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212-CAL-94-5
301-CAL-94-5

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

**CHRYSLER CORPORATION
1994 CHRYSLER NEW YORKER
4-DOOR SEDAN**

NHTSA NUMBER: CR0300

CALSPAN TEST NUMBER: 8145-5

NOVEMBER 18, 1993

**CALSPAN CORPORATION
ADVANCED TECHNOLOGY CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225**



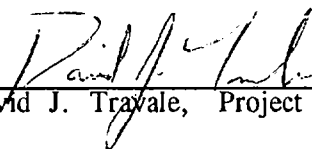
FINAL REPORT

PREPARED FOR:

**U. S. Department of Transportation
National Highway Traffic Safety Administration
ENFORCEMENT
Office of Vehicle Safety Compliance
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Washington, DC 20590**

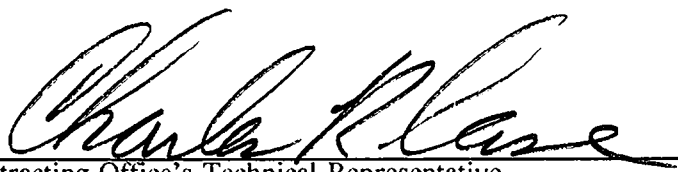
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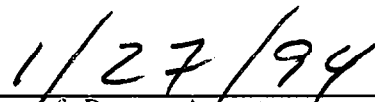
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				6. Performing Organization Code CAL	
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9. Performing Organization Name and Address Calspan Advanced Technology Center P.O. Box 400 Buffalo, New York 14225				10. Work Unit No.	
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16. Abstract A 30 mph vehicle safety compliance test was conducted on a 1994 Chrysler New Yorker 4-door sedan. This test was performed at the Calspan Advanced Technology Center in Buffalo, New York on November 18, 1993. 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 29.6 mph. The ambient temperature at the impact face was 71 °F. The subject test vehicle appears to comply with the requirements of FMVSS Nos. 212, 219 (partial), and 301. The vehicle does not appear to comply with FMVSS No. 208. The driver 3 msec. clipped chest G's exceeded the 60 g limit. <u>Type of Restraint System:</u> The test vehicle was equipped with both a driver side and right front passenger air bag. The manual 3-point 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 Advanced Technology Center under Contract No. DTNH22-90-D-02121. The purpose of this test was to determine if the subject vehicle, a 1994 Chrysler New Yorker 4-Door Sedan, 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-208-08, dated September 8, 1989.

Section 2

SUMMARY OF TEST NUMBER CR0300

A frontal barrier was impacted by a 1994 Chrysler New Yorker 4-Door Sedan at a velocity of 29.6 mph. The test was performed at the Calspan Corporation Advanced Technology Center on November 18, 1993. 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 accelerometers (x,y, and z), chest displacement potentiometers and left/right femur load cells. These ATDs had been certified prior to the test.

The 25 channels of data were recorded on a P.C. based data acquisition system. Appendix B contains the vehicle and dummy response data traces. A loose amplifier board caused portions of intermittent data on the ATD femurs. The peak femur loads measured occur at approximately the same time as in the Office of Vehicle Safety Compliance's test of a 1993 Eagle Vision and Chrysler's certification test of a 1994 New Yorker. The position 2 chest Y data was not obtained due to a resistor lead which sheared during the impact. The position 2 chest clip value was determined without the chest Y value. The design of the amplifier boards is such that a problem occurring on one channel can in no way influence other data channels.

The driver's HIC was 508. The maximum chest deceleration over 3 milliseconds was 62.9 g's with 0.7 inches of deflection. The maximum force on the driver's left femur was 1430 pounds and 1630 pounds on the right femur. The stated femur loads do not consider data recorded during the periods where the loose amplifier board affected the collection of the femur data.

The right front passenger's HIC was 356. The maximum chest deceleration over 3 milliseconds was 41.3 g's without the Y data. The chest experienced 0.8 inches of deflection. Loads of 1730 and 1798 pounds were recorded on the left and right femurs respectively. The stated femur loads do not consider data recorded during the periods where the loose amplifier board affected the collection of the femur data.

The vehicle was not rolled over post-test due to the chest G value obtained on the driver. The vehicle did not leak stoddard during the 30 minute interval after the test.

Table 1

CRASH TEST SUMMARYVehicle NHTSA No. : CR0300 Test Mode : 30 mph Frontal BarrierTest Date : 11/18/93 Time: 1:35 PM Temperature : 71 °FVehicle Make/Model/Body Style : 1994 Chrysler New Yorker 4-Door SedanVehicle Test Weight : 4,080 lbsVehicle/Barrier Impact Angle : 0 °Impact Velocity : 29.6 mphMaximum Static Crush : 18.0 inchesVehicle Rebound : 12.5 inchesDUMMIES:DRIVERPASSENGER

Type :

Part 572EPart 572E

Restraint System :

AirbagAirbagNumber of Data Channels : 25Number of Cameras : 1 Real Time14 High SpeedDOOR OPENING DATA :Closed/Operable- Left FrontClosed/Operable- Right Front

Front Seat(s) Data :

DRIVERPASSENGER

Seat Track Failure :

0.0"0.0"

Inches ofshift

Seat Back Failure :

NoneNoneVISIBLE DUMMY CONTACT POINTS :DRIVERPASSENGER

Head :

Face w/ airbag , rear of
head w/ headrestFace w/airbag, top and
rear of head grazed
sunvisor, rear of head
w/ head rest.

Abdomen :

No contactAirbag

Chest

AirbagAirbag

Knees

Lower dash panel.Right w/glove box door,
left w/ glove box door
latch.

Table 2

GENERAL TEST AND VEHICLE PARAMETER DATATEST VEHICLE INFORMATION :

Year/Make/model/Body Style : 1994 Chrysler New Yorker 4-Door Sedan

NHTSA No. : CR0300 ; VIN: 2C3ED46F0RH107401 ; Color : Sapphire Blue

Engine Data: 6 cylinders; - CID; 3.5 Liters; - cc

Placement : - Longitudinal or In-Line; X Transverse of Lateral

Transmission Data : 4 speeds; - Manual; X Automatic; - Overdrive

Final Drive : - Rear Wheel Drive; X 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 : 9/30/93 ; Odometer Reading 57.0 miles

Selling Dealer : SHERIDAN CHRYSLER-PLYMOUTH, INC.

& Address: 3845 Sheridan Dr. Buffalo, N.Y. 14226

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by : CHRYSLER CORPORATION

Date of Manufacture August, 1993

GVWR : 4675 lbs.; GAWR: 2663 lbs. FRONT; 2087 lbs. REAR

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load : 30 psi FRONT
30 psi REAR

Recommended Tire Size : (Min.) P205/70R15 95S

* Recommended Cold Tire Pressure : 30 psi FRONT; 30 psi REAR

Size of Tires on Test Vehicle: P225/60R16 (97S) ; Manufacturer: GOODYEAR

Vehicle Capacity Data :

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

Number of Occupants: 3 Front; 3 Rear; 6 Total

Vehicle Capacity Weight (VCW) = 1015 lbs.

No. of Occupants x 150 lbs. = 900 lbs.

Rated Cargo/Luggage Weight (RCLW) = 115

*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	=	1100	lbs.	Right Rear	=	700	lbs.
Left Front	=	1180	lbs.	Left Rear	=	670	lbs.
TOTAL FRONT	=	2,280	lbs.	TOTAL REAR	=	1,370	lbs.
TOTAL DELIVERED WEIGHT = 3,650.0 lbs.							
% of Total Front of Vehicle Weight = 62				% of Total Rear Weight = 37.5 %			

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT :

Total Delivered Weight	=	3,650	lbs.
Rated Cargo/Luggage Weight (RCLW)	=	115	lbs.
Weight of 2 p.572 Dummies @ 167 each	=	334	lbs.
TARGET TEST WEIGHT	=	4,099	lbs.

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 96 POUNDS OF CARGO WEIGHT:

Right Front	=	1170	lbs.	Right Rear	=	860	lbs.
Left Front	=	1220	lbs.	Left Rear	=	830	lbs.
TOTAL FRONT	=	2,390	lbs.	TOTAL REAR	=	1,690	lbs.
TOTAL TEST WEIGHT = 4,080.0 lbs.							
% of Total Front Weight = 58.6 %				% of Total Rear Weight = 41.4 %			
Weight of Ballast Secured in Vehicle Trunk Area = 125 lbs.							
Vehicle Components Removed for Weight Reduction:				None			

VEHICLE ATTITUDE (all dimension in inches) :

AS DELIVERED :	RF	29.0	LF	28.9	RR	28.5	LR	28.4
FULLY LOADED :	RF	28.3	LF	27.9	RR	26.3	LR	26.3
AS TESTED :	RF	28.8	LF	28.7	RR	27.7	LR	27.7
Vehicle's Wheel Base : 113.3 in.								
Location of Vehicle's C.G. : 46.9 inches rearward of front wheel center.								

FUEL SYSTEM DATA :

Fuel System Capacity From Owner's Manual	=	18.0	gallons
Usable Capacity Figure Furnished by COTR	=	18.0	gallons
Test Volume Range (92 to 94% of Usable Capacity)	=	16.6	to 16.9 gallons
ACTUAL TEST VOLUME	=	16.7	gallons (with entire fuel system filled)

Table 3

POST IMPACT DATATYPE OF TEST:

Type of Test : Frontal Barrier Impact Angle : 0°
 Test Date : 11/18/93 Time: 1:35 PM Temperature: 71 °F
 Vehicle NHTSA No. : CR0300
 Required Impact Velocity Range : 28.9 to 29.9 mph

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

Trap No. 1 = 29.6 mph; Trap No. 2 = 29.6 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 = 202.1 ; C/L = 207.2 ; Left = 202.0
 Post-Test Right = 186.5 ; C/L = 189.2 ; Left = 188.5
 Crush Right = 15.6 ; C/L = 18.0 ; Left = 13.5
 AVERAGE = 15.7 inches

VEHICLE REBOUND: (From rigid barrier only.)

Distance from front of test vehicle to impact point :

Right = 15.0 ; C/L = 12.5 ; Left = 13.0
 AVERAGE = 13.5 inches

DOOR OPENING :

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

SEAT MOVEMENT :

	Seat Back Failure	Seat Shift
Front	<u>None</u>	<u>0.0</u>
Rear	<u>N/A</u>	<u>N/A</u>

Table 3

POST IMPACT (cont.)

GLAZING DAMAGE :

Windshield cracked near "A" pillars. Stress fractures down center of windshield.

OTHER NOTABLE IMPACT FEATURES :

Steering column stroked, toe pan deformed on both sides, hood seperated from latch during impact. Steering column adjustment lever broken, column loose after test.

Section 3

OCCUPANT AND VEHICLE DATA

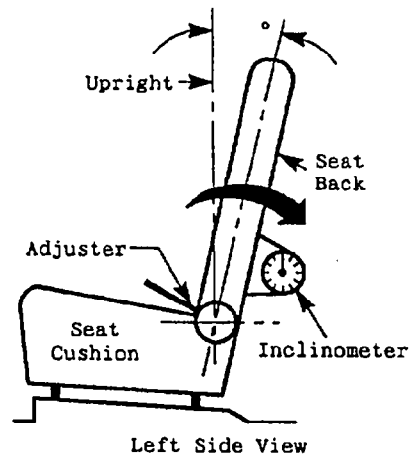
Figure 1

TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year : 1994 Vehicle Model: New Yorker Body Style : 4-Door Sedan

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.



Seat back angle for driver's seat : 15.5 deg.

Measurement instructions : Measure angle of headrest supports. Angle measured from vertical.

Power seatback angle adjuster.

Seat back angle for passenger's seat : 15.5 deg.

Measurement instructions : Same as driver. Manual seatback angle adjuster.

2. Seat Fore and Aft Positioning

Positioning of the driver's seat : Power fore/aft seat adjustment. Position seat in midpoint.

Positioning of the passenger's seat (if applicable) : Seat placed in 12th detent (midposition) of 23 total detents.

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 N/A gallons

4. Steering Column Position :

Column placed 1 click up from lowest position and 2 clicks down from the highest position.

5. Other:

Seat belts not used for this test. Adjustable driver seat in lowest position, lumbar support off.

Figure 2

PART 572 DUMMY IN-VEHICLE POSITION

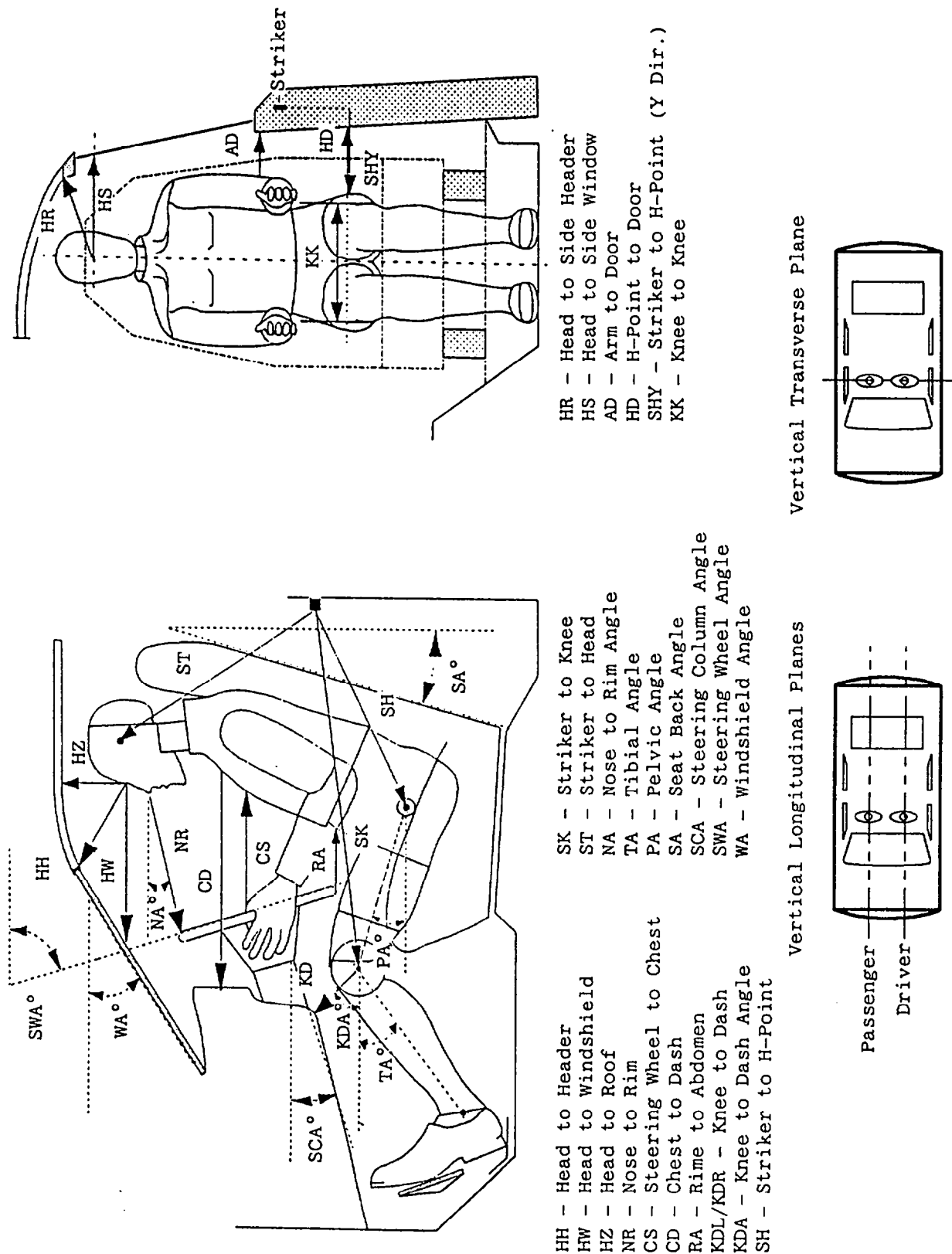


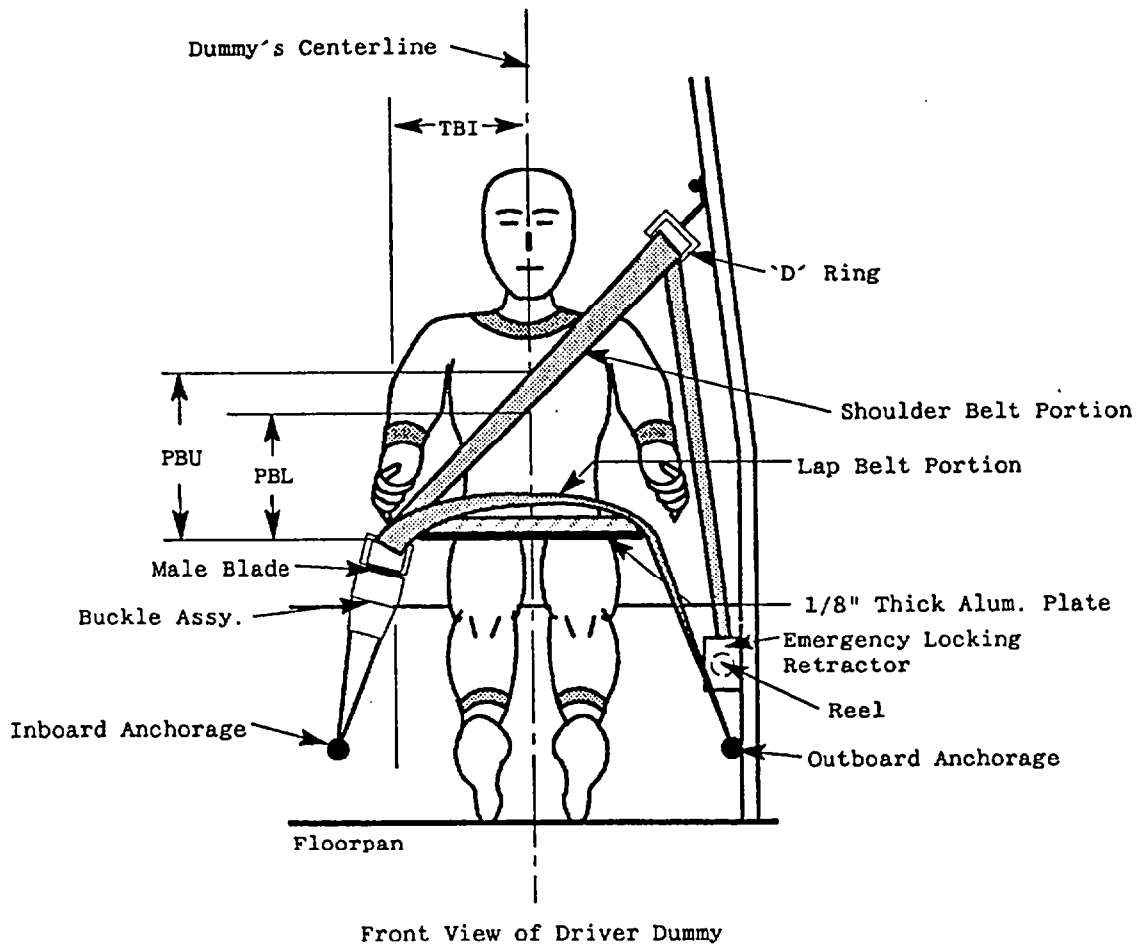
Table 4

FRONT SEAT OCCUPANT MEASUREMENTS

	DRIVER (Serial #341)	PASS. (Serial #342)
WA°	24.5 deg.	-
SWA°	72 deg.	-
SCA°	18 deg.	-
SA°	15.5 deg.	15.5 deg.
HZ	7.4	6.4
HH	13.4	12.8
HW	26.1	24.2
HR	8.8	7.6
NR	13.3 Angle 10.0 deg.	-
CD	20.3	18.2
CS	11.4	-
RA	8.0	-
KDL	6.4 Angle (KDA) 33.0 deg.	5.4
KDR	6.6	6.1 Angle (KDA) 33 deg.
PA°	24.0 deg.	24 deg.
TA°	38.0 deg.	43 deg.
KK	15.1	12.6
ST	19.4 Angle 14 deg.	20.5 Angle 14 deg.
SK	22.3 Angle 97 deg.	23.0 Angle 95 deg.
SH	9.7 Angle 133.0 deg.	9.4 Angle 133.0 deg.
SHY	10.5	10.4
HS	14.6	13.1
HD	6.0 (To door pocket).	6.1 (To door pocket).
AD	4.9	4.8

Figure 3

SEAT BELT POSITIONING DATA

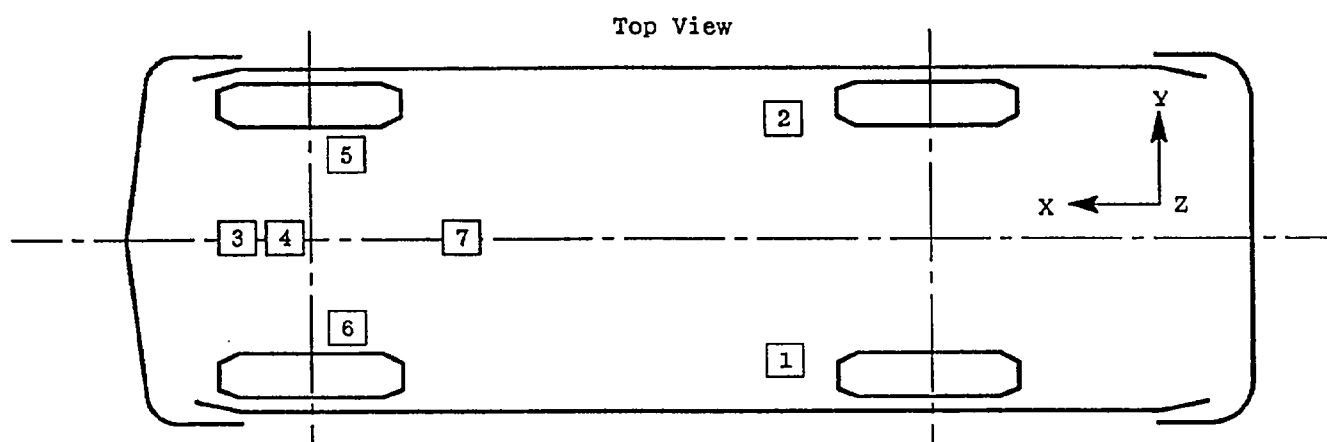


	DRIVER DUMMY (inches)	PASSENGER DUMMY (inches)
<u>PBU</u> -- Top surface of alum. plate to upper edge	*	*
<u>PBL</u> -- Top surface of alum. plate to belt lower edge	*	*
<u>TBI</u> -- Distance from torso centerline to buckle	*	*

* Driver and Passenger airbags only, seat belts not used for this test.

Figure 4

VEHICLE ACCELEROMETER LOCATIONS



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	Left Disc Brake Caliper	X		
7	Instrument Panel	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

NO.	LOCATION		X*	Y*	Z*	POSITIVE DIRECTION**		NEGATIVE DIRECTION**	
						MAX (g)	TIME (msec)	MAX (g)	TIME (msec)
1	REAR SEAT X-MEMBER AT LEFT SIDE LONGITUDINAL ACCELERATION	PRE:	81.9	22.6	15.3				
		POST:	81.9	22.6	15.5				
						2.7	131.5	-27.1	56.3
2	REAR SEAT X-MEMBER AT RIGHT SIDE LONGITUDINAL ACCELERATION	PRE:	81.9	-22.6	15.3				
		POST:	81.9	-22.6	15.5				
						2.0	134.3	-29.5	53.5
3	TOP OF ENGINE BLOCK LONGITUDINAL ACCELERATION	PRE:	181.8	-10.0	29.8				
		POST:	172.0	-10.0	31.0				
						38.5	46.6	-105.5	33.8
4	BOTTOM OF ENGINE LONGITUDINAL ACCELERATION	PRE:	177.4	3.9	9.9				
		POST:	167.9	3.9	10.9				
						39.2	44.5	-111.4	33.4
5	BRAKE CALIPER AT RIGHT SIDE LONGITUDINAL ACCELERATION	PRE:	159.6	-25.1	18.5				
		POST:	155.9	-24.7	18.4				
						27.7	70.4	-64.8	52.1
6	BRAKE CALIPER AT LEFT SIDE LONGITUDINAL ACCELERATION	PRE:	159.6	25.1	18.5				
		POST:	156.3	24.7	18.5				
						27.5	75.6	-59.3	41.9
7	DASH PANEL LONGITUDINAL ACCELERATION	PRE:	127.1	-3.8	30.3				
		POST:	127.2	-3.8	32.5				
						53.0	60.4	-58.5	55.0

*X + Forward from rear bumper
Y + Left from vehicle centerline
Z + Up from ground

**
LONGITUDINAL:
LATERAL:
VERTICAL:

POSITIVE
FORWARD
LEFTWARD
UPWARD

NEGATIVE
REARWARD
RIGHTWARD
DOWNWARD

DISTANCE MEASUREMENTS IN INCHES

Figure 5

CAMERA POSITIONS FOR FRONTAL IMPACTS

NOTE: Camera Information shown on Table.

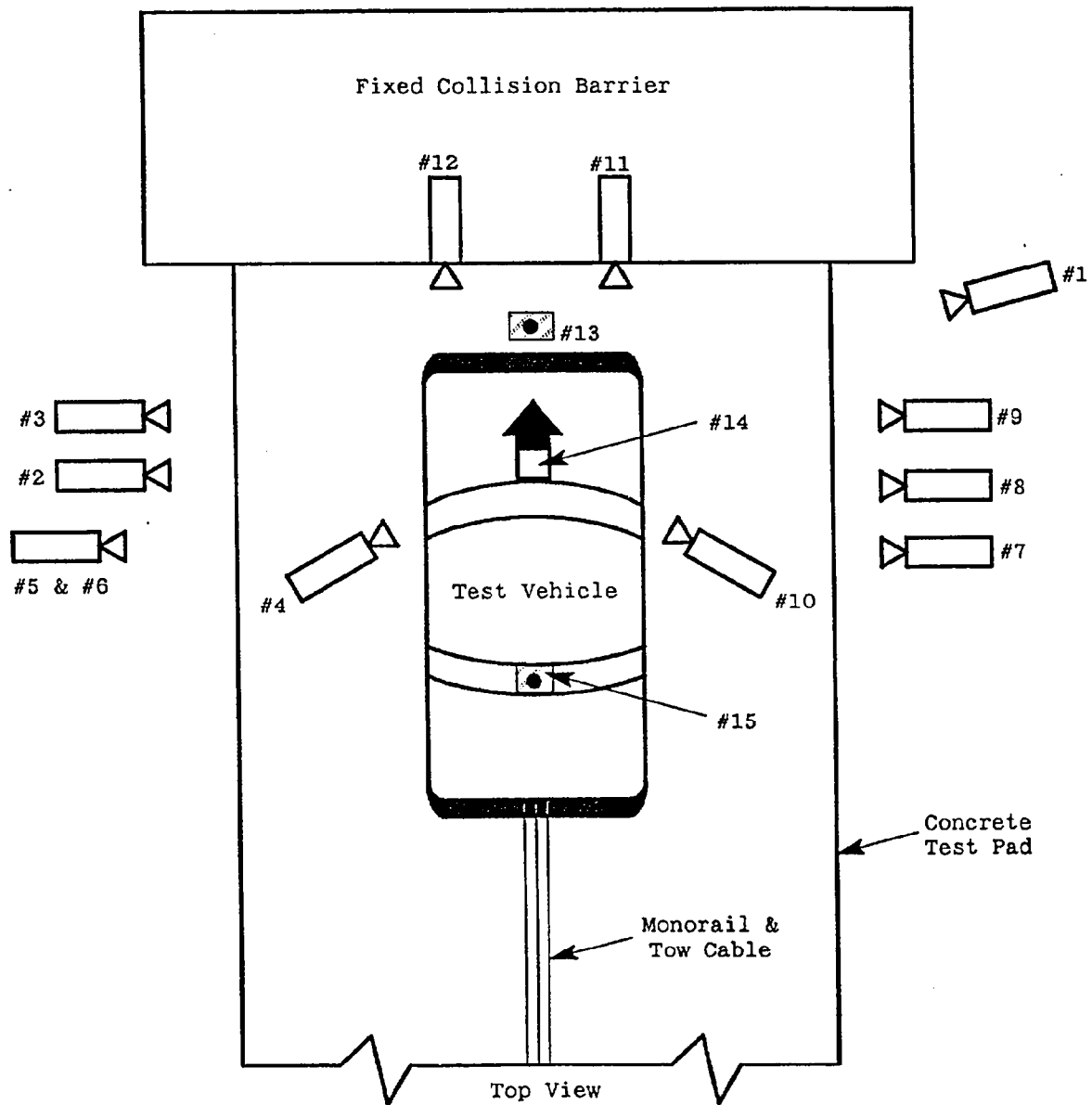


Table 6

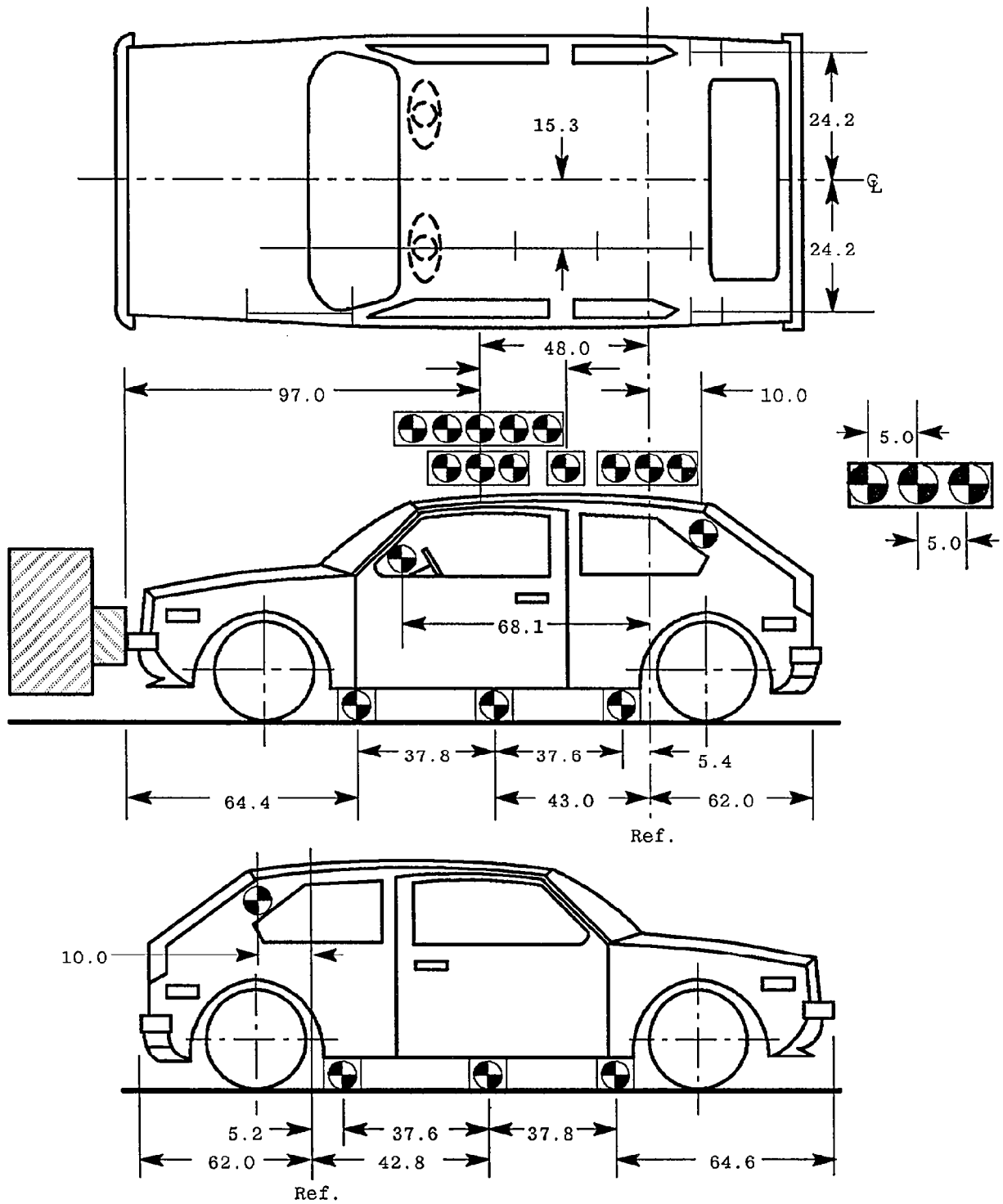
HIGH-SPEED CAMERA LOCATIONS

Test No.	Camera No.	VIEW	CAMERA POSITION (In.)*			ANGLE** (deg)	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
			X	Y	Z				
	1	Real-Time Camera	-	-	-	-	-	-	24
	2	Overall Left Side	256.0	70.8	42.0	-3	237.7	13	1025
	3	Left Side View	339.0	43.5	41.0	-3	320.7	25	975
	4	Driver and Interior View	121.0	113.0	73.0	-23	-	13	1000
	5	Steering Column (Bottom)	292.0	84.4	46.0	-5	273.7	25	1060
	6	Steering Column (Top)	292.0	84.4	70.0	-10	273.7	25	1015
	7	Overall Right Side	268.0	86.0	40.0	-3	249.7	13	925
	8	Right Side View	328.0	64.0	41.0	-2	309.7	25	975
	9	Right Passenger View	316.0	83.0	54.0	-3	297.7	35	1015
	10	Passenger and Interior View	118.0	116.0	75.0	-21	-	13	850
	11	Passenger Front View	22.0	20.0	78.0	-38	-	13	975
	12	Driver Front View	22.0	19.0	77.0	-37	-	13	1005
	13	Windshield View	0.0	0.0	127.0	-55	-	13	1100
	14	Pit View of Engine	0.0	30.0	-86.0	90	-	13	705
	15	Pit View of Fuel Tank	0.0	117.0	-86.0	90	-	13	740

*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



(Dimensions in inches)

Figure 7

TEST VEHICLE MEASUREMENTS

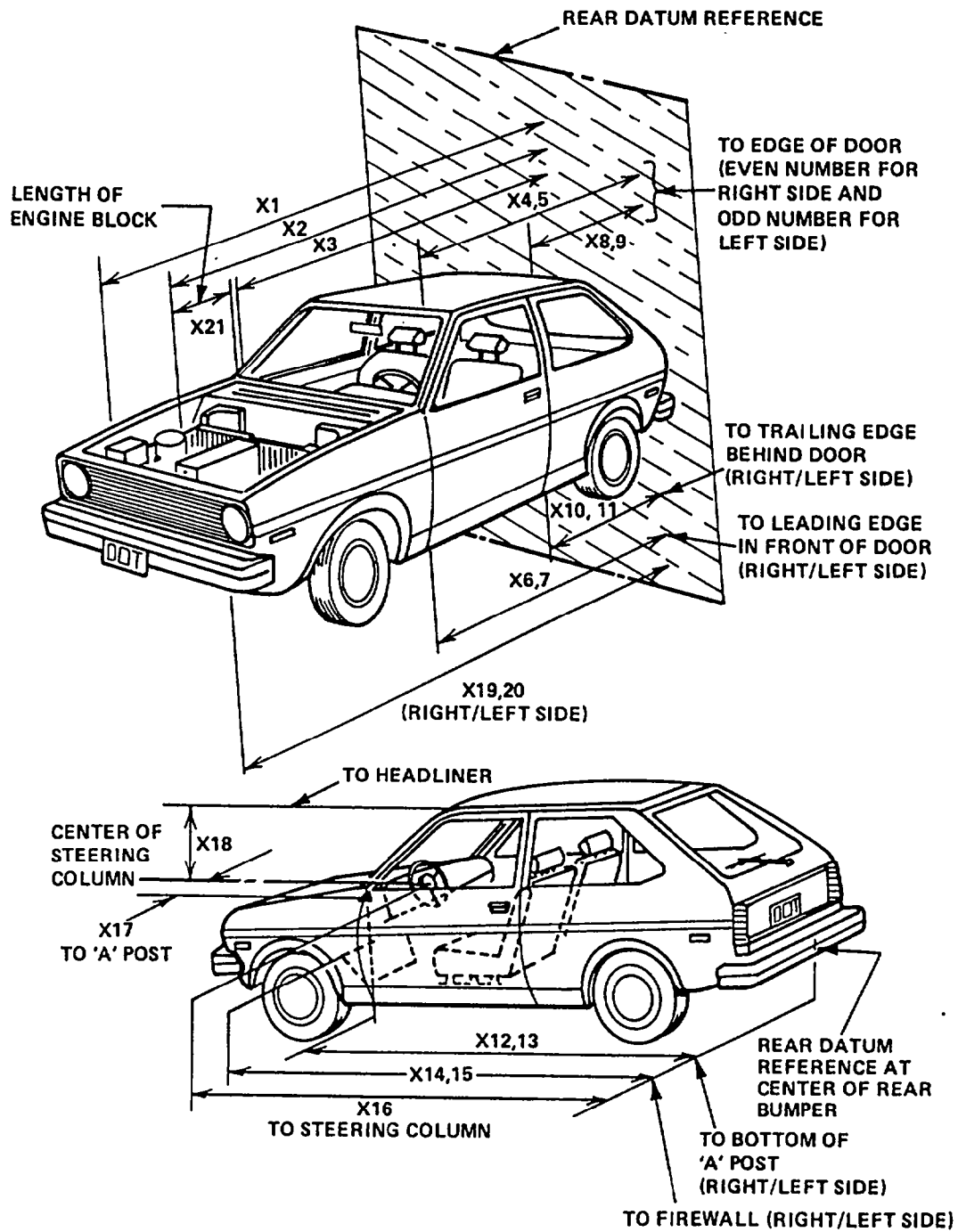


Table 7

VEHICLE MEASUREMENTS

No.		All Dimensions in inches		
		Pre-Test	Post-Test	Differences
X1	Total Length of Vehicle at Centerline	207.2	189.2	18.0
X2	Rear Surface of Vehicle to Front of Engine	180.0	169.4	10.6
X3	Rear Surface of Vehicle to Firewall	162.0	154.0	8.0
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	143.6	143.7	-0.1
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	143.7	143.5	0.2
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	141.1	141.2	-0.1
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	141.4	141.5	-0.1
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	100.3	100.1	0.2
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	100.4	100.2	0.2
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	100.1	100.0	0.1
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	99.8	99.8	0.0
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	143.0	142.9	0.1
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	143.1	143.2	-0.1
X14	Rear Surface of Vehicle to Firewall, Right Side	155.5	153.1	2.4
X15	Rear Surface of Vehicle to Firewall, Left Side	157.5	153.0	4.5
X16	Rear Surface of Vehicle to Steering Column	122.5	125.3	-2.8
X17	Center of Steering Column to "A" Post	15.4	15.5	-0.1
X18	Center of Steering Column to Headliner	16.3	14.0	2.3
X19	Rear Surface of Vehicle to Right Side of Front Bumper	202.1	186.5	15.6
X20	Rear Surface of Vehicle to Left Side of Front Bumper	202.0	188.5	13.5
X21	Length of Engine Block	26.5	26.5	0.0

Section 4

SUMMARY OF RESULTS OF FMVSS NOS. 208, 212, 219 AND 301-75

- "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. 301-75

Table 8

DUMMY INJURY CRITERIA VALUESNHTSA No. : CR0300 Vehicle : 1994 Chrysler New Yorker 4-Door Sedan

	MAXIMUM ACCELERATION (g's)								
	HEAD				CHEST				
	X	Y	Z	R	X	Y	Z	R*	Displacement
Dummy (1)	-59.5	-5.7	-48.5	67.1	-64.0	7.2	29.8	62.933	-0.7
Dummy (2)	-44.8	-11.2	29.8	52.8	-40.8	No data	16.2	41.332 ^a	-0.8

a - Chest 3 msec. clip calculated without chest Y data.

	MAXIMUM FORCE - FEMUR LOAD (lbs.)	
	LEFT FEMUR	RIGHT FEMUR
Dummy (1)	-1430.0 ^b	-1630.0 ^b
Dummy (2)	-1730.0 ^b	-1798.0 ^b

b - The femur loads do not consider data recorded during the periods where the loose amplifier board affected the data collection of these channels.

	HEAD INJURY CRITERIA**			
	HIC	36 millisecond Maximum		Avg. Acc (g)
		t ₁ (msec)	t ₂ (msec)	t ₁ TO t ₂
Dummy (1)	507.54	69.960	105.840	45.73
Dummy (2)	355.51	57.840	90.600	41.13

* 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 is located in glove box.

The label states the system is designed to be maintenance free. However if the "air bag "light does not come on momentarily when ignition is turned on, or comes on or flashes while driving, the system must be serviced promptly by an authorized dealer.

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

YES X 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 -

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 at bottom center of instrument cluster.

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. :	CR0300
Make/Model :	1994 Chrysler New Yorker 4-Door Sedan
Date of Comfort/Convenience Check :	11-16-93
Technician Performing Check :	DJT
GVWR :	4675 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 N/A 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 | <u>N/A</u> | NO | <u>N/A</u> |
| b. The latch plate is released from the buckle. | YES | <u>N/A</u> | NO | <u>N/A</u> |
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 | <u>N/A</u> | NO | <u>N/A</u> |
|--|-----|------------|----|------------|

(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 | <u>-</u> | NO | <u>X</u> |
|--|-----|----------|----|----------|
2. Seat are adjusted according to instructions in Appendix B.
- | | | | | |
|--|-----|----------|----|----------|
| | YES | <u>X</u> | NO | <u>-</u> |
|--|-----|----------|----|----------|
3. The test dummies are positioned according to dummy position placement instructions in Appendix B and Appendix C.
- | | | | | |
|--|-----|----------|----|----------|
| | YES | <u>X</u> | NO | <u>-</u> |
|--|-----|----------|----|----------|
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 | <u> X </u> | NO | <u> - </u> |
| 2. | Attach the inboard and outboard reach string. | YES | <u> X </u> | NO | <u> - </u> |
| 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 | <u> X </u> | NO | <u> - </u> |
| 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 | <u> X </u> | NO | <u> - </u> |

D5
RETRACTION

- | | | | | | |
|----|--|-----|--------------|----|--------------|
| 1. | Seats and seat backs are adjusted according to instructions in Appendix B "General Test Conditions" in TP - 208 - 8. | YES | <u> X </u> | NO | <u> - </u> |
| 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 | <u> X </u> | NO | <u> - </u> |
| 3. | Outboard armrests which are capable of being stowed on vehicle seats shall be placed in their stowed positions. | YES | <u> X </u> | NO | <u> - </u> |
| 4. | Check the option which applies to this test vehicle: | YES | <u> X </u> | NO | <u> - </u> |
| | 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 | <u> X </u> | NO | <u> - </u> |

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	<u>X</u>	NO	<u>-</u>
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	<u>X</u>	NO	<u>-</u>
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	<u>N/A</u>	NO	<u>N/A</u>

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	<u>X</u>	NO	<u>-</u>
2.	The remaining two seat belt parts are accessible under normal conditions.			
	YES	<u>X</u>	NO	<u>-</u>

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	<u>X</u>	NO	<u>-</u>
	b. The seat is moved to any position to which it is designed to be adjusted.				
		YES	<u>X</u>	NO	<u>-</u>
	c. The seat back, if foldable, is folded forward as far as possible and then moved backward into positions.				
		YES	<u>X</u>	NO	<u>-</u>
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	<u>X</u>	NO	<u>-</u>

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	<u>X</u>	NO	<u>-</u>
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	<u>X</u>	NO	<u>-</u>
3.	That releases at a single point by a push button action.				
		YES	<u>X</u>	NO	<u>-</u>

Figure 8

FMVSS NO. 212 - "WINDSHIELD MOUNTING" DATA SHEET

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC. :
Windshield is bonded in place with 0.6 inch rubber trim along the top and sides. The lower portion of the windshield is covered by a plastic shroud.

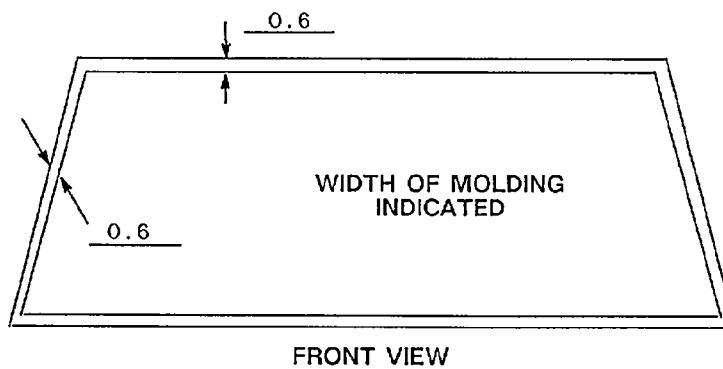
FMVSS 212 REQUIREMENTS :

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	93.25	93.25	100.0
LEFT SIDE	93.25	93.25	100.0
TOTAL	186.5	186.5	100.0

AREA OF RETENTION FAILURE:



FAILURE DETAILS :
NONE

Figure 9

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

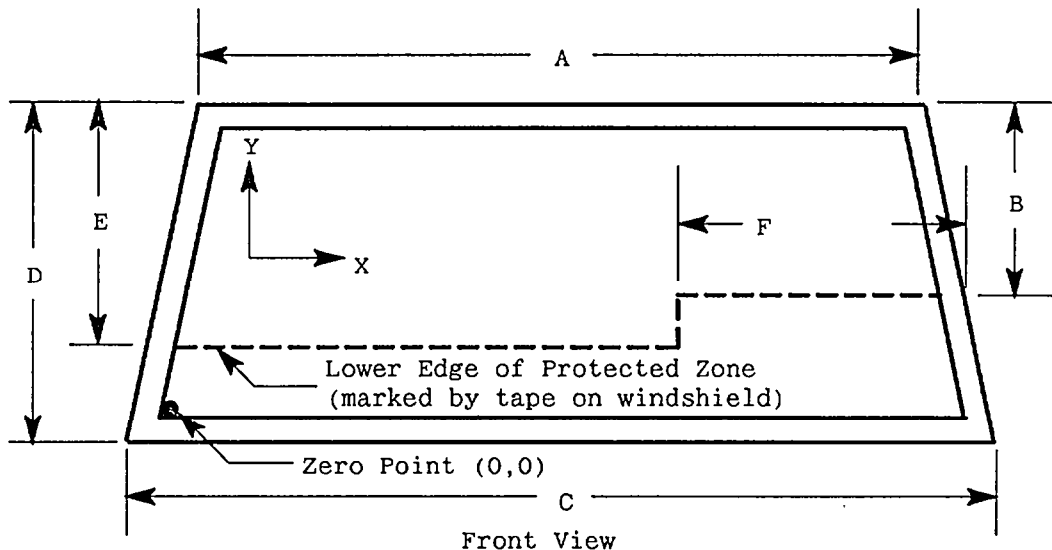
PROTECTED ZONE LOWER EDGE REQUIREMENT :

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

A= 48.8
B= 16.8
C= 70.5
D= 33.6
E= 19.9
F= 31.2



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

(Show location of penetration on above sketch)

None

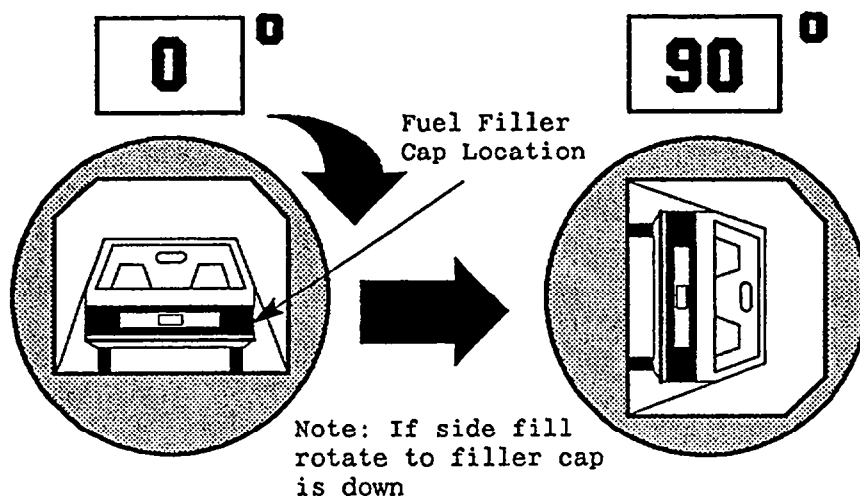
COORDINATES		
	X	Y
1		
2		
3		
4		

Table 14

FMVSS NO. 301 STATIC ROLLOVER DATA SHEETTEST PHASE :

Vehicle NHTSA ID No. :

CR0300

I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

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

FMVSS 301 Position Hold Time + _____ minutes _____ seconds

TOTAL _____ minutes _____ seconds

Next whole minute interval _____ 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 :

--	--	--	--

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

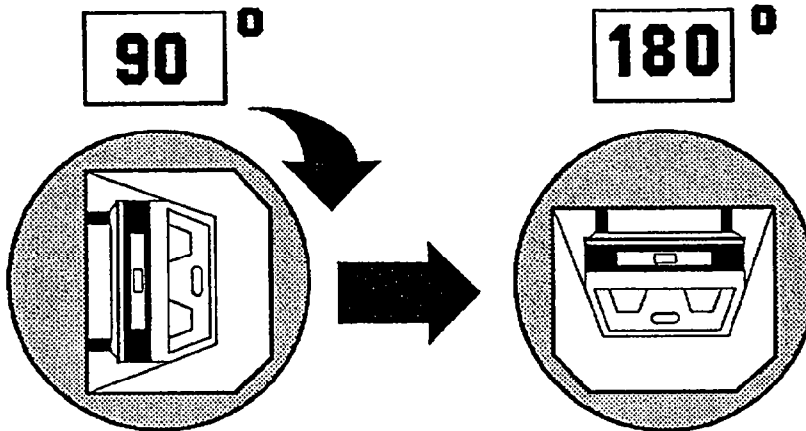
IV. SOLVENT SPILLAGE LOCATION(S) :

Vehicle rollover not performed on this vehicle.

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

TEST PHASE :

Vehicle NHTSA ID No. :
CR0300



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time _____ minutes _____ seconds
(Spec. Range = 1 to 3 minutes)
FMVSS 301 Position Hold Time + _____ minutes _____ seconds
TOTAL _____ minutes _____ seconds
Next whole minute interval _____ 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 :

--	--	--	--

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

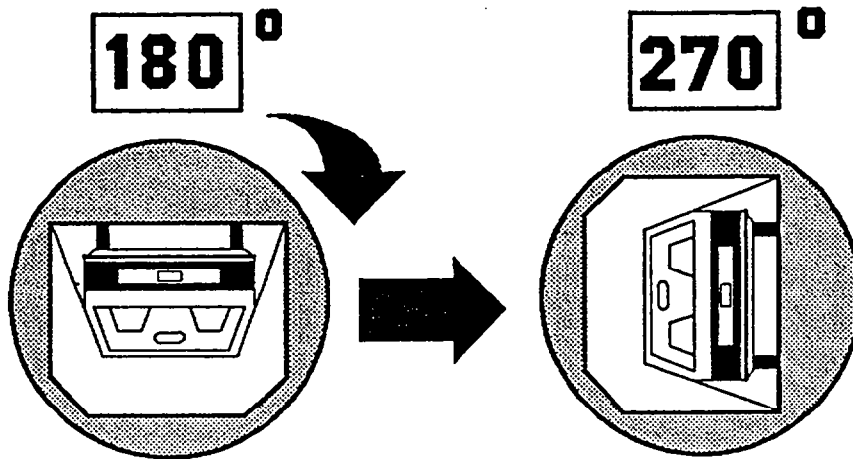
IV. SOLVENT SPILLAGE LOCATION(S) :

Vehicle rollover not performed on this vehicle.

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

TEST PHASE :

Vehicle NHTSA ID No. :
CR0300



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time _____ minutes _____ seconds
(Spec. Range = 1 to 3 minutes)
FMVSS 301 Position Hold Time + _____ minutes _____ seconds
TOTAL _____ minutes _____ seconds
Next whole minute interval _____ 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 :

--	--	--	--

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

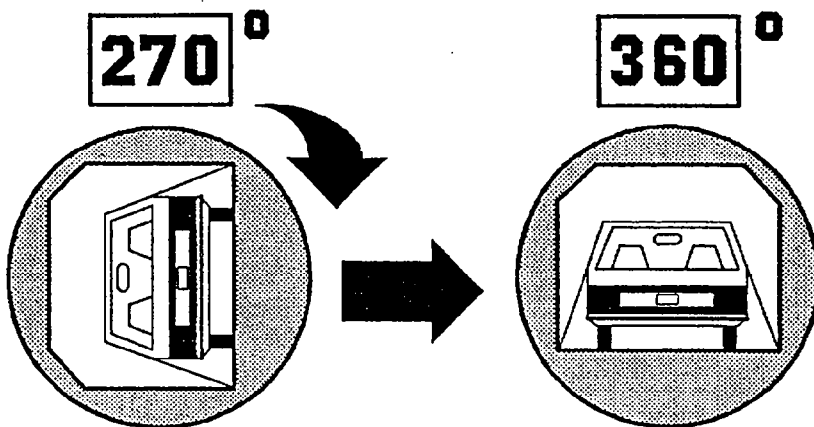
IV. SOLVENT SPILLAGE LOCATION(S) :

Vehicle rollover not performed on this vehicle.

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

TEST PHASE :

Vehicle NHTSA ID No. :
CR0300



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

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

FMVSS 301 Position Hold Time + _____ minutes _____ seconds

TOTAL _____ minutes _____ seconds

Next whole minute interval _____ 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 :

--	--	--	--

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

IV. SOLVENT SPILLAGE LOCATION(S) :

Vehicle rollover not performed on this vehicle.

Table 15
TEST VEHICLE NONCOMPLIANCE NOTICE

NHTSA Contract Lab : Calspan Advanced Technology Center
Lab Project Manager & Telephone No. : Walter E. Levan (716) 632 - 7500
Date of Test : 11/18/93 Vehicle NHTSA No. : CR0300
Vehicle Manufacturer : Chrysler Corporation
Model Year : 1994 VIN : 2C3ED46F0RH107401
Model : New Yorker Body Style: 4-Door Sedan Build Date : August, 1993
Dummy Stabilized Temperature at Time of Test : 70 °F (Spec. = 69 - 72 °F)
Impact Velocity : 29.6 mph; Time of Test : 1:35 PM
Type of Automatic Restraint System :
Driver : Airbag
Passenger : Airbag

Failure Details :

The vehicle appears to exceed the maximum allowable chest G's (3 msec clip) for the driver seating position.

Requirements :

The requirement states that chest G's greater than a 3 millisecond duration shall not exceed 60.

Approximate date that final test report will be made available to CTM:

Final test report will be available 12-9-93.

Date Mfg. Rep. Notified : _____ Rep. Name: _____

Remarks: _____

Date of Proposed Joint Inspection of Test Vehicle : _____

NHTSA CMT : _____ CIR No.: _____ Date : _____

Appendix A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

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A-40	POST-TEST PASSENGER KNEE CONTACT ON GLOVE BOX DOOR	A-42

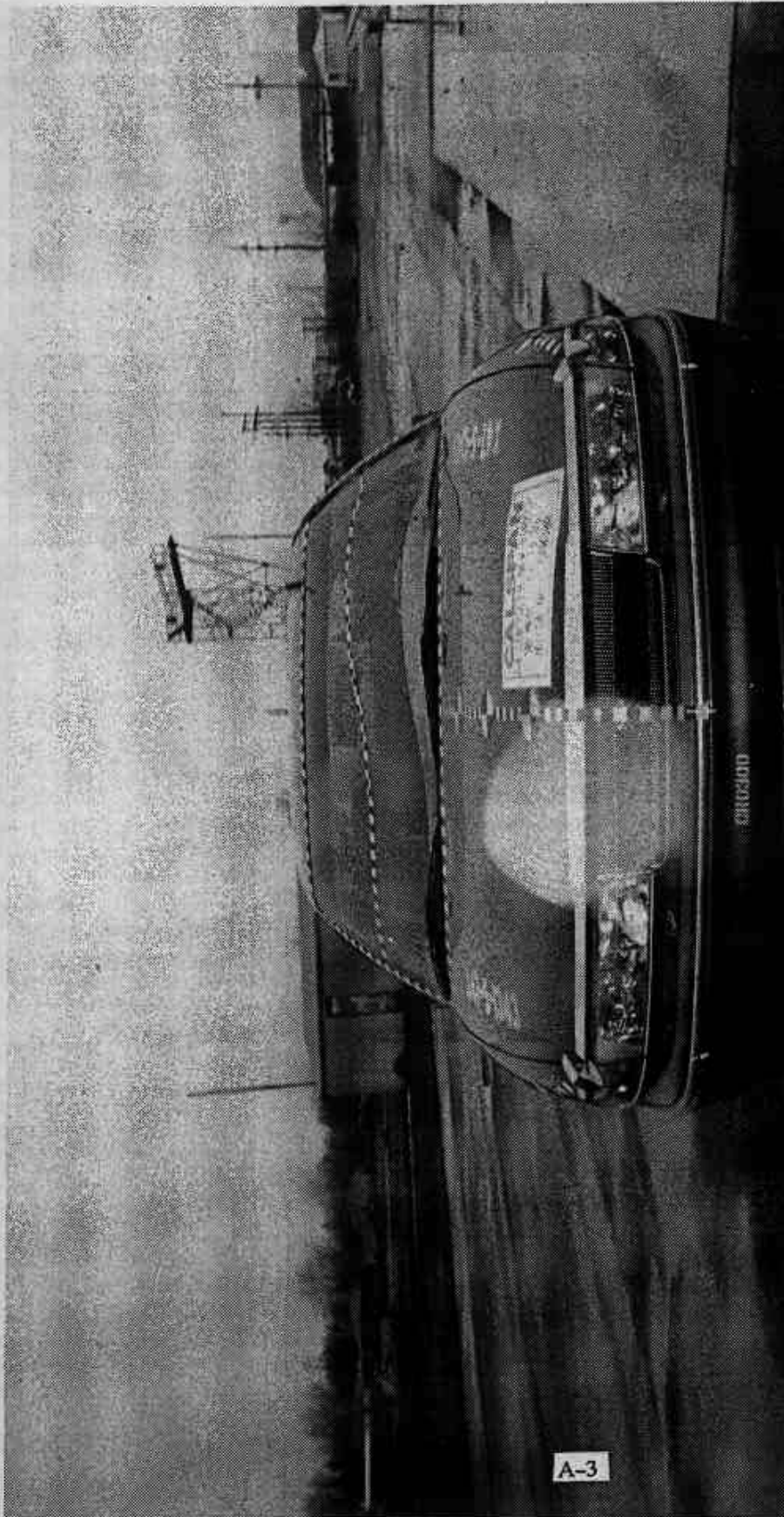


Figure A-1 PRE-TEST FRONT VIEW

A-3

8145-5

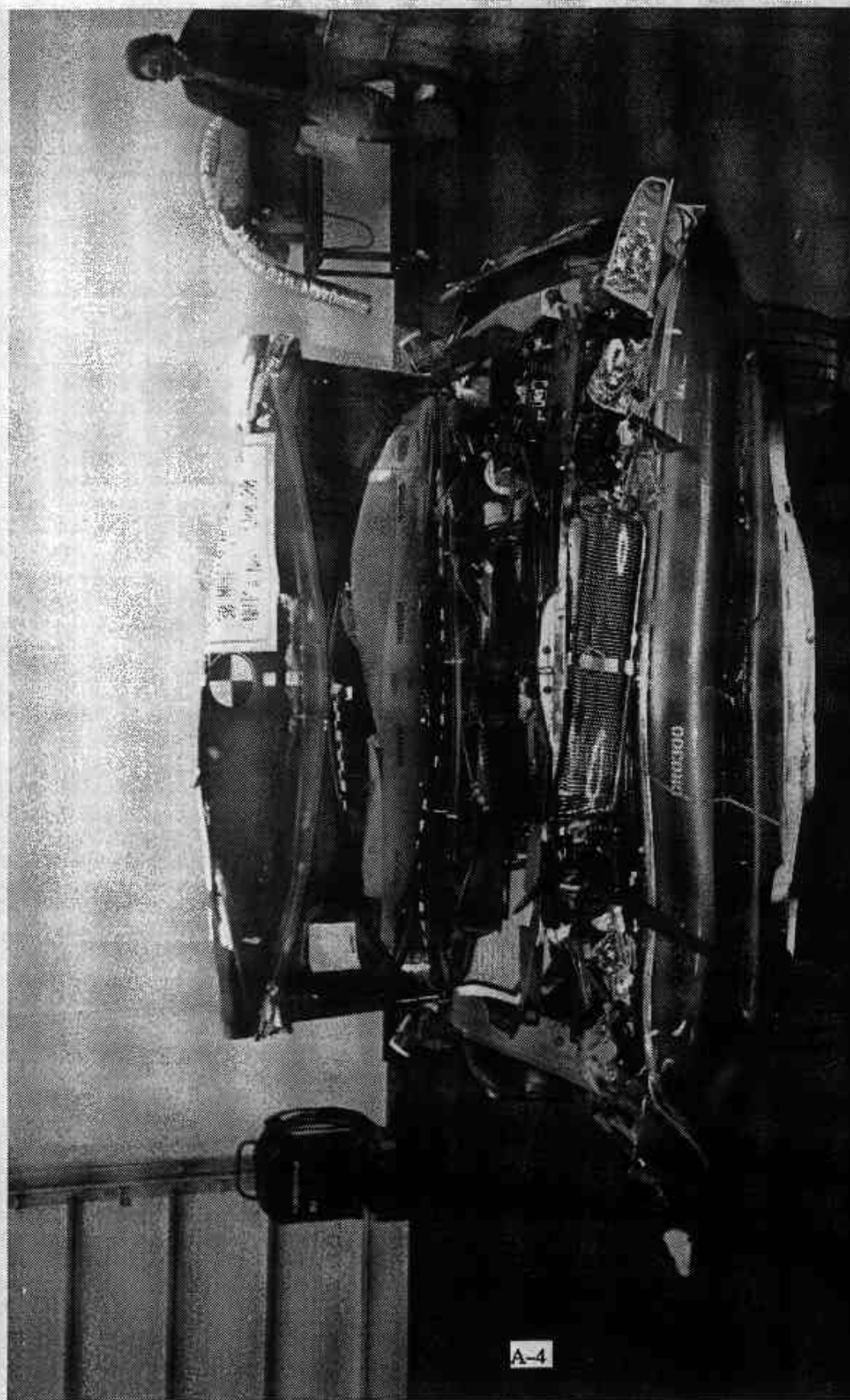


Figure A-2 POST-TEST FRONT VIEW

A-4

8145-5

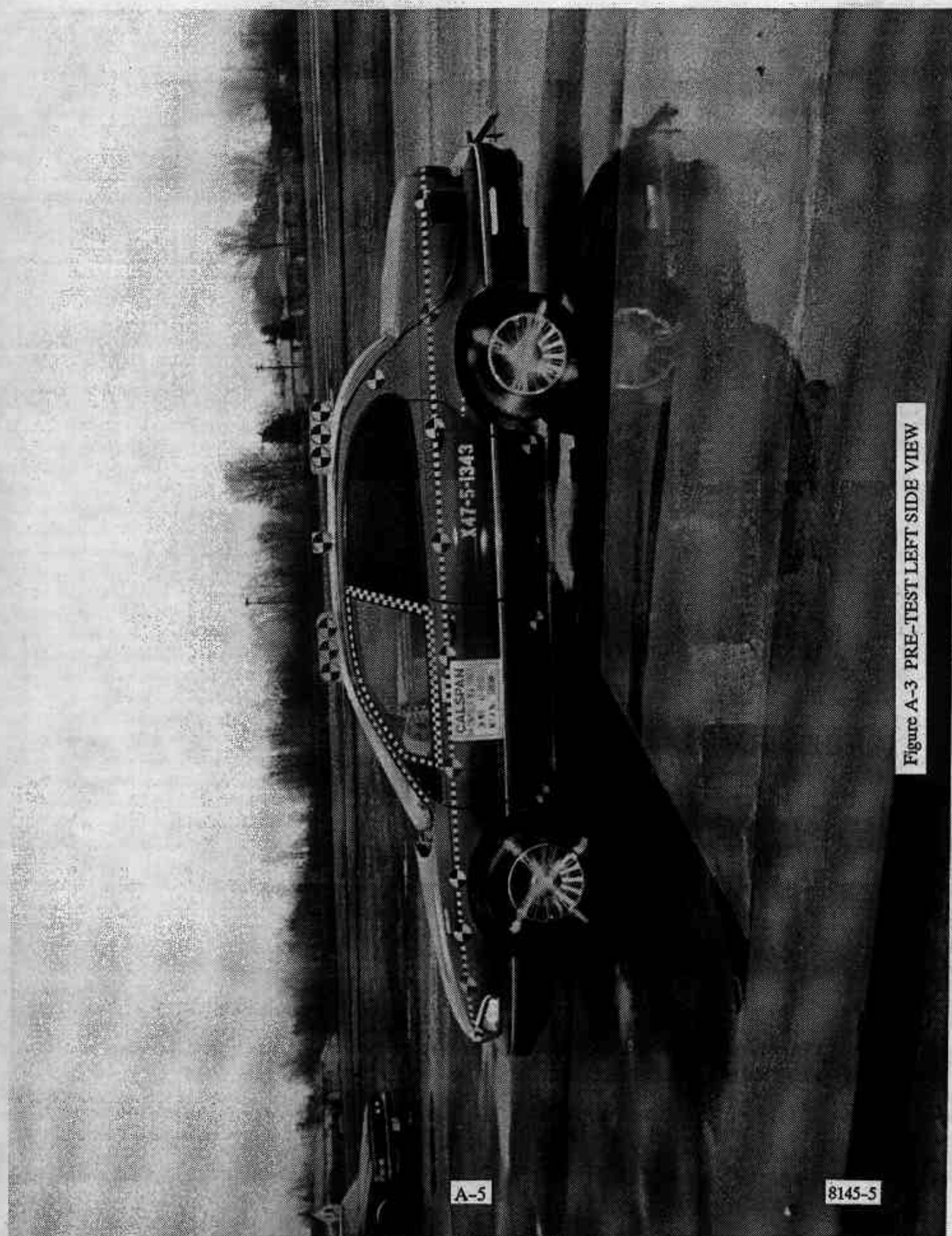
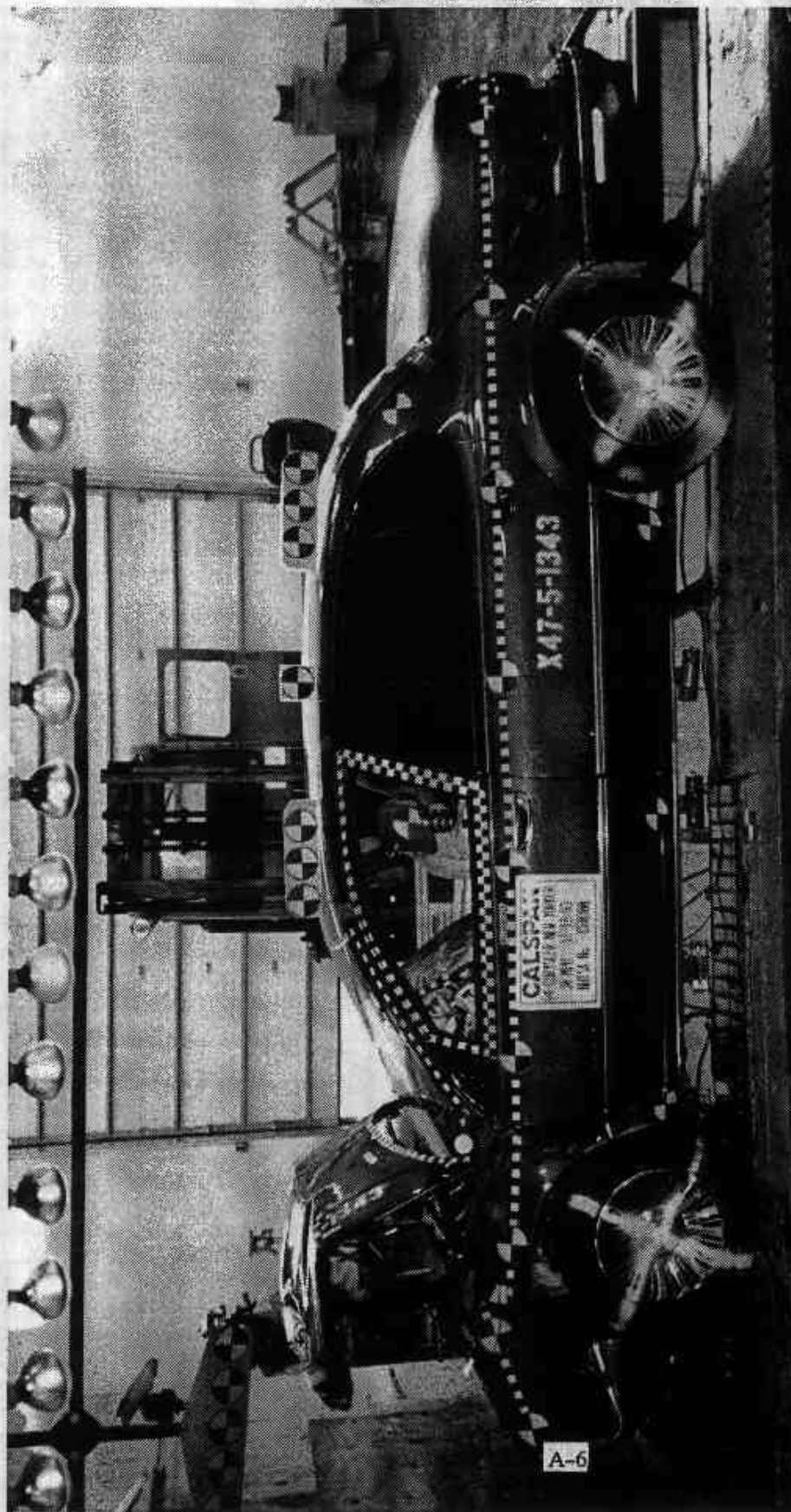


Figure A-3 PRE-TEST LEFT SIDE VIEW

A-5

8145-5



A-6

8145-5

Figure A-4 POST-TEST LEFT SIDE VIEW



Figure A-5 PRE-TEST RIGHT SIDE VIEW

8145-5

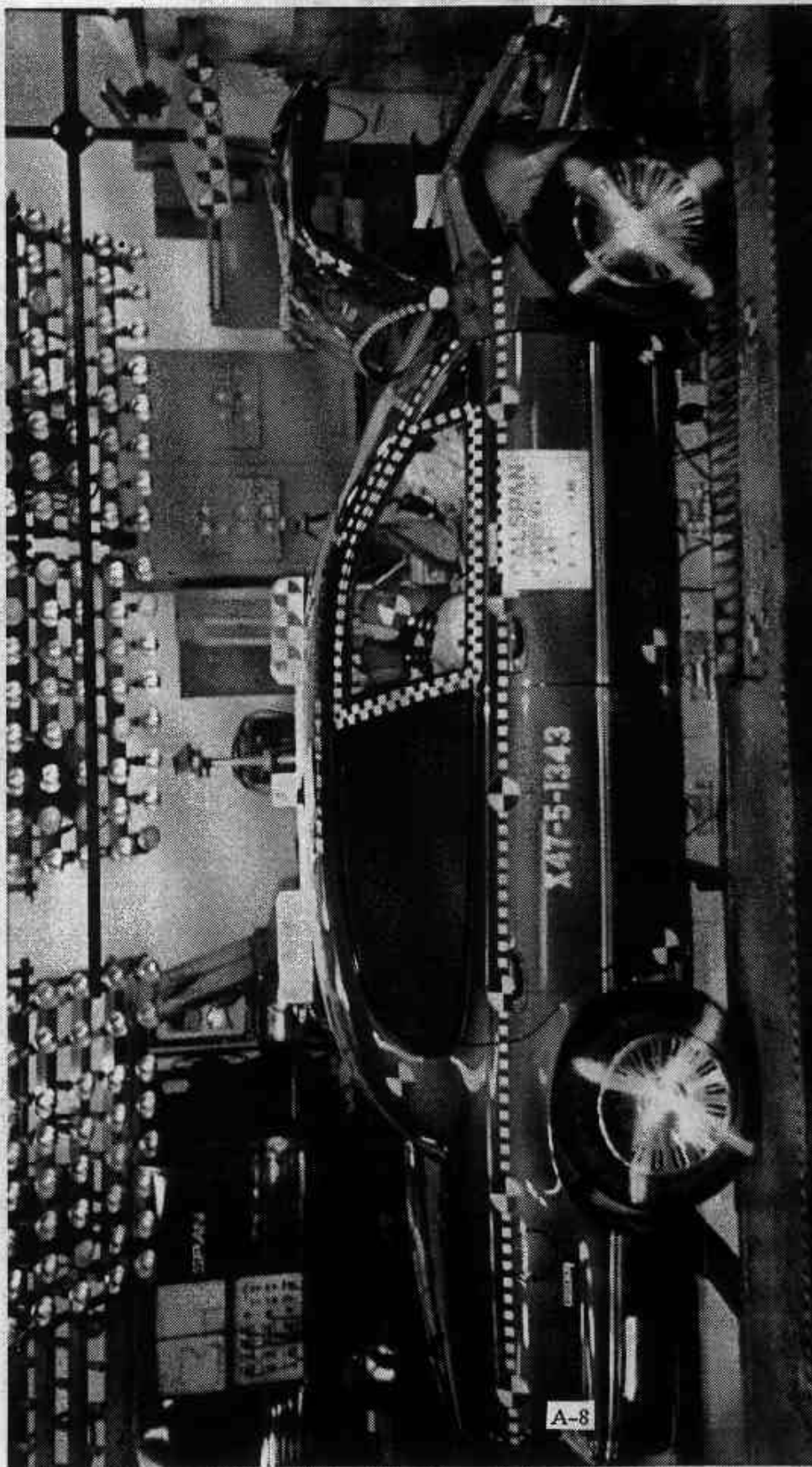


Figure A-6 POST-TEST RIGHT SIDE VIEW

A-8

8145-5

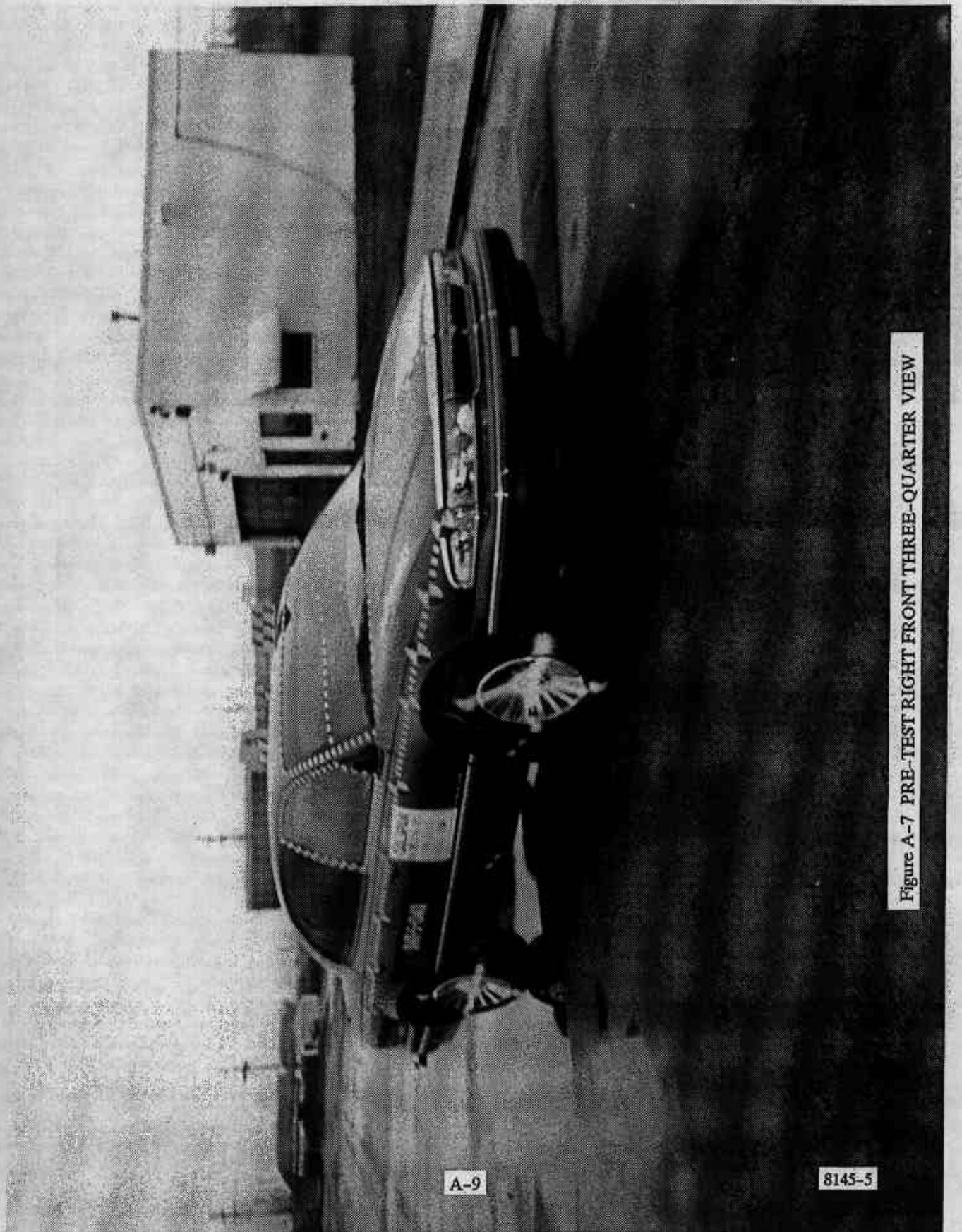


Figure A-7 PRE-TEST RIGHT FRONT THREE-QUARTER VIEW

A-9

8145-5

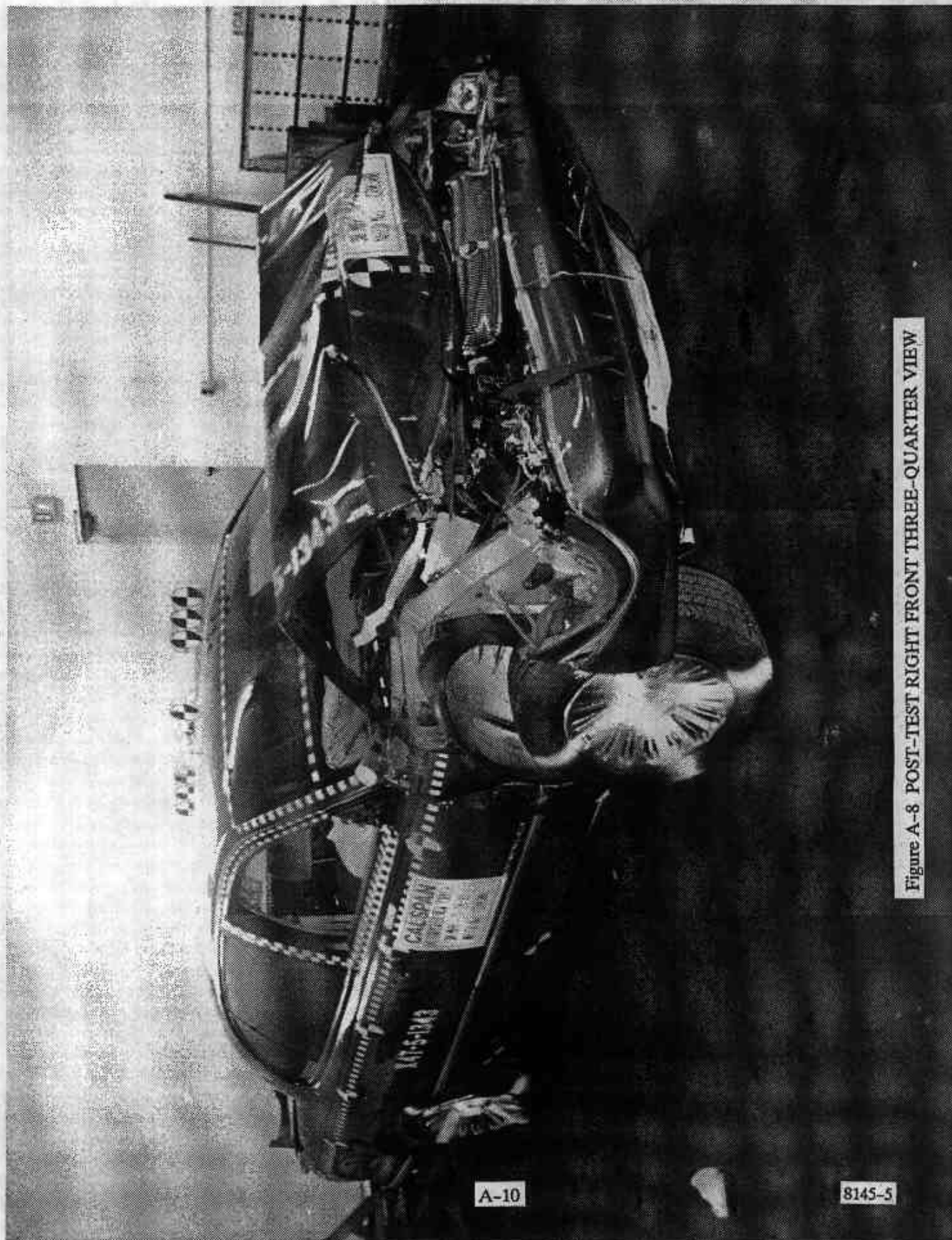


Figure A-8 POST-TEST RIGHT FRONT THREE-QUARTER VIEW

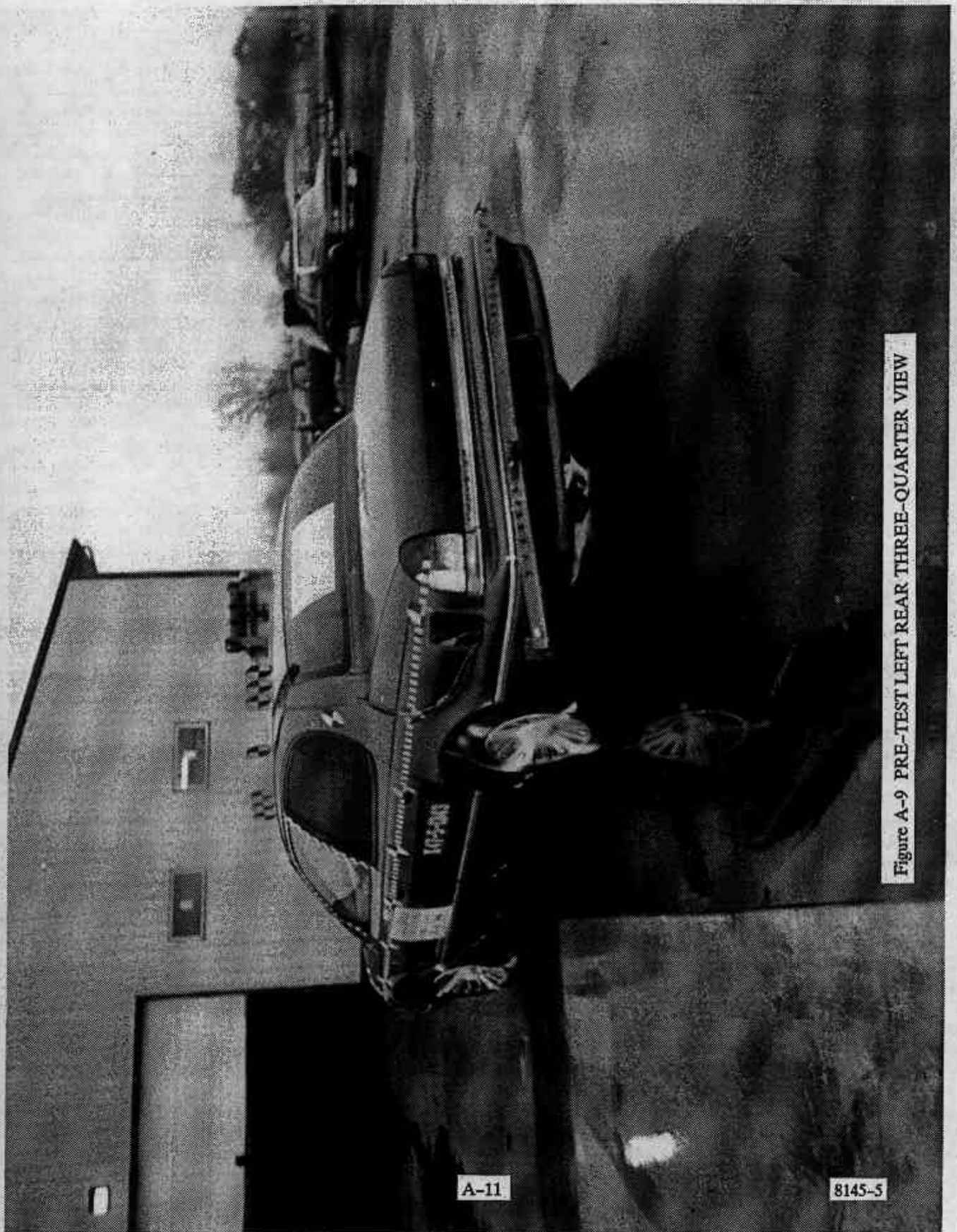


Figure A-9 PRE-TEST LEFT REAR THREE-QUARTER VIEW

A-11

8145-5

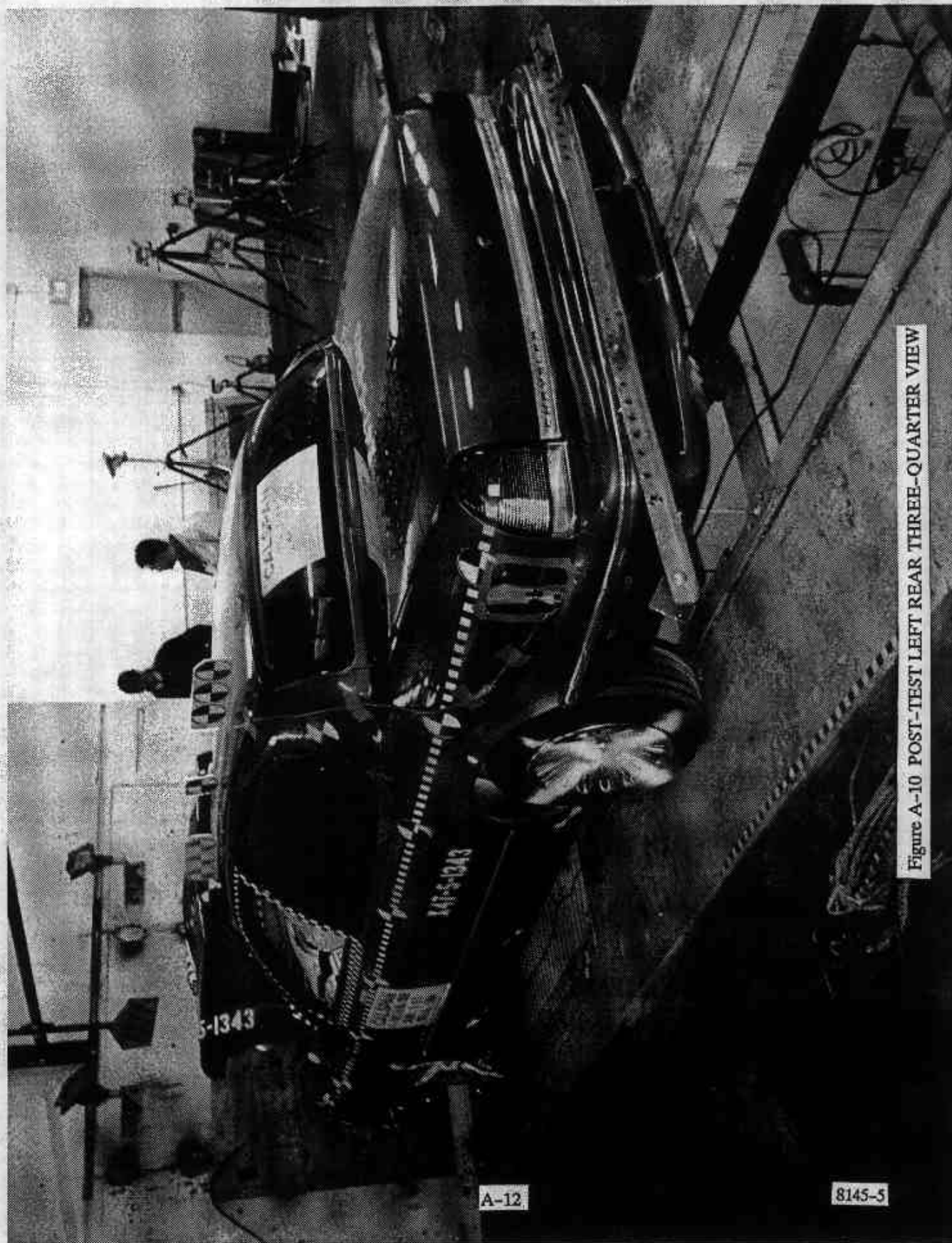


Figure A-10 POST-TEST LEFT REAR THREE-QUARTER VIEW

A-12

8145-5

Figure A-11 POST-TEST TOP VIEW IS NOT AVAILABLE

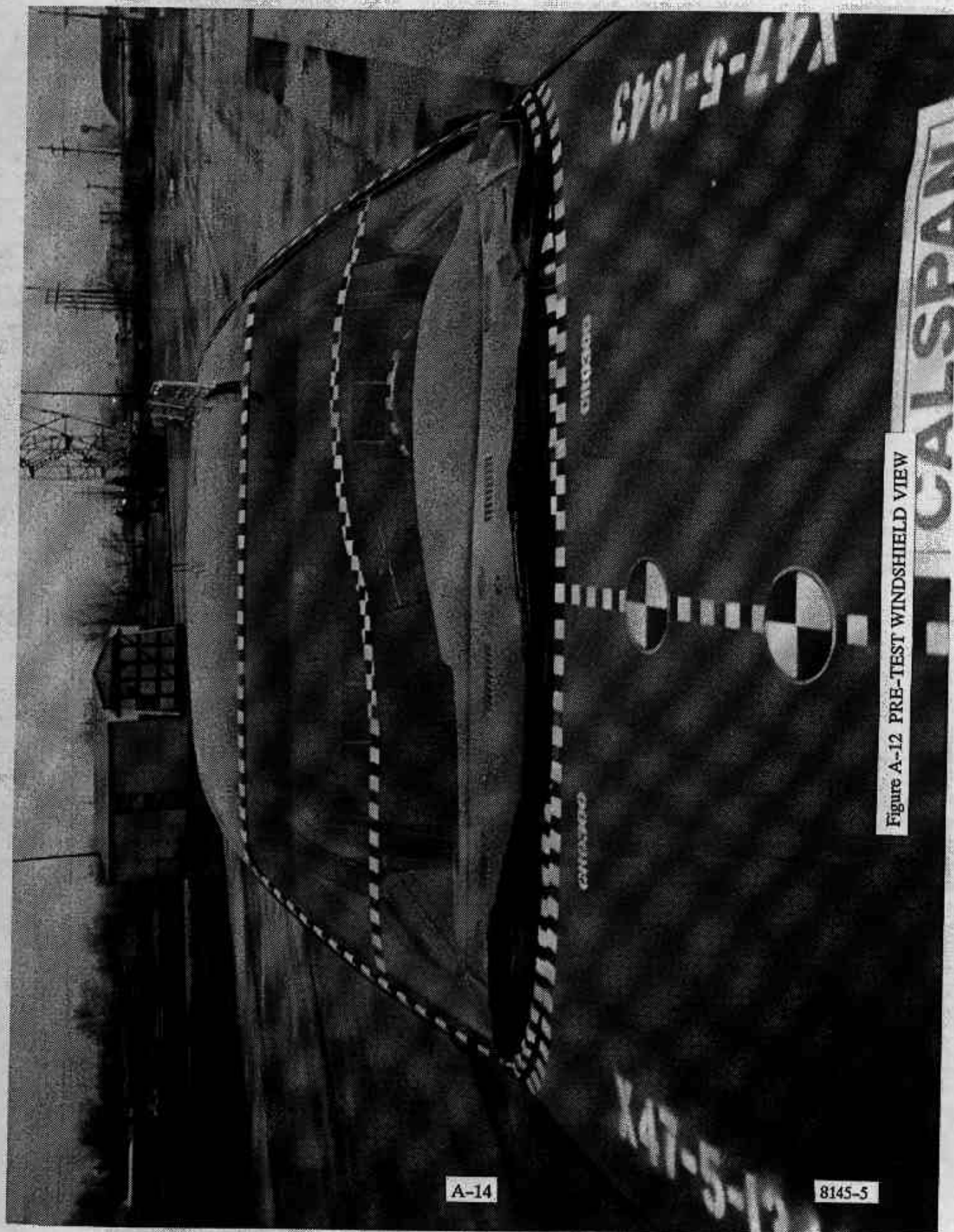


Figure A-12 PRE-TEST WINDSHIELD VIEW

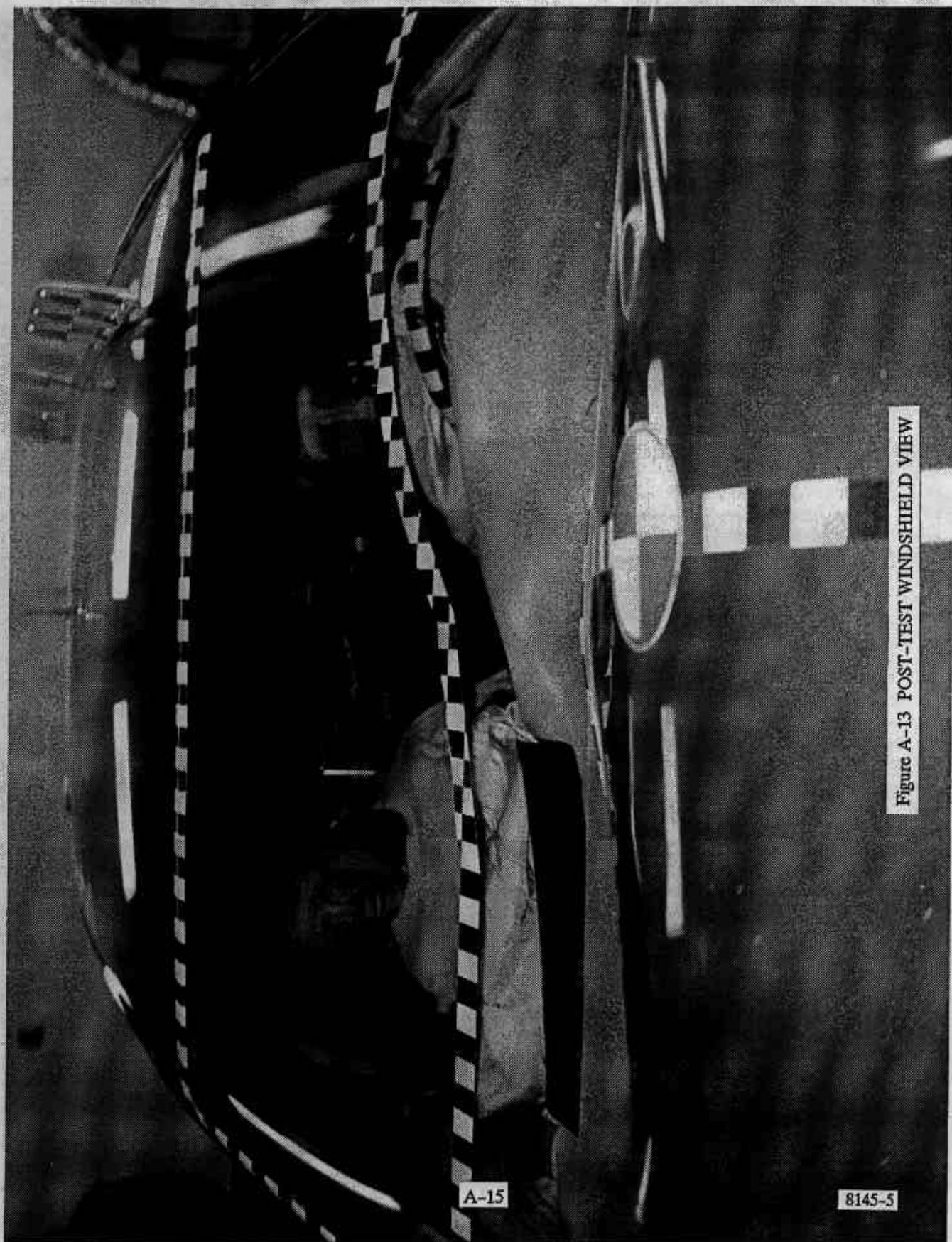


Figure A-13 POST-TEST WINDSHIELD VIEW

A-15

8145-5

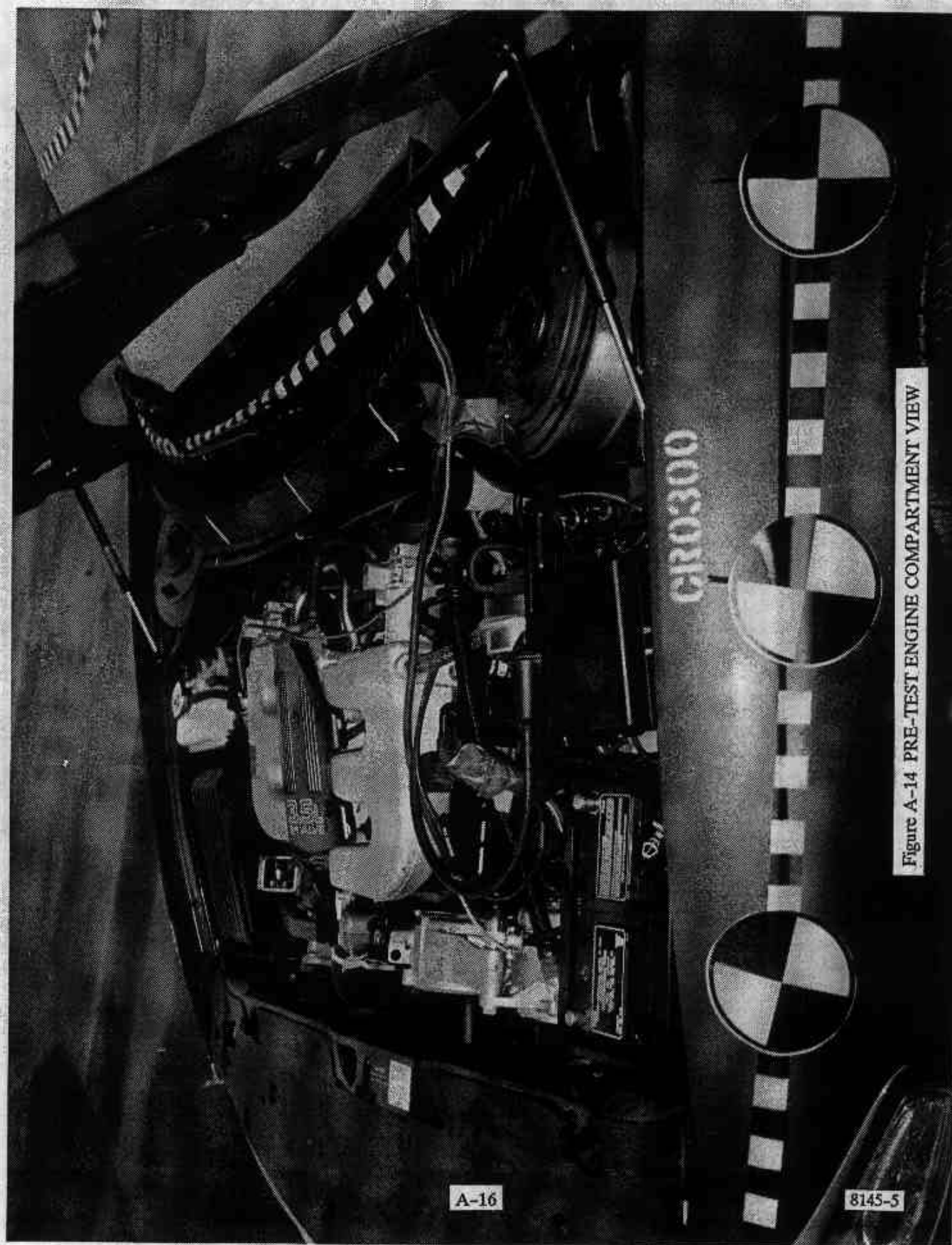


Figure A-14 PRE-TEST ENGINE COMPARTMENT VIEW

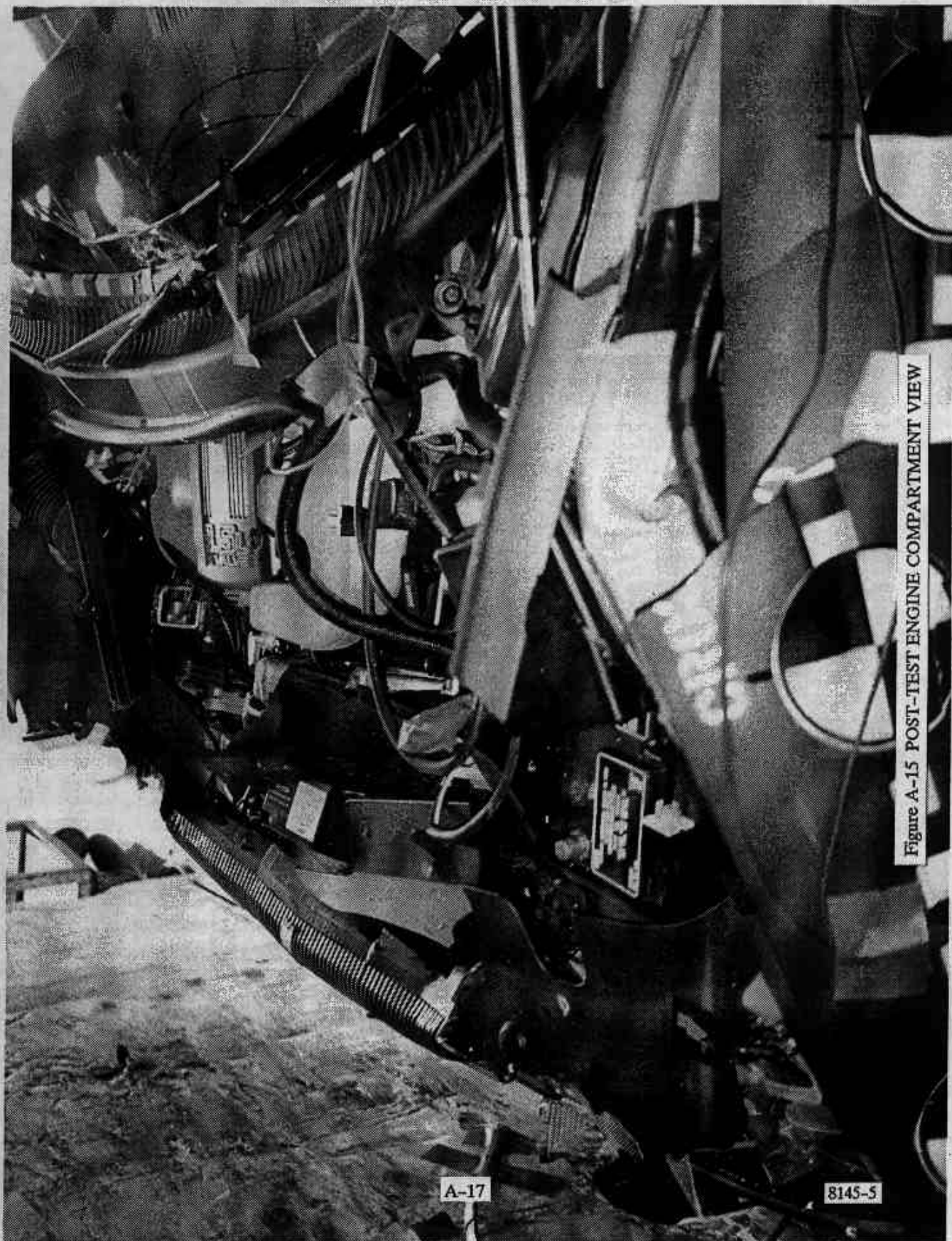


Figure A-15 POST-TEST ENGINE COMPARTMENT VIEW

A-17

8145-5

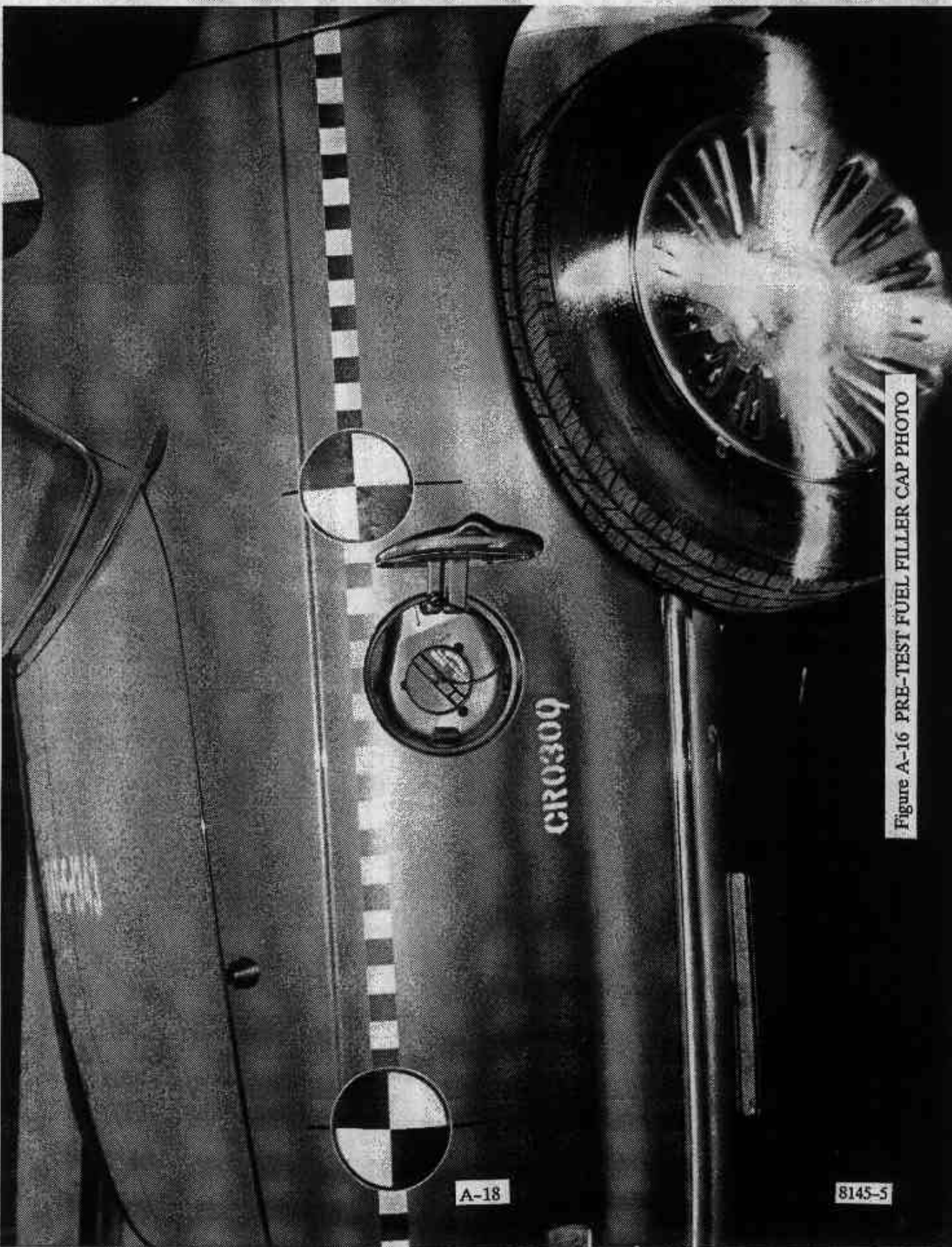


Figure A-16 PRE-TEST FUEL FILLER CAP PHOTO

A-18

8145-5



Figure A-17 POST-TEST FUEL FILLER CAP PHOTO

A-19

8145-5

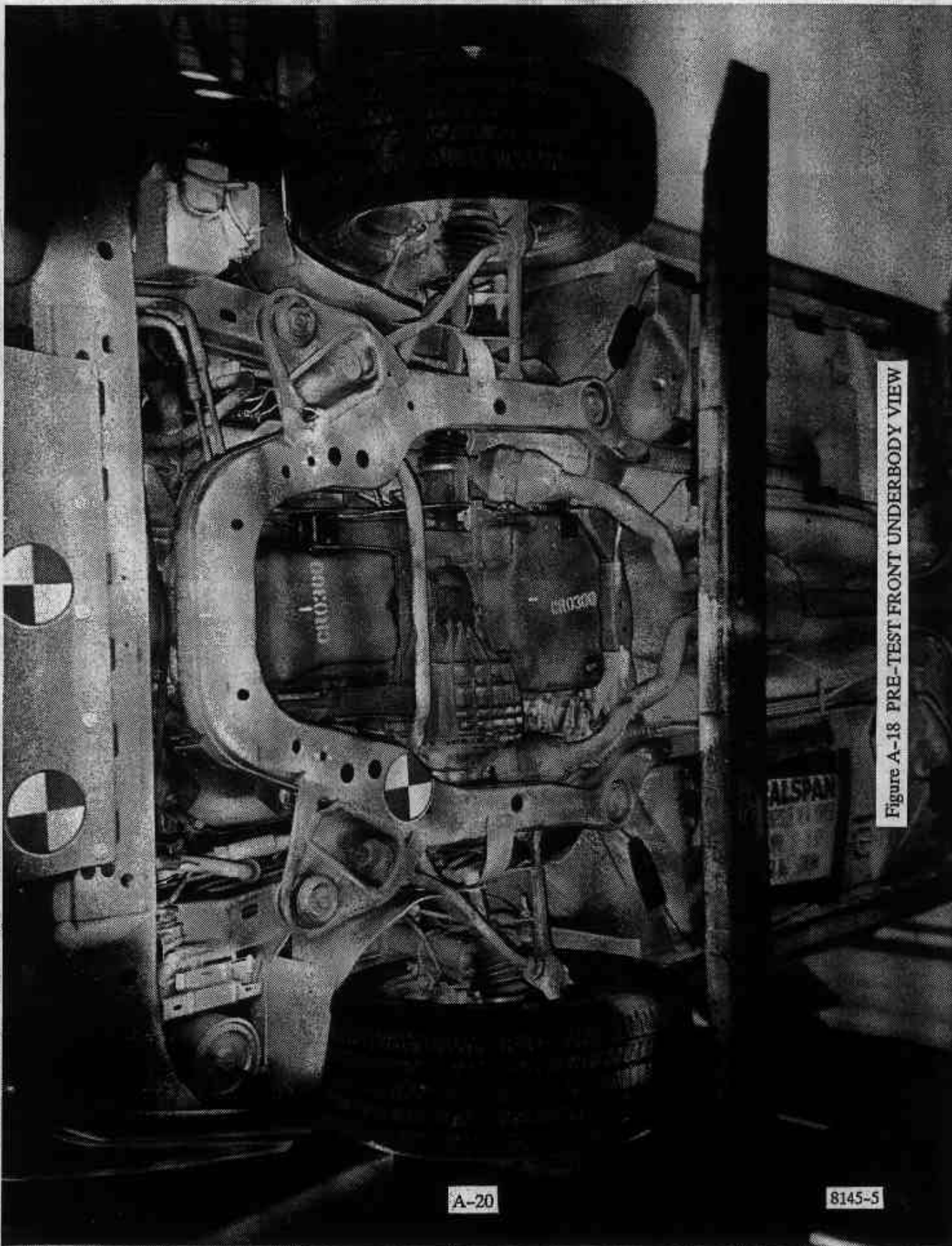


Figure A-18 PRE-TEST FRONT UNDERBODY VIEW

A-20

8145-5

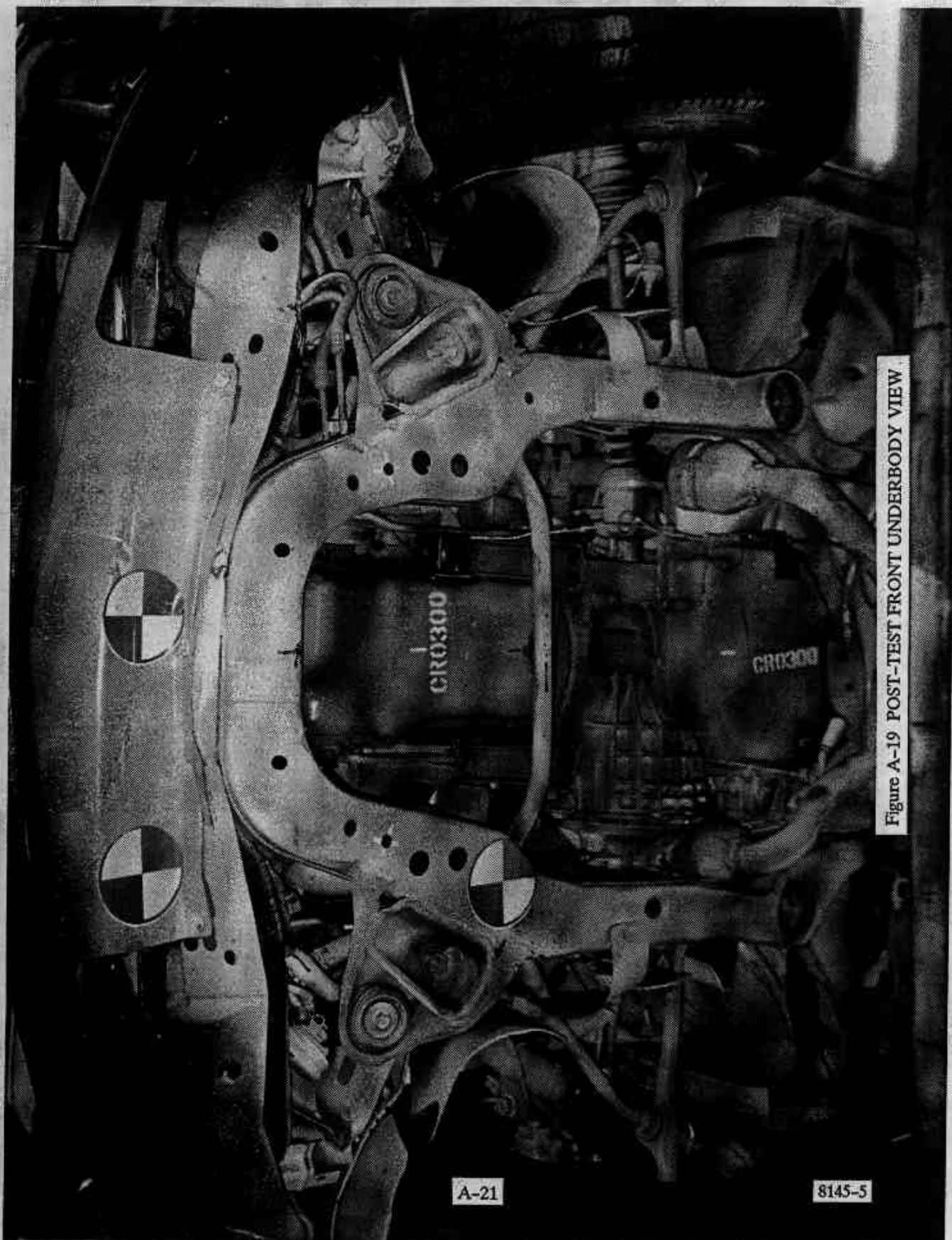


Figure A-19 POST-TEST FRONT UNDERBODY VIEW

A-21

8145-5

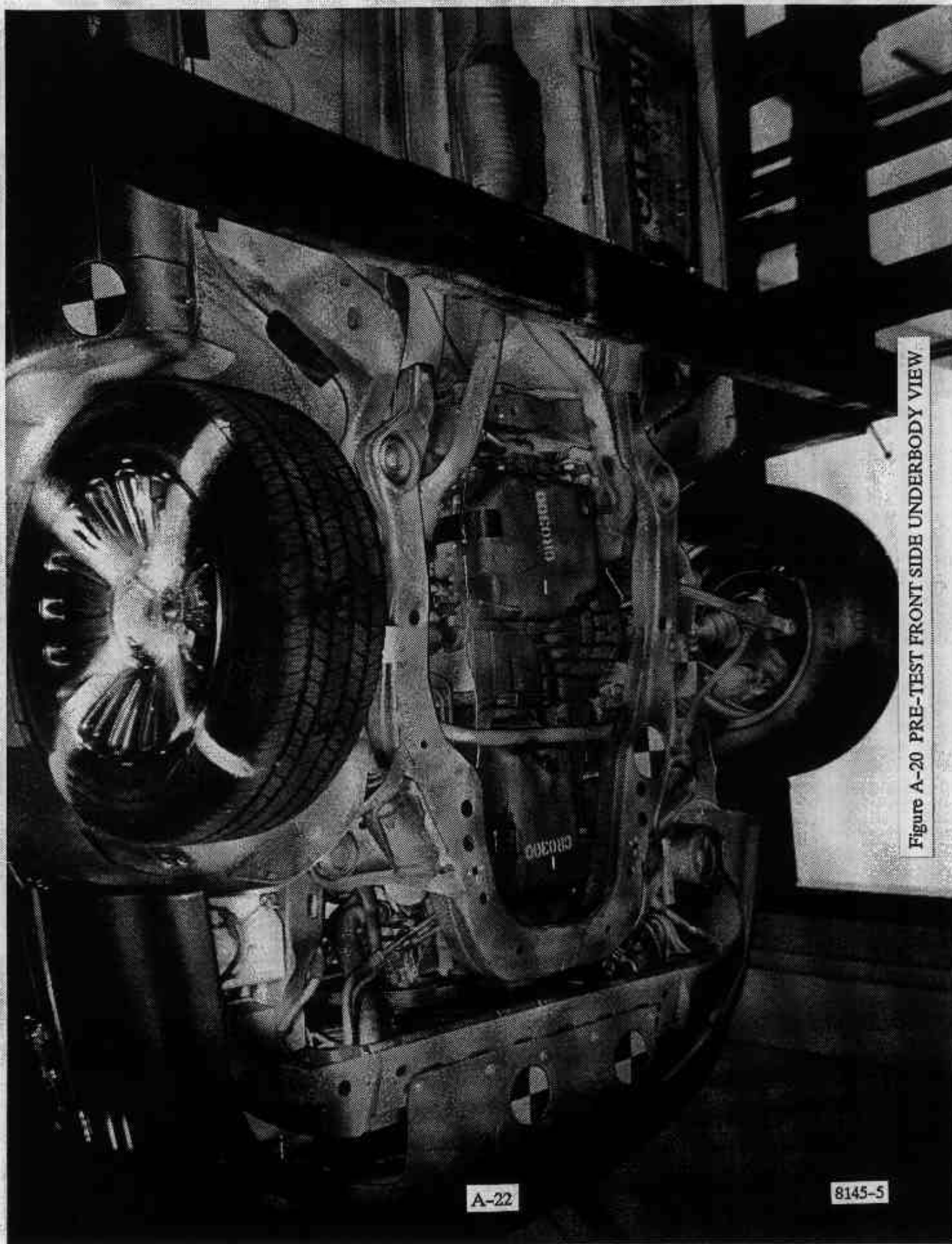


Figure A-20 PRE-TEST FRONT SIDE UNDERBODY VIEW

A-22

8145-5



Figure A-21 POST-TEST FRONT SIDE UNDERBODY VIEW

A-23

8145-5

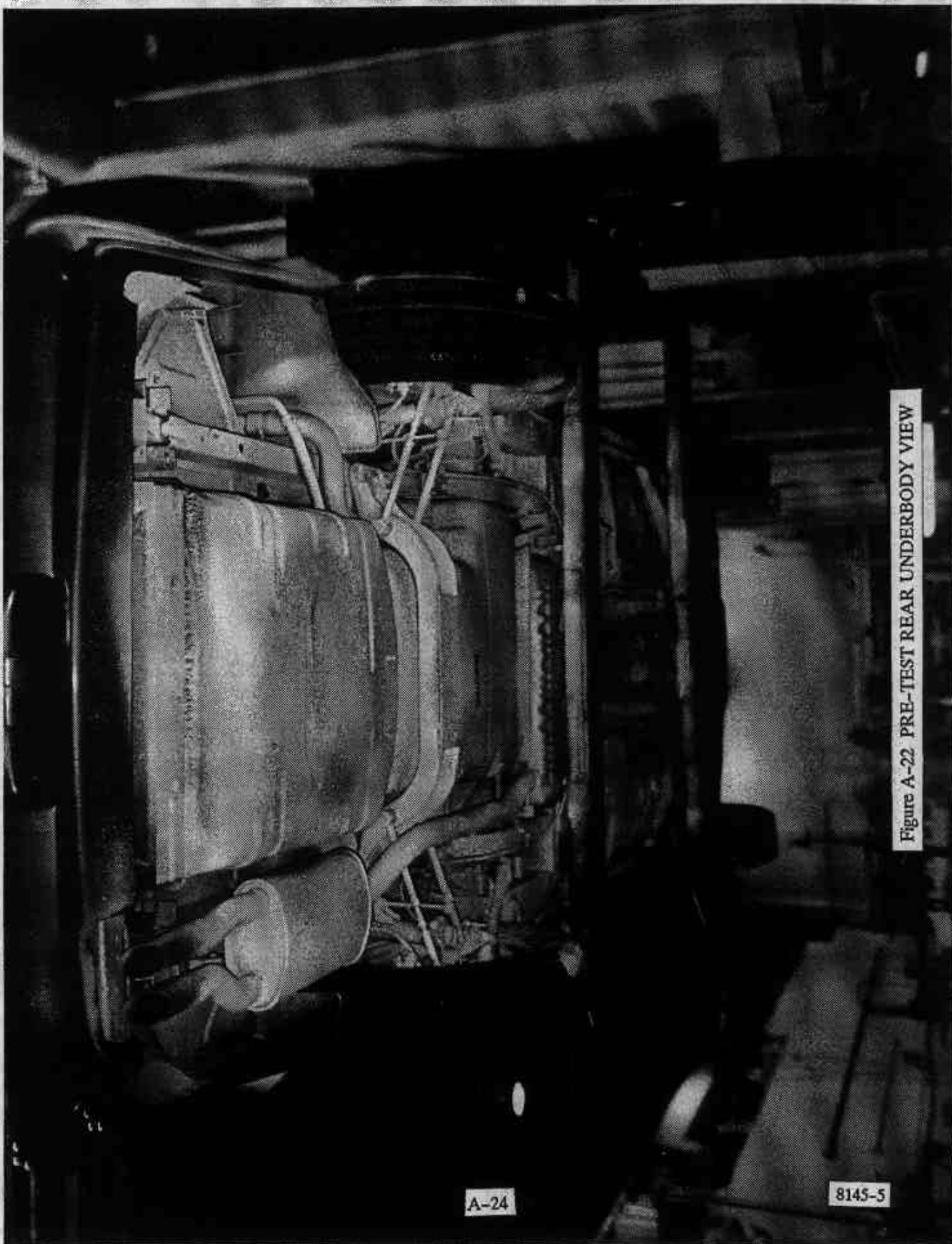


Figure A-22 PRE-TEST REAR UNDERBODY VIEW

A-24

8145-5

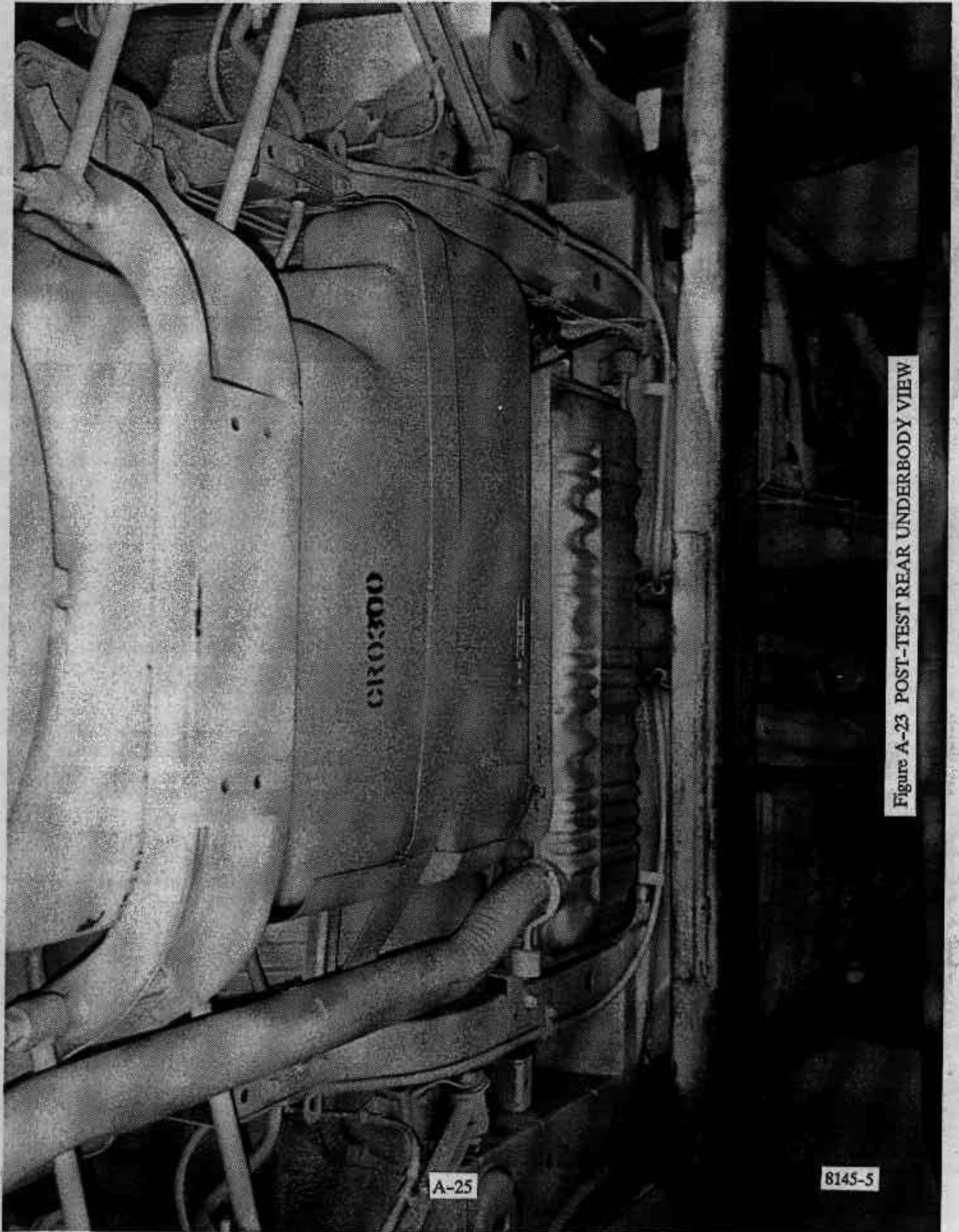


Figure A-23 POST-TEST REAR UNDERBODY VIEW

A-25

8145-5

VEHICLE CAPACITY OR LESS	
1ST SEAT	3 PASSENGERS
2ND SEAT	3 PASSENGERS
3RD SEAT	3 PASSENGERS
4TH SEAT	3 PASSENGERS
5TH SEAT	3 PASSENGERS
6TH SEAT	3 PASSENGERS
7TH SEAT	3 PASSENGERS
8TH SEAT	3 PASSENGERS
9TH SEAT	3 PASSENGERS
10TH SEAT	3 PASSENGERS
11TH SEAT	3 PASSENGERS
12TH SEAT	3 PASSENGERS
13TH SEAT	3 PASSENGERS
14TH SEAT	3 PASSENGERS
15TH SEAT	3 PASSENGERS
16TH SEAT	3 PASSENGERS
17TH SEAT	3 PASSENGERS
18TH SEAT	3 PASSENGERS
19TH SEAT	3 PASSENGERS
20TH SEAT	3 PASSENGERS
21ST SEAT	3 PASSENGERS
22ND SEAT	3 PASSENGERS
23RD SEAT	3 PASSENGERS
24TH SEAT	3 PASSENGERS
25TH SEAT	3 PASSENGERS
26TH SEAT	3 PASSENGERS
27TH SEAT	3 PASSENGERS
28TH SEAT	3 PASSENGERS
29TH SEAT	3 PASSENGERS
30TH SEAT	3 PASSENGERS
31ST SEAT	3 PASSENGERS
32ND SEAT	3 PASSENGERS
33RD SEAT	3 PASSENGERS
34TH SEAT	3 PASSENGERS
35TH SEAT	3 PASSENGERS
36TH SEAT	3 PASSENGERS
37TH SEAT	3 PASSENGERS
38TH SEAT	3 PASSENGERS
39TH SEAT	3 PASSENGERS
40TH SEAT	3 PASSENGERS
41ST SEAT	3 PASSENGERS
42ND SEAT	3 PASSENGERS
43RD SEAT	3 PASSENGERS
44TH SEAT	3 PASSENGERS
45TH SEAT	3 PASSENGERS
46TH SEAT	3 PASSENGERS
47TH SEAT	3 PASSENGERS
48TH SEAT	3 PASSENGERS
49TH SEAT	3 PASSENGERS
50TH SEAT	3 PASSENGERS
51ST SEAT	3 PASSENGERS
52ND SEAT	3 PASSENGERS
53RD SEAT	3 PASSENGERS
54TH SEAT	3 PASSENGERS
55TH SEAT	3 PASSENGERS
56TH SEAT	3 PASSENGERS
57TH SEAT	3 PASSENGERS
58TH SEAT	3 PASSENGERS
59TH SEAT	3 PASSENGERS
60TH SEAT	3 PASSENGERS
61ST SEAT	3 PASSENGERS
62ND SEAT	3 PASSENGERS
63RD SEAT	3 PASSENGERS
64TH SEAT	3 PASSENGERS
65TH SEAT	3 PASSENGERS
66TH SEAT	3 PASSENGERS
67TH SEAT	3 PASSENGERS
68TH SEAT	3 PASSENGERS
69TH SEAT	3 PASSENGERS
70TH SEAT	3 PASSENGERS
71ST SEAT	3 PASSENGERS
72ND SEAT	3 PASSENGERS
73RD SEAT	3 PASSENGERS
74TH SEAT	3 PASSENGERS
75TH SEAT	3 PASSENGERS
76TH SEAT	3 PASSENGERS
77TH SEAT	3 PASSENGERS
78TH SEAT	3 PASSENGERS
79TH SEAT	3 PASSENGERS
80TH SEAT	3 PASSENGERS
81ST SEAT	3 PASSENGERS
82ND SEAT	3 PASSENGERS
83RD SEAT	3 PASSENGERS
84TH SEAT	3 PASSENGERS
85TH SEAT	3 PASSENGERS
86TH SEAT	3 PASSENGERS
87TH SEAT	3 PASSENGERS
88TH SEAT	3 PASSENGERS
89TH SEAT	3 PASSENGERS
90TH SEAT	3 PASSENGERS
91ST SEAT	3 PASSENGERS
92ND SEAT	3 PASSENGERS
93RD SEAT	3 PASSENGERS
94TH SEAT	3 PASSENGERS
95TH SEAT	3 PASSENGERS
96TH SEAT	3 PASSENGERS
97TH SEAT	3 PASSENGERS
98TH SEAT	3 PASSENGERS
99TH SEAT	3 PASSENGERS
100TH SEAT	3 PASSENGERS

MFD BY CHRYSLER CORPORATION

DATE OF MFR: 8-93

GWR 04675 LB GWR 2663 LB GWR 2087 LB
 2121 KG FRONT 1208 KG REAR 0947 KG

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: 2C3ED46F0RH107401 TYPE: PASSENGER CAR



NDH: 081112 718 VEHICLE MADE IN CANADA 4648184

Figure A-24 CERTIFICATION LABEL



**VEHICLE
CAPACITY
OR LESS**

1ST SEAT	* 3 PASS
2ND SEAT	3 PASS
LUGGAGE	115 LBS-52kg
TOTAL	* 6 PASS
TOTAL WEIGHT	* 1015 LBS-461 kg

TIRE PRESSURE COLD	30 psi 210 kPa
	FRONT AND REAR

* REDUCE VEHICLE CAPACITY TO
2 PASSENGERS IN 1ST SEAT.
(865 LBS-392 kg -5 PASS. TOTAL)
WHEN EQUIPPED WITH BUCKET
SEATS WITHOUT CENTER SEAT

MINIMUM TIRE SIZE

P205/70R15 95S
STANDARD LOAD

SEE OWNER'S MANUAL FOR
ADDITIONAL DATA

PRINTED IN USA 4582 296

Figure A-25 TIRE PLACARD



Figure A-26 PRE-TEST DRIVER DUMMY POSITION VIEW

A-28

8145-5

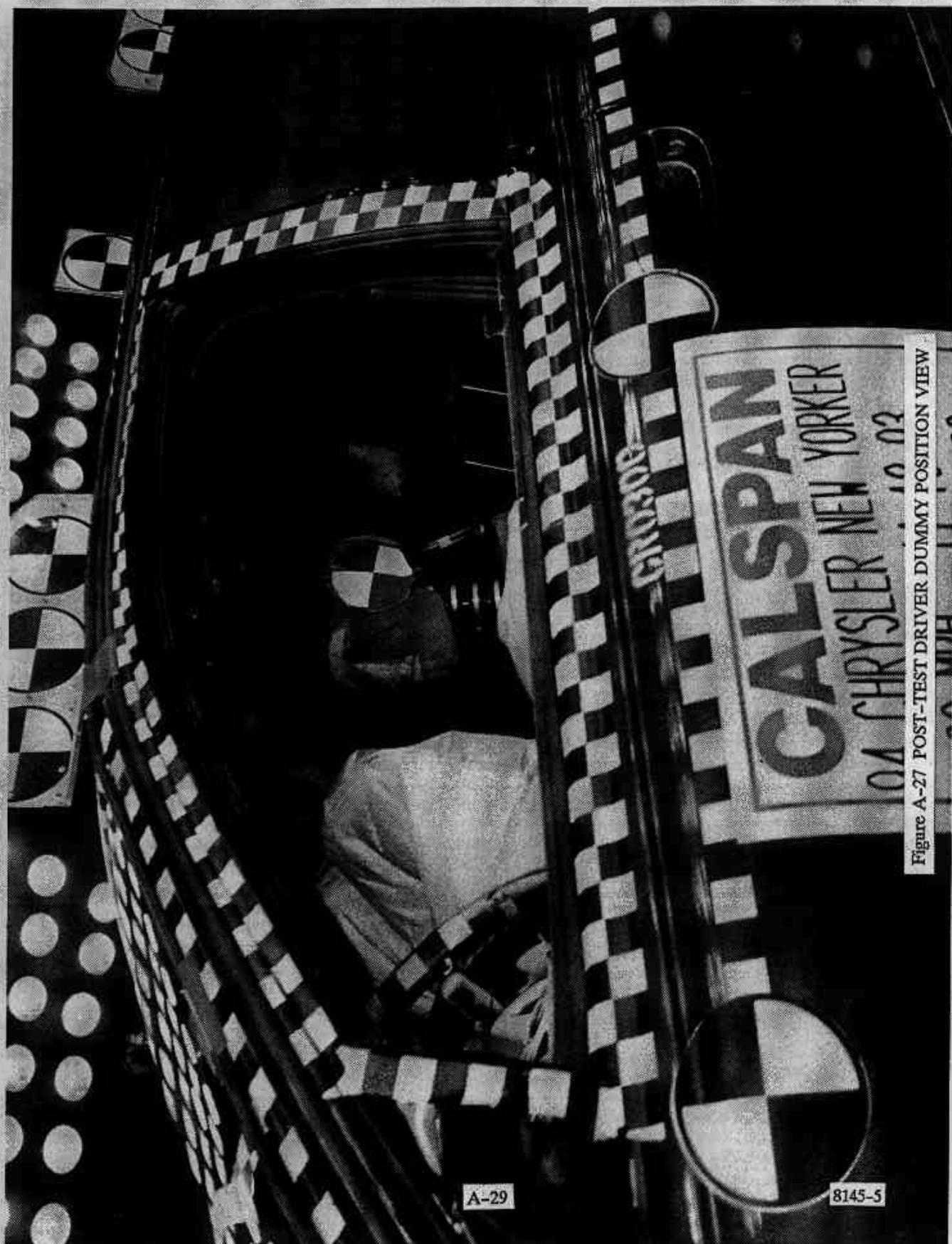


Figure A-27 POST-TEST DRIVER DUMMY POSITION VIEW

A-29

8145-5



Figure A-28 PRE-TEST PASSENGER DUMMY POSITION VIEW



Figure A-29 POST-TEST PASSENGER DUMMY POSITION VIEW

A-31

8145-5

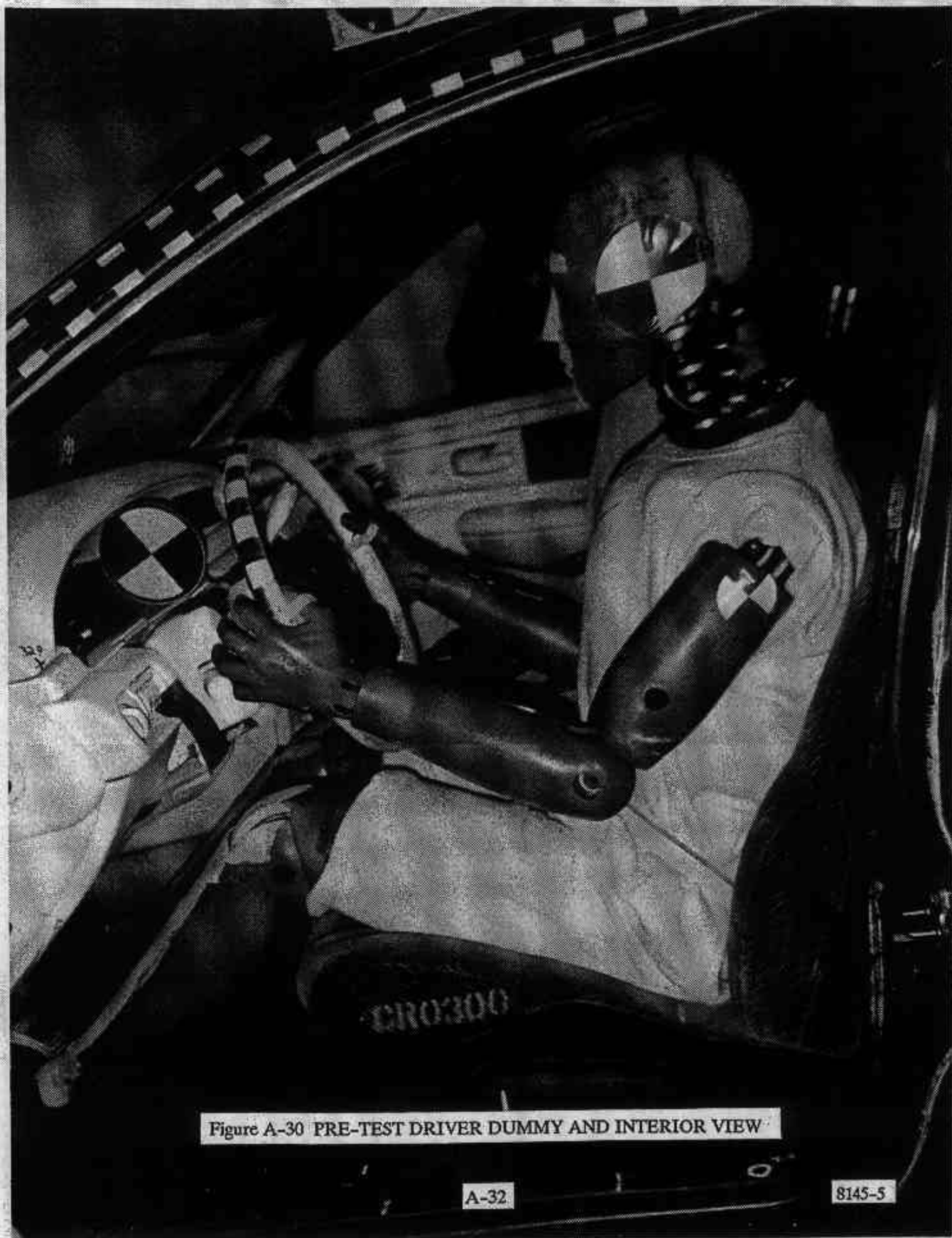


Figure A-30 PRE-TEST DRIVER DUMMY AND INTERIOR VIEW

A-32

8145-5



Figure A-31 POST-TEST DRIVER DUMMY AND INTERIOR VIEW

A-33

8145-5



Figure A-32 PRE-TEST PASSENGER DUMMY AND INTERIOR VIEW

WB
113.3

A-34

8145-5



WB
115.3
Figure A-33 POST-TEST PASSENGER DUMMY AND INTERIOR VIEW

A-35

8145-5

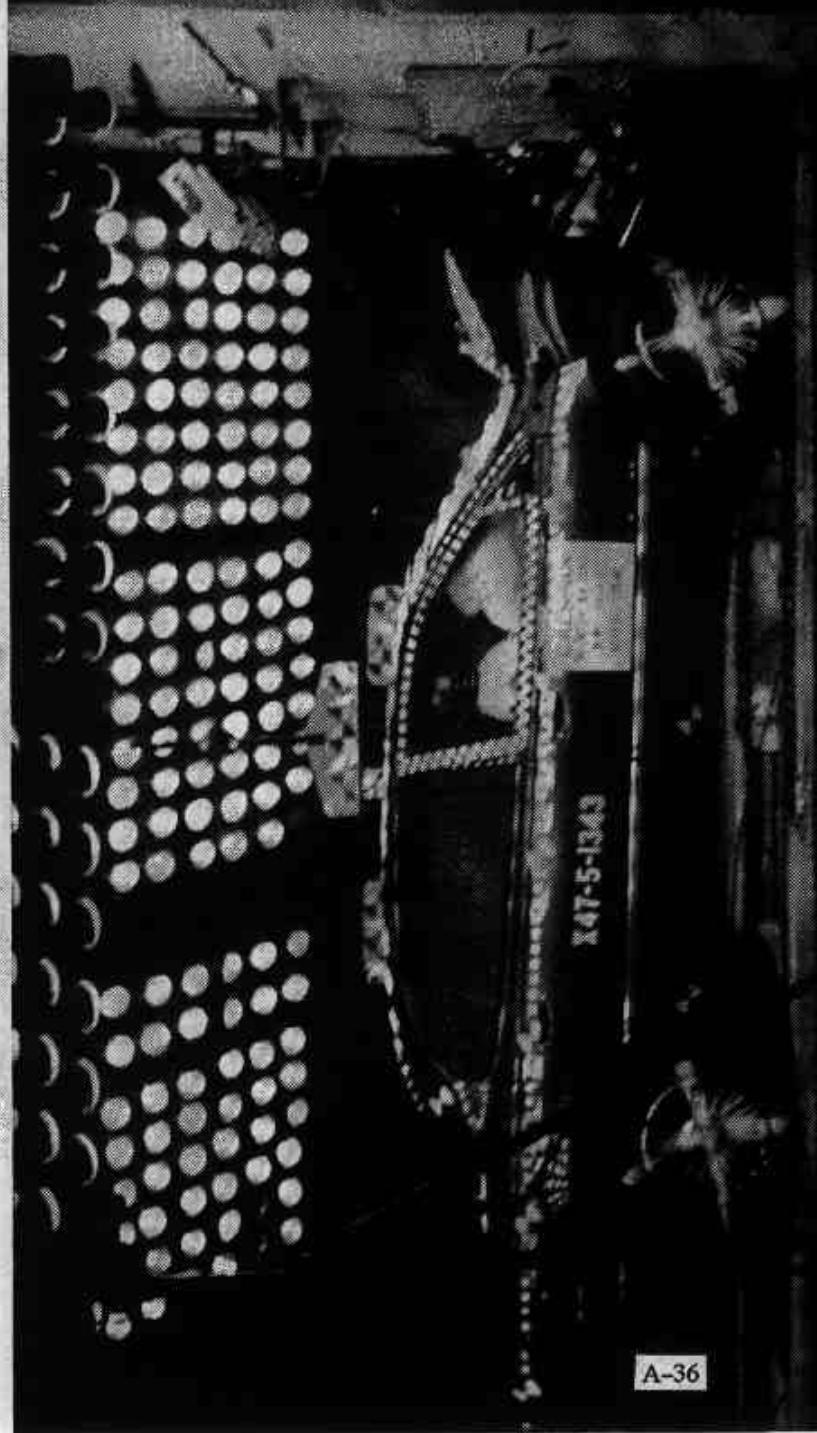


Figure A-34 VEHICLE IMPACT

8145-5

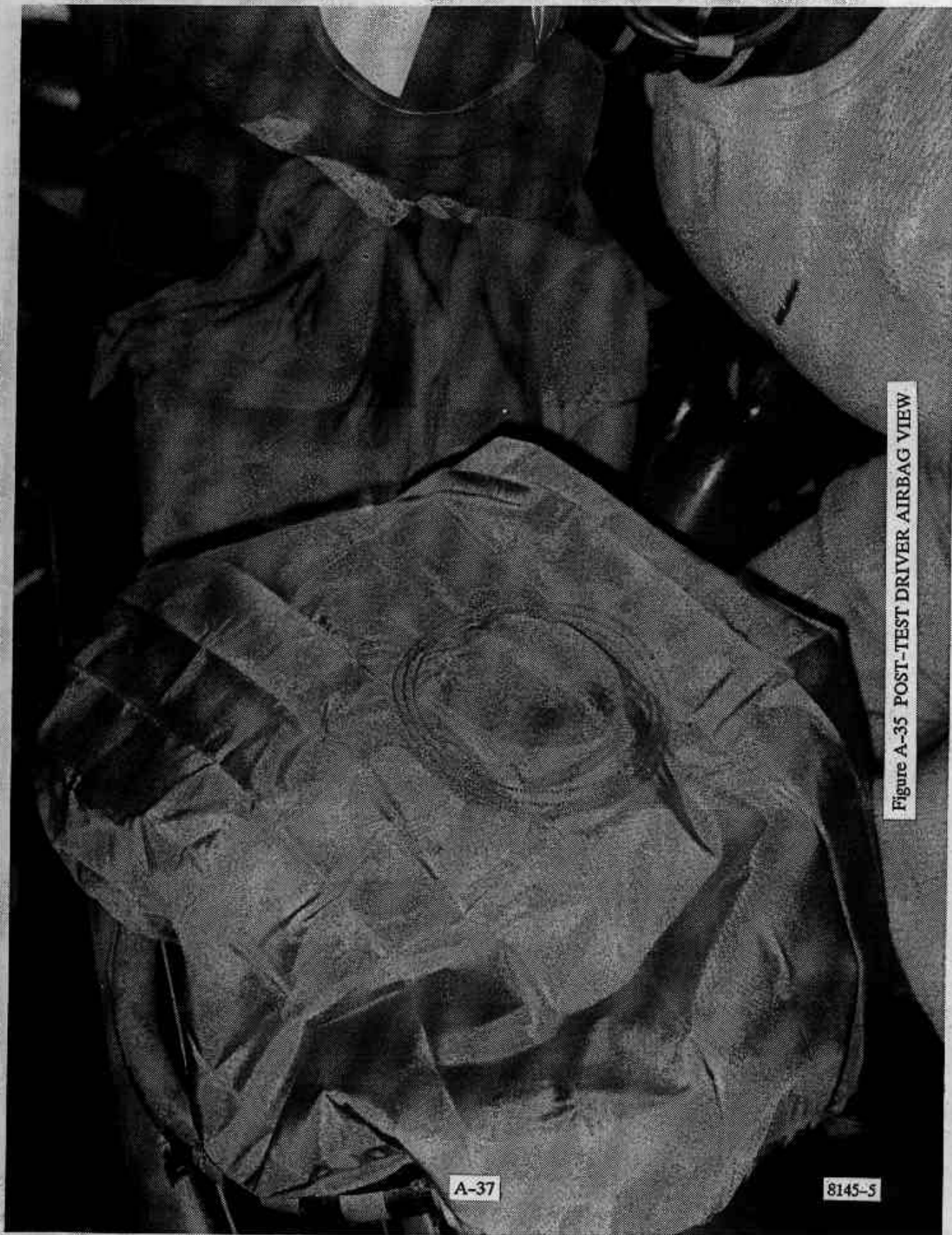


Figure A-35 POST-TEST DRIVER AIRBAG VIEW

A-37

8145-5



Figure A-36 POST-TEST PASSENGER AIRBAG VIEW

A-38

8145-5

Figure A-37 POST-TEST STEERING COLUMN LEFT SIDE VIEW



A-39

8145-5

Figure A-38 POST-TEST STEERING COLUMN RIGHT SIDE VIEW



A-40

8145-5

Figure A-39 POST-TEST PASSENGER HEAD CONTACT ON SUNVISOR

A-41

8145-5

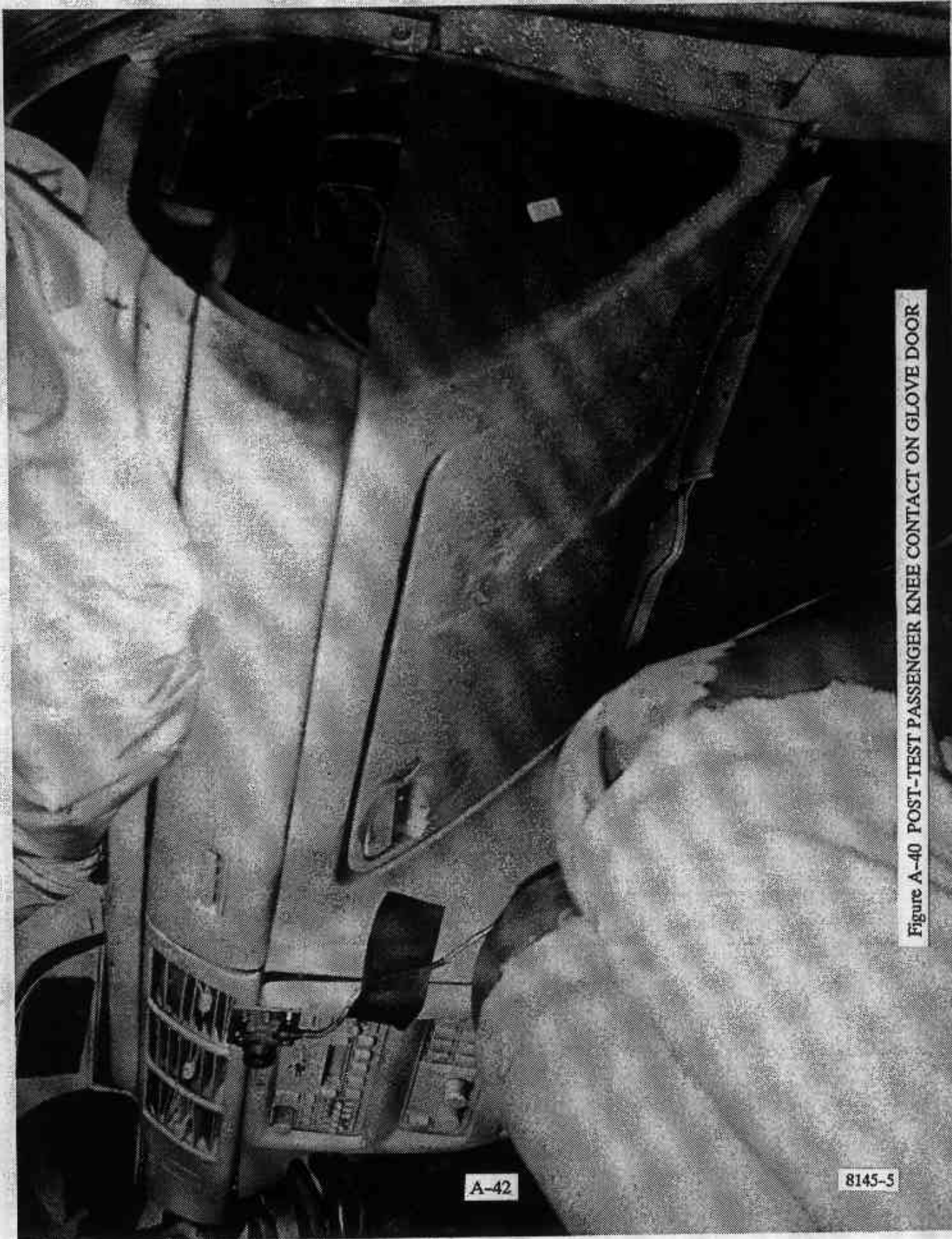


Figure A-40 POST-TEST PASSENGER KNEE CONTACT ON GLOVE DOOR

A-42

8145-5

Appendix B

VEHICLE AND DUMMY RESPONSE DATA

TEST NO. CR0300

VEHICLE

SAE FILTER CHANNEL CLASS

60

FACILITY: TRACK
RUN #: 1343
SERIES #: 5

TEST DATE: 18 Nov 1993
TEST TIME: 14:19:44
BOARD: b

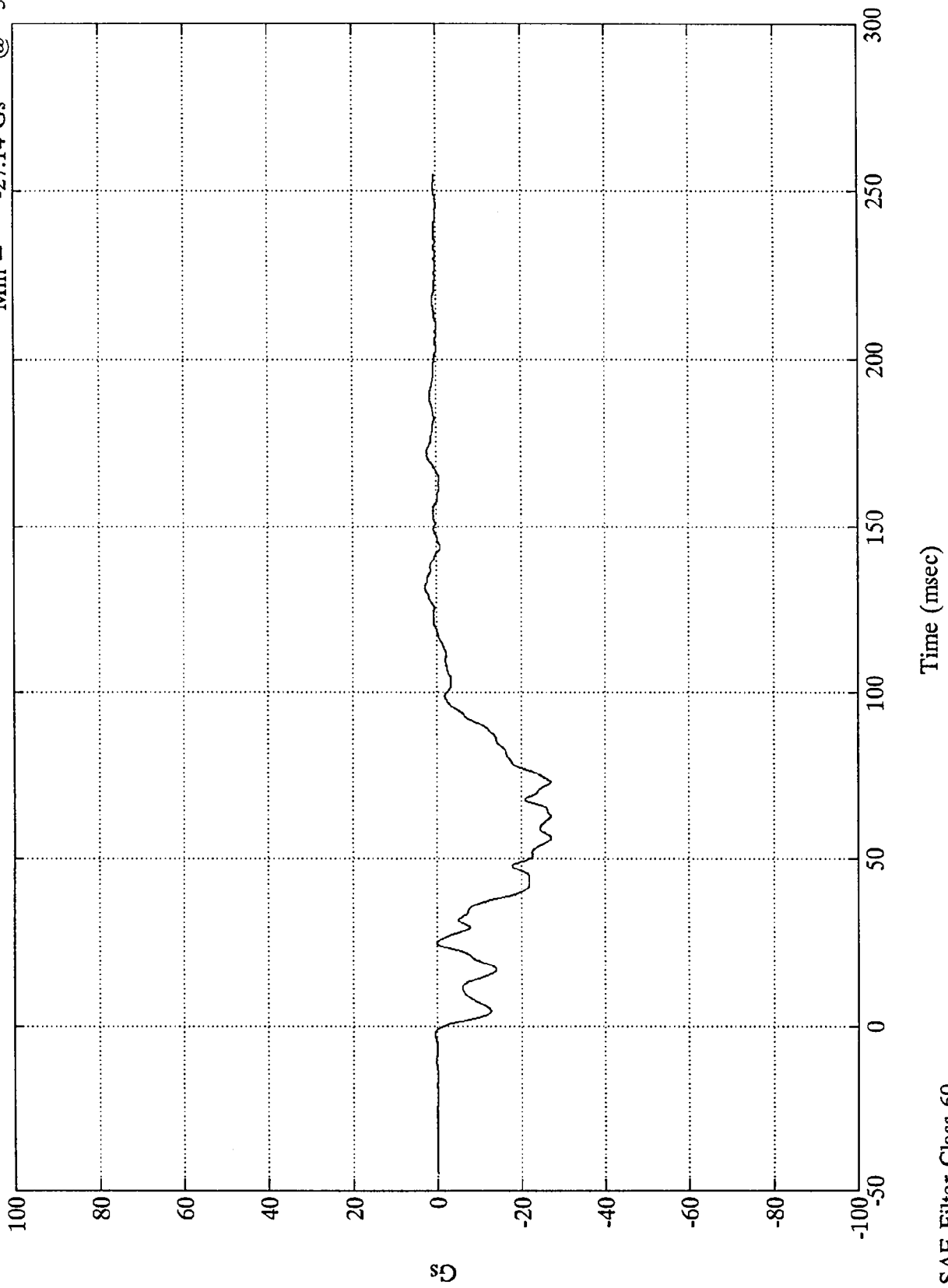
TITLE: NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

CHANNEL NUMBER	DESCRIPTION	ENGR UNIT	MAXIMUM		MINIMUM		FILTER CLASS
			AMP	msec	AMP	msec	
1	L. Rear X-member X (#1)	Gs	2.7	131.5	-27.1	56.3	60.0
2	R. Rear X-member X (#2)	Gs	2.0	134.3	-29.5	53.5	60.0
3	Engine Top X (#3)	Gs	38.5	46.6	-105.5	33.8	60.0
4	Engine Bottom X (#4)	Gs	39.2	44.5	-111.4	33.4	60.0
5	R. Brake Caliper X (#5)	Gs	27.7	70.4	-64.8	52.1	60.0
6	L. Brake Caliper X (#6)	Gs	27.5	75.6	-59.3	41.9	60.0
7	Instrument Panel X (#7)	Gs	53.0	60.4	-58.5	55.0	60.0
8	Pos. 1 Chest Displacement	ins	.4	95.2	-.7	74.4	60.0
9	Pos. 2 Chest Displacement	ins	.2	42.7	-.8	68.6	60.0

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

L. Rear X-member X (#1)

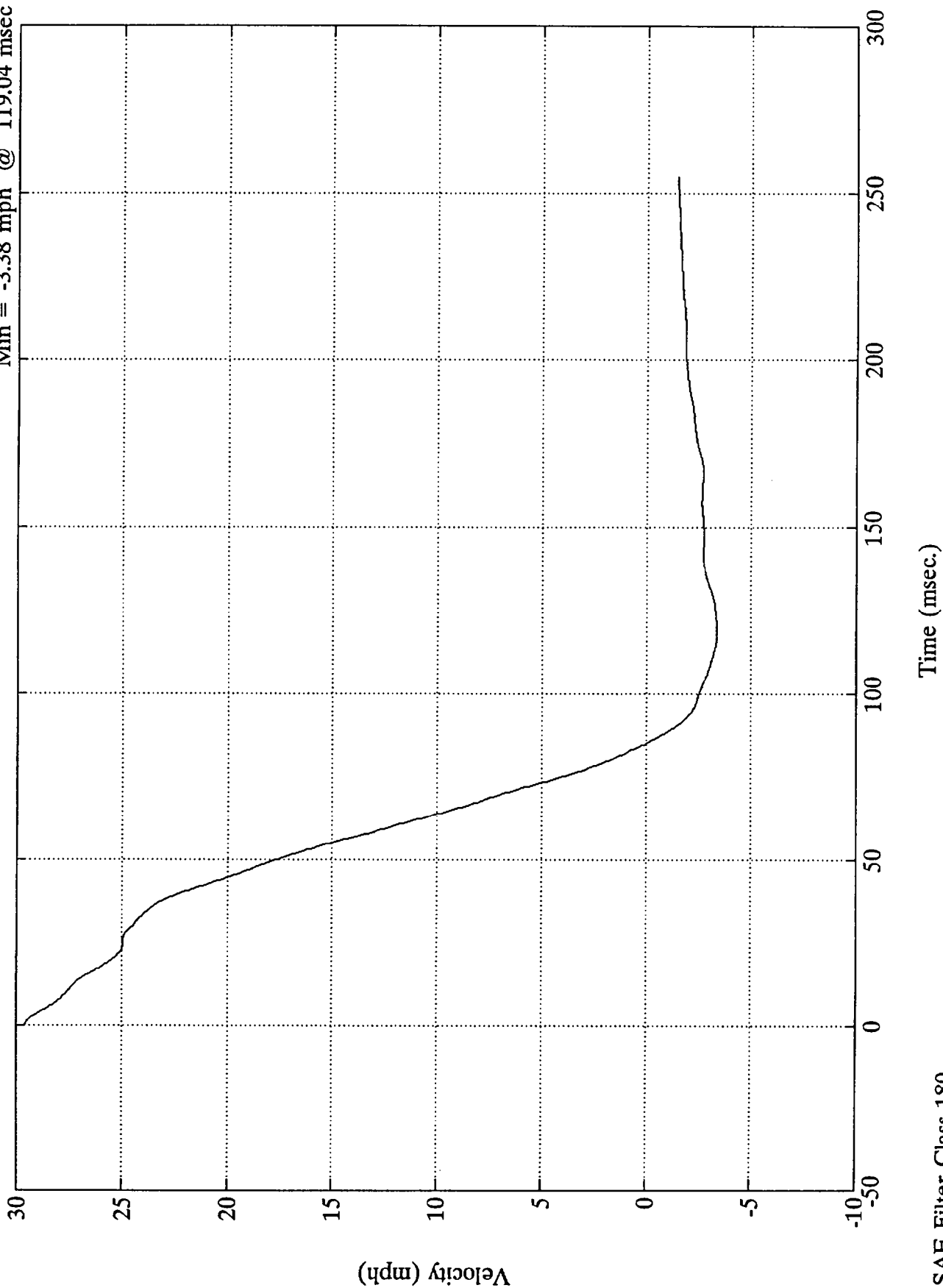
Max = 2.74 Gs @ 131.52 msec
Min = -27.14 Gs @ 56.28 msec



SAE Filter Class 60

L. Rear X-member X (#1)

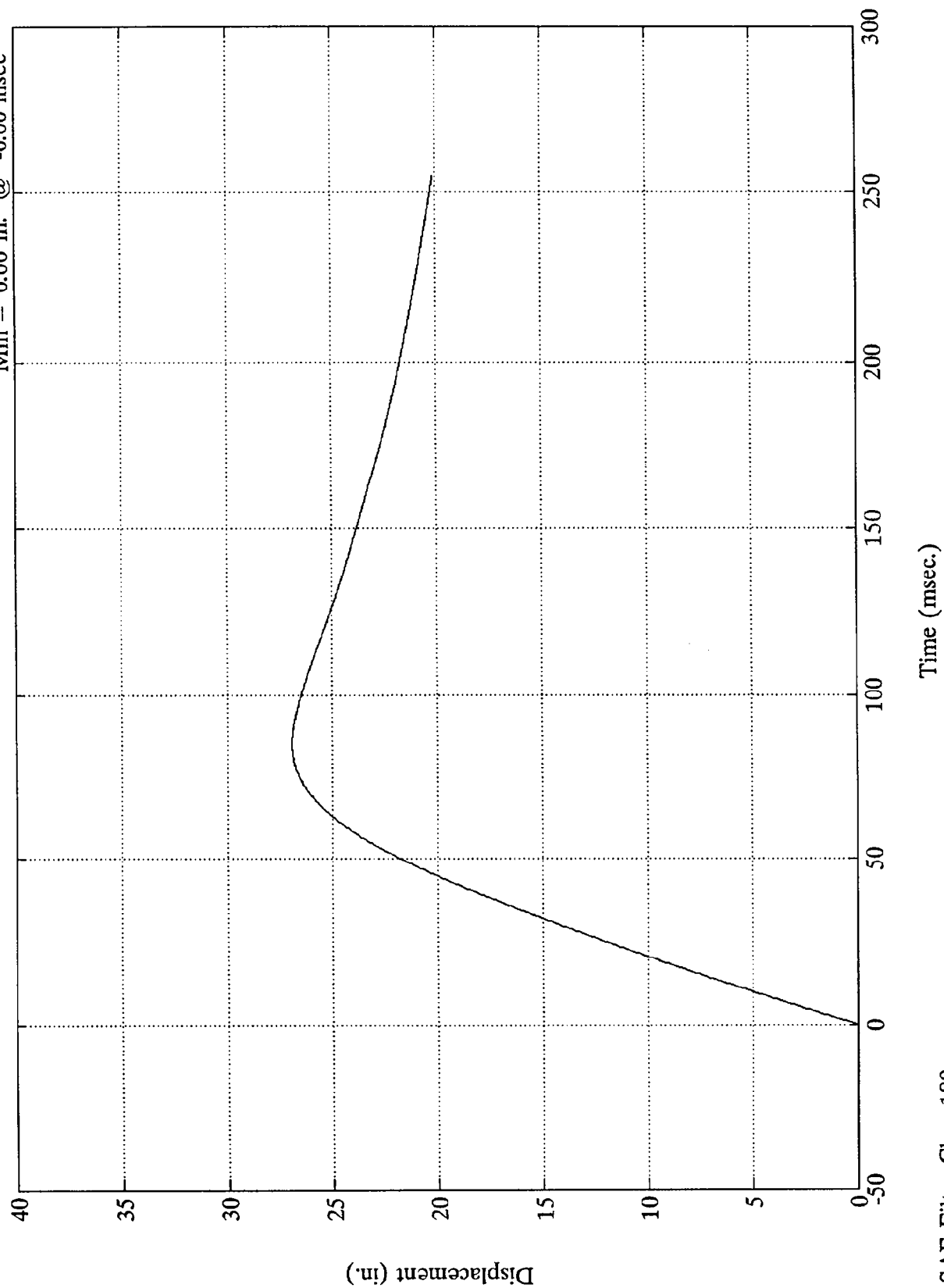
Max = 29.60 mph @ -0.00 msec
Min = -3.38 mph @ 119.04 msec



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

L. Rear X-member X (#1)

Max = 26.92 in. @ 86.88 msec
Min = 0.00 in. @ -0.00 msec

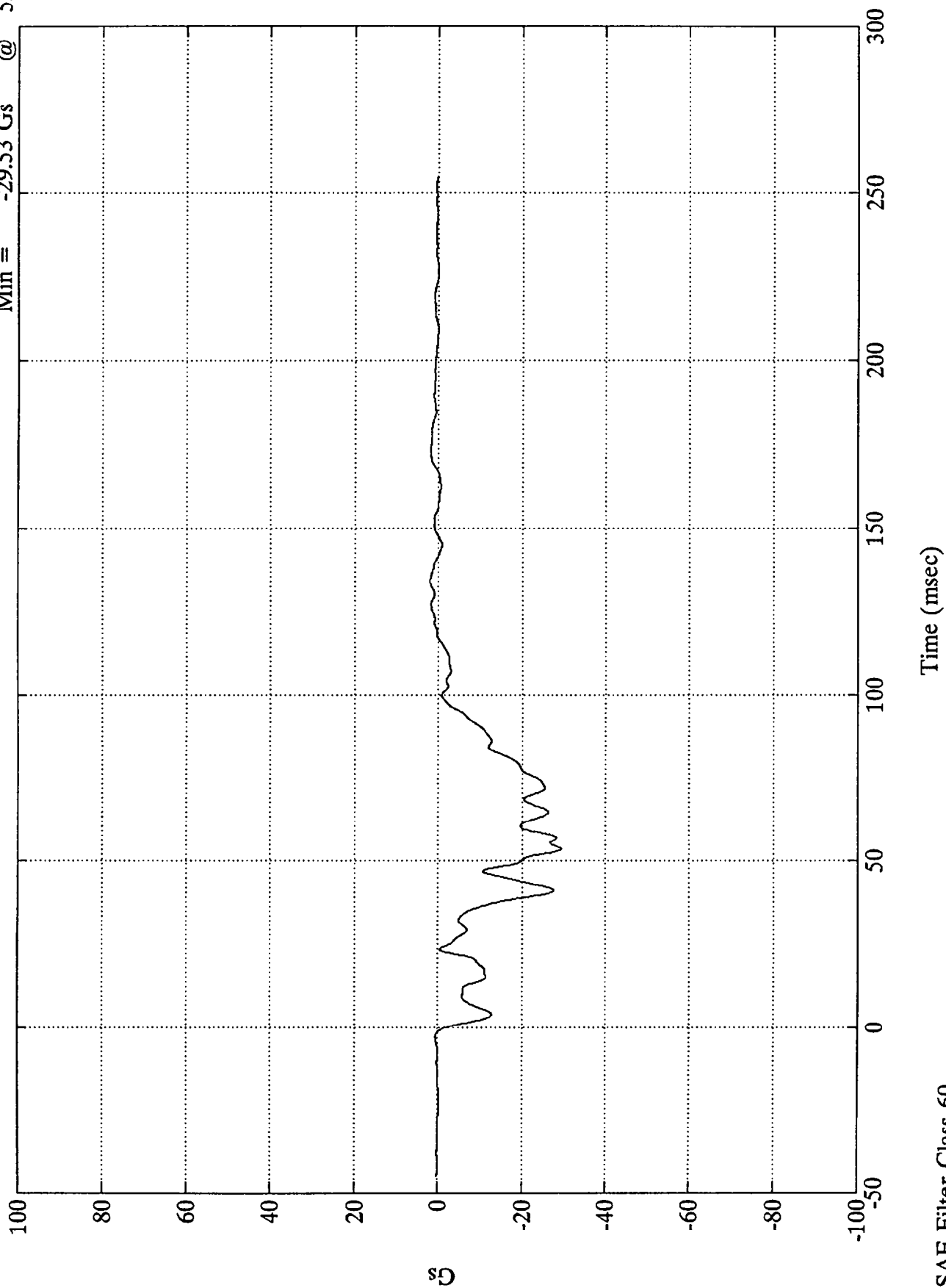


SAE Filter Class 180

R. Rear X-member X (#2)

Max = 1.99 Gs
Min = -29.53 Gs

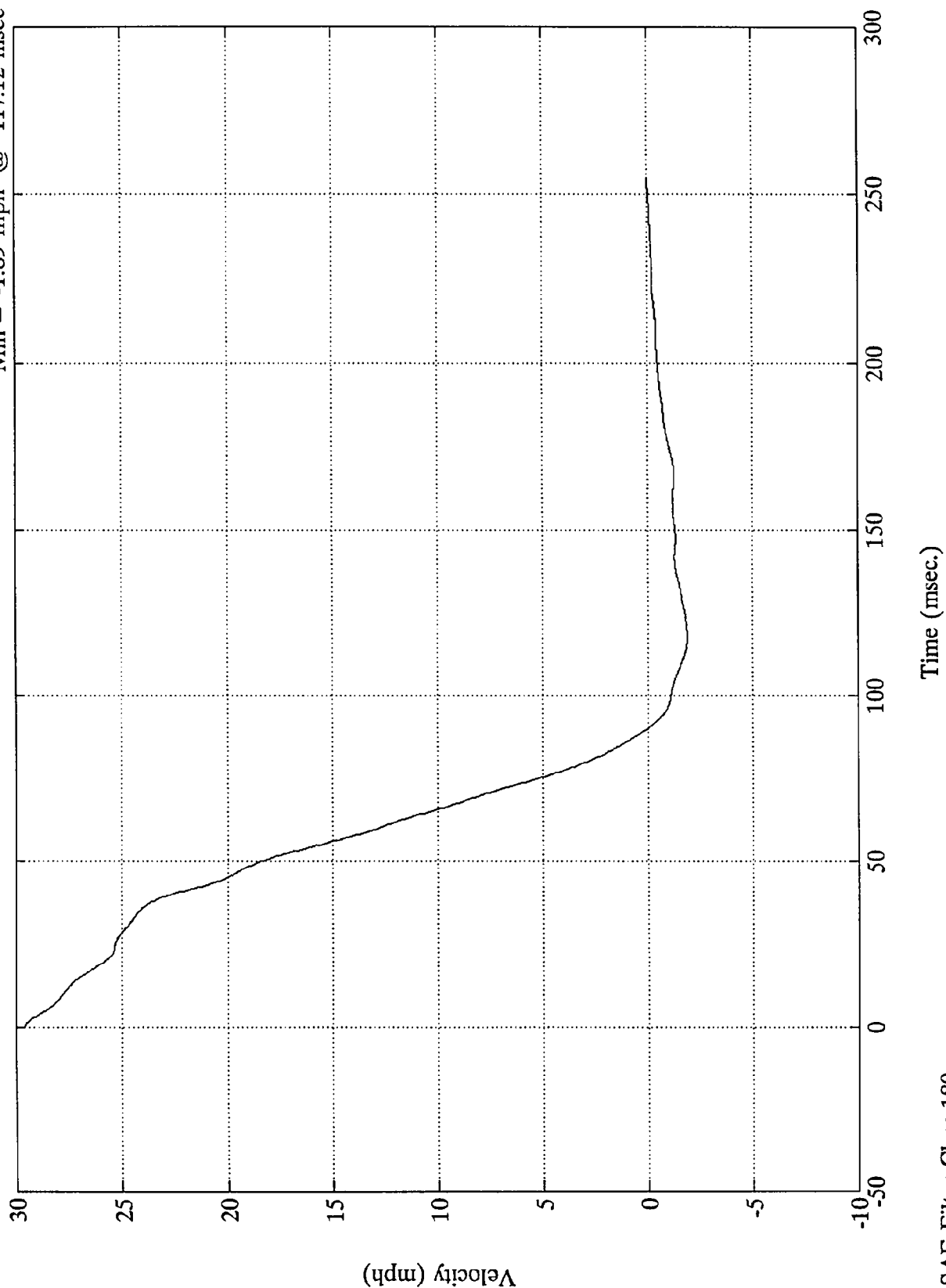
@ 134.27 msec
@ 53.52 msec



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

R. Rear X-member X (#2)

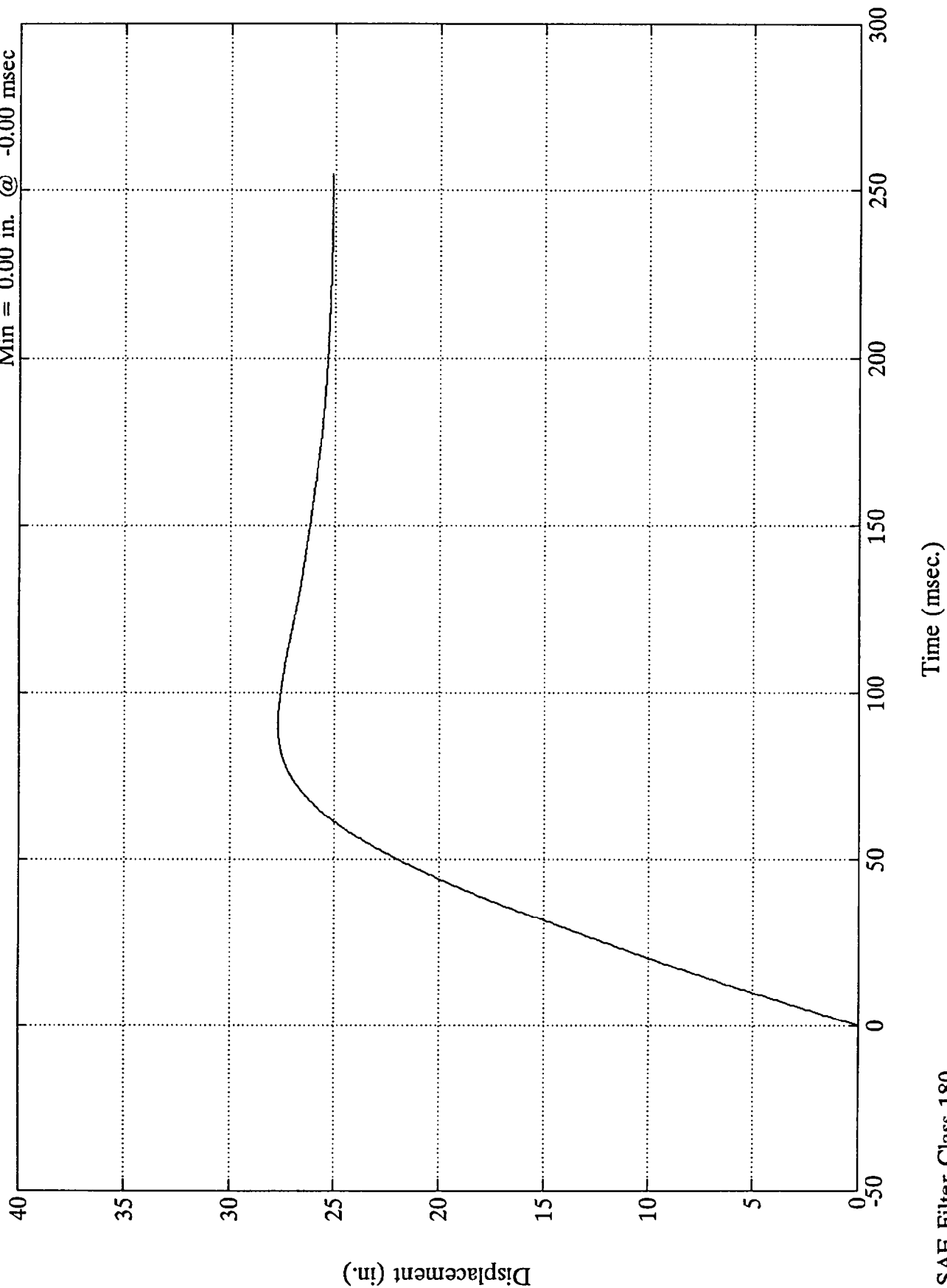
Max = 29.60 mph @ -0.00 msec
Min = -1.89 mph @ 117.12 msec



SAE Filter Class 180

R. Rear X-member X (#2)

Max = 27.71 in. @ 91.68 msec
Min = 0.00 in. @ -0.00 msec

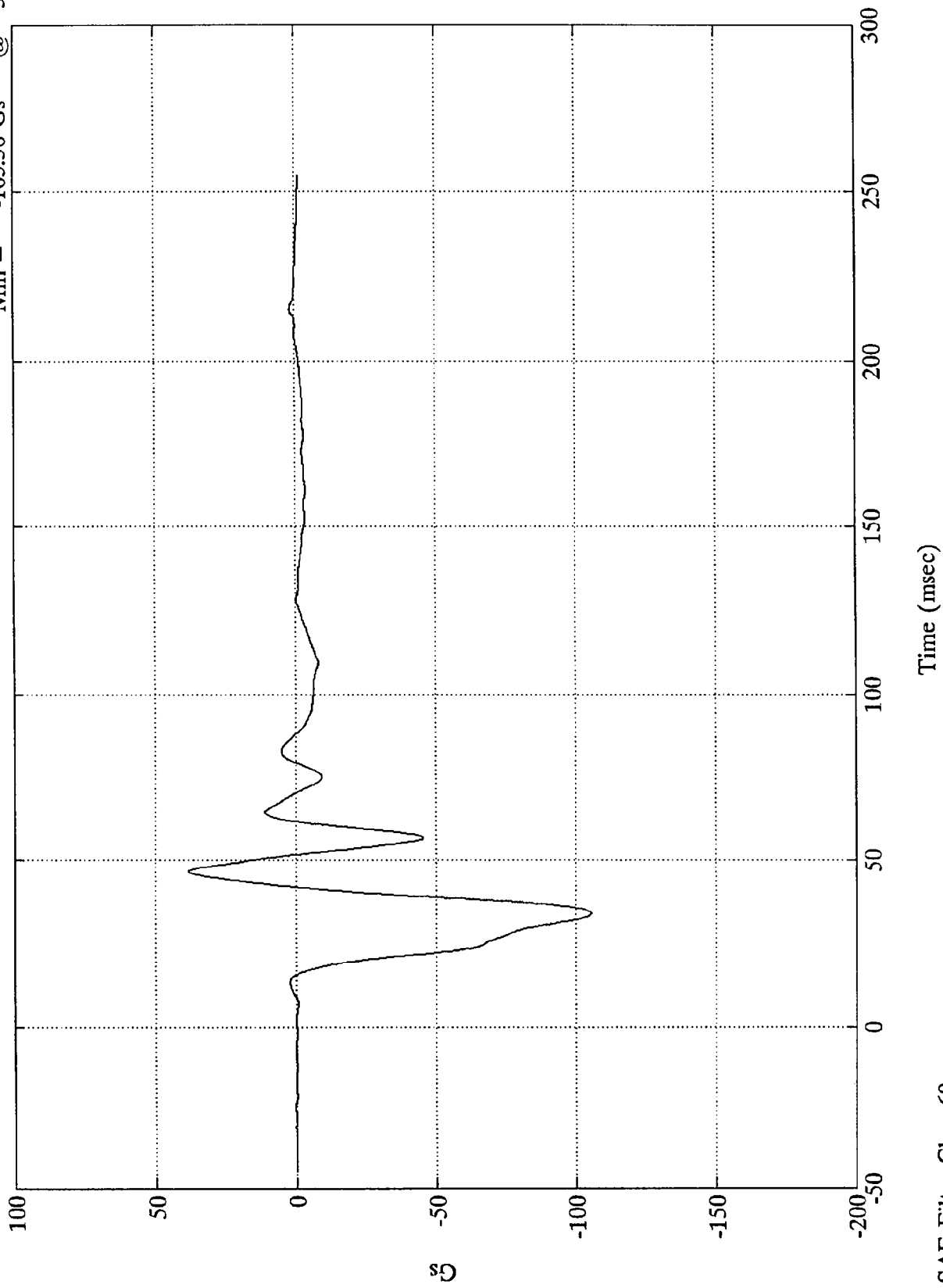


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Engine Top X (#3)

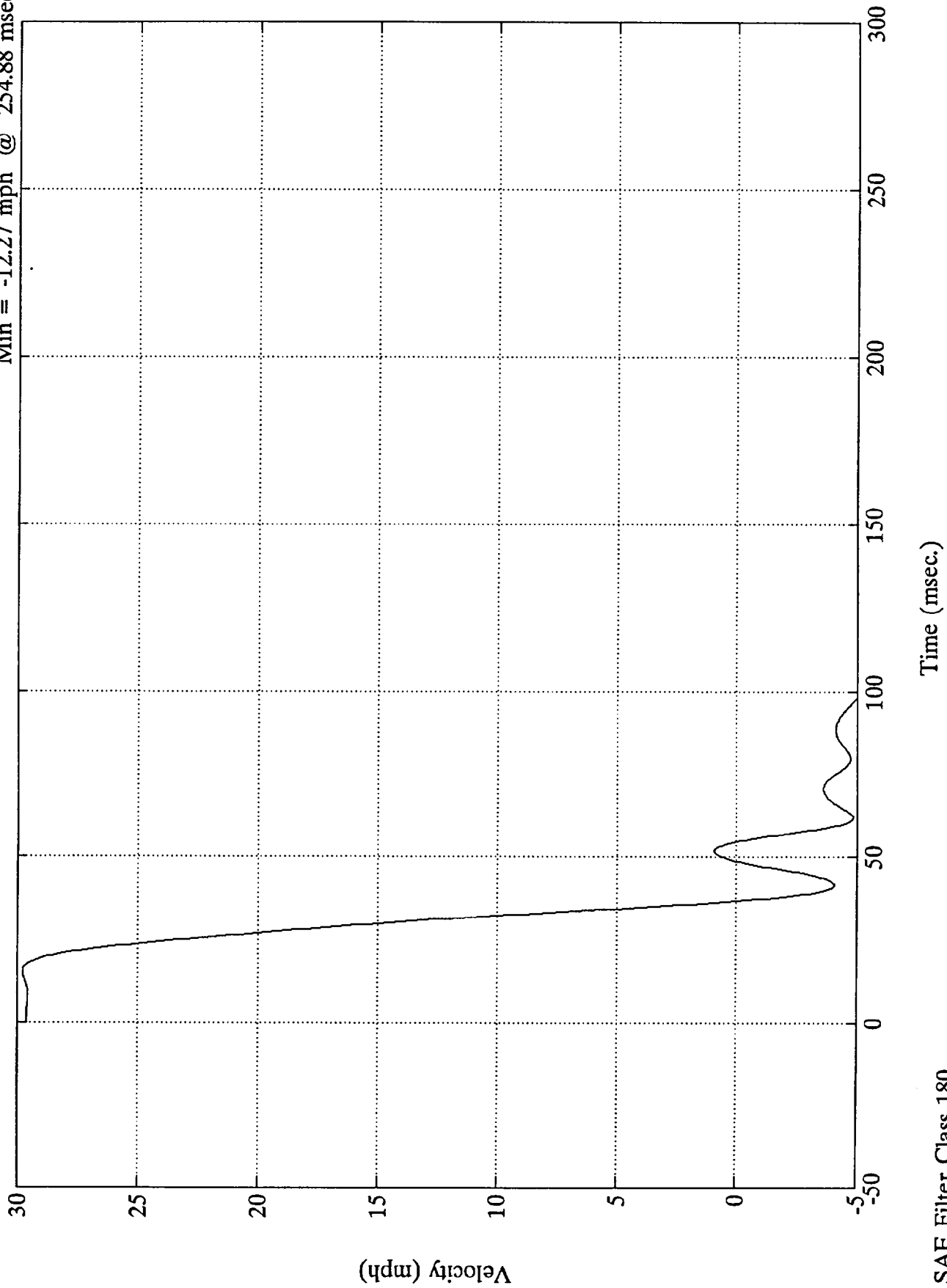
Max = 38.45 Gs @ 46.56 msec
Min = -105.50 Gs @ 33.84 msec



SAE Filter Class 60

Engine Top X (#3)

Max = 29.79 mph @ 15.60 msec
Min = -12.27 mph @ 254.88 msec

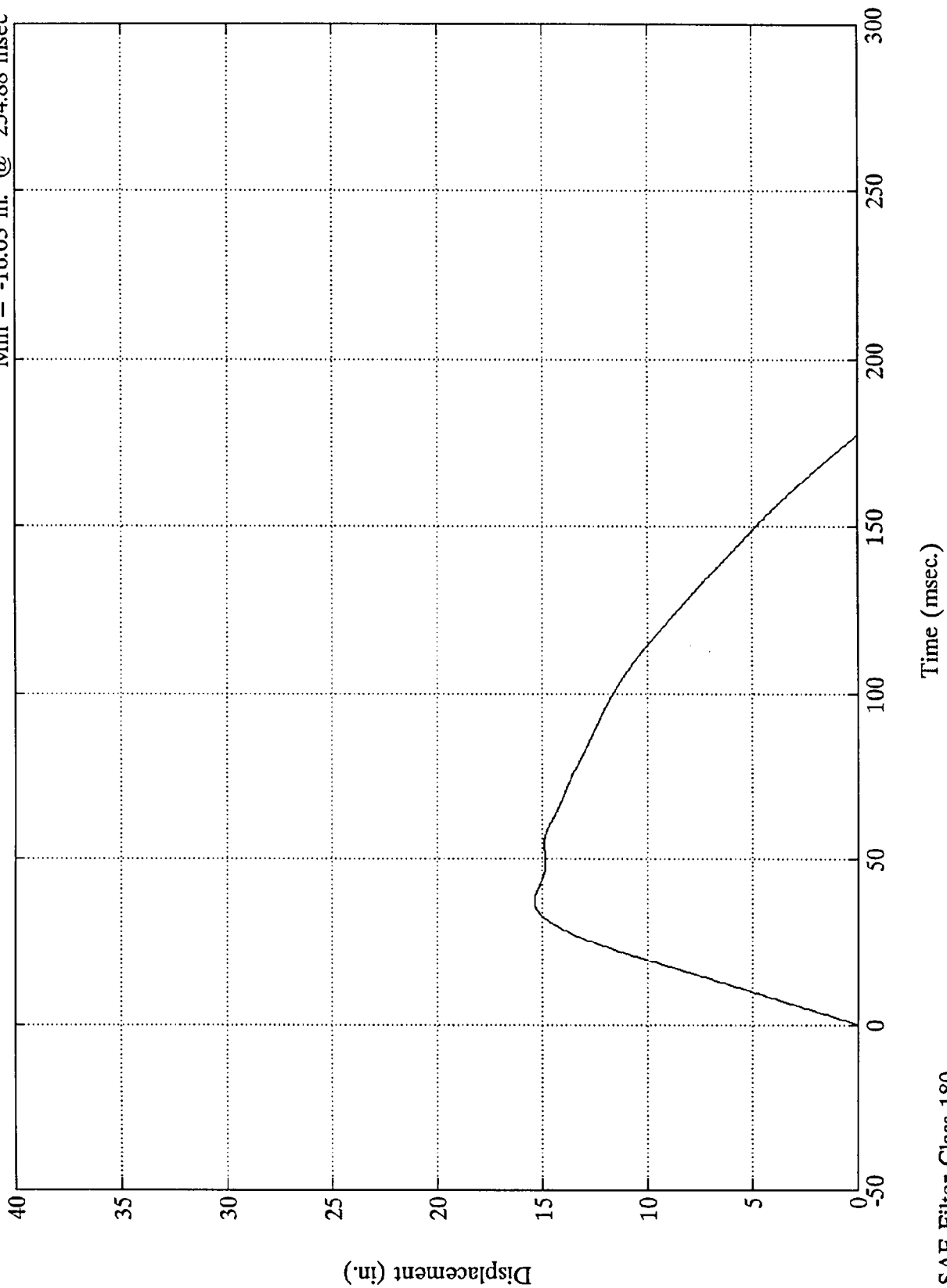


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Engine Top X (#3)

Max = 15.37 in. @ 37.44 msec
Min = -16.03 in. @ 254.88 msec



SAE Filter Class 180

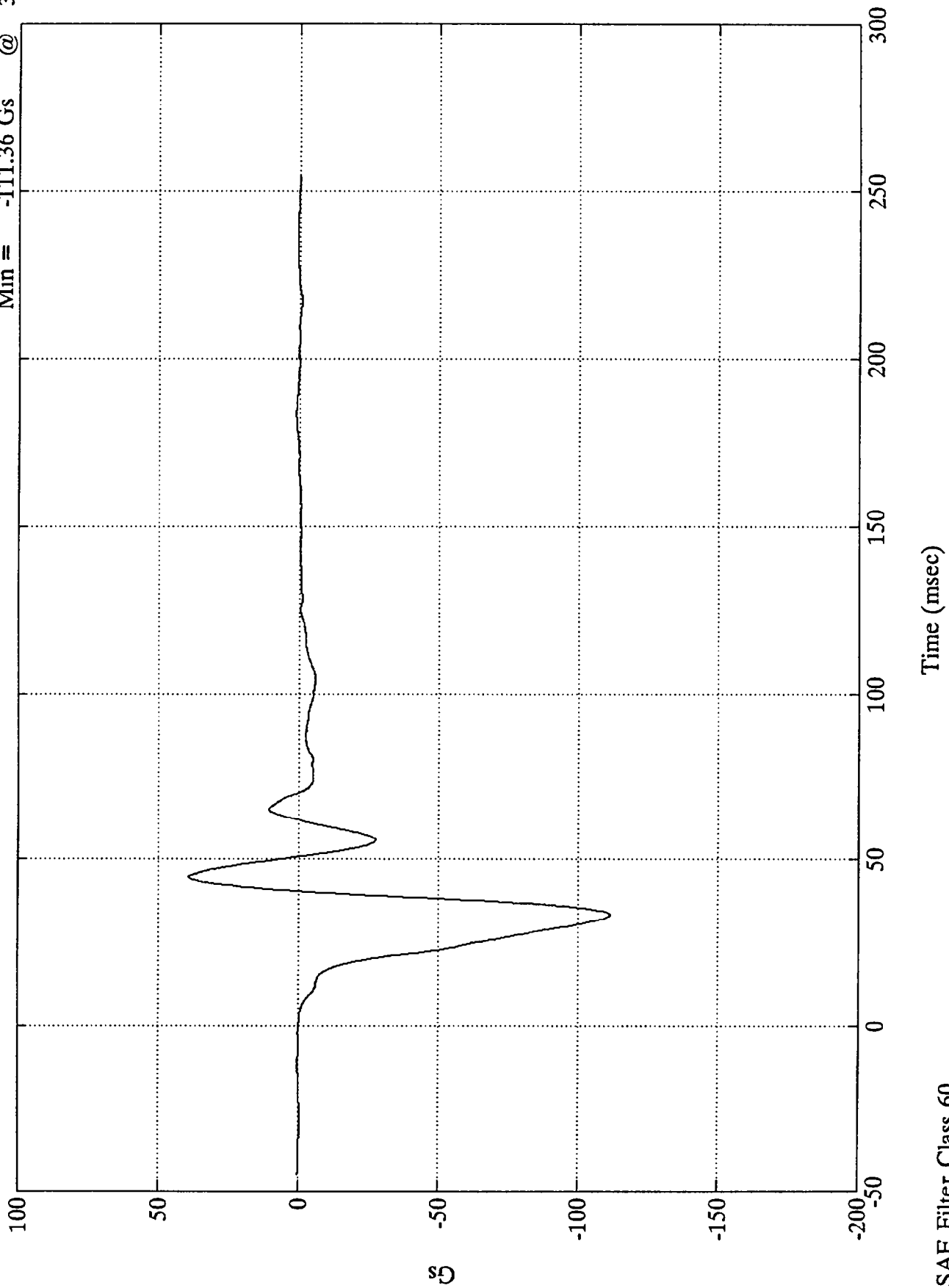
Engine Bottom X (#4)

Max =
Min =

39.19 Gs
-111.36 Gs

@
@

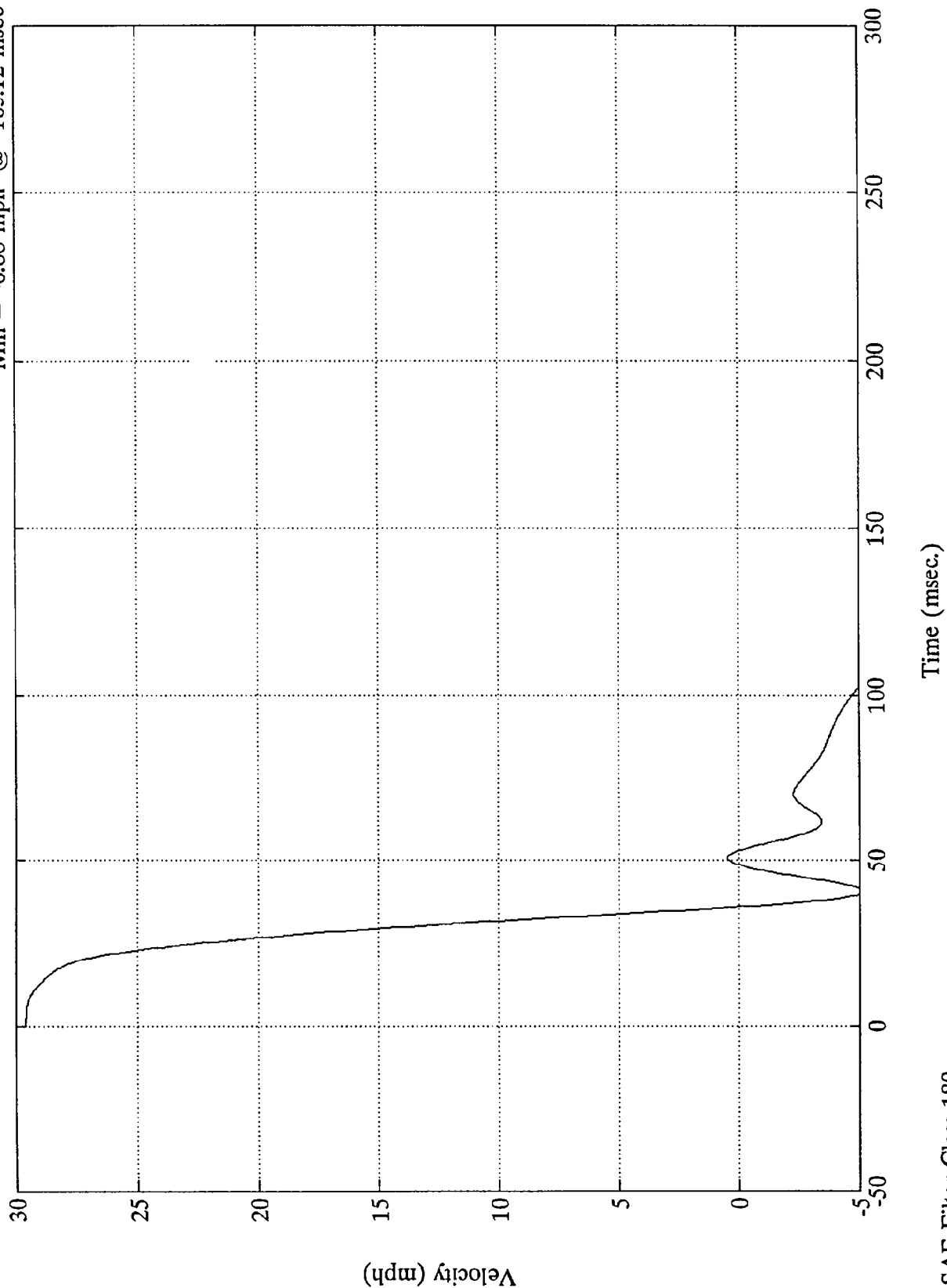
44.52 msec
33.36 msec



SAE Filter Class 60

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

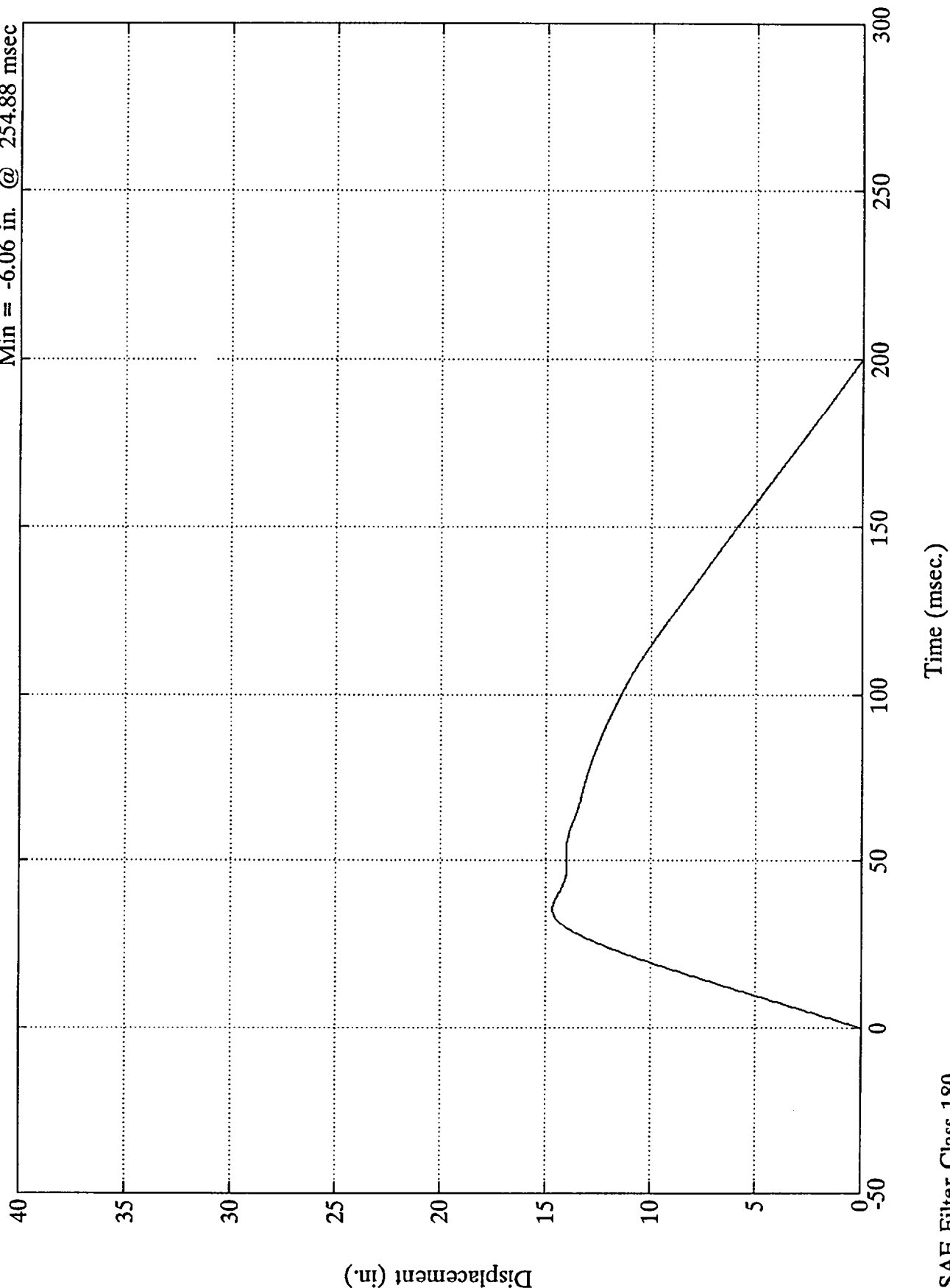
Engine Bottom X (#4)
Max = 29.60 mph @ 2.16 msec
Min = -6.88 mph @ 165.12 msec



SAE Filter Class 180

Max = 14.67 in. @ 36.00 msec
Min = -6.06 in. @ 254.88 msec

Engine Bottom X (#4)

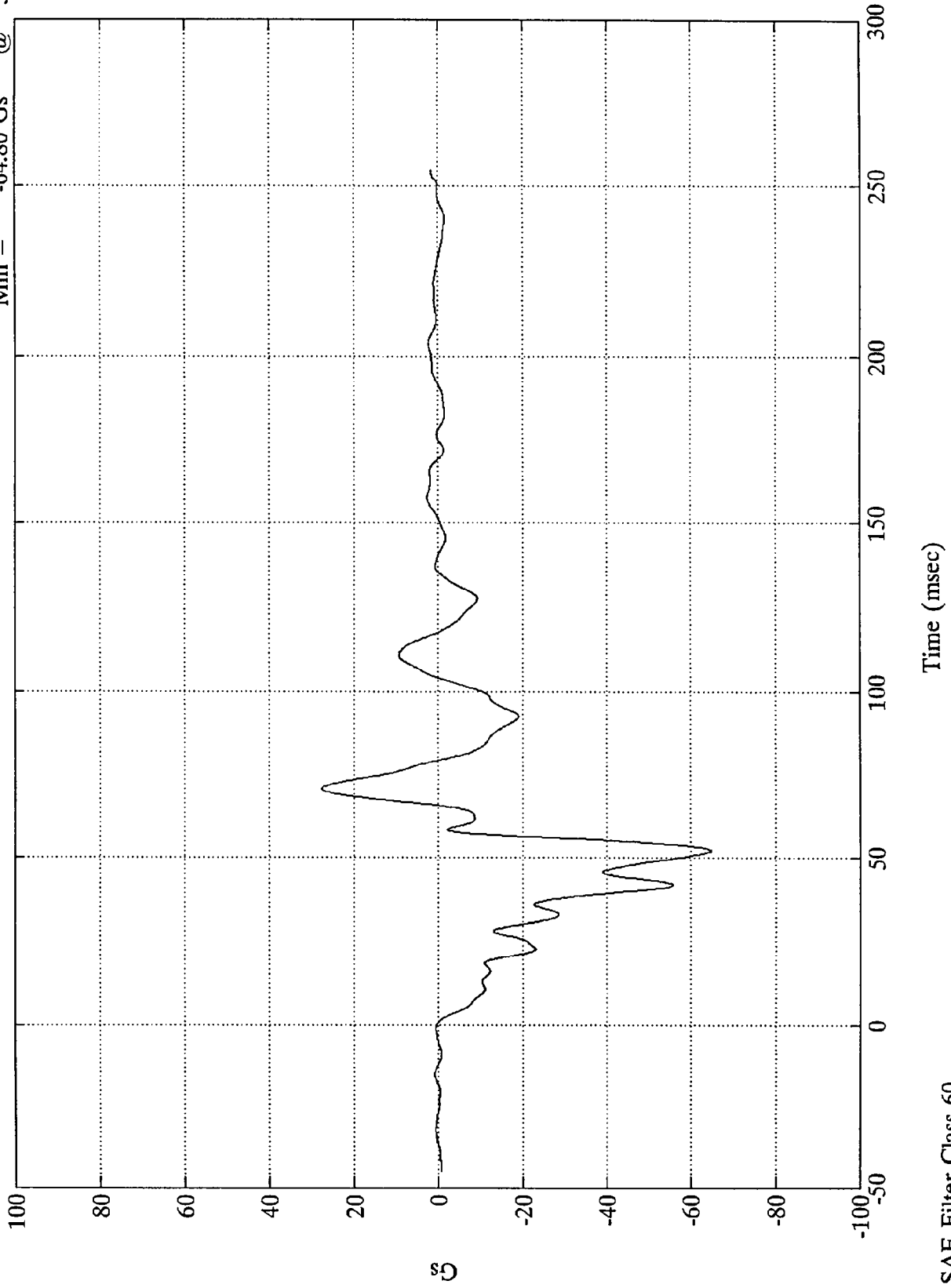


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

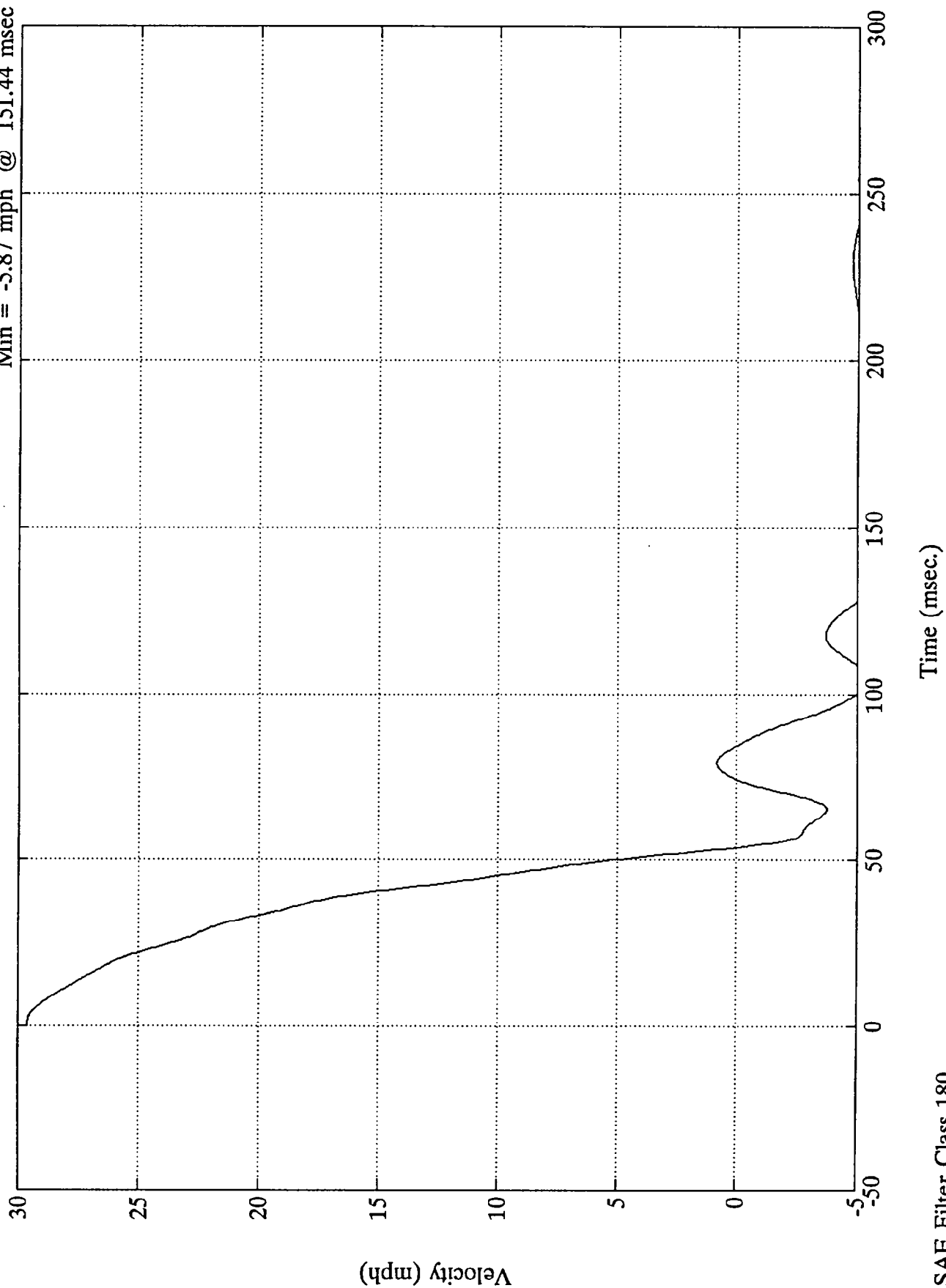
R. Brake Caliper X (#5)

Max = 27.66 Gs @ 70.44 msec
Min = -64.80 Gs @ 52.08 msec



SAE Filter Class 60

R. Brake Caliper X (#5)
Max = 29.60 mph @ 1.20 msec
Min = -5.87 mph @ 151.44 msec

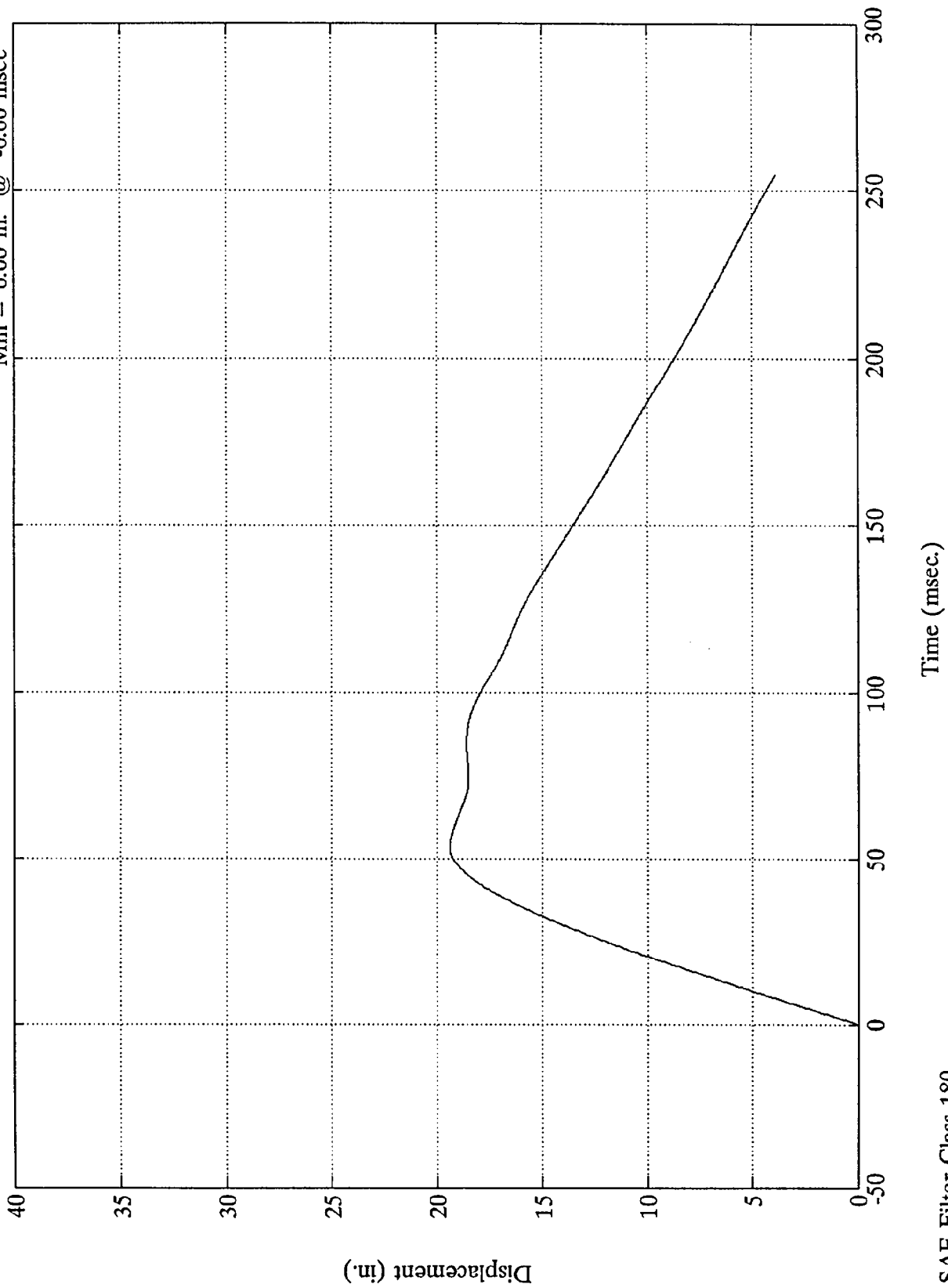


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

R. Brake Caliper X (#5)

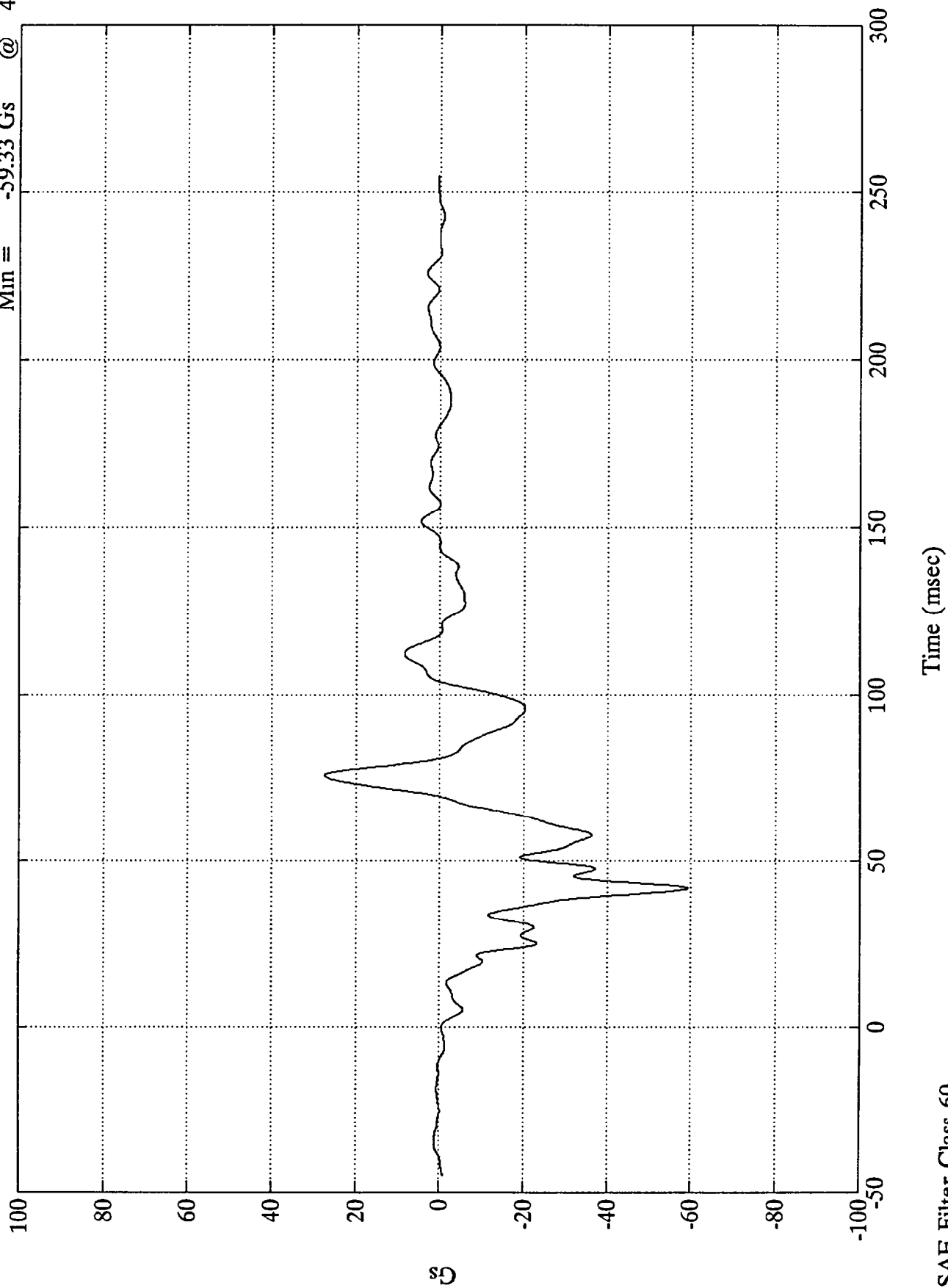
Max = 19.40 in. @ 54.48 msec
Min = 0.00 in. @ -0.00 msec



SAE Filter Class 180

L Brake Caliper X (#6)

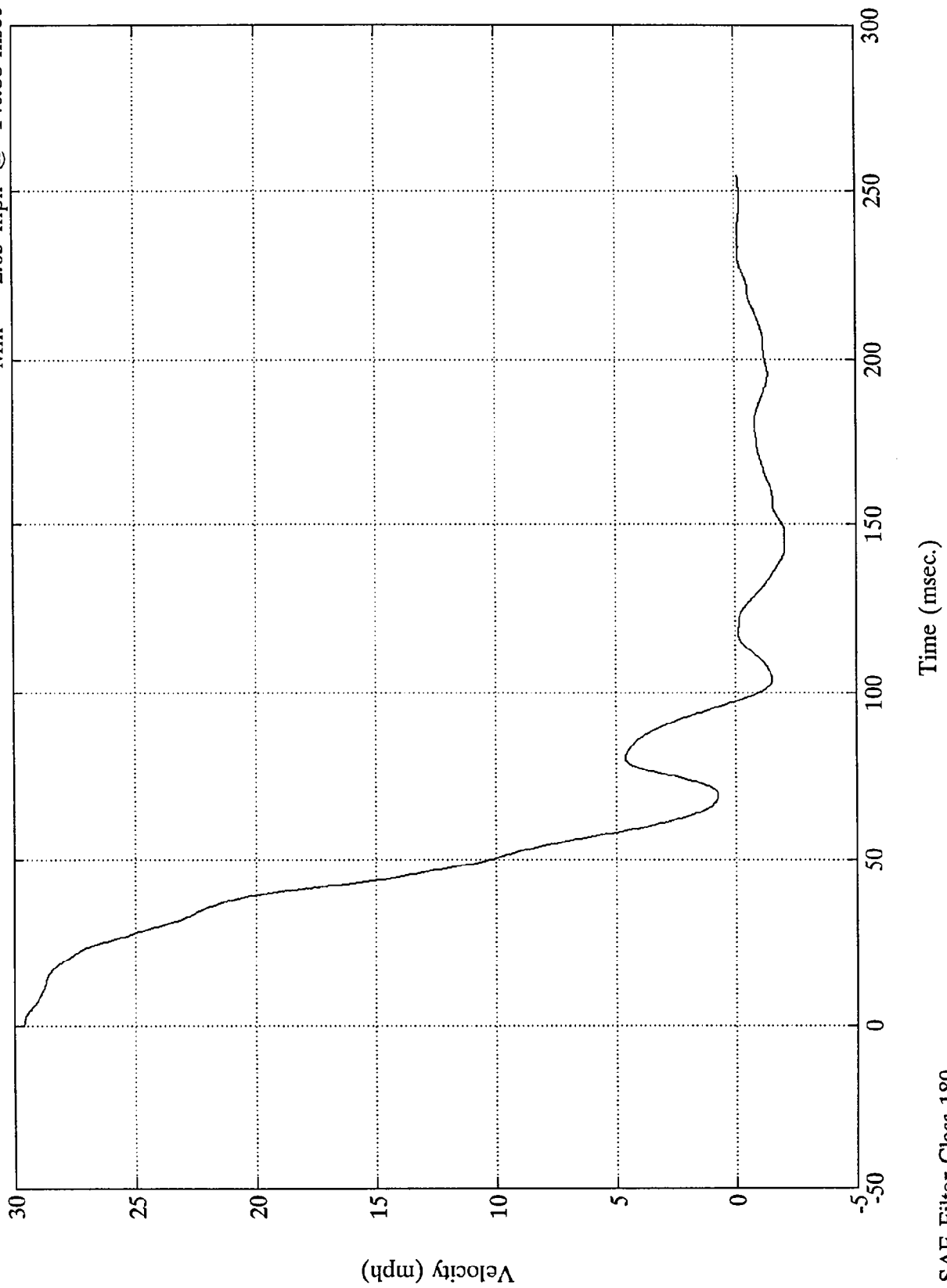
Max = 27.51 Gs @ 75.59 msec
Min = -59.33 Gs @ 41.88 msec



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

L. Brake Caliper X (#6)

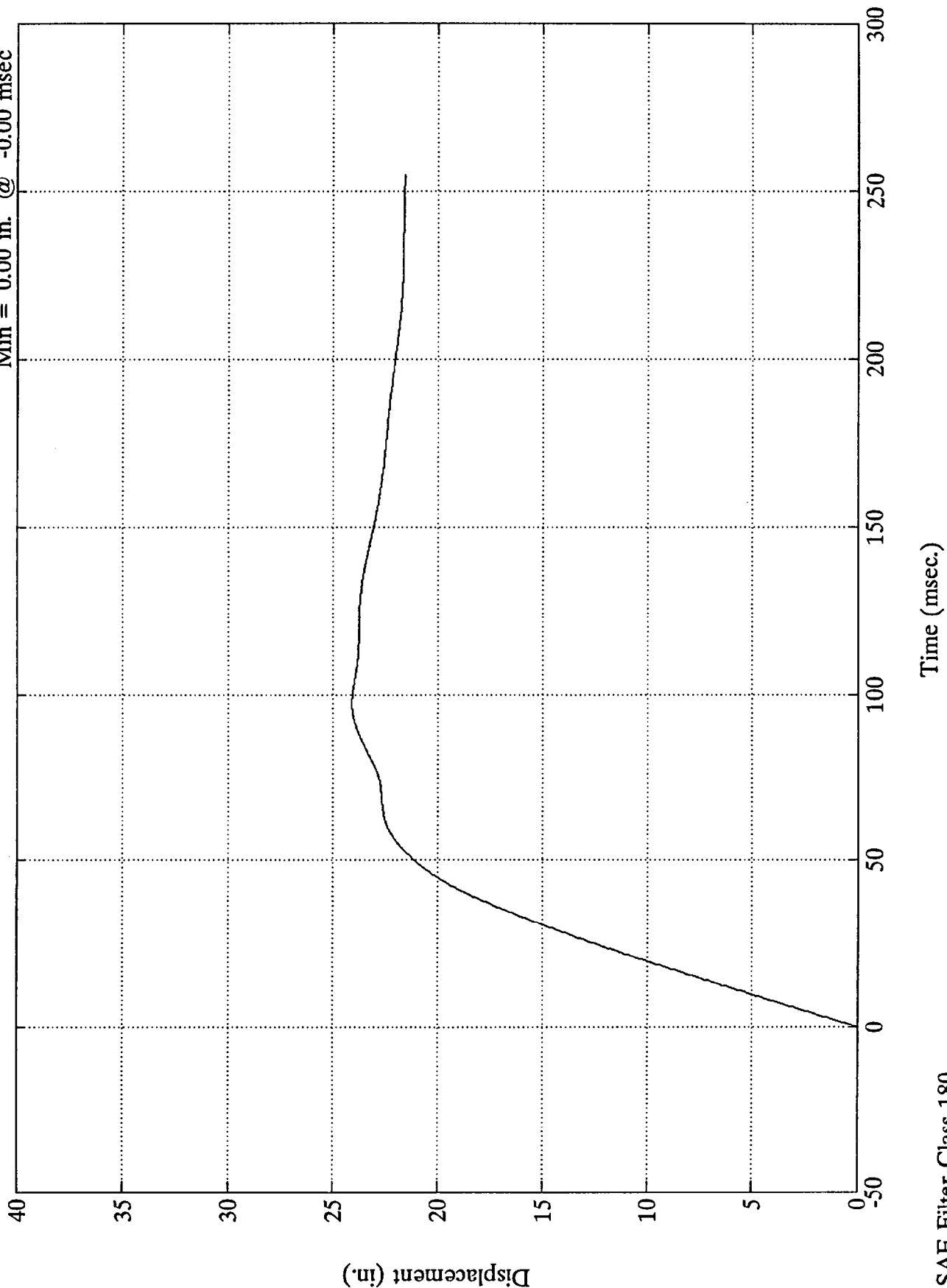
Max = 29.60 mph @ 0.24 msec
Min = -2.03 mph @ 146.88 msec



SAE Filter Class 180

L. Brake Caliper X (#6)

Max = 24.10 in. @ 98.88 msec
Min = 0.00 in. @ -0.00 msec

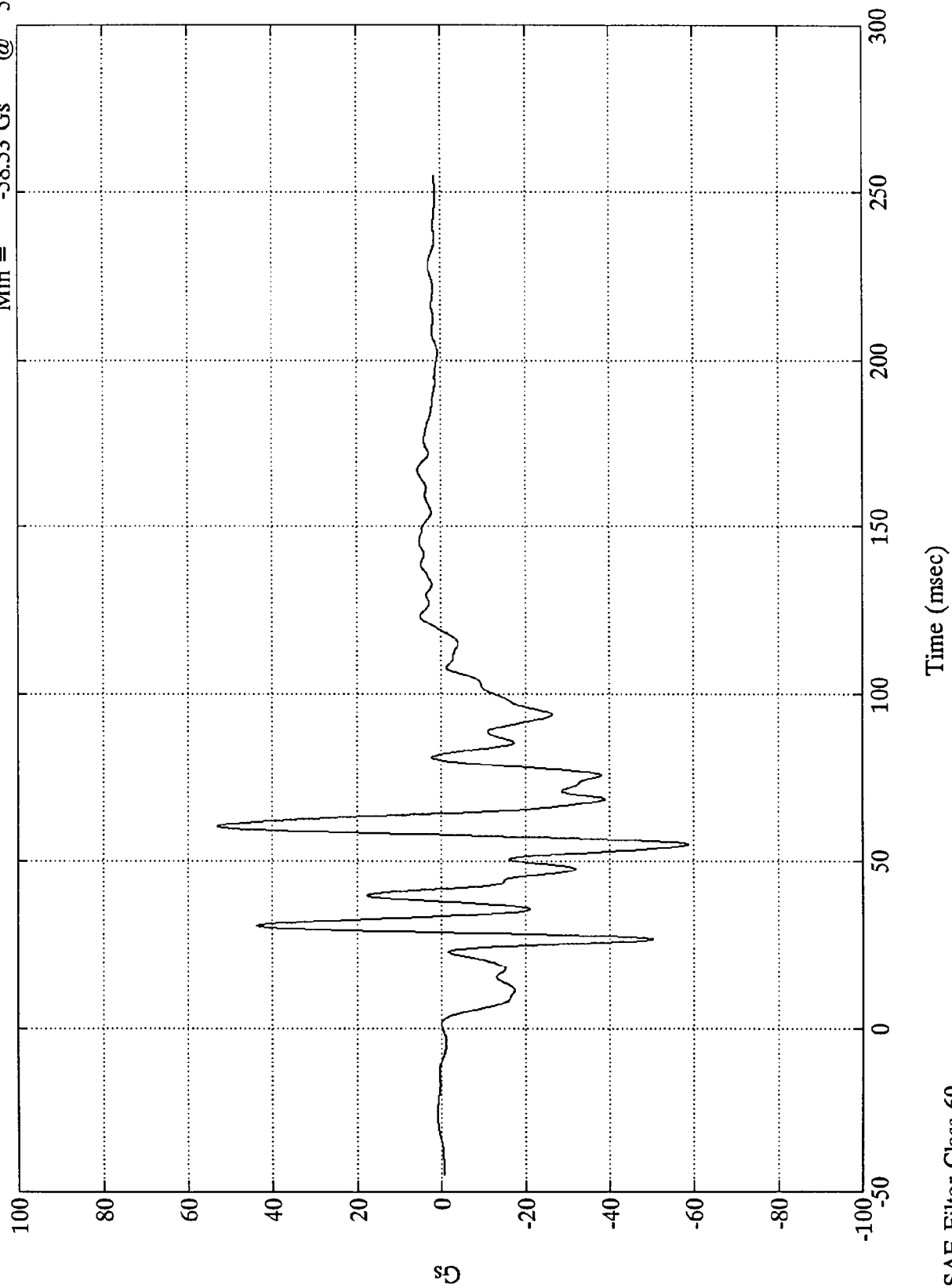


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Instrument Panel X (#7)

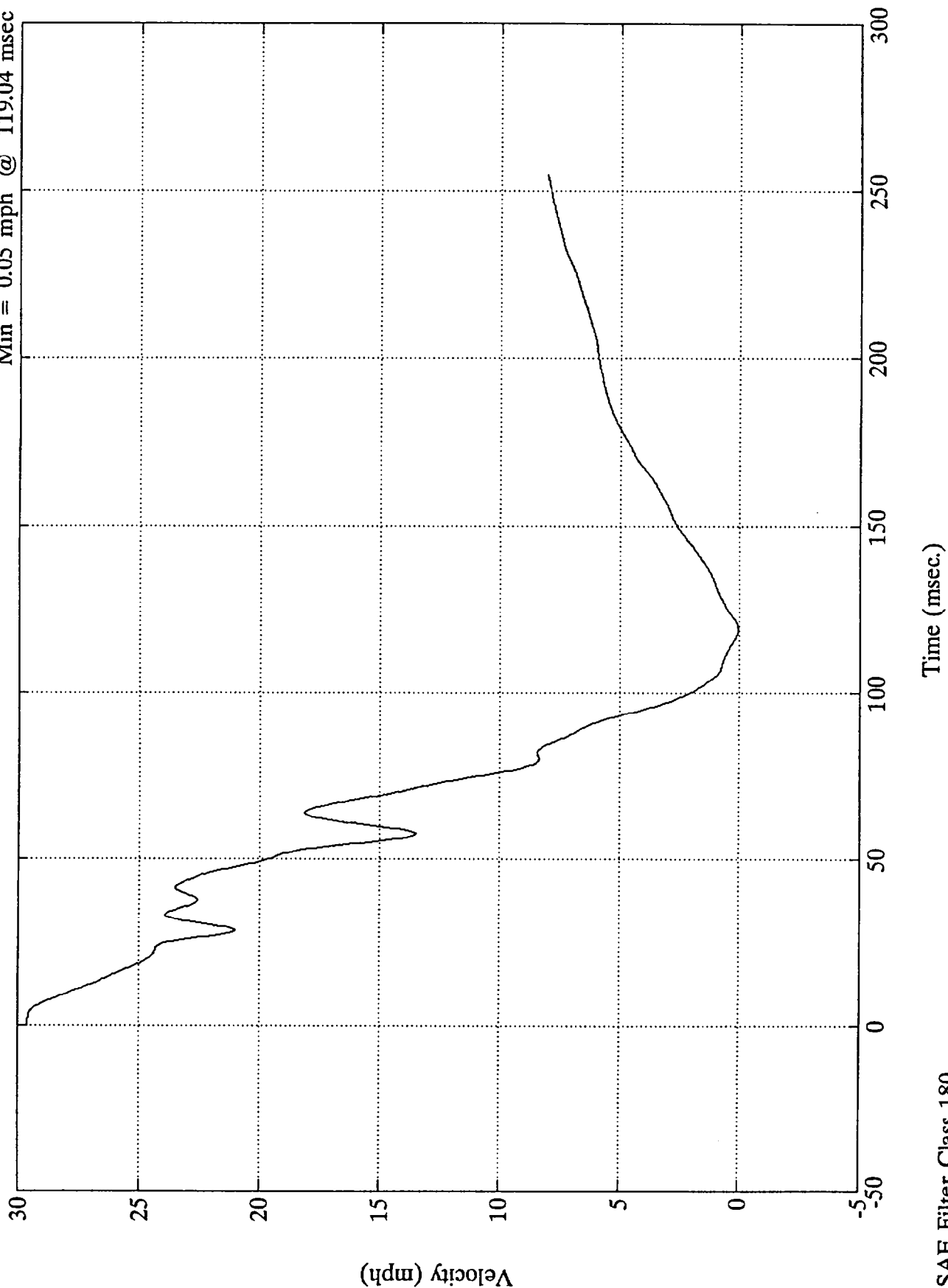
Max = 53.00 Gs @ 60.36 msec
Min = -58.53 Gs @ 54.96 msec



SAE Filter Class 60

Instrument Panel X (#7)

Max = 29.60 mph @ 2.16 msec
Min = 0.05 mph @ 119.04 msec

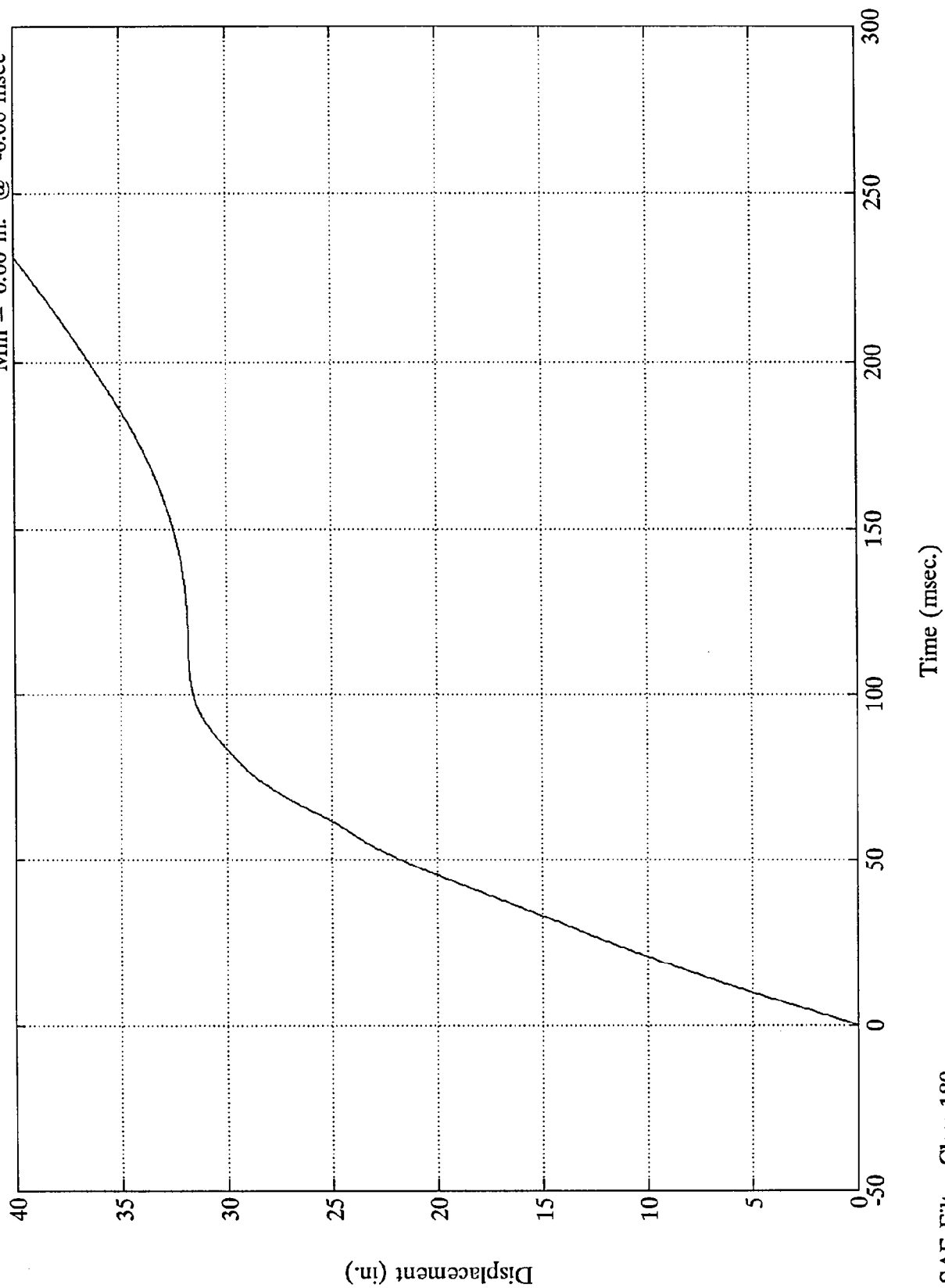


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Instrument Panel X (#7)

Max = 43.22 in. @ 254.88 msec
Min = 0.00 in. @ -0.00 msec



SAE Filter Class 180

TEST NO. CR0300

DUMMY	SAE FILTER CHANNEL CLASS
Head Accelerations	1000
Chest Accelerations	100
Femur Forces	600

FACILITY: TRACK
RUN #: 1343
SERIES #: 5

TEST DATE: 18 Nov 1993
TEST TIME: 14:19:44
BOARD: A

TITLE: NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

CHANNEL NUMBER	DESCRIPTION	ENGR UNIT	MAXIMUM		MINIMUM		FILTER CLASS
			AMP	msec	AMP	msec	
1	Pos. 1 Head X	Gs	20.0	124.0	-59.5	80.5	1000.0
2	Pos. 1 Head Y	Gs	4.3	49.9	-5.7	80.3	1000.0
3	Pos. 1 Head Z	Gs	40.0	85.4	-48.5	101.0	1000.0
4	*Pos. 1 Left Femur	lbs	0.0	0.0	-1430.0	68.8	600.0
5	Pos. 1 Chest X	Gs	12.0	187.7	-64.0	94.7	180.0
6	Pos. 1 Chest Y	Gs	7.2	97.1	-3.6	64.8	180.0
7	Pos. 1 Chest Z	Gs	18.5	84.8	-2.1	125.8	180.0
8	*Pos. 1 Right Femur	lbs	1.0	219.7	-1630.0	82.6	600.0
9	Pos. 2 Head X	Gs	13.9	127.4	-44.8	77.5	1000.0
10	Pos. 2 Head Y	Gs	7.2	51.2	-11.2	58.7	1000.0
11	Pos. 2 Head Z	Gs	29.8	79.0	-18.6	121.4	1000.0
12	*Pos. 2 Left Femur	lbs	2.0	133.6	-1730.0	59.5	600.0
13	Pos. 2 Chest X	Gs	5.0	180.5	-40.8	85.6	180.0
14	Pos. 2 Chest Y (No Data)	Gs	.0	.0	.0	.0	180.0
15	Pos. 2 Chest Z	Gs	16.2	68.8	-8.8	124.1	180.0
16	*Pos. 2 Right Femur	lbs	1.9	235.0	-1798.0	62.3	600.0
17	Pos. 1 Head Resultant	Gs	67.1	83.9	.1	-13.4	1000.0
18	Pos. 1 Chest Resultant	Gs	64.5	94.7	.0	-24.8	180.0
19	Pos. 2 Head Resultant	Gs	52.8	78.1	.0	8.4	1000.0
20	Pos. 2 Chest Resultant	Gs	42.2	81.5	.0	-14.0	180.0

* - Data computer estimated from data trace to avoid questionable regions.

36 ms Fixed Duration HIC SUMMARY: Pos. 1 Head Resultant

hic: 507.54
t1 = 69.960 msec
t2 = 105.840 msec
Average G's Over Hic Duration = 45.73

CLIP SUMMARY: Pos. 1 Chest Resultant

Peak Resultant (3 ms CLIPPED DURATION) = 62.933 G's
Tstart = 93.9600 ms
Tend = 97.0800 ms
CSI = 540.819

36 ms Fixed Duration HIC SUMMARY: Pos. 2 Head Resultant

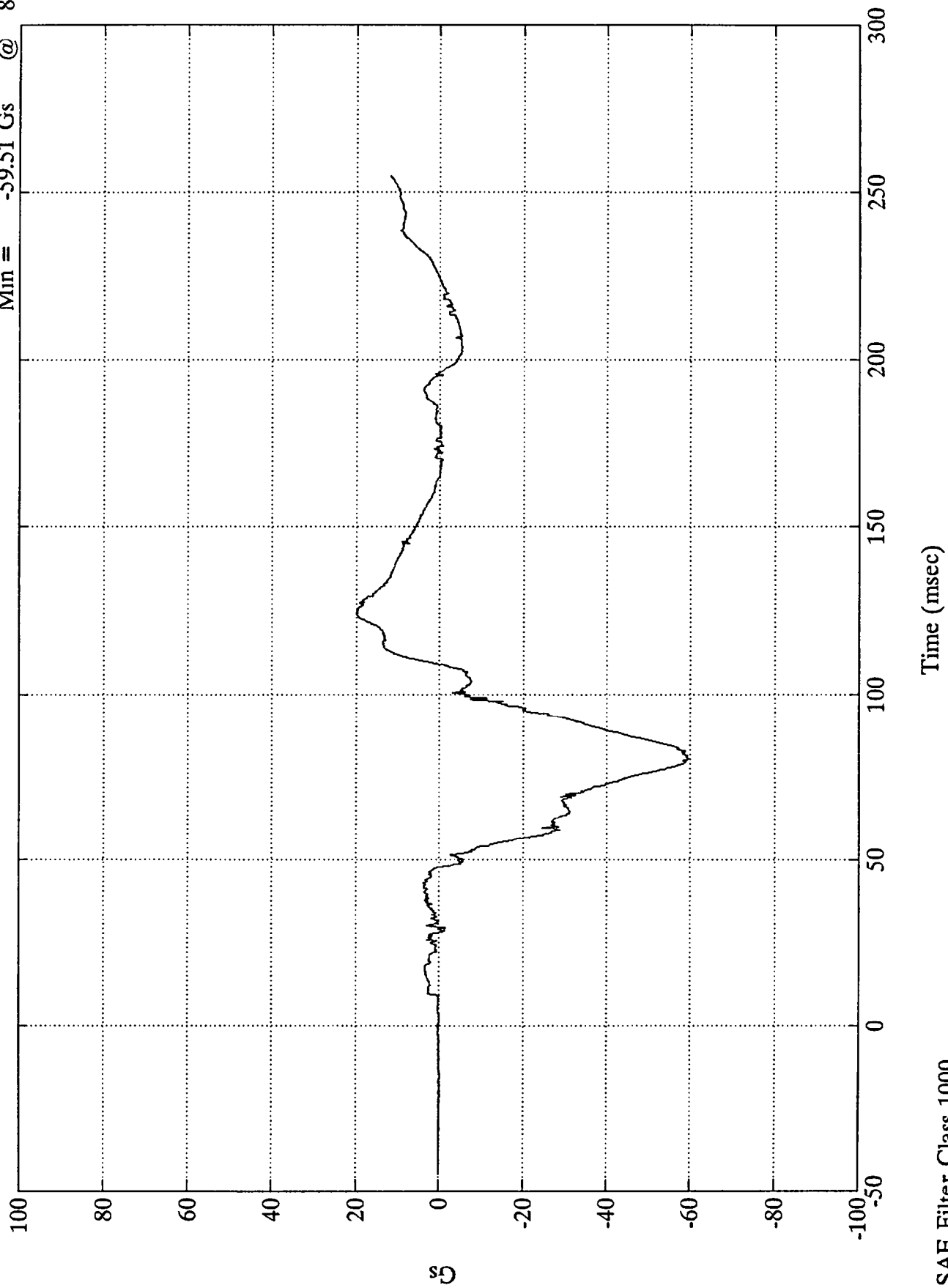
hic: 355.51
t1 = 57.840 msec
t2 = 90.600 msec
Average G's Over Hic Duration = 41.13

CLIP SUMMARY: Pos. 2 Chest Resultant

- Resultant does not include chest Y
Peak Resultant (3 ms CLIPPED DURATION) = 41.332 G's
Tstart = 79.3200 ms
Tend = 82.4400 ms
CSI = 328.543

Max = 19.98 Gs @ 123.96 ms
Min = -59.51 Gs @ 80.52 ms

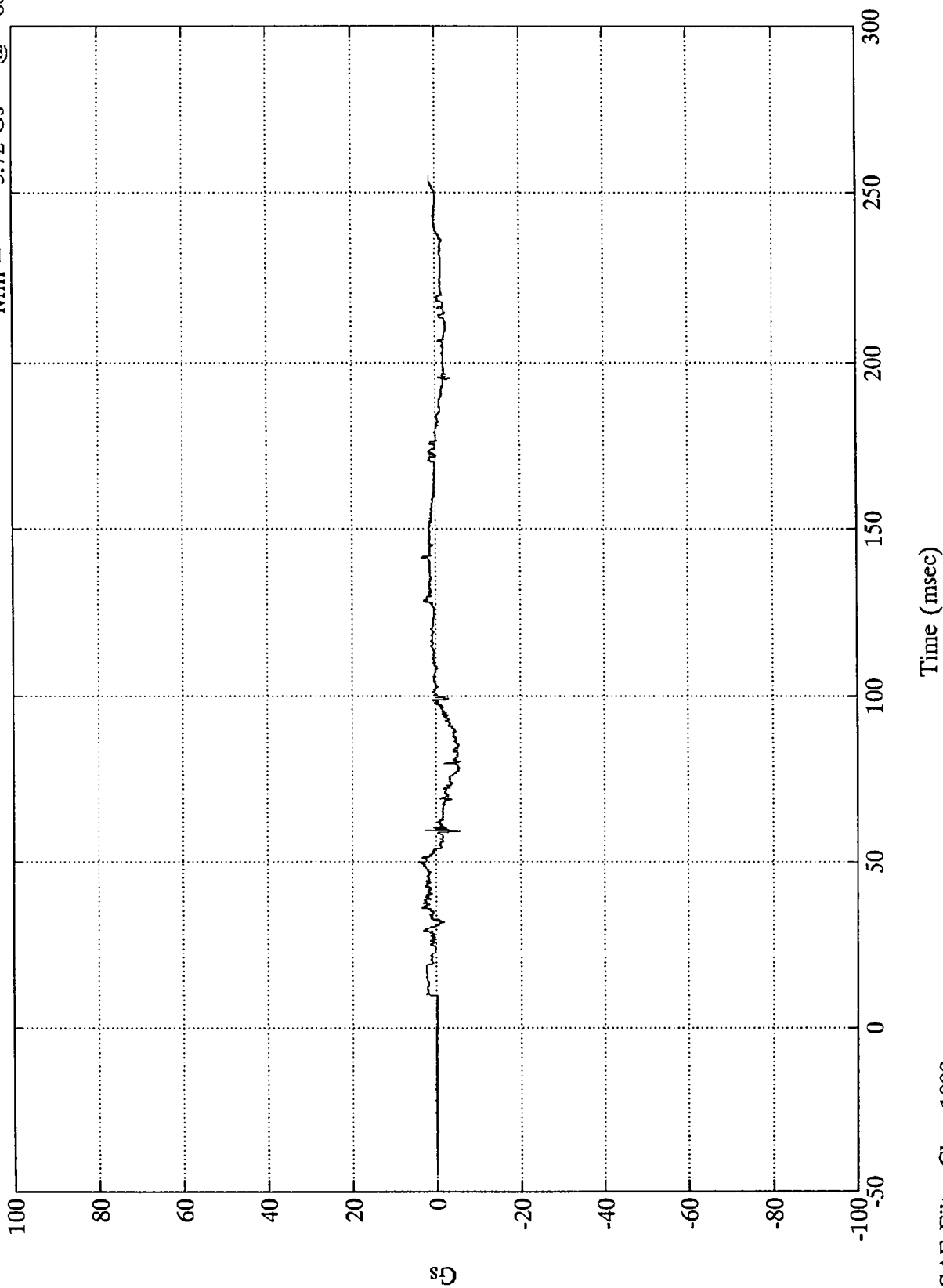
Pos. 1 Head X



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

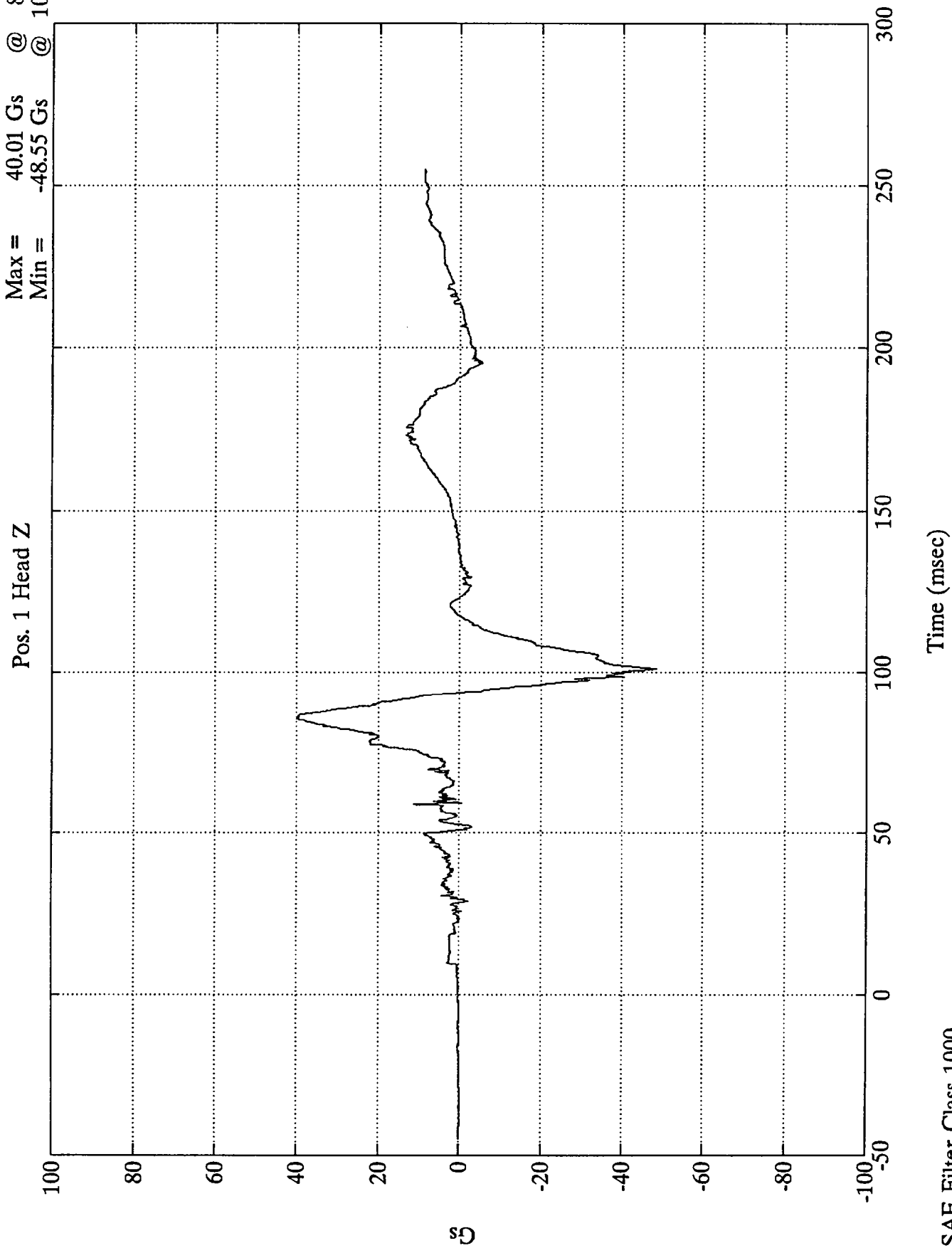
Max = 4.30 Gs @ 49.92 msec
Min = -5.72 Gs @ 80.27 msec

Pos. 1 Head Y



SAE Filter Class 1000

Pos. 1 Head Z
Max = 40.01 Gs @ 85.44 msec
Min = -48.55 Gs @ 101.04 msec

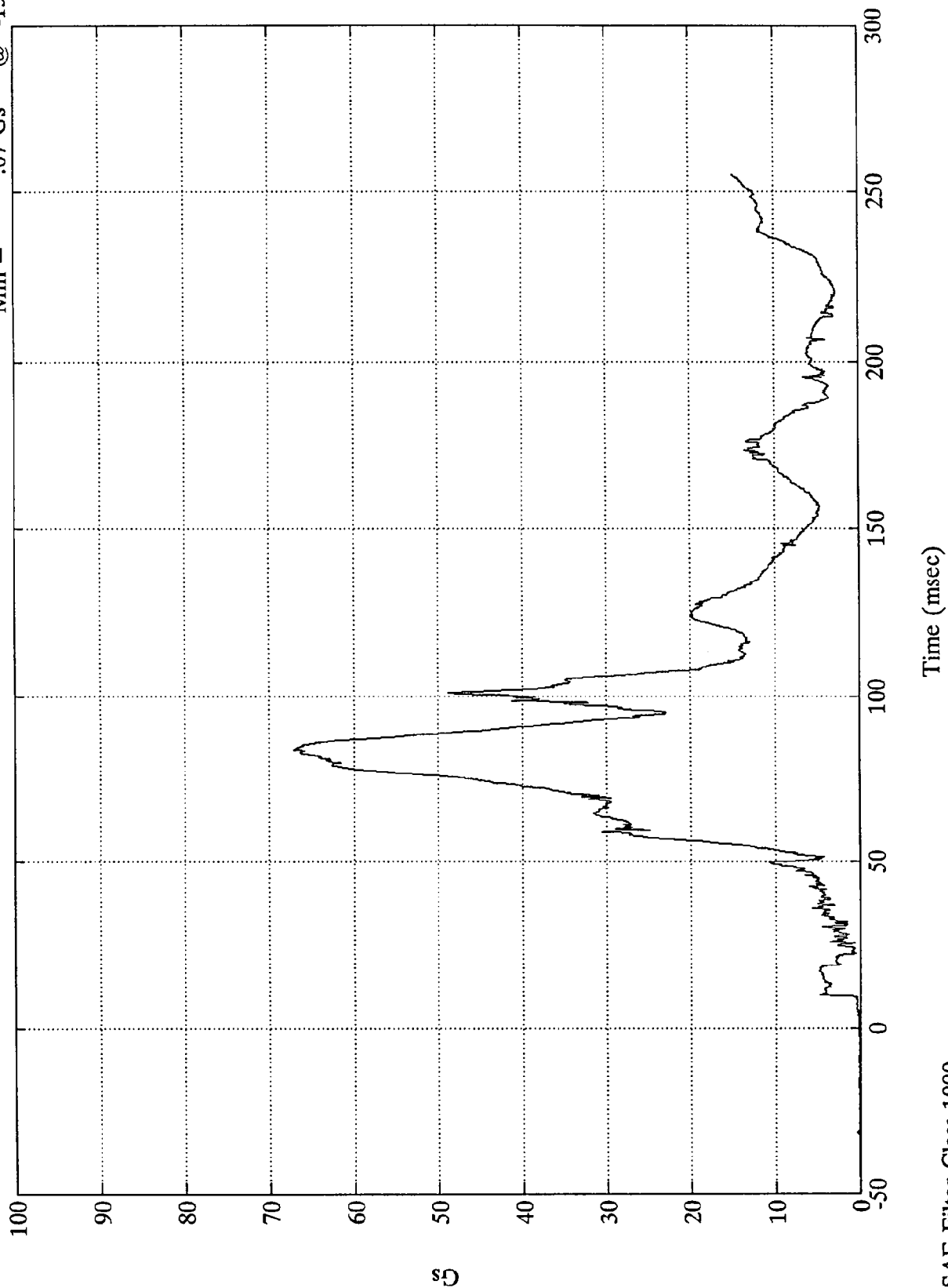


SAE Filter Class 1000

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

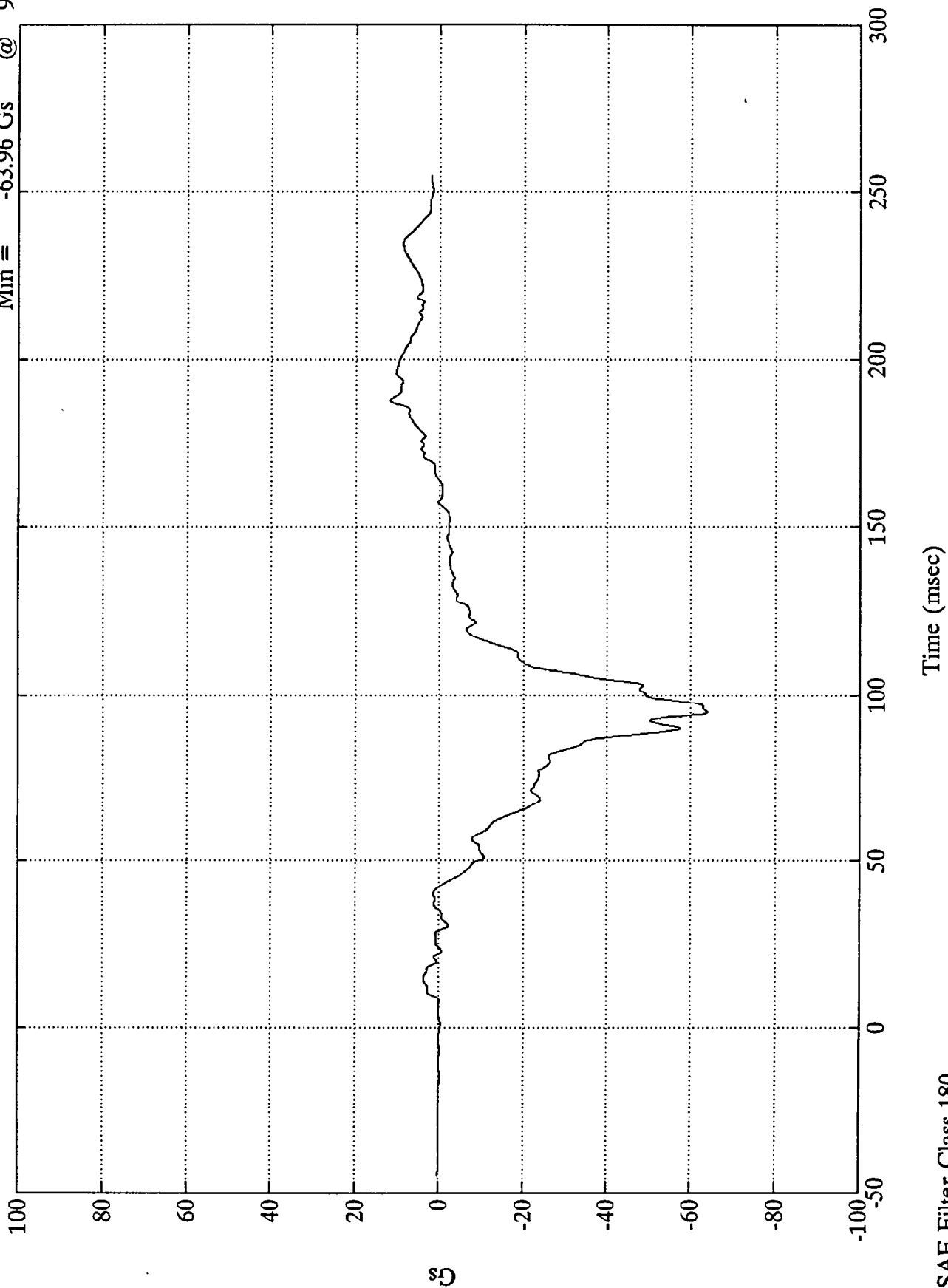
Pos. 1 Head Resultant

Max = 67.11 Gs @ 83.87 msec
Min = .07 Gs @ -13.44 msec



Max = 11.98 Gs @ 187.68 ms
Min = -63.96 Gs @ 94.68 ms

Pos. 1 Chest X

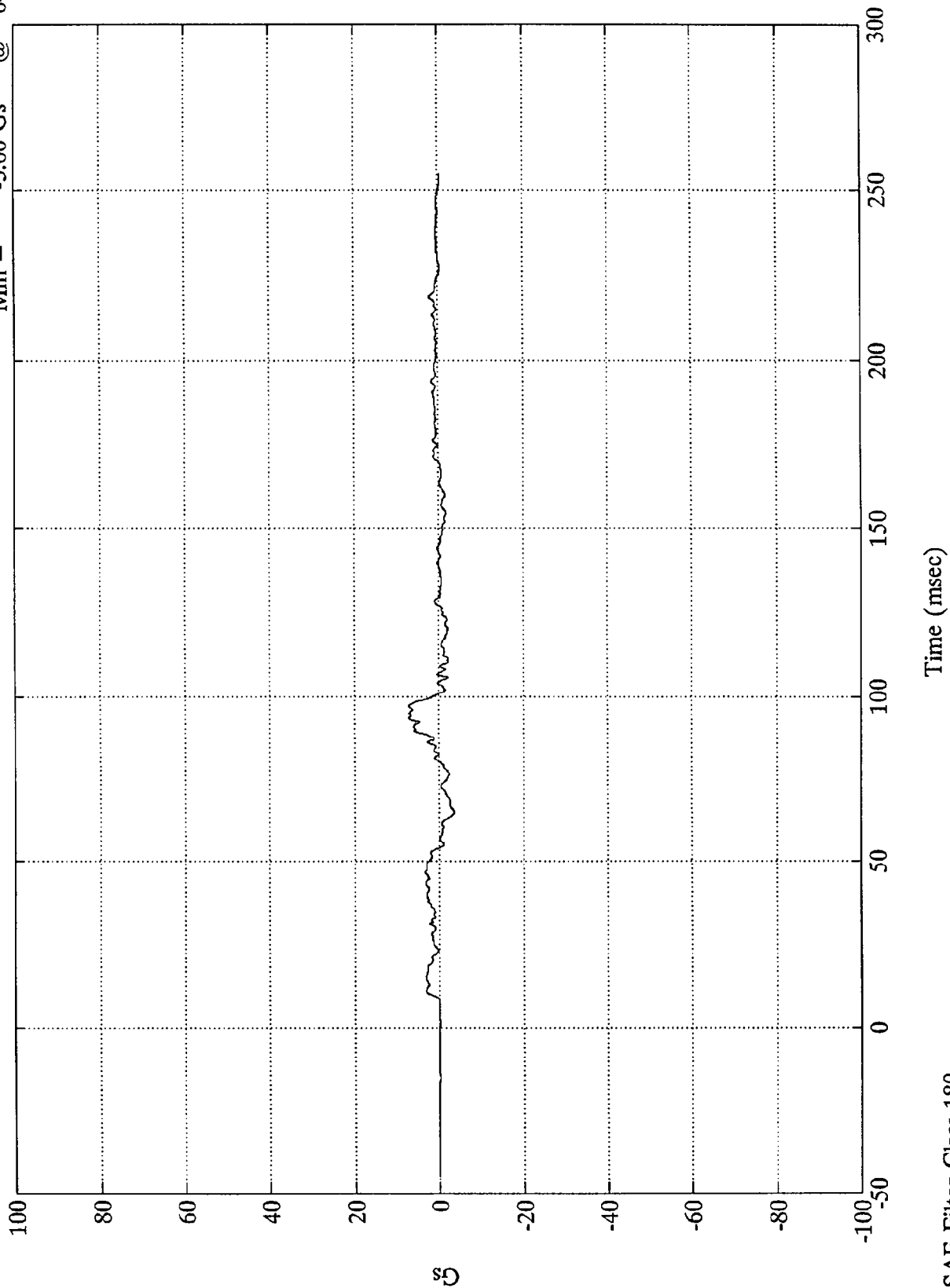


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Max = 7.24 Gs @ 97.08 msec
Min = -3.60 Gs @ 64.80 msec

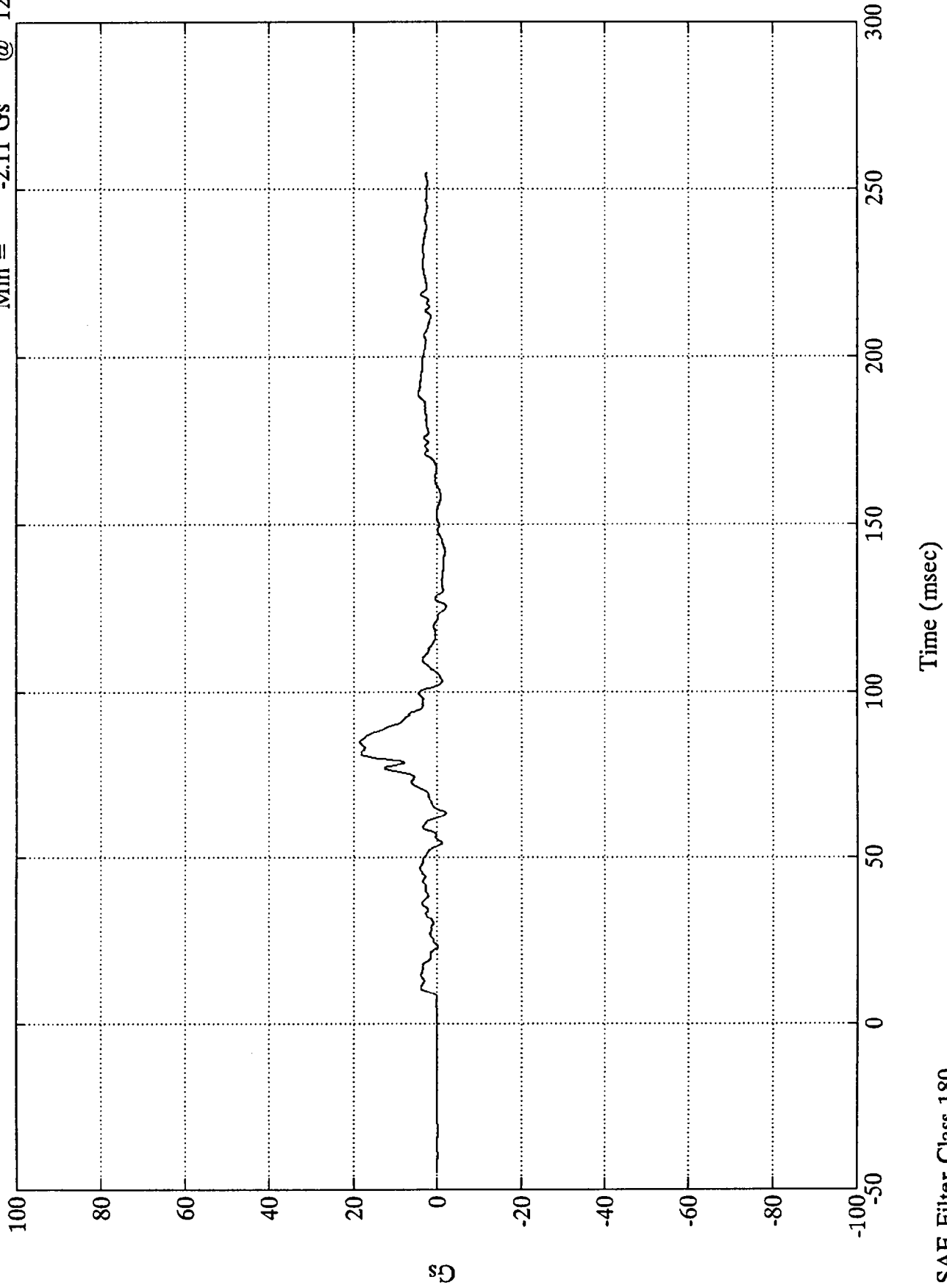
Pos. 1 Chest Y



SAE Filter Class 180

Max = 18.51 Gs @ 84.83 msec
Min = -2.11 Gs @ 125.76 msec

Pos. 1 Chest Z

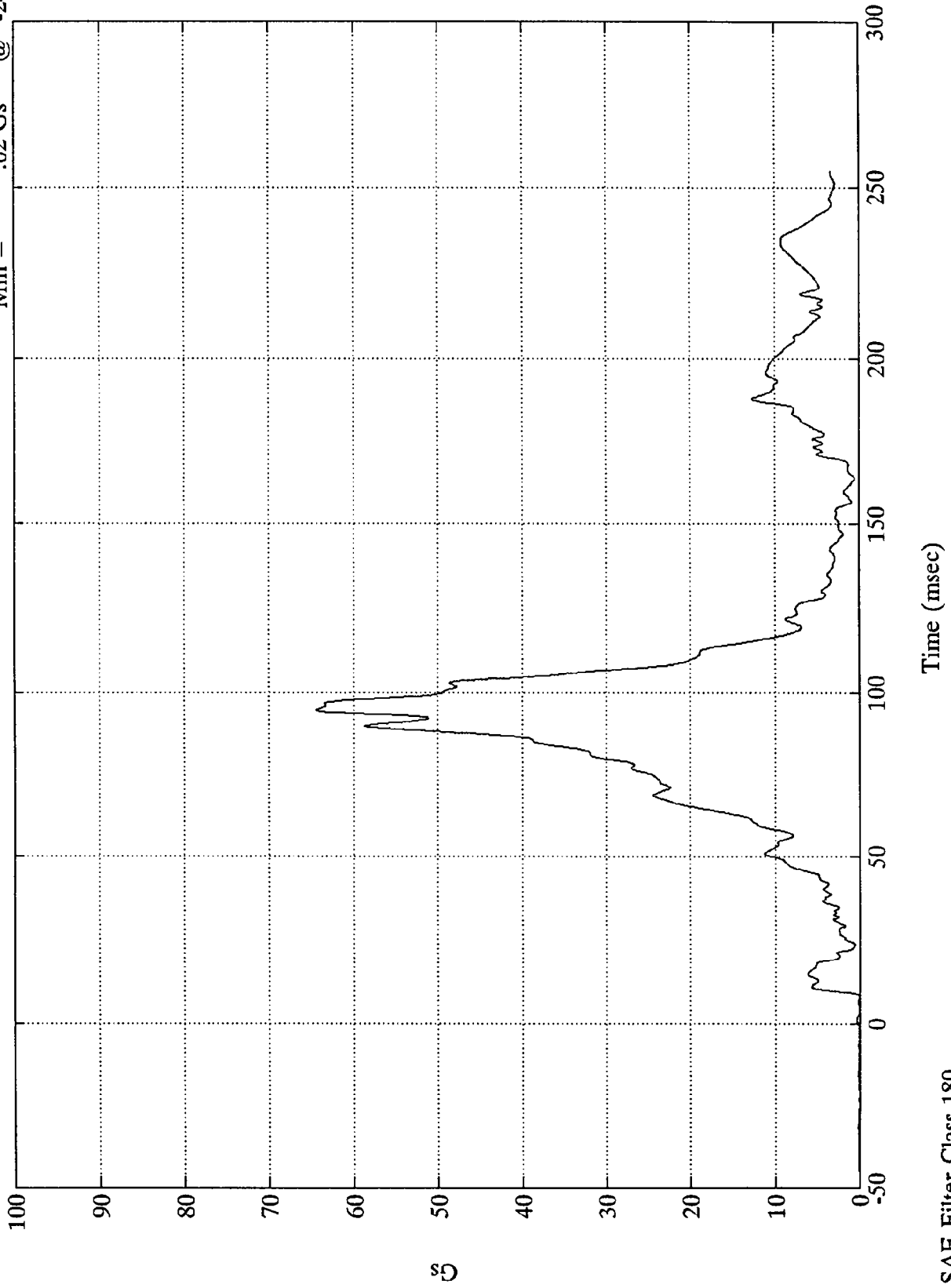


SAE Filter Class 180

NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Max = 64.47 Gs @ 94.68 msec
Min = .02 Gs @ -24.84 msec

Pos. 1 Chest Resultant



SAE Filter Class 180

Pos. 1 Chest Displacement

Max =

.39 ins

@

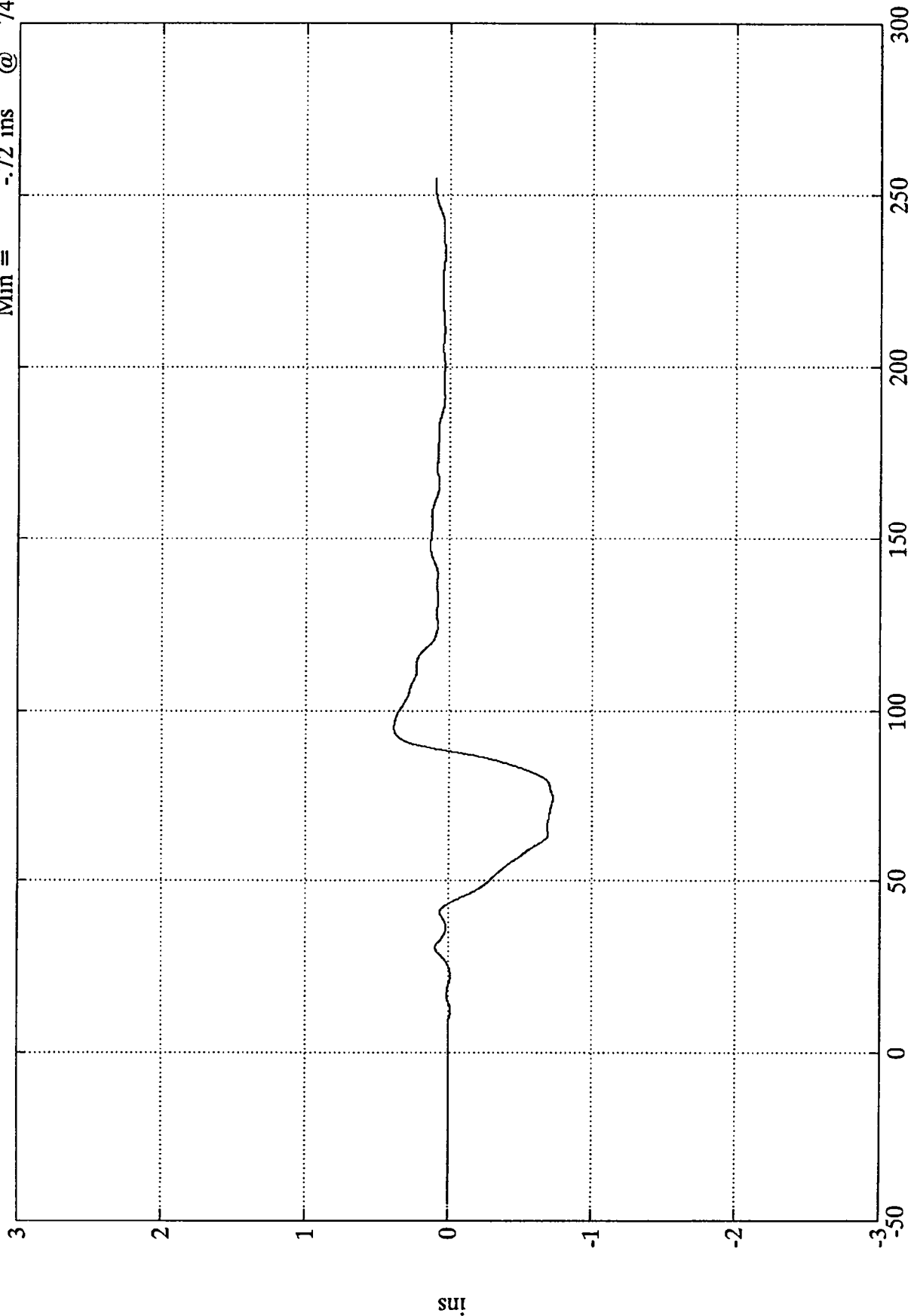
95.16 msec

Min =

-.72 ins

@

74.40 msec

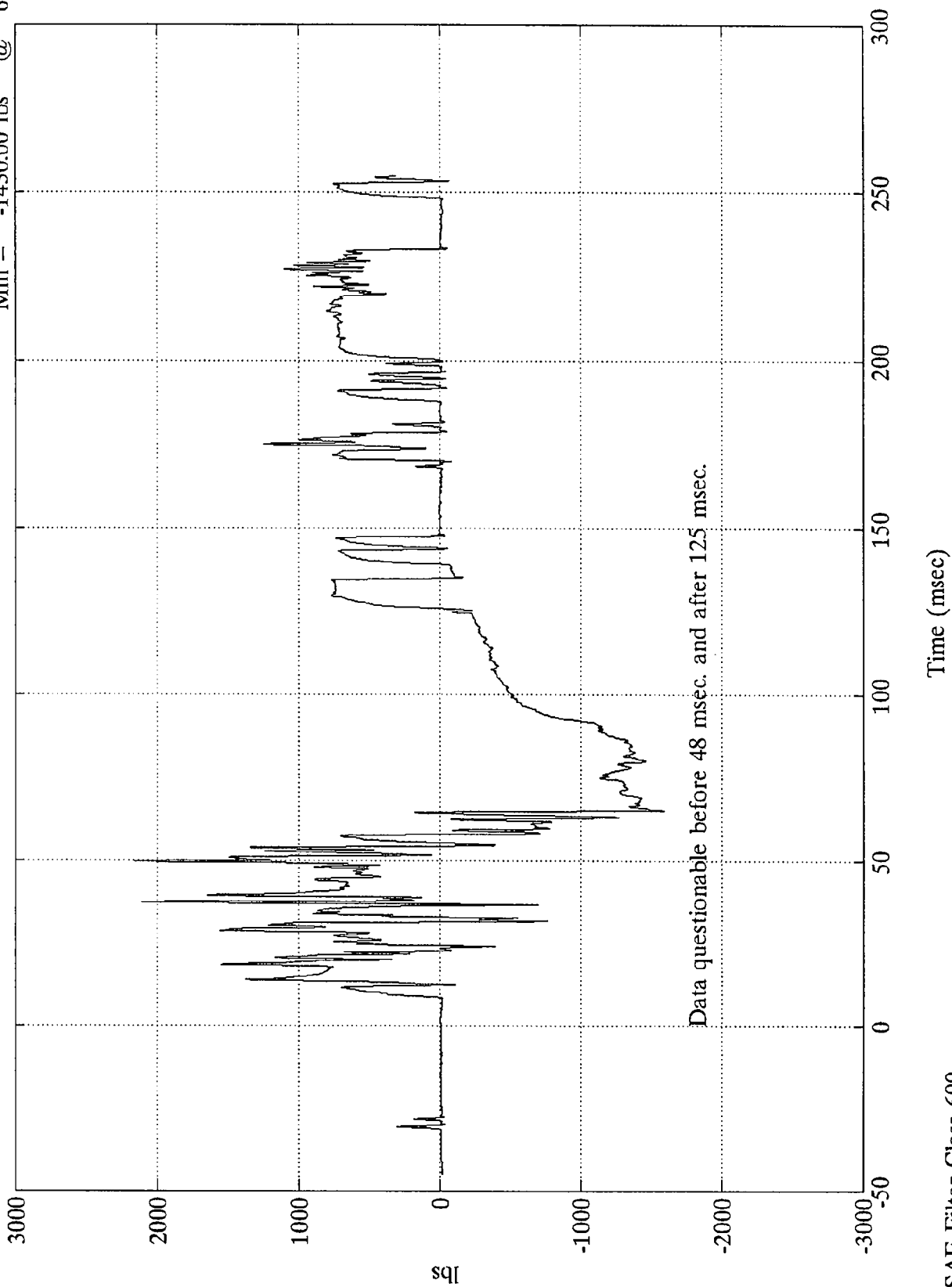


Time (msec)

SAE Filter Class 60

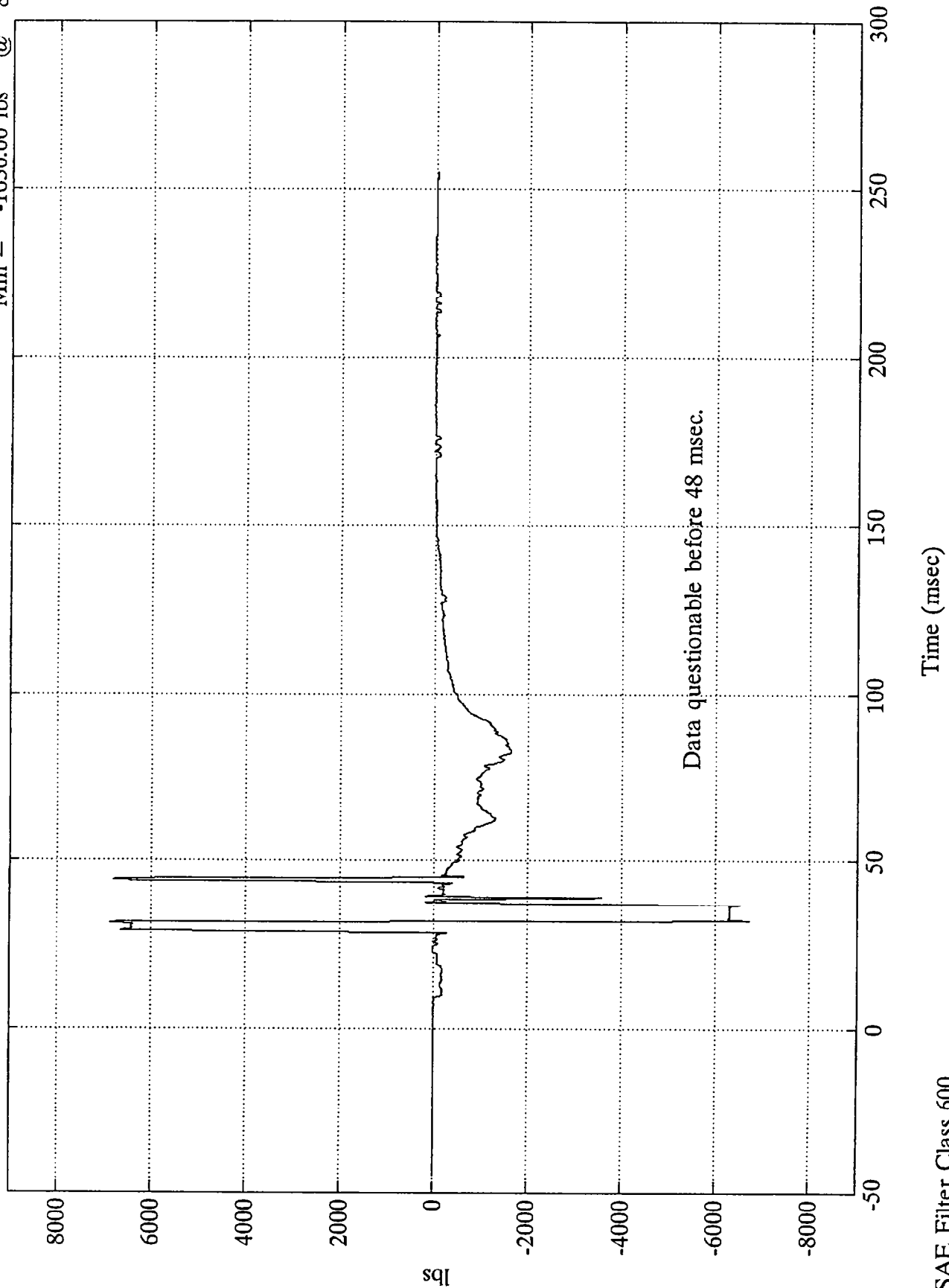
NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Pos. 1 Left Femur
 Max = 0.00 lbs @ 0.00 msec
 Min = -1430.00 lbs @ 68.80 msec



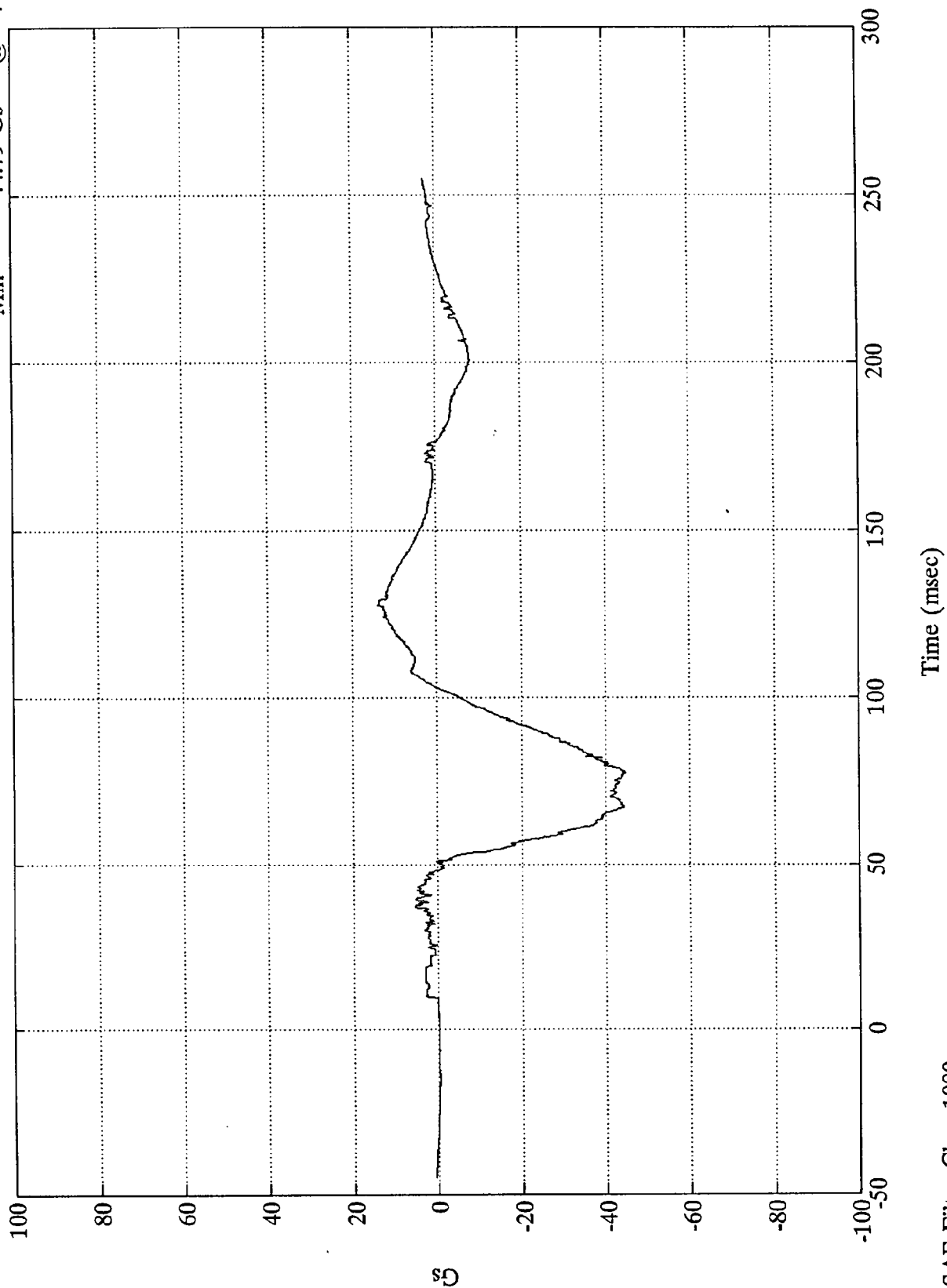
SAE Filter Class 600

Pos. 1 Right Femur
Max = 1.00 lbs @ 219.70 msec
Min = -1630.00 lbs @ 82.62 msec



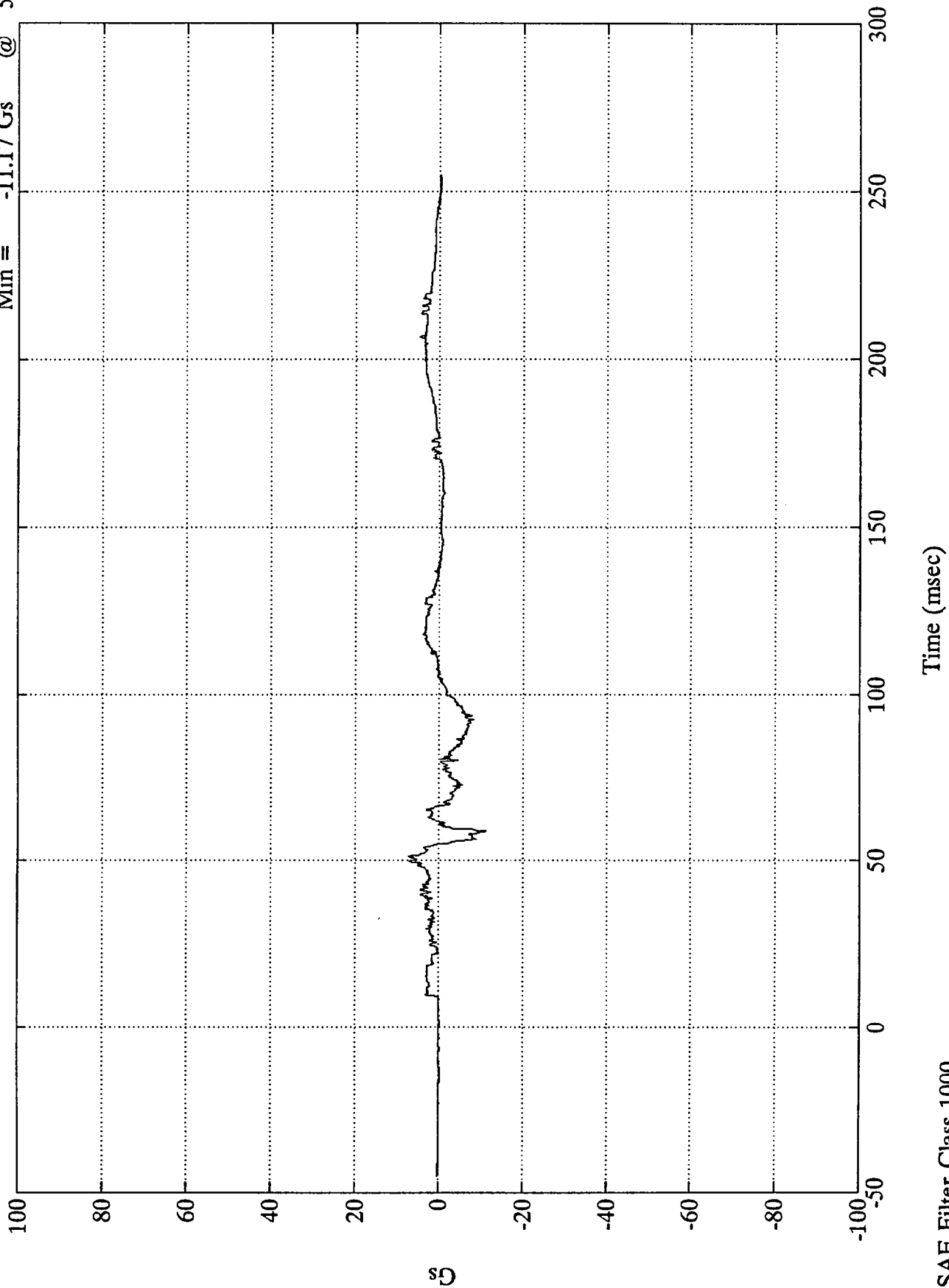
NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Pos. 2 Head X
Max = 13.88 Gs @ 127.44 msec
Min = -44.79 Gs @ 77.51 msec



Max = 7.24 Gs @ 51.24 msec
Min = -11.17 Gs @ 58.68 msec

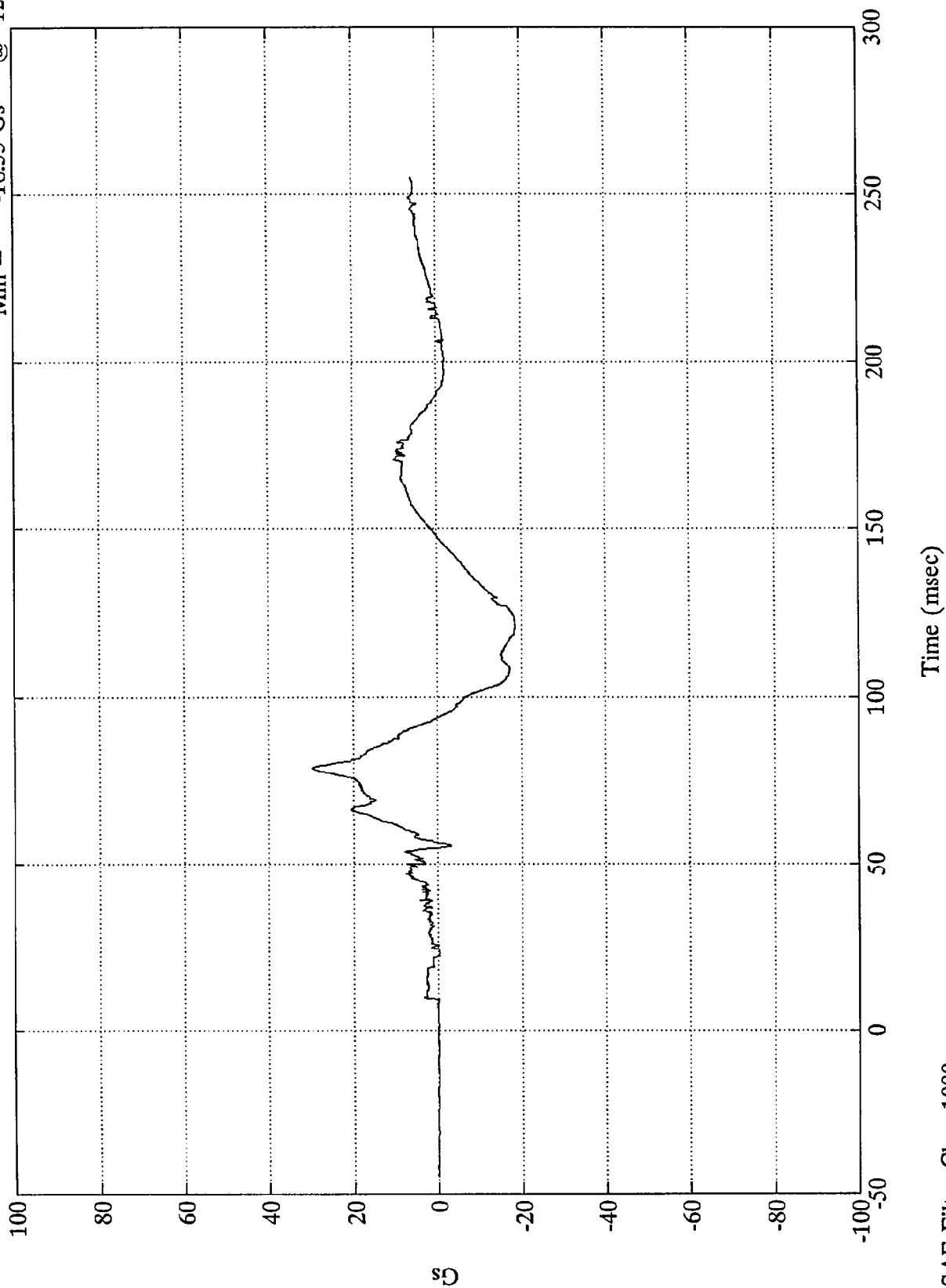
Pos. 2 Head Y



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

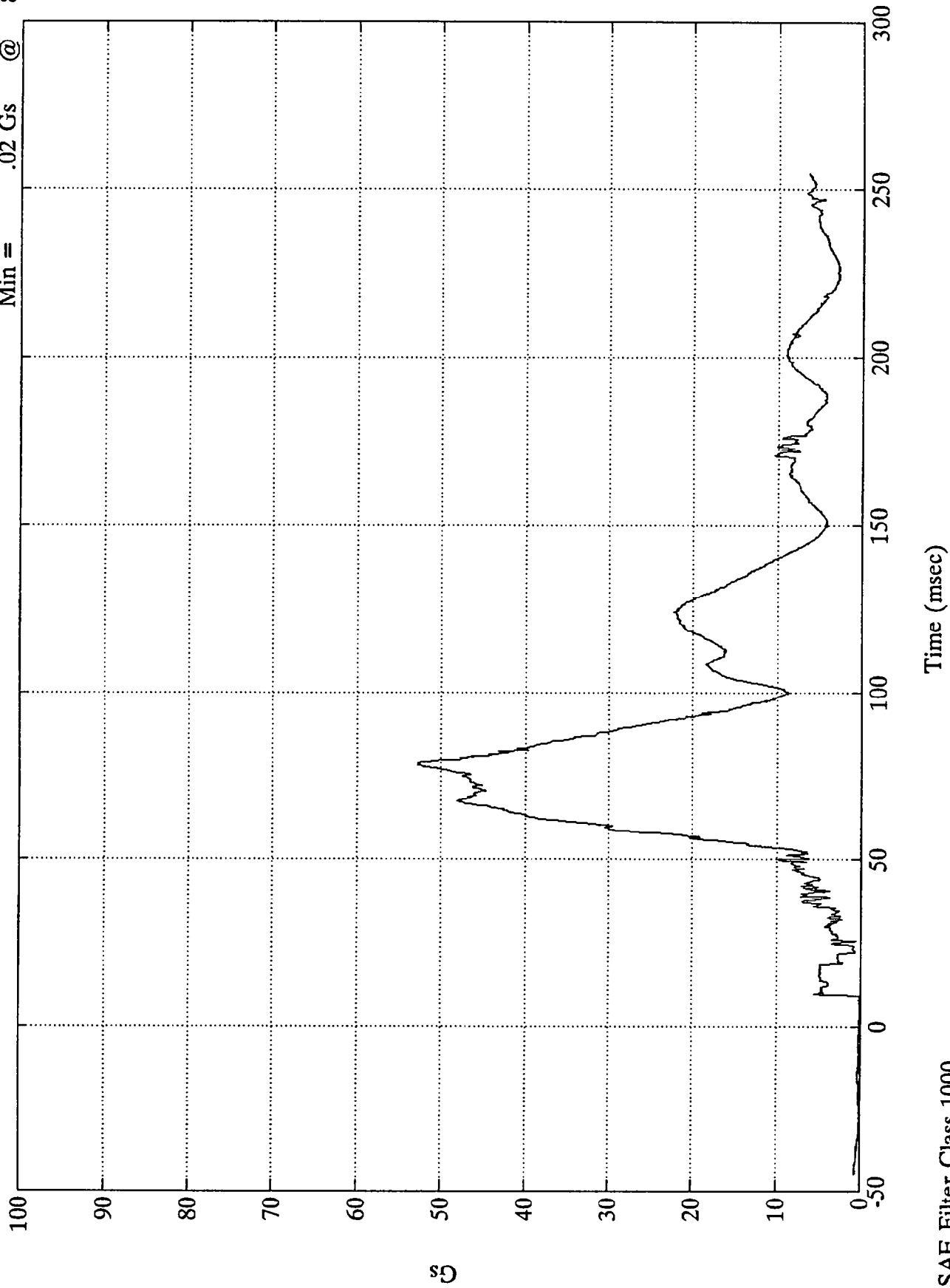
Max = 29.77 Gs @ 78.95 msec
Min = -18.55 Gs @ 121.44 msec

Pos. 2 Head Z



Max = 52.77 Gs @ 78.12 msec
 Min = .02 Gs @ 8.39 msec

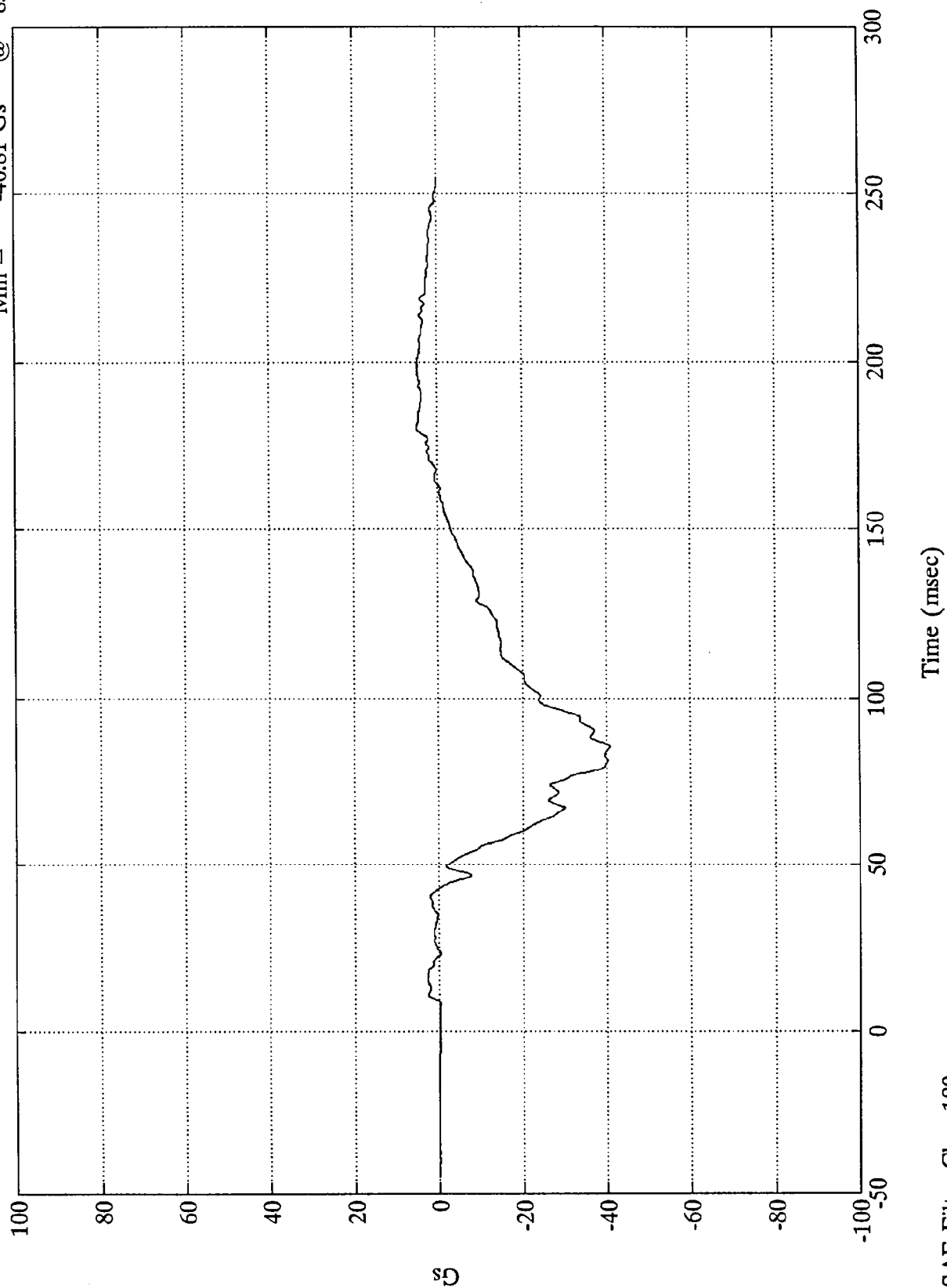
Pos. 2 Head Resultant



SAE Filter Class 1000

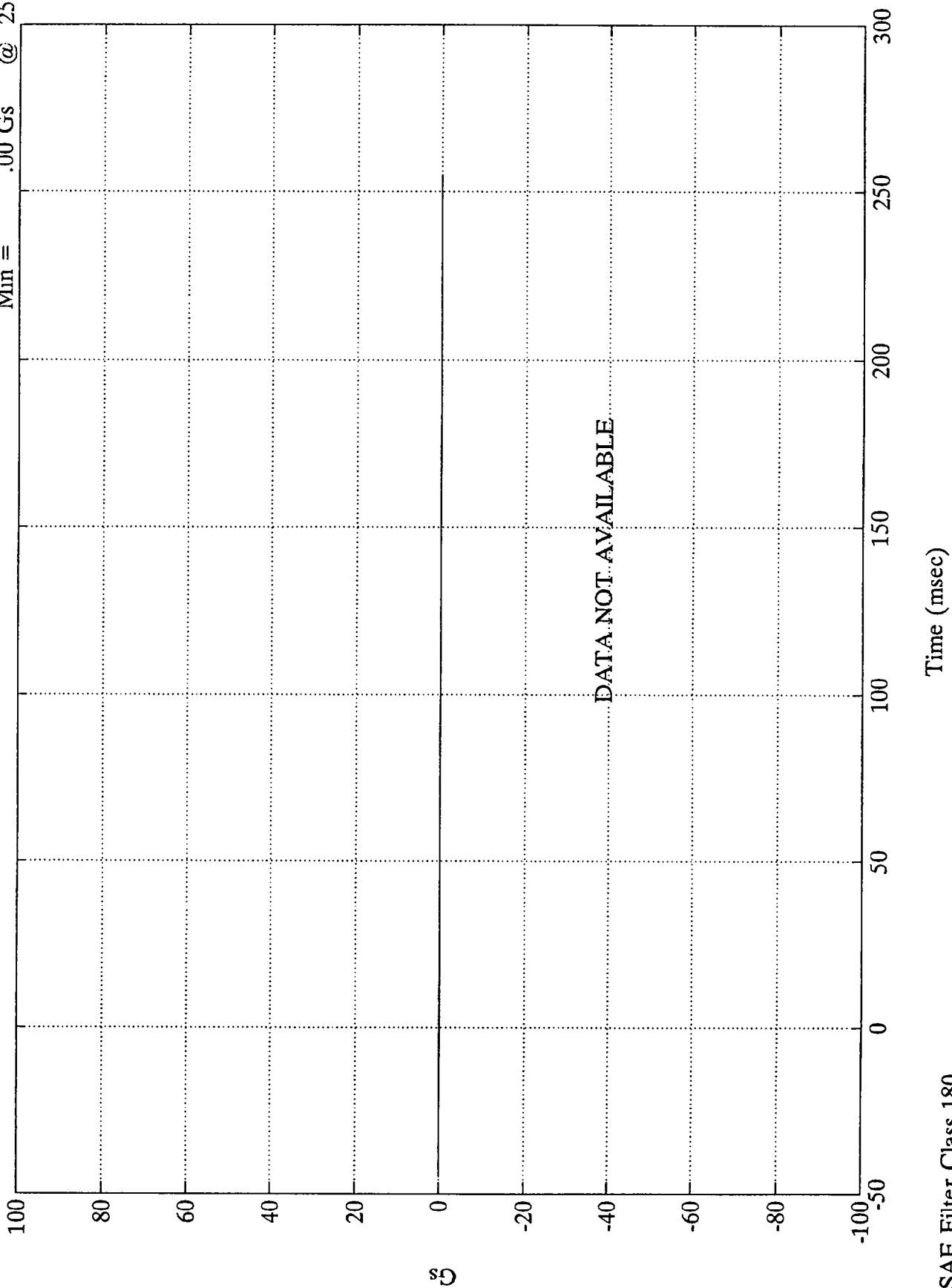
NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Pos. 2 Chest X
Max = 4.98 Gs @ 180.48 msec
Min = -40.81 Gs @ 85.56 msec



SAE Filter Class 180

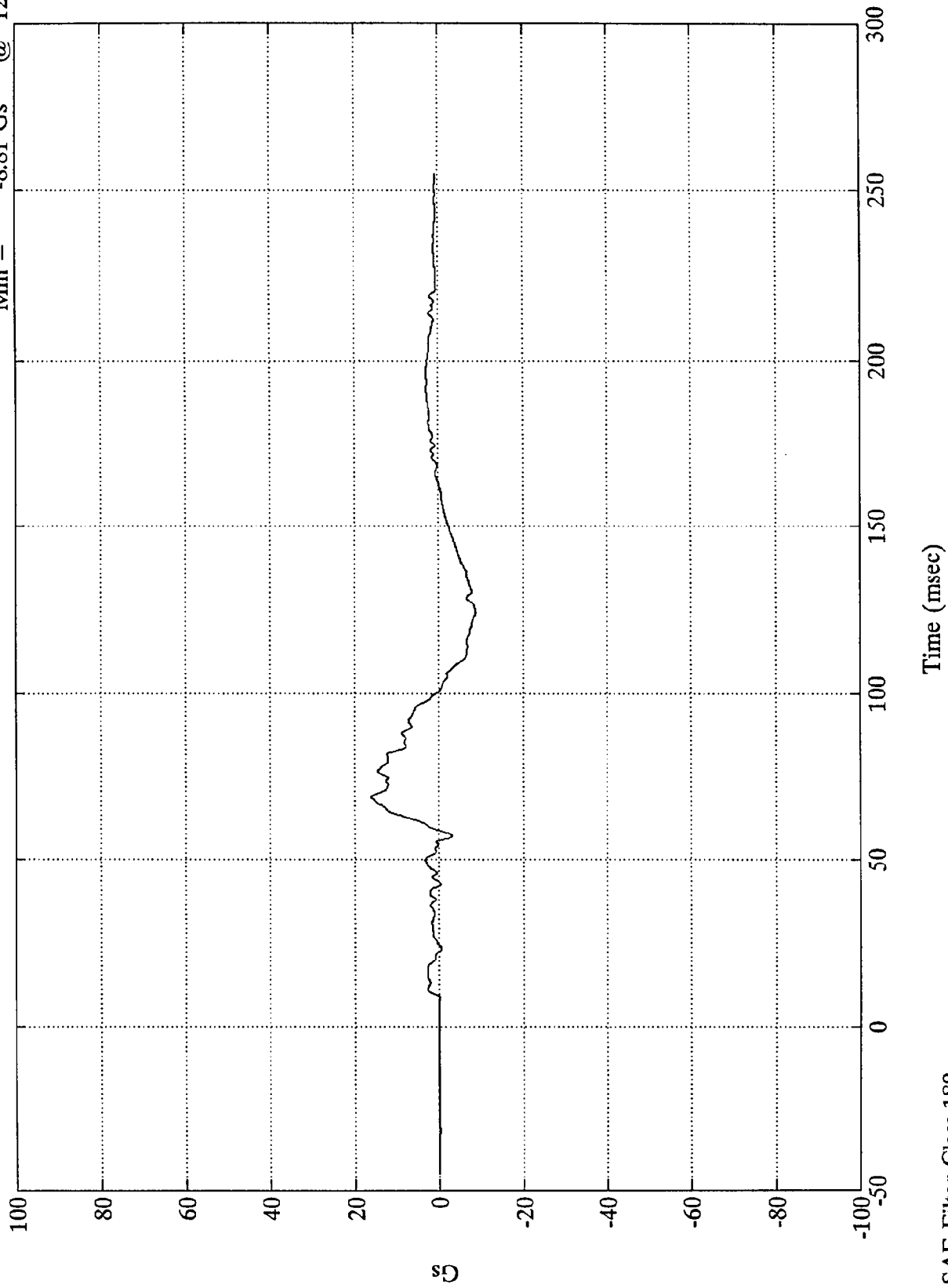
Pos. 2 Chest Y
Max = .00 Gs @ 254.88 msec
Min = .00 Gs @ 254.88 msec



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Max = 16.21 Gs @ 68.76 msec
Min = -8.81 Gs @ 124.08 msec

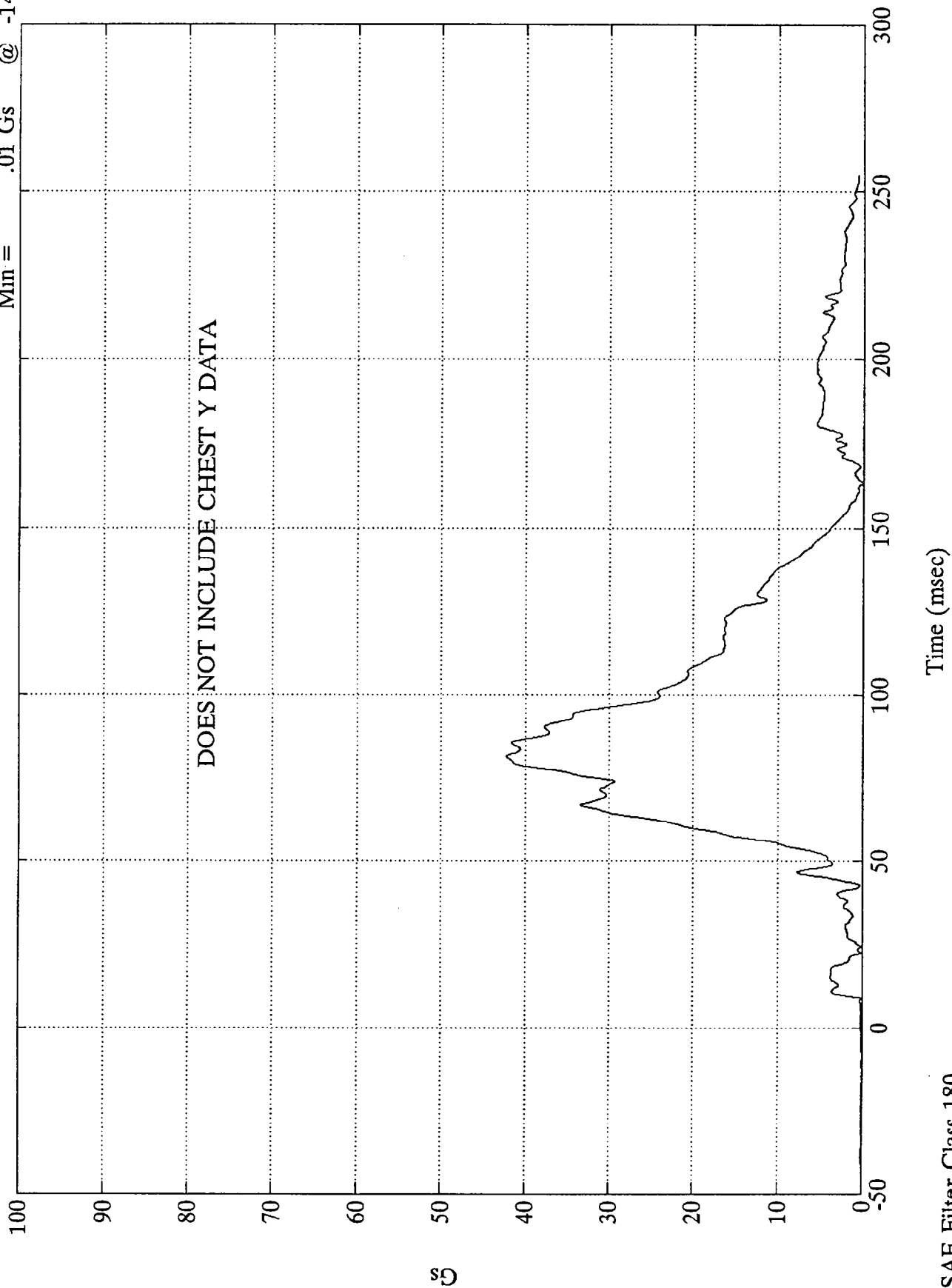
Pos. 2 Chest Z



SAE Filter Class 180

Max = 42.22 Gs @ 81.48 msec
Min = .01 Gs @ -14.04 msec

Pos. 2 Chest Resultant

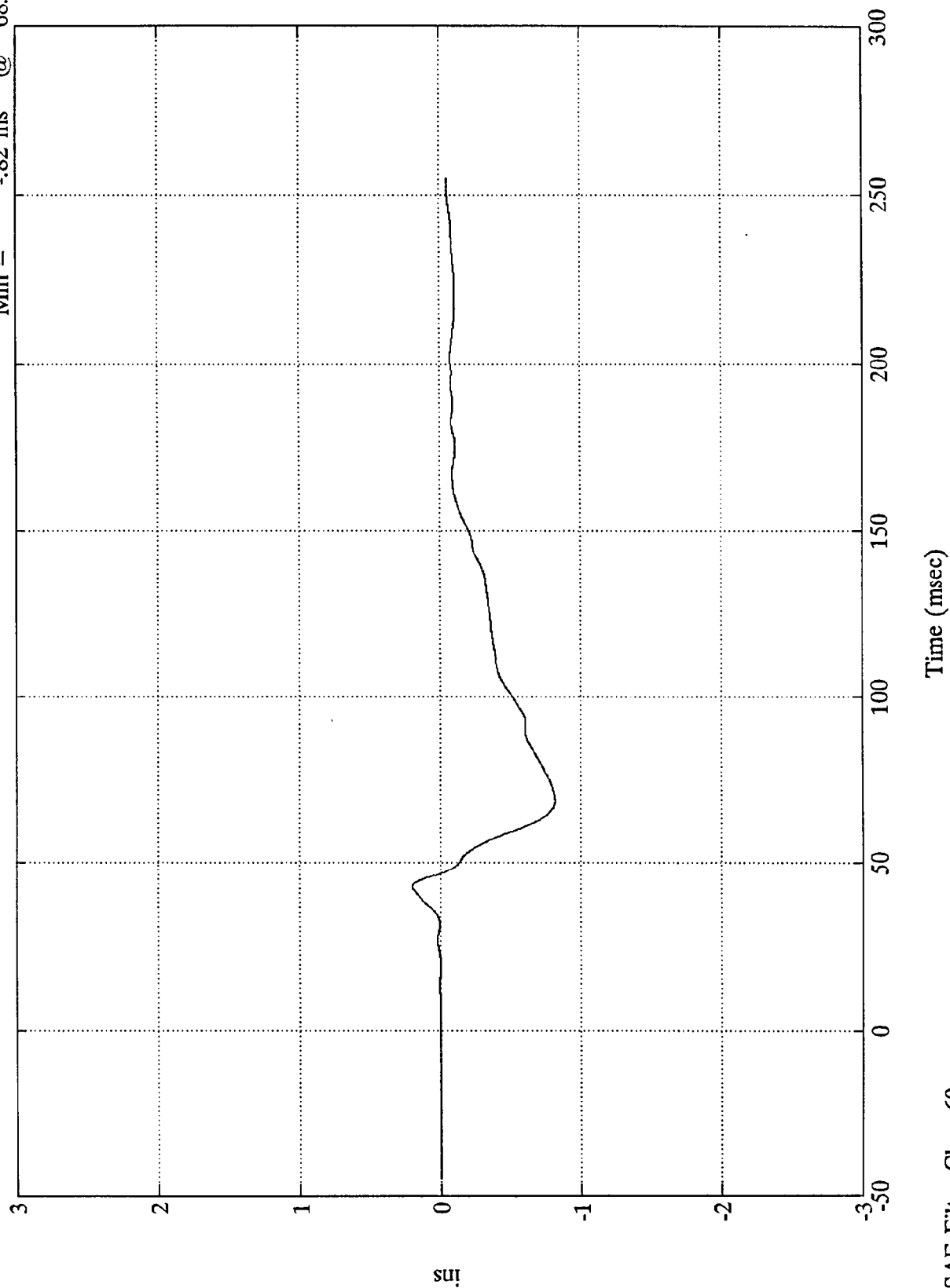


SAE Filter Class 180

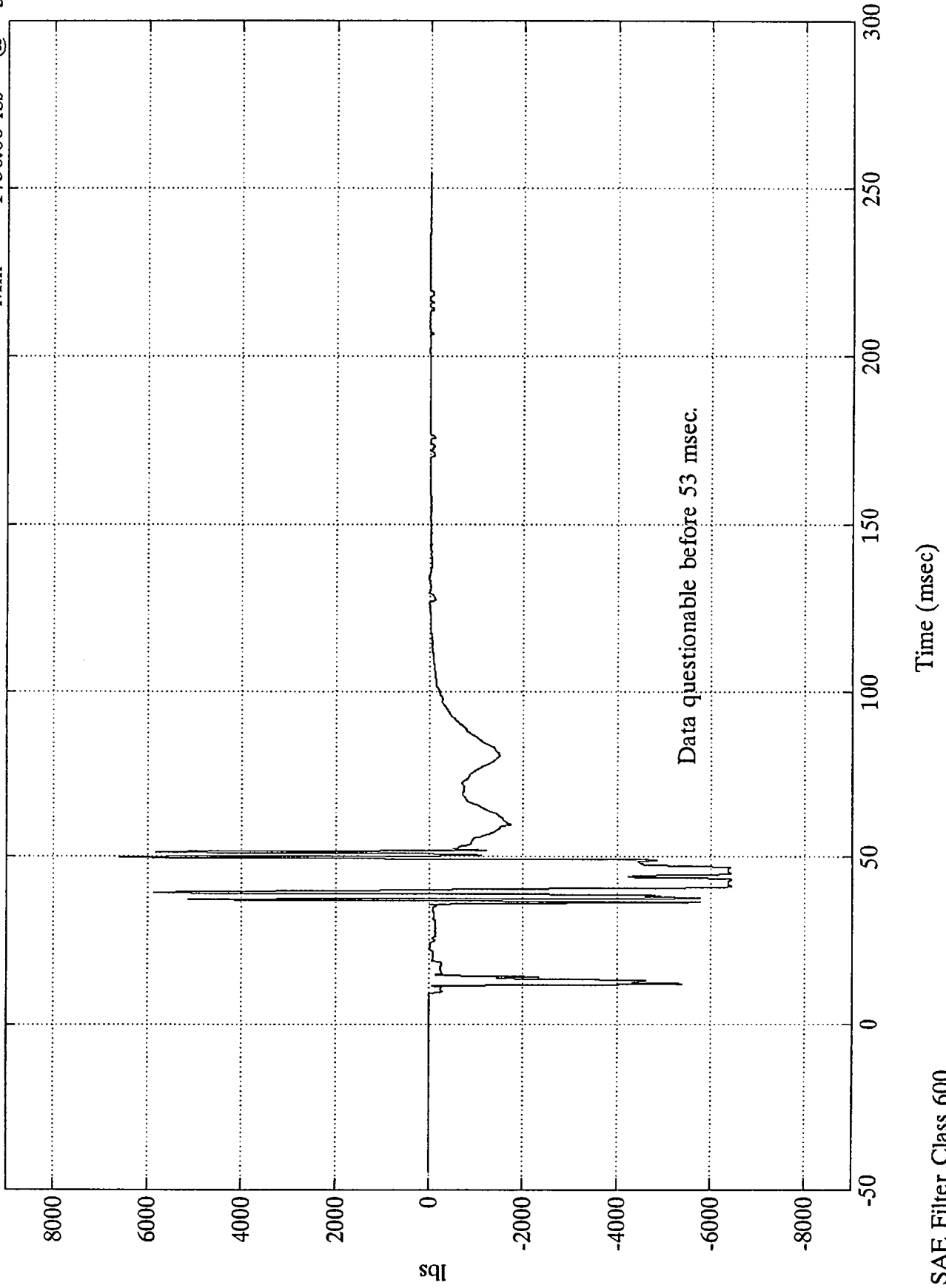
NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Pos. 2 Chest Displacement

Max = .20 ins @ 42.72 msec
Min = -.82 ins @ 68.63 msec



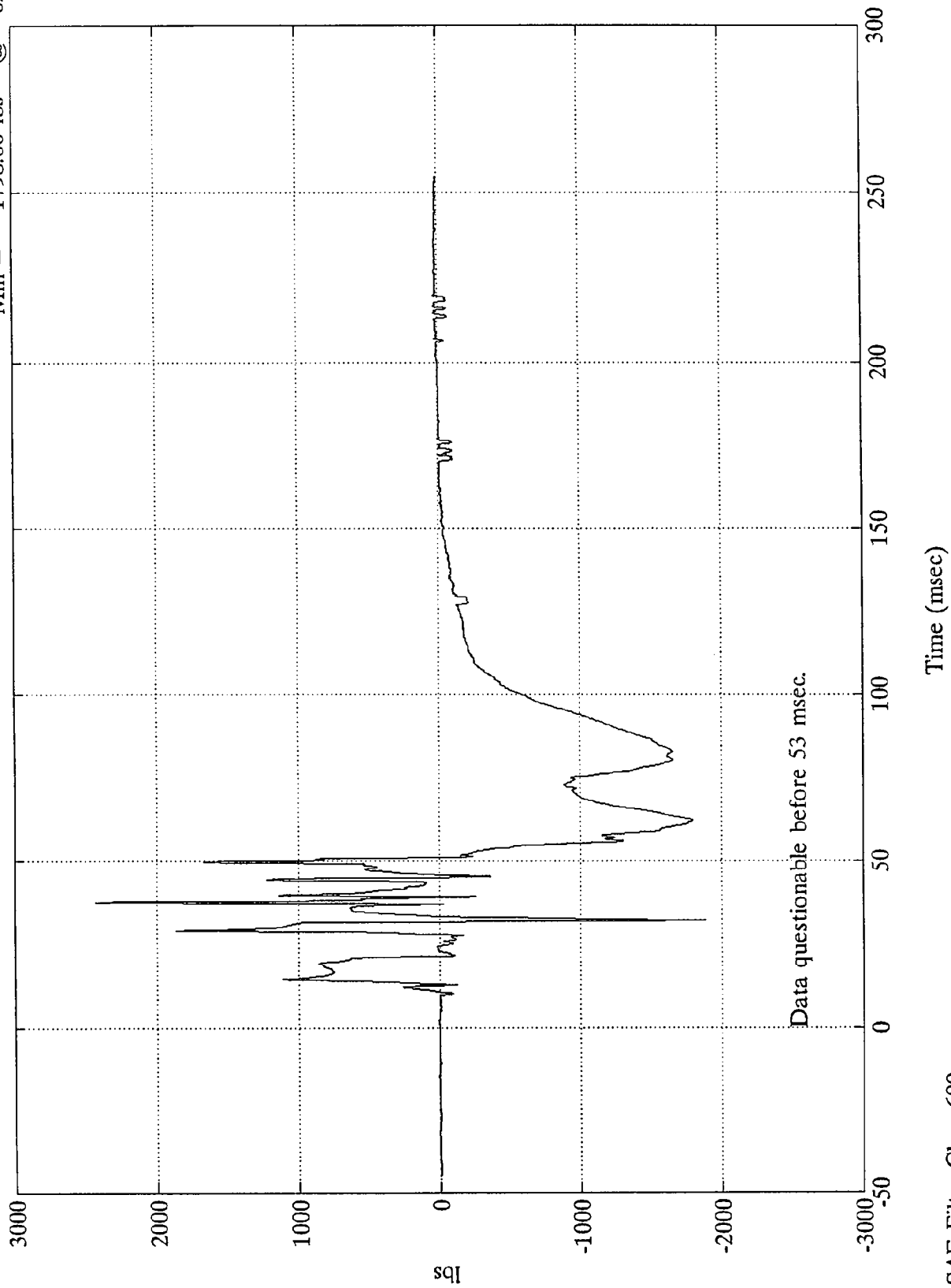
Pos. 2 Left Femur
Max = 2.00 lbs @ 133.60 msec
Min = -1730.00 lbs @ 59.50 msec



NHTSA 208 TEST #5 - 1994 Chrysler New Yorker

Pos. 2 Right Femur

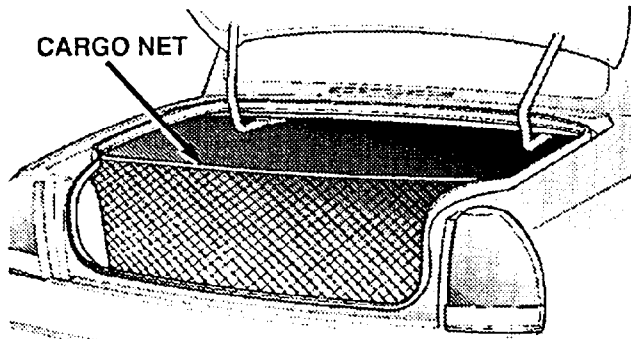
Max = 1.90 lbs @ 235.00 msec
Min = -1798.00 lbs @ 62.30 msec



SAE Filter Class 600

Appendix C

VEHICLE OWNERS MANUAL OCCUPANT RESTRAINT SYSTEM INSTRUCTIONS



OCCUPANT RESTRAINTS

One of the most important safety features in your vehicle is the restraint system. This system includes the front and rear seat belts, and airbags for the driver and right front passenger. Your seat belts also can be used to hold infant and child restraint systems if you will be carrying children too small for adult-size belts.

Please pay close attention to the information in this section. It tells you how to use your restraint system properly to keep you and your passengers as safe as possible.

WARNING!

In a collision, you and your passengers can suffer much greater injuries if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle. Always be sure you and others in your vehicle are buckled up properly.

Buckle up even though you are an excellent driver. Even on short trips. Someone on the road may be a poor driver and cause a collision which includes you. And this can happen far away from home or on your own street.

Research has shown that seat belts save lives. And they can reduce the seriousness of injuries in a collision.

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Some of the worst injuries happen when people are thrown from the vehicle. Seat belts provide protection from that, and they reduce the risk of injury caused by striking the inside of the vehicle. Everyone in a motor vehicle needs to be buckled up all the time.

UNIBELTS

The seats next to the front and rear doors of your vehicle are equipped with Unibelts.

Each unibelt is a combined lap/shoulder belt system. The belt webbing retractor will lock only during very sudden stops or impacts. This feature allows the shoulder part of the belt to move freely with you under normal conditions. But in a collision, the belt will lock and reduce the risk of your striking the inside of the vehicle or being thrown out.

WARNING!

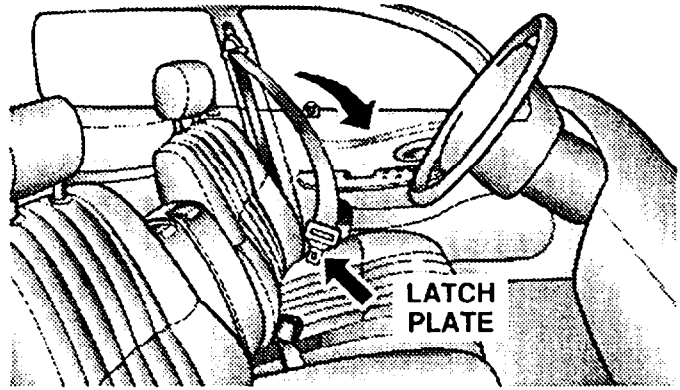
Wearing a seat belt incorrectly is dangerous. Seat belts are designed to go around the large bones of your body. These are the strongest parts of your body and can take the forces of a collision the best. Wearing your belt in the wrong place could make your injuries in a collision much worse. You might suffer internal injuries, or you could even slide out of part of the belt. Follow these instructions to wear your seat belt safely and to keep your passengers safe, too.

WARNING!

Belting two people into one seat belt can lead to greater injury. People belted together can crash into one another in an accident, hurting one another badly. Never use a unbelt or a lap belt for more than one person, no matter what their size.

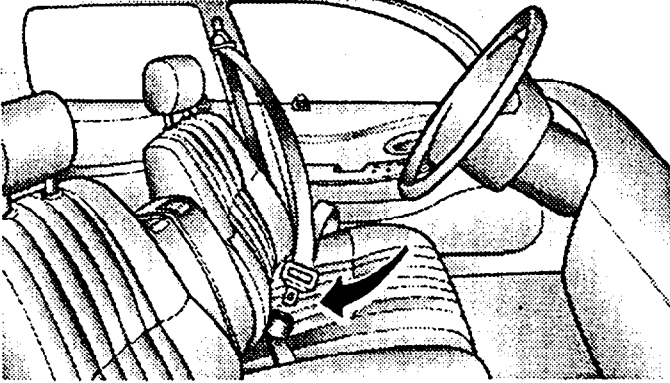
UNIBELT OPERATING INSTRUCTIONS

1. Enter the vehicle and close the door. Sit back and adjust the seat.
2. The seat belt latch plate is above the back of your seat. Grasp the latch plate and pull out the belt. Slide the latch plate up the webbing as far as necessary to make the belt go around your lap.



3. When the belt is long enough to fit, insert the latch plate into the buckle until you hear a "click."

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**WARNING!**

A belt that is buckled into the wrong buckle will not protect you properly. The lap portion could ride too high on your body, possibly causing internal injuries. Always buckle your belt into the buckle nearest you.

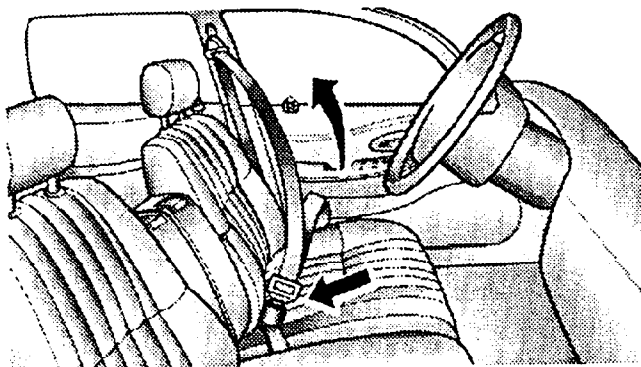
A belt that is too loose will not protect you as well. In a sudden stop you could move too far forward, increasing the possibility of injury. Wear your seat belt snugly.

A belt that is worn under your arm is very dangerous. Your body could fall into the inside surfaces of the vehicle in a collision, increasing head and neck injury. And a belt worn under the arm can cause internal injuries. Ribs aren't as strong as shoulder bones. Wear the belt over your shoulder so that your strongest bones will take the force in a collision.

4. Position the lap belt across your thighs, below your abdomen. To remove slack in the lap belt portion, pull

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up a bit on the shoulder belt, as shown. To loosen the lap belt if it is too tight, tilt the latch plate and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.



WARNING!

- A lap belt worn too high can increase the risk of internal injury in a collision. The belt forces won't be at the strong hip and pelvic bones, but across your abdomen. Always wear the lap belt as low as possible and keep it snug.
- A twisted belt can't do its job as well. In a collision it could even cut into you. Be sure the belt is straight. If you can't straighten a belt in your vehicle, take it to your dealer and have it fixed.

5. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

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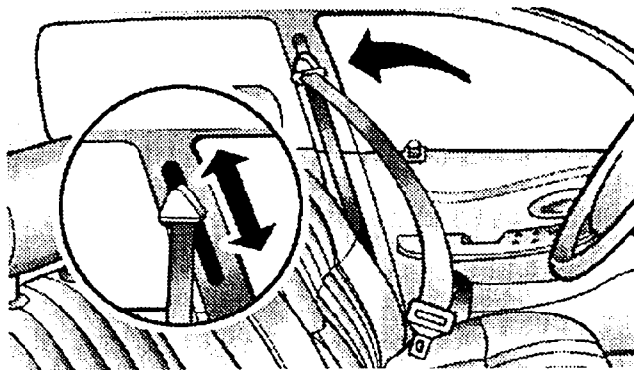
BEFORE STARTING YOUR VEHICLE

6. To release the belt, push the red button marked **PRESS** on the buckle. The belt will automatically retract to its stowed position. If necessary, slide the latch plate down the webbing to allow it to retract fully.

7. Adjustable Upper Shoulder Belt Anchorage

In the front seat, the shoulder belt can be adjusted upward or downward to position the belt away from your neck. Push on the anchorage cover to release the anchorage, and then move it up or down to the position that serves you best.

As a guide, if you are shorter than average, you will prefer a lower position, and if you are taller than average, you'll prefer a higher position. When you release the anchorage, try to move it up or down to make sure that it is locked in position.



In the rear seat, move toward the center of the seat to position the belt away from your neck.

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- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.

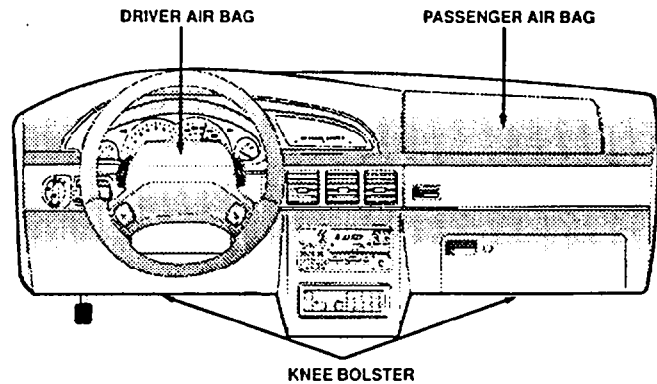
If the shoulder belt contacts the face or neck, move the child closer to the middle of the vehicle. If this doesn't solve the problem, move the child to the center rear seating position and use the lap belt.

Booster seats that may help overcome this problem are also available for use with lap/shoulder belts. Before buying a booster seat, make sure that it has a label certifying that it meets applicable Motor Vehicle Safety Standards. Make sure that it is satisfactory for use in this vehicle.

DRIVER AND RIGHT FRONT PASSENGER SUPPLEMENTAL RESTRAINT SYSTEM (SRS) - AIRBAG

This vehicle has airbags for the driver and right front passenger as a supplement to the seat belt restraint systems. The driver's airbag is mounted in the steering wheel. The passenger side airbag is mounted in the instrument panel, above the glove compartment, under

a cover marked SRS/AIRBAG. These airbags inflate in higher speed impacts. They work with the instrument panel knee bolsters and the seat belts to provide improved protection for the driver and right front passenger.



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BEFORE STARTING YOUR VEHICLE

WARNING!

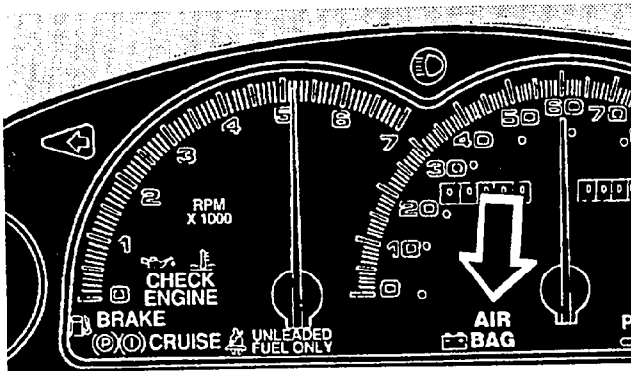
- Relying on the airbags alone could lead to more severe injuries in a collision. The airbags work with your seat belt to restrain you properly. In some collisions the airbags won't deploy at all. Wear your seat belts even though you have airbags.
- Being too close to the steering wheel or instrument panel during airbag deployment could cause serious injury. Airbags need room to inflate. Sit back, comfortably extending your arms to reach the steering wheel or instrument panel.

The seat belts are designed to protect you in many types of collisions. The airbags deploy only in frontal collisions and will not deploy in collisions at slow speed. But even in collisions where the airbags work, you need the seat belts to keep you in the right position for the airbags to protect you properly.

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WARNING!

Ignoring the AIRBAG light in your instrument panel could mean you won't have the airbags to protect you in a collision. If the light does not come on for several seconds when the engine is first started, stays on after you start the vehicle, or if it comes on as you drive, have the airbag system checked right away.



The airbag system consists of the following:

- Crash Sensors
- Diagnostic Unit
- AIRBAG Light
- Driver and Passenger Airbag/inflator Units
- Unique Steering Wheel and Column

- Unique Instrument Panel
- Interconnecting Wiring
- Knee Impact Bolster

How The Airbag System Works

- **Crash Sensors** in the front of the vehicle and in the occupant compartment determine if a frontal impact is severe enough to require the airbag. The sensors will not detect side, rollover, or rear impacts. Switches in the sensors are connected to the diagnostic unit and to the airbag/inflator unit.
- The **Diagnostic Unit** monitors the readiness of the electronic parts of the system whenever the ignition switch is in the START or RUN positions. These include all of the items listed above except the knee bolster, instrument panel, and steering column. The Diagnostic Unit also turns on the AIRBAG light in the instrument panel for 6 to 8 seconds when the ignition is first turned on, then turns the light off. If it detects

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BEFORE STARTING YOUR VEHICLE

a malfunction in any part of the system, it turns on the light either momentarily or continuously.

- The **Airbag/Inflator Units** are in the center of the steering wheel and in the instrument panel. The words SRS/AIRBAG are embossed on the airbag covers.

WARNING!

Do not put anything on or around the airbag covers or attempt to manually open them. You may damage the airbags and you could be injured because the airbags are not there to protect you. These protective covers for the airbag cushions are designed to open only when the airbags are inflating.

- When the crash sensors detect an impact requiring the airbags, they signal the inflator units. A large quantity of non-toxic nitrogen gas is generated to inflate the airbags. The airbag covers separate and fold out of the way as the airbags inflate to their full

size. The airbags fully inflate in about 50 milliseconds. This is only about half of the time it takes you to blink your eyes. The airbags then quickly deflate while helping to restrain the driver and right front passenger. The airbag gas is vented through the airbag material towards the instrument panel. In this way the airbags do not interfere with your control of the vehicle.

- The **Knee impact Bolsters** help protect the knees and position you for the best interaction with the airbags.

If A Deployment Occurs

The airbag system is designed to deploy when the impact sensors detect a moderate-to-severe frontal collision, to help restrain the driver and right front passenger, and then to immediately deflate.

NOTE: A frontal collision that is not severe enough to need airbag protection will not activate the system. This does not mean something is wrong with the airbag system.

If you do have a collision which deploys the airbags, any or all of the following may occur:

- The nylon airbag material may sometimes cause abrasions and/or skin reddening to the driver and right front passenger as the airbags deploy and unfold.

The abrasions are similar to friction rope burns or those you might get sliding along a carpet or gymnasium floor. They are not caused by contact with chemicals. They are not permanent and normally heal quickly. However, if you haven't healed significantly within a few days, or if you have any blistering, see your doctor immediately.

- As the airbags deflate you may see some smoke-like particles. The particles are a normal by-product of the process that generates the non-toxic nitrogen gas used for airbag inflation. These airborne particles may irritate the skin, eyes, nose, or throat. If you have skin or eye irritation, rinse the area with cool water. For nose or throat irritation, move to fresh air. If the irritation continues, see your doctor.

If these particles settle on your clothing, follow the garment manufacturer's instructions for cleaning.

- Your vehicle may be safely driveable after the airbags deploy. If so, you can tuck the deployed airbags inside the opening in the steering wheel hub and instrument panel trim covers to make driving somewhat easier.

WARNING!

Deployed airbags can't protect you in another collision. Have the airbags replaced by an authorized dealer as soon as possible.

Transporting Pets

Airbags deploying in the front seat could harm your pet. An unrestrained pet will be thrown about and possibly injured, or injure a passenger during panic braking or in a collision.

Pets should be restrained in the rear seat in pet harnesses or pet carriers that are secured by seat belts.

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BEFORE STARTING YOUR VEHICLE

MAINTAINING YOUR AIRBAG SYSTEM

WARNING!

- Modifications to any part of the airbag system could cause it to fail when you need it. You could be injured because the airbag is not there to protect you. Do not modify the components or wiring, including adding any kind of badges or stickers to the airbag covers. Do not modify the front bumper or vehicle body structure.
- You need proper knee impact protection in a collision. Do not mount or locate any aftermarket equipment on or behind the knee impact bolsters.
- You can be injured if you are too close to either airbag cover when the airbags inflate. It is dangerous to try to repair any part of the airbag system yourself. Don't try to repair the airbag system. Be sure to tell anyone who works on your vehicle that it has airbags.

You will want to have the airbags ready for your protection in a collision. While the airbag Supplemental Restraint System (SRS) is designed to be maintenance free, if any of the following occurs, have an authorized dealer service the system immediately.

- The AIRBAG light does not come on or flickers during the 6 to 8 seconds when the ignition switch is first turned on.
- The light remains on or flickers after the 6 to 8 second interval.
- The light flickers or comes on and remains on while driving.

SEATS

Manual Seat Adjustment (if so equipped)

The seat adjusting bar is at the front of the seat, near the floor. Pull up on the adjuster bar and move the seat to the desired position. Release the handle.