

3287

REPORT NUMBER KAR20003-02

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST

FORD MOTOR CORPORATION
2000 FORD RANGER
XLT PICKUP
NHTSA NUMBER: MY0208

PREPARED BY:
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FEBRUARY 29, 2000

FINAL REPORT

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16. Abstract A 55/28 km/h 90 Deg. Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2000 Ford Ranger XLT Pickup in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedure for the generation of consumer information on vehicle side impact crash protection. The test was conducted at KARCO Engineering laboratories in Adelanto, California, on January 21, 2000. The impact velocity of the Moving Deformable Barrier was 61.5 km/h, and the ambient temperature at the struck side (driver's) of the vehicle was 18.9 C. The target vehicle's maximum post test static crush was 536 mm located at level 3. The test vehicle's occupant performance is as follows: <table border="1"> <thead> <tr> <th>Measurement Description</th> <th>Driver SID</th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td>53</td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td>68</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td>69</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td>68</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td>104</td> </tr> </tbody> </table>				Measurement Description	Driver SID	Left Upper Rib (LUR) G's	53	Left Lower Rib (LLR) G's	68	Lower Spine (T ₁₂) G's	69	Thoracic Trauma Index (TTI) G's	68	Pelvis (PEV) G's	104
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Pelvis (PEV) G's	104														
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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 Ranger XLT 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 Ranger XLT 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 61.5 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 1710 kg. and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering in Adelanto, California, on January 21, 2000.

One (1) real-time motion picture camera and ten (10) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID can be found in Appendix A. One 50th percentile adult male Side Impact Dummy (SID) was placed in the driver's designated seating position according to the test procedure. The 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-two (22) 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 536 mm at level 3, 1500 mm rearward of the left vertical impact point. The driver SID, Serial No. 056 was calibrated prior to this test. The SID injury criteria is summarized as follows:

Measurement	Units	Driver
Thoracic Trauma Index (TTI)	G's	68
Peak Pelvic G's (PEV)	G's	104.2

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 SID, vehicle, and MDB response data traces. Appendix C contains the SID 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 Ranger XLT Pickup
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. MY0208
 Test Date: 1/21/00

CONVERSION FACTORS USED IN THIS REPORT*

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

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

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2000 Ford Ranger XLT Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0208
 Test Date: 1/21/2000

TEST VEHICLE INFORMATION

Make	Ford
Model	Ranger XLT
Body Style	Pickup
NHTSA No.	MY0208
VIN	1FTYR14CXYP01243
Color	Green
Delivery Date	1/17/2000
Odometer Reading (mile)	76
Dealer	Fairview Ford
Transmission	5-Speed Manual
Final Drive	Rear
Number of Cylinders	4
Engine Displacement (L)	2.5
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)	2177
Date of Manufacture	August-99	GAWR Front (kg)	1089
		GAWR Rear (kg)	1179

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	210	210
Cold Pressure (kPa)	210	210
Recommend Tire Size	P225/70/R15	P225/70/R15
Tire Size on Vehicle	P225/70/R15	P225/70/R15
Tire Manufacturer	Firestone	Firestone

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	None	
Number of Occupants	3	2	0	5
Capacity Wt. (VCW) (kg)				306
Cargo Weight (RCLW) (kg)				136

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

Test Vehicle: 2000 Ford Ranger XLT Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0208
 Test Date: 1/21/2000

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	451	322		485	398	
Right	kg	426	303		448	379	
Ratio	%	58.4	41.6		54.6	45.4	
Totals	kg	877	625	1502	933	777	1710

TARGET TEST WEIGHT CALCULATION*

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1502
Weight of 1 P572F Side Impact Dummy	kg	80
Rated Cargo/Luggage Weight (RCLW)	kg	136
Calculated Vehicle Target Weight (TVTW)	kg	1718

*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	810	818	838	836	1332
As Tested	mm	800	811	797	806	1454
Fully Loaded	mm	802	815	800	804	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	3200
Total Vehicle Length at Left Side	mm	3885
Total Vehicle Length at Centerline	mm	5140
Total Vehicle Length at Right Side	mm	3885
Weight of Ballast In Cargo Area	kg	107
Amount of Stoddard Solvent in Fuel Tank	Liters	68.6

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	3200
Target Impact Point Aft of Front Axle	mm	508
Actual Impact Point Aft of Front Axle	mm	488

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

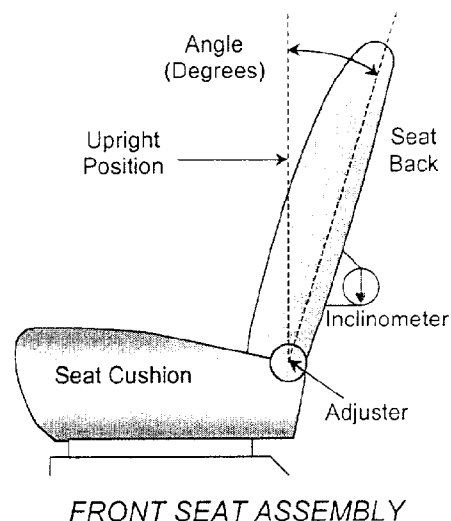
Test Vehicle: 2000 Ford Ranger XLT Pickup
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. MY0208
Test Date: 1/21/00

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° with a seated dummy



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.

Driver seat fore/aft total travel: 26 Seat Positions
Driver seat fore/aft position: Seat Set At The 14th Detent

SEAT BELT UPPER ANCHORAGE

The test vehicle is equipped with a "D" ring anchorage for the driver's seat positions. There are 5 positions or detents, with the uppermost position numbered "1". The driver's "D" ring anchorage is placed in position 3, middle position.

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

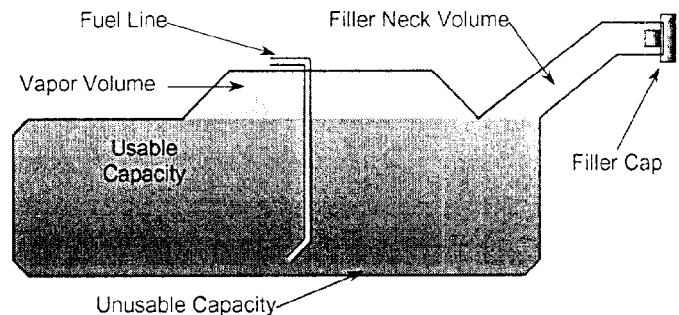
Test Vehicle: 2000 Ford Ranger XLT Pickup
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. MY0208
Test Date: 1/21/00

FUEL TANK CAPACITY DATA

The "Usable Capacity" of the standard equipment fuel tank is: 73.8 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: 67.9 to 69.4 liters
Actual amount of Stoddard solvent added to vehicle for certification test: 68.6 liters

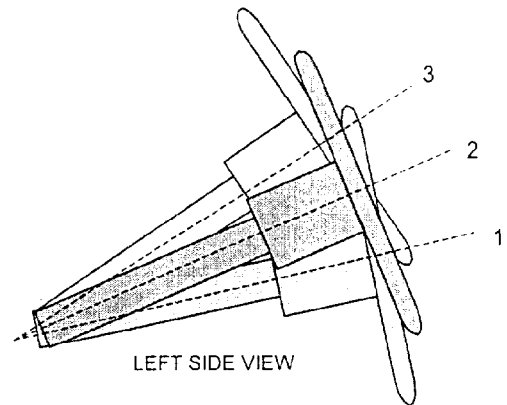
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately two (2) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.



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 a fixed steering column set at position 2 as indicated in the drawing at right and the angle below.



LEFT SIDE VIEW

STEERING COLUMN ASSEMBLY

Lowermost, position 1: N/A
Geometric center, position 2: 20°
Uppermost, position 3: N/A

Note: Steering column is fixed on this vehicle

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Test Vehicle: 2000 Ford Ranger XLT Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0208
 Test Date: 1/21/2000

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	451	322		485	398	
Right	kg	426	303		448	379	
Weight Ratio	%	58.4	41.6		54.6	45.4	
Totals	kg	877	625	1502	933	777	1710

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	485	401
Level 2	Occupant H-Point	mm	534	762
Level 3	Mid Door	mm	536	752
Level 4	Window Sill	mm	388	1066
Level 5	Window Top	mm	400	1596
N/A	Maximum Penetration	mm	536	762

INSTRUMENTATION

Driver SID Accelerometers	11
Vehicle Structure Accelerometers	22
MDB Accelerometers	5
Total	38

16mm MOVIE COVERAGE

High Speed, Vehicle On-Board	2
High Speed, Off-Board	5
High Speed, MDB On-Board	2
Real Time, Panning	1
Total	10

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

Test Vehicle: 2000 Ford Ranger XLT Pick-up
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0208
 Test Date: 1/21/2000

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	61.51
Trap No. 2 Velocity (Redn.)	km/h	61.1 to 62.7	61.68
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	78
B	Top of Bumper	533	800	Right	59
C	Mid Level	686	800	Right	114
D	Top of Stack	813	800	Right	182

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	2

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

Test Vehicle: 2000 Ford Ranger XLT Pick-up
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: MY0208
Test Date: 1/21/2000

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID
Dummy Type / Serial No.	P572F, SID / No. 056
Head Contact	Side Header/Seat Back
Upper Torso Contact	Door Panel/Belt
Lower Torso Contact	Door Panel/Seat
Left Knee Contact	Door Panel/Knee Bolster
Right Knee Contact	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front
Left Side Door Opening	Remained closed, inoperable
Right Side Door Opening	Remained closed operable
Seat Movement	None
Seat Back Failure	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	Passenger
Front	Yes	Yes
Side	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 (left)
Vertical Offset	mm	+/- 20	7 (above)

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 5
SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 01/21/00

THORAX AND PELVIC ACCELERATIONS, PRIMARY (FIR 100 Filter)

Location	Axis	Units	Driver			
			Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	53.4	49.2	-9.4	145.2
Lower Rib (LLR)	Y	G's	67.7	39.0	-8.0	131.2
Lower Spine (T ₁₂)	Y	G's	69.1	35.6	-16.9	58.4
Pelvis (PEV)	Y	G's	104.2	30.2	-14.9	51.9

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCEL., PRIMARY (FIR 100 Filter)

Location	Driver			
	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	67.740	69.132	68	104

THORAX AND PELVIC ACCELERATIONS, REDUNDANT (FIR 100 Filter)

Location	Axis	Units	Driver			
			Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	54.6	49.0	-9.6	144.9
Lower Rib (LLR)	Y	G's	68.3	38.9	-7.8	135.5
Lower Spine (T ₁₂)	Y	G's	69.5	35.5	-17.6	58.1
Pelvis (PEV)	Y	G's	104.6	30.2	-15.6	52.3

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCEL., REDUNDANT (FIR 100 Filter)

Location	Driver			
	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	68.319	69.474	69	105

HEAD CG PEAK ACCELERATIONS (SAE CLASS 1000 Filter)

Location	Axis	Units	Driver			
			Max	Time	Min	Time
Head CG	X	G's	16.9	128.9	-20.8	45.1
Head CG	Y	G's	40.4	47.9	-9.0	38.0
Head CG	Z	G's	41.8	44.6	-53.4	51.2
Head CG Resultant	N/A	G's	60.8	50.7		

HEAD INJURY CRITERIA (HIC) (SAE CLASS 1000 Filter)

Location	Driver			
	HIC	T ¹	T ²	Avg G's
Head CG	263.4	43.4	72.1	38.4

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

DATA SHEET NO. 6

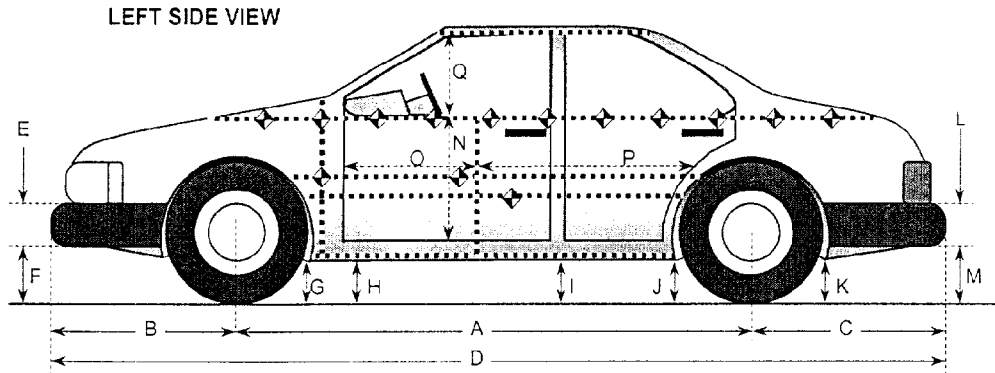
VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00



Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	3200	3105	95
B	Front Axle To FSOV	860	860	0
C	Rear Axle to RSOV	1080	1080	0
D	Total Length at Centerline	5140	5105	35
E	Front Bumper Thickness	250	250	0
F	Front Bumper Bottom to Ground	356	366	-10
G	Sill Height at Front Wheel Well	361	441	-80
H	Sill Height at Front Door Leading Edge	361	441	-80
I	Sill Height at "B" Pillar	358	374	-16
J1	Sill Height at Rear Wheel Well	351	396	-45
J2	Pinch Weld Height at Rear Wheel Well	351	396	-45
K	Sill Height aft of Rear Wheel Well	400	466	-66
L	Rear Bumper Thickness	172	172	0
M	Rear Bumper Bottom to Ground	414	456	-42
N	Sill Height to Window Bottom Sill	640	615	25
O	Front Door Leading Edge to Impact CL	770	765	5
P	Not Applicable For This Test	N/A	N/A	N/A
Q	Front Window Opening	460	460	0
R	Right Side Length	3885	3745	140
S	Left Side Length	3885	4015	-130
T	Vehicle Width at "B" Post	1744	1590	154

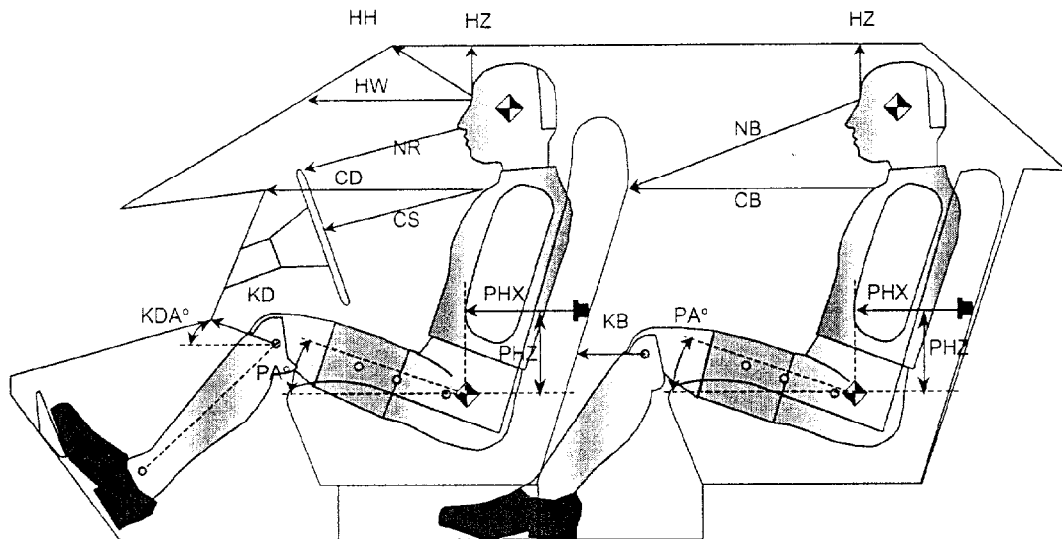
DATA SHEET NO. 7
SID LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00



Driver Code	Pass. Code	Measurement Description	Driver	
			Length(mm)	Angle(°)
HH	HH	Head to Header	514	12
HW	HW	Head to Windshield	622	
HZ	HZ	Head to Roof	183	90
NR	NR	Nose to Rim/Nose to Seatback	435	11
CD	CB	Chest to Dash or Seatback	520	3
CS		Chest to Steering Wheel	310	16
KDL	KBL	Left Knee to Dash or Seatback	148	31
KDR	KBR	Right Knee to Dash or Seatback	130	
PA	PA	Pelvic Angle		23
PHX	PHX	H-Point to Striker (X-Axis)	310	
PHZ	PHZ	H-Point to Striker (Z-Axis)	115	

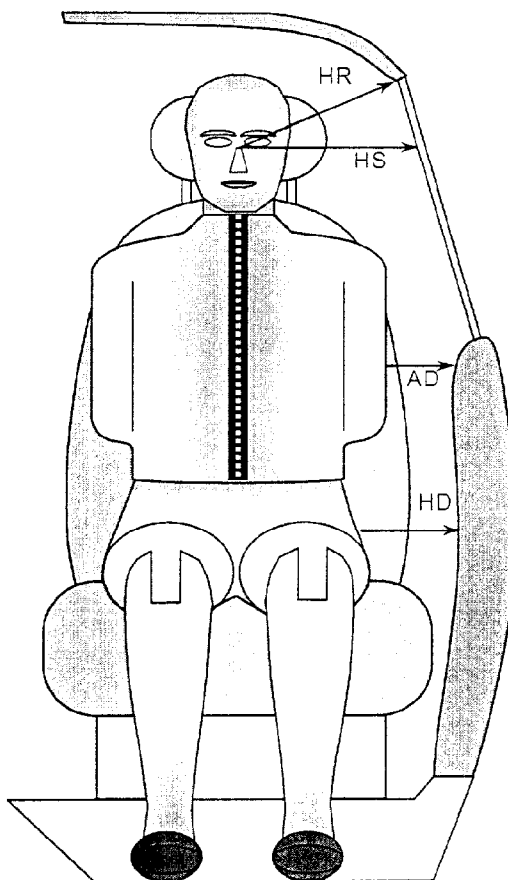
DATA SHEET NO. 8
SID LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00



FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver
HR	Head to Side Header	mm	275
HS	Head to Side Window	mm	320
AD	Arm to Door	mm	145
HD	H-Point to Door	mm	74

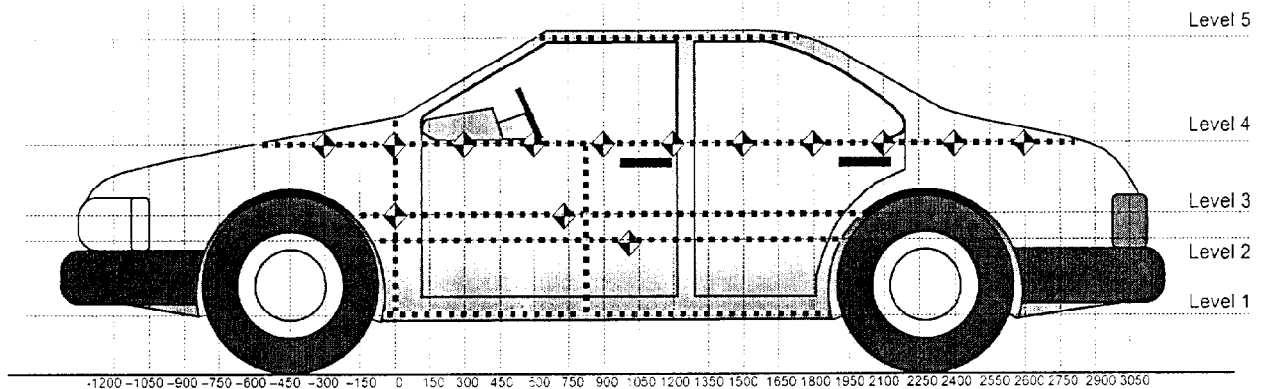
DATA SHEET NO. 9 **VEHICLE SIDE MEASUREMENTS**

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00



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	1596
4	Window Sill	1066
3	Mid Door	752
2	Occupant H-Point	762
1	Sill Top	401

DATA SHEET NO. 10 - VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2000 Ford Ranger XLT Pickup

PROJECT No.: MY0208

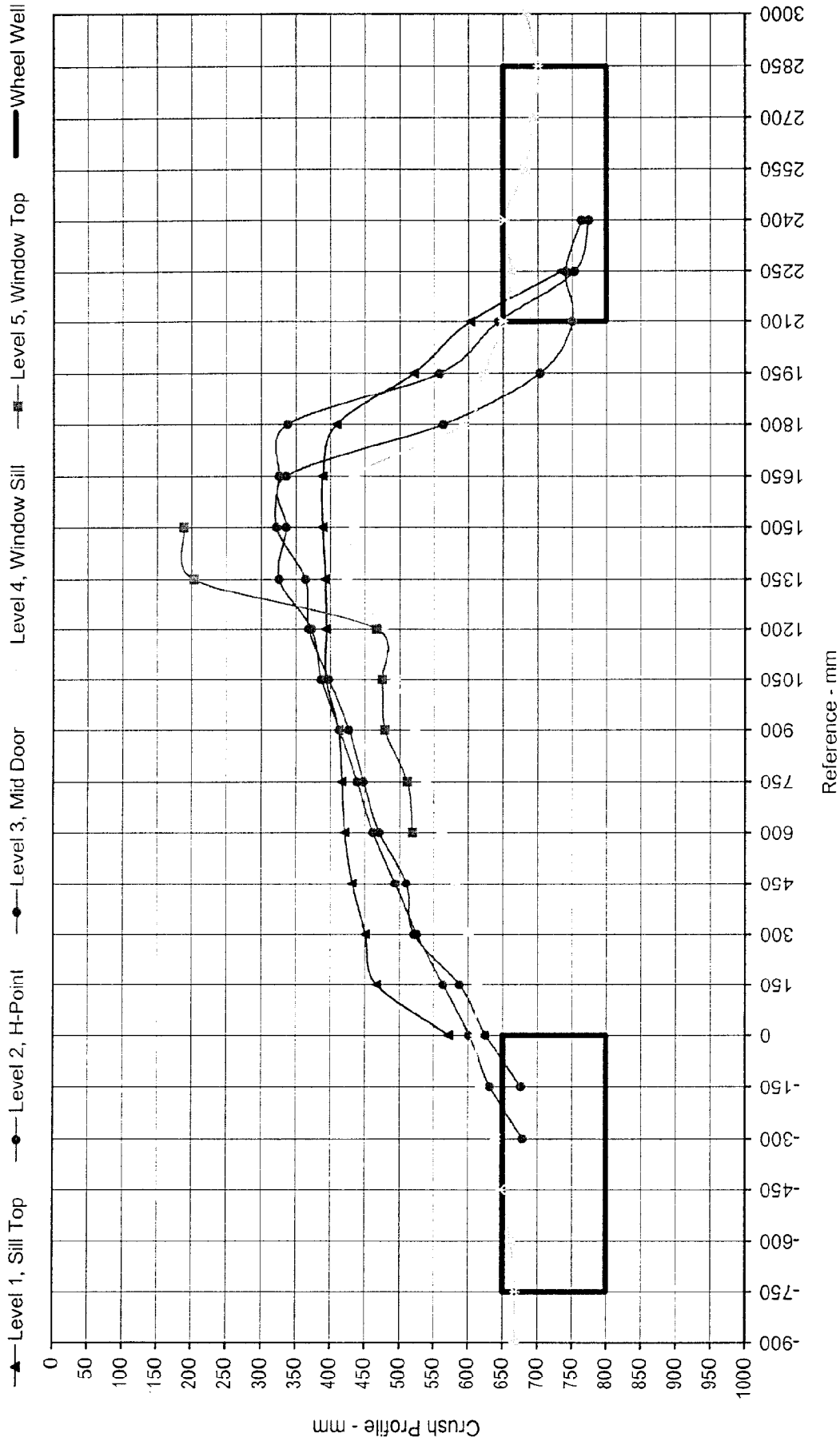
Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 1/21/2000

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900				713					667					46	
-750				739					668					71	
-600				757					662					95	
-450				774					647					127	
-300		863		784			679		640			184		144	
-150		847	848	791			632	677	618			215	171	173	
0	894	851	851	800		572	602	626	611		322	249	225	189	
150	881	854	854	800		467	564	588	613		414	290	266	187	
300	877	859	859	807		451	526	521	601		426	333	338	206	
450	877	860	860	806		432	494	510	582		445	366	350	224	
600	872	862	862	813	610	421	462	471	562	519	451	400	391	251	91
750	875	862	862	814	614	417	439	448	539	511	458	423	414	275	103
900	871	862	862	814	611	412	413	427	522	479	459	449	435	292	132
1050	871	861	861	813	611	394	387	398	494	475	477	474	463	319	136
1200	870	859	859	816	607	394	373	369	477	467	476	486	490	339	140
1350	875	860	860	812	604	393	326	364	424	204	482	534	496	388	400
1500	872	858	858	812	587	389	336	322	434	189	483	522	536	378	398
1650	874	855	855	812		389	336	326	434		485	519	529	378	
1800	867	855	855	809		409	564	338	594		458	291	517	215	
1950	866	853	853	805		521	704	559	622		345	149	294	183	
2100	876	852	852	804		603	751	644	651		273	101	208	153	
2250	885	849	849	802		735	741	754	662		150	108	95	140	
2400		850	850	799			764	775	652			86	75	147	
2550				791					682					109	
2700				789					694					95	
2850				781					701					80	
3000				779					684					95	

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.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

Test Date: 01/21/00



Maximum Crush, Level 1:	485	mm at	1650	mm
Maximum Crush, Level 2:	534	mm at	1350	mm
Maximum Crush, Level 3:	536	mm at	1500	mm
Maximum Crush, Level 4:		mm at	1350	mm
Maximum Crush, Level 5:	400	mm at	1350	mm

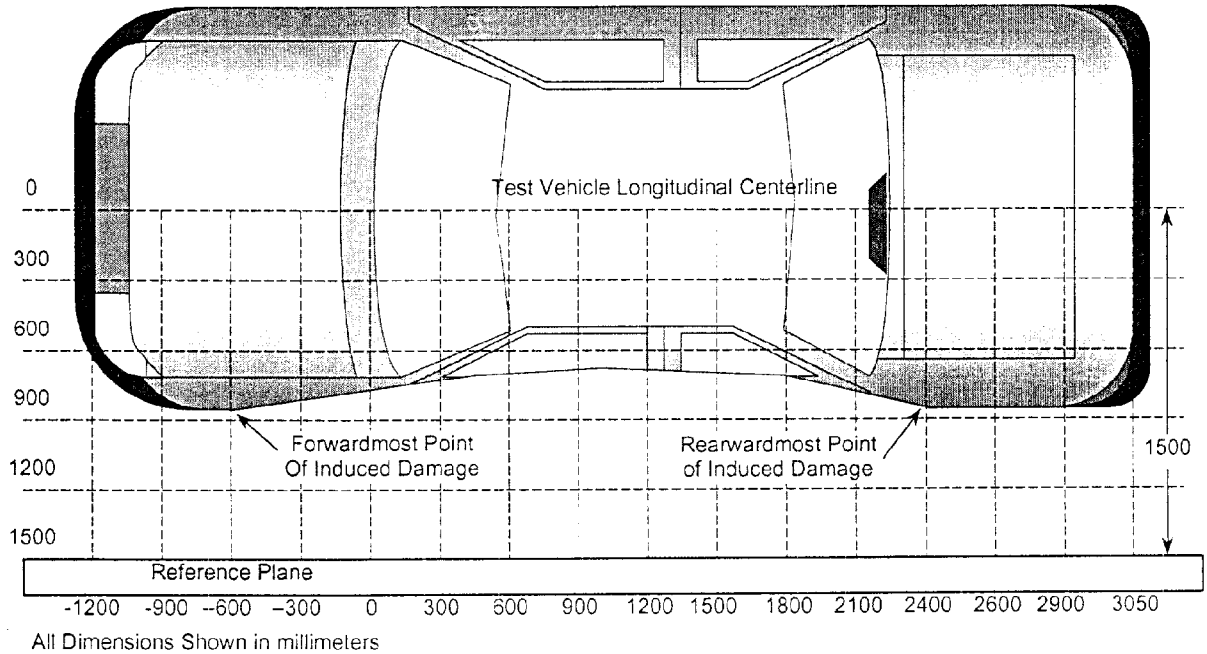
DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00



TOP VIEW

Damage Profile Distances

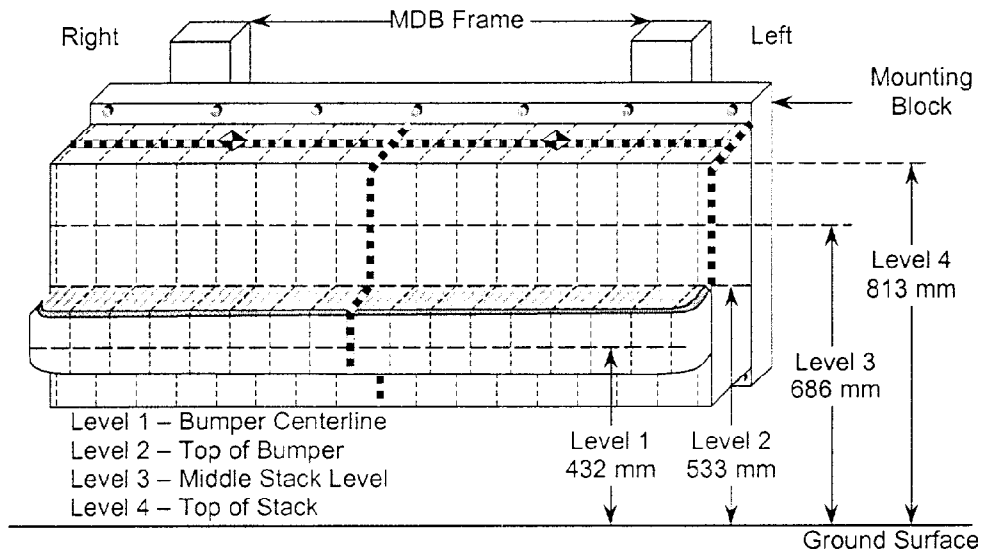
DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	-900 mm	4	713	667	46
2	-150 mm	2	847	632	215
3	750 mm	1	875	417	458
4	1500 mm	3	858	322	536
5	2250 mm	1	885	735	150
6	3000 mm	4	779	684	95

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

NHTSA No.: MY0208
 Test Date: 1/21/00



DEFORMABLE BARRIER STATIC CRUSH

Stack	Distance Right of Center								C _L	Distance Left of Center							
Level	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
1	78	52	37	24	20	16	13	12	12	10	9	6	10	12	16	23	35
2	59	47	39	32	27	24	19	14	11	9	2	0	4	10	11	19	26
3	114	79	48	27	11	4	0	-5	-8	-8	-11	-14	-15	-18	-18	-9	27
4	182	142	111	89	71	52	39	29	18	8	4	20	-4	-3	10	34	78

All Dimensions in mm

DATA SHEET NO. 13
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

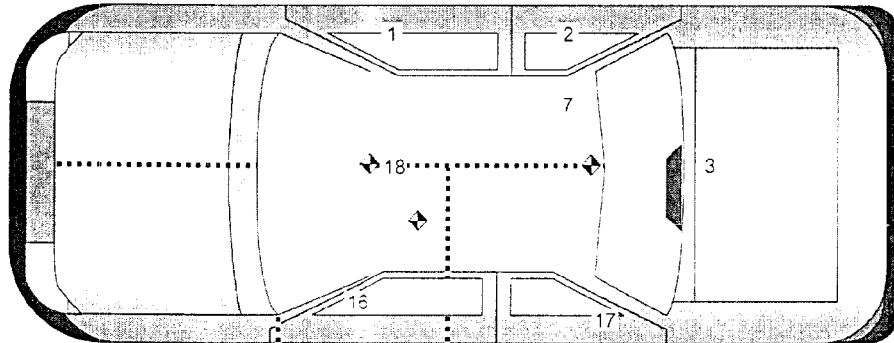
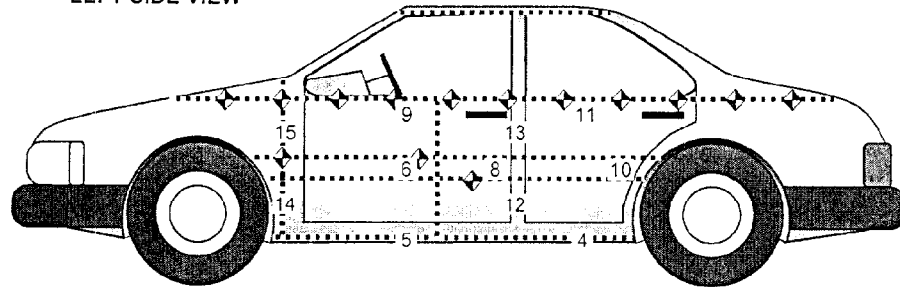
Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00

LEFT SIDE VIEW



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

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

DATA SHEET NO. 13
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 01/21/00

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	3410	655	530	X	9.7	29.6	-12.4	21.8
					Y	32.7	12.4	-14.0	59.3
					Z	18.7	41.5	-17.3	10.7
					RES	36.3	12.1		
2	Right Sill at Rear Seat	2825	655	525	X	12.2	21.5	-23.0	5.3
					Y	40.1	17.5	-9.1	64.7
					Z	9.8	74.0	-16.4	9.6
					RES	40.8	16.2		
3	Rear Floorpan Above Axle	1380	145	625	X	6.7	53.3	-11.2	23.8
					Y	27.3	24.6	-3.2	178.5
					Z	20.8	44.0	-26.1	39.9
					RES	30.2	24.5		
4	Left Sill at Rear Door				Y				**
5	Left Sill at Front Door	2800	-650	470	Y	100.6	13.4	-21.0	43.8
6	Front Door Centerline	2950	-740	1015	Y	166.8	7.9	-125.7	17.9
7	Rear Occupant Compartment	2625	310	540	Y	48.0	3.9	-10.5	44.3
8	Front Door Mid-Rear	2555	-725	950	Y	169.0	6.4	-74.7	12.8
9	Front Door Upper Centerline	2995	-730	1080	Y	81.5	10.3	-66.2	24.4
10	Rear Door Mid-Rear								**
11	Rear Door Upper Centerline								**
12	B-Post Lower	2315	-760	740	Y	0.0	0.0	0.0	*
13	B-Post Middle	2315	-770	890	Y	69.0	14.9	-13.6	77.6
14	A-Post Lower	3700	-770	740	Y	136.1	5.8	0.0	17.3*
15	A-Post Middle	3680	-770	890	Y	96.4	5.3	-18.6	38.7
16	Front Seat Track	3140	-530	605	Y	85.8	16.1	-30.3	45.6
17	Rear Seat Structure								**
18	Vehicle CG	3285	0	635	X	11.8	22.9	-19.5	4.3
					Y	33.9	31.3	-10.3	47.5
					Z	38.3	35.4	-48.2	22.6
					RES	52.2	30.4		

*Channel failed, check plot for time of failure.

** Not Used, no appropriate mounting structure on 2 door vehicle.

DATA SHEET NO. 14
MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 01/21/00

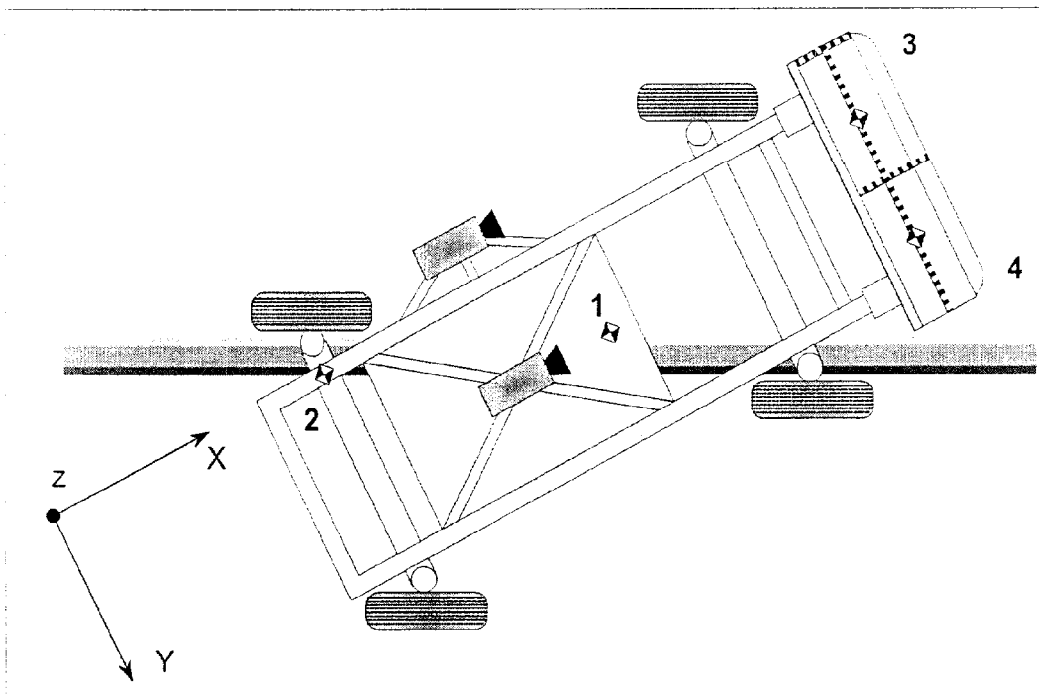
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1195	0	430	X	3.3	160.6	-17.9	25.7
					Y	2.8	66.3	-7.4	24.3
					Z	8.1	161.7	-14.5	172.2
					RES	19.3	15.0		
2	MDB Rear	-2642	-593	608	X	4.0	144.0	-21.4	21.9
					Y	4.3	69.0	-7.0	19.3

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

MDB BUMPER CONTACT SWITCH DATA

Loc. No.	Contact Switch Location	Units	Peak and 50% Crossing Point			
			Max	Time	50%	Time
3	MDB Left Bumper (T=0)	% F.S	100.0	0.0	0.0	0.0
4	MDB Right Bumper	% F.S.	100.9	70.3	50.5	0.5



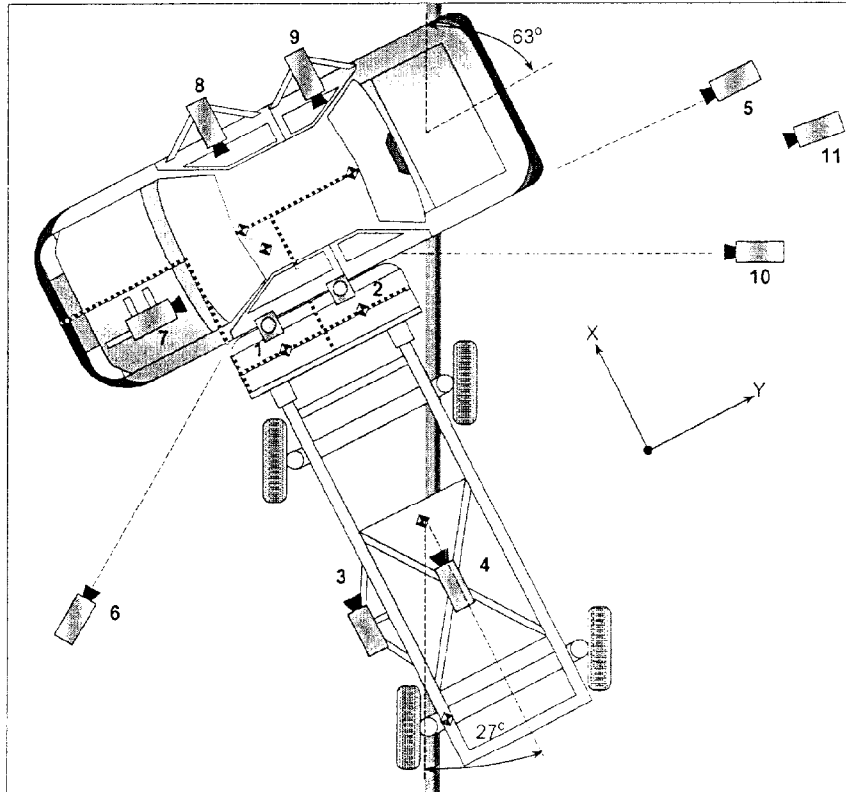
DATA SHEET NO. 15
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2000 Ford Ranger XLT Pickup

NHTSA No.: MY0208

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

Test Date: 1/21/00



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	2260	750	5490	90	10	940
2	Overhead Close-up	0	0	5490	90	24	1020
3	MDB Onboard, Impact Point Close-Up	2200	840	1110	7	13	980
4	MDB Onboard, Centerline of Impact	3420	660	1815	11	13	920
5	Right Side, Ground Level, Overall	9342	1070	1340	1	25	1010
6	Left Side, Ground Level, Close-up	5100	4200	1515	2	13	1000
7	Vehicle Onboard Front SID, Front	525	3590	1595	20	19	*
8	Vehicle Onboard Front SID, Side	1950	2015	1217	5	10	1020
9	Not Applicable For This Test	N/A	N/A	N/A	N/A	N/A	N/A
10	Right Side, Ground Level, Close-up	960	18510	725	0	70	480
11	Real Time Coverage	3000	19300	587	2	Zoom	540

* Camera had no image

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

Test Vehicle: 2000 Ford Ranger XLT Pickup NHTSA No.: MY0208
Test Program: 55/28 km/h 90° Side Impact NCAP Test Date: 1/21/00

Test Time: 11:36 AM Temperature at Time of Impact: 18.9 °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

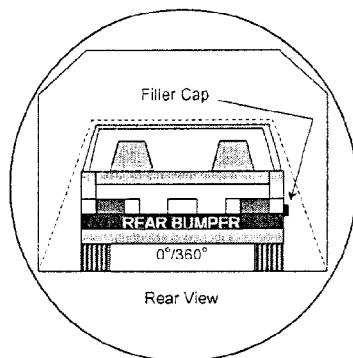
DATA SHEET NO. 17
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2000 Ford Ranger XLT Pickup

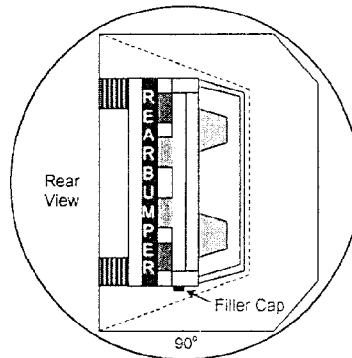
NHTSA No.: MY0208

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

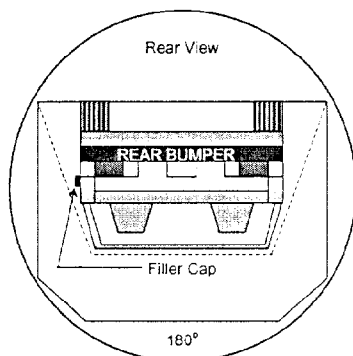
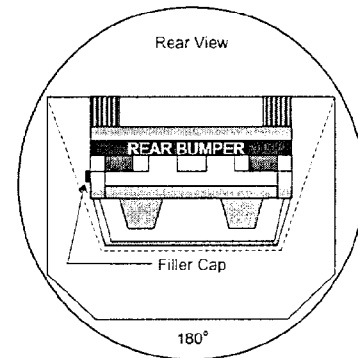
Test Date: 1/21/00



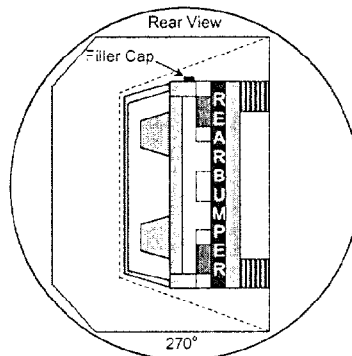
0° TO 90°



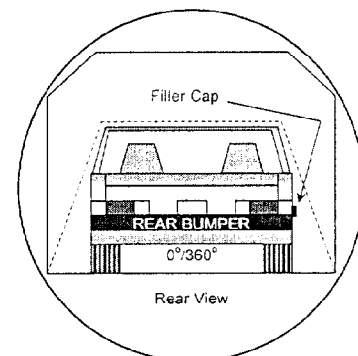
90° TO 180°



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°	82	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

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LIST OF PHOTOGRAPHS, ...(Continued)

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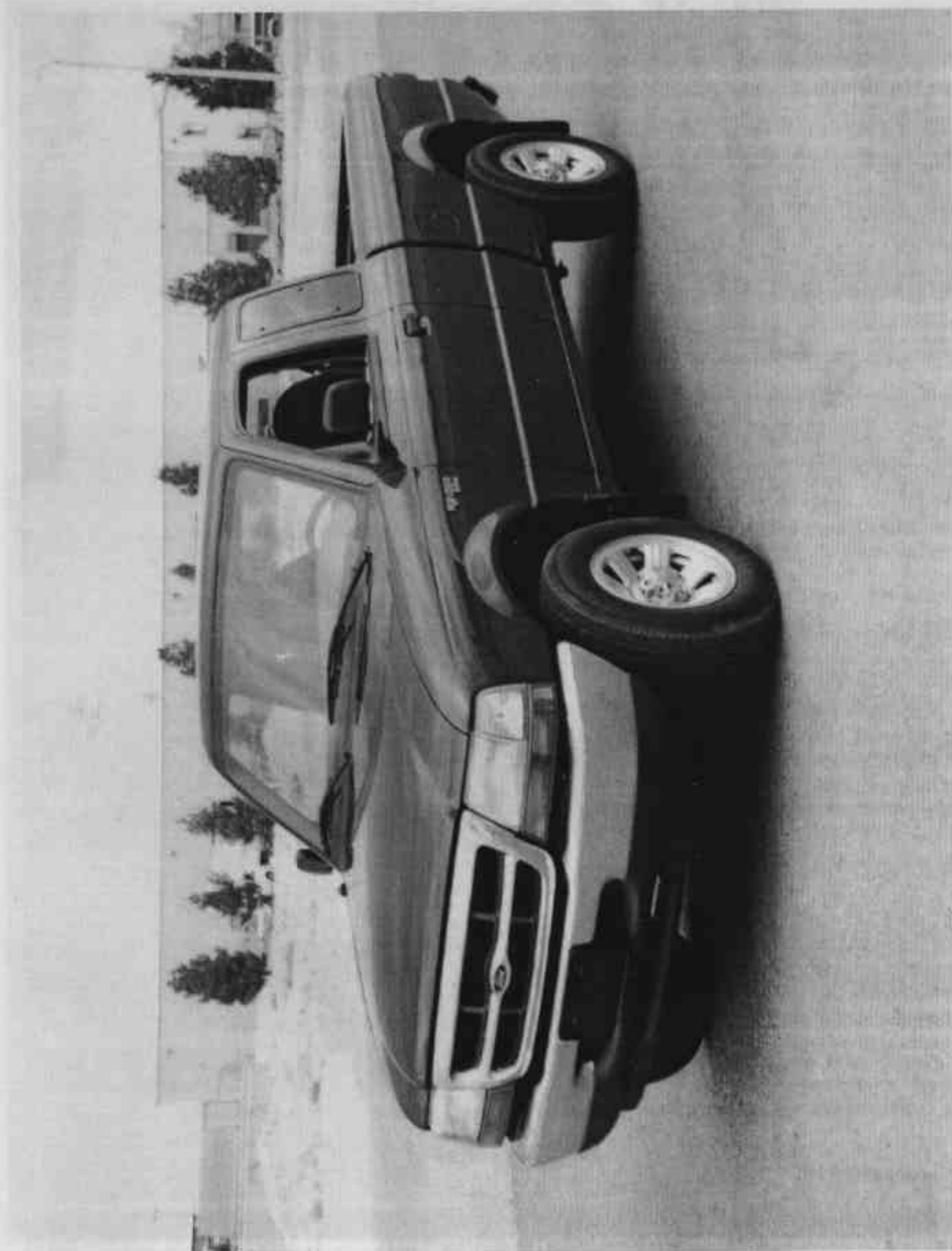


FIGURE A-1: LEFT FRONT, AS RECEIVED



FIGURE A-2: RIGHT REAR, AS RECEIVED

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

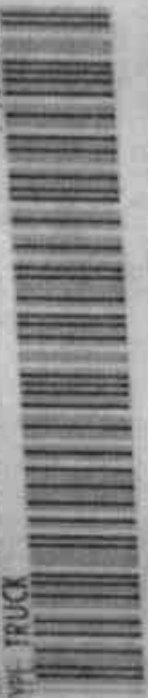
DATE: 08/99	GVWR: 4800LB / 2177KG	WITH TIRES RIMS PSI COLD
FRONT GAWR: 2400LB	REAR GAWR: 2600LB	
1088KG	1179KG	
P225/70R15L	P225/70R15L	
15X7.0J	15X7.0J	
AT 207	AT 207	MPa/30
PSI COLD		

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

VIN: 1FTYR14CXYP A01243

TYPE: TRUCK

F0057
T0404



EXT. PNT: SU	18C: 71	DSO
WE: 88K	1R: ADL	TR: SPR
126 8	Z 87	M CK
E2	UTC	

V1850-1520472 AB

FIGURE A-3: VEHICLE CERTIFICATION LABEL

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

DATE: 08/99
 FRONT GAWG: 2400LB
 1088KG
 P225/70R15SL
 15X7 0J
 AT 207 kPa/30 PSI COLD

WITH TIRES RIMS
 REAR GAWG: 2600LB
 1179KG
 P225/70R15SL
 15X7 0J
 AT 207 kPa/30 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: 1FTYR14CXYPAC1243
 TYPE: TRUCK

RC 71 DSO
 R ADE TR SPR 8495
 Z 87 M CK
 UTC
 9:55:50 1500477 AE

F0057
 T0404

FIGURE A-4: VEHICLE TIRE PLACARD



FIGURE A-5: PRE-TEST FRONT VIEW

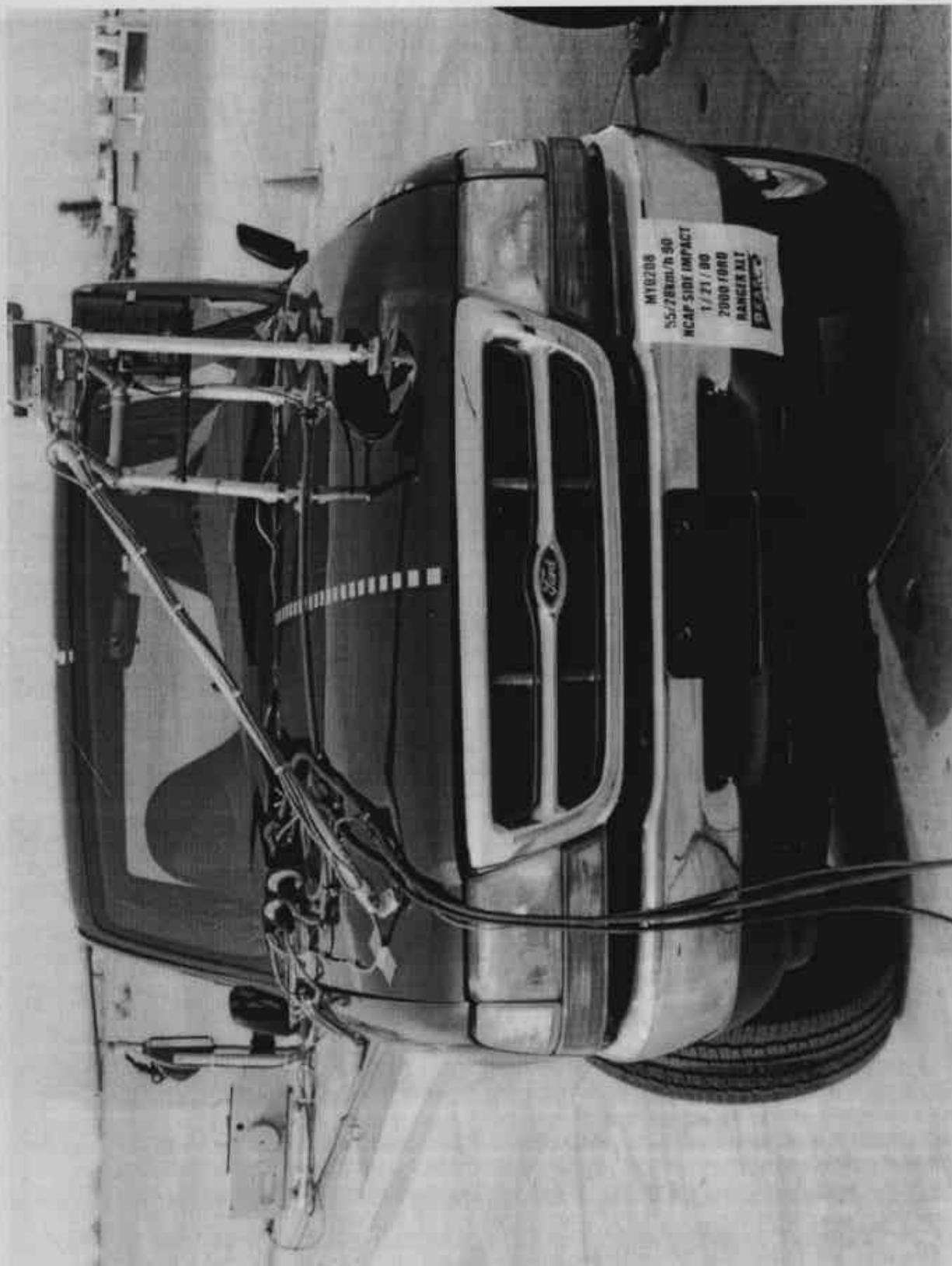


FIGURE A-6: POST-TEST FRONT VIEW

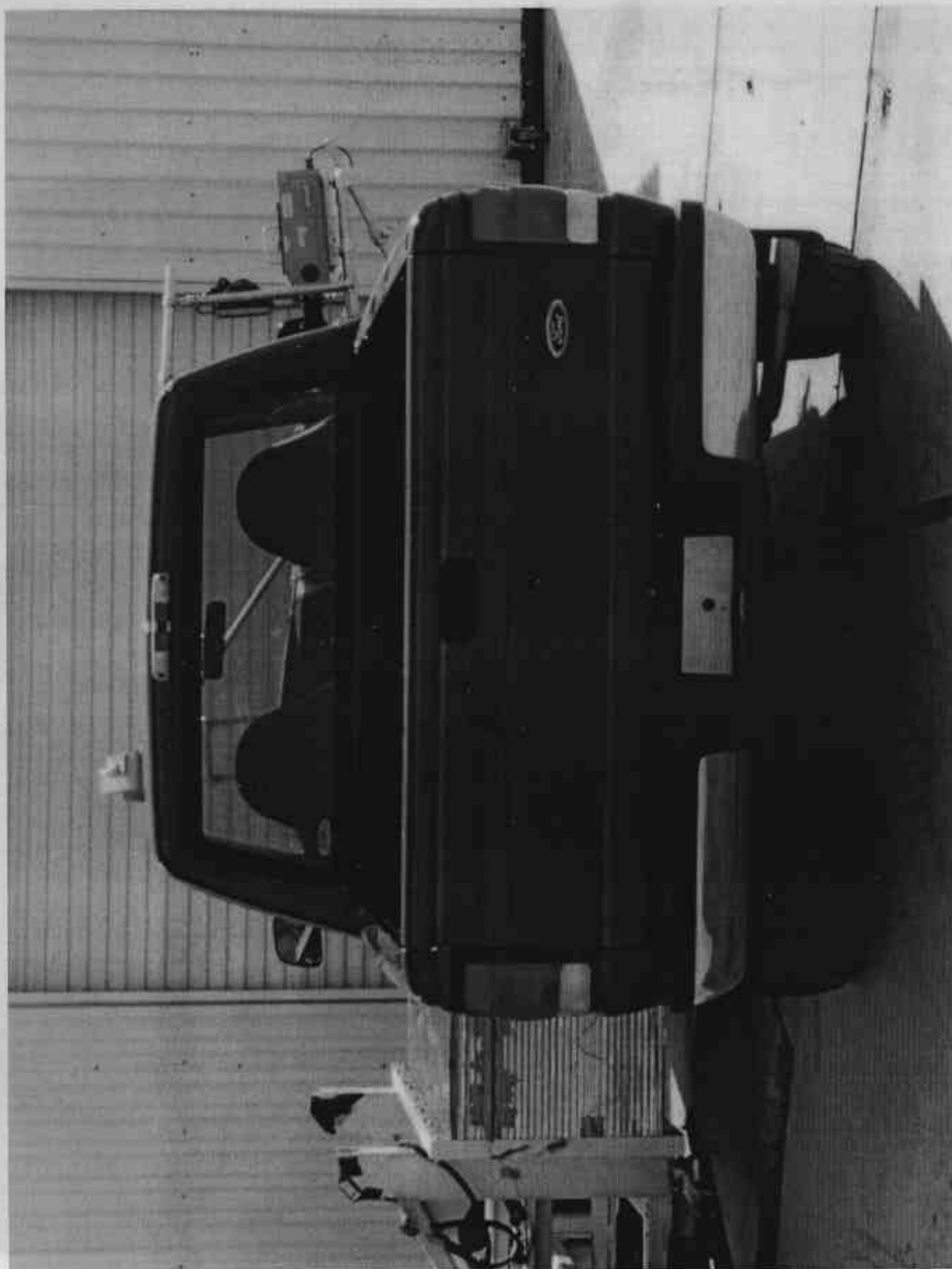


FIGURE A-7: PRE-TEST REAR VIEW



FIGURE A-8: POST-TEST REAR VIEW

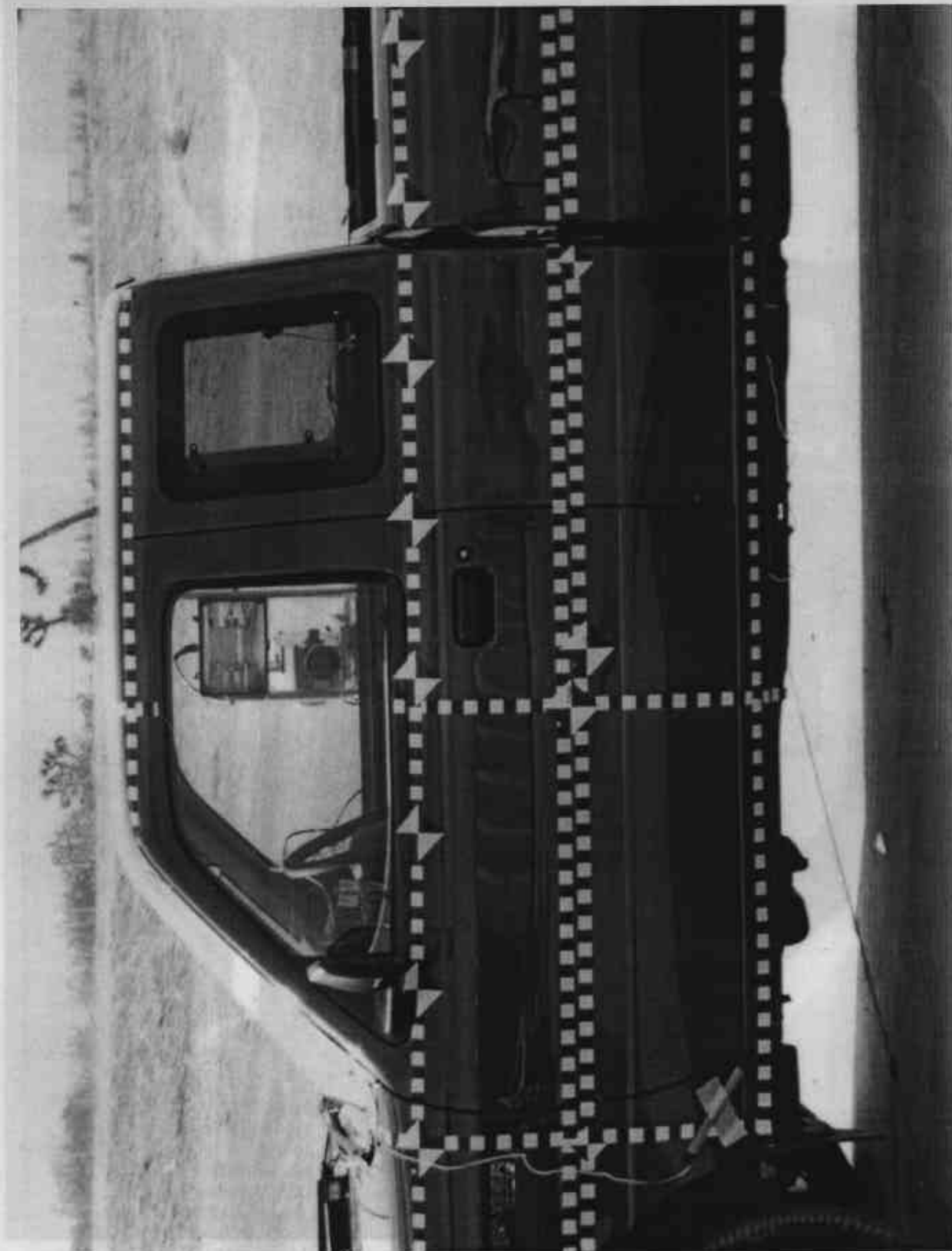


FIGURE A-9: PRE-TEST LEFT SIDE (STRUCK SIDE) VIEW

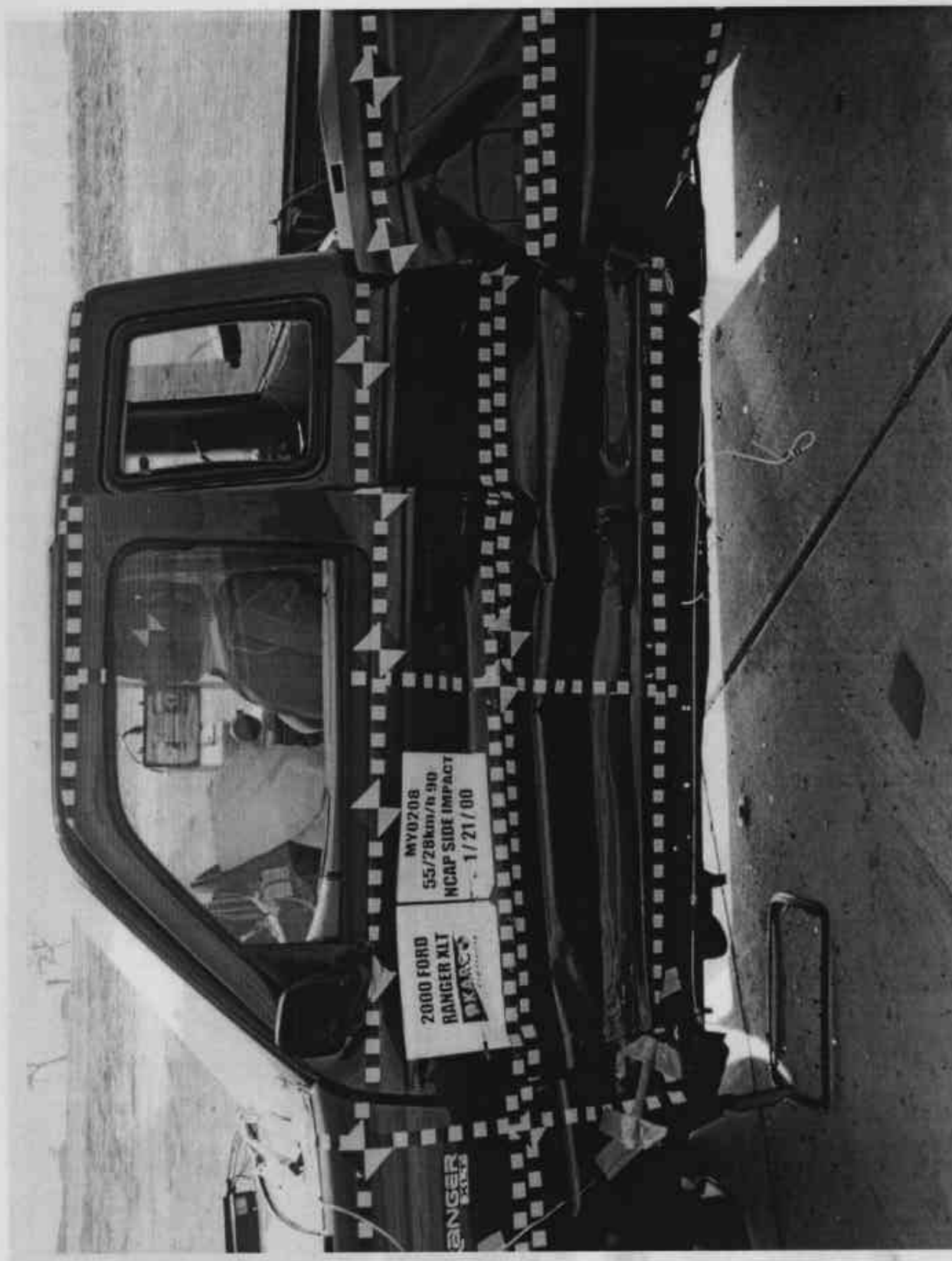


FIGURE A-10: POST-TEST LEFT SIDE (STRUCK SIDE) VIEW

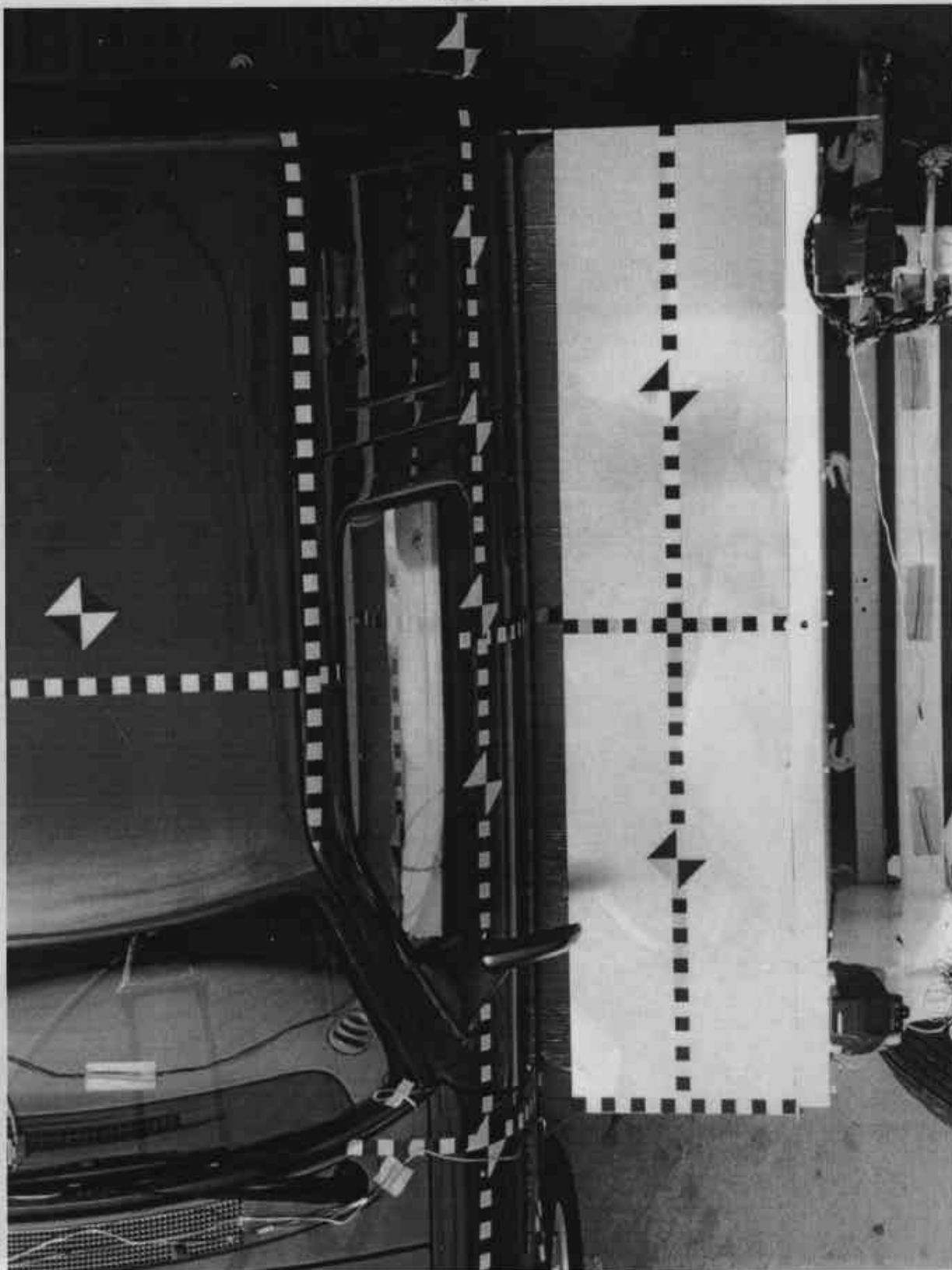


FIGURE A-11: PRE-TEST OVERHEAD OVERALL



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

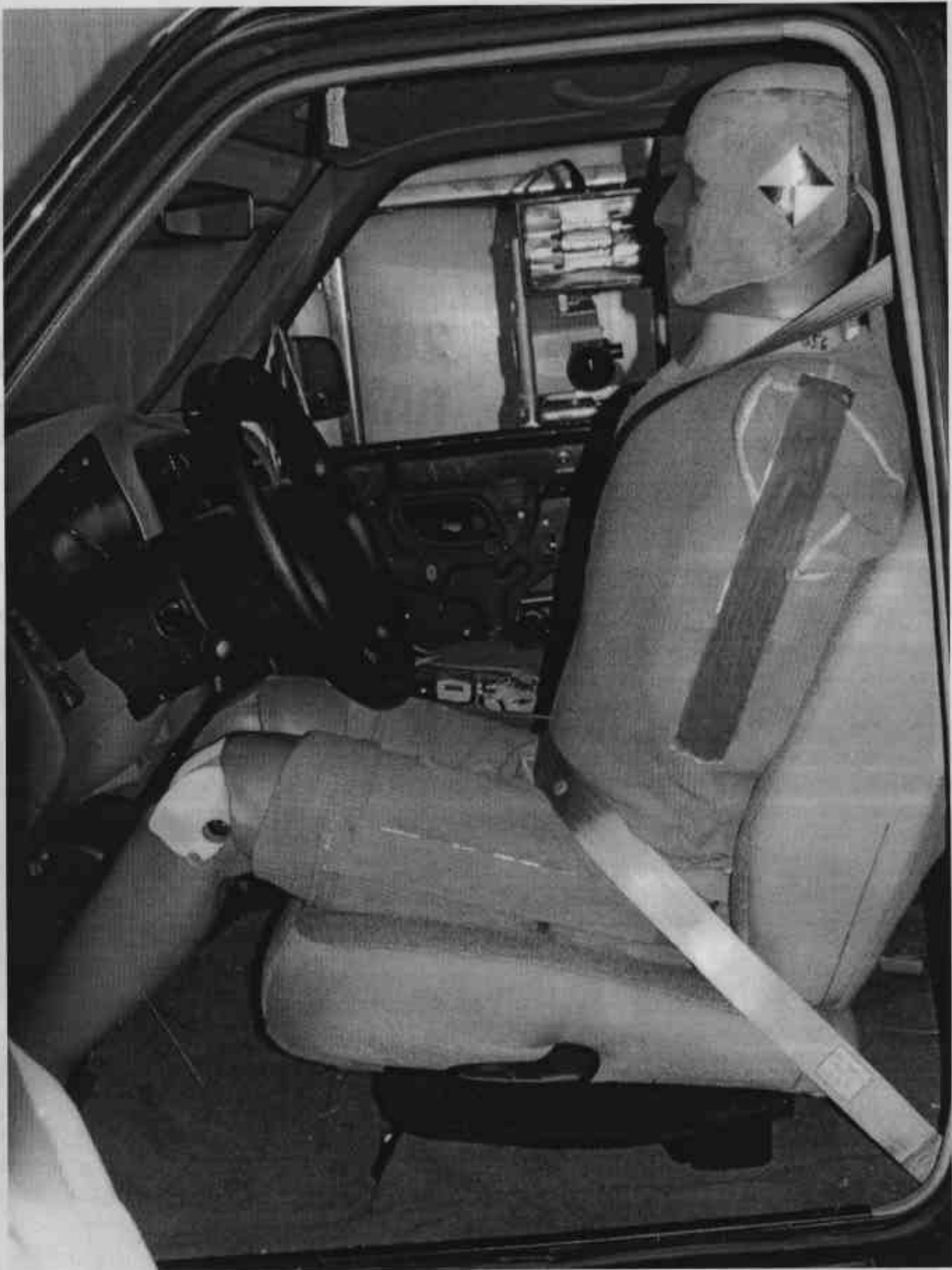


FIGURE A-18: PRE-TEST DRIVER DUMMY LEFT SIDE (DOOR OPEN)



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

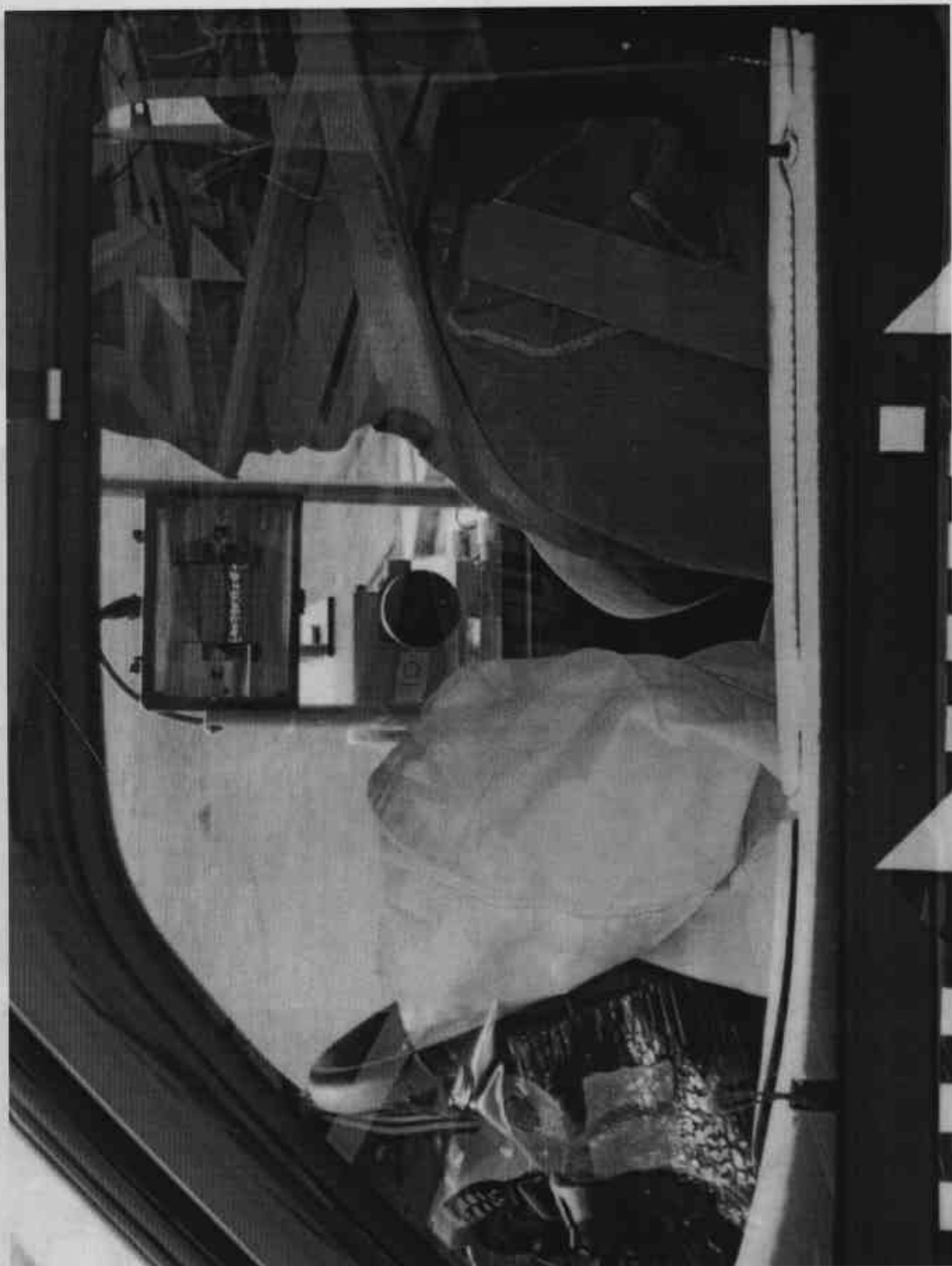


FIGURE A-20: POST-TEST DRIVER DUMMY LEFT SIDE VIEW



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

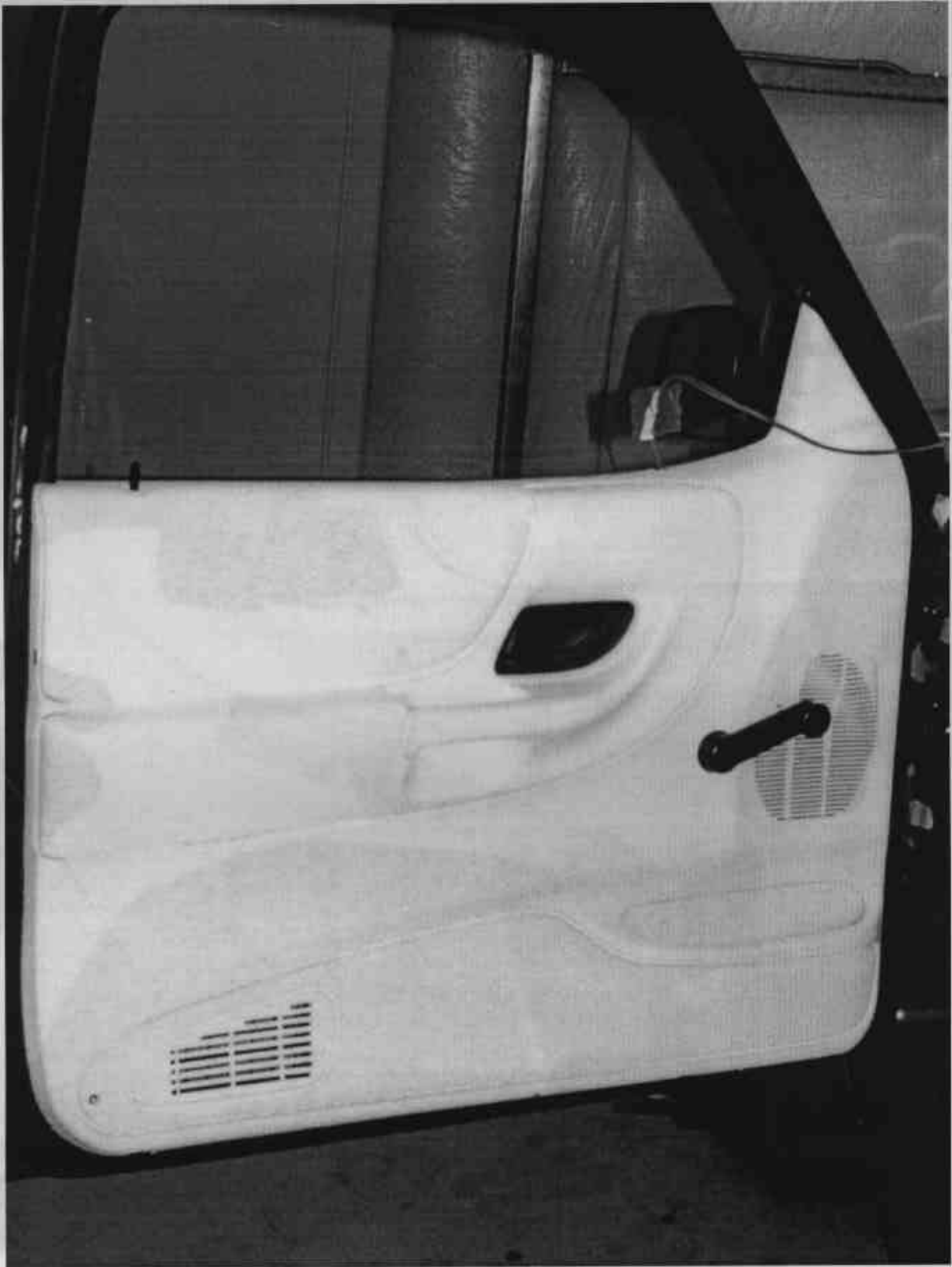


FIGURE A-25: PRE-TEST DRIVER DOOR (INSIDE VIEW)



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

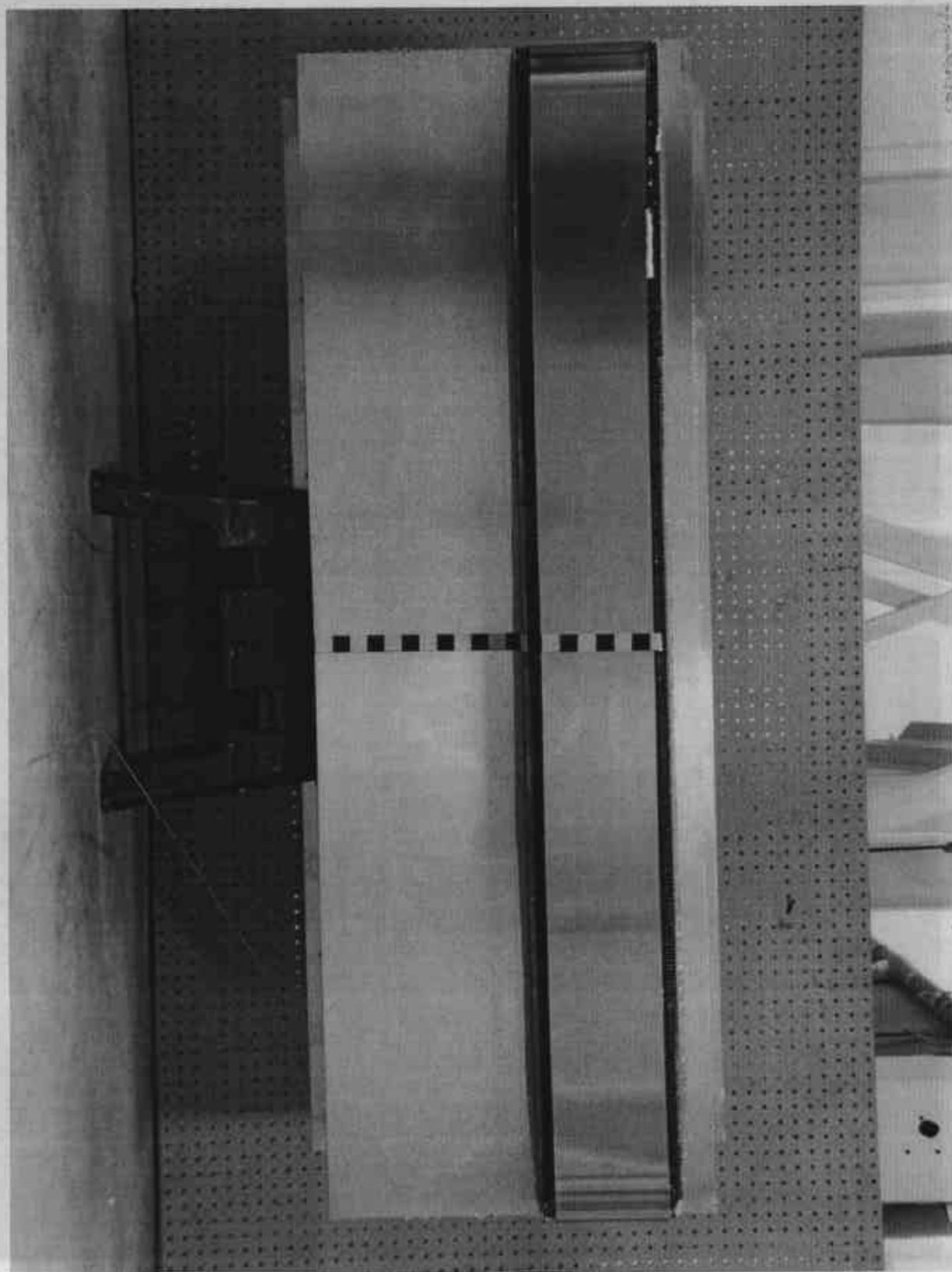


FIGURE A-27: PRE-TEST FRONT VIEW OF DEFORMABLE BARRIER

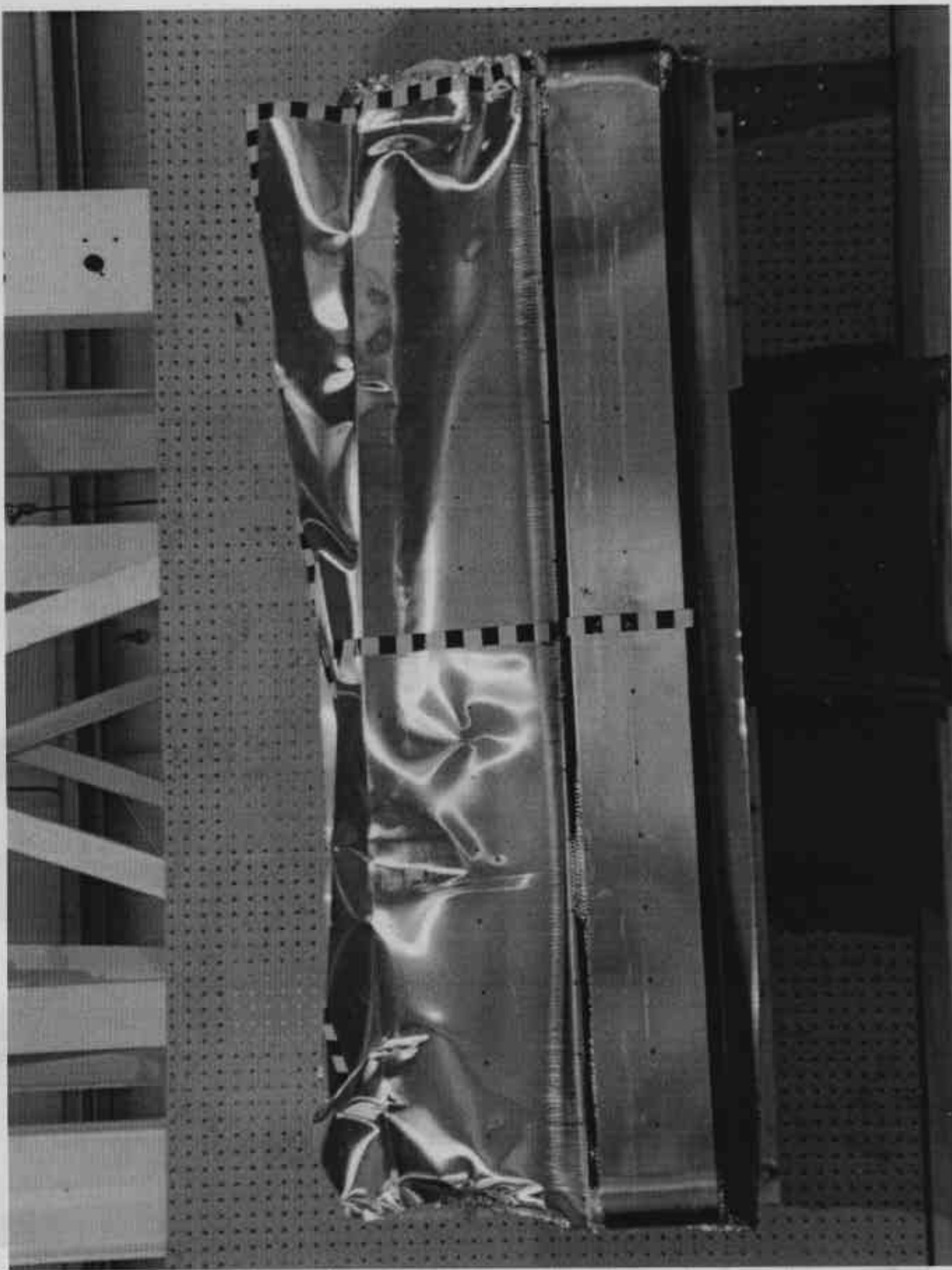


FIGURE A-28: POST-TEST FRONT VIEW OF DEFORMABLE BARRIER

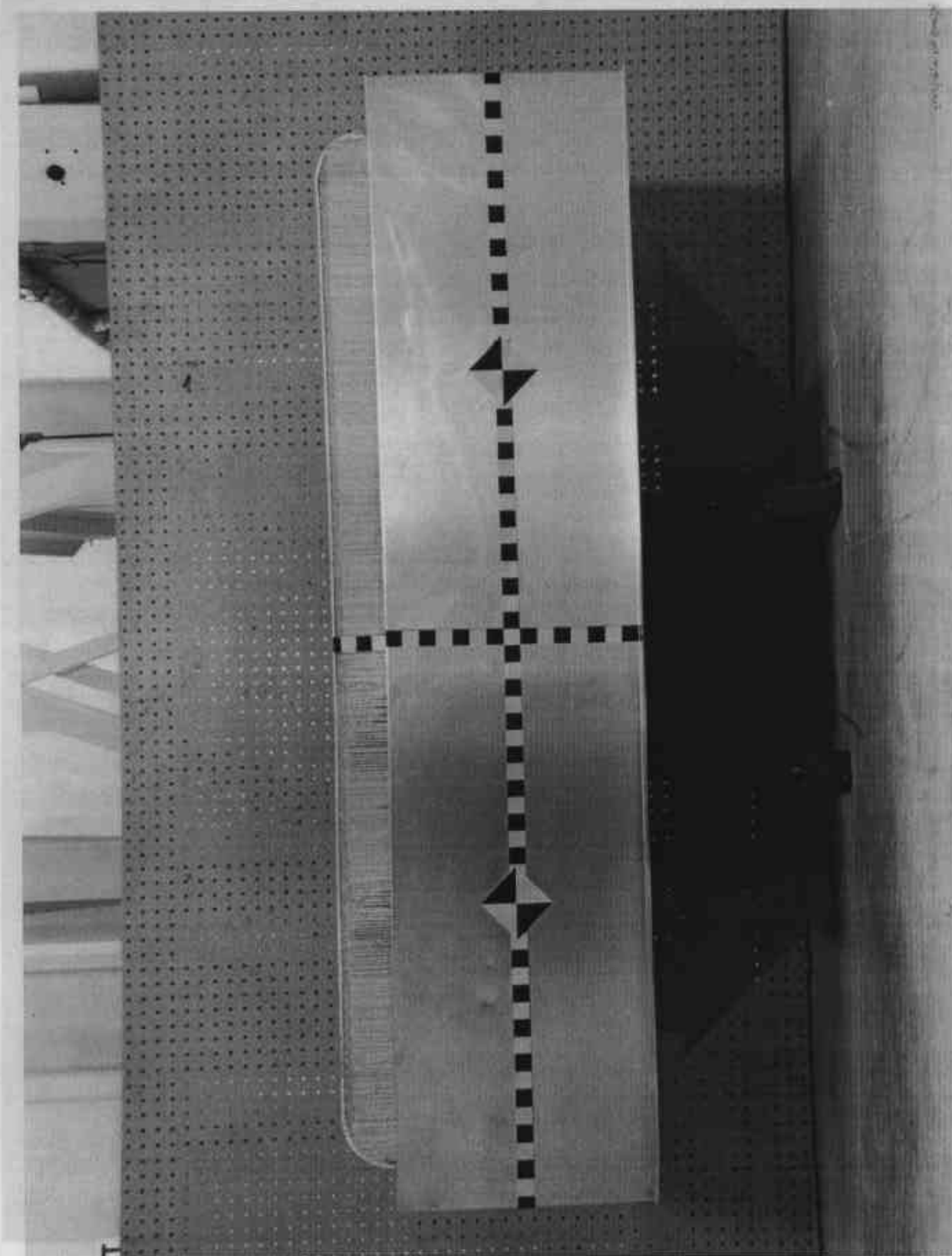


FIGURE A-29: PRE-TEST TOP VIEW OF DEFORMABLE BARRIER

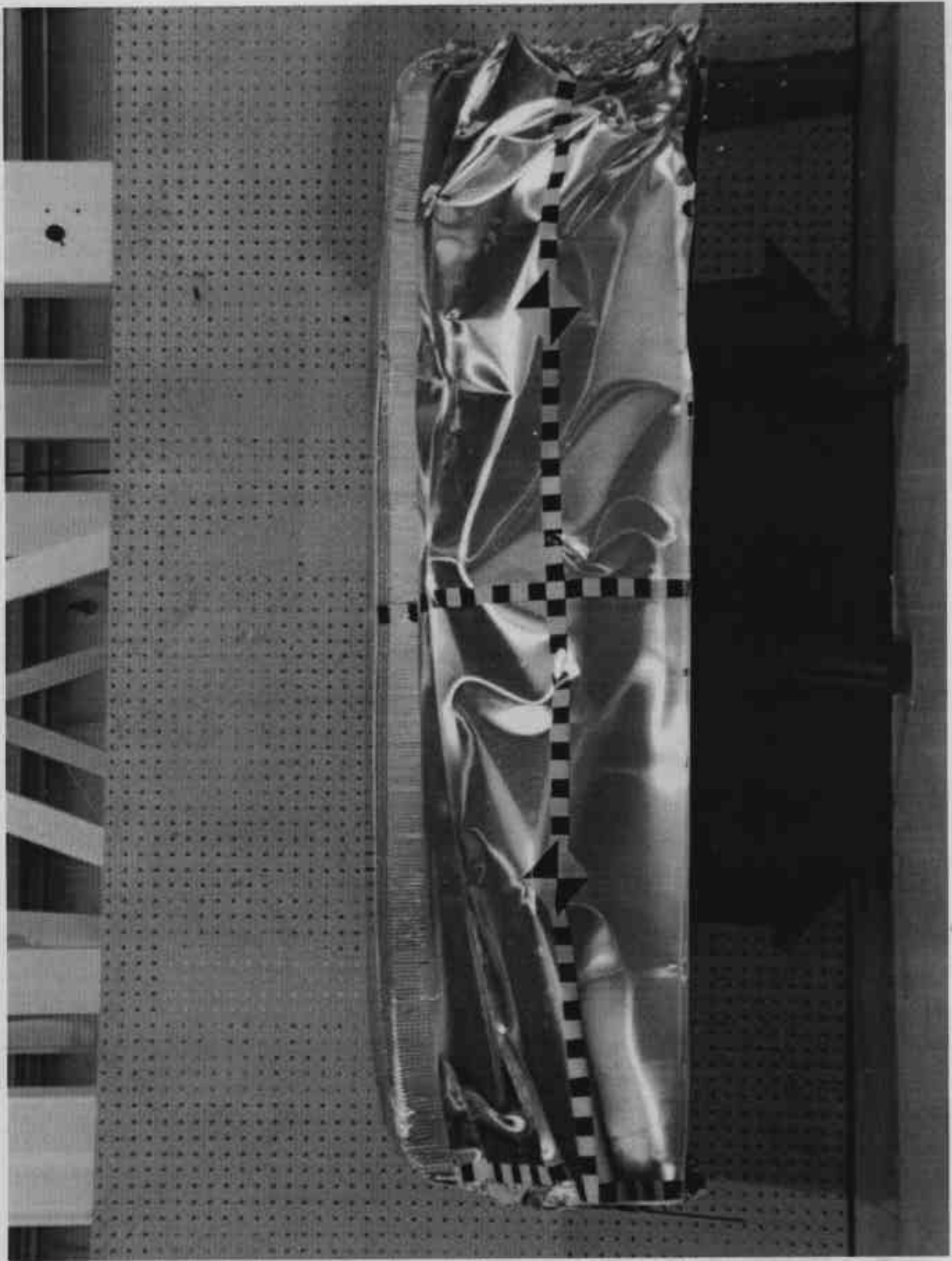


FIGURE A-30: POST-TEST TOP VIEW OF DEFORMABLE BARRIER

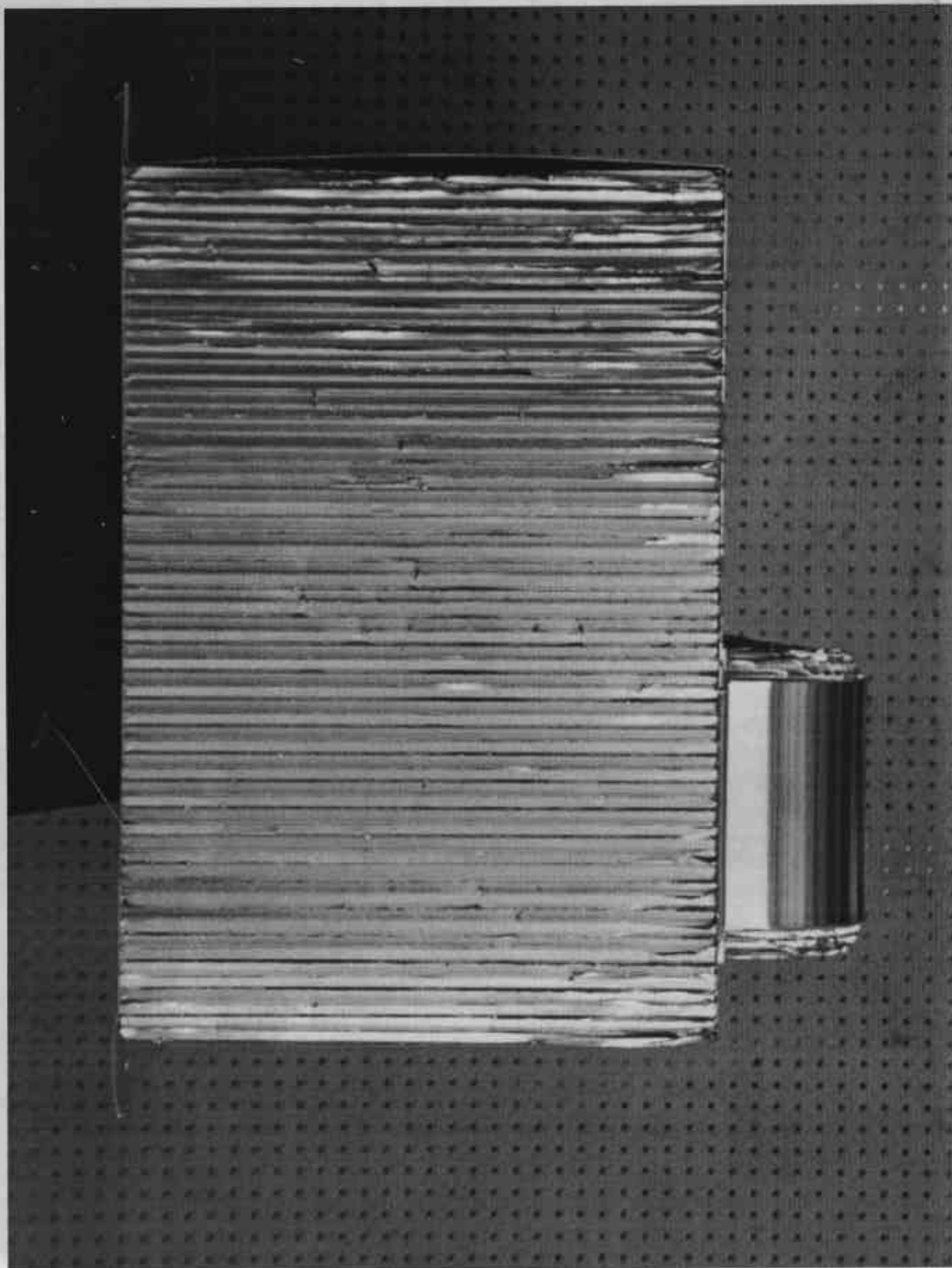


FIGURE A-31: PRE-TEST RIGHT SIDE VIEW OF DEFORMABLE BARRIER



FIGURE A-32: POST-TEST RIGHT SIDE VIEW OF DEFORMABLE BARRIER

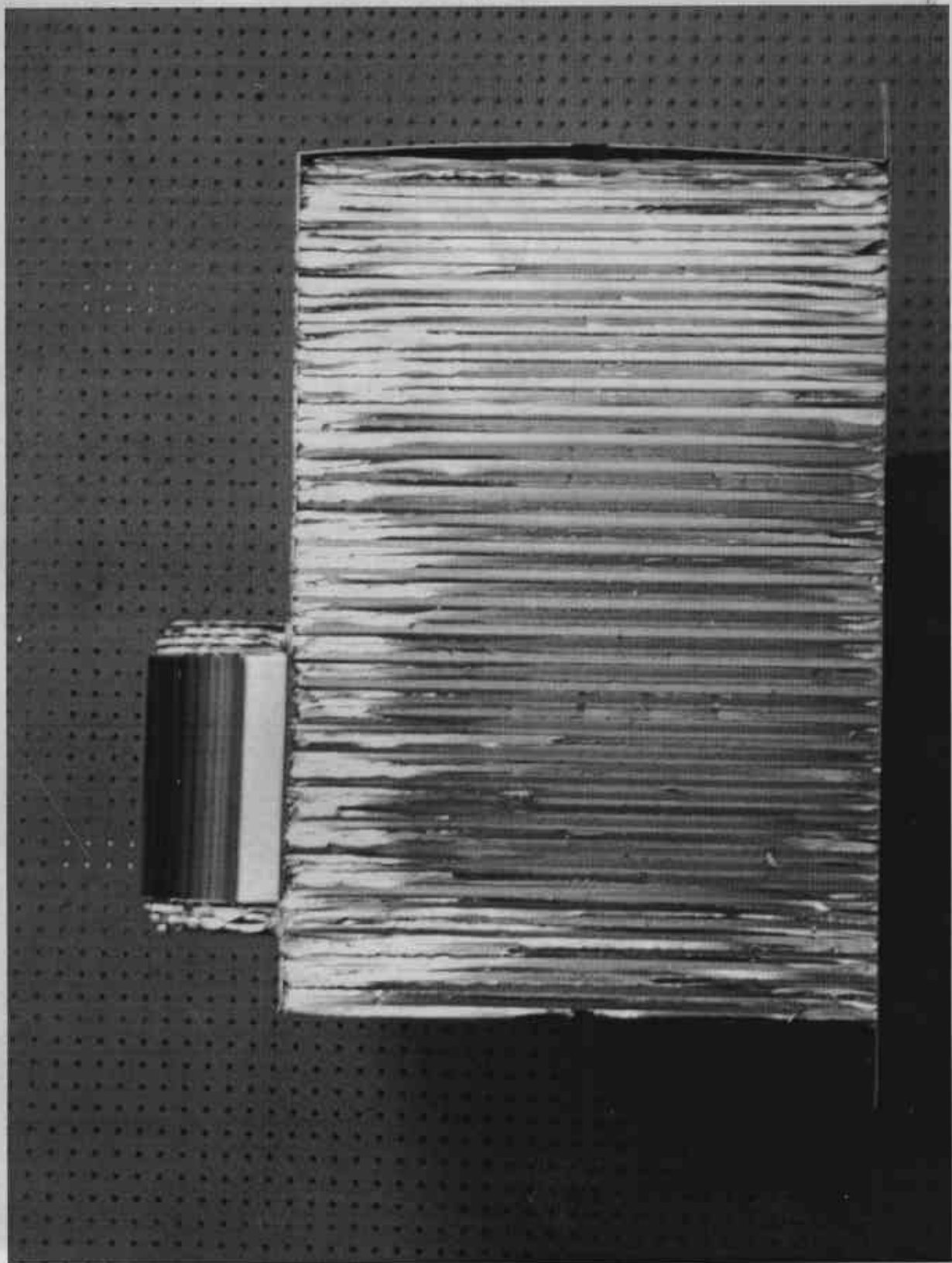


FIGURE A-33: PRE-TEST LEFT SIDE VIEW OF DEFORMABLE BARRIER



FIGURE A-34: POST-TEST LEFT SIDE VIEW OF DEFORMABLE BARRIER



FIGURE A-35: VEHICLE ON ROLLOVER, TOP VIEW

**Photograph Not
Available**

FIGURE A-36: VEHICLE DURING IMPACT

APPENDIX B
SID, VEHICLE, AND MDB RESPONSE DATA

LIST OF DATA PLOTS, DRIVER SID

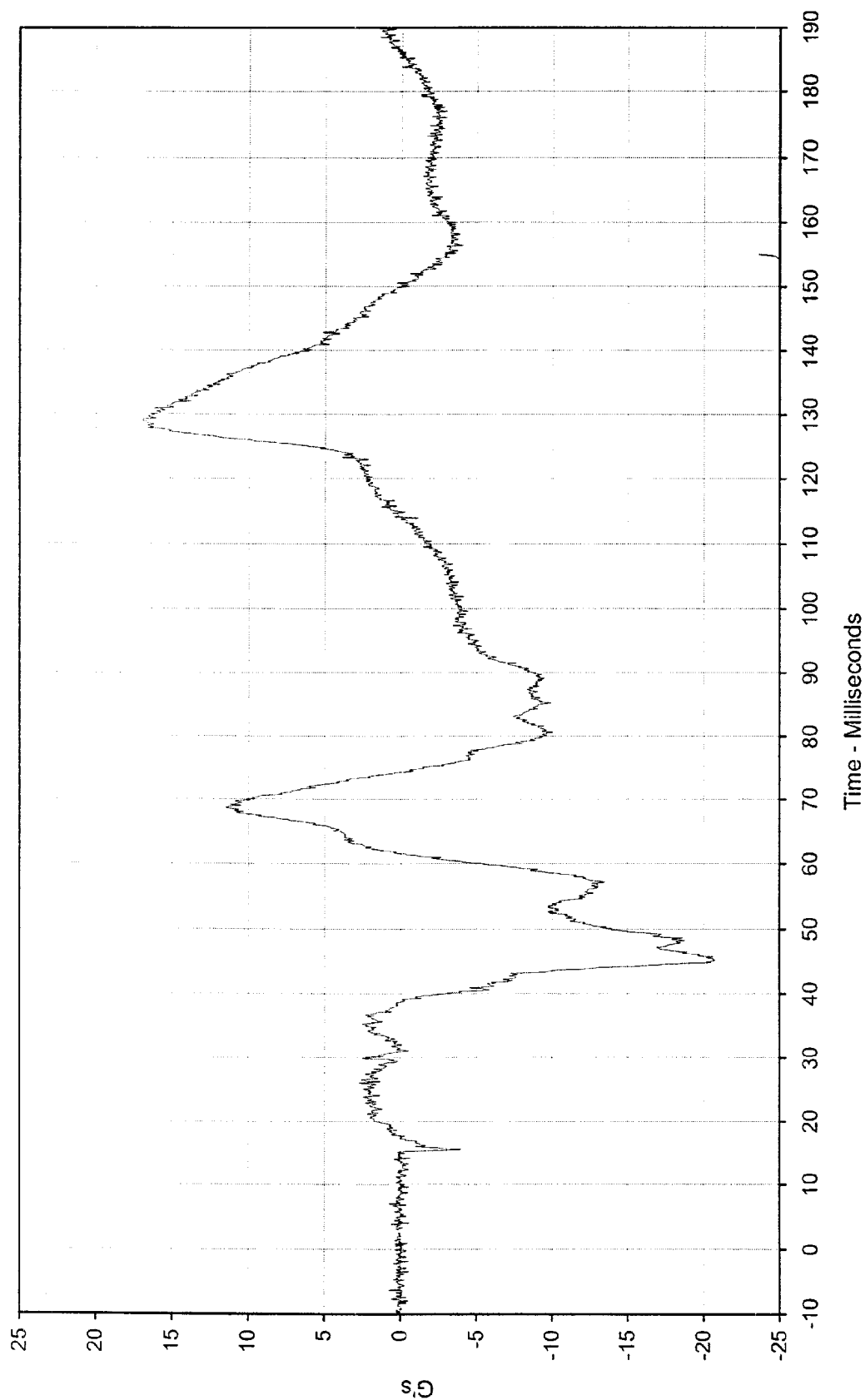
Data Plot	Page
B-1 Driver Head CG X	B-1
B-2 Driver Head CG X Velocity	B-2
B-3 Driver Head CG Y	B-3
B-4 Driver Head CG Y Velocity	B-4
B-5 Driver Head CG Z	B-5
B-6 Driver Head CG Z Velocity	B-6
B-7 Driver Head CG Resultant	B-7
B-8 Driver Upper Rib Primary Y	B-8
B-9 Driver Upper Rib Primary Y Velocity	B-9
B-10 Driver Lower Rib Primary Y	B-10
B-11 Driver Lower Rib Primary Y Velocity	B-11
B-12 Driver Lower Spine Primary Y	B-12
B-13 Driver Lower Spine Primary Y Velocity	B-13
B-14 Driver Pelvis Primary Y	B-14
B-15 Driver Pelvis Primary Y Velocity	B-15
B-16 Driver Upper Rib Redundant Y	B-16
B-17 Driver Upper Rib Redundant Y Velocity	B-17
B-18 Driver Lower Rib Redundant Y	B-18
B-19 Driver Lower Rib Redundant Y Velocity	B-19
B-20 Driver Lower Spine Redundant Y	B-20
B-21 Driver Lower Spine Redundant Y Velocity	B-21
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B-27 Right Sill at Front Seat X Velocity	B-27
B-28 Right Sill at Front Seat Y	B-28
B-29 Right Sill at Front Seat Y Velocity	B-29
B-30 Right Sill at Front Seat Z	B-30
B-31 Right Sill at Front Seat Z Velocity	B-31
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LIST OF DATA PLOTS, PASSENGER SID

Data Plot	Page
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B-36 Right Sill at Rear Seat Y Velocity	B-36
B-37 Right Sill at Rear Seat Z	B-37
B-38 Right Sill at Rear Seat Z Velocity	B-38
B-39 Right Sill at Rear Seat Resultant	B-39
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B-41 Rear Floorpan Above Axle X Velocity	B-41
B-42 Rear Floorpan Above Axle Y	B-42
B-43 Rear Floorpan Above Axle Y Velocity	B-43
B-44 Rear Floorpan Above Axle Z	B-44
B-45 Rear Floorpan Above Axle Z Velocity	B-45
B-46 Rear Floorpan Above Axle Resultant	B-46
B-47 Left Sill at Front Door Y	B-47
B-48 Left Sill at Front Door Y Velocity	B-48
B-49 Left Front Door CL Y	B-49
B-50 Left Front Door CL Y Velocity	B-50
B-51 Right Rear Occ. Compartment Y	B-51
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B-53 Left Front Door Mid-Rear Y	B-53
B-54 Left Front Door Mid-Rear Y Velocity	B-54
B-55 Left Front Door Upper CL Y	B-55
B-56 Left Front Door Upper CL Y Velocity	B-56
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B-61 A-Post Lower Y	B-61
B-62 A-Post Lower Y Velocity	B-62
B-63 A-Post Middle Y	B-63
B-64 A-Post Middle Y Velocity	B-64
B-65 Left Front Seat Track Y	B-65
B-66 Left Front Seat Track Y Velocity	B-66
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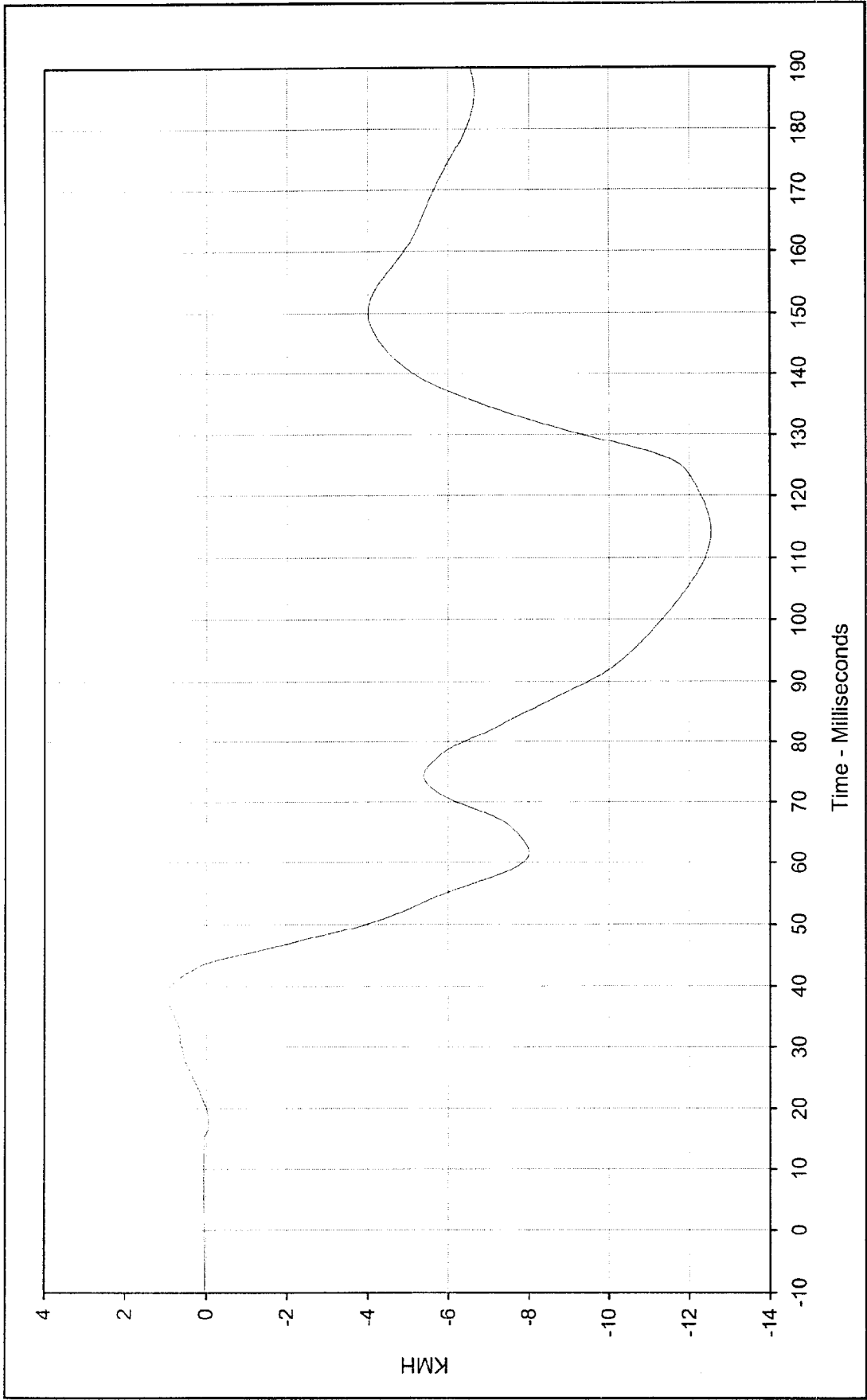
LIST OF DATA PLOTS, PASSENGER SID

Data Plot	Page
B-68 Vehicle CG X Velocity	B-68
B-69 Vehicle CG Y	B-69
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B-71 Vehicle CG Z	B-71
B-72 Vehicle CG Z Velocity	B-72
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B-91 Passenger Lower Rib Redundant	B-91
B-92 Driver Lower Spine Redundant	B-92
B-93 Passenger Pelvis Redundant Y	B-93



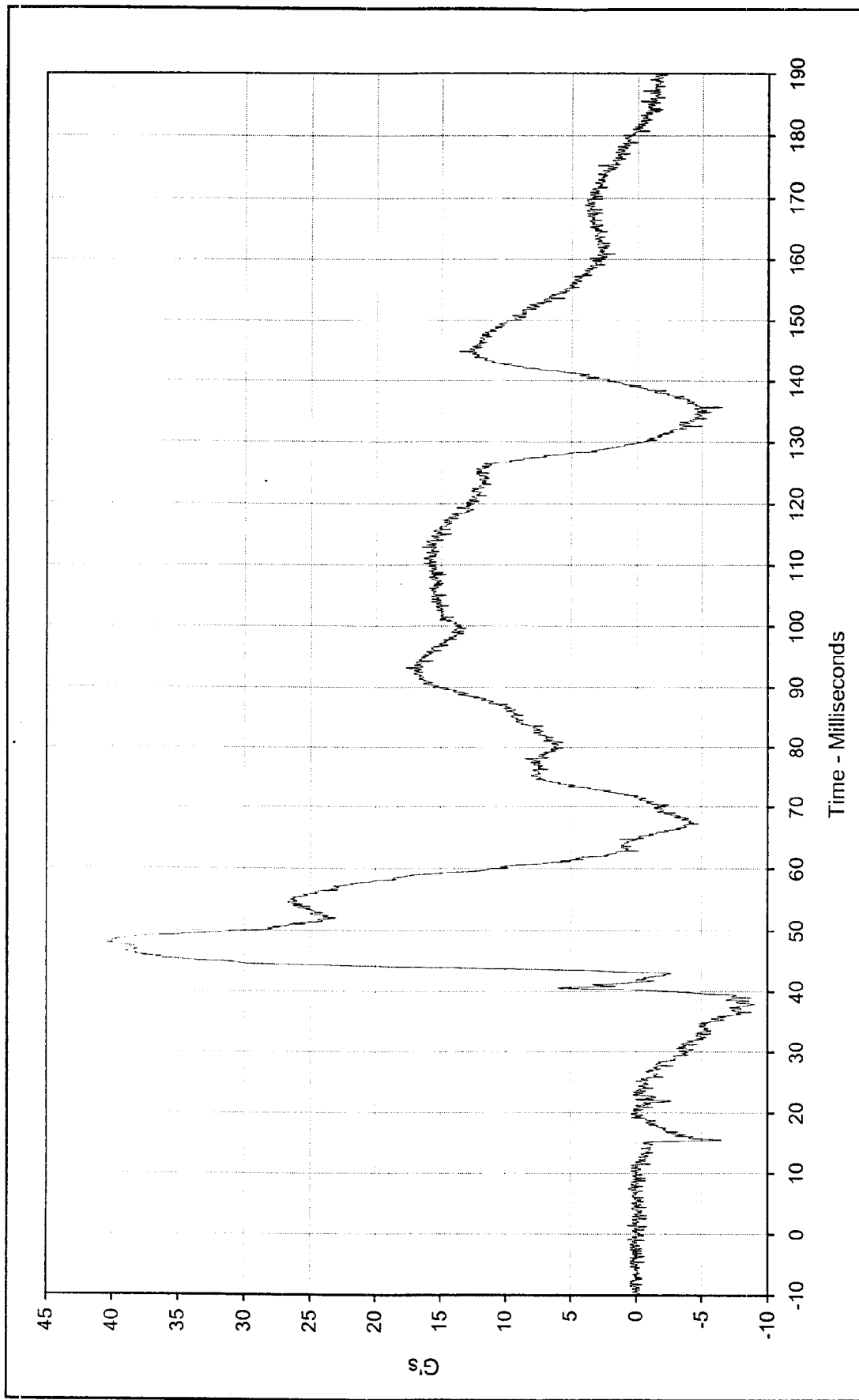
Curve Description:		Driver Head CG X		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	16.9	at	128.9	Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup
Minimum Value:	-20.8	at	45.1	Milliseconds		
SAE Filter Class:	1000					
Date of Test:	01/21/00					
Curve Number:	FIL-001					





Curve Description:	Driver Head CG X Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	0.9 at 38.7 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-12.5 at 114.1 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/21/00			
Curve Number:	IN1-001			

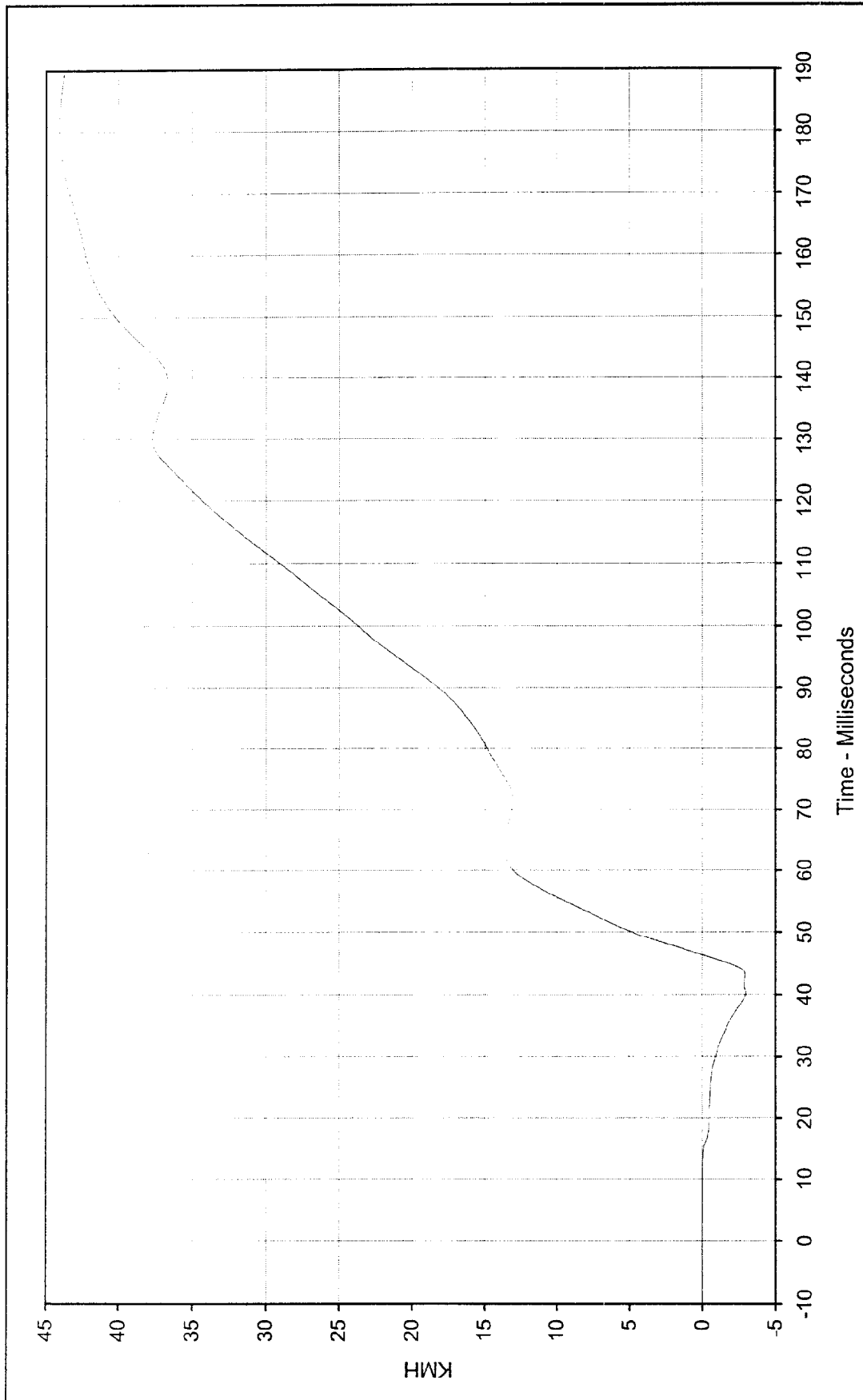




Curve Description: Driver Head CG Y
 Maximum Value: 40.4 at 47.9 Milliseconds
 Minimum Value: -9.0 at 38.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: FIL-002

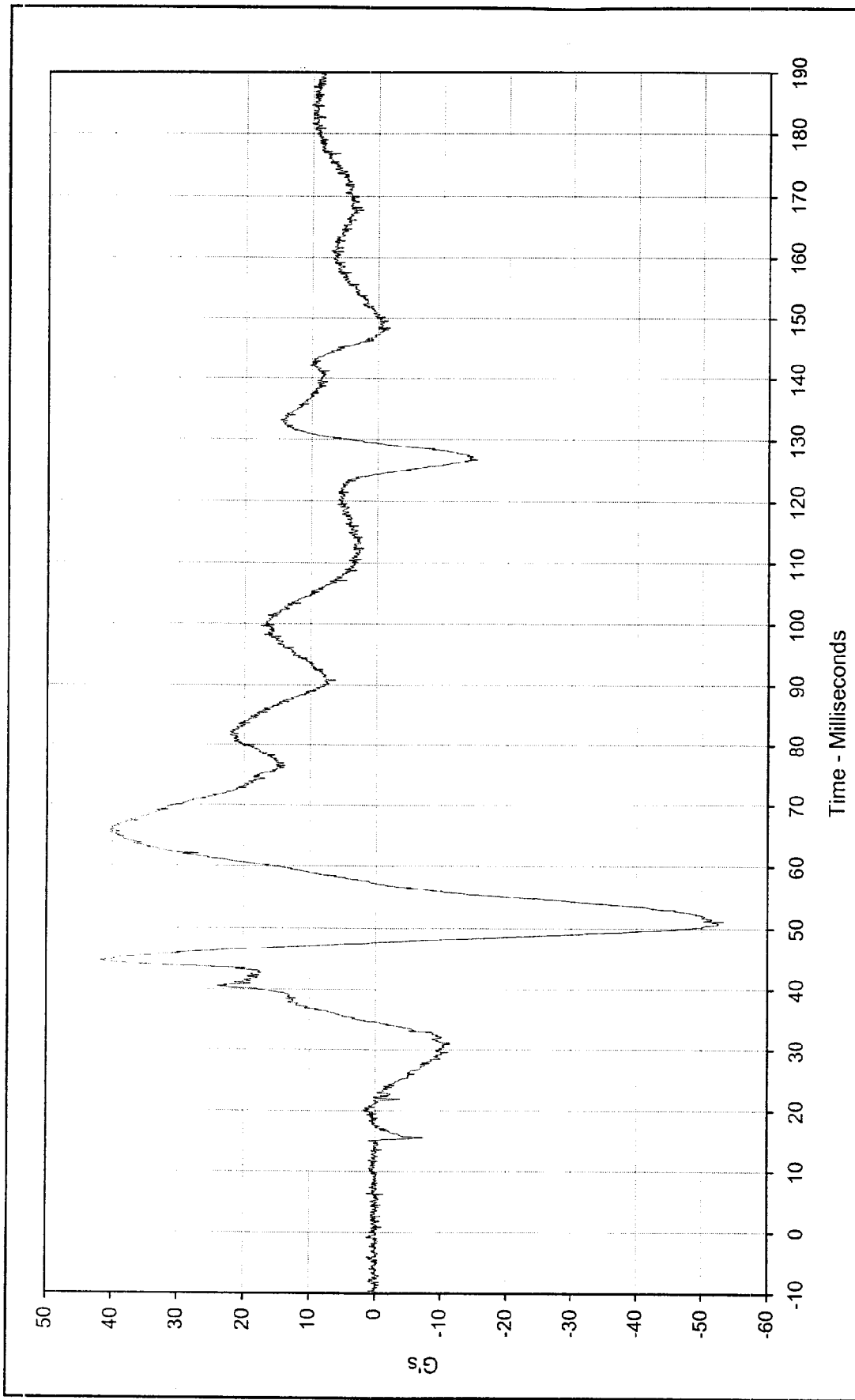
Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





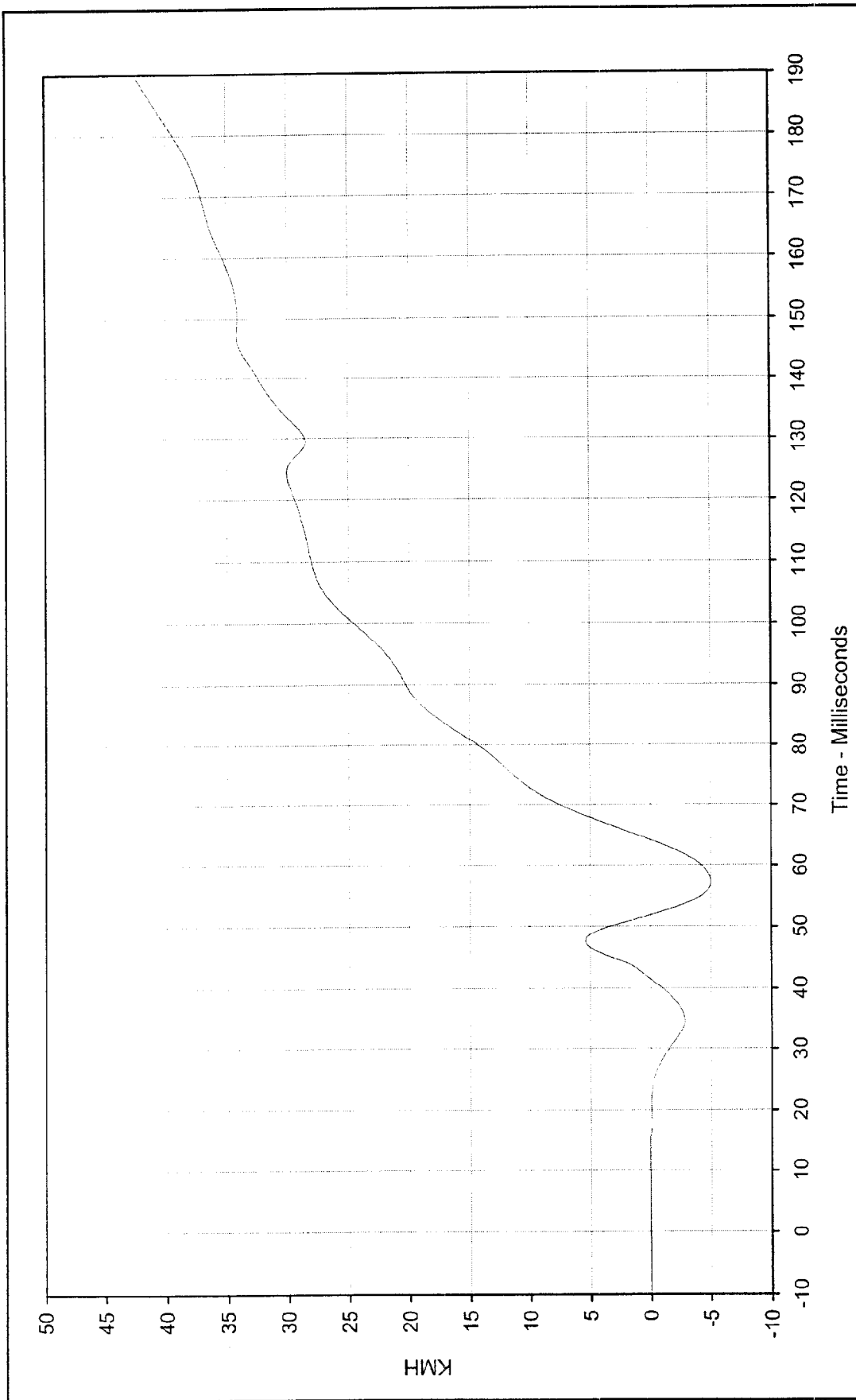
Curve Description:	Driver Head CG Y Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	44.1 at 180.6 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-3.0 at 40.3 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/21/00			
Curve Number:	IN1-002			





Curve Description:	Driver Head CG Z	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	41.8 at 44.6 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-53.4 at 51.2 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/21/00			
Curve Number:	FIL-003			

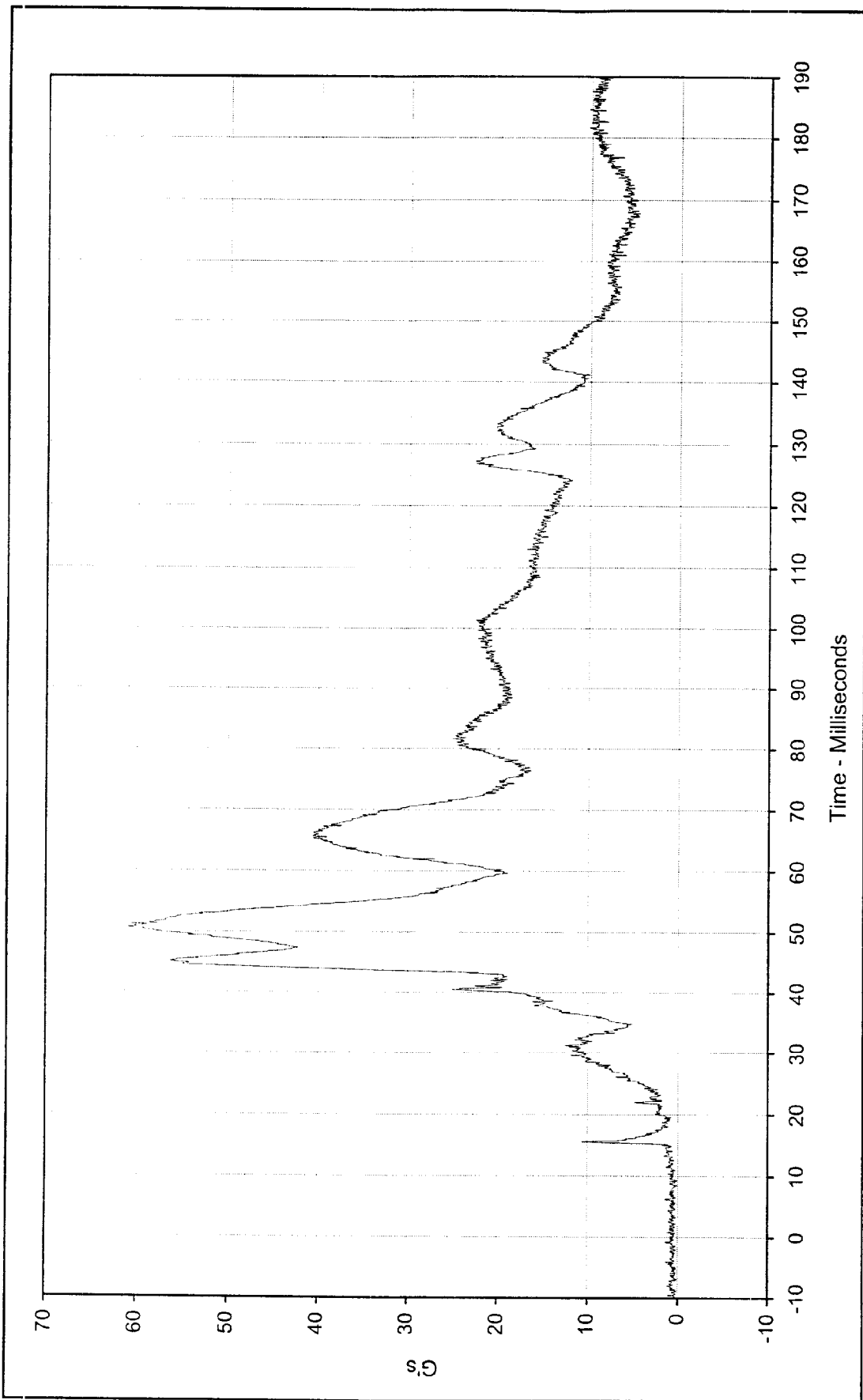




Curve Description: Driver Head CG Z Velocity
 Maximum Value: 42.5 at 189.9 Milliseconds
 Minimum Value: -5.0 at 57.2 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: IN1-003

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

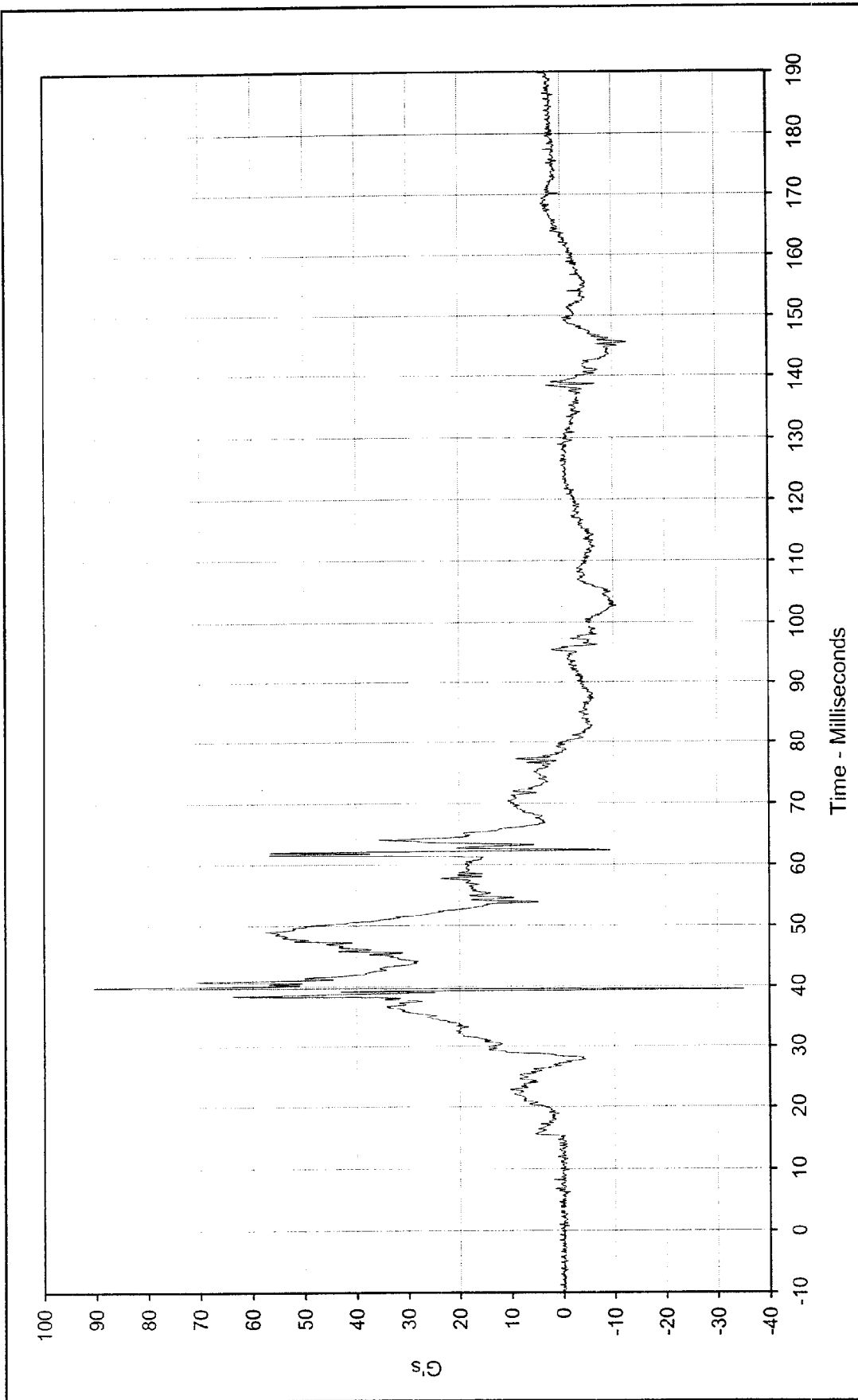




Curve Description: Driver Head CG Resultant
 Maximum Value: 60.8 at 50.7 Milliseconds
 Minimum Value: 0.0 at 8.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: RES-001

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

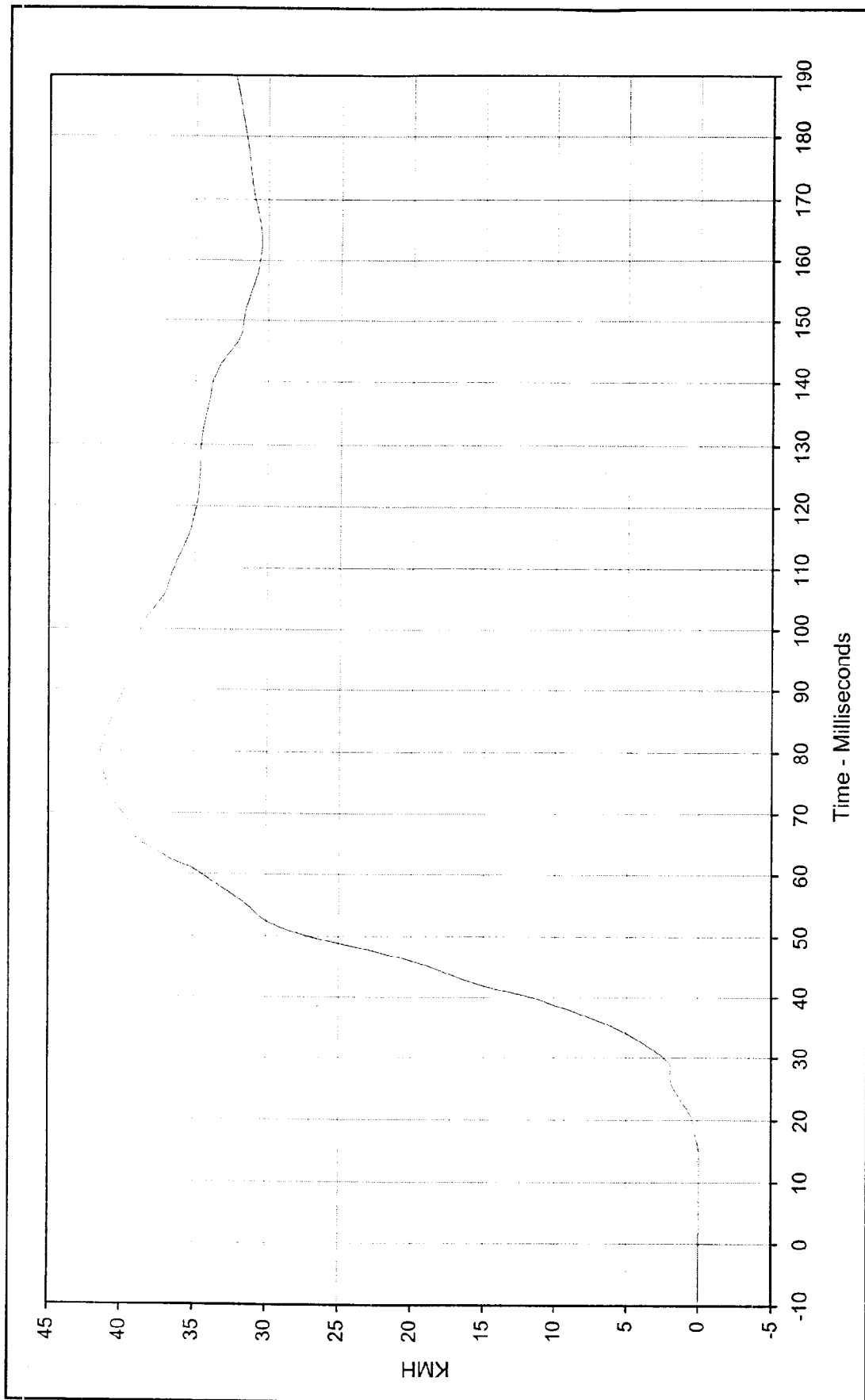




Curve Description: Driver Upper Rib Primary Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

Maximum Value: 91.0 at 39.9 Milliseconds
 Minimum Value: -34.8 at 39.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: FIL-004





Curve Description: Driver Upper Rib Primary Y Velocity

Maximum Value: 41.4 at 79.4 Milliseconds

Minimum Value: -0.1 at 14.4 Milliseconds

SAE Filter Class: 180

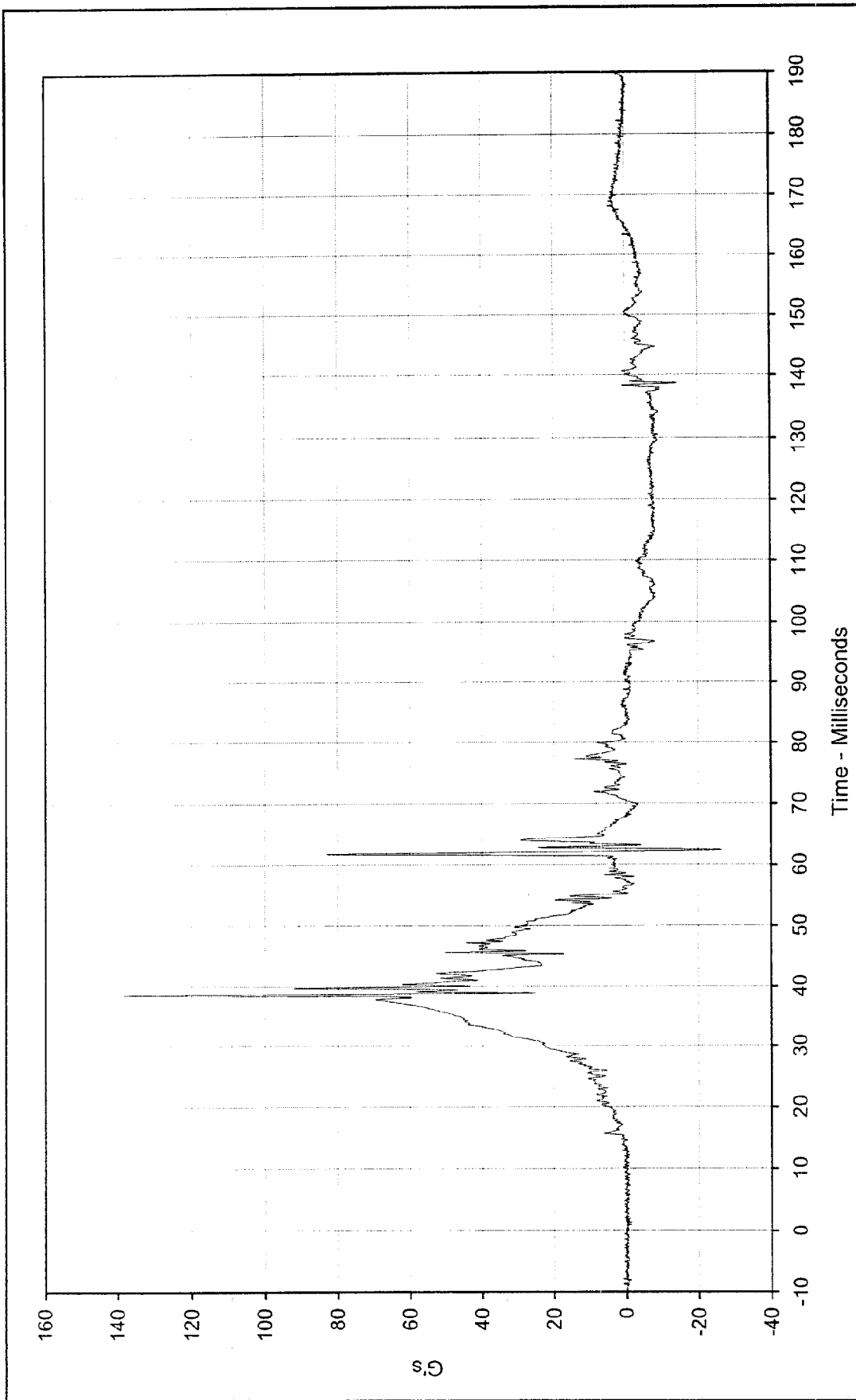
Date of Test: 01/21/00

Curve Number: IN1-004

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

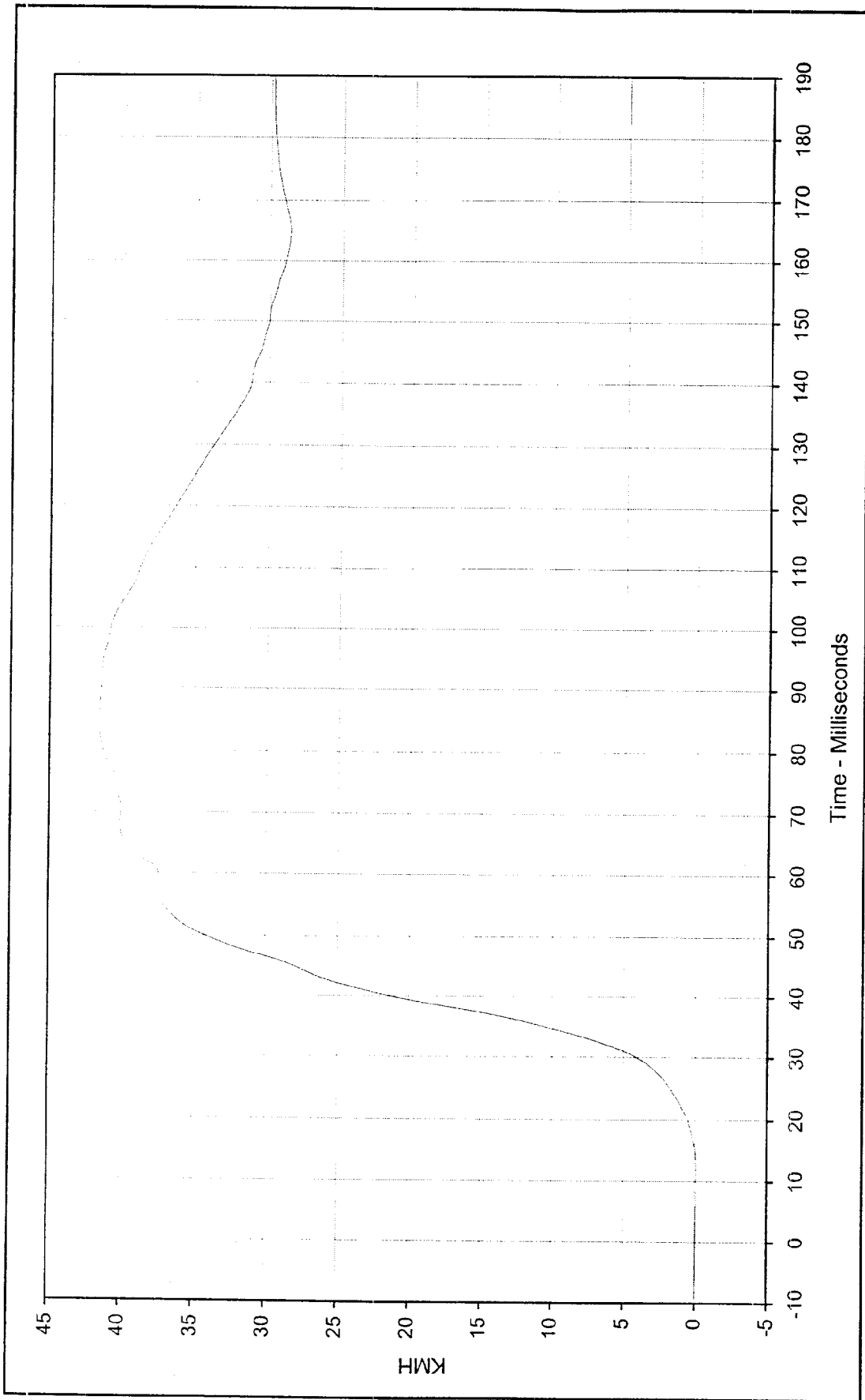




Curve Description:	Driver Lower Rib Primary Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	140.9 at 38.6 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-26.2 at 62.4 Milliseconds			



SAE Filter Class:	1000
Date of Test:	01/21/00
Curve Number:	FIL-005



Curve Description: Driver Lower Rib Primary Y Velocity

Maximum Value: 41.5 at 87.2 Milliseconds

Minimum Value: -0.1 at 9.4 Milliseconds

SAE Filter Class: 180

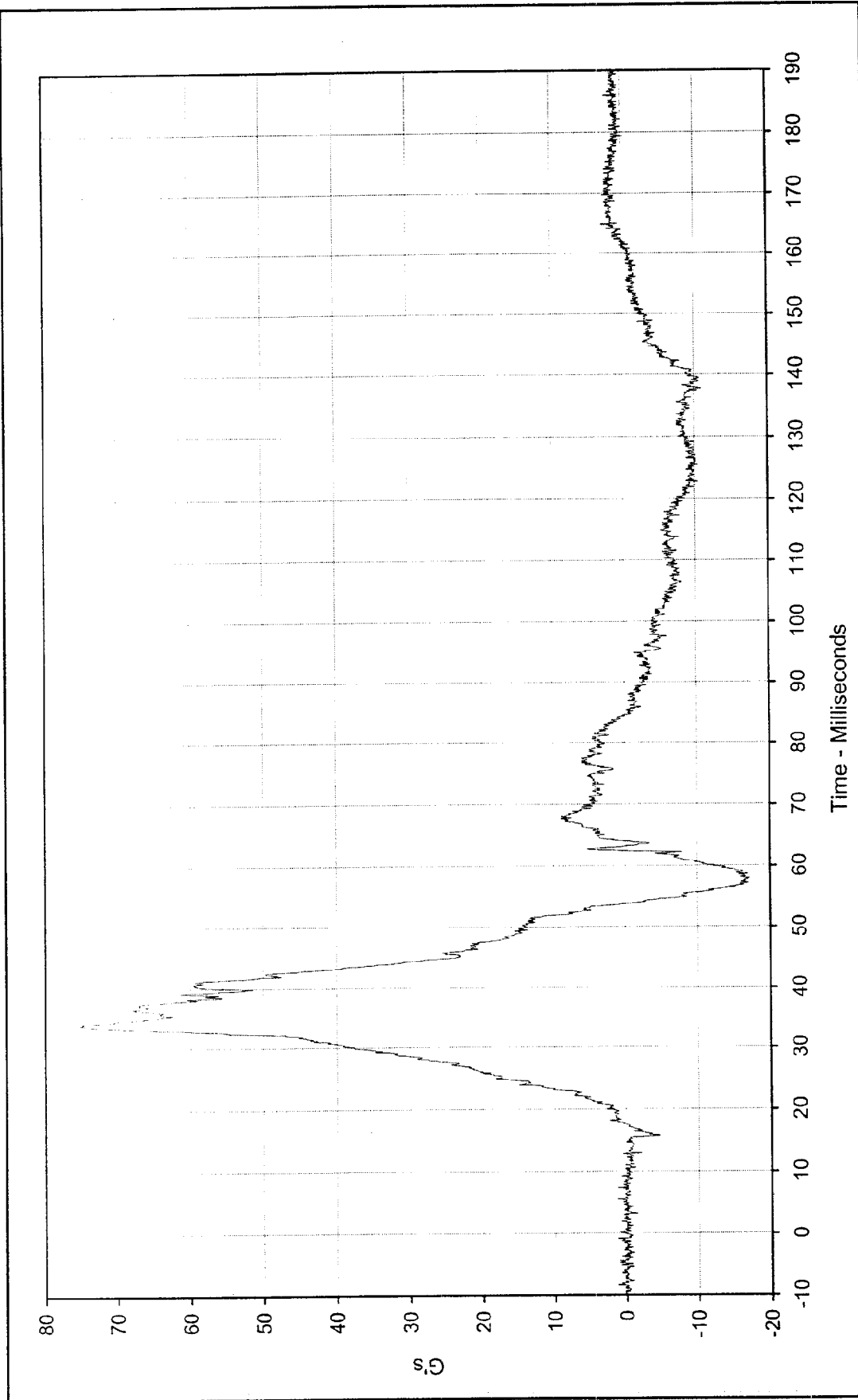
Date of Test: 01/21/00

Curve Number: IN1-005

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

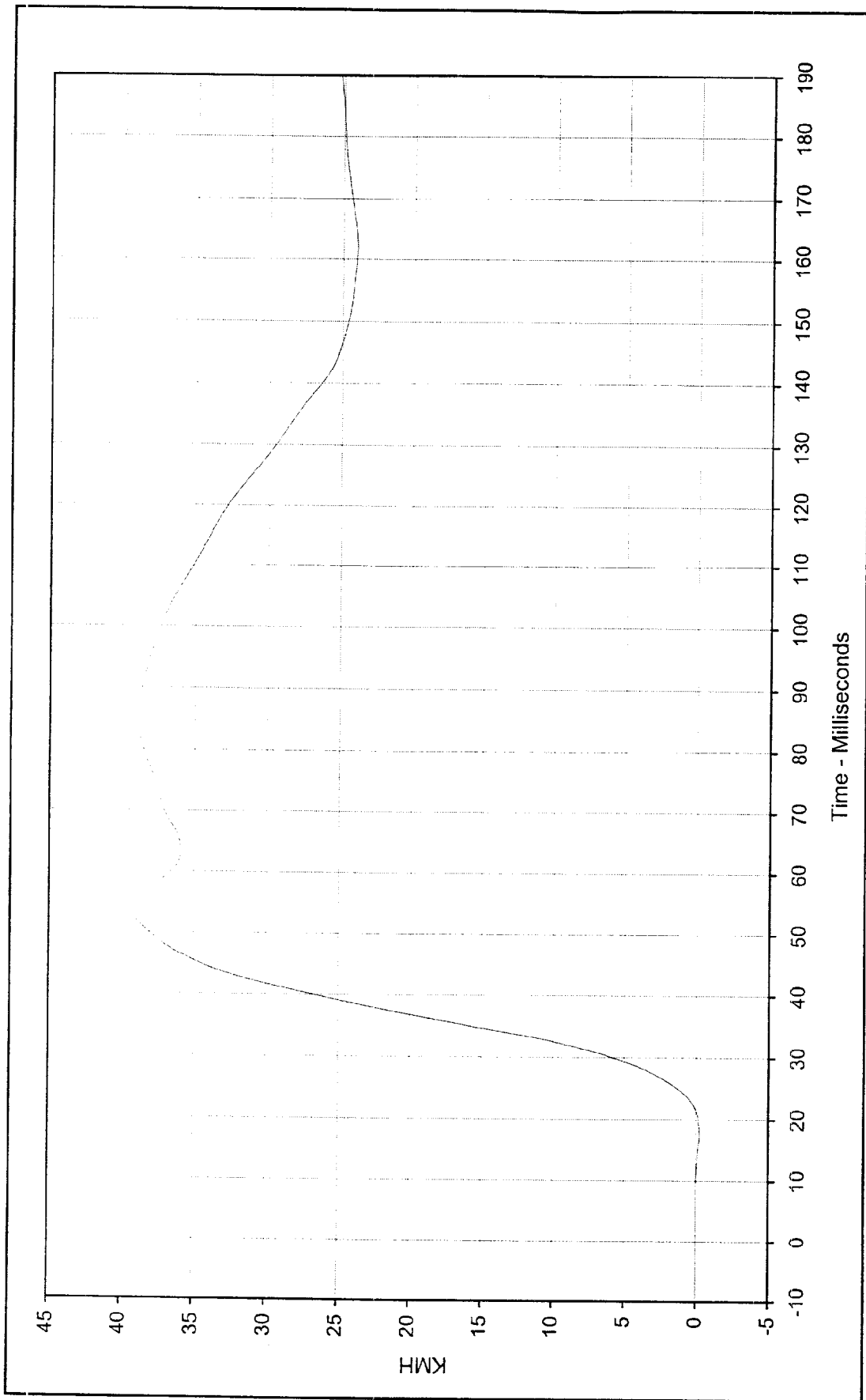




Curve Description: Driver Lower Spine Primary Y
 Maximum Value: 75.2 at 33.9 Milliseconds
 Minimum Value: -17.2 at 57.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: FIL-006

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Driver Lower Spine Primary Y Velocity

Maximum Value: 39.3 at 53.8 Milliseconds

Minimum Value: -0.3 at 17.5 Milliseconds

SAE Filter Class: 180

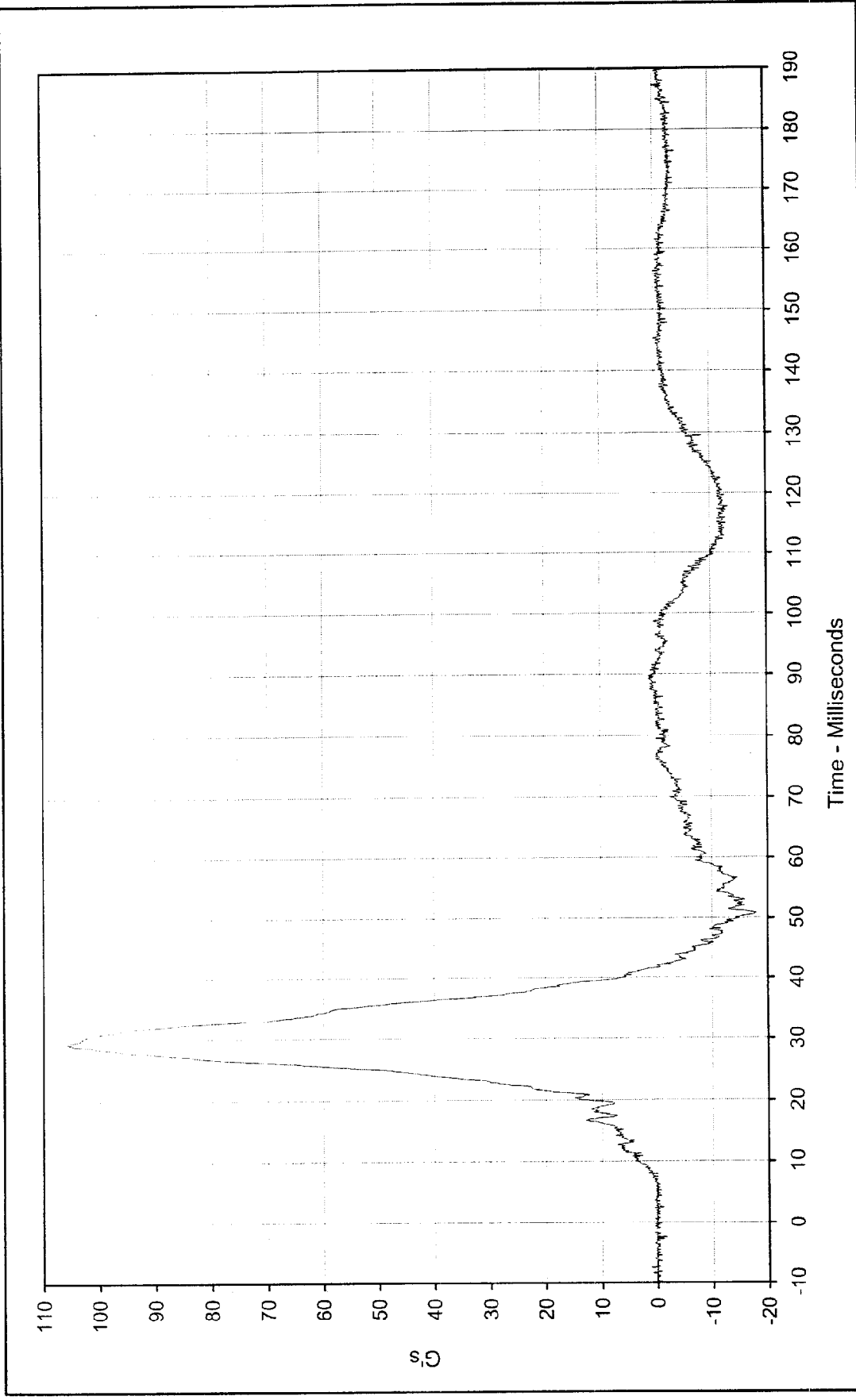
Date of Test: 01/21/00

Curve Number: IN1-006

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

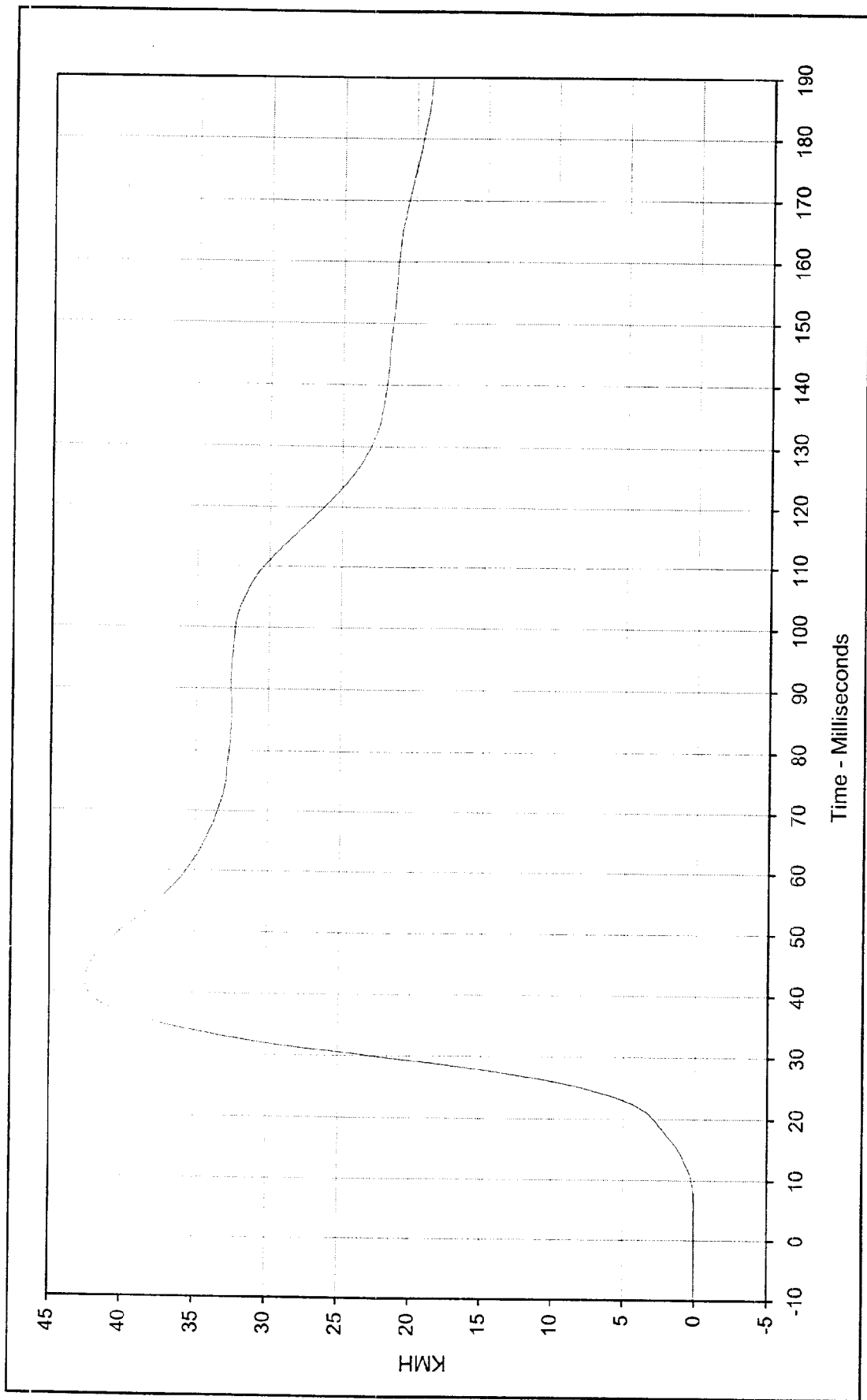




Curve Description:	Driver Pelvis Primary Y		Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	105.8	at 29.3 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-17.9	at 50.9 Milliseconds			
SAE Filter Class:	1000				
Date of Test:	01/21/00				
Curve Number:	FIL-007				







Curve Description: Driver Pelvis Primary Y Velocity

Maximum Value: 42.5 at 41.8 Milliseconds

Minimum Value: 0.1 at 2.9 Milliseconds

SAE Filter Class: 180

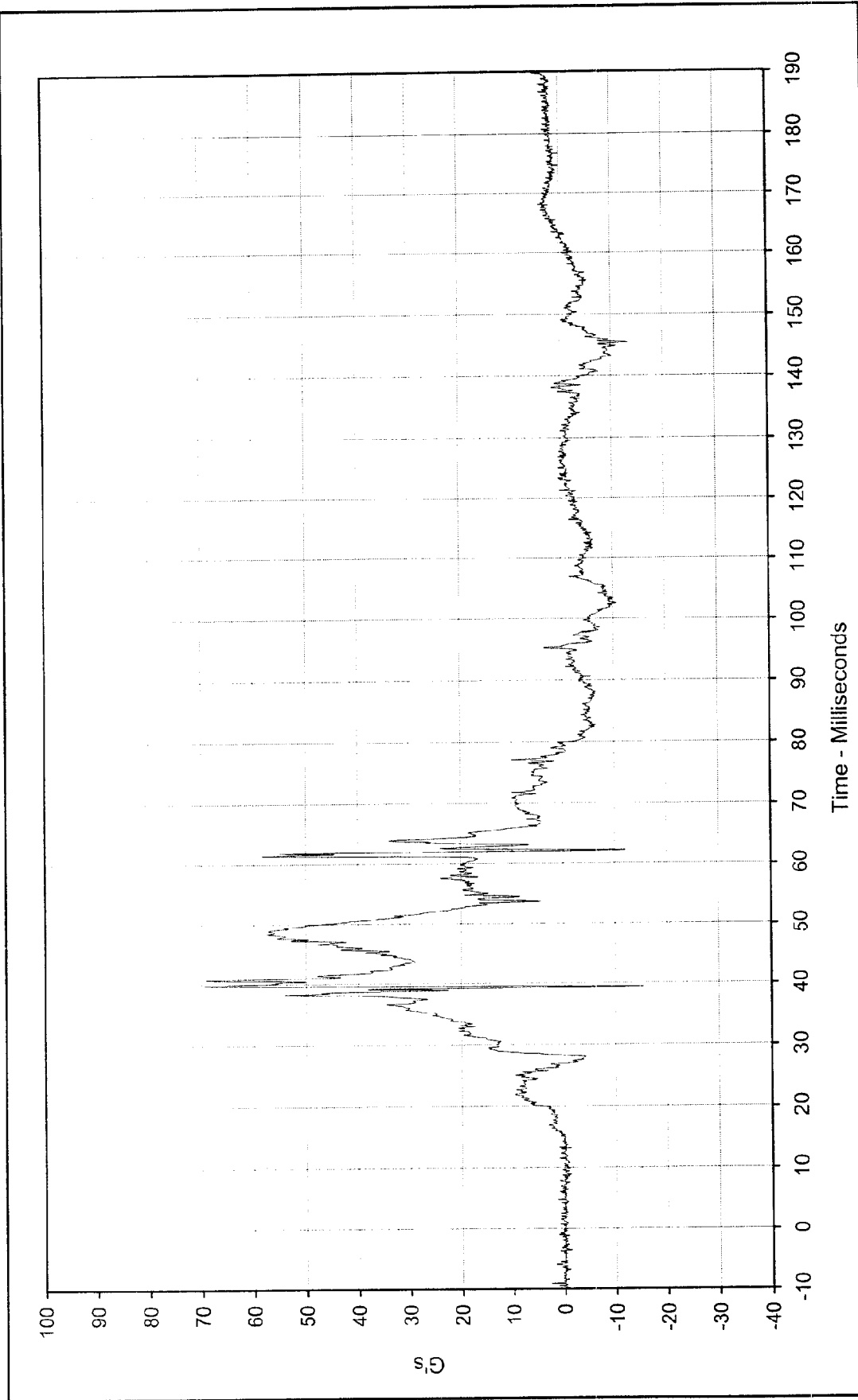
Date of Test: 01/21/00

Curve Number: IN1-007

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

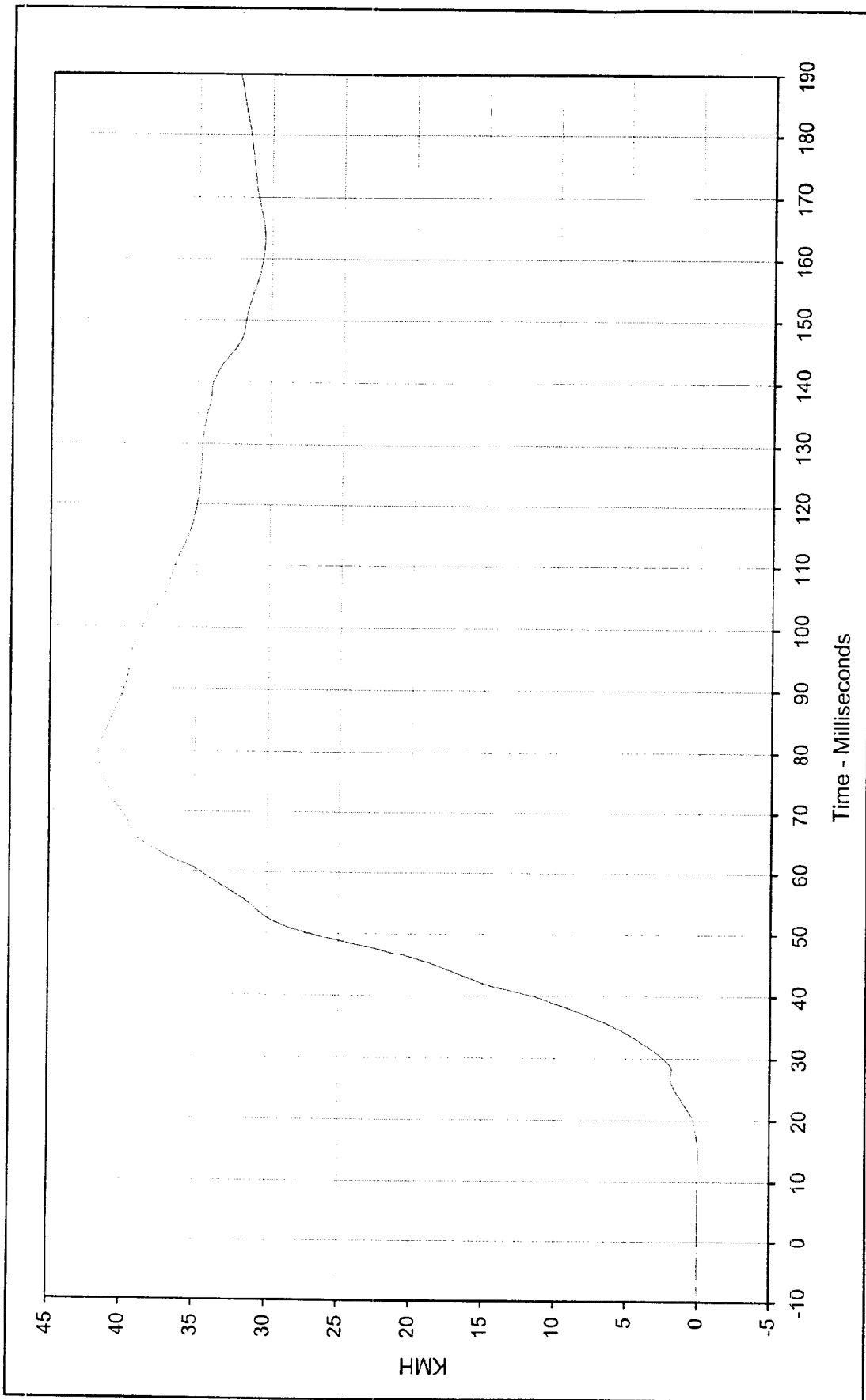




Curve Description: Driver Upper Rib Redundant Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

Maximum Value: 69.9 at 39.8 Milliseconds
 Minimum Value: -15.4 at 39.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: FIL-008





Curve Description: Driver Upper Rib Redundant Y Velocity

Maximum Value: 41.6 at 79.3 Milliseconds

Minimum Value: 0.0 at 14.5 Milliseconds

SAE Filter Class: 180

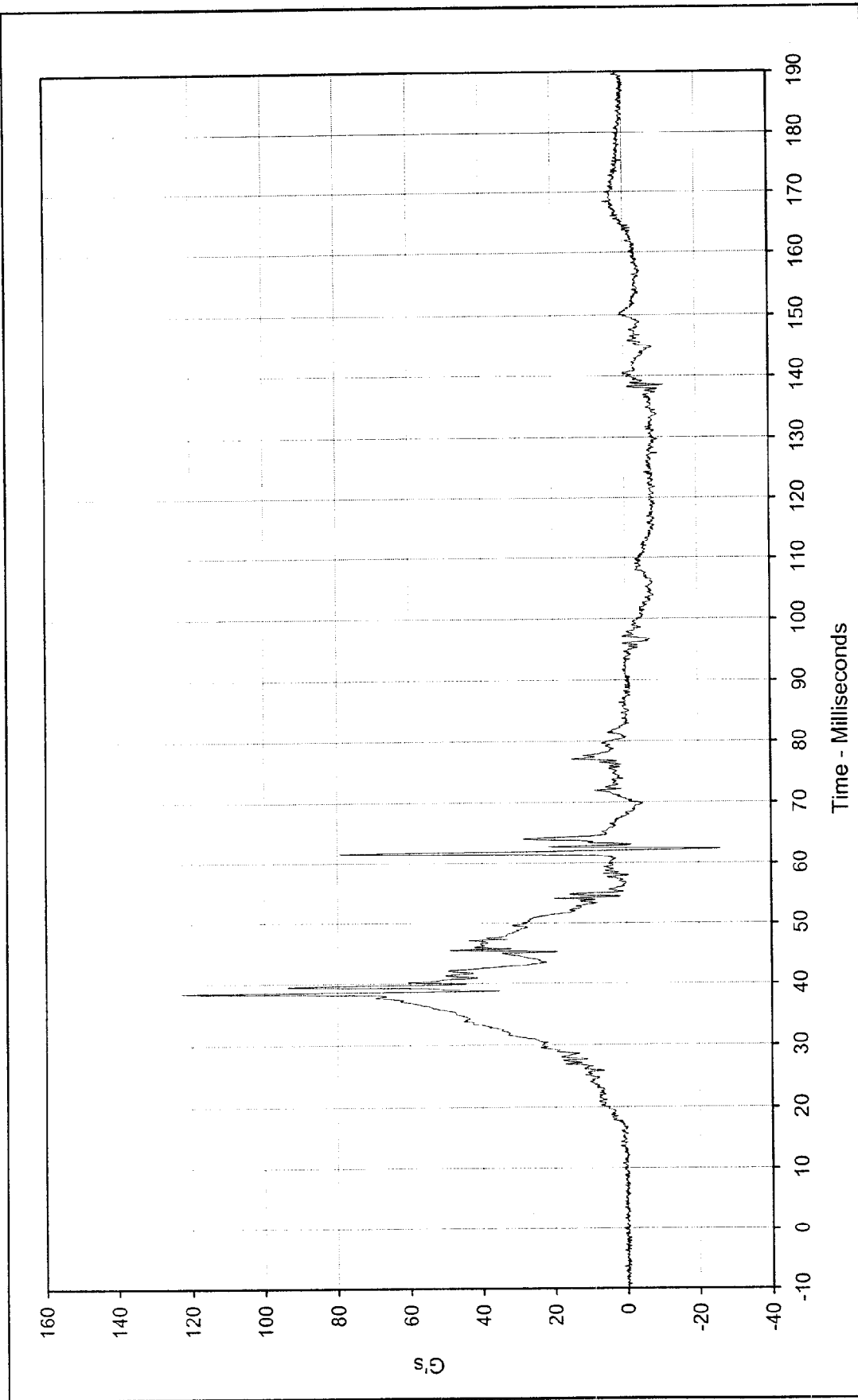
Date of Test: 01/21/00

Curve Number: IN1-008

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

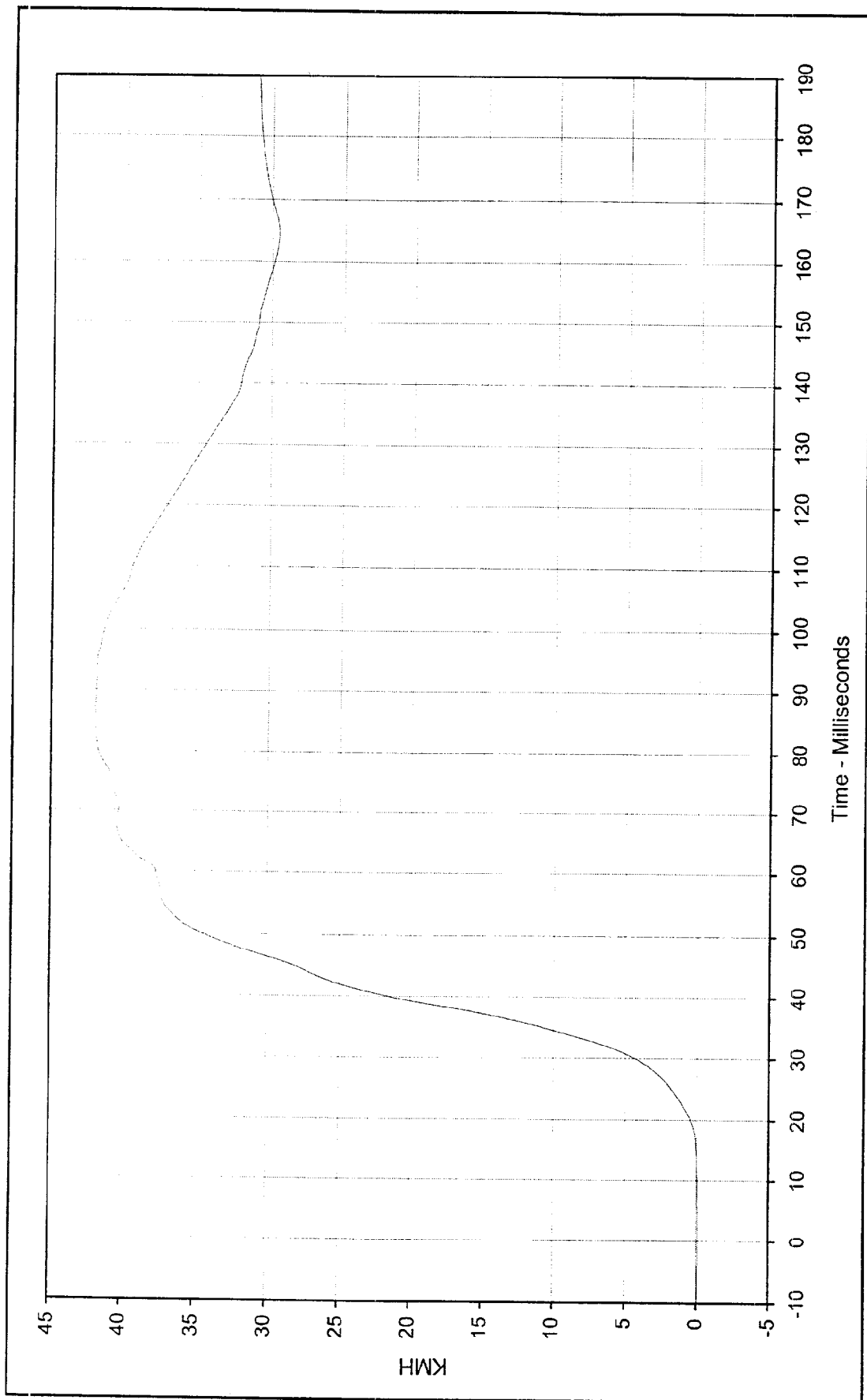




Curve Description: Driver Lower Rib Redundant Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
Maximum Value: 122.1 at 38.5 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup
Minimum Value: -26.1 at 62.3 Milliseconds



SAE Filter Class: 1000
Date of Test: 01/21/00
Curve Number: FIL-009



Curve Description: Driver Lower Rib Redundant Y Velocity

Maximum Value: 41.9 at 87.2 Milliseconds

Minimum Value: -0.1 at 1.3 Milliseconds

SAE Filter Class: 180

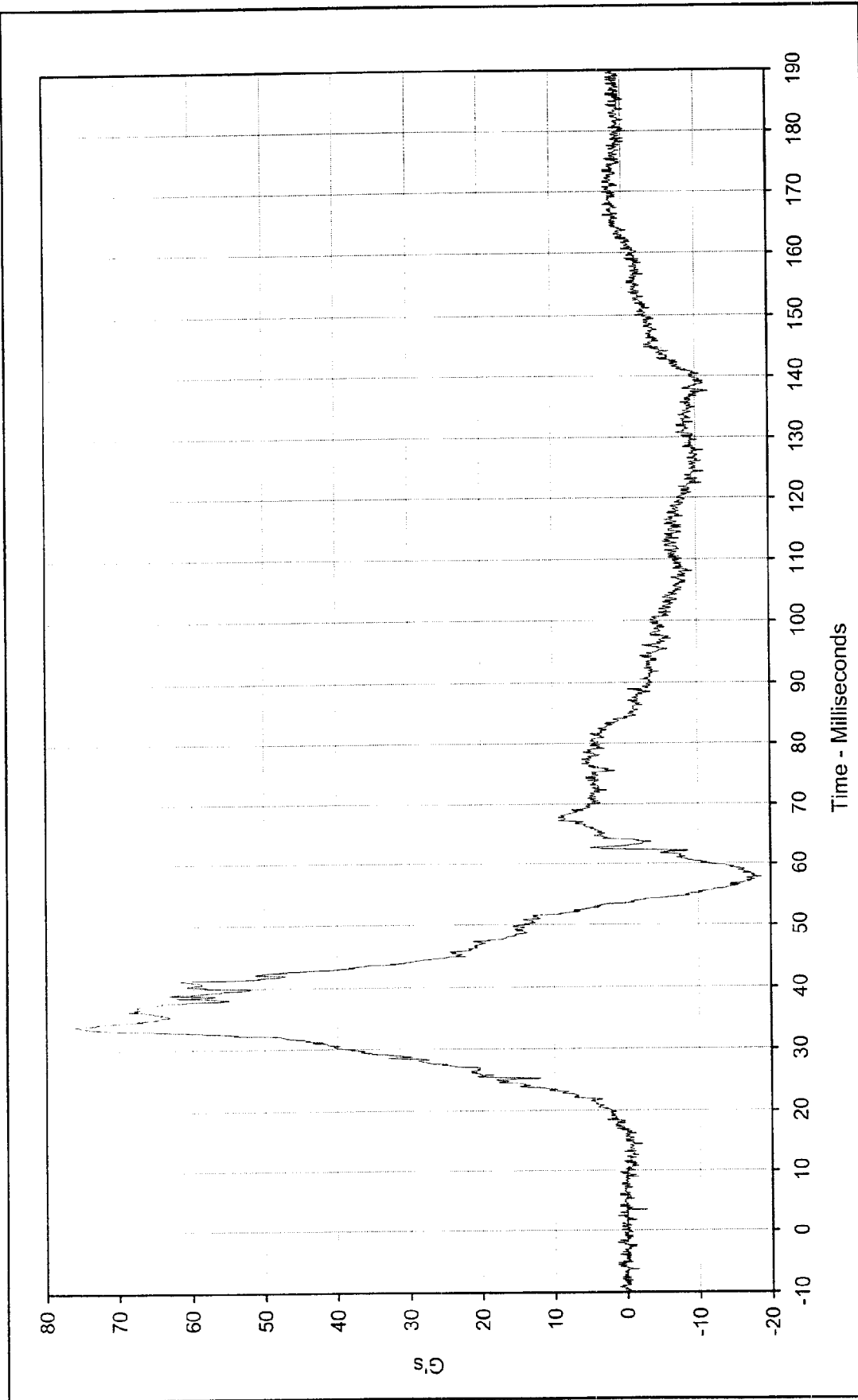
Date of Test: 01/21/00

Curve Number: IN1-009

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

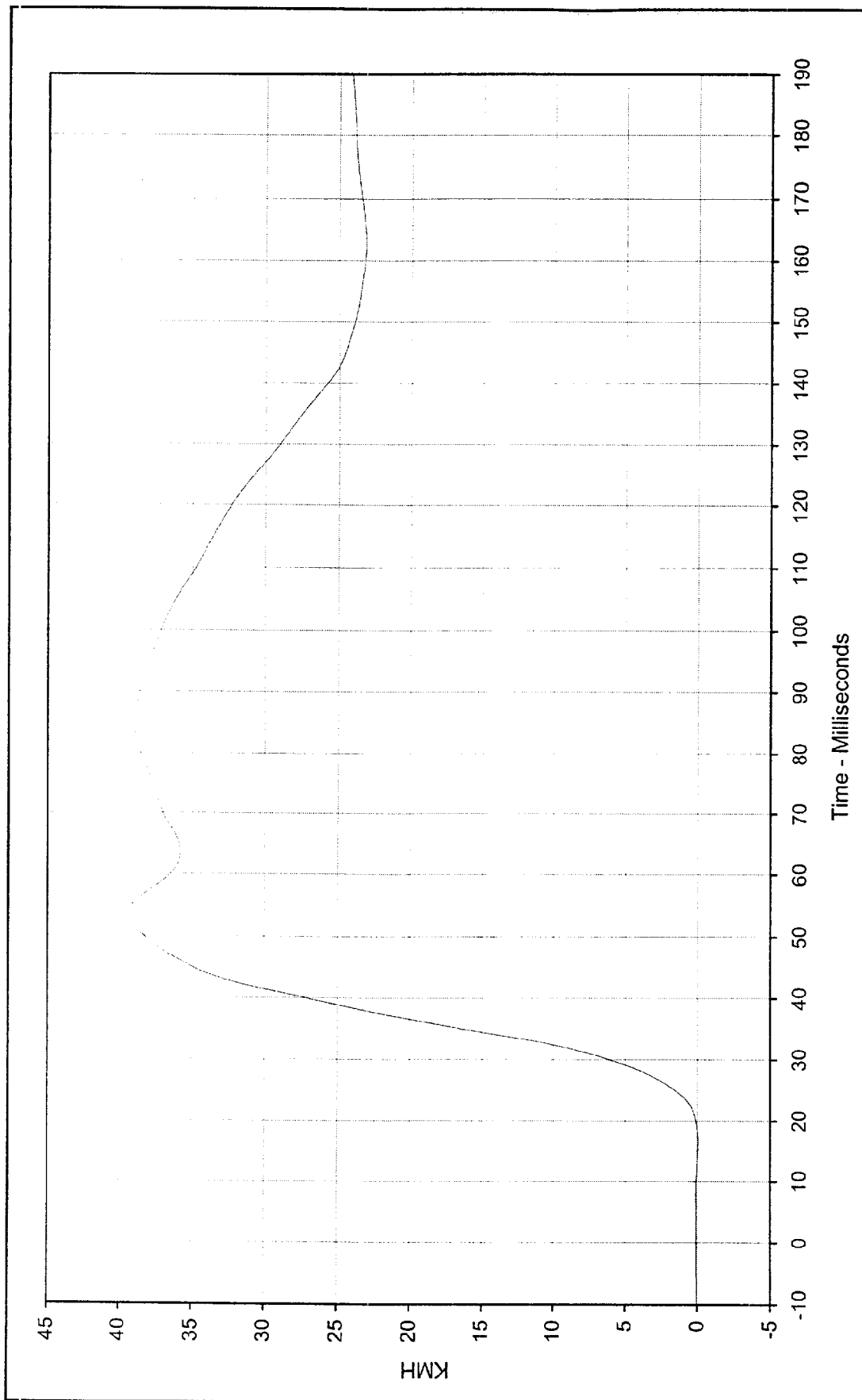
Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description:	Driver Lower Spine Redundant Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	76.1 at 34.0 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-18.8 at 57.6 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/21/00			
Curve Number:	FIL-010			





Curve Description: Driver Lower Spine Redundant Y Velocity

Maximum Value: 39.4 at 53.6 Milliseconds

Minimum Value: -0.1 at 16.5 Milliseconds

SAE Filter Class: 180

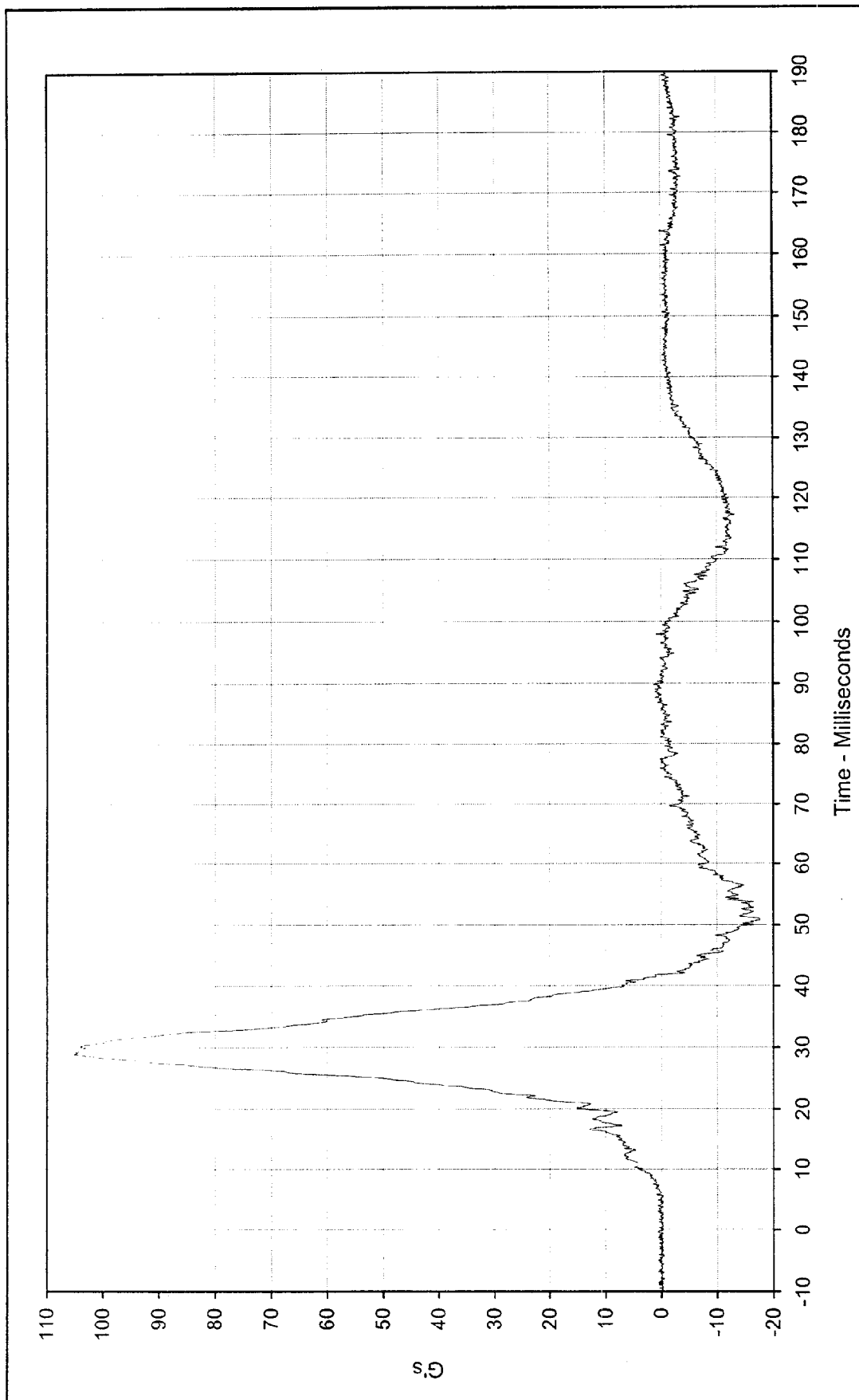
Date of Test: 01/21/00

Curve Number: IN1-010

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

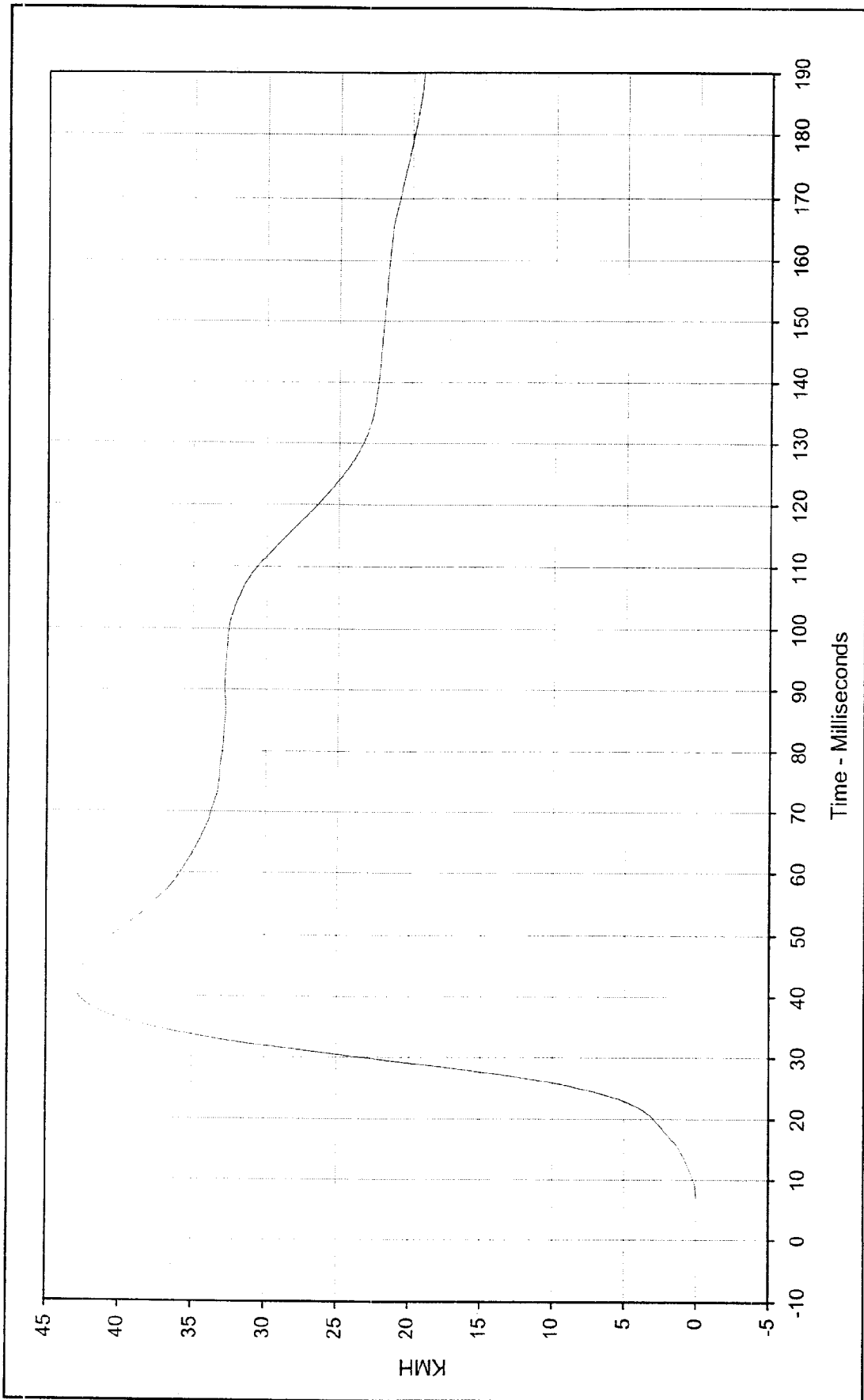
Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description:	Driver Pelvis Redundant Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	105.2 at 28.9 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-17.7 at 50.7 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	01/21/00			
Curve Number:	FIL-011			

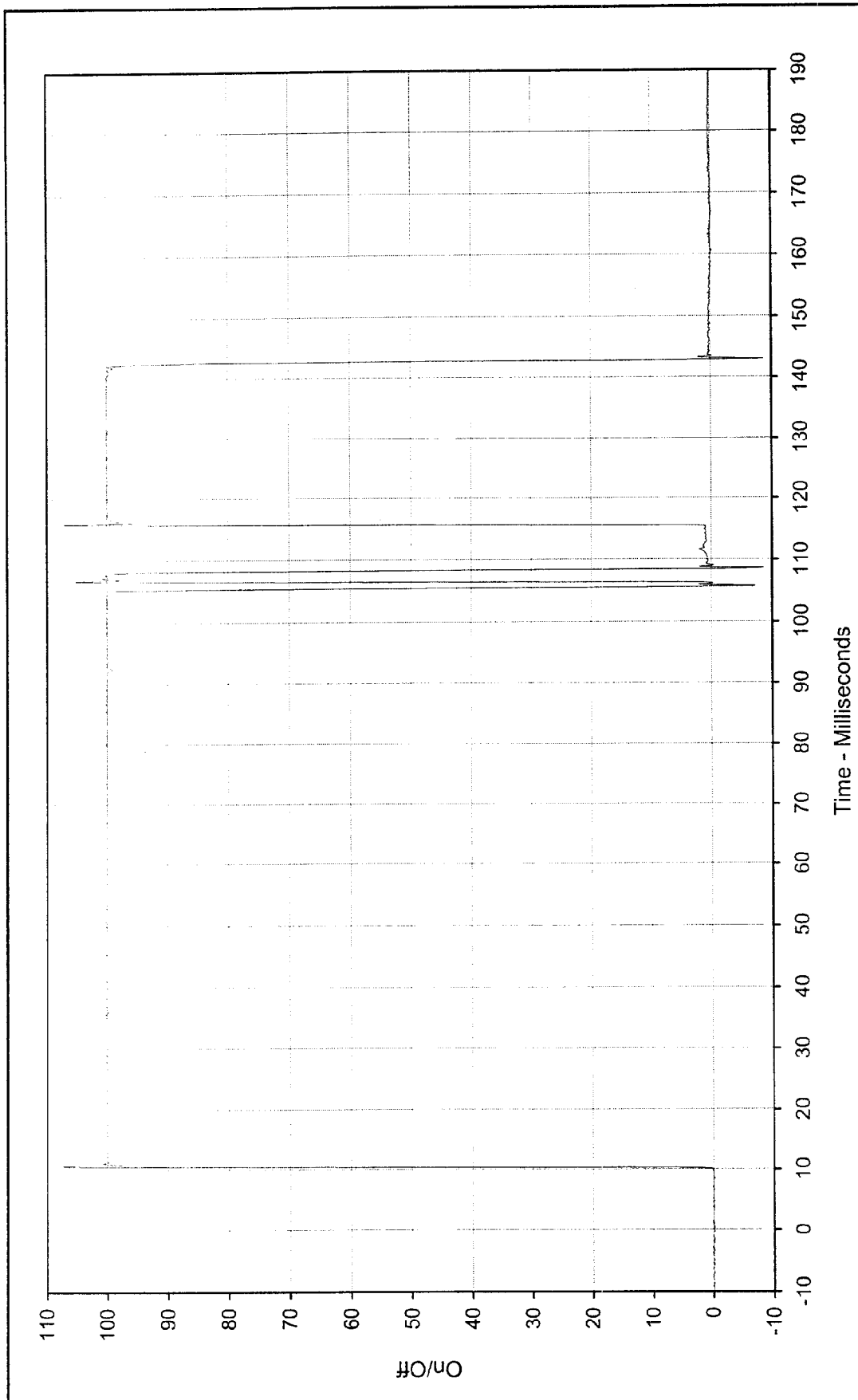




Curve Description:	Driver Pelvis Redundant Y Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	43.0 at 41.7 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	0.0 at 2.2 Milliseconds			



SAE Filter Class:	180
Date of Test:	01/21/00
Curve Number:	IN1-011



Curve Description: Driver Thorax Contact Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Maximum Value: 107.5 at 10.6 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup

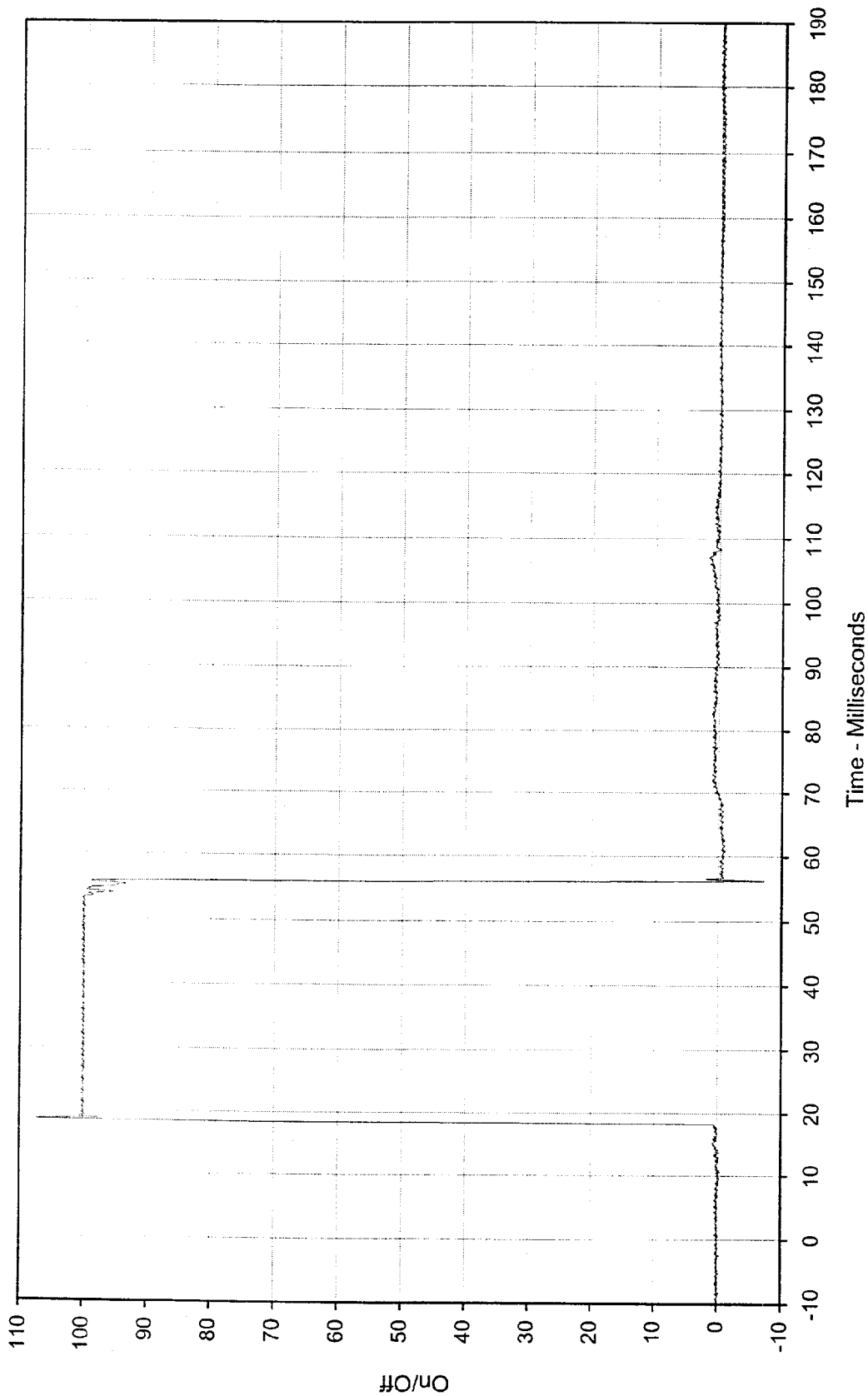
Crossing Point: 50% at 10.4 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/21/00

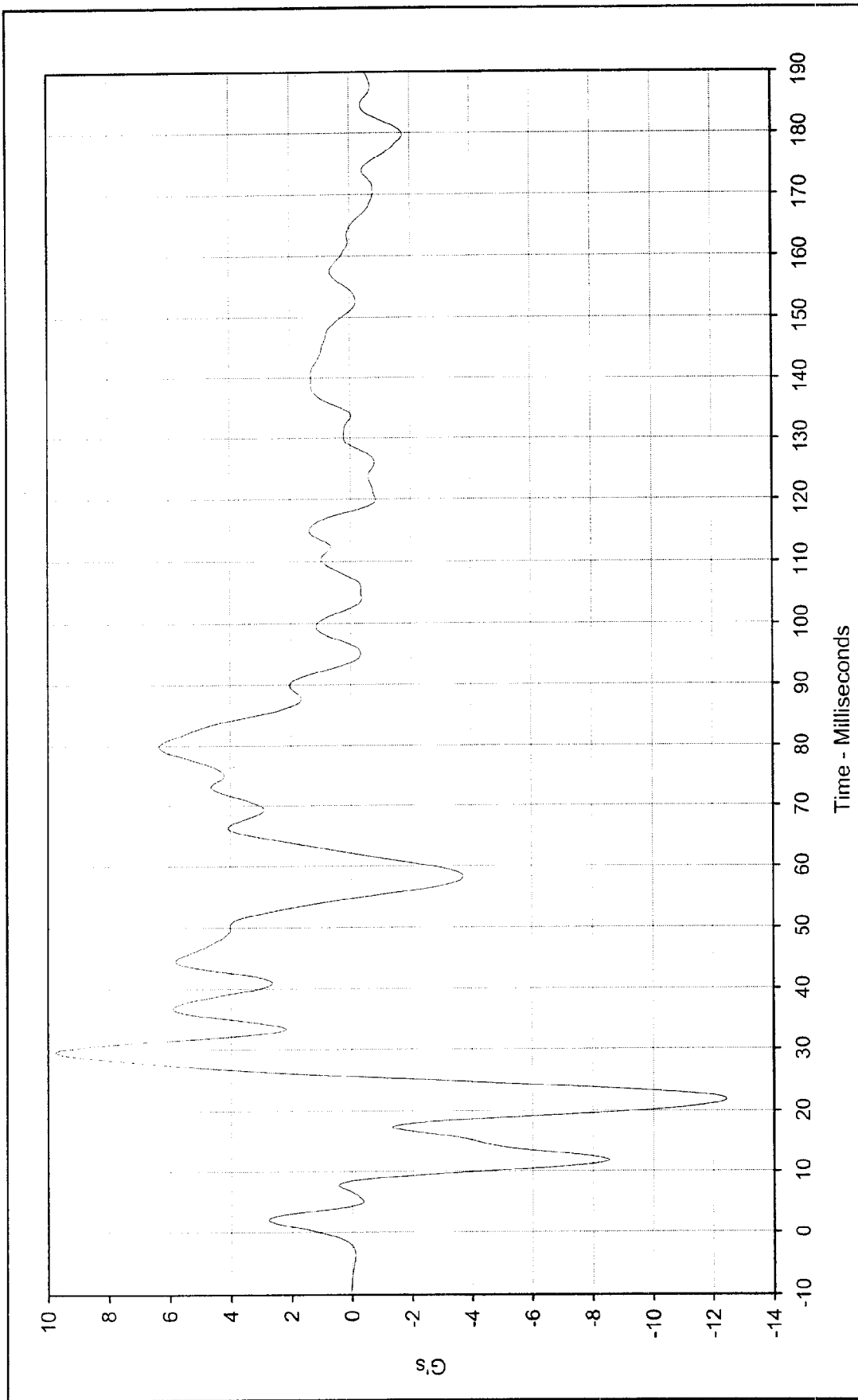
Curve Number: FIL-012





Curve Description:	Driver Pelvis Contact	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	107.4	at	18.7	Milliseconds
Crossing Point:	50%	at	18.5	Milliseconds
SAE Filter Class:	1000	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Date of Test:	01/21/00			
Curve Number:	FIL-013			

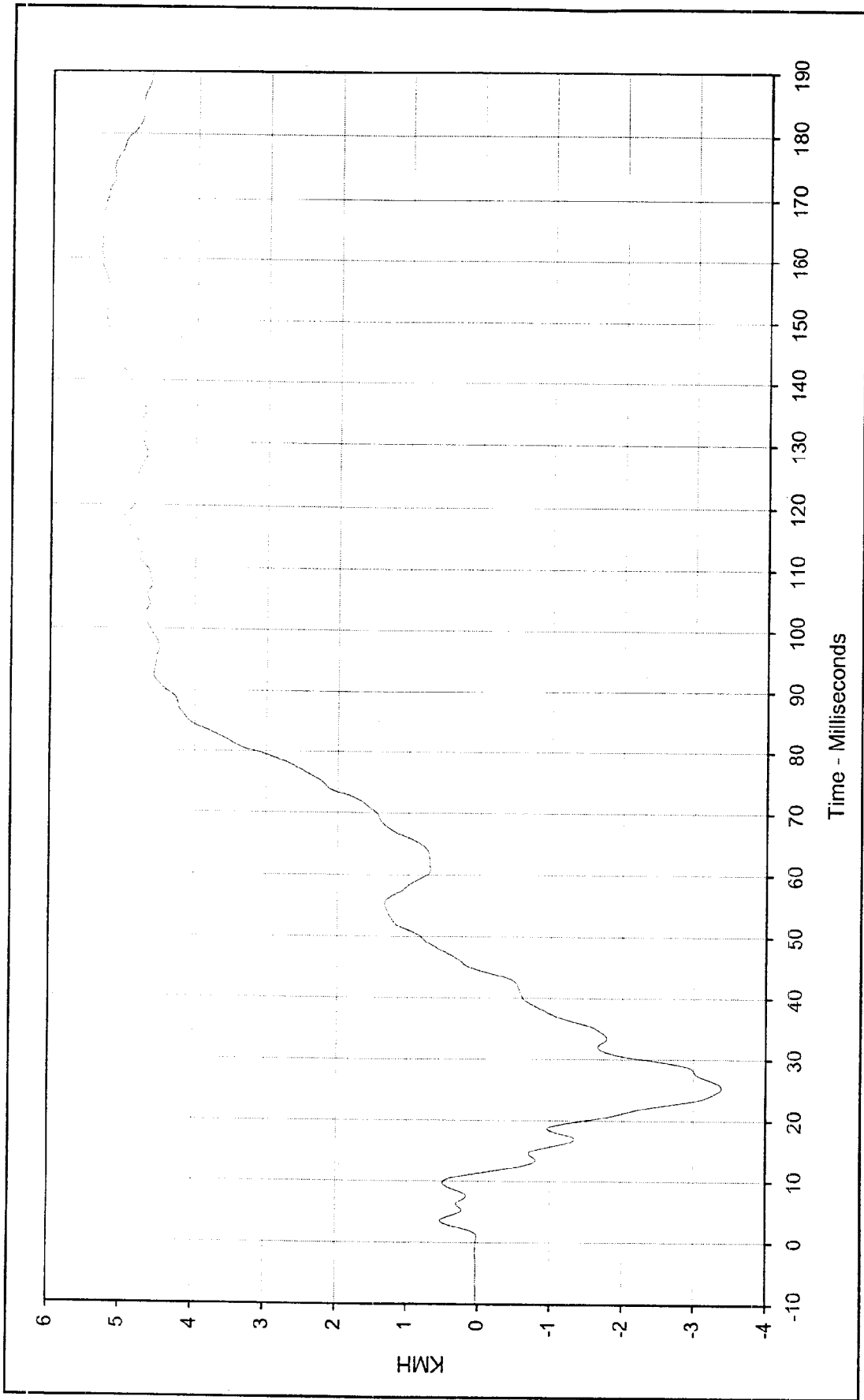




Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

Curve Description: Right Sill at Front Seat X
 Maximum Value: 9.7 at 29.6 Milliseconds
 Minimum Value: -12.4 at 21.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-014

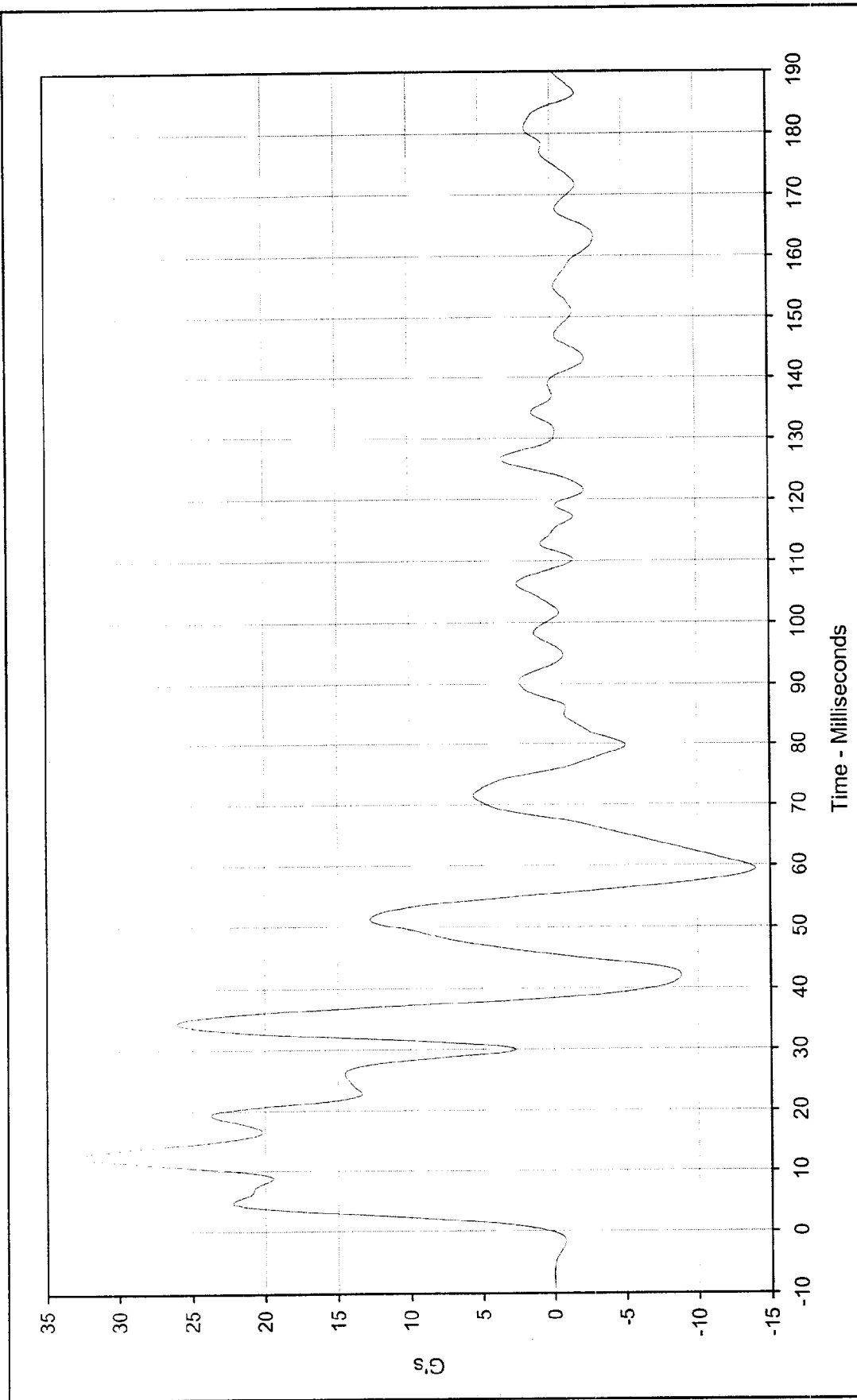




Curve Description: Right Sill at Front Seat X Velocity
Maximum Value: 5.3 at 166.2 Milliseconds
Minimum Value: -3.4 at 25.4 Milliseconds
SAE Filter Class: 180
Date of Test: 01/21/00
Curve Number: IN1-014

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
Test Vehicle: 2000 Ford Ranger XLT Pickup

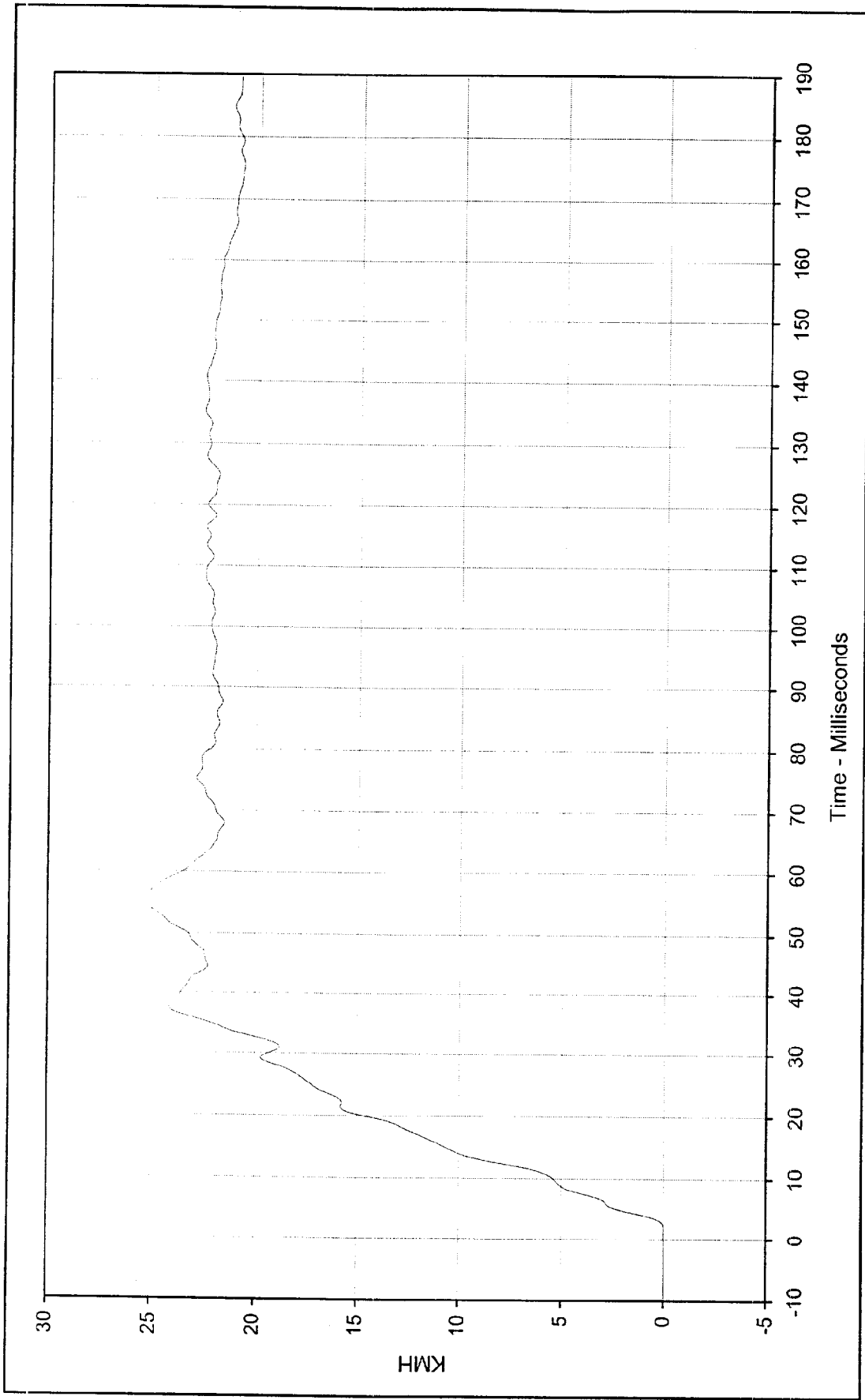




Curve Description: Right Sill at Front Seat Y
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

Maximum Value: 32.7 at 12.4 Milliseconds
 Minimum Value: -14.0 at 59.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-015





Curve Description: Right Sill at Front Seat Y Velocity

Maximum Value: 25.3 at 55.7 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

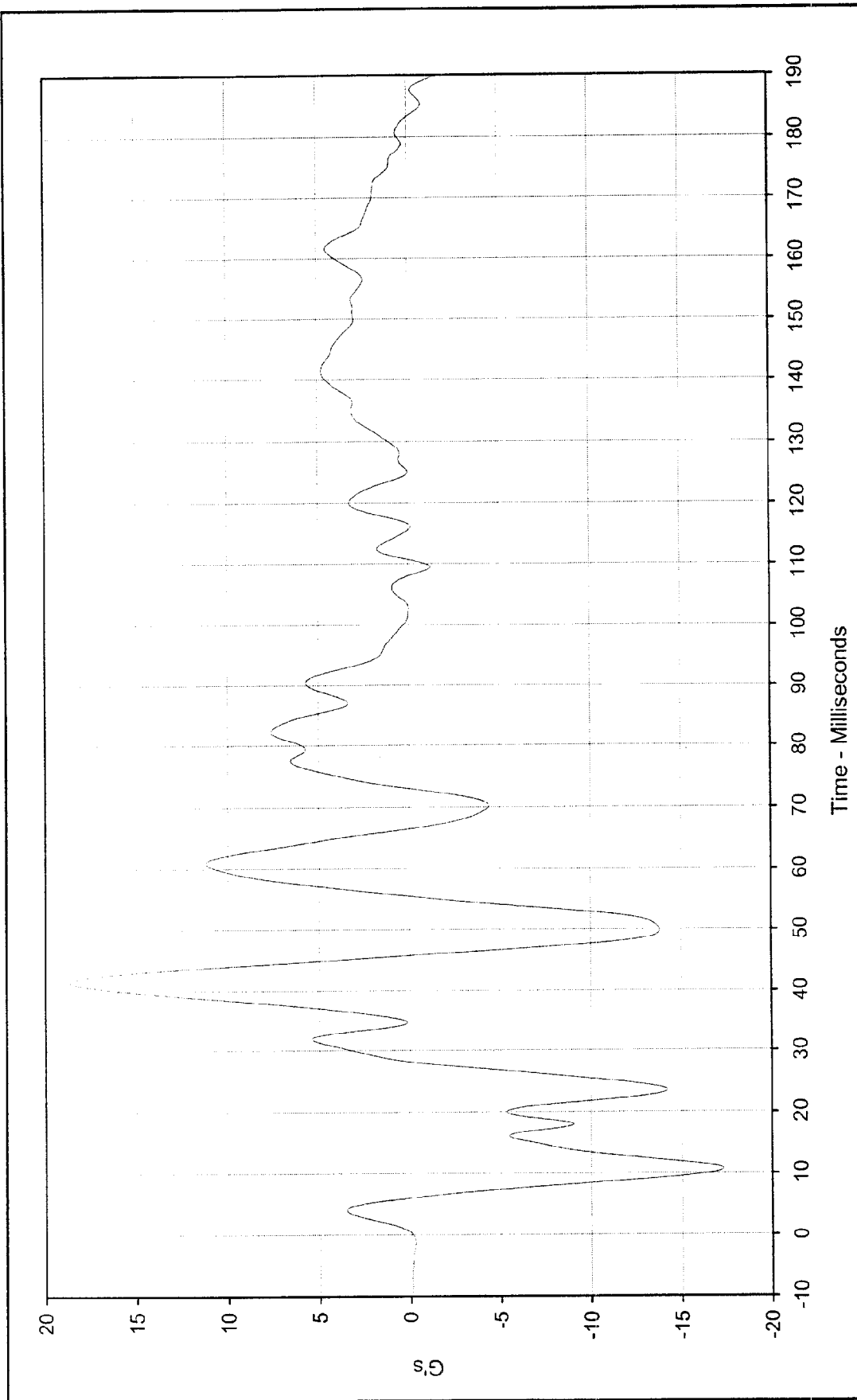
Date of Test: 01/21/00

Curve Number: IN1-015

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Right Sill at Front Seat Z

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

No.: MY0208

Maximum Value: 18.7 at 41.5 Milliseconds

Test Vehicle: 2000 Ford Ranger XLT Pickup

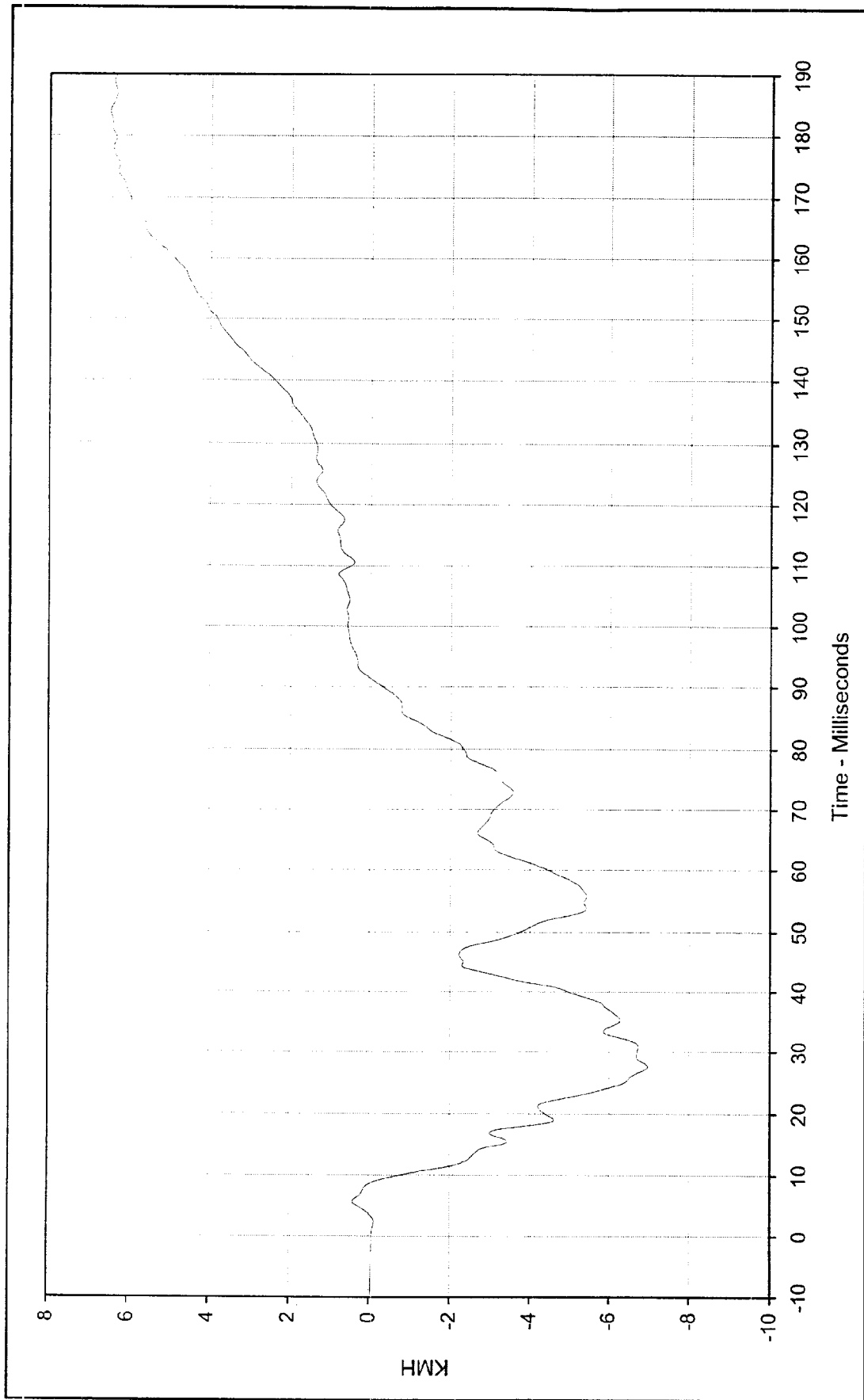
Minimum Value: -17.3 at 10.7 Milliseconds

SAE Filter Class: 60

Date of Test: 01/21/00

Curve Number: FIL-016

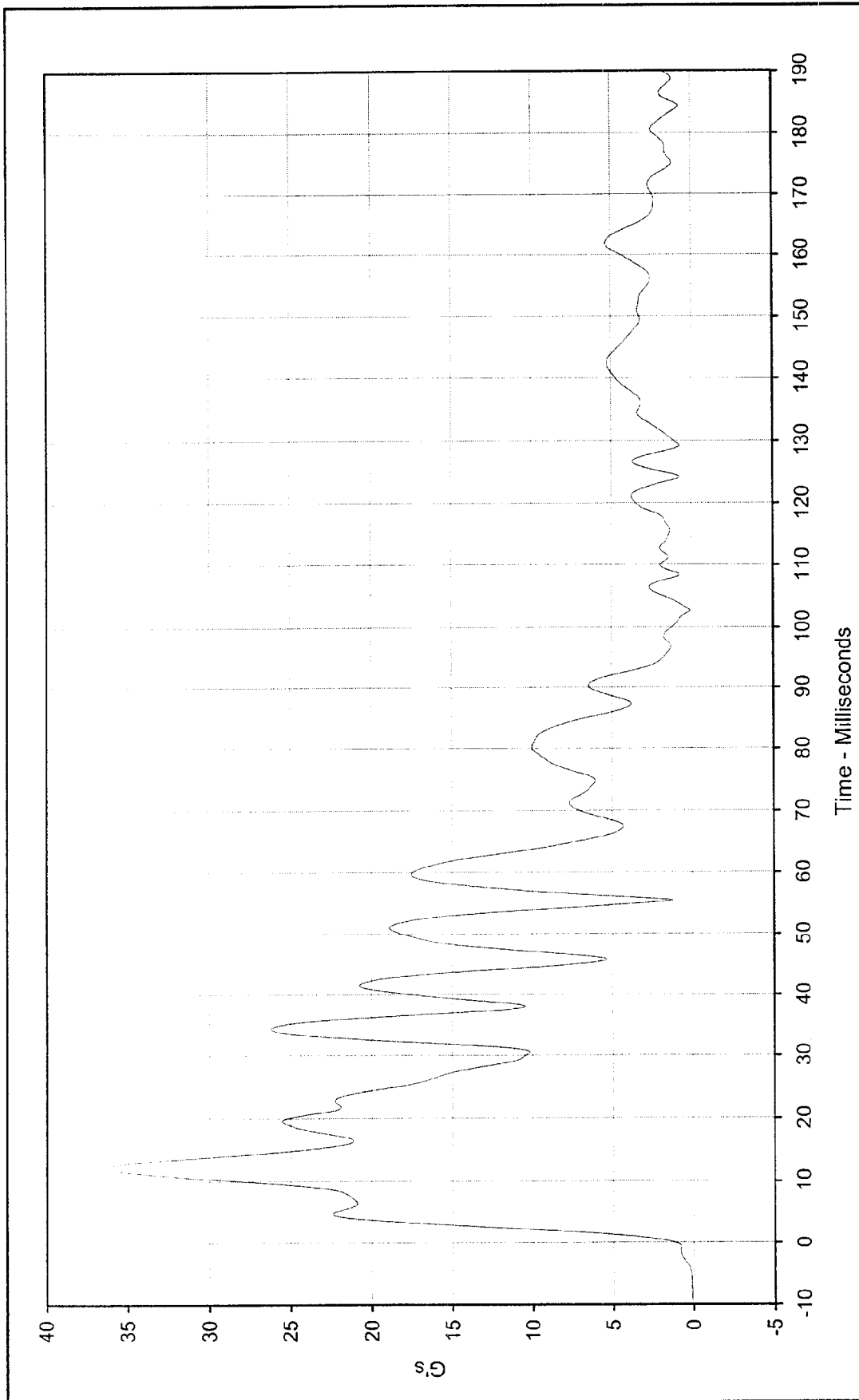




Curve Description:	Right Sill at Front Seat Z Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	6.5 at 183.9 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-7.0 at 27.6 Milliseconds			



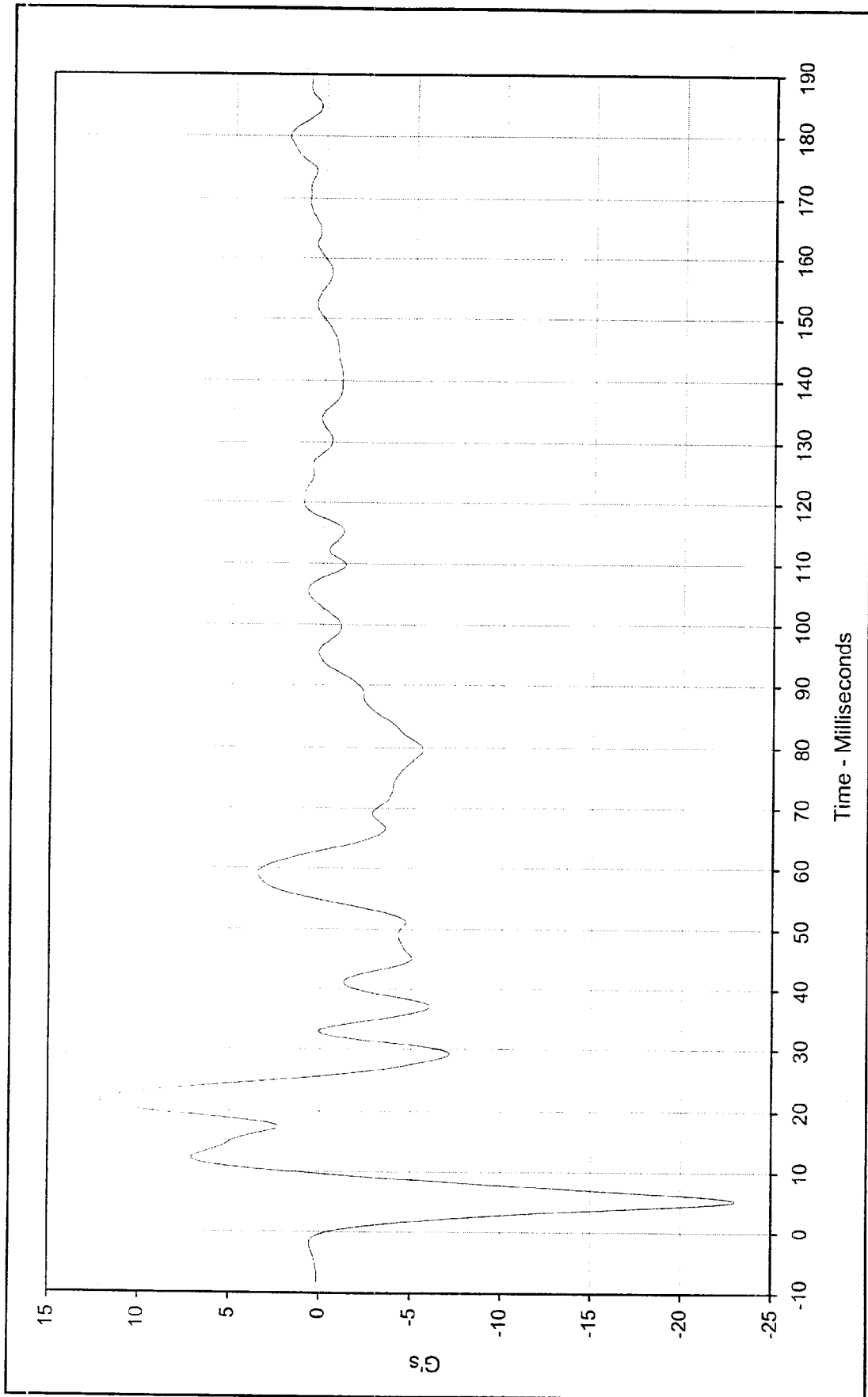
SAE Filter Class:	180
Date of Test:	01/21/00
Curve Number:	IN1-016



Curve Description: Right Sill at Front Seat Resultant
 Maximum Value: 36.3 at 12.1 Milliseconds
 Minimum Value: 0.1 at 102.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: RES-014

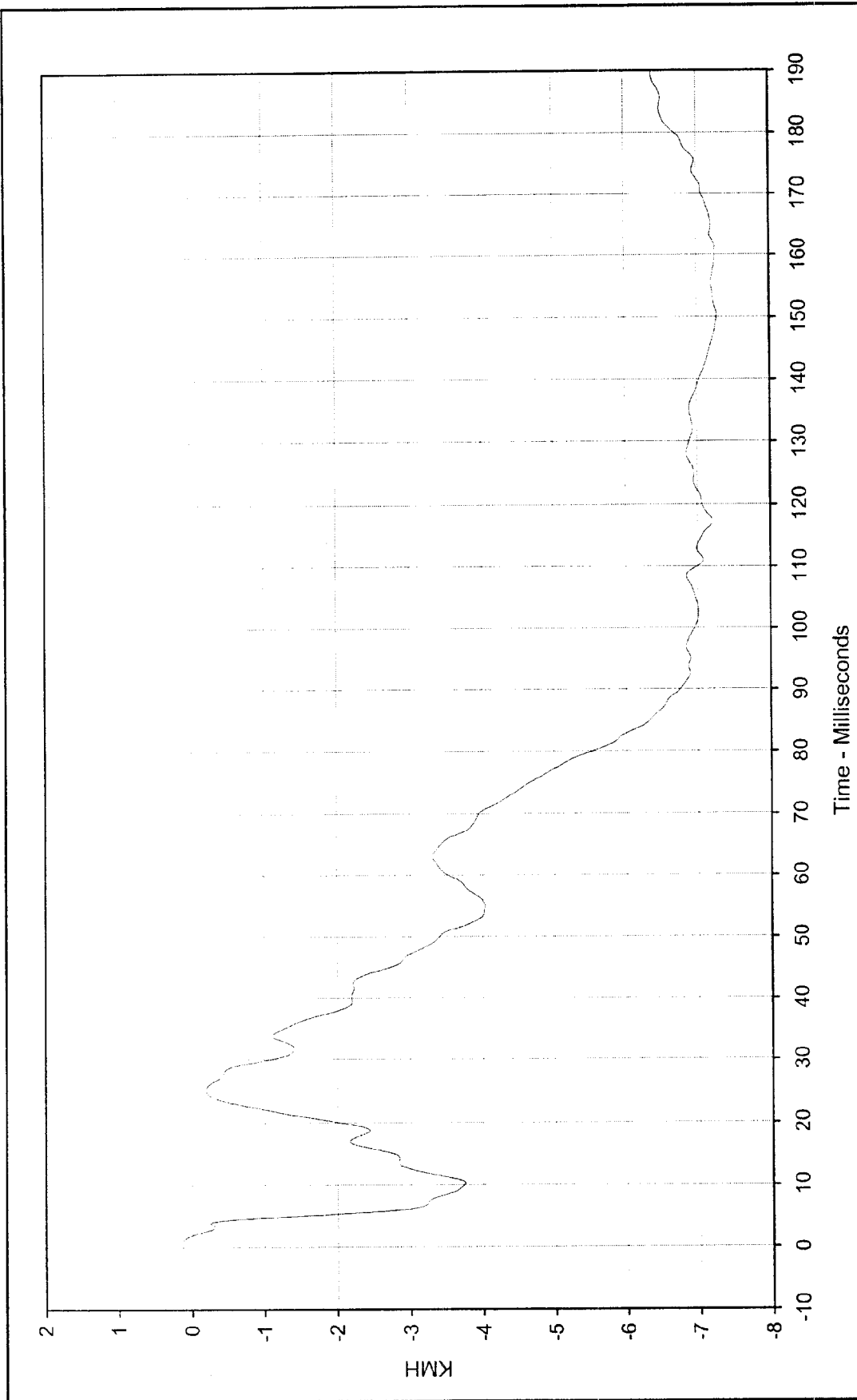
Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description:	Right Sill at Rear Seat X	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	12.2 at 21.5 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-23.0 at 5.3 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/21/00			
Curve Number:	FIL-017			





Curve Description: Right Sill at Rear Seat X Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Maximum Value: 0.1 at 0.5 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup

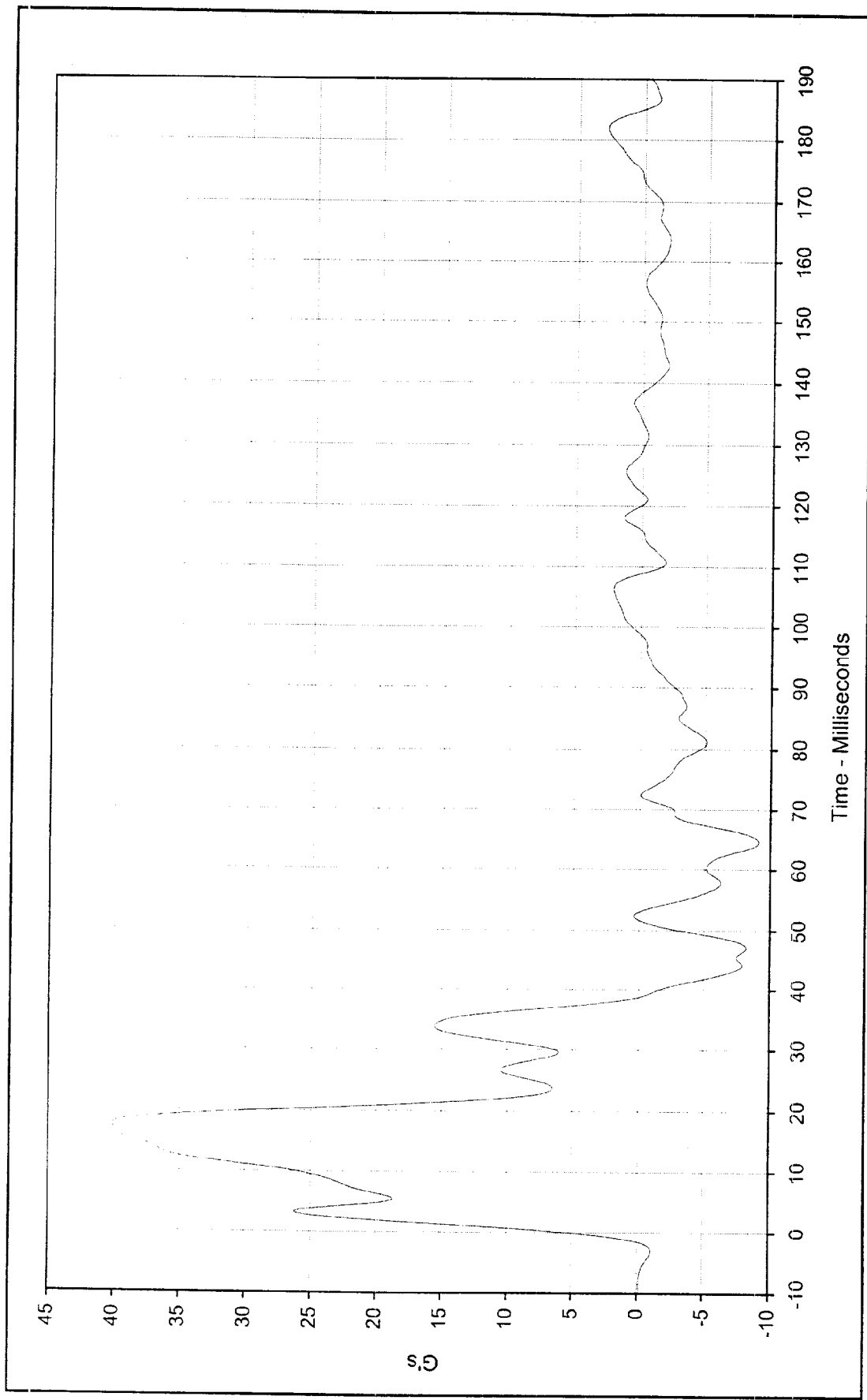
Minimum Value: -7.3 at 150.4 Milliseconds

SAE Filter Class: 180

Date of Test: 01/21/00

Curve Number: IN1-017

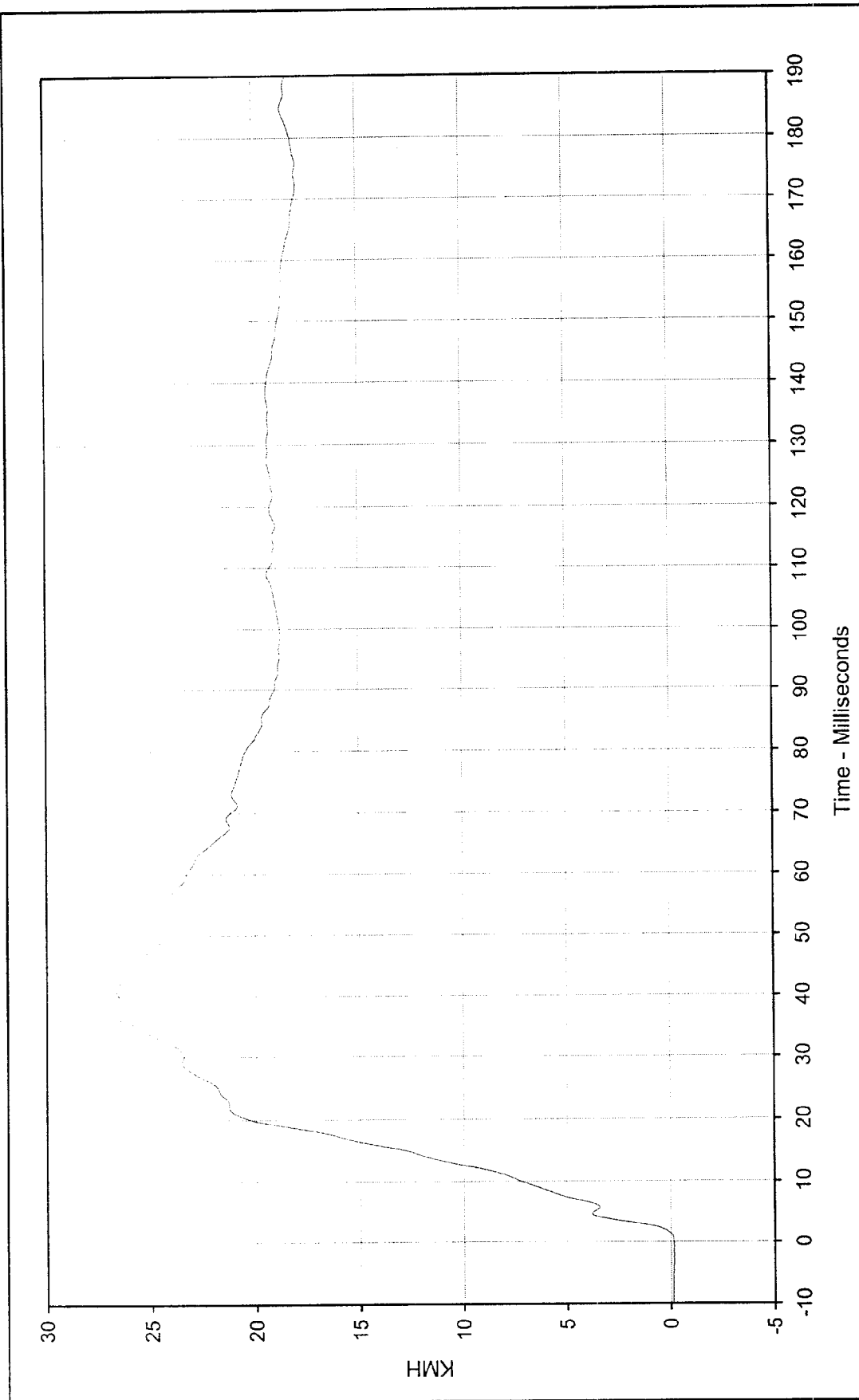




Curve Description: Right Sill at Rear Seat Y
 Maximum Value: 40.1 at 17.5 Milliseconds
 Minimum Value: -9.1 at 64.7 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-018

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Right Sill at Rear Seat Y Velocity

Maximum Value: 26.8 at 37.2 Milliseconds

Minimum Value: -0.1 at 0.0 Milliseconds

SAE Filter Class: 180

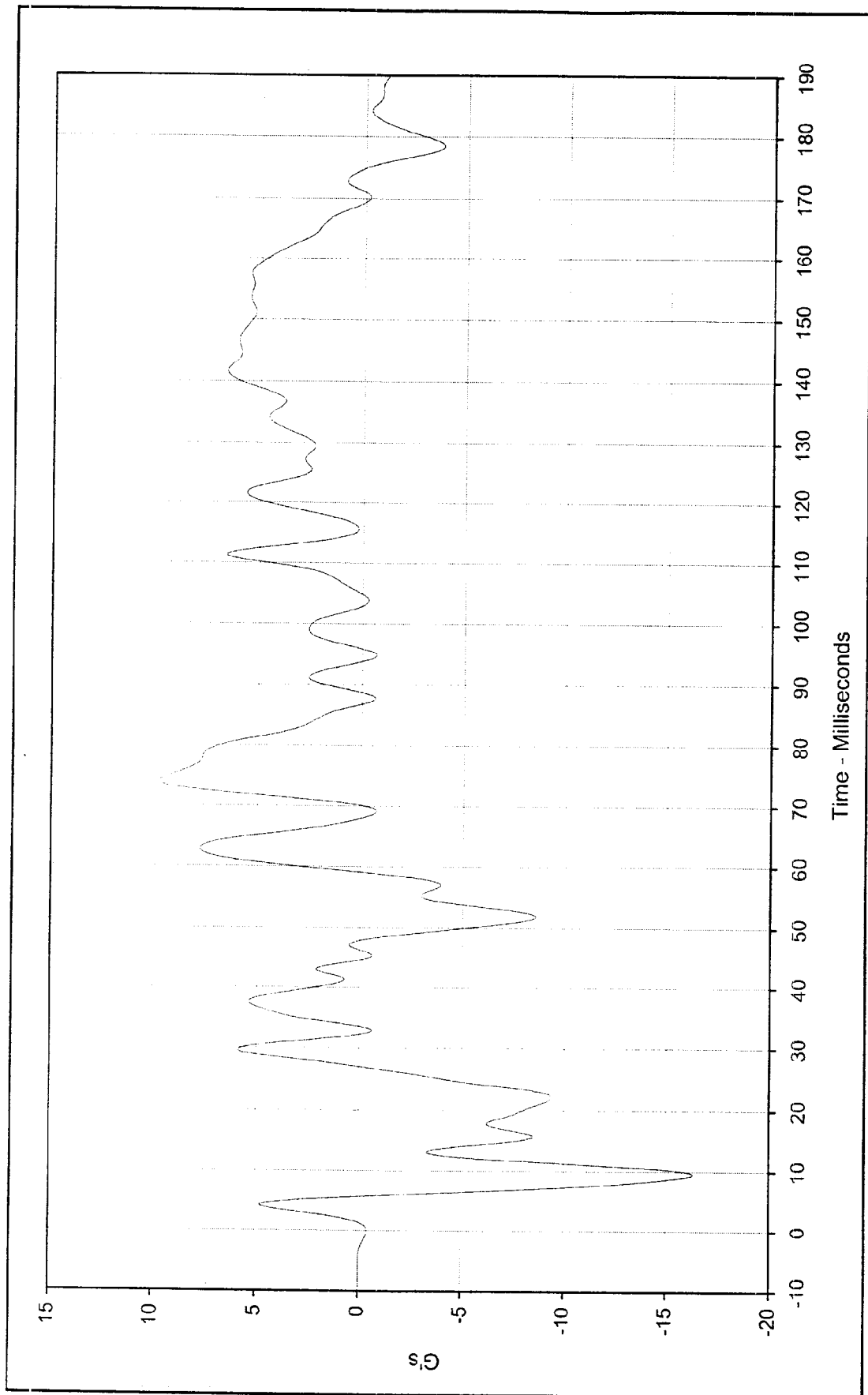
Date of Test: 01/21/00

Curve Number: IN1-018

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

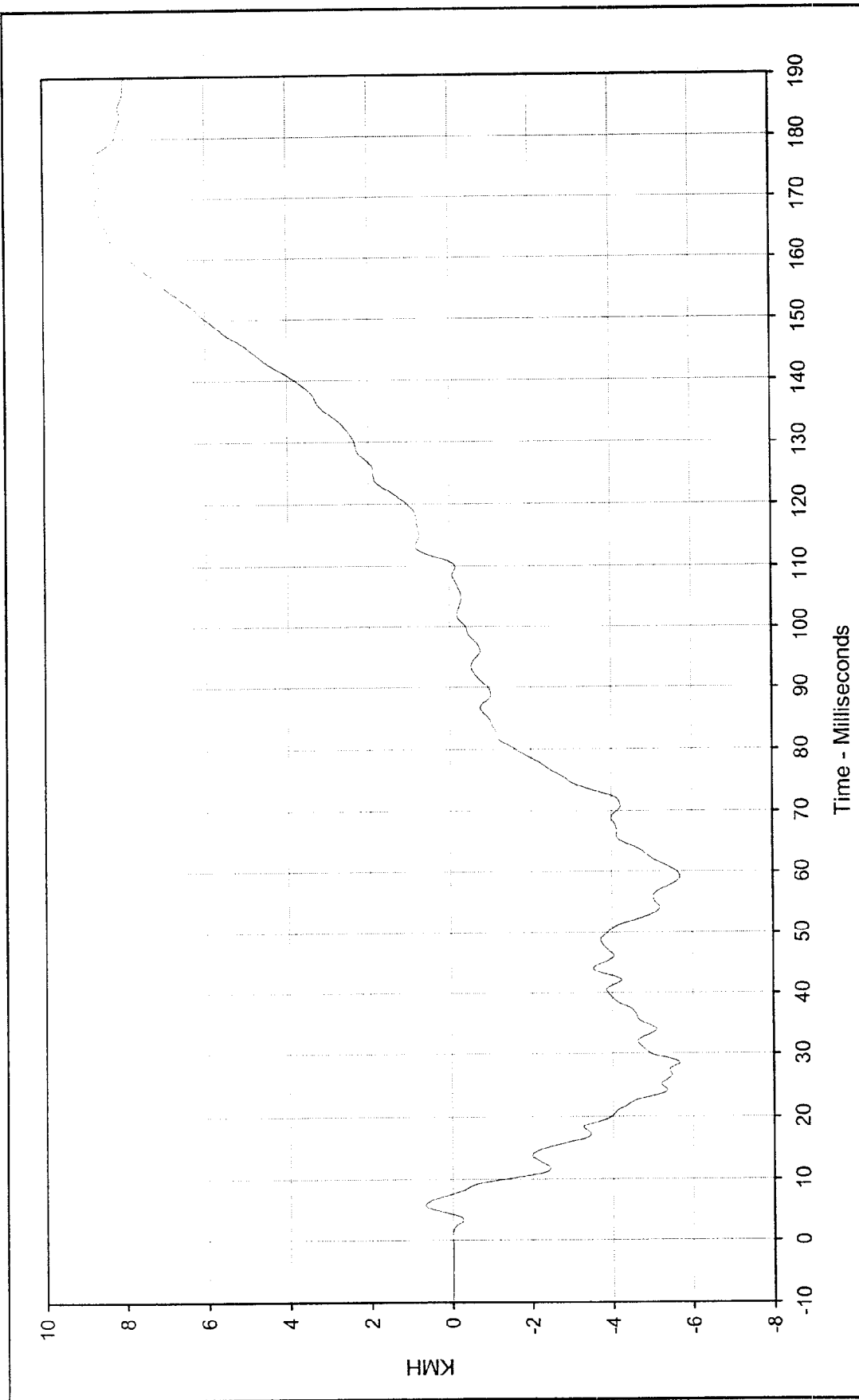




Curve Description: Right Sill at Rear Seat Z
 Maximum Value: 9.8 at 74.0 Milliseconds
 Minimum Value: -16.4 at 9.6 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-019

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

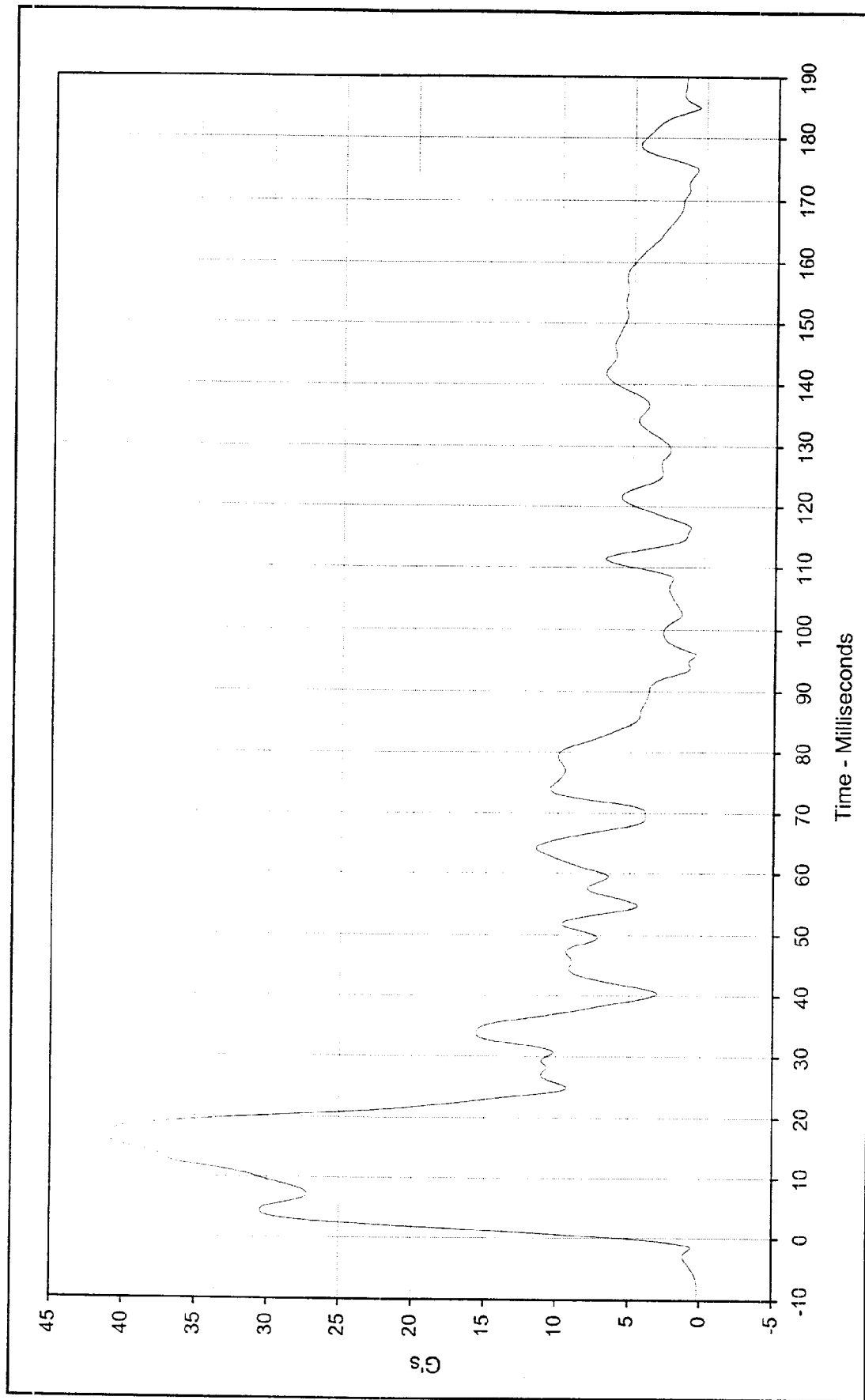




Curve Description: Right Sill at Rear Seat Z Velocity
 Maximum Value: 8.7 at 176.5 Milliseconds
 Minimum Value: -5.7 at 59.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/21/00
 Curve Number: IN1-019

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Right Sill at Rear Seat Resultant

Maximum Value: 40.8 at 16.2 Milliseconds

Minimum Value: 0.5 at 185.0 Milliseconds

SAE Filter Class: 60

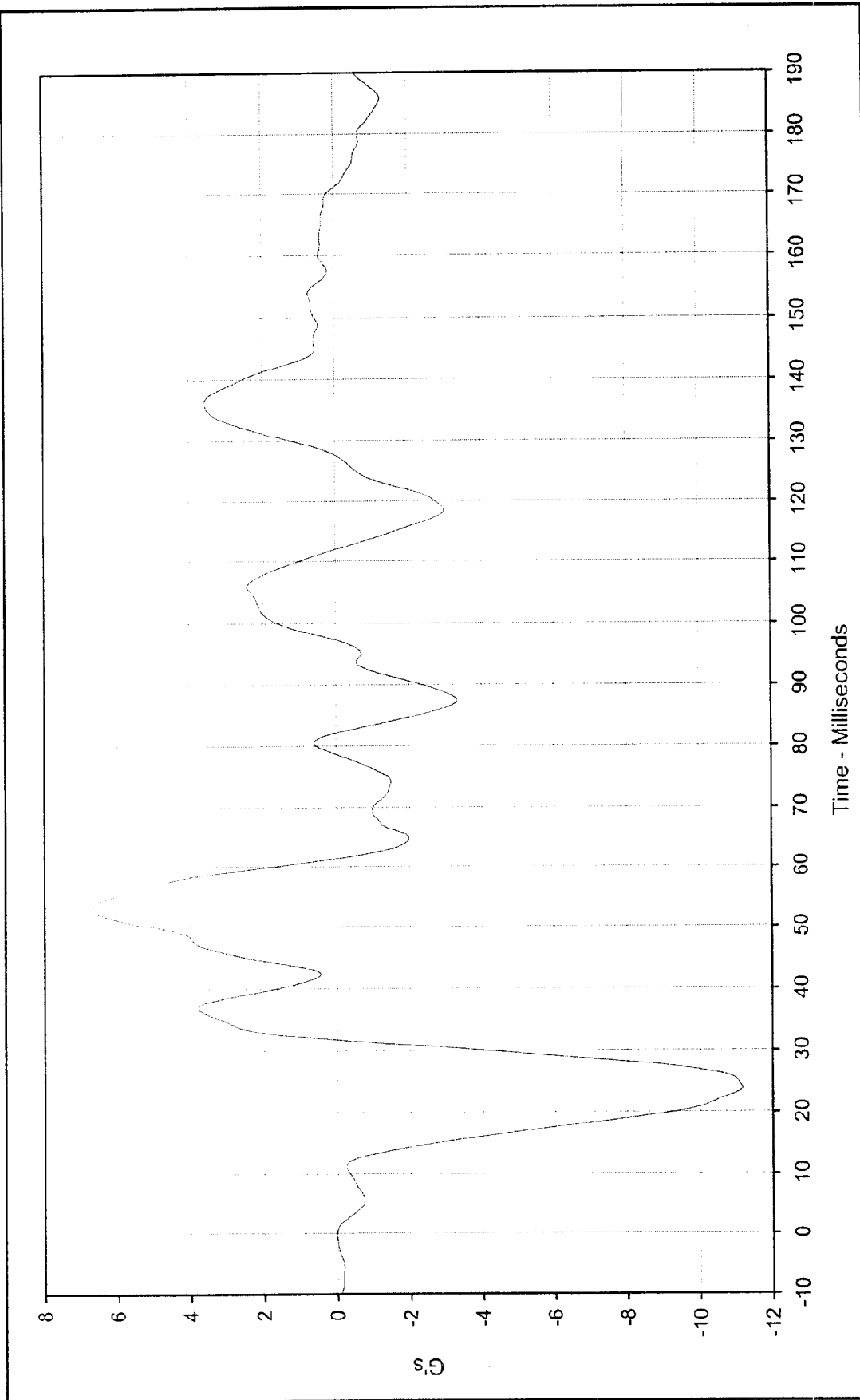
Date of Test: 01/21/00

Curve Number: RES-017

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

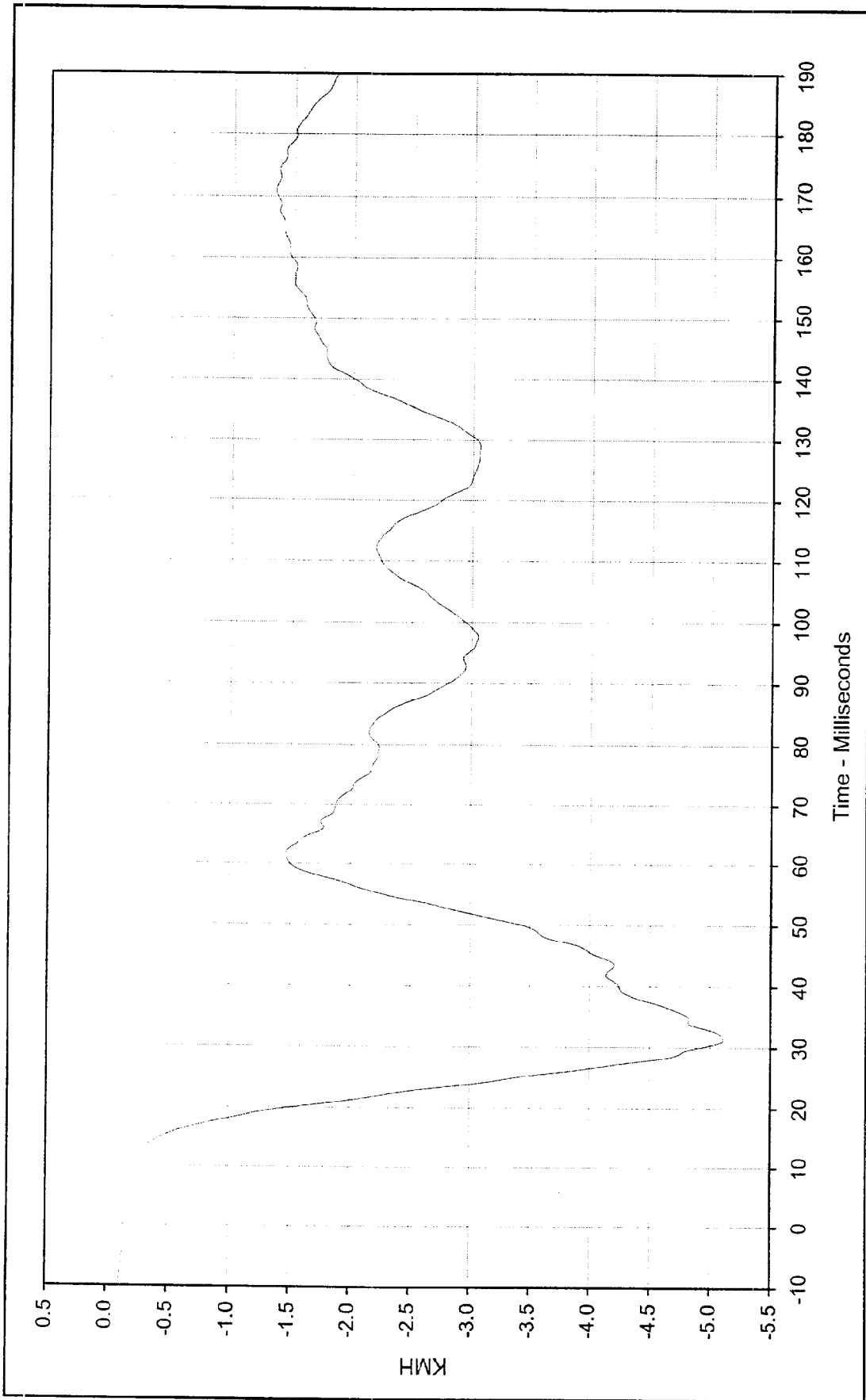
Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description:	Rear Floor Above Axle X	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	6.7 at 53.3 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-11.2 at 23.8 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/21/00			
Curve Number:	FIL-020			

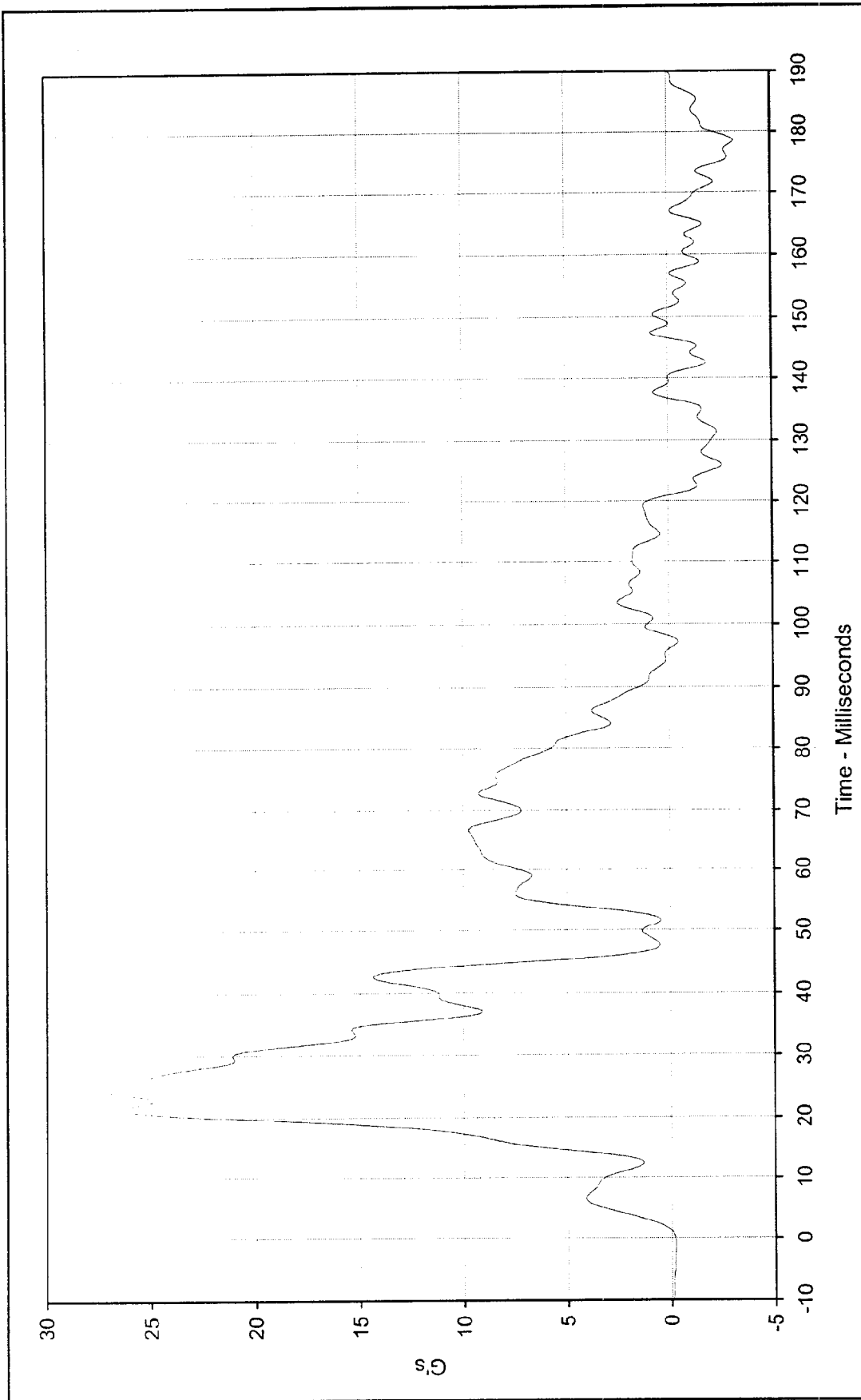




Curve Description: Rear Floor Above Axle X Velocity
Maximum Value: -0.1 at 2.0 Milliseconds
Minimum Value: -5.1 at 31.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/21/00
Curve Number: IN1-020

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
Test Vehicle: 2000 Ford Ranger XLT Pickup

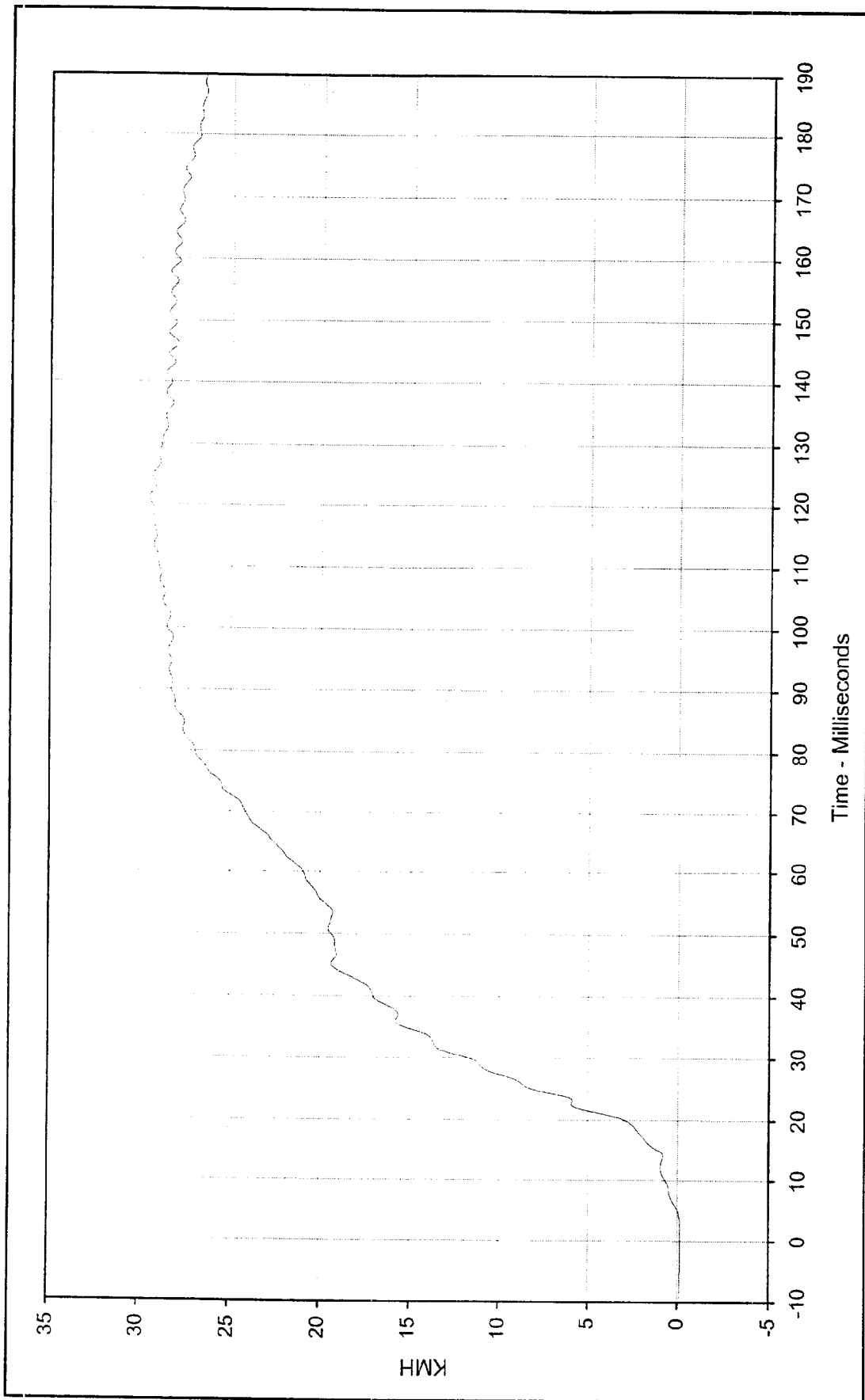




Curve Description: Rear Floor Above Axle Y
 Maximum Value: 27.3 at 24.6 Milliseconds
 Minimum Value: -3.2 at 178.5 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-021

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Rear Floor Above Axle Y Velocity

Maximum Value: 29.5 at 121.1 Milliseconds

Minimum Value: -0.2 at 1.8 Milliseconds

SAE Filter Class: 180

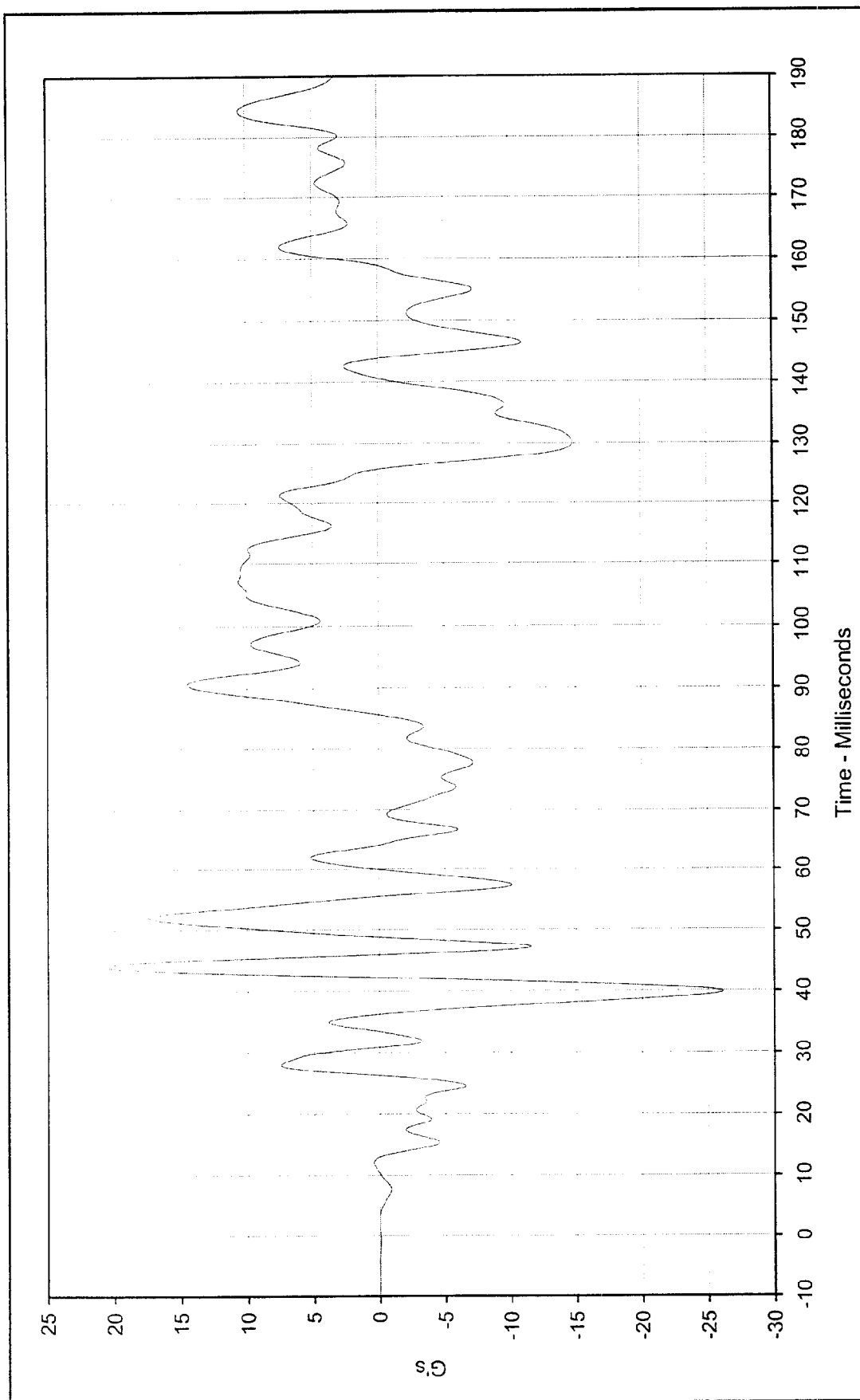
Date of Test: 01/21/00

Curve Number: IN1-021

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

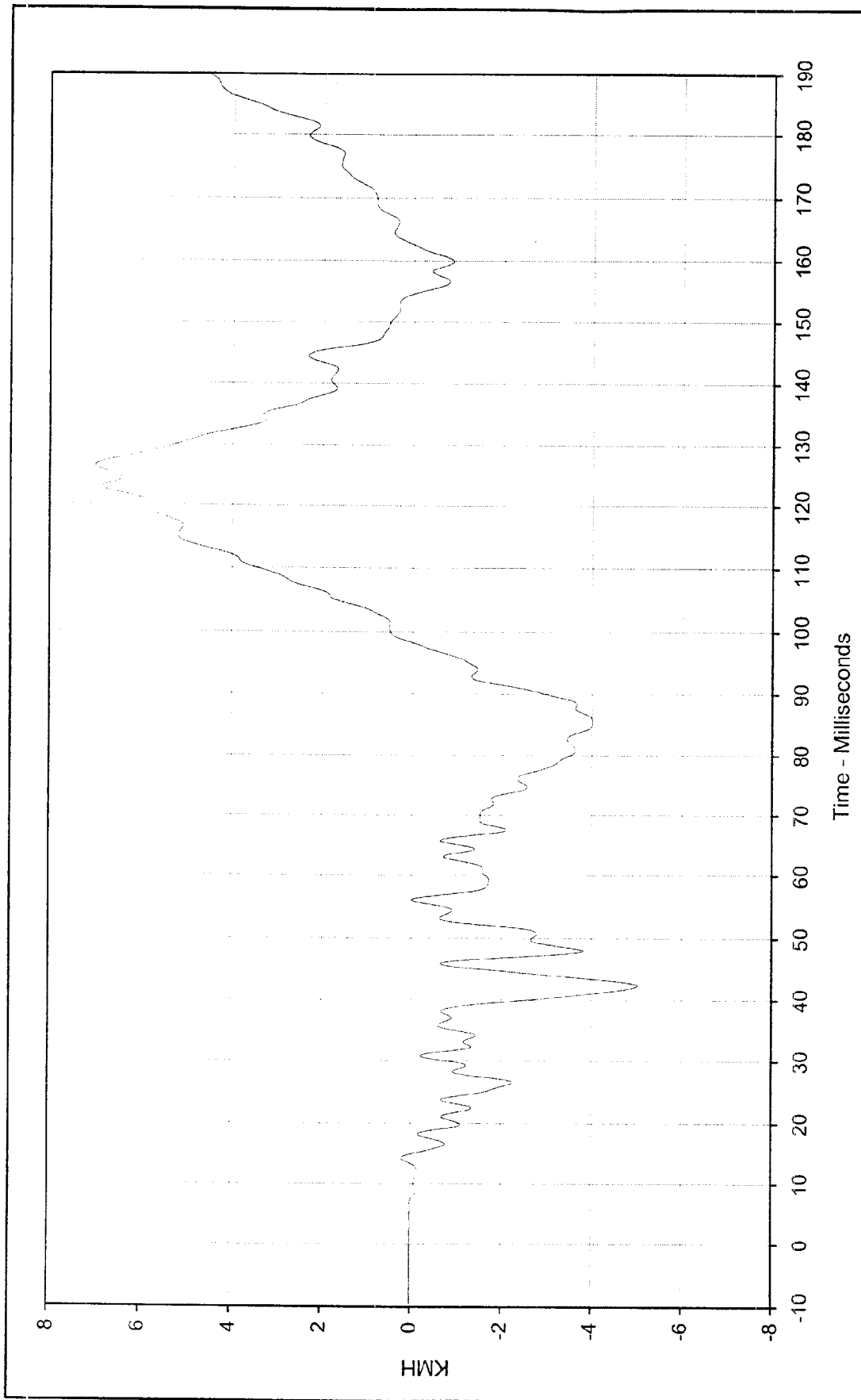




Curve Description:	Rear Floor Above Axle Z	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	20.8 at 44 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-26.1 at 39.9 Milliseconds			

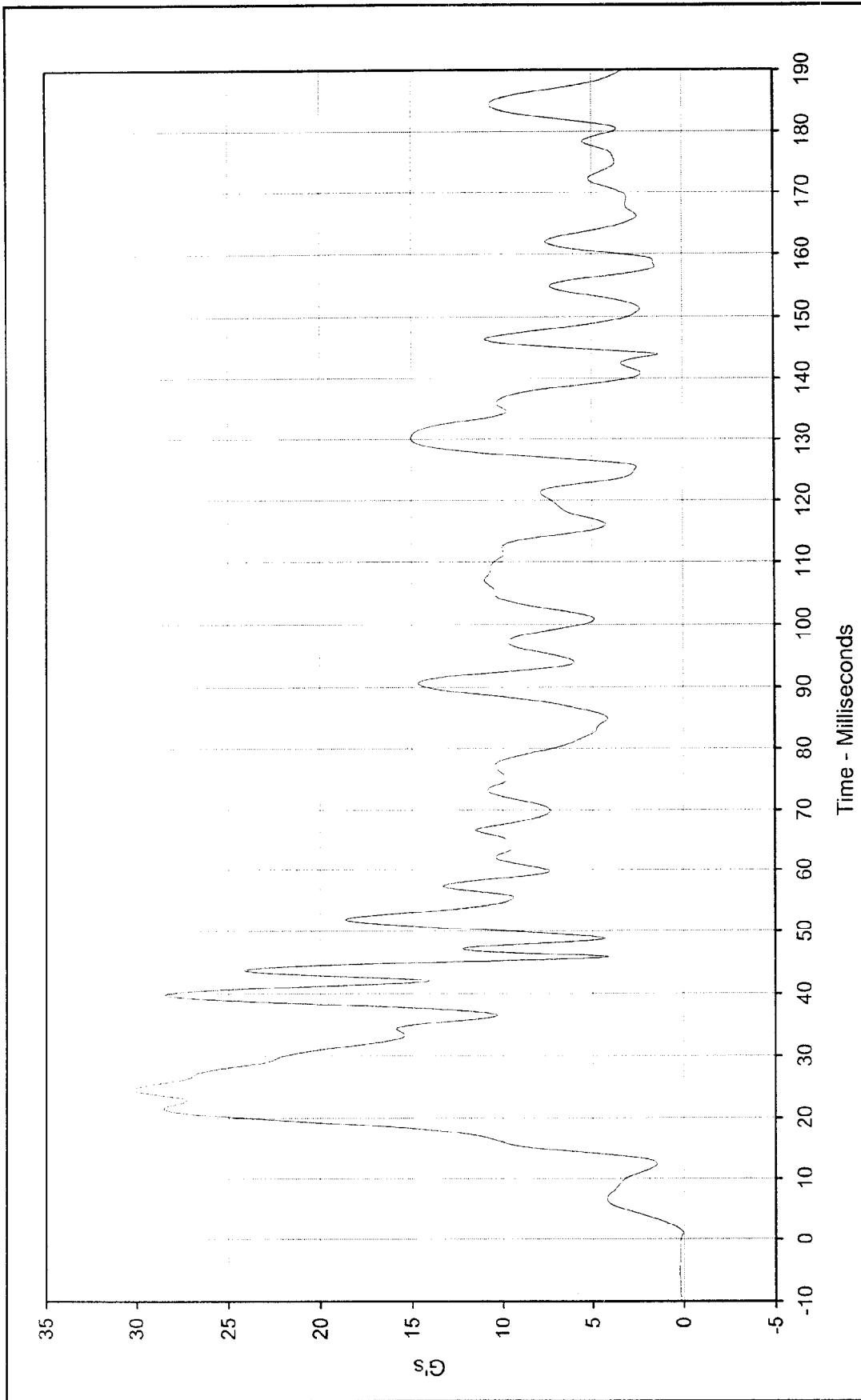


SAE Filter Class:	60
Date of Test:	01/21/00
Curve Number:	FIL-022



Curve Description:	Rear Floor Above Axle Z Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0208
Maximum Value:	7.0 at 126.4 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup		
Minimum Value:	-5.0 at 42.3 Milliseconds				
SAE Filter Class:	180				
Date of Test:	01/21/00				
Curve Number:	IN1-022				





Curve Description: Rear Floor Above Axle Resultant Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Maximum Value: 30.2 at 24.5 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup

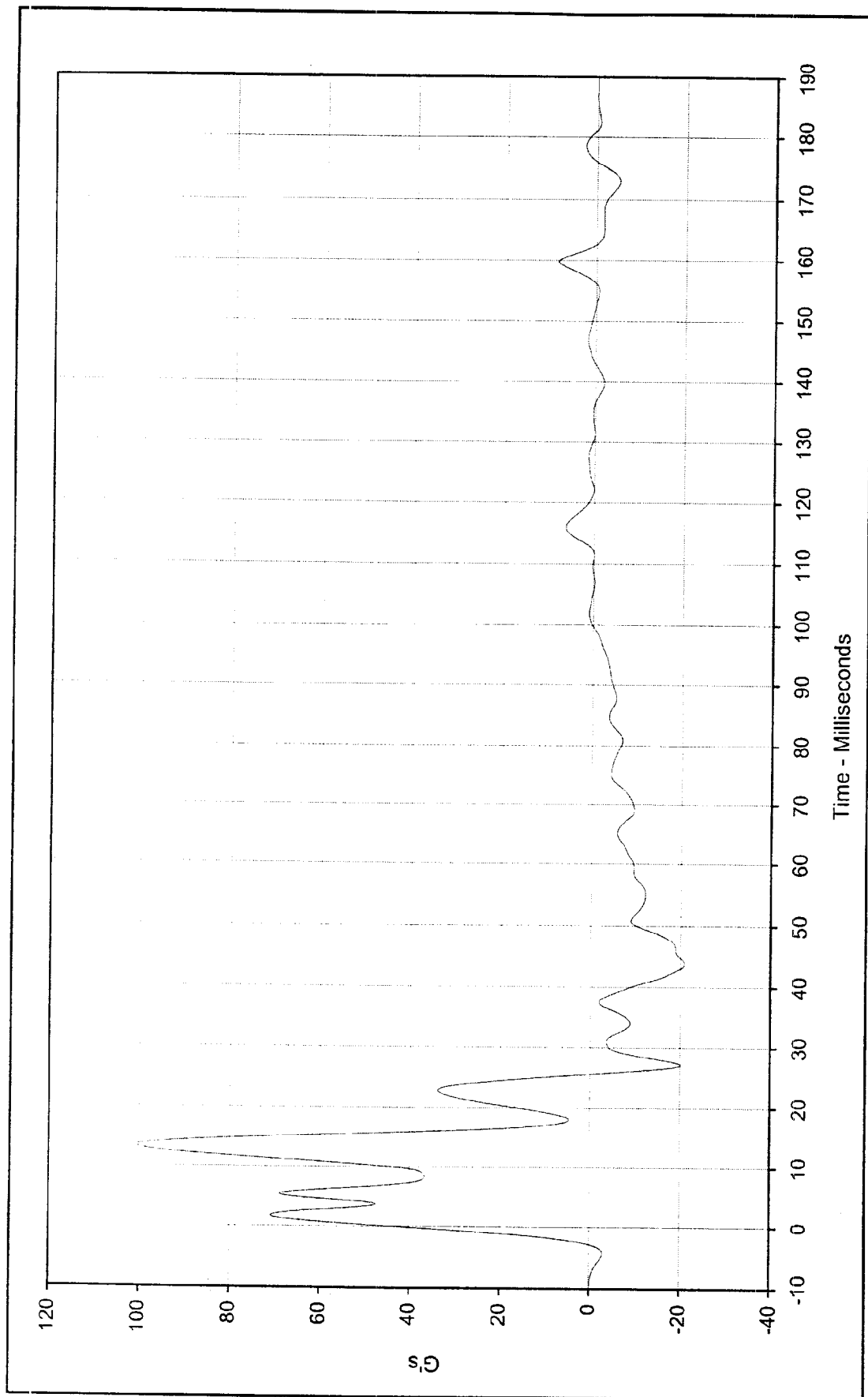
Minimum Value: 0.0 at 1.0 Milliseconds

SAE Filter Class: 60

Date of Test: 01/21/00

Curve Number: RES-022

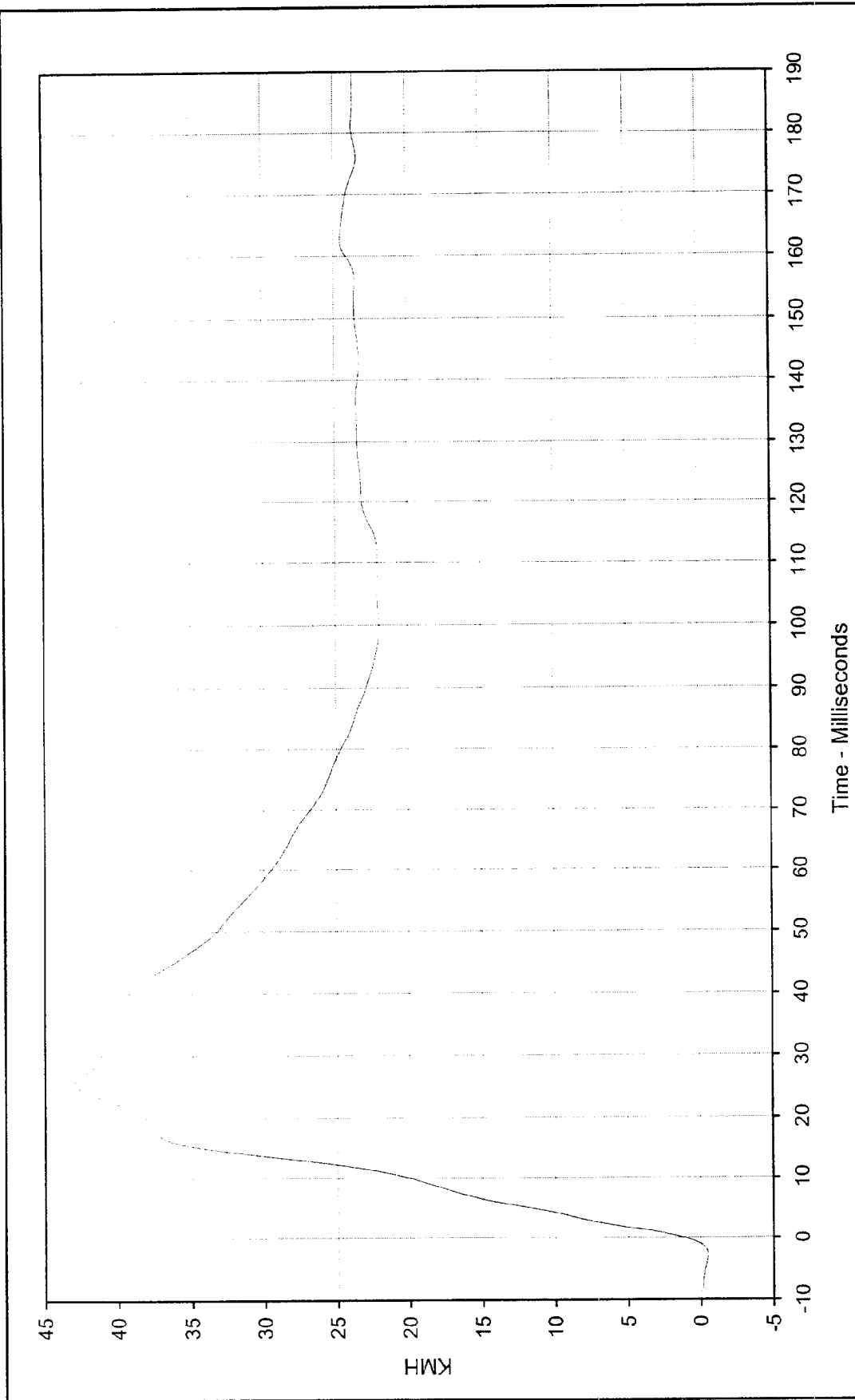




Curve Description: Left Sill at Front Door Y
 Maximum Value: 100.6 at 13.4 Milliseconds
 Minimum Value: -21.0 at 43.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-023

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

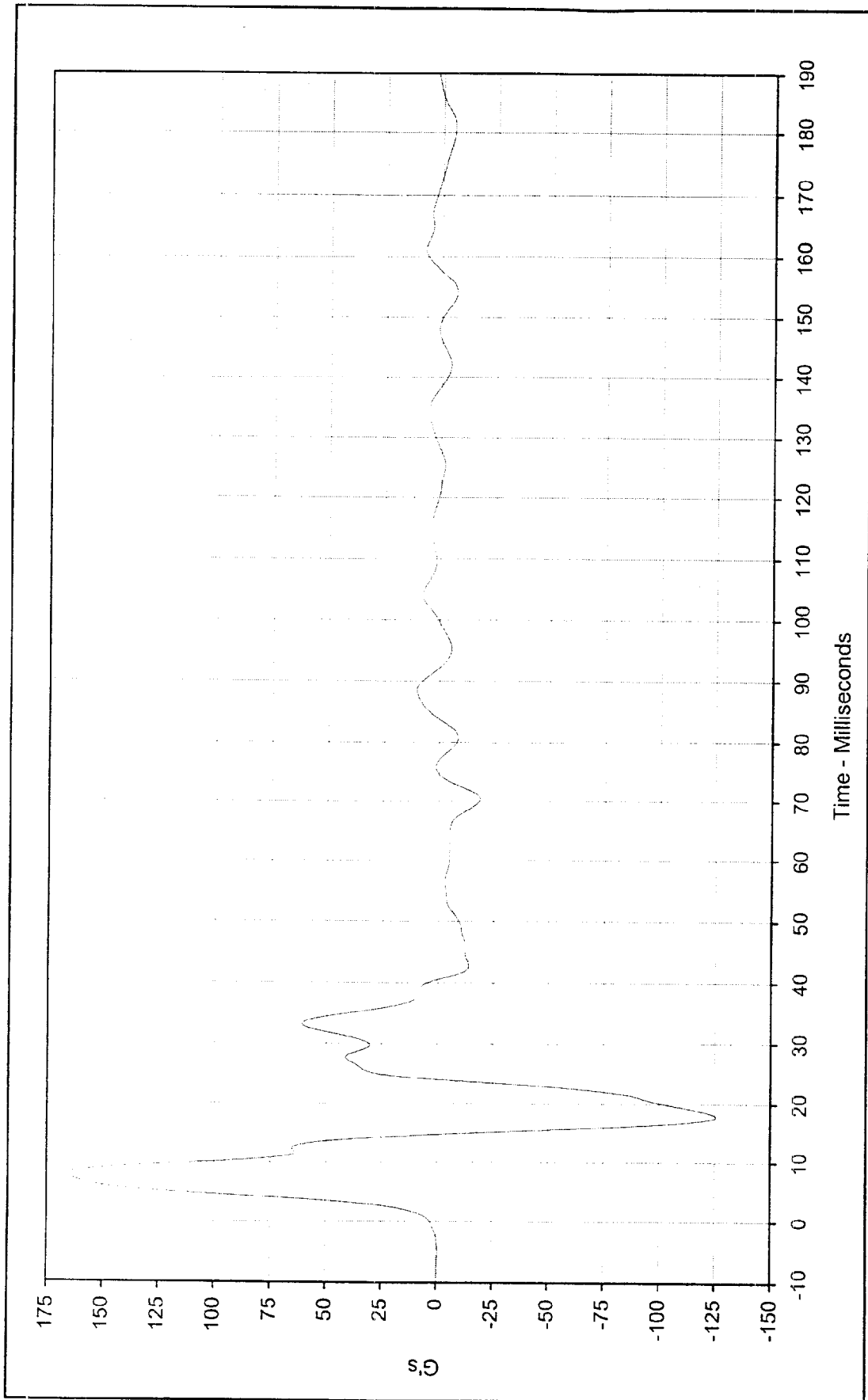




Curve Description: Left Sill at Front Door Y Velocity
 Maximum Value: 43.0 at 25.7 Milliseconds
 Minimum Value: 1.2 at 0.0 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: IN1-023

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Left Front Door CL Y

Maximum Value: 166.8 at 7.9 Milliseconds

Minimum Value: -125.7 at 17.9 Milliseconds

SAE Filter Class: 60

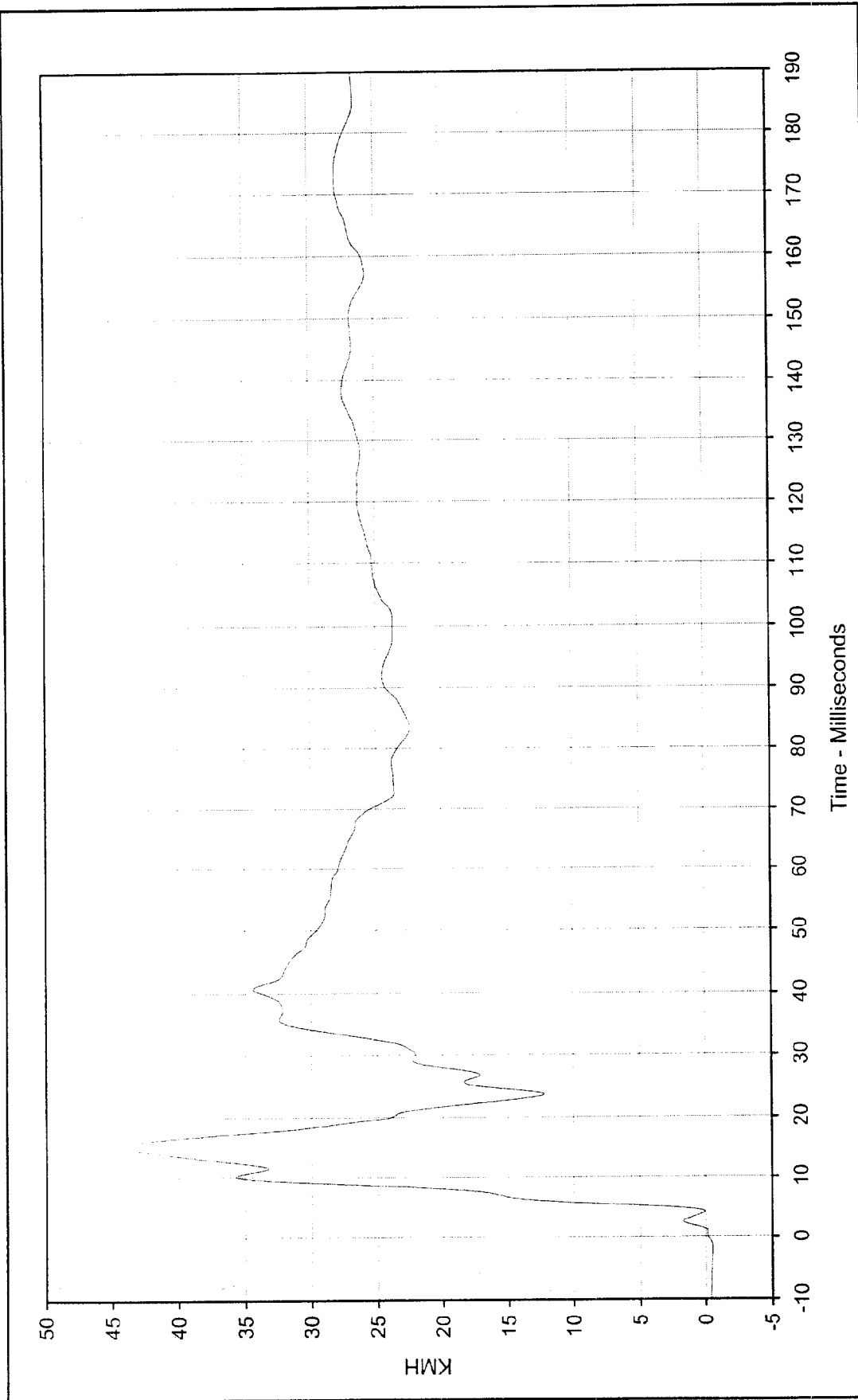
Date of Test: 01/21/00

Curve Number: FIL-024

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Left Front Door CL Y Velocity

Maximum Value: 44.9 at 15.2 Milliseconds

Minimum Value: -0.2 at 0.0 Milliseconds

SAE Filter Class: 180

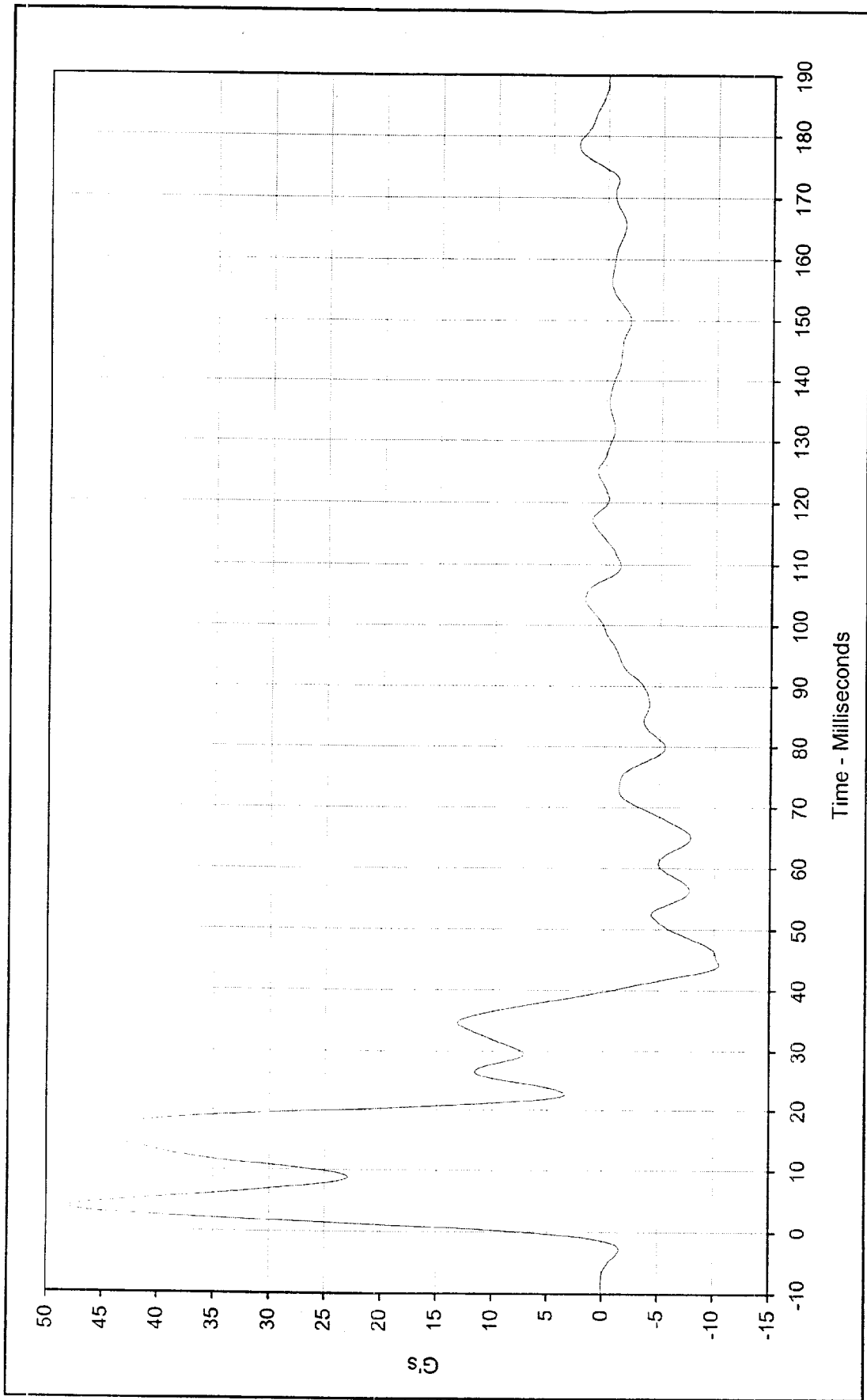
Date of Test: 01/21/00

Curve Number: IN1-024

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

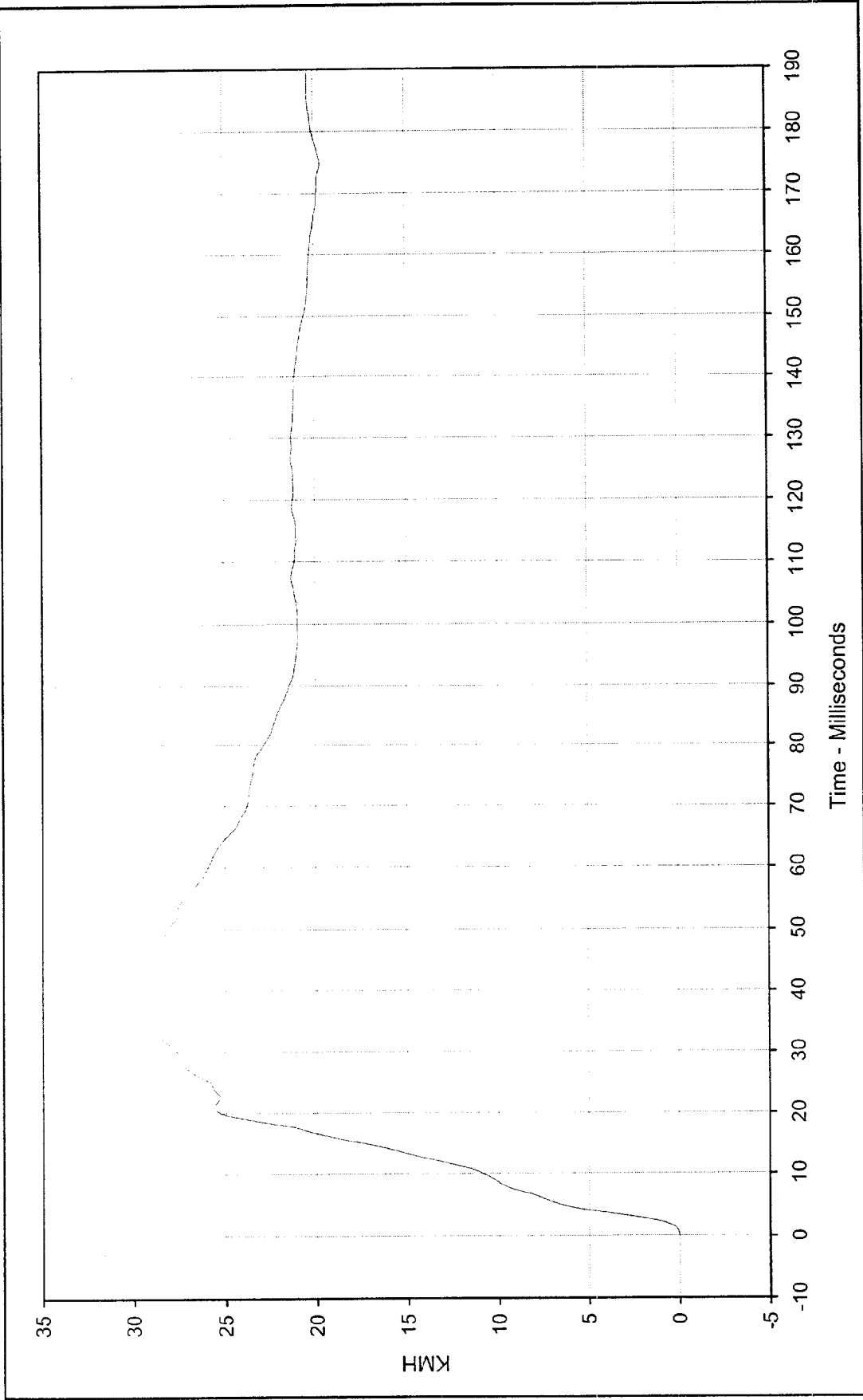




Curve Description: Right Rear Occ. Compartment Y
 Maximum Value: 48.0 at 3.9 Milliseconds
 Minimum Value: -10.5 at 44.3 Milliseconds
 SAE Filler Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-025

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

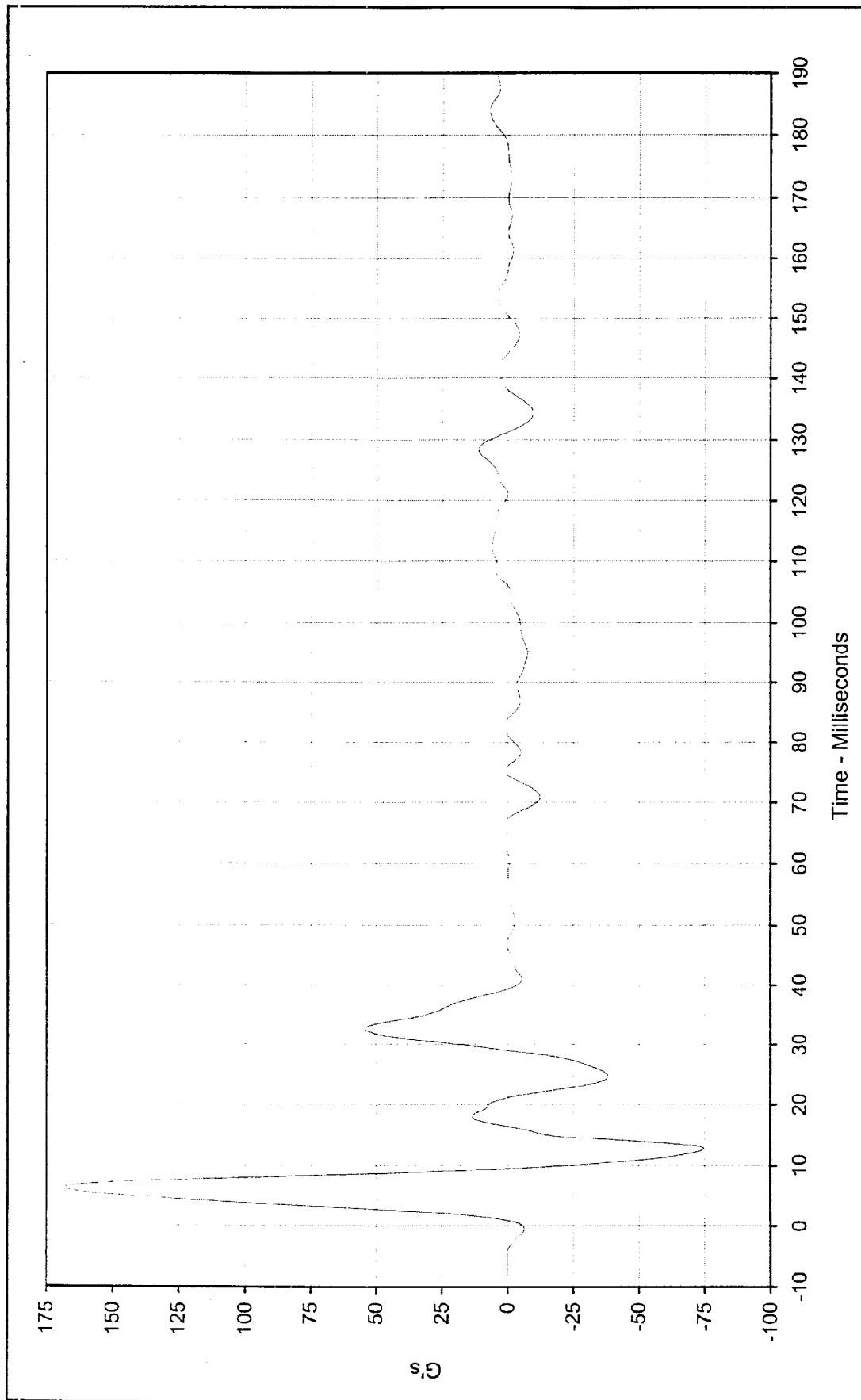




Curve Description: Right Rear Occ. Comp. Y Velocity
Maximum Value: 30.9 at 38.7 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/21/00
Curve Number: IN1-025

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
Test Vehicle: 2000 Ford Ranger XLT Pickup

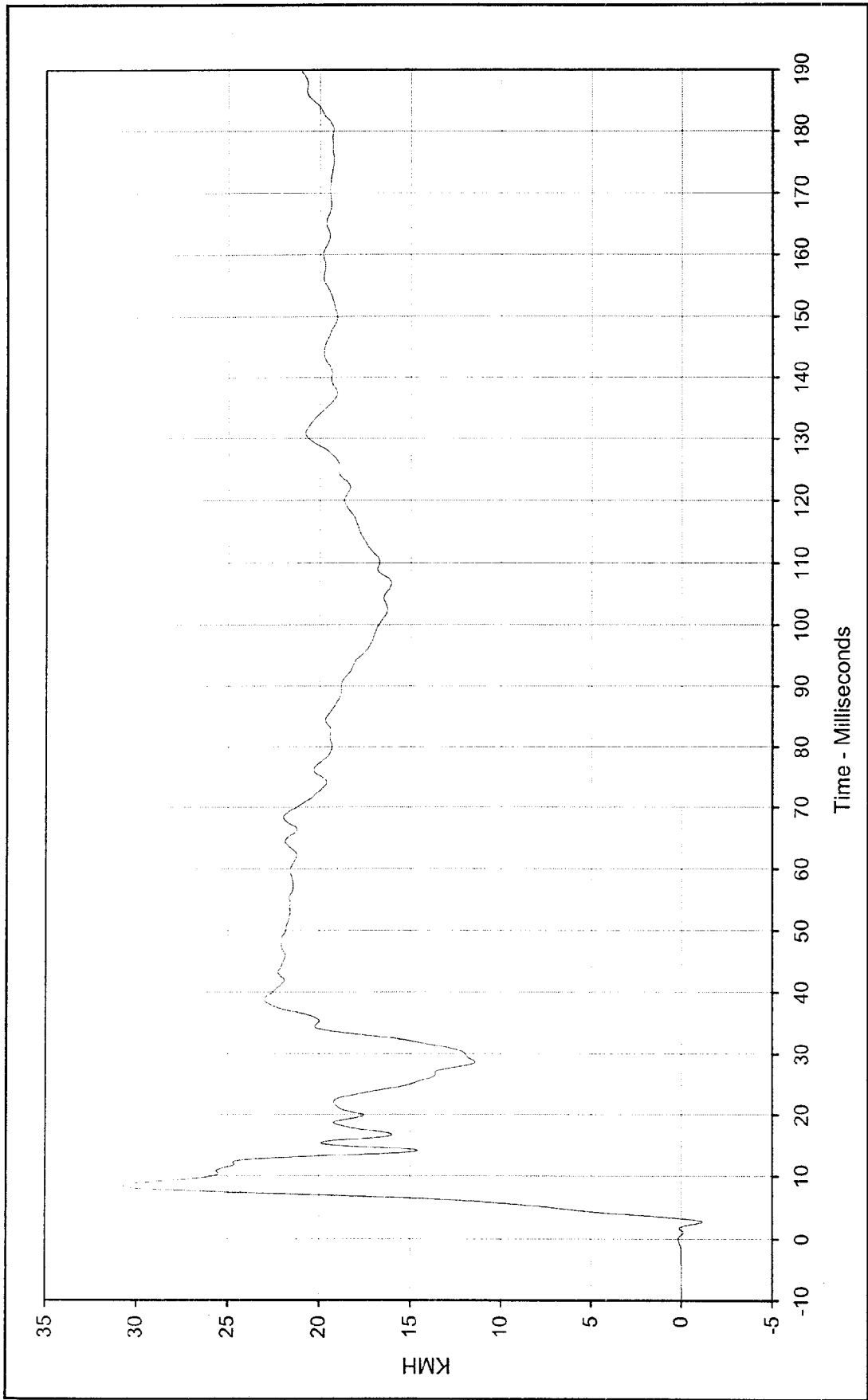




Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

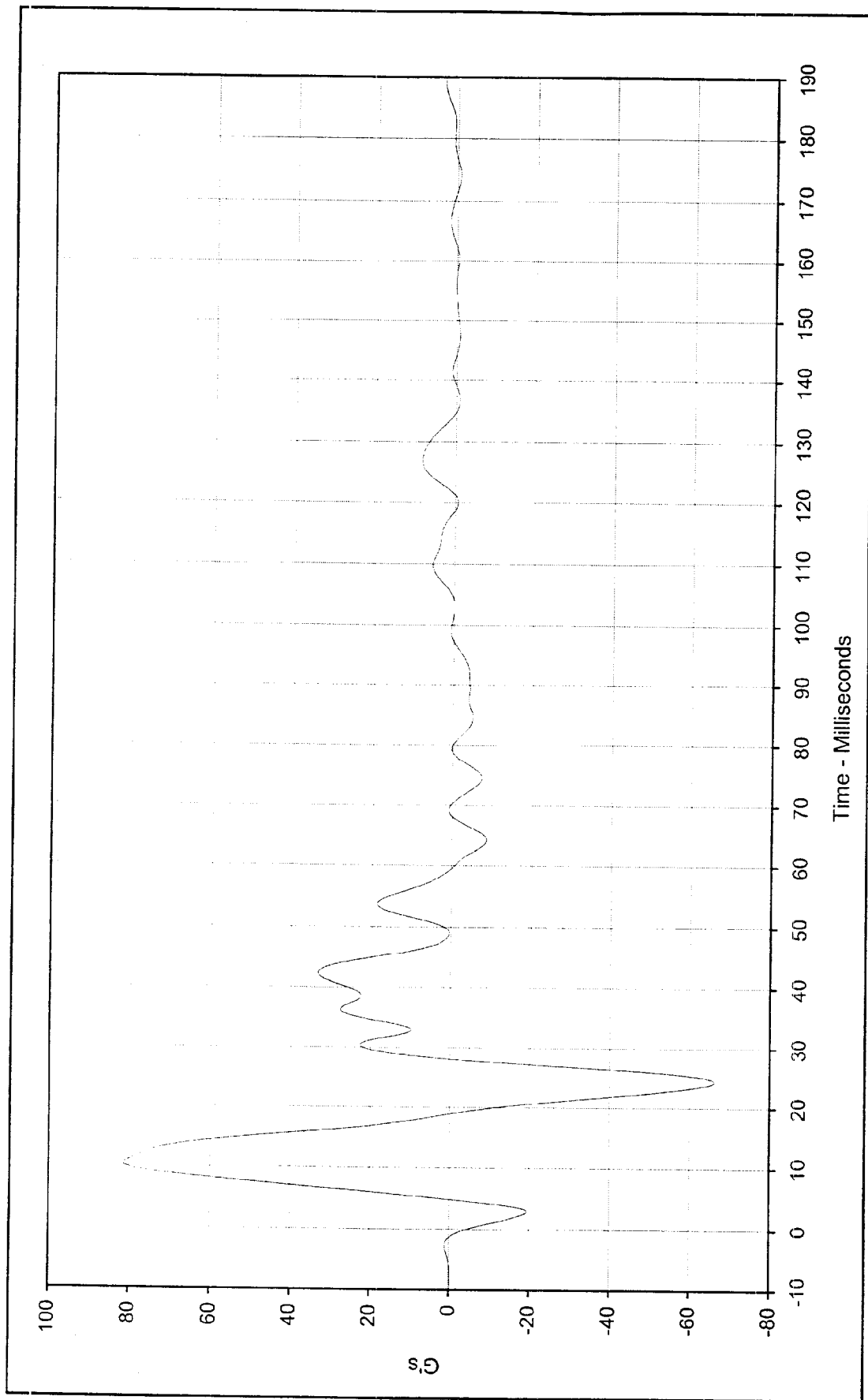
Curve Description: Left Front Door Mid-Rear Y
 Maximum Value: 169.0 at 6.4 Milliseconds
 Minimum Value: -74.7 at 12.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-026





Curve Description:	Left Front Door Mid-Rear Y Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	30.7	at	8.4	Milliseconds
Minimum Value:	-1.2	at	2.7	Milliseconds
SAE Filter Class:	180	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Date of Test:	01/21/00			
Curve Number:	IN1-026			





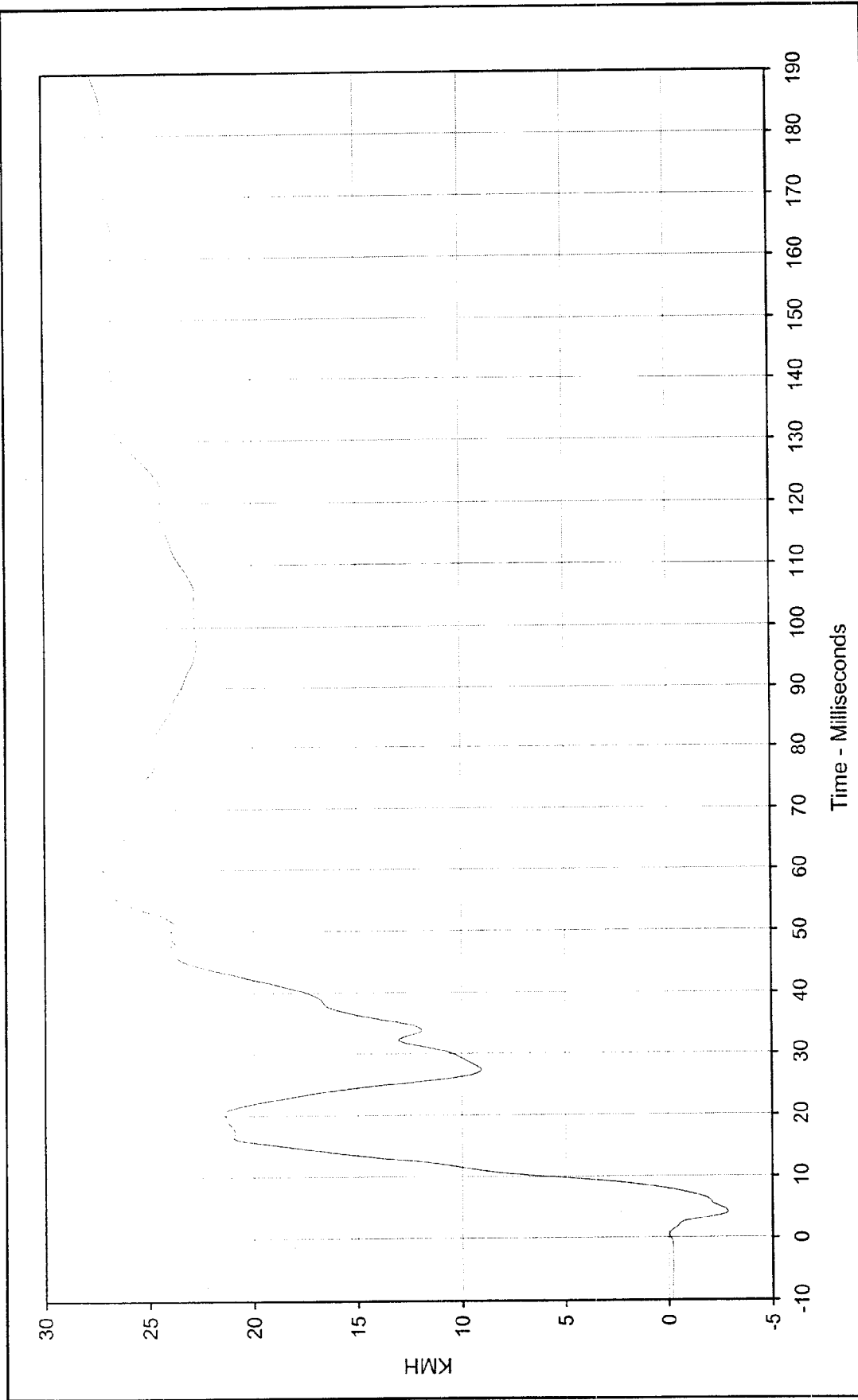
Curve Description: Left Front Door Upper CL Y

Maximum Value:	81.5	at	10.3	Milliseconds
Minimum Value:	-66.2	at	24.4	Milliseconds
SAE Filter Class:	60			
Date of Test:	01/21/00			
Curve Number:	FIL-027			

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Left Front Door Upper CL Y Velocity

Maximum Value: 27.7 at 189.9 Milliseconds

Minimum Value: -2.9 at 4.3 Milliseconds

SAE Filter Class: 180

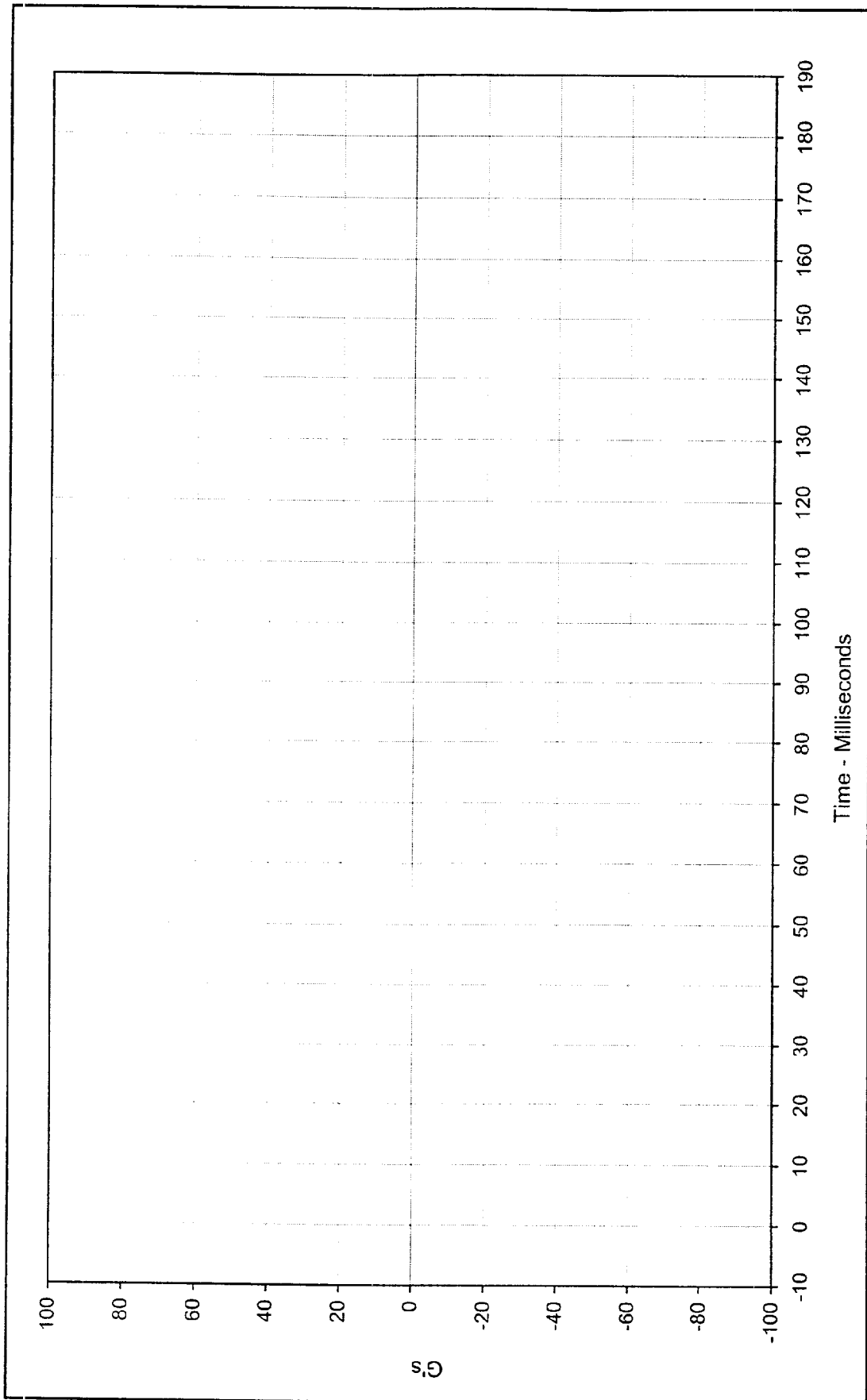
Date of Test: 01/21/00

Curve Number: IN1-027

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup



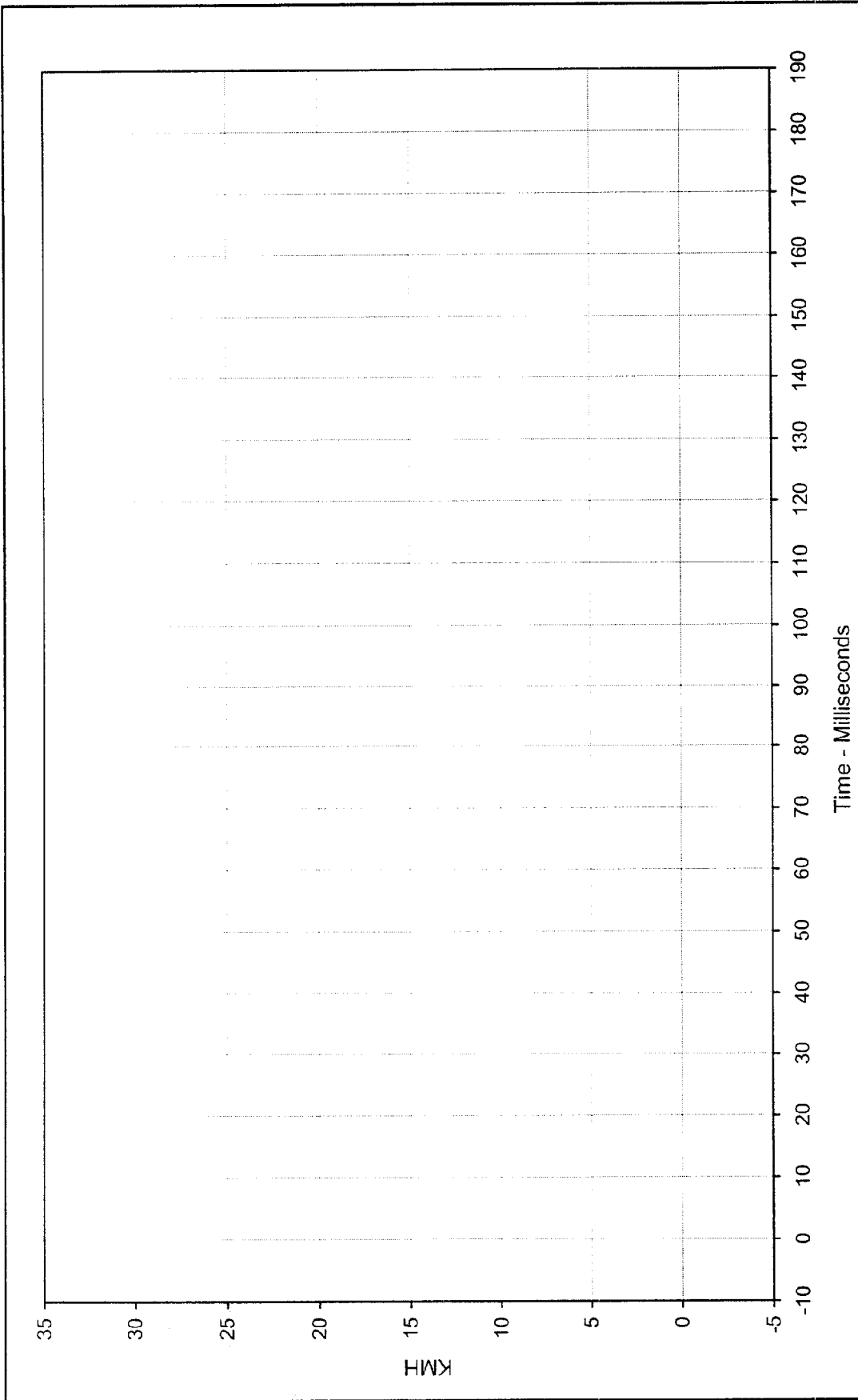


Curve Description: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Program: 2000 Ford Ranger XLT Pickup
 Test Vehicle:

B-Post Lower Y *
 Maximum Value: 0.0 at 0.0 Milliseconds
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-028

* Channel failed, no data

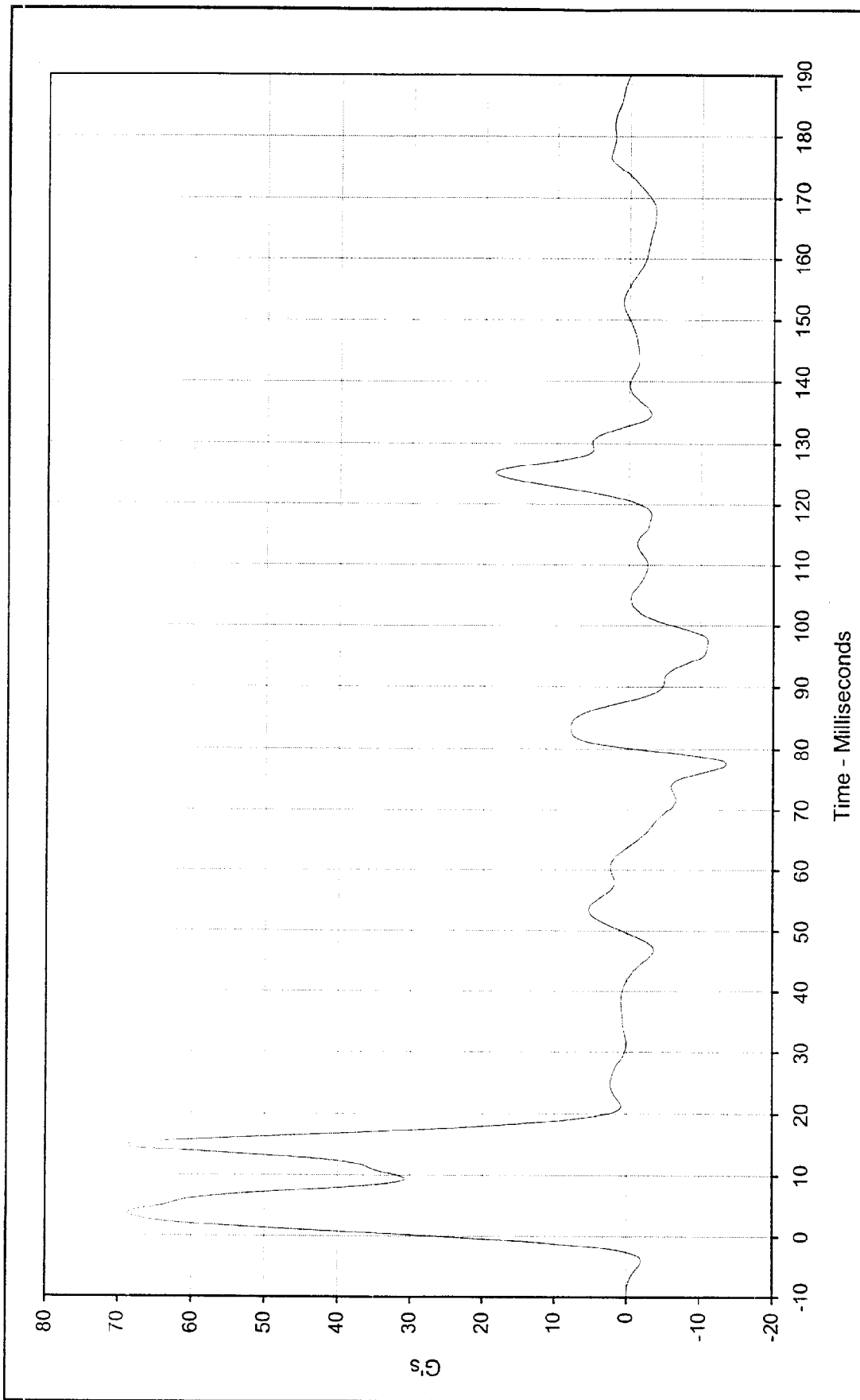




Curve Description:	B-Post Lower Y Velocity		*	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	0.0	at	0.0	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	0.0	at	0.0			
SAE Filter Class:	180					
Date of Test:	01/21/00					
Curve Number:	IN1-028					



* Channel failed, no data



Time - Milliseconds

Curve Description: B-Post Middle Y

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

Maximum Value: 69.0 at 14.9 Milliseconds

No.: MY0208

Minimum Value: -13.6 at 77.6 Milliseconds

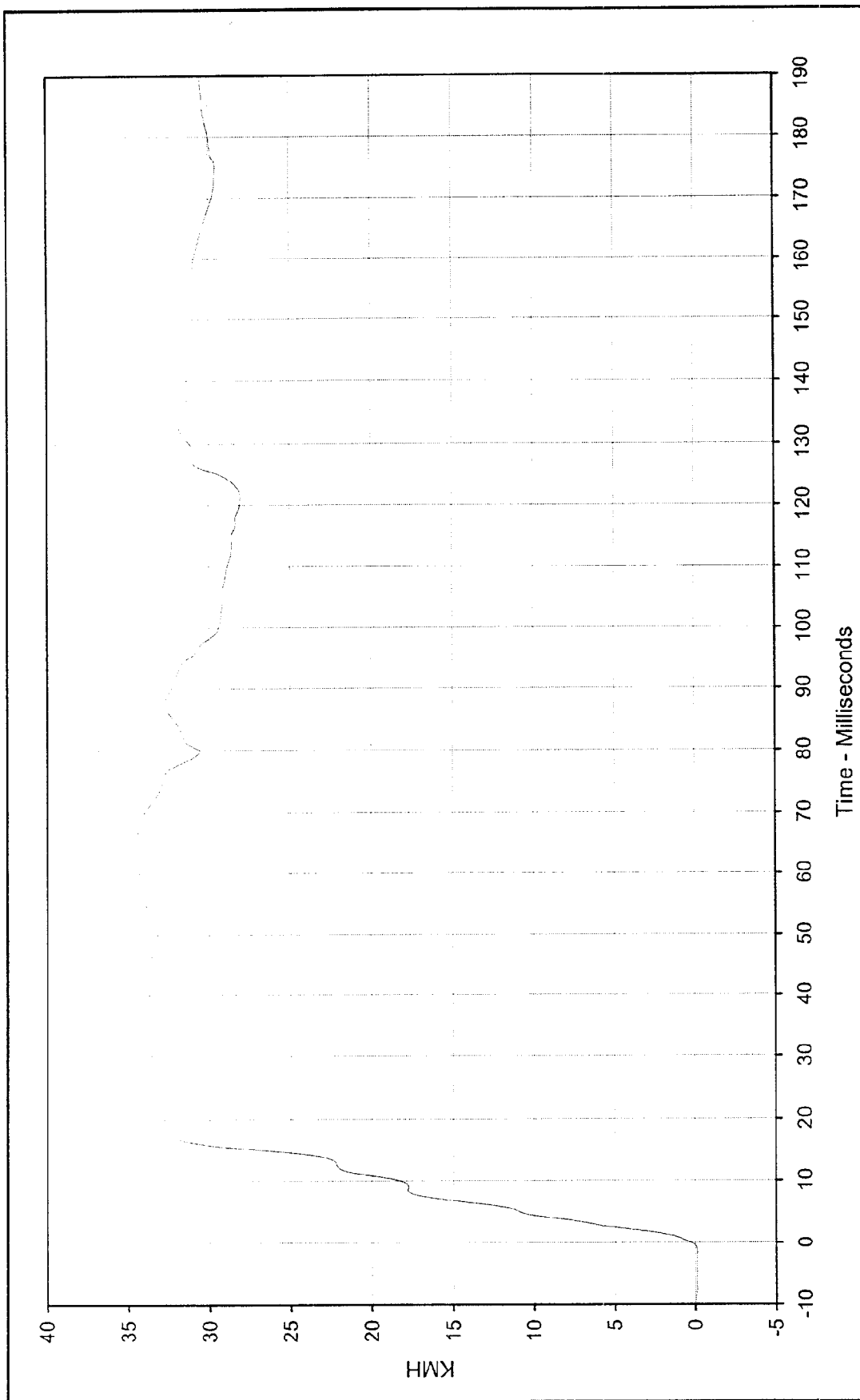
Test Vehicle: 2000 Ford Ranger XLT Pickup

SAE Filter Class: 60

Date of Test: 01/21/00

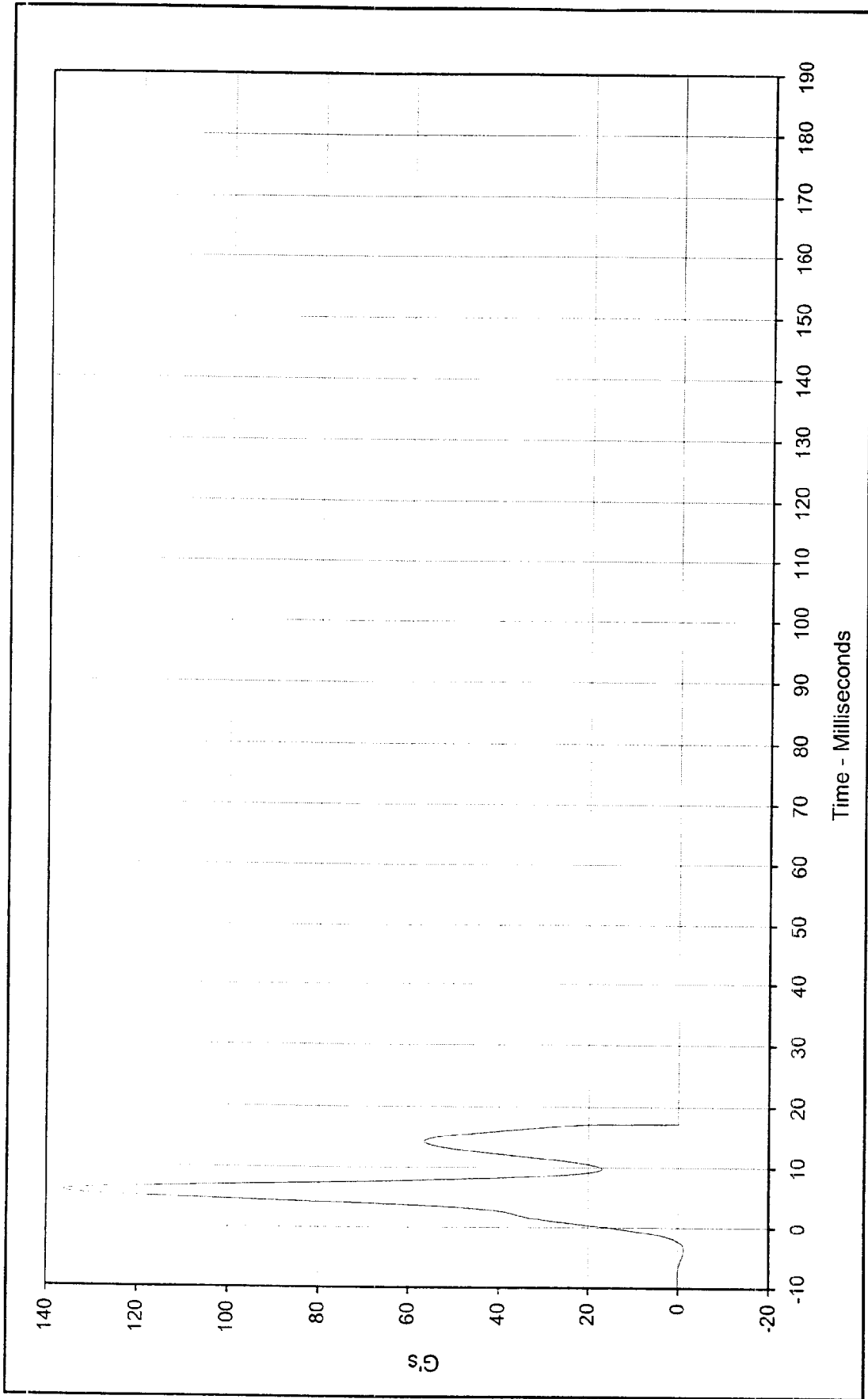
Curve Number: FIL-029





Curve Description:	B-Post Middle Y Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	34.6 at 63.6 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	0.3 at 0.0 Milliseconds			
SAE Filter Class:	180			
Date of Test:	01/21/00			
Curve Number:	IN1-029			



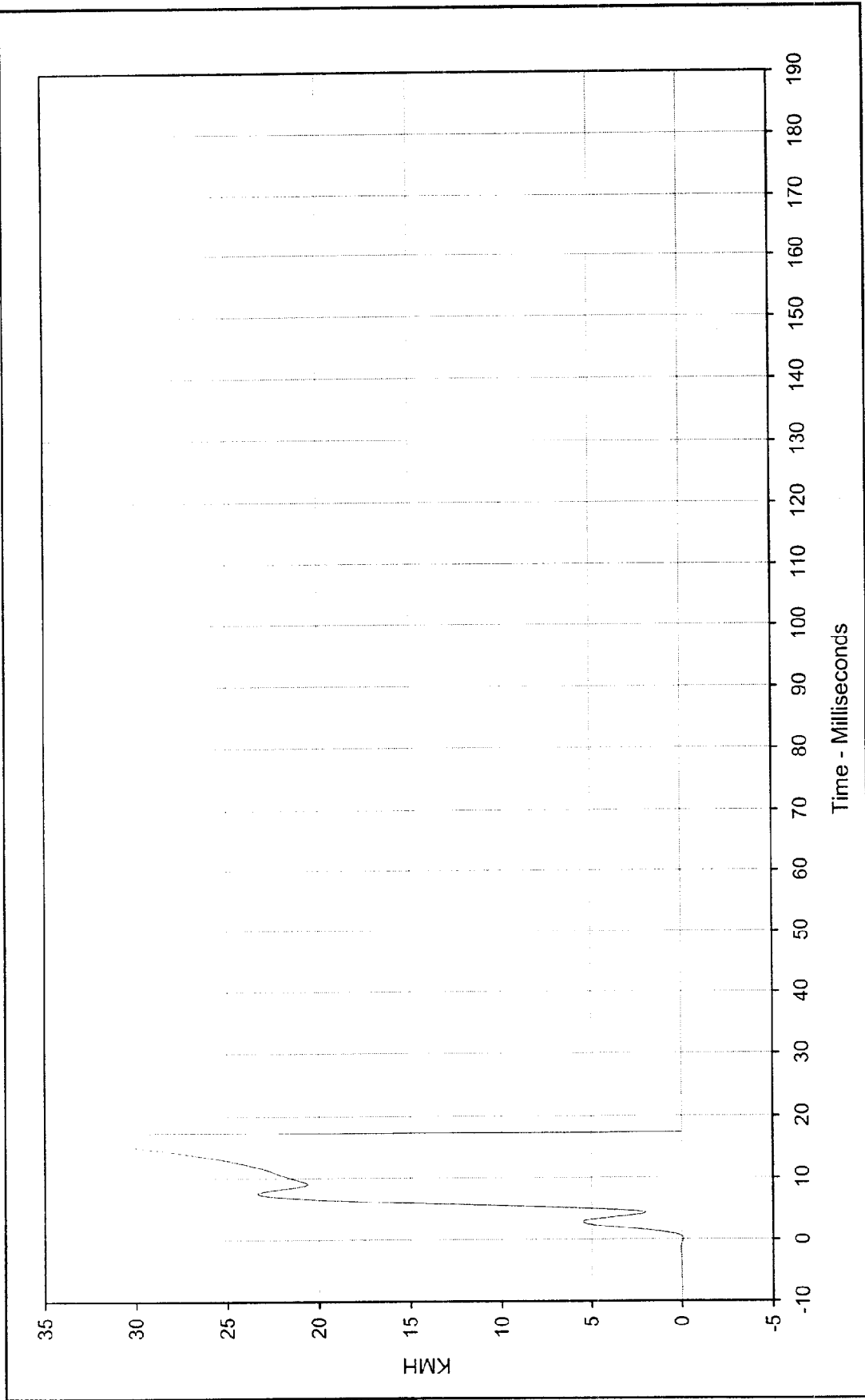


Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup



Curve Description: A-Post Lower Y *
 Maximum Value: 136.1 at 5.8 Milliseconds
 Minimum Value: 0.0 at 17.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-030

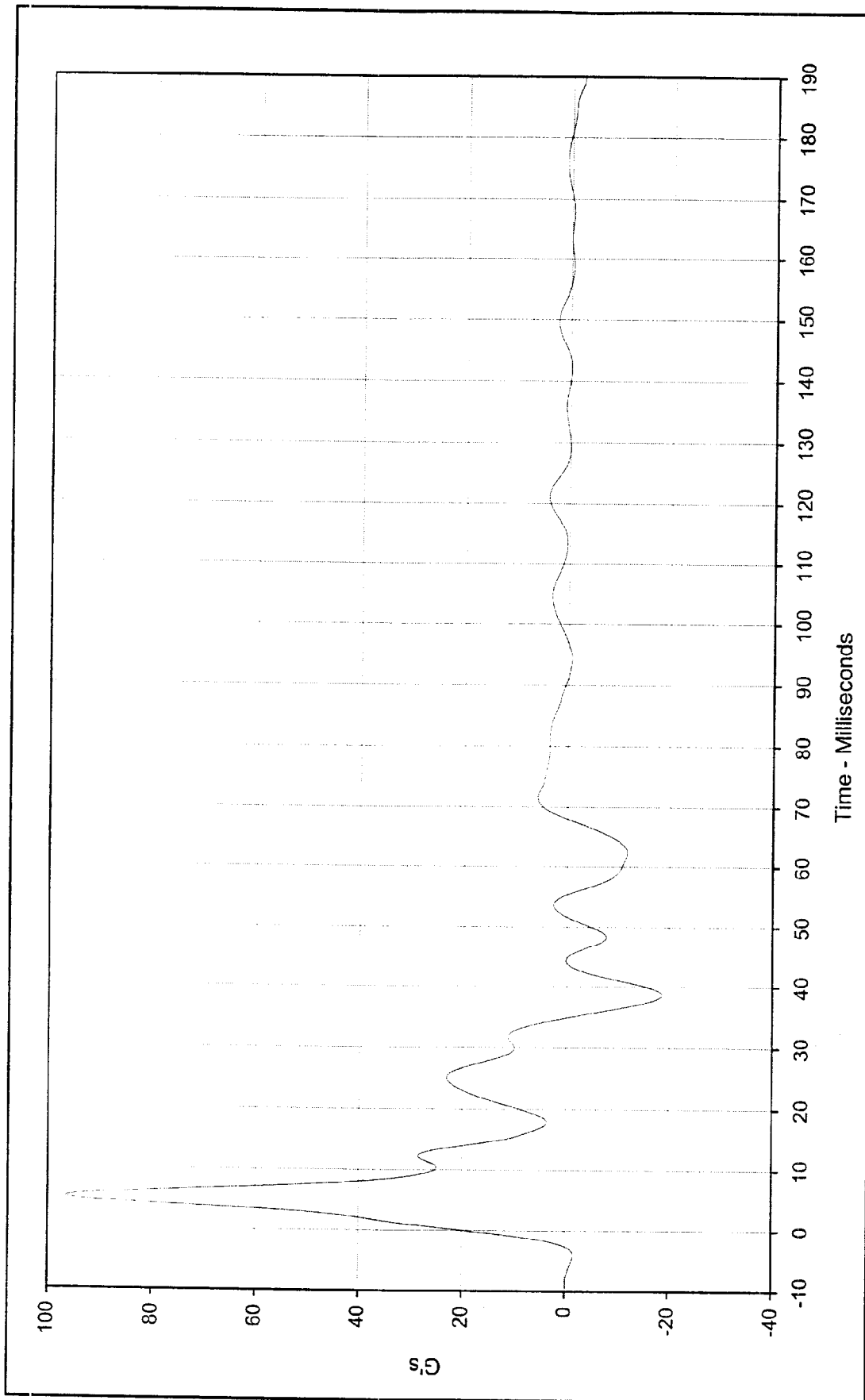
* Channel failed at 17.3 Msec.



Curve Description:	A-Post Lower Y Velocity	*	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	33.0	at 17.2	Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup
Minimum Value:	-0.1	at 0.1	Milliseconds		
SAE Filter Class:	180				
Date of Test:	01/21/00				
Curve Number:	IN1-030				

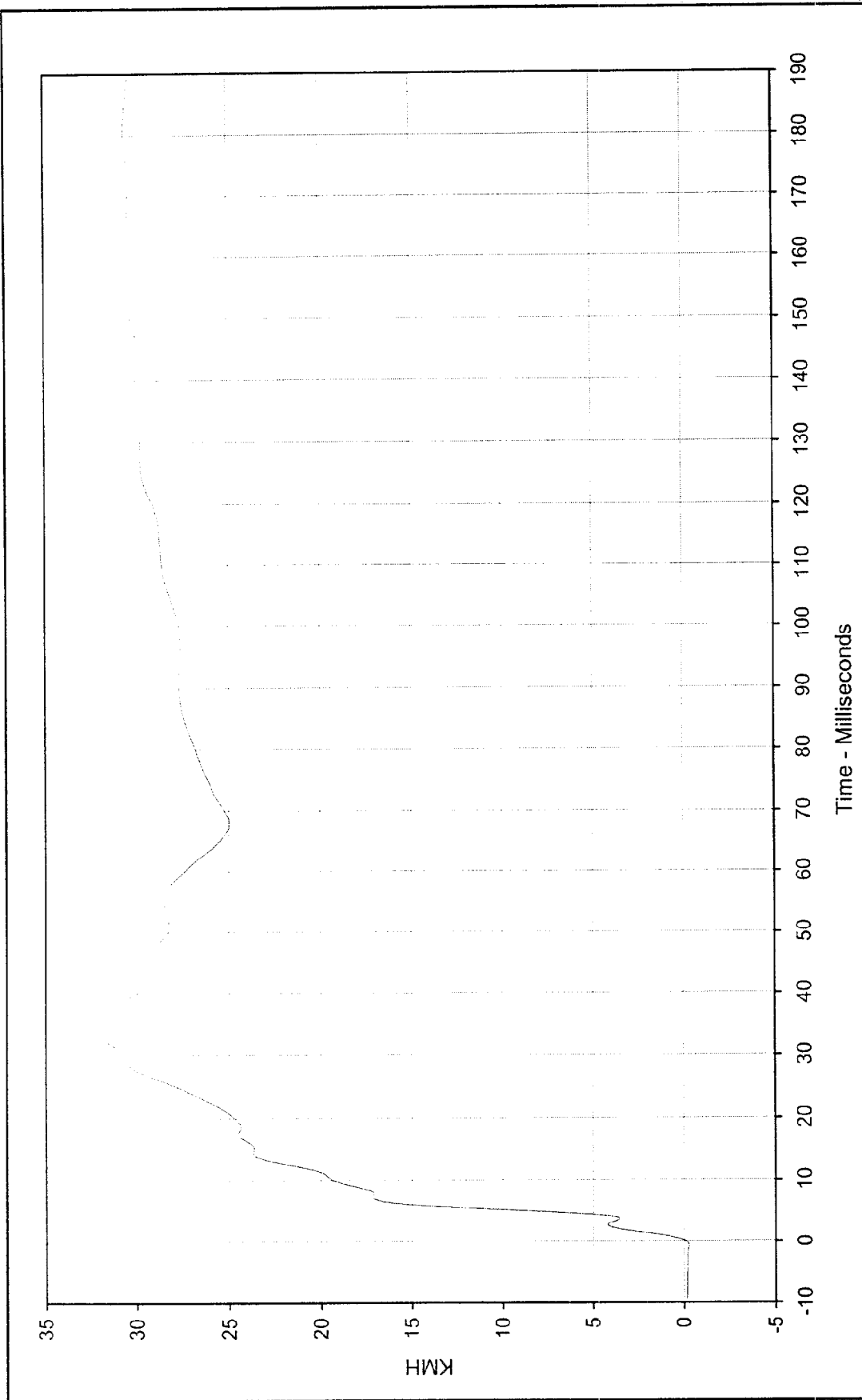


* Channel failed at 17.3 Msec.



Curve Description:	A-Post Middle Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	96.4 at 5.3 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-18.6 at 38.7 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/21/00			
Curve Number:	FIL-031			

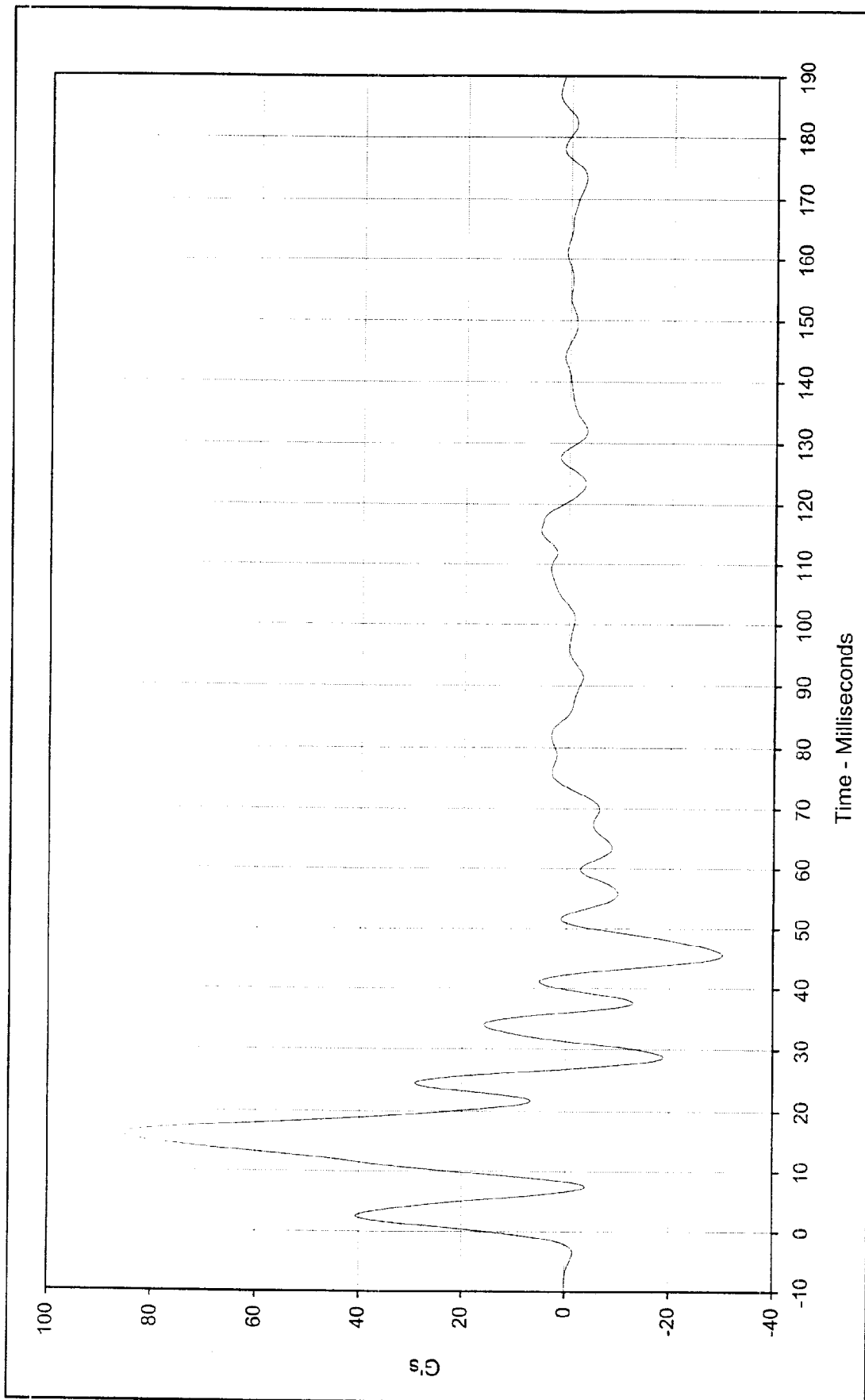




Curve Description: A-Post Middle Y Velocity
 Maximum Value: 32.5 at 35.1 Milliseconds
 Minimum Value: -0.1 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/21/00
 Curve Number: IN1-031

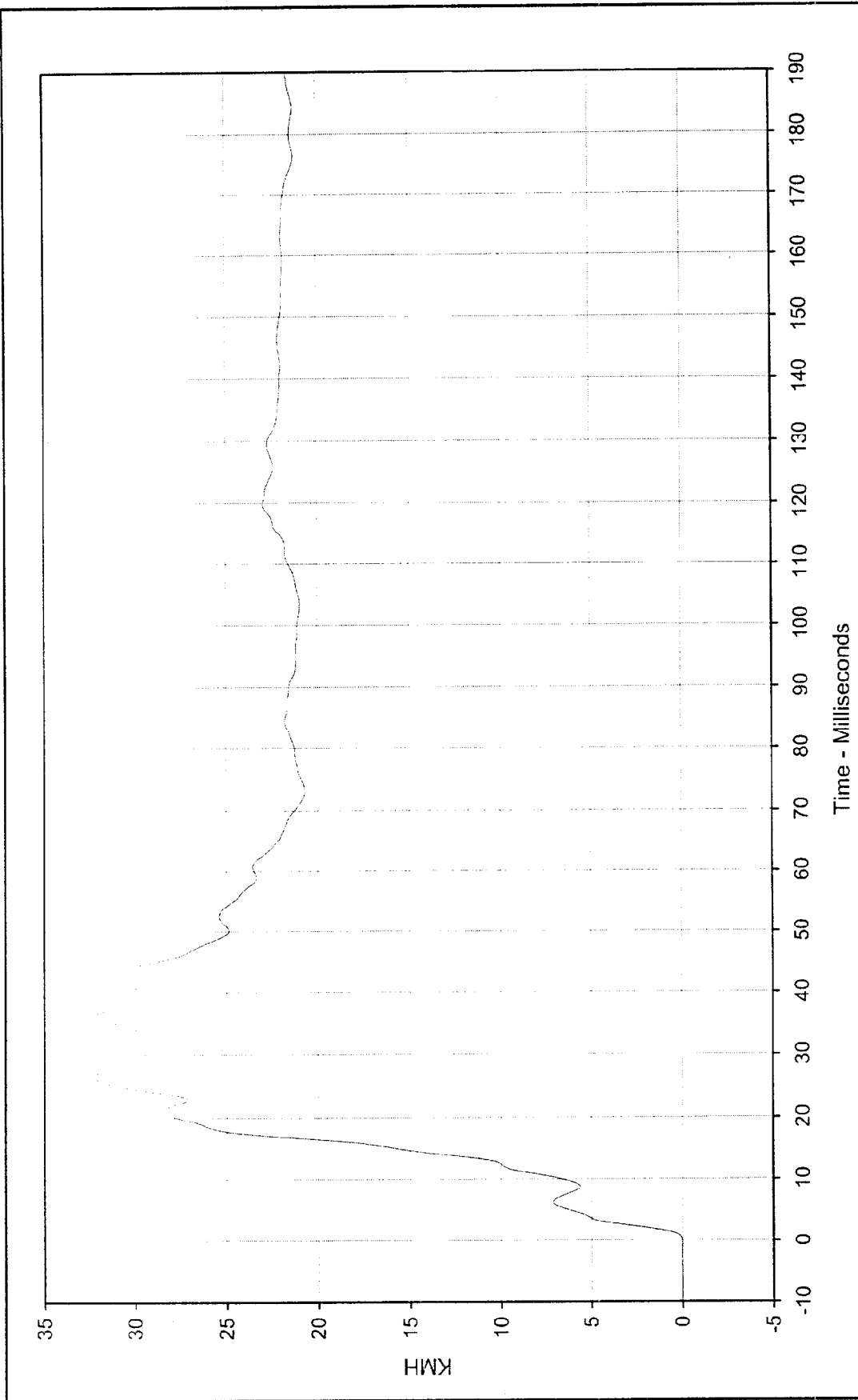
Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description:	Left Front Seat Track Y	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	85.8 at 16.1 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-30.3 at 45.6 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/21/00			
Curve Number:	FIL-032			

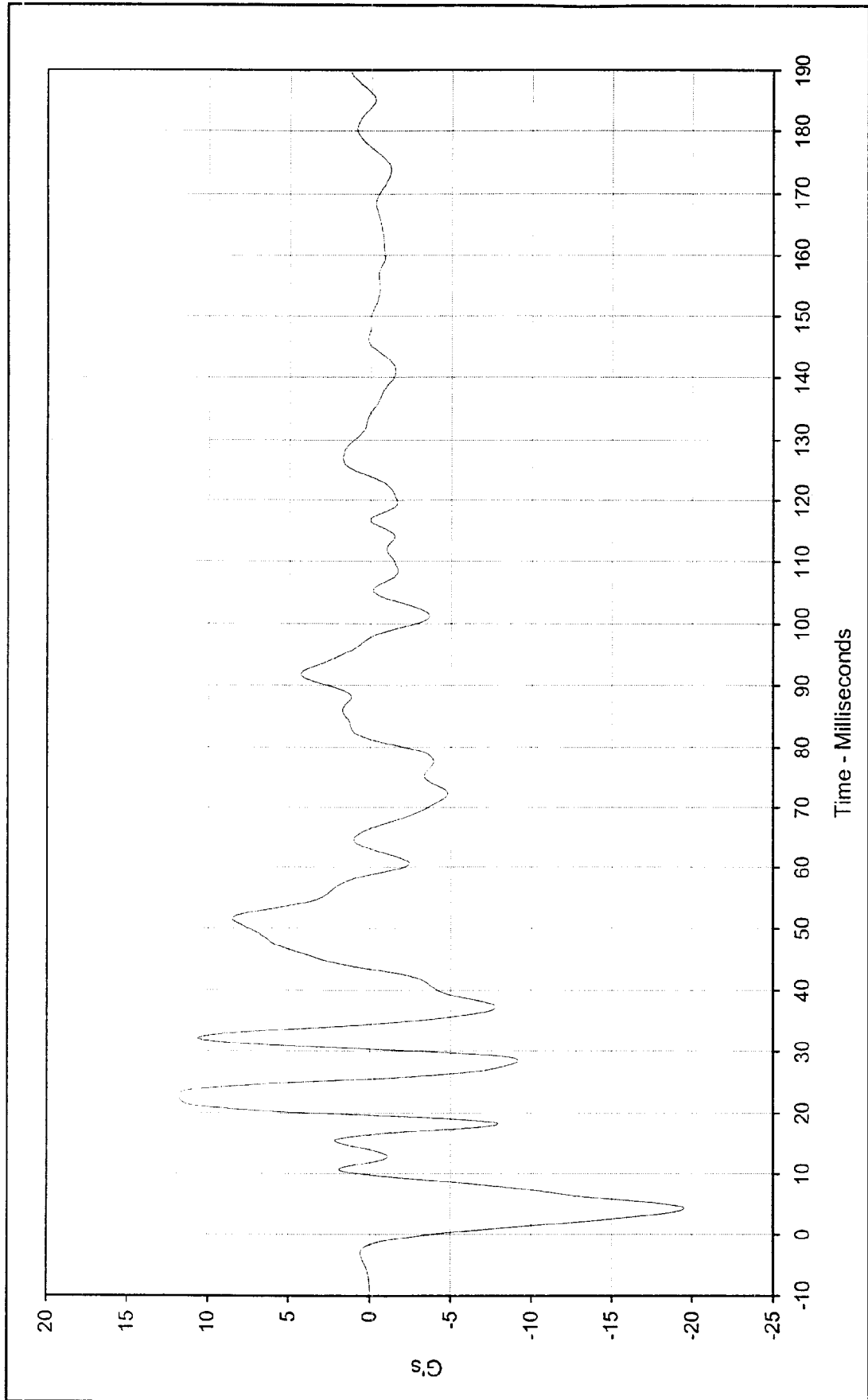




Curve Description: Left Front Seat Track Y Velocity
 Maximum Value: 32.3 at 36.2 Milliseconds
 Minimum Value: 0.0 at 0.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/21/00
 Curve Number: IN1-048

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

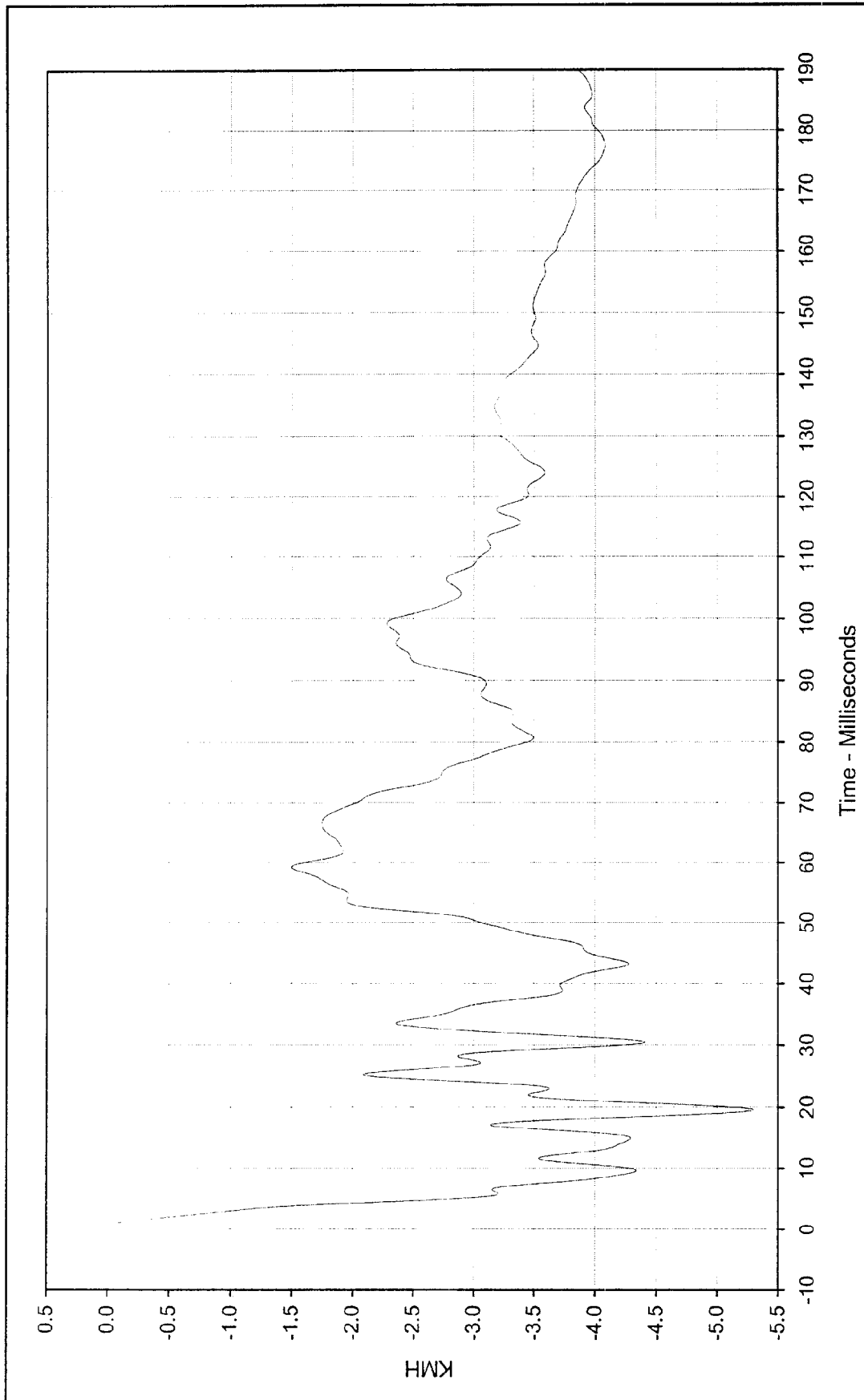




Curve Description: Vehicle CG X
 Maximum Value: 11.8 at 22.9 Milliseconds
 Minimum Value: -19.5 at 4.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-033

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

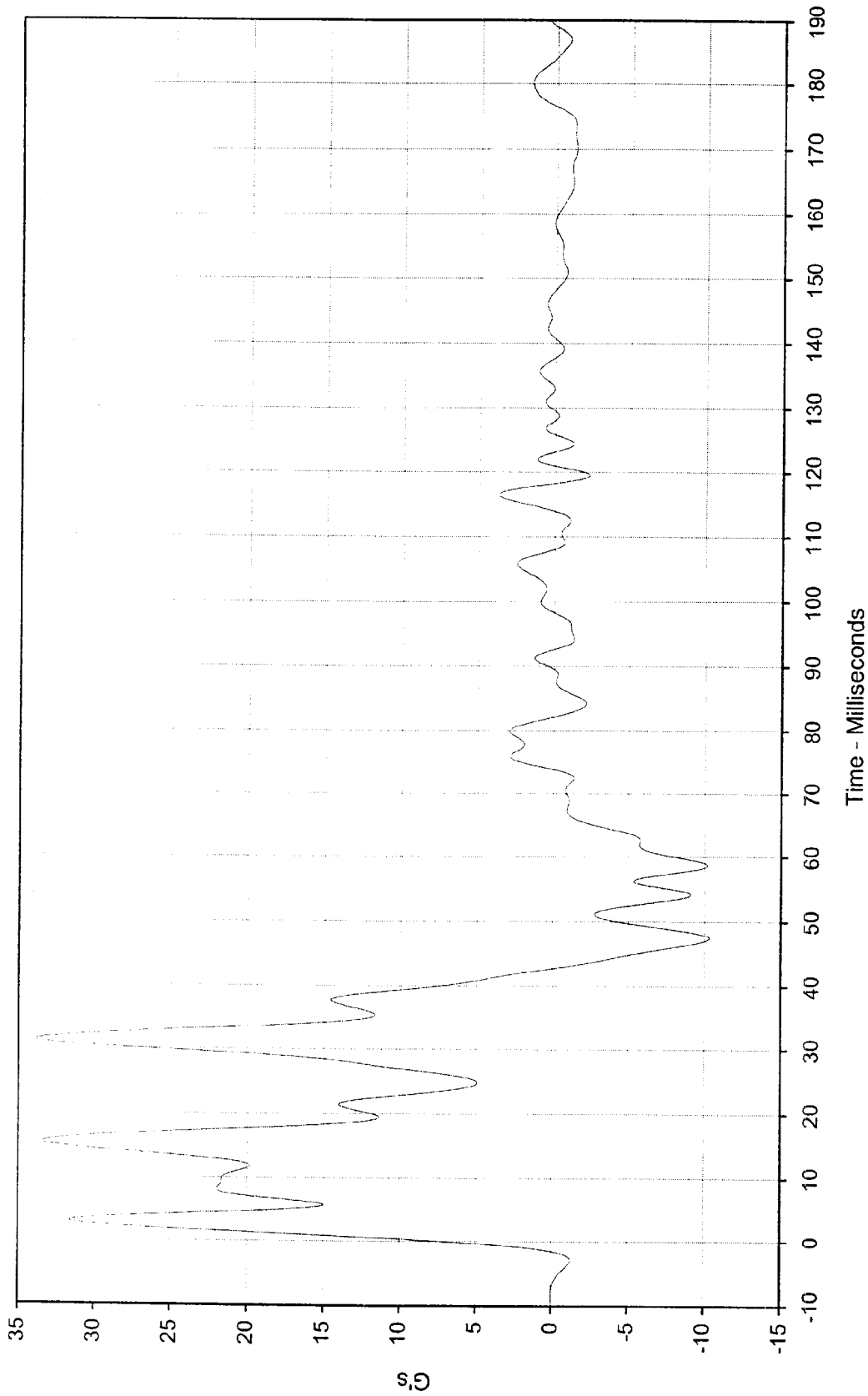




Curve Description: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Program: 2000 Ford Ranger XLT Pickup
 Test Vehicle:

Vehicle CG X Velocity
 Maximum Value: 0.1 at 0.0 Milliseconds
 Minimum Value: -5.3 at 19.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/21/00
 Curve Number: IN1-033

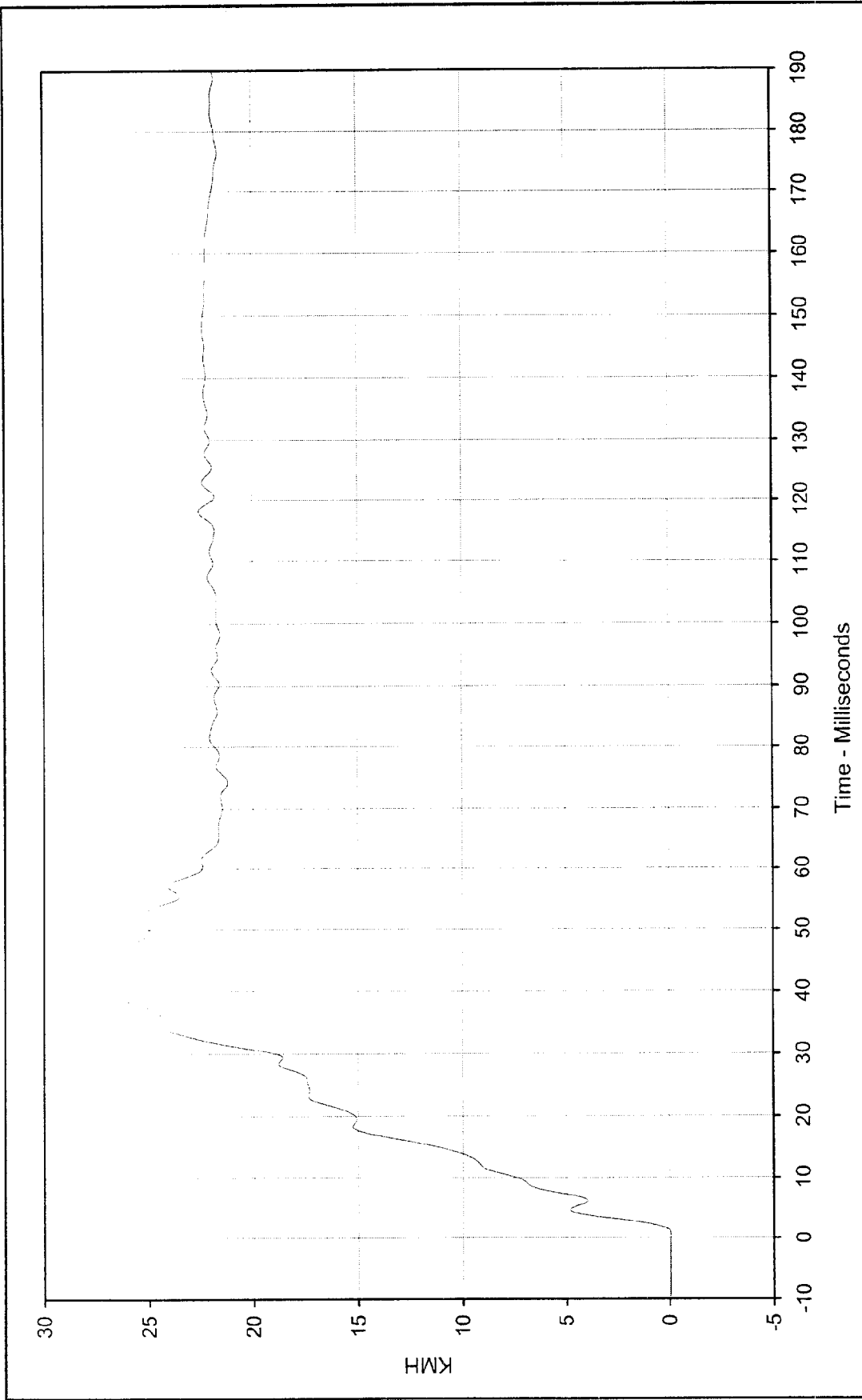




Curve Description: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Program: 2000 Ford Ranger XLT Pickup
 Test Vehicle:

Vehicle CG Y
 Maximum Value: 33.9 at 31.3 Milliseconds
 Minimum Value: -10.3 at 47.5 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-034





Curve Description: Vehicle CG Y Velocity Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Maximum Value: 26.9 at 42.6 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup

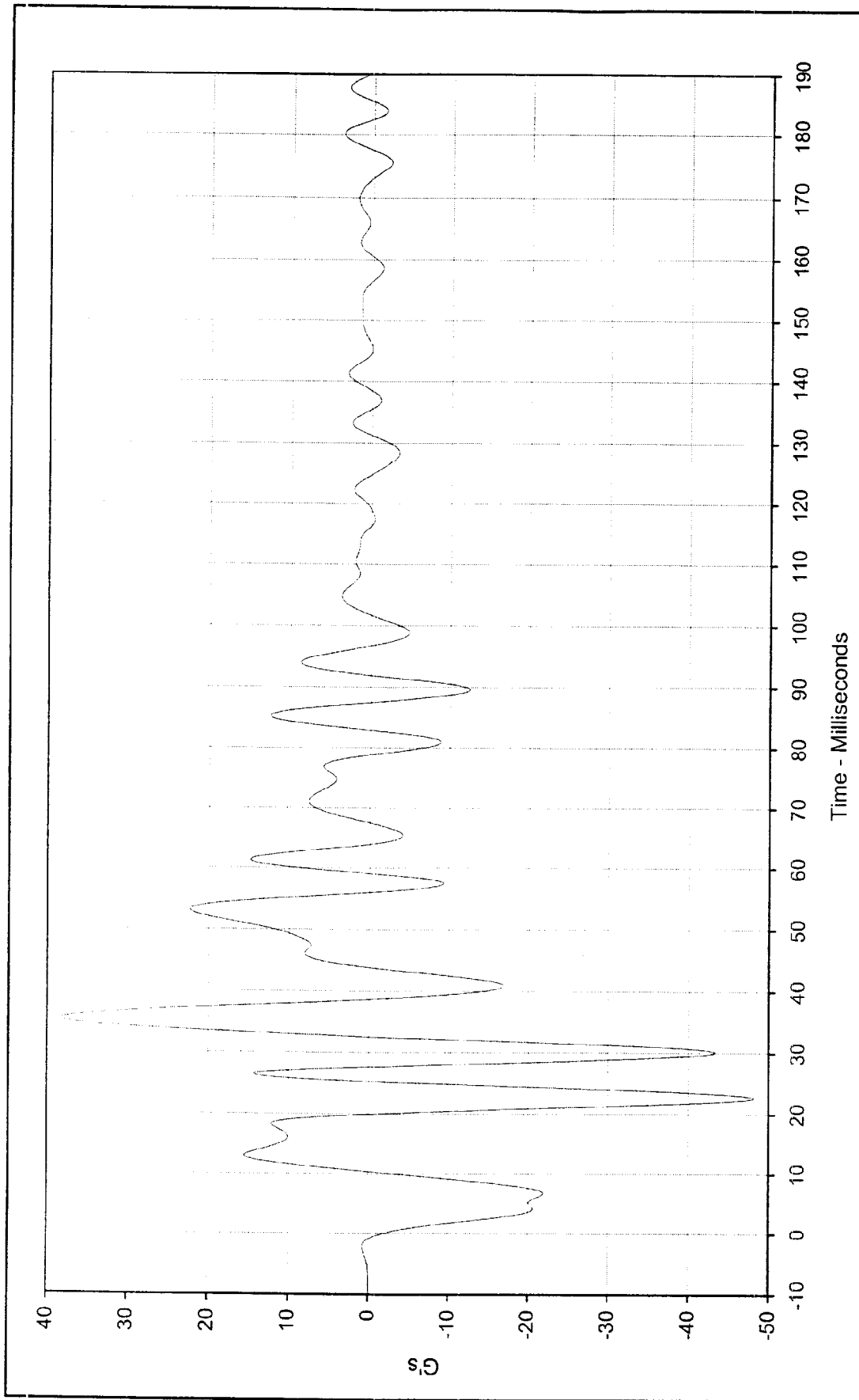
Minimum Value: -0.1 at 0.4 Milliseconds

SAE Filter Class: 180

Date of Test: 01/21/00

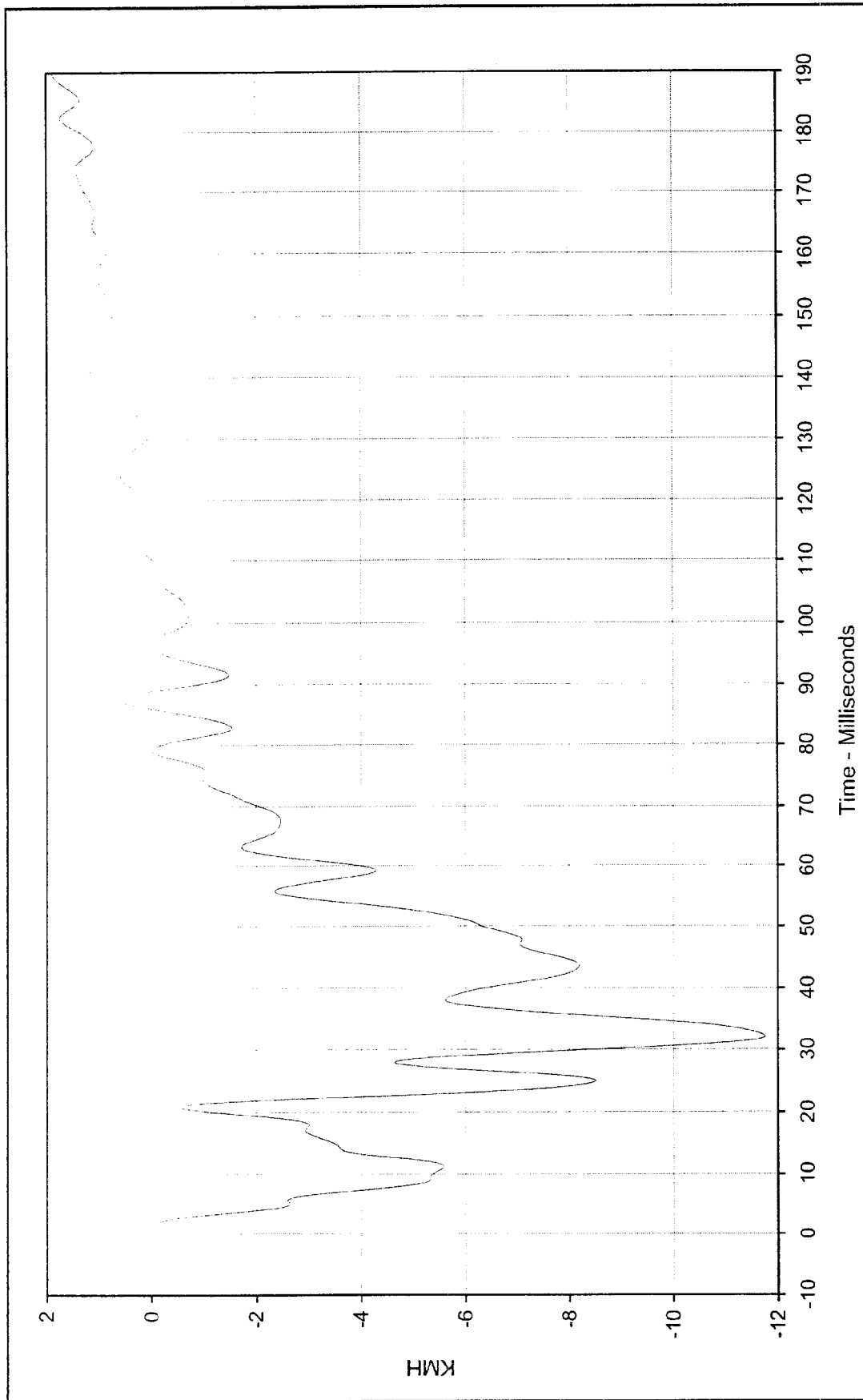
Curve Number: IN1-034





Curve Description:	Vehicle CG Z	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	38.3 at 35.4 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-48.2 at 22.6 Milliseconds			
SAE Filter Class:	60			
Date of Test:	01/21/00			
Curve Number:	FIL-035			

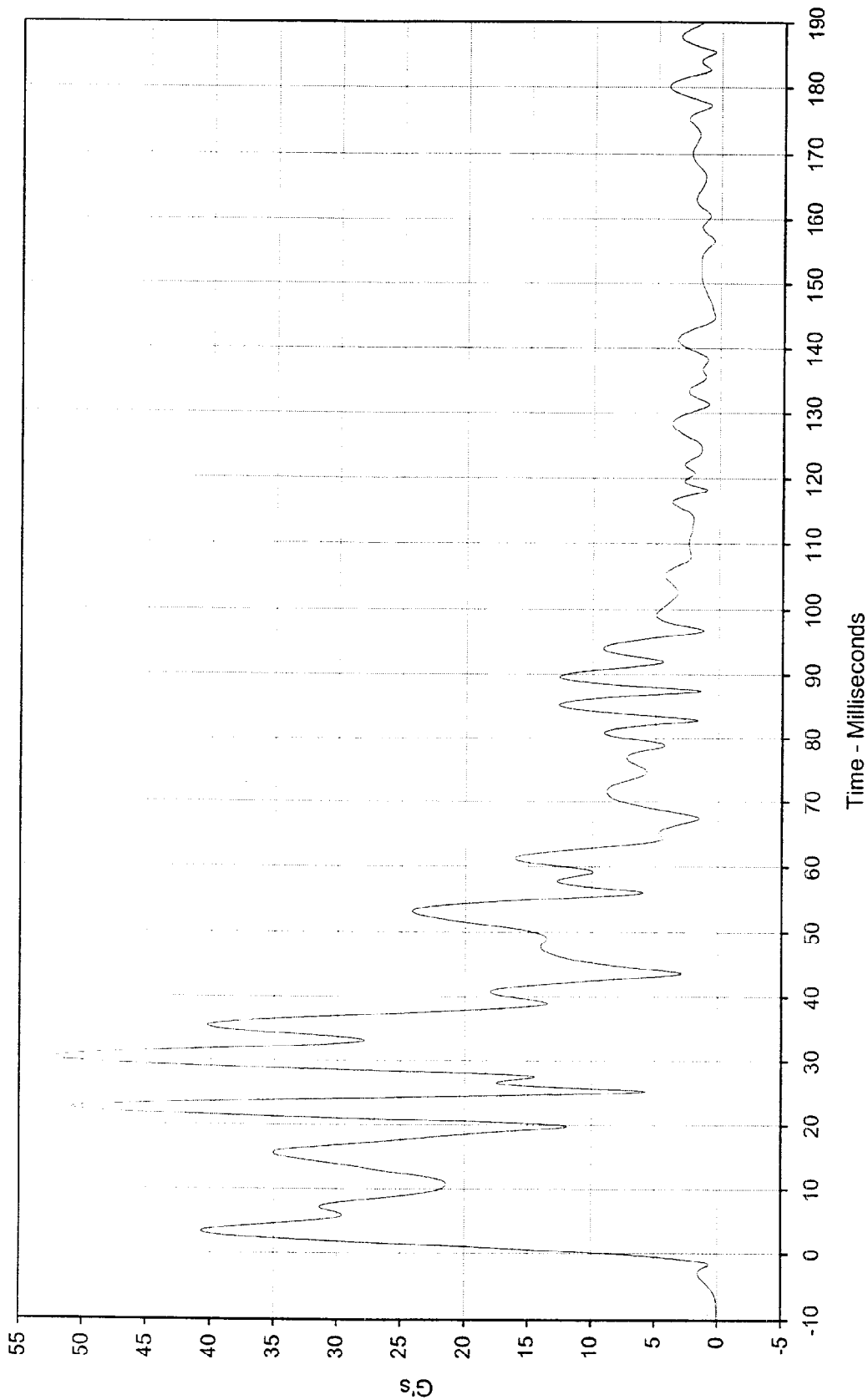




Curve Description:	Vehicle CG Z Velocity	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	1.9 at 189.9 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-11.8 at 32.1 Milliseconds			



SAE Filter Class:	180
Date of Test:	01/21/00
Curve Number:	IN1-035



Curve Description: 55/28 km/h Side Impact NCAP No.: MY0208

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

Test Vehicle: 2000 Ford Ranger XLT Pickup

Vehicle CG Resultant

Maximum Value: 52.2 at 30.4 Milliseconds

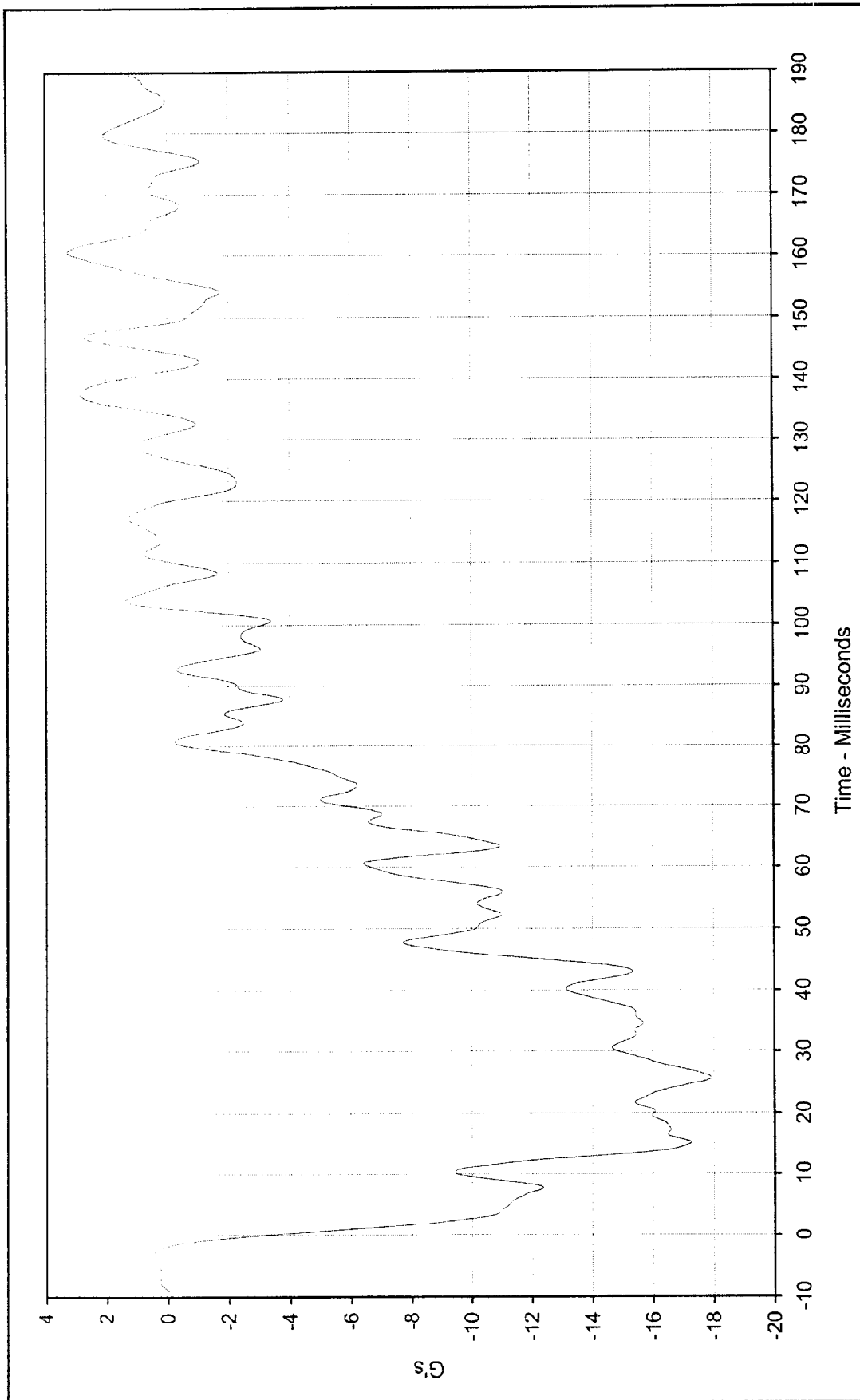
Minimum Value: 0.4 at 145.0 Milliseconds

SAE Filter Class: 60

Date of Test: 01/21/00

Curve Number: RES-033

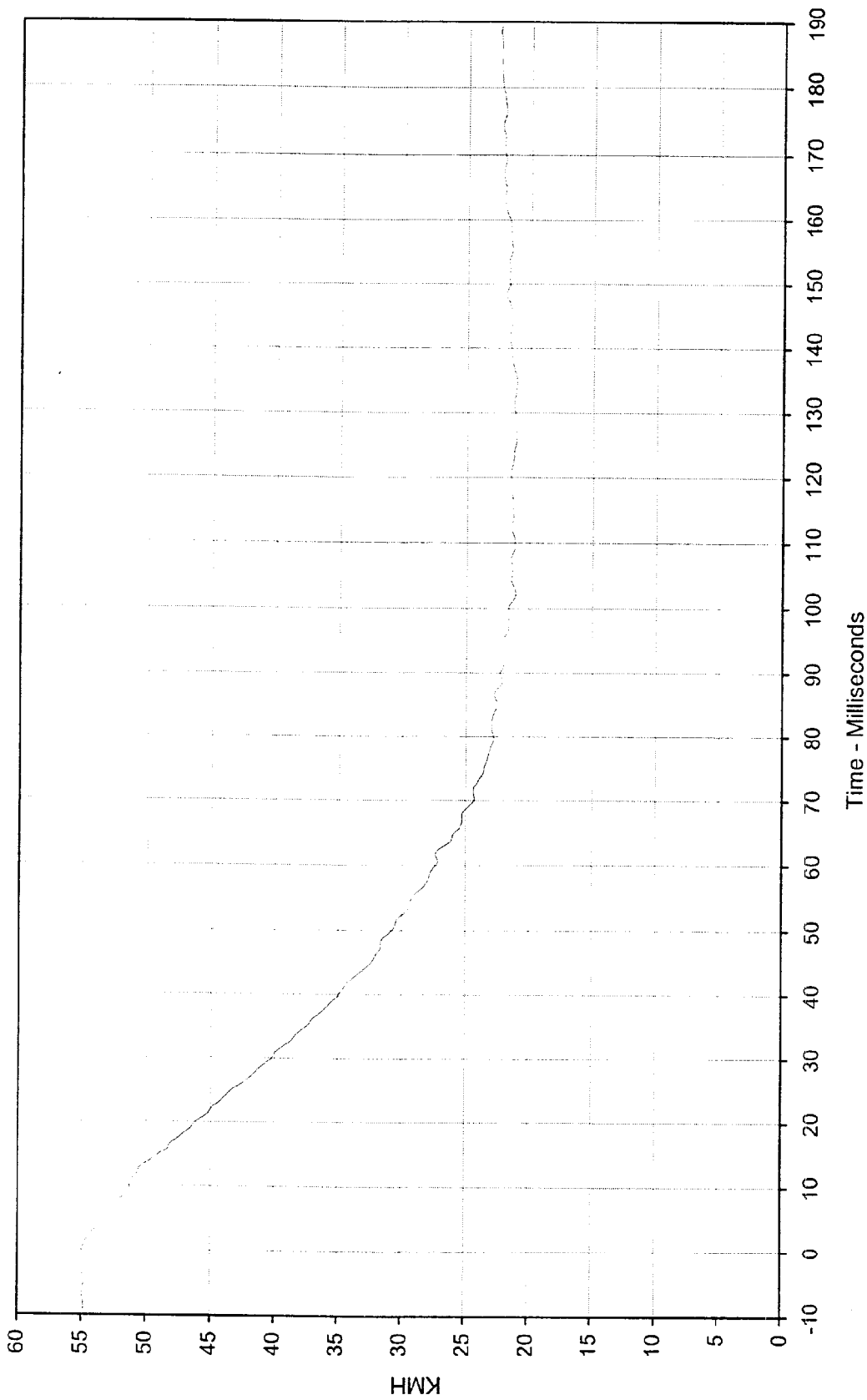




Curve Description: MDB CG X Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Maximum Value: 3.3 at 160.6 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup
 Minimum Value: -17.9 at 25.7 Milliseconds



SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-036



Curve Description: MDB CG X Velocity

Maximum Value: 55.0 at 0.0 Milliseconds

Minimum Value: 21.1 at 126.2 Milliseconds

SAE Filter Class: 180

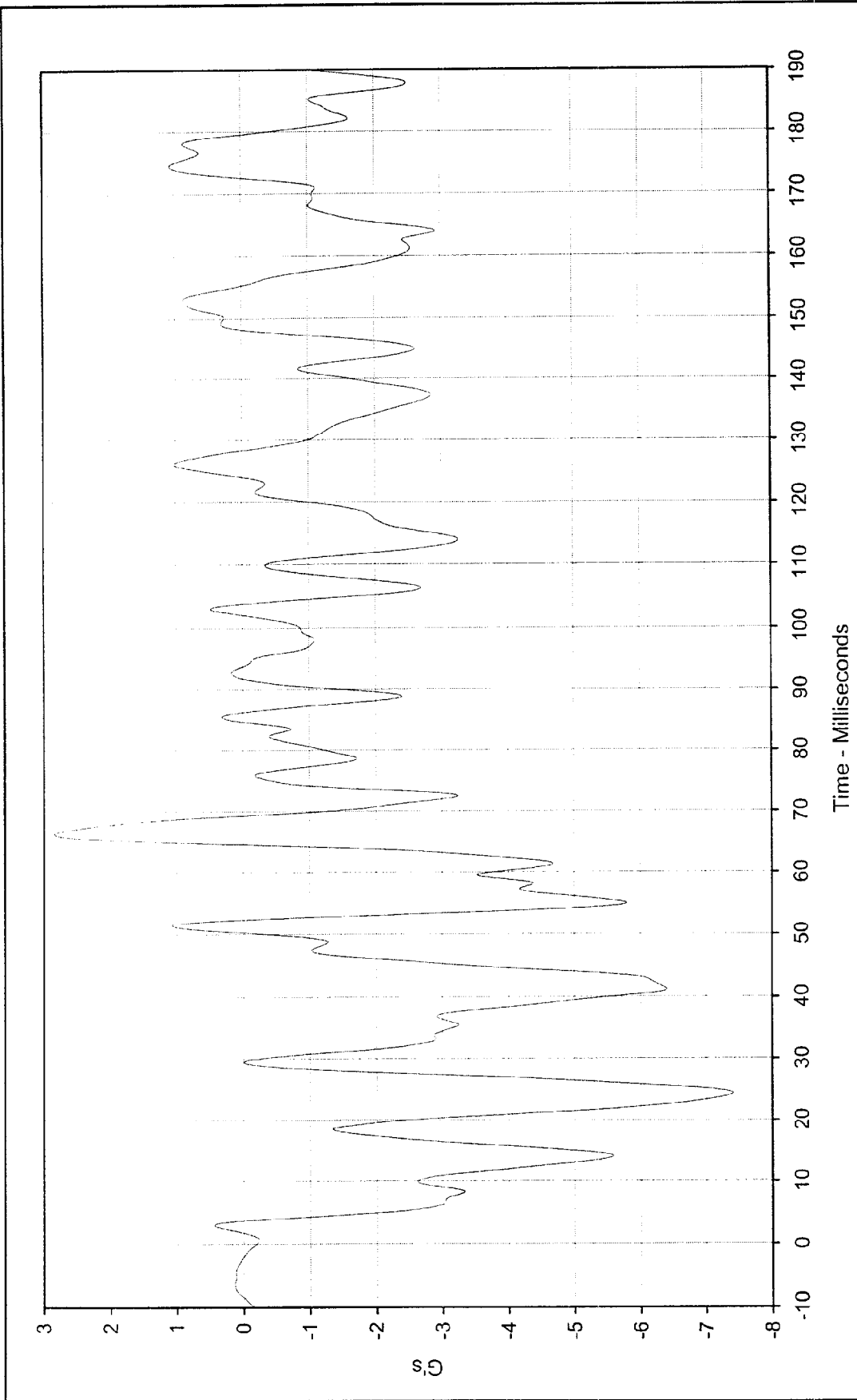
Date of Test: 01/21/00

Curve Number: IN1-036

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: MDB CG Y

Maximum Value: 2.8 at 66.3 Milliseconds

Minimum Value: -7.4 at 24.3 Milliseconds

SAE Filter Class: 60

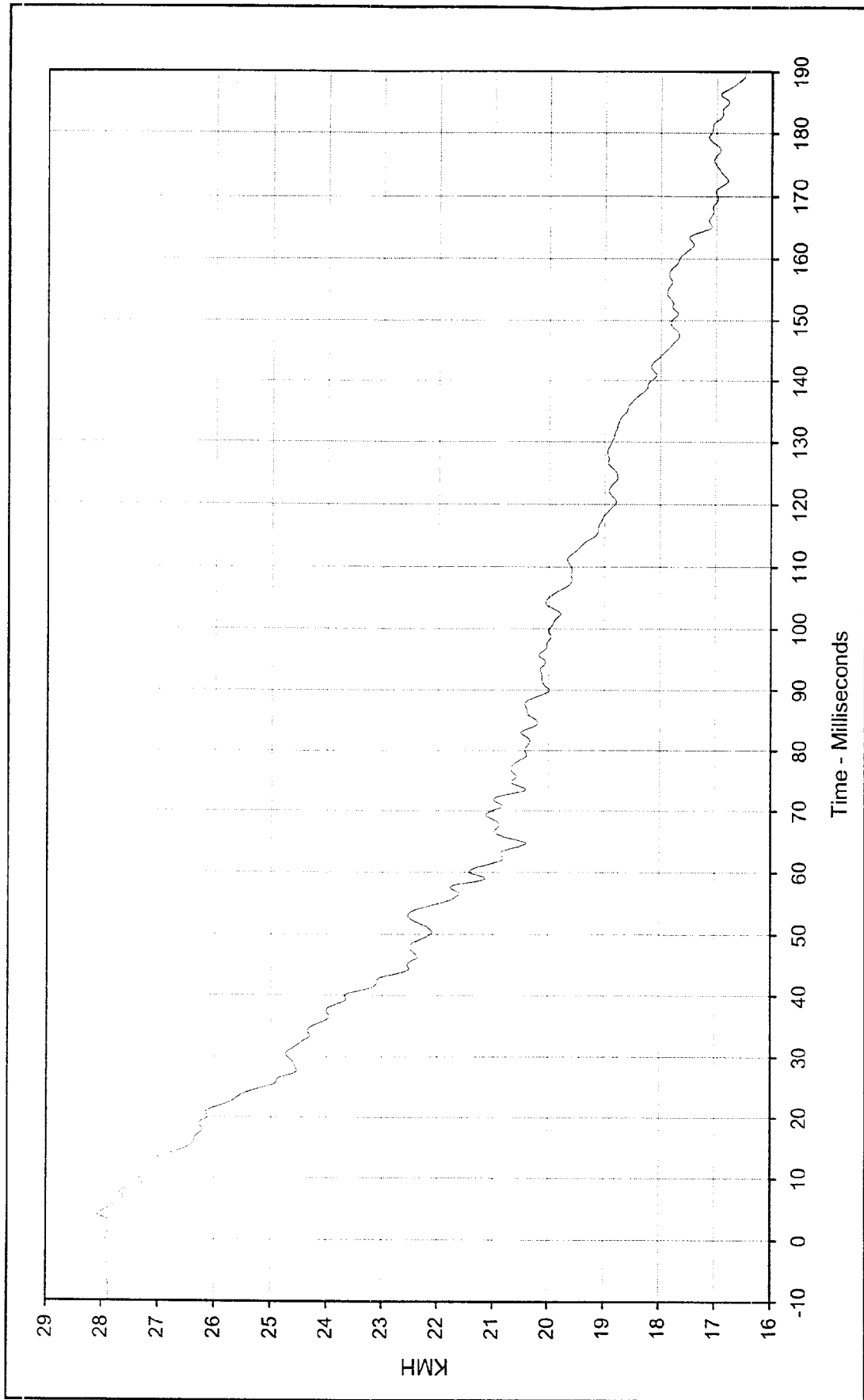
Date of Test: 01/21/00

Curve Number: FIL-037

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: MDB CG Y Velocity

Maximum Value: 28.1 at 4.1 Milliseconds

Minimum Value: 16.5 at 189.9 Milliseconds

SAE Filter Class: 180

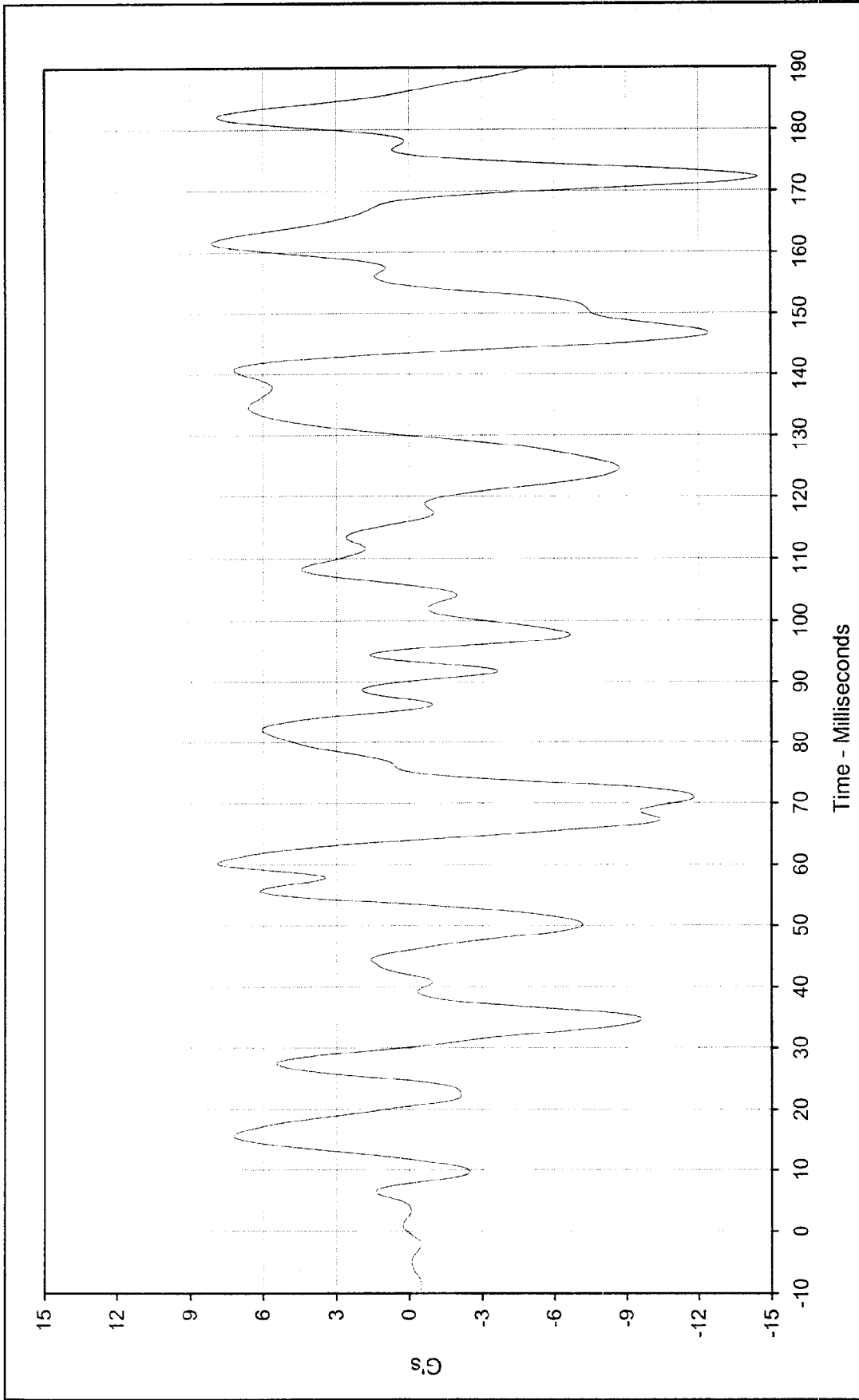
Date of Test: 01/21/00

Curve Number: IN1-037

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

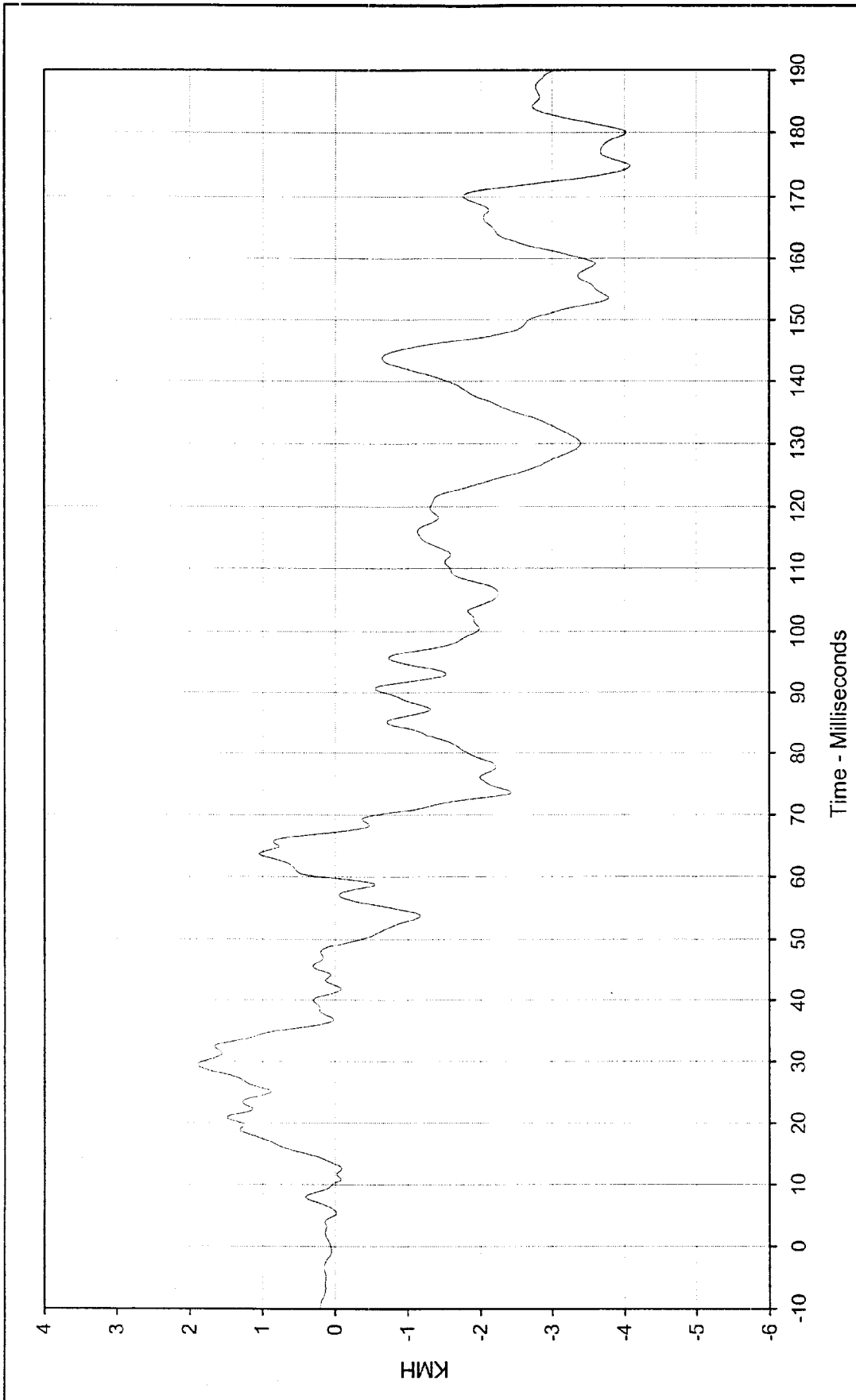




Curve Description: MDB CG Z
Maximum Value: 8.1 at 161.7 Milliseconds
Minimum Value: -14.5 at 172.2 Milliseconds
SAE Filter Class: 60
Date of Test: 01/21/00
Curve Number: FIL-038

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
Test Vehicle: 2000 Ford Ranger XLT Pickup

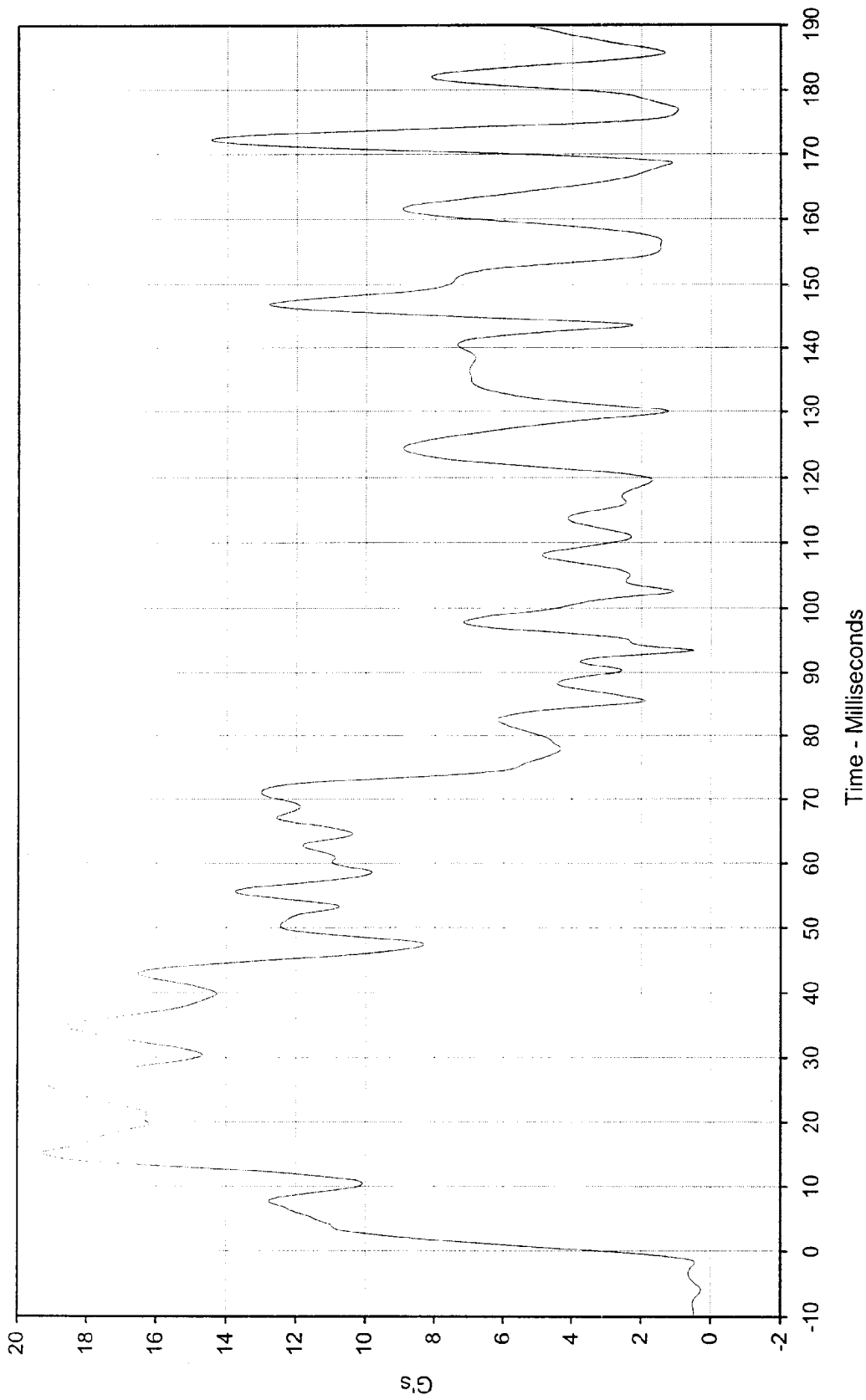




Curve Description: MDB CG Z Velocity
 Maximum Value: 1.9 at 29.4 Milliseconds
 Minimum Value: -4.1 at 174.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/21/00
 Curve Number: IN1-038

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: MDB CG Resultant

Maximum Value: 19.3 at 15.0 Milliseconds

Minimum Value: 0.5 at 93.3 Milliseconds

SAE Filter Class: 60

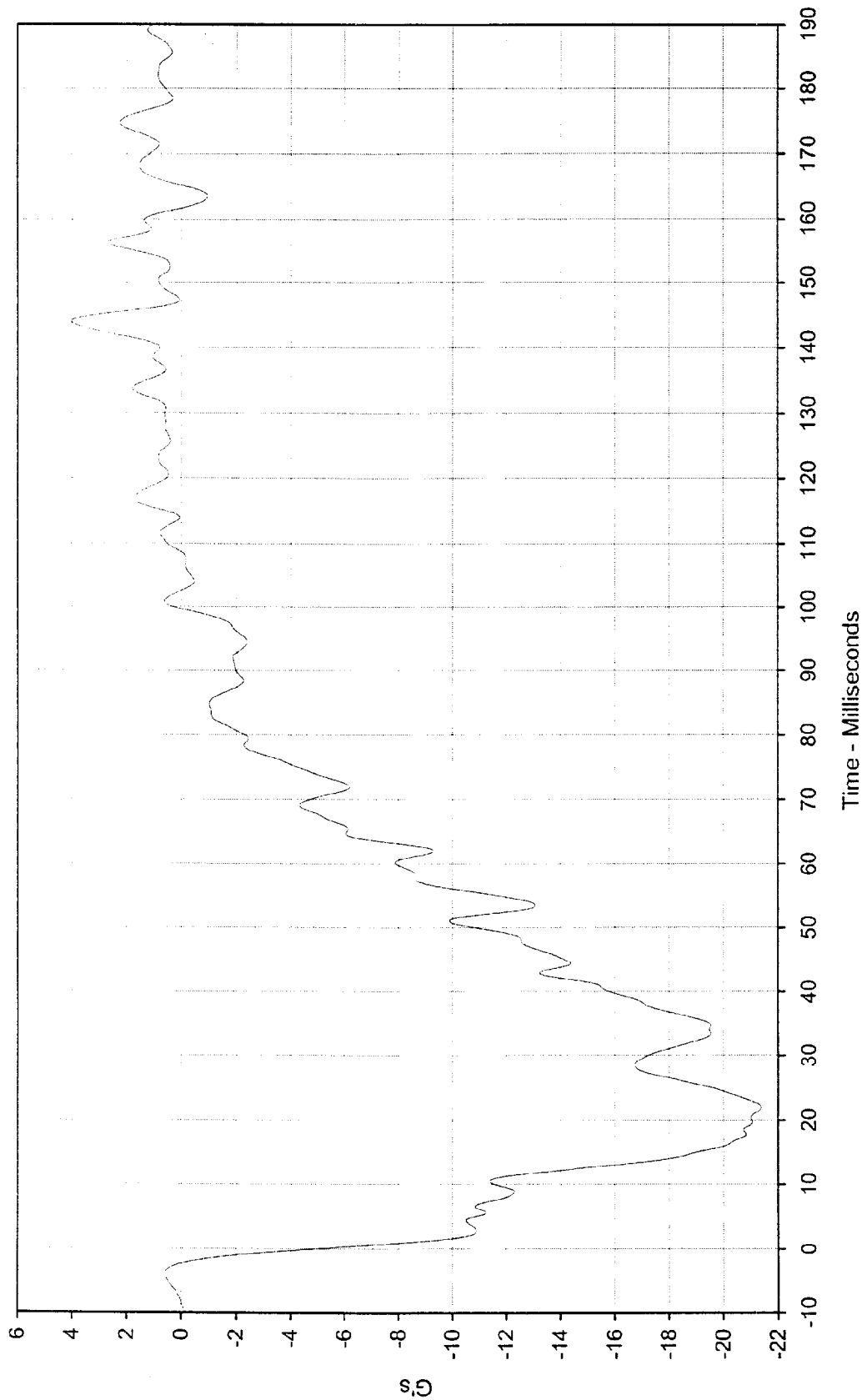
Date of Test: 01/21/00

Curve Number: RES-036

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup

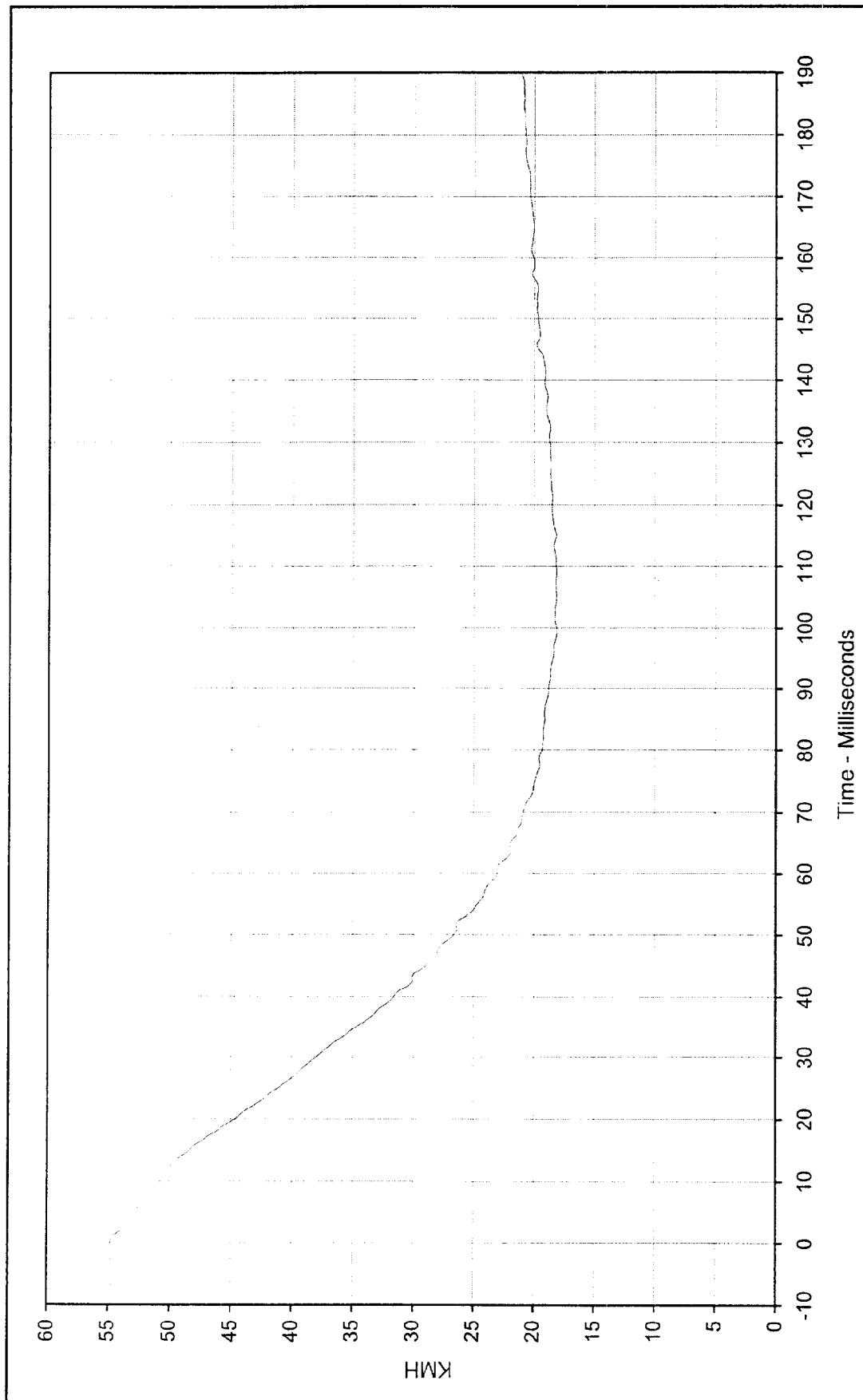




Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup



Curve Description: MDB Rear X
 Maximum Value: 4.0 at 144.0 Milliseconds
 Minimum Value: -21.4 at 21.9 Milliseconds
 SAE Filter Class: 60
 Date of Test: 01/21/00
 Curve Number: FIL-039



Curve Description: MDB Rear X Velocity

Maximum Value: 54.8 at 0.0 Milliseconds

Minimum Value: 18.1 at 99.5 Milliseconds

SAE Filter Class: 180

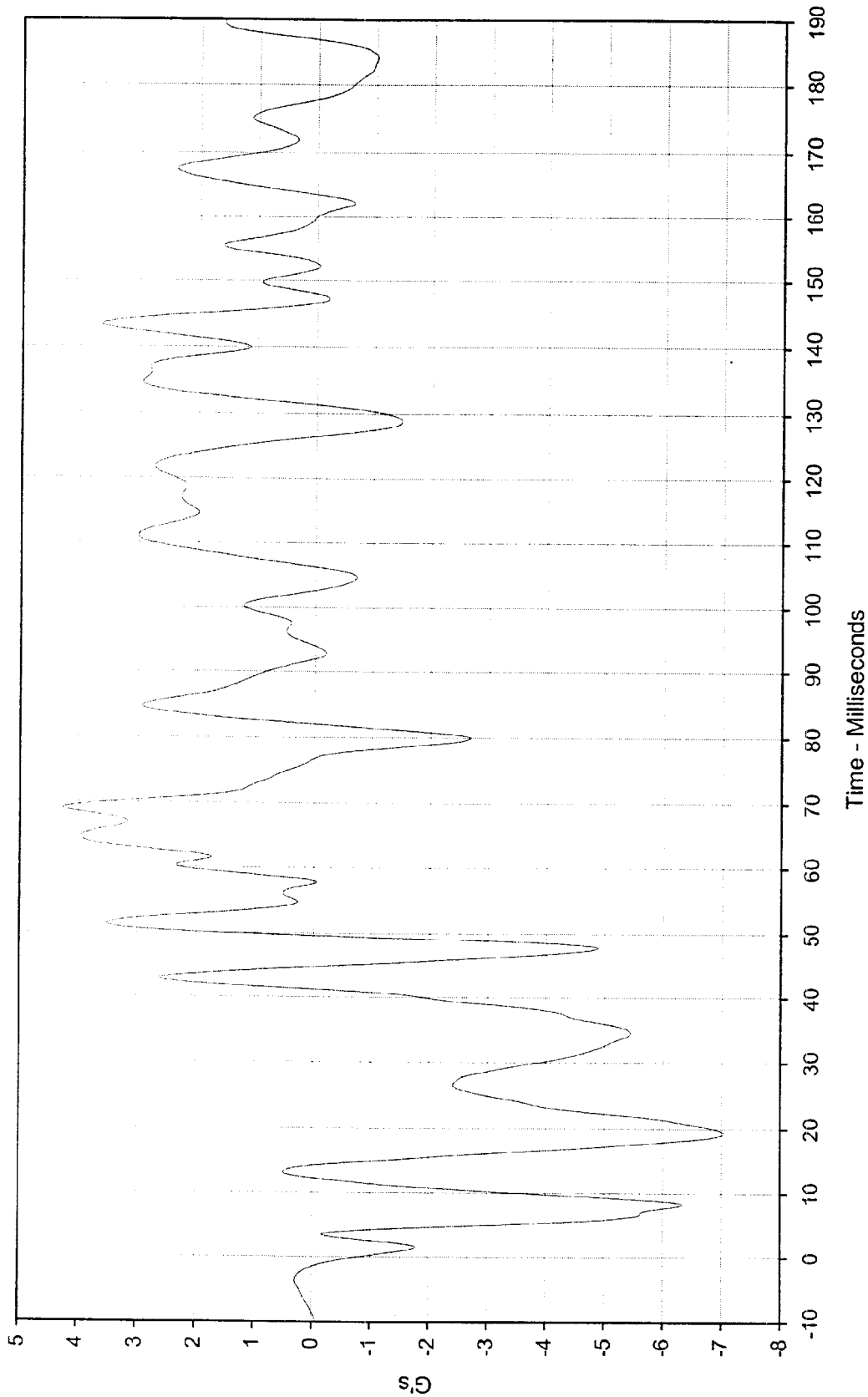
Date of Test: 01/21/00

Curve Number: IN1-039

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: MDB Rear Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Maximum Value: 4.3 at 69.0 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup

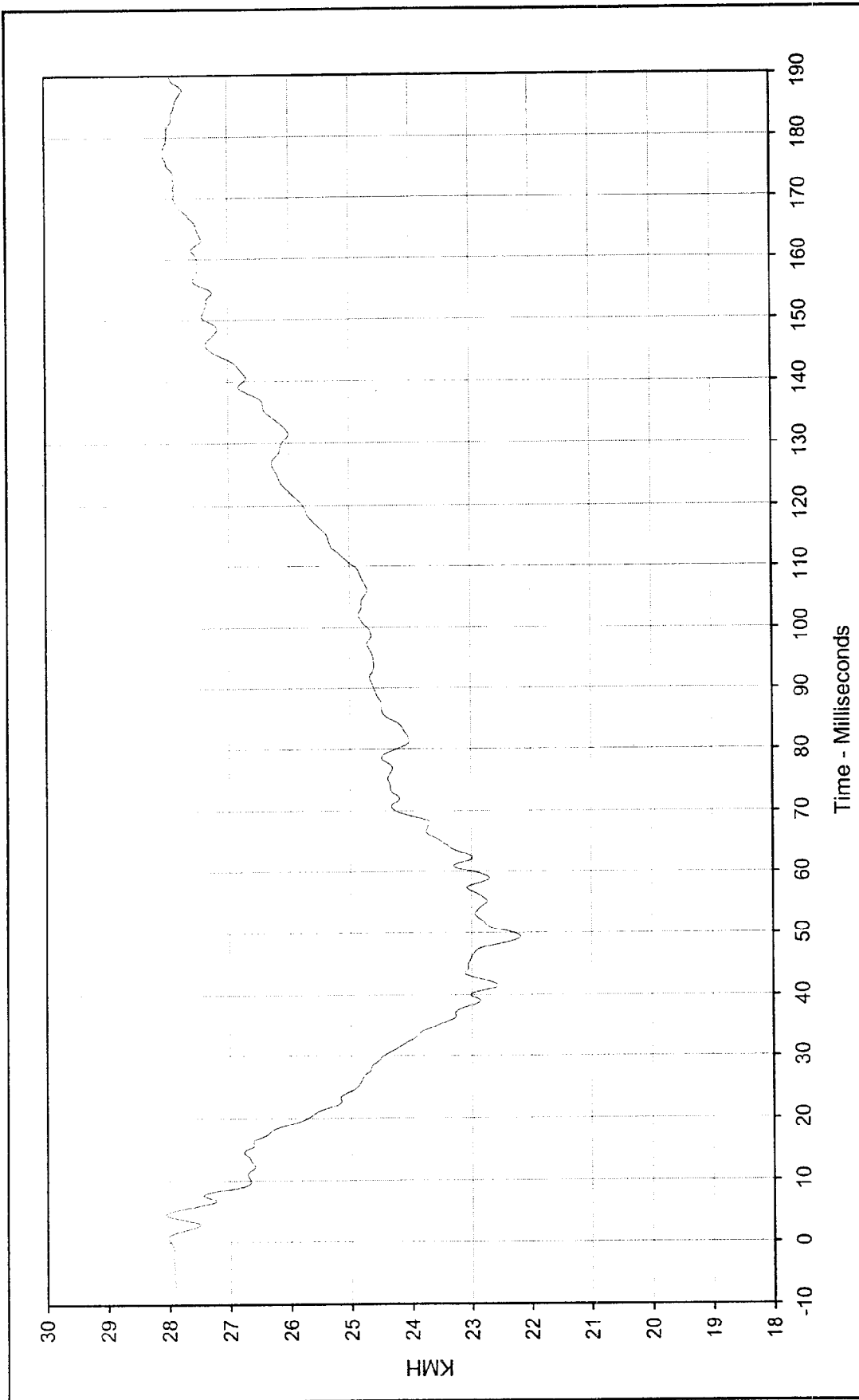
Minimum Value: -7.0 at 19.3 Milliseconds

SAE Filter Class: 60

Date of Test: 01/21/00

Curve Number: FIL-040

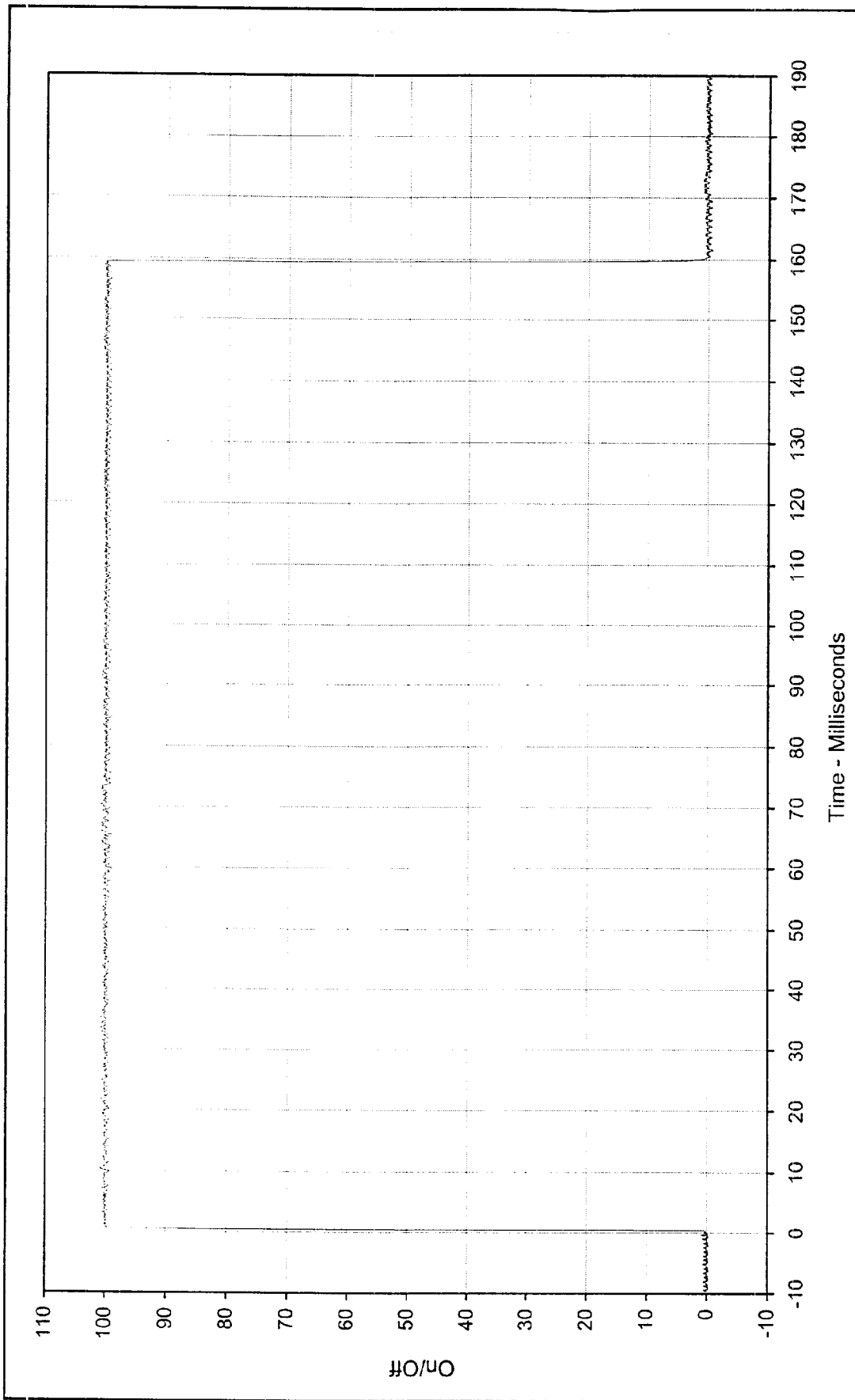




Curve Description: MDB Rear Y Velocity
 Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

Maximum Value: 28.1 at 4.6 Milliseconds
 Minimum Value: 22.2 at 49.4 Milliseconds
 SAE Filter Class: 180
 Date of Test: 01/21/00
 Curve Number: IN1-040

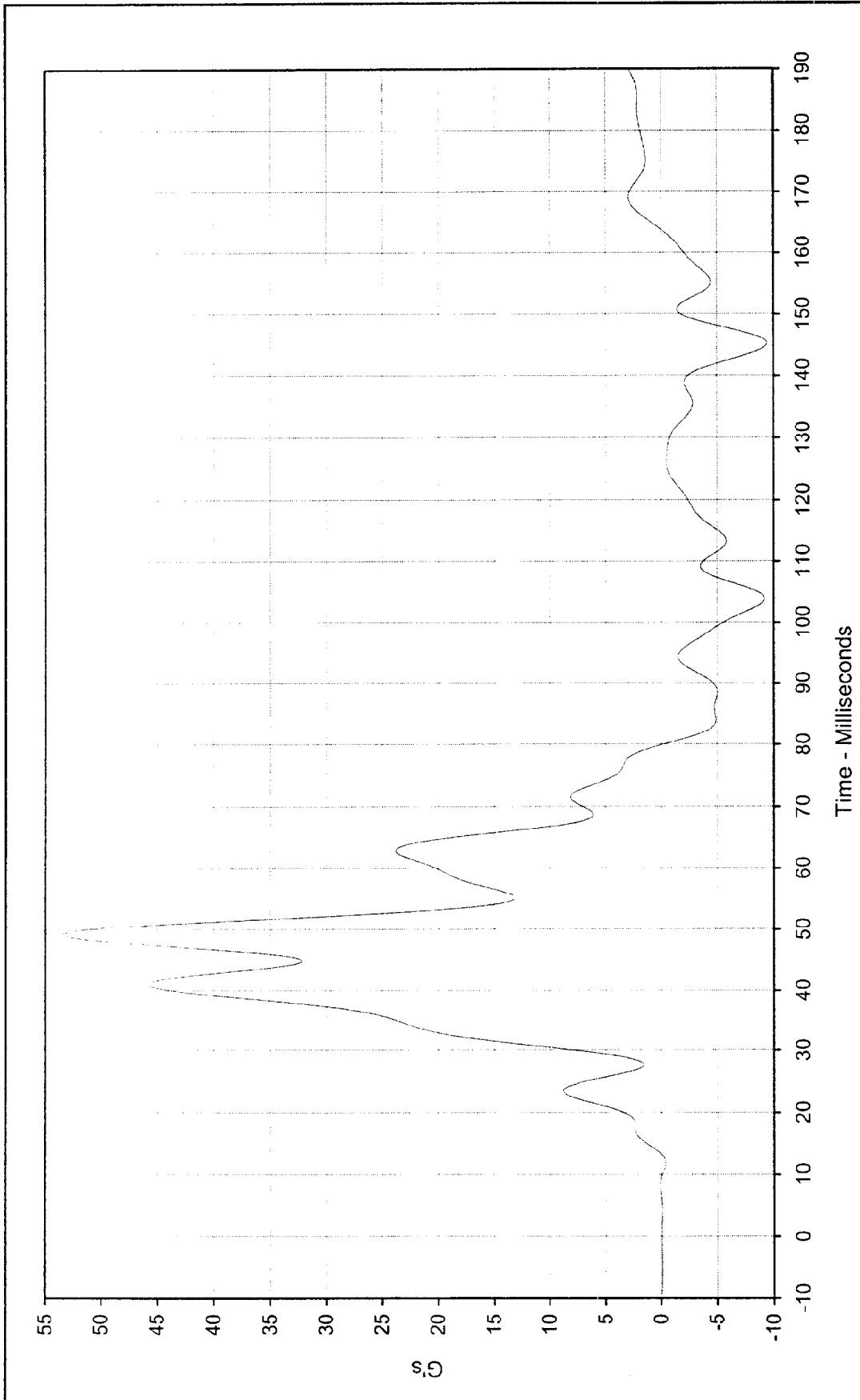




Curve Description: MDB Right Bumper Contact
 Maximum Value: 100.9 at 70.3 Milliseconds
 Crossing Point: 50% at 0.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/21/00
 Curve Number: FIL-041

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup

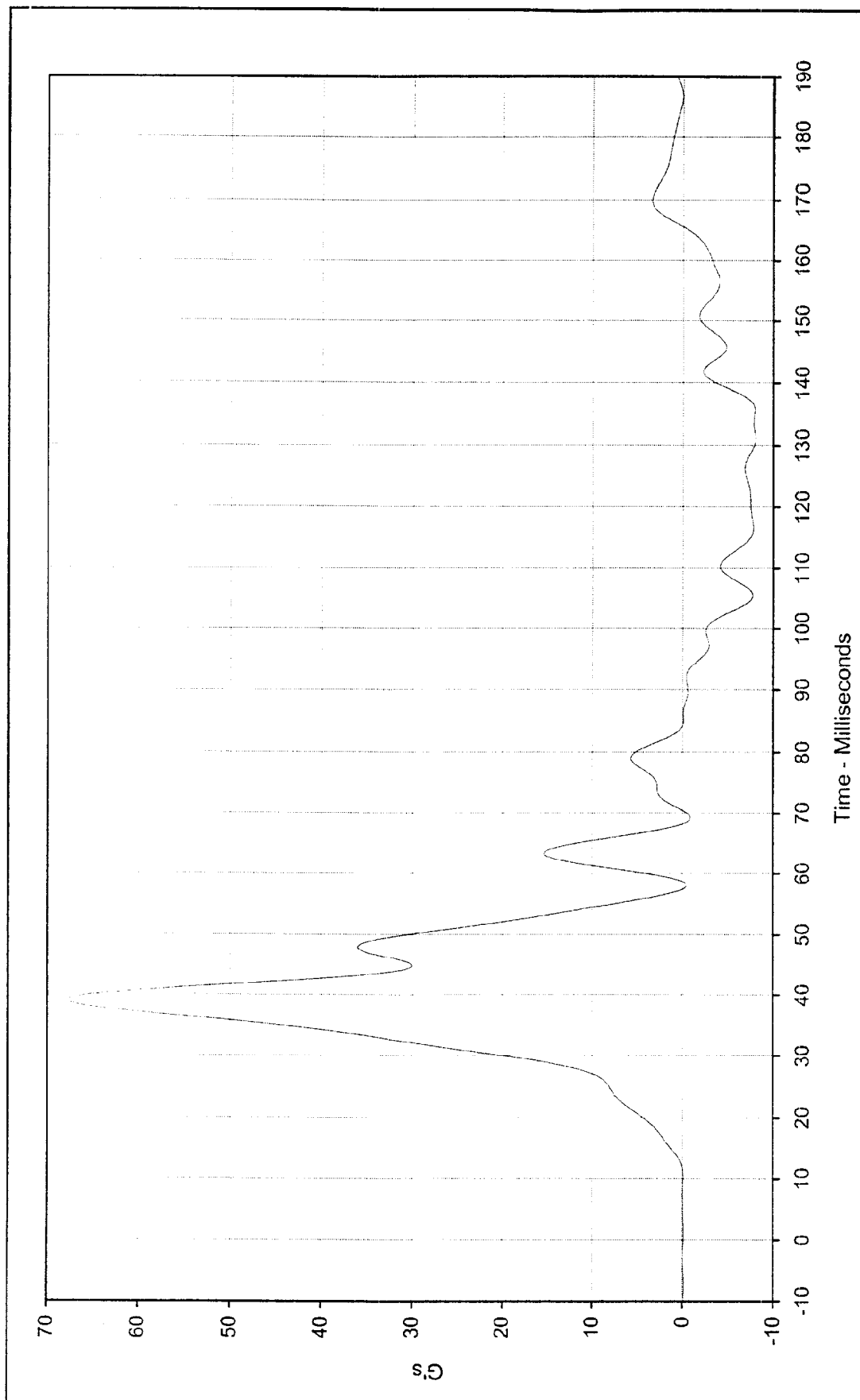




Curve Description: Driver Upper Rib Primary
 Maximum Value: 53.4 at 49.2 Milliseconds
 Minimum Value: -9.4 at 145.2 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 01/21/00
 Curve Number: FIR-004

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description: Driver Lower Rib Primary

Maximum Value: 67.7 at 39.0 Milliseconds

Minimum Value: -8.0 at 131.2 Milliseconds

SAE Filter Class: FIR 100

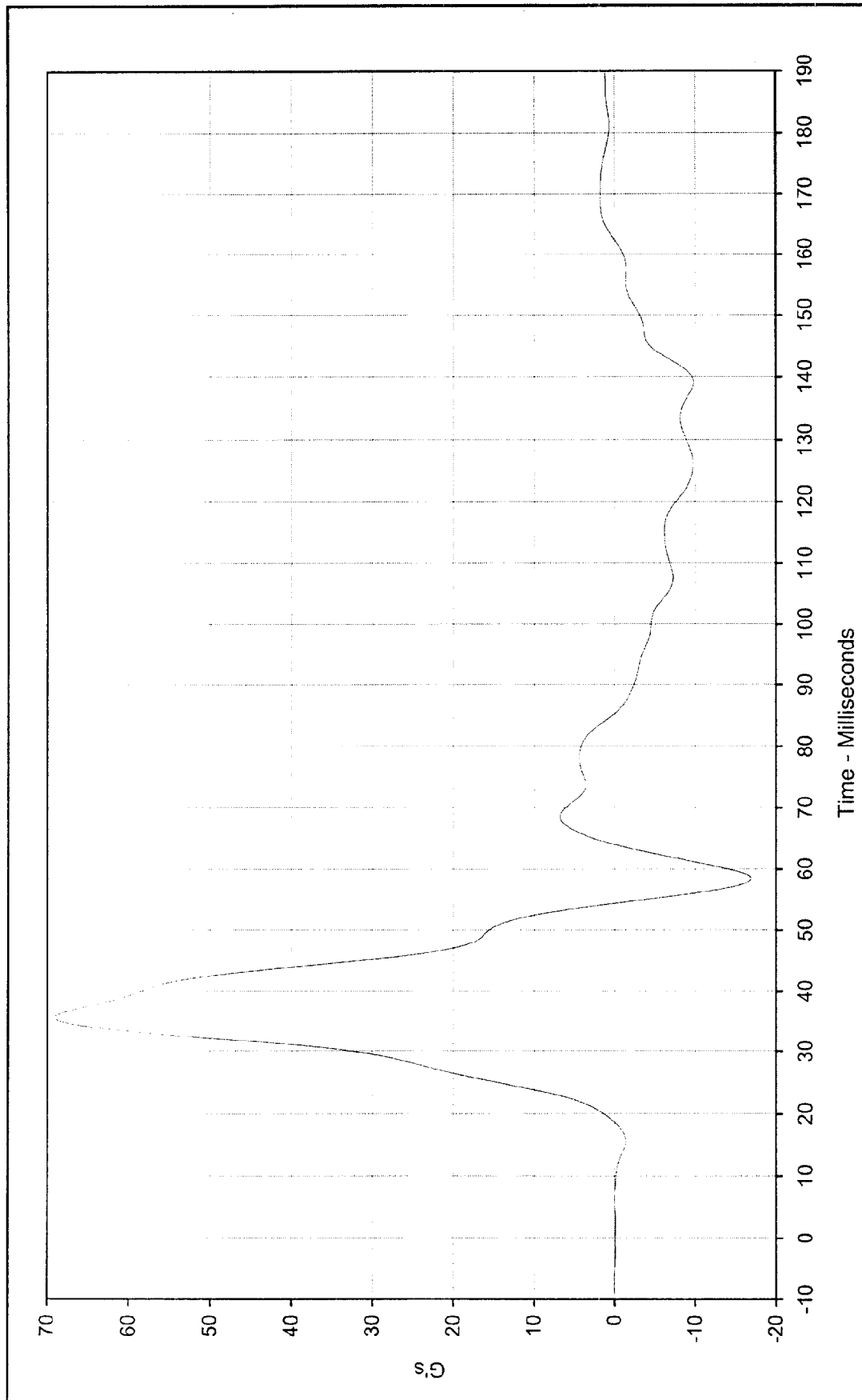
Date of Test: 01/21/00

Curve Number: FIR-005

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

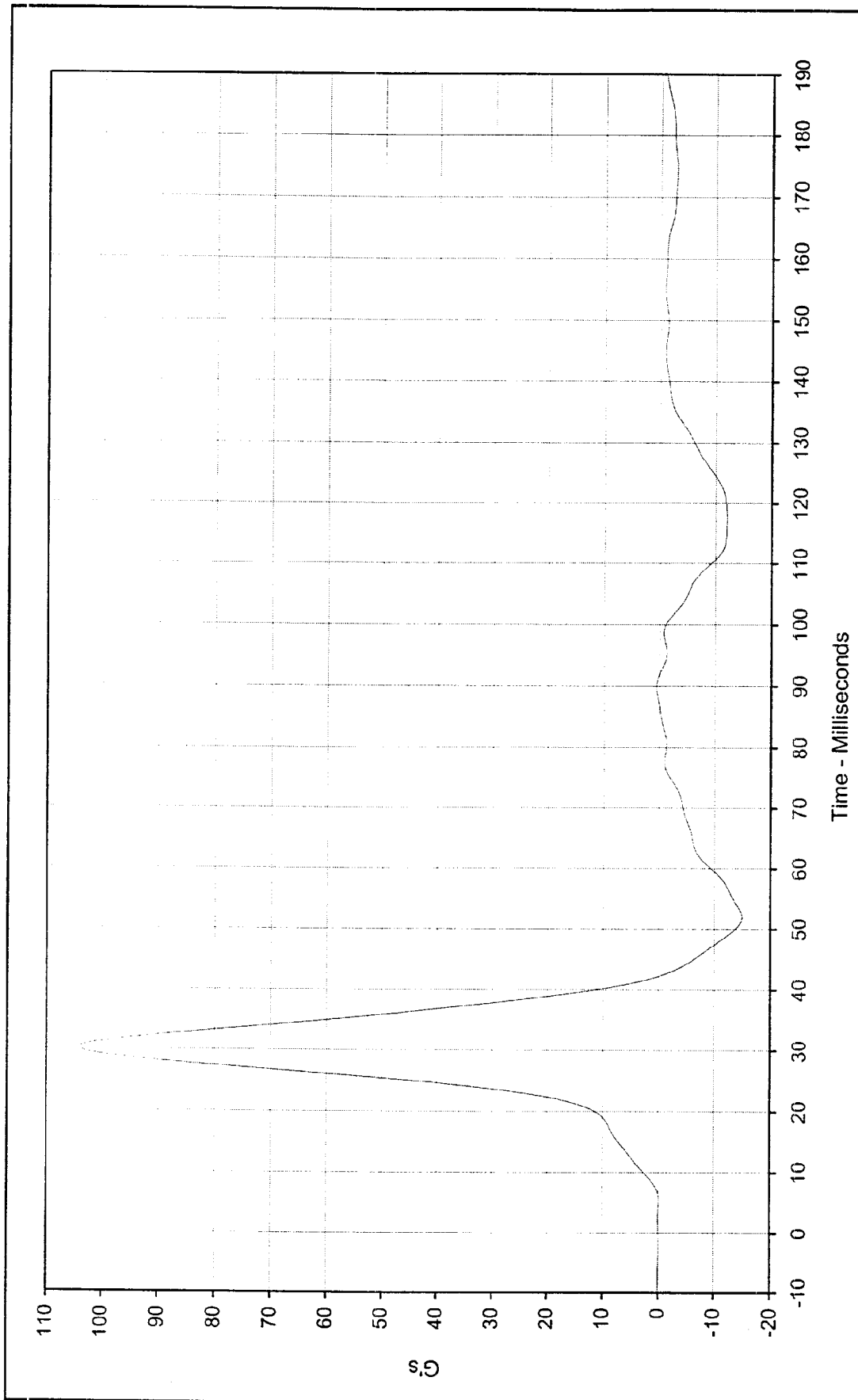
Test Vehicle: 2000 Ford Ranger XLT Pickup





Curve Description:	Driver Lower Spine Primary	Test Program:	55/28 km/h Side Impact NCAP	No.: MY0208
Maximum Value:	69.1 at 35.6 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup	
Minimum Value:	-16.9 at 58.4 Milliseconds			
SAE Filter Class:	FIR 100			
Date of Test:	01/21/00			
Curve Number:	FIR-006			





Curve Description: Passenger Pelvis Primary Y Test Program: 55/28 km/h Side Impact NCAP No.: MY0208

Maximum Value: 104.2 at 30.2 Milliseconds Test Vehicle: 2000 Ford Ranger XLT Pickup

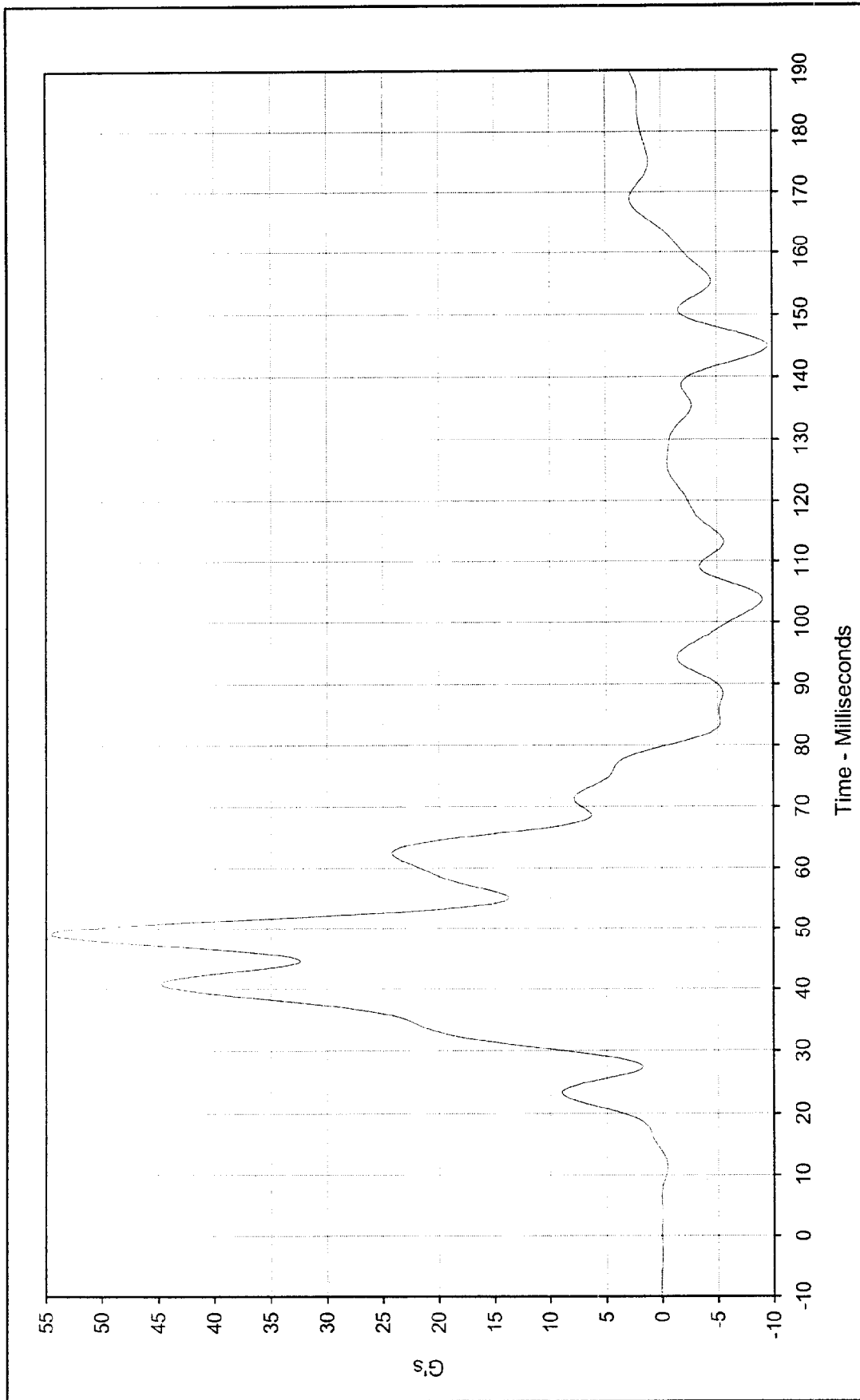
Minimum Value: -14.9 at 51.9 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 01/21/00

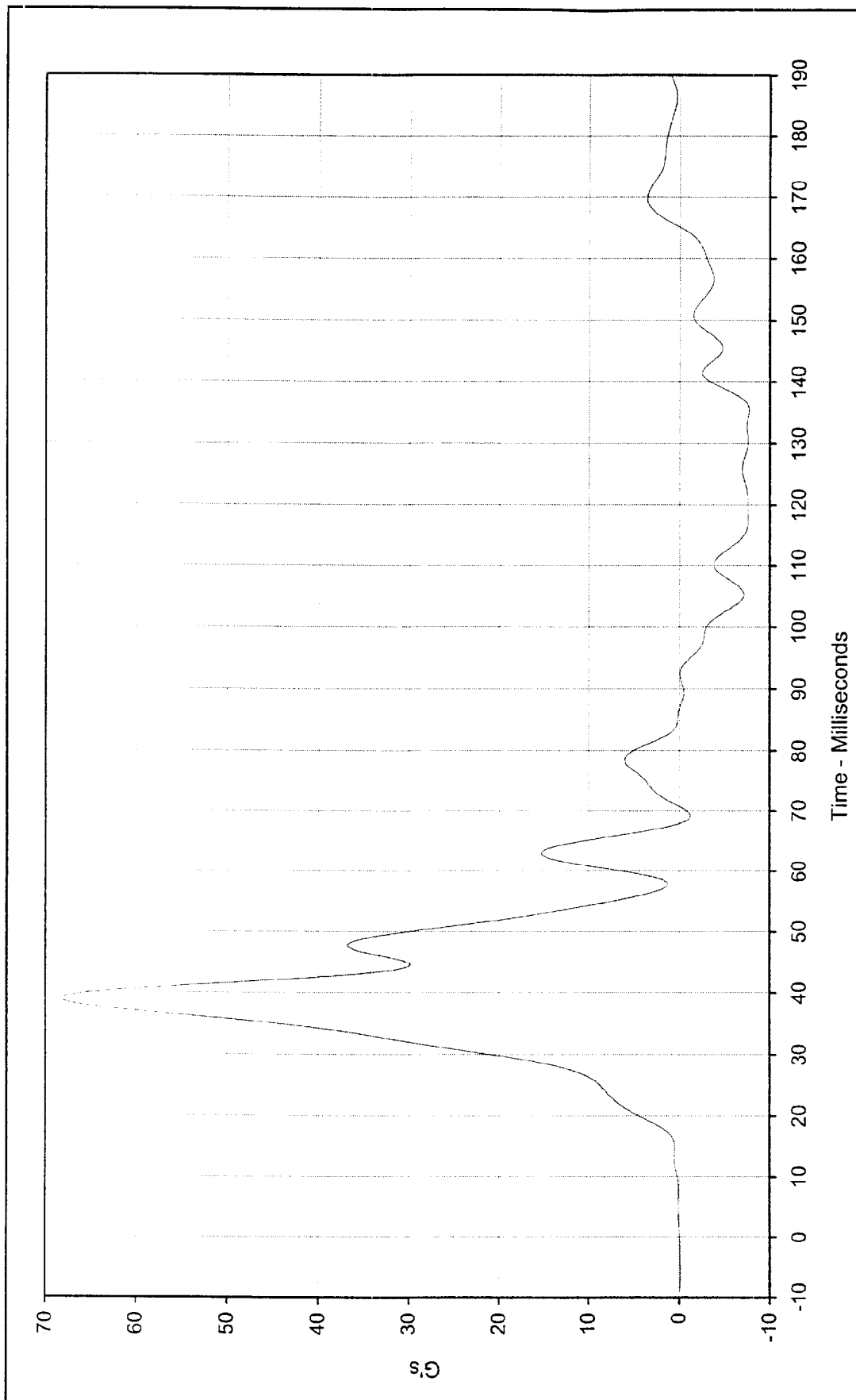
Curve Number: FIR-007





Curve Description:	Passenger Upper Rib Redundant	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0208
Maximum Value:	54.6 at 49.0 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup		
Minimum Value:	-9.6 at 144.9 Milliseconds				
SAE Filter Class:	FIR 100				
Date of Test:	01/21/00				
Curve Number:	FIR-008				

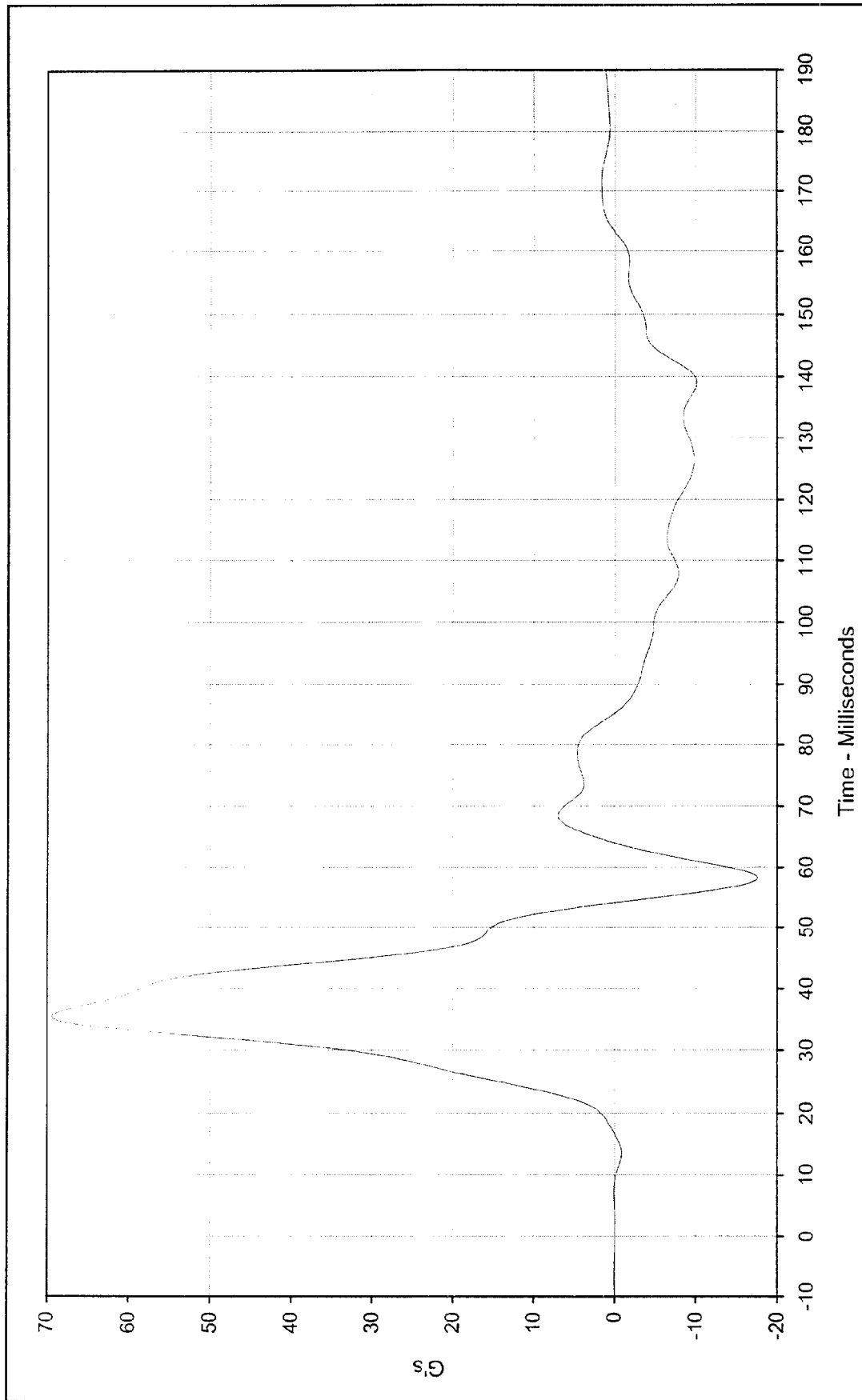




Curve Description: Passenger Lower Rib Redundant
Maximum Value: 68.3 at 38.9 Milliseconds
Minimum Value: -7.8 at 135.5 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 01/21/00
Curve Number: FIR-009

Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
Test Vehicle: 2000 Ford Ranger XLT Pickup

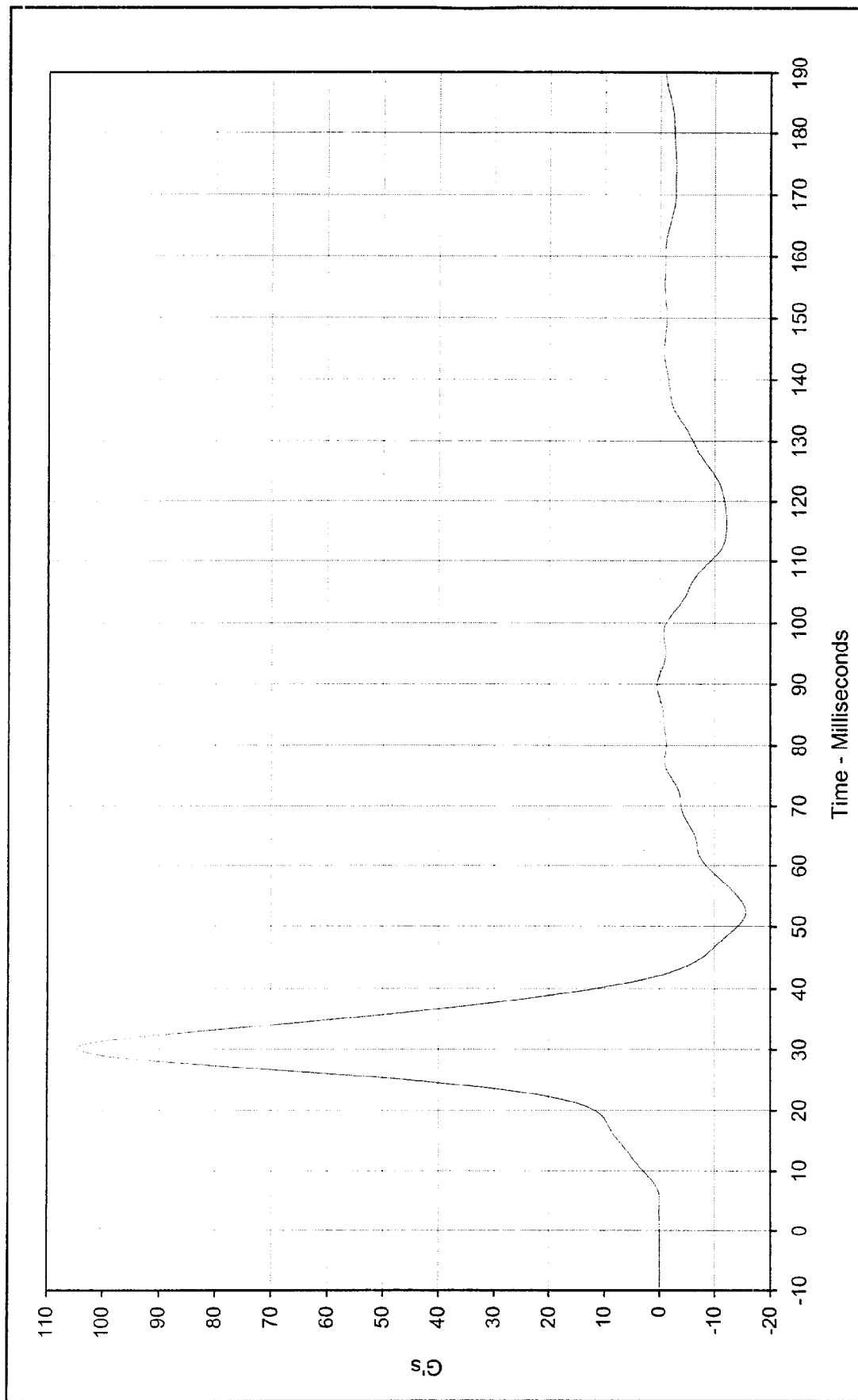




Test Program: 55/28 km/h Side Impact NCAP No.: MY0208
 Test Vehicle: 2000 Ford Ranger XLT Pickup



Curve Description: Driver Lower Spine Redundant
 Maximum Value: 69.5 at 35.5 Milliseconds
 Minimum Value: -17.6 at 58.1 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 01/21/00
 Curve Number: FIR-010

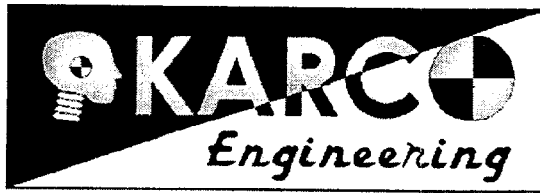


Curve Description:	Passenger Pelvis Redundant Y	Test Program:	55/28 km/h Side Impact NCAP	No.:	MY0208
Maximum Value:	104.6 at 30.2 Milliseconds	Test Vehicle:	2000 Ford Ranger XLT Pickup		
Minimum Value:	-15.6 at 52.3 Milliseconds				



SAE Filter Class:	FIR 100
Date of Test:	01/21/00
Curve Number:	FIR-011

APPENDIX C
SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA



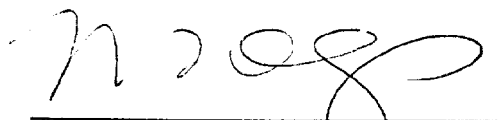
Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 056

Part Serial No.: N/A

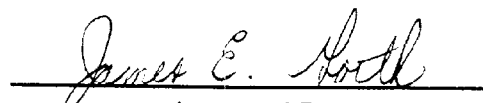
Test I.D.: N/A

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	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	

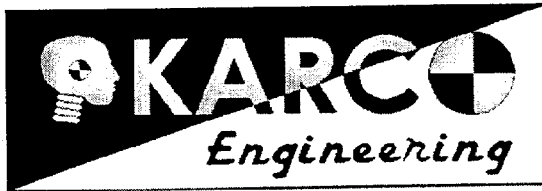

Laboratory Technician

January 20, 2000

Test Date


Approved By

1/20/00
Date



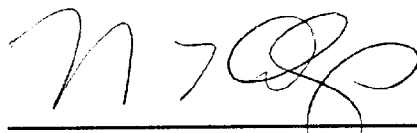
Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 056

Part Serial No.: N/A

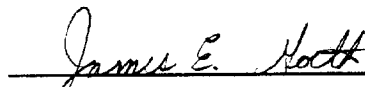
Test I.D.: TI00C

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

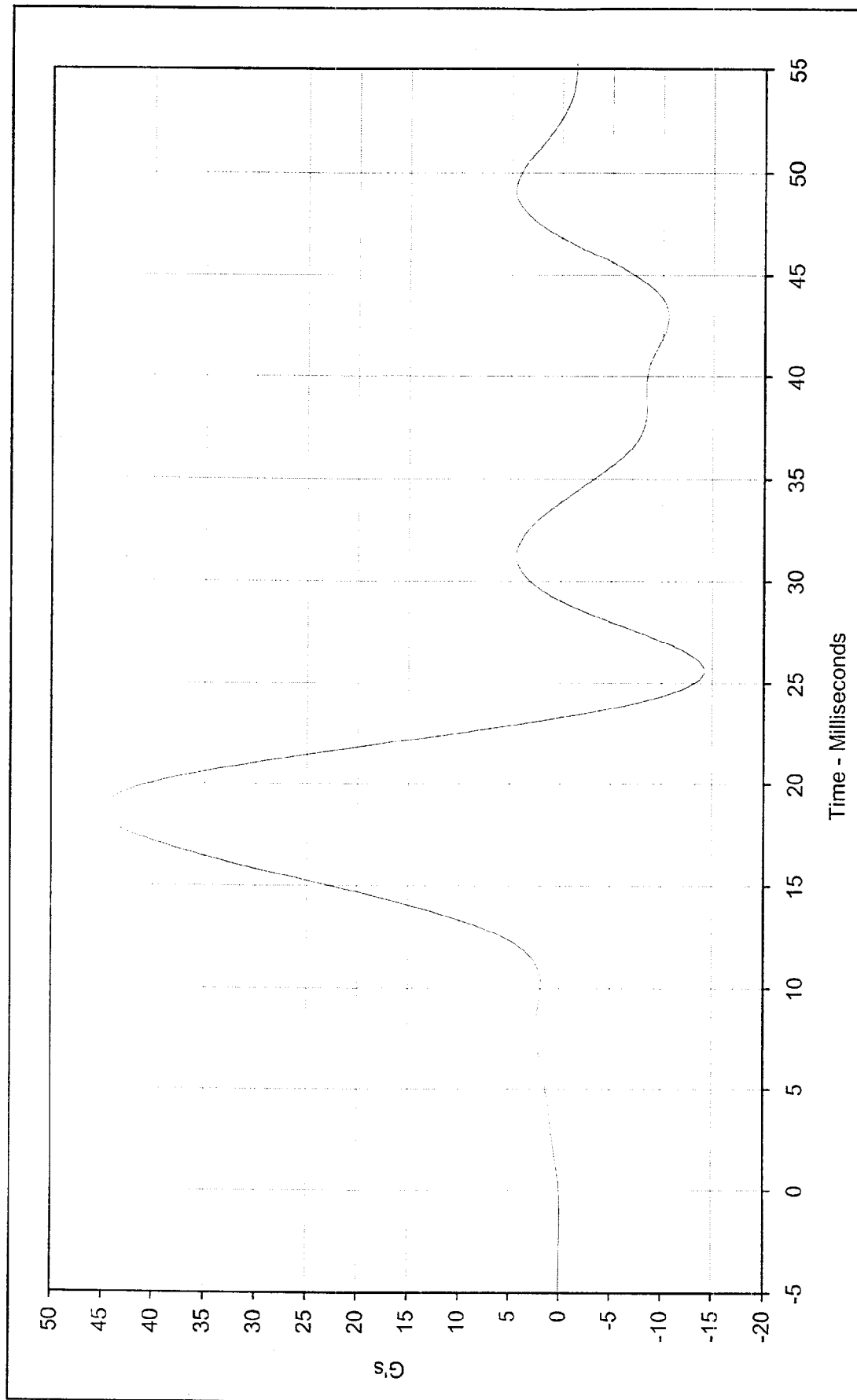
January 20, 2000

Test Date


Approved By

1/20/00

Date



Curve Description: Left Upper Rib Y Acceleration

Maximum Value: 44.9 at 18.7 Milliseconds

Minimum Value: -14.2 at 25.6 Milliseconds

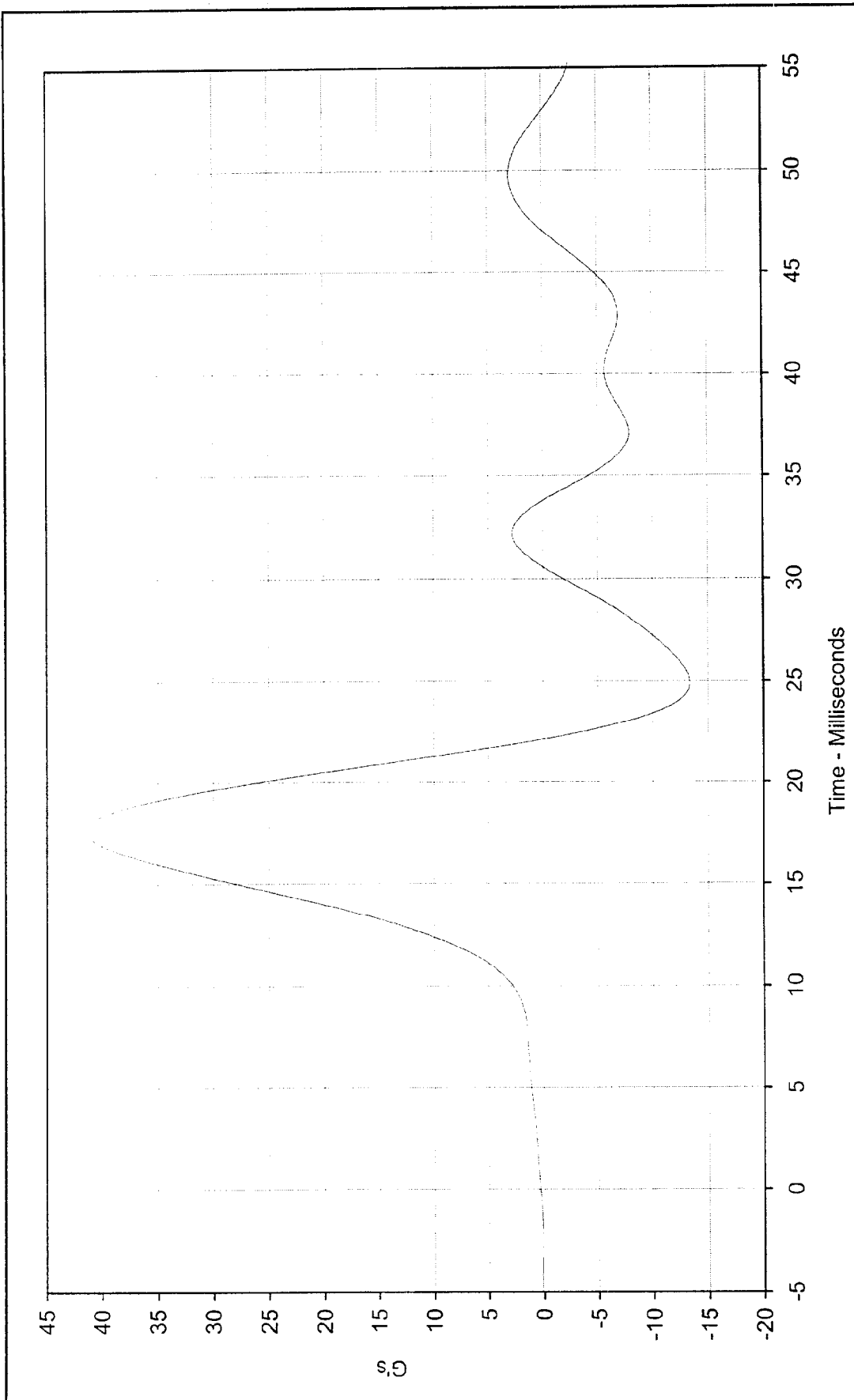
SAE Filter Class: FIR 100

Date of Test: 1/20/00

Test Program: SID Thorax Lateral Impact Test

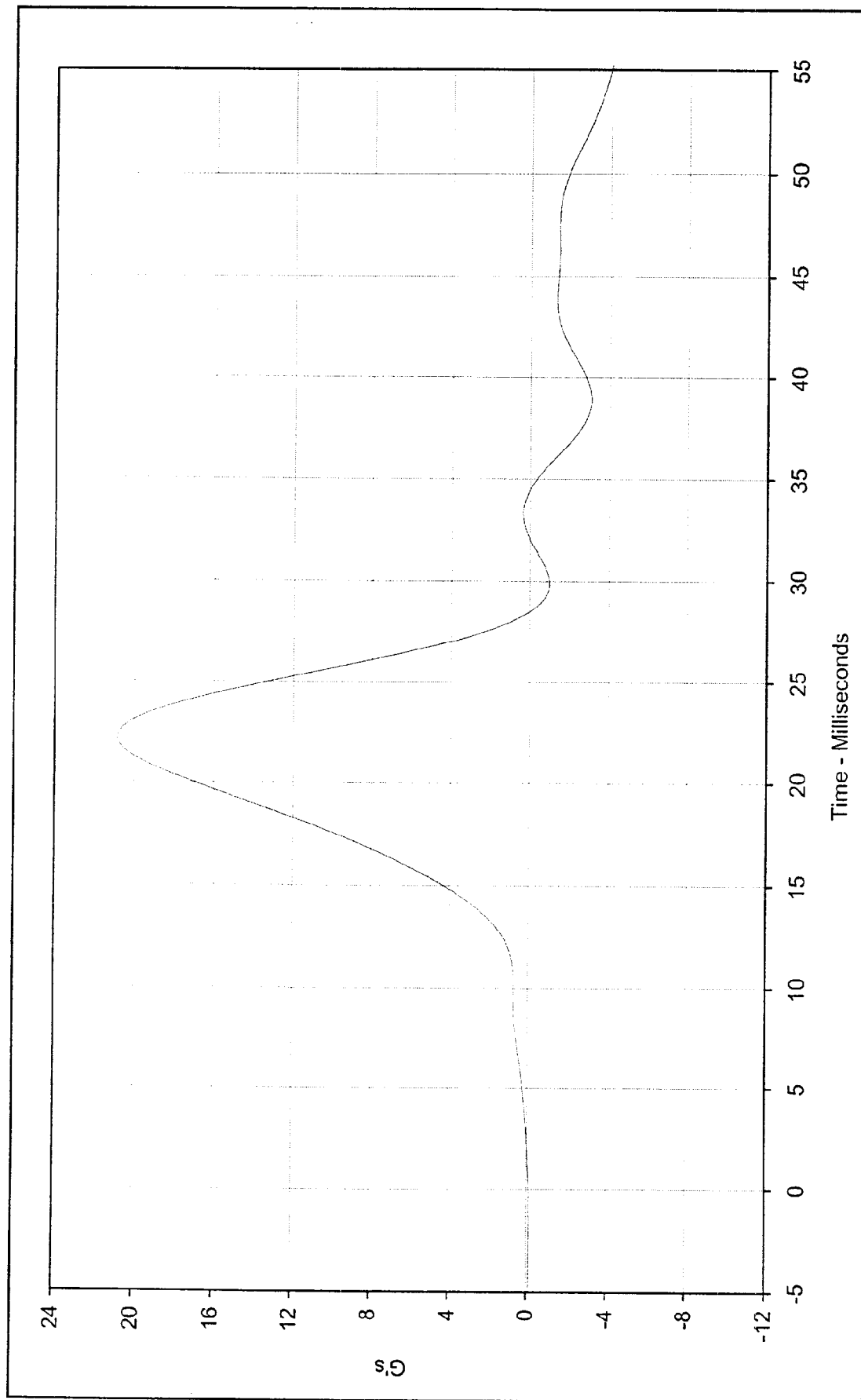
Test Information: SID S/N: 056 Test I.D.: T100C





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





Curve Description: Lower Spine Y Acceleration

Maximum Value: 20.9 at 22.2 Milliseconds

Minimum Value: -4.2 at 56.6 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





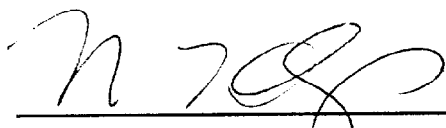
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 056

Part Serial No.: N/A

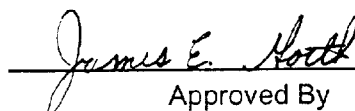
Test I.D.: PI00C

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

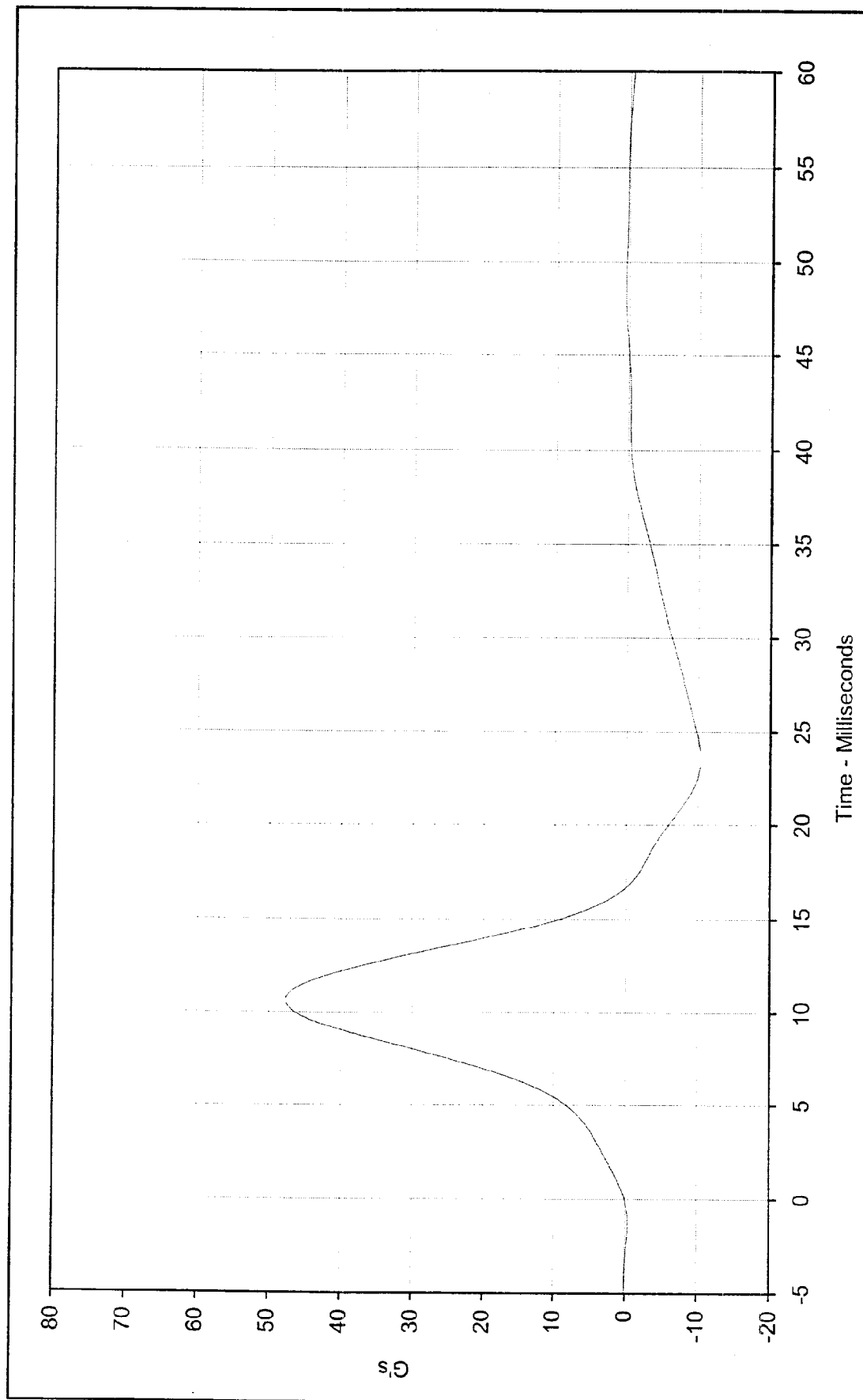

Laboratory Technician

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
	Minimum Value:	-10.3	at	23.5 Milliseconds
	SAE Filter Class:	FIR 100		
Date of Test:		1/20/00		
		Test Information: SID S/N: 056 Test I.D.: PI00C		





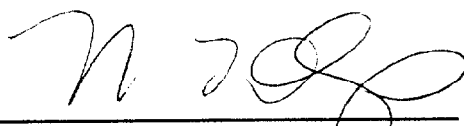
Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: AC02C

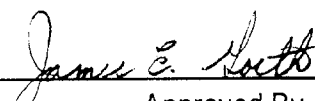
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	25.1	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	37.3	Pass
Force at 1.0 Inches of 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

January 19, 2000

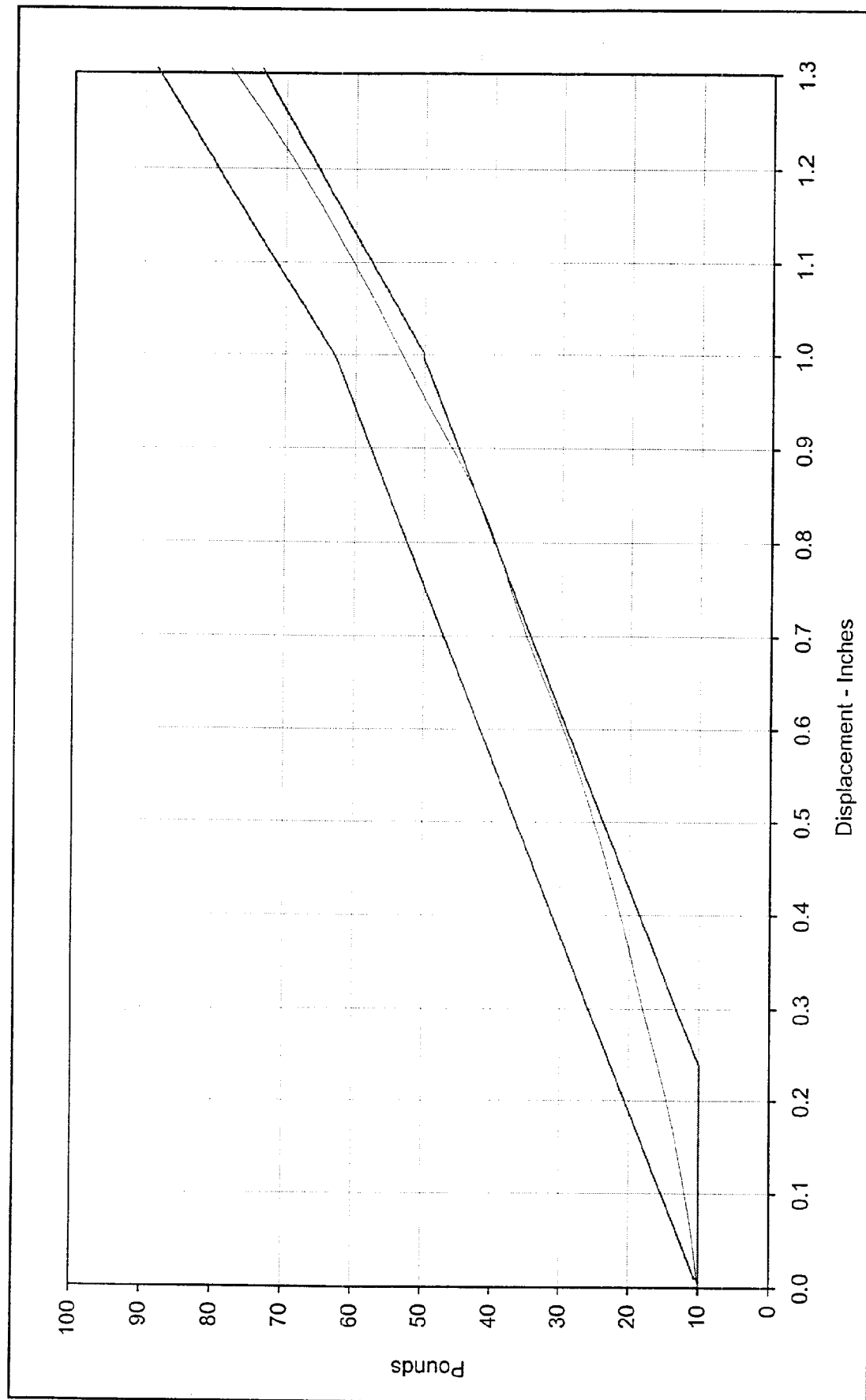
Test Date



Approved By

1/17/00

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)

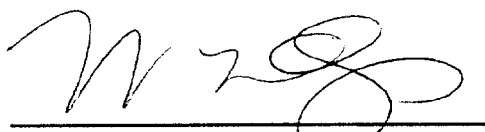
Lumbar Flexion Test

ATD Serial No.: 056

Part Serial No.: N/A

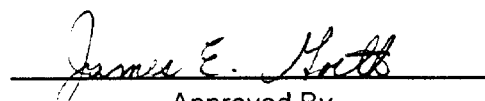
Test I.D.: LF02C

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

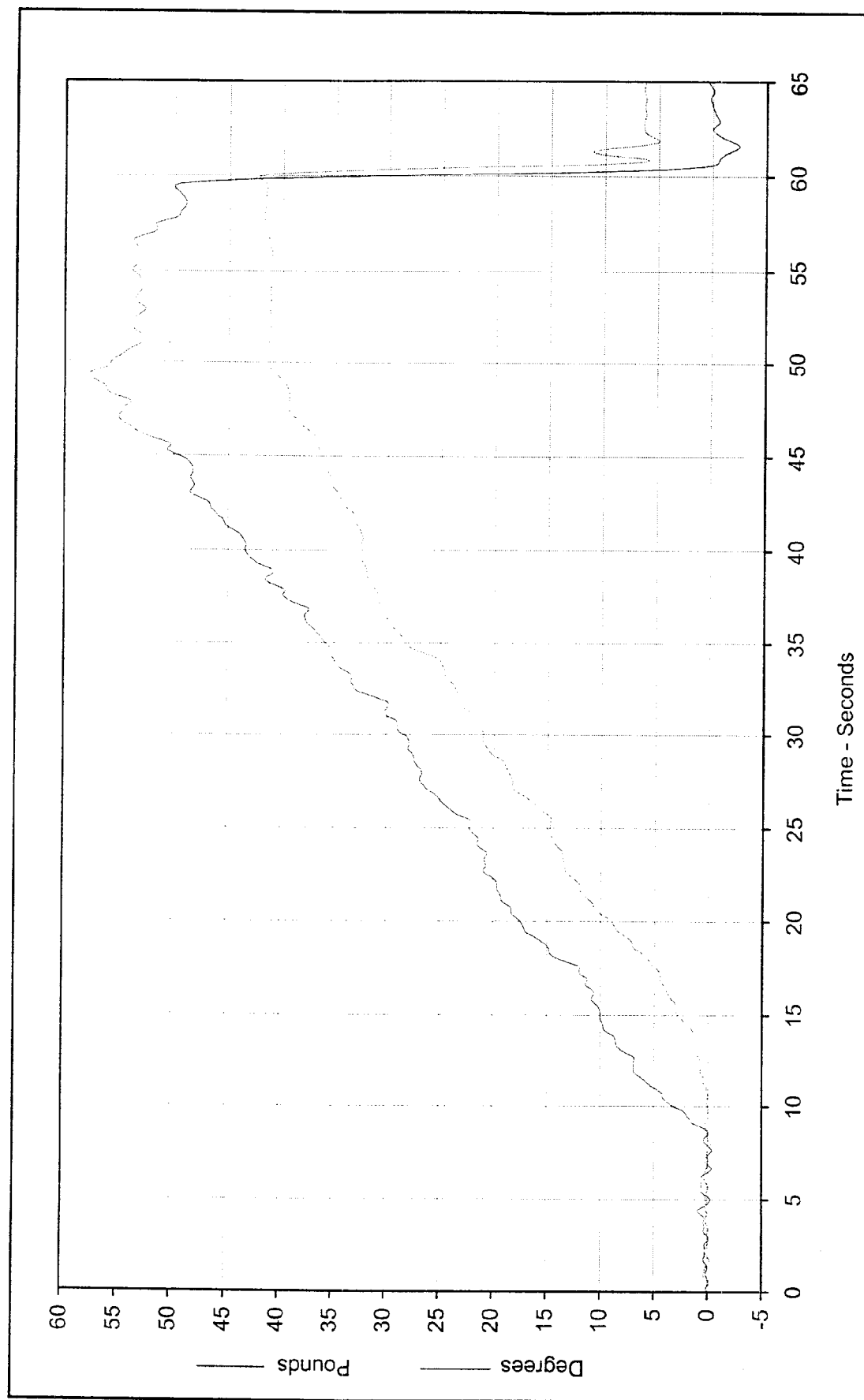
January 19, 2000

Test Date


Approved By

1/19/00

Date



Curve Description: Applied Lumbar Force And Angle Test Program: Side Impact Dummy Lumbar Flexion

Force at 20°: 27.5 Pounds Test Information: SID S/N: 056 Test I.D.: LF02C

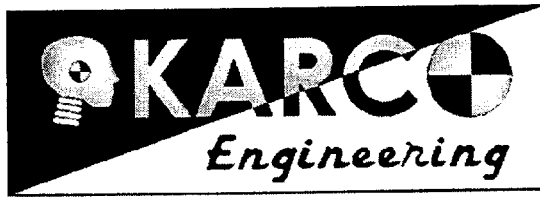


Force at 30°: 37.7 Pounds

Force at 40°: 57.4 Pounds

Return Angle: 4.8 Degrees

Test Date: 01/19/00



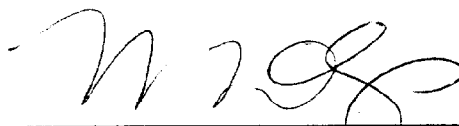
Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: SH02C

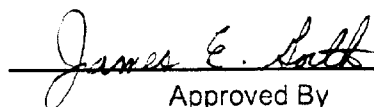
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	32	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	250.0	Pass
Peak Lateral Acceleration	G's	≤10.0	2.5	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.3	Pass
Is Resultant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



Laboratory Technician

January 19, 2000

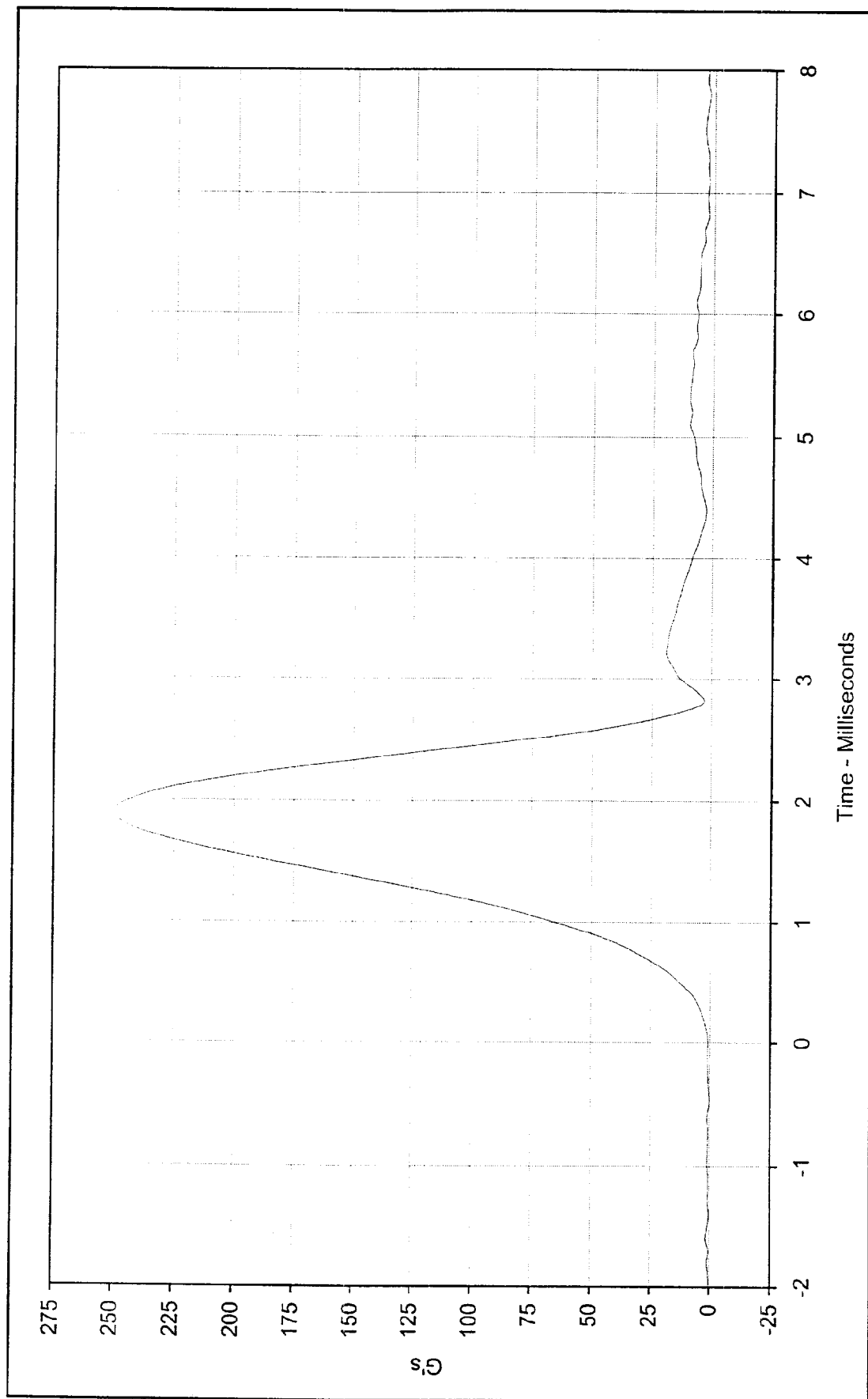
Test Date



Approved By



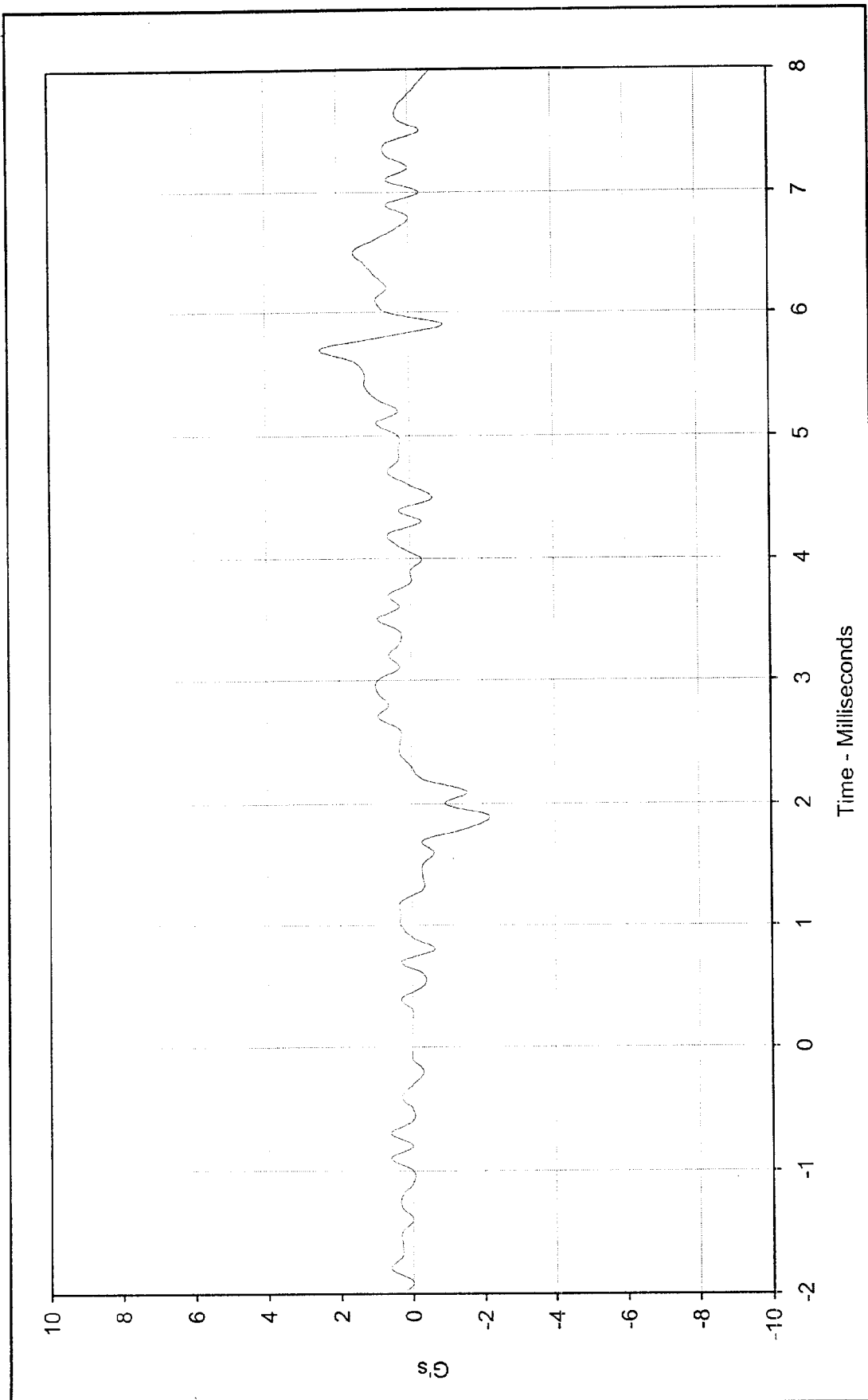
Date



Curve Description: Head Resultant Acceleration
 Maximum Value: 250.0 at 1.9 Milliseconds
 Minimum Value: 0.8 at 0.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/19/00

Test Program: Hybrid II Head Drop Calibration
 Test Information: SID S/N: 056 Test I.D.: SH02C

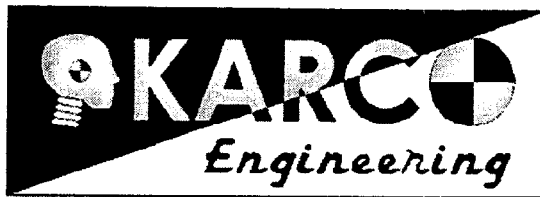




Curve Description: Head Y Axis Acceleration
 Maximum Value: 2.5 at 5.7 Milliseconds
 Minimum Value: -2.2 at 1.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 01/19/00

Test Program: Hybrid II Head Drop Calibration
 Test Information: SID S/N: 056 Test I.D.: SH02C





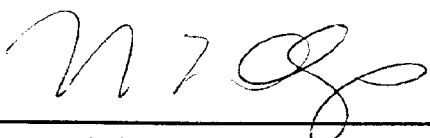
Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 056

Part Serial No.: N/A

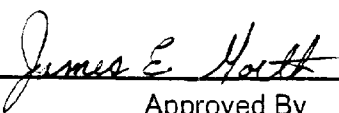
Test I.D.: N/A

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	512	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	521	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	365	Pass
Overall Test Results			Pass	


Laboratory Technician

January 24, 2000

Test Date


Approved By

1/24/00
Date



Performance Verification Data

Side Impact Dummy (SID)

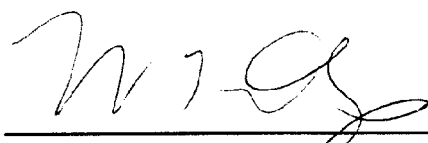
Thorax Lateral Impact

ATD Serial No.: 056

Part Serial No.: N/A

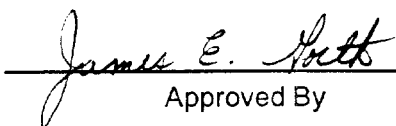
Test I.D.: TI02A

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	4.33	Pass
Left Upper Spine Acceleration	G's	37.0 to 46.0	41.3	Pass
Left Lower Spine Acceleration	G's	37.0 to 46.0	40.8	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.8	Pass
Overall Test Results				Pass

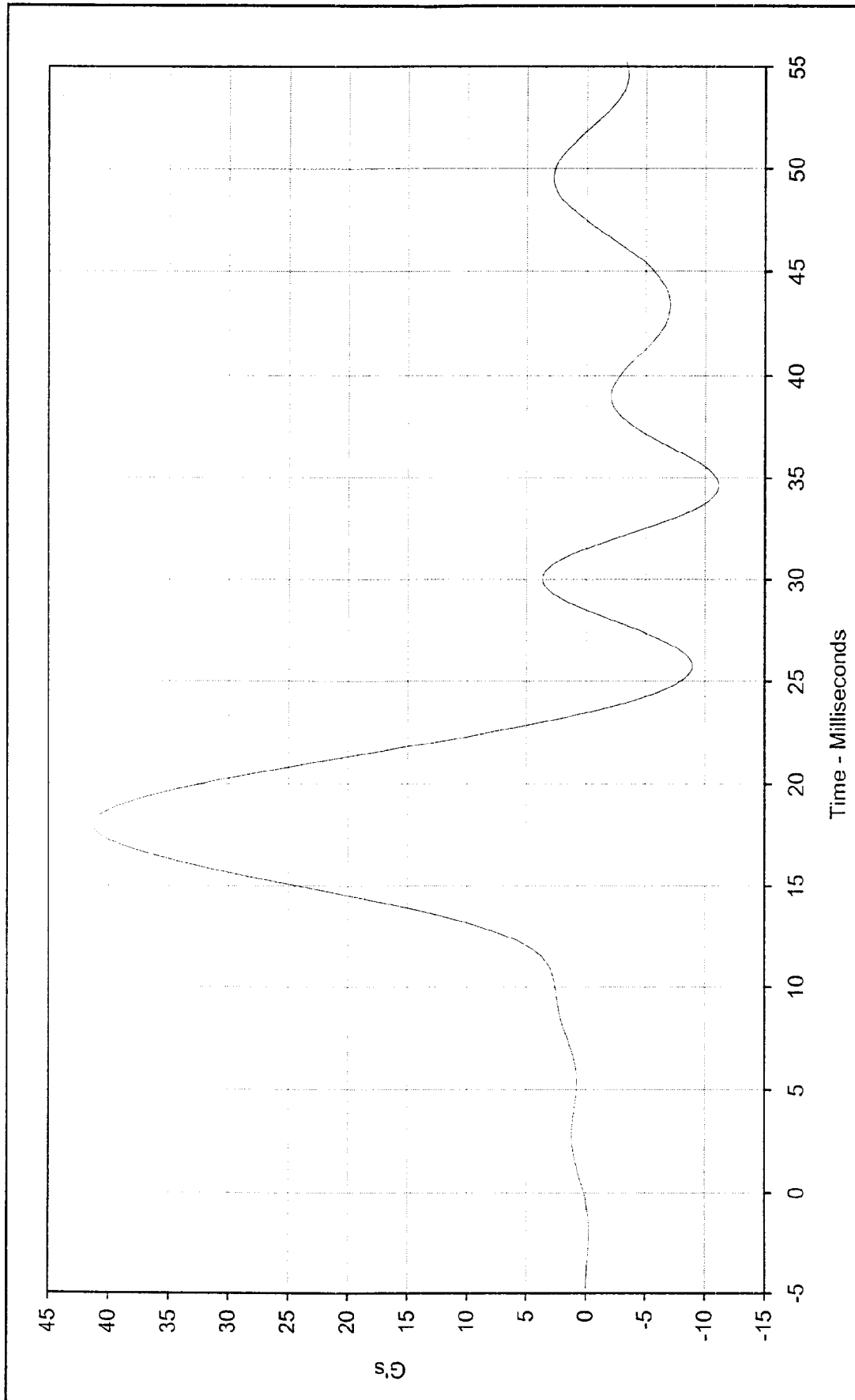

Laboratory Technician

January 22, 2000

Test Date


Approved By

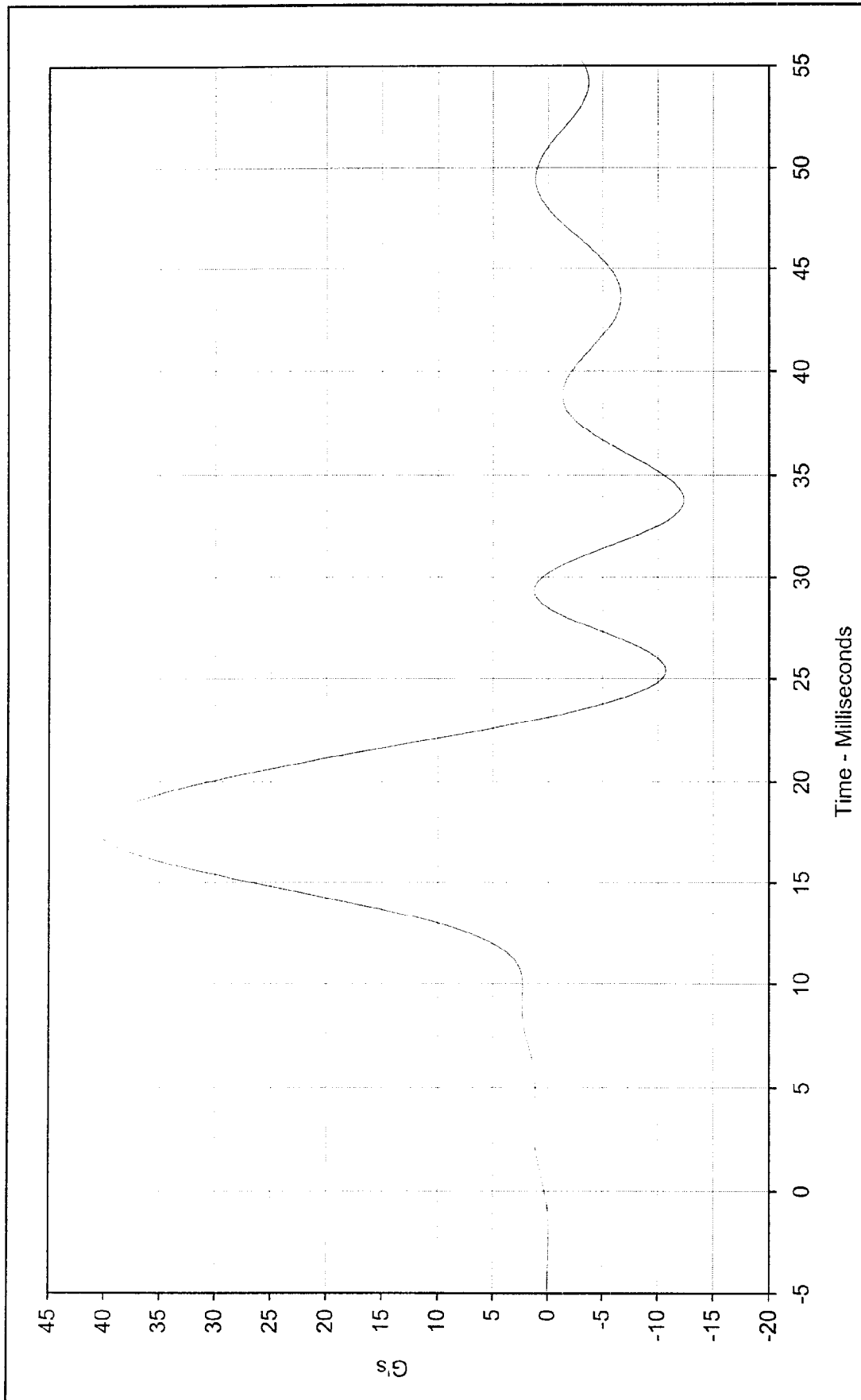
1/22/00
Date



Curve Description: Left Upper Rib Y Acceleration
 Maximum Value: 41.3 at 18.0 Milliseconds
 Minimum Value: -11.1 at 34.6 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 1/22/00

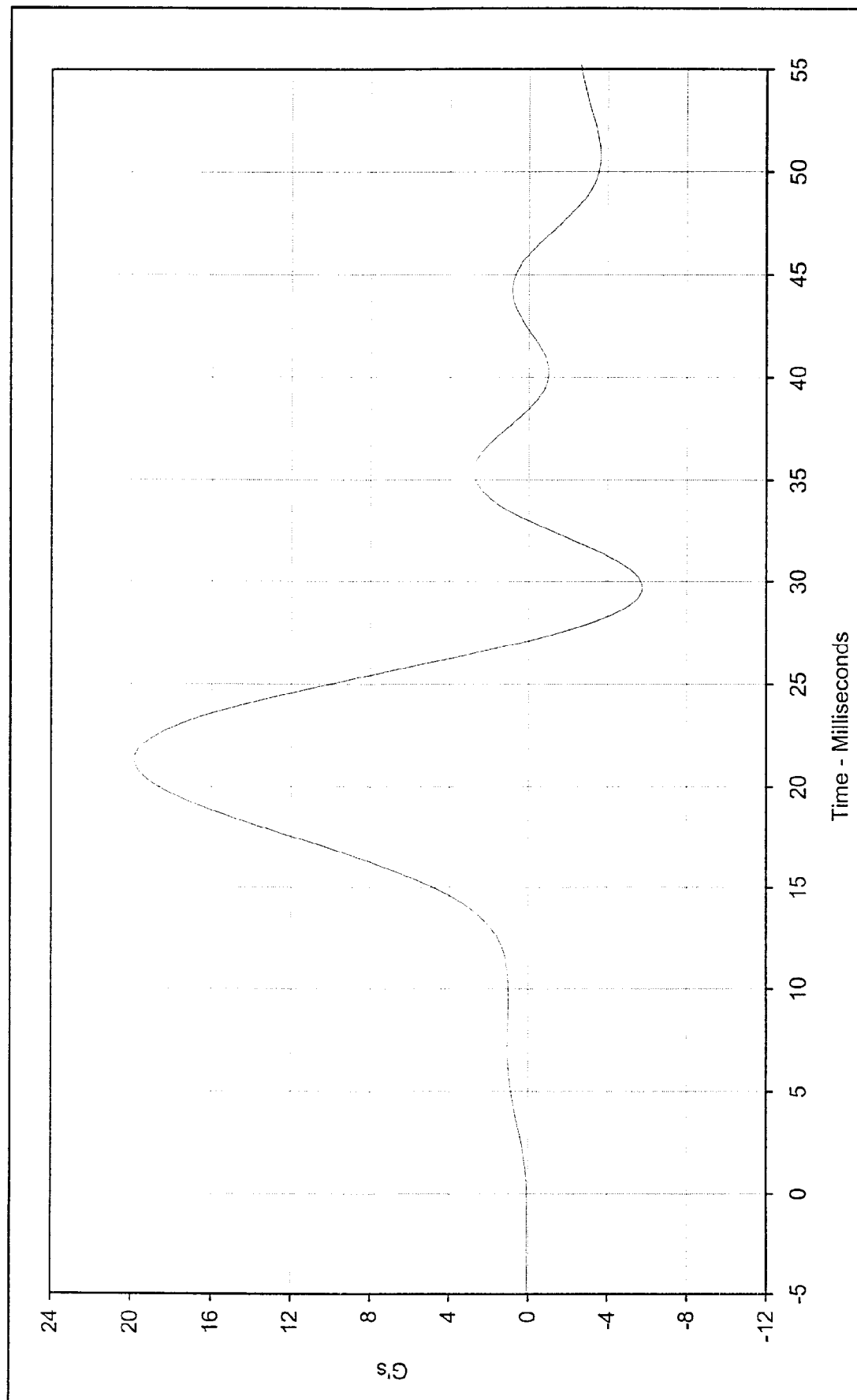
Test Program: SID Thorax Lateral Impact Test
 Test Information: SID S/N: 056 Test I.D.: T102A





Curve Description:	Left Lower Rib Y Acceleration	Test Program:	SID Thorax Lateral Impact Test
Maximum Value:	40.8 at 17.7 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: TI02A
Minimum Value:	-12.3 at 33.8 Milliseconds		
SAE Filter Class:	FIR 100		
Date of Test:	1/22/00		

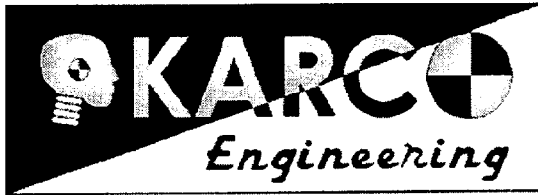




Curve Description: Lower Spine Y Acceleration
 Maximum Value: 19.8 at 21.3 Milliseconds
 Minimum Value: -5.8 at 29.7 Milliseconds
 SAE Filter Class: FIR 100
 Date of Test: 1/22/00

Test Program: SID Thorax Lateral Impact Test
 Test Information: SID S/N: 056 Test I.D.: TI02A





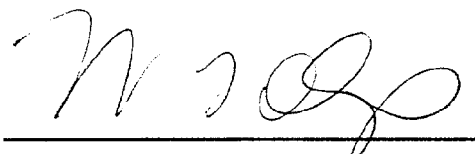
**Performance Verification Data
Side Impact Dummy (SID)
Left Side Pelvis Lateral Impact**

ATD Serial No.: 056

Part Serial No.: N/A

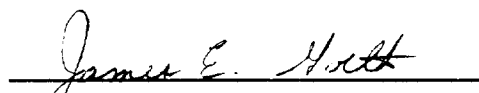
Test I.D.: PI02A

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	4.33	Pass
Pelvis Acceleration	G's	40.0 to 60.0	45.9	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass


Laboratory Technician

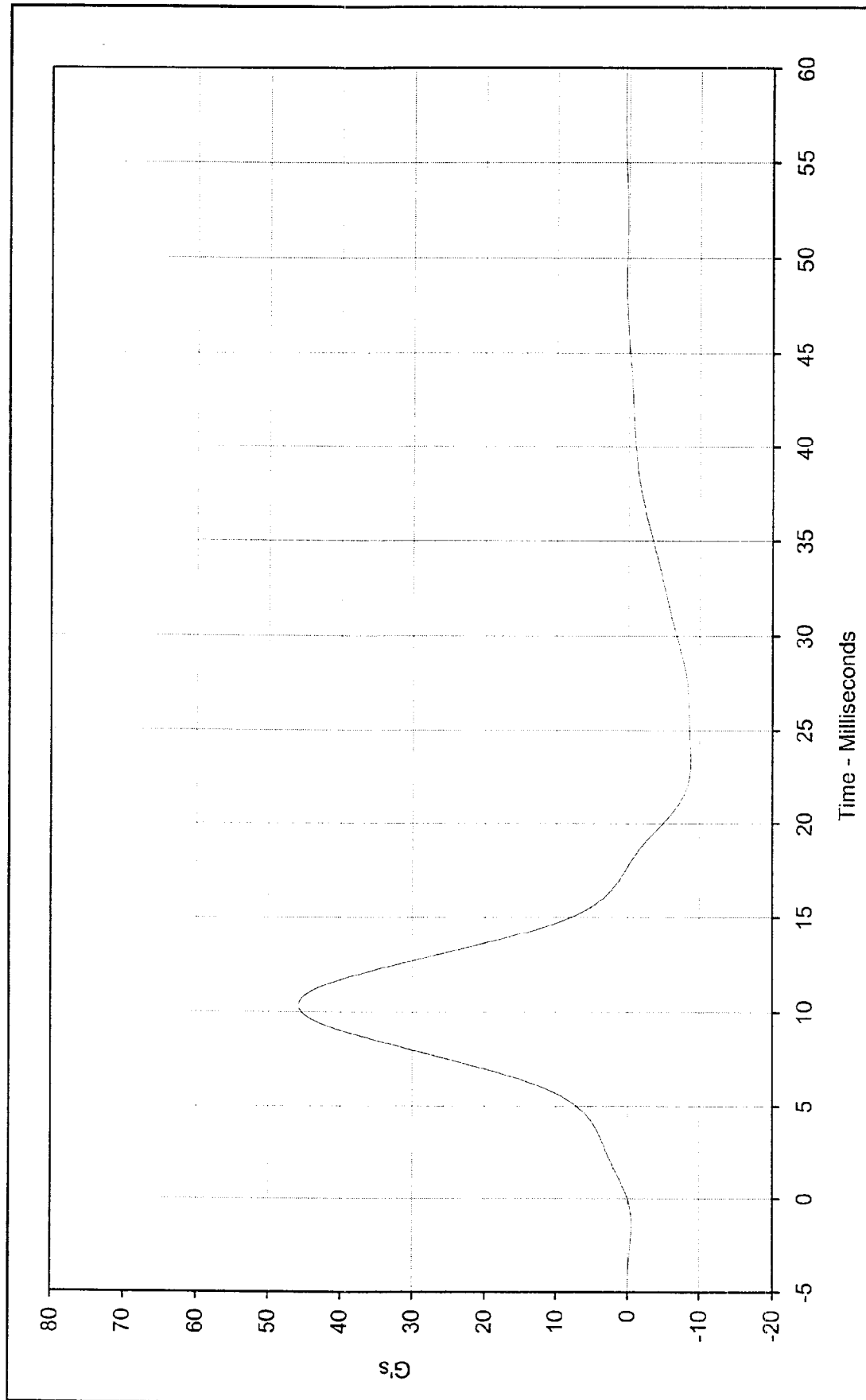
January 22, 2000

Test Date


Approved By

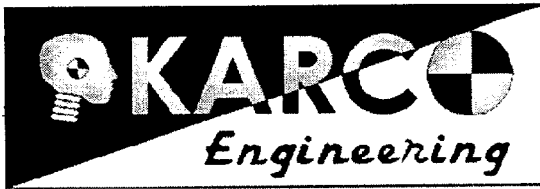
1/22/00

Date



Curve Description:	Pelvis Y Axis Acceleration	Test Program:	Left Side Pelvis Lateral Impact
Maximum Value:	45.9 at 10.4 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: P102A
Minimum Value:	-8.8 at 23.4 Milliseconds		
SAE Filter Class:	FIR 100		
Date of Test:	1/22/00		





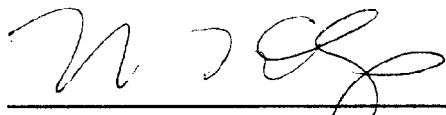
Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 056

Part Serial No.: N/A

Test I.D.: AC01A

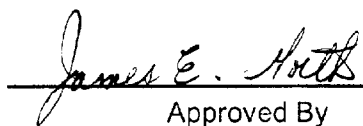
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	38	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	26.5	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	38.7	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	55.3	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	80.9	Pass
Overall Test Results				Pass



Laboratory Technician

January 22, 2000

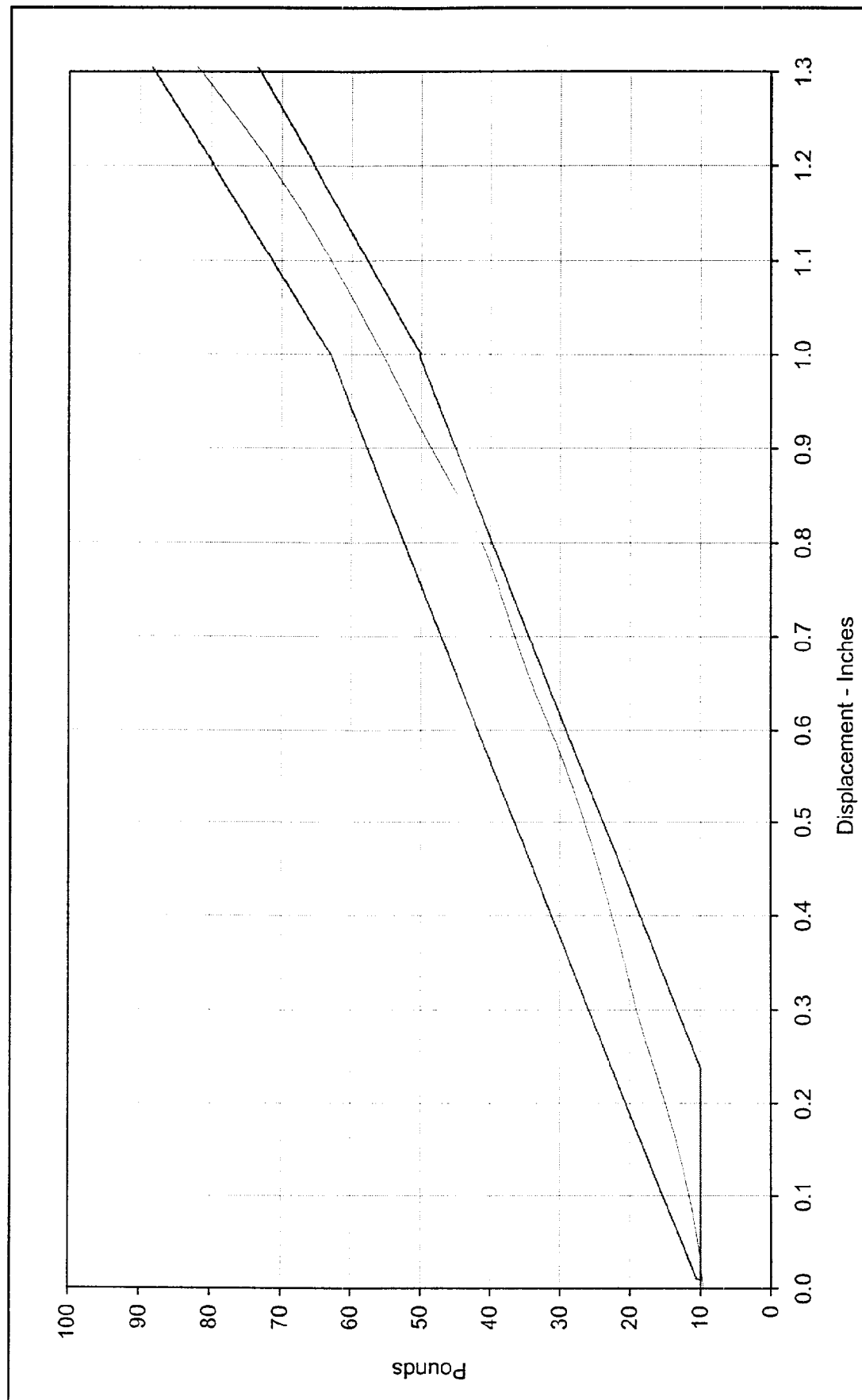
Test Date



Approved By

1/22/00

Date



Curve Description: Abdomen Force vs. Displacement Test Program: Hybrid II Abdominal Compression
 Force at 0.5 In.: 26.5 Pounds Test Information: SID S/N: 056 Test I.D.: AC01A
 Force at 0.75 In.: 38.7 Pounds
 Force at 1.0 In.: 55.3 Pounds
 Force at 1.3 In.: 80.9 Pounds
 Date of Test: 1/22/00





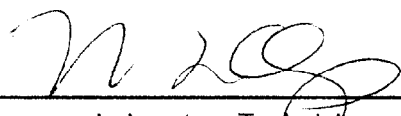
Performance Verification Data Side Impact Dummy (SID) Lumbar Flexion Test

ATD Serial No.: 056

Part Serial No.: N/A

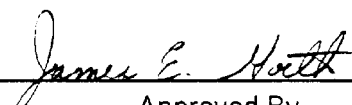
Test I.D.: LF01A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	24	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	28.5	Pass
Applied Force at 30° of Flexion	Pounds	34.0 to 46.0	38.0	Pass
Applied Force at 40° of Flexion	Pounds	46.0 to 58.0	56.8	Pass
Return Angle 3 Minutes After Release	Degrees	≤12.0	5.0	Pass
Overall Test Results				Pass


Laboratory Technician

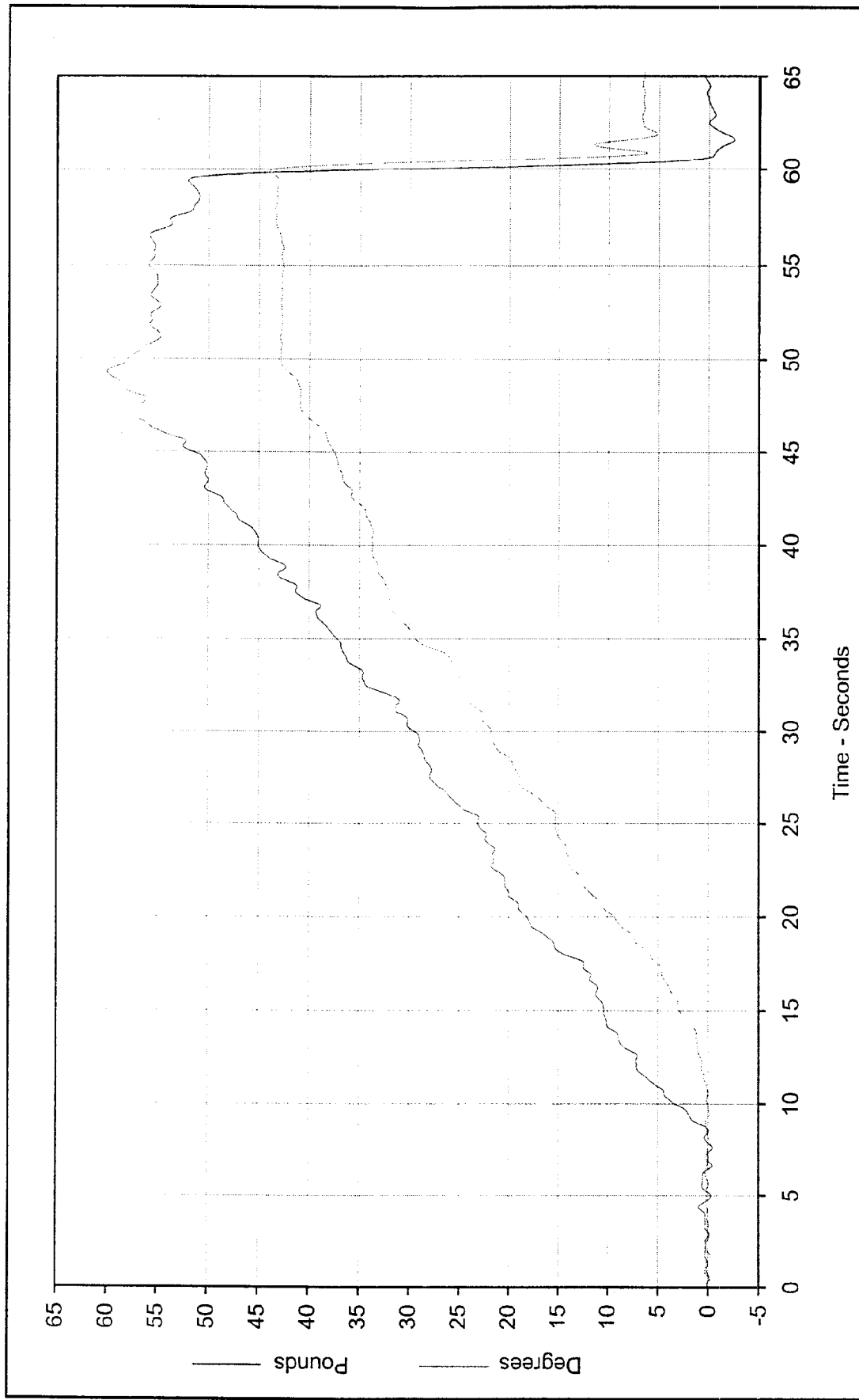
January 23, 2000

Test Date


Approved By

1/23/00

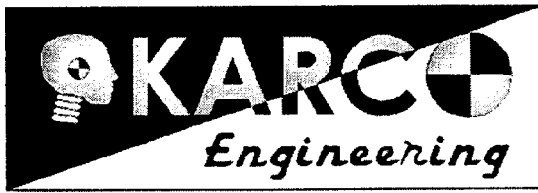
Date



Curve Description: Applied Lumbar Force And Angle Test Program: Side Impact Dummy Lumbar Flexion
 Force at 20°: 28.5 Pounds Test Information: SID S/N: 056 Test I.D.: LF01A
 Force at 30°: 38.0 Pounds
 Force at 40°: 56.8 Pounds
 Return Angle: 5.0 Degrees



Test Date: 1/23/00



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

ATD Serial No.: 056

Part Serial No.: N/A

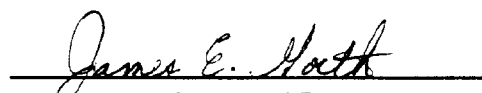
Test I.D.: SH01A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	69	Pass
Laboratory Relative Humidity	%	10 to 70	29	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	252.6	Pass
Peak Lateral Acceleration	G's	≤10.0	8.3	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

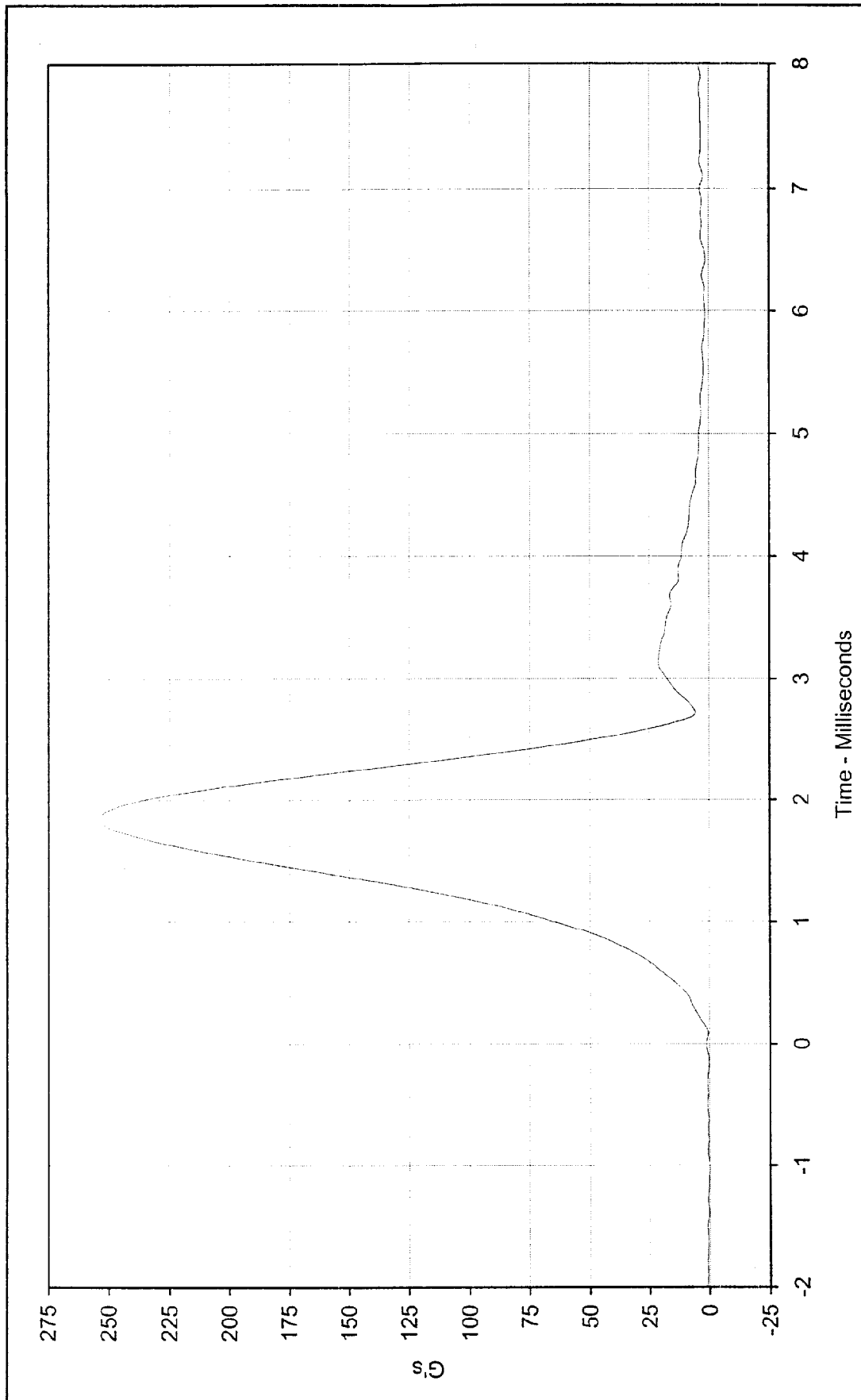

Laboratory Technician

January 22, 2000

Test Date


Approved By

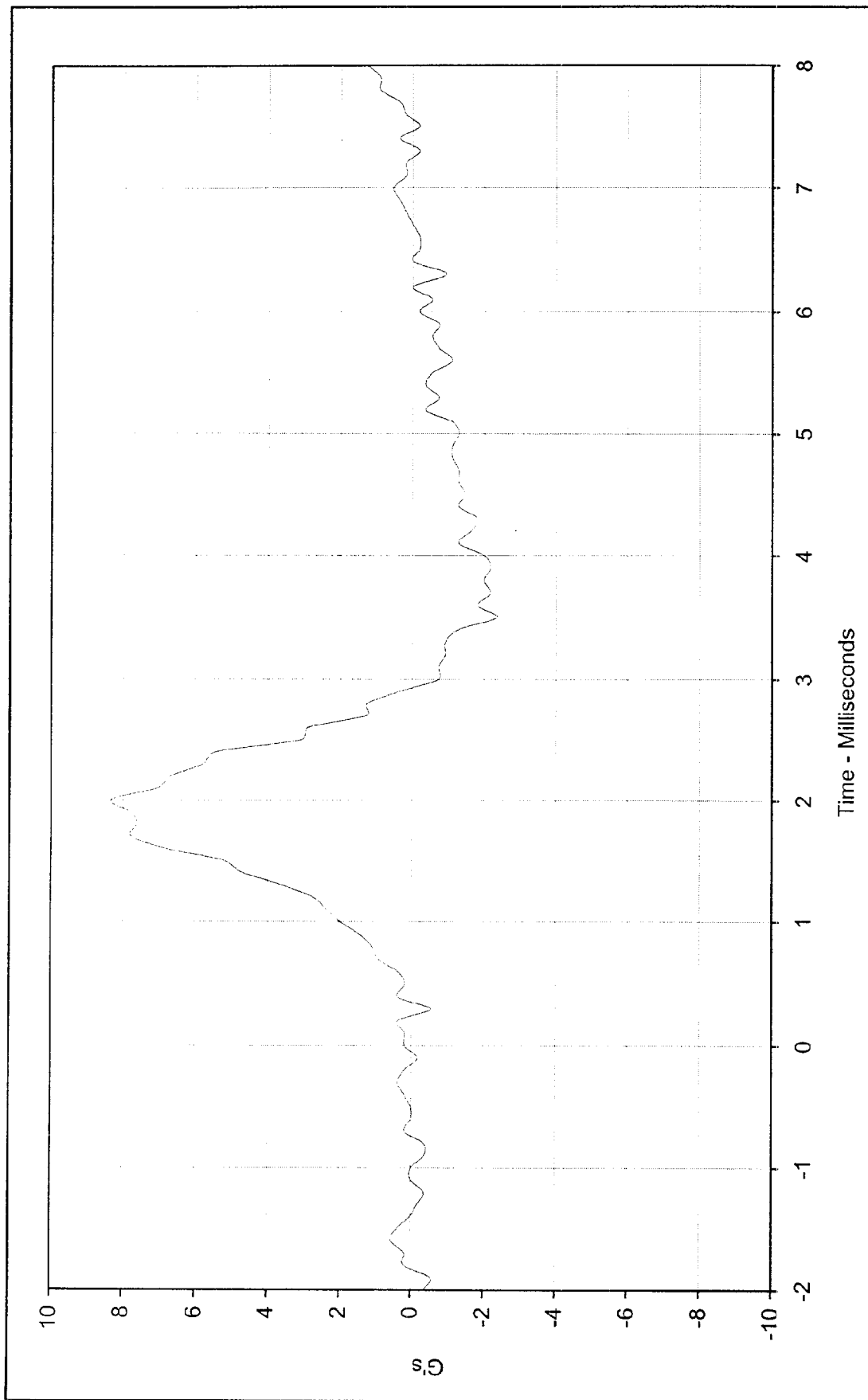
1/22/00
Date



Curve Description: Hybrid II Head Drop Calibration
 Test Program: SH01A
 Test Information: SID S/N: 056

Head Resultant Acceleration
 Maximum Value: 252.6 at 1.8 Milliseconds
 Minimum Value: 0.7 at 0.1 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 1/22/00





Curve Description:	Head Y Axis Acceleration	Test Program:	Hybrid II Head Drop Calibration
Maximum Value:	8.3 at 2 Milliseconds	Test Information:	SID S/N: 056 Test I.D.: SH01A
Minimum Value:	-2.4 at 3.5 Milliseconds		
SAE Filter Class:	1000		
Date of Test:	1/22/00		



APPENDIX D
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

55/26 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver S.I.D. Serial Number 056
01/21/00
2000 Ford Ranger XLT 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

Vehicle Accelerometers

01/21/00

2000 Ford Ranger XLT Pickup

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
14	Right at Sill Front Seat	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
15	Right at Sill Front Seat	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
16	Right at Sill Front Seat	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G
17	Right at Sill Rear Seat	X	KETX3A	Accel., Triax	I.C. Sensor	3031-500	G
18	Right at Sill Rear Seat	Y	KETX3B	Accel., Triax	I.C. Sensor	3031-500	G
19	Right at Sill Rear Seat	Z	KETX3C	Accel., Triax	I.C. Sensor	3031-500	G
20	Rear Floorpan Above Axle	X	KETX4A	Accel., Triax	I.C. Sensor	3031-500	G
21	Rear Floorpan Above Axle	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-500	G
22	Rear Floorpan Above Axle	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-500	G
23	Left Sill at Front Door	Y	KEVA005	Accel., Vehicle block	I.C. Sensor	3031-500	G
24	Left Front Door Centerline	Y	ICST004X	Accel., Triax	I.C. Sensor	3031-500	G
25	Rear Occupant Compartment	Y	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
26	Left Front Door Mid-Rear	Y	ICST004Y	Accel., Triax	I.C. Sensor	3031-500	G
27	Left Front Door Upper Centerline	Y	ICST004Z	Accel., Triax	I.C. Sensor	3031-500	G
28	B-Post Lower	Y	KEBX2A	Accel., Bi-ax	I.C. Sensor	3031-500	G
29	B-Post Middle	Y	KEBX2B	Accel., Bi-ax	I.C. Sensor	3031-500	G
30	A-Post Lower	Y	KEBX1A	Accel., Bi-ax	I.C. Sensor	3031-500	G
31	A-Post Middle	Y	KEBX1B	Accel., Bi-ax	I.C. Sensor	3031-500	G
32	Front Seat Track	Y	KEIC008Y	Single	I.C. Sensor	3031-500	G
33	Vehicle CG	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
34	Vehicle CG	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
35	Vehicle CG	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G

55/26 km/h Side impact NCAP
Instrumentation Data Channel Assignments

Moving Deformable Barrier

01/21/00

2000 Ford Ranger XLT Pickup

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
36	MDB CG	X	ICST001X	Accel., Triax	I.C. Sensor	3031-500	G
37	MDB CG	Y	ICST001Y	Accel., Triax	I.C. Sensor	3031-500	G
38	MDB CG	Z	ICST001Z	Accel., Triax	I.C. Sensor	3031-500	G
39	MDB Rear Centerline	X	ICST002X	Accel., Triax	I.C. Sensor	3031-50	G
40	MDB Rear Centerline	Y	ICST002Y	Accel., Triax	I.C. Sensor	3031-50	G
41	Right Bumper Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Grey	%