

3286

REPORT NUMBER KAR20003-01

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**FORD MOTOR CORPORATION
2000 FORD F-150
XL PICKUP
NHTSA NUMBER: MY0203**

**PREPARED BY:
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FEBRUARY 18, 2000

FINAL REPORT

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16. Abstract A 55/28 km/h 90° Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2000 Ford F-150 XL Pickup 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 January 11, 2000. The impact velocity of the Moving Deformable Barrier was 62.6 km/h, and the ambient temperature at the struck side (driver's) of the vehicle was 21.1 C. The target vehicle's maximum post test static crush was 398 mm located at level 1. The test vehicle's occupant performance is as follows: <table border="1"> <thead> <tr> <th>Measurement Description</th> <th>Driver SID</th> <th>Passenger SID</th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td>34</td> <td>48</td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td>44</td> <td>60</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td>41</td> <td>40</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td>42</td> <td>50</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td>73</td> <td>70</td> </tr> </tbody> </table>						Measurement Description	Driver SID	Passenger SID	Left Upper Rib (LUR) G's	34	48	Left Lower Rib (LLR) G's	44	60	Lower Spine (T ₁₂) G's	41	40	Thoracic Trauma Index (TTI) G's	42	50	Pelvis (PEV) G's	73	70
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Pelvis (PEV) G's	73	70																					
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																			
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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 in a 2000 Ford F-150 XL Pickup manufactured by Ford Motor Company.

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 Ford F-150 XL Pickup 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 62.6 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 2226 kg. and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering in Adelanto, California, on January 11, 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's 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 398 mm at level 1, 1650 mm rearward of the left vertical impact point. The driver and passenger SID's, Serial No. 057 and 056 respectively, were calibrated just prior to this test. The SID's injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	42	50
Peak Pelvic G's (PEV)	G's	73	70

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 Ford F-150 XL Pickup

NHTSA No. MY0203

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

Test Date: 1/11/00

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Old 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	$=(t_f - 32)/1.8$
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 Ford F-150 XL Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
 Test Date: 01/11/00

TEST VEHICLE INFORMATION

Make	Ford
Model	F-150 XL
Body Style	Pickup
NHTSA No.	MY0203
VIN	1FTZX1726YKA44486
Color	White
Delivery Date	1/5/2000
Odometer Reading (mile)	47
Dealer	Fairview Ford
Transmission	5-Speed Manual
Final Drive	Rear
Number of Cylinders	V6
Engine Displacement (L)	4.2
Engine Placement	Longitudinal

TEST VEHICLE OPTIONS

Driver Airbag	Yes
Passenger Airbag	Yes
Power Windows	No
Power Steering	Yes
Power Door Locks	No
Tilt Wheel	No
Air Conditioning	Yes
Power Brakes	Yes
Disc Brakes, Front	Yes
Disc Brakes, Rear	No
Anti-lock Brakes	Yes
AM/FM/Cassette	Yes
Anti-Theft System	No
Cruise Control	No

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Company	GVWR (kg)	2721
Date of Manufacture	October-99	GAWR Front (kg)	1338
		GAWR Rear (kg)	1451

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	225	245
Cold Pressure (kPa)	225	245
Recommend Tire Size	P235/70/R16SL	P235/70/R16SL
Tire Size on Vehicle	P235/70/R16SL	P235/70/R16SL
Tire Manufacturer	General	General

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	None	
Number of Occupants	3	3	0	6
Capacity Wt. (VCW) (kg)				787
Cargo Weight (RCLW) (kg)				136

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

Test Vehicle: 2000 Ford F-150 XL Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
 Test Date: 1/11/2000

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	556	426		611	542	
Right	kg	540	412		563	510	
Ratio	%	56.7	43.3		52.7	47.3	
Totals	kg	1096	838	1934	1174	1052	2226

TARGET TEST WEIGHT CALCULATION*

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1934
Weight of 2 P572F Side Impact Dummies	kg	161.5
Rated Cargo/Luggage Weight (RCLW)	kg	136
Calculated Vehicle Target Weight (TVTW)	kg	2231.5

*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	859	868	898	910	1525
As Tested	mm	844	863	858	878	1664
Fully Loaded	mm	845	866	860	882	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	3520
Total Vehicle Length at Left Side	mm	4460
Total Vehicle Length at Centerline	mm	5745
Total Vehicle Length at Right Side	mm	4460
Weight of Ballast In Cargo Area	kg	88
Amount of Stoddard Solvent in Fuel Tank	Liters	88.0

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	3520
Target Impact Point Aft of Front Axle	mm	508
Actual Impact Point Aft of Front Axle	mm	515

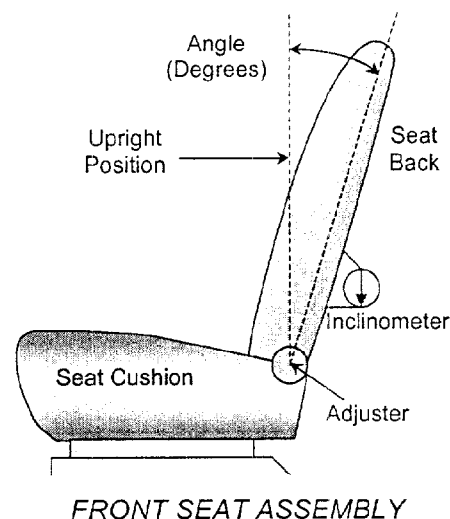
DATA SHEET NO. 1...(continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2000 Ford F-150 XL Pickup
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. MY0203
Test Date: 1/11/00

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.



Driver seat back angle: 21.4° with a seated dummy
Passenger seat back angle: Rear seat not adjustable

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: 19 Seat Positions
Passenger seat fore/aft total travel: Rear seat not adjustable
Driver seat fore/aft position: Seat Set At The 10th Detent
Passenger seat fore/aft position: Rear seat not adjustable

SEAT BELT UPPER ANCHORAGE

The test vehicle is equipped with a "D" ring anchorage for the driver's seat positions. There is 1 position or detent, with the uppermost position numbered "1". The driver's "D" ring anchorage is placed in position 1.

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

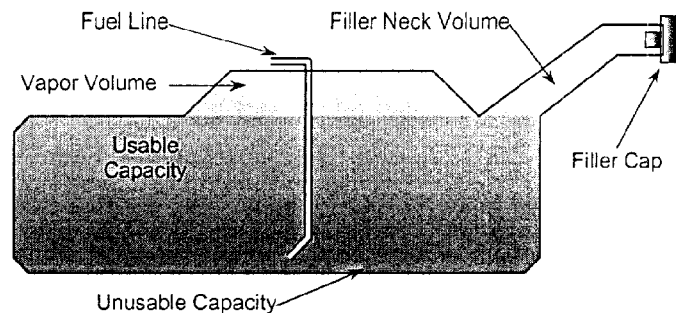
Test Vehicle: 2000 Ford F-150 XL Pickup
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. MY0203
Test Date: 1/11/00

FUEL TANK CAPACITY DATA

The "Usable Capacity" of the standard equipment fuel tank is: 70.0 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: 64.4 to 65.8 liters
Actual amount of Stoddard solvent added to vehicle for certification test: 65.3 liters

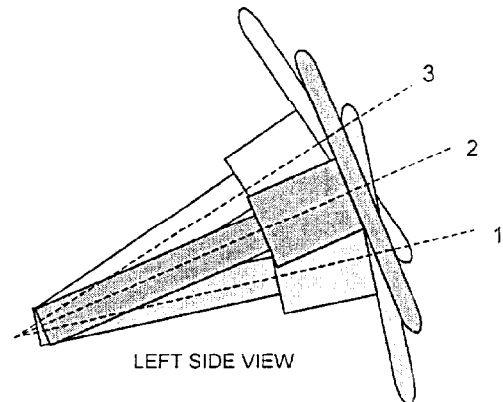
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.



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: 19°
Uppermost, position 3: 35°

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Test Vehicle: 2000 Ford F-150 XL Pick-up
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
Test Date: 1/11/2000

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	556	426		611	542	
Right	kg	540	412		563	510	
Weight Ratio	%	56.7	43.3		52.7	47.3	
Totals	kg	1096	838	1934	1174	1052	2226

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	398	406
Level 2	Occupant H-Point	mm	370	846
Level 3	Mid Door	mm	372	775
Level 4	Window Sill	mm	196	1094
Level 5	Window Top	mm	149	1706
N/A	Maximum Penetration	mm	398	846

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 Ford F-150 XL Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
 Test Date: 1/11/2000

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	62.60
Trap No. 2 Velocity (Redn.)	km/h	61.1 to 62.7	62.71
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Right	82
B	Top of Bumper	533	800	Right	81
C	Mid Level	686	800	Left	114
D	Top of Stack	813	800	Left	178

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	2

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

Test Vehicle: 2000 Ford F-150 XL Pick-up
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
Test Date: 1/11/2000

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	No Contact	Roof/Side Header
Upper Torso Contact	Door Panel/Belt	Door Panel
Lower Torso Contact	Door Panel/Seat	Door Panel
Left Knee Contact	Door Panel/Knee Bolster	Seat Back/Panel
Right Knee Contact	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Remained closed, inoperable	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	Left Front and Rear Windows Shattered During Impact
Other Notable Effects	No significant items to note.

AIR BAG DEPLOYMENT

	Driver	Front Passenger	Rear Passenger
Front	No	No	N/A
Side	N/A	N/A	N/A

Yes = Deployed No = No deployment N/A = Not Installed

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	20 (aft)
Vertical Offset	mm	+/- 20	-3 (above)

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 5
SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2000 Ford F-150 XL Pickup

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

NHTSA No.: MY0203

Test Date: 1/11/00

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	34.1	60.3	-9.8	48.0	47.8	55.7	-2.2	91.0
Lower Rib (LLR)	Y	G's	44.3	51.2	-5.0	117.9	59.7	50.3	-4.9	91.0
Lower Spine (T ₁₂)	Y	G's	40.7	37.8	-12.7	67.9	39.7	46.6	-11.0	90.1
Pelvis (PEV)	Y	G's	72.8	37.8	-16.3	73.4	69.5	39.5	-13.9	95.3

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

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	44.262	40.710	42	73	59.700	39.656	50	70

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	34.8	52.3	-7.0	47.5	47.6	55.4	-2.7	90.4
Lower Rib (LLR)	Y	G's	44.9	51.1	-5.3	116.2	58.6	50.2	-5.3	90.9
Lower Spine (T ₁₂)	Y	G's	40.6	37.7	-12.0	67.7	40.3	46.4	-10.4	90.4
Pelvis (PEV)	Y	G's	73.0	37.7	-17.0	67.7	69.0	39.3	-12.8	95.0

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

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	44.874	40.590	43	73	58.587	40.324	49	69

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	2.9	53.0	-13.5	104.9	11.2	48.3	-34.4	78.8
Head CG	Y	G's	21.2	113.2	-8.1	40.8	95.9	45.9	-19.1	51.4
Head CG	Z	G's	42.4	81.6	-13.0	33.2	79.6	46.0	-43.0	67.0
Head CG Resultant	N/A	G's	43.2	81.6			124.6	46.1		

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	142.1	68.2	104.1	27.5	444.9	43.9	48.0	102.3

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

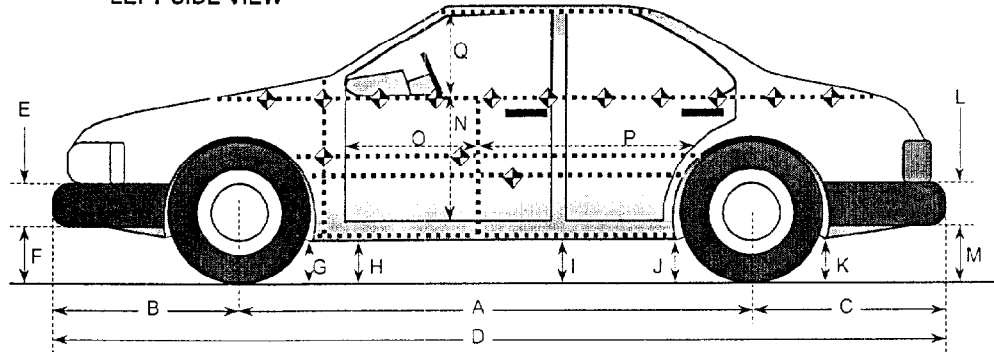
Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00

LEFT SIDE VIEW



All Measurements in mm

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	3520	3455	65
B	Front Axle To FSOV	995	925	70
C	Rear Axle to RSOV	1230	1180	50
D	Total Length at Centerline	5745	5700	45
E	Front Bumper Thickness	660	660	0
F	Front Bumper Bottom to Ground	287	287	0
G	Sill Height at Front Wheel Well	350	355	-5
H	Sill Height at Front Door Leading Edge	350	355	-5
I	Sill Height at "B" Pillar	366	361	5
J1	Sill Height at Rear Wheel Well	351	451	-100
J2	Pinch Weld Height at Rear Wheel Well	365	400	-35
K	Sill Height aft of Rear Wheel Well	402	469	-67
L	Rear Bumper Thickness	640	640	0
M	Rear Bumper Bottom to Ground	439	724	-285
N	Sill Height to Window Bottom Sill	805	770	35
O	Front Door Leading Edge to Impact CL	750	730	20
P	Rear Door Trailing Edge to Impact CL	545	510	35
Q	Front Window Opening	545	545	0
R	Right Side Length	4460	4490	-30
S	Left Side Length	4460	4410	50
T	Vehicle Width at "B" Post	1955	1770	185

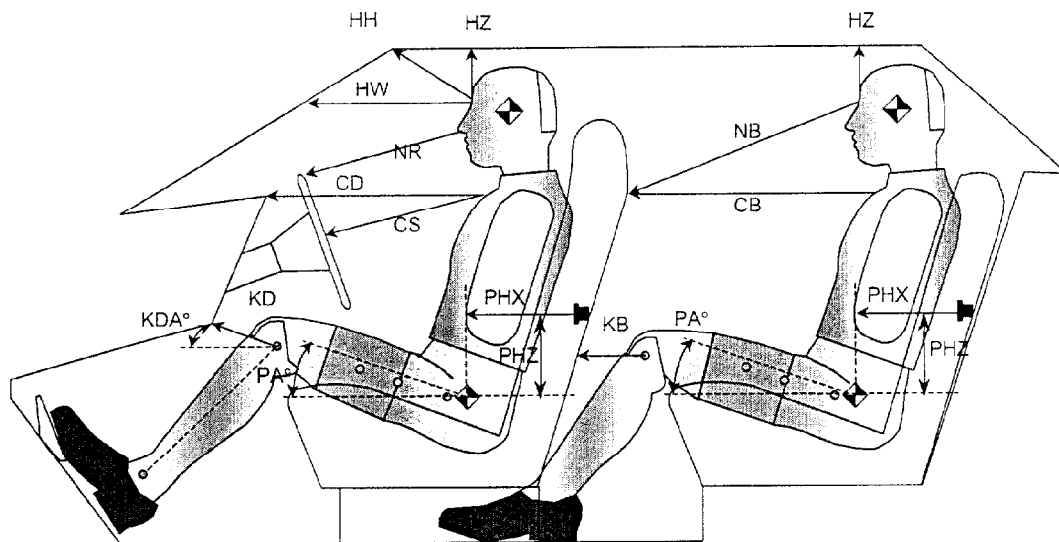
DATA SHEET NO. 7
SID LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00



Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH	HH	Head to Header	470	19		
HW	HW	Head to Windshield	675			
HZ	HZ	Head to Roof	245	0	195	90
NR	NB	Nose to Rim/Nose to Seatback	487	12	400	9
CD	CB	Chest to Dash or Seatback	585	2	410	21
CS		Chest to Steering Wheel	305	0		
KDL	KBL	Left Knee to Dash or Seatback	143	19	64	
KDR	KBR	Right Knee to Dash or Seatback	142		80	
PA	PA	Pelvic Angle		23		25
PHX	PHX	H-Point to Striker (X-Axis)	390		490	
PHZ	PHZ	H-Point to Striker (Z-Axis)	50		410	

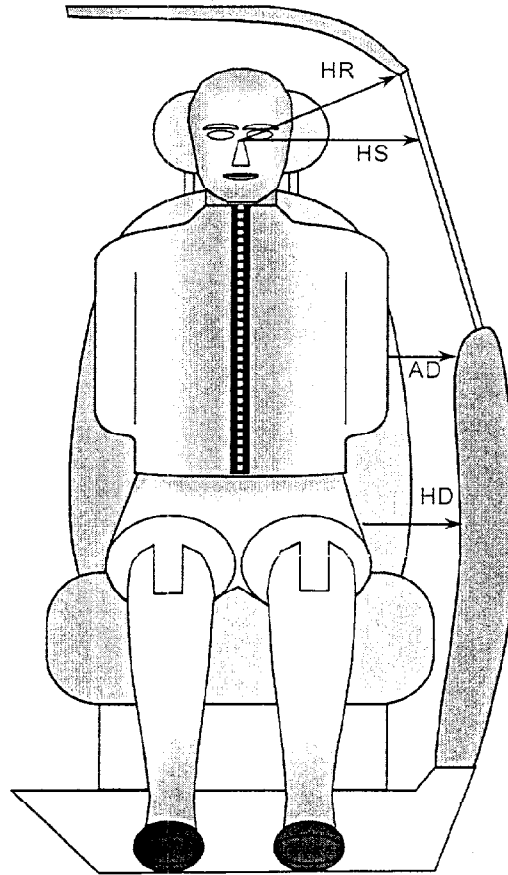
DATA SHEET NO. 8
SID LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00



FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	274	217
HS	Head to Side Window	mm	345	325
AD	Arm to Door	mm	126	113
HD	H-Point to Door	mm	195	190

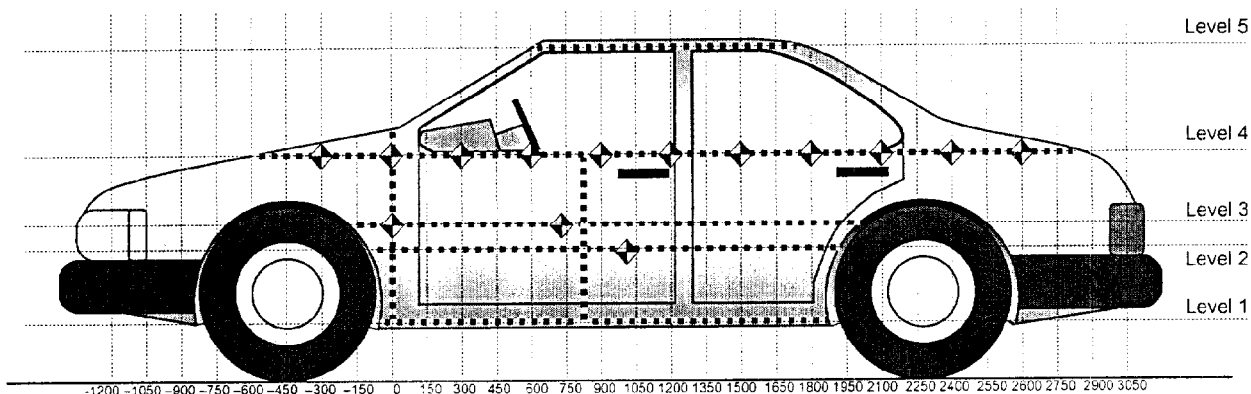
DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00



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	1706
4	Window Sill	1094
3	Mid Door	775
2	Occupant H-Point	846
1	Sill Top	406

DATA SHEET NO. 10 - VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2000 Ford F-150 XL Pickup

PROJECT No.: MY0203

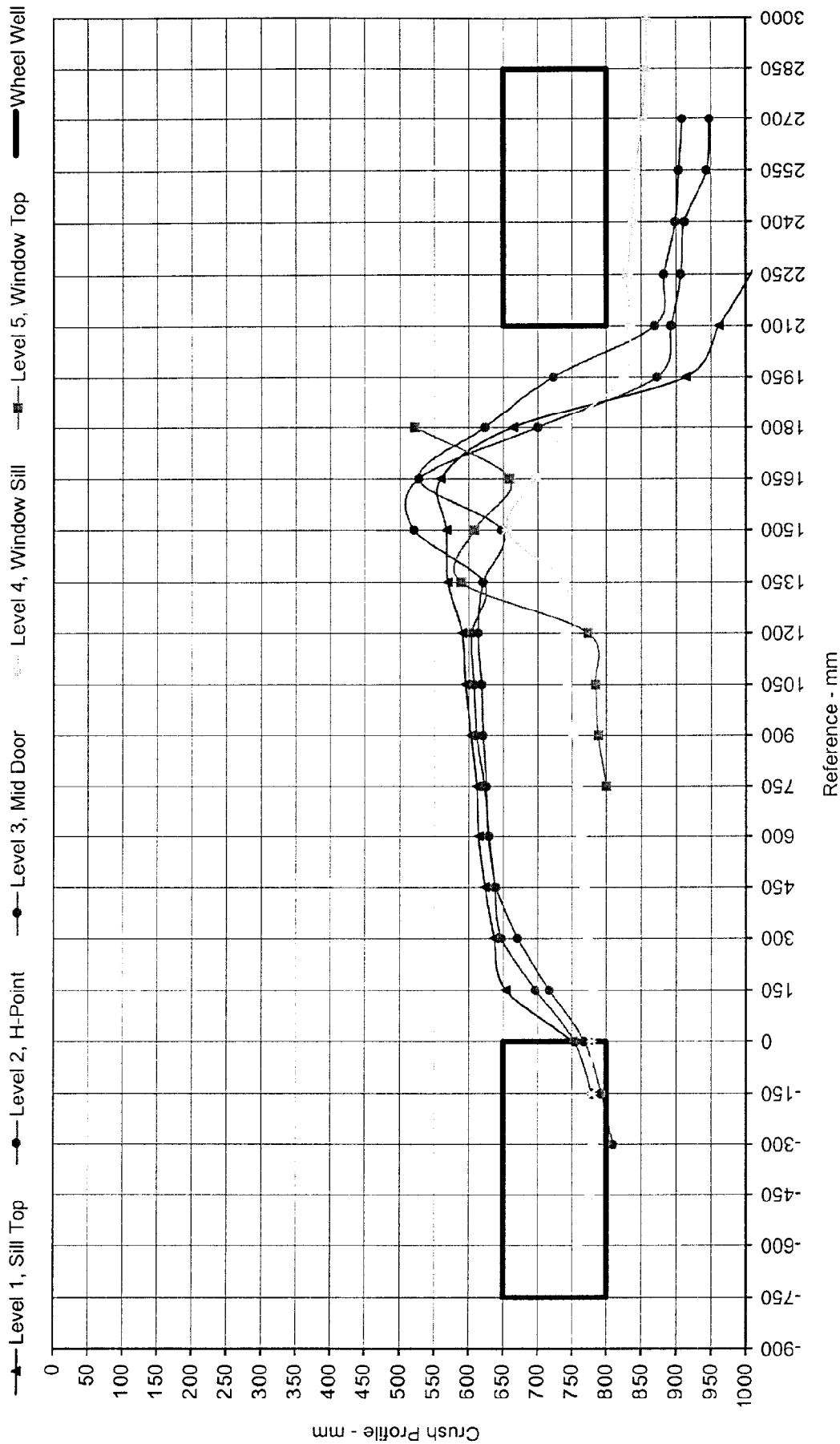
Test Program 55/28 km/h 90° Side Impact NCAP

Test Date: 1/11/2000

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600				714					758					-44	
-450				754					775					-21	
-300		886		834			810		781			76		53	
-150		881	884	849			793	779	779			88	105	70	
0	958	869	880	814		751	768	753	779		207	101	127	35	
150	954	870	881	819		654	717	697	781		300	153	184	38	
300	958	884	884	823		637	671	648	773		321	213	236	50	
450	958	889	888	824		624	640	638	769		334	249	250	55	
600	957	891	891	830		615	629	630	763		342	262	261	67	
750	959	892	892	831	644	612	626	623	758	800	347	266	269	73	-156
900	958	894	893	839	649	604	621	612	751	788	354	273	281	88	-139
1050	959	896	896	843	662	596	619	608	743	784	363	277	288	100	-122
1200	962	897	897	848	666	591	614	605	740	773	371	283	292	108	-107
1350	962	897	897	852	666	570	621	622	738	589	392	276	275	114	77
1500	961	898	893	851	662	568	648	521	655	609	393	250	372	196	53
1650	958	898	888	851	667	560	528	528	697	659	398	370	360	154	8
1800	960	898	882	849	671	664	624	700	743	522	296	274	182	106	149
1950	961	898	883	846		914	723	873	825		47	175	10	21	
2100	960	901	882	849		962	870	893	834		-2	31	-11	15	
2250	960	897	882	849		1008	883	907	830		-48	14	-25	19	
2400	961	894	881	851		1045	899	912	838		-84	-5	-31	13	
2550		884	878	846			904	944	842			-20	-66	4	
2700		884	899	841			909	948	852			-25	-49	-11	
2850				842					857					-15	
3000				842					858					-16	

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

DATA SHEET NO. 10...(continued)



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

Test Vehicle: 2000 Ford F-150 XL Pickup

Test Date: 01/11/00



Maximum Crush, Level 1:	398	mm at	1650	mm
Maximum Crush, Level 2:	370	mm at	1650	mm
Maximum Crush, Level 3:	372	mm at	1500	mm
Maximum Crush, Level 4:		mm at	1500	mm
Maximum Crush, Level 5:	149	mm at	1800	mm

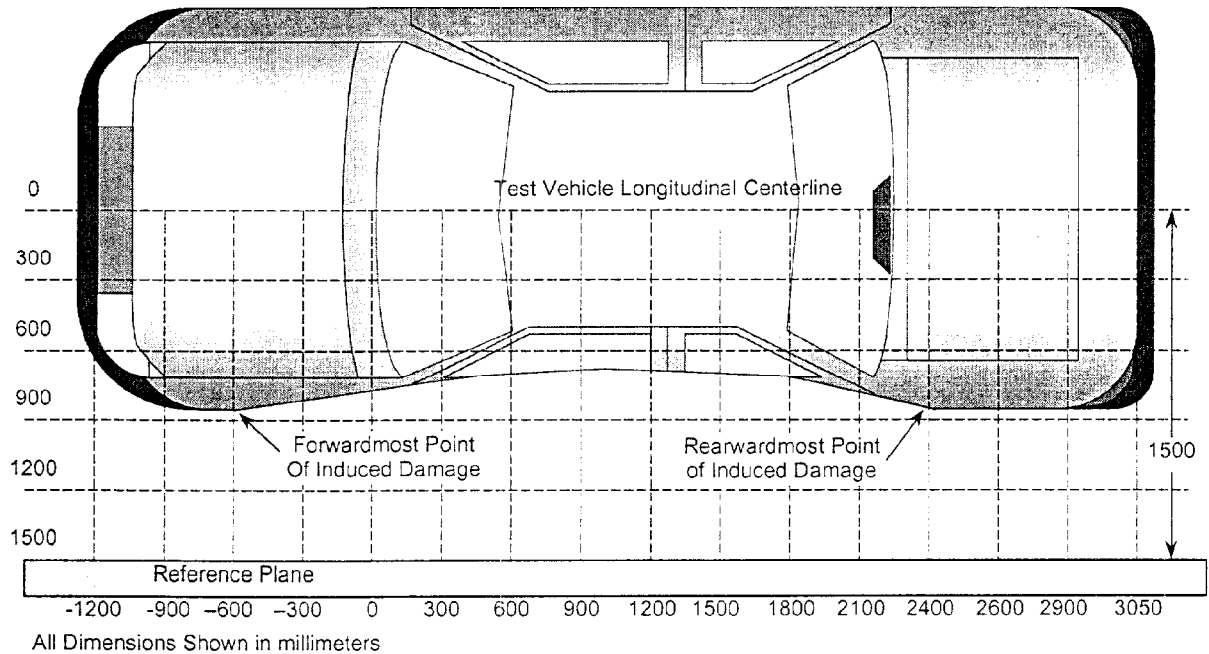
DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00



TOP VIEW

Damage Profile Distances

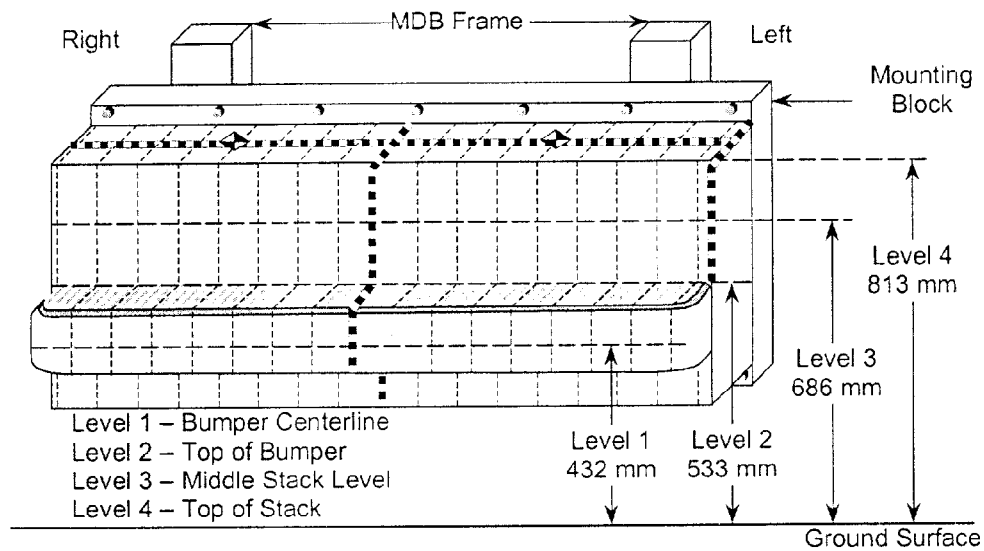
DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	-450 mm	4	754	775	-21
2	150 mm	1	954	654	300
3	750 mm	1	959	612	347
4	1350 mm	1	962	570	392
5	1950 mm	2	898	723	175
6	2550 mm	4	846	842	4

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

DATA SHEET NO. 12
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2000 Ford F-150 XL Pickup
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
 Test Date: 1/11/00



DEFORMABLE BARRIER STATIC CRUSH

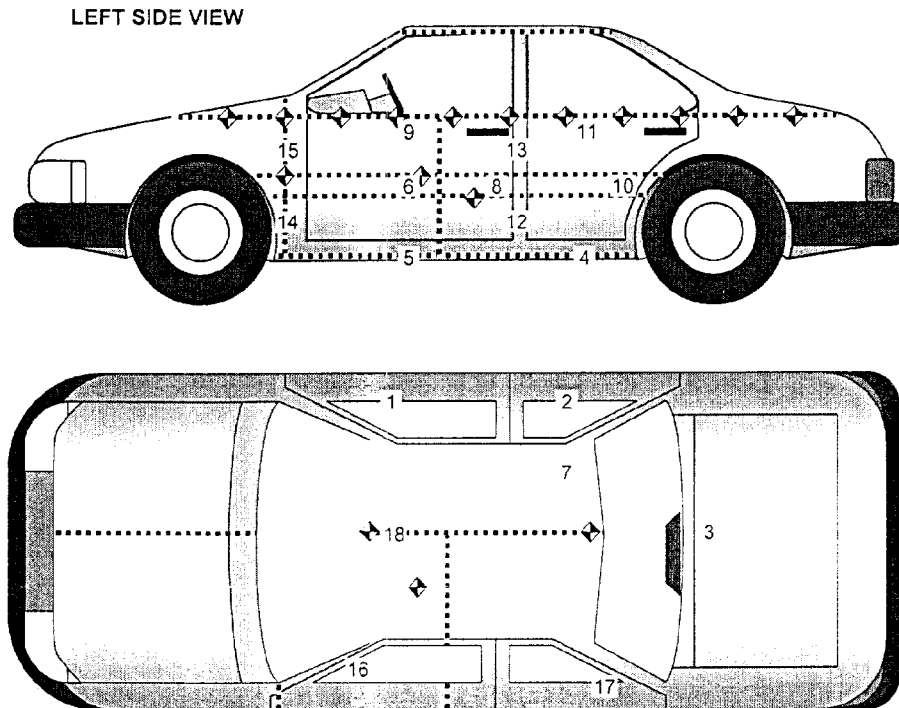
Stack Level	Distance Right of Center								C _L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	82	52	30	35	34	25	15	13	14	14	14	18	19	22	28	39	65
2	81	53	43	42	33	26	22	19	20	20	21	24	25	26	33	37	49
3	113	46	18	12	29	11	4	-1	0	1	0	3	6	18	29	62	114
4	176	110	59	55	71	52	42	37	33	33	36	42	49	57	76	121	178

All Dimensions in mm

DATA SHEET NO. 13
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Ford F-150 XL Pickup
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0203
 Test Date: 2/22/00



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 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00

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	2830	730	380	X	9.0	31.5	-5.4	51.6
					Y	34.7	4.3	-11.4	24.2
					Z	10.4	25.1	-16.9	8.4
					RES	35.0	4.3		
2	Right Sill at Rear Seat	1910	730	370	X	9.6	31.8	-5.6	51.7
					Y	39.6	4.1	-5.2	91.1
					Z	6.8	113.0	-13.2	9.1
					RES	40.9	4.1		
3	Rear Floorpan Above Axle	910	-30	480	X	5.6	46.4	-6.6	28.2
					Y	19.1	46.1	-3.1	81.3
					Z	14.4	34.9	-11.4	42.8
					RES	20.2	51.6		
4	Left Sill at Rear Door	2060	-680	207	Y	208.3	3.5	-44.8	18.9 *
5	Left Sill at Front Door	2915	-680	200	Y	213.1	10.4	-23.0	19.9 *
6	Front Door Centerline	2895	-825	686	Y	131.4	15.4	-3.8	0.9 *
7	Rear Occupant Compartment	2325	450	235	Y	39.0	4.4	-5.9	23.4
8	Front Door Mid-Rear	2575	-805	686	Y	131.4	8.7	-96.5	23.2
9	Front Door Upper Centerline	2895	-825	810	Y	119.6	16.7	-75.4	27.3
10	Rear Door Mid-Rear	1660	-790	690	Y	97.8	7.4	-73.3	16.3
11	Rear Door Upper Centerline	1840	-790	690	Y	127.0	10.7	-87.3	21.0
12	B-Post Lower								**
13	B-Post Middle								**
14	A-Post Lower	3515	-835	510	Y	91.2	2.1	0.0	22.6 *
15	A-Post Middle	3515	-835	722	Y	62.2	3.1	-6.1	12.6 *
16	Front Seat Track	2970	-610	370	Y	32.1	35.3	0.0	3.0 *
17	Rear Seat Structure								**
18	Vehicle CG	2895	0	380	X	21.6	31.1	-26.9	10.7
					Y	46.0	33.7	-22.4	23.8
					Z	45.6	15.4	-72.7	9.8
					RES	81.3	34.3		

*Channel failed, check plot for time of failure.

** Not Used, no accesible mounting structure.

DATA SHEET NO. 14
MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Ford F-150 XL Pickup

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

NHTSA No.: MY0203

Test Date: 1/11/00

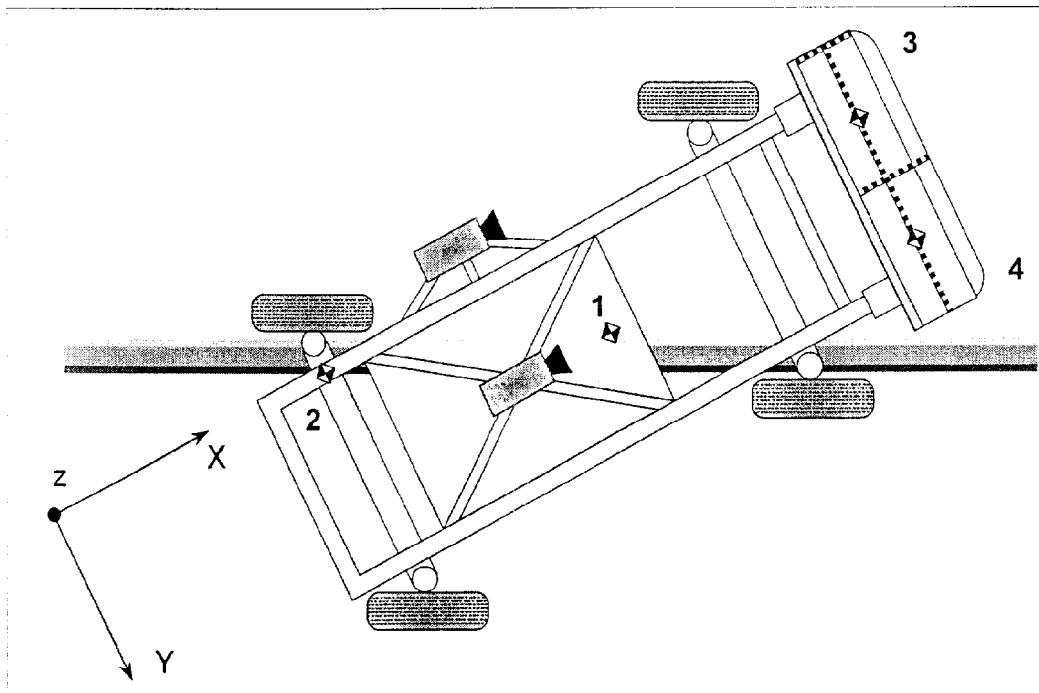
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

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	1.2	150.0	-20.5	35.9
					Y	2.8	18.1	-8.8	30.0
					Z	12.7	31.2	-11.3	39.9
					RES	23.2	30.8		
2	MDB Rear	-2642	-593	608	X	1.7	177.0	-22.8	30.3
					Y	5.0	6.8	-6.2	12.9

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.	101.5	18.0	50.7	0.0



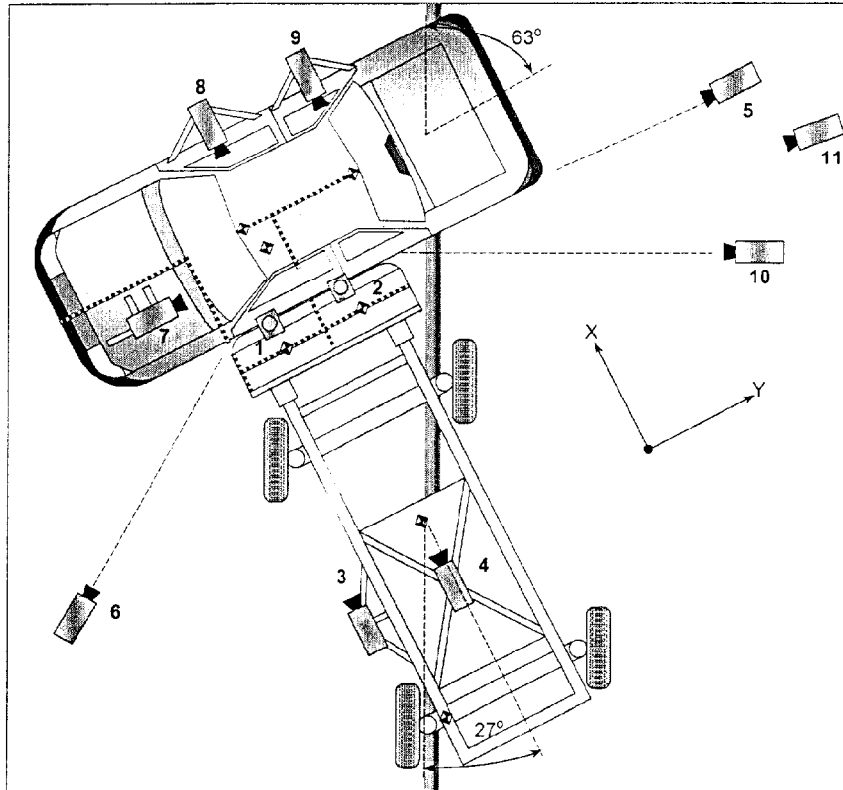
DATA SHEET NO. 15
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	2260	750	5490	90	10	920
2	Overhead Close-up	0	0	5490	90	24	940
3	MDB Onboard, Impact Point Close-Up	2200	840	1110	7	13	880
4	MDB Onboard, Centerline of Impact	3420	660	1815	11	13	850
5	Right Side, Ground Level, Overall	9000	18100	1465	3	25	1010
6	Left Side, Ground Level, Close-up	5100	4200	1515	2	13	990
7	Vehicle Onboard Front SID, Front	730	2400	1770	14	19	1000
8	Vehicle Onboard Front SID, Side	2150	2260	1337	7	10	1010
9	Vehicle Onboard Rear SID, Side	2100	1460	1407	5	10	1000
10	Right Side, Ground Level, Close-up	550	18300	1330	3	70	1010
11	Real Time Coverage	3000	19300	587	2	Zoom	540

DATA SHEET NO. 16
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2000 Ford F-150 XL Pickup

NHTSA No.: MY0203

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

Test Date: 1/11/00

Test Time: 12:41 PM

Temperature at Time of Impact: 21.1 °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

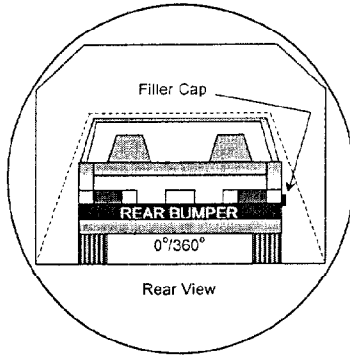
DATA SHEET NO. 17
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2000 Ford F-150 XL Pickup

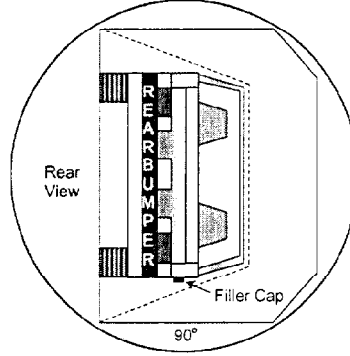
NHTSA No.: MY0203

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

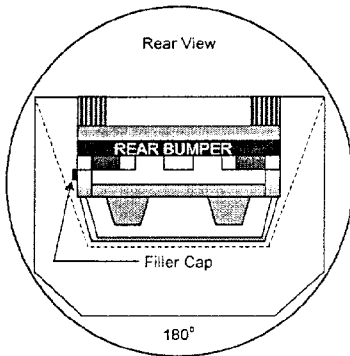
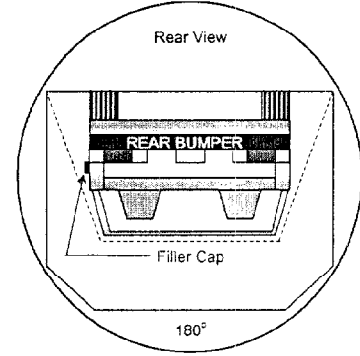
Test Date: 1/11/00



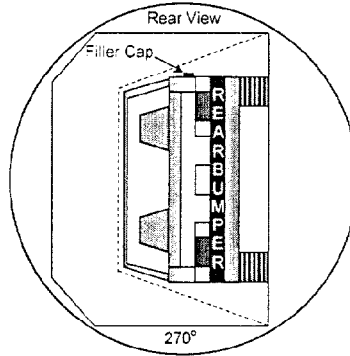
0° TO 90°



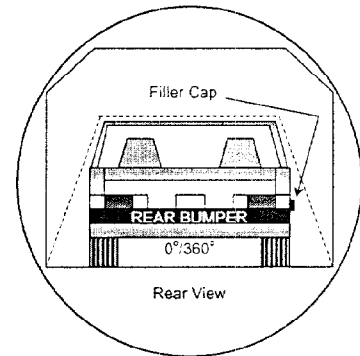
90° TO 180°



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°	81	300	0.0
90° TO 180°	82	300	0.0
180° TO 270°	80	300	0.0
270° TO 360°	82	300	0.0

APPENDIX A
PHOTOGRAPHS

KAR20003-01

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FIGURE A-1: LEFT FRONT, AS RECEIVED



FIGURE A-2: RIGHT REAR, AS RECEIVED

MFD. BY FORD MOTOR CO. IN U.S.A.

DATE: 10/99	GVWR: 6000LB / 2721KG	
FRONT GAWR: 2950LB	REAR GAWR: 3200LB	
1338KG	WITH 1451KG	WITH
P235/70R16SL	P235/70R16SL	TIRES
16X7.0J	16X7.0J	RIMS
AT 221 kPa/32	AT 241 kPa/35	PSI COLD

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

VIN: 1FTZX1726YKA44486

TYPE: TRUCK

F0031
T0754



EXT PNT: YZ	IRC: 71	DSO:
WB: BRK	R: AXLE	TR: SPR
139 B	7 18	OF522
C2	UTC	GOB
		▽ F85B: 1520472 AB

FIGURE A-3: VEHICLE CERTIFICATION LABEL



FIGURE A-5: PRE-TEST FRONT VIEW



FIGURE A-6: POST-TEST FRONT VIEW



FIGURE A-7: PRE-TEST REAR VIEW



FIGURE A-8: POST-TEST REAR VIEW

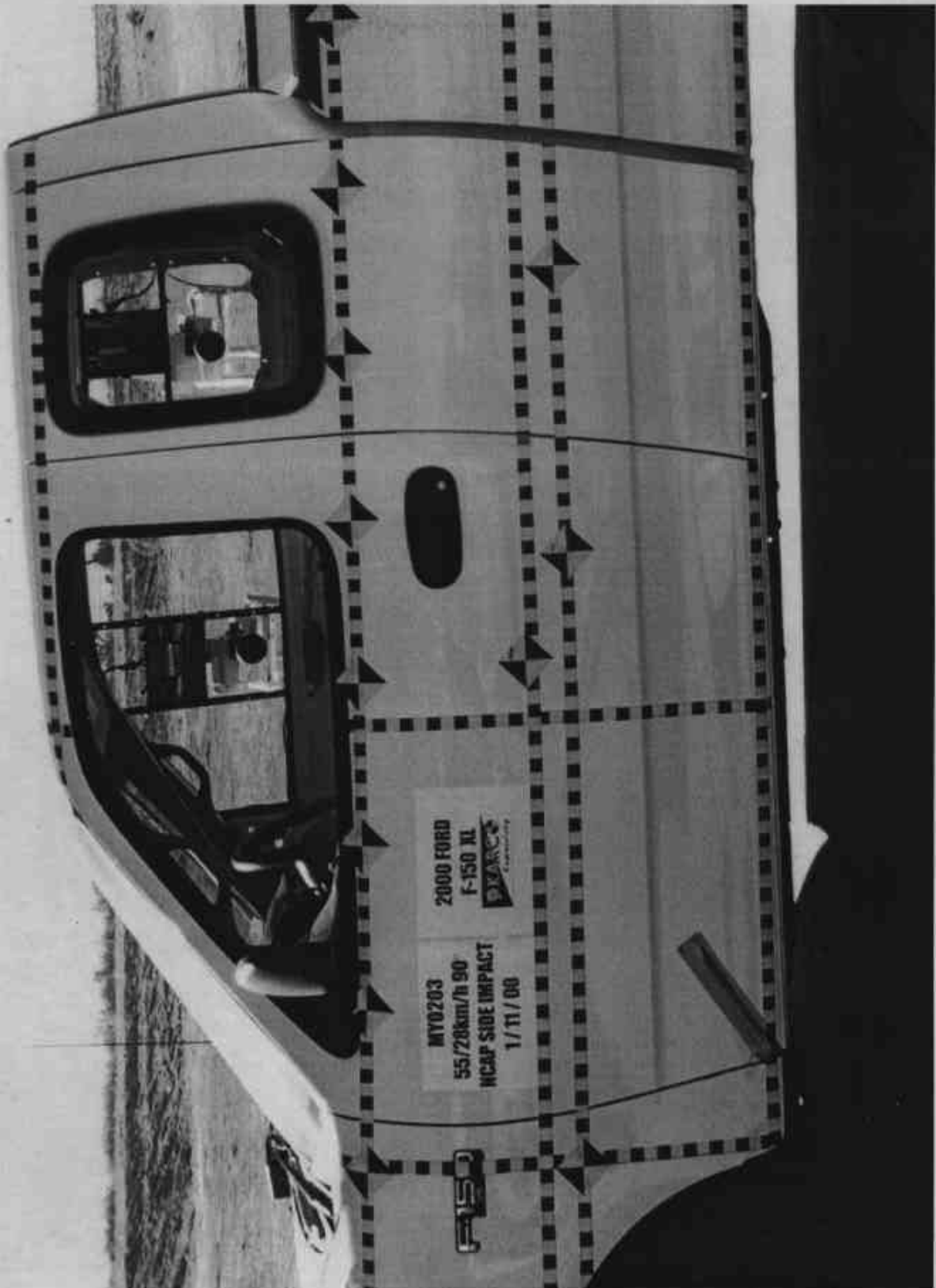


FIGURE A-9: PRE-TEST LEFT SIDE (STRUCK SIDE) VIEW

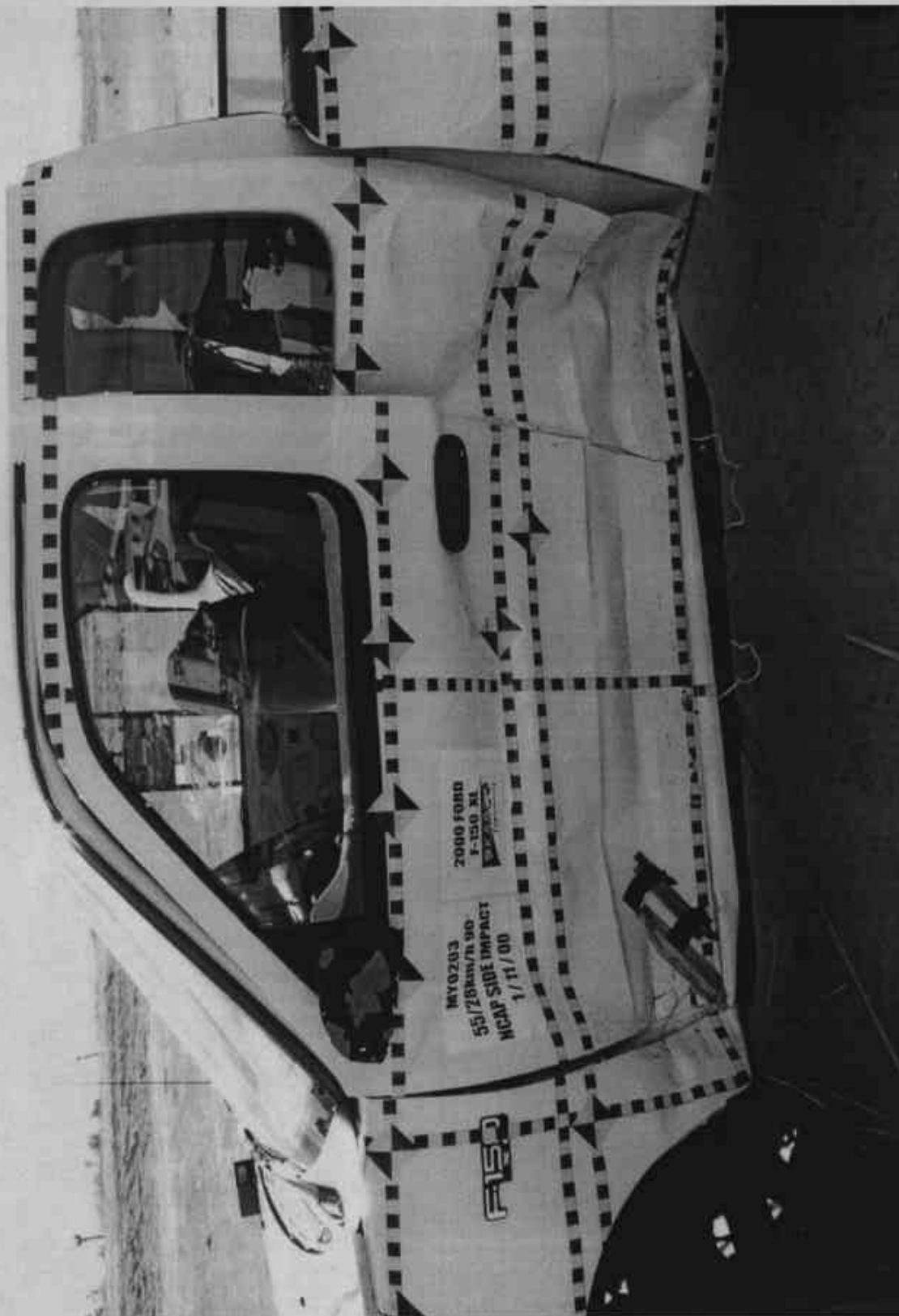


FIGURE A-10: POST-TEST LEFT SIDE (STRUCK SIDE) VIEW

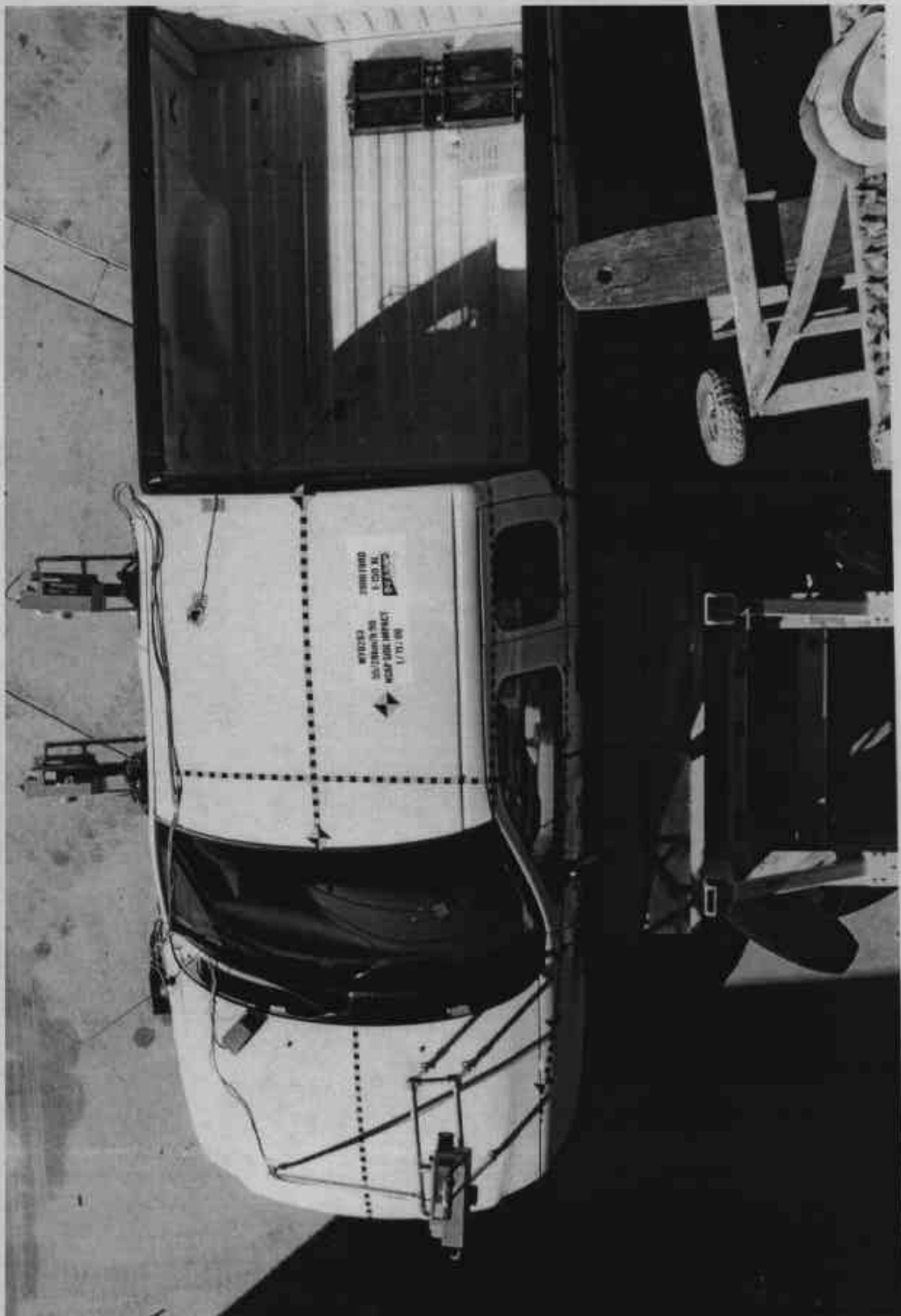


FIGURE A-11: PRE-TEST OVERHEAD OVERALL



FIGURE A-12: PRE-TEST OVERHEAD OVERALL

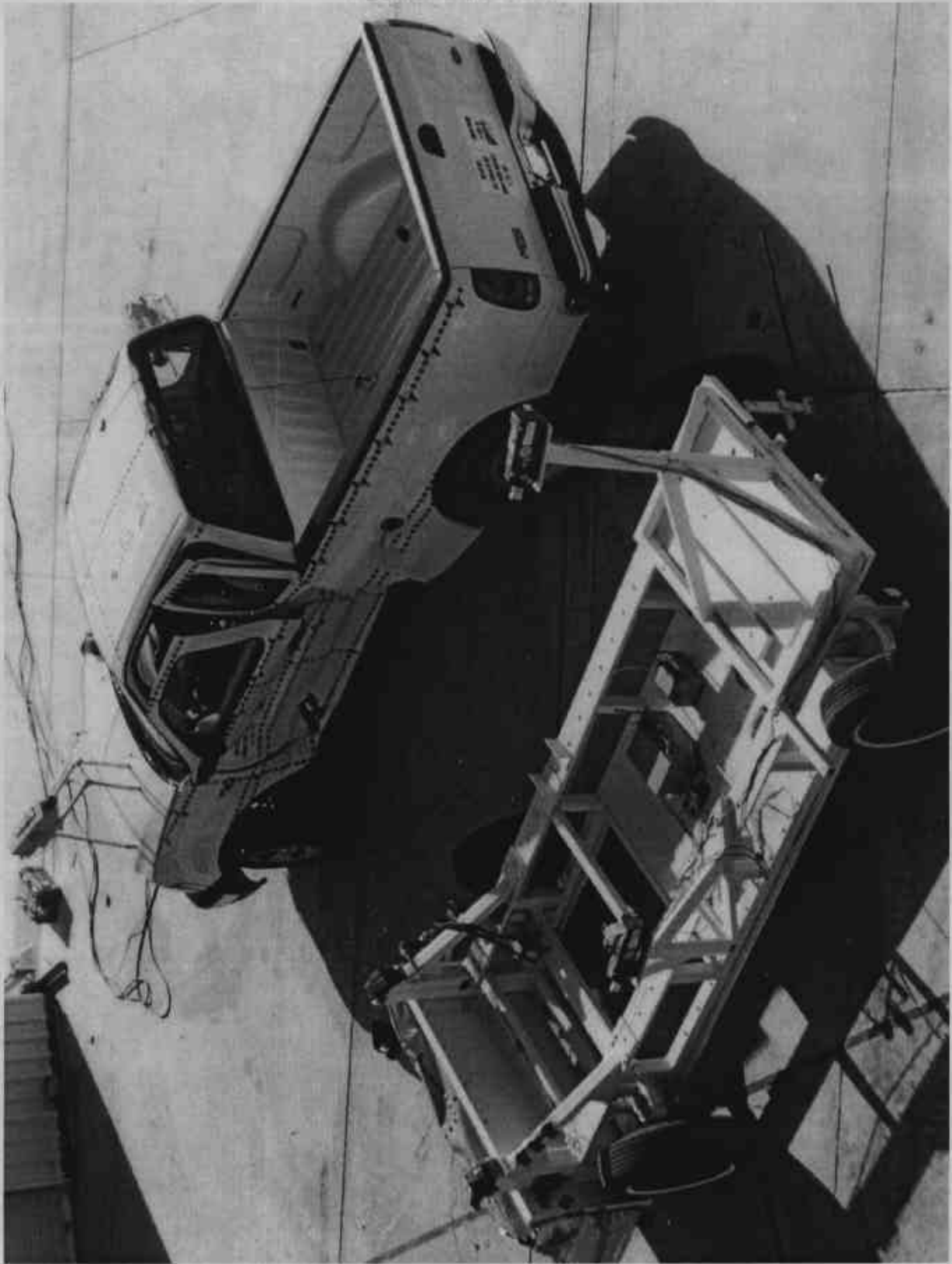


FIGURE A-13: POST-TEST OVERHEAD OVERALL



FIGURE A-14: PRE-TEST MDB LEFT SIDE VIEW (AT IMPACT POSITION)



FIGURE A-15: PRE-TEST MDB RIGHT SIDE VIEW (AT IMPACT POSITION)



FIGURE A-16: PRE-TEST IMPACT POINT TARGET CLOSE-UP



FIGURE A-17: POST-TEST IMPACT POINT TARGET CLOSE-UP



FIGURE A-18: PRE-TEST DRIVER DUMMY LEFT SIDE (DOOR OPEN)

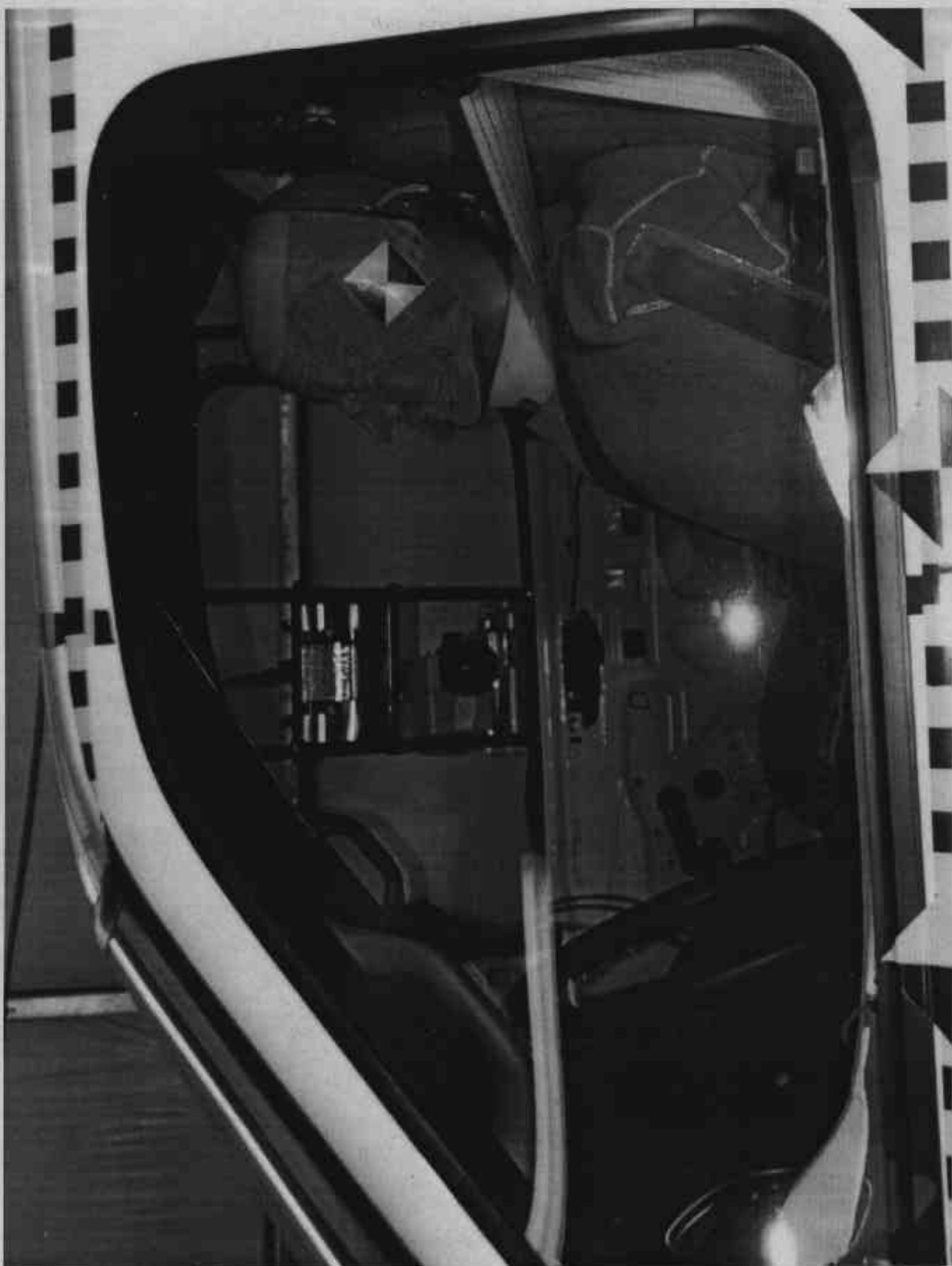


FIGURE A-19: PRE-TEST DRIVER DUMMY LEFT SIDE VIEW



FIGURE A-20: POST-TEST DRIVER DUMMY LEFT SIDE VIEW



FIGURE A-21: PRE-TEST DRIVER DUMMY CLEARANCE



FIGURE A-22: POST-TEST DRIVER DUMMY CLEARANCE



FIGURE A-23: PRE-TEST DRIVER DUMMY INSIDE VIEW



FIGURE A-24: POST-TEST DRIVER DUMMY INSIDE VIEW



FIGURE A-25: PRE-TEST DRIVER DOOR (INSIDE VIEW)



FIGURE A-26: POST-TEST DRIVER DUMMY CONTACT POINTS (INSIDE VIEW)



FIGURE A-27: PRE-TEST PASSENGER DUMMY LEFT SIDE (DOOR OPEN)



FIGURE A-28: PRE-TEST PASSENGER DUMMY LEFT SIDE VIEW



FIGURE A-29: POST-TEST PASSENGER DUMMY LEFT SIDE VIEW



FIGURE A-30: PRE-TEST PASSENGER DUMMY CLEARANCE



FIGURE A-31: POST-TEST PASSENGER DUMMY CLEARANCE



FIGURE A-32: PRE-TEST PASSENGER DUMMY INSIDE VIEW



FIGURE A-33: POST-TEST PASSENGER DUMMY INSIDE VIEW



FIGURE A-34: PRE-TEST PASSENGER DOOR (INSIDE VIEW)



FIGURE A-35: POST-TEST PASSENGER DUMMY CONTACT POINTS (INSIDE VIEW)

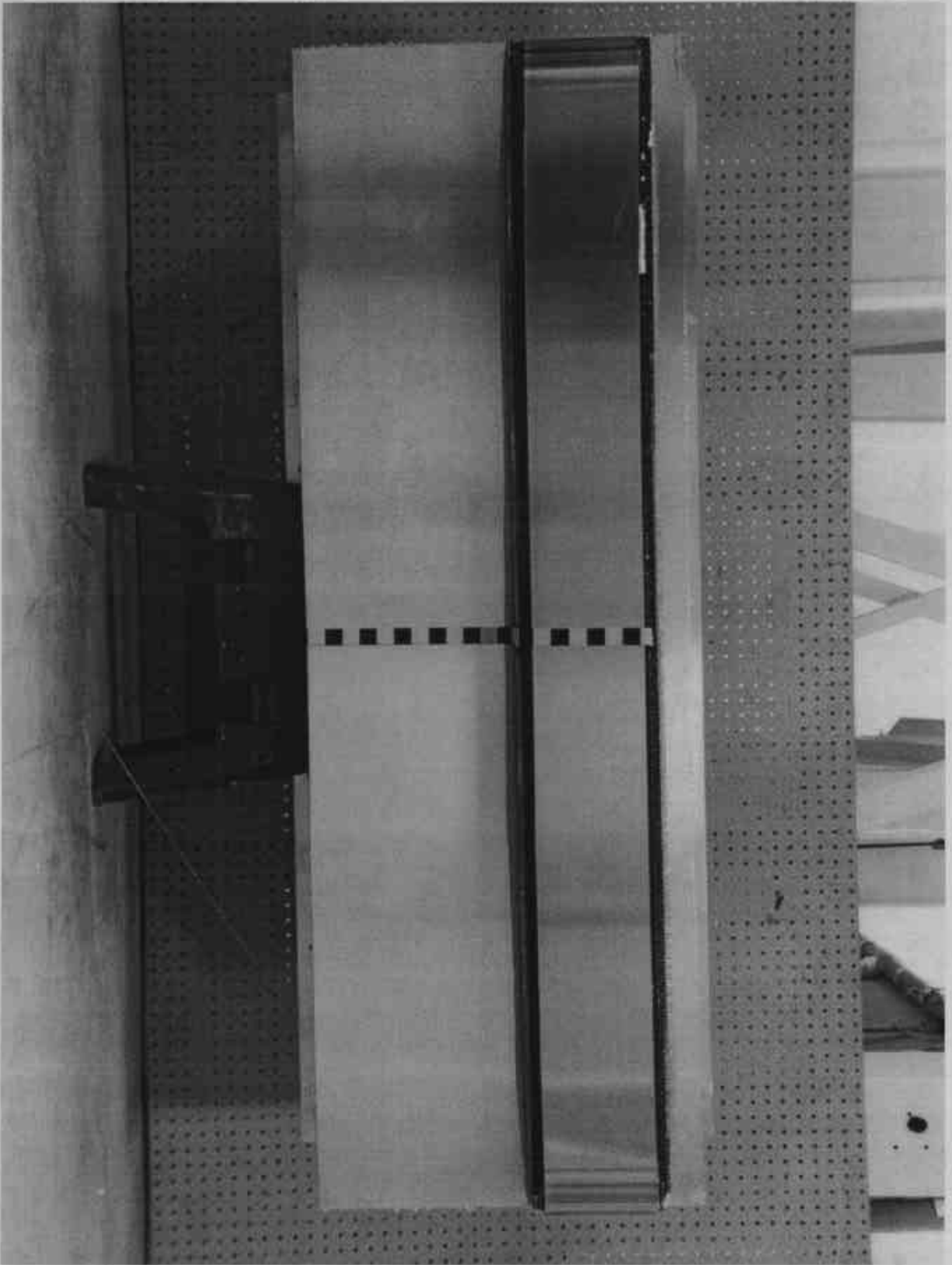


FIGURE A-36: PRE-TEST FRONT VIEW OF DEFORMABLE BARRIER

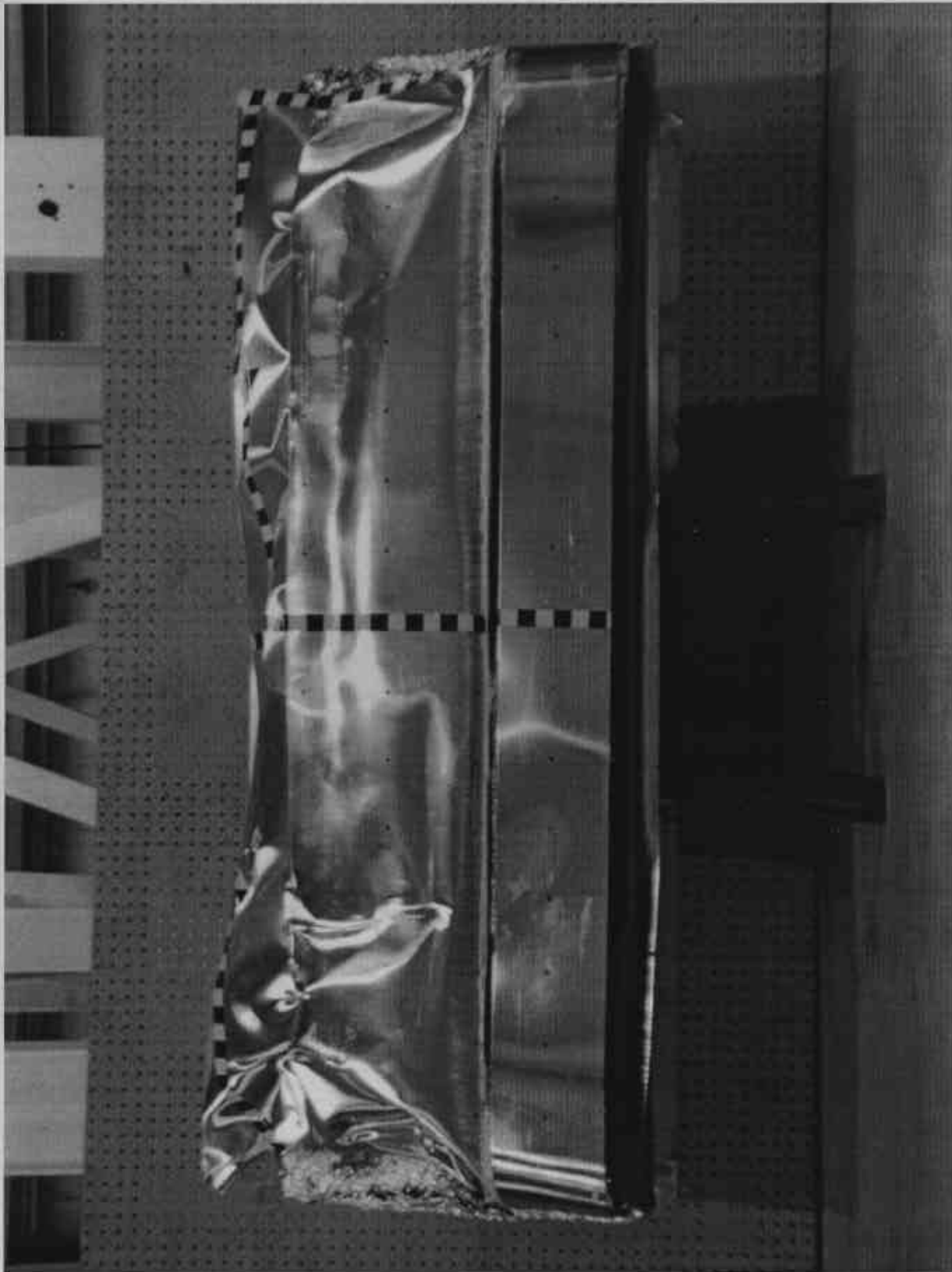


FIGURE A-37: POST-TEST FRONT VIEW OF DEFORMABLE BARRIER

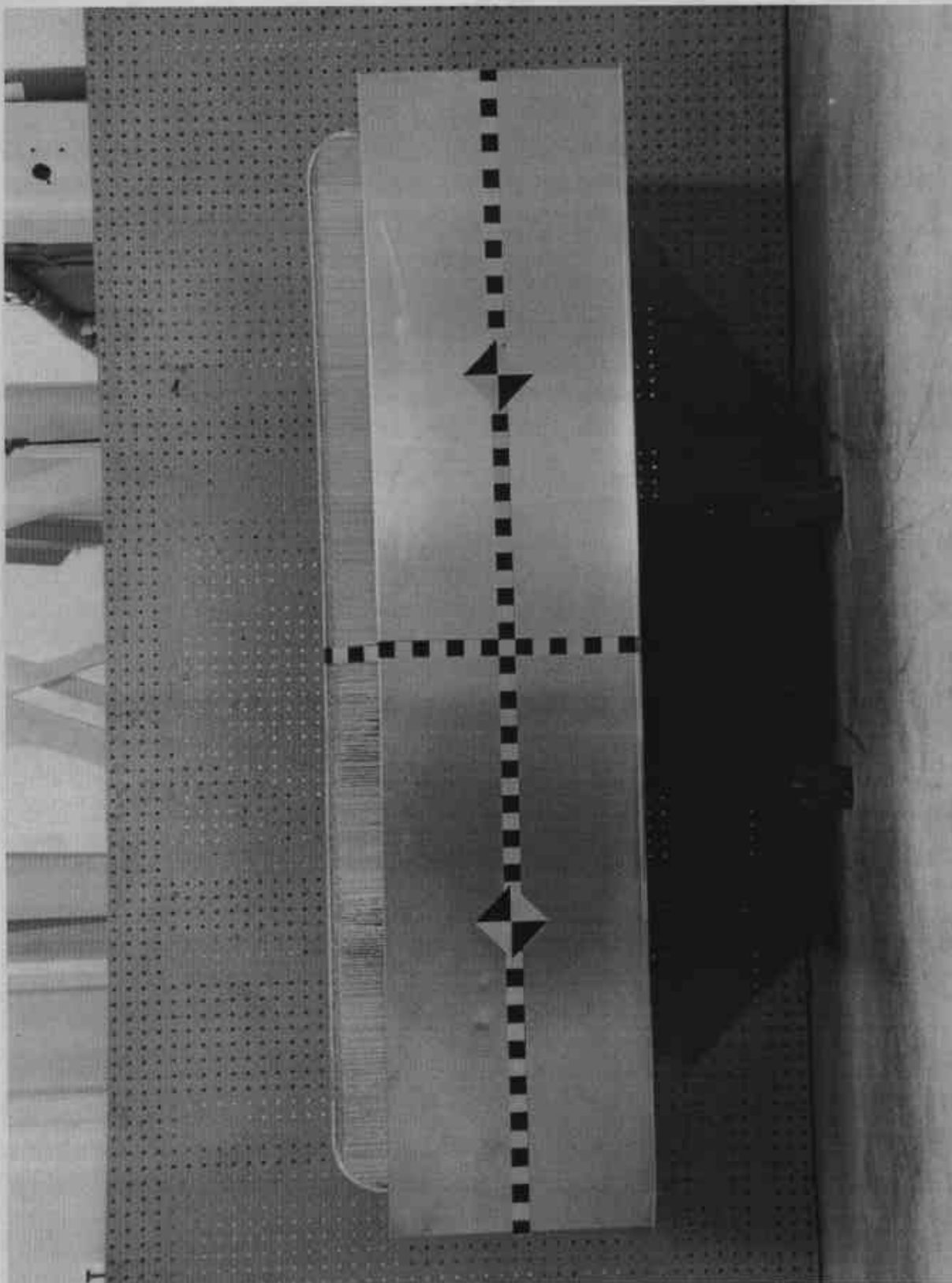


FIGURE A-38: PRE-TEST TOP VIEW OF DEFORMABLE BARRIER

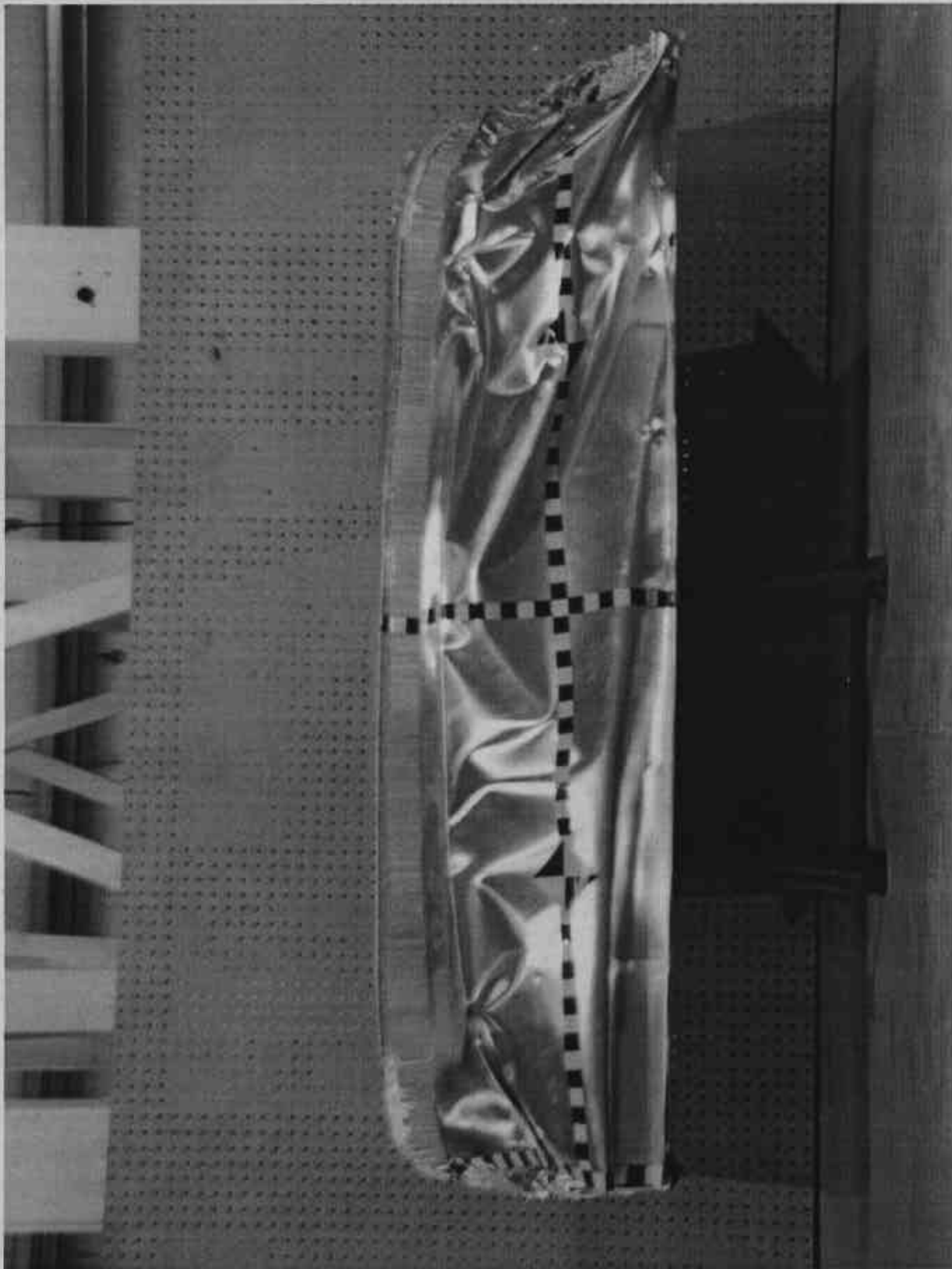


FIGURE A-39: POST-TEST TOP VIEW OF DEFORMABLE BARRIER

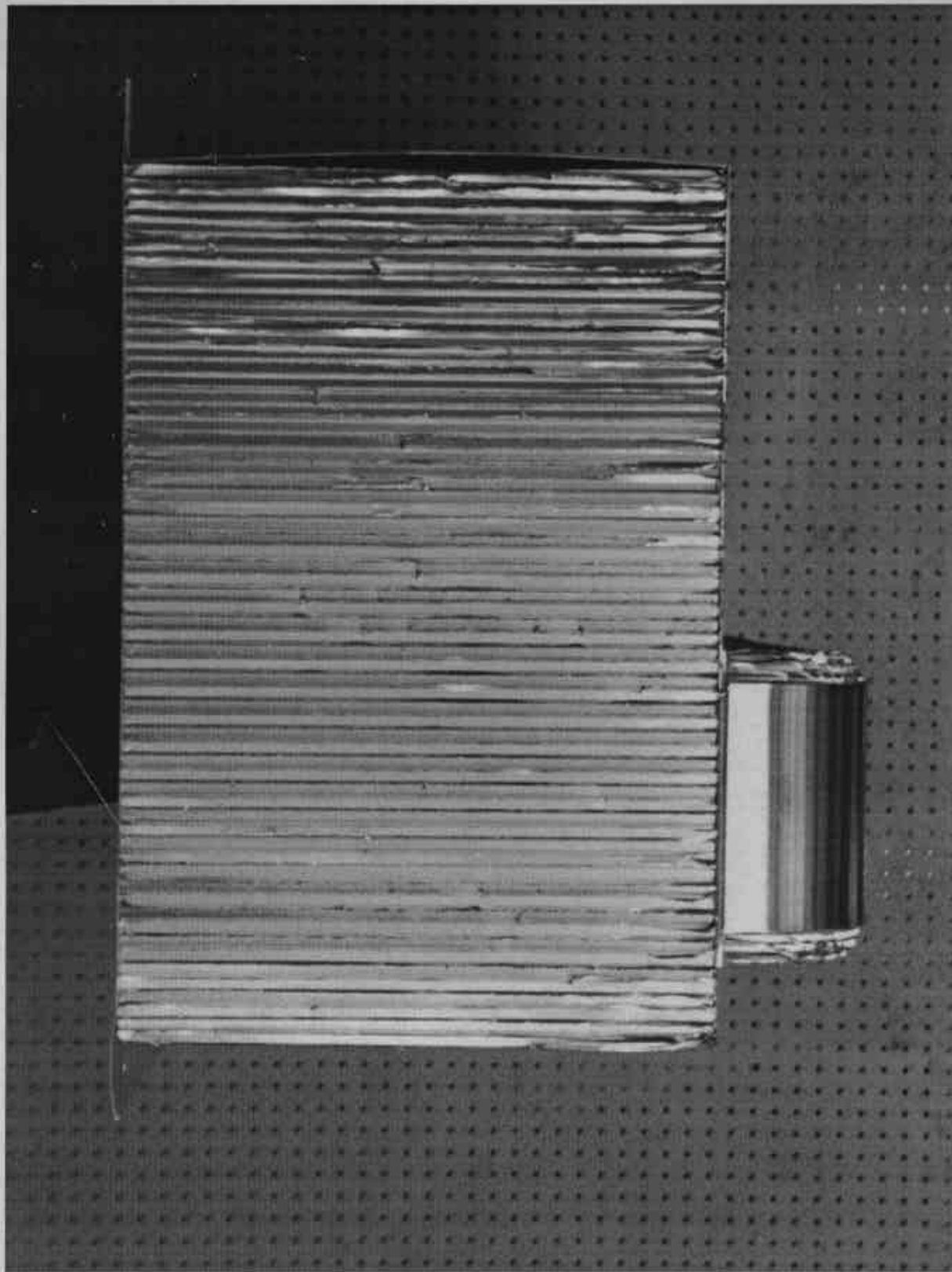


FIGURE A-40: PRE-TEST RIGHT SIDE VIEW OF DEFORMABLE BARRIER



FIGURE A-41: POST-TEST RIGHT SIDE VIEW OF DEFORMABLE BARRIER

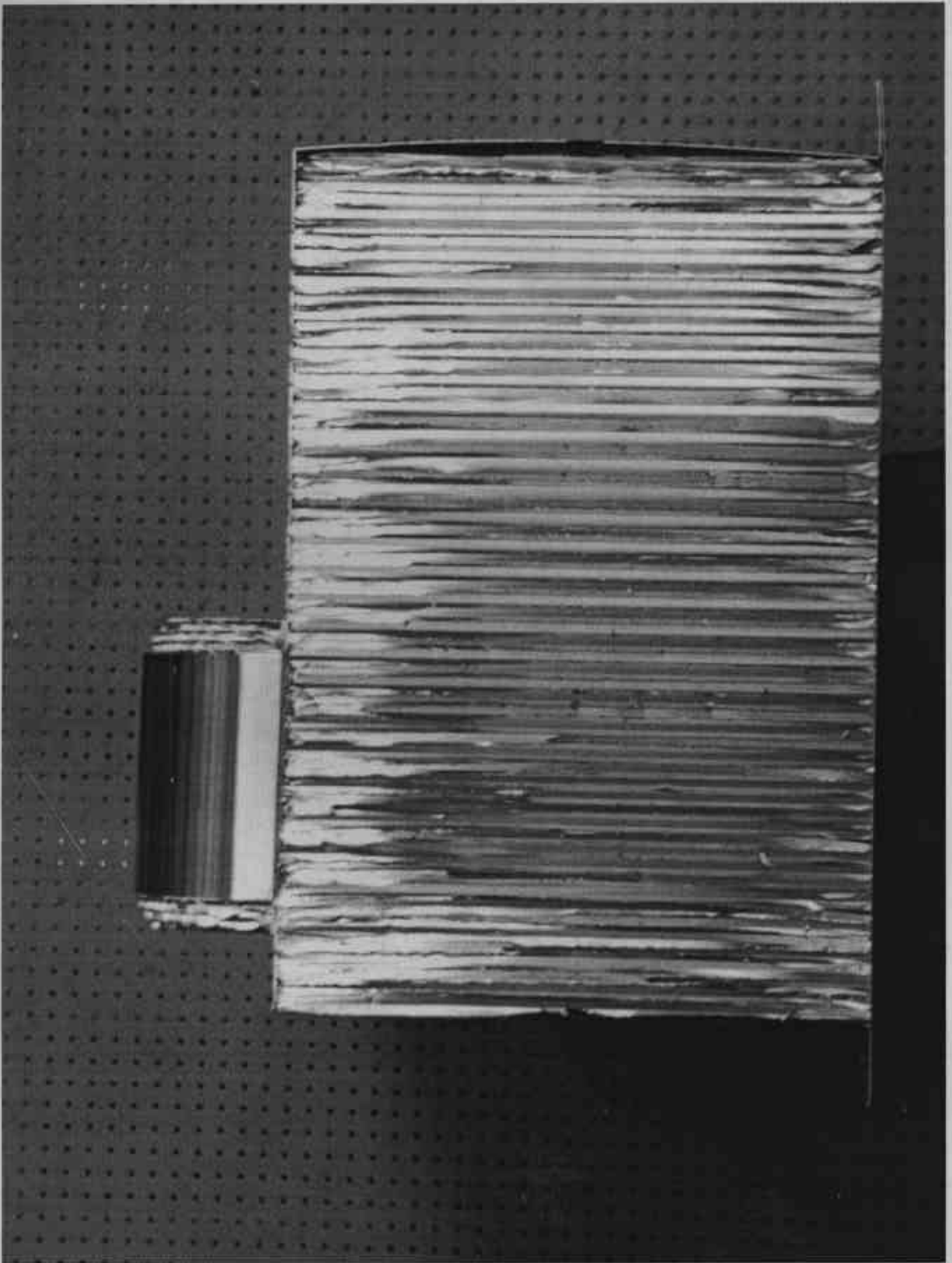


FIGURE A-42: PRE-TEST LEFT SIDE VIEW OF DEFORMABLE BARRIER

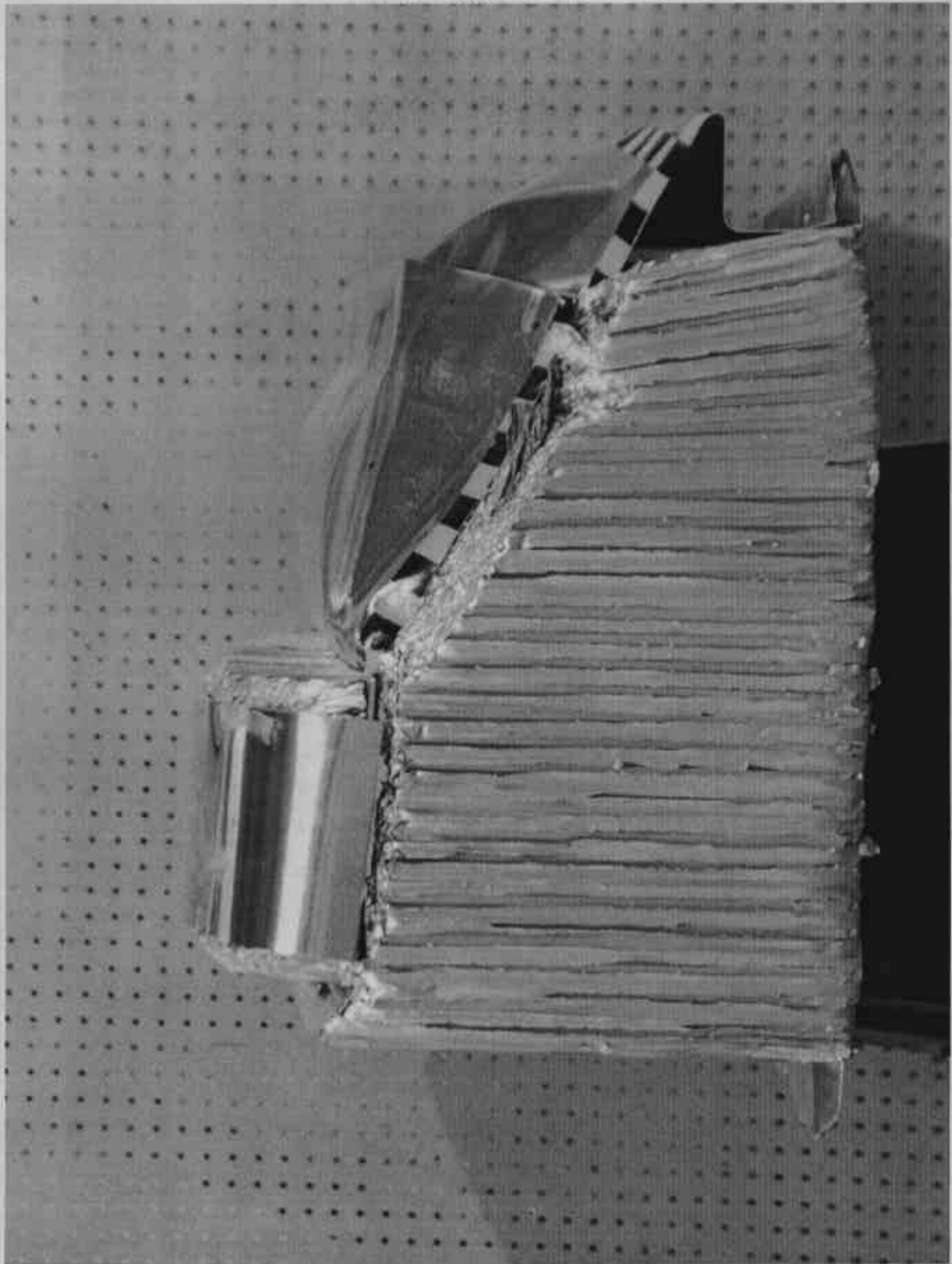


FIGURE A-43: POST-TEST LEFT SIDE VIEW OF DEFORMABLE BARRIER

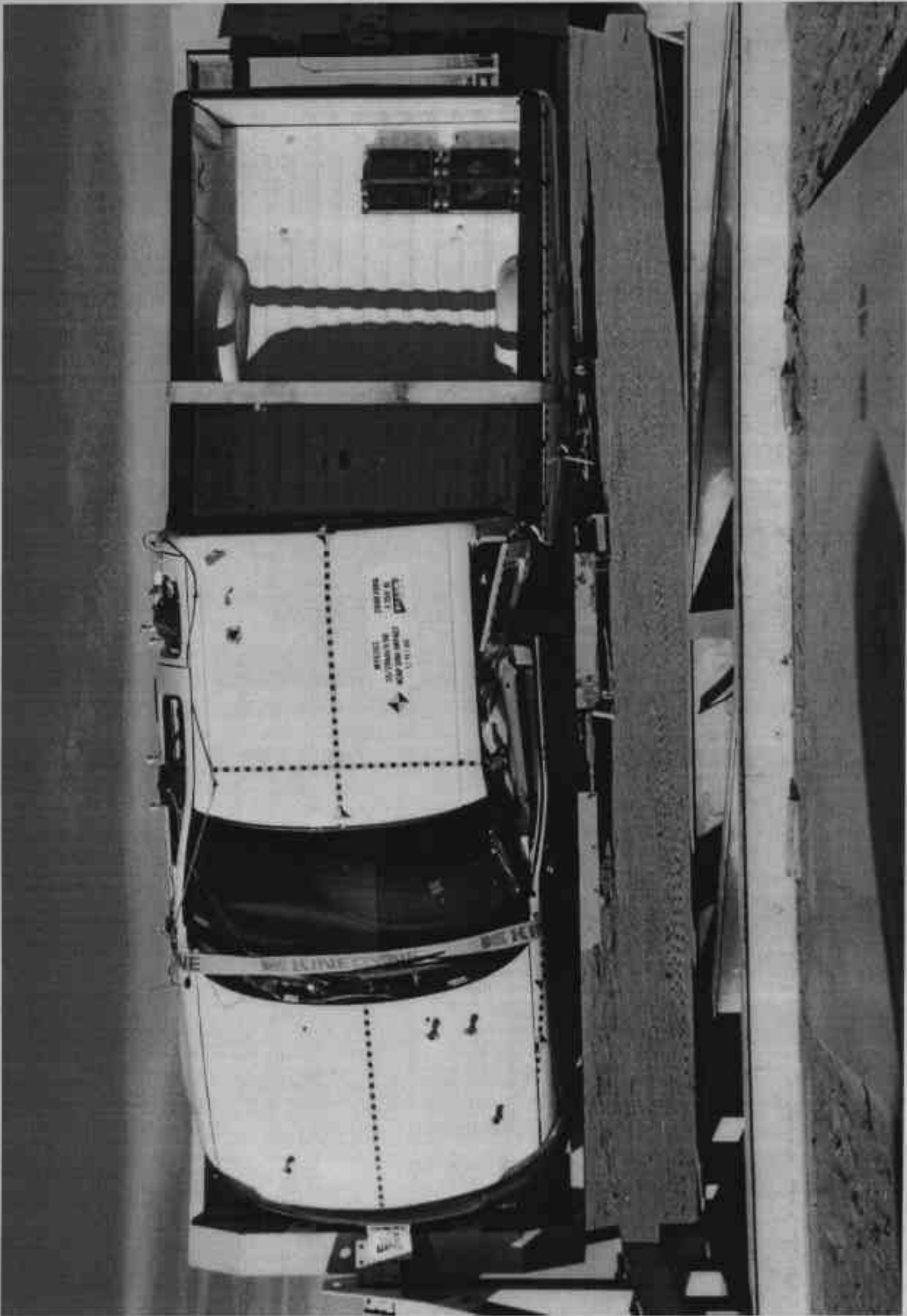


FIGURE A-44: VEHICLE ON ROLLOVER, TOP VIEW

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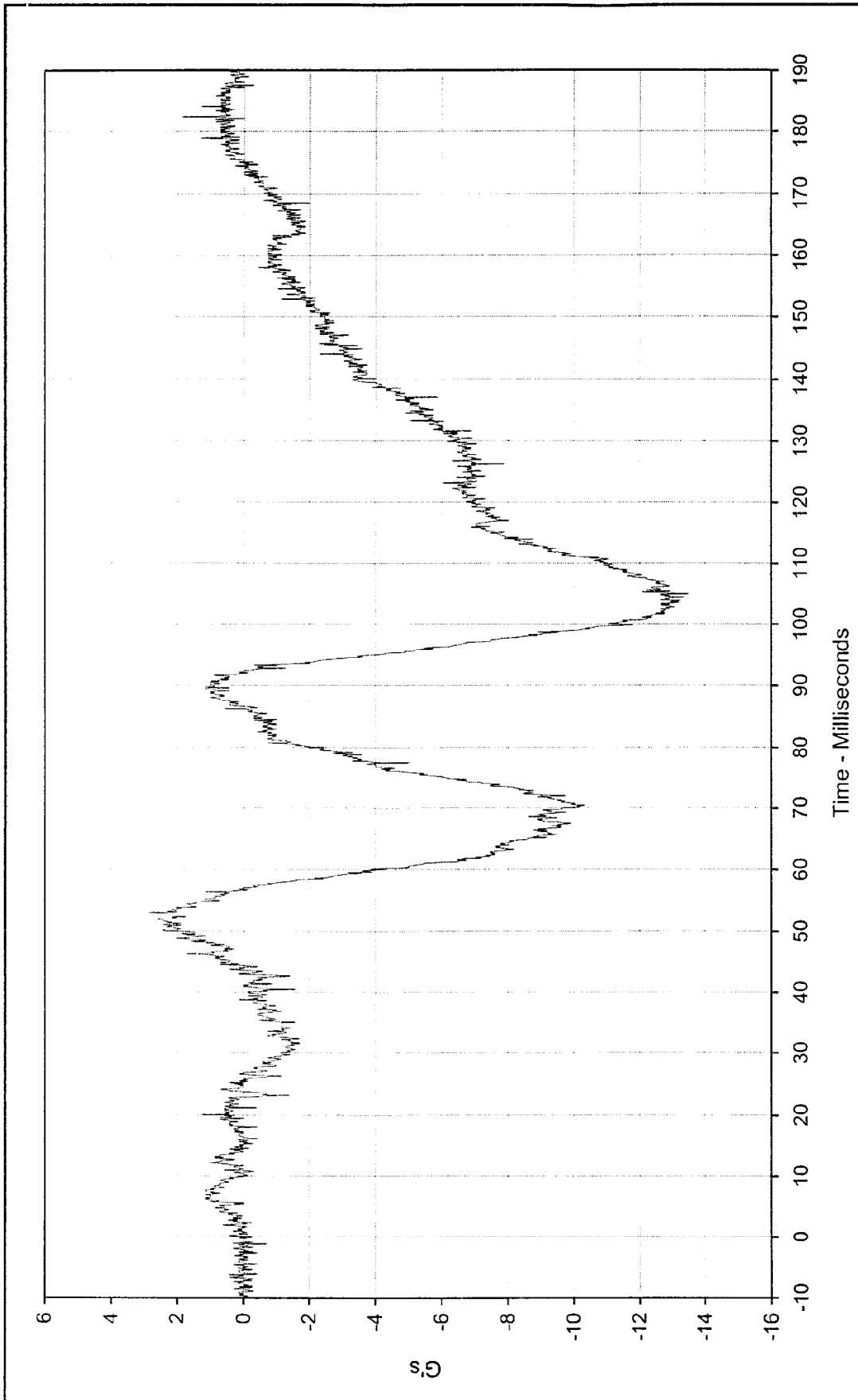
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Curve Description: Driver Head CG X Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 2.9 at 53.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

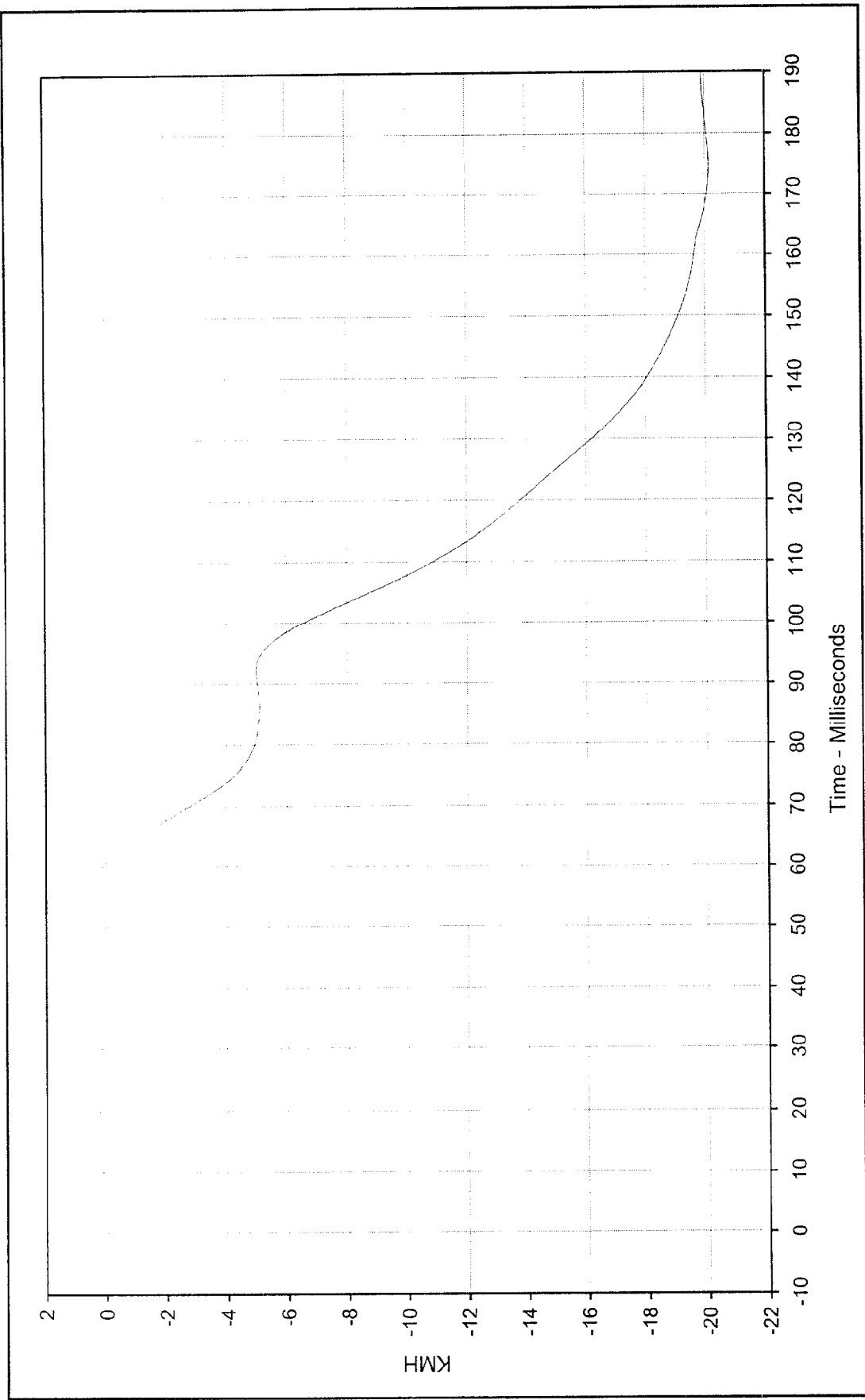
Minimum Value: -13.5 at 104.9 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/11/00

Curve Number: FIL-001

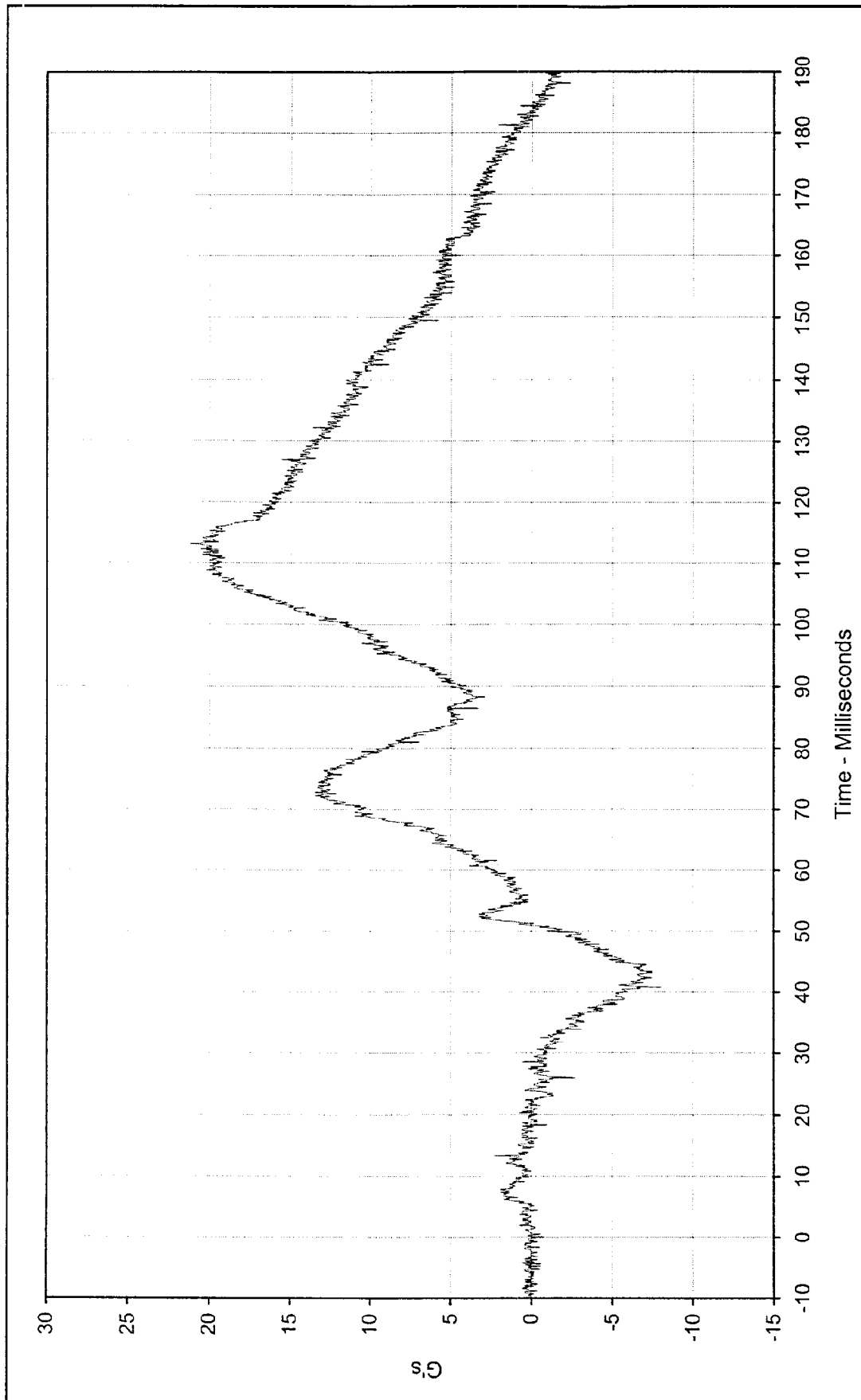




Curve Description: Driver Head CG X Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 0.4 at 56.9 Milliseconds
 Minimum Value: -20.1 at 175.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-001

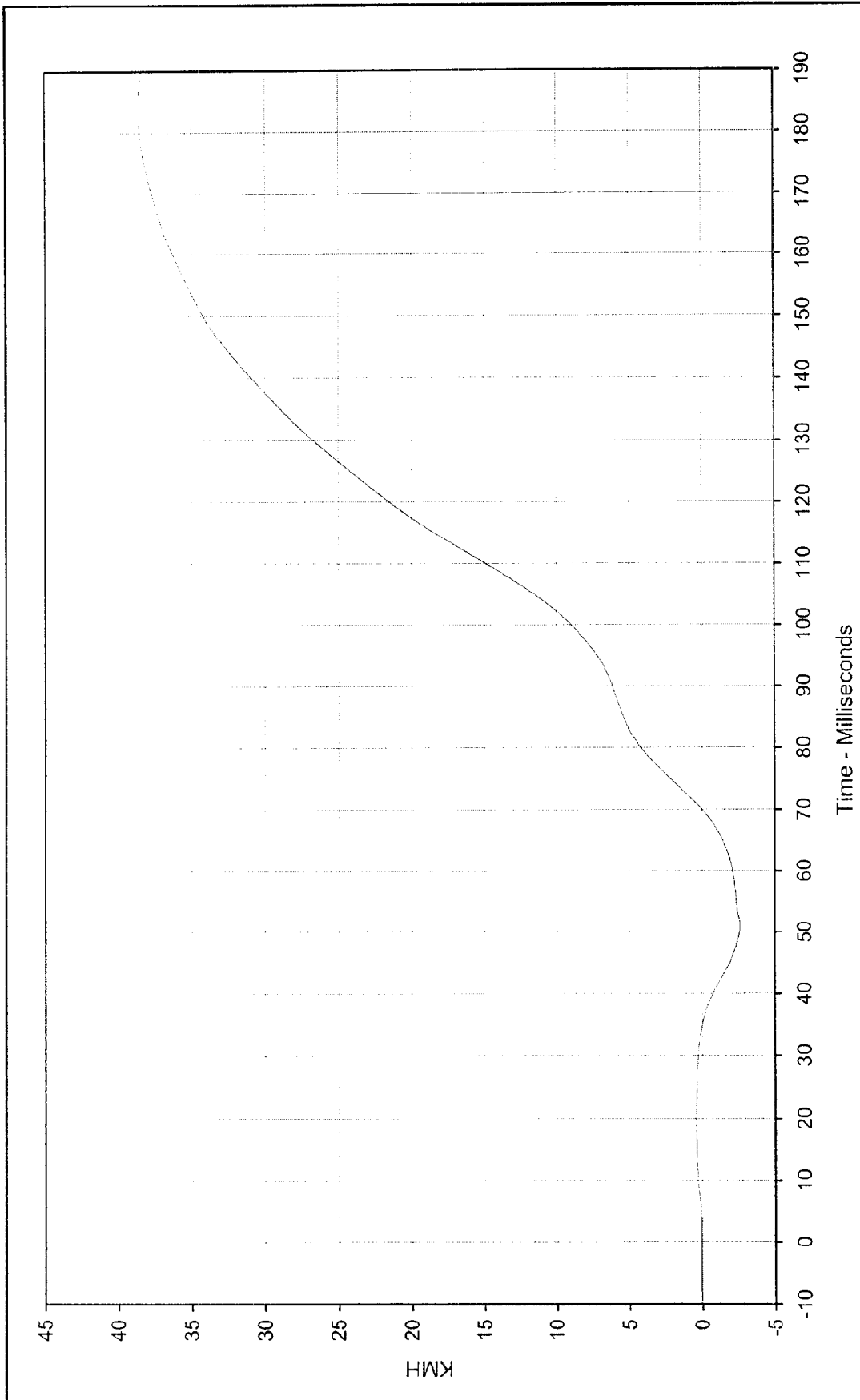




Curve Description: Driver Head CG Y
 Maximum Value: 21.2 at 113.2 Milliseconds
 Minimum Value: -8.1 at 40.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-002

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Head CG Y Velocity

Maximum Value: 38.6 at 183.7 Milliseconds

Minimum Value: -2.6 at 51.0 Milliseconds

SAE Filter Class: 180

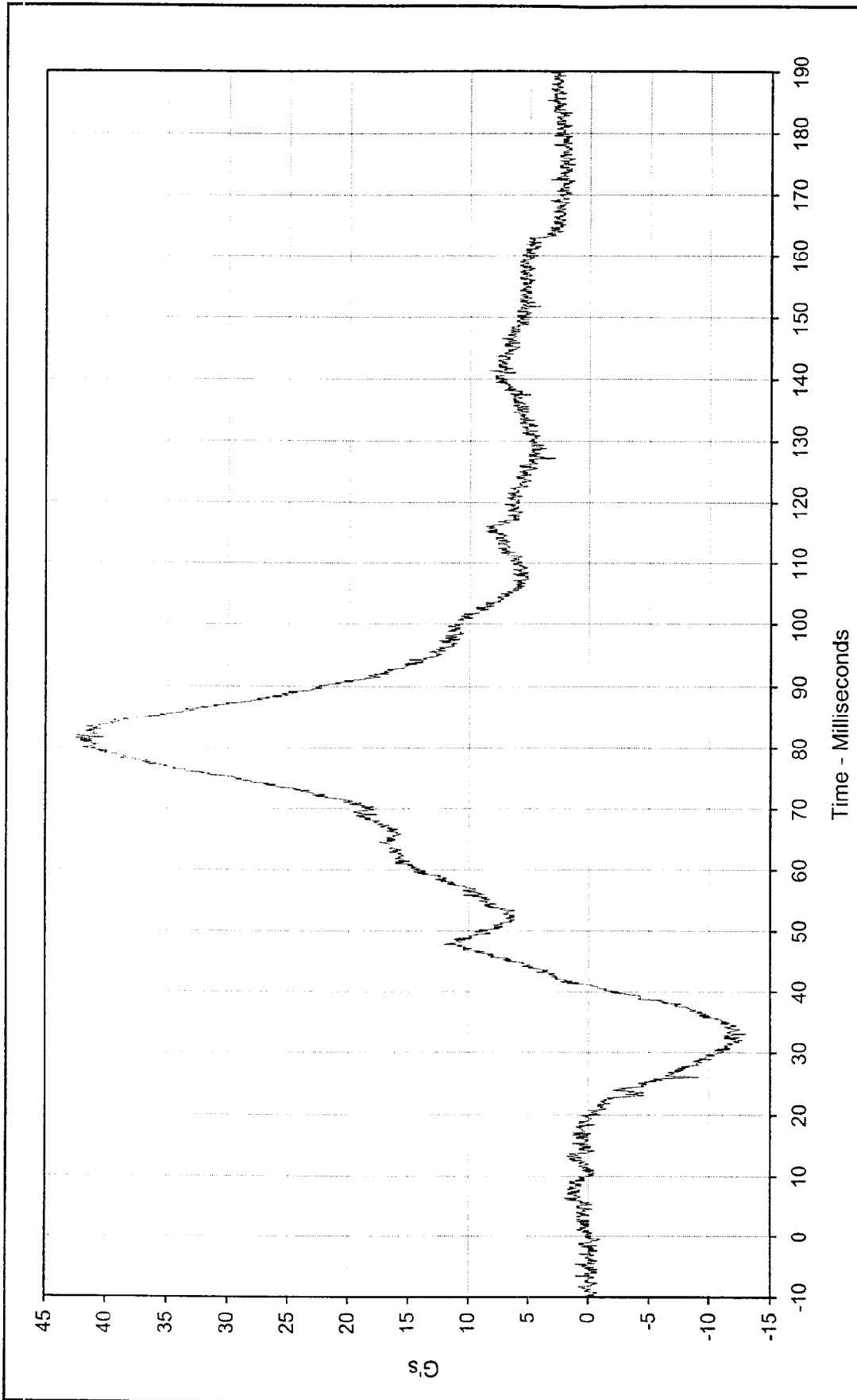
Date of Test: 01/11/00

Curve Number: IN1-002

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Head CG Z

Maximum Value: 42.4 at 81.6 Milliseconds

Minimum Value: -13.0 at 33.2 Milliseconds

SAE Filter Class: 1000

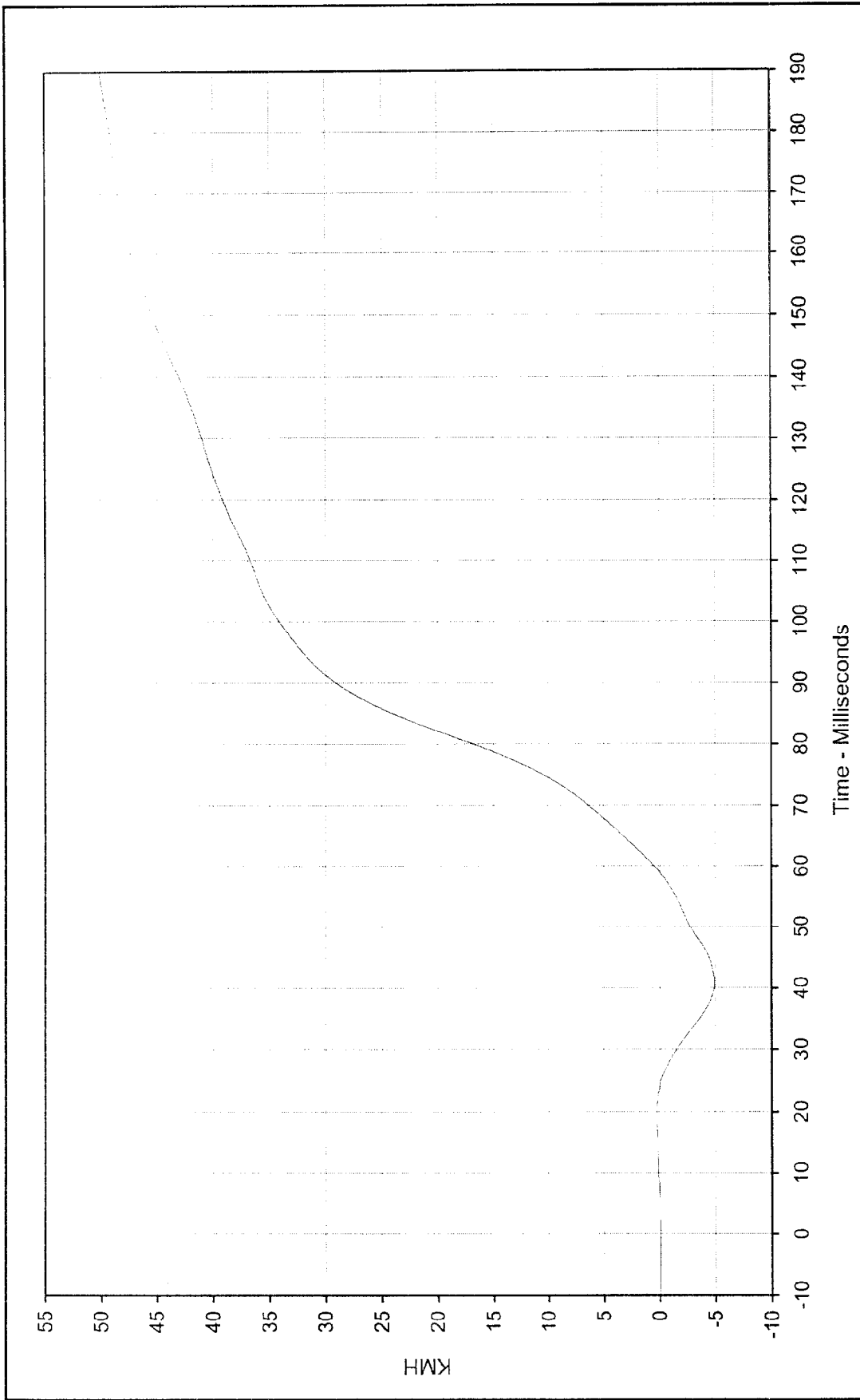
Date of Test: 01/11/00

Curve Number: FIL-003

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

Test Vehicle: 2000 Ford F-150 XL Pickup

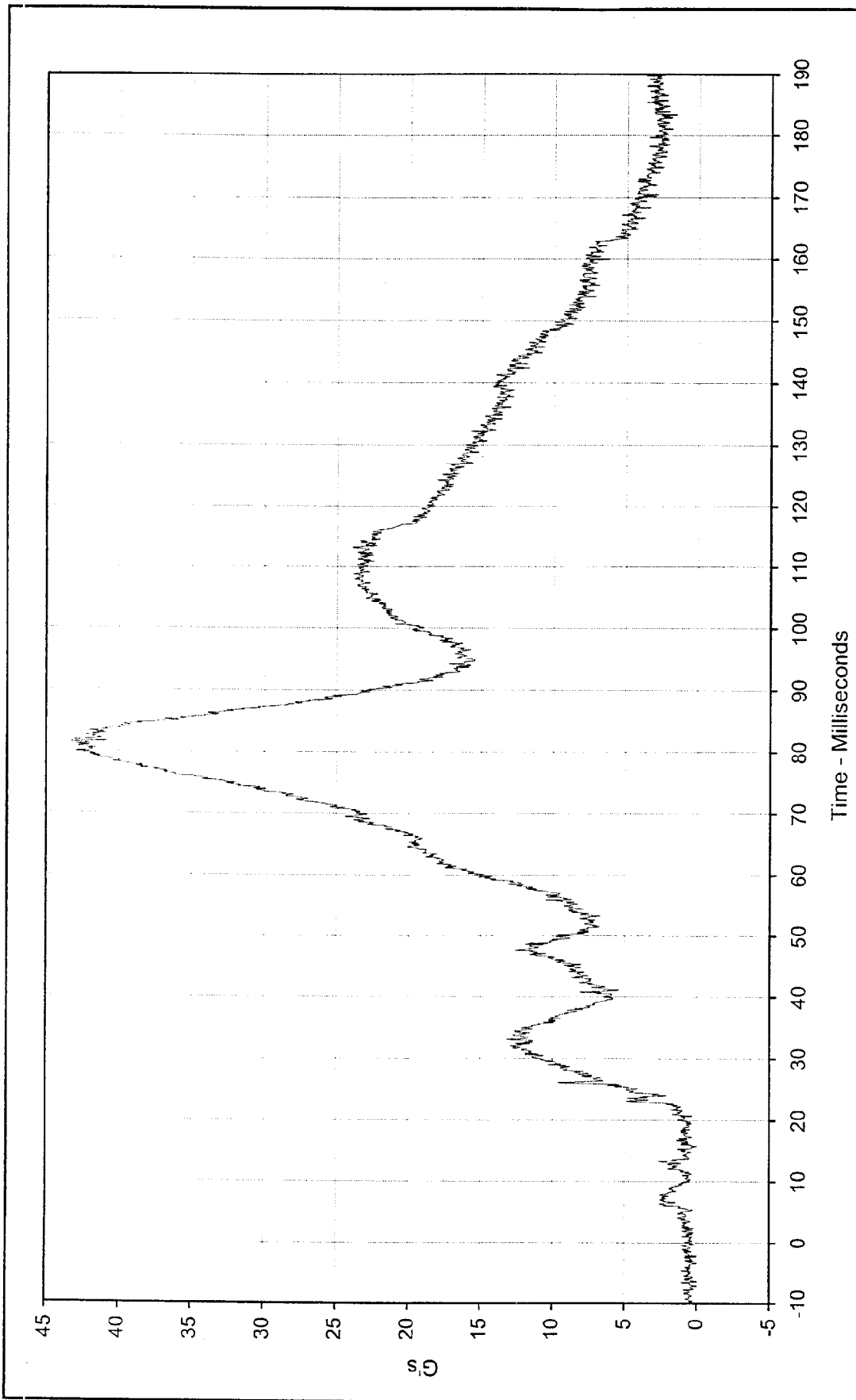




Curve Description:	Driver Head CG Z Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	50.1 at 189.9 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-4.9 at 40.9 Milliseconds			



SAE Filter Class:	180
Date of Test:	01/11/00
Curve Number:	IN1-003



Curve Description: Driver Head CG Resultant

Maximum Value: 43.2 at 81.6 Milliseconds

Minimum Value: 0.0 at 15.7 Milliseconds

SAE Filter Class: 1000

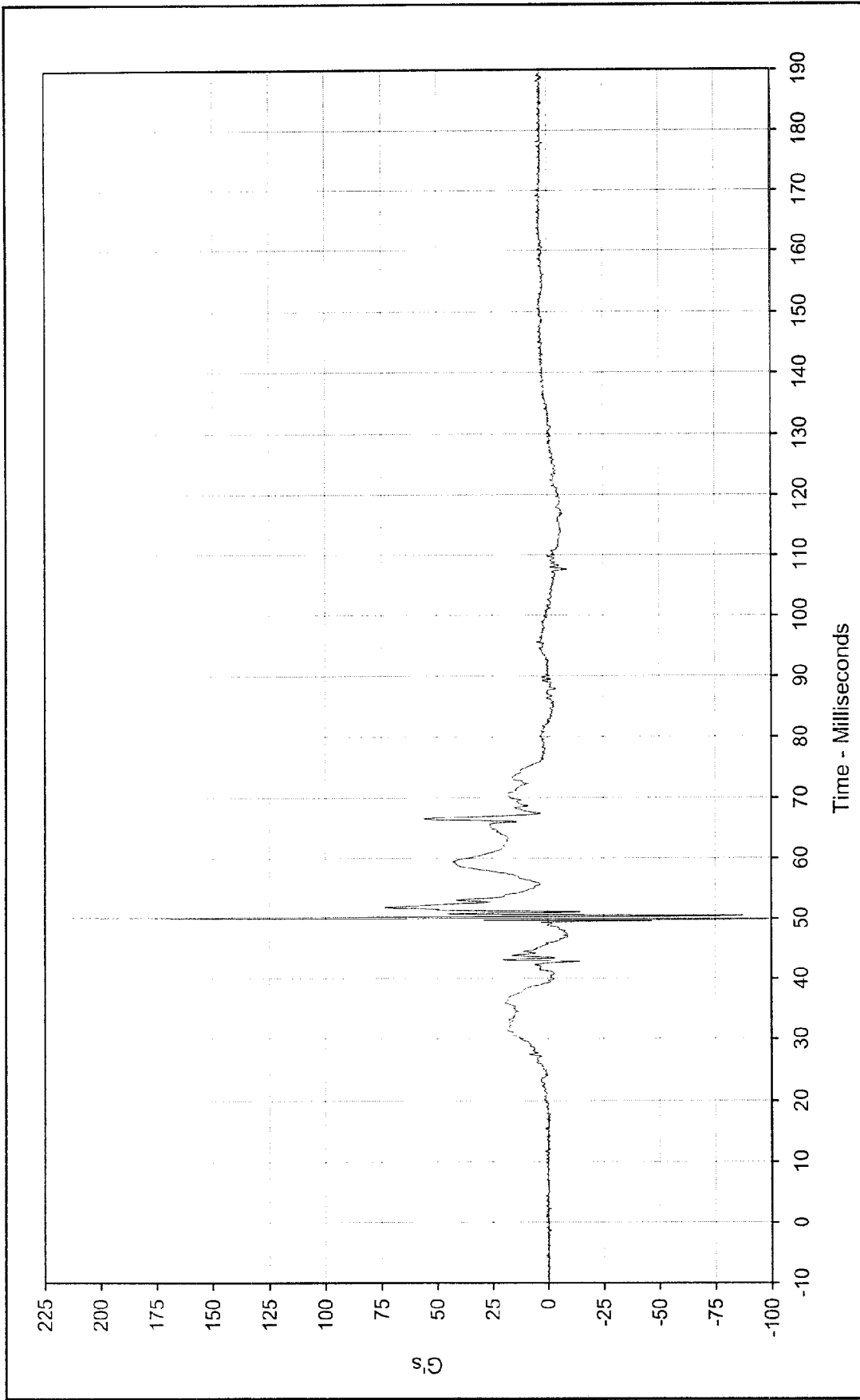
Date of Test: 01/11/00

Curve Number: RES-001

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

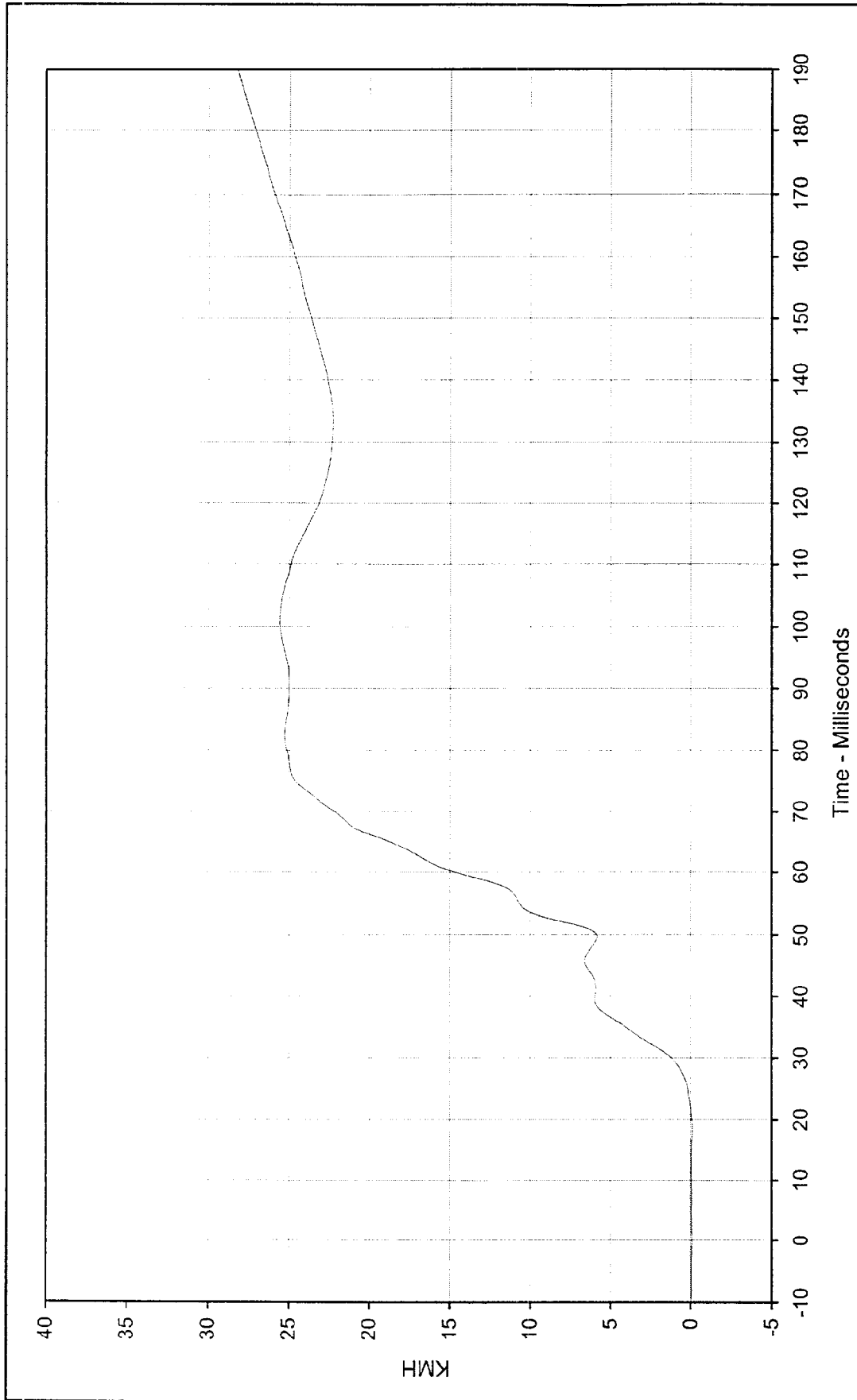
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Driver Upper Rib Primary		Test Program:	55/28 km/h Side Impact NCAP No.: MY0203	
Maximum Value:	213.8	at 50.2	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-98.7	at 49.9			
SAE Filter Class:	1000				
Date of Test:	01/11/00				
Curve Number:	FIL-004				





Curve Description: Driver Upper Rib Primary Y Velocity

Maximum Value: 28.2 at 189.9 Milliseconds

Minimum Value: -0.1 at 18.3 Milliseconds

SAE Filter Class: 180

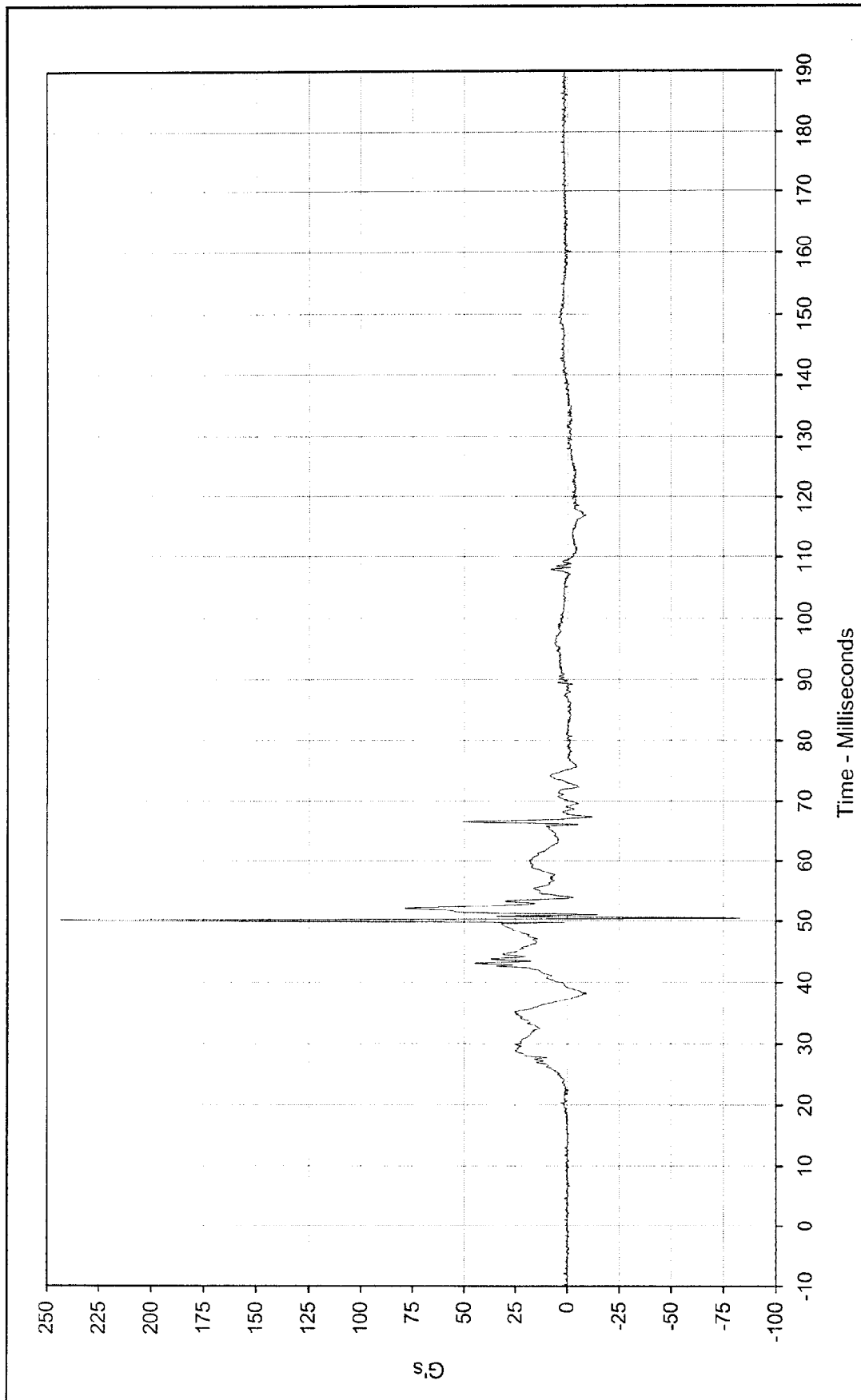
Date of Test: 01/11/00

Curve Number: IN1-004

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Lower Rib Primary Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 242.8 at 50.1 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

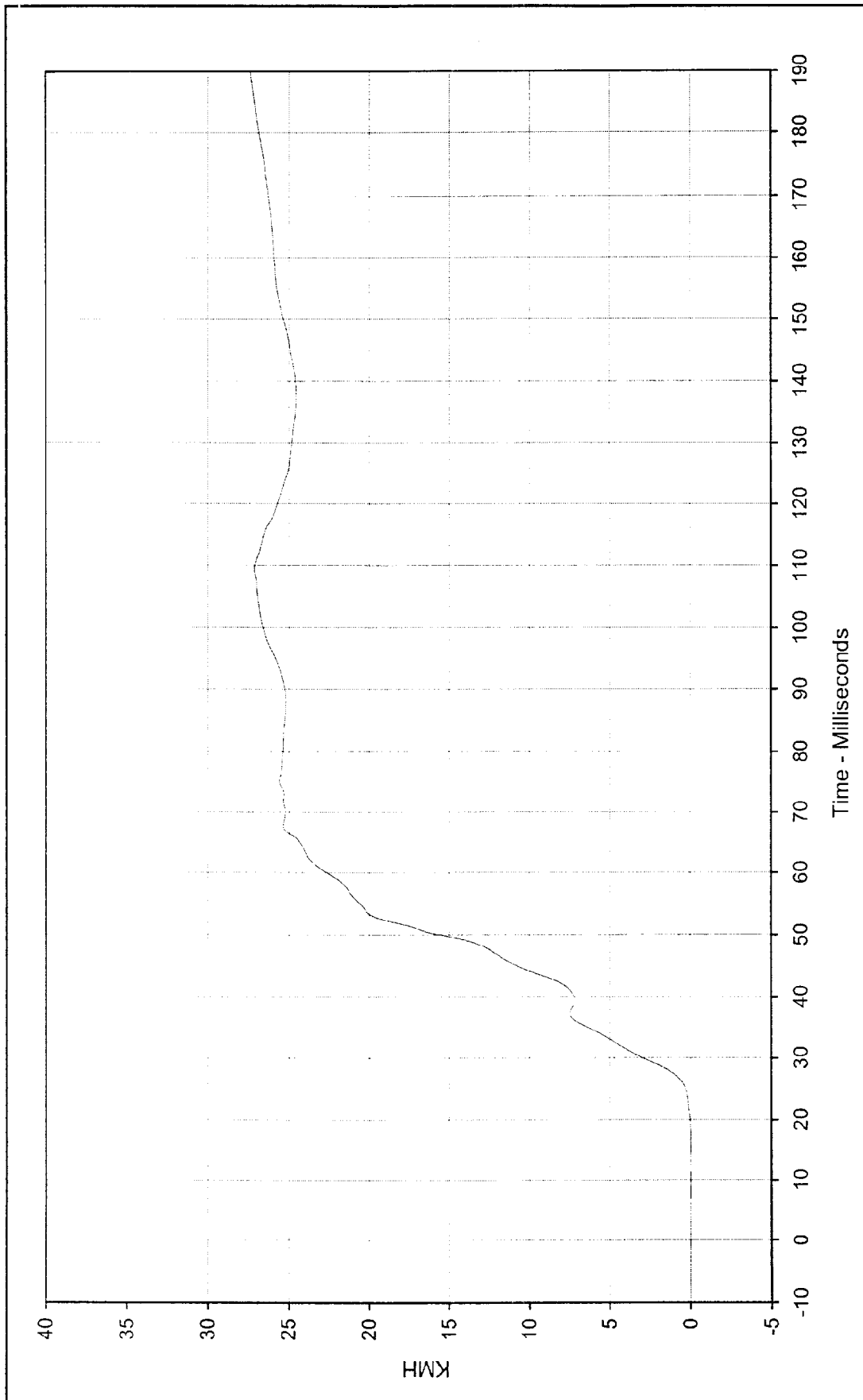
Minimum Value: -81.5 at 50.4 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/11/00

Curve Number: FIL-005





Curve Description: Driver Lower Rib Primary Y Velocity

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

Maximum Value: 27.4 at 189.9 Milliseconds

Test Vehicle: 2000 Ford F-150 XL Pickup

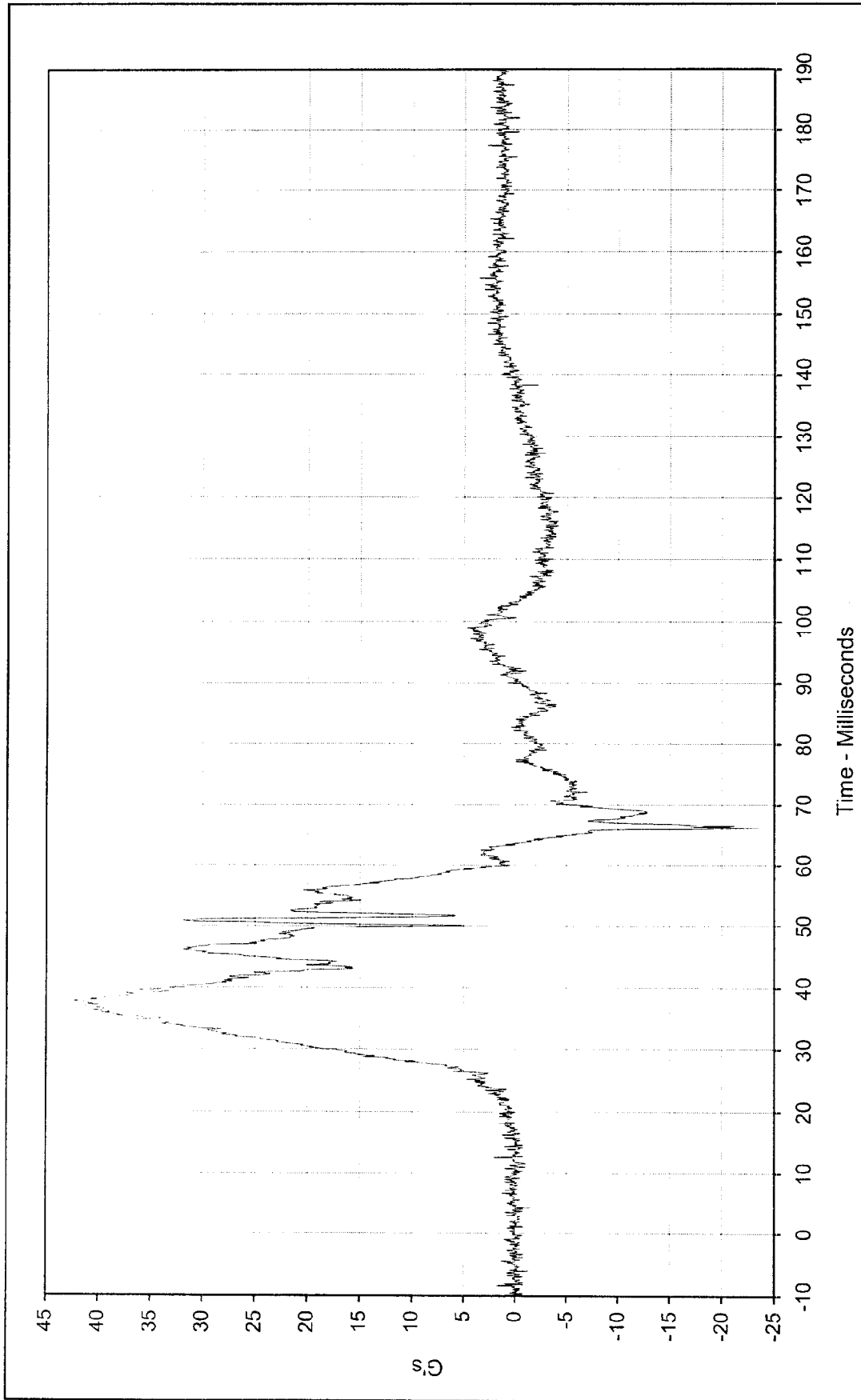
Minimum Value: 0.0 at 16.0 Milliseconds

SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-005

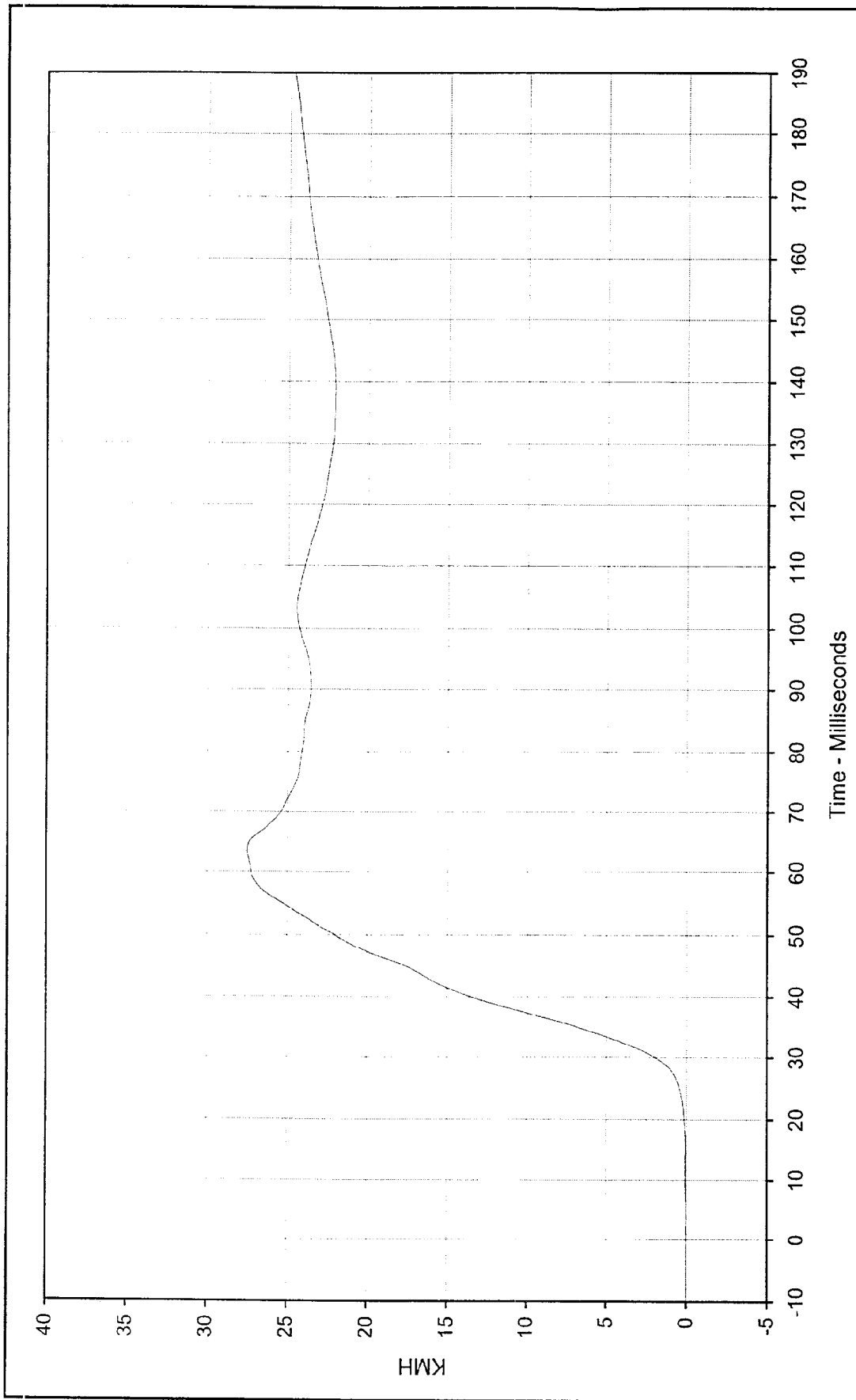




Curve Description:		Driver Lower Spine Primary		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	42.3	at	37.8	Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup
Minimum Value:	-23.5	at	66.1	Milliseconds		



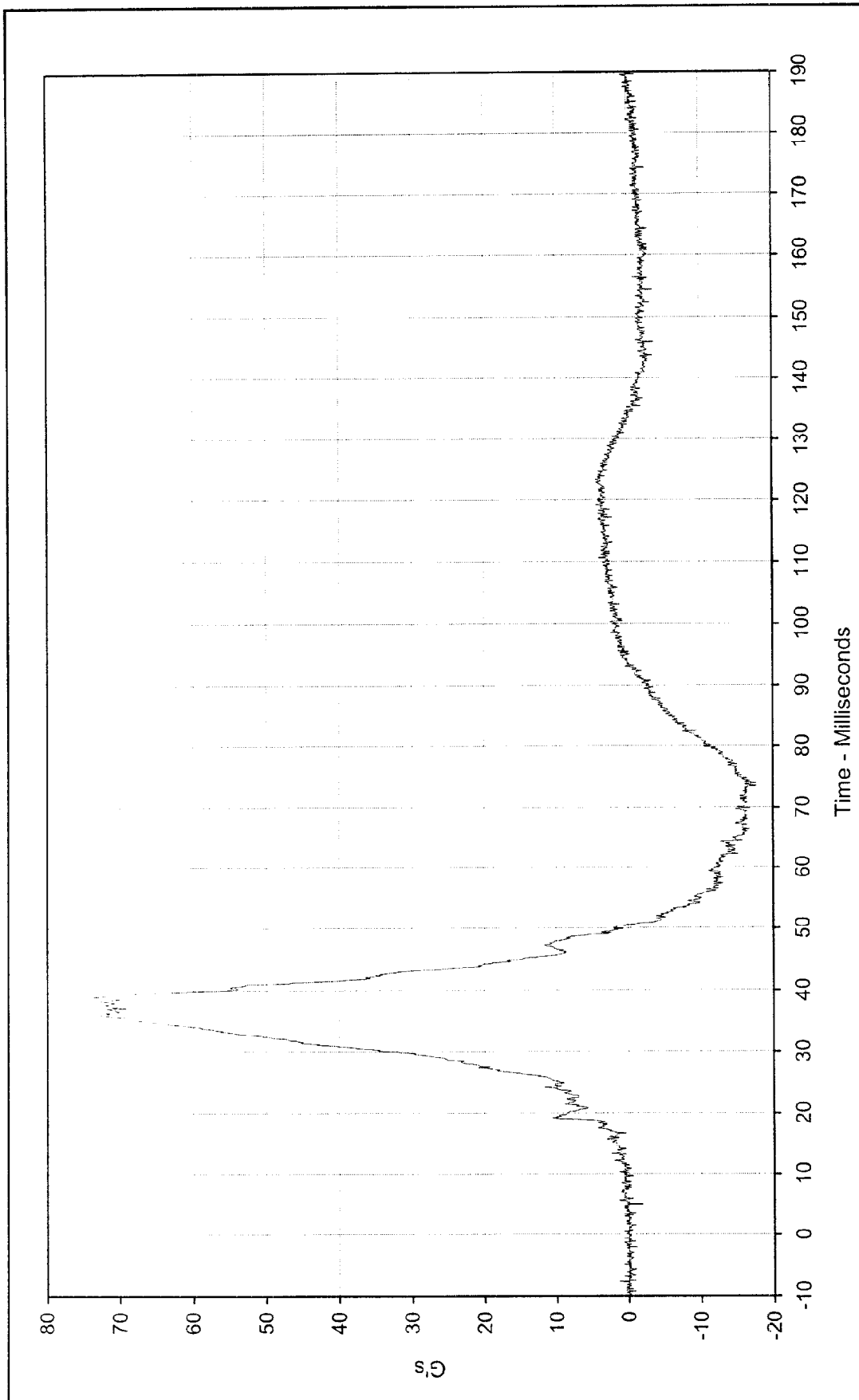
SAE Filter Class:	1000
Date of Test:	01/11/00
Curve Number:	FIL-006



Curve Description: Driver Lower Spine Primary Y Velocity
Maximum Value: 27.5 at 63.6 Milliseconds
Minimum Value: 0.0 at 4.8 Milliseconds
SAE Filter Class: 180
Date of Test: 01/11/00
Curve Number: IN1-006

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Pelvis Primary Y

Maximum Value: 73.7 at 39.0 Milliseconds

Minimum Value: -17.8 at 73.6 Milliseconds

SAE Filter Class: 1000

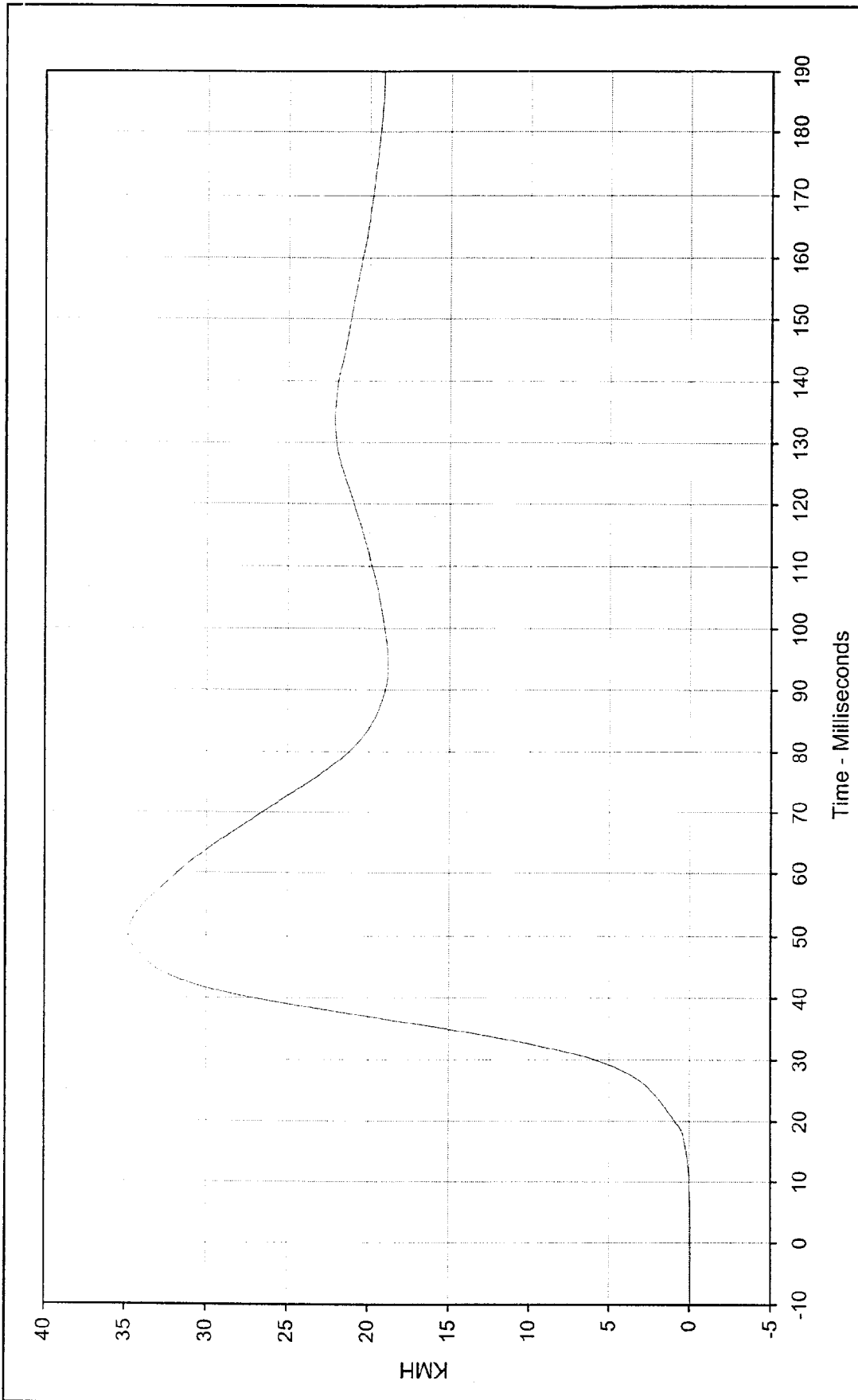
Date of Test: 01/11/00

Curve Number: FIL-007

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Pelvis Primary Y Velocity

Maximum Value: 34.8 at 50.4 Milliseconds

Minimum Value: -0.1 at 1.9 Milliseconds

SAE Filter Class: 180

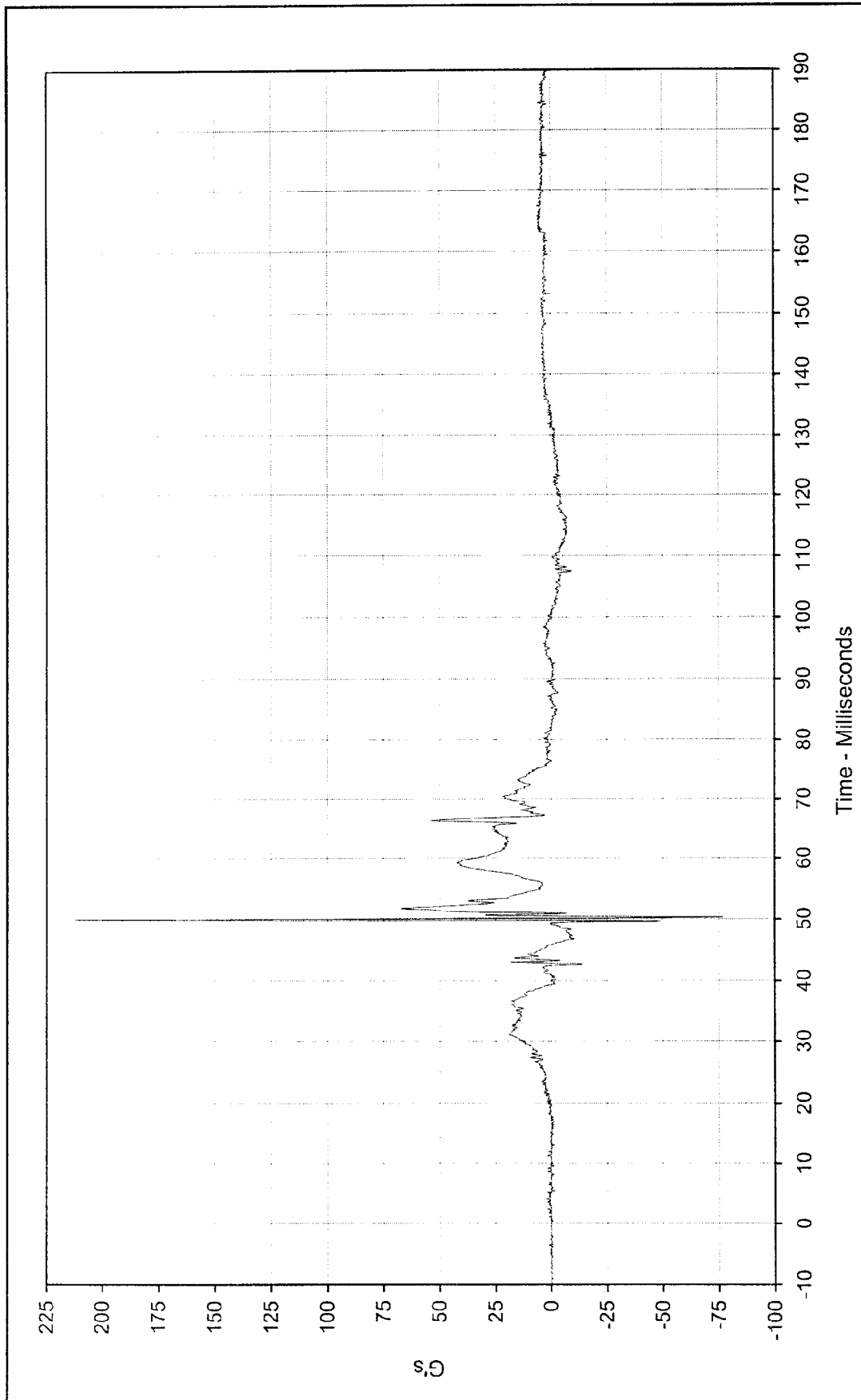
Date of Test: 01/11/00

Curve Number: IN1-007

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Upper Rib Redundant Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 211.0 at 49.9 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

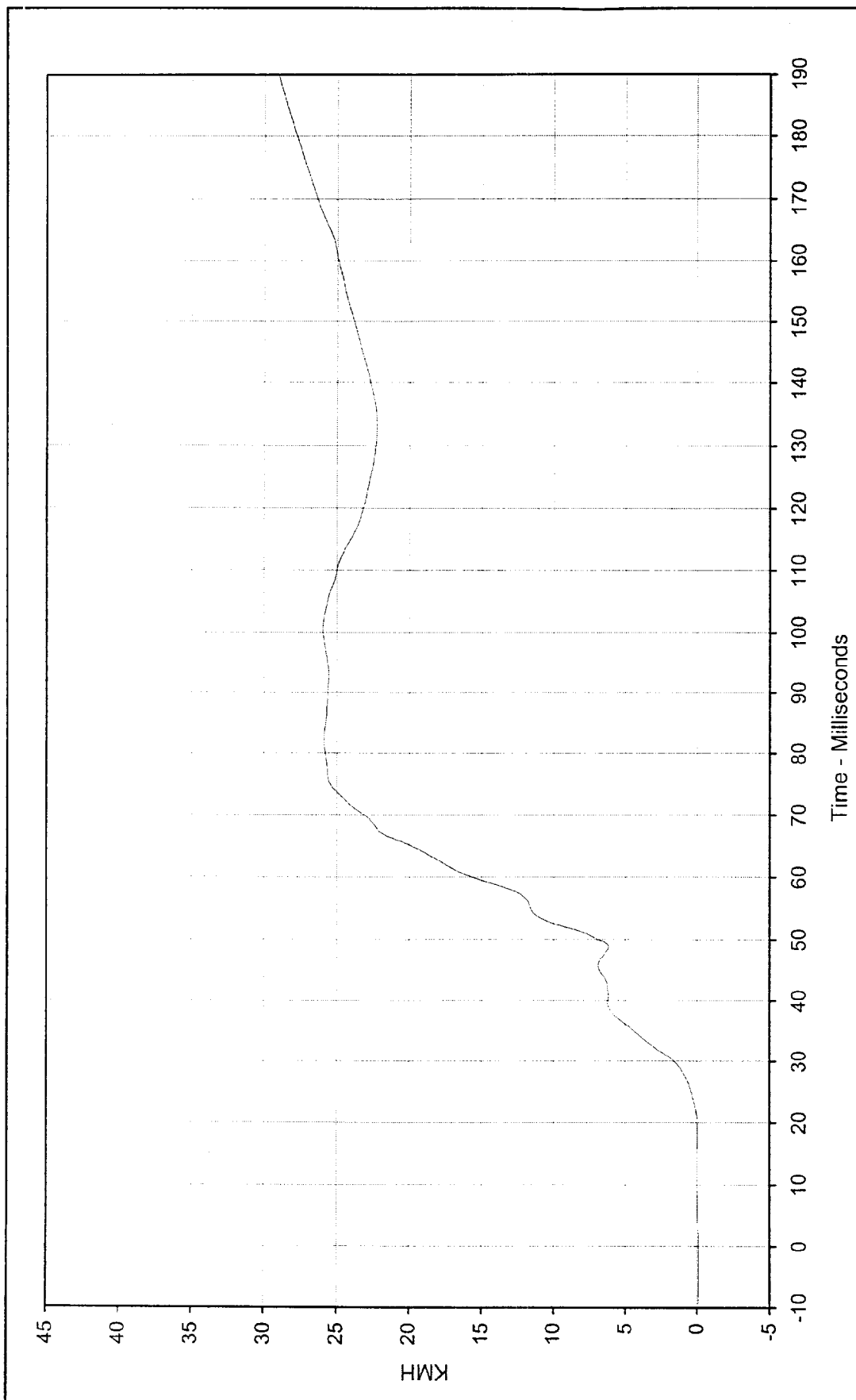
Minimum Value: -76.9 at 50.3 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/11/00

Curve Number: FIL-008





Curve Description: Driver Upper Rib Redundant Y Velocity

Maximum Value: 29.0 at 189.9 Milliseconds

Minimum Value: -0.1 at 0.8 Milliseconds

SAE Filter Class: 180

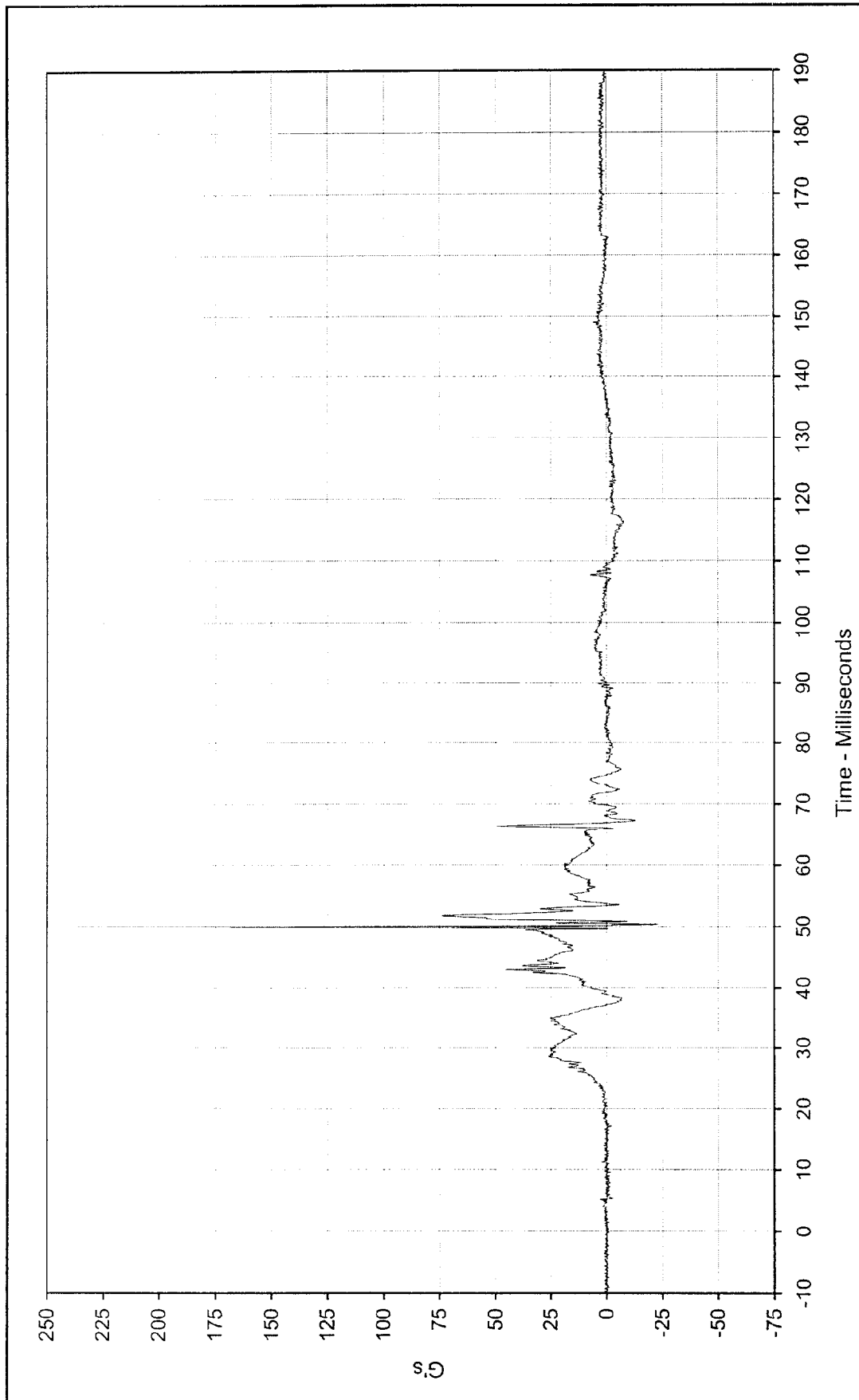
Date of Test: 01/11/00

Curve Number: IN1-008

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

Test Vehicle: 2000 Ford F-150 XL Pickup

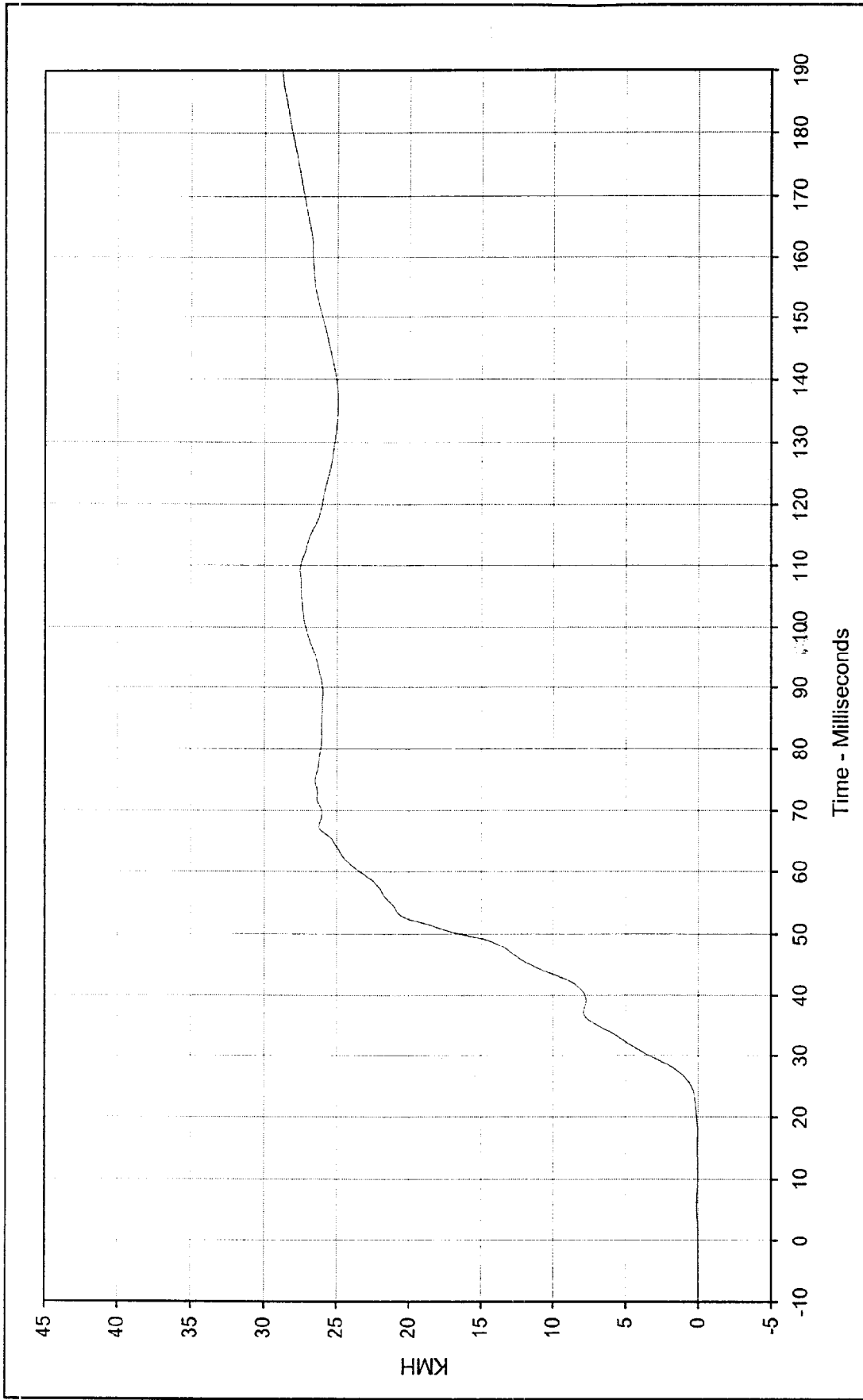




Curve Description: Driver Lower Rib Redundant
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 235.5 at 50.0 Milliseconds
 Minimum Value: -23.3 at 50.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-009





Curve Description: Driver Lower Rib Redundant Y Velocity

Maximum Value: 28.8 at 189.9 Milliseconds

Minimum Value: 0.0 at 0.9 Milliseconds

SAE Filter Class: 180

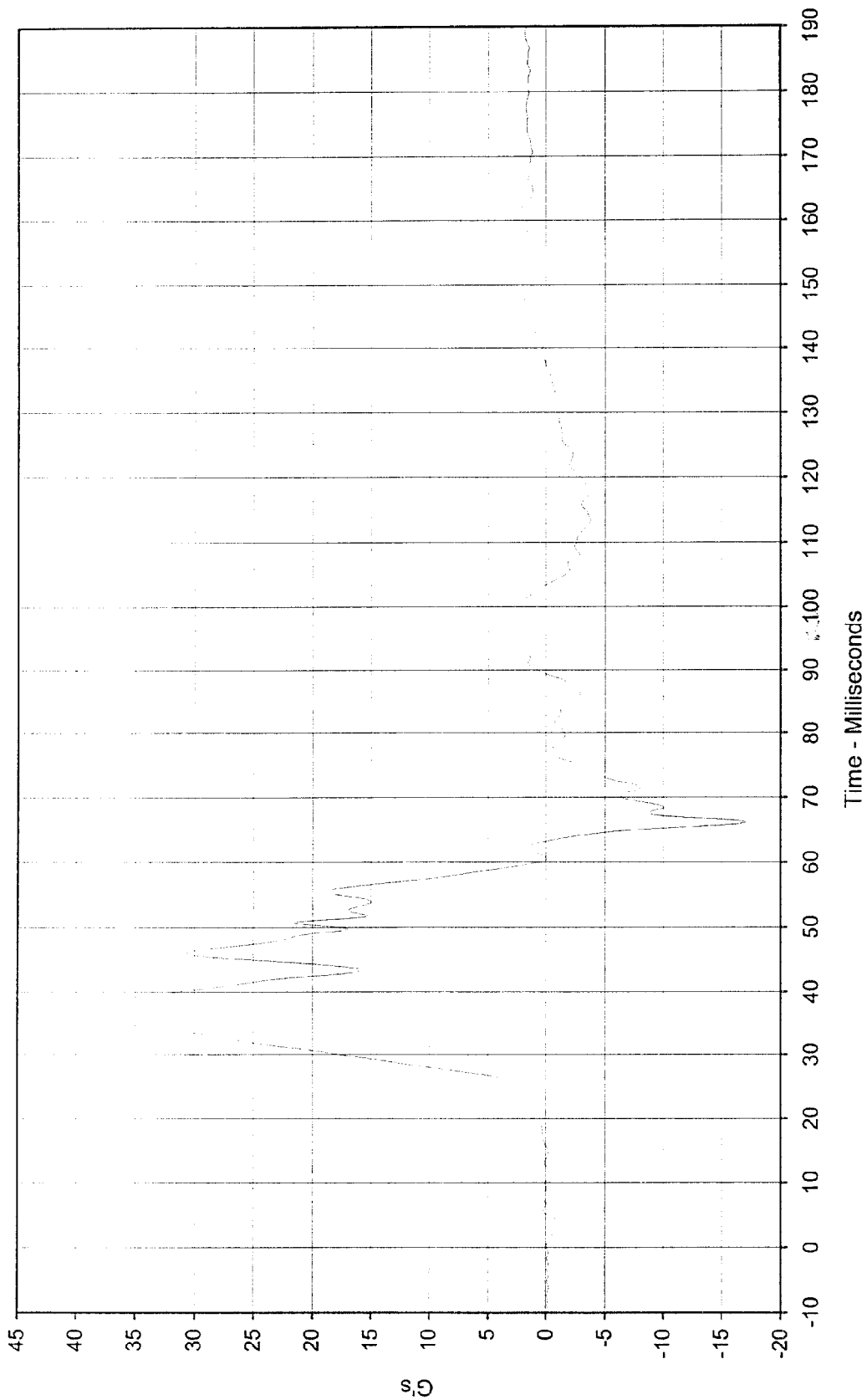
Date of Test: 01/11/00

Curve Number: IN1-009

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

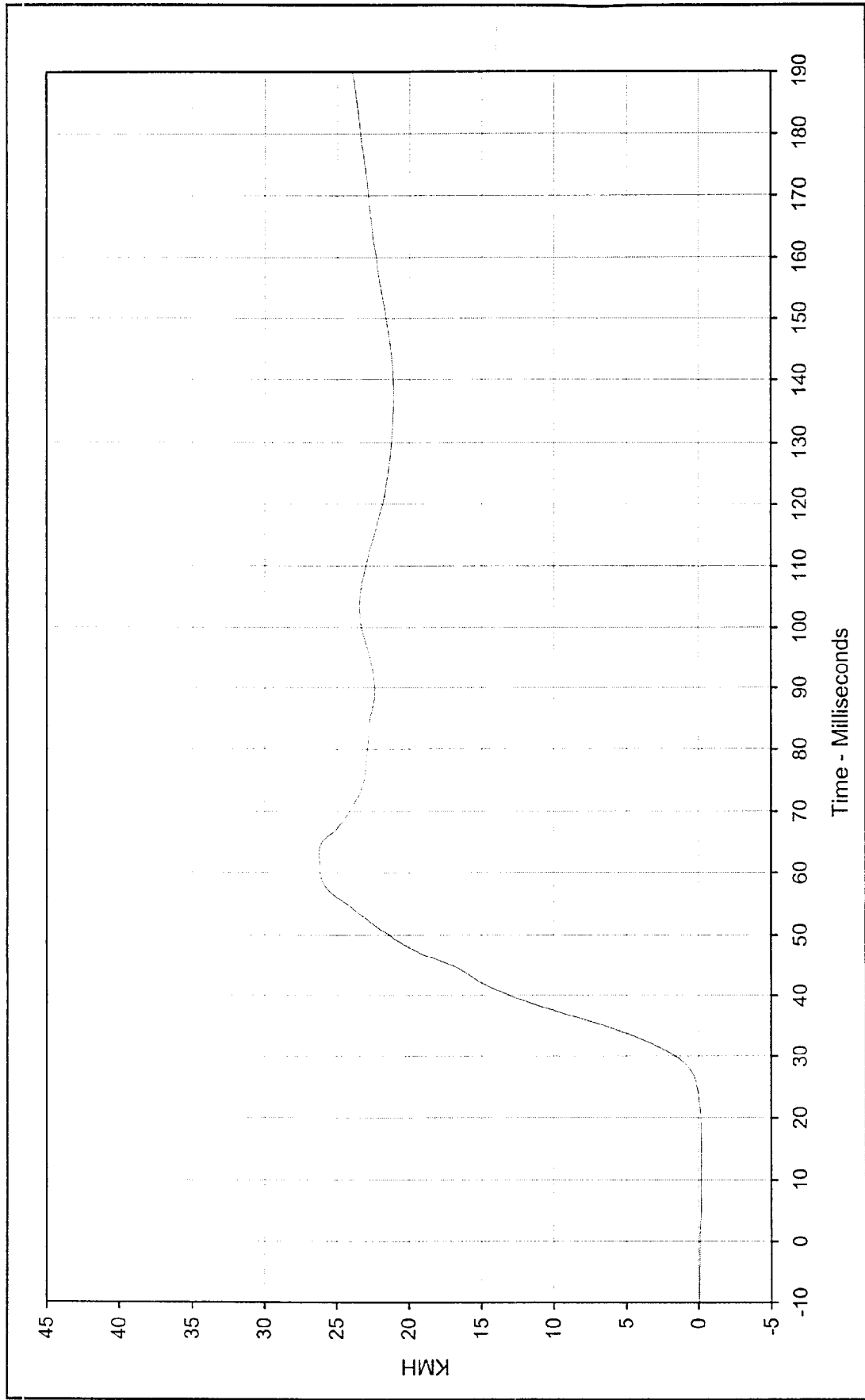
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Driver Lower Spine Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	40.7 at 37.1 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-17.0 at 66.2 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	FIL-010			





Curve Description: Driver Lower Spine Redundant Y Velocity

Maximum Value: 26.3 at 63.2 Milliseconds

Minimum Value: -0.2 at 15.7 Milliseconds

SAE Filter Class: 180

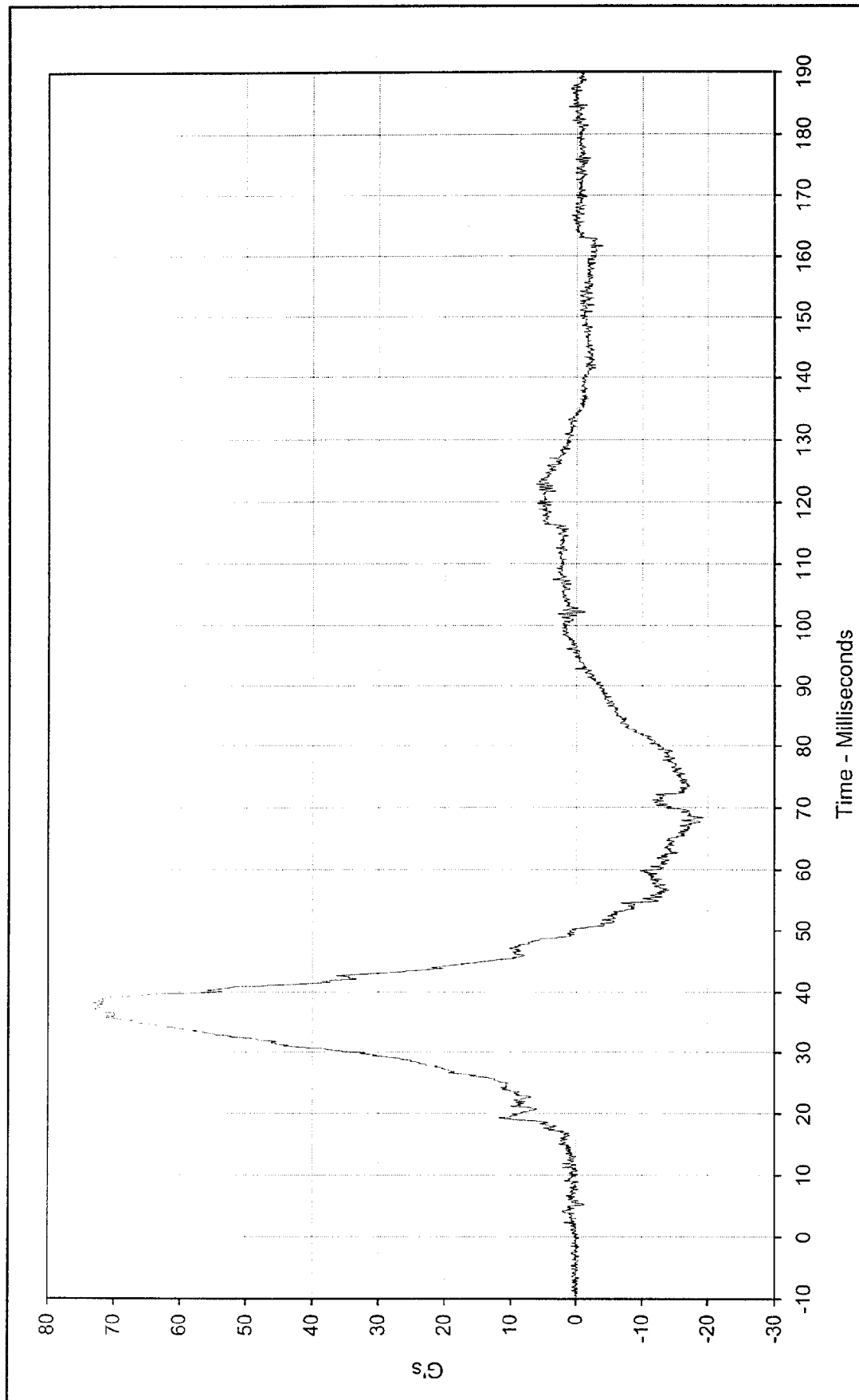
Date of Test: 01/11/00

Curve Number: IN1-0010

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Pelvis Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 73.1 at 38.2 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

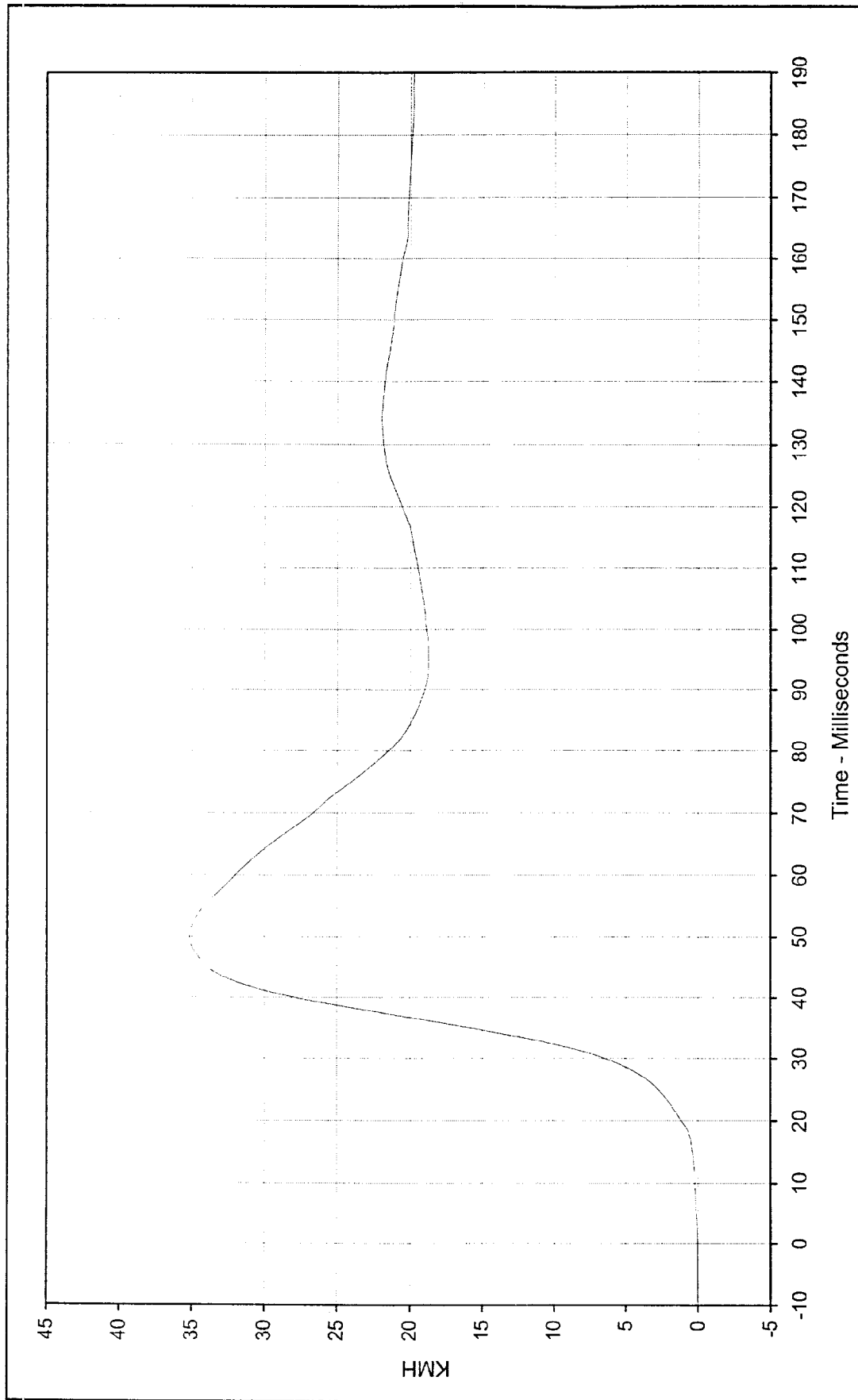
Minimum Value: -19.4 at 68.5 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/11/00

Curve Number: FIL-011

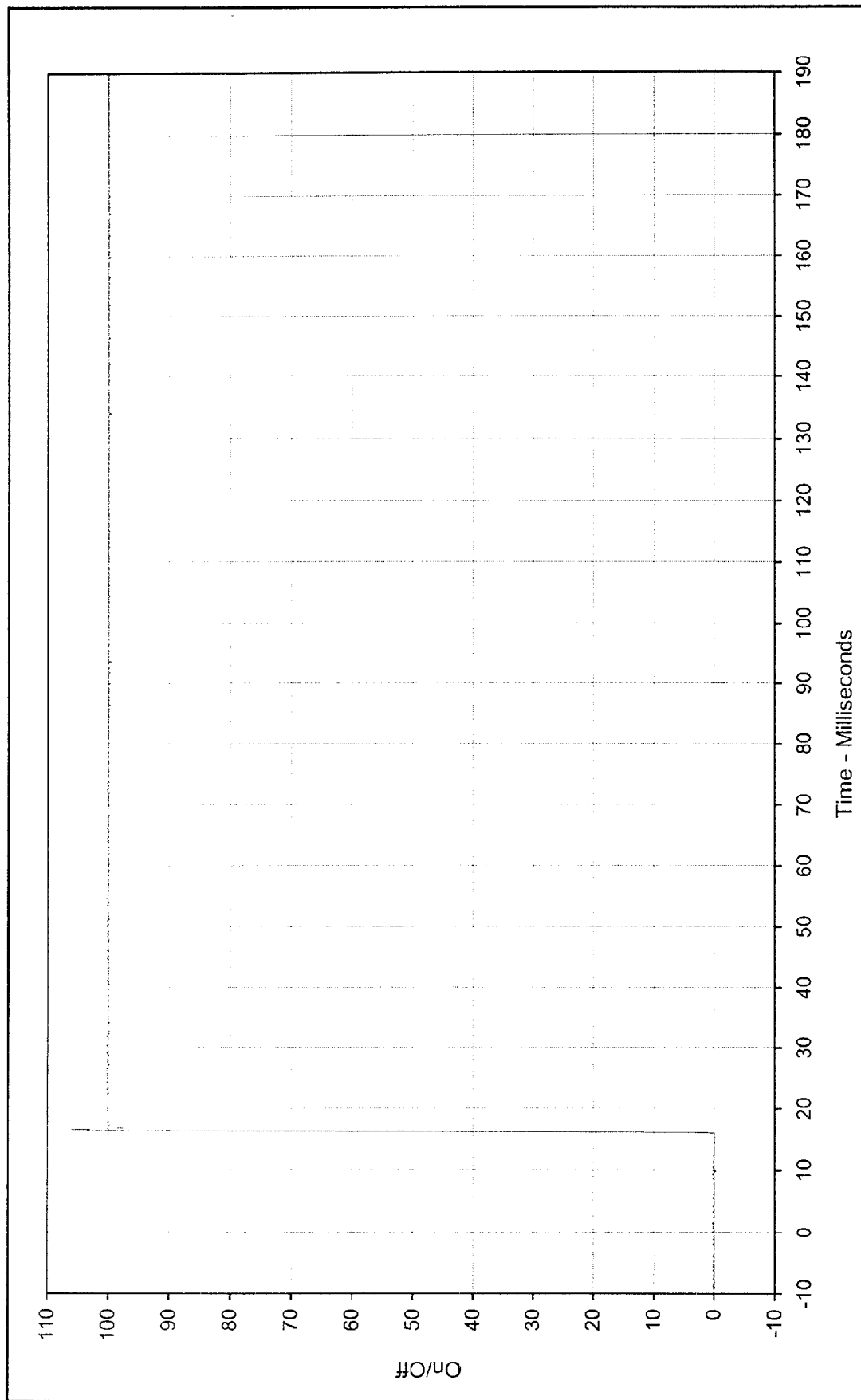




Curve Description: Driver Pelvis Redundant Y Velocity
 Maximum Value: 35.2 at 50.1 Milliseconds
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-011

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

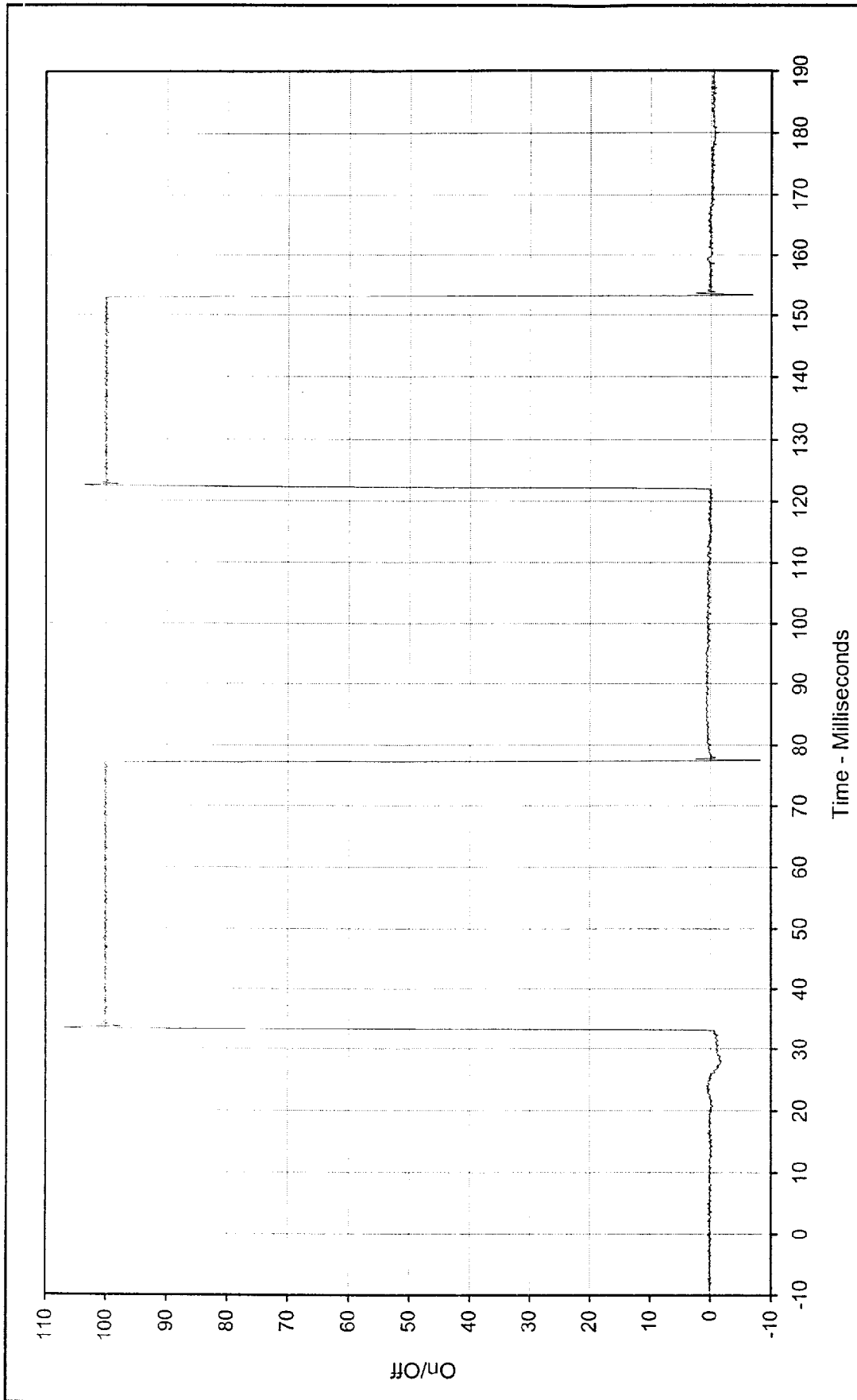




Curve Description: Driver Thorax Contact
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 106.2 at 16.7 Milliseconds
 Crossing Point: 50% at 16.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/1/00
 Curve Number: FIL-012

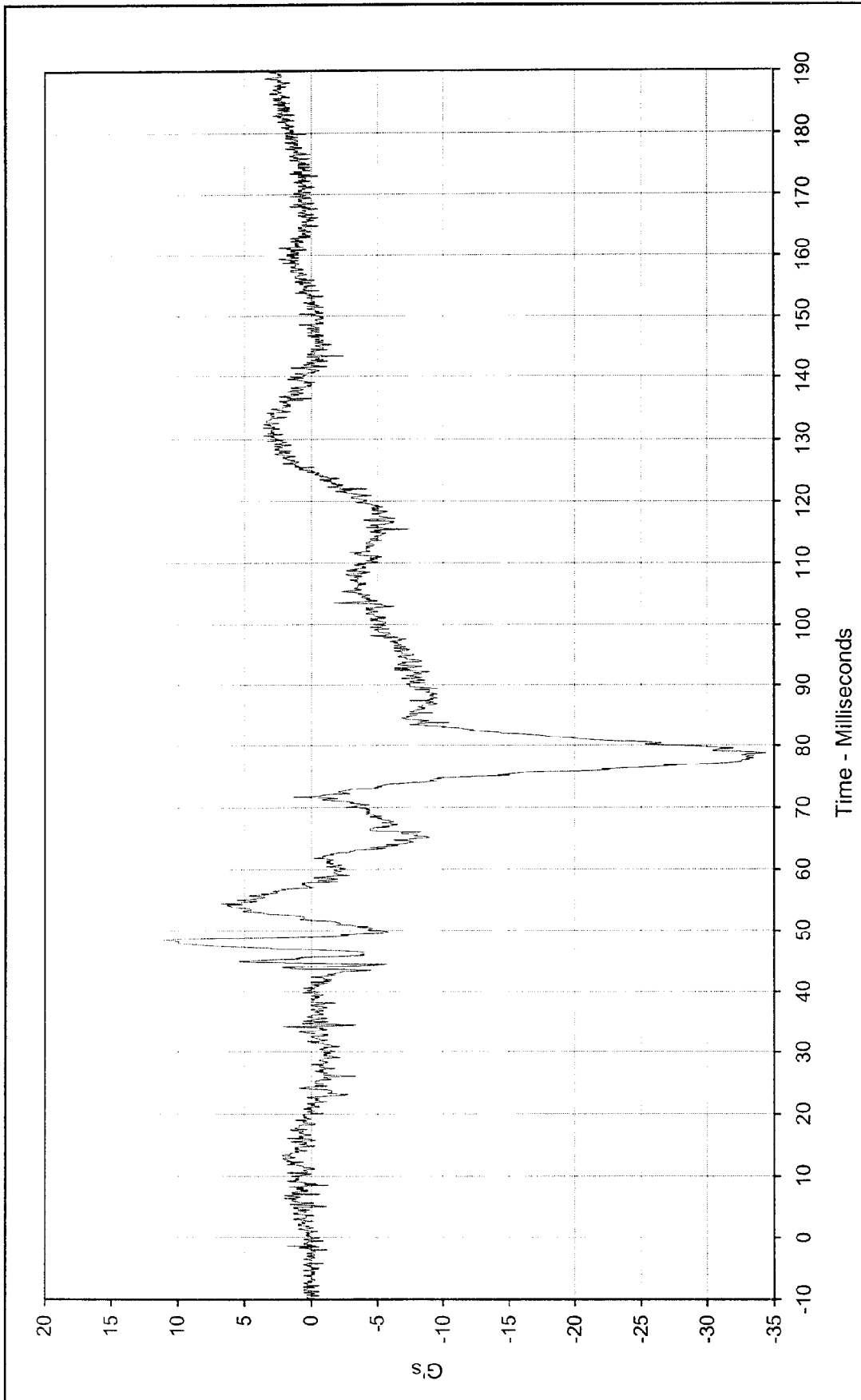




Curve Description: Driver Pelvis Contact
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 107.0 at 33.6 Milliseconds
 Crossing Point: 50% at 33.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-013

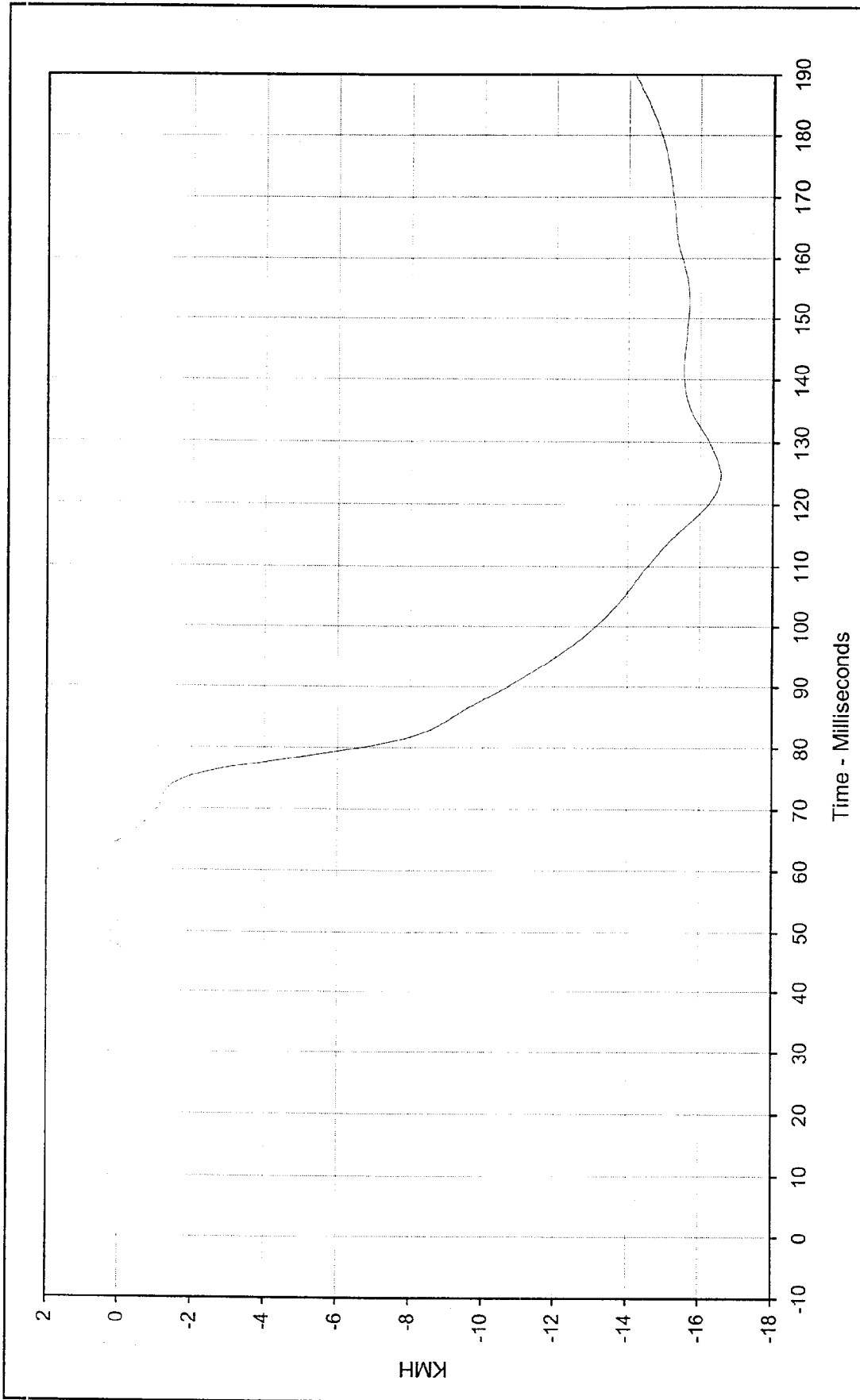




Curve Description: Pass. Head CG X
 Maximum Value: 11.2 at 48.3 Milliseconds
 Minimum Value: -34.4 at 78.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-014

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

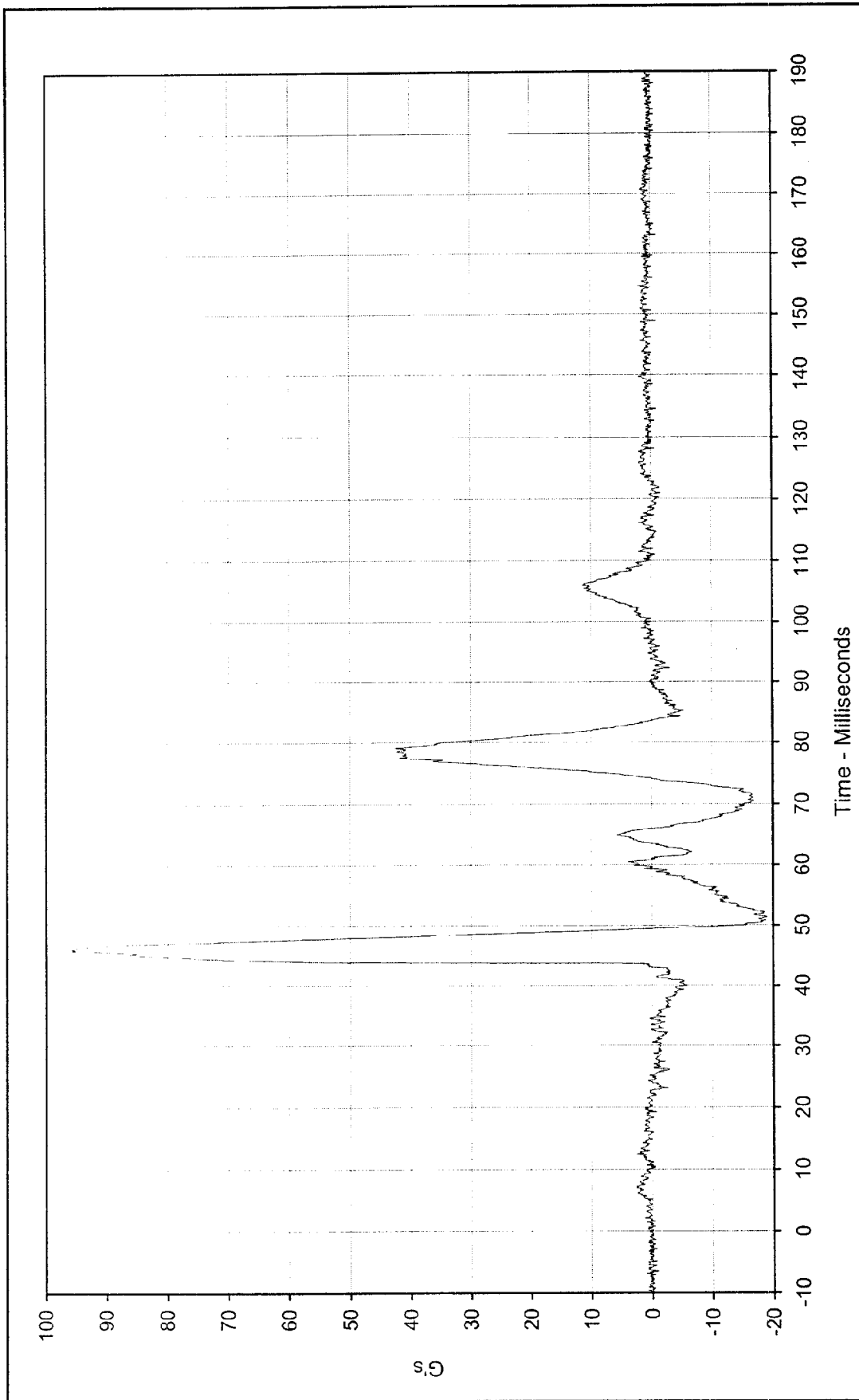




Curve Description:	Pass. Head CG X Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	0.7 at 57.6 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-16.6 at 124.7 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	IN1-014			

The logo for KARCO Engineering. It features a black rectangular background. On the left, there is a white circle containing a stylized lightbulb. To the right of the lightbulb, the word "KARCO" is written in large, bold, white, sans-serif capital letters. Below "KARCO", the word "Engineering" is written in a smaller, italicized, white, sans-serif font.

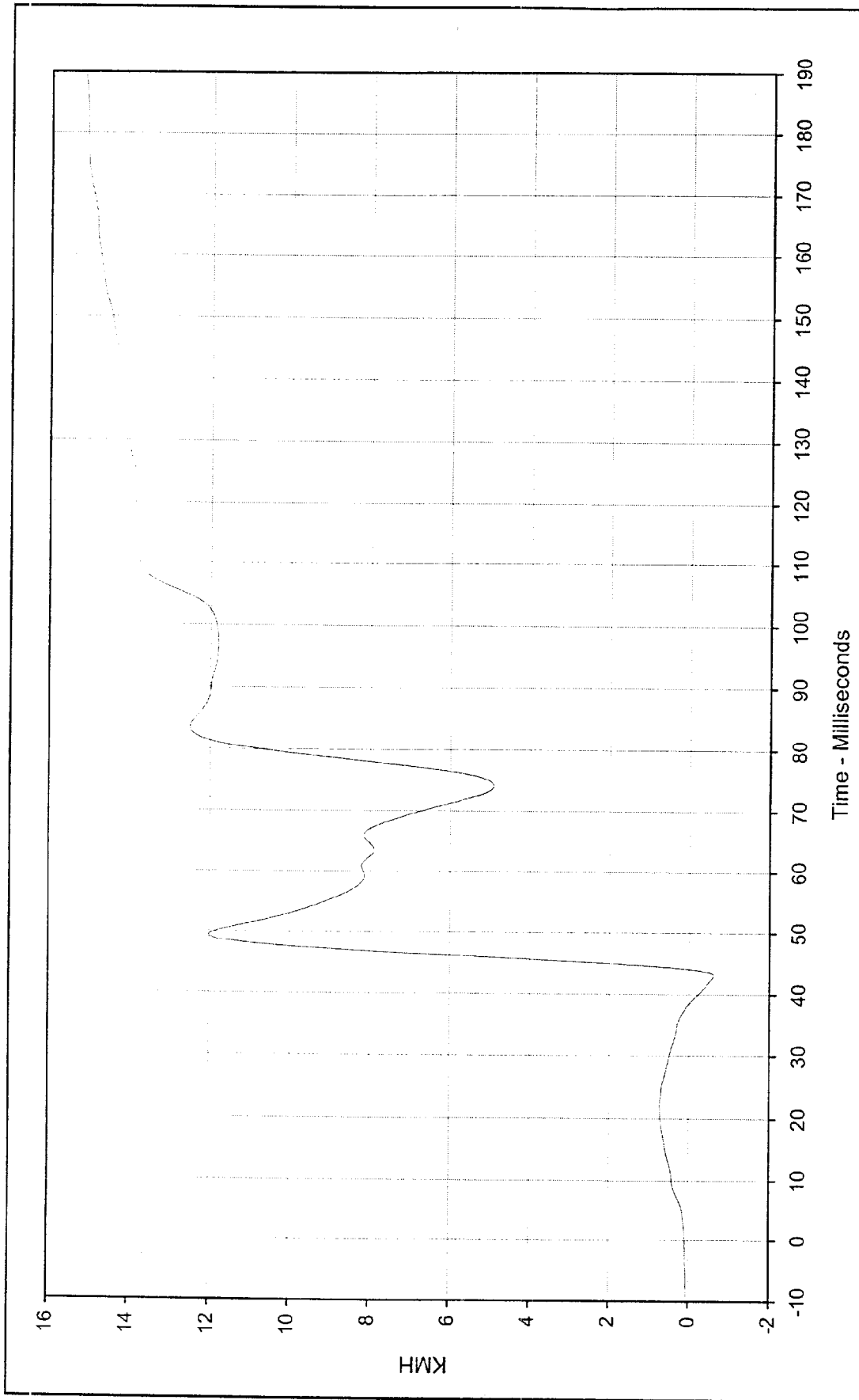




Curve Description: Pass. Head CG Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 95.9 at 45.9 Milliseconds
 Minimum Value: -19.1 at 51.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-015





Curve Description: Pass. Head CG Y Velocity

Maximum Value: 15.2 at 189.9 Milliseconds

Minimum Value: -0.6 at 43.0 Milliseconds

SAE Filter Class: 180

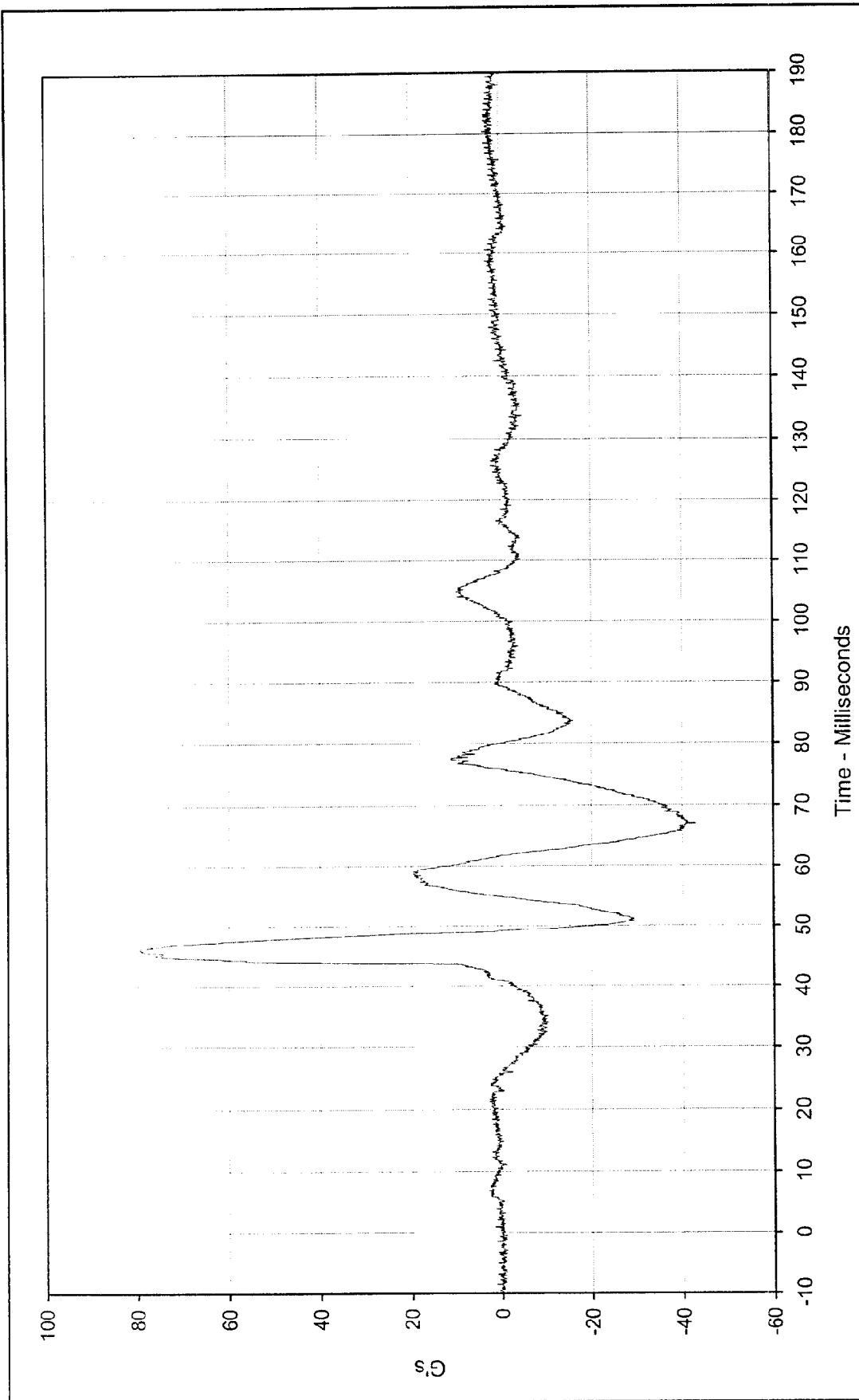
Date of Test: 01/11/00

Curve Number: IN1-015

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

Test Vehicle: 2000 Ford F-150 XL Pickup

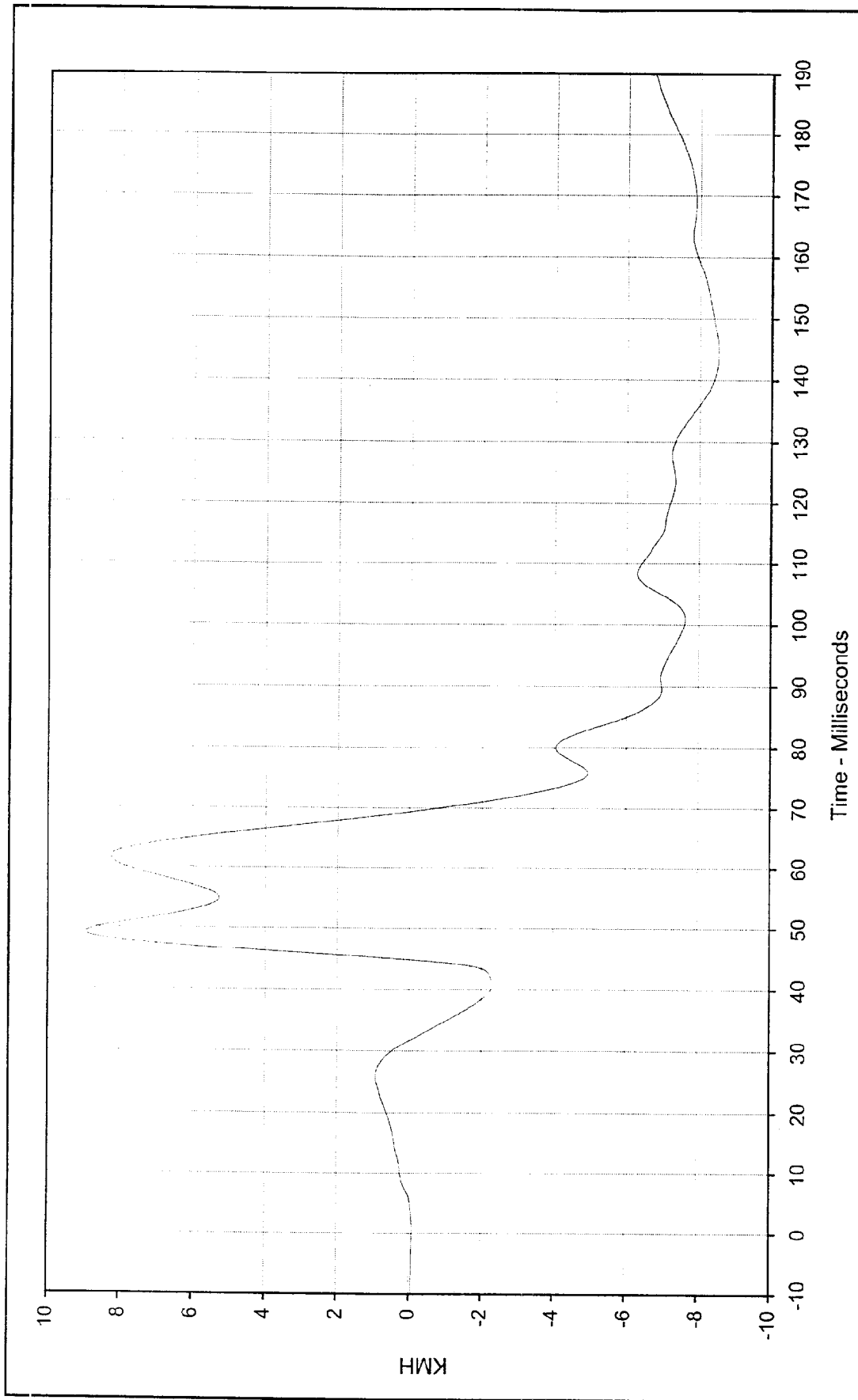




Curve Description: Pass. Head CG Z
 Maximum Value: 79.6 at 46.0 Milliseconds
 Minimum Value: -43.0 at 67.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-016

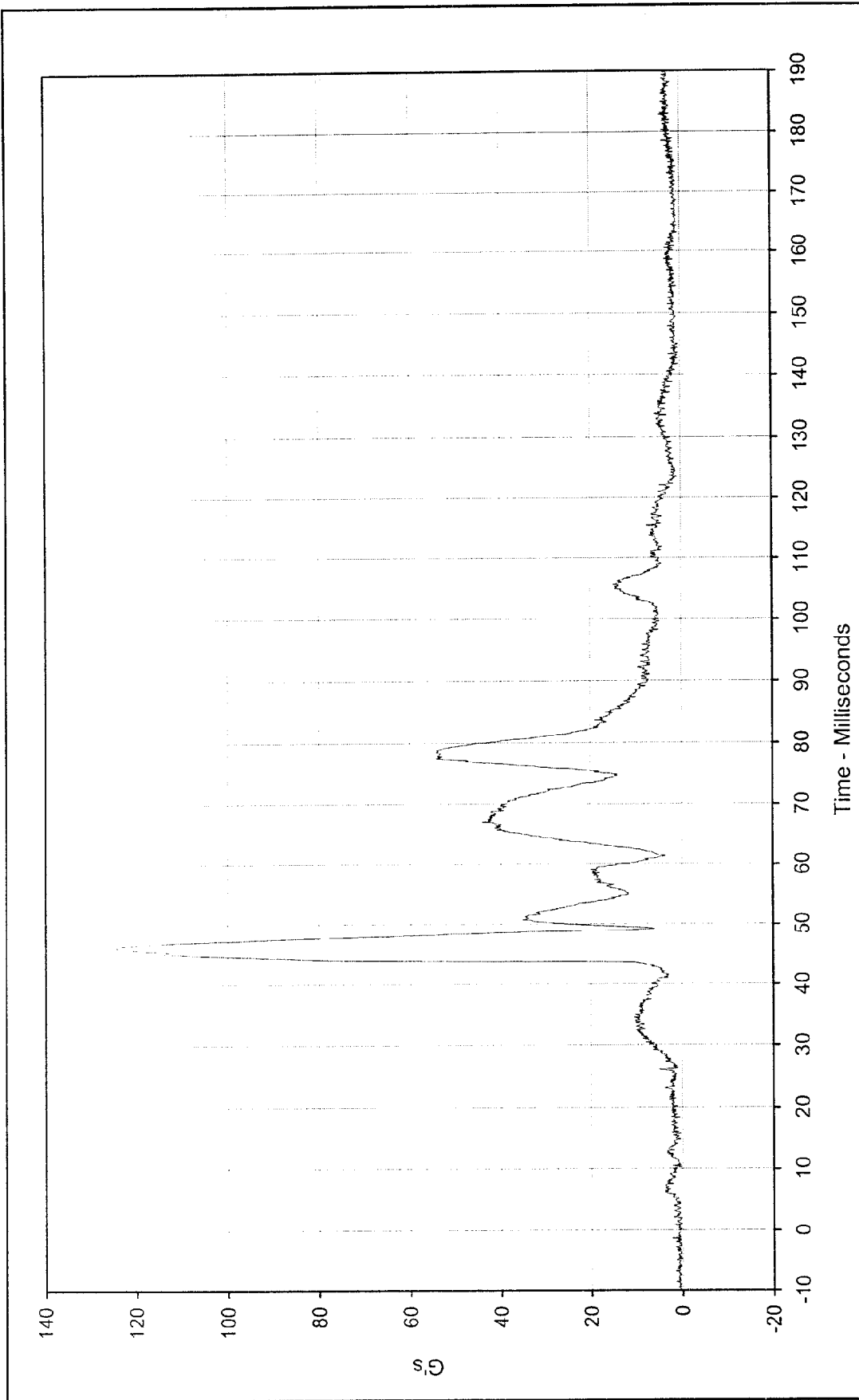
Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Pass. Head CG Z Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	8.9 at 49.2 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-8.5 at 145.1 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	IN1-016			





Curve Description: Pass. Head C-G Resultant

Maximum Value: 124.6 at 46.1 Milliseconds

Minimum Value: 0.2 at 2.0 Milliseconds

SAE Filter Class: 1000

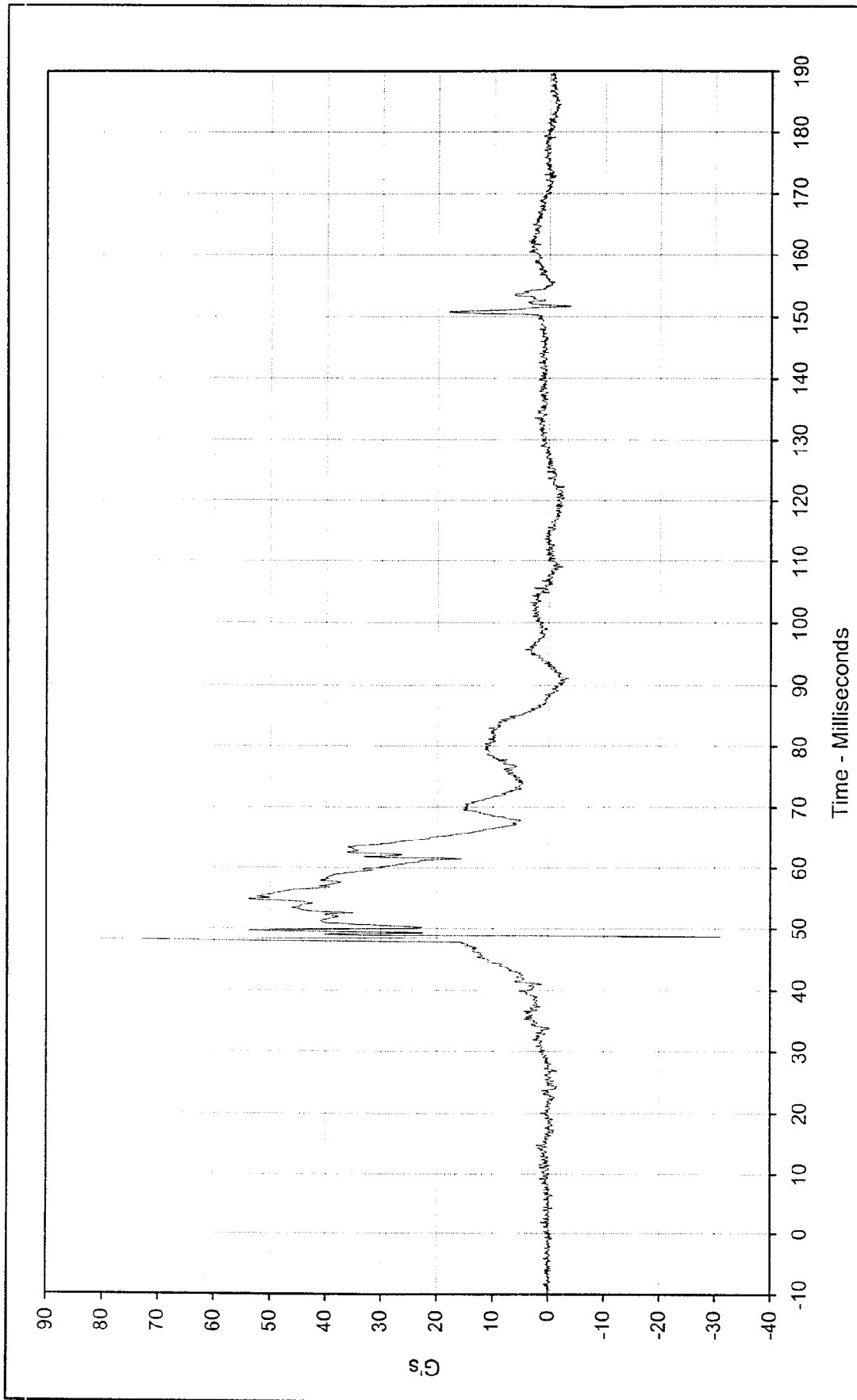
Date of Test: 01/11/00

Curve Number: RES-014

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

Test Vehicle: 2000 Ford F-150 XL Pickup

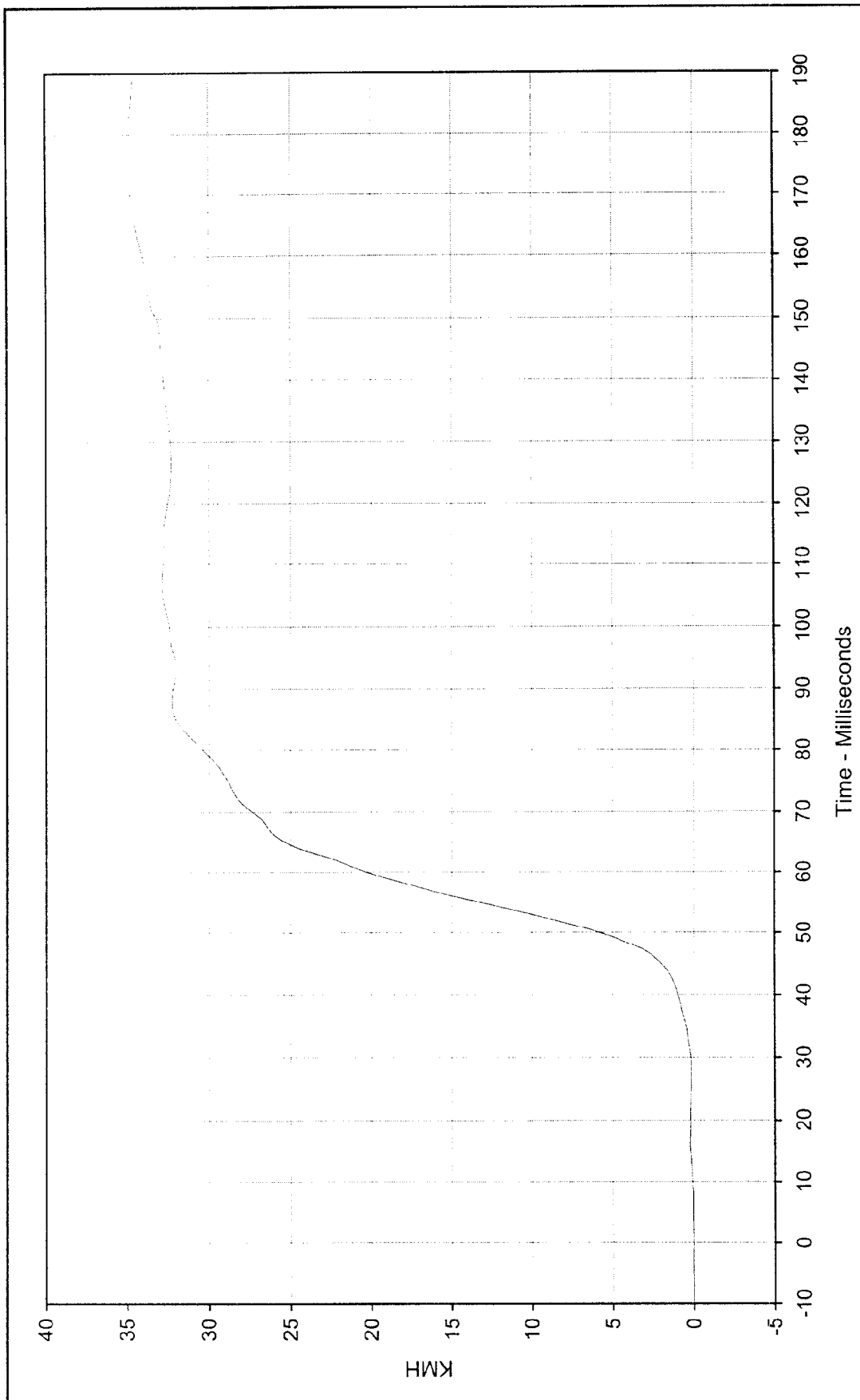




Curve Description: Pass. Upper Rib Primary
 Maximum Value: 81.4 at 48.1 Milliseconds
 Minimum Value: -31.2 at 48.7 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-017

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

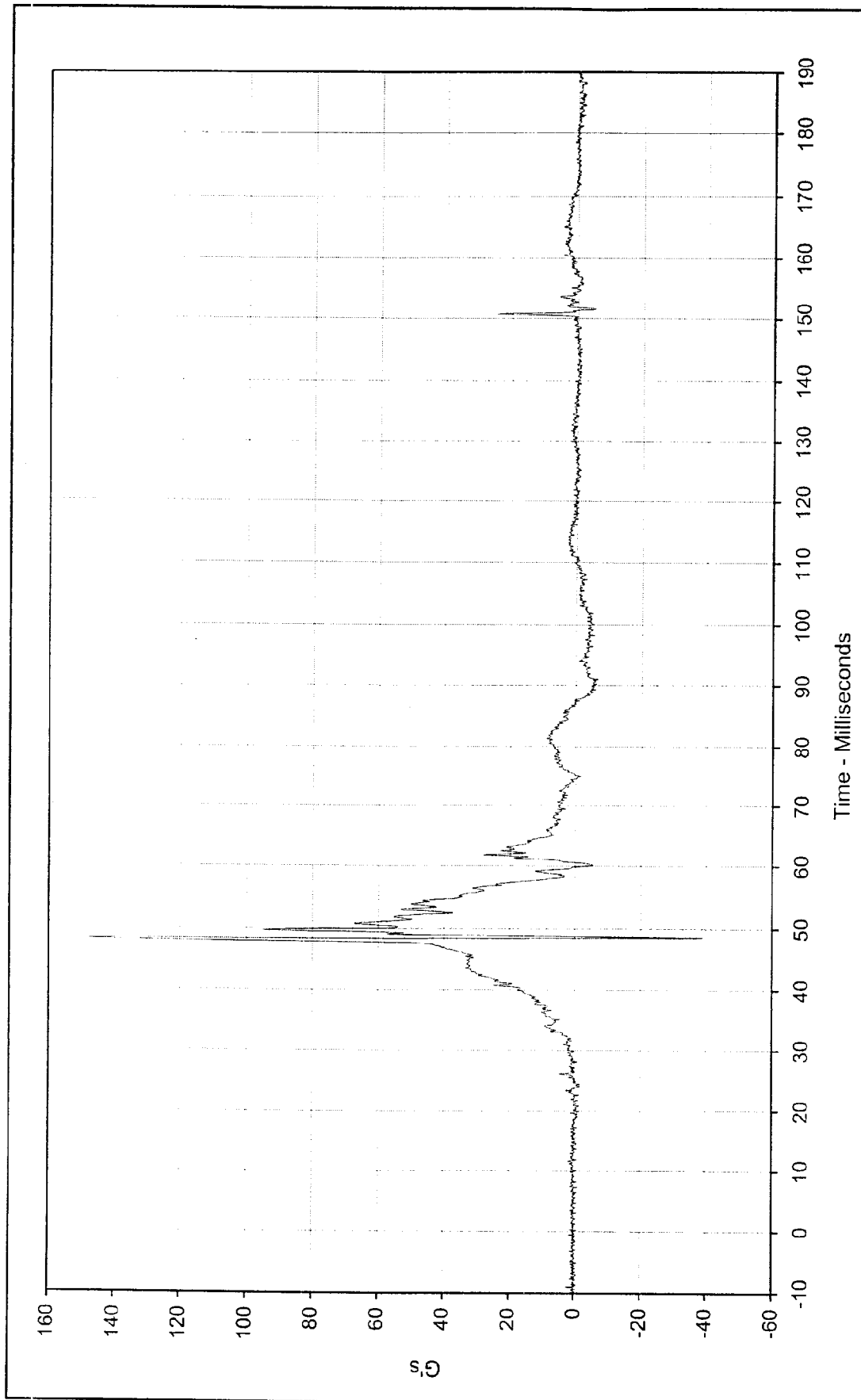




Curve Description: Pass. Upper Rib Primary Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

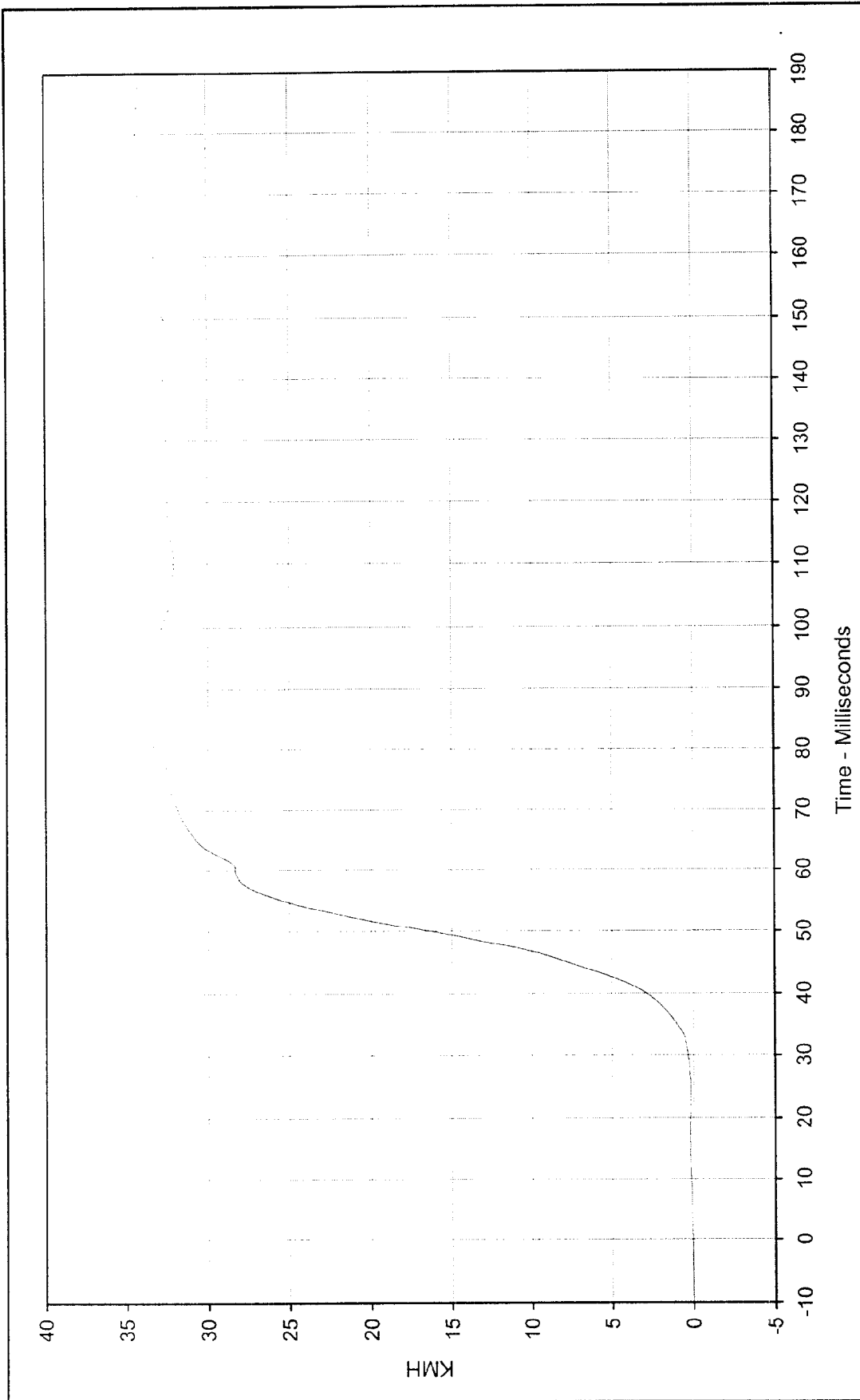
Maximum Value: 34.9 at 180.1 Milliseconds
 Minimum Value: 0.0 at 0.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-017





Curve Description:	Pass. Lower Rib Primary	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	147.8 at 48.2 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-39.0 at 48.6 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/11/00			
Curve Number:	FIL-018			





Curve Description: Pass, Lower Rib Primary Y Velocity

Maximum Value: 34.4 at 87.3 Milliseconds

Minimum Value: 0.1 at 0.0 Milliseconds

SAE Filter Class: 180

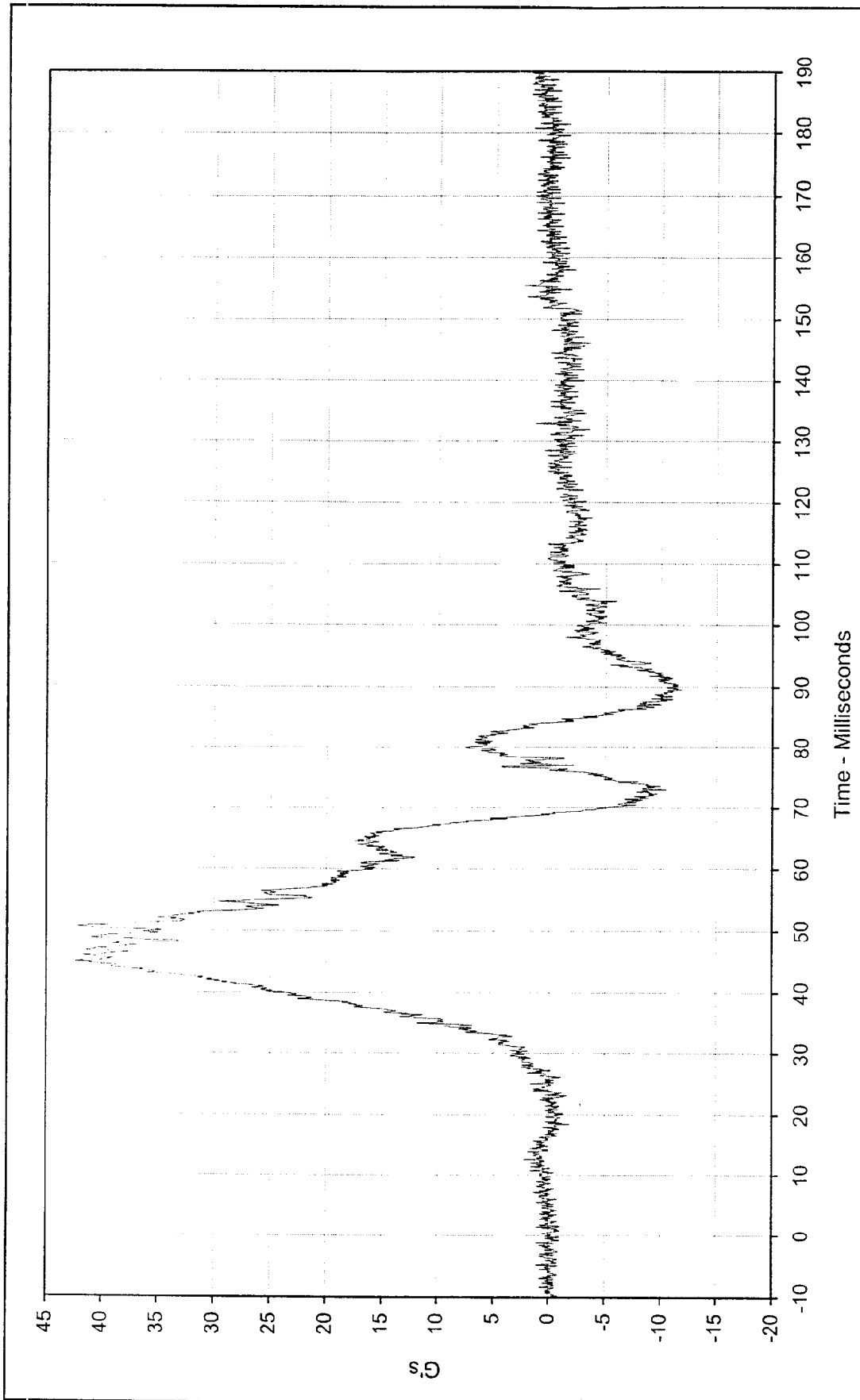
Date of Test: 01/11/00

Curve Number: IN1-018

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

Test Vehicle: 2000 Ford F-150 XL Pickup

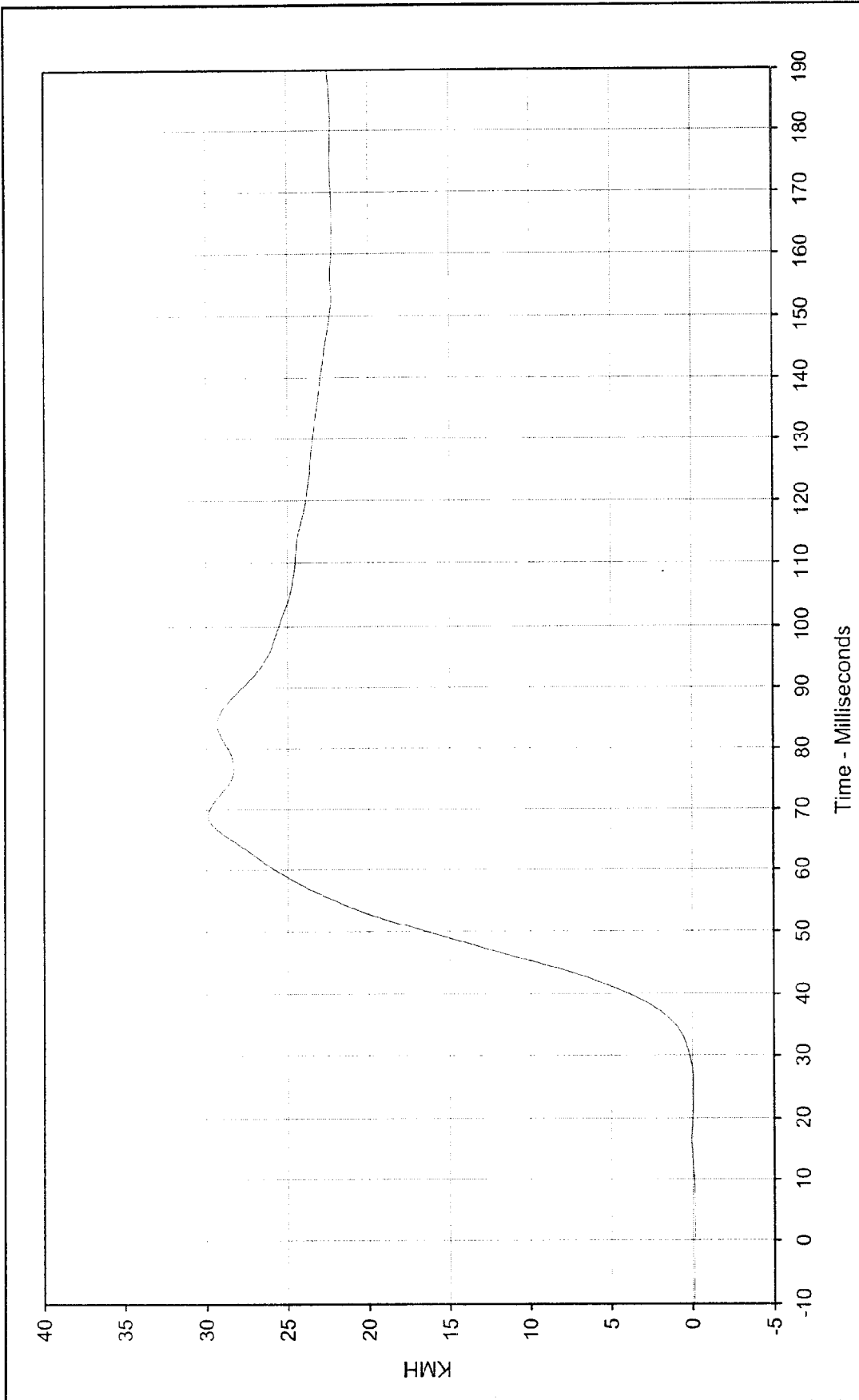




Curve Description: Pass. Lower Spine Primary
 Maximum Value: 42.5 at 44.9 Milliseconds
 Minimum Value: -11.8 at 89.6 Milliseconds
 SAE Filler Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-019

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Pass. Lower Spine Primary Y Velocity

Maximum Value: 29.9 at 69.0 Milliseconds

Minimum Value: -0.1 at 4.8 Milliseconds

SAE Filter Class: 180

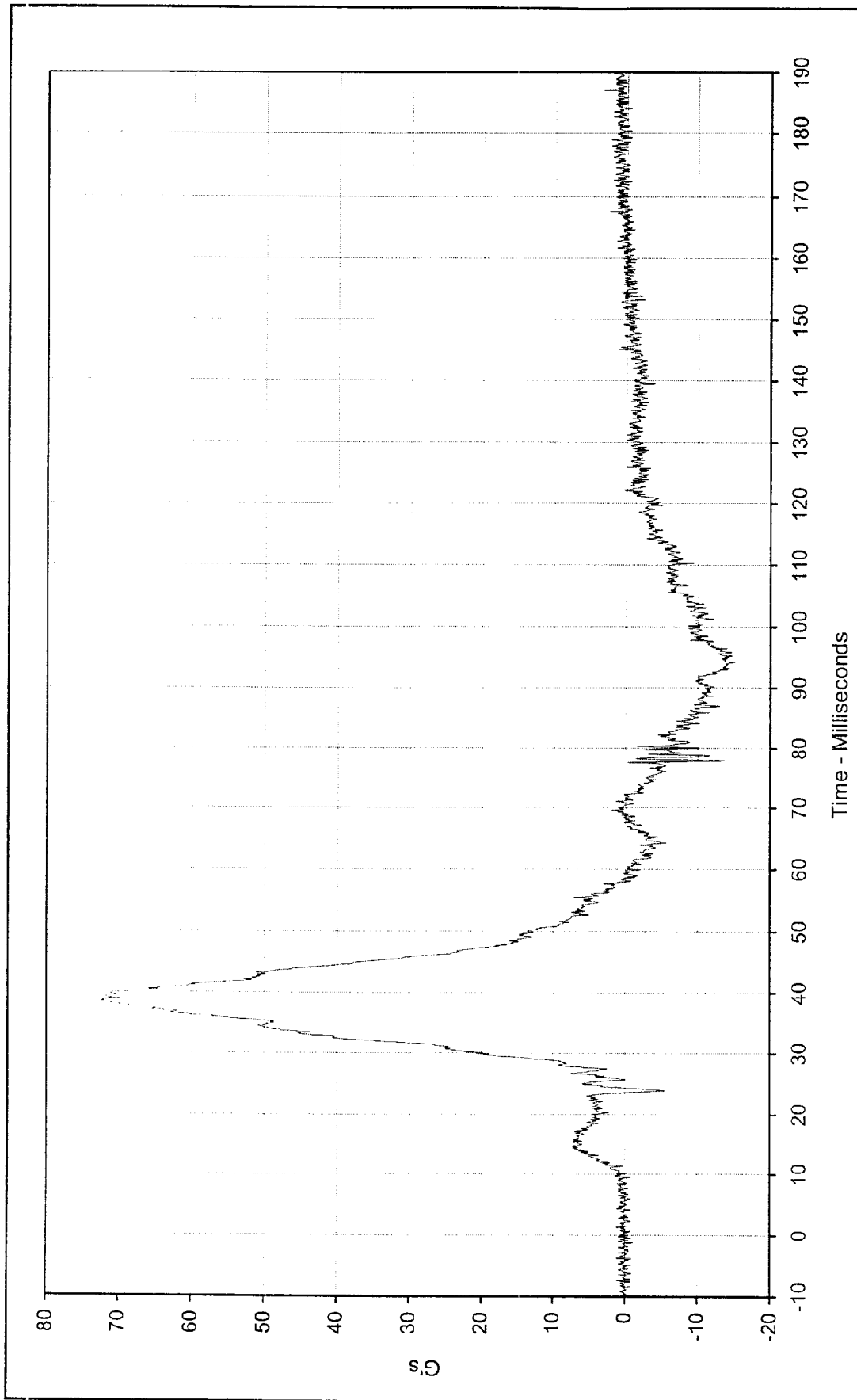
Date of Test: 01/11/00

Curve Number: IN1-019

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

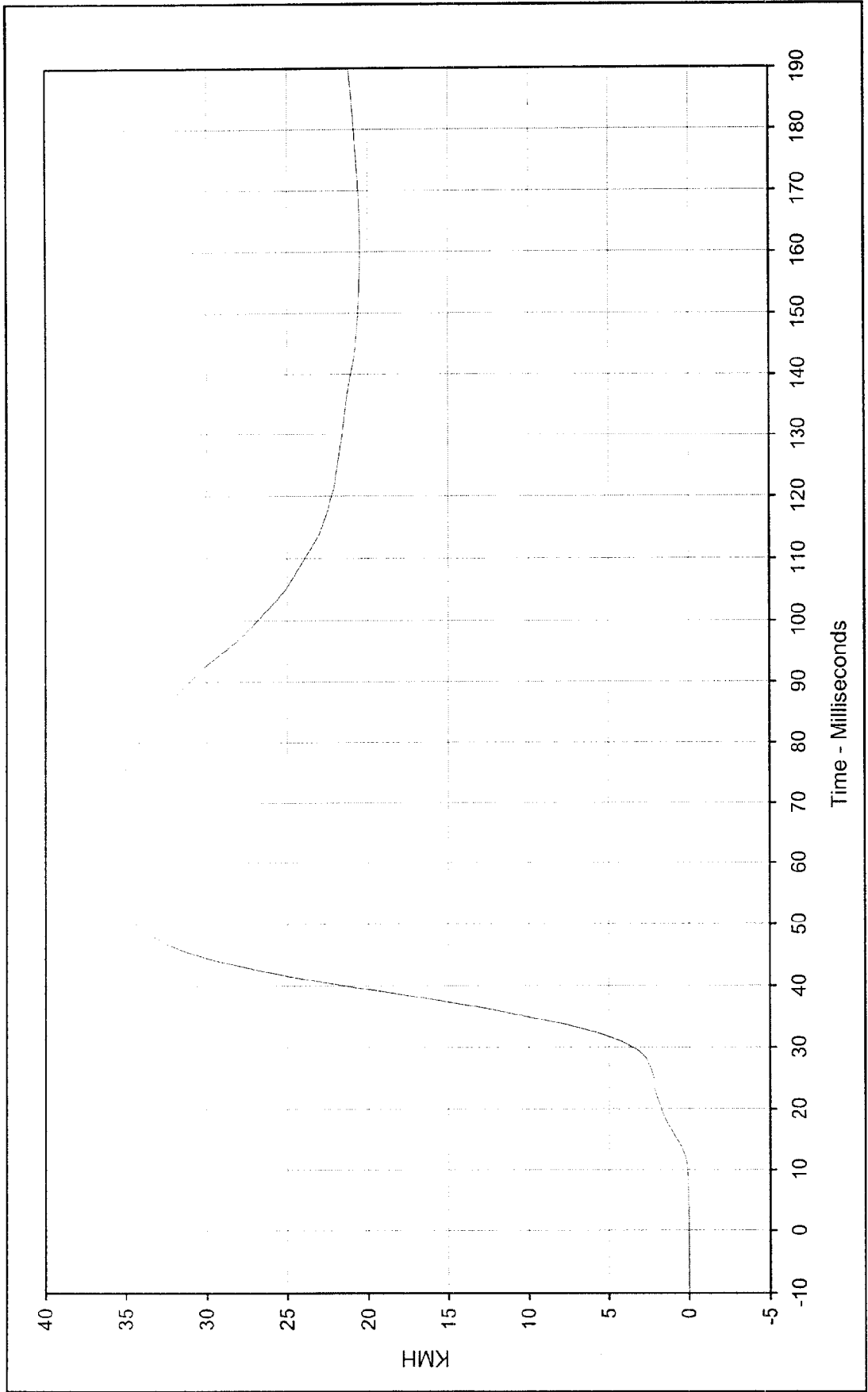
Test Vehicle: 2000 Ford F-150 XL Pickup





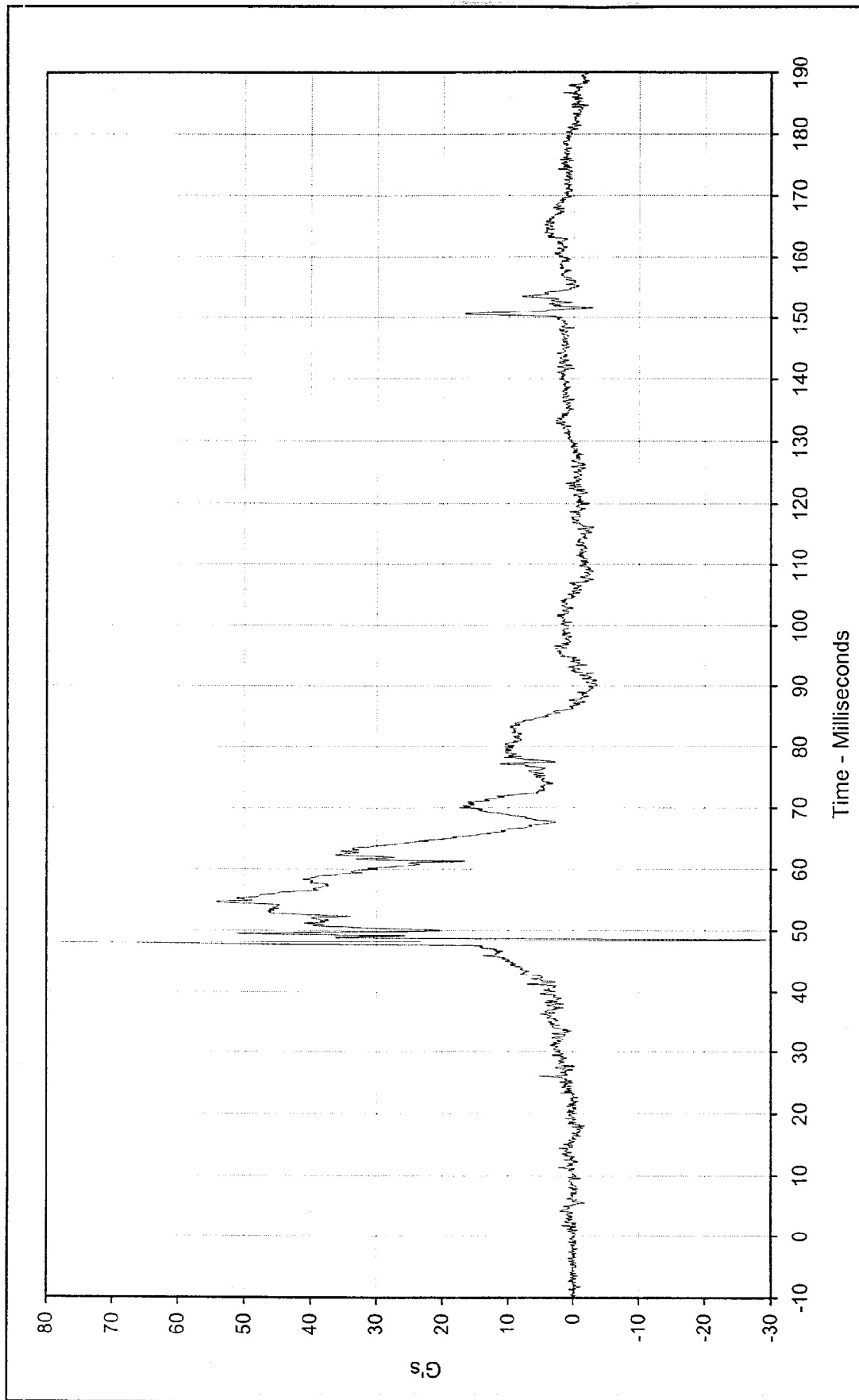
Curve Description:	Pass. Pelvis Primary Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	72.6 at 38.5 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-15.3 at 94.1 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/11/00			
Curve Number:	FIL-020			





Curve Description:	Pass. Pelvis Primary Y Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	36.0 at 58.4 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	0.0 at 0.0 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	IN1-020			





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

Test Vehicle: 2000 Ford F-150 XL Pickup

Curve Description: Pass. Upper Rib Redundant

Maximum Value: 77.4 at 48.0 Milliseconds

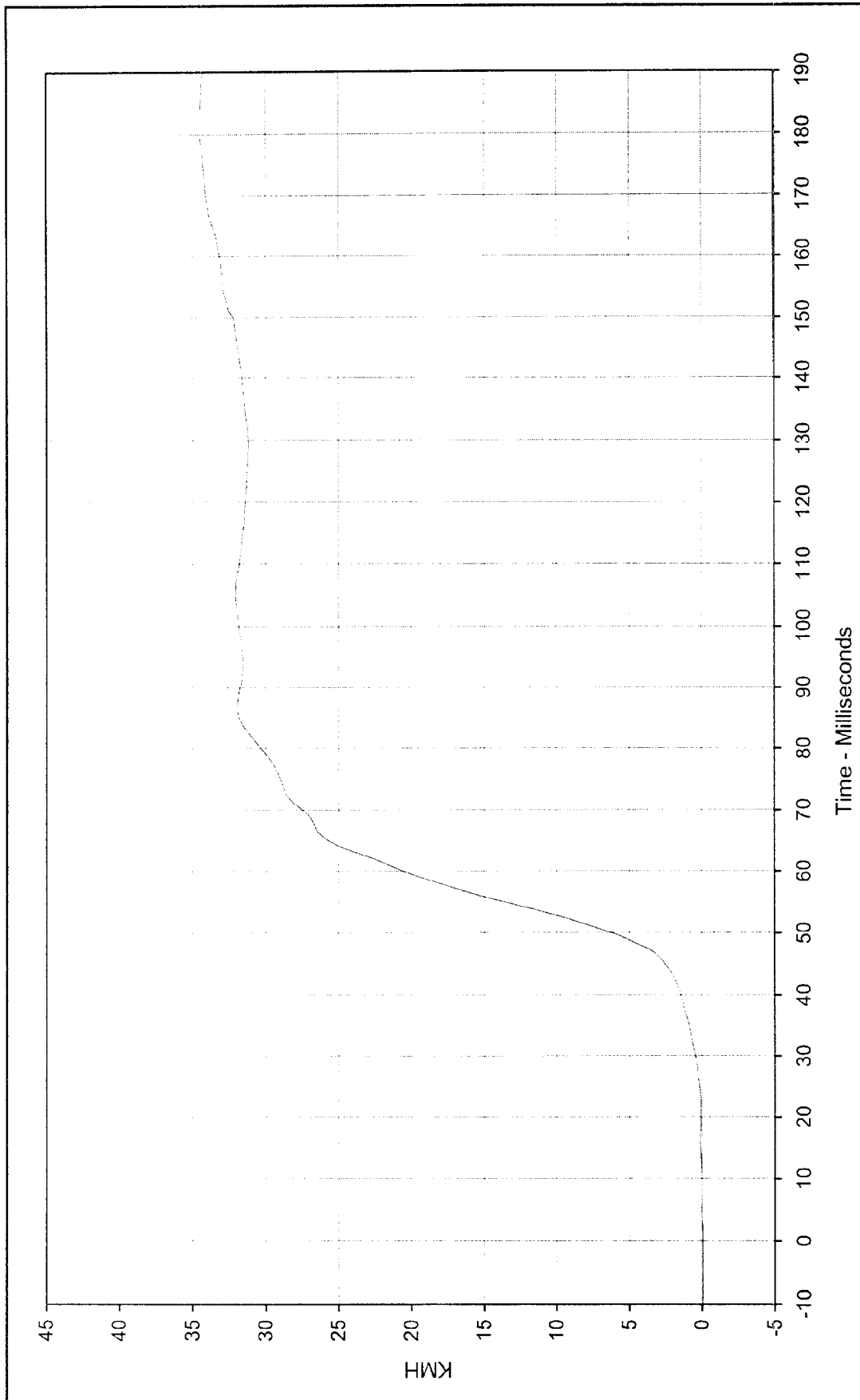
Minimum Value: -29.1 at 48.6 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/11/00

Curve Number: FIL-021





Curve Description: Pass. Upper Rib Redundant Y Velocity

Maximum Value: 34.5 at 181.3 Milliseconds

Minimum Value: -0.1 at 0.5 Milliseconds

SAE Filter Class: 180

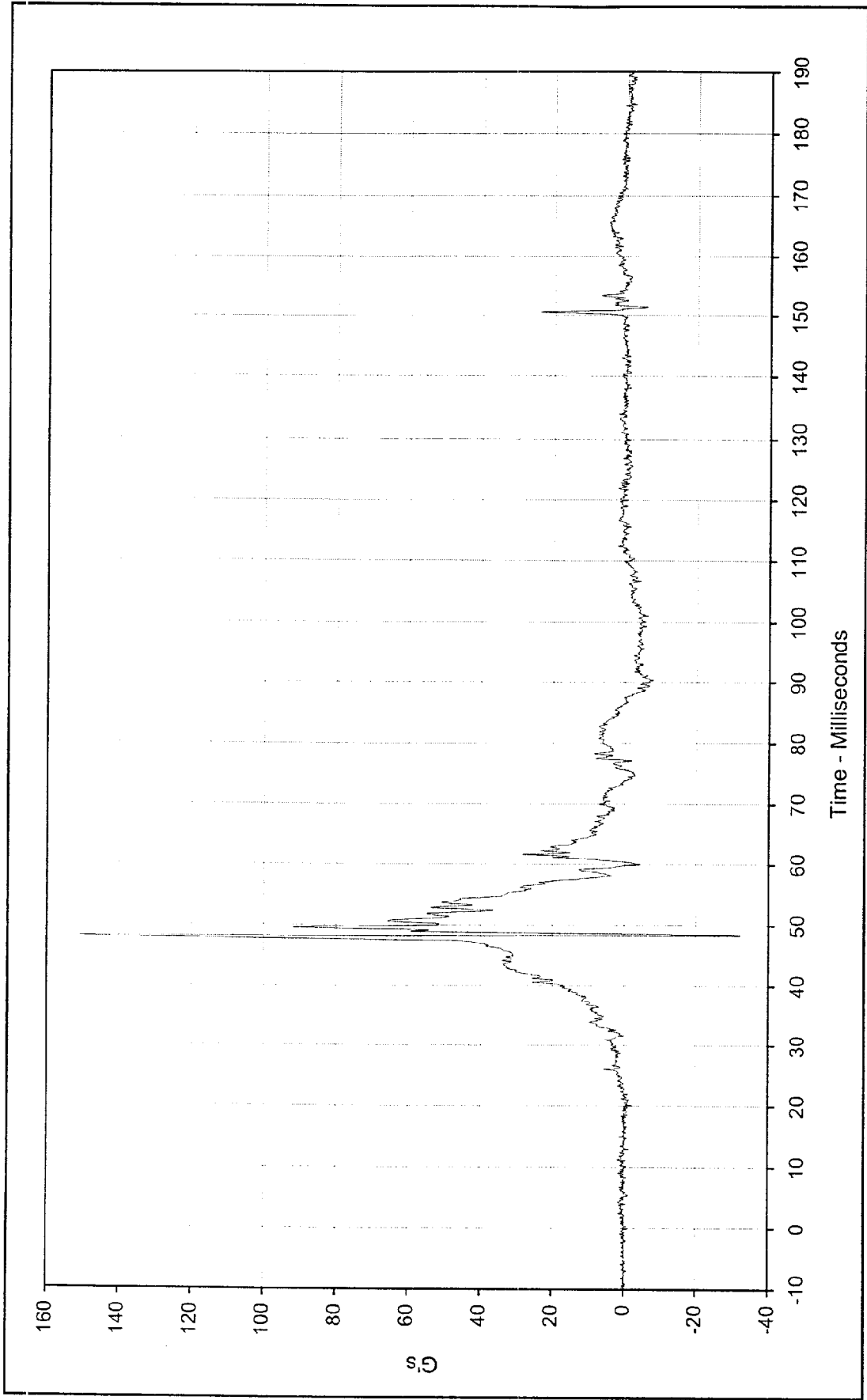
Date of Test: 01/11/00

Curve Number: IN1-021

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

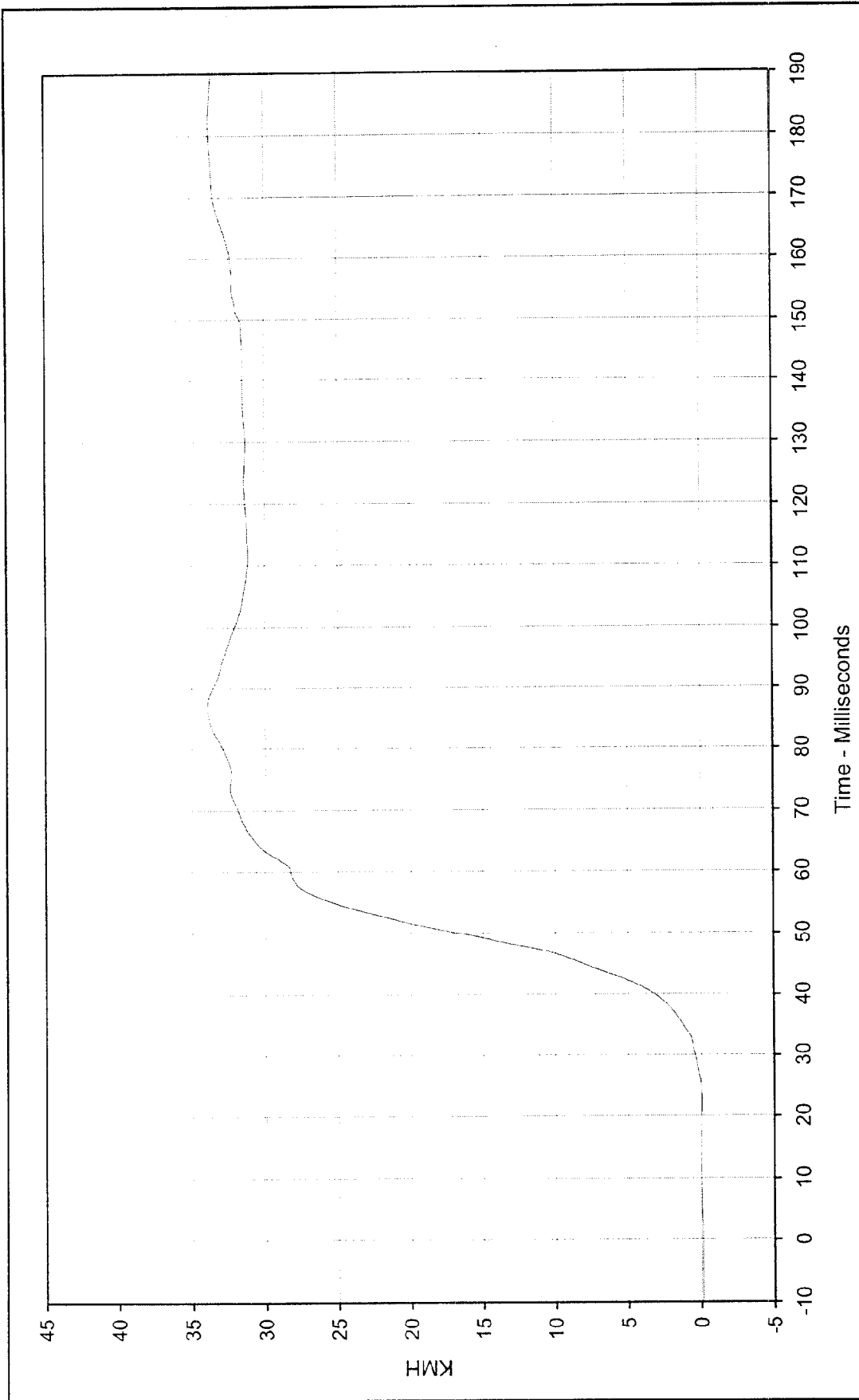
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Pass. Lower Rib Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0203
Maximum Value:	150.4 at 48.1 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup		
Minimum Value:	-32.0 at 48.4 Milliseconds				
SAE Filter Class:	1000				
Date of Test:	01/11/00				
Curve Number:	FIL-022				





Curve Description: Pass. Lower Rib Redundant Y Velocity

Maximum Value: 33.9 at 86.9 Milliseconds

Minimum Value: -0.1 at 0.6 Milliseconds

SAE Filter Class: 180

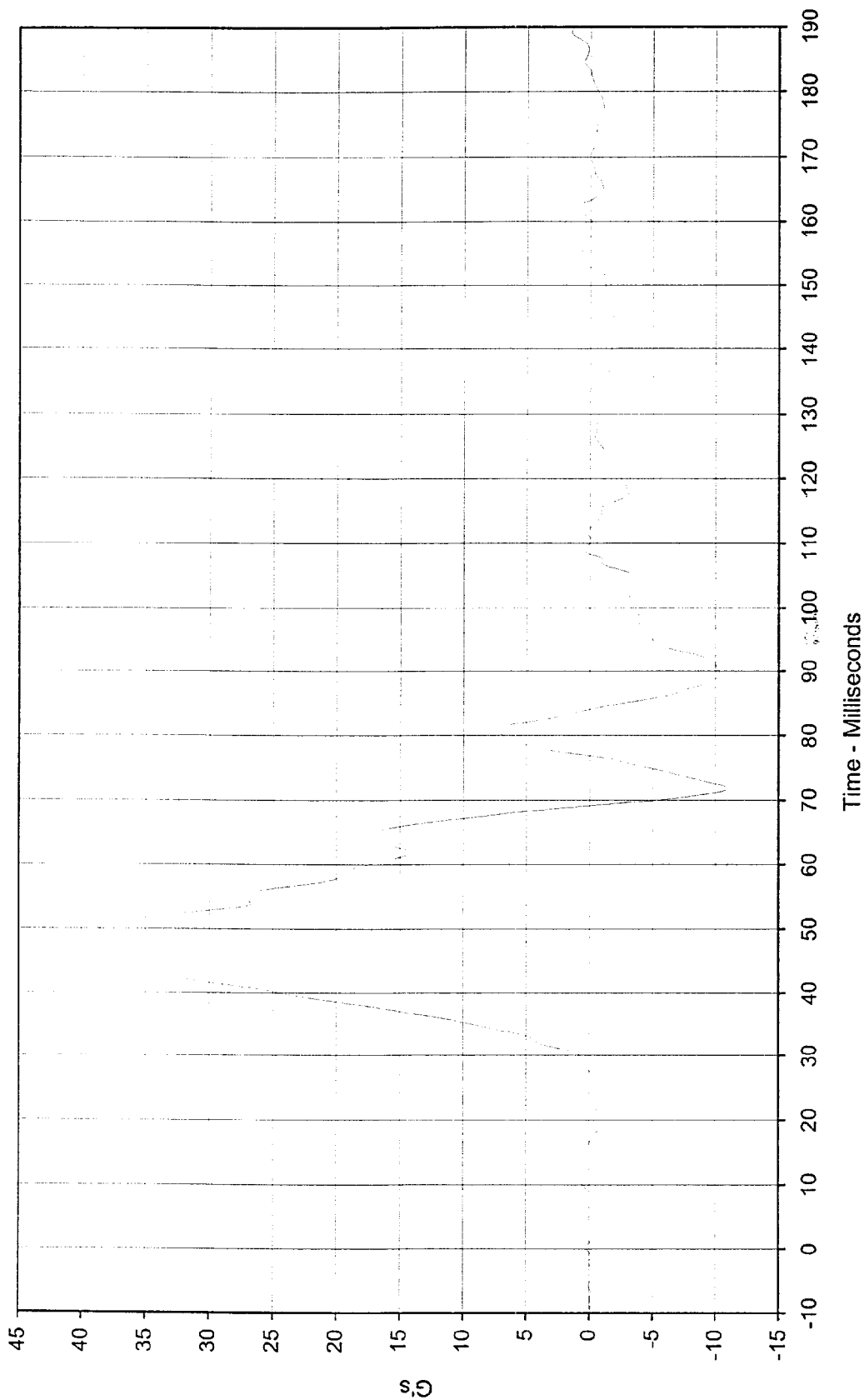
Date of Test: 01/11/00

Curve Number: IN1-022

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

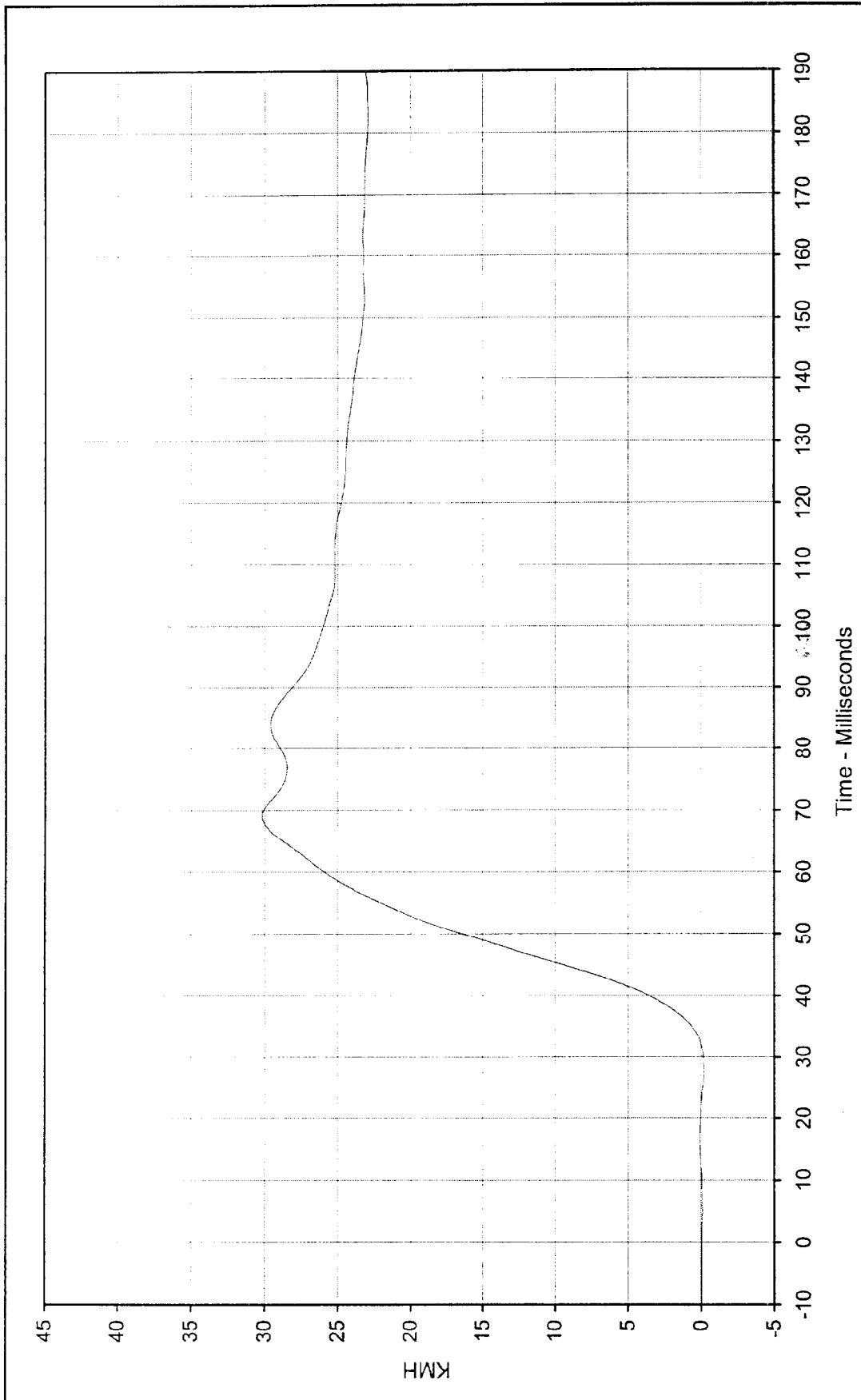
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Pass. Lower Spine Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	41.1 at 45.2 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-11.0 at 71.8 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	FIL-023			





Curve Description: Pass. Lower Spine Redundant Y Velocity

Maximum Value: 30.2 at 69.2 Milliseconds

Minimum Value: -0.2 at 27.5 Milliseconds

SAE Filter Class: 180

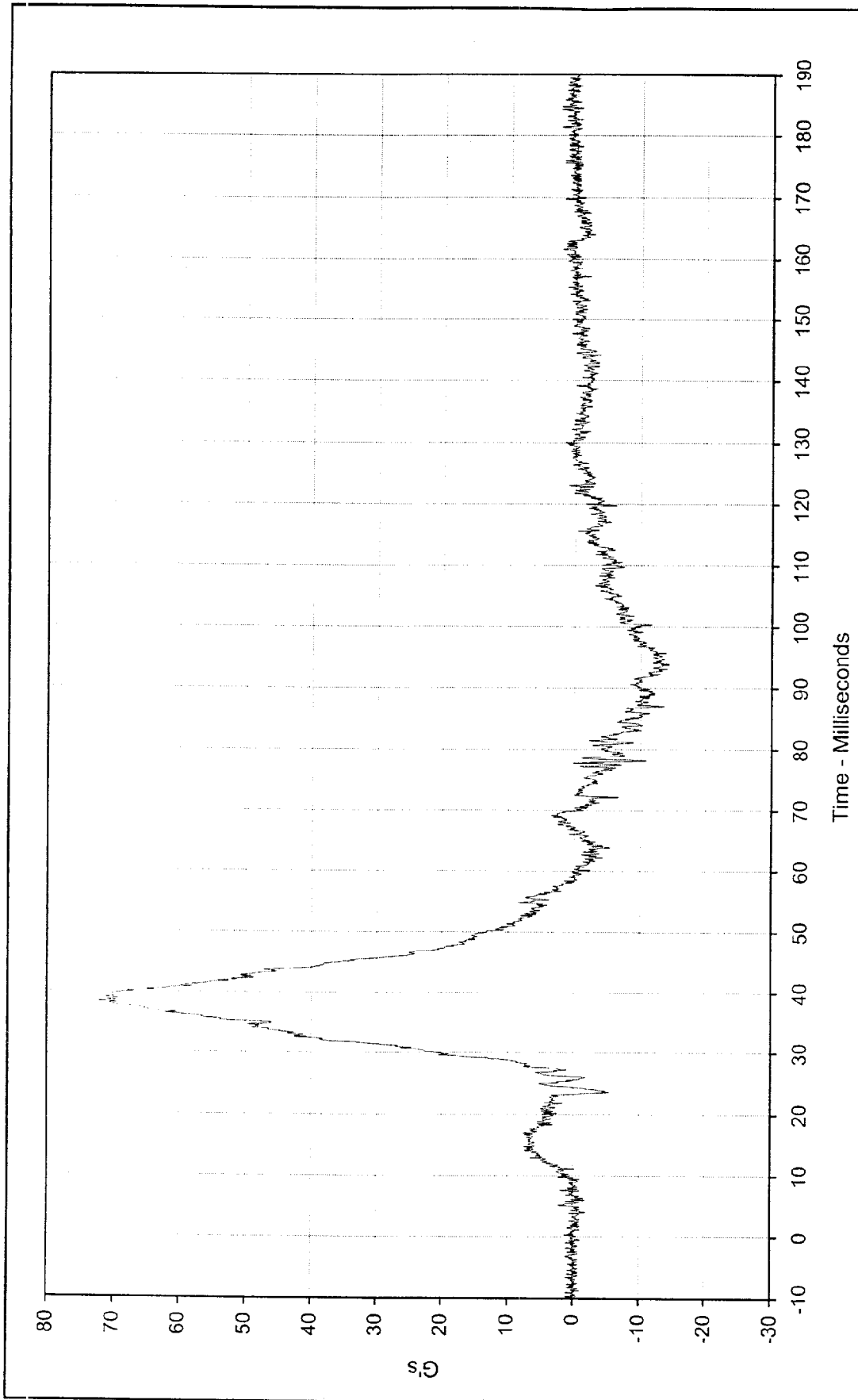
Date of Test: 01/11/00

Curve Number: IN1-023

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

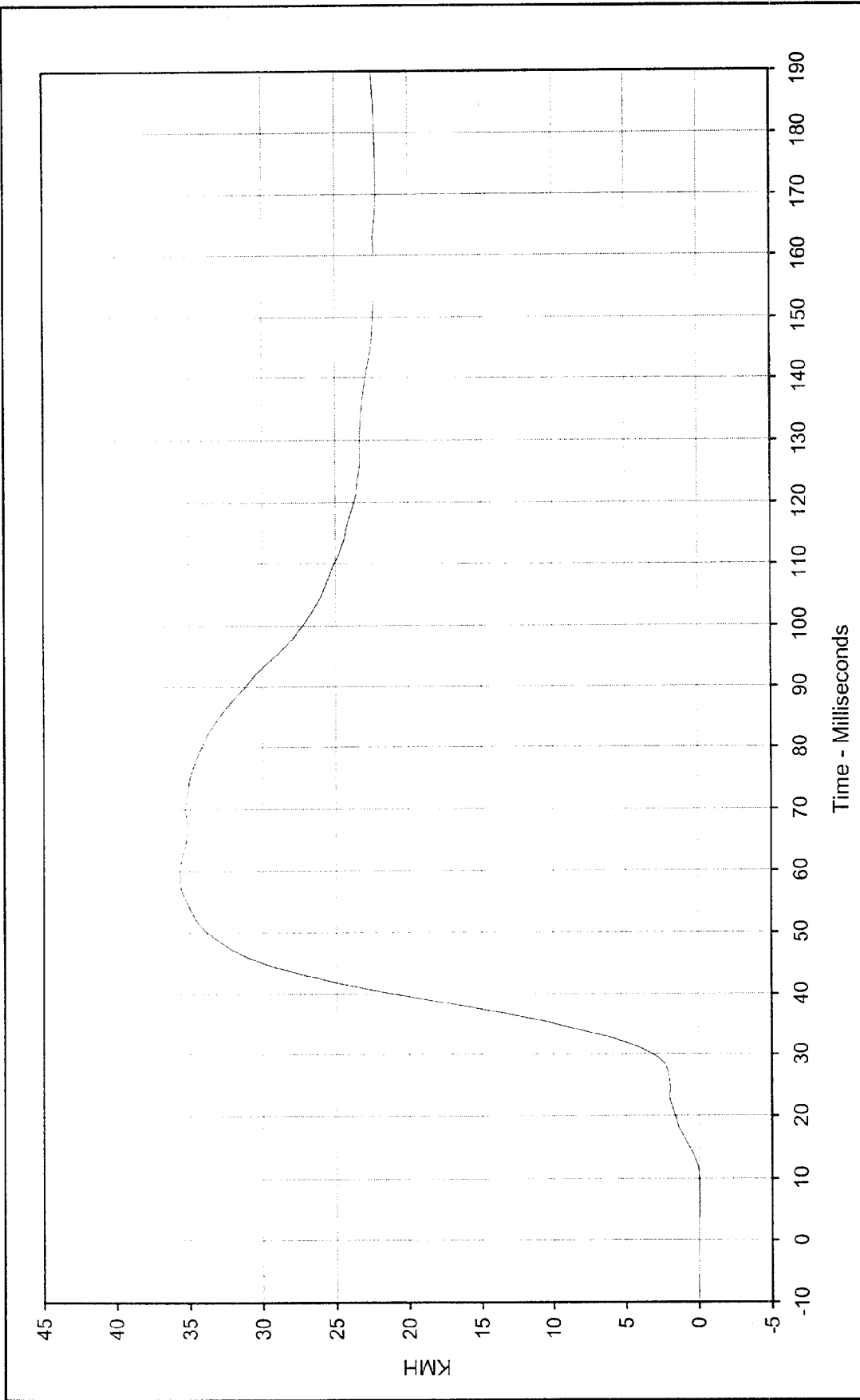
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Pass. Pelvis Redundant Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	72.2 at 38.3 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-14.4 at 93.8 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/11/00			
Curve Number:	FIL-024			

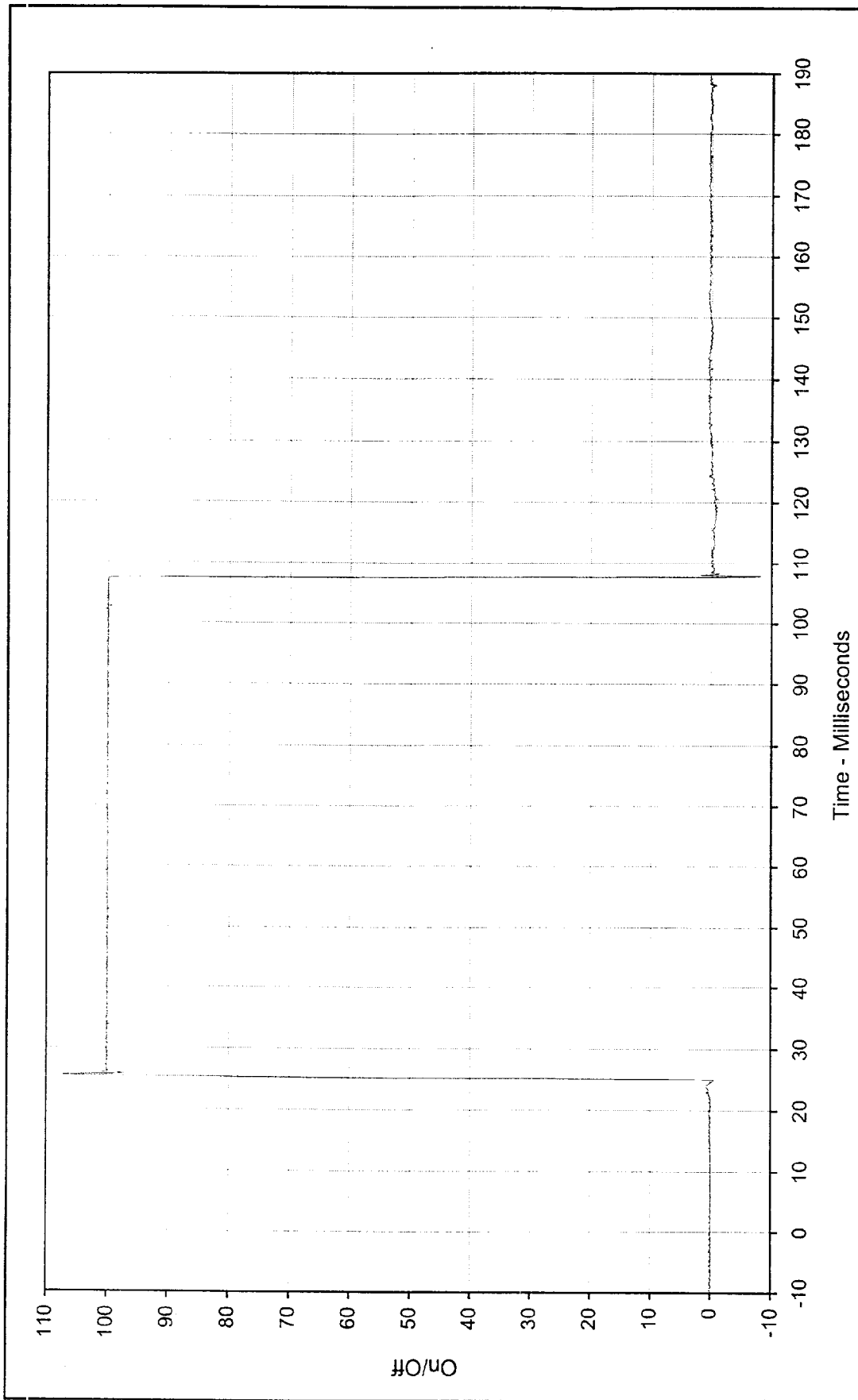




Curve Description: Pass. Pelvis Redundant Y Velocity
Maximum Value: 35.7 at 58.9 Milliseconds
Minimum Value: -0.1 at 9.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/11/00
Curve Number: IN1-024

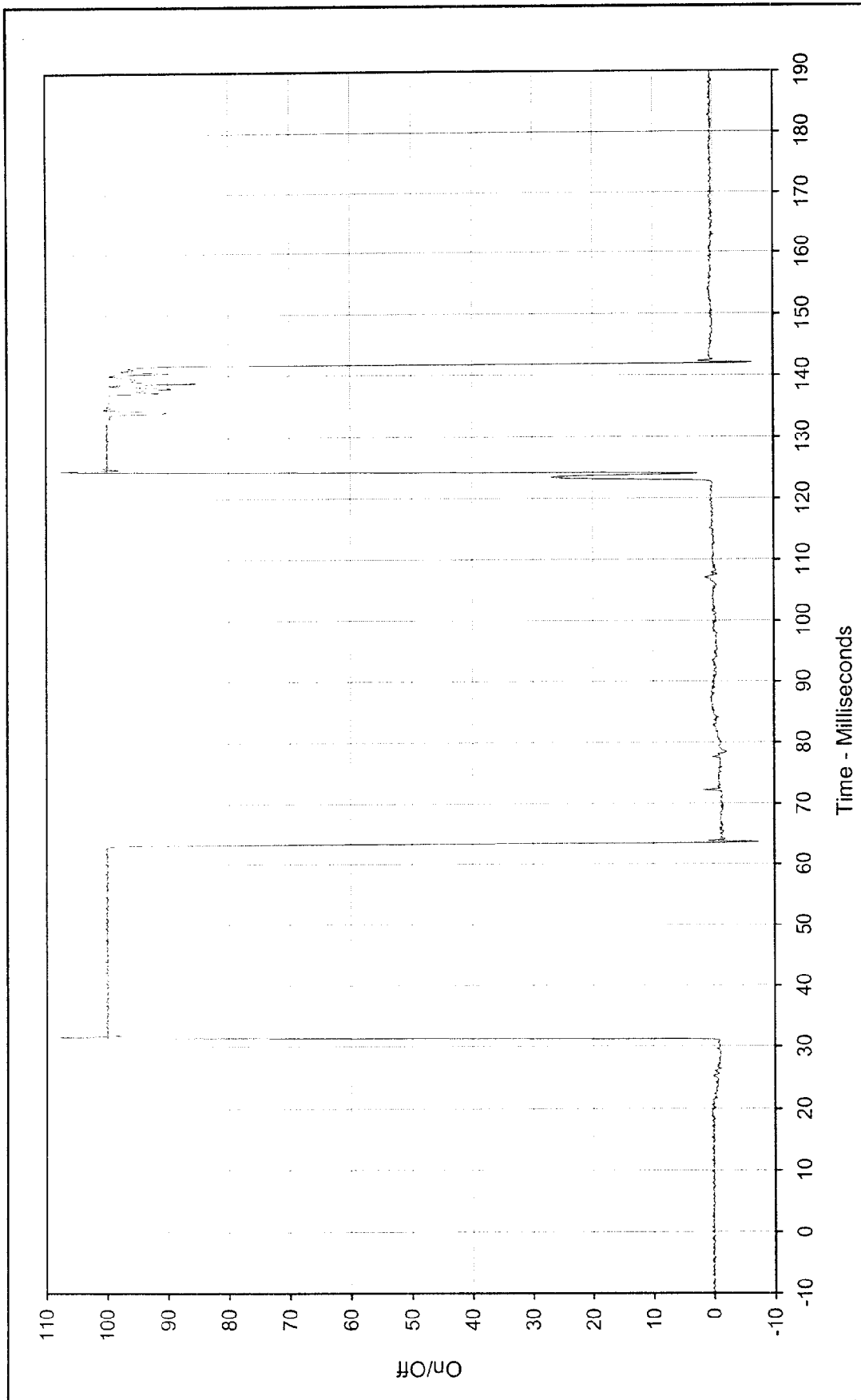
Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Pass. Thorax Contact	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	107.4 at 25.5 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Crossing Point:	50% at 25.3 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/11/00			
Curve Number:	FIL-025			

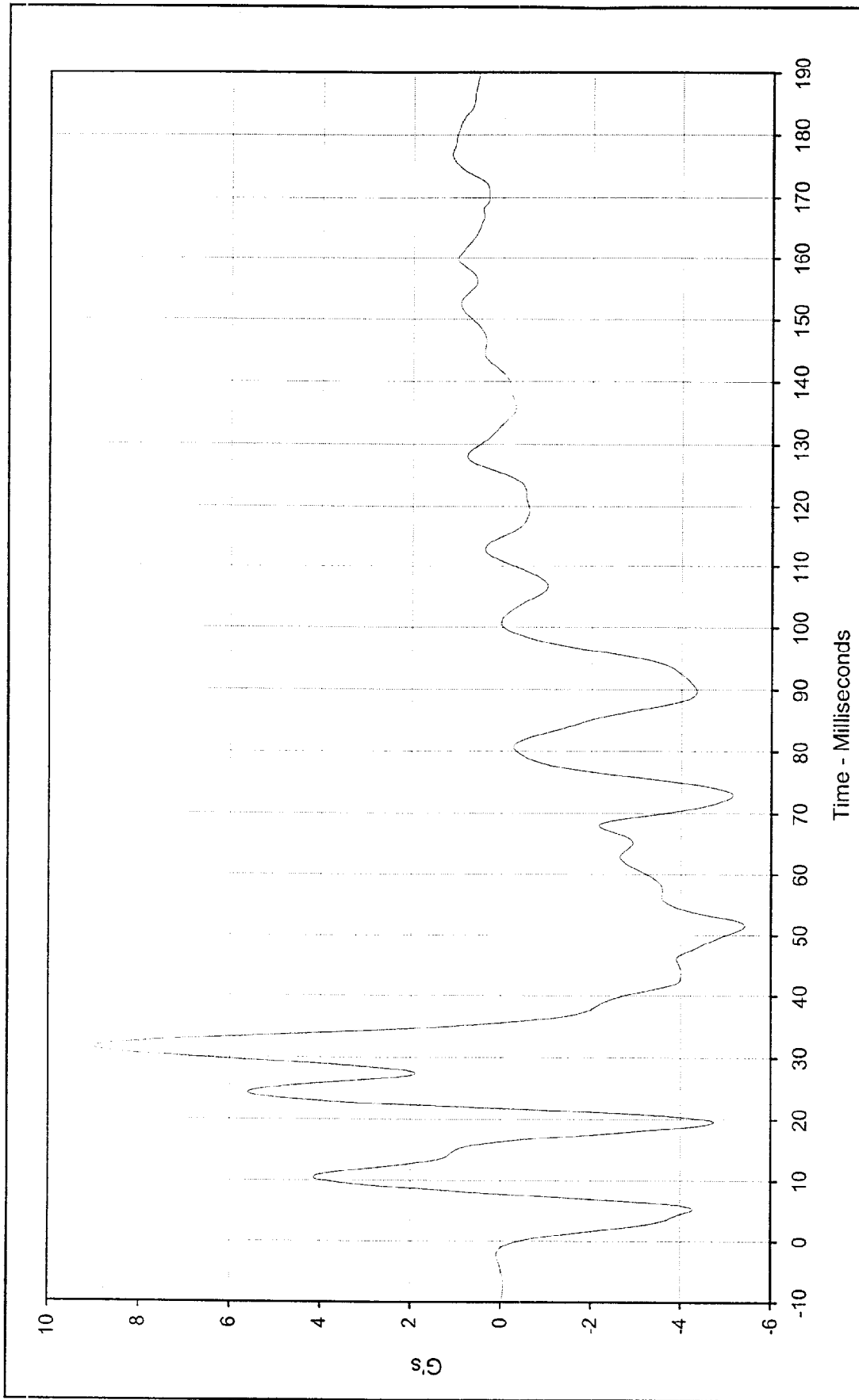




Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup



Curve Description: Pass. Pelvis Contact
 Maximum Value: 107.9 at 31.6 Milliseconds
 Crossing Point: 50% at 31.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-026



Curve Description: Right Sill at Front Seat X

Maximum Value: 9.0 at 31.5 Milliseconds

Minimum Value: -5.4 at 51.6 Milliseconds

SAE Filter Class: 60

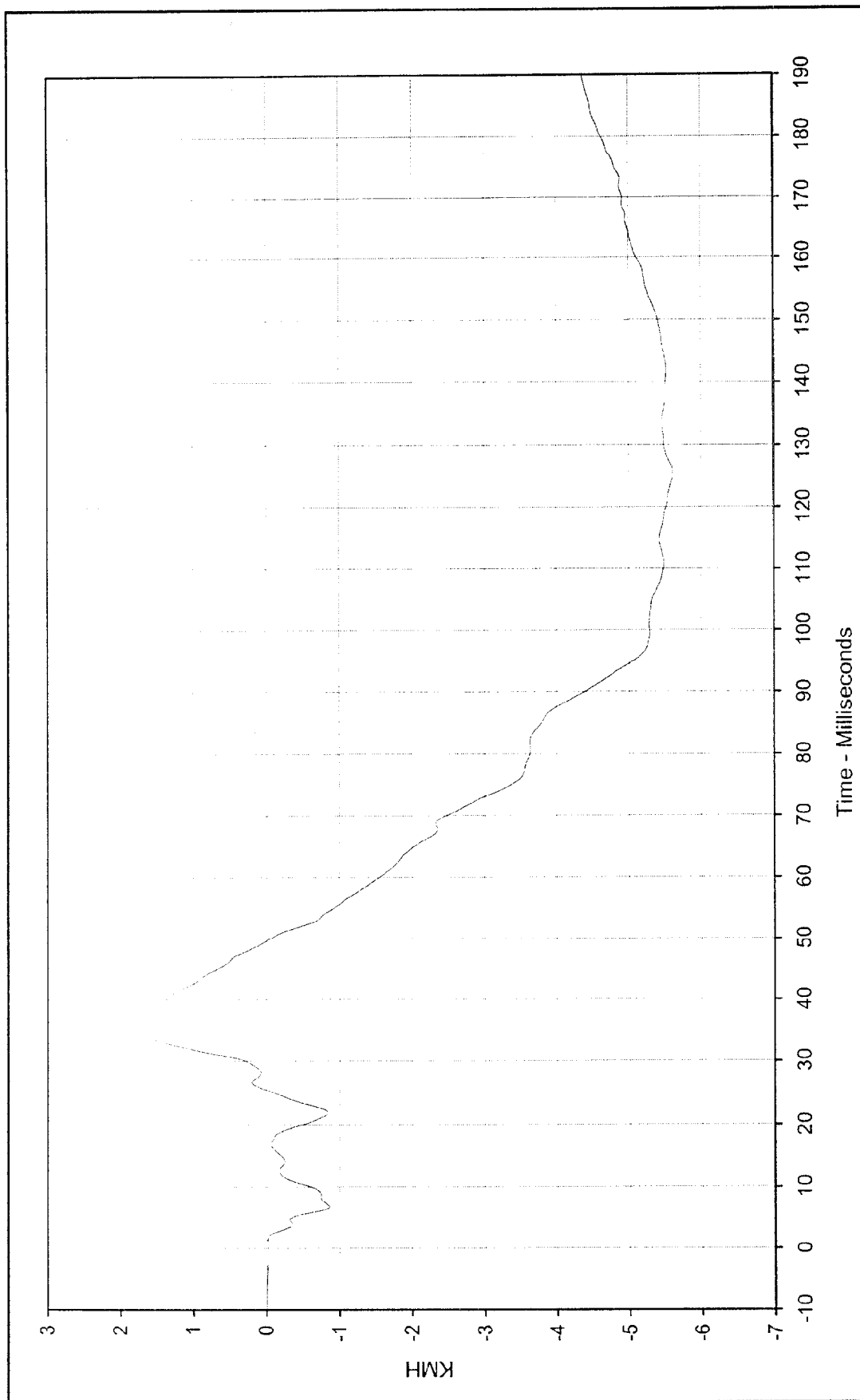
Date of Test: 01/11/00

Curve Number: FIL-027

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Right Sill at Front Seat X Velocity

Maximum Value: 1.6 at 34.5 Milliseconds

Minimum Value: -5.6 at 125.6 Milliseconds

SAE Filter Class: 180

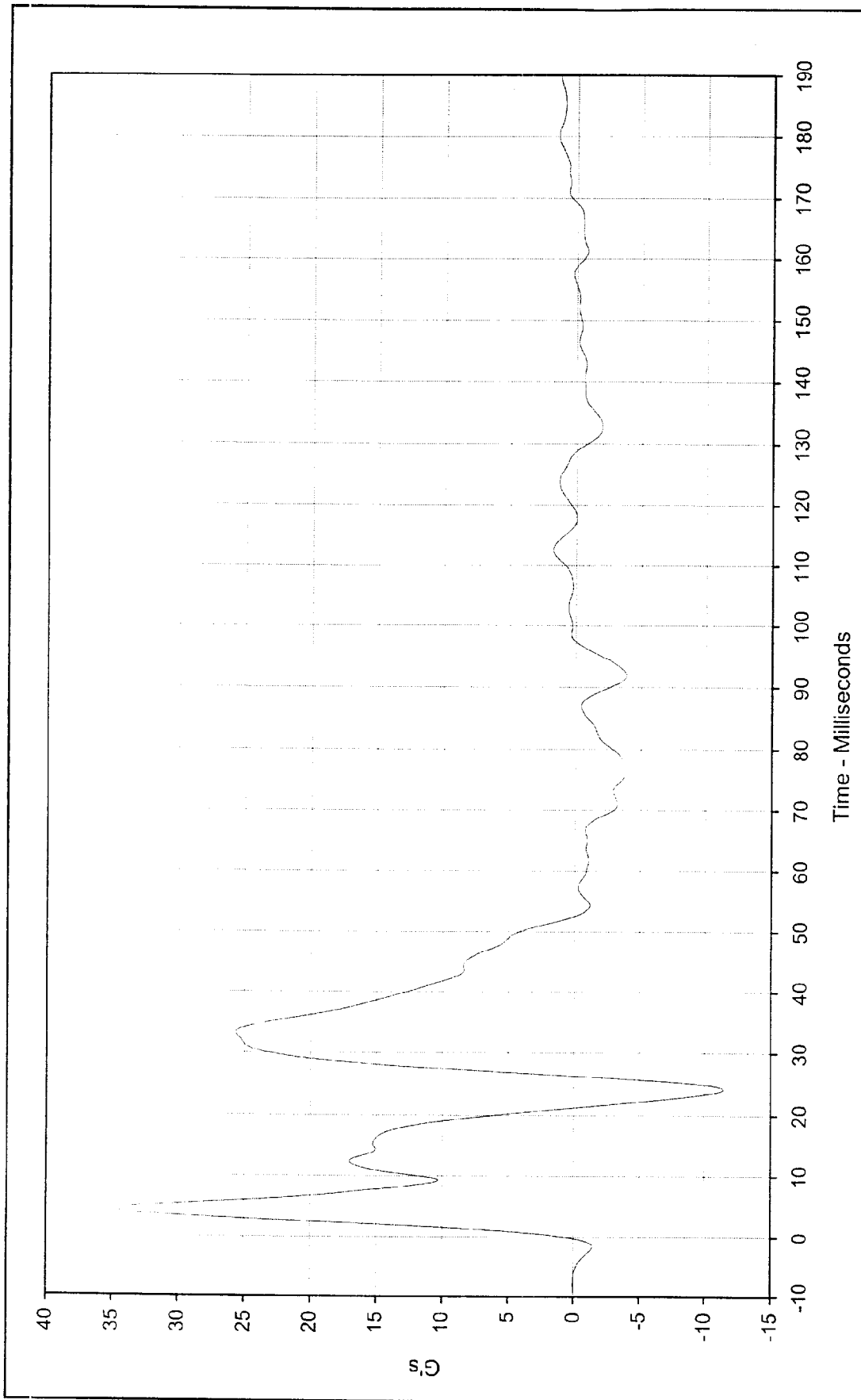
Date of Test: 01/11/00

Curve Number: IN1-027

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Right Sill at Front Seat Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 34.7 at 4.3 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

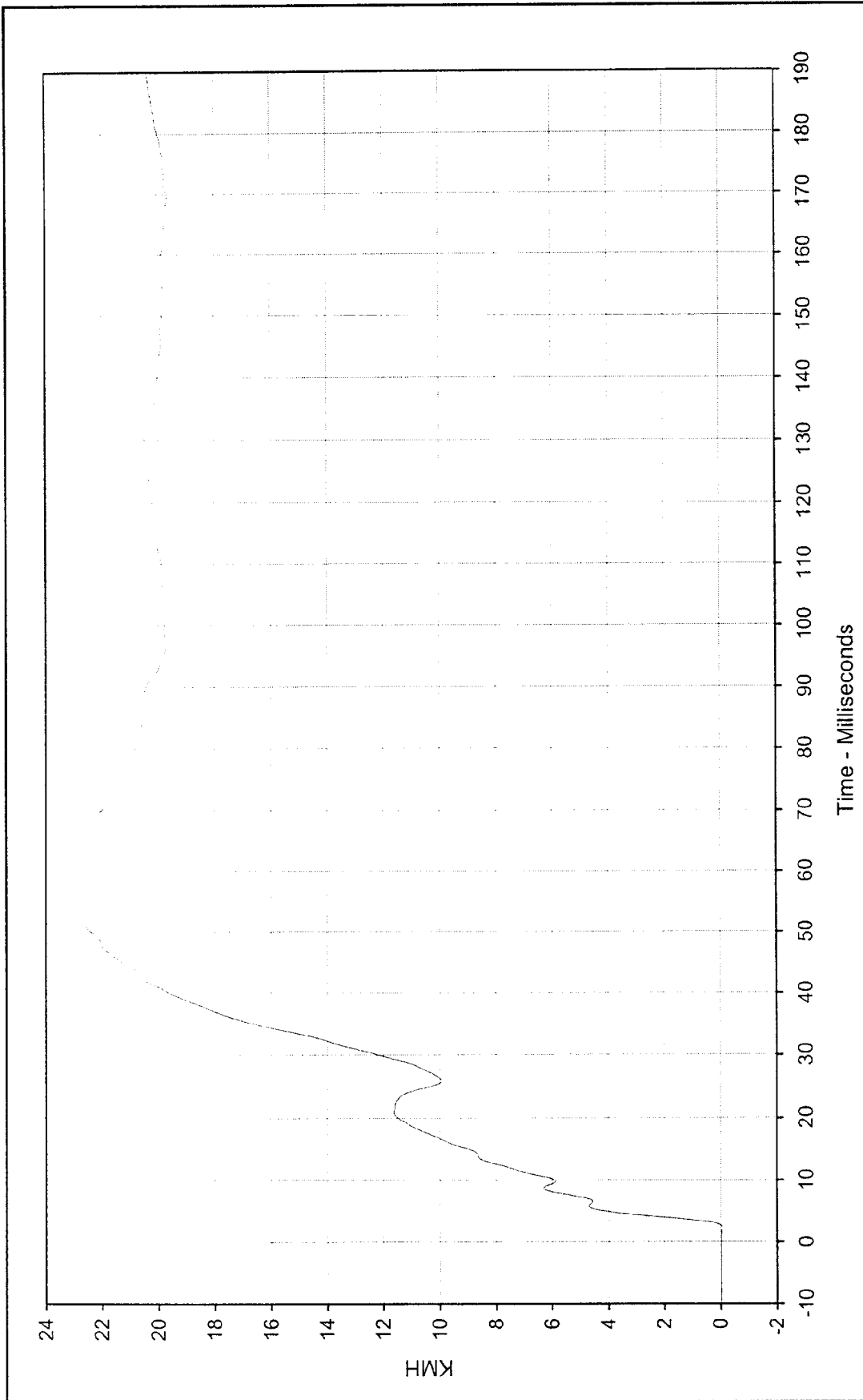
Minimum Value: -11.4 at 24.2 Milliseconds

SAE Filter Class: 60

Date of Test: 01/11/00

Curve Number: FIL-028





Curve Description: Right Sill at Front Seat Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 22.7 at 51.6 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

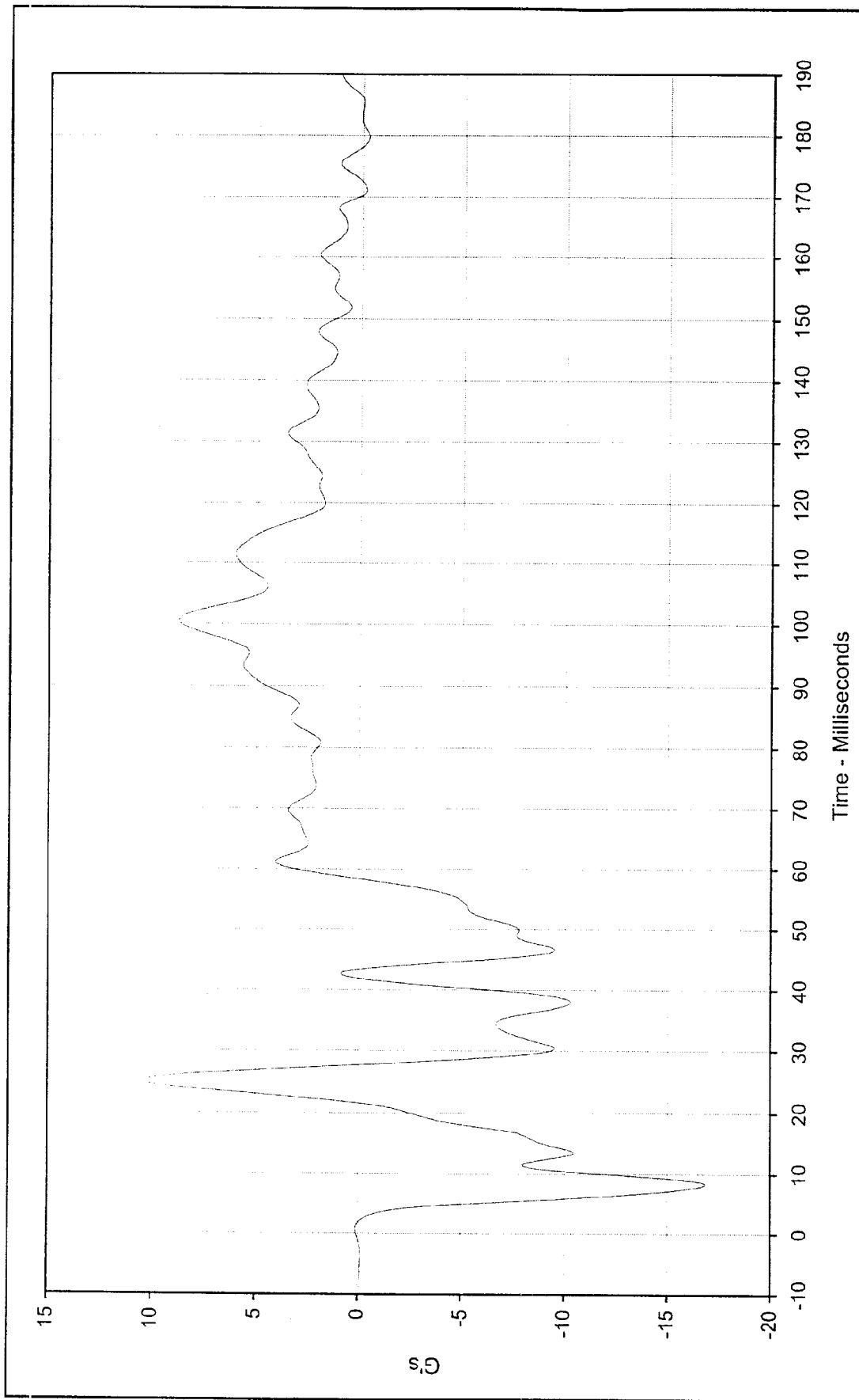
Minimum Value: -0.1 at 2.1 Milliseconds

SAE Filter Class: 180

Date of Test: 01/11/00

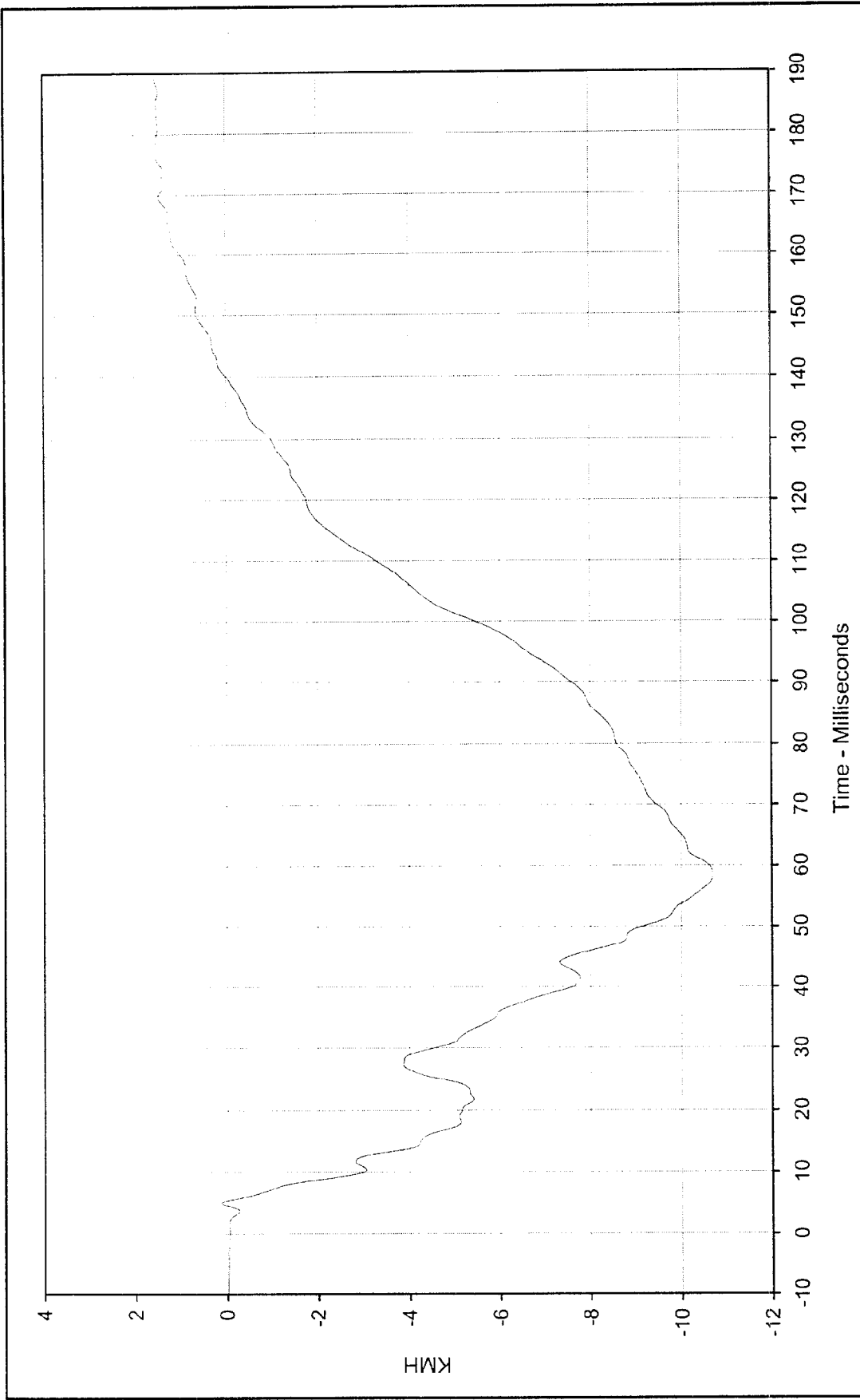
Curve Number: IN1-028





Curve Description:	Right Sill at Front Seat Z	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	10.4 at 25.1 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-16.9 at 8.4 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/11/00			
Curve Number:	FIL-029			

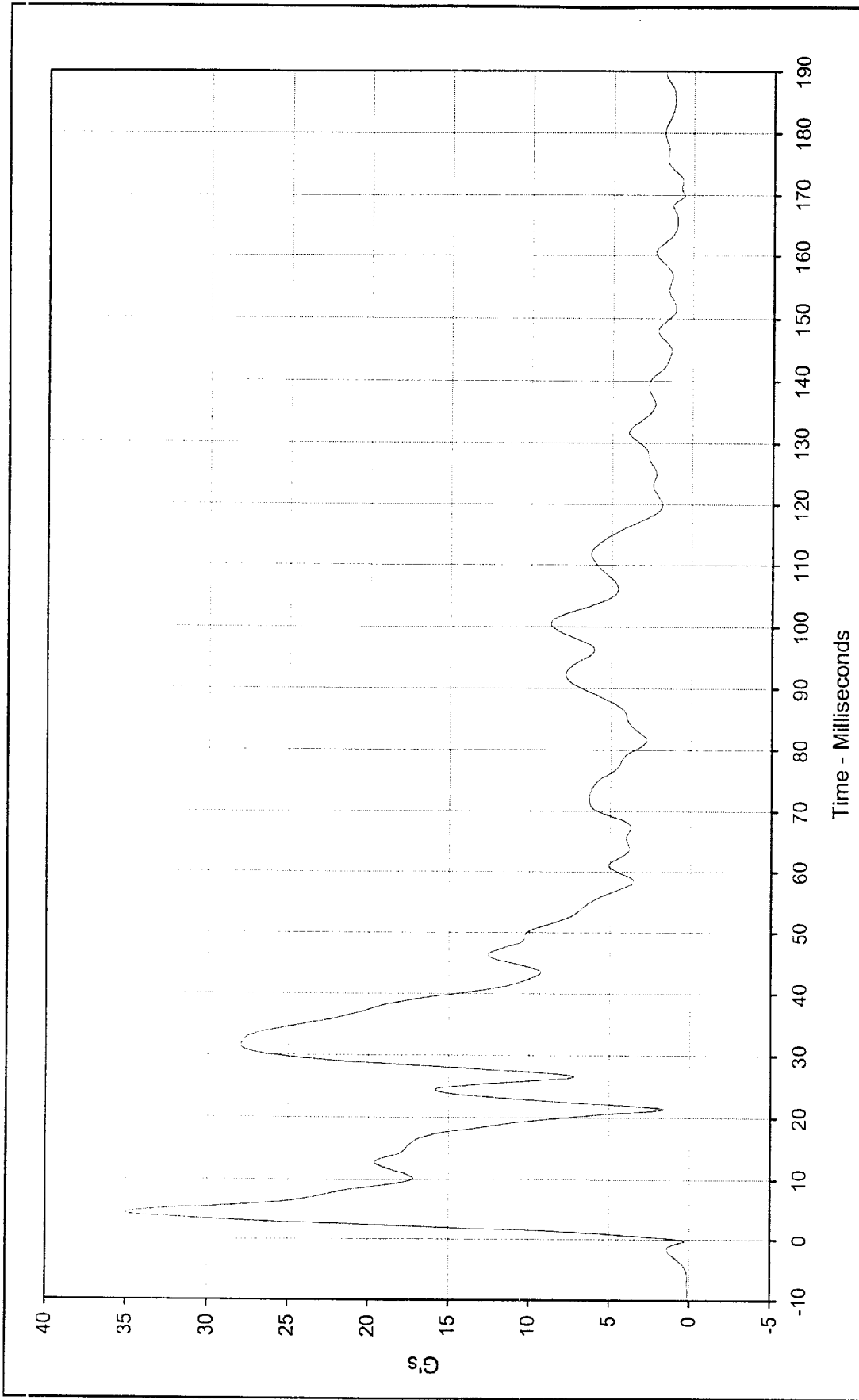




Curve Description: Right Sill at Front Seat Z Velocity
Maximum Value: 1.6 at 189.9 Milliseconds
Minimum Value: -10.7 at 58.4 Milliseconds
SAE Filter Class: 180
Date of Test: 01/11/00
Curve Number: IN1-029

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup

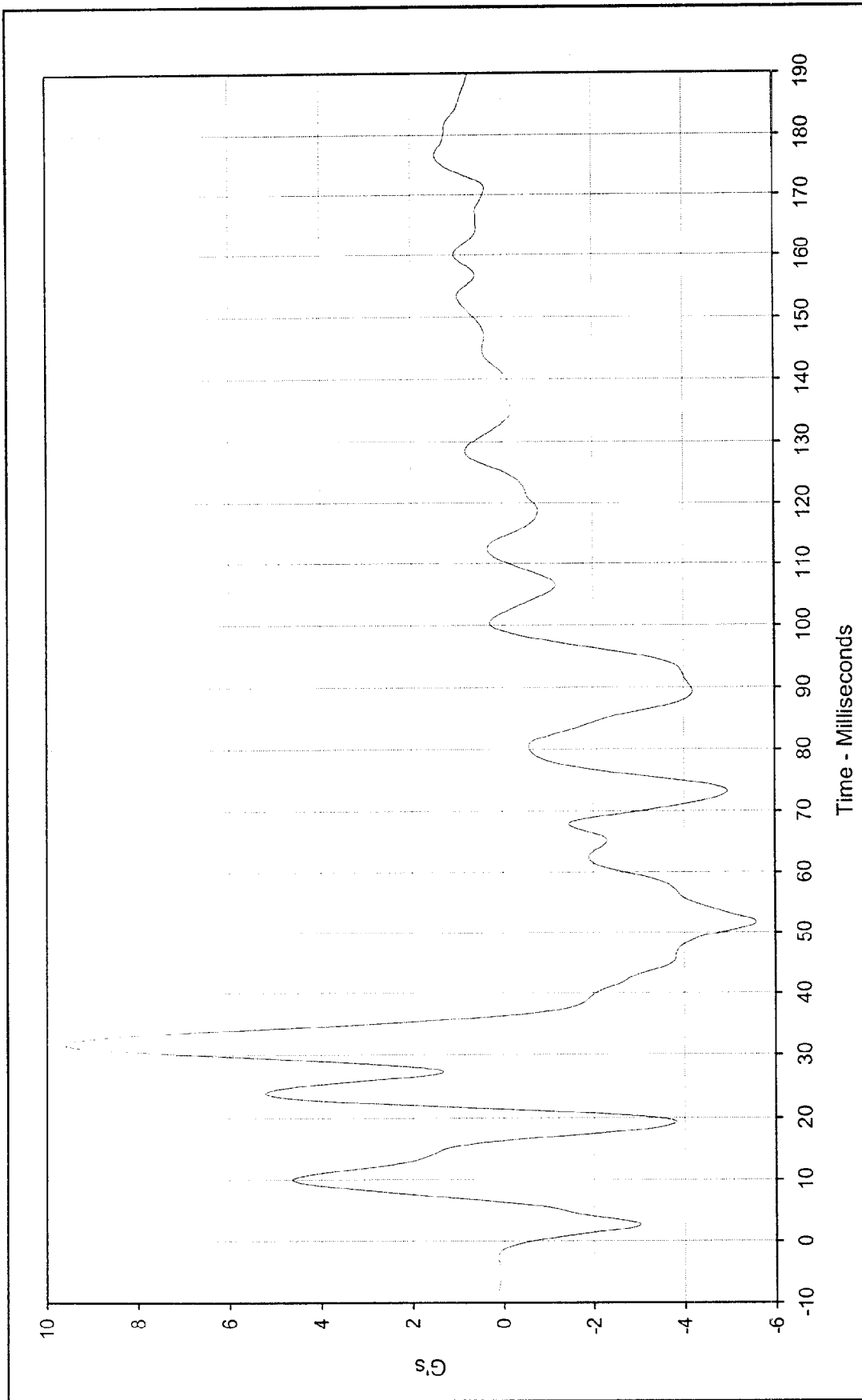




Curve Description: Right Sill at Front Seat Resultant
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 35.0 at 4.3 Milliseconds
 Minimum Value: 0.6 at 169.9 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: RES-027

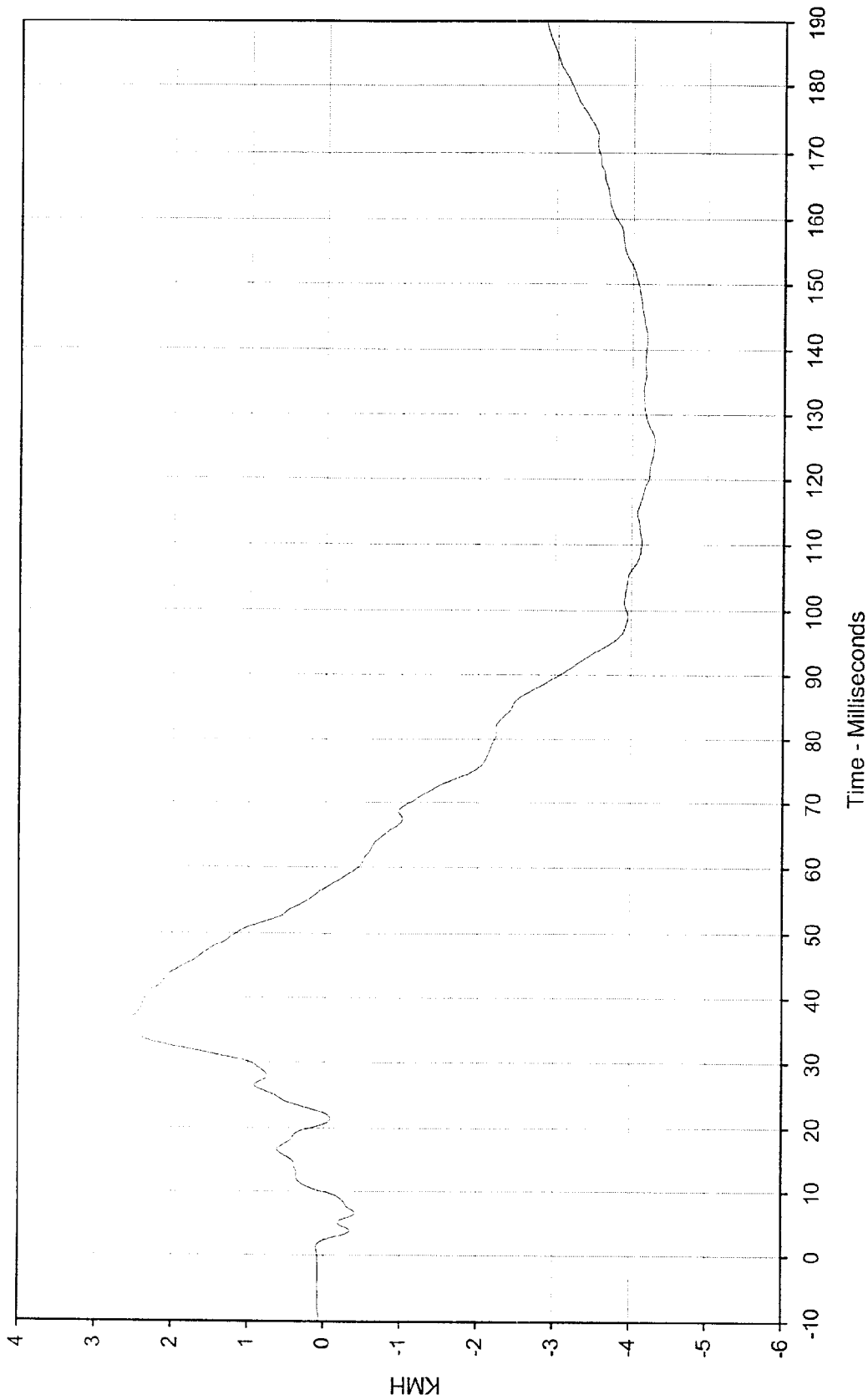




Curve Description: Right Sill at Rear Seat X
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 9.6 at 31.8 Milliseconds
 Minimum Value: -5.6 at 51.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-030





Curve Description: Right Sill at Rear Seat X Velocity

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

Maximum Value: 2.6 at 36.3 Milliseconds

Test Vehicle: 2000 Ford F-150 XL Pickup

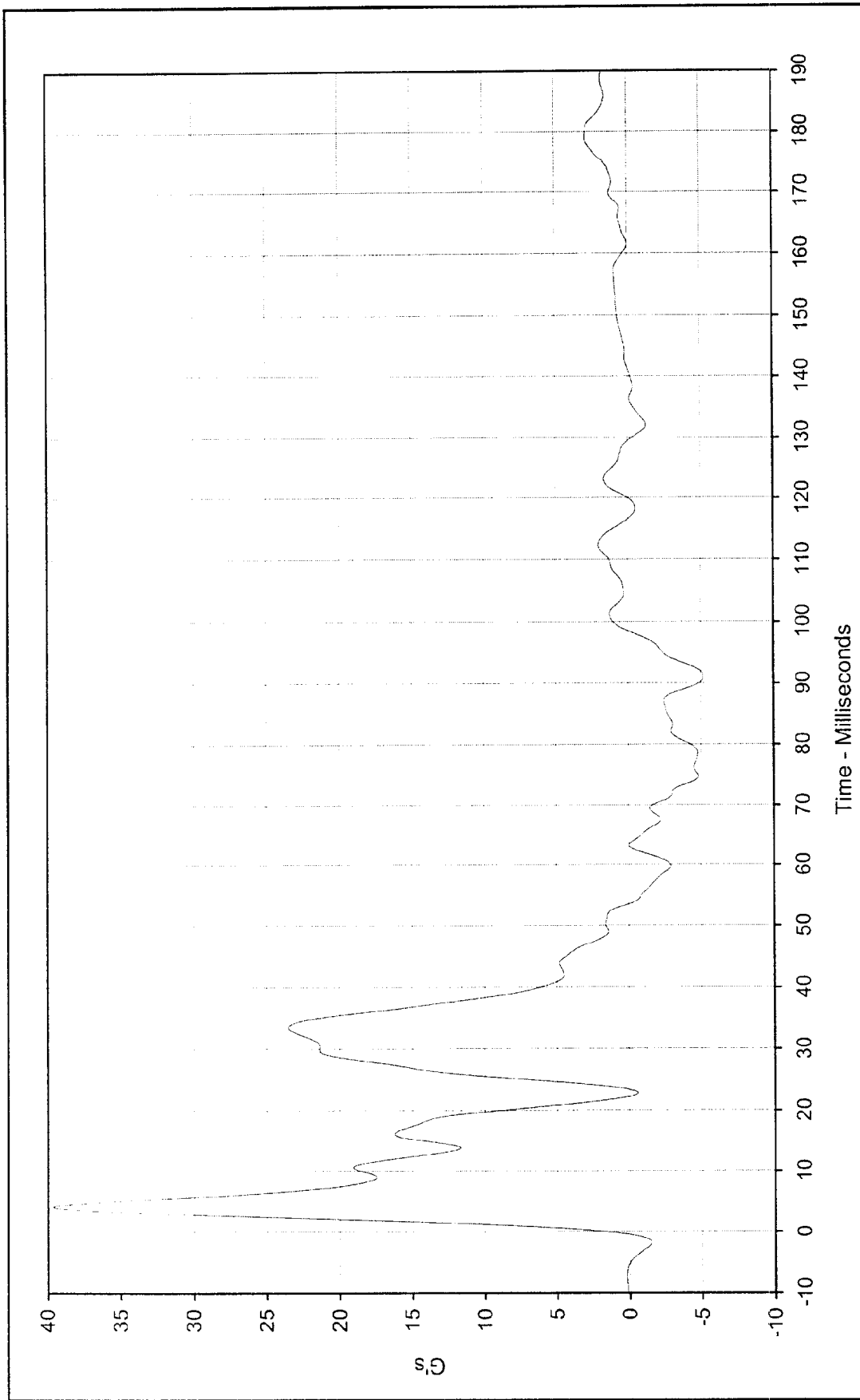
Minimum Value: -4.3 at 125.8 Milliseconds

SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-030

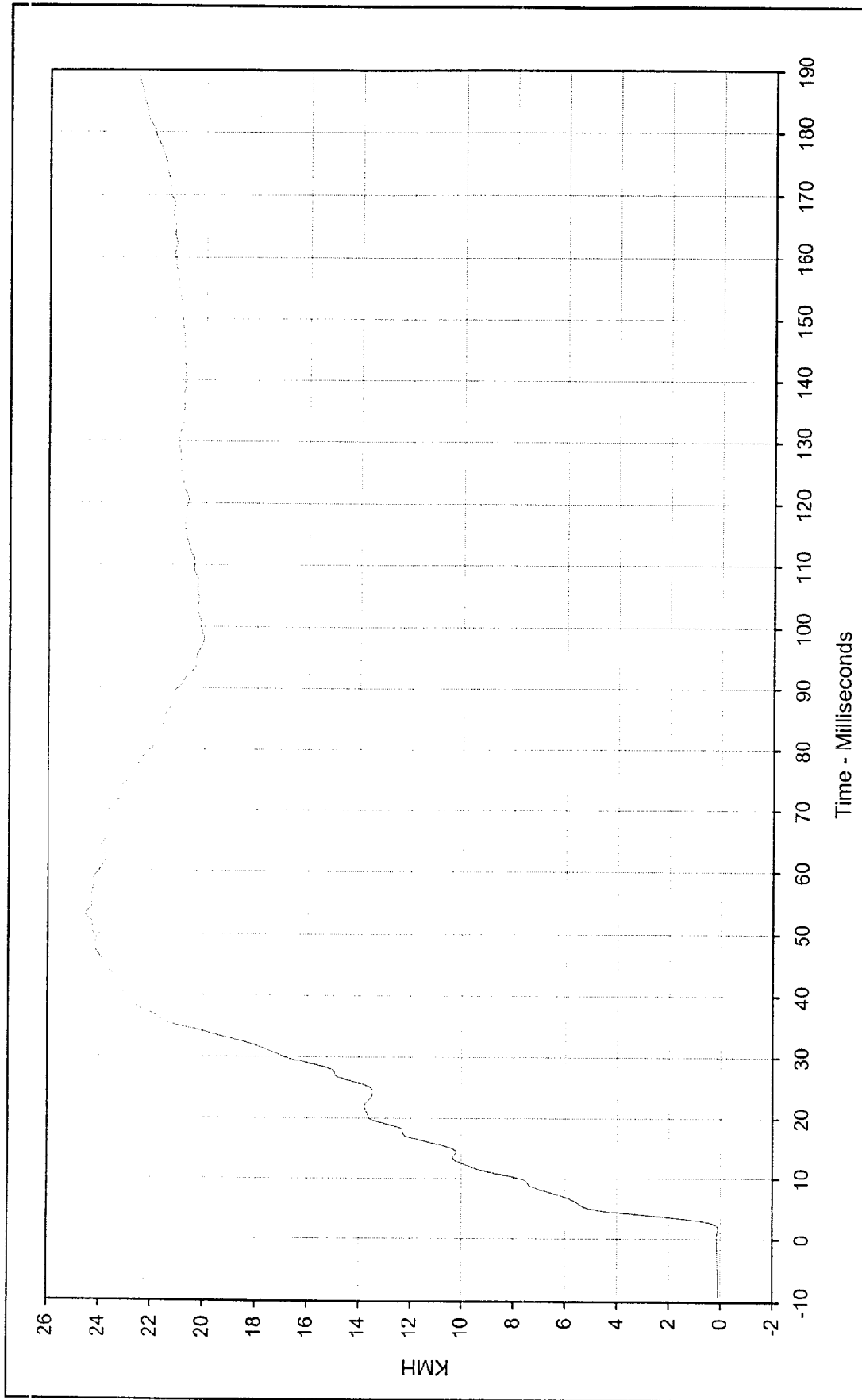




Curve Description: Right Sill at Rear Seat Y
 Maximum Value: 39.6 at 4.1 Milliseconds
 Minimum Value: -5.2 at 91.1 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-031

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Right Sill at Rear Seat Y Velocity

Maximum Value: 24.5 at 53.1 Milliseconds

Minimum Value: 0.1 at 1.8 Milliseconds

SAE Filter Class: 180

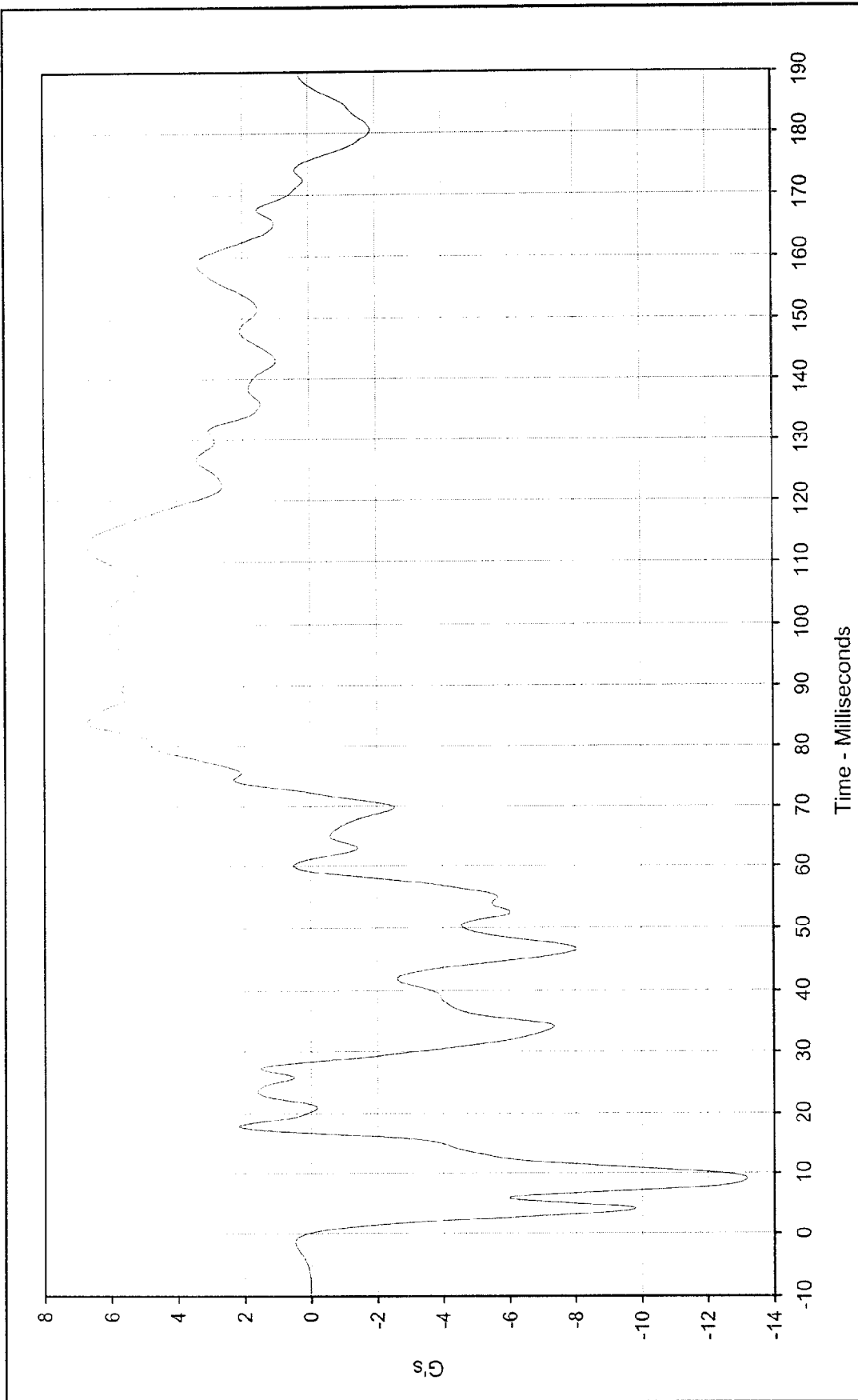
Date of Test: 01/11/00

Curve Number: IN1-031

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

Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Right Sill at Rear Seat Z Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 6.8 at 113.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

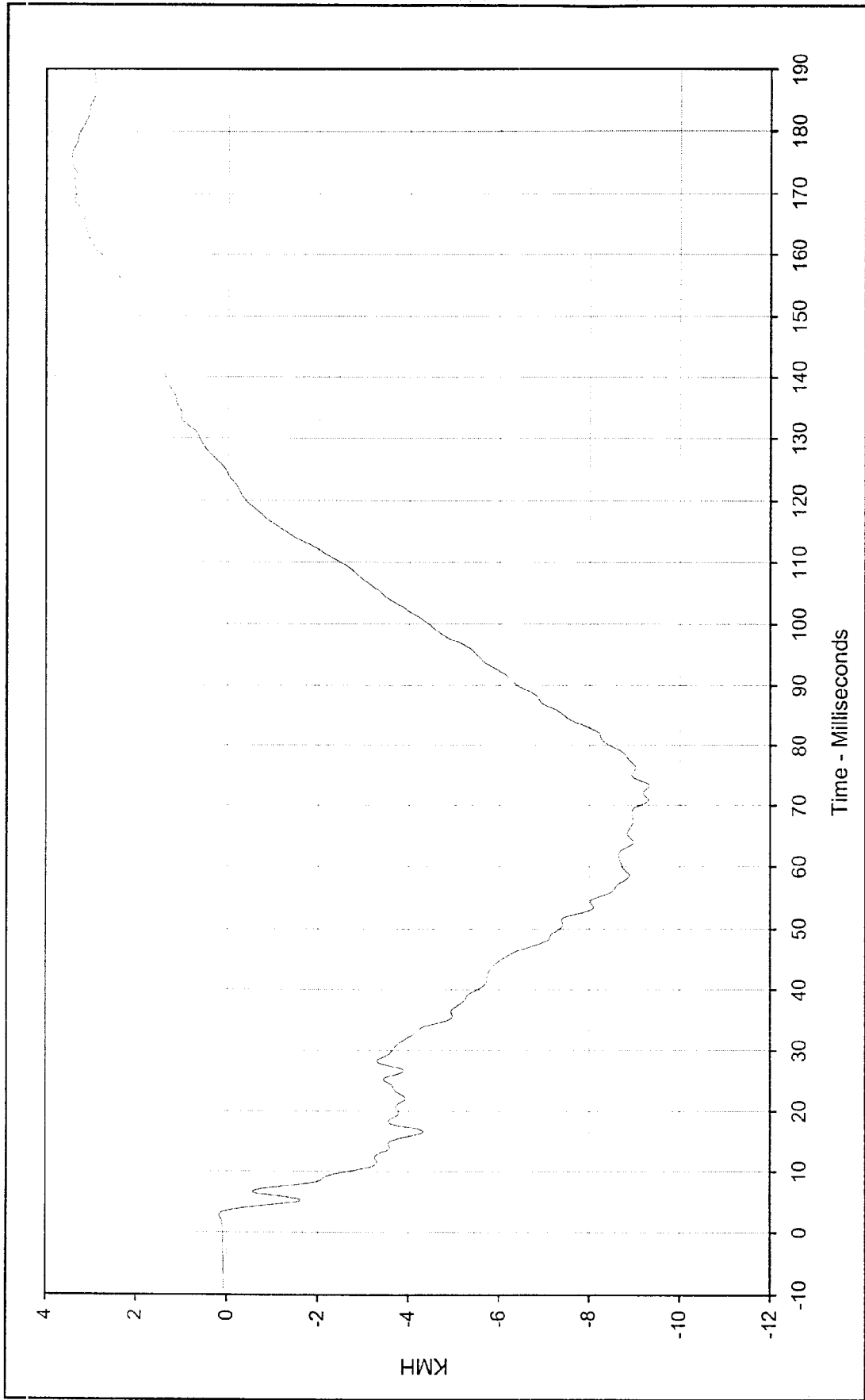
Minimum Value: -13.2 at 9.1 Milliseconds

SAE Filter Class: 60

Date of Test: 01/11/00

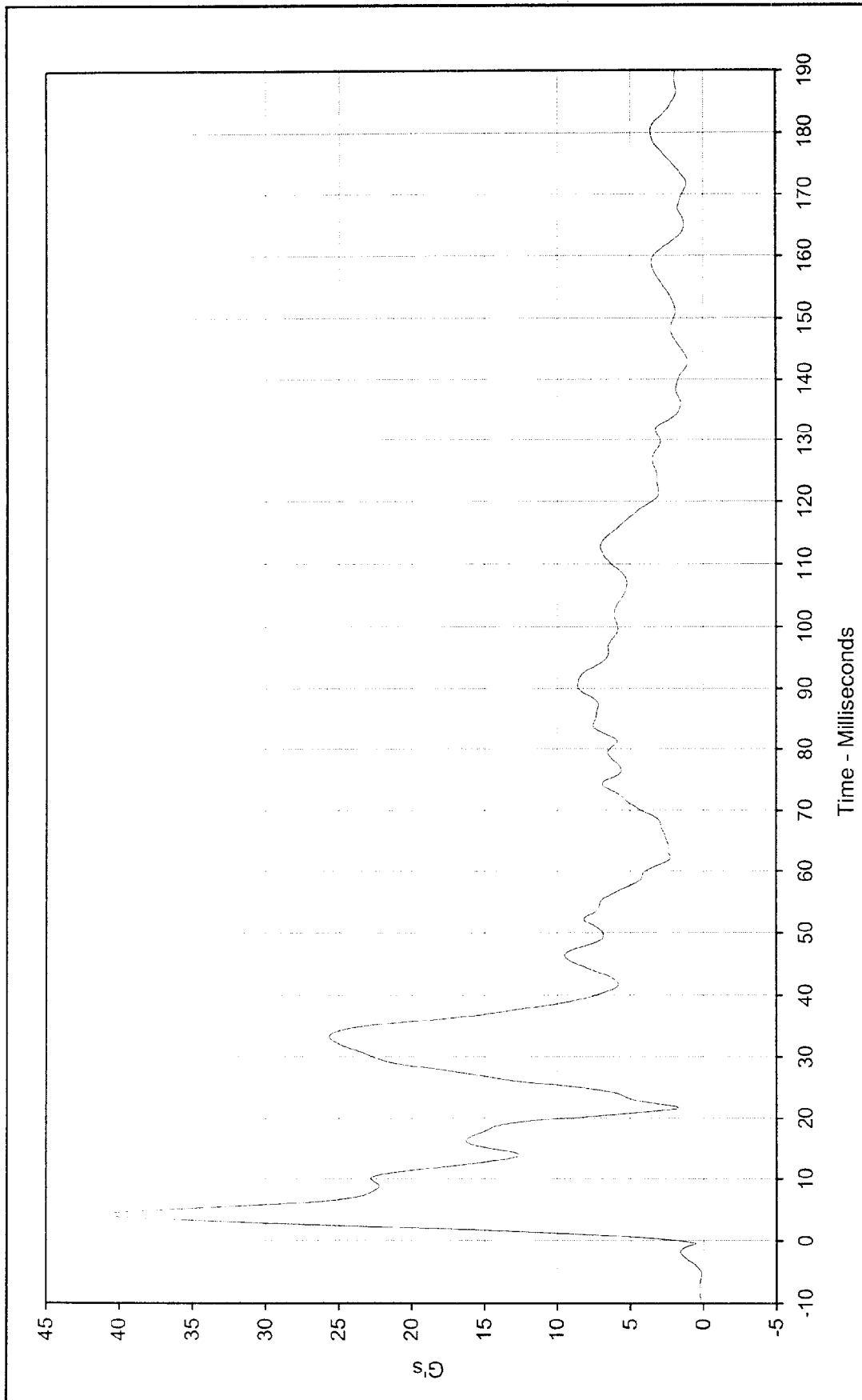
Curve Number: FIL-032





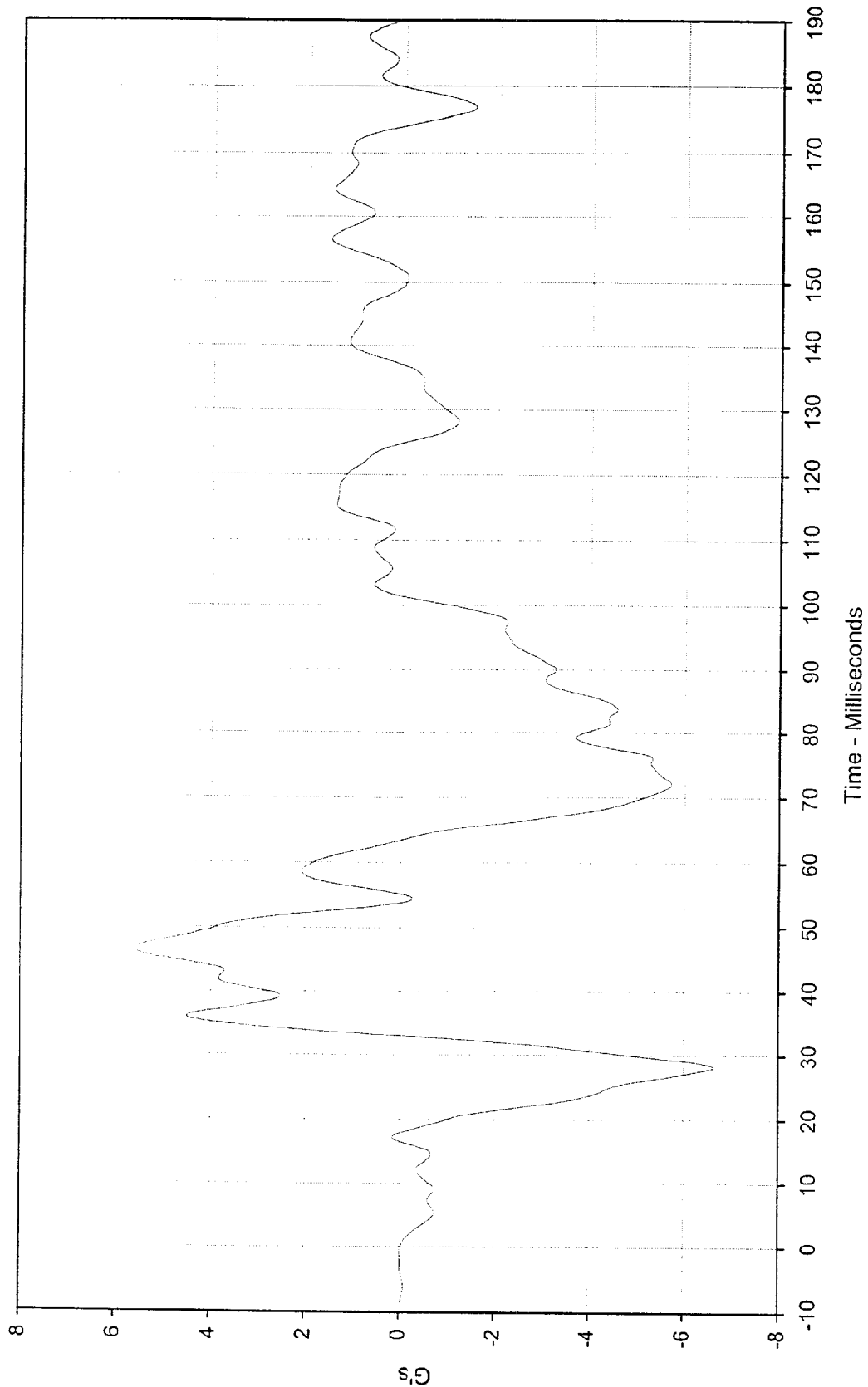
Curve Description:	Right Sill at Rear Seat Z Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	3.4 at 175.9 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-9.3 at 73.2 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	IN1-032			





Curve Description:	Right Sill at Rear Seat Resultant	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	40.9 at 4.1 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	1.1 at 142.8 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/11/00			
Curve Number:	RES-030			

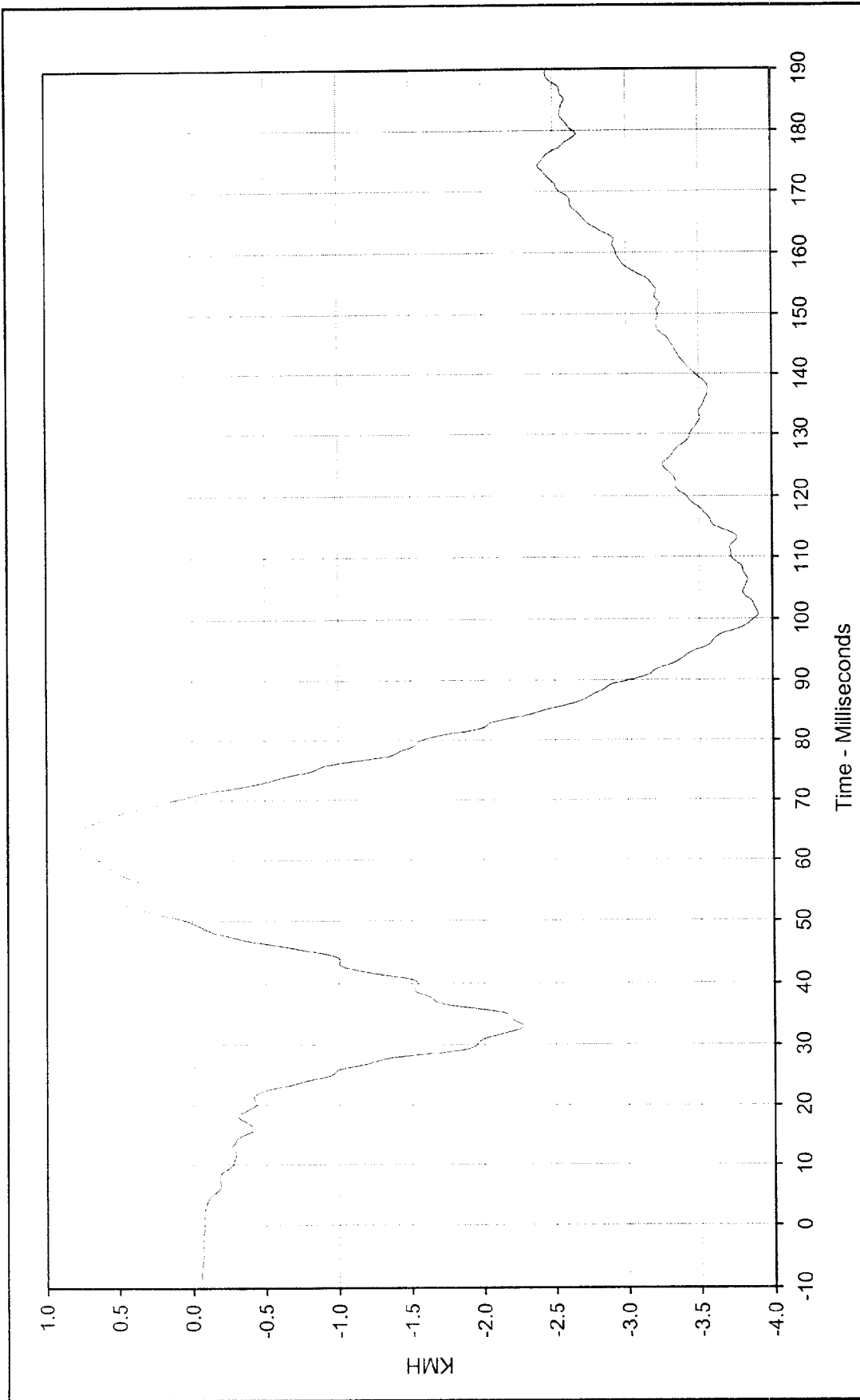




Curve Description: Rear Floor Above Axle X
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

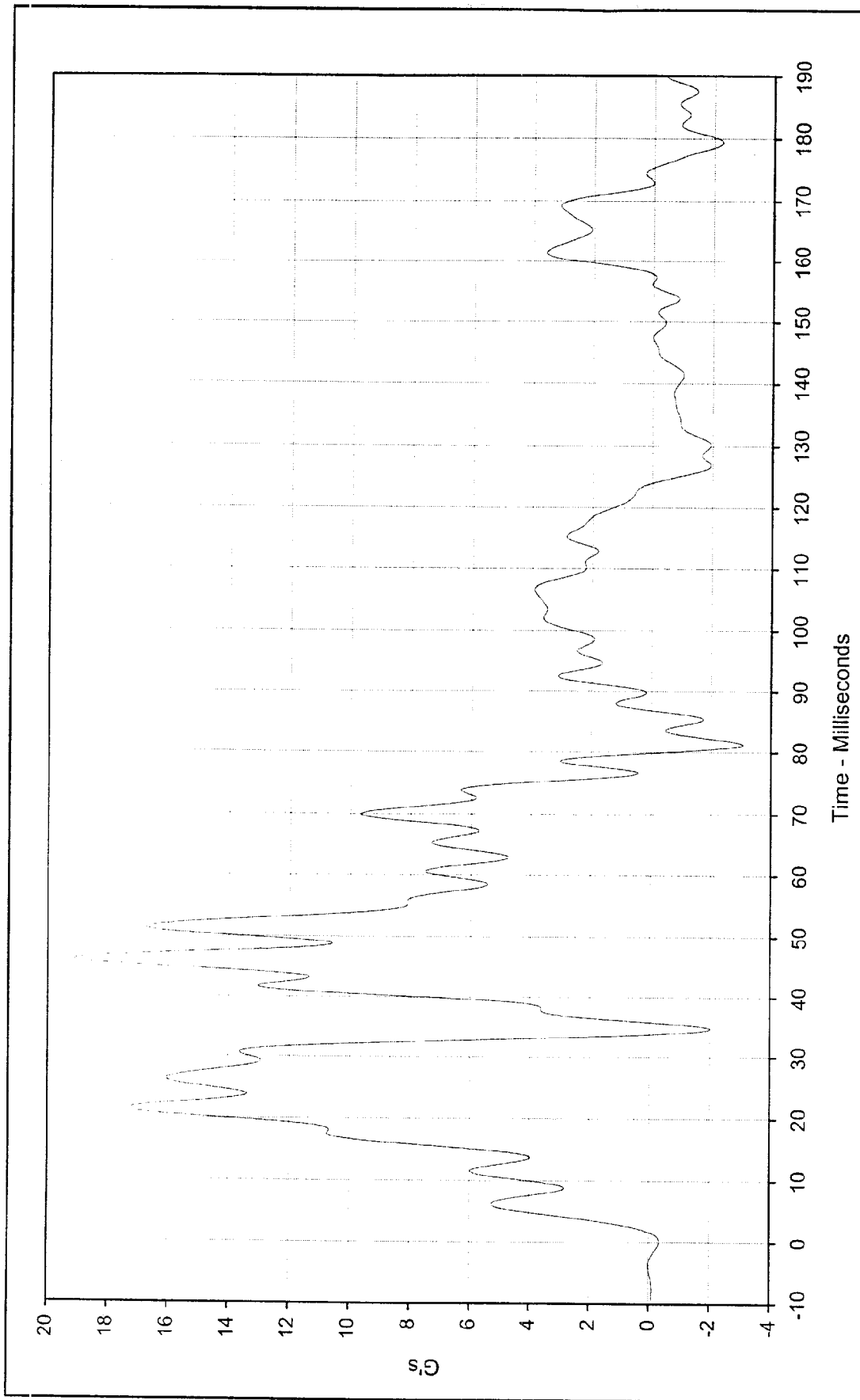
Maximum Value: 5.6 at 46.4 Milliseconds
 Minimum Value: -6.6 at 28.2 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-033





Curve Description:	Rear Floorpan Above Axle X	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	0.8 at 61.9 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-3.9 at 100.8 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	IN1-033			

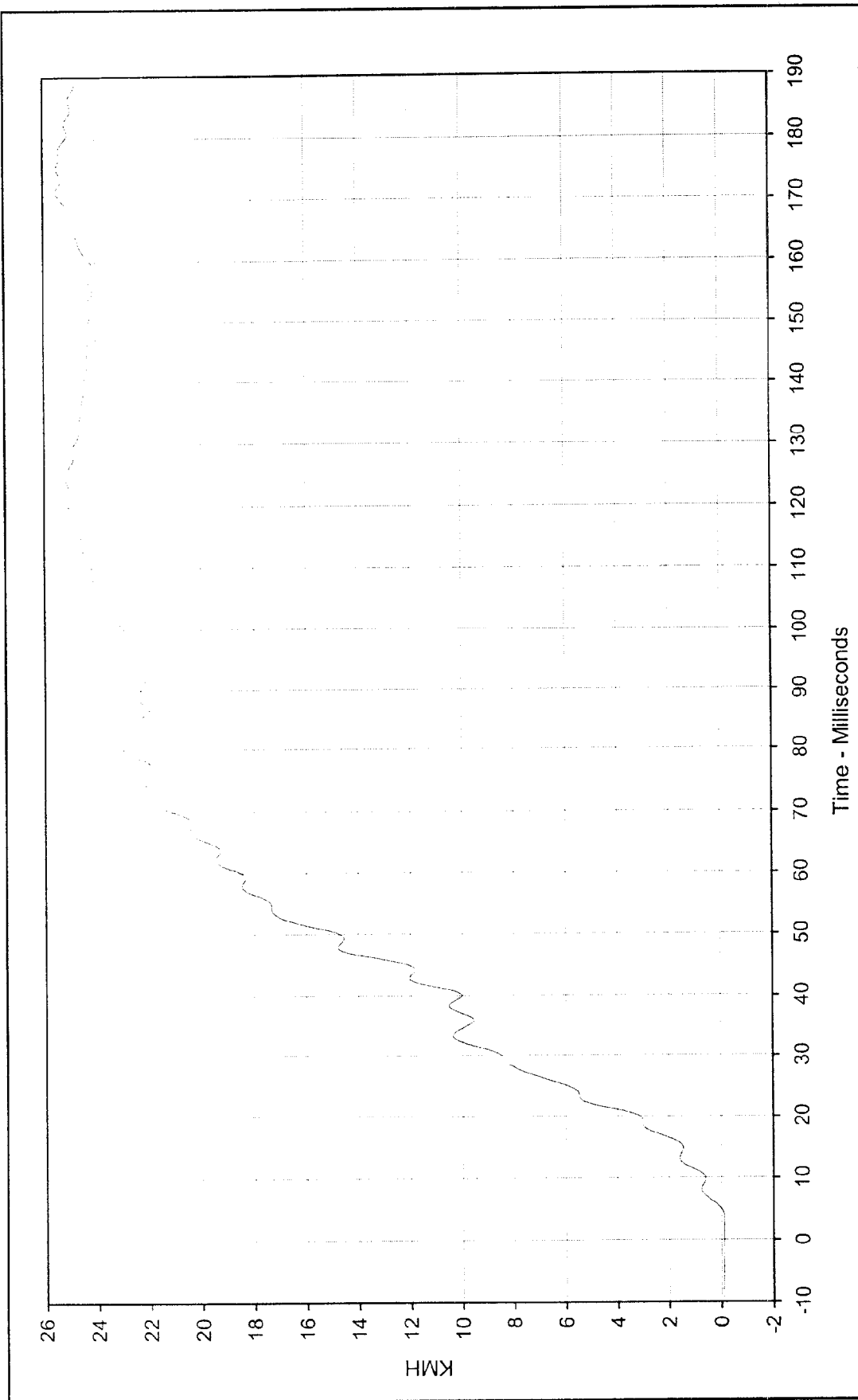




Curve Description: Rear Floor Above Axle Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 19.1 at 46.1 Milliseconds
 Minimum Value: -3.1 at 81.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-034





Curve Description: Rear Floorpan Above Axle Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 25.5 at 171.5 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

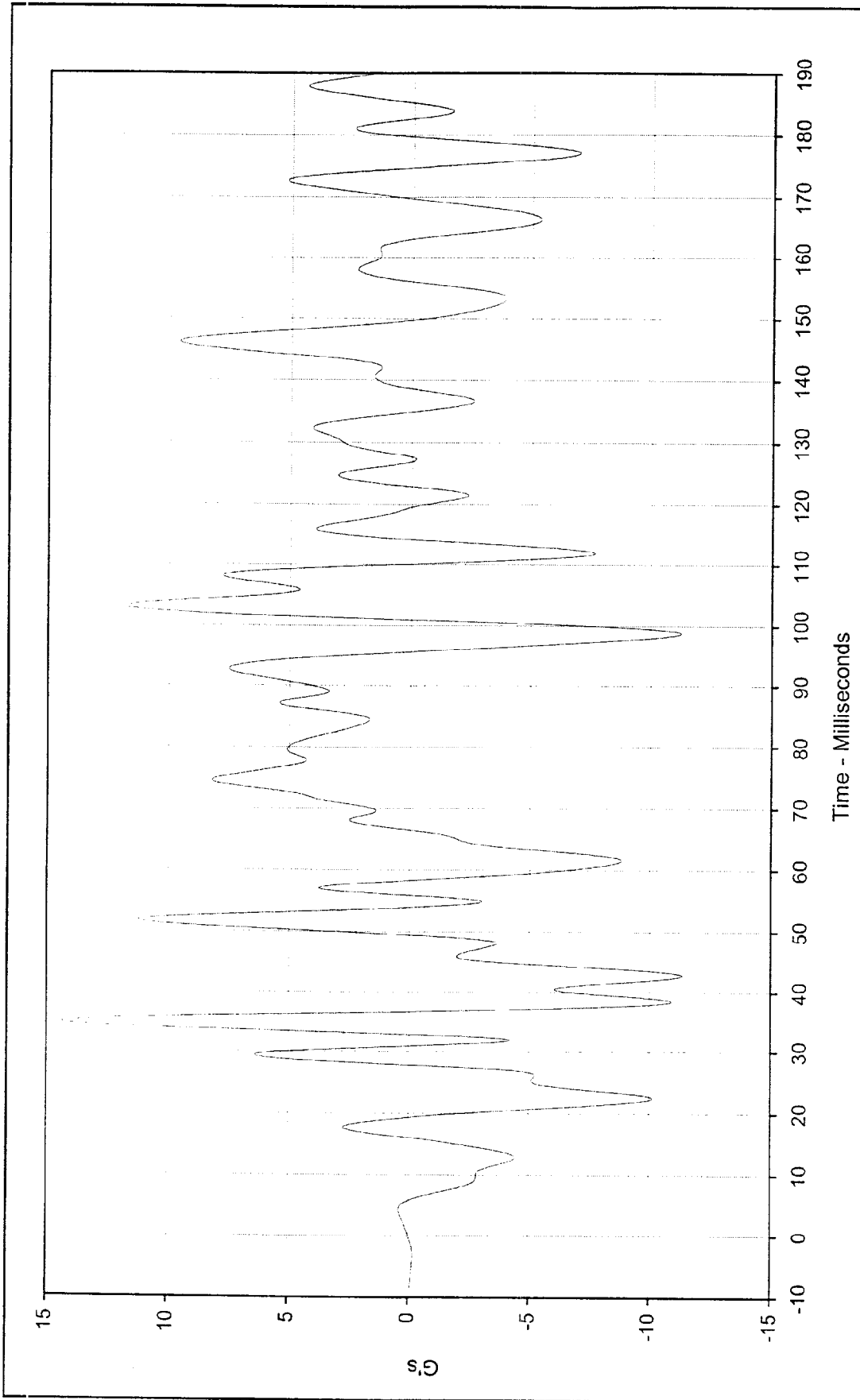
Minimum Value: -0.1 at 3.3 Milliseconds

SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-034





Curve Description: Rear Floor Above Axle Z

Maximum Value: 14.4 at 34.9 Milliseconds

Minimum Value: -11.4 at 42.8 Milliseconds

SAE Filter Class: 60

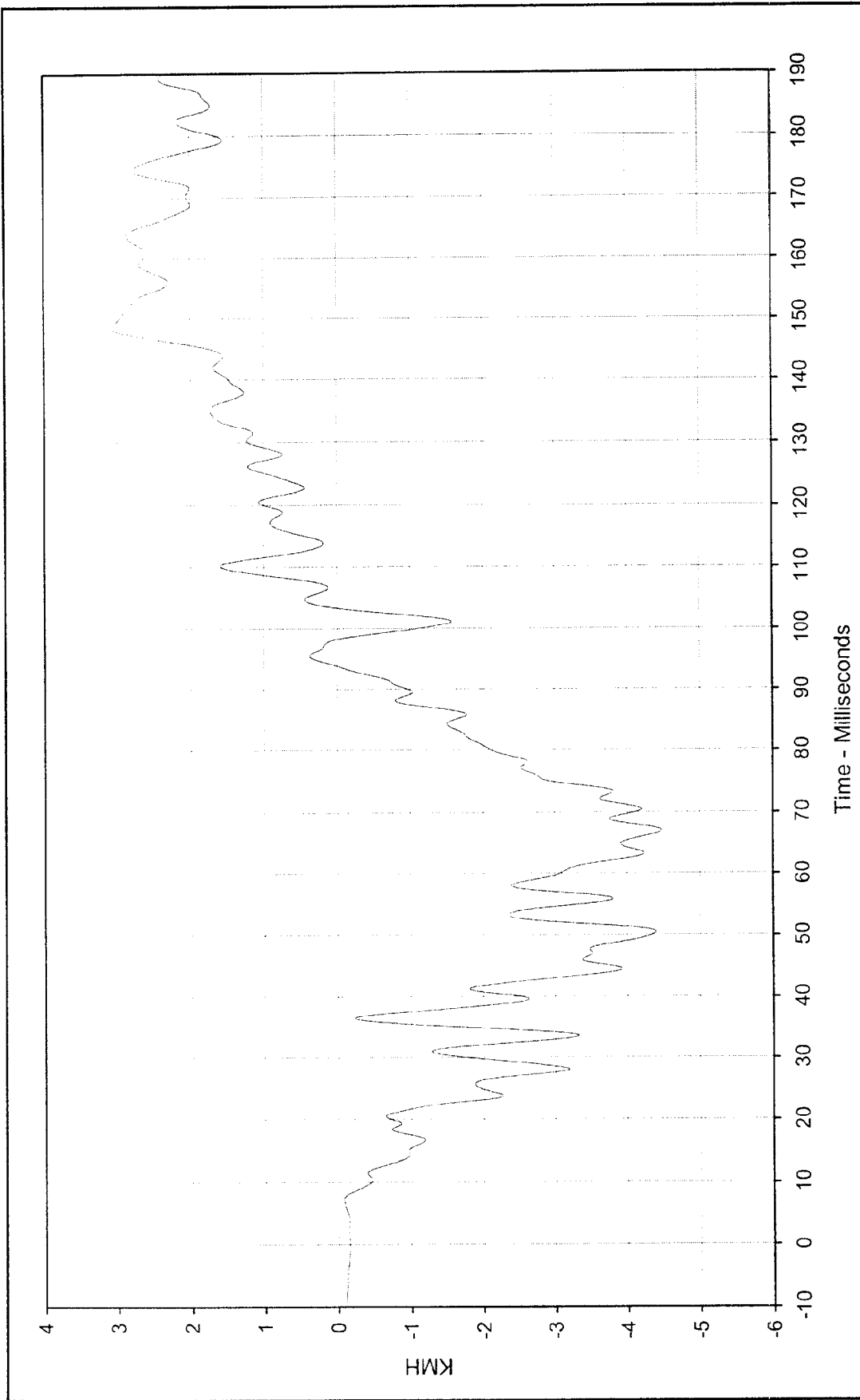
Date of Test: 01/11/00

Curve Number: FIL-035

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

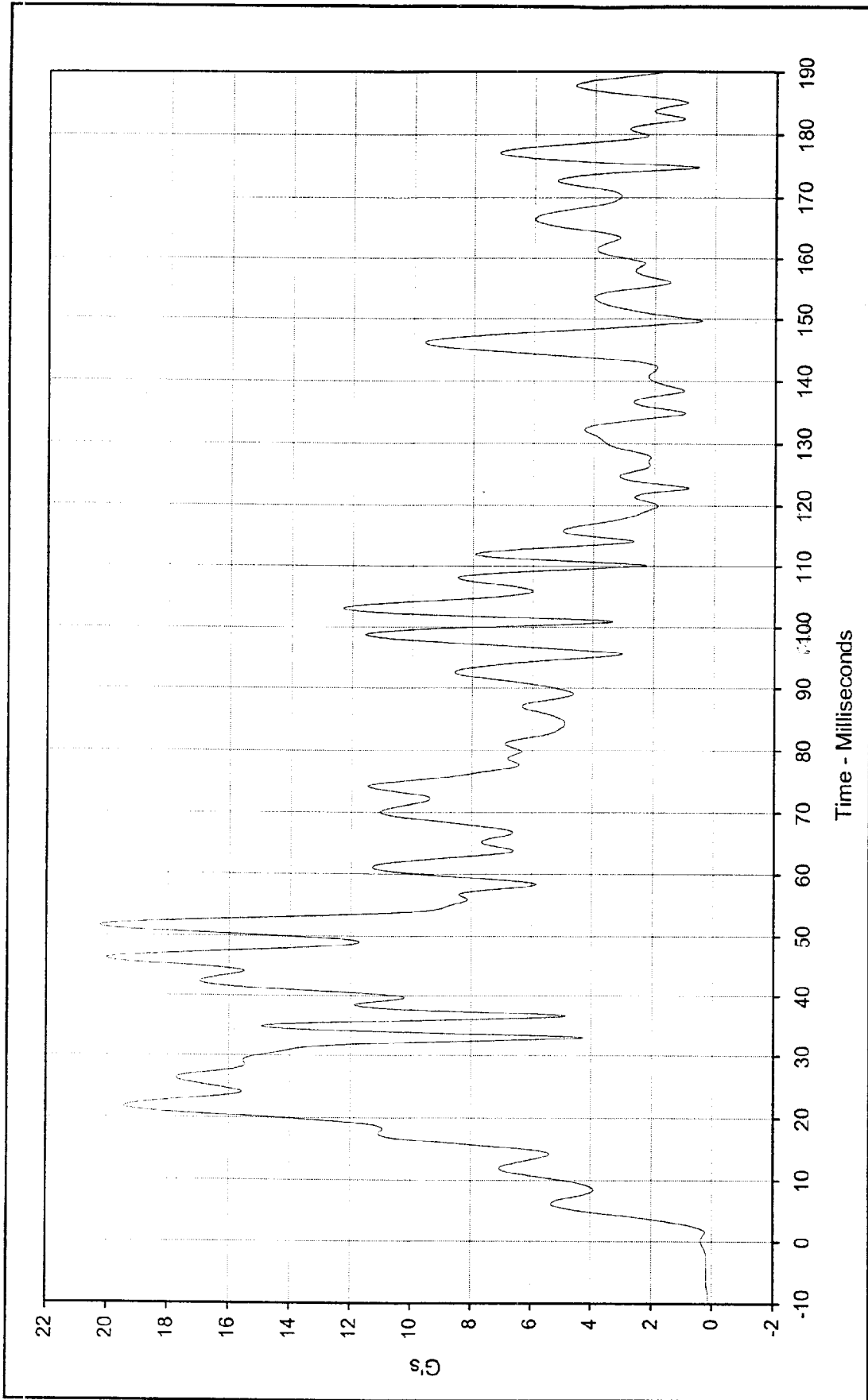
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Rear Floorpan Above Axle Z		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	3.1	at 148.5 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-4.5	at 66.9 Milliseconds			
SAE Filter Class:	180				
Date of Test:	01/11/00				
Curve Number:	IN1-035				

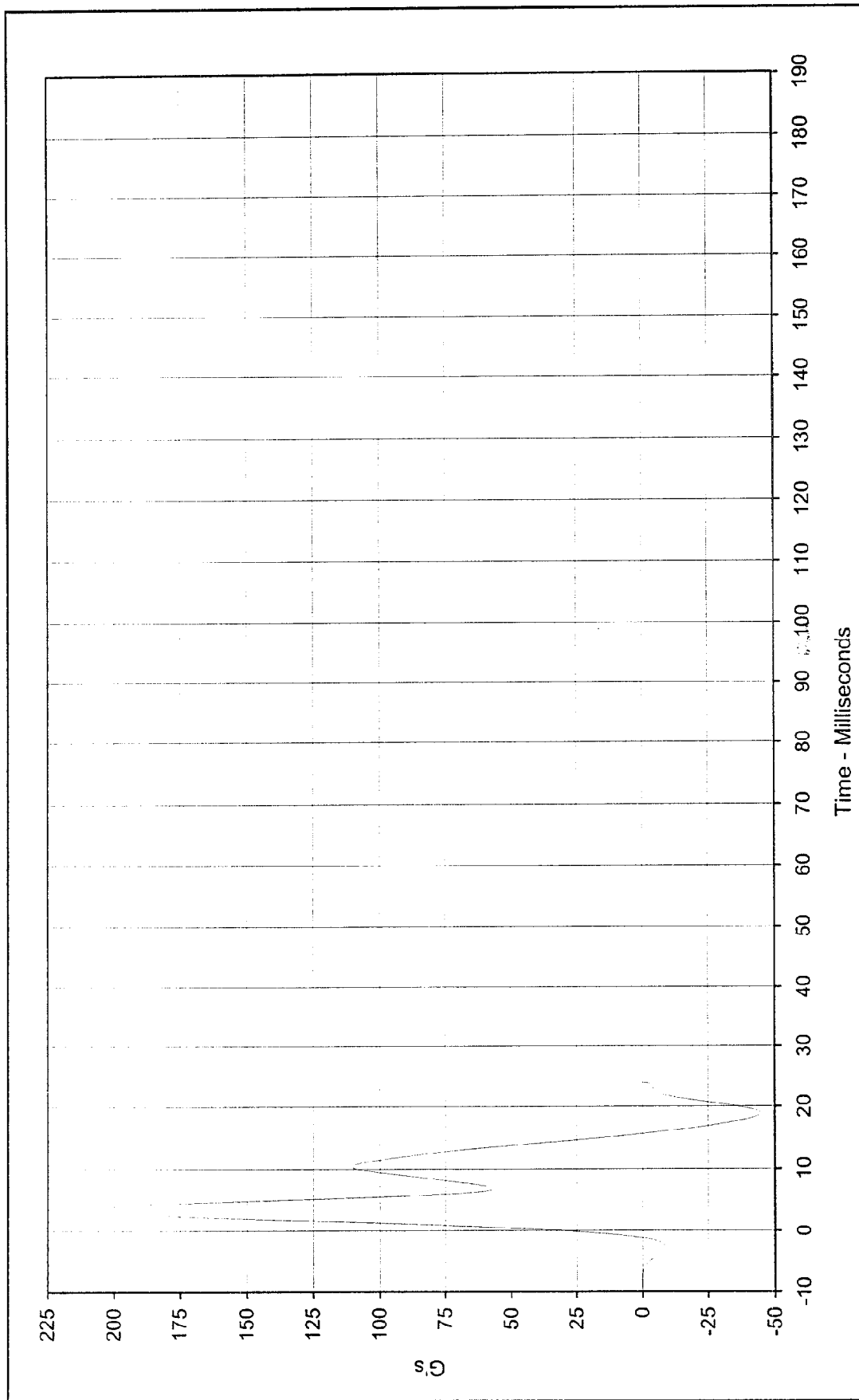




Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Curve Description: Rear Floor Above Axle Resultant
 Maximum Value: 20.2 at 51.6 Milliseconds
 Minimum Value: 0.2 at 1.6 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: RES-033





Curve Description: Left Sill at Rear Door Y * Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 208.3 at 3.5 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: -44.8 at 18.9 Milliseconds

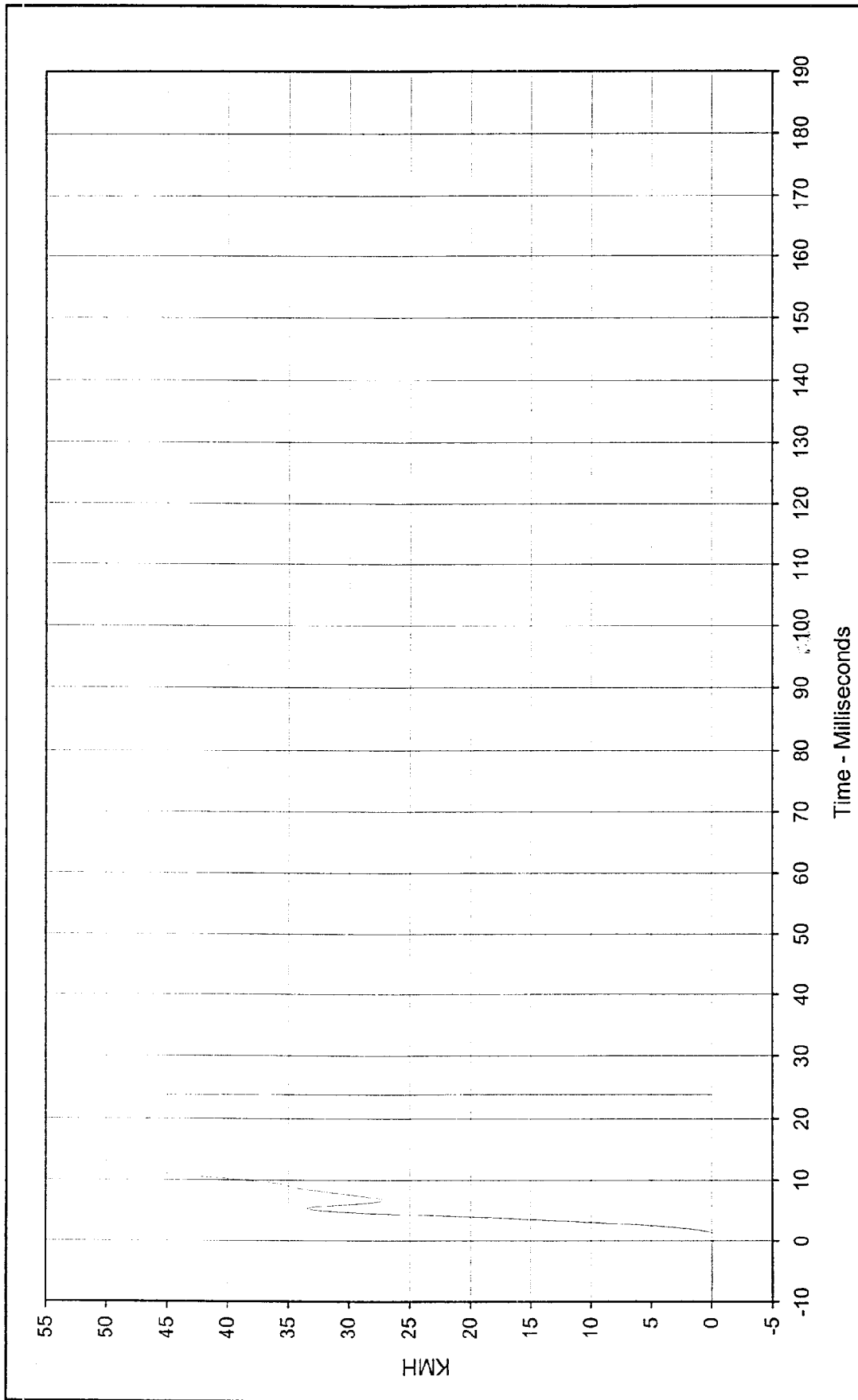
SAE Filter Class: 60

Date of Test: 01/11/00

Curve Number: FIL-036



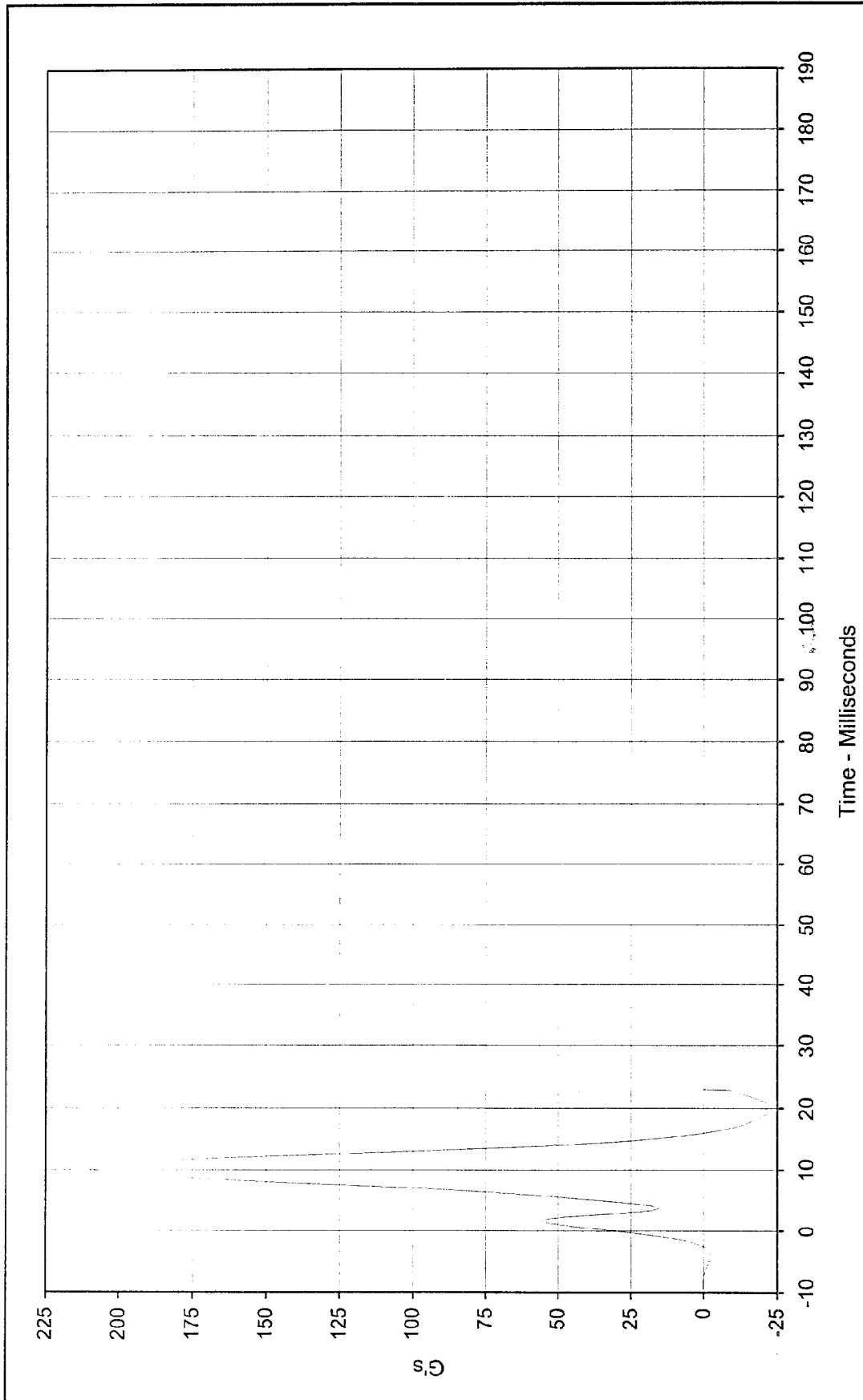
* Channel Failed at 23.9 Msec.



Curve Description: Left Sill at Rear Door Y Velocity *
 Maximum Value: 52.5 at 14.2 Milliseconds
 Minimum Value: -0.3 at 0.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-036



* Channel Failed at 23.9 Msec.



Curve Description: Left Sill at Front Door Y * Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 213.1 at 10.4 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: -23.0 at 19.9 Milliseconds

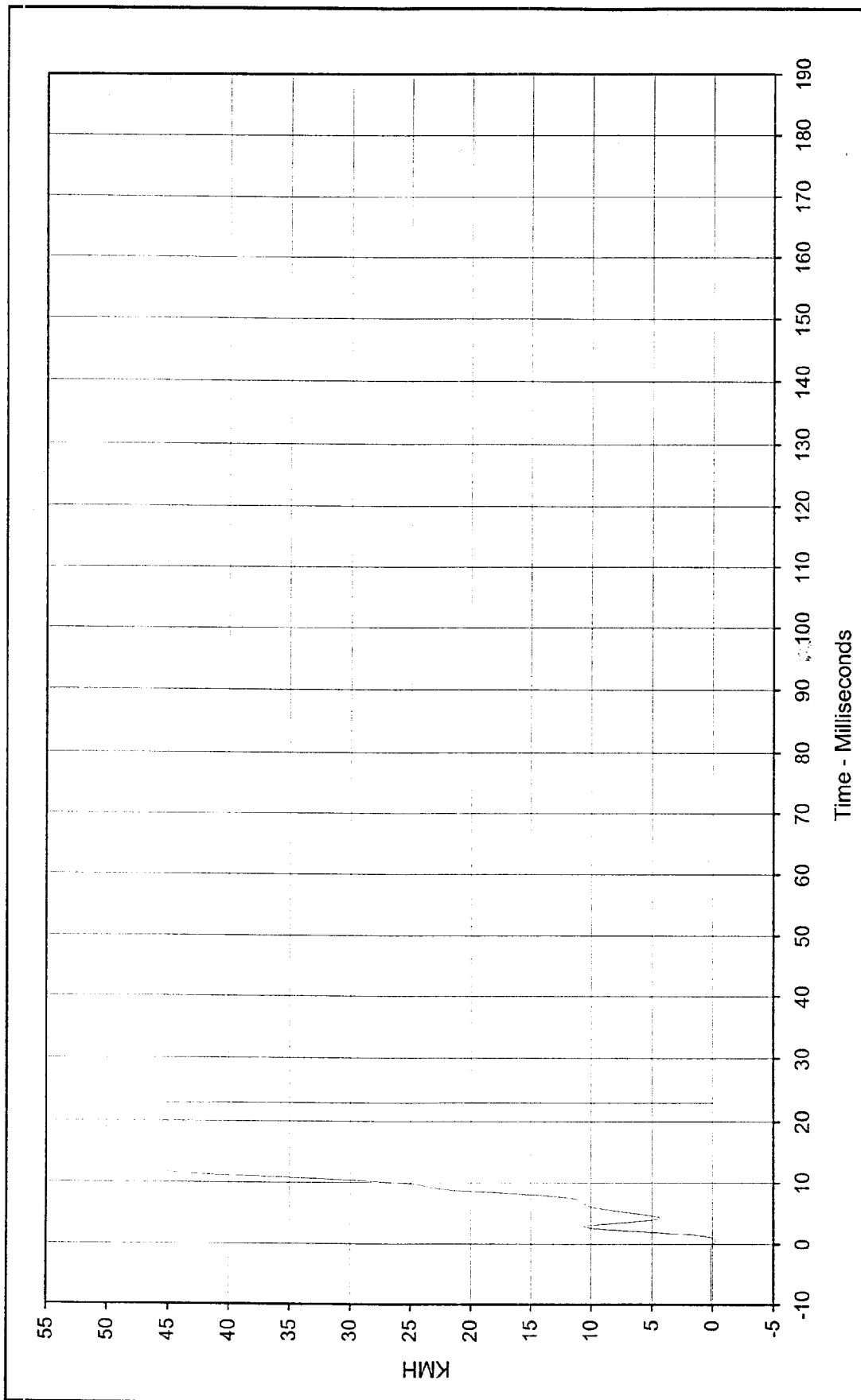
SAE Filter Class: 60

Date of Test: 01/11/00

Curve Number: FIL-037



* Channel Failed at 22.9 Msec.

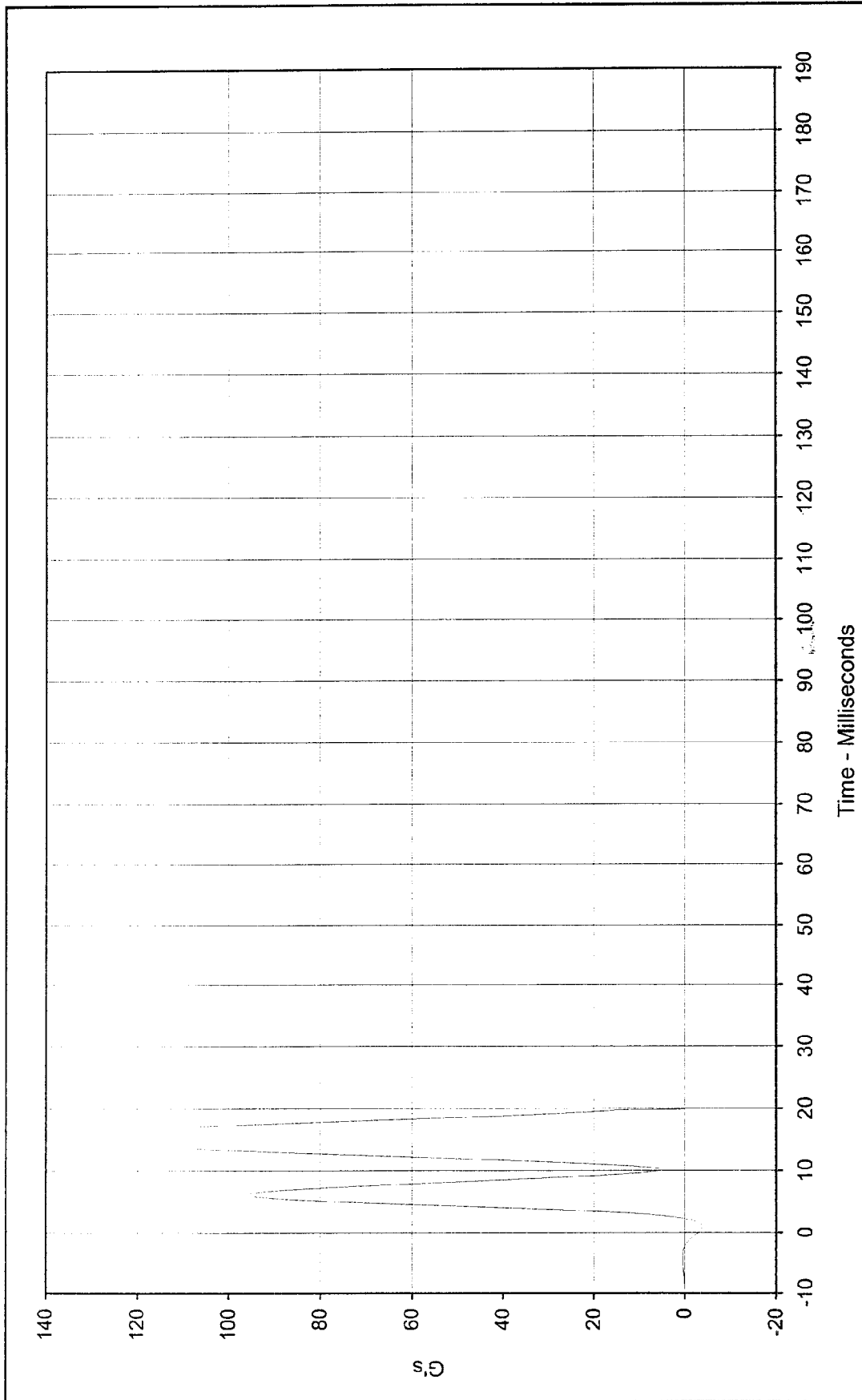


Curve Description: Left Sill at Front Door Y Velocity *
 Maximum Value: 50.7 at 16.5 Milliseconds
 Minimum Value: -0.3 at 0.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-037

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup



* Channel Failed at 22.9 Msec.

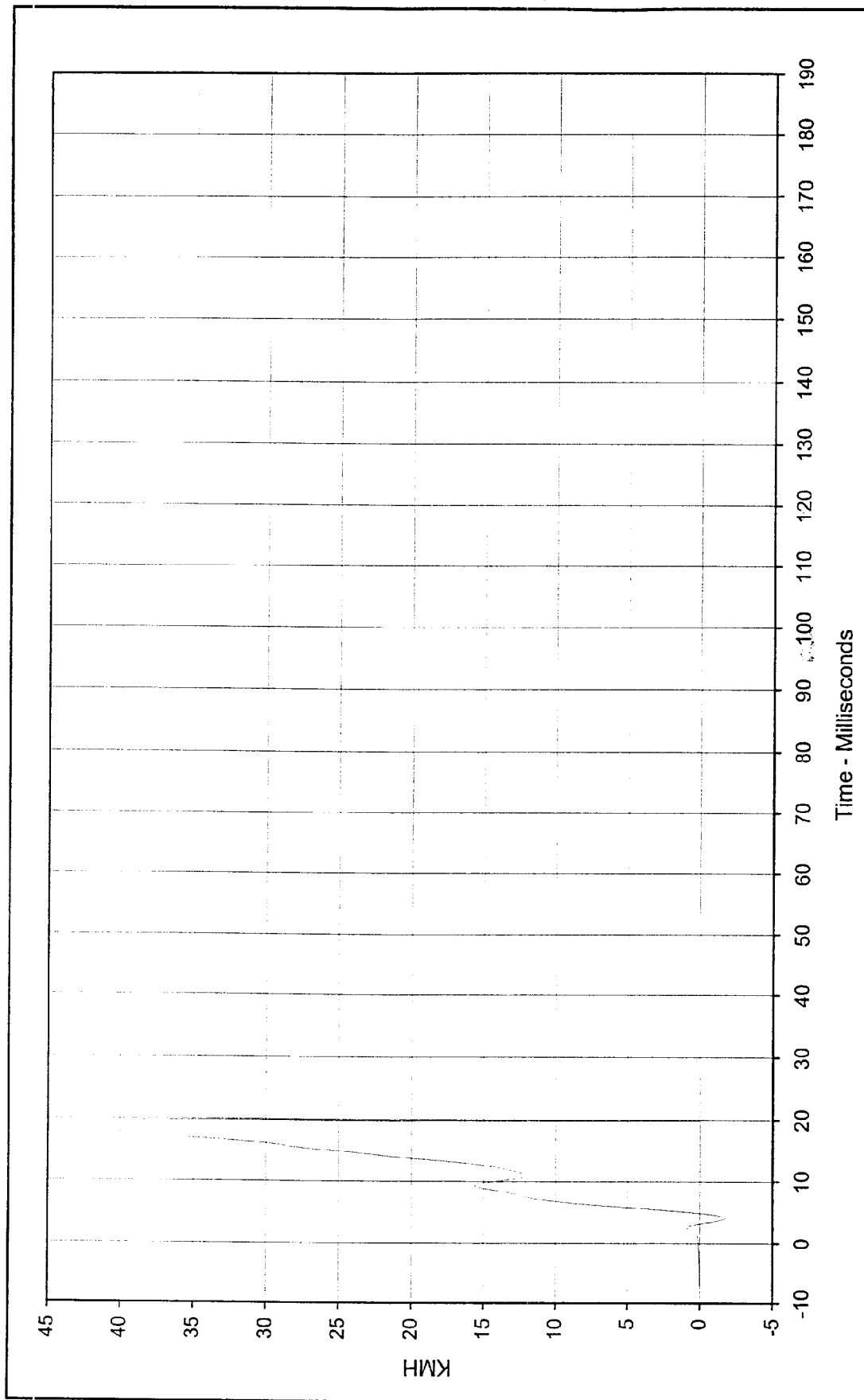


Curve Description: Left Front Door Centerline Y * Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Maximum Value: 131.4 at 15.4 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup
 Minimum Value: -3.8 at 0.9 Milliseconds



SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-038

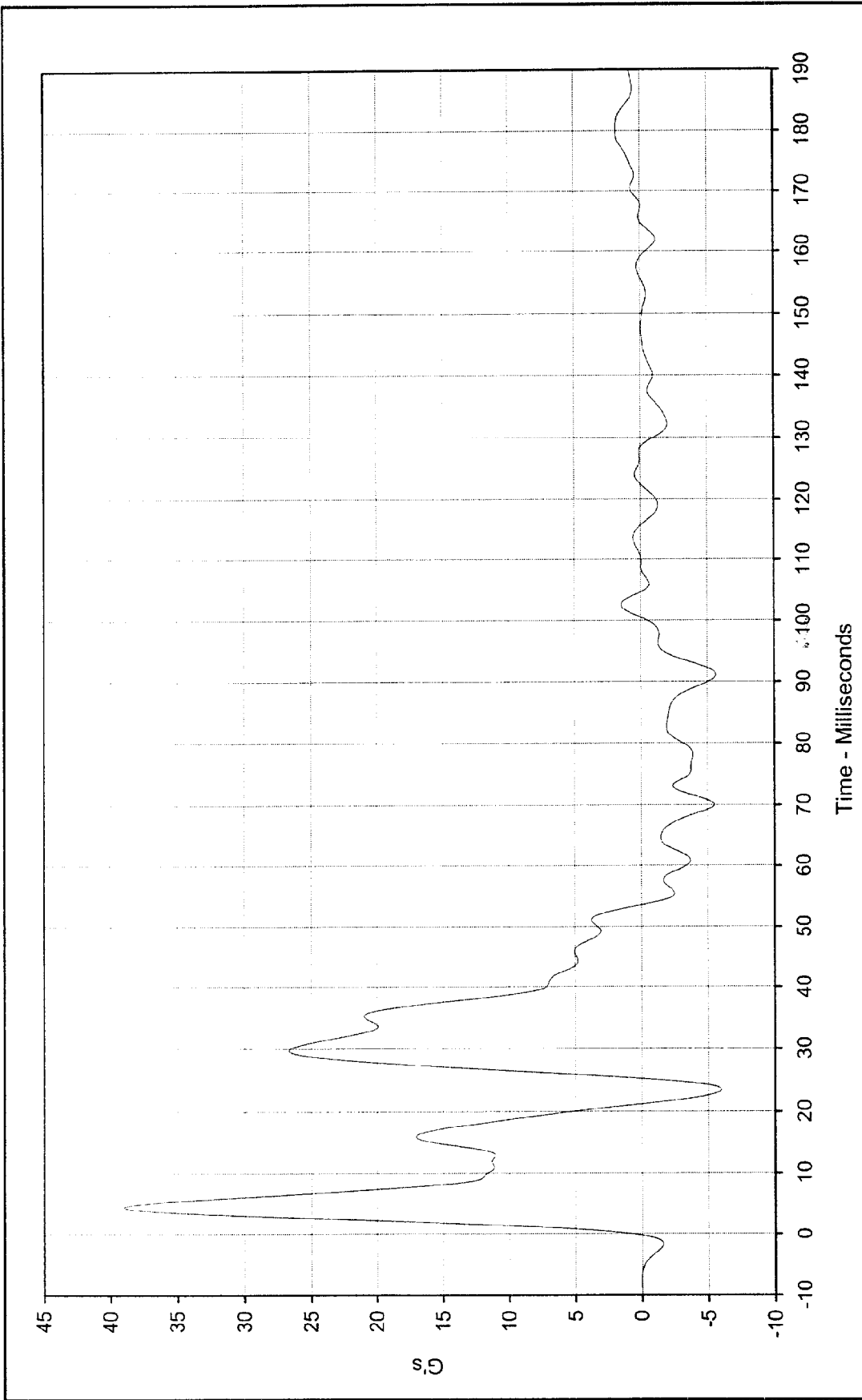
* Channel failed at 19.9 Msec



Curve Description:	Left Front Door CL Y Velocity		*	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	40.7	at	18.5	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-1.8	at	4.1			
SAE Filter Class:	180					
Date of Test:	01/11/00					
Curve Number:	IN1-038					



* Channel failed at 19.9 Msec



Curve Description: Right Rear Occ. Compartment Y

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

Maximum Value: 39.0 at 4.4 Milliseconds

Test Vehicle: 2000 Ford F-150 XL Pickup

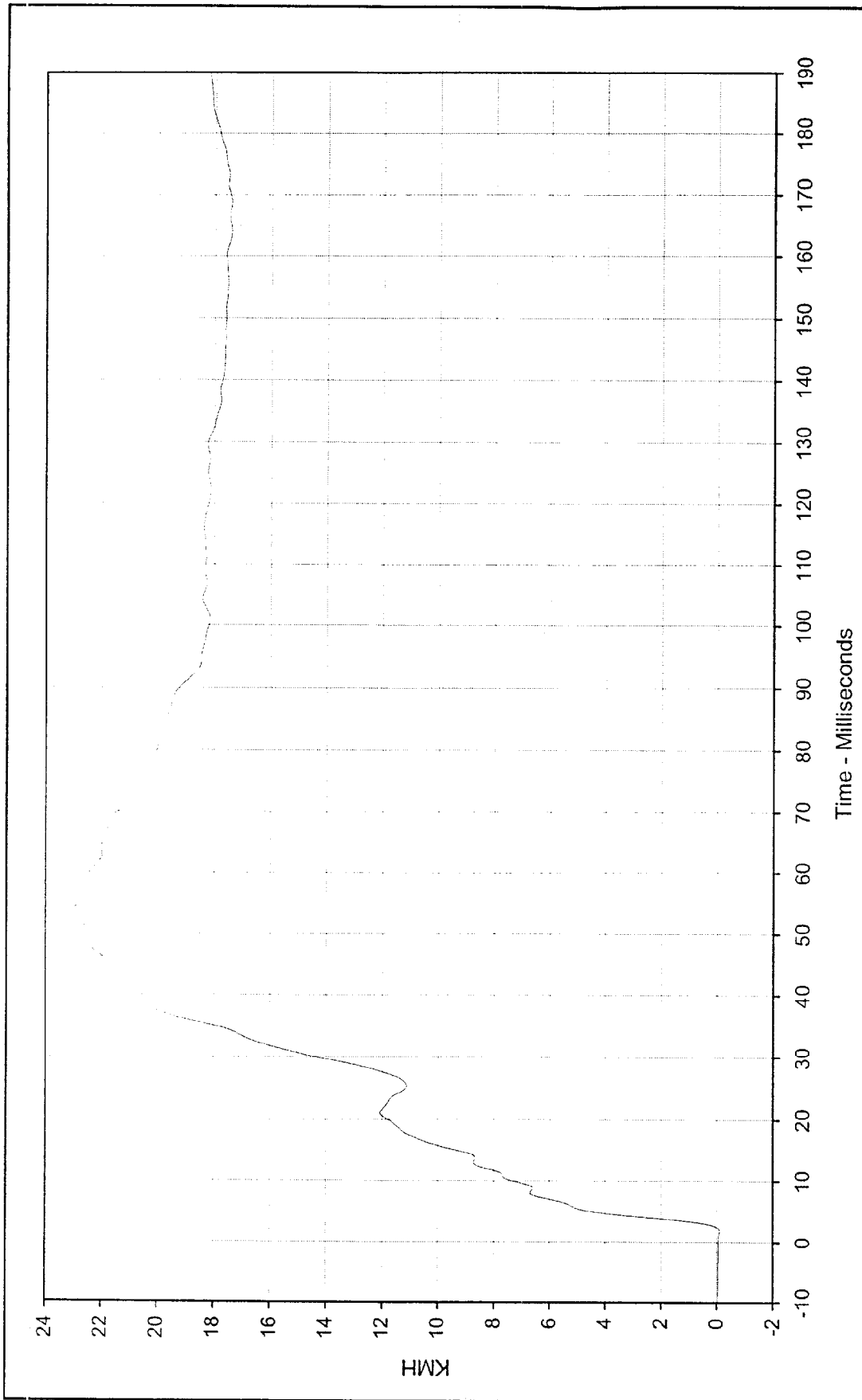
Minimum Value: -5.9 at 23.4 Milliseconds

SAE Filter Class: 60

Date of Test: 01/11/00

Curve Number: FIL-039





Curve Description: Right Rear Occ. Comp. Y Velocity

Maximum Value: 23.0 at 53.9 Milliseconds

Minimum Value: -0.1 at 1.9 Milliseconds

SAE Filter Class: 180

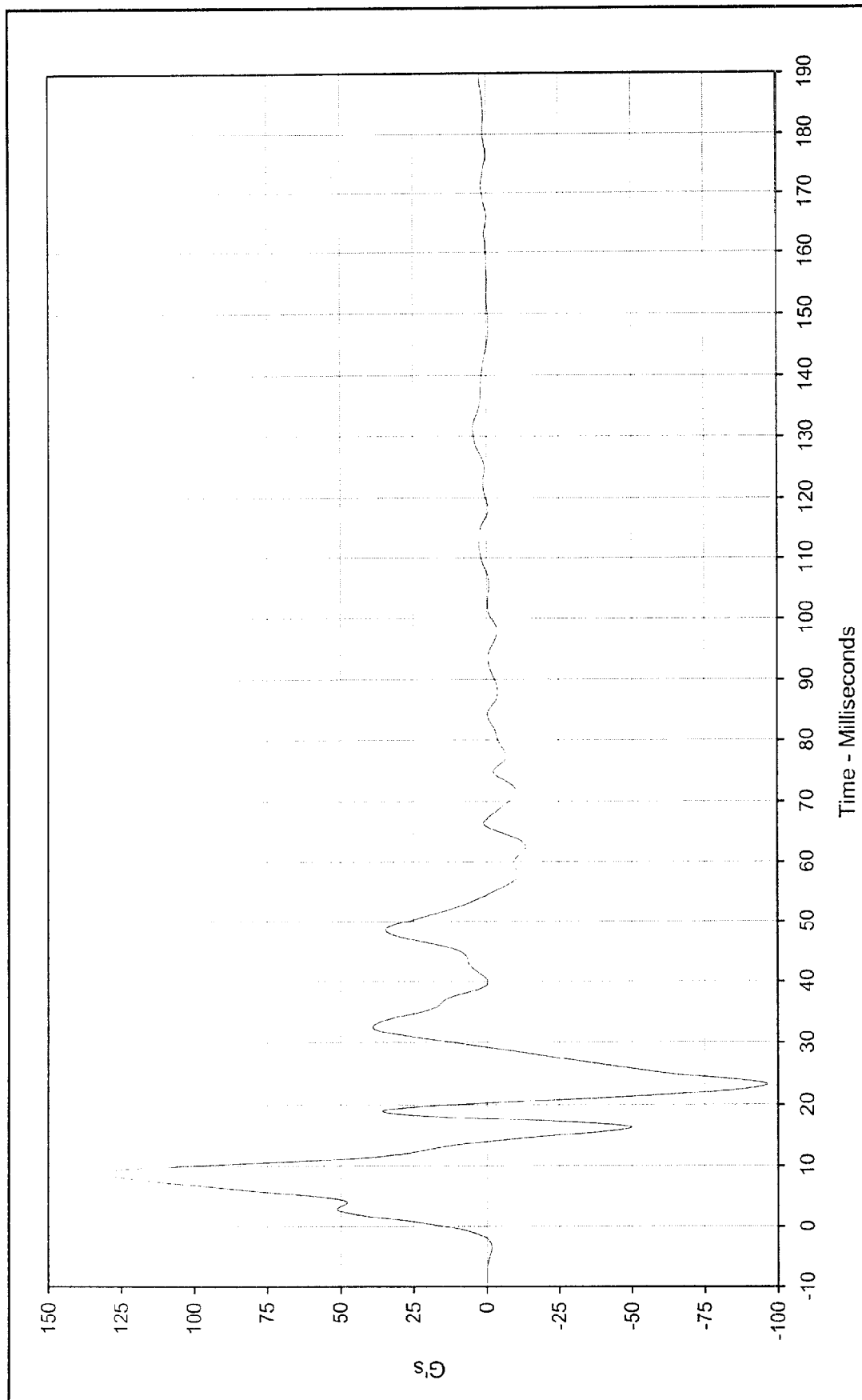
Date of Test: 01/11/00

Curve Number: IN1-039

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

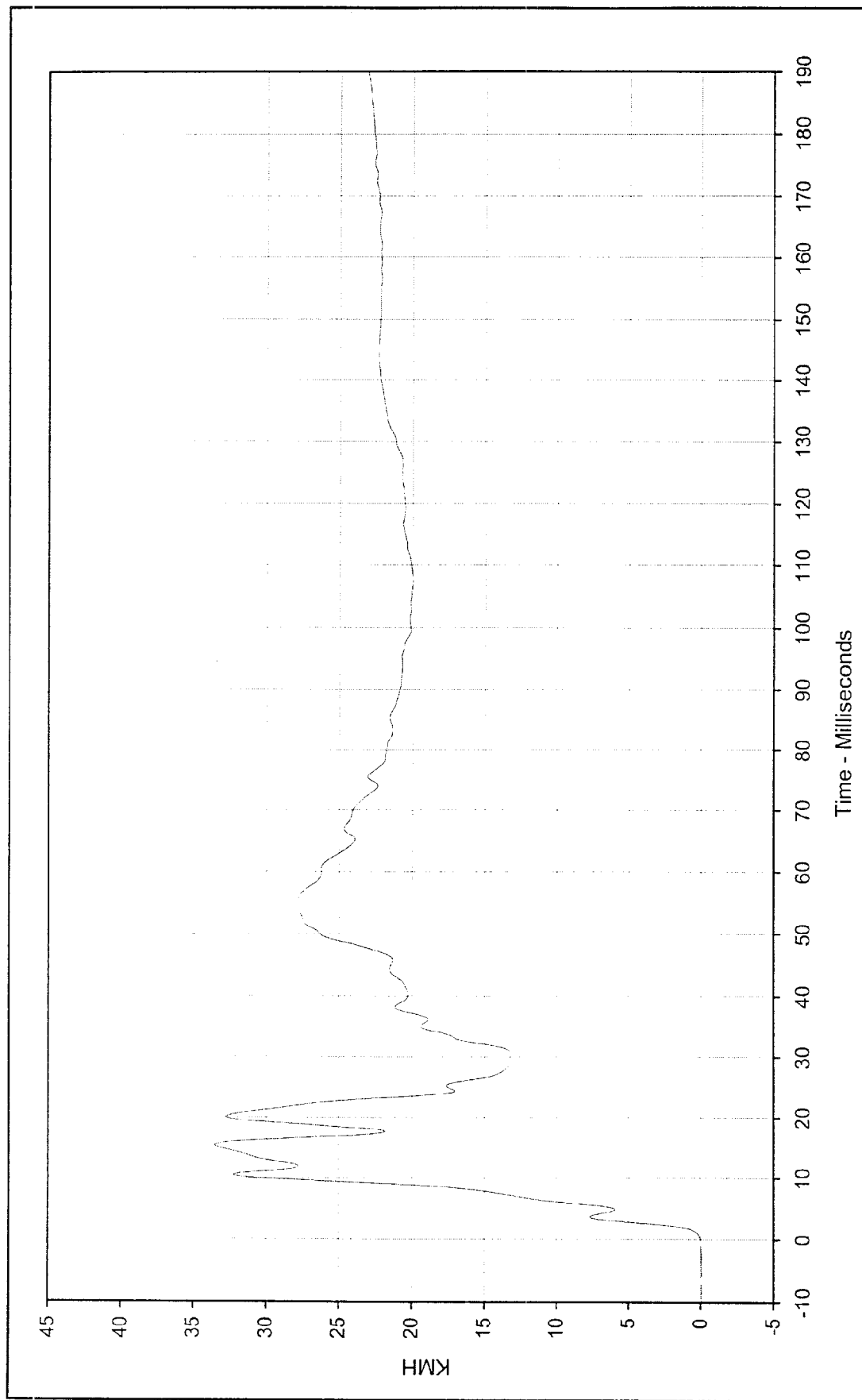
Test Vehicle: 2000 Ford F-150 XL Pickup





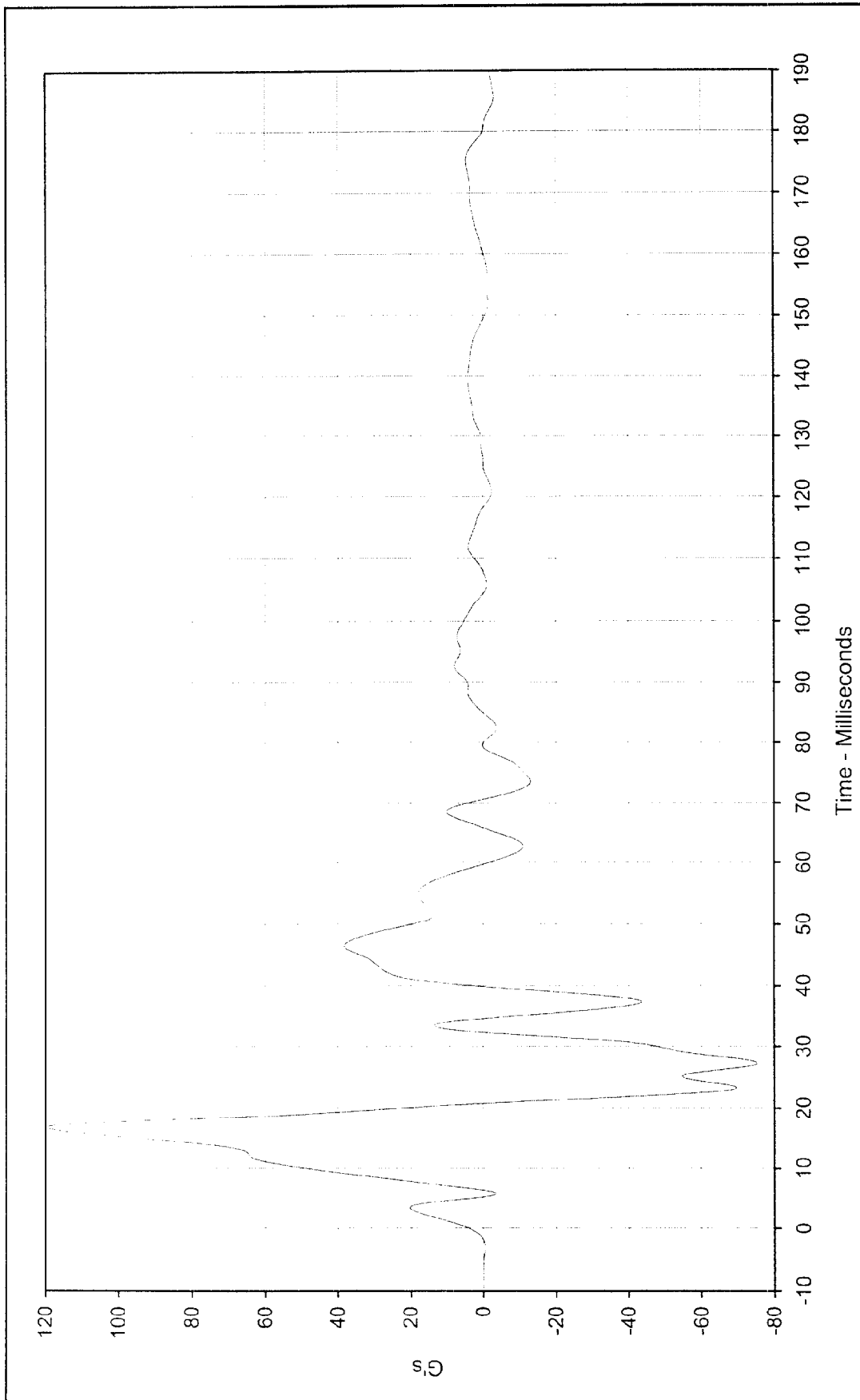
Curve Description:	Left Front Door Mid Rear Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	131.4 at 8.7 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-96.5 at 23.2 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/11/00			
Curve Number:	FIL-040			





Curve Description:	Left Front Door Mid-Rear Y Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	33.5 at 15.4 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	0.0 at 0.0 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/11/00			
Curve Number:	IN1-040			

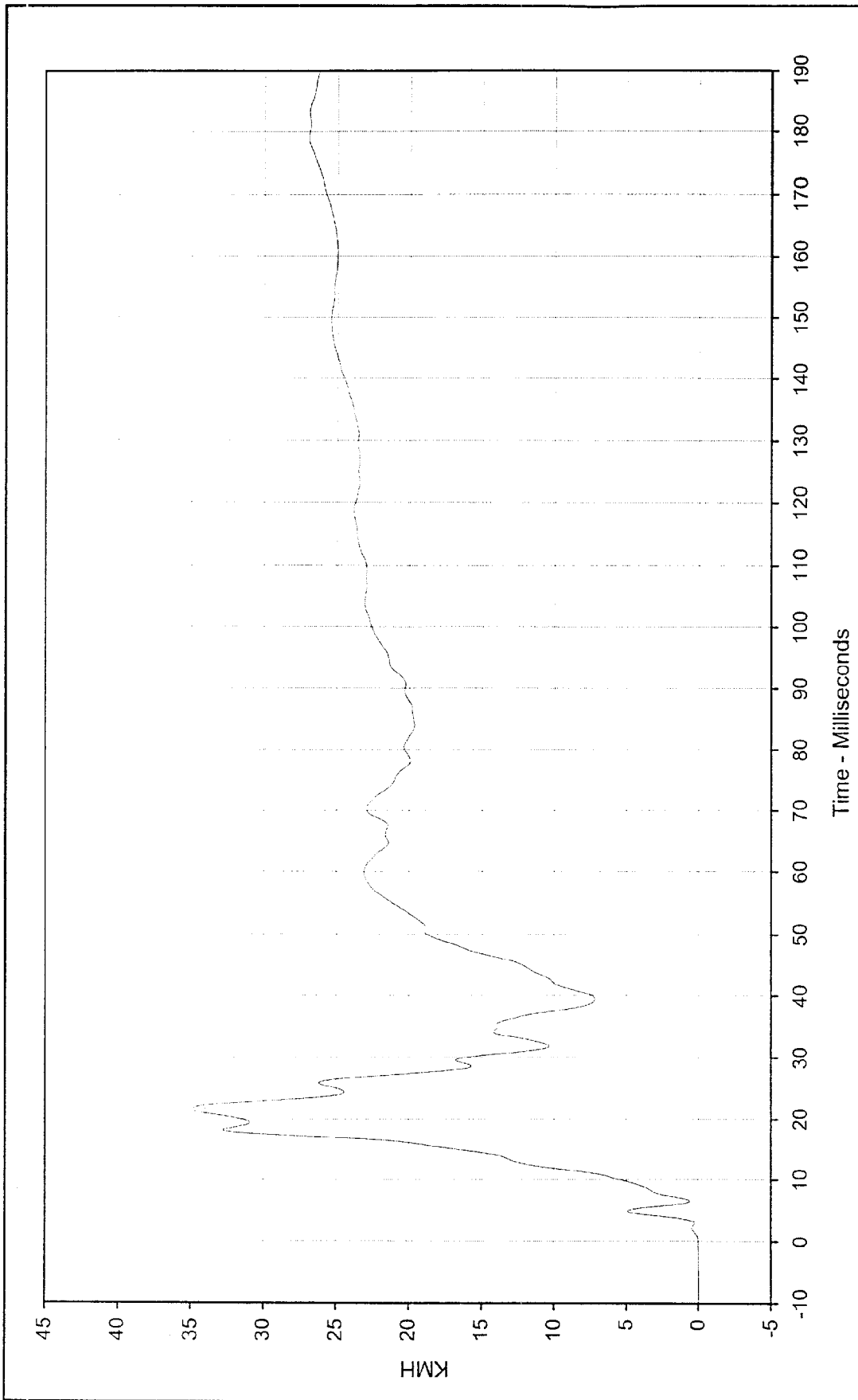




Curve Description: Left Front Door Upper CL Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

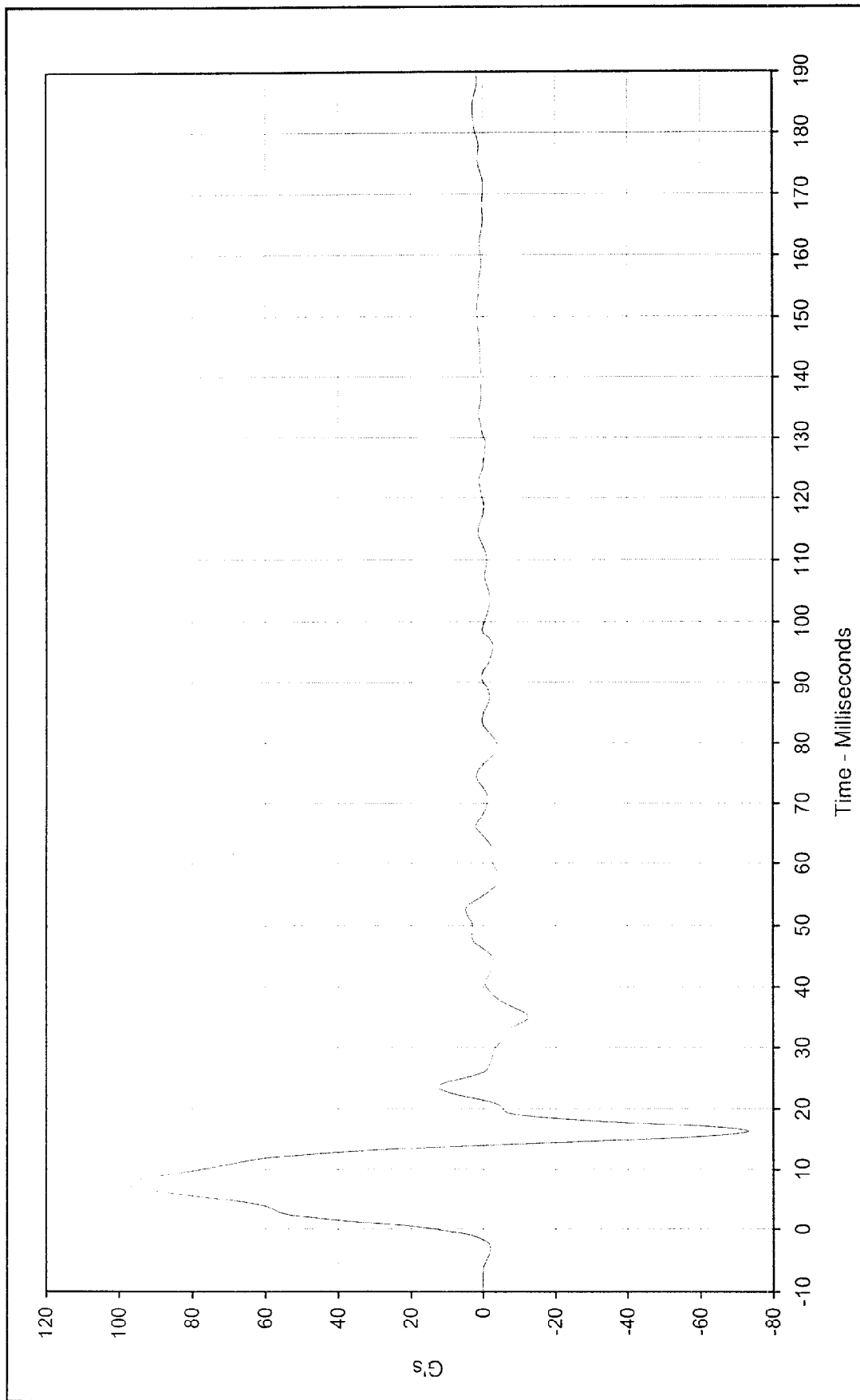
Maximum Value: 119.6 at 16.7 Milliseconds
 Minimum Value: -75.4 at 27.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-041





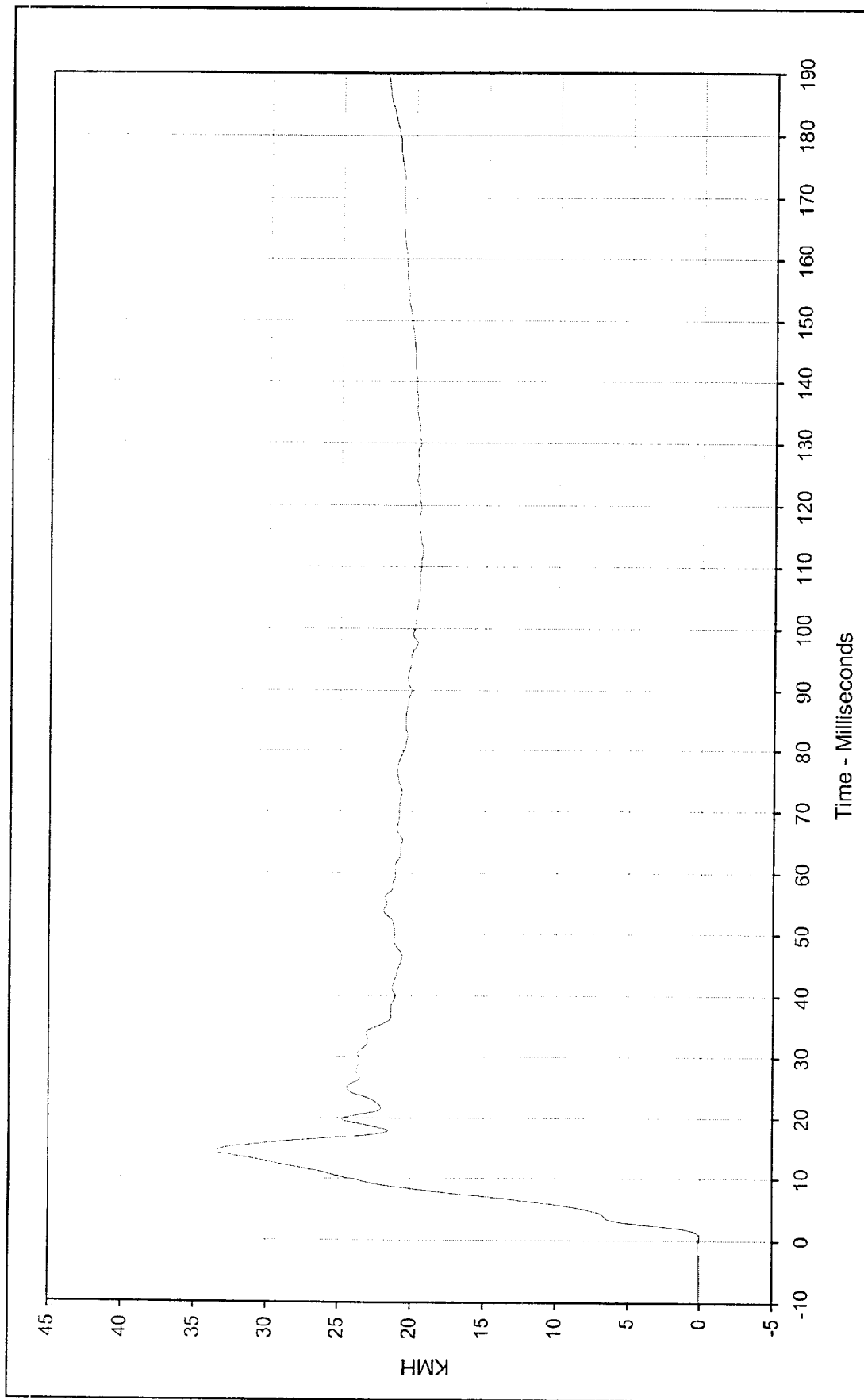
Curve Description: Left Front Door Upper CL Y Velocity		Test Program: 55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	34.9	at	21.6 Milliseconds
Minimum Value:	0.0	at	0.0 Milliseconds
SAE Filter Class:	180		
Date of Test:	01/11/00		
Curve Number:	IN1-041		
Test Vehicle:		2000 Ford F-150 XL Pickup	





Curve Description:	Left Rear Door Mid Rear Y	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0203
Maximum Value:	97.8	at	7.4	Test Vehicle:	2000 Ford F-150 XL Pickup
Minimum Value:	-73.3	at	16.3		
SAE Filter Class:	60				
Date of Test:	01/11/00				
Curve Number:	FIL-042				

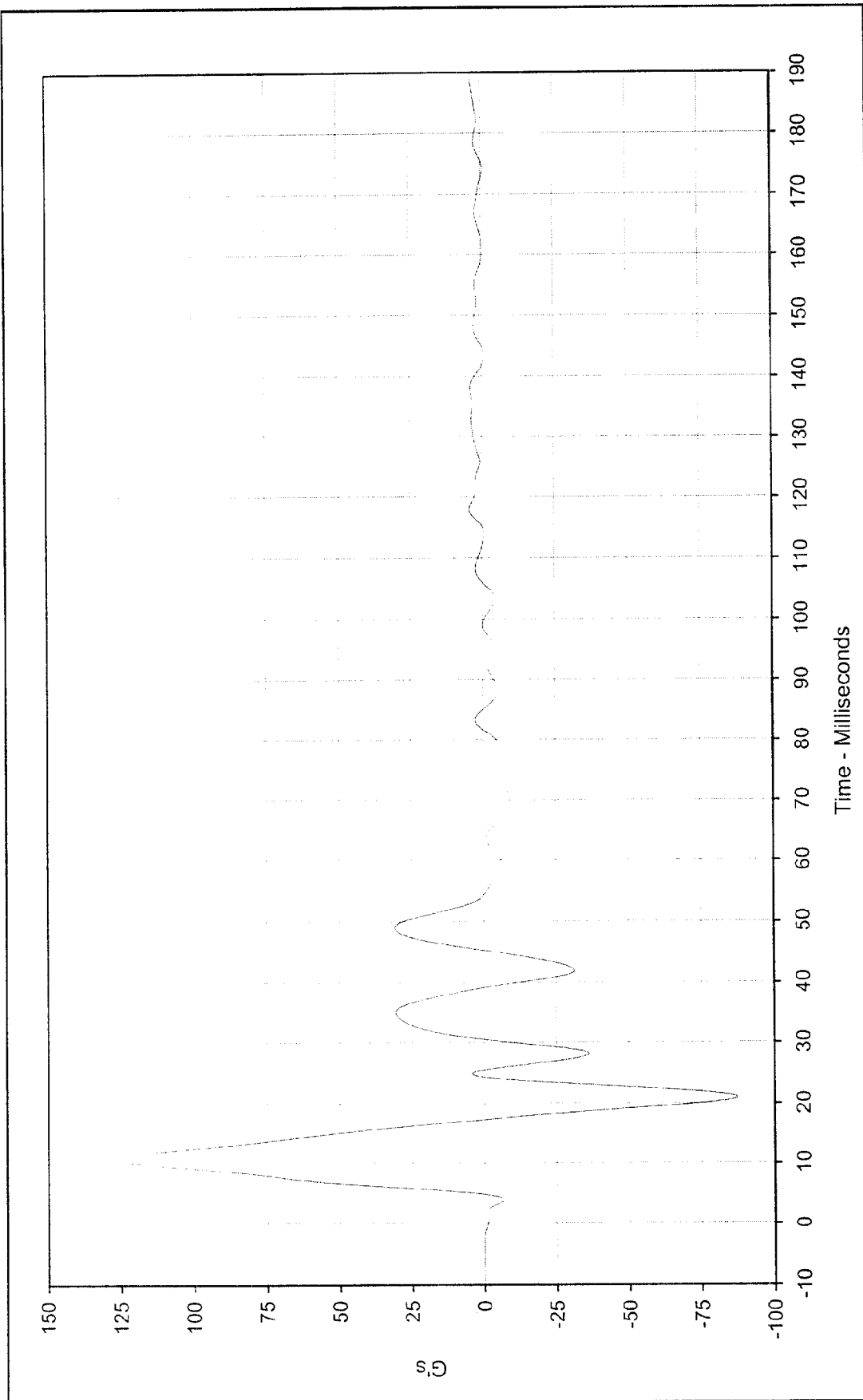




Curve Description: Left Rear Door Mid Rear Y Velocity
 Maximum Value: 33.6 at 14.3 Milliseconds
 Minimum Value: 0.0 at 0.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-042

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Left Rear Door Upper CL Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 127.0 at 10.7 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

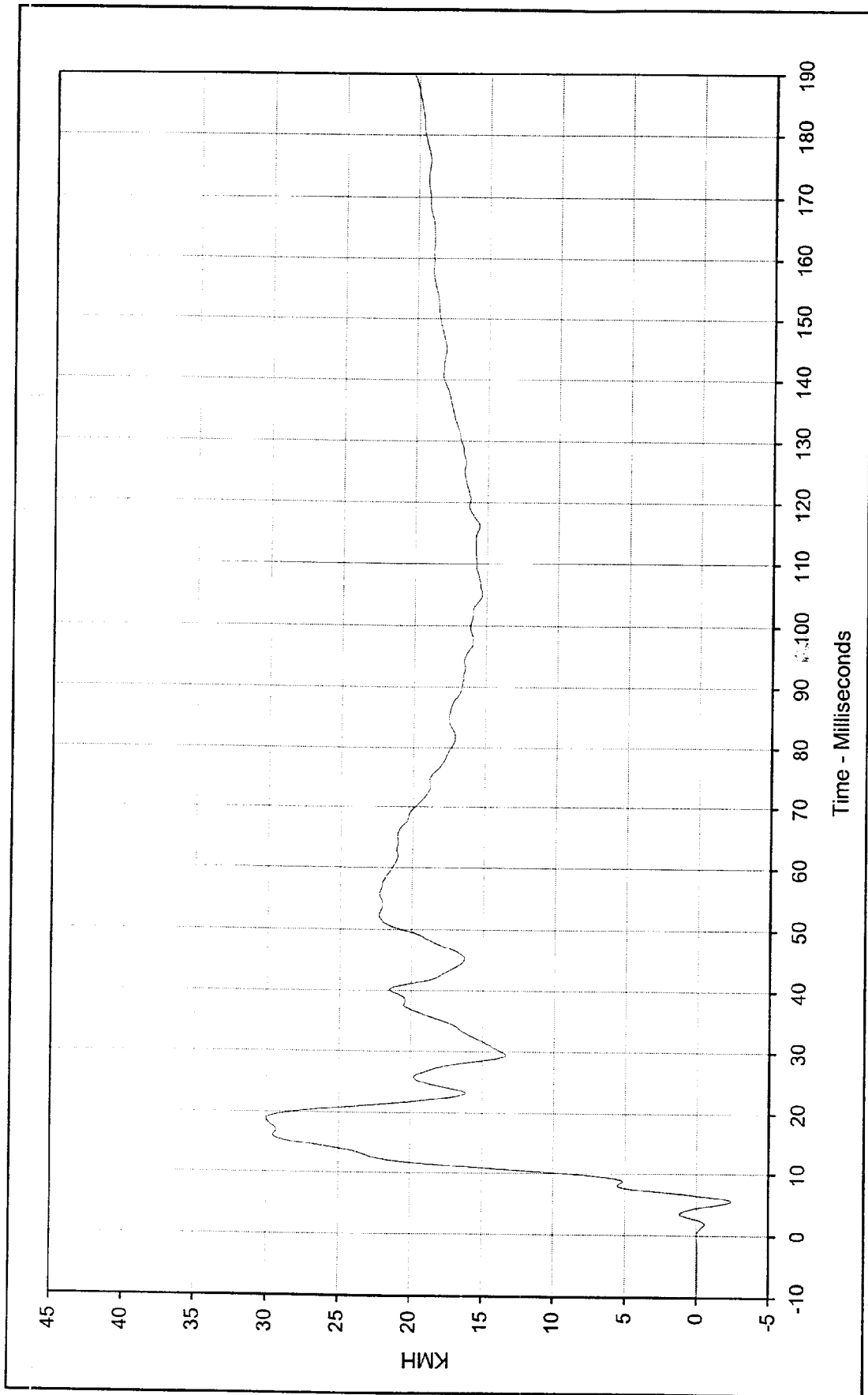
Minimum Value: -87.3 at 21.0 Milliseconds

SAE Filter Class: 60

Date of Test: 01/11/00

Curve Number: FIL-043

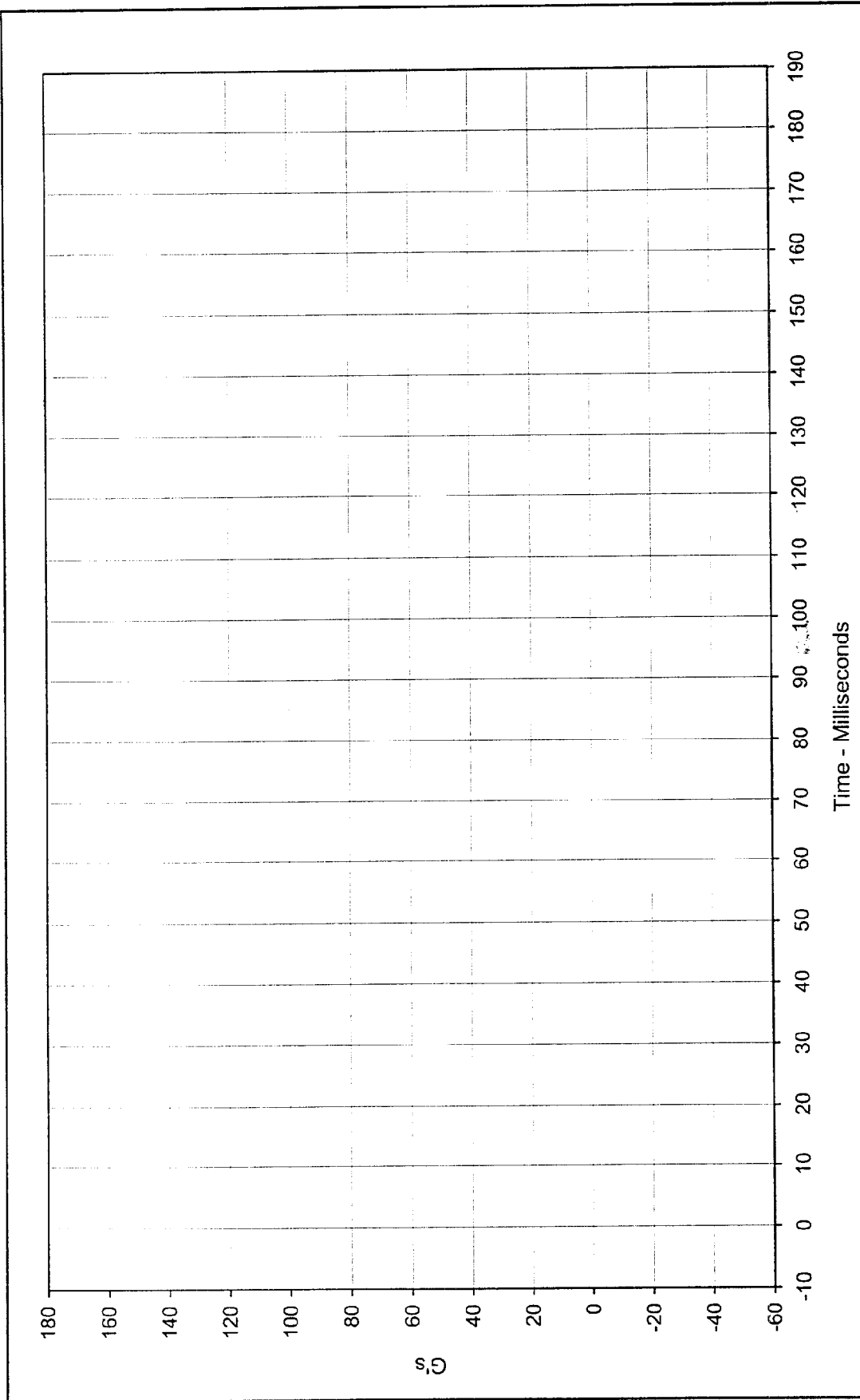




Curve Description: Left Rear Door Upper CL Y Velocity
 Maximum Value: 30.0 at 18.9 Milliseconds
 Minimum Value: -2.4 at 5.7 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-043

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup



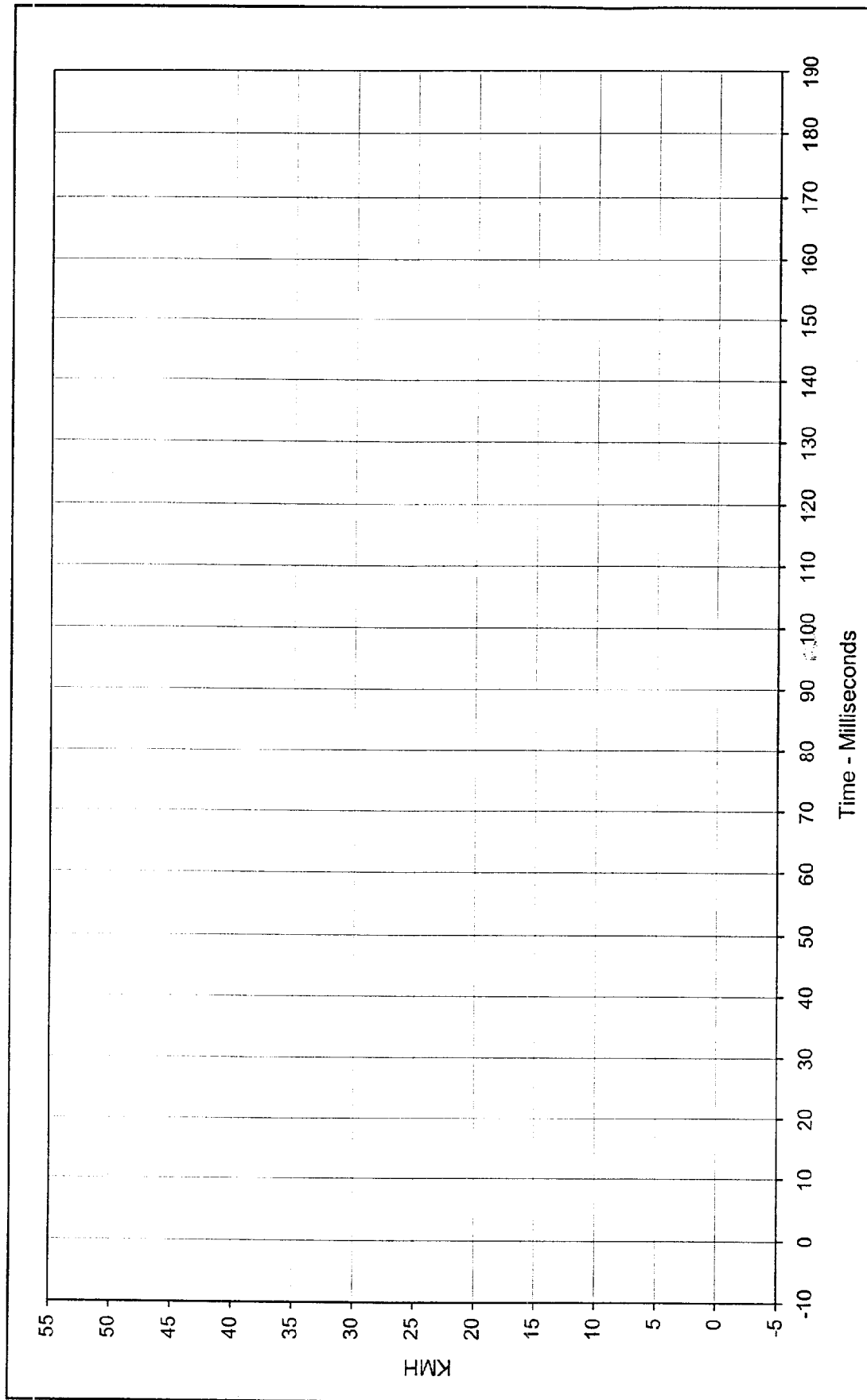


Curve Description: Left B-Post Lower Y ** Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup
 Minimum Value: 0.0 at 0.0 Milliseconds



SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-044

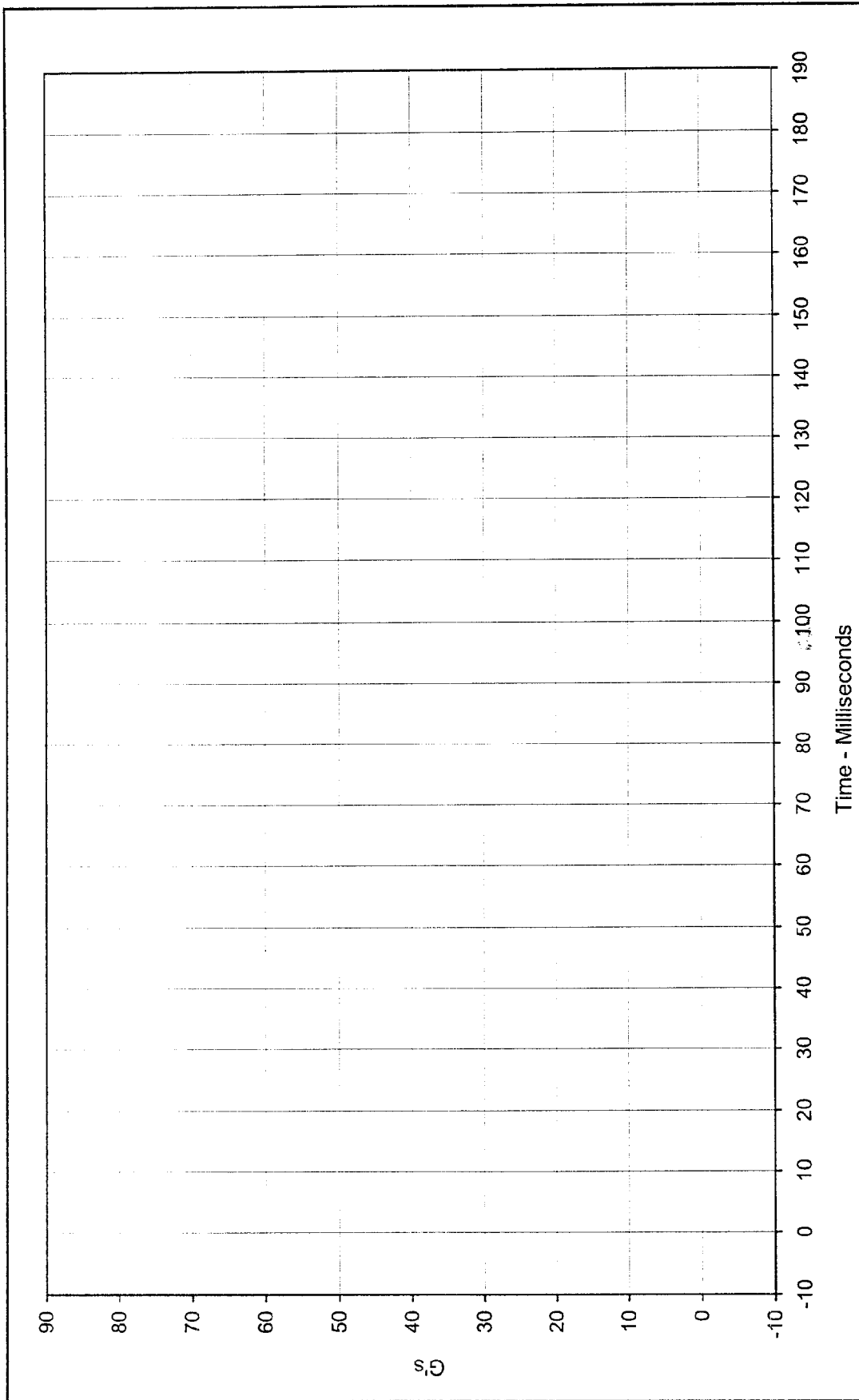
** Not installed, no B-Post



Curve Description:	Left B-Post Lower Y Velocity	**	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	0.0	at 0.0	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	0.0	at 0.0			
SAE Filter Class:	180				
Date of Test:	01/11/00				
Curve Number:	IN1-044				



** Not installed, no B-Post



Curve Description: _____ Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: 0.0 at 0.0 Milliseconds

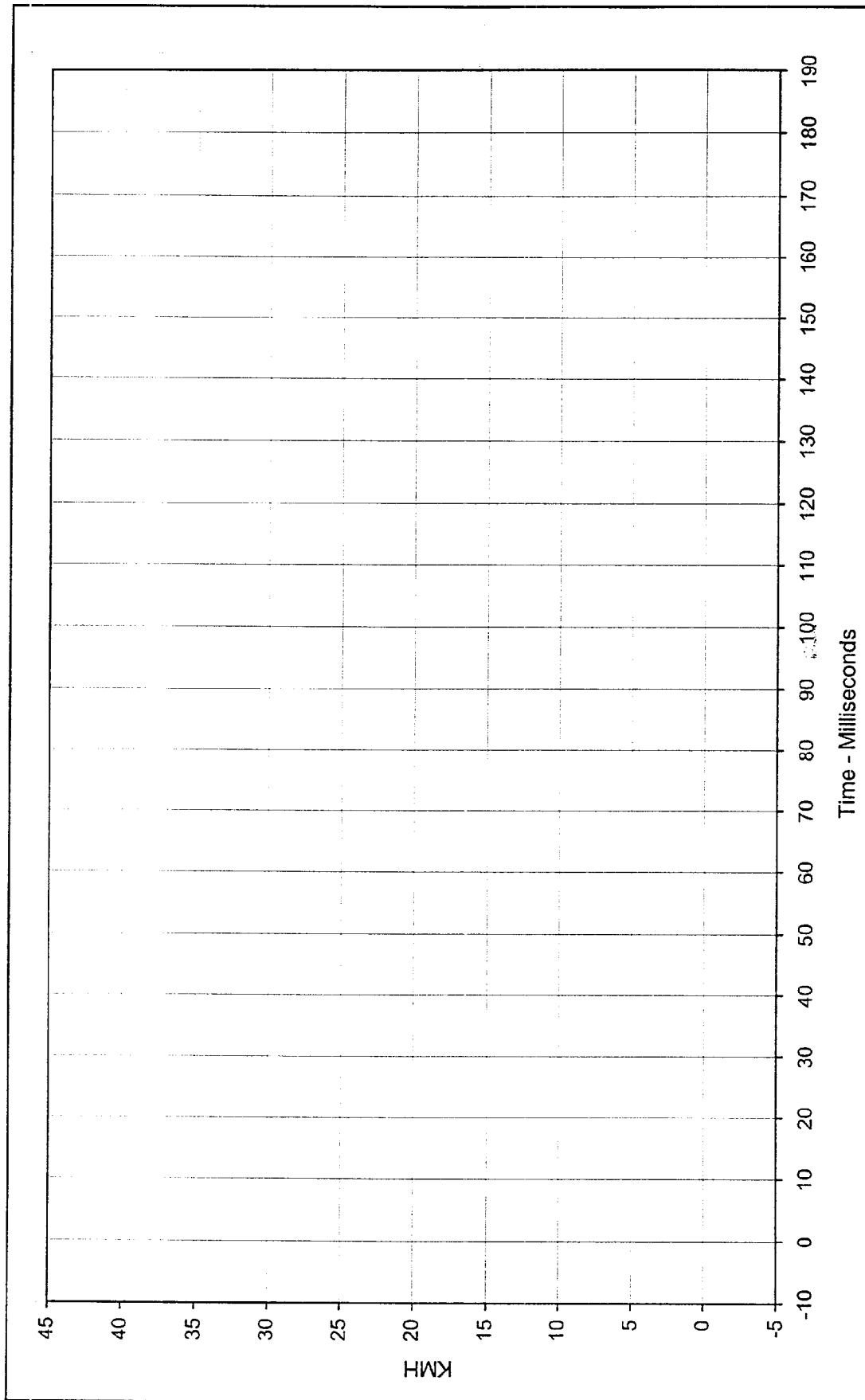
SAE Filter Class: 60

Date of Test: 01/11/00

Curve Number: FIL-045



** Not installed, no B-Post



Curve Description: Left B-Post Middle Y Velocity ** Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: 0.0 at 0.0 Milliseconds

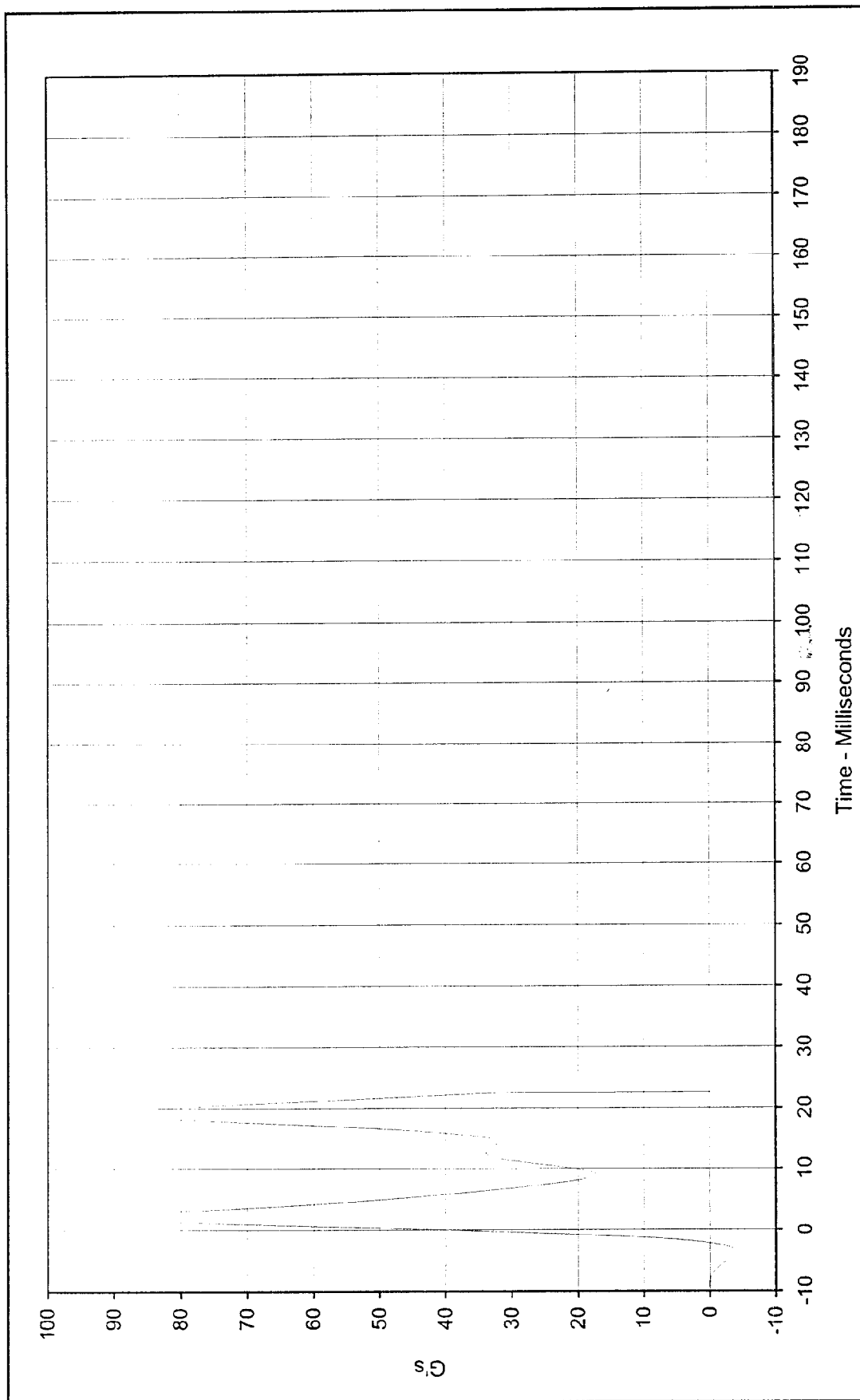


SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-045

** Not installed, no B-Post



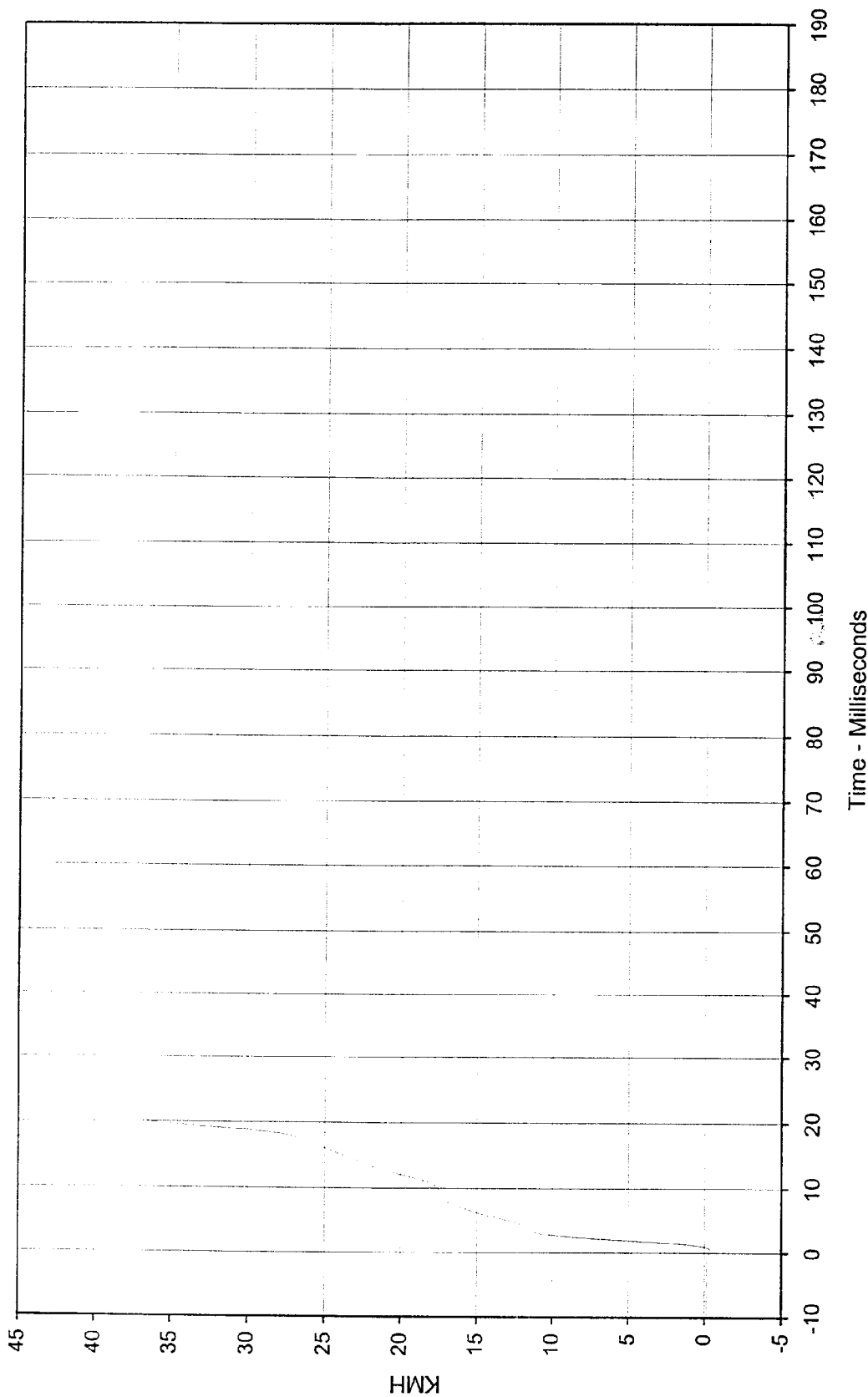
Curve Description: Left A-Post Lower Y *
 Maximum Value: 91.2 at 2.1 Milliseconds
 Minimum Value: 0.0 at 22.6 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-046

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

Test Vehicle: 2000 Ford F-150 XL Pickup



* Channel failed at 22.6 Msec



Curve Description: Left A-Post Lower Y Velocity * Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 40.8 at 23.6 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: -0.4 at 0.4 Milliseconds

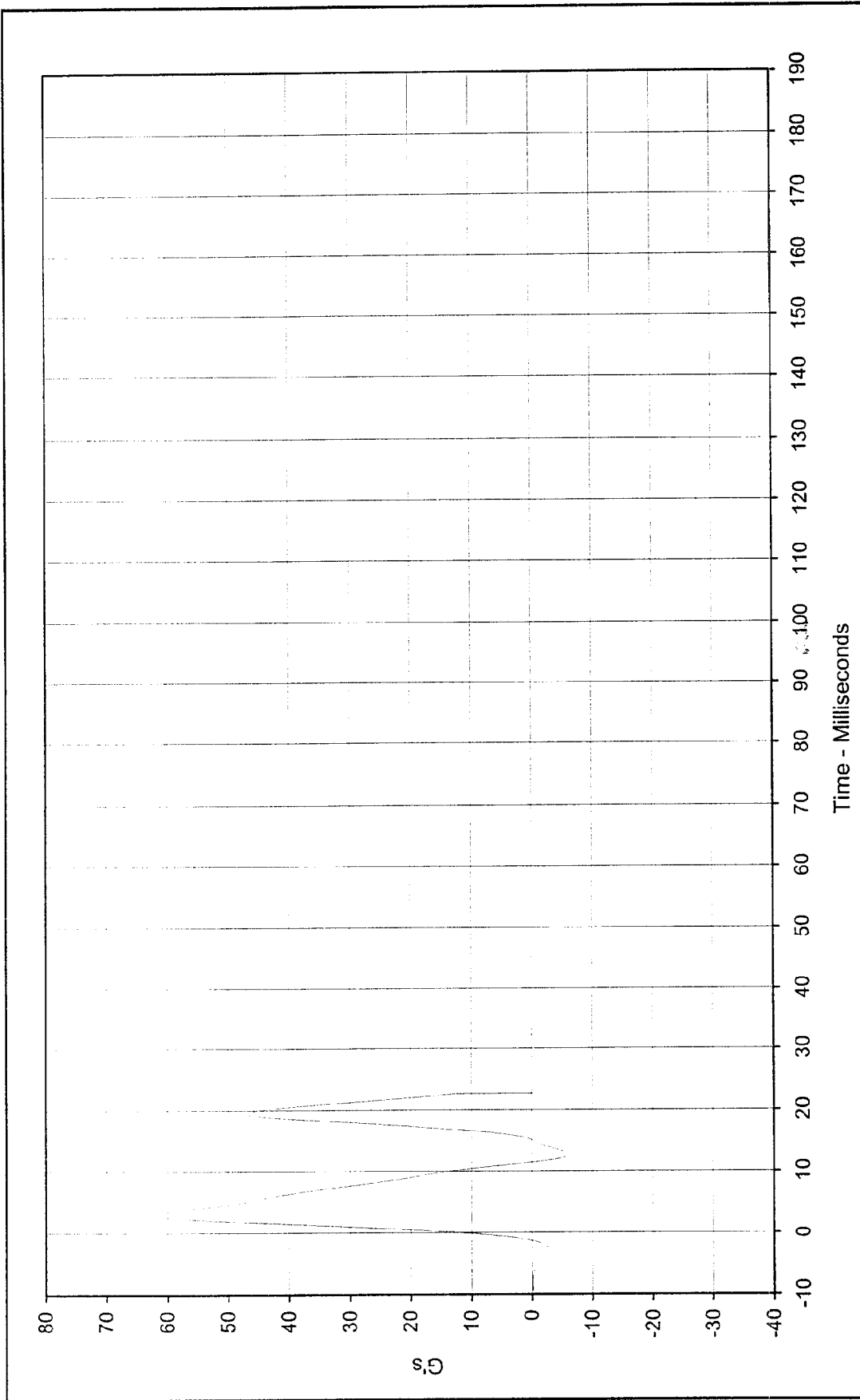
SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-046



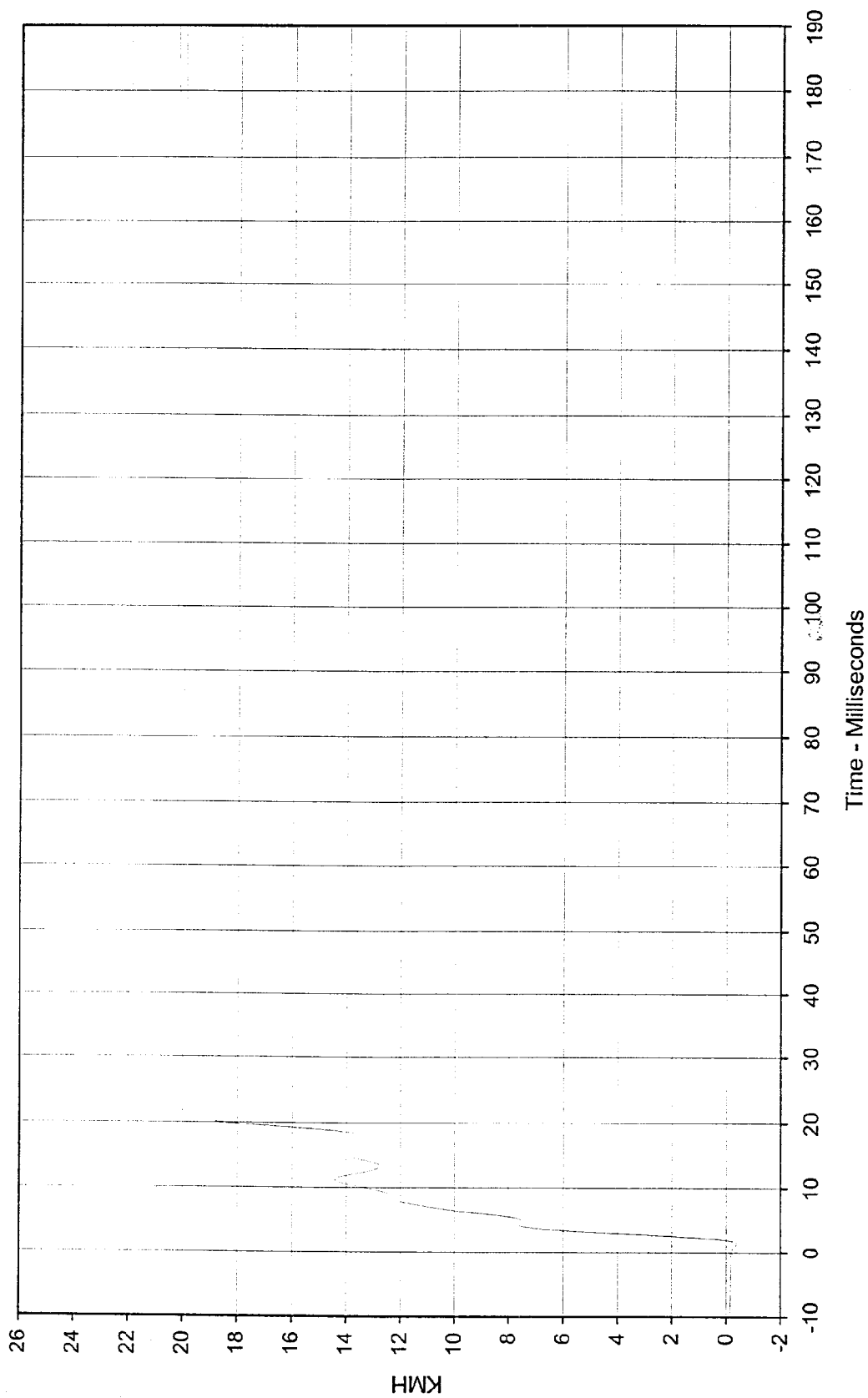
* Channel failed at 22.6 Msec



Curve Description:	Left A-Post Middle Y	*	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	62.2	at 3.1	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-6.1	at 12.6			
SAE Filter Class:	60				
Date of Test:	01/11/00				
Curve Number:	FIL-047				

* Channel failed at 22.6 Msec





Curve Description: Left A-Post Middle Y Velocity * Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 20.3 at 23.2 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: -0.4 at 1.3 Milliseconds

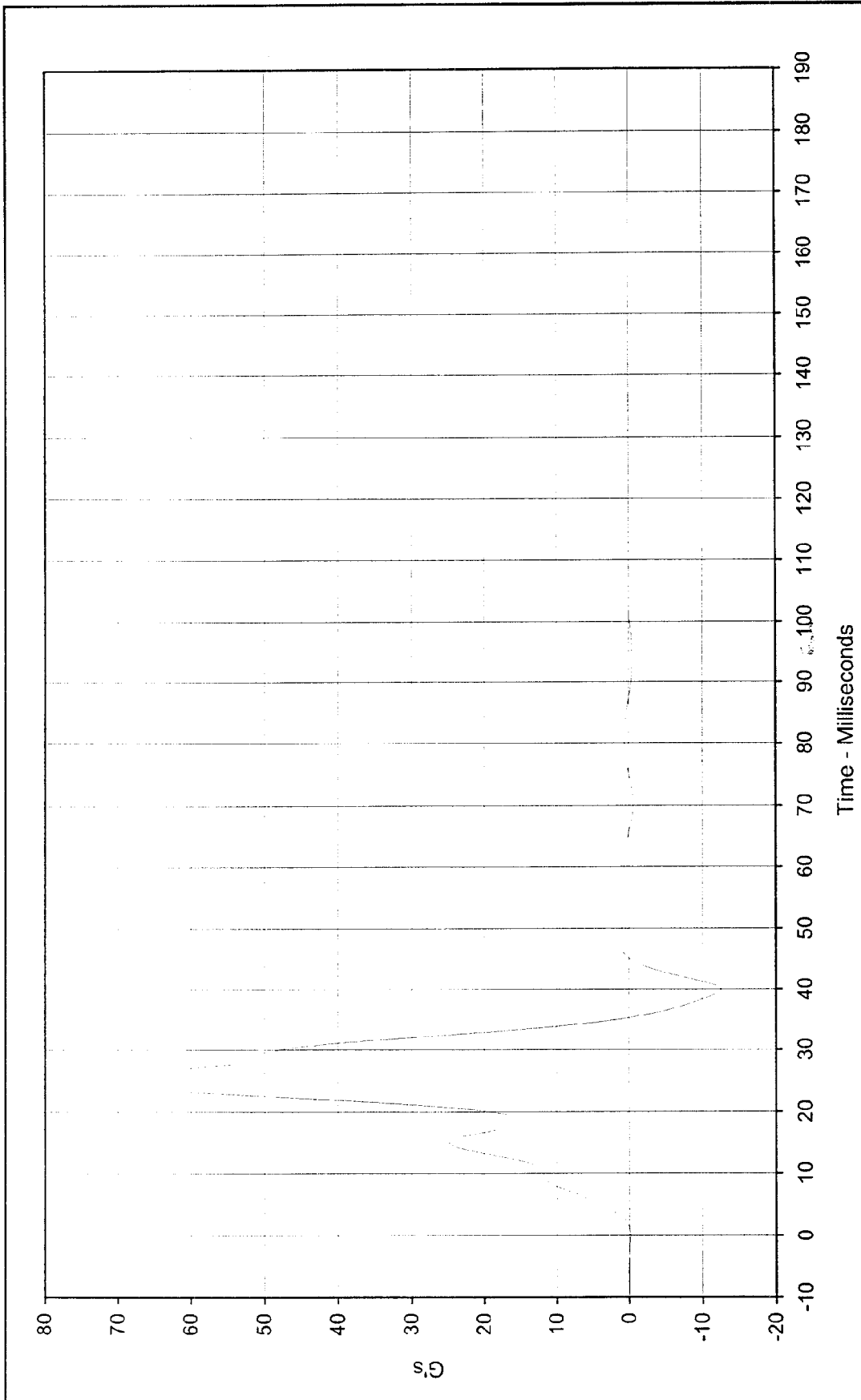
SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-047



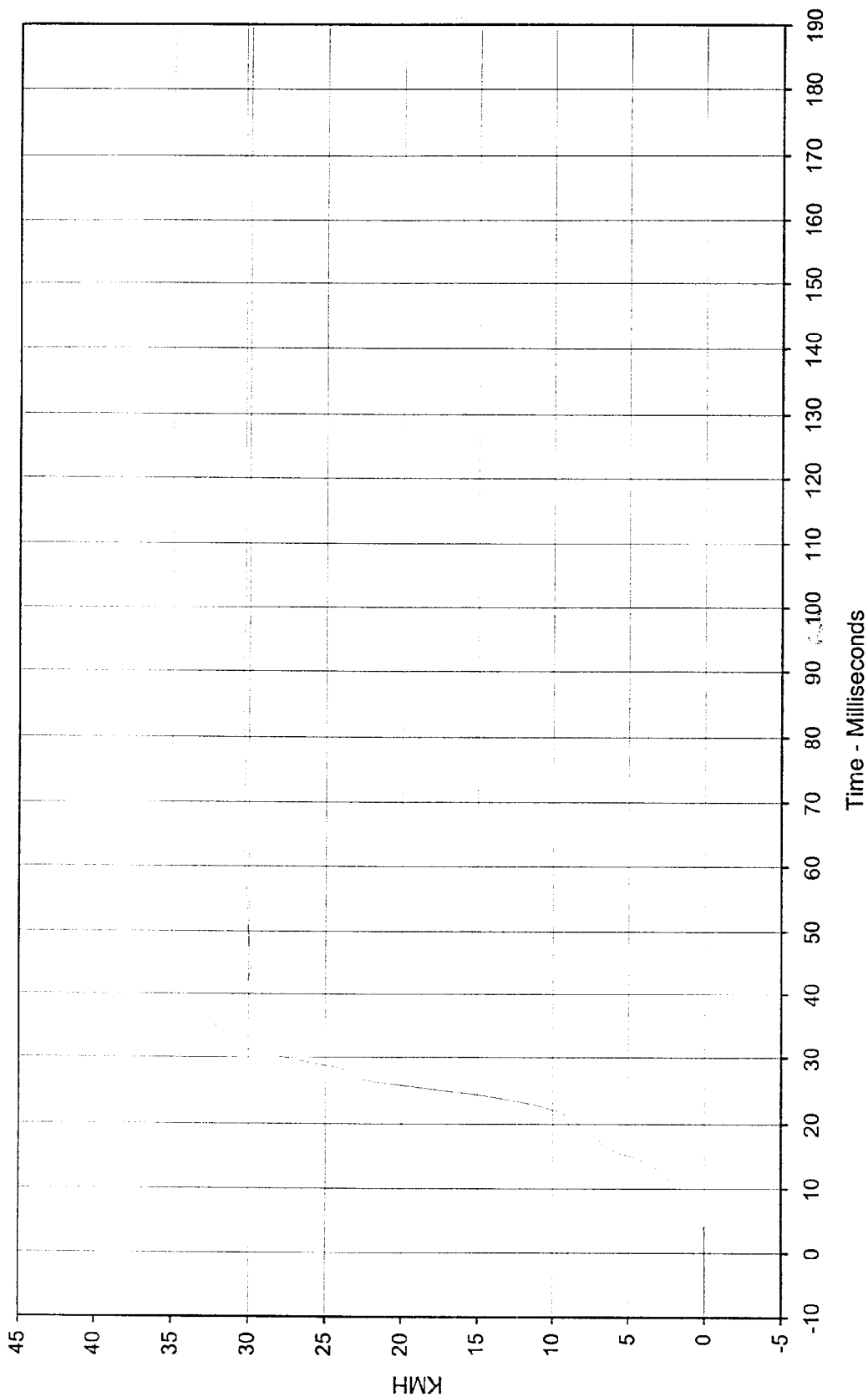
* Channel failed at 22.6 Msec



Curve Description:	Left Front Seat Track Y	*	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	78.7	at 25.0	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-12.6	at 40.0			
SAE Filter Class:	60				
Date of Test:	01/11/00				
Curve Number:	FIL-048				



* Channel failed at 99.2 Msec.



Curve Description: Left Front Seat Track Y Velocity * Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 32.1 at 35.3 Milliseconds

Minimum Value: 0.0 at 3.0 Milliseconds

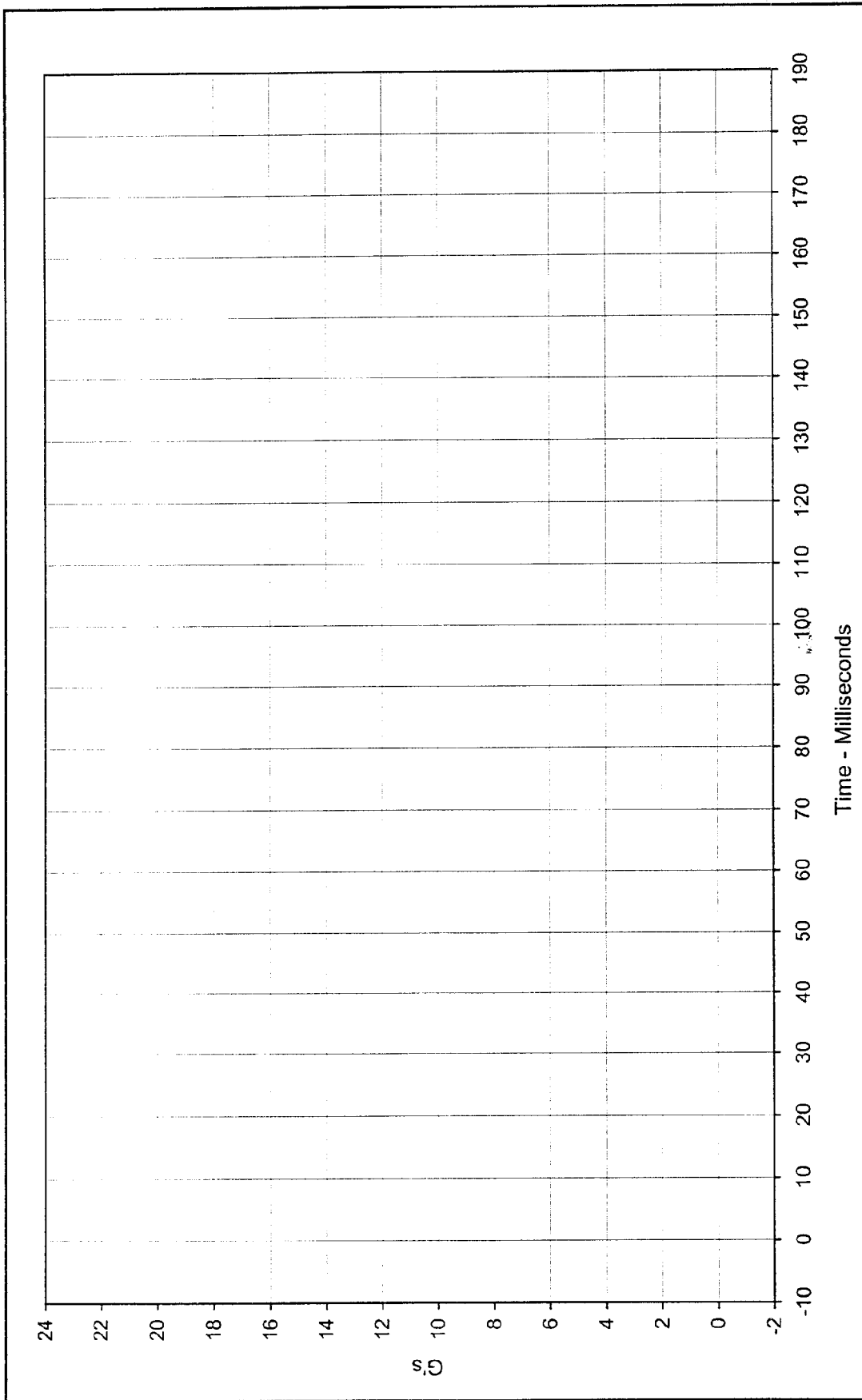
SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-048



* Channel failed at 99.2 Msec.

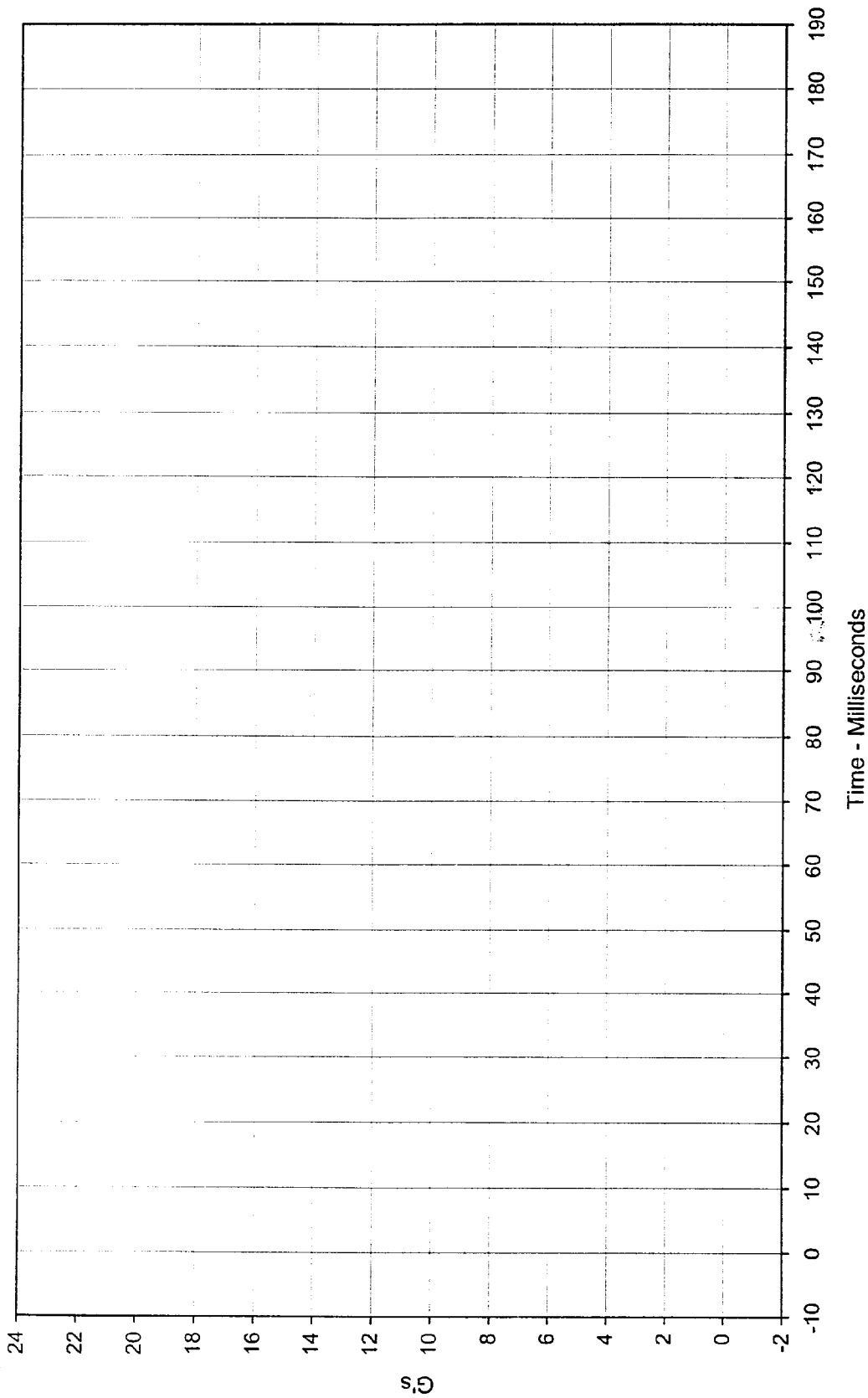


Curve Description: Left Rear Seat Structure Y ** Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup
 Minimum Value: 0.0 at 0.0 Milliseconds



SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-049

** Not installed, no access



Curve Description: Left Rear Seat Structure Y Velocity ** Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 0.0 at 0.0 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

Minimum Value: 0.0 at 0.0 Milliseconds

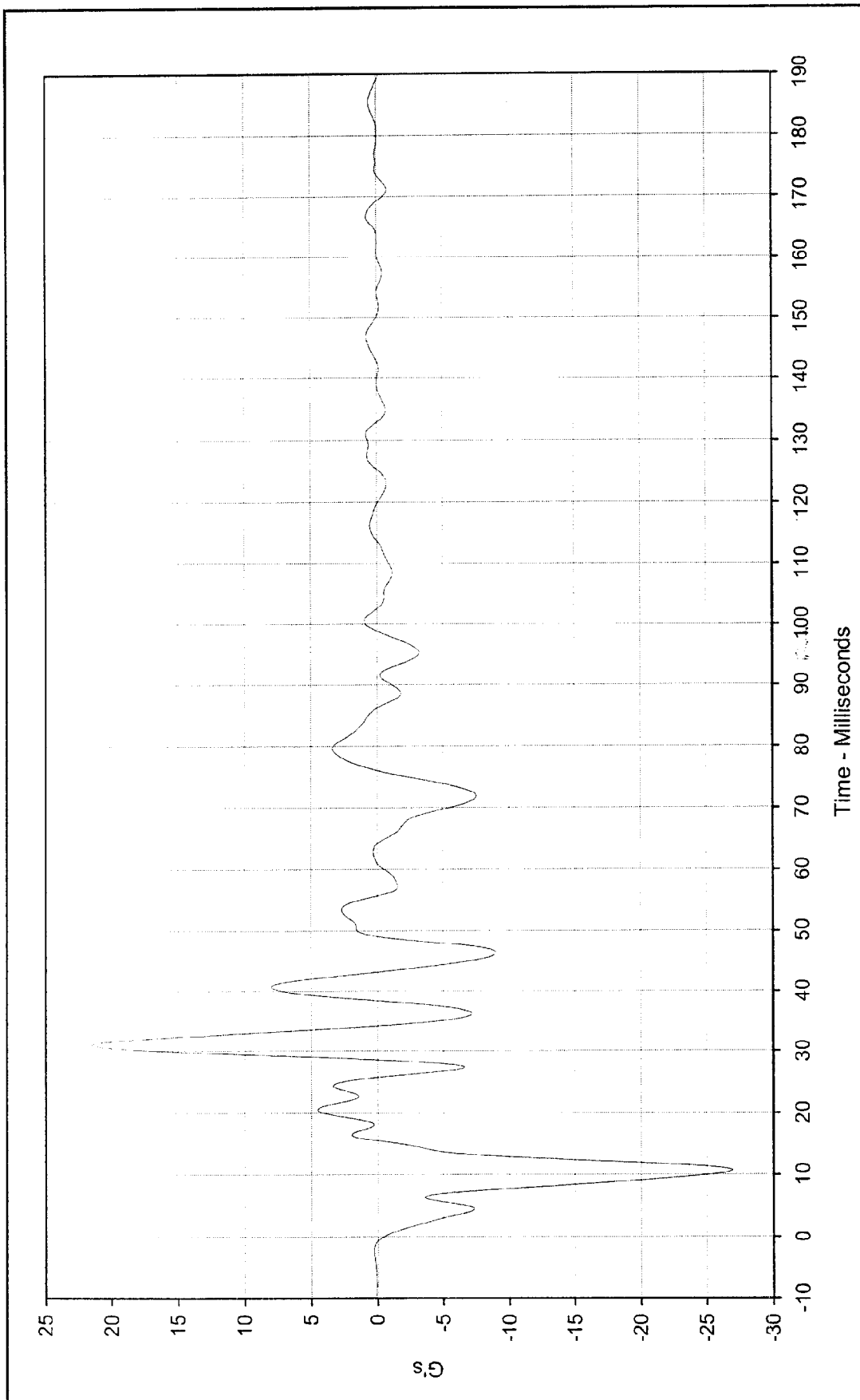
SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-049



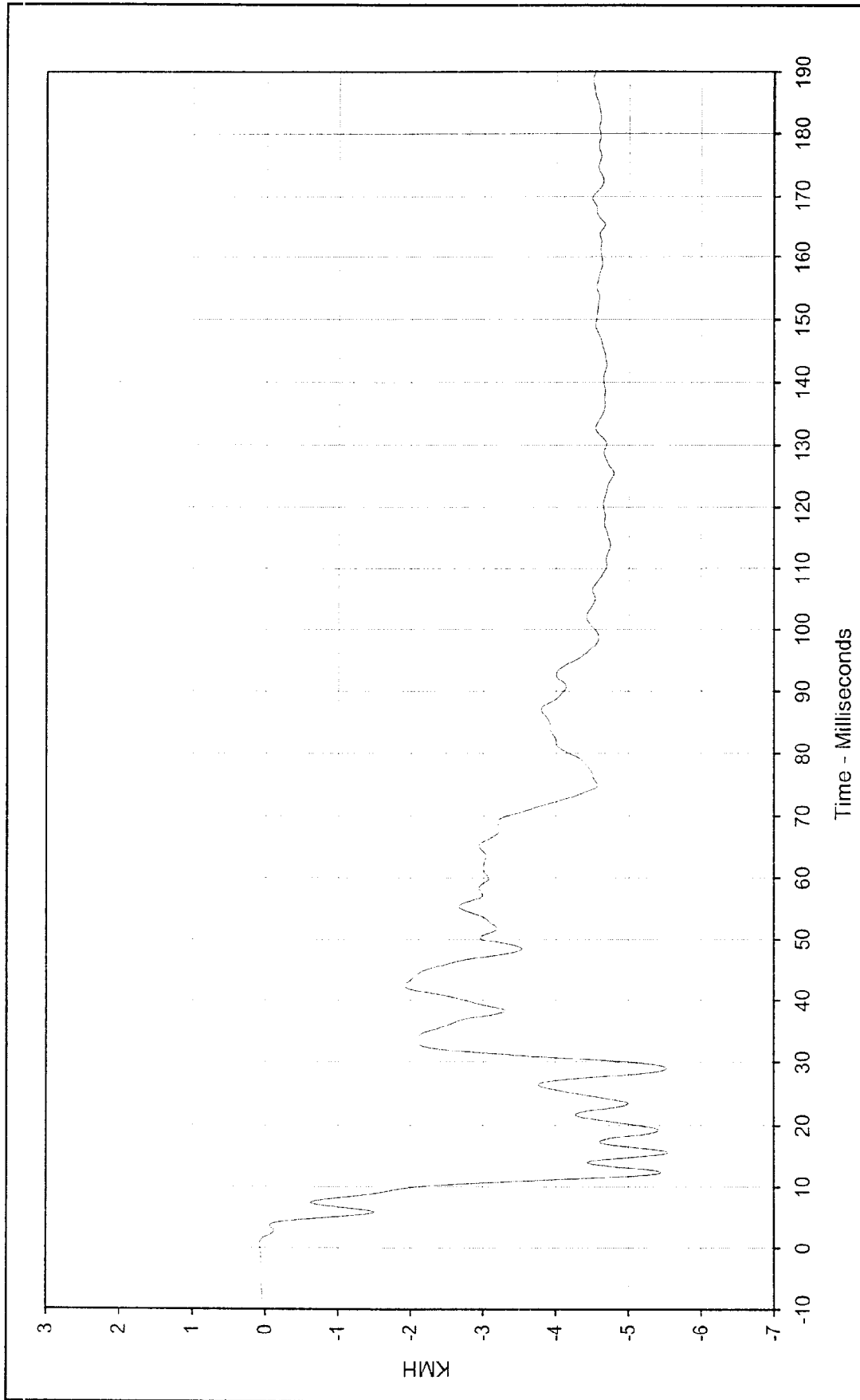
** Not installed, no access



Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Curve Description: Vehicle CG X
 Maximum Value: 21.6 at 31.1 Milliseconds
 Minimum Value: -26.9 at 10.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-050

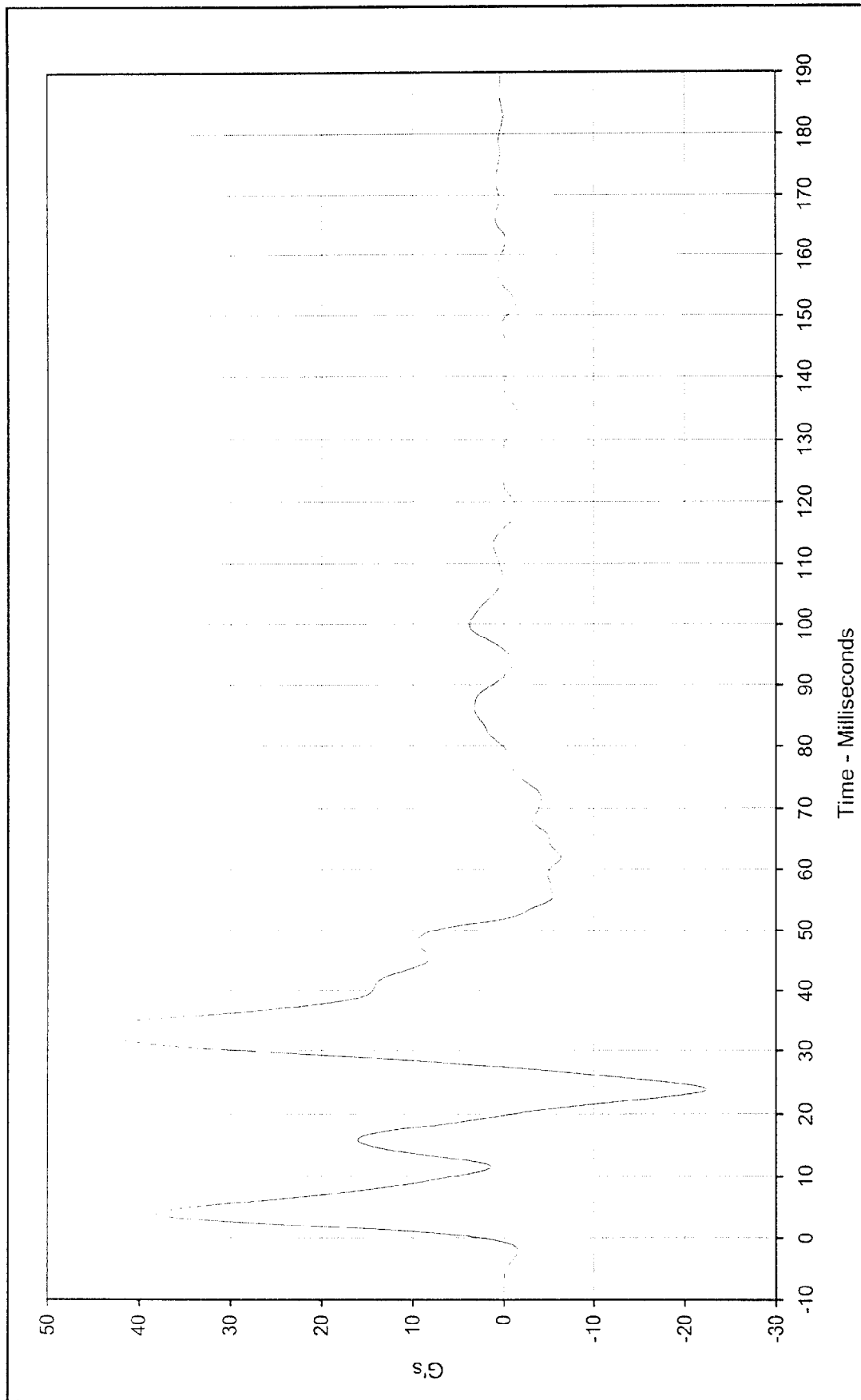




Curve Description: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Program:
 Test Vehicle: 2000 Ford F-150 XL Pickup

Vehicle CG X Velocity
 Maximum Value: 0.1 at 0.7 Milliseconds
 Minimum Value: -5.5 at 15.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-050

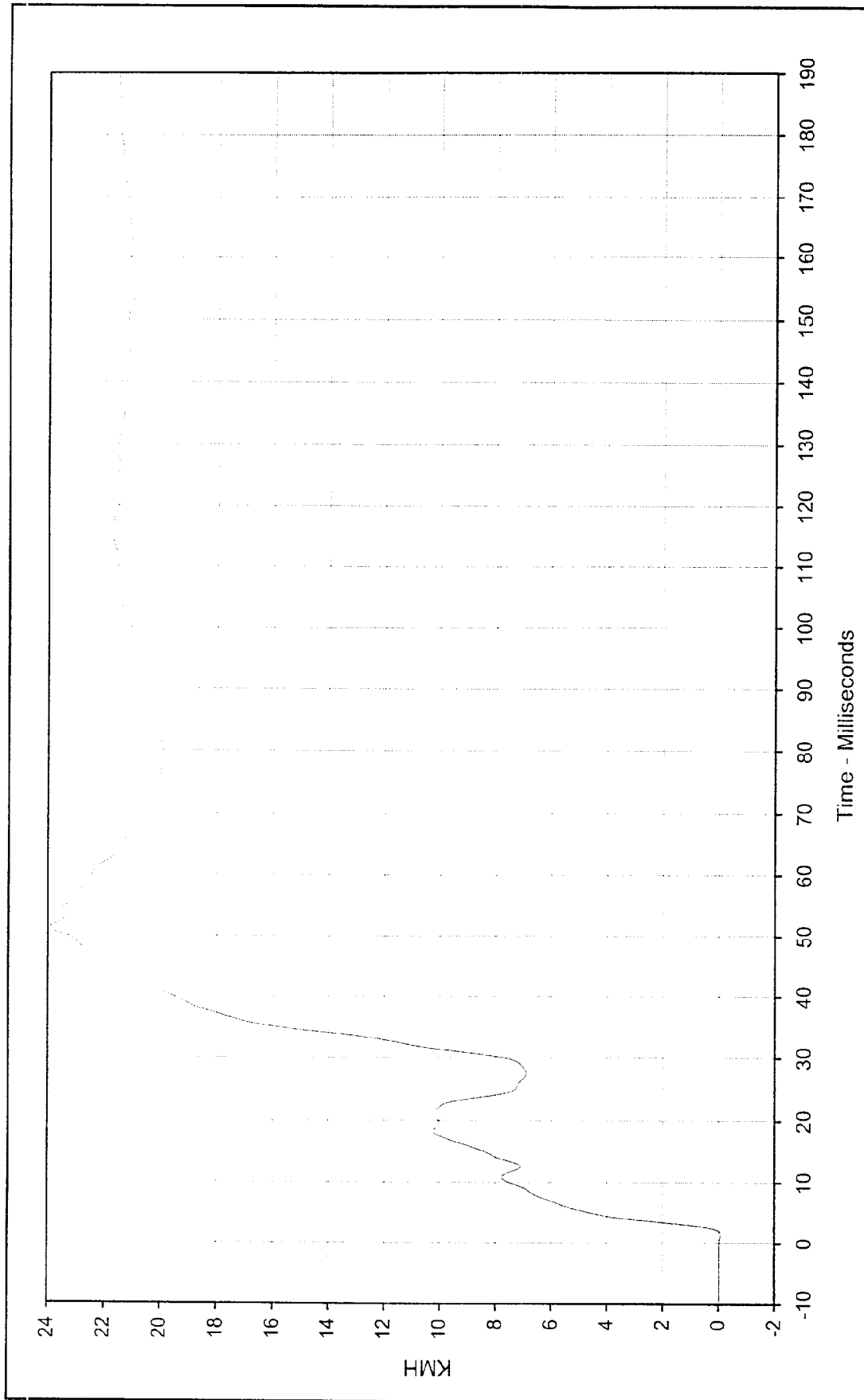




Curve Description: Vehicle CG Y
 Maximum Value: 46.0 at 33.7 Milliseconds
 Minimum Value: -22.4 at 23.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-051

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

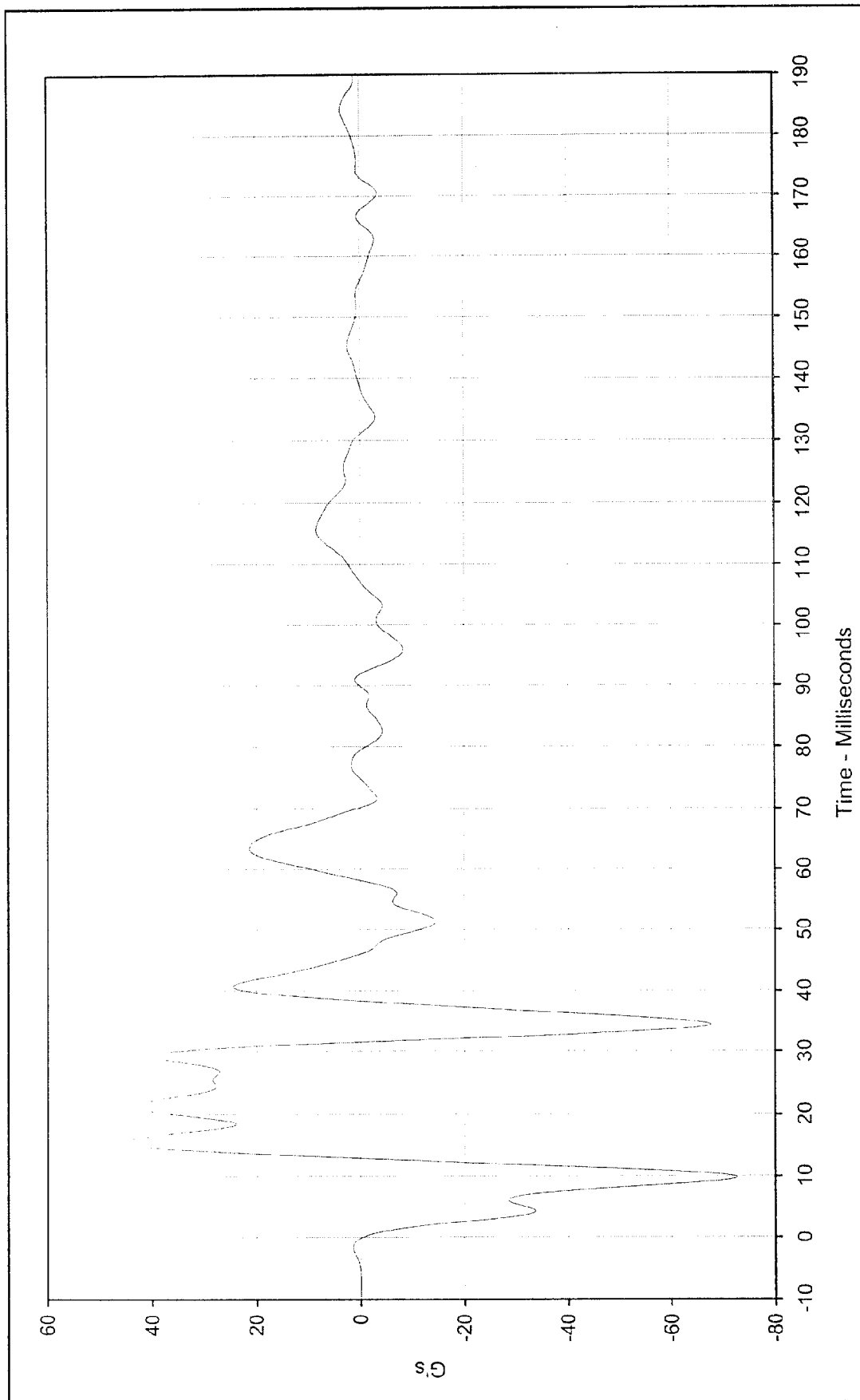




Curve Description: Vehicle CG Y Velocity
Maximum Value: 23.9 at 51.3 Milliseconds
Minimum Value: -0.1 at 1.5 Milliseconds
SAE Filler Class: 180
Date of Test: 01/11/00
Curve Number: IN1-051

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 45.6 at 15.4 Milliseconds

Minimum Value: -72.7 at 9.8 Milliseconds

SAE Filter Class: 60

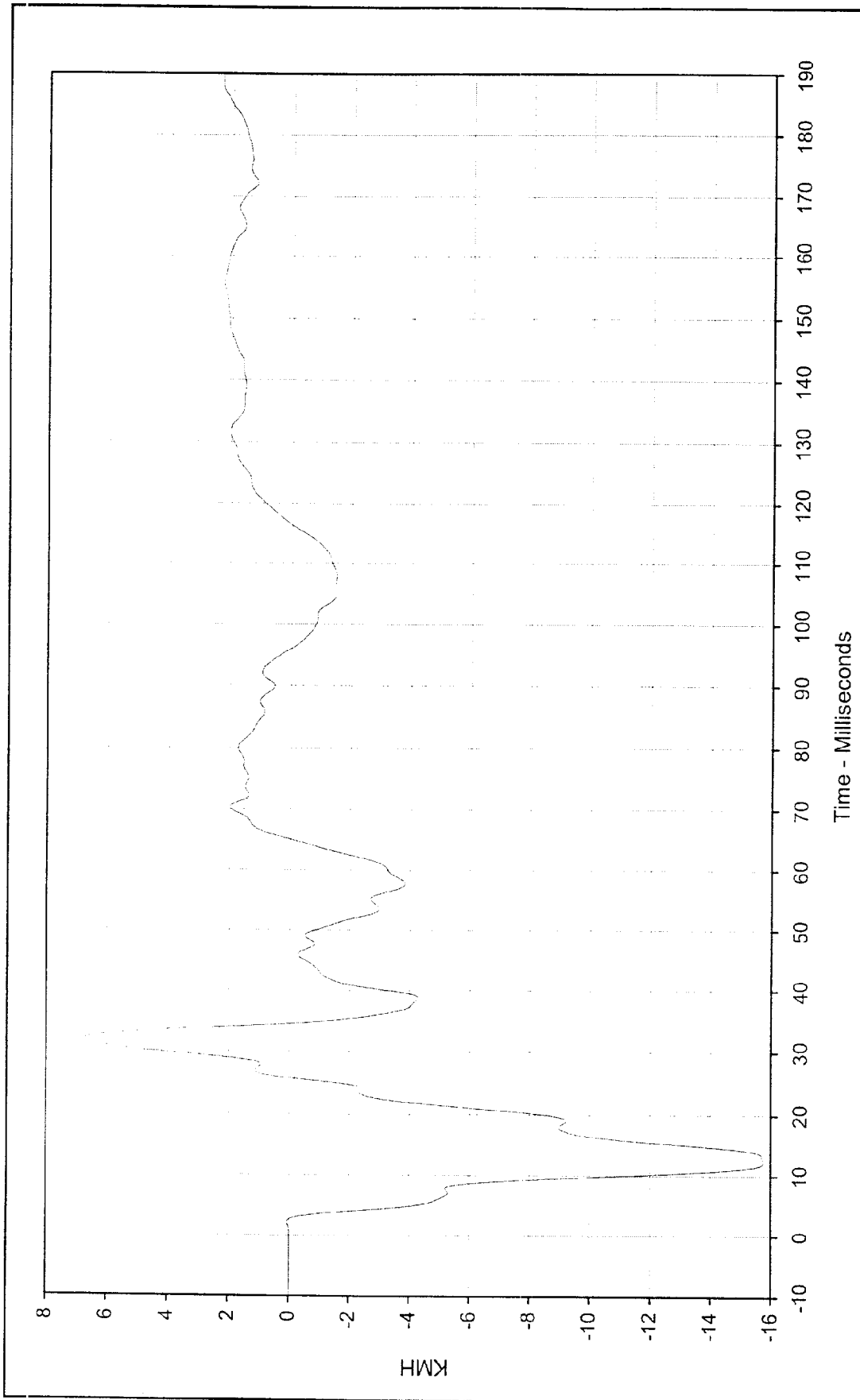
Date of Test: 01/11/00

Curve Number: FIL-052

Test Program: 2000 Ford F-150 XL Pickup

Test Vehicle:

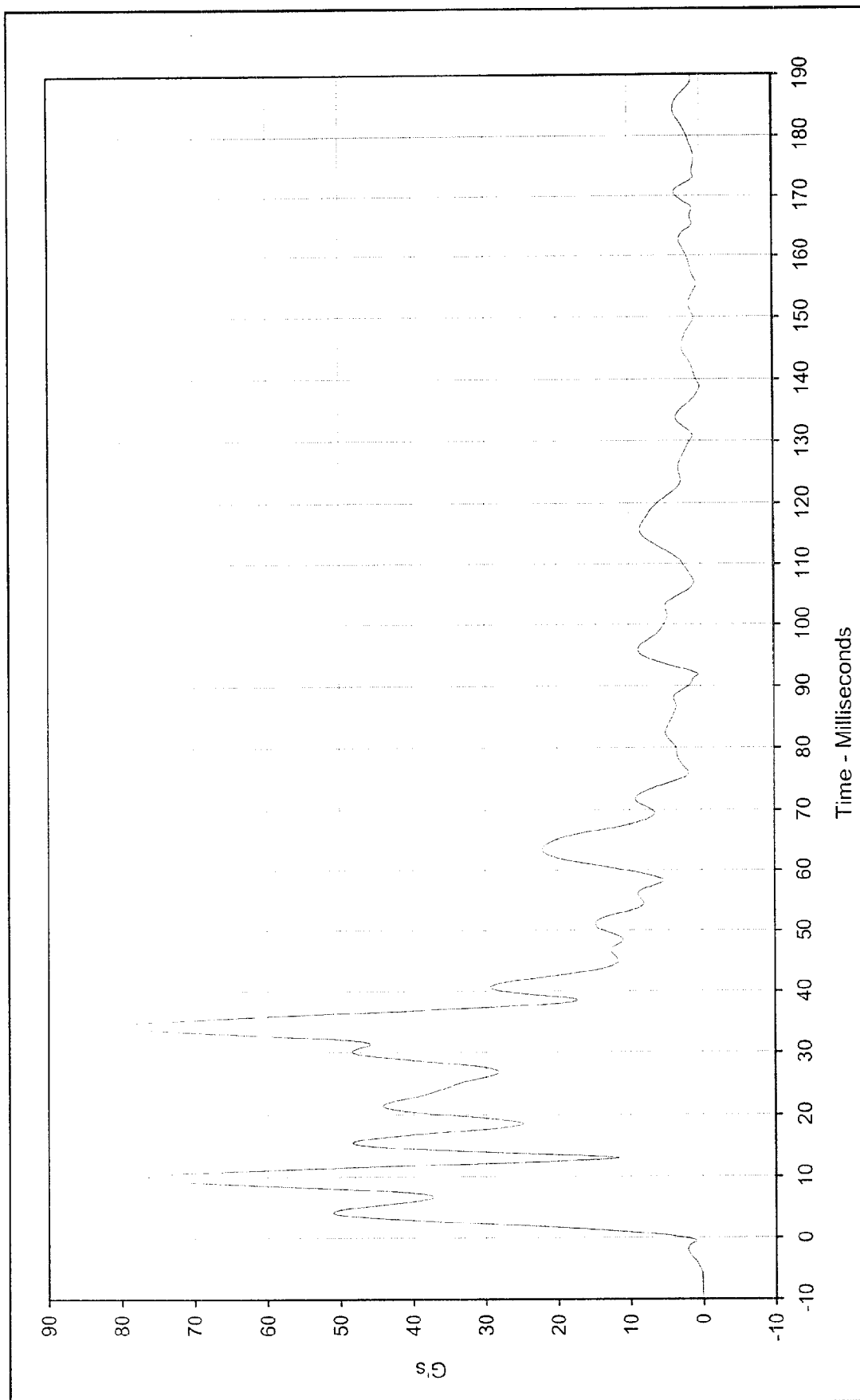




Curve Description: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Program:
 Test Vehicle: 2000 Ford F-150 XL Pickup

Vehicle CG Z Velocity
 Maximum Value: 6.8 at 31.9 Milliseconds
 Minimum Value: -15.8 at 12.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/11/00
 Curve Number: IN1-052

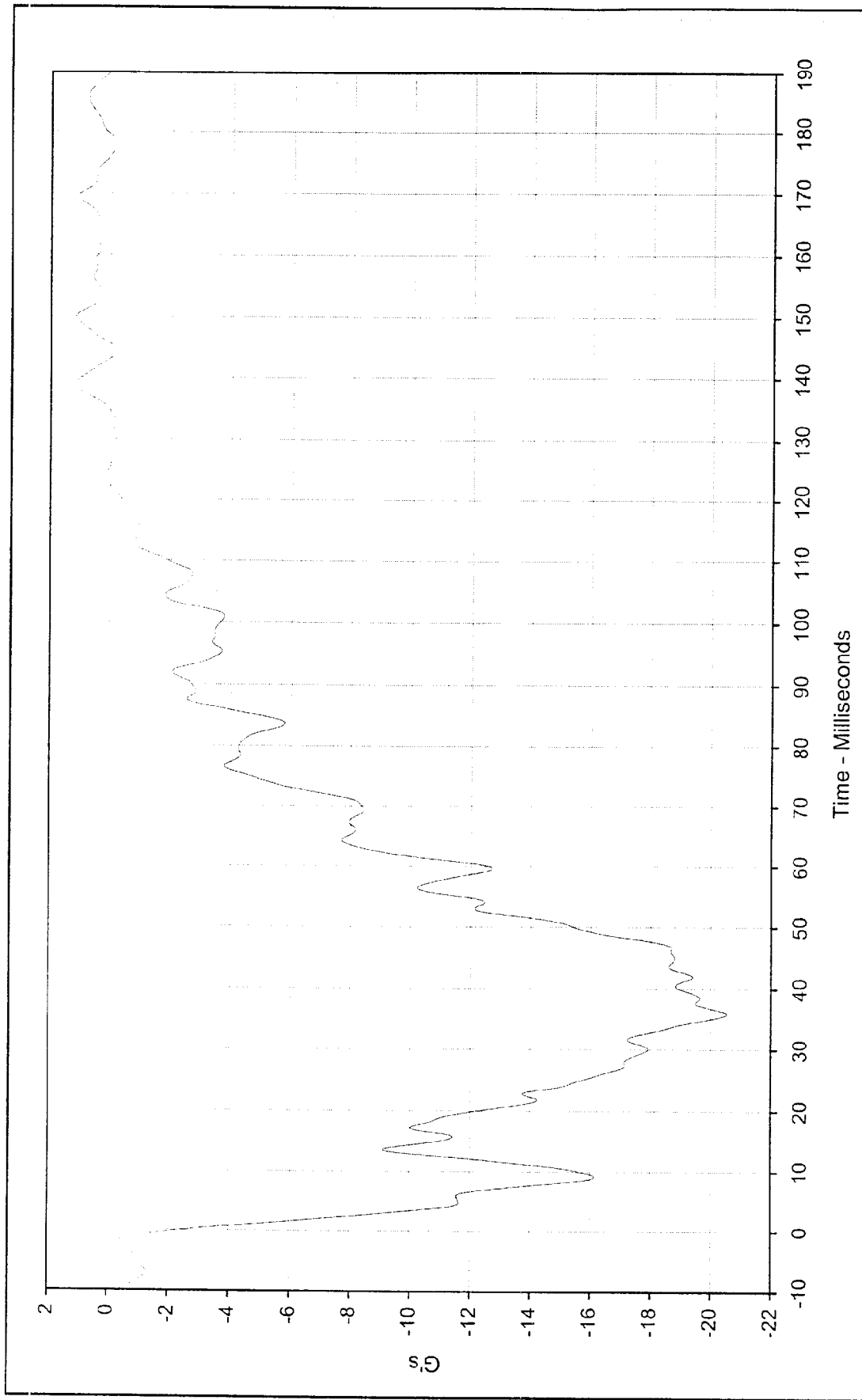




Curve Description: Vehicle CG Resultant
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

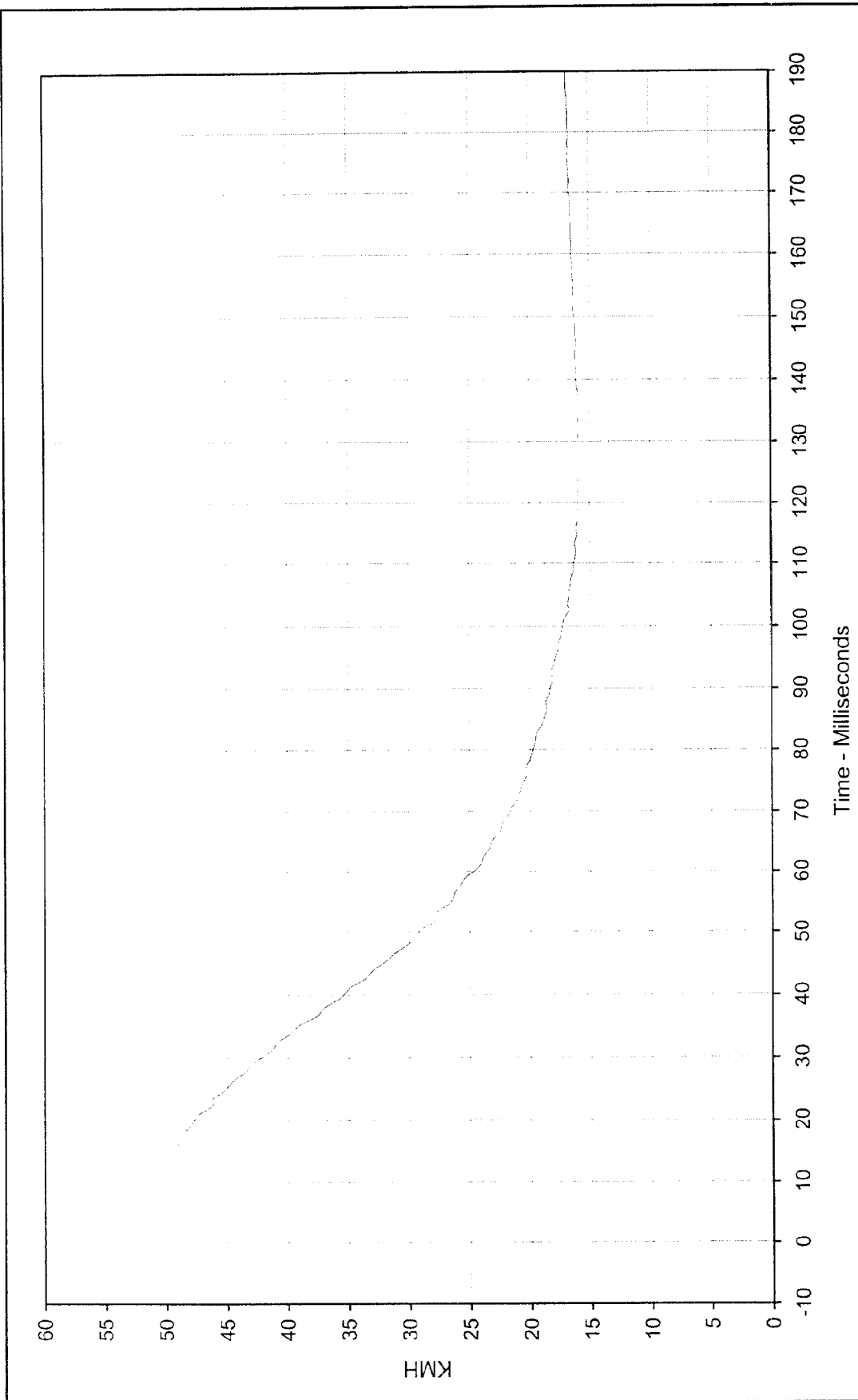
Maximum Value: 81.3 at 34.3 Milliseconds
 Minimum Value: 0.0 at 138.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: RES-050





Curve Description:	MDB CG X	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0203
Maximum Value:	1.2 at 150.0 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup		
Minimum Value:	-20.5 at 35.9 Milliseconds				
SAE Filter Class:	60				
Date of Test:	01/11/00				
Curve Number:	FIL-053				





Curve Description: MDB CG Velocity X Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 55.5 at 0.3 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

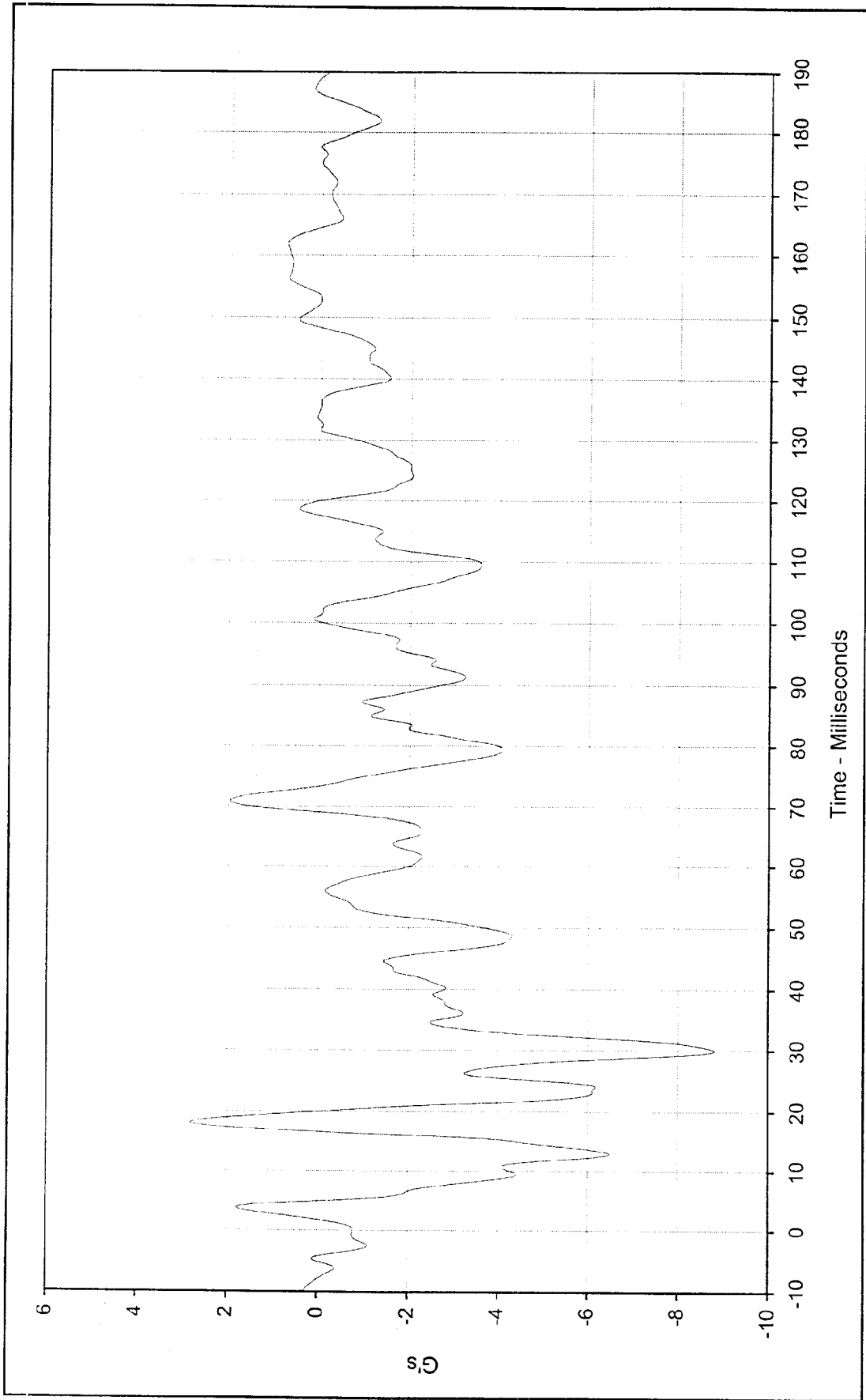
Minimum Value: 15.9 at 133.5 Milliseconds

SAE Filter Class: 180

Date of Test: 01/11/00

Curve Number: IN1-053

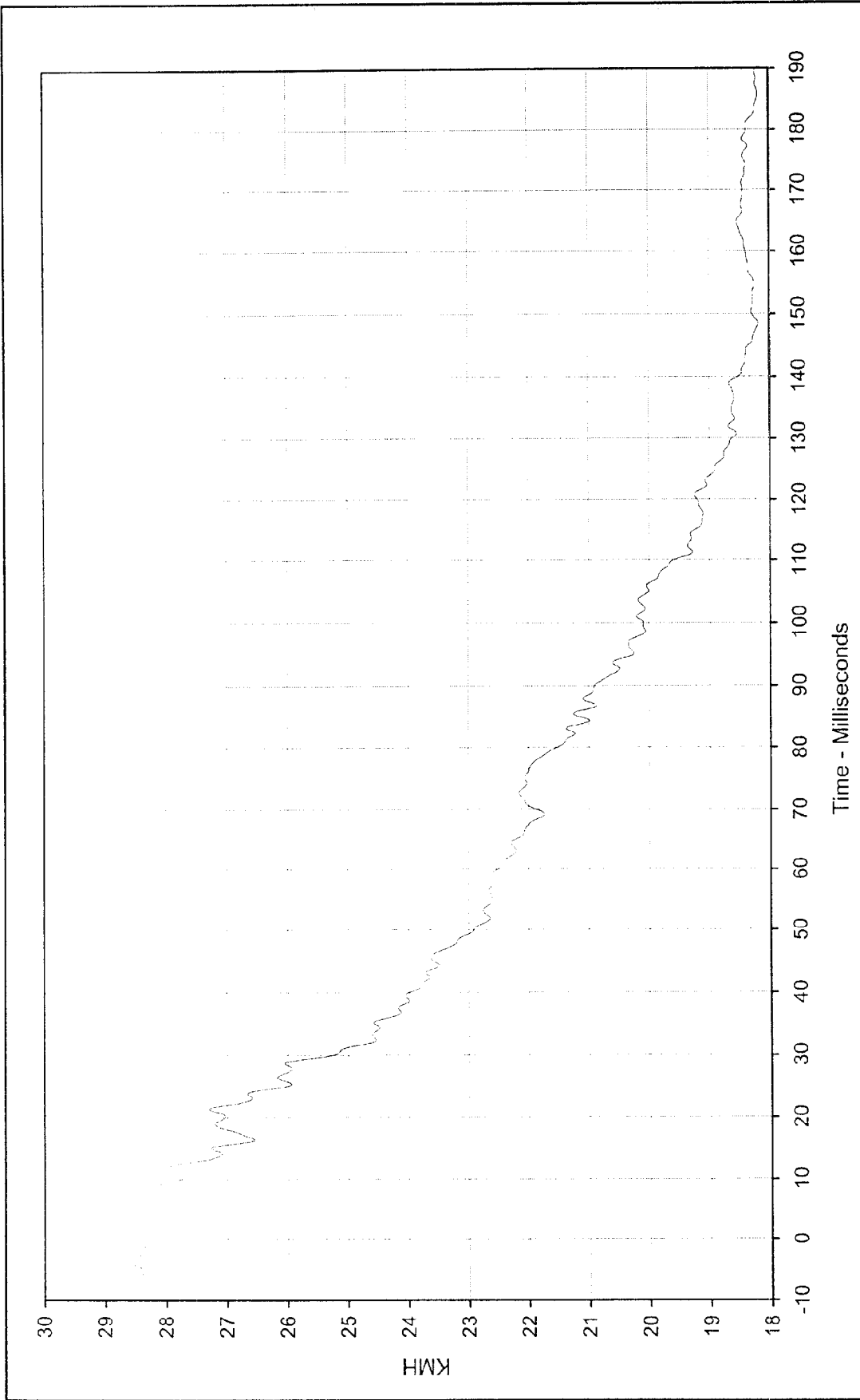




Curve Description: MDB CG Y
Maximum Value: 2.8 at 18.1 Milliseconds
Minimum Value: -8.8 at 30.0 Milliseconds
SAE Filter Class: 60
Date of Test: 01/11/00
Curve Number: FIL-054

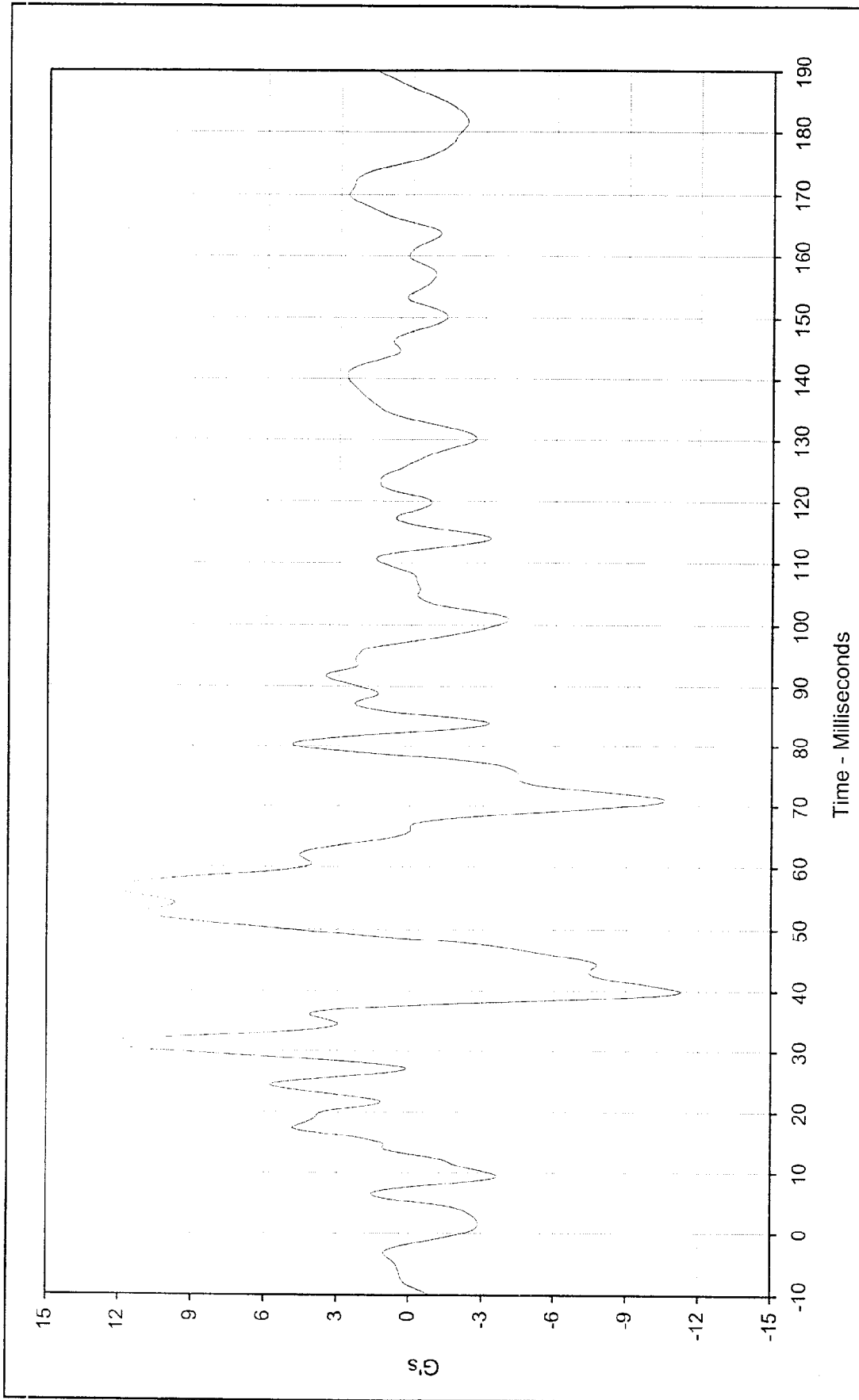
Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	MDB CG Velocity Y		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	28.8	at 4.9 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	18.2	at 185.8 Milliseconds			
SAE Filter Class:	180				
Date of Test:	01/11/00				
Curve Number:	IN1-054				

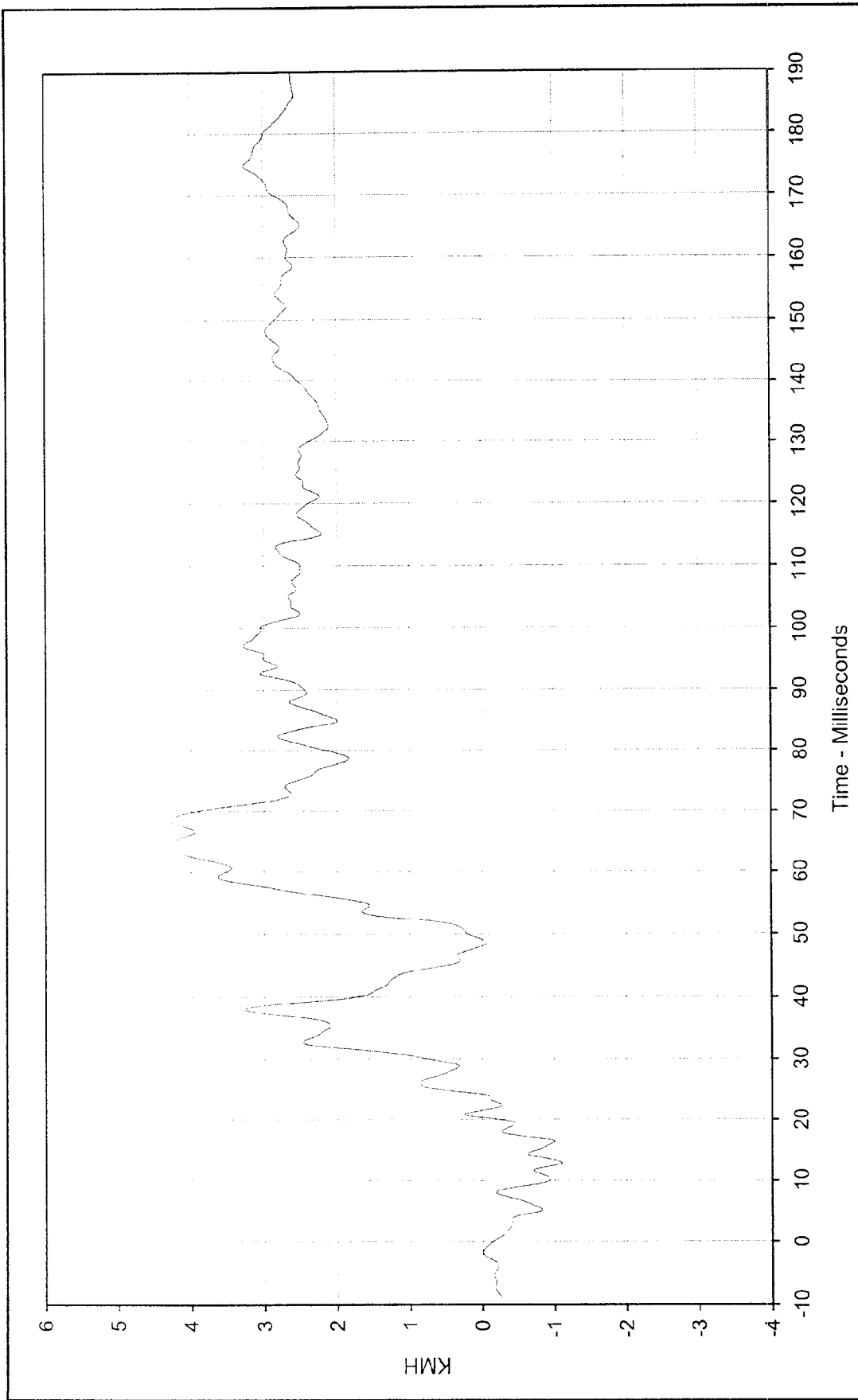




Curve Description: MDB CG Z
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 12.7 at 31.2 Milliseconds
 Minimum Value: -11.3 at 39.9 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/11/00
 Curve Number: FIL-055

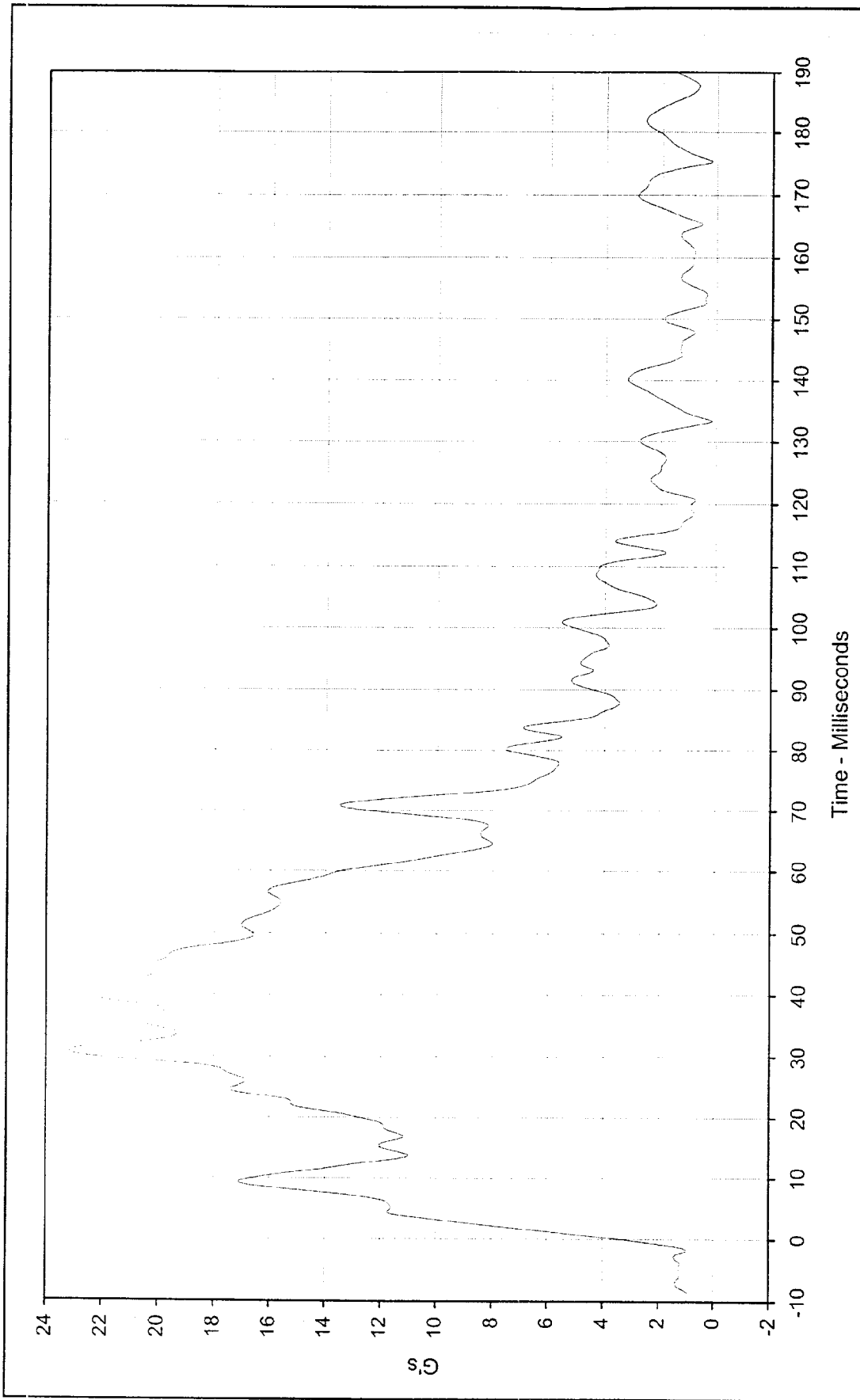




Curve Description:	MDB CG Velocity Z			Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	4.3	at	68.5	Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup
Minimum Value:	-1.1	at	12.9	Milliseconds		
SAE Filter Class:	180					
Date of Test:	01/11/00					
Curve Number:	IN1-055					

The logo for KARCO Engineering features the word "KARCO" in a large, bold, sans-serif font. A stylized keyhole is integrated into the letter "K". To the right of "KARCO", the word "Engineering" is written in a smaller, italicized, sans-serif font. The entire logo is set against a background that is split diagonally from the bottom-left to the top-right, with the top-left half being black and the bottom-right half being white.

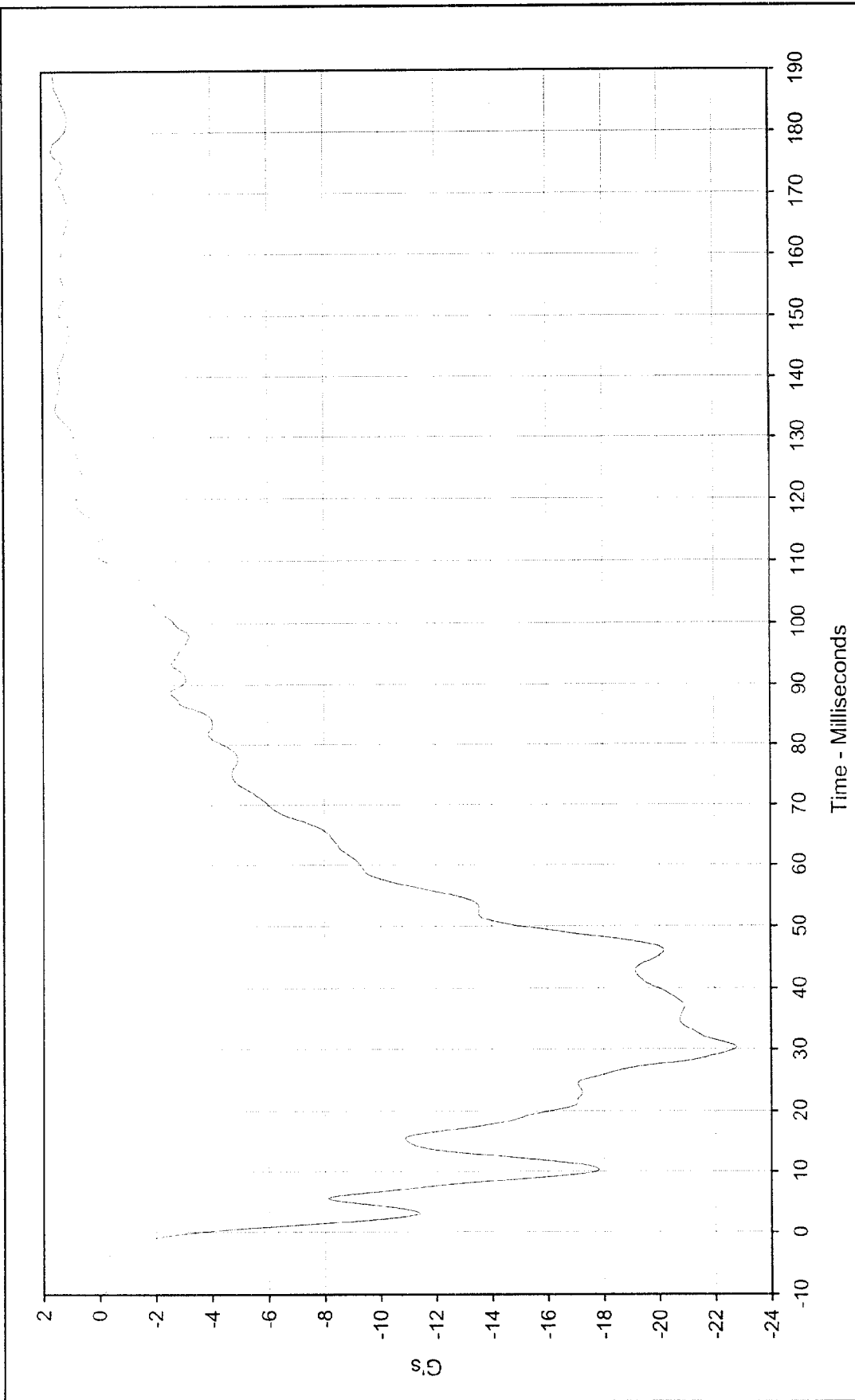




Curve Description: MDB CG Resultant
Maximum Value: 23.2 at 30.8 Milliseconds
Minimum Value: 0.2 at 133.3 Milliseconds
SAE Filter Class: 60
Date of Test: 01/11/00
Curve Number: RES-053

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup

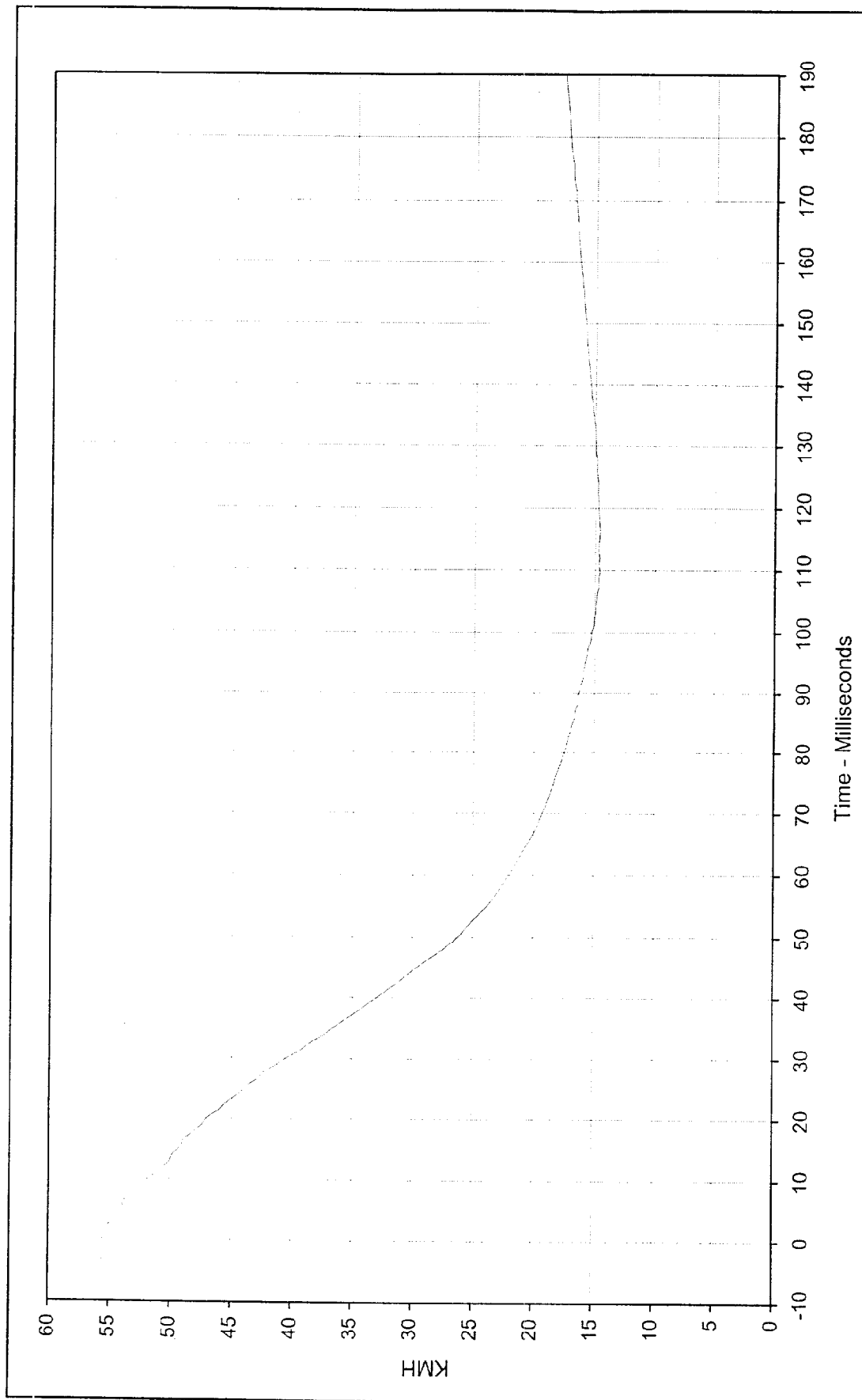




Curve Description: MDB Rear X
Maximum Value: 1.7 at 177.0 Milliseconds
Minimum Value: -22.8 at 30.3 Milliseconds
SAE Filter Class: 60
Date of Test: 01/11/00
Curve Number: FIL-056

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup



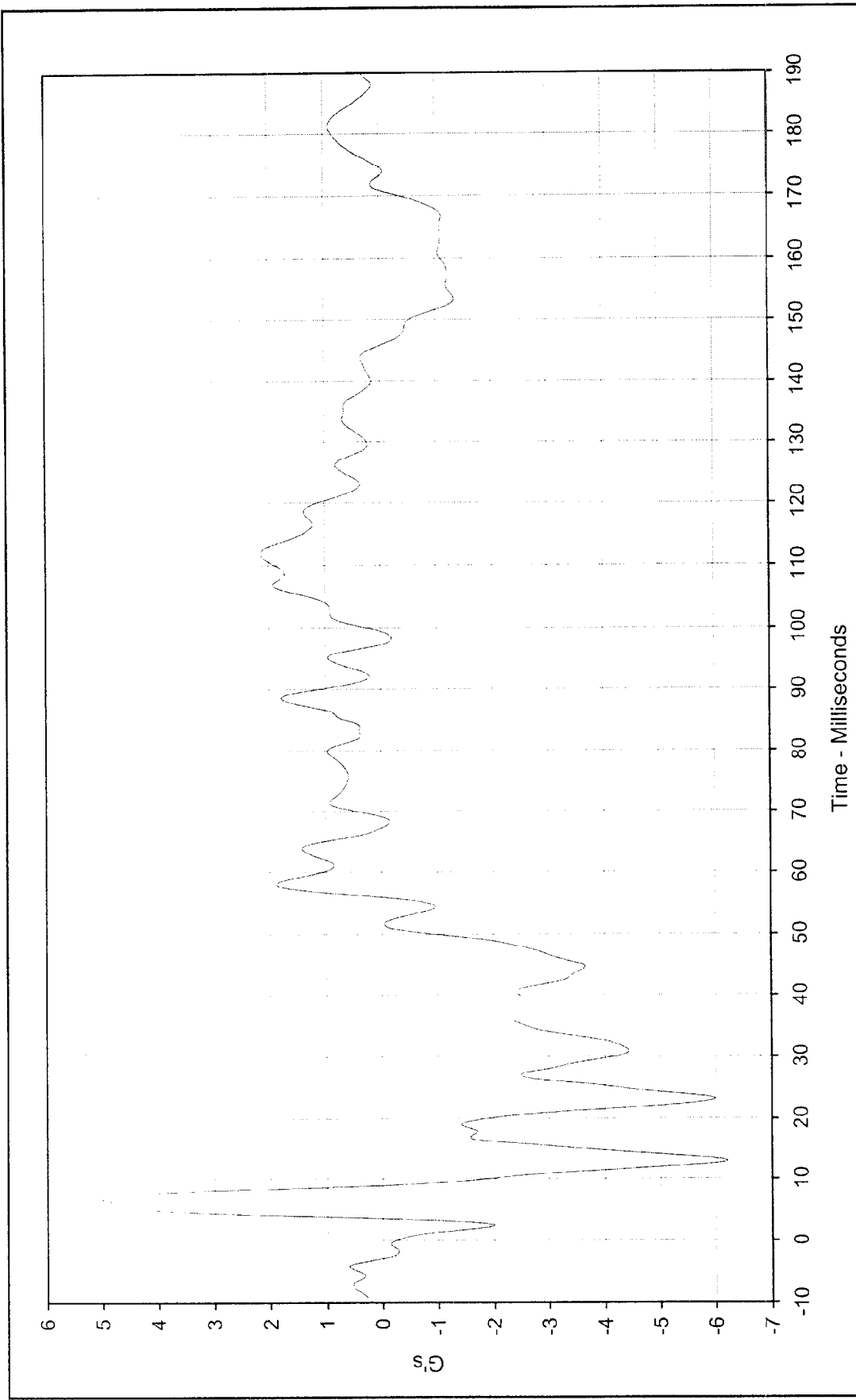


Curve Description:	MDB Rear X Velocity		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	55.6	at 0.7	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	14.6	at 116.2			
SAE Filter Class:	180				
Date of Test:	01/11/00				
Curve Number:	IN1-056				



KARCO
Engineering

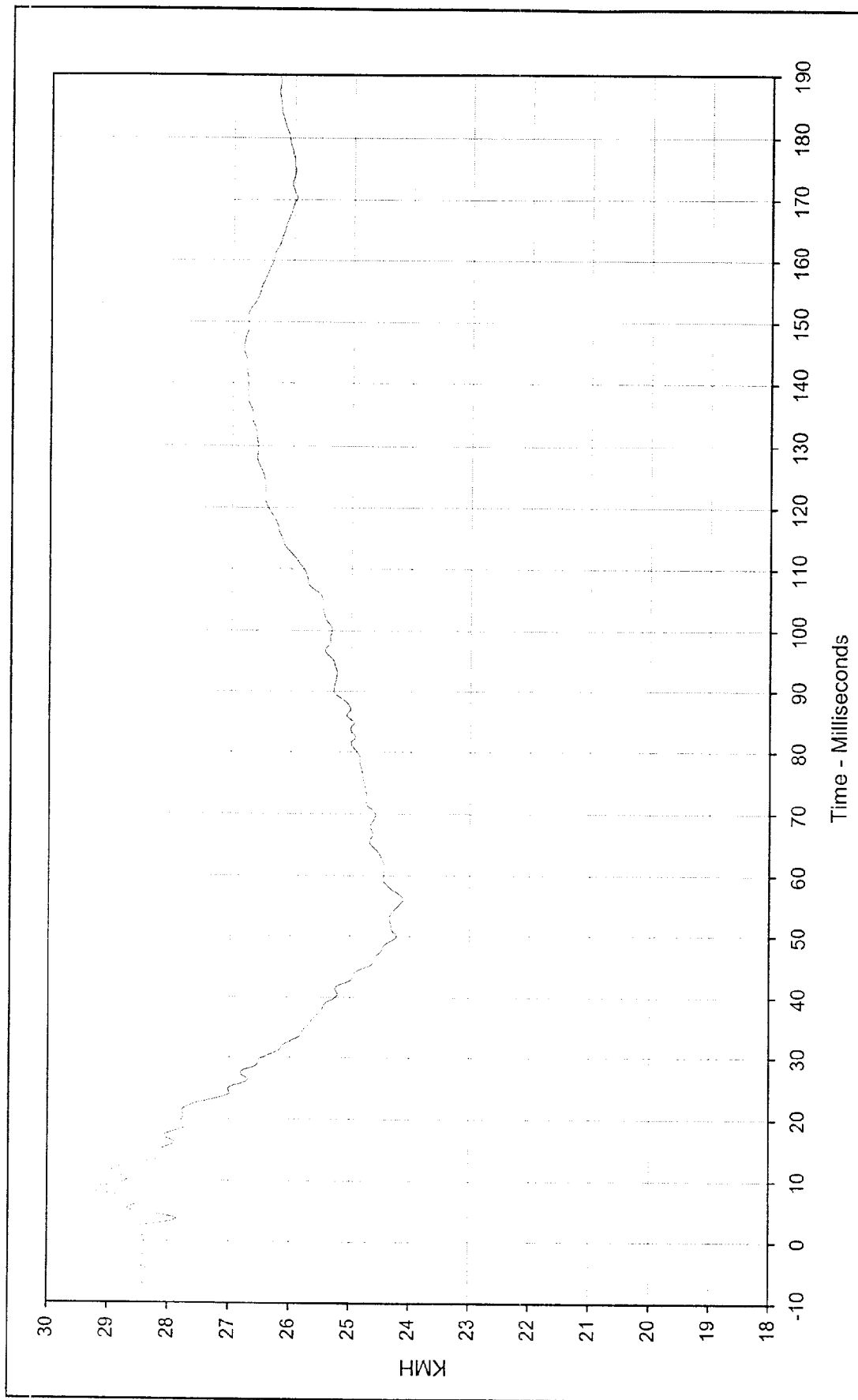




Curve Description:		MDB Rear Y		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	5.0	at	6.8			
Minimum Value:	-6.2	at	12.9	Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup
SAE Filter Class:	60					
Date of Test:	01/11/00					
Curve Number:	FIL-057					

The logo for KARCO Engineering features the word "KARCO" in a large, bold, sans-serif font. A stylized checkered flag is integrated into the letter "A". To the right of "KARCO", the word "Engineering" is written in a smaller, italicized, sans-serif font. The entire logo is set against a black background with a white border.

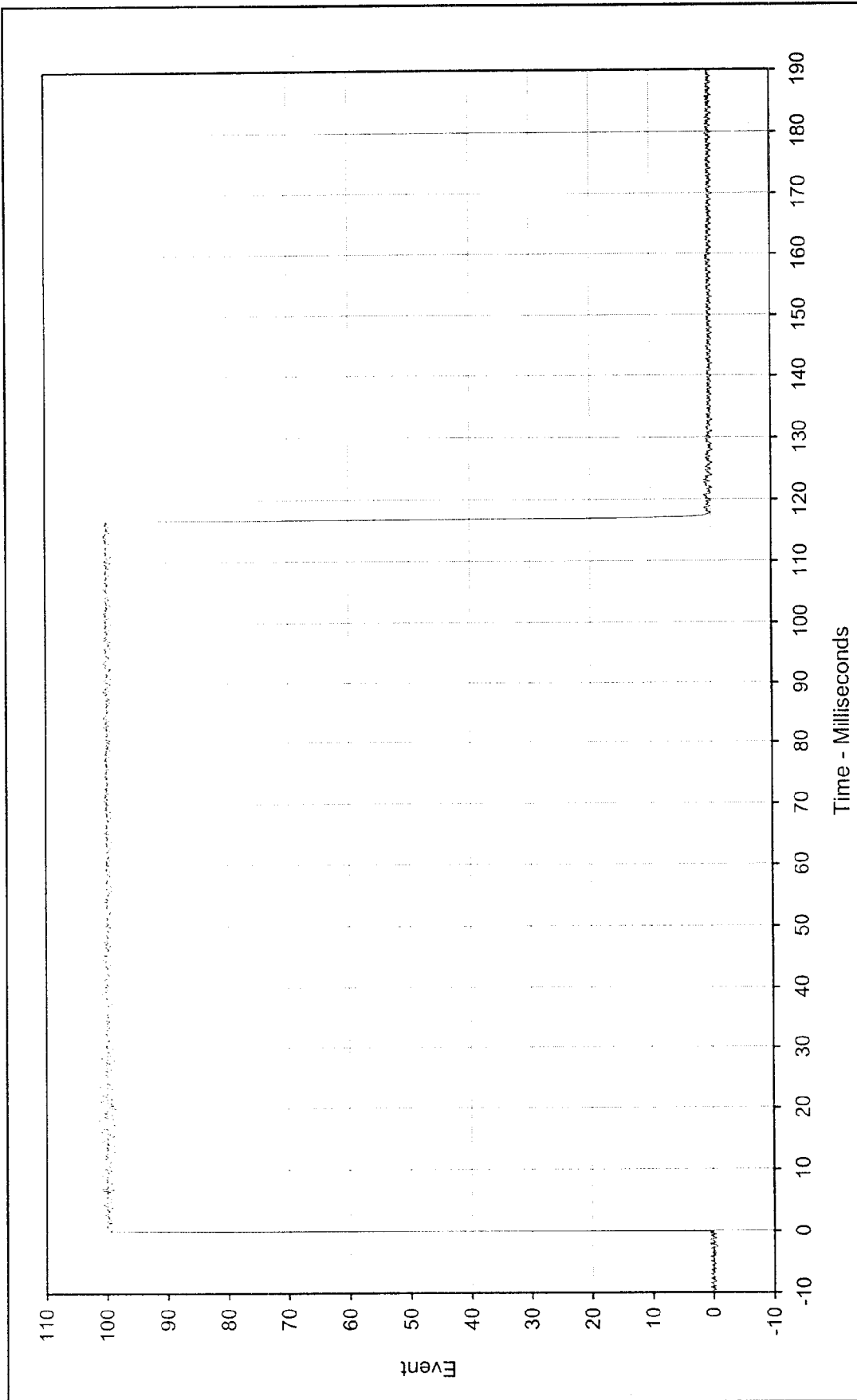




Curve Description:		MDB Rear Y Velocity		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	29.3	at	8.5	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	24.1	at	56.2			
SAE Filter Class:	180					
Date of Test:	01/11/00					
Curve Number:	IN1-057					



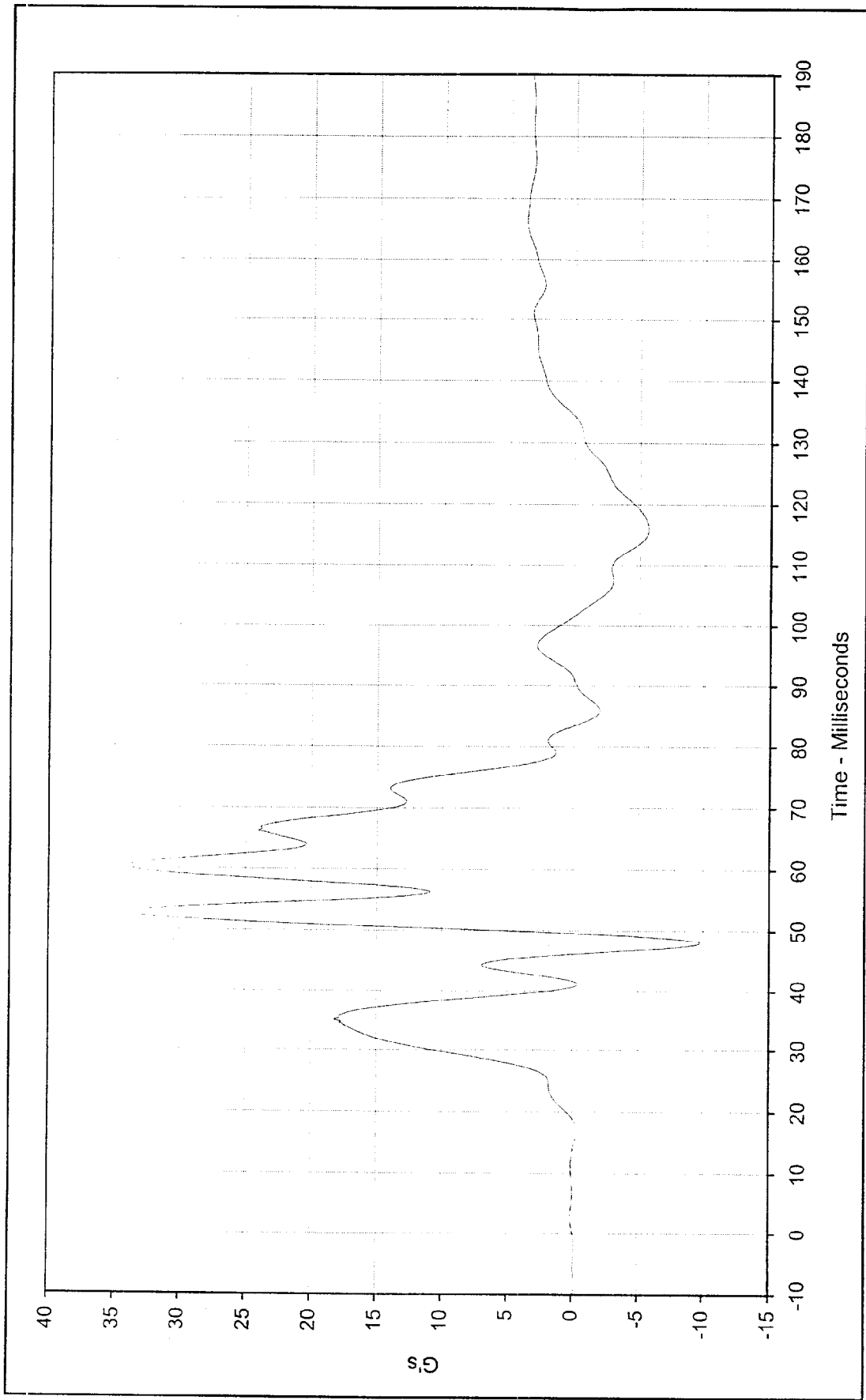




Curve Description: MDB Right Bumper Contact
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

Maximum Value: 101.5 at 18.0 Milliseconds
 Crossing Point: 50% at 0.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/11/00
 Curve Number: FIL-058

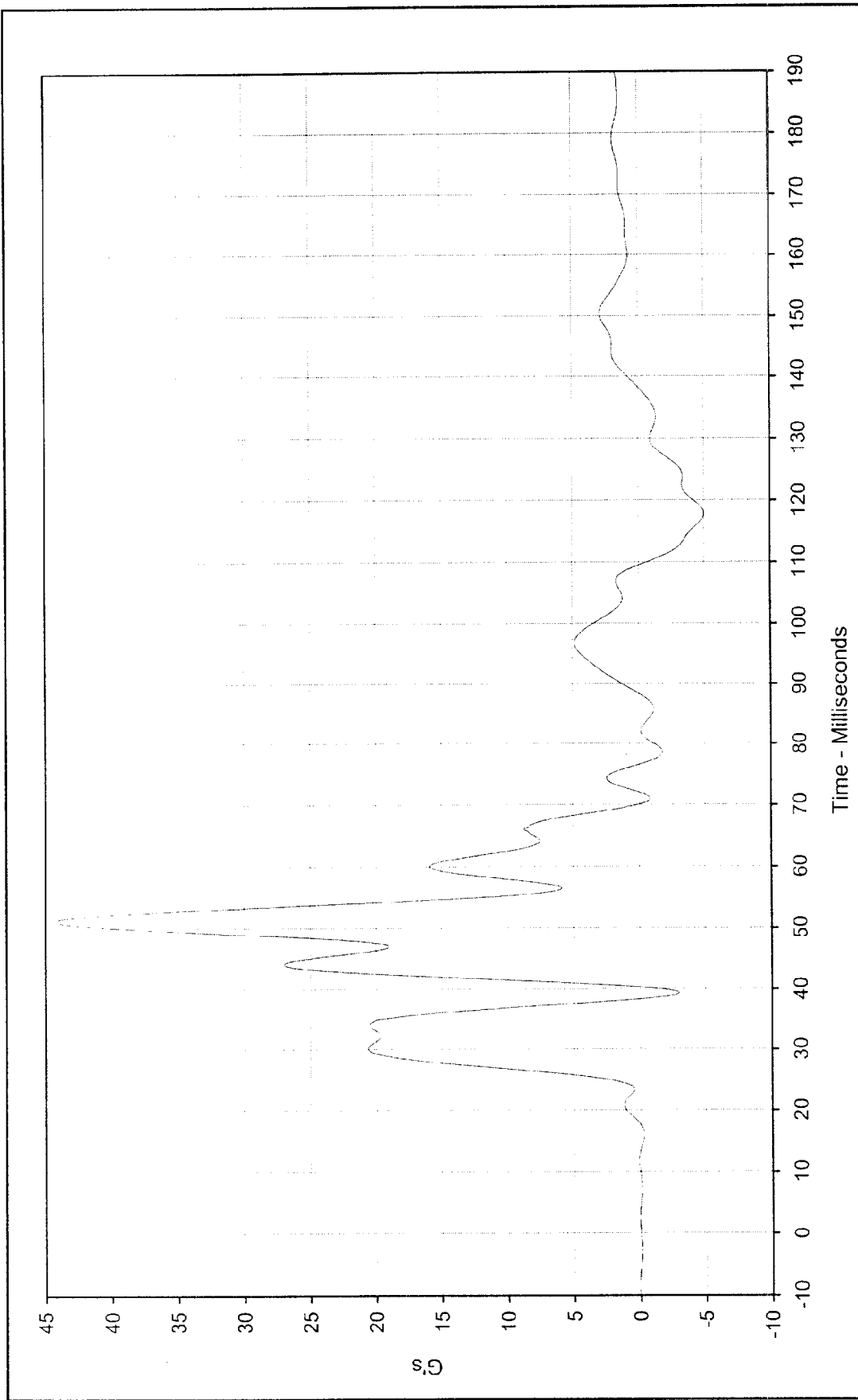




Curve Description:	Driver Upper Rib Primary	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	34.1 at 60.3 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-9.8 at 48.0 Milliseconds			



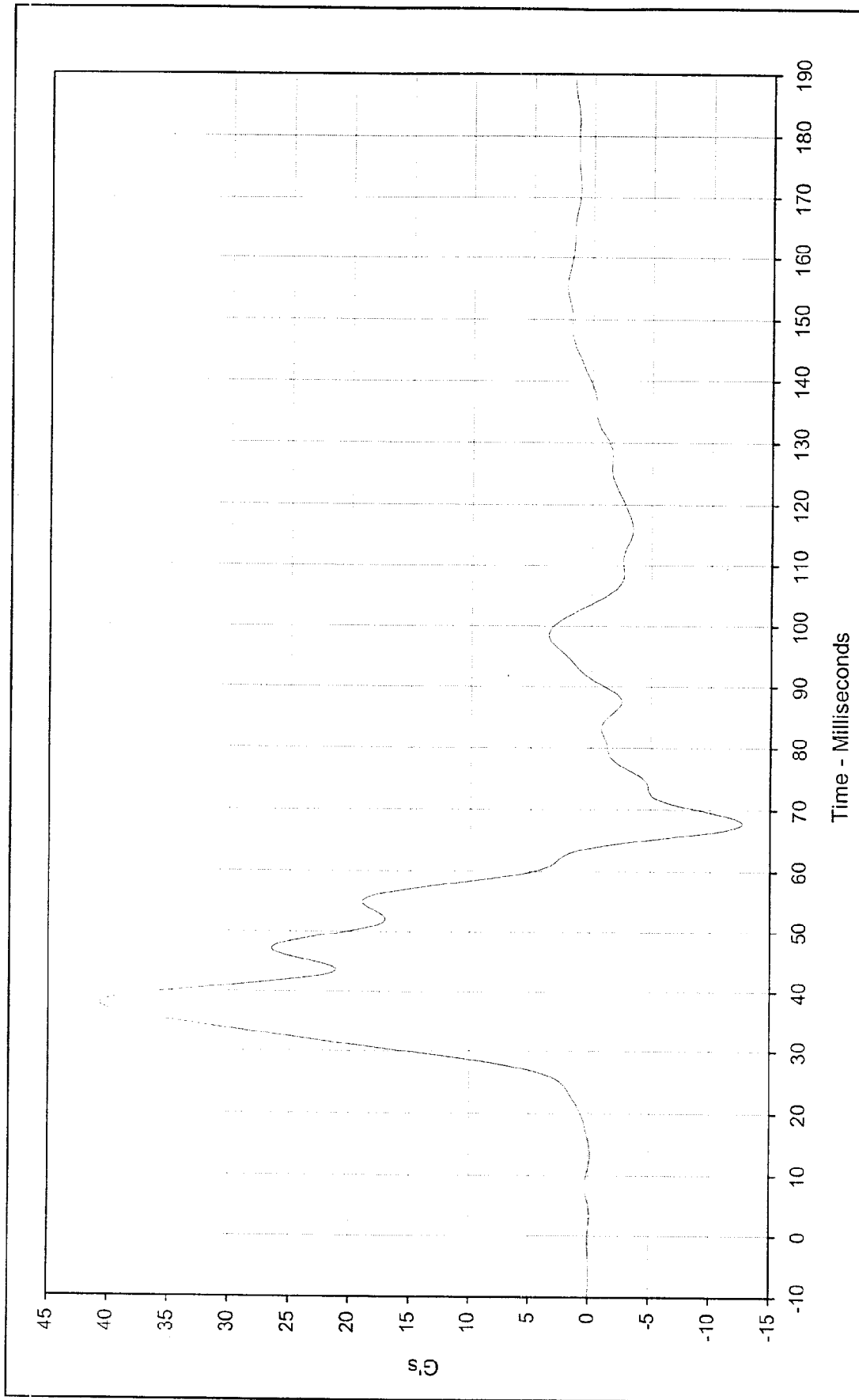
SAE Filter Class:	FIR 100
Date of Test:	01/11/00
Curve Number:	FIR-004



Curve Description: Driver Lower Rib Primary
Maximum Value: 44.3 at 51.2 Milliseconds
Minimum Value: -5.0 at 117.9 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 01/11/00
Curve Number: FIR-005

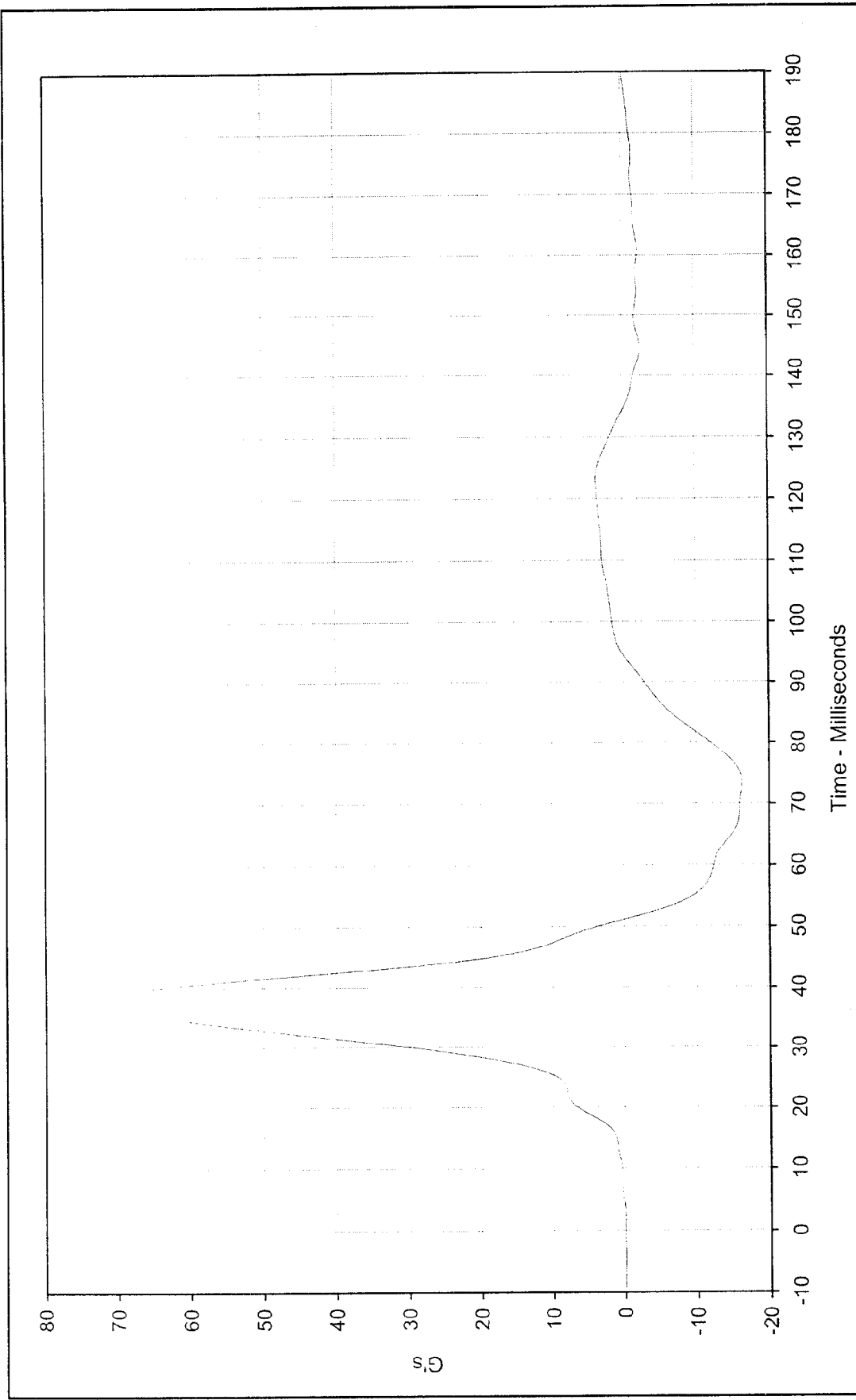
Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Driver Lower Spine Primary	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	40.7 at 37.8 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-12.7 at 67.9 Milliseconds			
SAE Filter Class:	FIR 100			
Date of Test:	01/11/00			
Curve Number:	FIR-006			





Curve Description: Driver Pelvis Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 72.8 at 37.8 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

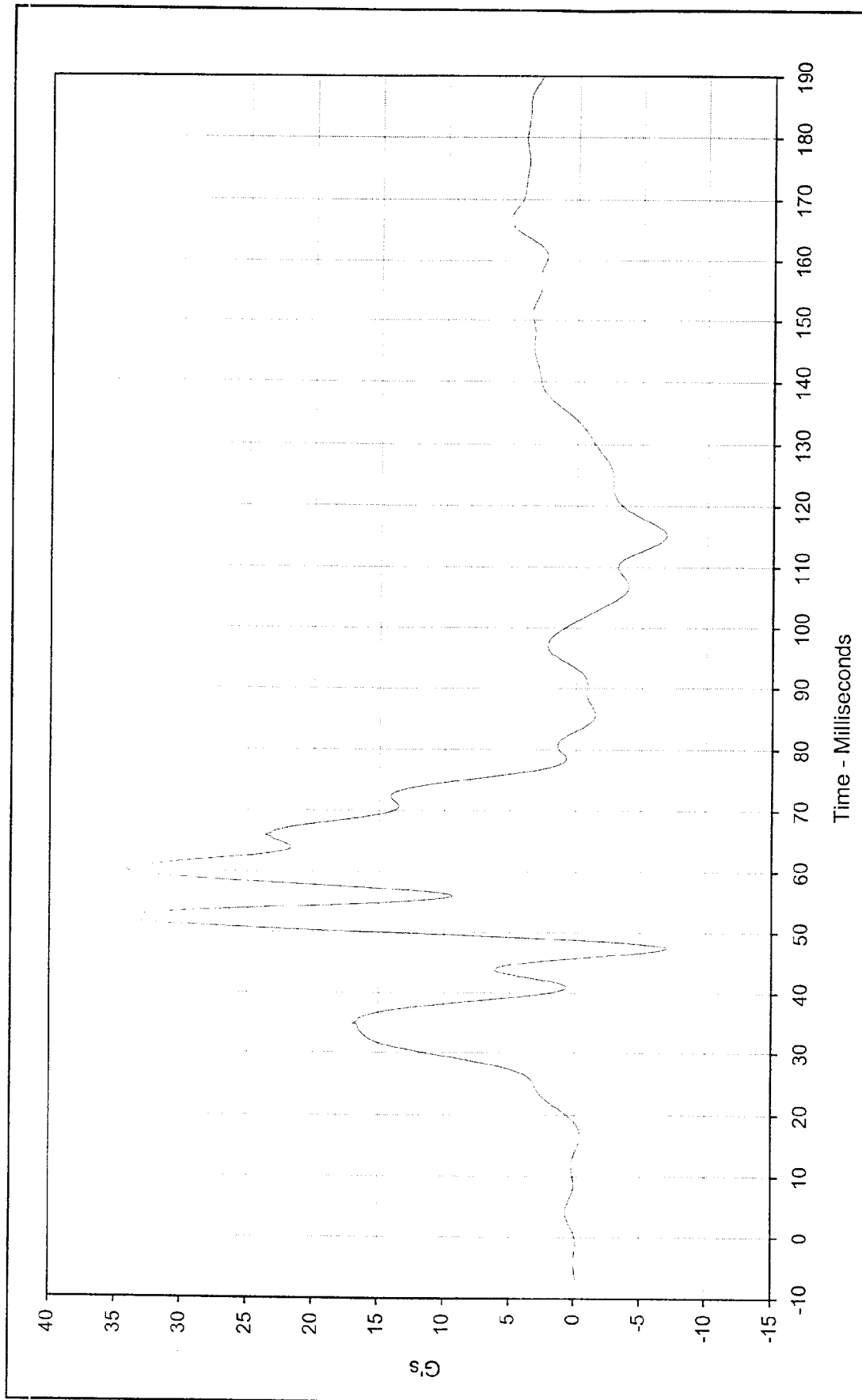
Minimum Value: -16.3 at 73.4 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 01/11/00

Curve Number: FIR-007

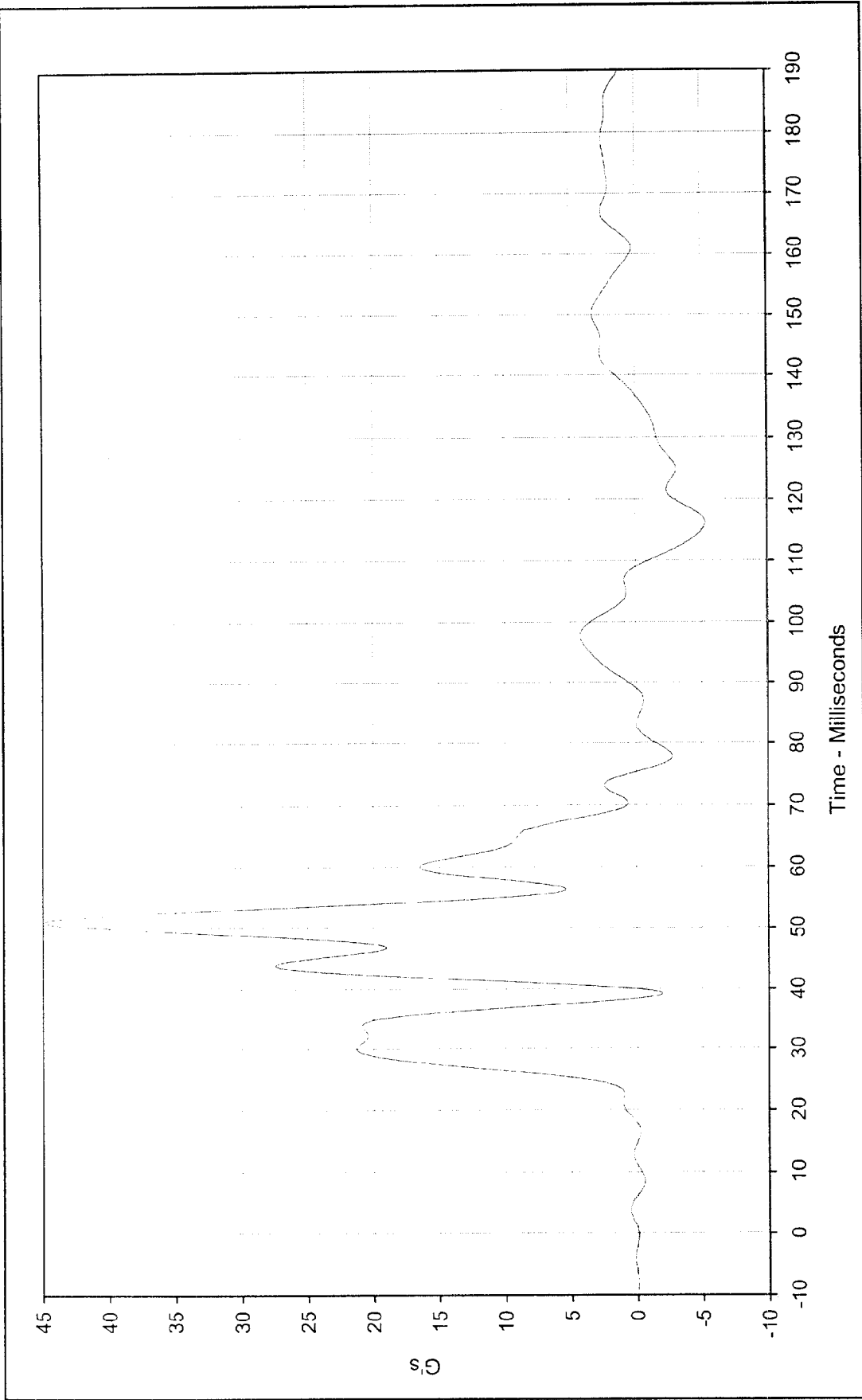




Curve Description:	Driver Upper Rib Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	34.8 at 52.3 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-7.0 at 47.5 Milliseconds			



SAE Filter Class:	FIR 100
Date of Test:	01/11/00
Curve Number:	FIR-008



Curve Description: Driver Lower Rib Redundant Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 44.9 at 51.1 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

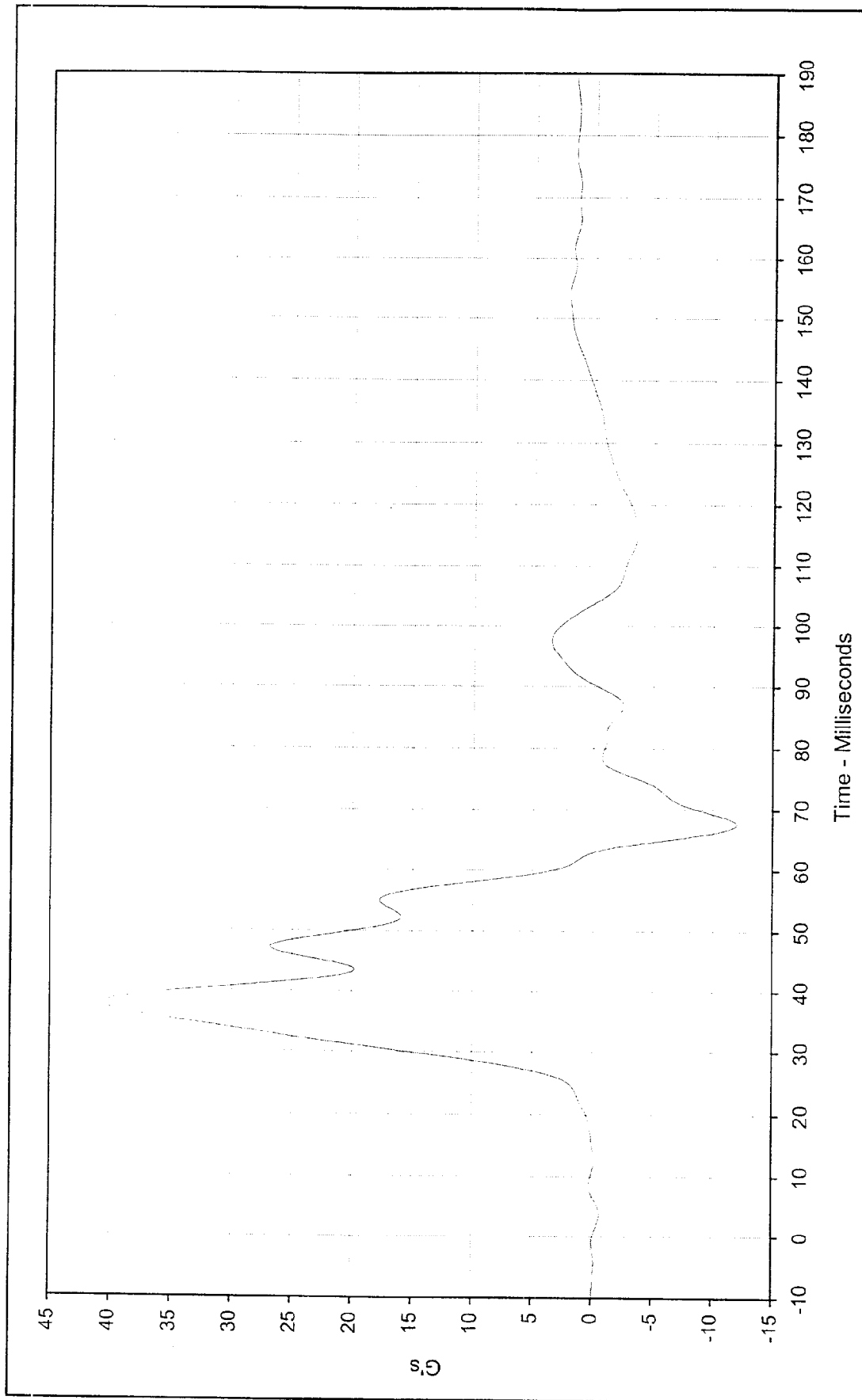
Minimum Value: -5.3 at 116.2 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 01/11/00

Curve Number: FIR-009

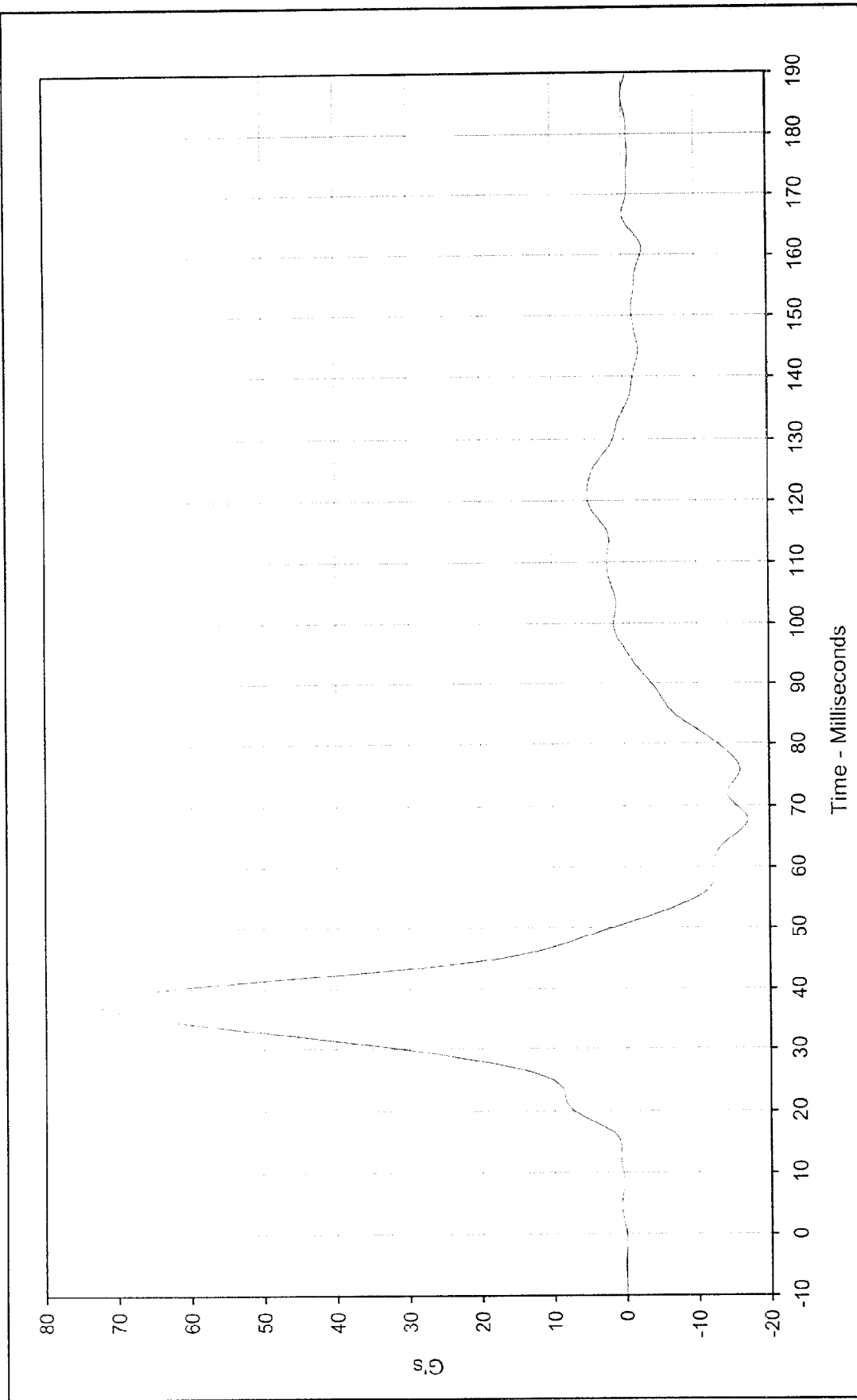




Curve Description: Driver Lower Spine Redundant
 Maximum Value: 40.6 at 37.7 Milliseconds
 Minimum Value: -12.0 at 67.7 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 01/11/00
 Curve Number: FIR-010

Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description: Driver Pelvis Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 73.0 at 37.7 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

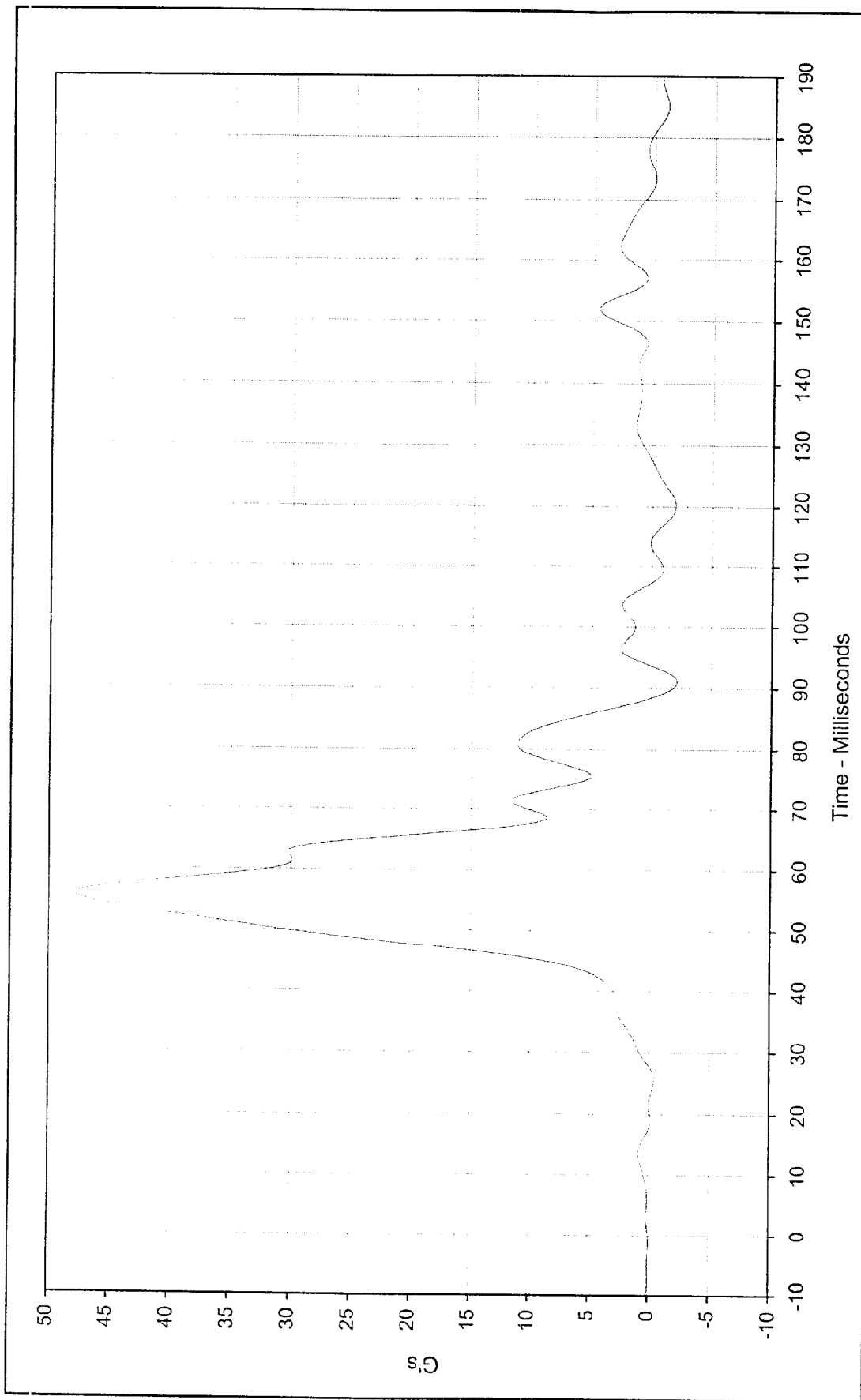
Minimum Value: -17.0 at 67.7 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 01/11/00

Curve Number: FIR-011

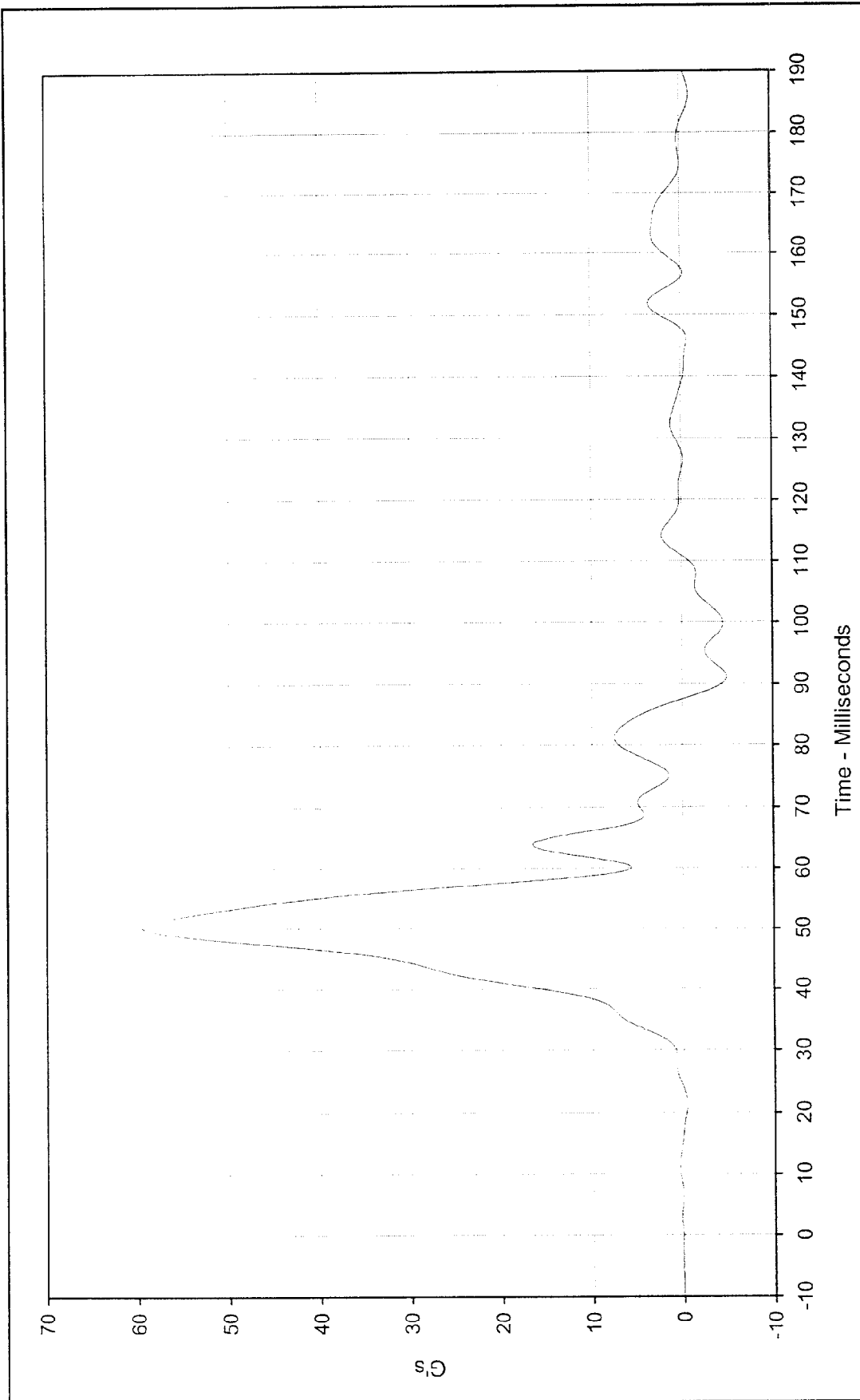




Curve Description:	Pass. Upper Rib Primary		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	47.8	at 55.7	Test Vehicle:	2000 Ford F-150 XL Pickup	

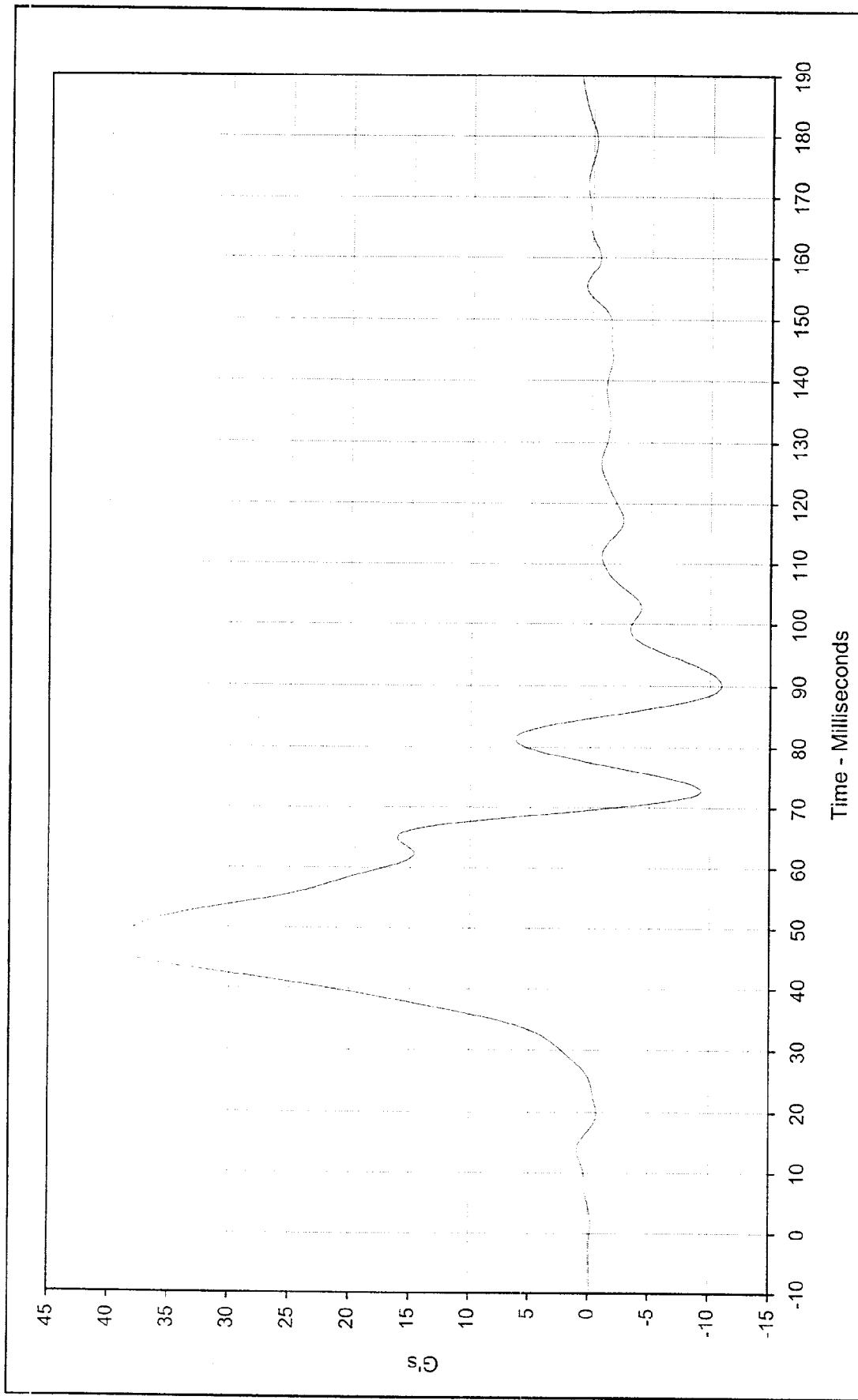


SAE Filter Class:	FIR 100
Date of Test:	01/11/00
Curve Number:	FIR-017



Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup

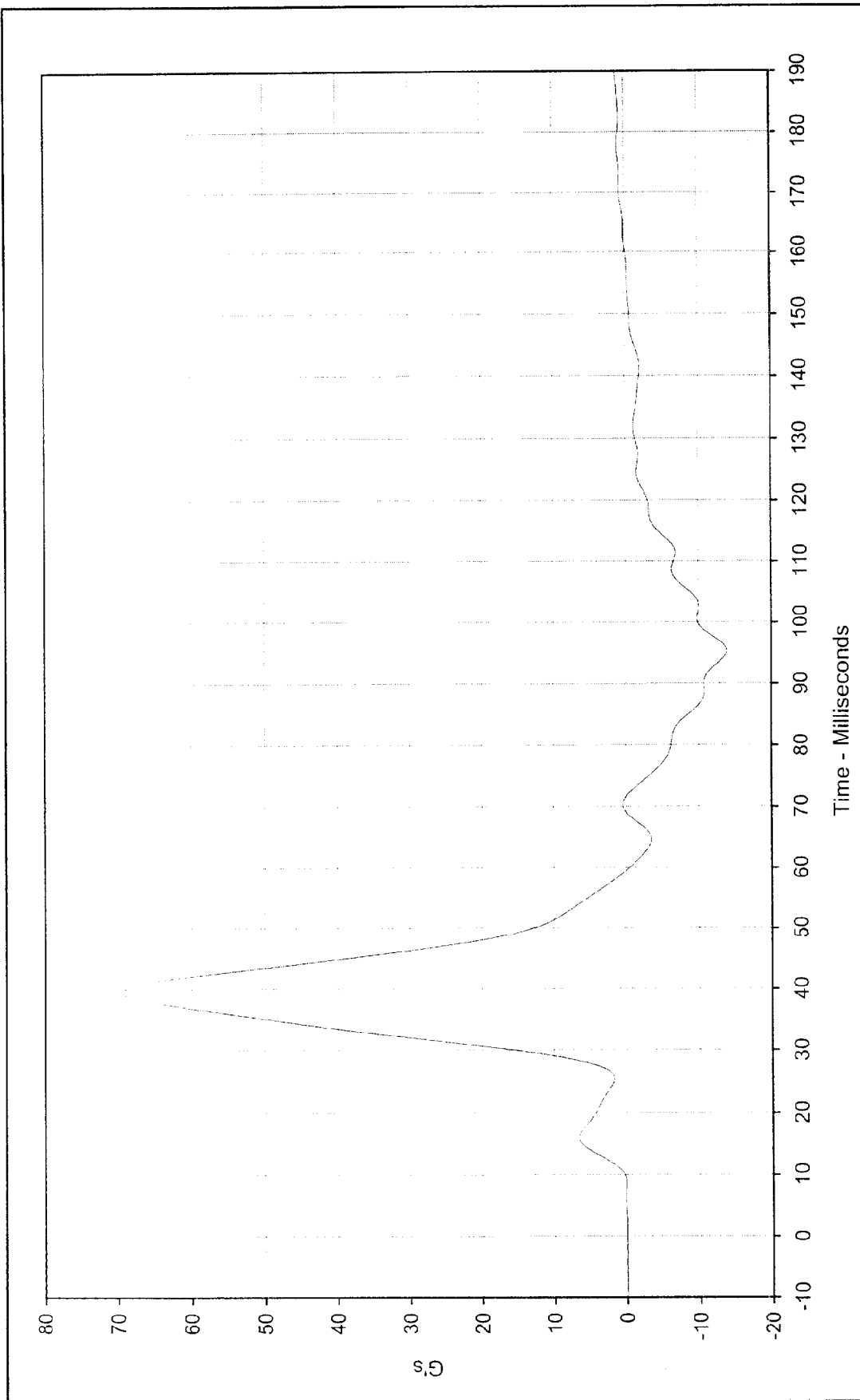




Curve Description: Pass. Lower Spine Primary
 Maximum Value: 39.7 at 39.7 Milliseconds
 Minimum Value: -11.0 at 90.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 01/11/00
 Curve Number: FIR-019

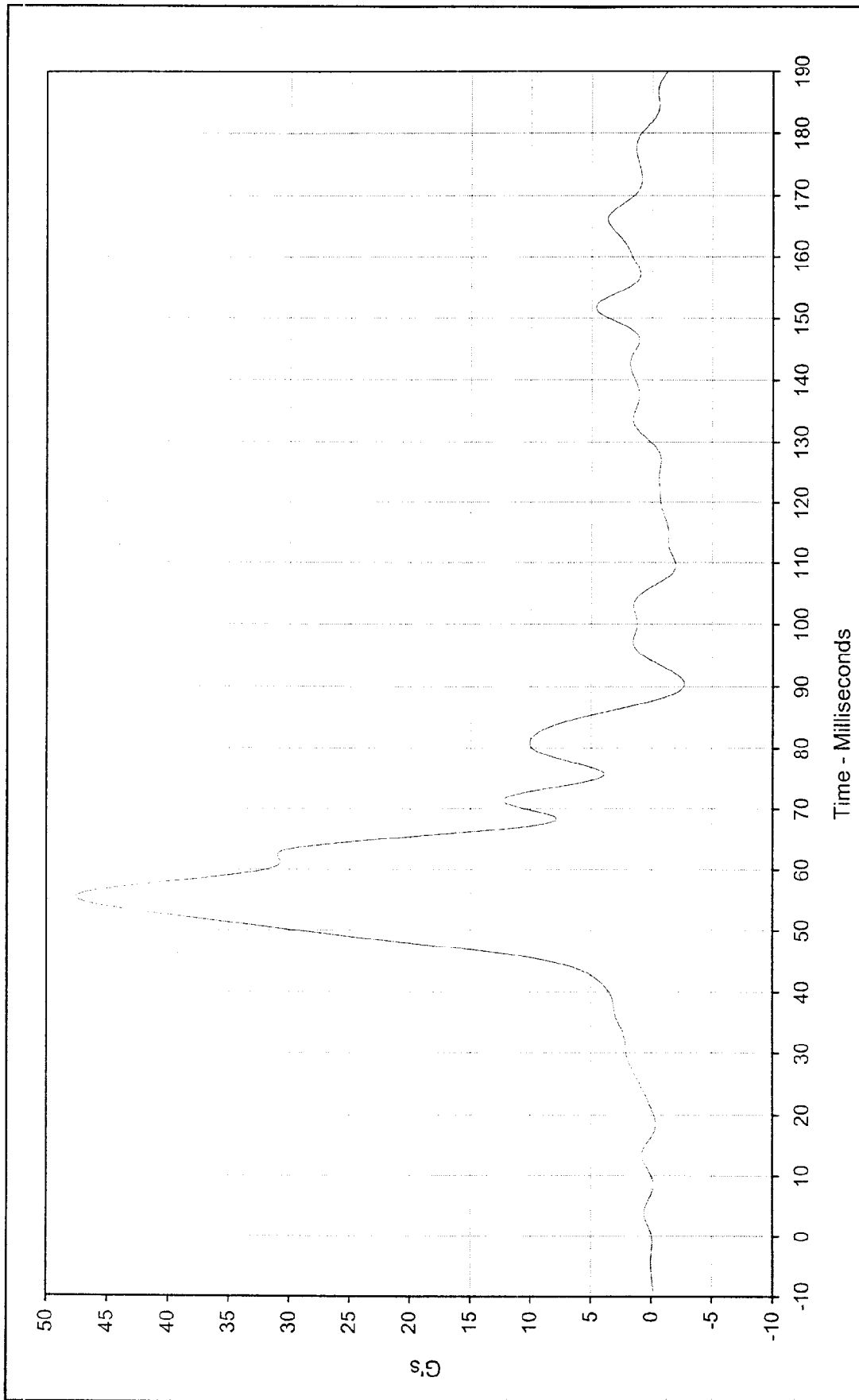
Test Program: 55/28 km/h Side Impact NCAP No.: MY0203
 Test Vehicle: 2000 Ford F-150 XL Pickup





Curve Description:	Pass. Pelvis Primary Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	69.5 at 39.5 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-13.9 at 95.3 Milliseconds			
SAE Filter Class:	FIR 100			
Date of Test:	01/11/00			
Curve Number:	FIR-020			

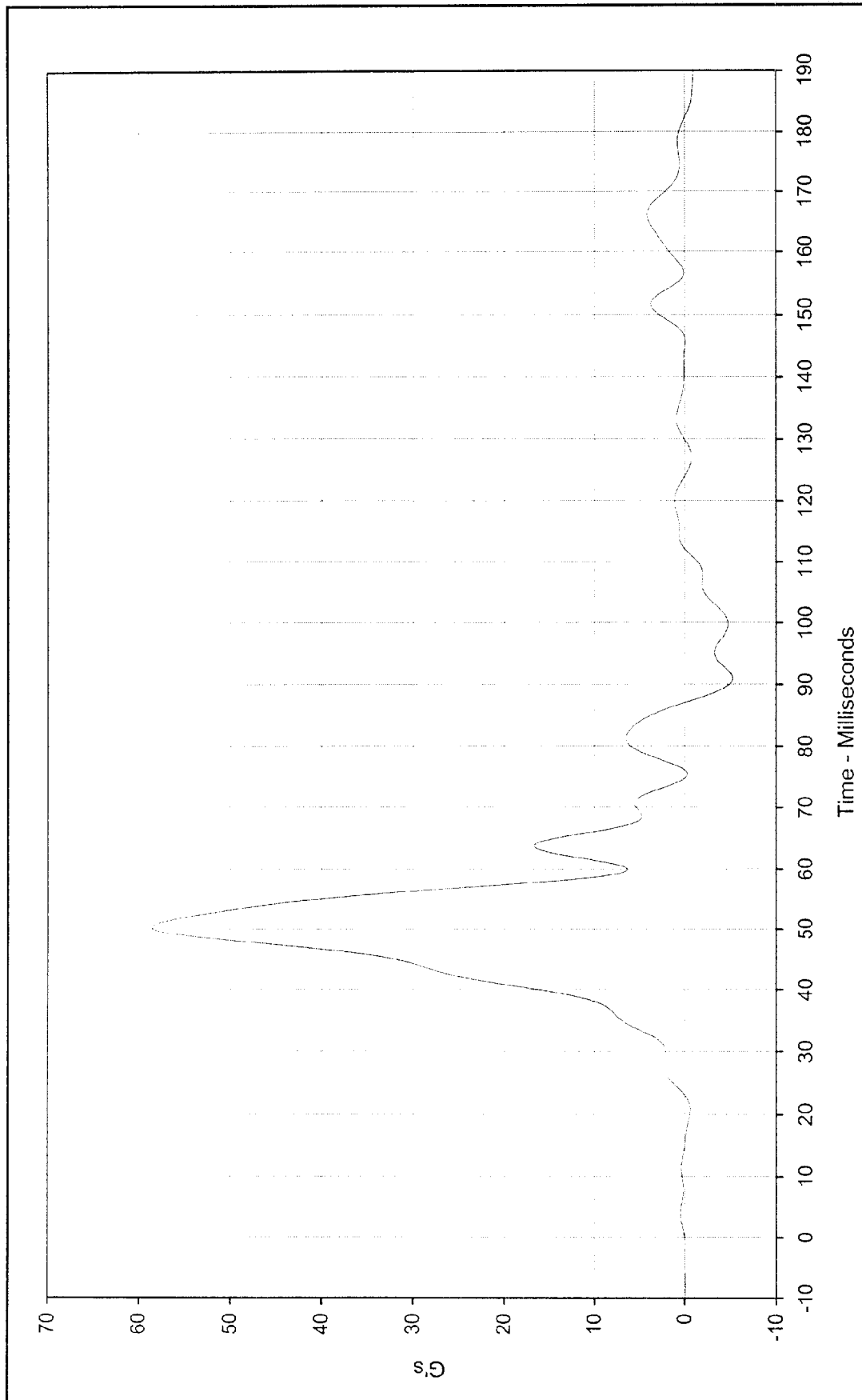




Curve Description:	Pass. Upper Rib Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	47.6 at 55.4 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-2.7 at 90.4 Milliseconds			



SAE Filter Class:	FIR 100
Date of Test:	01/11/00
Curve Number:	FIR-021



Curve Description: Pass. Lower Rib Redundant Test Program: 55/28 km/h Side Impact NCAP No.: MY0203

Maximum Value: 58.6 at 50.2 Milliseconds Test Vehicle: 2000 Ford F-150 XL Pickup

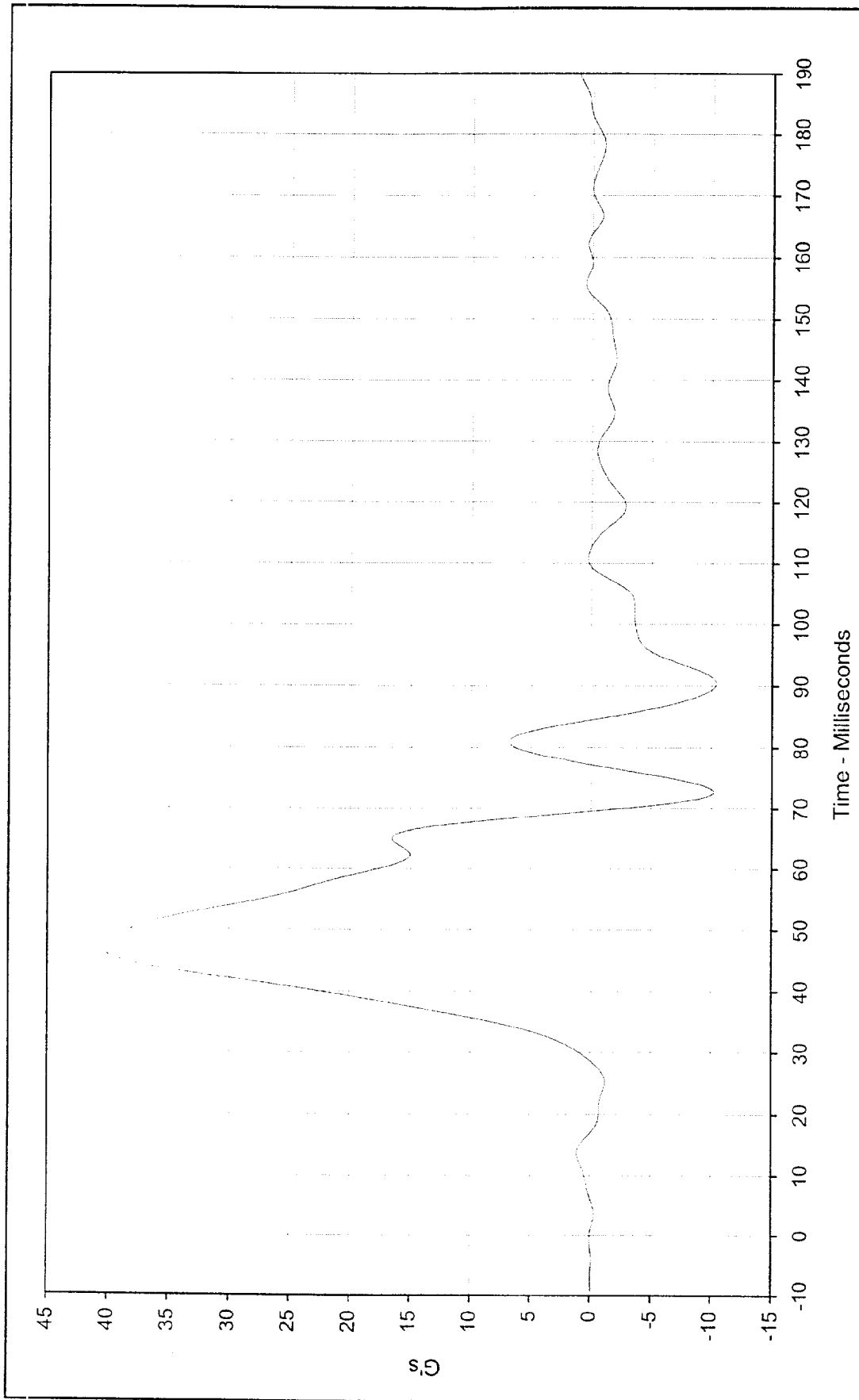
Minimum Value: -5.3 at 90.9 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 01/11/00

Curve Number: FIR-022

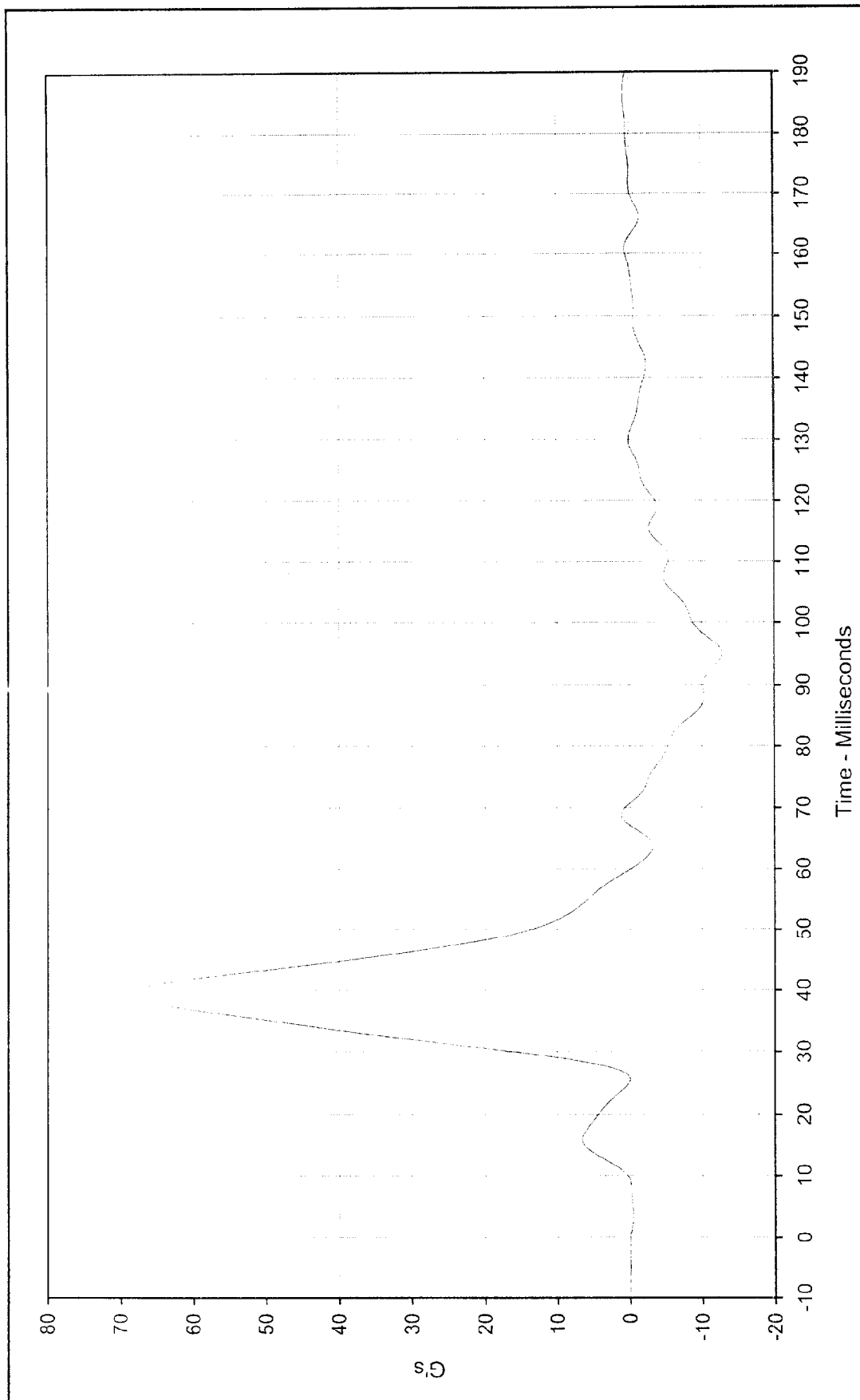




Curve Description:	Pass. Lower Spine Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	40.3 at 46.4 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-10.4 at 90.4 Milliseconds			



SAE Filter Class:	FIR 100
Date of Test:	01/11/00
Curve Number:	FIR-023



Curve Description:	Pass. Pelvis Redundant Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0203
Maximum Value:	69.0 at 39.3 Milliseconds	Test Vehicle:	2000 Ford F-150 XL Pickup	
Minimum Value:	-12.8 at 95.0 Milliseconds			
SAE Filter Class:	FIR 100			
Date of Test:	01/11/00			
Curve Number:	FIR-024			



APPENDIX C
SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA



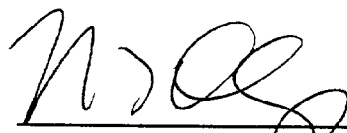
Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 056

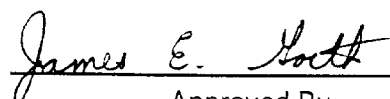
Part Serial No.: N/A

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	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	511	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	499	Pass
HW- Hip Width	mm	356 to 391	364	Pass
Overall Test Results			Pass	


Laboratory Technician

January 10, 2000
Test Date


Approved By

1/10/00
Date



Performance Verification Data

Side Impact Dummy (SID)

Thorax Lateral Impact

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: TI00A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.8	Pass
Laboratory Relative Humidity	%	10 to 70	41	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Left Upper Spine Acceleration	G's	37.0 to 46.0	42.5	Pass
Left Lower Spine Acceleration	G's	37.0 to 46.0	44.7	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.6	Pass
Overall Test Results				Pass

Laboratory Technician

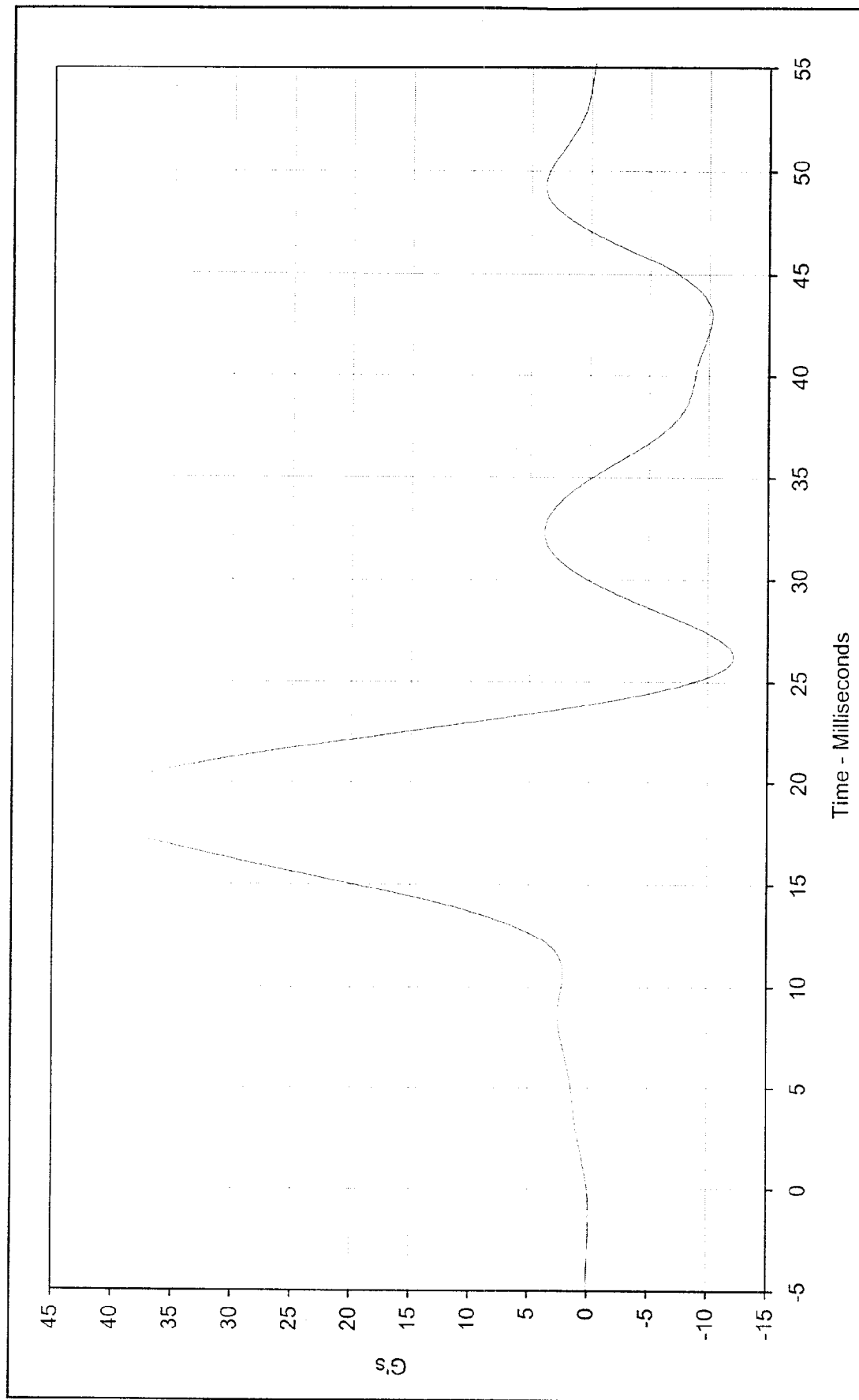
January 5, 2000

Test Date

Approved By

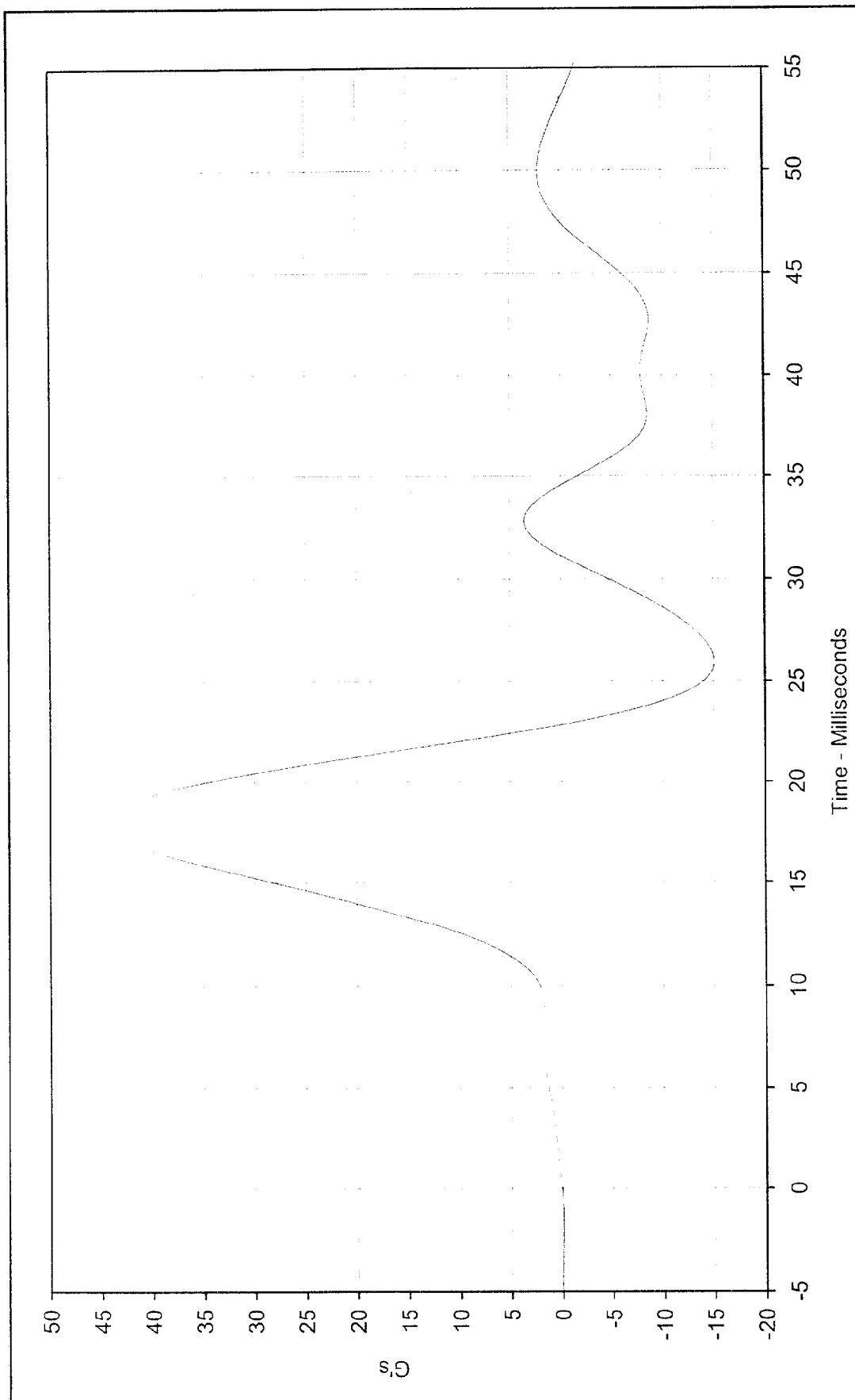
1/5/00

Date



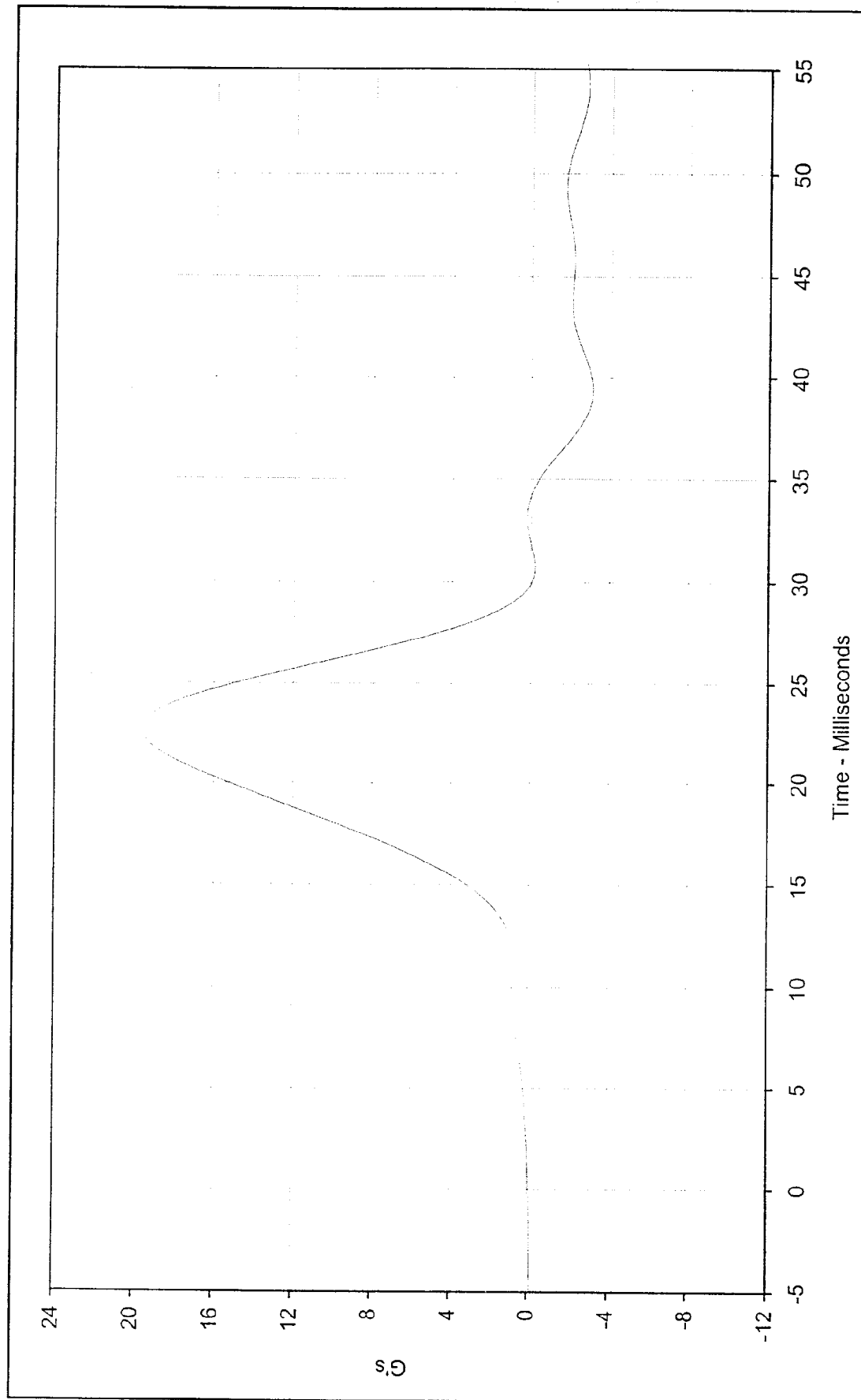
Curve Description:	Left Upper Rib Y Acceleration	Test Program:	SID Thorax Lateral Impact Test
Maximum Value:	42.5 at 18.8 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: T100A
Minimum Value:	-12.1 at 26.3 Milliseconds		
SAE Filter Class:	FIR 100		
Date of Test:	1/5/00		





Curve Description:		Test Program:	
Left Lower Rib Y Acceleration		SID Thorax Lateral Impact Test	
Maximum Value:	44.7 at 18.0 Milliseconds	Test Information:	
Minimum Value:	-15.1 at 25.9 Milliseconds	SID S/N: 056 Test I.D.: T100A	
SAE Filter Class:	FIR 100		
Date of Test:	1/5/00		





Curve Description:	Lower Spine Y Acceleration	Test Program:	SID Thorax Lateral Impact Test
Maximum Value:	19.6 at 22.6 milliseconds	Test Information:	SID S/N: 056 Test I.D.: TI00A
Minimum Value:	-3.1 at 39.4 milliseconds		



SAE Filter Class:	FIR 100
Date of Test:	1/5/00



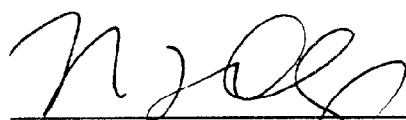
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 056

Part Serial No.: N/A

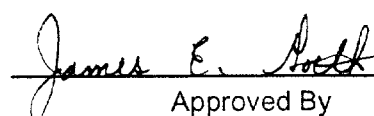
Test I.D.: PI00A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Pelvis Acceleration	G's	40.0 to 60.0	47.2	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.3	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass


Laboratory Technician

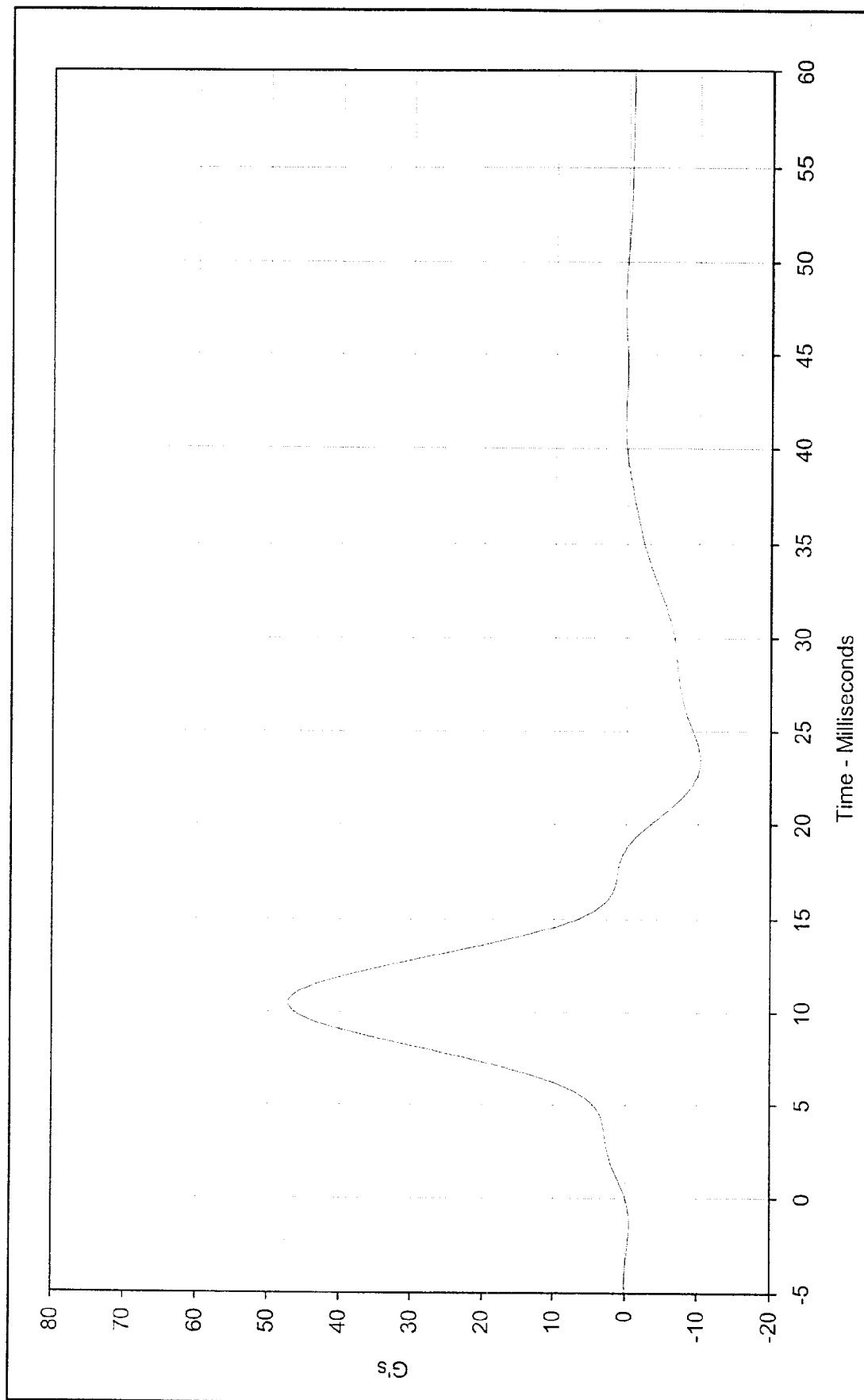
January 5, 2000

Test Date


Approved By

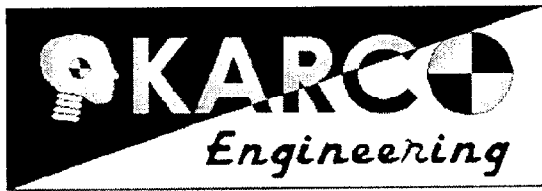
1/5/00

Date



Curve Description:	Pelvis Y Axis Acceleration	Test Program:	Left Side Pelvis Lateral Impact
Maximum Value:	47.2 at 10.5 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: P100A
Minimum Value:	-10.3 at 23.3 Milliseconds		
SAE Filter Class:	FIR 100		
Date of Test:	1/5/00		





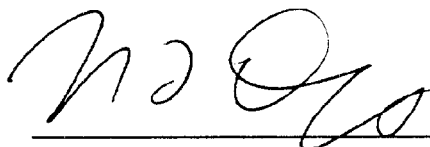
Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 056

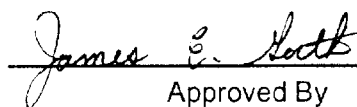
Part Serial No.: N/A

Test I.D.: AC02A

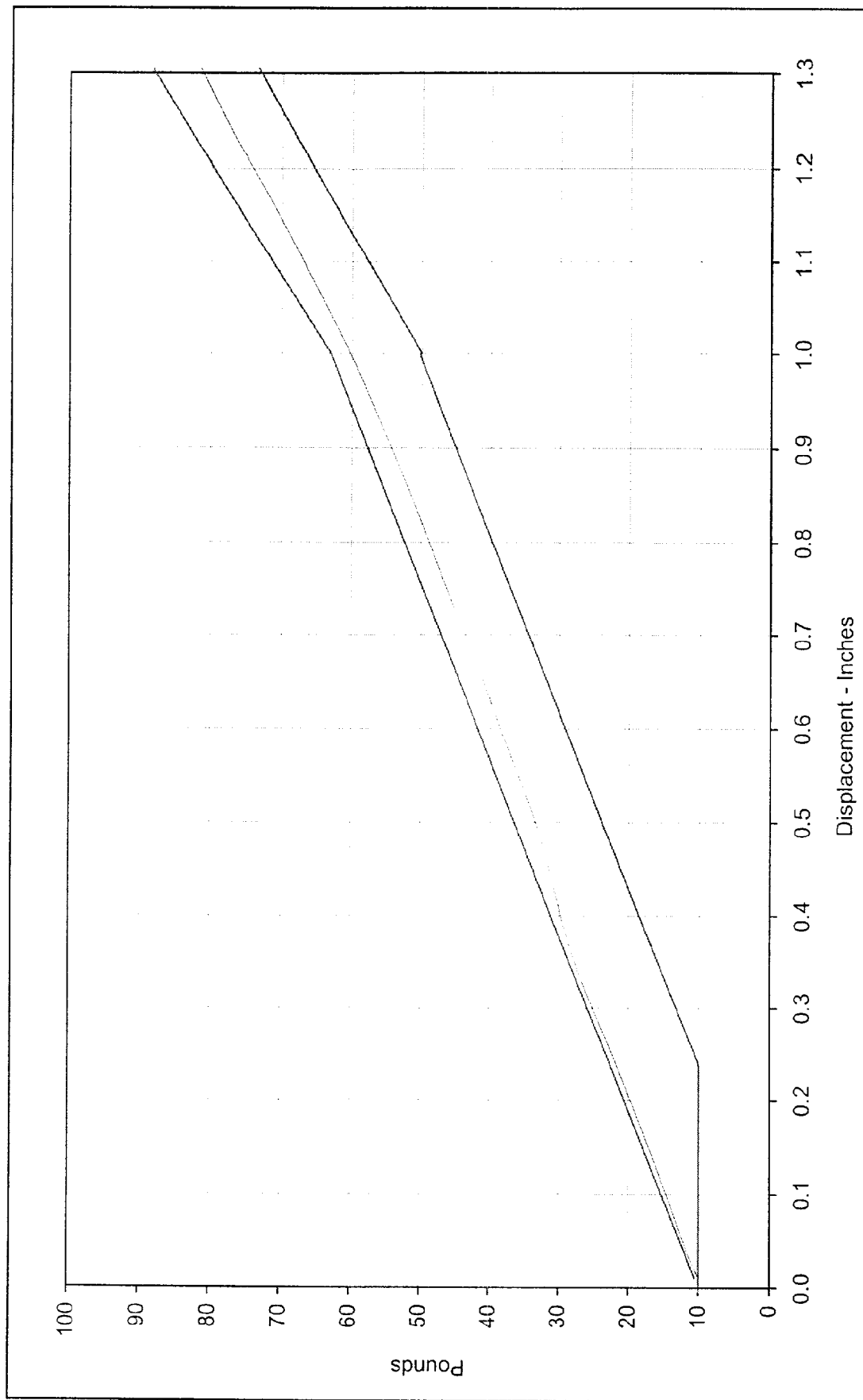
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	33.4	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	46.3	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	60.1	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	80.9	Pass
Overall Test Results				Pass


Laboratory Technician

January 6, 2000
Test Date


Approved By

1/6/00
Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression

Force at 0.5 In.: 33.4 Pounds Test Information: SID S/N: 056 Test I.D.: AC02A

Force at 0.75 In.: 46.3 Pounds

Force at 1.0 In.: 60.1 Pounds

Force at 1.3 In.: 80.9 Pounds

Date of Test: 1/6/00





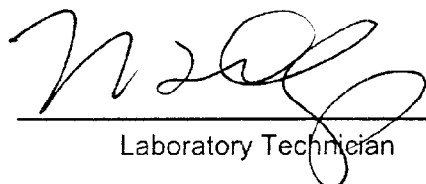
Performance Verification Data Side Impact Dummy (SID) Lumbar Flexion Test

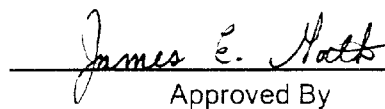
ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: LF02A

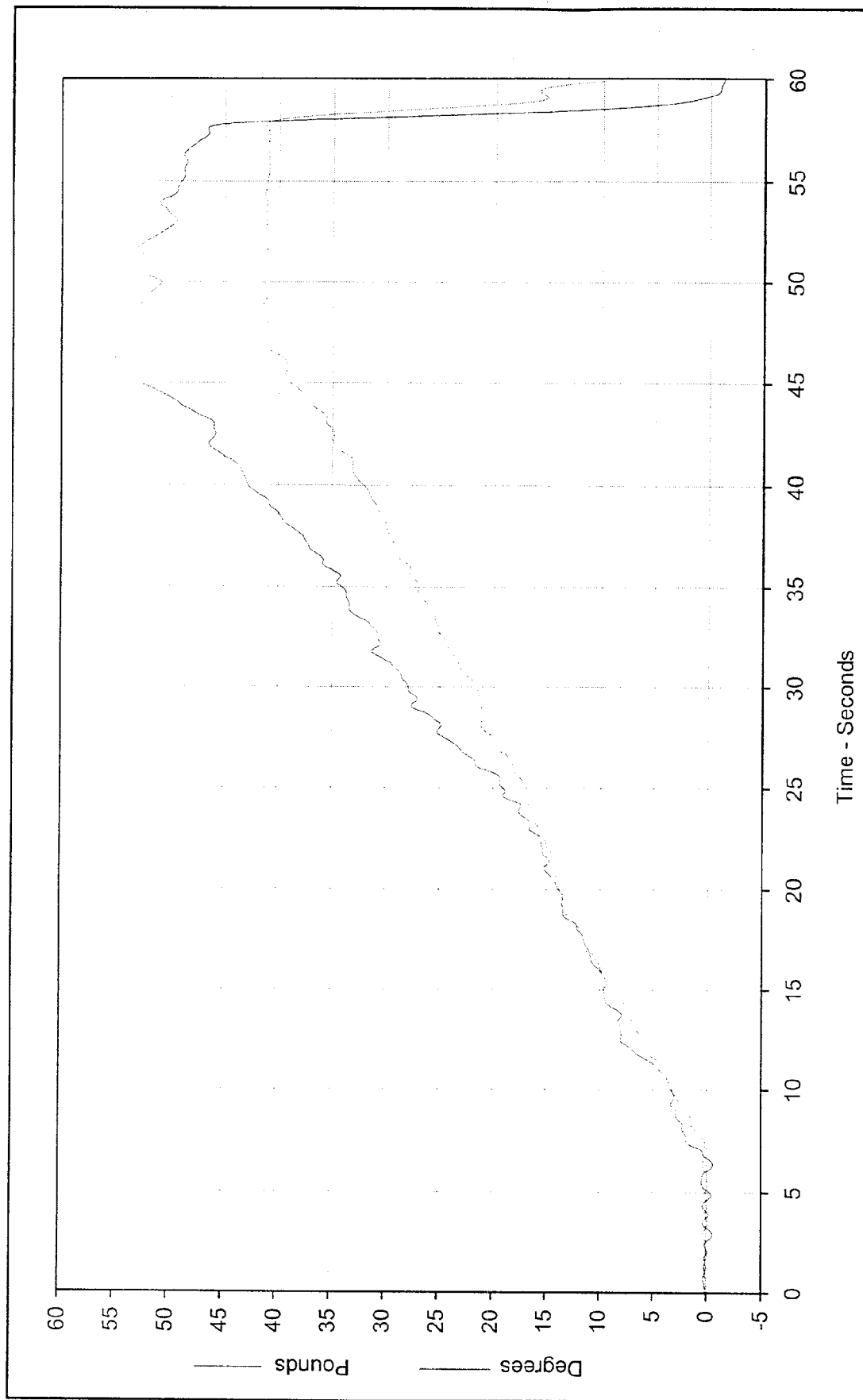
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	38	Pass
Applied Force at 0° of Flexion	Pounds	0.0	0.0	Pass
Applied Force at 20° of Flexion	Pounds	22.0 to 34.0	24.7	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	38.7	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	55.6	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	10.9	Pass
Overall Test Results				Pass


Laboratory Technician


Approved By

January 7, 2000
Test Date

1/7/00
Date



Curve Description: Applied Lumbar Force And Angle Test Program: Side Impact Dummy Lumbar Flexion
 Force at 20°: 24.7 Pounds Test Information: SID S/N: 056 Test I.D.: LF02A
 Force at 30°: 38.7 Pounds
 Force at 40°: 55.6 Pounds
 Return Angle: 10.9 Degrees



Test Date: 1/7/00



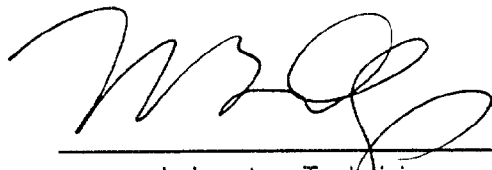
Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 056

Part Serial No.: N/A

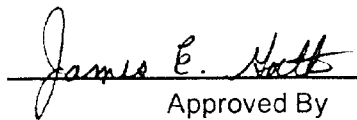
Test I.D.: SH02A

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	237.7	Pass
Peak Lateral Acceleration	G's	≤10.0	2.6	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.1	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

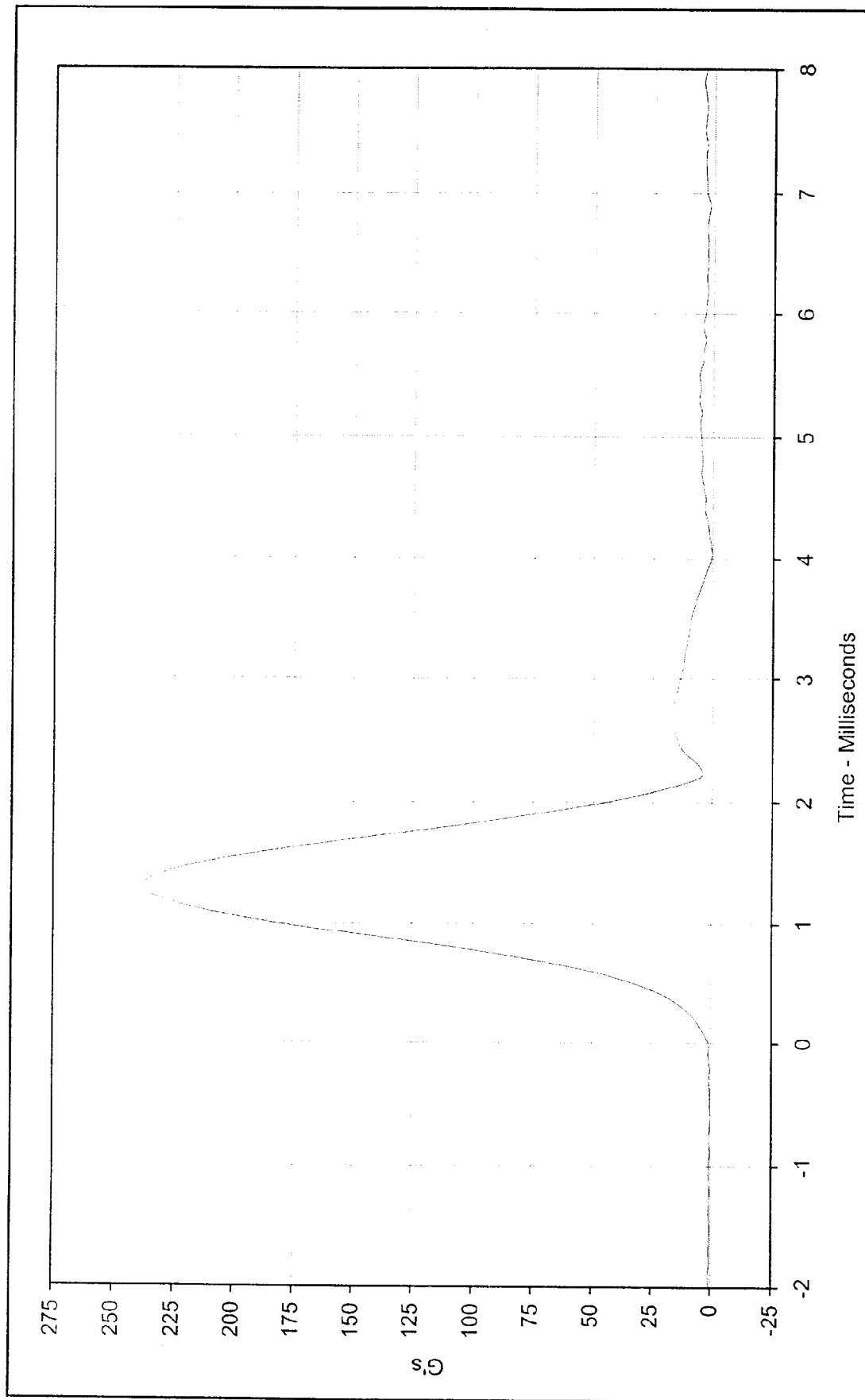

Laboratory Technician

January 8, 2000

Test Date

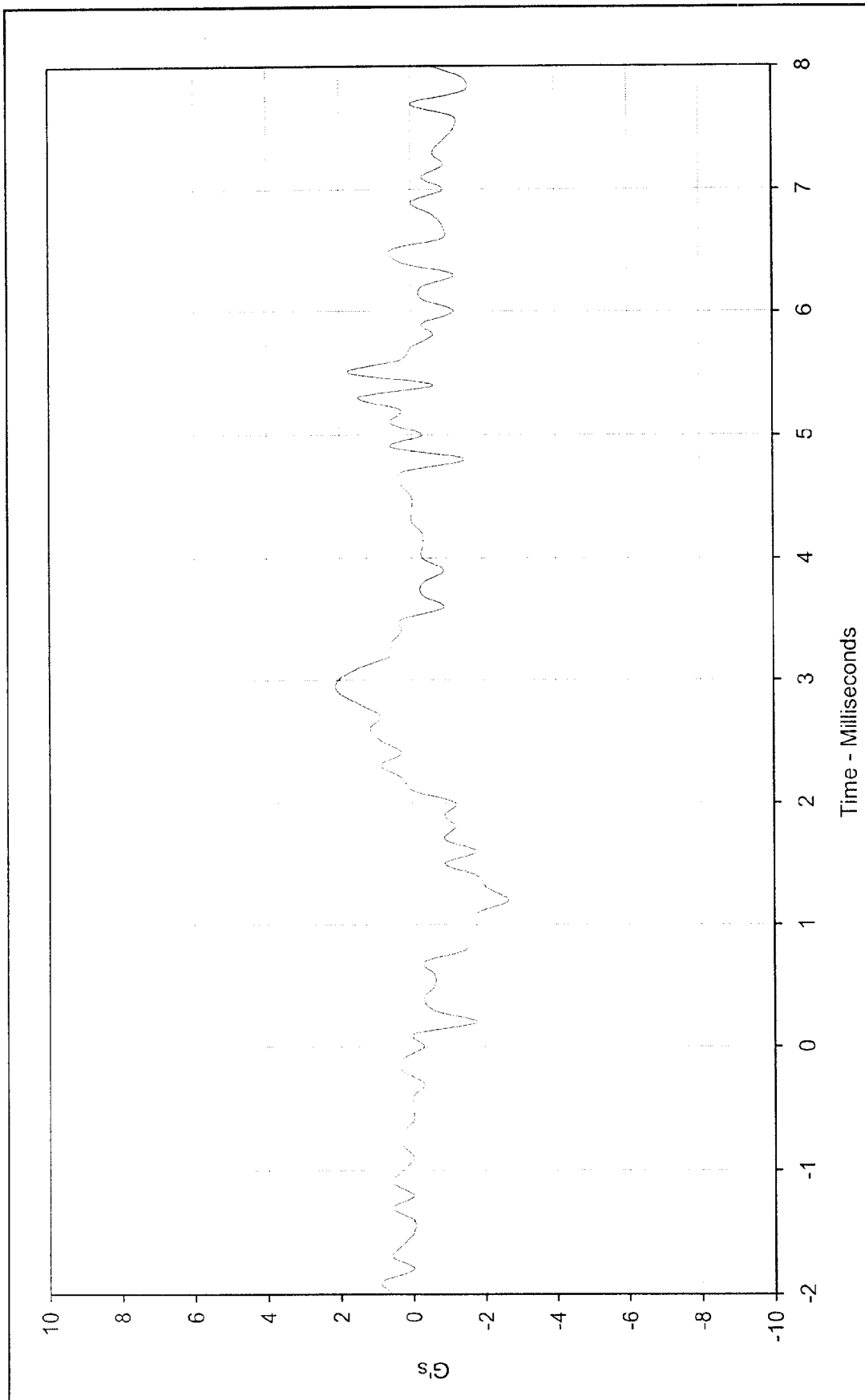

Approved By

1/8/00
Date



Curve Description:	Head Resultant Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	237.7 at 1.3 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: SH02A
Minimum Value:	0.8 at 4.0 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	1/8/00		





C-14

Curve Description:	Head Y Axis Acceleration		Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	2.1	at 2.9 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: SH02A
Minimum Value:	-2.6	at 1.2 Milliseconds		
SAE Filter Class:	1000			
Date of Test:	1/8/00			



KAR20003-01



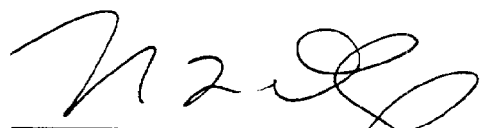
Performance Verification Data Side Impact Dummy (SID) External Dimensions

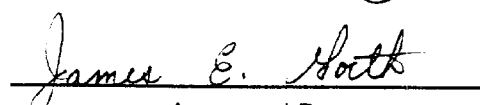
ATD Serial No.: 057

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	511	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	499	Pass
HW- Hip Width	mm	356 to 391	364	Pass
Overall Test Results				Pass


Laboratory Technician


Approved By

January 10, 2000

Test Date

1/10/00

Date



Performance Verification Data

Side Impact Dummy (SID)

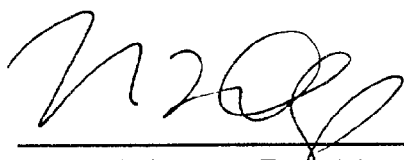
Thorax Lateral Impact

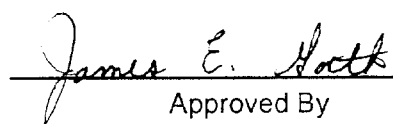
ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: TI00B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.8	Pass
Laboratory Relative Humidity	%	10 to 70	41	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	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	41.7	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.7	Pass
Overall Test Results				Pass


Laboratory Technician

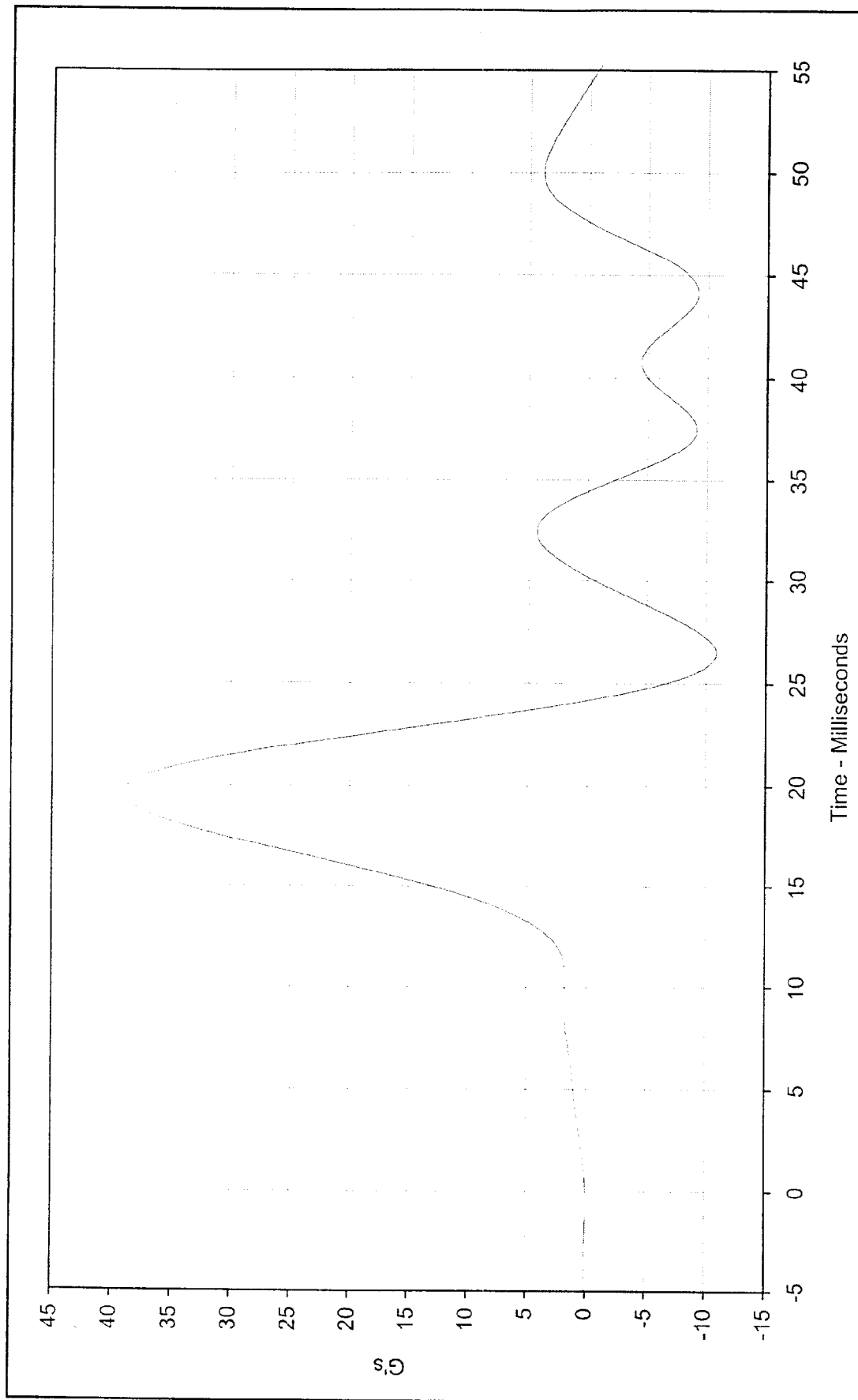

Approved By

January 5, 2000

Test Date

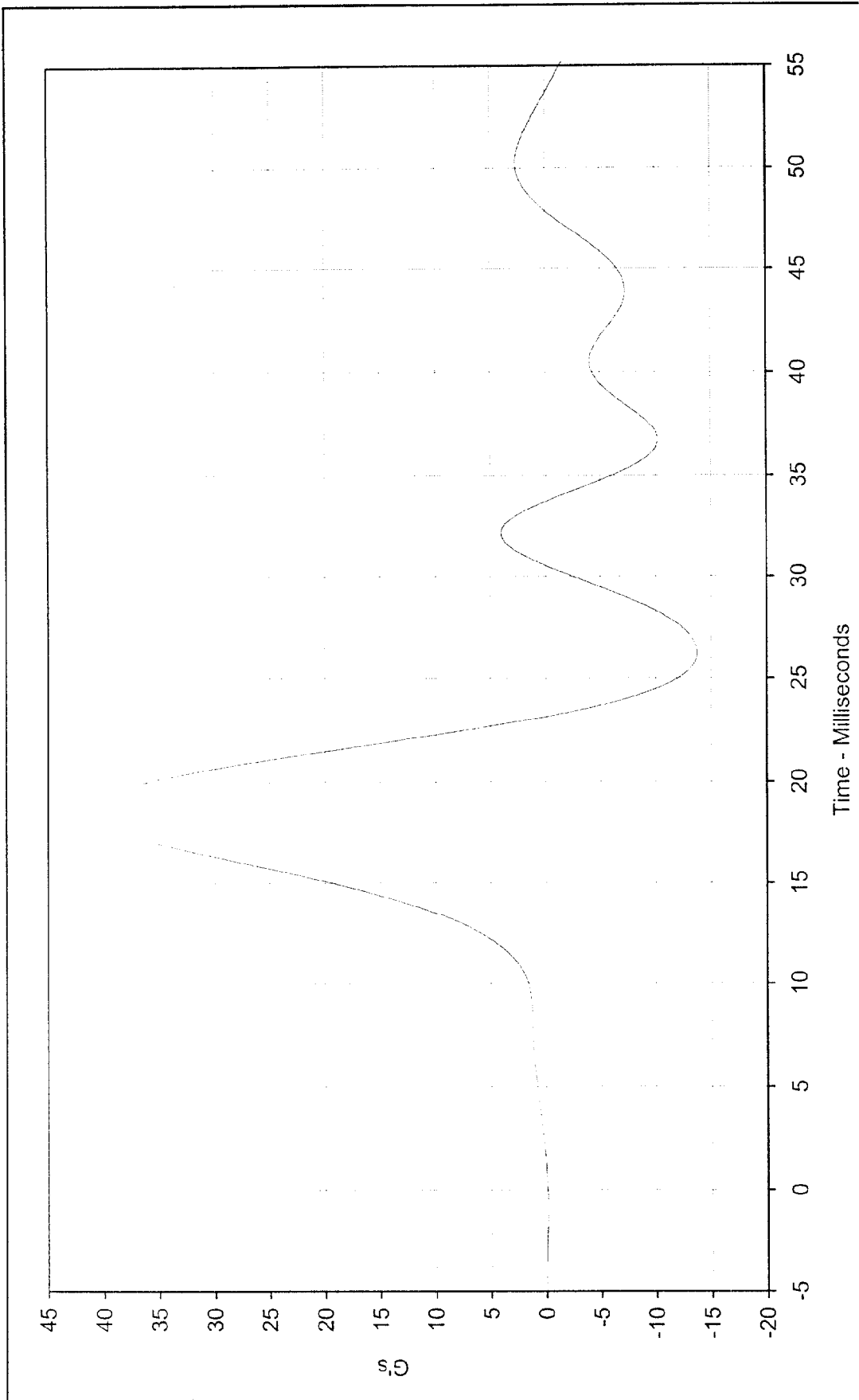
1/5/00

Date



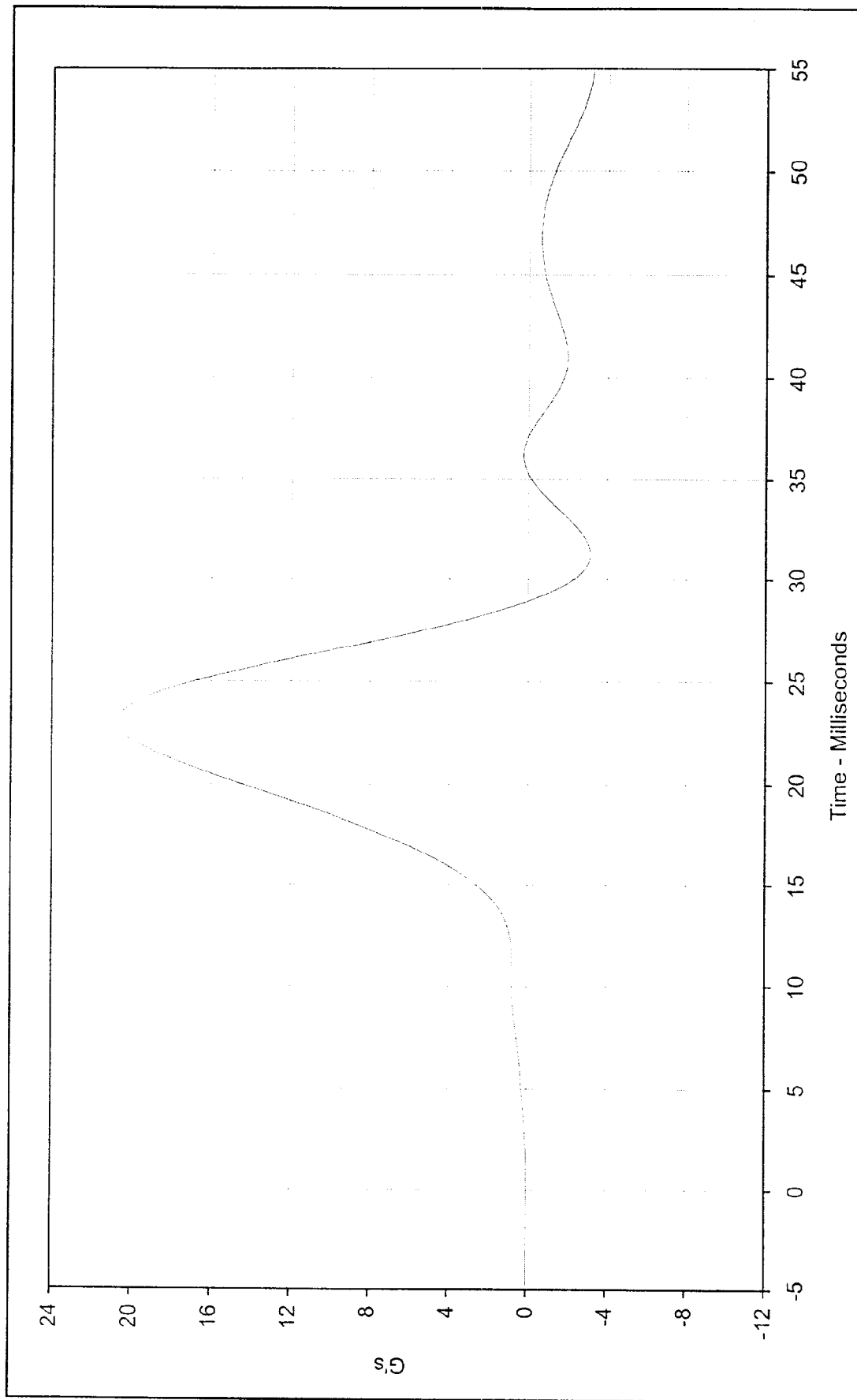
Curve Description:	Left Upper Rib Y Acceleration	Test Program:	SID Thorax Lateral Impact Test
Maximum Value:	39.0 at 19.6 Milliseconds	Test Information:	SID S/N: 057 Test I.D.: T100B
Minimum Value:	-10.9 at 26.5 Milliseconds		
SAE Filter Class:	FIR 100		
Date of Test:	1/5/00		





Curve Description:	Left Lower Rib Y Acceleration		Test Program:	SID Thorax Lateral Impact Test
Maximum Value:	41.7	at 18.6	Test Information:	SID S/N: 057 Test I.D.: T100B
Minimum Value:	-13.7	at 26.2		
SAE Filter Class:	FIR 100			
Date of Test:	1/5/00			





Curve Description:		Lower Spine Y Acceleration		Test Program:		SID Thorax Lateral Impact Test	
Maximum Value:	20.7	at	23.0	Milliseconds	Test Information:		
Minimum Value:	-3.3	at	55.7	Milliseconds	SID S/N: 057 Test I.D.: T100B		
SAE Filter Class:		FIR 100					
Date of Test:		1/5/00					







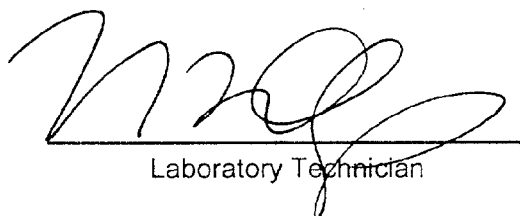
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

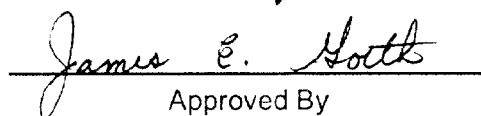
ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: PI00B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Pelvis Acceleration	G's	40.0 to 60.0	46.9	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

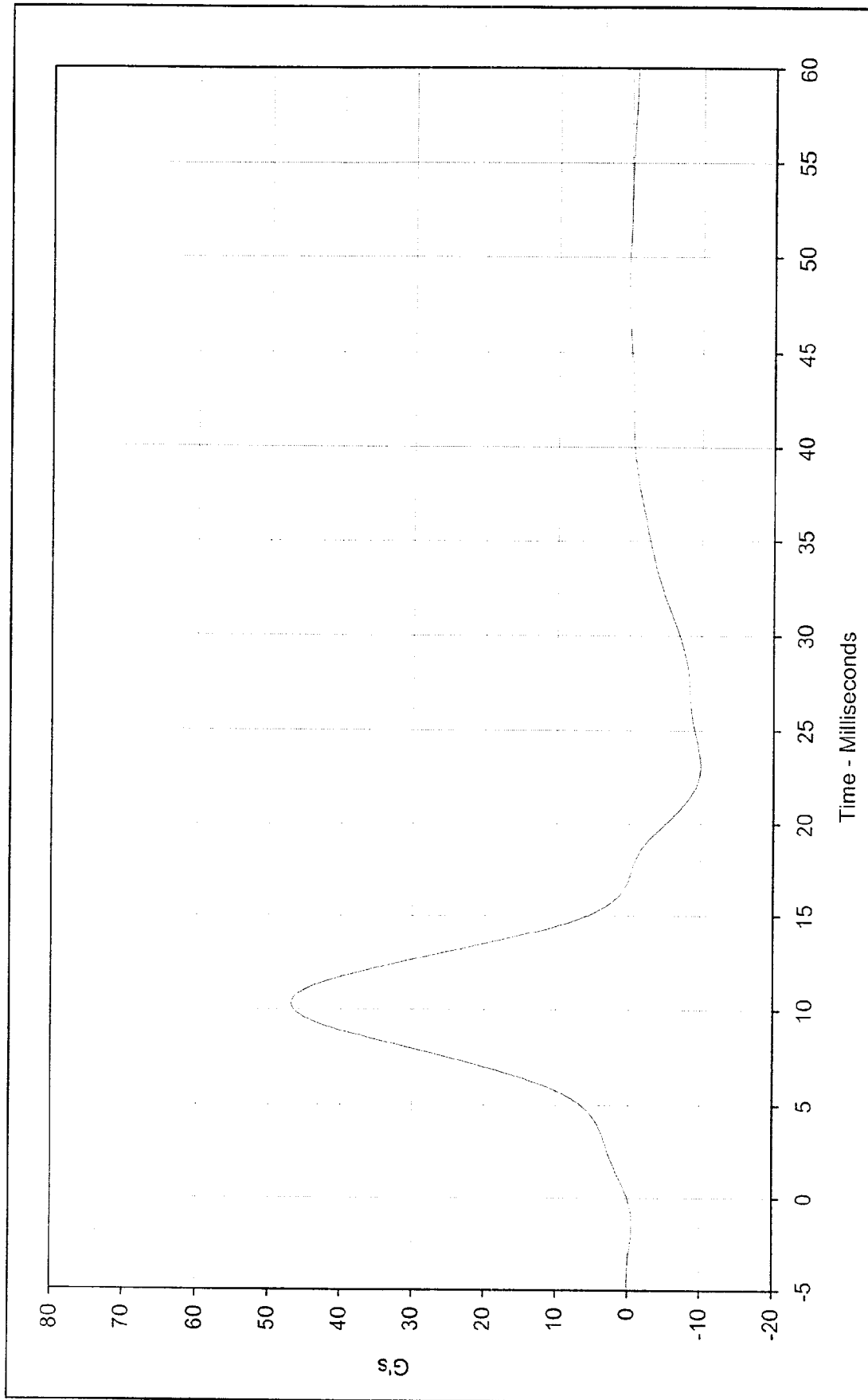

Approved By

January 5, 2000

Test Date

1/5/00

Date



Curve Description:	Pelvis Y Axis Acceleration	Test Program:	Left Side Pelvis Lateral Impact
Maximum Value:	46.9 at 10.3 Milliseconds	Test Information:	SID S/N: 057 Test I.D.: P100B
Minimum Value:	-9.9 at 23.1 Milliseconds		
SAE Filter Class:	FIR 100		
Date of Test:	1/5/00		





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

ATD Serial No.: 057

Part Serial No.: N/A

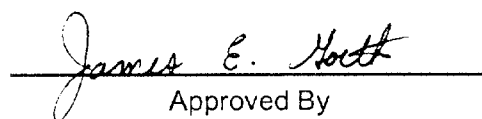
Test I.D.: AC02B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	29.2	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	40.8	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	56.7	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	82.0	Pass
Overall Test Results				Pass

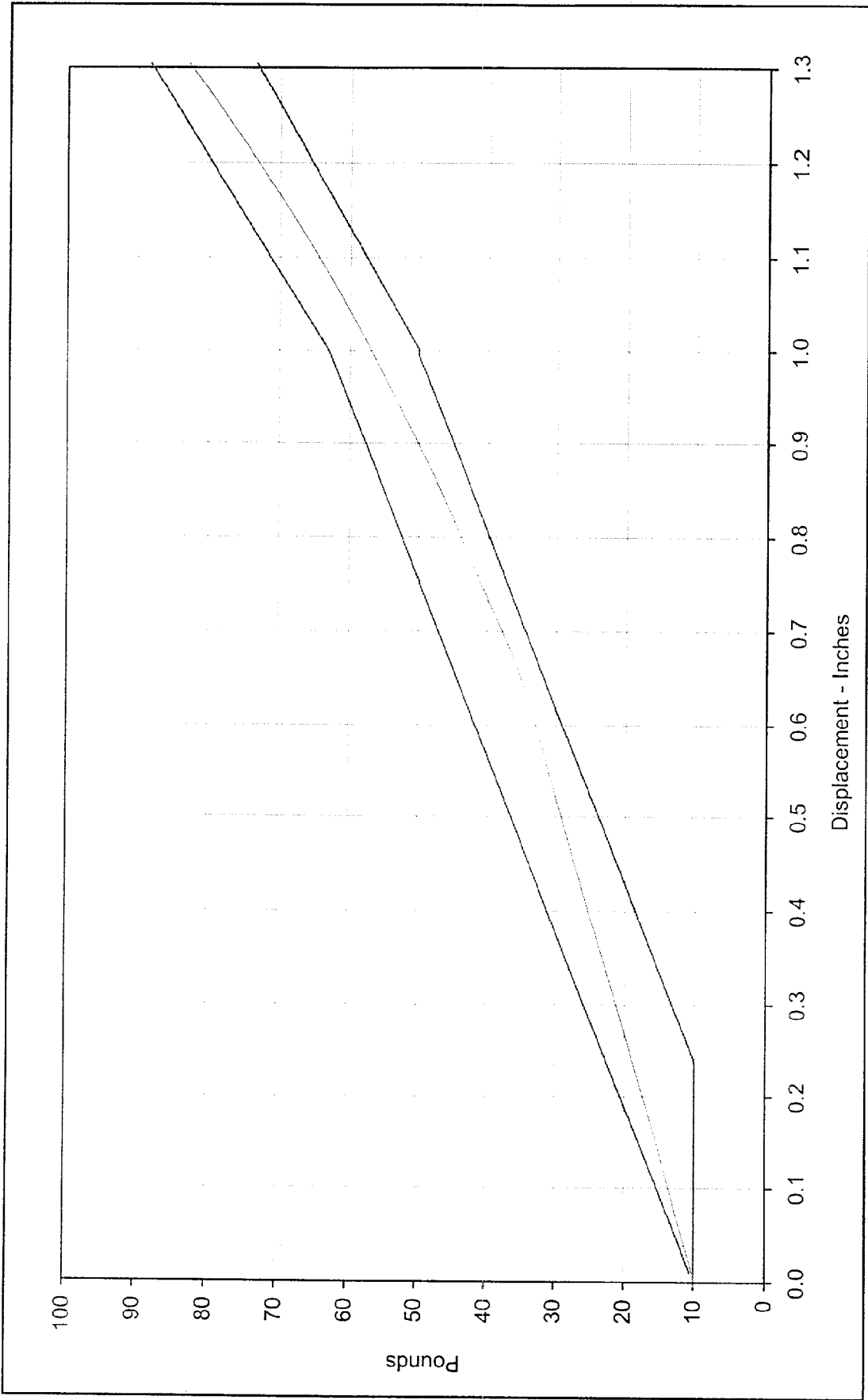

Laboratory Technician

January 6, 2000

Test Date


Approved By

1/6/00
Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
Force at 0.5 In.: 29.2 Pounds Test Information: SID S/N: 057 Test I.D.: AC02B
Force at 0.75 In.: 40.8 Pounds
Force at 1.0 In.: 56.7 Pounds
Force at 1.3 In.: 82.0 Pounds

Date of Test: 1/6/00





Performance Verification Data

Side Impact Dummy (SID)

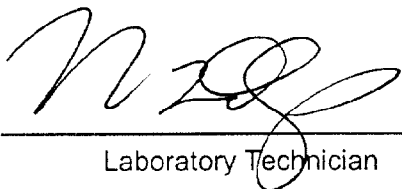
Lumbar Flexion Test

ATD Serial No.: 057

Part Serial No.: N/A

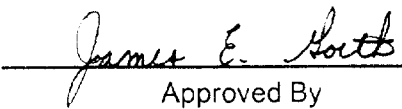
Test I.D.: LF02B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	38	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	26.8	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	38.4	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	50.0	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	4.6	Pass
Overall Test Results				Pass


Laboratory Technician

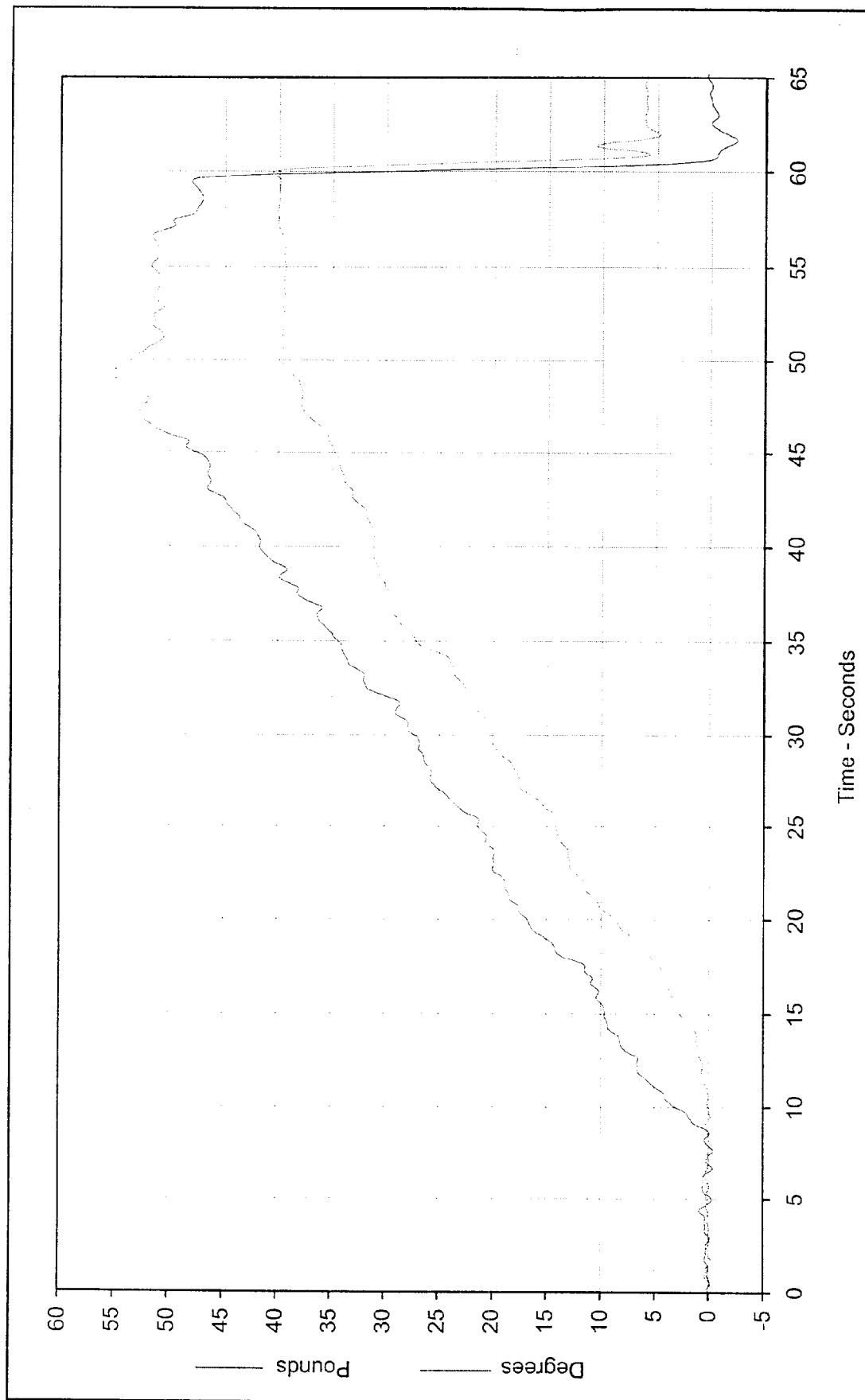
January 7, 2000

Test Date


Approved By

1/7/00

Date



Curve Description: Applied Lumbar Force And Angle Test Program: Side Impact Dummy Lumbar Flexion
 Force at 20°: 26.8 Pounds Test Information: SID S/N: 057 Test I.D.: LF02B
 Force at 30°: 38.4 Pounds
 Force at 40°: 50.0 Pounds
 Return Angle: 4.6 Degrees

Test Date: 1/7/00





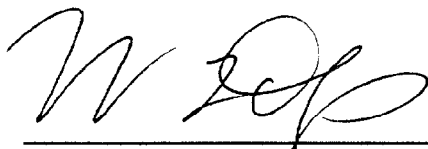
Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 057

Part Serial No.: N/A

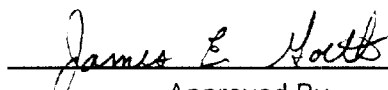
Test I.D.: SH02B

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	242.5	Pass
Peak Lateral Acceleration	G's	≤10.0	7.3	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

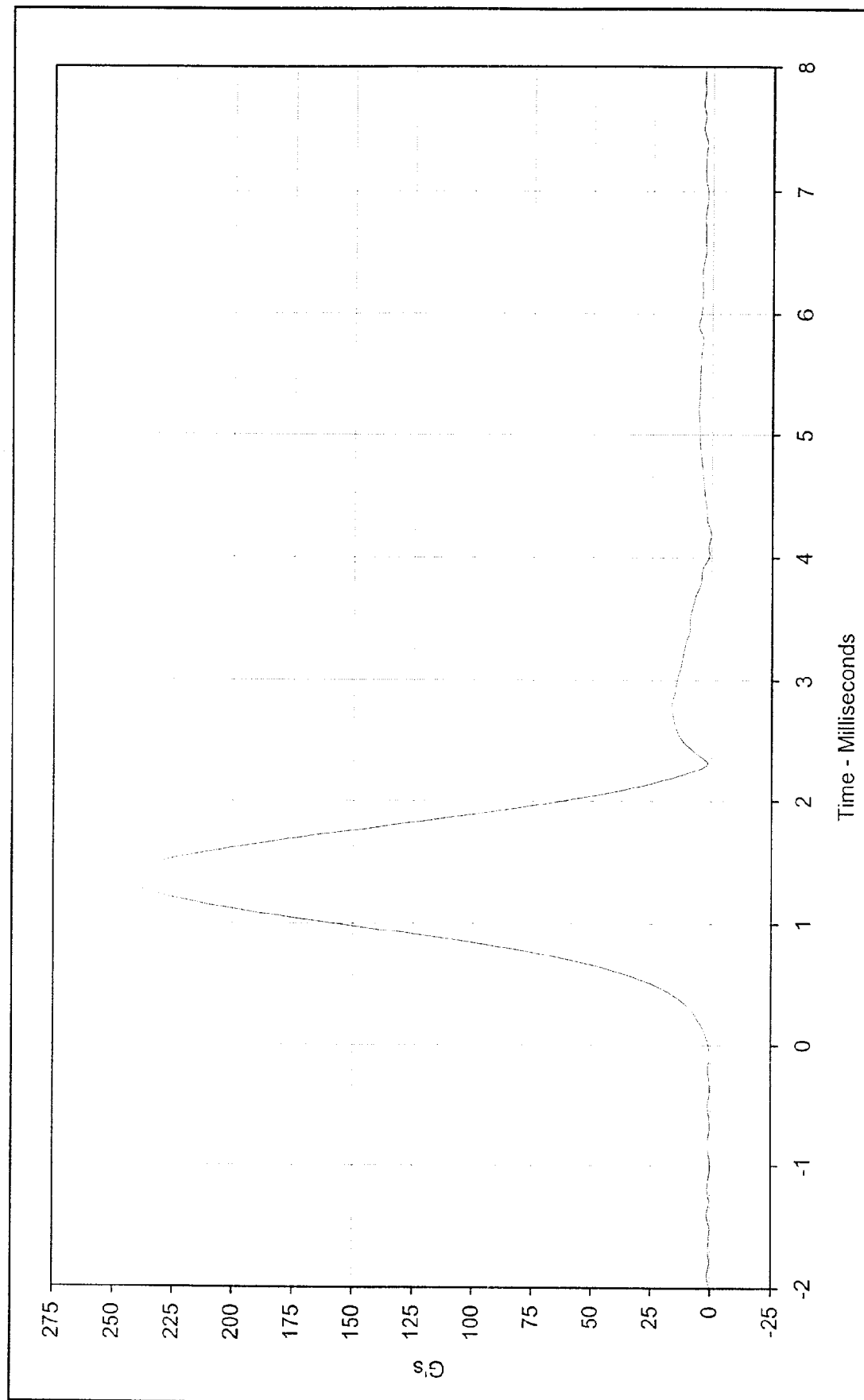
January 8, 2000

Test Date


Approved By

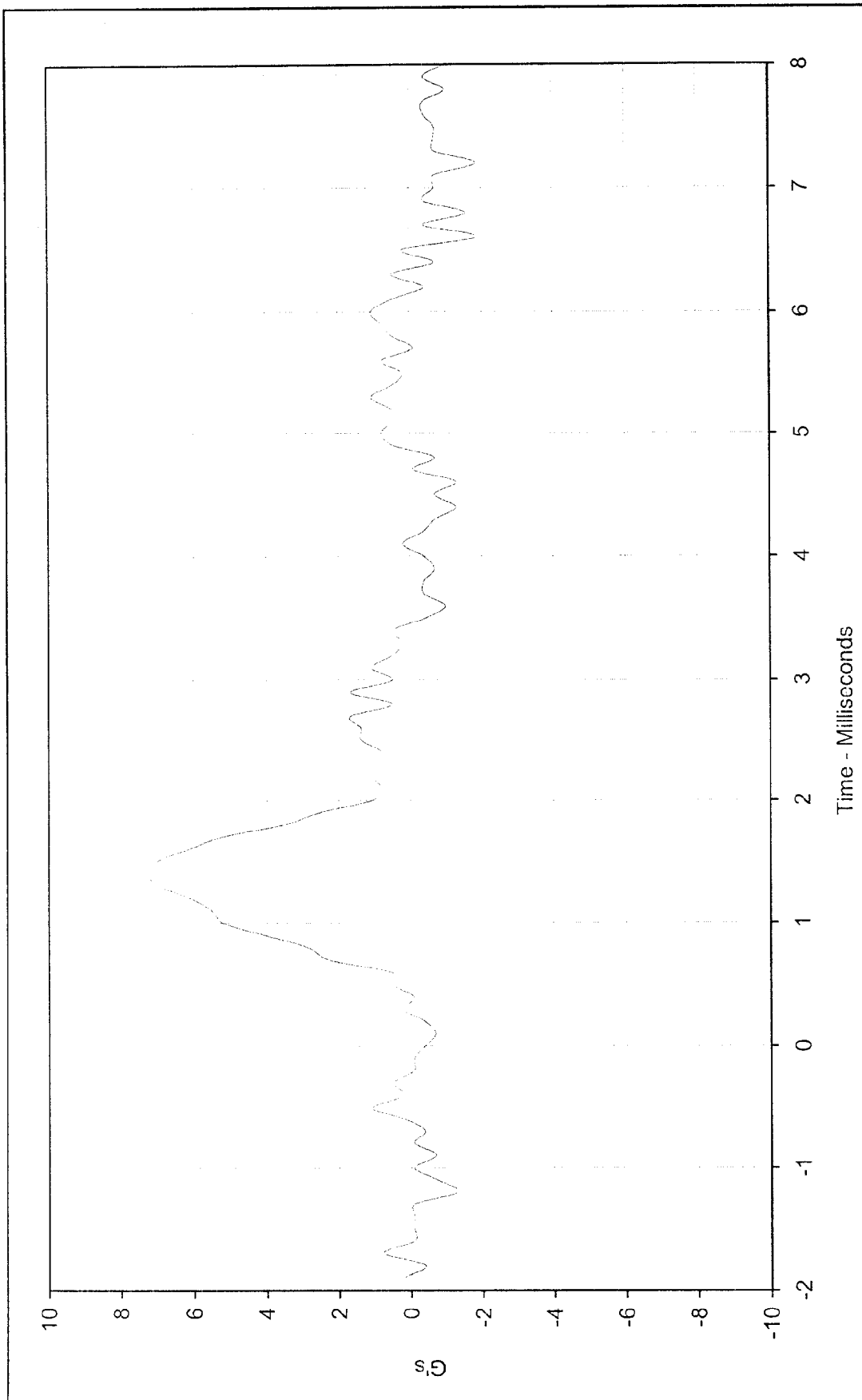
1/8/00

Date

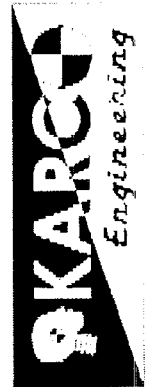


Curve Description:	Head Resultant Acceleration		Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	242.5	at 1.4	SID S/N: 057	Test I.D.: SH02B
Minimum Value:	0.5	at 4.2		
SAE Filter Class:	1000			
Date of Test:	1/8/00			





Curve Description:		Head Y Axis Acceleration		Test Program:		Hybrid II Head Drop Calibration	
Maximum Value:	7.3	at	1.4	Milliseconds	Test Information:	SID S/N: 057	Test I.D.: SH02B
Minimum Value:	-1.9	at	6.6	Milliseconds			
SAE Filter Class:	1000						
Date of Test:	1/8/00						





Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: N/A

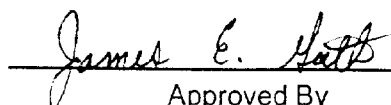
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.6	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	902	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	521	Pass
KV- Knee Pivot From Floor	mm	490 to 505	499	Pass
HW- Hip Width	mm	356 to 391	365	Pass
Overall Test Results				Pass



Laboratory Technician

January 20, 2000

Test Date



Approved By



Date



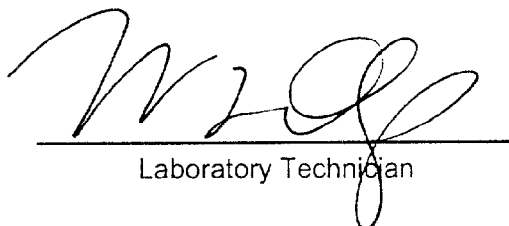
Performance Verification Data
Side Impact Dummy (SID)
Thorax Lateral Impact

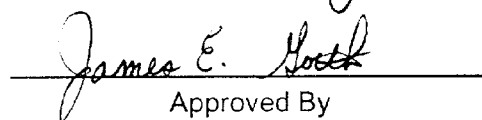
ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: TI00C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.8	Pass
Laboratory Relative Humidity	%	10 to 70	41	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Left Upper Spine Acceleration	G's	37.0 to 46.0	44.9	Pass
Left Lower Spine Acceleration	G's	37.0 to 46.0	41.4	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.9	Pass
Overall Test Results				Pass


Laboratory Technician

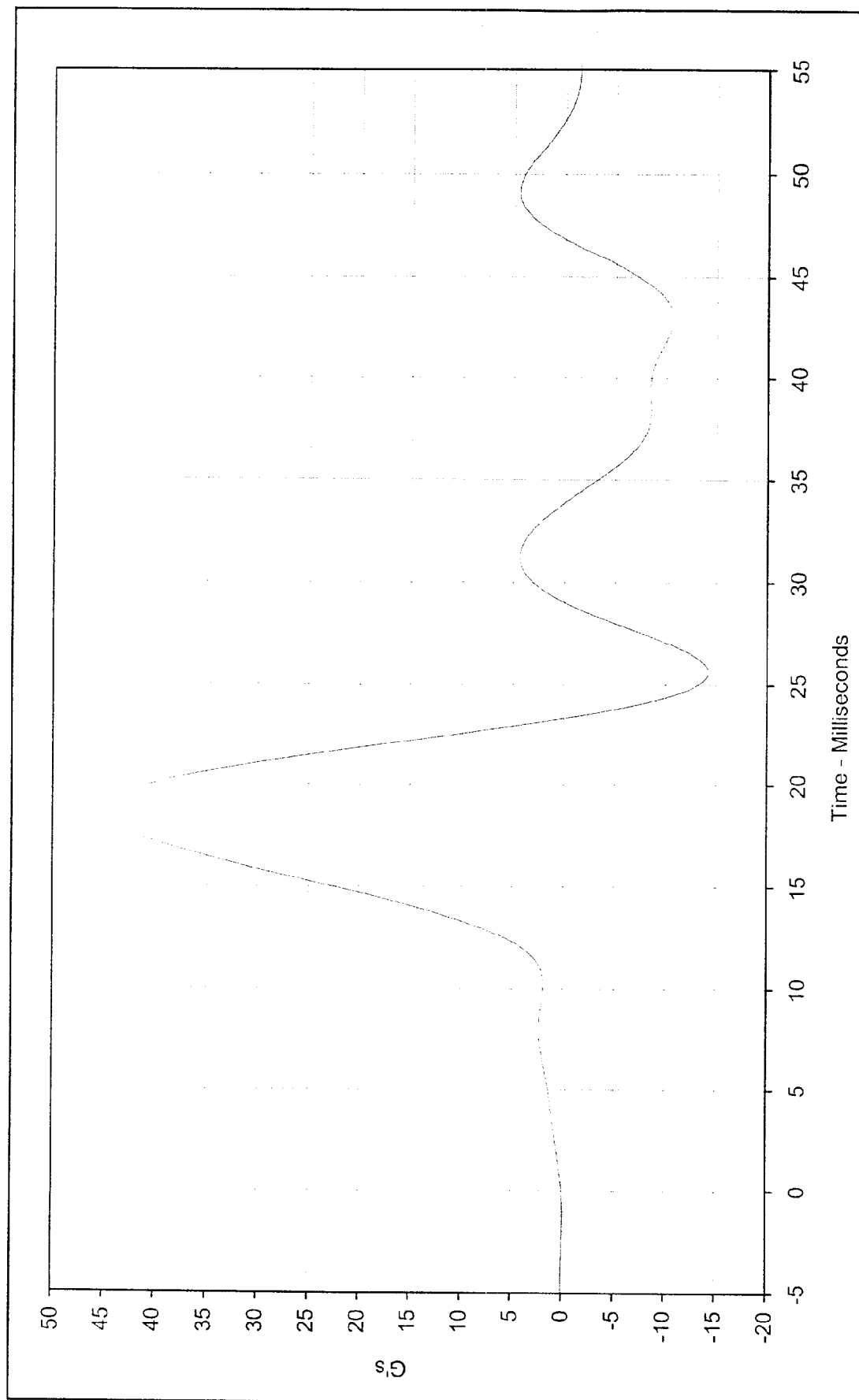

Approved By

January 20, 2000

Test Date

1/20/00

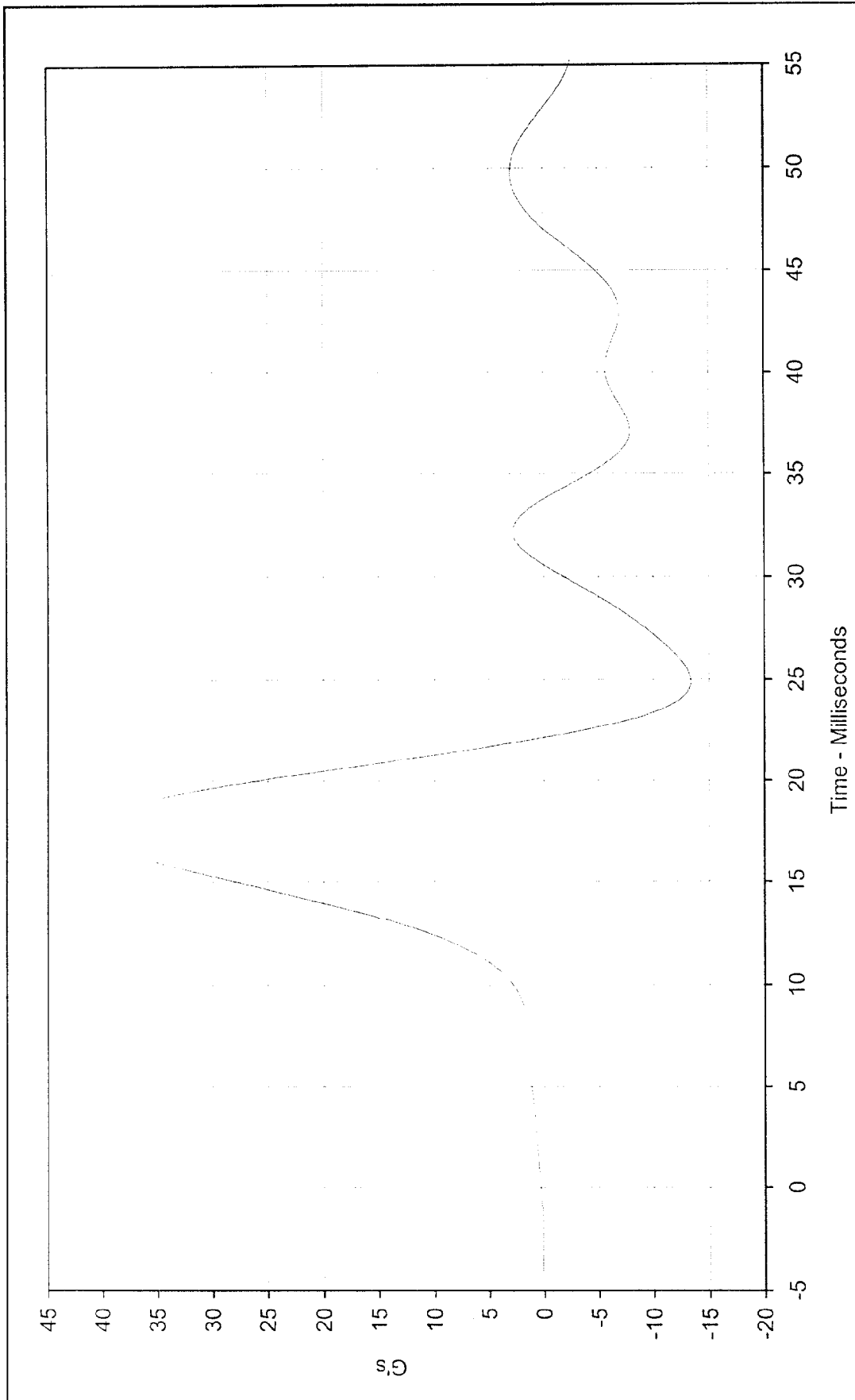
Date



Curve Description: Left Upper Rib Y Acceleration
 Maximum Value: 44.9 at 25.6 Milliseconds
 Minimum Value: -14.2 at 25.6 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 1/20/00

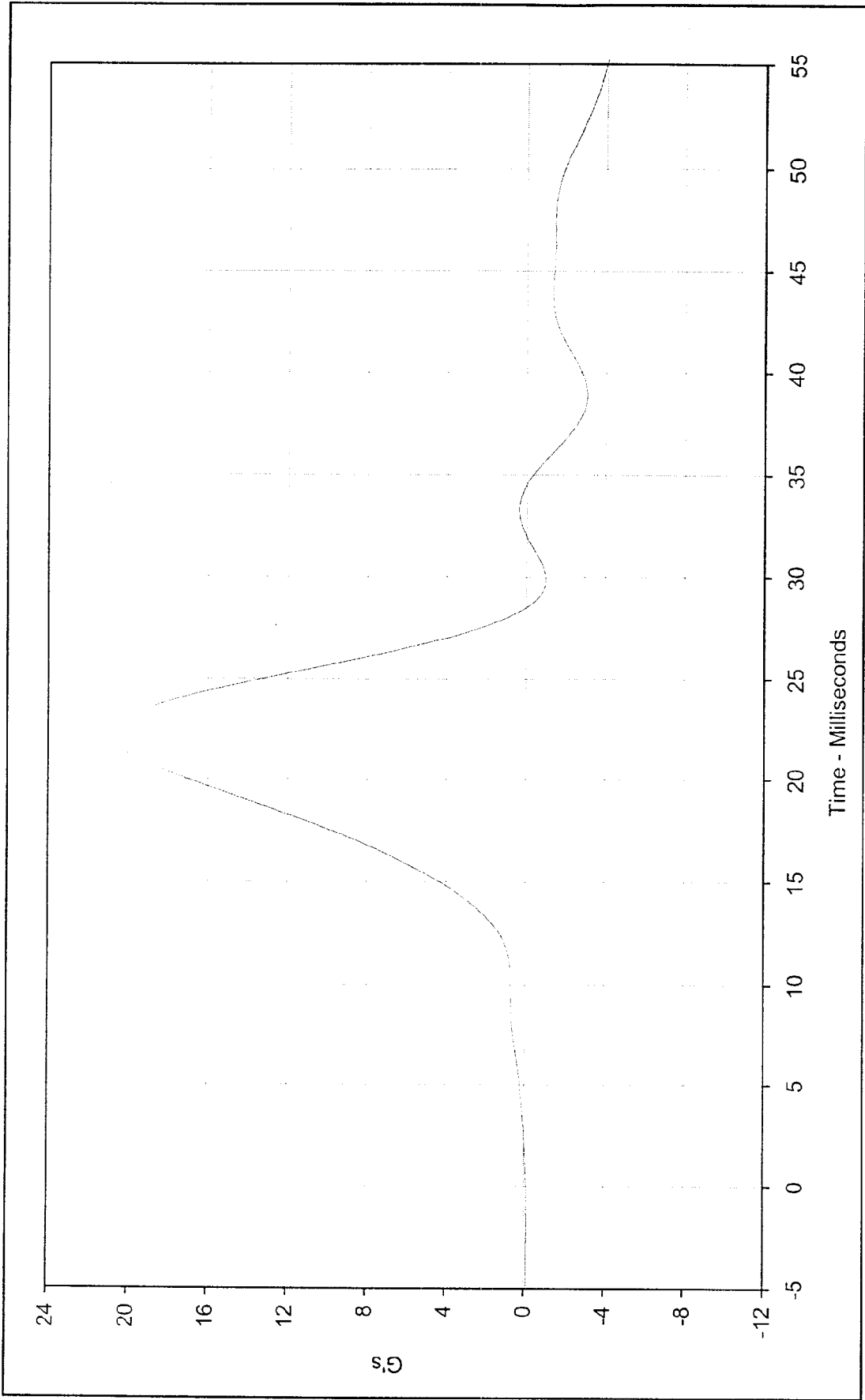
Test Program: SID Thorax Lateral Impact Test
 Test Information: SID S/N: 056 Test I.D.: T100C





Curve Description:		Test Program:	
Left Lower Rib Y Acceleration		SID Thorax Lateral Impact Test	
Maximum Value:	41.4 at 17.6 Milliseconds	Test Information:	
Minimum Value:	-13.4 at 24.9 Milliseconds	SID S/N: 056 Test I.D.: T100C	
SAE Filter Class:	FIR 100		
Date of Test:	1/20/00		





Curve Description:	Lower Spine Y Acceleration		Test Program:		SID Thorax Lateral Impact Test	
	Maximum Value:	20.9	at	22.2	Milliseconds	SID S/N: 056
	Minimum Value:	-4.2	at	56.6	Milliseconds	Test I.D.: T100C
SAE Filter Class:		FIR 100				
Date of Test:		1/20/00				





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

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: PI00C

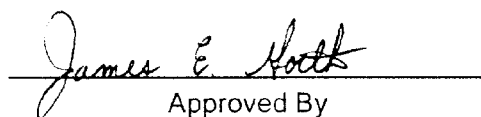
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Pelvis Acceleration	G's	40.0 to 60.0	47.6	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	7.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician

January 20, 2000

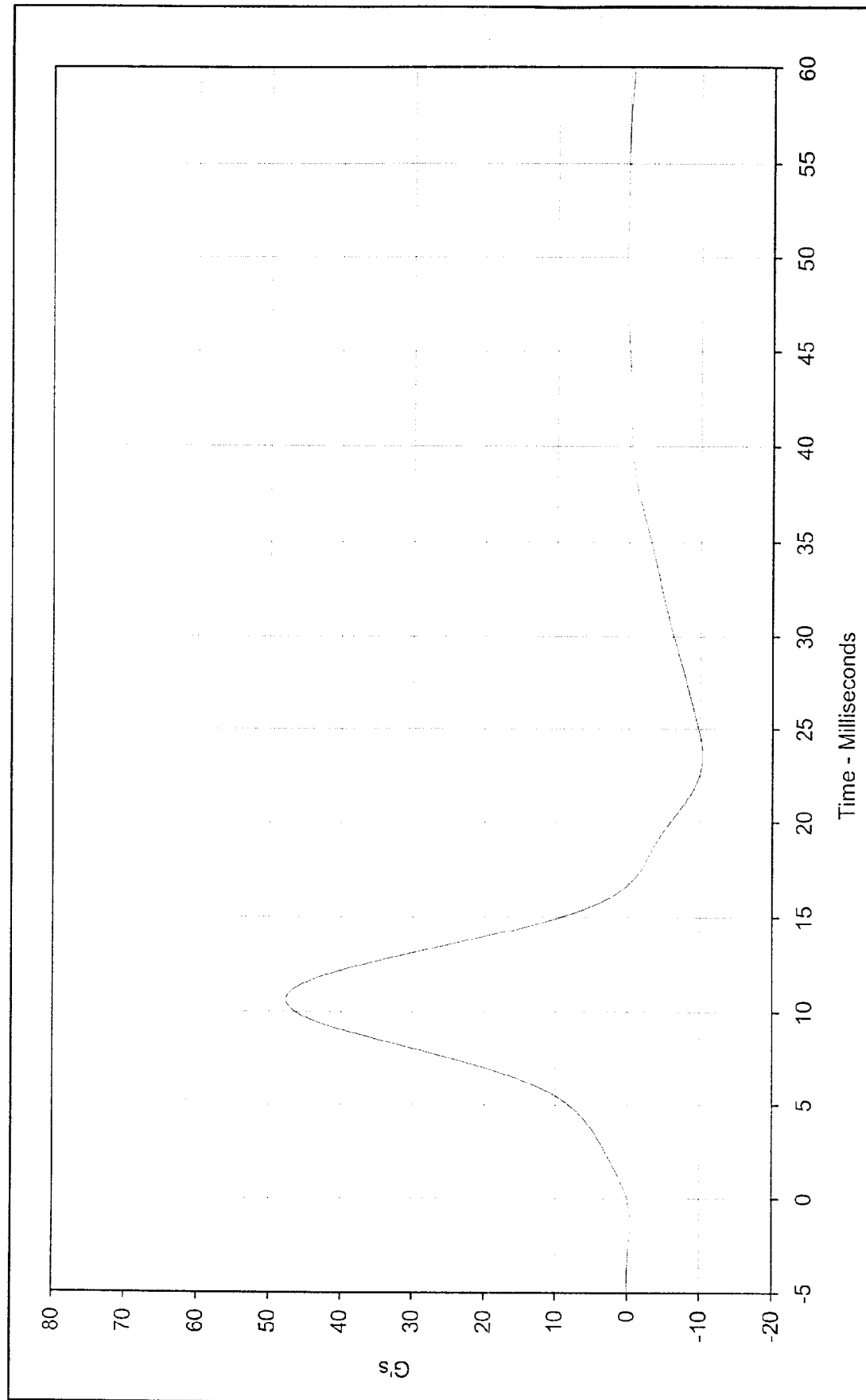
Test Date



Approved By

1/20/00

Date



Curve Description:		Pelvis Y Axis Acceleration		Test Program:		Left Side Pelvis Lateral Impact	
Maximum Value:	47.6	at	10.6	Milliseconds	Test Information:	SID S/N: 056	Test I.D.: PI00C
Minimum Value:	-10.3	at	23.5	Milliseconds			
SAE Filter Class:	FIR 100						
Date of Test:	1/20/00						





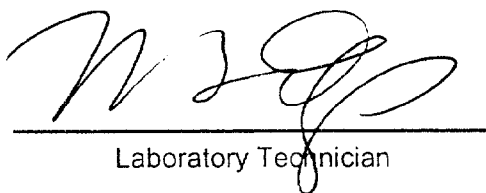
Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

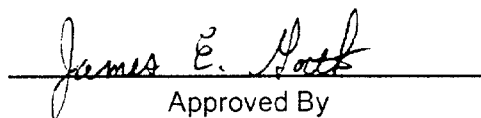
ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: AC02C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	25.1	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	37.3	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	53.1	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	77.3	Pass
Overall Test Results				Pass


Laboratory Technician

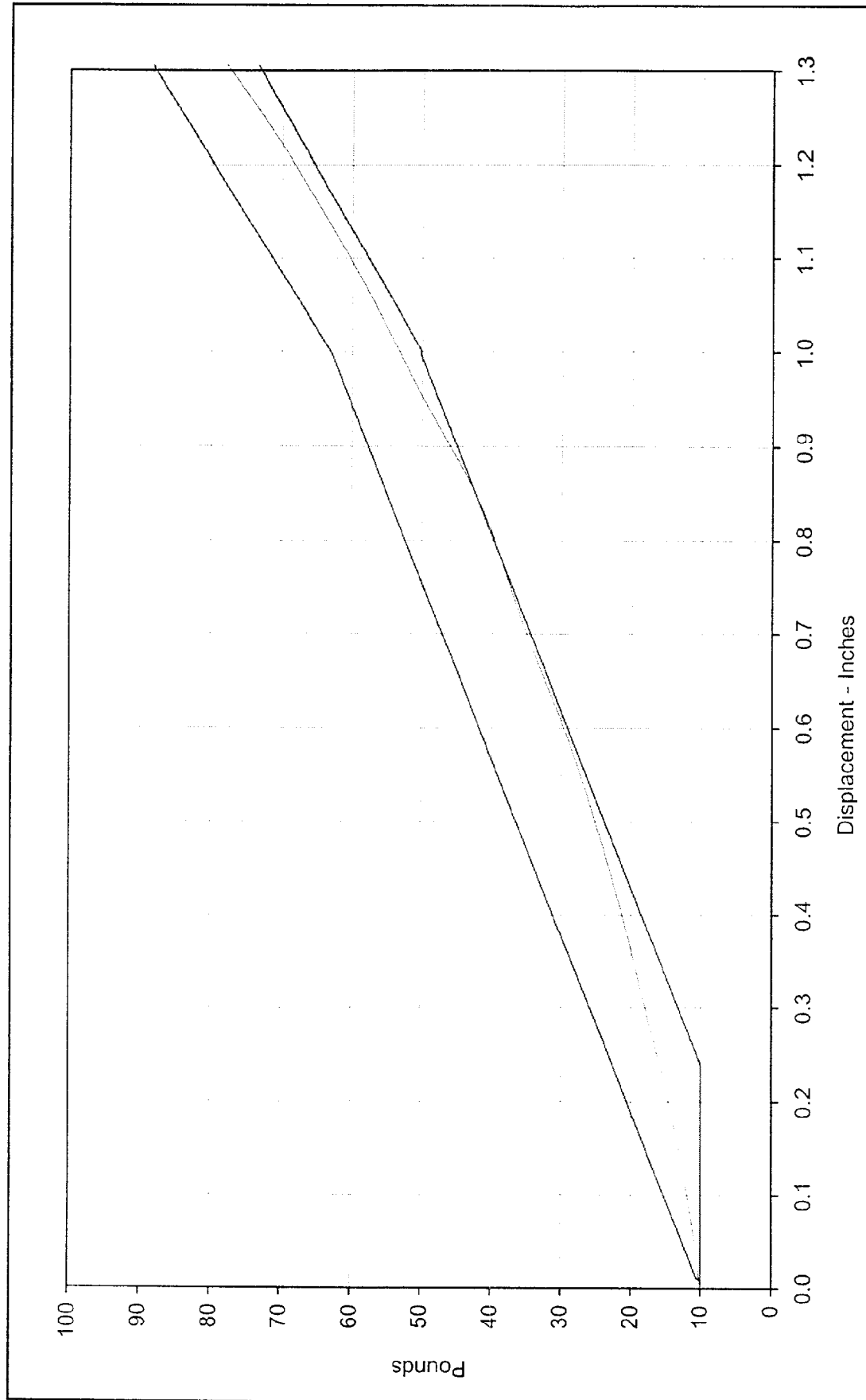

Approved By

January 19, 2000

Test Date

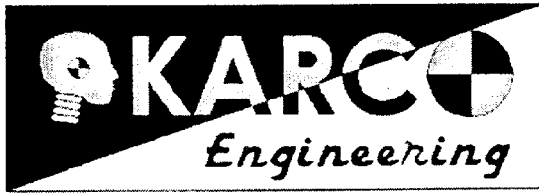
1/19/00

Date



Curve Description:	Abdomen Force vs. Displacement	Test Program:	Hybrid II Abdominal Compression
Force at 0.5 In.:	25.1 Pounds	Test Information:	SID S/N: 056 Test I.D.: AC02C
Force at 0.75 In.:	37.3 Pounds		
Force at 1.0 In.:	53.1 Pounds		
Force at 1.3 In.:	77.3 Pounds		
Date of Test:	01/19/00		





Performance Verification Data

Side Impact Dummy (SID)

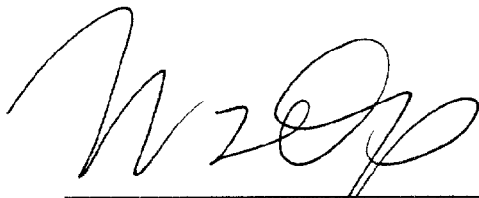
Lumbar Flexion Test

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: LF02C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	31	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	27.5	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	37.7	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	57.4	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	4.8	Pass
Overall Test Results				Pass



Laboratory Technician

January 19, 2000

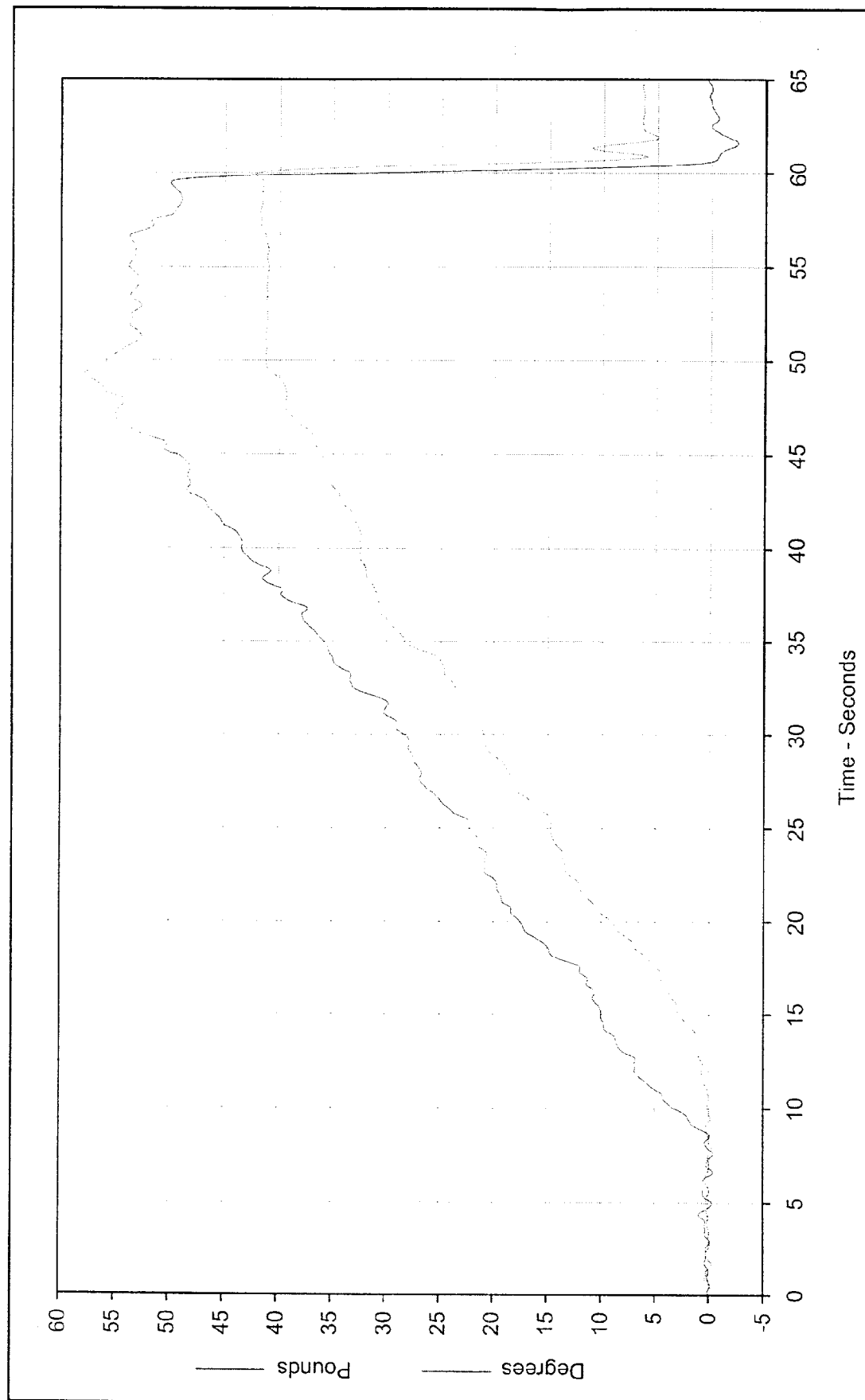
Test Date



Approved By

1/19/00

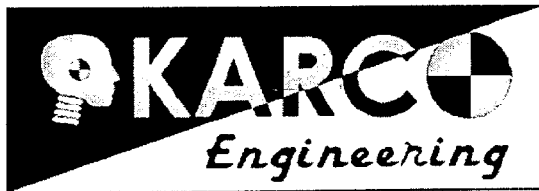
Date



Curve Description: Applied Lumbar Force And Angle
 Force at 20°: 27.5 Pounds
 Force at 30°: 37.7 Pounds
 Force at 40°: 57.4 Pounds
 Return Angle: 4.8 Degrees
 Test Date: 01/19/00

Test Program: Side Impact Dummy Lumbar Flexion
 Test Information: SID S/N: 056 Test I.D.: LF02C





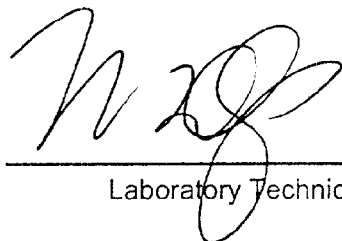
Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 056

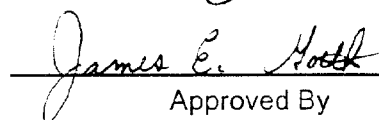
Part Serial No.: N/A

Test I.D.: SH02C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	32	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	250.0	Pass
Peak Lateral Acceleration	G's	≤10.0	2.5	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.3	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



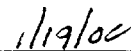
Laboratory Technician



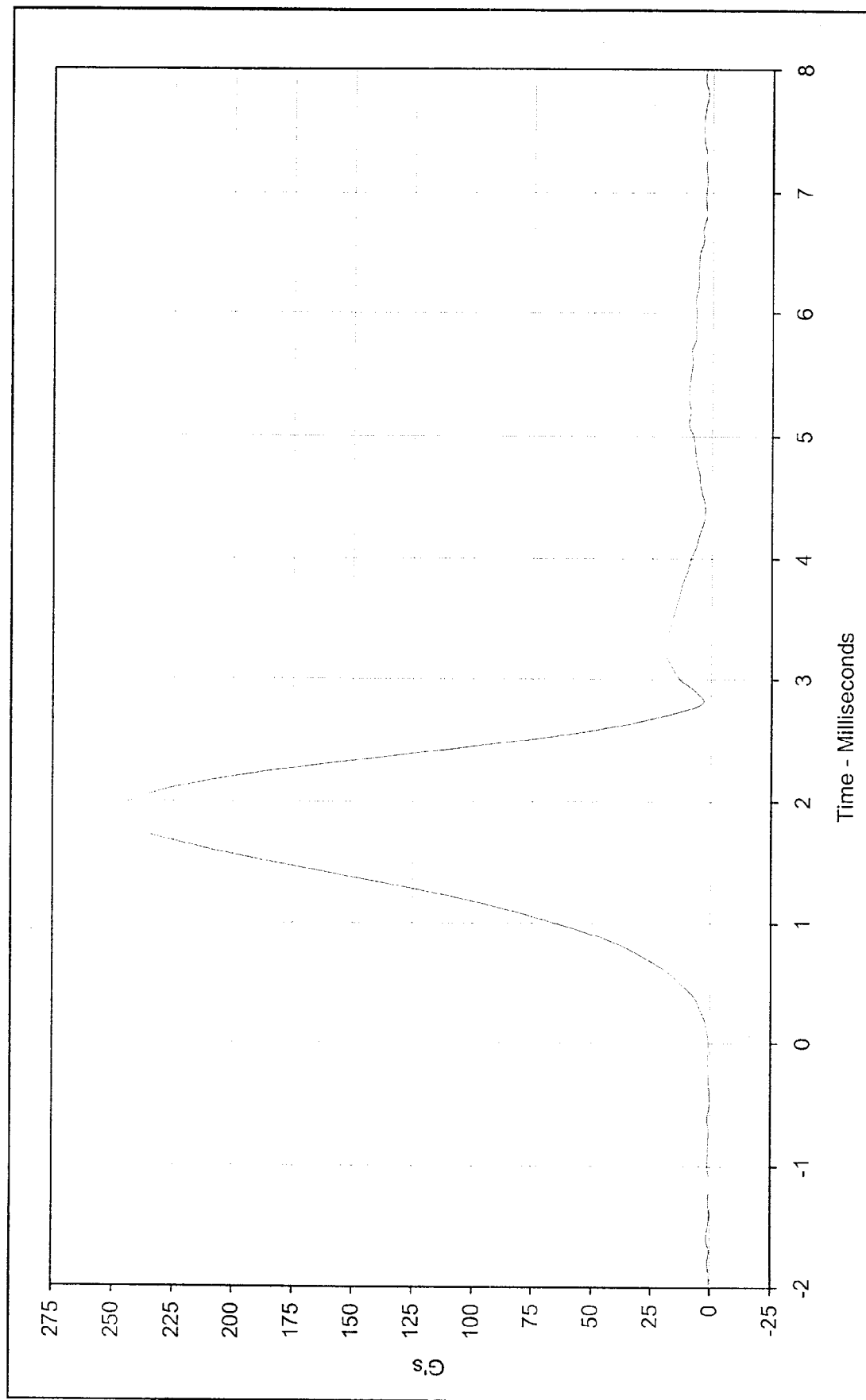
Approved By

January 19, 2000

Test Date

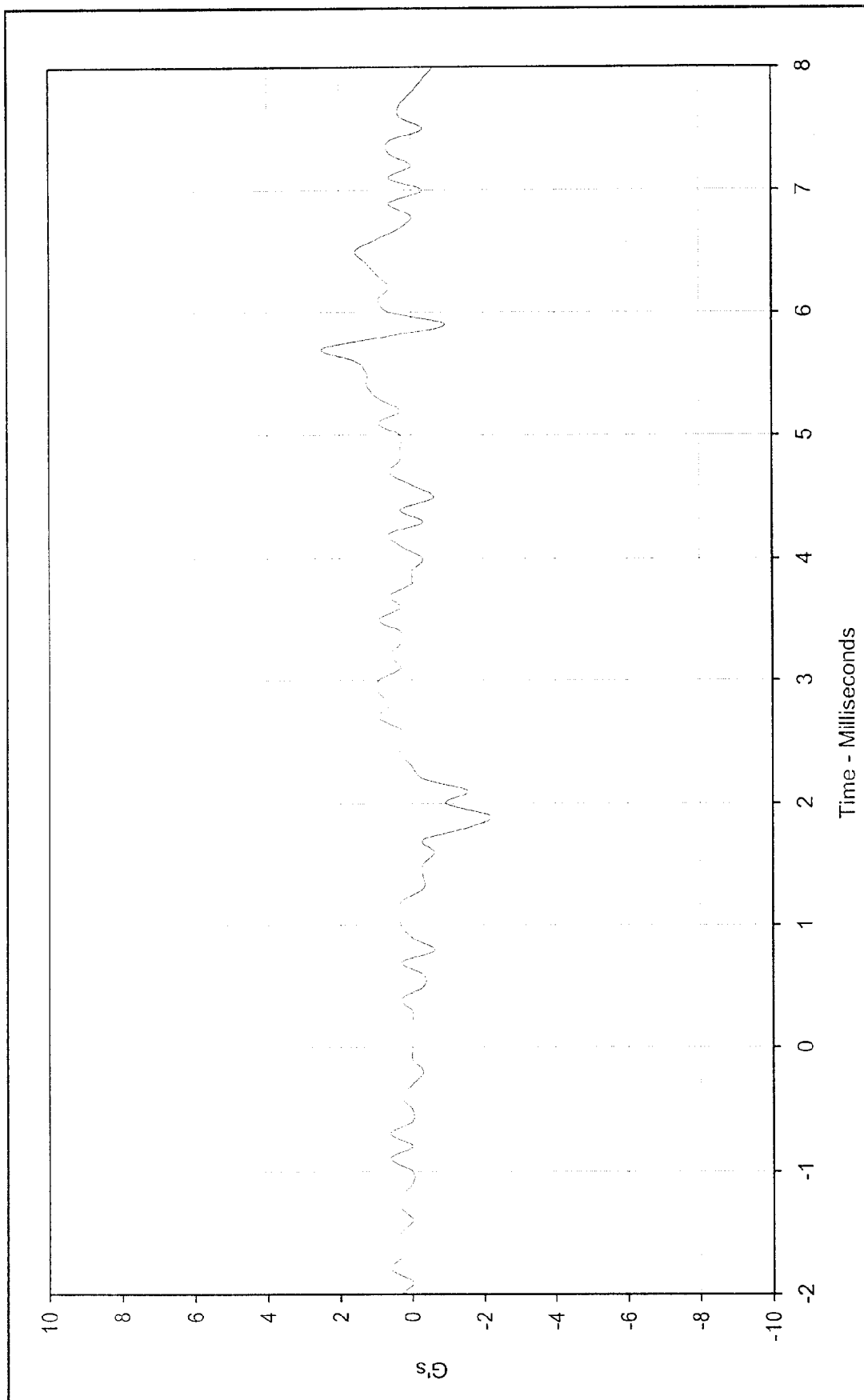


Date



Curve Description:	Head Resultant Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	250.0 at 1.9 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: SH02C
Minimum Value:	0.8 at 0.0 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	01/19/00		





Curve Description: Hybrid II Head Drop Calibration
 Maximum Value: 2.5 at 5.7 Milliseconds
 Minimum Value: -2.2 at 1.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/19/00





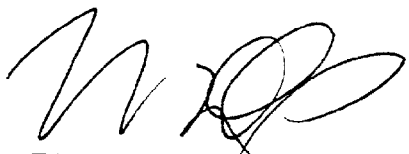
Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: N/A

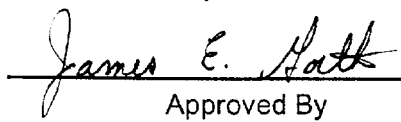
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.6	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	902	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	511	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	522	Pass
KV- Knee Pivot From Floor	mm	490 to 505	498	Pass
HW- Hip Width	mm	356 to 391	364	Pass
Overall Test Results				Pass



Laboratory Technician

January 20, 2000

Test Date



Approved By

1/20/00

Date



Performance Verification Data

Side Impact Dummy (SID)

Thorax Lateral Impact

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: TI00D

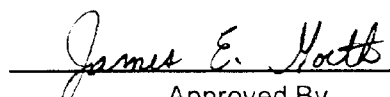
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.8	Pass
Laboratory Relative Humidity	%	10 to 70	40	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Left Upper Spine Acceleration	G's	37.0 to 46.0	40.3	Pass
Left Lower Spine Acceleration	G's	37.0 to 46.0	40.4	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.6	Pass
Overall Test Results				Pass



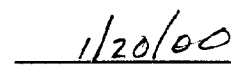
Laboratory Technician

January 20, 2000

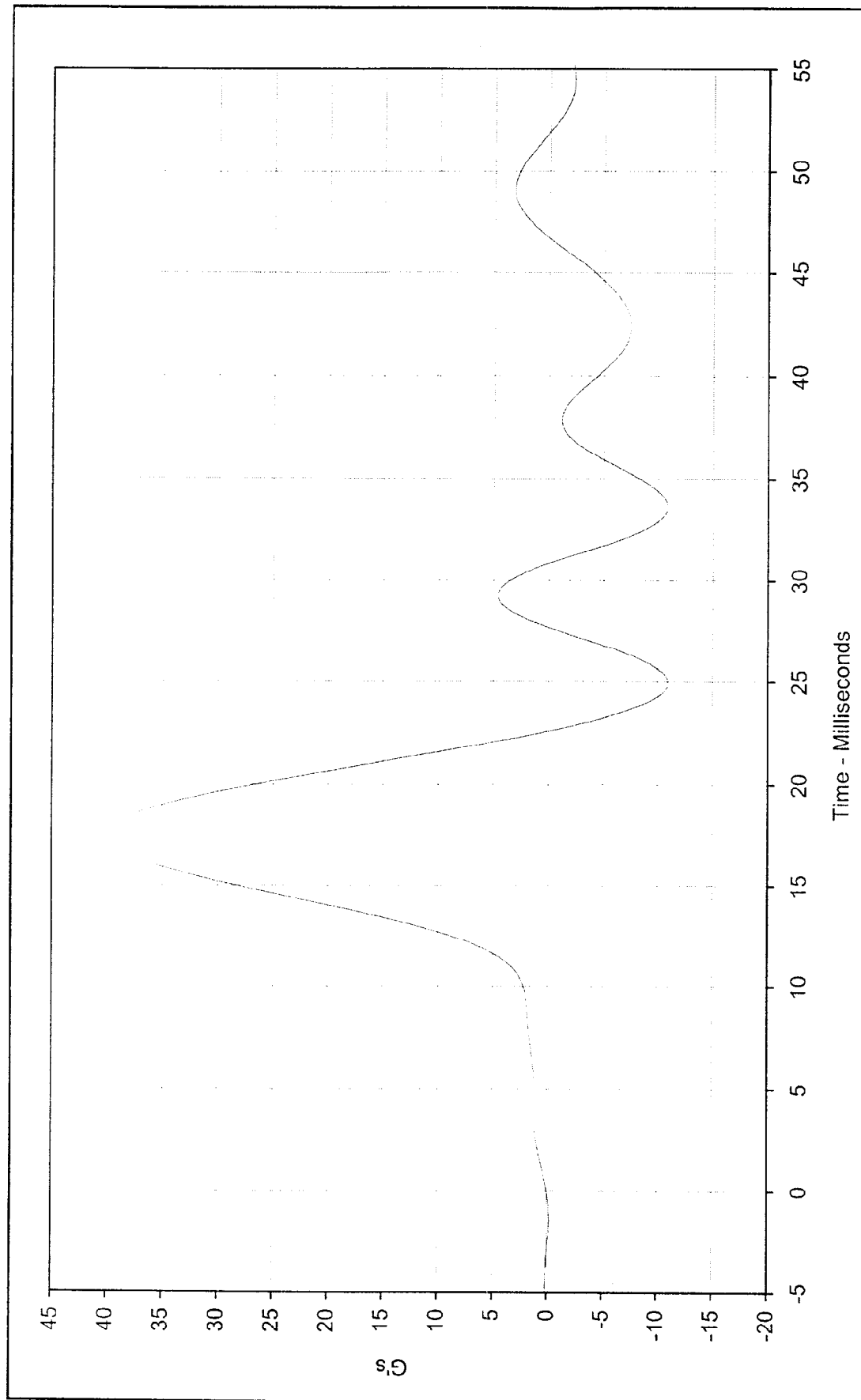
Test Date



Approved By

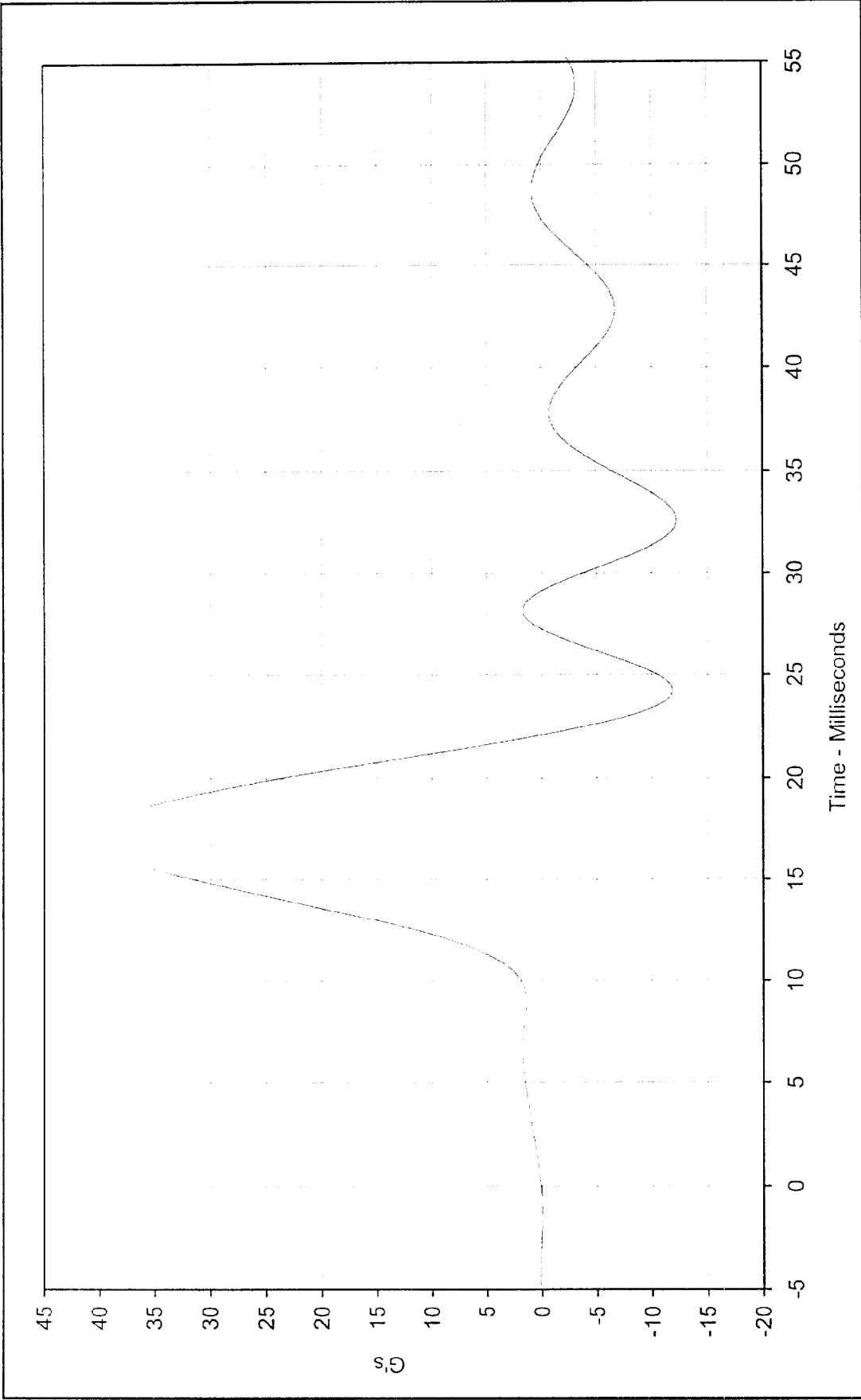


Date



Curve Description:		Test Program:	
Left Upper Rib Y Acceleration		SID Thorax Lateral Impact Test	
Maximum Value:	40.3	at	17.4
Minimum Value:	-10.9	at	24.9
SAE Filter Class:	FIR 100		
Date of Test:	1/20/00		
Test Information:		SID S/N: 057	
		Test I.D.: T100D	

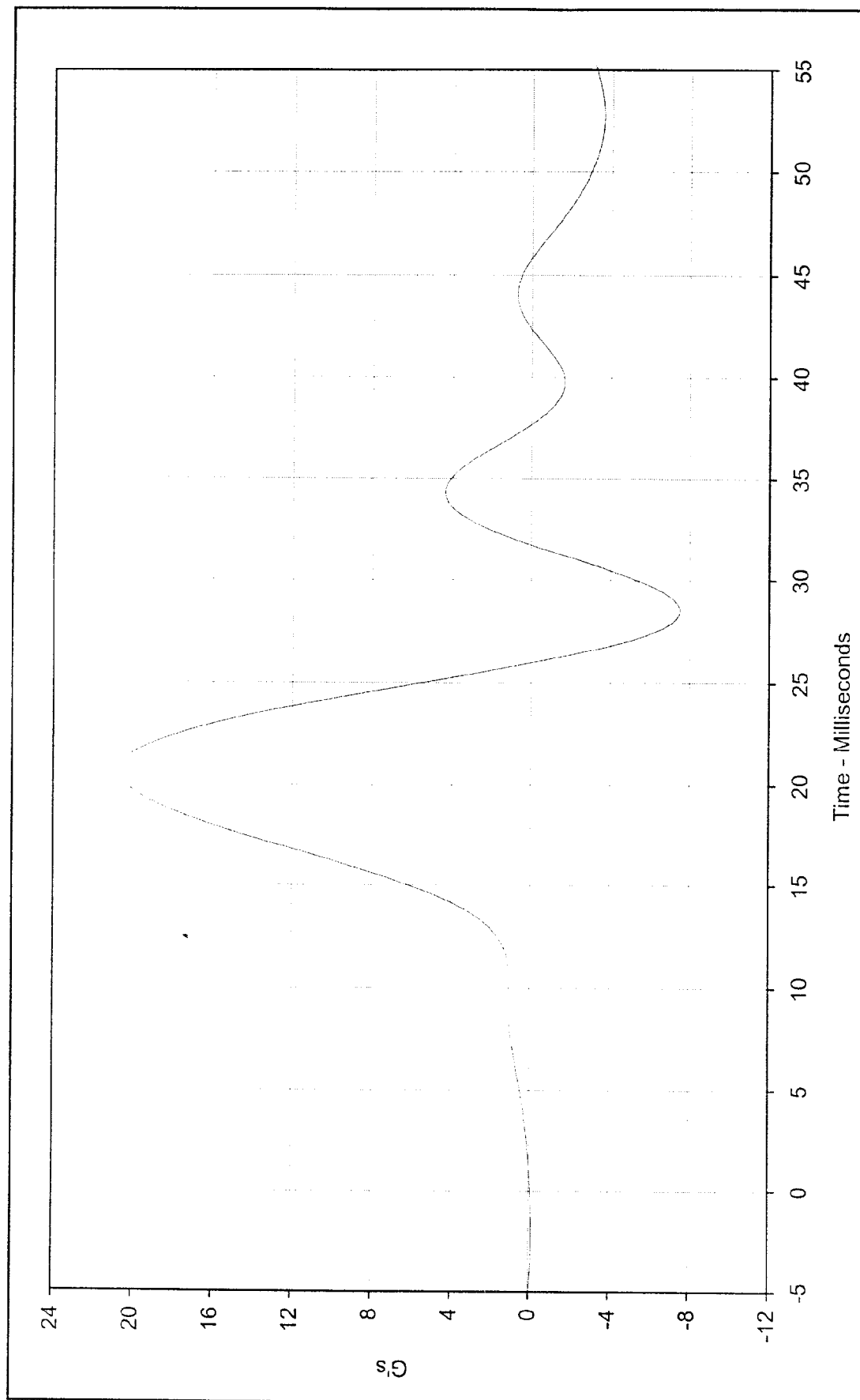




Curve Description:	Left Lower Rib Y Acceleration				Test Program:	SID Thorax Lateral Impact Test
	Maximum Value:	40.4	at	17.2	Milliseconds	SID S/N: 057
	Minimum Value:	-12.2	at	32.6	Milliseconds	Test I.D.: T100D

SAE Filter Class: FIR 100
Date of Test: 1/20/00





Curve Description: Lower Spine Y Acceleration
 Maximum Value: 20.6 at 20.7 Milliseconds
 Minimum Value: -7.5 at 28.5 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 1/20/00

Test Program: SID Thorax Lateral Impact Test
 Test Information: SID S/N: 057 Test I.D.: T100D





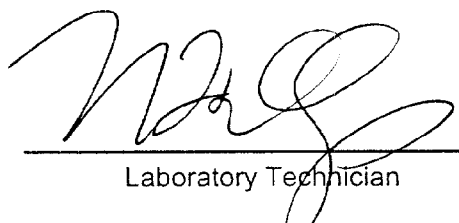
Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact

ATD Serial No.: 057

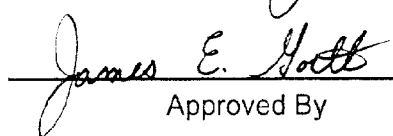
Part Serial No.: N/A

Test I.D.: PI00D

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	42	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Pelvis Acceleration	G's	40.0 to 60.0	41.1	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



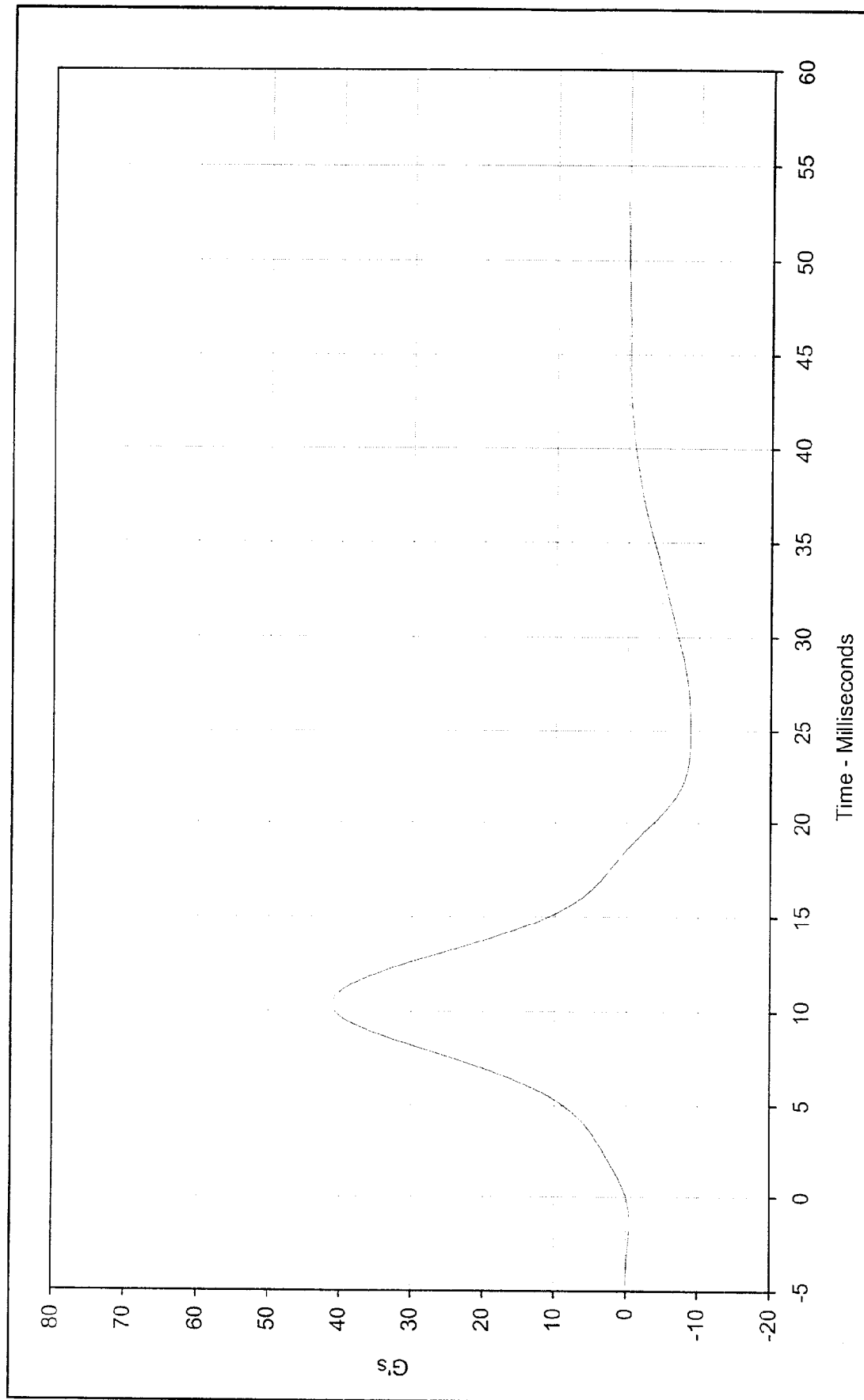
Laboratory Technician



Approved By

January 20, 2000
Test Date

1/20/00
Date



Curve Description:		Pelvis Y Axis Acceleration		Test Program:		Left Side Pelvis Lateral Impact	
Maximum Value:	41.1	at	10.4	Milliseconds	Test Information:		
Minimum Value:	-8.8	at	24.8	Milliseconds	SID S/N: 057 Test I.D.: PI00D		
SAE Filter Class:		FIR 100					
Date of Test:		1/20/00					







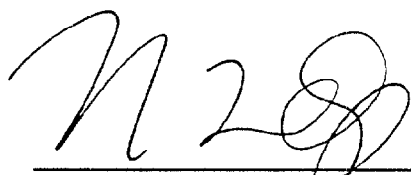
Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 057

Part Serial No.: N/A

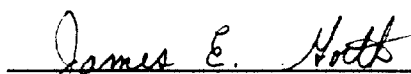
Test I.D.: AC02D

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	31.6	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	43.7	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	58.0	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	78.8	Pass
Overall Test Results				Pass


Laboratory Technician

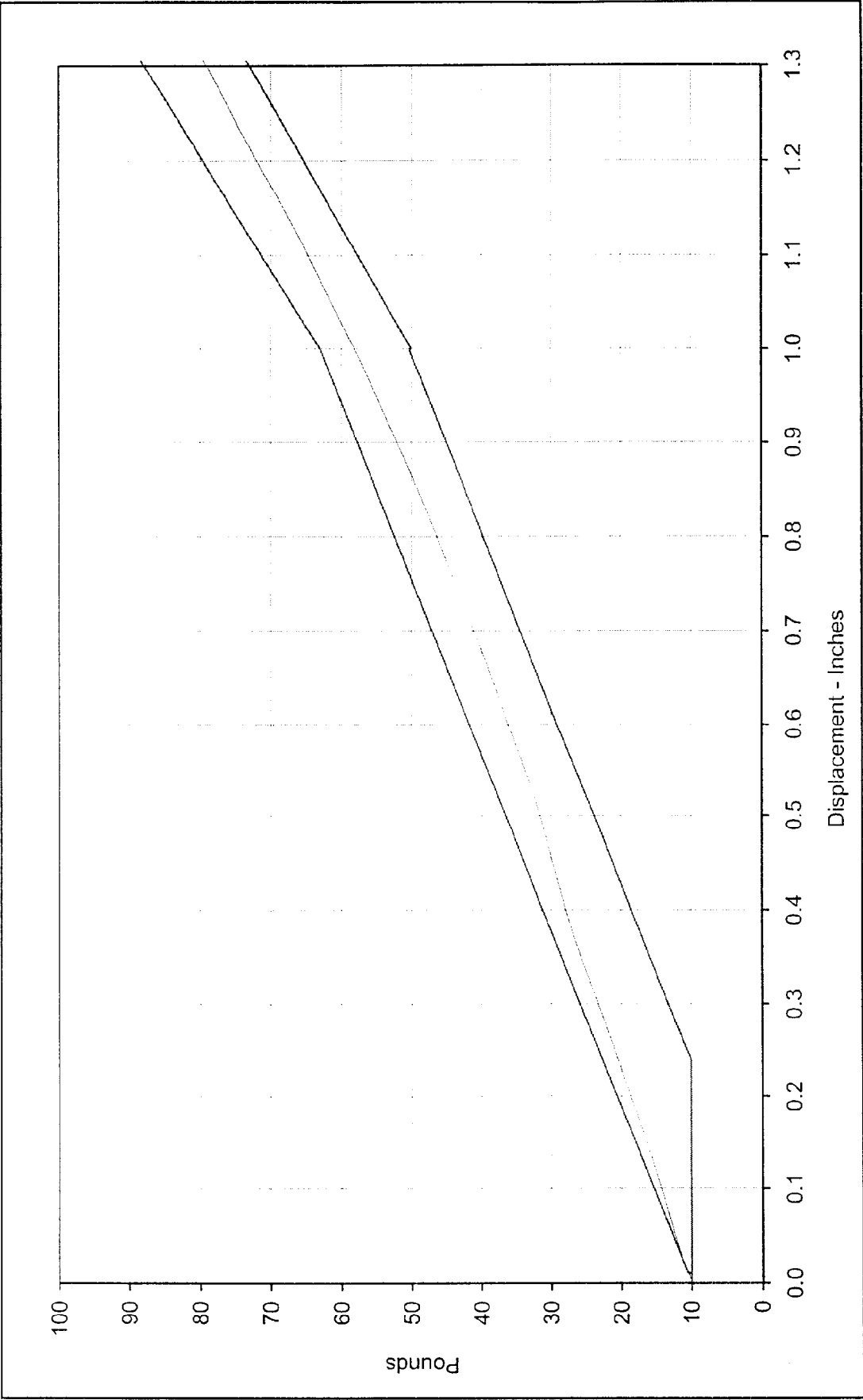
January 19, 2000

Test Date


Approved By

1/19/00

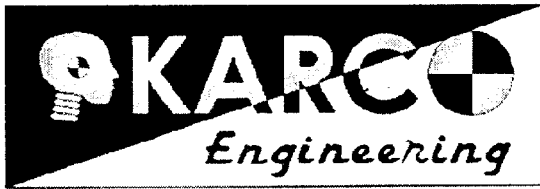
Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
Force at 0.5 In.: 31.6 Pounds Test Information: SID S/N: 057 Test I.D.: AC02D



Force at 0.75 In.: 43.7 Pounds
Force at 1.0 In.: 58.0 Pounds
Force at 1.3 In.: 78.8 Pounds
Date of Test: 01/19/00



Performance Verification Data

Side Impact Dummy (SID)

Lumbar Flexion Test

ATD Serial No.: 057

Part Serial No.: N/A

Test I.D.: LF02D

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	31	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	26.8	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	38.4	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	50.0	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	4.6	Pass
Overall Test Results				Pass

Laboratory Technician

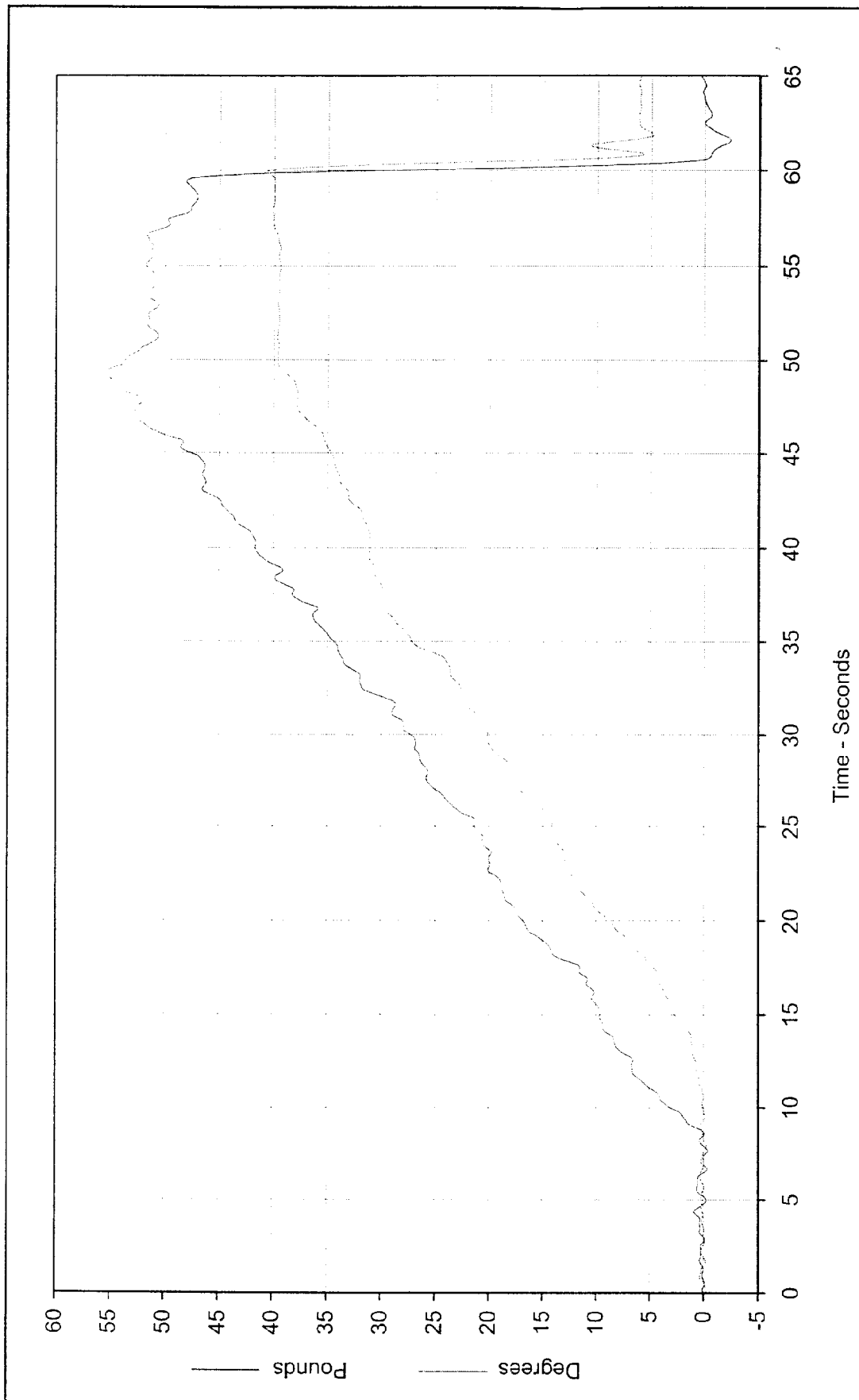
January 19, 2000

Test Date

Approved By

1/19/00

Date



Curve Description:		Applied Lumbar Force And Angle		Test Program:		Side Impact Dummy Lumbar Flexion	
Force at 20°:		26.8	Pounds	Test Information:		SID S/N: 057	Test I.D.: LF02D
Force at 30°:		38.4	Pounds				
Force at 40°:		50.0	Pounds				
Return Angle:		4.6	Degrees				
Test Date:		01/19/00					





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

ATD Serial No.: 057

Part Serial No.: N/A

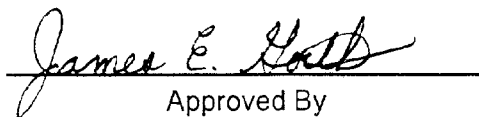
Test I.D.: SHO2D

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	32	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	247.3	Pass
Peak Lateral Acceleration	G's	≤10.0	4.2	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

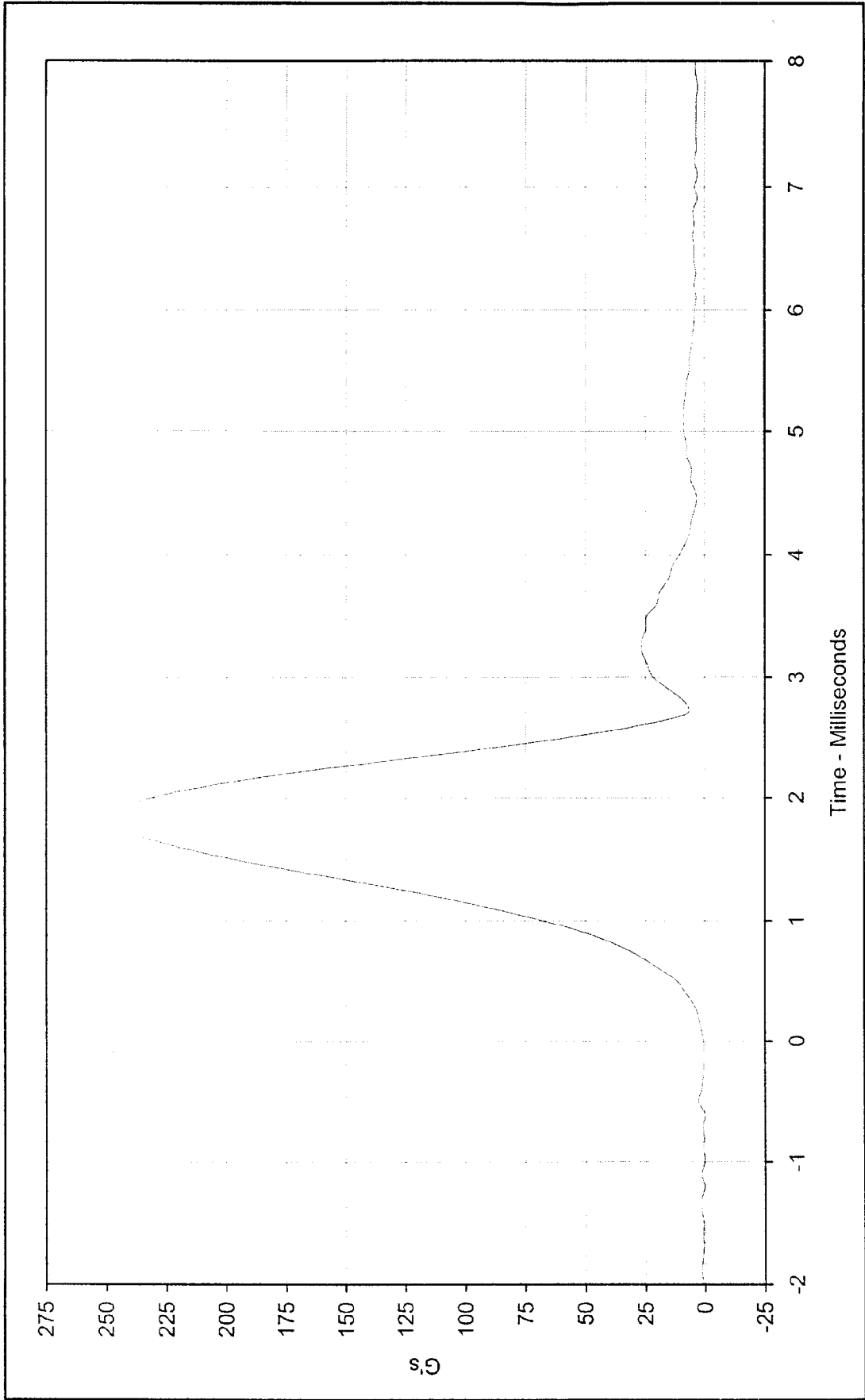
January 19, 2000

Test Date


Approved By

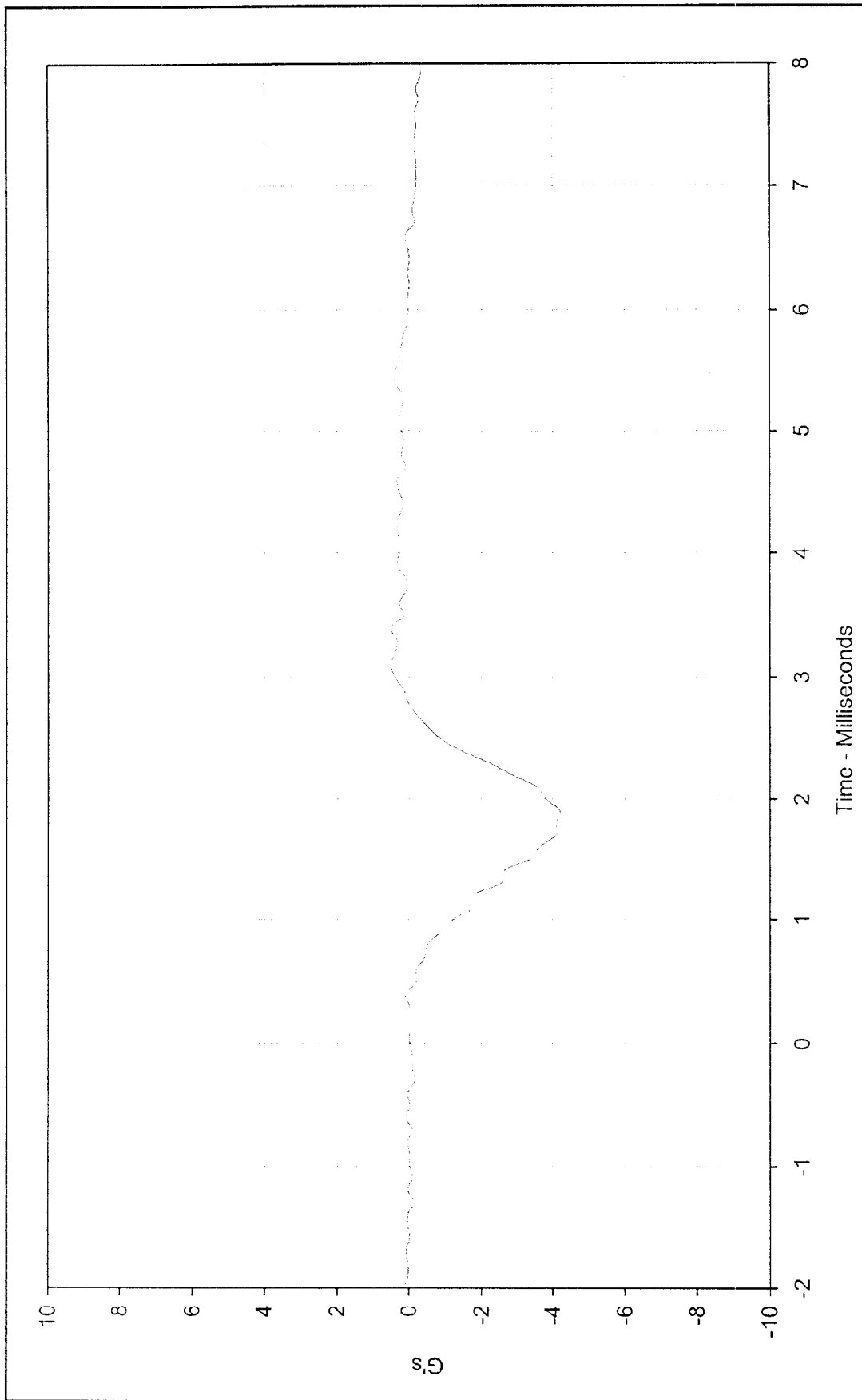
1/19/00

Date



Curve Description:	Head Resultant Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	247.3 at 1.8 Milliseconds	Test Information:	SID S/N: 057 Test I.D.: SHO2D
Minimum Value:	0.7 at 0.0 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	01/19/00		





Curve Description:	Head Y Axis Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	0.5 at 3.1 Milliseconds	Test Information:	SID S/N: 057 Test I.D.: SHO2D

Minimum Value:	-4.2 at 1.9 Milliseconds
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SAE Filter Class:	1000
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Date of Test:	01/19/00
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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
01/11/00
2000 Ford F-150 XL Pickup

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
Rear Seat Passenger S.I.D. Serial Number 057
01/11/00
2000 Ford F-150 XL Pickup

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	%

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

Vehicle Accelerometers

01/11/00

2000 Ford F-150 XL Pickup

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	N/A	N/A	N/A	N/A	N/A
45	B-Post Middle	Y	N/A	N/A	N/A	N/A	N/A
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
01/11/00
2000 Ford F-150 XL Pickup

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	%