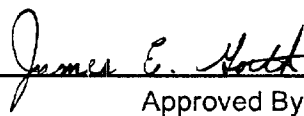
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.29	Pass
Pelvis Acceleration	G's	40.0 to 60.0	46.5	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician

March 6, 2000

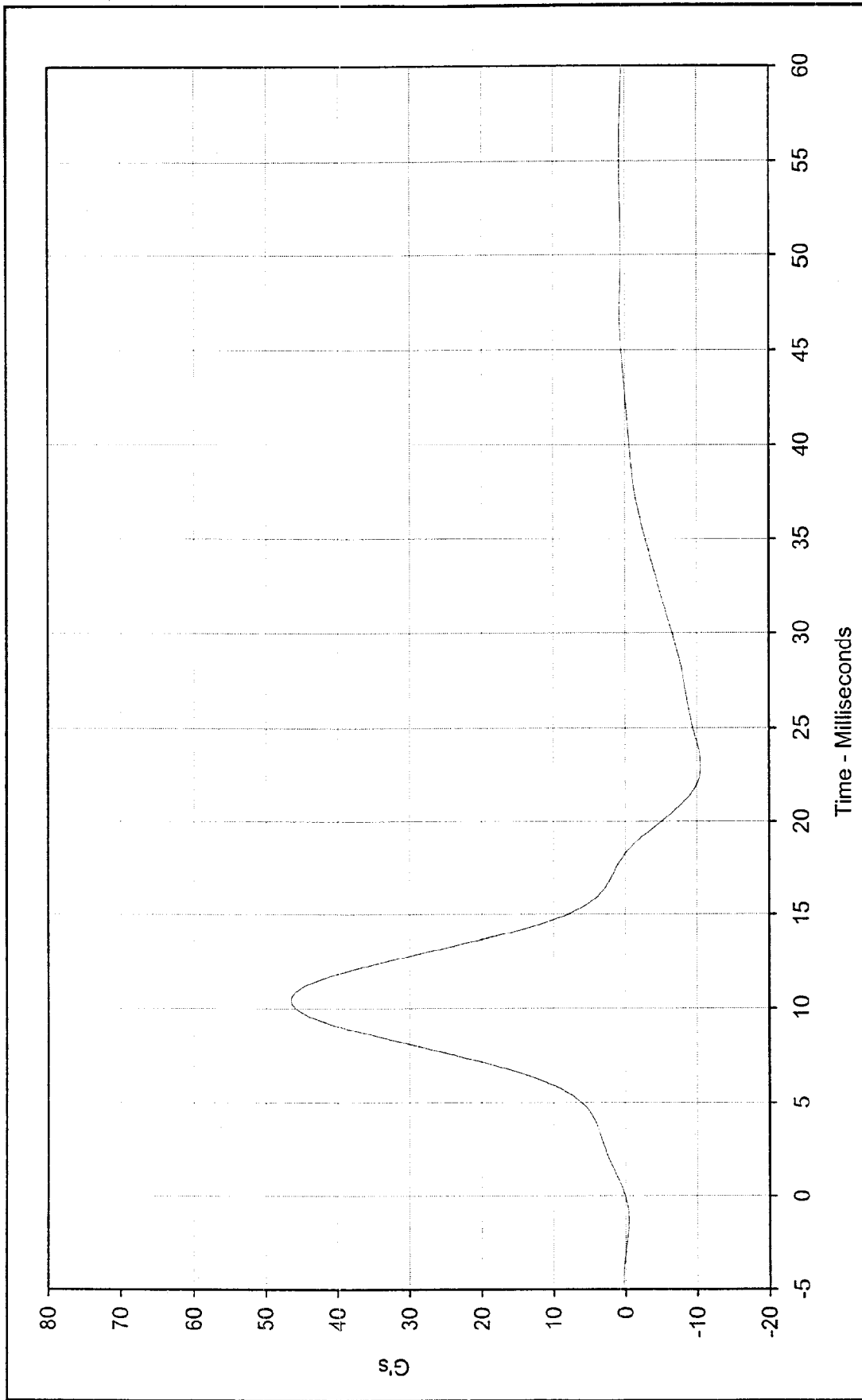
Test Date



Approved By

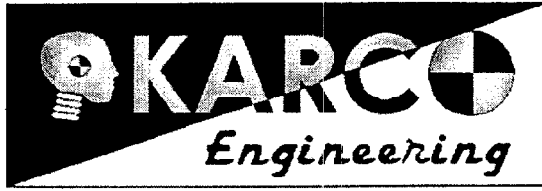


Date



Curve Description: Pelvis Y Axis Acceleration Test Program: Left Side Pelvis Lateral Impact
 Maximum Value: 46.5 at 10.4 Milliseconds Test Information: SID S/N: 057 Test I.D.: PI03G
 Minimum Value: -10.6 at 23.0 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 3/6/00





**Performance Verification Data
Side Impact Dummy (SID)
Abdominal Compression Test**

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: AB03B

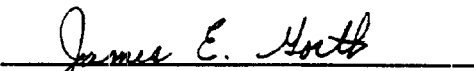
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	27.7	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	39.7	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	55.2	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	75.7	Pass
Overall Test Results				Pass



 Laboratory Technician

March 7, 2000

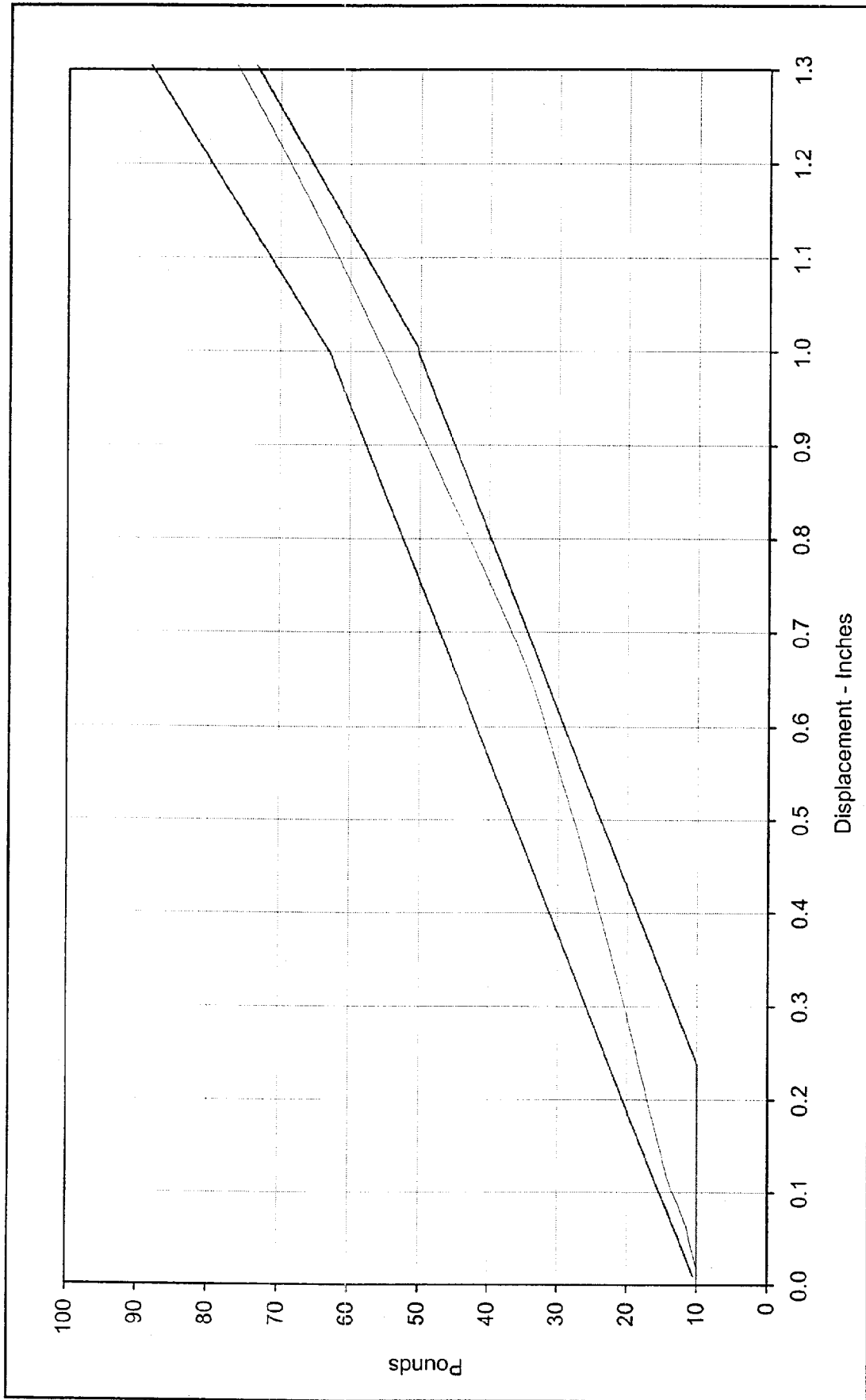
 Test Date



 Approved By

3/7/00

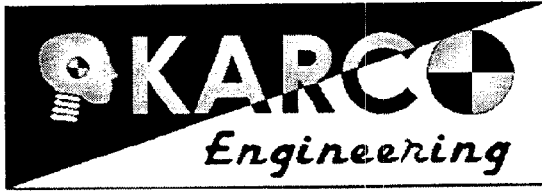
 Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
 Force at 0.5 In.: 27.7 Pounds Test Information: SID S/N: 057 Test I.D.: AB03B



Force at 0.75 In.: 39.7 Pounds
 Force at 1.0 In.: 55.2 Pounds
 Force at 1.3 In.: 75.7 Pounds
 Date of Test: 3/7/00



Performance Verification Data Side Impact Dummy (SID) Lumbar Flexion Test

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: LF03B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Applied Force at 0° of Flexion	Pounds	0.0	0.0	Pass
Applied Force at 20° of Flexion	Pounds	22.0 to 34.0	26.0	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	34.9	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	48.2	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	7.2	Pass
Overall Test Results				Pass

Laboratory Technician

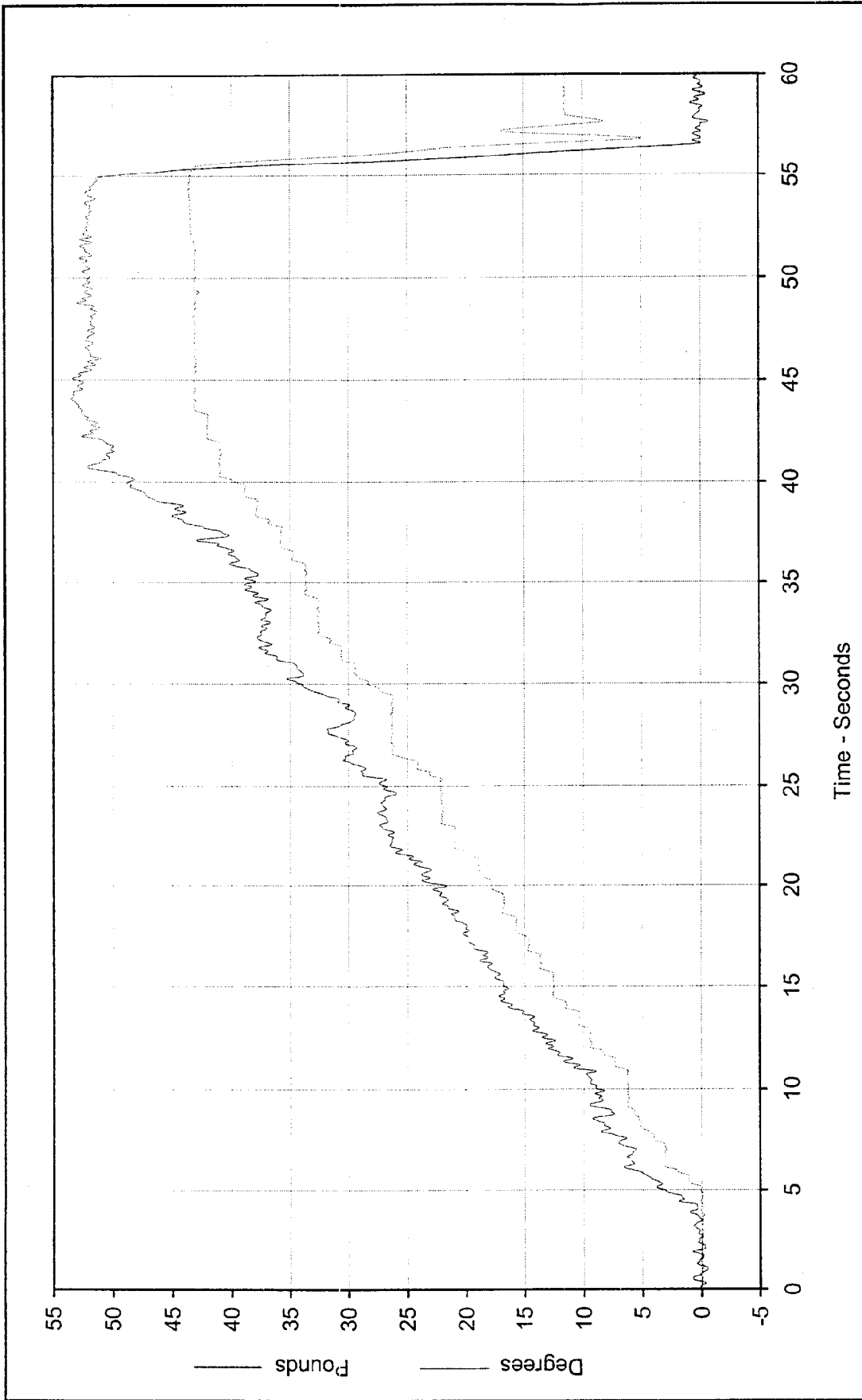
March 7, 2000

Test Date

Approved By

3/7/00

Date



Curve Description: Applied Lumbar Force And Angle Test Program: Hybrid II Lumbar Flexion
 Force at 20°: 26.0 Pounds Test Information: SID S/N: 057 Test I.D.: LF03B



Force at 30°: 34.9 Pounds
 Force at 40°: 48.2 Pounds
 Return Angle: 7.2 Degrees
 Test Date: 3/7/00



Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: HD03B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	240.6	Pass
Peak Lateral Acceleration	G's	≤10.0	3.8	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.0	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

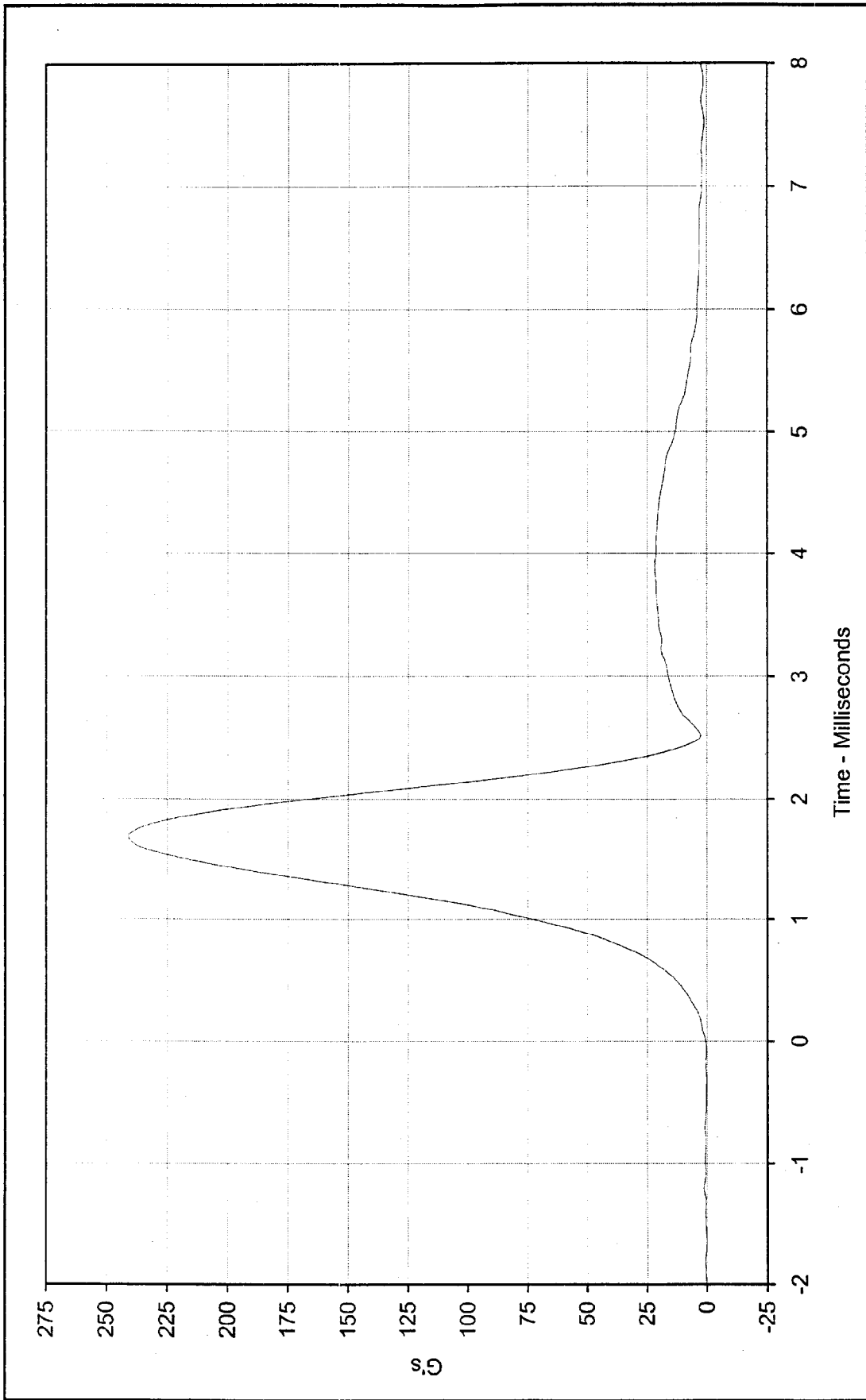
March 7, 2000

Test Date

Approved By

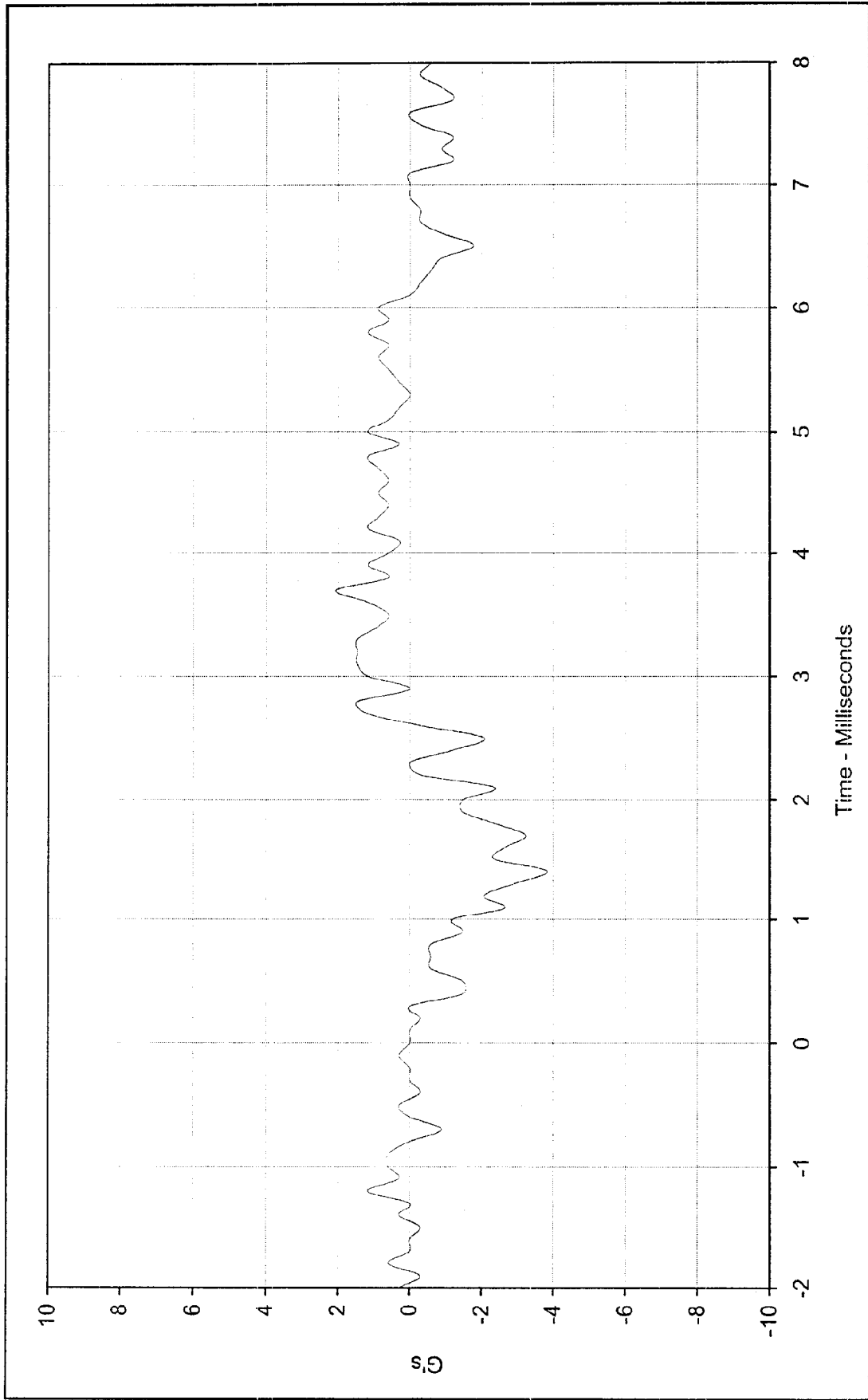
3/7/00

Date



Curve Description: Head Resultant Acceleration Test Program: Hybrid II Head Drop Calibration
 Maximum Value: 240.6 at 1.7 Milliseconds Test Information: SID S/N: 057 Test I.D.: HD03B
 Minimum Value: 0.6 at 0.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 3/7/00





Curve Description:	Head Y Axis Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	2.1 at 3.7 Milliseconds	Test Information:	SID S/N: 057 Test I.D.: HD03B
Minimum Value:	-3.8 at 1.4 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	3/7/00		



APPENDIX D
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver S.I.D. Serial Number 056**

03/3/00

2000 Cadillac Deville DHS

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	Head CG	X	KEAC070	Accel., 1/2 bridge	Endevco	7264-2000X	G
2	Head CG	Y	KEAC071	Accel., 1/2 bridge	Endevco	7264-2000Y	G
3	Head CG	Z	KEAC072	Accel., 1/2 bridge	Endevco	7264-2000Z	G
4	Upper Rib Primary	Y	KEAC070	Accel., 1/2 bridge	Endevco	7264-2000X	G
5	Lower Rib, Primary	Y	KEAC071	Accel., 1/2 bridge	Endevco	7264-2000Y	G
6	Lower Spine, Primary	Y	KEAC072	Accel., 1/2 bridge	Endevco	7264-2000Z	G
7	Pelvis, Primary	Y	KEAC090	Accel., Full bridge	Endevco	7264-2000X	G
8	Upper Rib Redundant	Y	KEAC076	Accel., 1/2 bridge	Endevco	7264-2000X	G
9	Lower Rib, Redundant	Y	KEAC077	Accel., 1/2 bridge	Endevco	7264-2000Y	G
10	Lower Spine, Redundant	Y	KEAC078	Accel., 1/2 bridge	Endevco	7264-2000Z	G
11	Pelvis, Redundant	Y	KEAC089	Accel., 1/2 bridge	Endevco	7264-2000X	G
12	Thorax Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Grey	%
13	Pelvis Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Grey	%

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Passenger S.I.D. Serial Number 057**

03/3/00

2000 Cadillac Deville DHS

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
14	Head CG	X	KEAC039	Accel., 1/2 bridge	Endevco	7264-2000	G
15	Head CG	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
16	Head CG	Z	KEAC027	Accel., 1/2 bridge	Endevco	7264-2000	G
17	Upper Rib Primary	Y	KEAC031	Accel., 1/2 bridge	Endevco	7264-2000	G
18	Lower Rib, Primary	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
19	Lower Spine, Primary	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
20	Pelvis, Primary	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
21	Upper Rib Redundant	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
22	Lower Rib, Redundant	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
23	Lower Spine, Redundant	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
24	Pelvis, Redundant	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
25	Thorax Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Grey	%
26	Pelvis Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Grey	%

**55/26 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers
03/3/00**

2000 Cadillac Deville DHS

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
27	Right at Sill Front Seat	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
28	Right at Sill Front Seat	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
29	Right at Sill Front Seat	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G
30	Right at Sill Rear Seat	X	KETX3A	Accel., Triax	I.C. Sensor	3031-500	G
31	Right at Sill Rear Seat	Y	KETX3B	Accel., Triax	I.C. Sensor	3031-500	G
32	Right at Sill Rear Seat	Z	KETX3C	Accel., Triax	I.C. Sensor	3031-500	G
33	Rear Floorpan Above Axle	X	KETX4A	Accel., Triax	I.C. Sensor	3031-500	G
34	Rear Floorpan Above Axle	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-500	G
35	Rear Floorpan Above Axle	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-500	G
36	Left Sill at Rear Door	Y	KEVA007	Accel., Vehicle block	I.C. Sensor	3031-500	G
37	Left Sill at Front Door	Y	KEVA005	Accel., Vehicle block	I.C. Sensor	3031-500	G
38	Left Front Door Centerline	Y	ICST004X	Accel., Triax	I.C. Sensor	3031-500	G
39	Rear Occupant Compartment	Y	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
40	Left Front Door Mid-Rear	Y	ICST004Y	Accel., Triax	I.C. Sensor	3031-500	G
41	Left Front Door Upper Centerline	Y	ICST004Z	Accel., Triax	I.C. Sensor	3031-500	G
42	Rear Door Mid-Rear	Y	ICST005X	Accel., Triax	I.C. Sensor	3031-500	G
43	Rear Door Upper Centerline	Y	ICST005Y	Accel., Triax	I.C. Sensor	3031-500	G
44	B-Post Lower	Y	KEBX2A	Accel., Biax	I.C. Sensor	3031-500	G
45	B-Post Middle	Y	KEBX2B	Accel., Biax	I.C. Sensor	3031-500	G
46	A-Post Lower	Y	KEBX1A	Accel., Biax	I.C. Sensor	3031-500	G
47	A-Post Middle	Y	KEBX1B	Accel., Biax	I.C. Sensor	3031-500	G
48	Front Seat Track	Y	KEIC008Y	Single	I.C. Sensor	3031-500	G
49	Rear Seat Structure	Y	N/A	N/A	N/A	N/A	N/A
50	Vehicle CG	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
51	Vehicle CG	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
52	Vehicle CG	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Moving Deformable Barrier**

03/3/00

2000 Cadillac Deville DHS

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
53	MDB CG	X	ICST001X	Accel., Triax	I.C. Sensor	3031-500	G
54	MDB CG	Y	ICST001Y	Accel., Triax	I.C. Sensor	3031-500	G
55	MDB CG	Z	ICST001Z	Accel., Triax	I.C. Sensor	3031-500	G
56	MDB Rear Centerline	X	ICST002X	Accel., Triax	I.C. Sensor	3031-50	G
57	MDB Rear Centerline	Y	ICST002Y	Accel., Triax	I.C. Sensor	3031-50	G
58	Right Bumper Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Grey	%