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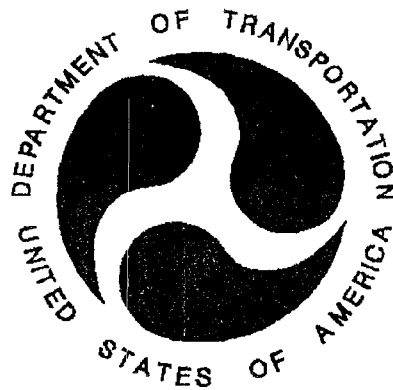
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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
NEW CAR ASSESSMENT PROGRAM
FRONTAL BARRIER IMPACT TEST

HONDA MOTOR CORPORATION
1998 HONDA CRV SUV
NHTSA NO. MW5303

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



MARCH 24, 1998
FINAL REPORT

PREPARED FOR:
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16. <i>Abstract</i> A 35 mph (56.3 km/h) frontal barrier impact test was conducted on a 1998 Honda CRV SUV at KARCO Engineering on February 20, 1998. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301 and footwell intrusion performance. The impact velocity was 56.5 km/h. The ambient temperature at the barrier face at the time of impact was 15.5°C. The vehicle's maximum post-test static crush was 525 mm, located at the centerline of the vehicle. The test vehicle was equipped with a 3-point continuous belt system and second generation supplemental airbags at both frontal outboard-seating positions. With respect to FMVSS 208 "Occupant Crash Protection – Injury Criteria" the occupant injury response data summary is as follows: <table border="1"> <thead> <tr> <th><u>Injury Criteria</u></th><th><u>Threshold Value</u></th><th><u>Driver Dummy</u></th><th><u>Passenger Dummy</u></th></tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC)</td><td>1000</td><td>453.2</td><td>438.2</td></tr> <tr> <td>Chest Resultant Peak 3 msec clip</td><td>60 G's</td><td>57.4</td><td>43.5</td></tr> <tr> <td>Left Femur Force</td><td>10009 N</td><td>-3408.2</td><td>-5215.7</td></tr> <tr> <td>Right Femur Force</td><td>10009 N</td><td>-3435.9</td><td>-2306.7</td></tr> </tbody> </table>				<u>Injury Criteria</u>	<u>Threshold Value</u>	<u>Driver Dummy</u>	<u>Passenger Dummy</u>	Head Injury Criteria (HIC)	1000	453.2	438.2	Chest Resultant Peak 3 msec clip	60 G's	57.4	43.5	Left Femur Force	10009 N	-3408.2	-5215.7	Right Femur Force	10009 N	-3435.9	-2306.7
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SECTION 1

PURPOSE, TEST PROCEDURE AND SUMMARY OF TEST MW5303

1.1 PURPOSE

This 35 mph (56.3 km/h) frontal barrier impact test is part of the FY' 98 New Car Assessment Program (NCAP) frontal barrier crash worthiness evaluation program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract Number DTNH22-97-D-02007. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for frontal barrier impacts at a speed in excess of the current 30 mph (48 km/h) FMVSS 208/212/219/301 requirements.

1.2 TEST PROCEDURE

This 56.3 km/h frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards (OCS) New Car Assessment Program (NCAP) Laboratory Indicant Test Procedure, dated 01 October 1996 and corresponding KARCO Engineering Test Procedure KTP-001, dated October 18, 1996. Data was obtained indicant of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Retention"; FMVSS 219, "Windshield Zone Intrusion (Partial)"; and FMVSS 301 "Fuel System Integrity" performance. Procedures for receiving, inspection testing and reporting of test results are described in the test procedures and are not repeated in this report.

The test was conducted at KARCO Engineering on February 20, 1998, at a speed of 56.5 km/h. The test vehicle was instrumented with eight (8) accelerometers to measure longitudinal axis accelerations. The driver and passenger's restraint systems were instrumented with four (4) seat belt load cells to measure lap and shoulder belt tension. The specified impact velocity range was 55.5 to 57.1 km/h. The frontal barrier impact event was documented by one (1) real-time panning motion picture camera and seventeen (17) high-speed motion picture cameras. The pre- 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 dummies can be found in Appendix A.

The test vehicle contained two (2) part 572E 50th percentile adult male anthropomorphic test devices (ATDs). Both ATDs were instrumented with head and chest primary and redundant tri-axial accelerometers, pelvic tri-axial accelerometers, left/right femur load cells, left/right lower leg sensors and left/right foot accelerometers. In addition, chest displacement and neck six-axis load and moment sensors were utilized. Seat belt load cells were also placed on the driver and passenger shoulder and lap belts to measure torso and pelvic section loading. The ATDs were positioned in the front outboard seating positions according to the dummy placement procedures specified in the Laboratory Indicant Test Procedure. Ninety-six channels of data were recorded with a PC based (TDAS) on-board data acquisition system. The data was digitally sampled at 10,000 samples per second and processed per section IP11 of the Laboratory Indicant Test Procedure.

The Driver ATD (serial No. 35) and the right-front passenger ATD (serial No. 34) were used in two prior NCAP frontal impact tests. Injury criteria were not exceeded by either ATD during this NCAP frontal impact test.

1.3 SUMMARY OF FRONTAL BARRIER IMPACT TEST

An immovable barrier was impacted by a 1998 Honda CRV SUV at a velocity of 56.5 km/h. The test weight, with two (2) 50th percentile male ATDs, was 1661 kg.

The driver's Head Injury Criteria (HIC) was 453.2, the maximum chest deceleration over three (3) milliseconds was 57.4 g and the left and right femur loads were -3408.2 and -3435.9 Newtons, respectively. Chest deflection for the driver ATD was -29.4 mm. The driver ATD head contacted the airbag and headrest, its chest and abdomen contacted the airbag, the left knee contacted the dash knee bolster and steering column, with the right knee contacting the knee bolster.

The right front passenger's HIC was 438.2, maximum chest deceleration over three (3) milliseconds was 43.5 g and the left and right femur loads were -5215.7 and -2306.7 Newtons respectively. Chest deflection for the passenger ATD was -27.2 mm. The passenger ATD head contacted the airbag, headrest and the roof, the chest and abdomen contacted the airbag and both knees contacted the glove box.

Seat belt spoolout, measured by on-board pullout potentiometers was 137.7 mm for the driver ATD and 136.7 mm for the passenger ATD. Shoulder belt stretch was 0.87 mm/cm for the driver ATD and 0.39 mm/cm for the passenger ATD.

There was 100 percent windshield retention (minimum 50 percent required for passive restraint systems), no intrusion into the protected or unprotected zone of the windshield, and no Stoddard solvent leakage occurred after impact or during any phase of the rollover.

The test vehicle sustained a maximum static crush of 525 mm at the vehicle centerline. Both the driver side and the passenger side doors opened without the aid of tools.

1.4 GENERAL COMMENTS

The 1998 Honda CRV SUV passed the requirements of FMVSS 212, FMVSS 219 and FMVSS 301-75. Data pertaining to these standards are presented in the data sheets.

The vehicle, occupant, camera and measurement data are presented in Section 2. Appendix A contains the still photograph prints. Appendix B contains the dummy, vehicle and response data traces. Appendix C contains Load Cell Barrier information, which is not applicable to this test. Appendix D contains the instrumentation data channel assignments. Appendix E contains the dummy calibration data and Appendix F contains the owner's manual instructions for the occupant restraint systems.

SECTION 2.

OCCUPANT AND VEHICLE INFORMATION/DATA SHEETS

TEST MODE: 56.3 km/h New Car Assessment Program (NCAP) Frontal Barrier Impact

CONVERSION FACTORS USED IN THIS REPORT:

2.2 pounds (lb.)	=	1 kilogram (kg)
1 mile (mi.)	=	1.609 kilometer (km)
1 gallon (gal.)	=	3.785 liters (L)
1 pound/square inch (psi)	=	7000 Pascal (7 kPa)

DATA SHEET NO. 1

CRASH TEST SUMMARY

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

TEST MODE: 56.3 km/h NCAP Frontal Barrier Impact

TEST DATE: February 20, 1998

TIME: 1:50 PM

TEMPERATURE: 15.5° C

TEST WEIGHT: 1661 kg

IMPACT VELOCITY: 56.5 km/h

VEHICLE REBOUND AT CENTER OF EACH WHEEL; REBOUND ANGLE = 0°

Measurements in mm	Left Side	Centerline	Right Side
Vehicle Rebound	530	455	475

VEHICLE STATIC CRUSH

Measurements in mm	Left	Center	Right
Pre-test Measurements	4122	4370	4122
Post-test Measurements	3784	3845	3804
Static Crush	-338	-525	-318

DOOR OPENING AND SEAT TRACK INFORMATION

	Driver	Passenger
Door Opening (Front)	OPENED	OPENED
Door Opening (Rear)	OPENED	OPENED
Seat Track Shift (mm of shift)	50	NONE
Seat Back Failure	NONE	NONE

DUMMY INFORMATION

	Driver	Passenger
Dummy Type/No.	50% Male Hybrid III (S/N 35)	50% Male Hybrid III (S/N 34)
Data Channels	44	44
Visible Contact Points		
Head	AIR BAG, HEADREST	AIR BAG, HEADREST, ROOF
Chest	AIR BAG	AIR BAG
Abdomen	AIR BAG	AIR BAG
Left Knee	STEERING COLUMN/KNEE BOLSTER	GLOVE BOX
Right Knee	KNEE BOLSTER	GLOVE BOX

DATA SHEET NO. 2

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE: 1998 Honda CRV SUV

NHTSA NO. MW5303

TEST VEHICLE INFORMATION			
Manufacturer	HONDA MOTOR CORPORATION	VIN	JHLRD1863WC033109
Manufacturing Date	12/97	Delivery Date	1/29/98
Dealer	VALLEY HI-TOYOTA/HONDA	NHTSA NO.	MW5303
Odometer Reading	000015 MI.	Fuel Type	UNLEADED
Engine Displacement	2.0 Liter	Cylinders	4
Transmission	AUTOMATIC	Final Drive	FRONT
Engine Placement	LONGITUDINAL	Color	BLACK
Tire Press./Max. Cap. Front	182 kPa	Cold Tire Press. Front	182 kPa
Tire Press./Max. Cap. Rear	182 kPa	Cold Tire Press. Rear	182 kPa
Recommend Tire Size	205/70R15	Type of Spare	FULL SIZE 205/70R15
Tire Size on Vehicle	205/70R15	Manufacturer	FIRESTONE
GVWR	1889 kg	Cargo Capacity	85 kg
GAWR Front	921 kg	GAWR Rear	977 kg
Air Conditioning	YES	Power Steering	YES
Power Brakes	YES	AM/FM/Cassette	YES
Disc Brakes (Front)	YES	Disc Brakes (Rear)	NO
Power Windows	YES	Tilt Steering	YES
Anti-lock Brakes (ABS)	YES	Power Seats	NO
Driver Airbag	YES	Passenger Airbag	YES

VEHICLE CAPACITY DATA:

TYPE OF FRONT SEATS BUCKET SEATS

TOTAL NUMBER OF OCCUPANTS 5 OCCUPANTS x 68 kg. 340 kg

WEIGHT OF VEHICLE AS RECEIVED AT KARCO (with maximum fluids): 1429 kg

Data Sheet No. 2... (Continued)

VEHICLE CAPACITY WEIGHT (kg):

Vehicle Capacity Weight 425 kg
 Occupant Weight 340 kg
 Rated Cargo/Luggage Weight (RCLW) 85 kg

	FRONT	REAR	TOTAL
Right	395	320	715
Left	394	320	714
Total	789	640	1429
Percent of Total	55.2	44.8	100%

**CALCULATION OF TEST
 TARGET WEIGHT (kg):**

Total Delivered Weight 1429 kg
 RCLW 85 kg
 Weight of 2 P572 ATDs 152 kg
TARGET TEST WEIGHT 1666 kg

TEST WEIGHT OF VEHICLE WITH 2 ATDs AND BALLAST

	FRONT	REAR	TOTAL
Right	436	383	819
Left	433	409	842
Total	869	792	1661
Percent of Total	52.3	47.7	100%

Weight of Ballast secured in cargo area: 16 kg

Includes cameras, instrumentation, brake abort and bags containing lead shot secured in the cargo area.

Vehicle Components Removed For Weight Reduction:

Side mirrors, jack, tools, spare tire and paneling.

TEST VEHICLE ATTITUDE (mm)

ATTITUDE	LF	RF	LR	RR
As Delivered	762	762	749	749
As Tested	725	722	713	710

Vehicle Wheelbase: 2655 mm

FUEL SYSTEM DATA:

Fuel System Capacity From Owner's Manual = 57.91 liters

Usable Capacity Figure Furnished by COTR = 57.91 liters

Test Volume Range (92 to 94% of Usable Capacity) = 53.27 to 54.43 liters

ACTUAL TEST VOLUME = 53.75 liters (With entire fuel system filled)

Test Fluid Type = Stoddard Solvent

Specific Gravity = 0.764

Kinematic Viscosity = as per ASTM Standard D484-71

Color = Red

Type of Fuel Pump = Electric X Mechanical

Does electric pump operate with ignition switch "ON" & engine "OFF"? Yes X No

DETAILS OF FUEL SYSTEM: With ignition on and adequate oil pressure.

DATA SHEET NO. 3

POST IMPACT DATA

TEST VEHICLE: 1998 Honda CRV SUV

NHTSA NO. MW5303

TEST MODE: 56.3 km/h New Car Assessment Program (NCAP) Frontal Barrier Impact

TEST DATE: February 20, 1998

TIME: 1:50 PM

TEMPERATURE: 15.5 ° C

REQUIRED IMPACT VELOCITY RANGE: 55.51 km/h to 57.11 km/h

BARRIER IMPACT VELOCITY: (speed traps within 5 feet of impact plane)

Trap No. 1 = 56.54 km/h Trap No. 2 = 56.53 km/h

Distance from vehicle to barrier - -

A. entering trap = 1524 mm

B. leaving trap = 305 mm

VEHICLE STATIC CRUSH: (for Frontal and Rear Impacts Only)

Vehicle Length	Left	Center	Right
Pre-test Measurements (mm)	4122	4370	4122
Post-test Measurements (mm)	3784	3845	3804
Static Crush (mm)	-338	-525	-318
Average	-394		

VEHICLE REBOUND: (from rigid barrier with rotational movement)

VEHICLE REBOUND AT CENTER OF EACH WHEEL: REBOUND ANGLE = 0°

Measurements in mm	Left Side	Centerline	Right Side
Vehicle Rebound	530	455	475

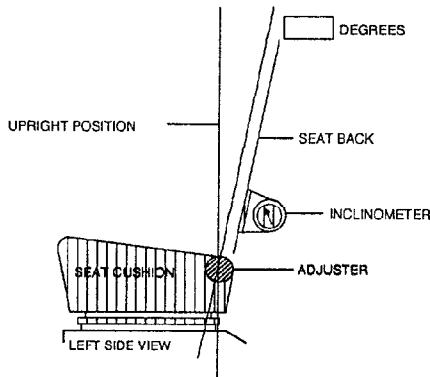
DATA SHEET NO. 4

TEST VEHICLE INFORMATION

TEST VEHICLE: 1998 Honda CRV SUV

NHTSA NO. MW5303

1. NOMINAL DESIGN RIDING POSITION -



FRONT SEAT ASSEMBLY

For adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent if applicable. Indicate, if applicable, how the detents are numbered (Is the first detent "0" or "1"?).

Measurement Instructions: A special application tool with pointed probes was inserted through the fabric to make contact with the rigid portion of the lower seat frame assembly approximately 13 inches above the pivot point of the seat back. The inclinometer was placed against the flat surface of the tool and the seat back angle was measured directly from the dial face. For reference purposes the first detent from the front of the seat was identified as number "1".

Seat back angle for driver's seat = 25°

Measurement Instructions: A special application tool with pointed probes was inserted through the fabric to make contact with the rigid portion of the lower seat frame assembly approximately 13 inches above the pivot point of the seat back. The inclinometer was placed against the flat surface of the tool and the seat back angle was measured directly from the dial face. For reference purposes the first detent from the front of the seat was identified as number "1".

Seat back angle for passenger's seat = 25°

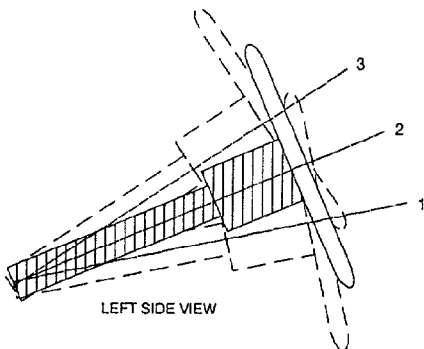
2. SEAT FORE & AFT POSITIONS -

Provide instructions for positioning the driver and front outboard passenger seat(s) in the center of fore and aft travel. For example, provide information to locate the detent in which the seat track is to be locked.

Positioning of the driver's seat: 23 seating positions, set to 12th detent from the front.

Positioning of the passenger's seat (if applicable): 23 seating positions, set to 12th detent from the front.

3. STEERING COLUMN ADJUSTMENTS:



STEERING COLUMN ASSEMBLY

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 driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center.

Operational Instructions:

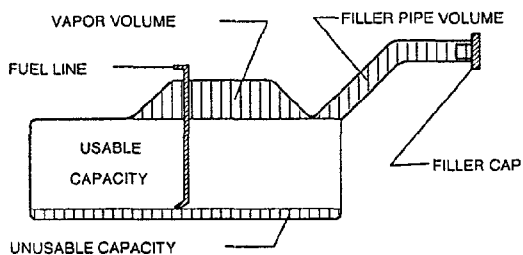
Position No. 1 is at 53°
Position No. 2 is at 55°
Position No. 3 is at 57°

4. SEAT BELT UPPER ANCHORAGE:

Highest position, per manufacturers specifications.

DATA SHEET NO. 4 (continued)

5. FUEL TANK CAPACITY DATA



5.1 A. "Usable Capacity" of standard equipment fuel tank = 70.3 liters.

B. "Usable Capacity" of optional equipment fuel tank = N/A liters.

C. "Usable Capacity" of vehicle(s) used for certification testing to requirements of FMVSS 301 = 64.6 to 66.0 liters.

VEHICLE FUEL TANK ASSEMBLY

Operational Instructions:

5.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 65.1 liters

5.3 Is vehicle equipped with electric fuel pump?

Yes X No

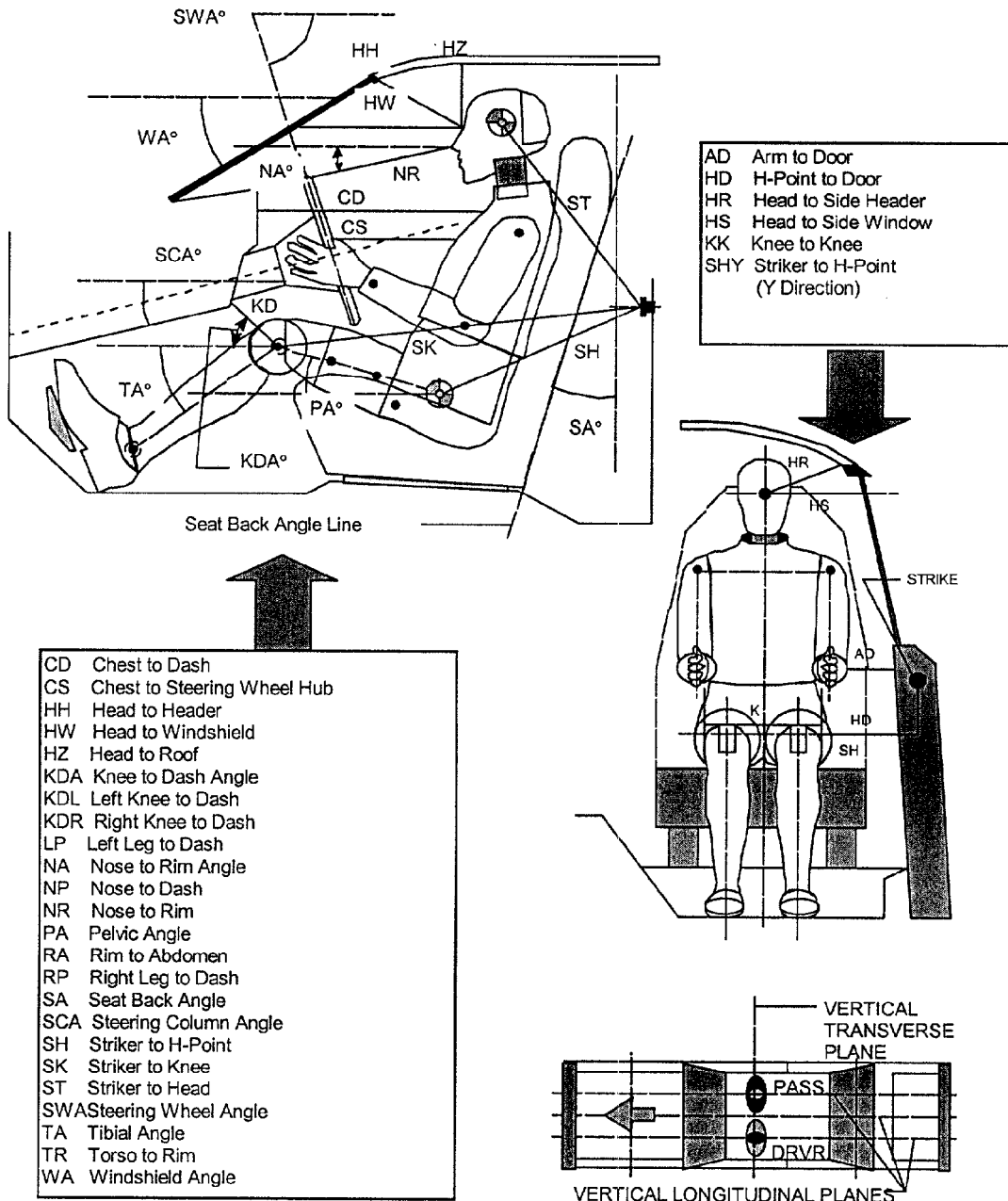
If YES, explain the vehicle operating conditions under which the fuel pump will pump fuel.

With ignition on and adequate oil pressure.

DATA SHEET NO. 5

DUMMY POSITIONING IN VEHICLE

DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS



DATA SHEET NO. 5...(continued)

DUMMY POSITIONING IN VEHICLE

TEST VEHICLE: 1998 Honda CRV SUV

NHTSA NO. MW5303

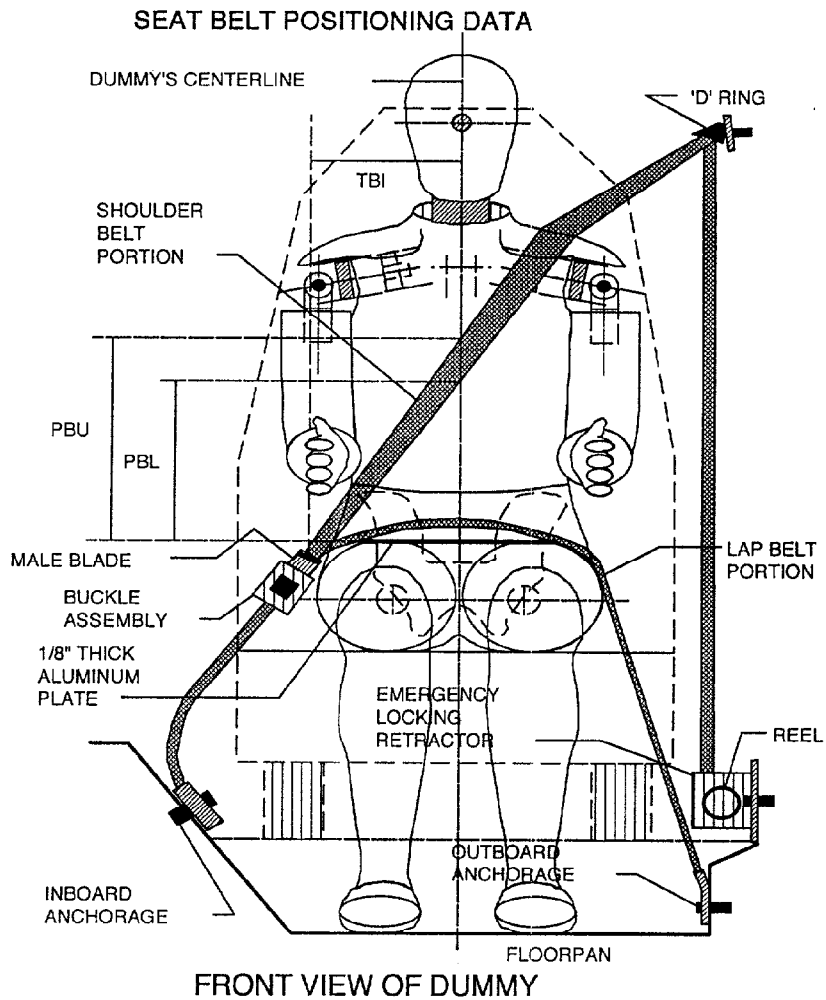
FRONT SEAT MEASUREMENT TABLE

	DRIVER (Serial No. <u>35</u>)		PASS. (Serial No. <u>34</u>)	
	DISTANCE (mm)	ANGLE (°)	DISTANCE (mm)	ANGLE (°)
WA°		36		
SWA°		58		
SCA°		25		
SA°		25		25
HZ	245	90	240	90
HH	370	0	350	0
HW	610	0	605	0
HR	240		250	
NR	458	15		
CD	550		517	
CS	282	0		
RA	180	0		
KDL	110	20	142	
KDR	100		145	21
PA°		25		22
TA°		37		35
KK	348		269	
ST	600	9	580	9
SH	180	0	190	0
SHY	225		230	
HS	190		300	
HD	120		180	
AD	68		70	
SK	610		631	

DATA SHEET NO. 6

SEAT BELT POSITIONING DATA

SEATING POSITION	DRIVER	PASSENGER
TCI -- Dummy centerline to shoulder bolt	230	220
PBU--Top surface of aluminum plate to belt upper edge	300	310
PBL--Top surface of aluminum plate to belt lower edge	215	240
Lap Belt tension	10 Newtons	10 Newtons
Shoulder Belt tension	Retractor	Retractor



DATA SHEET NO. 7 - VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA No.: MW5303

TEST PROGRAM: 1998 NHTSA 35 MPH NCAP

TEST DATE: 2/20/98

VEHICLE X-AXIS ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

No.	Accelerometer Location	Measurements (mm)			Peak Values				
		X	Y	Z	Units	Max	Time	Min	Time
1	Left Rear X-Member (Pri.)	1012	-528	751	G's	3.5	109.9	-48.9	43.3
2	Right Rear X-Member (Pri.)	1016	510	761	G's	2.5	98.9	-49.1	42.2
3	Engine Top	3752	-291	879	G's	70.2	32.6	-241.5	24.6
4	Engine Bottom	3947	-204	238	G's	18.2	43.3	-168.4	24.1
5	Left Brake Caliper	3650	-650	299	G's	52.5	57.6	-113.0	39.0
6	Right Brake Caliper	3652	651	291	G's	20.1	51.6	-150.2	37.2
7	Instrument Panel	2759	24	1126	G's	22.3	32.2	-104.1	58.9
8	Left Rear X-Member (Rednt.)	1055	-268	696	G's	4.5	111.3	-43.0	39.8

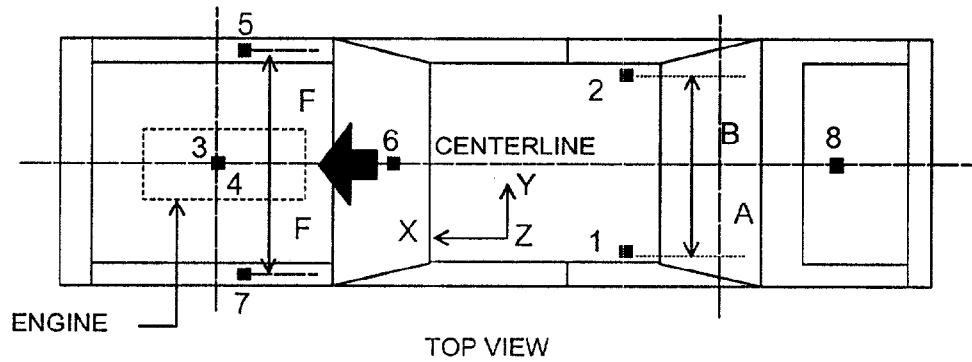
Reference Points

X - From Rear Surface of Vehicle

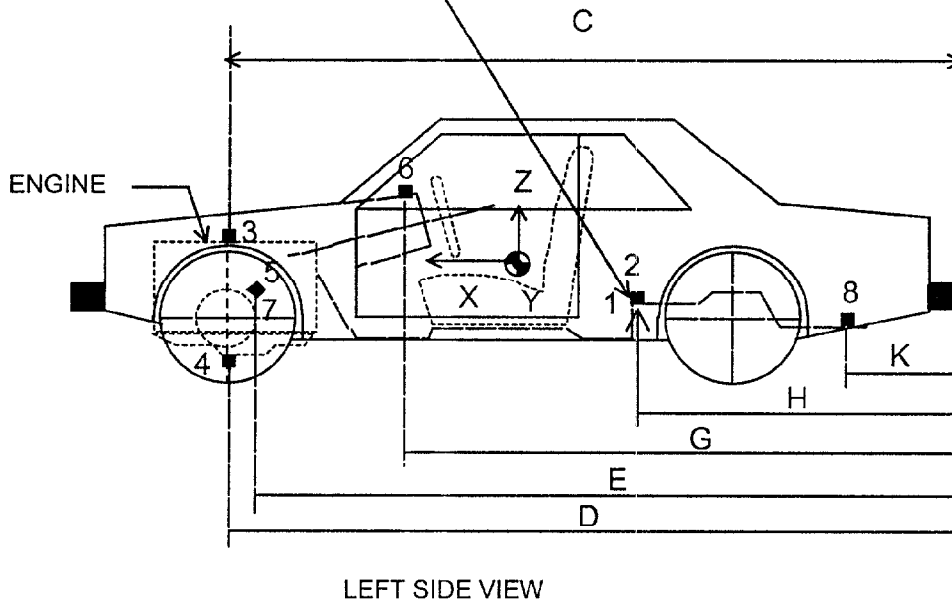
Y - Vehicle Centerline

Z - Ground Plane

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



REAR SEAT CUSHION
ASSY. FRONT ATTACHMENT
BRACKET SUPPORT



DATA SHEET NO. 8 - HYBRID III ATD INJURY CRITERIA AND SENSOR DATA

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA No.: MW5303

TEST PROGRAM: 1998 NHTSA 35 MPH NCAP

TEST DATE: 2/20/98

HEAD PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	3.3	239.0	-48.0	76.5	5.1	239.5	-38.2	75.2
Head CG	Y	G's	13.9	89.3	-1.3	283.8	21.0	90.3	-5.3	60.9
Head CG	Z	G's	36.5	60.4	-12.7	96.0	29.3	74.8	-9.9	100.4
Head CG Resultant	N/A	G's	55.6	72.9			49.7	75.2		

CHEST PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	2.4	299.9	-57.4	73.7	2.7	131.0	-44.8	68.5
Chest CG	Y	G's	5.4	76.7	-7.6	72.3	6.4	63.4	-7.6	84.7
Chest CG	Z	G's	18.0	49.7	-20.4	99.0	23.3	101.9	-12.0	45.9
Chest CG Resultant	N/A	G's	58.7	73.5			45.0	68.5		

FEMUR PEAK FORCES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Femur	Z	Newtons	133.4	167.4	-3408.2	56.5	281.6	21.0	-5215.7	52.9
Right Femur	Z	Newtons	418.8	18.6	-3435.9	58.8	346.3	65.4	-2306.7	53.7

SEAT BELT PEAK FORCES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Lap Belt	N/A	Newtons	12568.9	55.4	-9.9	1.3	13472.9	52.5	-14.2	0.8
Shoulder Belt	N/A	Newtons	11734.1	58.7	-55.5	261.6	8108.0	50.8	-16.5	276.9

HEAD INJURY CRITERIA (HIC)

Location	Driver				Passenger			
	HIC	Avg G's	T ¹	T ²	HIC	Avg G's	T ¹	T ²
Head CG Primary	453.2	39.3	67.7	103.6	438.2	37.4	55.6	91.5

CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Primary	57.4	71.5	74.5	43.5	67.8	70.8

DATA SHEET NO. 8...(continued)

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA No.: MW5303

TEST PROGRAM: 1998 NHTSA 35 MPH NCAP

TEST DATE: 2/20/98

PELVIC PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Pelvis	X	G's	10.1	99.4	-78.5	55.0	6.5	111.0	-95.7	52.5
Pelvis	Y	G's	12.3	92.2	-8.5	54.9	28.3	52.5	-12.1	83.2
Pelvis	Z	G's	3.1	217.8	-17.8	61.4	3.2	227.2	-34.8	52.6

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	679.8	79.5	-183.6	231.4	838.9	130.6	-209.0	238.7
Neck Force	Y	Newtons	75.6	156.9	-168.5	116.4	179.7	63.3	-346.1	125.4
Neck Force	Z	Newtons	2341.7	71.9	-375.5	96.6	1321.1	68.8	-610.7	100.4
Neck Moment	X	Joules	19.1	81.2	-10.5	92.0	14.6	120.6	-22.6	71.9
Neck Moment	Y	Joules	57.5	125.8	-52.1	79.0	58.8	127.6	-21.2	228.3
Neck Moment	Z	Joules	18.1	112.2	-7.5	80.5	19.7	88.5	-8.4	143.6

FOOT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Foot Aft	X	G's	40.9	97.4	-143.3	45.9	171.2	41.7	-63.3	60.6
Left Foot Aft	Z	G's	5.8	24.4	-62.6	44.2	29.9	70.4	-92.2	45.0
Left Foot Fore	Z	G's	28.6	58.6	-88.4	44.1	47.7	72.4	-123.0	45.0
Right Foot Aft	X	G's	200.6	52.3	-50.7	74.5	32.7	77.7	-89.8	41.8
Right Foot Aft	Z	G's	50.1	51.8	-165.3	52.2	76.3	41.7	-4.4	59.6
Right Foot Fore	Z	G's	48.3	81.7	-219.1	48.3	128.8	41.9	-17.0	60.2

UPPER AND LOWER TIBIA PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Lower Force	X	Newtons	438.5	56.2	-358.4	43.9	1324.2	48.4	-243.4	88.4
Left Lower Force	Z	Newtons	406.8	66.4	-1235.9	43.6	532.7	61.7	-2177.0	86.0
Left Lower Moment	Y	Joules	38.8	45.3	-69.8	59.3	3.4	101.9	-108.2	48.5
Left Upper Moment	X	Joules	15.2	130.6	-38.8	75.9	32.5	46.1	-42.4	63.6
Left Upper Moment	Y	Joules	35.4	33.7	-172.2	52.0	12.8	86.3	-138.5	61.8
Right Lower Force	X	Newtons	93.3	103.8	-1498.3	53.4	271.2	61.3	-432.2	37.7
Right Lower Force	Z	Newtons	477.9	43.7	-4020.4	51.9	93.7	16.4	-2659.1	77.8
Right Lower Moment	Y	Joules	110.0	49.0	-81.6	87.0	20.0	42.5	-83.1	78.4
Right Upper Moment	X	Joules	47.1	51.8	-108.2	52.9	42.1	46.8	-25.8	55.1
Right Upper Moment	Y	Joules	180.3	53.4	-19.4	98.6	45.7	37.7	-97.0	51.0

DATA SHEET NO. 8...(continued)

TEST VEHICLE: 1998 HONDA CRV SUV

TEST PROGRAM: 1998 NHTSA 35 MPH NCAP

NHTSA No.: MW5303

TEST DATE: 2/20/98

CHEST PEAK DISPLACEMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	MM	0.2	0.5	-29.4	76.5	0.1	7.8	-27.2	72.4

HEAD REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	4.2	213.5	-52.2	77.2	4.6	262.0	-38.2	75.1
Head CG	Y	G's	10.1	89.2	-2.1	161.0	15.5	89.9	-8.3	35.2
Head CG	Z	G's	33.2	60.4	-12.0	96.0	32.5	71.7	-8.6	100.4
Head CG Resultant	N/A	G's	55.1	74.4			51.2	75.1		

CHEST REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	3.1	299.2	-57.2	73.9	2.2	140.3	-44.9	68.5
Chest CG	Y	G's	5.7	76.6	-4.1	60.5	5.4	63.8	-6.5	85.9
Chest CG	Z	G's	13.4	49.5	-20.6	99.1	19.4	101.9	-10.9	45.9
Chest CG Resultant	N/A	G's	58.3	73.8			45.2	68.5		

REDUNDANT HEAD INJURY CRITERIA (HIC)

Location	Driver				Passenger			
	HIC	Avg G's	T ¹	T ²	HIC	Avg G's	T ¹	T ²
Head CG Redundant	438.6	39.0	67.1	103.0	408.1	37.6	55.9	91.8

REDUNDANT CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Redundant	56.7	72.0	75.0	43.1	67.5	70.5

DATA SHEET NO. 9

SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

BELT LENGTH DATA (mm)	DRIVER	PASSENGER
Total belt length for continuous webbing systems.	3100	3100
Retractor reel to 'D' ring	675	675
Shoulder belt length as measured on Part 572 Dummy	845	860
Lap belt length as measured on Part 572 Dummy	815	820
Remainder of belt on reel	765	745

SHOULDER BELT SPOOL-OFF DATA (mm)	DRIVER	PASSENGER
As determined mechanically	30	140
As determined electronically	137.7	136.7

BELT STRETCH DATA (mm/cm)	DRIVER	PASSENGER
Measured electronically between shoulder belt load cell and the "D" ring	.87	.39
Measured mechanically	.3	.5

DATA SHEET NO. 10

SUMMARY OF FMVSS 212 DATA

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

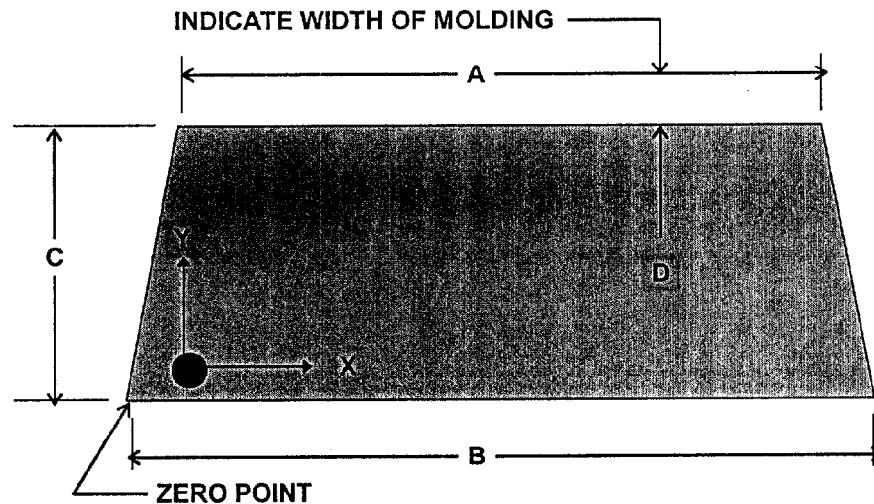
Details of windshield mounting (method of retention, type of trim, etc.):

Windshield glass is secured to the vehicle frame with a rubber type adhesive, with rubber molding along the top and sides with rubber and plastic molding along the bottom.

The standard requires that the post test retention measurement be a minimum of 75 percent of the pretest total periphery measurement for vehicles not equipped with occupant passive restraints and 50 percent for each side of the windshield for vehicles which are equipped with occupant passive restraints.

WINDSHIELD PERIPHERY MEASUREMENTS (mm)			
	PRETEST	POST TEST	PERCENT RETENTION
Right Side	2003	2003	100%
Left Side	2003	2003	100%
Total	4006	4006	100%

Indicate area of retention failure.



FRONT VIEW OF WINDSHIELD

Width of molding = Top 10 mm , Sides 10 mm, Bottom 17 mm.

Temperature of windshield molding during test = 21.1 °C

DATA SHEET NO. 11

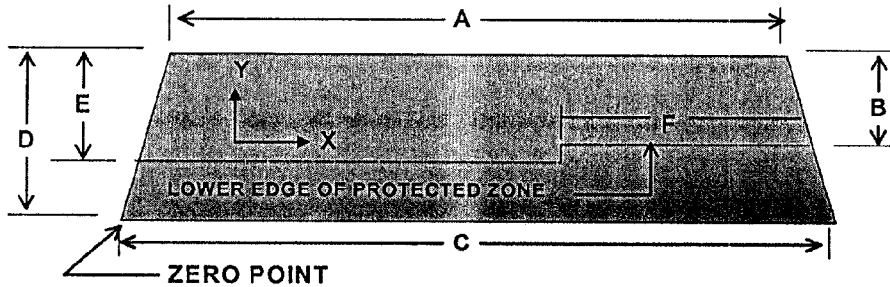
WINDSHIELD ZONE INTRUSION FMVSS 219 (PARTIAL) DATA

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

SKETCH OF FRONT VIEW OF WINDSHIELD:

Provide all dimensions necessary to reproduce the protected area.



	DIMENSION mm
A	1180
B	405
C	1475
D	675
E	500
F	400

FRONT VIEW OF WINDSHIELD

AREA OF PROTECTED ZONE FAILURES:

A. Provide coordinates of the area that the protected zone was penetrated more than 0.25 in. by a vehicle component other than one which is normally in contact with the windshield.

X	Y
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

B. Provide coordinates of the area beneath the protected zone template that the inner surface of the windshield was penetrated by a vehicle component

X	Y
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

DATA SHEET NO. 12

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

TEST MODE: 56.3 km/h New Car Assessment Program (NCAP) Frontal Barrier Impact

TEST DATE: February 20, 1998 TIME: 1:50 PM TEMPERATURE 15.5 C

STODDARD SOLVENT SPILLAGE MEASUREMENT:

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

DATA SHEET NO. 13

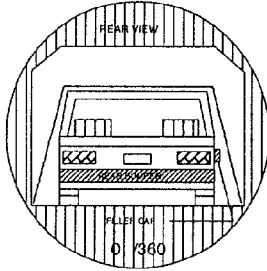
FMVSS 301 STATIC ROLLOVER DATA SHEET

TEST VEHICLE: 1998 HONDA CRV SUV

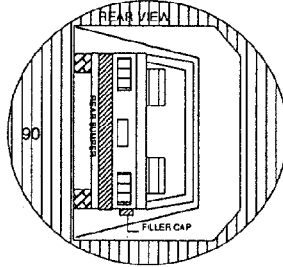
NHTSA NO. MW5303

TEST MODE: 56.3 km/h New Car Assessment Program (NCAP) Frontal Barrier Impact

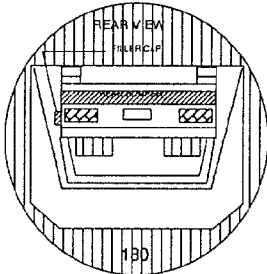
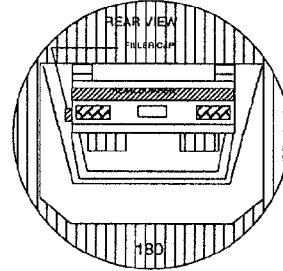
TEST DATE: February 20, 1998 TIME: 1:50 PM TEMPERATURE: 15.5C



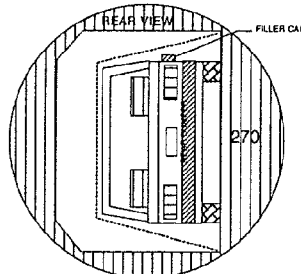
0° TO 90°



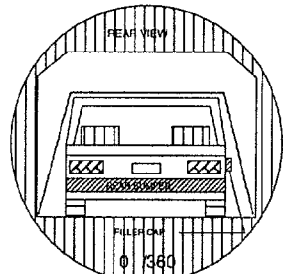
90° TO 180°



180° TO 270°



270° TO 0°



1. The specified fixture rollover rate for each 90° of rotation = 1 to 3 minutes.
2. The position hold time at each position = 5 minutes (minimum)

TEST PHASE	ROTATION TIME (sec.)	POSITION HOLD TIME (sec)	STODDARD SPILLAGE (oz.)
0° TO 90°	82	300	0
90° TO 180°	82	300	0
180° TO 270°	82	300	0
270° TO 360°	82	300	0

3. Provide Details of Stoddard Solvent Spillage Locations--

No solvent leakage occurred during rollover tests.

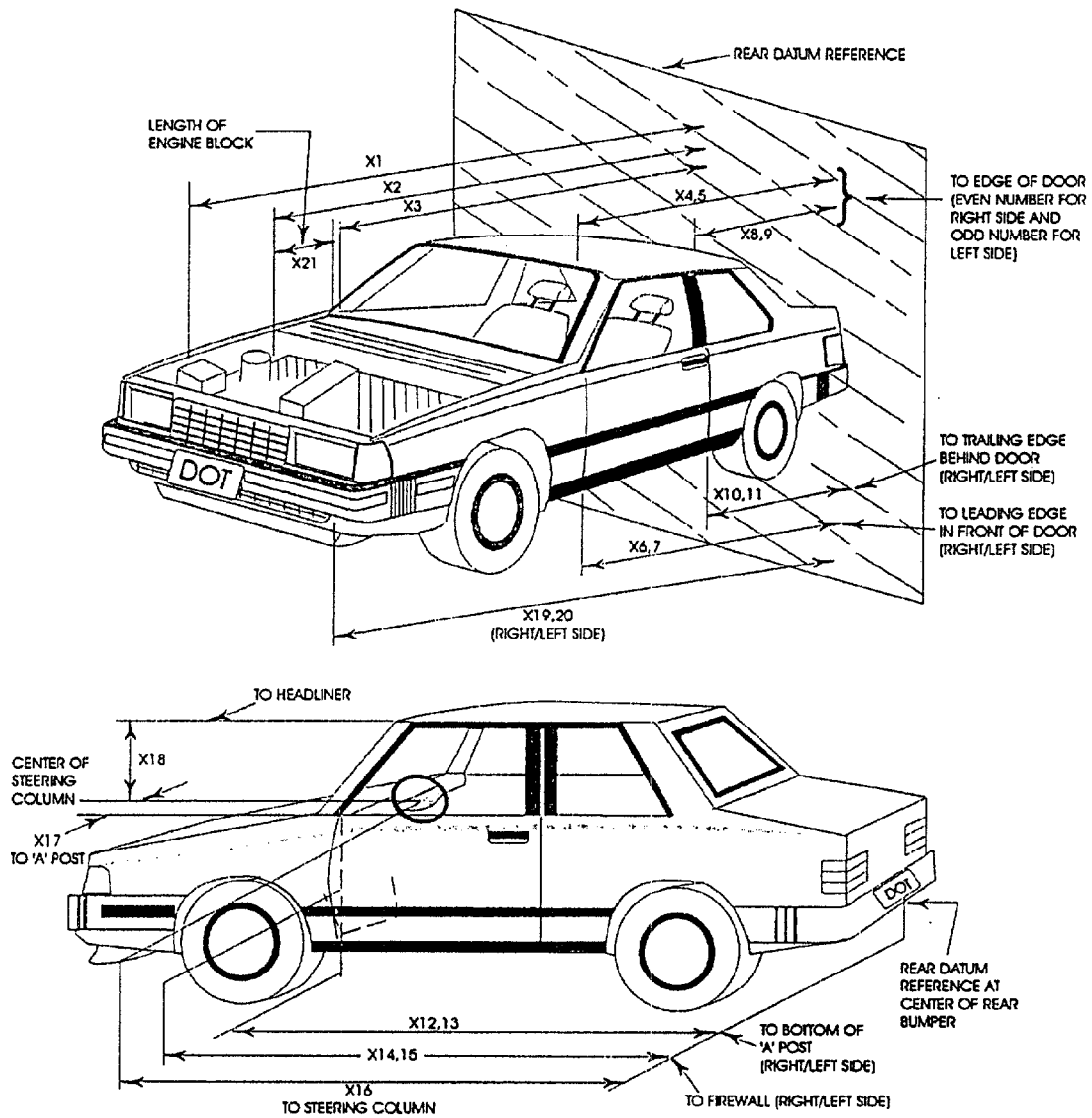
DATA SHEET NO. 14

VEHICLE MEASUREMENTS

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

NO.	MEASUREMENT DESCRIPTION	DIMENSIONS IN MM		
		PRE-TEST	POST-TEST	DIFFERENCE
1	Total length of vehicle at centerline	4370	3845	-525
2	Rear surface of vehicle (RSOV) to front of engine	3940	3632	-308
3	RSOV to firewall centerline	3332	3164	-168
4	RSOV to leading edge of right door	2987	2863	-124
5	RSOV to leading edge of left door	2989	2993	+4
6	RSOV to lower leading edge of right door	2985	2974	-11
7	RSOV to lower leading edge of left door	3000	2956	-44
8	RSOV to upper trailing edge of right door	1962	1873	-89
9	RSOV to upper trailing edge of left door	1972	1983	+11
10	RSOV to lower trailing edge of right door	1973	1954	-19
11	RSOV to lower trailing edge of left door	1979	1959	-20
12	RSOV to bottom of right 'A' pillar	2997	2827	-170
13	RSOV to bottom of left 'A' pillar	2979	2962	-17
14	RSOV to firewall on right side	3250	3249	-1
15	RSOV to firewall of left side	3232	3214	-18
16	RSOV to steering column	2576	2556	-20
17	Center of steering column to left 'A' pillar	390	362	-28
18	Center of steering column to headlining	489	469	-20
19	RSOV to right side of front bumper	4122	3804	-318
20	RSOV to left side of front bumper	4122	3784	-338
21	Length of engine block	204	204	0
22	RSOV to right side of dash panel	2838	2635	-203
23	RSOV to center of dash panel	2769	2706	-63
24	RSOV to left side of dash panel	2828	2829	+1



DATA SHEET NO. 15

CAMERA LOCATIONS

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

CAMERA NO.	VIEW	CAMERA POSITIONS (mm) *			ANGLE (Deg.)	FILM PLANE TO HEAD TARGET (mm)	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Right Side View-Real Time	2083	8331	914	0	1651	Zoom	24
2A	Left Side View No. 1	1321	-8382	864	1	7696	13	200
2B	Left Side View No. 2	1499	-9855	1270	2	7823	25	950
3	Left Side View No. 3	991	-10,566	1486	0	9627	50	1040
4	Left Side View No. 4	3150	2982	1854	18	2743	19	1000
5	Left Side View No. 5	1905	-8306	2515	14	8001	25	1020
6	Left Side View No. 6	1880	-8382	1092	8	7925	25	1000
7	Right Side View No. 1	1295	10,160	1168	2	7798	13	1100
8	Right Side View No. 2	1372	10,490	1346	1	9855	50	1220
9	Right Side View No. 3	6832	11,633	1321	10	12,090	80	870
10	Right Side View No. 4	2870	10,719	1372	2	9982	50	1210
11	Overhead Windshield	914	0	5715	90	N/A	13	1250
12	Front View No. 1 Driver	-356	356	2540	40	2845	19	1000
13	Front View No. 2 Passenger	-356	508	2540	40	2845	19	940
14	Pit Camera Engine View	610	0	-660	90	N/A	13	880
15	Pit Camera Fuel Tank View	5029	0	406	49	N/A	19	1170
16	Driver Side Onboard	3658	203	1473	9	1400	13	530
17	Passenger Side Onboard	3658	203	1473	10	1400	13	400

* X - film plane to barrier face Y - film plane to monorail centerline Z - film plane to ground

DATA SHEET NO. 16

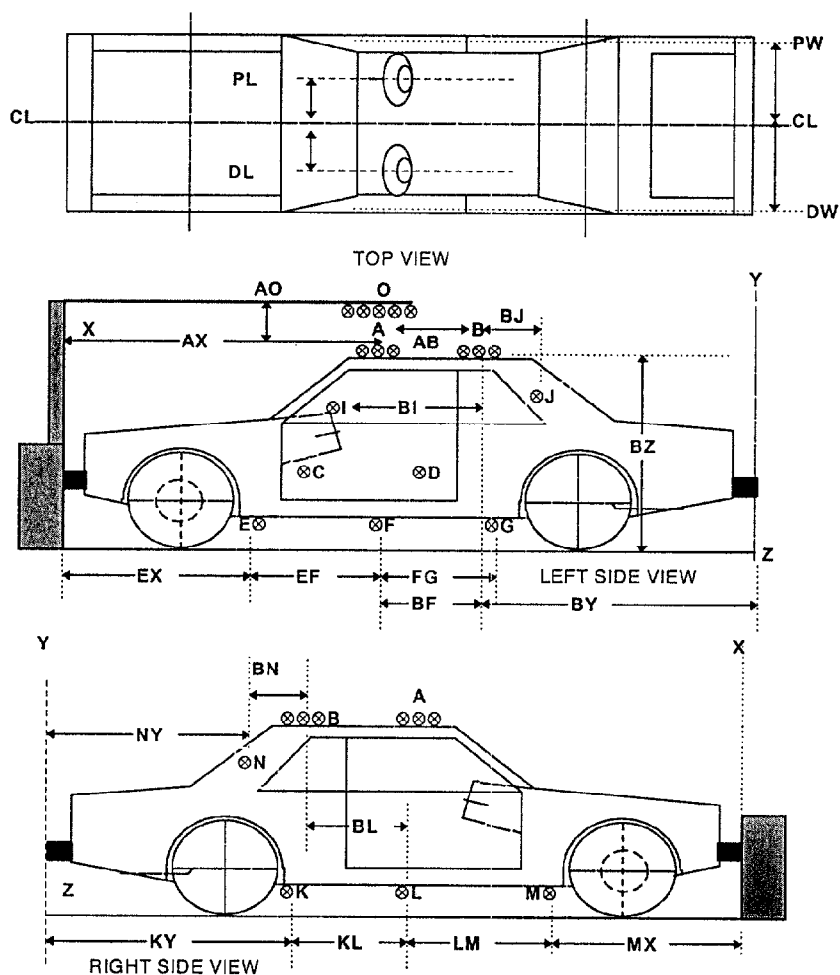
REFERENCE PHOTOGRAPH TARGETS

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

ITEM	DESCRIPTION	VALUE	ITEM	DESCRIPTION	VALUE
AX	TARGET A TO BARRIER	2420	NY	TARGET N TO REAR BUMPER	1108
AB	TARGET A TO TARGET B	609	BN	TARGET B TO TARGET N	121
AO	VERTICAL DISTANCE A TO O	152	KY	TARGET K TO REAR BUMPER	1363
BJ	TARGET B TO TARGET J	115	KL	TARGET K TO TARGET L	862
BI	TARGET B TO STEERING COLUMN	1460	BL	TARGET B TO TARGET L	988
BZ	TARGET B TO GROUND LEVEL	1718	LM	TARGET L TO TARGET M	850
EX	TARGET E TO BARRIER	1200	MX	TARGET M TO BARRIER	1200
EF	TARGET E TO TARGET F	847	CL/PL	VEHICLE CENTERLINE TO PASSENGER	330
FG	TARGET F TO TARGET G	864	CL/PW	VEHICLE CENTERLINE TO RIGHT SILL	730
BF	TARGET B TO TARGET F	985	CL/DL	VEHICLE CENTERLINE TO DRIVER	387
BY	TARGET B TO REAR BUMPER	1200	CL/DW	VEHICLE CENTERLINE TO LEFT SILL	740

Distances in mm



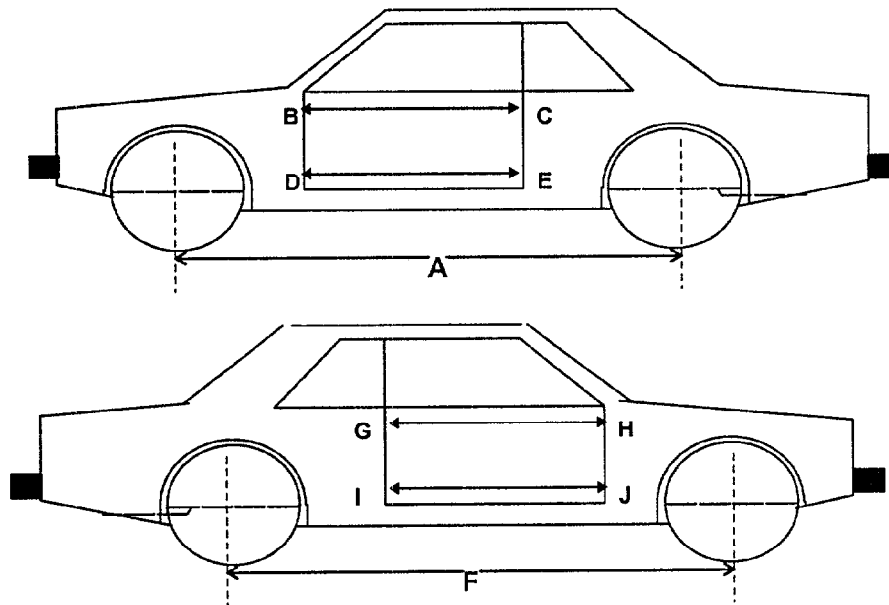
DATA SHEET NO. 17

VEHICLE INTRUSION MEASUREMENTS

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

DOOR OPENING WIDTH



UNITS (mm)	LEFT SIDE		RIGHT SIDE	
MEASUREMENT	BC	DE	GH	IJ
PRE-TEST	1017	1021	1025	1006
POST-TEST	1010	997	990	10115
DIFFERENCE	-7	-24	-35	+9

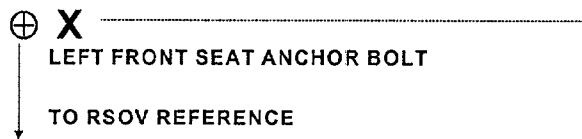
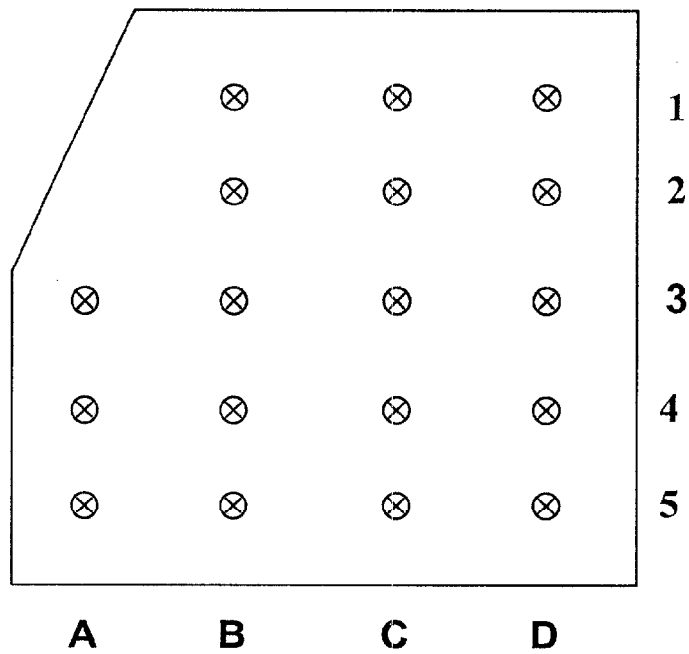
VEHICLE WHEELBASE CHANGE

UNITS (mm)	A = LEFT SIDE WHEELBASE	F = RIGHT SIDE WHEELBASE
PRE-TEST	2655	2655
POST-TEST	2572	2569
DIFFERENCE	-83	-86

Data Sheet No. 17(Continued)

FLOOR PAN INTRUSION (Distances in mm)

TARGET COLUMN	A		B		C		D	
TARGET ROW	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
1	N/A	N/A	750	604	750	639	750	654
2	N/A	N/A	600	614	600	568	600	560
3	450	460	450	469	450	450	450	448
4	300	290	300	308	300	300	300	300
5	150	140	150	155	150	150	150	150
REF. POINT	RSOV TO ANCHOR BOLT (PRE-TEST)		2467		RSOV TO ANCHOR BOLT (POST-TEST)		2450	



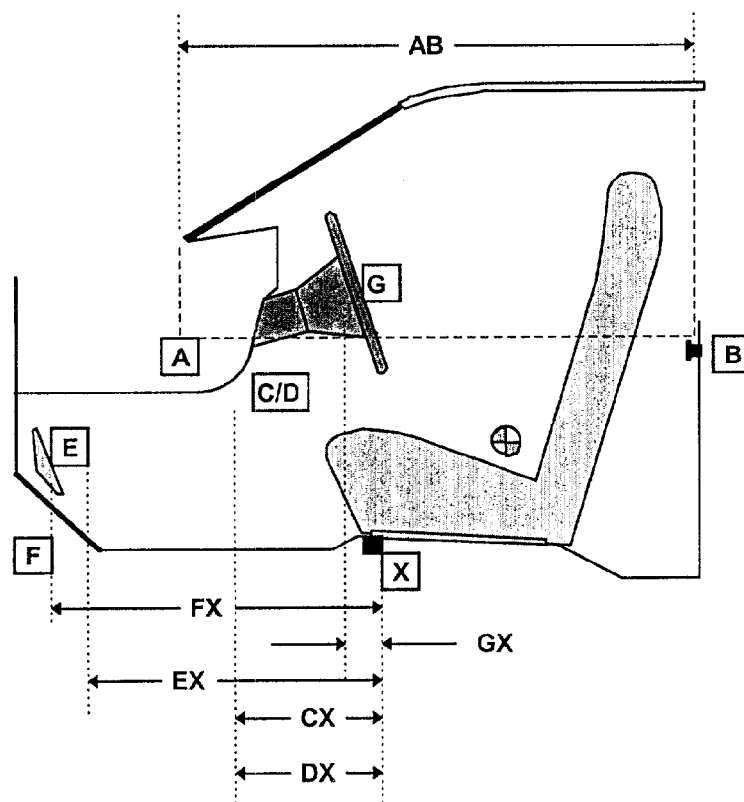
DRIVER SIDE FLOOR PLAN

(Data Sheet No. 17 Continued)

DRIVER COMPARTMENT INTRUSION (Distances in mm)

REF.	DESCRIPTION	PRE-TEST	POST-TEST
AB	DOOR OPENING (INSIDE WINDOW JAM)	964	960
CX	LOWER LEFT KNEE BOLSTER TO X	300	350
DX	LOWER RIGHT KNEE BOLSTER TO X	359	390
EX	BRAKE PEDAL TO X	500	420
FX	FOOT REST TO X	587	555
GX	STEERING COLUMN HUB (CENTER) TO X	54	40

X = LEFT FRONT SEAT ANCHOR BOLT



DRIVER COMPARTMENT

DATA SHEET NO. 18

OFFSET BARRIER ORIENTATION

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

A = VEHICLE WIDTH MEASURED AT WIDEST POINT N/A mm

B = 40% OFFSET FROM LEFT EDGE OF VEHICLE N/A mm

ACTUAL OFFSET DURING TEST N/A mm = N/A %

(NO OFFSET REQUIRED FOR THIS TEST)

DATA SHEET NO. 19

ACCIDENT INVESTIGATION DIVISION DATA

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

VIN: JHLRD1863WC033109

TEST DATE: 2/20/98

WHEELBASE: 2655 mm

TEST WEIGHT: 1661 kg

VEHICLE SIZE CATEGORY: HONDA CRV SUV

ACCELEROMETER DATA:

LOCATION: Left and right rear floor pans

CALIBRATION PROCEDURE: 6 months/ drop test

LINEARITY: Good

INTEGRATION ALGORITHM: NHTSA Standard

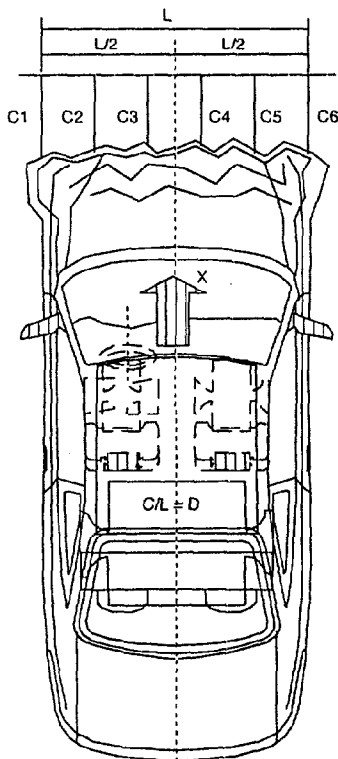
VEHICLE IMPACT SPEED: 56.64 km/h

TIME OF SEPARATION: 64.62 msec

VELOCITY CHANGE: 65.30 km/h

COLLISION DEFORMATION CLASSIFICATION (CDC) CODE: F (frontal)

IMPACT MODE: Full Frontal



CRUSH DEPTH DIMENSIONS:

C1 = 599 mm

C2 = 538 mm

C3 = 523 mm

C4 = 523 mm

C5 = 545 mm

C6 = 581 mm

MIDPOINT OF DAMAGE: D = vehicle centerline 772.5 MM

LENGTH OF DAMAGE REGION:

L = 1545 mm

DATA SHEET NO. 20

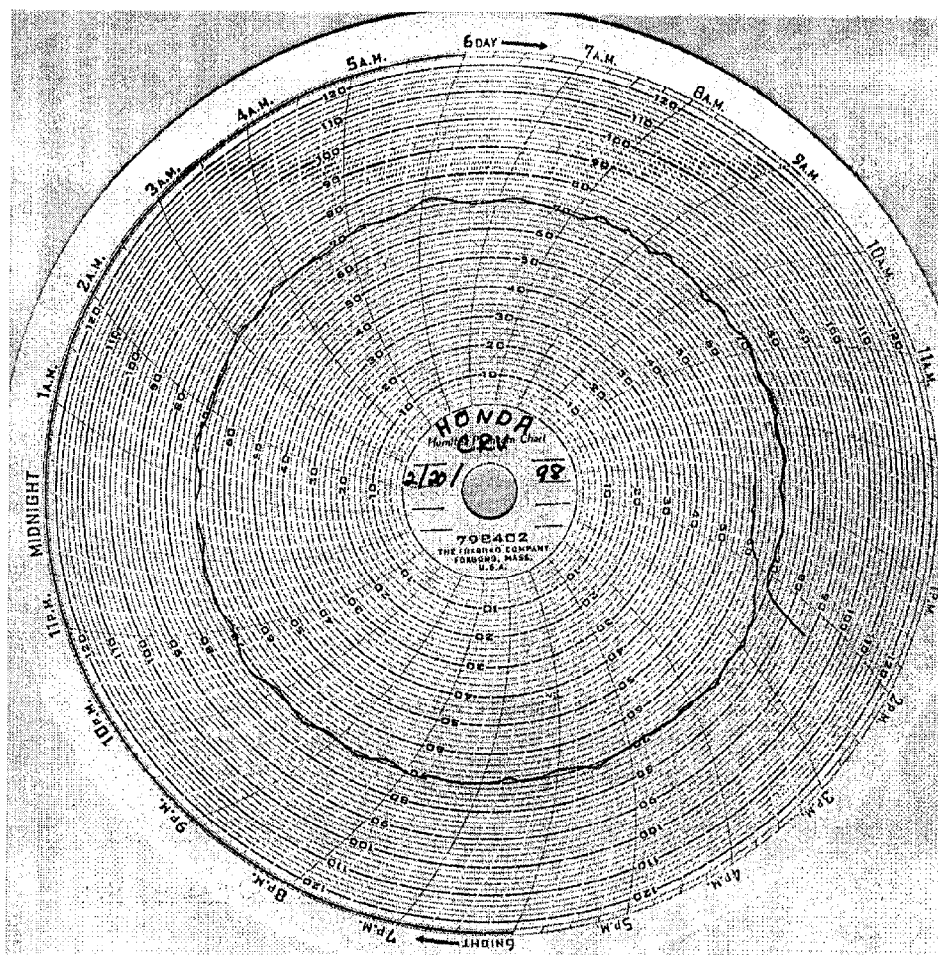
DUMMY/VEHICLE TEMPERATURE STABILIZATION

TEST VEHICLE: 1998 HONDA CRV SUV

NHTSA NO. MW5303

VIN: JHLRD1863WC033109

TEST DATE: 2/20/98



ENCLOSURE

APPENDIX A PHOTOGRAPHS

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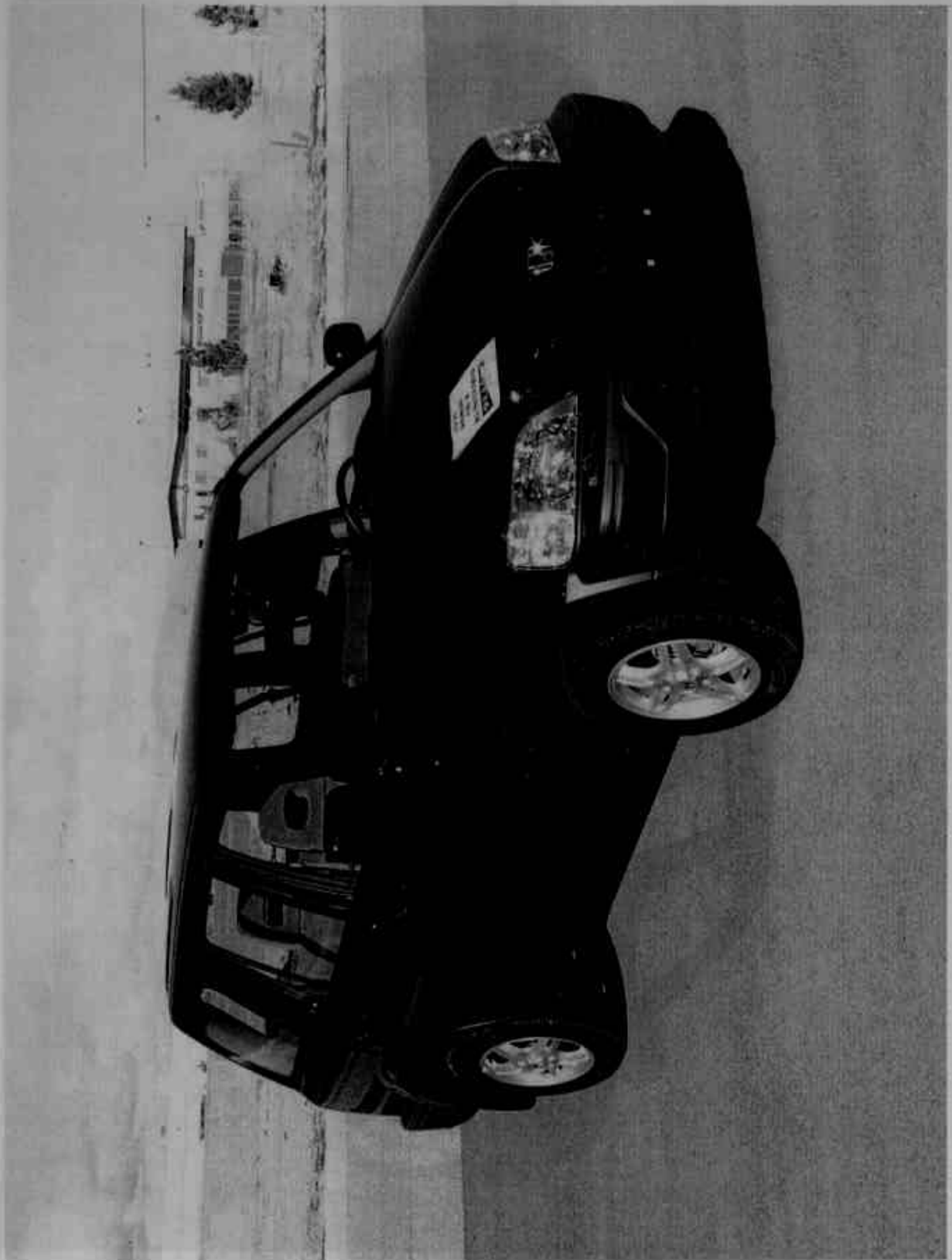


FIGURE A-1. RIGHT FRONT AS RECEIVED

KAR-98-R98050-12

A-1

KAR-98-R98050-12



FIGURE A-2. LEFT REAR AS RECEIVED

KAR-98-R98050-12

A-2

KAR-98-R98050-12



FIGURE A-3. VEHICLE CERTIFICATION LABEL

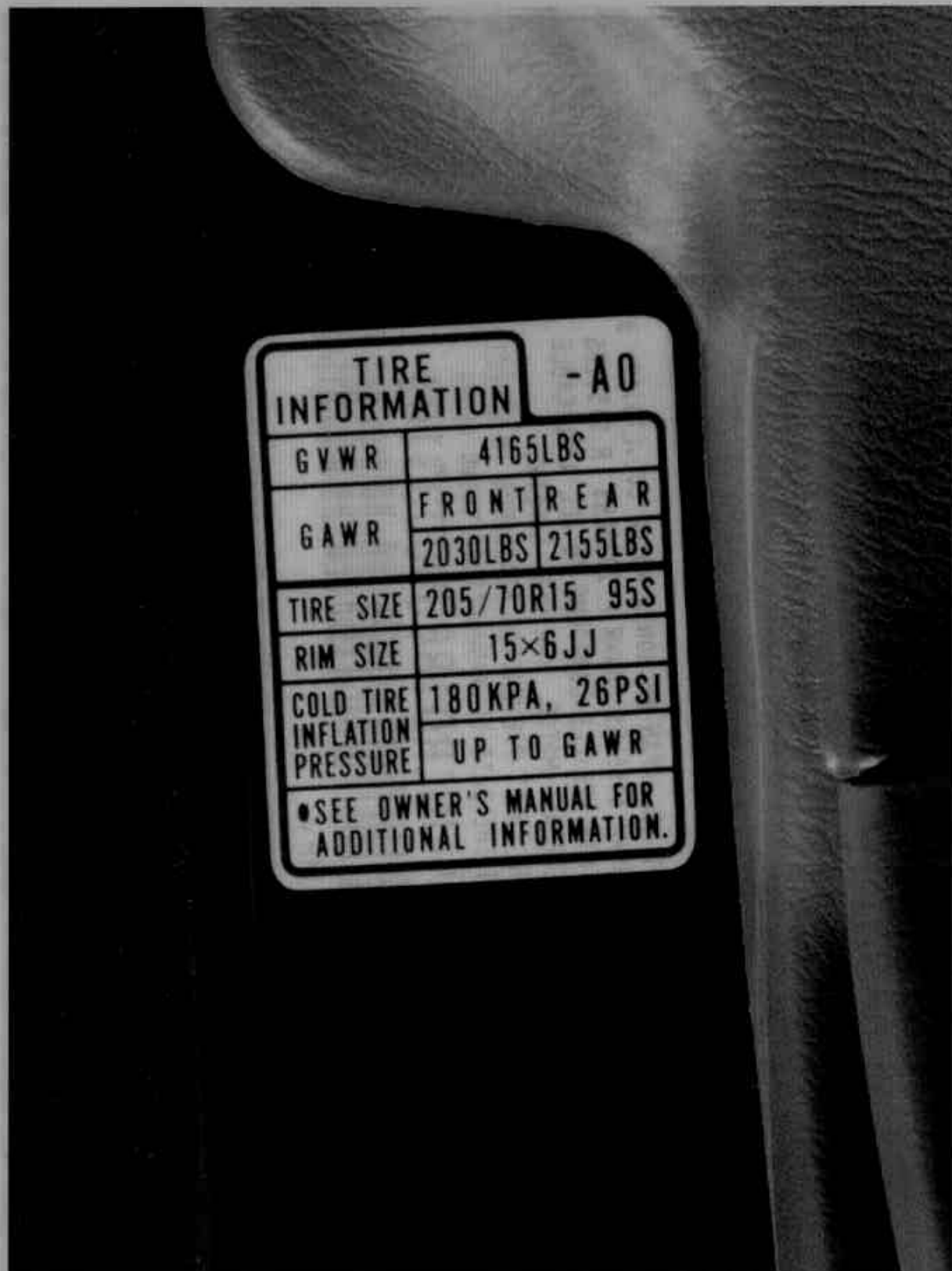


FIGURE A-4. VEHICLE TIRE PLACARD

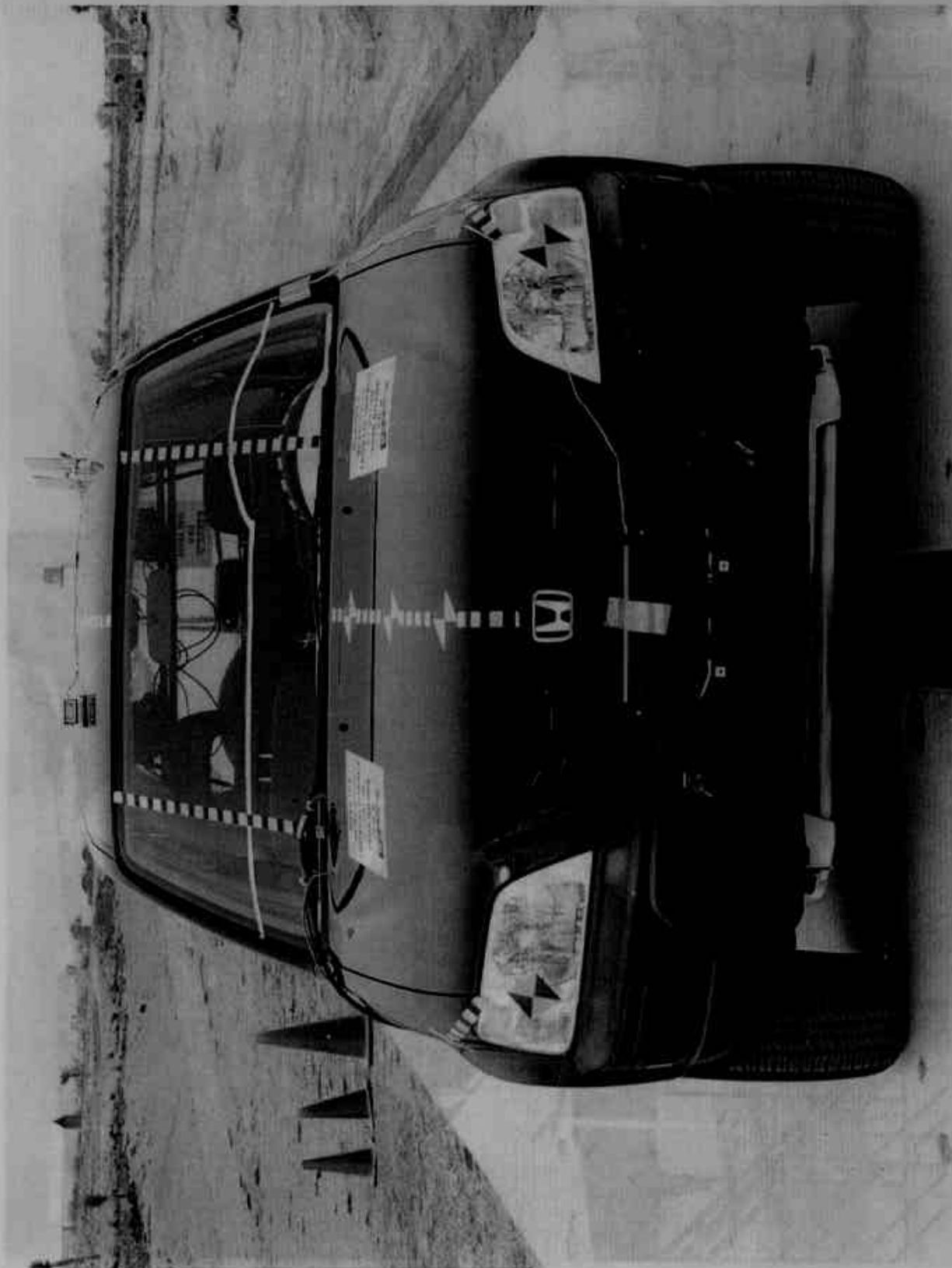


FIGURE A-5. PRETEST FRONT VIEW

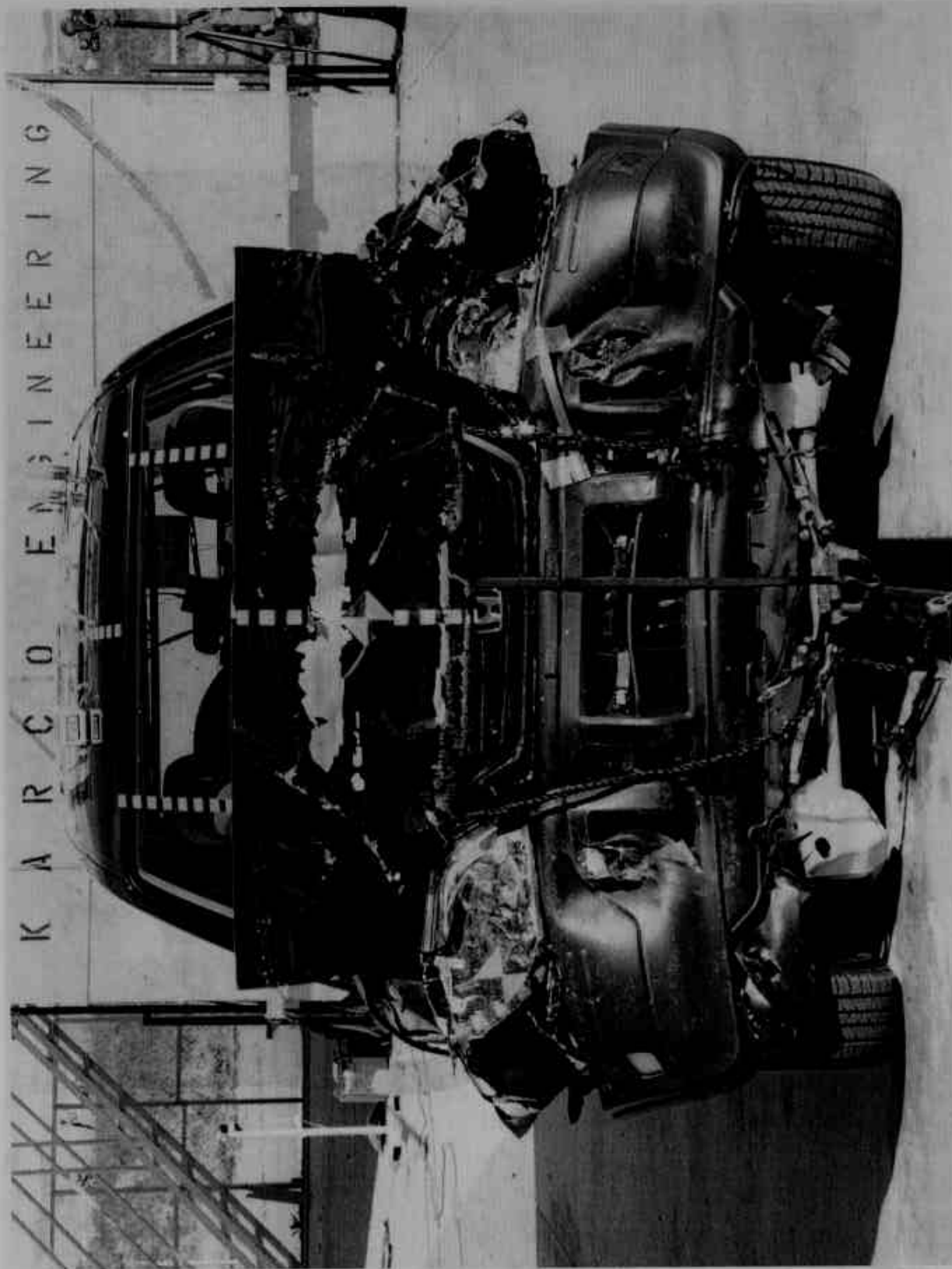


FIGURE A-6. POST TEST FRONT VIEW

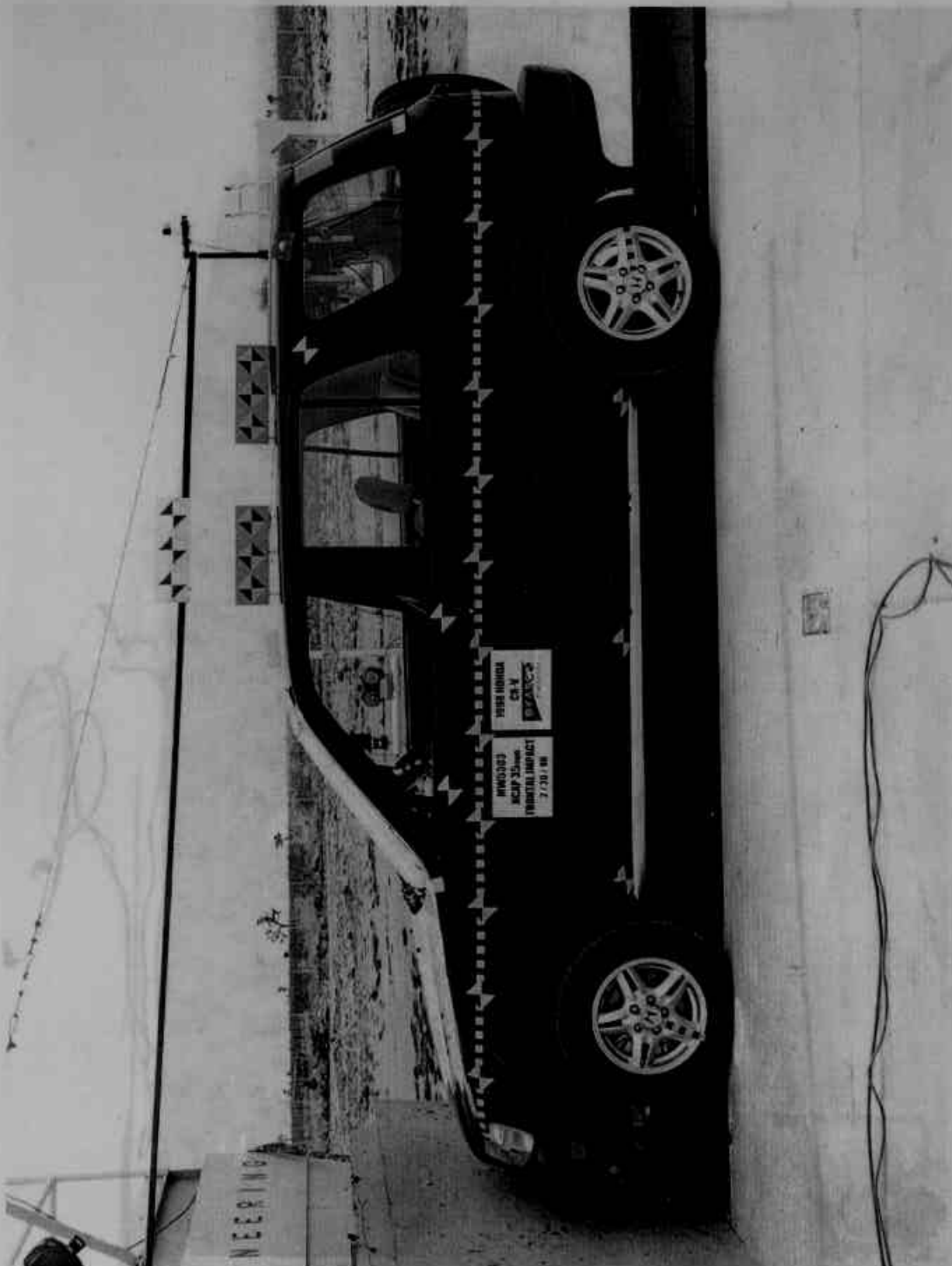


FIGURE A-7. PRETEST LEFT SIDE VIEW



FIGURE A-8. POST TEST LEFT SIDE VIEW

KAR-98-R98050-12

A-8

KAR-98-R98050-12



FIGURE A-9. PRETEST RIGHT SIDE VIEW

KAR-98-R98050-12

A-9

KAR-98-R98050-12

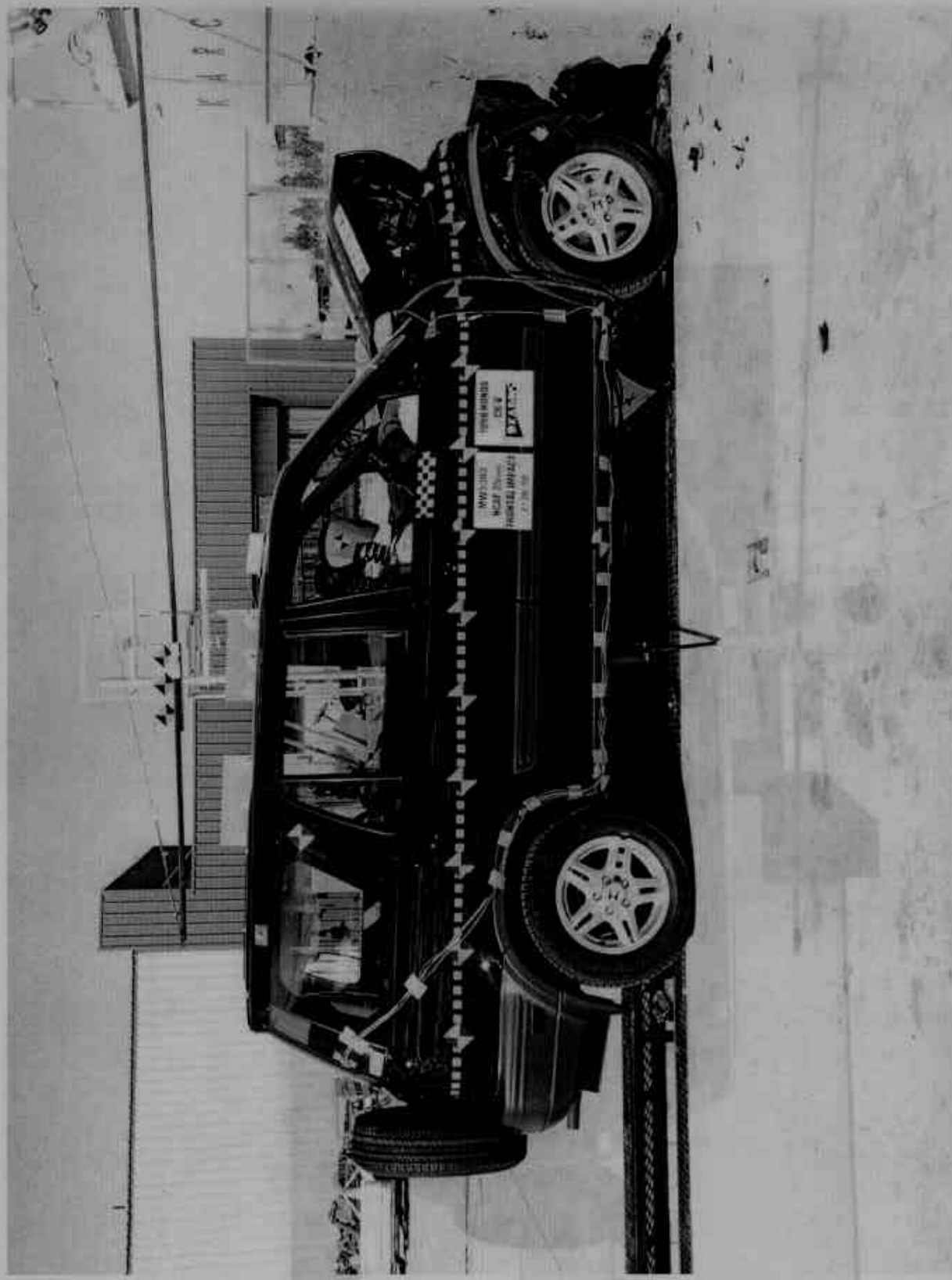


FIGURE A-10. POST TEST RIGHT SIDE VIEW



FIGURE A-11. PRETEST RIGHT FRONT VIEW

KAR-98-R98050-12

A-11

KAR-98-R98050-12

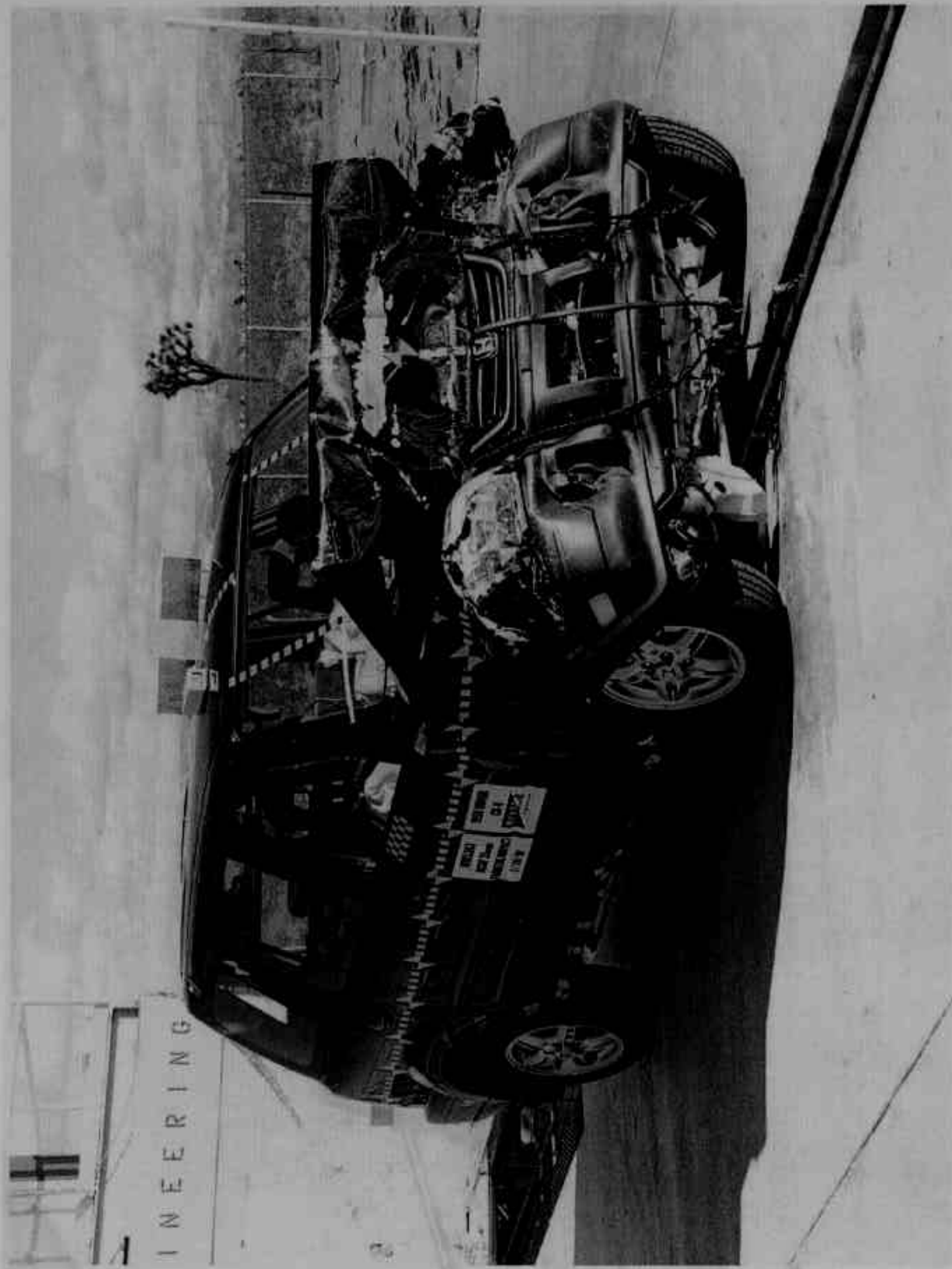


FIGURE A-12. POST TEST RIGHT FRONT VIEW

KAR-98-R98050-12

A-12

KAR-98-R98050-12



FIGURE A-13. PRETEST LEFT REAR VIEW

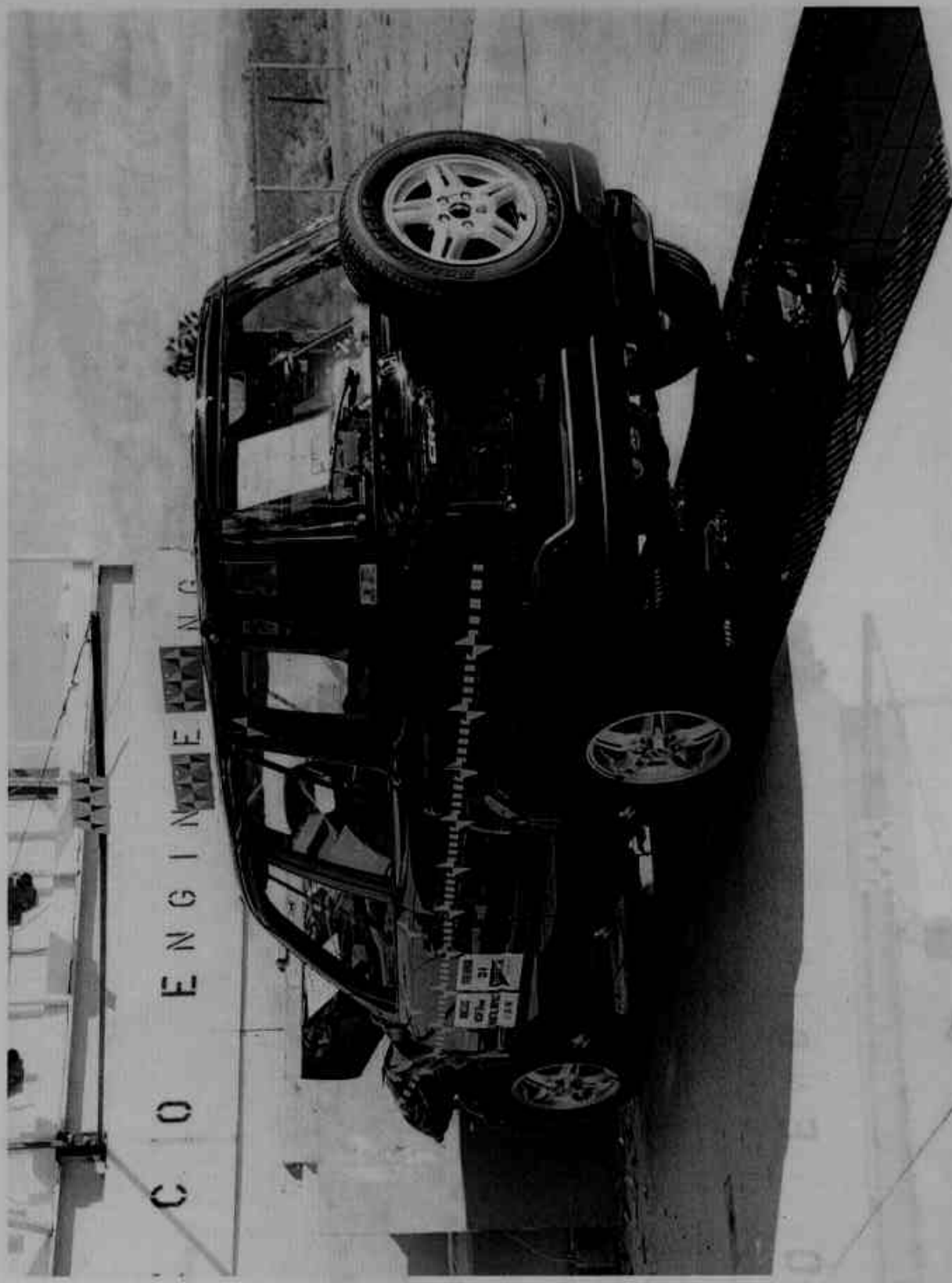


FIGURE A-14. POST TEST LEFT REAR VIEW

KAR-98-R98050-12

A-14

KAR-98-R98050-12

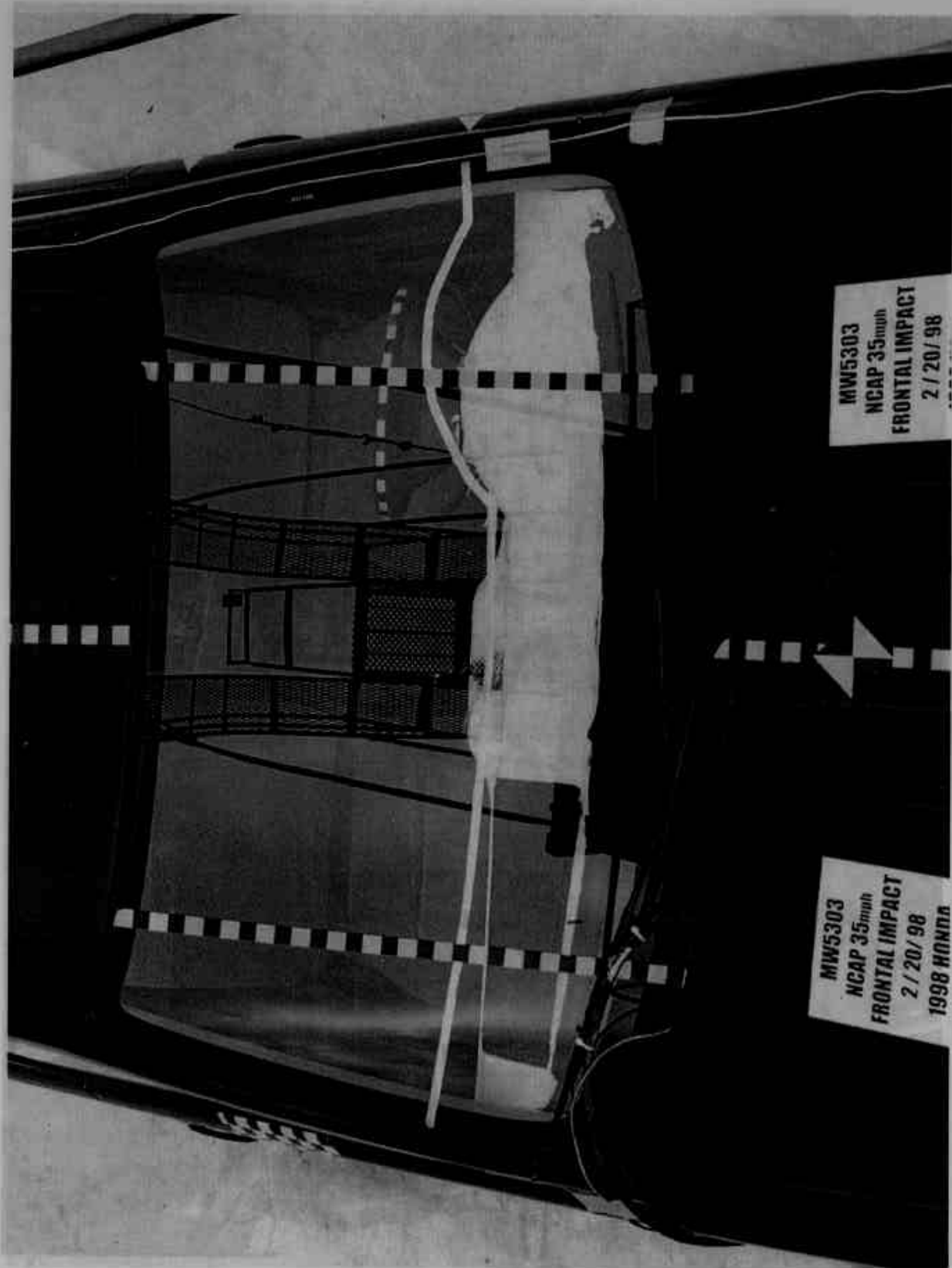


FIGURE A-15. PRETEST WINDSHIELD

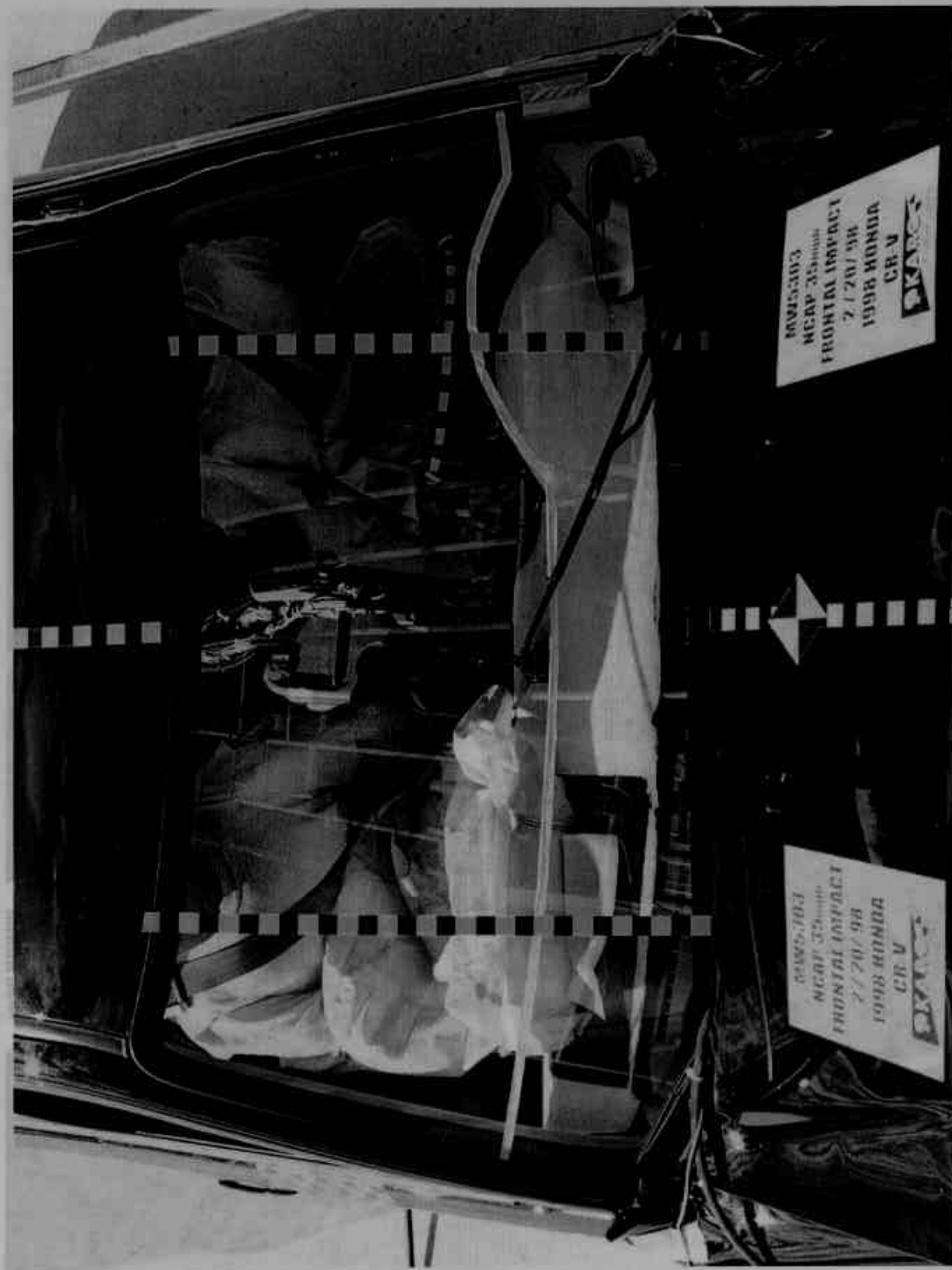


FIGURE A-16. POST TEST WINDSHIELD

KAR-98-R98050-12

A-16

KAR-98-R98050-12

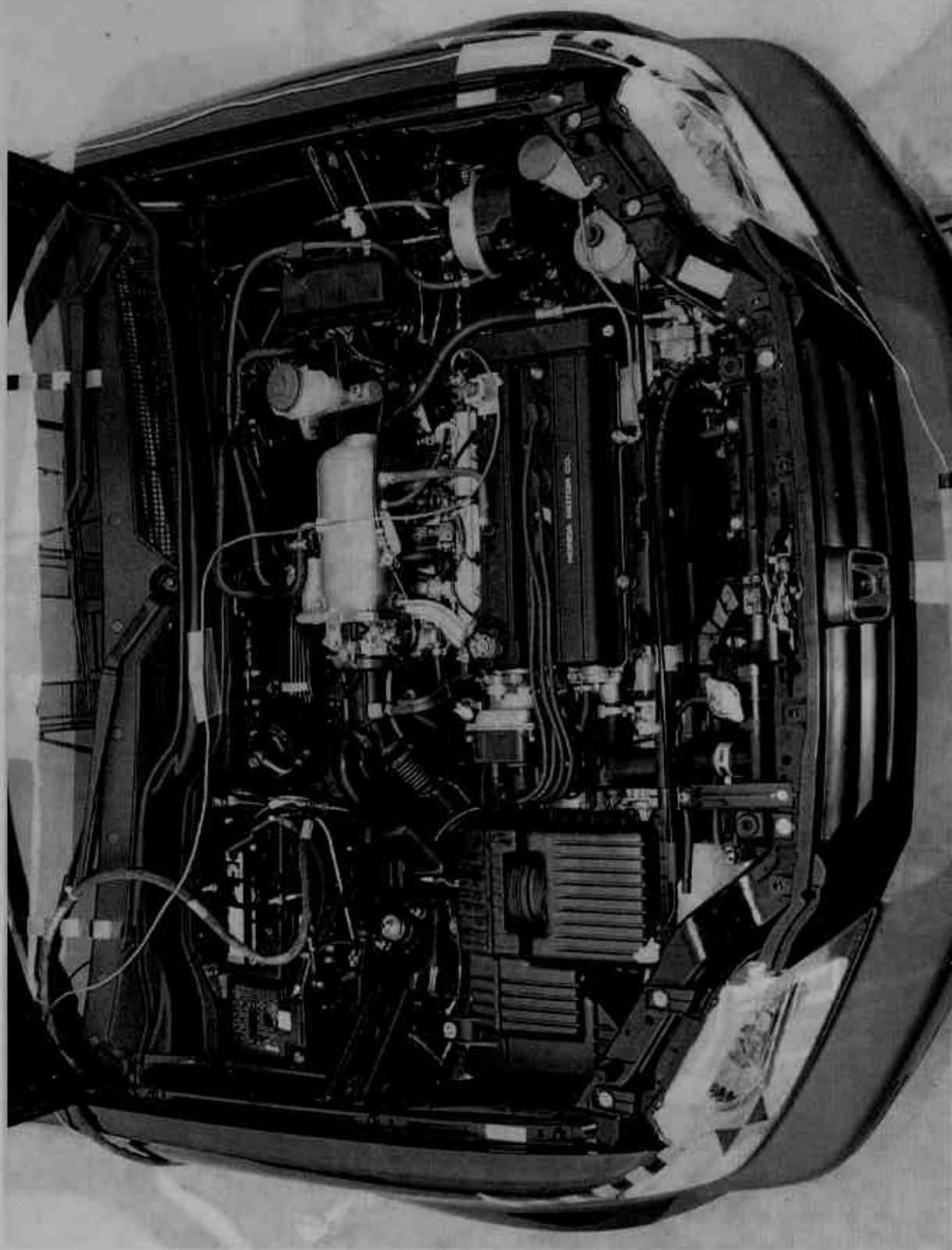


FIGURE A-17. PRETEST ENGINE COMPARTMENT

KAR-98-R98050-12

A-17

KAR-98-R98050-12

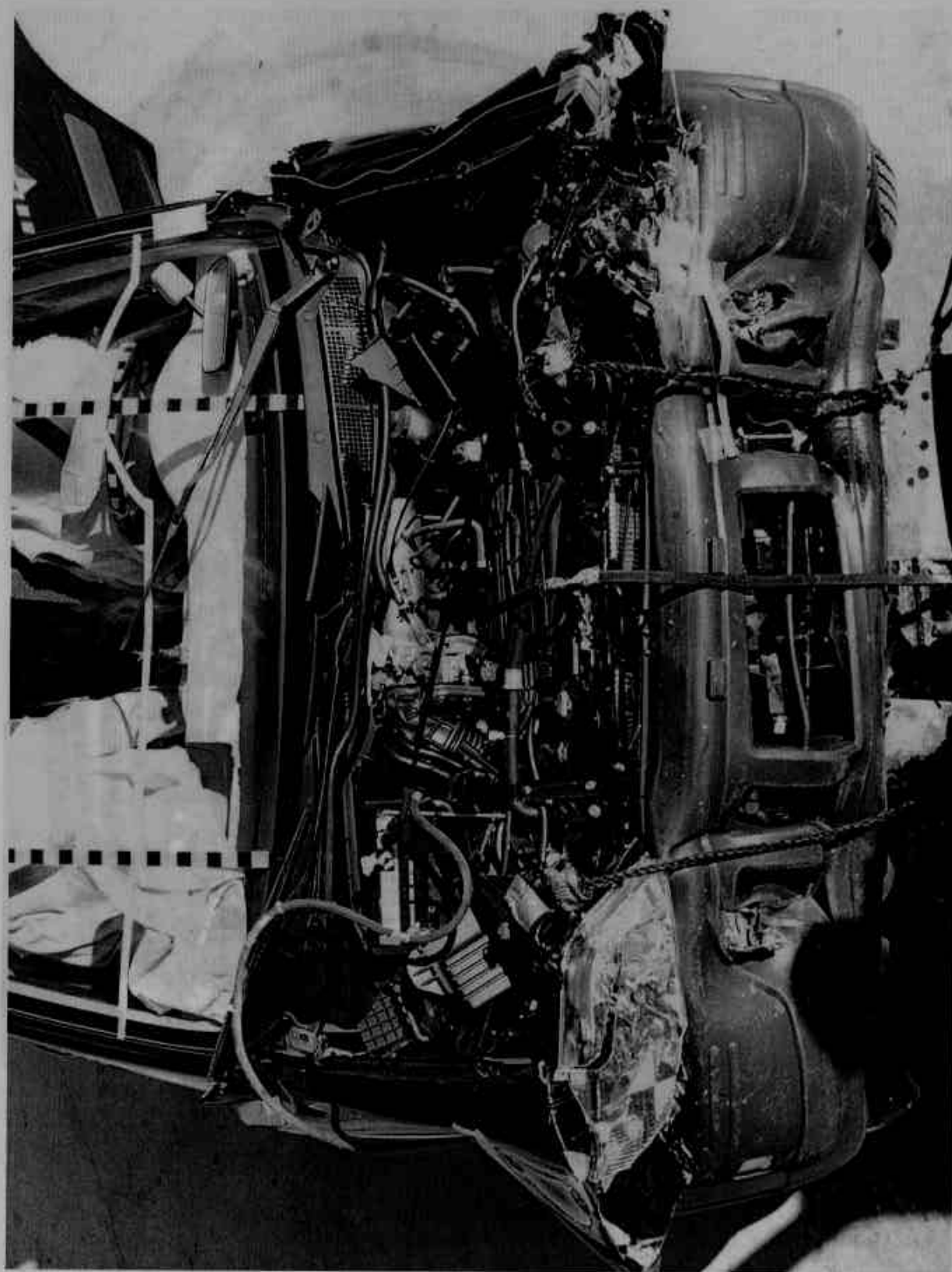


FIGURE A-18. POST TEST ENGINE COMPARTMENT

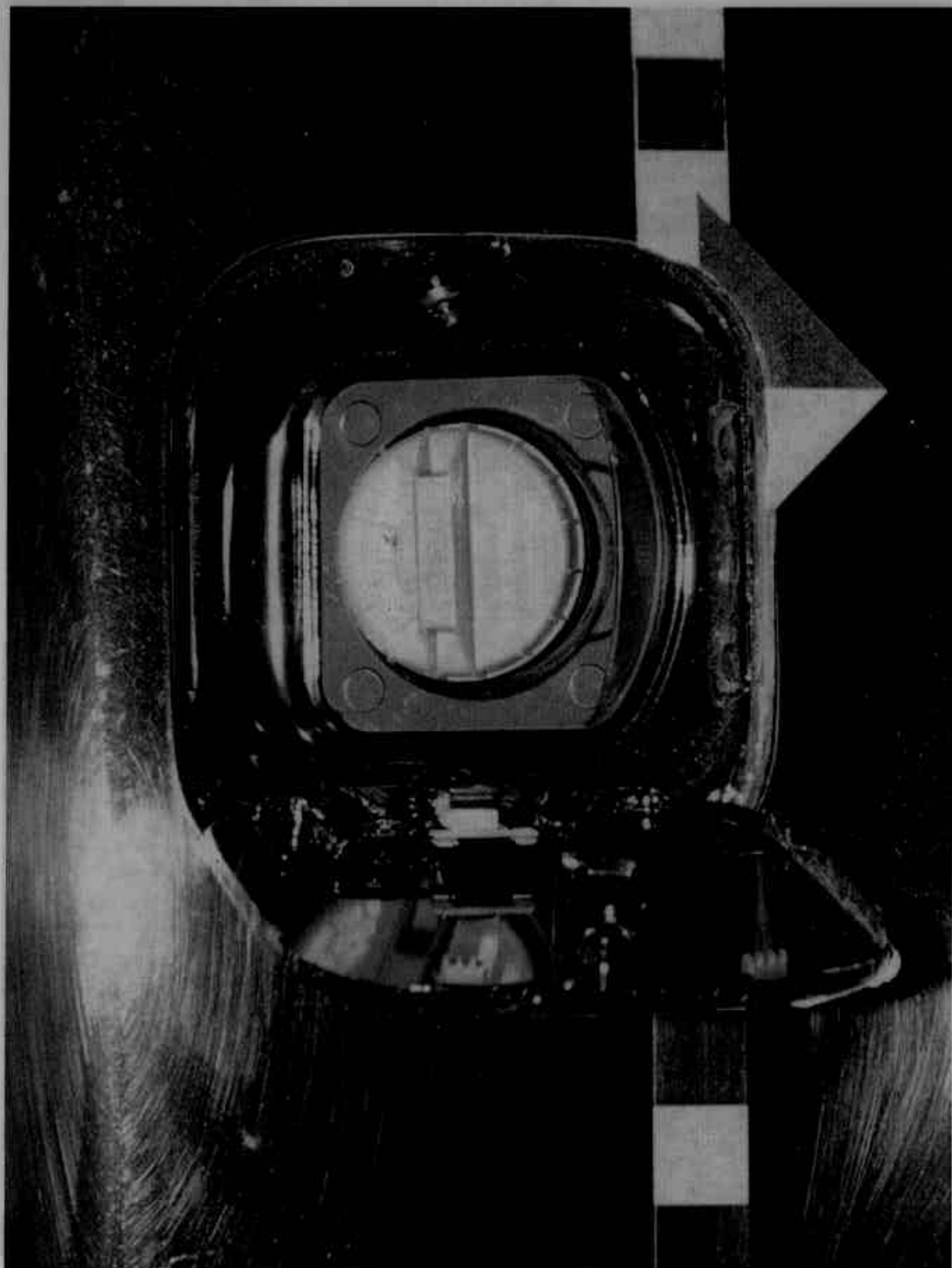


FIGURE A-19. PRETEST FUEL CAP

SI-020807-00-0001

A-19

KAR-98-R98050-12



FIGURE A-20. POST TEST FUEL CAP

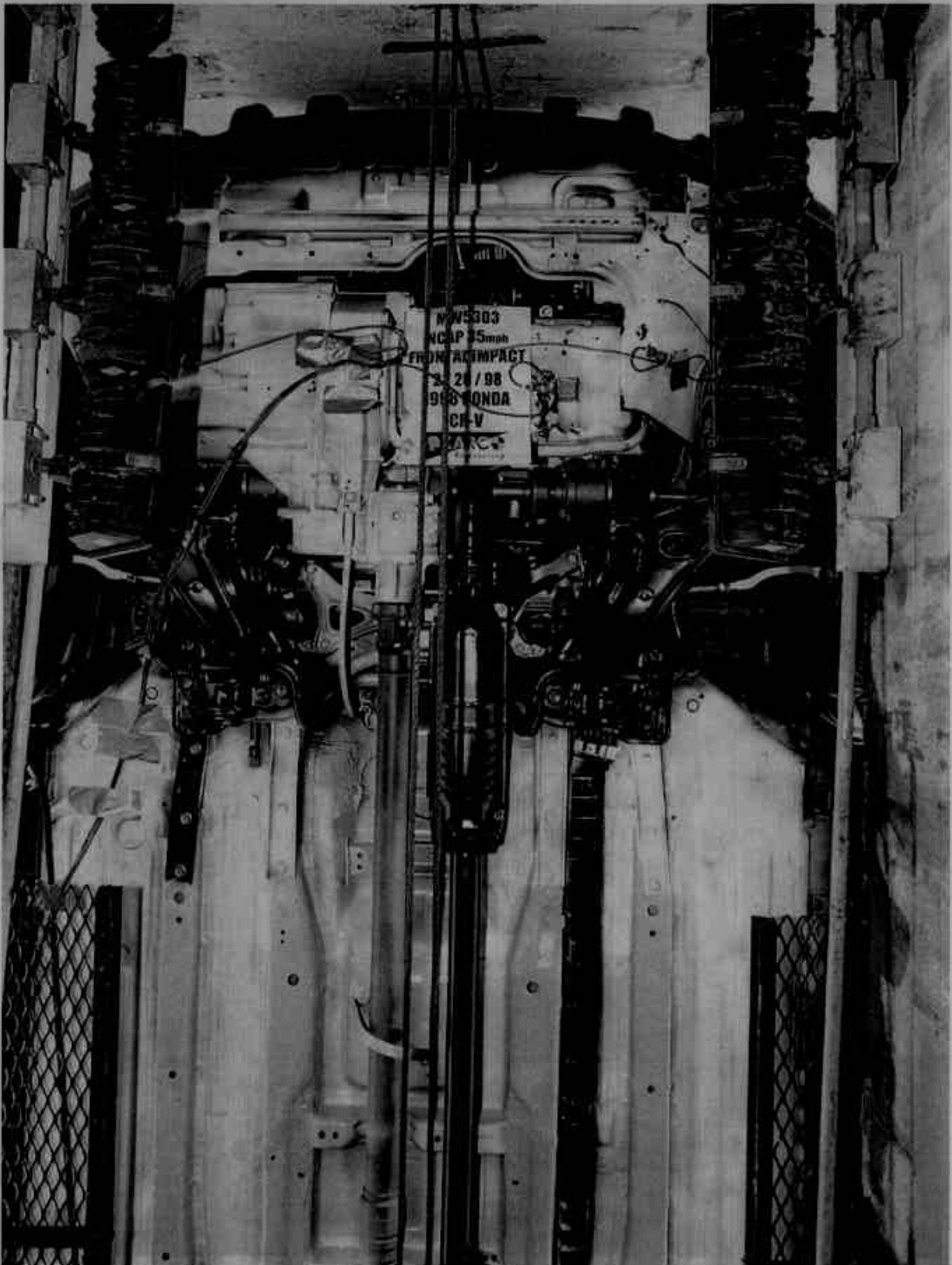


FIGURE A-21. PRETEST FRONT UNDERSIDE

KAR-98-R98050-12

A-21

KAR-98-R98050-12

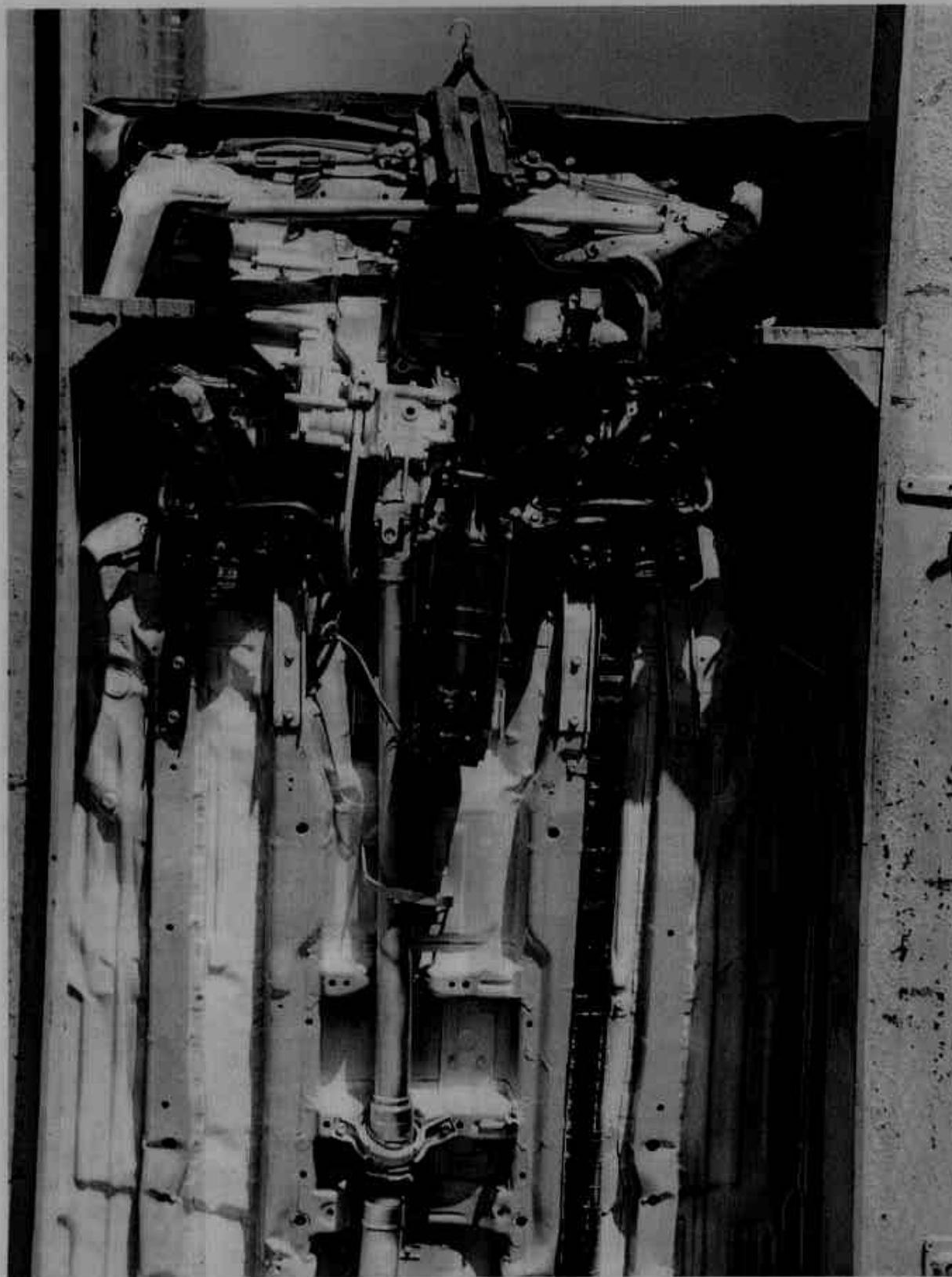


FIGURE A-22. POST TEST FRONT UNDERSIDE

KAR-98-R98050-12

A-22

KAR-98-R98050-12

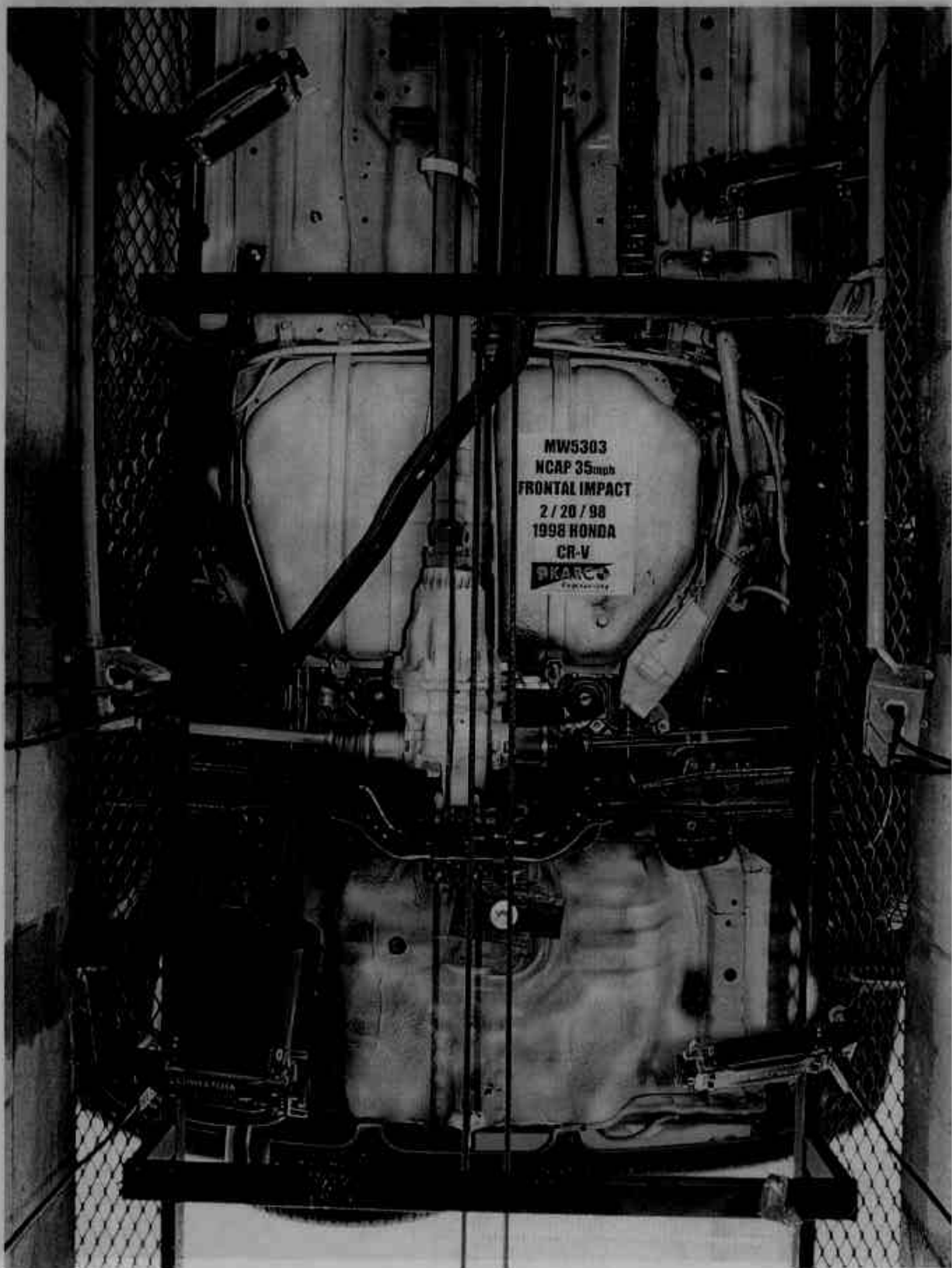


FIGURE A-23. PRETEST REAR UNDERSIDE

KAR-98-R98050-12

A-23

KAR-98-R98050-12

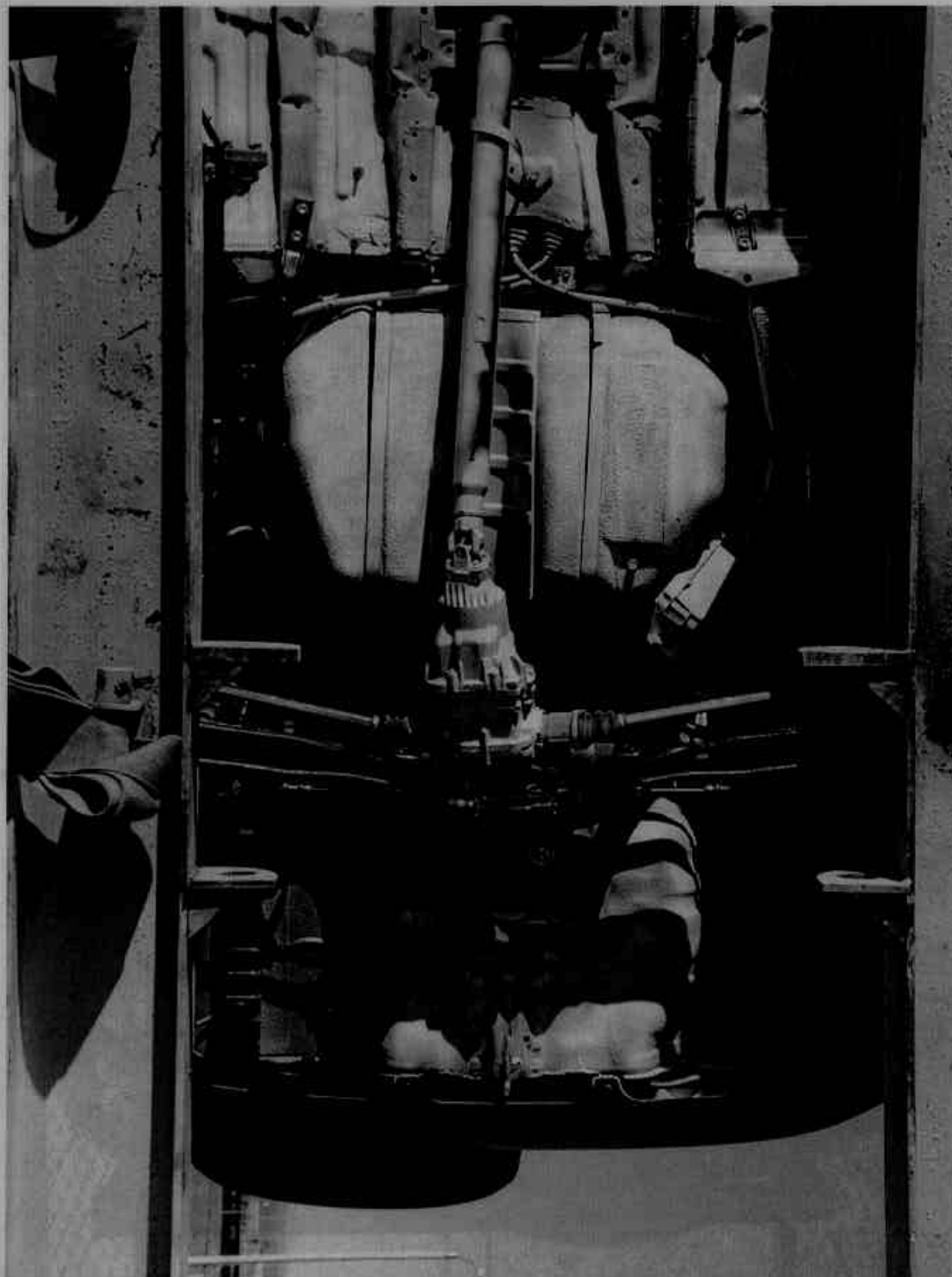


FIGURE A-24. POST TEST REAR UNDERSIDE

SI-060695-00-JAVI

A-24

KAR-98-R98050-12



FIGURE A-25. PRETEST DRIVER FLOOR PAN

SI-020907-06-RAVI

A-25

KAR-98-R98050-12



FIGURE A-26. POST TEST DRIVER FLOOR PAN

KAR-98-R98050-12

A-26

KAR-98-R98050-12



FIGURE A-27. PRETEST DRIVER DUMMY (FRONT VIEW)

KAR-98-R98050-12

A-27

KAR-98-R98050-12



FIGURE A-28. POST TEST DRIVER DUMMY (FRONT VIEW)

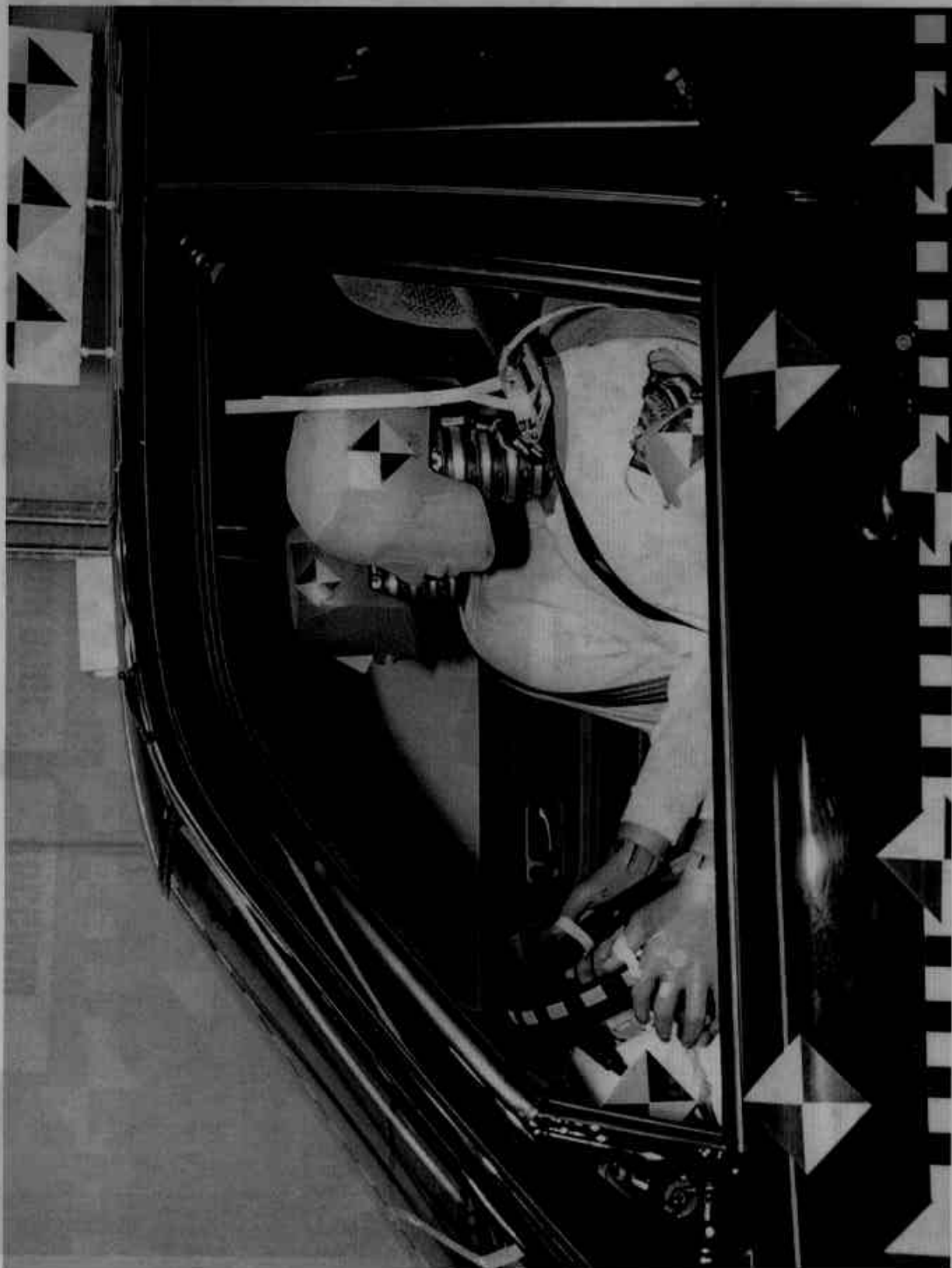


FIGURE A-29. PRETEST DRIVER DUMMY (THRU WINDOW)

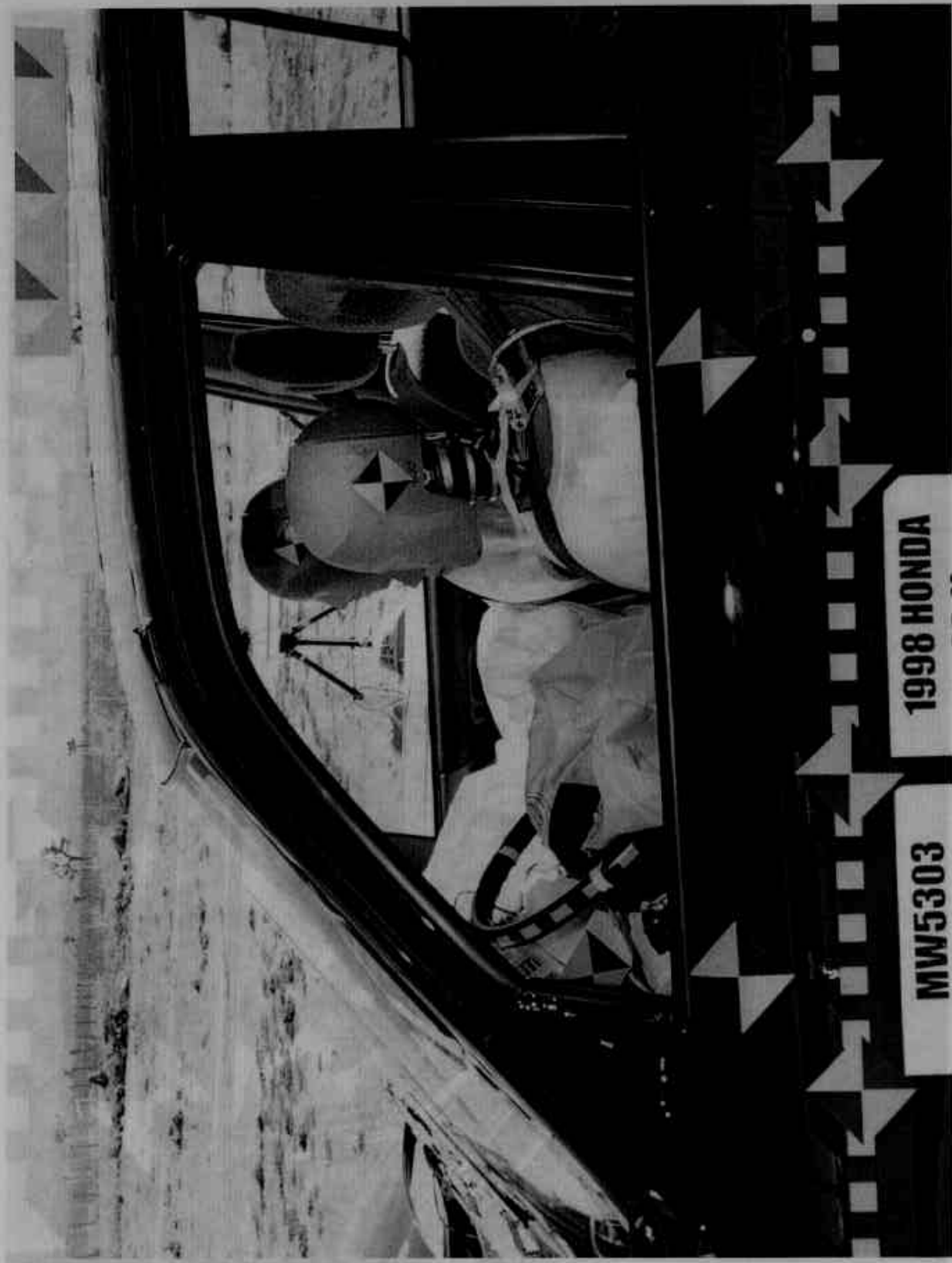


FIGURE A-30. POST TEST DRIVER DUMMY (THRU WINDOW)



FIGURE A-31. PRETEST DRIVER DUMMY (DOOR OPEN)

KAR-98-R98050-12

A-31

KAR-98-R98050-12



FIGURE A-32. POST TEST DRIVER DUMMY (DOOR OPEN)



FIGURE A-33. PRETEST DRIVER DUMMY (90° TO VEHICLE)

KAR-98-R98050-12

A-33

KAR-98-R98050-12



FIGURE A-34. POST TEST DRIVER DUMMY (90° TO VEHICLE)

KAR-98-R98050-12

A-34

KAR-98-R98050-12

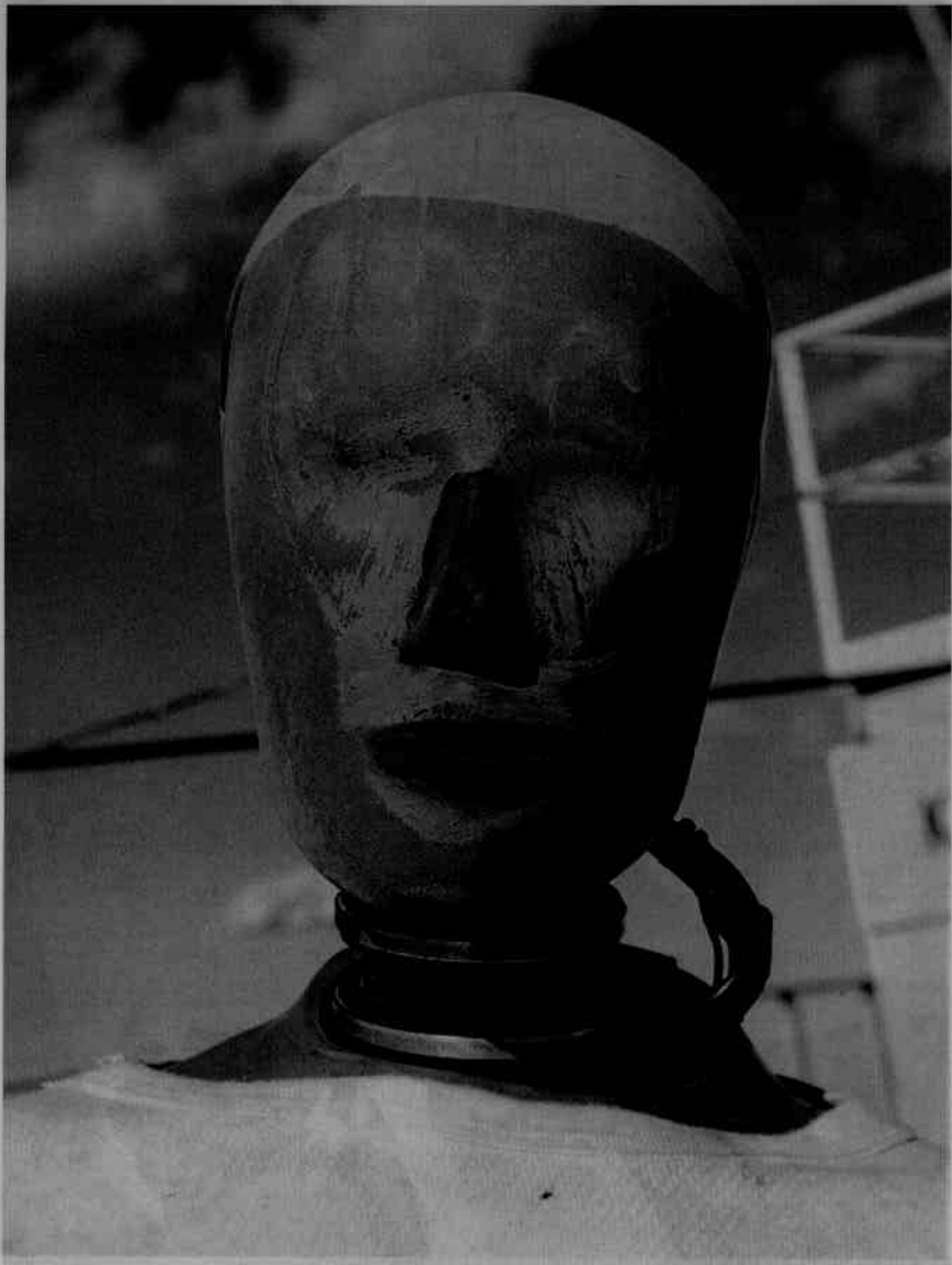


FIGURE A-35. POST TEST DRIVER DUMMY HEAD

A-35

KAR-98-R98050-12



FIGURE A-36. POST TEST DRIVER DUMMY CONTACT POINT



FIGURE A-37. POST TEST DRIVER DUMMY CONTACT POINT

KAR-98-R98050-12

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KAR-98-R98050-12



FIGURE A-38. PRETEST DRIVER SIDE KNEE BOLSTER



FIGURE A-39. POST TEST DRIVER KNEE BOLSTER



FIGURE A-40. PRETEST PASSENGER DUMMY (FRONT VIEW)



FIGURE A-41. POST TEST PASSENGER DUMMY (FRONT VIEW)

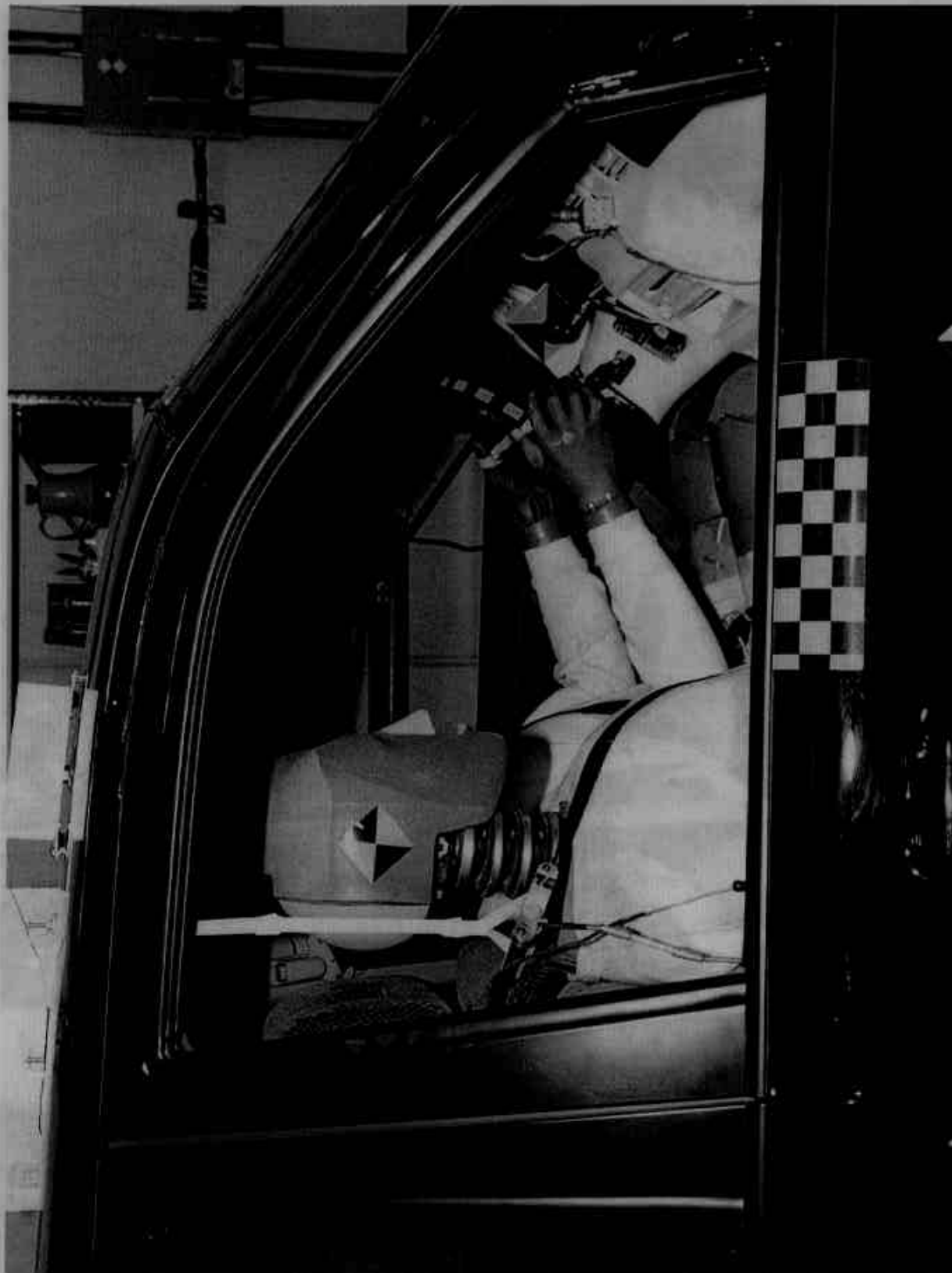


FIGURE A-42. PRETEST PASSENGER DUMMY (THRU WINDOW)



FIGURE A-43. POST TEST PASSENGER DUMMY (THRU WINDOW)

KAR-98-R98050-12

A-43

KAR-98-R98050-12



FIGURE A-44. PRETEST PASSENGER DUMMY (DOOR OPEN)



FIGURE A-45. POST TEST PASSENGER DUMMY (DOOR OPEN)

KAR-98-R98050-12

A-45

KAR-98-R98050-12



FIGURE A-46. PRETEST PASSENGER DUMMY (90° TO VEHICLE)

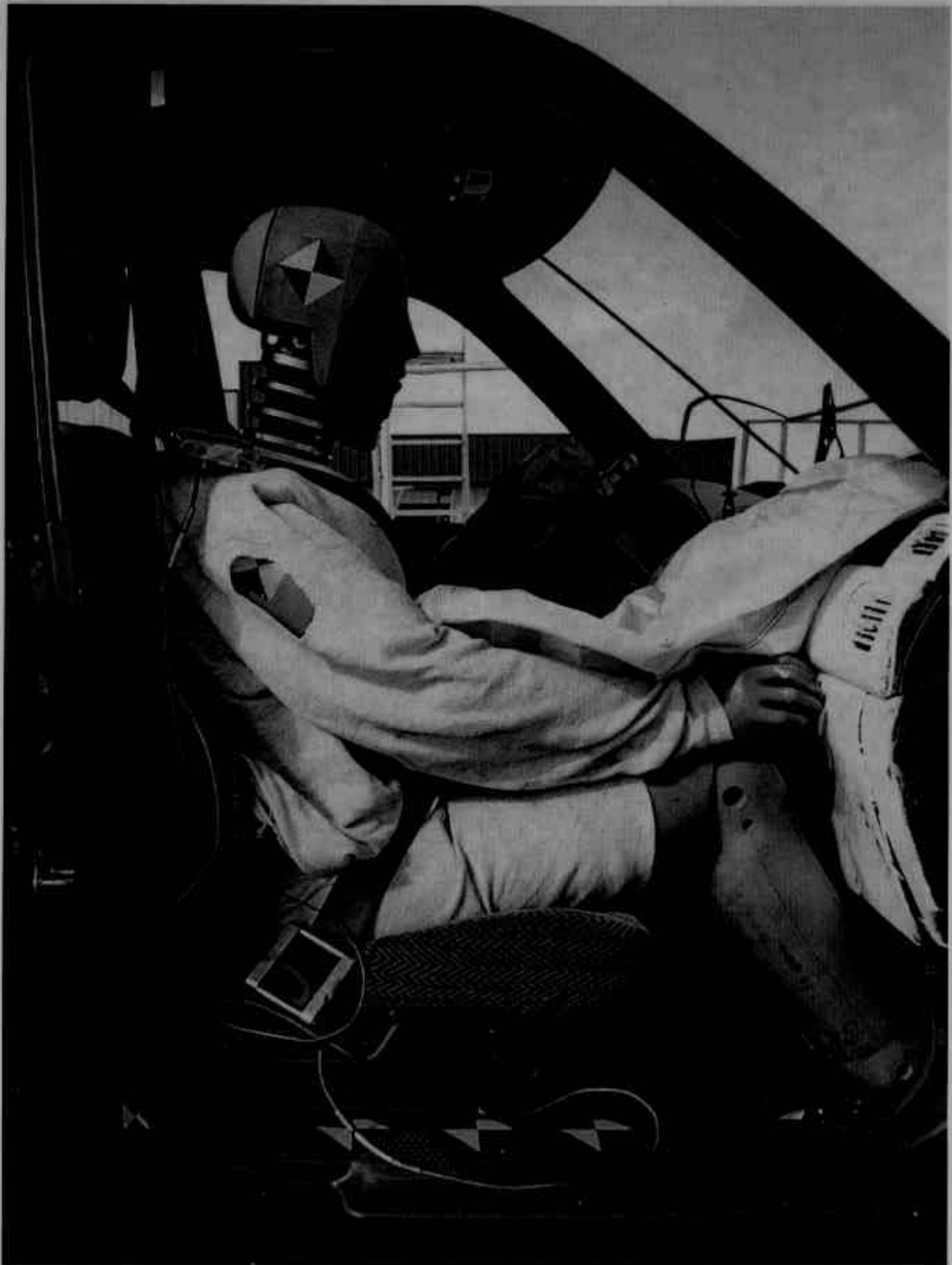


FIGURE A-47. POST TEST PASSENGER DUMMY (90° TO VEHICLE)

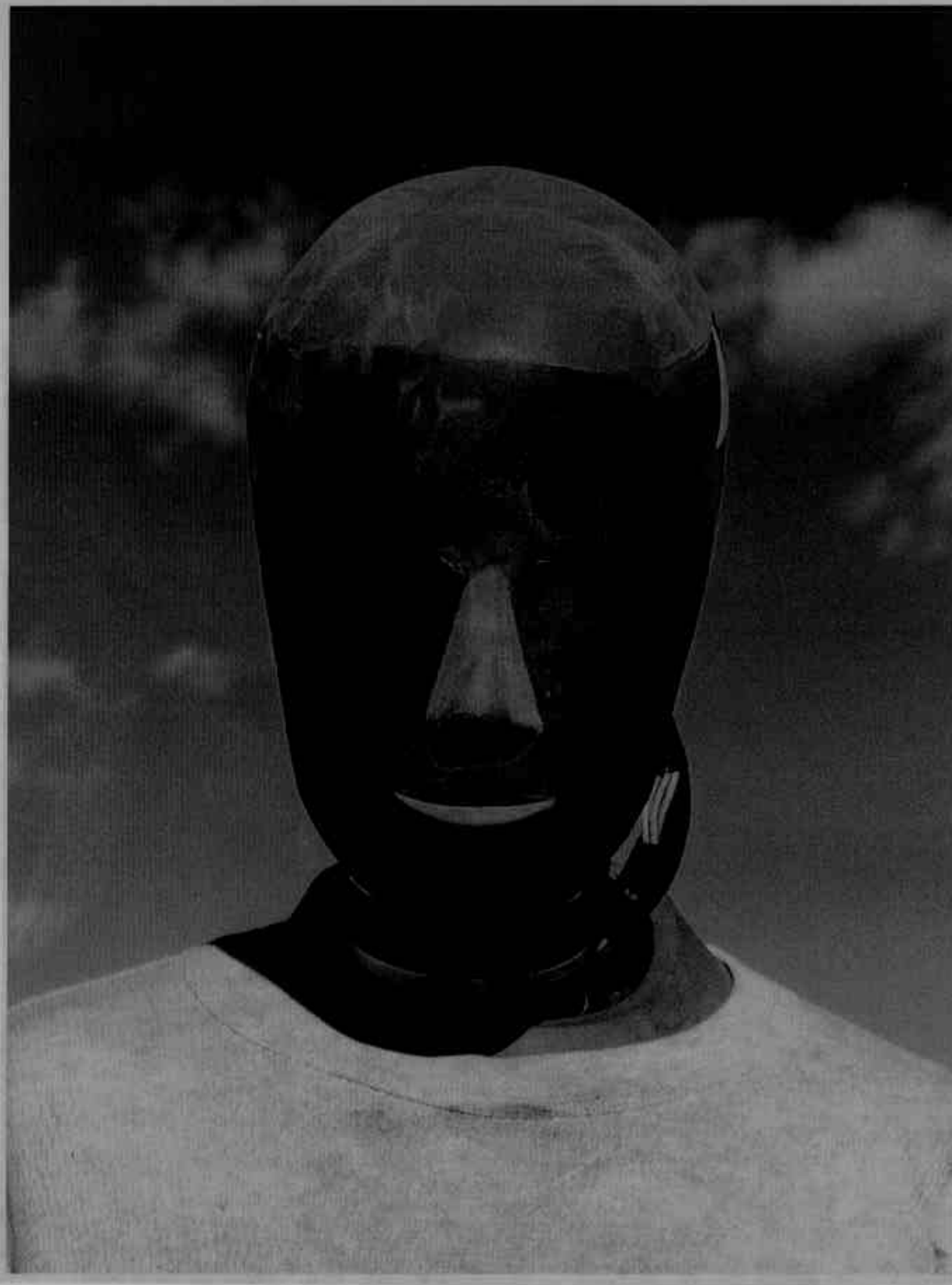


FIGURE A-48. POST TEST PASSENGER DUMMY HEAD

A-48

KAR-98-R98050-12



FIGURE A-49. POST TEST PASSENGER DUMMY CONTACT POINT



FIGURE A-50. POST TEST PASSENGER DUMMY CONTACT POINT

KAR-98-R98050-12

A-50

KAR-98-R98050-12

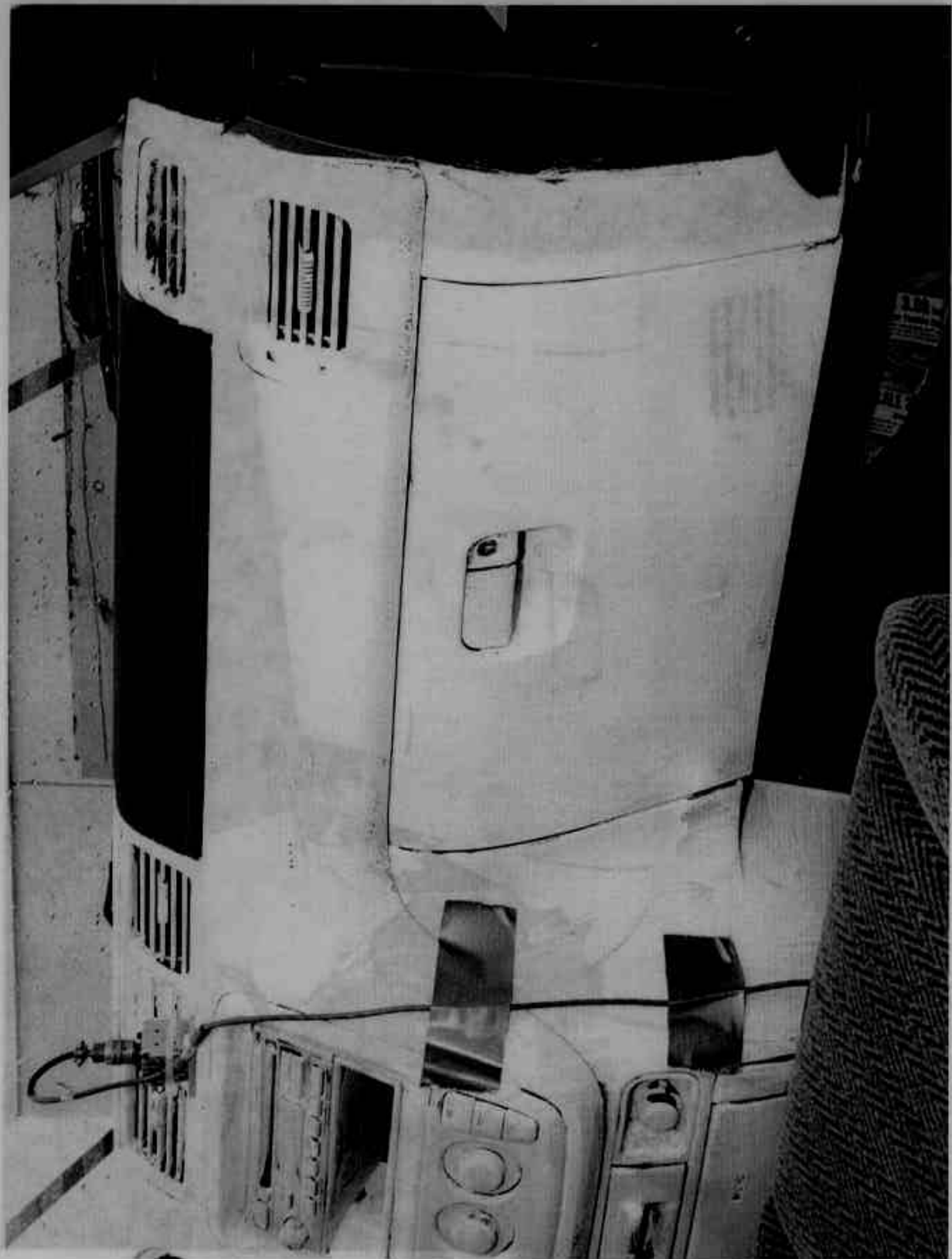


FIGURE A-51. PRETEST PASSENGER SIDE KNEE BOLSTER

KAR-98-R98050-12

A-51

KAR-98-R98050-12

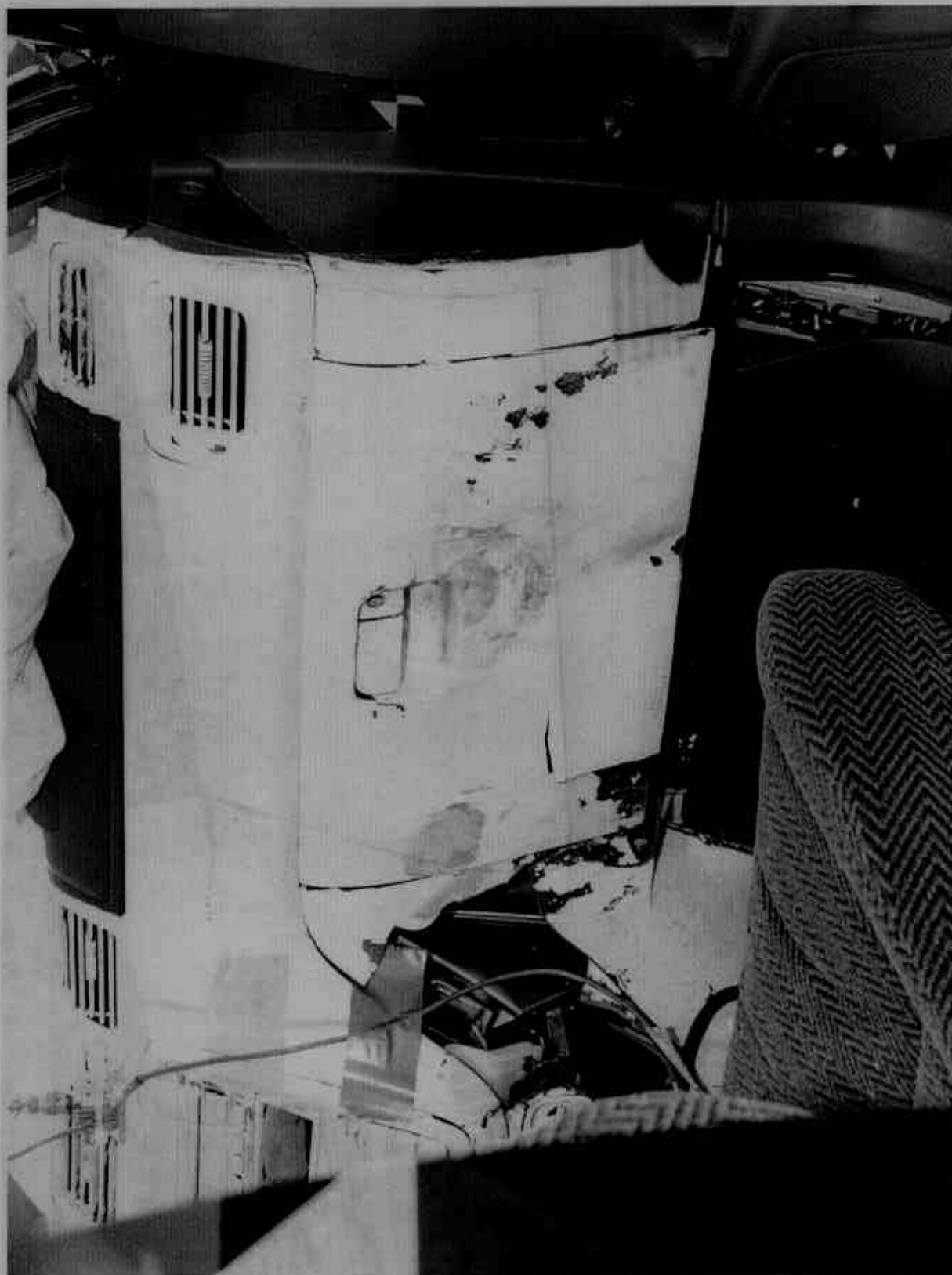


FIGURE A-52. POST TEST PASSENGER SIDE KNEE BOLSTER

KAR-98-R98050-12

A-52

KAR-98-R98050-12



FIGURE A-53. VEHICLE ON ROLLOVER

KAR-98-R98050-12

A-53

KAR-98-R98050-12

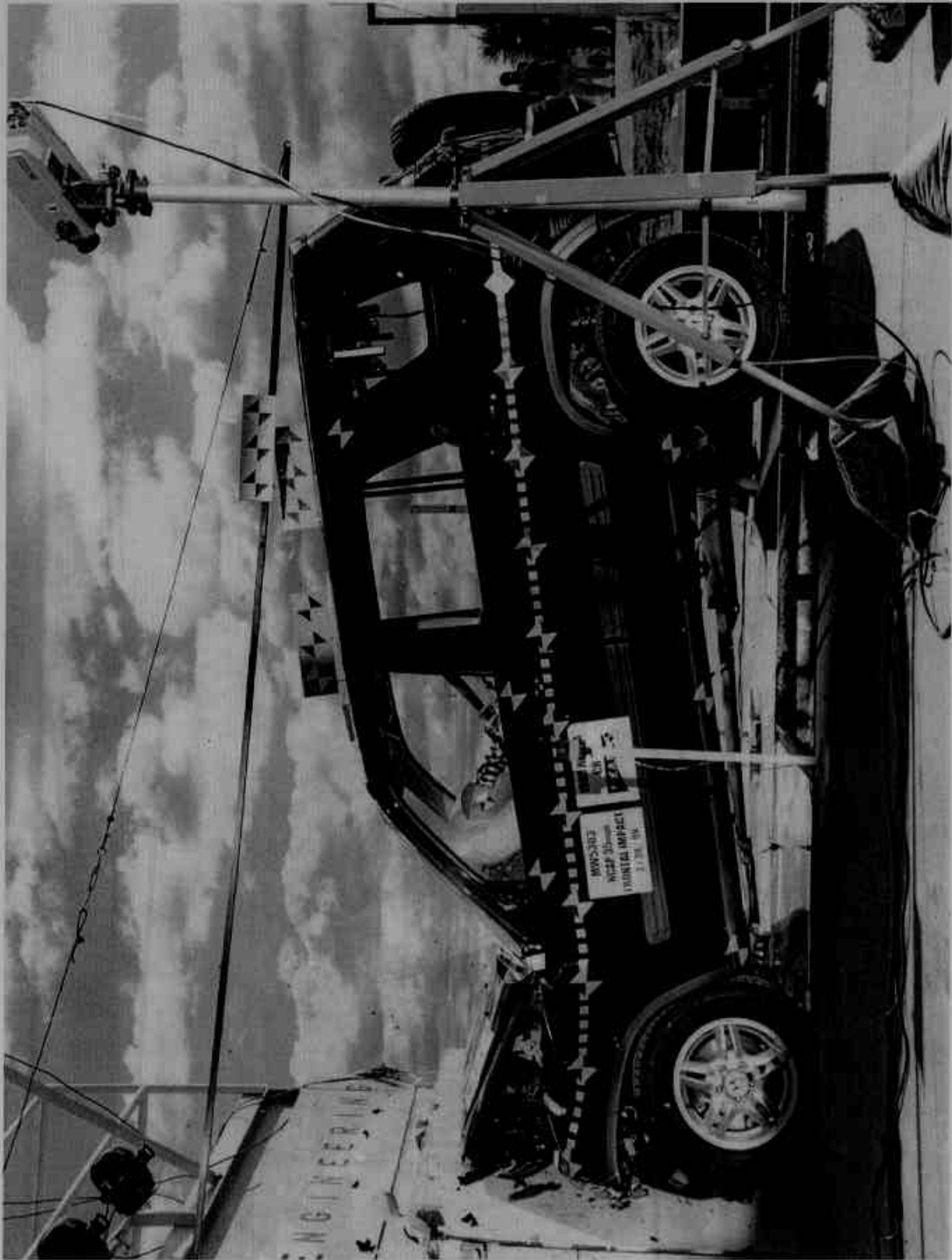


FIGURE A-54. VEHICLE DURING IMPACT

KAR-98-R98050-12

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KAR-98-R98050-12

APPENDIX B
DUMMY, VEHICLE AND RESPONSE DATA TRACES

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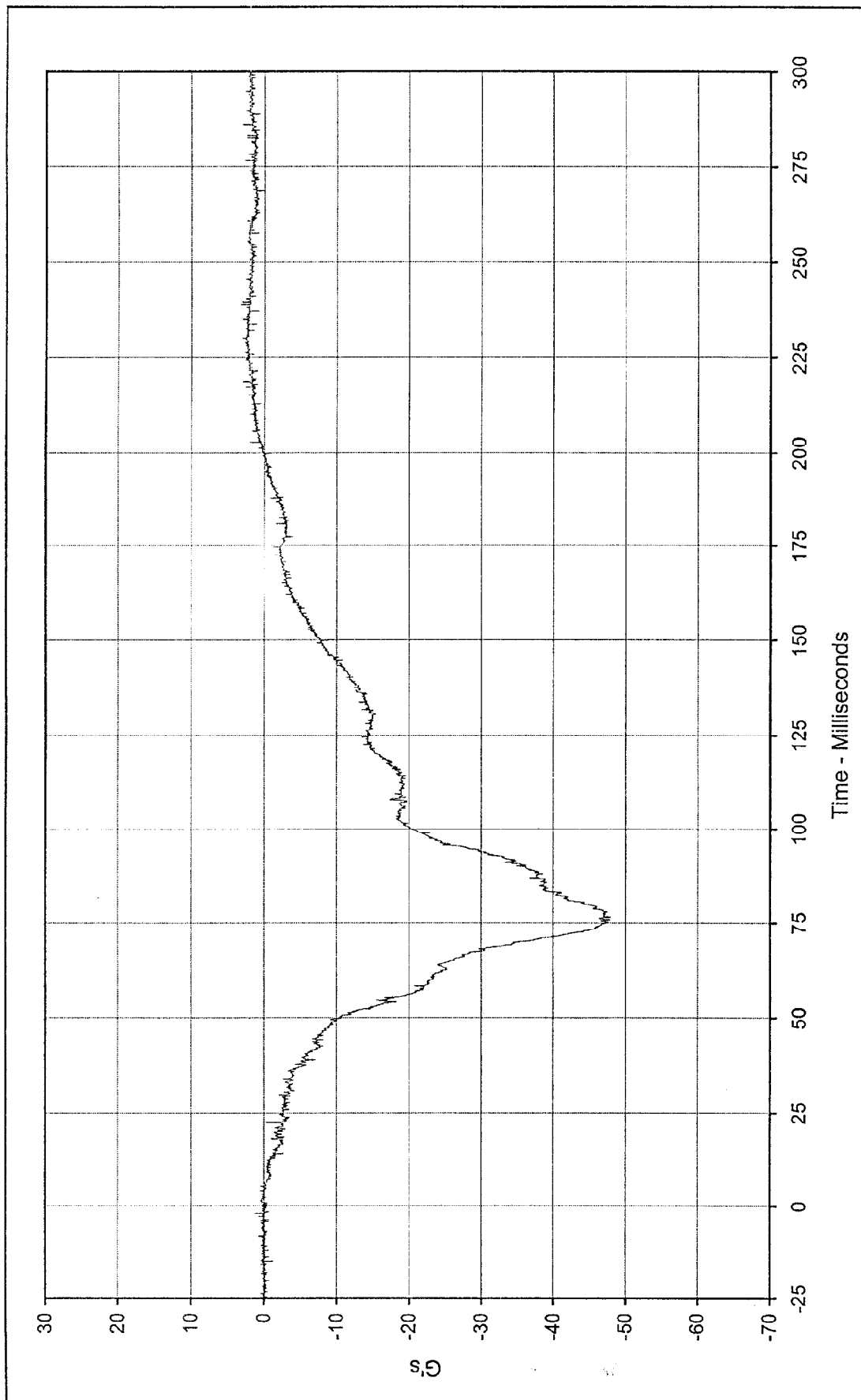
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B-139	Vehicle Right Brake Caliper Velocity X	B-139
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LIST OF DATA PLOTS...(Continued)

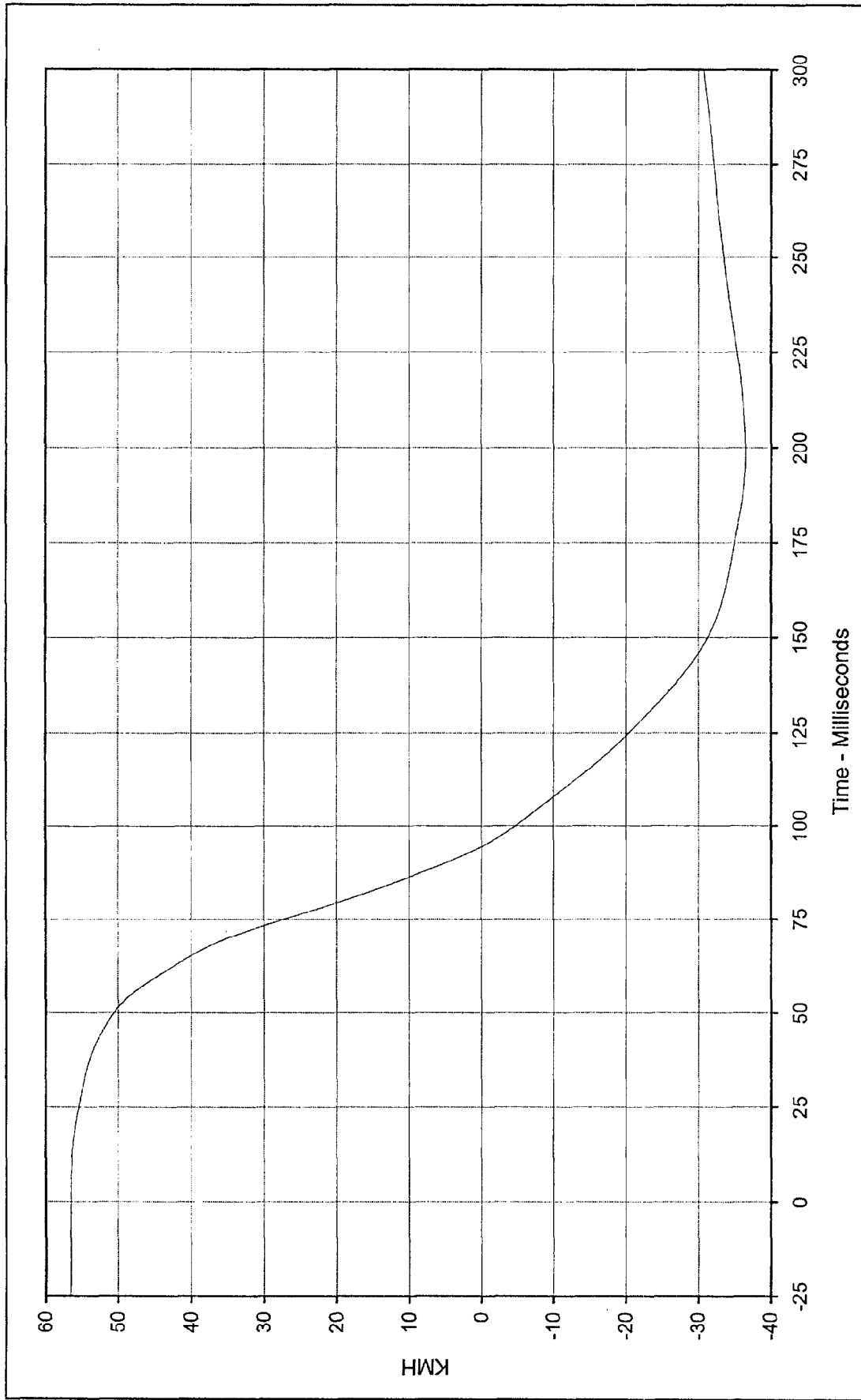
Data Plot		Page
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Curve Description: Driver Head Primary X
 Maximum Value: 3.3 at 239.0 Milliseconds
 Minimum Value: -48.0 at 76.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-001

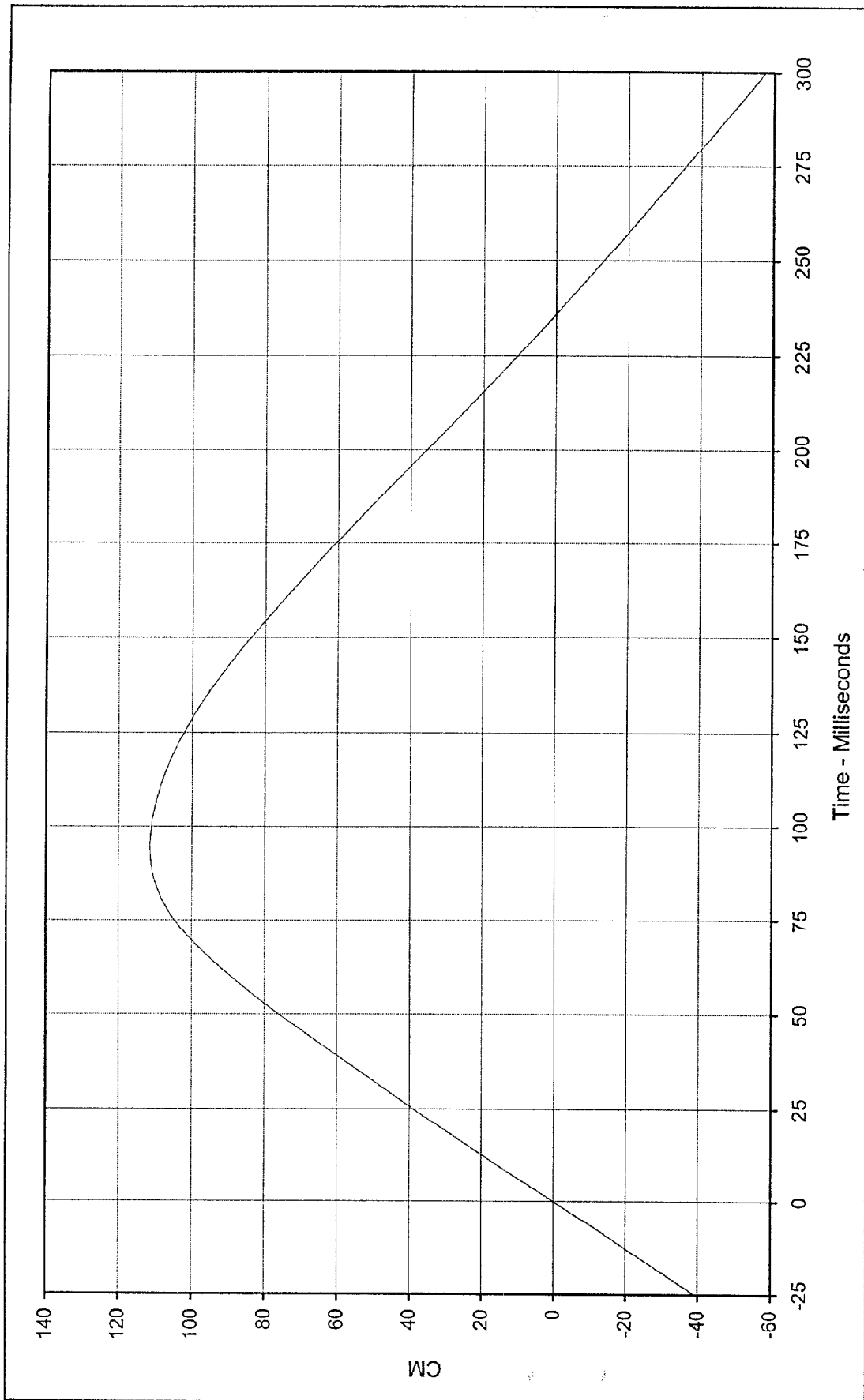
Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description:	Driver Head Primary X Velocity	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	56.5	at	2.6	Milliseconds
Minimum Value:	-36.5	at	200.0	Milliseconds
SAE Filter Class:	180	Test Vehicle:	1998 Honda CRV SUV	
Date of Test:	2/20/98			
Curve Number:	IN1-001			

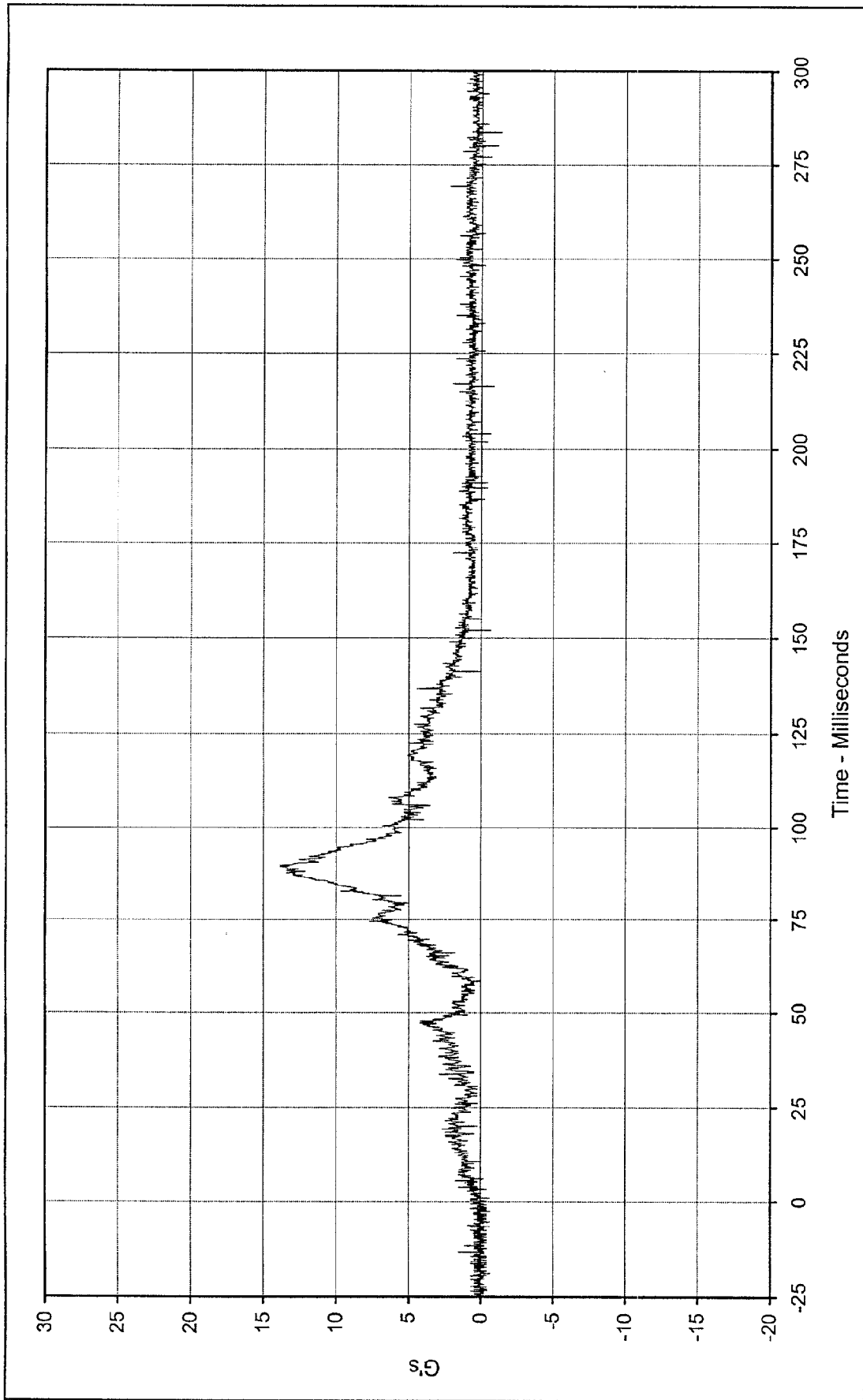




Curve Description: Driver Head Primary X Displ.
Maximum Value: 111.5 at 94.4 Milliseconds
Minimum Value: -57.6 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN2-001

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV

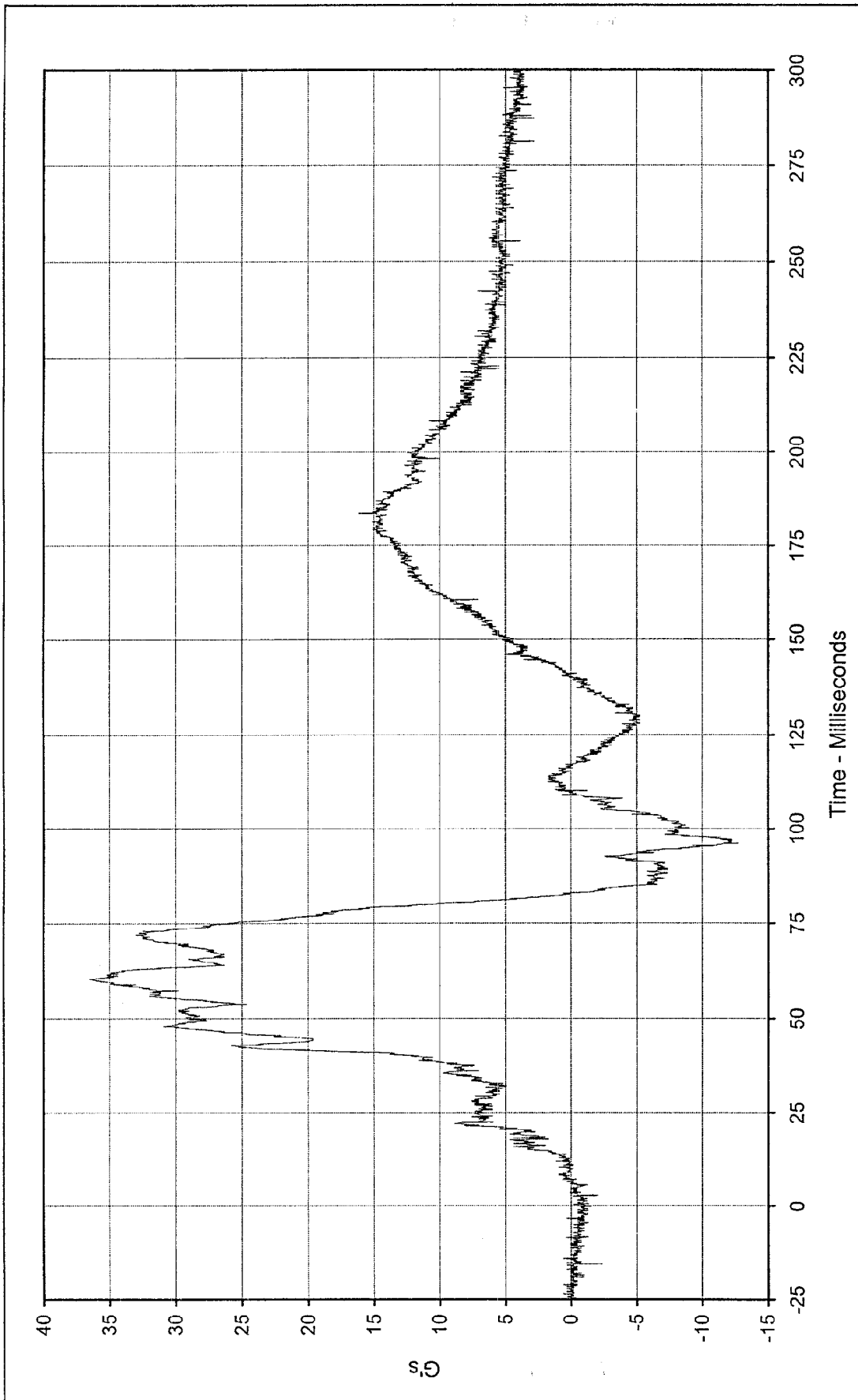




Curve Description: Driver Head Primary Y
 Maximum Value: 13.9 at 89.3 Milliseconds
 Minimum Value: -1.3 at 283.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-002

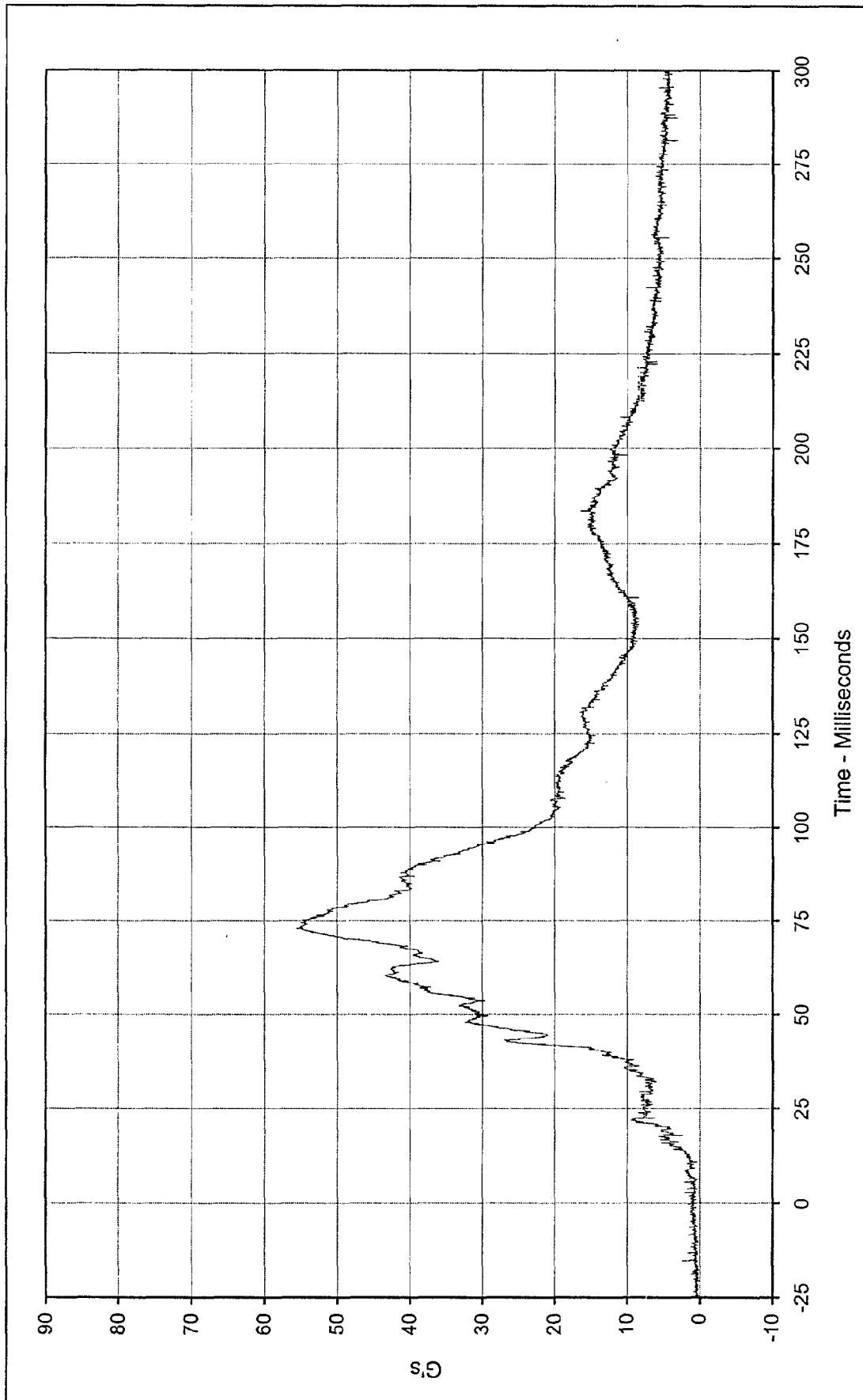
Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





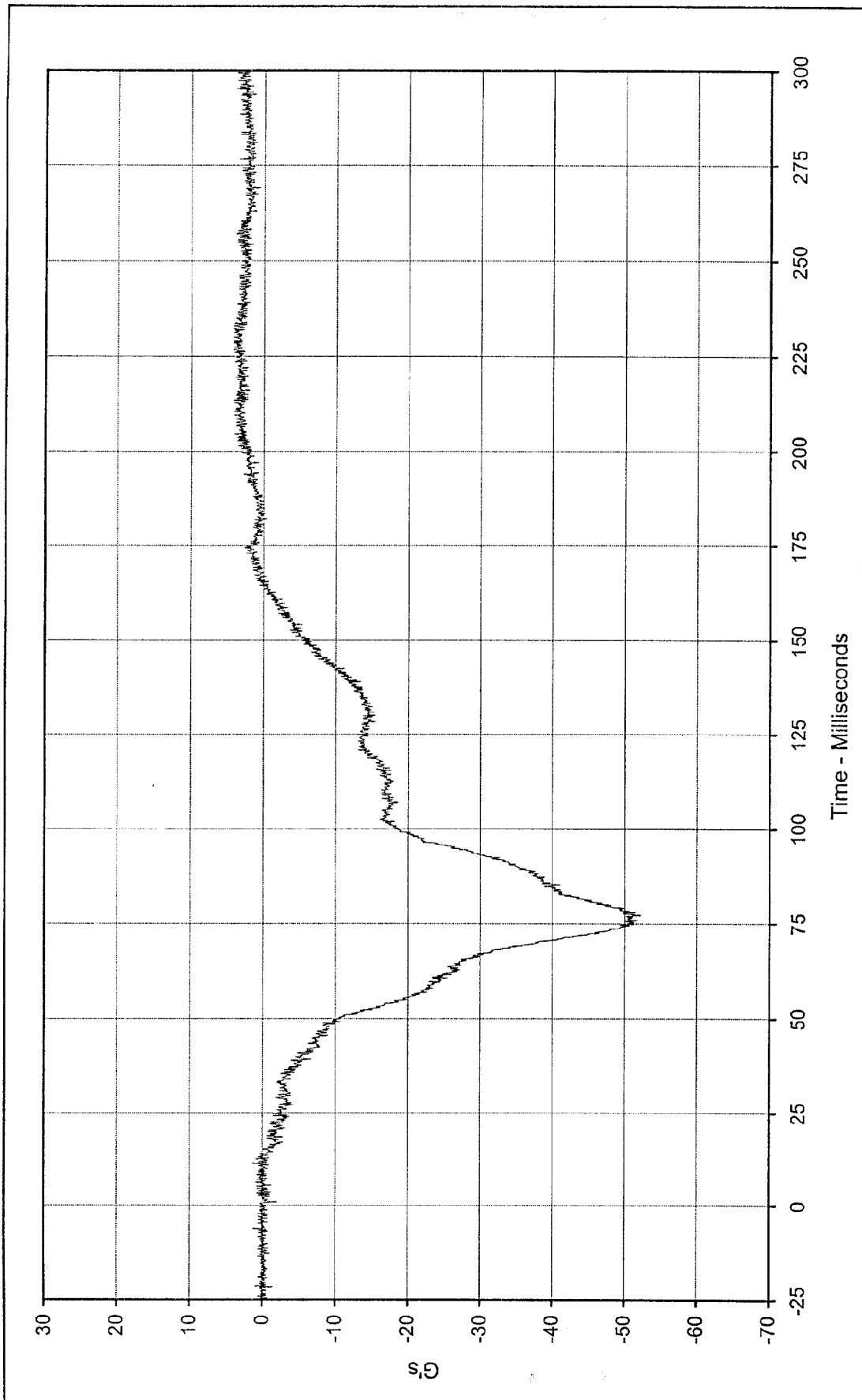
Curve Description:	Driver Head Primary Z	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	36.5 at 60.4 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-12.7 at 96.0 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	2/20/98			
Curve Number:	FIL-003			





Curve Description:	Driver Head Resultant Primary	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	55.6 at 72.9 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	0.3 at 6.1 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	2/20/98			
Curve Number:	RES-001			

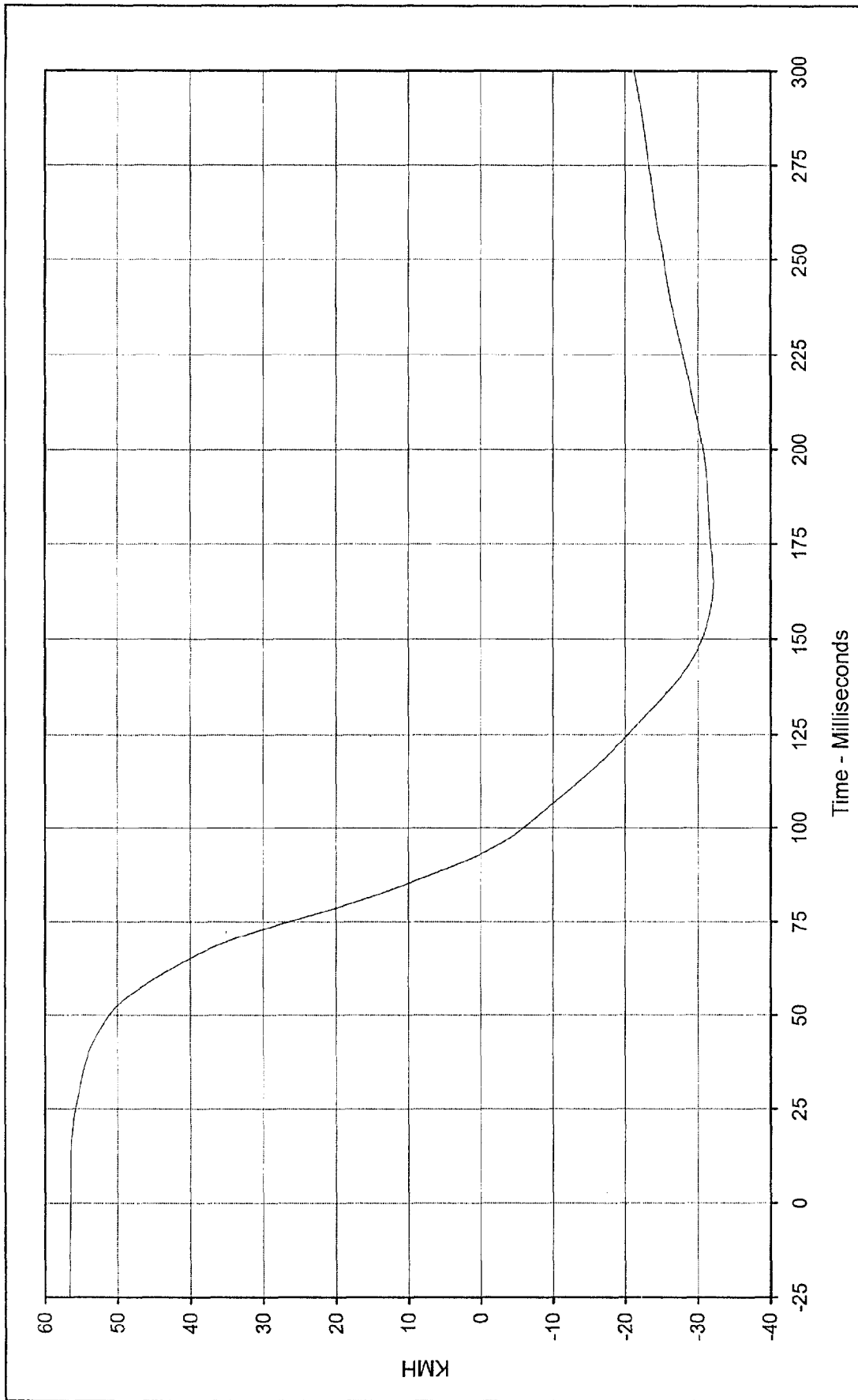




Curve Description: Driver Head Redundant X
 Maximum Value: 4.2 at 213.5 Milliseconds
 Minimum Value: -52.2 at 77.2 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-004

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV



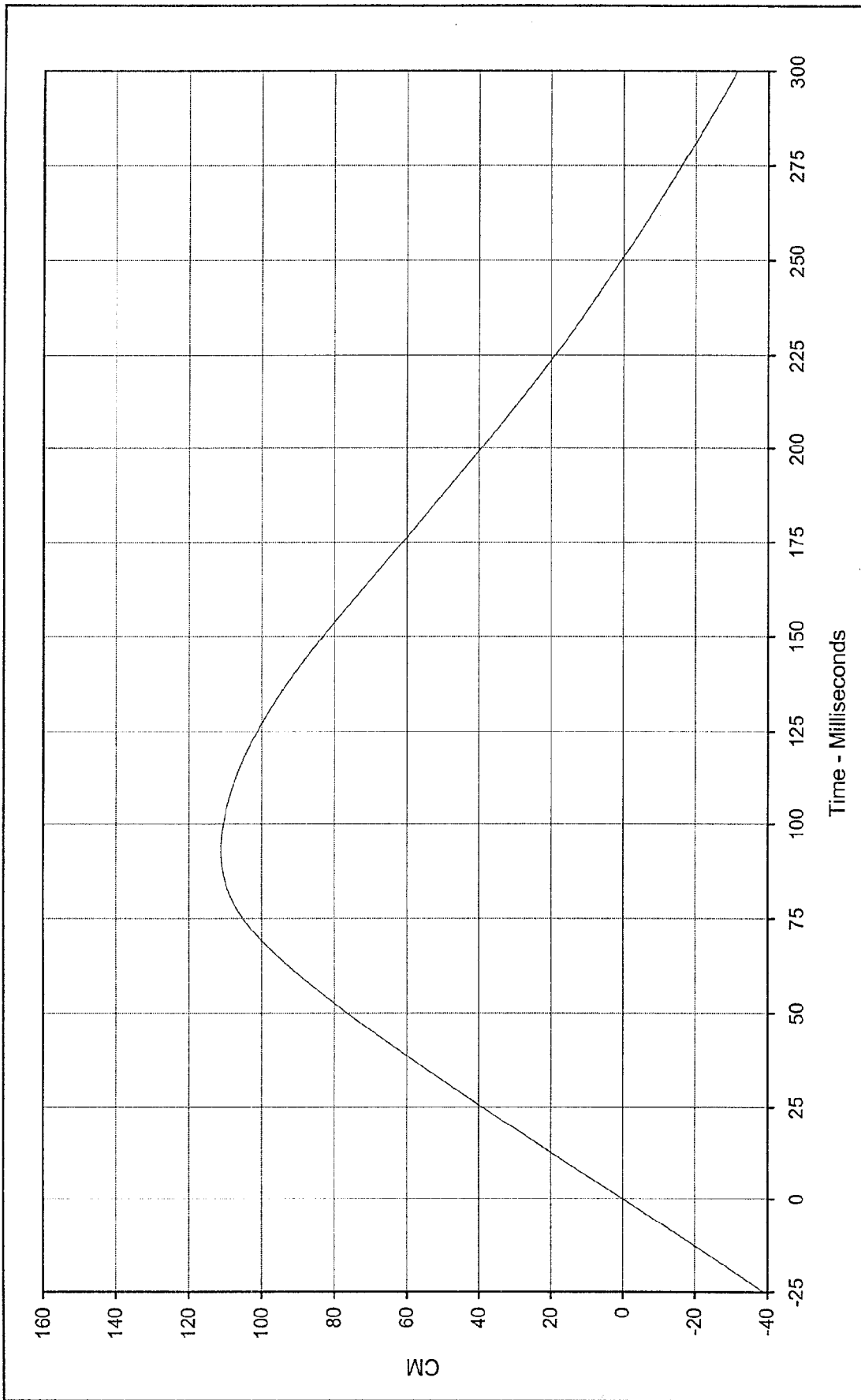


Curve Description: Driver Head Redundant X Velocity
 Maximum Value: 56.5 at 0.0 Milliseconds
 Minimum Value: -32.1 at 165.1 Milliseconds

SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-004

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

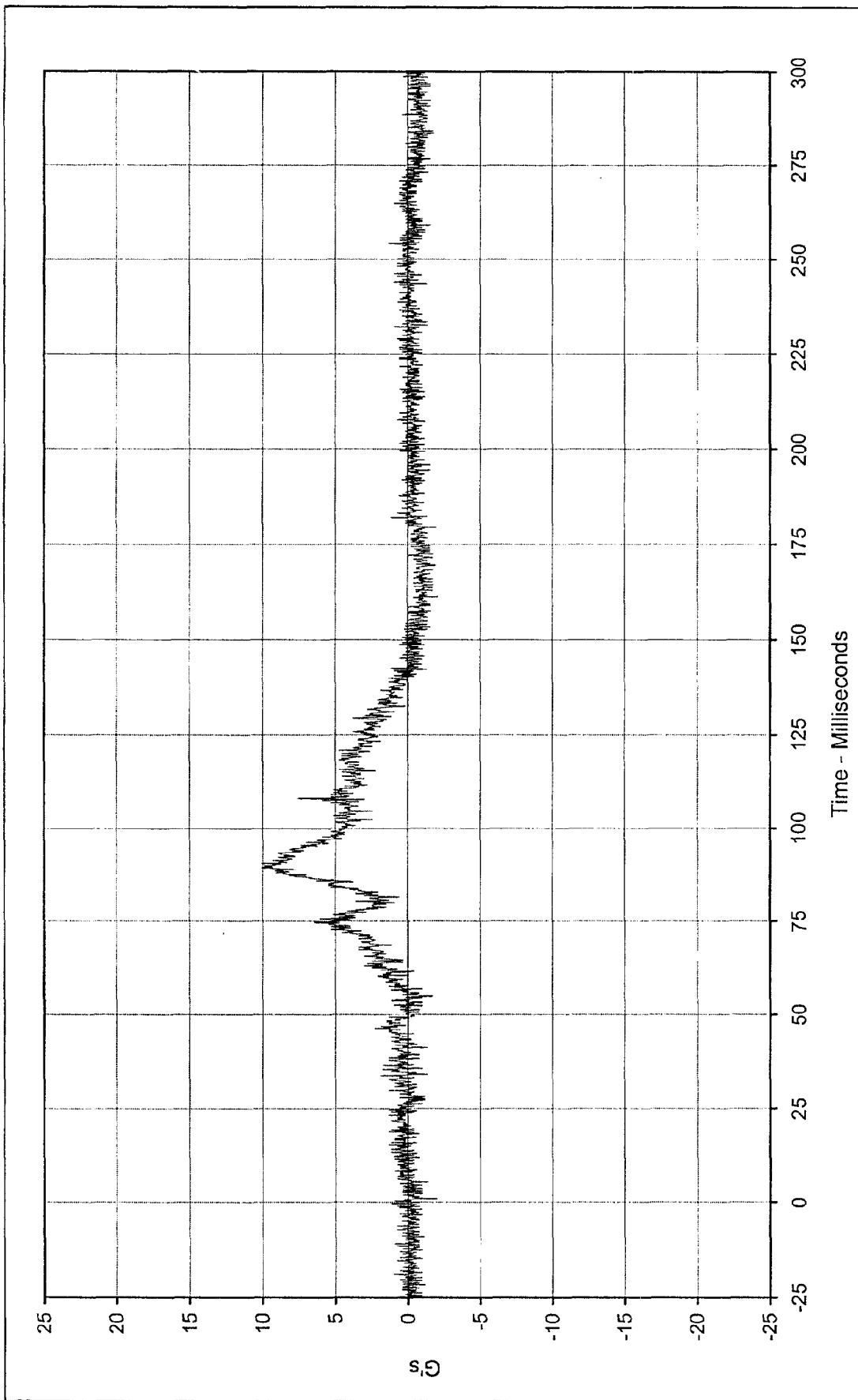




Curve Description: Driver Head Redundant X Displ.
 Maximum Value: 111.2 at 92.9 Milliseconds
 Minimum Value: -31.5 at 299.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN2-004

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

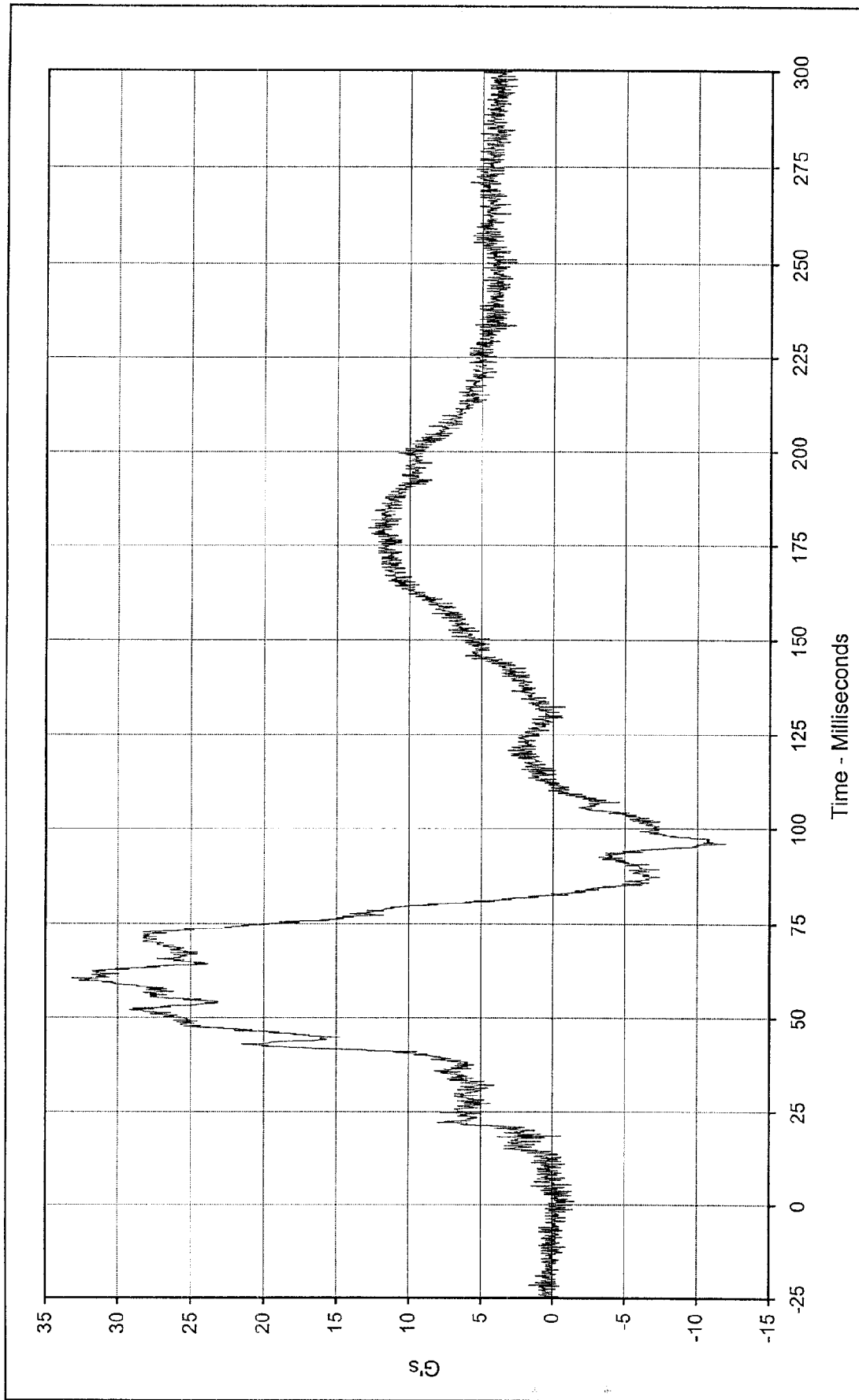




Curve Description: Driver Head Redundant Y
 Maximum Value: 10.1 at 89.2 Milliseconds
 Minimum Value: -2.1 at 161.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-005

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

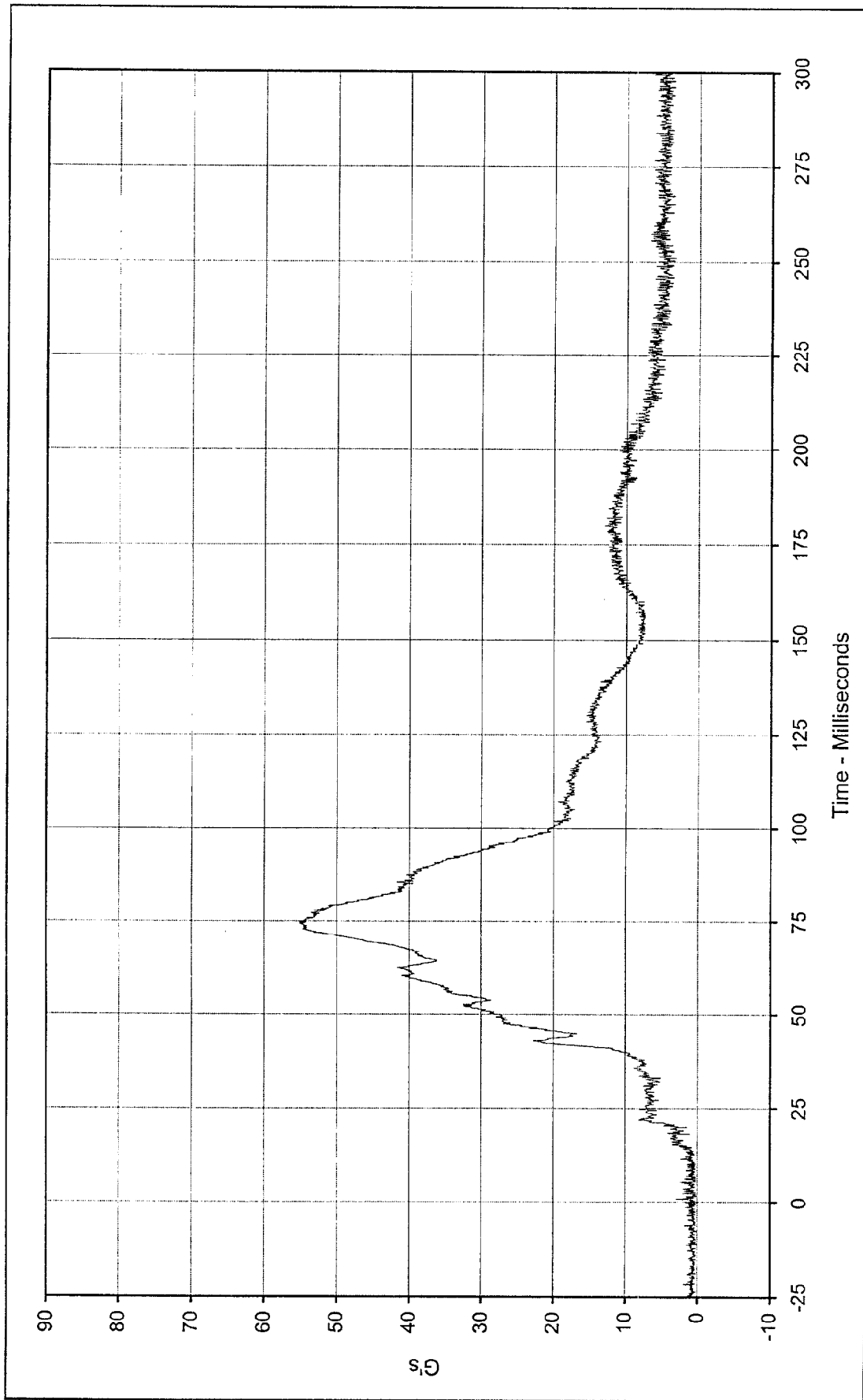




Curve Description: Driver Head Redundant Z
 Maximum Value: 33.2 at 60.4 Milliseconds
 Minimum Value: -12.0 at 96.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-006

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

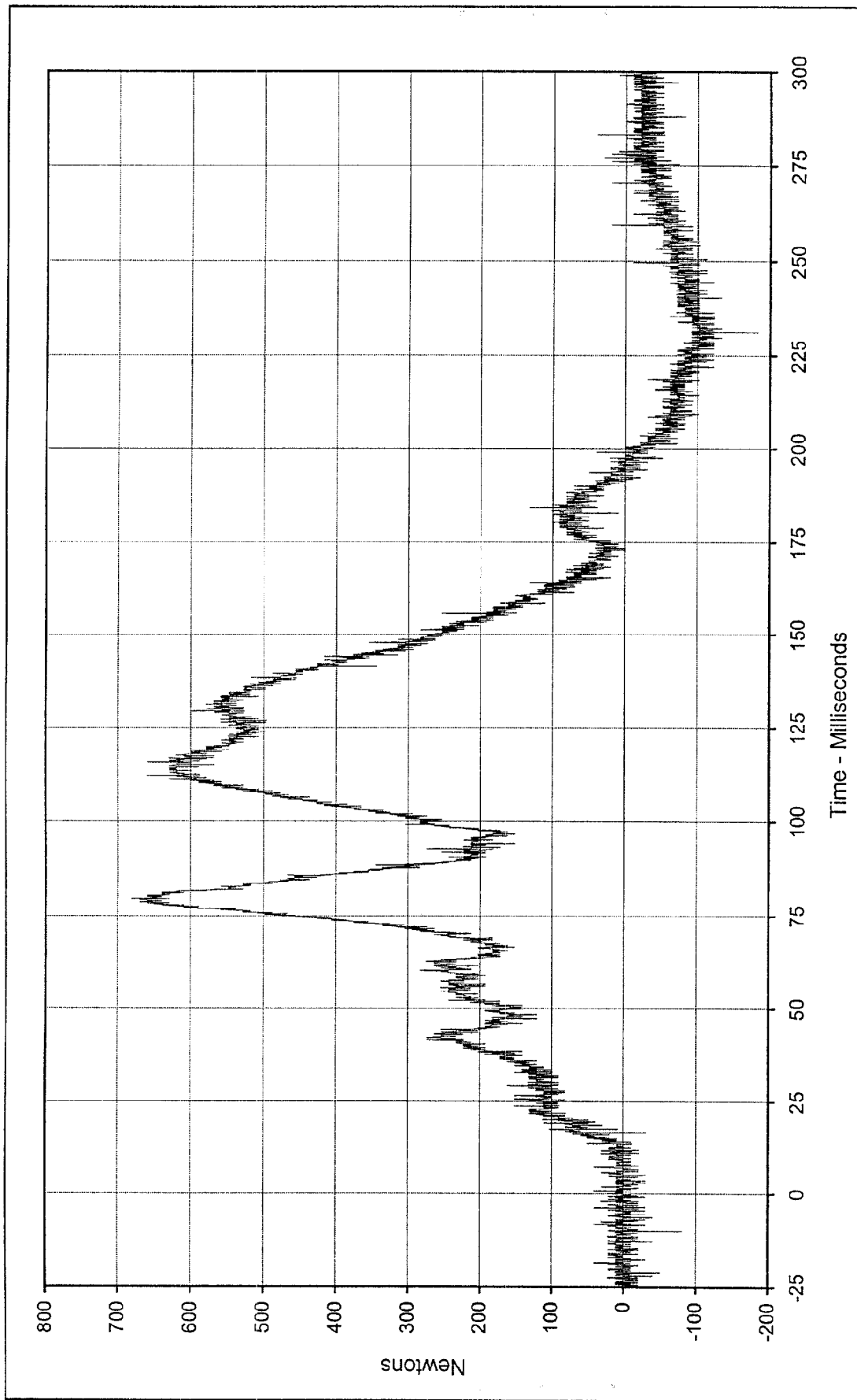




Curve Description: Driver Head Resultant Redundant
 Maximum Value: 55.1 at 74.4 Milliseconds
 Minimum Value: 0.1 at 1.7 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: RES-004

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

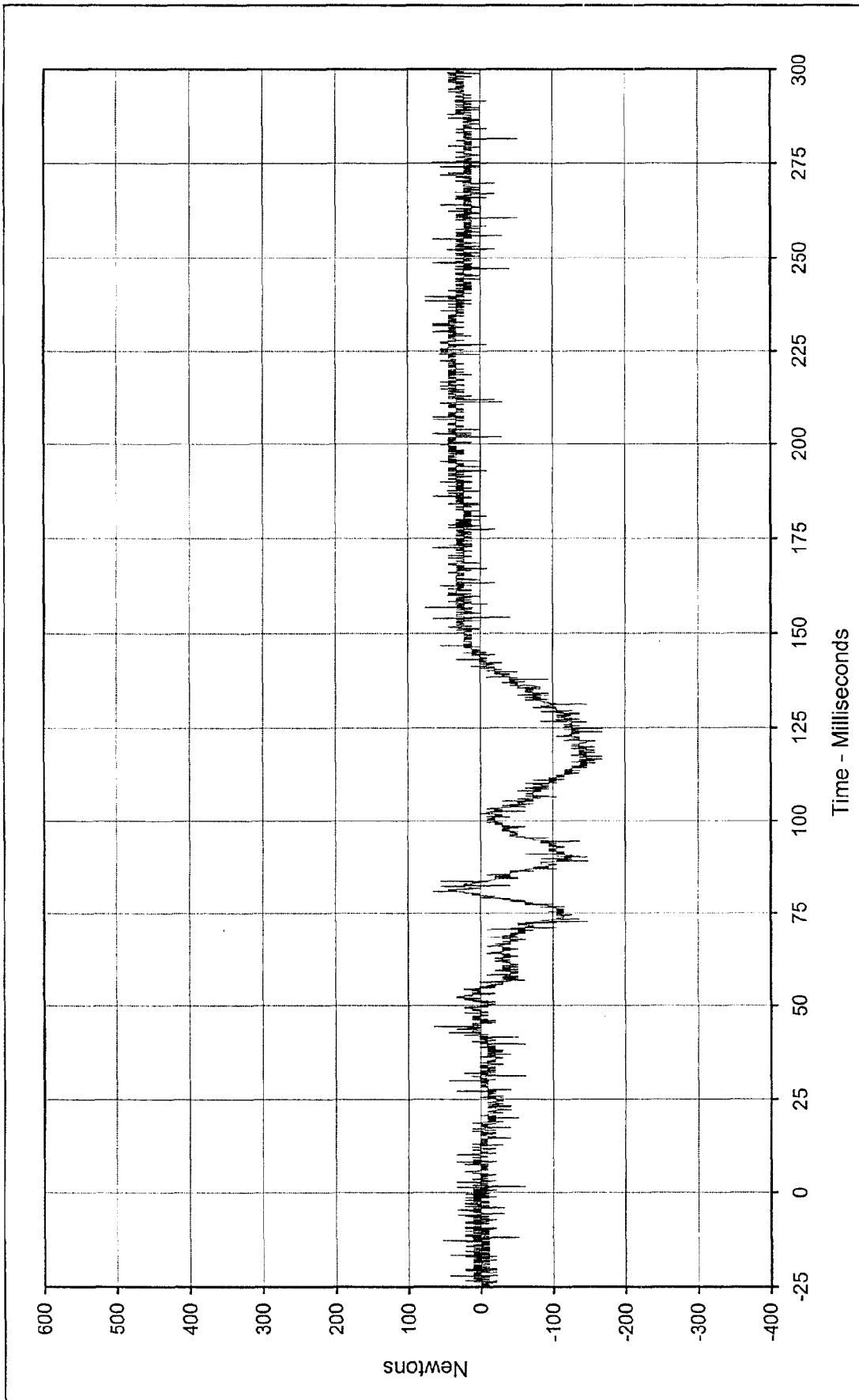




Curve Description: Driver Neck Force X
 Maximum Value: 679.8 at 79.5 Milliseconds
 Minimum Value: -183.6 at 231.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-007

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

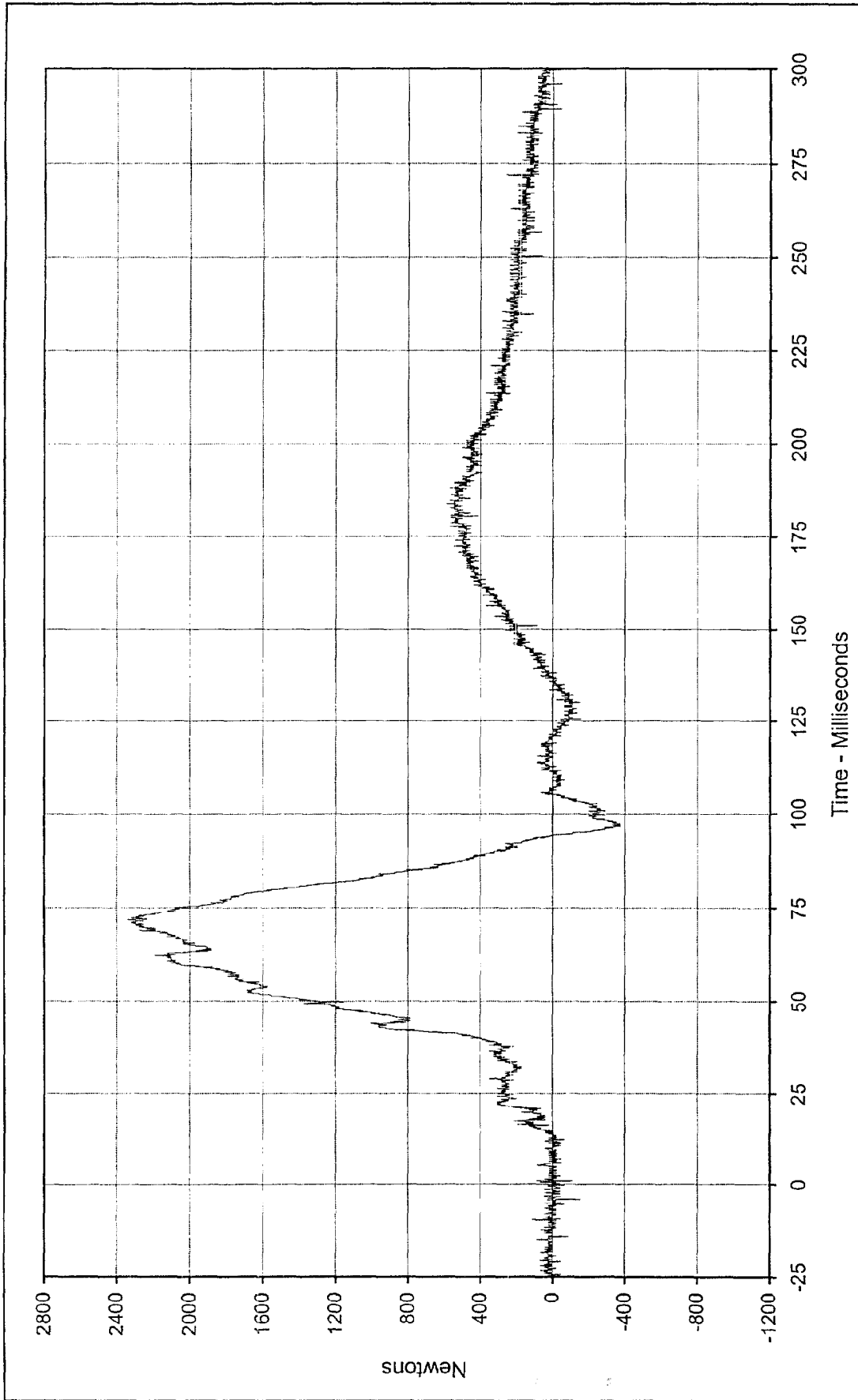




Curve Description: Driver Neck Force Y Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Maximum Value: 75.6 at 156.9 Milliseconds Test Vehicle: 1998 Honda CRV SUV
 Minimum Value: -168.5 at 116.4 Milliseconds



SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-008



Curve Description: Driver Neck Force Z

Maximum Value: 2341.7 at 71.9 Milliseconds

Minimum Value: -375.5 at 96.6 Milliseconds

SAE Filter Class: 1000

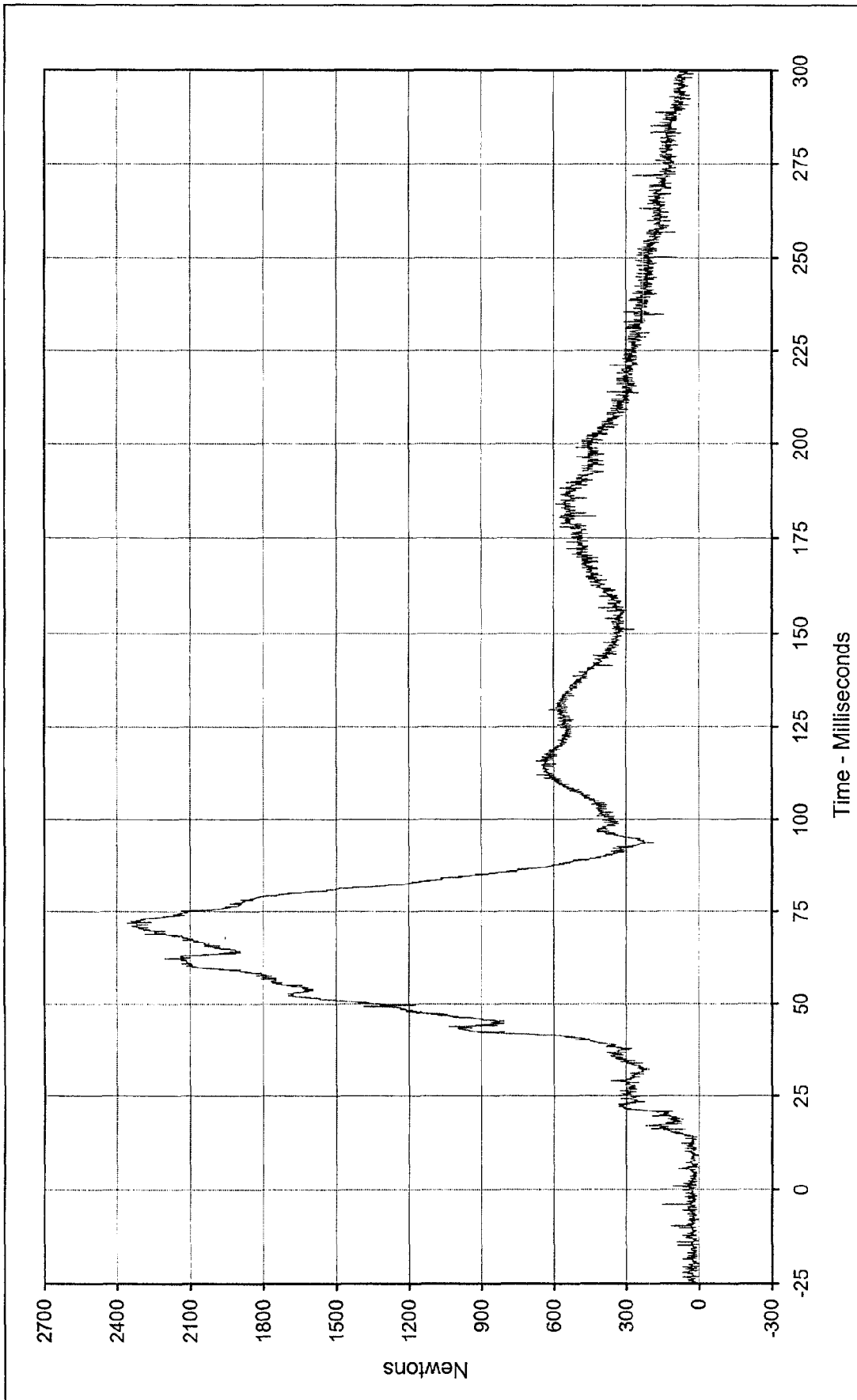
Date of Test: 2/20/98

Curve Number: FIL-009

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

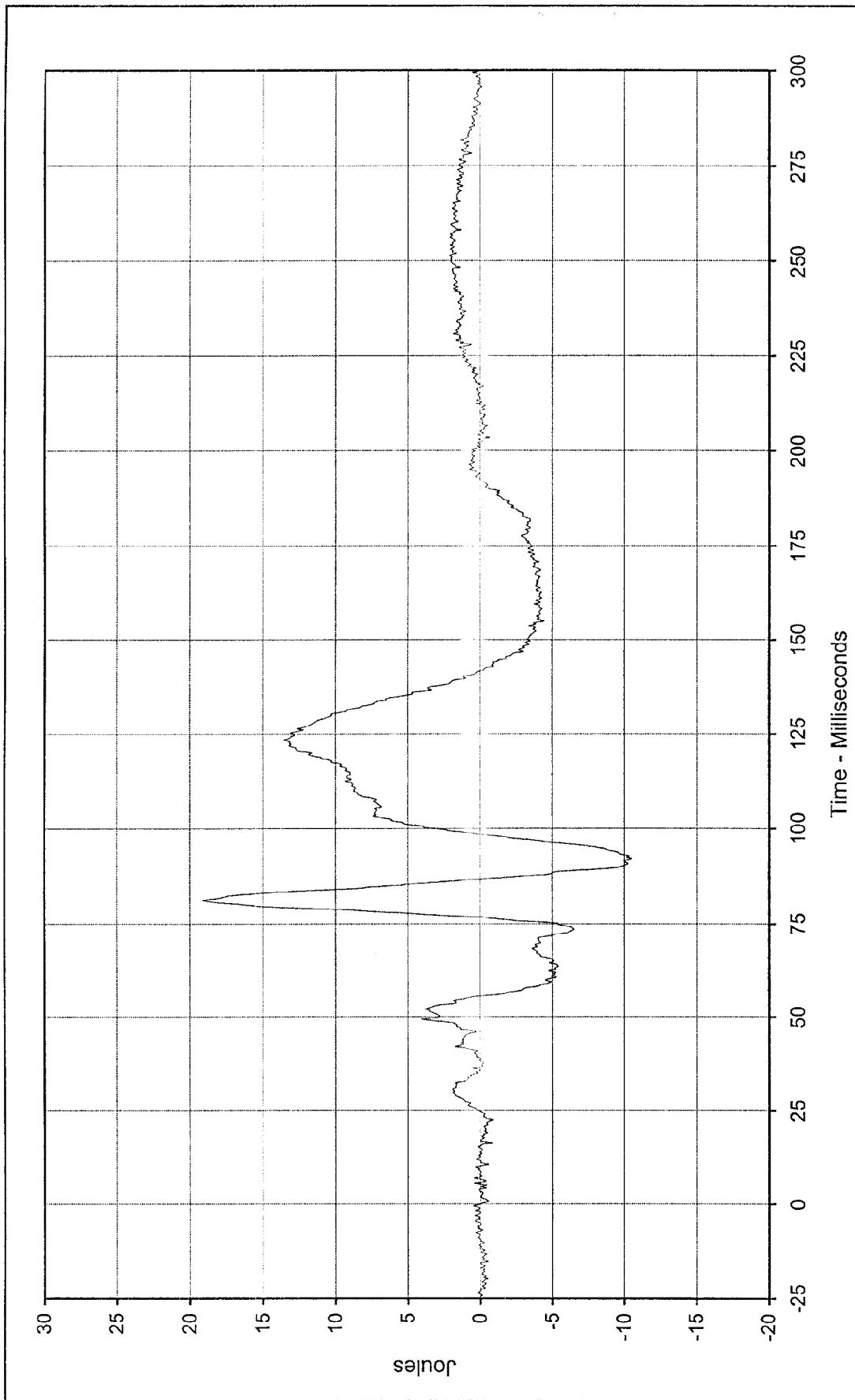




Curve Description: Driver Neck Force Resultant
 Maximum Value: 2358.2 at 71.9 Milliseconds
 Minimum Value: 3.3 at 5.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: RES-007

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

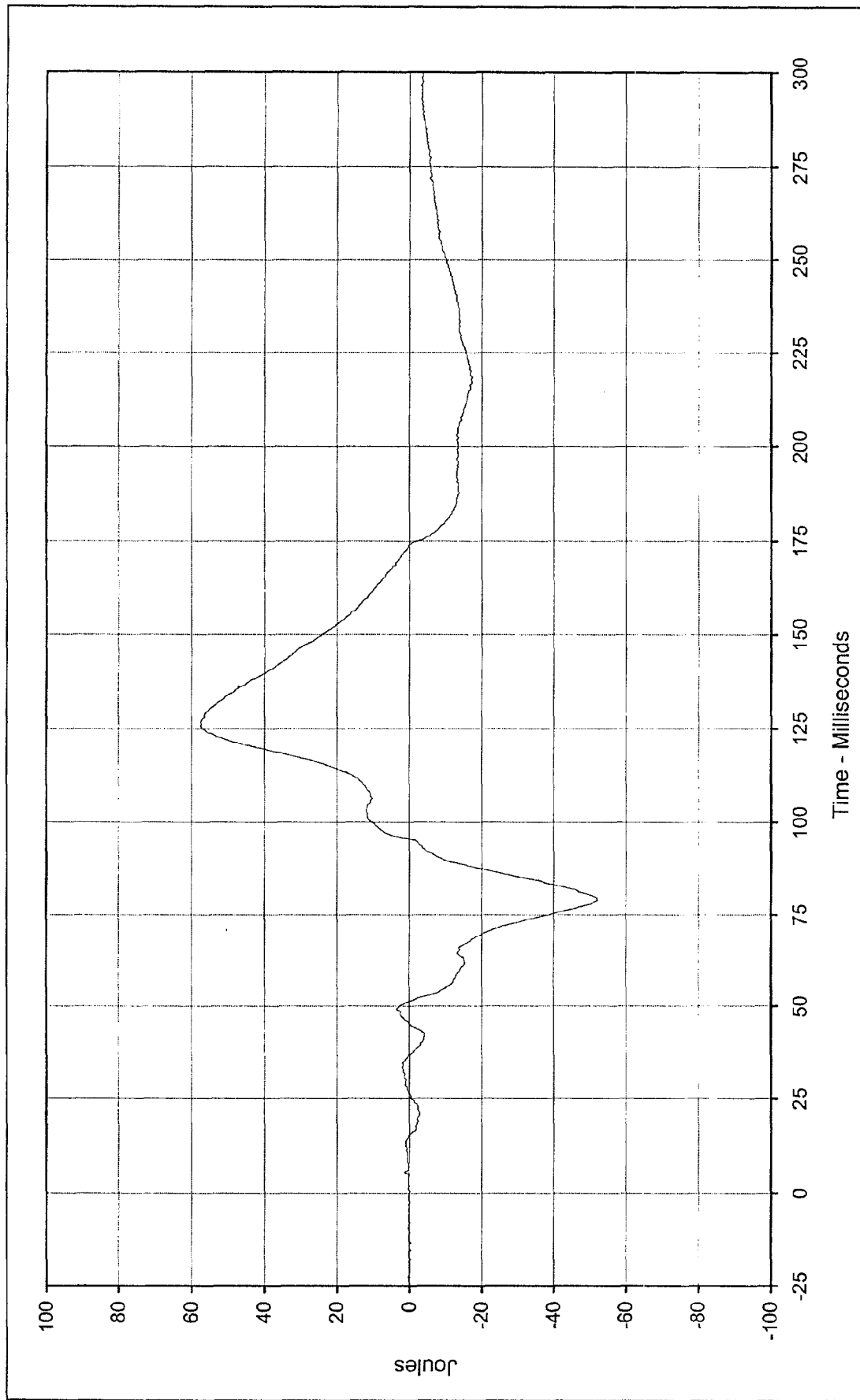




Curve Description: Driver Neck Moment X
 Maximum Value: 19.1 at 81.2 Milliseconds
 Minimum Value: -10.5 at 92.0 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-010

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

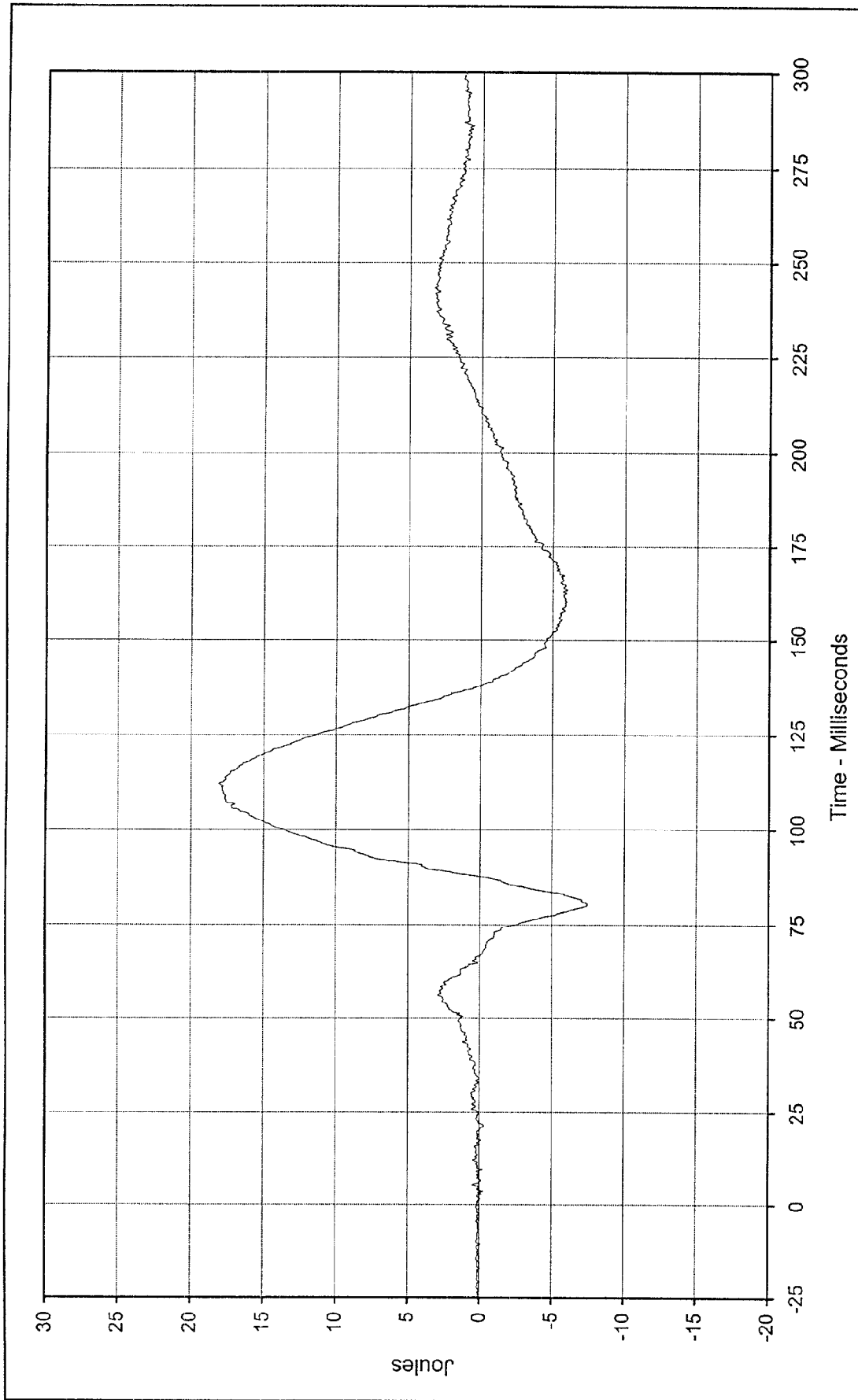




Curve Description: Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

Maximum Value: 57.5 at 125.8 Milliseconds
 Minimum Value: -52.1 at 79.0 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-011





Curve Description: Driver Neck Moment Z Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 18.1 at 112.2 Milliseconds

Minimum Value: -7.5 at 80.5 Milliseconds

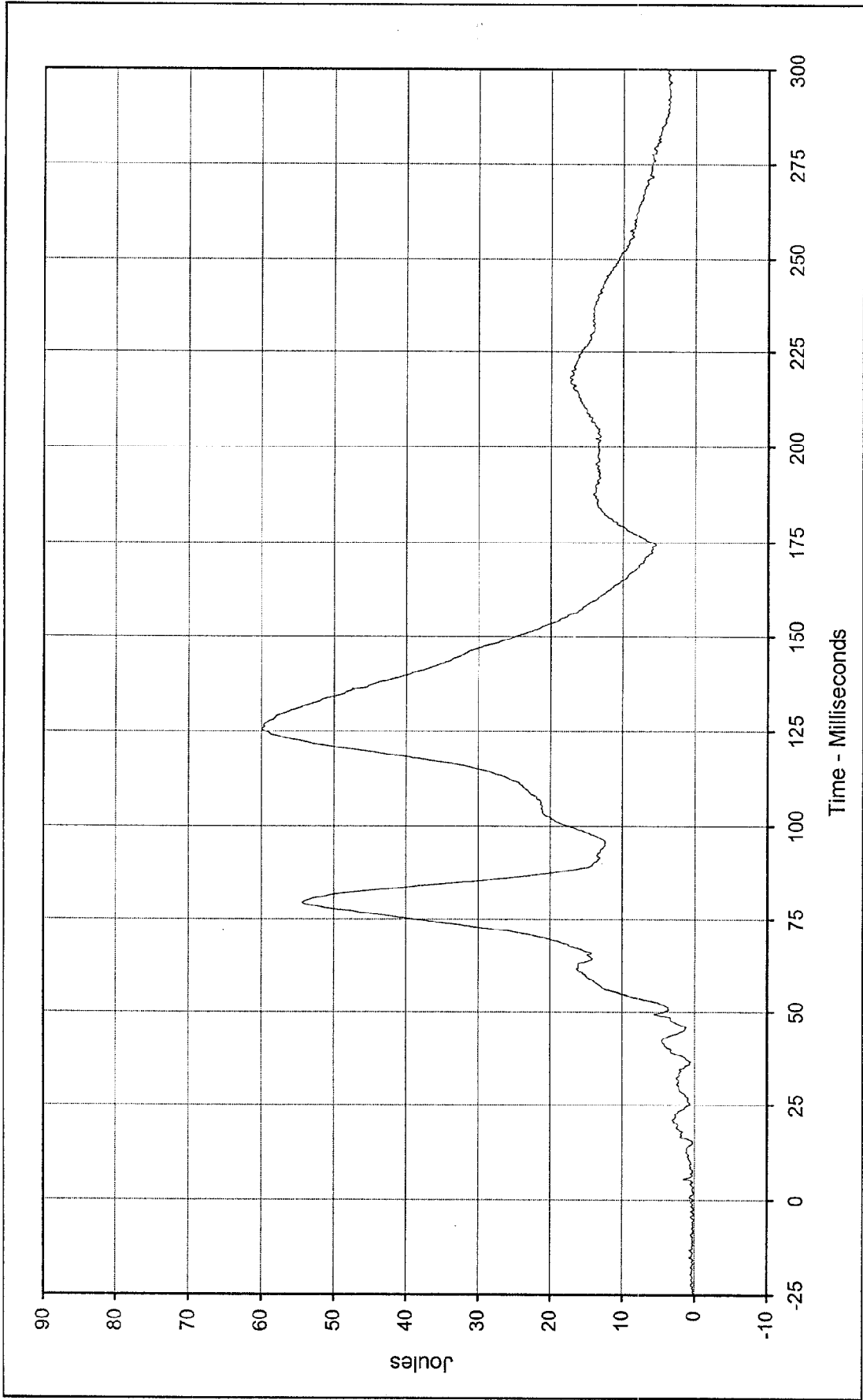
SAE Filter Class: 600

Date of Test: 2/20/98

Curve Number: FIL-012

Test Vehicle: 1998 Honda CRV SUV

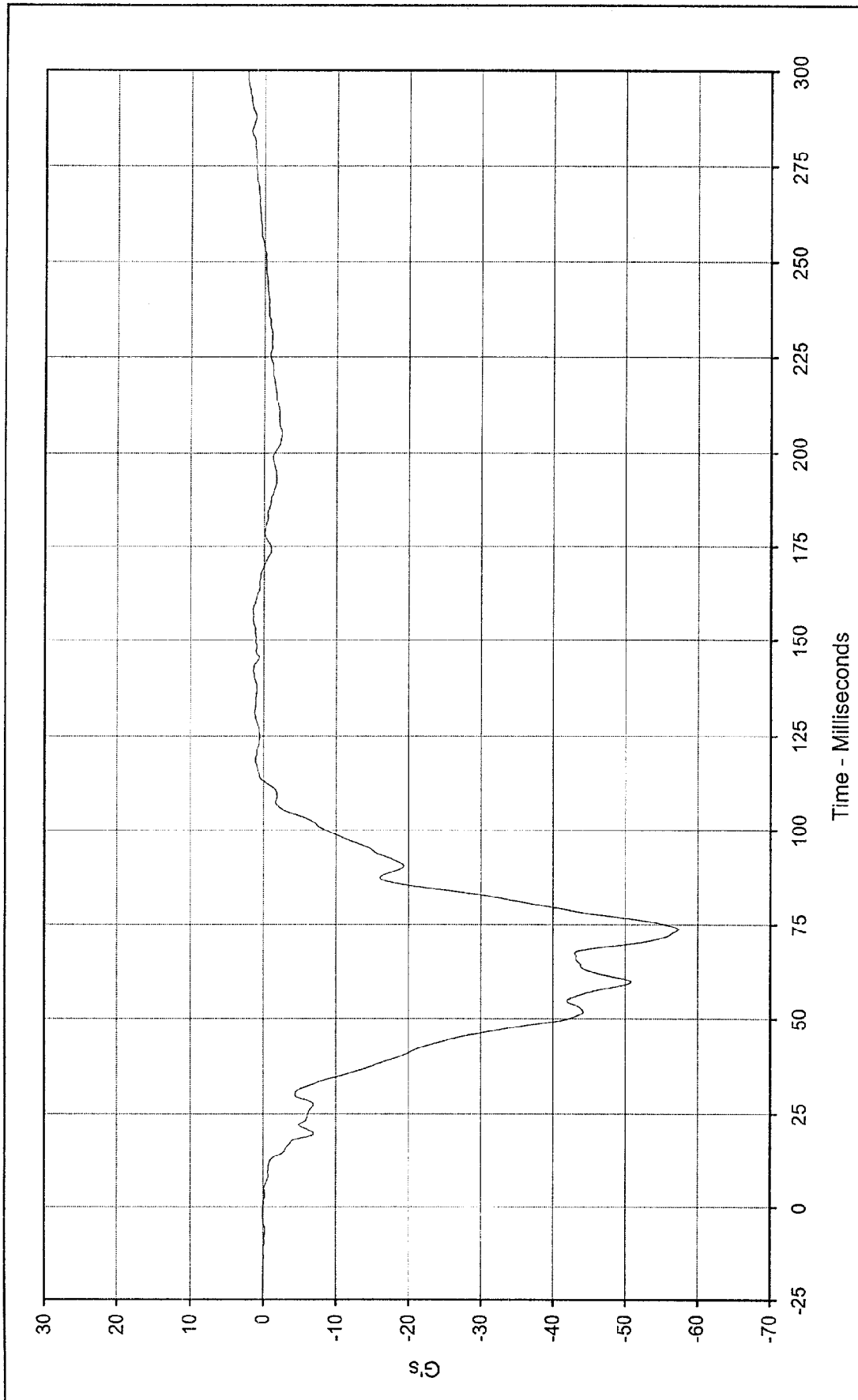




Curve Description: Driver Neck Moment Resultant
 Maximum Value: 59.9 at 125.7 Milliseconds
 Minimum Value: 0.1 at 1.8 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: RES-010

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

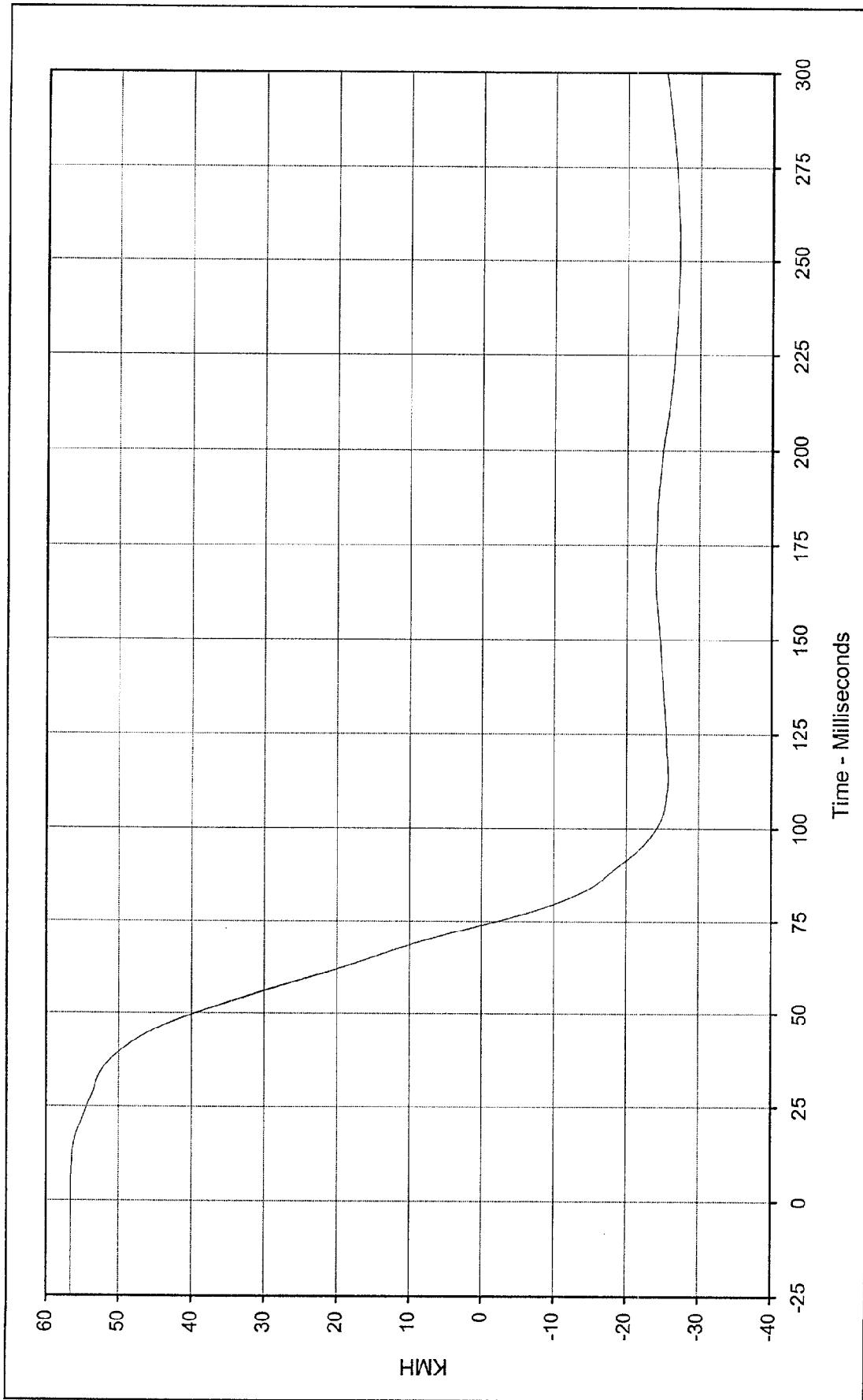




Curve Description: Driver Chest Primary X
 Maximum Value: 2.4 at 299.9 Milliseconds
 Minimum Value: -57.4 at 73.7 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-013

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

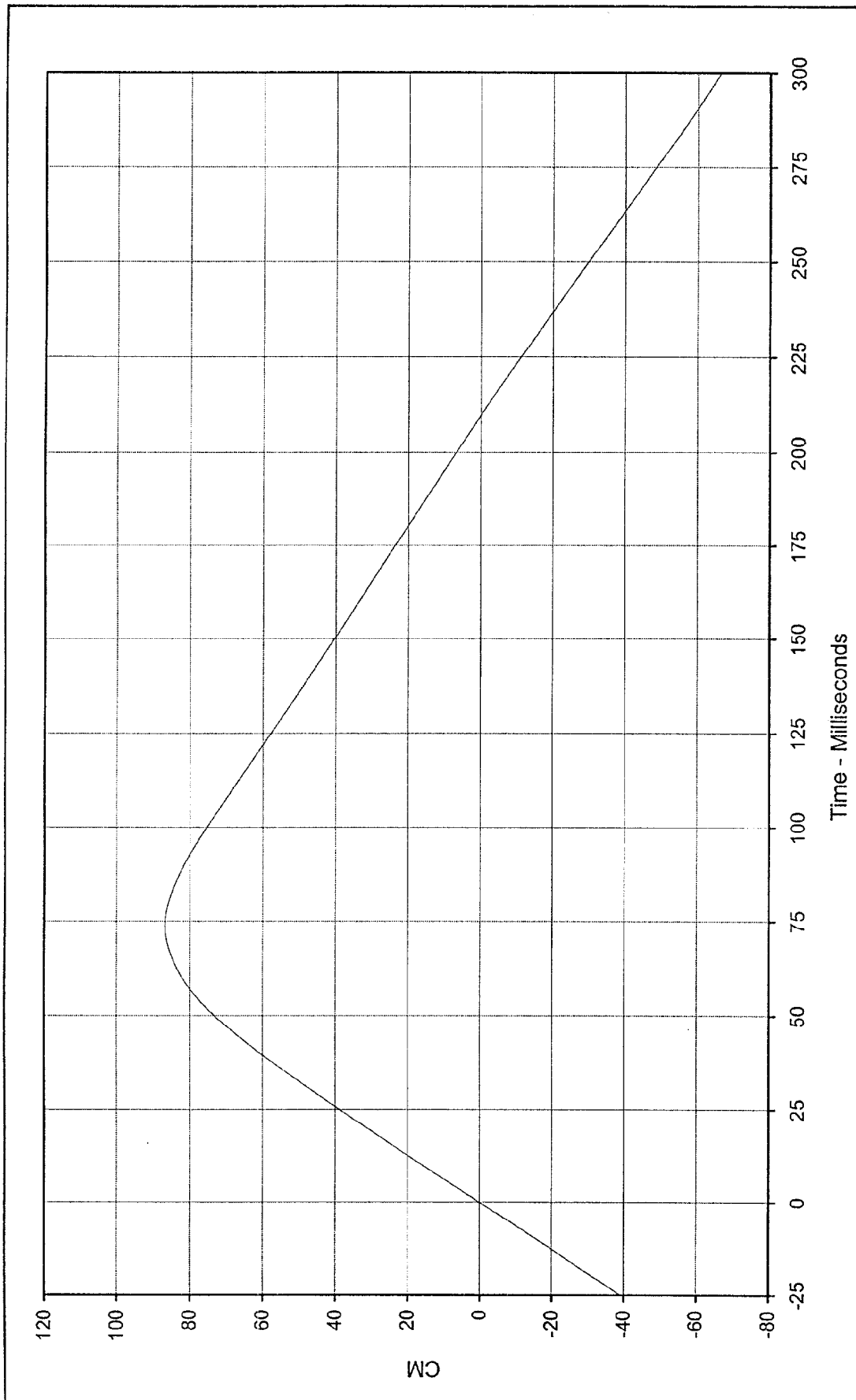




Curve Description: Driver Chest Primary X Velocity
Maximum Value: 56.6 at 0.0 Milliseconds
Minimum Value: -27.2 at 253.6 Milliseconds
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN1-013

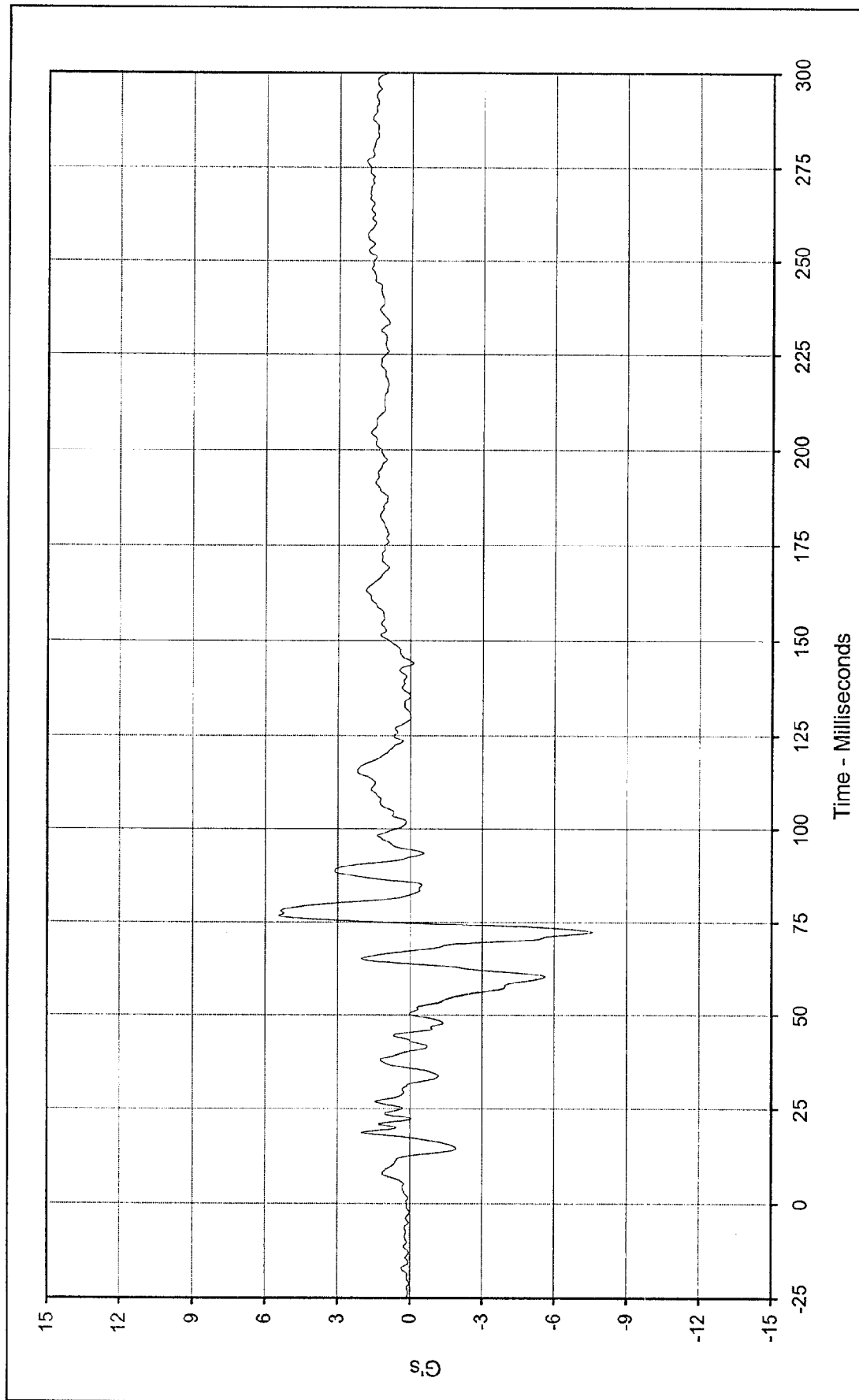
Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV





Curve Description: Driver Chest Primary X Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Maximum Value: 86.7 at 73.9 Milliseconds
 Minimum Value: -66.5 at 299.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN2-013

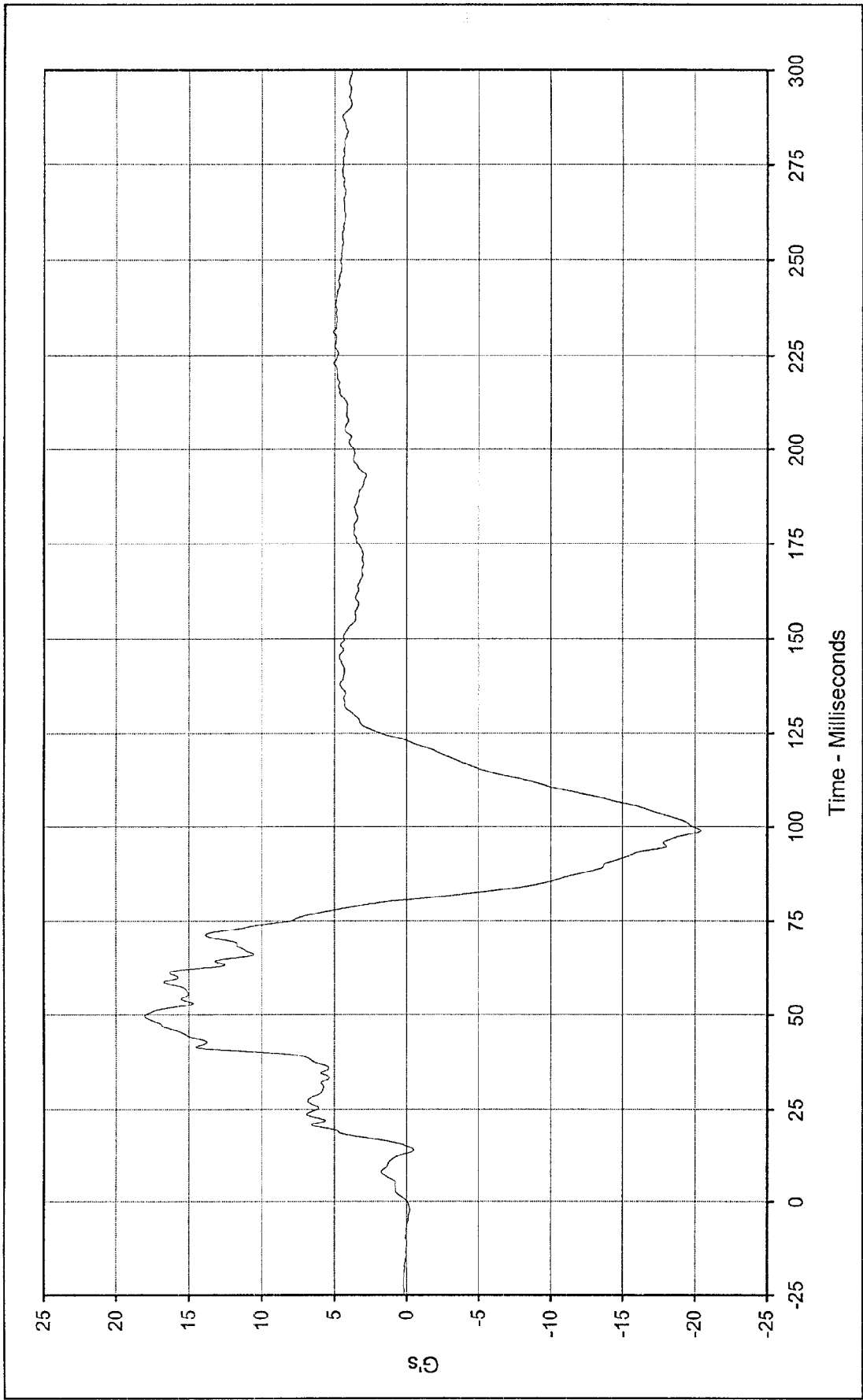




Curve Description: Driver Chest Primary Y
 Maximum Value: 5.4 at 76.7 Milliseconds
 Minimum Value: -7.6 at 72.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-014

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

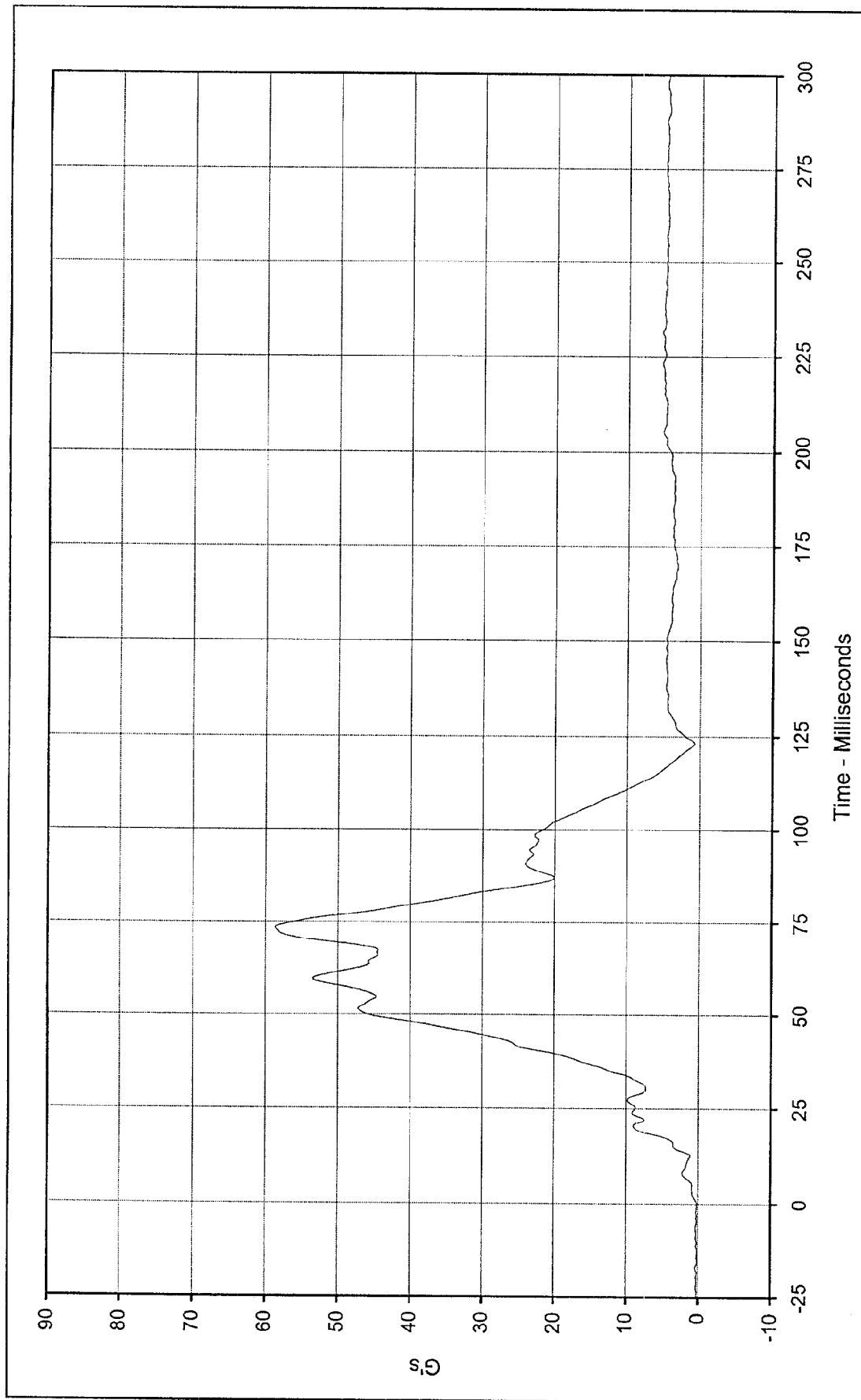




Curve Description: Driver Chest Primary Z
 Maximum Value: 18.0 at 49.7 Milliseconds
 Minimum Value: -20.4 at 99.0 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-015

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

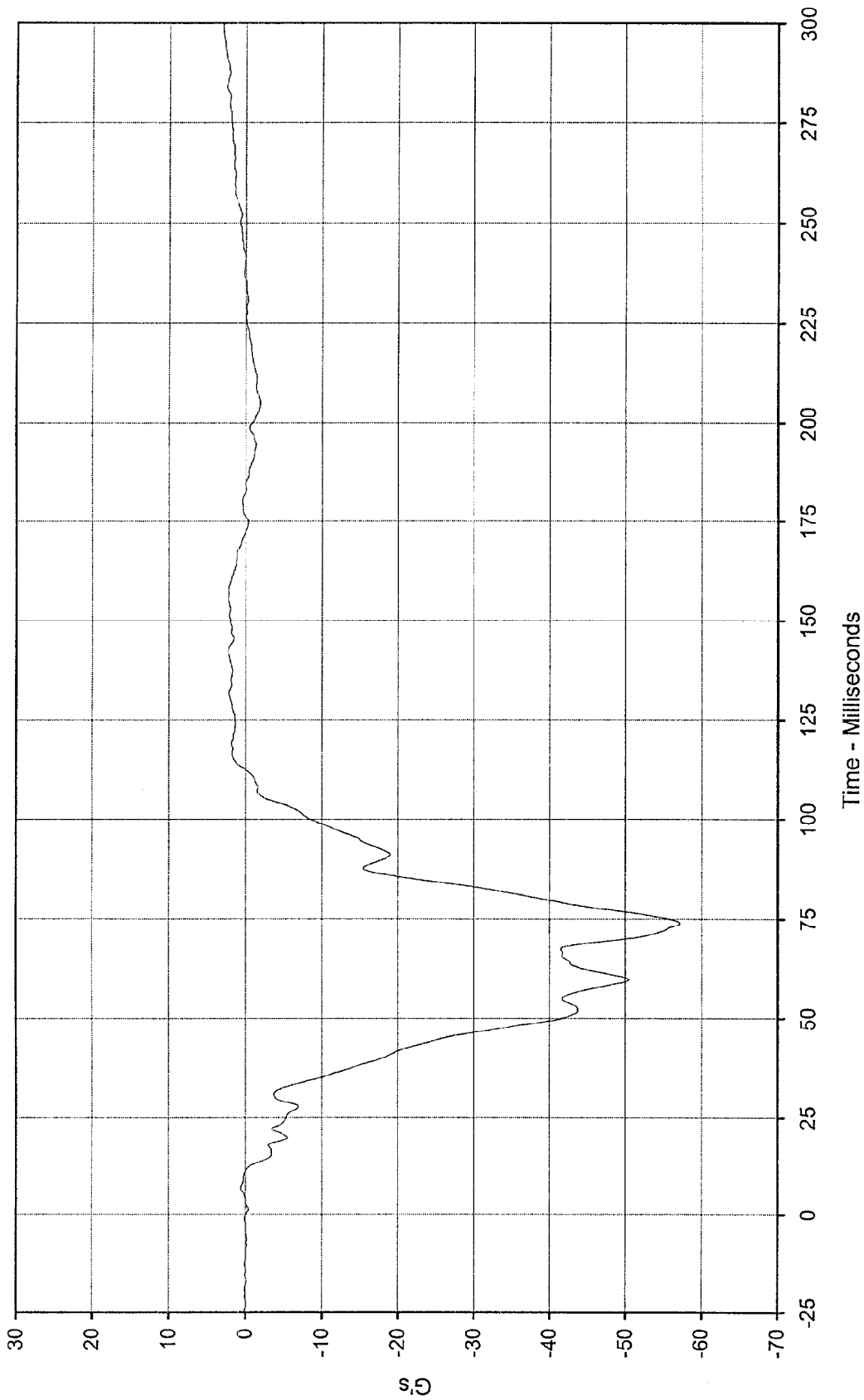




Curve Description: Driver Chest Resultant Primary
 Maximum Value: 58.7 at 73.5 Milliseconds
 Minimum Value: 0.1 at 0.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: RES-013

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

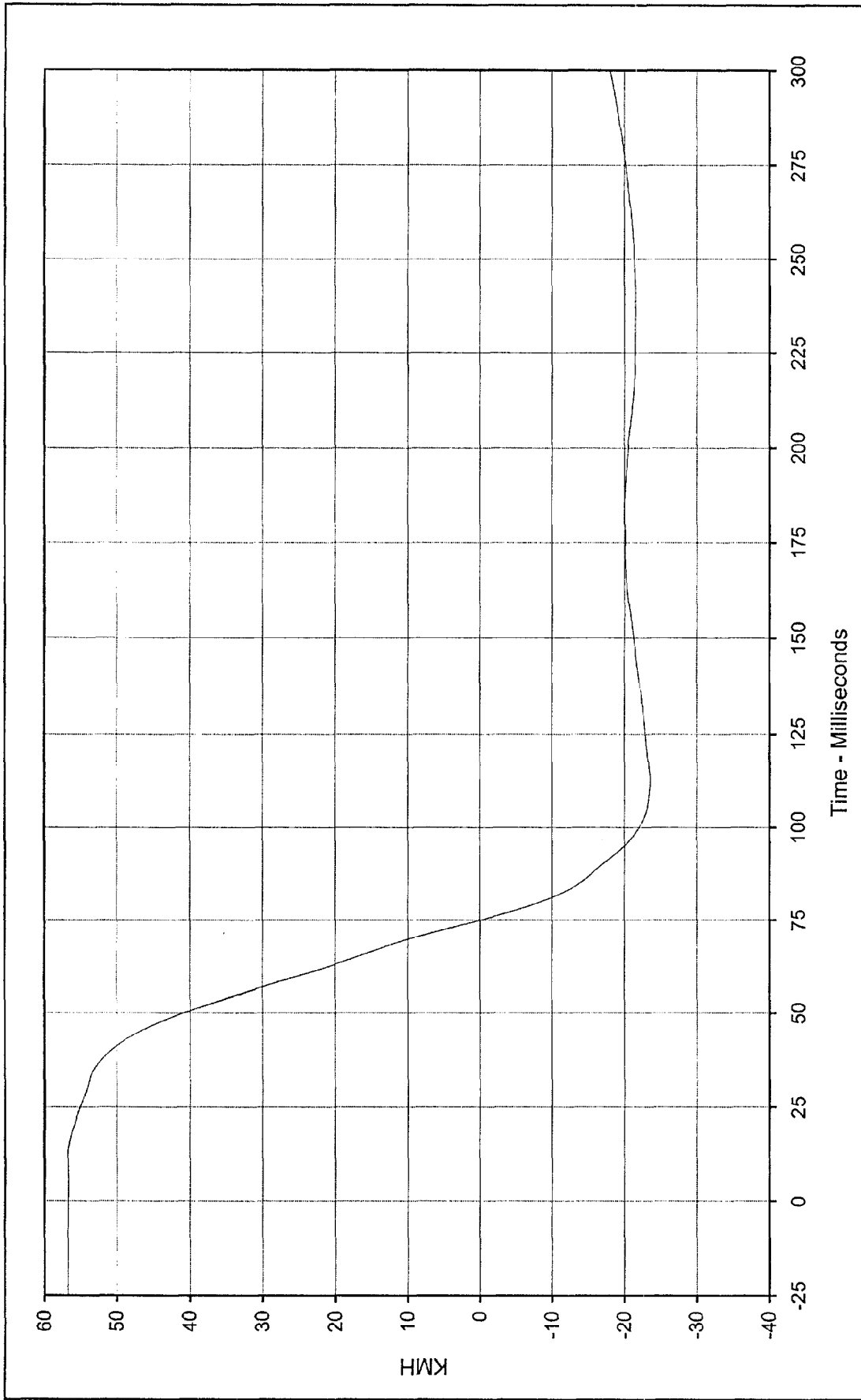




Curve Description: Driver Chest Redundant X
 Maximum Value: 3.1 at 299.2 Milliseconds
 Minimum Value: -57.2 at 73.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-016

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

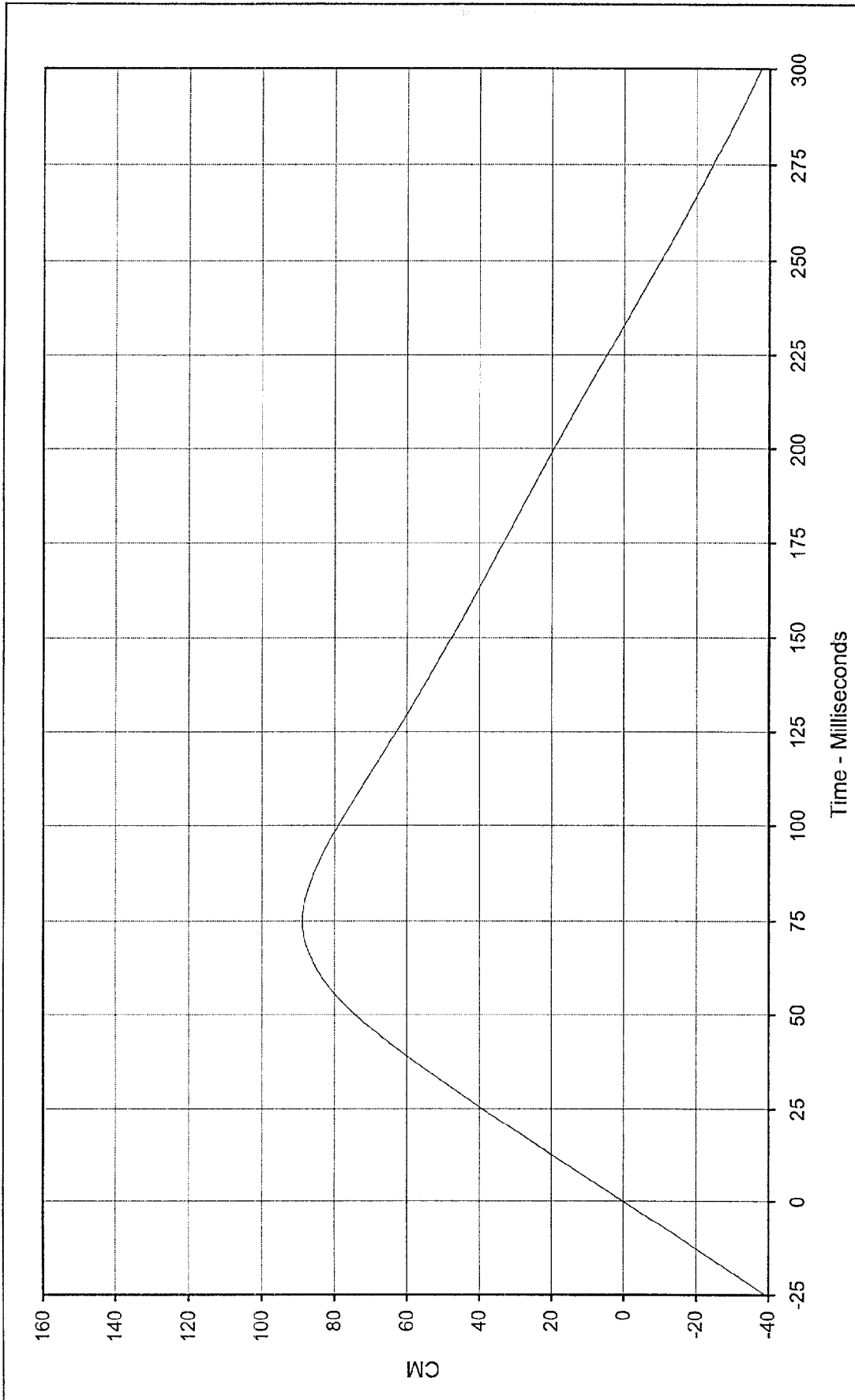




Curve Description: Driver Chest Redundant X Velocity
 Maximum Value: 56.7 at 11.4 Milliseconds
 Minimum Value: -23.5 at 112.6 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-016

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

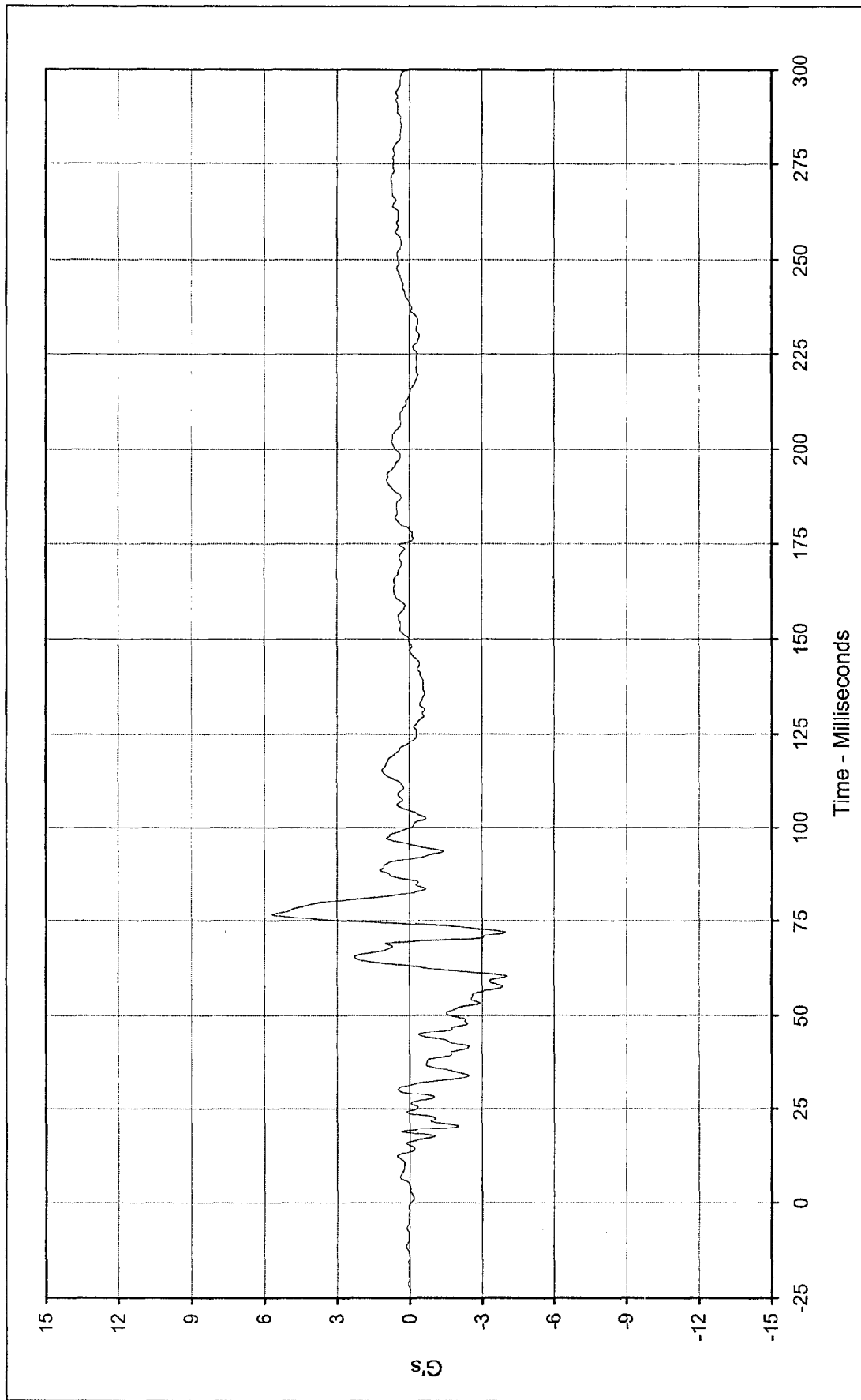




Curve Description: Driver Chest Redundant X Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Maximum Value: 88.9 at 74.9 Milliseconds Test Vehicle: 1998 Honda CRV SUV
Minimum Value: -37.8 at 299.9 Milliseconds



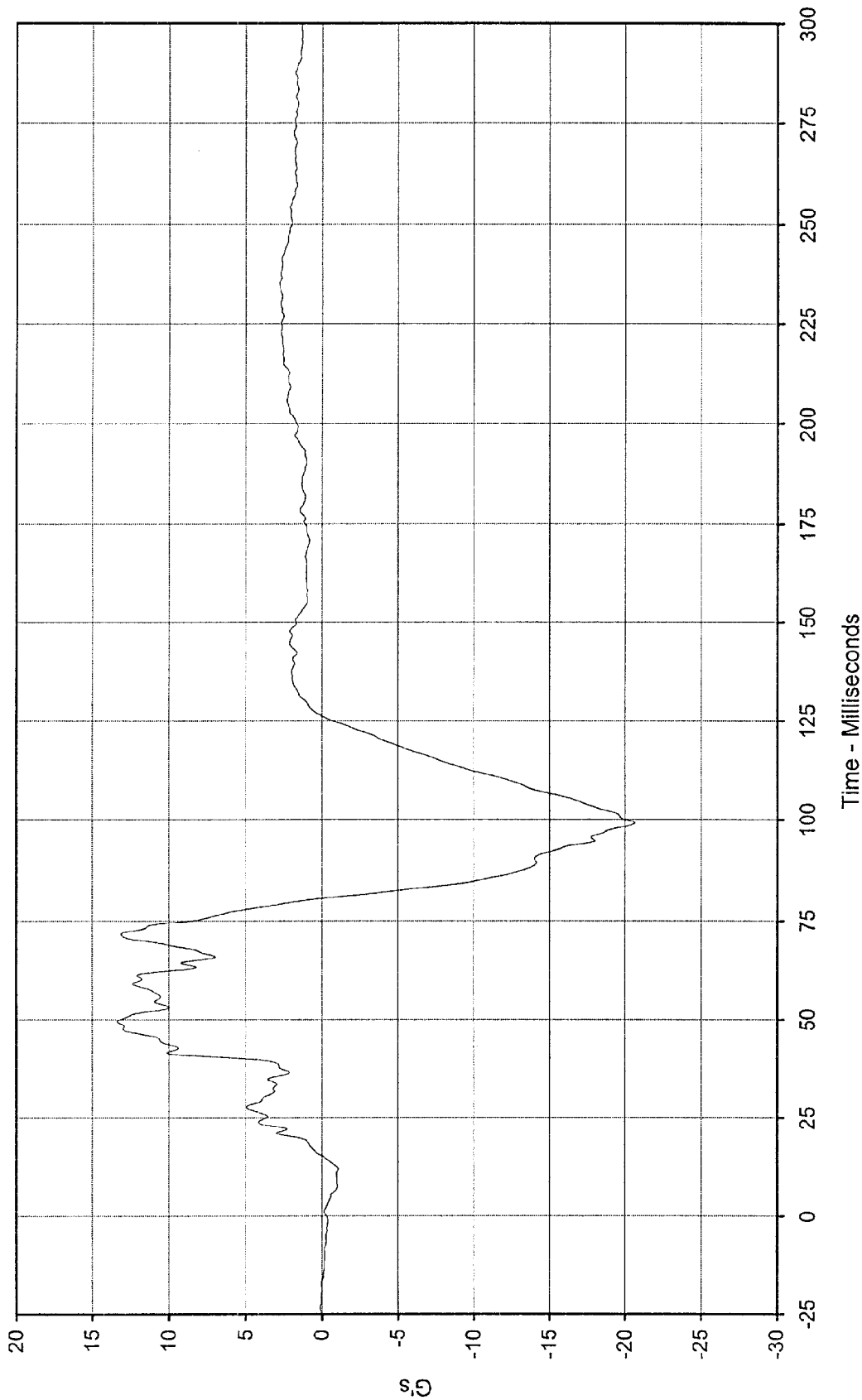
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN2-016



Curve Description: Driver Chest Redundant Y Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Maximum Value: 5.7 at 76.6 Milliseconds Test Vehicle: 1998 Honda CRV SUV
Minimum Value: -4.1 at 60.5 Milliseconds



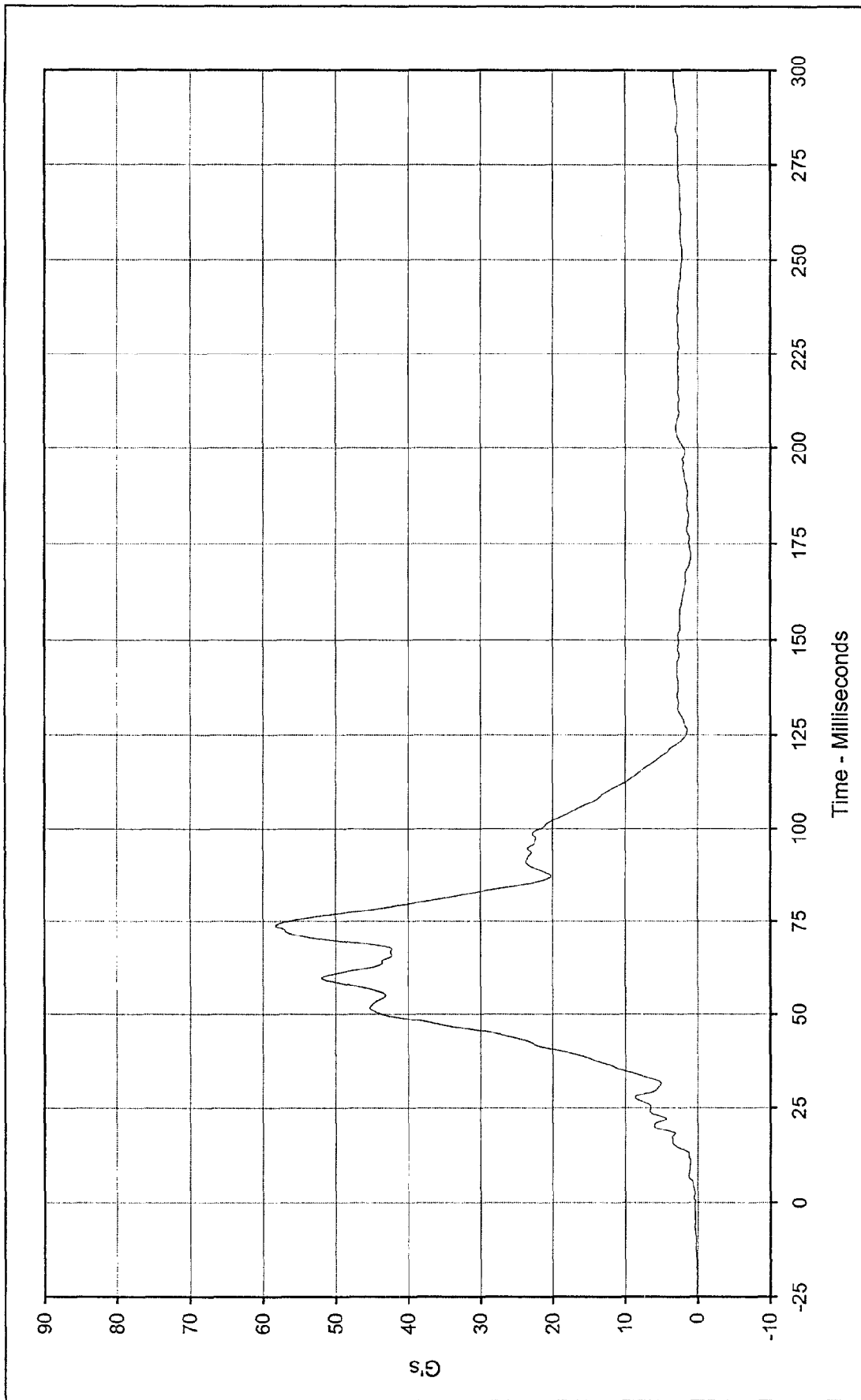
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: FIL-017



Curve Description: Driver Chest Redundant Z
 Maximum Value: 13.4 at 49.5 Milliseconds
 Minimum Value: -20.6 at 99.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-018

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

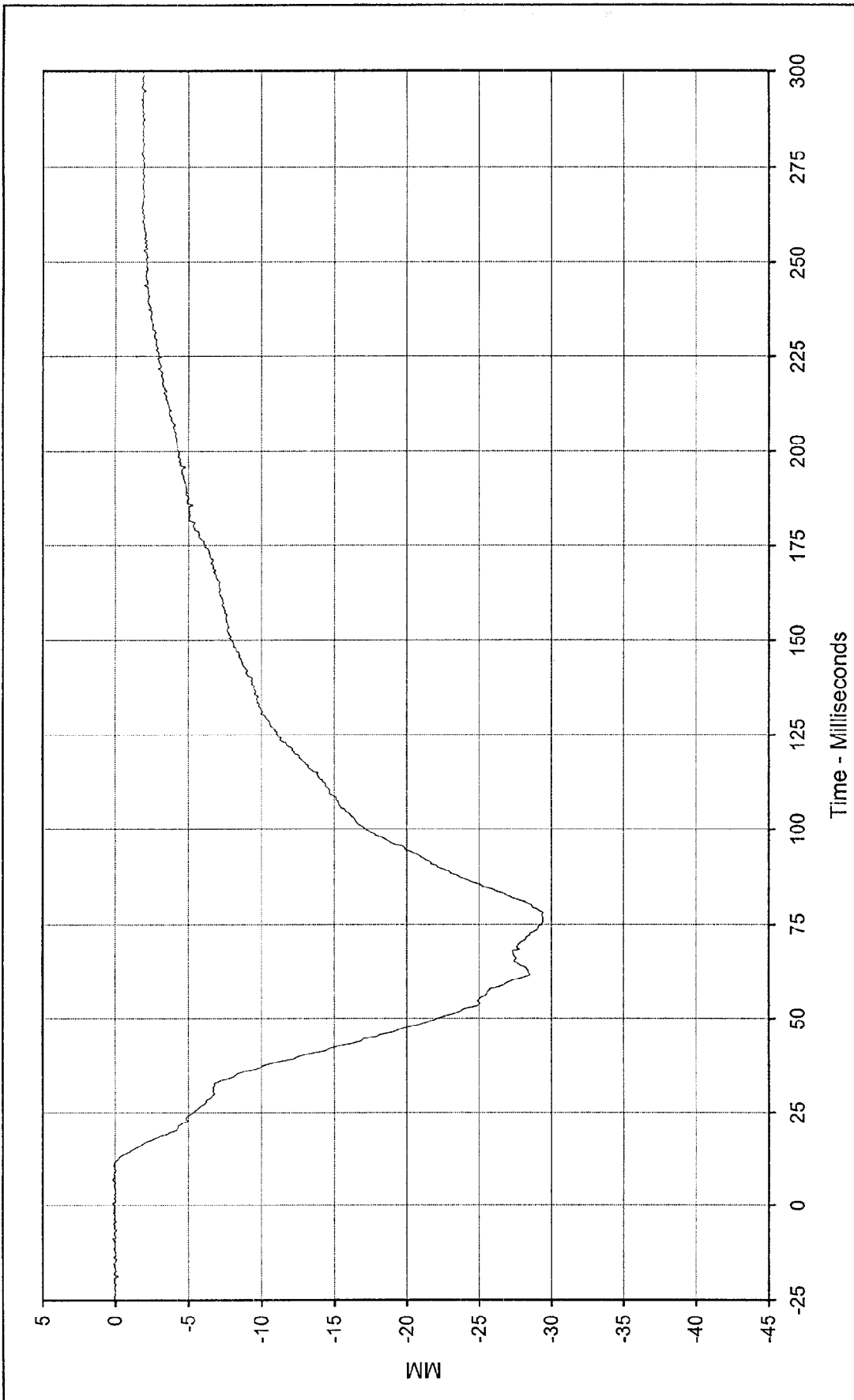




Curve Description: Driver Chest Resultant Redundant
 Maximum Value: 58.3 at 73.8 Milliseconds
 Minimum Value: 0.3 at 0.3 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: RES-016

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

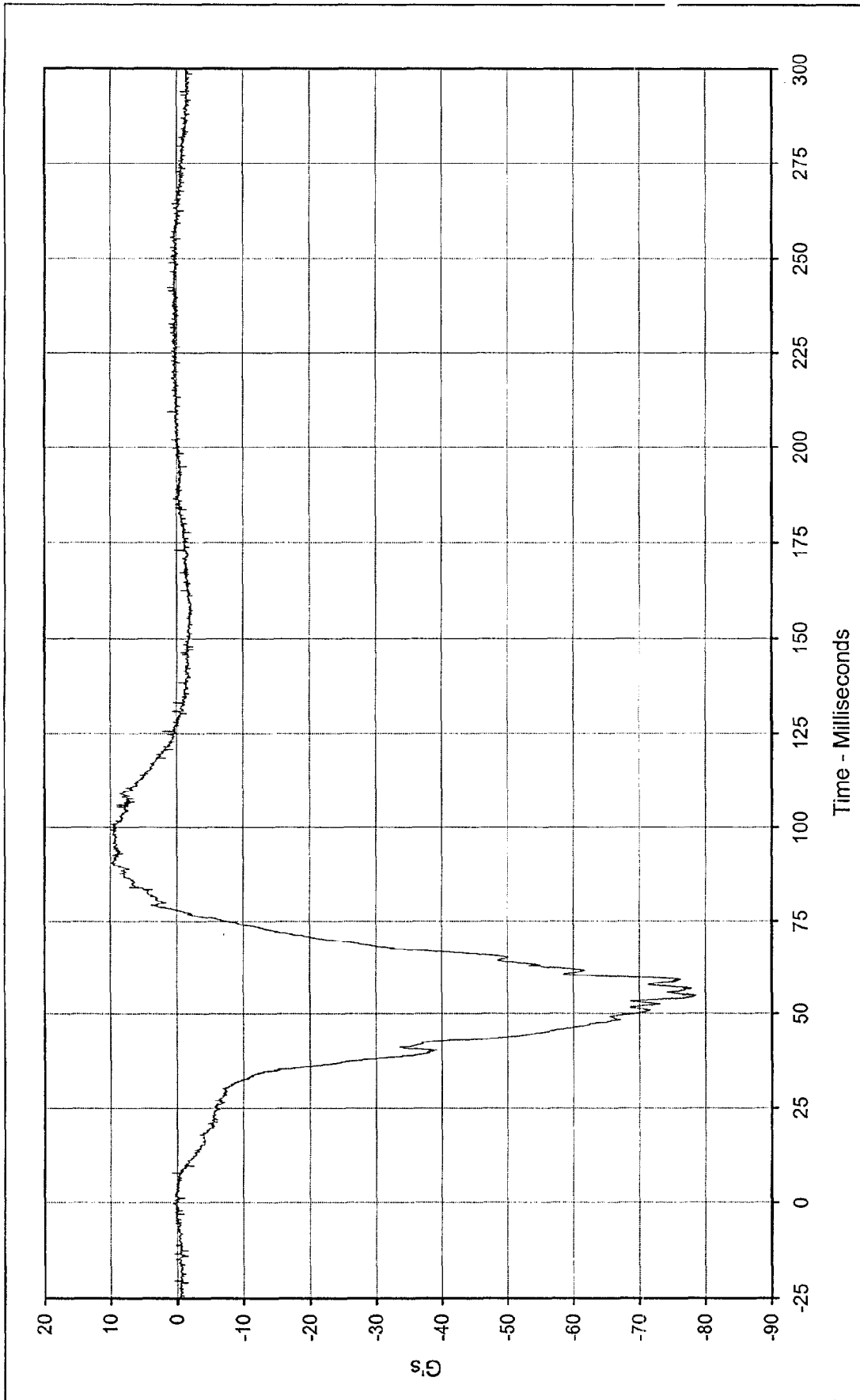




Curve Description: Driver Chest Displacement X
 Maximum Value: 0.2 at 0.5 Milliseconds
 Minimum Value: -29.4 at 76.5 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-019

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

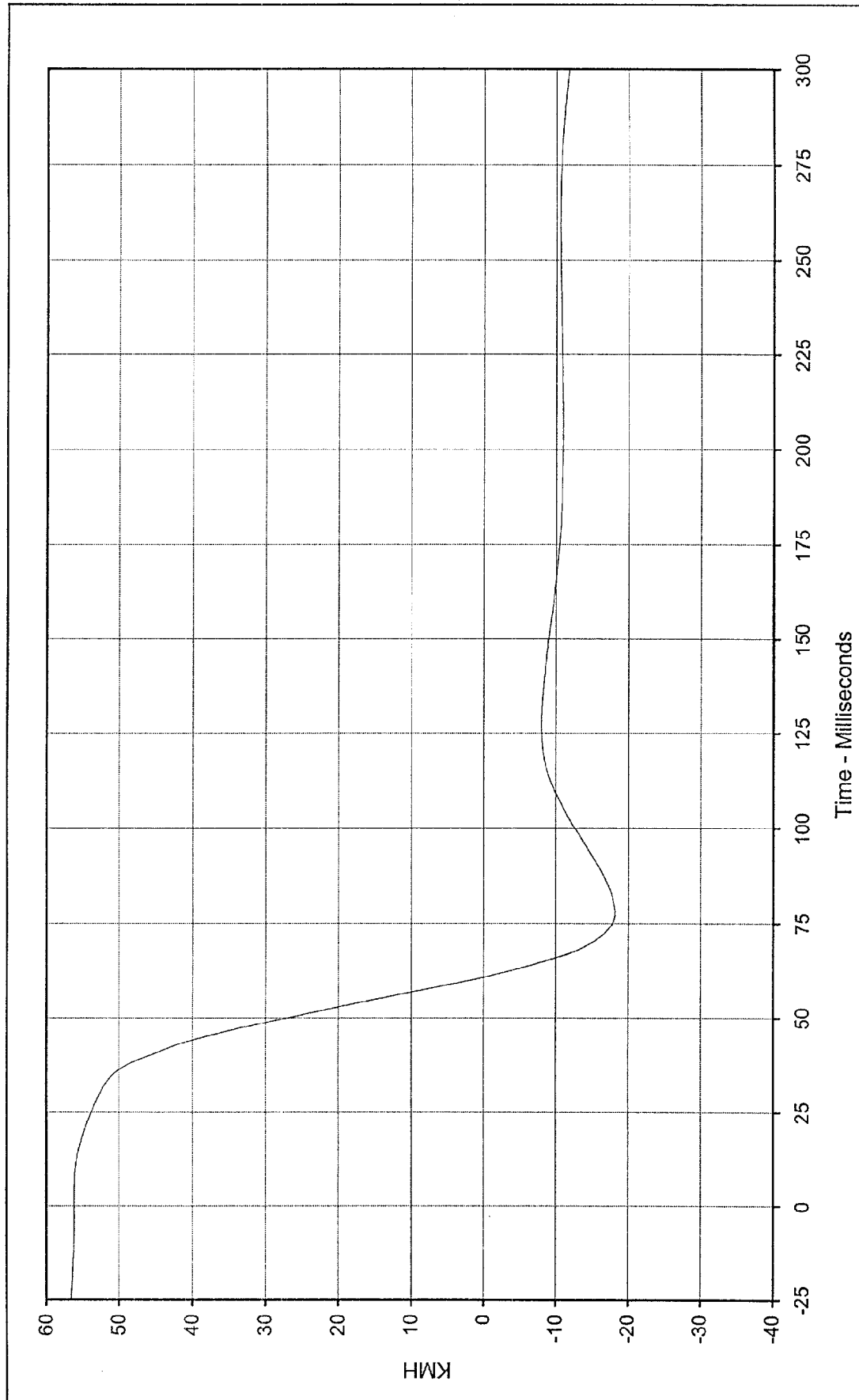




Curve Description: Driver Pelvis X
 Maximum Value: 10.1 at 99.4 Milliseconds
 Minimum Value: -78.5 at 55.0 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-020

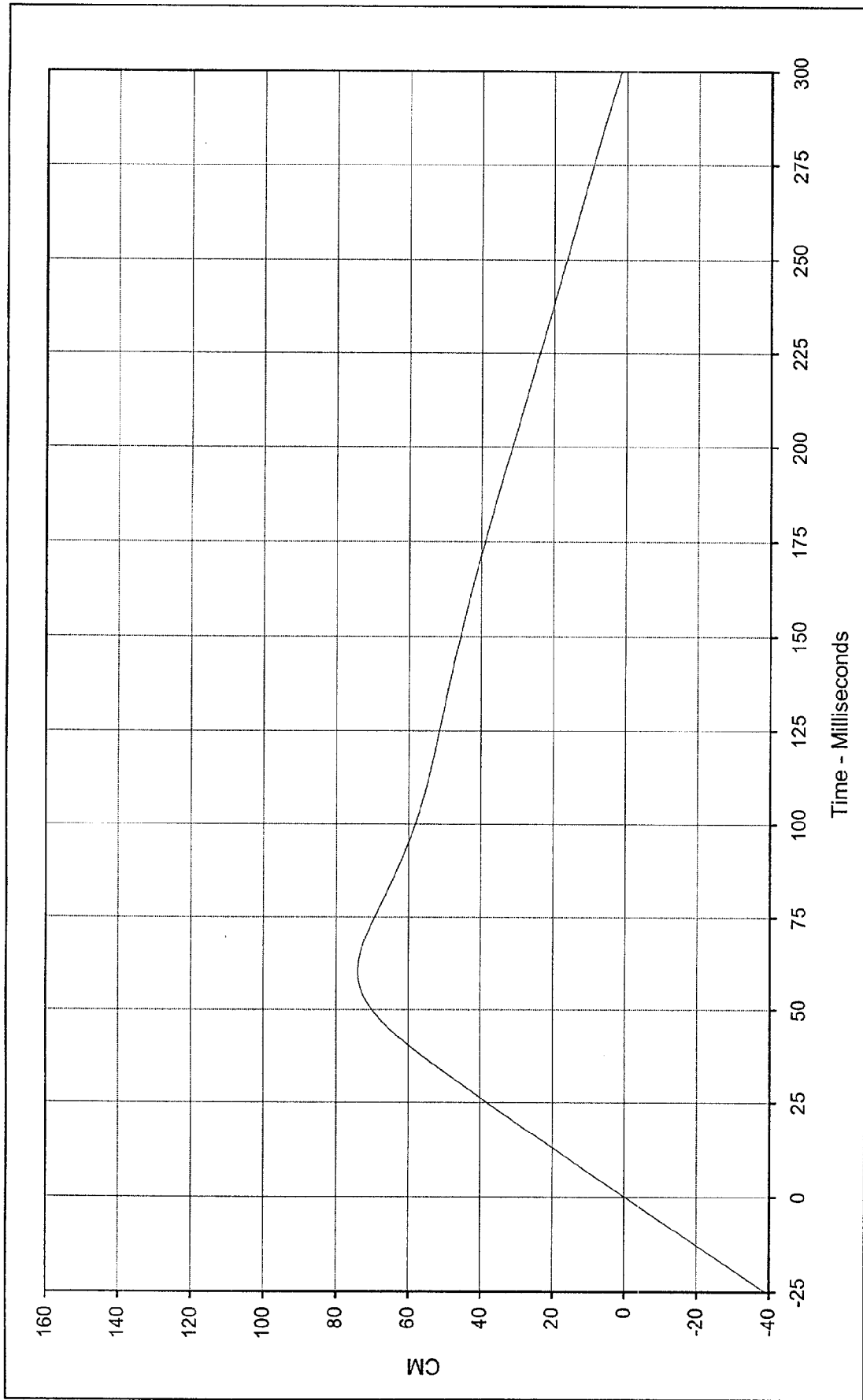
Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: _____ Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Maximum Value: 56.2 at 0.7 Milliseconds
Minimum Value: -18.2 at 77.8 Milliseconds
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN1-020





Curve Description: Driver Pelvis X Displ.

Maximum Value: 74.0 at 60.5 Milliseconds

Minimum Value: -0.2 at 0.0 Milliseconds

SAE Filter Class: 180

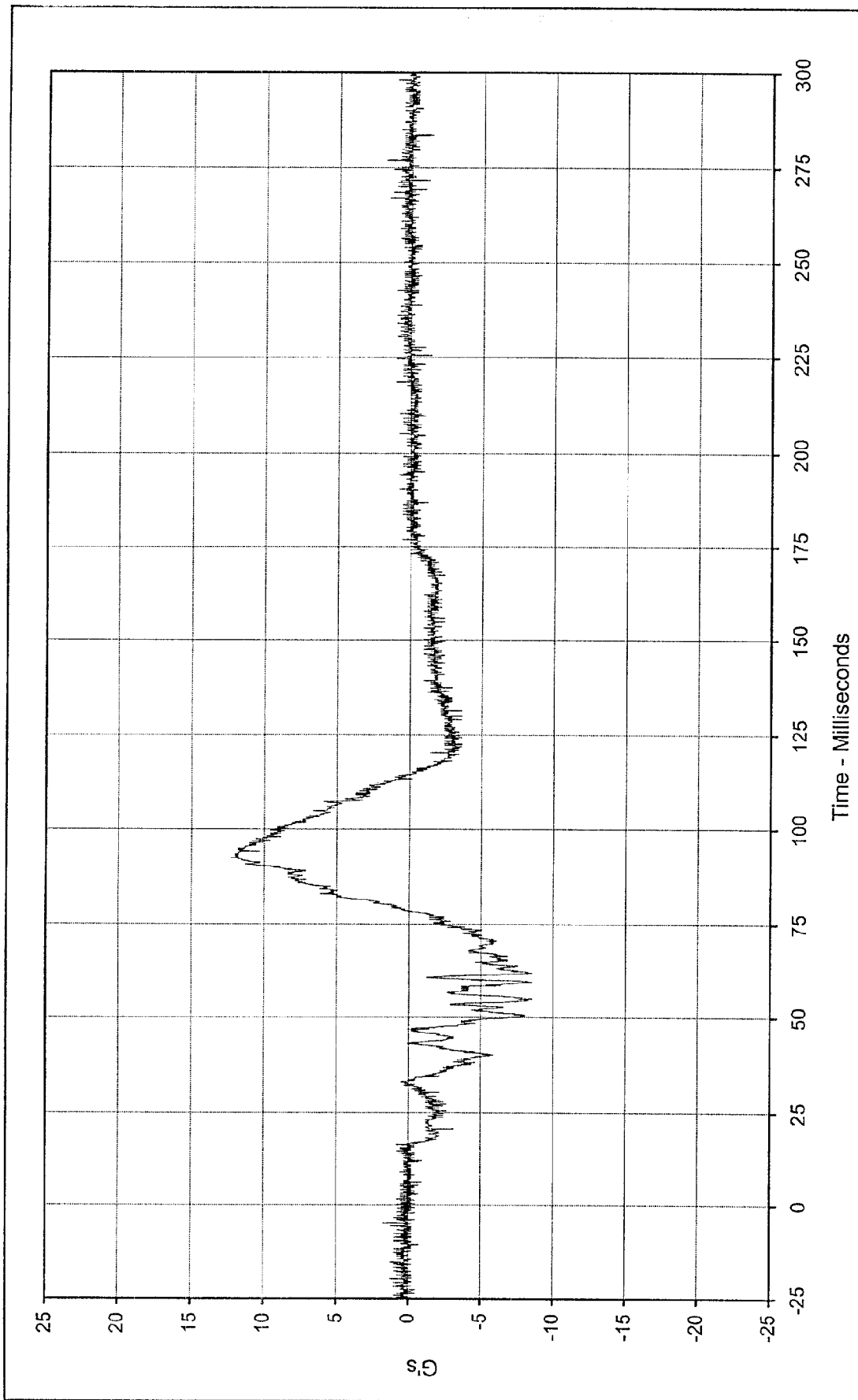
Date of Test: 2/20/98

Curve Number: IN2-020

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV



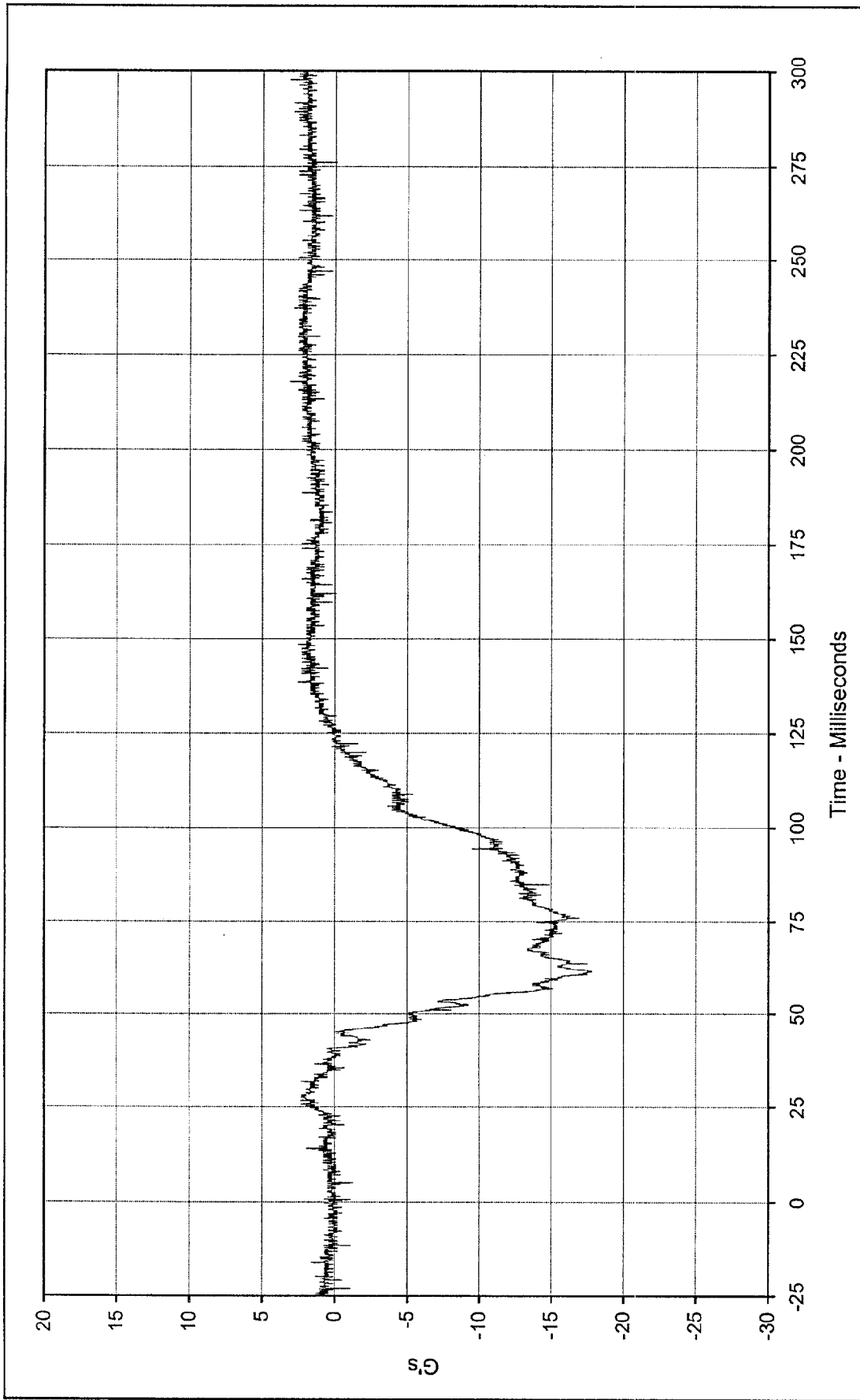


Curve Description:		Driver Pelvis Y		Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	12.3	at	92.2	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-8.5	at	54.9			
SAE Filter Class:	1000					
Date of Test:	2/20/98					
Curve Number:	FIL-021					



KARCO
Engineering

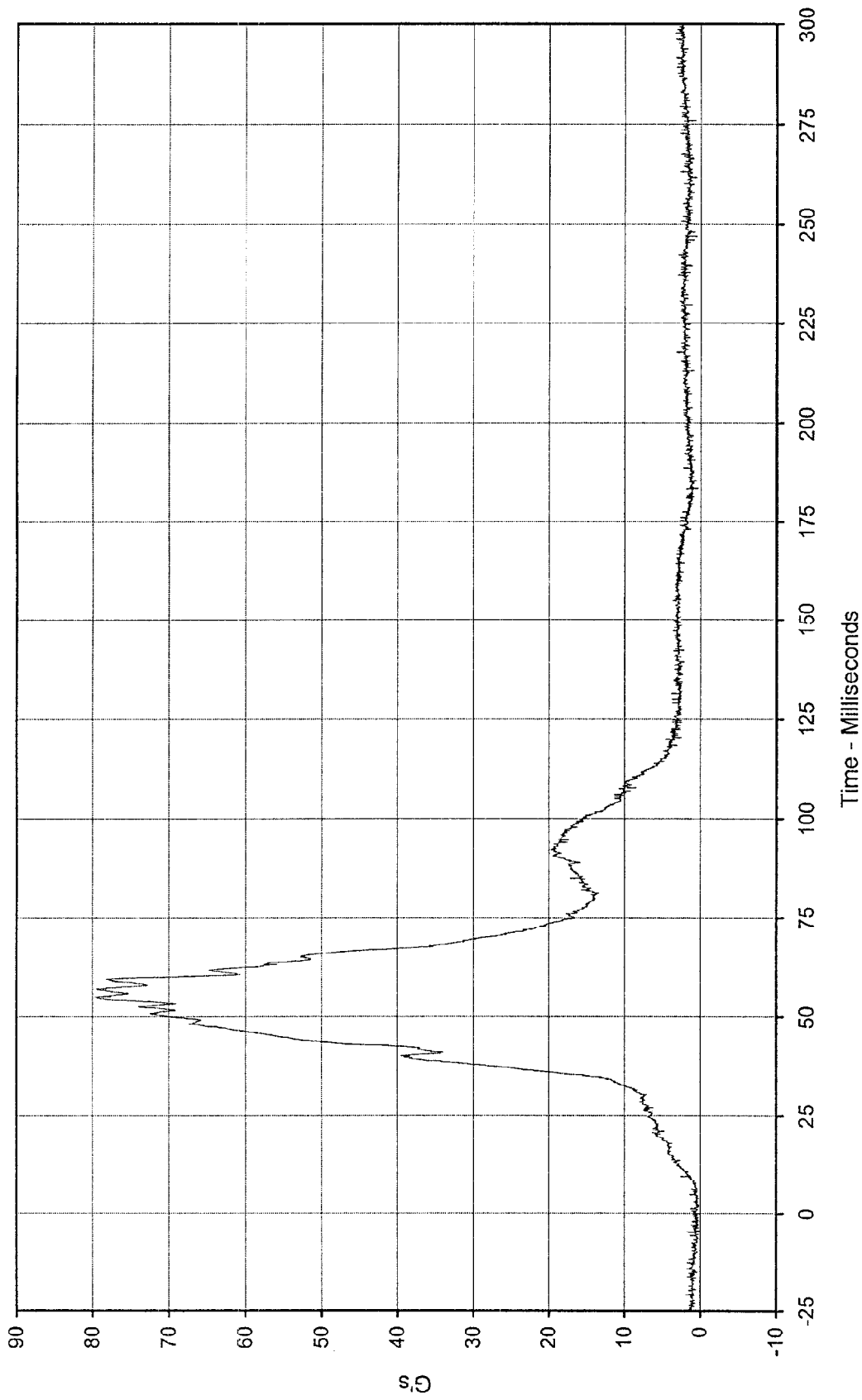




Curve Description: Driver Pelvis Z
 Maximum Value: 3.1 at 217.8 Milliseconds
 Minimum Value: -17.8 at 61.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-022

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

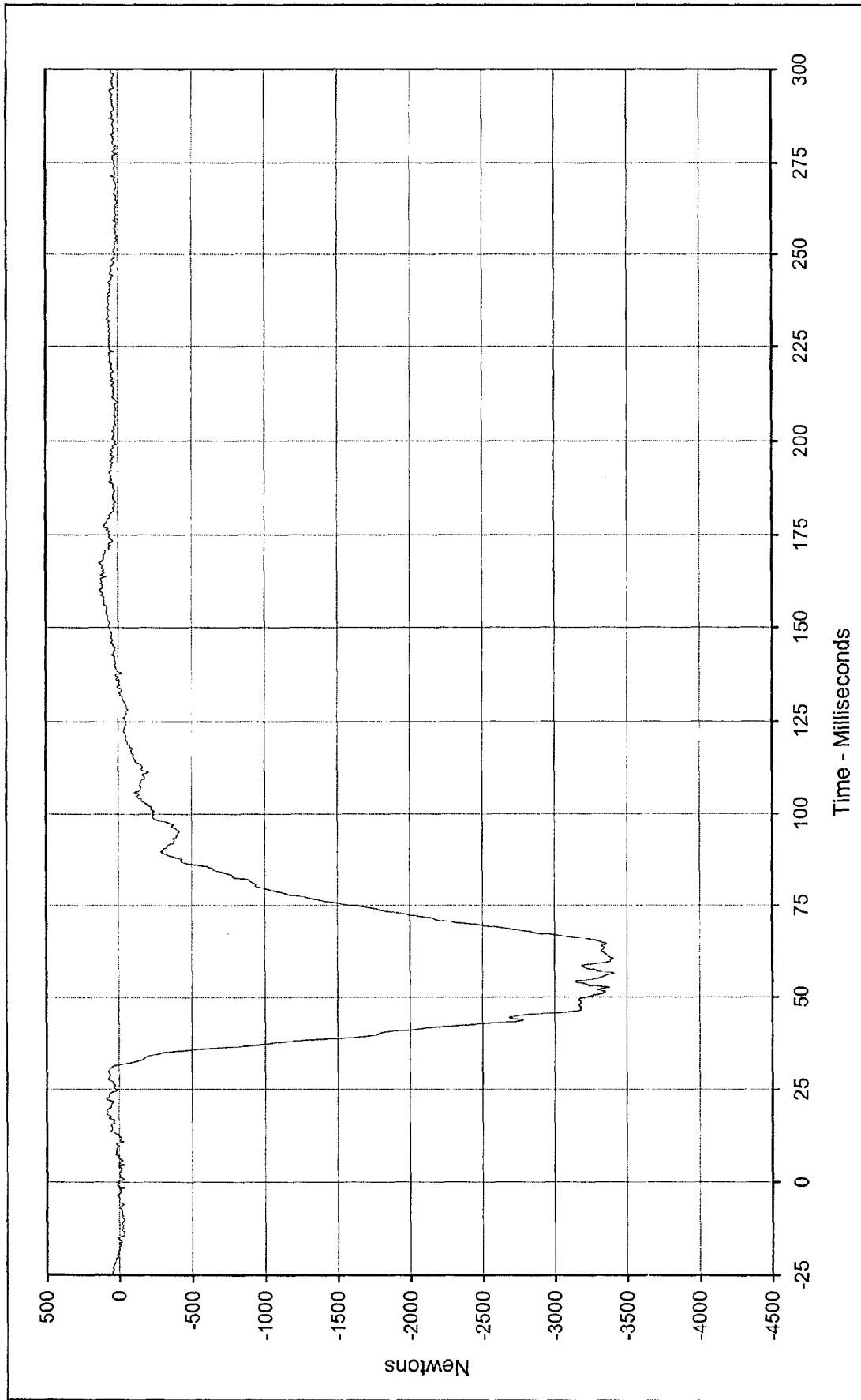




Curve Description: Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

Maximum Value: 79.7 at 55.0 Milliseconds
 Minimum Value: 0.1 at 2.3 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: RES-020





Curve Description: Driver Left Femur Force

Maximum Value: 133.4 at 167.4 Milliseconds

Minimum Value: -3408.2 at 56.5 Milliseconds

SAE Filter Class: 600

Date of Test: 2/20/98

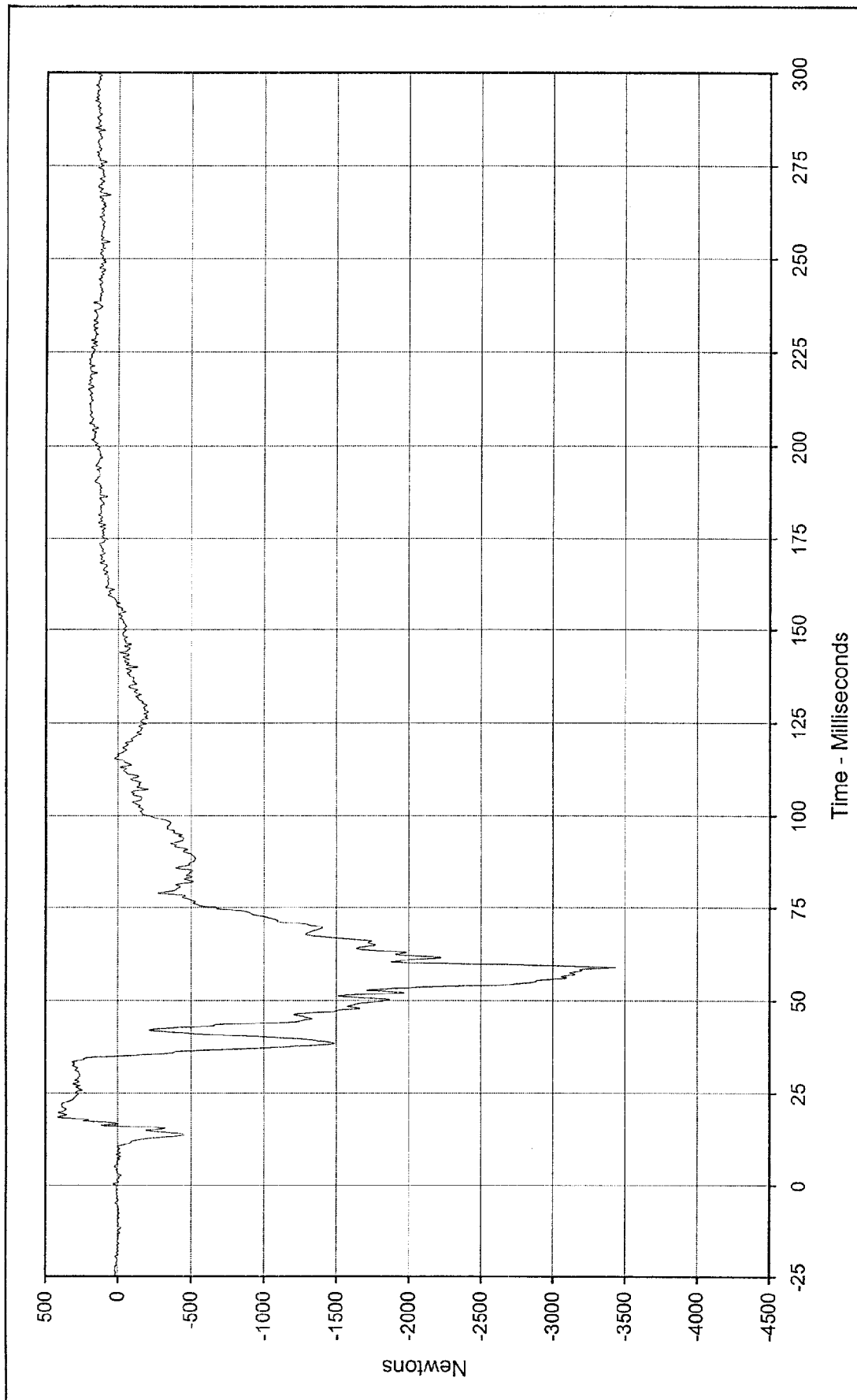
Curve Number: FIL-023

Testing Program: 1998 NHTSA 35 mph NCAP

No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

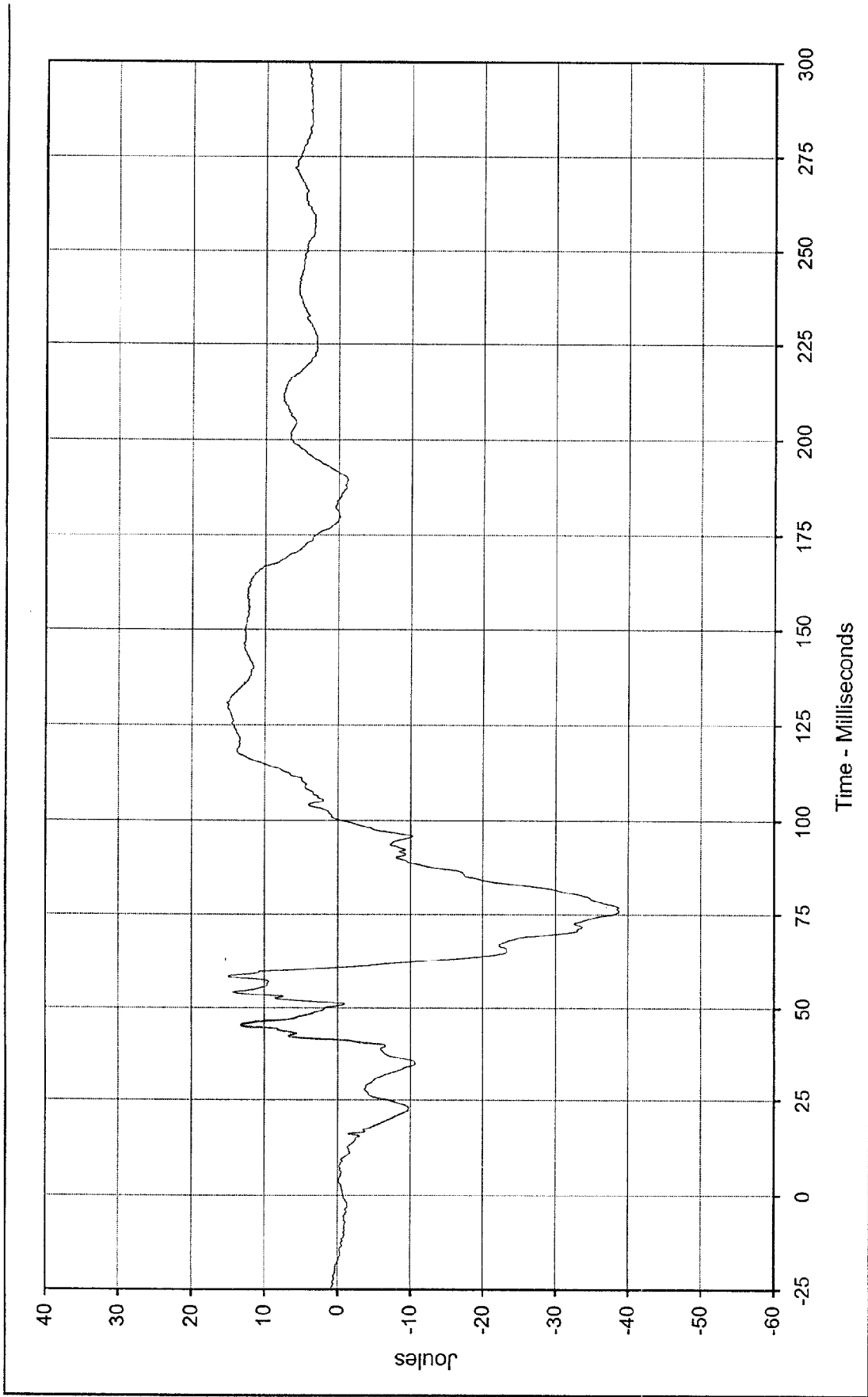




Curve Description: Driver Right Femur Force
Maximum Value: 418.8 at 18.6 Milliseconds
Minimum Value: -3435.9 at 58.8 Milliseconds
SAE Filter Class: 600
Date of Test: 2/20/98
Curve Number: FIL-024

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV

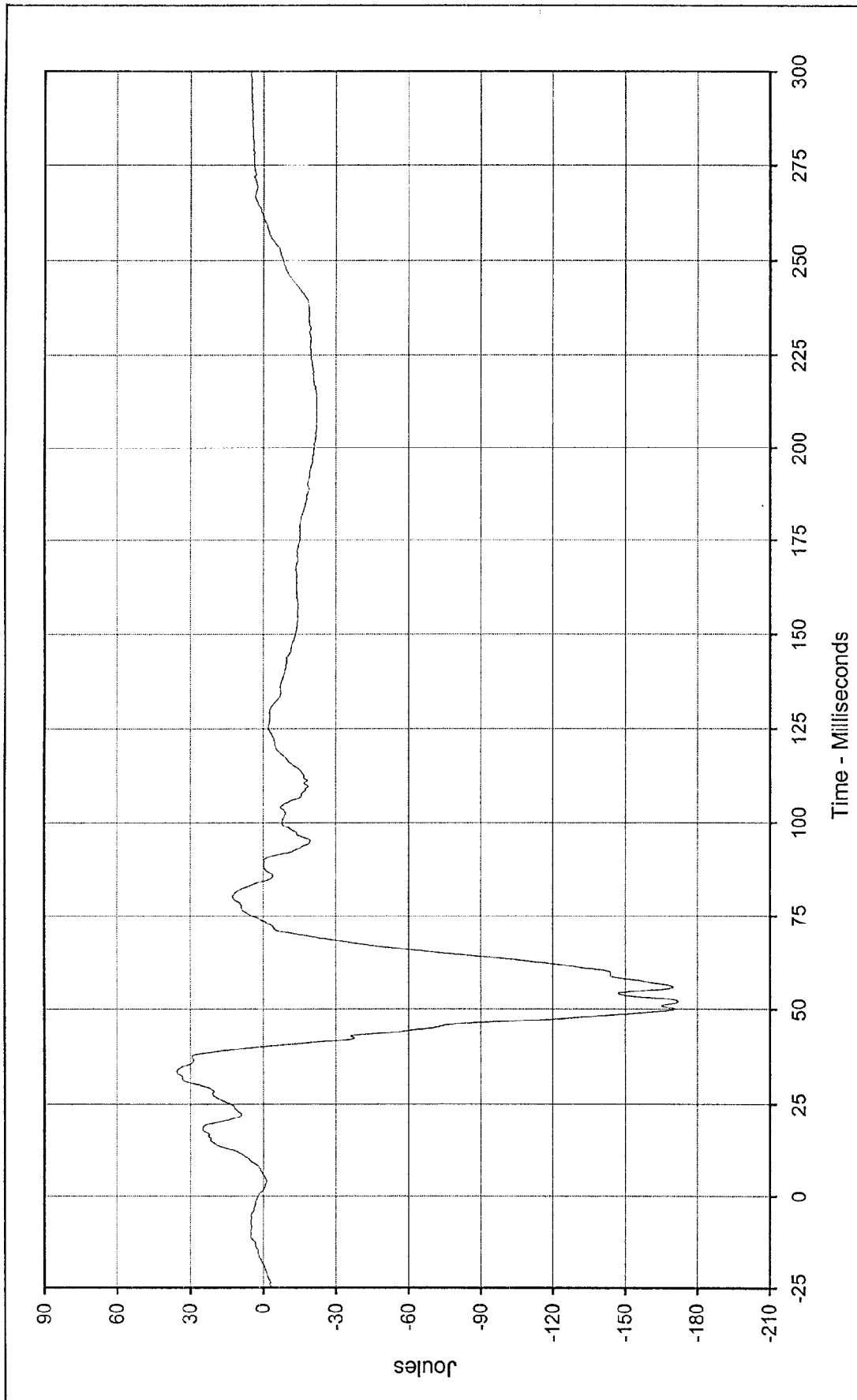




Curve Description: Driver Left Upper Tibia Moment X
Maximum Value: 15.2 at 130.6 Milliseconds
Minimum Value: -38.8 at 75.9 Milliseconds
SAE Filter Class: 600
Date of Test: 2/20/98
Curve Number: FIL-025

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV





Curve Description: Driver Left Upper Tibia Moment Y

Maximum Value: 35.4 at 33.7 Milliseconds

Minimum Value: -172.2 at 52.0 Milliseconds

SAE Filter Class: 600

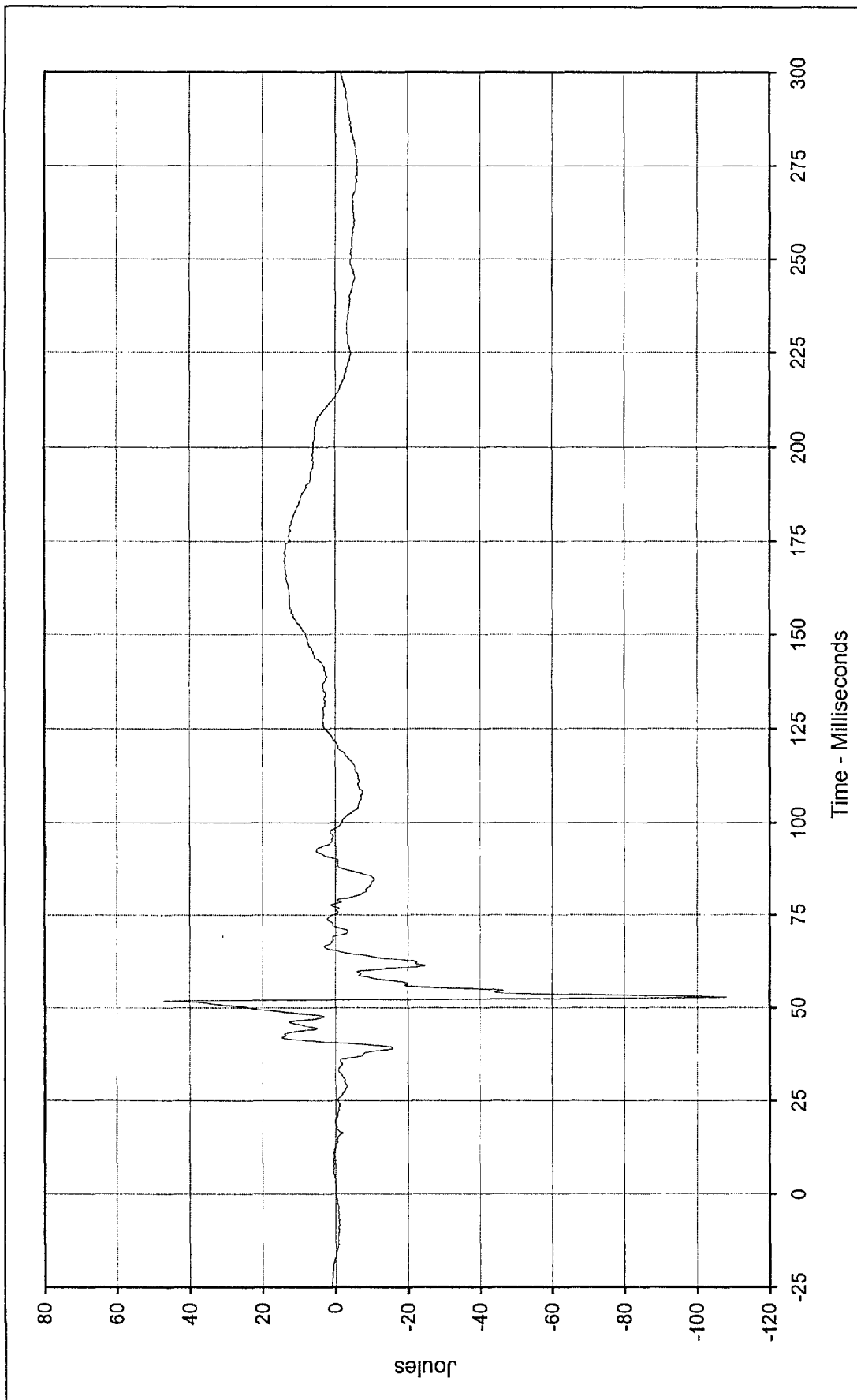
Date of Test: 2/20/98

Curve Number: FIL-026

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

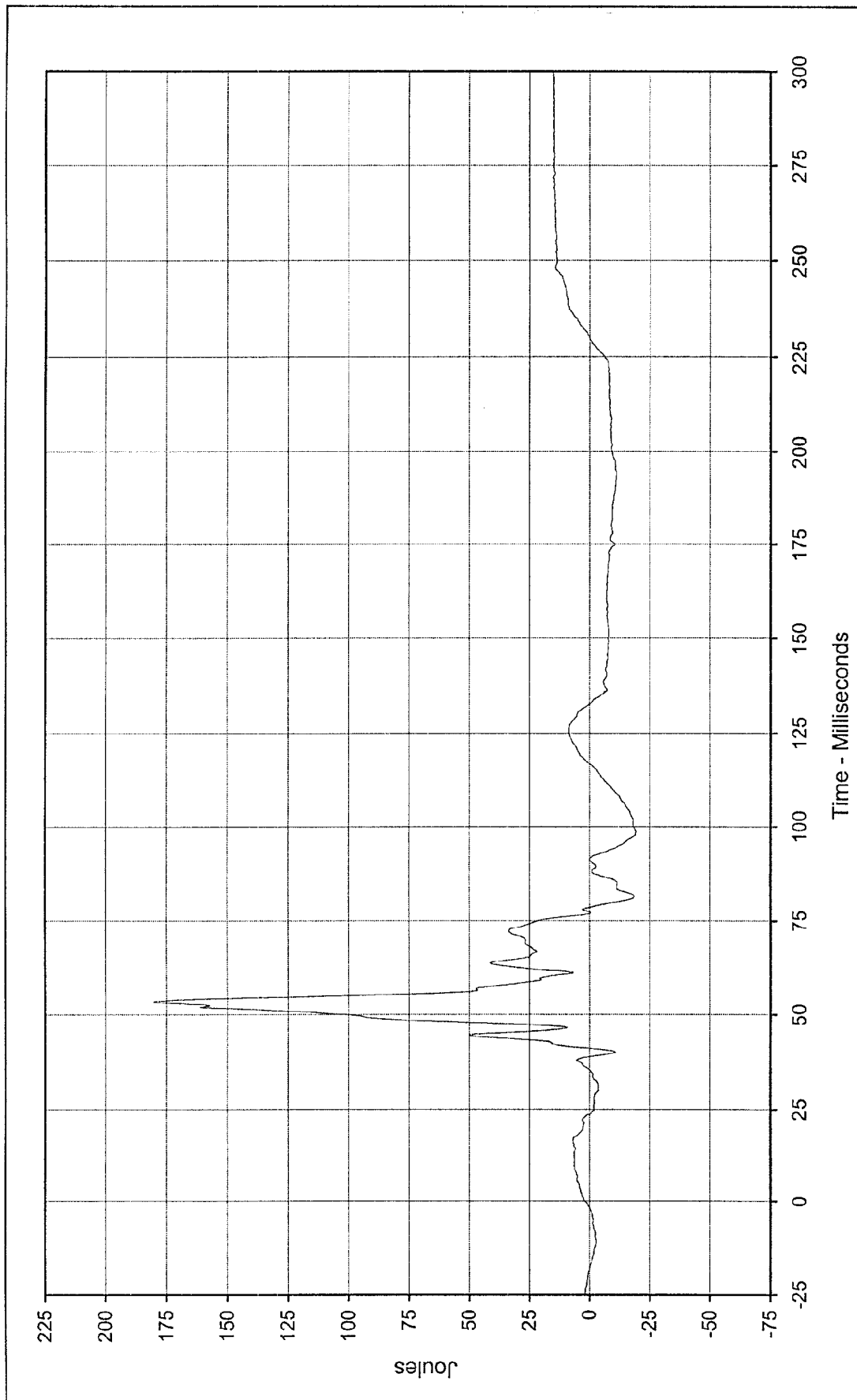




Curve Description: Driver Right Upper Tibia Moment X
Maximum Value: 47.1 at 51.8 Milliseconds
Minimum Value: -108.2 at 52.9 Milliseconds
SAE Filler Class: 600
Date of Test: 2/20/98
Curve Number: FIL-027

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV

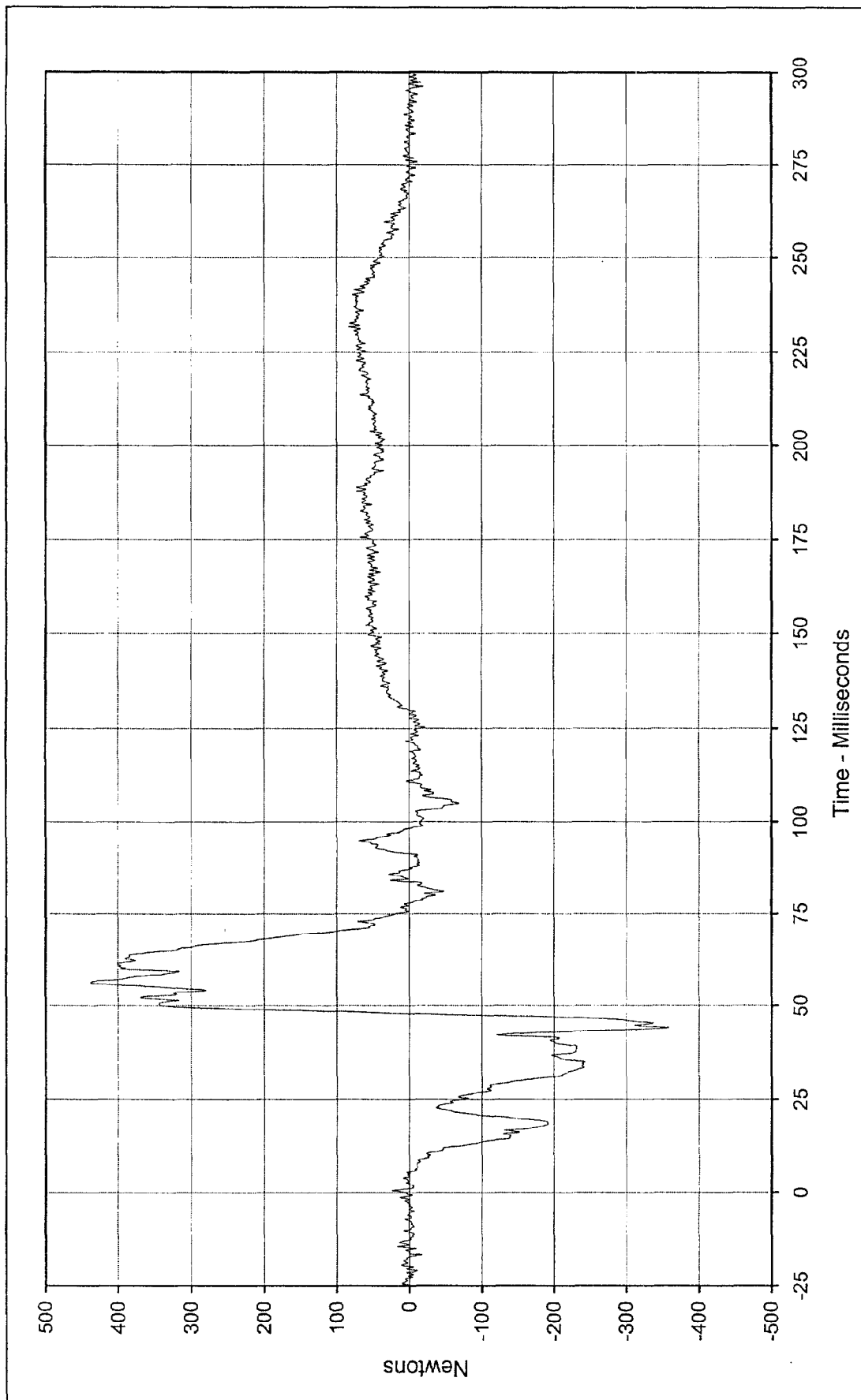




Curve Description: Driver Right Upper Tibia Moment Y
Maximum Value: 180.3 at 53.4 Milliseconds
Minimum Value: -19.4 at 98.6 Milliseconds
SAE Filter Class: 600
Date of Test: 2/20/98
Curve Number: FIL-028

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV

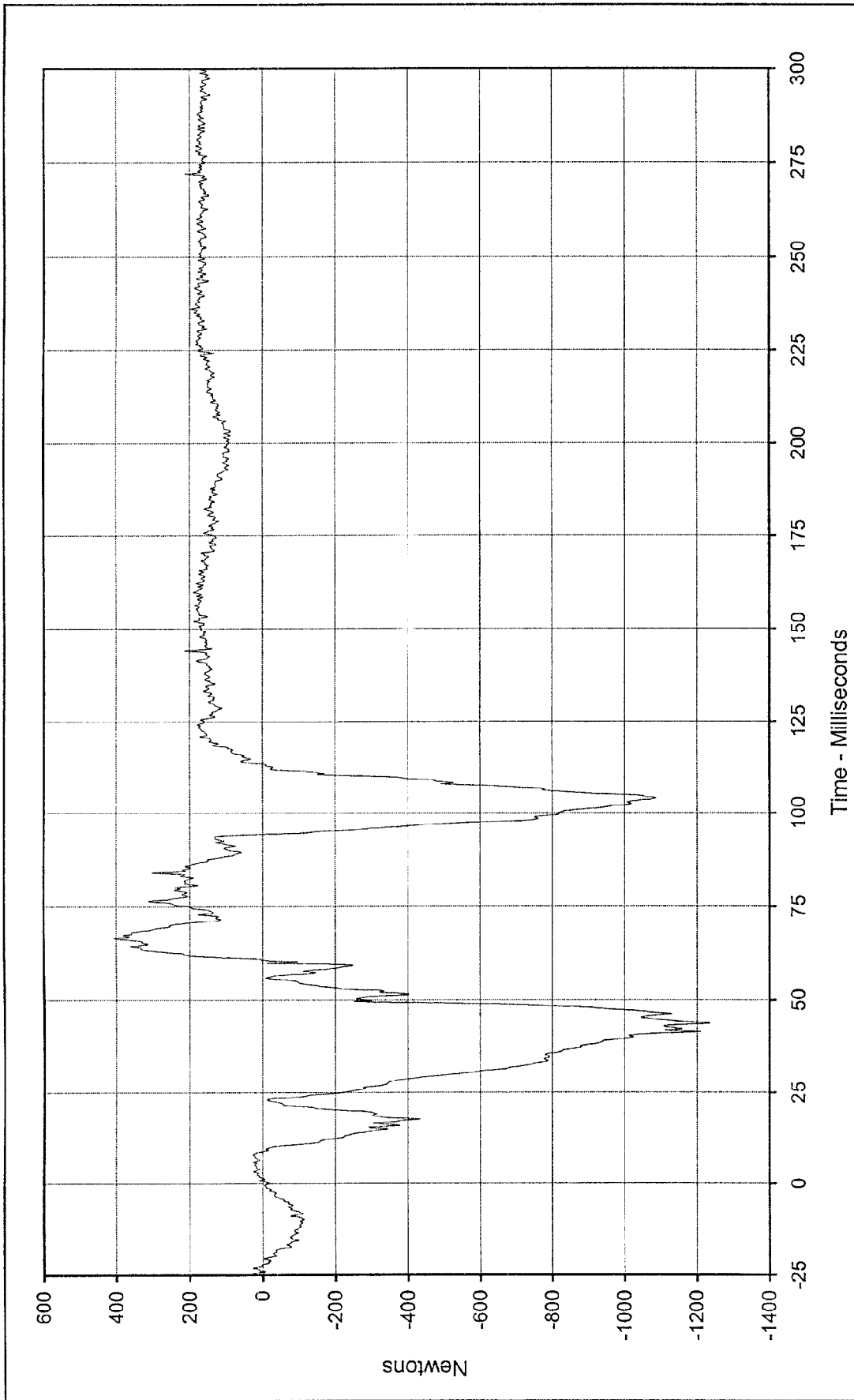




Curve Description: Driver Left Lower Tibia Force X
 Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

Maximum Value: 438.5 at 56.2 Milliseconds
 Minimum Value: -358.4 at 43.9 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-029





Curve Description: Driver Left Lower Tibia Force Z

Maximum Value: 406.8 at 66.4 Milliseconds

Minimum Value: -1235.9 at 43.6 Milliseconds

SAE Filter Class: 600

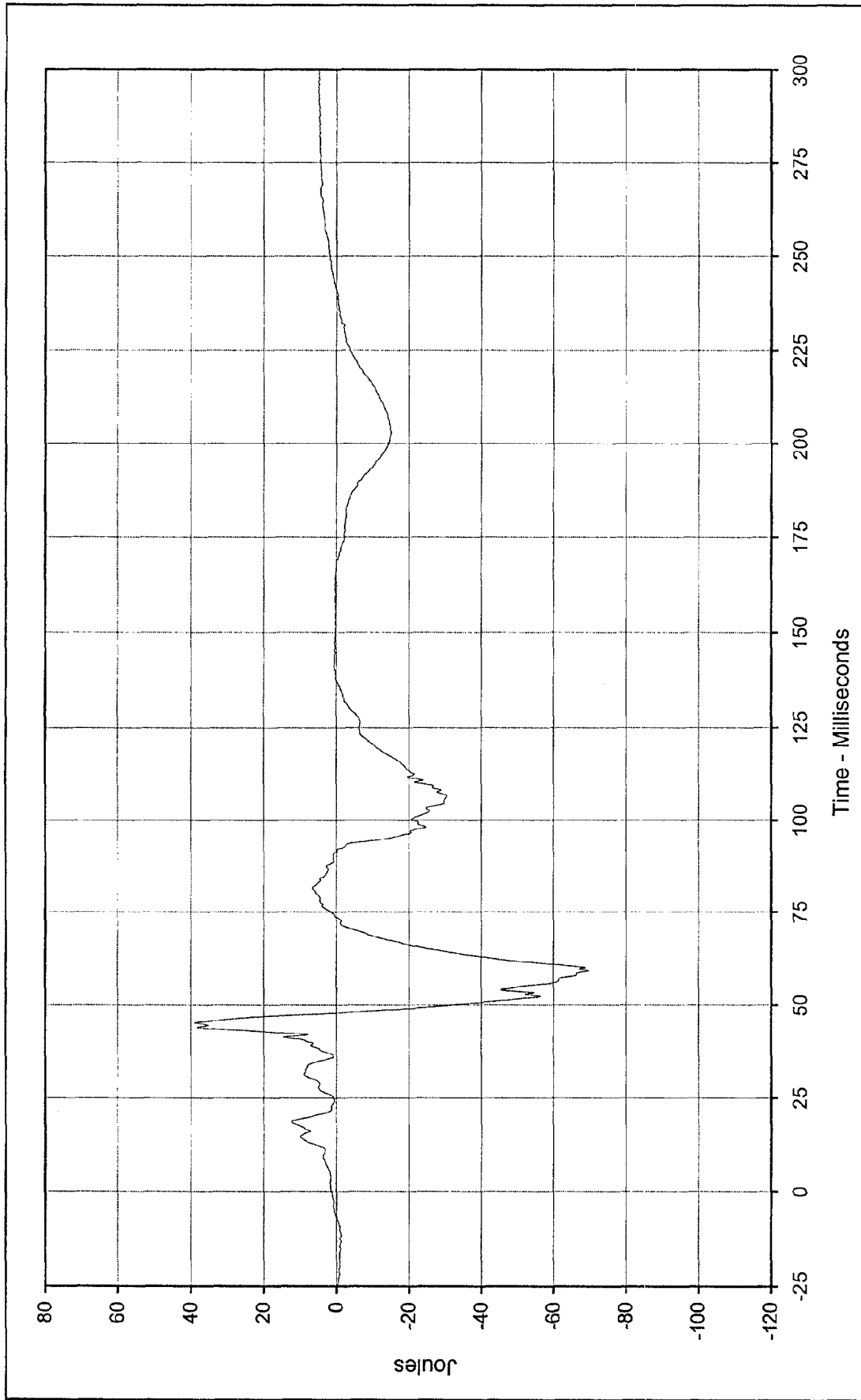
Date of Test: 2/20/98

Curve Number: FIL-030

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

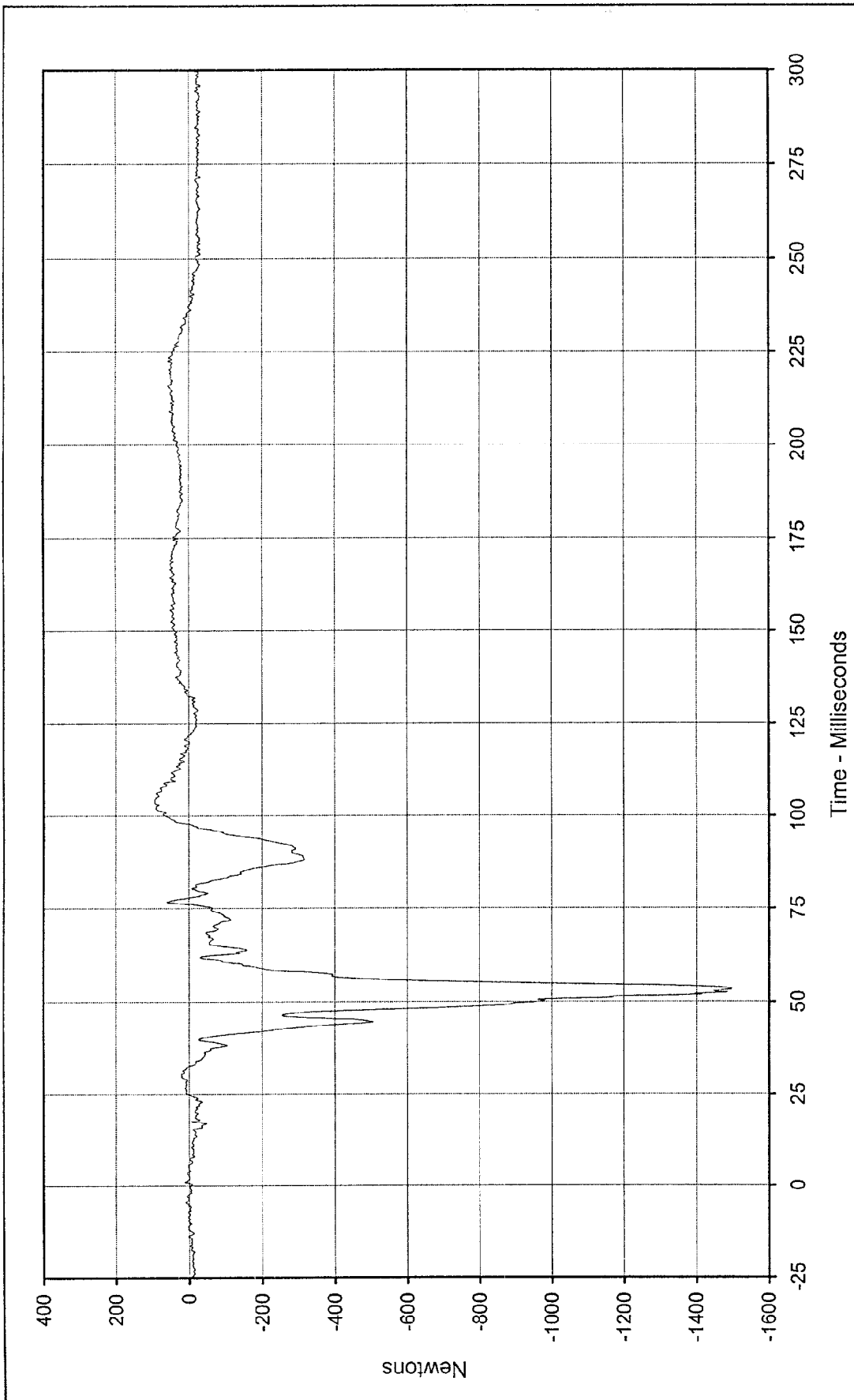




Curve Description:	Driver Left Lower Tibia Moment Y	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	38.8 at 45.3 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-69.8 at 59.3 Milliseconds			



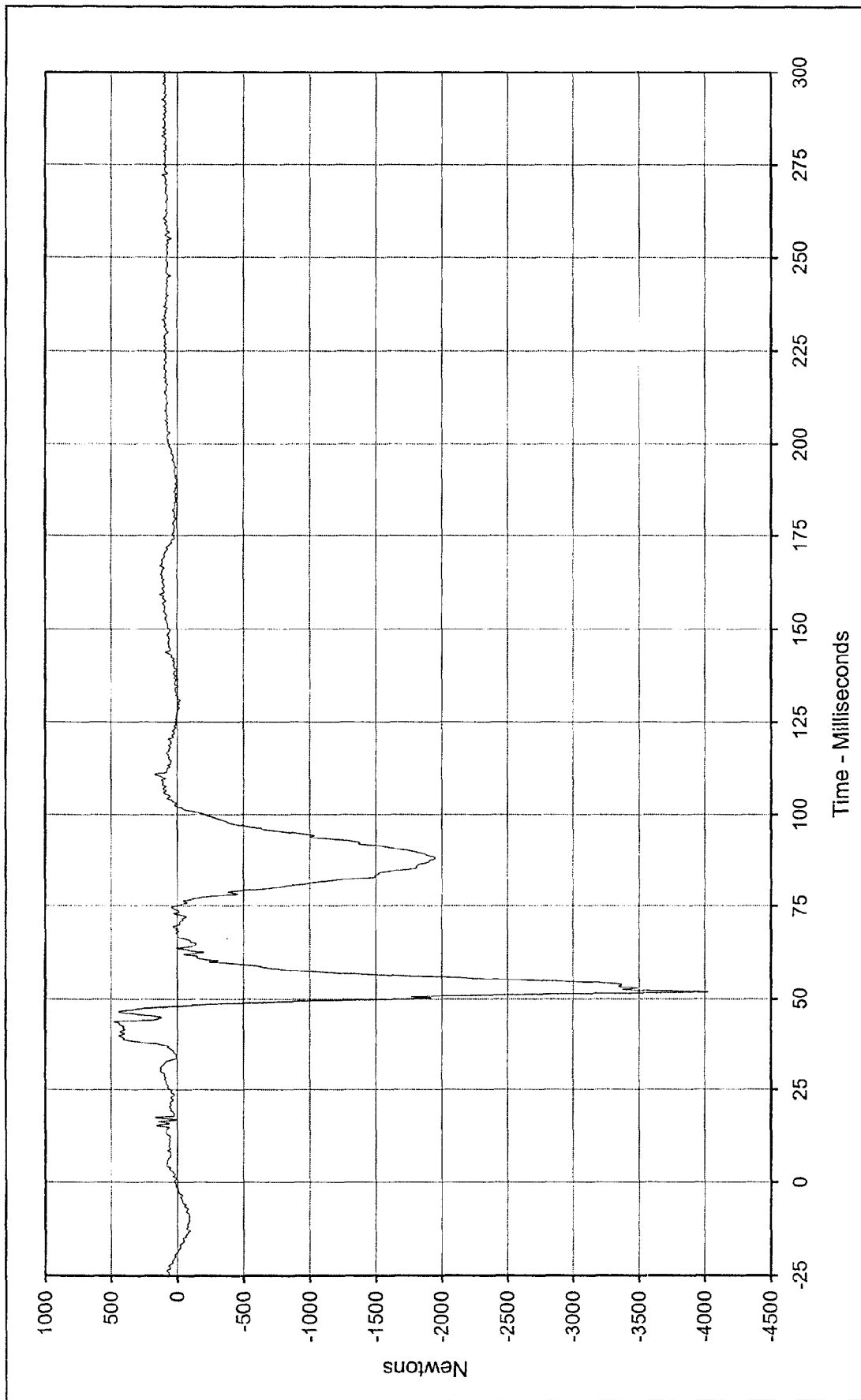
SAE Filter Class:	600
Date of Test:	2/20/98
Curve Number:	FIL-031



Curve Description: Driver Right Lower Tibia Force X
 Maximum Value: 93.3 at 103.8 Milliseconds
 Minimum Value: -1498.3 at 53.4 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-032

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

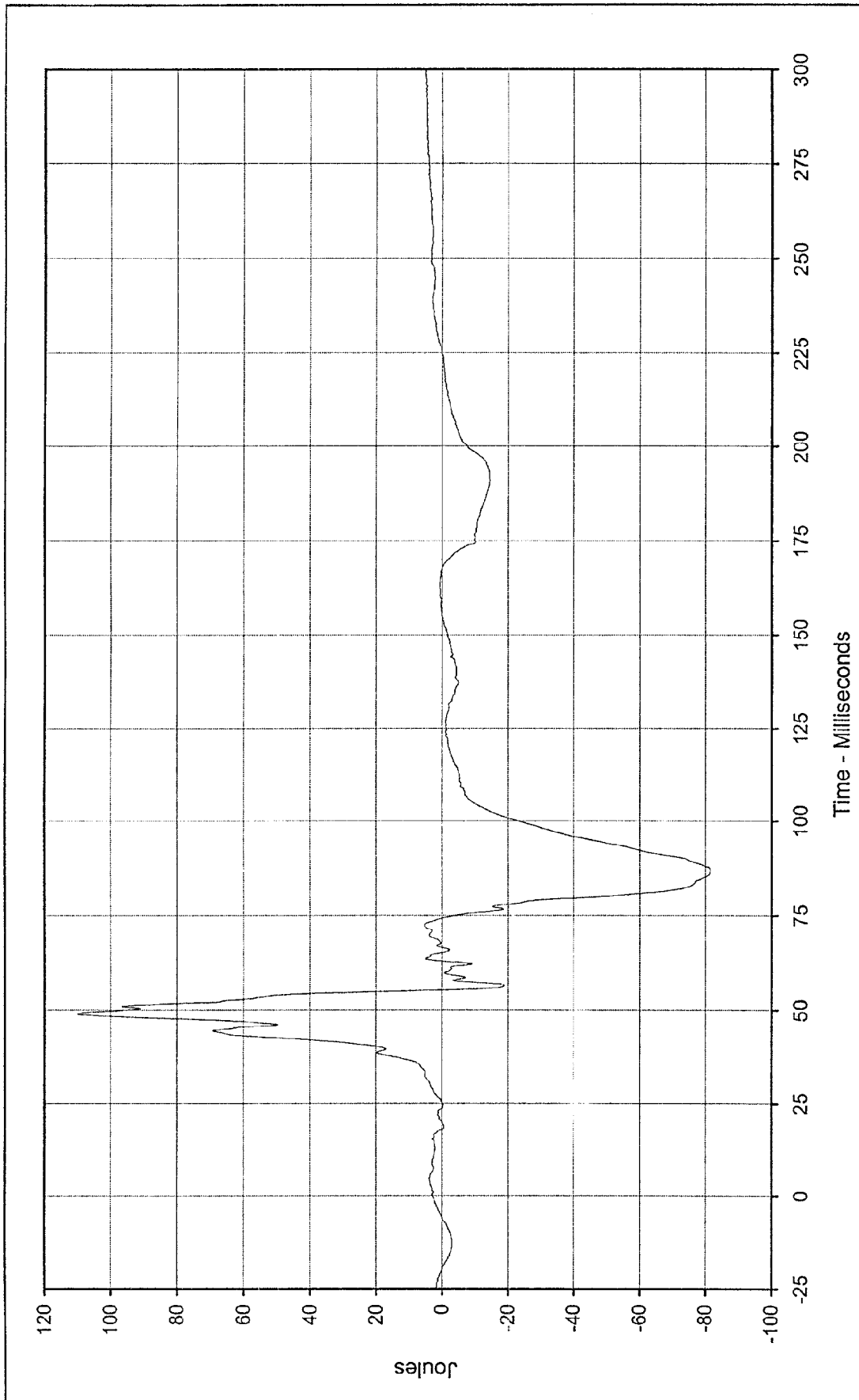




Curve Description:	Driver Right Lower Tibia Force Z	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	477.9	at	43.7	Milliseconds
Minimum Value:	-4020.4	at	51.9	Milliseconds
SAE Filter Class:	600			
Date of Test:	2/20/98			
Curve Number:	FIL-033			
		Test Vehicle:	1998 Honda CRV SUV	

The logo for KARCO Engineering. It features the word "KARCO" in a large, bold, sans-serif font. To the left of the "K" is a stylized lightbulb icon. To the right of "KARCO" is a circular emblem containing a cross-like pattern. Below "KARCO" is the word "Engineering" in a smaller, italicized, sans-serif font. The entire logo is set against a dark background with a diagonal line.

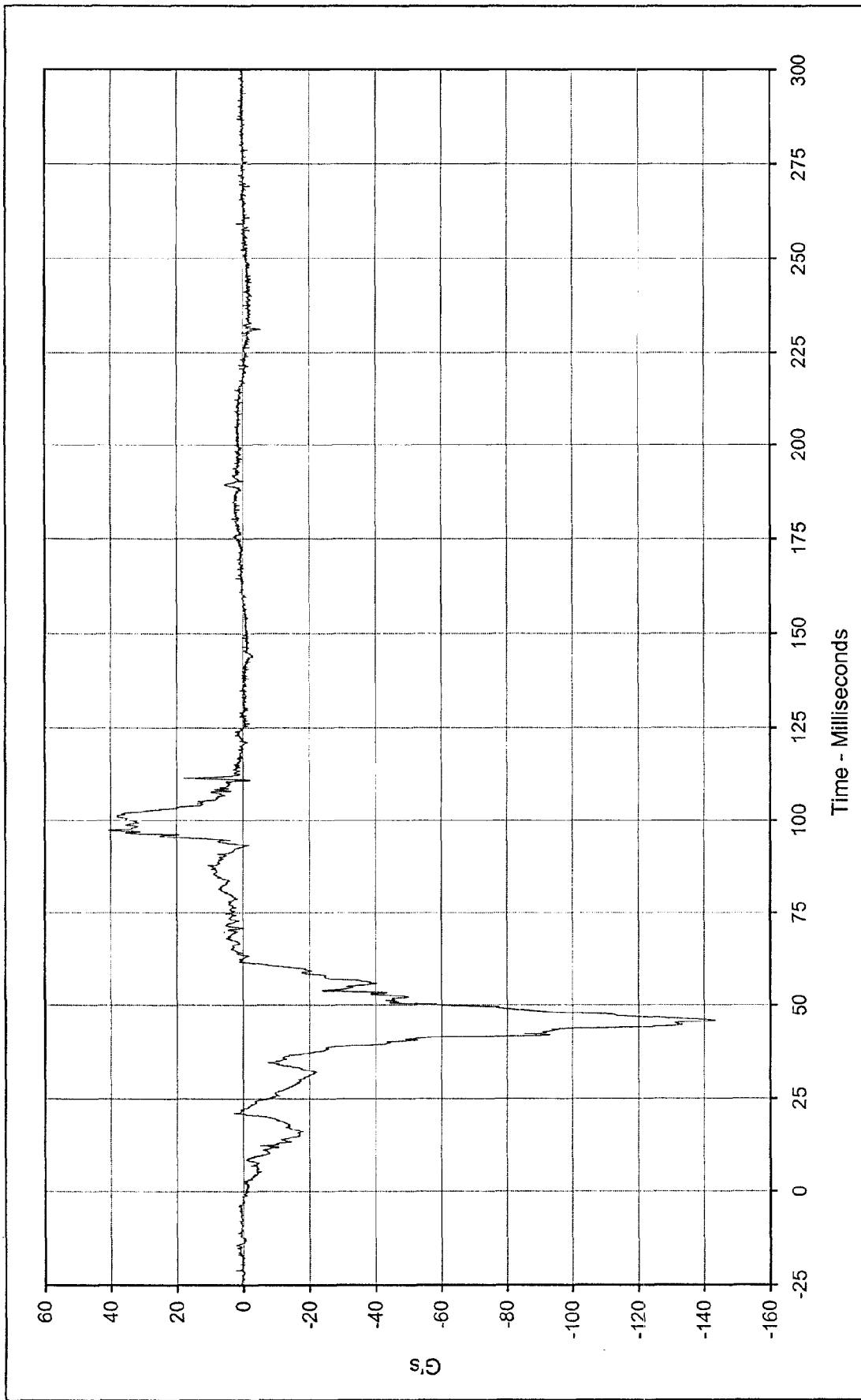




Curve Description: Driver Right Lower Tibia Moment Y
 Maximum Value: 110.0 at 49.0 Milliseconds
 Minimum Value: -81.6 at 87.0 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-034

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

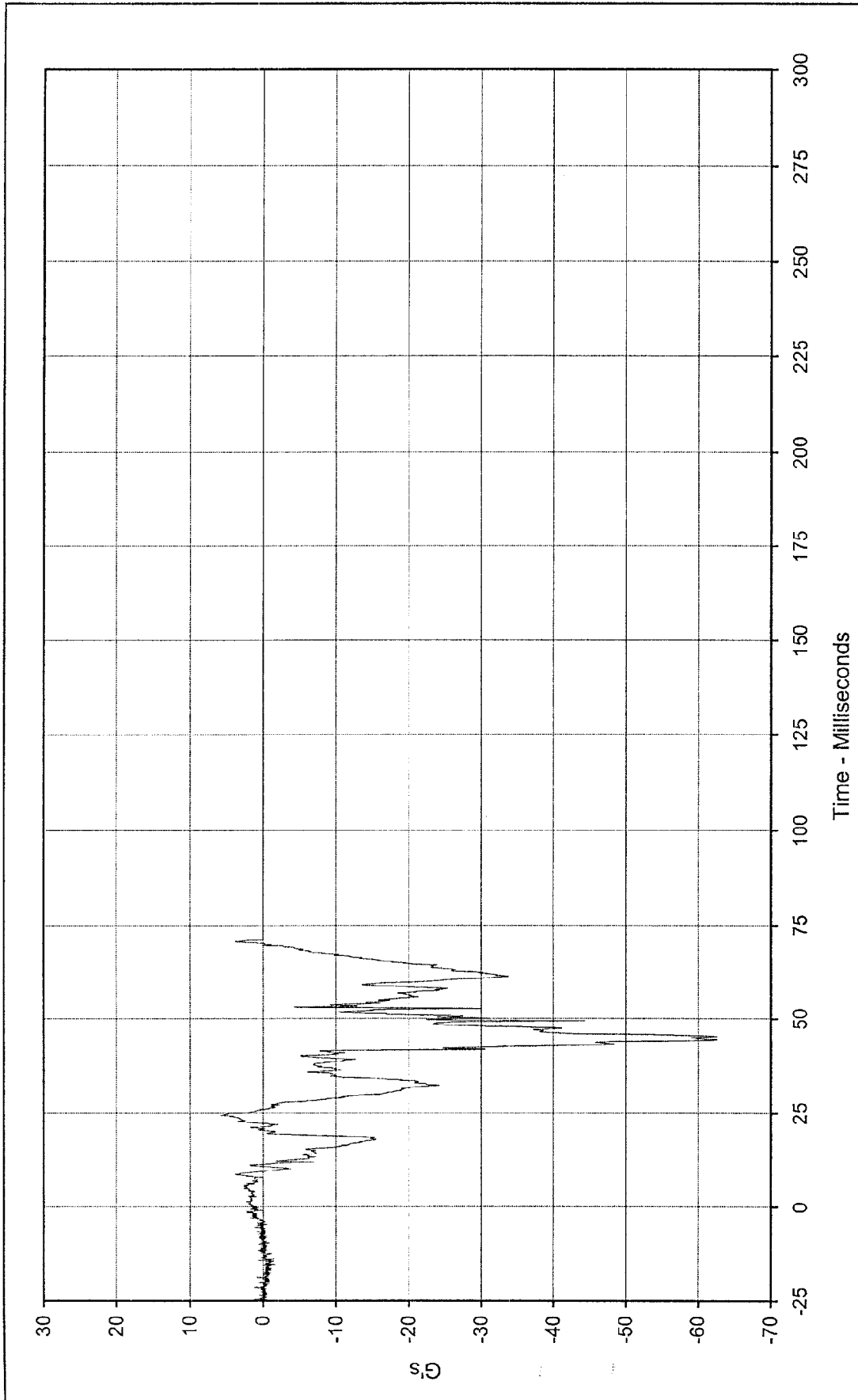




Curve Description: Driver Left Foot Aft X
 Maximum Value: 40.9 at 97.4 Milliseconds
 Minimum Value: -143.3 at 45.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-035

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Driver Left Foot Aft Z * Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 5.8 at 24.4 Milliseconds

Minimum Value: -62.6 at 44.2 Milliseconds

SAE Filter Class: 1000

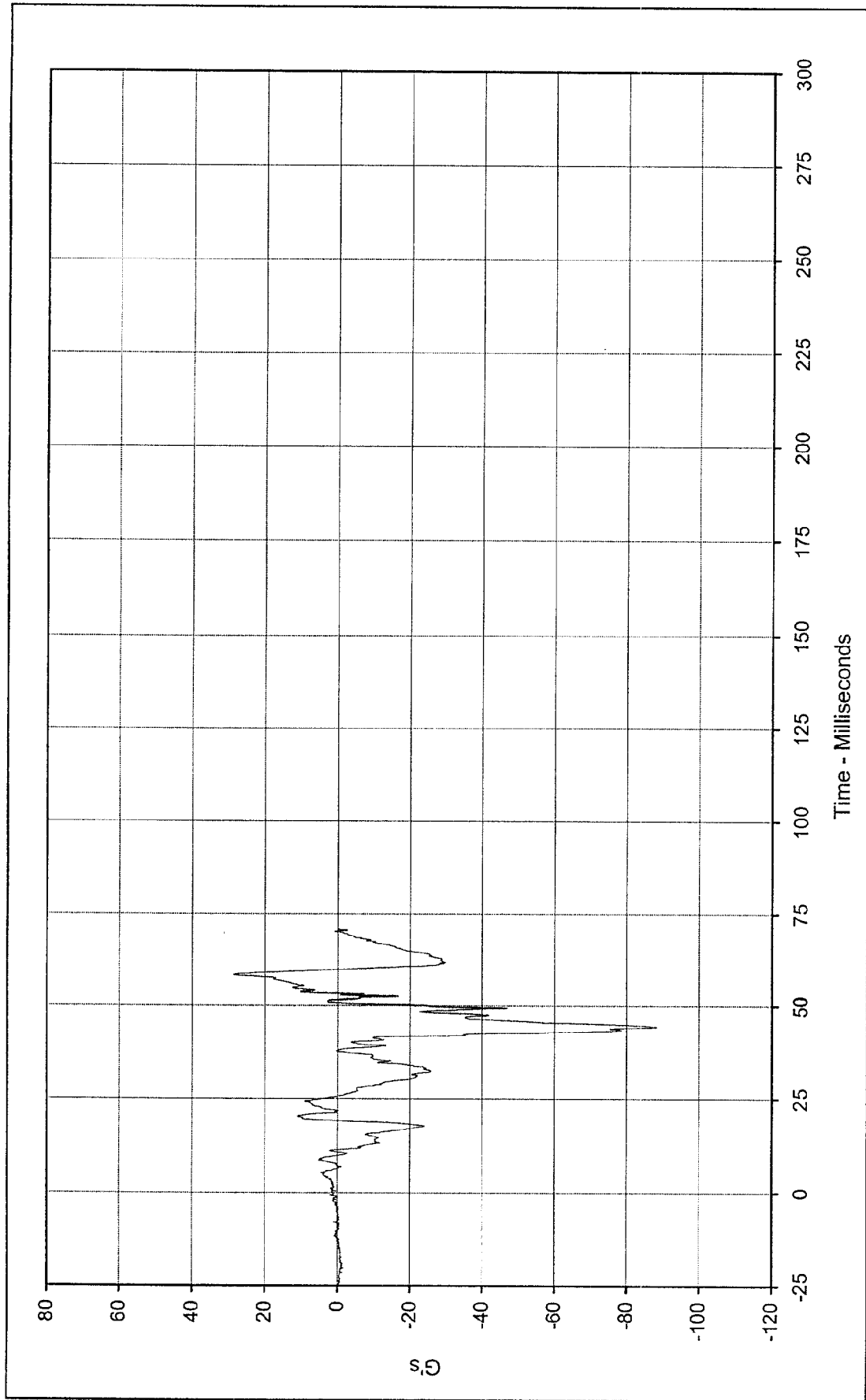
Date of Test: 2/20/98

Curve Number: FIL-036

Test Vehicle: 1998 Honda CRV SUV



*Channel Failed at 71.0 Msec.

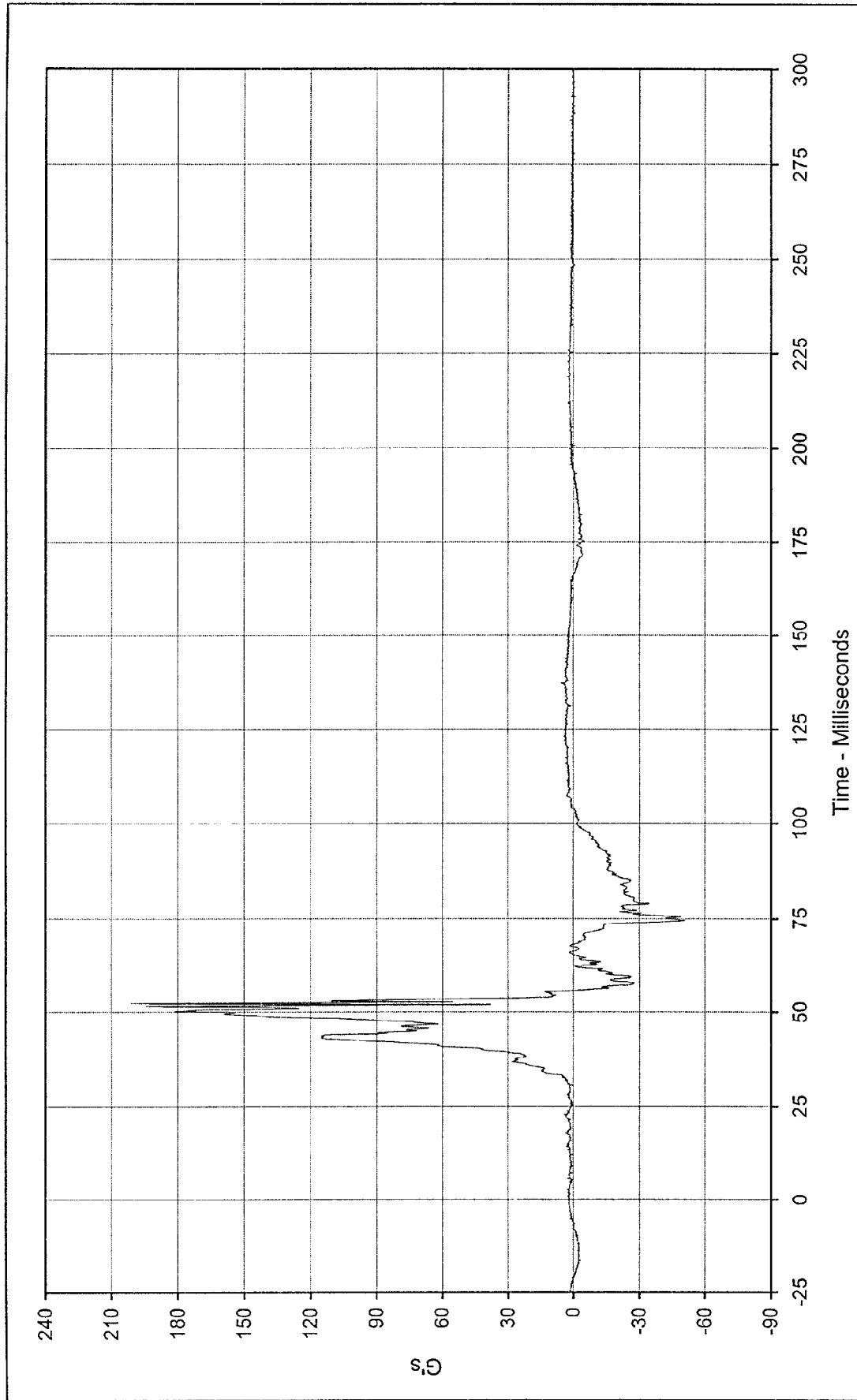


Curve Description: Driver Left Foot Fore Z *
 Maximum Value: 28.6 at 58.6 Milliseconds
 Minimum Value: -88.4 at 44.1 Milliseconds



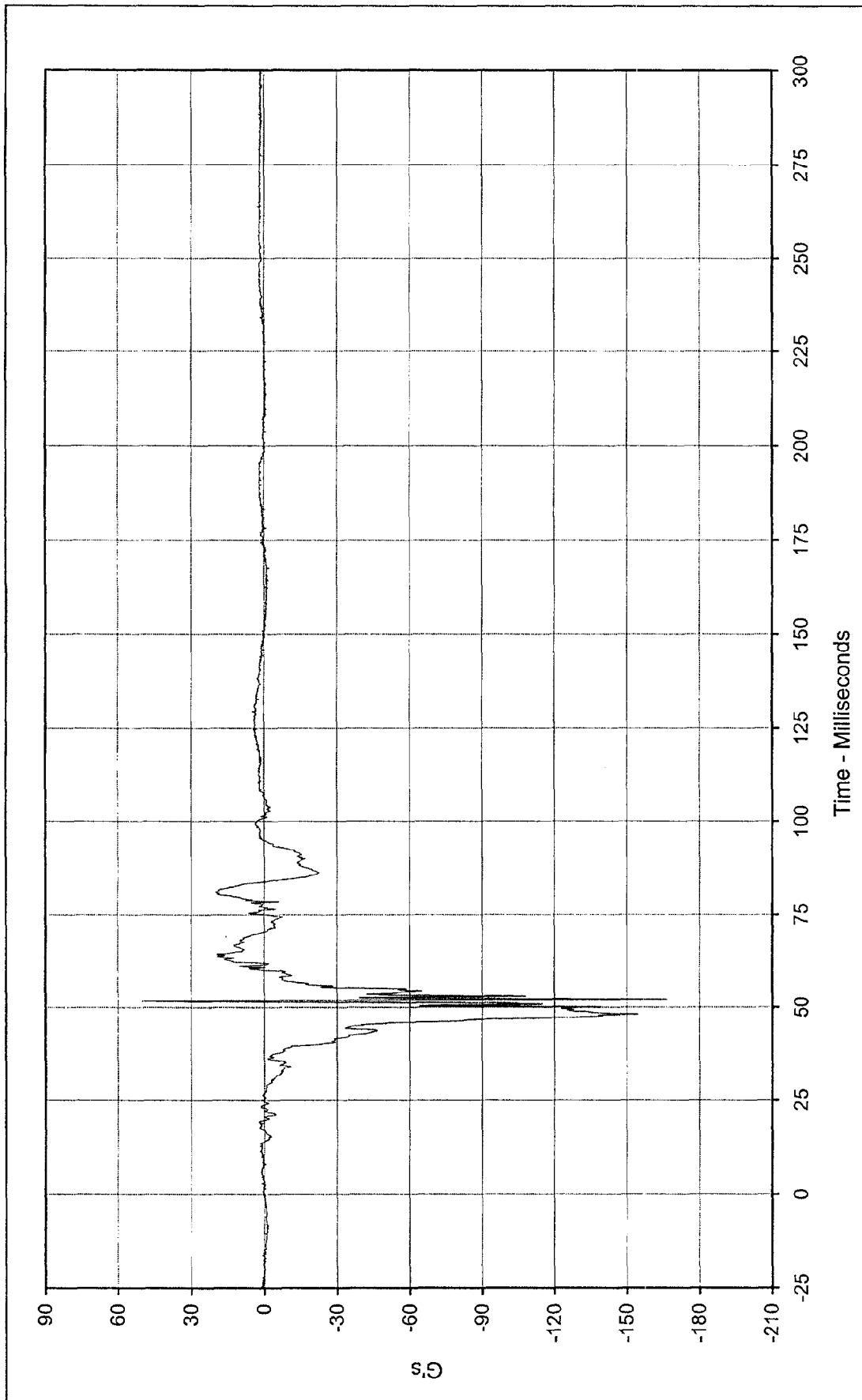
SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-037

*Channel Failed at 71.0 Msec.



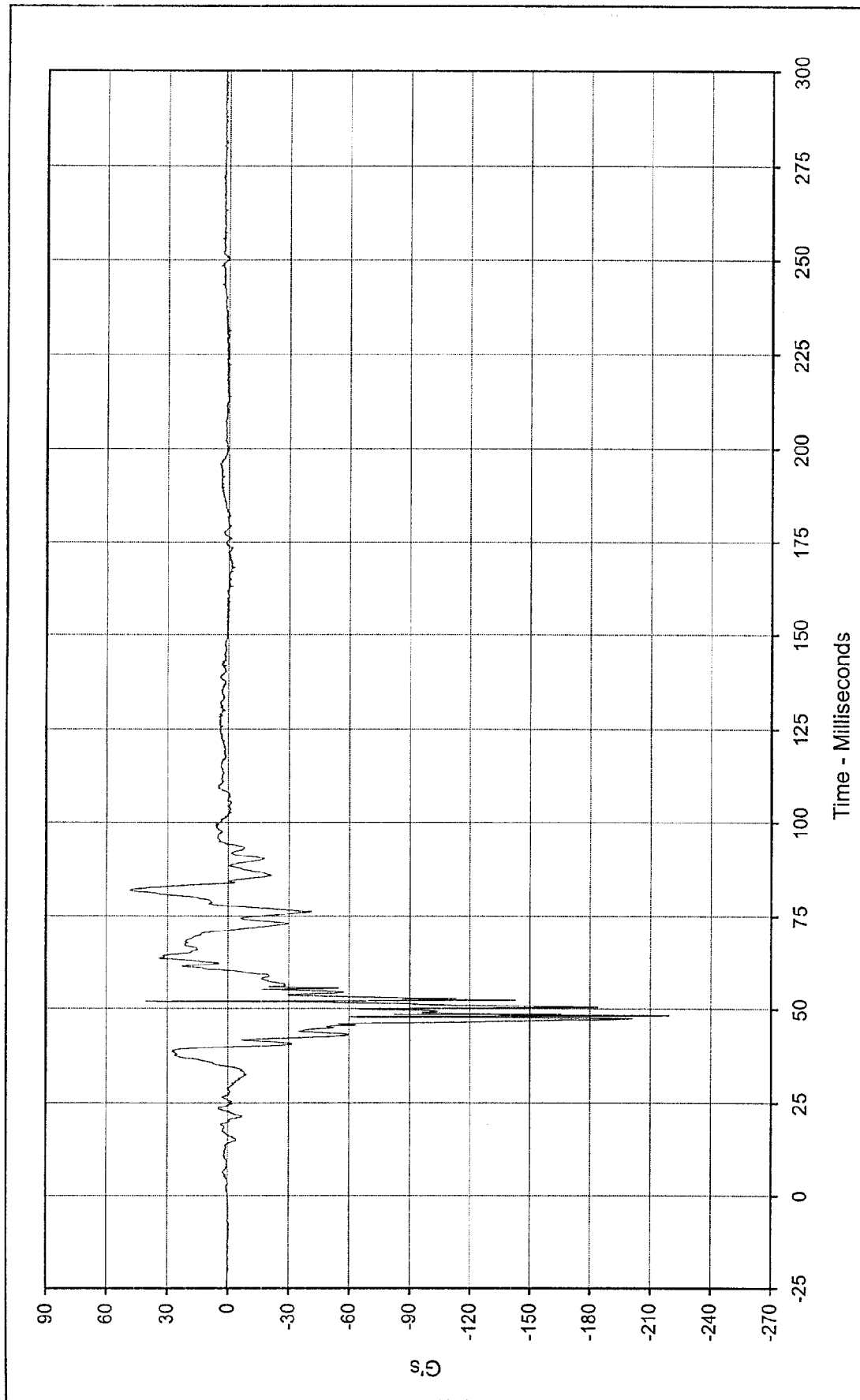
Curve Description:	Driver Right Foot Aft X	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	200.6 at 52.3 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-50.7 at 74.5 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	2/20/98			
Curve Number:	FIL-038			





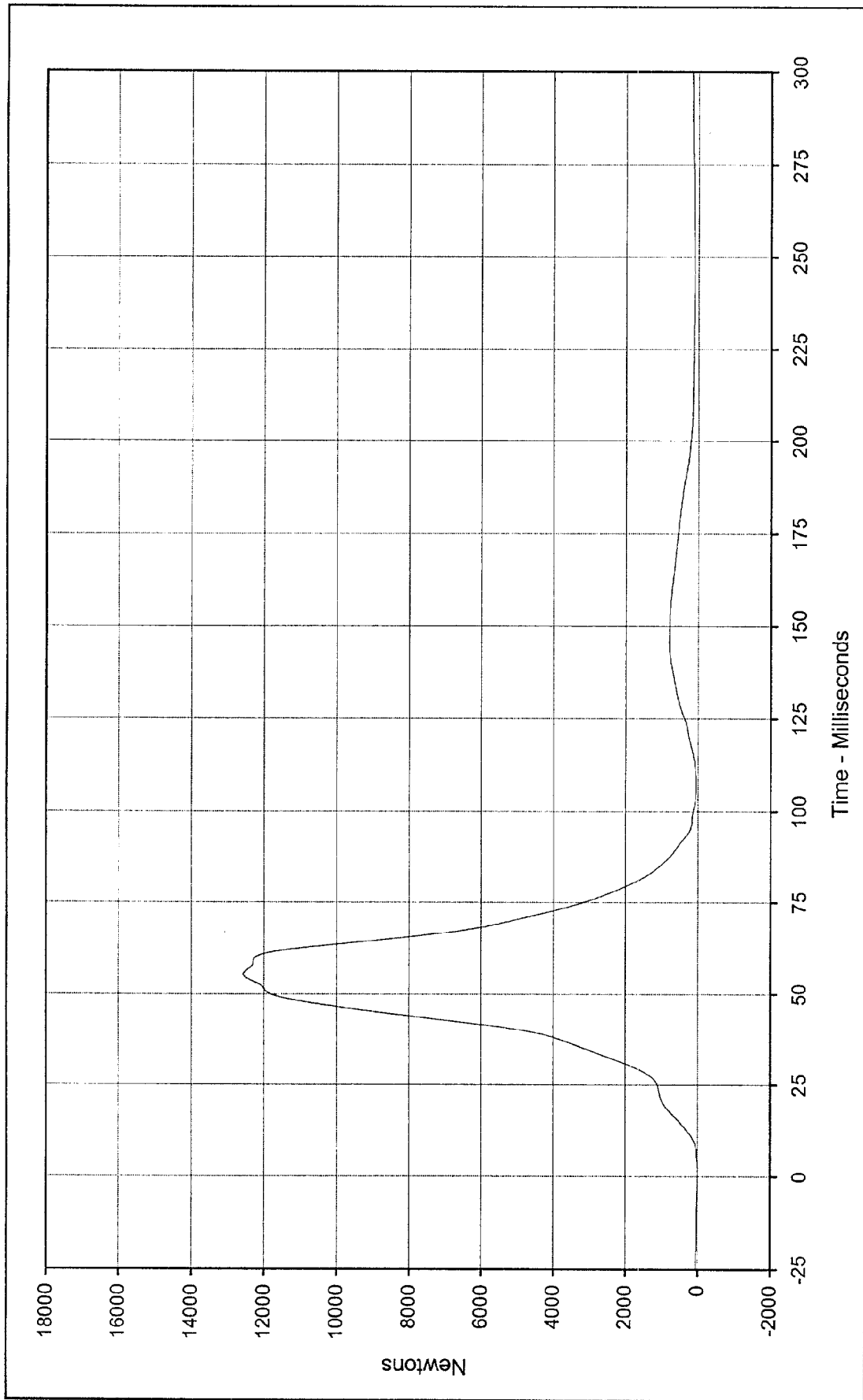
Curve Description:	Driver Right Foot Aft Z	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	50.1 at 51.8 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-165.3 at 52.2 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	2/20/98			
Curve Number:	FIL-039			





Curve Description:	Driver Right Foot Fore Z	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	48.3 at 81.7 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-219.1 at 48.3 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	2/20/98			
Curve Number:	FIL-040			

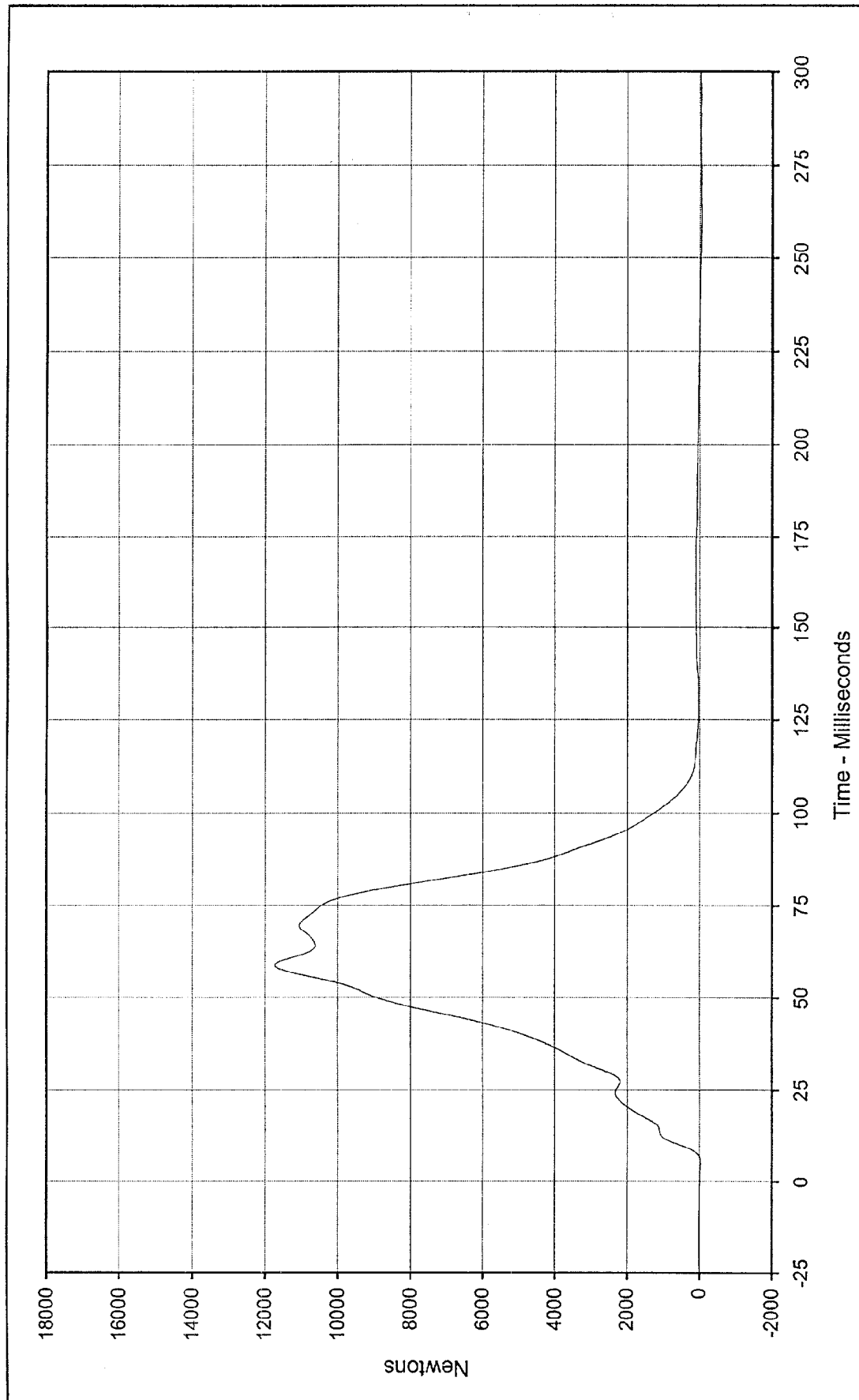




Curve Description: Driver Lap Belt Force
 Maximum Value: 12568.9 at 55.4 Milliseconds
 Minimum Value: -9.9 at 1.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-041

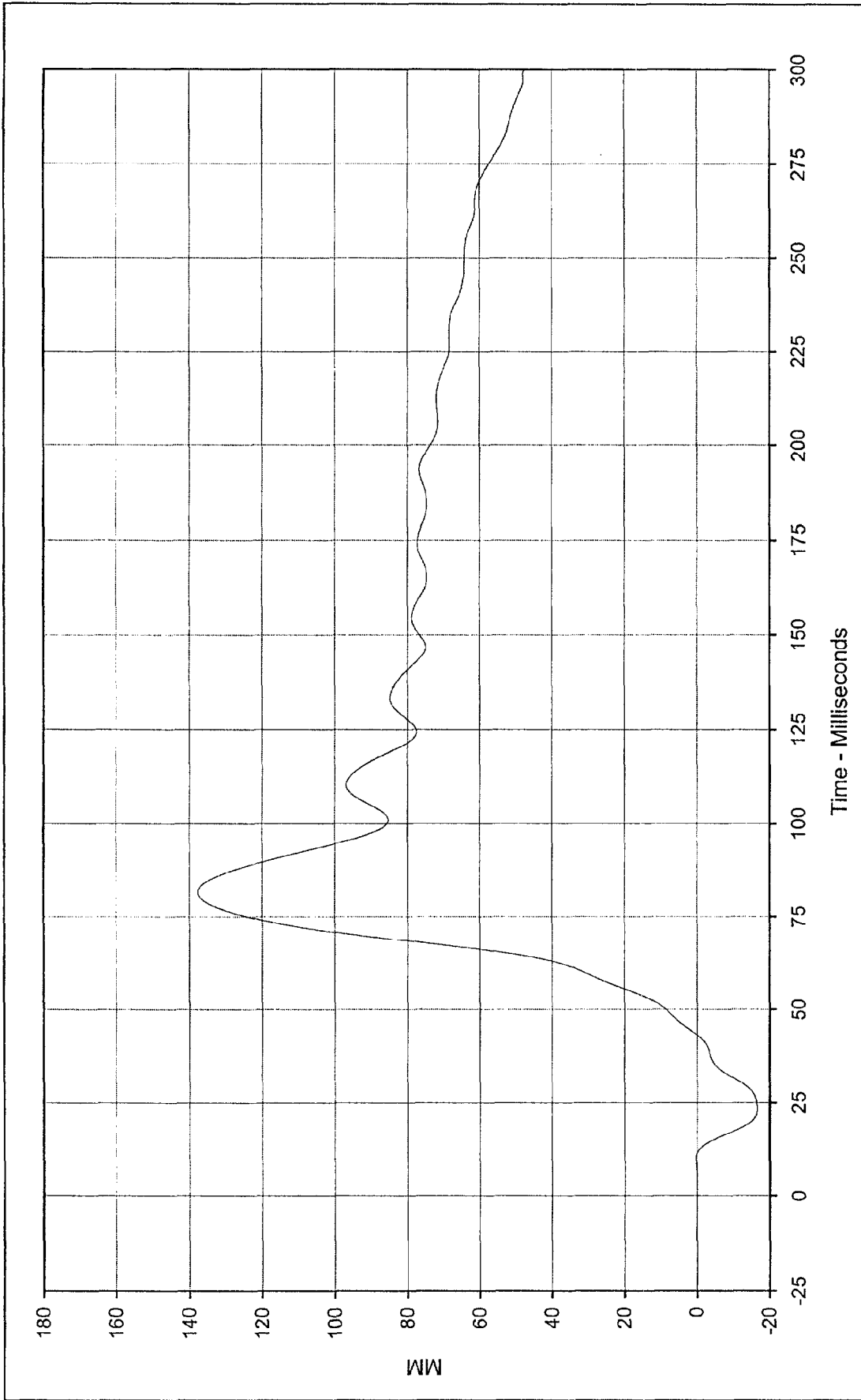
Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description:	Driver Shoulder Belt Force	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	11734.1 at 58.7 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-55.5 at 261.6 Milliseconds			
SAE Filter Class:	60			
Date of Test:	2/20/98			
Curve Number:	FIL-042			

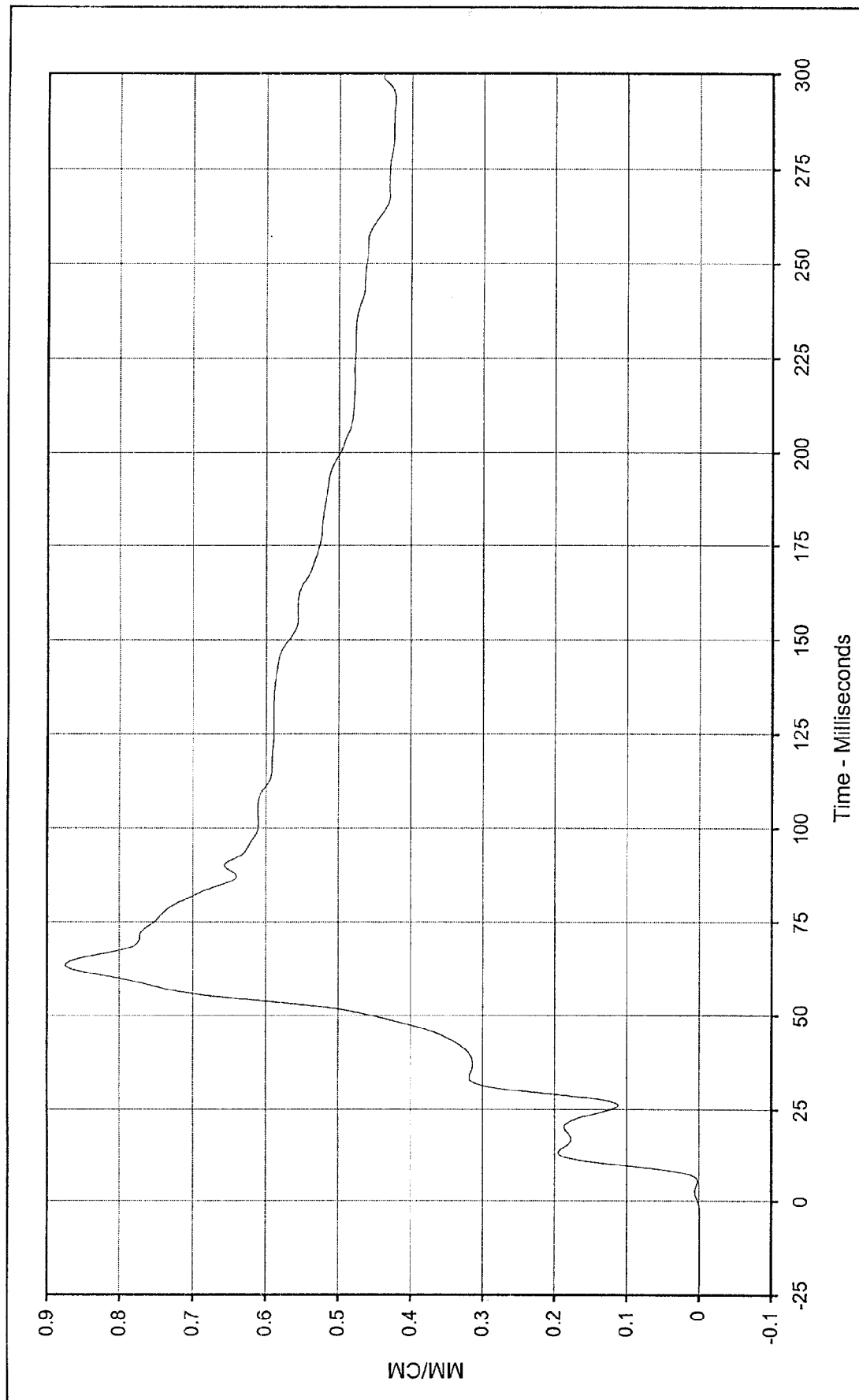




Curve Description: Driver Shoulder Belt Pullout
 Maximum Value: 137.7 at 81.6 Milliseconds
 Minimum Value: -16.6 at 23.2 Milliseconds
 SAE Filler Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-043

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

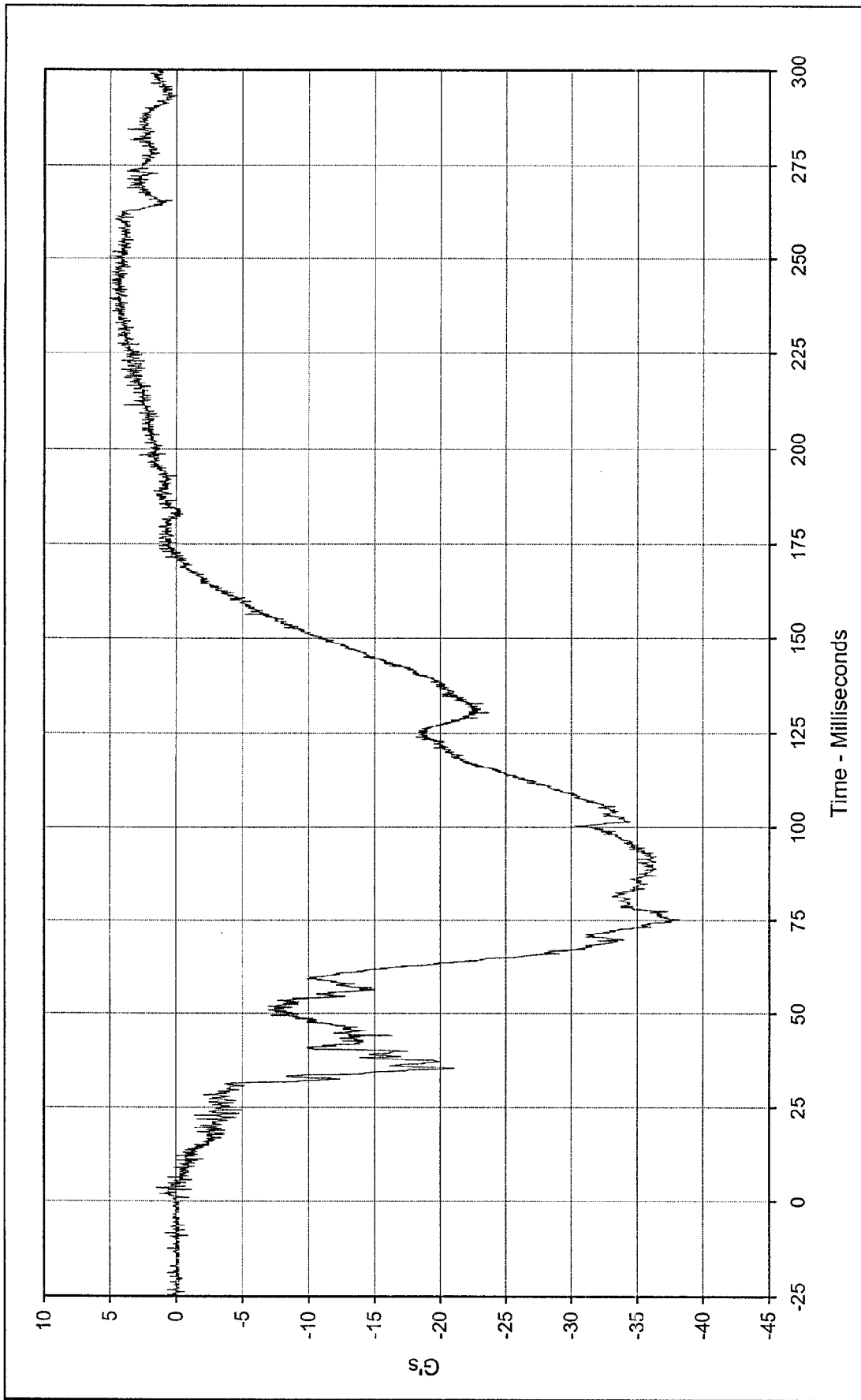




Curve Description: Driver Shoulder Belt Elongation
 Maximum Value: 0.87 at 63.4 Milliseconds
 Minimum Value: 0.00 at 5.5 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-044

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

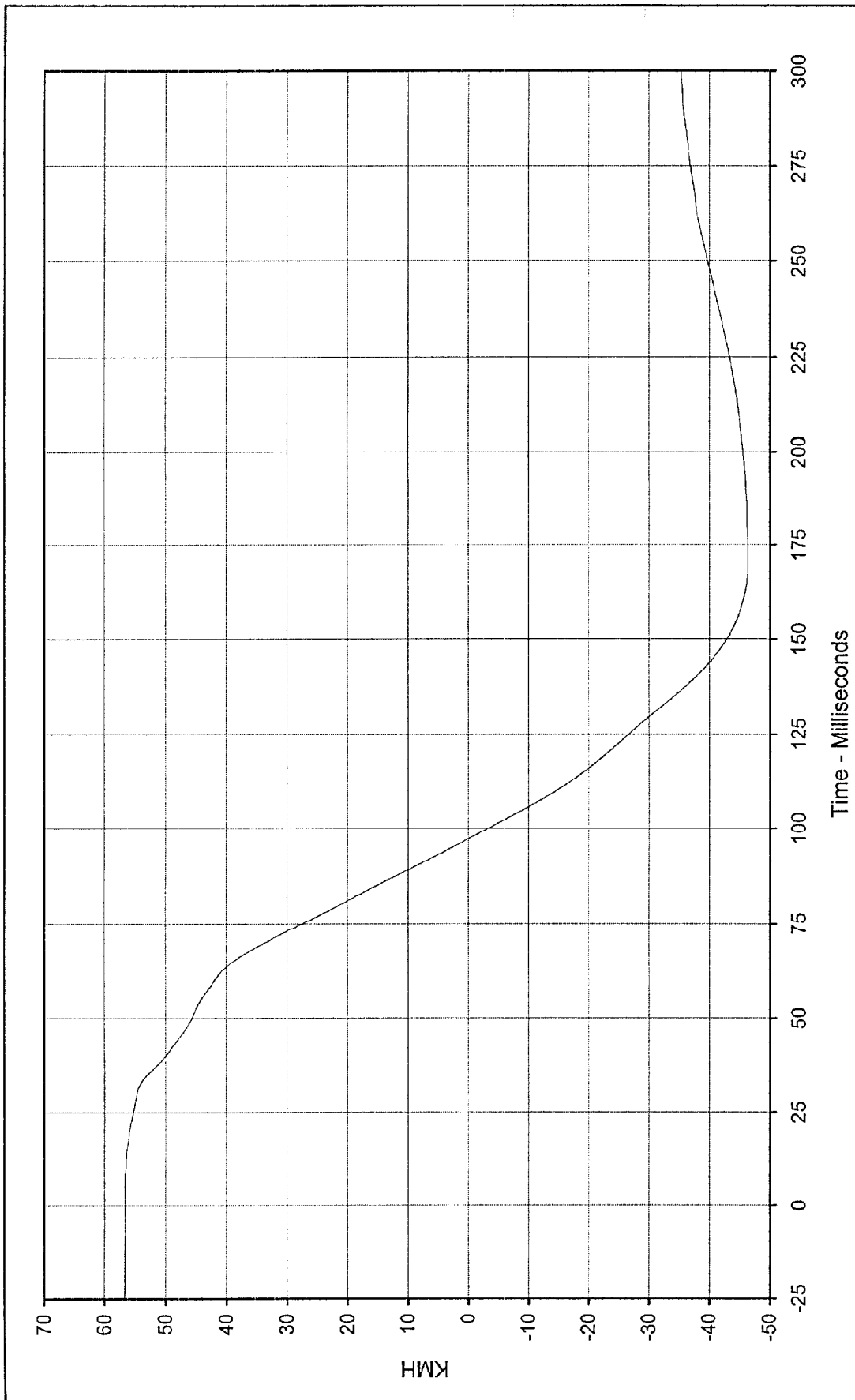




Curve Description: Passenger Head Primary X
 Maximum Value: 5.1 at 239.5 Milliseconds
 Minimum Value: -38.2 at 75.2 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-045

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

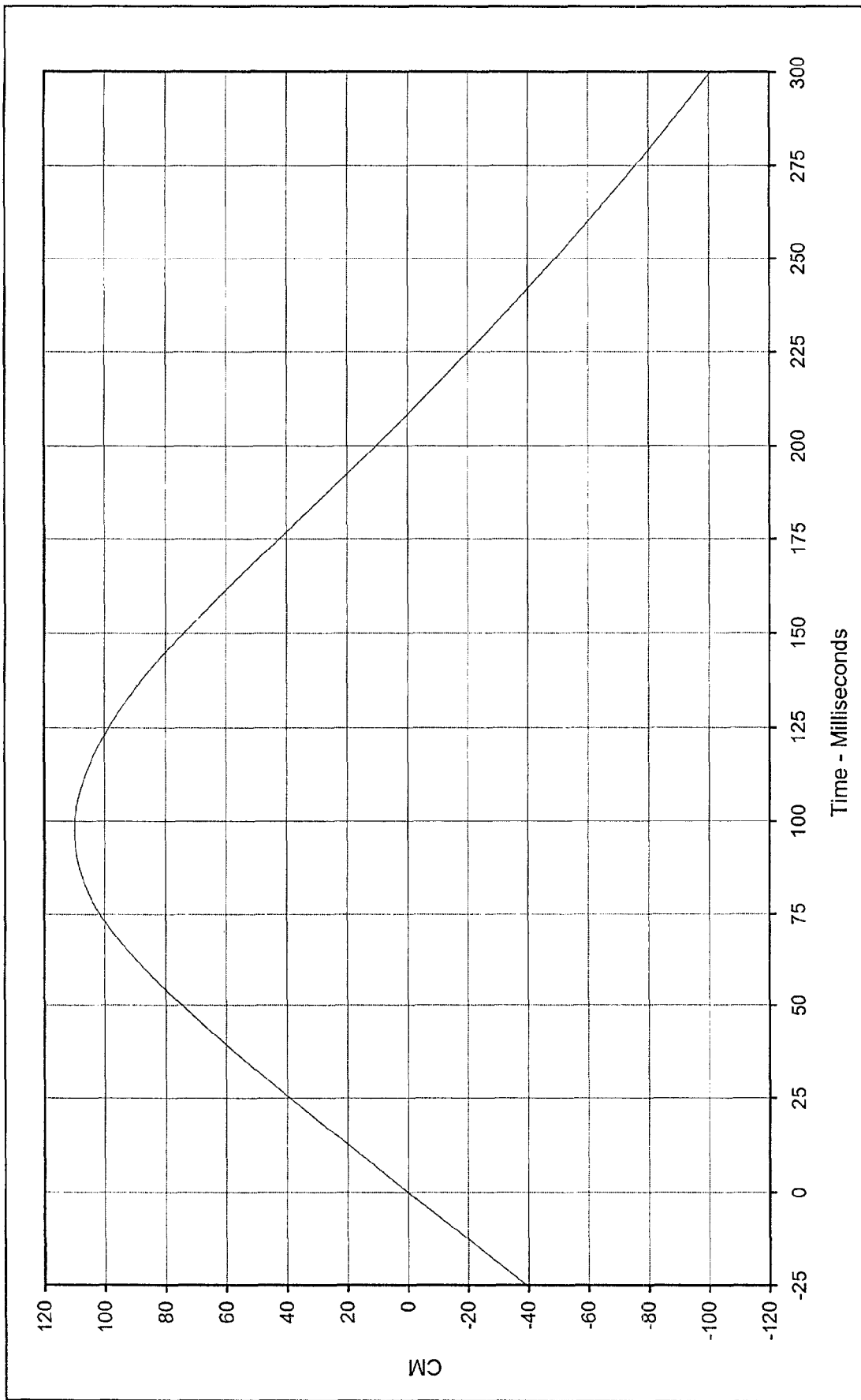




Curve Description: Passenger Head Primary X Velocity
 Maximum Value: 56.7 at 4.5 Milliseconds
 Minimum Value: -46.4 at 171.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-045

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

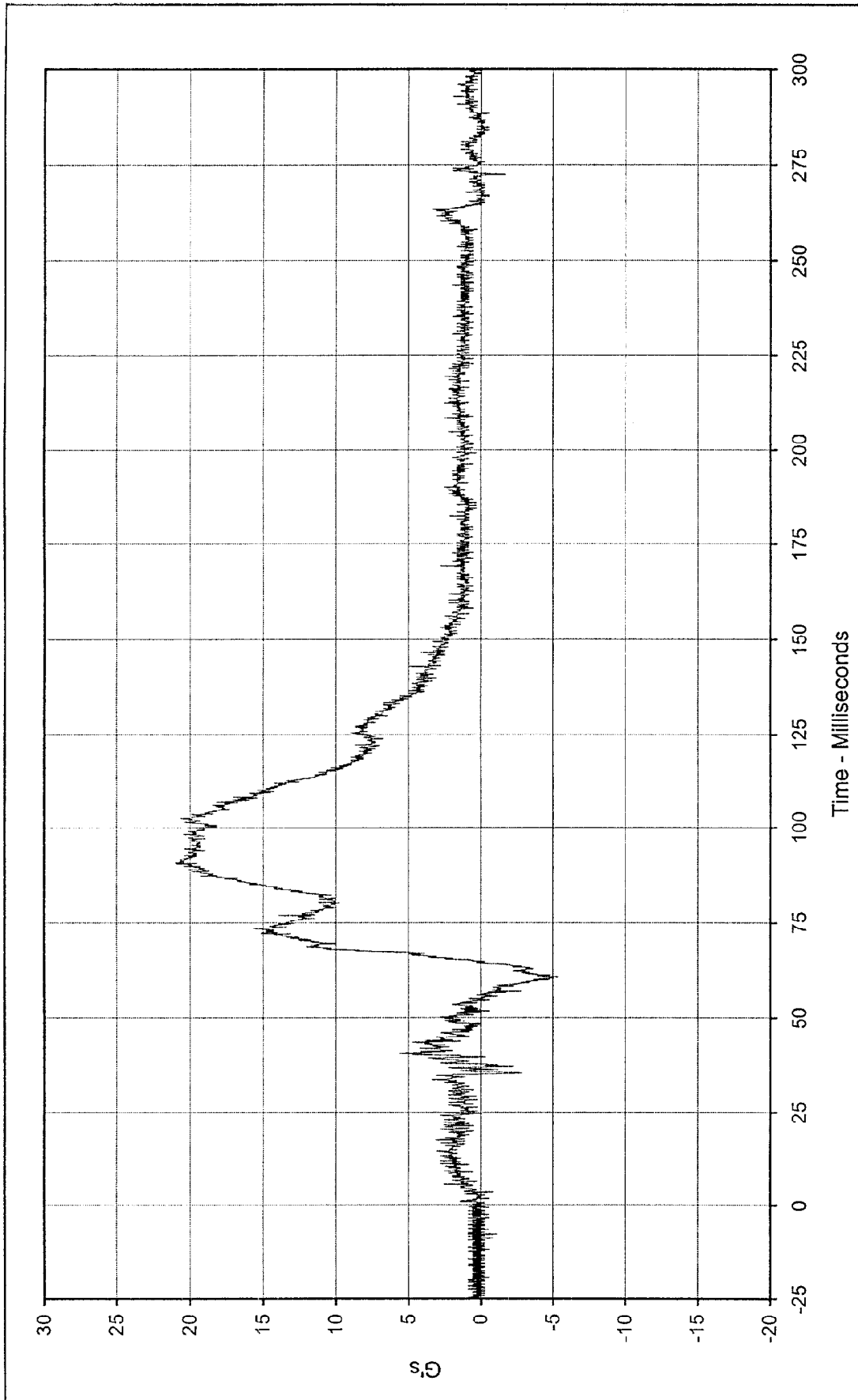




Curve Description: Passenger Head Primary X Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Maximum Value: 110.0 at 97.1 Milliseconds Test Vehicle: 1998 Honda CRV SUV
Minimum Value: -100.5 at 299.9 Milliseconds



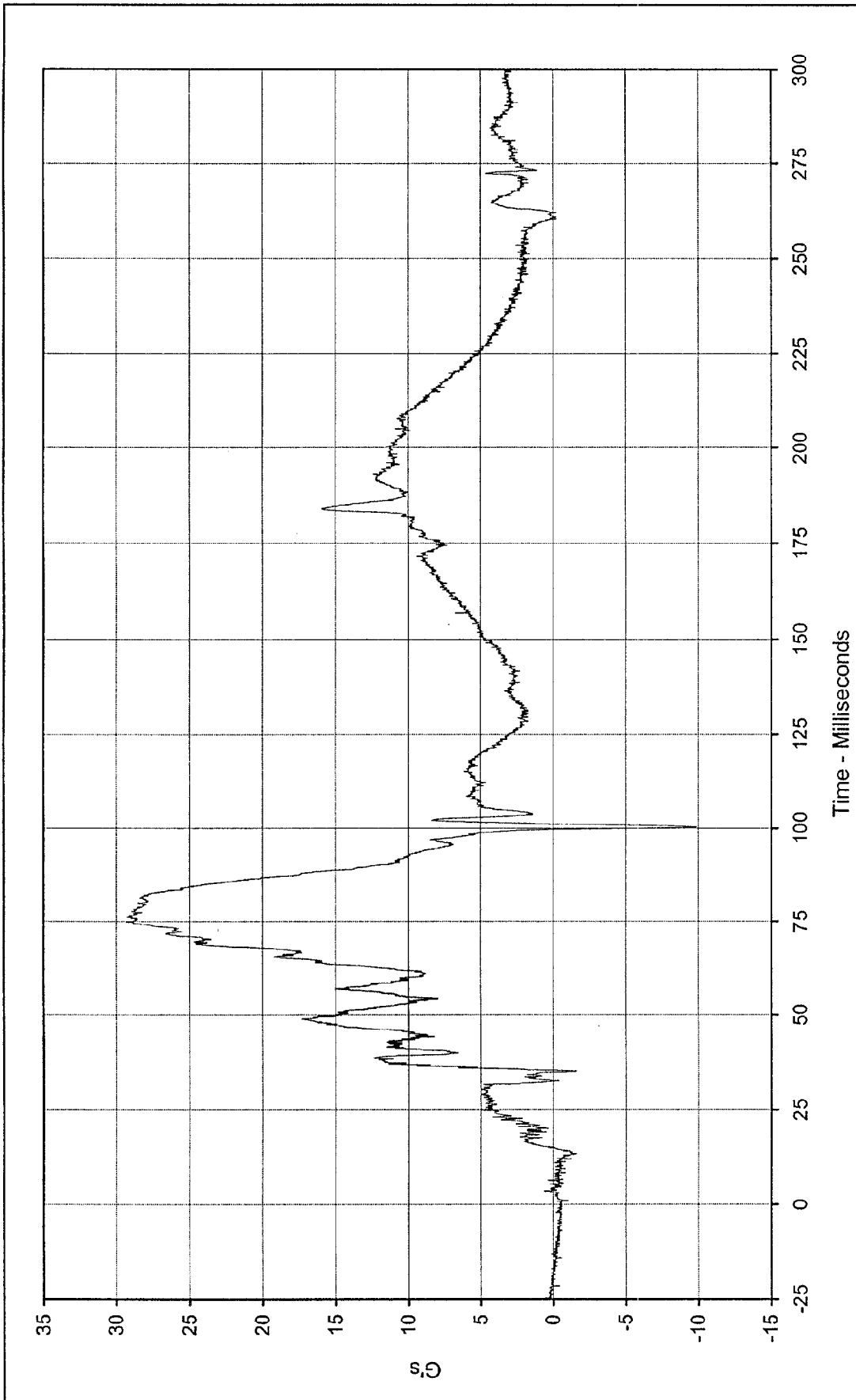
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN2-045



Curve Description: Passenger Head Primary Y
 Maximum Value: 21.0 at 90.3 Milliseconds
 Minimum Value: -5.3 at 60.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-046

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

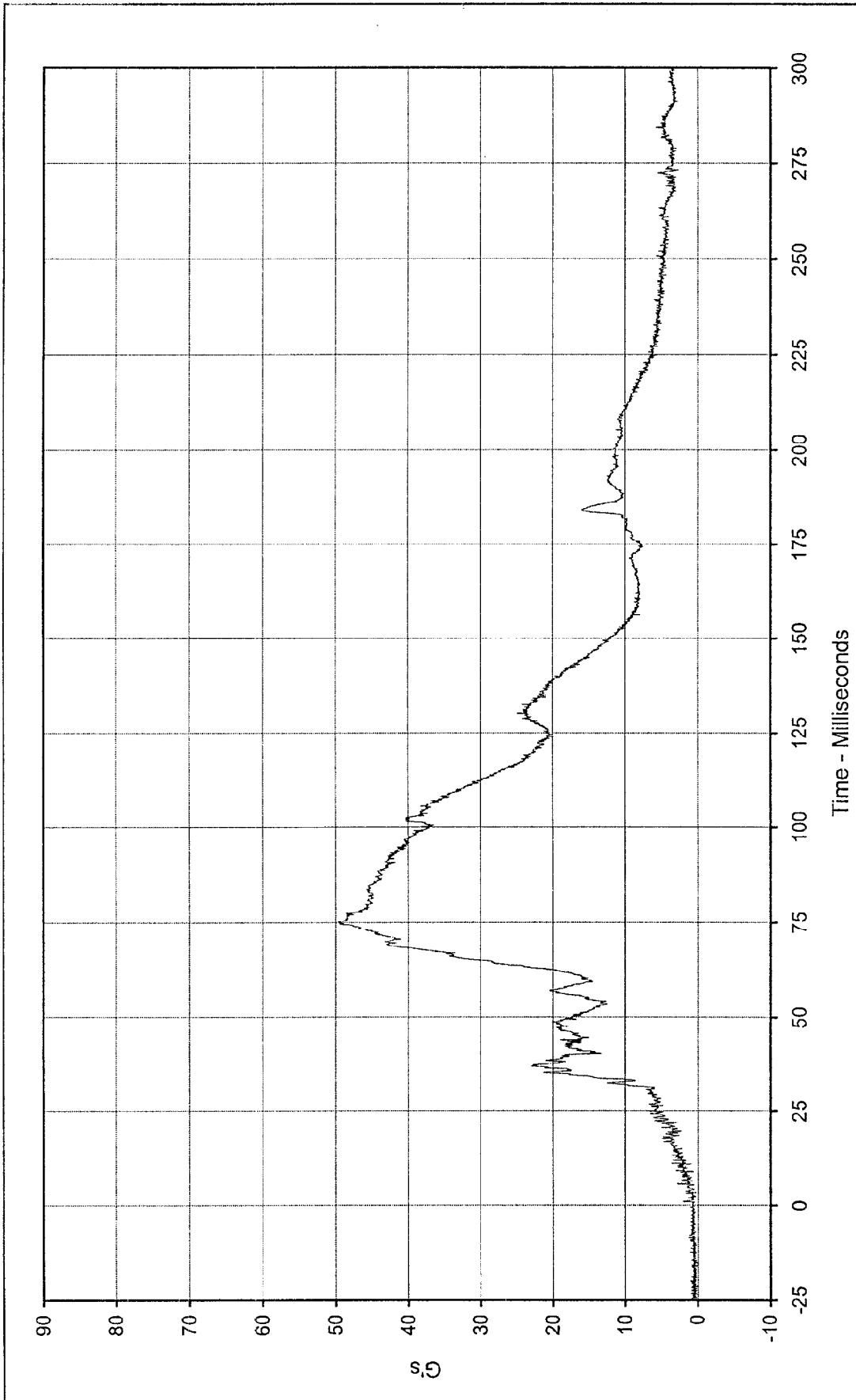




Curve Description: Passenger Head Primary Z
 Maximum Value: 29.3 at 74.8 Milliseconds
 Minimum Value: -9.9 at 100.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-047

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

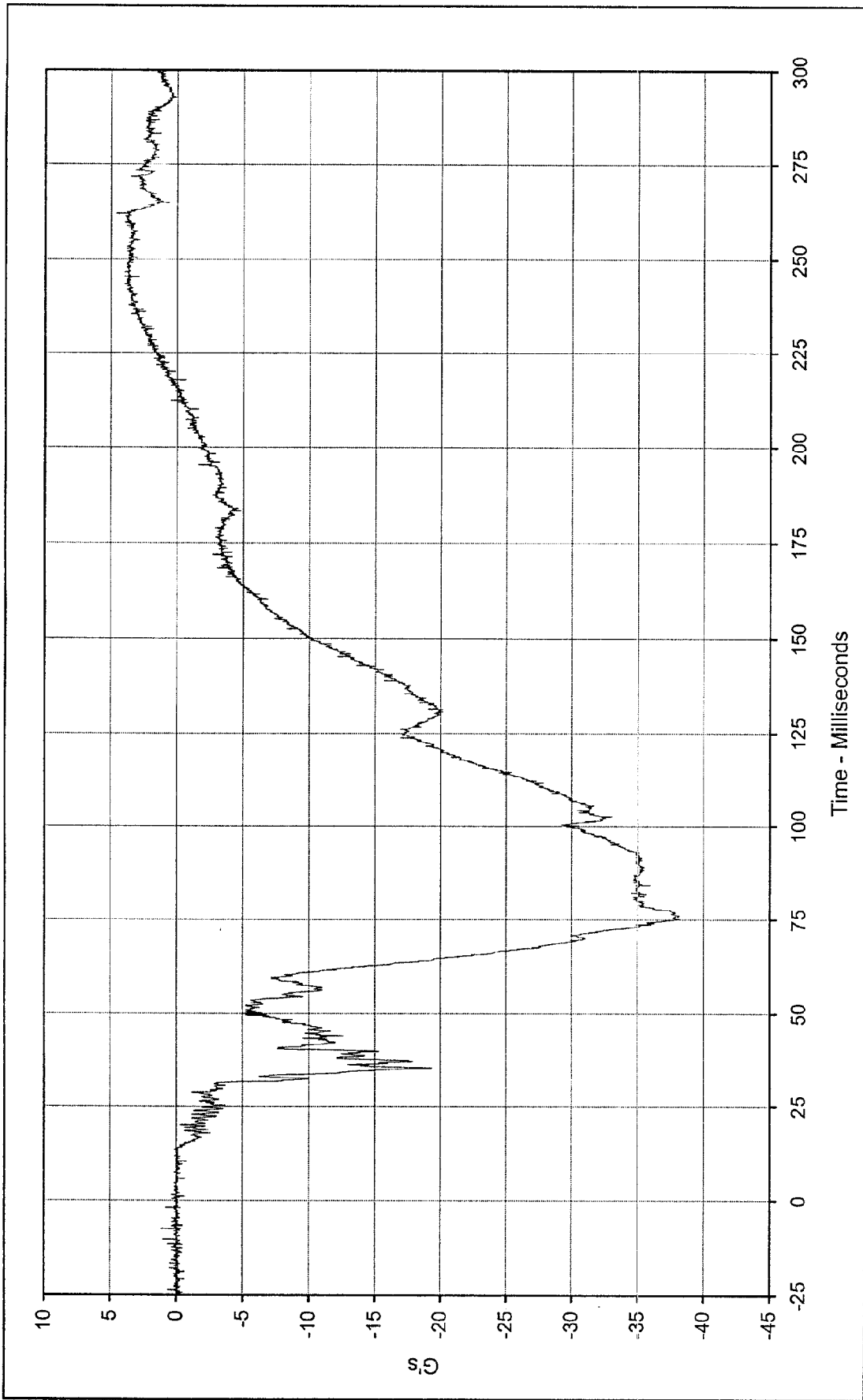




Curve Description: Passenger Head Resultant Primary
 Maximum Value: 49.7 at 75.2 Milliseconds
 Minimum Value: 0.3 at 3.1 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: RES-045

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

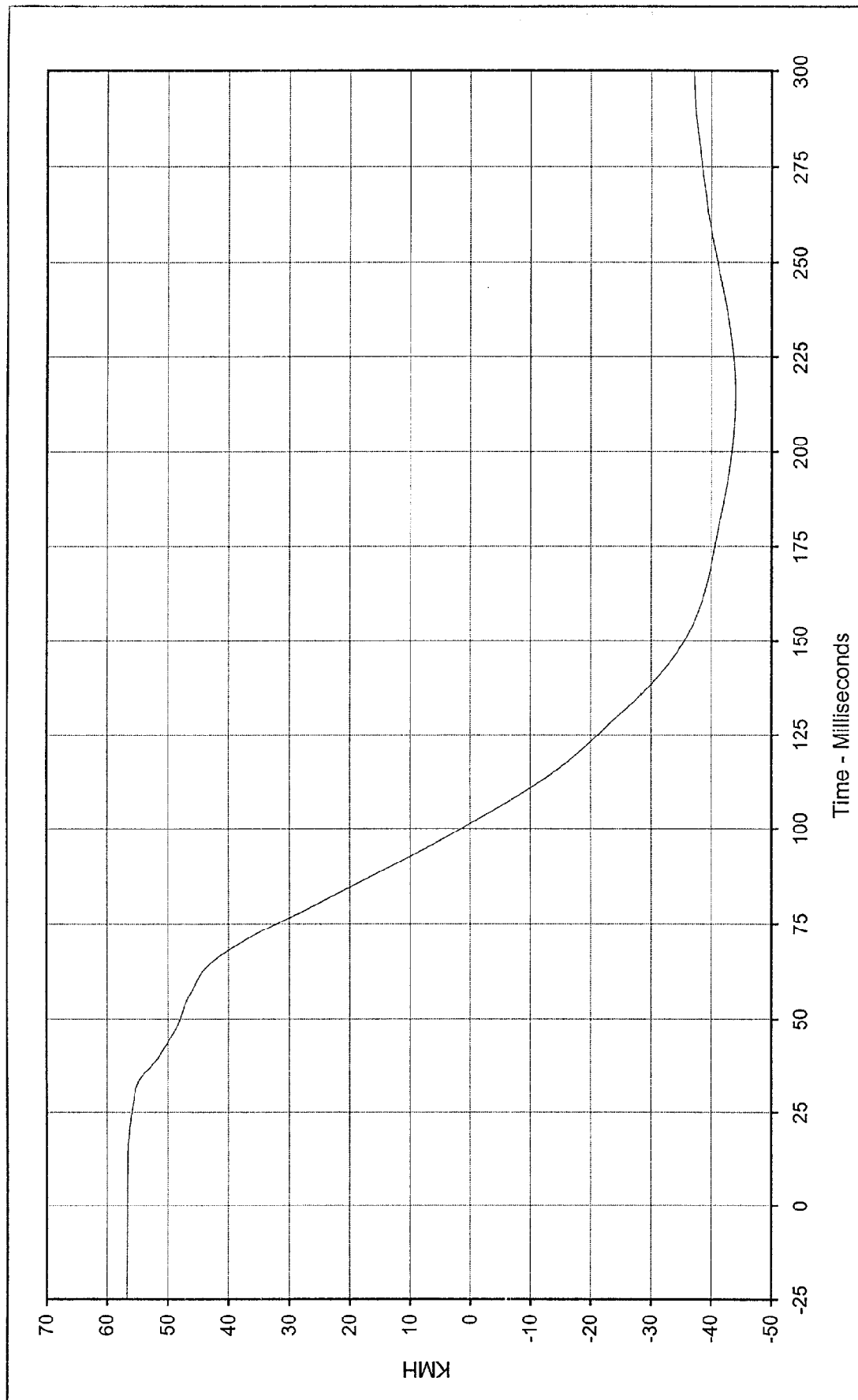




Curve Description: Passenger Head Redundant X
 Maximum Value: 4.6 at 262.0 Milliseconds
 Minimum Value: -38.2 at 75.1 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-048

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Head Redundant X Velocity

Maximum Value: 56.6 at 0.0 Milliseconds

Minimum Value: -44.0 at 215.6 Milliseconds

SAE Filter Class: 180

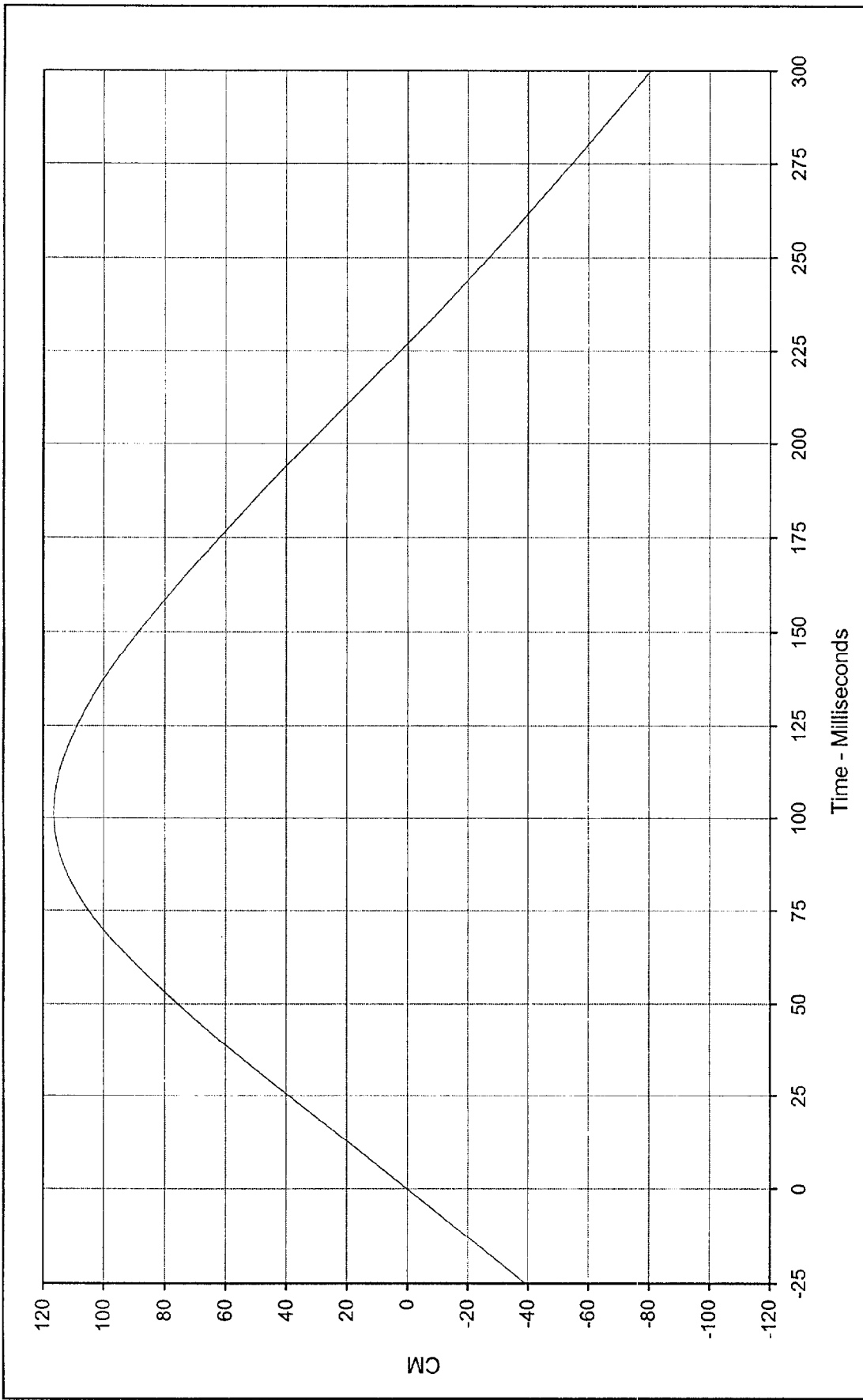
Date of Test: 2/20/98

Curve Number: IN1-048

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

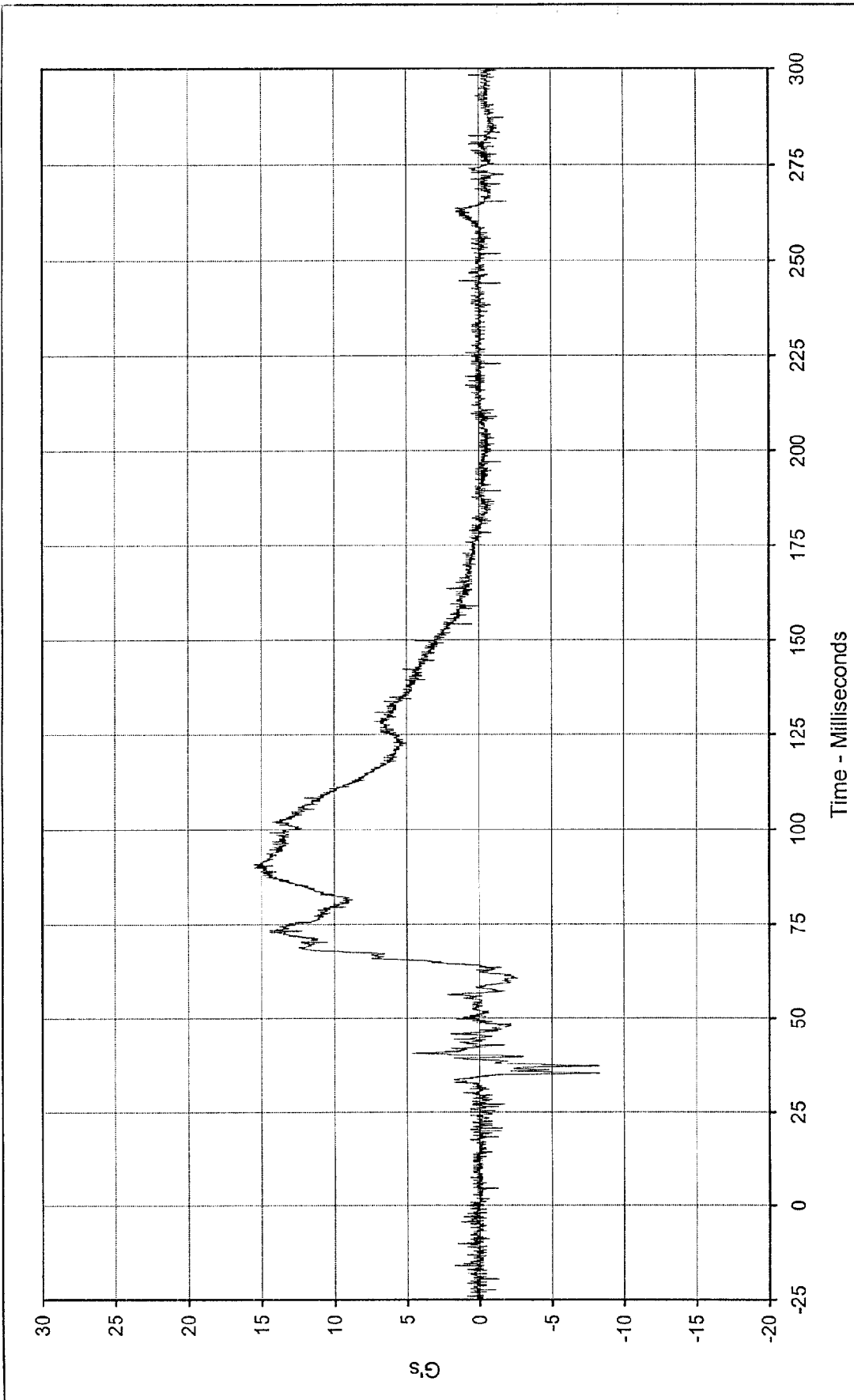




Curve Description: Passenger Head Redundant X Displ.
 Maximum Value: 116.4 at 101.4 Milliseconds
 Minimum Value: -80.6 at 299.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN2-048

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

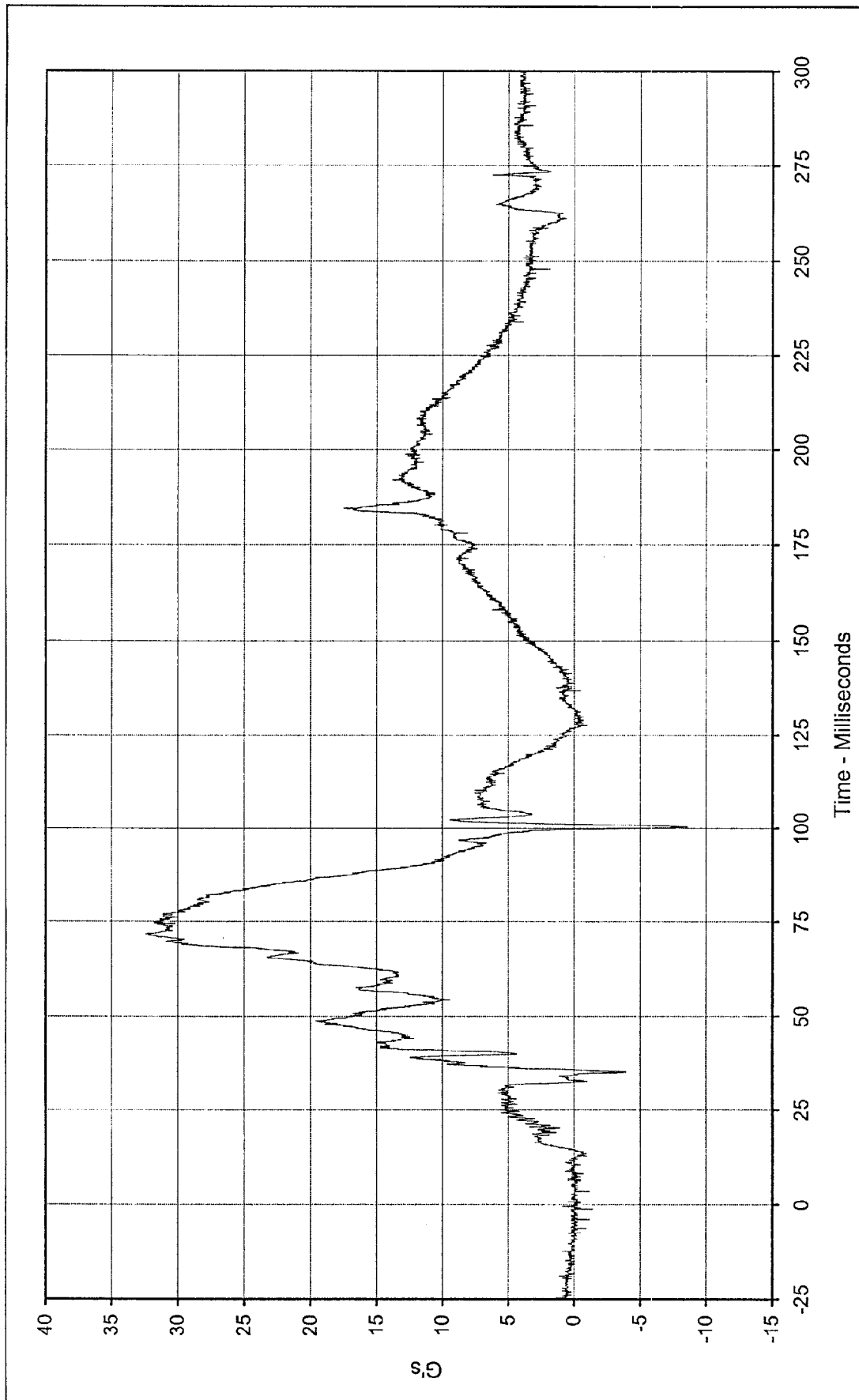




Curve Description: Passenger Head Redundant Y
 Maximum Value: 15.5 at 89.9 Milliseconds
 Minimum Value: -8.3 at 35.2 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-049

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

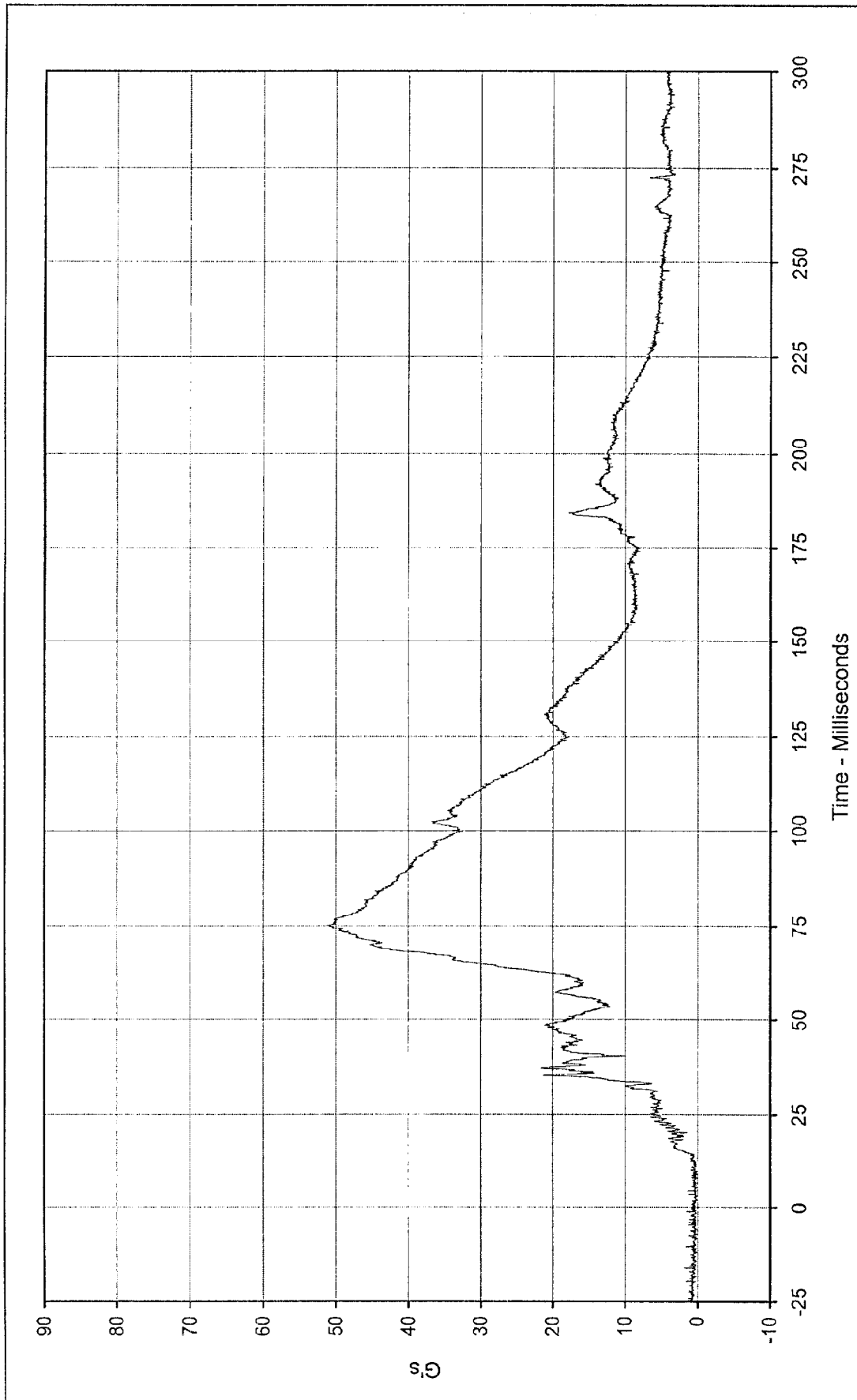




Curve Description: Passenger Head Redundant Z
 Maximum Value: 32.5 at 71.7 Milliseconds
 Minimum Value: -8.6 at 100.4 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-050

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

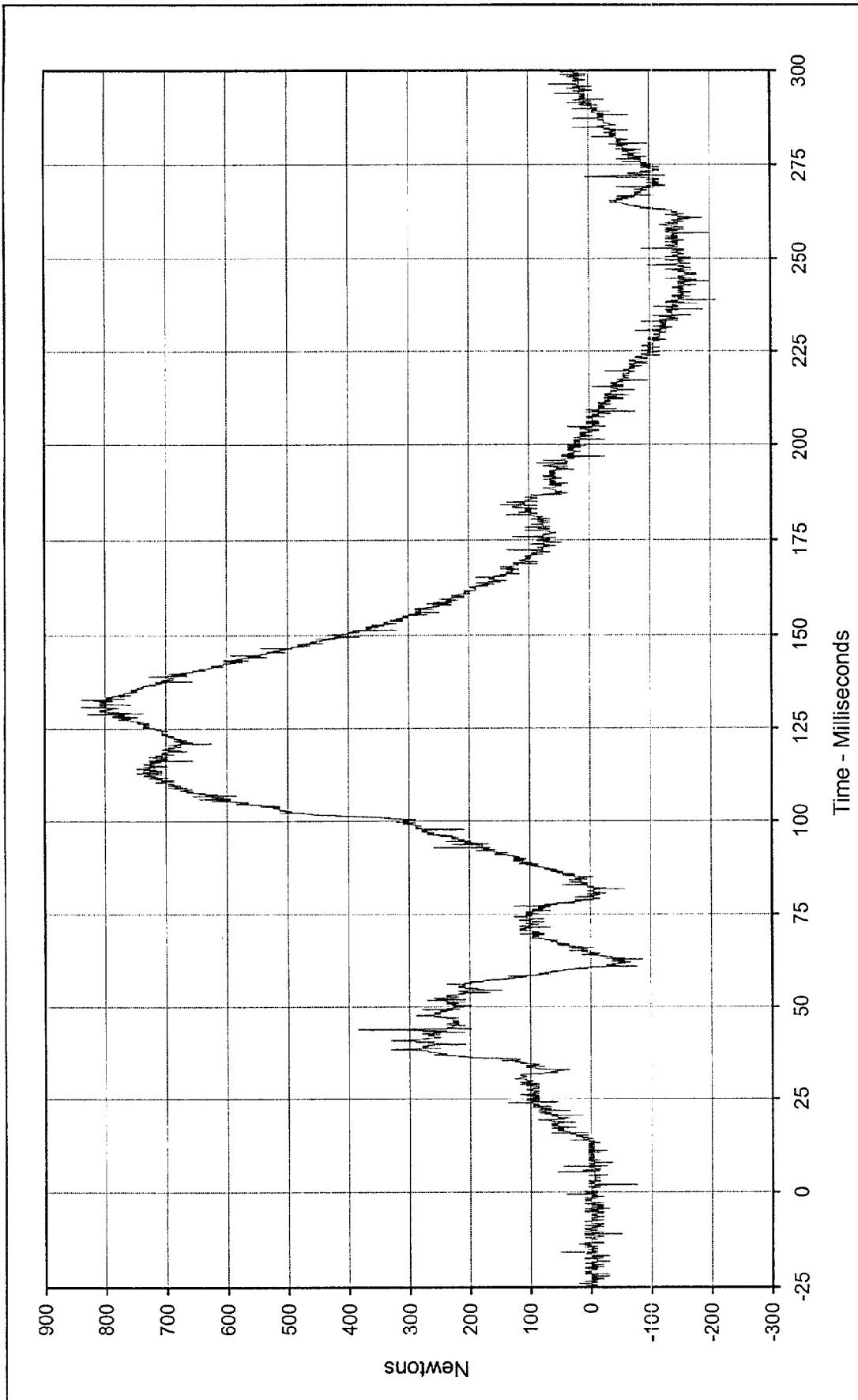




Curve Description: Passenger Head Resultant Redundant
 Maximum Value: 51.2 at 75.1 Milliseconds
 Minimum Value: 0.0 at 1.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: RES-048

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Neck Force X Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 838.9 at 130.6 Milliseconds Test Vehicle: 1998 Honda CRV SUV

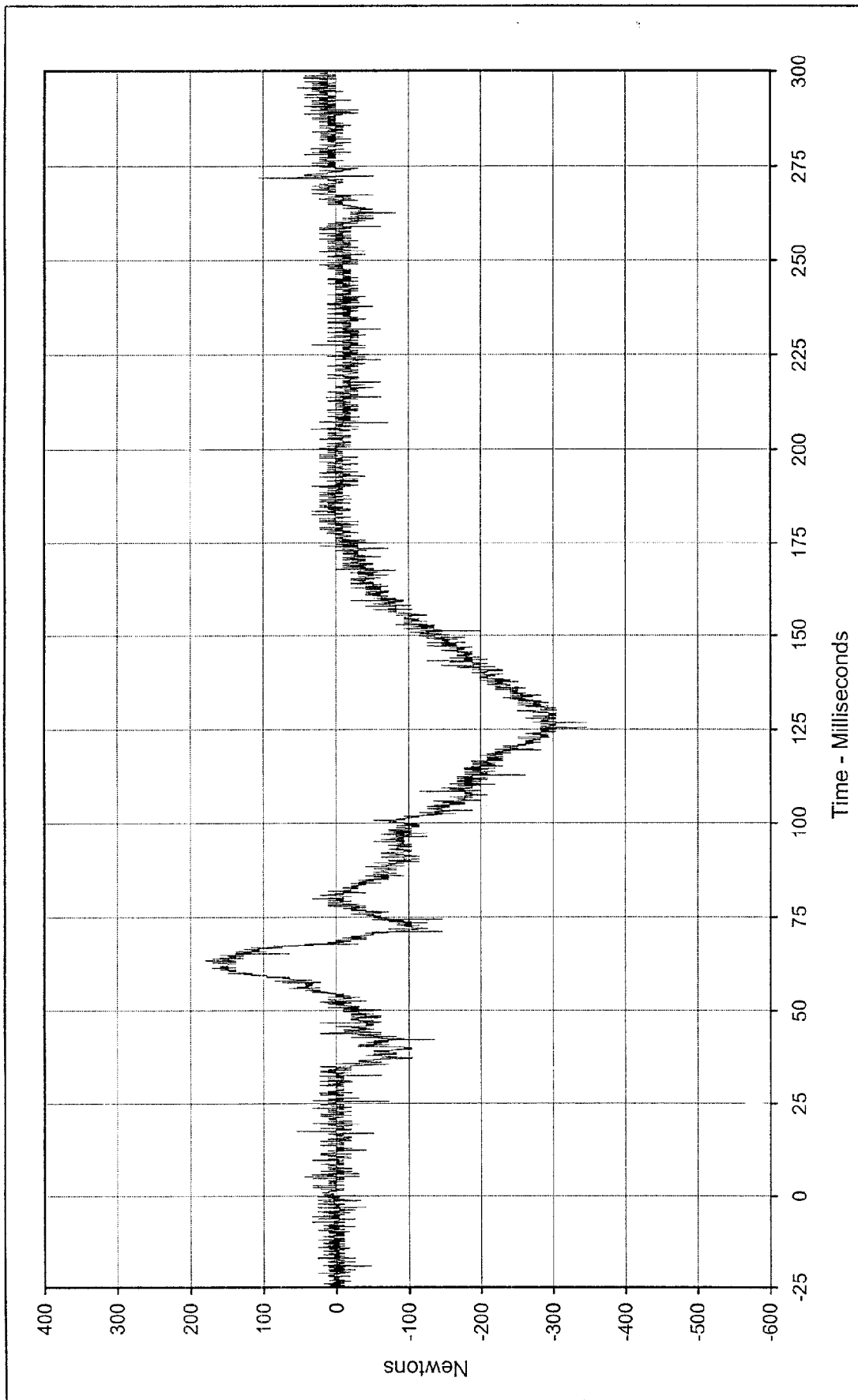
Minimum Value: -209.0 at 238.7 Milliseconds

SAE Filter Class: 1000

Date of Test: 2/20/98

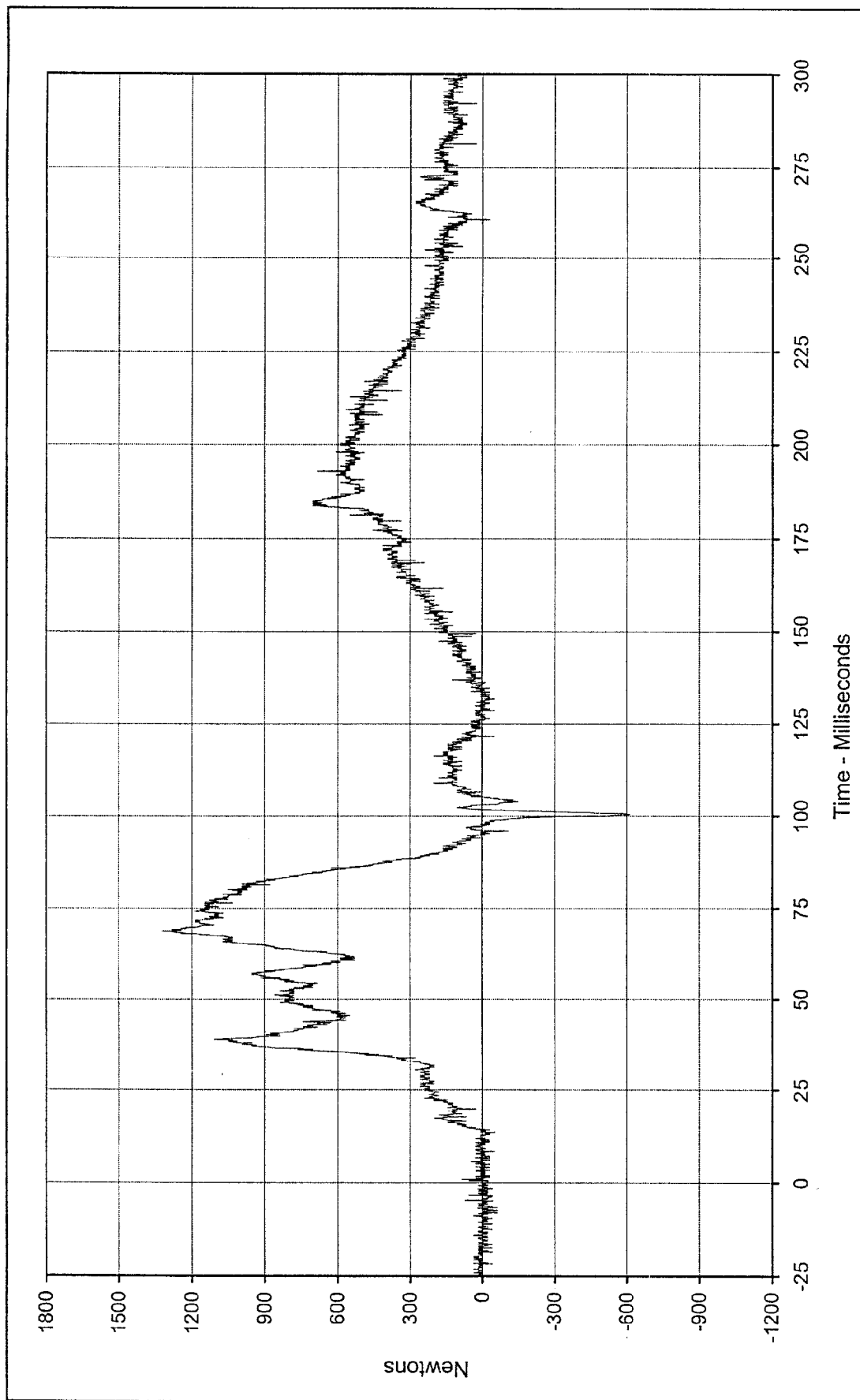
Curve Number: FIL-051





Curve Description:	Passenger Neck Force Y	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	179.7 at 63.3 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-346.1 at 125.4 Milliseconds			
SAE Filter Class:	1000			
Date of Test:	2/20/98			
Curve Number:	FIL-052			





Curve Description: Passenger Neck Force Z

Maximum Value: 1321.1 at 68.8 Milliseconds

Minimum Value: -610.7 at 100.4 Milliseconds

SAE Filter Class: 1000

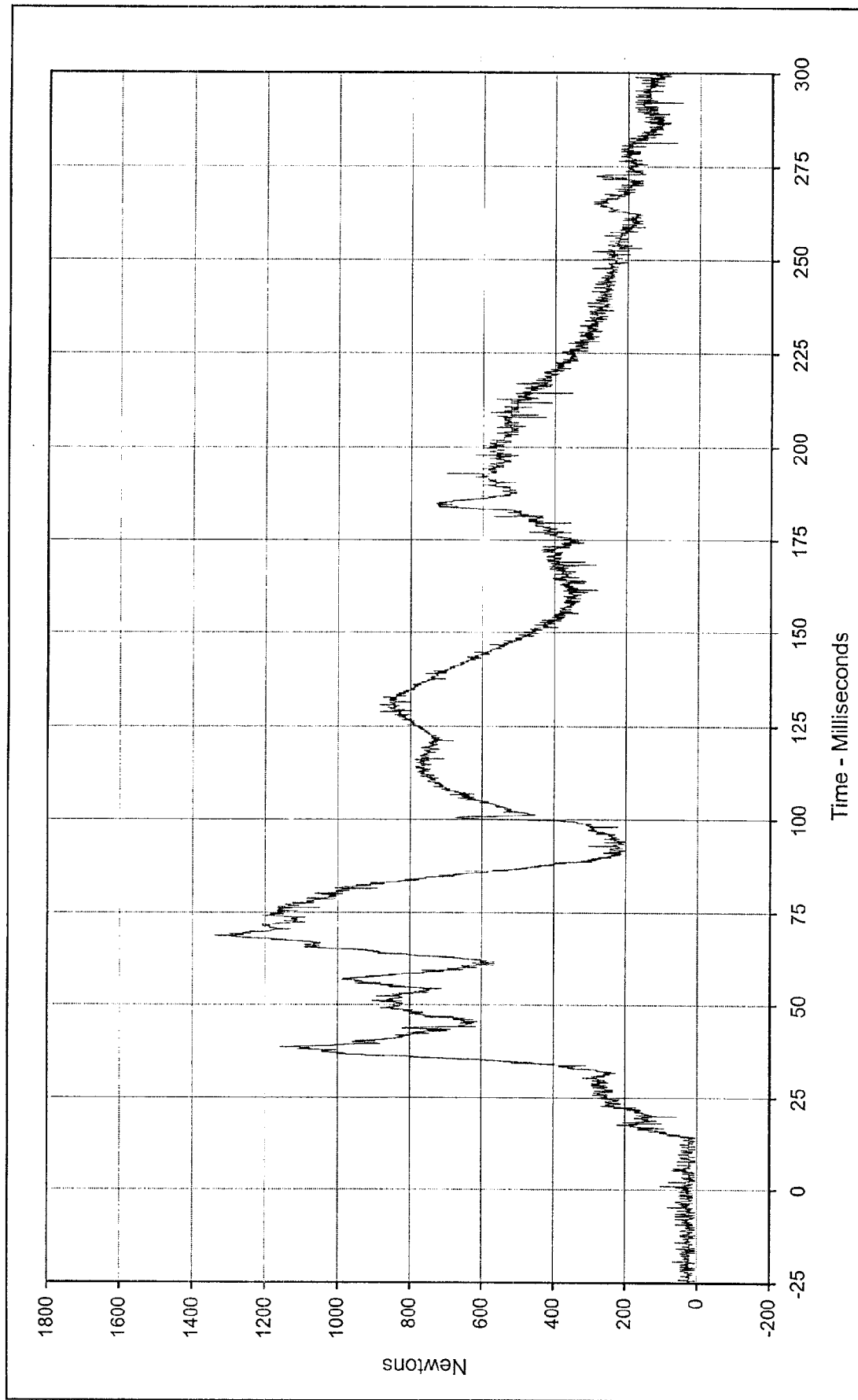
Date of Test: 2/20/98

Curve Number: FIL-053

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Neck Force Resultant

Maximum Value: 1337.5 at 68.8 Milliseconds

Minimum Value: 4.9 at 8.1 Milliseconds

SAE Filter Class: 1000

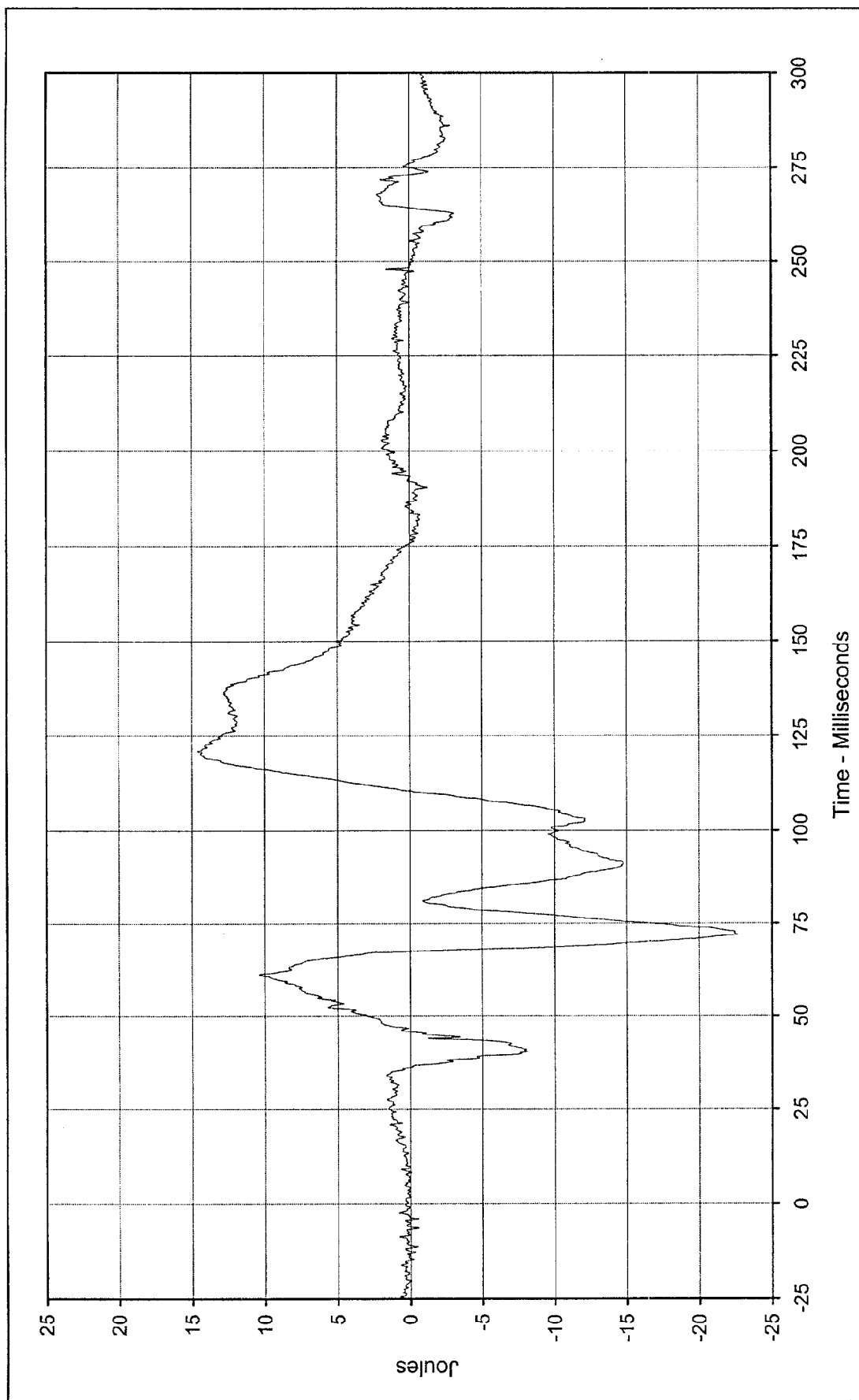
Date of Test: 2/20/98

Curve Number: RES-051

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Neck Moment X

Maximum Value: 14.6 at 120.6 Milliseconds

Minimum Value: -22.6 at 71.9 Milliseconds

SAE Filter Class: 600

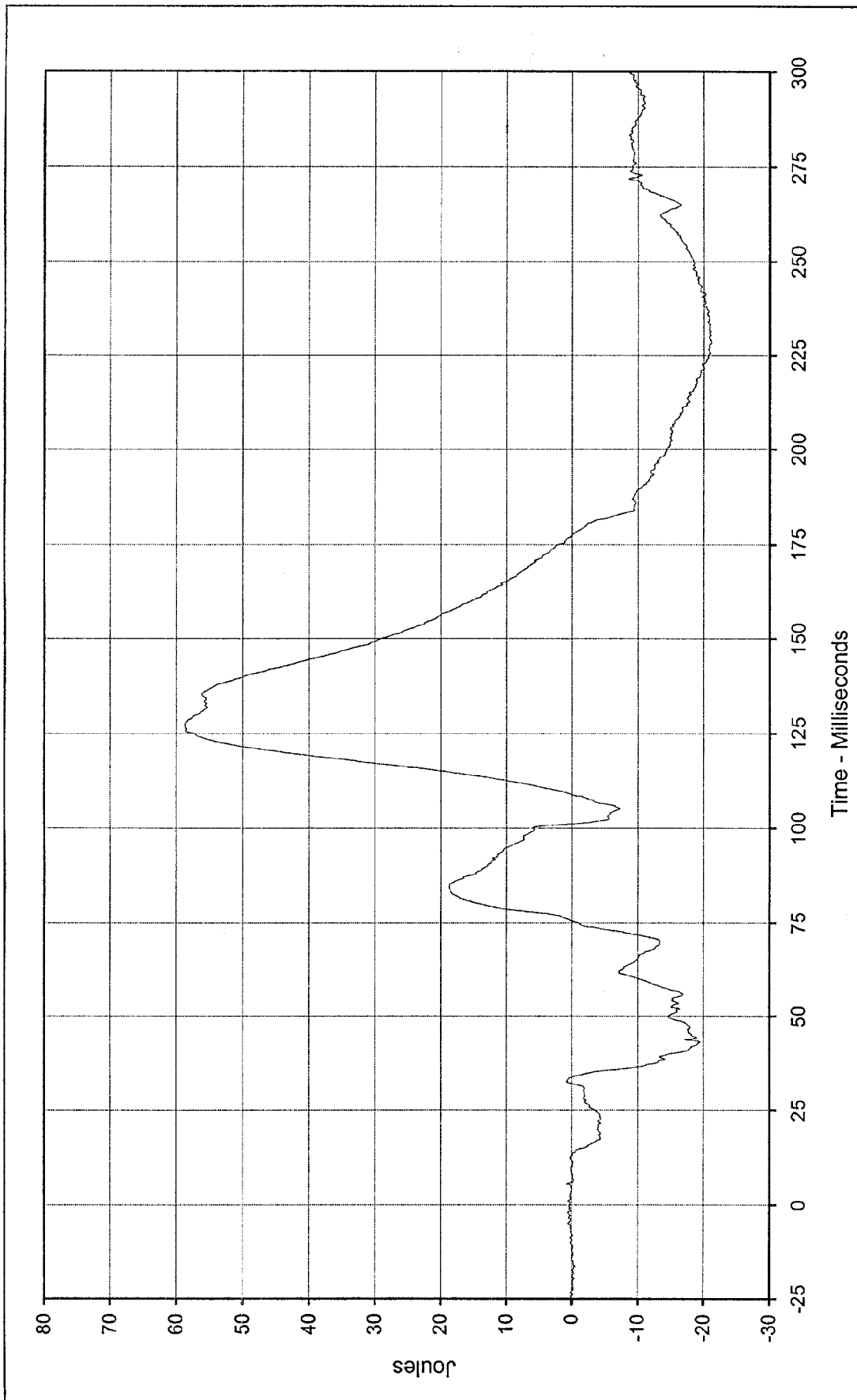
Date of Test: 2/20/98

Curve Number: FIL-054

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Neck Moment Y

Maximum Value: 58.8 at 127.6 Milliseconds

Minimum Value: -21.2 at 228.3 Milliseconds

SAE Filter Class: 600

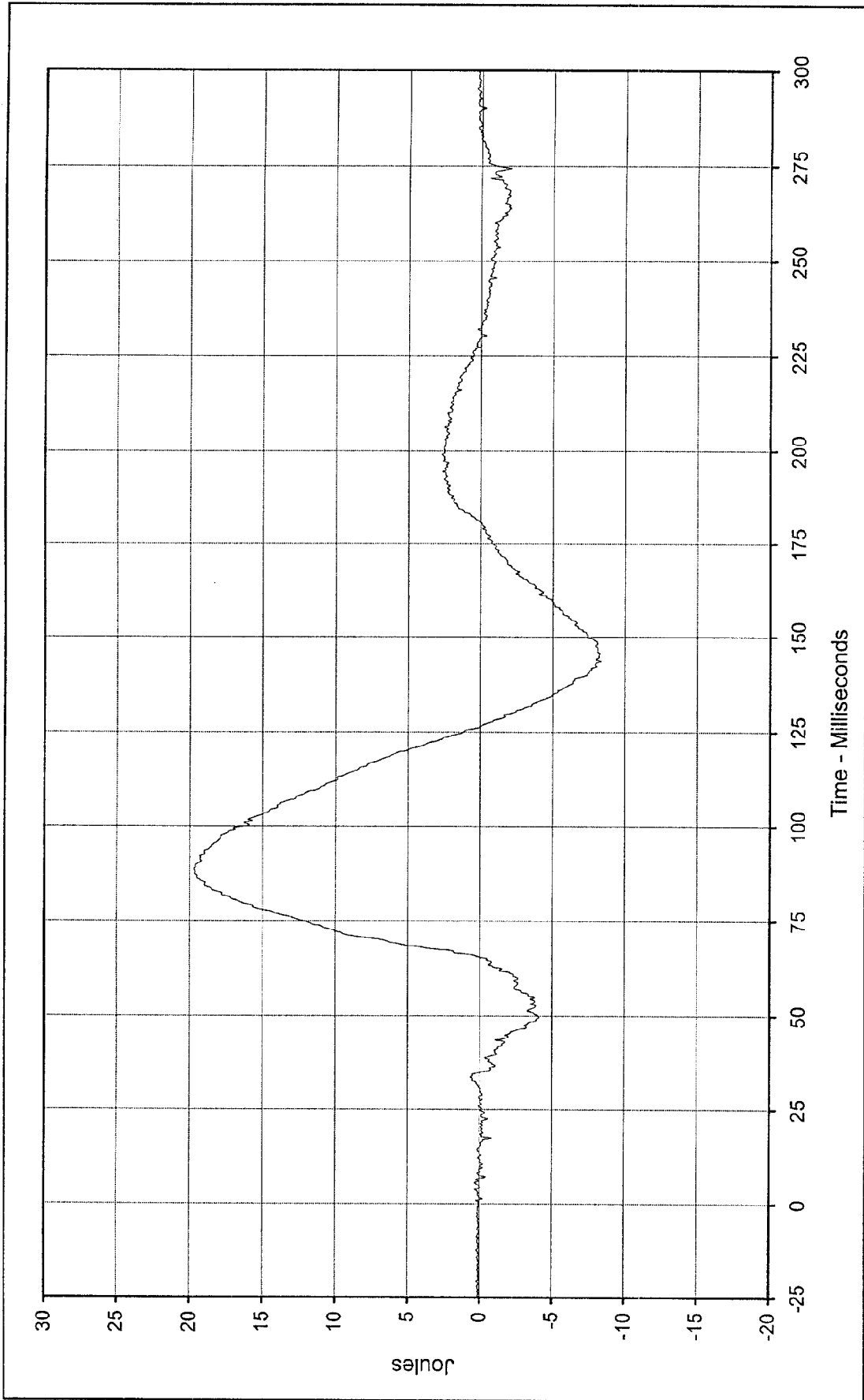
Date of Test: 2/20/98

Curve Number: FIL-055

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

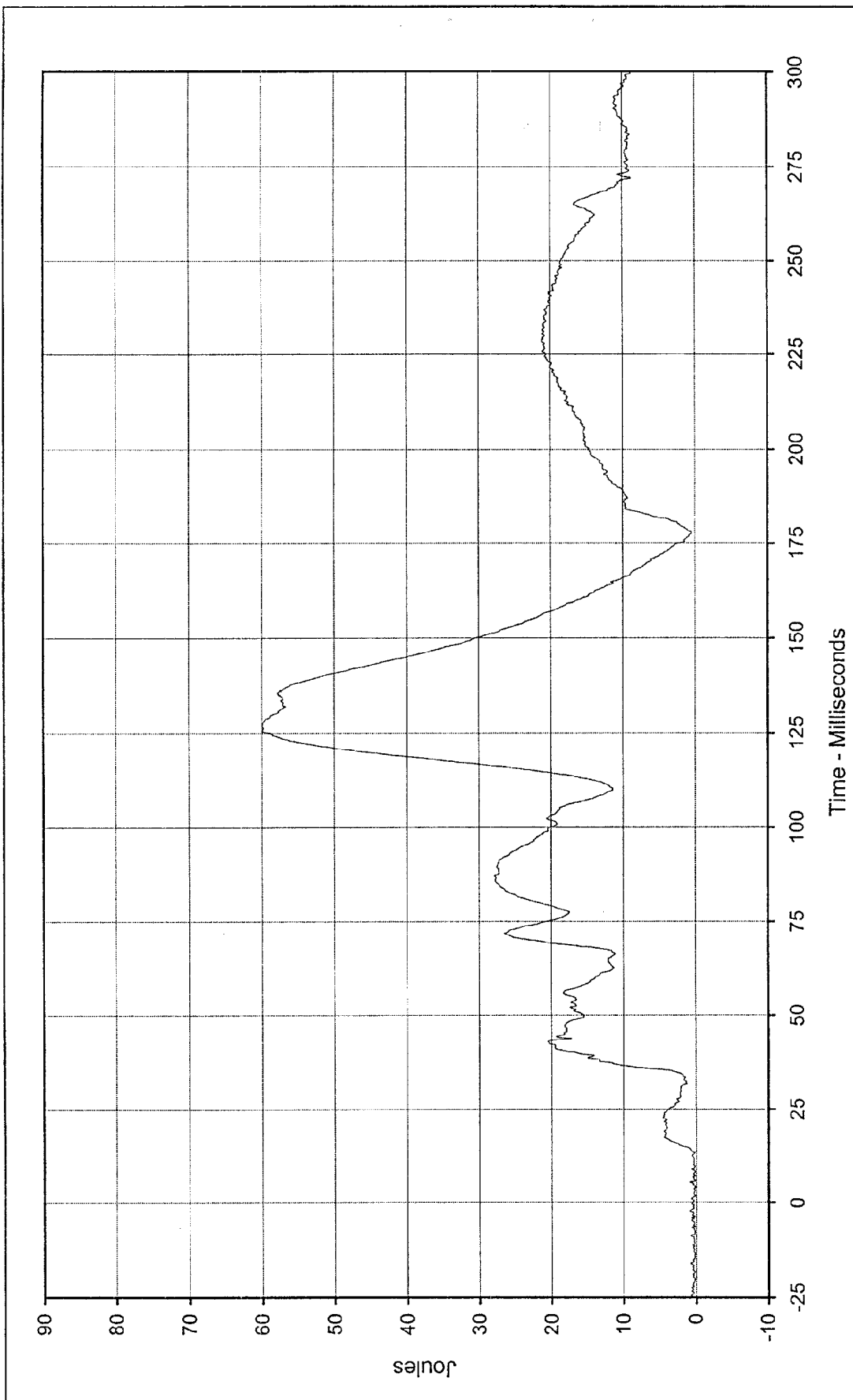




Curve Description: Passenger Neck Moment Z
 Maximum Value: 19.7 at 88.5 Milliseconds
 Minimum Value: -8.4 at 143.6 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-056

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

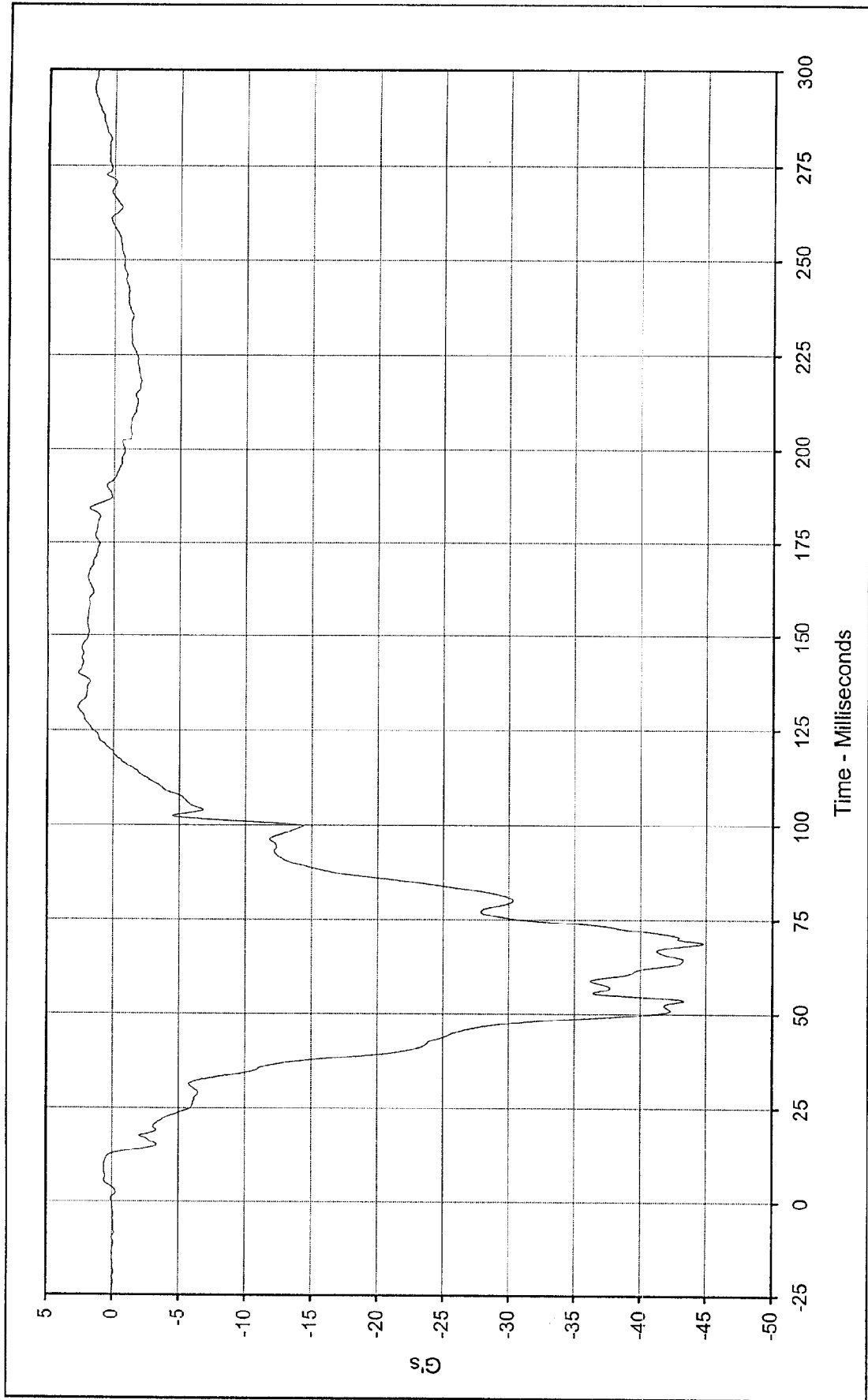




Curve Description: Passenger Neck Moment Resultant
 Maximum Value: 60.0 at 127.0 Milliseconds
 Minimum Value: 0.0 at 4.1 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: RES-054

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

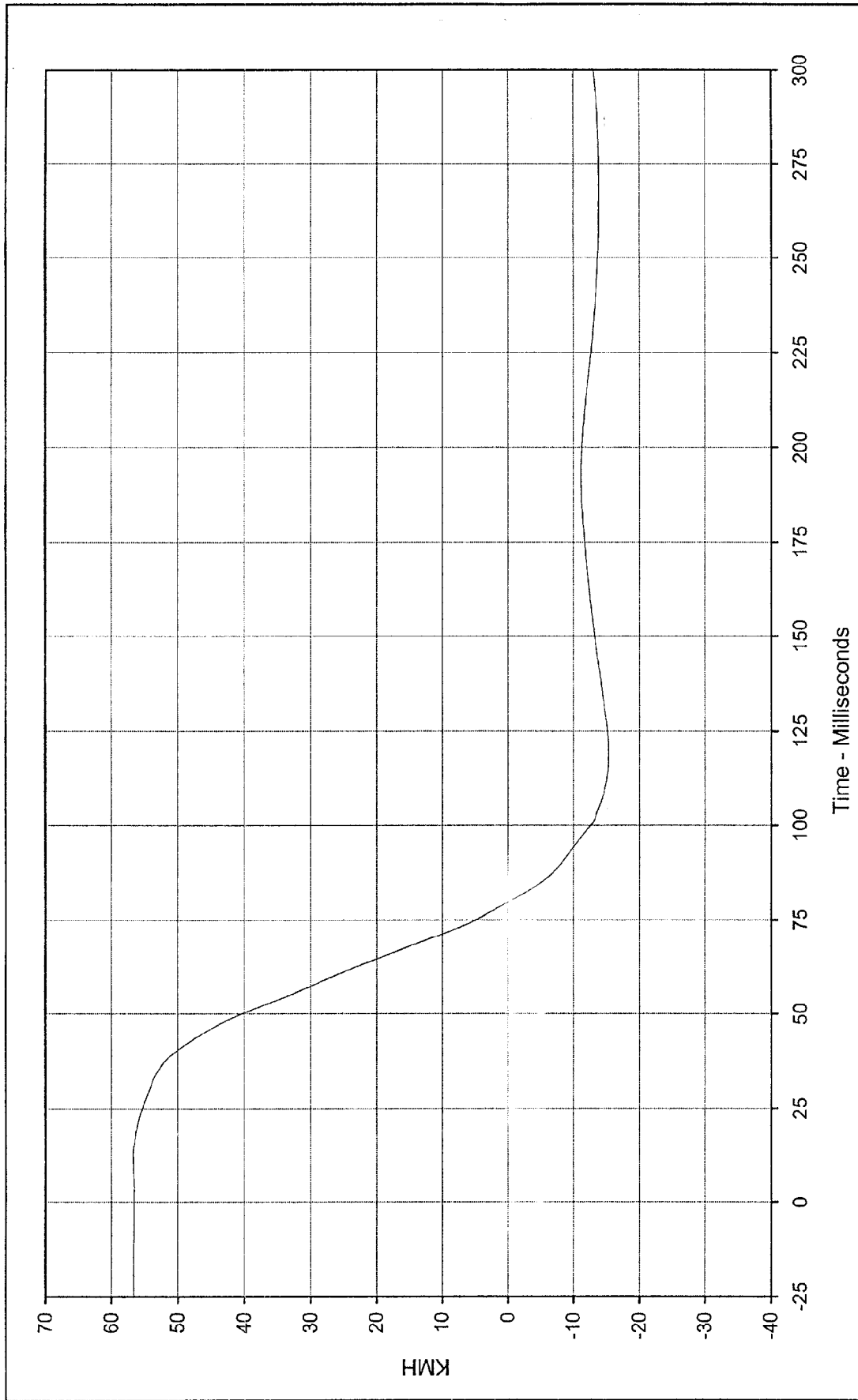




Curve Description: Passenger Chest Primary X
 Maximum Value: 2.7 at 131.0 Milliseconds
 Minimum Value: -44.8 at 68.5 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-057

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

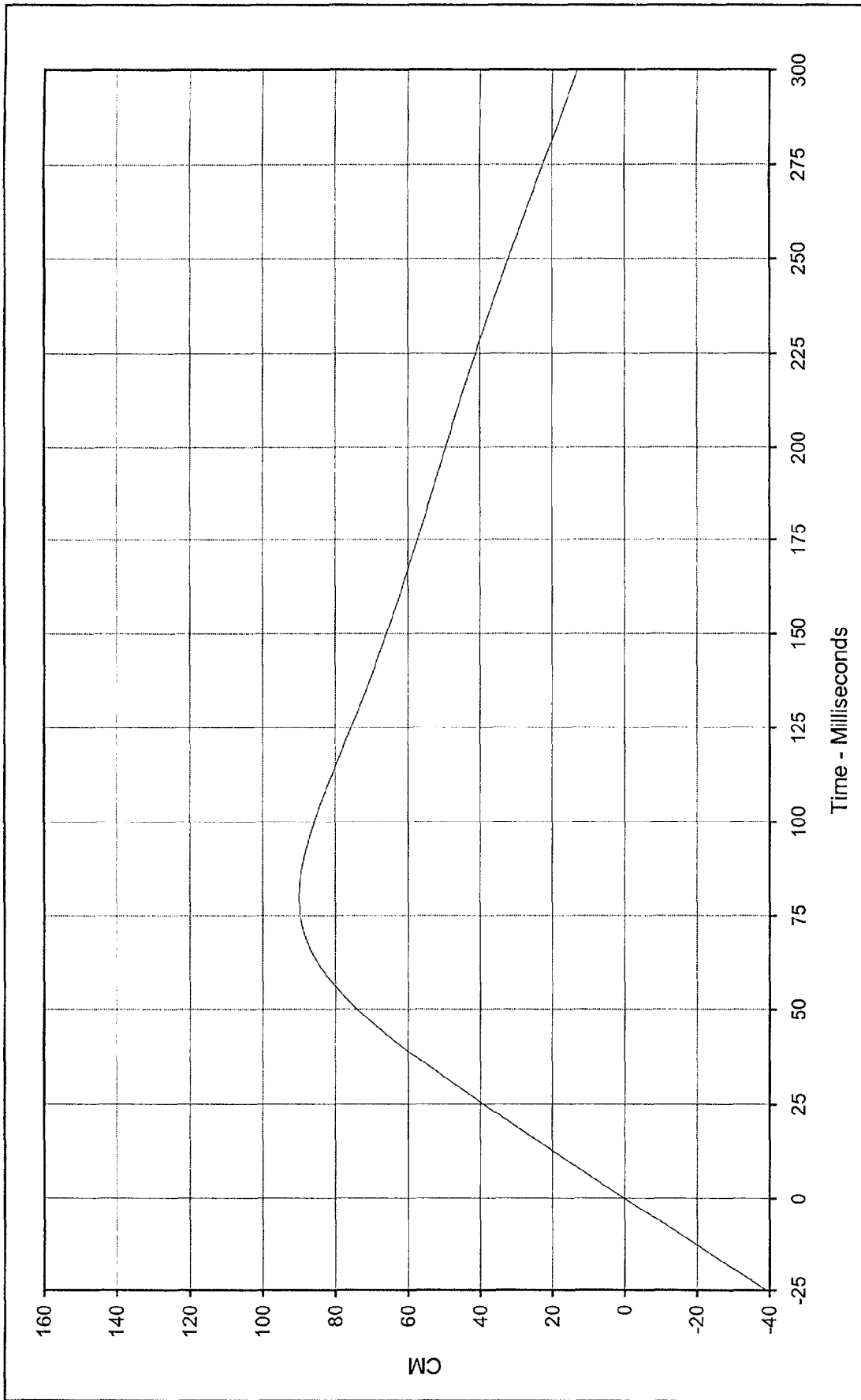




Curve Description: Passenger Chest Primary X Velocity
 Maximum Value: 56.8 at 12.8 Milliseconds
 Minimum Value: -15.3 at 119.2 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-057

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Chest Primary X Displ.

Maximum Value: 90.0 at 79.8 Milliseconds

Minimum Value: 0.1 at 0.0 Milliseconds

SAE Filter Class: 180

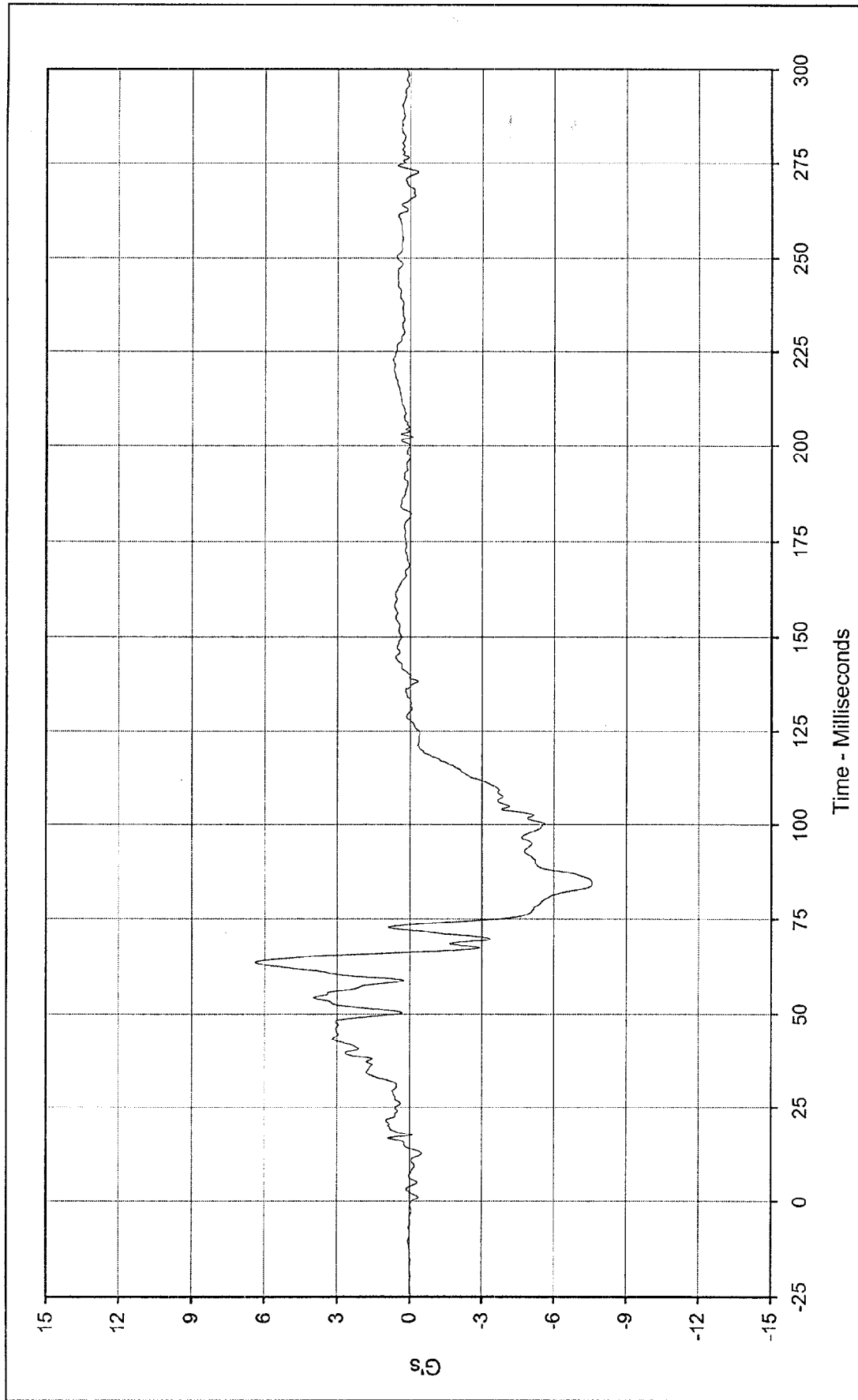
Date of Test: 2/20/98

Curve Number: IN2-057

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

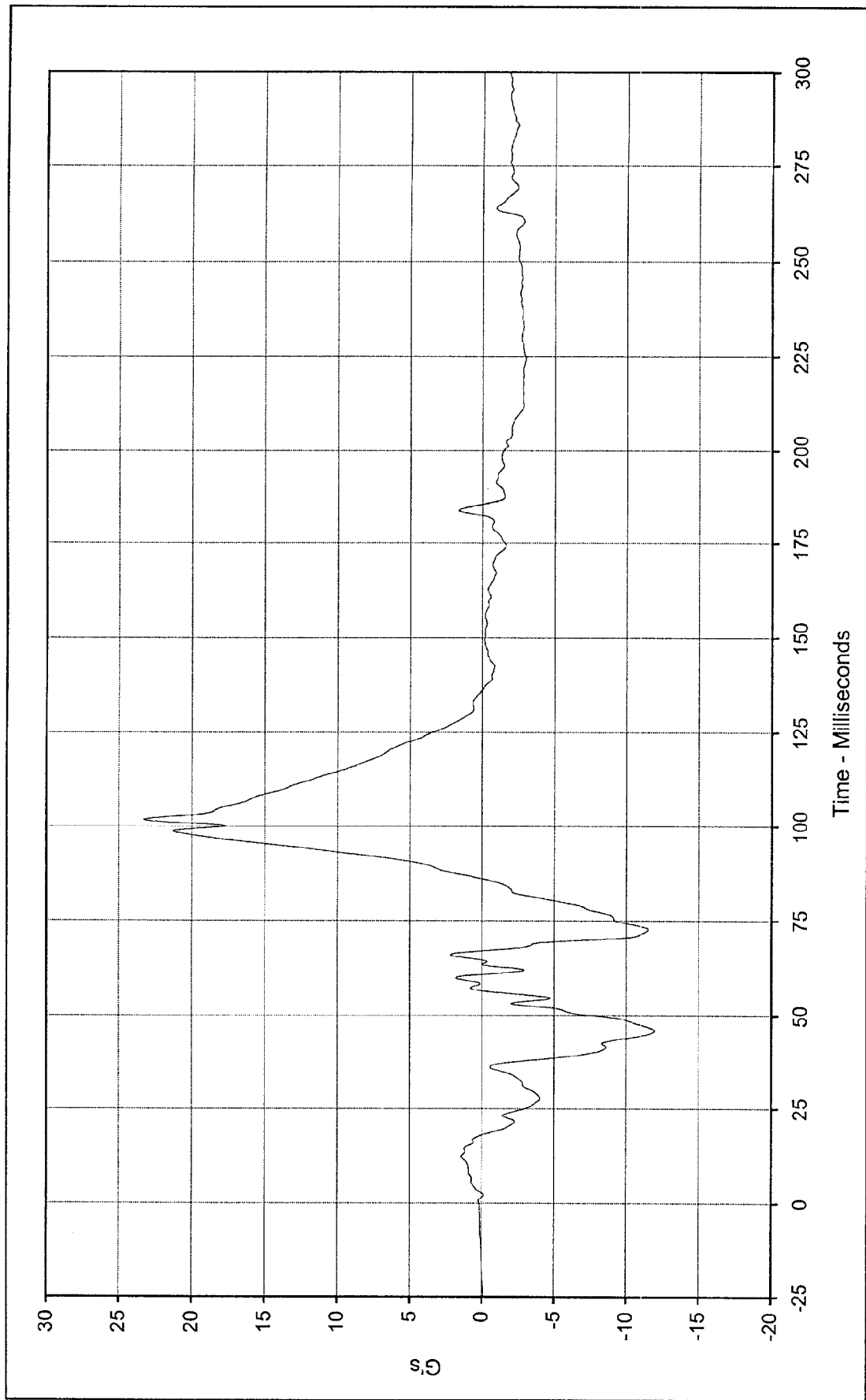




Curve Description: Passenger Chest Primary Y
 Maximum Value: 6.4 at 63.4 Milliseconds
 Minimum Value: -7.6 at 84.7 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-058

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Chest Primary Z

Maximum Value: 23.3 at 101.9 Milliseconds

Minimum Value: -12.0 at 45.9 Milliseconds

SAE Filter Class: 180

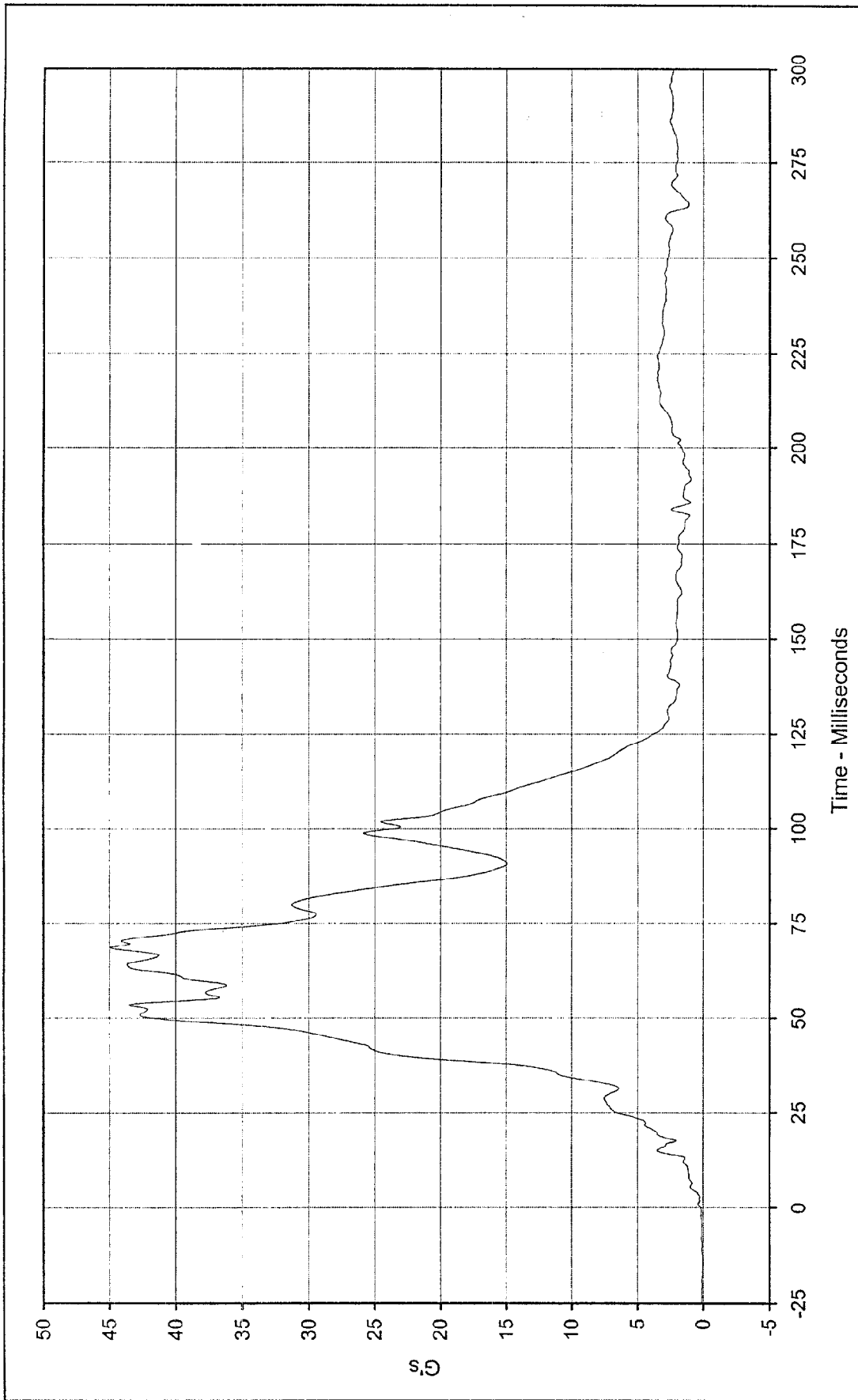
Date of Test: 2/20/98

Curve Number: FIL-059

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Chest Resultant Primary

Maximum Value: 45.0 at 68.5 Milliseconds

Minimum Value: 0.2 at 0.0 Milliseconds

SAE Filter Class: 180

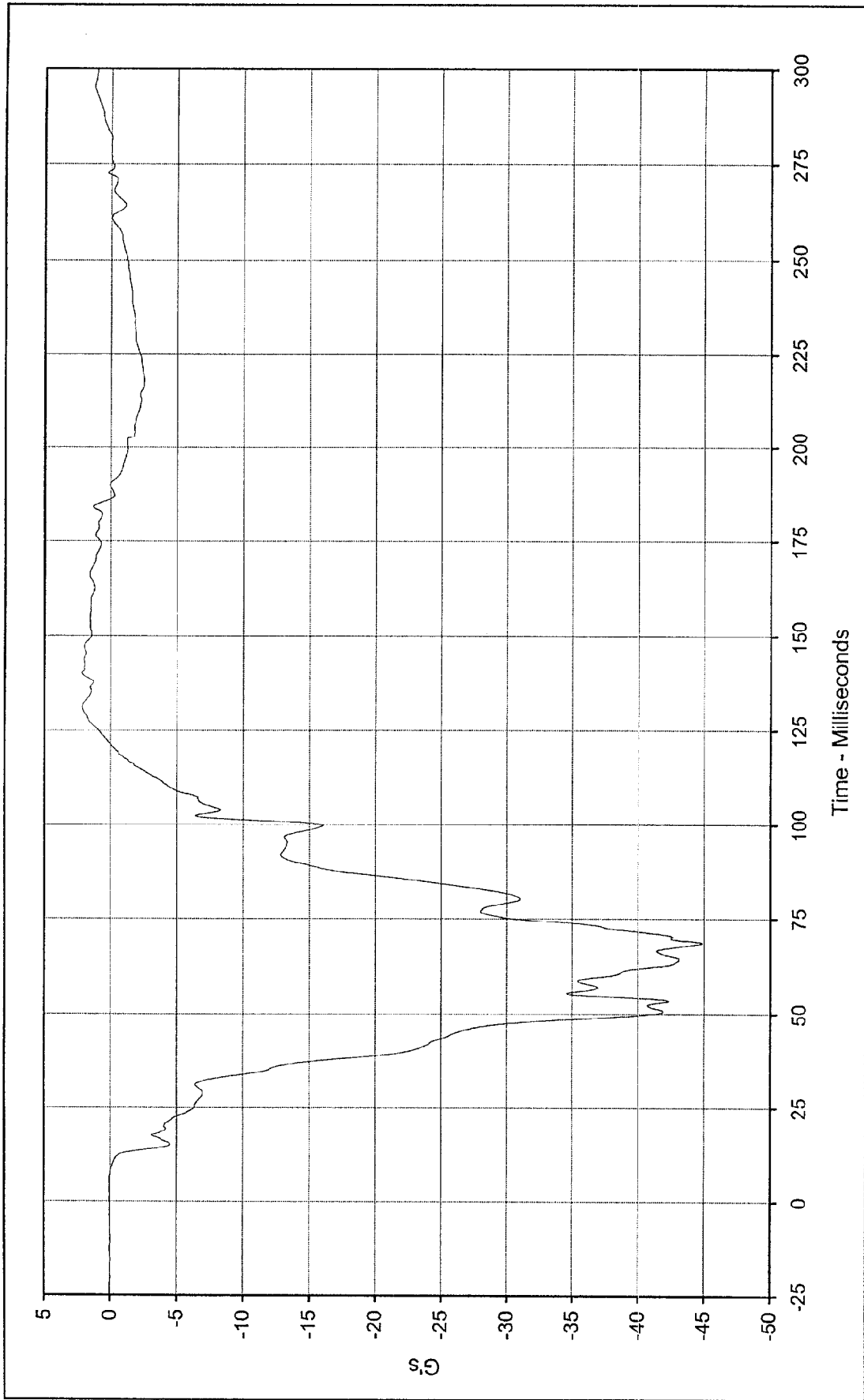
Date of Test: 2/20/98

Curve Number: RES-057

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Chest Redundant X

Maximum Value: 2.2 at 140.3 Milliseconds

Minimum Value: -44.9 at 68.5 Milliseconds

SAE Filter Class: 180

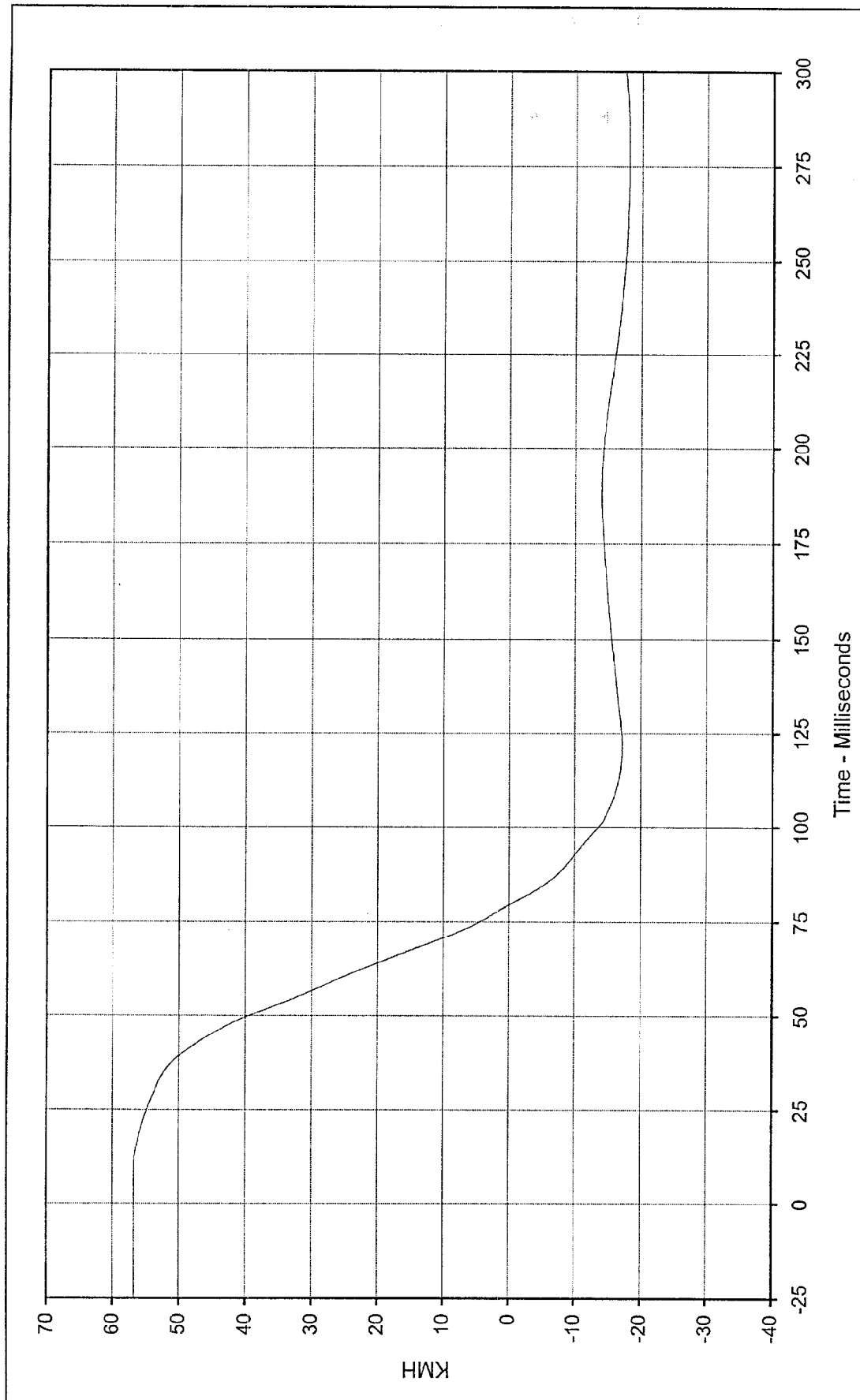
Date of Test: 2/20/98

Curve Number: FIL-060

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

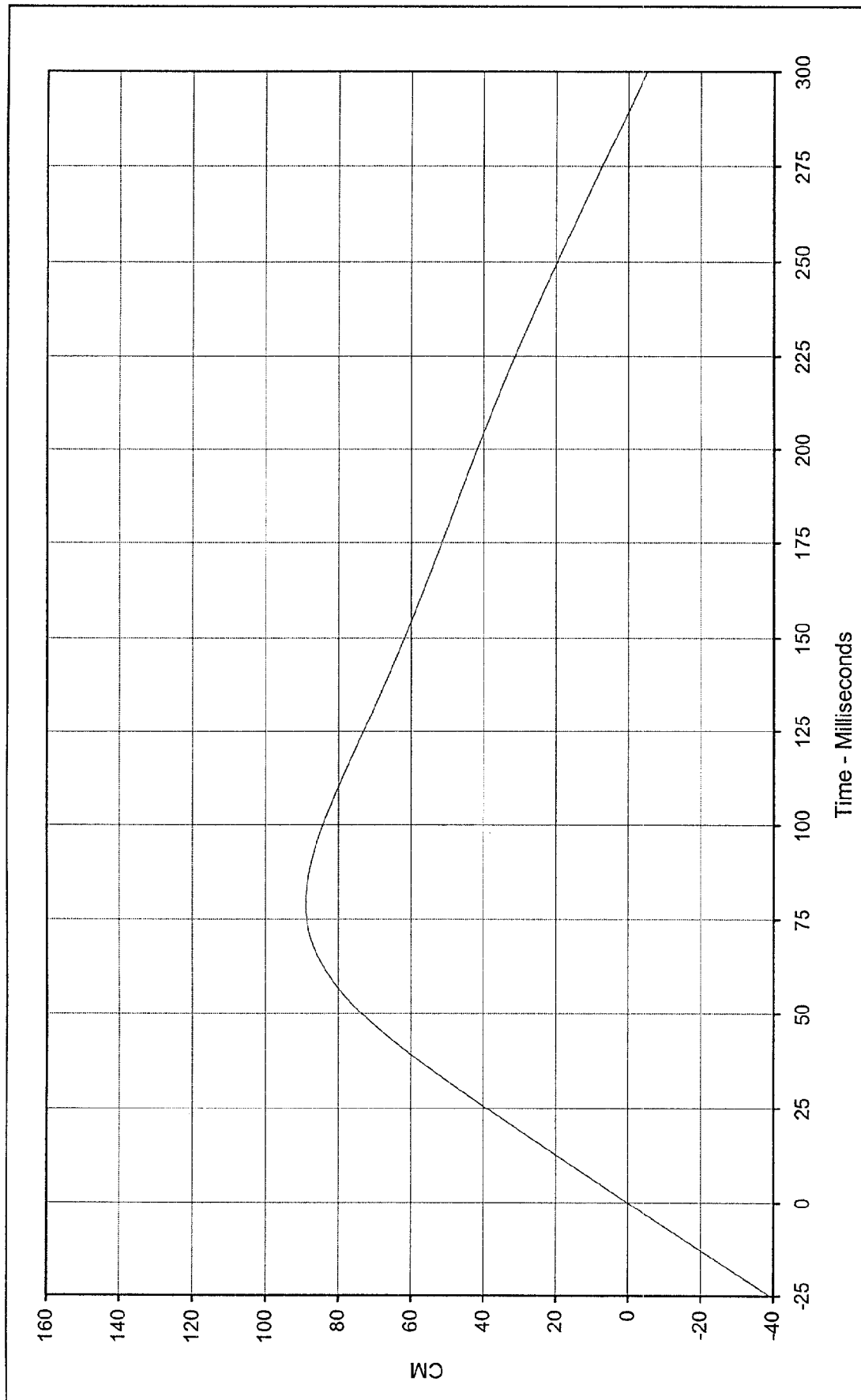




Curve Description: Passenger Chest Redundant X Velocity
 Maximum Value: 56.7 at 7.3 Milliseconds
 Minimum Value: -18.0 at 282.8 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-060

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

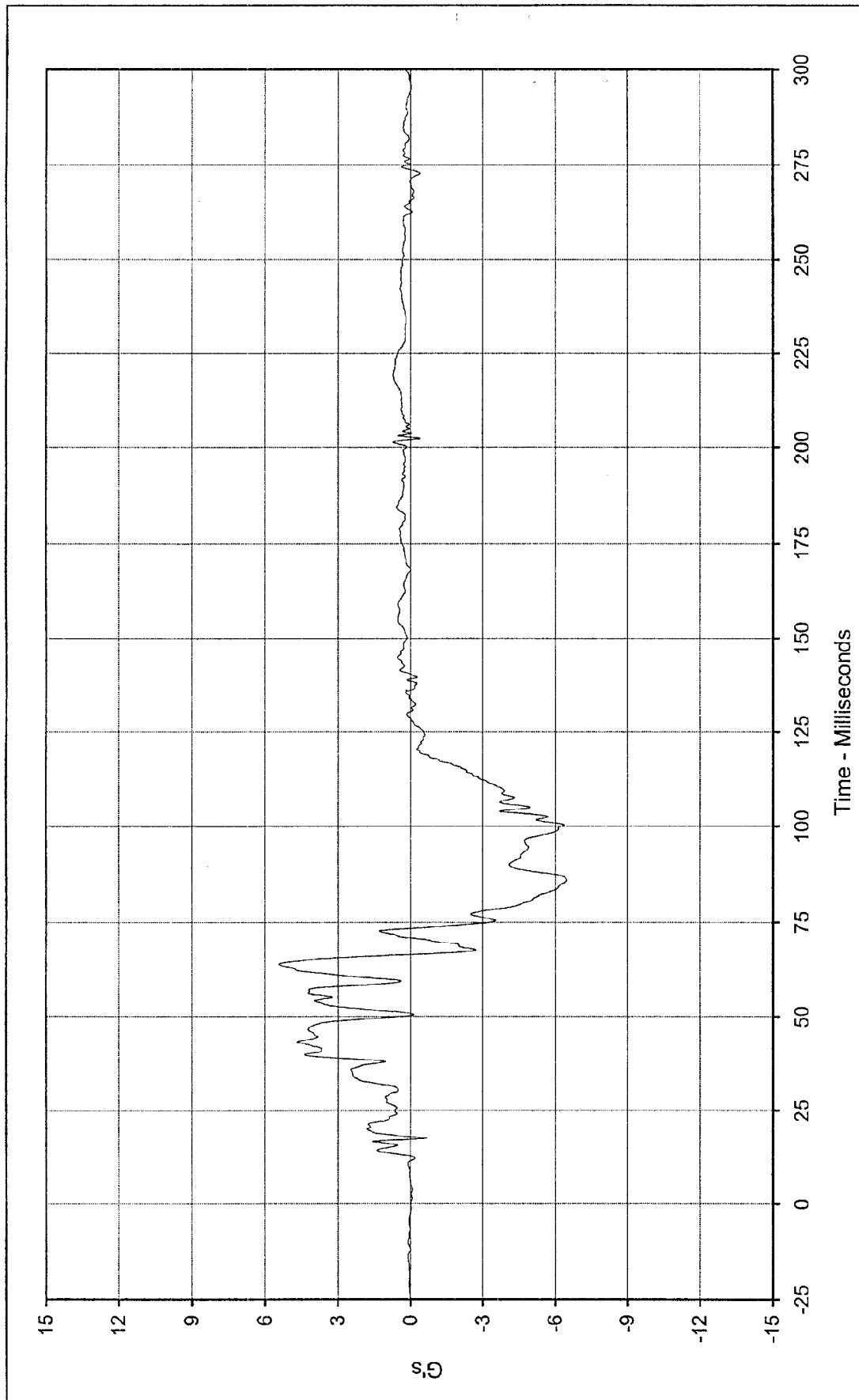




Curve Description: Passenger Chest Redundant X Displ.
 Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

Maximum Value: 88.9 at 79.4 Milliseconds
 Minimum Value: -5.1 at 299.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN2-060

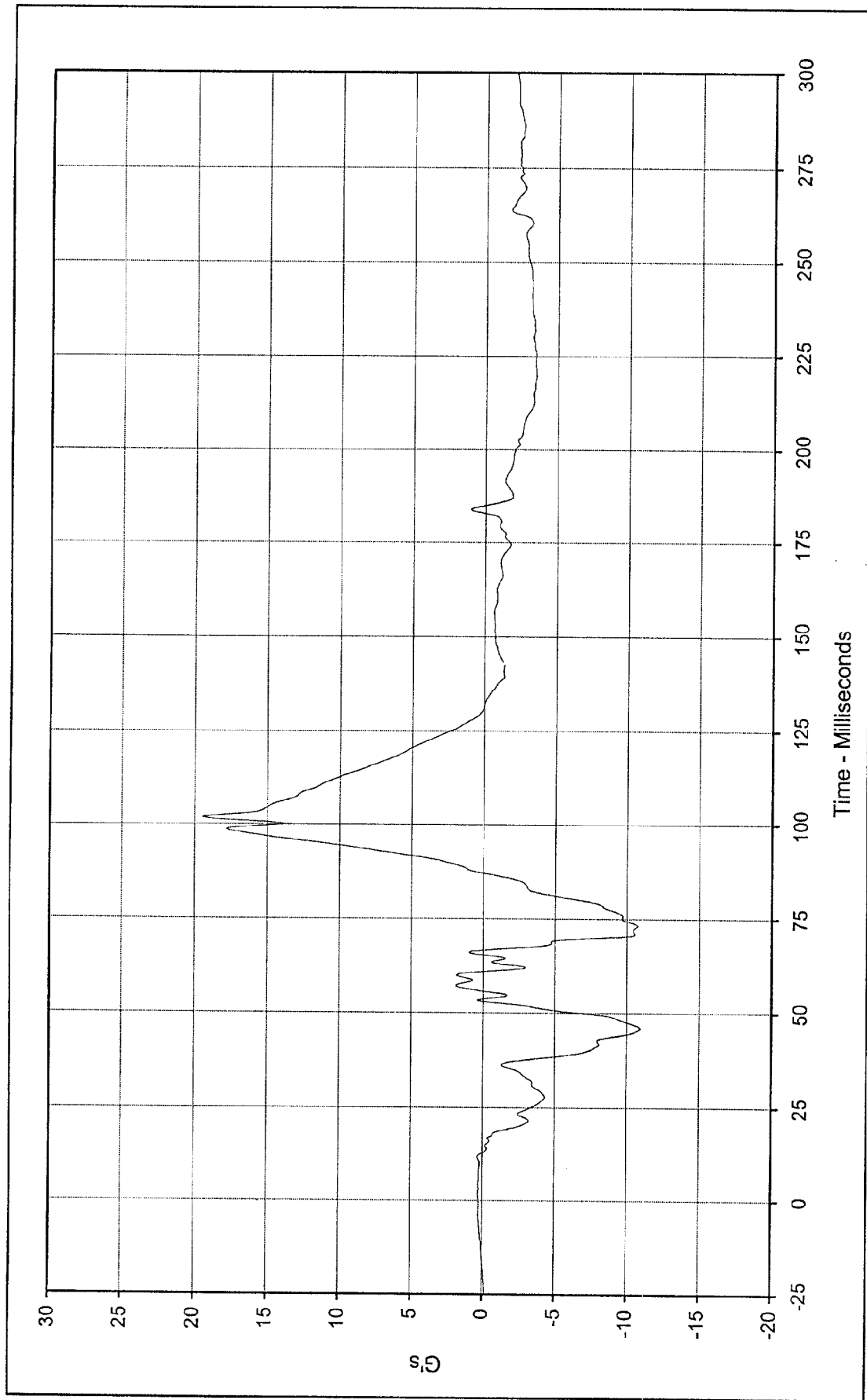




Curve Description: Passenger Chest Redundant Y
 Maximum Value: 5.4 at 53.8 Milliseconds
 Minimum Value: -6.5 at 85.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-061

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

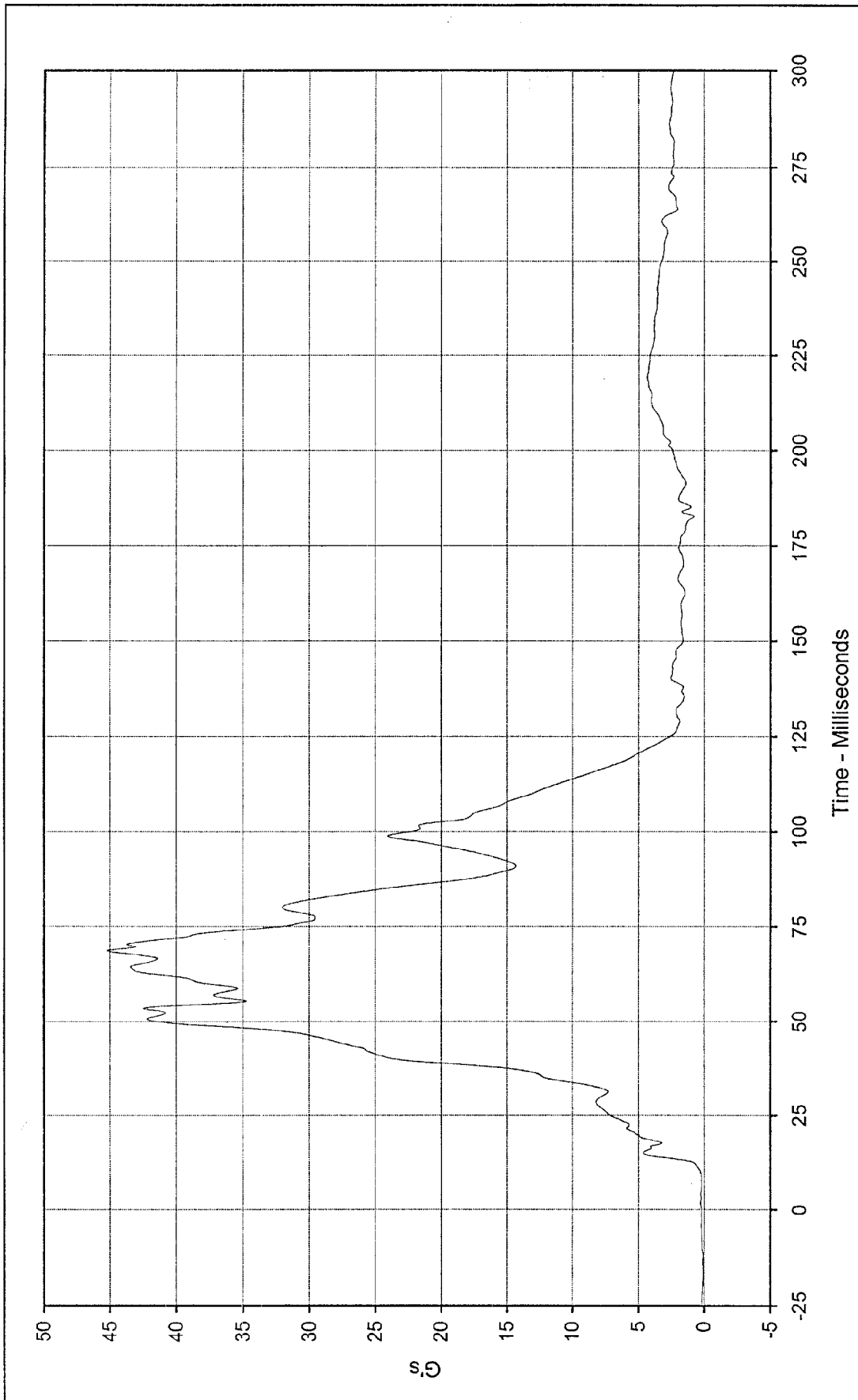




Curve Description: Passenger Chest Redundant Z
 Maximum Value: 19.4 at 101.9 Milliseconds
 Minimum Value: -10.9 at 45.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: FIL-062

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

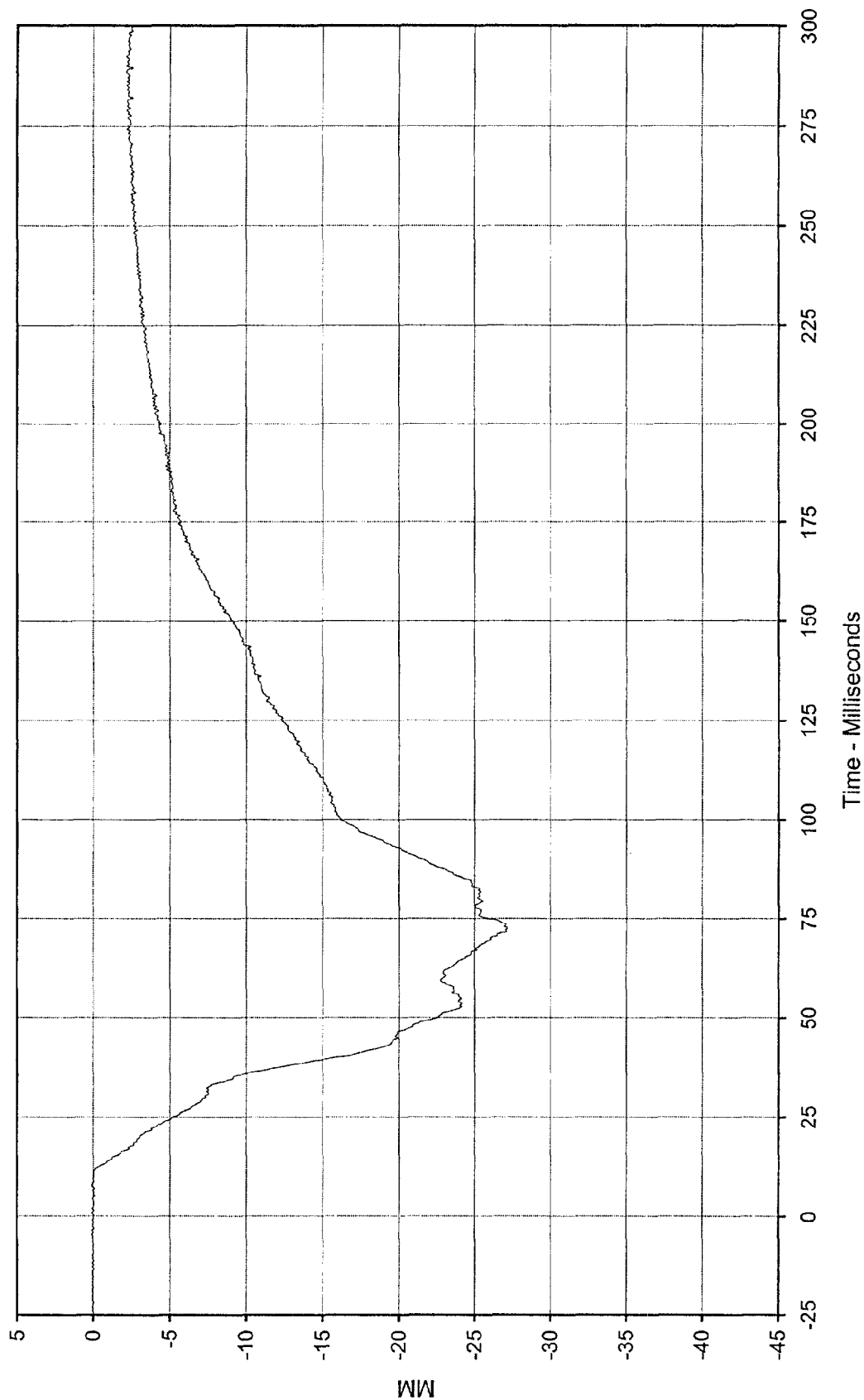




Curve Description: Passenger Chest Resultant Redundant
Maximum Value: 45.2 at 68.5 Milliseconds
Minimum Value: 0.2 at 7.1 Milliseconds
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: RES-060

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Chest Displacement X

Maximum Value: 0.1 at 7.8 Milliseconds

Minimum Value: -27.2 at 72.4 Milliseconds

SAE Filter Class: 600

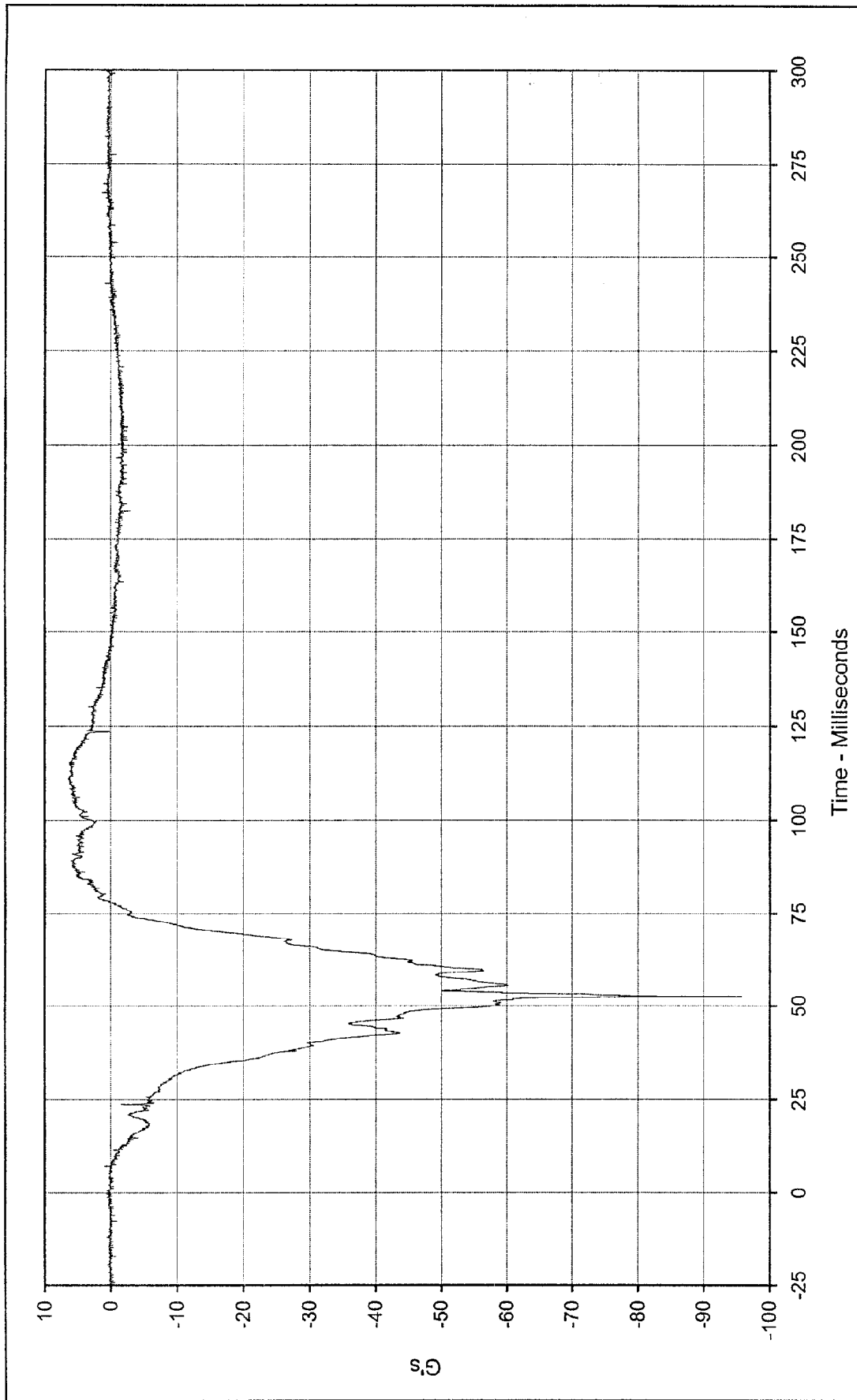
Date of Test: 2/20/98

Curve Number: FIL-063

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

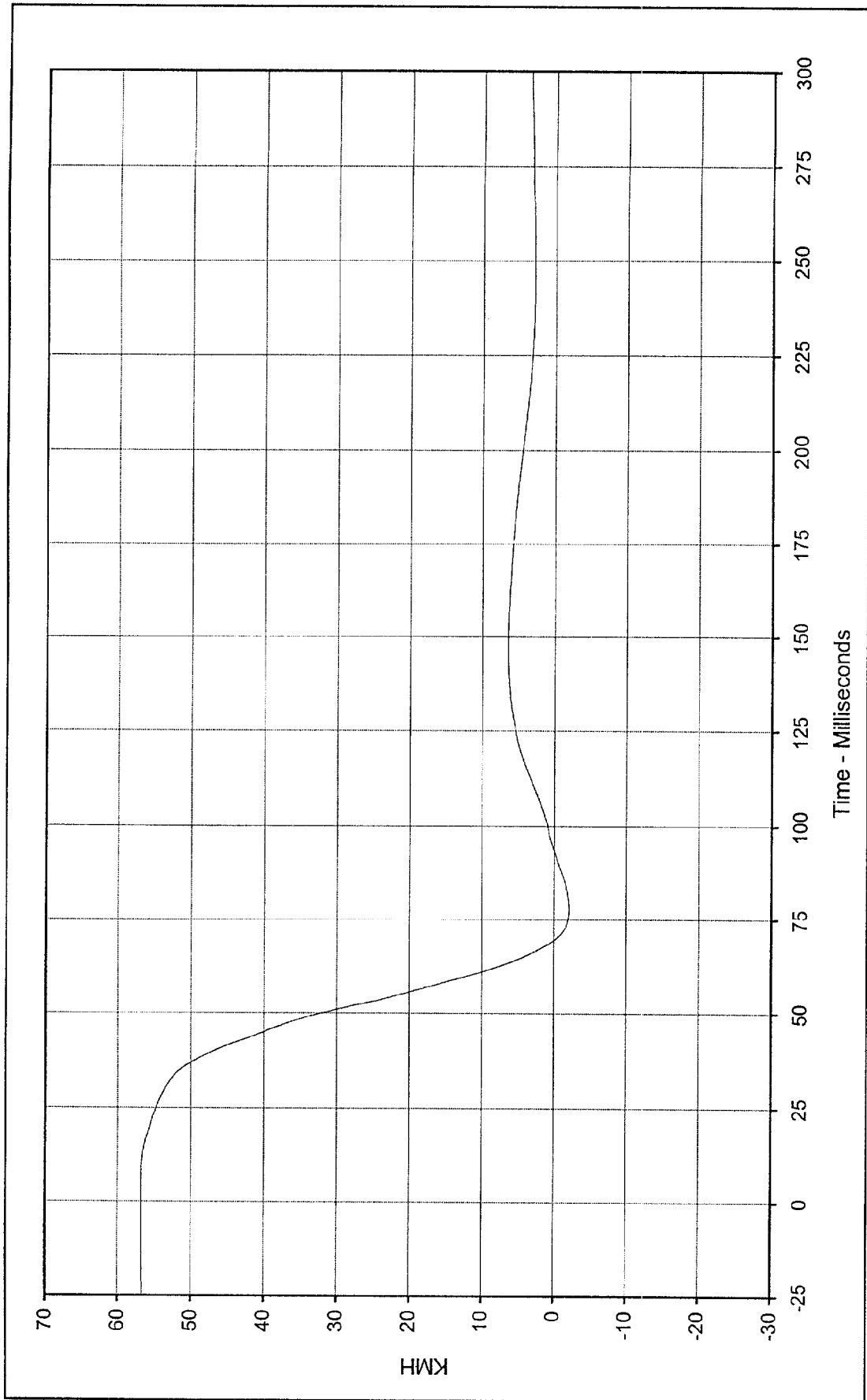




Curve Description: Passenger Pelvis X
 Maximum Value: 6.5 at 111.0 Milliseconds
 Minimum Value: -95.7 at 52.5 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/20/98
 Curve Number: FIL-064

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

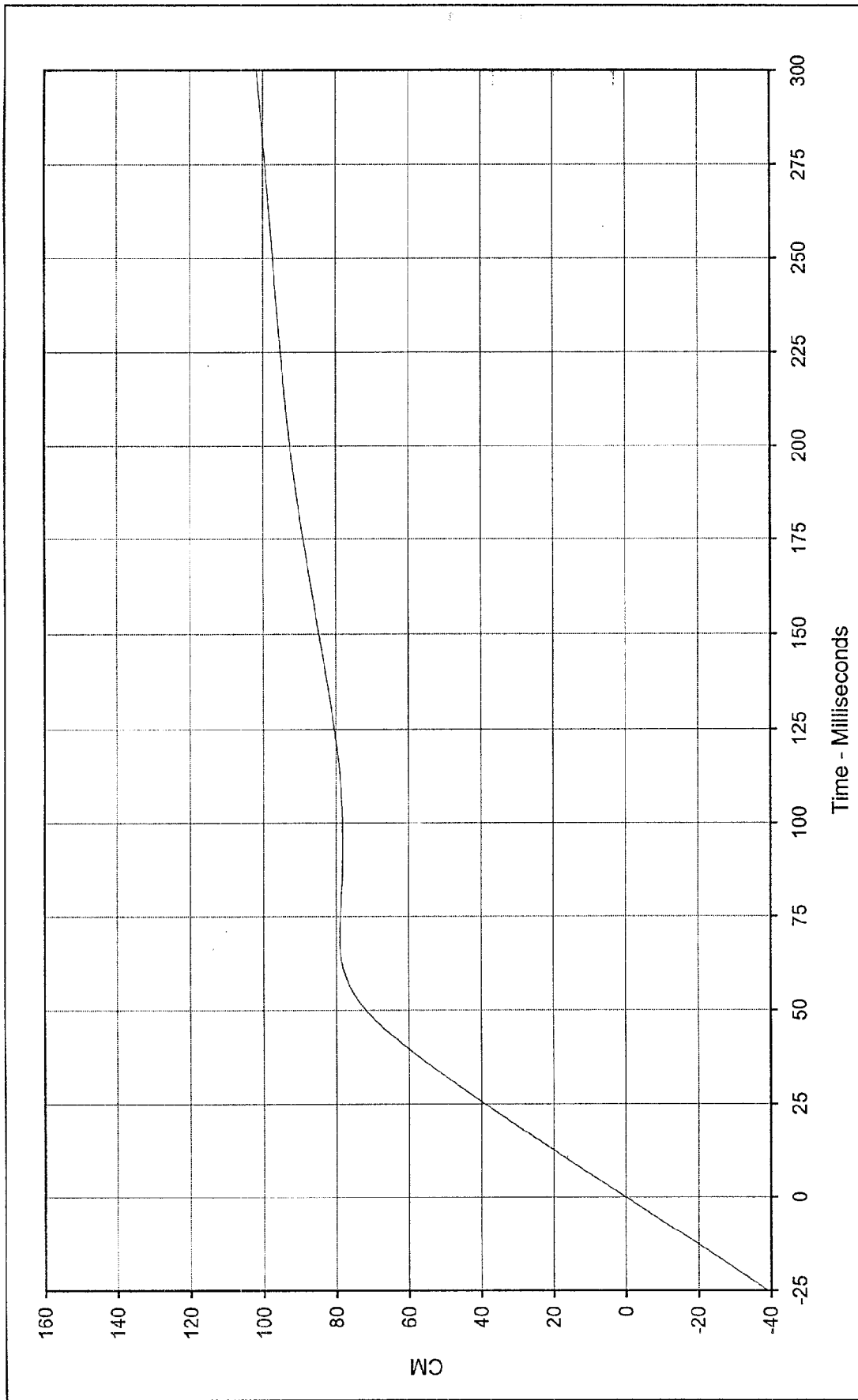




Curve Description: Passenger Pelvis X Velocity
 Maximum Value: 56.8 at 7.0 Milliseconds
 Minimum Value: -2.1 at 77.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-064

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Pelvis X Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 101.6 at 299.9 Milliseconds Test Vehicle: 1998 Honda CRV SUV

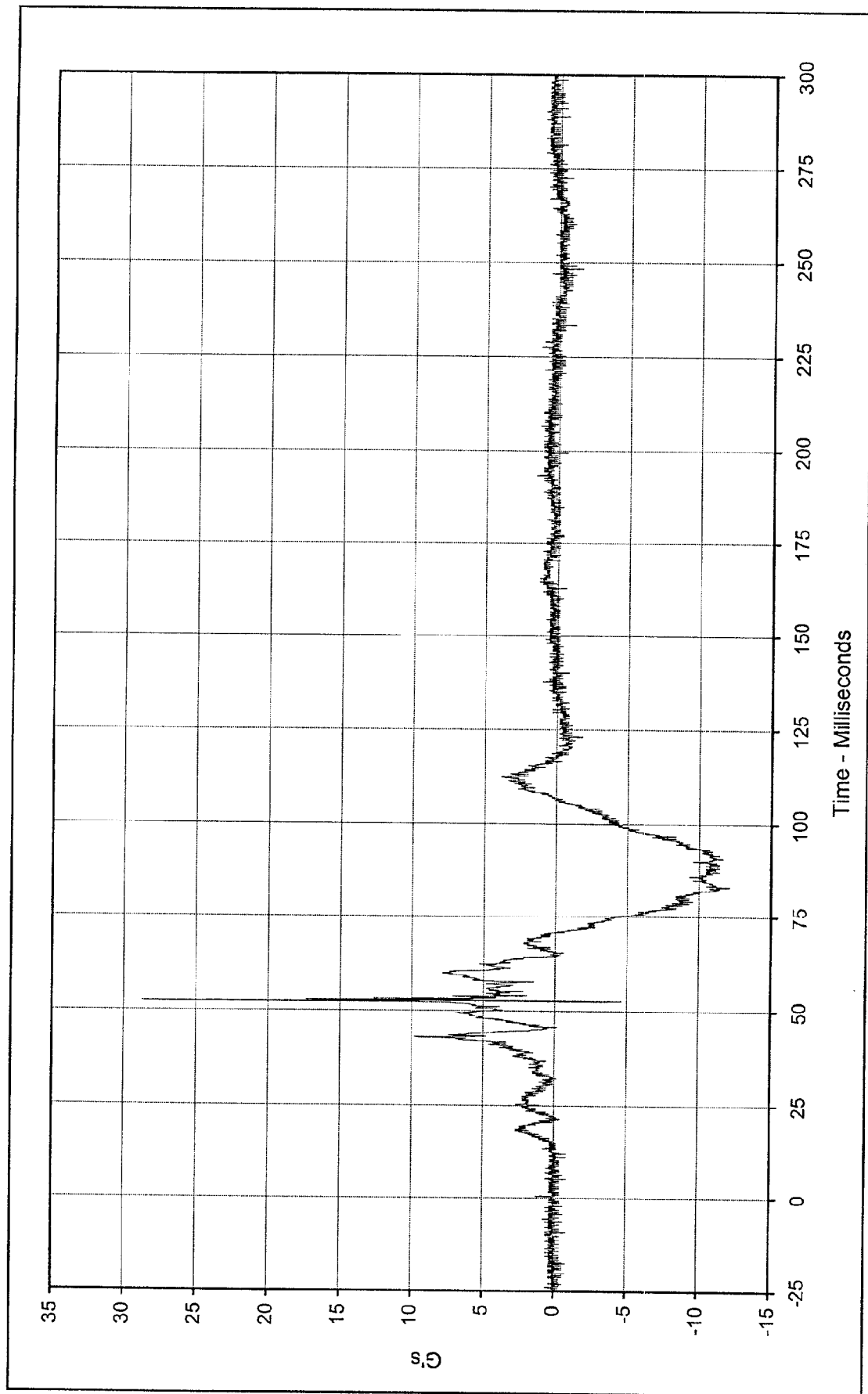
Minimum Value: 0.1 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

Curve Number: IN2-064





Curve Description:

Maximum Value: 28.3 at 52.5 Milliseconds

Minimum Value: -12.1 at 83.2 Milliseconds

SAE Filter Class: 1000

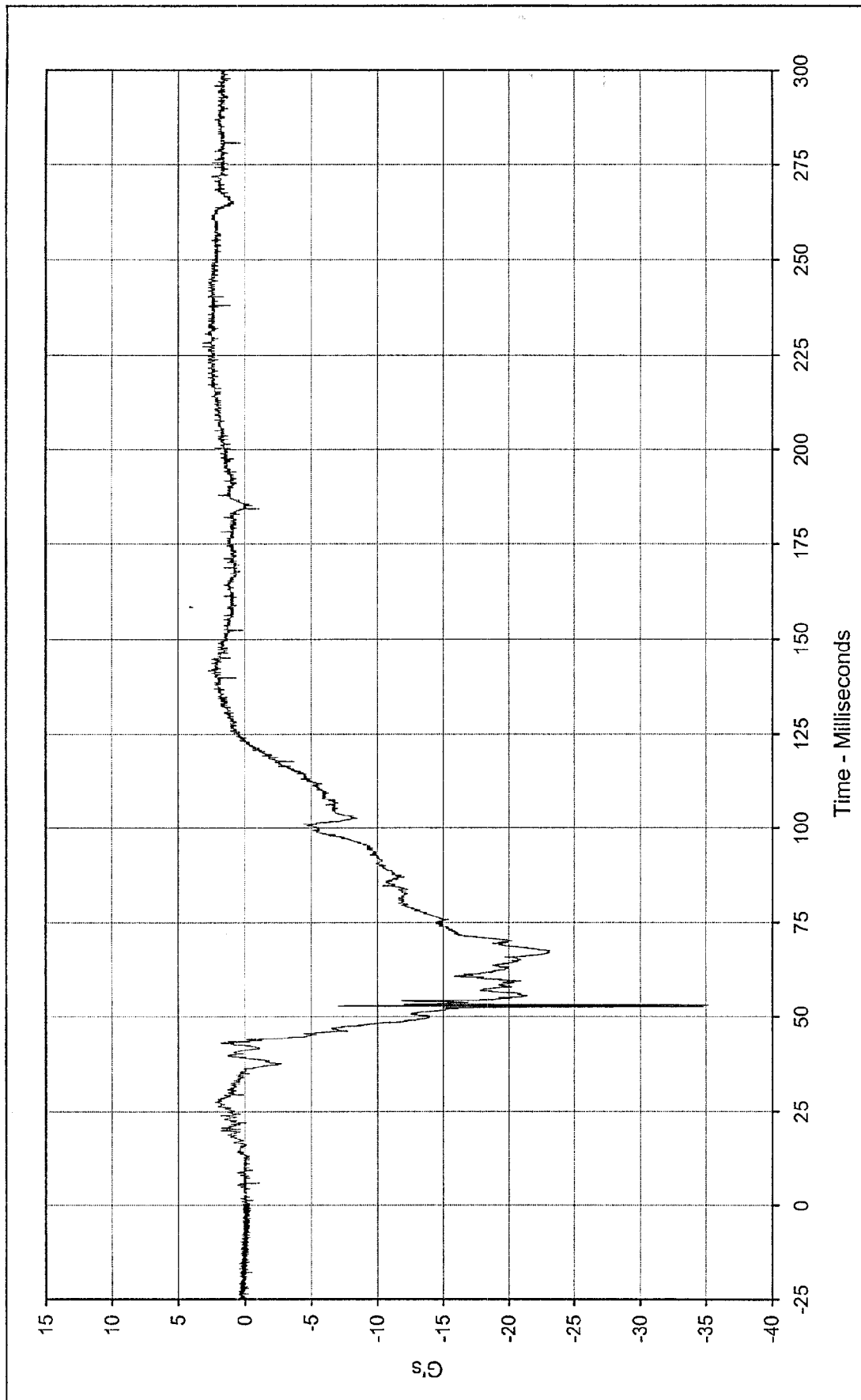
Date of Test: 2/20/98

Curve Number: FIL-065

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Pelvis Z

Maximum Value: 3.2 at 227.2 Milliseconds

Minimum Value: -34.8 at 52.6 Milliseconds

SAE Filter Class: 1000

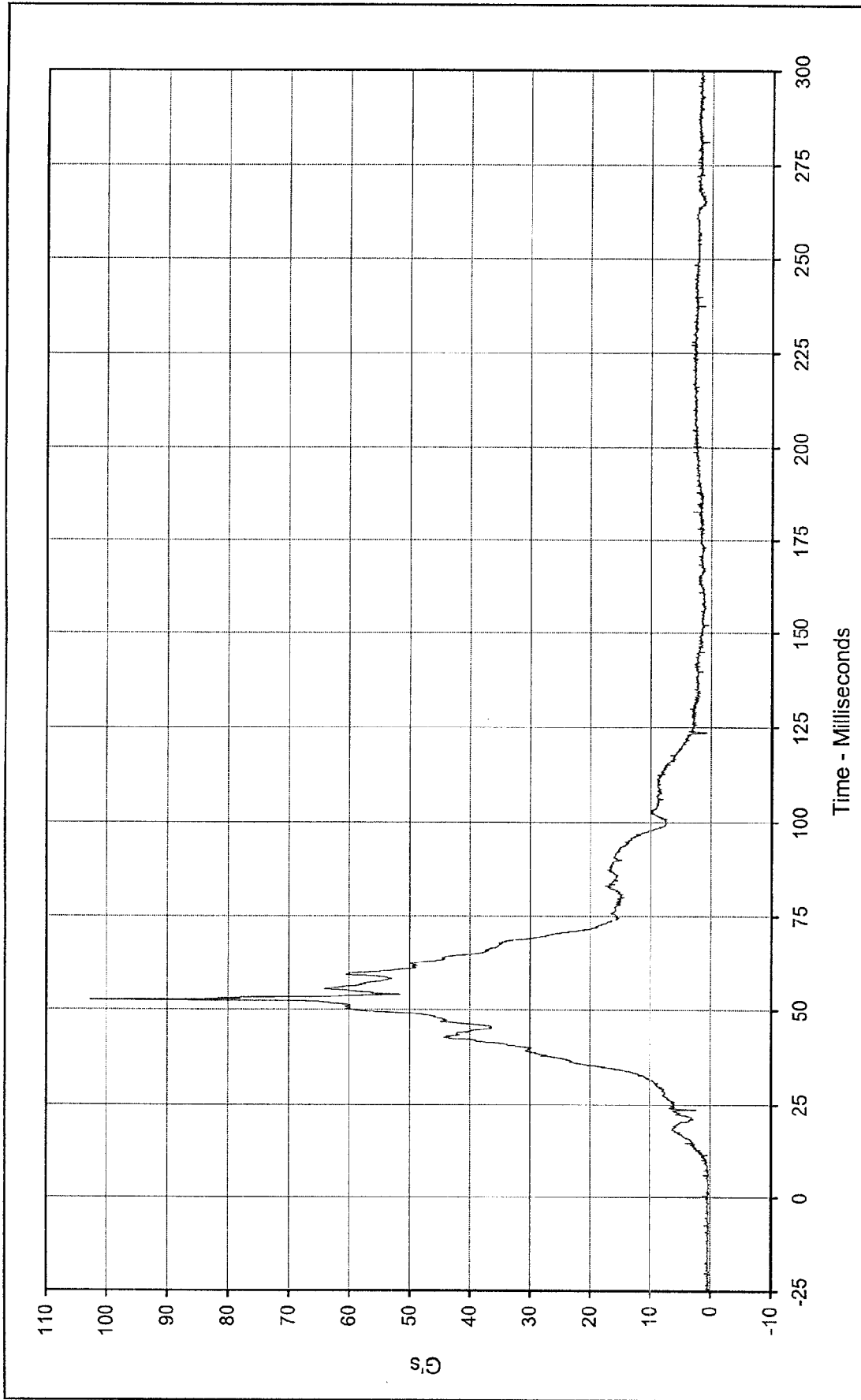
Date of Test: 2/20/98

Curve Number: FIL-066

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

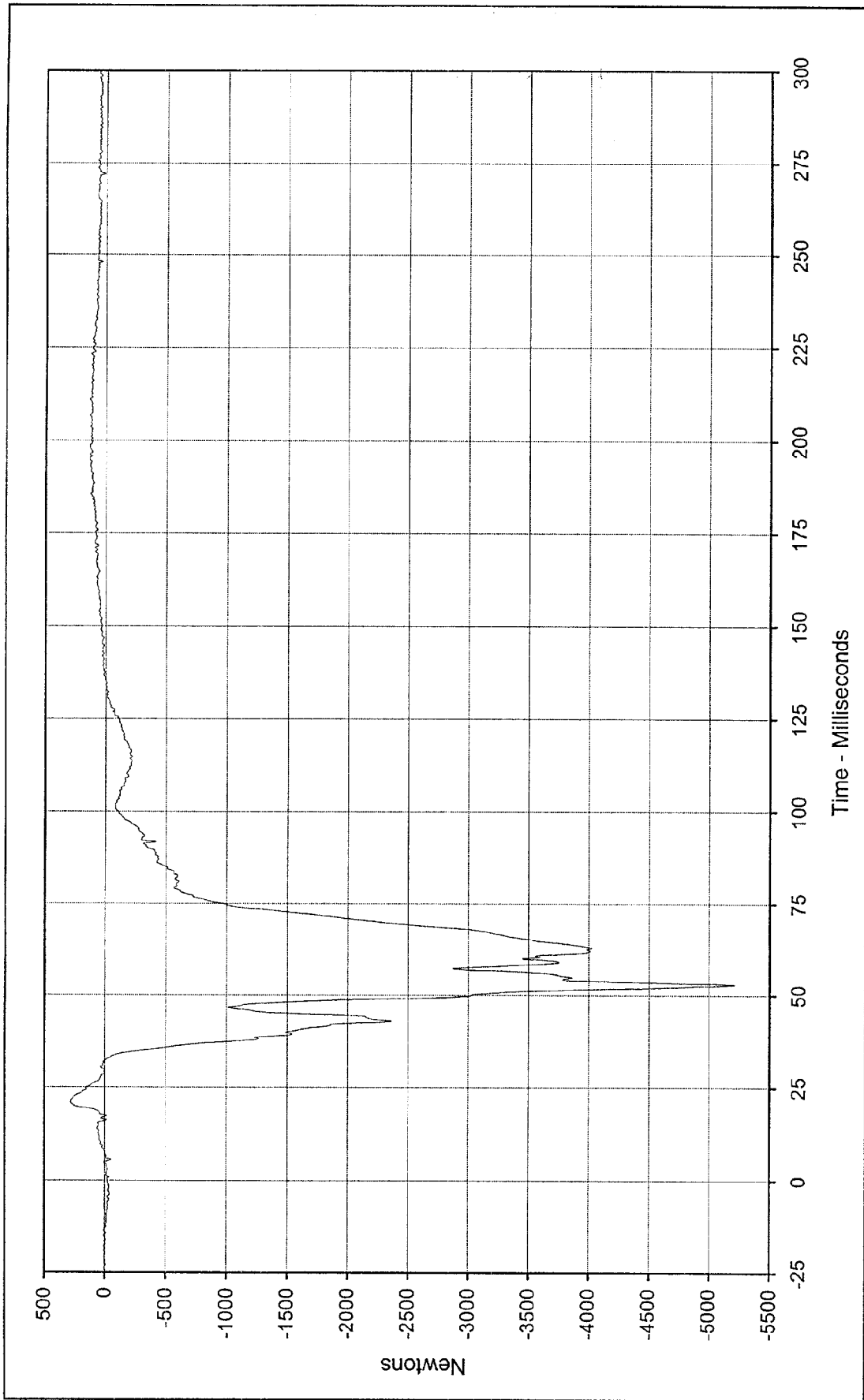
Test Vehicle: 1998 Honda CRV SUV





Curve Description:	Passenger Pelvis Resultant	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	102.8	at	52.5	Milliseconds
Minimum Value:	0.2	at	1.0	Milliseconds
SAE Filter Class:	1000			
Date of Test:	2/20/98	Test Vehicle:	1998 Honda CRV SUV	
Curve Number:	RES-064			

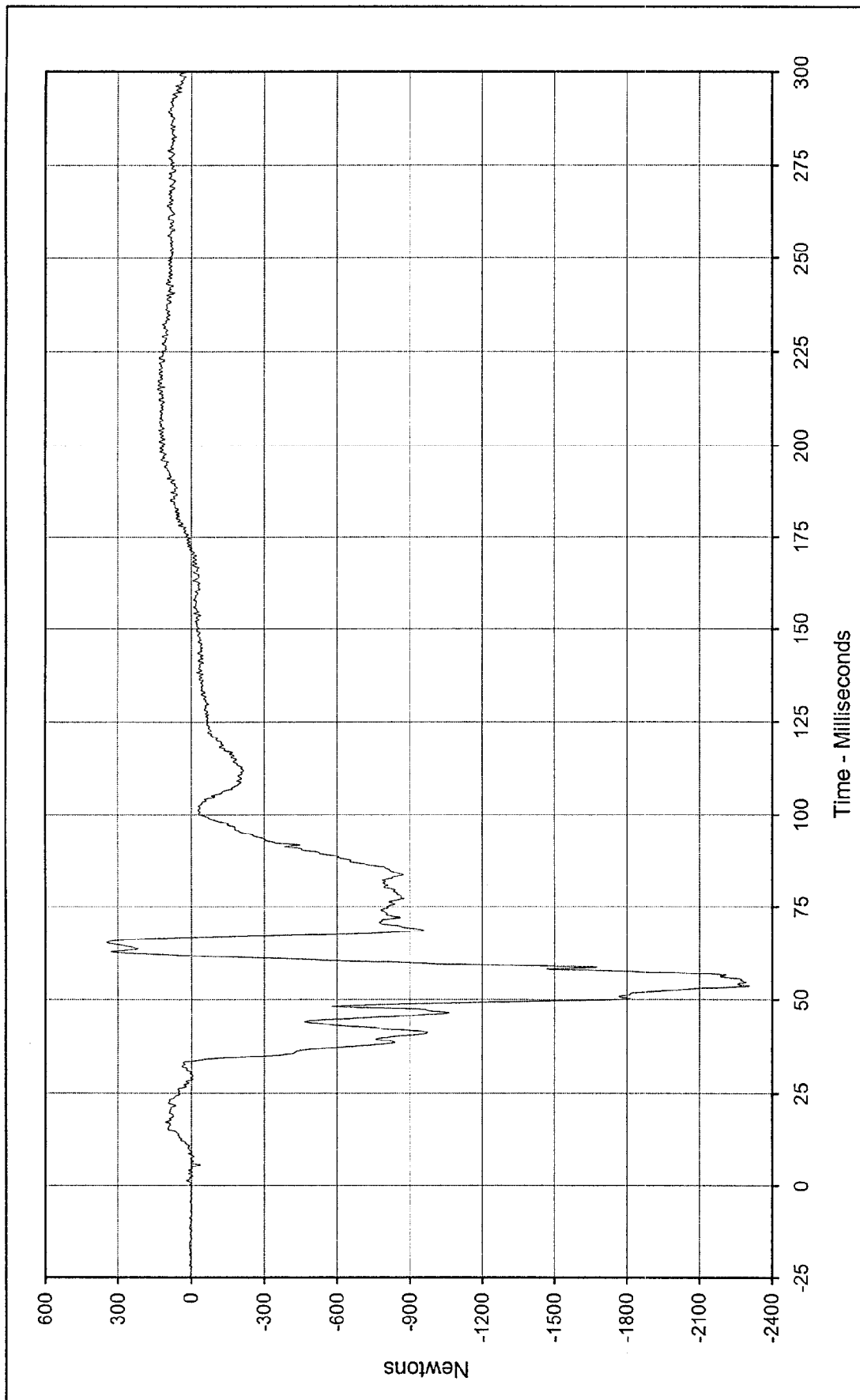




Curve Description: Passenger Left Femur Force
Maximum Value: 281.6 at 21 Milliseconds
Minimum Value: -5215.7 at 52.9 Milliseconds
SAE Filter Class: 600
Date of Test: 2/20/98
Curve Number: FIL-067

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV

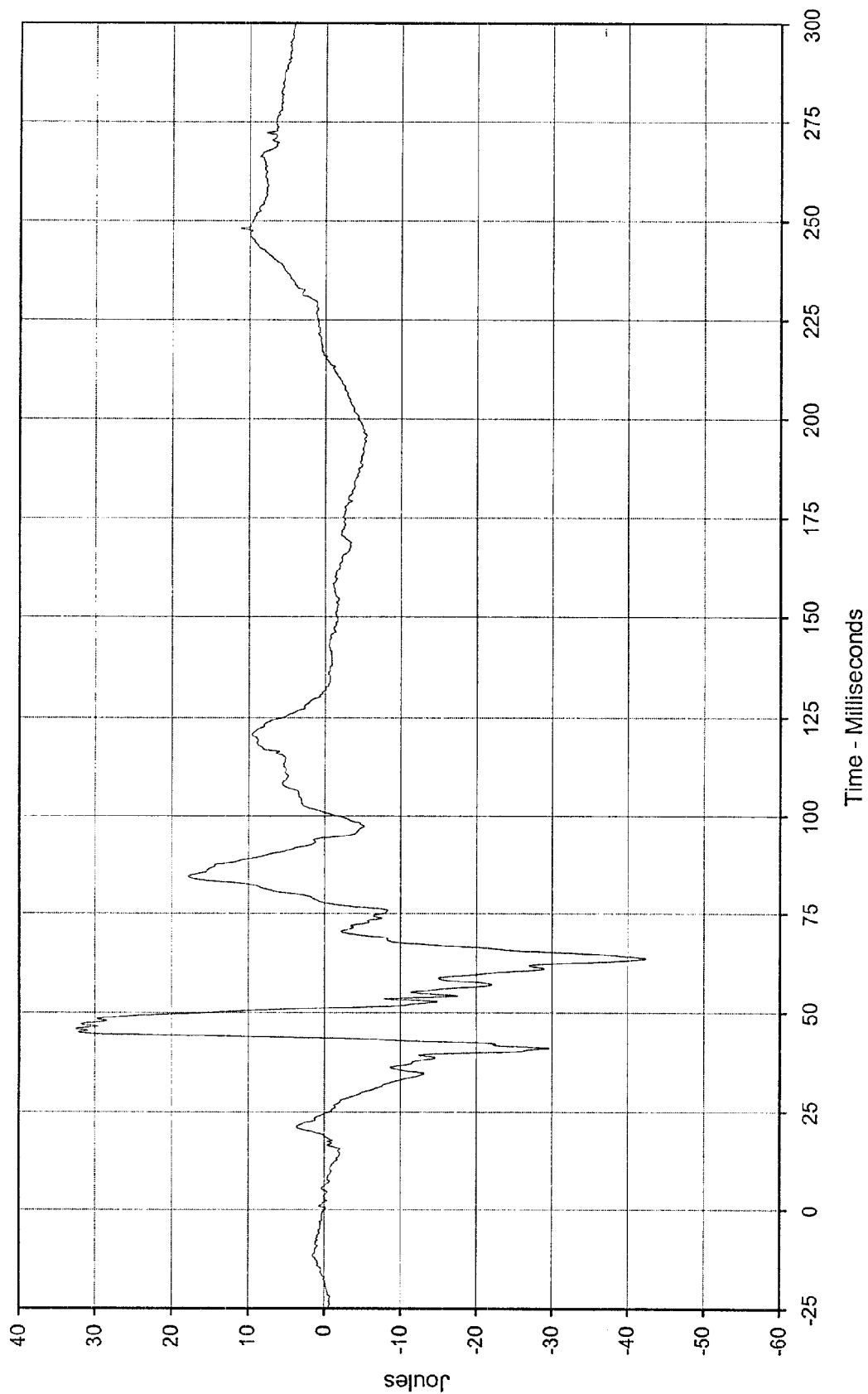




Curve Description: Passenger Right Femur Force
 Maximum Value: 346.3 at 65.4 Milliseconds
 Minimum Value: -2306.7 at 53.7 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-068

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





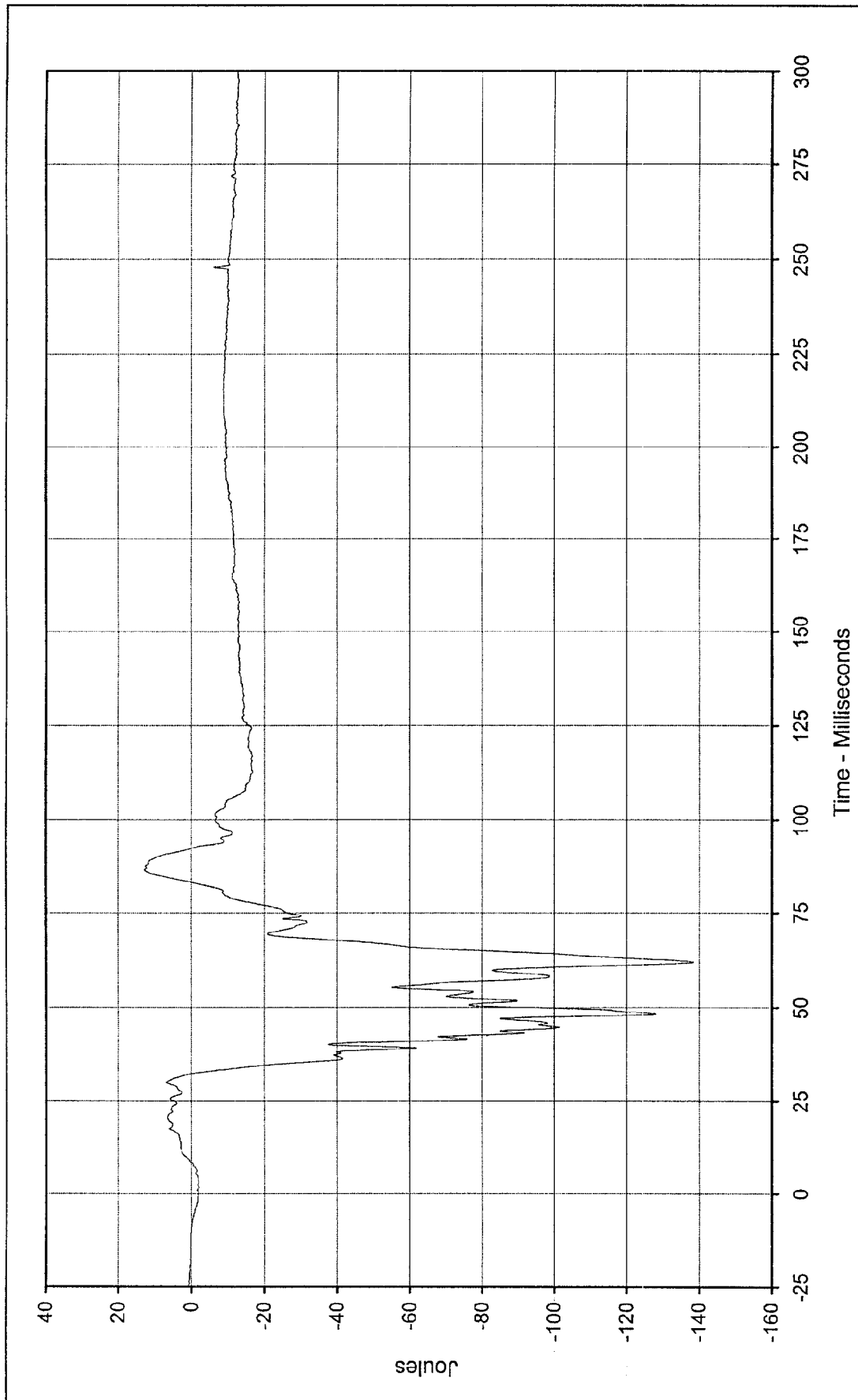
Curve Description: Passenger Left Upper Tibia Moment X

Maximum Value:	32.5	at	46.1	Milliseconds
Minimum Value:	-42.4	at	63.6	Milliseconds
SAE Filter Class:	600			
Date of Test:	2/20/98			
Curve Number:	FIL-069			

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

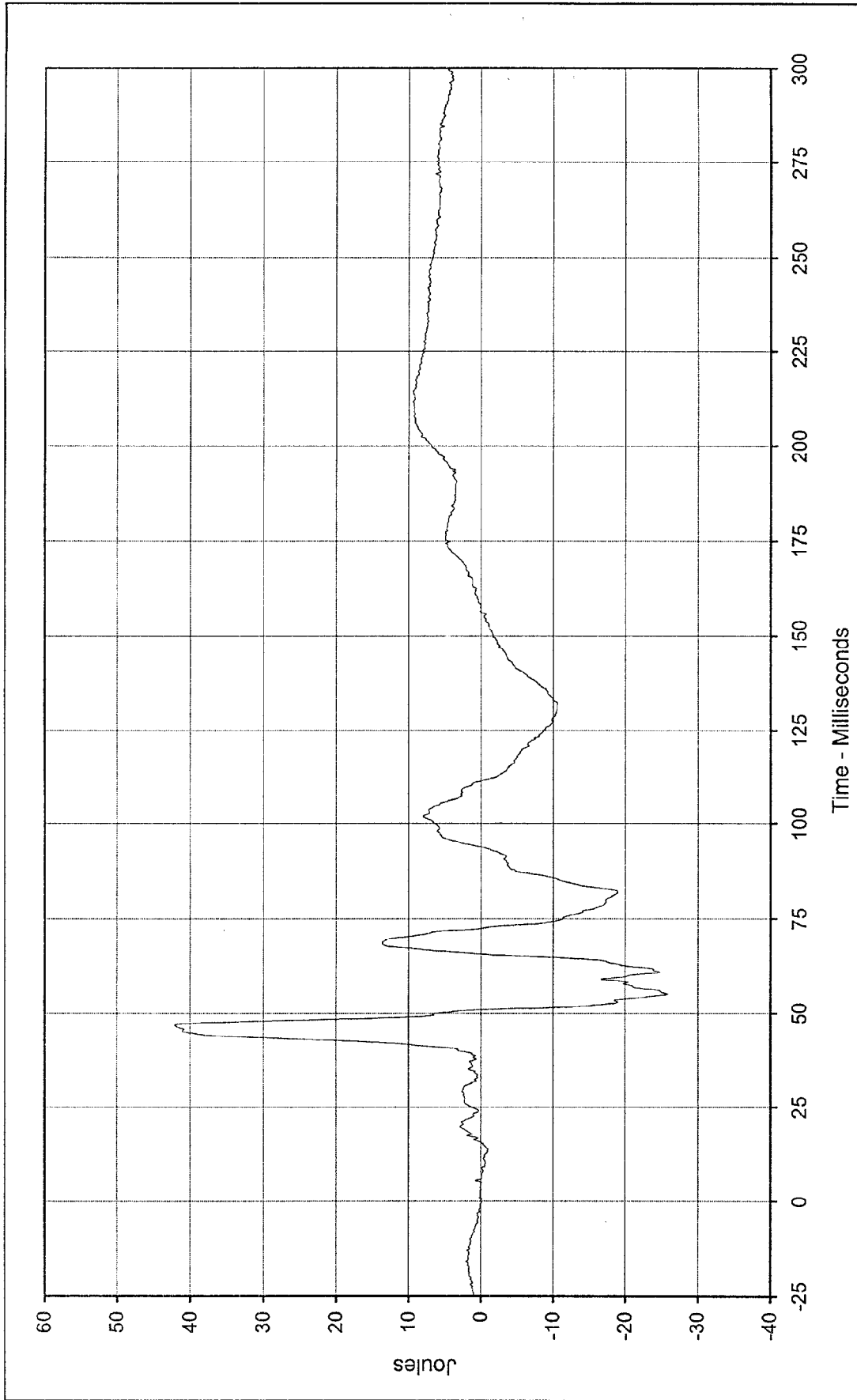
Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Left Upper Tibia Moment Y
Maximum Value: 12.8 at 86.3 Milliseconds
Minimum Value: -138.5 at 61.8 Milliseconds
SAE Filter Class: 600
Date of Test: 2/20/98
Curve Number: FIL-070





Curve Description: Passenger Right Upper Tibia Moment X

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 42.1 at 46.8 Milliseconds

Test Vehicle: 1998 Honda CRV SUV

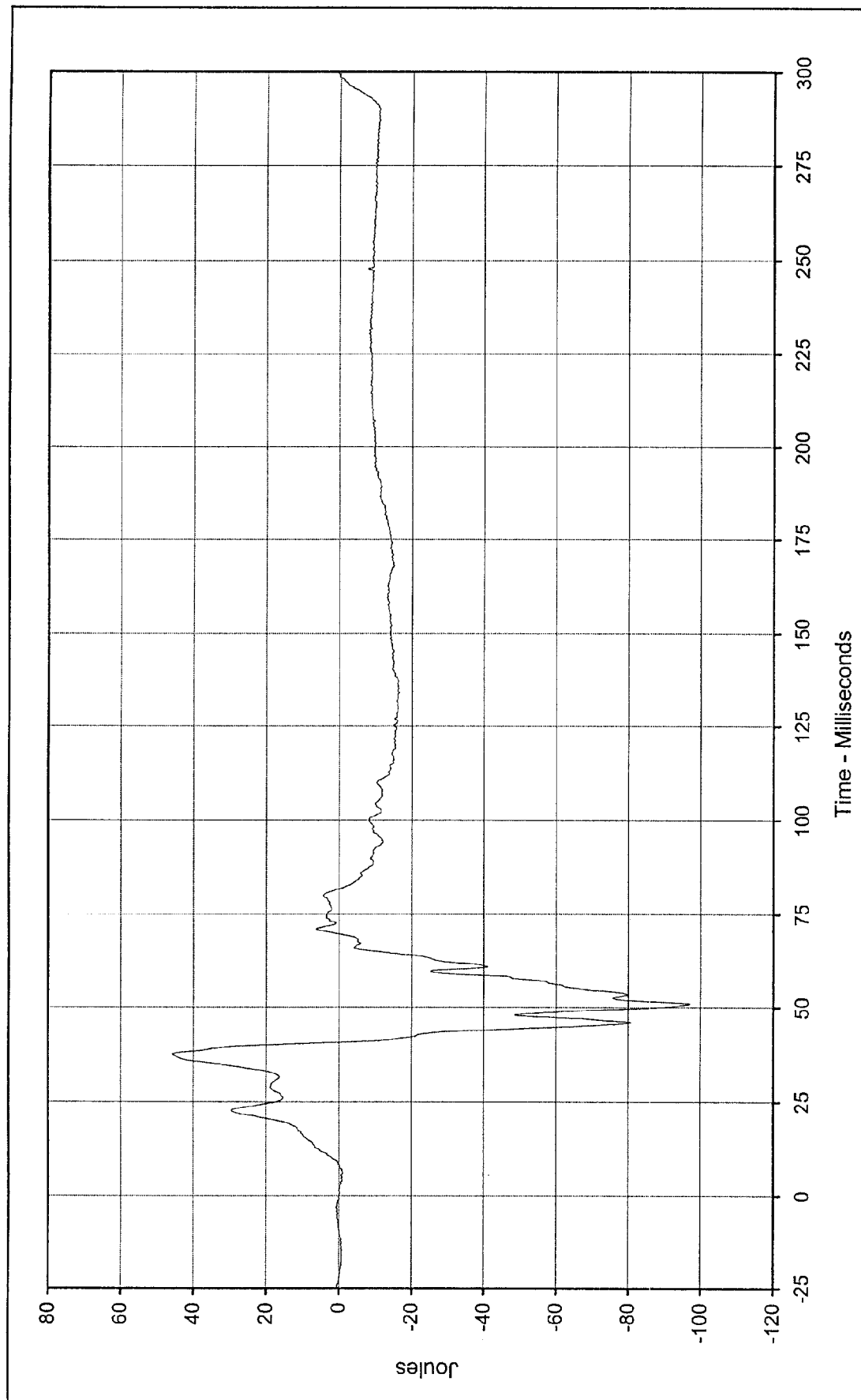
Minimum Value: -25.8 at 55.1 Milliseconds

SAE Filter Class: 600

Date of Test: 2/20/98

Curve Number: FIL-071





Curve Description: Passenger Right Upper Tibia Moment Y

Maximum Value: 45.7 at 37.7 Milliseconds

Minimum Value: -97.0 at 51.0 Milliseconds

SAE Filter Class: 600

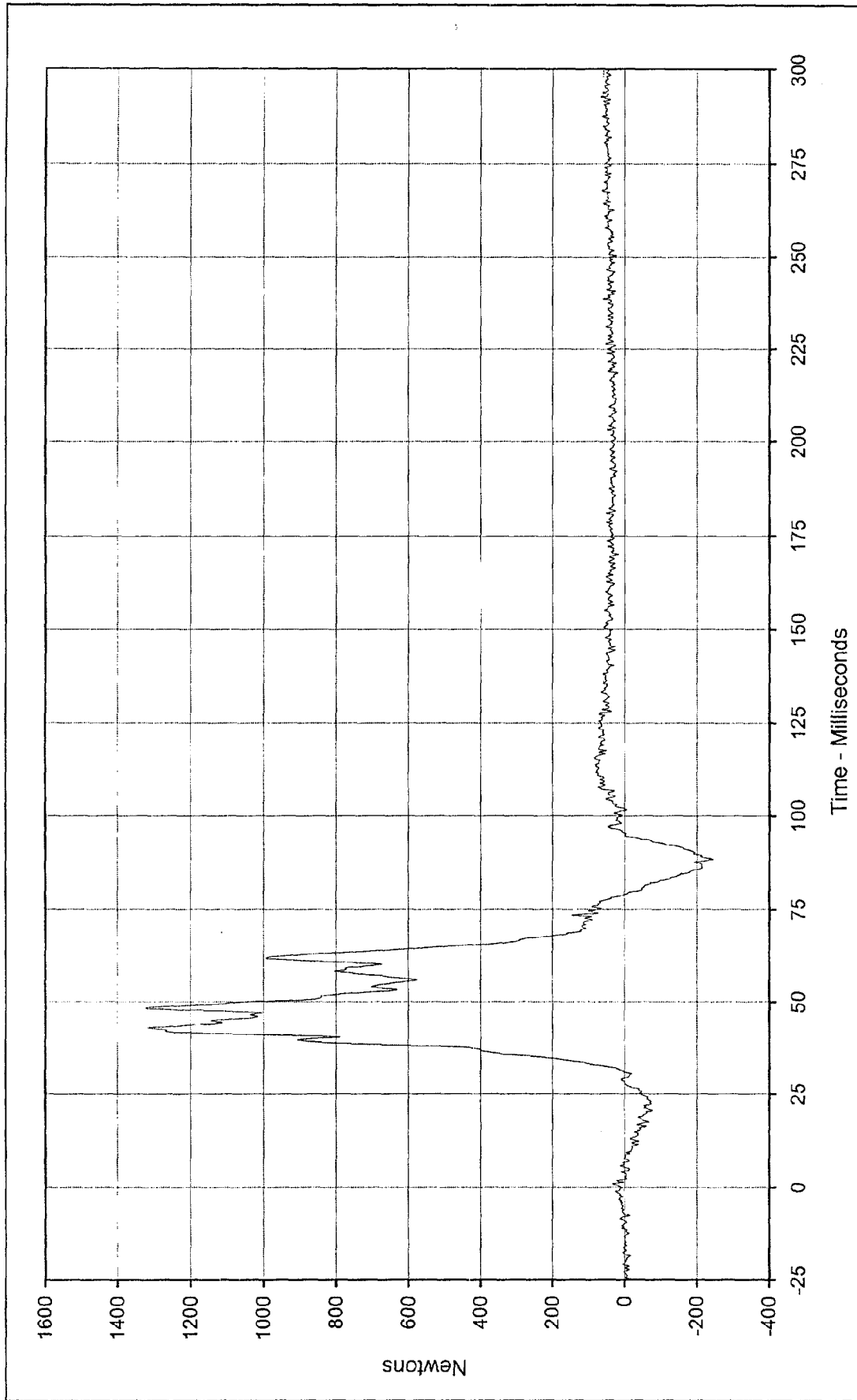
Date of Test: 2/20/98

Curve Number: FIL-072

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Left Lower Tibia Force X

Maximum Value: 1324.2 at 48.4 Milliseconds

Minimum Value: -243.4 at 88.4 Milliseconds

SAE Filter Class: 600

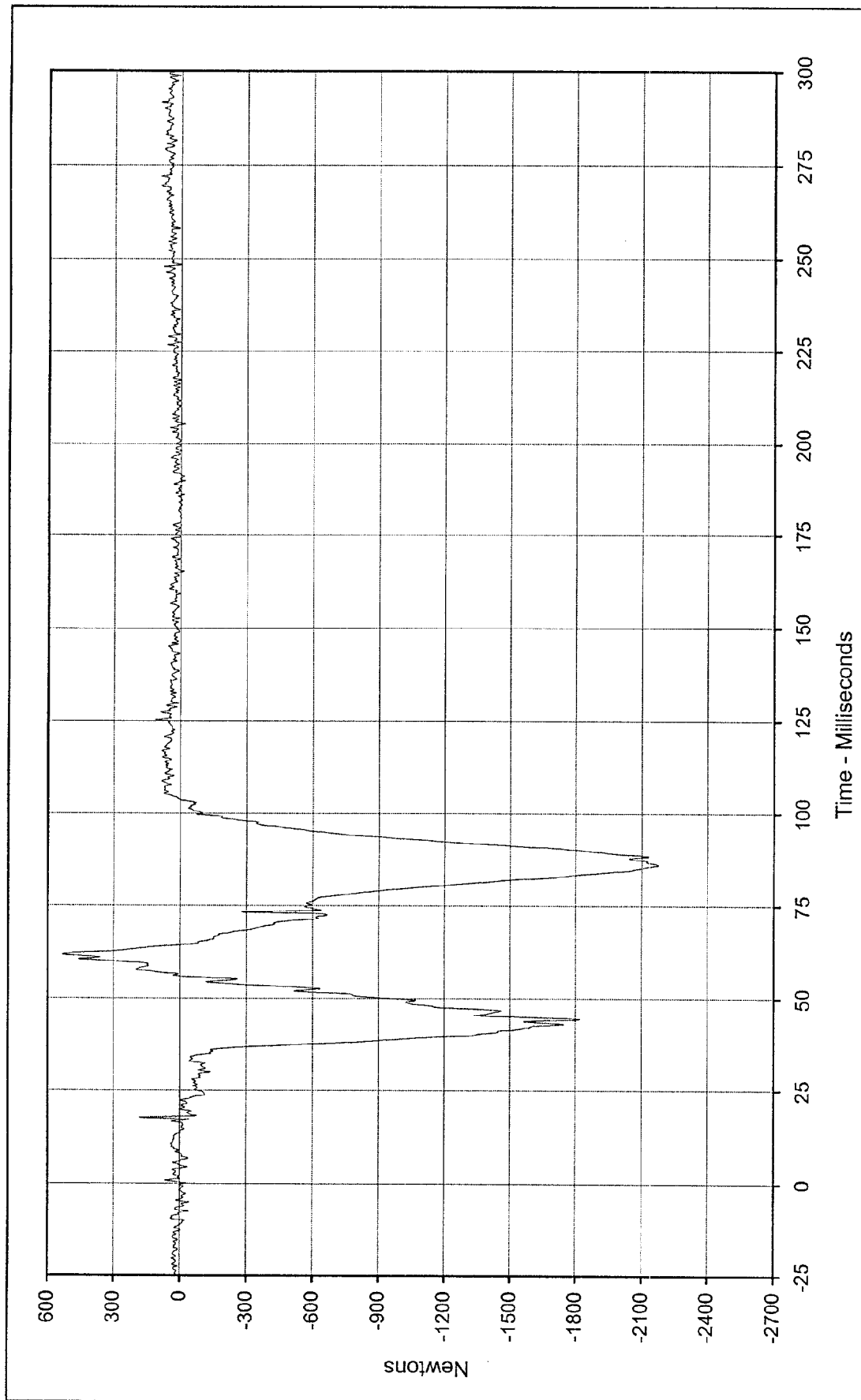
Date of Test: 2/20/98

Curve Number: FIL-073

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

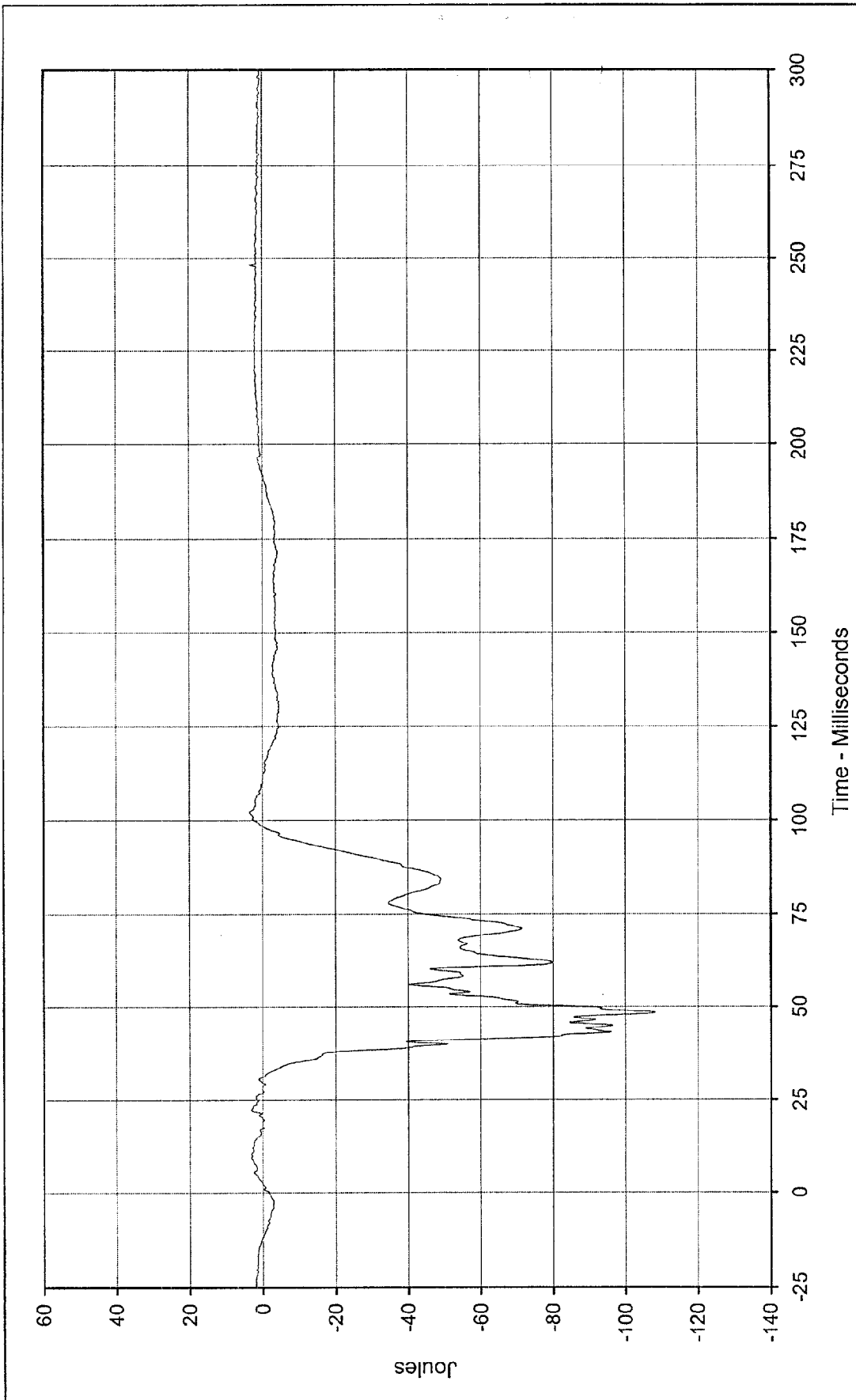




Curve Description: Passenger Left Lower Tibia Force Z
 Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Maximum Value: 532.7 at 61.7 Milliseconds
 Test Vehicle: 1998 Honda CRV SUV
 Minimum Value: -2177.0 at 86.0 Milliseconds



SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-074



Curve Description: Passenger Left Lower Tibia Moment Y

Maximum Value: 3.4 at 101.9 Milliseconds

Minimum Value: -108.2 at 48.5 Milliseconds

SAE Filter Class: 600

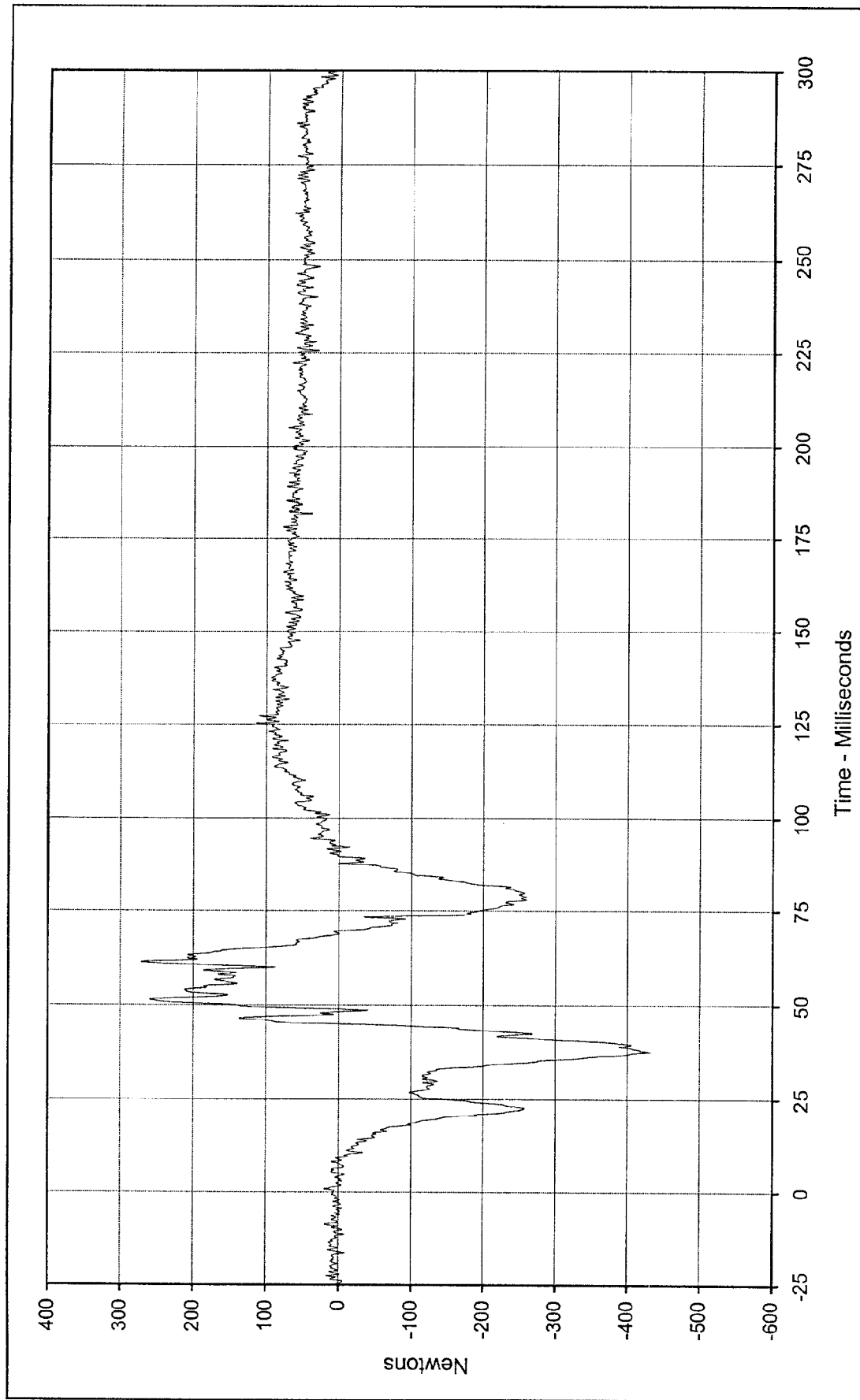
Date of Test: 2/20/98

Curve Number: FIL-075

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





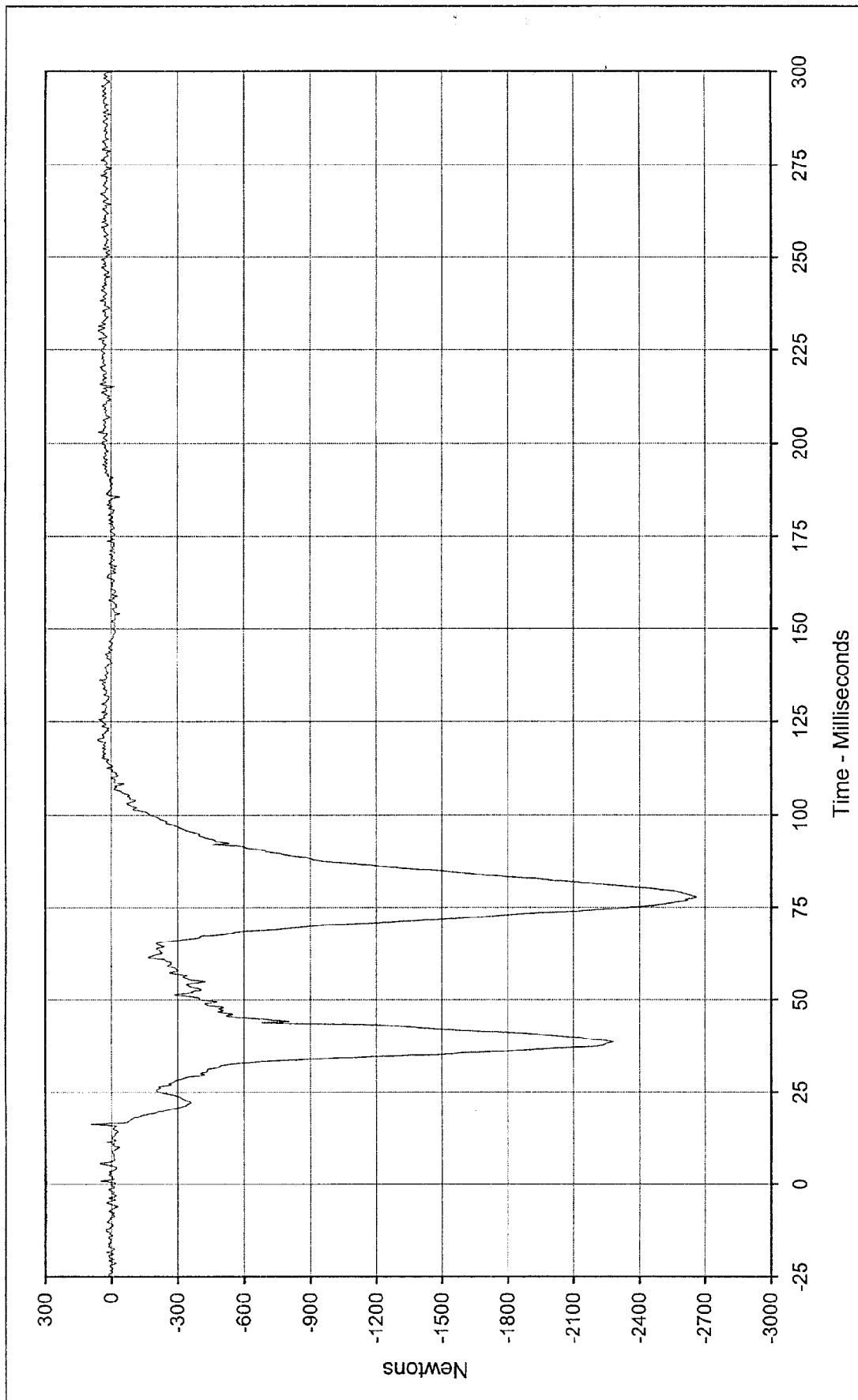
Curve Description: Passenger Right Lower Tibia Force X

Maximum Value:	271.2	at	61.3	Milliseconds
Minimum Value:	-432.2	at	37.7	Milliseconds
SAE Filter Class:	600			
Date of Test:	2/20/98			
Curve Number:	FIL-076			

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Right Lower Tibia Force Z

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 93.7 at 16.4 Milliseconds

Test Vehicle: 1998 Honda CRV SUV

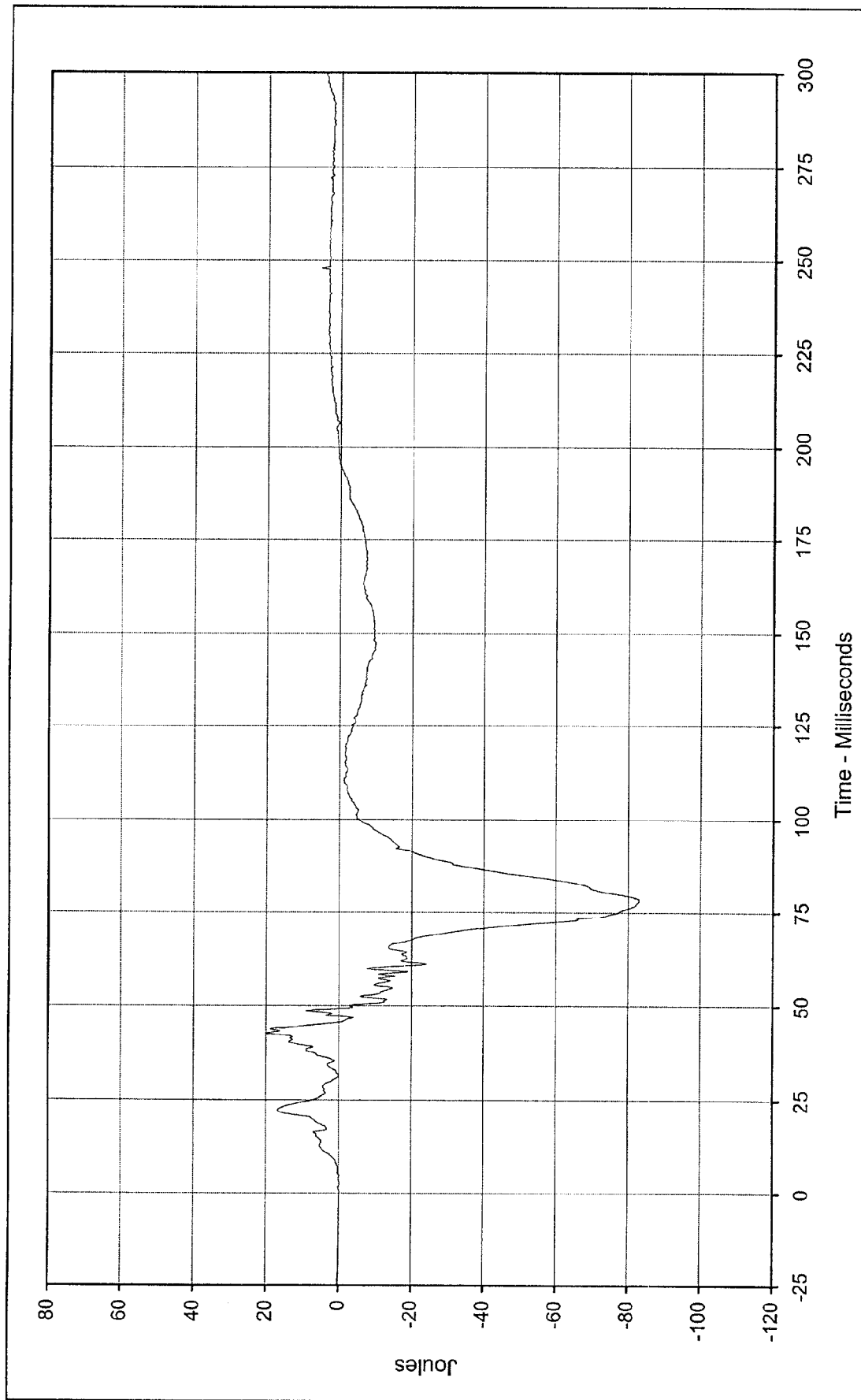
Minimum Value: -2659.1 at 77.8 Milliseconds

SAE Filter Class: 600

Date of Test: 2/20/98

Curve Number: FIL-077

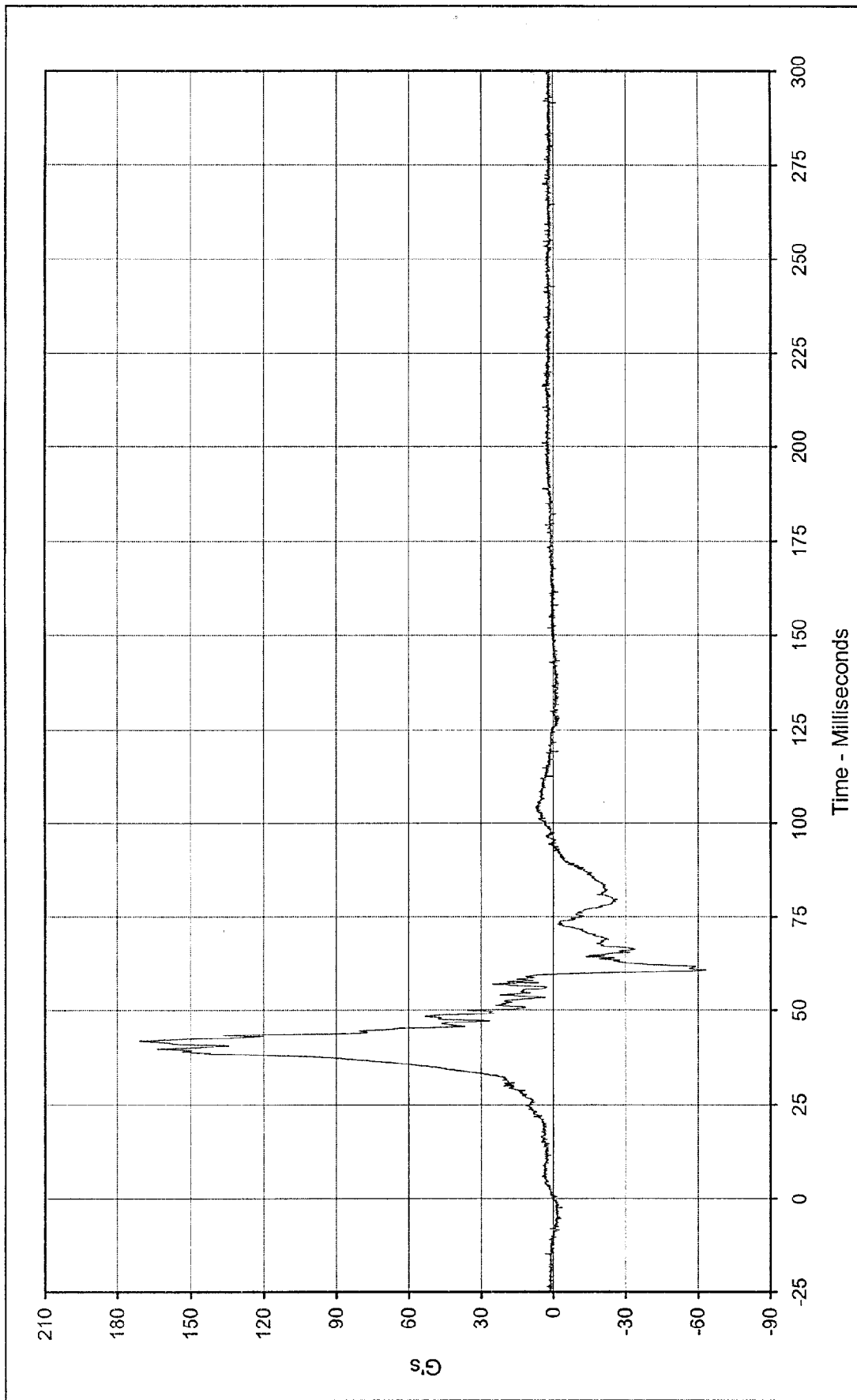




Curve Description: Passenger Right lower Tibia Moment Y
 Maximum Value: 20.0 at 42.5 Milliseconds
 Minimum Value: -83.1 at 78.4 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/20/98
 Curve Number: FIL-078

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Left Foot Aft X

Maximum Value: 171.2 at 41.7 Milliseconds

Minimum Value: -63.3 at 60.6 Milliseconds

SAE Filter Class: 1000

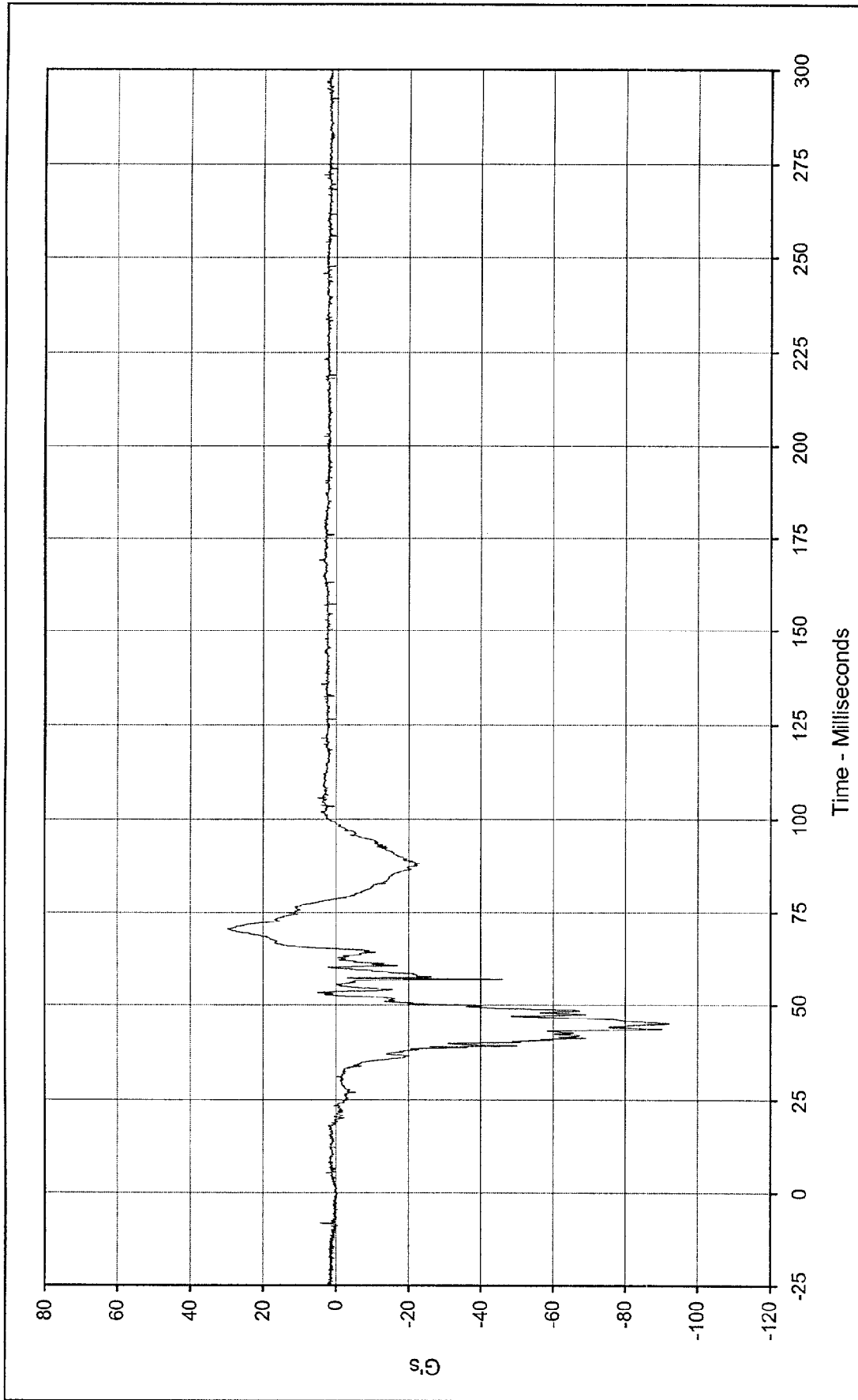
Date of Test: 2/20/98

Curve Number: FIL-079

Testing Program: 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Left Foot Aft Z Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 29.9 at 70.4 Milliseconds Test Vehicle: 1998 Honda CRV SUV

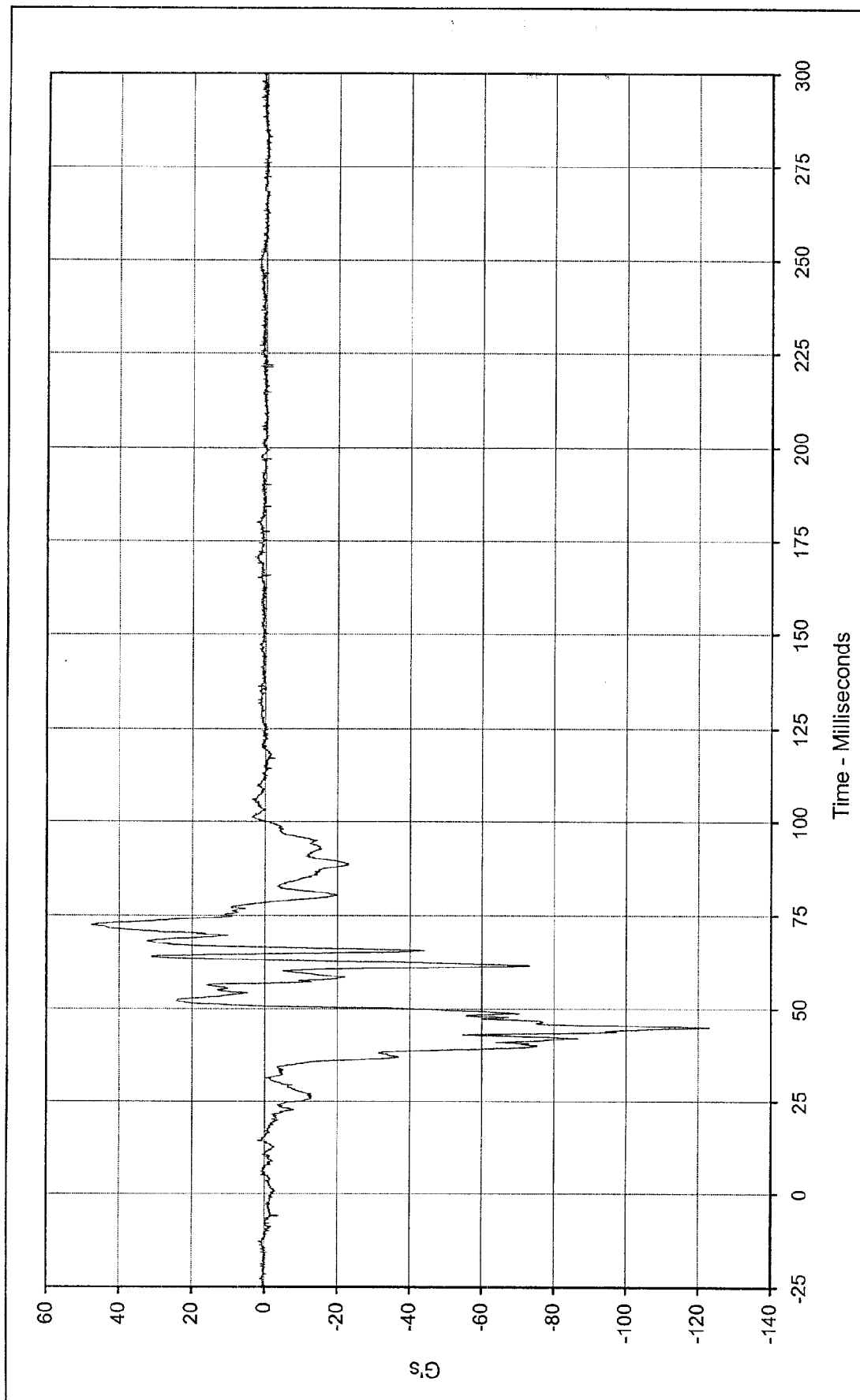
Minimum Value: -92.2 at 45.0 Milliseconds

SAE Filter Class: 1000

Date of Test: 2/20/98

Curve Number: FIL-080

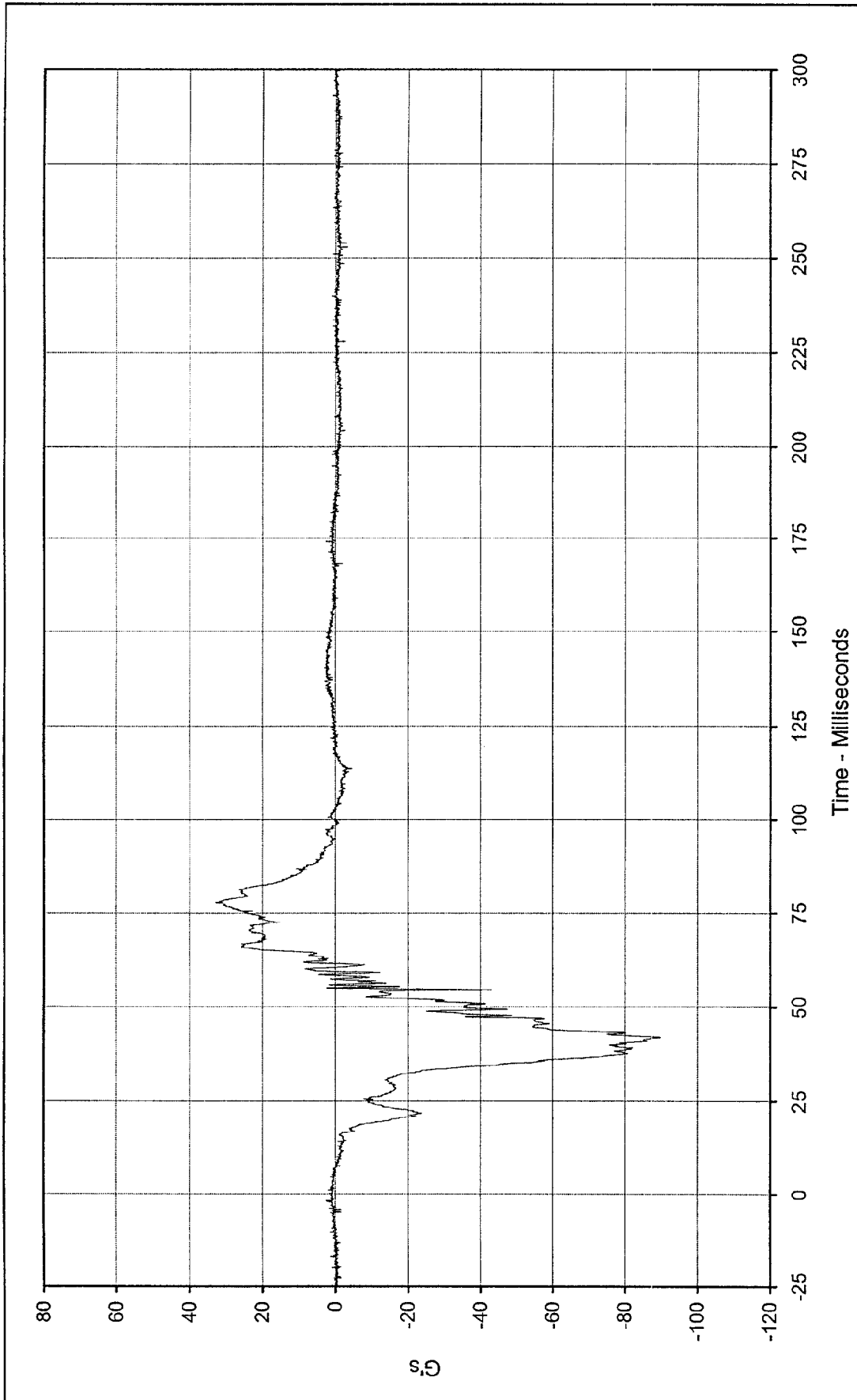




Curve Description:	Passenger Left Foot Fore Z		Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	47.7	at 72.4	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-123.0	at 45.0			
SAE Filter Class:	1000				
Date of Test:	2/20/98				
Curve Number:	FIL-081				



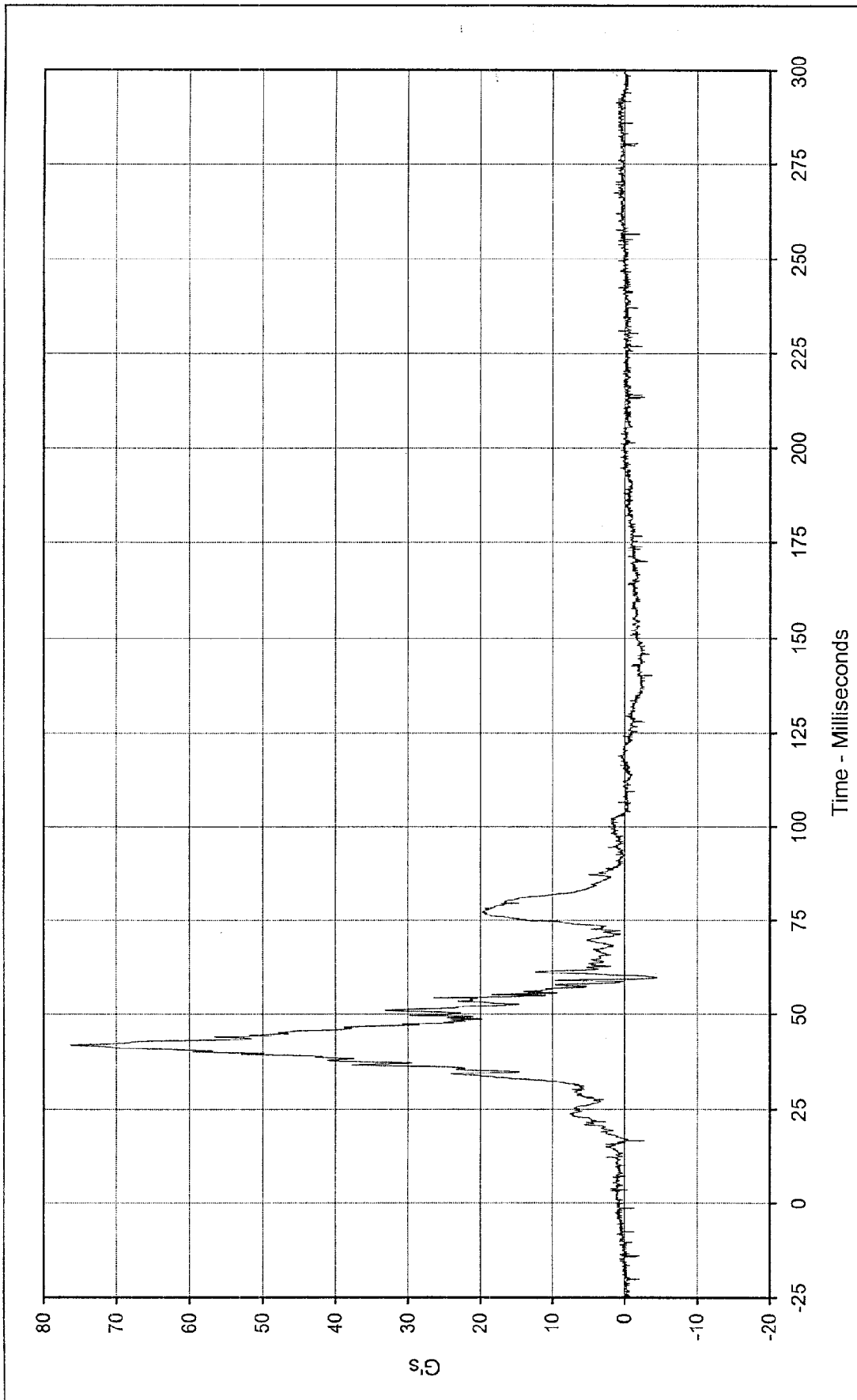




Curve Description:	Passenger Right Foot Aft X			Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	32.7	at	77.7	Milliseconds	Test Vehicle:	1998 Honda CRV SUV
Minimum Value:	-89.8	at	41.8	Milliseconds		
SAE Filter Class:	1000					
Date of Test:	2/20/98					
Curve Number:	FIL-082					







Curve Description: Passenger Right Foot Aft Z

Maximum Value: 76.3 at 41.7 Milliseconds

Minimum Value: -4.4 at 59.6 Milliseconds

SAE Filter Class: 1000

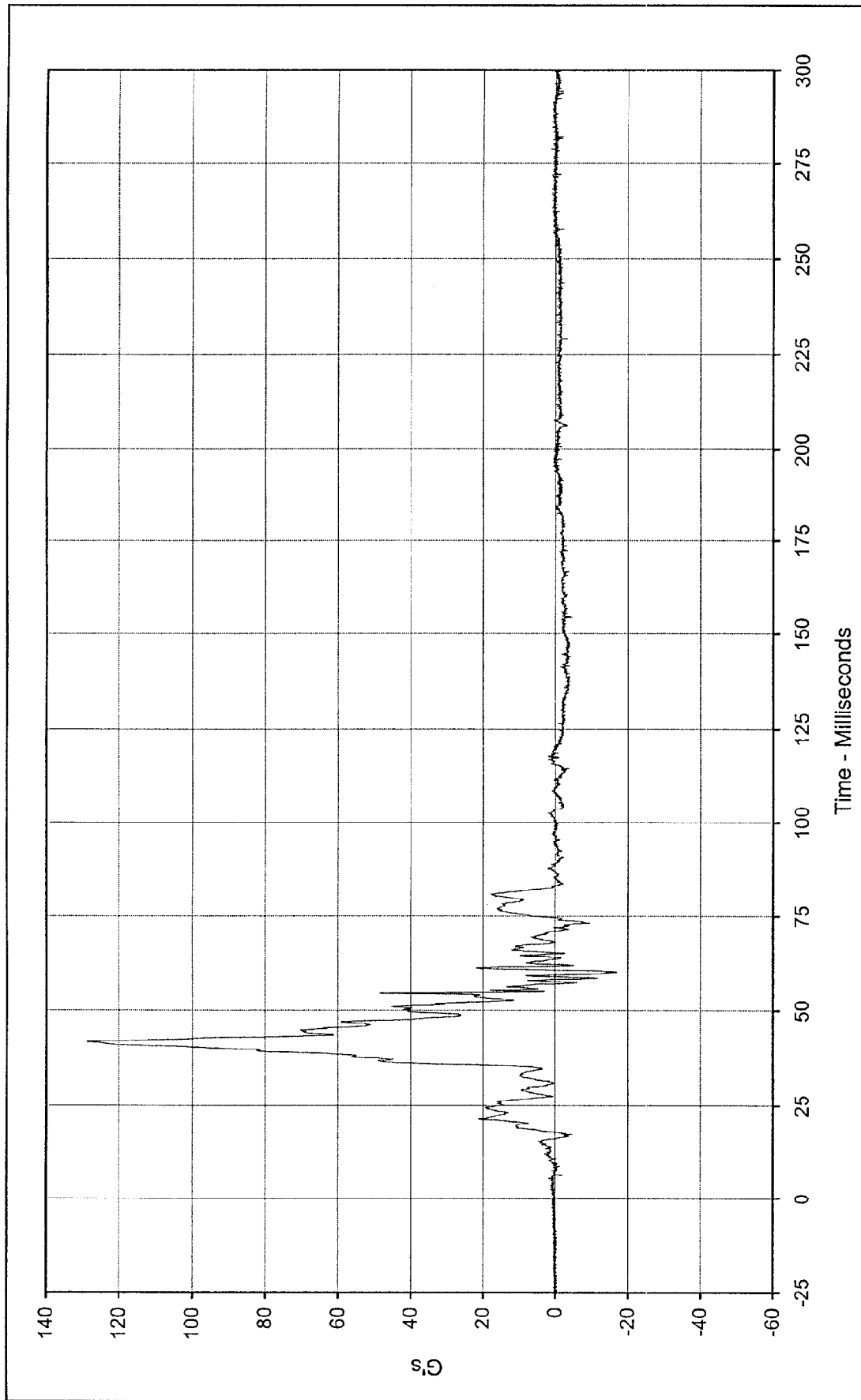
Date of Test: 2/20/98

Curve Number: FIL-083

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Passenger Right Foot Fore Z Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 128.8 at 41.9 Milliseconds Test Vehicle: 1998 Honda CRV SUV

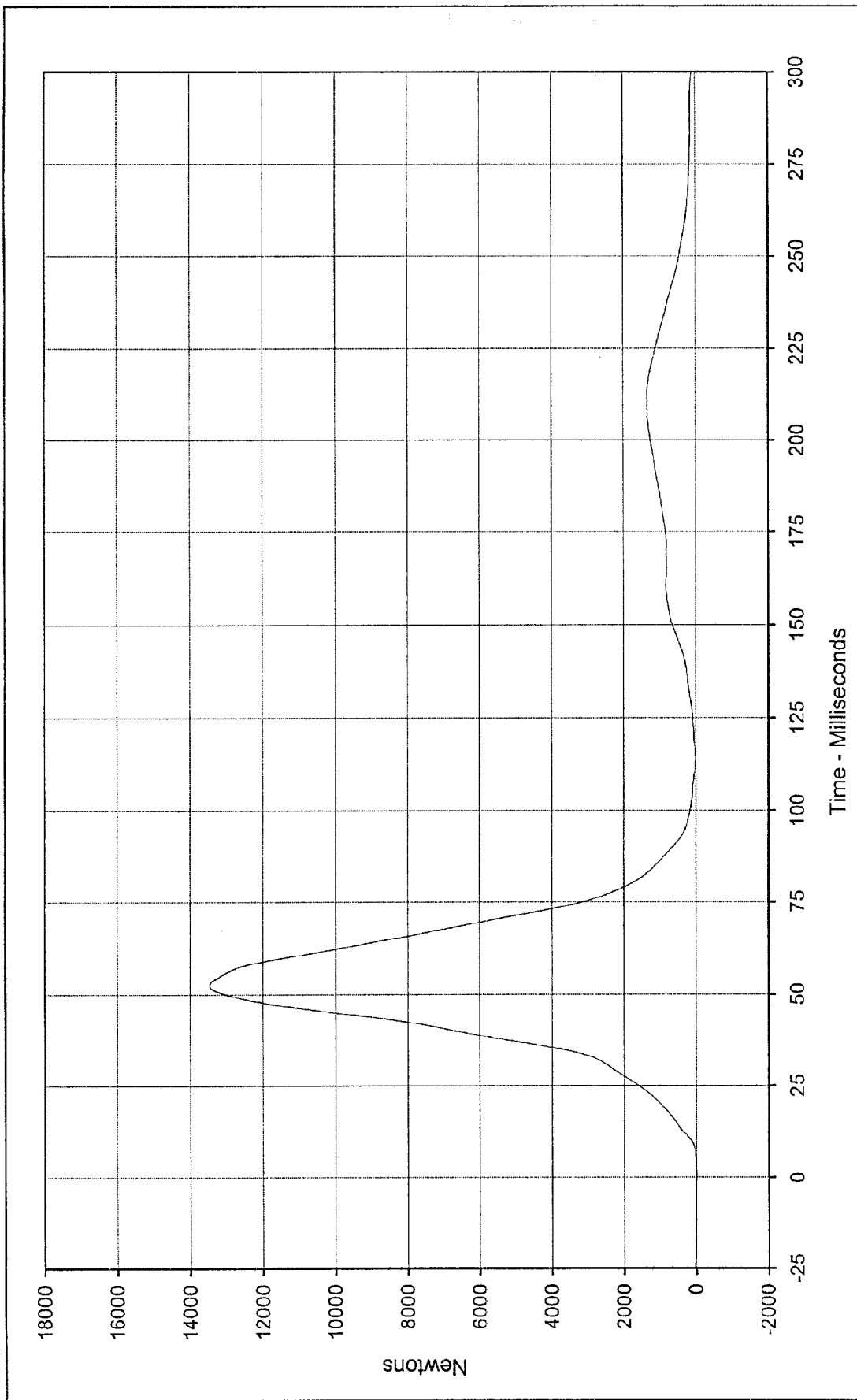
Minimum Value: -17.0 at 60.2 Milliseconds

SAE Filter Class: 1000

Date of Test: 2/20/98

Curve Number: FIL-084

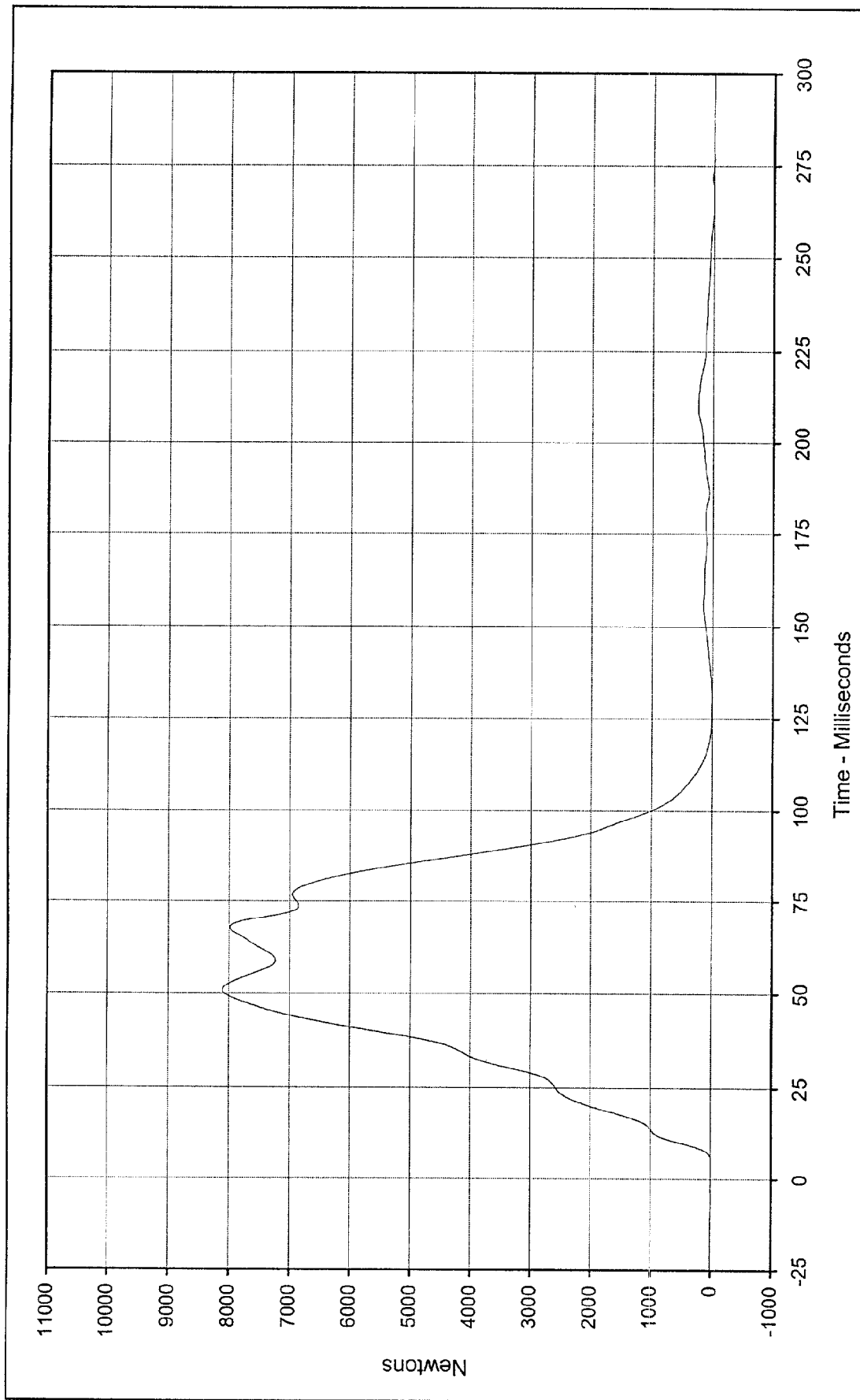




Curve Description: Passenger Lap Belt Force Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Maximum Value: 13472.9 at 52.5 Milliseconds Test Vehicle: 1998 Honda CRV SUV
 Minimum Value: -14.2 at 0.8 Milliseconds

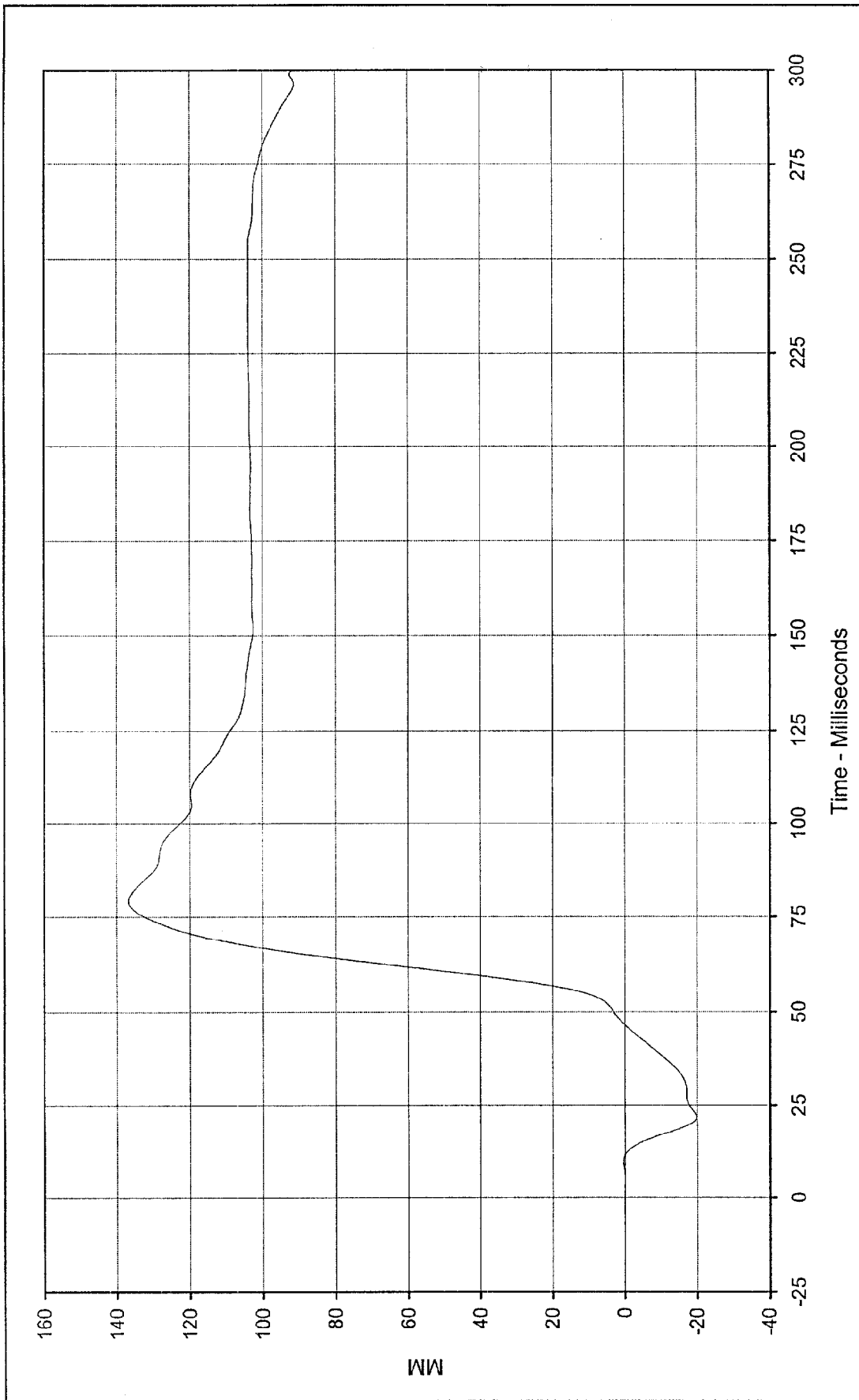


SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-085



Curve Description:	Passenger Shoulder Belt Force	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	8108.0 at 50.8 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-16.5 at 276.9 Milliseconds			
SAE Filter Class:	60			
Date of Test:	2/20/98			
Curve Number:	FIL-086			





Curve Description: Passenger Shoulder Belt Pullout Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 136.7 at 79.1 Milliseconds Test Vehicle: 1998 Honda CRV SUV

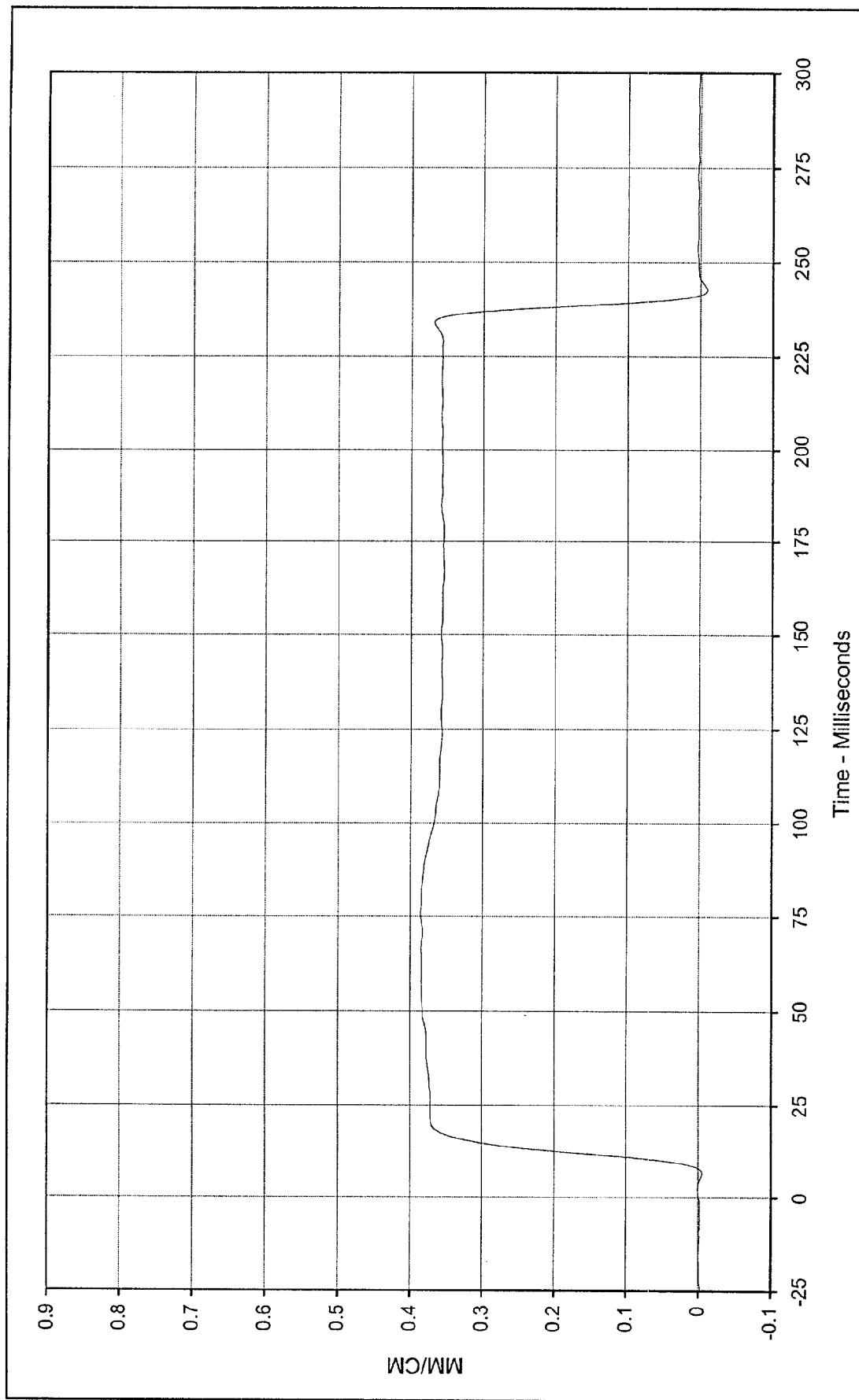
Minimum Value: -19.8 at 21.8 Milliseconds

SAE Filter Class: 60

Date of Test: 2/20/98

Curve Number: FIL-087





Curve Description: Passenger Shoulder Belt Elongation

Maximum Value: 0.39 at 75.8 Milliseconds

Minimum Value: -0.01 at 242.7 Milliseconds

SAE Filter Class: 60

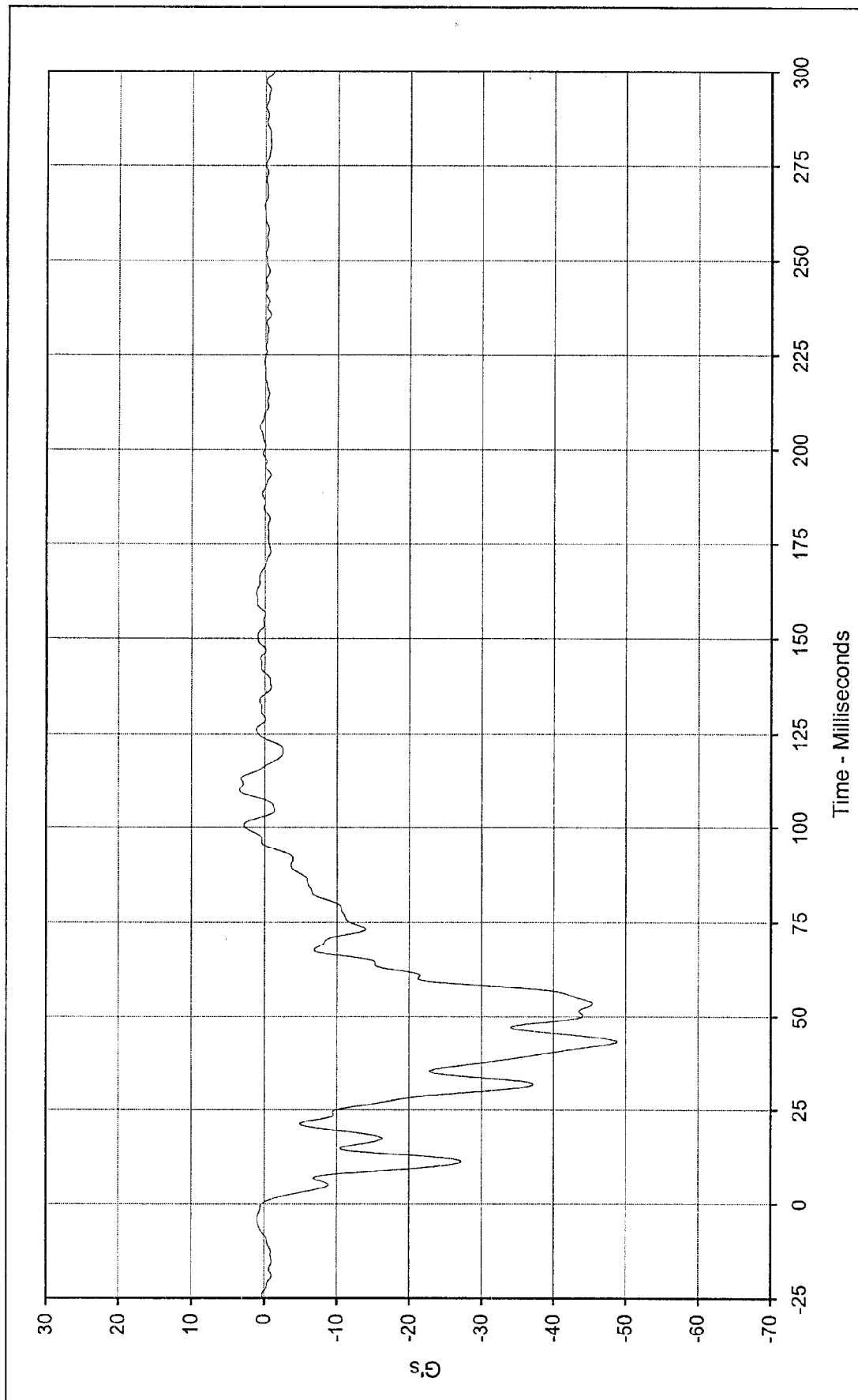
Date of Test: 2/20/98

Curve Number: FIL-088

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

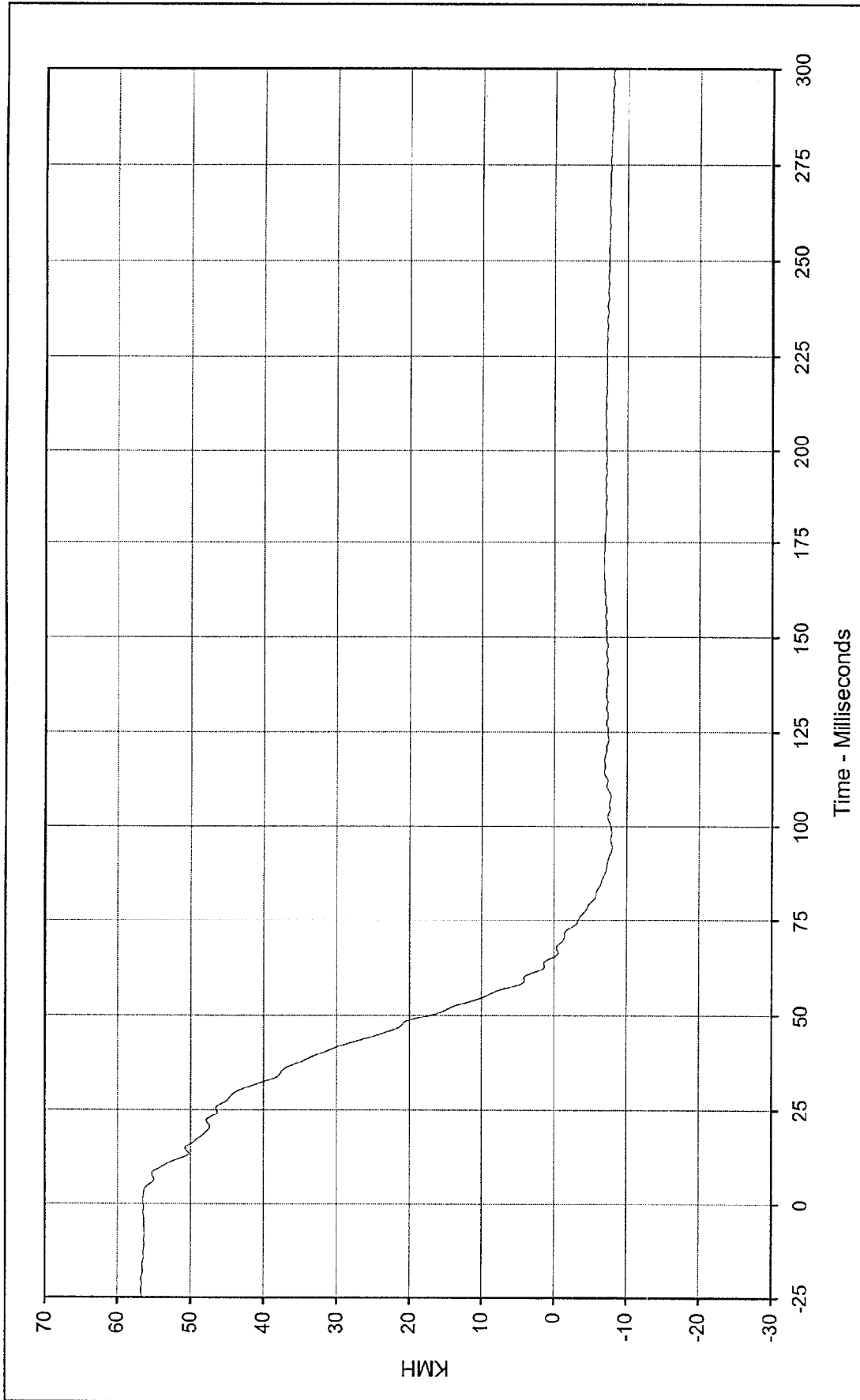




Curve Description: Vehicle Left Rear Primary
 Maximum Value: 3.5 at 109.9 Milliseconds
 Minimum Value: -48.9 at 43.3 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-089

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Vehicle Left Rear Primary Velocity

Maximum Value: 56.6 at 1.0 Milliseconds

Minimum Value: -8.1 at 296.4 Milliseconds

SAE Filter Class: 180

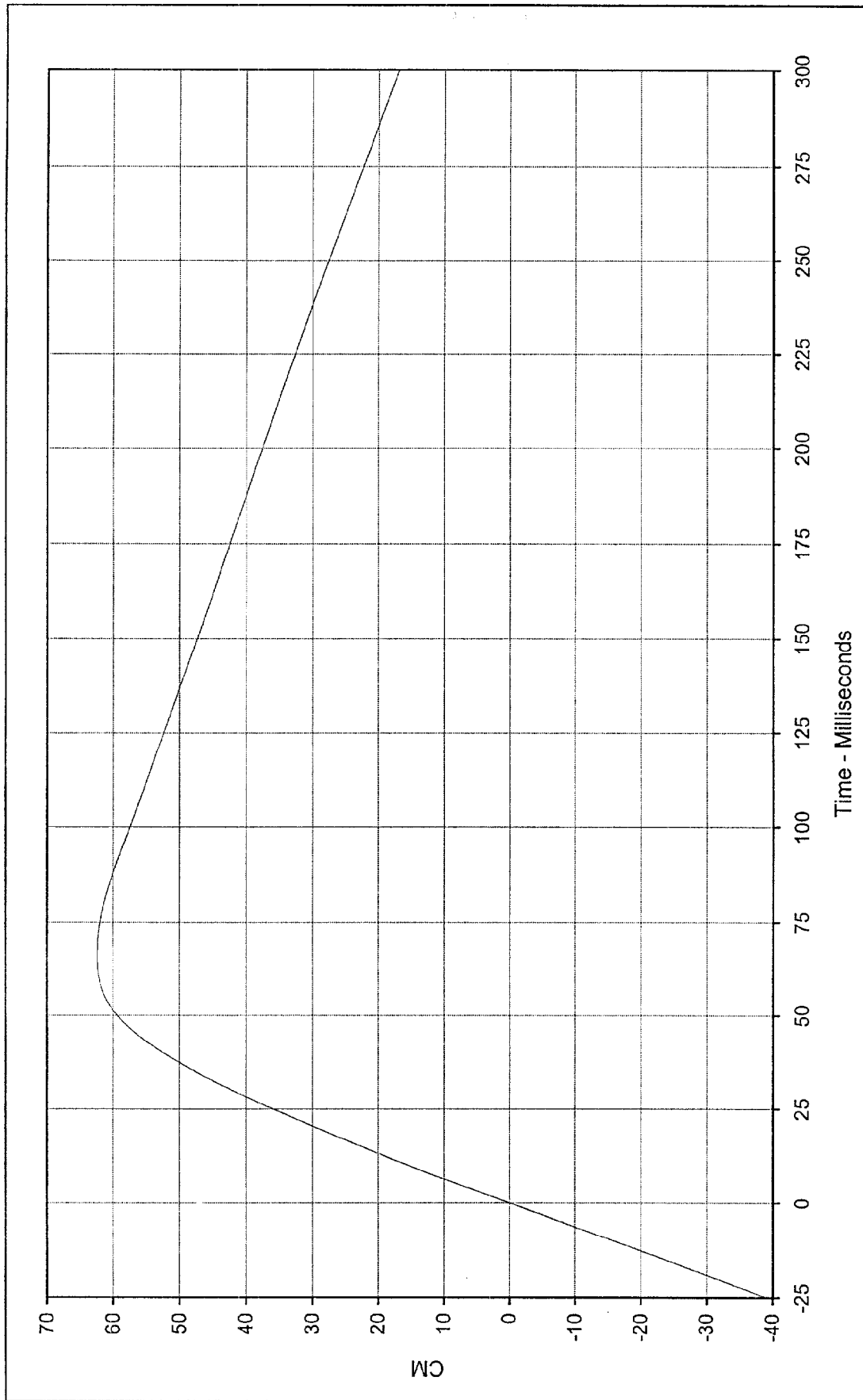
Date of Test: 2/20/98

Curve Number: IN1-089

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Vehicle Left Rear Primary Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 62.4 at 65.3 Milliseconds Test Vehicle: 1998 Honda CRV SUV

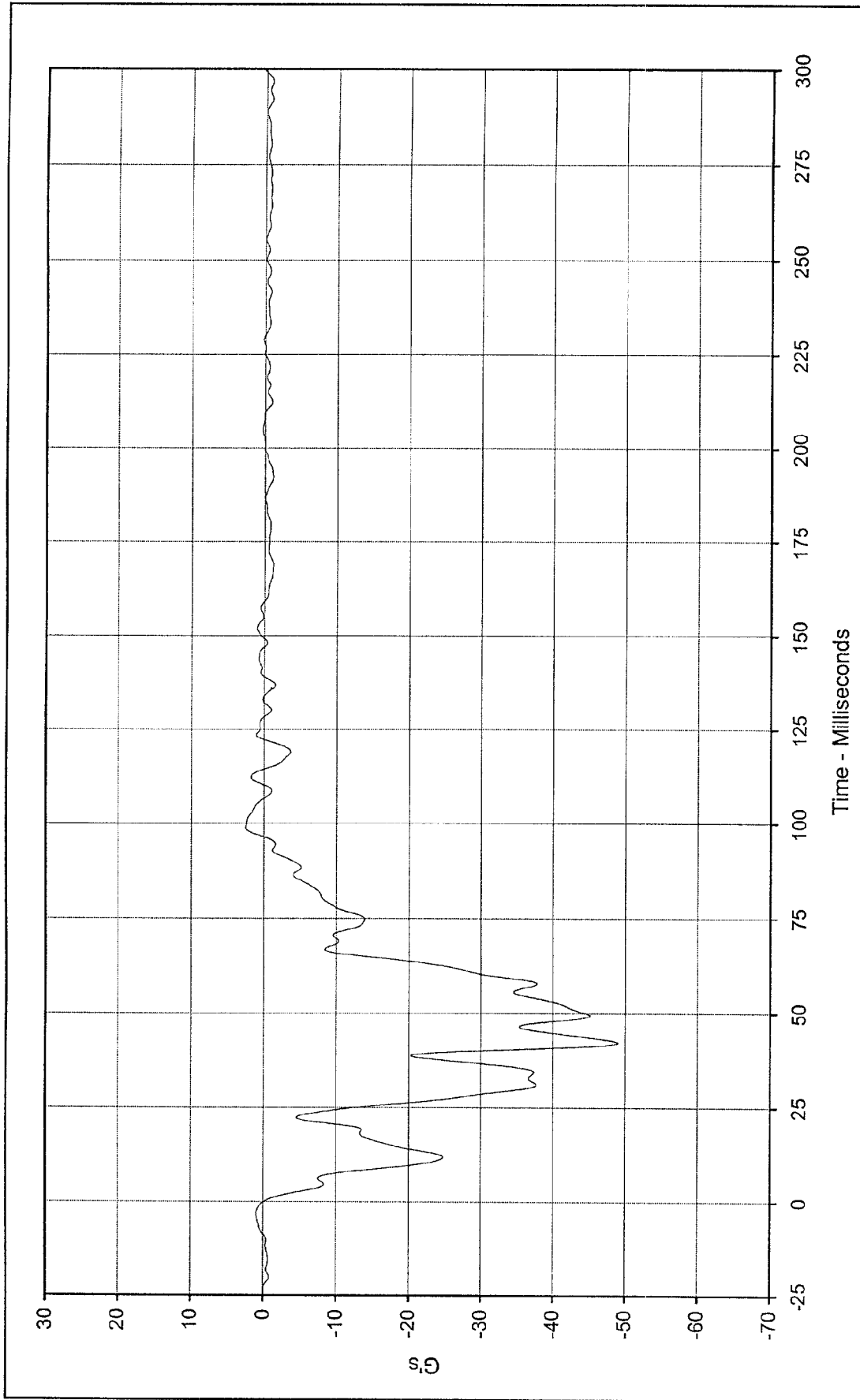
Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

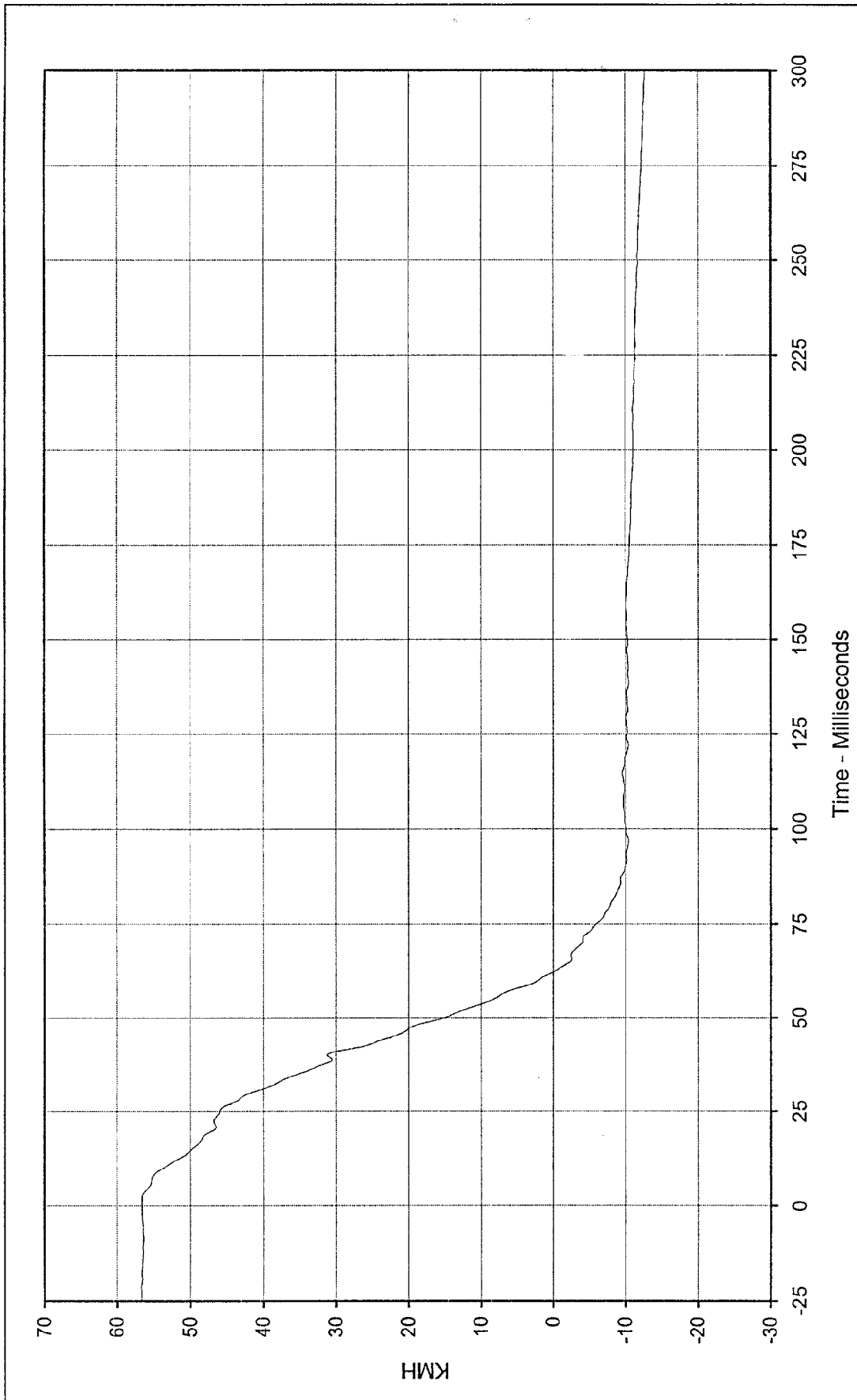
Curve Number: IN2-089





Curve Description:	Vehicle Right Rear Primary		Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	2.5	at 98.9 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	-49.1	at 42.2 Milliseconds			
SAE Filter Class:	60				
Date of Test:	2/20/98				
Curve Number:	FIL-090				



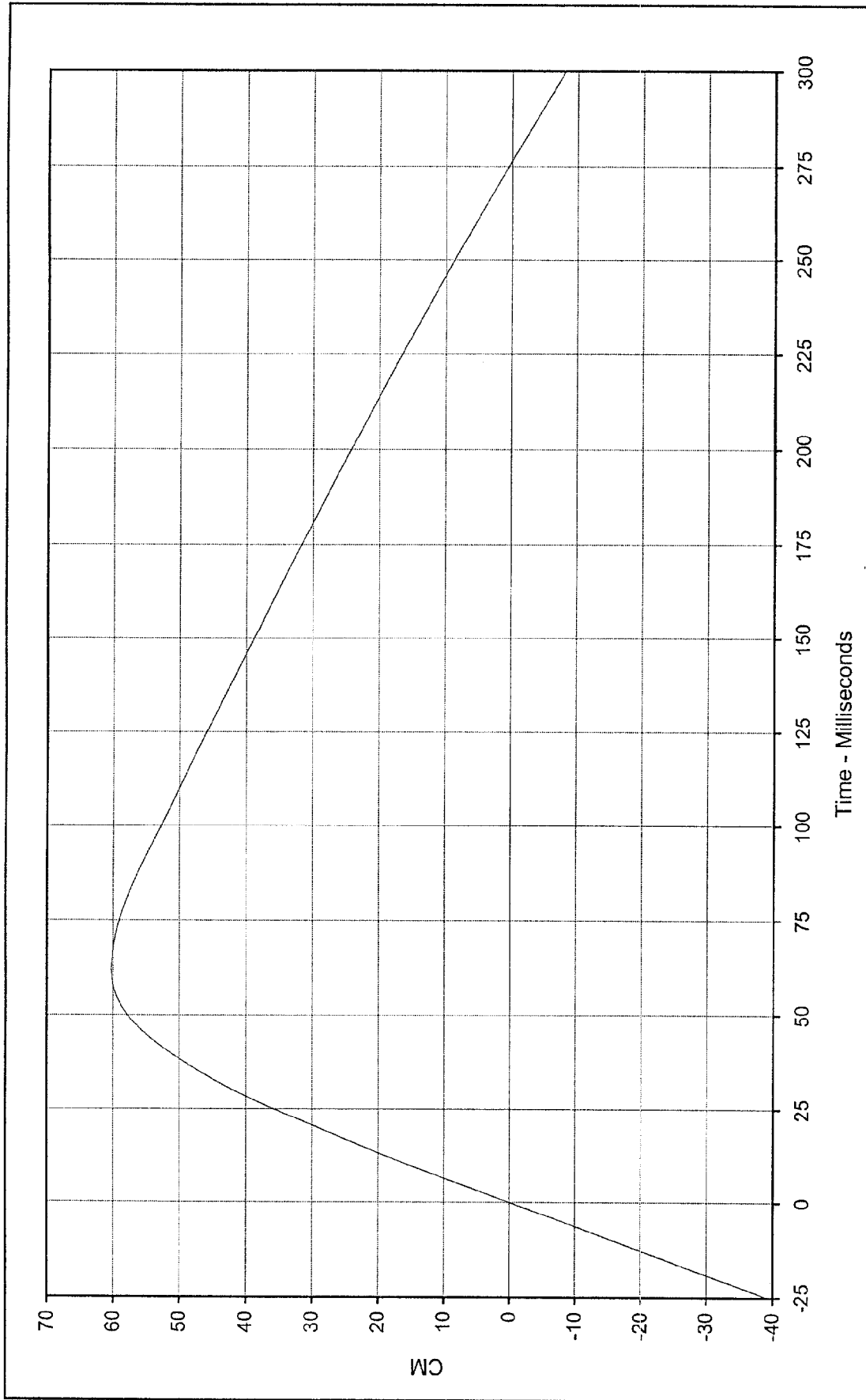


Curve Description: Vehicle Right Rear Primary Velocity
 Maximum Value: 56.6 at 2.0 Milliseconds
 Minimum Value: -12.7 at 299.1 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-090

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

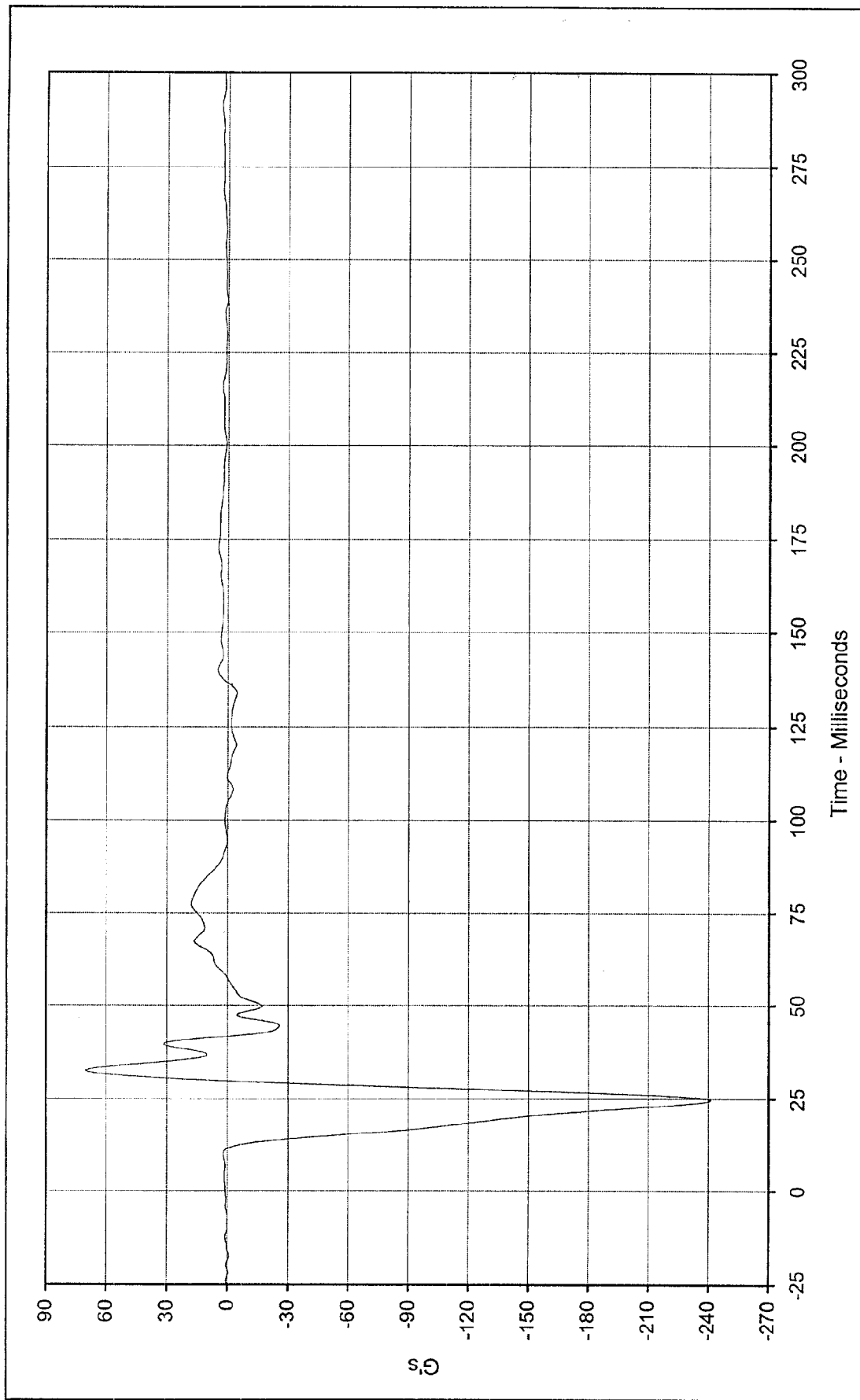




Curve Description: Vehicle Right Rear Primary Displ.
Maximum Value: 60.2 at 62.0 Milliseconds
Minimum Value: -8.1 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN2-090

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Test Vehicle: 1998 Honda CRV SUV





Curve Description: 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

Vehicle Engine Top

Maximum Value: 70.2 at 32.6 Milliseconds

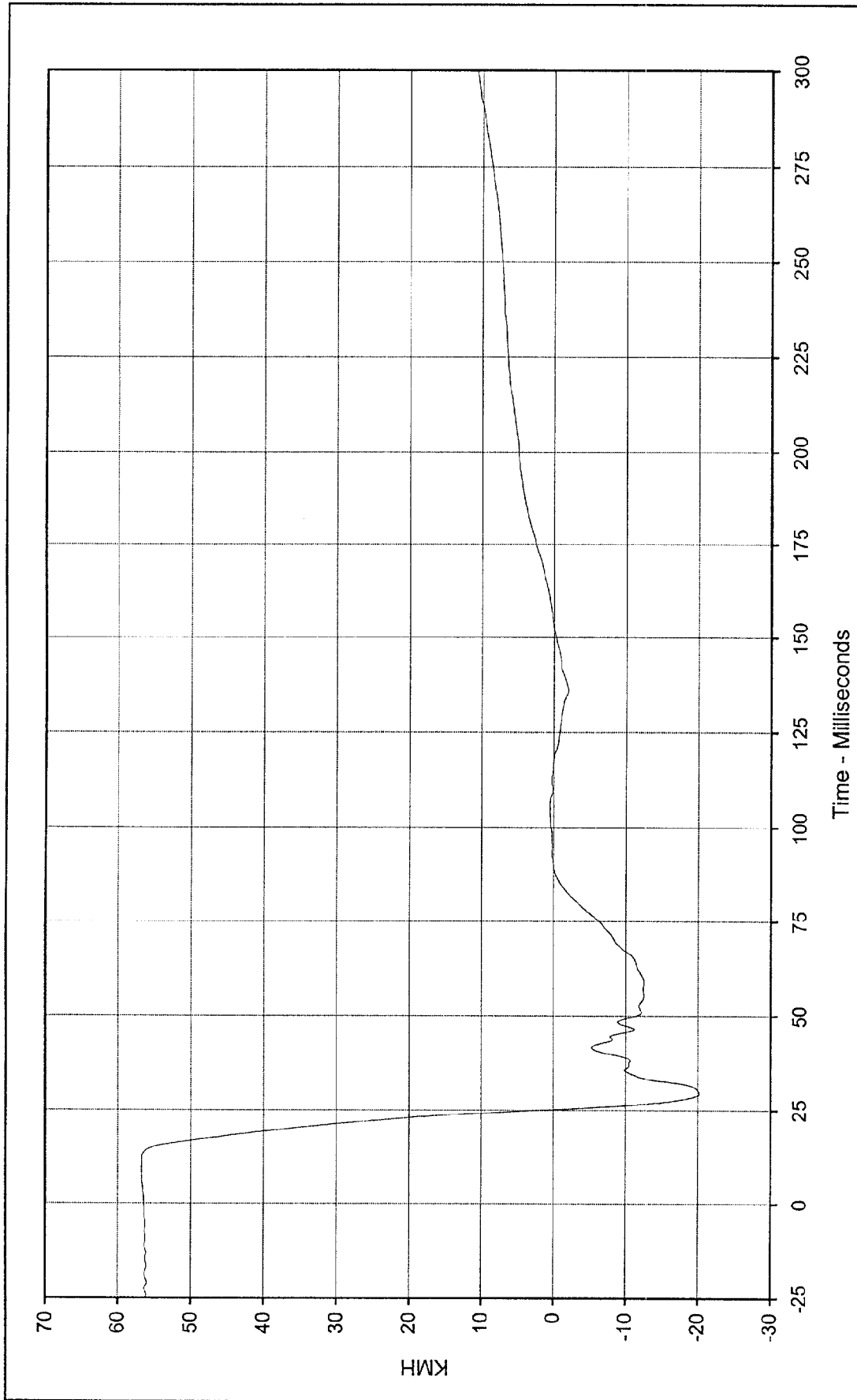
Minimum Value: -241.5 at 24.6 Milliseconds

SAE Filter Class: 60

Date of Test: 2/20/98

Curve Number: FIL-091





Curve Description: Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV

Vehicle Engine Top Velocity

Maximum Value: 56.8 at 7.8 Milliseconds

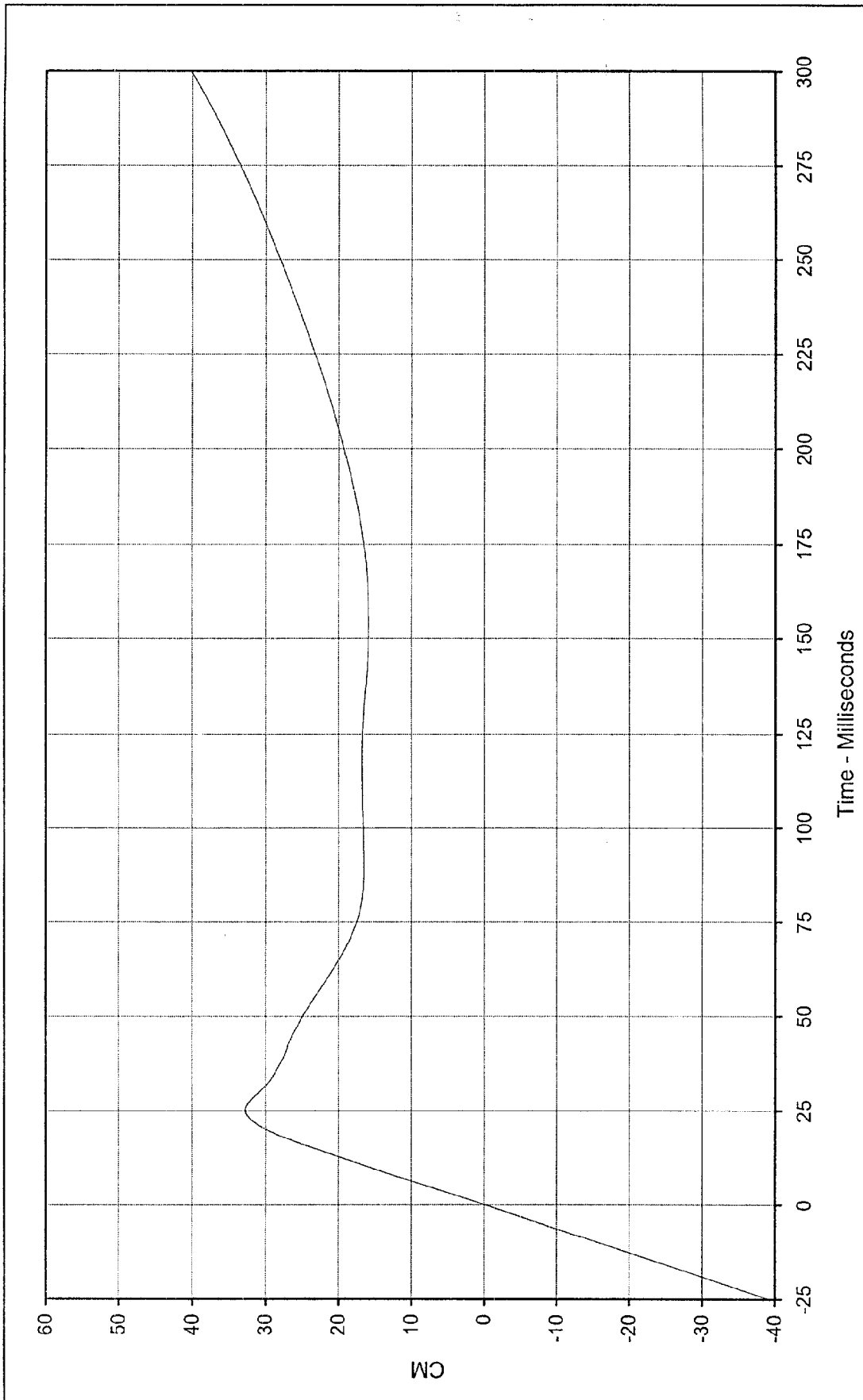
Minimum Value: -20.2 at 29.5 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

Curve Number: IN1-091





Curve Description: _____ Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 40.1 at 299.9 Milliseconds Test Vehicle: 1998 Honda CRV SUV

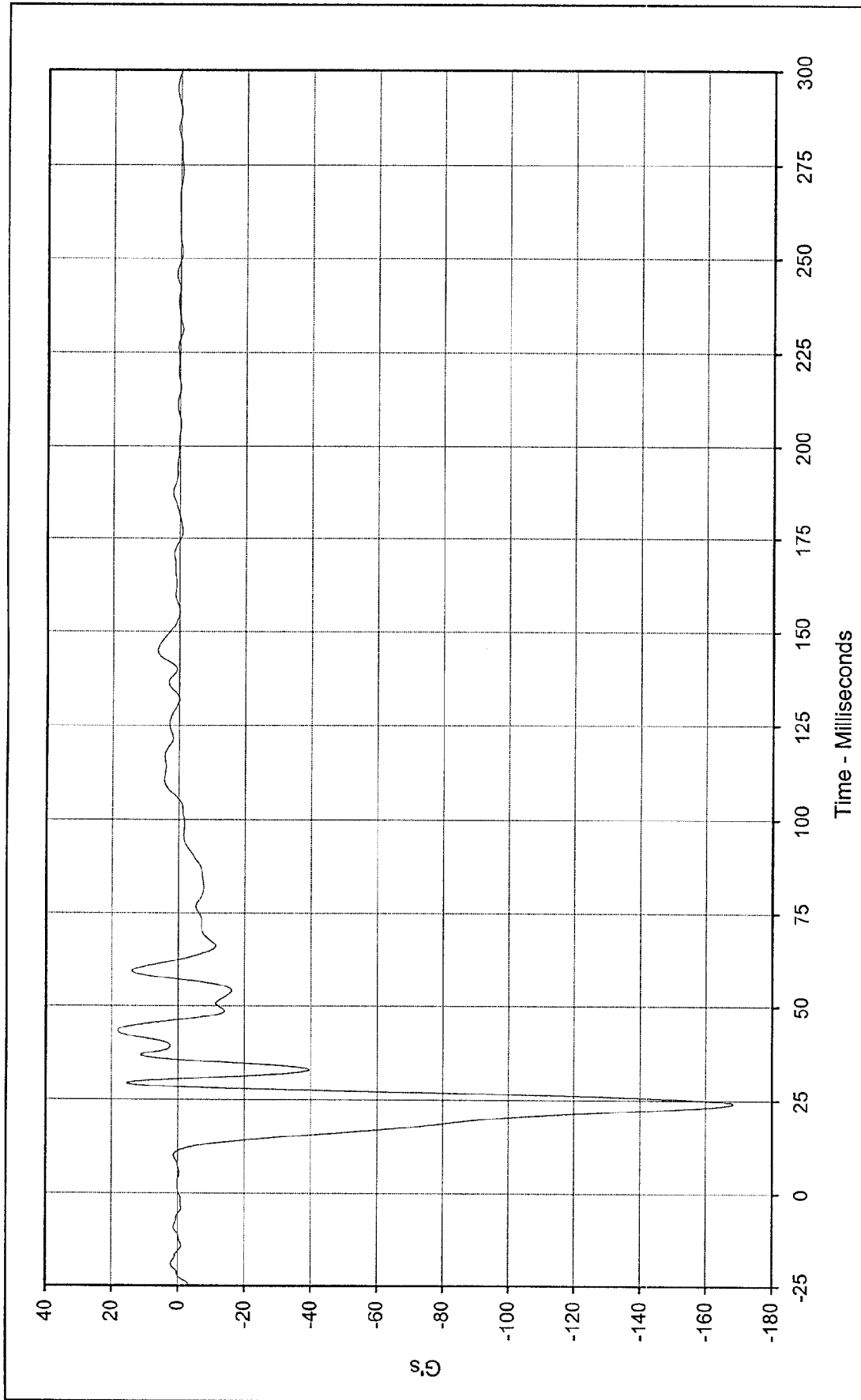
Minimum Value: -0.3 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

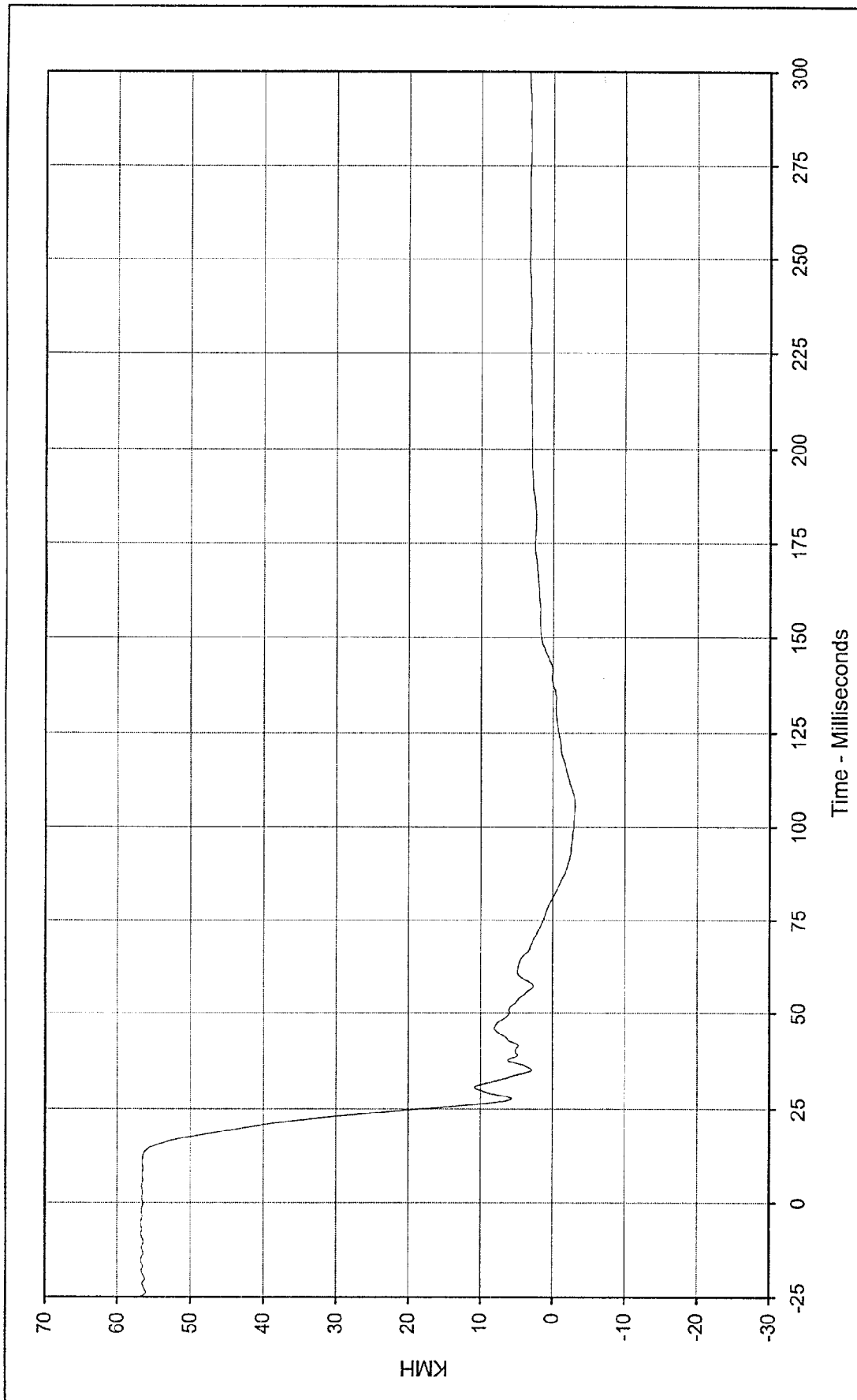
Curve Number: IN2-091





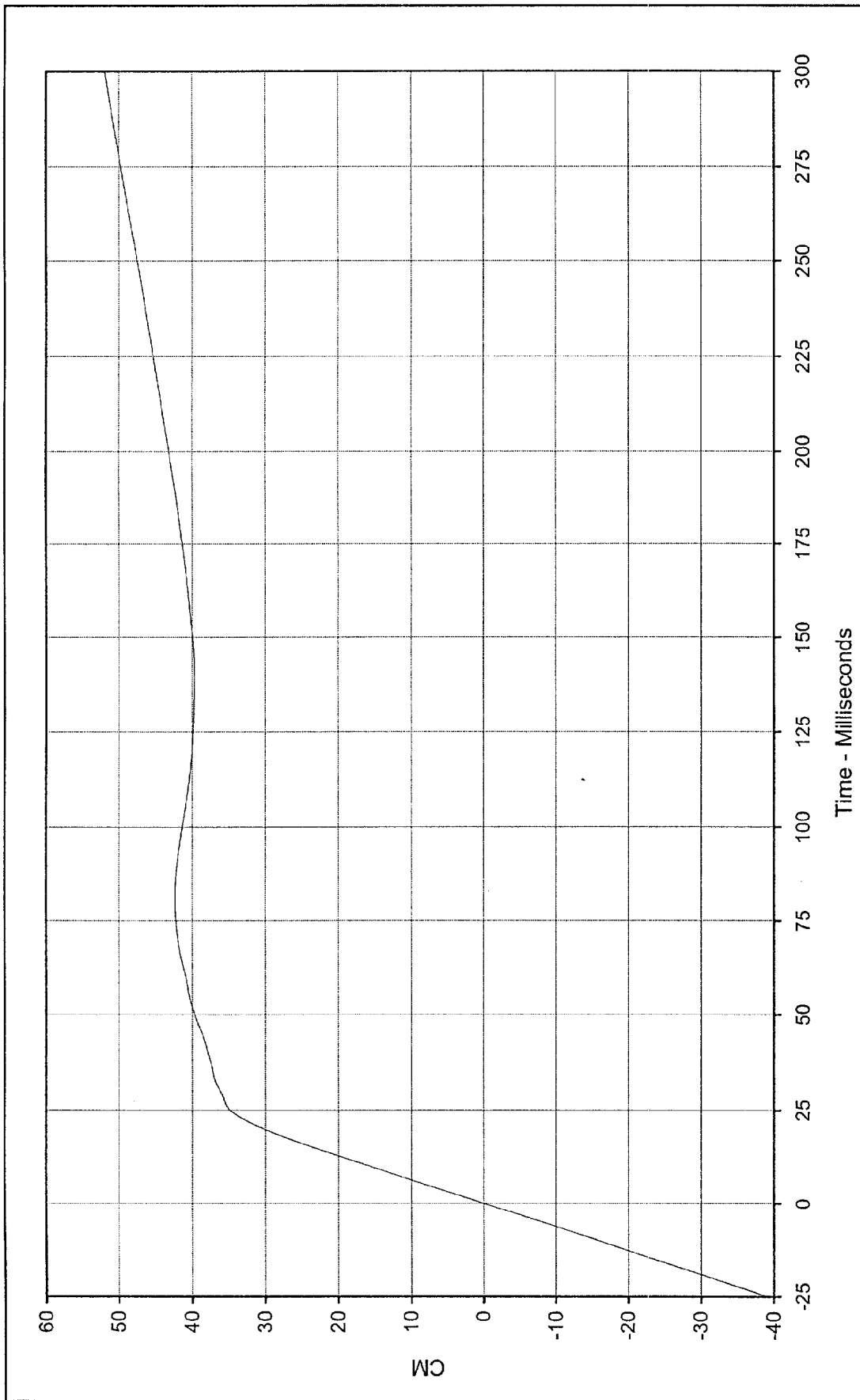
Curve Description: Vehicle Engine Bottom Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Maximum Value: 18.2 at 43.3 Milliseconds Test Vehicle: 1998 Honda CRV SUV
Minimum Value: -168.4 at 24.1 Milliseconds
SAE Filter Class: 60
Date of Test: 2/20/98
Curve Number: FIL-092





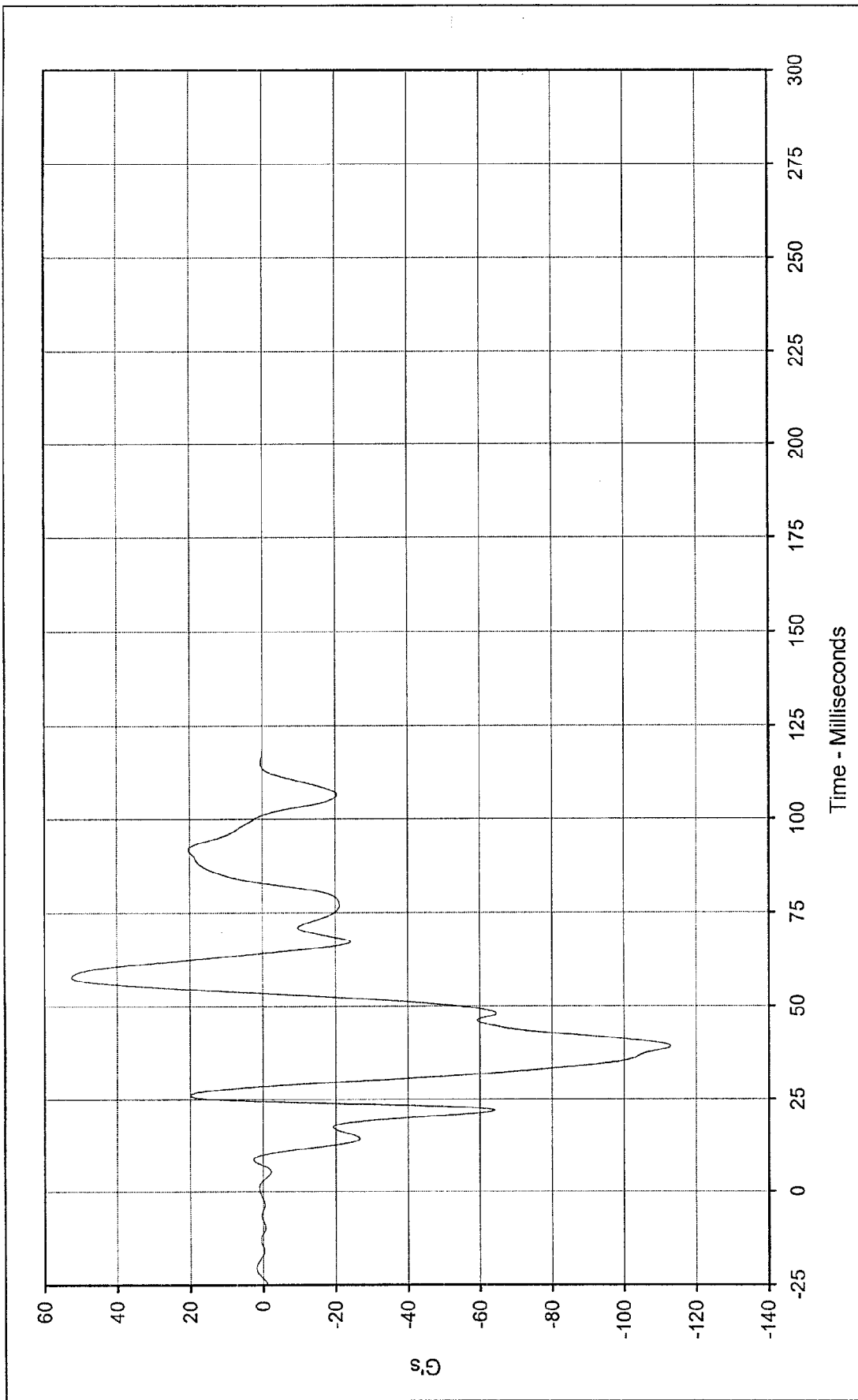
Curve Description:	Vehicle Engine Bottom Velocity	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	56.6	at	4.5	Milliseconds
Minimum Value:	-3.1	at	105.6	Milliseconds
SAE Filter Class:	180	Test Vehicle:	1998 Honda CRV SUV	
Date of Test:	2/20/98			
Curve Number:	IN1-092			





Curve Description:	Vehicle Engine Bottom Displ.	Testing Program	1998 NHTSA 35 mph NCAP	No.: MW5303
Maximum Value:	51.9 at 299.9 Milliseconds	Test Vehicle:	1998 Honda CRV SUV	
Minimum Value:	0.0 at 0.0 Milliseconds			
SAE Filter Class:	180			
Date of Test:	2/20/98			
Curve Number:	IN2-092			



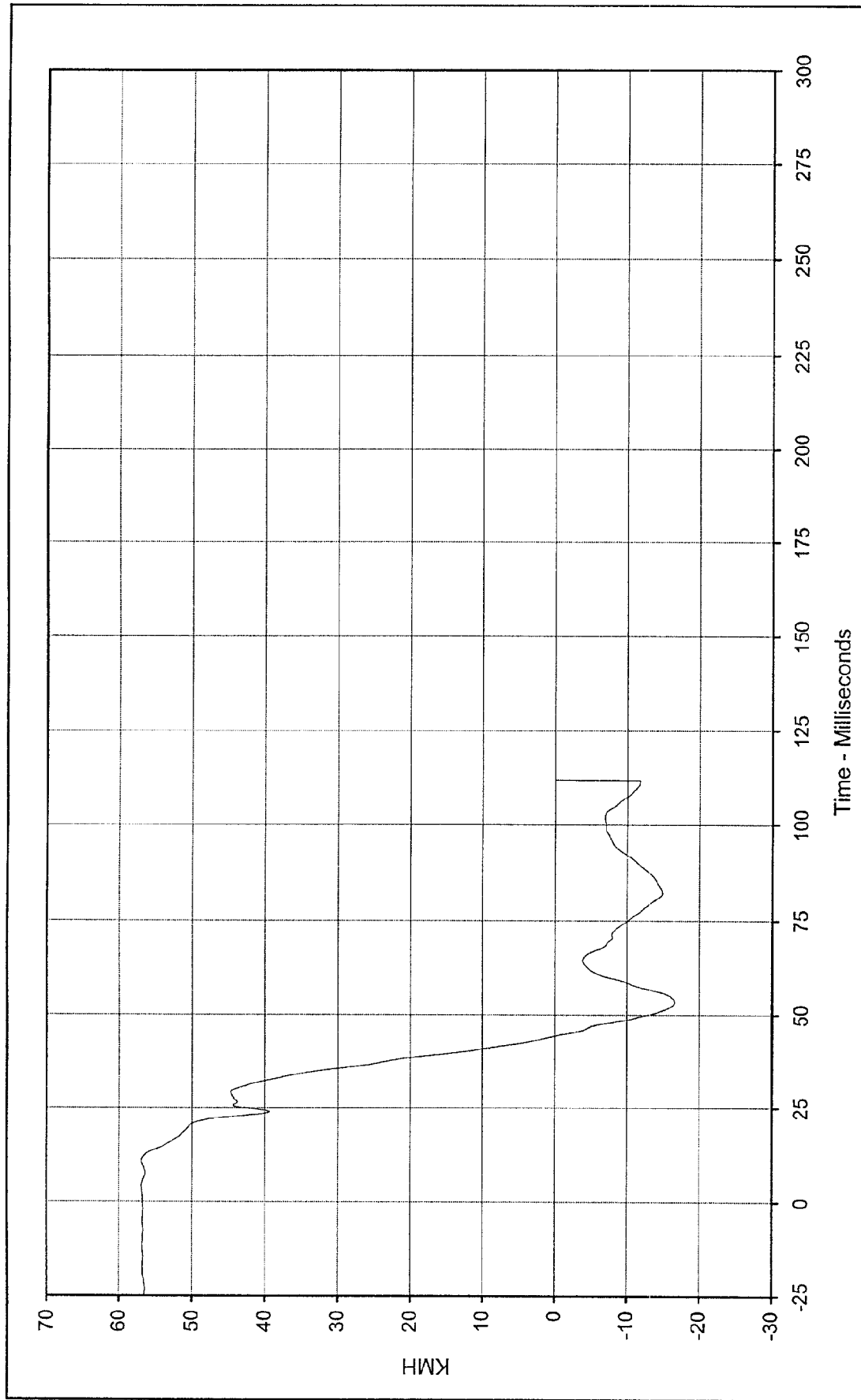


Curve Description: Vehicle Left Brake Caliper *
 Maximum Value: 52.5 at 57.6 Milliseconds
 Minimum Value: -113.0 at 39.0 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-093

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV



* Channel Failed at 12.0 Msec.



Curve Description: Vehicle Left Brake Caliper Velocity * Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 56.9 at 10.7 Milliseconds Test Vehicle: 1998 Honda CRV SUV

Minimum Value: -16.6 at 53.5 Milliseconds

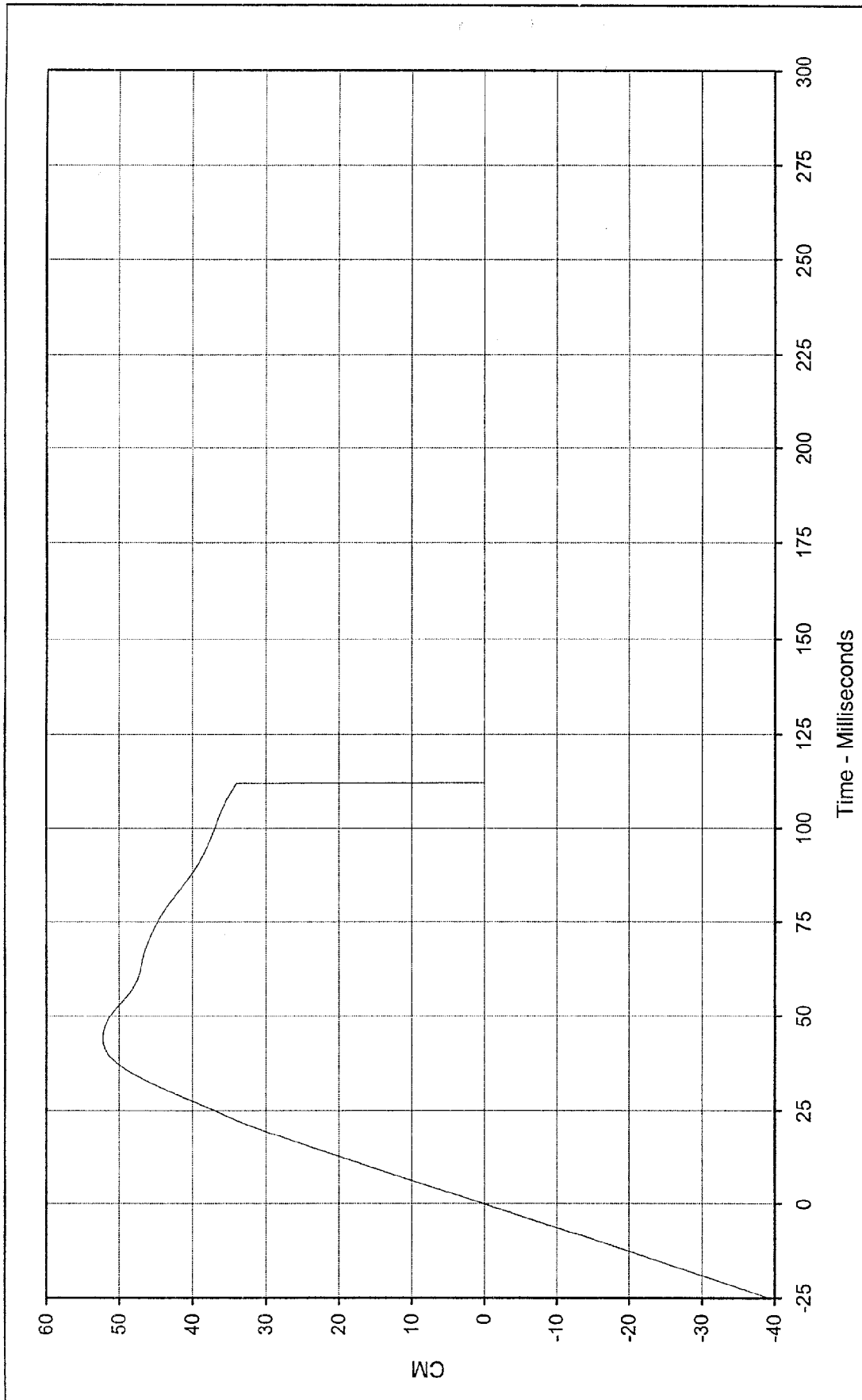
SAE Filter Class: 180

Date of Test: 2/20/98

Curve Number: IN1-093



* Channel Failed at 112.0 Msec.



Curve Description: Vehicle Left Brake Caliper Displ. *

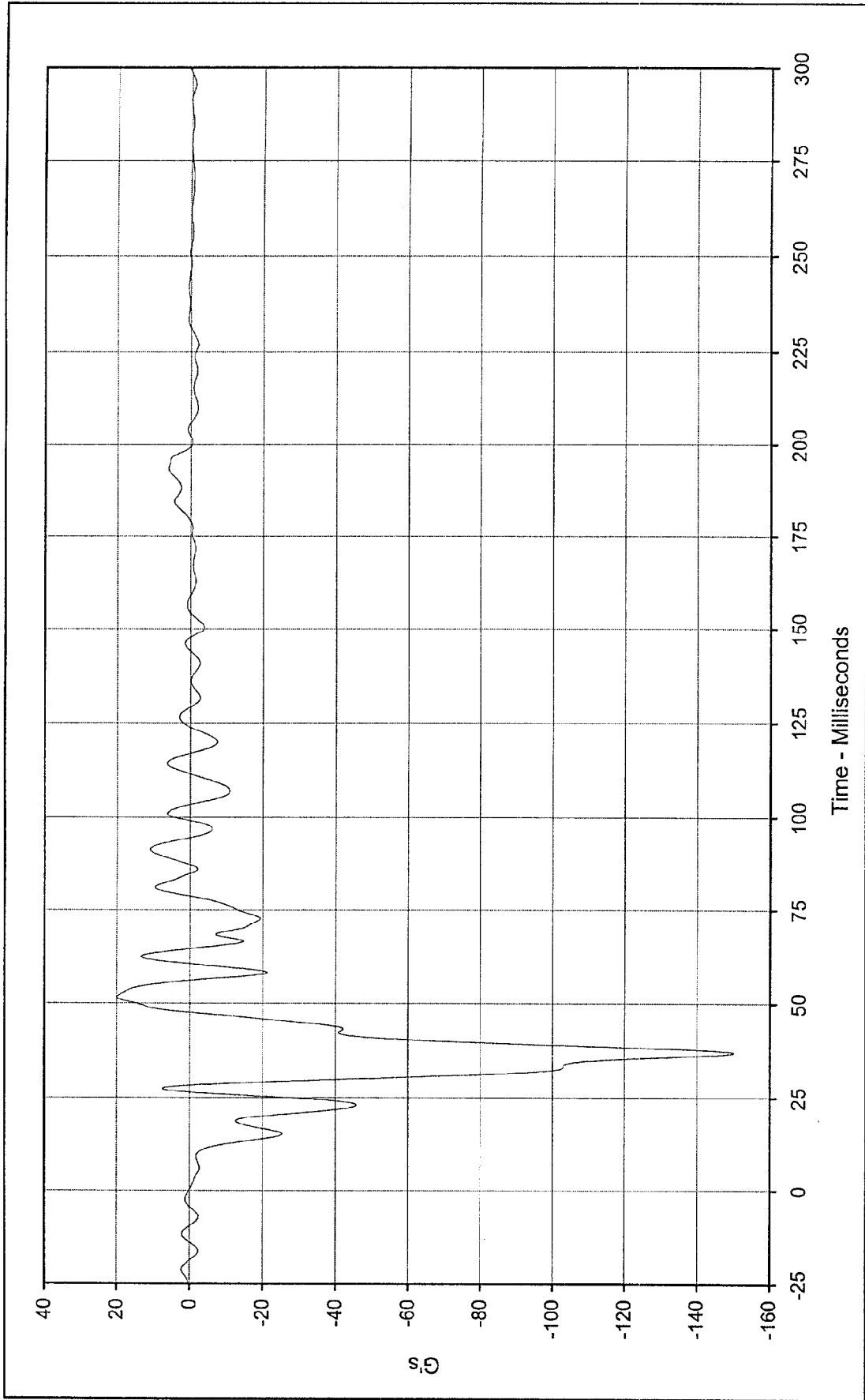
Maximum Value:	52.3	at	44.2	Milliseconds
Minimum Value:	0.0	at	112.0	Milliseconds
SAE Filter Class:	180			
Date of Test:	2/20/98			
Curve Number:	IN2-093			

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV



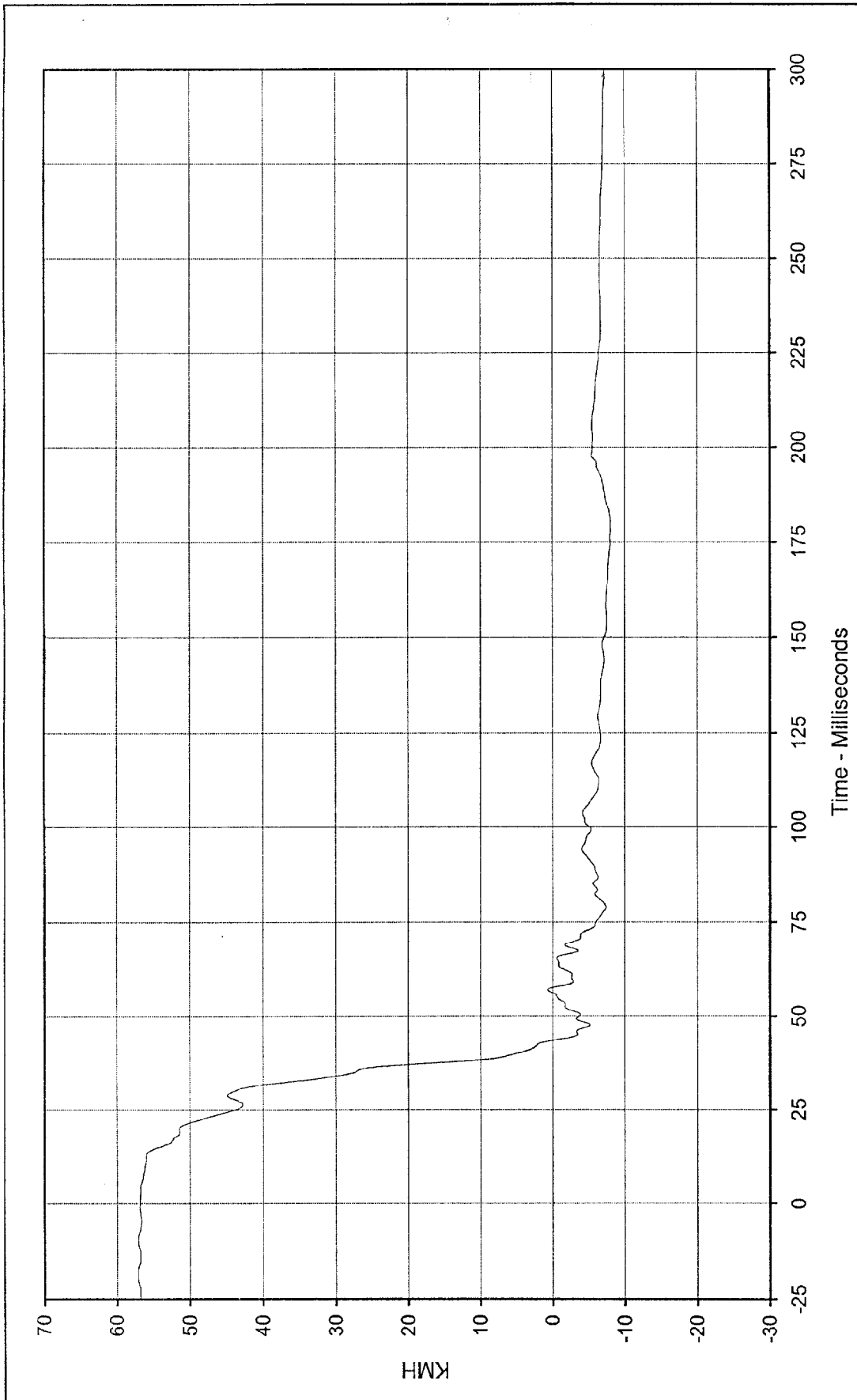
*Channel Failed at 112.0 Msec



Curve Description: Vehicle Right Brake Caliper
 Maximum Value: 20.1 at 51.6 Milliseconds
 Minimum Value: -150.2 at 37.2 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-094

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV



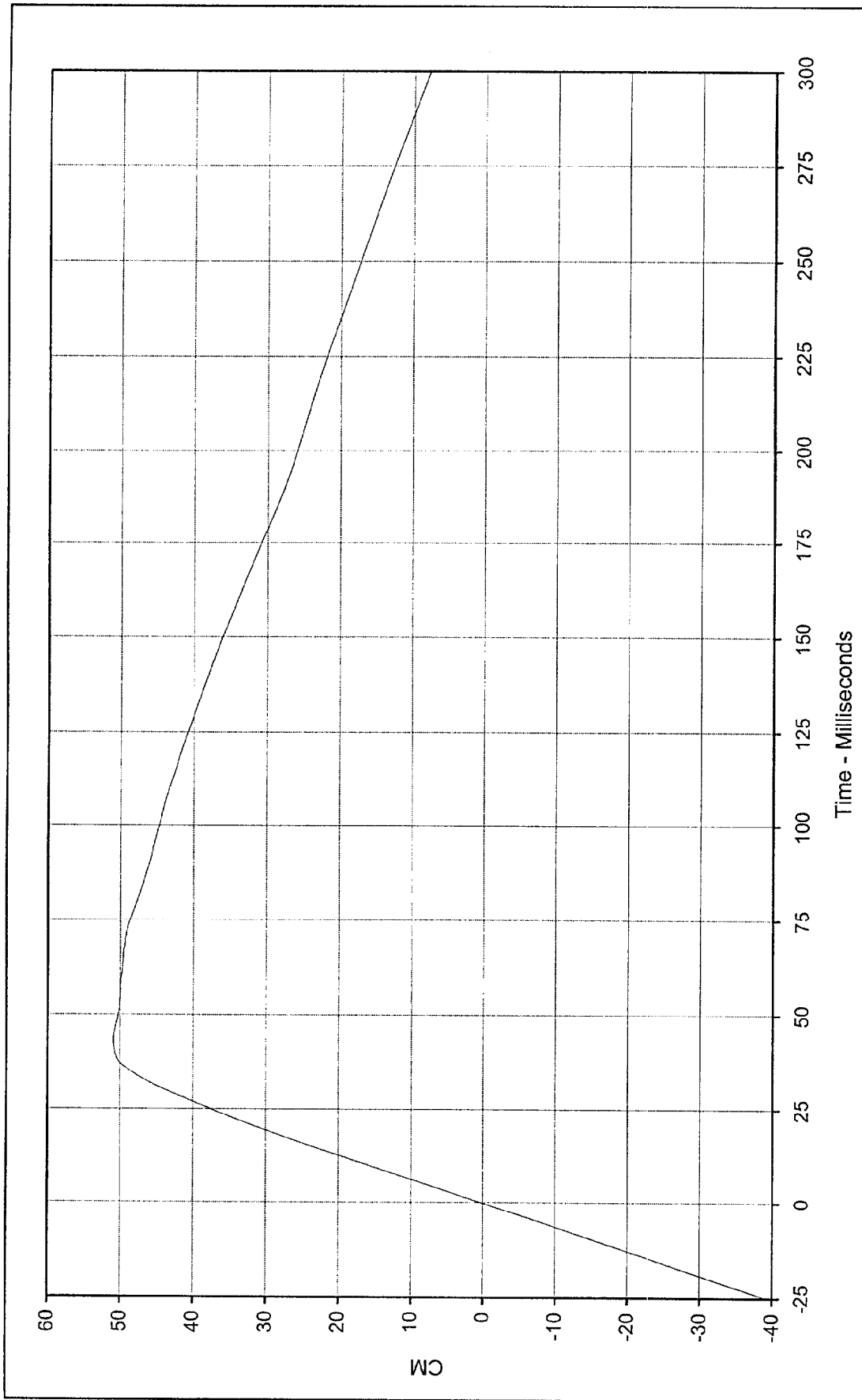


Curve Description: Vehicle Right Brake Caliper Velocity
 Maximum Value: 56.8 at 0.0 Milliseconds
 Minimum Value: -8.1 at 178.9 Milliseconds
 SAE Filter Class: 180
 Date of Test: 2/20/98
 Curve Number: IN1-094

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

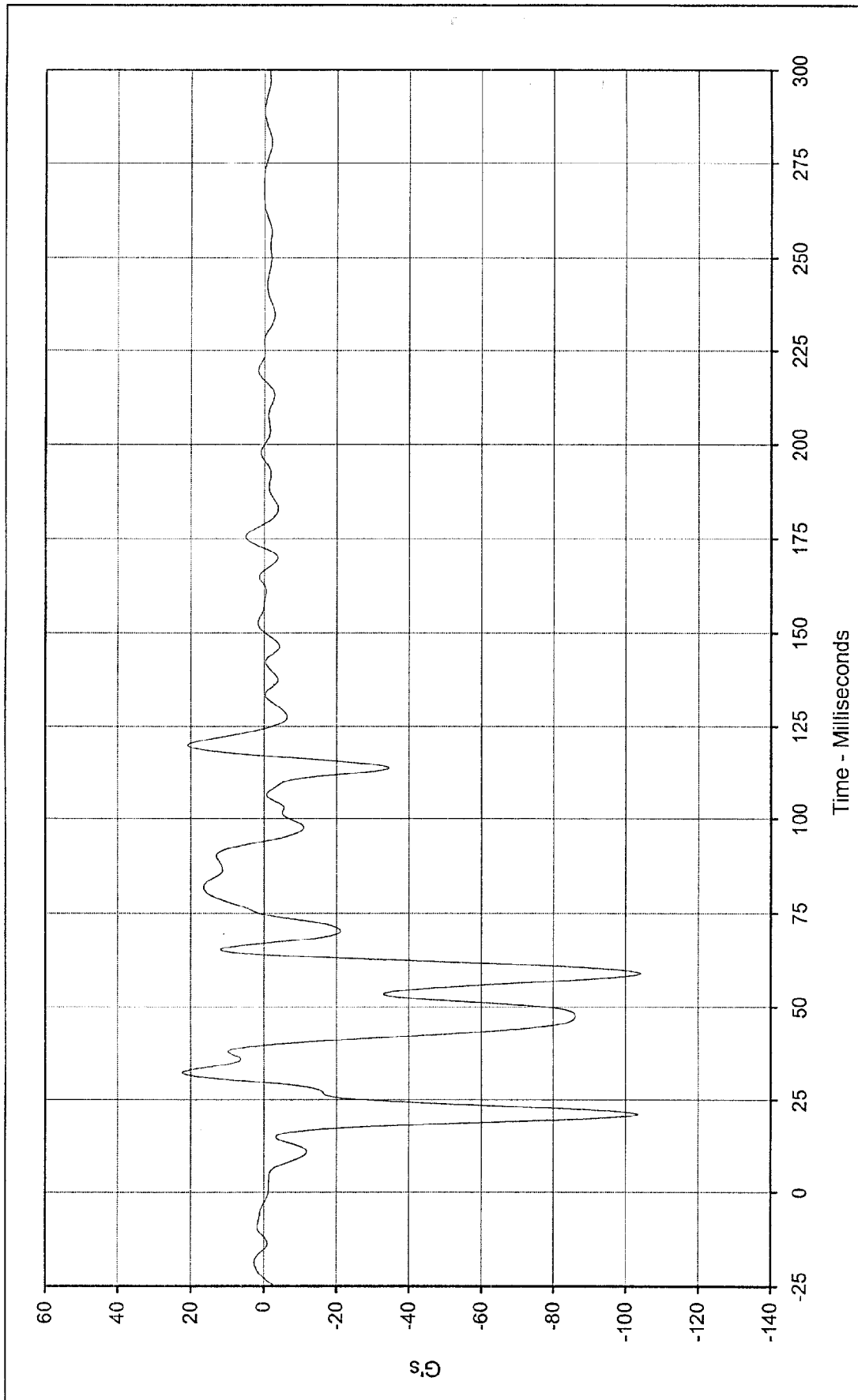
Test Vehicle: 1998 Honda CRV SUV





Curve Description: Vehicle Right Brake Caliper Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
Maximum Value: 50.9 at 43.4 Milliseconds Test Vehicle: 1998 Honda CRV SUV
Minimum Value: 0.2 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 2/20/98
Curve Number: IN2-094

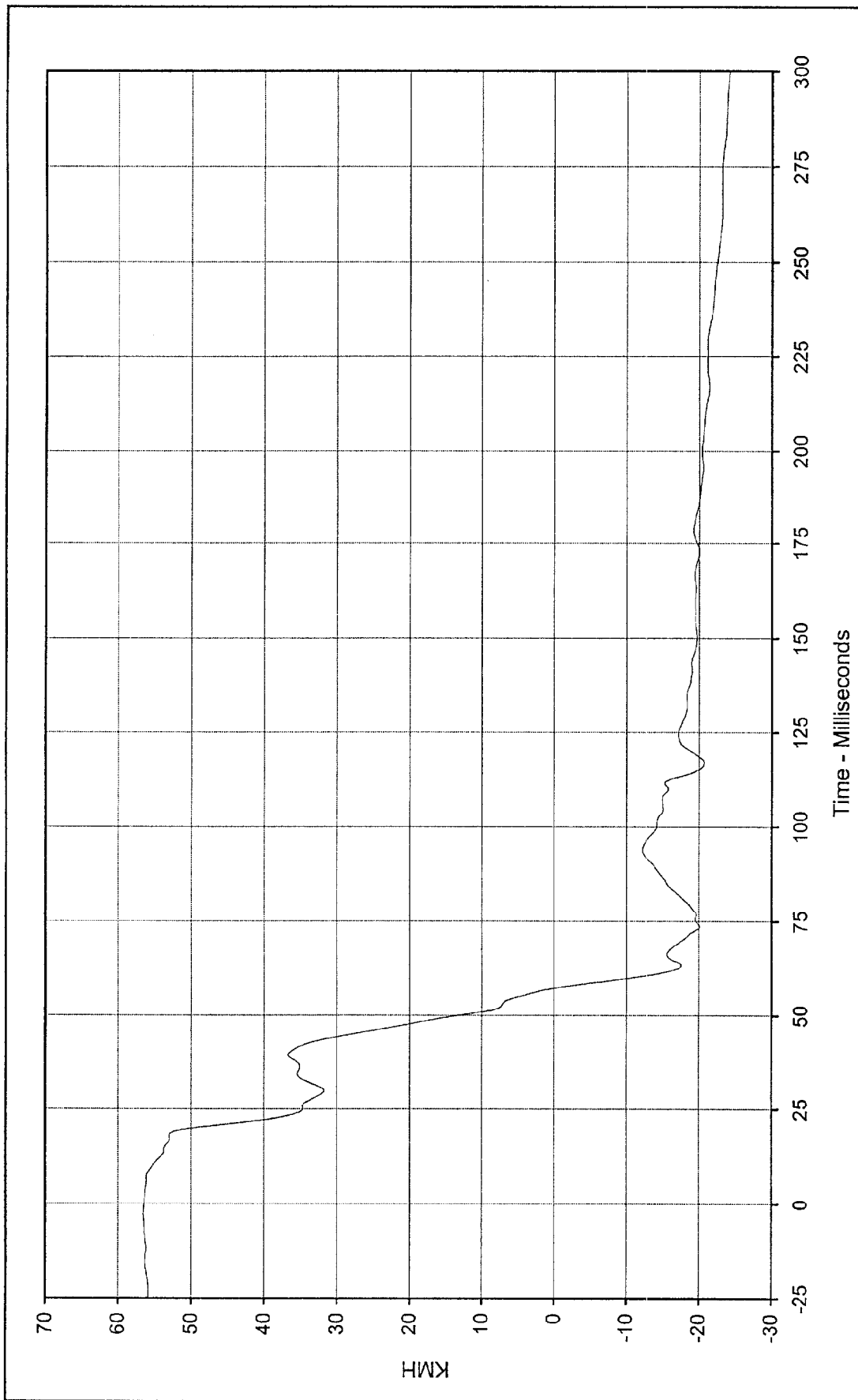




Curve Description: Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV

Vehicle Instrument Panel
 Maximum Value: 22.3 at 32.2 Milliseconds
 Minimum Value: -104.1 at 58.9 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-095





Curve Description: 1998 NHTSA 35 mph NCAP No.: MW5303

Testing Program: 1998 Honda CRV SUV

Maximum Value: 56.4 at 0.0 Milliseconds

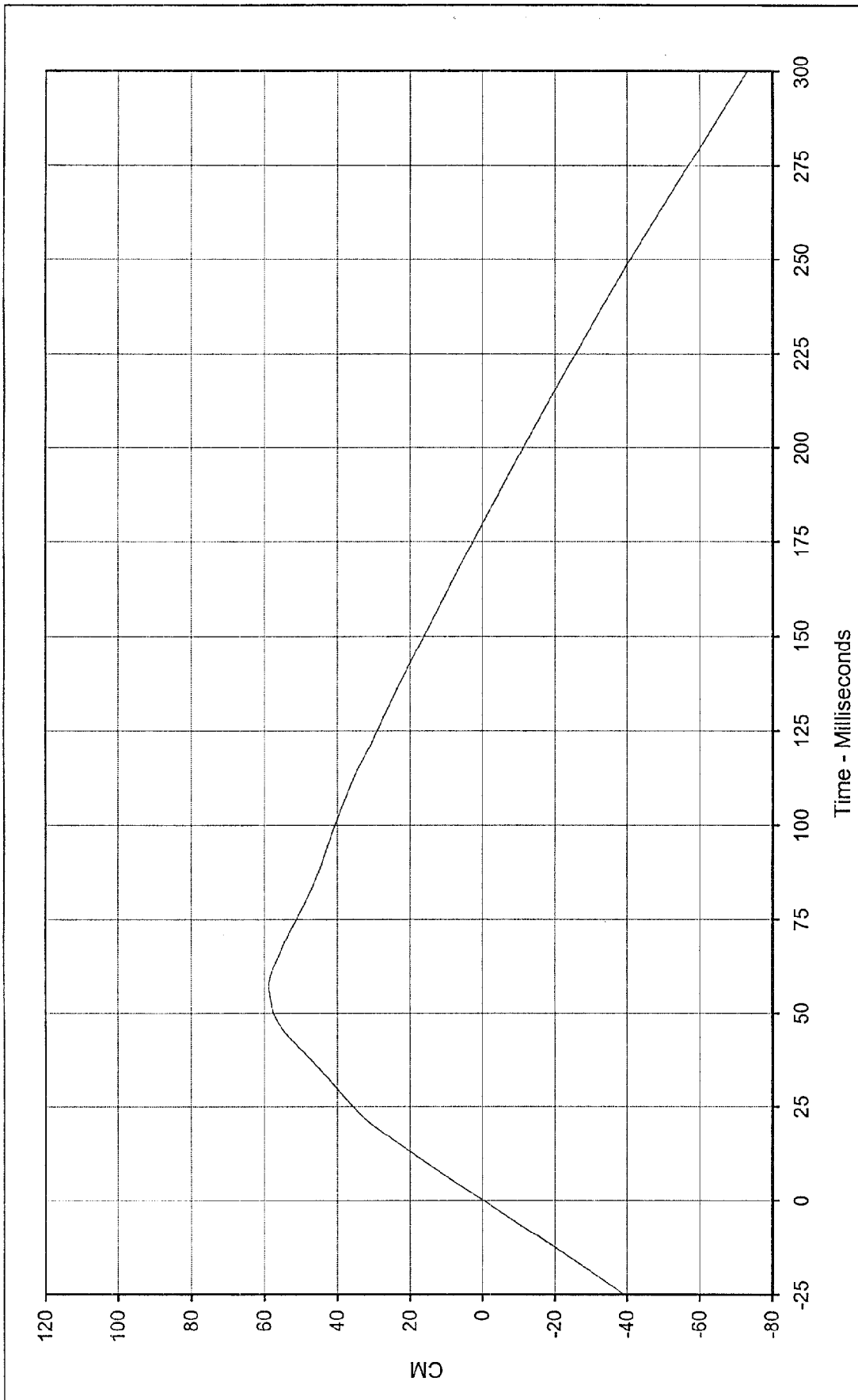
Minimum Value: -24.2 at 299.9 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

Curve Number: IN1-095





Curve Description: _____ Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 58.8 at 57.3 Milliseconds Test Vehicle: 1998 Honda CRV SUV

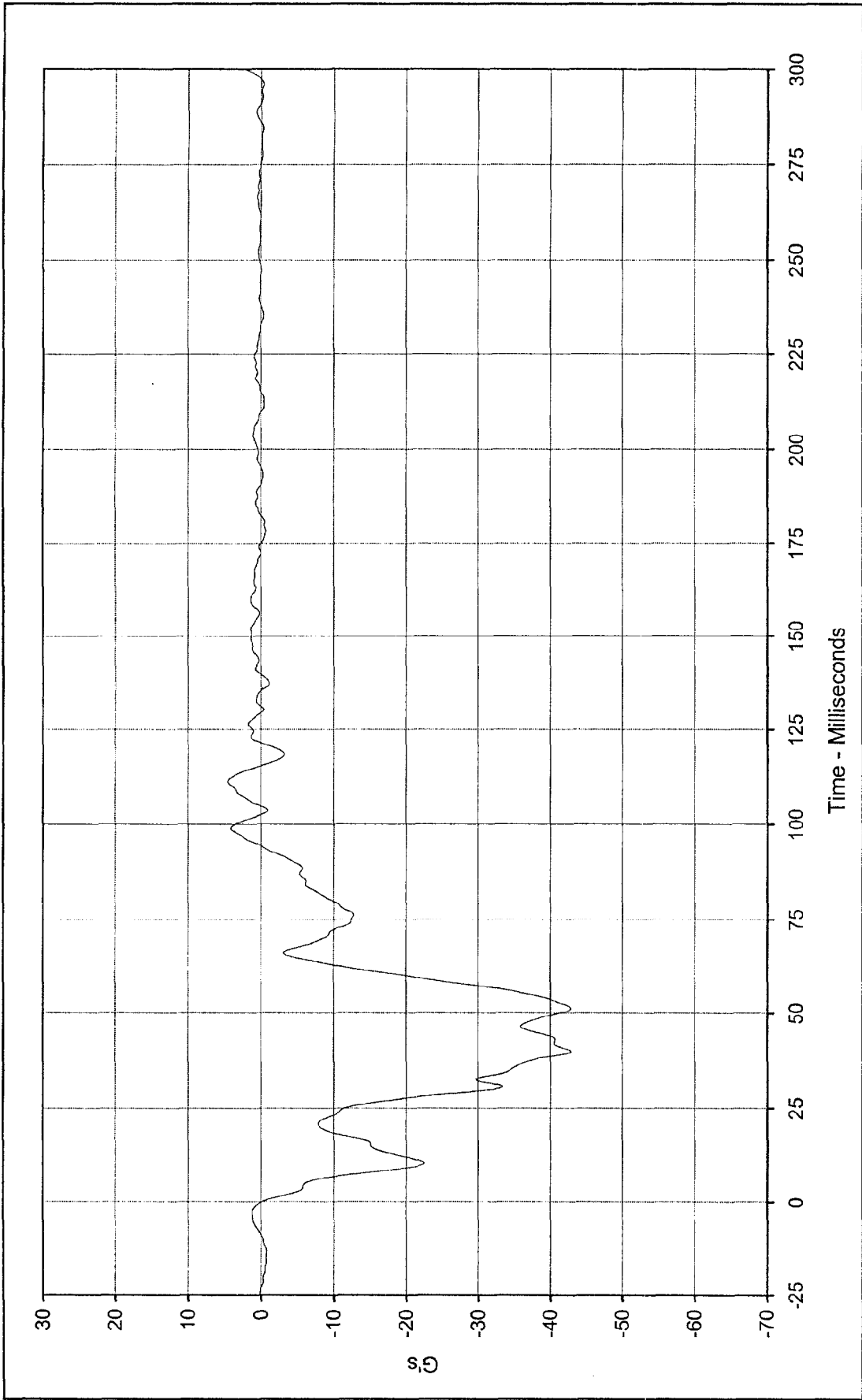
Minimum Value: -73.2 at 299.9 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

Curve Number: IN2-095

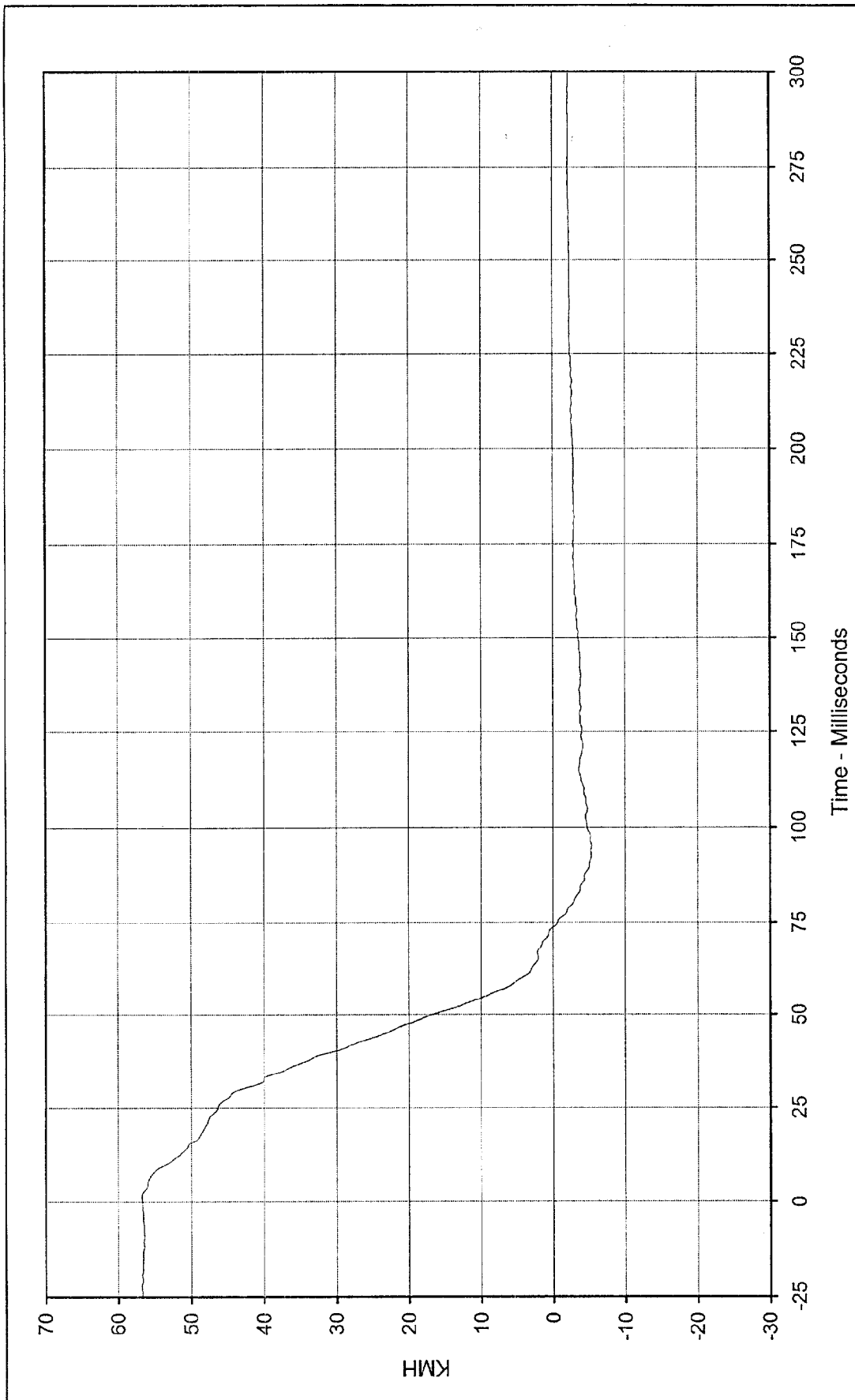




Curve Description: Vehicle Left Rear Redundant
 Maximum Value: 4.5 at 111.3 Milliseconds
 Minimum Value: -43.0 at 39.8 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/20/98
 Curve Number: FIL-096

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303
 Test Vehicle: 1998 Honda CRV SUV





Curve Description: Vehicle Left Rear Redundant Velocity

Maximum Value: 56.8 at 1.3 Milliseconds

Minimum Value: -5.4 at 95.2 Milliseconds

SAE Filter Class: 180

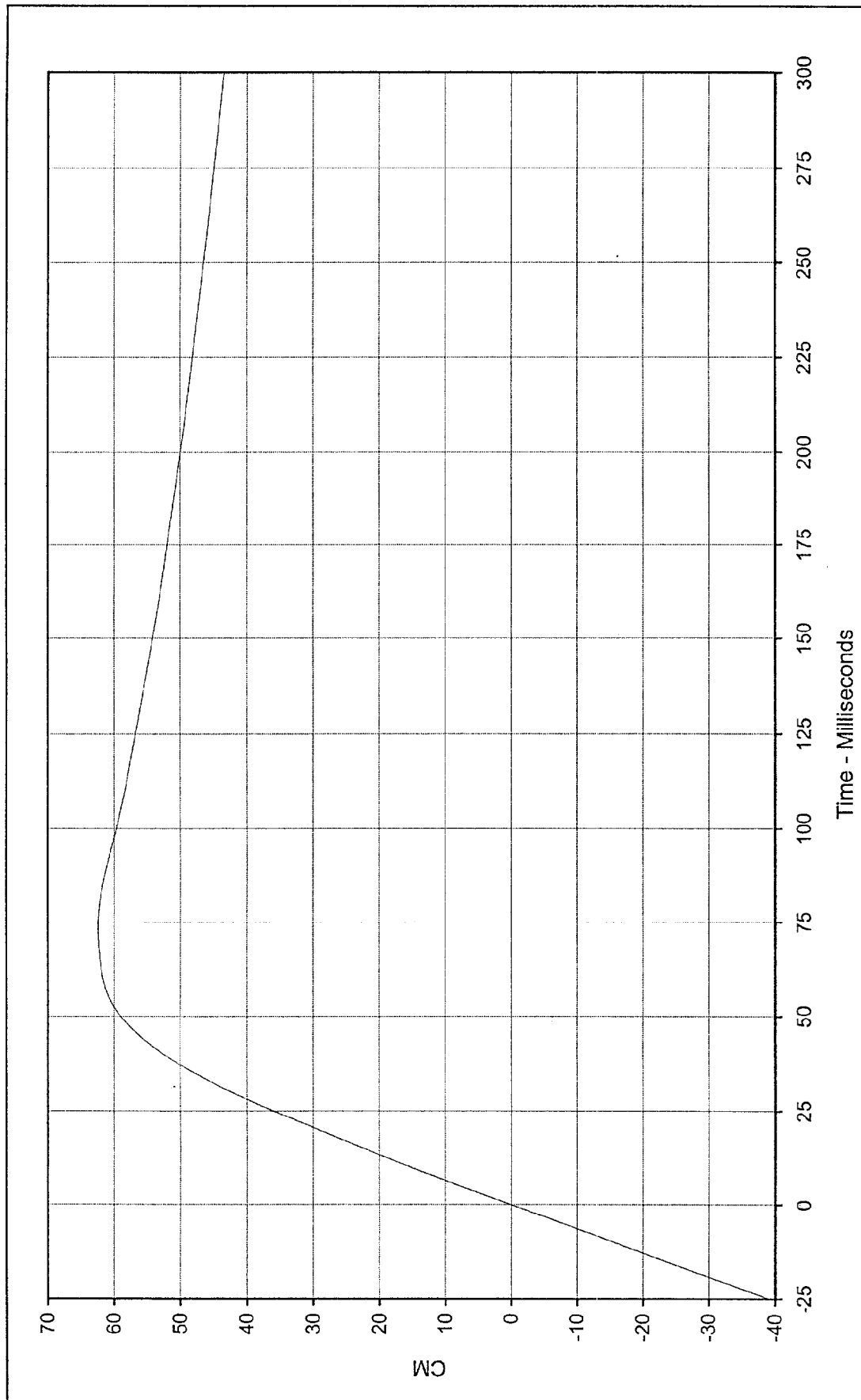
Date of Test: 2/20/98

Curve Number: IN1-096

Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Test Vehicle: 1998 Honda CRV SUV





Curve Description: Vehicle Left Rear Redundant Displ. Testing Program 1998 NHTSA 35 mph NCAP No.: MW5303

Maximum Value: 62.4 at 73.7 Milliseconds Test Vehicle: 1998 Honda CRV SUV

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 2/20/98

Curve Number: IN2 09C



APPENDIX C

LOAD CELL BARRIER INFORMATION (NOT APPLICABLE FOR THIS TEST)

APPENDIX D
INSTRUMENTATION DATA CHANNEL ASSIGNMENTS

**Ncap Test With Hybrid III Male 50th Percentile ATD
Instrumentation Data Channel Assignments**

Driver A.T.D Serial Number 35

Test Date: 2/20/98

Vehicle: 1998 Honda CRV SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	HEAD, PRIMARY	X	GPAC027	Accel., 1/2 bridge	Endevco	7264-2000	G
2	HEAD, PRIMARY	Y	GPAC002	Accel., 1/2 bridge	Endevco	7264-2000	G
3	HEAD, PRIMARY	Z	GPAC003	Accel., 1/2 bridge	Endevco	7264-2000	G
4	HEAD, REDUNDANT	X	GPAC032	Accel., 1/2 bridge	Endevco	7264-2000	G
5	HEAD, REDUNDANT	Y	GPAC021	Accel., 1/2 bridge	Endevco	7264-2000	G
6	HEAD, REDUNDANT	Z	GPAC026	Accel., 1/2 bridge	Endevco	7264-2000	G
7	NECK FORCE	X	GPUN01FX	Load cell, six axis neck	R. A. Denton	1716A	N
8	NECK FORCE	Y	GPUN01FY	Load cell, six axis neck	R. A. Denton	1716A	N
9	NECK FORCE	Z	GPUN01FZ	Load cell, six axis neck	R. A. Denton	1716A	N
10	NECK MOMENT	X	GPUN01MX	Load cell, six axis neck	R. A. Denton	1716A	N.m
11	NECK MOMENT	Y	GPUN01MY	Load cell, six axis neck	R. A. Denton	1716A	N.m
12	NECK MOMENT	Z	GPUN01MZ	Load cell, six axis neck	R. A. Denton	1716A	N.m
13	CHEST, PRIMARY	X	GPAC005	Accel., 1/2 bridge	Endevco	7264-2000	G
14	CHEST, PRIMARY	Y	GPAC011	Accel., 1/2 bridge	Endevco	7264-2000	G
15	CHEST, PRIMARY	Z	GPAC010	Accel., 1/2 bridge	Endevco	7264-2000	G
16	CHEST, REDUNDANT	X	GPAC034	Accel., 1/2 bridge	Endevco	7264-2000	G
17	CHEST, REDUNDANT	Y	GPAC023	Accel., 1/2 bridge	Endevco	7264-2000	G
18	CHEST, REDUNDANT	Z	GPAC020	Accel., 1/2 bridge	Endevco	7264-2000	G
19	CHEST DISPLACEMENT	X	GPRP001	Potentiometer, Rotary	Servo	14CBI	MM
20	PELVIS, PRIMARY	X	GPAC025	Accel., 1/2 bridge	Endevco	7264-2000	G
21	PELVIS, PRIMARY	Y	GPAC022	Accel., 1/2 bridge	Endevco	7264-2000	G
22	PELVIS, PRIMARY	Z	GPAC019	Accel., 1/2 bridge	Endevco	7264-2000	G
23	LEFT FEMUR FORCE	Z	KEFF001	Load cell, Femur	R.A. Denton	2121	N
24	RIGHT FEMUR FORCE	Z	GPLC001	Load cell, Femur	G.S.E.	2430	N

**Ncap Test With Hybrid III Male 50th Percentile ATD
Instrumentation Data Channel Assignments**

Driver A.T.D Serial Number 35

Test Date: 2/20/98

Vehicle: 1998 Honda CRV SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
25	UP. TIBIA LEFT MOM.	X	GPU01MX	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
26	UP. TIBIA LEFT MOM.	Y	GPU01MY	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
27	UP. TIBIA RIGHT MOM.	X	GPU02MX	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
28	UP. TIBIA RIGHT MOM.	Y	GPU02MY	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
29	LWR. TIBIA LEFT FORCE	Y	GPT01FY	3 ch., lower tibia gage	R. A. Denton	1584	N
30	LWR. TIBIA LEFT FORCE	Z	GPT01FZ	3 ch., lower tibia gage	R. A. Denton	1584	N
31	LWR. TIBIA LEFT MOM.	X	GPT01MX	3 ch., lower tibia gage	R. A. Denton	1584	N.m
32	LWR. TIBIA RIGHT FORCE	Y	GPT02FY	3 ch., lower tibia gage	R. A. Denton	1584	N
33	LWR. TIBIA RIGHT FORCE	Z	GPT02FZ	3 ch., lower tibia gage	R. A. Denton	1584	N
34	LWR. TIBIA RIGHT MOM.	X	GPT02MX	3 ch., lower tibia gage	R. A. Denton	1584	N.m
35	FOOT LEFT	X	KEIC002X	Accel., Foot Triax	I.C. Sensor	3031-500	G
36	FOOT LEFT	Y	KEIC002Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
37	FOOT LEFT	Z	KEIC002Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
38	FOOT RIGHT	X	KEIC001X	Accel., Foot Triax	I.C. Sensor	3031-500	G
39	FOOT RIGHT	Y	KEIC001Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
40	FOOT RIGHT	Z	KEIC001Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
41	LAP BELT FORCE	X	KELC001	Load cell, Seat belt	Lebow	3371	N
42	SHOULDER BELT FORCE	X	KELC002	Load cell, Seat belt	Lebow	3371	N
43	SHOULDER BELT SPOOL	X	KEPP001	Pullout pot	Celesco	PTX101-0030	MM
44	SHOULDER BELT ELONG.	X	KEEP001	Linear pot., belt stretch	E.T.I.	LCP8-10 10K	MM/CM

Ncap Test With Hybrid III Male 50th Percentile ATD

Instrumentation Data Channel Assignments

Passenger A.T.D Serial Number 34

Test Date: 2/20/98

Vehicle: 1998 Honda CRV SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
45	HEAD, PRIMARY	X	KEAC039	Accel., 1/2 bridge	Endevco	7264-2000	G
46	HEAD, PRIMARY	Y	KEAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
47	HEAD, PRIMARY	Z	KEAC027	Accel., 1/2 bridge	Endevco	7264-2000	G
48	HEAD, REDUNDANT	X	KEAC031	Accel., 1/2 bridge	Endevco	7264-2000	G
49	HEAD, REDUNDANT	Y	KEAC032	Accel., 1/2 bridge	Endevco	7264-2000	G
50	HEAD, REDUNDANT	Z	KEAC026	Accel., 1/2 bridge	Endevco	7264-2000	G
51	NECK FORCE	X	GPUN02FX	Load cell, six axis neck	R. A. Denton	1716A	N
52	NECK FORCE	Y	GPUN02FY	Load cell, six axis neck	R. A. Denton	1716A	N
53	NECK FORCE	Z	GPUN02FZ	Load cell, six axis neck	R. A. Denton	1716A	N
54	NECK MOMENT	X	GPUN02MX	Load cell, six axis neck	R. A. Denton	1716A	N.m
55	NECK MOMENT	Y	GPUN02MY	Load cell, six axis neck	R. A. Denton	1716A	N.m
56	NECK MOMENT	Z	GPUN02MZ	Load cell, six axis neck	R. A. Denton	1716A	N.m
57	CHEST , PRIMARY	X	GPAC031	Accel., 1/2 bridge	Endevco	7264-2000	G
58	CHEST , PRIMARY	Y	GPAC024	Accel., 1/2 bridge	Endevco	7264-2000	G
59	CHEST , PRIMARY	Z	GPAC029	Accel., 1/2 bridge	Endevco	7264-2000	G
60	CHEST , REDUNDANT	X	KEAC023	Accel., 1/2 bridge	Endevco	7264-200	G
61	CHEST , REDUNDANT	Y	KEAC022	Accel., 1/2 bridge	Endevco	7264-200	G
62	CHEST , REDUNDANT	Z	KEAC024	Accel., 1/2 bridge	Endevco	7264-200	G
63	CHEST DISPLACEMENT	X	GPRP002	Potentiometer, Rotary	Servo	14CBI	MM
64	PELVIS, PRIMARY	X	GPAC009	Accel., 1/2 bridge	Endevco	7264-2000	G
65	PELVIS, PRIMARY	Y	GPAC017	Accel., 1/2 bridge	Endevco	7264-2000	G
66	PELVIS, PRIMARY	Z	GPAC018	Accel., 1/2 bridge	Endevco	7264-2000	G
67	LEFT FEMUR FORCE	Z	KEFF003	Load cell, Femur	R.A. Denton	2121	N
68	RIGHT FEMUR FORCE	Z	KEFF002	Load cell, Femur	R.A. Denton	2121	N

Ncap Test With Hybrid III Male 50th Percentile ATD
Instrumentation Data Channel Assignments
Passenger A.T.D Serial Number 34
Test Date: 2/20/98
Vehicle: 1998 Honda CRV SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
69	UP. TIBIA LEFT MOM.	X	GPU03MX	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
70	UP. TIBIA LEFT MOM.	Y	GPU03MY	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
71	UP. TIBIA RIGHT MOM.	X	GPU04MX	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
72	UP. TIBIA RIGHT MOM.	Y	GPU04MY	2 ch., Upper tibia gage	R. A. Denton	1583	N.m
73	LWR. TIBIA LEFT FORCE	Y	GPLT03FY	3 ch., lower tibia gage	R. A. Denton	1584	N
74	LWR. TIBIA LEFT FORCE	Z	GPLT03FZ	3 ch., lower tibia gage	R. A. Denton	1584	N
75	LWR. TIBIA LEFT MOM.	X	GPLT03MX	3 ch., lower tibia gage	R. A. Denton	1584	N.m
76	LWR. TIBIA RIGHT FORCE	Y	GPLT04FY	3 ch., lower tibia gage	R. A. Denton	1584	N
77	LWR. TIBIA RIGHT FORCE	Z	GPLT04FZ	3 ch., lower tibia gage	R. A. Denton	1584	N
78	LWR. TIBIA RIGHT MOM.	X	GPLT04MX	3 ch., lower tibia gage	R. A. Denton	1584	N.m
79	FOOT LEFT	X	KEIC003X	Accel., Foot Triax	I.C. Sensor	3031-500	G
80	FOOT LEFT	Y	KEIC003Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
81	FOOT LEFT	Z	KEIC003Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
82	FOOT RIGHT	X	KEIC004X	Accel., Foot Triax	I.C. Sensor	3031-500	G
83	FOOT RIGHT	Y	KEIC004Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
84	FOOT RIGHT	Z	KEIC004Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
85	LAP BELT FORCE	X	KELC003	Load cell, Seat belt	Lebow	3371	N
86	SHOULDER BELT FORCE	X	KELC004	Load cell, Seat belt	Lebow	3371	N
87	SHOULDER BELT SPOOL	X	KEPP001	Pullout pot	Celesco	PTX101-0030	MM
88	SHOULDER BELT ELONG.	X	KEEP001	Linear pot., belt stretch	E.T.I.	LCP8-10 10K	MM/CM

**Ncap Test With Hybrid III Male 50th Percentile ATD
Instrumentation Data Channel Assignments**

Vehicle Accelerometers

Test Date: 2/20/98

Vehicle: 1998 Honda CRV SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
89	LEFT REAR PRIMARY	X	KEVA005	Accel., Vehicle block	I.C. Sensor	3031-500	G
90	RIGHT REAR PRIMARY	X	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
91	ENGINE TOP	X	KEVA001	Accel., Vehicle block	I.C. Sensor	3031-500	G
92	ENGINE BOTTOM	X	KEVA002	Accel., Vehicle block	I.C. Sensor	3031-500	G
93	LEFT BRAKE CALIPER	X	KEVA010	Accel., Vehicle block	I.C. Sensor	3031-500	G
94	RIGHT BRAKE CALIPER	X	KEVA004	Accel., Vehicle block	I.C. Sensor	3031-500	G
95	INSTUMENT PANEL	X	KEVA007	Accel., Vehicle block	I.C. Sensor	3031-200	G
96	LEFT REAR REDUNDANT	X	KEVA011	Accel., Vehicle block	I.C. Sensor	3031-200	G

APPENDIX E

DUMMY CALIBRATION DATA



Hybrid III Calibration Data Sheet

50TH Percentile Male

Left Knee Impact Test

ATD Serial No.: 034

Part Serial No.: n/a

Test I.D.: K1000

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.132	Pass
Peak Probe Force	Newtons	4715 to 5782	5045.8	Pass
Overall Test Results				Pass

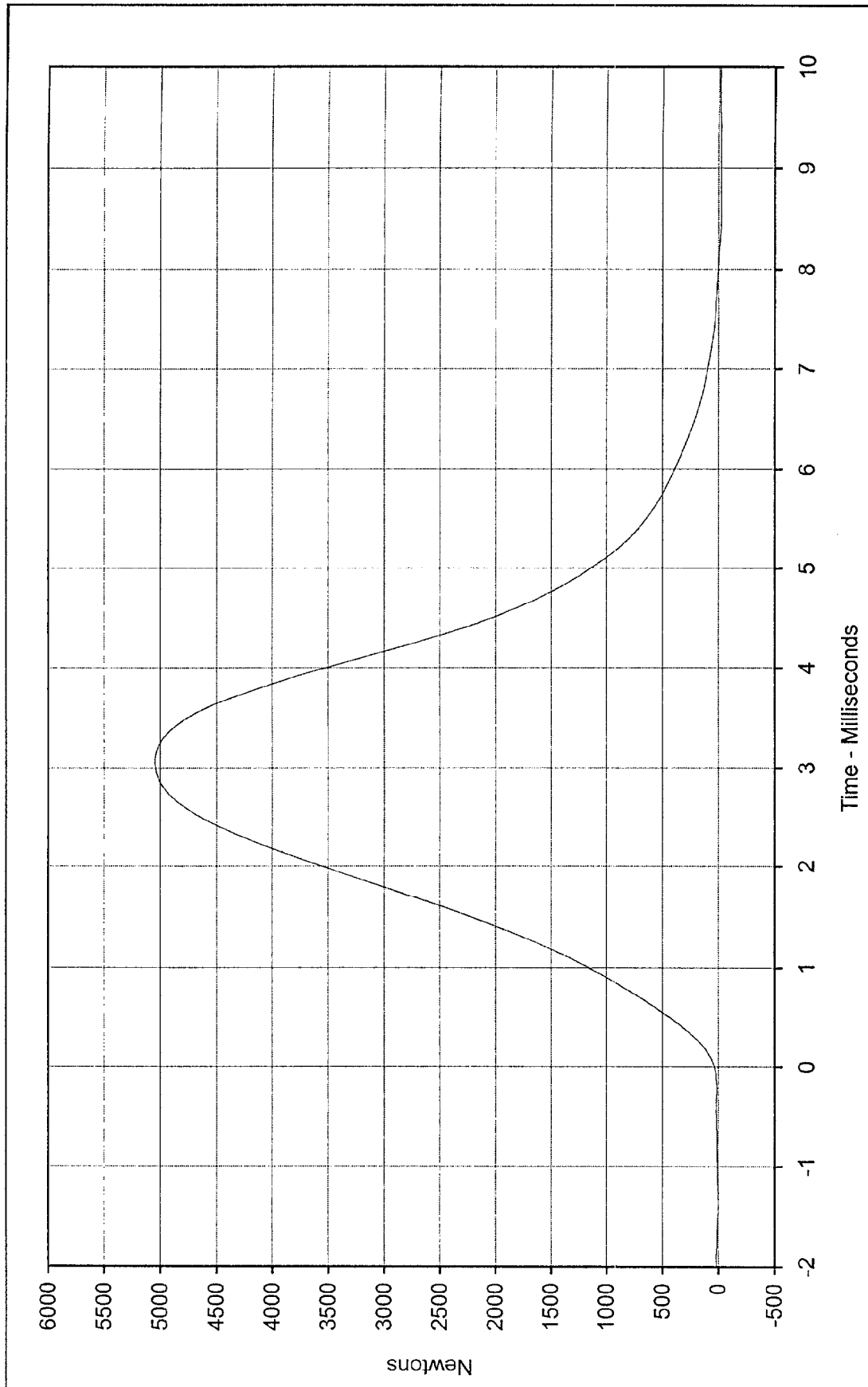
Laboratory Technician

Approved By

February 4, 1998

Test Date

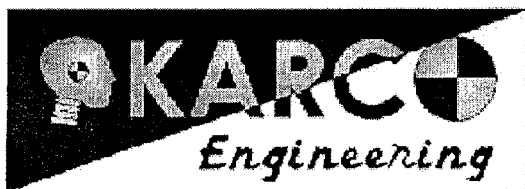
Date



Curve Description: Testing Program: Hybrid III Left Knee Impact Test
 Maximum Value: 5045.8 at 3.1 Milliseconds
 Minimum Value: -1.1 at -1.4 Milliseconds

SAE Filter Class: 600
 Date of Test: 2/4/98
 ATD Serial No.: 034





Hybrid III Calibration Data Sheet

50TH Percentile Male

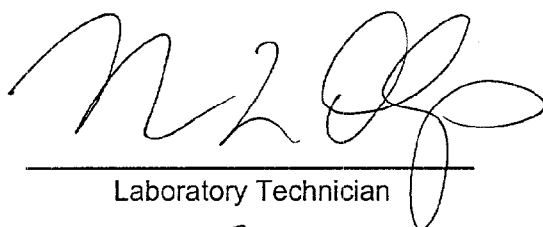
Right Knee Impact Test

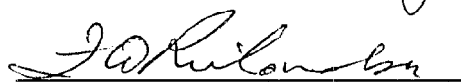
ATD Serial No.: 034

Part Serial No.: n/a

Test I.D.: K2000

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.120	Pass
Peak Probe Force	Newtons	4715 to 5782	5686.6	Pass
Overall Test Results				Pass


Laboratory Technician

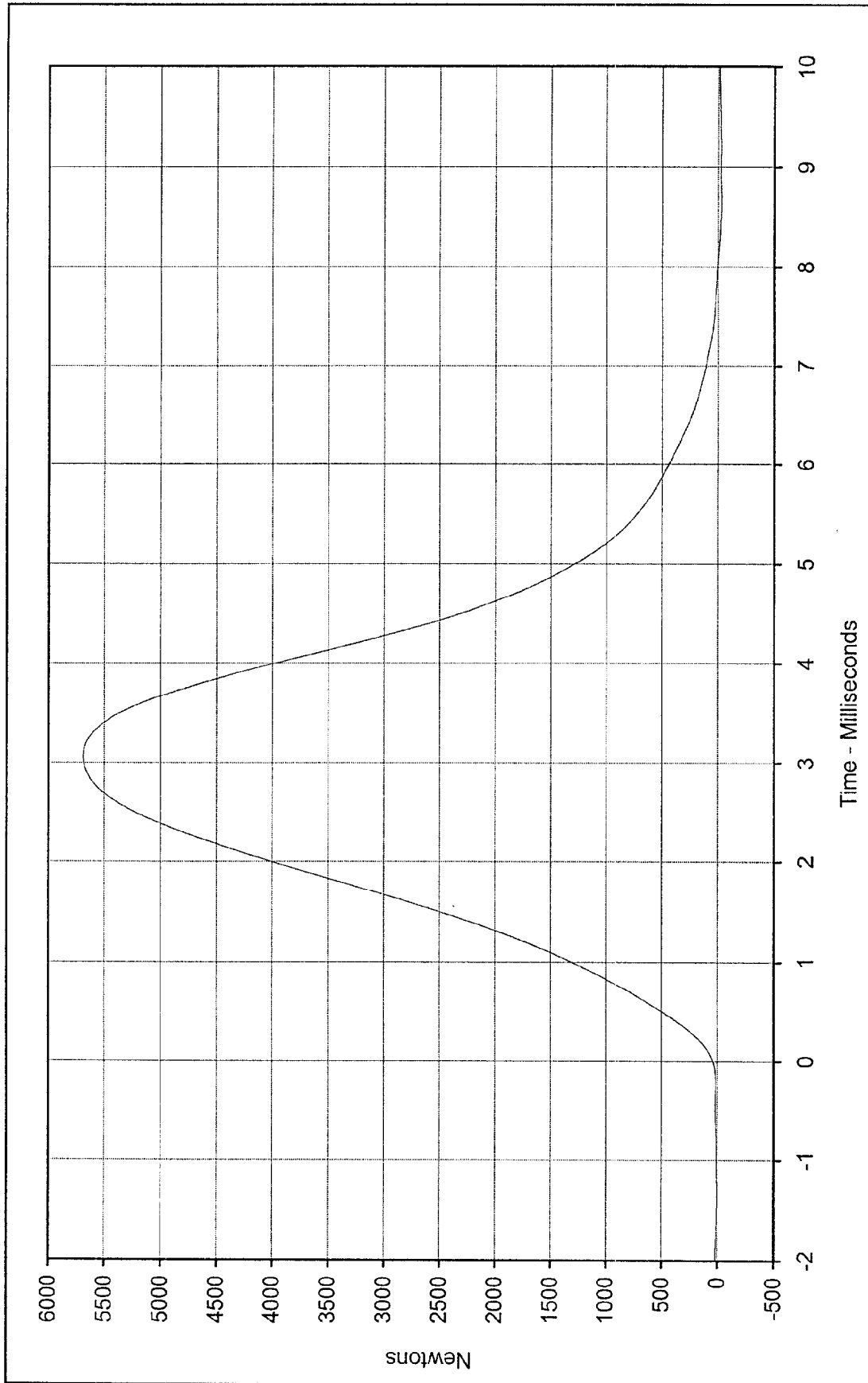

Approved By

February 4, 1998

Test Date

2/4/98

Date



Testing Program: Hybrid III Right Knee Impact Test
 Test Information: Part S/N: n/a Test I.D.: K2000

Curve Description: Probe Force
 Maximum Value: 5686.6 at 3.1 Milliseconds
 Minimum Value: -1.3 at -1.4 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/4/98
 ATD Serial No.: 034





Hybrid III Calibration Data Sheet

50TH Percentile Male

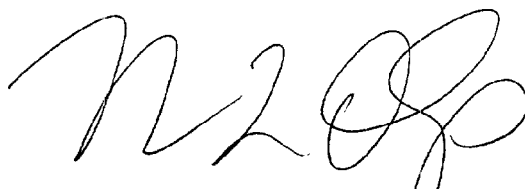
Head Drop Calibration

ATD Serial No.: 034

Part Serial No.: n/a

Test I.D.: H5000

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	272.9	Pass
Peak Lateral Acceleration	G's	≤15.0	14.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Laboratory Technician



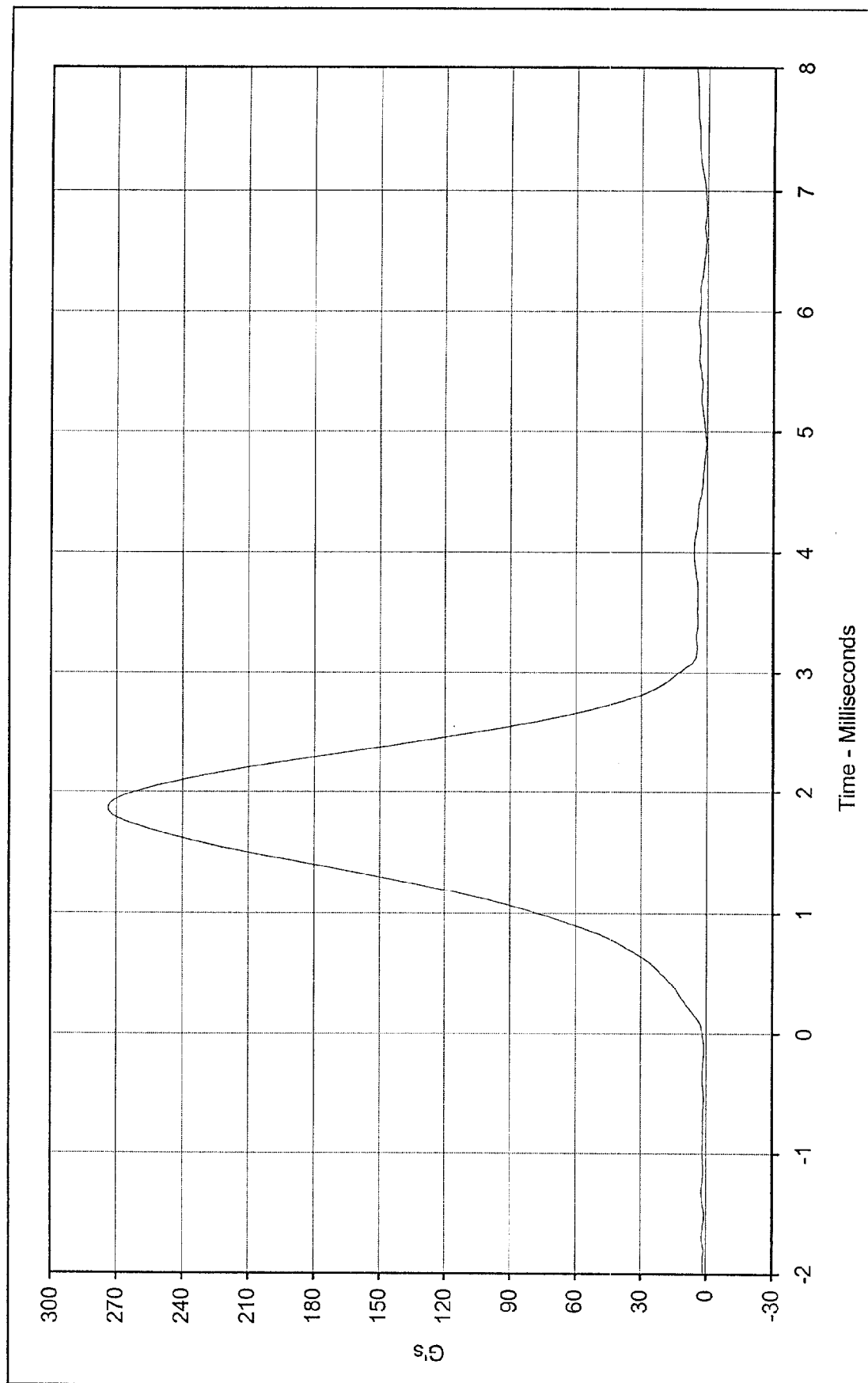
Approved By

February 4, 1998

Test Date

2/4/98

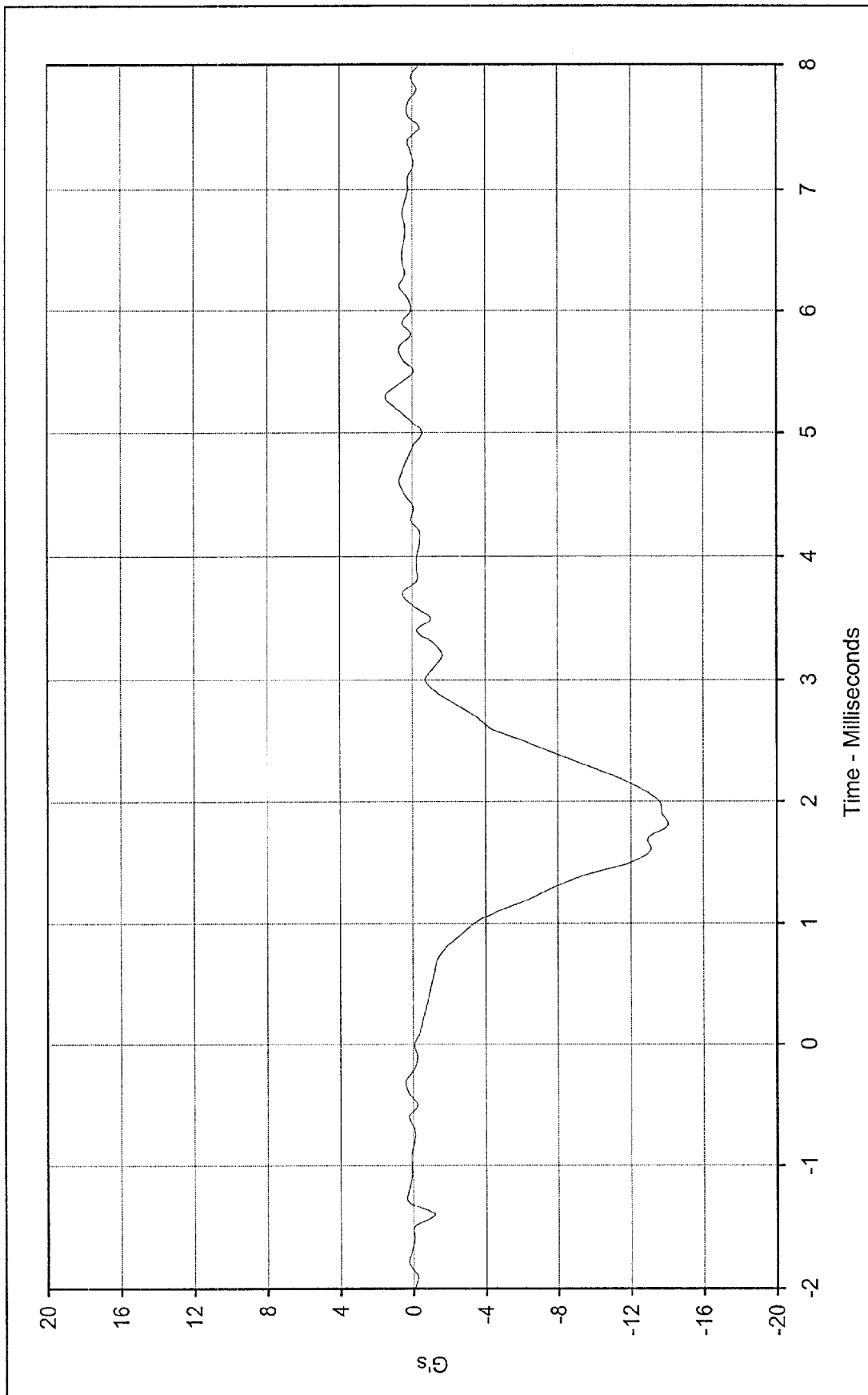
Date



Curve Description: Head Resultant Acceleration
 Maximum Value: 272.9 at 1.9 Milliseconds
 Minimum Value: 0.4 at 4.9 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/4/98
 ATD Serial No.: 034

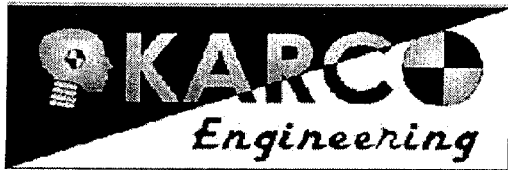
Testing Program: Hybrid III Head Drop Calibration (Male)
 Test Information: S/N of Part: n/a Test I.D.: H5000





Curve Description: _____ Testing Program: Hybrid III Head Drop Calibration (Male)
 Maximum Value: 1.5 at 5.3 Milliseconds
 Minimum Value: -14.0 at 1.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/4/98
 ATD Serial No.: 034





Hybrid III Calibration Data Sheet

50TH Percentile Male

Thorax Impact Test

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: CHST1

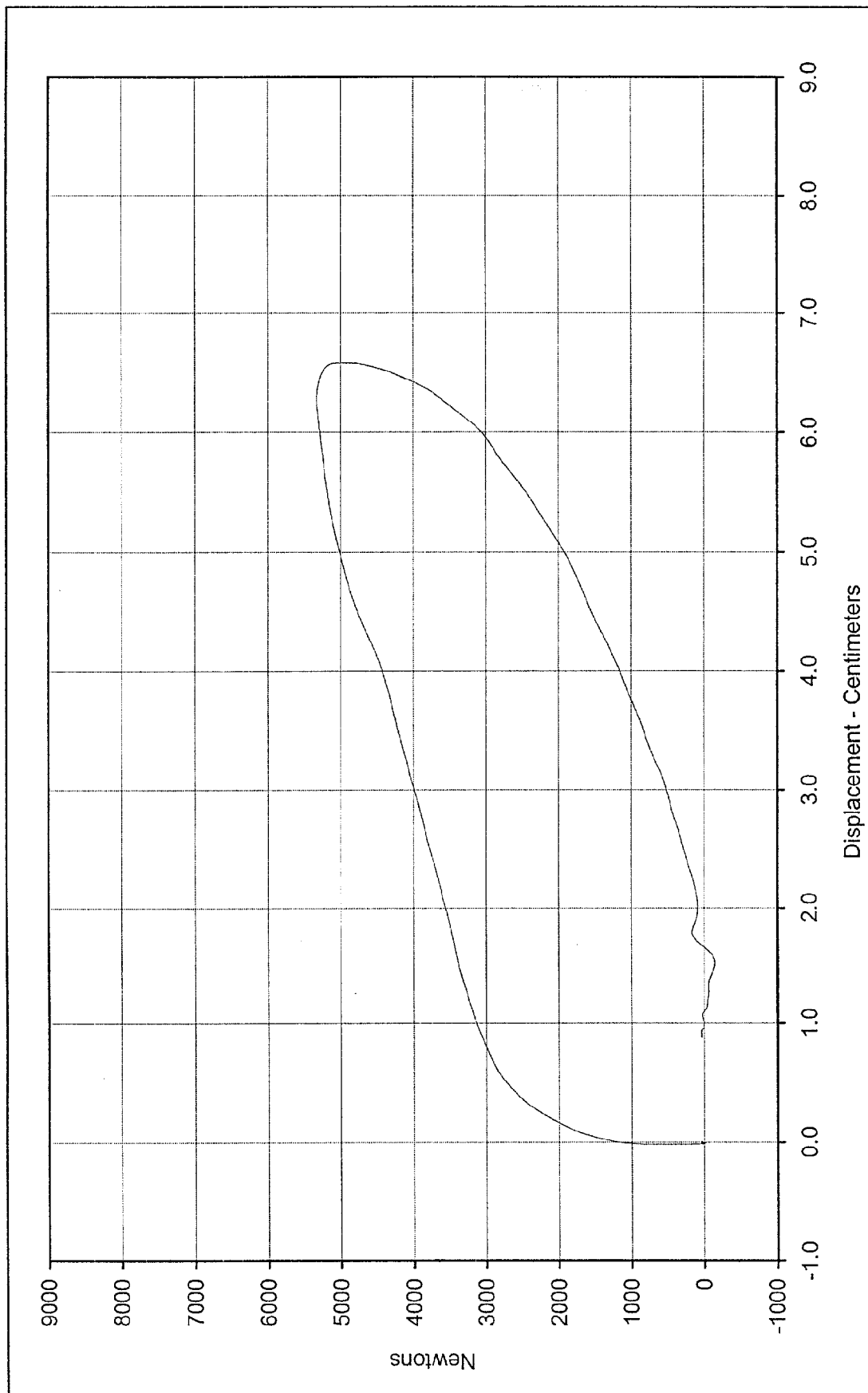
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Probe Velocity	m/s	6.58 to 6.82	6.68	Pass
Peak Probe Force	Newtons	5159 to 5893	5327	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.58	Pass
Internal Hysteresis	%	69 to 85	73.0	Pass
Overall Test Results				Pass


Laboratory Technician


Approved By

February 4, 1998
Test Date

2/4/98
Date



Curve Description: Probe Force vs. Chest Displacement Testing Program: Hybrid III Thorax Impact Test

Probe Force: 5327.2 Newtons Test Information: S/N of Part: N/A Test I.D.: CHST1

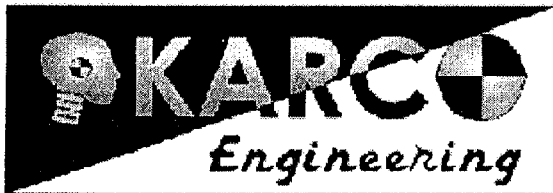
Chest Displ.: 6.58 Centimeters

SAE Filter Class: 180

Date of Test: 2/4/98

ATD Serial No.: 034





Hybrid III Calibration Data Sheet

50TH Percentile Male

Neck Flexion Test

ATD Serial No.: 034

Part Serial No.: n/a

Test I.D.: NF700

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	36	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.94	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	22.5	Pass
	20 Msec.	G's	17.6 to 22.6	19.3	Pass
	30 Msec.	G's	12.5 to 18.5	18.3	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	18.3	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	38.9	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	76.7	Pass
	Time	Msec.	57.0 to 64.0	62.2	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	122.1	Pass
Moment About Occipital Condyle	Maximum	N • m	84.1 to 108.5	90.6	Pass
	Time	Msec.	47.0 to 58.0	52.5	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	103.0	Pass
Overall Test Results					Pass

Laboratory Technician

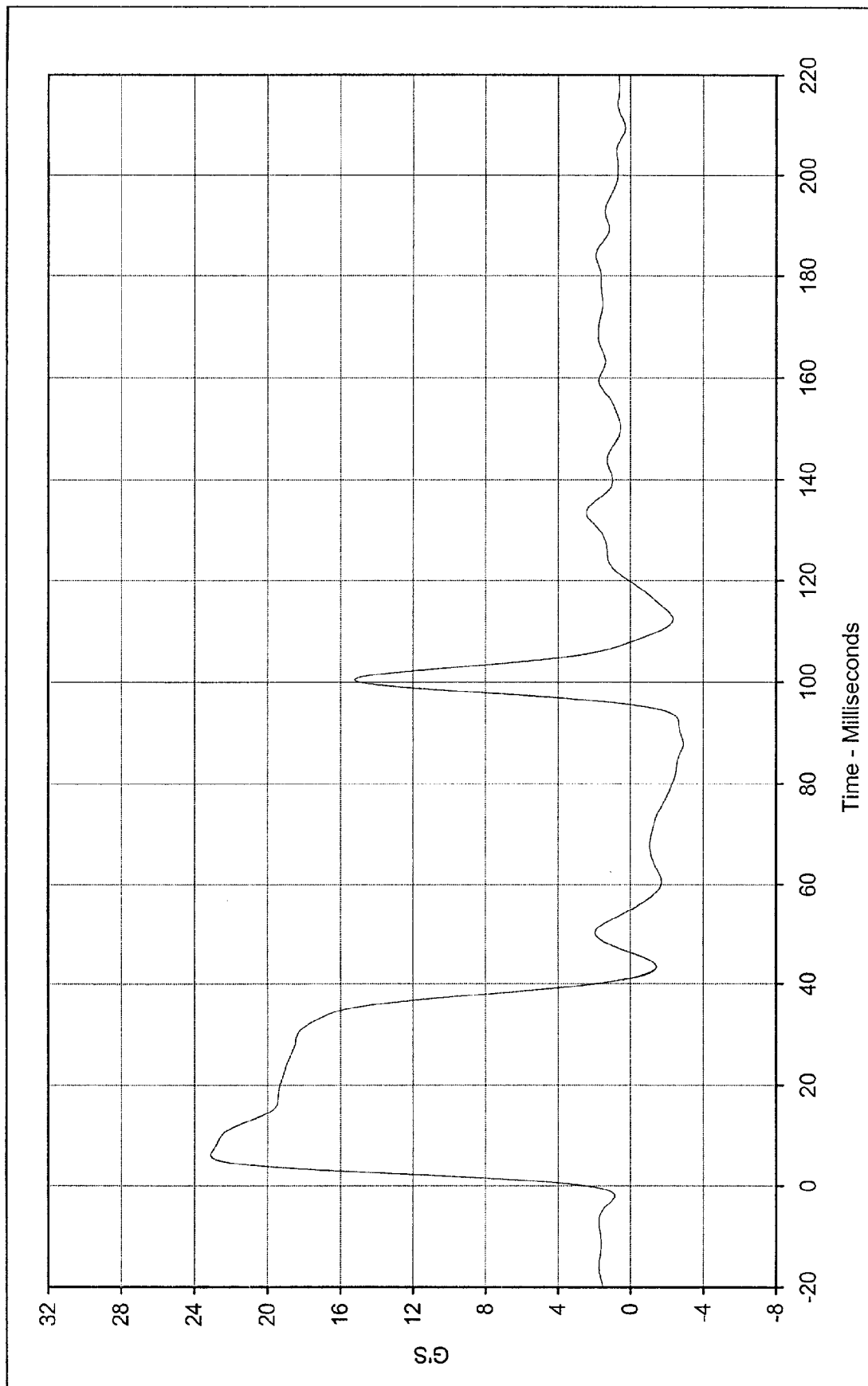
Approved By

February 5, 1998

Test Date

2/5/98

Date

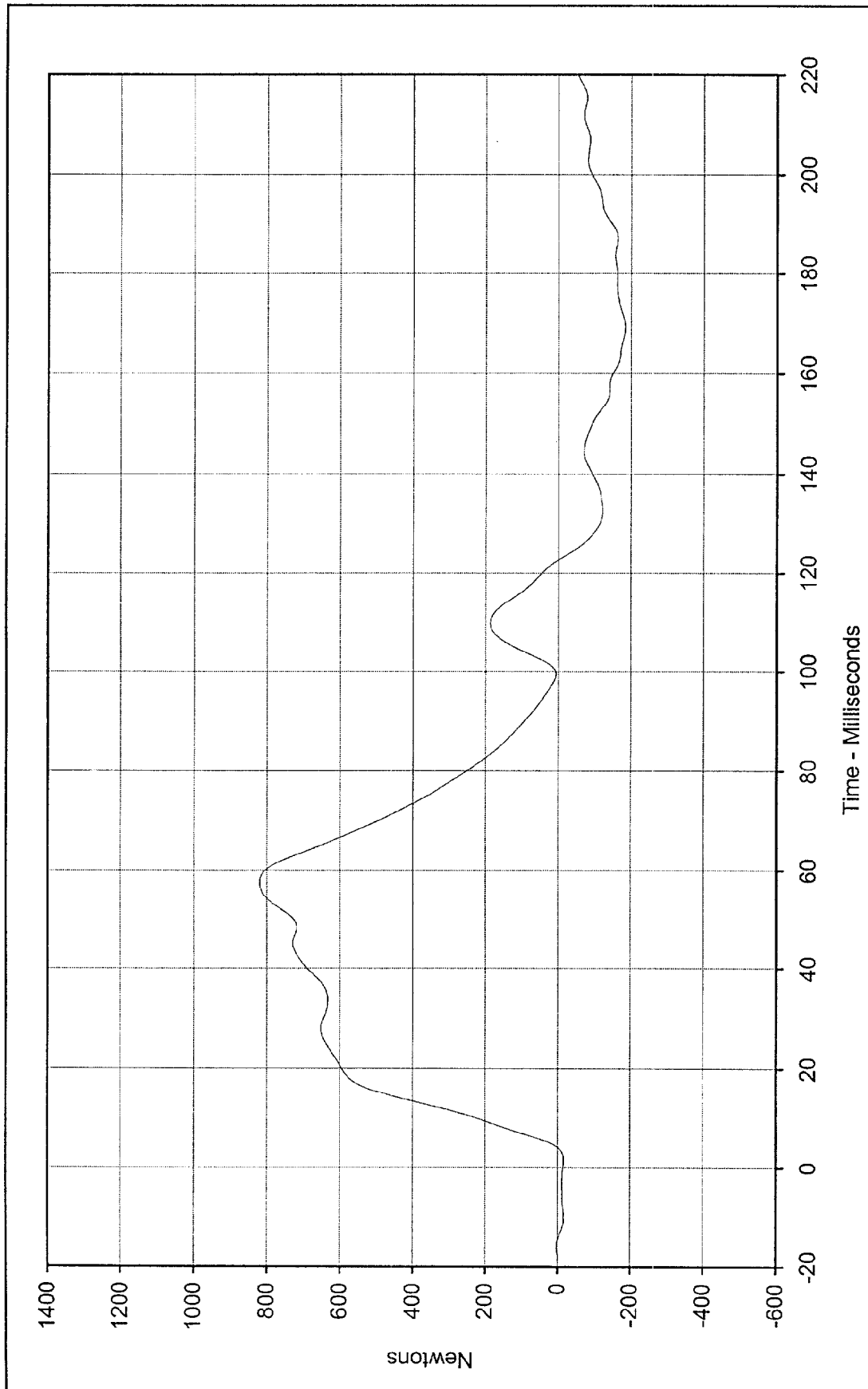


Curve Description: Pendulum Deceleration
 Maximum Value: 23.1 at 6.1 Milliseconds
 Minimum Value: -2.9 at 87.9 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 034

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: n/a Test I.D.: NF700





Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: n/a Test I.D.: NF700



Curve Description: Neck Force X

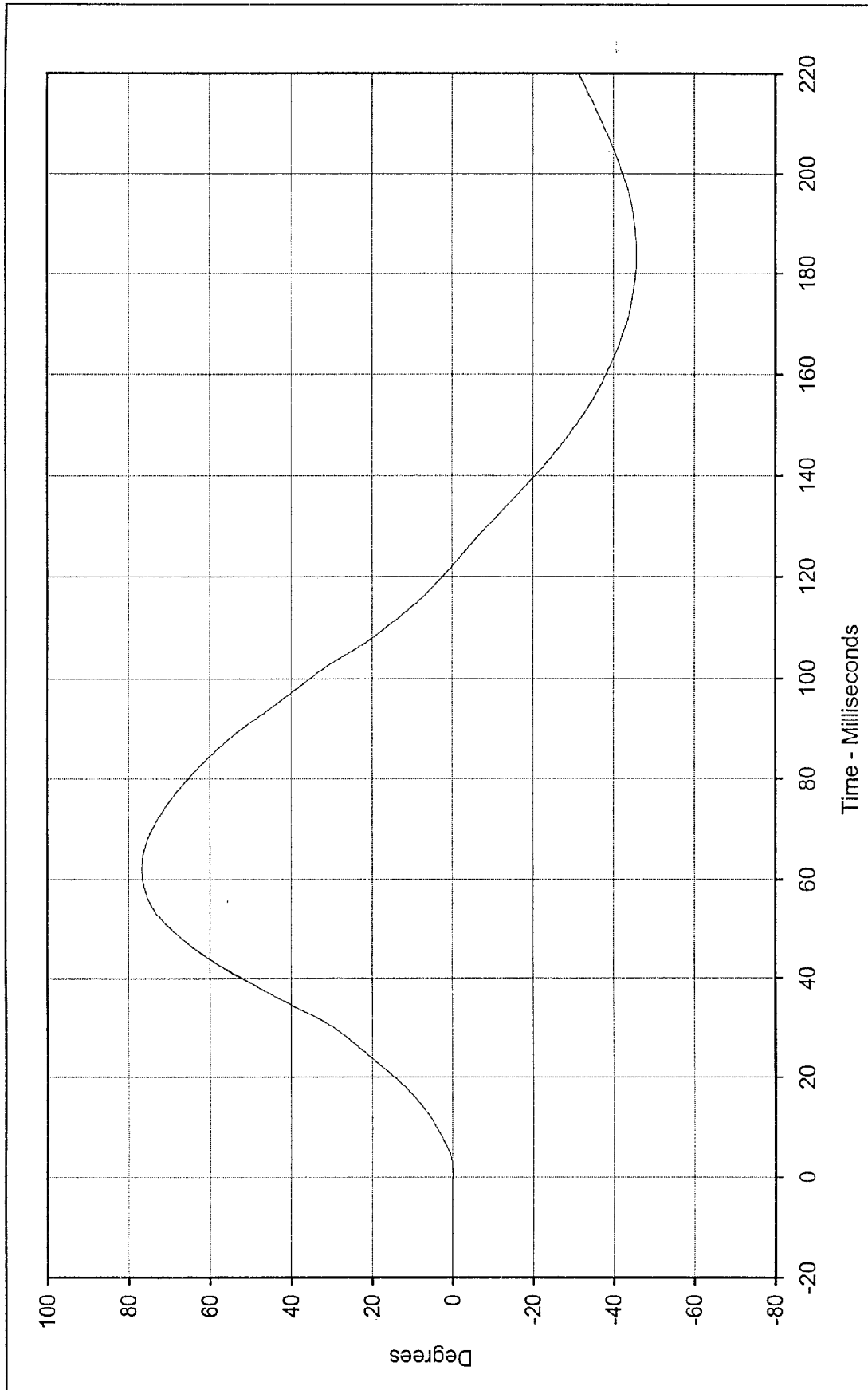
Maximum Value: 819.8 at 57.5 Milliseconds

Minimum Value: -183.3 at 169.2 Milliseconds

SAE Filter Class: 60

Date of Test: 2/5/98

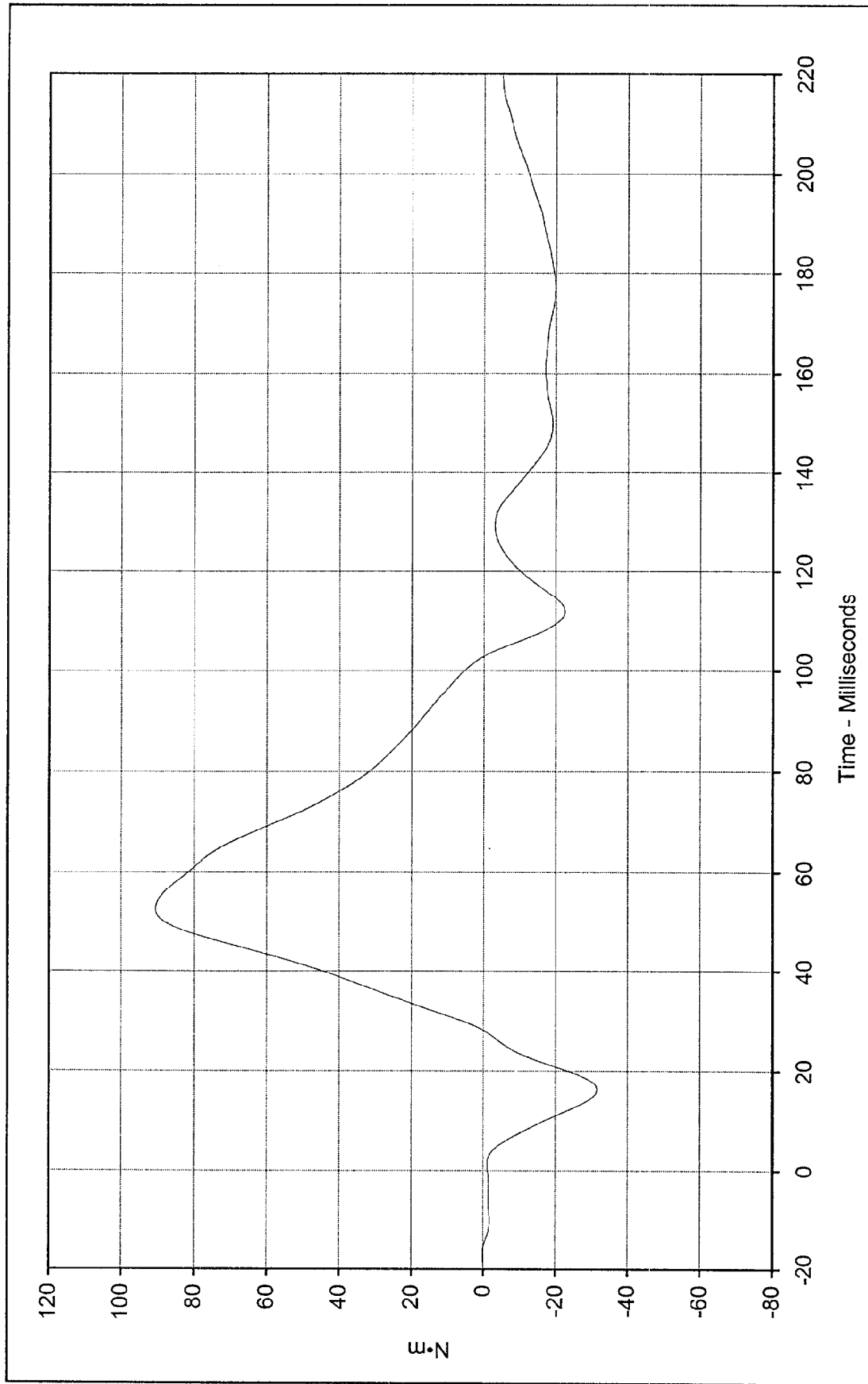
ATD Serial No.: 034



Curve Description: "D" Plane Rotation
 Maximum Value: 76.7 at 62.2 Milliseconds
 Minimum Value: -45.6 at 183.5 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 034

Testing Program: Hybrid III Neck Flexion Test (Male)
 Test Information: S/N of Part: n/a Test I.D.: NF700





Curve Description: Moment About Occipital Condyles

Maximum Value: 90.6 at 52.5 Milliseconds

Minimum Value: -31.6 at 16.2 Milliseconds

SAE Filter Class: 60

Date of Test: 2/5/98

ATD Serial No.: 034

Testing Program Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: n/a Test I.D.: NF700





Hybrid III Calibration Data Sheet

50TH Percentile Male

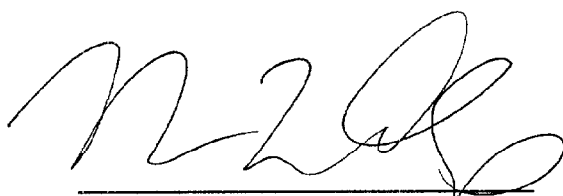
Neck Extension Test

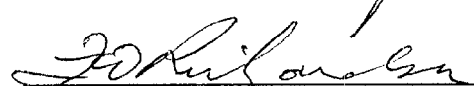
ATD Serial No.: 034

Part Serial No.: n/a

Test I.D.: NE200

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	36	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.11	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	18.5	Pass
	20 Msec.	G's	14.0 to 19.0	17.6	Pass
	30 Msec.	G's	11.0 to 16.0	15.9	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	15.9	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	38.9	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	96.7	Pass
	Time	Msec.	72.0 to 82.0	73.9	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	154.6	Pass
Moment About Occipital Condyle	Maximum	N • m	-52.9 to- 79.9	-78.8	Pass
	Time	Msec.	65.0 to 79.0	66.2	Pass
Negative Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	143.8	Pass
Overall Test Results					Pass


 Laboratory Technician

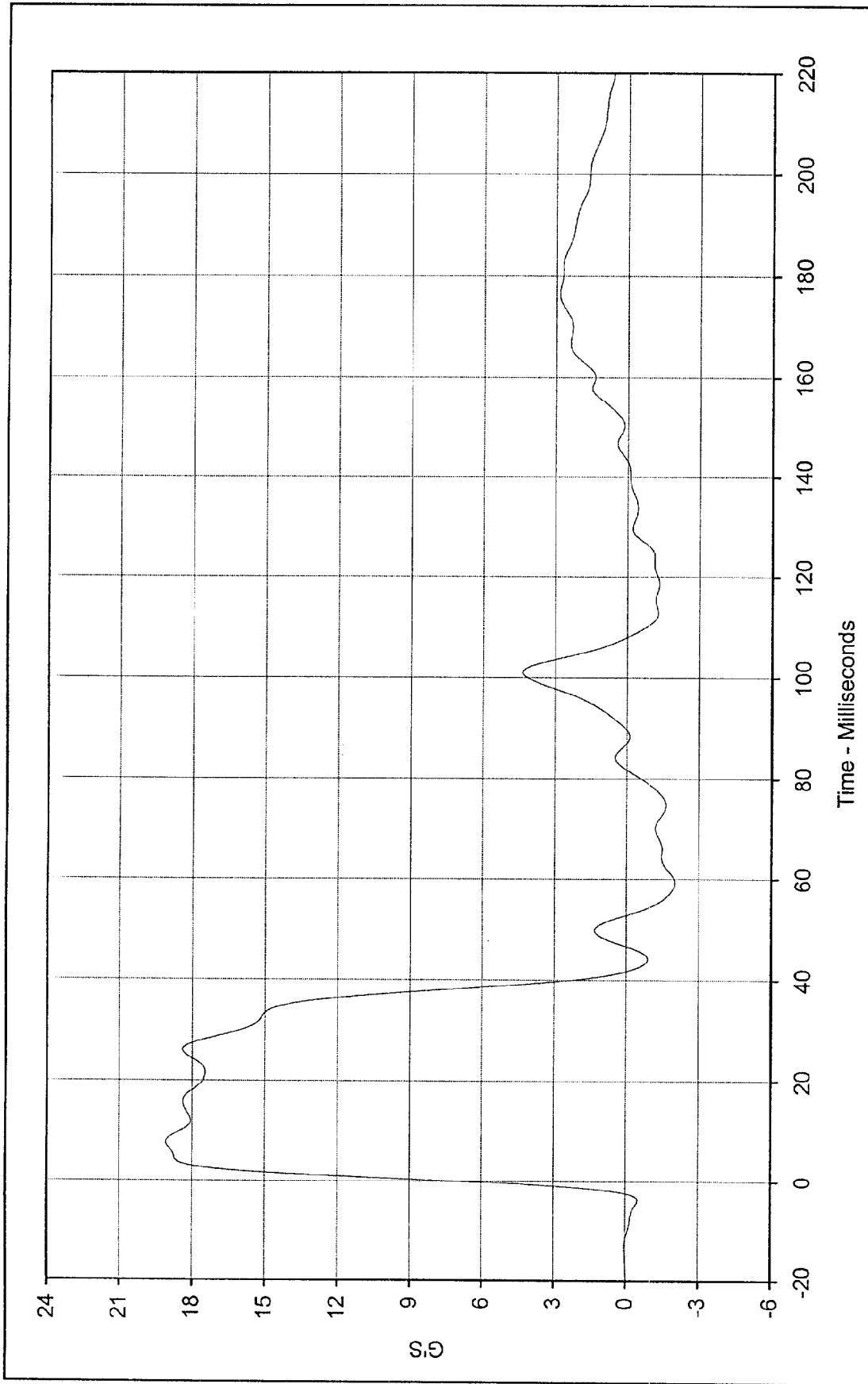

 Approved By

February 5, 1998

Test Date

2/5/98

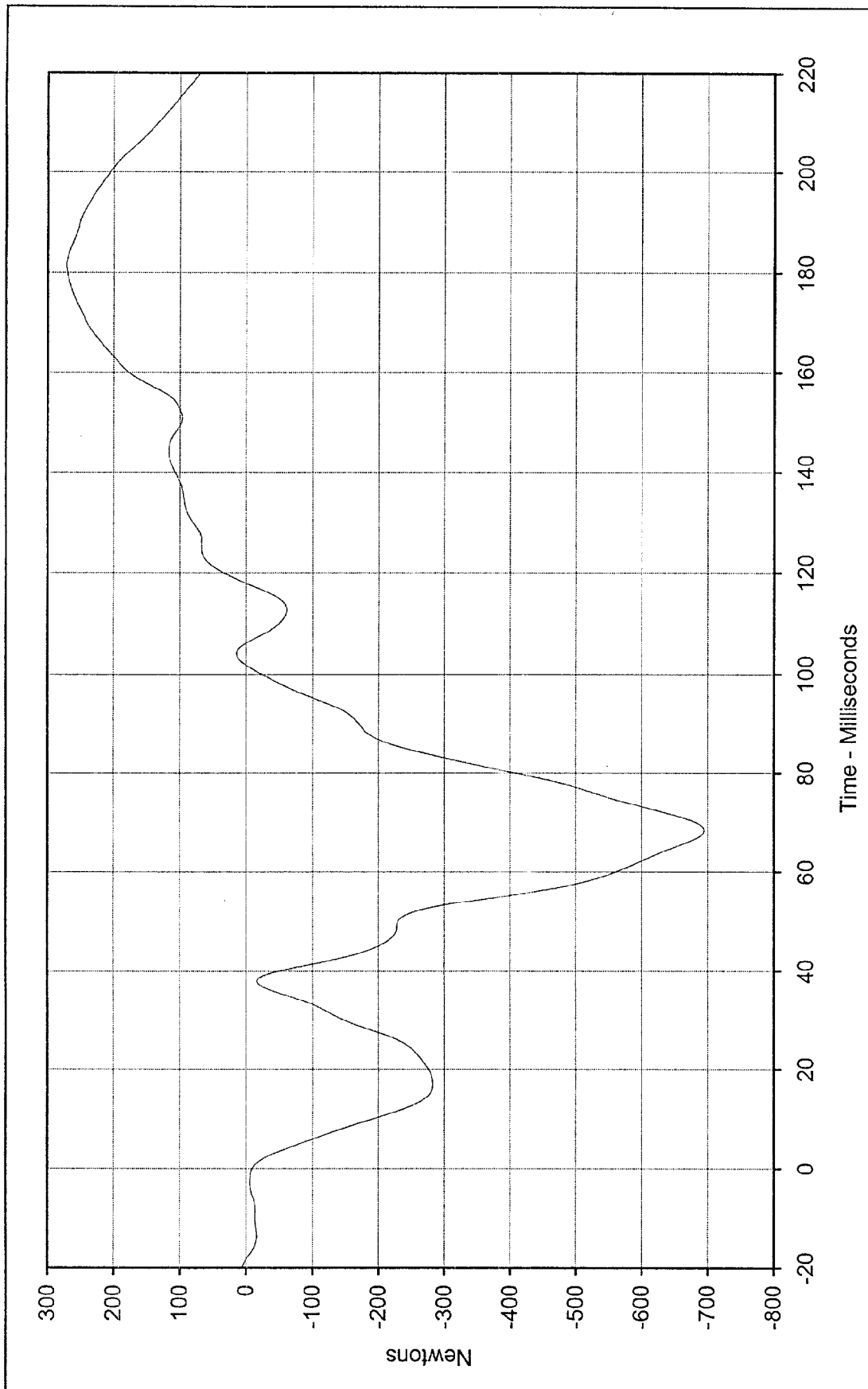
Date



Curve Description: Hybrid III Neck Extension Test (Male)
 Testing Program: Hybrid III Neck Extension Test (Male)
 Test Information: S/N of Part: n/a Test I.D.: NE200



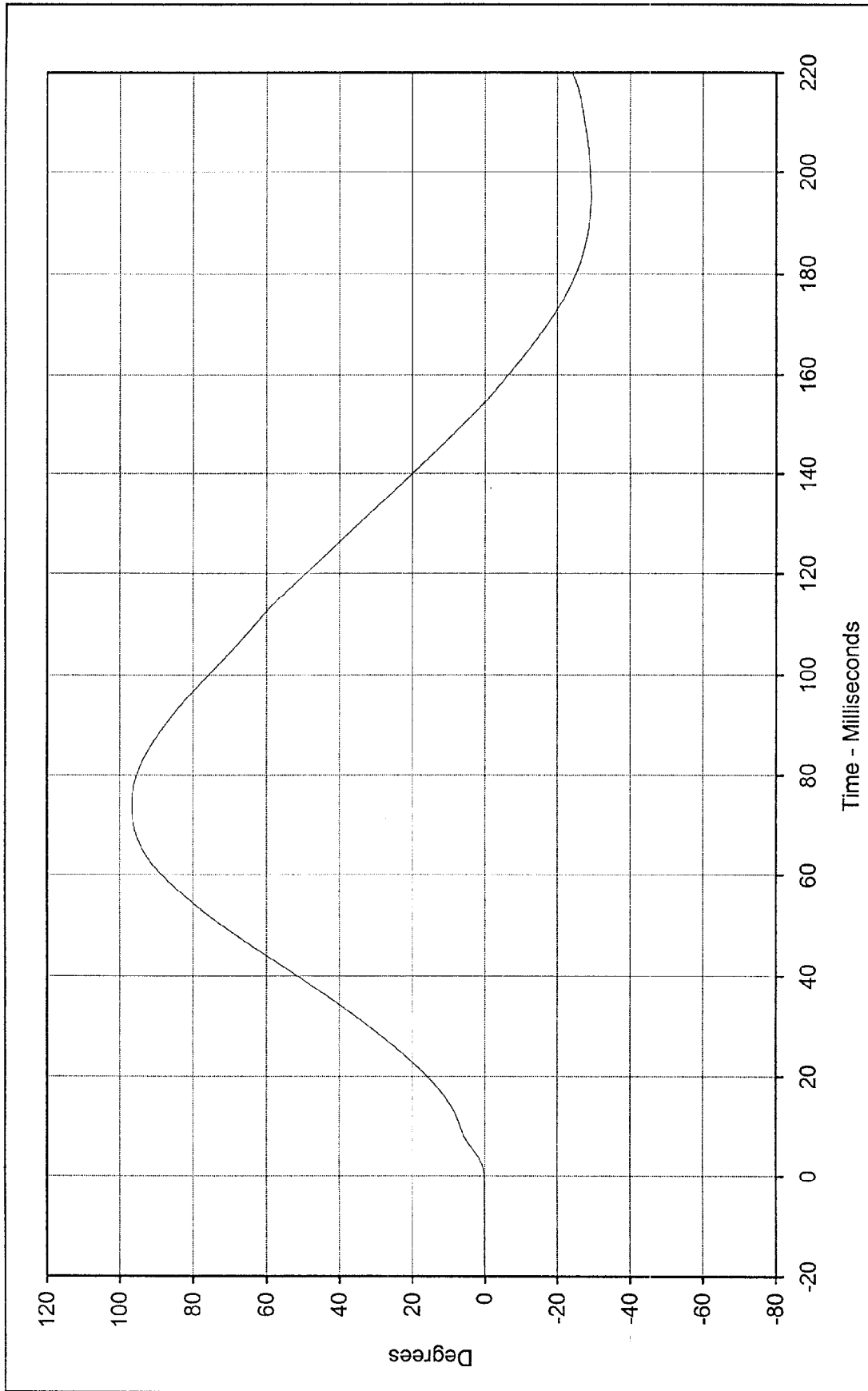
Pendulum Deceleration
 Maximum Value: 19.1 at 7.7 Milliseconds
 Minimum Value: -2.0 at 59.2 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 034



Curve Description: Neck Force X
 Maximum Value: 271.6 at 181.5 Milliseconds
 Minimum Value: -695.4 at 68.3 Milliseconds

SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 034





Curve Description: Hybrid III Neck Extension Test (Male)

Testing Program: S/N of Part: n/a Test I.D.: NE200



Curve Description: "D" Plane Rotation

Maximum Value: 96.7 at 73.9 Milliseconds

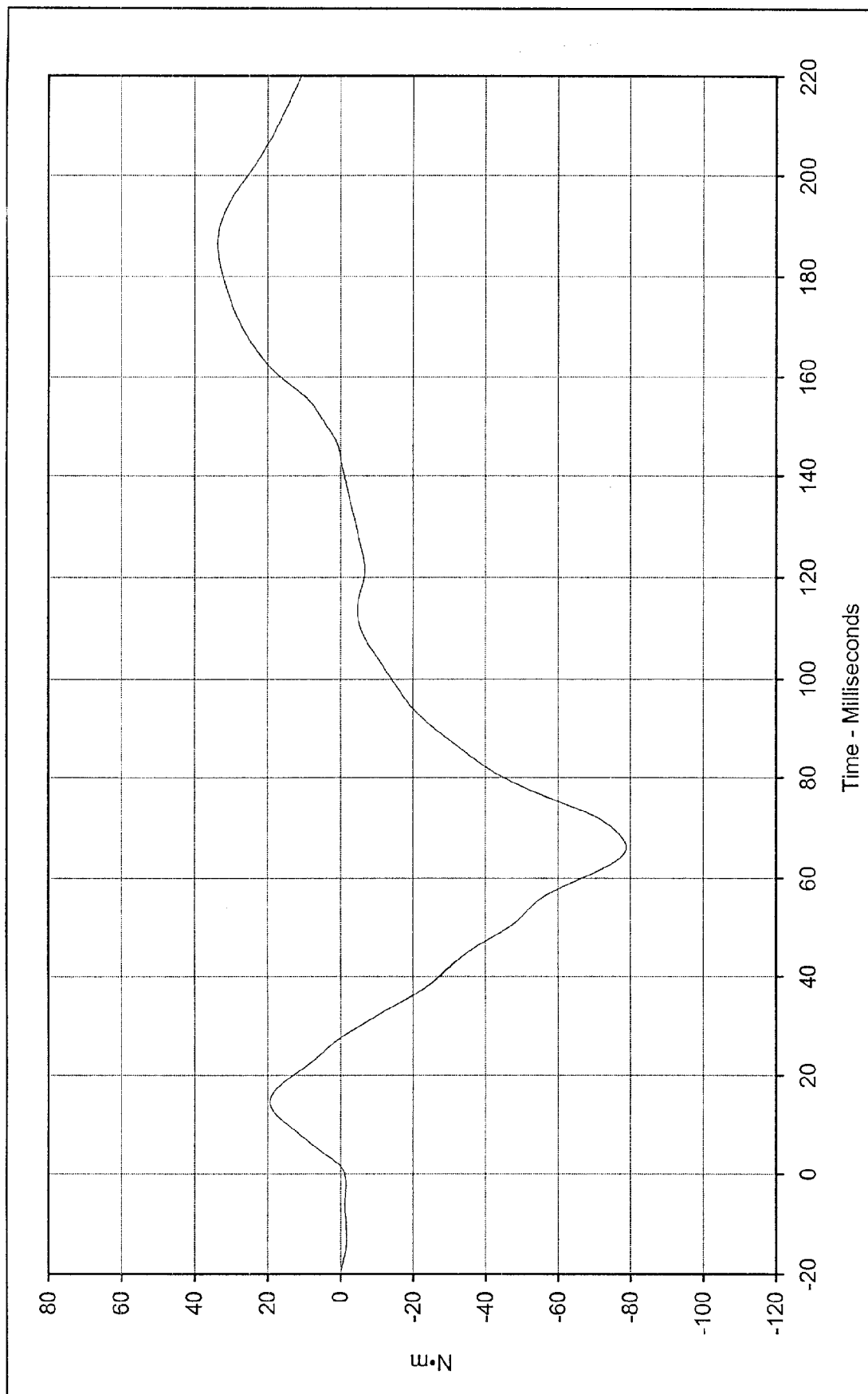
Test Information:

Minimum Value: -29.3 at 195.2 Milliseconds

SAE Filter Class: 60

Date of Test: 2/5/98

ATD Serial No.: 034



Curve Description: Moment About Occipital Condyles
 Maximum Value: 33.6 at 186.3 Milliseconds
 Minimum Value: -78.8 at 66.2 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 034

Testing Program: Hybrid III Neck Extension Test (Male)
 Test Information: S/N of Part: n/a Test I.D.: NE200





Hybrid III Calibration Data Sheet

50TH Percentile Male

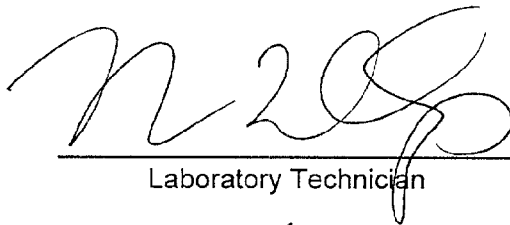
External Measurements

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: N/A

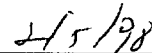
External Measurement Data				
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.9	Pass
Laboratory relative humidity	%	10 to 70	43.0	Pass
A - Total sitting height	mm	878.8 to 889.0	884.0	Pass
B - Shoulder pivot height	mm	505.5 to 520.7	516.0	Pass
C - "H" point height	mm	83.8 to 88.9	88.0	Pass
D - "H" point from seat back	mm	134.6 to 139.7	138.0	Pass
E - Shoulder pivot from back	mm	83.8 to 94.0	86.0	Pass
F - Thigh clearance	mm	139.7 to 154.9	151.0	Pass
G - Elbow back to wrist pivot	mm	289.6 to 304.8	302.0	Pass
H - Skull cap to back line	mm	40.6 to 45.7	44.0	Pass
I - Shoulder to elbow length	mm	330.2 to 345.4	330.0	Pass
J - Elbow rest height	mm	190.5 to 210.8	209.0	Pass
K - Buttock to knee length	mm	579.1 to 604.5	600.0	Pass
L - Popliteal length	mm	429.3 to 454.7	450.0	Pass
M - Knee pivot height	mm	485.1 to 500.4	486.0	Pass
N - Buttock popliteal length	mm	452.1 to 477.5	475.0	Pass
O - Chest depth	mm	213.4 to 228.6	225.0	Pass
P - Foot length	mm	251.5 to 266.7	265.0	Pass
V - Shoulder breadth	mm	421.6 to 436.9	434.0	Pass
W - Foot breadth	mm	91.4 to 106.7	105.0	Pass
Y - Chest circumference	mm	970.3 to 1000.8	980.0	Pass
Z - Waist circumference	mm	835.7 to 866.1	860.0	Pass
AA - Location for chest circumference	mm	429.3 to 434.3	433.0	Pass
BB - Location for waist circumference	mm	226.1 to 231.1	229.0	Pass
Overall Test Results				Pass


Laboratory Technician

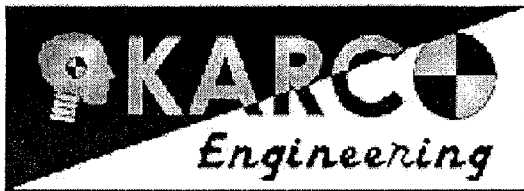

Approved By

February 5, 1998

Test Date



Date



Hybrid III Calibration Data Sheet

50TH Percentile Male

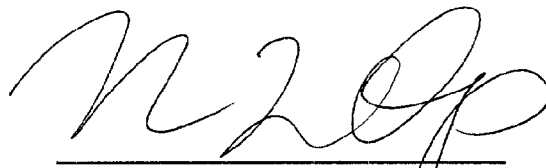
Left Knee Impact Test

ATD Serial No.: 035

Part Serial No.: n/a

Test I.D.: K3000

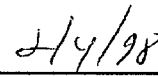
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.127	Pass
Peak Probe Force	Newtons	4715 to 5782	5572.9	Pass
Overall Test Results				Pass


Laboratory Technician

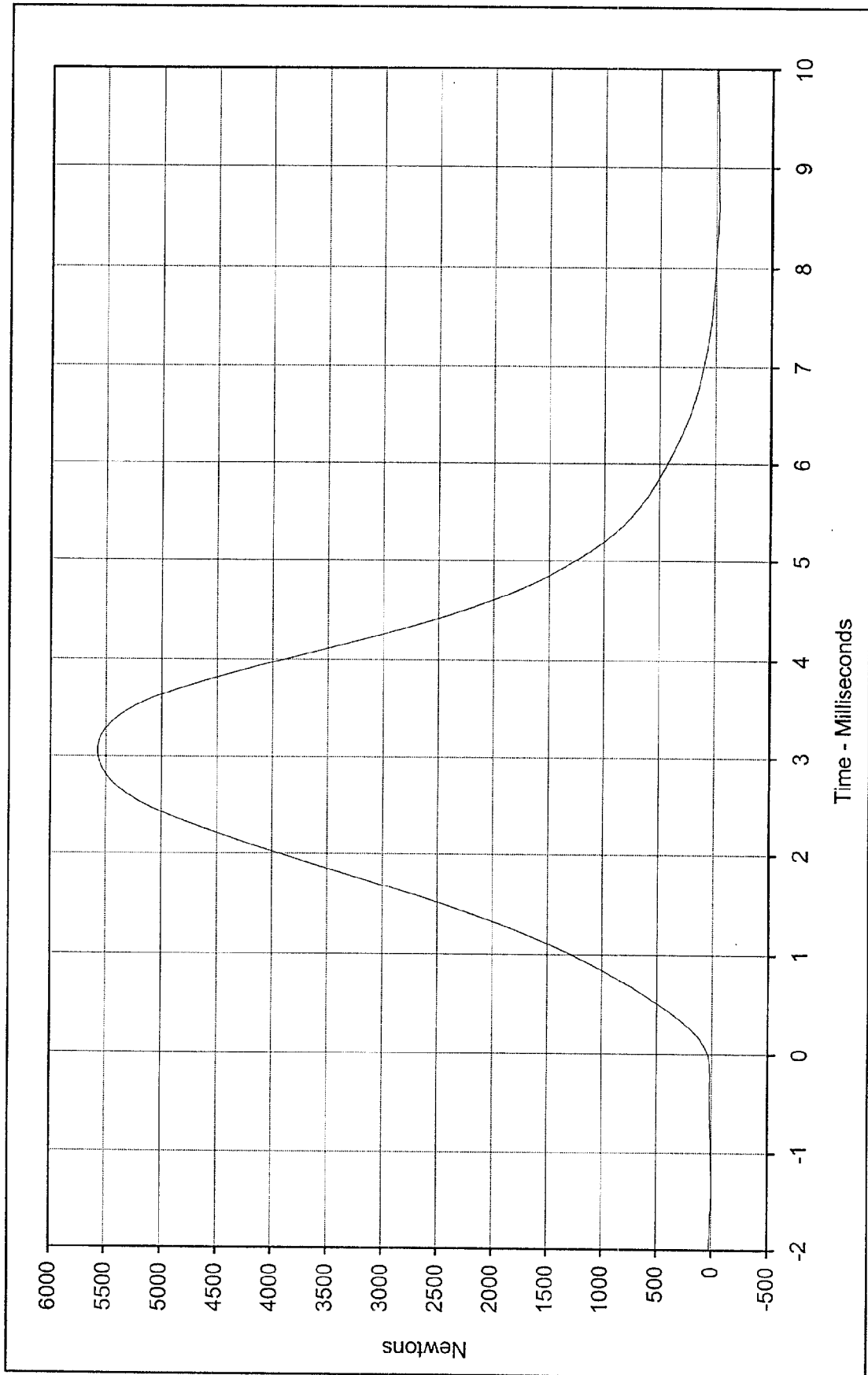

Approved By

February 4, 1998

Test Date

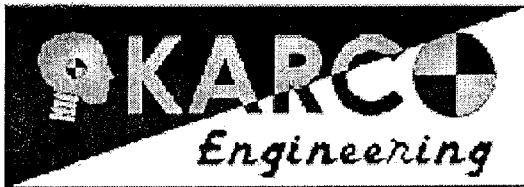


Date



Curve Description: _____ Testing Program: Hybrid III Left Knee Impact Test
 Maximum Value: 5572.9 at 3.1 Milliseconds
 Minimum Value: -1.3 at -1.4 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/4/98
 ATD Serial No.: 035





Hybrid III Calibration Data Sheet

50TH Percentile Male

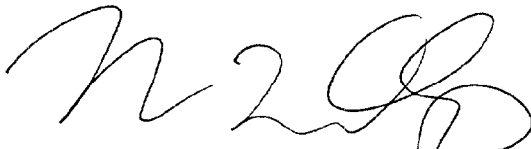
Right Knee Impact Test

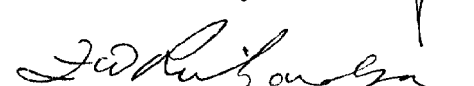
ATD Serial No.: 035

Part Serial No.: n/a

Test I.D.: K4000

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.118	Pass
Peak Probe Force	Newtons	4715 to 5782	5517.1	Pass
Overall Test Results				Pass


Laboratory Technician

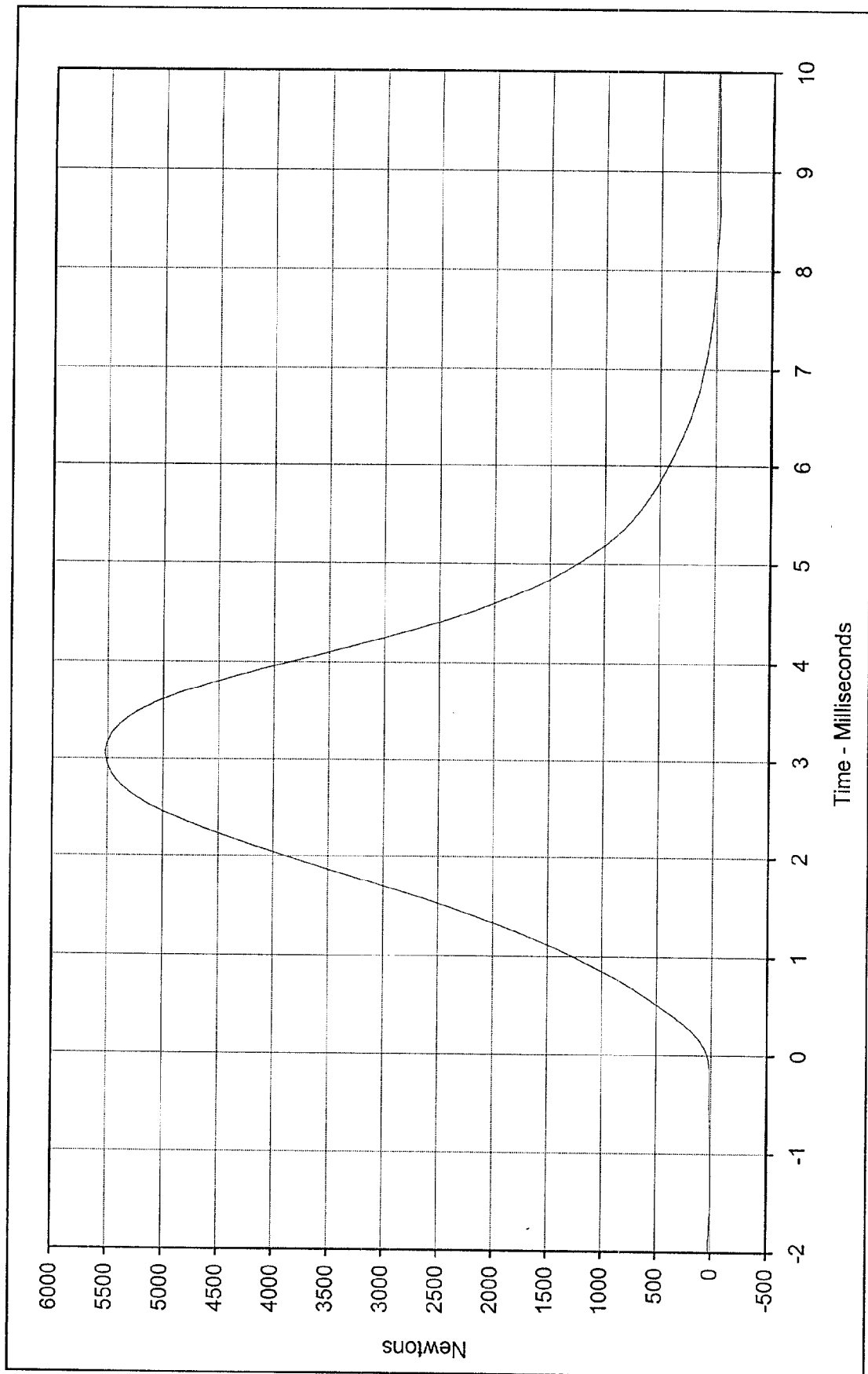

Approved By

February 5, 1998

Test Date

2/5/98

Date



Curve Description: Hybrid III Right Knee Impact Test
 Testing Program: Part S/N: n/a Test I.D.: K4000

Probe Force
 Maximum Value: 5517.1 at 3.1 Milliseconds
 Minimum Value: -1.2 at -1.4 Milliseconds
 SAE Filter Class: 600
 Date of Test: 2/5/98
 ATD Serial No.: 035





Hybrid III Calibration Data Sheet

50TH Percentile Male

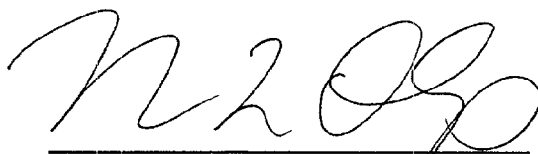
Head Drop Calibration

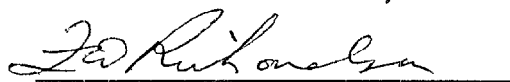
ATD Serial No.: 035

Part Serial No.: n/a

Test I.D.: H6000

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	253.5	Pass
Peak Lateral Acceleration	G's	≤15.0	2.2	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass


Laboratory Technician

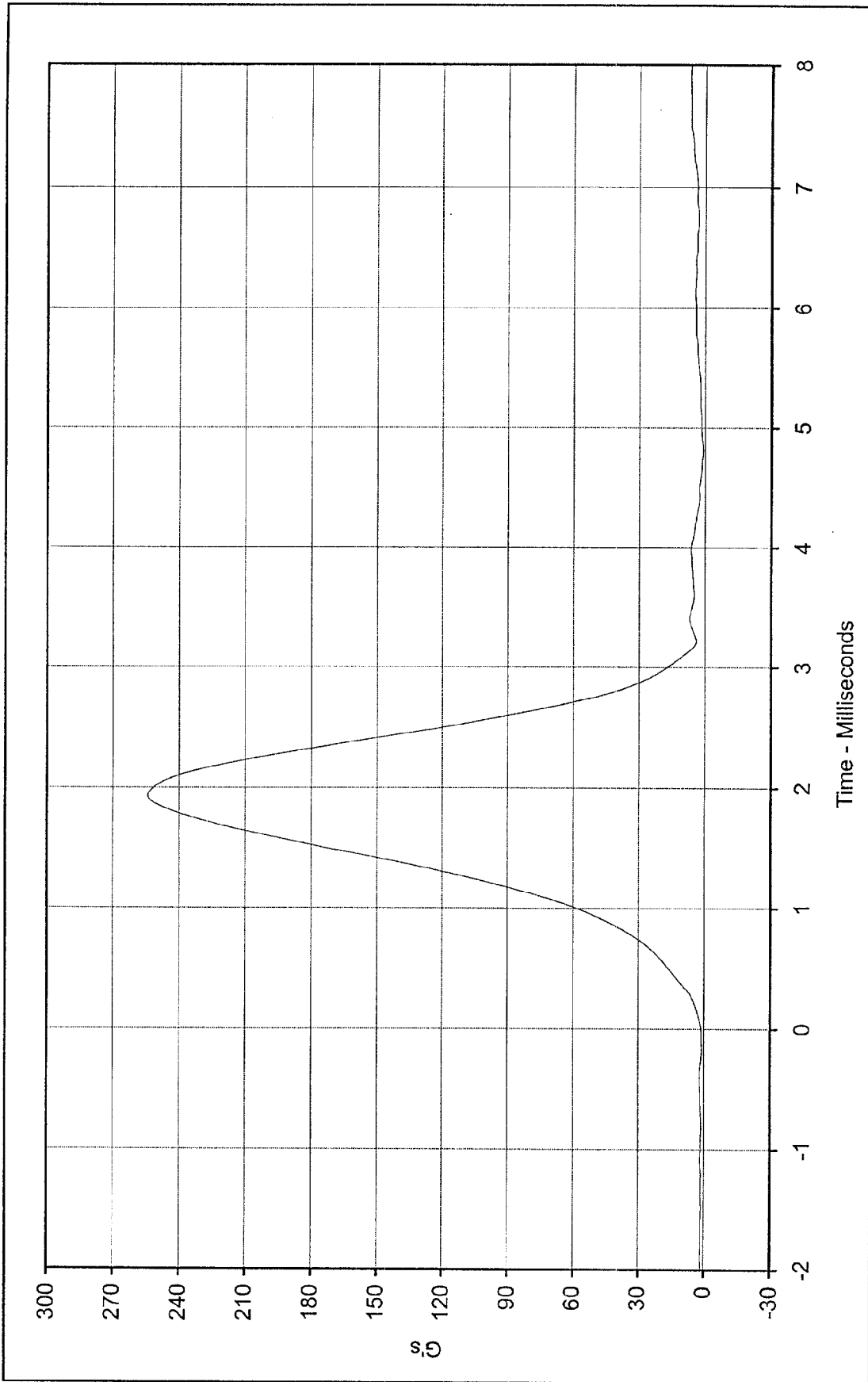

Approved By

February 4, 1998

Test Date

2/4/98

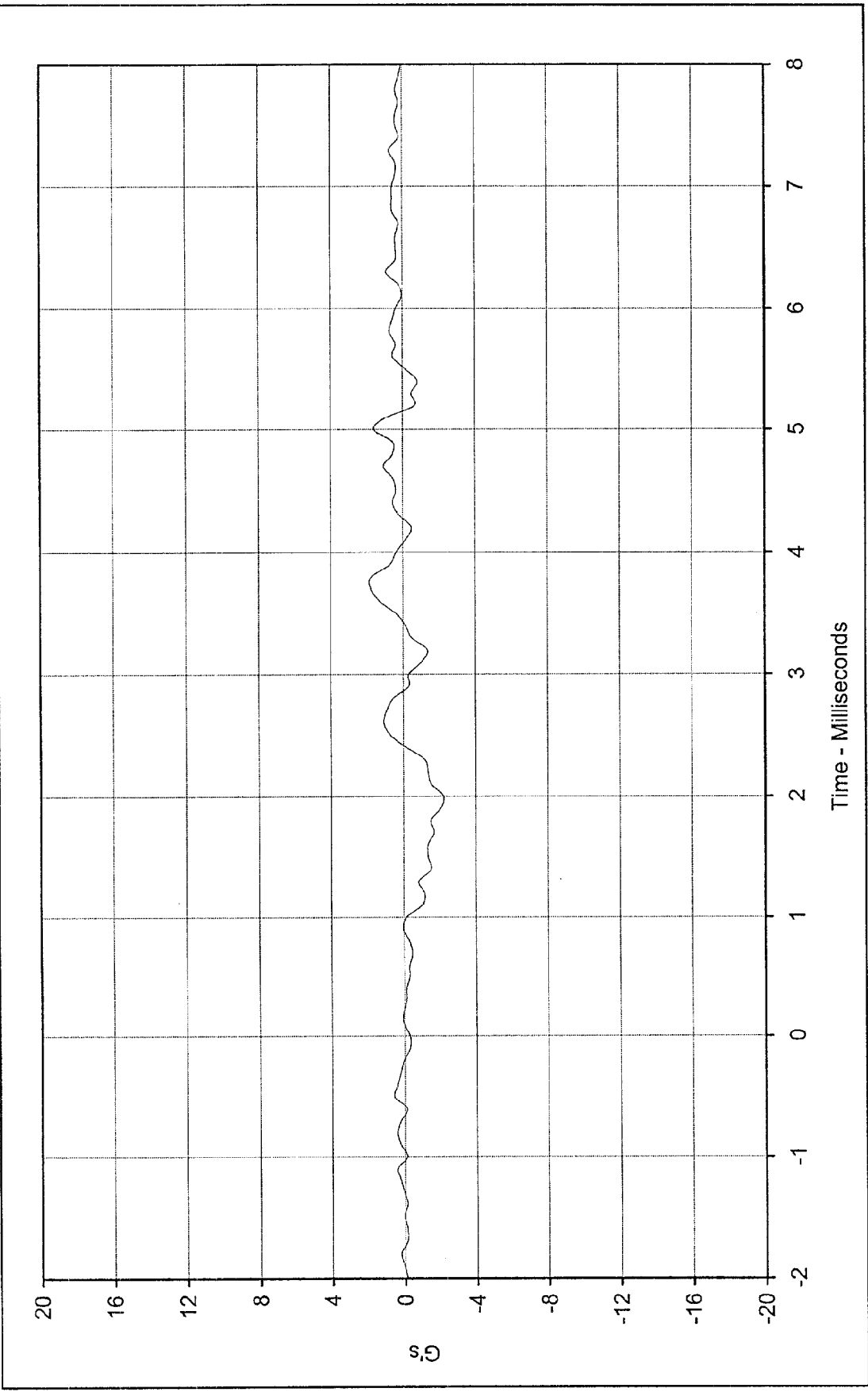
Date



Testing Program Hybrid III Head Drop Calibration (Male)
 Test Information: S/N of Part: n/a Test I.D.: H6000

Curve Description: Head Resultant Acceleration
 Maximum Value: 253.5 at 1.9 Milliseconds
 Minimum Value: 0.9 at 4.8 Milliseconds
 SAE Filter Class: 1000
 Date of Test: 2/4/98
 ATD Serial No.: 035

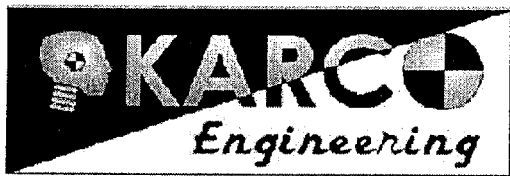




Curve Description:	Head Acceleration Y Axis	Testing Program	Hybrid III Head Drop Calibration (Male)
Maximum Value:	1.8 at 3.7 Milliseconds	Test Information:	S/N of Part: n/a Test I.D.: H6000
Minimum Value:	-2.2 at 2.0 Milliseconds		



SAE Filter Class:	1000
Date of Test:	2/4/98
ATD Serial No.:	035



Hybrid III Calibration Data Sheet

50TH Percentile Male

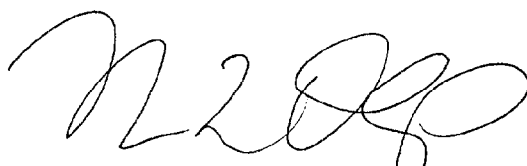
Thorax Impact Test

ATD Serial No.: 035

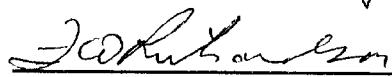
Part Serial No.: N/A

Test I.D.: CHST2

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	39	Pass
Probe Velocity	m/s	6.58 to 6.82	6.68	Pass
Peak Probe Force	Newtons	5159 to 5893	5797	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.90	Pass
Internal Hysteresis	%	69 to 85	77.9	Pass
Overall Test Results				Pass



Laboratory Technician



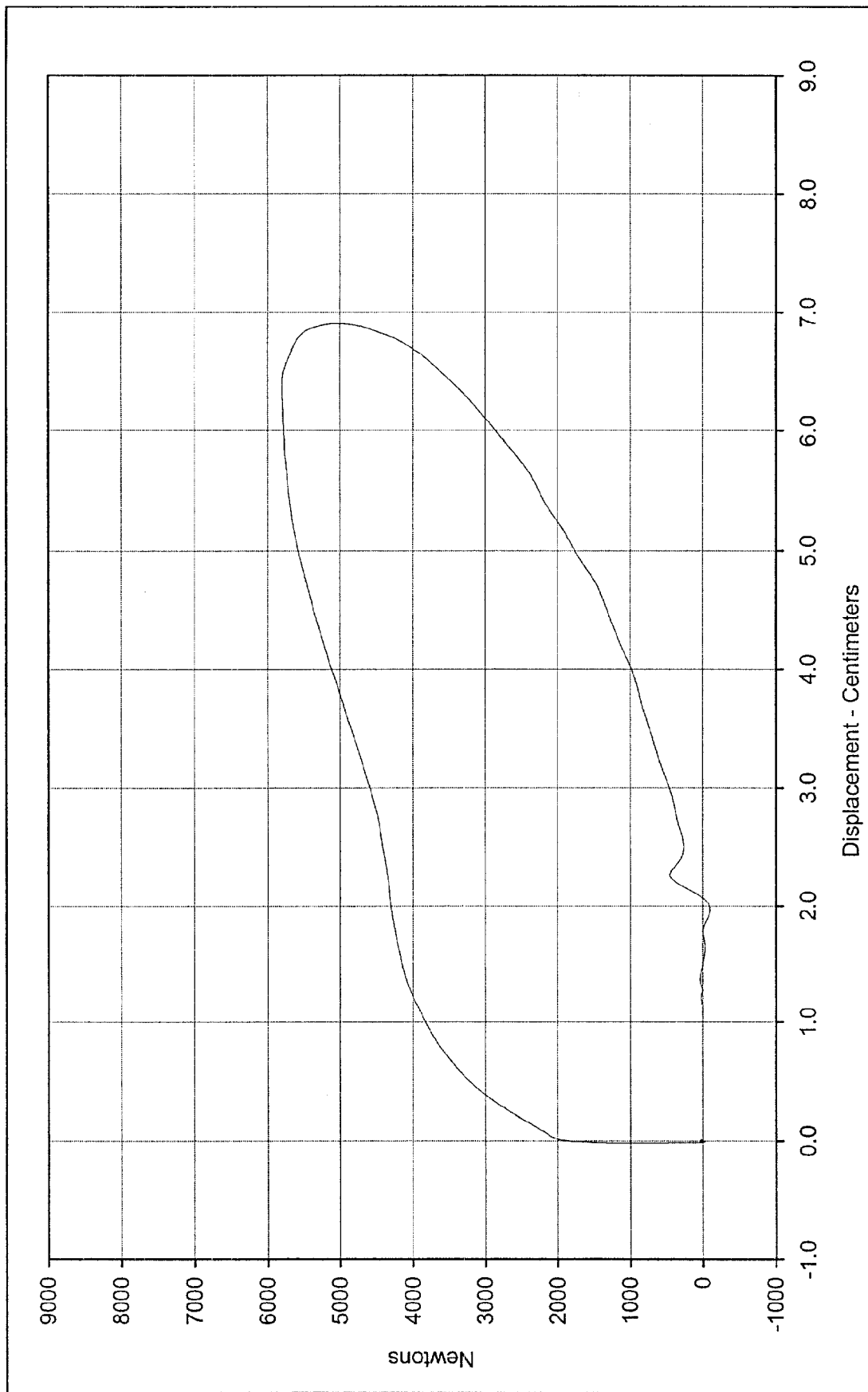
Approved By

February 4, 1998

Test Date

2/4/98

Date



Curve Description:	Probe Force vs. Chest Displacement	Testing Program	Hybrid III Thorax Impact Test
Probe Force:	5797.2 Newtons	Test Information:	S/N of Part: N/A Test I.D.: CHST2
Chest Displ.:	6.90 Centimeters		
SAE Filter Class:	180		
Date of Test:	2/4/98		
ATD Serial No.:	035		





Hybrid III Calibration Data Sheet

50TH Percentile Male

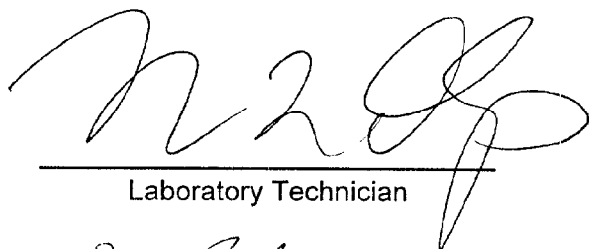
Neck Flexion Test

ATD Serial No.: 035

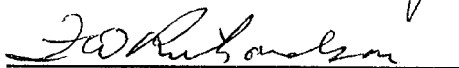
Part Serial No.: n/a

Test I.D.: NF900

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	36	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.93	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	22.9	Pass
	20 Msec.	G's	17.6 to 22.6	21.3	Pass
	30 Msec.	G's	12.5 to 18.5	14.2	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	14.2	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	41.5	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	74.4	Pass
	Time	Msec.	57.0 to 64.0	60.1	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	119.4	Pass
Moment About Occipital Condyle	Maximum	N • m	84.1 to 108.5	88.7	Pass
	Time	Msec.	47.0 to 58.0	55.6	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	101.3	Pass
Overall Test Results					Pass



Laboratory Technician



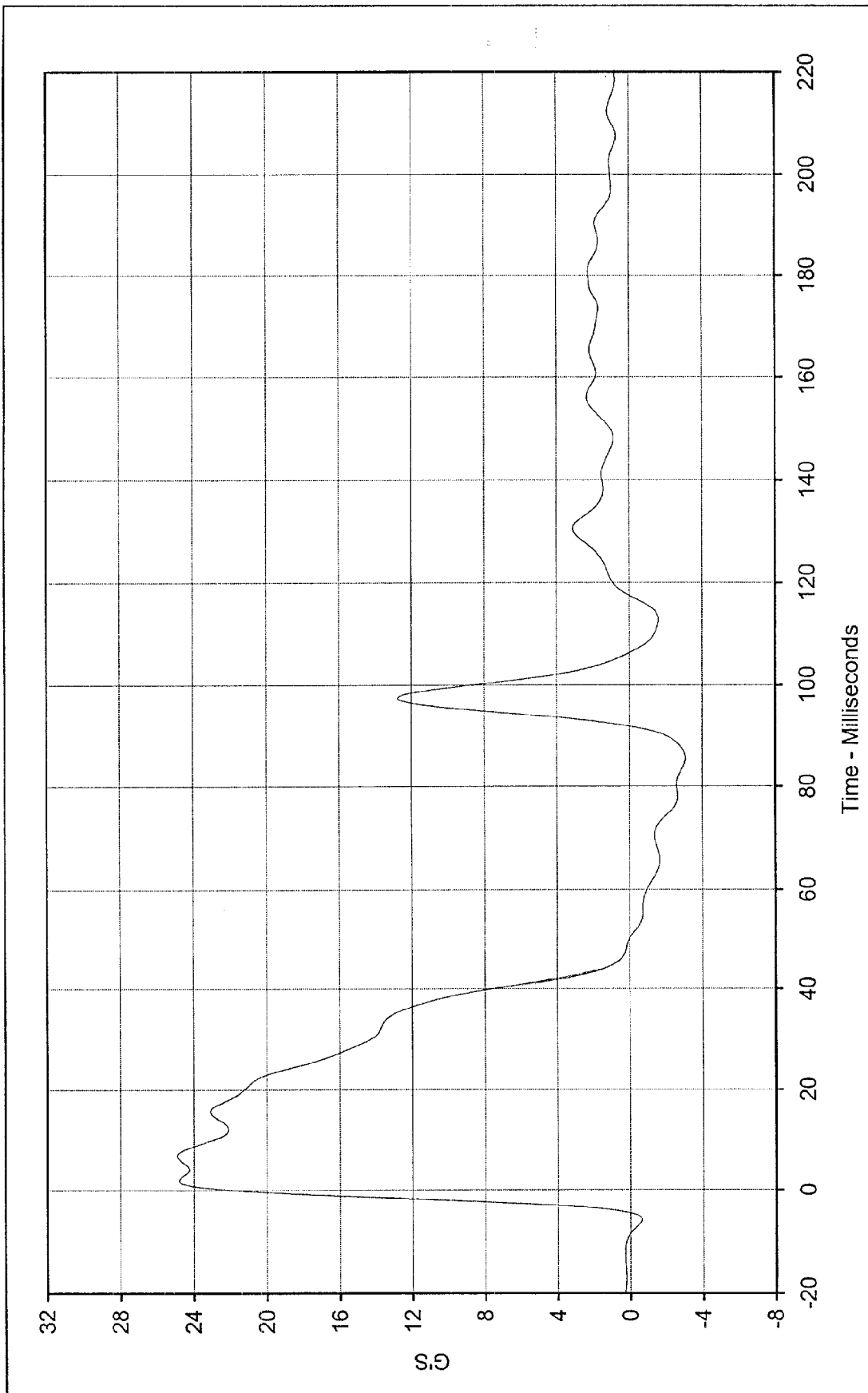
Approved By

February 5, 1998

Test Date



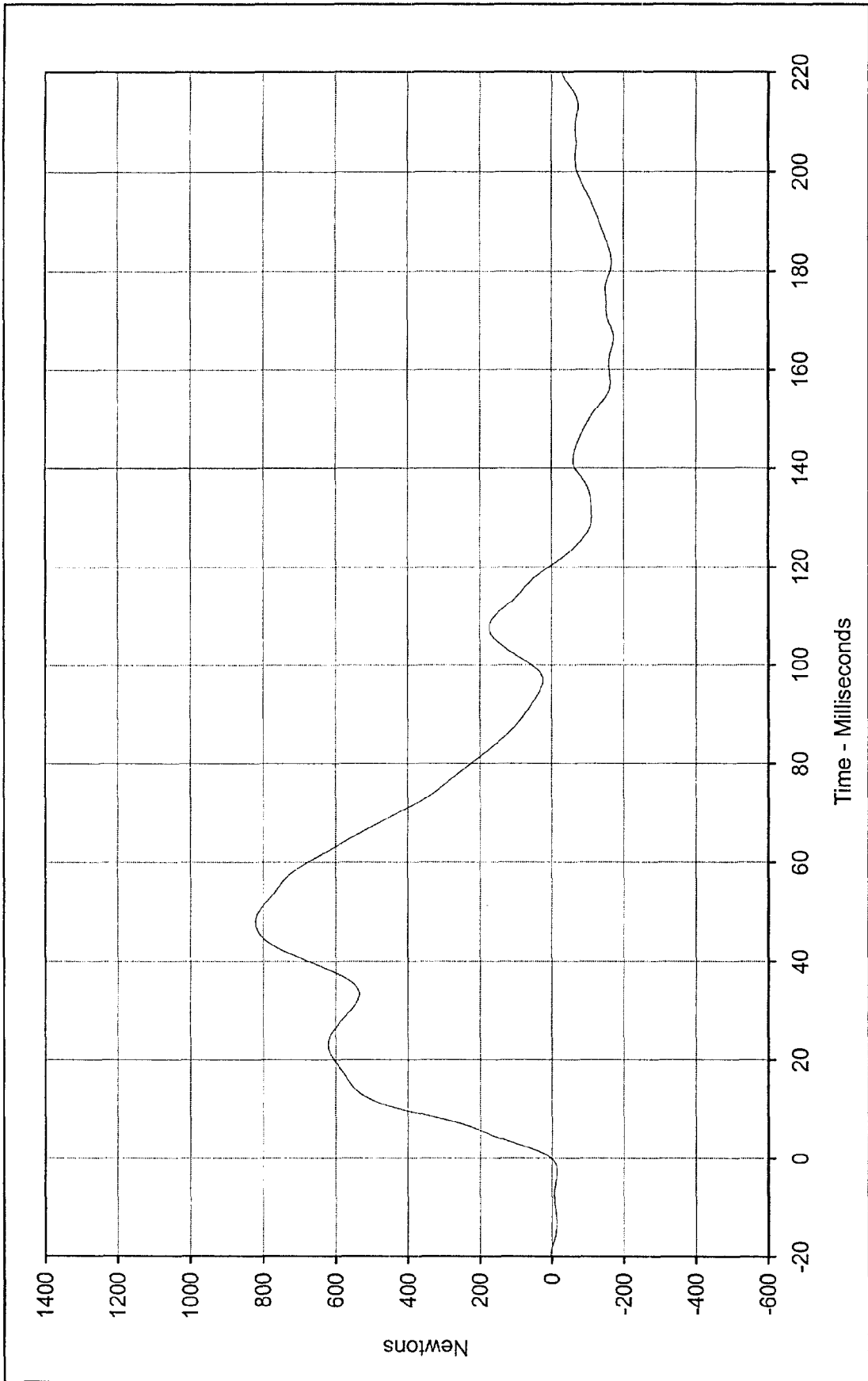
Date



Testing Program: Hybrid III Neck Flexion Test (Male)
 Test Information: S/N of Part: n/a Test I.D.: NF900

Curve Description: Pendulum Deceleration
 Maximum Value: 24.9 at 6.7 Milliseconds
 Minimum Value: -3.1 at 85.6 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 035

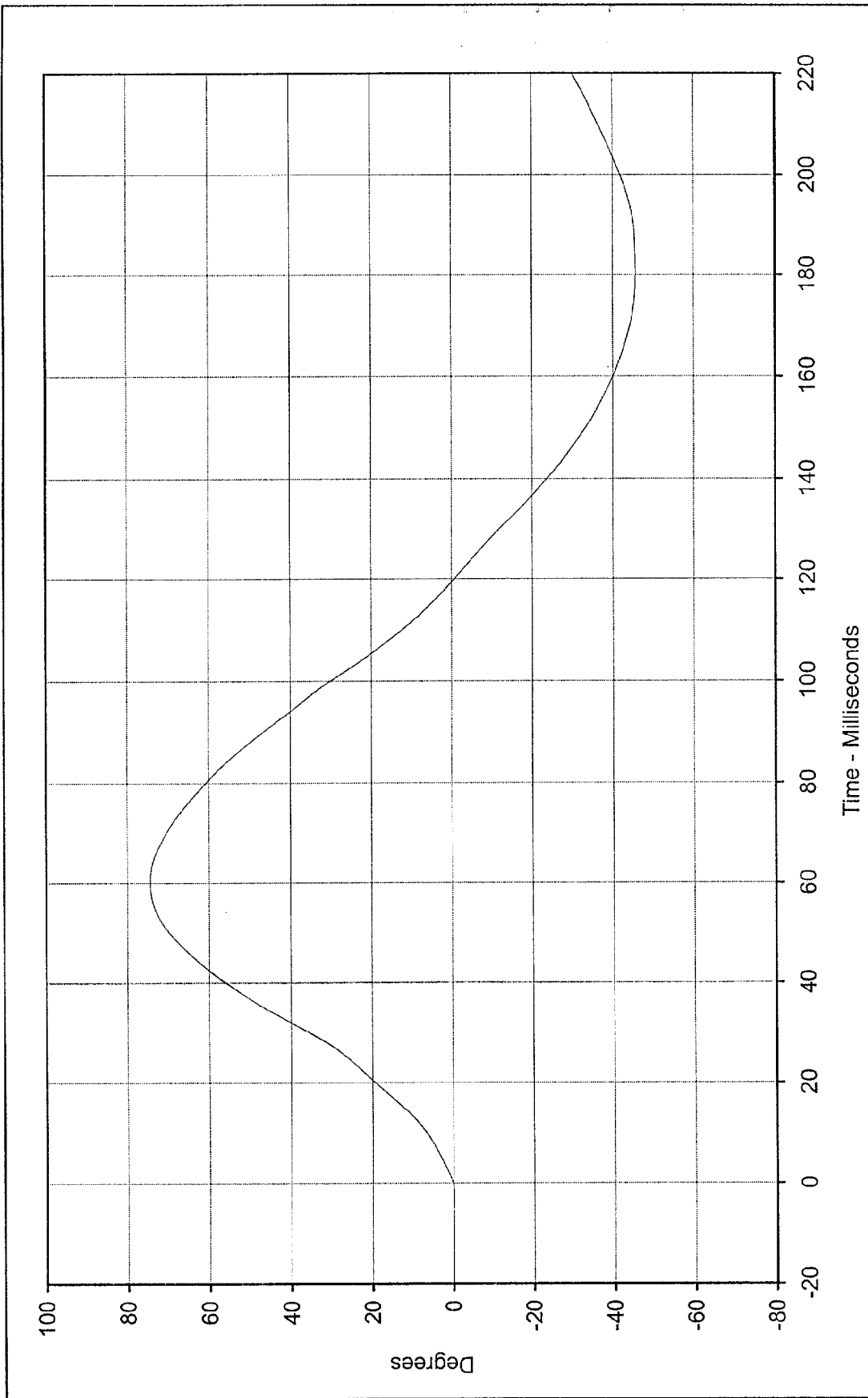




Curve Description: Hybrid III Neck Flexion Test (Male)
 Testing Program: S/N of Part: n/a Test I.D.: NF900

Neck Force X
 Maximum Value: 820.4 at 48.0 Milliseconds
 Minimum Value: -171.4 at 166.4 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 035

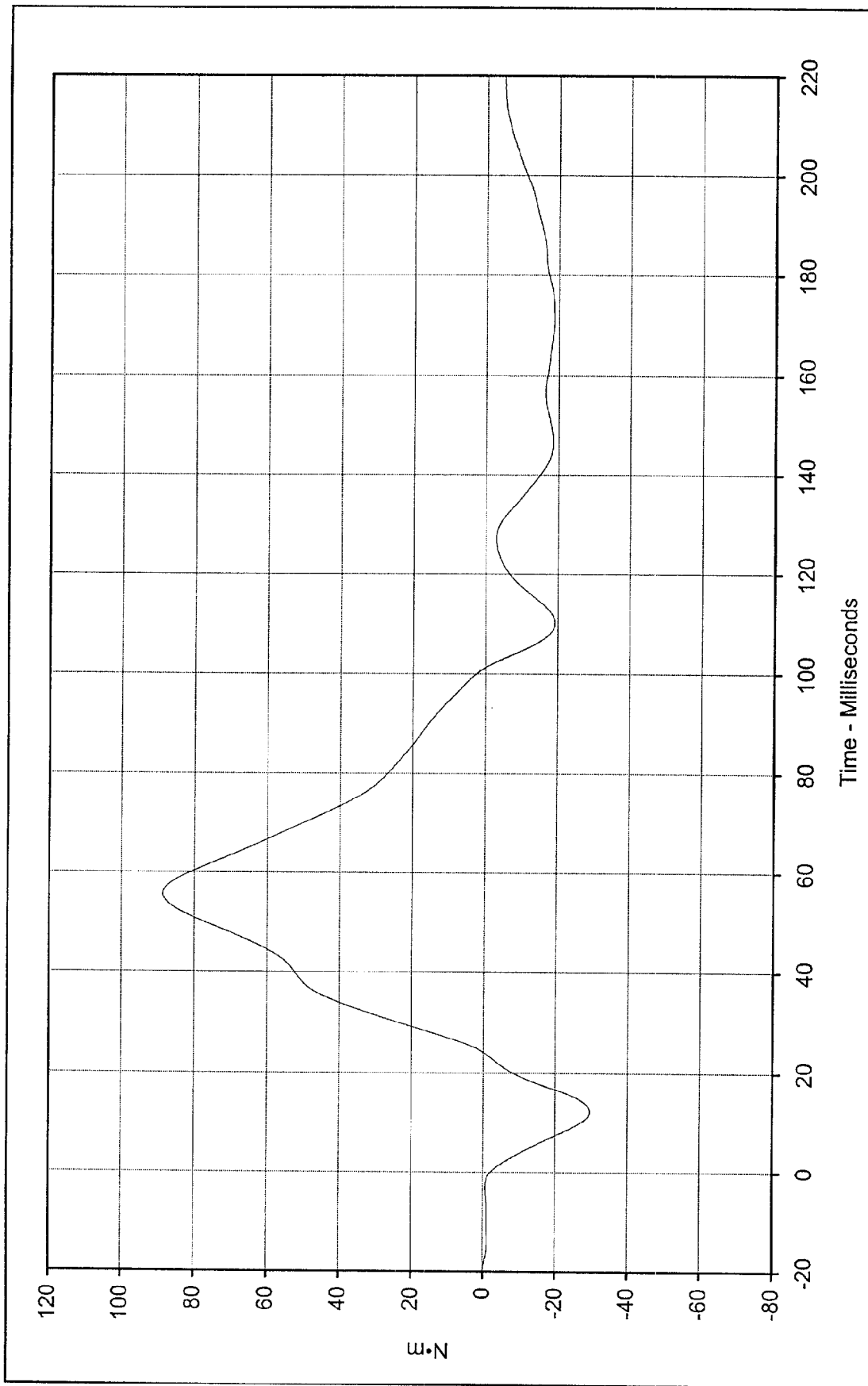




Testing Program: Hybrid III Neck Flexion Test (Male)
 Test Information: S/N of Part: n/a Test I.D.: NF900

Curve Description: "D" Plane Rotation
 Maximum Value: 74.4 at 60.1 Milliseconds
 Minimum Value: -45.7 at 180.4 Milliseconds
 SAE Filter Class: 60
 Date of Test: 2/5/98
 ATD Serial No.: 035





Curve Description: Moment About Occipital Condyles

Maximum Value: 88.7 at 55.6 Milliseconds

Minimum Value: -29.6 at 12.2 Milliseconds

SAE Filter Class: 60

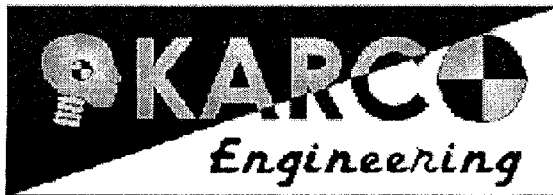
Date of Test: 2/5/98

ATD Serial No.: 035

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: n/a Test I.D.: NF900





Hybrid III Calibration Data Sheet

50TH Percentile Male

Neck Extension Test

ATD Serial No.: 035

Part Serial No.: n/a

Test I.D.: NE300

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	36	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.15	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	17.6	Pass
	20 Msec.	G's	14.0 to 19.0	17.3	Pass
	30 Msec.	G's	11.0 to 16.0	15.9	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	15.9	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	40.0	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	93.6	Pass
	Time	Msec.	72.0 to 82.0	77.7	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	153.7	Pass
Moment About Occipital Condyle	Maximum	N • m	-52.9 to- 79.9	-77.1	Pass
	Time	Msec.	65.0 to 79.0	66.4	Pass
Negative Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	145.5	Pass
Overall Test Results					Pass

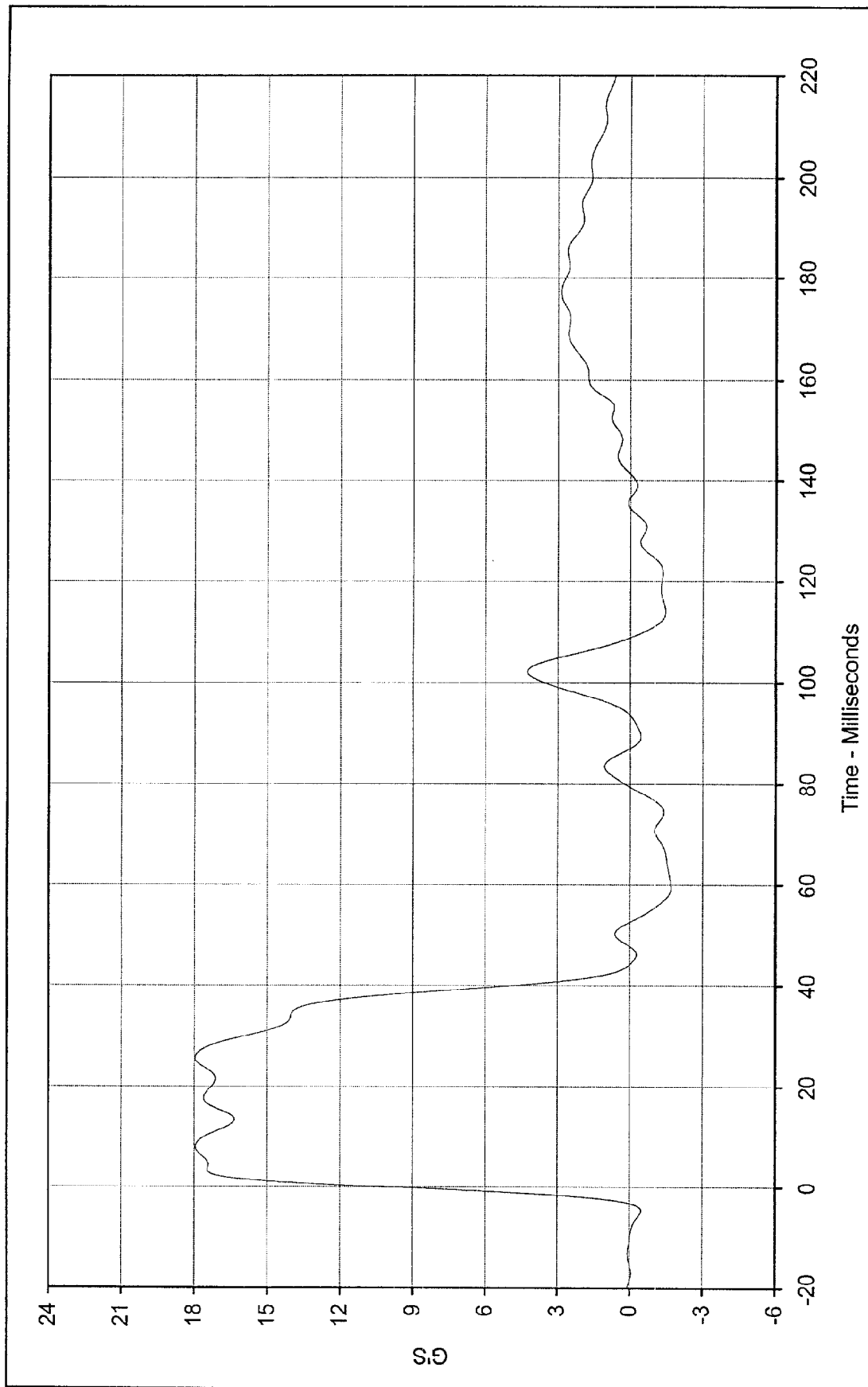
Laboratory Technician

Approved By

February 5, 1998

Test Date

Date



Curve Description: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: n/a Test I.D.: NE300

Pendulum Deceleration

Maximum Value: 18.0 at 25.6 Milliseconds

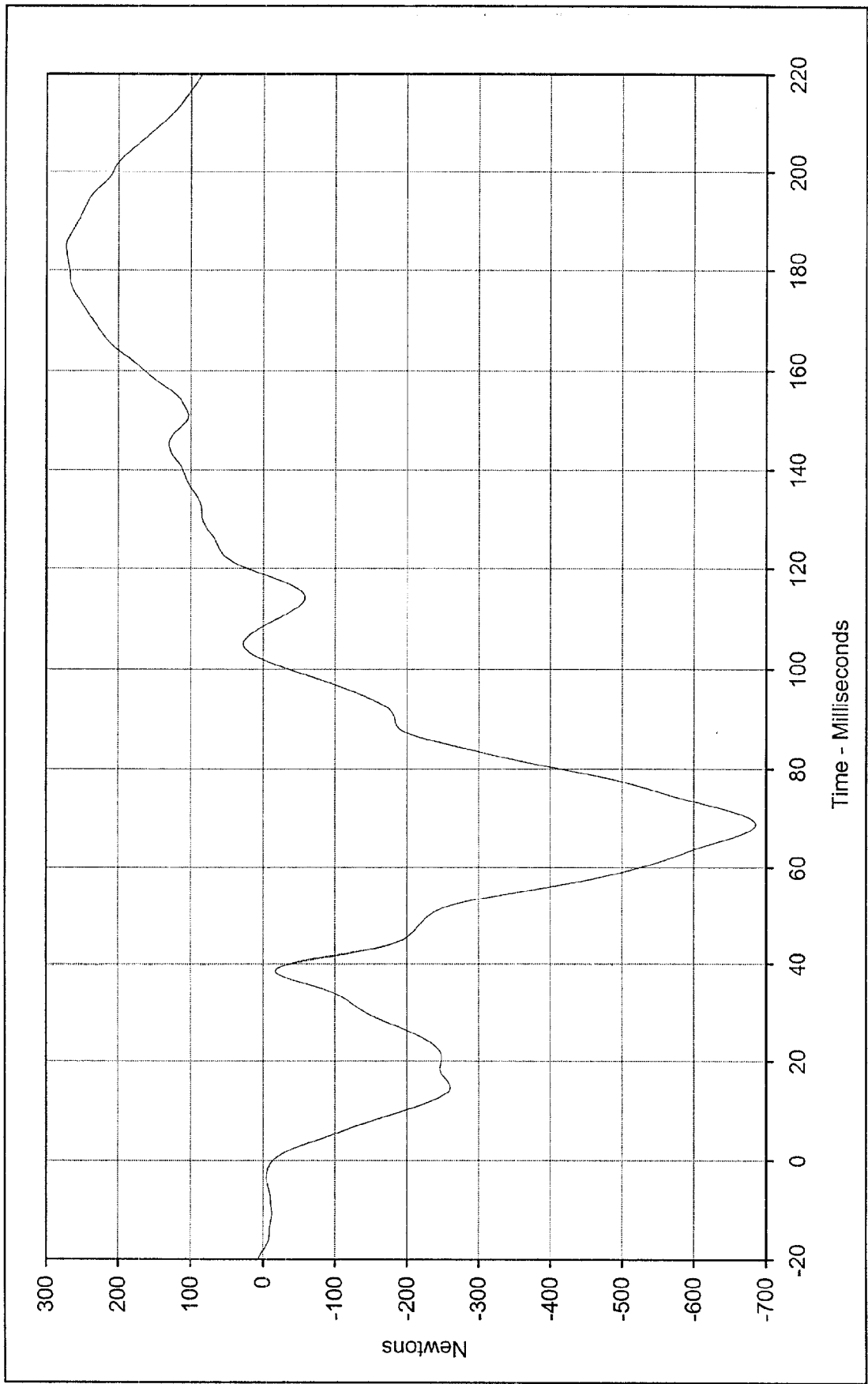
Minimum Value: -1.7 at 59.4 Milliseconds

SAE Filter Class: 60

Date of Test: 2/5/98

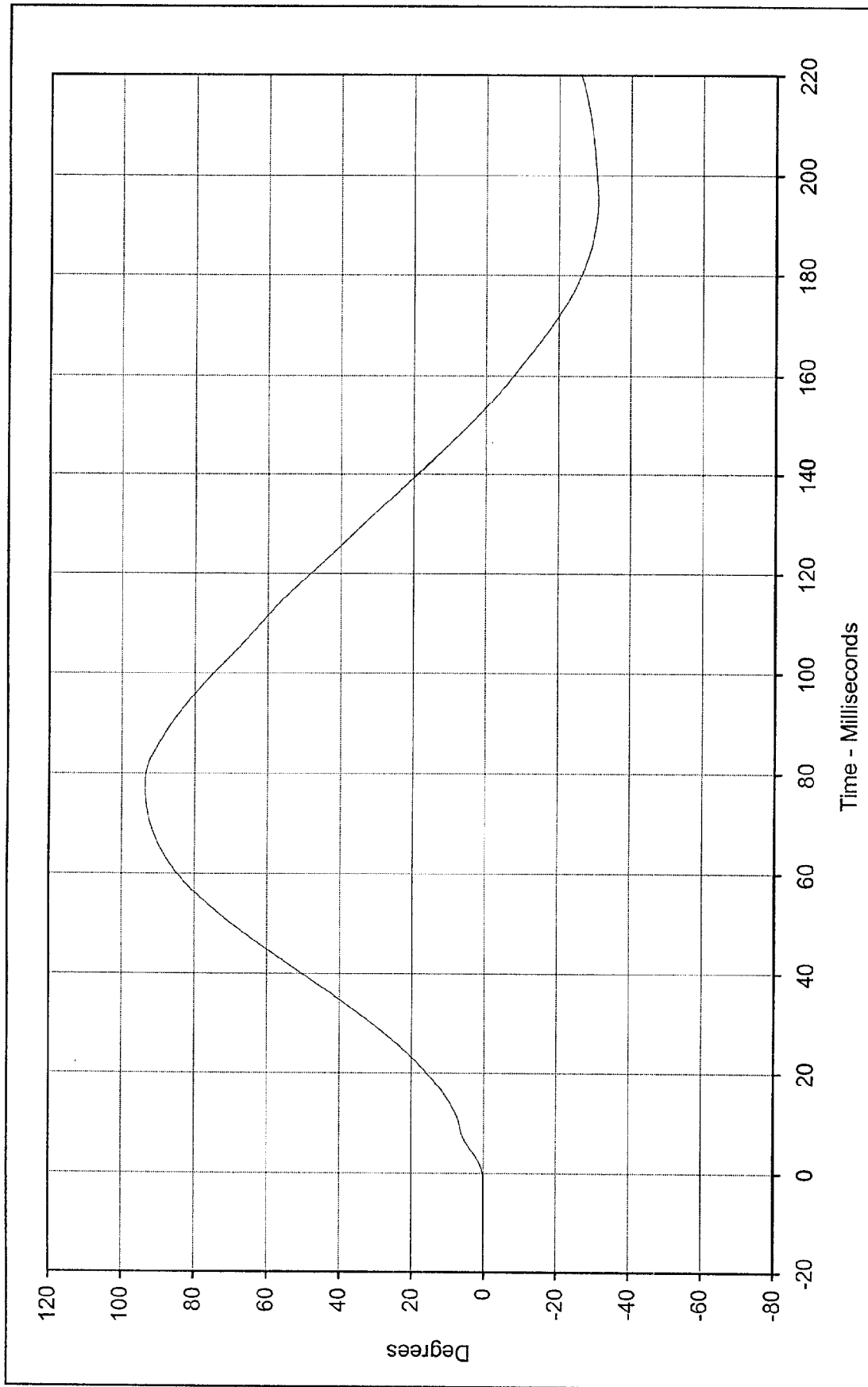
ATD Serial No.: 035





Curve Description:	Neck Force X	Testing Program	Hybrid III Neck Extension Test (Male)
Maximum Value:	272.8 at 184.8 Milliseconds	Test Information:	S/N of Part: n/a Test I.D.: NE300
Minimum Value:	-686.1 at 68.8 Milliseconds		
SAE Filter Class:	60		
Date of Test:	2/5/98		
ATD Serial No.:	035		





Curve Description: Testing Program Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: n/a Test I.D.: NE300

"D" Plane Rotation

Maximum Value: 93.6 at 77.7 Milliseconds

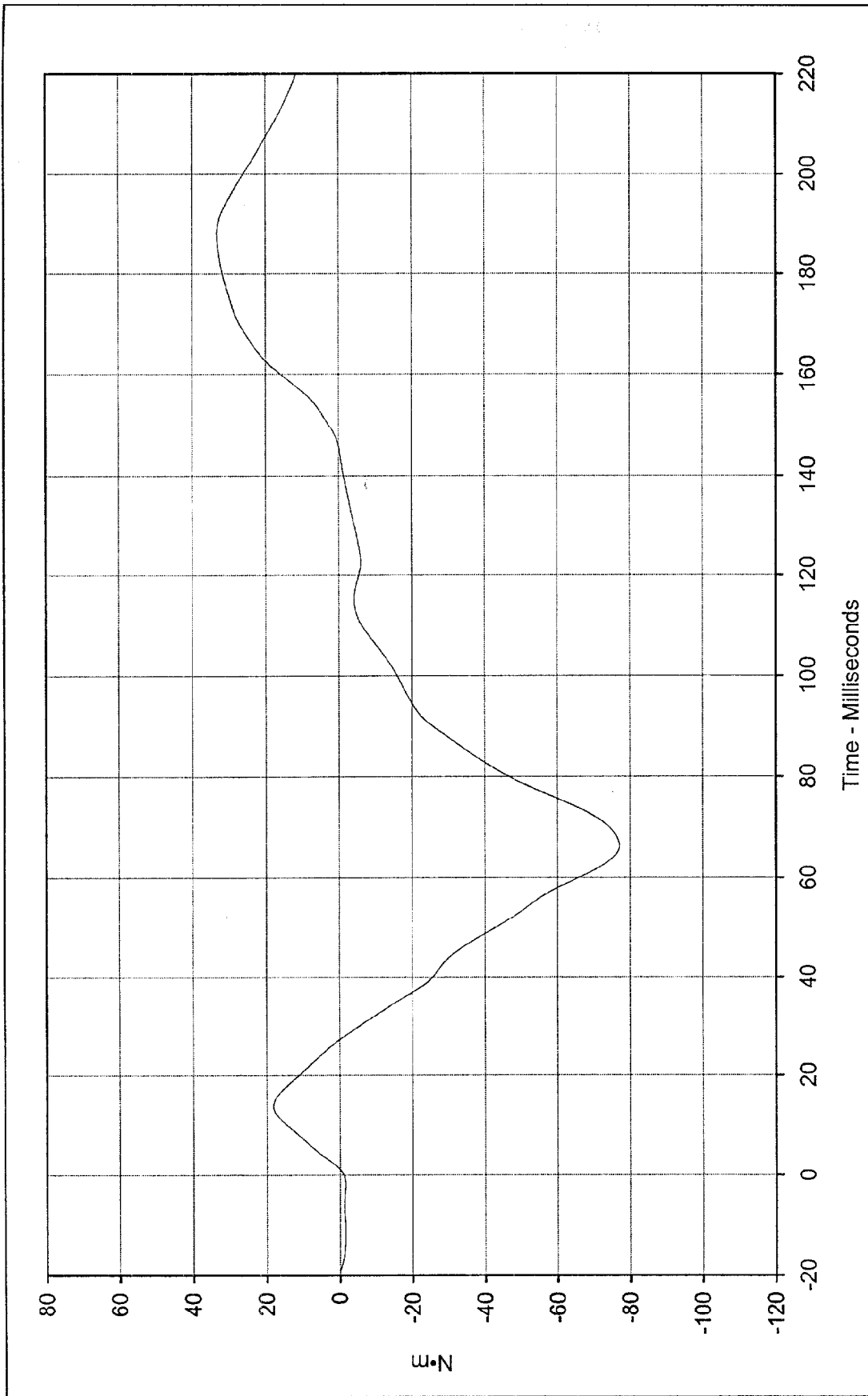
Minimum Value: -30.8 at 194.9 Milliseconds

SAE Filter Class: 60

Date of Test: 2/5/98

ATD Serial No.: 035





Curve Description: Moment About Occipital Condyles Testing Program Hybrid III Neck Extension Test (Male)

Maximum Value: at Milliseconds Test Information: S/N of Part: n/a Test I.D.: NE300

Minimum Value: at Milliseconds

SAE Filter Class: 60

Date of Test: 2/5/98

ATD Serial No.: 035





Hybrid III Calibration Data Sheet

50TH Percentile Male

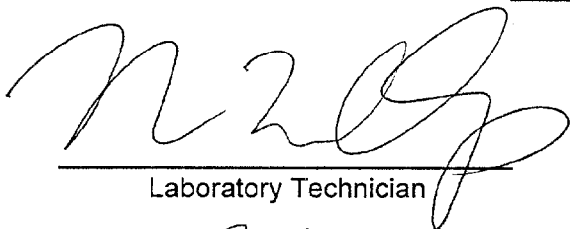
External Measurements

ATD Serial No.: 035

Part Serial No.: N/A

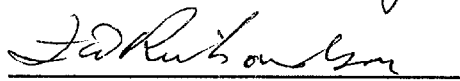
Test I.D.: N/A

External Measurement Data				
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.9	Pass
Laboratory relative humidity	%	10 to 70	43.0	Pass
A - Total sitting height	mm	878.8 to 889.0	885.0	Pass
B - Shoulder pivot height	mm	505.5 to 520.7	520.0	Pass
C - "H" point height	mm	83.8 to 88.9	86.0	Pass
D - "H" point from seat back	mm	134.6 to 139.7	136.0	Pass
E - Shoulder pivot from back	mm	83.8 to 94.0	90.0	Pass
F - Thigh clearance	mm	139.7 to 154.9	153.0	Pass
G - Elbow back to wrist pivot	mm	289.6 to 304.8	300.0	Pass
H - Skull cap to back line	mm	40.6 to 45.7	44.0	Pass
I - Shoulder to elbow length	mm	330.2 to 345.4	335.0	Pass
J - Elbow rest height	mm	190.5 to 210.8	200.0	Pass
K - Buttock to knee length	mm	579.1 to 604.5	600.0	Pass
L - Popliteal length	mm	429.3 to 454.7	450.0	Pass
M - Knee pivot height	mm	485.1 to 500.4	490.0	Pass
N - Buttock popliteal length	mm	452.1 to 477.5	477.0	Pass
O - Chest depth	mm	213.4 to 228.6	226.0	Pass
P - Foot length	mm	251.5 to 266.7	260.0	Pass
V - Shoulder breadth	mm	421.6 to 436.9	430.0	Pass
W - Foot breadth	mm	91.4 to 106.7	100.0	Pass
Y - Chest circumference	mm	970.3 to 1000.8	1000.0	Pass
Z - Waist circumference	mm	835.7 to 866.1	860.0	Pass
AA - Location for chest circumference	mm	429.3 to 434.3	430.0	Pass
BB - Location for waist circumference	mm	226.1 to 231.1	230.0	Pass
Overall Test Results				Pass


Laboratory Technician

February 5, 1998

Test Date


Approved By

2/5/98

Date

APPENDIX F
VEHICLE OWNER'S MANUAL
OCCUPANT RESTRAINT INSTRUCTIONS

KAR-98-R98050-12

Your Vehicle's Safety Features

Seat Belts

For your safety, and the safety of your passengers, your vehicle is equipped with seat belts in all seating positions.



Your seat belt system also includes a light on the instrument panel to remind you and your passengers to fasten your seat belts.

Why Wear Seat Belts

Seat belts are the single most effective safety device for adults and larger children. (Infants and smaller children must be properly restrained in child seats.)

Not wearing a seat belt properly increases the chance of serious injury or death in a crash, even though your vehicle has airbags.

In addition, most states and all Canadian provinces require you to wear seat belts.

Not wearing a seat belt properly increases the chance of serious injury or death in a crash, even if you have airbags.

Be sure you and your passengers always wear seat belts and wear them properly.

When properly worn, seat belts:

- .. Keep you connected to the vehicle so you can take advantage of the vehicle's built-in safety features.
- .. Help protect you in almost every type of crash, including side and rear impacts and rollovers. (Your airbags can only be helpful in a severe frontal collision.)

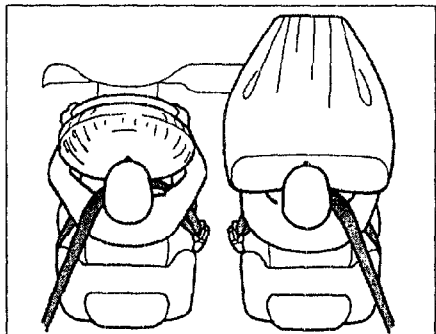
- Help keep you from being thrown against the inside of the vehicle and against other occupants.
- Keep you from being thrown outside of the vehicle.
- Help keep you in a good position should the airbags ever deploy. A good position reduces the risk of injury from an inflating airbag, and allows you to get the best advantage from the airbag.

Of course, seat belts cannot completely protect you in every crash. But in most cases, seat belts can reduce your risk of serious injury.

What you should do: Always wear your seat belt, and make sure you wear it properly.

Your Vehicle's Safety Features

Airbags



Your vehicle has a Supplemental Restraint System (SRS) with frontal airbags to help protect the driver and a front seat passenger.



This system also includes an indicator light on the instrument panel to alert you to a possible problem with the system.

Following are the most important things you need to know about your airbags:

- .. **Airbags do not replace seat belts.** They supplement seat belts by providing extra protection for the heads and chests of front seat occupants.
- .. **Airbags offer no protection in side impacts, rear impacts, rollovers, or minor or moderate collisions.** Airbags are designed to deploy only during a severe frontal collision (such as a 25 mph [40 km/h] crash into a parked vehicle of similar size and weight).
- .. **Airbags can pose serious hazards.** To do their job, airbags must inflate with tremendous force and speed. So while airbags save lives, they can cause serious injuries to adults and larger children who are not wearing seat belts, are not

wearing them properly, are sitting too close to the airbag, or are not sitting in a proper position. Infants and small children are at an even greater risk of injury or death.

What you should do: Always wear your seat belt properly and sit upright and as far back as possible from the steering wheel or dashboard.

Your Vehicle's Safety Features

Seats & Seat-Backs

Your vehicle's seats are designed to keep you in a comfortable, upright position so you can take full advantage of the protection offered by seat belts and the seats' energy absorbing materials.

How you adjust your seats and seat-backs can also affect your safety. For example, sitting too close to the steering wheel or dashboard increases your risk of being injured by striking the inside of the vehicle or being injured by an inflating airbag.

Reclining a seat-back too far makes your seat belt less effective and increases your chance of sliding under the seat belt and being seriously injured in a crash.

What you should do: Move the front seats as far back as possible, and keep adjustable seat-backs in an upright position whenever the vehicle is moving.

Head Restraints

Head restraints can help protect you from whiplash and other injuries. For maximum protection, the back of your head should rest against the center of the head restraint.

Your Vehicle's Safety Features

Door Locks

Keeping your doors locked reduces the chance of being thrown out of the vehicle during a crash. It also helps prevent occupants from accidentally opening a door and falling out, and outsiders from unexpectedly opening your doors.

Pre-Drive Safety Checklist

To make sure you and your passengers get the maximum protection from your vehicle's safety features, check the following each time before you drive away:

- .. All adults, and children who have outgrown child safety seats, are wearing their seat belts and wearing them properly (see page 13).
- .. Any infant or small child is properly restrained in a child seat in the back seat (see page 19).
- .. Front seat occupants are sitting as far back as possible from the steering wheel and dashboard (see page 10).
- .. Seat-backs are upright (see page 11).

.. Head restraints are properly adjusted (see page 12).

.. All doors and the tailgate are closed and locked (see page 10).

.. All cargo is properly stored or secured (see page 144).

The rest of this section gives more detailed information about how you can maximize your safety.

Remember, however, that no safety system can prevent all injuries or deaths that can occur in severe crashes, even when seat belts are properly worn and the airbags deploy.

Protecting Adults

Introduction

The following pages provide instructions on how to properly protect the driver and other adult occupants.

These instructions also apply to children who have outgrown child seats and are large enough to wear lap/shoulder belts. (See page 35 for important additional guidelines on how to properly protect larger children.)

1. Close and Lock the Doors

After everyone has entered the vehicle, be sure the doors and tailgate are closed and locked.



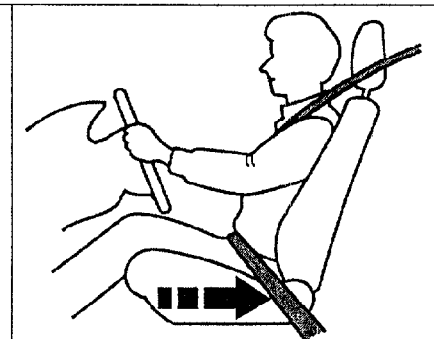
Your vehicle has a tailgate open indicator light on the instrument panel to indicate when the tailgate is not tightly closed.

For safety, locking the doors reduces the chance of a passenger, especially a child, opening a door while the vehicle is moving and accidentally falling out. It also reduces the chance of someone being thrown out of the vehicle during a crash.

For security, locked doors can prevent an outsider from unexpectedly opening a door when you come to a stop.

See page 68 for how to lock the doors.

2. Adjust the Front Seats



Any driver who sits too close to the steering wheel is at risk of being seriously injured or killed by striking the steering wheel or being struck by an inflating airbag during a crash.

Protecting Adults

To reduce the chance of injury, wear your seat belt properly, sit upright with your back against the seat, and move the seat as far back as possible from the steering wheel while still maintaining full control of the vehicle. Also make sure your front seat passenger moves their seat as far to the rear as possible.

Sitting too close to an airbag can result in serious injury or death if the airbags inflate.

Always sit as far back from the airbags as possible.

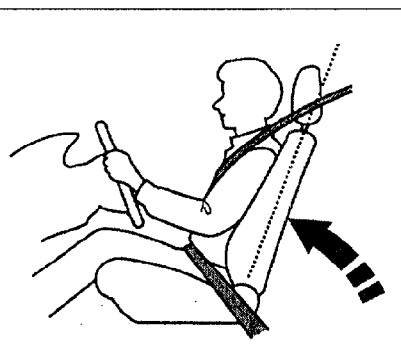
Most shorter drivers can get far enough away from the steering wheel and still reach the pedals. However, if you are concerned about sitting too close, we recommend that you investigate whether some type of adaptive equipment may help.

Once your seat is adjusted correctly, rock it forward and back to make sure the seat is locked in position.

See page 75 for how to adjust the front seats.

3. Adjust the Seat-Backs

Adjust the driver's seat-back to a comfortable, upright position, leaving ample space between your chest and the airbag cover in the center of the steering wheel. If you sit too close to the steering wheel, you could be injured if the airbag inflates.



A front passenger should also adjust the seat-back to an upright position, as far from the dashboard as possible. If the passenger sits too close to the dashboard, they could be injured if the airbag inflates.

CONTINUED

Protecting Adults

Reclining a seat-back so that the shoulder part of the belt no longer rests against an occupant's chest reduces the protective capability of the belt. It also increases the chance of sliding under the belt and being seriously injured in a crash. The farther a seat-back is reclined, the greater the risk of injury.

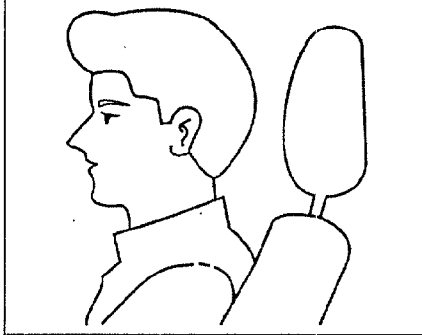
WARNING

Reclining the seat-back too far can result in serious injury or death in a crash.

Adjust the seat-back to an upright position and sit well back in the seat.

See page 76 for how to adjust seat-backs.

4. Adjust the Head Restraints



Before driving, make sure everyone with an adjustable head restraint has properly positioned the head restraint. The restraint should be positioned so the back of the occupant's head rests against the center of the restraint. A taller person should adjust the restraint as high as possible.

Improperly positioning head restraints reduces their effectiveness and you can be seriously injured in a crash.

Make sure head restraints are in place and positioned properly before driving.

Properly adjusted head restraints will help protect you from whiplash and other crash injuries.

See page 77 for how to adjust the head restraints.

Protecting Adults

5. Fasten and Position the Seat Belts

Using a Lap/Shoulder Belt

Insert the latch plate into the buckle, then tug on the belt to make sure the belt is securely latched. Also check that the belt is not twisted, because a twisted belt can cause serious injuries in a crash.



Position the lap part of the belt as low as possible across your hips, then pull up on the shoulder part of the belt so the lap part fits snugly. This lets your strong pelvic bones take the force of a crash and reduces the chance of internal injuries.

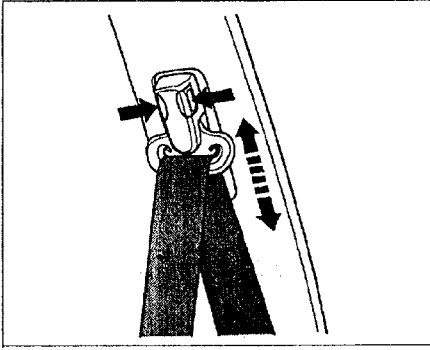
If necessary, pull up on the belt again to remove any slack from the shoulder part, then check that the belt rests across the center of your chest and over your shoulder. This spreads the forces of a crash over the strongest bones in your upper body.

Improperly positioning the seat belts can cause serious injury or death in a crash.

Make sure all seat belts are properly positioned before you drive.

CONTINUED

Protecting Adults

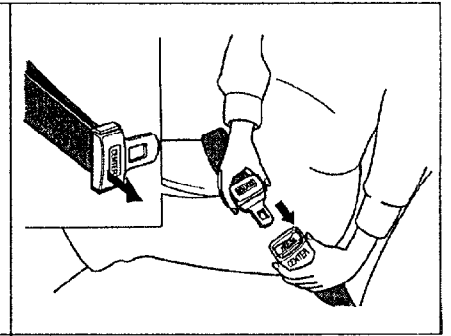


If the seat belt touches or crosses your neck, or if it crosses your arm instead of your shoulder, you need to adjust the seat belt anchor height. An improperly positioned seat belt can cause severe neck injuries if the belt is positioned too high, or serious chest or internal injuries if the belt is positioned too low.

To adjust the height of a front seat belt anchor, squeeze the two release buttons and slide the anchor up or down as needed (it has four positions).

Never place the shoulder portion of a lap/shoulder belt under your arm or behind your back. This could cause very serious injuries in a crash.

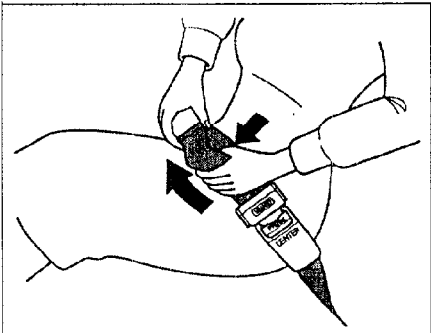
Using the Lap Belt



Insert the latch plate into the buckle marked **CENTER**.

If the belt is too short, hold the latch plate at a right angle and pull on the plate to extend the belt. Then insert the latch plate into the buckle, and tug on the belt to make sure the belt is securely latched.

Protecting Adults



Position the belt as low as possible across your hips. This lets your strong pelvic bones take the force of a crash and reduces the chance of internal injuries.

Pull on the loose end of the belt for a snug but comfortable fit.

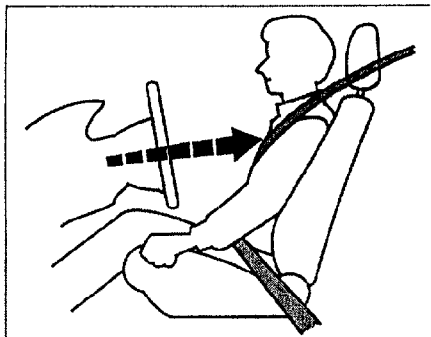
If a Seat Belt Doesn't Work Properly

If your seat belt does not seem to work as it should, it may not protect you in a crash. Anyone using an inoperative seat belt can be seriously injured or killed. *No one should sit in a seat with an inoperative seat belt.* Have your Honda dealer check the belt as soon as possible.

See page 40 for additional information about your seat belt system and how to take care of your belts.

Protecting Adults

6. Adjust the Steering Wheel



Adjust the steering wheel, if needed, so that the wheel points toward your chest, not toward your face.

Pointing the steering wheel toward your face decreases the protective capability of the driver's airbag.

See page 62 for how to adjust the steering wheel.

7. Maintain a Proper Sitting Position

After all occupants have adjusted their seats and put on seat belts, it is very important that they continue to sit upright, with their bodies well back in their seats and both feet on the floor, until the vehicle is parked and the engine is off.

Sitting improperly can increase the chance of injury during a crash. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward, or puts one or both feet up, their chance of injury during a crash is greatly increased.

In addition, if an occupant is out of position in the front seat, they can be seriously or fatally injured by striking interior parts of the vehicle, or by being struck by an inflating airbag.

A WARNING

Sitting improperly or out of position can result in serious injury or death in a crash.

Always sit upright, well back in the seat, with your feet on the floor.

Remember, to get the best protection from your vehicle's airbags and other safety features, you must sit properly and wear your seat belt properly.

Protecting Adults

Advice for Pregnant Women



Because protecting the mother is the best way to protect her unborn child, a pregnant woman should always wear a seat belt whenever she drives or rides in a vehicle.

We recommend that pregnant women use a lap/shoulder belt whenever possible. Remember to keep the lap portion of the belt as low as possible across your hips.

Pregnant women should also sit as far back as possible from the steering wheel or dashboard. This will reduce the risk of injuries to both the mother and her unborn child that can be caused by a crash or an inflating airbag.

Each time you have a check-up, ask your doctor if it's okay for you to drive.

Additional Safety Precautions

- **Never let passengers ride in the cargo area or on top of a folded-down back seat.** All passengers must sit in locked, upright seats and be properly restrained by seat belts.
- **Passengers should not stand up or change seats while the vehicle is moving.** A passenger who is not wearing a seat belt during a crash or emergency stop can be thrown against the inside of the vehicle, against other occupants, or out of the vehicle.
- **Two people should never use the same seat belt.** If they do, they could be very seriously injured in a crash.
- **Do not put any accessories on seat belts.** Devices intended to improve occupant comfort, or reposition the shoulder part of a seat belt, can severely compromise the protective capability of seat belts and increase the chance of serious injury in a crash.

CONTINUED

Protecting Adults

- ***Do not place hard or sharp objects between yourself and an airbag.***

Carrying hard or sharp objects on your lap, or driving with a pipe or other sharp object in your mouth, can result in injuries if your airbags inflate.

- ***Keep your hands and arms away from the airbag covers.*** If your hands or arms are close to the SRS covers in the center of the steering wheel and on top of the dashboard, they could be injured if the airbags inflate.

Additional Information About Your Seat Belts

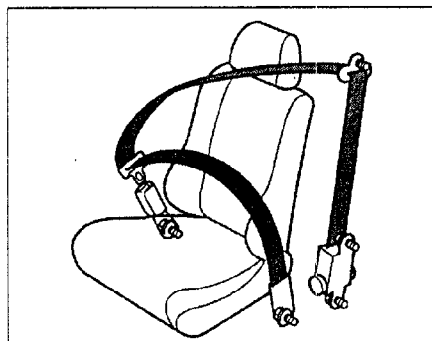
Seat Belt System Components

Your seat belt system includes lap/shoulder belts in the front seats and the outer back seats, and a lap belt in the center back seat.



The system also includes a light on the instrument panel to remind you and your passengers to fasten your belts. If the driver's seat belt is not fastened before the ignition is turned ON (II), the light will come on and a beeper will also sound. The beeper will stop after a few seconds, but the light will stay on until the driver's seat belt is fastened.

Lap/Shoulder Belt



This seat belt has a single belt that goes over your shoulder, across your chest and across your hips. To fasten the belt, insert the latch plate into the buckle, then tug on the belt to make sure the buckle is latched.

To unlock the belt, push the red PRESS button on the buckle. Guide the belt across your body to the door pillar. After exiting the vehicle, be sure the belt is out of the

way and will not get closed in the door.

All lap/shoulder belts have an emergency locking retractor. In normal driving, the retractor lets you move freely in your seat while it keeps some tension on the belt. During a collision or sudden stop, the retractor automatically locks the belt to help restrain your body.

The lap/shoulder belts in all positions except the driver's have an additional locking mechanism that must be activated to secure a child seat. (See pages 28 and 32 for instructions on how to secure child seats with this type of seat belt.)

If the shoulder part of the belt is pulled all the way out, the locking mechanism will activate. The belt will retract, but it will not allow a passenger to move freely.

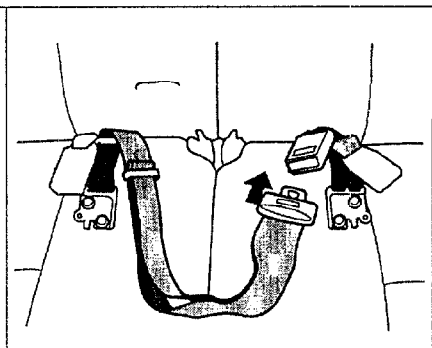
Additional Information About Your Seat Belts

To deactivate the locking mechanism, unlatch the buckle and let the seat belt fully retract. To refasten the belt, pull it out only as far as needed.

See page 13 for instructions on how to wear the lap/shoulder belt properly.

Lap Belt

The lap belt has one manually-adjusted belt that fits across your hips.



To fasten the belt, insert the latch plate into the buckle marked CENTER, then tug on the belt to make sure the buckle is latched.

To unlock the belt, push the red PRESS button on the buckle.

See page 14 for how to lengthen the lap belt, and how to properly position the belt.

Seat Belt Maintenance

For safety, you should check the condition of your seat belts regularly.

Pull each belt out fully and look for frays, cuts, burns, and wear. Check that the latches work smoothly and that the lap/shoulder belts retract easily. Any belt not in good condition or not working properly will not provide good protection and should be replaced as soon as possible.

U.S. Models

Honda provides a lifetime warranty on seat belts. Honda will repair or replace any seat belt component that fails to function properly during normal use. Please see your *Honda Warranty Information* booklet for details.

CONTINUED

Additional Information About Your Seat Belts

Not checking or maintaining seat belts can result in serious injury or death if the seat belts do not work properly when needed.

Check your seat belts regularly and have any problem corrected as soon as possible.

For information on how to clean your seat belts, see page 242.

If a seat belt is worn during a crash, you should have your dealer inspect the belt, and replace it if necessary. A belt that has been worn during a crash may not provide the same level of protection in a subsequent crash. The dealer should also inspect the anchors for damage and replace them if needed.

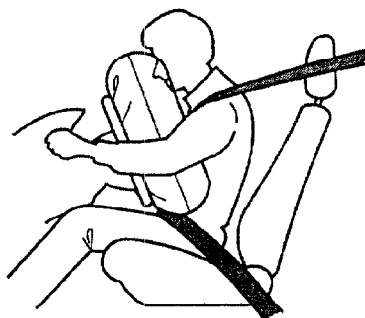
Additional Information About Your SRS

SRS Components

Your Supplemental Restraint System (SRS) includes:

- Two frontal airbags. The driver's airbag is stored in the center of the steering wheel; the front passenger's airbag is stored in the dashboard. Both are marked "SRS AIRBAG."
- Automatic seat belt tensioners that tighten the front seat belts during a severe frontal collision.
- Sensors that can detect a severe frontal collision.
- A sophisticated electronic system that continually monitors the sensors, control unit, the airbag activators, and all related wiring when the ignition is ON (II).
- An indicator light on the instrument panel to alert you to a possible problem with the system (see page 45).
- Emergency backup power in case your vehicle's electrical system is disconnected in a crash.

How Your Airbags Work



If you ever have a severe frontal collision, the sensors will detect rapid deceleration and signal the control unit to instantly inflate the airbags and activate the automatic seat belt tensioners.

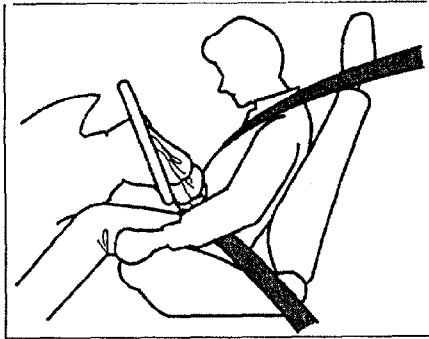
During a crash, your seat belts will help to restrain your lower body and torso, while the tensioners tighten and lock the seat belts to help keep you in place. The airbags will provide a cushion to absorb crash energy and help keep the head and chest of the driver and front passenger from striking the interior of the car.

Since both airbags use the same sensors, both airbags normally inflate at the same time. However, it is possible for only one airbag to inflate.

This can occur when the severity of a collision is at the margin, or threshold, that determines whether or not the airbags will deploy. In such cases, the seat belt will provide sufficient protection, and the supplemental protection offered by the airbag would be minimal.

CONTINUED

Additional Information About Your SRS



After inflating, the airbags immediately deflate, so they won't interfere with the driver's visibility, or the ability to steer or operate other controls.

The total time for inflation and deflation is approximately one-tenth of a second, so fast that most occupants are not aware that the airbags deployed until they see them lying in their laps.

After a crash, you may see what looks like smoke. This is actually powder from the airbag's surface. Although the powder is not harmful, people with respiratory problems may experience some temporary discomfort. If this occurs, get out of the car as soon as it is safe to do so.

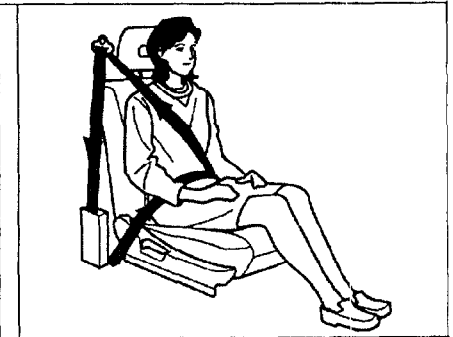
U.S. Owners

For additional information on how your airbags work, see the booklet titled *SRS: What You Need to Know About Airbags* that came with your owner's manual.

Canada Owners

For additional information on how your airbags work, ask your dealer for a copy of the booklet titled *SRS: What You Need to Know About Airbags*.

How the Automatic Seat Belt Tensioners Work



Your Honda has automatic seat belt tensioners for added protection during a severe frontal collision.

If your airbags inflate, the tensioners immediately tighten the front seat belts to help hold the occupants in place. The belts will remain tight until you unbuckle them in the normal way.

Additional Information About Your SRS

How Your SRS Indicator Light Works

SRS The purpose of the SRS indicator light is to alert you to a potential problem with your Supplemental Restraint System.

When you turn the ignition ON (II), this indicator will light up briefly then go out. This tells you that the system is working properly.

However, if the light comes on at any other time, you should have your system checked by your dealer. For example:

- .. If the SRS indicator light does not come on after you turn the ignition ON (II).
- .. If the light stays on after the engine starts.

.. If the light comes on or flashes on and off while you drive.

If you see any of these indications, your airbags and seat belt tensioners may not deploy when you need them. See your Honda dealer as soon as possible.

WARNING
Ignoring the SRS indicator light can result in serious injury or death if the airbags do not inflate when needed.

Have your vehicle checked by a dealer as soon as possible if the SRS light alerts you to a potential problem.

SRS Service

Your Supplemental Restraint System is virtually maintenance-free, and there are no parts you can safely service. However, you must have your vehicle serviced if:

- **Your airbags ever inflate.** The airbags and the control unit must be replaced. Do not try to remove or replace the airbags yourself. This must be done by a Honda dealer or a knowledgeable body shop.
- **The SRS indicator light alerts you to a problem.** Take your vehicle to an authorized Honda dealer as soon as possible. If you ignore this indication, the airbags might not inflate when you need them.

Additional Information About Your SRS

Additional Safety Precautions

- Do not attempt to deactivate your airbags. Together, airbags and seat belts provide the best protection in a severe frontal collision.
- Do not tamper with SRS components or wiring for any reason. Tampering could cause the airbags to deploy, possibly causing very serious injury.

See page 143 for further information and precautions relating to your SRS.