V1733

REPORT NUMBER: CAL-92-N16

NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST

HONDA MOTOR COMPANY
1992 ACURA LEGEND
4-DOOR SEDAN

NHTSA NUMBER: MN5301

CALSPAN TEST NUMBER: 7978-6

JUNE 23, 1992

CALSPAN CORPORATION
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FINAL REPORT

PREPARED FOR:

U. S. Department of Transportation
National Highway Traffic Safety Administration
Office of Market Incentives
400 Seventh Street, S.W.
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Washington, DC 20590

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16. Abstract

A frontal load cell barrier test on a 1992 Acura Legend 4-Door Sedan was performed at the Calspan Advanced Technology Center crash test facility in Buffalo, New York, on June 23, 1992.

The impact velocity was 34.9 mph and the ambient temperature at the barrier face at the time of impact was 69°F. The maximum post-test vehicle crush was 19.2 inches. The test vehicle was equipped with a 3-point continuous belt system at each of the front outboard seating positions. The test vehicle was also equipped with a driver and passenger side airbag as a supplemental restraint device.

With regard to FMVSS 208 "Occupant Crash Protection", injury criteria, both the driver and passenger dummies appear to comply with the maximum head, chest and femur requirements.

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Section 1

PURPOSE AND TEST PROCEDURE

This 35 mph frontal barrier impact test is part of the Composite FY 92 Vehicle Barrier Impact Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-90-D-02121. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 30 mph requirements.

The 35 mph frontal barrier impact test was conducted in accordance with the Office of Market Incentives (OMI) Laboratory Indicant Test procedure.

Section 2

SUMMARY OF TEST NUMBER MN5301

A load cell barrier consisting of 36 load cells was impacted by a 1992 Acura Legend 4-Door Sedan at a velocity of 34.9 mph. The test was performed at the Calspan Corporation Advanced Technology Center on June 23, 1992. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The frontal barrier impact event was documented by one real-time camera and 15 high-speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572B, 50th percentile male anthropomorphic test devices (ATDs), were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the Laboratory Indicant Test Procedure. The driver and passenger were restrained with a 3-point belt system. The driver and passenger also had airbags as supplemental restraint devices.

Both ATDs were fully instrumented with head and chest triaxial accelerometers and right/left femur load cells. Seat belt load cells were also on the driver's and passenger's lap and shoulder belts to measure dummy torso and pelvic section loading. The driver ATD (Serial No. 357) and the right-front passenger ATD (Serial No. 749) were both used in a previous test (MN0208). Injury criteria values were not exceeded for either ATD in that test. Certification details, along with instrumentation calibration data, are found in Appendix C and D.

The 67 channels of data were recorded on a P.C. based data acquisition system. Appendix B contains the vehicle, load cell barrier and dummy response data traces. Accelerometer #6(X), located on the left disc brake caliper, did not record accurately during impact. All data curves for Accelerometer #6(X) (acceleration, velocity, and displacement) have been excluded from this report.

The driver's head struck the airbag; the HIC was 896.9. The maximum chest deceleration over 3 milliseconds was 53.8 g's and femur loads were 297.7 and 1244.1 pounds.

The right front passenger's HIC was 660.0 and maximum chest deceleration over 3 milliseconds was 51.3 g's. Femur loads were 660.7 and 341.0 pounds.

Table 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Vehicle Year/Make/Model/Body Style: 1992 Acura Legend 4-Door Sedan

NHTSA Test No.: MN5301 VIN.: JH4KA7664NC005085

Body Color: White Date of Manufacture: 10/91

Engine: 6 Cylinders; - C.I.D.; 3.2 Liters; - CC

- Gas; - Diesel; - Turbocharged

X Longitudinal; - Transverse

Transmission: 4 Speed; - Manual; ✓ Automatic; ✓ Overdrive

Final Drive: ✓ Front Wheel; - Rear Wheel; - Four Wheel

Date Received: 2/28/92 Odometer Reading: 54 miles

✓ A/C; ✓ P/S; ✓ P/B; ✓ P/wdo;

✓ Tilt Wheel ✓ P/seats; ✓ Cruise Control

Type of Occupant Restraint: 3-Point Belt System with a Supplemental Airbag at Both Locations

DATA RECORDED FROM VEHICLE'S TIRE PLACARD:

Tire Pressure (at capacity): Front 32 psi, Rear 30 psi

Recommended Tire Size: 20560R/591V

Recommended Cold Tire Pressure: Front 32 psi, Rear 30 psi

Tires on Vehicle: 20560R15/910MTS; Manufacturer: Michelin

Number of Occupants: 2 Front; 3 Rear; - 3rd Seat; 5 TOTAL

Type of Front Seats: ✓ Bucket; - Bench; - Split Bench

*Type of Front Seat Back: - Fixed; ✓ Adj. With - Lever - Rot. Knob

Vehicle Capacity Weight (VCW) = 850 lbs. (A)

No. of Occupants x 150 lbs. = 750 lbs. (B)

Rated Cargo and Luggage Weight (RCLW) A-B = 100 lbs.

GVWR 4500 lbs. GAWR: Front 2415 lbs. Rear 2105 lbs.

*Power seat back adjustment

Table 1

GENERAL TEST AND VEHICLE PARAMETER DATA (cont'd)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (WITH MAXIMUM FLUIDS) = UDW:

Right Front = 1110 lbs. Right Rear = 680 lbs.

Left Front = 1070 lbs. Left Rear = 690 lbs.

TOTAL FRONT WEIGHT = 2180 lbs. (61.4 % of Total Vehicle Weight)

TOTAL REAR WEIGHT = 1370 lbs. (38.6 % of Total Vehicle Weight)

TOTAL DELIVERED WEIGHT = 3550 lbs.

CALCULATION FOR TARGET TEST WEIGHT:

UDW = Unloaded Delivered Weight (3550 lbs.)

VCW = Vehicle Capacity Weight (850 lbs.)

DSC = Designated Seating Capacity (5)

RCLW = VCW - 150 (DSC) = 100 lbs.

Target Test Weight = UDW + RCLW + (2 dummies x 164 lbs./dummy)

Target Test Weight = 3978 lbs.

WEIGHT OF TEST VEHICLE WITH REQUIRED DUMMIES AND 62 POUNDS CARGO:

Right Front = 1070 lbs. Right Rear = 860 lbs.

Left Front = 1140 lbs. Left Rear = 870 lbs.

TOTAL FRONT WEIGHT = 2210 lbs. (56.1 % of Total Vehicle Weight)

TOTAL REAR WEIGHT = 1730 lbs. (43.9 % of Total Vehicle Weight)

TOTAL TEST WEIGHT = 3940 lbs.

Weight of ballast secured in vehicle trunk area = 0 lbs.

VEHICLE ATTITUDE (all dimensions in inches):

Delivered Attitude: RF 26.8 LF 26.8 RR 26.6 LR 26.6

Test Attitude: RF 26.5 LF 26.5 RR 25.0 LR 25.2

Wheel Base: 114.4 in.; C.G. = 50.2 in. rearward of front wheel C/L

Remarks: 16.7 gallons of stoddard solution were placed in fuel tank

Table 1

GENERAL TEST AND VEHICLE PARAMETER DATA (cont'd)

POST-IMPACT DATA:

Type of Test: Frontal Barrier Impact Angle: 0°

Date of Test: June 23, 1992 Time of Test: 14:00

Ambient Temperature: 69 °F at impact area

Temperature in Occupant Compartment: 69 °F

Windshield Molding Temperature: 70 °F

Required Impact Velocity Range: 34.5 to 35.5 mph

Impact Velocity: primary = 34.9 mph, secondary = 34.9 mph

Distance From Front Bumper to Barrier Face When

Entering Speed Trap: 52 inches

Exiting Speed Trap: 12 inches

VEHICLE REBOUND AND CRUSH (inches):

Vehicle Length:	Pre-test	= R	188.8	C_L	195.2	L	188.8
	Post-test	= R	174.2	C_L	176.0	L	172.8
	Crush	= R	14.6	C_L	19.2	L	16.0

Distance from front of test vehicle to point of impact:

R 20.6 C_L 19.3 L 21.8

VISIBLE DUMMY CONTACT POINTS:

	Driver	Passenger
Head	Air bag	Air bag
Chest	Air bag	Air bag
Abdomen	No contact	No contact
Left Knee	Dash panel	Glove box door
Right Knee	Dash panel	Glove box door

Table 1

GENERAL TEST AND VEHICLE PARAMETER DATA (cont'd)

	Front		Rear	
	Left	Right	Left	Right
Door Opening	operable	operable	operable	operable

	Front		Rear	
Seat Movement	Left	Right	Left	Right
Seat Back Failure	None	None	-	-
Seat Shift (in.)	0.2" Forward	0.3" Forward	-	-

Glazing Damage

Backlight/Windshield Sustained stress fractures but remained intact

Other Notable Impact Effects: None

Section 3

OMI FINAL DATA

Occupant and Vehicle Information

I. OMI DATA

1. Dummy Injury Criteria Data Summary
2. Dummy Positioning Data
3. Seat Belt Positioning Data
4. Seat Belt Performance Assessment Data
5. Driver Dummy to Steering Column Dimensions
6. Camera Locations
7. Vehicle Target Locations

II. OVR DATA

1. Load Cell Barrier Data
2. Vehicle Accelerometer Data
3. Test Vehicle Measurements

Table 2

DUMMY INJURY CRITERIA VALUES

NHTSA No.: MN5301 Vehicle: 1992 Acura Legend 4-Door Sedan

	MAXIMUM HEAD ACCELERATION (g's)			
	X	Y	Z	R
Position #1 - Driver	-69.3	-14.2	45.4	79.1
Position #2 - Passenger	-63.9	11.8	40.2	76.3

	MAXIMUM CHEST ACCELERATION (g's)			
	X	Y	Z	R
Position #1 - Driver	-55.7	-15.5	-16.2	53.8
Position #2 - Passenger	-49.6	15.1	-19.4	51.3

The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

	MAXIMUM FORCE - FEMUR LOAD (lbs.)	
	LEFT FEMUR	RIGHT FEMUR
Position #1 - Driver	297.5	1244.1
Position #2 - Passenger	660.7	341.0

	MAXIMUM FORCE - SEAT BELT LOADS (lbs.)		
	SHOULDER STRAP UPPER BELT LOAD	LAP STRAP RIGHT BELT LOAD	LAP STRAP LEFT BELT LOAD
Position #1 - Driver	2041.8	-	1529.5
Position #2 - Passenger	1937.0	1581.4	-

	HEAD INJURY CRITERIA (HIC)			
	HIC	t_1 (SEC)	t_2 (SEC)	Average Acceleration t_1 TO t_2
Position #1 - Driver	896.9	.06504	.09324	63.2
Position #2 - Passenger	660.0	.06684	.10044	52.2

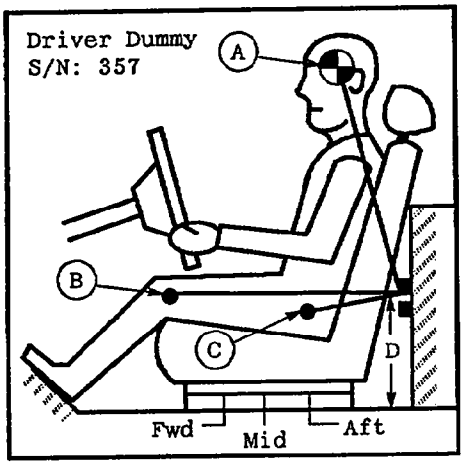
HIC is as defined in FMVSS 208. The maximum time interval from t_1 to t_2 is 36 milliseconds.

Figure 1

PART 572 DUMMY IN-VEHICLE POSITION

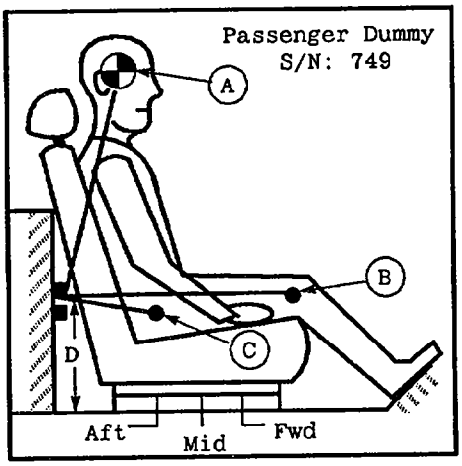
Test No.: MN5301 Vehicle: 1992 Acura Legend 4-Door Sedan

SEAT TYPE:	ADJUSTER TYPE:	SEAT BACK TYPE:
- Bench	- Manual	- Fixed
X Bucket	X Power	X Adjustable Reclining
- Split Bench		



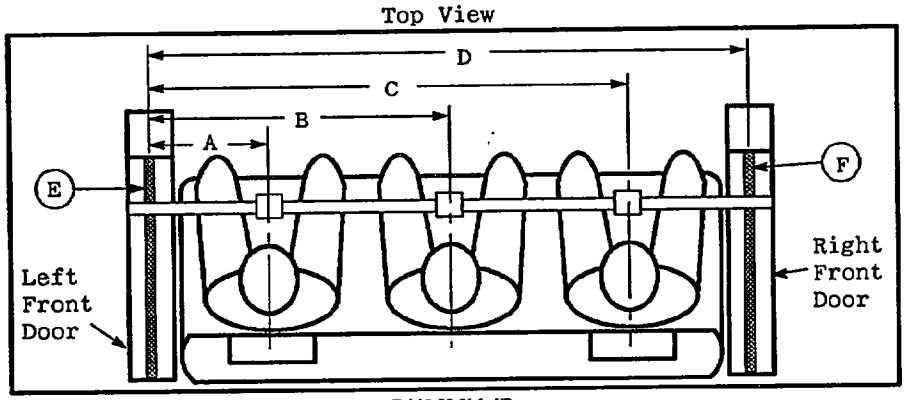
MEASUREMENT LOCATION

A - Head Target
B - Knee Joint
C - Approximate 'H' Point
D - Sill to Reference Point



Driver Dummy			Passenger Dummy		
A = 16.6	in.	-5 Degrees	A = 18.8	in.	-8 Degrees
B = 20.6	in.	106 Degrees	B = 20.6	in.	104 Degrees
C = 10.2	in.	145 Degrees	C = 9.6	in.	145 Degrees
D = 14.2	in.		D = 14.2	in.	

Top View



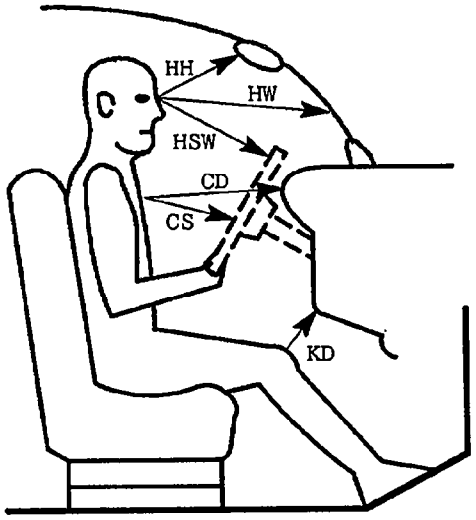
S/N 357 DUMMY ID S/N 749

A = Left Door to Driver Centerline	11.8	in.
B = Left Door to Center Passenger Centerline	-	in.
C = Left Door to Right Passenger Centerline	41.2	in.
D = Left Door to Right Door	53.7	in.
E,F = Window Glass Height (Right and Left Must Be Equal)	10.0	in.

Figure 2

OCCUPANT CLEARANCE DIMENSIONS

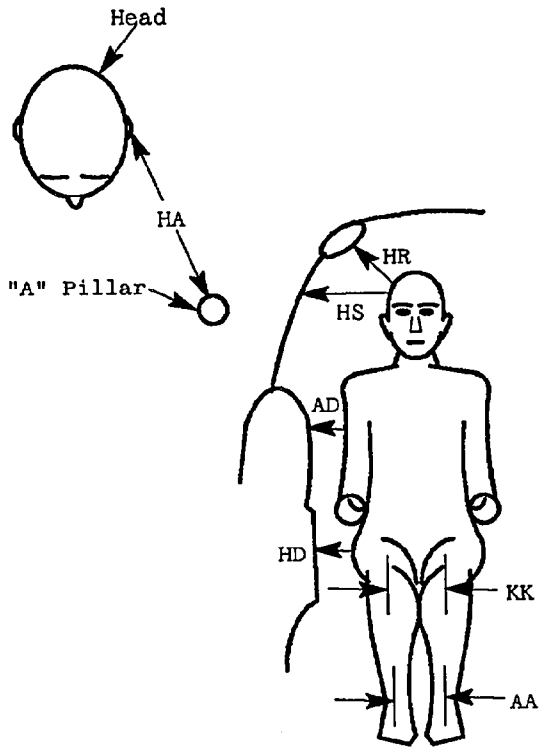
	DRIVER	PASSENGER
HH	17.1	16.3
HW	24.4	23.9
CD	24.0	25.3
CS	14.5	-
KDL	7.4	8.6
KDR	6.0	8.4
SA	See note	See note
TA	26°	25°
HSW	22.2	-



HH = Head to Windshield Header
HW = Head to Windshield
HSW = Head to Steering Wheel
CD = Chest to Dash
CS = Chest to Steering Wheel
KD(L/R) = Knee to Dash (Left/Right)
SA = Seat Back Angle
TA = Torso Angle

Note: Seat back was positioned according to manufacturer specification

HA = Head Target to "A" Pillar
HR = Head to Side Roof
HS = Head to Side Window
AD = Arm to Door
HD = Hip to Door
KK = Knee to Knee
AA = Ankle to Ankle



	DRIVER	PASSENGER
HR	6.6	6.6
HS	8.8	9.6
AD	3.9	4.2
HD	5.3	5.0
KK	10.0	7.9
HA	23.7	21.8
AA	11.8	7.5

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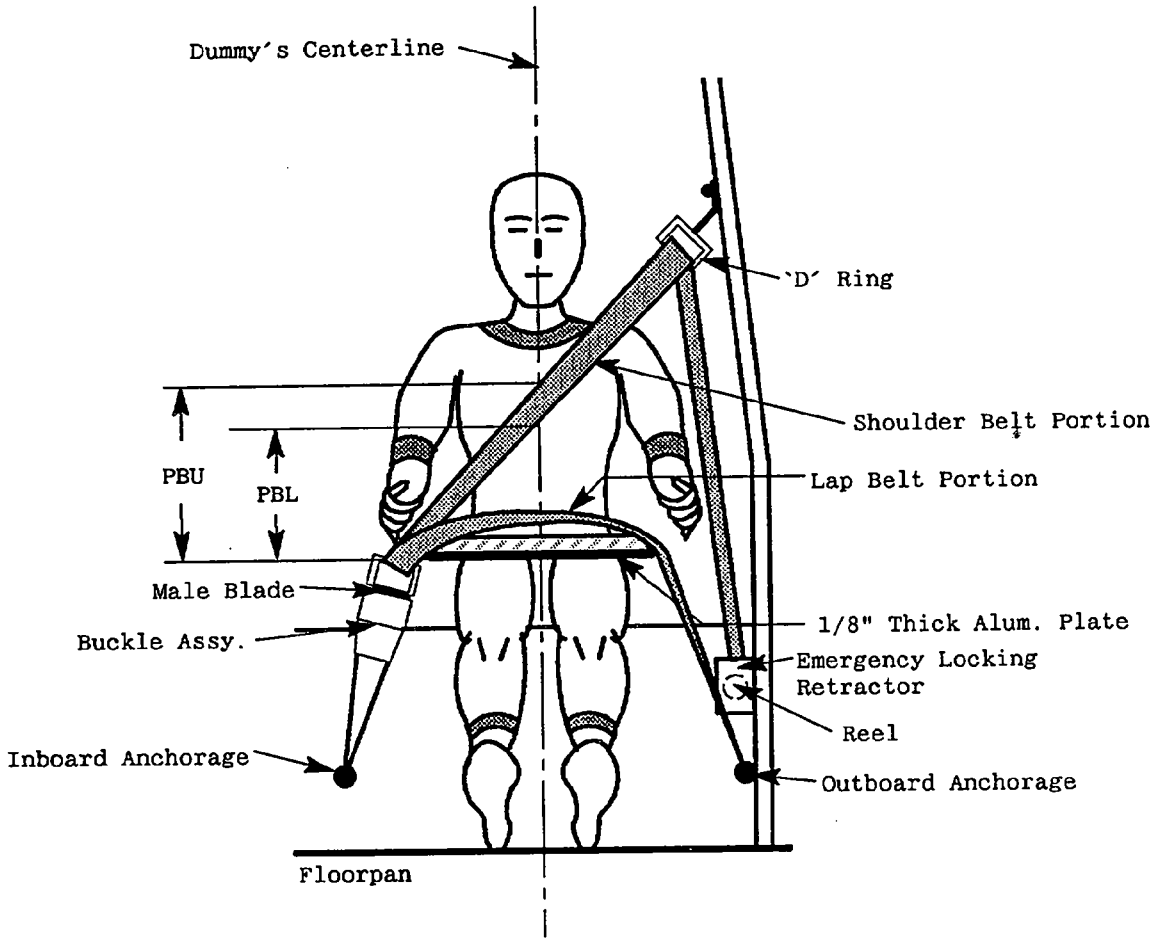
Figure 3

SEAT BELT POSITIONING DATA



Front View of Driver Dummy

	DRIVER DUMMY (inches)	PASSENGER DUMMY (inches)
PBU — Top surface of alum. plate to upper edge	14.5	14.5
PBL — Top surface of alum. plate to belt lower edge	11.1	11.5
LAP BELT TENSION	-	-
SHOULDER BELT TENSION	2.0 lbs	2.0 lbs

Table 3

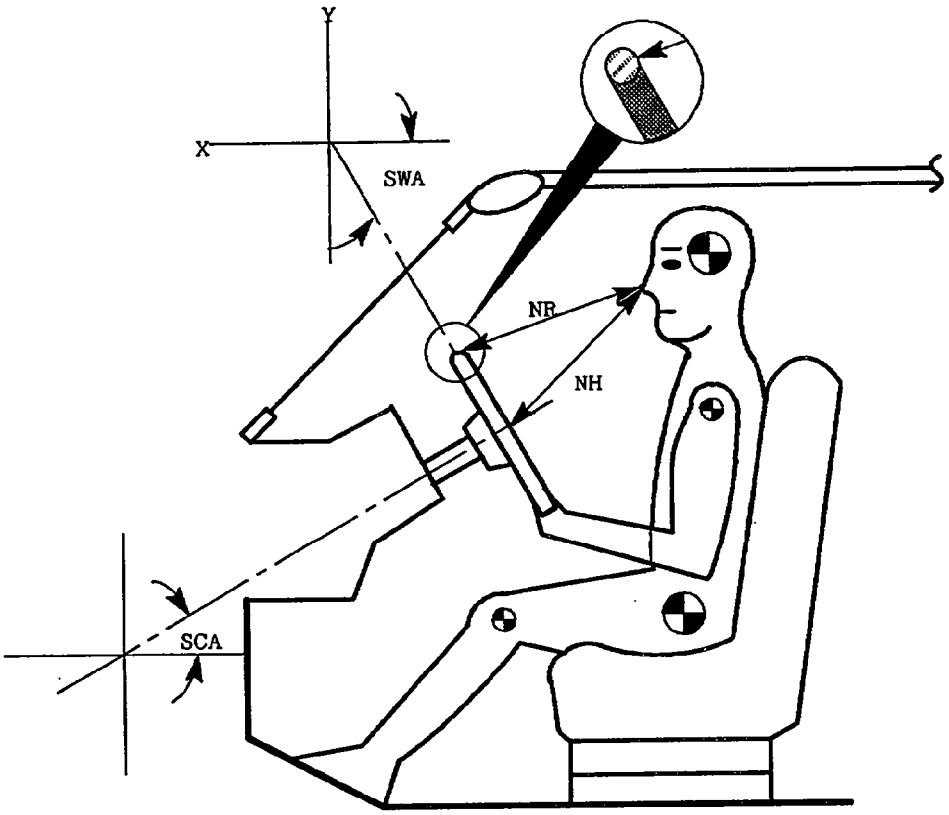
SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA:	Driver	Passenger
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	71.0	71.0
Shoulder belt length as measured on Part 572 Dummy.	32.0	32.0
Lap belt length as measured on Part 572 Dummy.	31.0	30.0
SHOULDER BELT SPOOL-OFF DATA:		
As determined by film analysis.	N/A	N/A
As determined mechanically.	*	*
BELT STRETCH DATA:		
Measured electronically between shoulder belt load cell and the "D" ring.	0.8 in/ft	0.2 in/ft
Measured mechanically	0.6 in/ft	0.6 in/ft

*The B-post interior trim panel was separated from B-post attachment points during impact. The measuring device (string) was attached to B-post interior trim panel therefore an accurate reading of spool-off was not possible.

Figure 4

DRIVER DUMMY TO STEERING COLUMN/WHEEL ASSEMBLY REFERENCE DIMENSIONS



Left Side View

	MEASUREMENTS	
NR -- Distance from tip of dummy's nose to Top Rear surface of steering wheel rim	20.1	Inches
NH -- Distance from tip of dummy's nose to center of steering column hub	19.7	Inches
SCA -- Angle of steering column relative to the horizontal X axis	24	Degrees
SWA -- Angle of steering wheel relative to the horizontal X axis	-66	Degrees

Figure 5

CAMERA POSITIONS FOR FRONTAL IMPACTS

NOTE: Camera Information Shown on Table 4

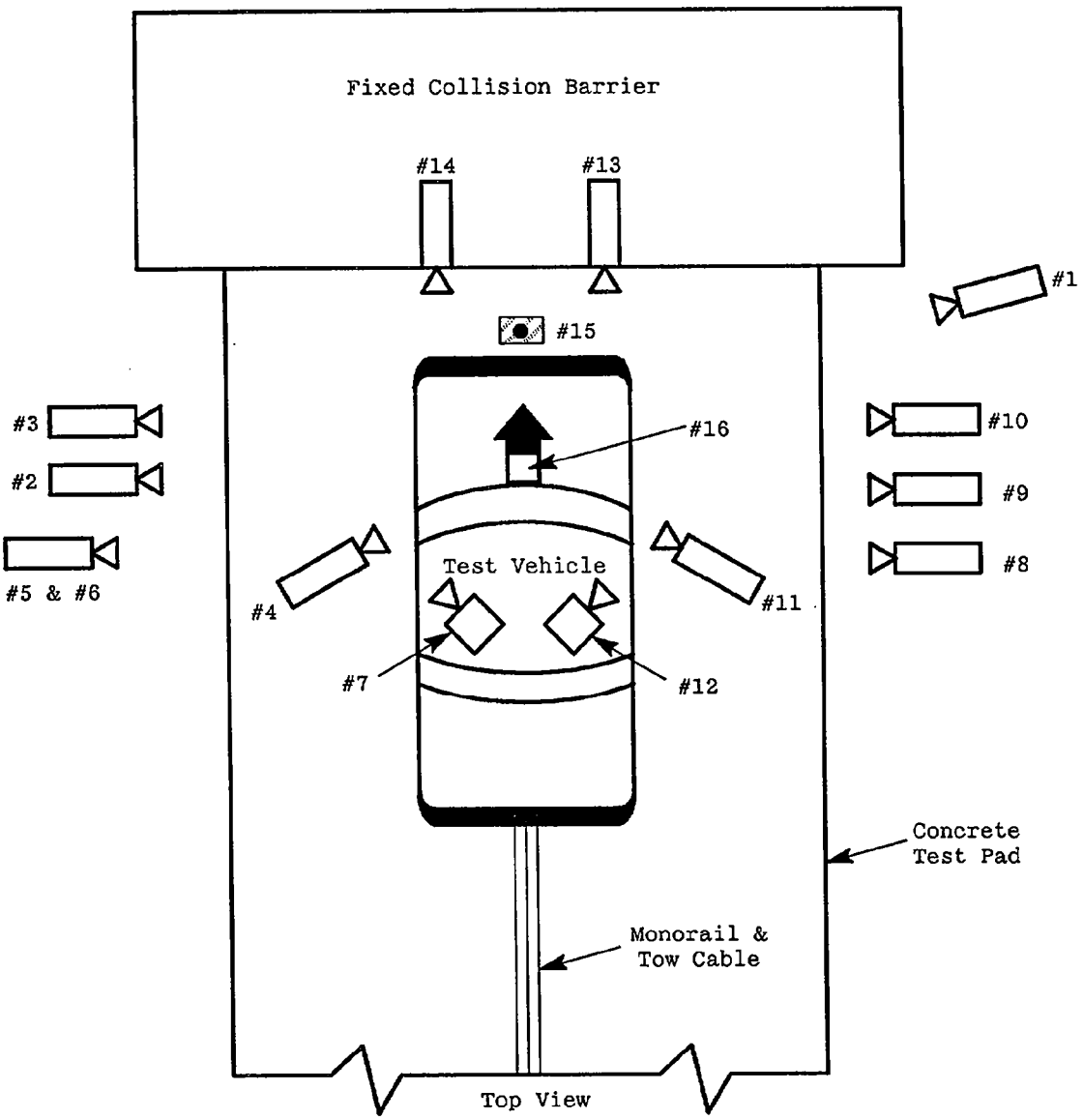


Table 4

HIGH-SPEED CAMERA LOCATIONS

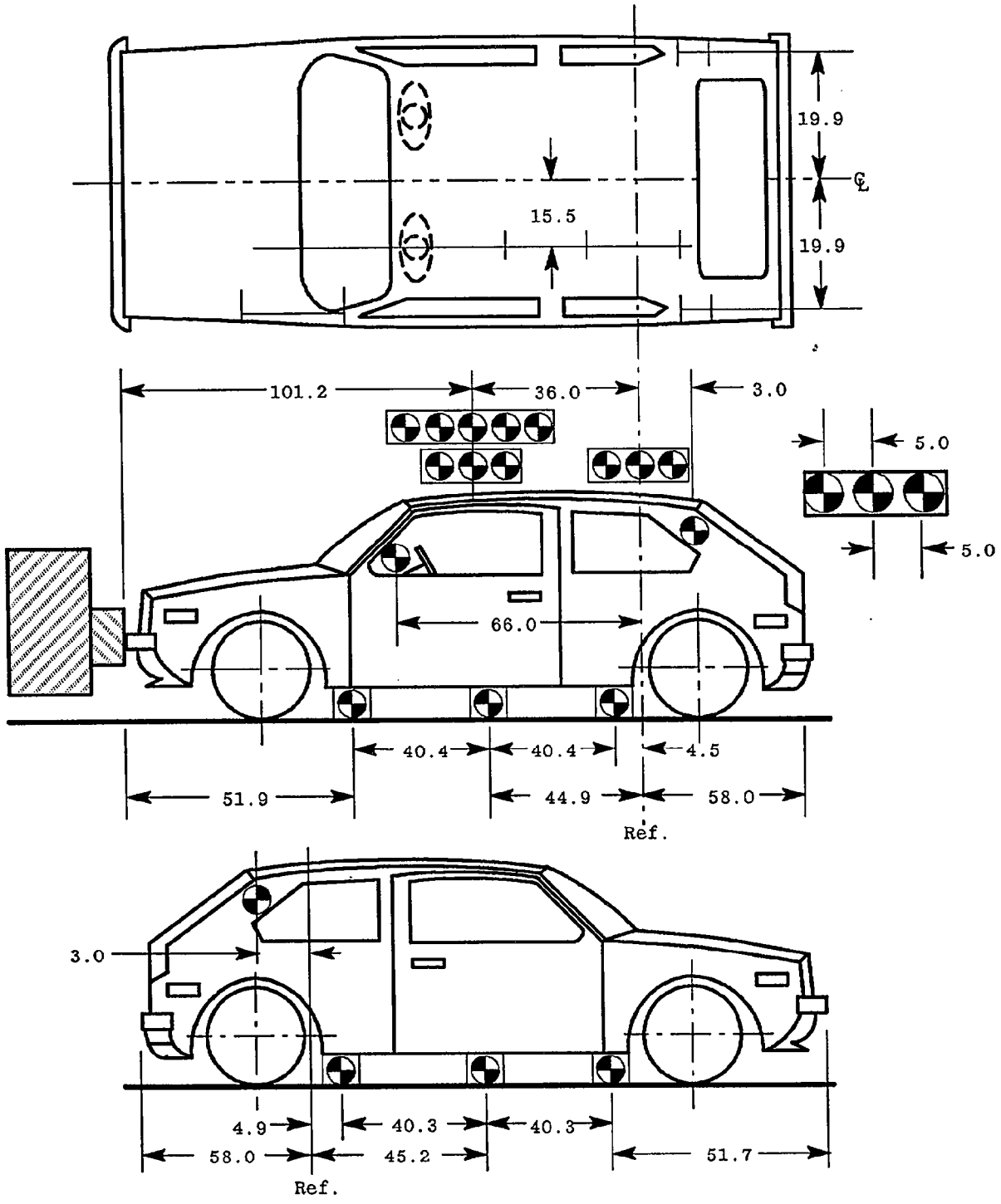
Test No. MN5301 Vehicle: 1992 Acura Legend 4-Door Sedan

CAMERA NO.	VIEW	CAMERA POSITIONS (in)* X	Y	Z	ANGLE** (deg)	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
1	Real-Time Camera	-	-	-	-	-	-	24
2	Overall Left Side	248	69	41	-6	230	13	570
3	Left Side View	319	39	41	-3	301	25	760
4	Driver and Interior View	105	103	69	-19	87	13	600
5	Steering Column (Bottom)	299	84	46	-5	281	25	580
6	Steering Column (Top)	299	84	70	-8	281	25	580
7	Left Belt	-	-	-	-	-	8	N.T.
8	Overall Right Side	255	68	42	-2	237	13	560
9	Right Side View	318	45	41	-1	300	25	590
10	Right Passenger View	308	69	56	-3	290	35	550
11	Passenger and Interior View	114	104	67	-17	96	25	545
12	Right Belt	-	-	-	-	-	8	650
13	Passenger Front View	23	0	76	-40	-	13	600
14	Driver Front View	23	0	77	-37	-	13	610
15	Windshield View	0	0	120	-51	-	13	550
16	Pit View of Engine	0	40	-120	90	-	13	670

*X = film plane to monorail centerline
Y = film plane to impact location
Z = film plan to ground
** = referenced to horizontal plane
N.T. = No Timing

Figure 6

VEHICLE TARGET LOCATIONS

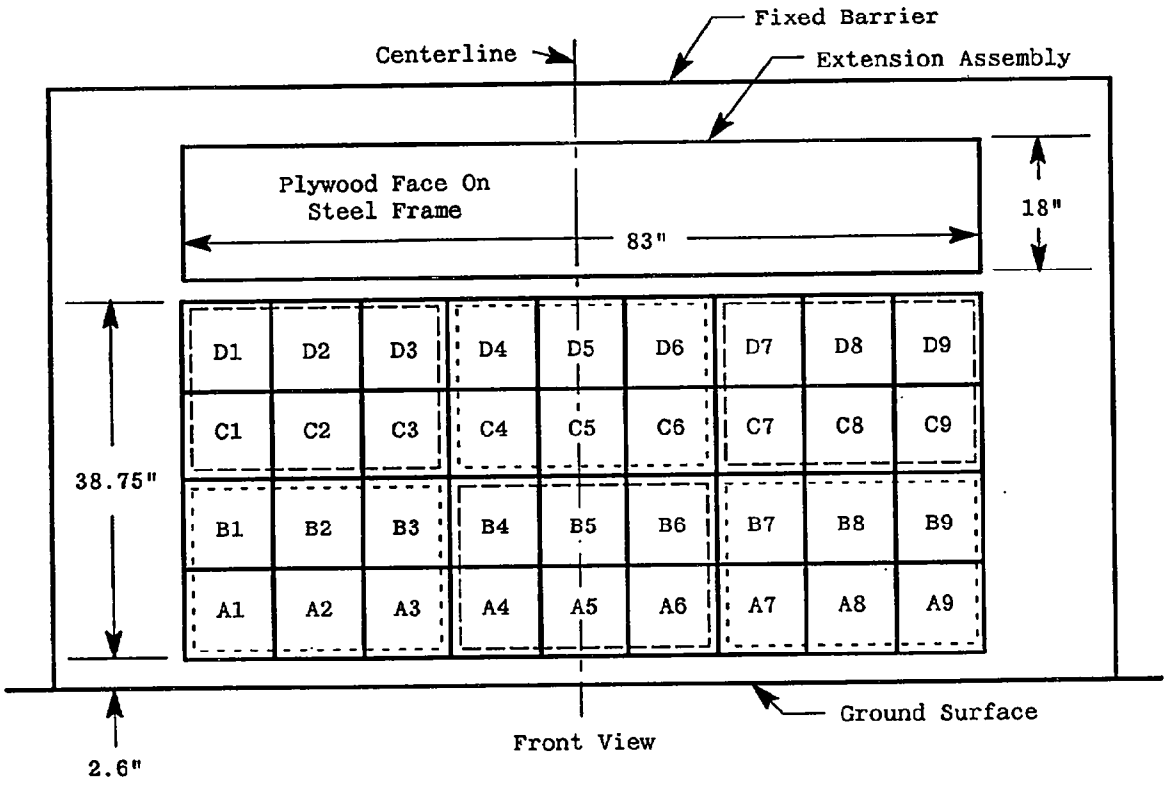


(Dimensions in inches)

Figure 7

LOAD CELL LOCATIONS ON FIXED BARRIER

36 Load Cells
4 Rows
9 Columns
6 Groupings (6 cells/group)



6 GROUPS OF 6 LOAD CELLS EACH

Group 4 C1 thru D3	Group 5 C4 thru D6	Group 6 C7 thru D9
Group 1 A1 thru B3	Group 2 A4 thru B6	Group 3 A7 thru B9

The following data is presented in Appendix B:

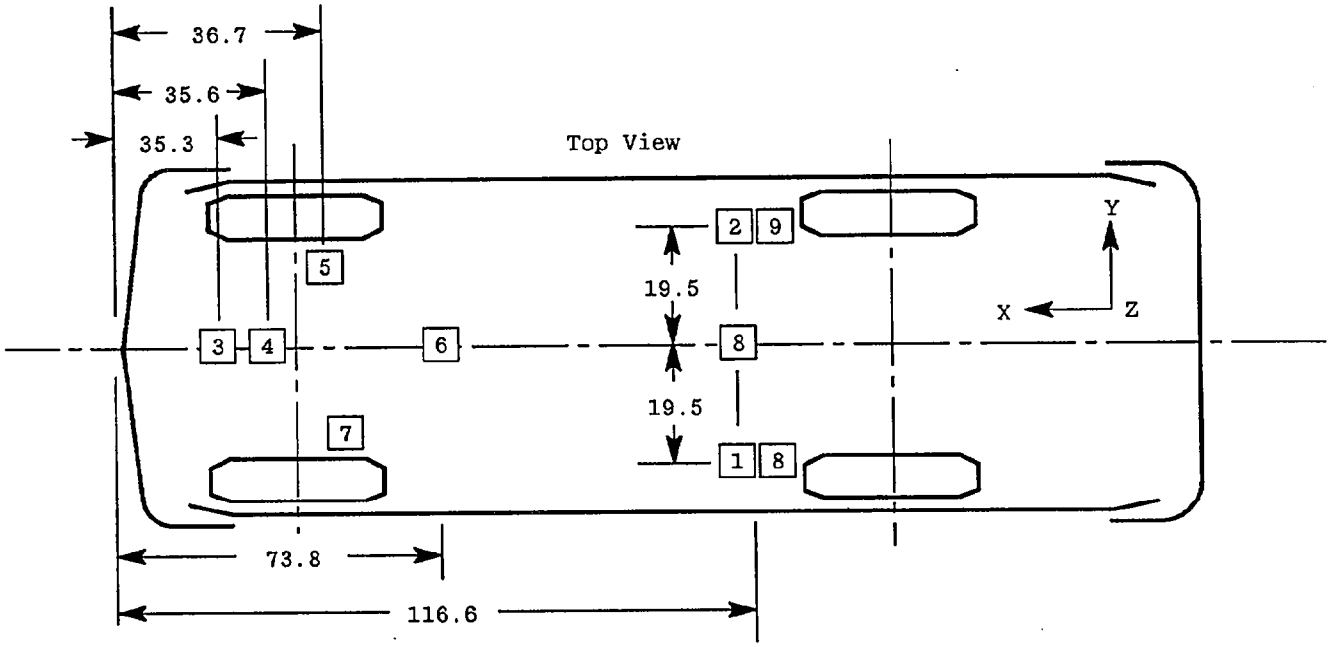
(1) Data from 36 individual load cells

(2) Total or Sum of 36 individual load cells

(3) Data from 6 Groupings shown above (6 cells/group)

Figure 8

VEHICLE ACCELEROMETER LOCATIONS



ACCELEROMETER NUMBER*	ACCELEROMETER LOCATION	DIRECTION		
		X	Y	Z
1	Left Rear Seat Crossmember	✓		
2	Right Rear Seat Crossmember	✓		
3	Top of Engine	✓		
4	Bottom of Engine	✓		
5	Right Disc Brake Caliper	✓		
6	Left Disc Brake Caliper	✓		
7	Instrument Panel	✓		
8	Left Rear Seat Crossmember - Redundant	✓		
9	Right Rear Seat Crossmember - Redundant	✓		

*The accelerometer pack number can be correlated with the vehicle response data traces found in Appendix B.

Figure 9

TEST VEHICLE MEASUREMENTS

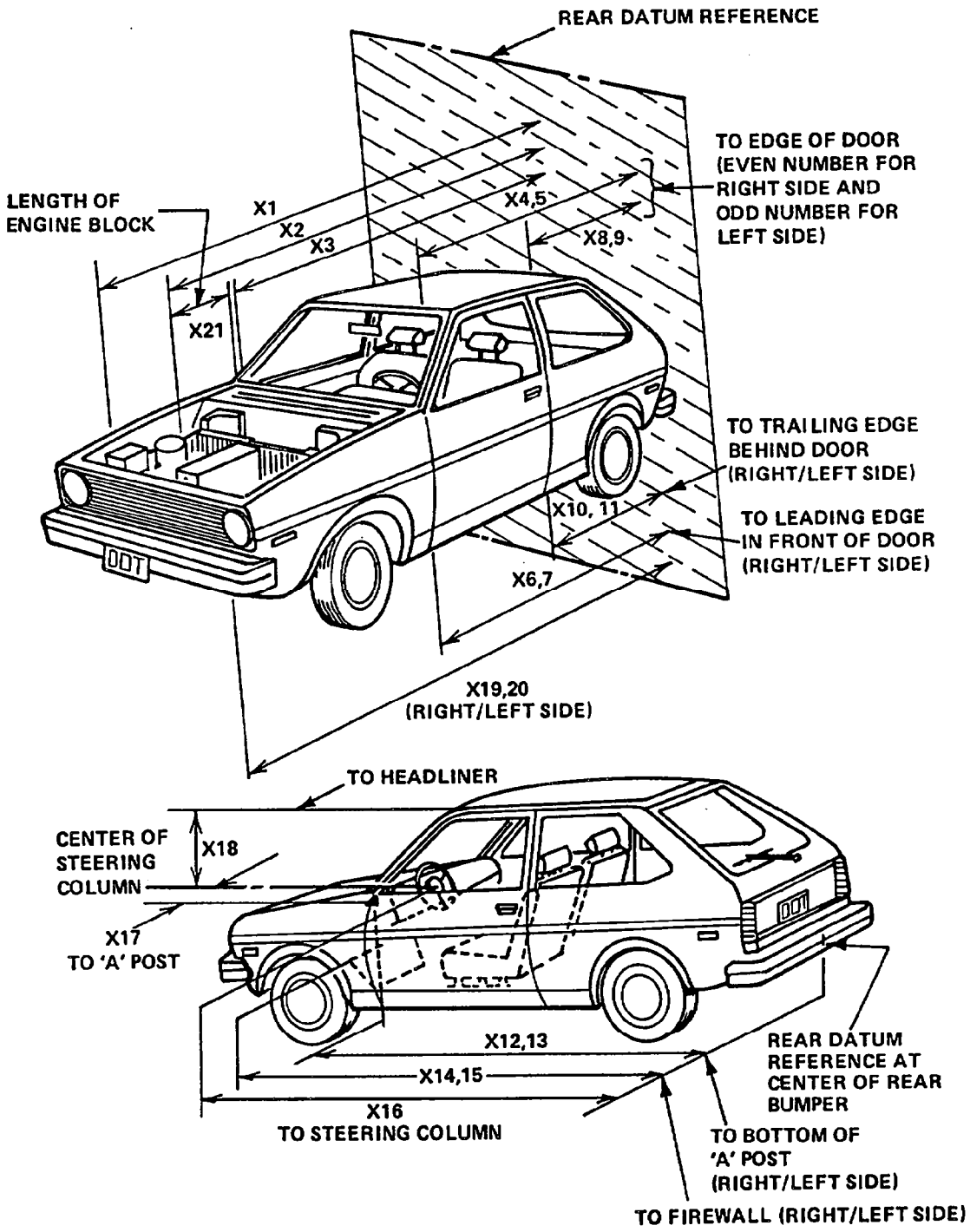


Table 5

VEHICLE MEASUREMENTS

No.		All Dimensions in Inches		
		Pre-Test	Post-Test	Differences
X1	Total Length of Vehicle at Centerline	195.2	176.0	19.2
X2	Rear Surface of Vehicle to Front of Engine	170.0	161.5	8.5
X3	Rear Surface of Vehicle to Firewall	148.0	141.6	6.4
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	133.4	133.2	0.2
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	133.8	133.2	0.6
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	134.4	134.2	0.2
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	134.9	134.2	0.7
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	93.6	92.8	0.8
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	94.0	93.2	0.8
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	93.9	93.4	0.5
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	94.4	93.5	0.9
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	134.2	133.5	0.7
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	134.8	133.9	0.9
X14	Rear Surface of Vehicle to Firewall, Right Side	148.0	142.6	5.4
X15	Rear Surface of Vehicle to Firewall, Left Side	145.1	141.5	3.6
X16	Rear Surface of Vehicle to Steering Column	116.0	116.2	-0.2
X17	Center of Steering Column to "A" Post	15.0	15.4	-0.4
X18	Center of Steering Column to Headliner	16.8	16.2	0.6
X19	Rear Surface of Vehicle to Right Side of Front Bumper	188.8	174.2	14.6
X20	Rear Surface of Vehicle to Left Side of Front Bumper	188.8	172.8	16.0
X21	Length of Engine Block	20.8	20.8	0.0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	124.0	123.8	0.2
CD	Rear Surface of Vehicle to Center of Dash Panel	124.0	121.5	2.5
LD	Rear Surface of Vehicle to Left Side of Dash Panel	124.0	123.8	0.2

Appendix A

PHOTOGRAPHS

PHOTOGRAPHS

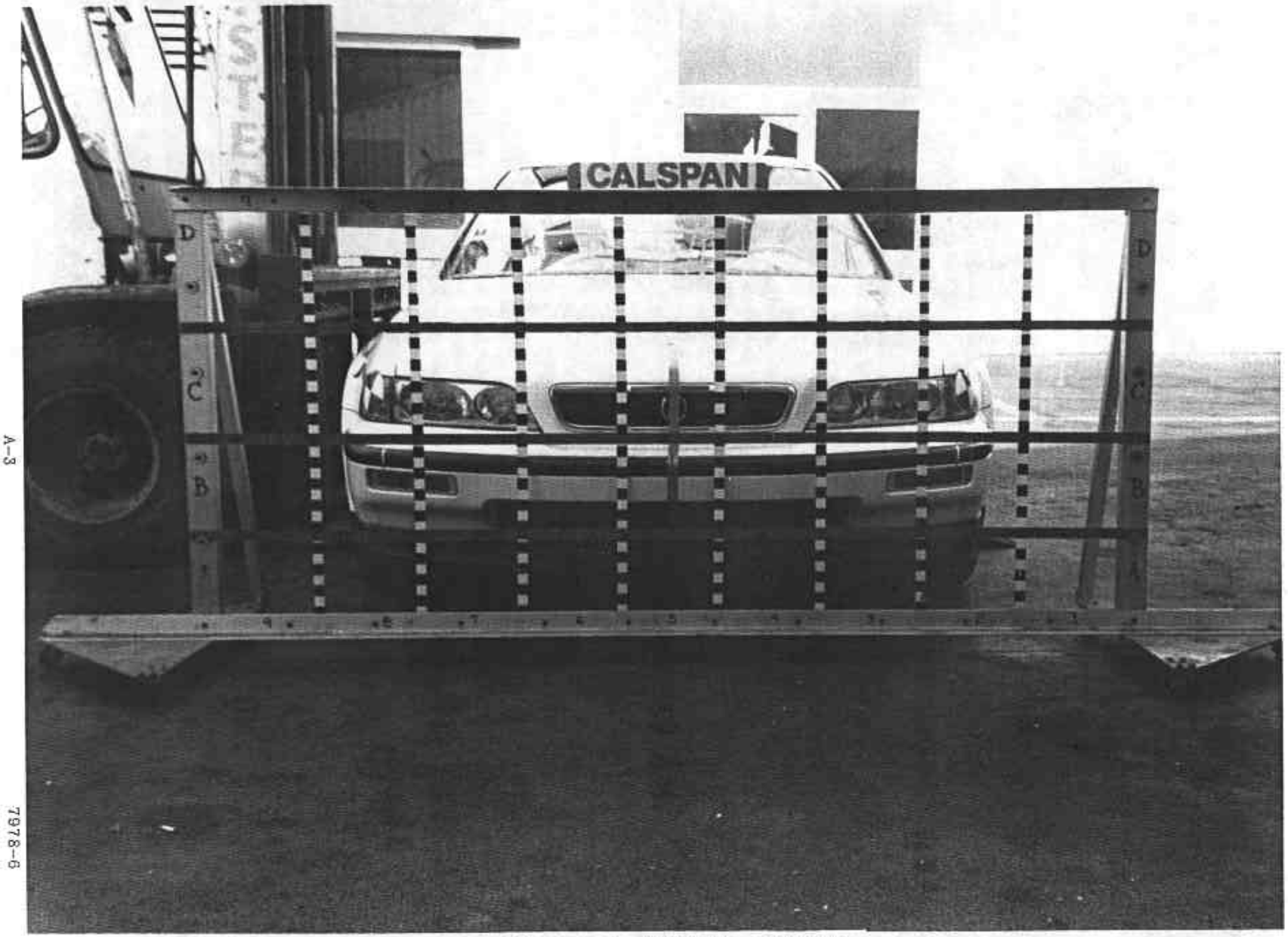


Figure A-1 LOAD CELL LOCATIONS

7978-6

Figure A-2 PRE-TEST FRONT VIEW

Figure A-3 POST TEST FRONT VIEW

7978-6

Figure A-4 PRE-TEST LEFT SIDE VIEW

7978-8

Figure A-5 POST TEST LEFT SIDE VIEW

Figure A-6 PRE-TEST RIGHT SIDE VIEW

7978-6

Figure A-7 POST-TEST RIGHT SIDE VIEW

7978-8

Figure A-8 PRE-TEST RIGHT FRONT THREE-QUARTER VIEW

7978-6

Figure A-9 POST-TEST RIGHT FRONT THREE-QUARTER VIEW

Figure A-10 PRE-TEST LEFT REAR THREE-QUARTER VIEW

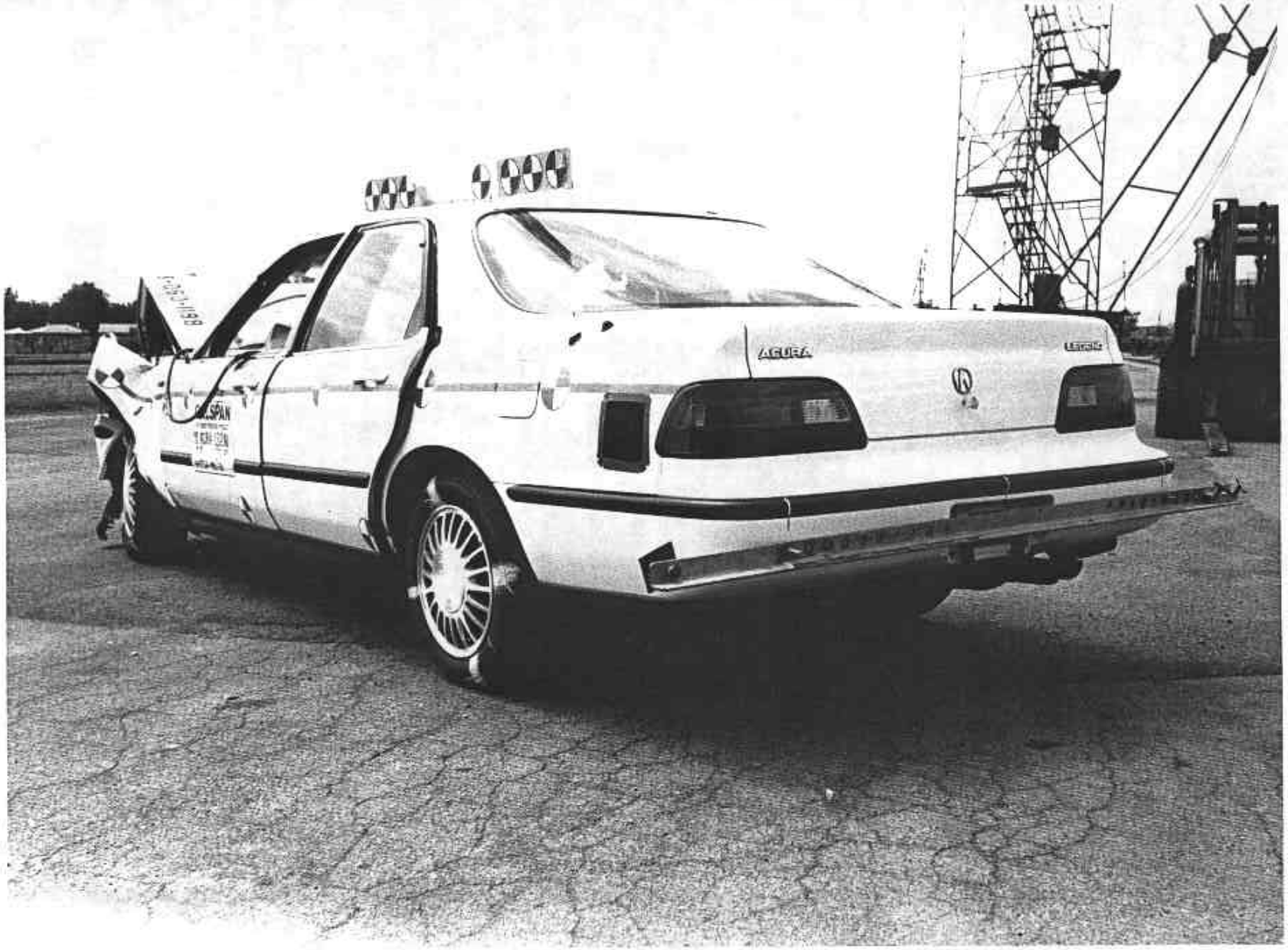


Figure A-11 POST-TEST LEFT REAR THREE-QUARTER VIEW

7978-6

Figure A-12 PRE-TEST WINDSHIELD VIEW

Figure A-13 POST-TEST WINDSHIELD VIEW

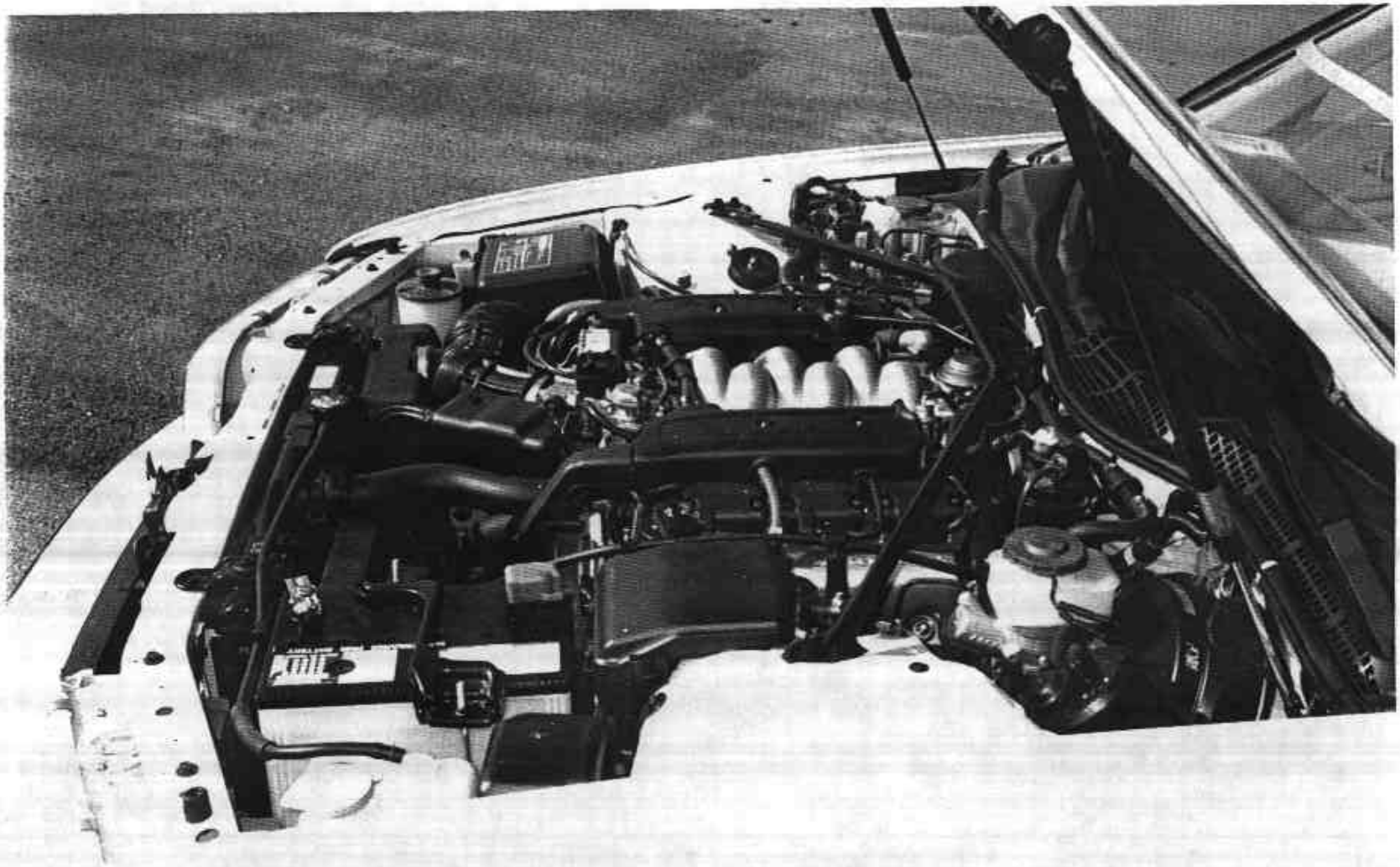


Figure A-14 PRE-TEST ENGINE COMPARTMENT VIEW

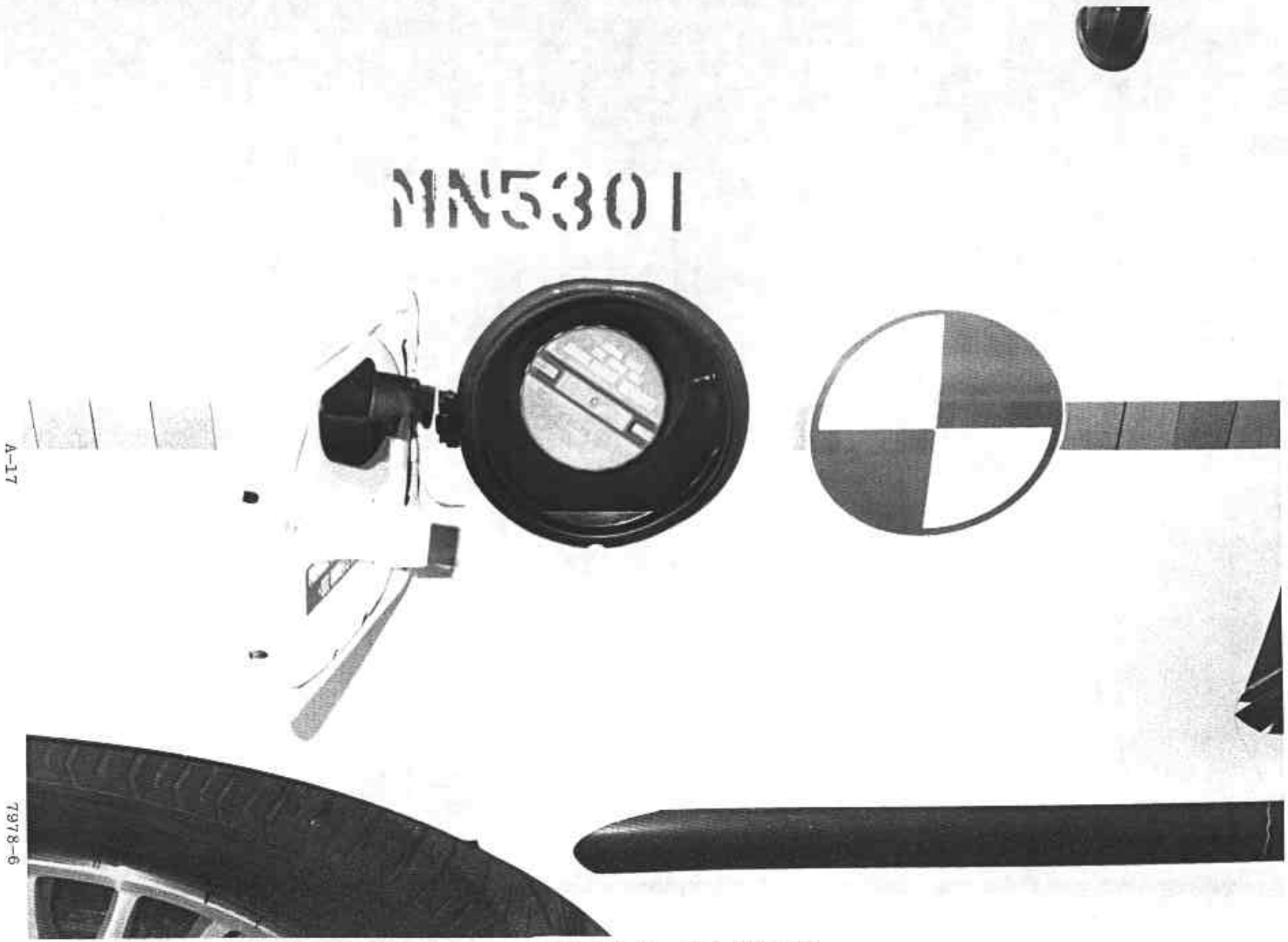


Figure A-15 FUEL CAP VIEW

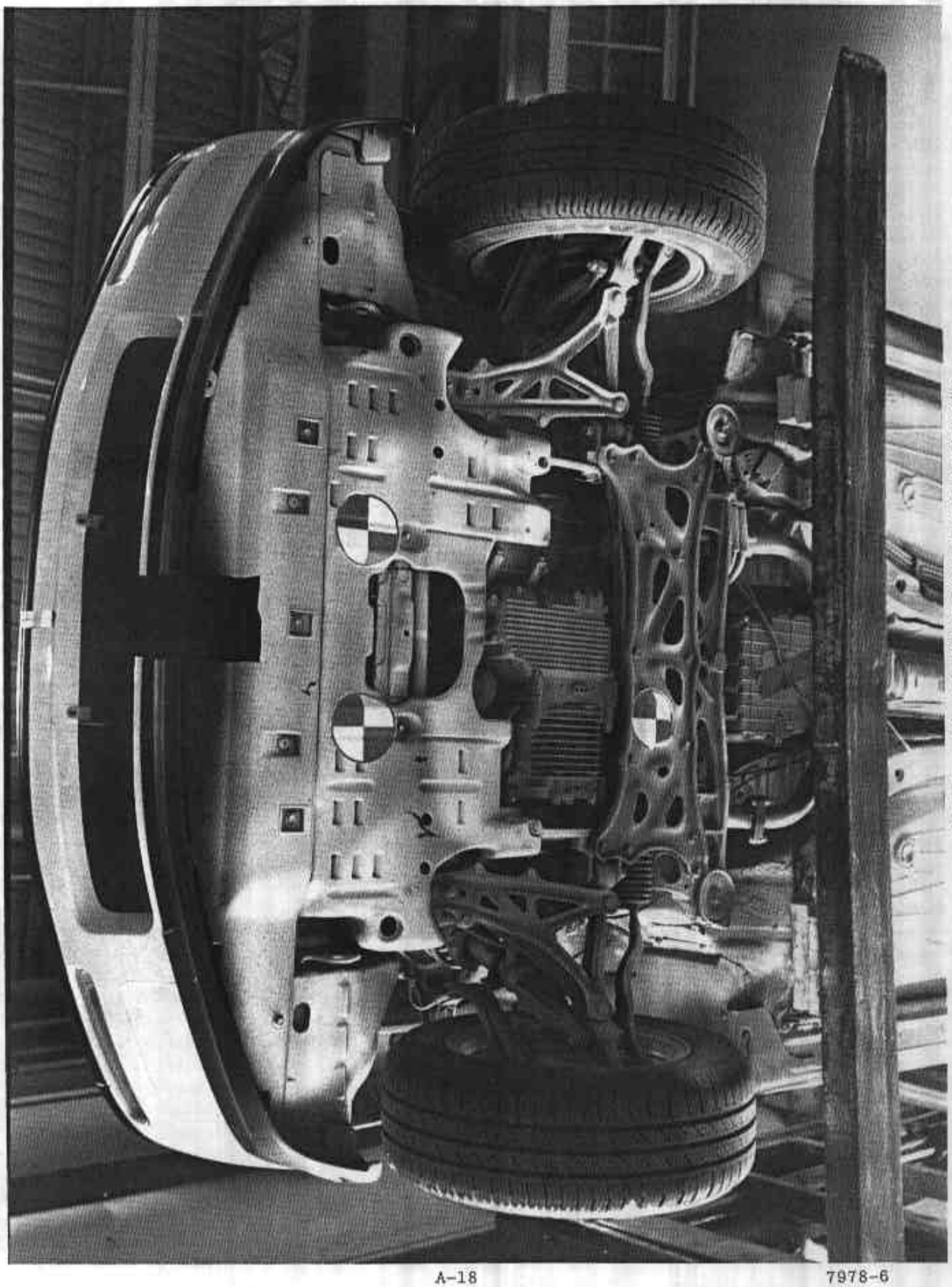
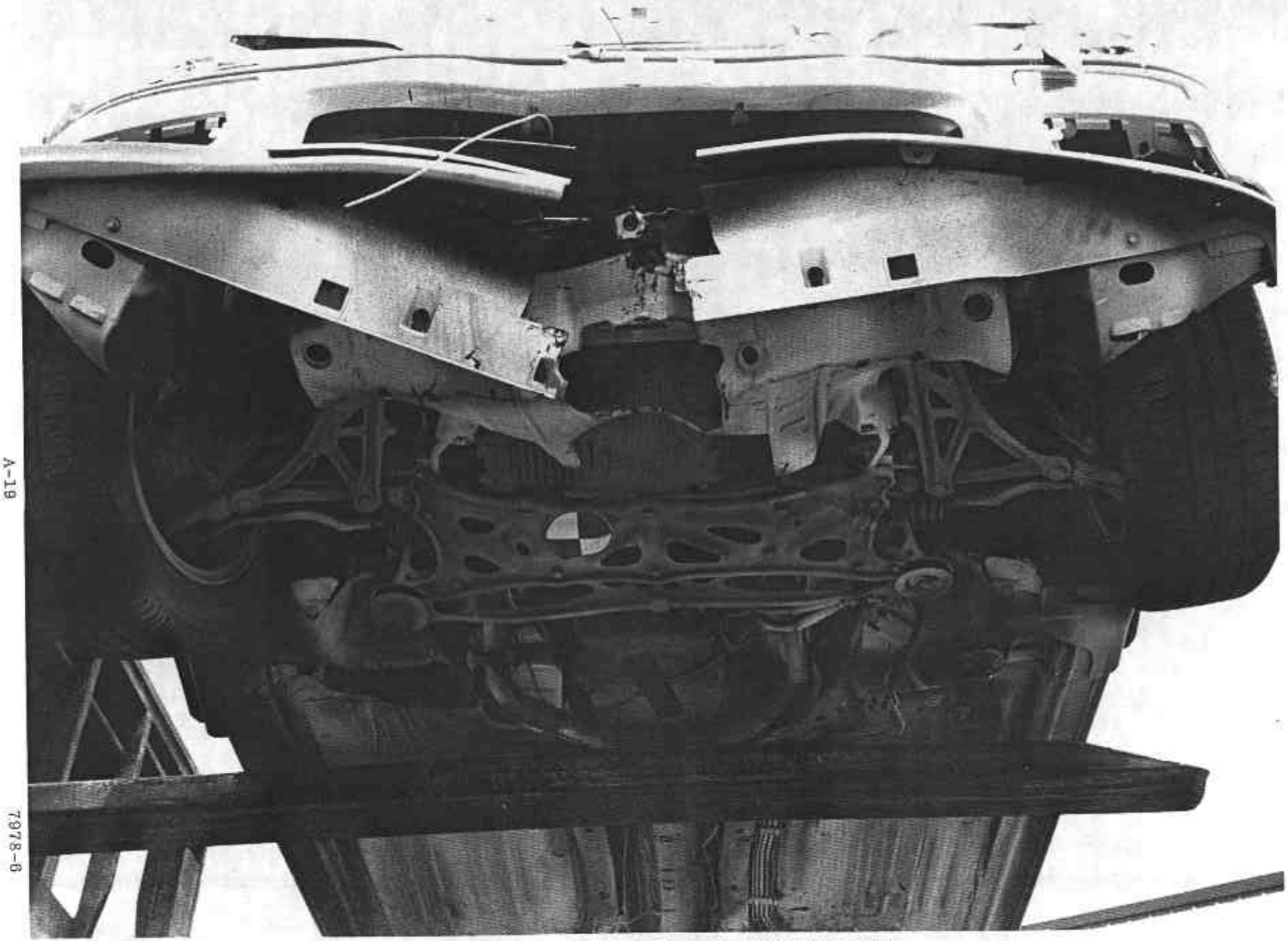


Figure A-16 PRE-TEST FRONT UNDERBODY VIEW

7978-6



7978-6

Figure A-17 POST-TEST FRONT UNDERBODY VIEW

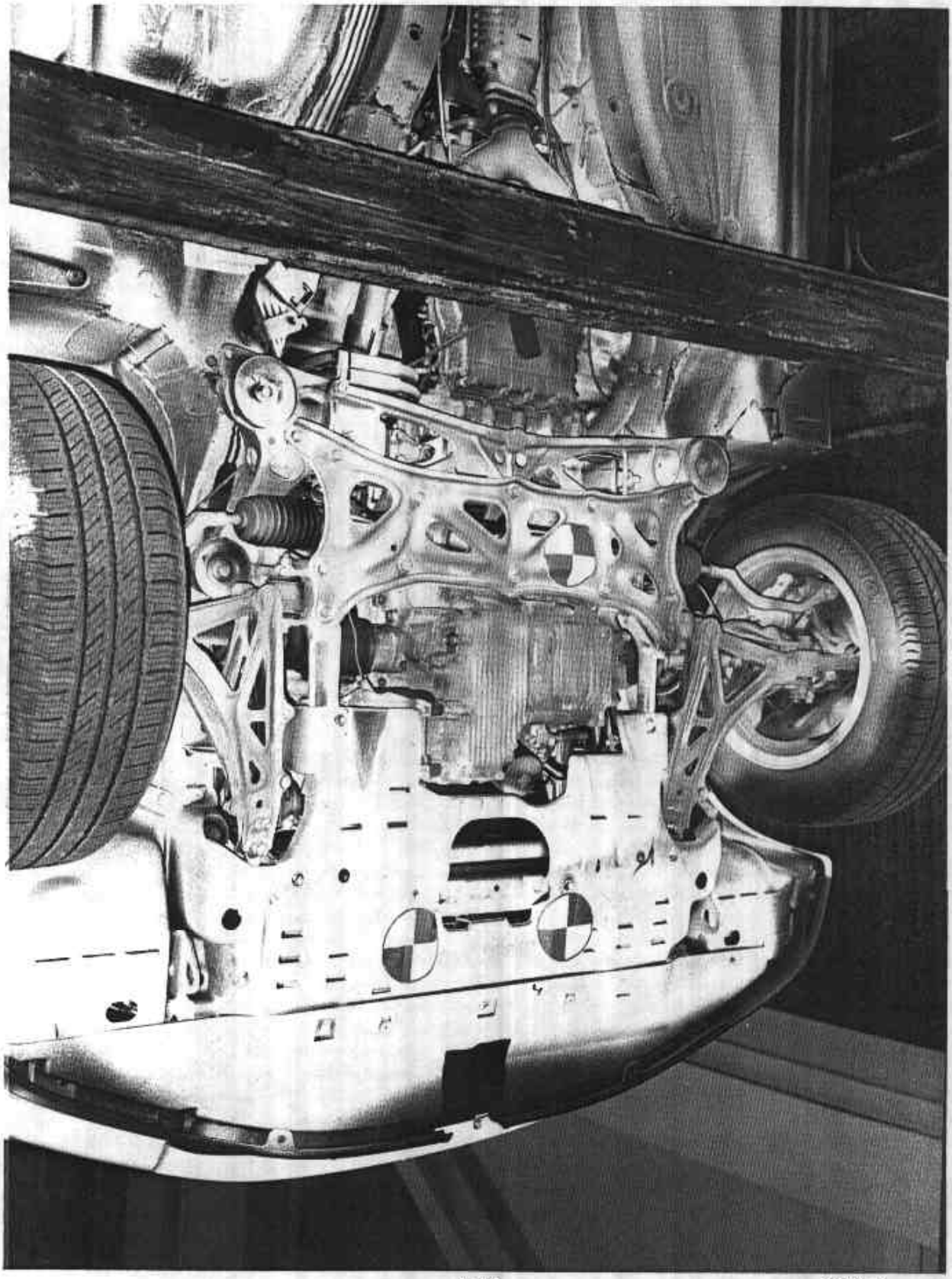


Figure A-18 PRE-TEST FRONT SIDE UNDERBODY VIEW

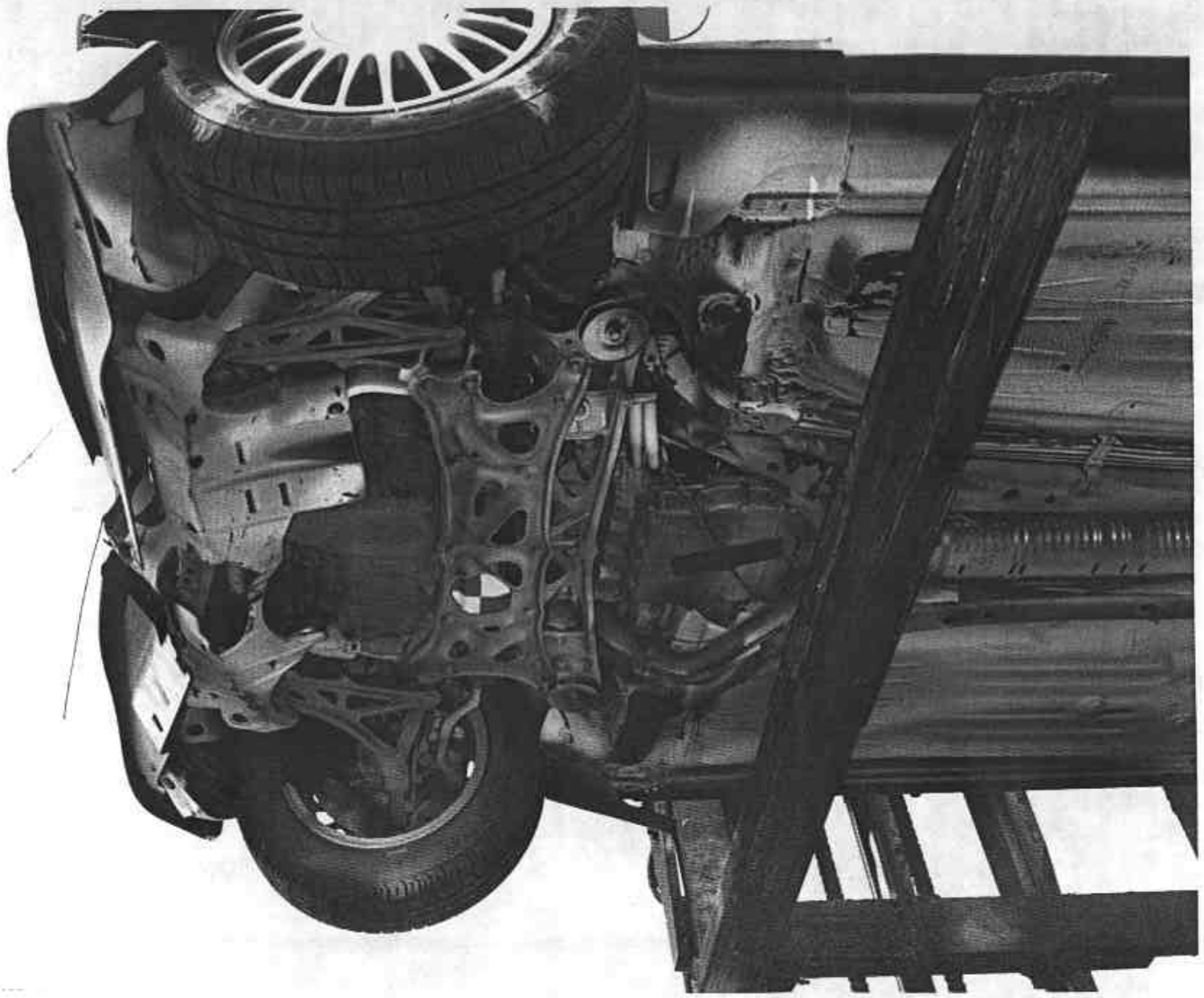


Figure A-19 POST-TEST FRONT SIDE UNDERBODY VIEW

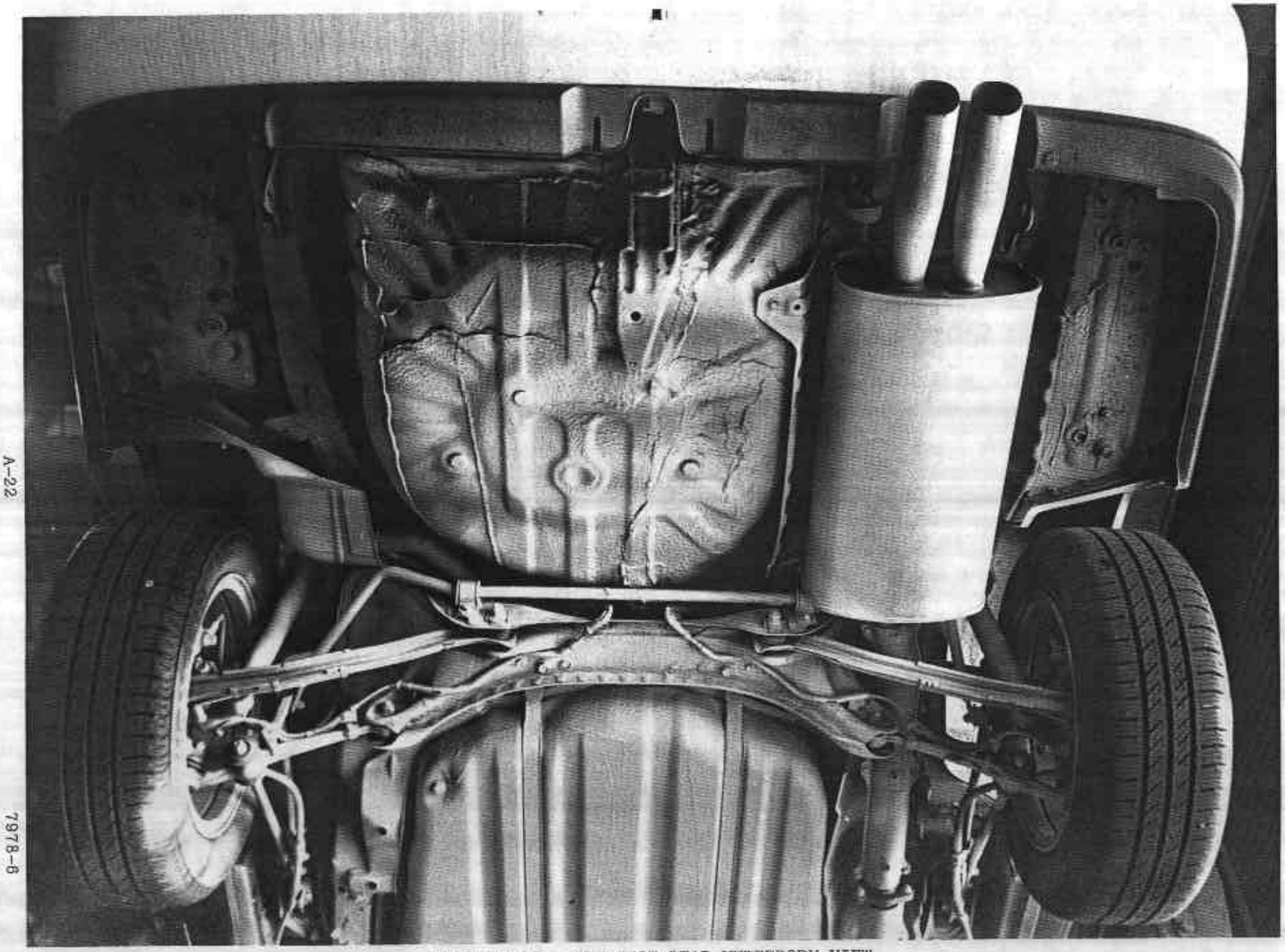


Figure A-20 PRE-TEST REAR UNDERBODY VIEW

7978-6

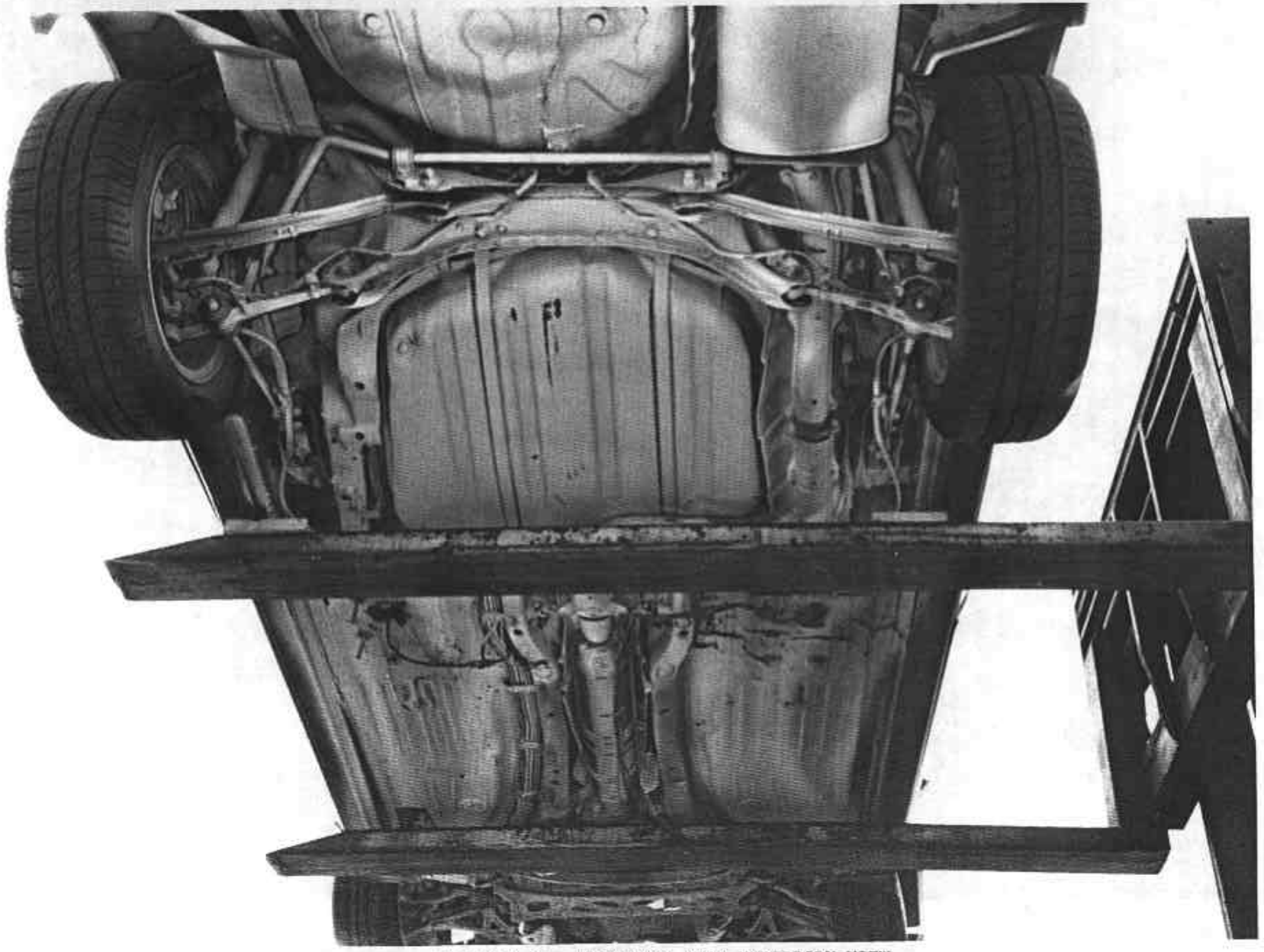


Figure A-21 POST-TEST REAR UNDERBODY VIEW

Figure A-22 PRE-TEST DRIVER POSITION VIEW

7978-6

Figure A-23 POST-TEST DRIVER POSITION VIEW

7978-6

A-26

7978-6

Figure A-24 PRE-TEST PASSENGER POSITION VIEW

Figure A-25 POST-TEST PASSENGER POSITION VIEW

7978-6

Figure A-26 PRE-TEST DRIVER AND INTERIOR VIEW

Figure A-27 POST-TEST DRIVER AND INTERIOR VIEW

Figure A-28 PRE-TEST PASSENGER AND INTERIOR VIEW

7978-6

Figure A-29 POST-TEST PASSENGER AND INTERIOR VIEW

7978-6

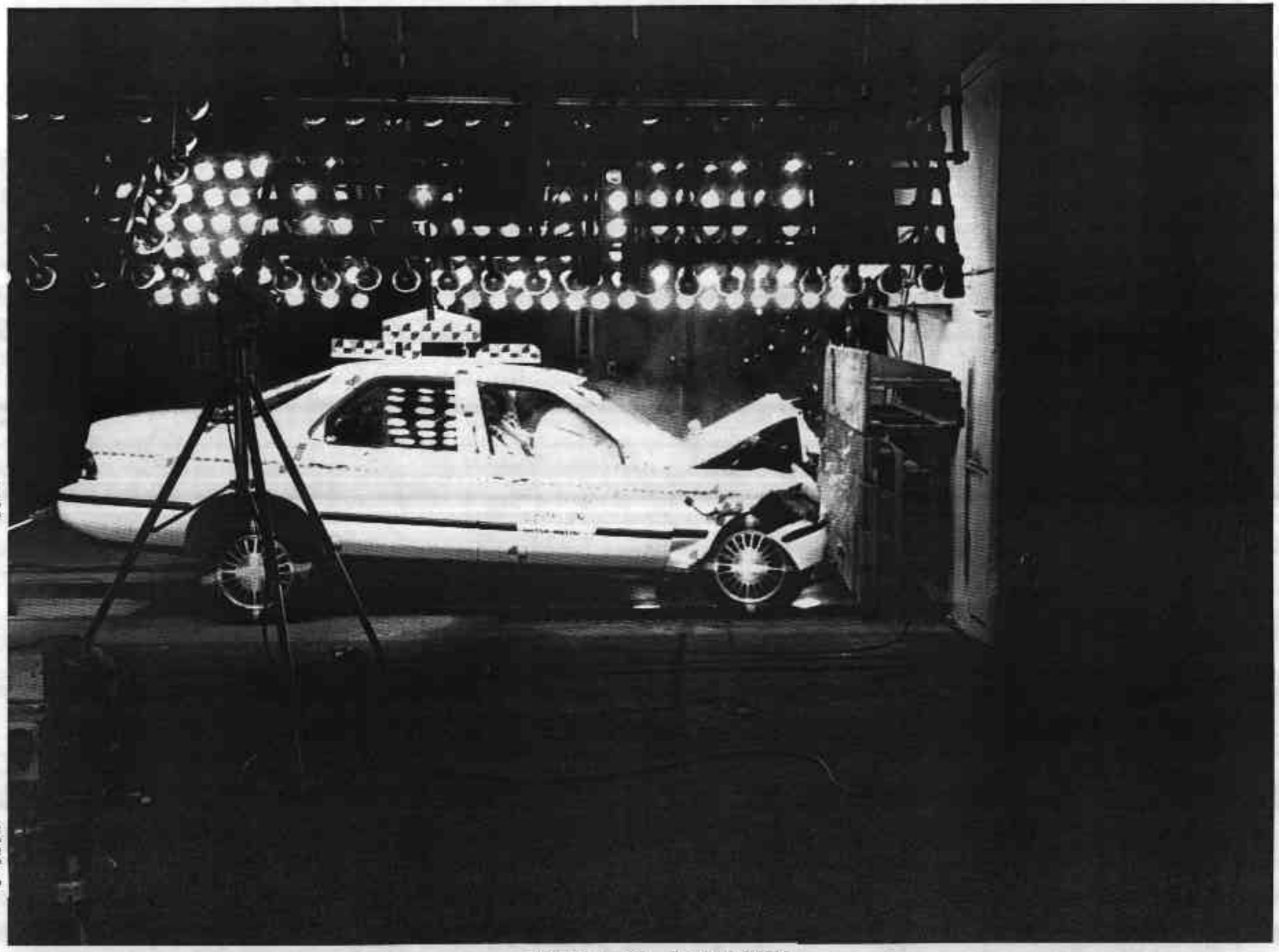


Figure A-30 IMPACT VIEW

7978-6

Appendix B

VEHICLE, LOAD CELL BARRIER AND DUMMY RESPONSE DATA

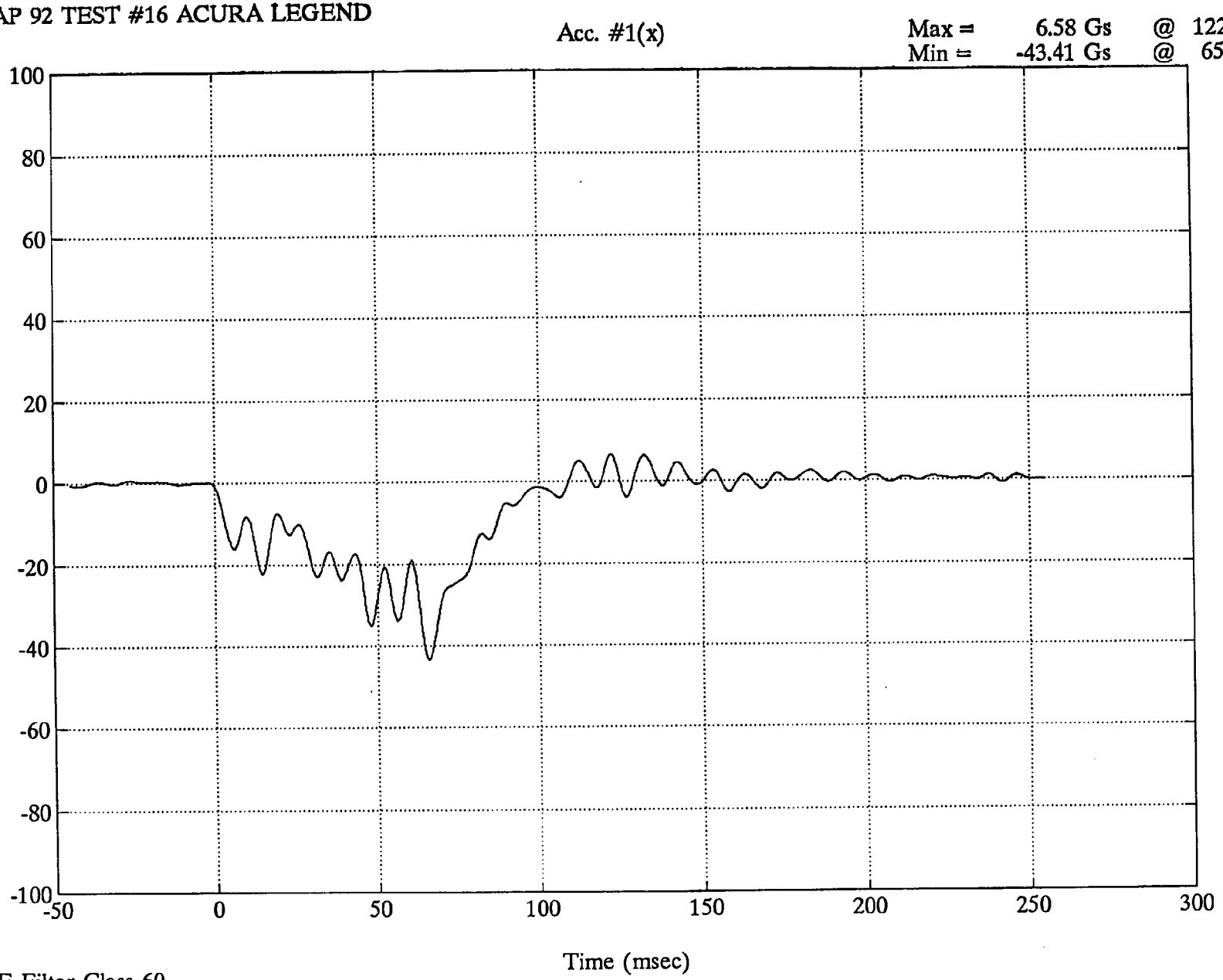
TEST NO. MN5301

VEHICLE DATA

FILTER CHANNEL CLASS

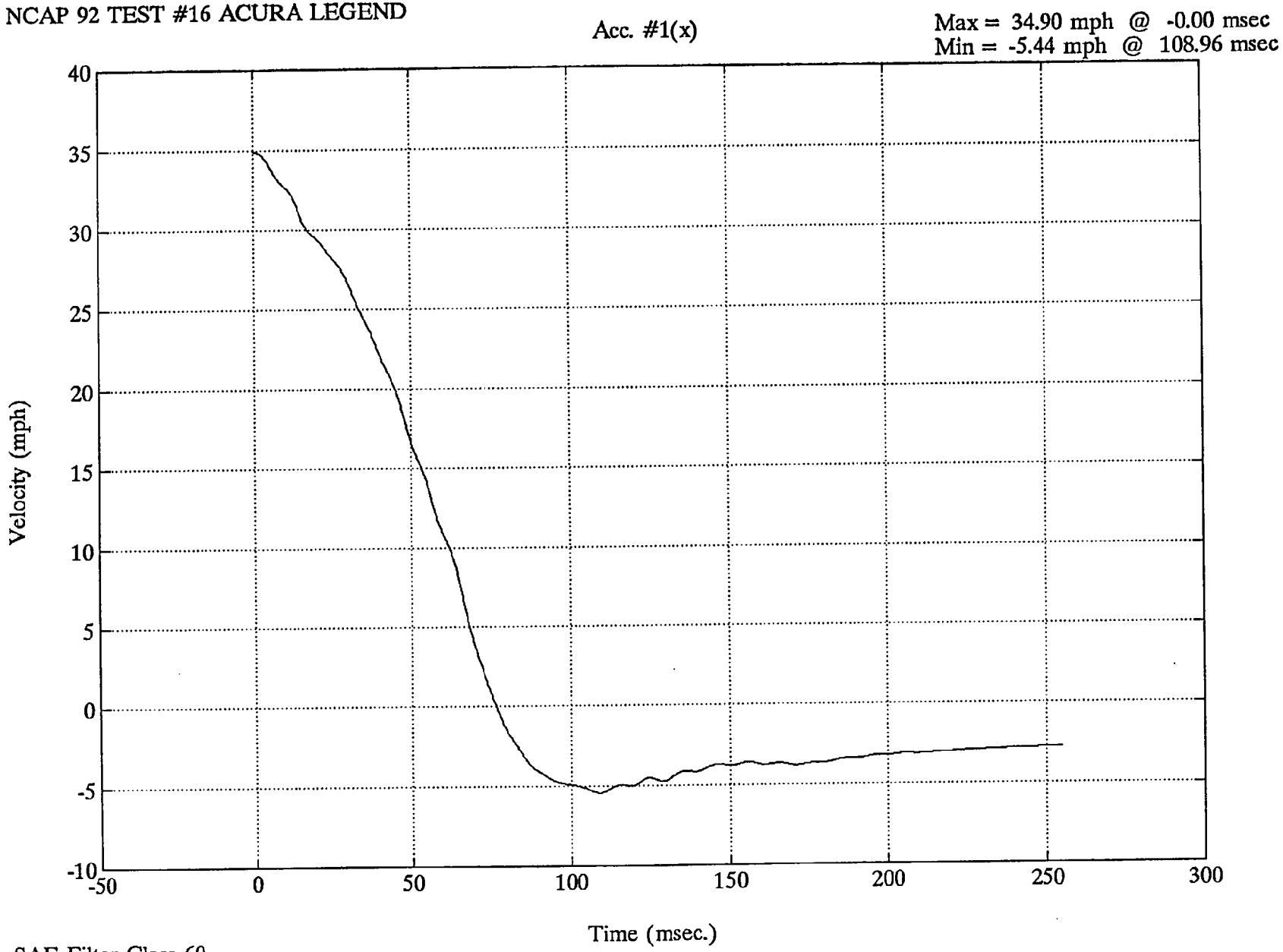
60

NCAP 92 TEST #16 ACURA LEGEND



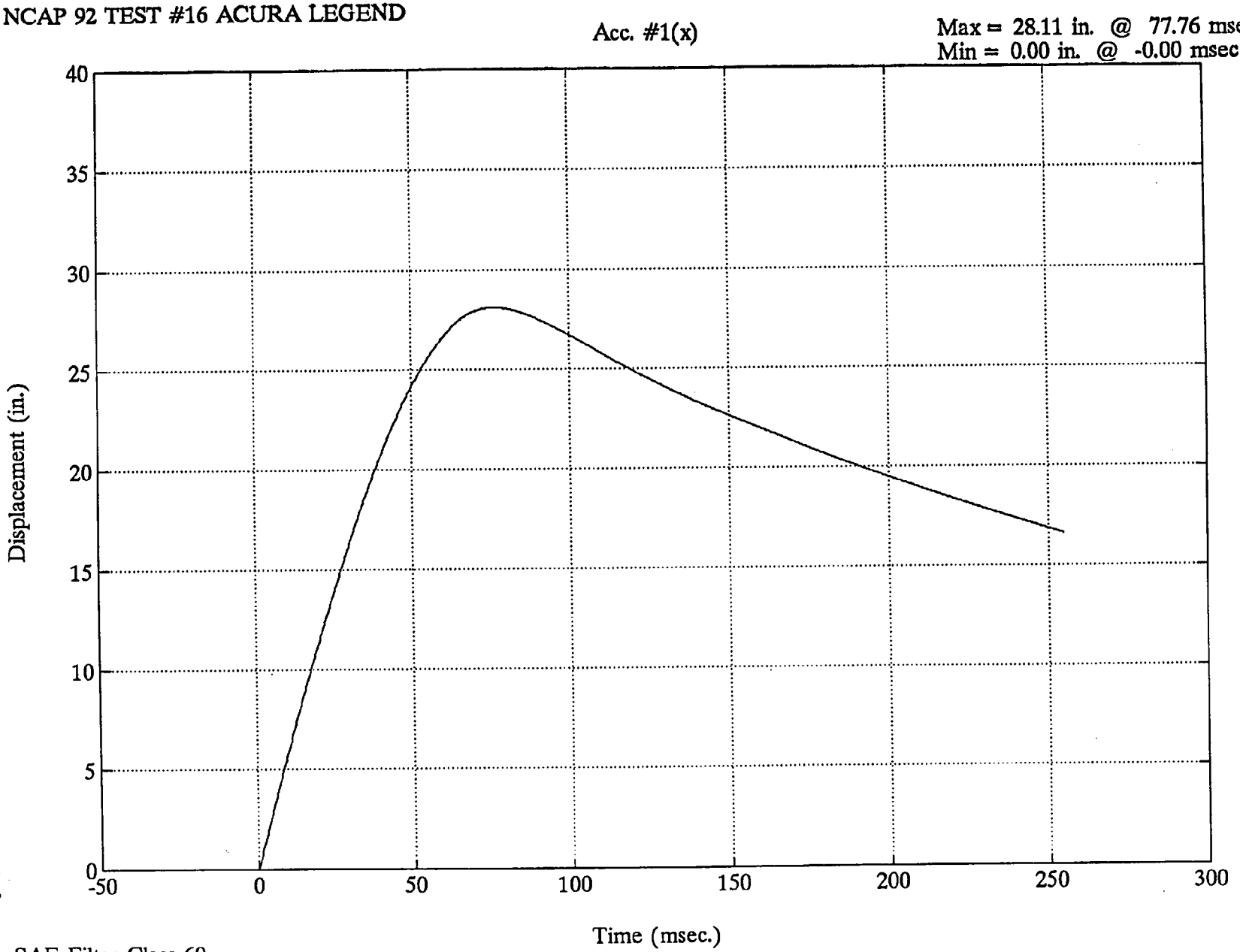
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

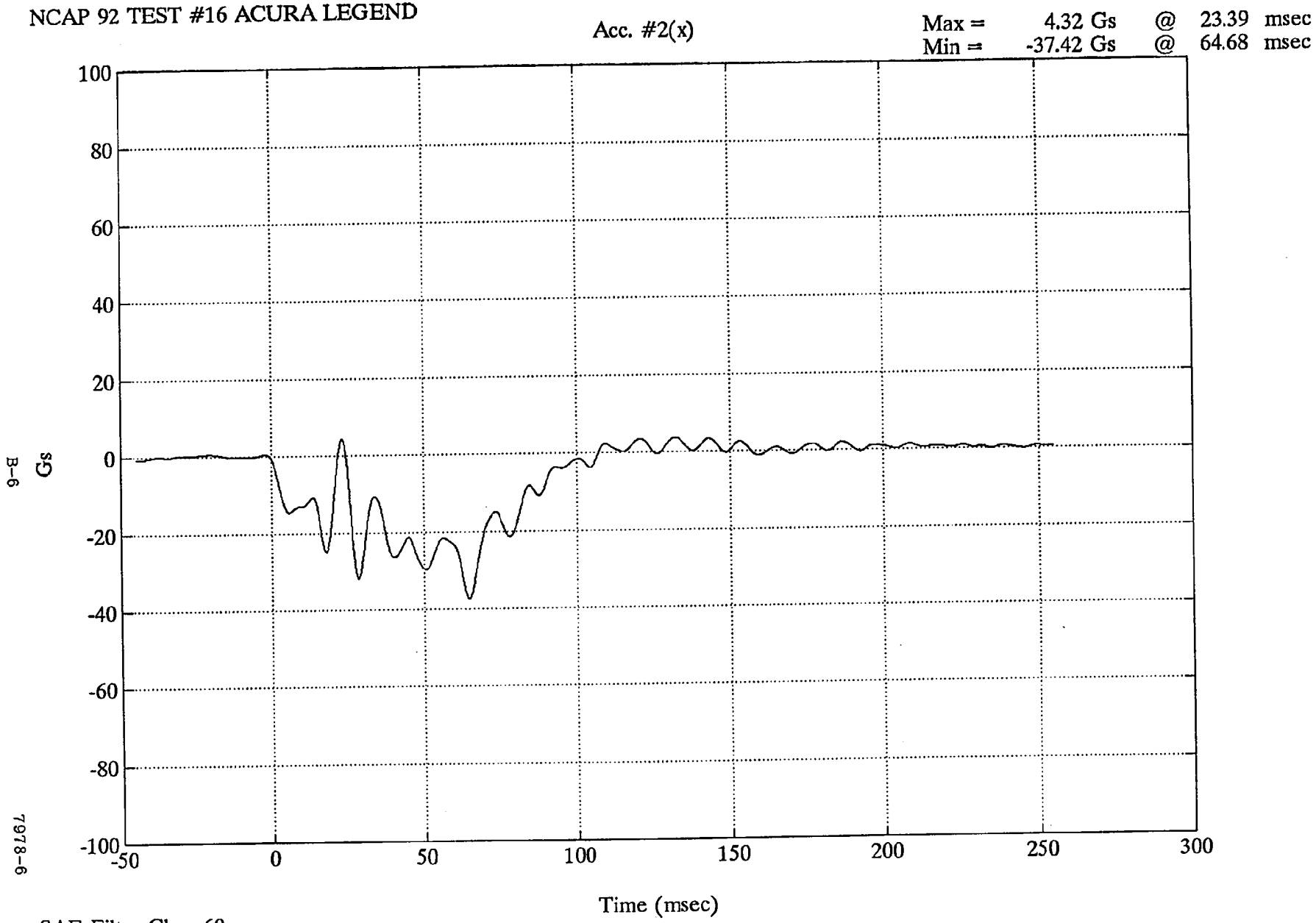
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

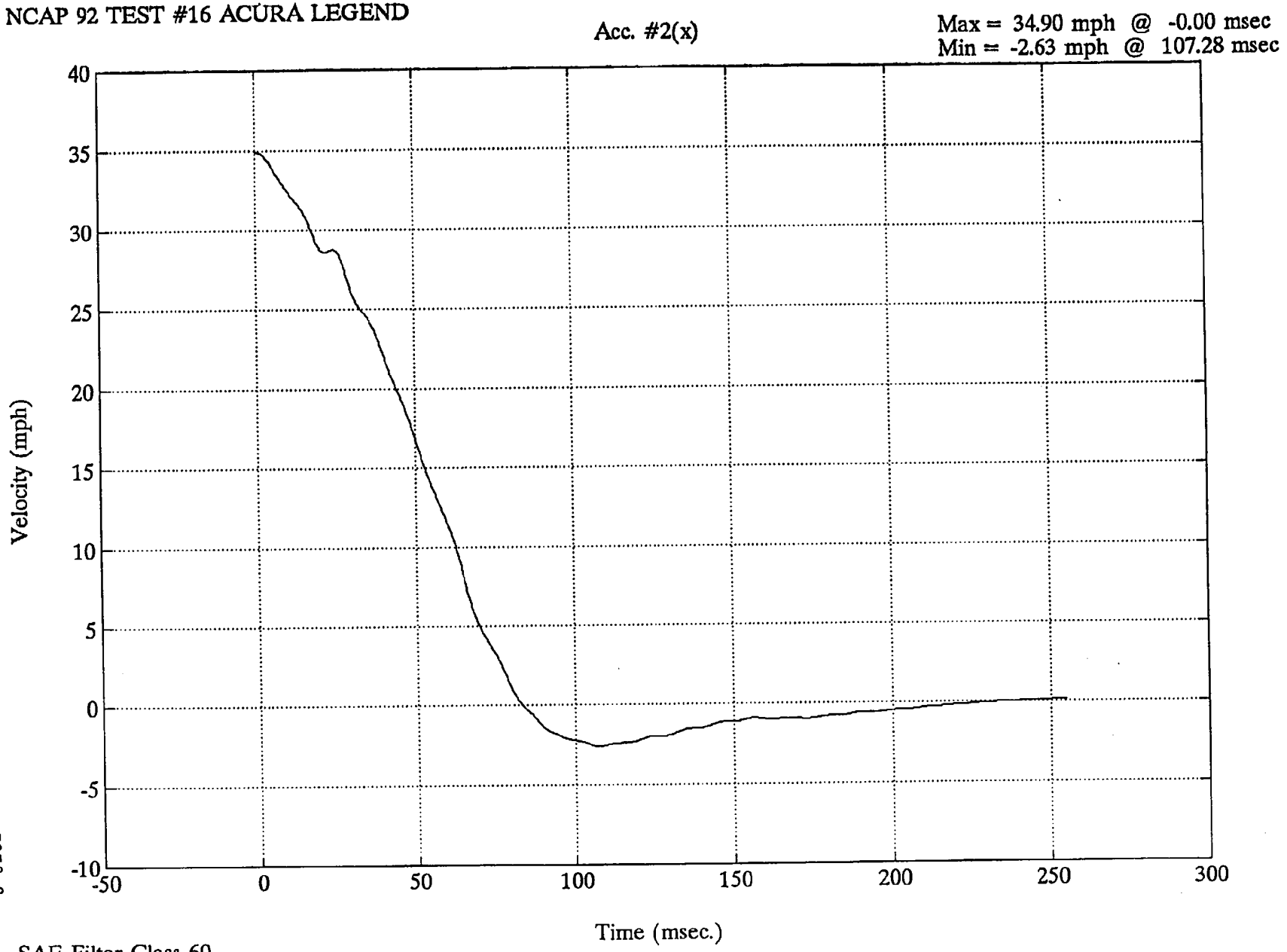
7978-6

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

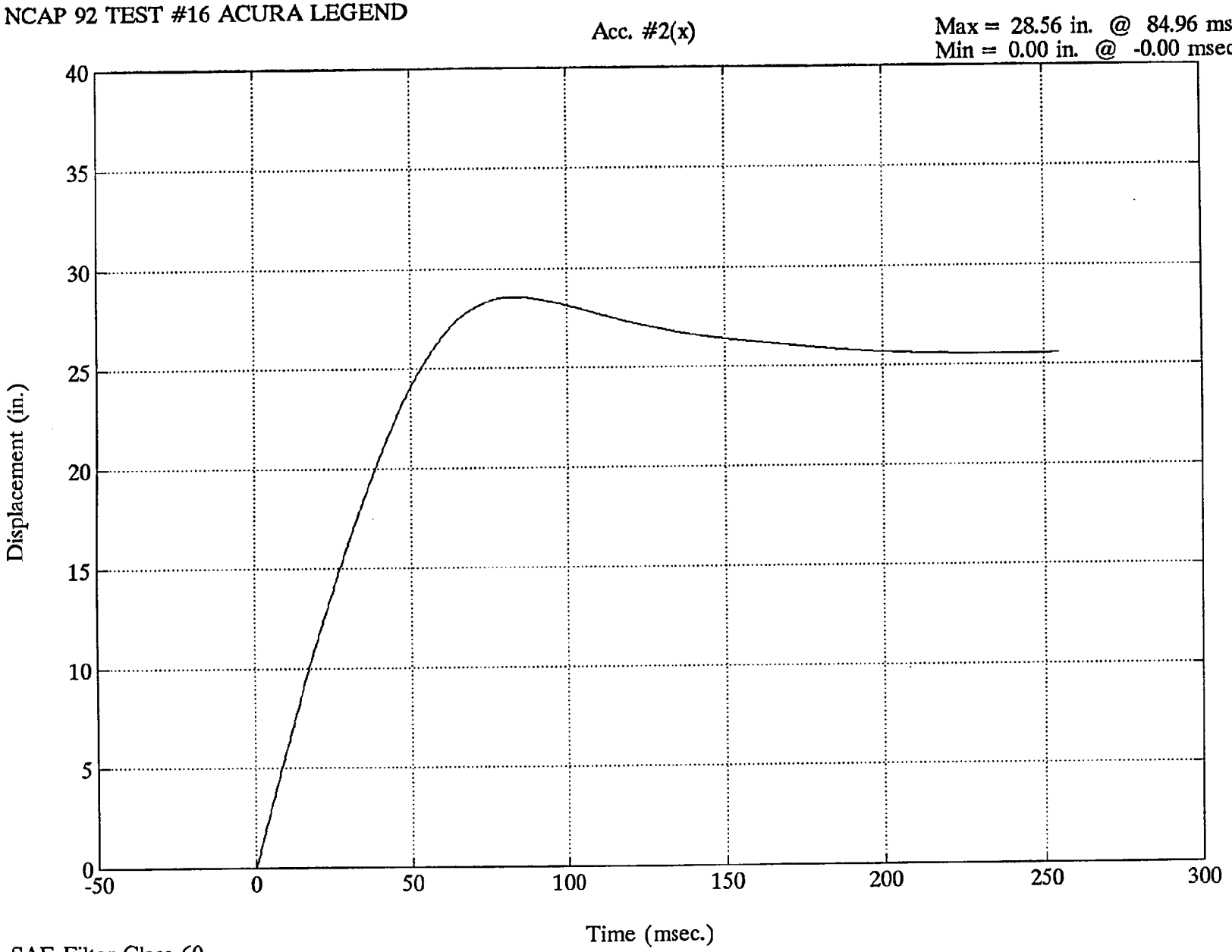
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

7918-6

NCAP 92 TEST #16 ACURA LEGEND



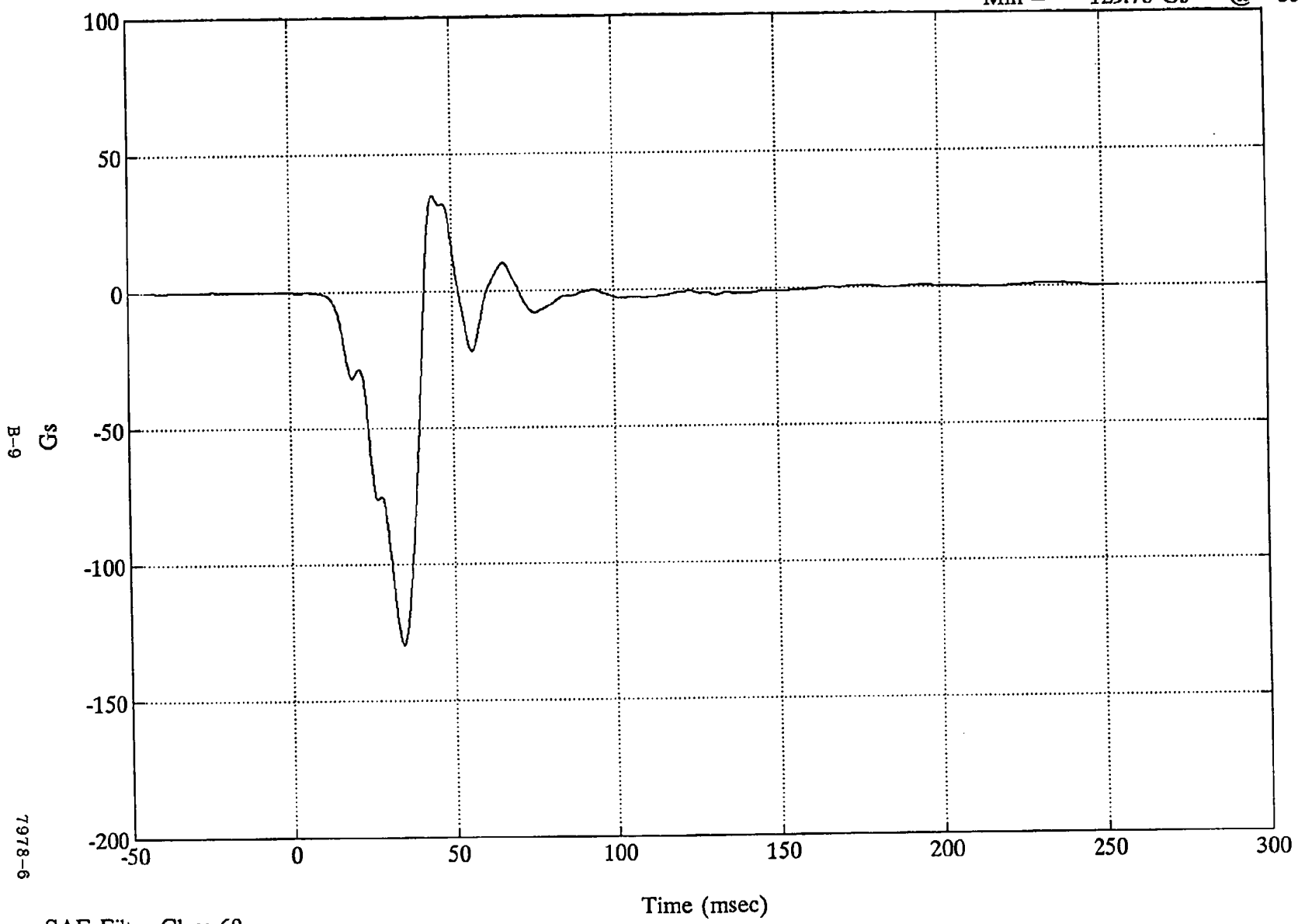
SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #3(x)

Max = 35.02 Gs @ 44.15 msec
Min = -129.70 Gs @ 33.84 msec



B-9

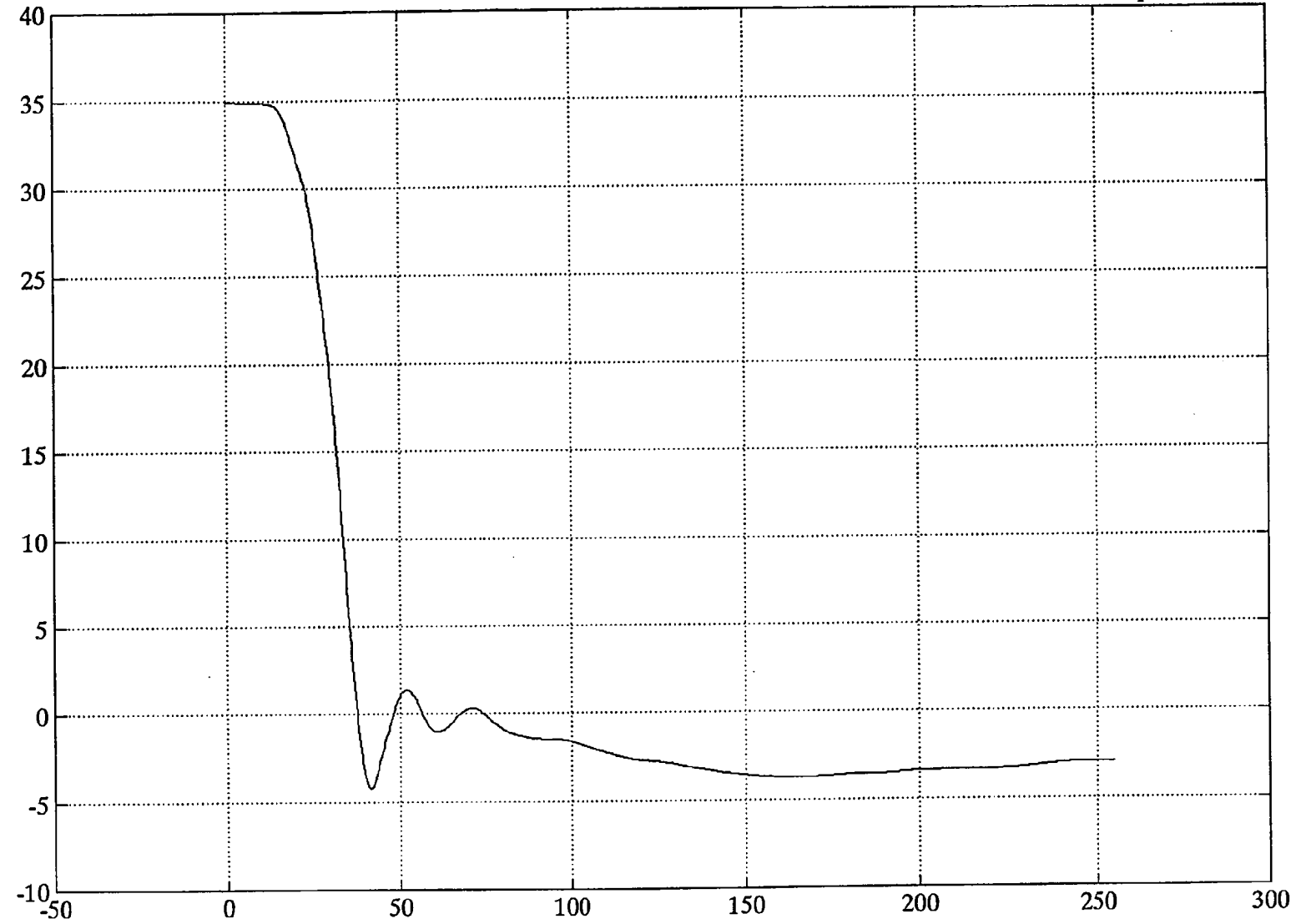
7978-6

SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Acc. #3(x)

Max = 34.90 mph @ 0.48 msec
Min = -4.23 mph @ 41.28 msec



B-10

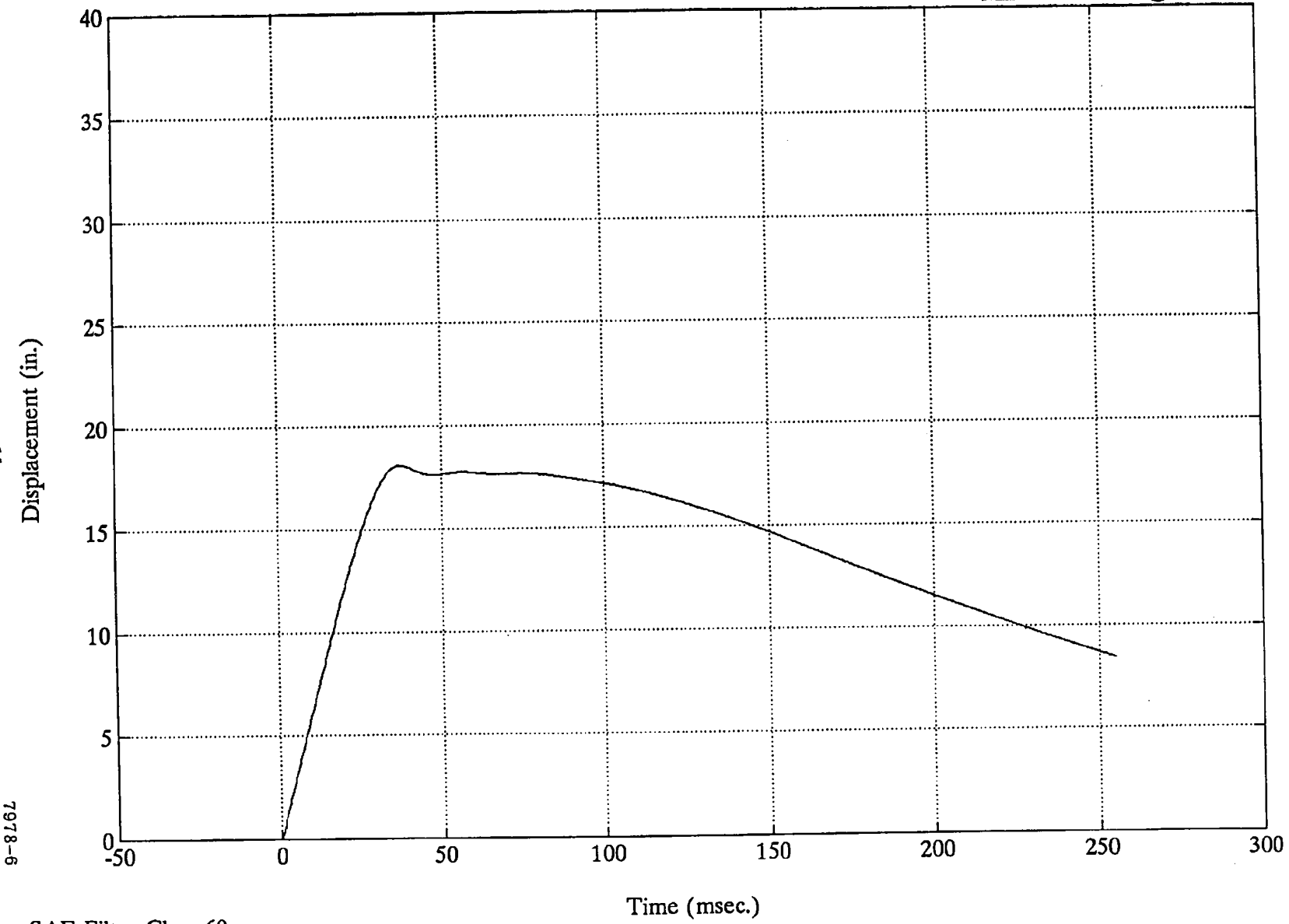
7978-6

SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Acc. #3(x)

Max = 18.08 in. @ 38.16 msec
Min = 0.00 in. @ -0.00 msec



B-11

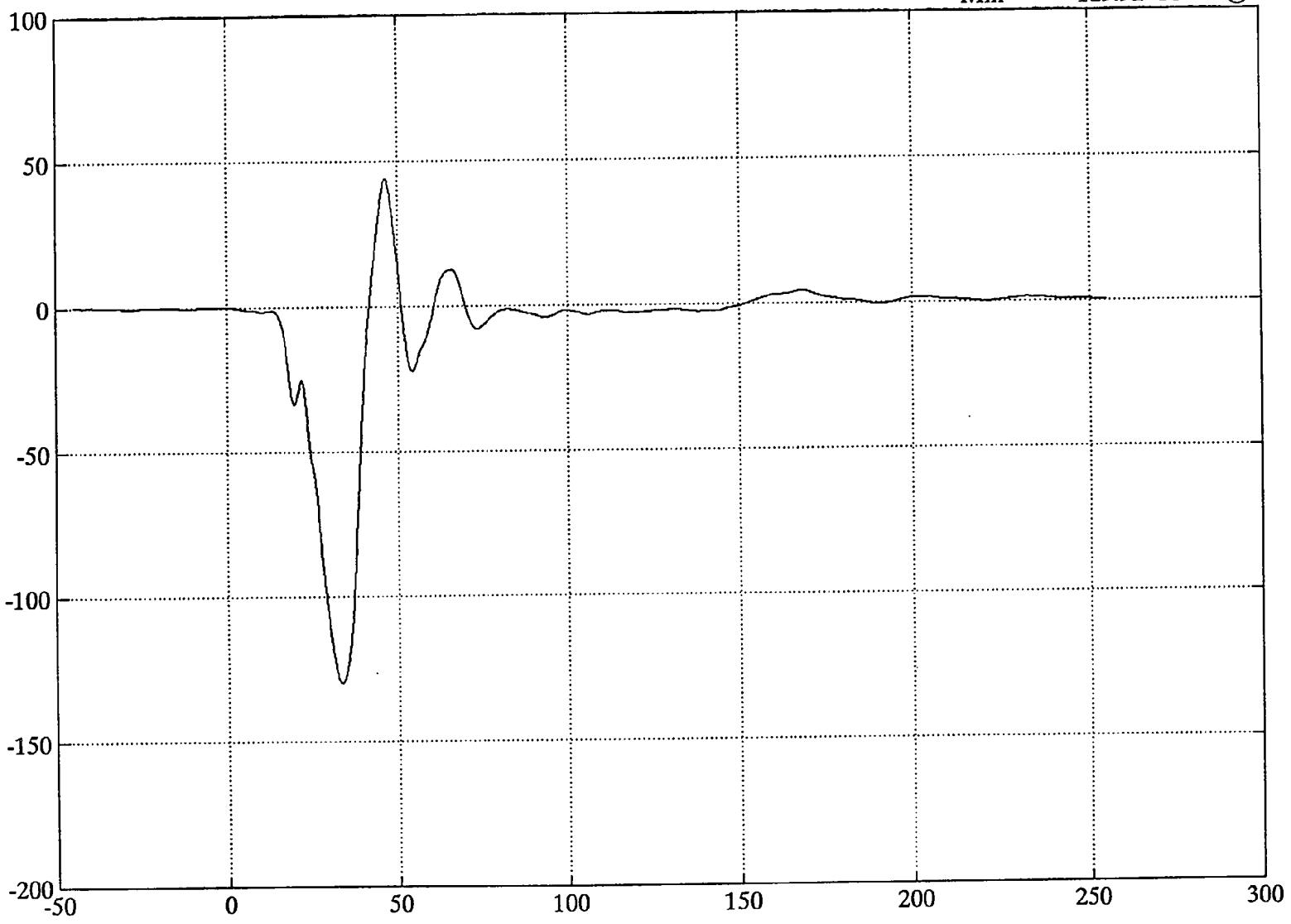
7978-6

SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Acc. #4(x)

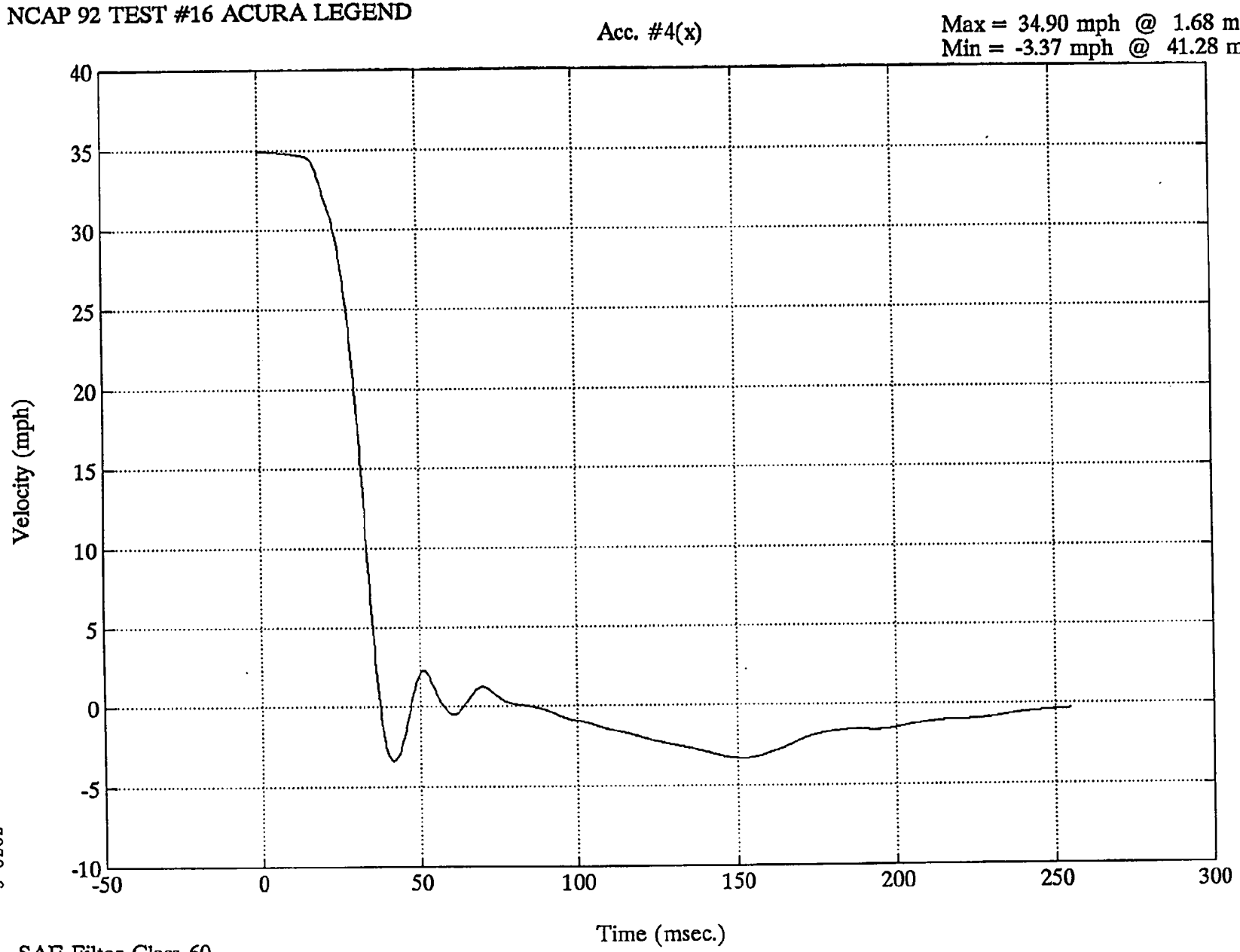
Max = 44.14 Gs @ 46.31 msec
Min = -129.92 Gs @ 33.11 msec



SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND



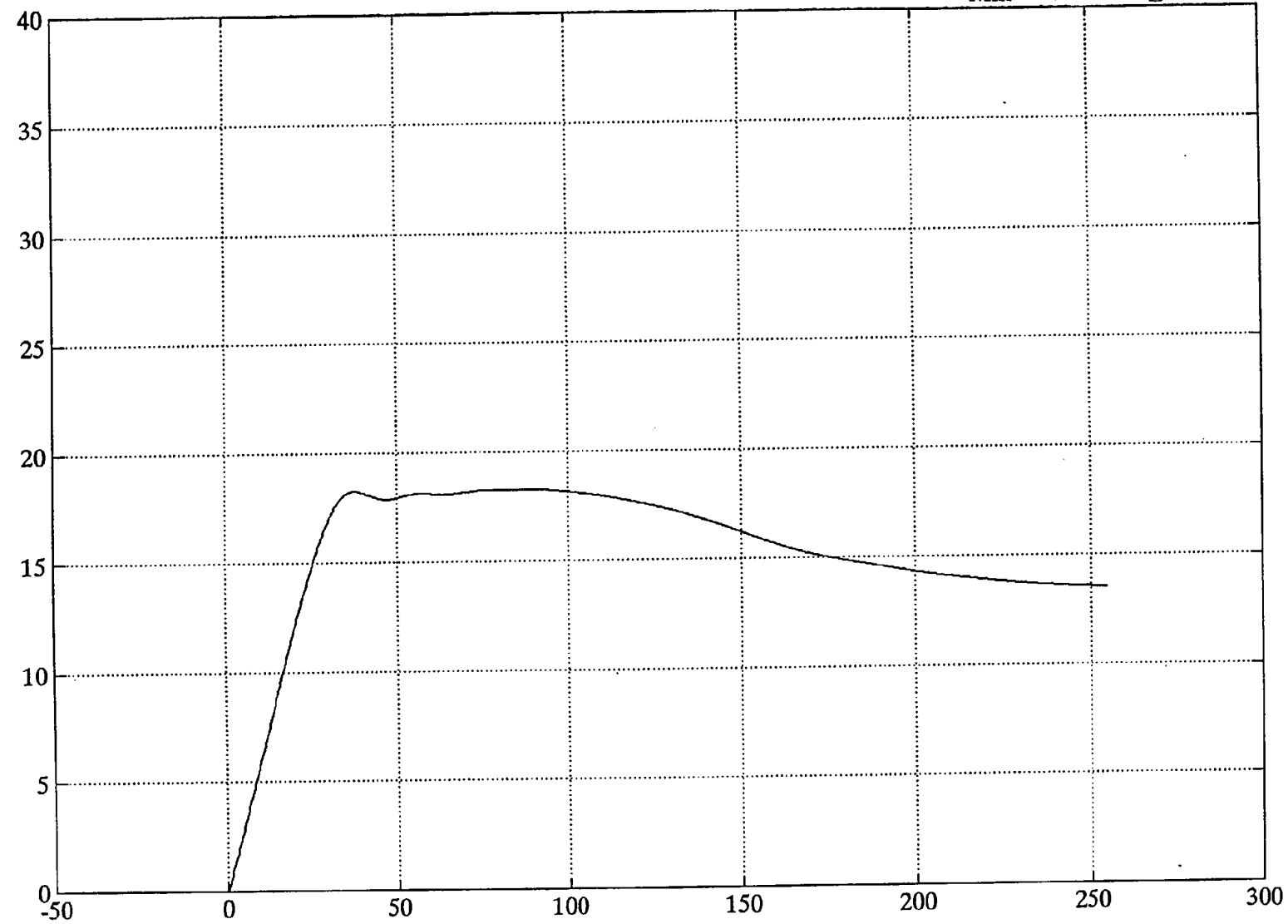
SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #4(x)

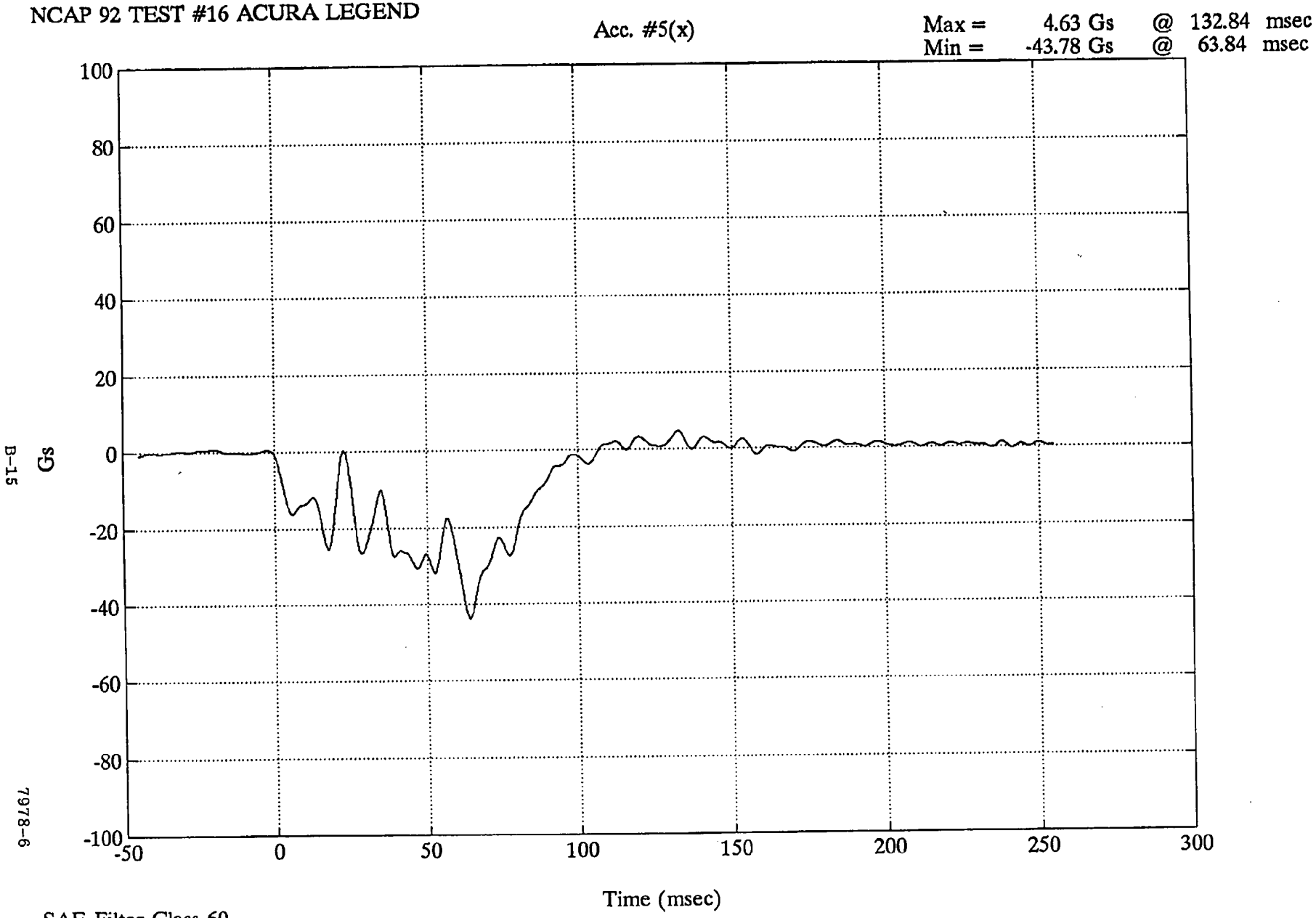
Max = 18.28 in. @ 88.32 msec
Min = 0.00 in. @ -0.00 msec



SAE Filter Class 60

7978-6

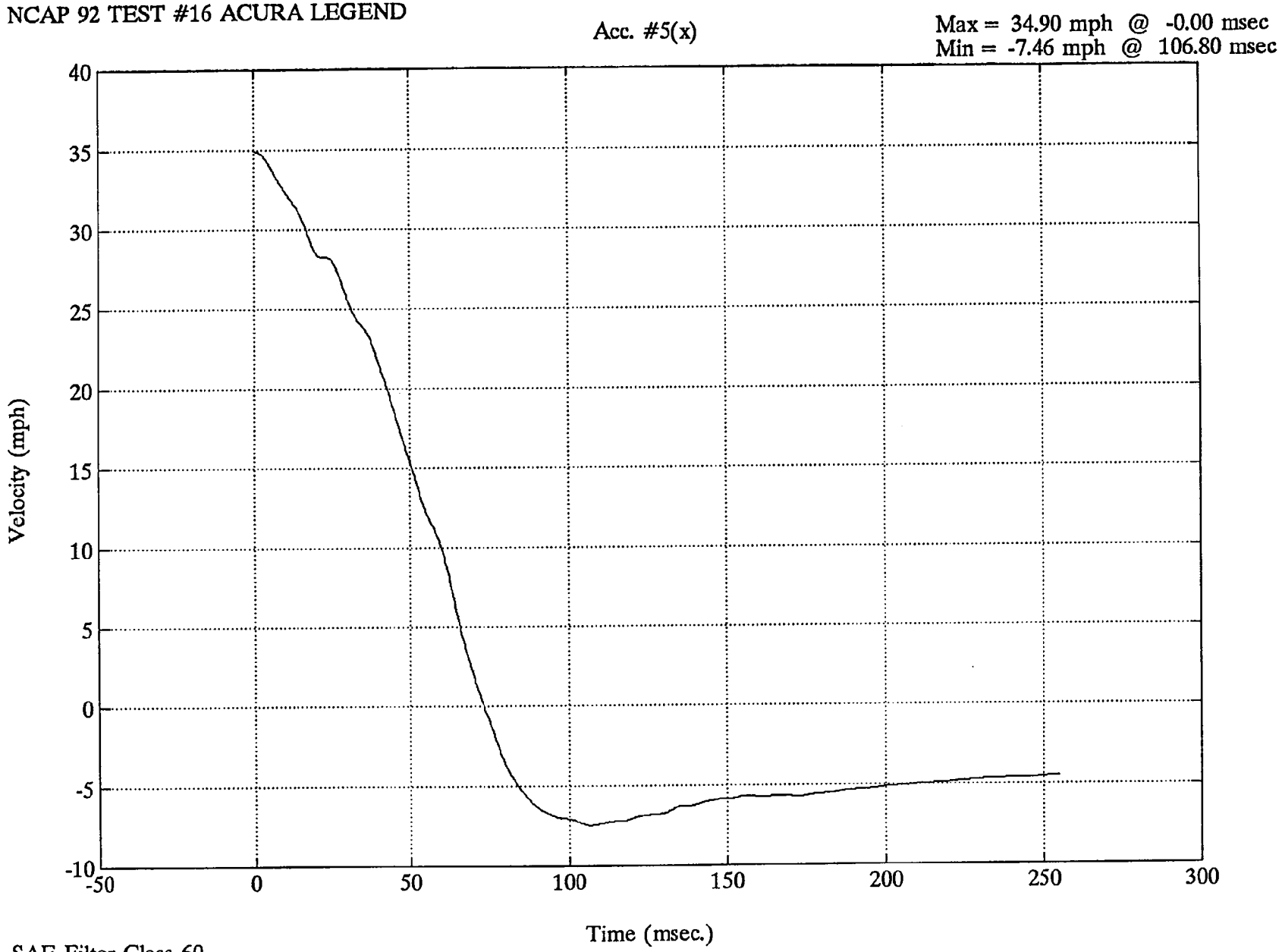
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

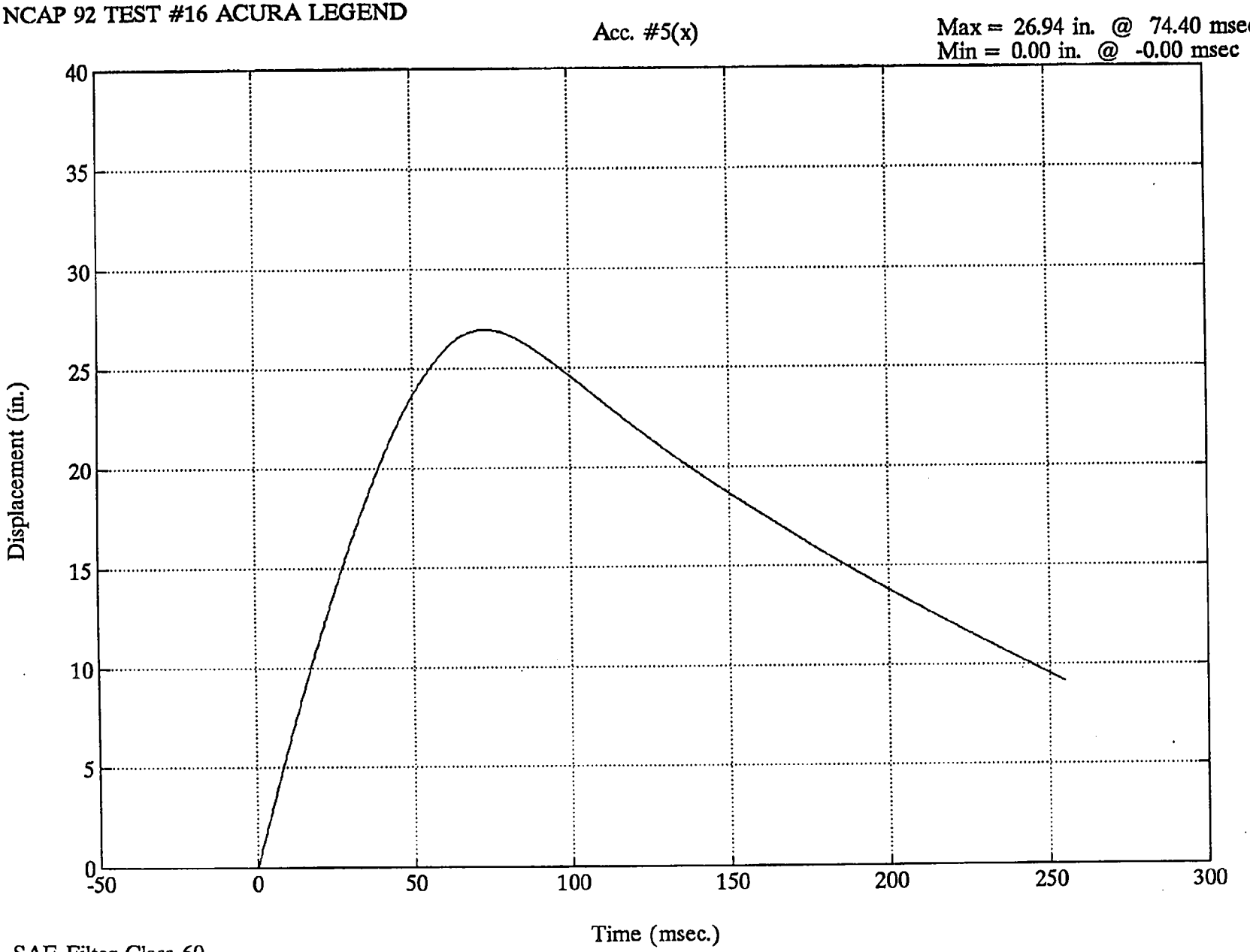
7978-6

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



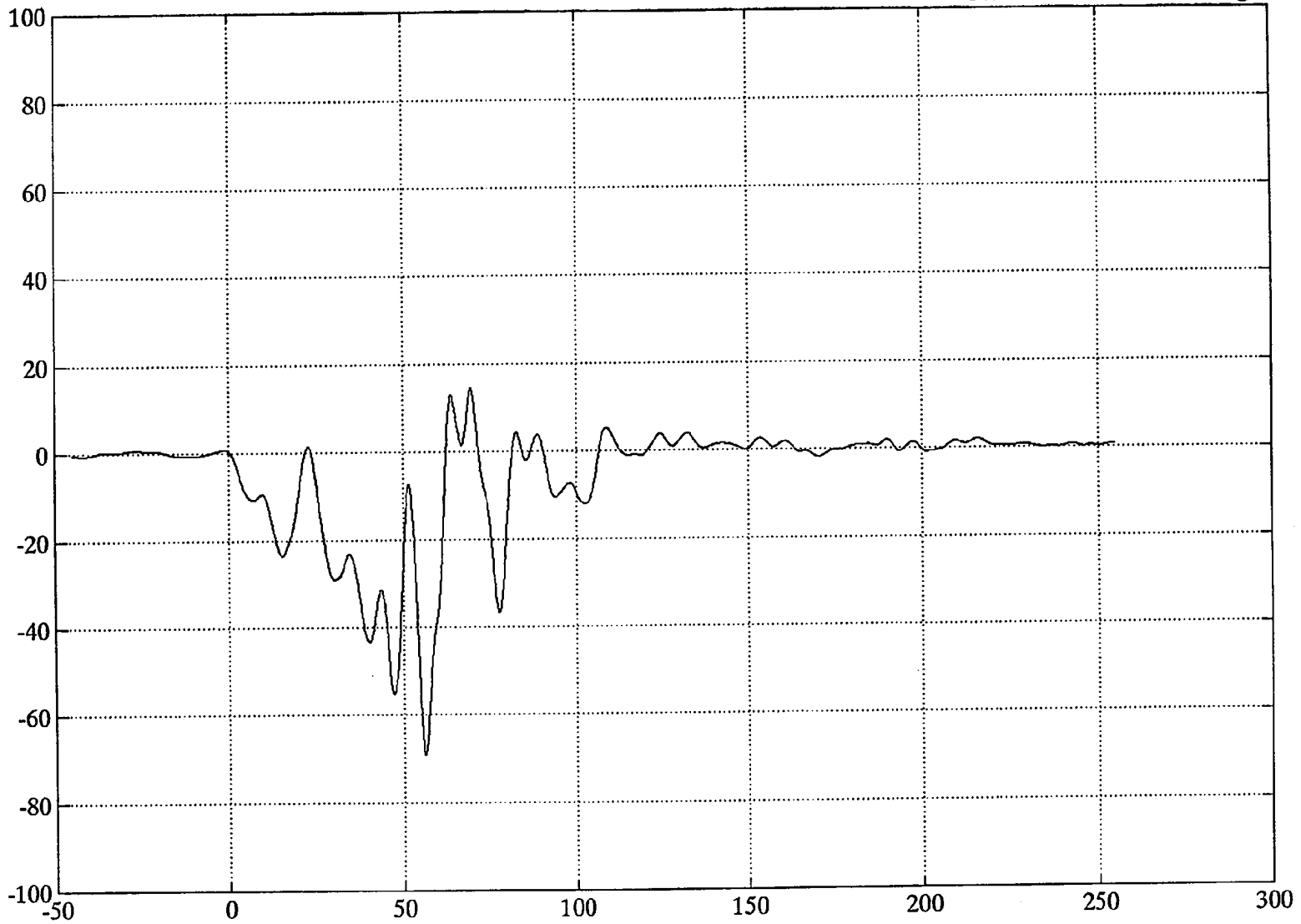
SAE Filter Class 60

7878-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #7(x)

Max = 14.56 Gs @ 69.48 msec
Min = -69.11 Gs @ 56.15 msec



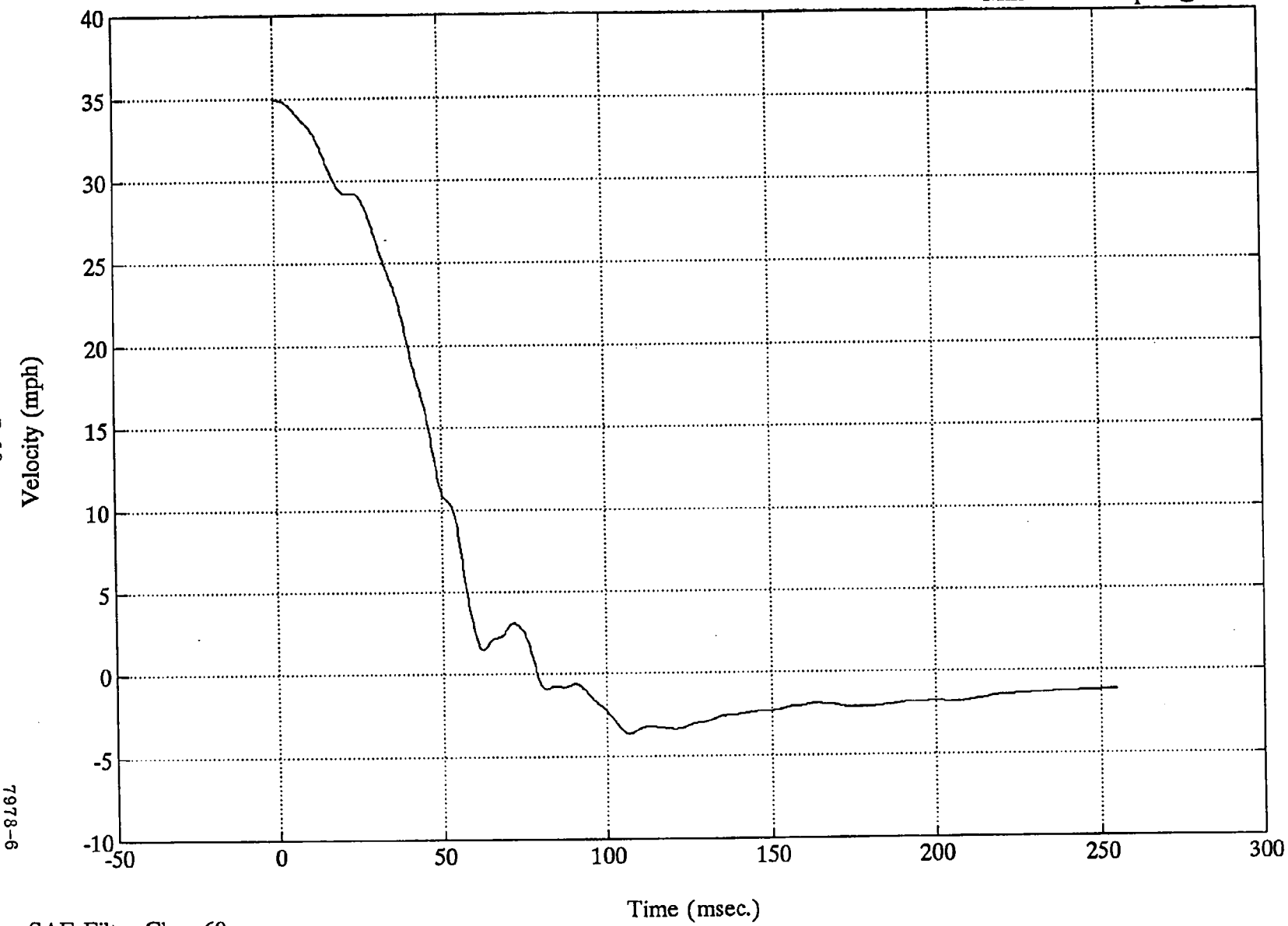
SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #7(x)

Max = 34.90 mph @ 0.72 msec
Min = -3.66 mph @ 106.56 msec

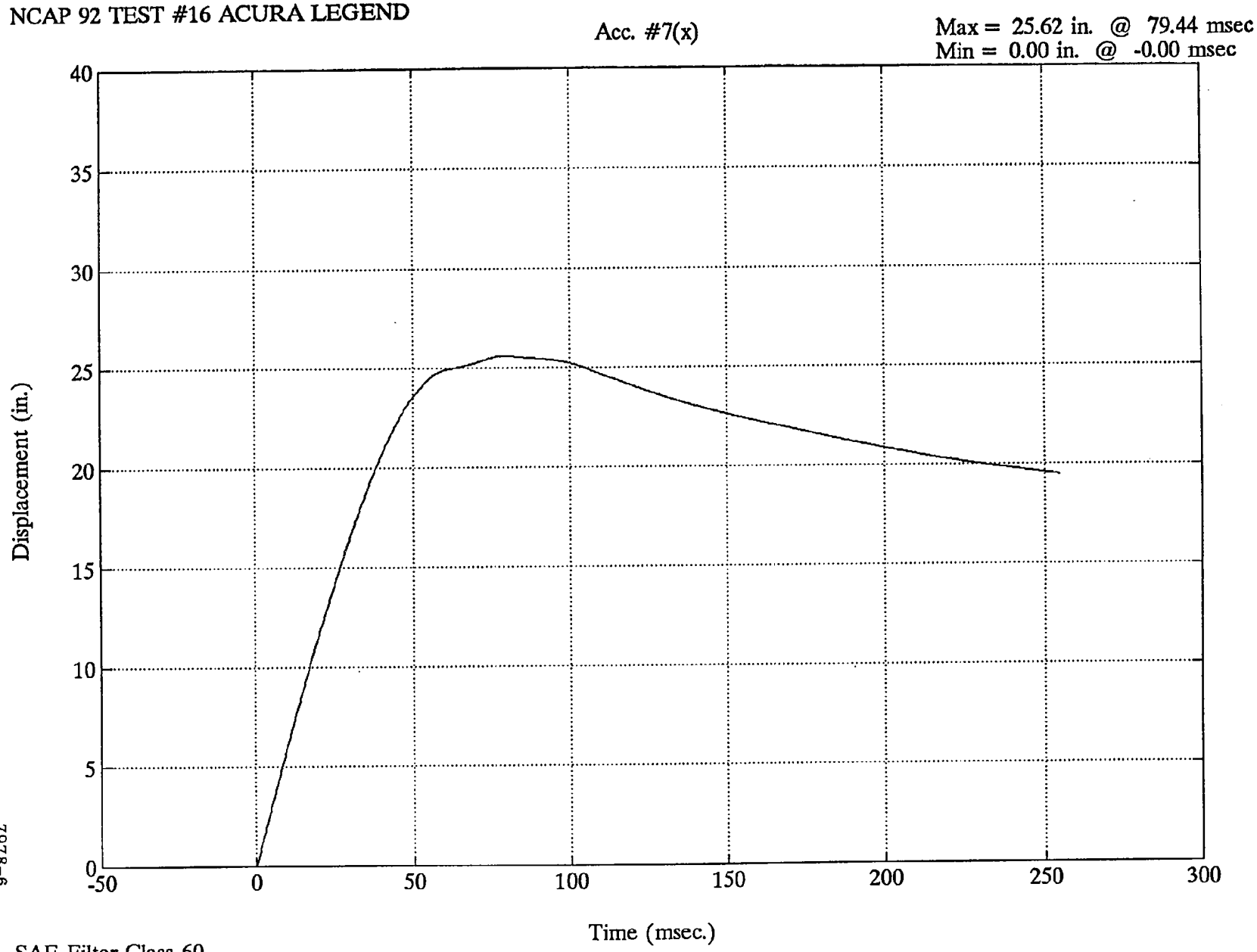


B-19

7978-6

SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



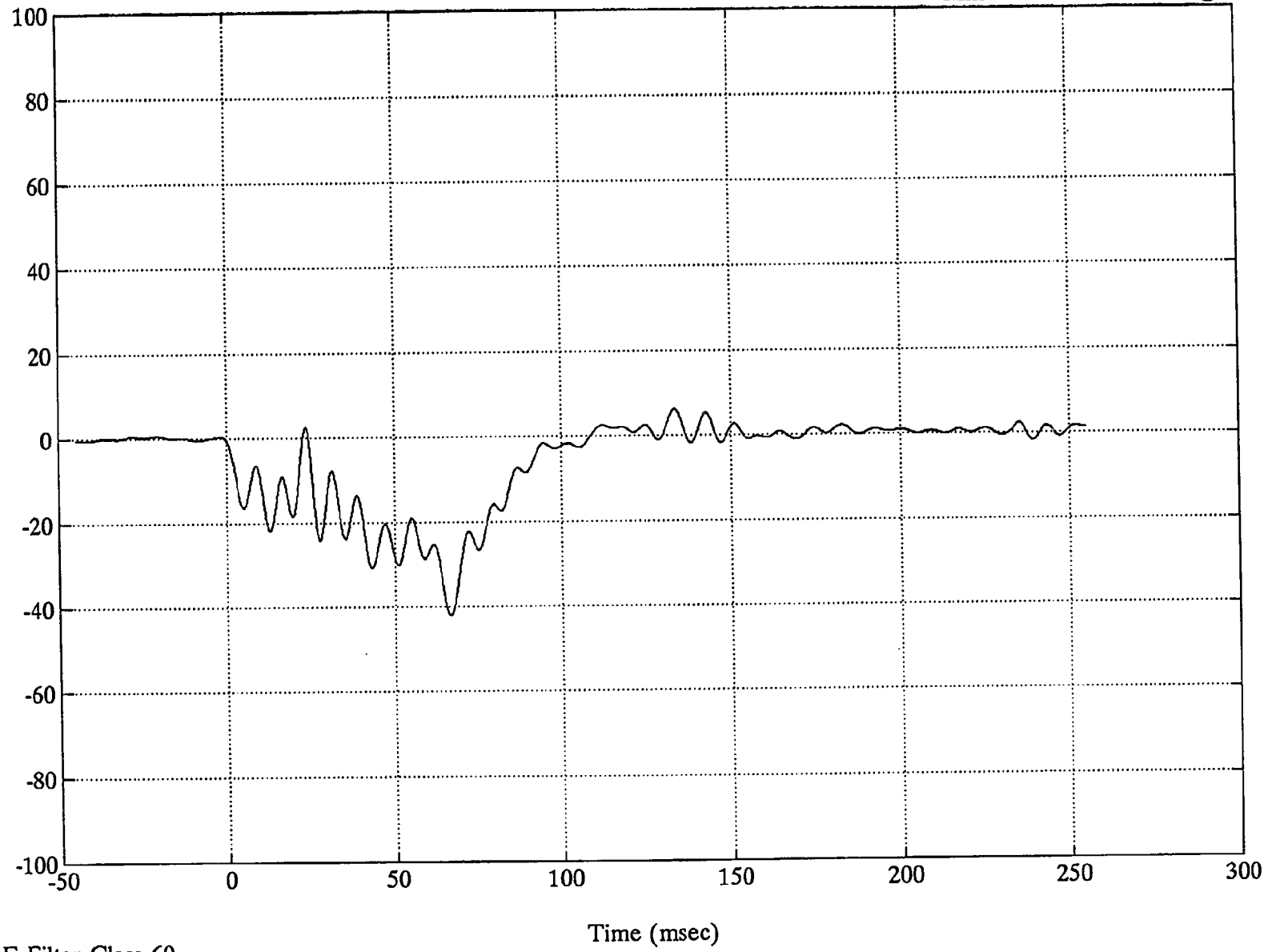
SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #8(x)

Max = 6.20 Gs @ 133.44 msec
Min = -42.07 Gs @ 66.72 msec

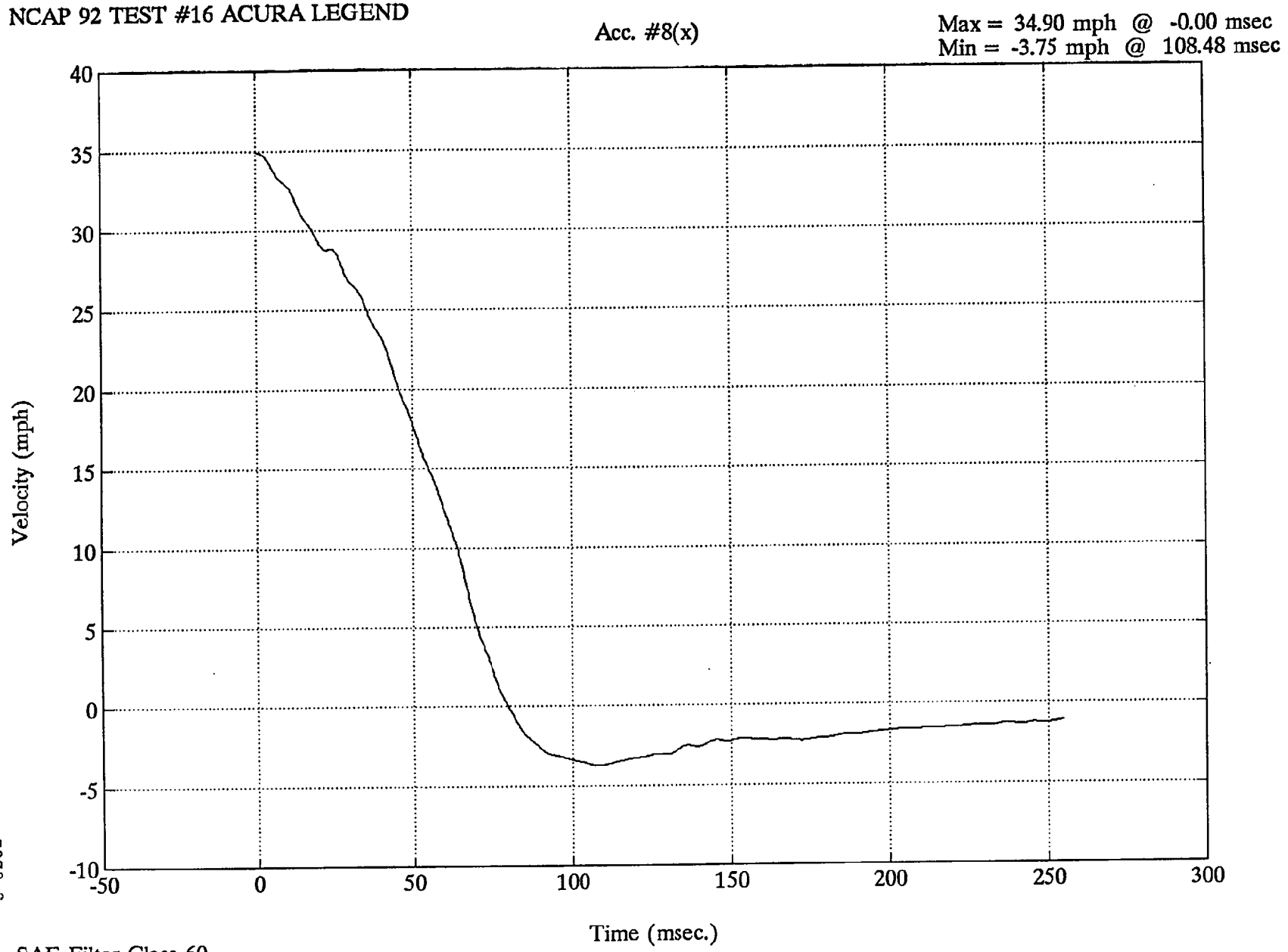


B-21

7978-6

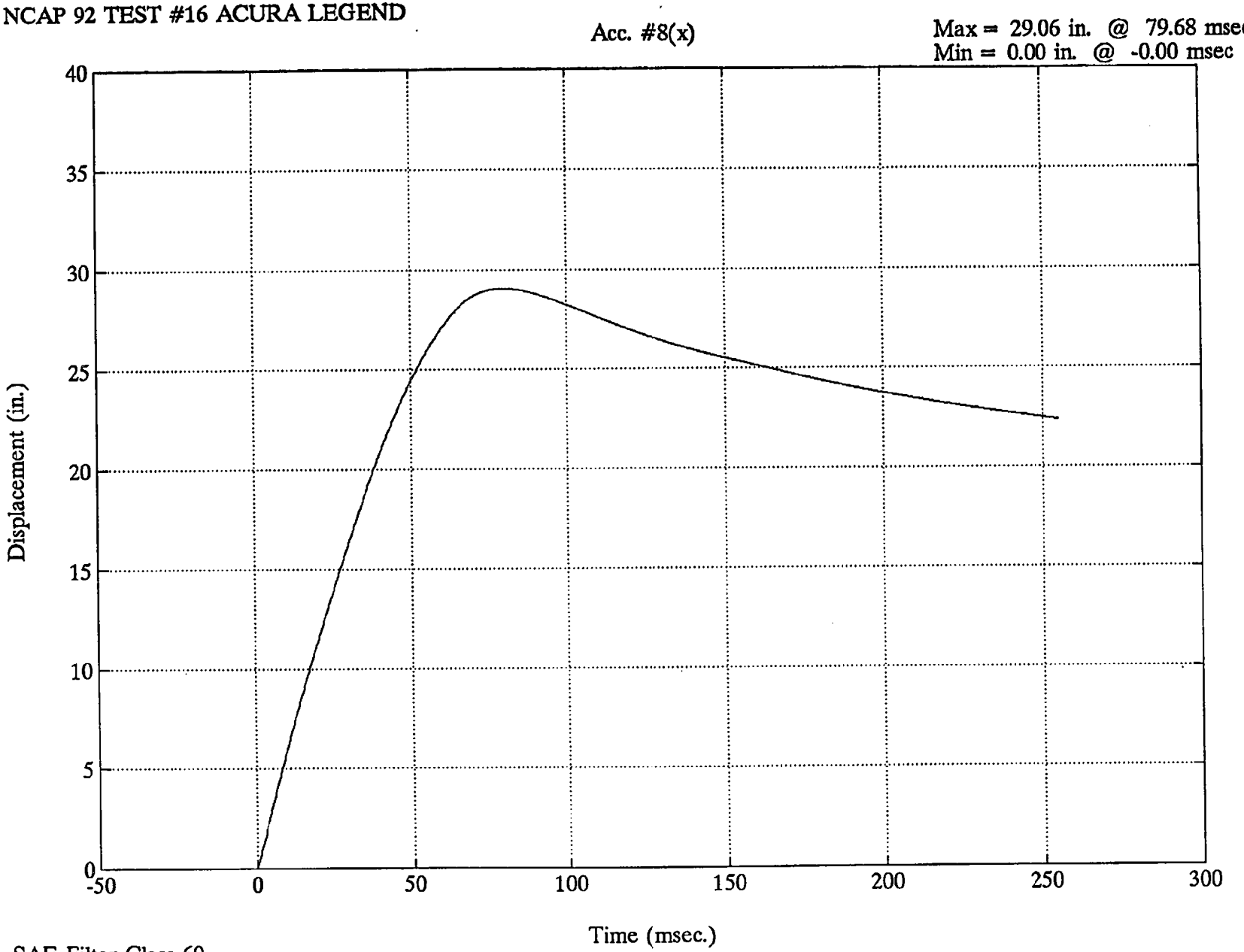
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



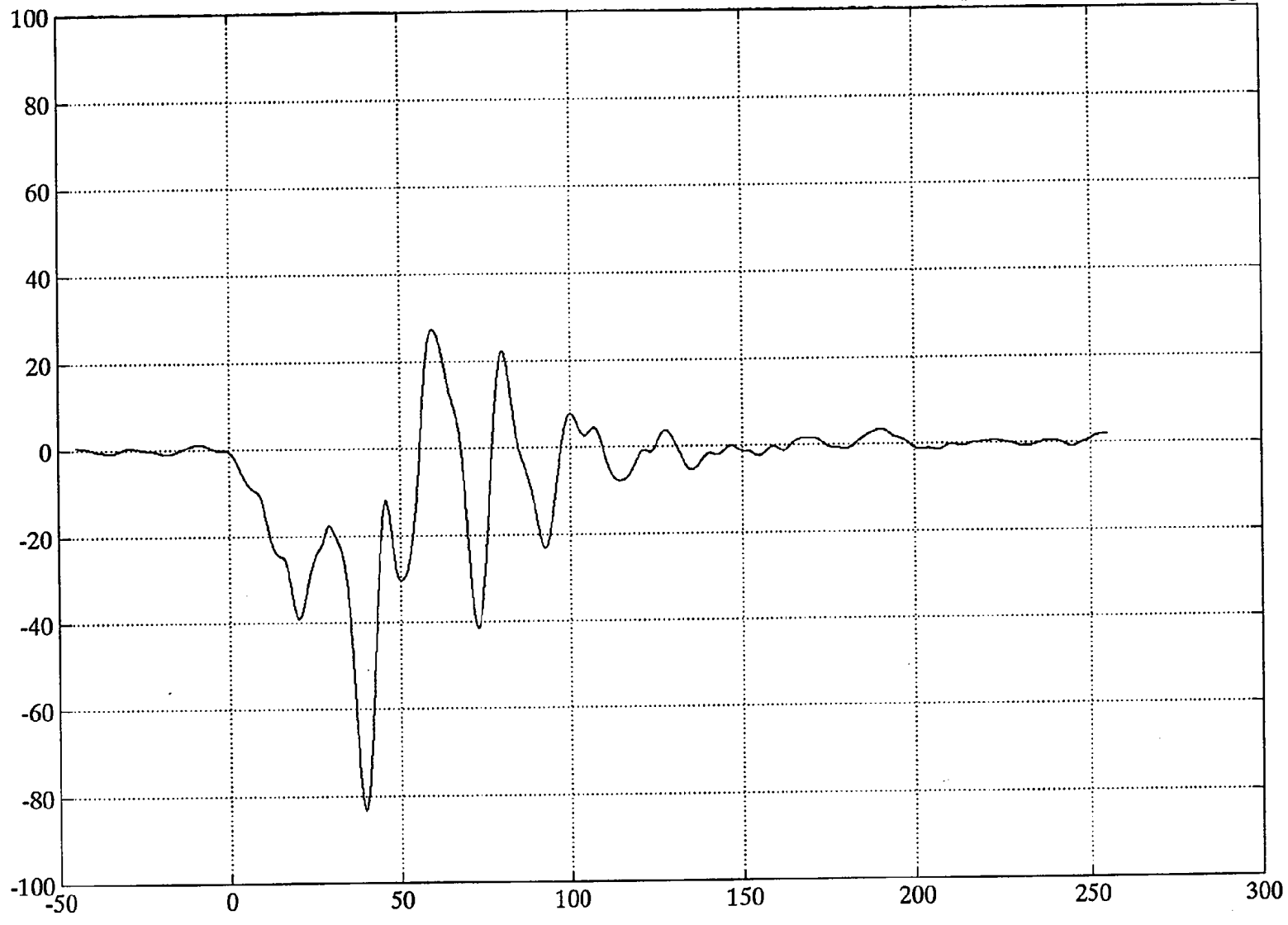
SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #9(x)

Max = 27.35 Gs @ 59.40 msec
Min = -83.34 Gs @ 39.36 msec



SAE Filter Class 60

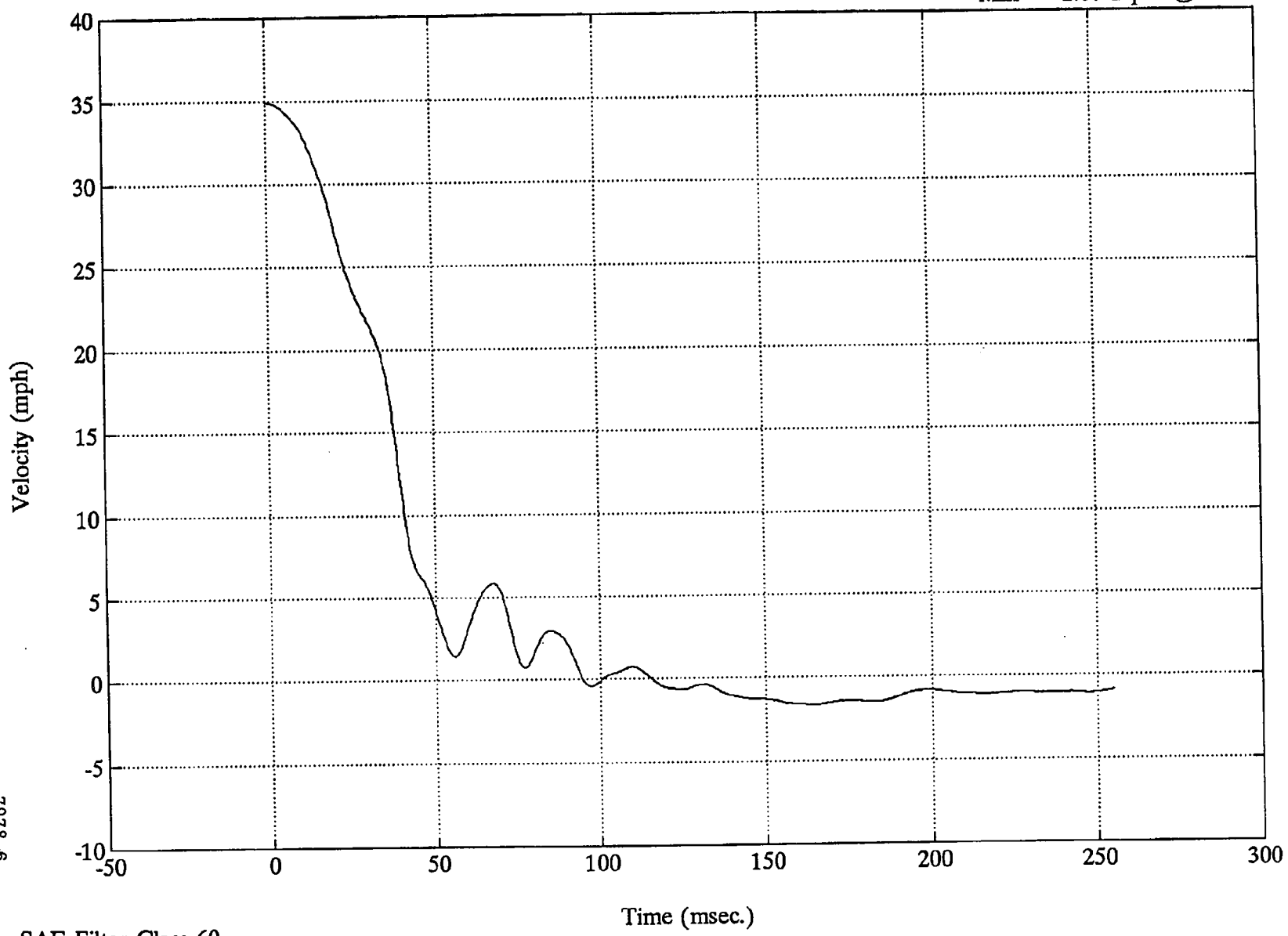
B-24

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Acc. #9(x)

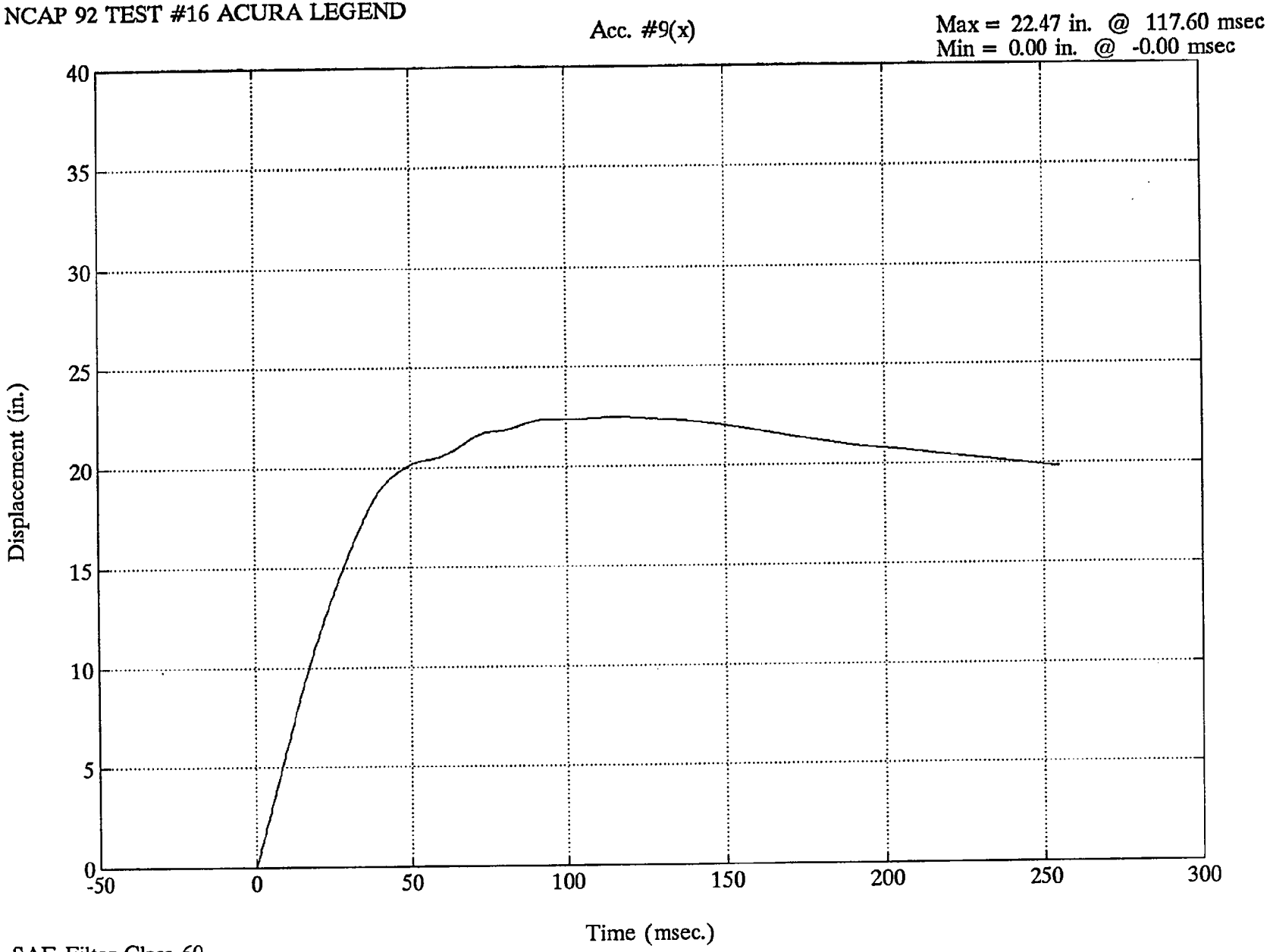
Max = 34.90 mph @ -0.00 msec
Min = -1.67 mph @ 164.40 msec



SAE Filter Class 60

7078-6

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

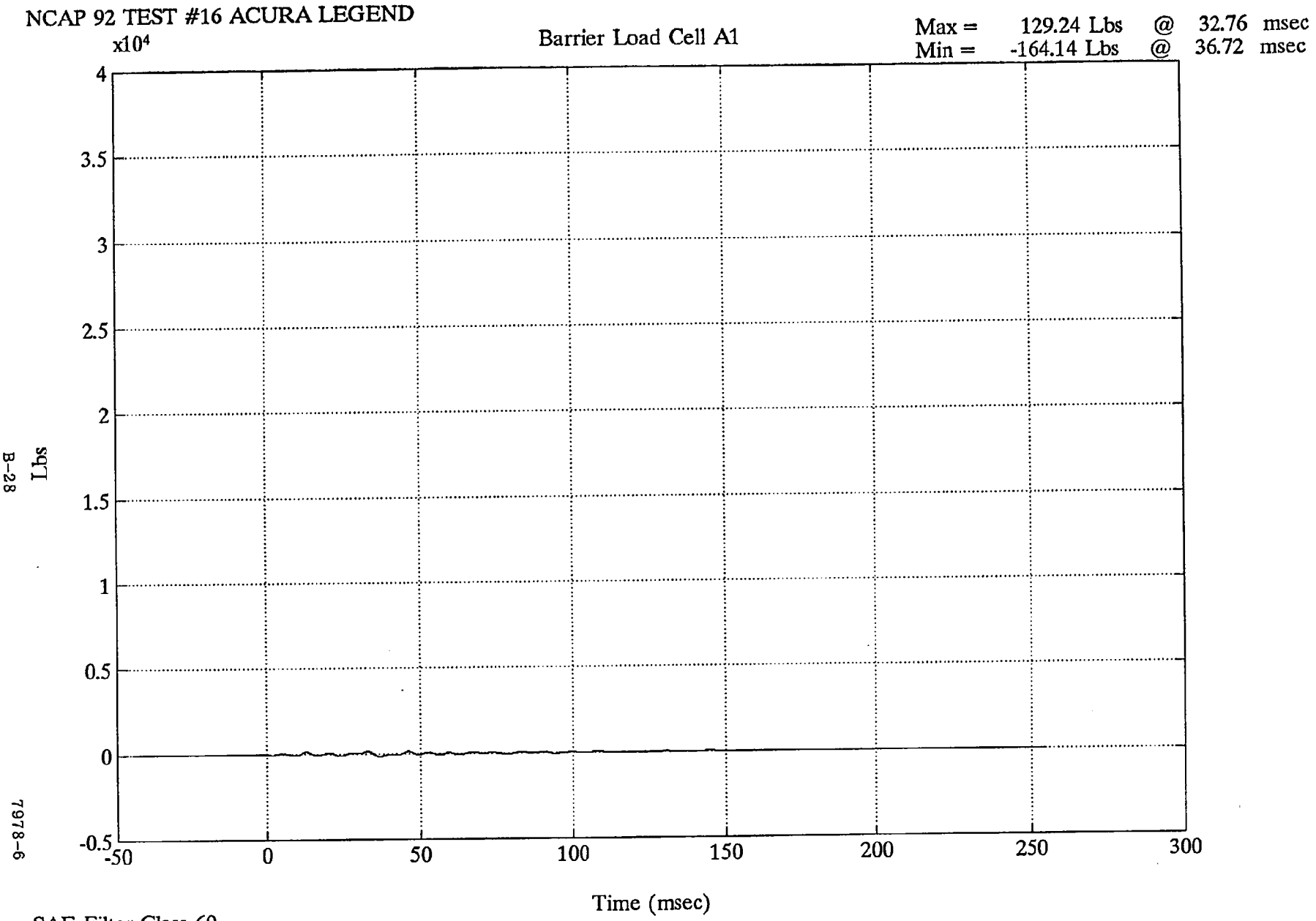
TEST NO. MN5301

LOAD CELL BARRIER DATA

FILTER CHANNEL CLASS

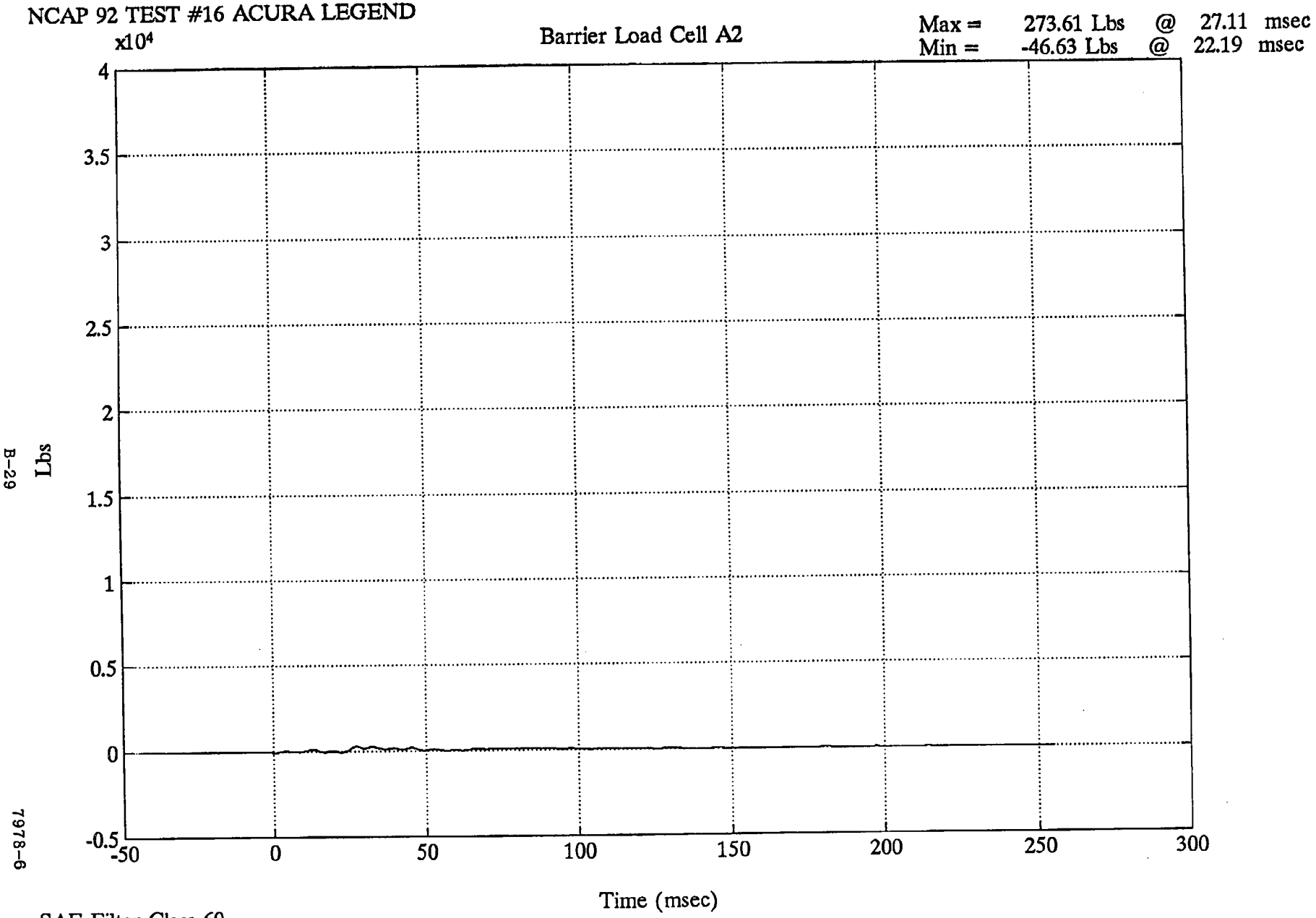
60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

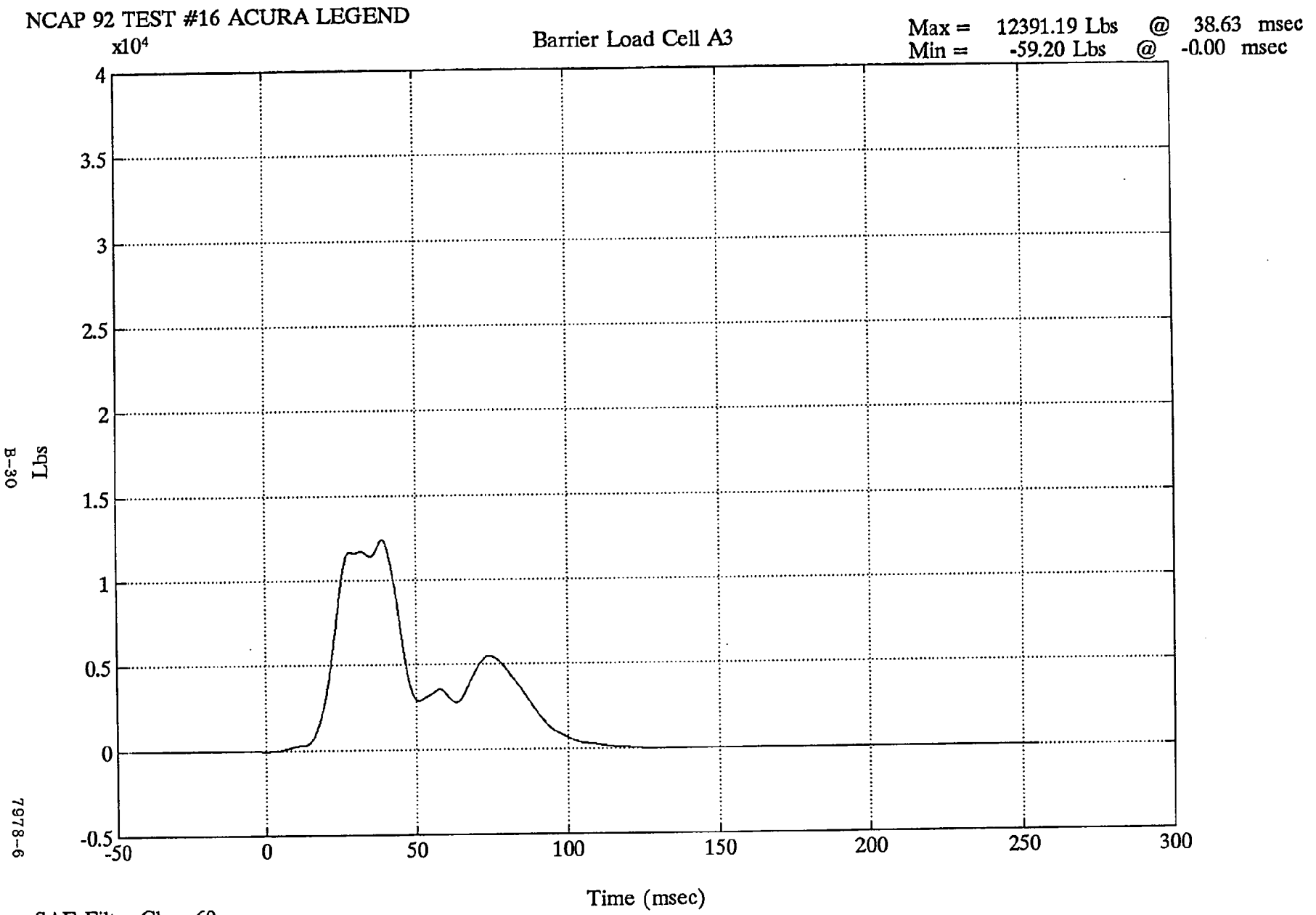


B-29

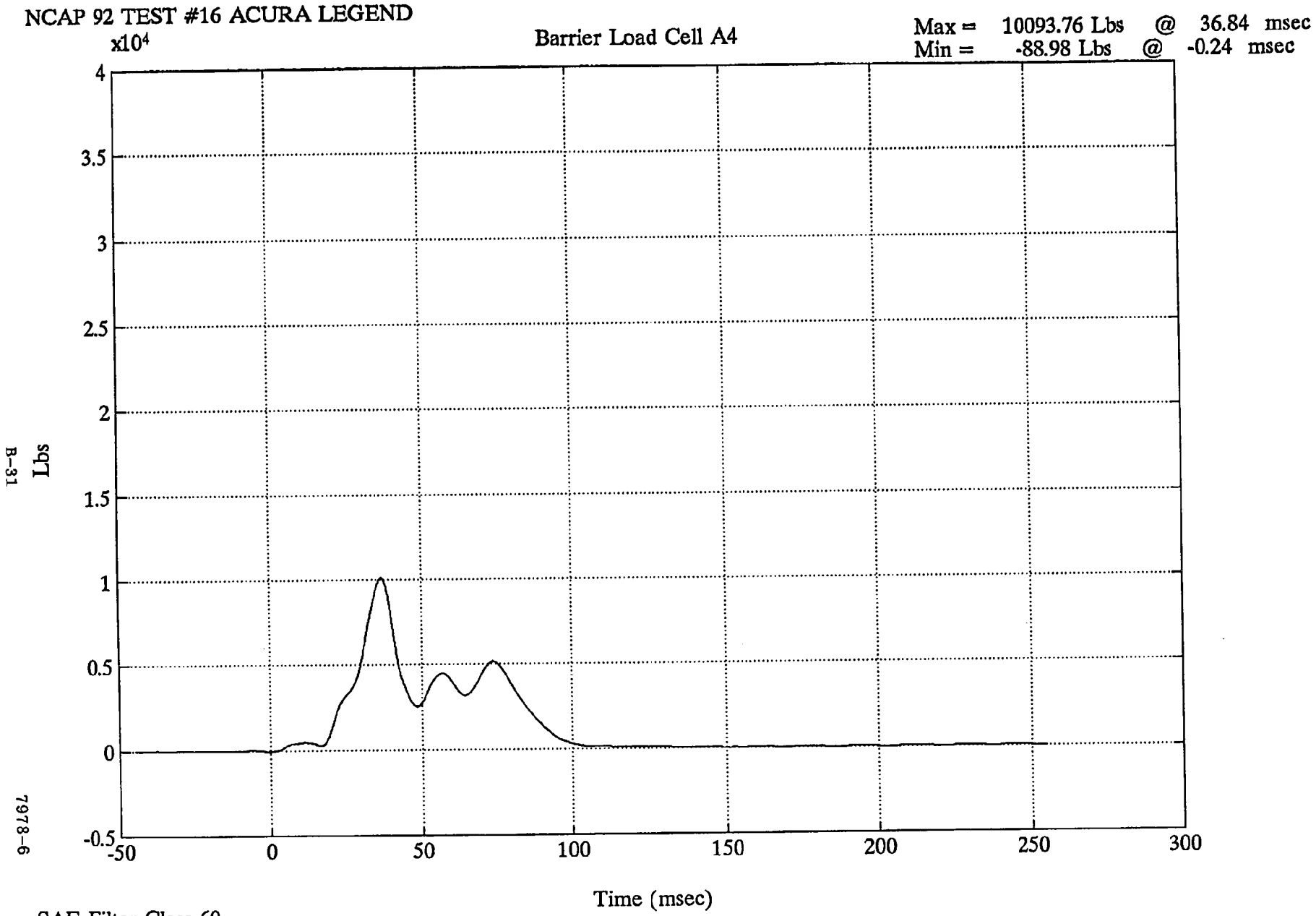
7978-6

SAE Filter Class 60

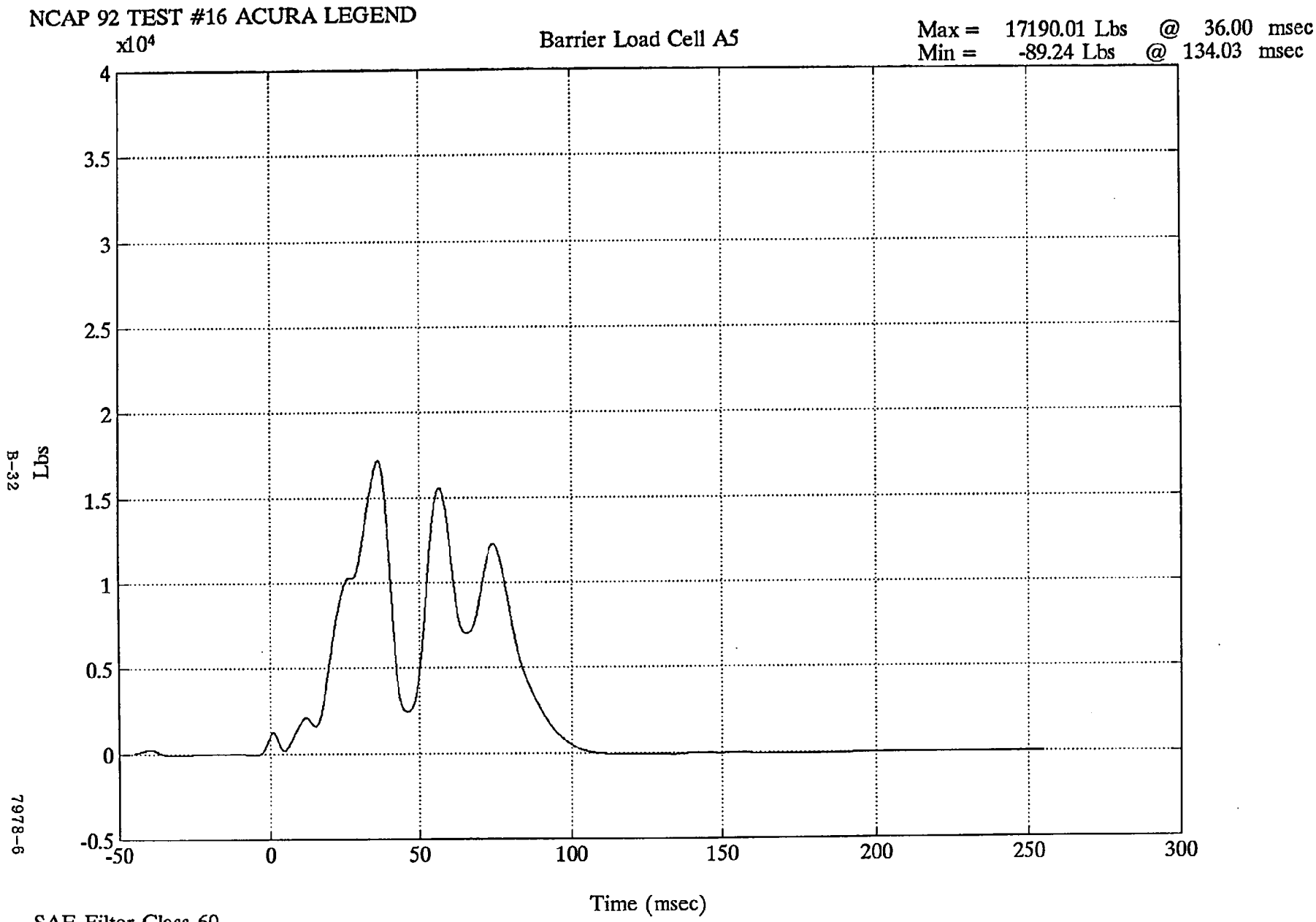
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60


NCAP 92 TEST #16 ACURA LEGEND
Barrier Load Cell A4
Max = 10093.76 Lbs @ 36.84 msec
Min = -88.98 Lbs @ -0.24 msec
x10^4
4
3.5
3
2.5
2
1.5
1
0.5
0
-0.5
Lbs
-50
0
50
100
150
200
250
300
Time (msec)
B-31
7978-6
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

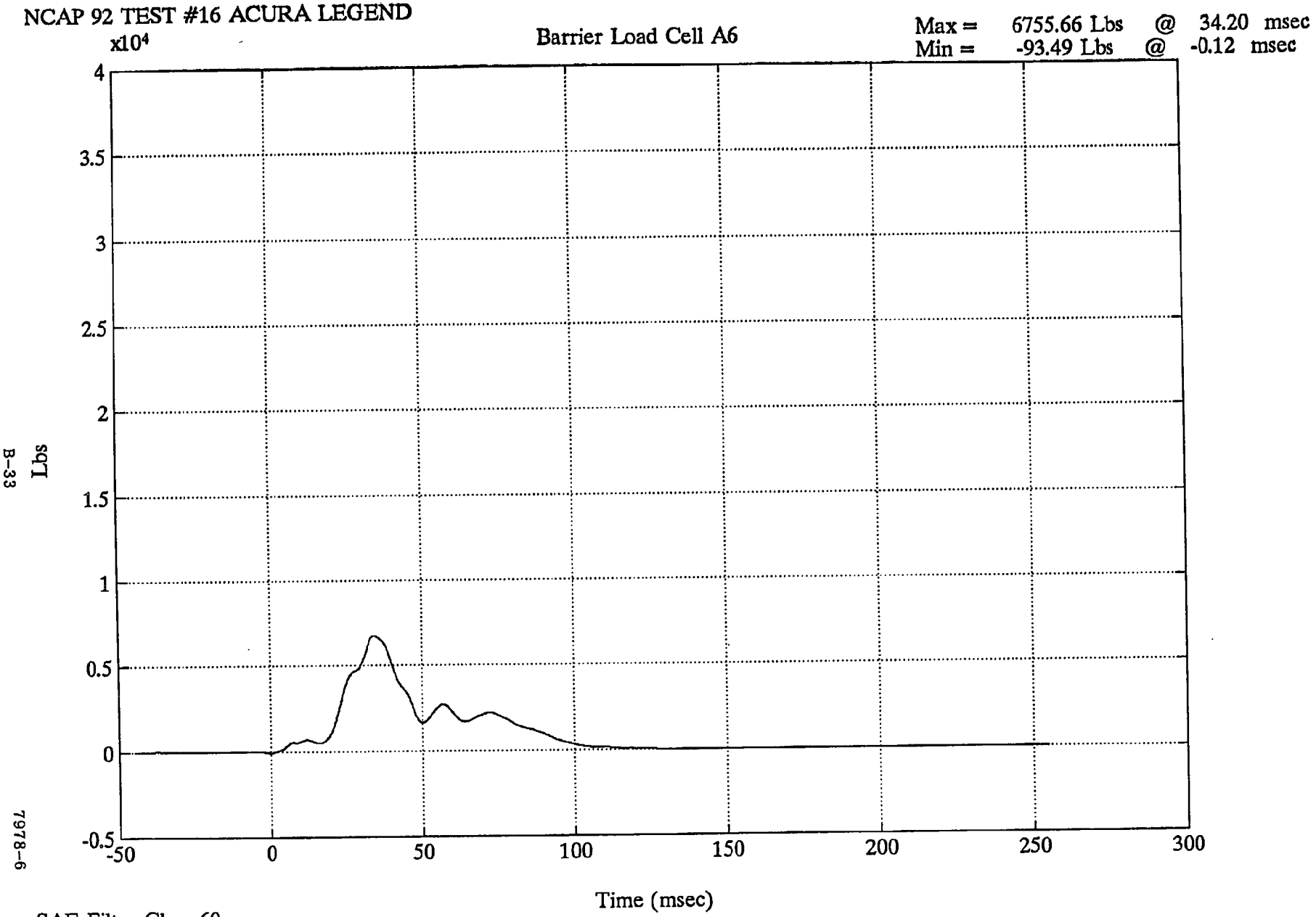


SAE Filter Class 60

B-32

7978-6

NCAP 92 TEST #16 ACURA LEGEND

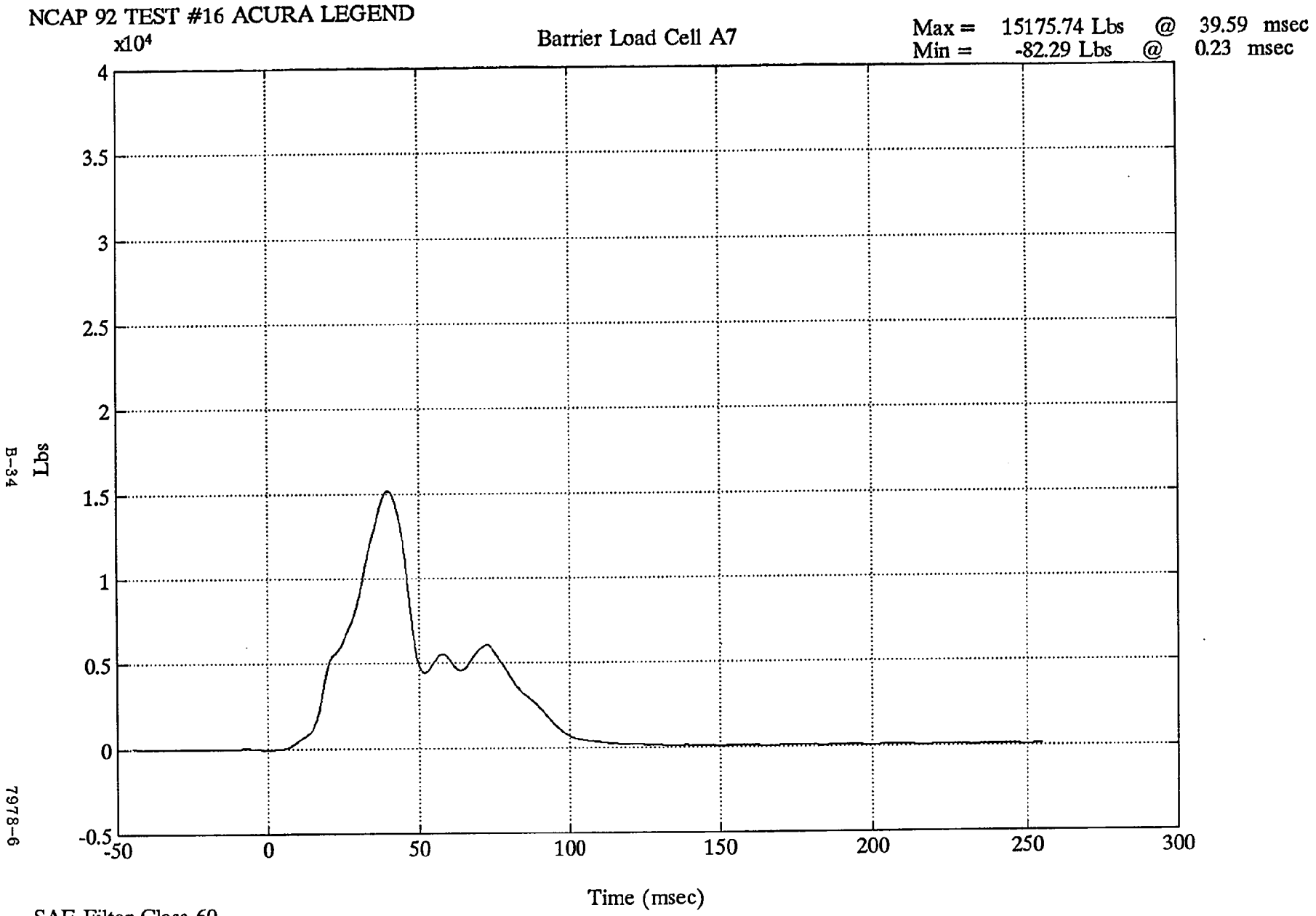


B-33

7978-6

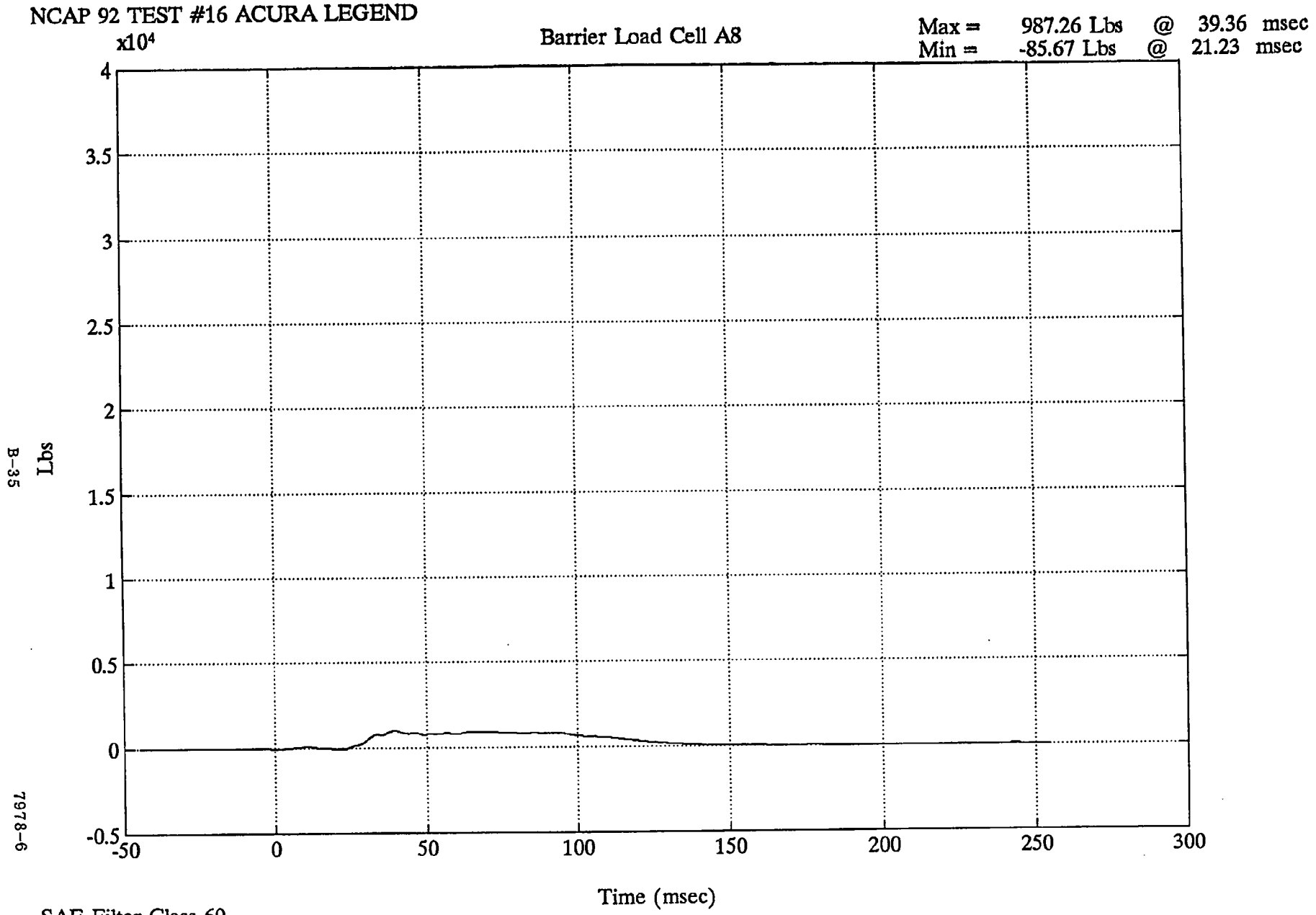
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

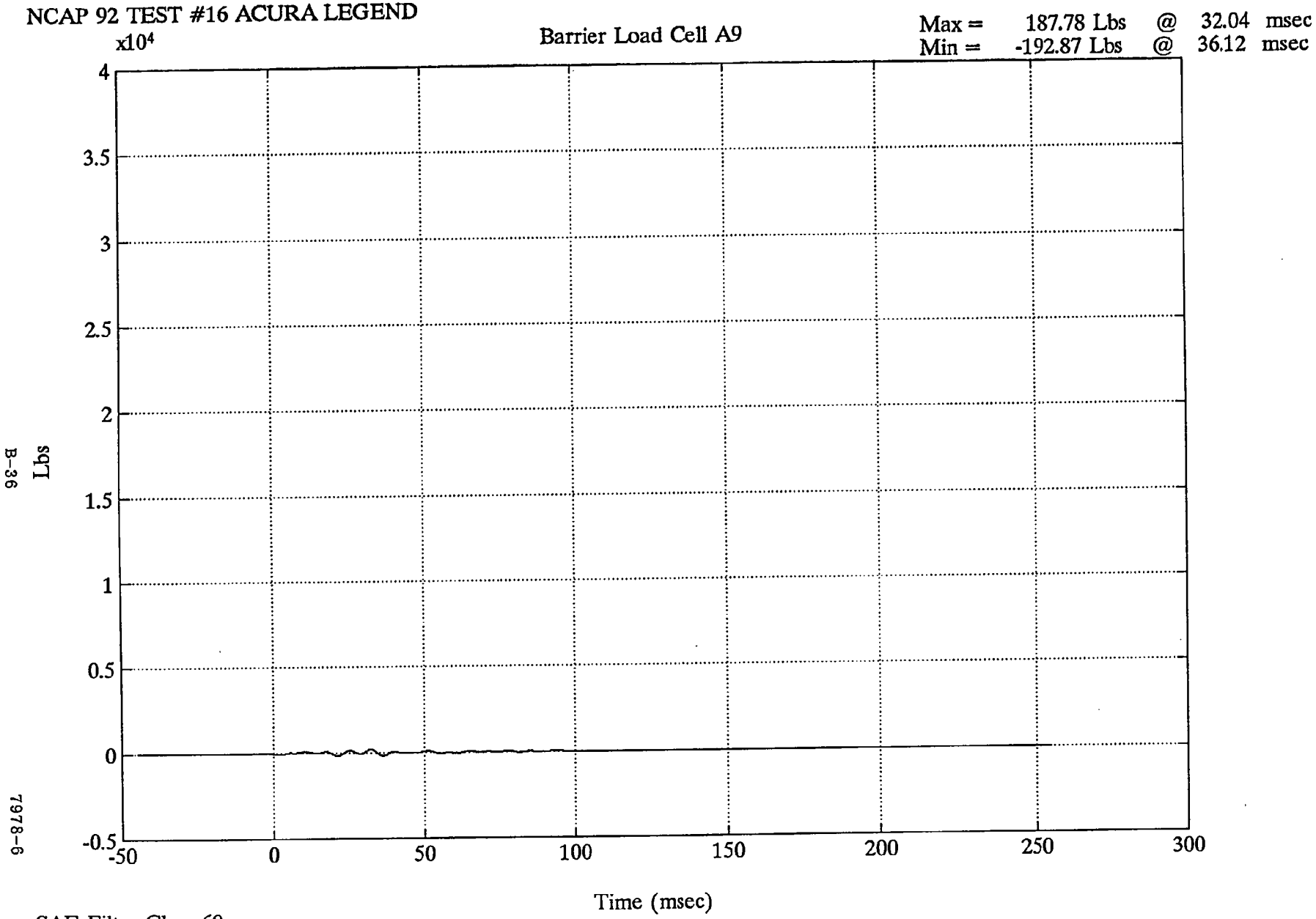


SAE Filter Class 60

7978-6

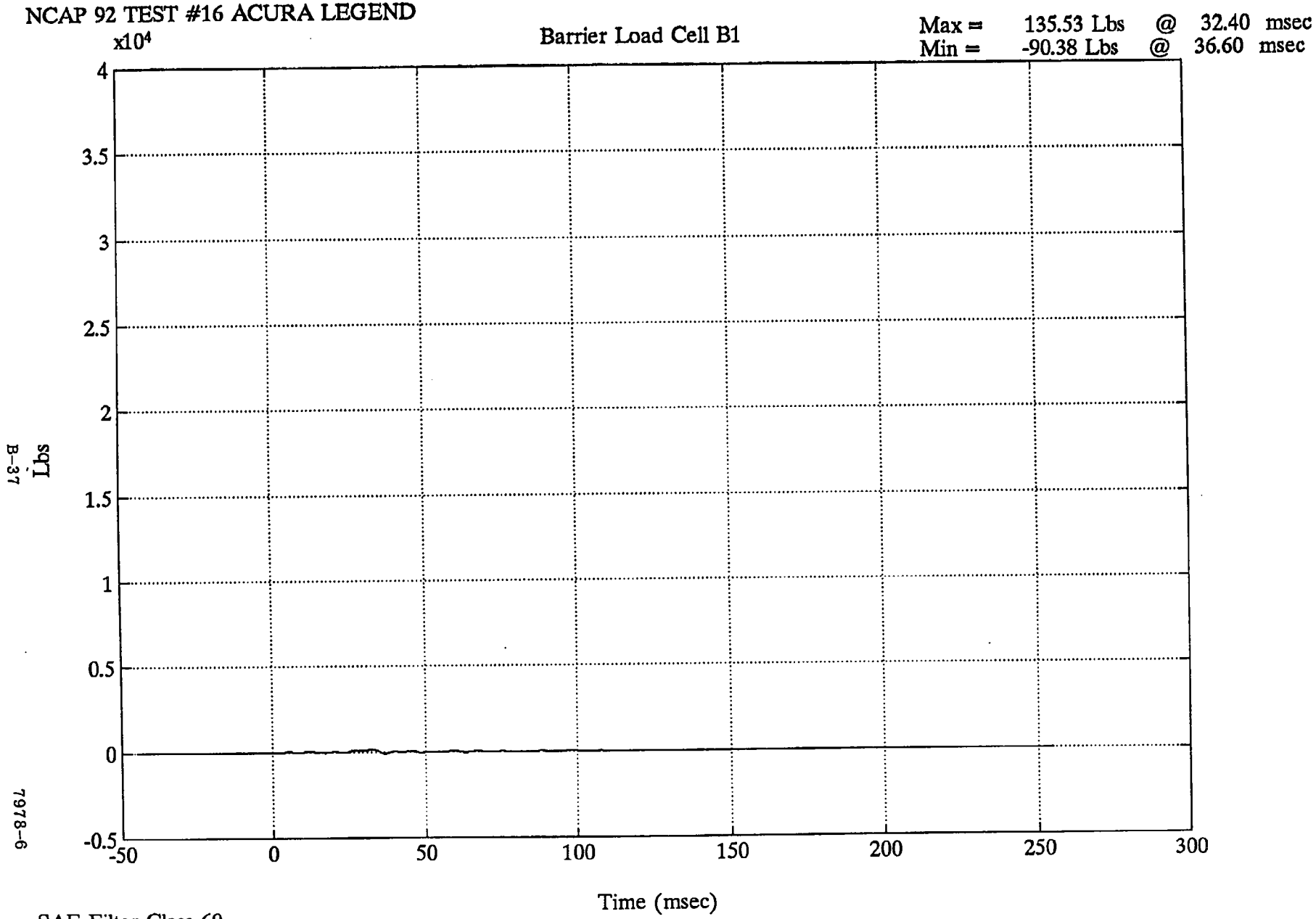

NCAP 92 TEST #16 ACURA LEGEND
Barrier Load Cell A8
Max = 987.26 Lbs @ 39.36 msec
Min = -85.67 Lbs @ 21.23 msec
x10^4
4
3.5
3
2.5
2
1.5
1
0.5
0
-0.5
Lbs
-50
0
50
100
150
200
250
300
Time (msec)
B-35
7978-6
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



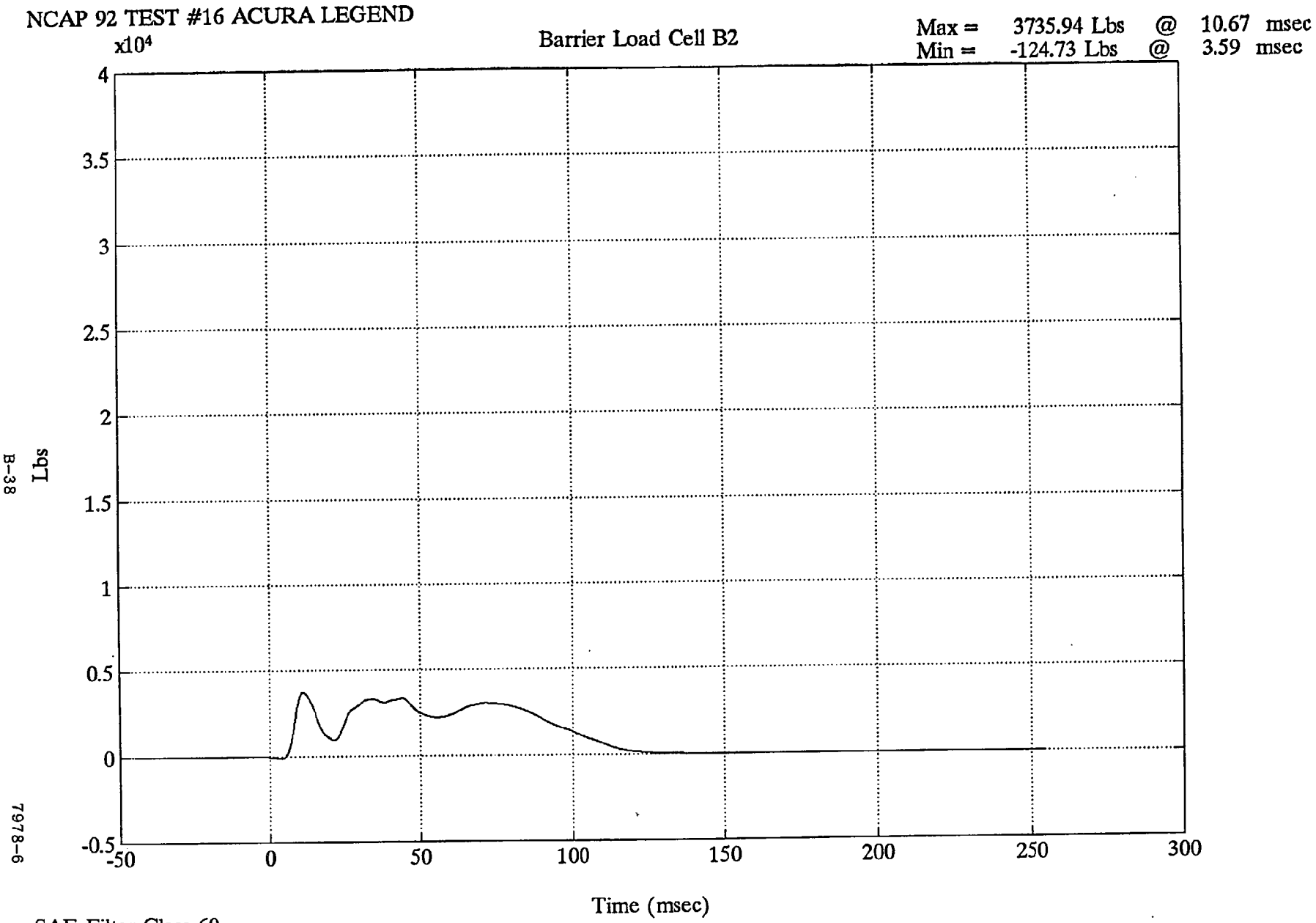
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

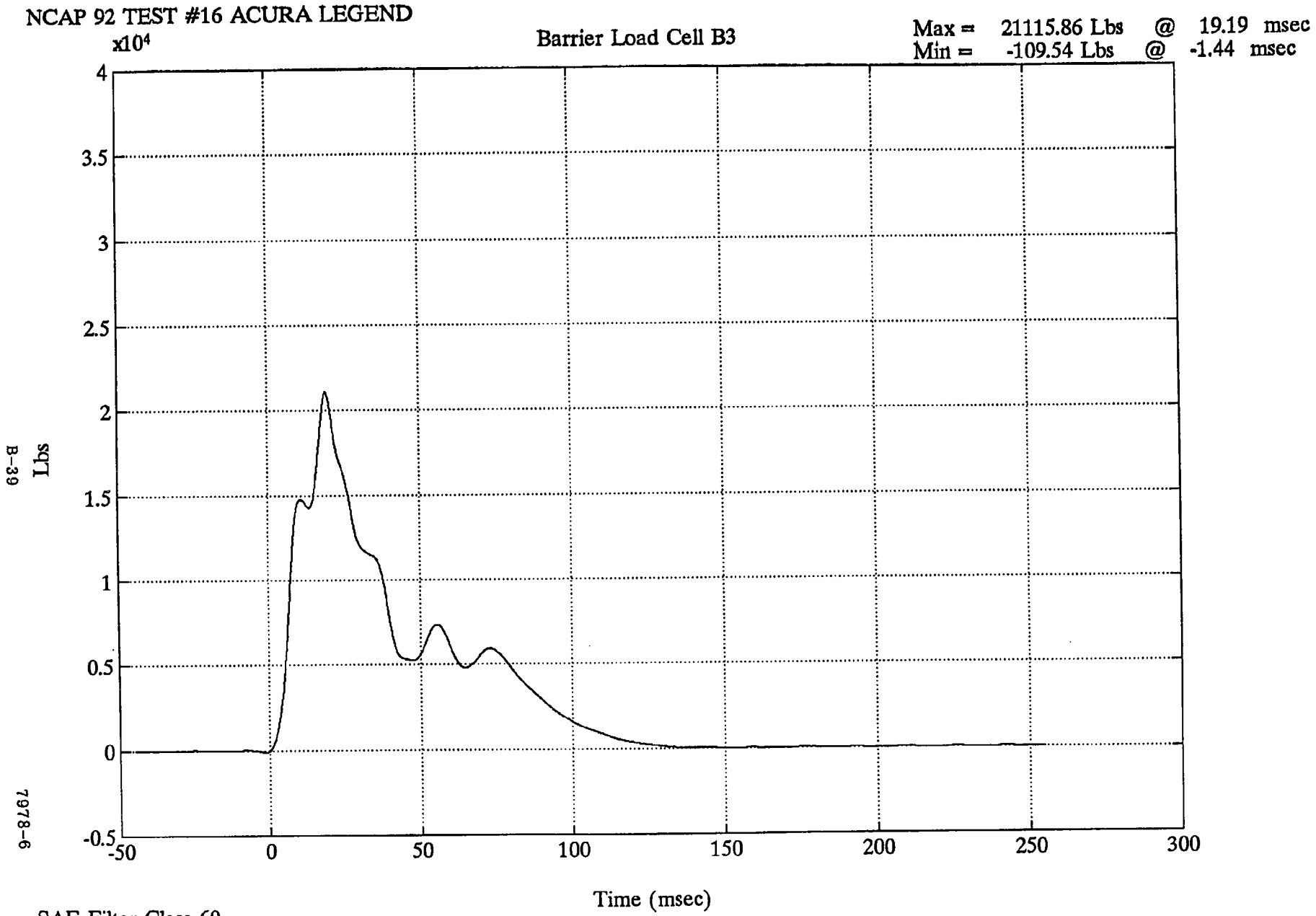


SAE Filter Class 60

B-38

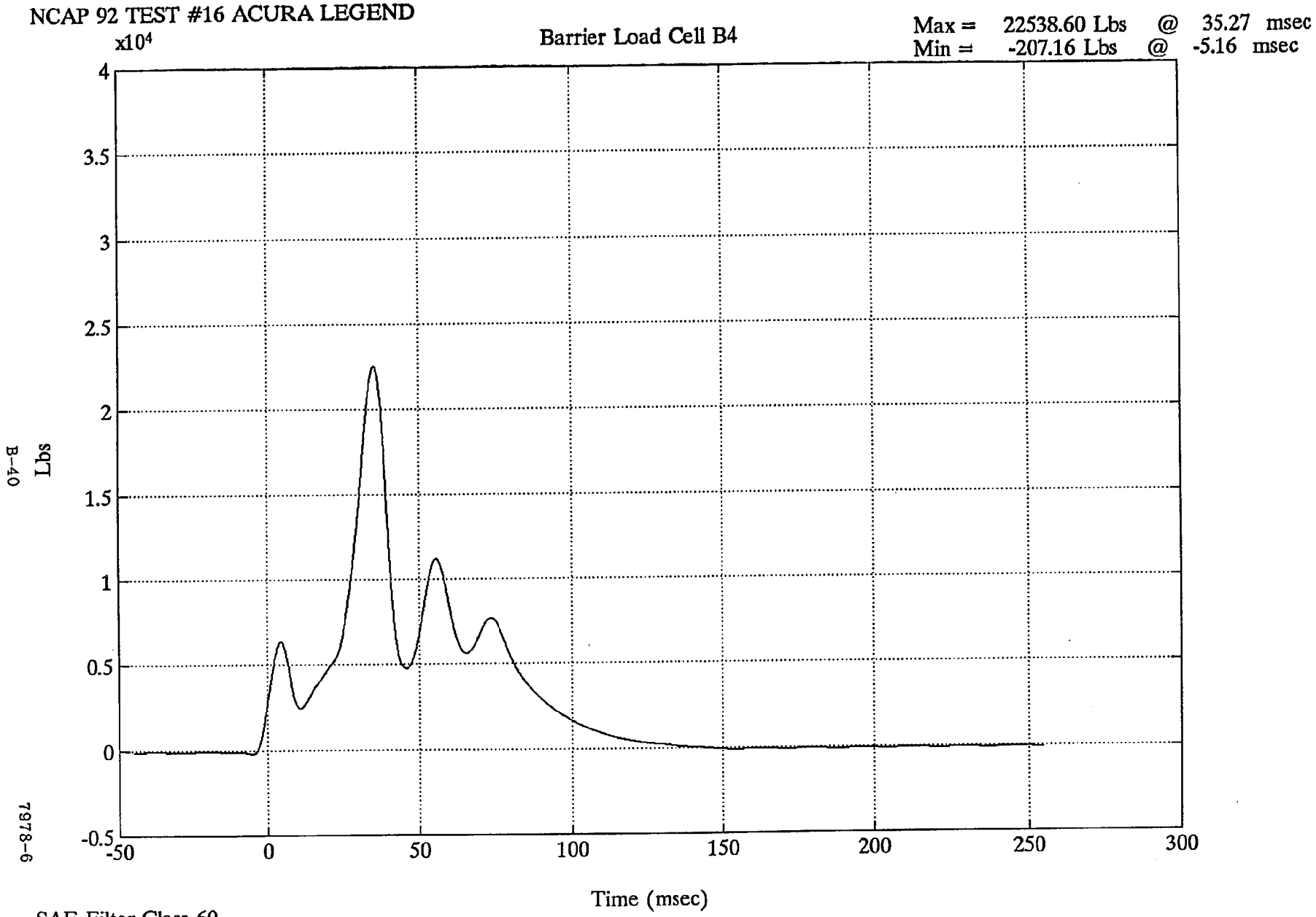
7978-9

NCAP 92 TEST #16 ACURA LEGEND



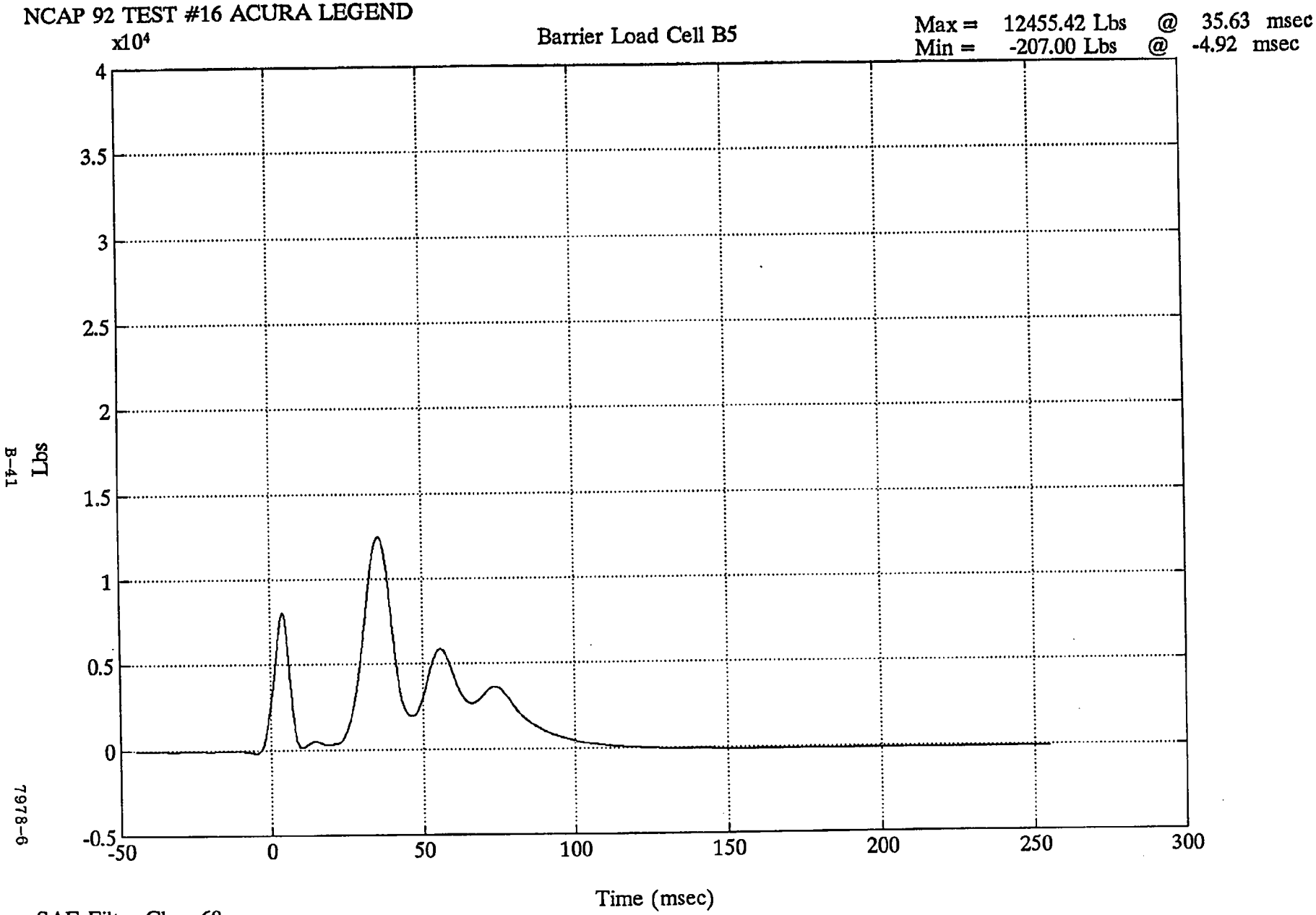
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

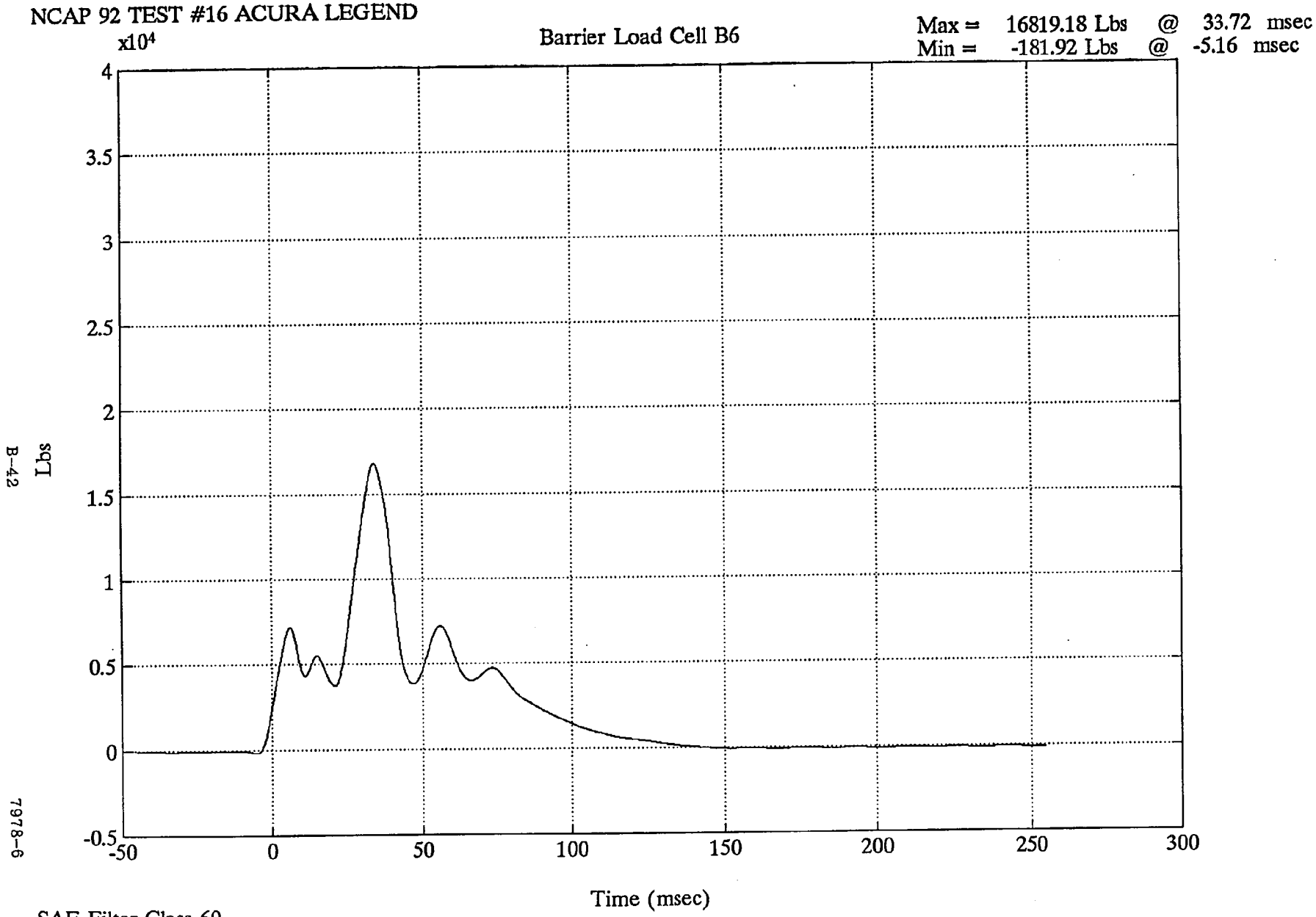


B-41

7978-6

SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

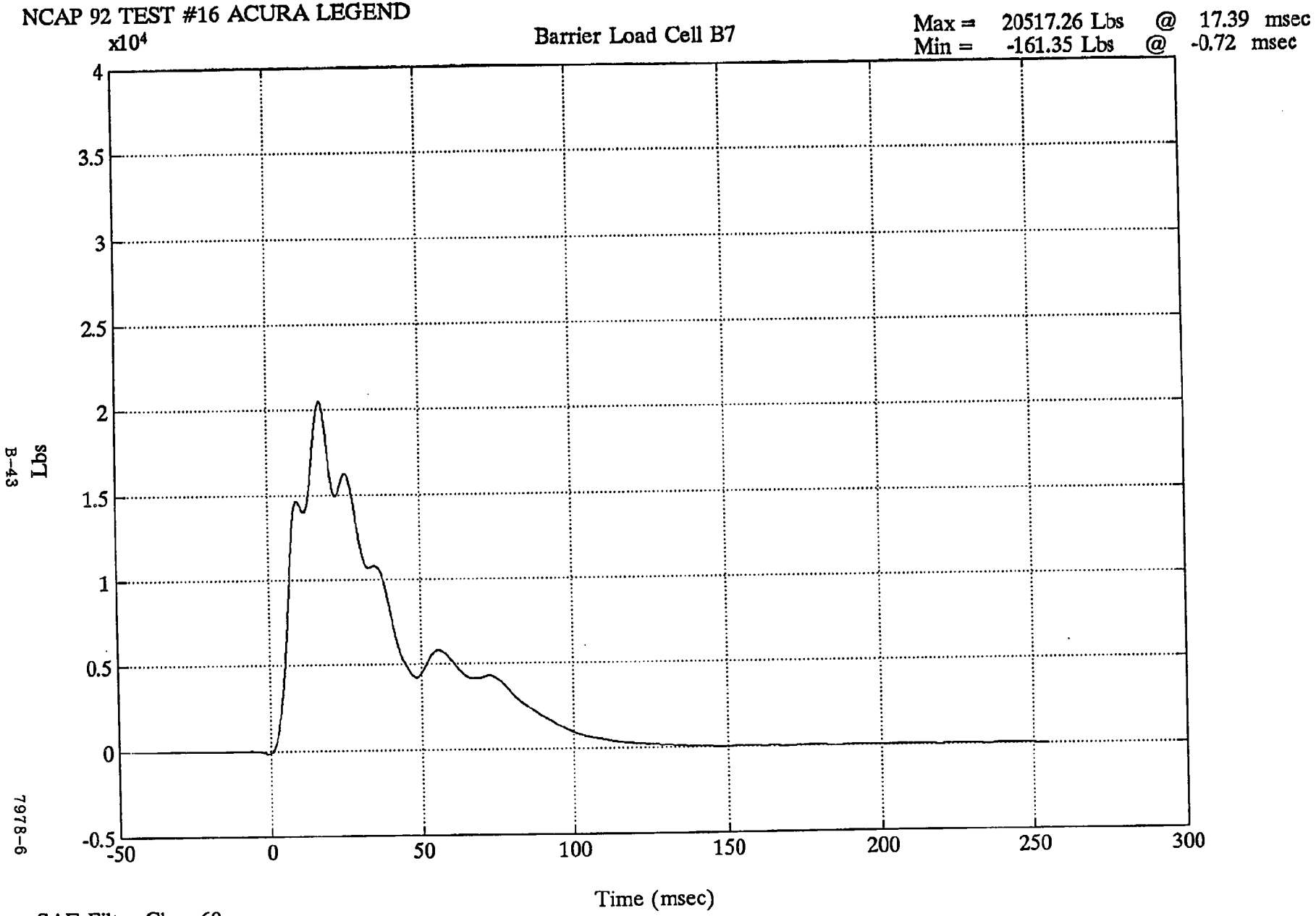


B-42

7978-6

SAE Filter Class 60

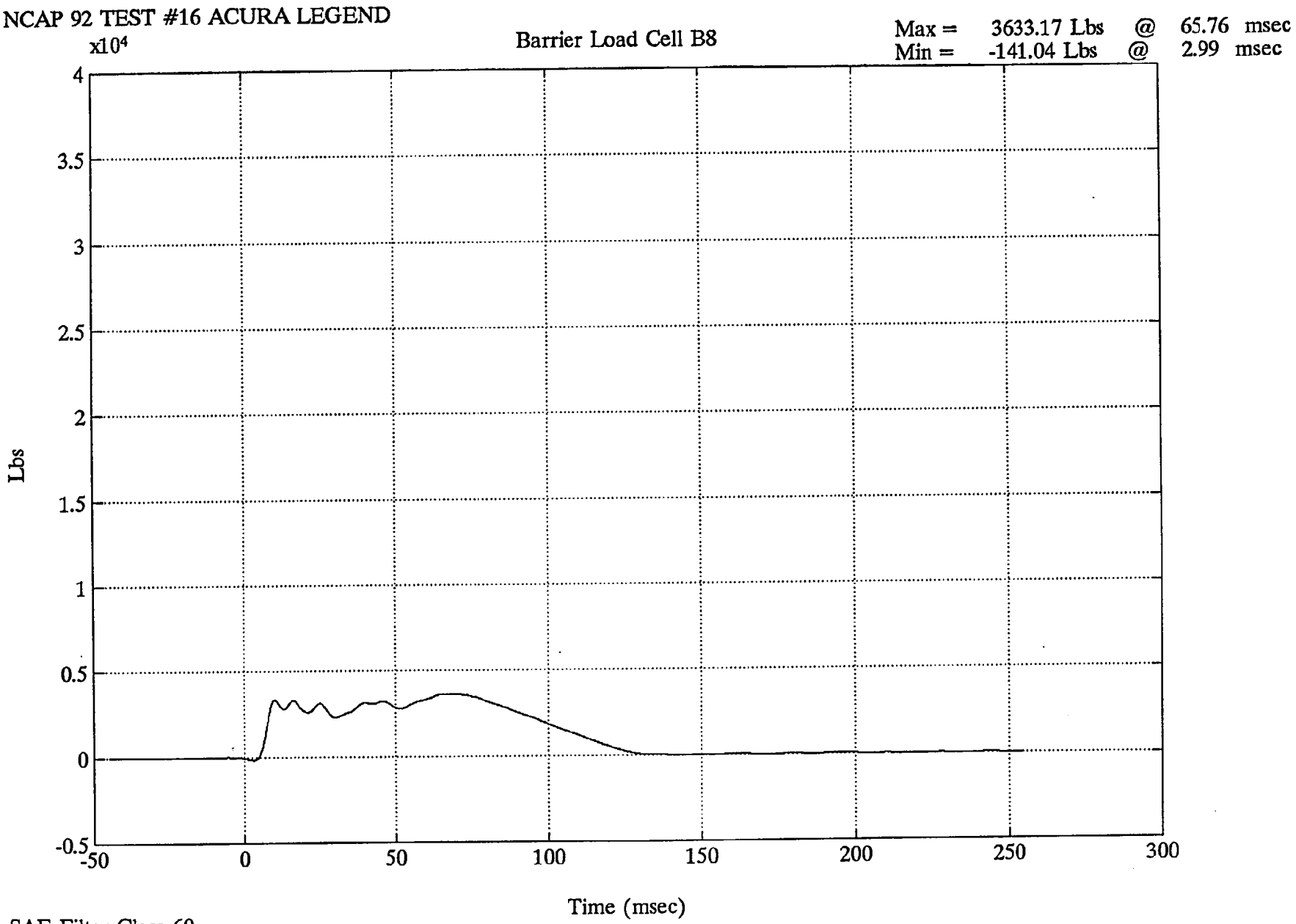
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

7978-6

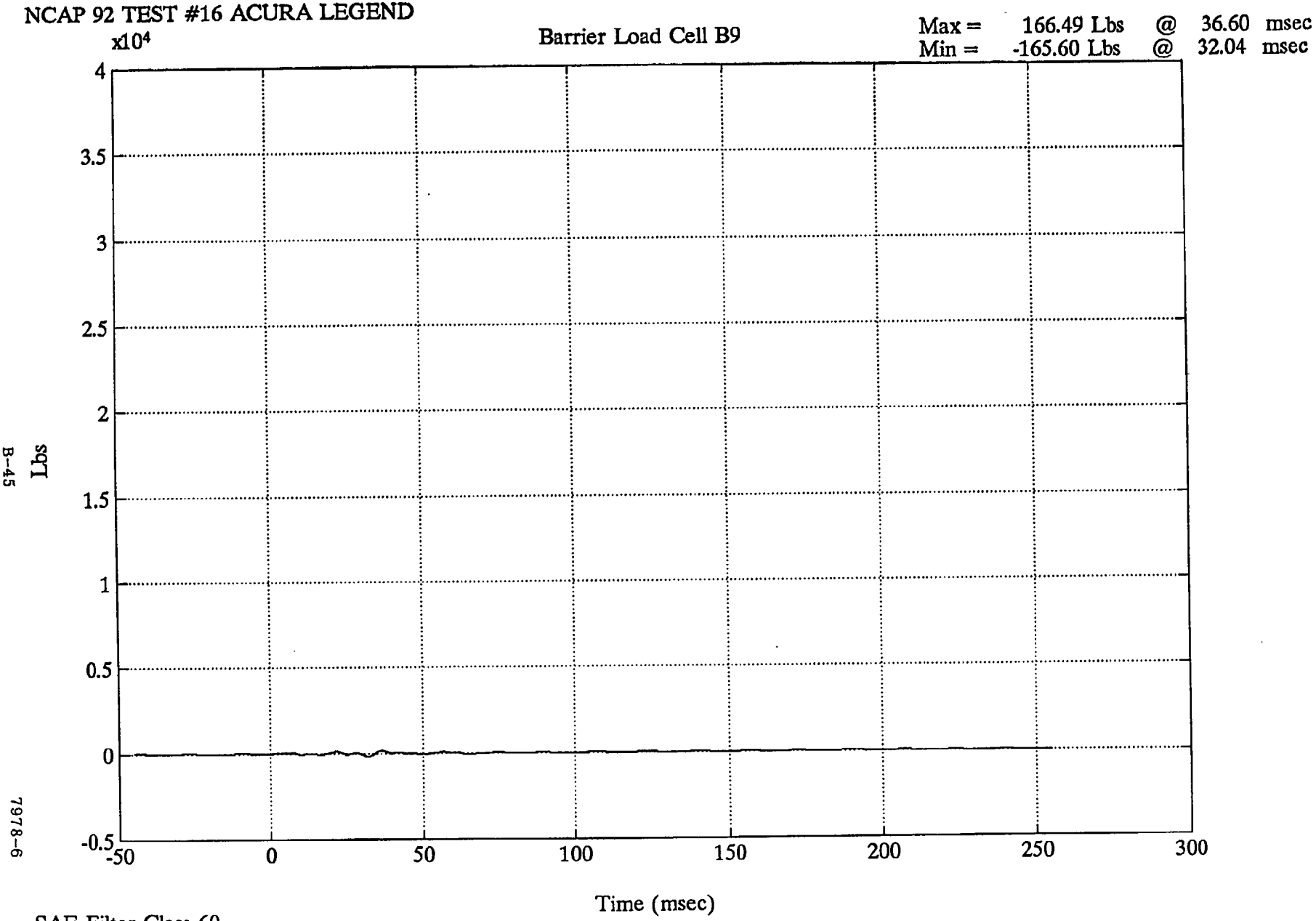
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

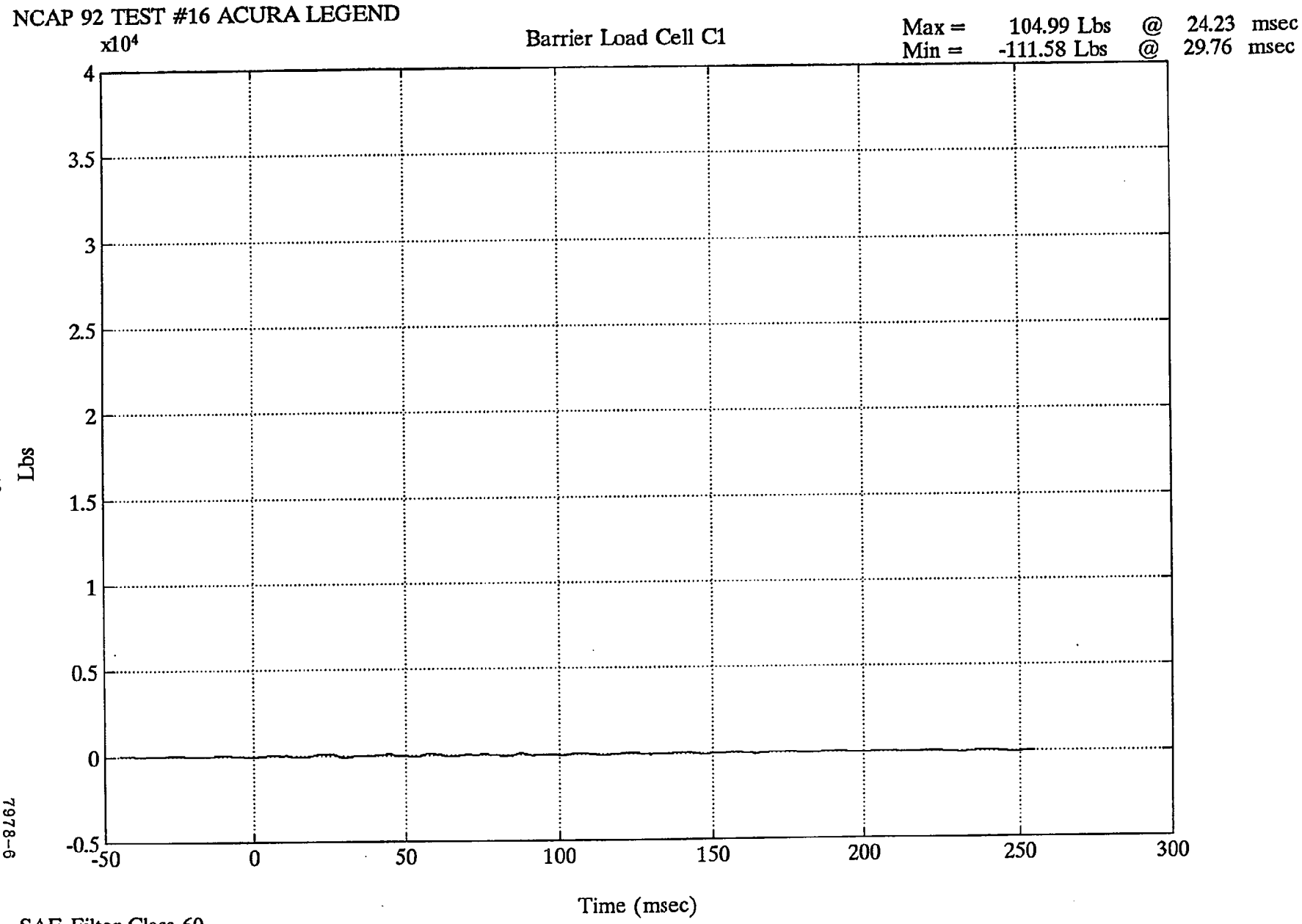


B-45

7978-6

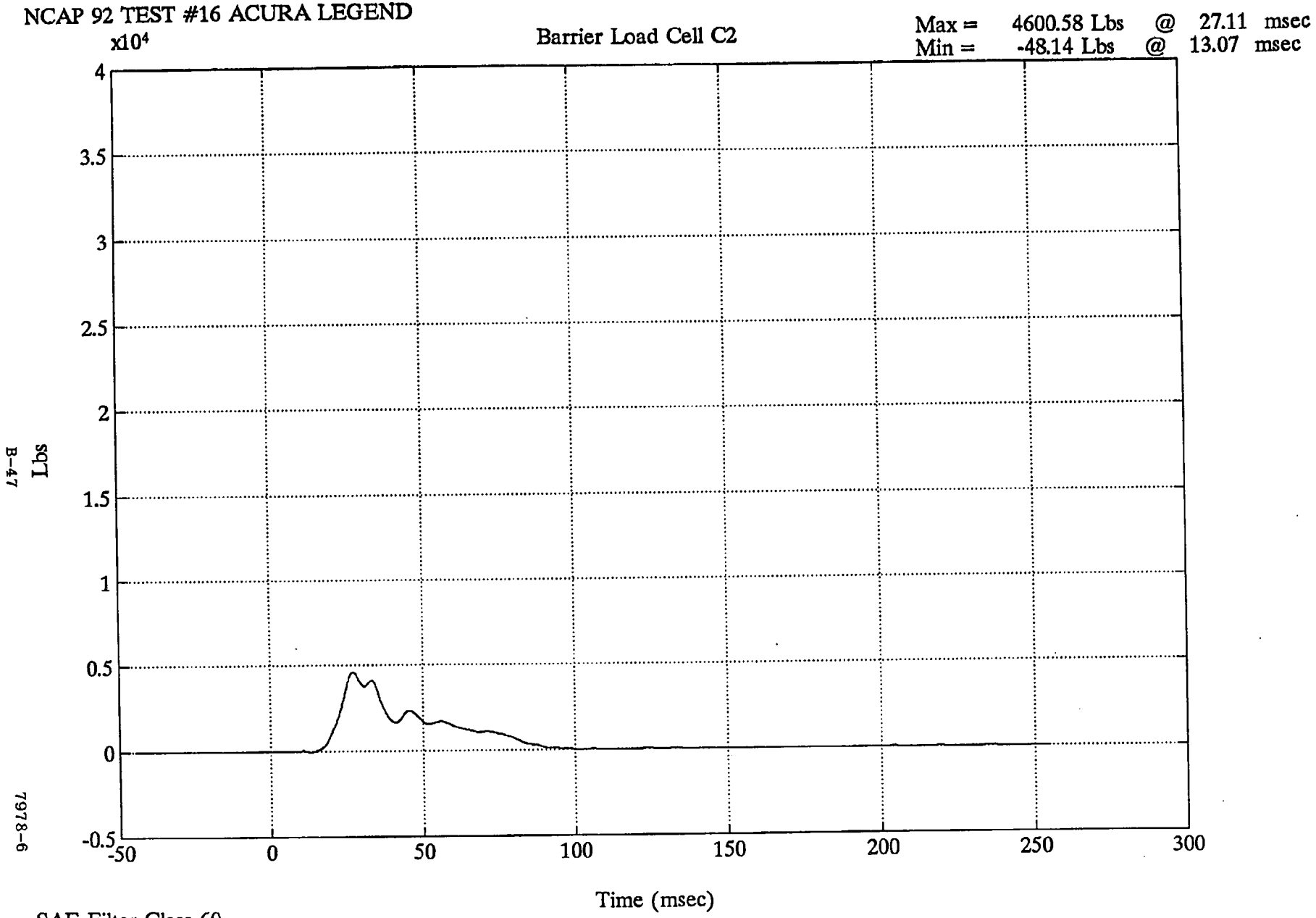
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



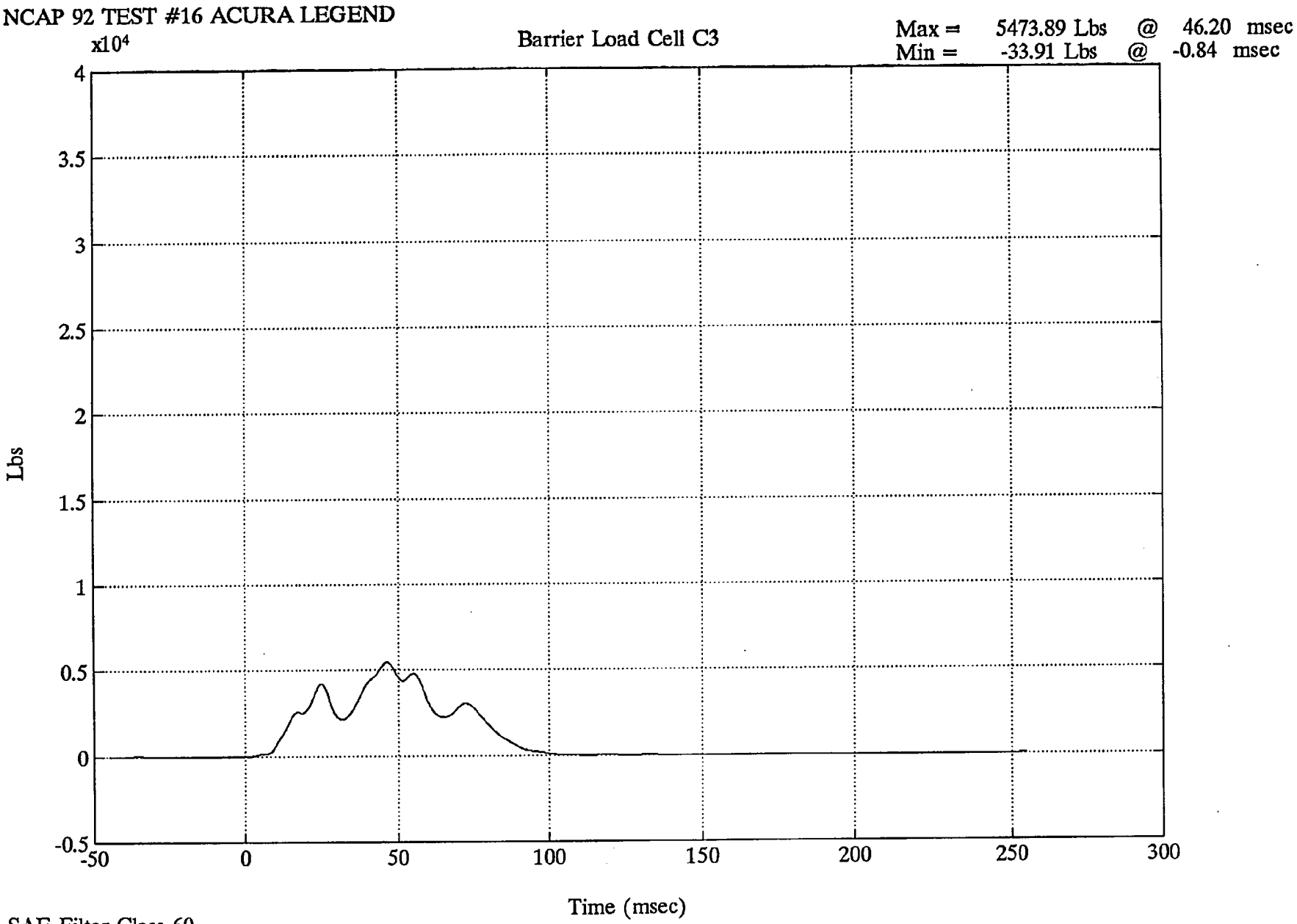
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



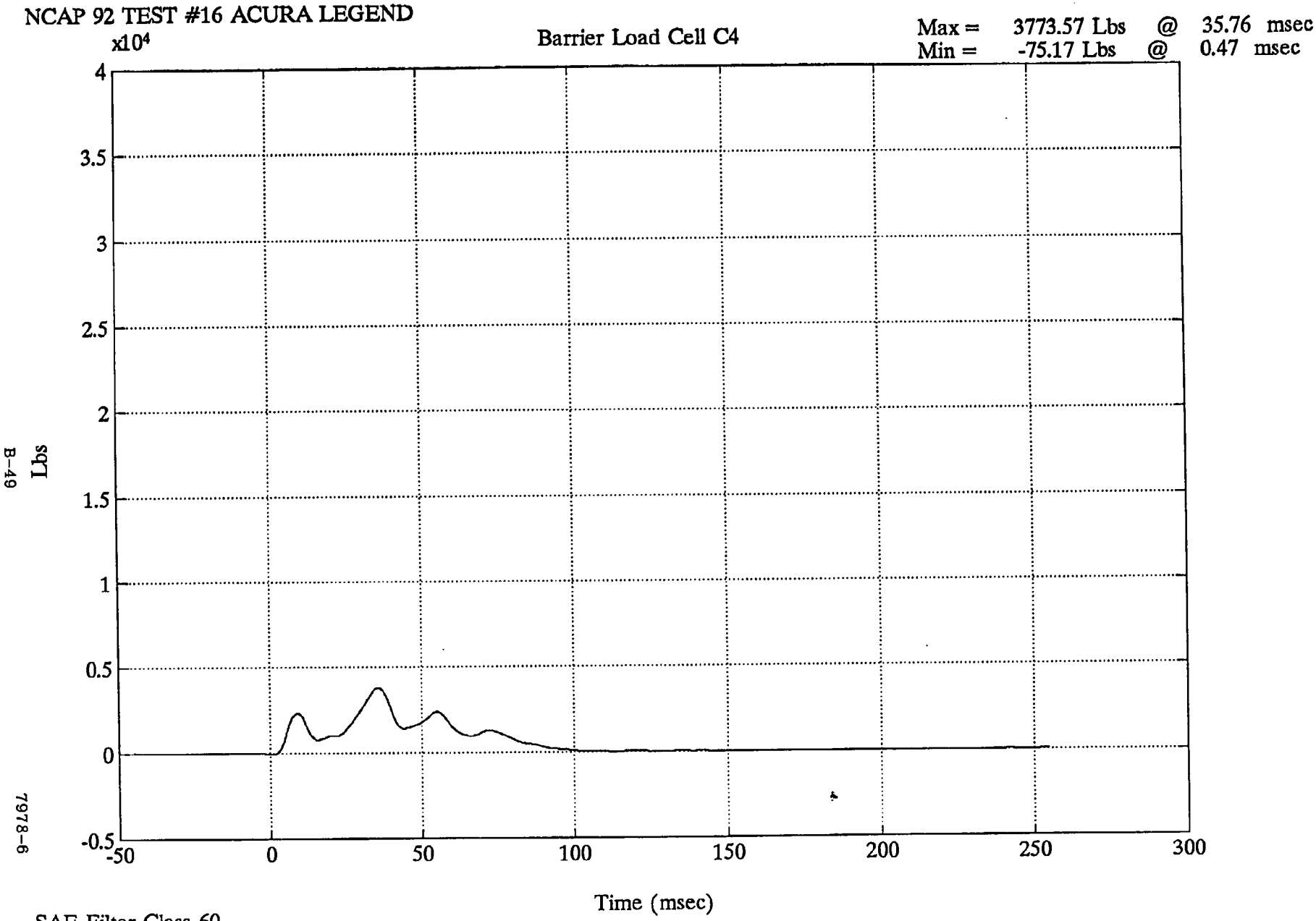
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

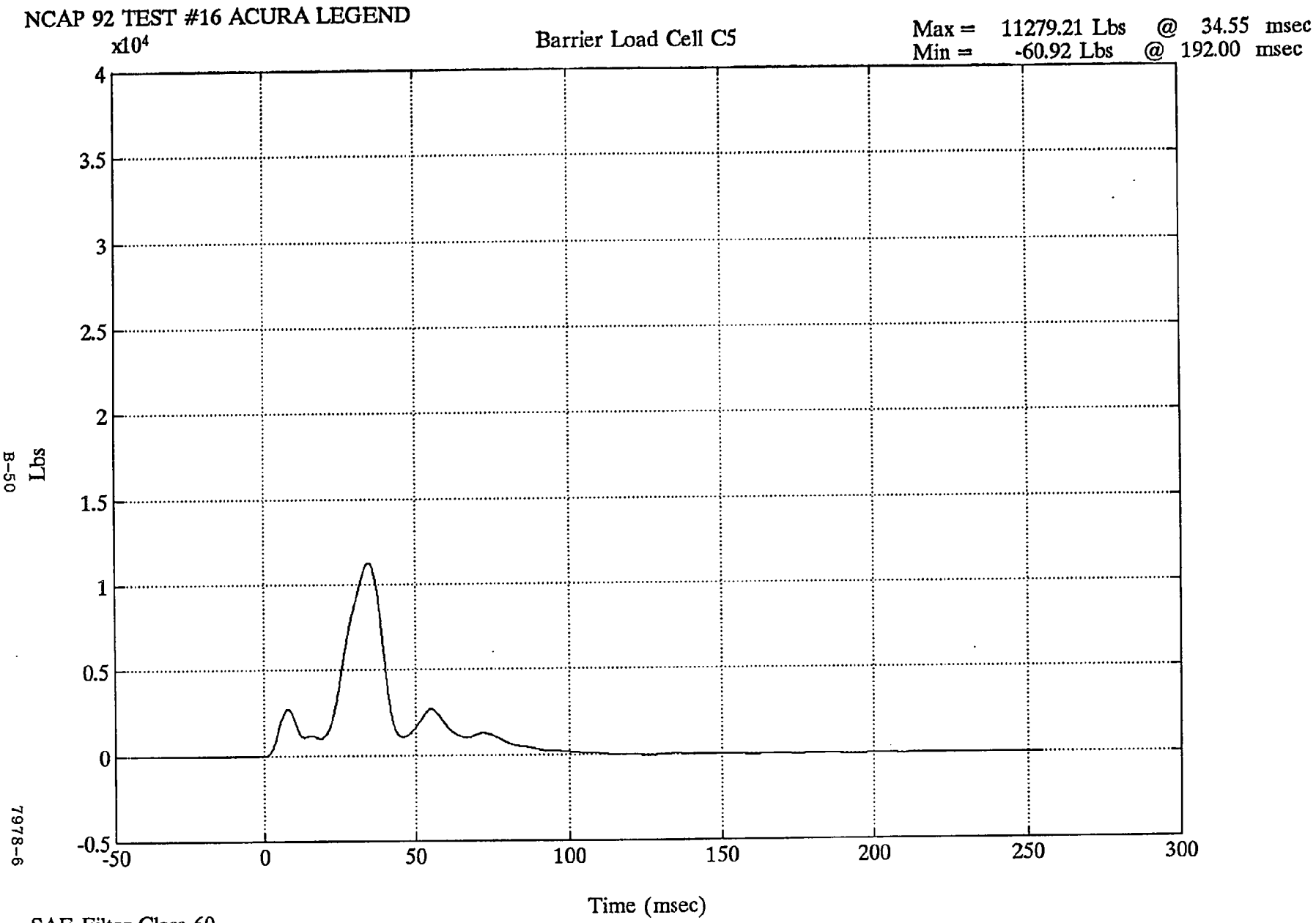


B-49

79788-6

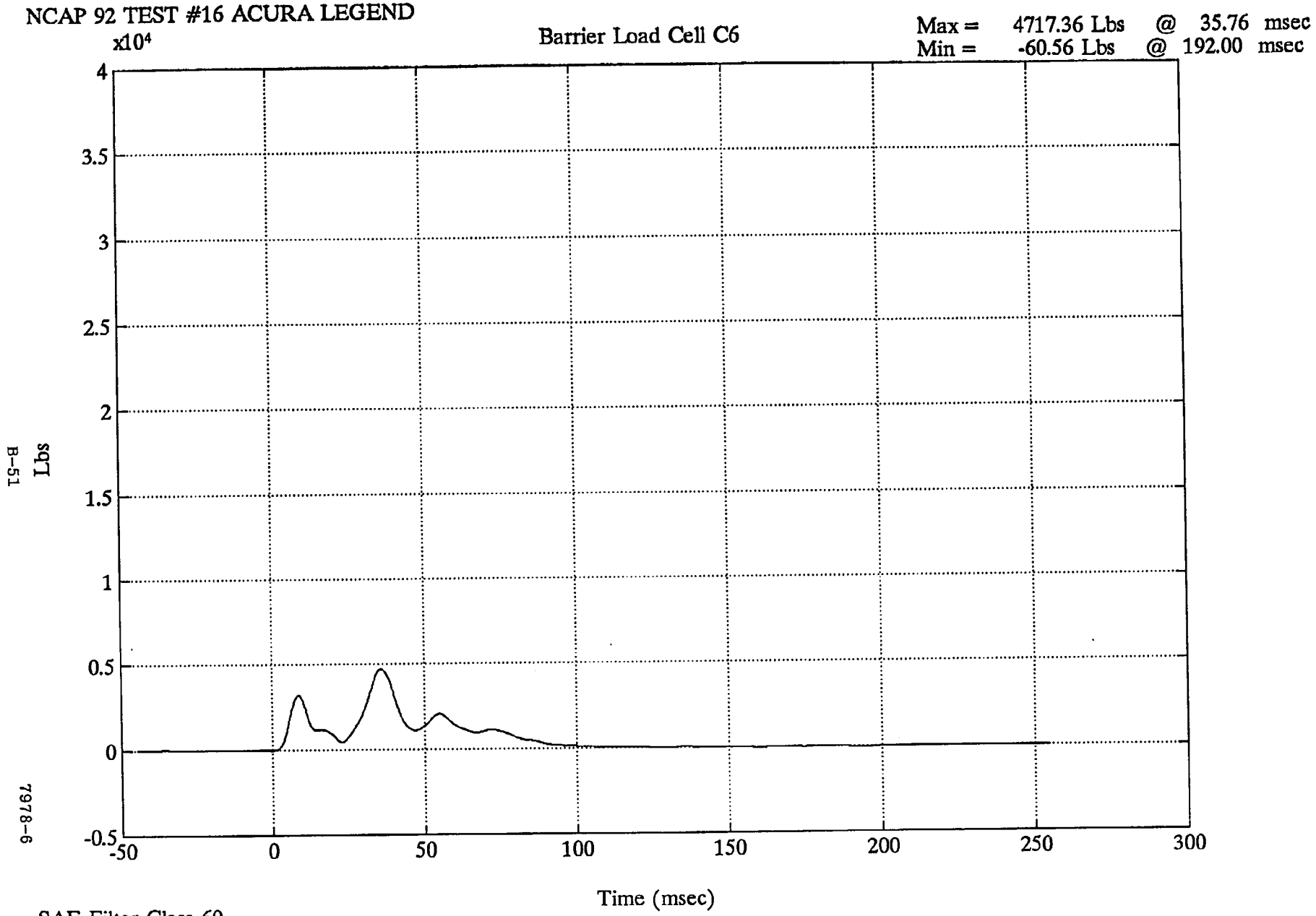
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



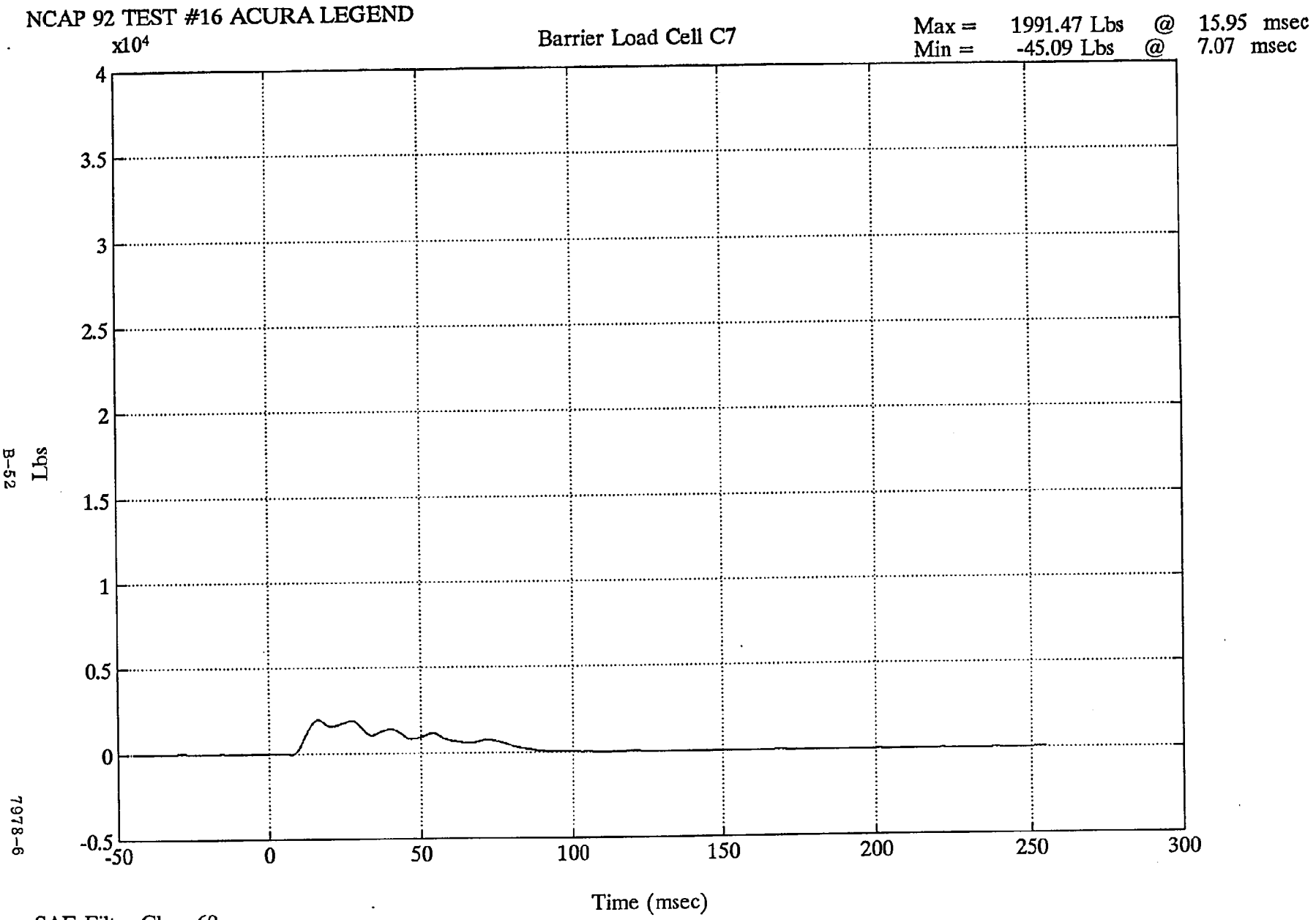
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



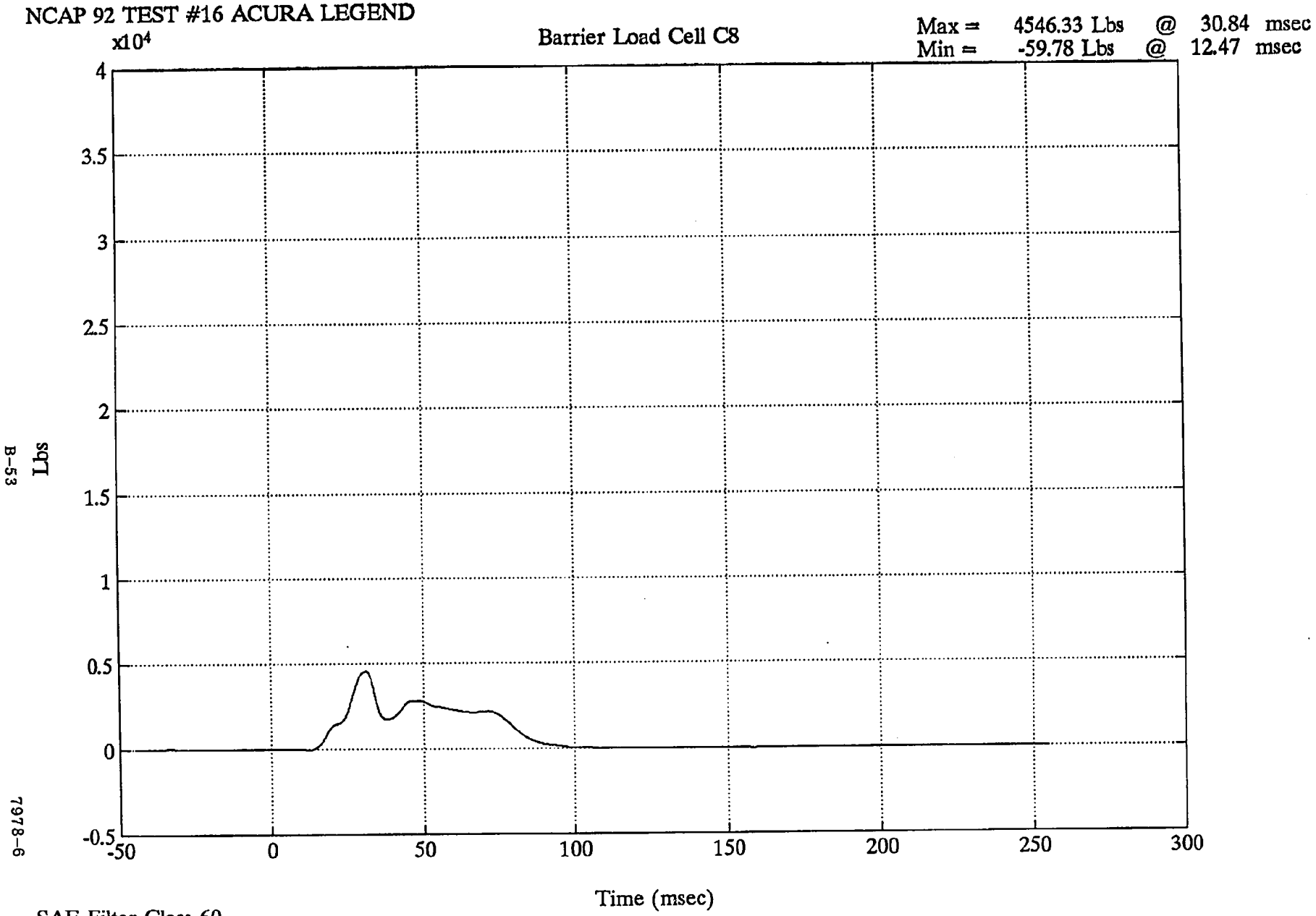
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



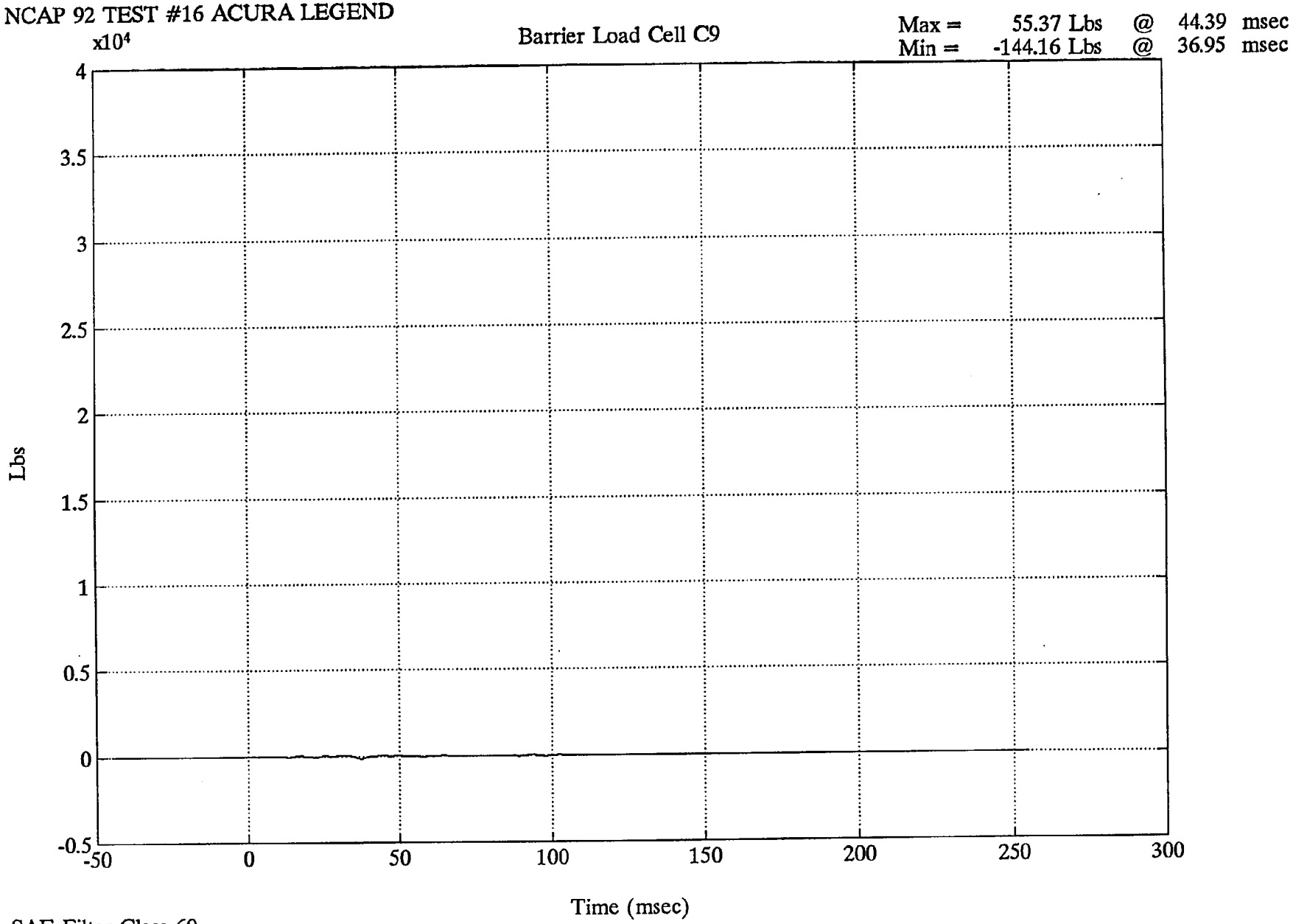
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

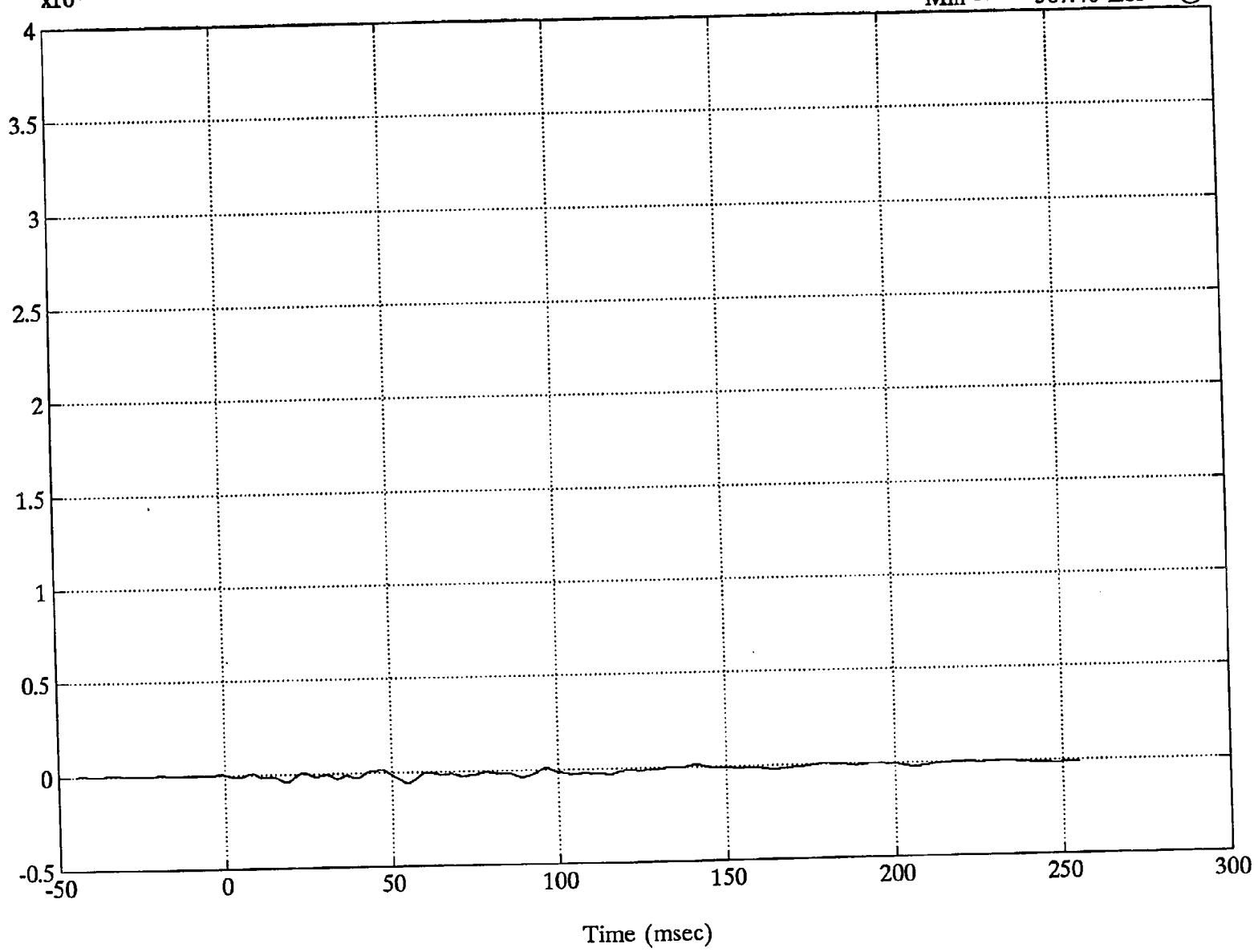
B-54

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Barrier Load Cell D1

Max = 143.34 Lbs @ 46.92 msec
Min = -567.46 Lbs @ 54.96 msec



SAE Filter Class 60

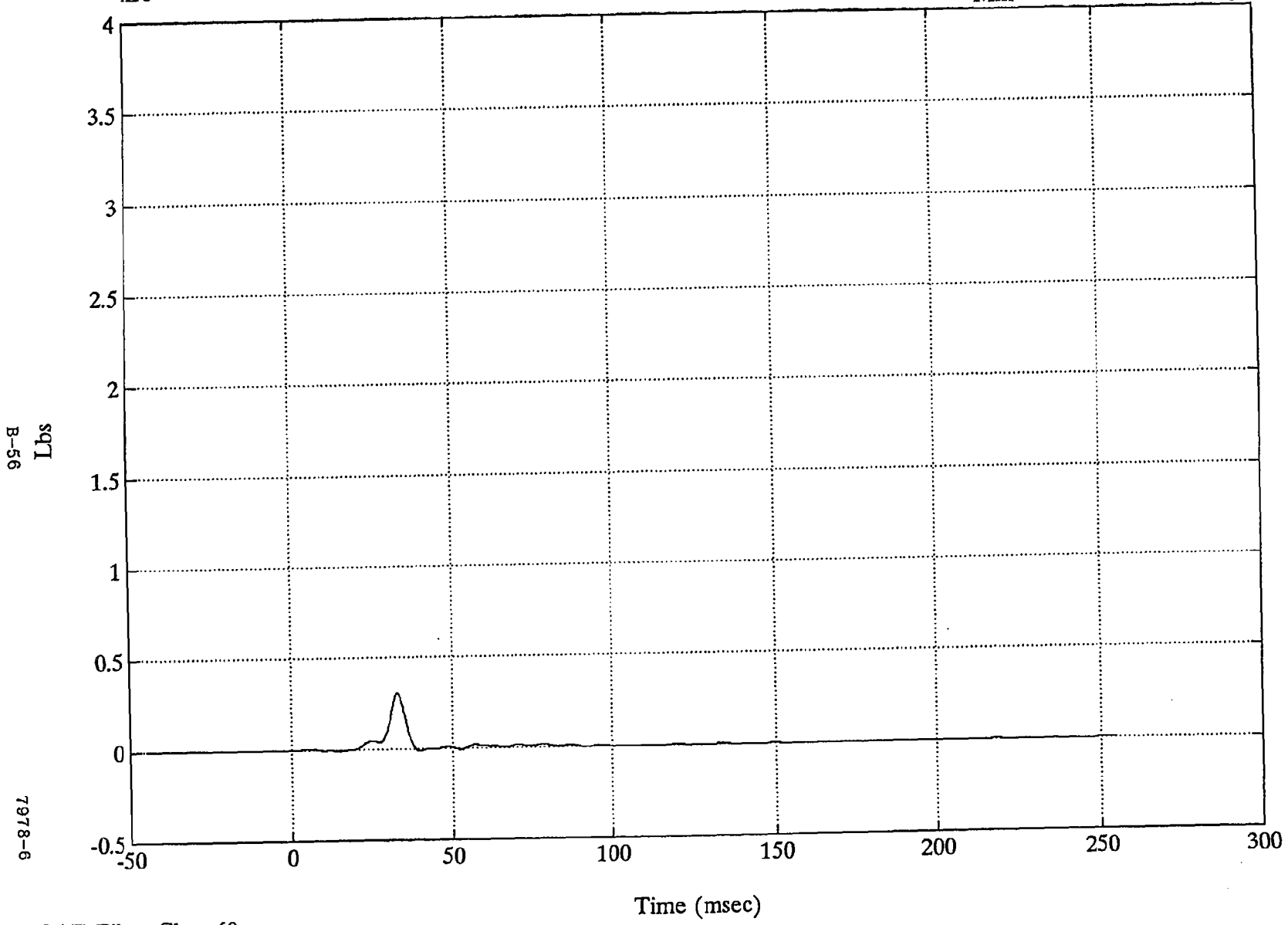
B-55

7978-6

NCAP 92 TEST #16 ACURA LEGEND

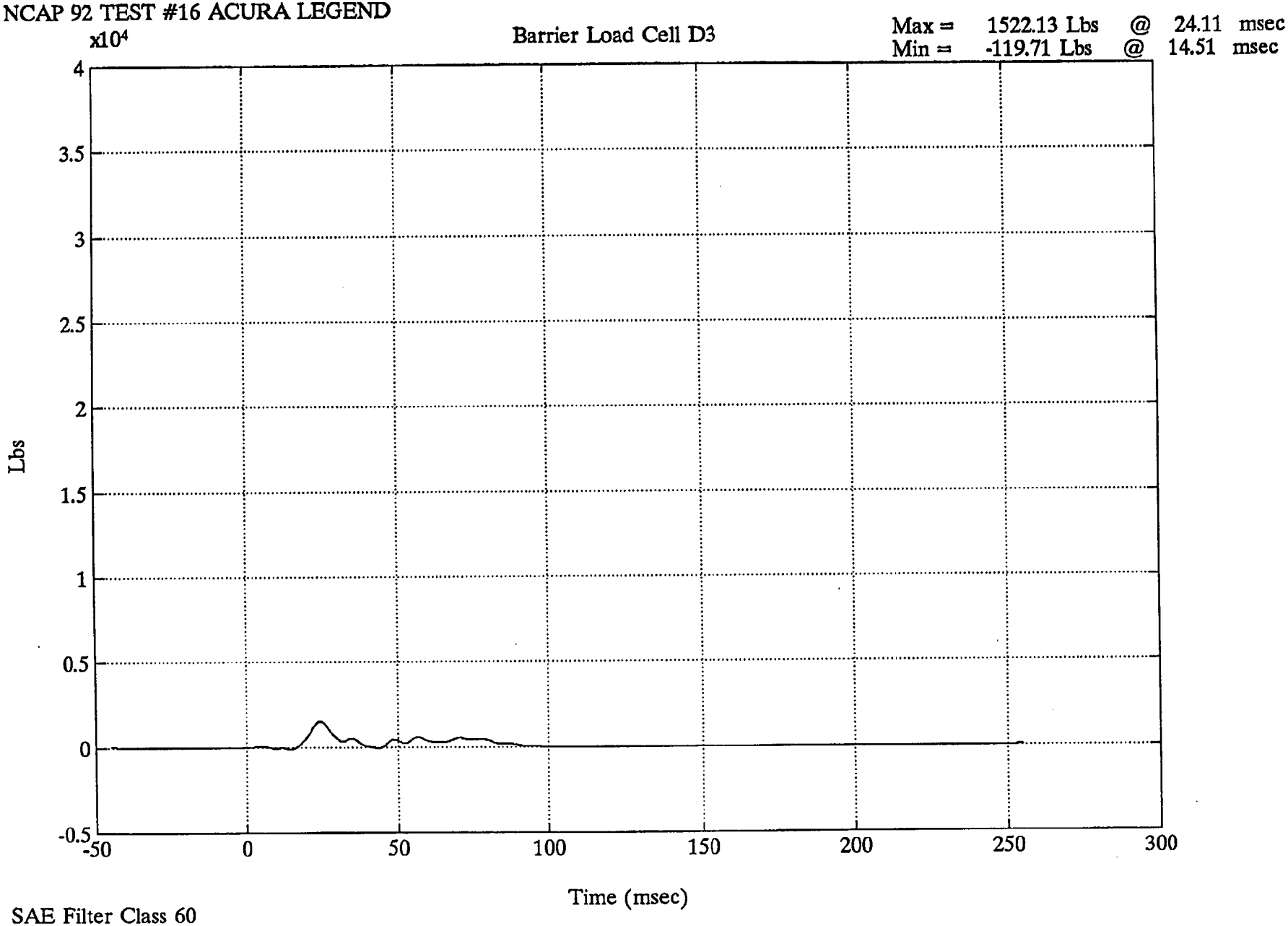
Barrier Load Cell D2

Max = 3045.14 Lbs @ 32.63 msec
Min = -116.73 Lbs @ 39.71 msec



SAE Filter Class 60

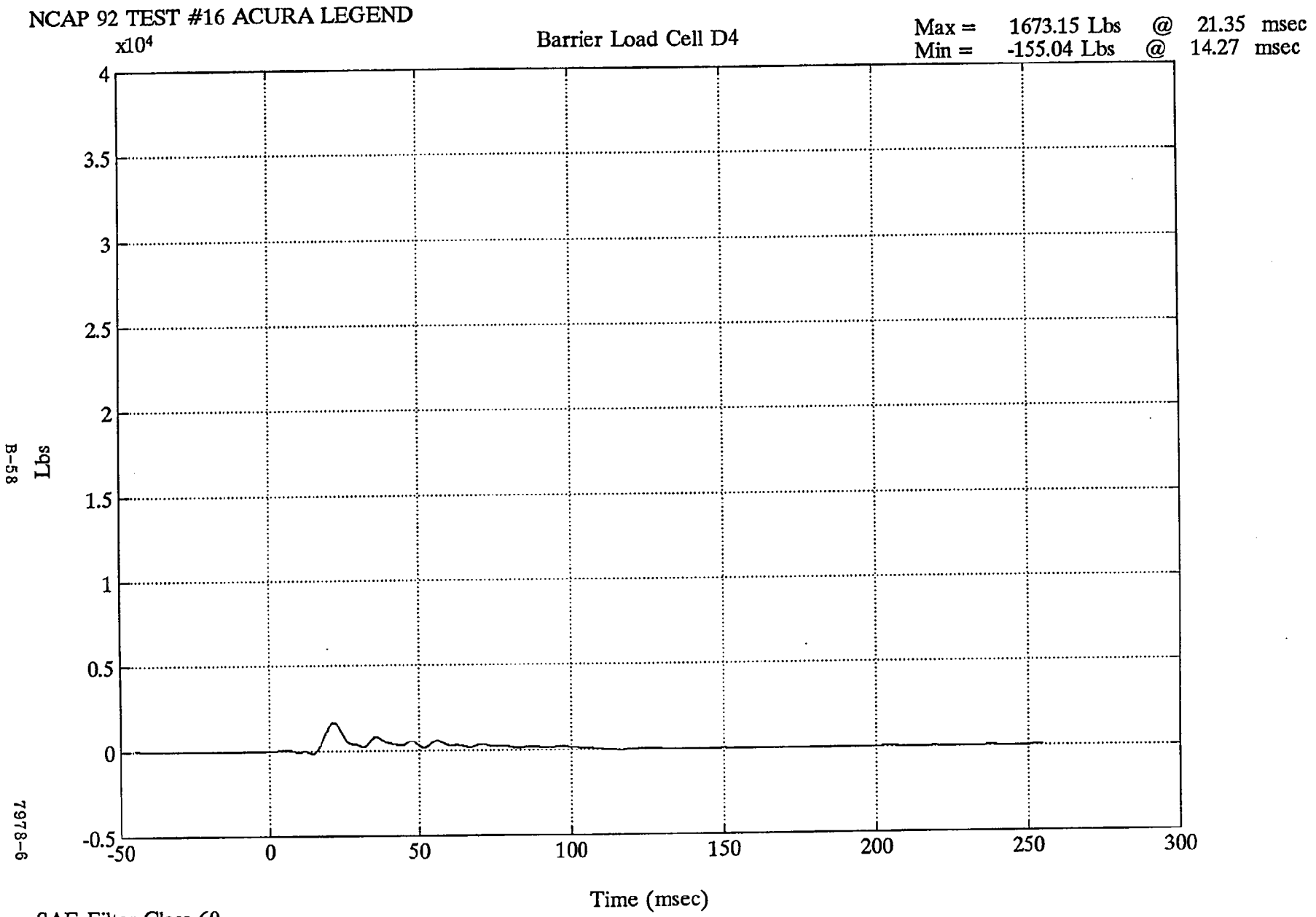
NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

7978-6

NCAP 92 TEST #16 ACURA LEGEND

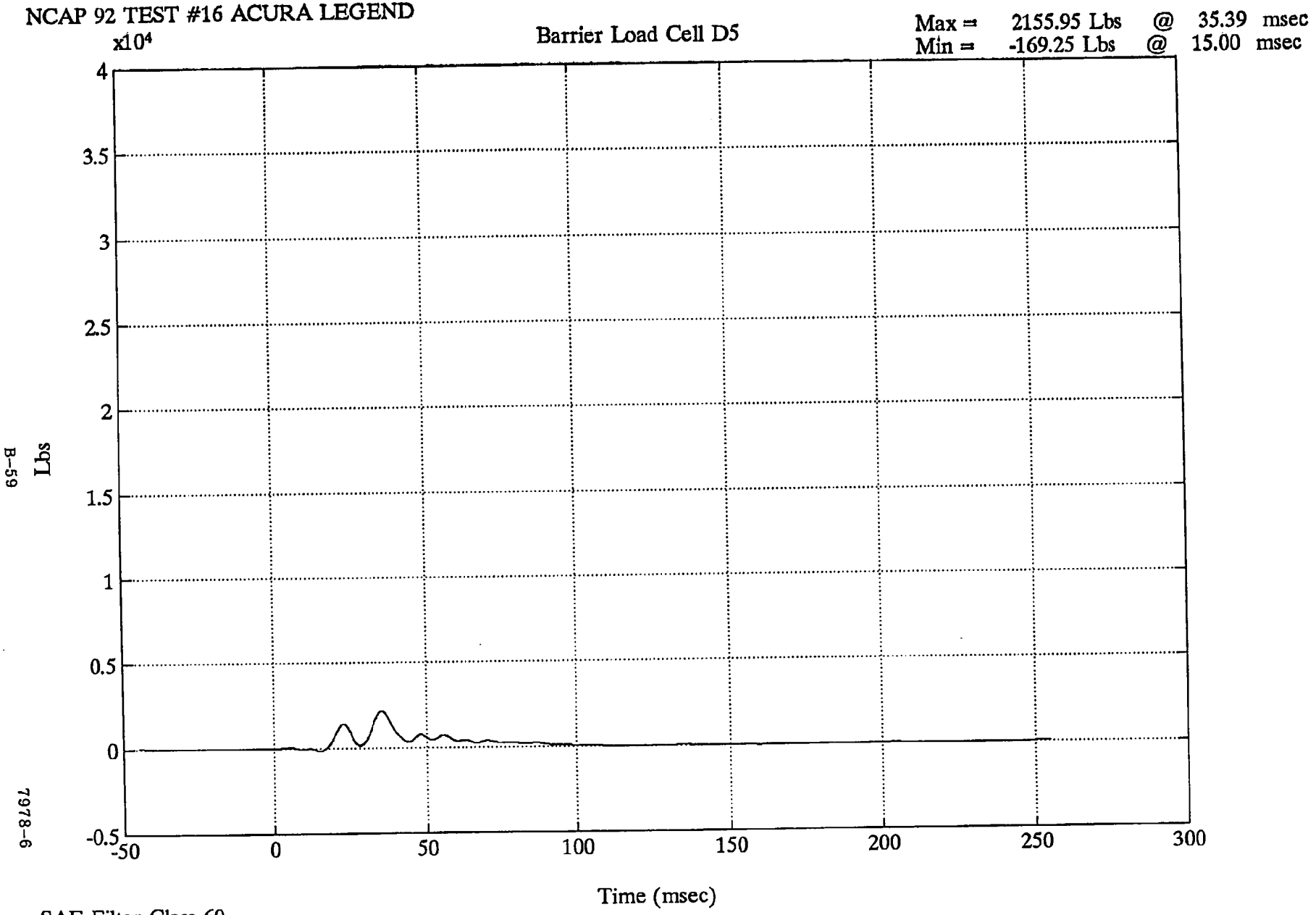


SAE Filter Class 60

B-58

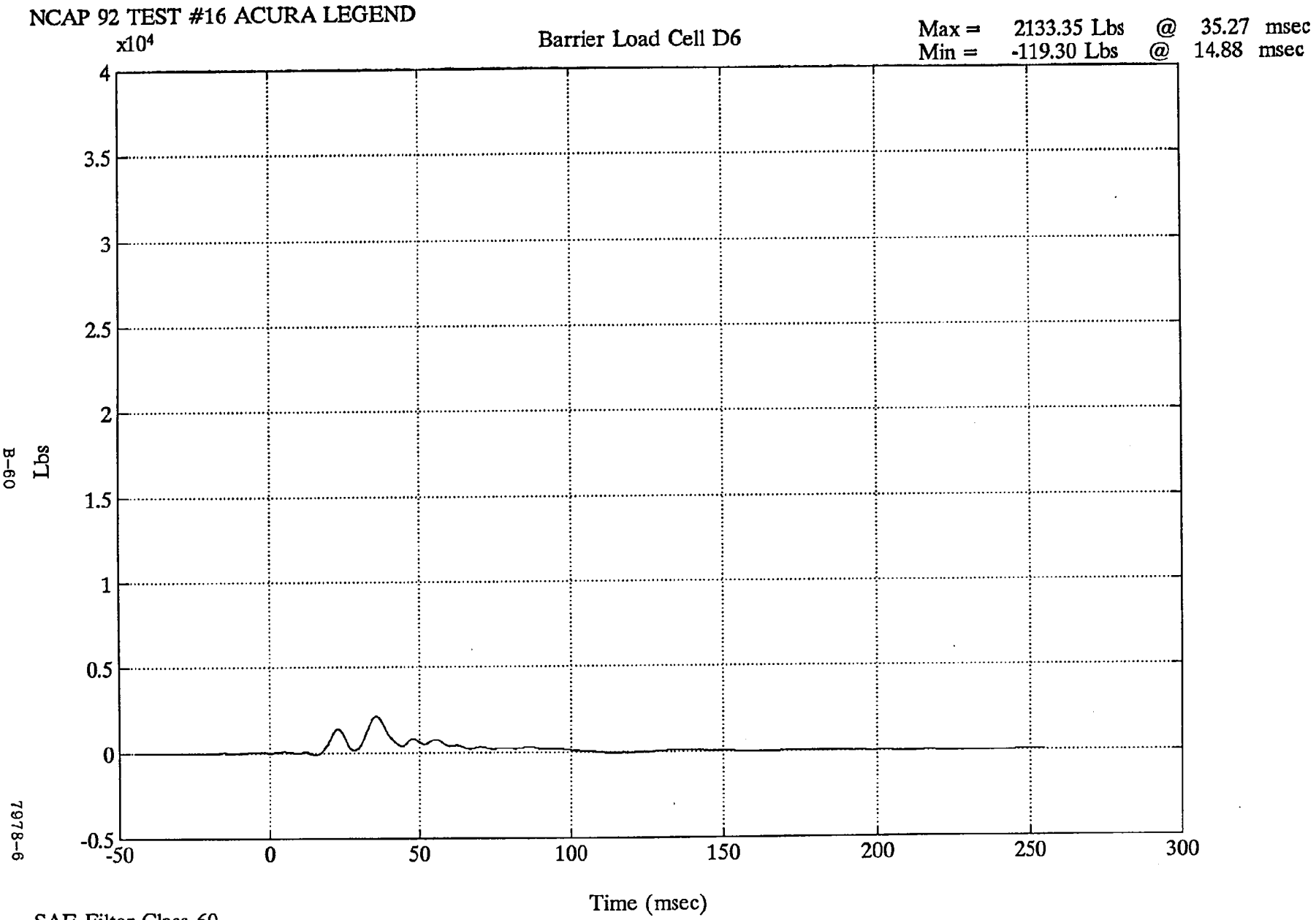
7978-6

NCAP 92 TEST #16 ACURA LEGEND



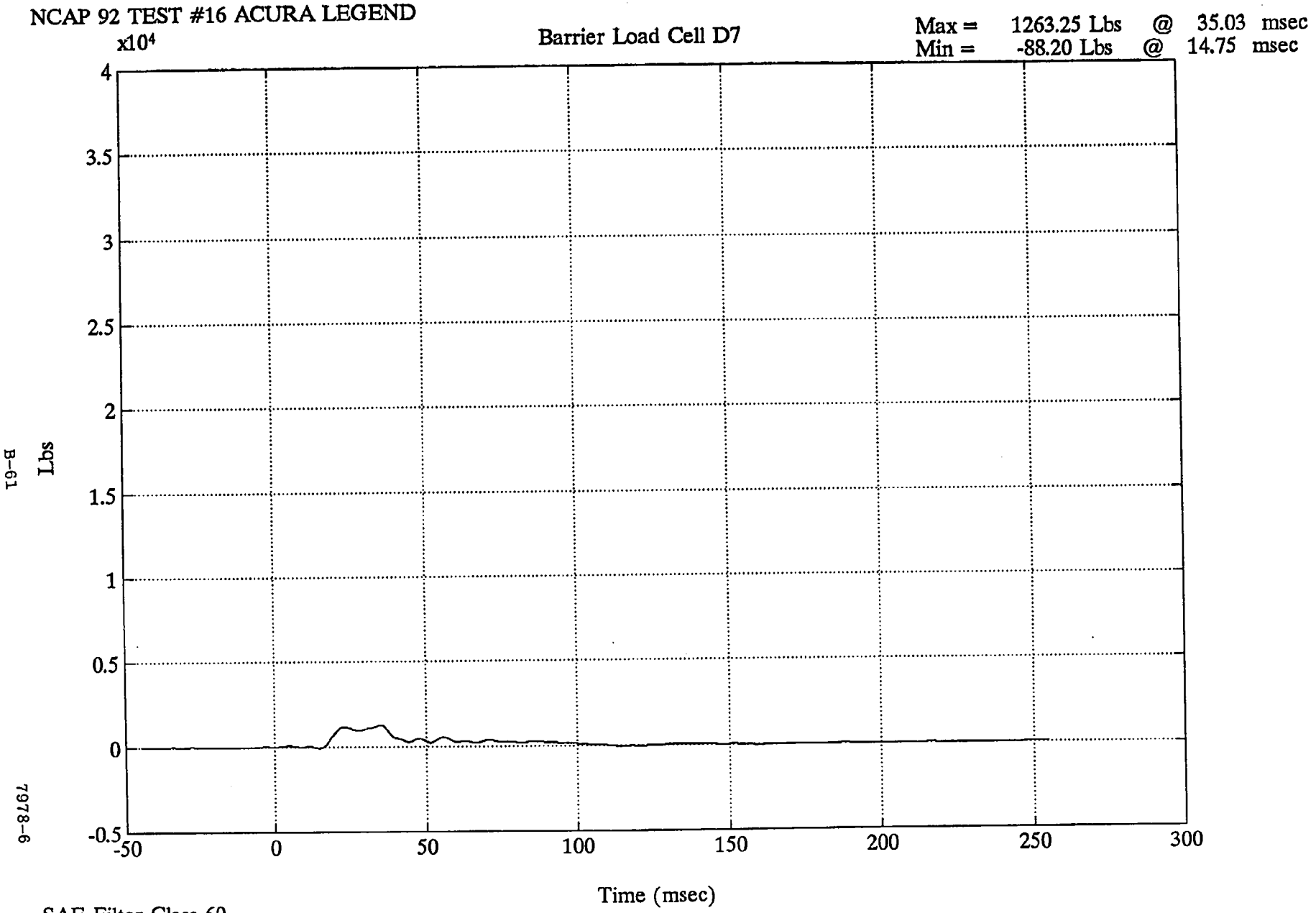
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



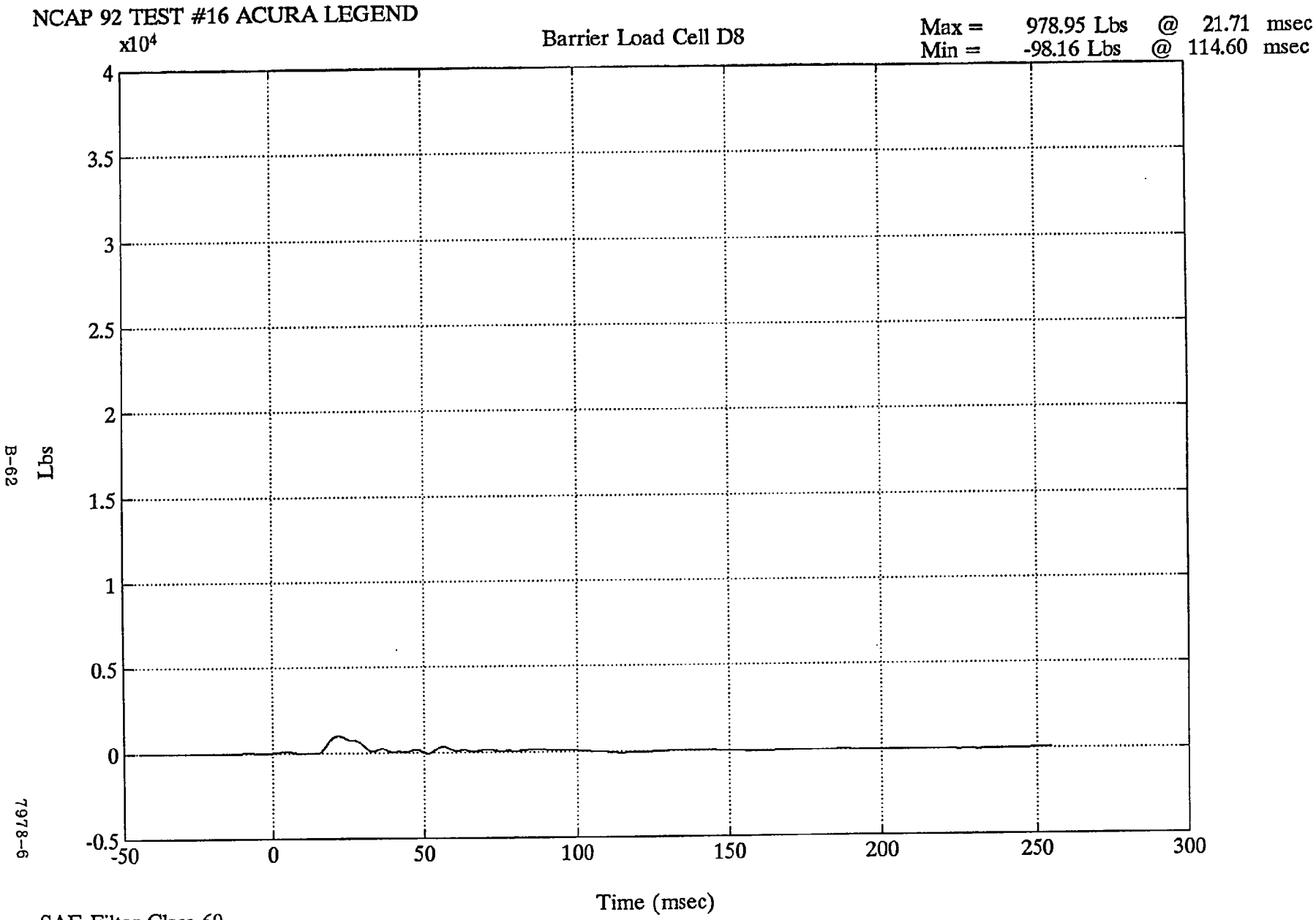
SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

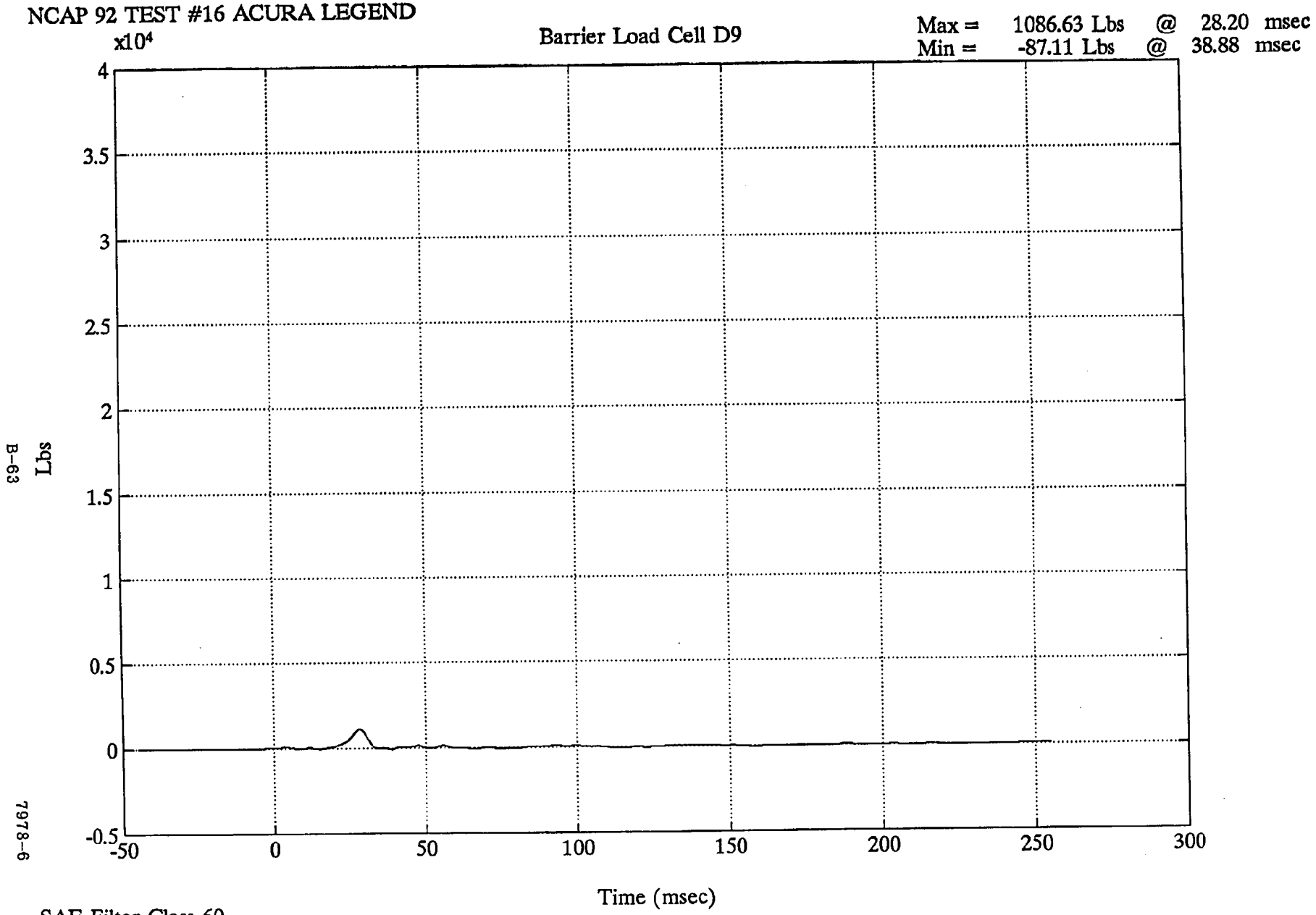


SAE Filter Class 60

B-62

7978-6

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

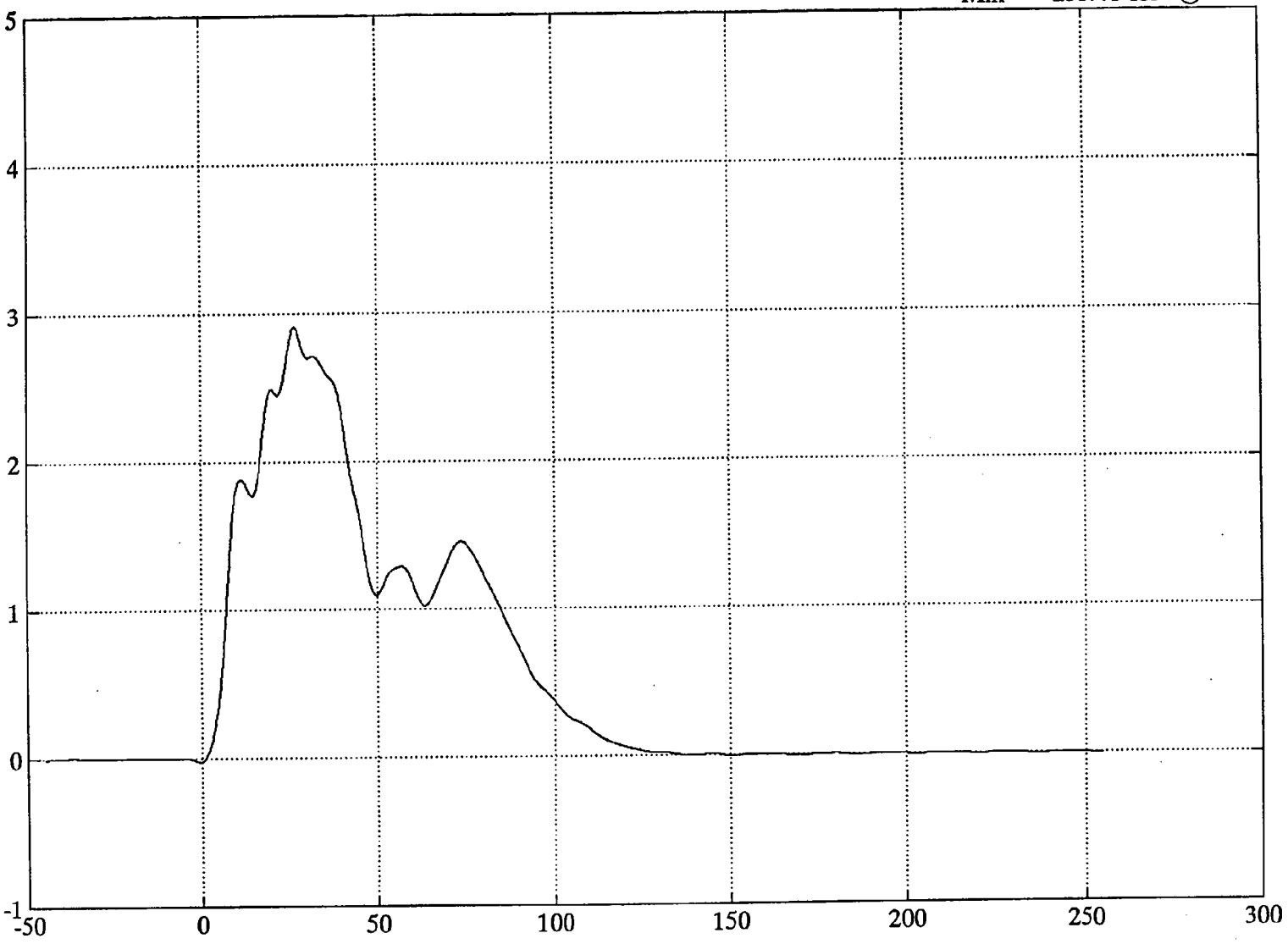
B-63

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Group 1 Load Cell Sum

Max = 29110.00 lbs @ 26.52 msec
Min = -233.48 lbs @ -0.60 msec



B-64

7978-6

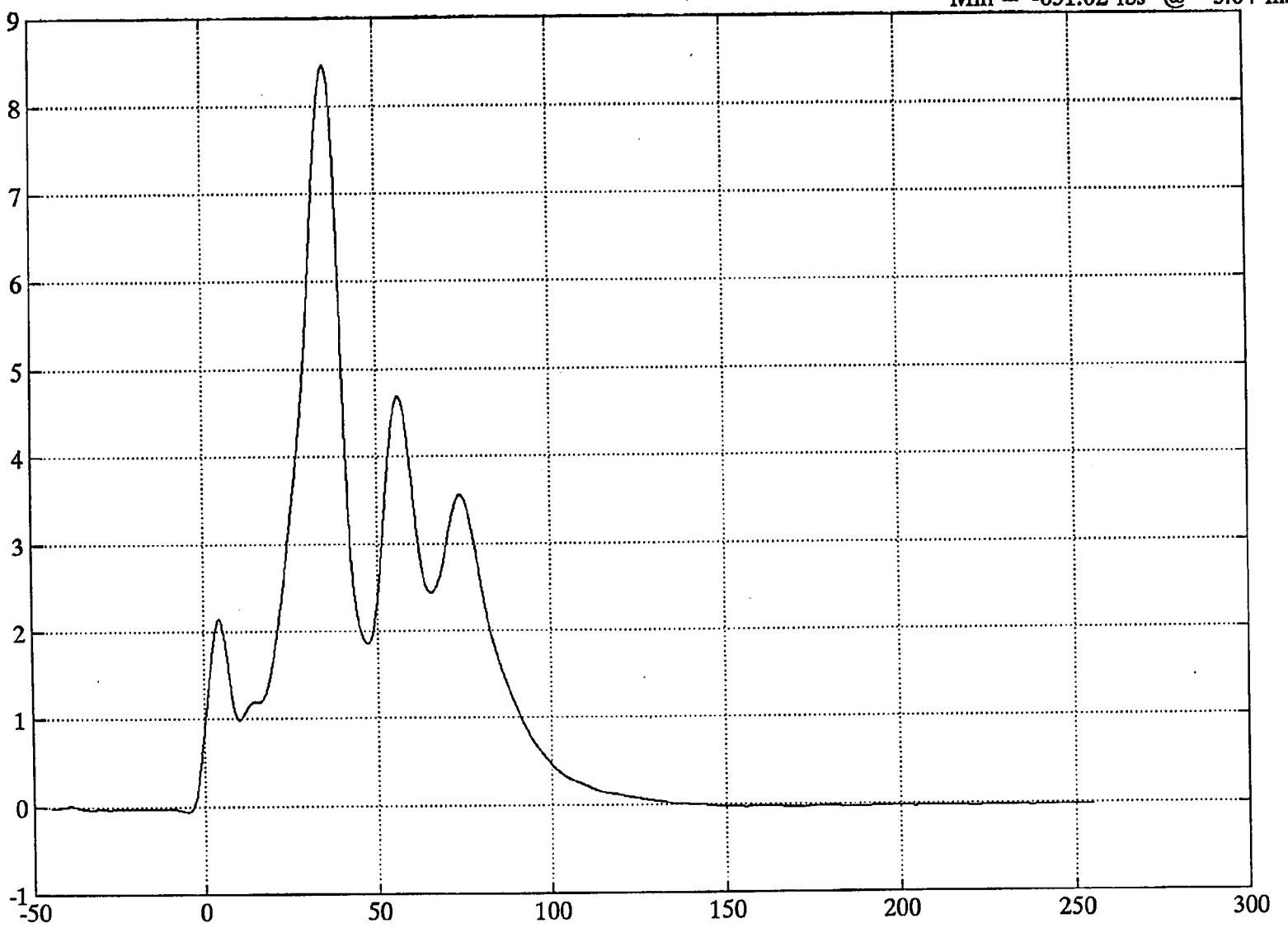
SAE Filter Class 60

Load Cells (A1,A2,A3,B1,B2,B3)

NCAP 92 TEST #16 ACURA LEGEND

Group 2 Load Cell Sum

Max = 84508.20 lbs @ 35.40 msec
Min = -651.02 lbs @ -5.04 msec



B-65

7978-6

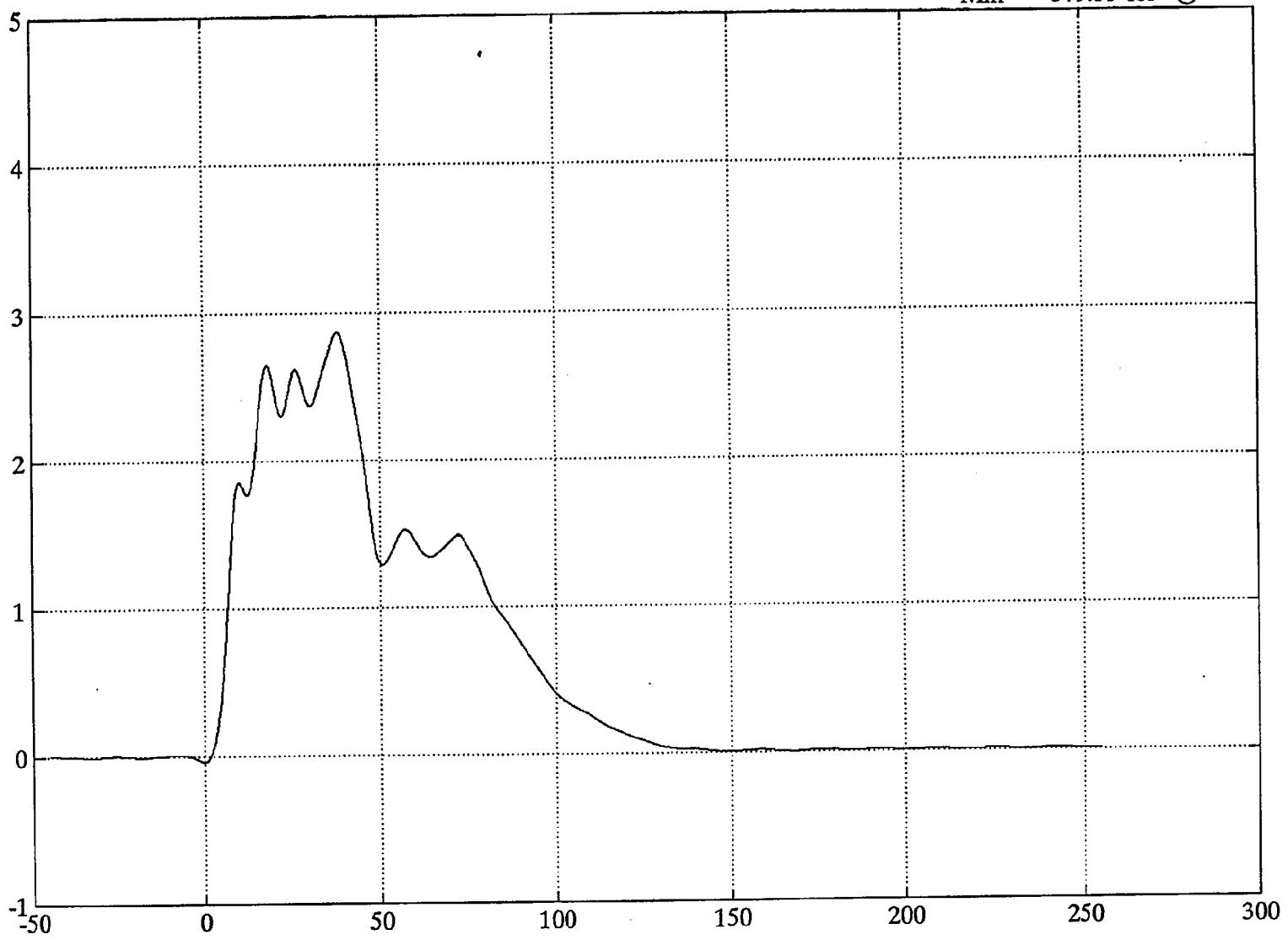
SAE Filter Class 60

Load Cells (A4,A5,A6,B4,B5,B6)

NCAP 92 TEST #16 ACURA LEGEND

Group 3 Load Cell Sum

Max = 28720.20 lbs @ 37.92 msec
Min = -379.35 lbs @ -0.12 msec

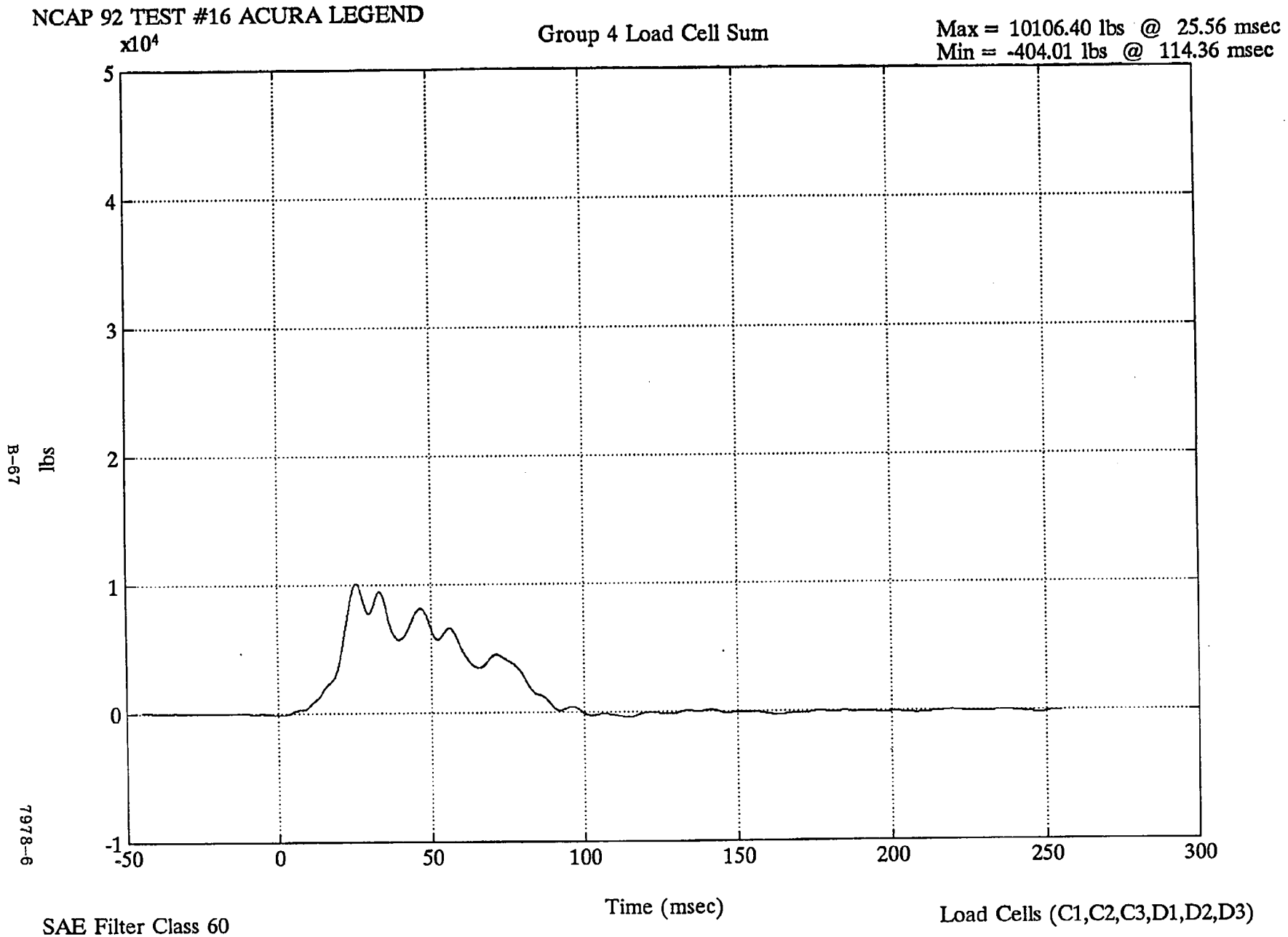


B-66

7978-6

SAE Filter Class 60

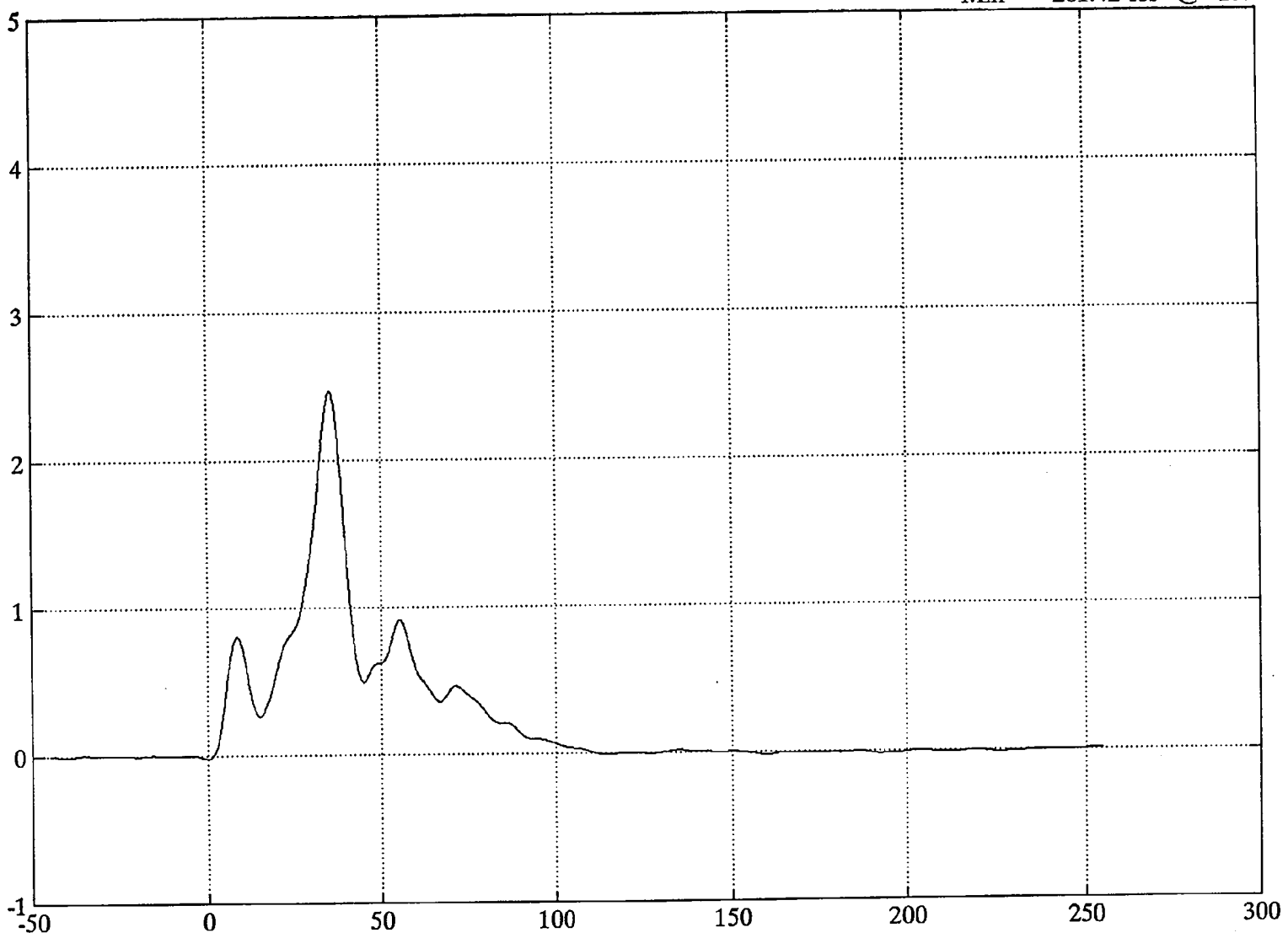
Load Cells (A7,A8,A9,B7,B8,B9)


NCAP 92 TEST #16 ACURA LEGEND
Group 4 Load Cell Sum
Max = 10106.40 lbs @ 25.56 msec
Min = -404.01 lbs @ 114.36 msec
x10^4
5
4
3
2
1
0
-1
-50
0
50
100
150
200
250
300
lbs
Time (msec)
SAE Filter Class 60
Load Cells (C1,C2,C3,D1,D2,D3)
B-67
7978-6

NCAP 92 TEST #16 ACURA LEGEND

Group 5 Load Cell Sum

Max = 24710.40 lbs @ 35.16 msec
Min = -201.42 lbs @ 159.72 msec



B-68

7978-6

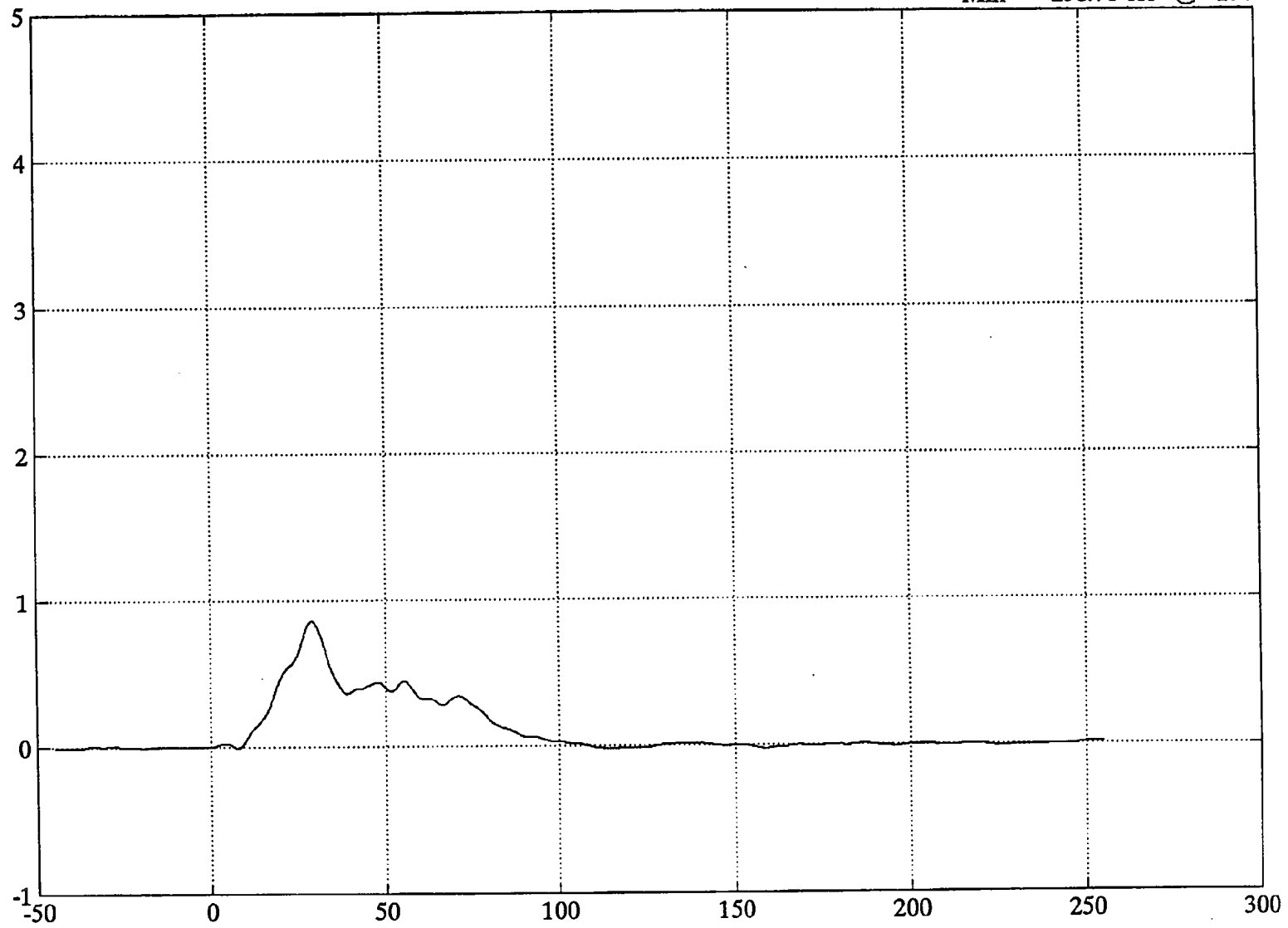
SAE Filter Class 60

Load Cells (C4,C5,C6,D4,D5,D6)

NCAP 92 TEST #16 ACURA LEGEND

Group 6 Load Cell Sum

Max = 8598.68 lbs @ 28.80 msec
Min = -238.76 lbs @ 158.88 msec



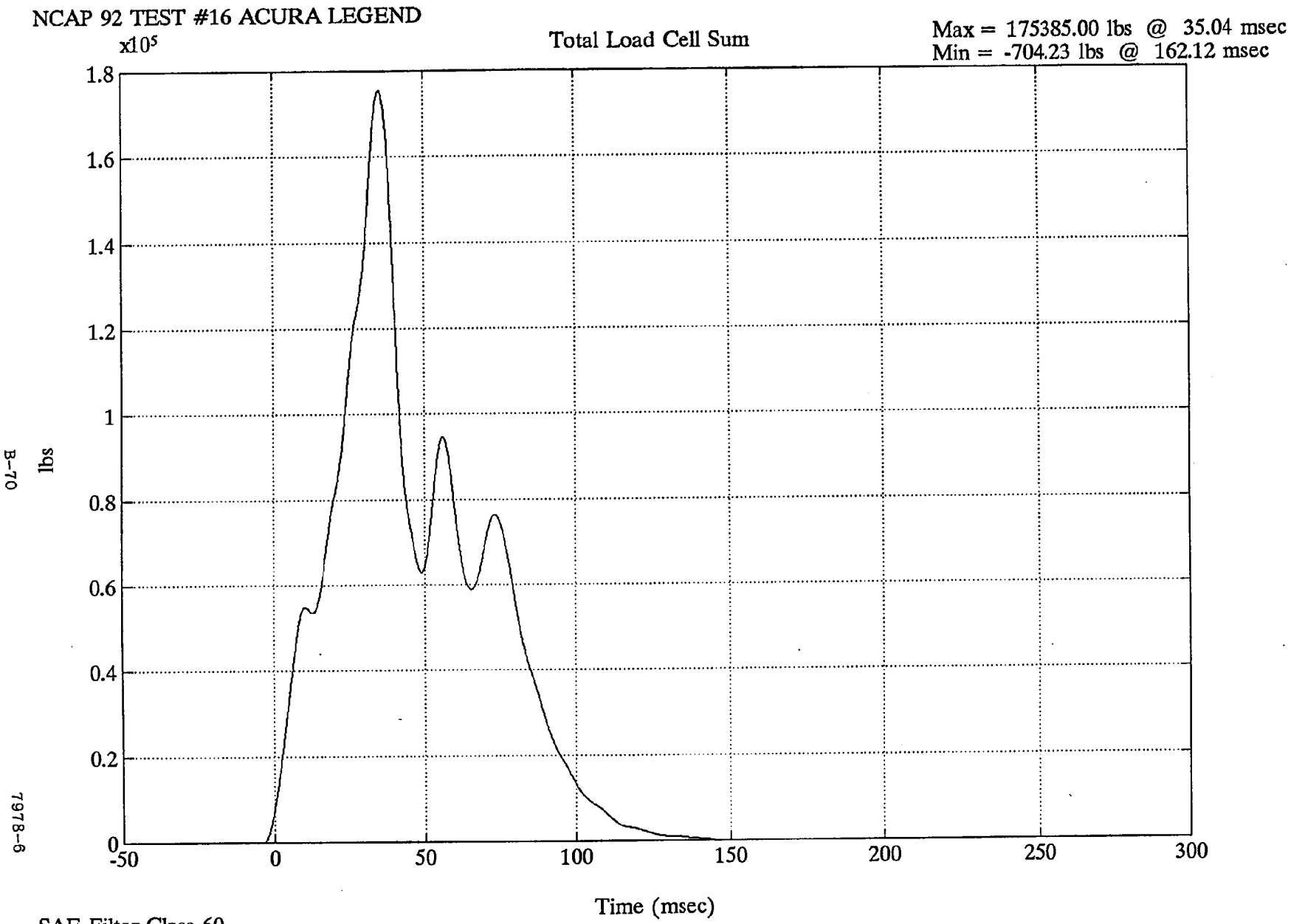
B-69

7978-6

SAE Filter Class 60

Load Cells (C7,C8,C9,D7,D8,D9)

NCAP 92 TEST #16 ACURA LEGEND



SAE Filter Class 60

B-70

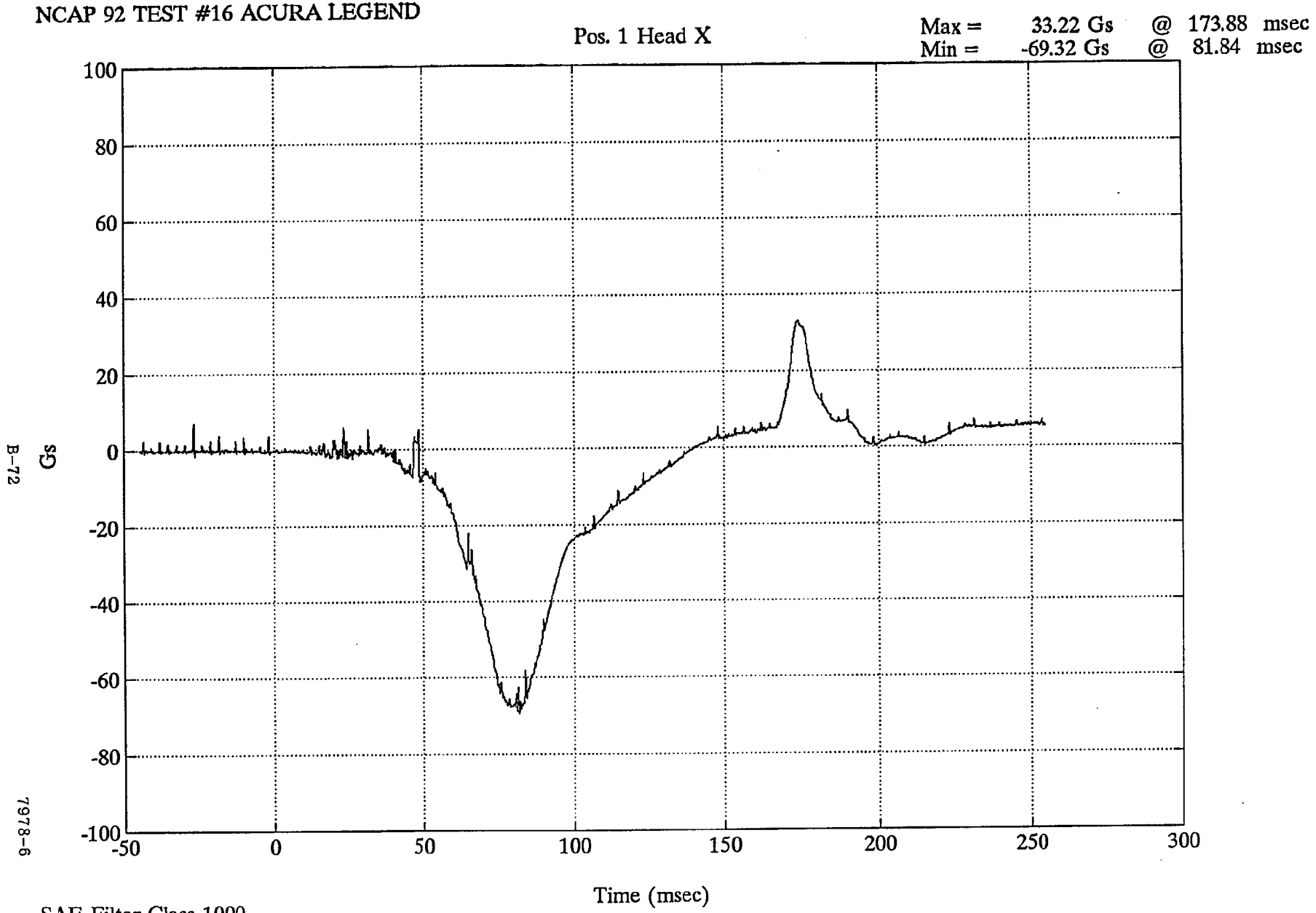
7978-9

TEST NO. MN5301

DUMMY DATA

	FILTER CHANNEL CLASS
Head Accelerations	1000
Chest Accelerations	180
Femur Forces	600
Belt Loads	60
Belt Displacements	180

NCAP 92 TEST #16 ACURA LEGEND



B-72

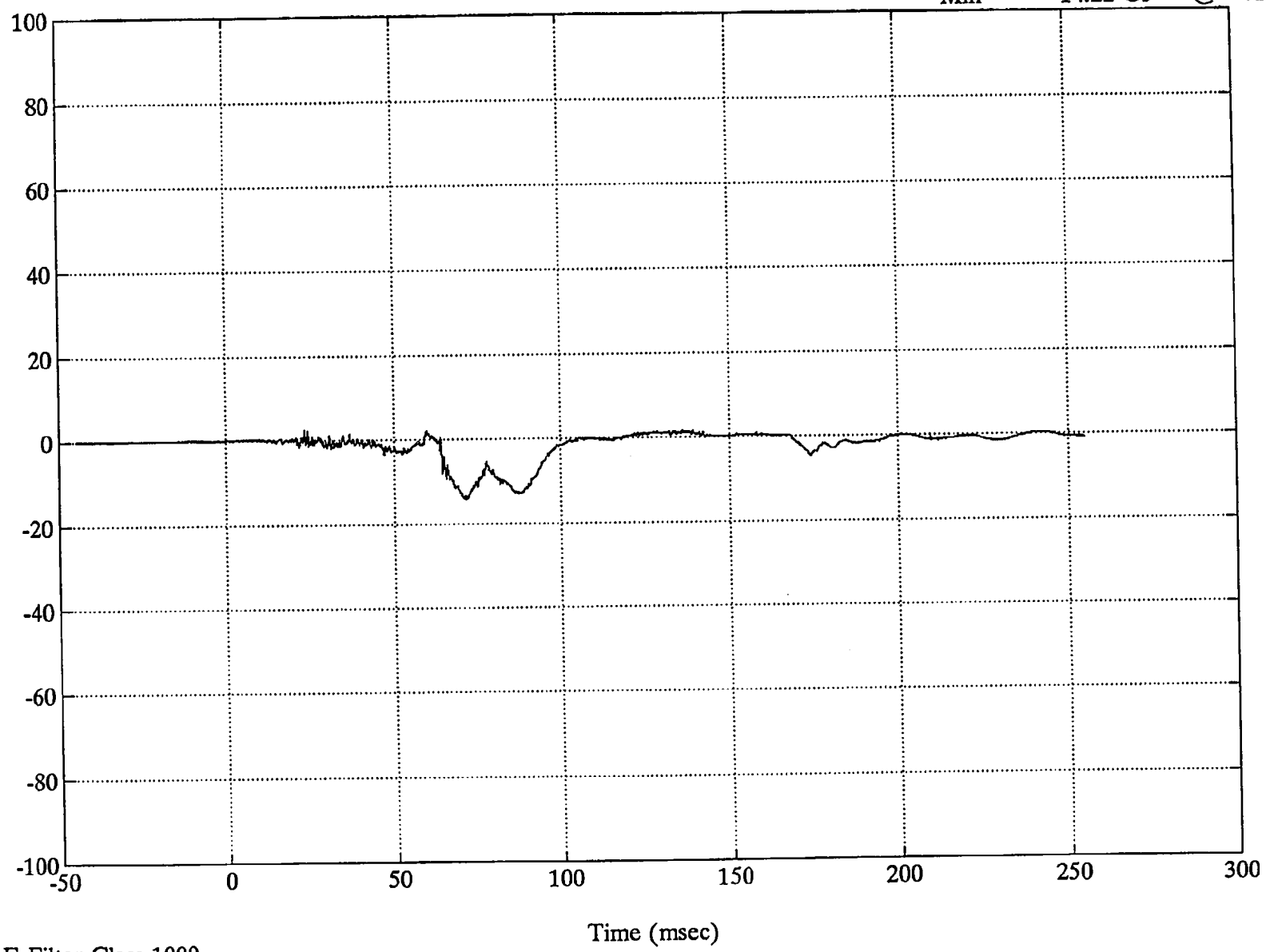
7978-6

SAE Filter Class 1000

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Head Y

Max = 2.47 Gs @ 23.39 msec
Min = -14.22 Gs @ 71.40 msec



B-73

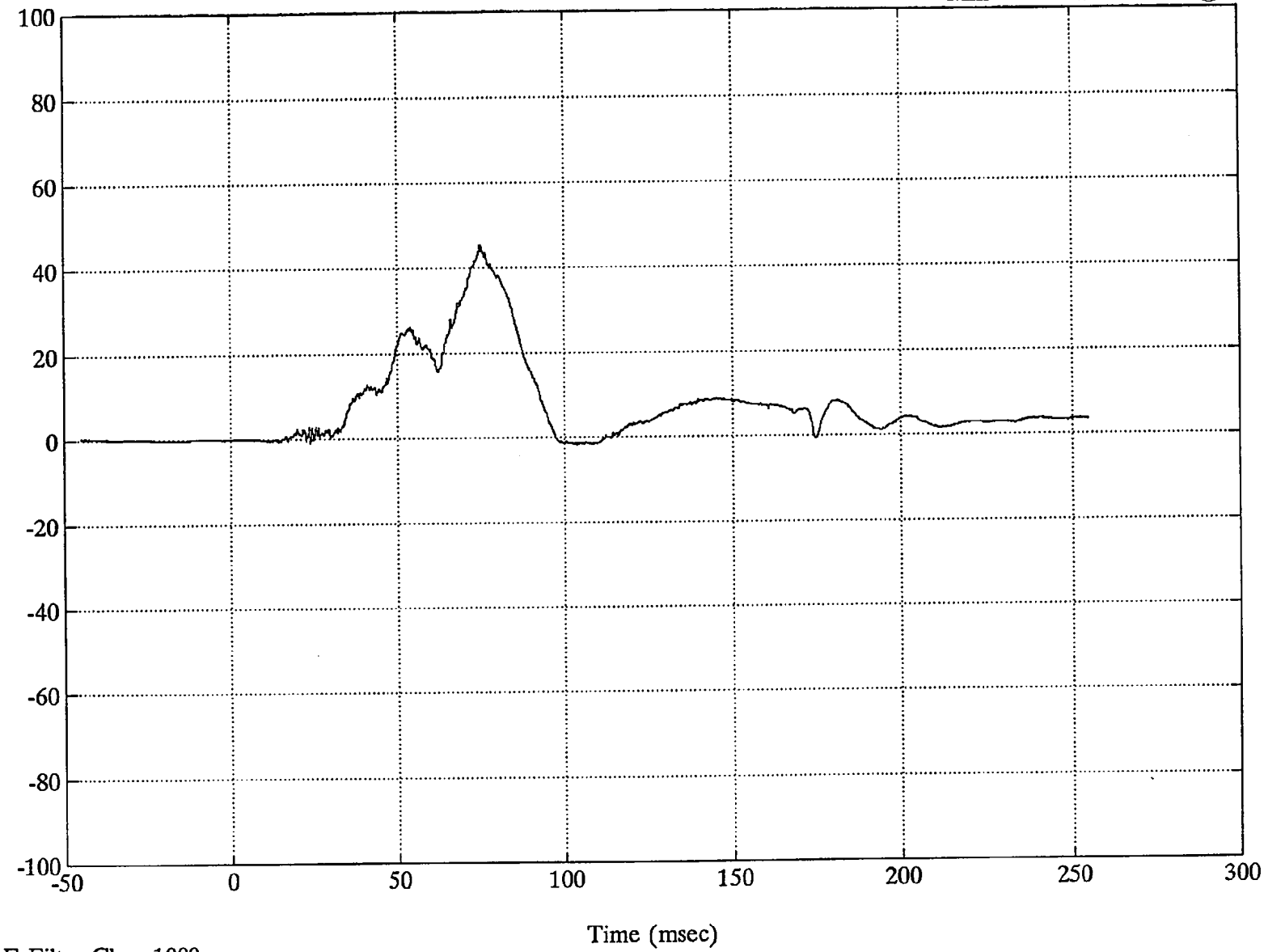
7978-6

SAE Filter Class 1000

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Head Z

Max = 45.42 Gs @ 75.36 msec
Min = -1.73 Gs @ 103.44 msec



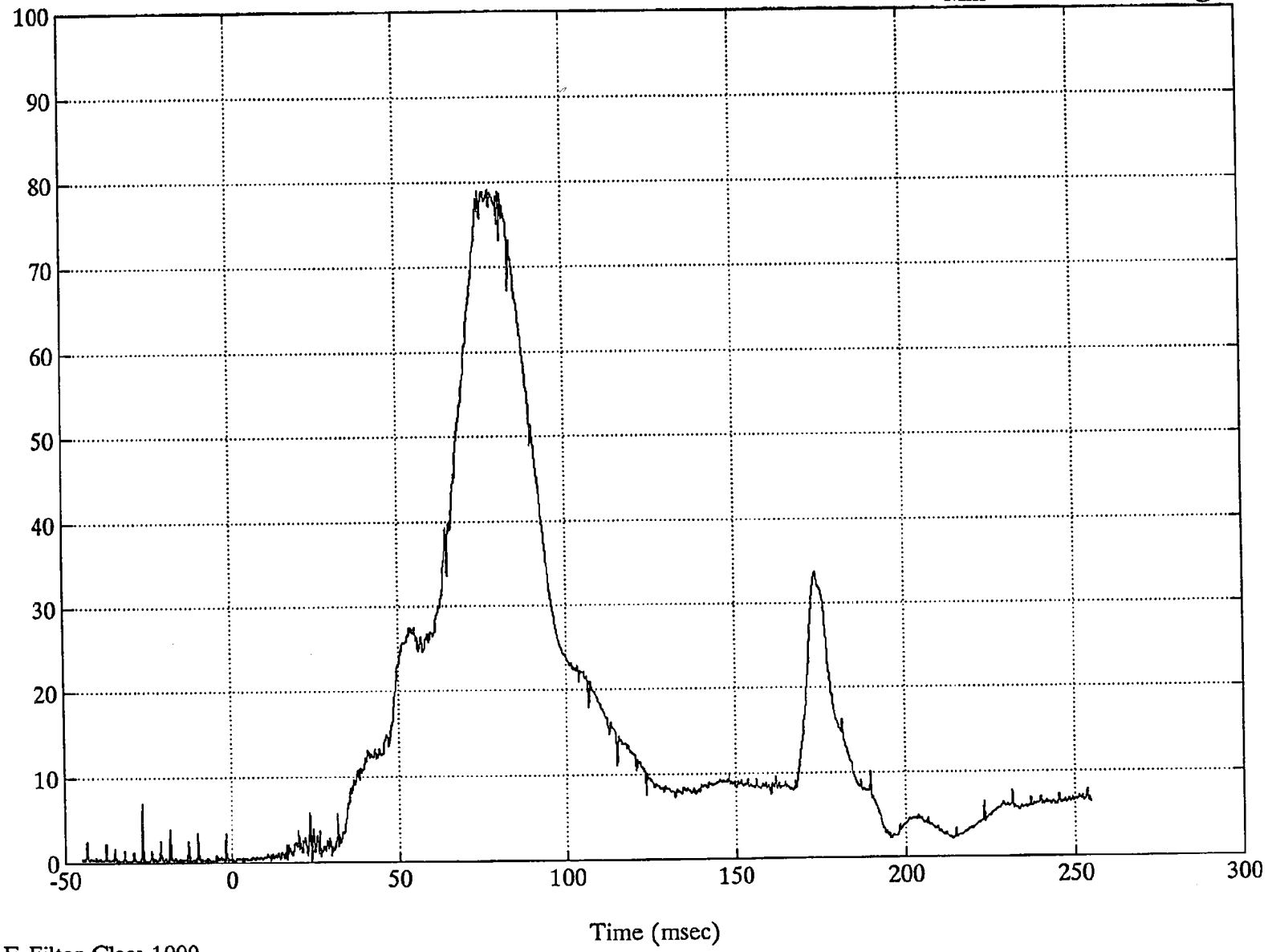
SAE Filter Class 1000

7978-6

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Head Resultant

Max = 79.06 Gs @ 78.23 msec
Min = .09 Gs @ -7.32 msec

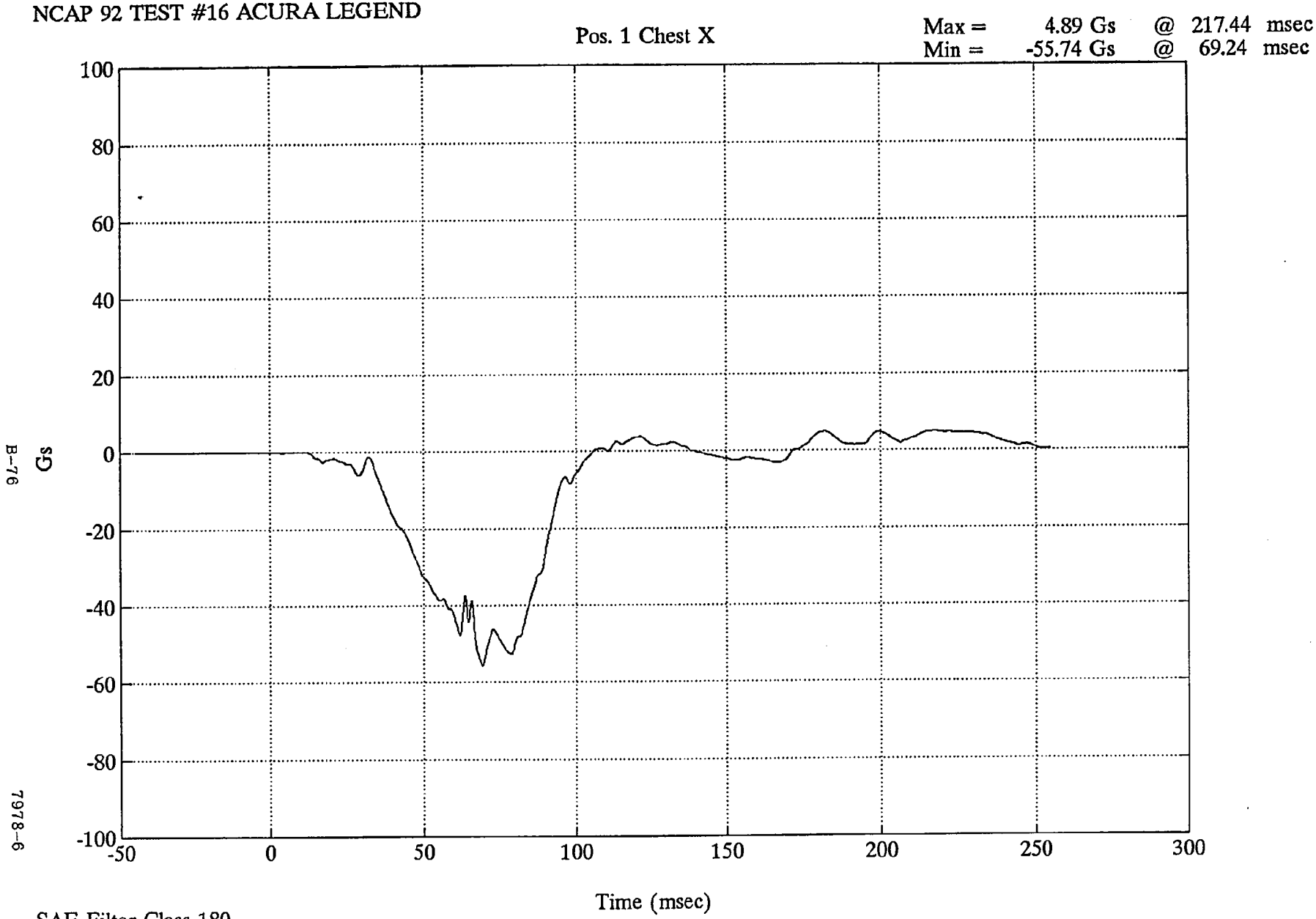


B-75

7978-6

SAE Filter Class 1000

NCAP 92 TEST #16 ACURA LEGEND

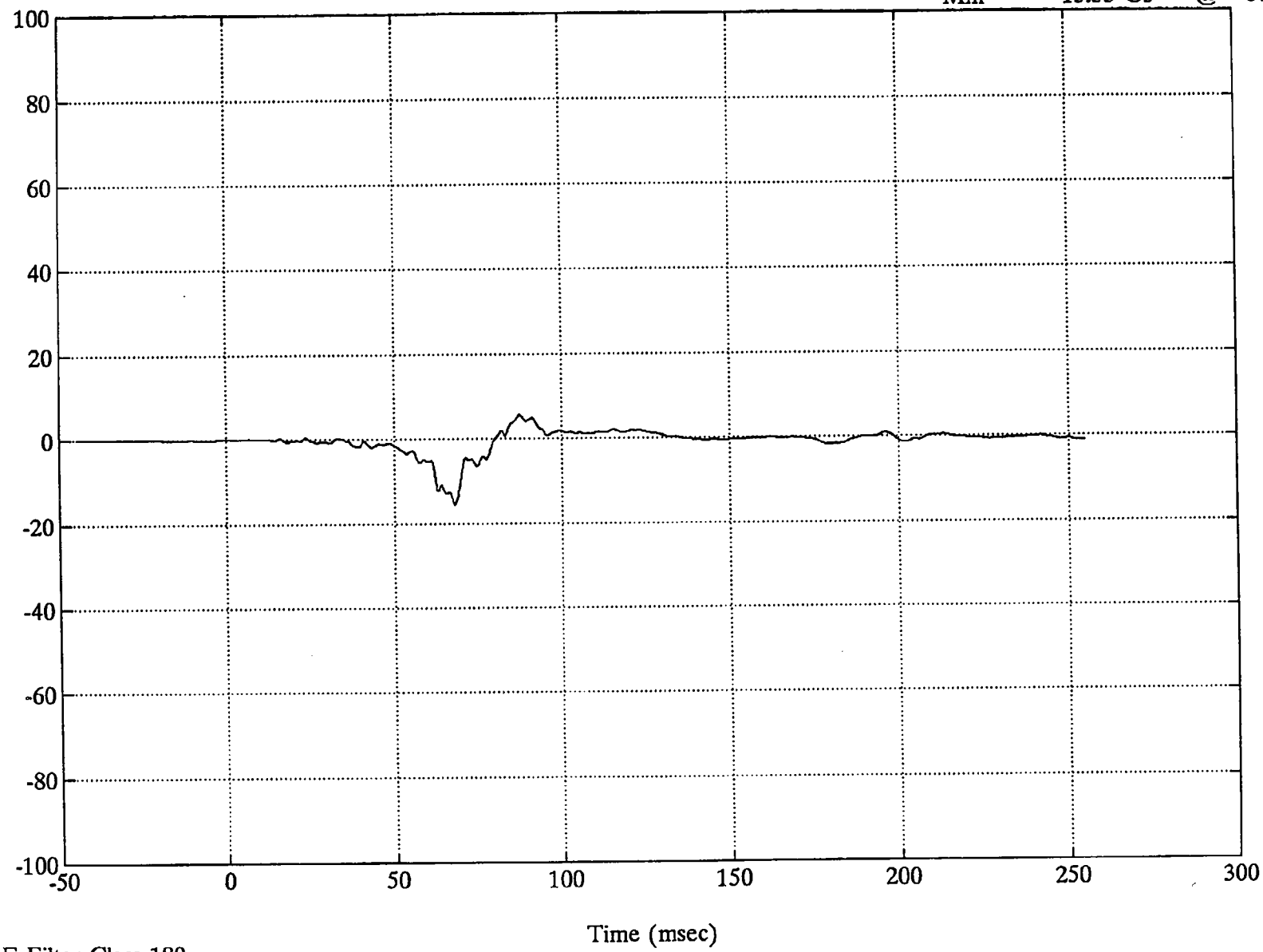


SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Chest Y

Max = 5.54 Gs @ 87.36 msec
Min = -15.53 Gs @ 67.91 msec



B-77

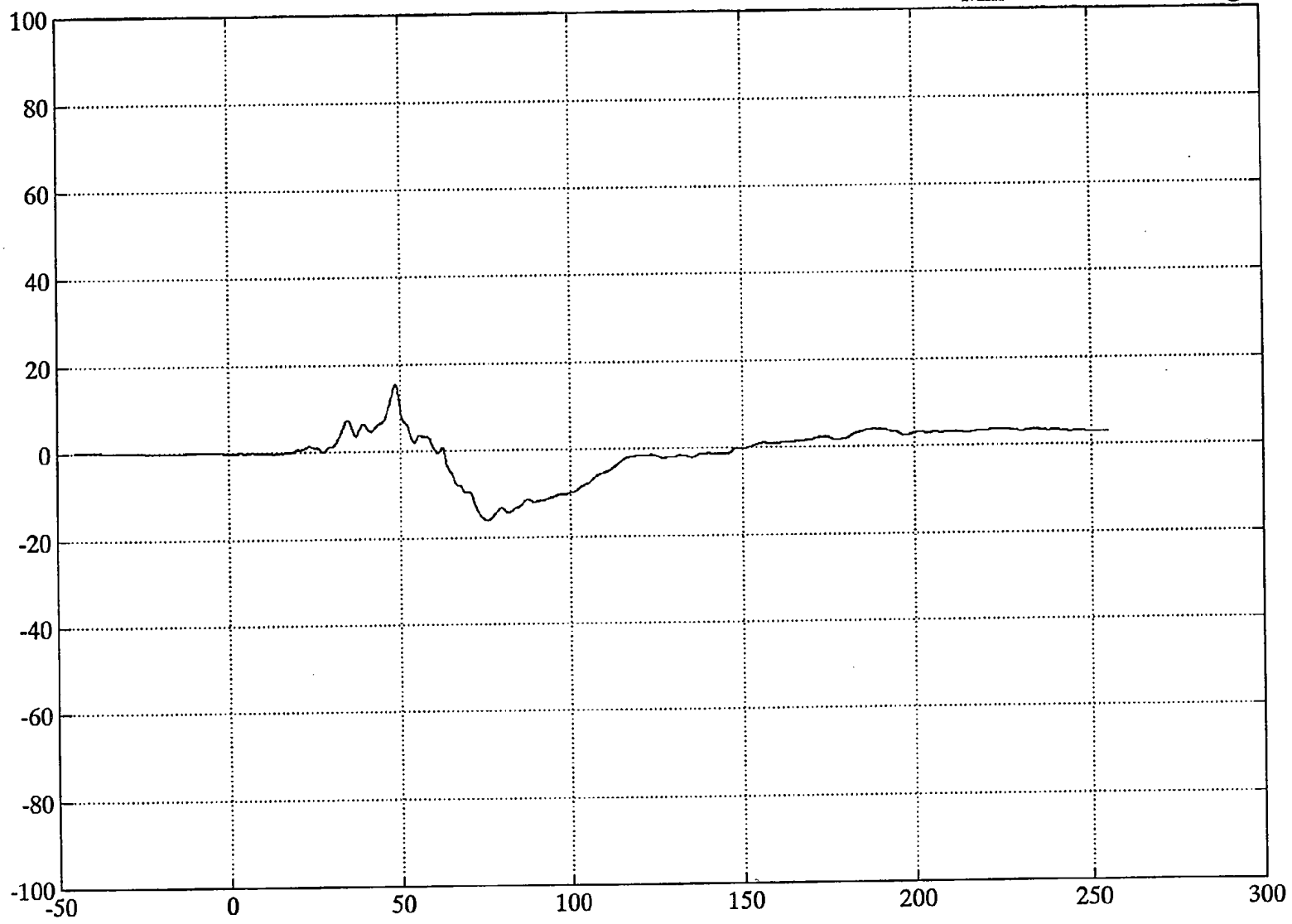
7978-6

SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Chest Z

Max = 15.35 Gs @ 48.59 msec
Min = -16.18 Gs @ 75.12 msec



B-78

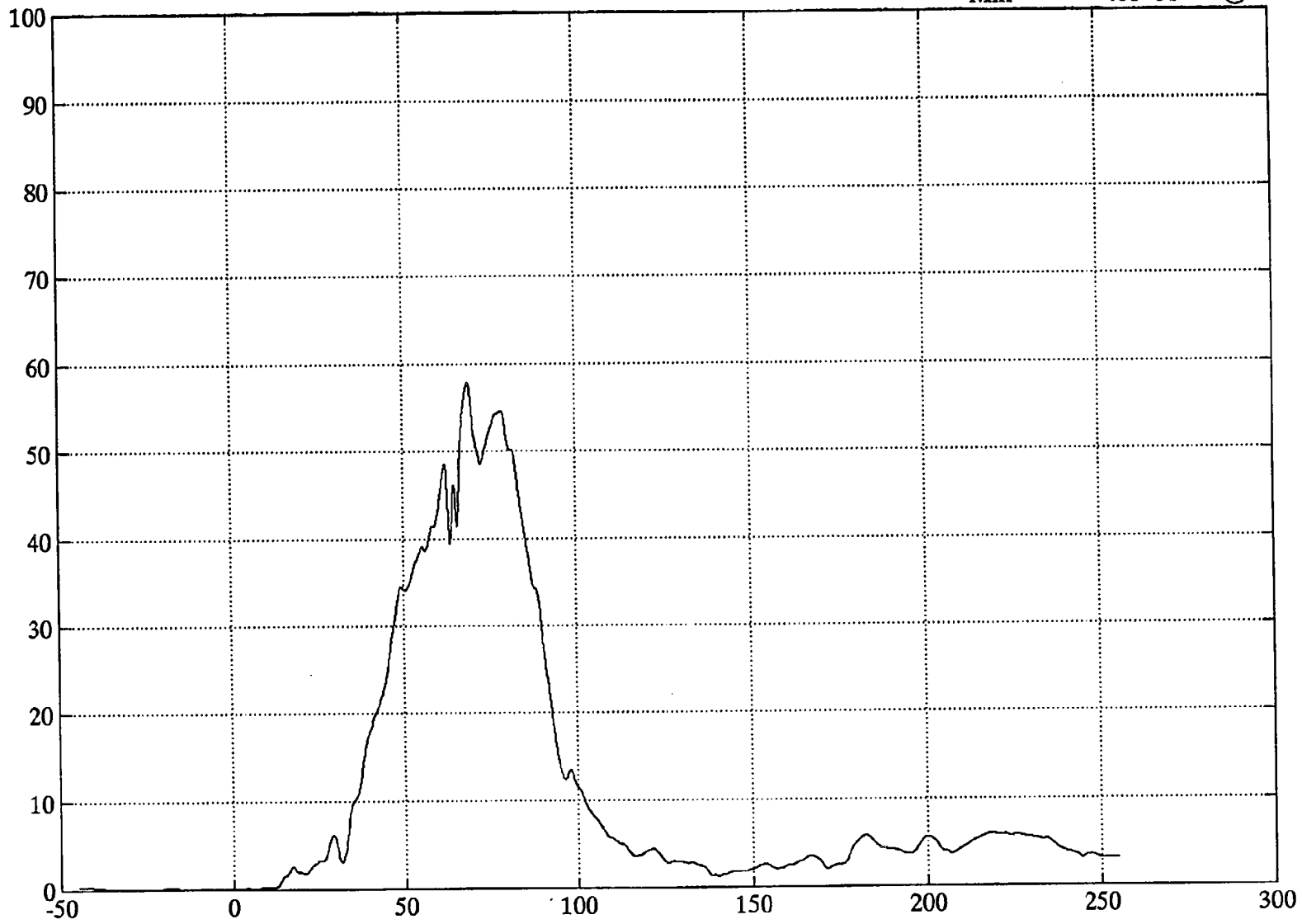
7978-6

SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Chest Resultant

Max = 57.87 Gs @ 69.00 msec
Min = .08 Gs @ -10.92 msec



B-79

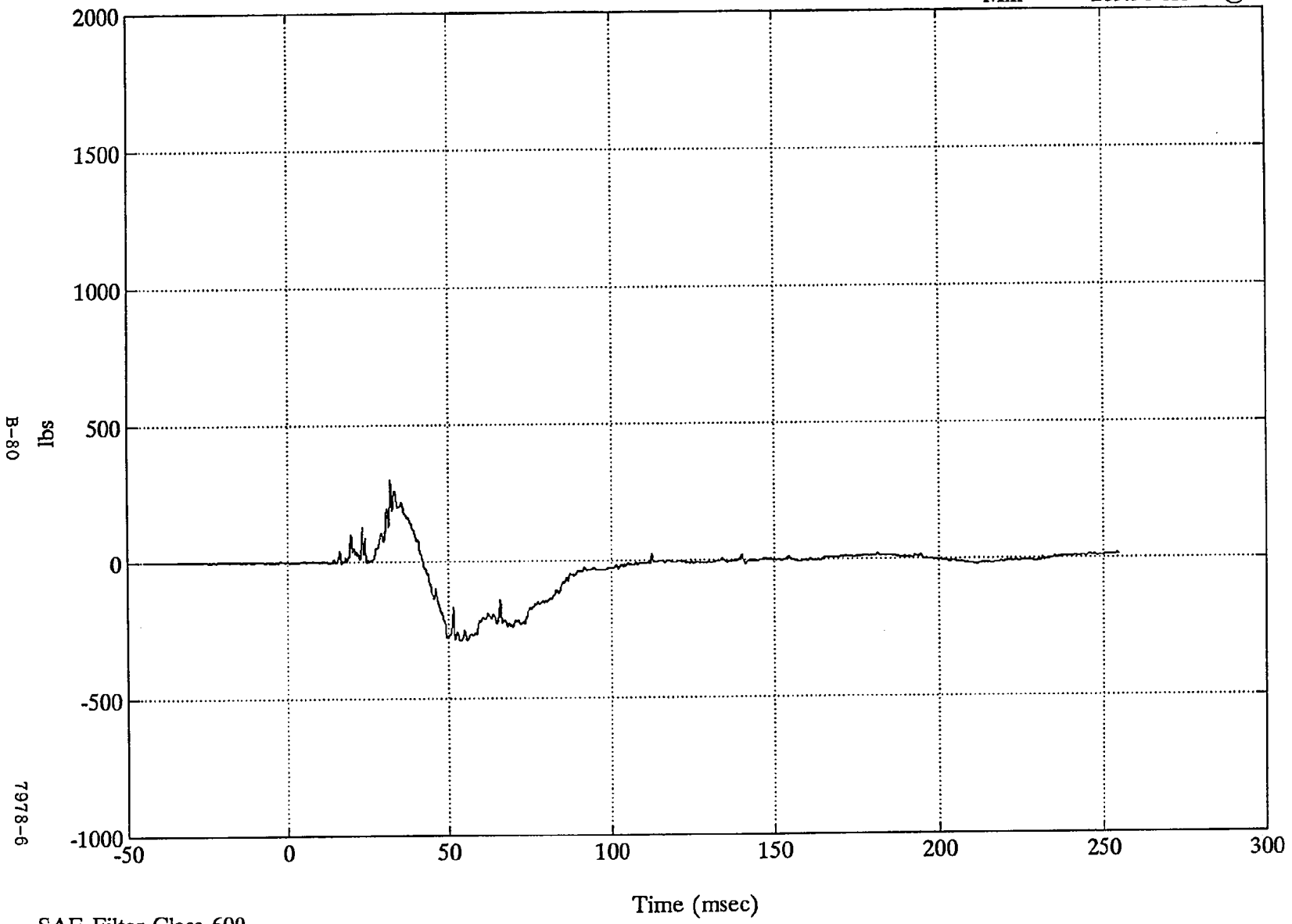
7978-6

SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Left Femur

Max = 297.55 lbs @ 32.04 msec
Min = -289.90 lbs @ 53.63 msec



B-80

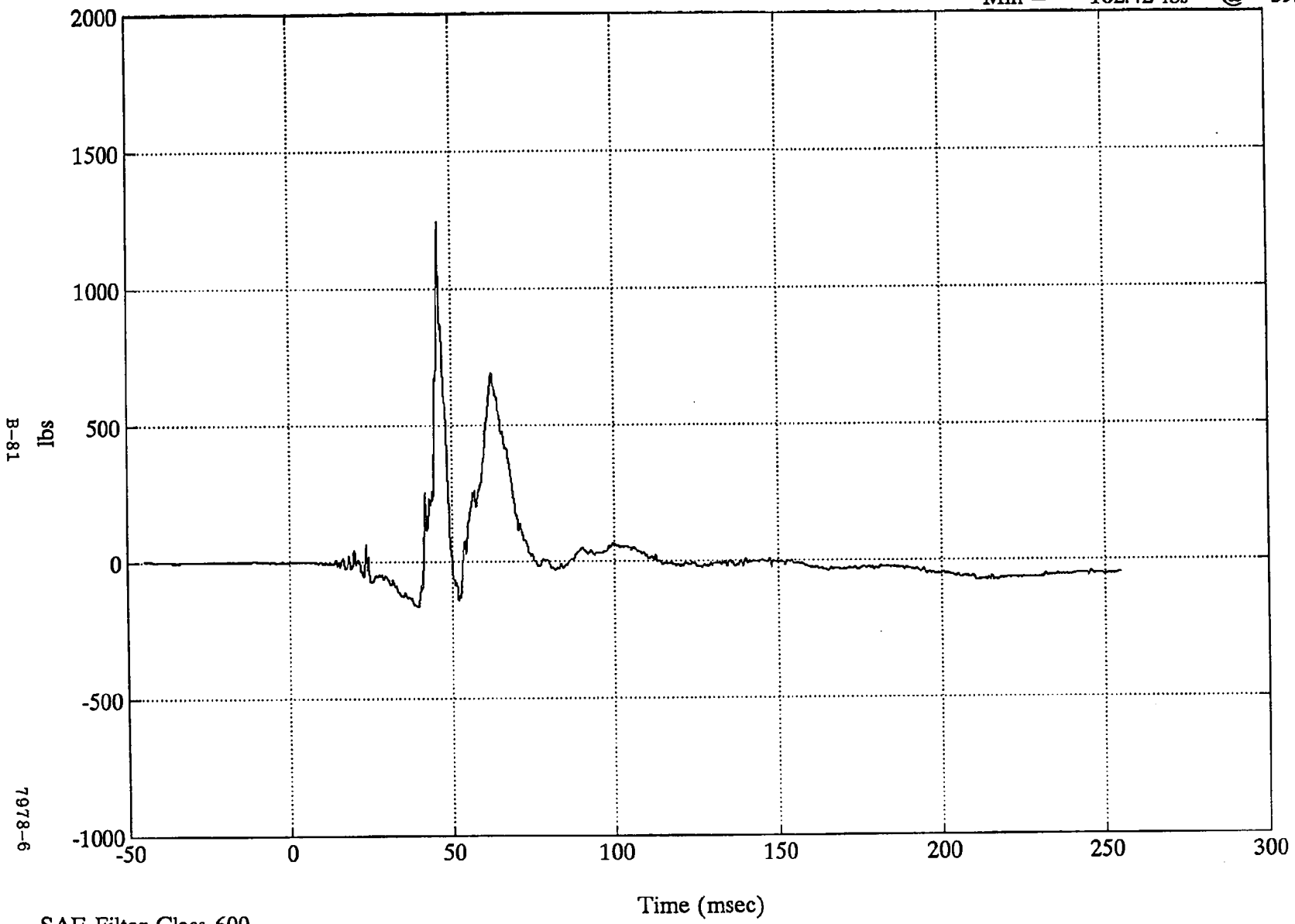
7978-6

SAE Filter Class 600

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Right Femur

Max = 1244.14 lbs @ 45.96 msec
Min = -162.42 lbs @ 39.47 msec



B-81

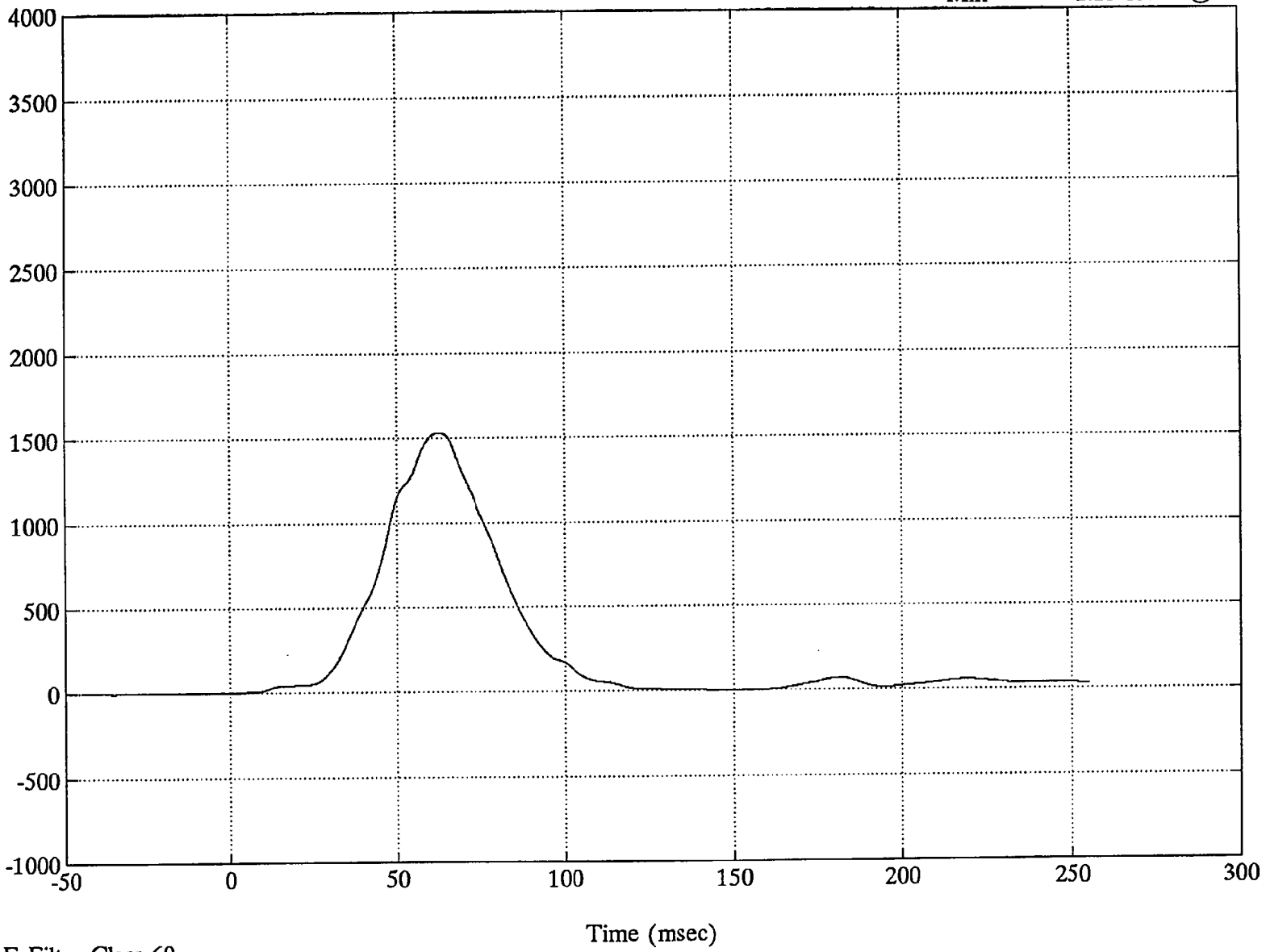
7978-6

SAE Filter Class 600

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Left Belt Load

Max = 1529.52 lbs @ 62.51 msec
Min = -1.13 lbs @ -35.40 msec

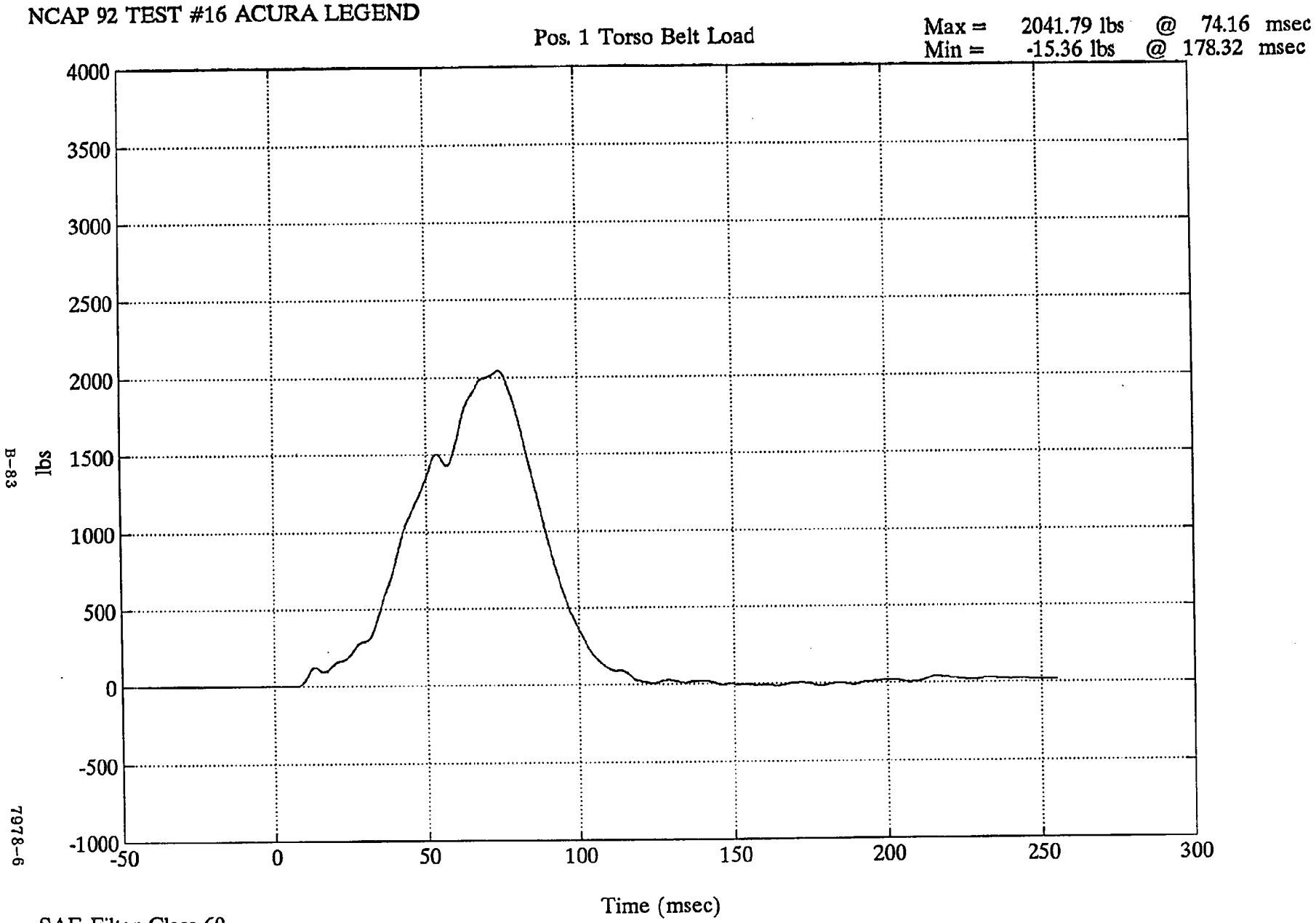


SAE Filter Class 60

B-82

7978-6

NCAP 92 TEST #16 ACURA LEGEND

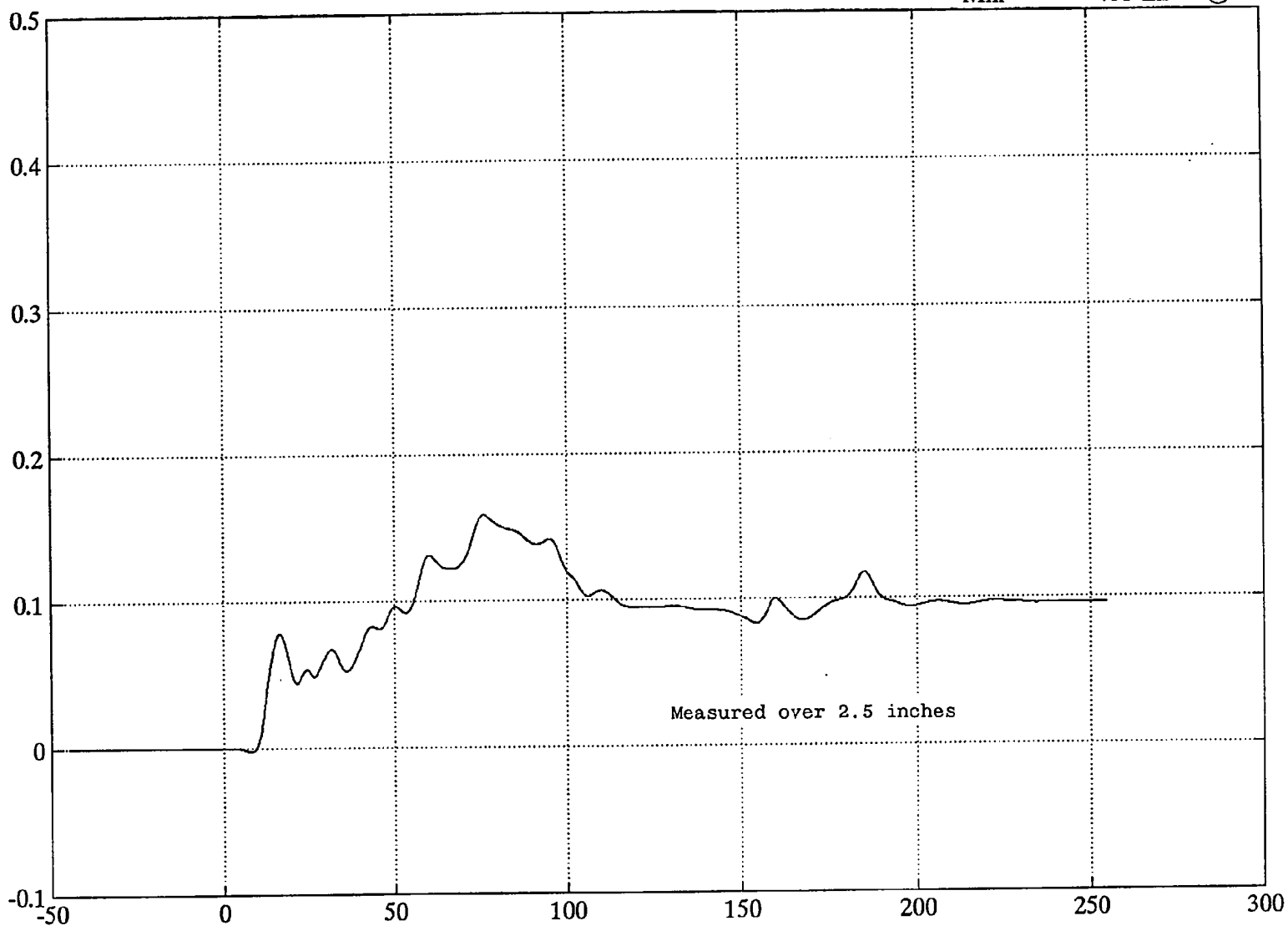


SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Pos. 1 Belt Elongation

Max = .16 ins @ 75.95 msec
Min = -.00 ins @ 7.79 msec



B-84

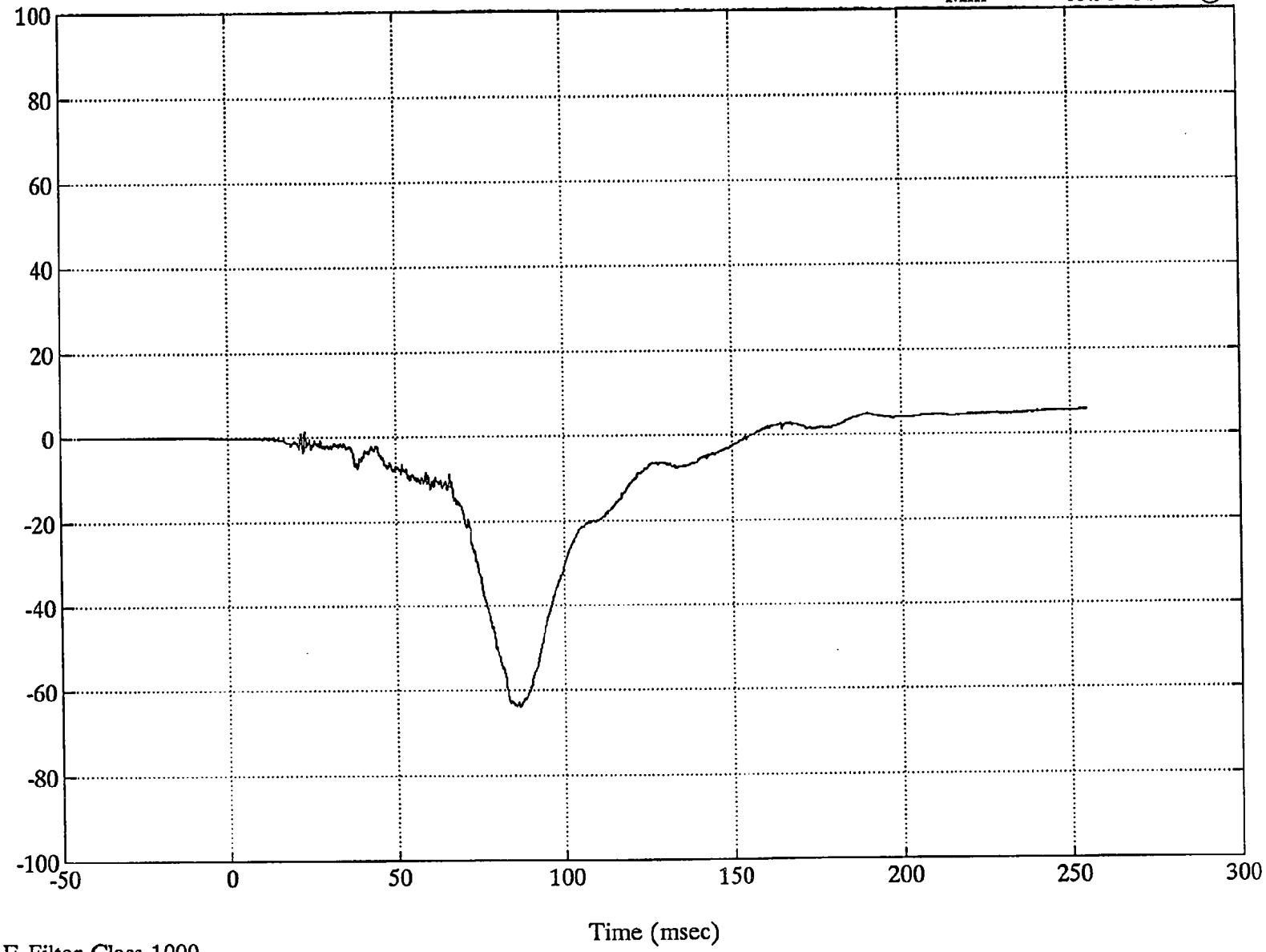
7978-6

SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Head X

Max = 5.68 Gs @ 254.40 msec
Min = -63.93 Gs @ 86.40 msec

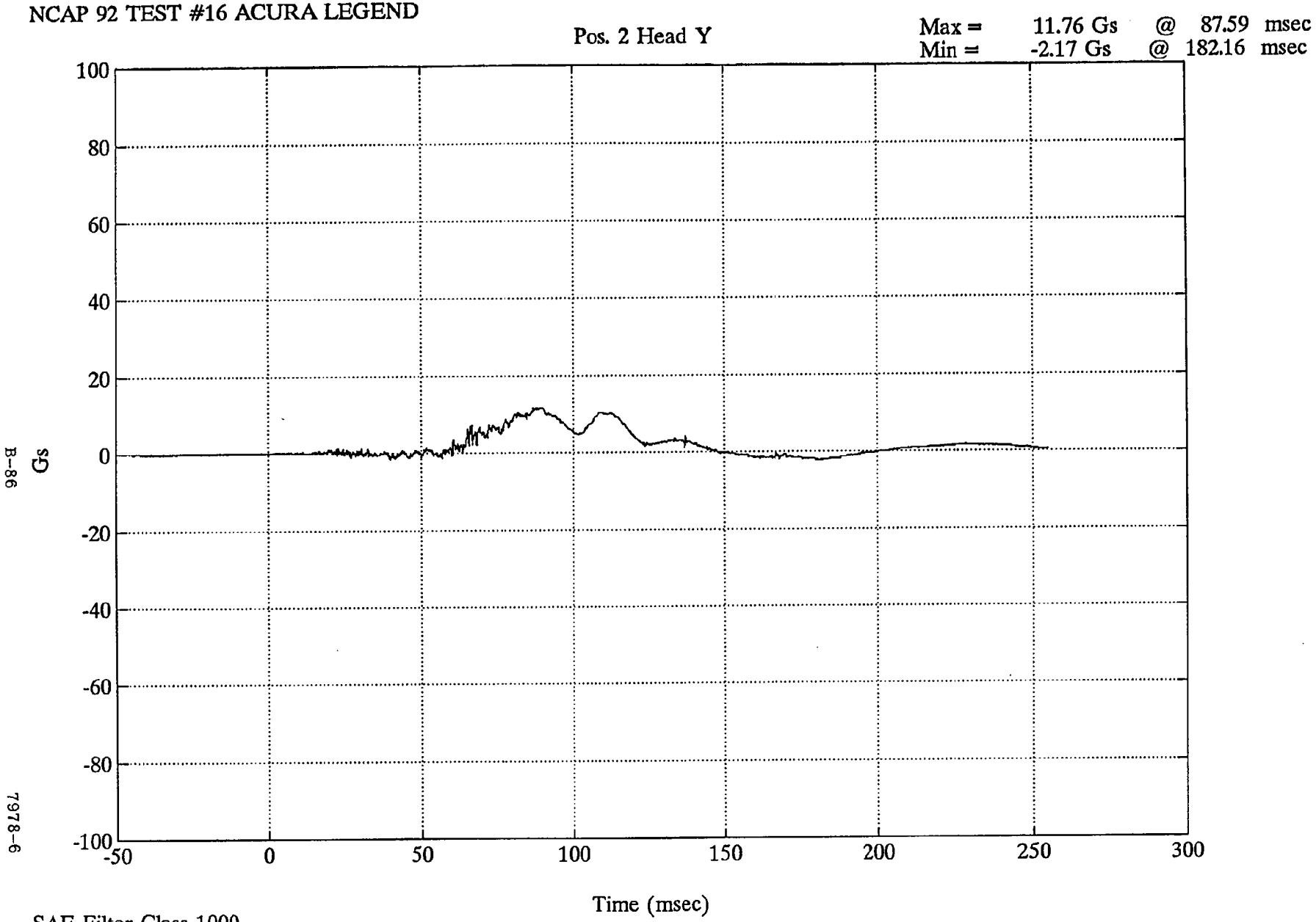


B-85

7978-6

SAE Filter Class 1000

NCAP 92 TEST #16 ACURA LEGEND

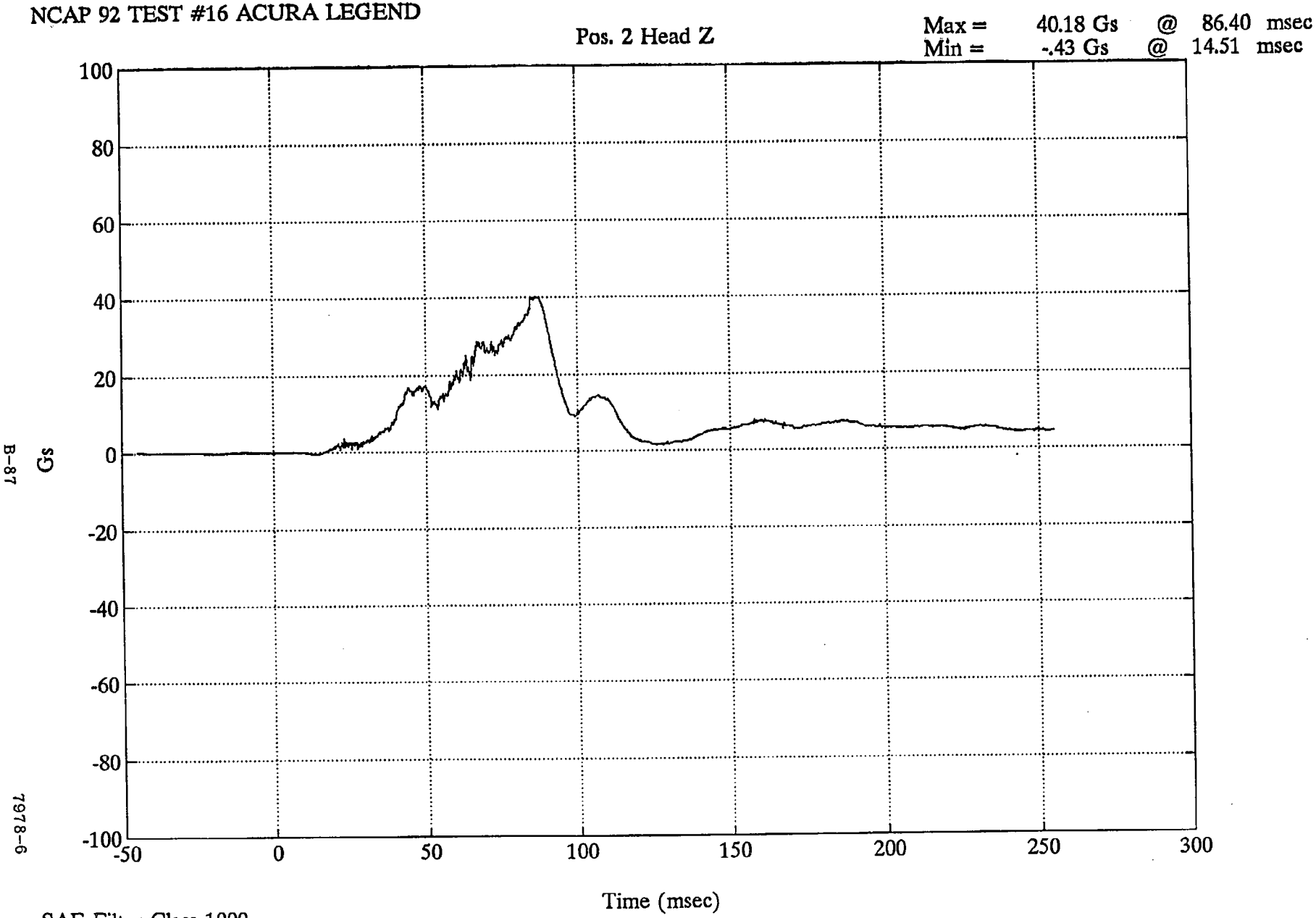


SAE Filter Class 1000

B-86

7978-6

NCAP 92 TEST #16 ACURA LEGEND

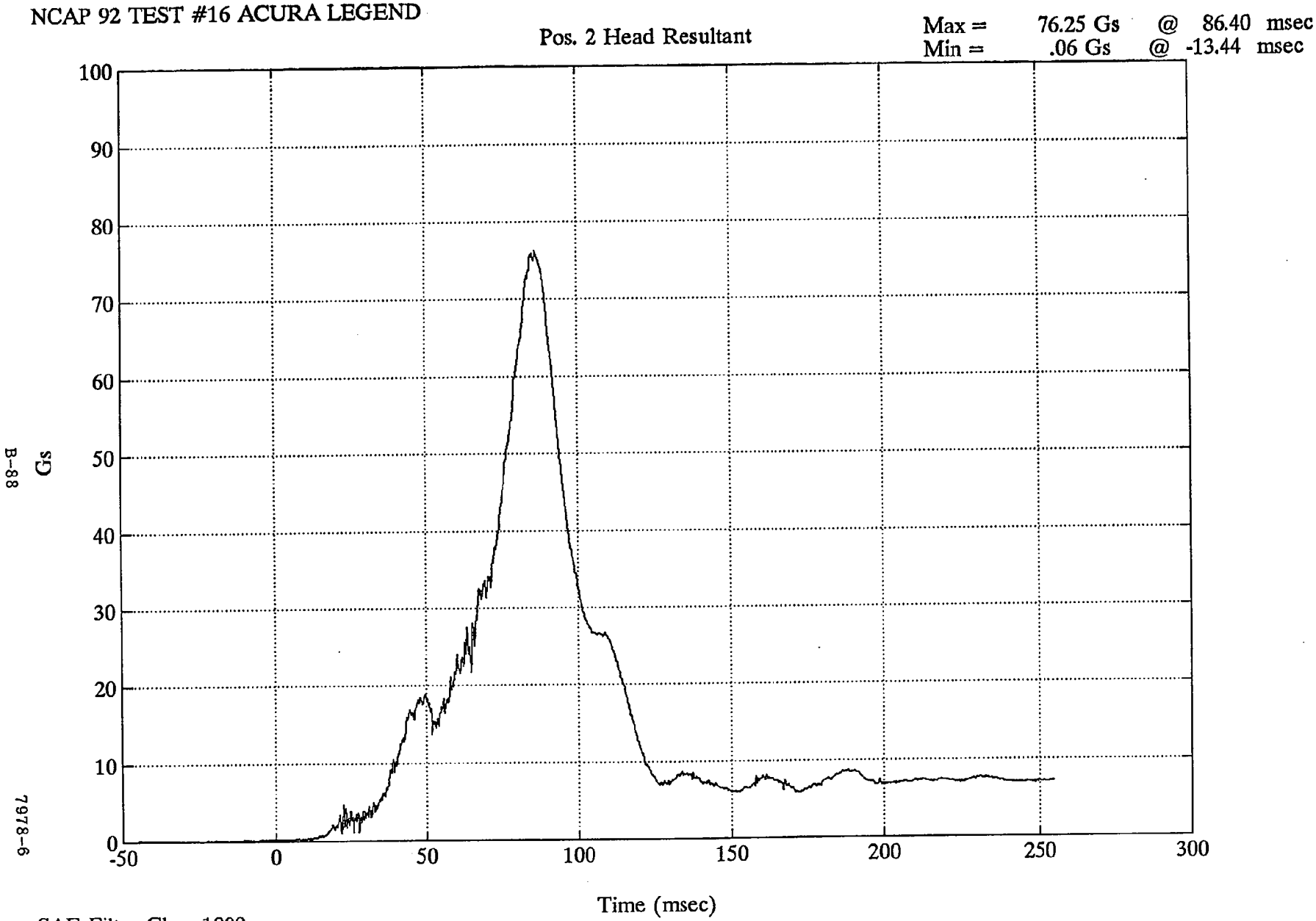


B-87

7978-6

SAE Filter Class 1000

NCAP 92 TEST #16 ACURA LEGEND

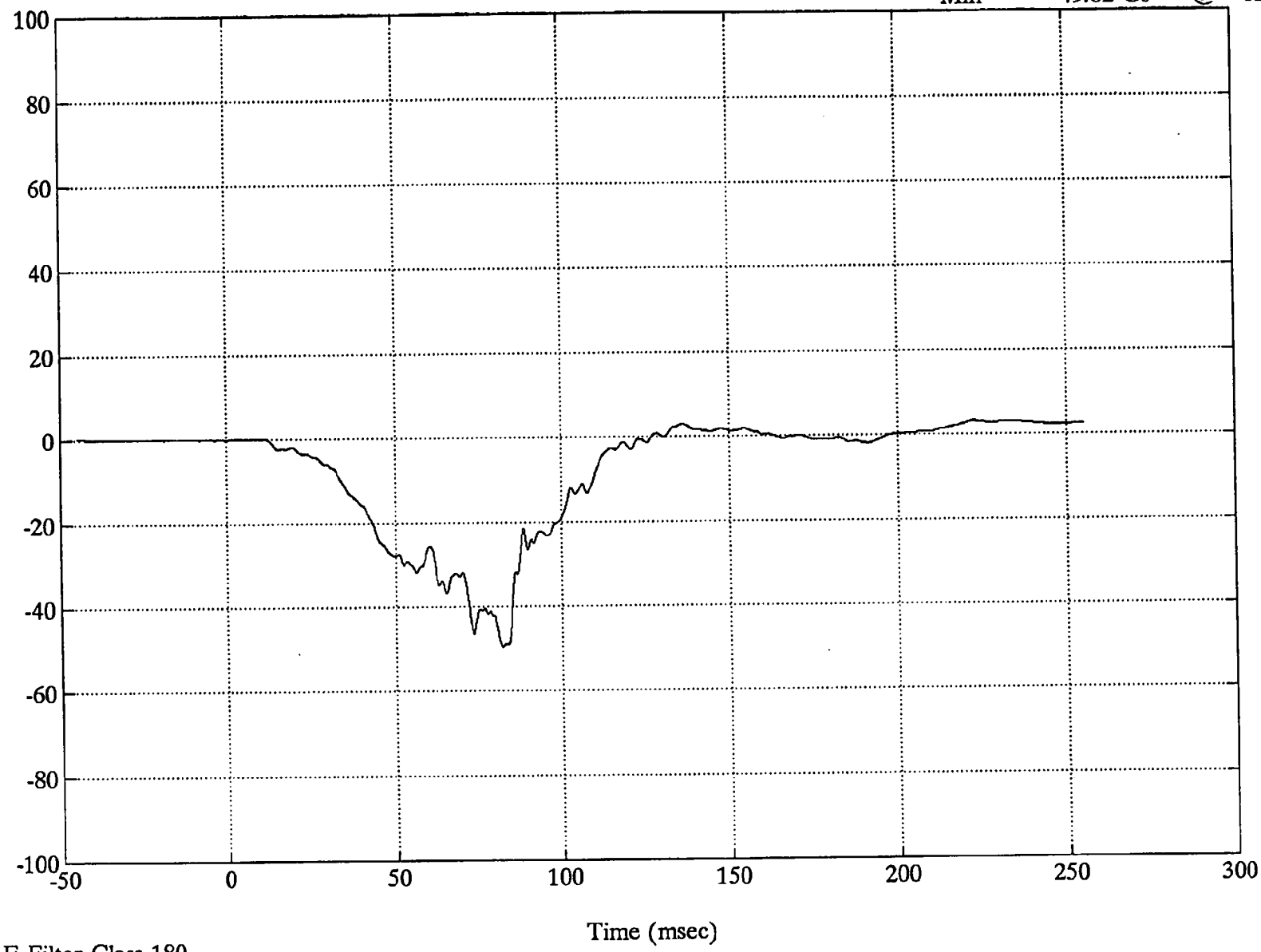


SAE Filter Class 1000

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Chest X

Max = 3.10 Gs @ 222.48 msec
Min = -49.62 Gs @ 81.95 msec

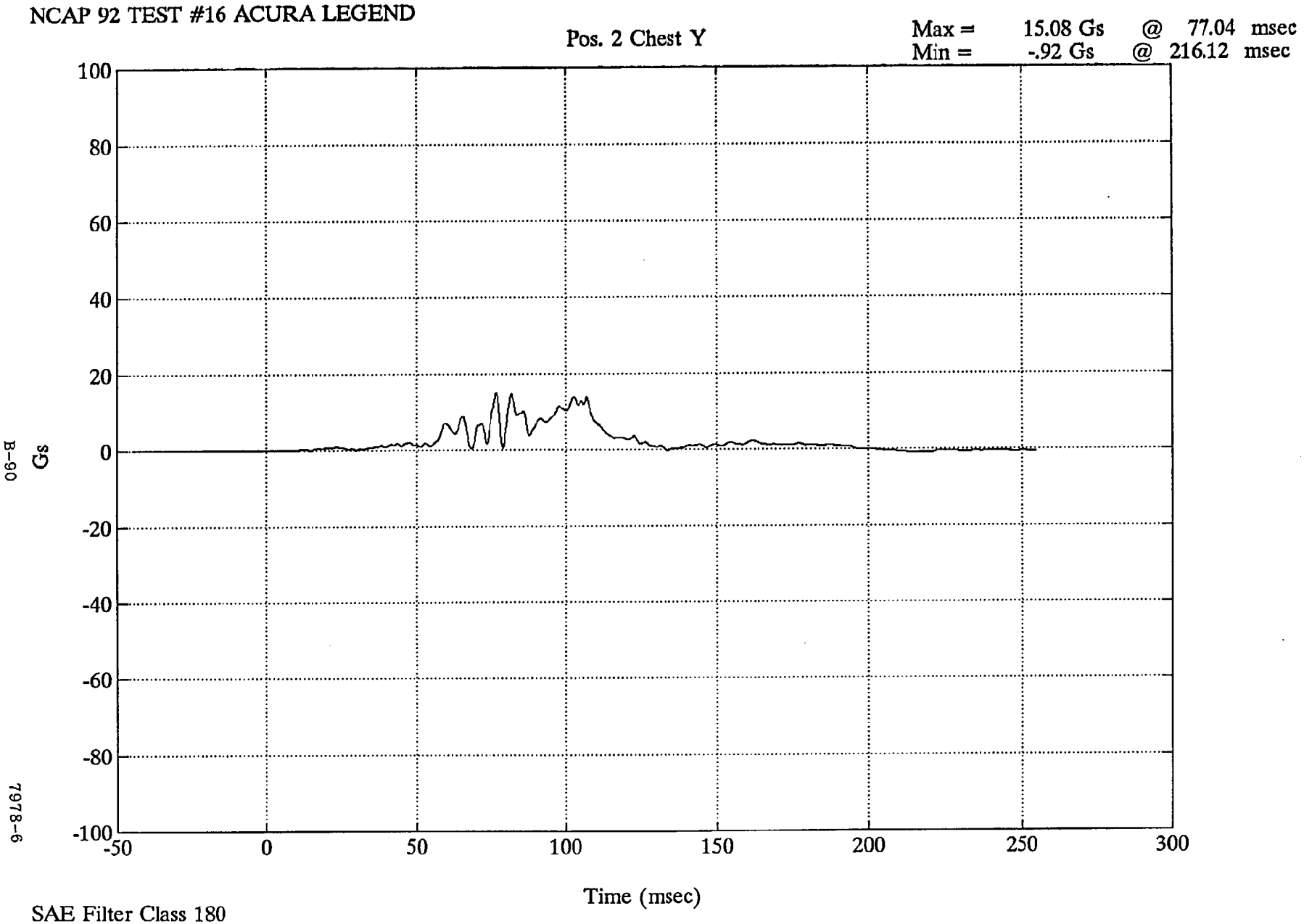


B-89

7978-6

SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

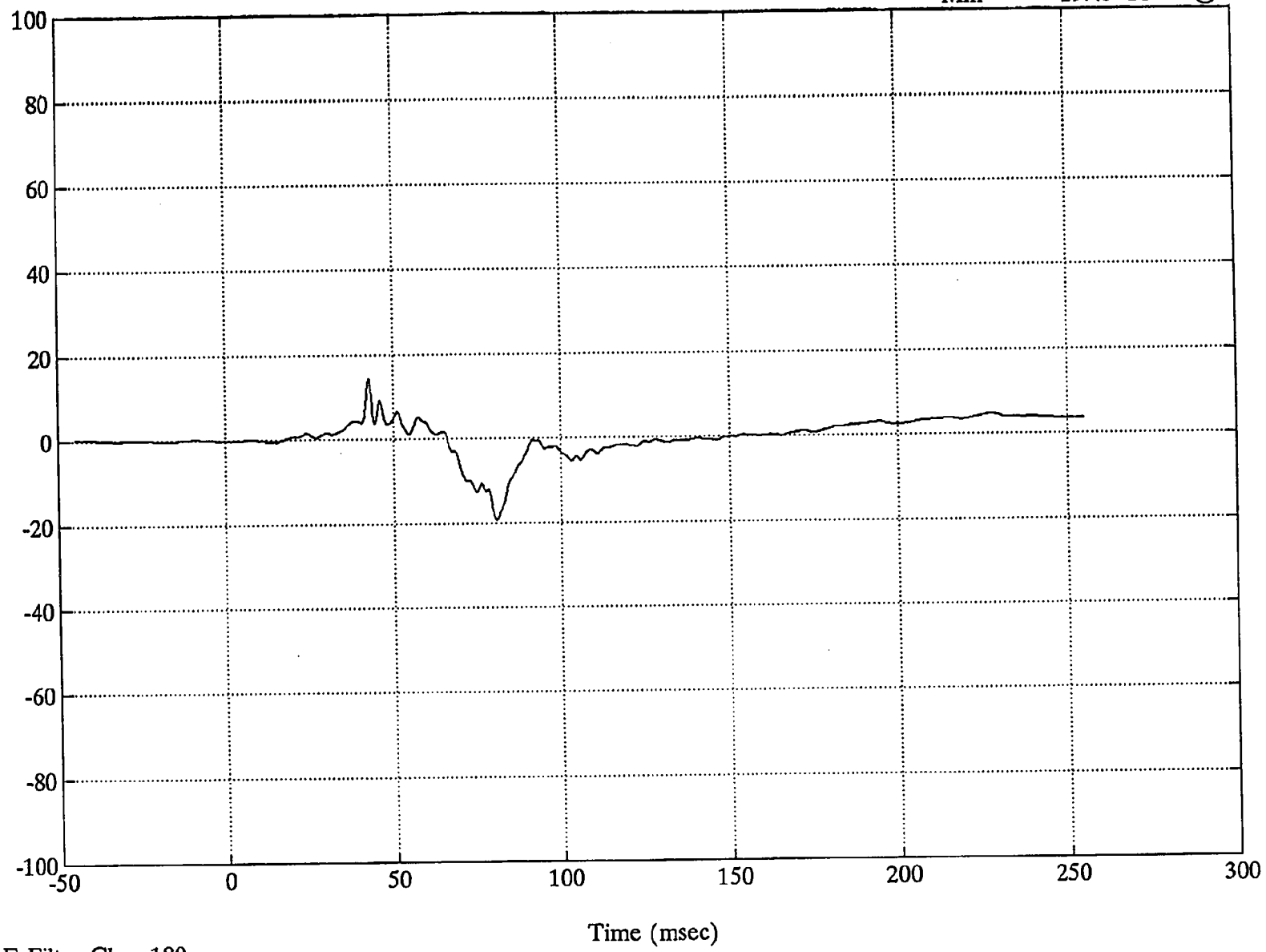


SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Chest Z

Max = 14.32 Gs @ 42.72 msec
Min = -19.43 Gs @ 80.63 msec



B-91

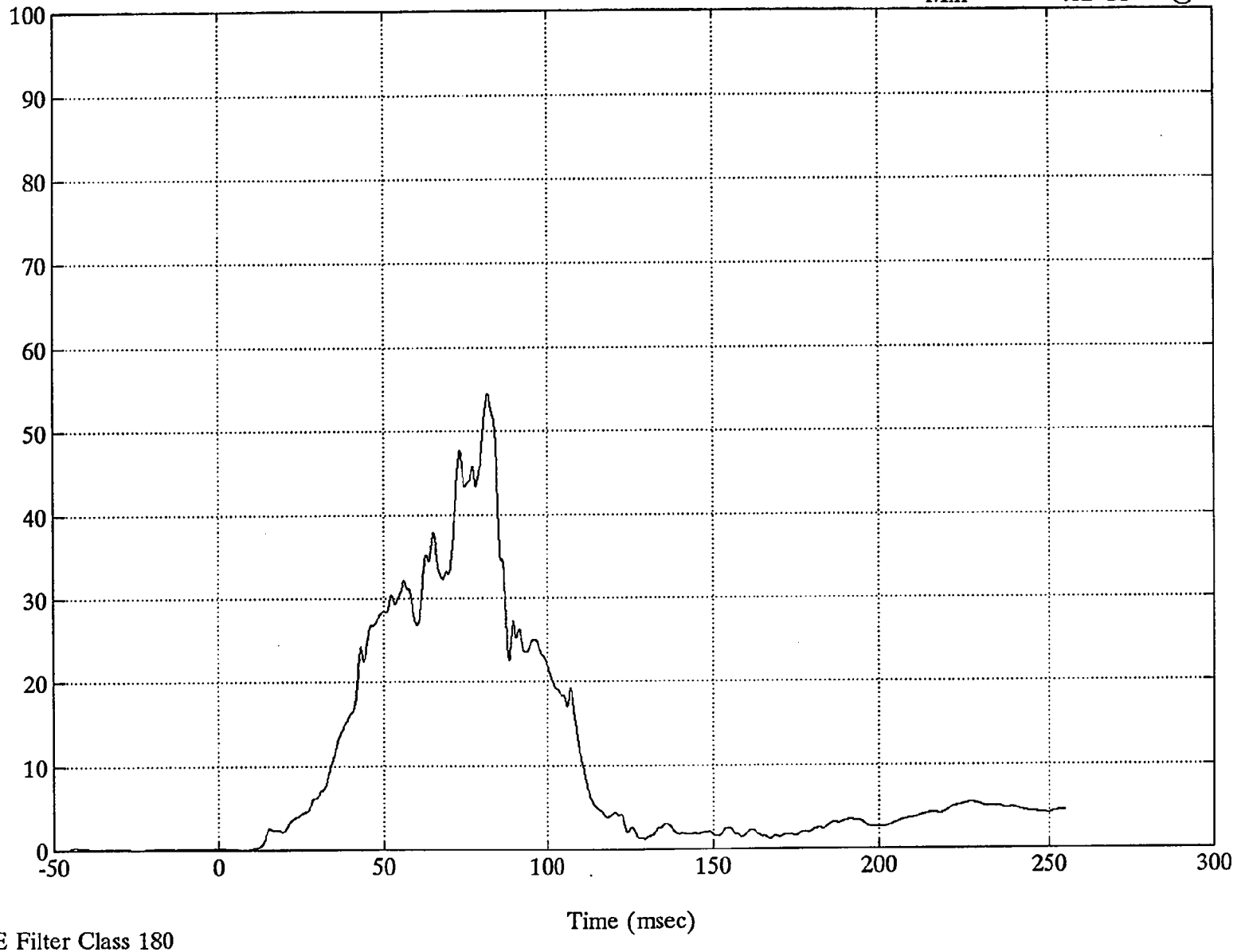
7978-6

SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Chest Resultant

Max = 54.50 Gs @ 81.84 msec
Min = .02 Gs @ 6.47 msec



B-92

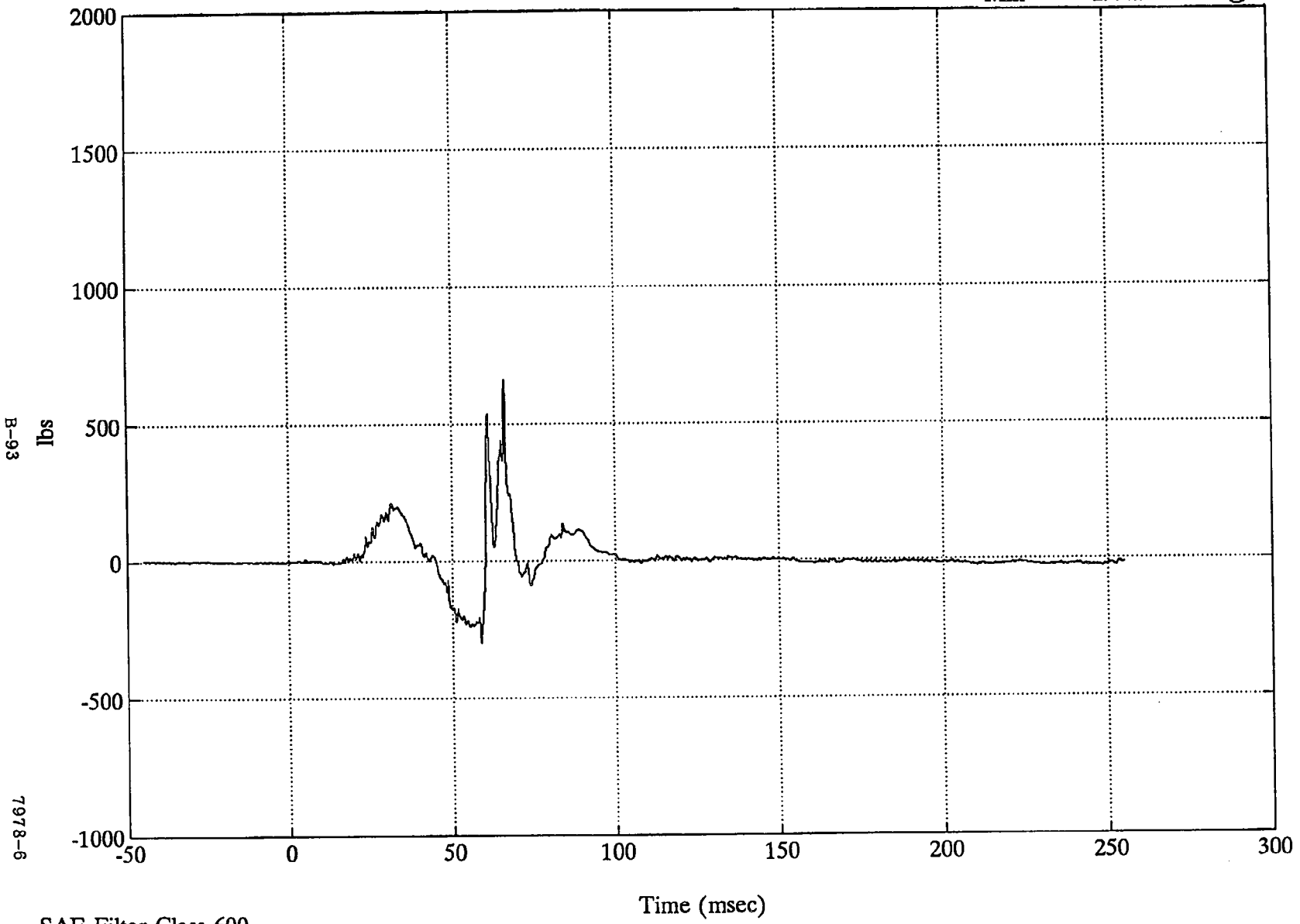
7978-6

SAE Filter Class 180

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Left Femur

Max = 660.69 lbs @ 66.11 msec
Min = -299.10 lbs @ 58.79 msec



B-93

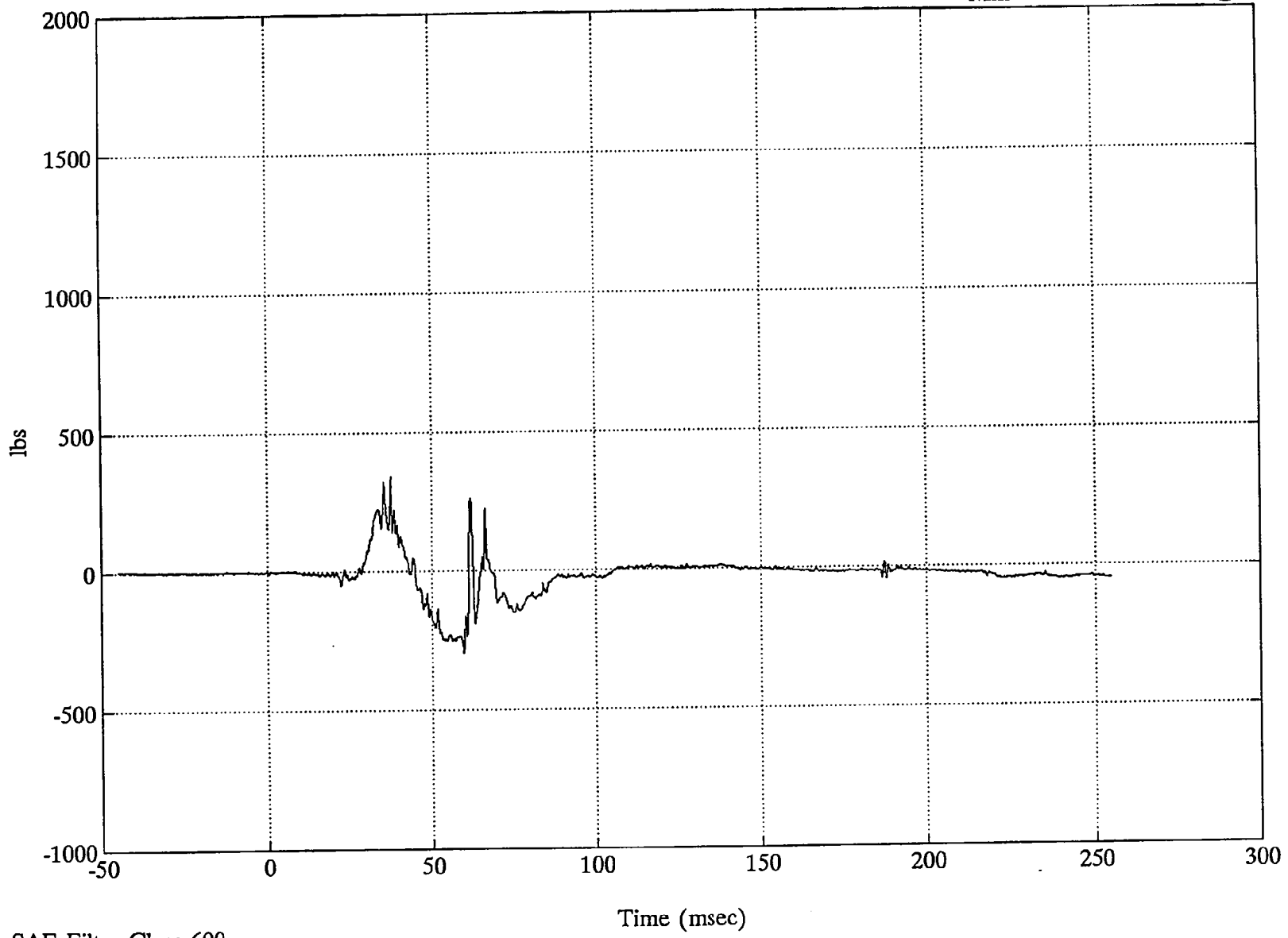
7978-6

SAE Filter Class 600

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Right Femur

Max = 341.02 lbs @ 37.44 msec
Min = -295.21 lbs @ 59.40 msec



B-94

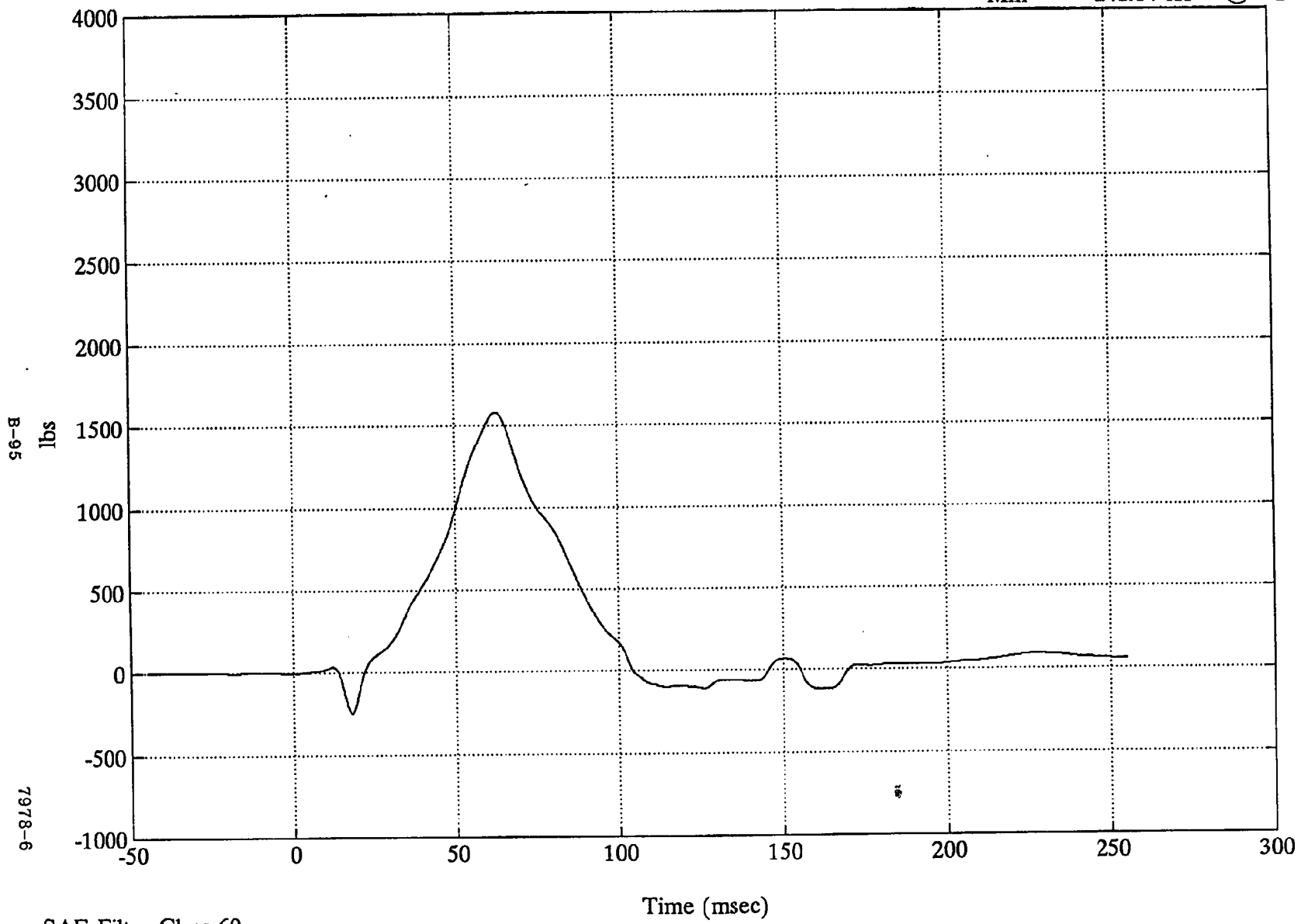
7978-6

SAE Filter Class 600

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Right Belt Load

Max = 1581.38 lbs @ 62.64 msec
Min = -248.04 lbs @ 17.75 msec

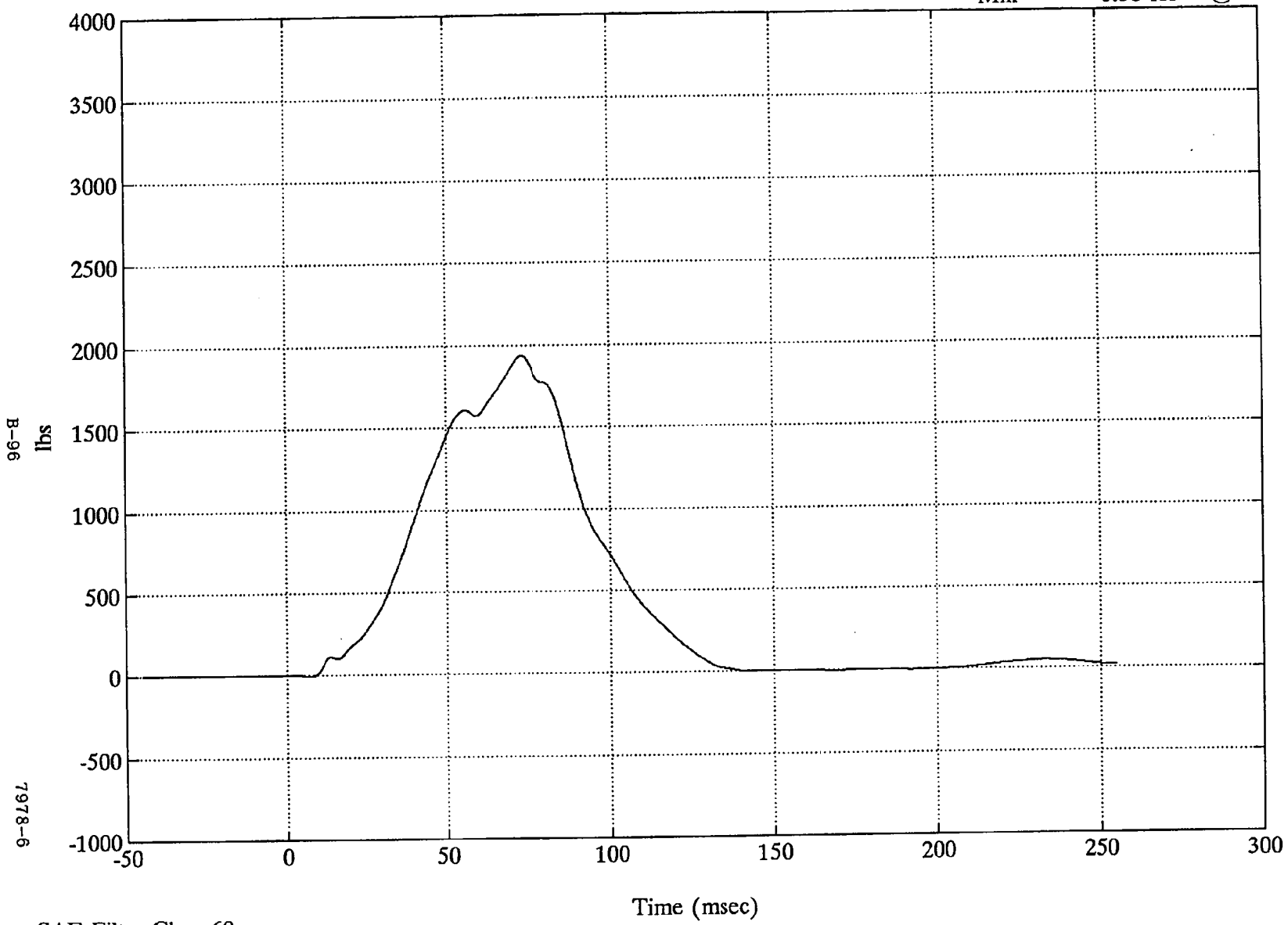


SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Torso Belt Load

Max = 1937.01 lbs @ 73.08 msec
Min = -5.38 lbs @ 7.31 msec

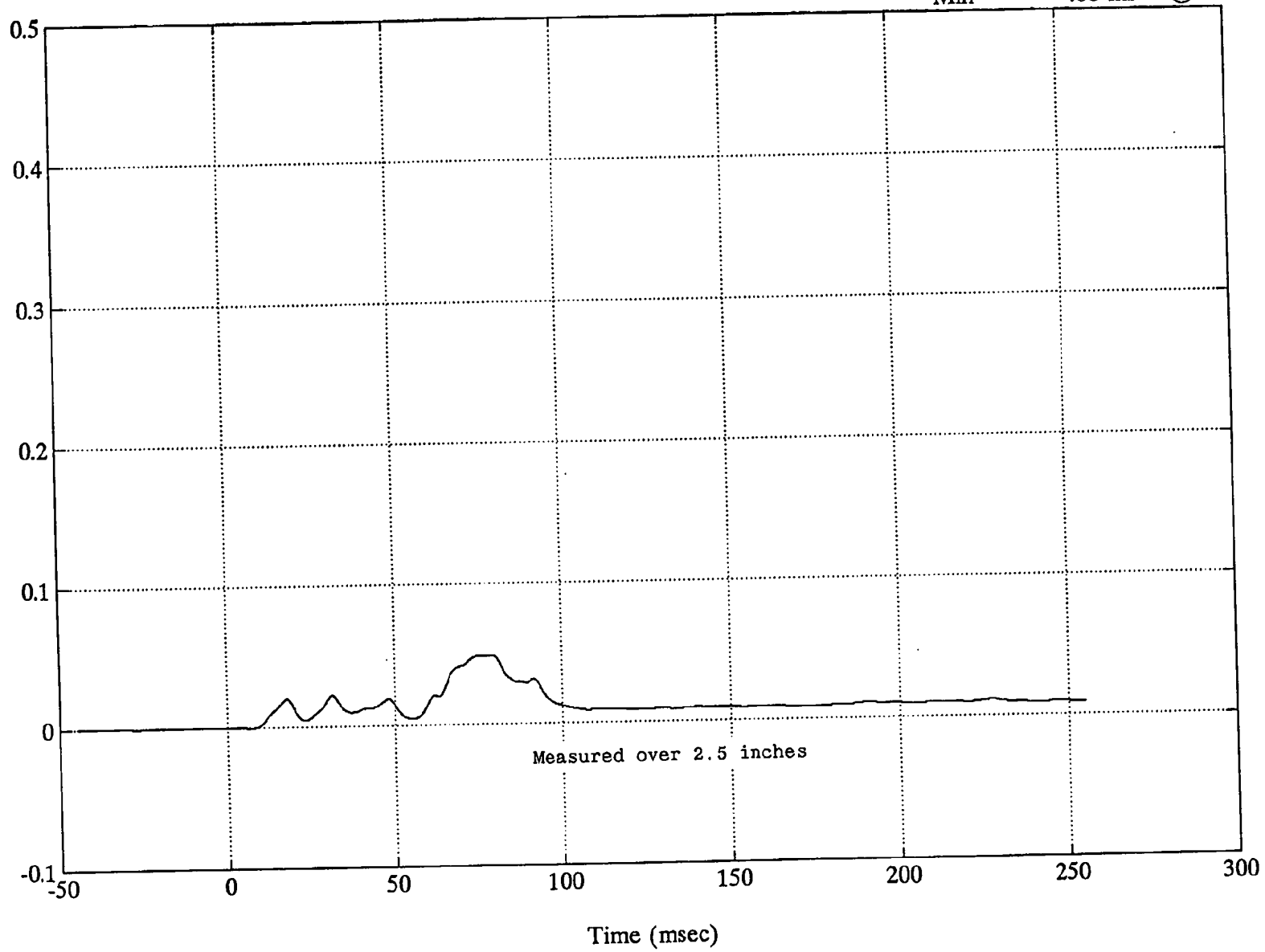


SAE Filter Class 60

NCAP 92 TEST #16 ACURA LEGEND

Pos. 2 Belt Elongation

Max = .05 ins @ 79.19 msec
Min = -.00 ins @ 7.07 msec



B-97

7978-6

SAE Filter Class 60

Appendix C

PART 572B DUMMY CONFIGURATION

AND PERFORMANCE VERIFICATION DATA SHEETS

Appendix C contains the results from certification tests performed on the 50th percentile male anthropomorphic test devices utilized for this crash test. The results indicate that the dummies meet all of the performance requirements of the six standard tests as specified in 49 CFR Part 572, Federal Register, Volume 42, No. 25, dated February 7, 1977.

The tests were conducted at the Dummy Certification Test Facility of Calspan Corporation, Advanced Technology Center. A summary of the test results, and Part 572 specifications are included in this Appendix.

Dummy serial numbers and certification dates are:

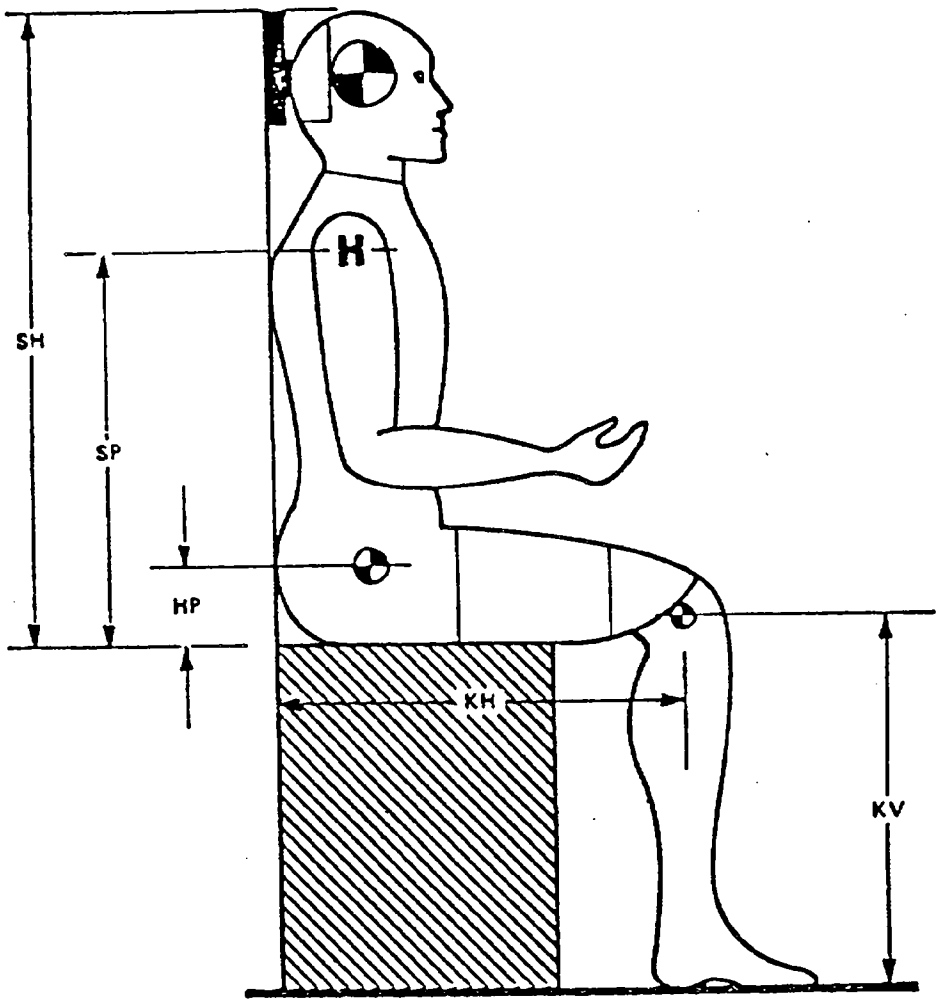
Serial No.	Completion Date
357	4-14-92
749	4-15-92

Electronic Test Equipment

The complement of signal conditioning, recording and display equipment, in conjunction with dummy certification testing, can be found in New Car Assessment and Standards Indicant Testing Final Report No. 6525-V-1.

Figure 10

DUMMY CONFIGURATION DIMENSIONS



PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

NHTSA DUMMY I.D. NUMBER: 357

I. CONFIGURATION VERIFICATION DATA:

	P. 572 SPECIFICATION	PRE-TEST if required	POST-TEST if required
DATE OF CONFIGURATION VERIFICATION	XXXXXXXXXXXXX	4/14/92	
VERIFICATION NUMBER FOR DUMMY (*)	XXXXXXXXXXXXX	4	
SH - Seated Height	35.6 to 35.8"	35.6 "	"
SP - Shoulder Pivot Height	21.8 to 22.4"	21.9 "	"
HP - Hip Pivot Height	3.9" ref.	3.9 "	"
KH - Knee Pivot from Back Line	20.1 to 20.7"	20.4 "	"
KV - Knee Pivot from floor	19.3 to 19.9"	19.5 "	"
SW - Shoulder Width	17.8 to 18.4"	18.0 "	"
HW - Hip Width	14.0 to 15.4"	14.3 "	"

II. PERFORMANCE VERIFICATION DATA:

		PRE-TEST (if required)	POST-TEST (if required)
DATE OF PERFORMANCE VERIFICATION		4/14/92	
SEQUENTIAL VERIFICATION NUMBER FOR DUMMY (*)		4	
VERIFICATION LAB TEMPERATURE (66 to 78 deg.)		69-70 deg	deg
VERIFICATION LAB HUMIDITY (10 TO 70 %)		28-35 %	%
TEST PARAMETER	SPECIFICATION		
1. HEAD DROP TEST a. peak resultant accel.	210 to 260 G's	227.6 G's	G's
b. peak lateral accel.	<= 10 G's	1.6 G's	G's
c. Time above 100 G's	0.9 to 1.5 ms.	1.38 ms	ms

* Sequential number beginning with "1" at the start of each fiscal year crash test program.

TECHNICIAN'S NAME: Ivan Minkewicz

PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA...continued

II. PERFORMANCE VERIFICATION DATA (continued)

NHTSA DUMMY I.D. NUMBER: 357

TEST PARAMETER		SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
2. NECK BENDING TEST				
a. Pendulum Speed		21.5 to 25.5 fps.	23.4 fps	fps
b. Pend. Avg. Decel. over t3 to t2		20 to 24 G's	22.4 G's	G's
c. Peak Resultant Head Acceleration		26 G's max.	25.94 G's	G's
d. Pendulum Decel. (t2-t1)		<= 3 ms.	2.73 ms	ms
e. Pendulum Decel. (t3-t2)		25 to 30 ms.	25.92 ms	ms
f. Pendulum Decel. (t4-t3)		<= 10 ms.	7.07 ms	ms
g. Max. Head Rotation		63 to 73 deg.	70.84 deg	deg
h. Chordal Displacement				
HEAD ROTATION ANGLE				
0 deg.	Time	-2 to 2 ms.	0.0 ms	ms
	Displ.	-.5 to .5"	0.0 "	"
30 deg.	Time	25.6 to 34.4 ms.	30.01 ms	ms
	Displ.	2.1 to 3.1"	2.48 "	"
60 deg.	Time	40.3 to 51.7 ms.	44.89 ms	ms
	Displ.	4.3 to 5.3"	4.96 "	"
Maximum	Time	53.2 to 66.8 ms.	54.07 ms	ms
	Displ.	5.0 to 6.0"	5.34 "	"
60 deg.	Time	67.0 to 83.0 ms.	69.57 ms	ms
	Displ.	4.3 to 5.3"	5.03 "	"
30 deg.	Time	85.4 to 104.6 ms.	88.91 ms	ms
	Displ.	2.1 to 3.1"	2.11 "	"
0 deg.	Time	101.0 - 123.0 ms.	102.68 ms	ms
	Displ.	-.5 to 0.5"	0.0 "	"

TECHNICIANS NAME: Ivan Minkewicz

II. PERFORMANCE VERIFICATION DATA (continued)

NHTSA DUMMY I.D. NUMBER: 357

TEST PARAMETER	SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
3. ABDOMINAL COMPRESSION TEST: (preload = 50 lbs.)			
a. Force @ 0.5"	23 to 36 lbs.	26 lbs	lbs
b. Force @ 0.75"	36 to 50 lbs.	40.5 lbs	lbs
c. Force @ 1.0"	50 to 63 lbs.	59 lbs	lbs
d. Force @ 1.3"	73 to 88 lbs.	86 lbs	lbs
4. LUMBAR FLEXION TEST:			
a. Force @ 20 deg.	22 to 34 lbs.	27 lbs	lbs
b. Force @ 30 deg.	34 to 46 lbs.	38 lbs	lbs
c. Force @ 40 deg.	46 to 58 lbs.	50.5 lbs	lbs
d. Return Angle	12 deg. maximum	9 deg	deg
5. CHEST IMPACT TESTS:			
A. High Speed			
(1) Probe Speed	21.78-22.22 fps.	21.9 fps	fps
(2) Peak Deflection	1.7" maximum	1.66 "	"
(3) Peak Resistive Force	2250 lbs maximum	2064 lbs	lbs
(4) Internal Hysteresis	50 to 70%	57.7 %	%
B. Low Speed			
(1) Probe Speed	13.86-14.14 fps.	13.9 fps	fps
(2) Peak Deflection	1.1" maximum	1.06 "	"
(3) Peak Resistive Force	1450 lbs maximum	1286 lbs	lbs
(4) Internal Hysteresis	50 to 70%	56.4 %	%

TECHNICIAN'S NAME: Ivan Minkewicz

II. PERFORMANCE VERIFICATION DATA (continued)

NHTSA DUMMY I.D. NUMBER: 357

TEST PARAMETER	SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
6. KNEE IMPACT TEST			
A. Left Knee			
(1) Probe Speed	6.76 to 7.04 fps	7.0 fps	fps
(2) Maximum Force	1850 to 2500 lbs	2100 lbs	lbs
(3) Time above 1000 lbs.	1.7 ms. minimum	1.75 ms	ms
B. Right Knee			
(1) Probe Speed	6.76 to 7.04 fps	7.0 fps	fps
(2) Maximum Force	1850 to 2500 lbs	2164 lbs	lbs
(3) Time Above 1000 lbs.	1.7 ms. minimum	1.75 ms	ms

REMARKS:

TECHNICIAN'S NAME: Ivan Minkewicz

INSTRUMENT CALIBRATION INFORMATION

NHTSA DUMMY I.D. NUMBER: 357

A. DUMMY INSTRUMENTS

	MFG	SERIAL NUMBER	DATE LAST CALIBRATED	DATE OF NEXT CALIBRATION
1. HEAD ACCELEROMETER				
HX LONGITUDINAL	ENDEVCO	A12C	3/92	9/92
HY LATERAL	ENDEVCO	A60C	3/92	9/92
HZ VERTICAL	ENDEVCO	A84G	3/92	9/92
2. CHEST ACCELEROMETER				
CX LONGITUDINAL	CEC	A48A	3/92	9/92
CY LATERAL	ENDEVCO	A73A	3/92	9/92
CZ VERTICAL	CEC	A19A	3/92	9/92
3. FEMUR LOAD CELLS				
LEFT SIDE	GSE	954	5/92	11/92
RIGHT SIDE	GSE	955	5/92	11/92

B. CALIBRATION LABORATORY INSTRUMENTS

	MFG	SERIAL NUMBER	DATE LAST CALIBRATED	DATE OF NEXT CALIBRATION
1. PENDULUM ACC.	CEC	A160	1/92	7/92
2. TEST PROBE ACCELEROMETER	CEC	A161	12/91	6/92
3. LUMBAR FLEXION TEST PUSH FORCE GAUGE	TRANS-DUCER INC	20051	1/92	7/92
4. ABDOMINAL COMPRESS. TEST FORCE GAUGE	BLH	72952	1/92	7/92
5. ABDOMINAL COMPRESS. TEST FORCE GAUGE	CIC	567-11	1/92	7/92

PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

NHTSA DUMMY I.D. NUMBER: 749

I. CONFIGURATION VERIFICATION DATA:

	P. 572 SPECIFICATION	PRE-TEST if required	POST-TEST if required
DATE OF CONFIGURATION VERIFICATION	XXXXXXXXXXXXX	4-15-92	
VERIFICATION NUMBER FOR DUMMY (*)	XXXXXXXXXXXXX	3	
SH - Seated Height	35.6 to 35.8"	35.6 "	"
SP - Shoulder Pivot Height	21.8 to 22.4"	22.0 "	"
HP - Hip Pivot Height	3.9" ref.	3.9 "	"
KH - Knee Pivot from Back Line	20.1 to 20.7"	20.5 "	"
KV - Knee Pivot from floor	19.3 to 19.9"	19.5 "	"
SW - Shoulder Width	17.8 to 18.4"	18.1 "	"
HW - Hip Width	14.0 to 15.4"	14.7 "	"

II. PERFORMANCE VERIFICATION DATA:

		PRE-TEST (if required)	POST-TEST (if required)
DATE OF PERFORMANCE VERIFICATION		4-15-92	
SEQUENTIAL VERIFICATION NUMBER FOR DUMMY (*)		3	
VERIFICATION LAB TEMPERATURE (66 to 78 deg.)		69-71 deg	deg
VERIFICATION LAB HUMIDITY (10 TO 70 %)		27-35 %	%
TEST PARAMETER	SPECIFICATION		
1. HEAD DROP TEST			
a. peak resultant accel.	210 to 260 G's	228.5 G's	G's
b. peak lateral accel.	<= 10 G's	4.0 G's	G's
c. Time above 100 G's	0.9 to 1.5 ms.	1.25 ms	ms

* Sequential number beginning with "1" at the start of each fiscal year crash test program.

TECHNICIAN'S NAME: Ivan Minkewicz

PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA...continued

II. PERFORMANCE VERIFICATION DATA (continued)

NHTSA DUMMY I.D. NUMBER: 749

TEST PARAMETER		SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
2. NECK BENDING TEST				
a. Pendulum Speed		21.5 to 25.5 fps.	22.4 fps	fps
b. Pend. Avg. Decel. over t3 to t2		20 to 24 G's	22.8 G's	G's
c. Peak Resultant Head Acceleration		26 G's max.	24.22 G's	G's
d. Pendulum Decel. (t2-t1)		<= 3 ms.	2.36 ms	ms
e. Pendulum Decel. (t3-t2)		25 to 30 ms.	26.17 ms	ms
f. Pendulum Decel. (t4-t3)		<= 10 ms.	5.95 ms	ms
g. Max. Head Rotation		63 to 73 deg.	72.11 deg	deg
h. Chordal Displacement				
HEAD ROTATION ANGLE				
0 deg.	Time	-2 to 2 ms.	0.0 ms	ms
	Displ.	-.5 to .5"	0.0 "	"
30 deg.	Time	25.6 to 34.4 ms.	30.26 ms	ms
	Displ.	2.1 to 3.1"	2.92 "	"
60 deg.	Time	40.3 to 51.7 ms.	44.15 ms	ms
	Displ.	4.3 to 5.3"	4.8 "	"
Maximum	Time	53.2 to 66.8 ms.	54.07 ms	ms
	Displ.	5.0 to 6.0"	5.1 "	"
60 deg.	Time	67.0 to 83.0 ms.	71.68 ms	ms
	Displ.	4.3 to 5.3"	4.78 "	"
30 deg.	Time	85.4 to 104.6 ms.	90.28 ms	ms
	Displ.	2.1 to 3.1"	2.15 "	"
0 deg.	Time	101.0 - 123.0 ms.	104.04 ms	ms
	Displ.	-.5 to 0.5"	0.0 "	"

TECHNICIANS NAME: Ivan Minkewicz

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA (continued)

II. PERFORMANCE VERIFICATION DATA (continued)

NHTSA DUMMY I.D. NUMBER: 749

TEST PARAMETER	SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
3. ABDOMINAL COMPRESSION TEST: (preload = 50 lbs.)			
a. Force @ 0.5"	23 to 36 lbs.	27.5 lbs	lbs
b. Force @ 0.75"	36 to 50 lbs.	41.5 lbs	lbs
c. Force @ 1.0"	50 to 63 lbs.	58 lbs	lbs
d. Force @ 1.3"	73 to 88 lbs.	85 lbs	lbs
4. LUMBAR FLEXION TEST:			
a. Force @ 20 deg.	22 to 34 lbs.	27.5 lbs	lbs
b. Force @ 30 deg.	34 to 46 lbs.	39 lbs	lbs
c. Force @ 40 deg.	46 to 58 lbs.	49 lbs	lbs
d. Return Angle	12 deg. maximum	9.5 deg	deg
5. CHEST IMPACT TESTS:			
A. High Speed			
(1) Probe Speed	21.78-22.22 fps.	22.0 fps	fps
(2) Peak Deflection	1.7" maximum	1.47 "	"
(3) Peak Resistive Force	2250 lbs maximum	2174 lbs	lbs
(4) Internal Hysteresis	50 to 70%	58.4 %	%
B. Low Speed			
(1) Probe Speed	13.86-14.14 fps.	13.9 fps	fps
(2) Peak Deflection	1.1" maximum	1.05 "	"
(3) Peak Resistive Force	1450 lbs maximum	1318 lbs	lbs
(4) Internal Hysteresis	50 to 70%	58.9 %	%

TECHNICIAN'S NAME: Ivan Minkewicz

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA (continued)

II. PERFORMANCE VERIFICATION DATA (continued)

NHTSA DUMMY I.D. NUMBER: 749

TEST PARAMETER	SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
6. KNEE IMPACT TEST			
A. Left Knee			
(1) Probe Speed	6.76 to 7.04 fps	7.0 fps	fps
(2) Maximum Force	1850 to 2500 lbs	2058 lbs	lbs
(3) Time above 1000 lbs.	1.7 ms. minimum	1.75 ms	ms
B. Right Knee			
(1) Probe Speed	6.76 to 7.04 fps	7.0 fps	fps
(2) Maximum Force	1850 to 2500 lbs	1945 lbs	lbs
(3) Time Above 1000 lbs.	1.7 ms. minimum	1.75 ms	ms

REMARKS:

TECHNICIAN'S NAME: Ivan Minkewicz

INSTRUMENT CALIBRATION INFORMATION

NHTSA DUMMY I.D. NUMBER: 749

A. DUMMY INSTRUMENTS

	MFG	SERIAL NUMBER	DATE LAST CALIBRATED	DATE OF NEXT CALIBRATION
1. HEAD ACCELEROMETER				
HX LONGITUDINAL	ENDEVCO	ER74	3/92	9/92
HY LATERAL	ENDEVCO	A57G	3/92	9/92
HZ VERTICAL	ENDEVCO	A84J	3/92	9/92
2. CHEST ACCELEROMETER				
CX LONGITUDINAL	CEC	EM94	3/92	9/92
CY LATERAL	ENDEVCO	A83G	3/92	9/92
CZ VERTICAL	CEC	A30G	3/92	9/92
3. FEMUR LOAD CELLS				
LEFT SIDE	GSE	951	5/92	11/92
RIGHT SIDE	GSE	952	5/92	11/92

B. CALIBRATION LABORATORY INSTRUMENTS

	MFG	SERIAL NUMBER	DATE LAST CALIBRATED	DATE OF NEXT CALIBRATION
1. PENDULUM ACC.	CEC	A160	1/92	7/92
2. TEST PROBE ACCELEROMETER	CEC	A161	12/91	6/92
3. LUMBAR FLEXION TEST PUSH FORCE GAUGE	TRANS-DUCER INC	20051	1/92	7/92
4. ABDOMINAL COMPRESS. TEST FORCE GAUGE	BLH	72952	1/92	7/92
5. ABDOMINAL COMPRESS. TEST FORCE GAUGE	CIC	567-11	1/92	7/92

Appendix D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY	Serial #	Manufacturer	Calibration Last	Calibration Next
Head X	A12C	ENDEVCO	3/92	9/92
Y	A60C	ENDEVCO	3/92	9/92
Z	A84G	ENDEVCO	3/92	9/92
Chest X	A48A	ENDEVCO	3/92	9/92
Y	A73A	ENDEVCO	3/92	9/92
Z	A19A	ENDEVCO	3/92	9/92
Right Femur Load Cell	955	GSE	5/92	11/92
Left Femur Load Cell	954	GSE	5/92	11/92
Lap Belt Load Cells	123	LEBOW	5/92	11/92
Shoulder Belt Load Cells	127	LEBOW	5/92	11/92
Spool-Out Potentiometer	-	SERVONIC INST.	-	-
Belt Stretch Transducer	E1	CALSPAN	4/92	10/92

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY	Serial #	Manufacturer	Calibration Last	Calibration Next
Head X	ER74	ENDEVCO	3/92	9/92
Y	A57G	ENDEVCO	3/92	9/92
Z	A84J	ENDEVCO	3/92	9/92
Chest X	EM94	ENDEVCO	3/92	9/92
Y	A83G	ENDEVCO	3/92	9/92
Z	A30G	ENDEVCO	3/92	9/92
Right Femur Load Cell	952	GSE	5/92	11/92
Left Femur Load Cell	951	GSE	5/92	11/92
Lap Belt Load Cells	133	LEBOW	5/92	11/92
Shoulder Belt Load Cells	135	LEBOW	5/92	11/92
Spool-Out Potentiometer	-	SERVONIC INST.	-	-
Belt Stretch Transducer	E3	CALSPAN	4/92	10/92

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS
(6 Month Calibration Minimum)

	Serial #	Manufacturer	Calibration Last	Calibration Next
Left Seat Rear Crossmember	A29	CEC	4/92	10/92
Right Rear Seat Crossmember	A70	CEC	1/92	7/92
Top of Engine	A101	CEC	5/92	11/92
Bottom of Engine	B851	ENDEVCO	3/92	9/92
Left Disc Brake Caliper	A185	CEC	5/92	11/92
Right Disc Brake Caliper	A176	CEC	6/92	12/92
Instrument Panel	A142	CEC	4/92	10/92
Left Seat Rear Crossmember - Redundant	A156	CEC	4/92	10/92
Right Rear Seat Crossmember - Redundant	A115	CEC	6/92	12/92

INSTRUMENT CALIBRATION FOR LABORATORY INSTRUMENTS
(6 Month Calibration Minimum)

	Serial #	Manufacturer	Calibration	
			Last	Next
Neck Bending Pendulum Accel.	A160	CEC	12/92	6/92
Neck Bending Rotary Potentiometer	None	BOURNS	1/92	7/92
Femur Probe Accelerometer	A161	CEC	12/91	6/92
Chest/Thorax Probe Accel.	A161	CEC	12/91	6/92
Lumbar Flexion Force Gauge	20051	TRANSDUCER INC.	1/92	7/92

Appendix E

VEHICLE OWNER'S MANUAL OCCUPANT RESTRAINT SYSTEM INSTRUCTIONS

Your Occupant Protection System

Your Legend is equipped with seat belts and other features that work together to protect you and your passengers during a crash.

Seat belts are the most important part of your occupant protection system. When worn properly, seat belts can reduce the chance of serious injury or death in a crash.

For added protection during a severe frontal collision, your Legend has a Supplemental Restraint System (SRS) with a driver's airbag and automatic seat belt tensioners on the front seat belts. The Legend L and LS models also include an airbag for the front seat passenger.

Two indicator lights are also part of your safety system. One reminds you to make sure you and your passengers wear your seat belts. The other alerts you to a possible problem with your supplemental restraint system (see page 14).

The seats, head restraints, and door locks also play a role in occupant safety. For example, reclining the seat-back can decrease the effectiveness of your seat belt. Head restraints can help protect your neck and head, especially during rear-end impacts. Door locks help keep your doors from being accidentally opened during a crash.

To get the maximum protection from your occupant protection system, check the following before you drive away:

- Everyone in the car is wearing a seat belt properly (see page 7).
- All doors are closed and locked (see page 17).
- Seat backs are upright and head restraints are properly adjusted (see pages 16 and 56).
- There are no loose items that could be thrown around and hurt someone during a crash or sudden stop (see page 17).

By following these guidelines, you can reduce injuries to yourself and your passengers in many crash situations. Remember, however, that no safety system can prevent all injuries or deaths that can occur in severe crashes.

Why Wear Seat Belts

Wearing seat belts, and wearing them properly, is fundamental to your safety and the safety of your passengers.

During a crash or emergency stop, seat belts can help keep you from being thrown against the inside of the car, against other occupants, or out of the car.

Of course, seat belts cannot completely protect you in every crash. But, in most cases, seat belts reduce your chance of serious injury. They can even save your life. That is why many states and all Canadian provinces require you to wear seat belts.

Not wearing a seat belt increases the chance of being killed or Seriously hurt in a crash.

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

Important Safety Reminders

Seat belts are designed for adults and larger children. All infants and small children must be properly restrained in child safety seats (see page 18).

A pregnant woman needs to wear a seat belt to protect herself and her unborn child (see page 10).

Two people should never use the same seat belt. If they do, they could be very seriously injured in a crash.

Do not put shoulder belt pads or other accessories on seat belts. They can reduce the effectiveness of the belts and increase the chance of injury.

CONTINUED

The Seat Belt System and How It Works

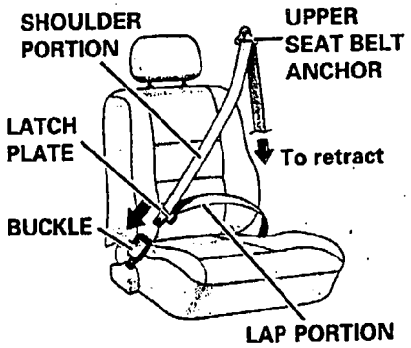
Seat Belt System Components

Your Legend has seat belts in all five seating positions. The front seats and the outside positions in the rear seat have lap/shoulder belts. The center position of the rear seat has a lap belt.

Your seat belt system also includes a light on the instrument panel to remind you to fasten your seat belt, and to make sure your passengers fasten theirs. This light comes on when you turn on the ignition if you have not fastened your seat belt. A beeper also sounds for several seconds (see page 32).

The following pages cover more about the seat belt components and how they work.

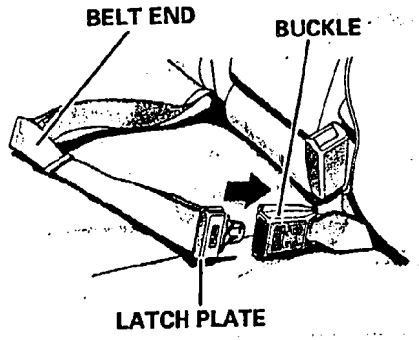
Lap/Shoulder Belt



This style of seat belt has a single belt that goes over your shoulder, across your chest, and across your hips.

Each lap/shoulder belt has an emergency locking retractor. This lets you move freely in your seat while keeping some tension on the belt. During a collision or sudden stop, the retractor automatically locks.

Lap Belt



The lap belt has one manually-adjusted belt that fits across the hips. It is similar to safety belts used in airplanes.

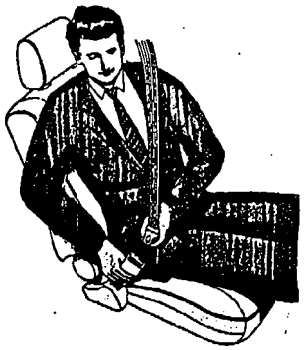
Wearing Seat Belts Properly

You can increase the effectiveness of your seat belts if you take a little time to read the following pages and make sure you know how to wear seat belts properly.

Not wearing a seat belt properly increases the chance of serious injury or death in a crash.

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

Wearing A Lap/Shoulder Belt



Before putting on a front seat belt, be sure your seat is adjusted forward or backward to a good driving or riding position and the back of your seat is upright (see page 16).

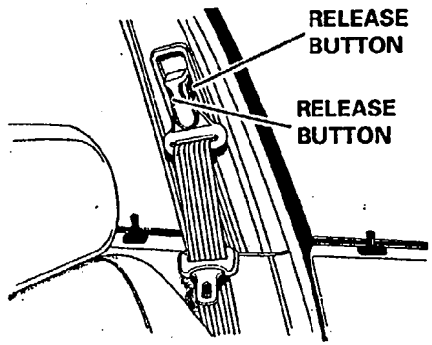
1. Pull the latch plate across your body and insert it into the buckle. Tug on the belt to make sure the latch is securely locked.
2. Check that the belt is not twisted.

3. Position the lap portion of the belt as low as possible across your hips, not across your stomach. This lets your strong pelvic bones take the force of a crash.

CONTINUED

The Seat Belt System and How It Works

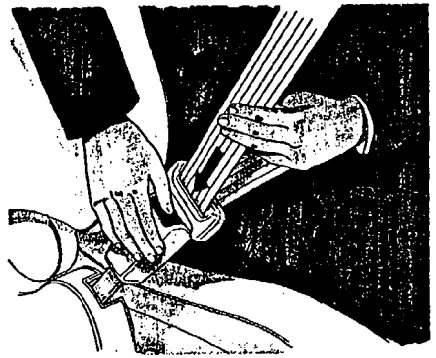
4. Pull up on the shoulder part of the belt to remove any slack. Make sure the belt goes over your collarbone and across your chest. Do not place the belt under your arm or behind your back. This could increase your chance of serious injuries in a crash.



5. If the belt crosses your neck, you need to adjust the belt anchor height or your seating position.

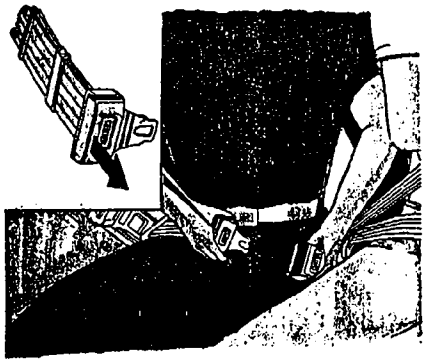
Front seats: Adjust the belt anchor by squeezing the two buttons and sliding the anchor downward (it has four positions).

Rear seat: Move toward the center of the seat until the belt fits over your collarbone.



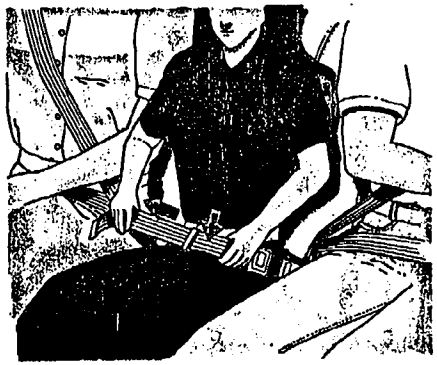
To unlatch the seat belt, push the red PRESS button on the buckle. Guide the belt across your body to the door pillar. If the belt doesn't retract easily, pull it out and check for twists or kinks.

Wearing The Lap Belt

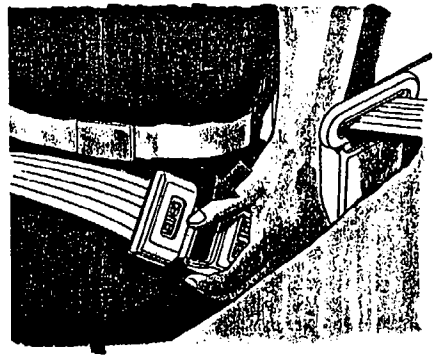


1. Pull the latch plate across your hips and insert it into the buckle marked CENTER.

   If the belt is too short, hold the latch plate at a right angle and pull to extend the belt. Insert the latch plate into the buckle.



2. Position the belt as low as possible across your hips and pelvic bones, not across your stomach. Pull the loose end of the belt to adjust for a snug but comfortable fit.



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

CONTINUED

The Seat Belt System and How It Works

Advice for Pregnant Women

Protecting the mother is the best way to protect her unborn child. Therefore, a pregnant woman should wear a properly-positioned seat belt whenever she drives or rides in a car.

If possible, use the lap/shoulder seat belt, remembering to keep the lap portion as low as possible (see page 7).

Each time you have a checkup, ask your doctor if it's okay for you to drive and how you should position a lap/shoulder seat belt.

Seat Belt Maintenance

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

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

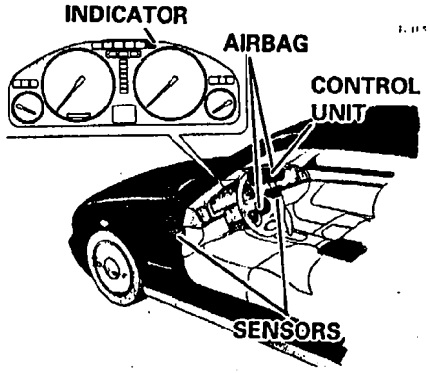
If a seat belt is worn during a crash, have your dealer replace the belt and check the anchors for damage.

For information on how to clean your seat belts, see page 201.

Your Legend is equipped with a Supplemental Restraint System (SRS) to help protect your head and chest during a severe frontal collision. This system does not replace your seat belt. It supplements, or adds to, the protection offered by your seat belt.

Not wearing a seat belt 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.



The main components in your SRS are:

- One airbag in the steering wheel for the driver and another in the dashboard for the passenger. The passenger's airbag is not available on the U. S. STD model.
- Automatic seat tensioners that tighten the front seat belts during a severe frontal collision.
- A diagnostic system that, when the ignition is ON, continually monitors the sensors, control unit, airbag activator, and all related wiring.
- An indicator light to warn you of a possible problem with the system.
- Emergency power backup in case your car's electrical system is disconnected in a crash.

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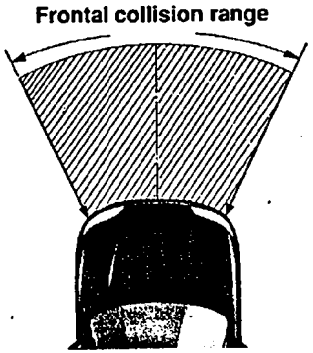
Supplemental Restraint System

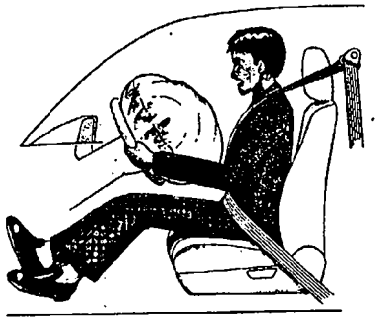
Important Safety Reminder



Even with an airbag, you need to wear a seat belt. The reasons are:

- Airbags only inflate in severe frontal collisions. They offer no protection in rear impacts, side impacts, rollovers, or moderate frontal collisions.
- An airbag inflates and deflates very quickly. It cannot protect you during any additional impacts that can occur during a crash.
- A seat belt helps keep you in the proper position when an airbag inflates. An airbag opens with considerable force: it can hurt you if you are not in the proper position.

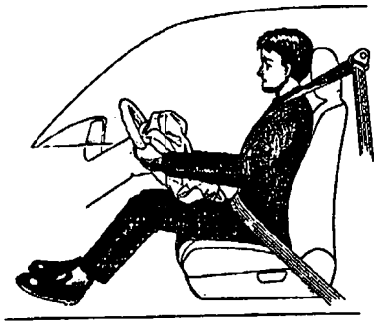
How the Driver's Airbag Works



If you ever have a severe frontal collision, your airbag will instantly inflate to help protect your head and chest.

When the airbag inflates, you may hear a fairly loud noise and you might see smoke and powder. This is normal; it is caused by the inflation of the airbag.

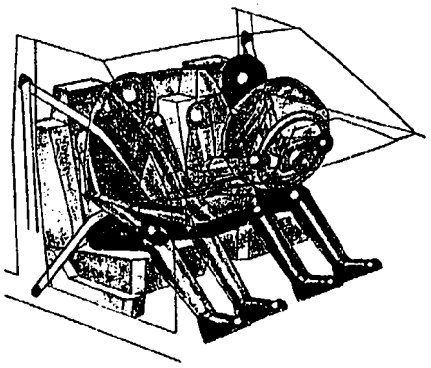
To do its job, the airbag inflates with considerable force. So, while it can reduce serious injuries and even save your life, the airbag might cause some facial or other abrasions.



After the bag completely inflates, it immediately starts deflating so it won't interfere with your visibility, ability to steer, or ability to operate other controls.

The driver's airbag is stored in the center of the steering wheel. For safety, do not attach any items to the steering wheel. They could interfere with the proper operation of the airbag. Or, if the airbag inflates, they could be propelled inside the car and hurt someone.

How the Passenger's Airbag Works



On L and LS models
If you have a severe frontal collision, the passenger's airbag will inflate at the same time as the driver's airbag.

This airbag is quite large and inflates with considerable force. It can seriously hurt an adult who is not in the proper position and wearing the seat belt properly. The bag's force could also hurt a small child who is not properly restrained in a child seat.

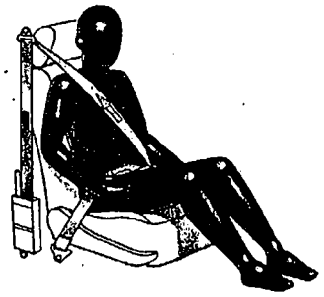
CONTINUED

Supplemental Restraint System

Because of the airbag, we strongly recommend that you do not put an infant seat in the front passenger's seat. If the airbag inflates, it can dislodge the infant seat and seriously injure the infant.

The passenger's airbag is stored near the top of the dashboard, under a lid marked SRS (see page 11). Do not place any objects on top of this lid. If the airbag inflates, those objects can be propelled inside the car and possibly hurt someone.

How the Automatic Seat Belt Tensioners Works



Your Legend 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. You may feel this slight tightening. The belts will remain tight until you unbuckle them in the normal way.

How the SRS Indicator Light Works

The purpose of the SRS light on your instrument panel is to alert you of a potential problem with your supplemental restraint system.

Have the system checked if:

- The light does not come on when you turn the ignition ON (II).
- The light stays on after the engine starts.
- The light comes on or flashes while you are driving.

System Service
Your supplemental restraint system is virtually maintenance-free. There are no parts you can safely service. You must have the system serviced by an authorized Acura dealer in the following situations:

- If your airbag ever inflates. The bag must be replaced. Do not try to remove or discard the airbag by yourself. This must be done by an Acura dealer.
- If the SRS indicator light alerts you of a problem. Have the supplemental restraint system checked as soon as possible. Otherwise, your airbag might not inflate when you need it.
- When the car is ten years old, get the system inspected. The production date is on the driver's door jamb for your convenience.

System Service Precautions
Do not modify your steering wheel or any other part of the supplemental restraint system. Modifications could make the system ineffective.

Do not tamper with the system's components or wiring. This could cause the airbag to inflate inadvertently, possibly injuring someone very seriously.

Tell anyone who works on your car that you have a supplemental restraint system. Failure to follow the procedures and precautions in the official Acura service manual could result in personal injury or damage to the system.

Scrapping an entire car that has an uninflated airbag can be dangerous. Get assistance from an Acura dealer if your car must be scrapped.

If you sell your car, please be sure to tell the new owner that the car has a supplemental restraint system. Alert them to the information and precautions in this part of the owner's manual.