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**VEHICLE SAFETY COMPLIANCE TESTING FOR OCCUPANT CRASH PROTECTION
WINDSHIELD MOUNTING, WINDSHIELD ZONE INTRUSION (PARTIAL)
AND FUEL SYSTEM INTEGRITY**

Ford Motor Company
1997 Lincoln Mark VIII LSC
2-Door

NHTSA NUMBER: CV0210

CALSPAN TEST NUMBER: 8353-7

October 29, 1996

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FINAL REPORT

PREPARED FOR:

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National Highway Traffic Safety Administration
ENFORCEMENT
Office of Vehicle Safety Compliance
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16. Abstract A 30 mph vehicle safety compliance test was conducted on a 1997 Lincoln Mark VIII LSC 2-Door. This test was performed at the Calspan SRL Corporation in Buffalo, New York on October 29, 1996. The purpose of this test was to determine compliance with the performance requirements of the following Federal Motor Vehicle Safety Standards: 1. FMVSS No. 208, "Occupant Crash Protection" 2. FMVSS No. 212, "Windshield Mounting" 3. FMVSS No. 219 (partial), "Windshield Zone Intrusion" 4. FMVSS No. 301, "Fuel System Integrity" The test mode was perpendicular (0°) and the impact velocity was 28.9 mph. The ambient temperature at the impact face was 69°F. The subject test vehicle appears to comply with the requirements of FMVSS Nos. 208, 212, 219 (partial) and 301. <u>Type of Restraint System:</u> The test vehicle was equipped with a driver airbag and a passenger airbag restraint system. The manual seat belts were not used for this test.			
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Section 1

PURPOSE AND TEST PROCEDURE

This 30 mph frontal barrier impact test is part of the Federal Motor Vehicle Safety Standard (FMVSS) 208, 212, 219 (partial) and 301 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by Calspan SRL Corporation under Contract No. DTNH22-93-D-11089. The purpose of this test was to determine if the subject vehicle, a 1997 Lincoln Mark VIII LSC 2-Door, meets the performance requirements of FMVSS 208, "Occupant Crash Protection"; FMVSS No. 212, "Windshield Mounting"; FMVSS No. 219 (partial), "Windshield Zone Intrusion"; and FMVSS No. 301, "Fuel System Integrity". This compliance test was conducted using the requirements found in the OVSC Laboratory Test Procedure No. TP-208-09, dated March 15, 1993.

Section 2

SUMMARY OF TEST NUMBER CV0210

A frontal barrier was impacted by a 1997 Lincoln Mark VIII LSC 2-Door at a velocity of 28.9 mph. The test was performed at the Calspan SRL Corporation on October 29, 1996. 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 14 high-speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572E, 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 OVSC Laboratory Test Procedure.

Both ATDs were fully instrumented with head and chest three axis (x, y, and z) accelerometers, chest displacement potentiometers, lower leg instrumentation and left/right femur load cells. These ATDs had been certified prior to the test.

The 52 channels of data were recorded on a P.C. based data acquisition system. Appendix B contains the vehicle and dummy response data traces.

The driver's HIC was 75.89. The maximum chest deceleration over 3 milliseconds was 24.998 g's with -1.1 inches of deflection. The maximum force on the driver's left femur was 1656.8 pounds and 1210.1 pounds on the right femur.

The right front passenger's HIC was 78.17. The maximum chest deceleration over 3 milliseconds was 28.815 g's with -0.7 inches of deflection. Loads of -1172.2 and -981.1 pounds were recorded on the left and right femurs respectively.

Table 1

CRASH TEST SUMMARYVehicle NHTSA No. : CV0210 Test Mode : 30 mph Frontal BarrierTest Date : October 29, 1996 Time: 15:30 Temperature : 69 °FVehicle Make/Model/Body Style : 1997 Lincoln Mark VIII LSC 2-DoorVehicle Test Weight : 4234 lbsVehicle/Barrier Impact Angle : 0 °Impact Velocity : 28.9 mphMaximum Static Crush : 19.8 inchesVehicle Rebound : 8.7 inches

<u>DUMMIES:</u>	<u>DRIVER</u>	<u>PASSENGER</u>
Type :	<u>Part 572E</u>	<u>Part 572E</u>
Restraint System :	<u>AirBag</u>	<u>AirBag</u>

Number of Data Channels : 52Number of Cameras : 1 Real Time14 High Speed

<u>DOOR OPENING DATA :</u>	<u>Closed/Operable</u>	- Left Front
	<u>Closed/Operable</u>	- Right Front

Front Seat(s) Data : DRIVER PASSENGERSeat Track Failure : 0.0 0.0

Inches of shift

Seat Back Failure : None NoneVISIBLE DUMMY CONTACT POINTS : DRIVER PASSENGERHead : Face with airbag Face with airbag and back of head to headrestAbdomen : - -Chest Airbag AirbagKnees Knee Bolster Glove Box

Table 2

GENERAL TEST AND VEHICLE PARAMETER DATATEST VEHICLE INFORMATION :

Year/Make/Model/Body Style : 1997 Lincoln Mark VIII LSC 2-Door
 NHTSA No. : CV0210 ; VIN: 1LNLM92V3VY600613 ; Color : Red
 Engine Data: 8 cylinders; - CID; 4.6 Liters; - cc
 Placement : X Longitudinal or In-Line; - Transverse of Lateral
 Transmission Data : 4 speeds; - Manual; X Automatic; X Overdrive
 Final Drive : X Rear Wheel Drive; - Front Wheel Drive; - Four Wheel Drive
 Major Options : X A/C; X Pwr.Strg.; X Pwr. Brakes
X Pwr. Windows; X Pwr. Door Locks; X Tilt Wheel
 Date Received : - ; Odometer Reading - miles
 Selling Dealer : Ed Taylor Lincoln-Mercury
 & Address: 3900 Maple Rd. Amherst, N.Y. 14226

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by : Ford Motor Company
 Date of Manufacture 7/96
 GVWR : 4790 lbs.; GAWR: 2580 lbs. FRONT; 2288 lbs. REAR

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load : 30 psi FRONT
30 psi REAR
 Recommended Tire Size : P225/60R16
 * Recommended Cold Tire Pressure : 30 psi FRONT; 30 psi REAR
 Size of Tires on Test Vehicle: P225/60R16 ; Manufacturer: Michelin
 Vehicle Capacity Data :
 Type of Front Seats: - Bench; X Bucket; - Split Bench
 Number of Occupants: 2 Front; 3 Rear; 5 Total
 Vehicle Capacity Weight (VCW) = 900 lbs.
 No. of Occupants x 150 lbs. = 750 lbs.
 Rated Cargo/Luggage Weight (RCLW) = 150 lbs.

*Tire pressure used for test

Table 2

GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (with maximum fluids)= UDW:

Right Front	=	<u>1123</u>	lbs.	Right Rear	=	<u>747</u>	lbs.
Left Front	=	<u>1078</u>	lbs.	Left Rear	=	<u>815</u>	lbs.
TOTAL FRONT	=	<u>2,201</u>	lbs.	TOTAL REAR	=	<u>1,562</u>	lbs.
TOTAL DELIVERED WEIGHT = <u>3,763.0</u> lbs.							
% of Total Front of Vehicle Weight = <u>58.5</u> %				% of Total Rear Weight = <u>41.5</u> %			

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT :

Total Delivered Weight	=	<u>3,763</u>	lbs.
Rated Cargo/Luggage Weight (RCLW)	=	<u>150</u>	lbs.
Weight of 2 p.572 Dummies @ 167 each	=	<u>334</u>	lbs.
TARGET TEST WEIGHT	=	<u>4,247</u>	lbs.

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 137 POUNDS OF CARGO WEIGHT:

Right Front	=	<u>1167</u>	lbs.	Right Rear	=	<u>944</u>	lbs.
Left Front	=	<u>1149</u>	lbs.	Left Rear	=	<u>974</u>	lbs.
TOTAL FRONT	=	<u>2,316</u>	lbs.	TOTAL REAR	=	<u>1,918</u>	lbs.
TOTAL TEST WEIGHT = <u>4,234.0</u> lbs.							
% of Total Front Weight = <u>54.7</u> %				% of Total Rear Weight = <u>45.3</u> %			
Weight of Ballast Secured in Vehicle Trunk Area = <u>0</u> lbs.							
Vehicle Components Removed for Weight Reduction: <u>None</u>							

VEHICLE ATTITUDE (all dimension in inches) : Vehicle equipped with ride leveling system.

AS DELIVERED :	RF	<u>29.3</u>	LF	<u>30.0</u>	RR	<u>30.1</u>	LR	<u>29.6</u>
FULLY LOADED :	RF	<u>28.7</u>	LF	<u>29.3</u>	RR	<u>28.7</u>	LR	<u>28.2</u>
AS TESTED :	RF	<u>28.8</u>	LF	<u>29.3</u>	RR	<u>29.1</u>	LR	<u>28.5</u>
Vehicle's Wheel Base : <u>113</u> in.								
Location of Vehicle's C.G. : <u>51.2</u> inches rearward of front wheel center.								

FUEL SYSTEM DATA :

Fuel System Capacity From Owner's Manual	=	<u>18.0</u>	gallons
Usable Capacity Figure Furnished by COTR	=	<u>18.0</u>	gallons
Test Volume Range (92 to 94% of Usable Capacity)	=	<u>16.56</u>	to <u>16.9</u> gallons
ACTUAL TEST VOLUME=	<u>16.8</u>	gallons	(with entire fuel system filled)

Table 3

POST IMPACT DATATYPE OF TEST:

Type of Test : Frontal Barrier Impact Angle : 0°
 Test Date : October 29, 1996 Time: 15:30 Temperature: 69 °F
 Vehicle NHTSA No. : CV0210
 Required Impact Velocity Range : 28.9 to 29.9 mph

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

Trap No. 1 = 28.9 mph; Trap No. 2 = 28.9 mph
 Distance from vehicle to barrier : (1) entering trap = 52 inches
 (2) exiting trap = 12 inches

VEHICLE STATIC CRUSH: (For frontal and rear impacts only.)

Vehicle Length:

Pre-Test Right = 201.5 ; C/L = 207.0 ; Left = 201.0
 Post-Test Right = 186.2 ; C/L = 187.7 ; Left = 187.0
 Crush Right = 15.3 ; C/L = 19.3 ; Left = 14.0
 AVERAGE = 16.2 inches

VEHICLE REBOUND: (From rigid barrier only.)

Distance from front of test vehicle to impact point :

Right = 9.3 ; C/L = 7.1 ; Left = 9.6AVERAGE = 8.7 inchesDOOR OPENING:

	Left	Right
Front	<u>Closed/Operable</u>	<u>Closed/Operable</u>
Rear	<u>-</u>	<u>-</u>

SEAT MOVEMENT:

	Seat Back Failure	Seat Shift
Front	<u>0</u>	<u>0</u>
Rear	<u>None</u>	<u>None</u>

Table 3

POST IMPACT (cont.)

GLAZING DAMAGE :

Windshield was fractured but remained intact.

OTHER NOTABLE IMPACT FEATURES :

None

Section 3

OCCUPANT AND VEHICLE DATA

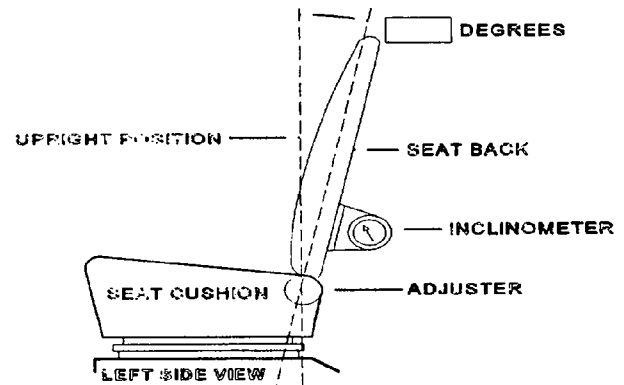
Figure 1

TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year : 1997 Vehicle Model: Lincoln Mark VIII LSC Body Style : 2-Door

1. Nominal Design Riding Position 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.



FRONT SEAT ASSEMBLY

Seat back angle for driver's seat : 29°

Measurement instructions : Inclinometer was placed on seat back frame, adjusted seat to 29°

Seat back angle for passenger's seat : 29°

Measurement instructions : Same as driver positioning instructions

2. Seat Fore and Aft Positioning

Positioning of the driver's seat : Reference points are chosen on the seat and runner, total seat travel is measured and the seat is then positioned at the center of seat travel

Positioning of the passenger's seat (if applicable) : Same as driver positioning instructions

3. Fuel Tank Capacity Data

A. "Usable Capacity" of the standard equipment fuel tank is 18.0 gallons

B. "Usable Capacity" of the optional equipment fuel tank is - gallons

4. Steering Column Position :

Reference points are chosen on steering column, total steering column travel is measured and the steering wheel is then positioned both telescopically and horizontally.

Figure 2

PART 572 DUMMY IN-VEHICLE POSITION

DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS

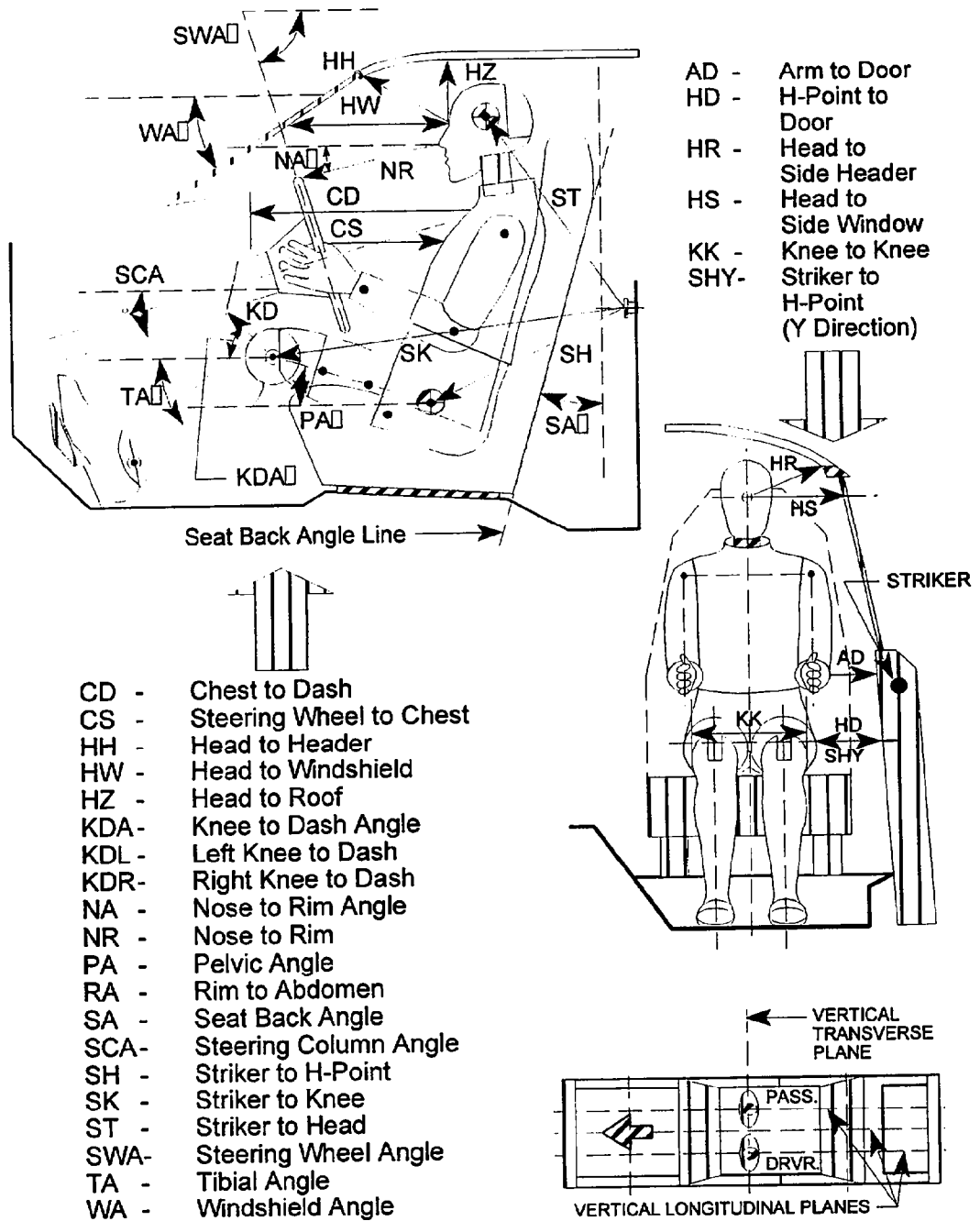


Table 4

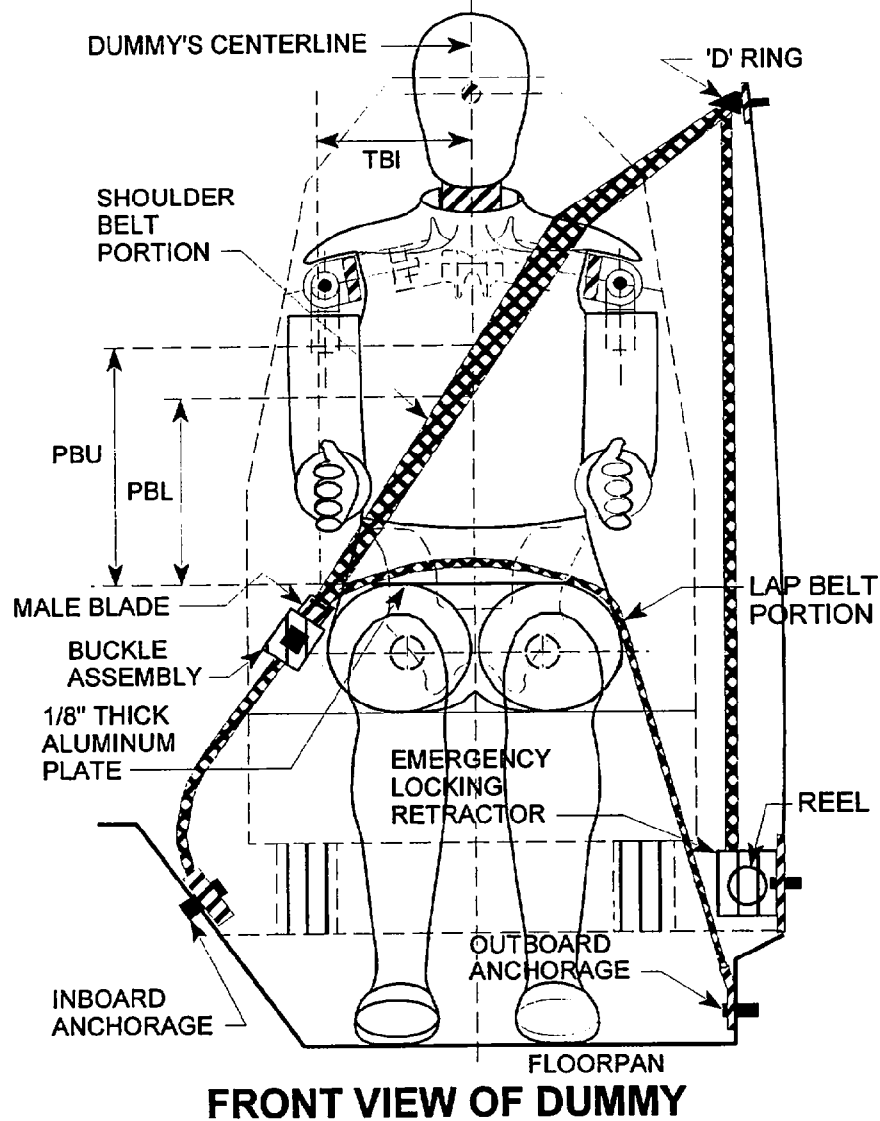
FRONT SEAT OCCUPANT MEASUREMENTS

(All dimensions excluding angles are in inches).

	DRIVER (Serial #290)			PASSENGER (Serial #313)		
WA°	25 deg.			-		
SWA°	77 deg.			-		
SCA°	13 deg.			-		
SA°	29 deg.			29 deg.		
HZ	6.2			6.1		
HH	10.5			10.6		
HW	19.1			20.1		
HR	8.7			8.7		
NR	14.3	Angle	17 deg.	-		
CD	22.6			19.8		
CS	11.7			-		
RA	8.0			-		
KDL/KDA	5.9	Angle	46 deg.	5.6		
KDR/KDA	5.5			5.9	Angle	43 deg.
PA°	23 deg.			24 deg.		
TA°	44 deg.			42 deg.		
KK	12			10.4		
ST	26.3	Angle	47 deg.	24.3	Angle	43 deg.
SK	36.0	Angle	95 deg.	35.5	Angle	95 deg.
SH	21.5	Angle	112deg.	21.1	Angle	110 deg.
SHY	10.5			10.0		
HS	13.1			13.6		
HD	6.2			6.1		
AD	4.75			4.7		

Figure 3

SEAT BELT POSITIONING DATA

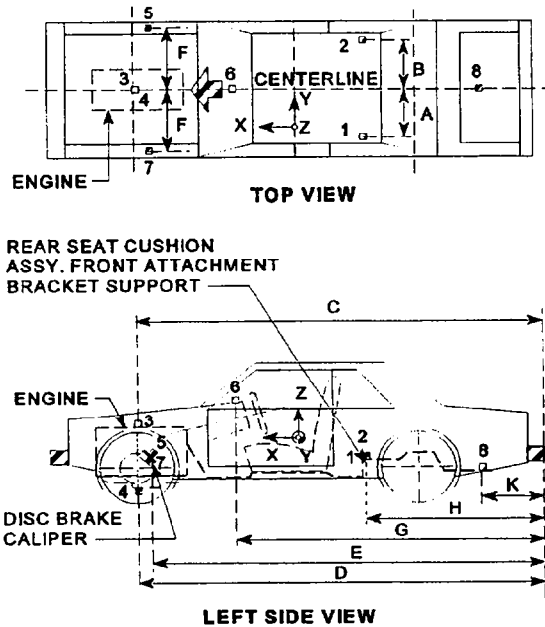


	DRIVER DUMMY (inches)	PASSENGER DUMMY (inches)
<u>PBU</u> -- Top surface of alum. plate to upper edge	*	*
<u>PBL</u> -- Top surface of alum. plate to belt lower edge	*	*
<u>TBI</u> -- Distance from torso centerline to buckle	*	*

* Vehicle equipped with air bag, manual seat belt not used for this position.

Figure 4

**VEHICLE ACCELEROMETER LOCATION
AND DATA SUMMARY**



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

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

Table 5

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

DIMENSION	LENGTH (Inches)	
	PRE-TEST VALUES	POST-TEST VALUES
A Left Rear Seat Crossmember Y	21.5	21.4
B Right Rear Seat Crossmember Y	22.0	22.0
C Top of Engine X	168.1	167.8
D Bottom of Engine X	156.3	156.0
E Disc Brake Calipers X	158.1	158.0
F Disc Brake Calipers Y	22.8 both	21.3 right 21.1 left
G Instrument Panel X	131.7	131.5
H Rear Seat Crossmembers X	85.2	85.1
K Trunk X	13.6	13.6

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE			
		Pos.	msec.	Neg.	msec.
1	Rear Seat X-Member @ Left Side	3.8	105.8	-26.0	76.0
2	Rear Seat X-Member @ Right Side	4.2	132.8	-25.7	75.5
3	Top of Engine Block	15.3	79.9	-47.5	50.9
4	Bottom of Engine	15.0	76.9	-39.4	57.7
5	Disc Brake Caliper @ Right Side	53.4	29.0	-22.2	84.0
6	Instrument Panel	16.7	40.8	-43.0	60.8
7	Disc Brake Caliper @ Left Side	49.6	64.0	-11.1	147.5
8	Trunk	67.8	98.2	-48.2	122.8

Figure 5

CAMERA POSITIONS FOR FRONTAL IMPACTS

NOTE: Camera Information shown on Table 6.

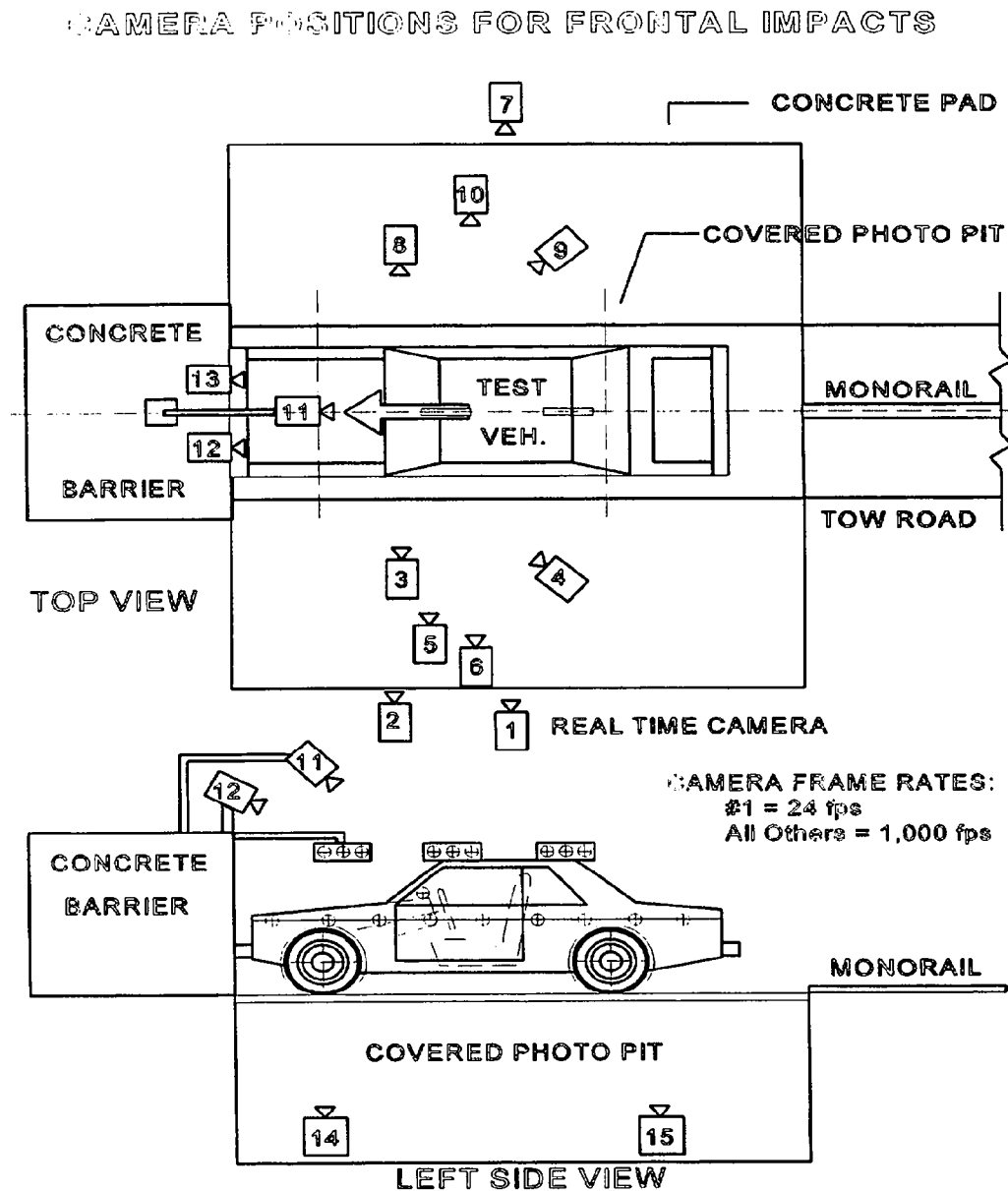


Table 6

HIGH-SPEED CAMERA LOCATIONS

Test No.	CV0210	Vehicle:	1997 Lincoln Mark VIII LSC 2-Door					
Camera No.	VIEW	CAMERA POSITIONS (In.)*			ANGLE** (deg)	FILM PLANE TO HEAD TARGET (In.)	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Camera	-	-	-	-	-	-	24
2	Overall Left Side	260	96	44	-4	243	13	1130
3	Left Side View	392	38	47	-4	375	28	1160
4	Driver and Interior View	229	138	71	-10	-	25	820
5	Steering Column (Bottom)	395	62	46	-3	378	35	1015
6	Steering Column (Top)	395	62	70	-7	378	35	1050
7	Overall Right Side	265	98	45	-2	248	13	1145
8	Right Side View	359	67	47	-3	342	25	1000
9	Passenger and Interior View	210	137	75	-10	-	35	1080
10	Right Passenger View	335	90	59	-4	-	25	1105
11	Driver Front View	22	16	78	-39	-	8	1050
12	Passenger Front View	22	16	78	-37	-	8	780
13	Windshield View	0	0	129	-55	-	13	890
14	Pit View of Engine	38	0	-86	-90	-	13	1005
15	Pit View of Fuel Tank	96	0	-86	-90	-	13	860

*X = film plane to monorail centerline
 Y = film plane to impact location
 Z = film plane to ground
 ** = referenced to horizontal plane

Figure 6

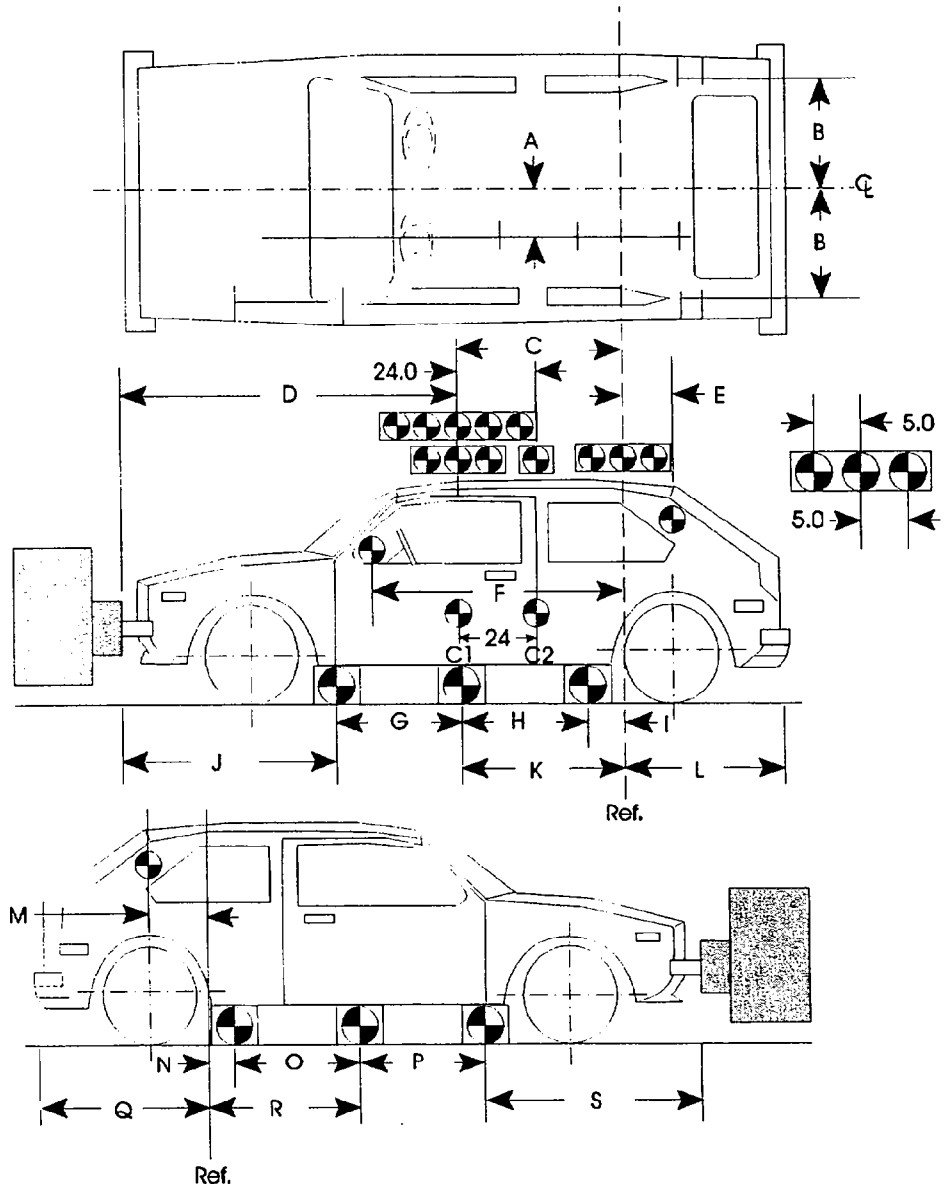
VEHICLE TARGET LOCATIONS
(All dimensions in inches)

Key (Inches)

A =	14.2
B =	25.75

C =	48.0
D =	94.3
E =	13.0
F =	63.2
G =	38.4
H =	38.4
I =	5.0
J =	58.6
K =	43.3
L =	62.1

M =	15.75
N =	2.5
O =	38.4
P =	38.4
Q =	64.9
R =	40.9
S =	58.6



Note: Targets on front fender are 12.0 inches apart. Targets rearward of front fender are 24.0 inches apart.

Figure 7

TEST VEHICLE MEASUREMENTS

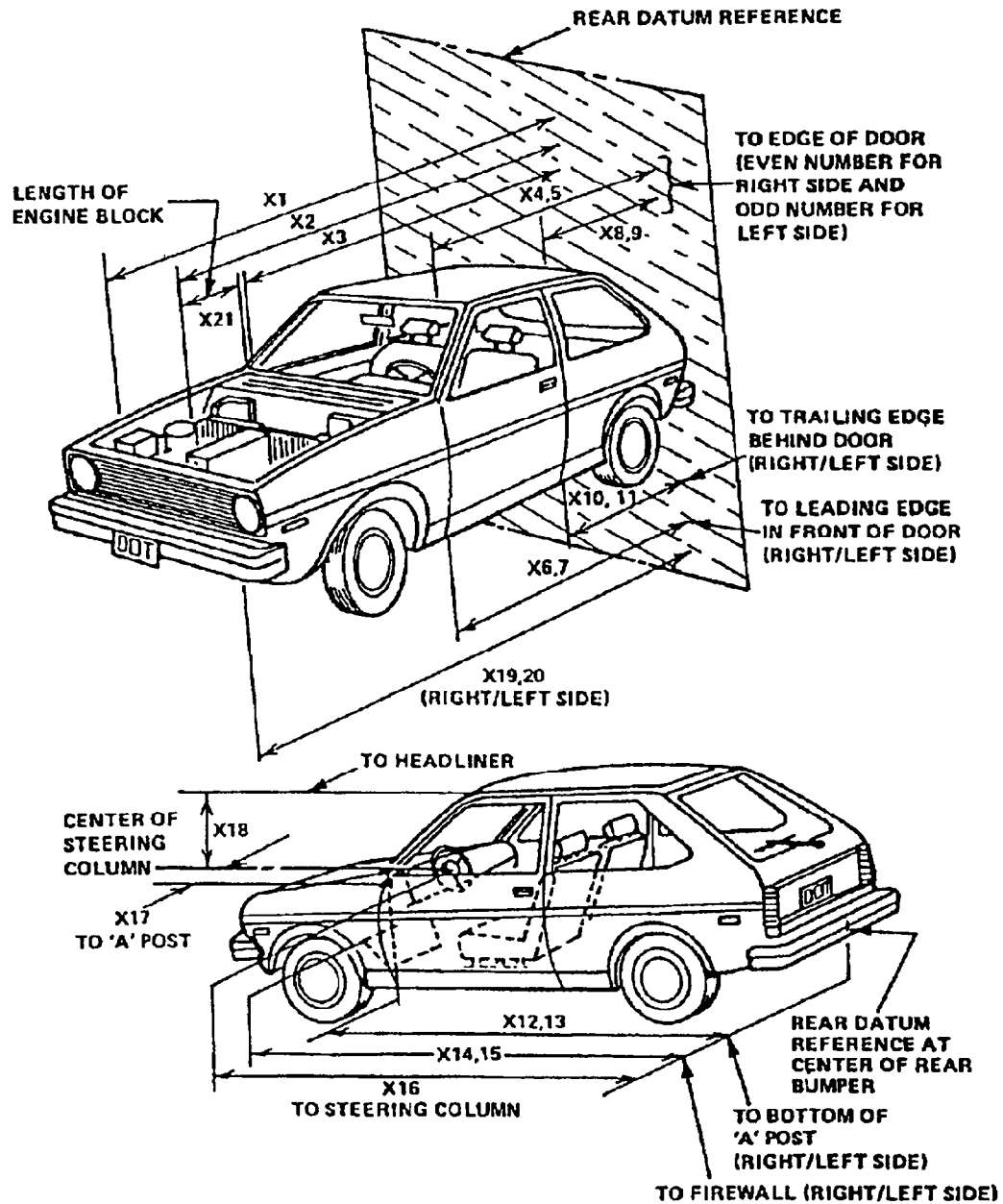


Table 7

VEHICLE MEASUREMENTS

No.		All Dimensions in inches		
		Pre-Test	Post-Test	Differences
X1	Total Length of Vehicle at Centerline	207.0	187.7	19.3
X2	Rear Surface of Vehicle to Front of Engine	173.5	172.0	1.5
X3	Rear Surface of Vehicle to Firewall	152.0	151.5	0.5
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	142.4	142.0	0.4
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	142.1	141.9	0.2
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	139.0	137.9	1.1
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	138.9	137.9	1.0
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	84.6	84.6	0.0
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	84.6	84.6	0.0
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	84.8	83.8	1.0
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	84.8	83.6	1.2
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	138.3	136.8	1.5
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	138.1	136.5	1.6
X14	Rear Surface of Vehicle to Firewall, Right Side	151.0	150.2	0.8
X15	Rear Surface of Vehicle to Firewall, Left Side	150.2	149.9	0.3
X16	Rear Surface of Vehicle to Steering Column	120.3	122.8	-2.5
X17	Center of Steering Column to "A" Post	18.3	19.0	-0.7
X18	Center of Steering Column to Headliner	16.5	18.0	-1.5
X19	Rear Surface of Vehicle to Right Side of Front Bumper	201.5	186.2	15.3
X20	Rear Surface of Vehicle to Left Side of Front Bumper	201.0	187.0	14.0
X21	Length of Engine Block	21.0	21.0	0.0

Section 4

SUMMARY OF RESULTS OF FMVSS NOS. 208, 212, 219 AND 301

- "Occupant Crash Protection," FMVSS No. 208 Data
- "Windshield Mounting," FMVSS No. 212 Data
- "Windshield Zone Intrusion," FMVSS No. 219 (Partial) Data
- "Fuel System Integrity," FMVSS No. 301

Table 8

DUMMY INJURY CRITERIA VALUESNHTSA No. : CV0210 Vehicle : 1997 Lincoln Mark VIII LSC 2-Door

	MAXIMUM ACCELERATION (g's)								
	HEAD				CHEST				
	X	Y	Z	R	X	Y	Z	R*	Displacement
Dummy (1)	26.1	-9.4	15.1	28.9	-25.0	-5.1	-5.4	24.998	-1.1
Dummy (2)	-29.3	-5.6	20.0	29.7	-28.9	-3.1	11.9	28.815	-0.7

	MAXIMUM FORCE - FEMUR LOAD (lbs.)	
	LEFT FEMUR	RIGHT FEMUR
Dummy (1)	1656.8	1210.1
Dummy (2)	-1172.2	-981.1

	HEAD INJURY CRITERIA**			
		36 millisecond Maximum		Avg. Acc (g)
	HIC	t ₁ (msec)	t ₂ (msec)	t ₁ TO t ₂
Dummy (1)	75.89	98.88	134.88	21.36
Dummy (2)	78.17	64.56	100.56	21.61

* Defined as exceeding 0.003 sec. duration

**As defined in FMVSS No. 208

Table 9

FMVSS NO. 208 - SEAT BELT WARNING SYSTEM CHECK

With occupant in driver's position, the lap belt in stowed position, and ignition switch placed in "Start/On" position:

Log time duration of audible warning signal = 6 sec.

Log time duration of reminder light operation = 6 sec.

With occupant in driver's position, lap belt in use, and the ignition switch placed in "Start/On" position :

Log time duration of audible warning signal = 0 sec.
(audible warning should not operate)

Log time duration of reminder light operation = 6 sec.

Note wording of visual warning :

Fasten Seat Belt -

Fasten Belt -

Symbol 101 X

Table 10

FMVSS NO. 208 - LABELING AND DRIVER'S MANUAL INFORMATION

Locate label which describes manufacturers maintenance or replacement schedule for crash-deployed occupant protection system.

Describe location :

Label located on sunvisor.

The label does not comment on maintenance, it does however refer to the owners manual for further information. (The manual states routine maintenance of the SRS system is not required.)

Were appropriate instructions concerning maintenance and/or replacement of this system provided ?

YES n/a NO

Was a description of the functional operation of the system provided ?

YES X* NO

Is there a reference to the instructions and description of the system on the label ?

YES X NO

Was an owner's manual provided ?

YES X NO

Did the owner's manual contain appropriate information concerning maintenance and/or replacement and a description of the functional operation of the system ?

YES X NO

* - The manual states routine maintenance of the SRS system is not required.

Table 11

FMVSS NO. 208 - READINESS INDICATOR

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement.

Is the system totally mechanical ? YES _____ NO X

Describe the location of the readiness indicator :

Readiness indicator located on instrument panel.

Is the readiness indicator clearly visible to the driver ? YES X NO _____

Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided ?

YES X NO _____

Table 12

FMVSS NO. 208 - COMFORT AND CONVENIENCE TEST SUMMARY

Test Vehicle NHTSA No. :	CV0210
Make/Model :	1997 Lincoln Mark VIII LSC 2-Door
Date of Comfort/Convenience Check :	10/28/96
Technician Performing Check :	D.J.T.
GVWR :	4790 lbs.

Seat belt comfort and convenience requirements cover vehicles manufactured on or after September 1, 1986, which have a gross vehicle weight rating of 10,000 pounds or less. Exemptions to this rule are belts installed in a walk-in, van-type vehicle and manual Type 2 belt systems installed in the front outboard seating positions of passenger automobiles. On or after September 1, 1989, the exemption of the type 2 manual seat belts installed in the front outboard seating positions of passenger automobiles will change depending on the states' enactment of mandatory usage laws.

Was vehicle built after or on September 1, 1986, and is it equipped with :

1. Automatic seat belts YES _____ NO X

If yes, go to requirements D1, D2, and D3

2. Manual seat belts* YES X NO _____

a. The seat belts, other than Type 2 lap/shoulder belts, are located in the front outboard seating positions of a passenger automobile.

YES _____ NO X

(Go to requirements D3, D4, D5, and D6)

b. The seat belt system is Type 2 lap/shoulder belt in the front outboard seating positions or the seat belts are located in a walk-in van.

STOP

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

Table 12 (cont.)

D1
CONVENIENCE HOOKS

A convenience hook or other device is provided to stow seat belt webbing to facilitate entering or exiting the vehicle.

YES _____ NO X

Check the option which applies to this test vehicle:

1. A convenience hook or other device automatically releases the webbing when the automatic belt system is operational and remains in the released mode as long as the vehicle's ignition switch is moved to the "on" or "start" position and the vehicle's drivetrain is engaged.

YES n/a NO n/a

2. A convenience hook or other device automatically releases the webbing when the automatic belt system is operational and remains in the released mode as long as the vehicle's ignition switch is moved to the "on" or "start" position and the vehicle's parking brake is in the released mode (non-engaged)

YES n/a NO n/a

D2
WEBBING TENSION - RELIEVING DEVICE

The seat belt assembly installed in the outboard designated seating position has either manual or automatic tension relieving devices permitting the introduction of slack in the webbing of the shoulder belt ("comfort clips" or "window shade" devices).

YES _____ NO X

Check the owner's manual and determine the maximum amount of slack recommended by the manufacturer in inches. The recommended slack is _____ inches. Introduce this slack into the shoulder belt before testing the vehicle to comply with the requirements of FMVSS 208 S5.1. A warning is included in the owner's manual that introducing slack beyond the amount specified can significantly reduce the effectiveness of the shoulder belt.

YES n/a NO n/a

(If NO, provide explanation.)

Check the option which applies to this test vehicle:

1. This vehicle is equipped with automatic seat belts and the tension relieving device is cancelled each time the adjacent door is opened.

YES n/a NO n/a

(If NO, provide explanation.)

Table 12 (cont.)

2. This vehicle is equipped with manual belts, required to meet FMVSS 208 S4.6, and the tension relieving device is cancelled each time one of the following options occurs:
 - a. The adjacent door is opened. YES n/a NO n/a
 - b. The latch plate is released from the buckle. YES n/a NO n/a
3. This is an open-body vehicle, without doors. Does the manual mean to cancel any shoulder belt slack introduced by a tension relieving device to operate properly ?

YES n/a NO n/a

(If NO, provide explanation.)

D3
BELT CONTACT FORCE

1. Do not measure the belt contact force if the manual or automatic seat belt assemblies in this vehicle incorporate a webbing tension relieving device. Does the vehicle incorporate a tension relieving device?

YES NO X
2. Seat are adjusted according to instructions in Appendix B.

YES X NO
3. The test dummies are positioned according to dummy position placement instructions in Appendix B and Appendix C.

YES X NO
4. Close the vehicle's adjacent door, pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest, then fasten the latch. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point, pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. Measure the contact force exerted by the belt webbing on the dummy's chest. The contact force is 0.3 pounds. Contact the COTR if the contact force exceeds 0.7 pounds.

Table 12 (cont.)

D4
LATCHPLATE ACCESSIBILITY

1. Position the test dummy in the driver's seat or passenger's seat in its forward most adjustment position.
YES X NO
2. Attach the inboard and outboard reach string. YES X NO
3. Extend each line backward and outboard to generate arcs of the reach envelope of the test dummy's arms. With the latchplate in the normal stowed position, check to assure that the latchplates are within the reach envelope.
YES X NO
4. Using the clearance test block, determine if there is sufficient clearance between the vehicle seat and the side of vehicle interior to allow the test block to move unhindered to the latchplate or buckle.
YES X NO

D5
RETRACTION

1. Seats and seat backs are adjusted according to instructions in Appendix B "General Test Conditions" in TP-208-09, dated March 15, 1993.
YES X NO
2. Use anthropomorphic test dummies whose arms have been removed and position the dummies in the front outboard designated seating positions according to instructions in Appendix B and restrain the dummies, using the belt systems for the positions being tested.
YES X NO
3. Outboard armrests which are capable of being stowed on vehicle seats shall be placed in their stowed positions.
YES X NO
4. Check the option which applies to this test vehicle:
 - a. The torso and lap belt webbing of the seat belt system automatically retract to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released.
YES X NO

Table 12 (cont.)

- b. The torso and lap belt webbing of the seat belt system automatically retract when the seat belt latchplate is released.
- YES X NO
5. With the webbing and hardware in the stowed position, close the door to assure that the webbing and hardware are prevented from being pinched.
- YES X NO
6. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, check to assure that the belt system fully retracts when the tension-relief device is manually deactivated.
- YES n/a NO n/a

D6
ACCESSIBILITY

The requirements for accessibility do not apply to:

1. Seats whose seat cushions are removable so that the seat back serves a function other than seating;
2. Seats which are removable;
3. Seats which are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above, then determine if:

1. Each manual seat belt assembly whose webbing is designed to pass through the seat cushion or between the seat cushion and seat back has one of the following three parts (the seat belt latchplate, the buckle, or the seat belt webbing) on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant).

YES X NO

2. The remaining two seat belt parts are accessible under normal conditions.

YES X NO

Table 12 (cont.)

3. The buckle and latchplate pass through the guides or conduits provided and do not fall behind the seat when the following events occur in order:
- a. The belt is completely retracted or, if the belt is non-retractable, the belt is unattached.
YES X NO
 - b. The seat is moved to any position to which it is designed to be adjusted.
YES X NO
 - c. The seat back, if foldable, is folded forward as far as possible and then moved backward into positions.
YES X NO
4. Is the inboard receptacle end of the seat belt assembly which is installed in the outboard designated seating position accessible with the center arm rest in any position to which it can be adjusted without moving the armrest?
YES X NO

D7
LATCH MECHANISM

A seat belt assembly installed in a passenger car, except an automatic belt assembly, shall have a latch mechanism:

- 1. Whose components are accessible to a seated occupant in both the stowed and operational positions.
YES X NO
- 2. That releases both the upper torso restraint and the lap belt simultaneously, if the assembly has a lap belt and an upper torso restraint that require unlatching for release of the occupant.
YES X NO
- 3. That releases at a single point by a push button action.
YES X NO

Figure 8

FMVSS NO. 212 - "WINDSHIELD MOUNTING" DATA SHEET

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC. :

The windshield is bonded in place with 1.2 inch rubber and plastic trim along the top and sides, lower portion is covered by a plastic shroud.

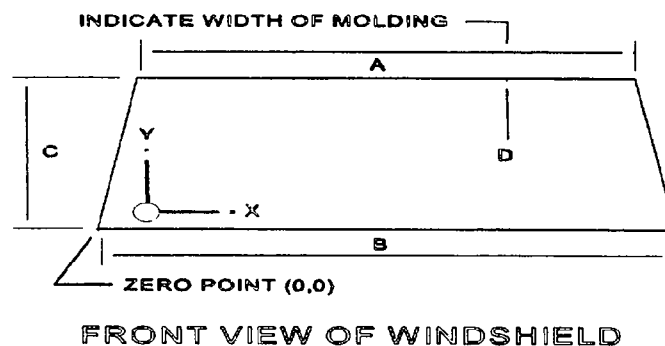
FMVSS 212 REQUIREMENTS :

The Post - Test periphery retention amount must be at least 75% of the Pre - Test periphery measurement for vehicle NOT equipped with automatic restraints, and 50% for each side of windshield for vehicles equipped with automatic restraint systems for front occupants.

FMVSS 212 TEST DATA :

	WINDSHIELD PERIPHERY		PERCENT RETENTION
	PRE - TEST (in.)	POST - TEST (in.)	
RIGHT SIDE	173.9	173.9	100.0
LEFT SIDE	173.9	173.9	100.0
TOTAL	347.8	347.8	100.0

AREA OF
RETENTION
FAILURE:



FAILURE DETAILS : None

Figure 9

FMVSS NO. 219 (PARTIAL) - "WINDSHIELD ZONE INTRUSION" DATA SHEET

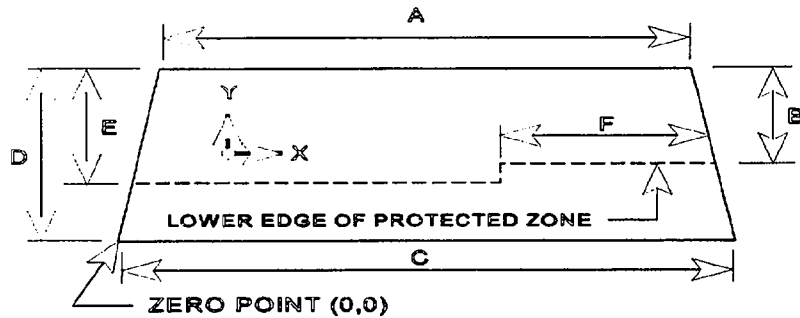
PROTECTED ZONE LOWER EDGE REQUIREMENT :

The lower edge of the protected zone is determined by placing a 6.5" dia. rigid sphere weighing 15 pounds in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. The locus of points is drawn on the inner surface of the windshield contacted by the sphere across the width of the instrument panel. From the outermost contactable points, extend the locus line horizontally to the edges of the windshield, and then draw a line on the inner surface of the windshield below and 1/2" distant from the locus line. The **LOWER EDGE OF THE PROTECTED ZONE** is the longitudinal projection of this line onto the outer surface of the windshield

FMVSS 219 TEST DATA : (Dimensions in inches.)

KEY (Inches):

A =	49.4
B =	15.4
C =	63.5
D =	30.5
E =	15.0
F =	57.25



FRONT VIEW OF WINDSHIELD

DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 1/4" :

(Show location of penetration on above sketch)

None

COORDINATES		
	X	Y
1		
2		
3		
4		

Table 13

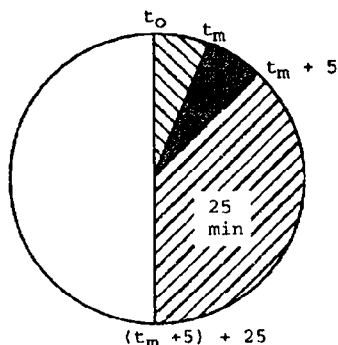
FUEL SYSTEM INTEGRITY POST IMPACT TEST DATA

FMVSS NO. 301

TEST VEHICLE NHTSA NO. : CV0210 TEST DATE : October 29, 1996Vehicle Mfgr./Make/Model : 1997 Lincoln Mark VIII LSC 2-Door

Test vehicle fuel tank filled to 92% to 94% of manufacturer's "usable" capacity and with electric fuel pump operating (if it will operate without engine operation). Part 572 test dummies located at each front designated seating position.

TEST VEHICLE IMPACT TYPE : X Frontal (30 mph)
- Oblique (30 mph) with - ° barrier face first
 contacting -
 (driver/passenger) side
- Rear Moving Barrier (30 mph)
- Lateral Moving Barrier (20 mph)

FUEL SPILLAGE MEASUREMENT:

1. From impact until vehicle motion ceases
2. For five minute period after vehicle motion ceases
3. For next 25 minutes

ACTUAL	MAX ALLOWED
0	1 oz.
0	5 oz.
0	1 oz./1 min.

SOLVENT SPILLAGE DETAILS :

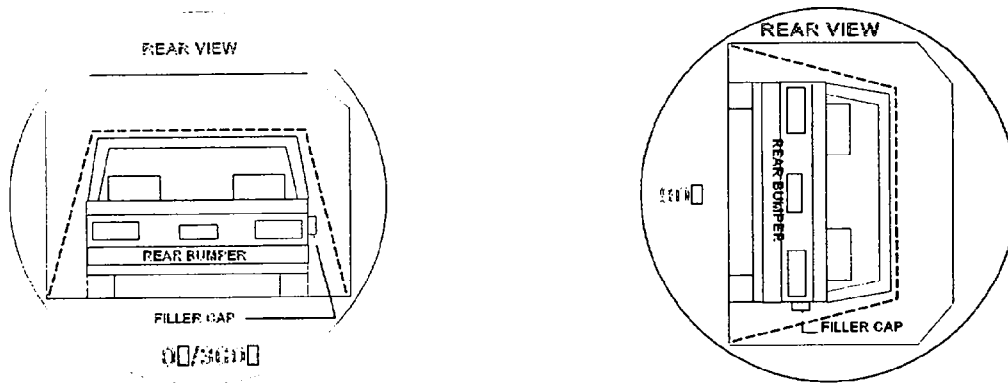
None

Table 14

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE :
0-90 Deg.

Vehicle NHTSA ID No. :
CV0210

I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 58 seconds
(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 00 seconds

TOTAL 6 minutes 58 seconds

Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
--	----------	----------	----------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0	trace	trace	n/a
---	-------	-------	-----

Note: Record spillage for whole minute intervals only as determined above.

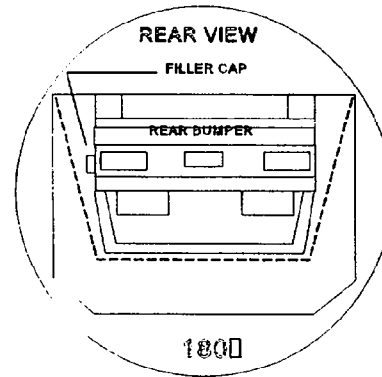
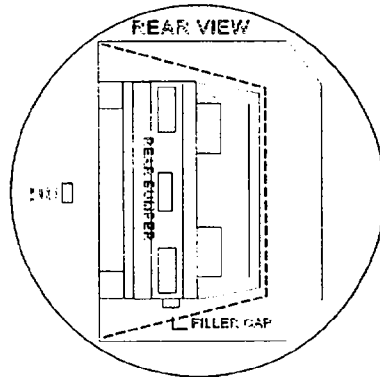
IV. SOLVENT SPILLAGE LOCATION(S) :

Around filler cap, droplets formed about 6 minutes into rollover.

Table 14
FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (cont.)

TEST PHASE :
90-180 Deg.

Vehicle NHTSA ID No. :
CV0210



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>2</u> minutes <u>02</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes <u>00</u> seconds
TOTAL	<u>7</u> minutes <u>2</u> seconds
Next whole minute interval	<u>8</u> minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
--	----------	----------	----------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

trace	trace	trace	trace
-------	-------	-------	-------

Note: Record spillage for whole minute
intervals only as determined above.

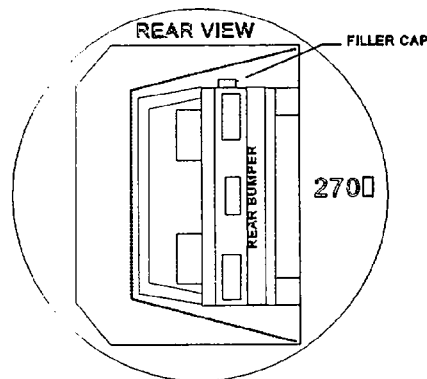
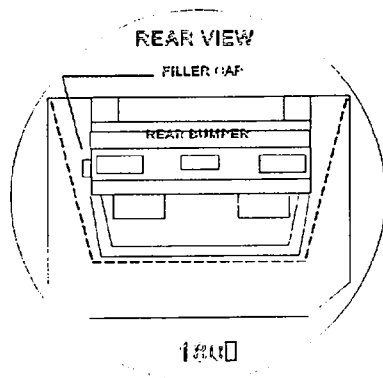
IV. SOLVENT SPILLAGE LOCATION(S) :

Around filler cap droplets formed for entire phase.

Table 14
FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (cont.)

TEST PHASE :
180-270 Deg.

Vehicle NHTSA ID No. :
CV0210



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 56 seconds
 (Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 00 seconds

TOTAL 6 minutes 56 seconds

Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
--	----------	----------	----------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0	0	0	n/a
---	---	---	-----

Note: Record spillage for whole minute intervals only as determined above.

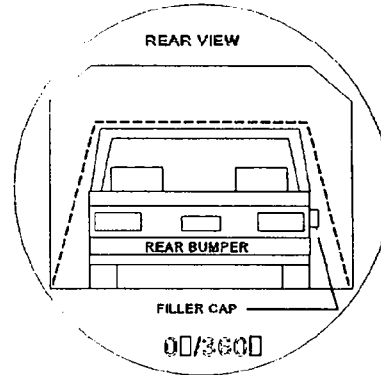
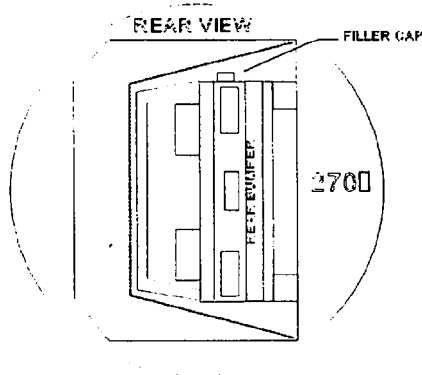
IV. SOLVENT SPILLAGE LOCATION(S) :

None

Table 14
FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (cont.)

TEST PHASE :
270-360 Deg.

Vehicle NHTSA ID No. :
CV0210



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 59 seconds
 (Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 00 seconds

TOTAL 6 minutes 59 seconds

Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
--	----------	----------	----------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0	0	0	n/a
---	---	---	-----

Note: Record spillage for whole minute
 intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S) :

None

Table 15

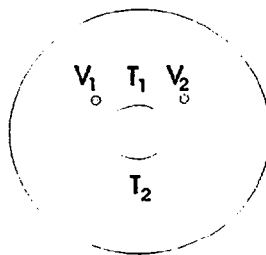
POST TEST AIR BAG DATANHTSA No. : CV0210; Test Date: October 29, 1996; Technician: JACVehicle Model Year/Make/Model: 1997 Lincoln Mark VIII LSC

- A. No. of vent holes: 2 -Driver 1 -Passenger
- B. Size of vent holes: (In.²) 1 -Driver 2.25 -Passenger
- C. Total vent area: (In.²) 2 -Driver 2.25 -Passenger
- D. Deflated air bag length and width dimensions or, if round,diameter. (In inches)
- Driver: - -Length; - -Width; 23 -Diameter
- Passenger: 24 -Height; 36 -Width; 14 -Depth
- E. Is the air bag tethered?
- Driver: X -Yes; - -No; If yes, record length of tether- 10 inches
- Passenger: X -Yes; - -No; If yes, record length of tether- 6 inches

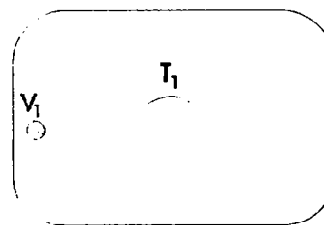
Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered. Also describe how the tethers are attached to the bag and the steering wheel.

(Note: Not to scale; V_n = Vent hole_n, T_n = Tether_n).

DRIVER
vents underneath bag



PASSENGER
vents underneath bag



- F. Record part numbers and manufacturer name of the air bag and gas generator.

Driver: Air bag: 031631R

Generator: WBHP102J10163

Passenger: Air bag: no visible number

Generator: F7LB 63044A74 ABZHFL 561221102

- G. Cut out a 6 inch by 6 inch swatch of the bag material and at least one tether from each bag, mark the vehicle's NHTSA number on the swatch, and send these parts to the COTR with the test report.

Table 16

ACCIDENT INVESTIGATION DIVISION DATA

VEHICLE YEAR/MAKE/MODEL/BODY STYLE: 1997 Lincoln Mark VIII LSC 2-Door

VEHICLE NHTSA NO. : CV0210 VIN NO. : 1LNLM92V3VY600613

WHEELBASE: 113 in. BUILD DATE: 7/96 TEST DATE: October 29, 1996

VEH SIZE CATEGORY: Full TEST WEIGHT: 4234 lbs.

FRONT OVERHANG: 58.6 in. OVERALL WIDTH: 74.0 in.

COLLISION DEFORMATION (CDC) CODE: 12FDEW2

IMPACT MODE: 30 mph zero degree frontal barrier.

CRUSH DEPTH DIMENSIONS: (Inches)

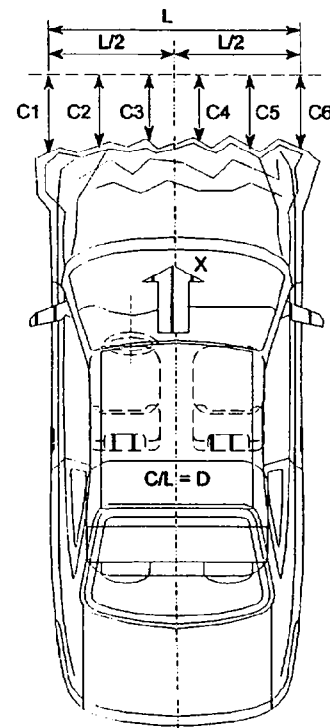
C1 = 10.8 C4 = 19.8

C2 = 17.0 C5 = 18.2

C3 = 18.8 C6 = 12.0

MIDPOINT OF DAMAGE: D =
(Vehicle Longitudinal Centerline) 37.0

LENGTH OF DAMAGE
REGION: L = 74.0



Remarks: _____

Appendix A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

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A-25	POST-TEST PASSENGER AIRBAG VIEW	A-27

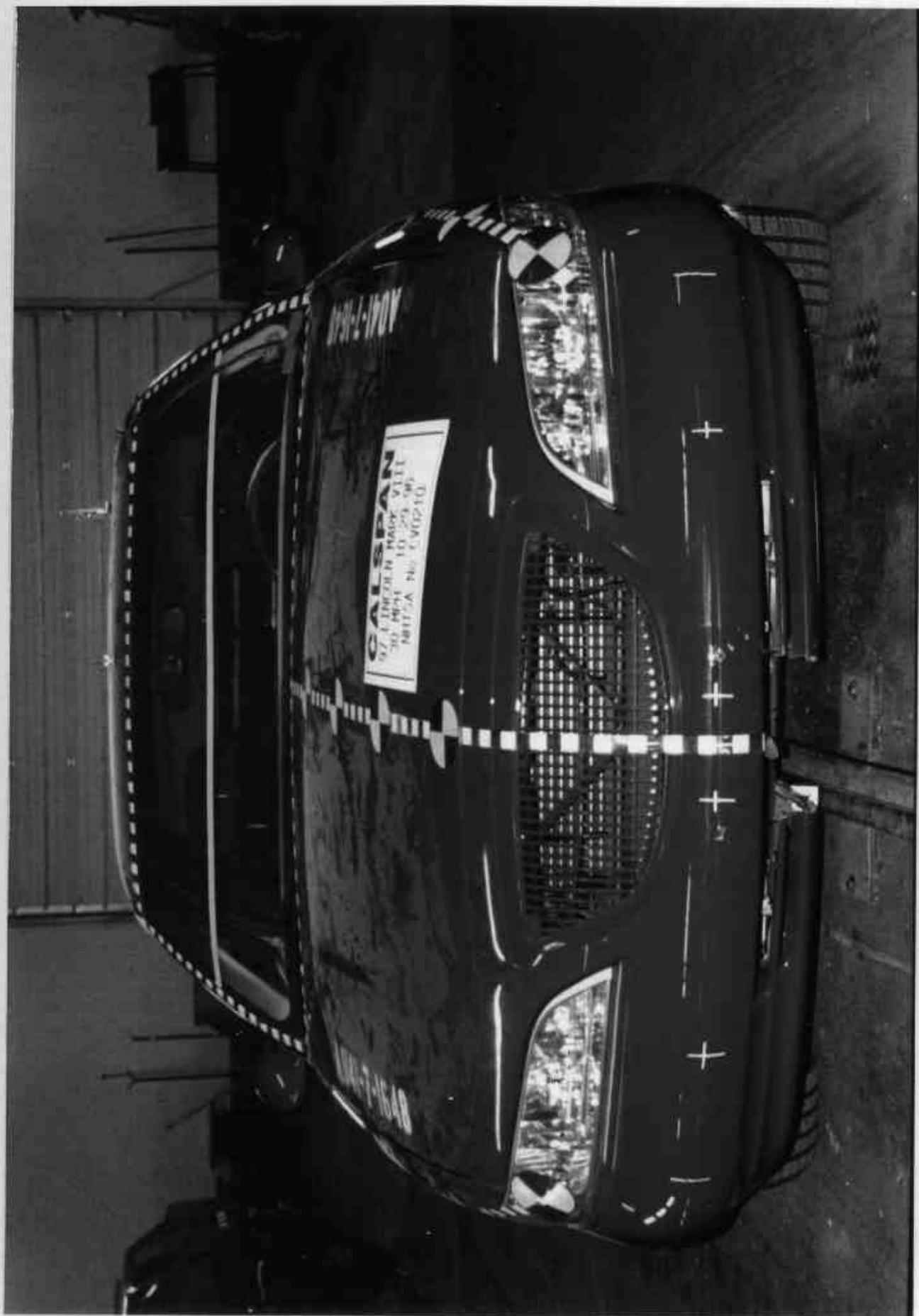


Figure A-1 PRE-TEST FRONT VIEW

PHOTOGRAPH NOT AVAILABLE

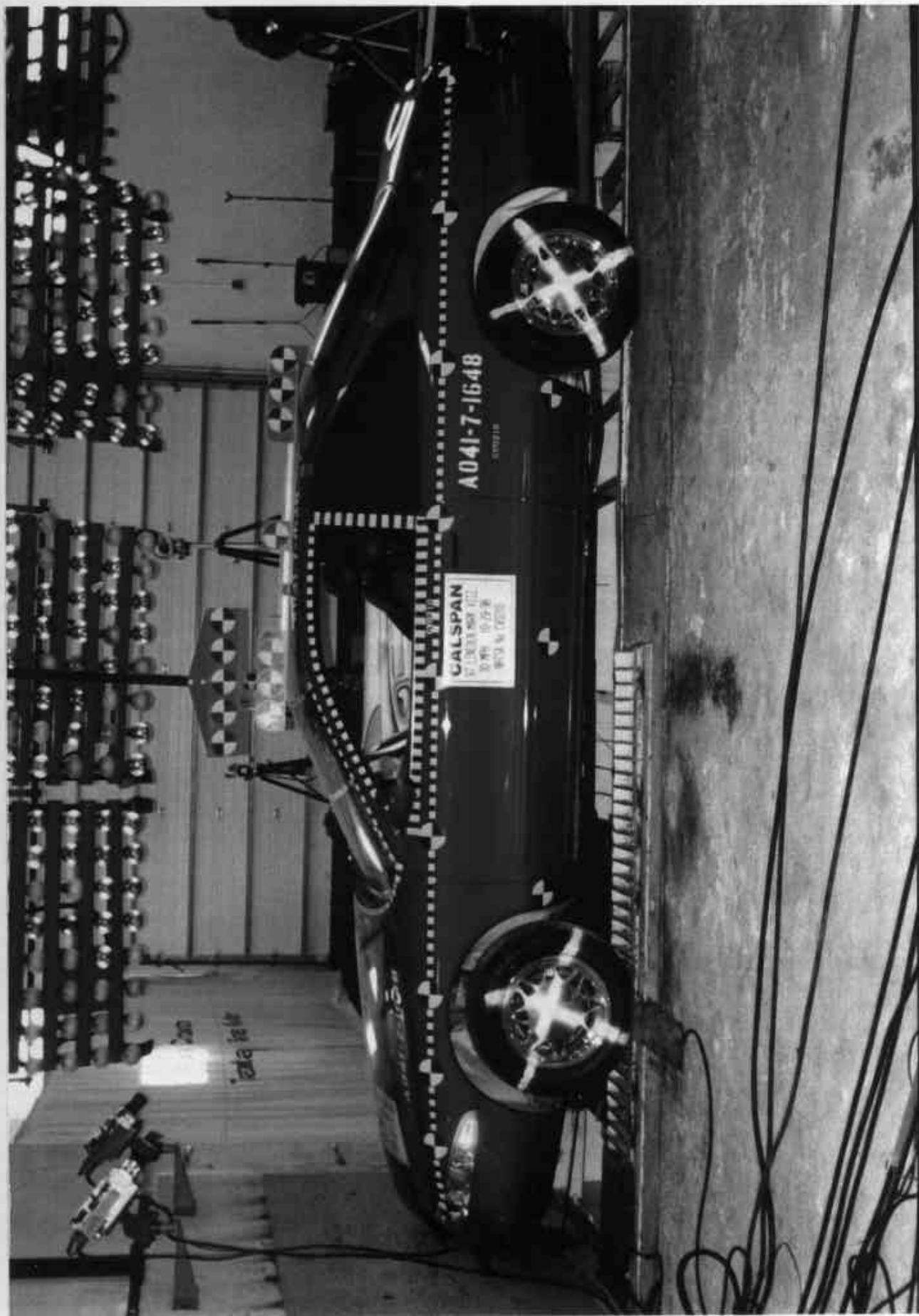


Figure A-3 PRE-TEST LEFT SIDE VIEW

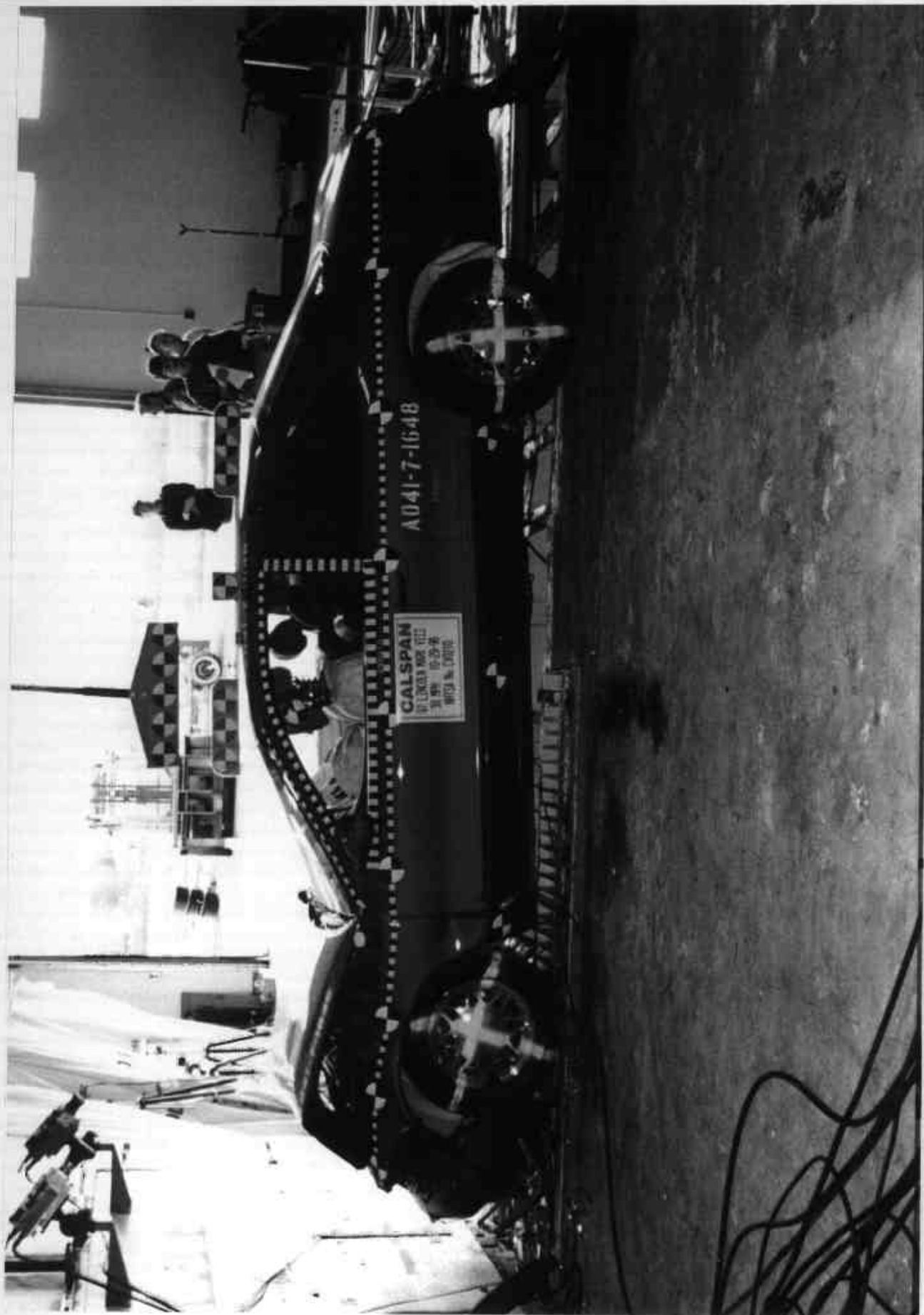


Figure A-4 POST-TEST LEFT SIDE VIEW



Figure A-5 PRE-TEST RIGHT SIDE VIEW



Figure A-6 POST-TEST RIGHT SIDE VIEW

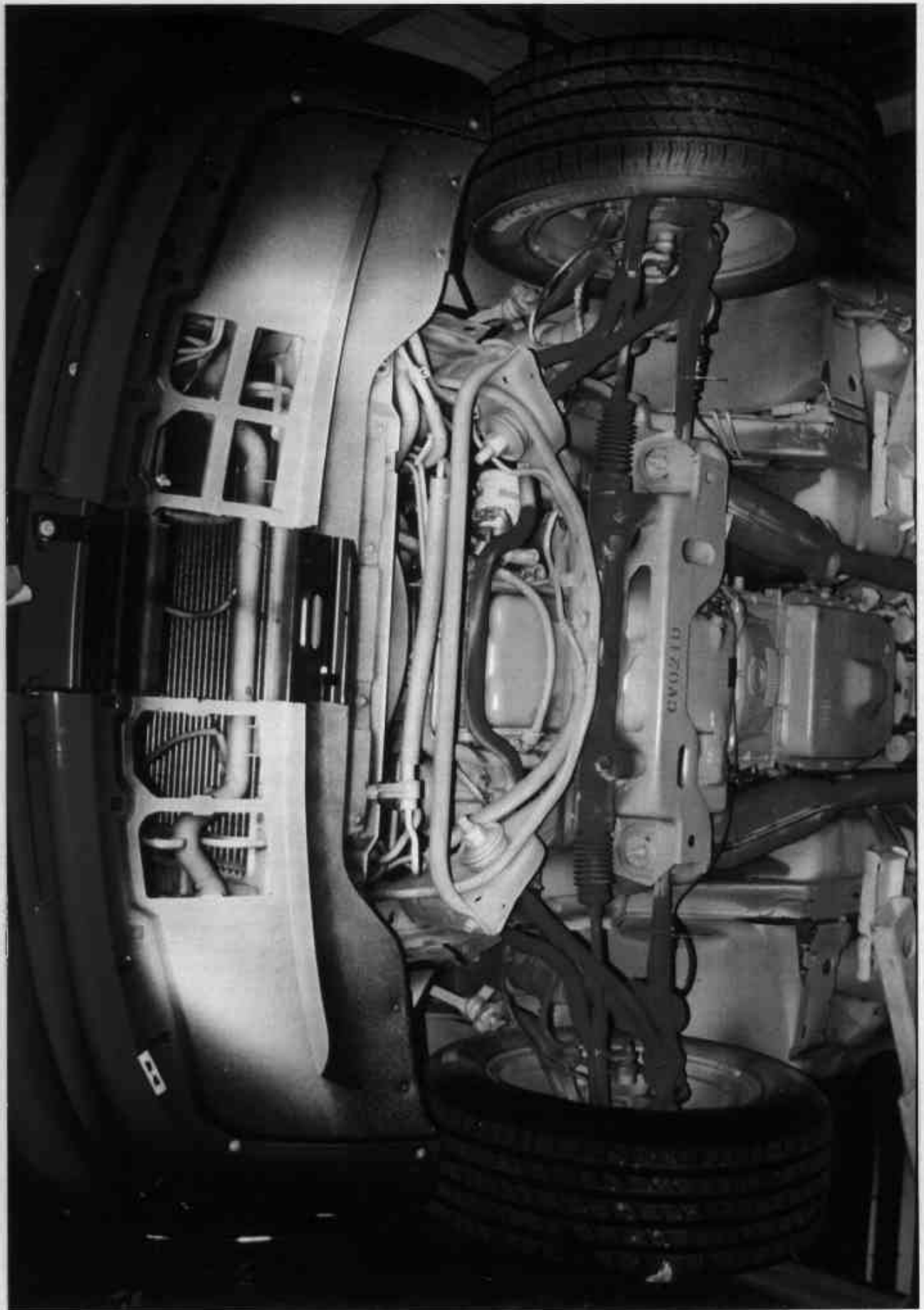


Figure A-7 PRE-TEST FRONT UNDERBODY VIEW

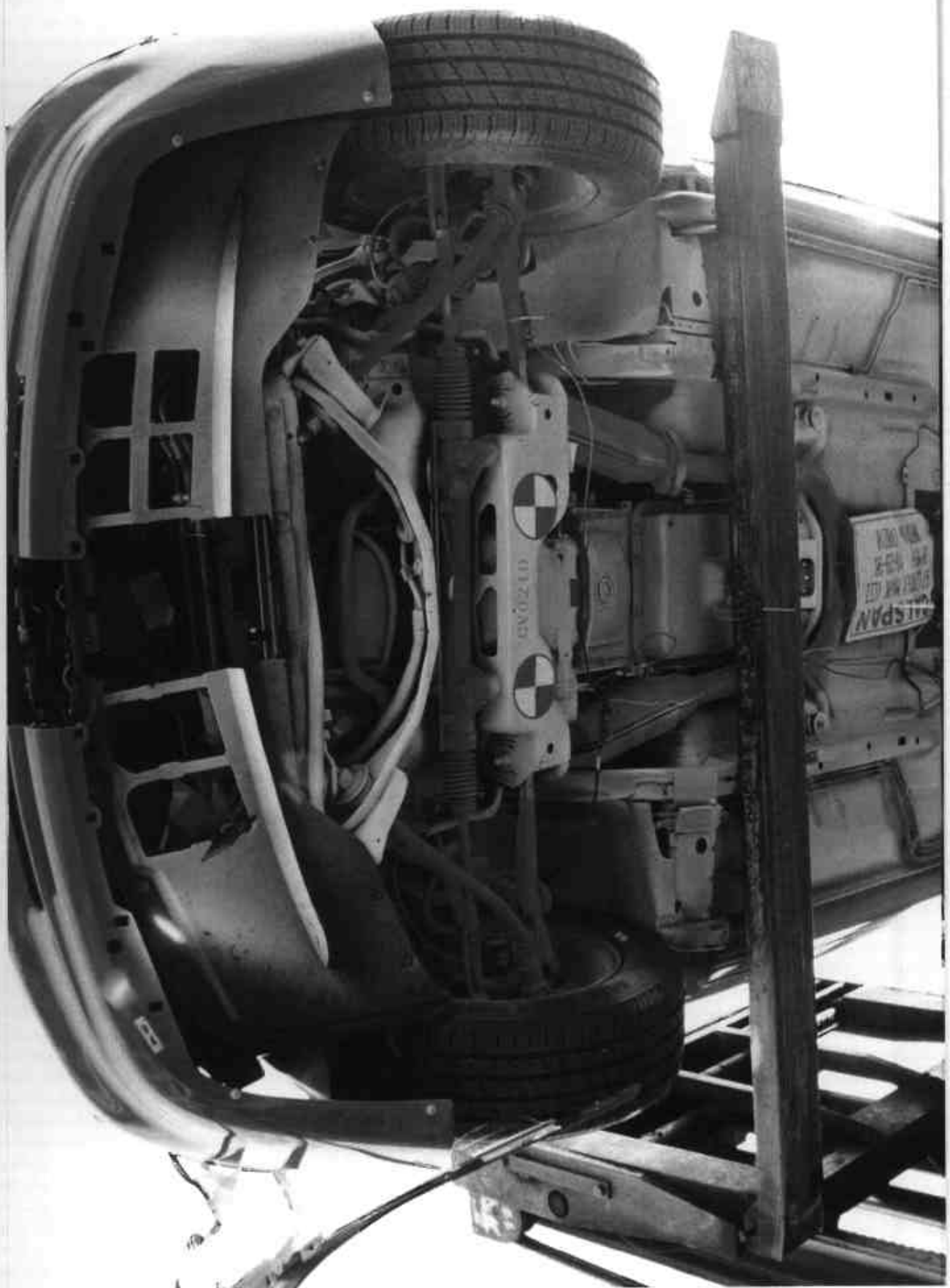


Figure A-8 POST-TEST FRONT UNDERBODY VIEW



Figure A-9 PRE-TEST DRIVER SIDE VIEW
A-11



Figure A-10 POST-TEST DRIVER SIDE VIEW
A-12



Figure A-11 PRE-TEST PASSENGER SIDE VIEW
A-13

8353-7



Figure A-12 POST-TEST PASSENGER SIDE VIEW

A-14

8353-7

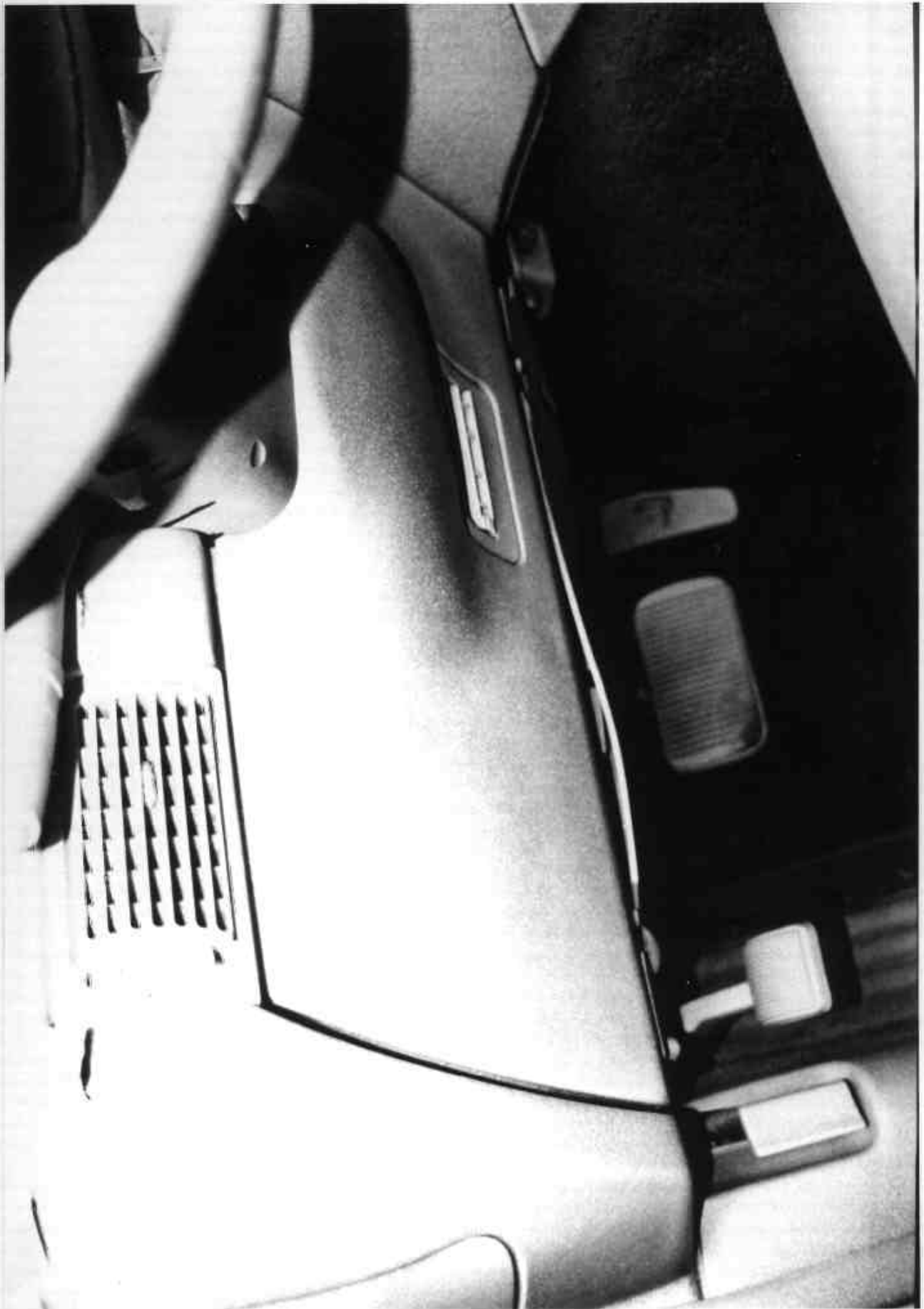


Figure A-13 PRE-TEST DRIVER KNEE BOLSTER

Figure A-14 POST-TEST DRIVER KNEE BOLSTER





Figure A-15 PRE-TEST PASSENGER KNEE BOLSTER

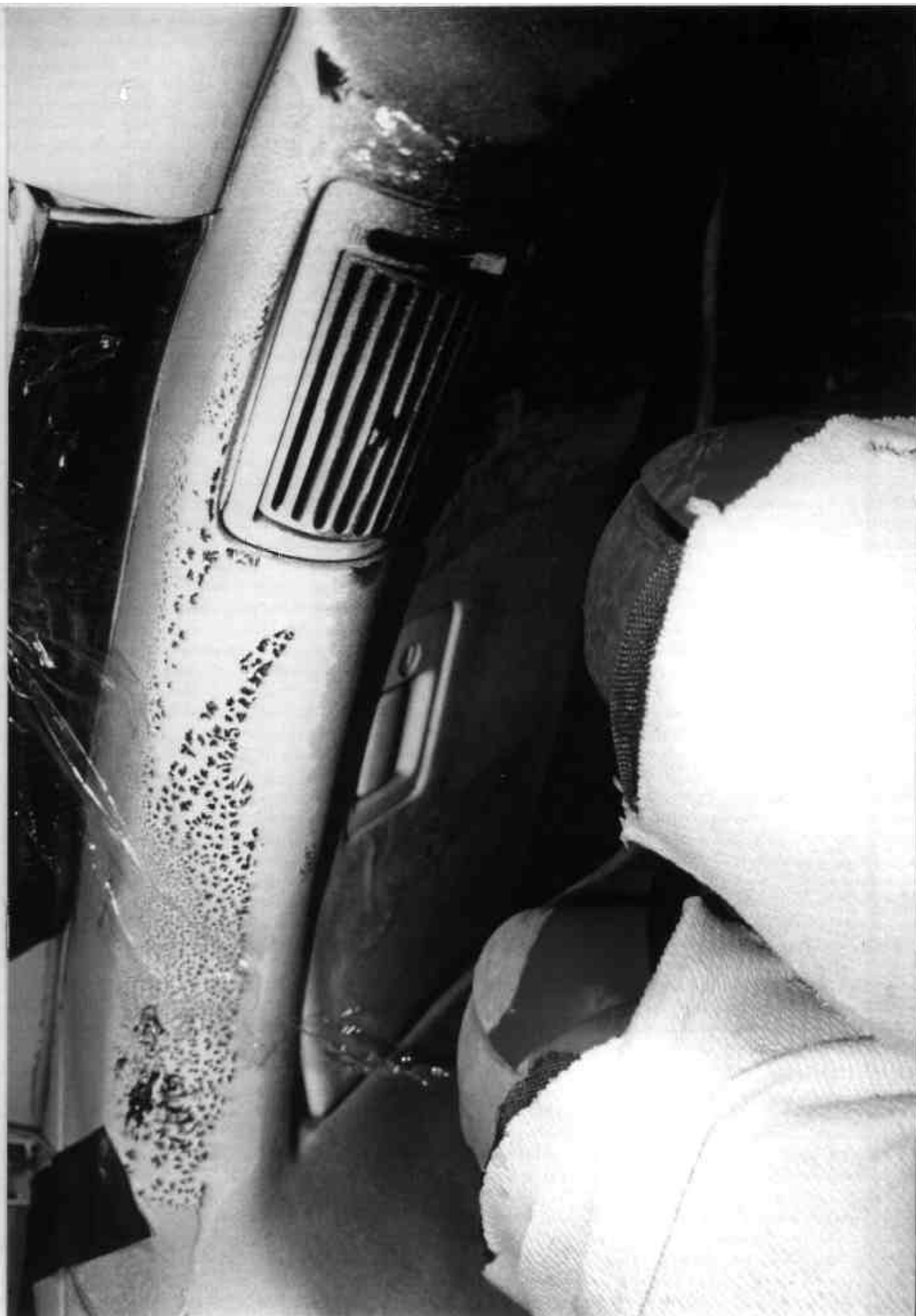


Figure A-16 POST-TEST PASSENGER KNEE BOLSTER



Figure A-17 PRE-TEST UNDERBODY STEERING SHAFT

PHOTOGRAPH NOT AVAILABLE

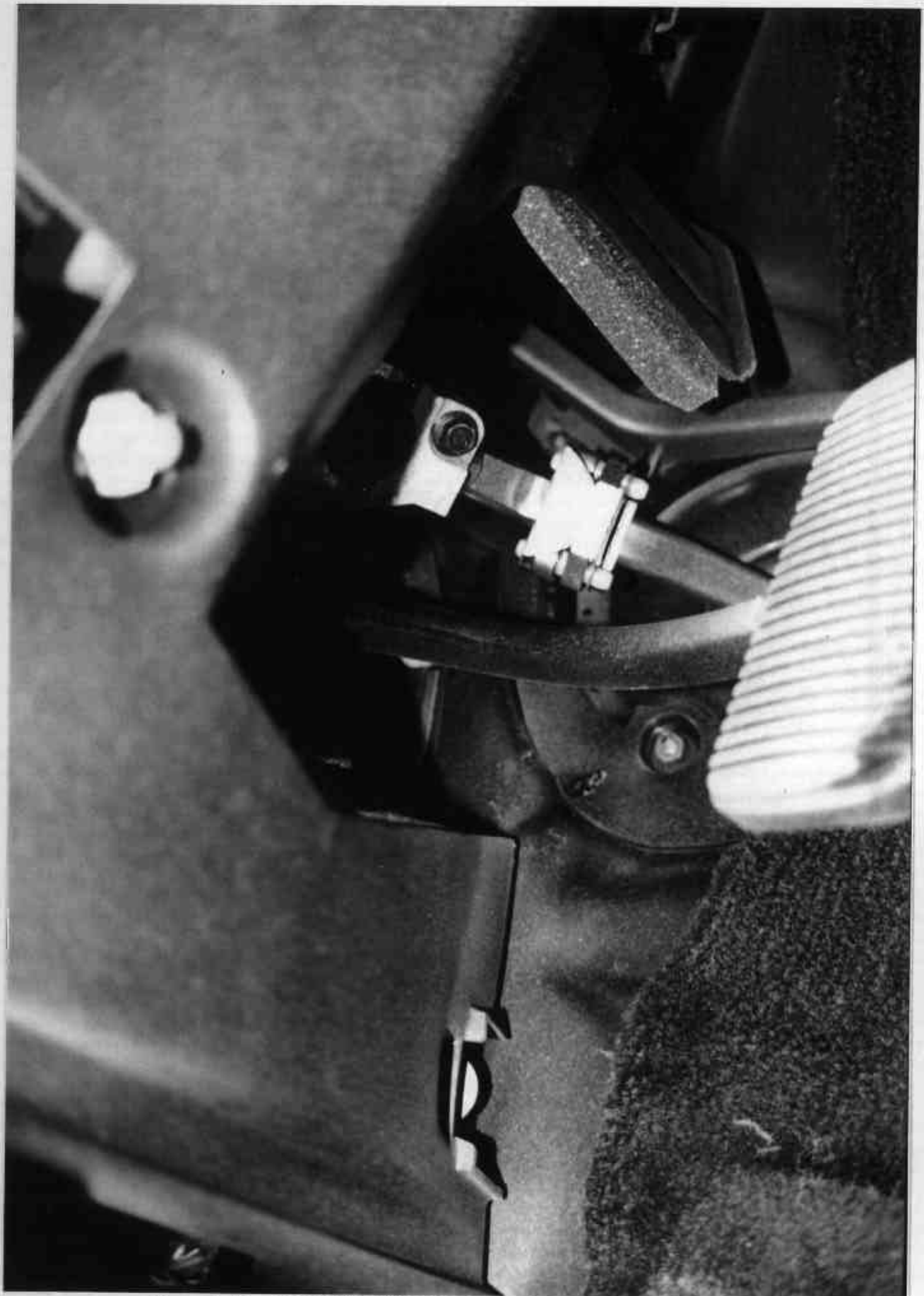


Figure A-19 PRE-TEST STEERING COLUMN/FIREWALL INSIDE VIEW

A-21

8353-7



Figure A-20 POST-TEST STEERING COLUMN/FIREWALL INSIDE VIEW

A-22

8353-7

MFD. BY FORD MOTOR CO. IN U.S.A.
GVWR: 4790LB/2172KG

DATE: 07/96

FRONT GAWR: 2580LB

REAR GAWR: 2288LB

1170KG

1037KG

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

VIN: 1LNLM92V3 VY600613
TYPE: PASSENGER

F0051
R0032



EXT PNT JB

BDY|BRK|MLD|INT TR|TP/PS|R|AXLE|TR|SPR
BA 4 CC DJ

IRC 18 DSO
6 4 U

UPC

VF60B-5420472-AA

Figure A-21 CERTIFICATION PLACARD

MARK VIII

RECOMMENDED TIRE SIZE AND INFLATION PRESSURE (COLD) DIMENSIONS DES PNEUS et PRESSIONS DE GONFLAGE RECOMMANDÉES (À FROID)

DIMENSIONS DES PNEUS ET PRESSIONS DE GONFLAGE RECOMMANDÉES (À FROID)					
TIRE SIZE DIMENSIONS DES PNEUS		LOAD RANGE CHARGE NOMINALE	TIRE PRESSURE PRESSION DES PNEUS		AVERAGE MOYENNE
			FRONT	REAR	
P225/60R16 97V*		STD	30 PSI 207 kPa	30 PSI 207 kPa	30 PSI 207 kPa
T125/80R16 T125/70D16		T	60 PSI 415 kPa	60 PSI 415 kPa	60 PSI 415 kPa
*MUST BE REPLACED WITH AN EQUIVALENT TYPE SPEED RATED TIRE. *NE REMPLACER QUE PAR UN PNEU DONT L'INDICE DE VITESSE EST LE MÊME.					
FULL RATED (MAXIMUM) LOAD = OCCUPANTS PLUS LUGGAGE			PLEINE CHARGE (MAXIMALE) NOMINALE = OCCUPANTS PLUS BAGAGES		
MODELS MODELES	MAXIMUM LOAD CHARGE MAXIMALE	TOTAL OCCUPANTS NOMBRE TOTAL D'OCCUPANTS	DISTRIBUTION REPARTITION		
			FRONT AVANT	REAR ARRIERE	LUGGAGE BAGAGES
ALL / TOUS	900 lb. / 408kg	5	2	3	150 lb. / 68kg
FOR SUSTAINED HIGH SPEED, TRAILER TOWING, RECREATIONAL ACCESSORIES AND TEMPORAL SPARE WARE-BEE OWNER CODE. HAUTES VITESSES SOUTENUES, REMORQUES, ACCESSOIRES DE PLAISANCE ET PNEU DE SECOURS PROVOISIRE. CONSULTER LE GUIDE DU PROPRIÉTAIRE. V FSLC-15332-AR					

FOR SUSTAINED HIGH SPEED, TRAILER TOWING, RECREATIONAL ACCESSORIES AND TEMPORAL SPARE TIRES-SEE OWNER GUIDE.
HAUTES VITESSES SOUTENUES, REMORQUES, ACCESSOIRES DE PLAISANCE ET PNEU DE SECOURS PROVISOIRE, CONSULTER LE GUIDE DU PROPRIÉTAIRE. V F3LC-1532-AB

Figure A-22 TIRE PLACARD



Figure A-23 VEHICLE IMPACT



Figure A-24 POST-TEST DRIVER AIRBAG VIEW



Figure A-25 POST-TEST PASSENGER AIRBAG VIEW

Appendix B

VEHICLE AND DUMMY RESPONSE DATA

NOTE : Data trace scales are automatically scaled at the
request of the COTR. Use caution when
reviewing data.

TEST NO. CV0210

VEHICLE

SAE FILTER CHANNEL CLASS

60

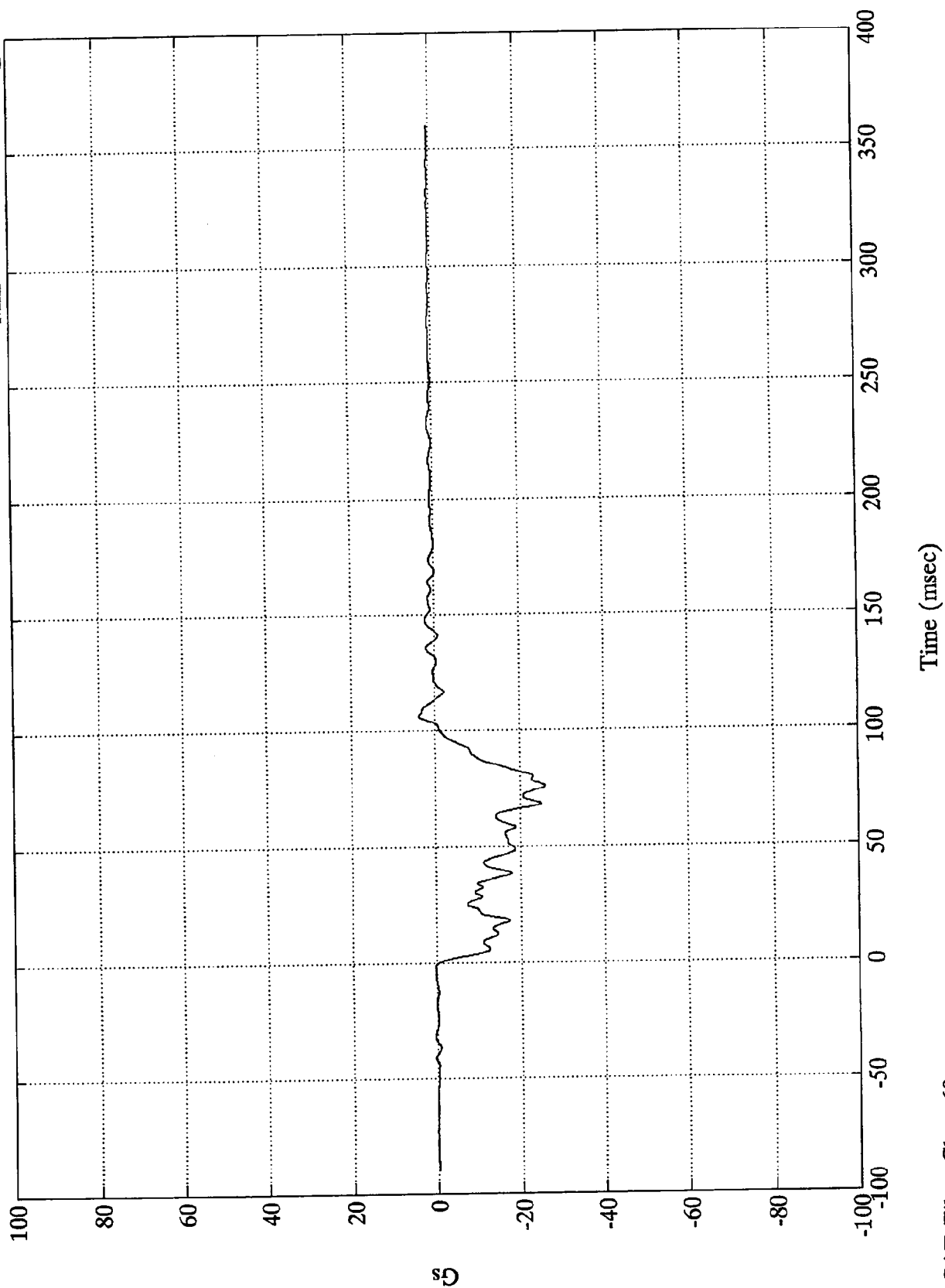
8353-7

8353-7

208 Test #7 - 1997 Lincoln Mark VIII

Max = 3.79 Gs @ 105.84 msec
Min = -25.98 Gs @ 75.95 msec

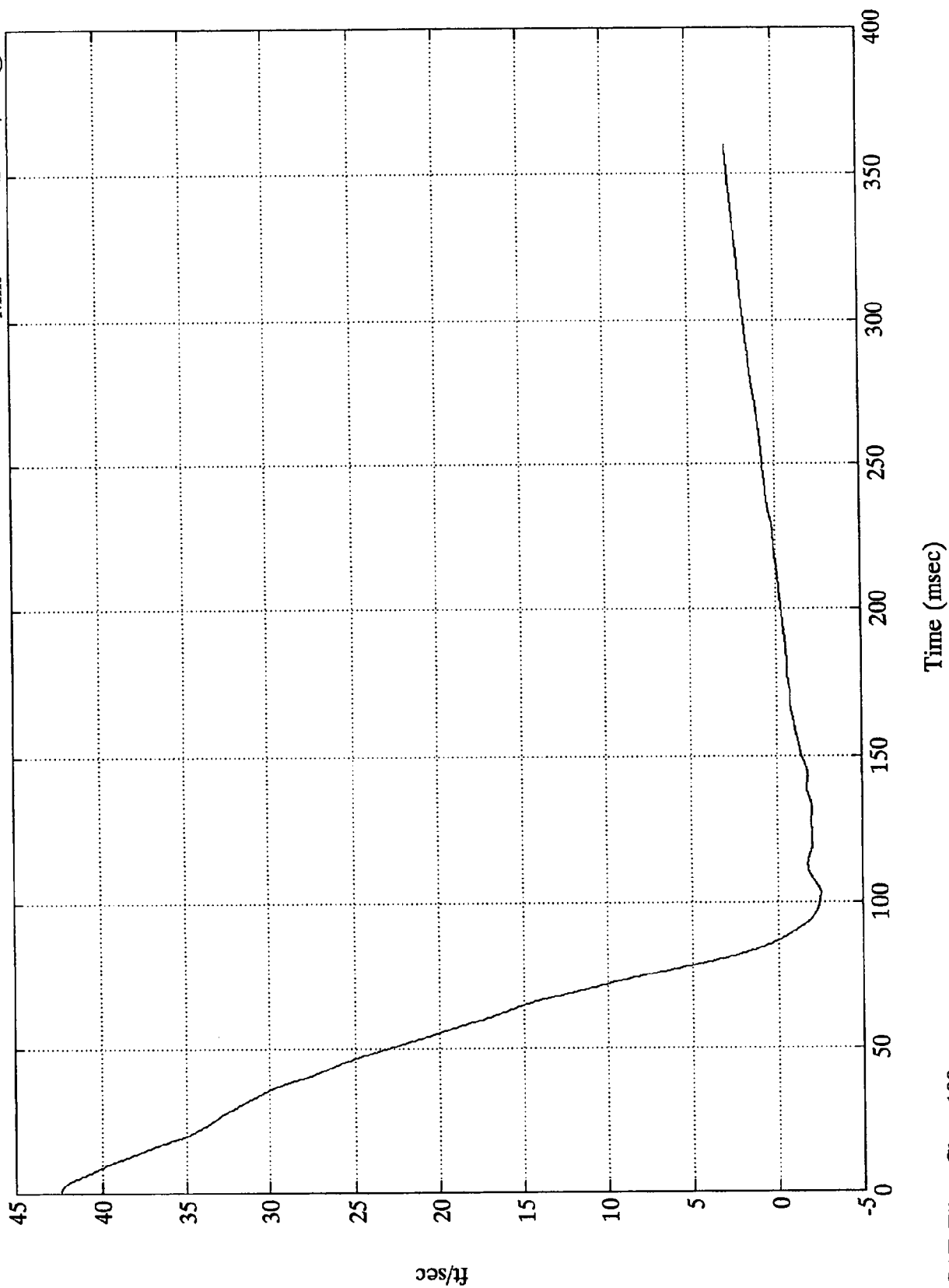
Left Rear X-member X



SAE Filter Class 60

208 Test #7 - 1997 Lincoln Mark VIII

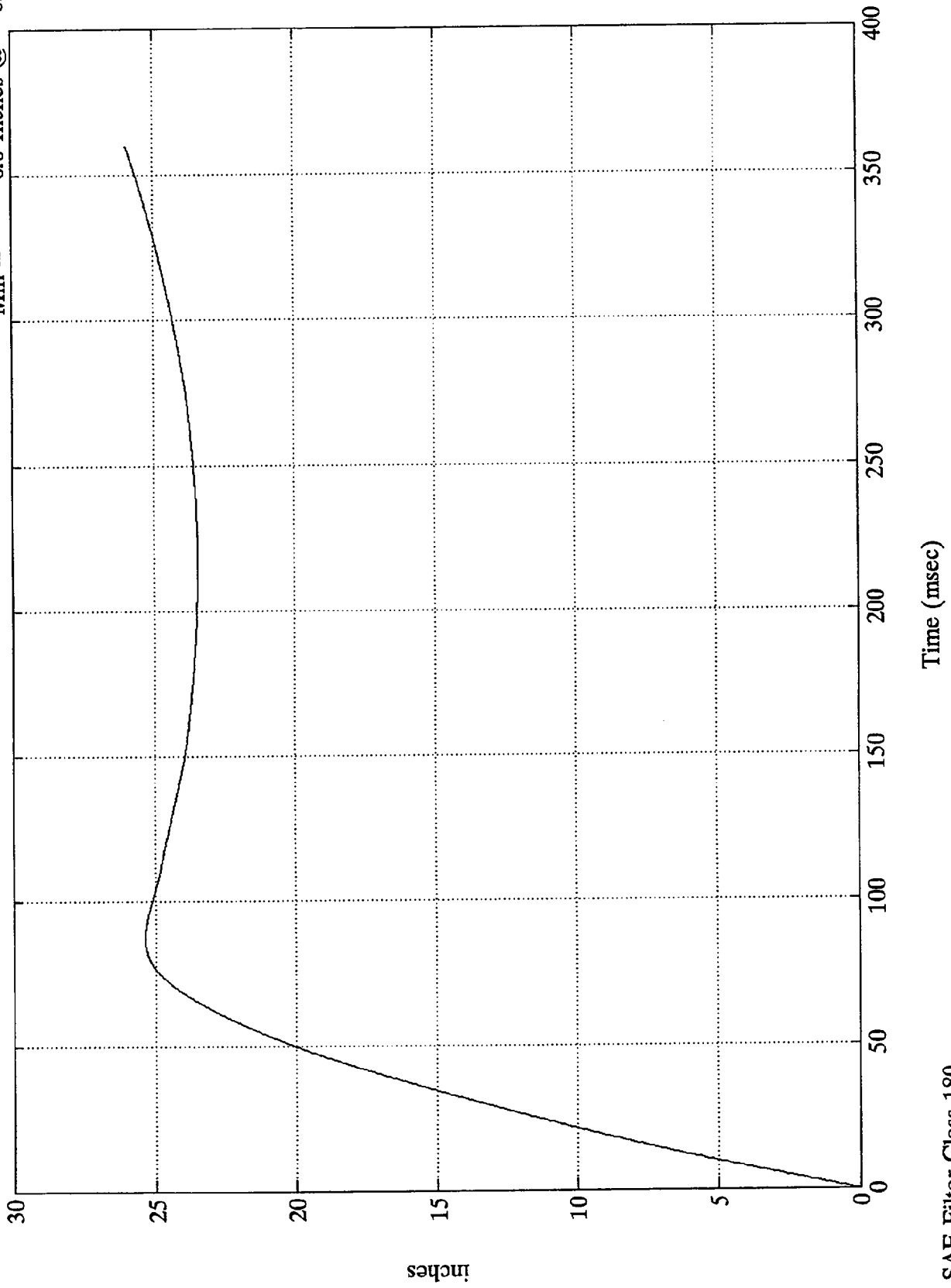
1st Integral Left Rear X-number X
Max = 42.3 Ft/sec @ -0.00 msec
Min = -2.5 Ft/sec @ 103.08 msec



208 Test #7 - 1997 Lincoln Mark VIII

2nd Integral Left Rear X-member X

Max = 25.9 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec

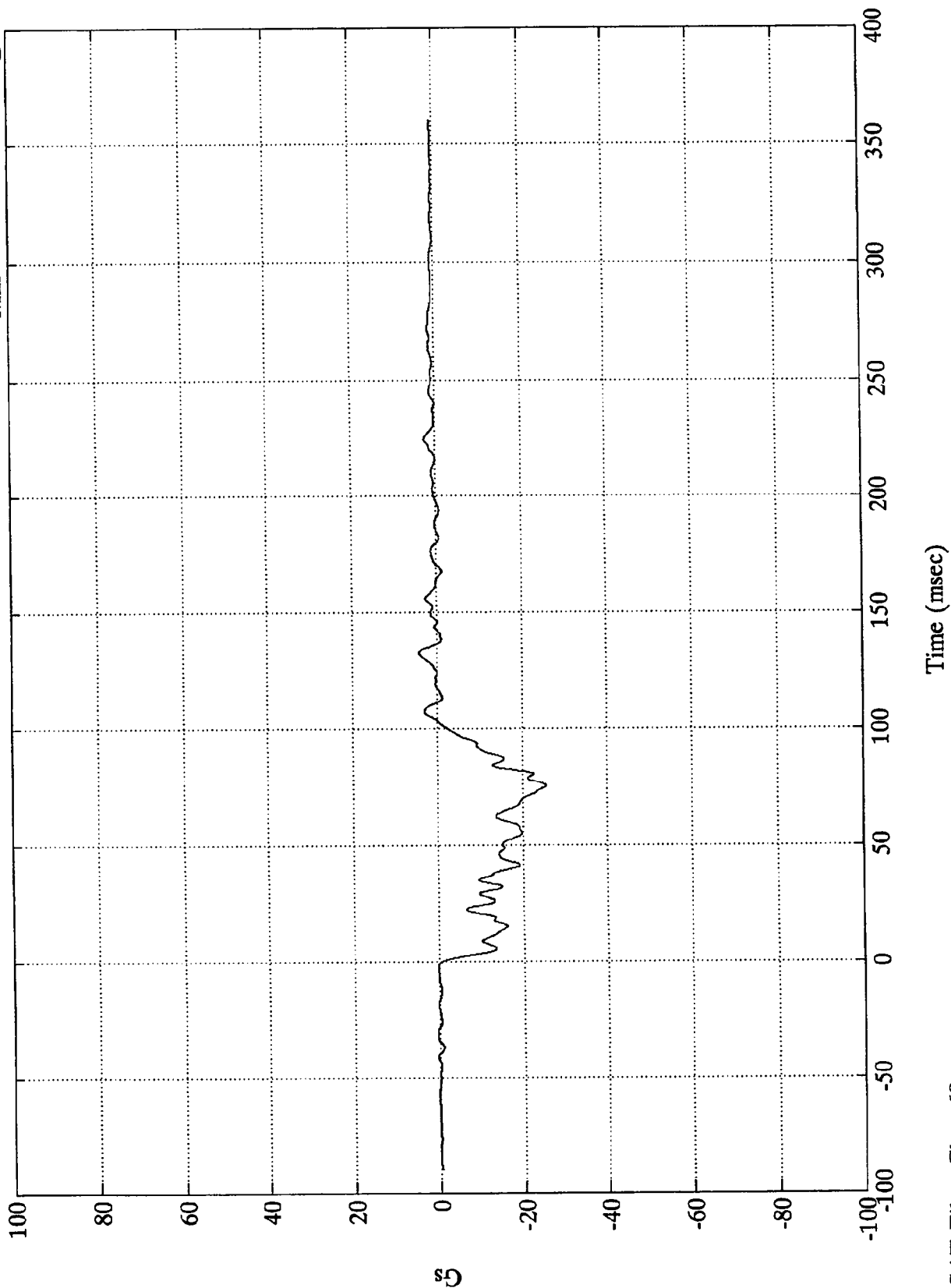


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Right Rear X-member X

Max = 4.23 Gs @ 132.84 msec
Min = -25.66 Gs @ 75.47 msec

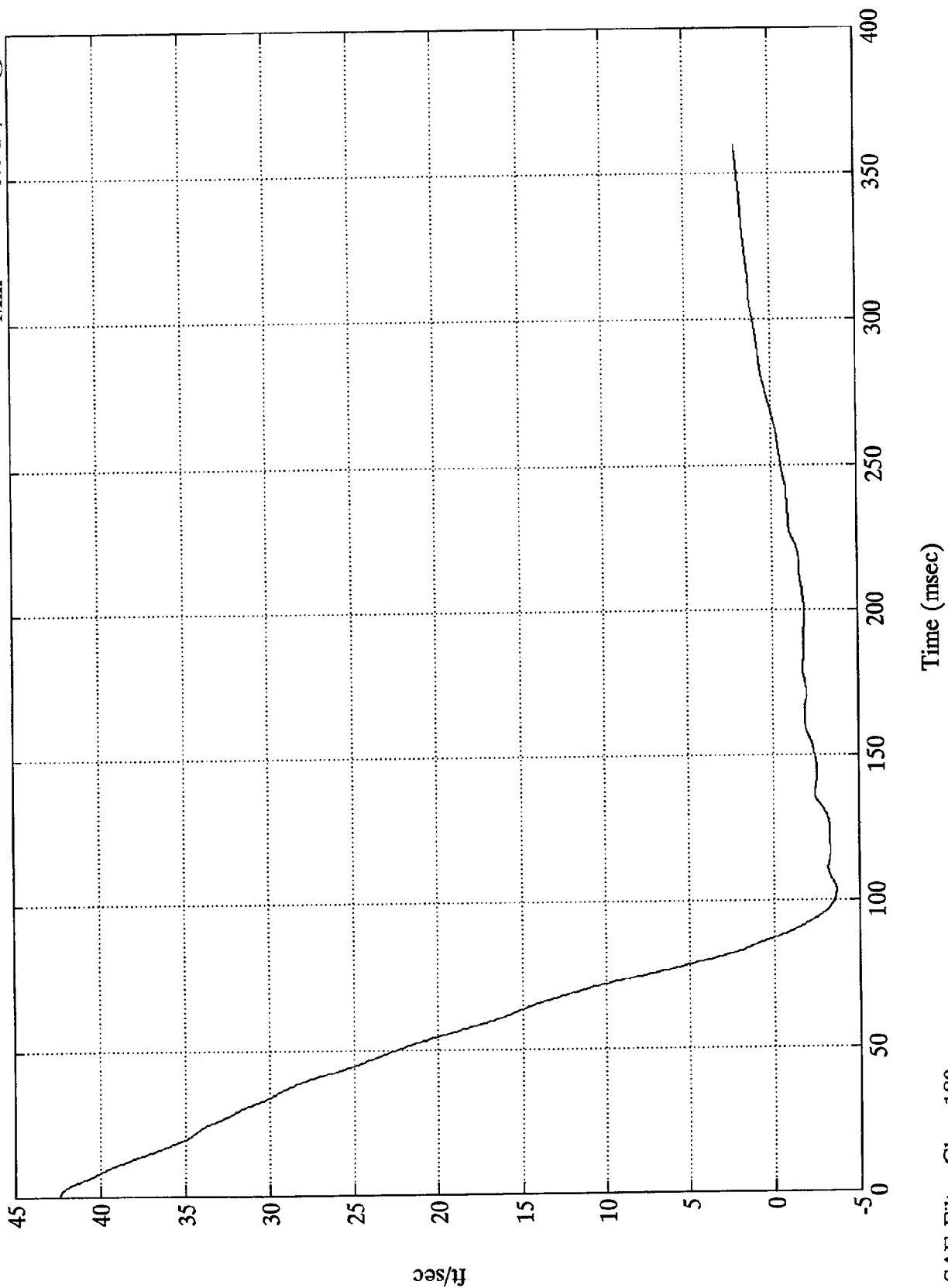


SAE Filter Class 60

208 Test #7 - 1997 Lincoln Mark VIII

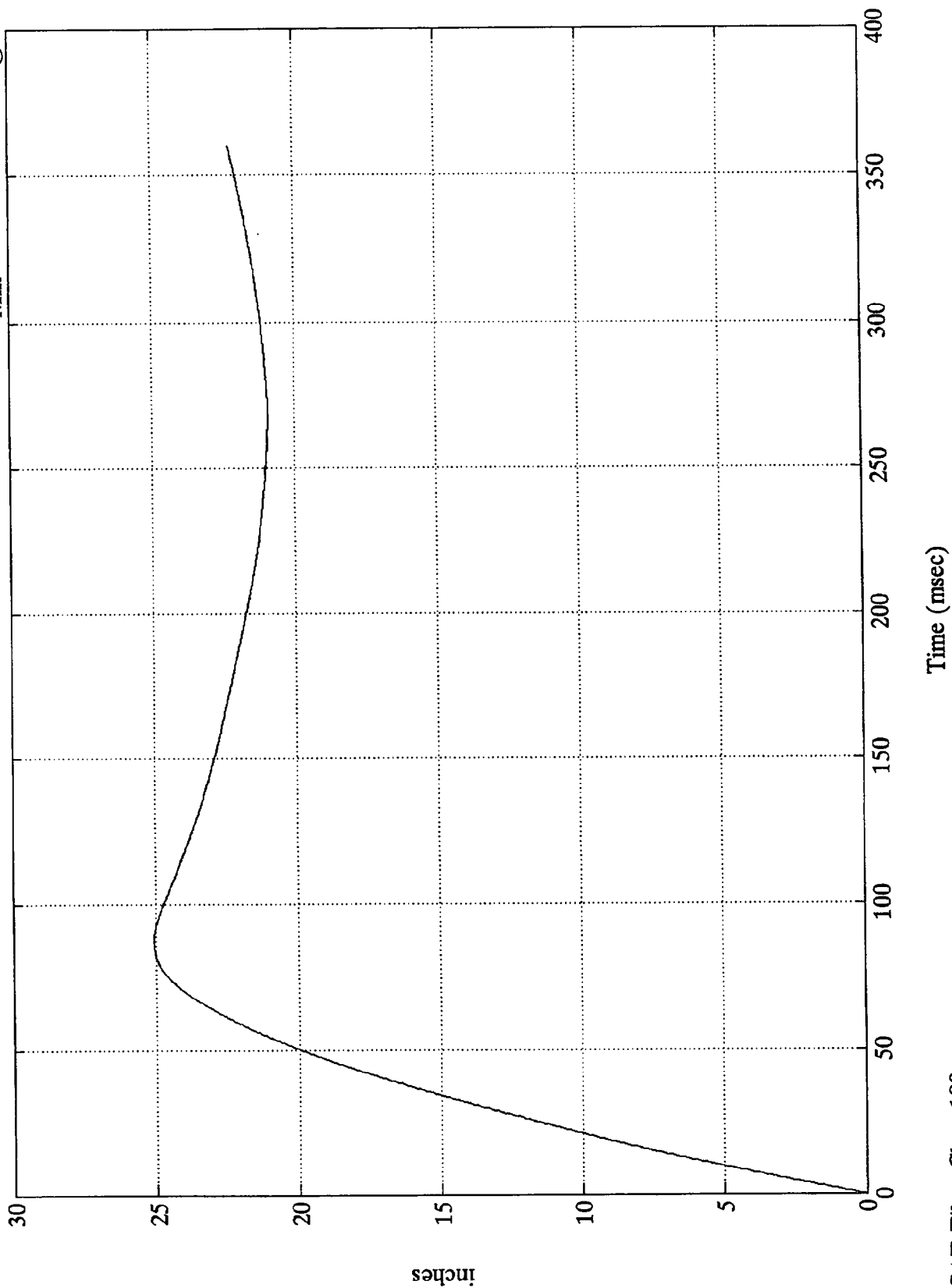
1st Integral Right Rear X-member X

Max = 42.3 Ft/sec @ -0.00 msec
Min = -3.6 Ft/sec @ 103.44 msec



208 Test #7 - 1997 Lincoln Mark VIII

2nd Integral Right Rear X-member X
Max = 25.0 Inches @ 87.24 msec
Min = 0.0 Inches @ -0.00 msec

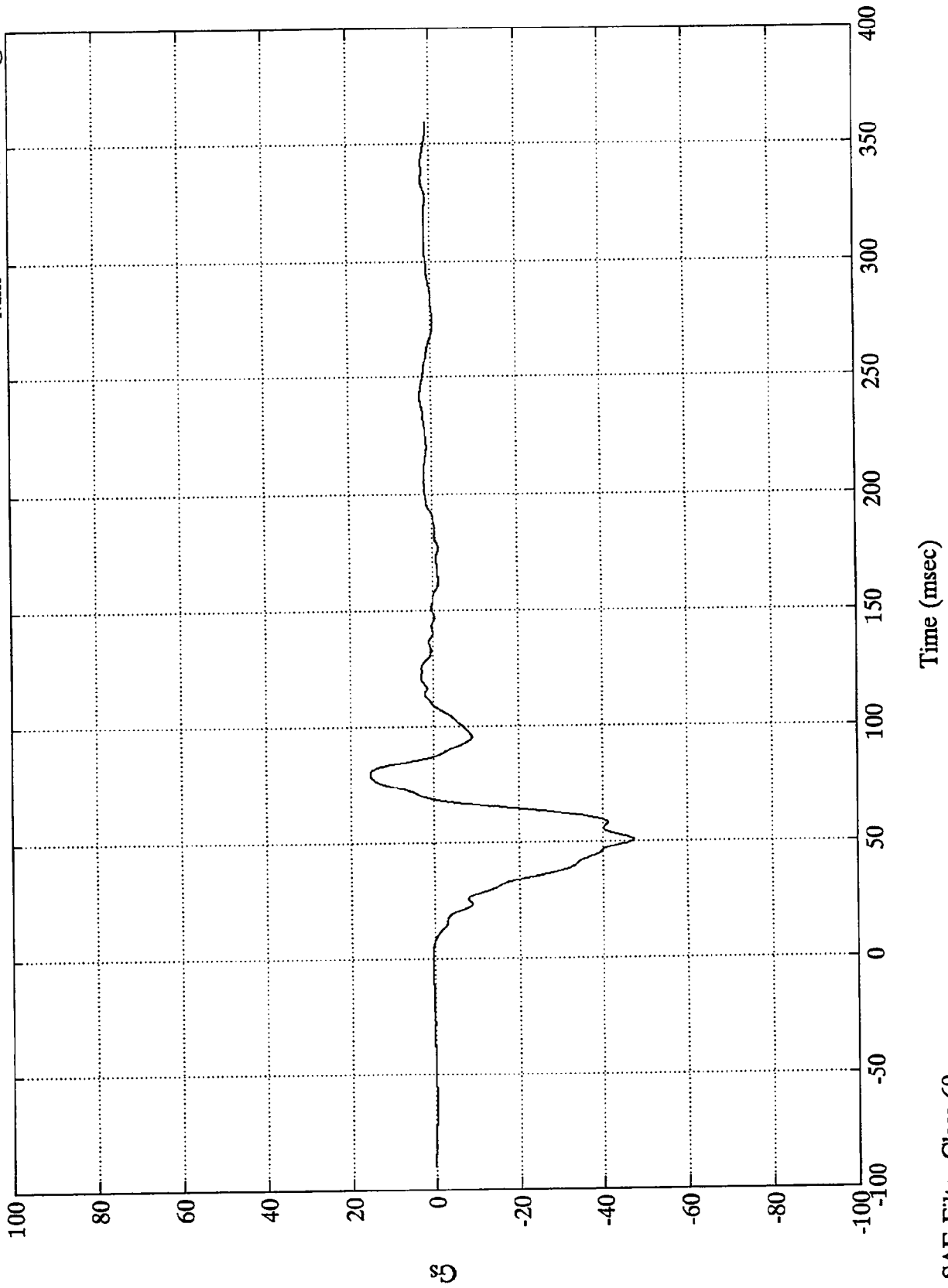


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Engine Top X

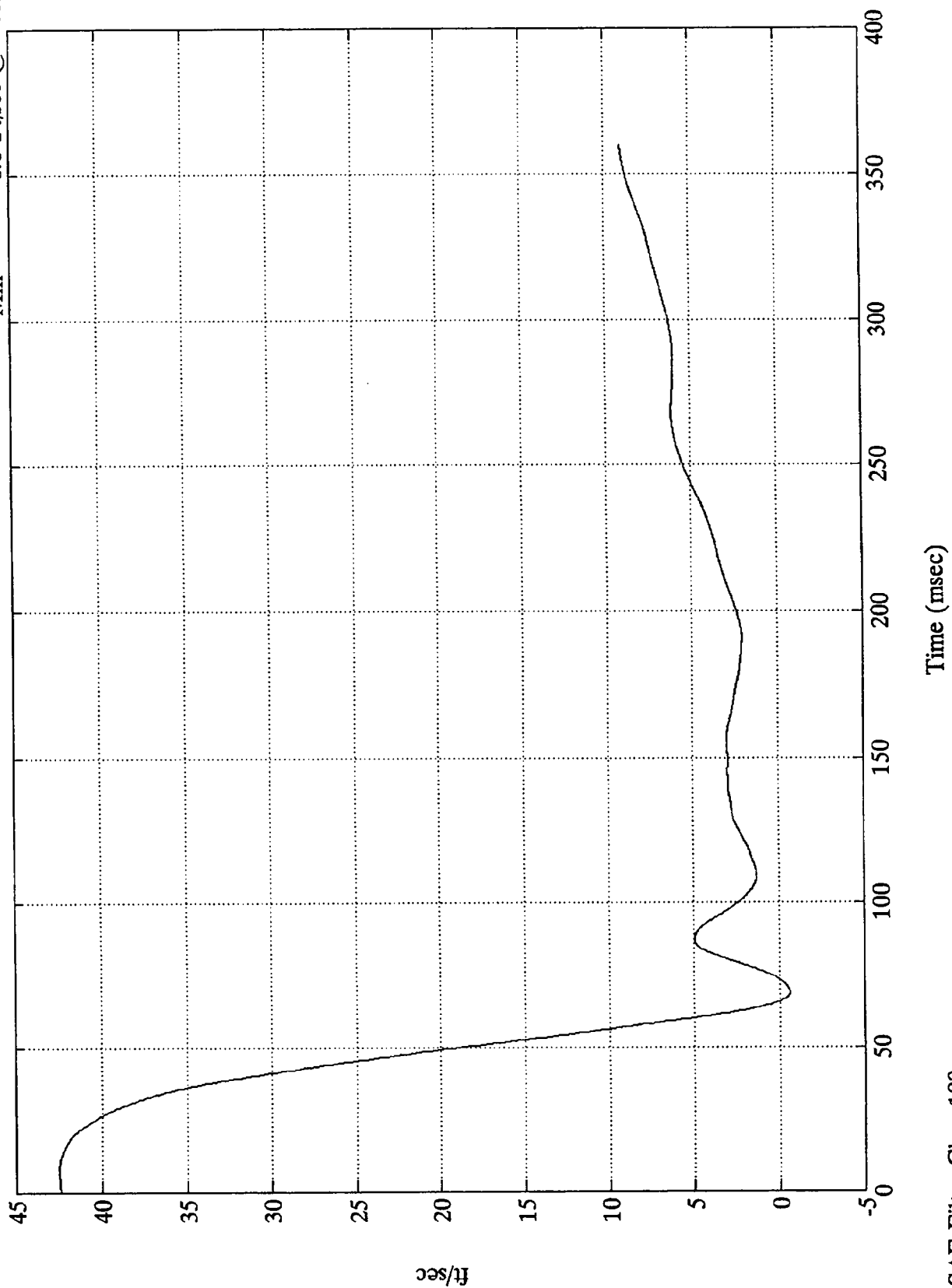
Max = 15.31 Gs @ 79.91 msec
Min = -47.45 Gs @ 50.88 msec



SAE Filter Class 60

208 Test #7 - 1997 Lincoln Mark VIII

1st Integral Engine Top X
Max = 42.4 Ft/sec @ 7.43 msec
Min = -0.6 Ft/sec @ 68.76 msec

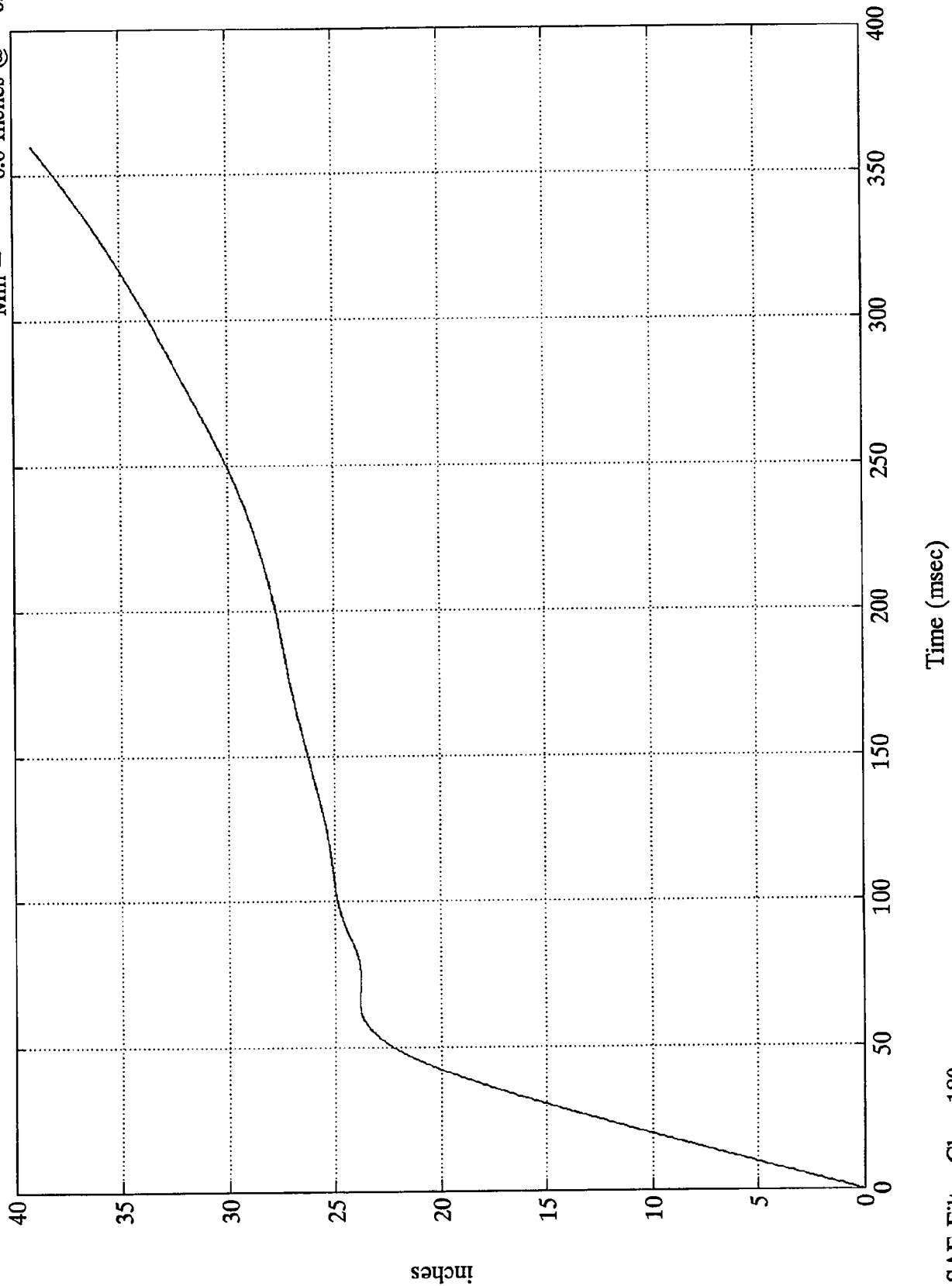


SAE Filter Class 180

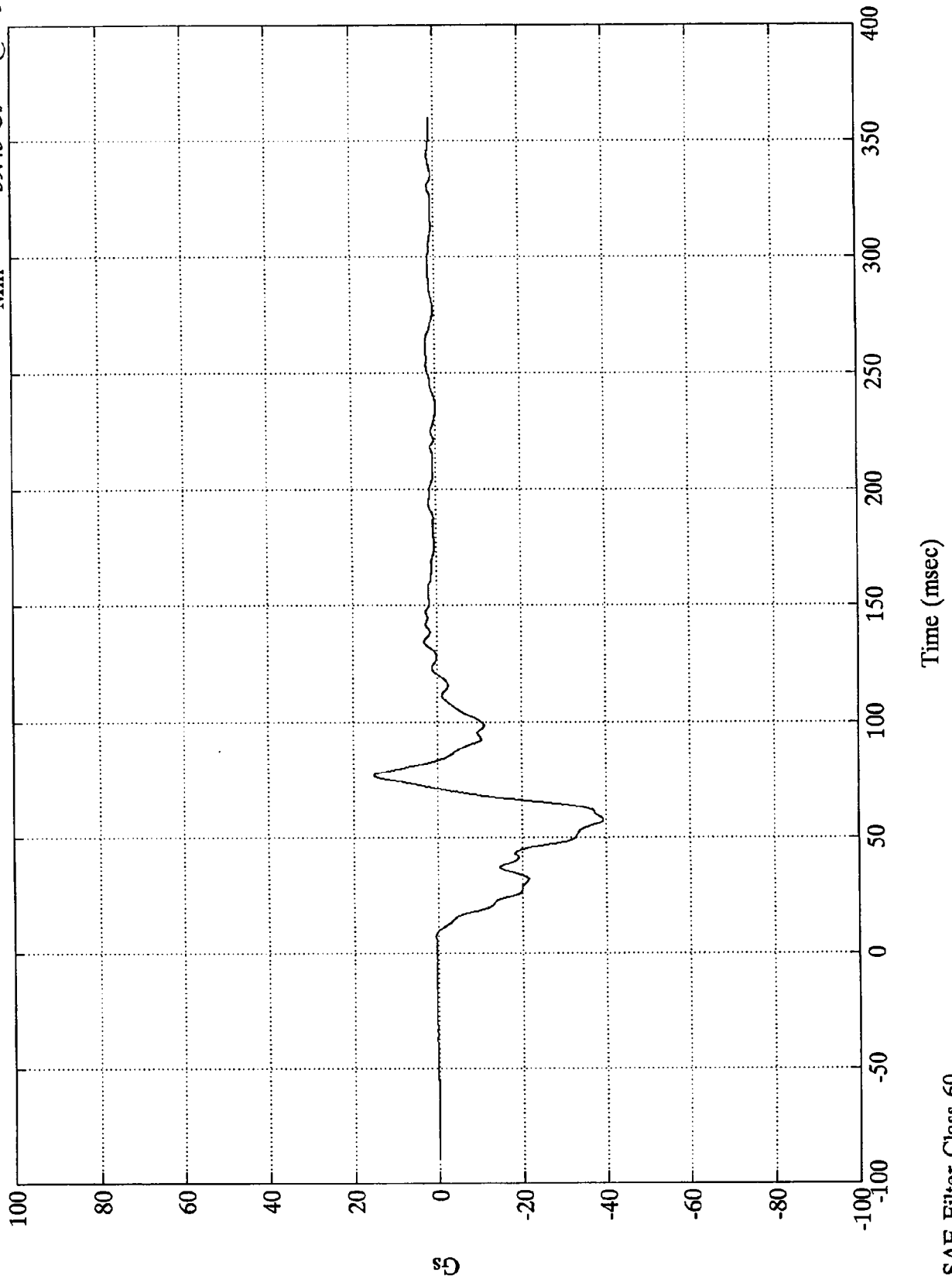
208 Test #7 - 1997 Lincoln Mark VIII

2nd Integral Engine Top X

Max = 39.1 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec



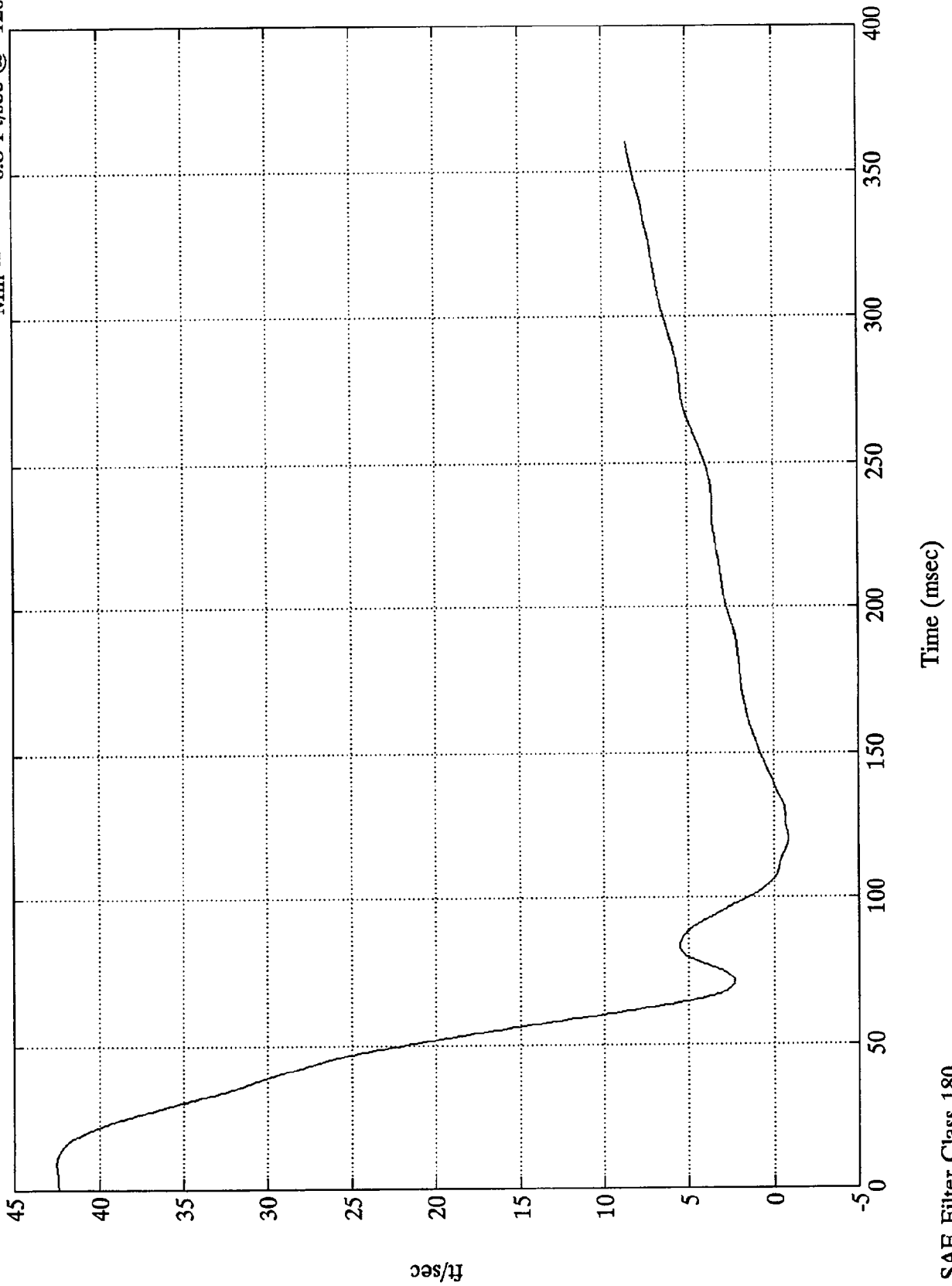
SAE Filter Class 180



208 Test #7 - 1997 Lincoln Mark VIII

1st Integral Engine Bottom X

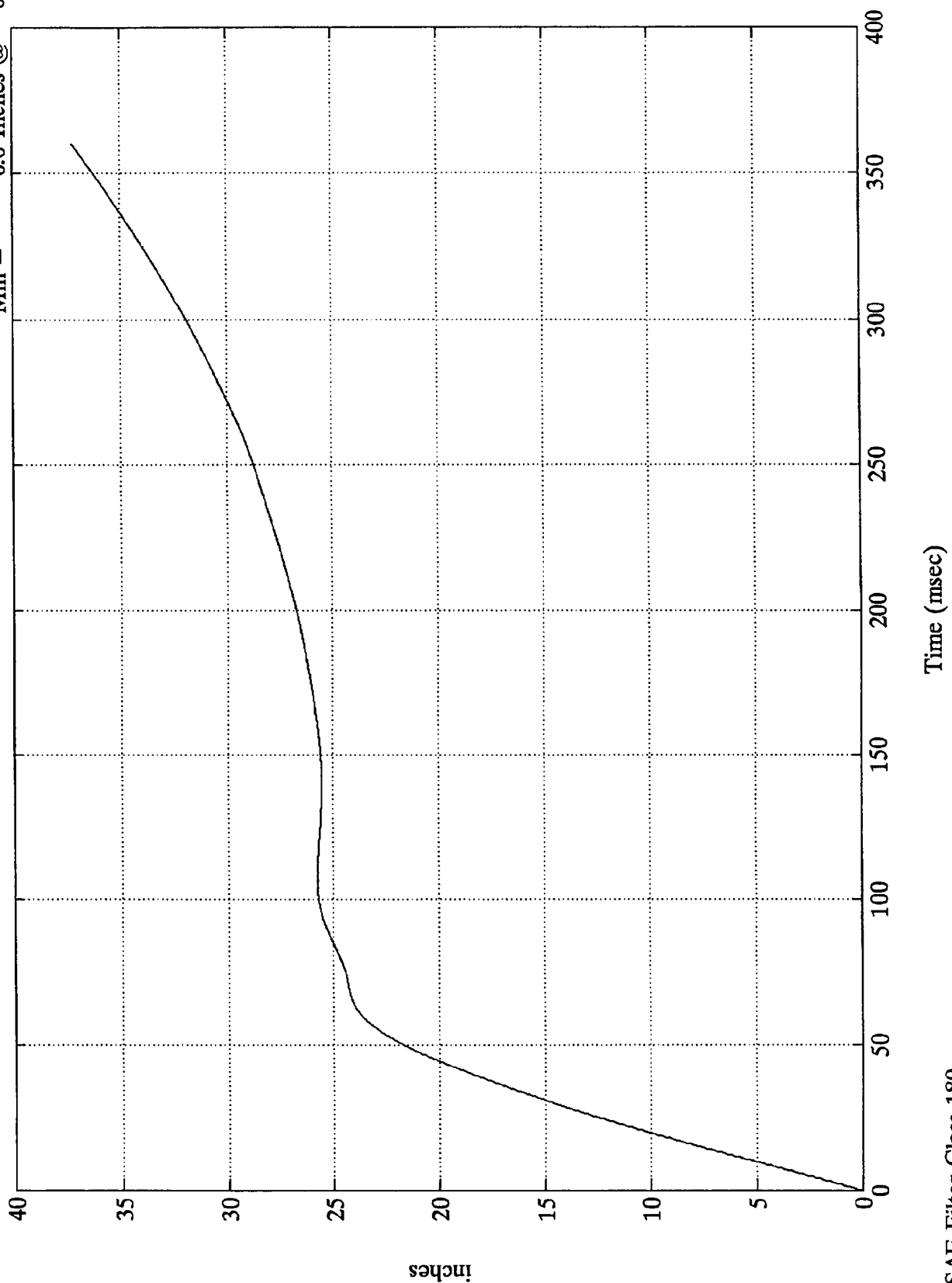
Max = 42.5 Ft/sec @ 9.35 msec
Min = -0.8 Ft/sec @ 120.48 msec



208 Test #7 - 1997 Lincoln Mark VIII

Max = 37.2 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec

2nd Integral Engine Bottom X

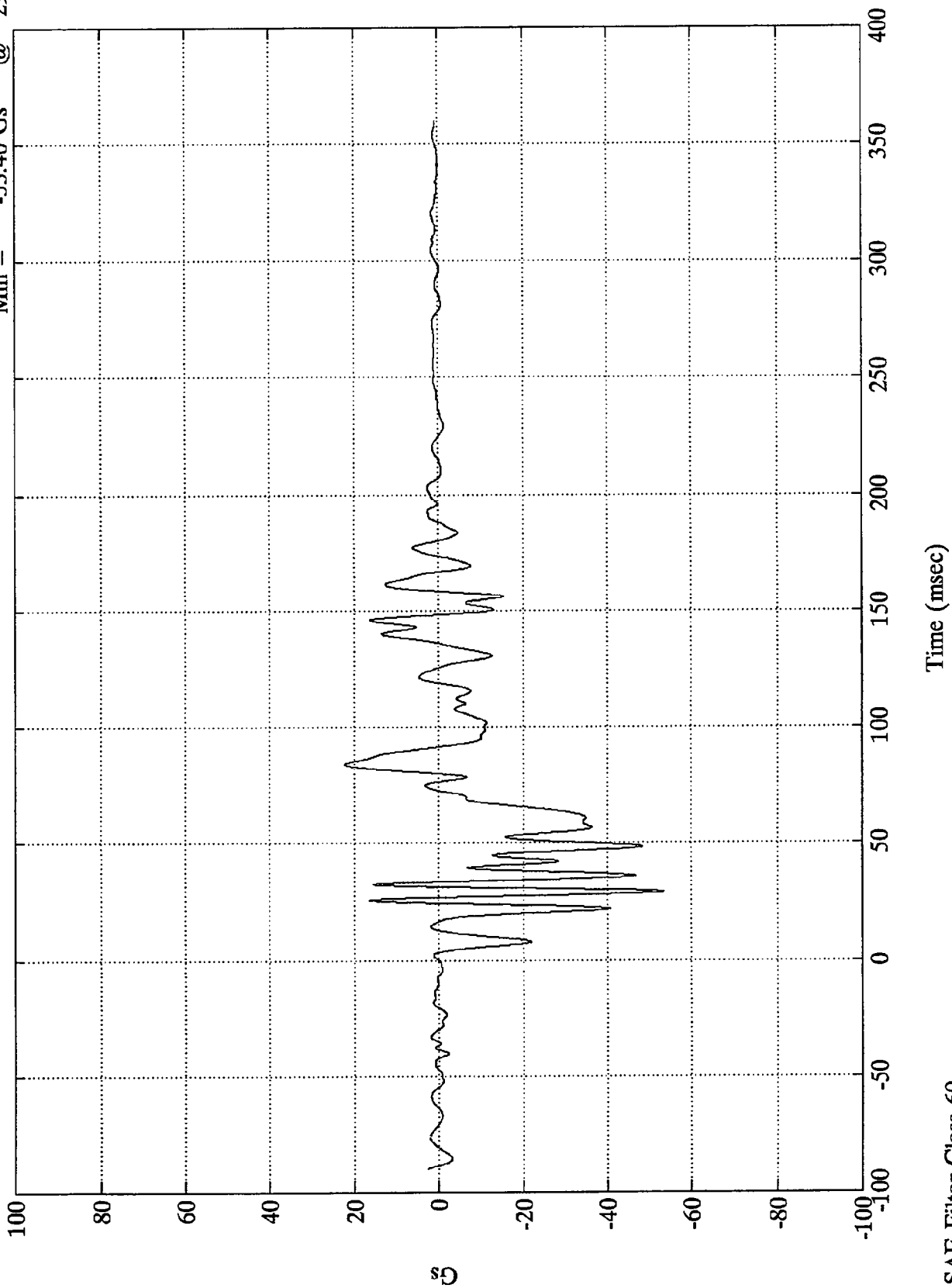


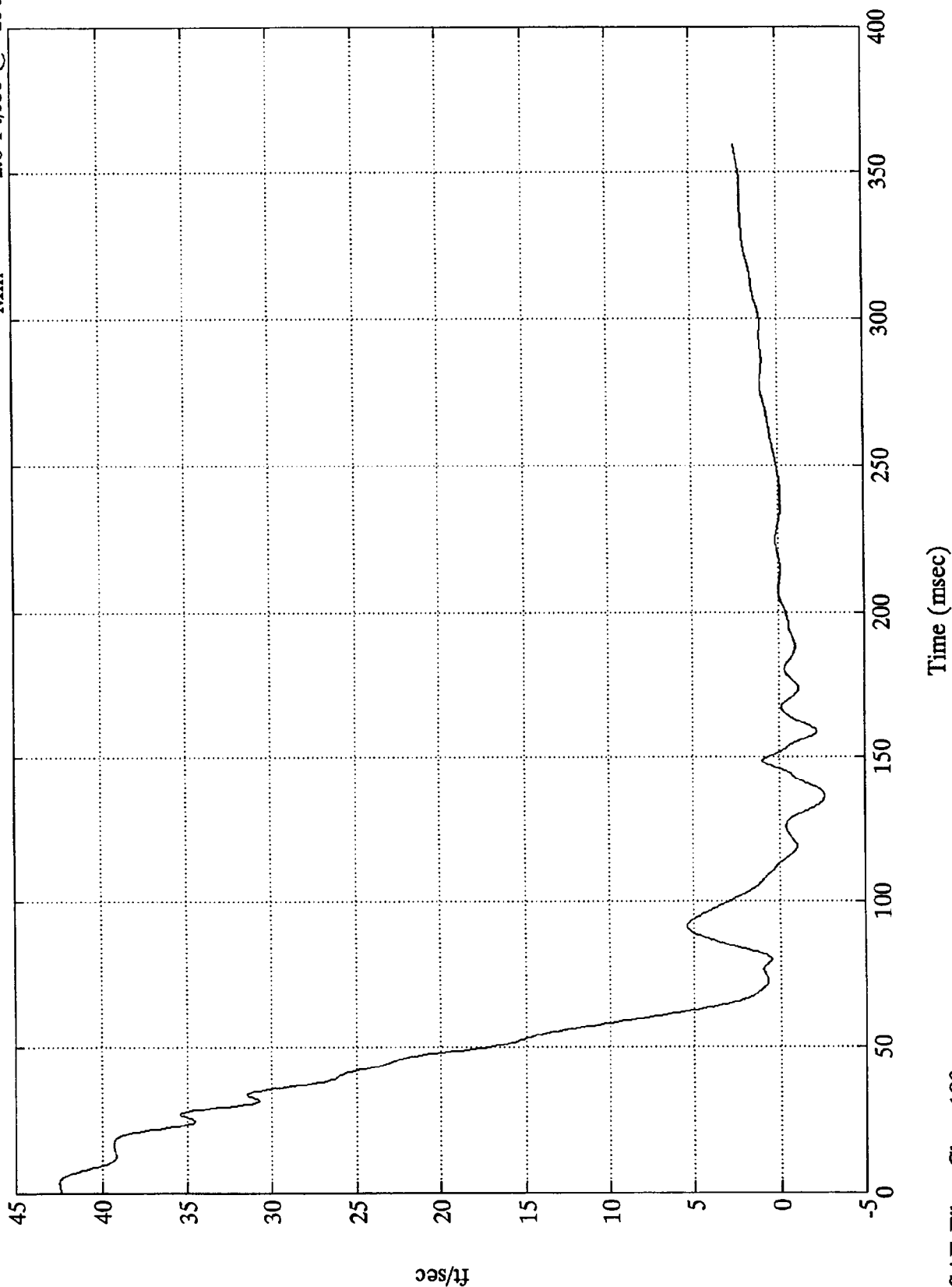
SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Right Brake Caliper X

Max = 22.23 Gs @ 84.00 msec
Min = -53.40 Gs @ 29.03 msec

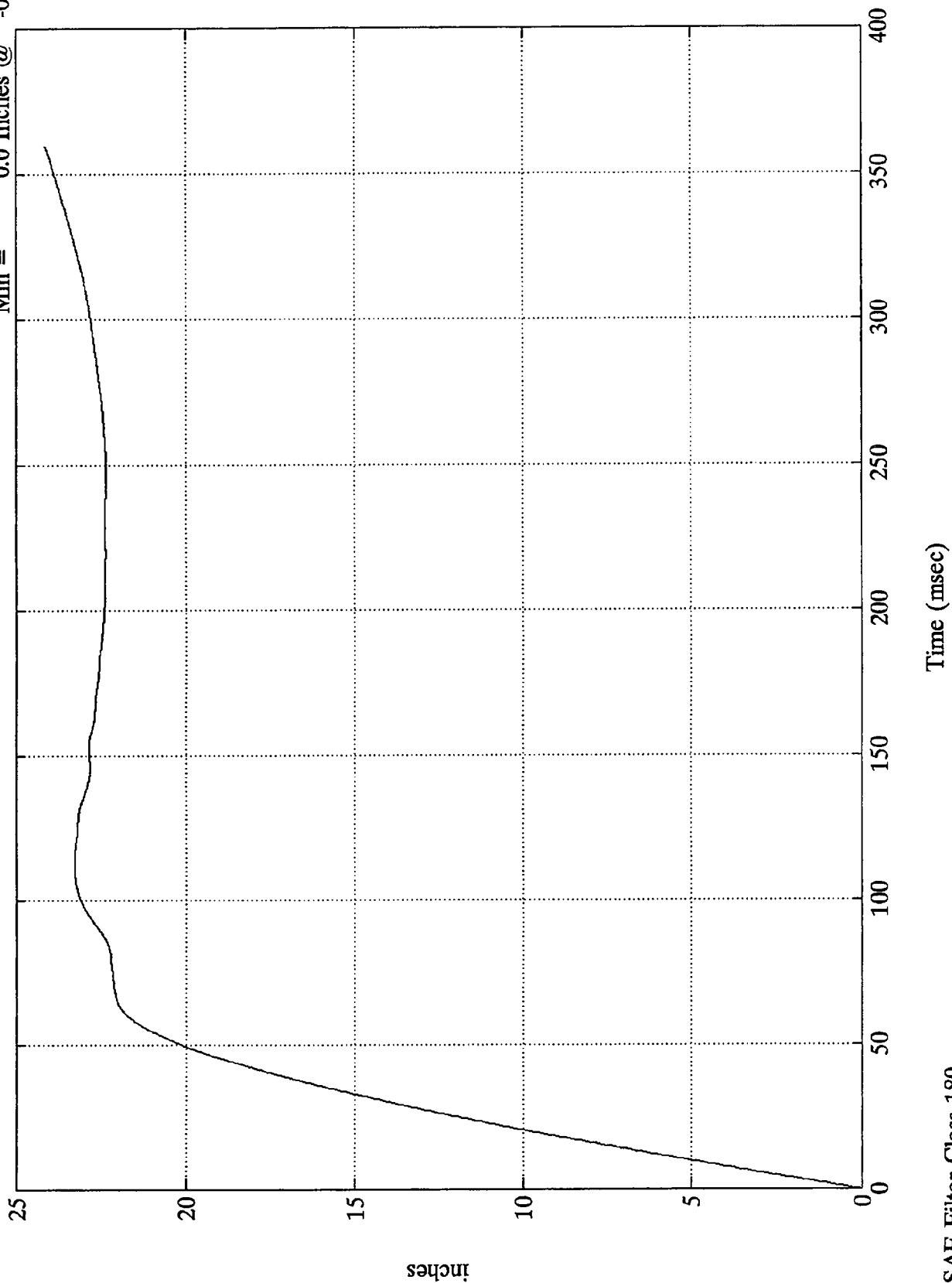




208 Test #7 - 1997 Lincoln Mark VIII

2nd Integral Right Brake Caliper X

Max = 24.1 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec

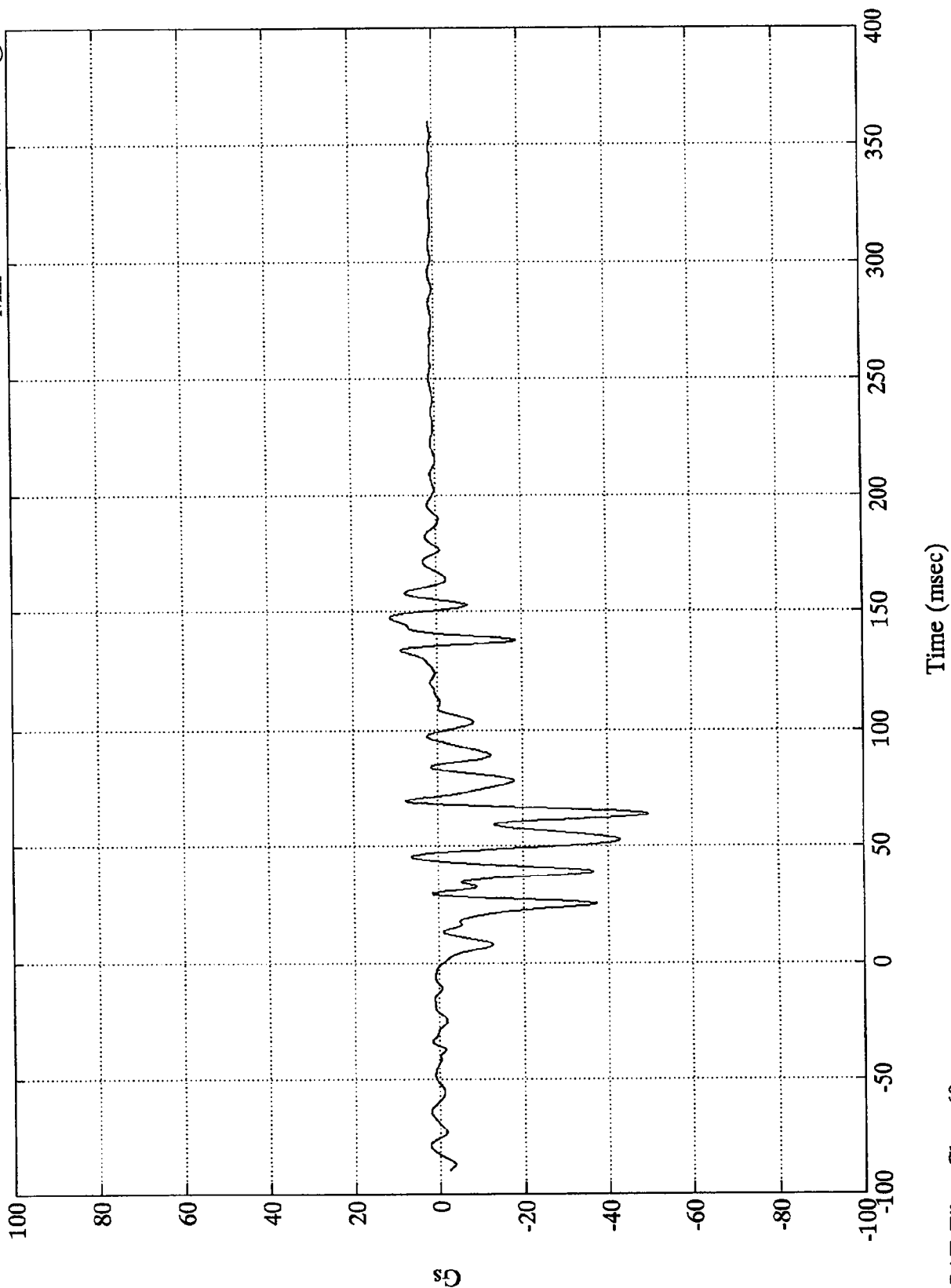


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Left Brake Caliper X

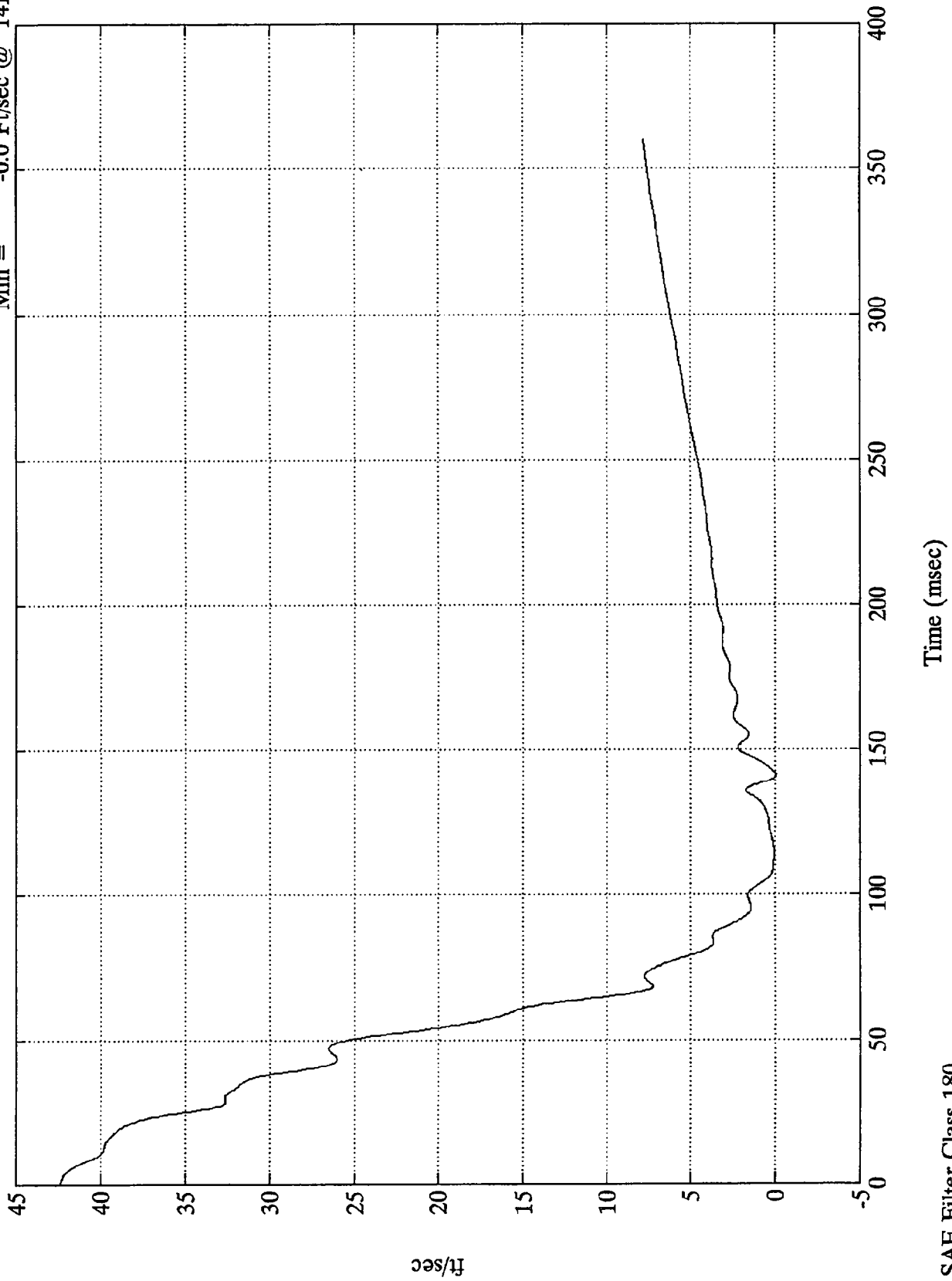
Max = 11.05 Gs @ 147.48 msec
Min = -49.55 Gs @ 63.95 msec



208 Test #7 - 1997 Lincoln Mark VIII

1st Integral Left Brake Caliper X

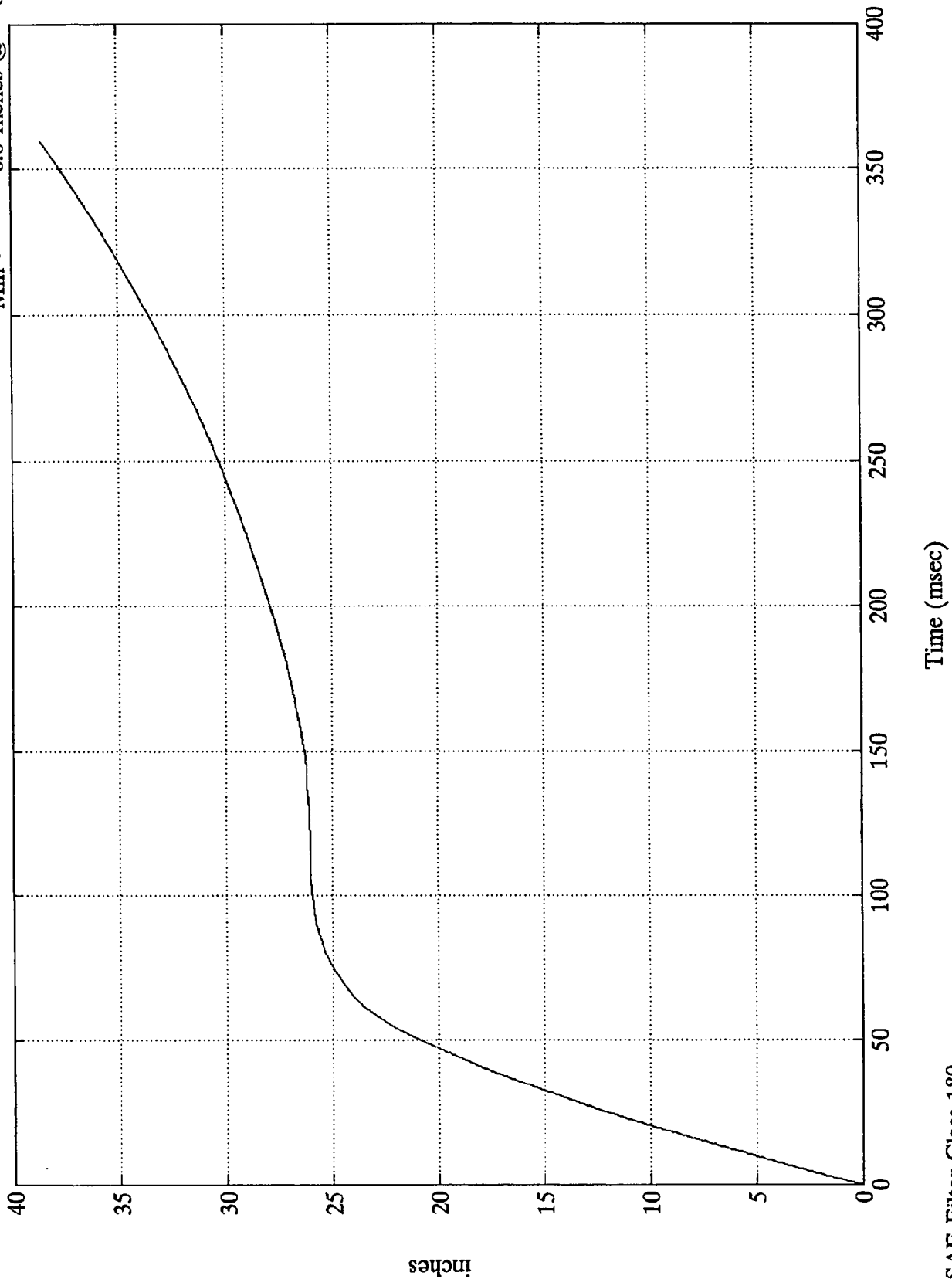
Max = 42.3 Ft/sec @ -0.00 msec
Min = -0.0 Ft/sec @ 141.00 msec



SAE Filter Class 180

2nd Integral Left Brake Caliper X

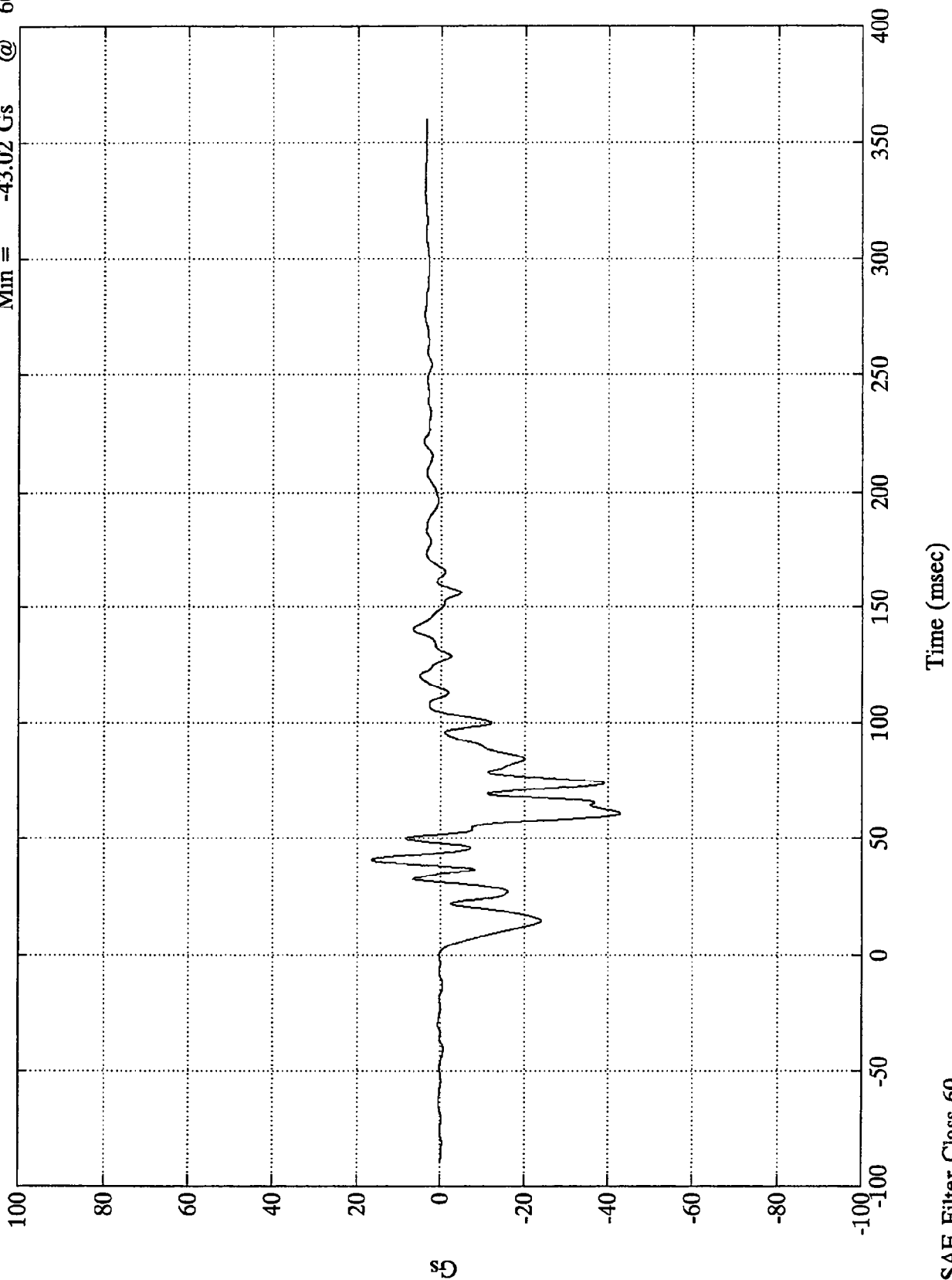
Max = 38.6 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec



SAE Filter Class 180

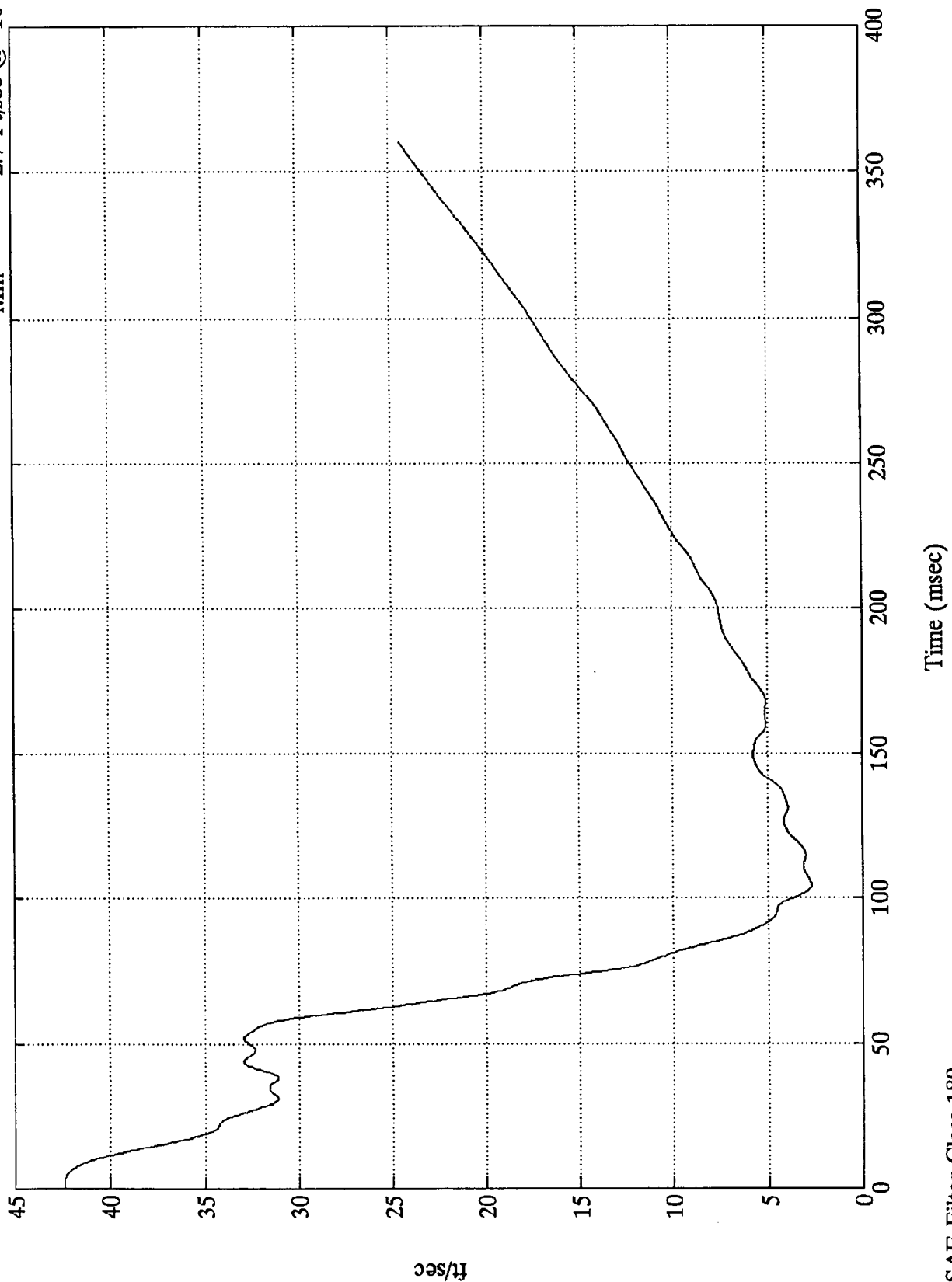
208 Test #7 - 1997 Lincoln Mark VIII

Instrument Panel X
Max = 16.66 Gs @ 40.80 msec
Min = -43.02 Gs @ 60.84 msec



208 Test #7 - 1997 Lincoln Mark VIII

1st Integral Instrument Panel X
Max = 42.3 Ft/sec @ 1.79 msec
Min = 2.7 Ft/sec @ 104.40 msec

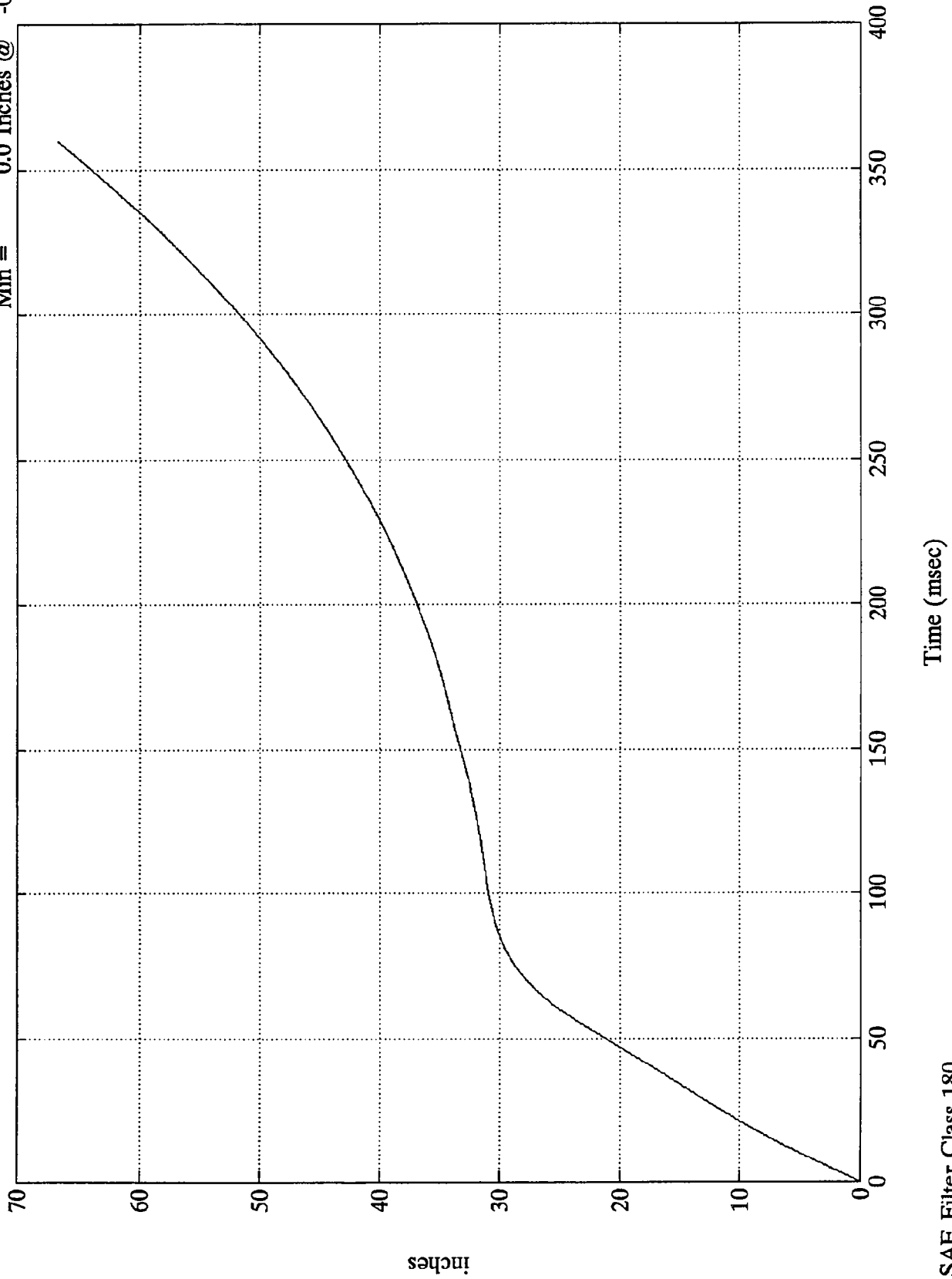


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

2nd Integral Instrument Panel X

Max = 66.7 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec

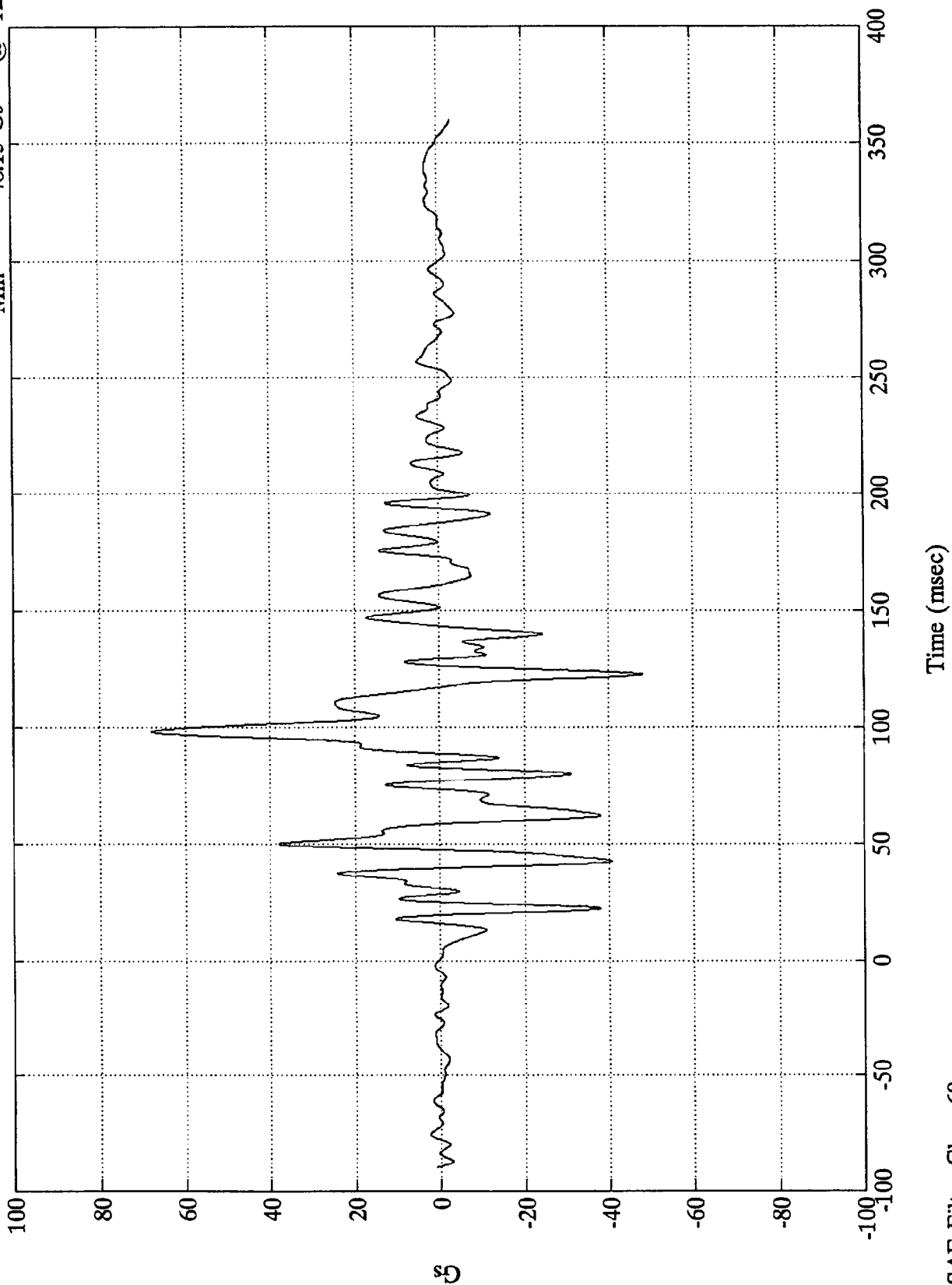


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Max = 67.78 Gs @ 98.15 msec
Min = -48.15 Gs @ 122.76 msec

Trunk Z

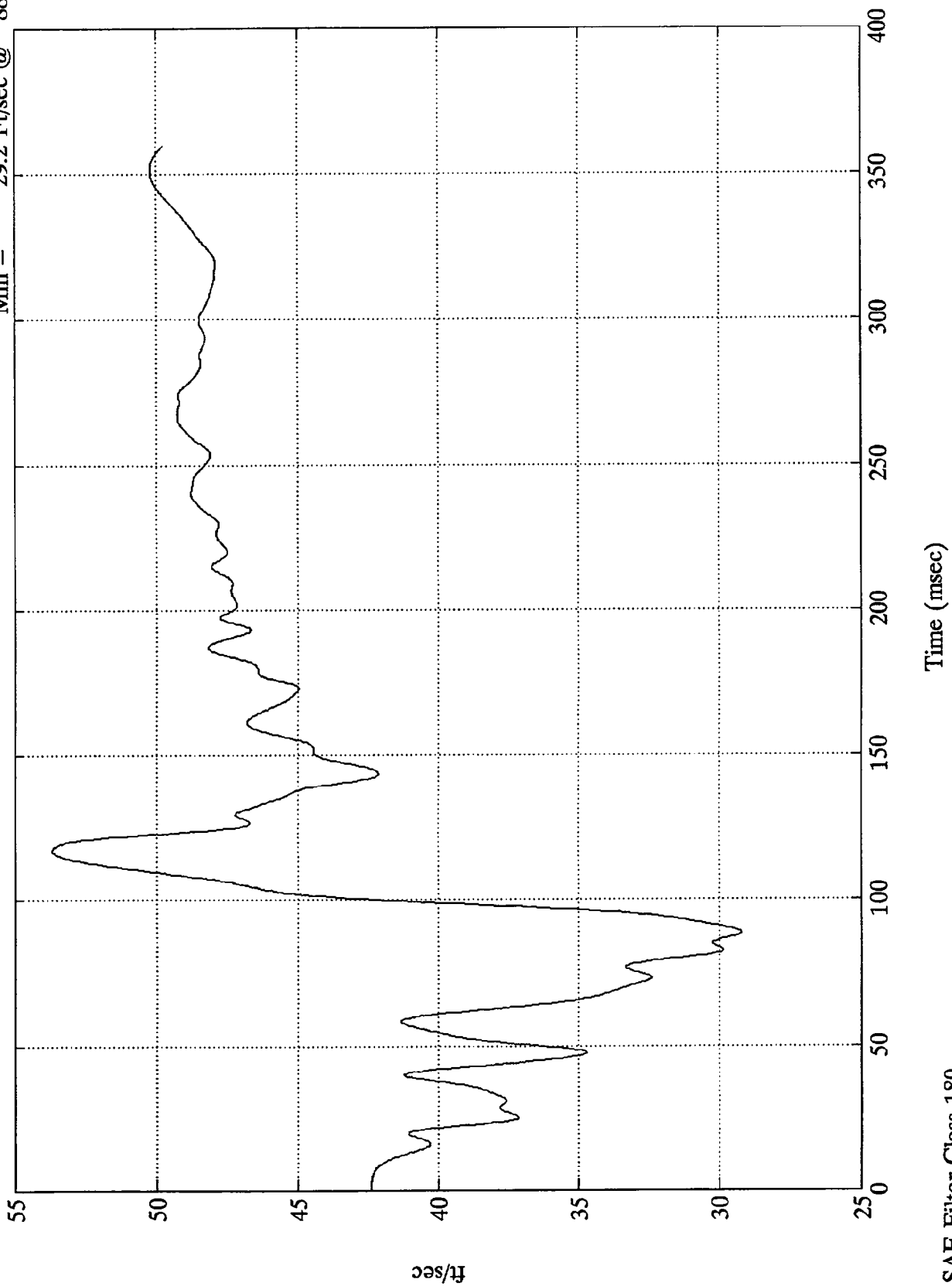


SAE Filter Class 60

208 Test #7 - 1997 Lincoln Mark VIII

1st Integral Trunk Z

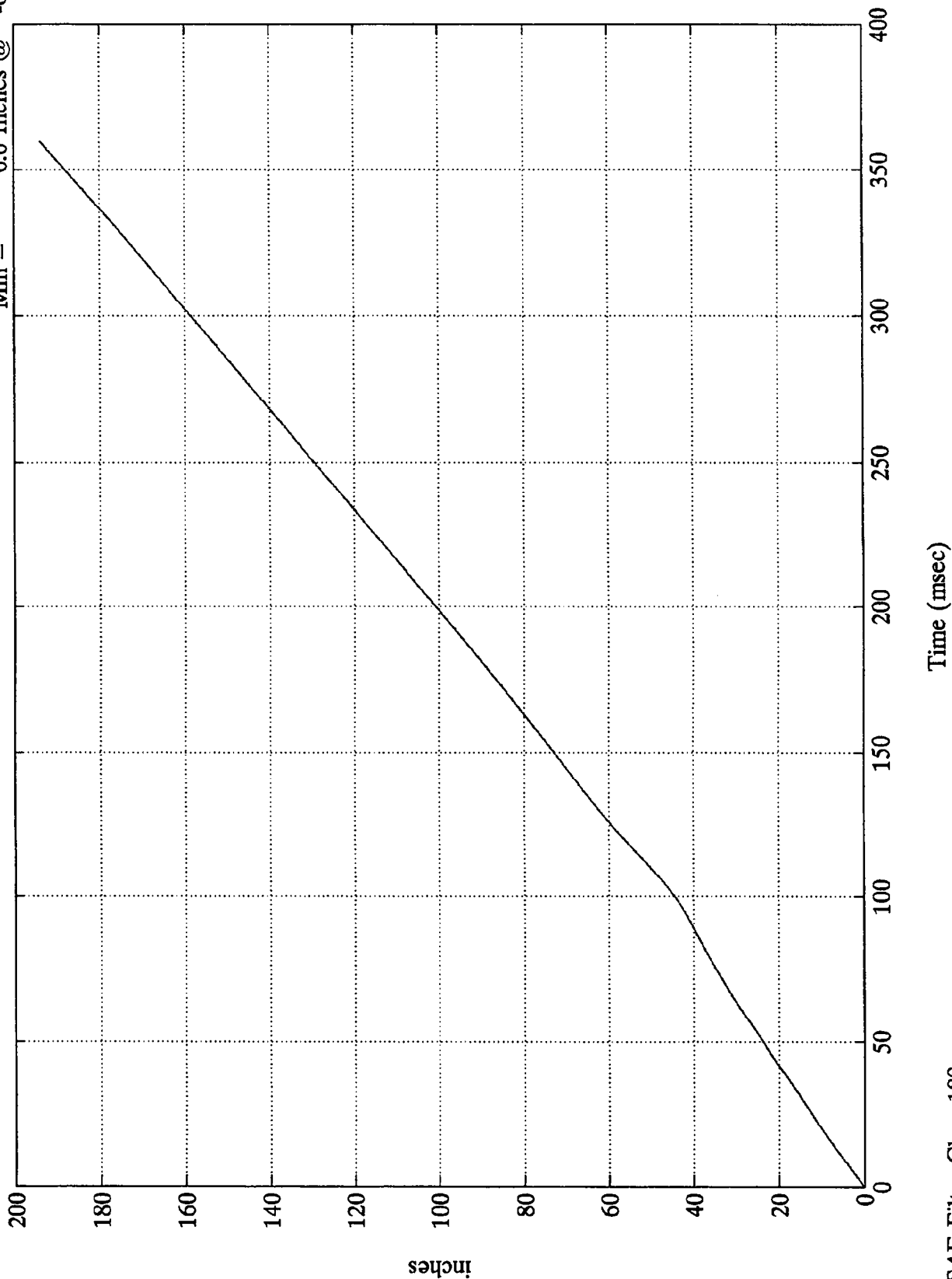
Max = 53.6 Ft/sec @ 117.12 msec
Min = 29.2 Ft/sec @ 88.80 msec



SAE Filter Class 180

2nd Integral Trunk Z

Max = 193.8 Inches @ 359.88 msec
Min = 0.0 Inches @ -0.00 msec



SAE Filter Class 180

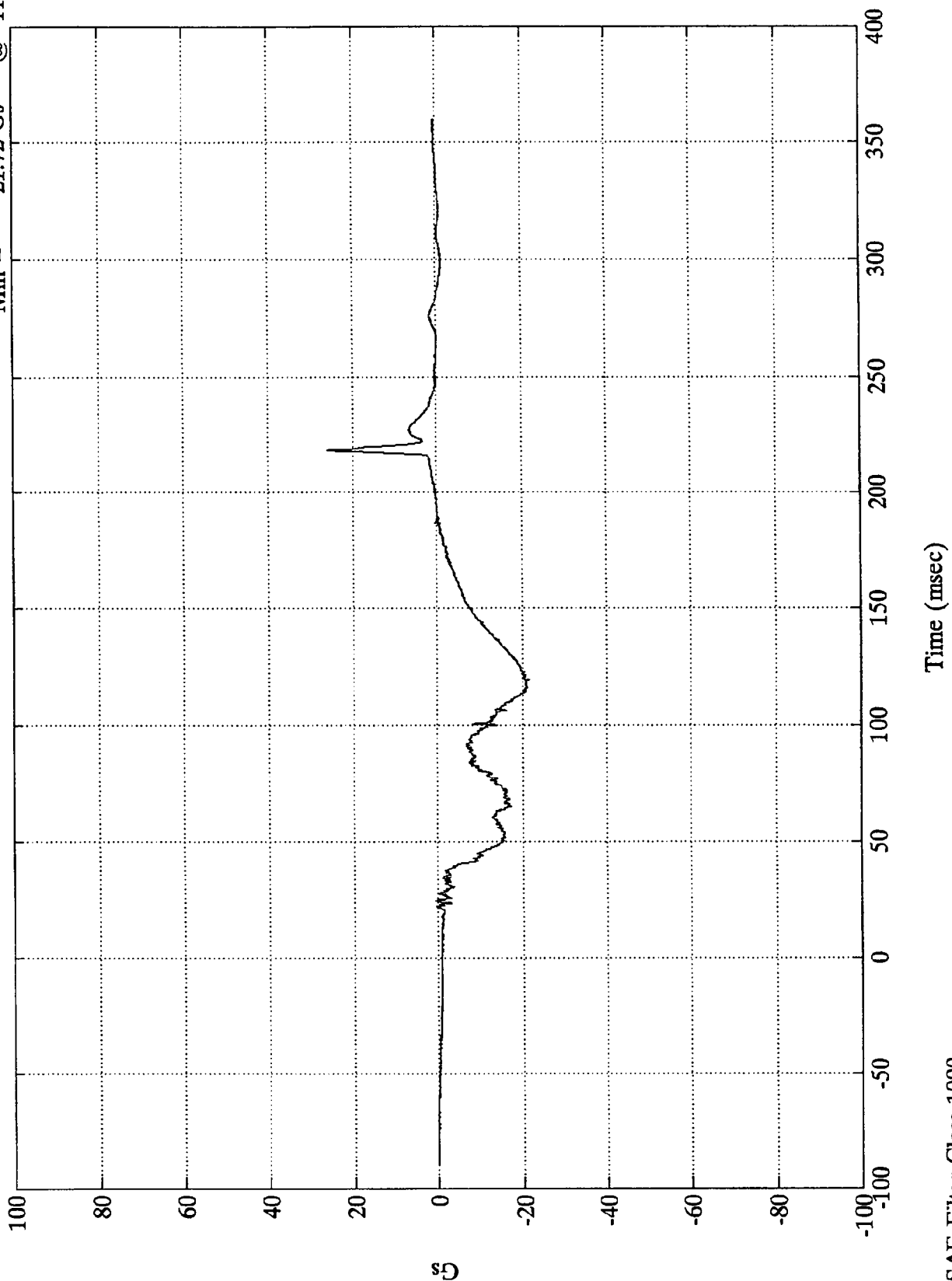
TEST NO. CV0210

<u>DUMMY</u>	<u>SAE FILTER CHANNEL CLASS</u>
Head Accelerations	1000
Chest Accelerations	180
Femur Forces	600

208 Test #7 - 1997 Lincoln Mark VIII

Max = 26.05 Gs @ 218.16 msec
Min = -21.72 Gs @ 119.76 msec

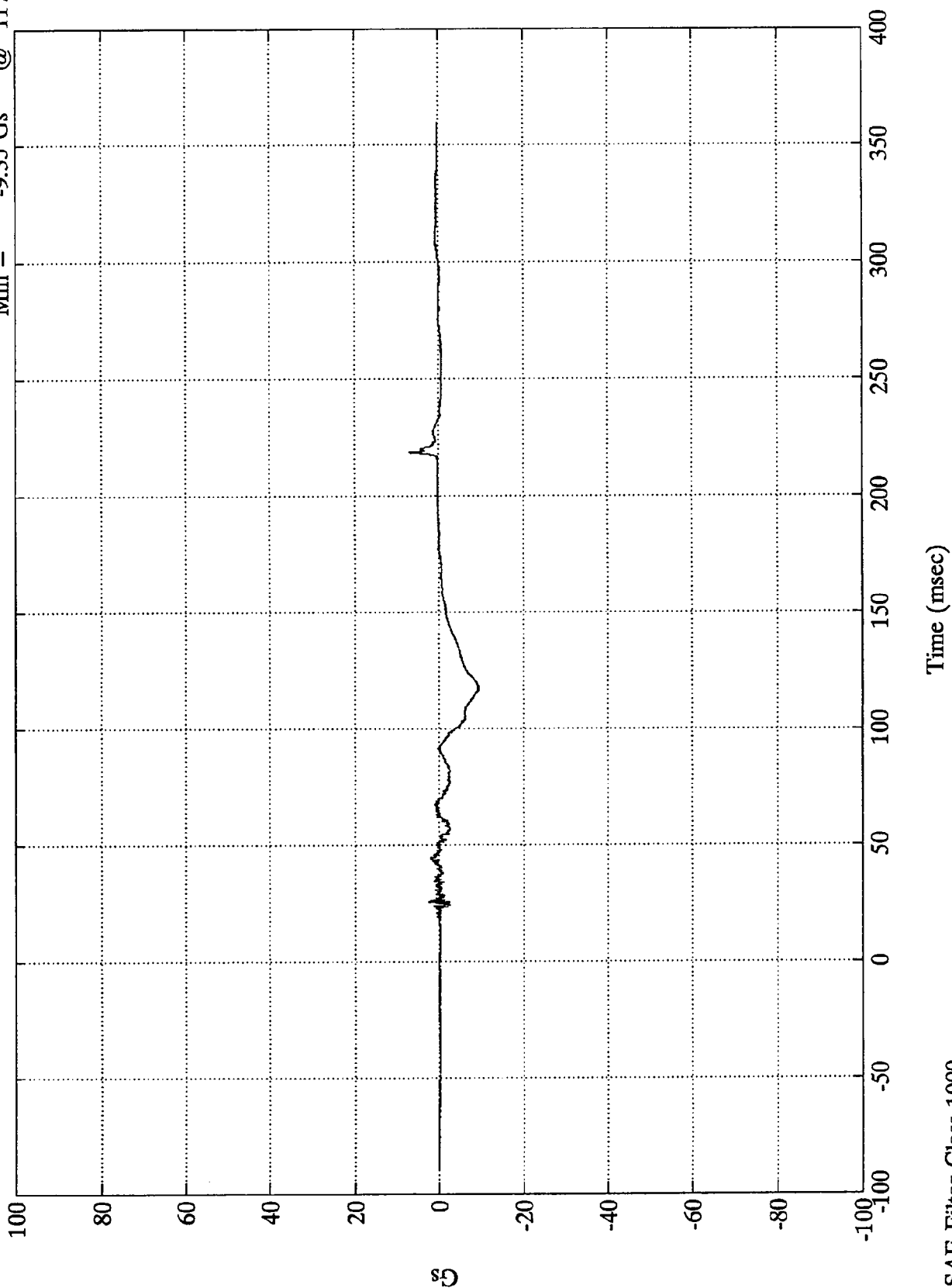
Pos. 1 Head X



SAE Filter Class 1000

208 Test #7 - 1997 Lincoln Mark VIII

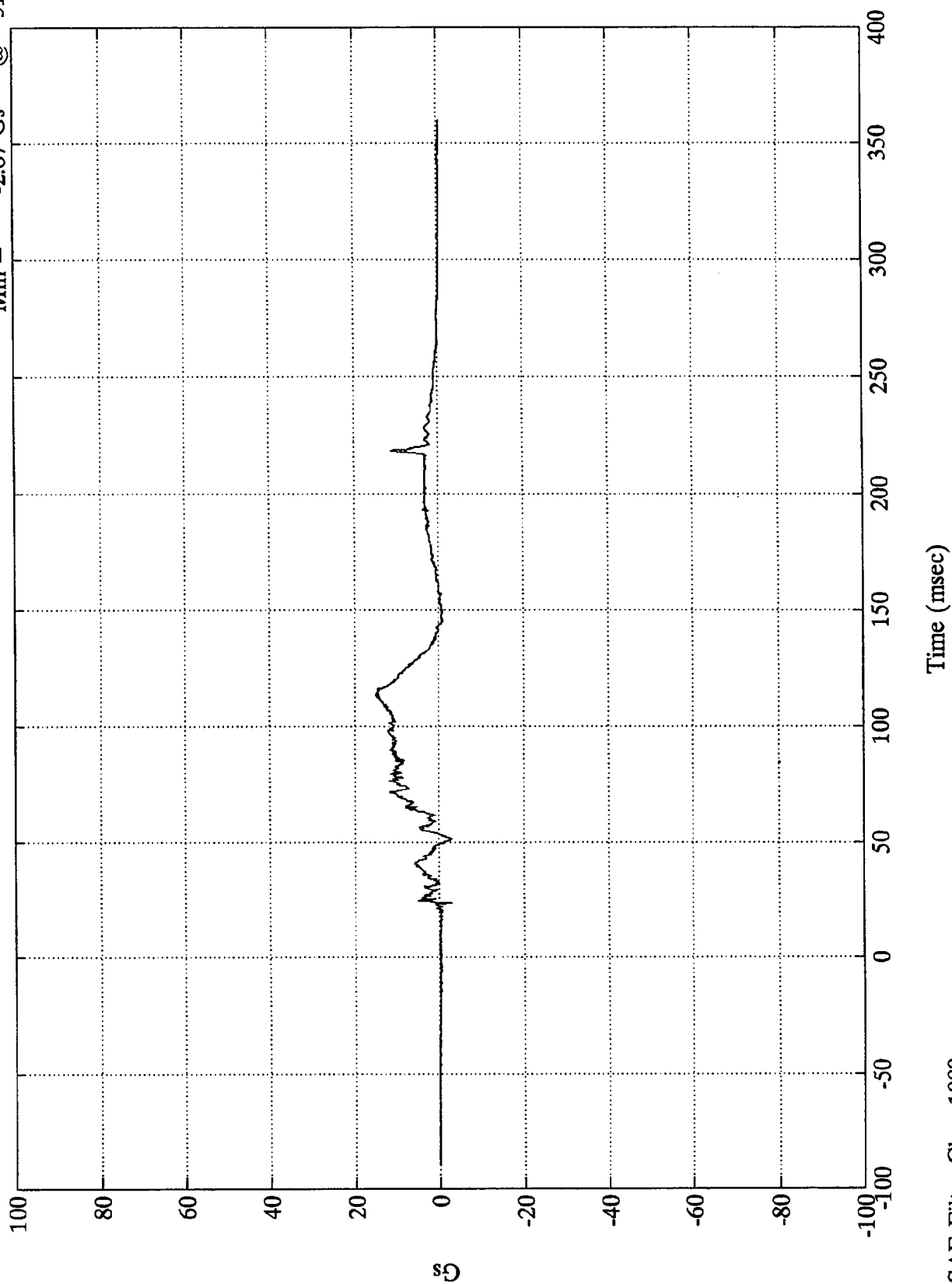
Pos. 1 Head Y
Max = 6.94 Gs @ 218.39 msec
Min = -9.35 Gs @ 117.96 msec



208 Test #7 - 1997 Lincoln Mark VIII

Max = 15.08 Gs @ 113.40 msec
Min = -2.87 Gs @ 51.60 msec

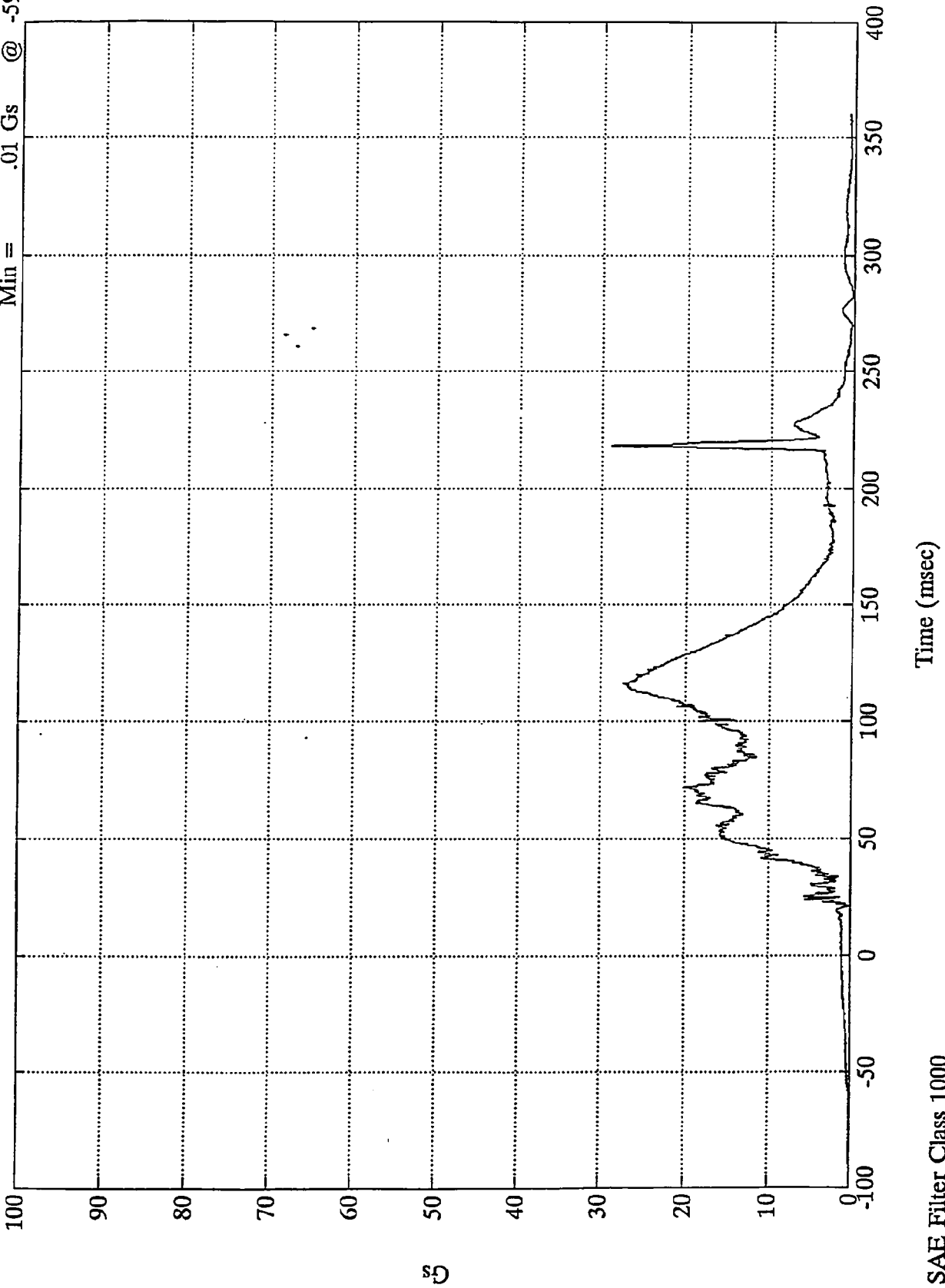
Pos. 1 Head Z



208 Test #7 - 1997 Lincoln Mark VIII

Pos. 1 Head Resultant

Max = 28.89 Gs @ 218.27 msec
Min = .01 Gs @ -59.88 msec



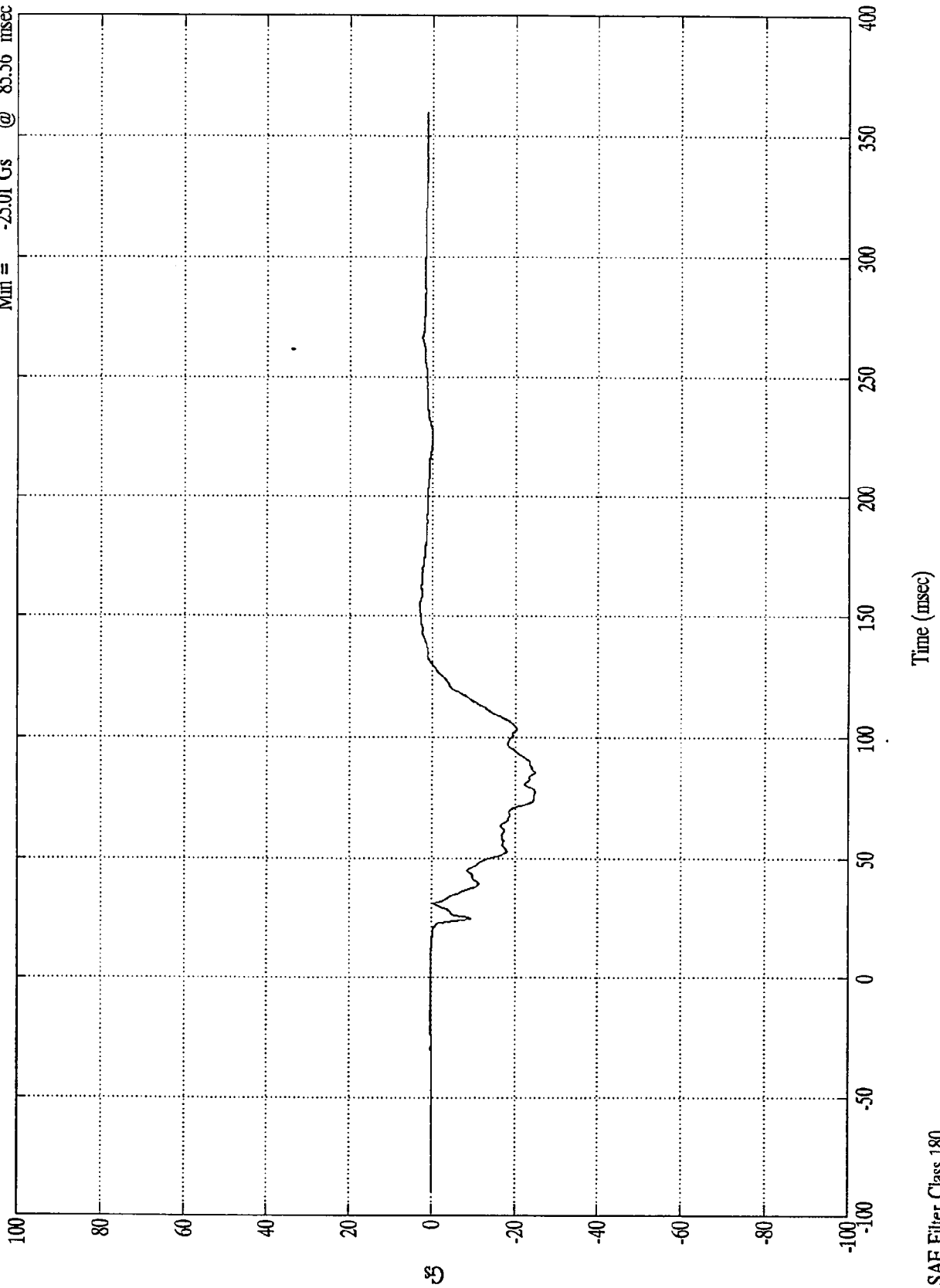
Gs

Time (msec)

SAE Filter Class 1000

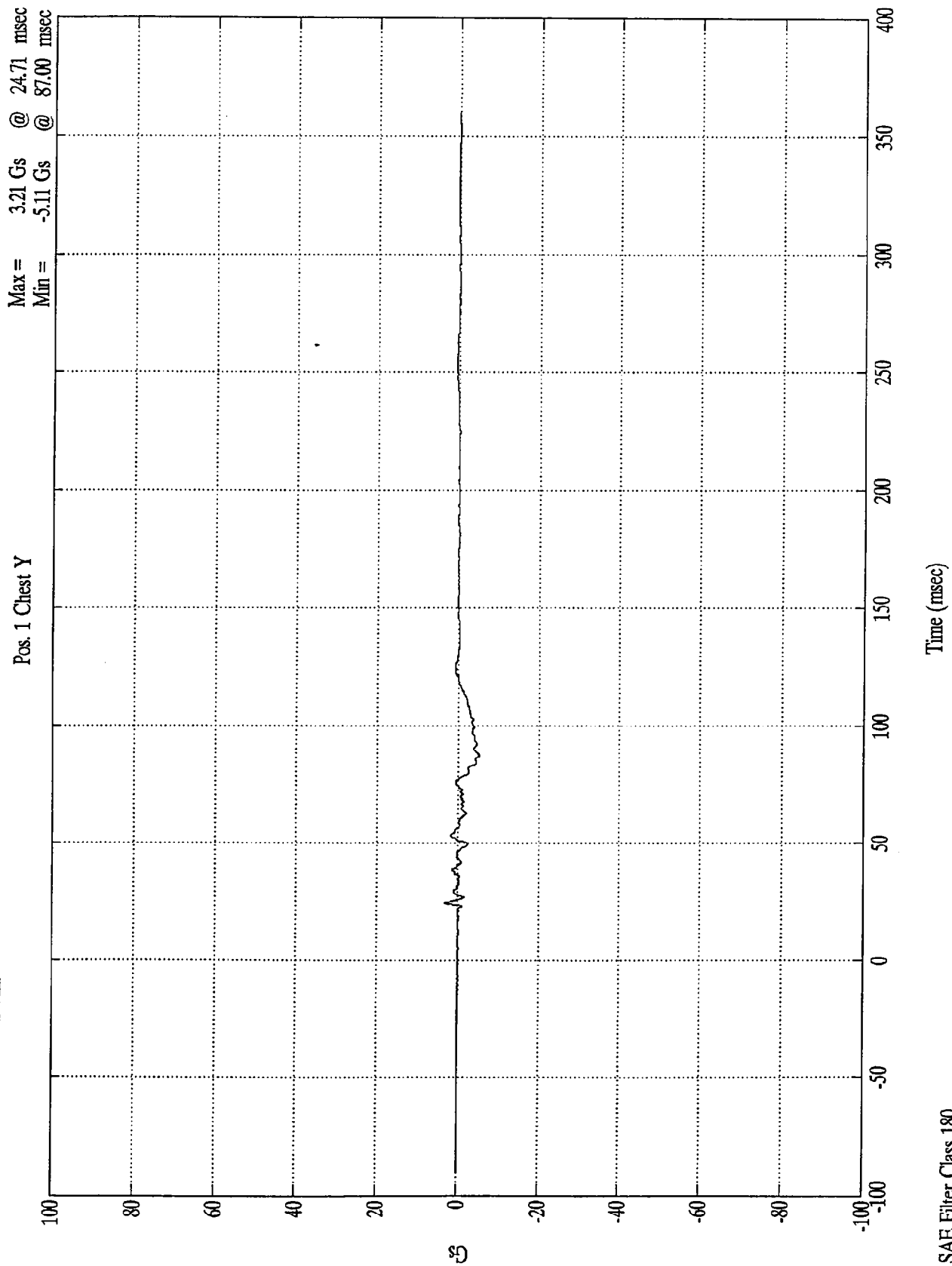
Pos. 1 Chest X

Max = 3.03 Gs @ 152.63 msec
Min = -25.01 Gs @ 85.56 msec

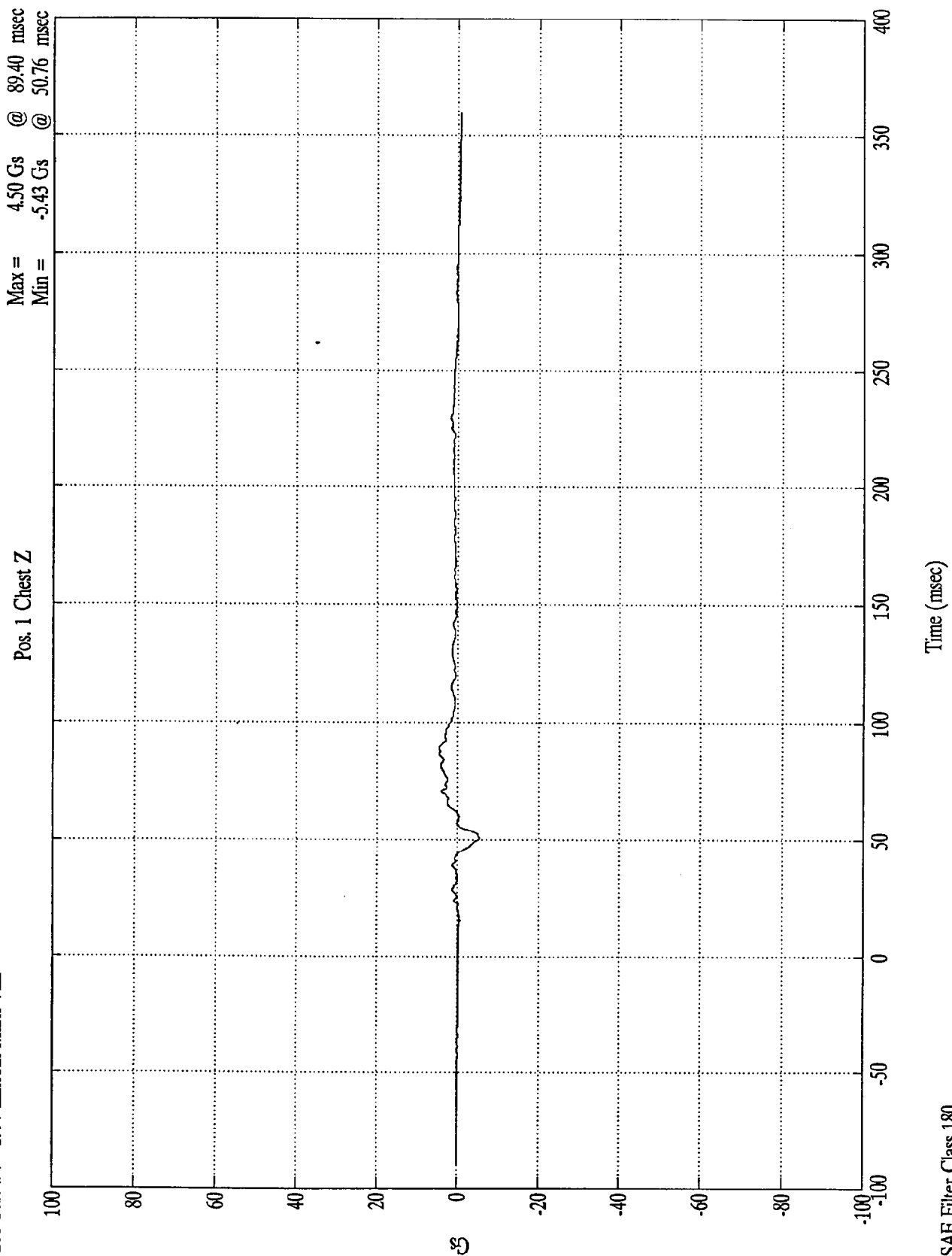


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

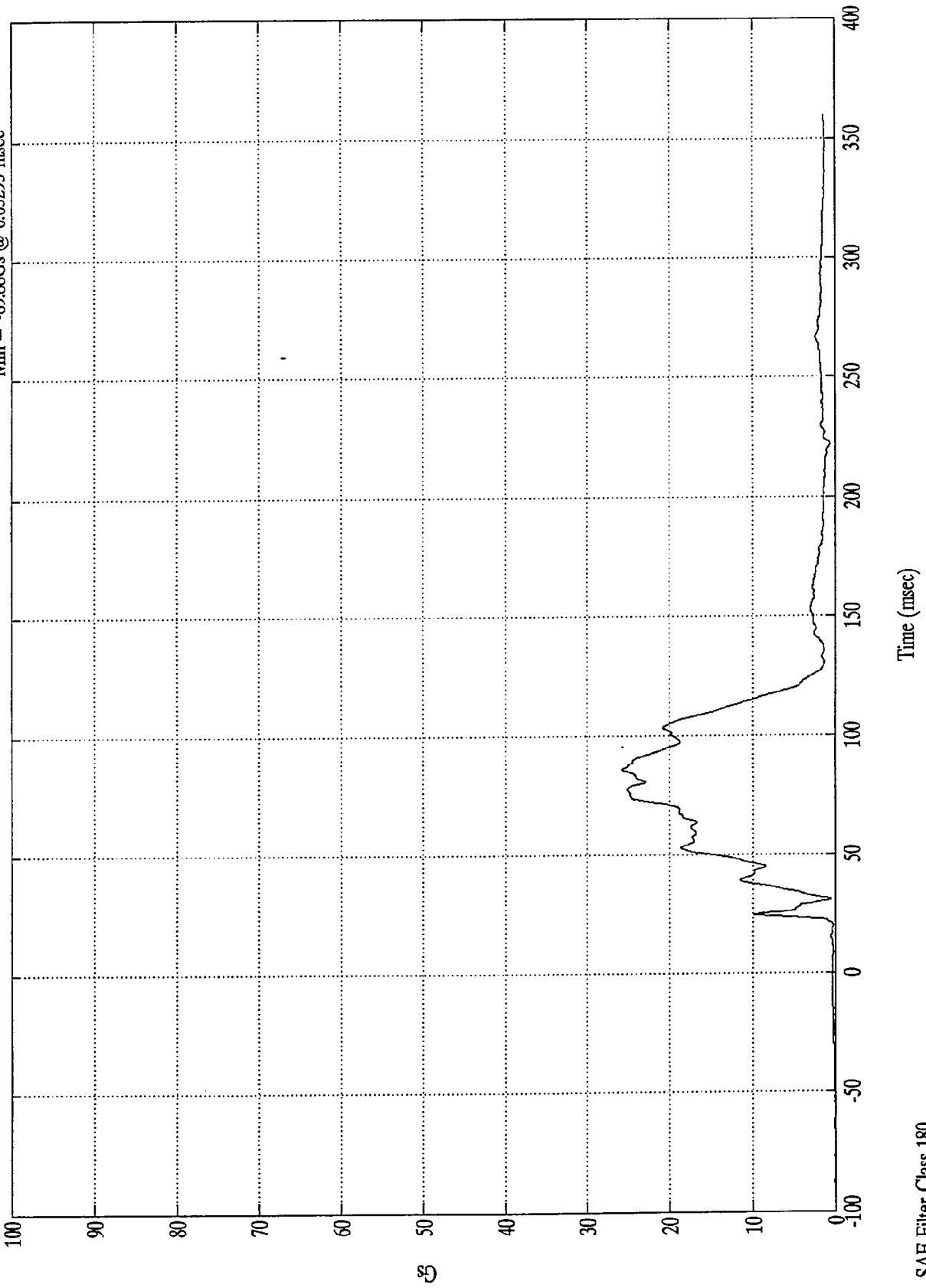


208 Test #7 - 1997 Lincoln Mark VIII



208 Test #7 - 1997 Lincoln Mark VIII

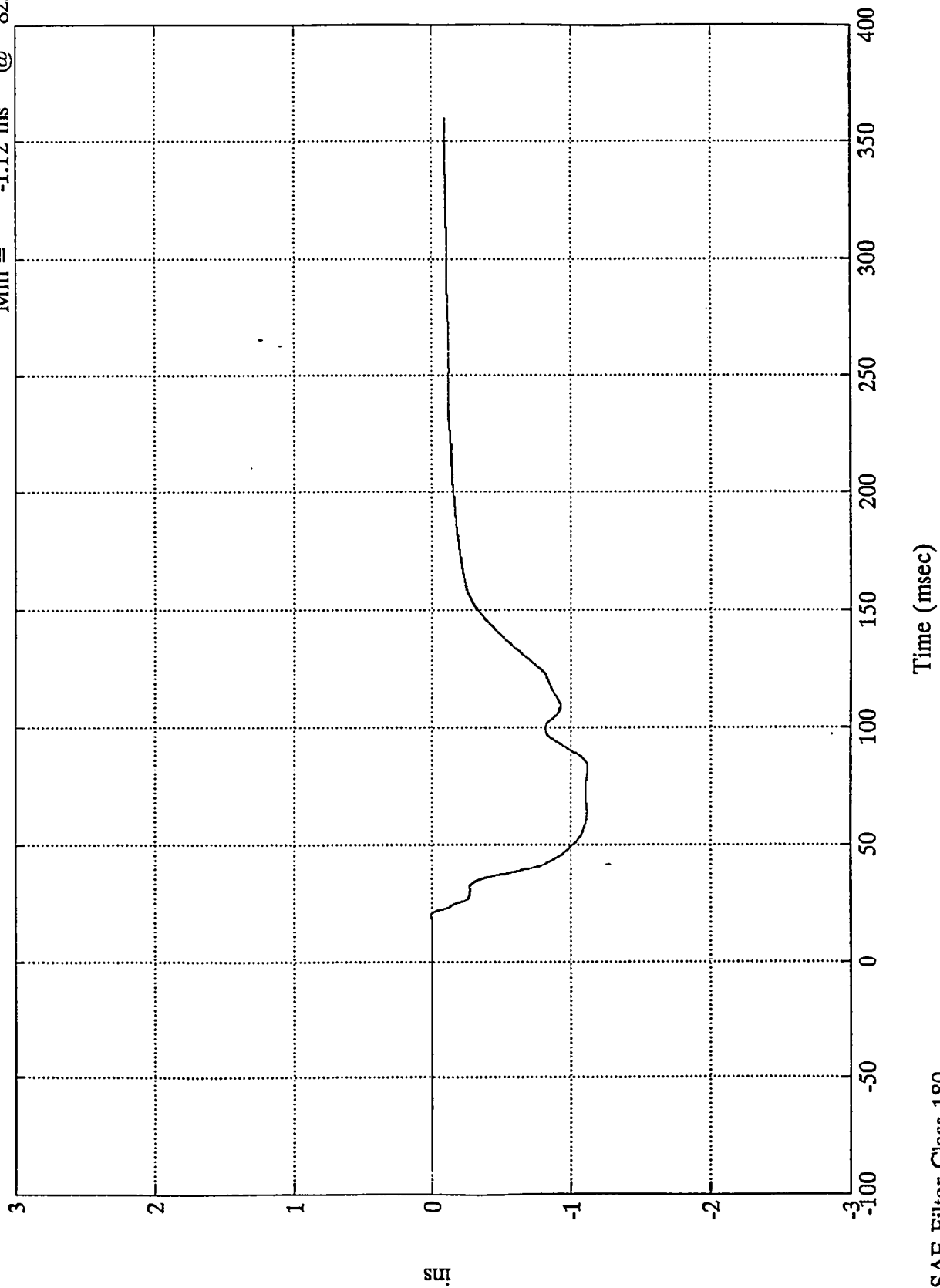
Pos. 1 Chest Resultant
Max = 359.9Gs @ 1.421 msec
Min = -89.88Gs @ 0.05295 msec



SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

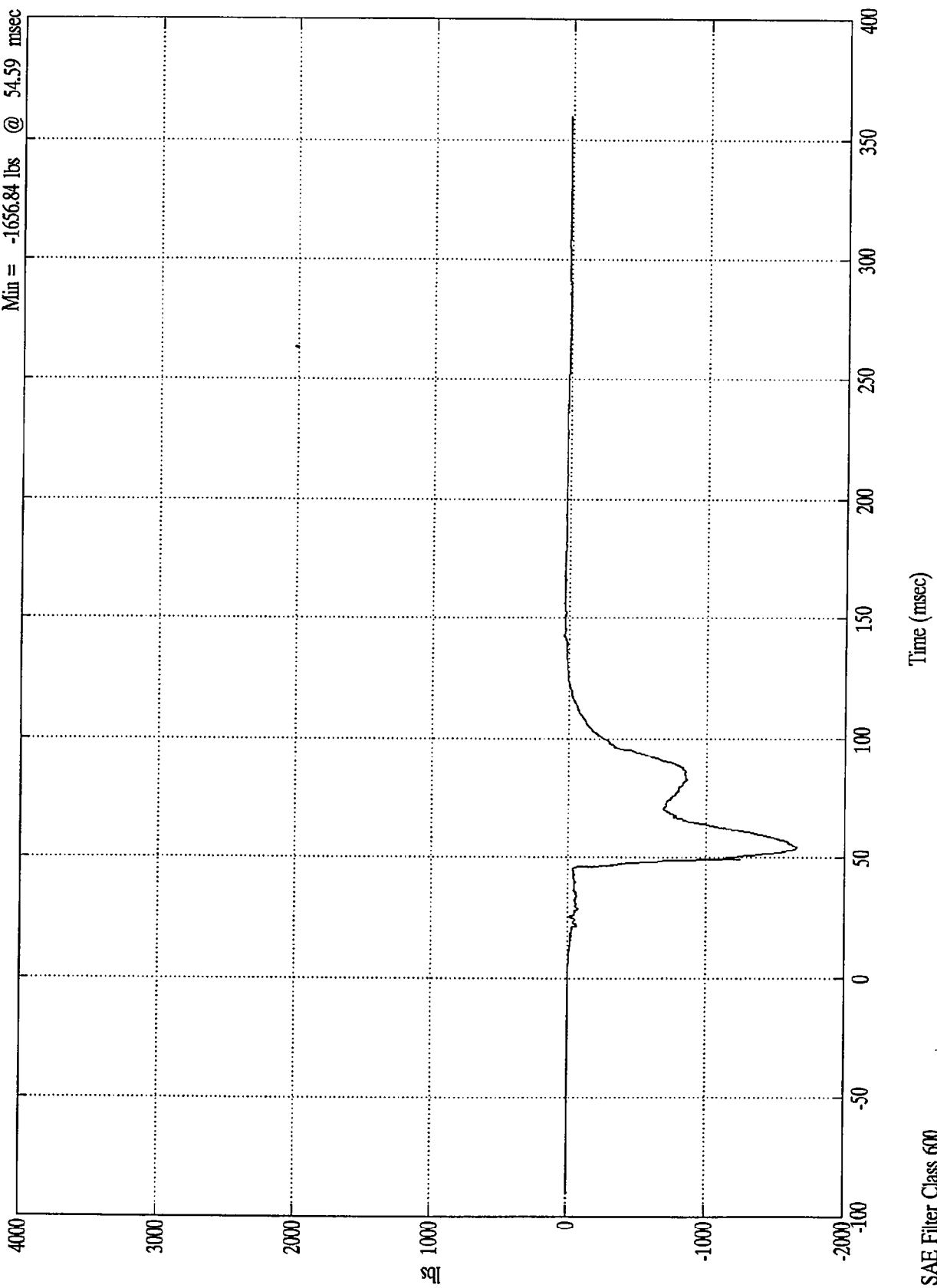
P1 Chest Displacement
Max = .00 ins @ 20.28 msec
Min = -1.12 ins @ 82.91 msec



208 Test #7 - 1997 Lincoln Mark VIII

Pos. 1 Left Femur

Max = 42.76 lbs @ 142.68 msec
Min = -1656.84 lbs @ 54.59 msec

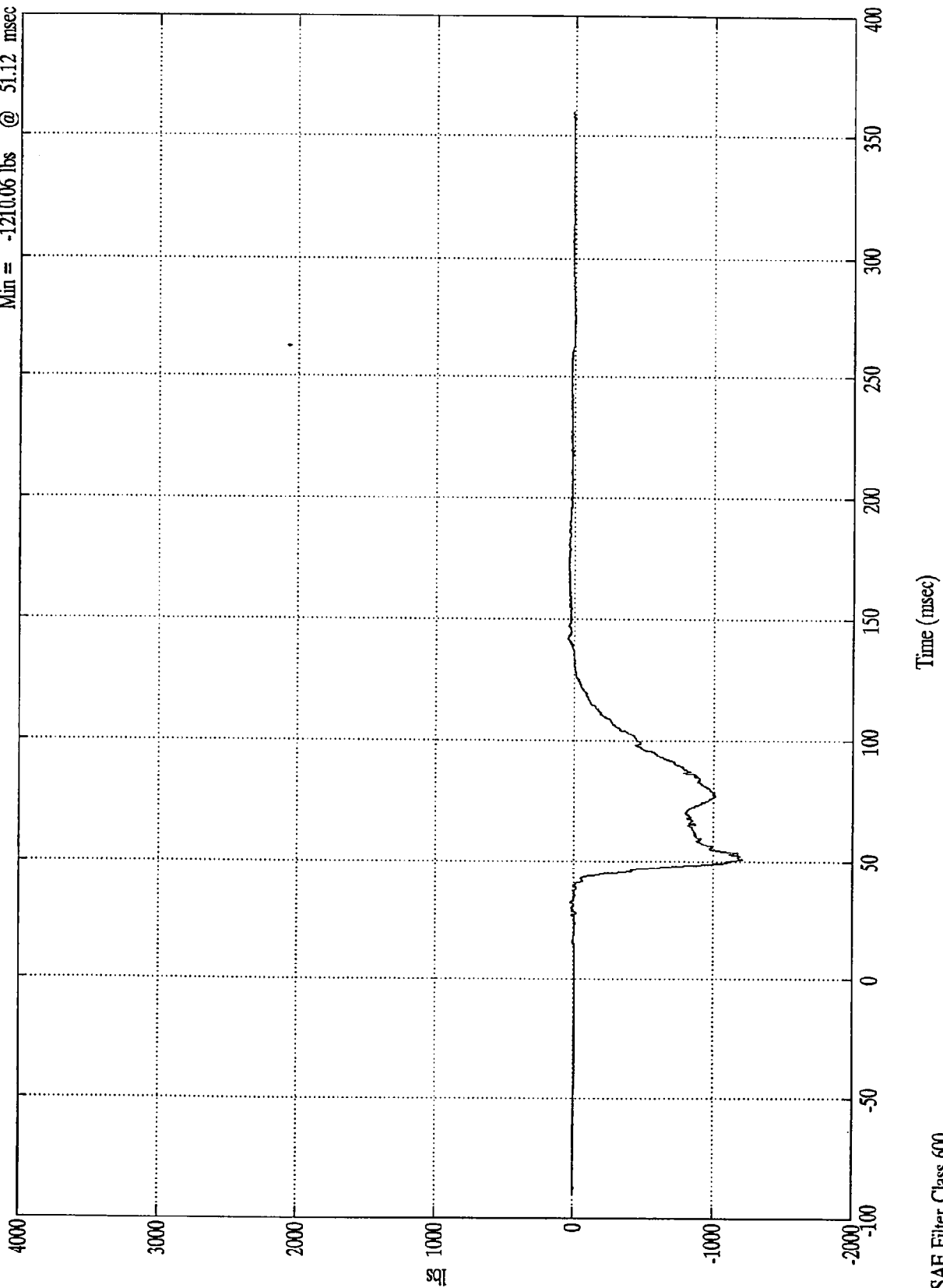


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Pos. 1 Right Femur

Max = 46.95 lbs @ 141.84 msec
Min = -1210.06 lbs @ 51.12 msec

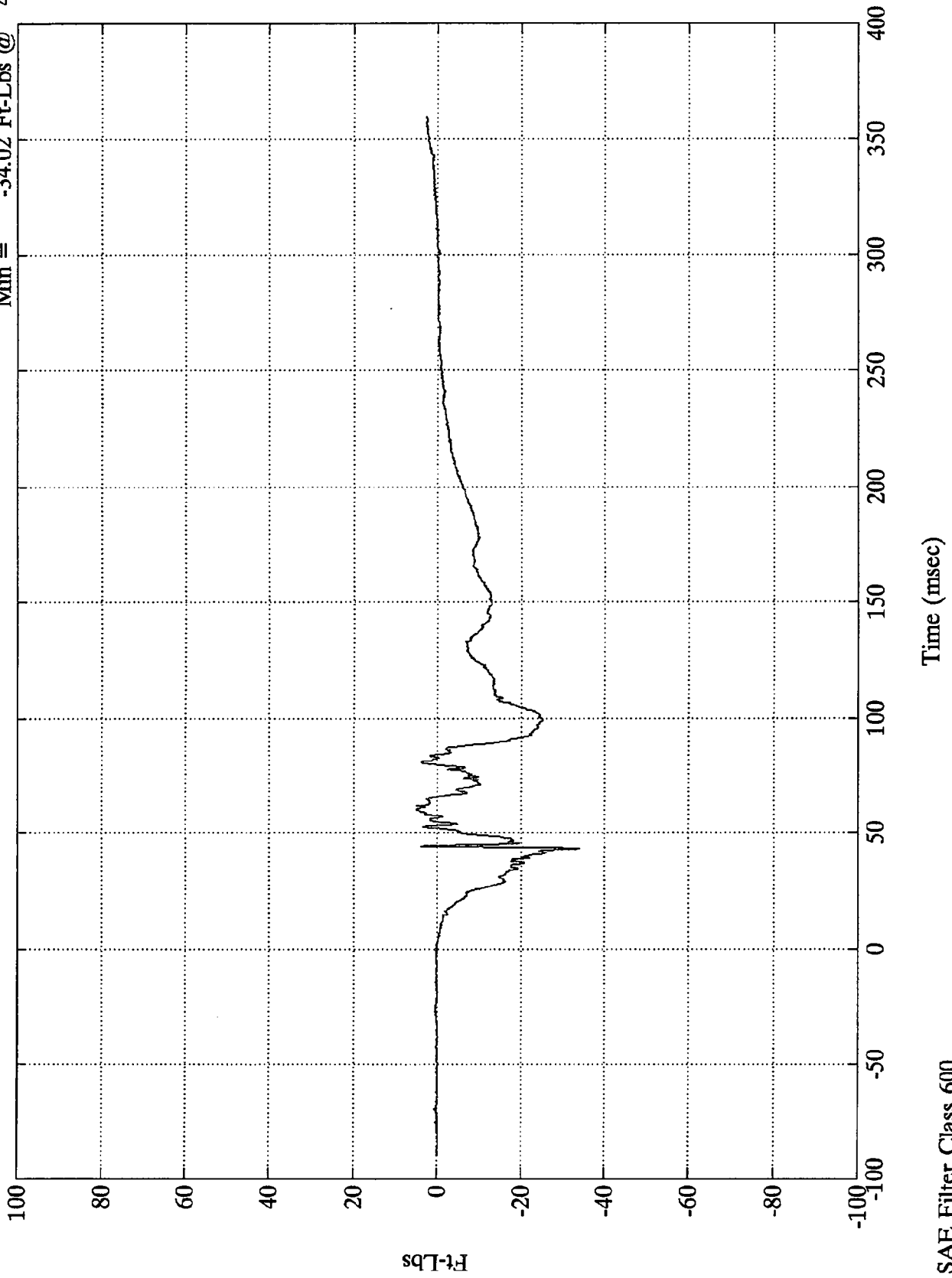


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

P2 Lt Upper Tibia Mx

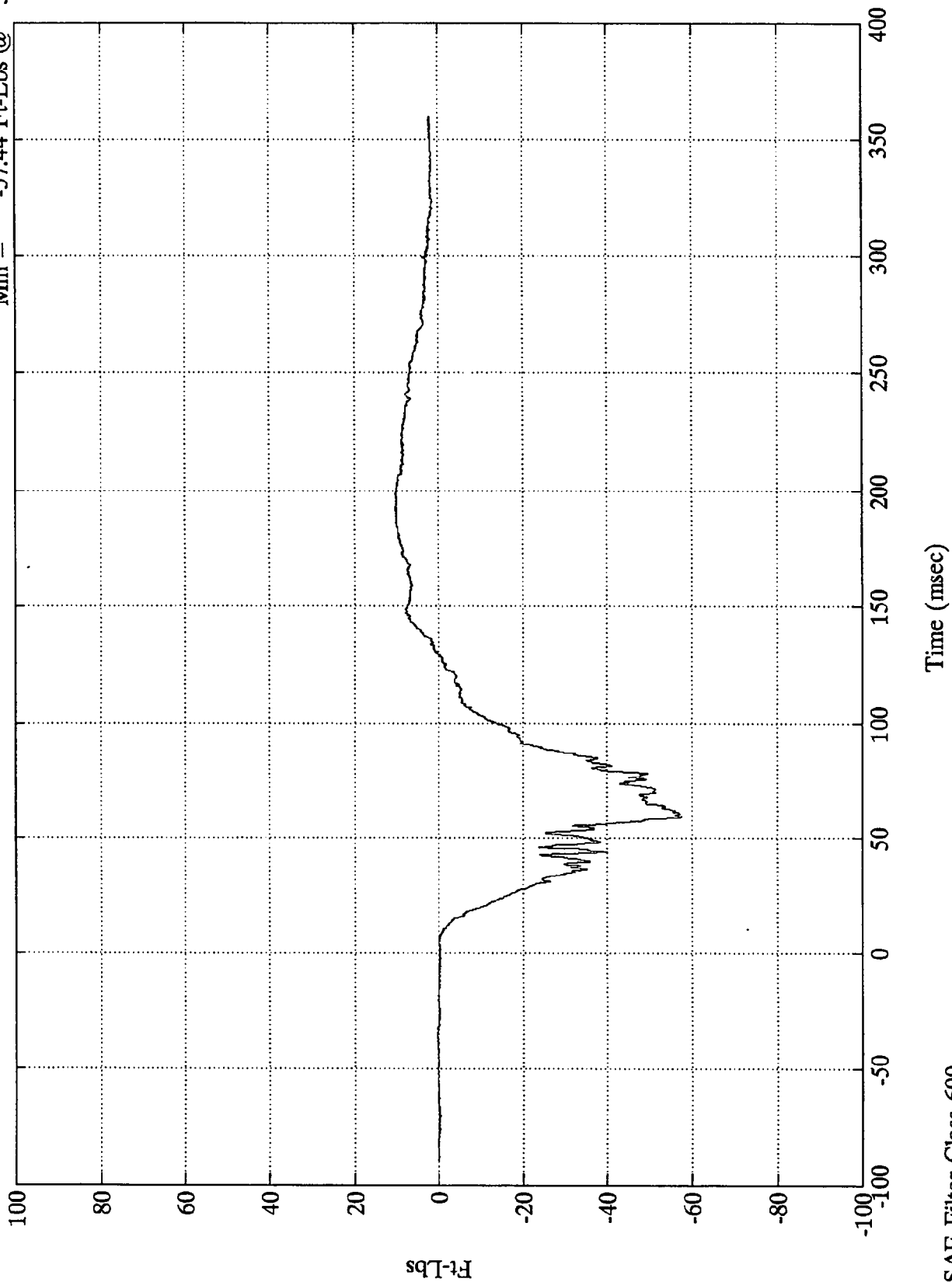
Max = 4.98 Ft-Lbs @ 60.00 msec
Min = -34.02 Ft-Lbs @ 43.31 msec



208 Test #7 - 1997 Lincoln Mark VIII

Max = 10.33 Ft-Lbs @ 198.60 msec
Min = -57.44 Ft-Lbs @ 59.40 msec

P2 Lt Upper Tibia My

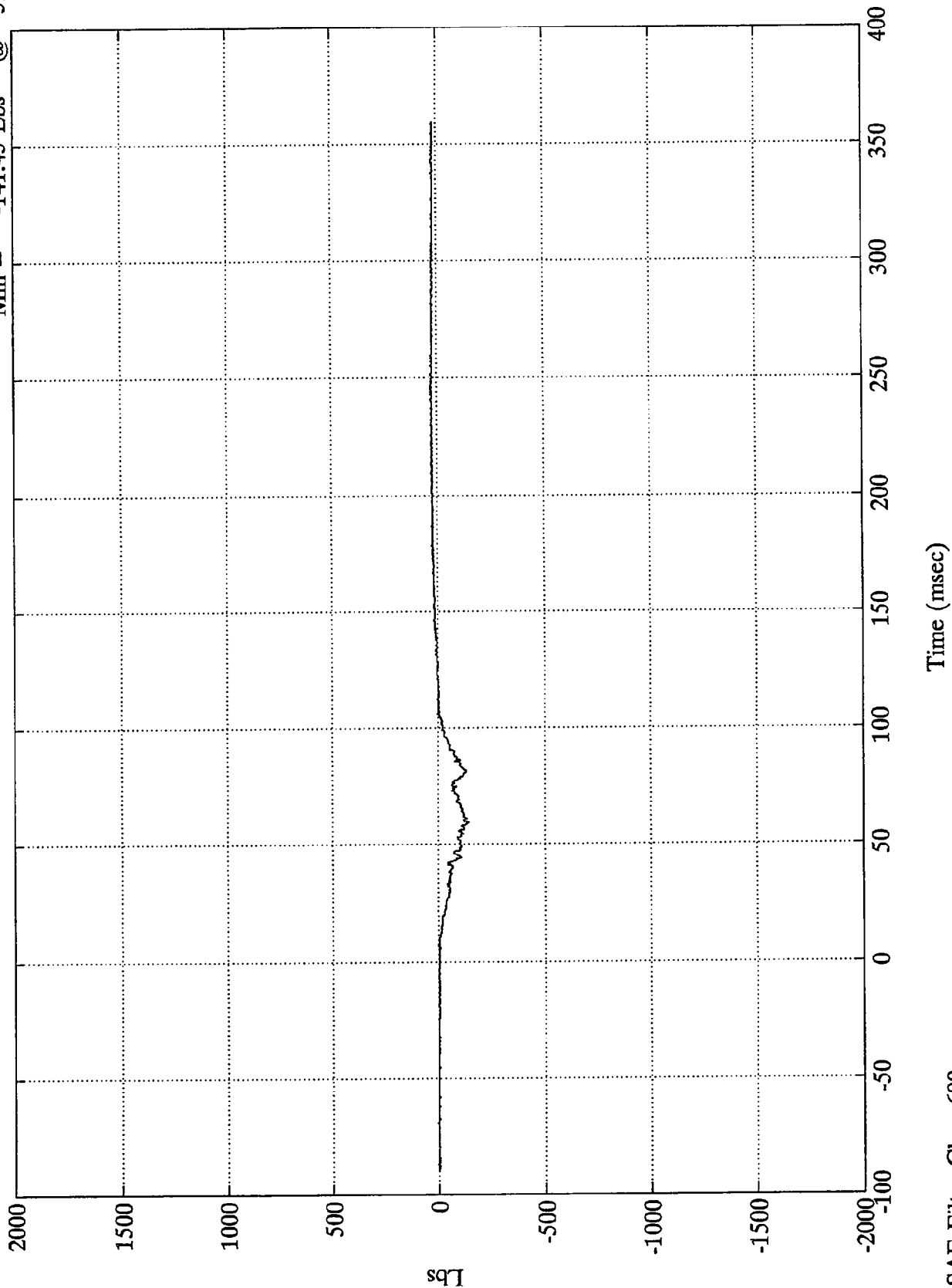


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Max = 28.94 Lbs @ 202.32 msec
Min = -141.45 Lbs @ 59.40 msec

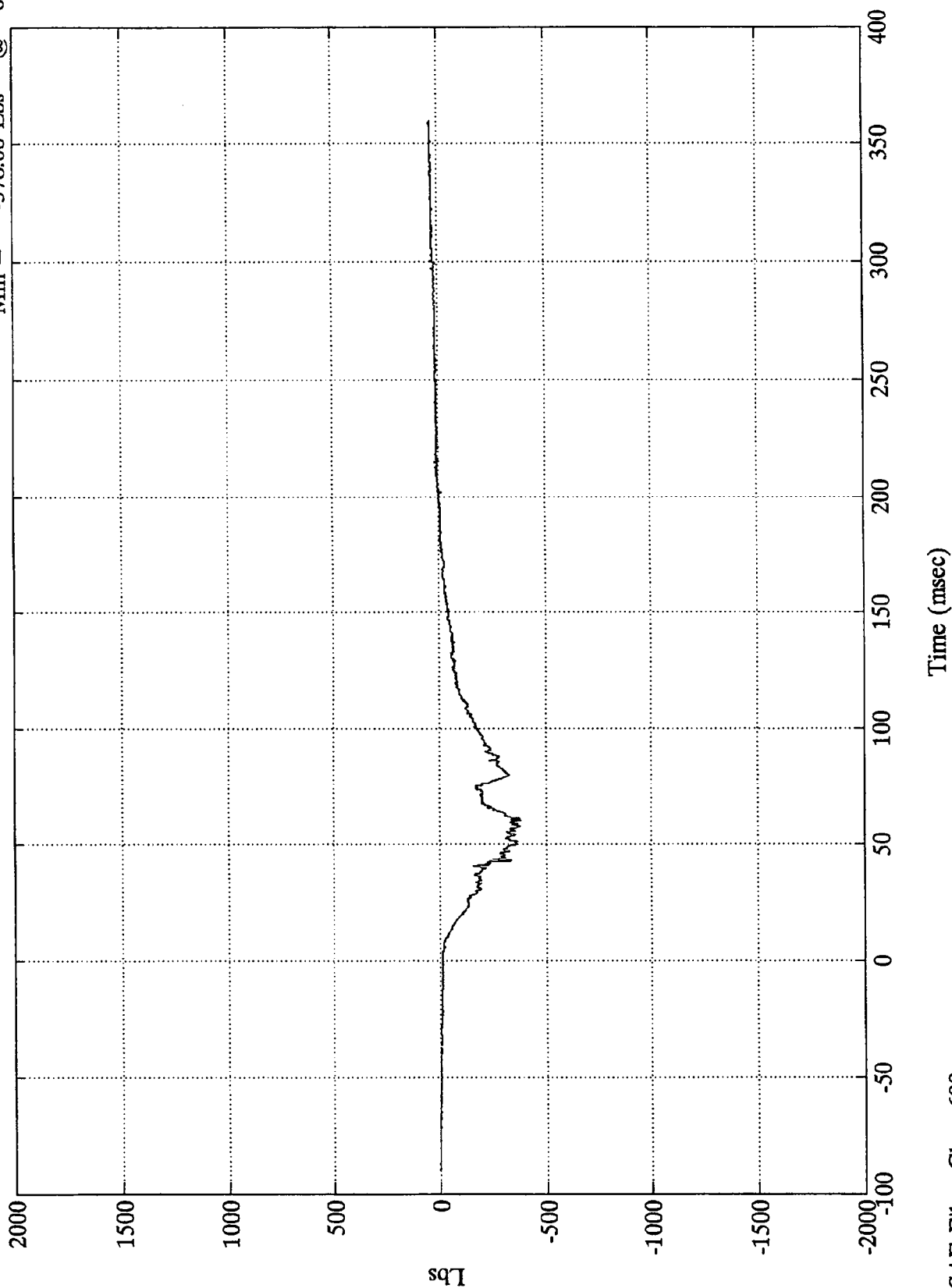
P2 Lt Lower Tibia Fx



SAE Filter Class 600

Max = 34.87 Lbs @ 359.04 msec
Min = -378.06 Lbs @ 60.36 msec

P2 Lt Lower Tibia Fz

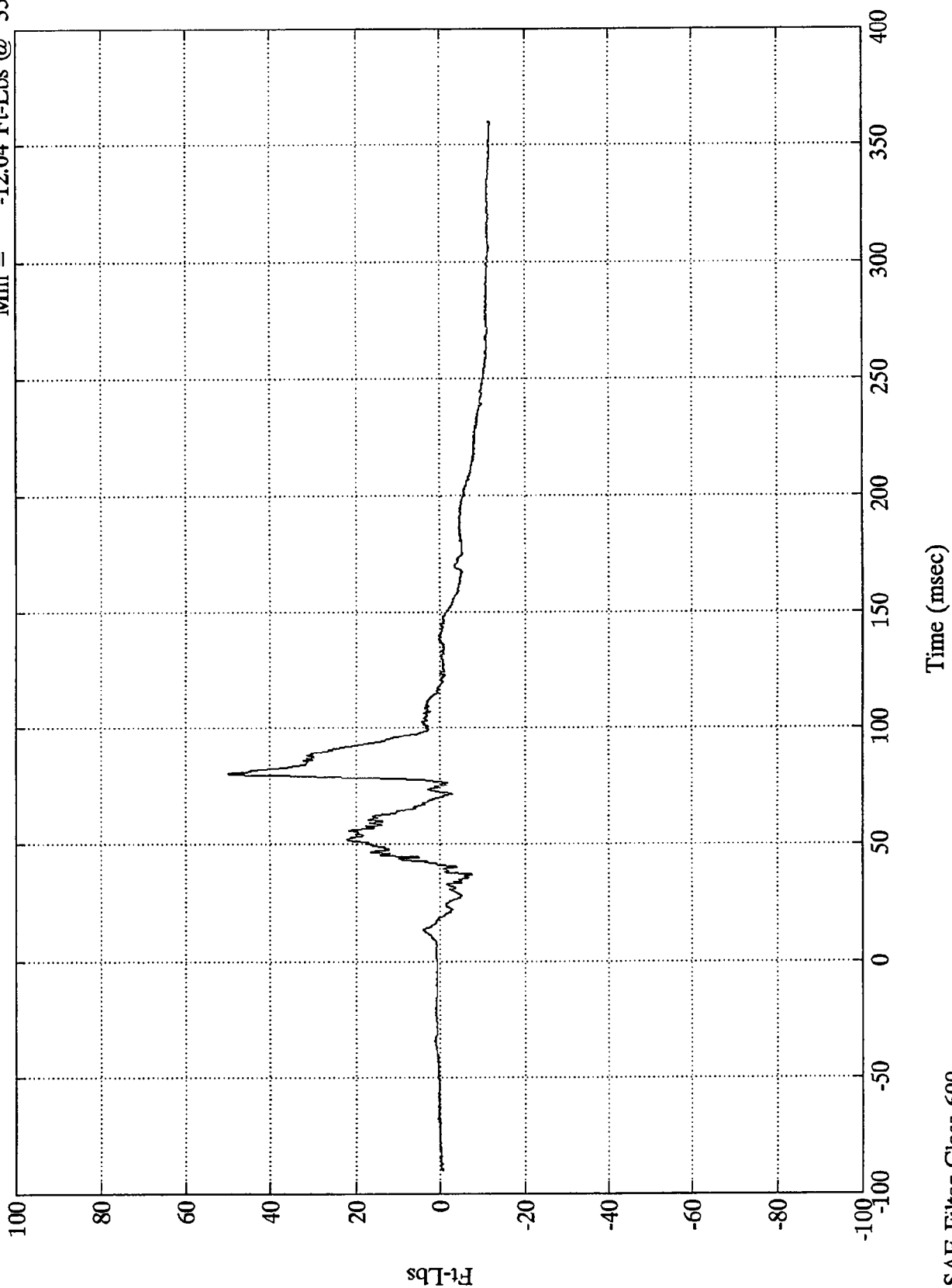


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

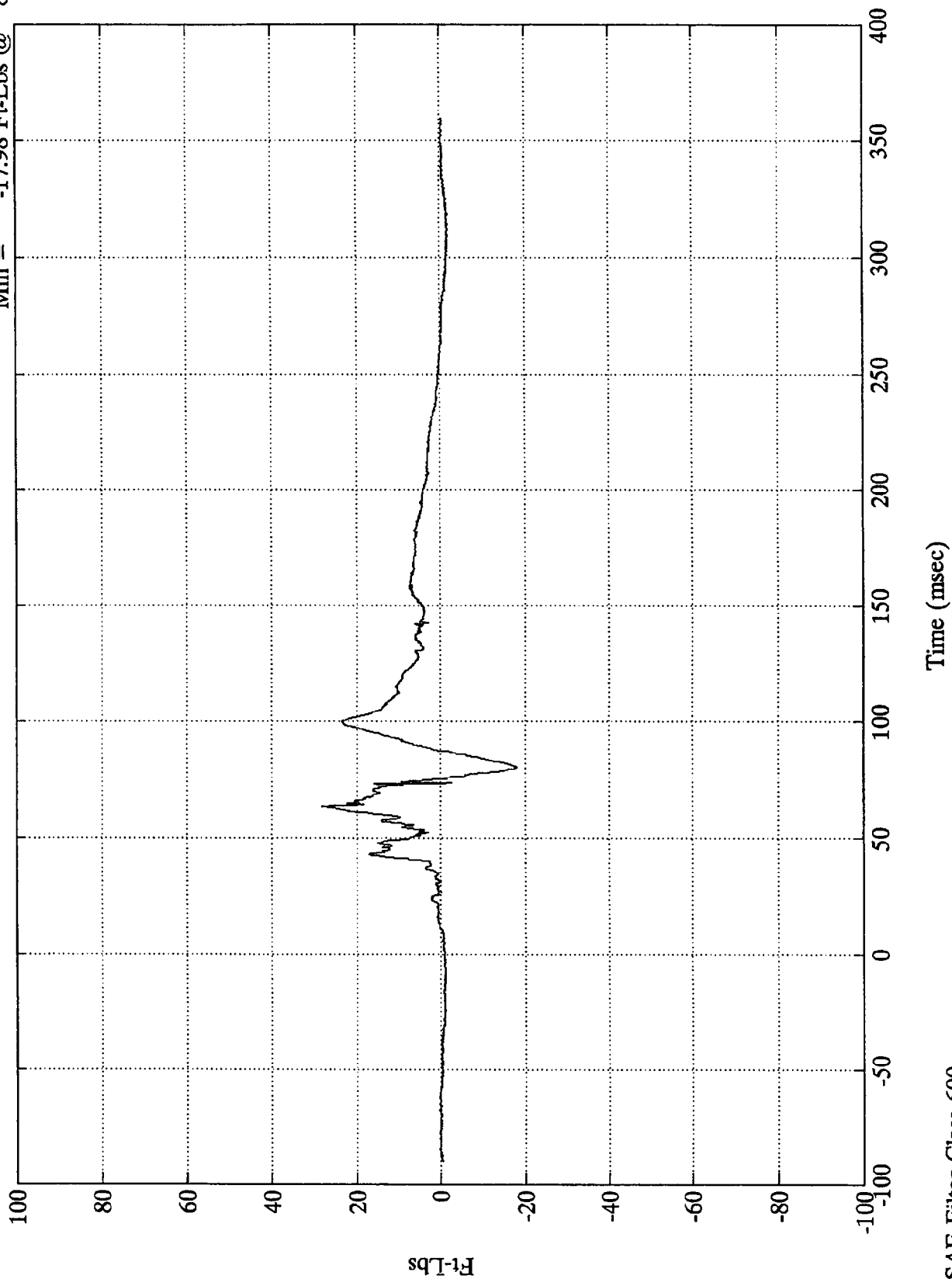
P2 Lt Lower Tibia My

Max = 49.99 Ft-Lbs @ 80.40 msec
Min = -12.04 Ft-Lbs @ 358.80 msec



208 Test #7 - 1997 Lincoln Mark VIII

P2 Rt Upper Tibia Mx
Max = 28.21 Ft-Lbs @ 63.60 msec
Min = -17.98 Ft-Lbs @ 80.63 msec

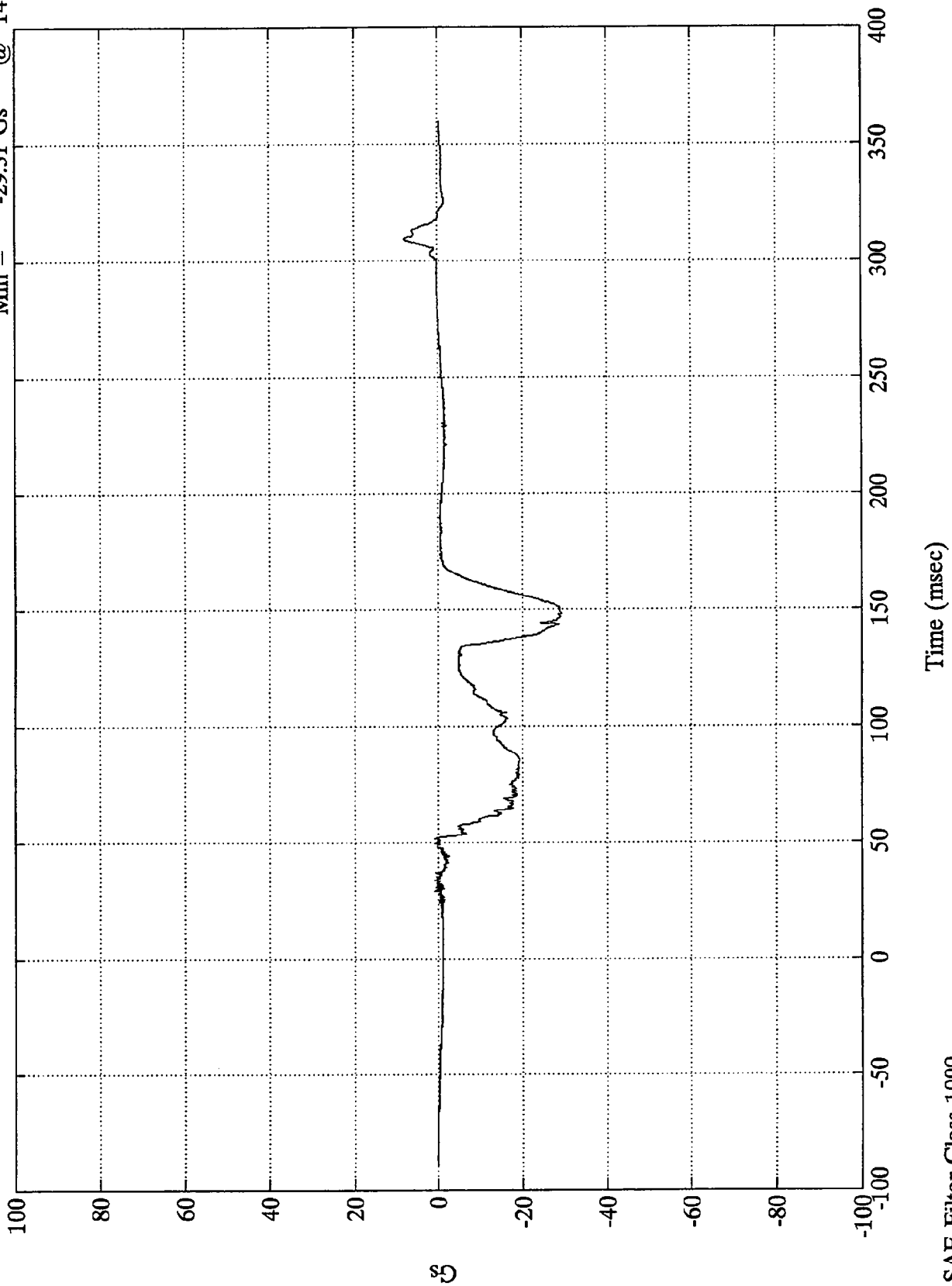


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Pos. 2 Head X

Max = 7.83 Gs @ 309.24 msec
Min = -29.31 Gs @ 148.44 msec

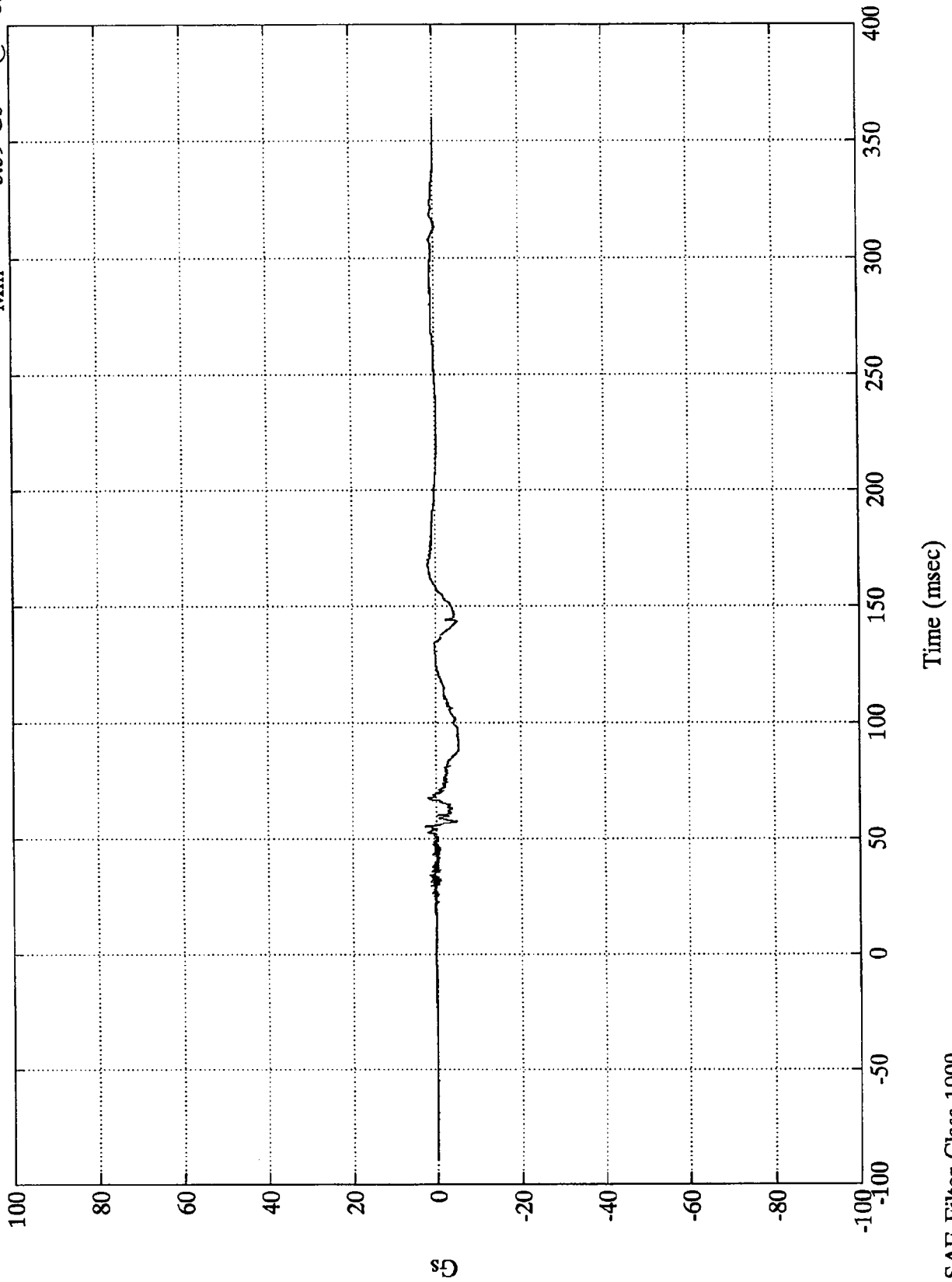


SAE Filter Class 1000

208 Test #7 - 1997 Lincoln Mark VIII

Max = 2.62 Gs @ 55.56 msec
Min = -5.59 Gs @ 88.68 msec

Pos. 2 Head Y

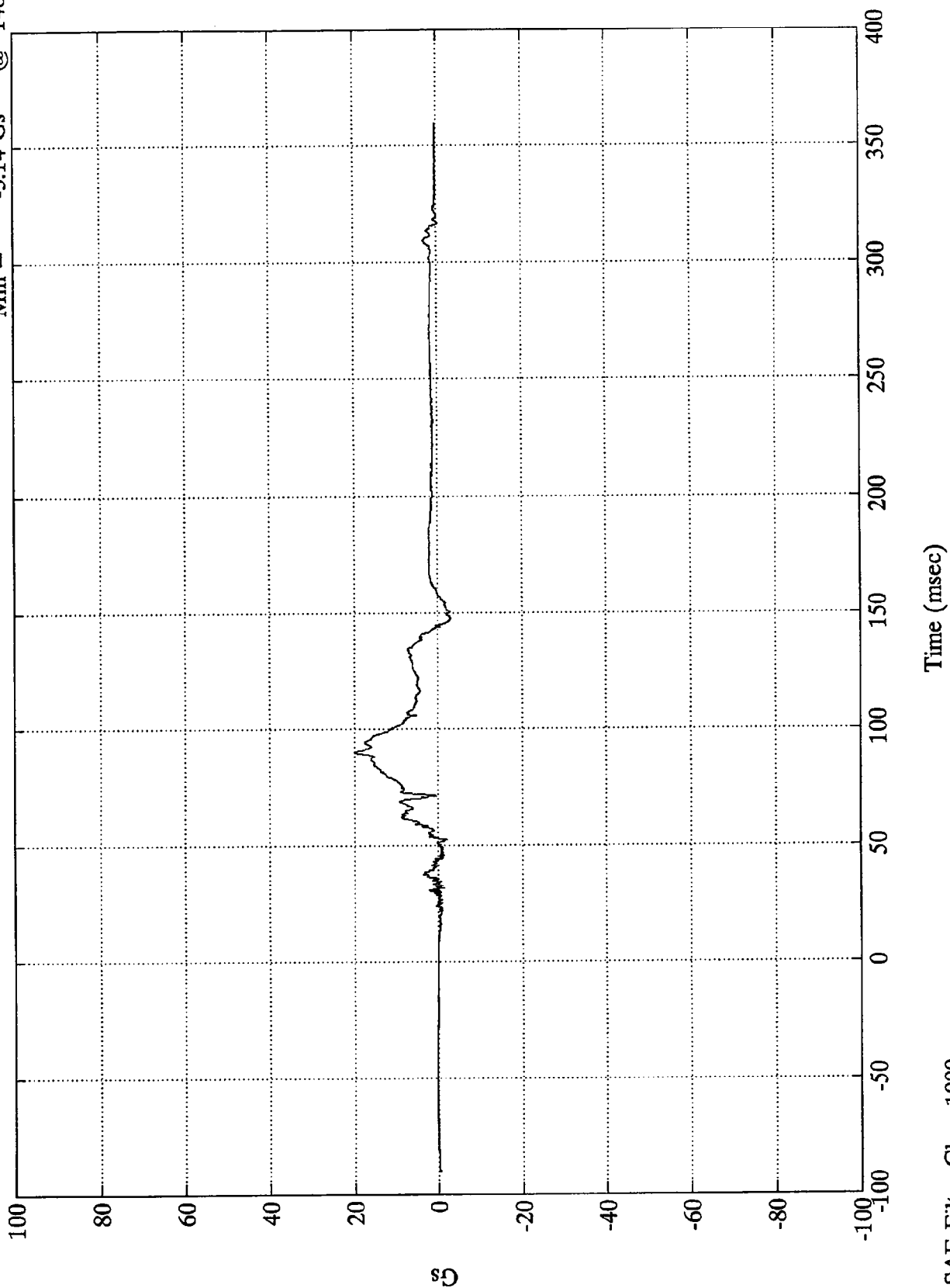


SAE Filter Class 1000

208 Test #7 - 1997 Lincoln Mark VIII

Pos. 2 Head Z

Max = 19.98 Gs @ 90.00 msec
Min = -3.14 Gs @ 148.08 msec

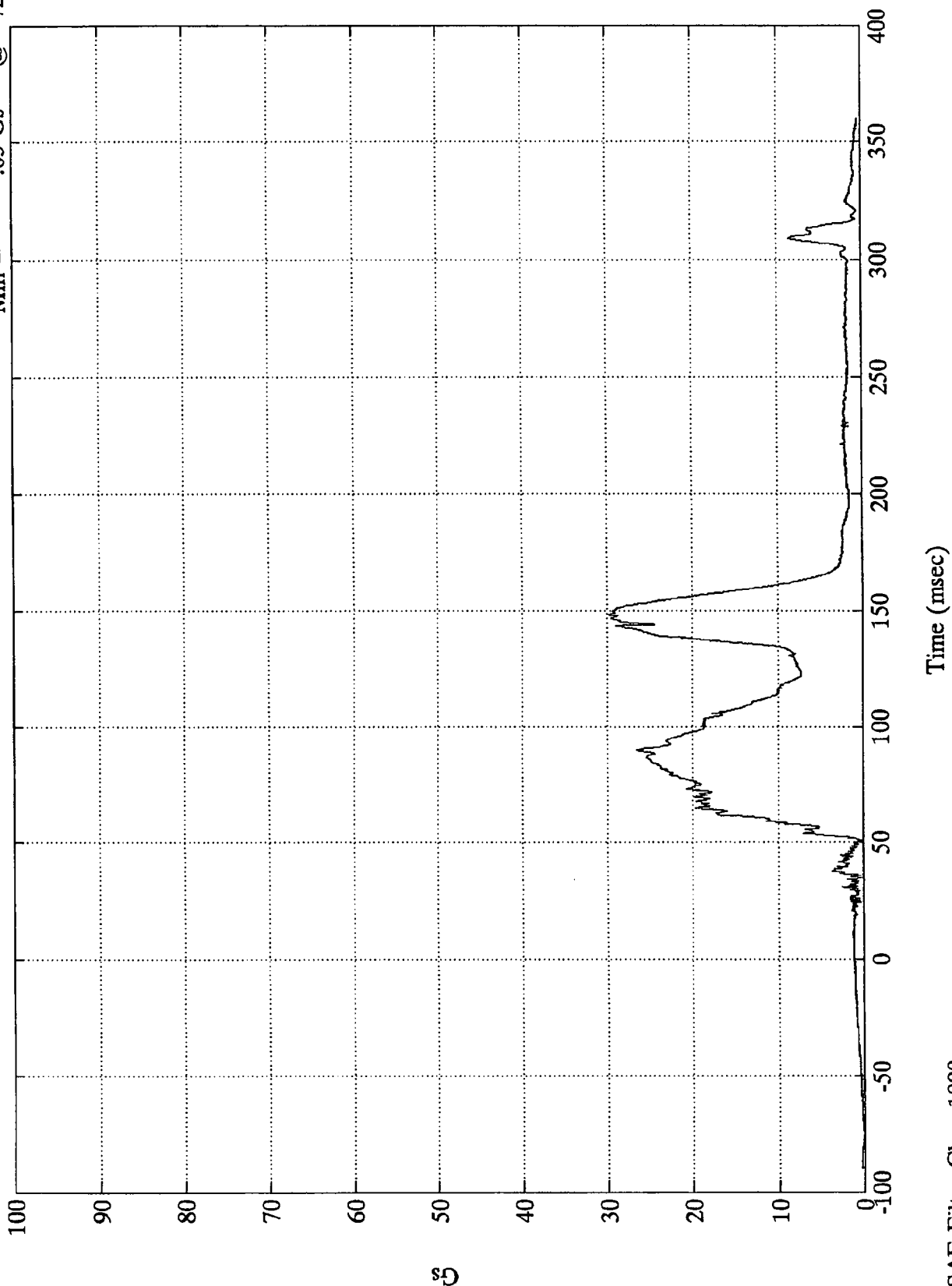


SAE Filter Class 1000

208 Test #7 - 1997 Lincoln Mark VIII

Max = 29.73 Gs @ 148.44 msec
Min = .03 Gs @ -72.24 msec

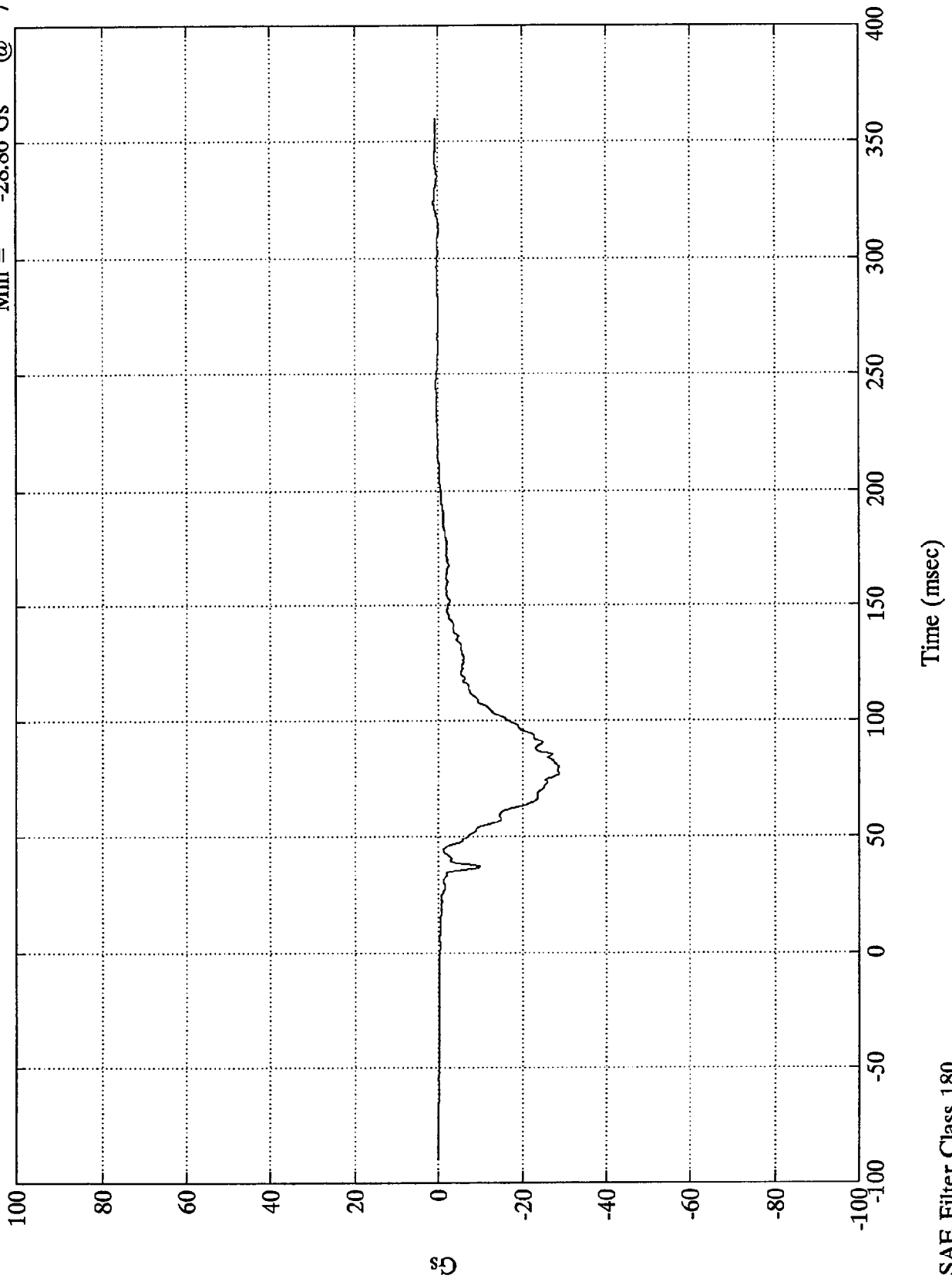
Pos. 2 Head Resultant



208 Test #7 - 1997 Lincoln Mark VIII

Pos. 2 Chest X

Max = 1.07 Gs @ 323.76 msec
Min = -28.86 Gs @ 77.16 msec

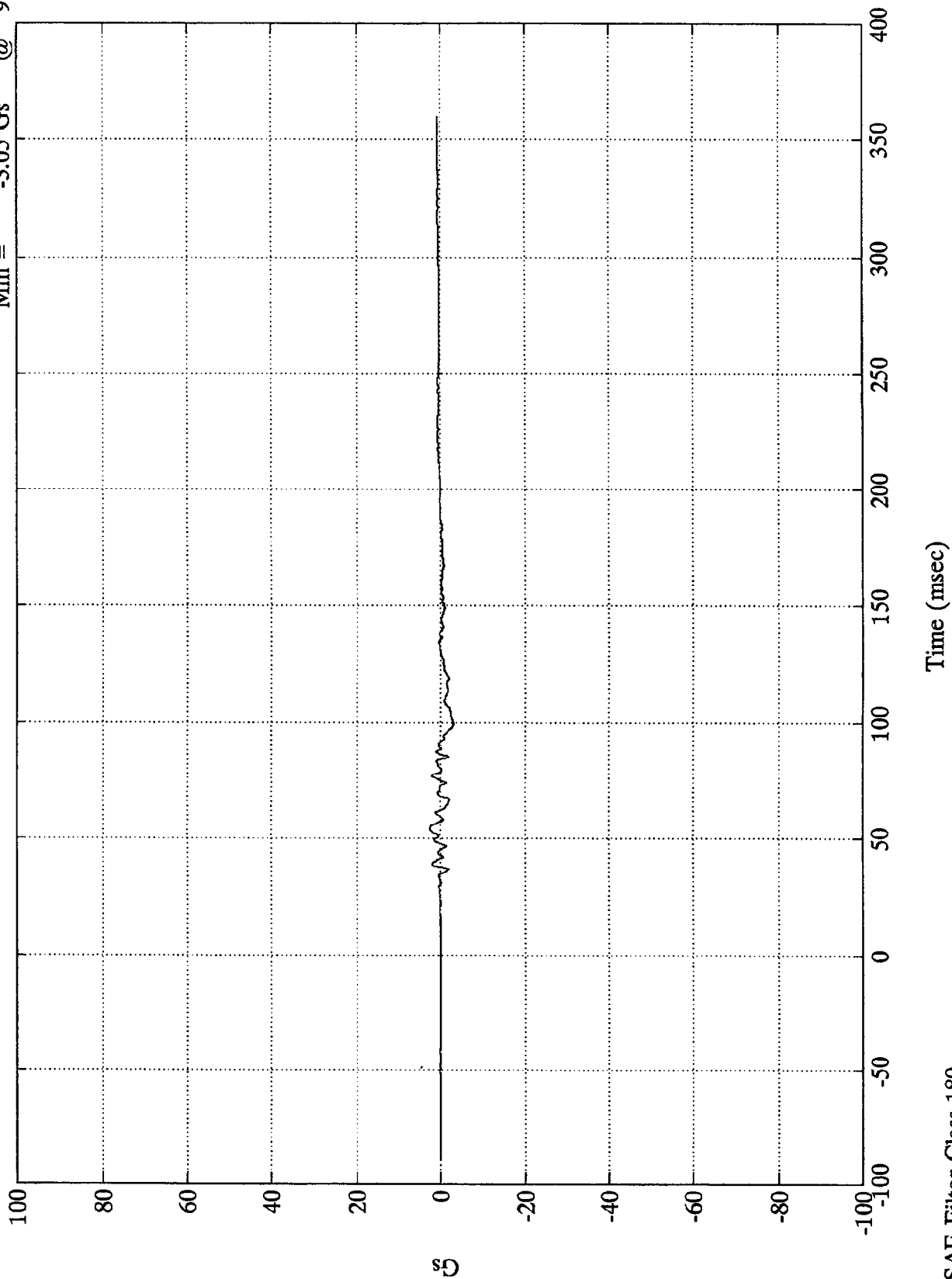


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Max = 2.76 Gs @ 54.11 msec
Min = -3.05 Gs @ 99.72 msec

Pos. 2 Chest Y

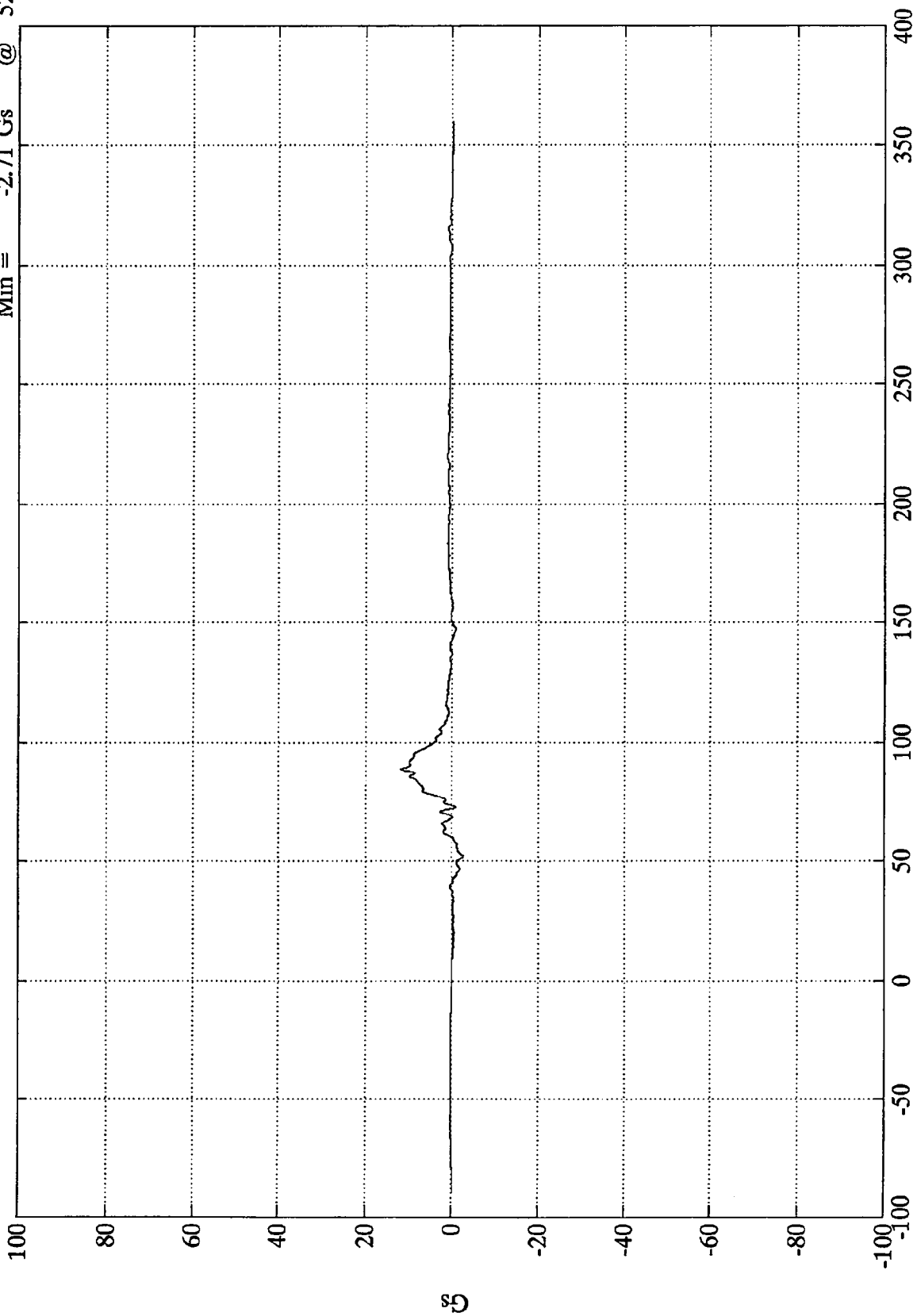


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Max = 11.87 Gs @ 88.79 msec
Min = -2.71 Gs @ 52.08 msec

Pos. 2 Chest Z



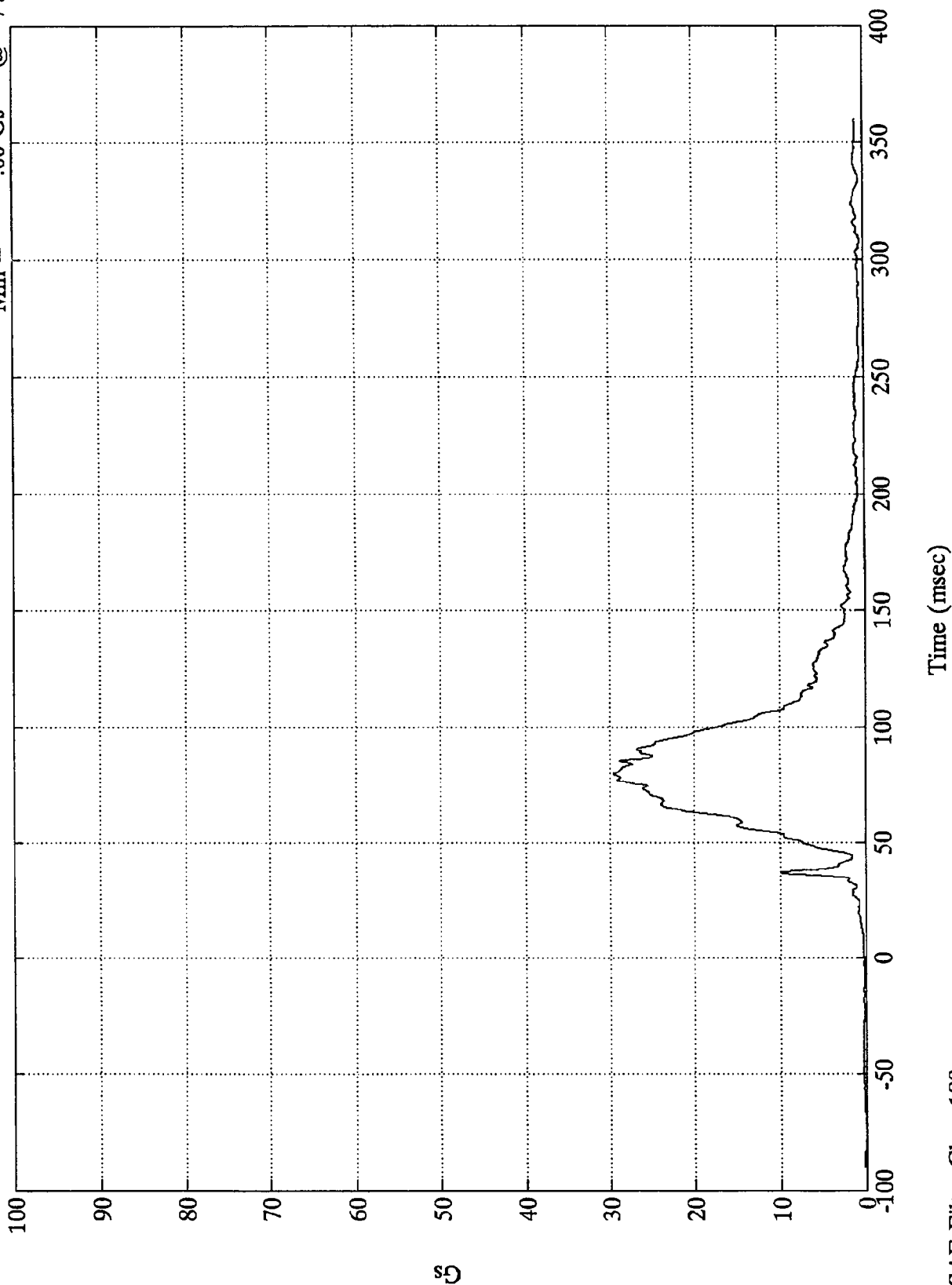
Time (msec)

SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Max = 29.54 Gs @ 79.80 msec
Min = .00 Gs @ -74.88 msec

Pos. 2 Chest Resultant

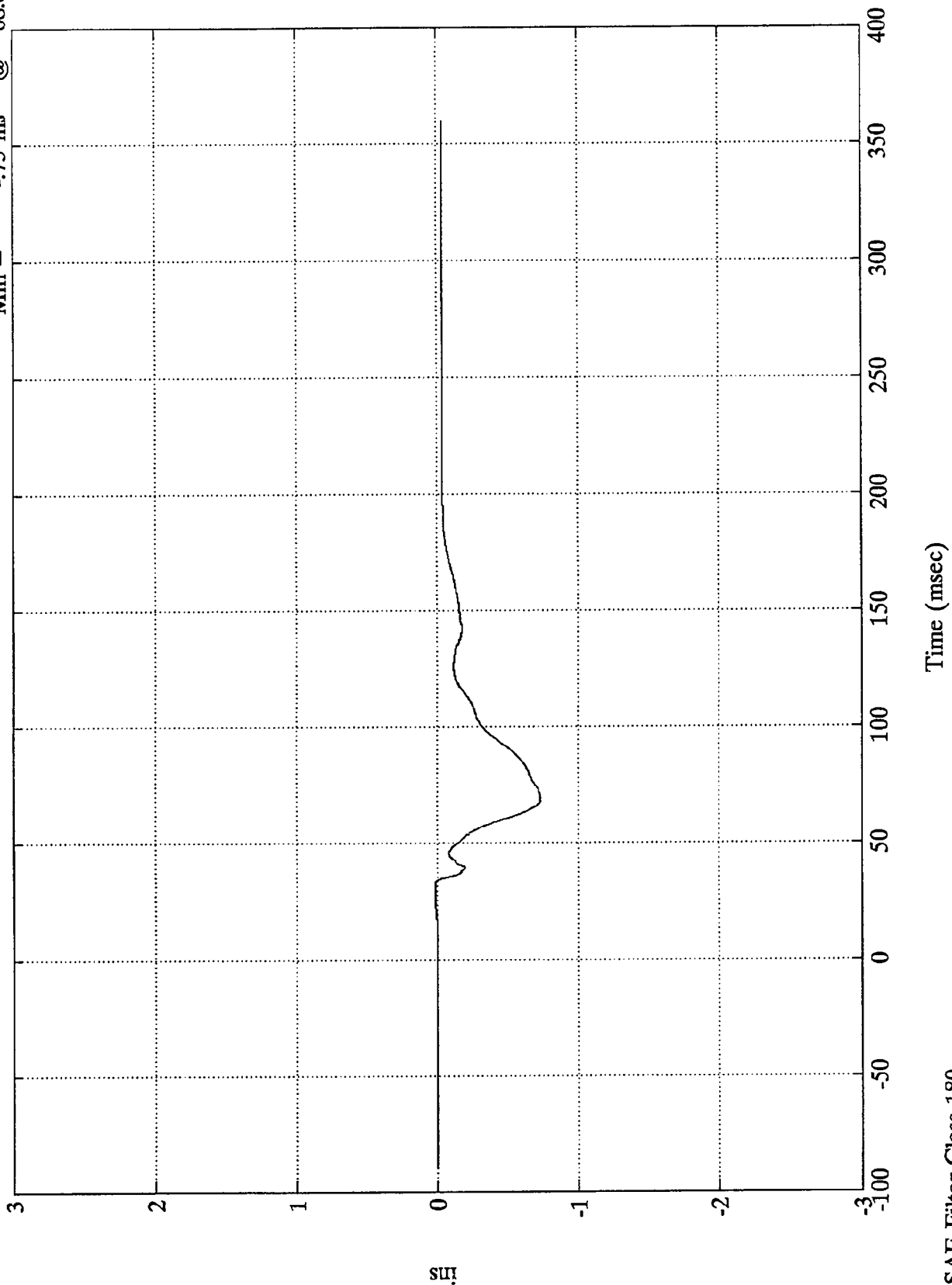


SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

P2 Chest Displacement

Max = .01 ins @ 33.11 msec
Min = -.73 ins @ 68.87 msec



ins

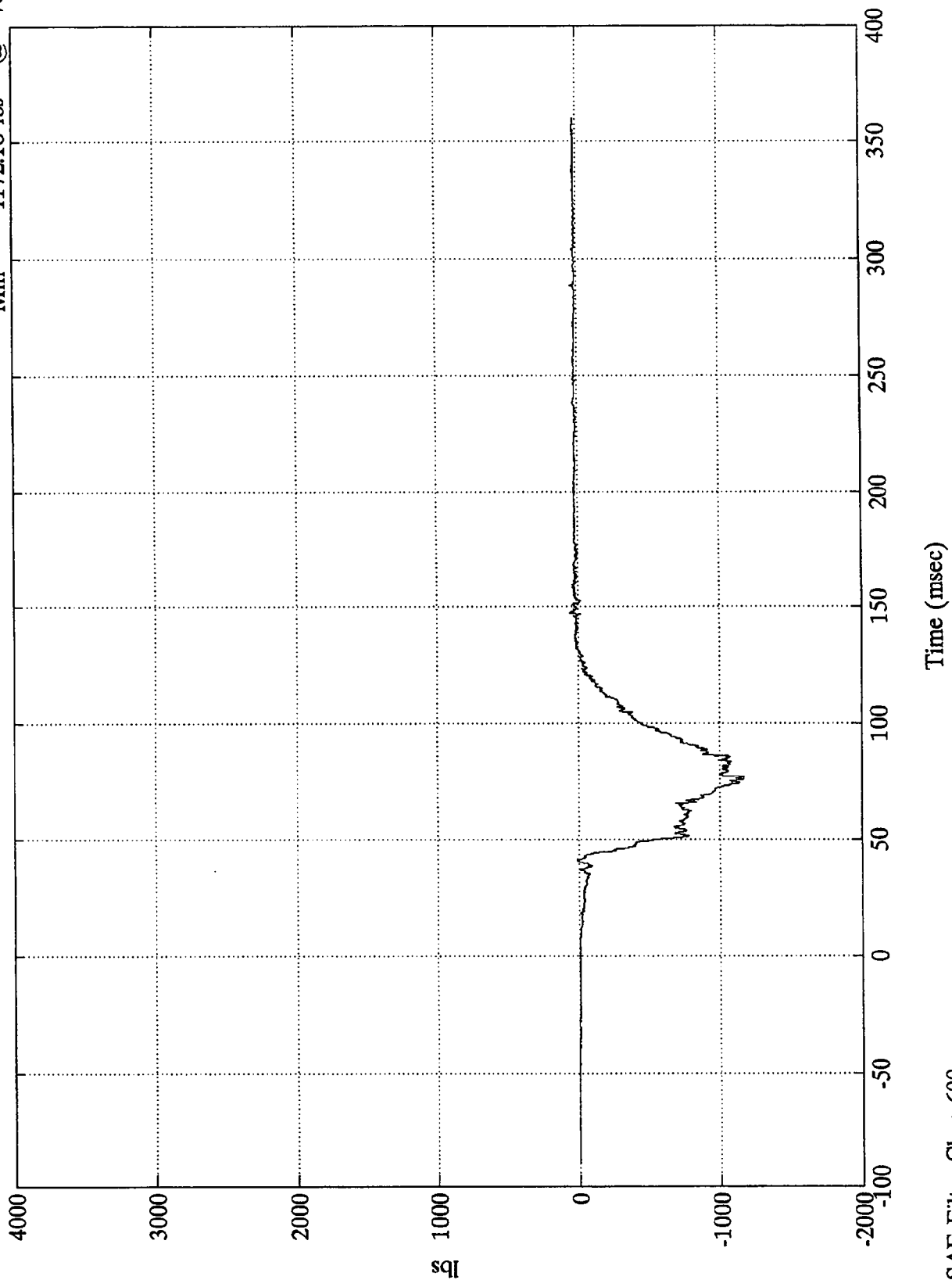
Time (msec)

SAE Filter Class 180

208 Test #7 - 1997 Lincoln Mark VIII

Max = 63.05 lbs @ 147.48 msec
Min = -1172.18 lbs @ 76.92 msec

Pos. 2 Left Femur

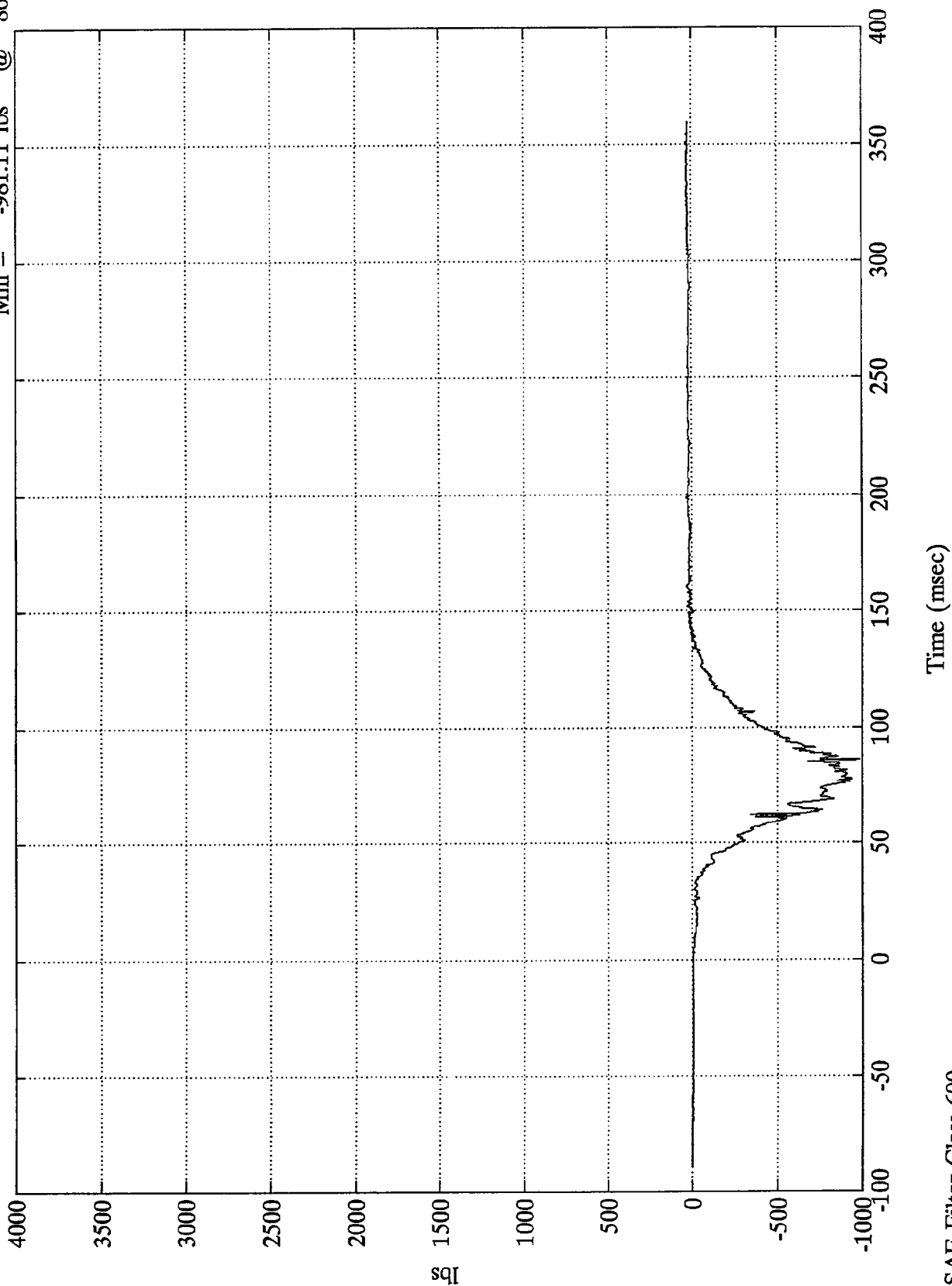


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Pos. 2 Right Femur

Max = 36.49 lbs @ 160.31 msec
Min = -981.11 lbs @ 86.04 msec

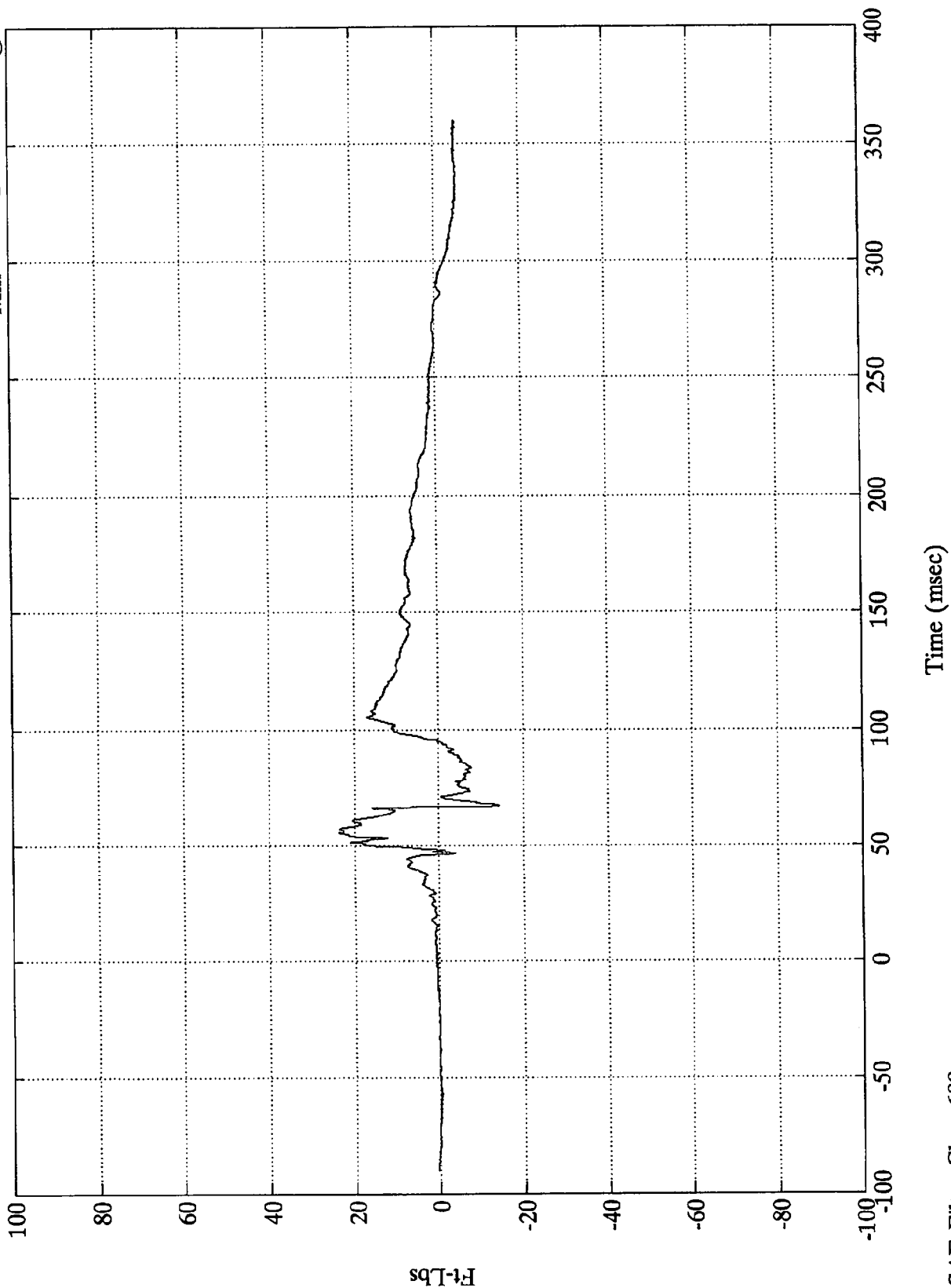


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Max = 23.72 Ft-Lbs @ 55.68 msec
Min = -14.33 Ft-Lbs @ 67.19 msec

P1 Lt Upper Tibia Mx

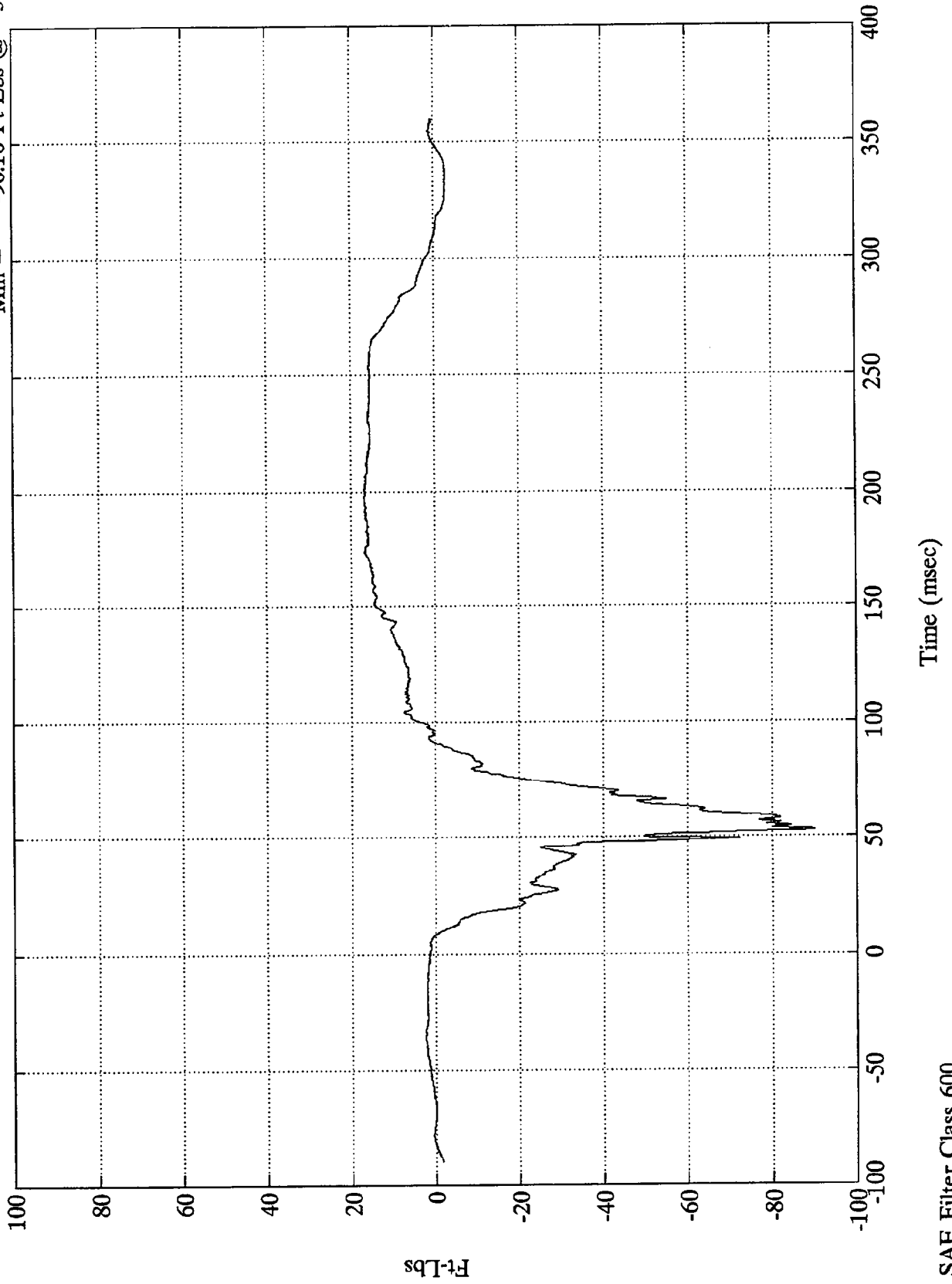


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

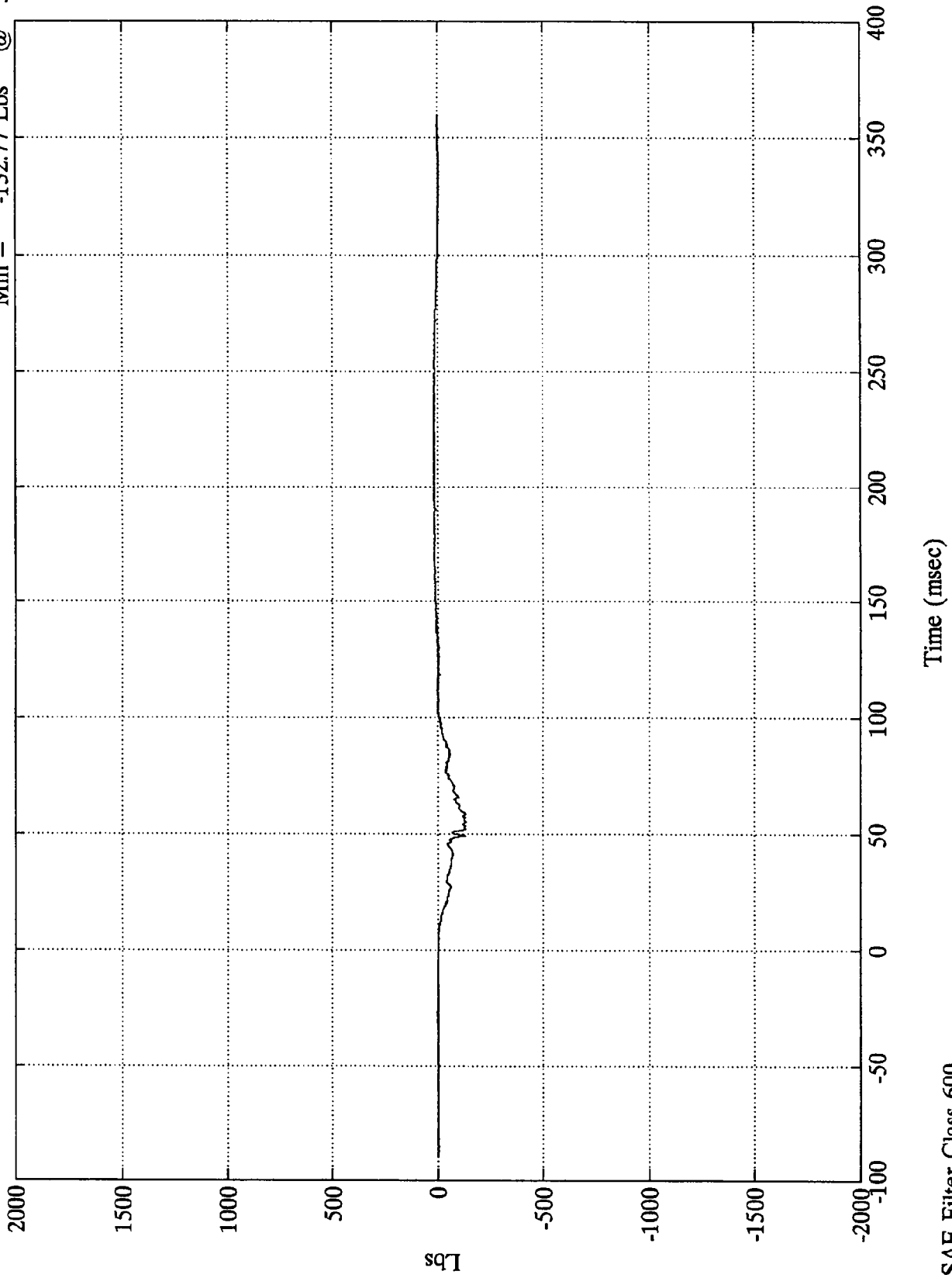
P1 Lt Upper Tibia My

Max = 16.91 Ft-Lbs @ 196.80 msec
Min = -90.10 Ft-Lbs @ 53.04 msec



208 Test #7 - 1997 Lincoln Mark VIII

P1 Lt Lower Tibia Fx
Max = 20.48 Lbs @ 216.83 msec
Min = -132.77 Lbs @ 55.44 msec

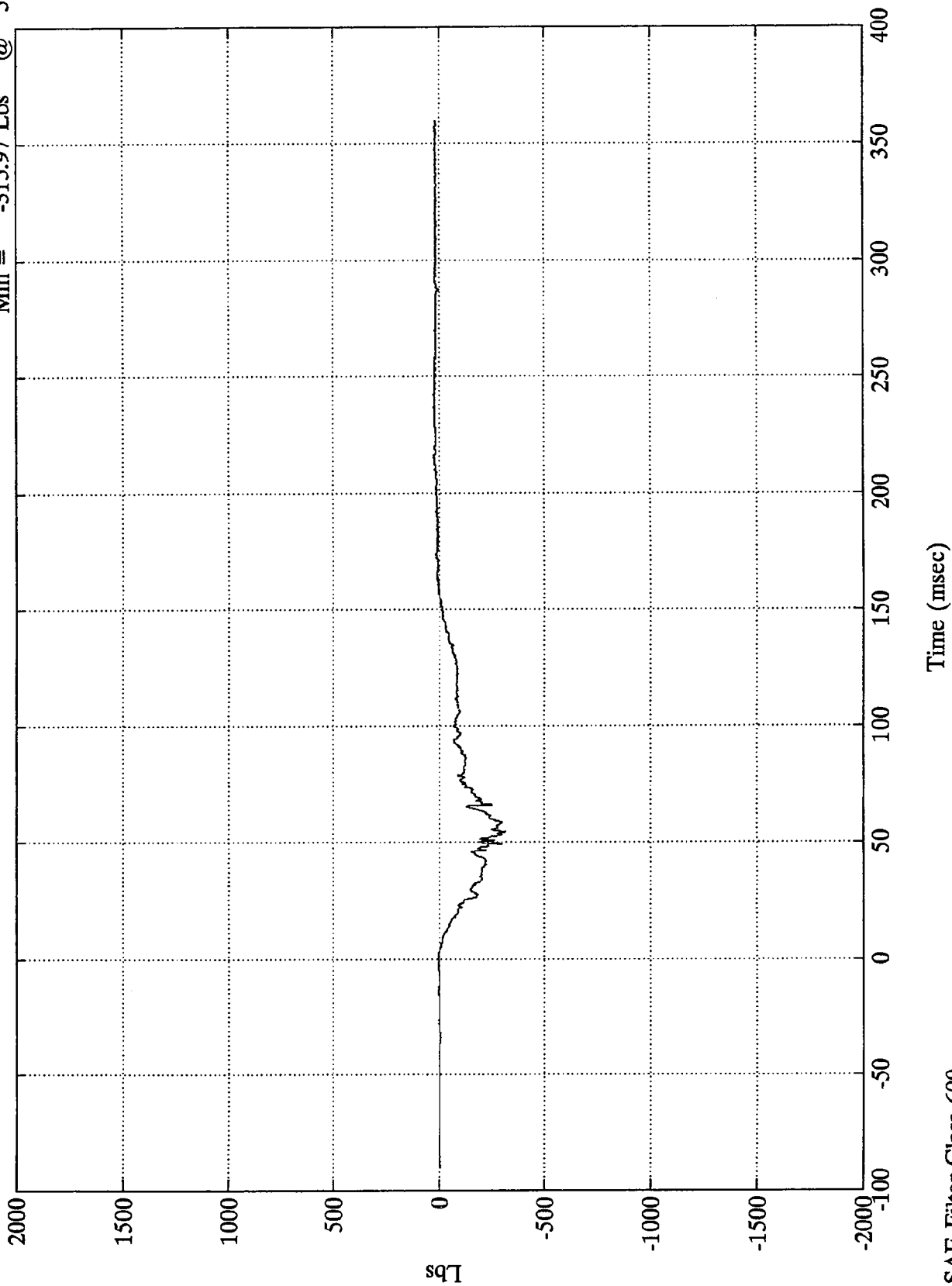


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

P1 Lt Lower Tibia Fz

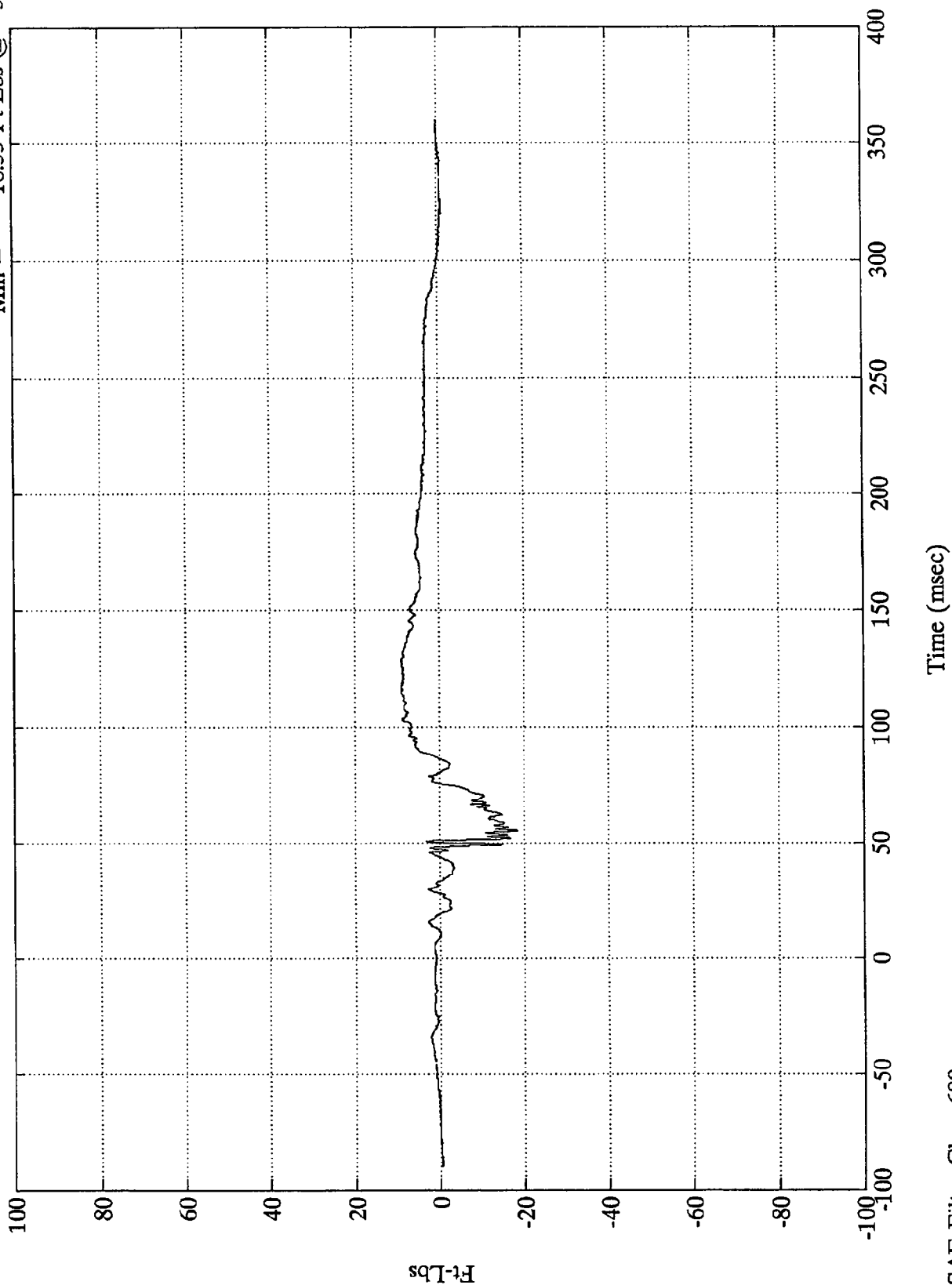
Max = 26.86 Lbs @ 242.04 msec
Min = -315.97 Lbs @ 54.59 msec



SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

P1 Lt Lower Tibia My Max = 9.01 Ft-Lbs @ 116.76 msec
Min = -18.53 Ft-Lbs @ 55.56 msec

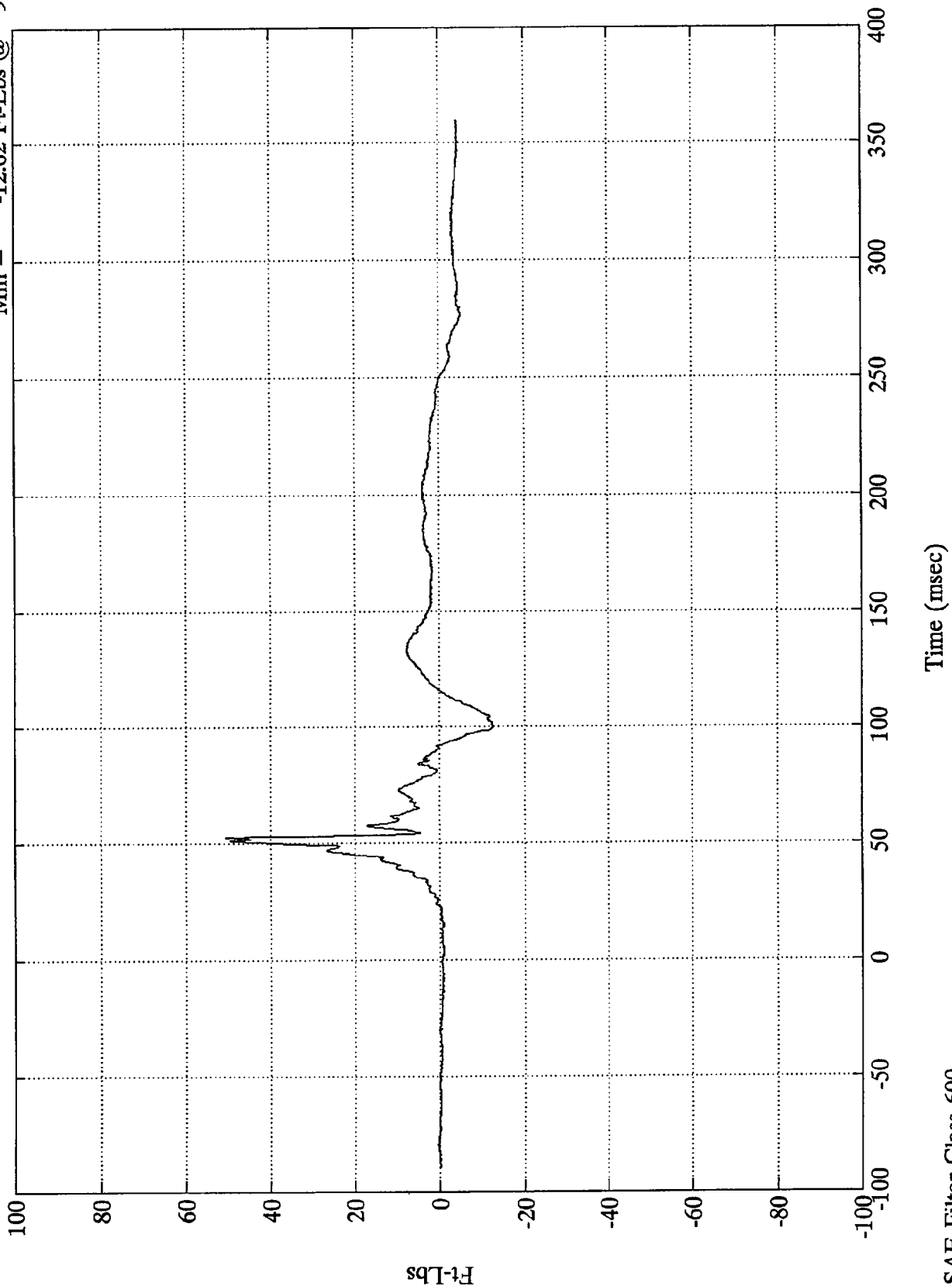


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Max = 50.66 Ft-Lbs @ 52.68 msec
Min = -12.62 Ft-Lbs @ 99.84 msec

P1 Rt Upper Tibia Mx

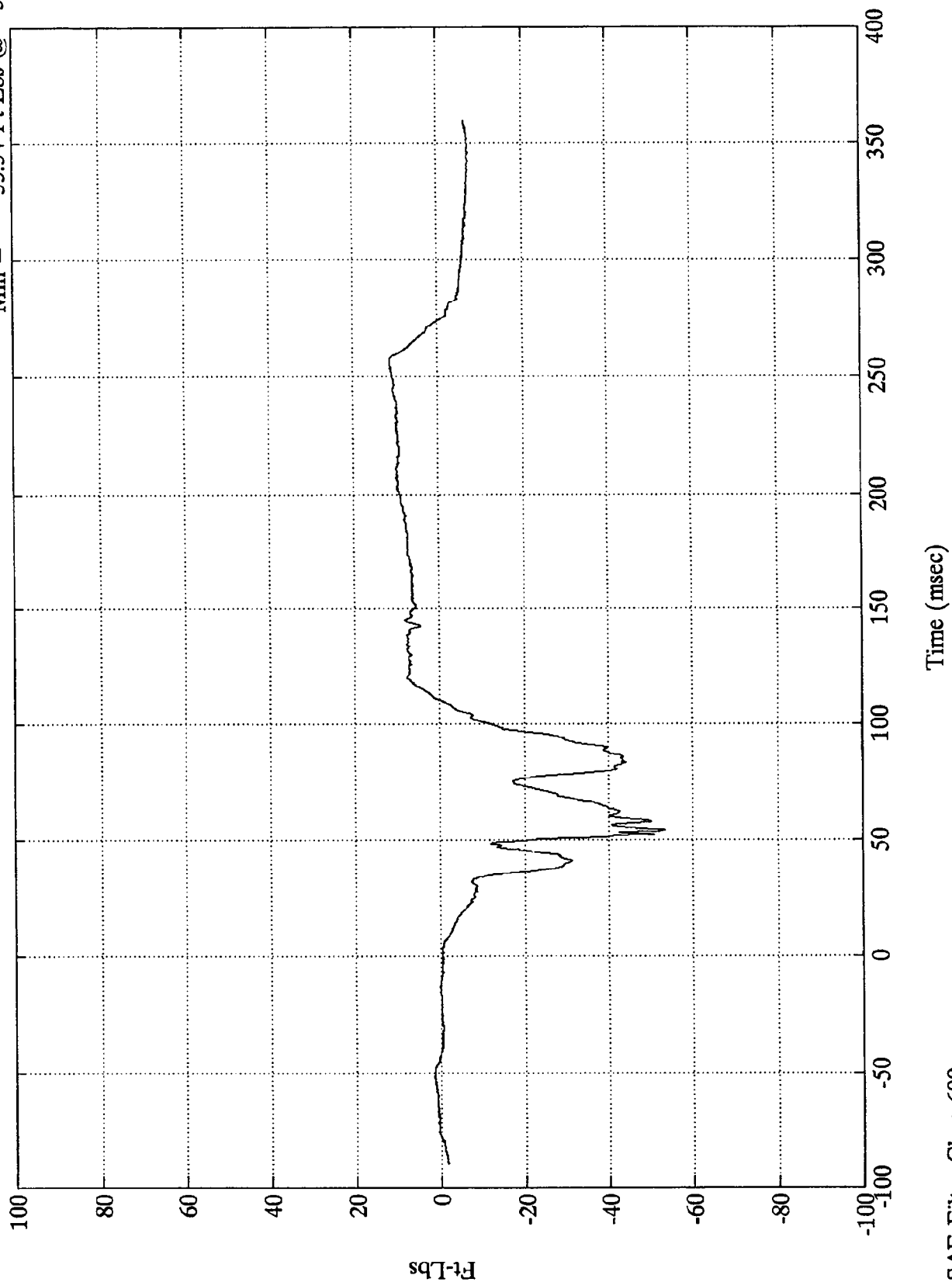


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

P1 Rt Upper Tibia My

Max = 11.27 Ft-Lbs @ 257.16 msec
Min = -53.54 Ft-Lbs @ 54.36 msec

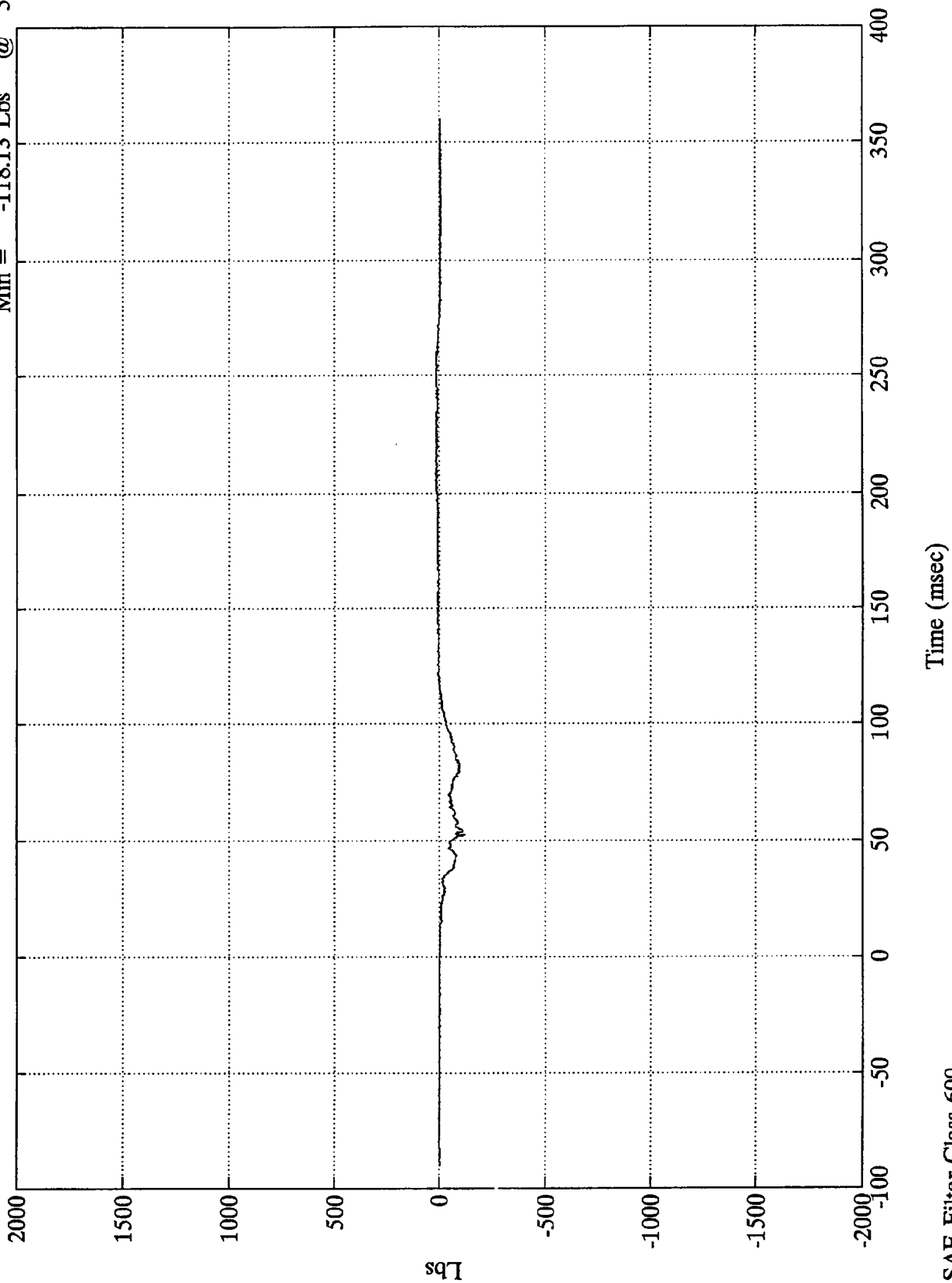


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

P1 Rt Lower Tibia Fx

Max = 18.25 Lbs @ 213.72 msec
Min = -118.13 Lbs @ 52.43 msec

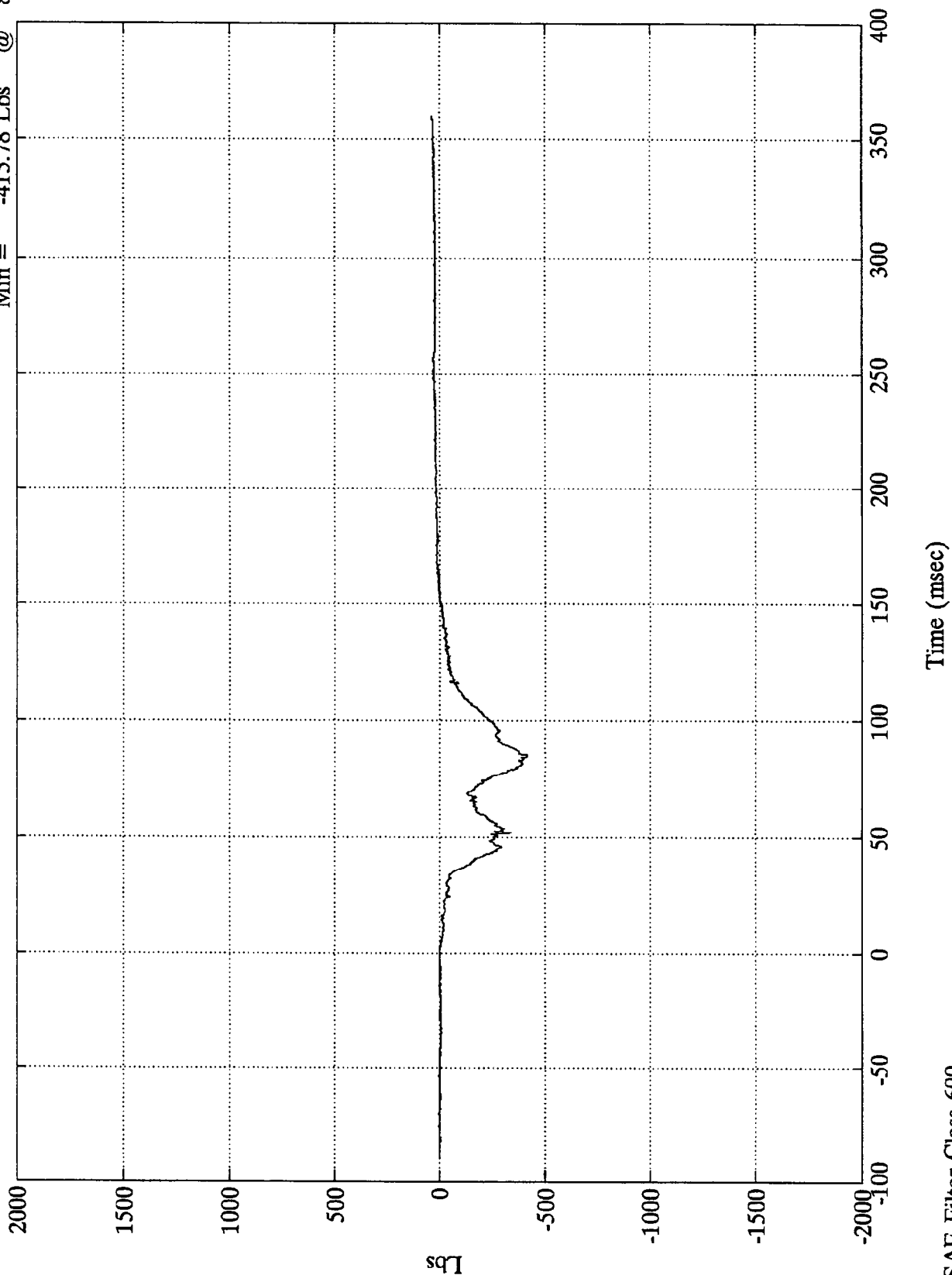


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

Max = 34.79 Lbs @ 358.68 msec
Min = -415.78 Lbs @ 84.72 msec

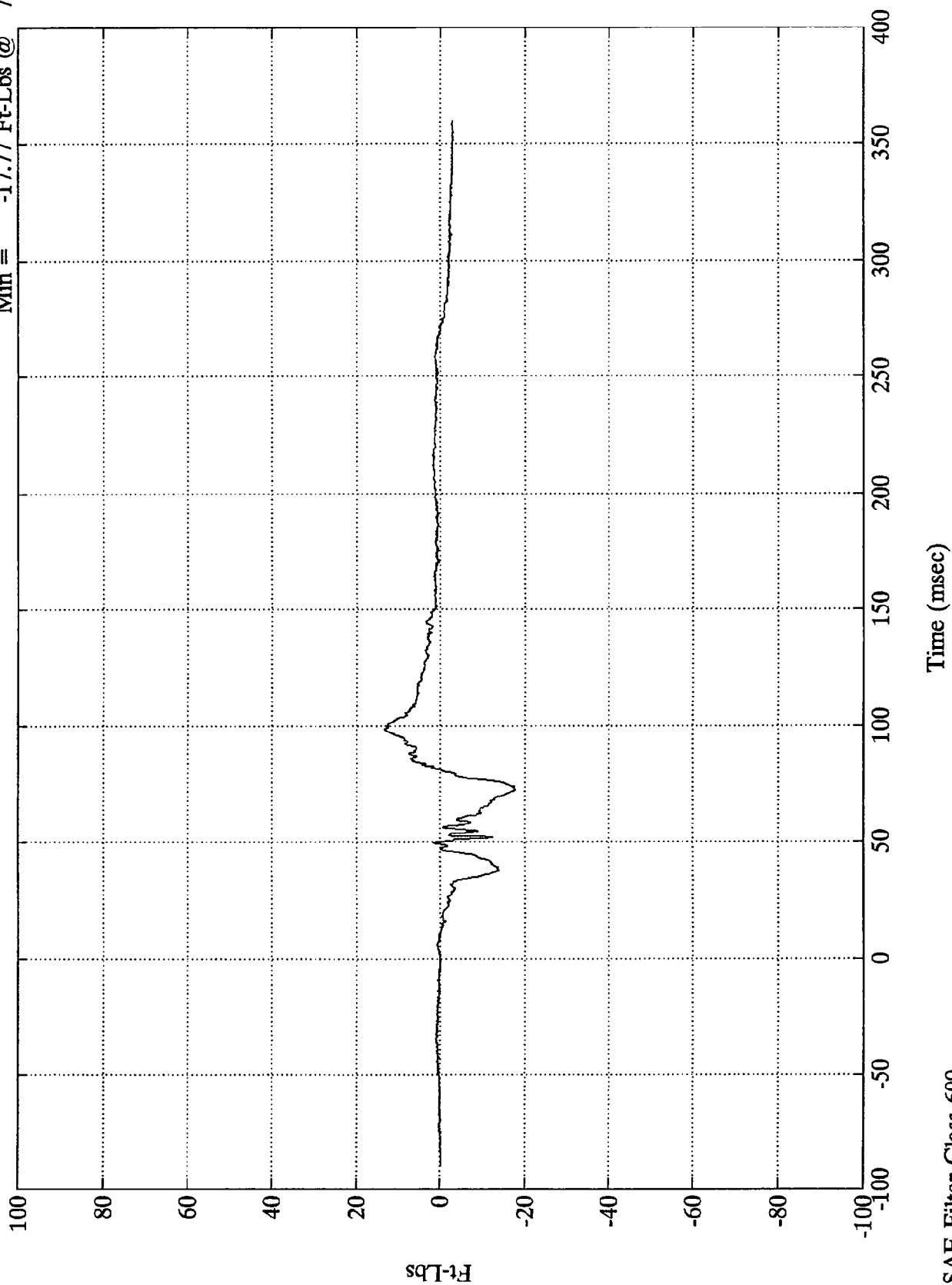
P1 Rt Lower Tibia Fz



208 Test #7 - 1997 Lincoln Mark VIII

P1 Rt Lower Tibia My

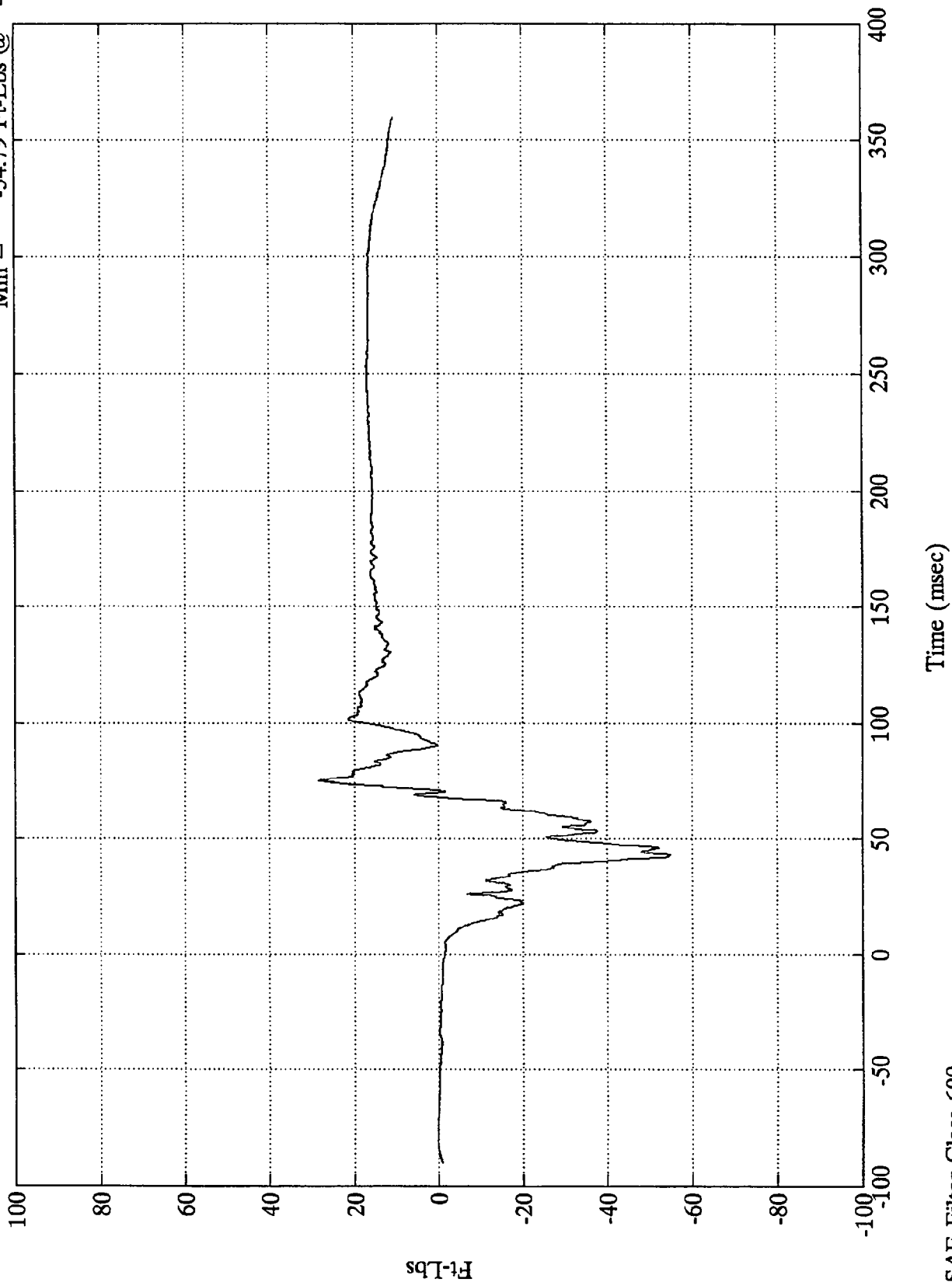
Max = 13.22 Ft-Lbs @ 98.52 msec
Min = -17.77 Ft-Lbs @ 72.83 msec



SAE Filter Class 600

P2 Rt Upper Tibia My

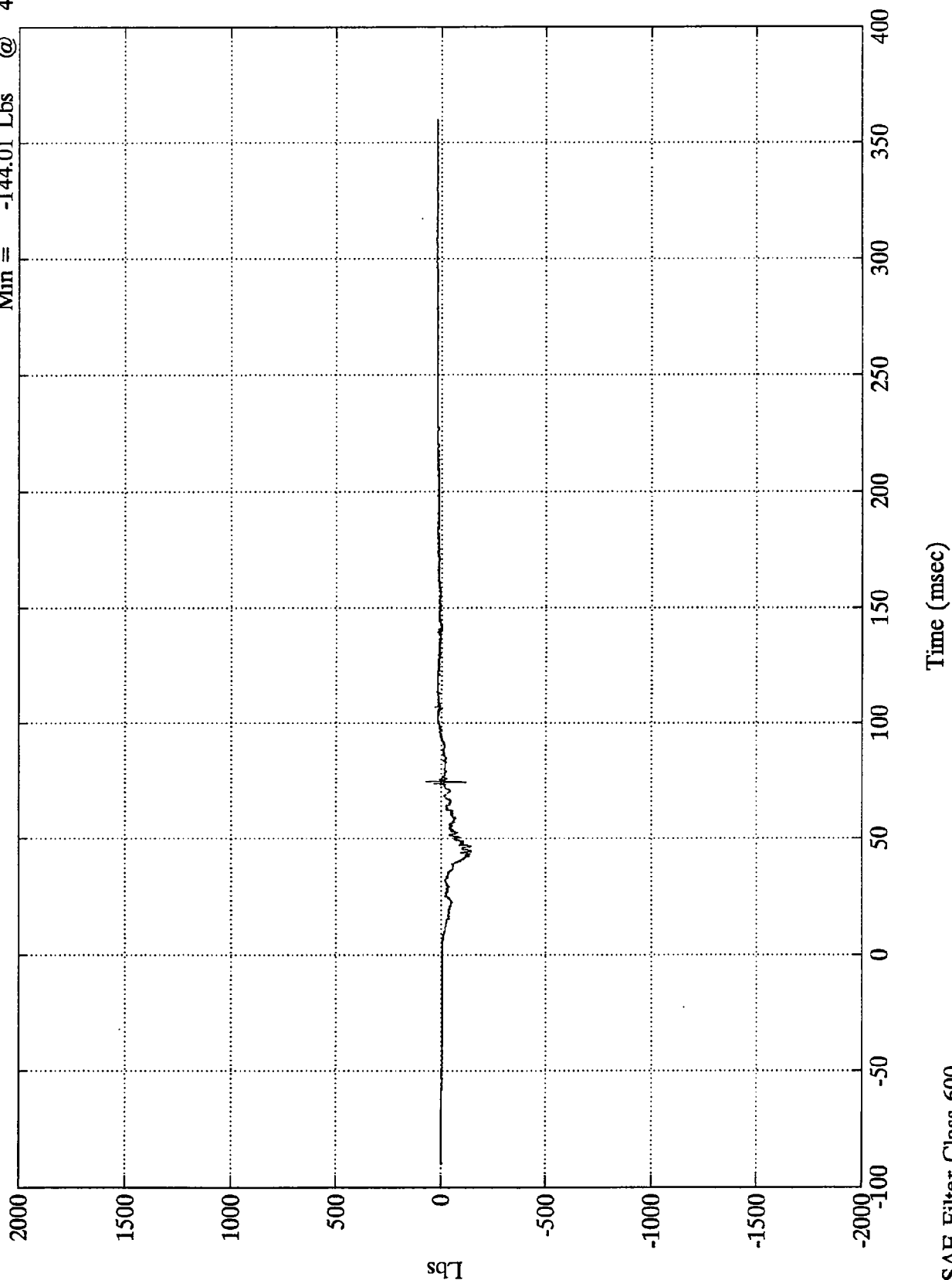
Max = 28.51 Ft-Lbs @ 75.00 msec
Min = -54.79 Ft-Lbs @ 43.20 msec



SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

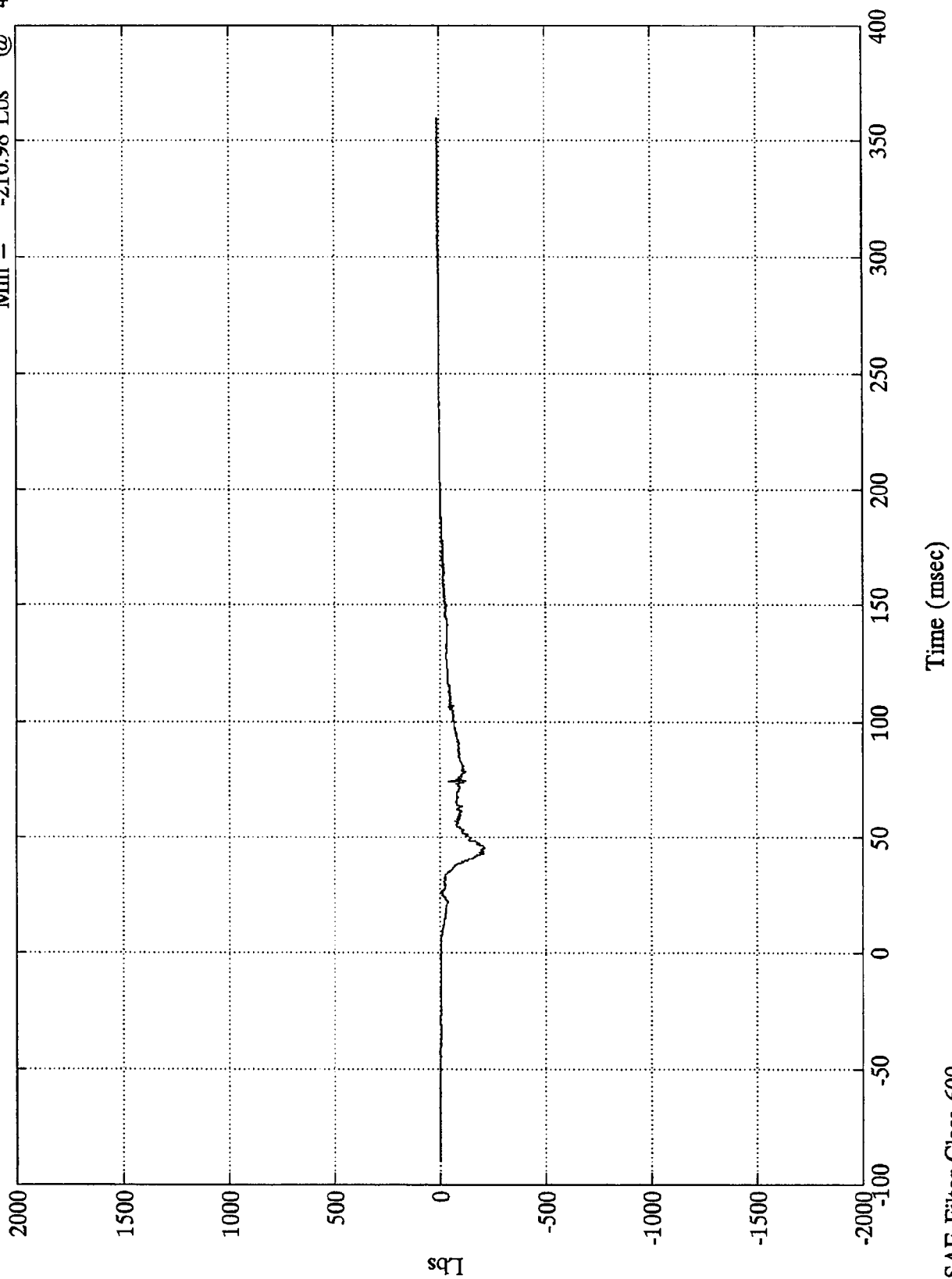
P2 Rt Lower Tibia Fx
Max = 72.63 Lbs @ 74.63 msec
Min = -144.01 Lbs @ 46.92 msec



208 Test #7 - 1997 Lincoln Mark VIII

Max = 10.60 Lbs @ 339.00 msec
Min = -210.98 Lbs @ 45.72 msec

P2 Rt Lower Tibia Fz

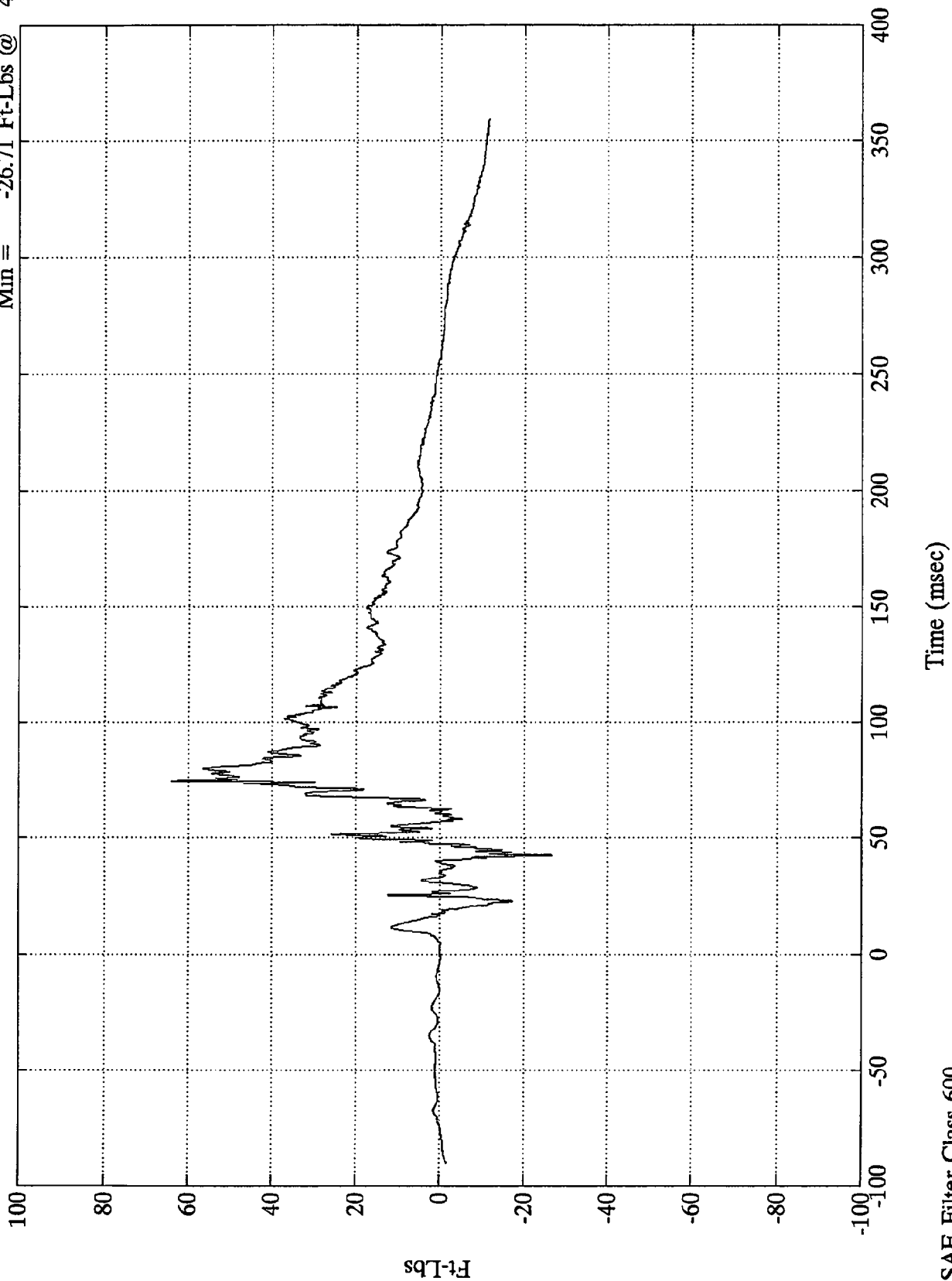


SAE Filter Class 600

208 Test #7 - 1997 Lincoln Mark VIII

P1 Rt Lower Tibia My

Max = 63.96 Ft-Lbs @ 74.63 msec
Min = -26.71 Ft-Lbs @ 42.59 msec



Appendix C

VEHICLE OWNERS MANUAL OCCUPANT RESTRAINT SYSTEM INSTRUCTIONS

The easy in/easy out feature of the driver seat moves the seat two inches forward when:

- ☐ the transmission is in N (Neutral) or P (Park)
- ☐ the driver safety belt is buckled
- ☐ the ignition switch is turned to ON.

Important Safety Belt Information

The use of safety belts helps to restrain you and your passengers in case of a collision. In most states and in Canada, the law requires their use.

Safety belts provide best restraint when:

- ☐ the seatback is upright
- ☐ the occupant is sitting upright (not slouched)
- ☐ the lap belt is snug and low on the hips

- ☐ the shoulder belt is snug against the chest
- ☐ the knees are straight forward

To help you remember to fasten your safety belt, a warning light may come on and a chime may sound. See *Safety Belt Warning Light and Chime* in the *Instrumentation* chapter.

See the following sections in this chapter for directions on how to properly use these safety belts. Also see *Safety Restraints for Children* in this chapter for special instructions about using safety belts for children.

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WARNING

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and safety belts. Be sure everyone in your vehicle is in a seat and using a safety belt properly.

WARNING

Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

WARNING

Each seating position in your vehicle has a specific safety belt assembly which is made up of one buckle and one tongue that are designed to be used as a pair. 1) Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. 2) Never swing it around your neck over the inside shoulder. 3) Never use a single belt for more than one person.

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⚠ WARNING

Ford recommends that all safety belt assemblies and attaching hardware should be inspected by a qualified technician after any collision. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

⚠ WARNING

Children should always ride with the seatback in the fully upright position.

⚠ WARNING

Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.

⚠ WARNING

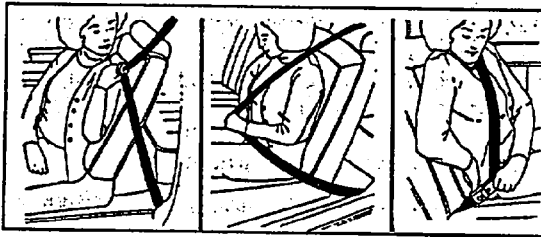
Lock the doors of your vehicle before driving to lessen the risk of the door coming open in a collision.

Combination Lap and Shoulder Belts

While your vehicle is in motion, the combination lap and shoulder belt adjusts to your movement. However, if you brake hard, corner hard or if your vehicle receives an impact of 5 mph (8 km/h) or more, the lap and shoulder belt locks and helps reduce your forward movement.

After you get into your vehicle, close the door and lock it. Then adjust the seat to the position that suits you best.

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Fastening the combination lap and shoulder belt



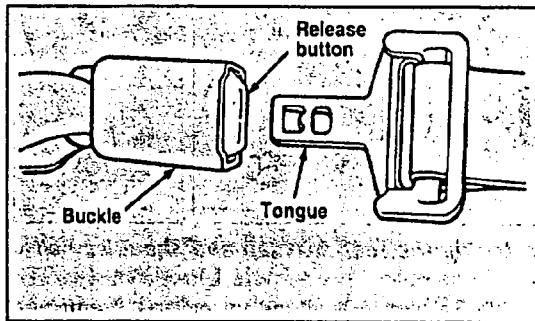
Fastening the rear seat lap and shoulder belt

NOTE: Be sure to read and understand *Important Safety Belt Information* in this chapter.

To adjust the lap part of the belt, pull up on the shoulder belt until the lap belt fits snugly and as low as possible around your hips.

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While the belt retracts, guide the tongue to its original position to prevent it from striking you or the vehicle.



Unfastening the lap/shoulder belts

Right Front or Rear Window Seating Positions

Your vehicle is equipped with a dual locking mode retractor on the shoulder belt portion of the combination lap/shoulder safety belt for front seat passenger and rear outboard passengers.

Dual locking mode retractors operate in two ways:

Vehicle sensitive (emergency) locking mode

In this operating mode, the shoulder belt retractor will allow the occupant freedom of movement, locking tight only on hard braking, hard cornering or impacts of approximately 5 mph (8 km/h) or more. The retractor can also be made to lock by pulling the belt out quickly.

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Automatic locking mode

In this operating mode, the shoulder belt retractor will be automatically locked and will remain locked when the combination lap/shoulder safety belt is buckled, and does not allow the occupant freedom of movement. This mode provides the following:

- ☐ A tight lap/shoulder belt on the occupant.
- ☐ Child seat installation restraint.

⚠ WARNING

Rear-facing child seats or infant carriers should never be placed in the front seats.

This mode must be used when installing a child seat on the front passenger seat and rear window seats where dual locking retractors are provided. To switch the retractor from the emergency locking mode to the automatic locking mode, perform the following steps:

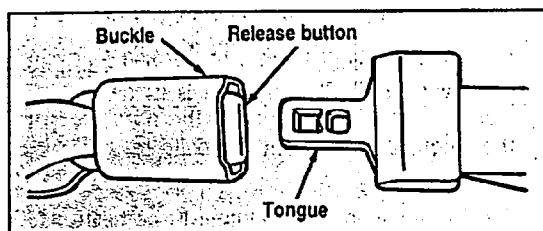
1. Buckle the lap/shoulder combination belt.
2. Grasp the shoulder portion of the belt and pull downward until all of the belt is extracted and a click is heard. At this time, the retractor is in the automatic locking mode (child restraint mode).
3. A clicking sound will continue to be heard as the belt is allowed to retract.

NOTE: When the combination lap/shoulder belt is unbuckled and allowed to retract completely, the retractor will switch to the vehicle sensitive (emergency) locking mode. See the detailed instructions under *Safety Seats for Children* in this chapter.

Lap Belts

The lap belt in the center of the rear seat does not adjust automatically. You must adjust it to fit snugly and as low as possible around your hips. Do not wear it around your waist.

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Unfastening the center rear lap safety belt

NOTE: Be sure to read and understand *Important Safety Belt Information* in this chapter.

Pull the belt across your hips and insert the tongue into the correct buckle on your seat until you hear a snap and feel it lock. Make sure the buckle is securely fastened.

If you need to lengthen the belt, unfasten it and tip the belt tongue at a right angle to the belt. Pull the belt tongue over your lap until it reaches the buckle.

If you need to shorten the belt, pull on the loose end of the webbing until the belt fits snugly.

To unfasten the belt, push the release button on the buckle. This allows the tongue to unlatch from the buckle.

Safety Belt Extension Assembly

For some people, the safety belt may be too short even when it is fully extended. You can add about eight inches (20 cm) to the belt length with a safety belt extension assembly (part number 611C22). Safety belt extensions are available at no cost from your dealer.

Use only extensions manufactured by the same supplier as the safety belt. Manufacturer identification is located at the end of the webbing on the label. Also, use the safety belt extension only if the safety belt is too short for you when fully extended. Do not use extension to change the fit of the shoulder belt across the torso.

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⚠ WARNING

Failure to follow these instructions will affect the performance of the safety belts and increase the risk of personal injury.

Safety Belt Maintenance

Check the safety belt systems periodically to make sure that they work properly and are not damaged.

All safety belt assemblies, including retractors, buckles, front seat belt buckle support assemblies (slide bar) (if equipped), shoulder belt height adjusters (if equipped), child safety seat tether bracket assemblies (if equipped), and attaching hardware, should be inspected after any collision. Ford recommends that all safety belt assemblies used in vehicles involved in a collision be replaced.

However, if the collision was minor and a qualified technician finds that the belts do not show damage and continue to operate properly, they do not need to be replaced. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

Air Bag Supplemental Restraint System (SRS)

Important Air Bag Precautions

Your vehicle is equipped with a supplemental restraint system designed to work with the safety belts to help protect you and your right front seat passenger in the event of a collision. The Air Bag Supplemental Restraint System is primarily designed to reduce certain upper body injuries.

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⚠ WARNING

All occupants of the vehicle, including the driver, should always wear their safety belts, failure to do so may increase the risk of personal injury in the event of a collision.

⚠ WARNING

The right front passenger air bag is not designed to restrain occupants in the center front seating position.

⚠ WARNING

Do not place objects or mount equipment on or near the air bag covers that may come into contact with an inflating air bag. Failure to follow these instructions may increase the risk of personal injury in the event of a collision.

⚠ WARNING

Do not attempt to service, repair, or modify the air bag Supplemental Restraint System or its fuses. See your Ford or Lincoln-Mercury dealer.

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⚠ WARNING

If you are close to an inflating air bag, it could seriously injure you. Position your seat such that it is as far back from the steering wheel as possible but still allows you to properly control the vehicle.

⚠ WARNING

Rear-facing child seats or infant carriers should never be placed in the front seats.

Children and Air Bags

NOTE: For additional important safety information on the proper use of seat belts, child seats, and infant seats, please read the entire Safety Restraints chapter in this owner guide.

⚠ WARNING

Children should always wear their safety belts. Failure to follow these instructions may increase the risk of personal injury in the event of a collision.

How Does the Air Bag Supplemental Restraint System Work?

The Air Bag Supplemental Restraint System is designed to activate when the vehicle is in a collision similar to hitting a fixed barrier head on at 8-14 mph (13-23 km/h). The fact that the air bags did not inflate in a collision does not mean that something is wrong with the system. Rather, it means the forces were not of the type sufficient to cause activation.

If the vehicle is in a moderate or severe frontal collision, the system is activated and the air bags inflate rapidly. After the air bag inflates, it will quickly deflate. After the air bag deployment, you may notice a smoke-like, powdery residue or smell

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the burnt propellant. This is normal. The residue may consist of cornstarch or talcum powder (which is used to lubricate the air bag) or sodium compounds, such as sodium carbonates (e.g. baking soda) that result from the combustion process that inflates the air bag. Small amounts of sodium hydroxide may be present which may irritate the skin and eyes, but none of the residue is toxic. The Air Bag Supplemental Restraint System will reduce, but not eliminate all injuries in an accident.

⚠ WARNING

Several air bag system components get hot after inflation. Do not try to touch them after inflation.

⚠ WARNING

The air bag will inflate only once. The system is designed to function on a one-time-only basis. If the air bag is inflated, THE AIR BAG WILL NOT FUNCTION AGAIN AND MUST BE REPLACED IMMEDIATELY. If the air bag is not replaced, this will increase the risk of injury in a subsequent collision.

The Air Bag Supplemental Restraint System consists of:

- ☐ driver and passenger air bag modules (which include the inflators and air bags),
- ☐ one or more impact and safing sensors,
- ☐ a system diagnostic module,
- ☐ a readiness light and tone,

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- ☐ and the electrical wiring which connects the components.

The diagnostic module monitors its own circuits, the air bag electrical system, the air bag readiness light, the air bag power, and the air bag inflators.

Determining if System Is Operational

The Air Bag Supplemental Restraint System uses a readiness light and a tone to indicate the condition of the system. The readiness light is in the instrument cluster. When you turn the ignition key to ON, this light will illuminate for approximately six (6) seconds and then turn off. This indicates that the system is operating normally. NOTE: Routine maintenance of the air bag system is not required.

A problem with the system is indicated by one or more of the following:

- ☐ the readiness light will either flash or stay lit,
- ☐ the readiness light will not light immediately after ignition is turned on,
- ☐ a group of five beeps will be heard. The tone pattern will repeat periodically until the problem and light are repaired.

If any of these things happen, even intermittently, have the Air Bag Supplemental Restraint System serviced at your Ford or Lincoln-Mercury dealer immediately. Unless serviced, the system may not function properly in the event of a collision.

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