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OFFICE OF MARKET INCENTIVES
SIDE IMPACT PROTECTION STUDY
PASSENGER CARS

1992 NISSAN SENTRA, 4 DOOR SEDAN

NHTSA NO. MN5203

MOBILITY SYSTEMS AND EQUIPMENT COMPANY
9920 LA CIENEGA BOULEVARD SUITE 708
INGLEWOOD, CALIFORNIA 90301

17 JULY 1992

FINAL REPORT

Prepared Under Contract No. DTNH22-87-C-07168, D.O. #4

For

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Rulemaking
Office of Market Incentives
400 Seventh Street, S.W.
Washington, DC 20590

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Prepared by Mr. Jerry Kratzke/Mr. Pat Puzzuto/
Mr. Brian O'Keefe

Approved by: Anil V. Khadilkar
Dr. Anil V. Khadilkar

Date: 17 July 1992

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Acceptance Date:_____

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16. Abstract

A 34/17 mph 90° Impact (Moving Deformable Barrier) Test was conducted on the subject 1992 Nissan Sentra, 4-Door Sedan in accordance with the specifications of the Office of Market Incentives "Side Impact Protection Study" Test Procedure. The test was conducted at the MSE facility in San Bernardino, on June 26, 1992.

The impact velocity of the Moving Deformable Barrier (MDB) was 37.80 mph, and the ambient temperature at the struck side (driver's) of the target vehicle at the time of impact was 84 °F. The target vehicle post test maximum crush was 19.4 inches at level 2. The test vehicle's performance follows:

	DRIVER	PASS
Left Upper Rib (LUR) Accel., g	104.1	128.3
Left Lower Rib (LLR) Accel., g	77.3	154.2
Lower Spine (T_{12}) Accel., g	96.8	118.4
Thoracic Trauma Index (TTI)	100.5	136.3
Pelvis (PEV) Accel., g	128.3	218.2

The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during side impact event.

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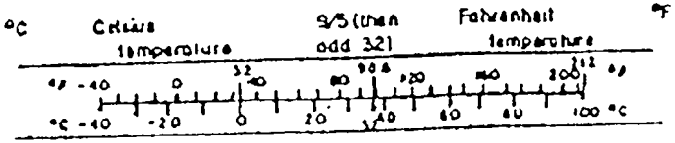
METRIC CONVERSION FACTORS

APPROXIMATE CONVERSIONS FROM METRIC MEASURES

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

APPROXIMATE CONVERSIONS FROM METRIC MEASURES

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	36	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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SECTION 1

PURPOSE OF TEST

A 1992 Nissan Sentra, 4-door sedan was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in 27 degree crabbed position to the tow road guidance system at a velocity of 37.80 mph. The target vehicle was stationary and was positioned at an angle of 63 degree to the line of forward motion. The side impact test was conducted by the Mobility Systems and Equipment Co., on June 26, 1992. Pretest and posttest photographs of the test vehicle, the MDB and the side impact dummies (SIDs) are included in this report.

Two SIDs were placed in the driver and left rear designated seating positions according to instructions specified in the OMI Side Impact Protection Study Laboratory Test Procedure which is dated December 1991. The side impact event was documented by 10 cameras. Camera locations and other pertinent camera information are included in this report.

The SIDs were instrumented with the following accelerometers:

1. Left Upper Rib (LUR) uniaxial accelerometer (Y-direction) (Primary and Redundant)

2. Left Lower Rib (LLR) uniaxial accelerometer (Y-direction) (Primary and Redundant)

3. Lower Thoracic Spine (T_{12}) uniaxial accelerometer (Y-direction) (Primary and Redundant)

4. Pelvic (PEV) section uniaxial accelerometer (Y-direction).

In addition, the following transducers were included for each SID.

5. Upper Thoracic Spine (T_{01}) uniaxial accelerometer (Y-direction) (Primary and Redundant)

6. Triaxial Accelerometer in SID Head

7. Lap Belt Load Cell

8. Shoulder Belt Load Cell

Total number of transducers per SID were:

12	Accelerometers
2	Belt Load cells
14	Total

SECTION 2

DATA SUMMARY

A 1992 Nissan Sentra, NHTSA No. MN5203 was subjected to a side impact test at Mobility Systems and Equipment Co. on June 26, 1992. This section provides a summary of test results from the test. The results are presented in Data Sheet No. 1.

This testing program is a part of an investigation and evaluation of side impact protection in production passenger cars. The test is specifically intended to simulate a 90 deg. intersection collision with the striking vehicle moving at 30 mph and the struck vehicle moving at 15 mph. This is accomplished by towing a Moving Deformable Barrier (MDB) crabbed in a stationary position. The velocity of the MDB is to be 38.0 $\pm$ 0.5 mph. The target impact point of the MDB is to be: the left edge of the MDB face to impact a point on the struck vehicle 37 $\pm$ 2 inches ahead of the midpoint of the wheelbase of the vehicle.

The actual test speed was 37.80 mph. The actual impact point was less than 0.1 inch forward of the target impact point.

DATA SHEET NO. 1

SUMMARY OF RESULTS

VEH. MOD.YR/MAKE/MODEL: 1992 NISSAN SENTRA

VEH. BODY STYLE: 4 DOOR SEDAN VIN: JN1EB31P8NU141480

VEH. NHTSA NO.: MN5203 VEH. BUILD DATE: 01/92

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.

TEST RESULTS:

Vehicle Overall Length = 170.5 inches; Vehicle Overall Width 65.7 inches

Vehicle Test Weight:	853.0 lbs. Left Front	596.0 lbs. Left Rear
	752.0 lbs. Right Front	574.0 lbs. Right Rear
	1605 lbs. TOTAL FRONT	1170 lbs. TOTAL REAR

Wheelbase = 95.7 inches

Longitudinal C.G. from center of front axle = 40.3 inches

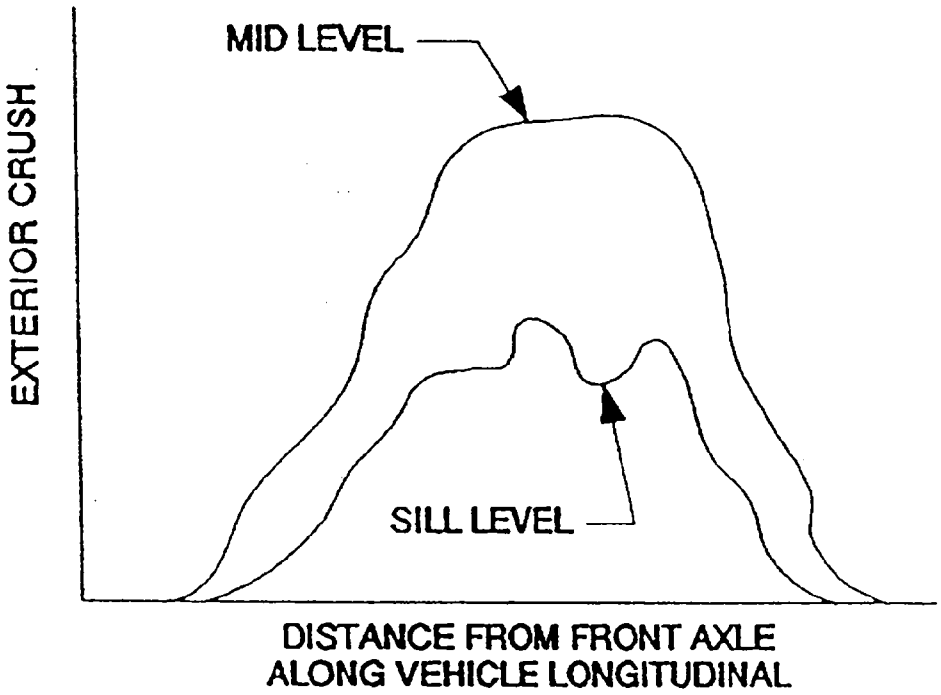
Impact Angle with respect to impactor = 90 degrees

Maximum Exterior Static Crush (provide External Damage Profile on next page):

1. LEVEL 1 (10.7 inches above ground) = 9.6 inches
2. LEVEL 2 (19.4 inches above ground) = 19.4 inches
3. LEVEL 3 (24.3 inches above ground) = 17.3 inches
4. LEVEL 4 (36.0 inches above ground) = 13.3 inches
5. LEVEL 5 (51.1 inches above ground) = 3.6 inches

Maximum Post Test Intrusion = 19.4 inches

External Lateral Damage Profile (sample shown below)



Occupants:	DRIVER	PASS. (LEFT REAR)
Dummy Identification	SID # 136	SID # 137
Restraint Used	AUTOMATIC SHOULDER BELT MANUAL LAP BELT	MANUAL 3-POINT CONTINUOUS WEBBING BELT

Instrumentation:

Number of Data Channels = 50

Number of Cameras: Onboard = 3 High Speed

Offboard = 6 High Speed (2 on MDB), 1 Real Time

Door Opening:	LEFT SIDE	RIGHT SIDE
FRONT --	No	No
REAR --	No	No

Arm Rest Location: Front -- N/A

Rear -- N/A

Front Seat Cushion Movement: MOVED TO THE RIGHT

Front Seat Back Movement: MOVED TO THE RIGHT

Glazing Breakage: ALL 3 LEFT SIDE WINDOWS SHATTERED; REARMOST RIGHT SIDE WINDOW SHATTERED. WINDSHIELD CRACKED ON THE LEFT SIDE BUT REMAINED INTACT.

Pillar Failure: BOTTOM OF B-PILLAR SEPARATED FROM SILL ALONG 8 INCHES ON THE OUTBOARD AND REAR SIDES. BOTTOM OF C-PILLAR SEPARATED FROM SILL ALONG 1 INCH OUTBOARD SIDE.

Sill Separation: NONE

Other Notable Impact Effect: LEFT REAR WINDOW LEVER APPEARS TO HAVE SHATTERED REARMOST RIGHT SIDE WINDOW. (THE LEVER WAS DISCOVERED ON THE SEAT POSTTEST)

MOVING DEFORMABLE BARRIER (MDB) RESULTS:

Overall Width of Framework Carriage = 52.5 inches

Overall Length of MDB = 162.0 inches (including honey comb impact face)

Wheelbase of Frame work Carriage (front and Rear) = 102.0 inches

C.G. Location of Rearward of Front Axle = 44.5 inches

MDB Weight:		
	835 lbs. Left Front	645 Left Rear
	835 lbs. Right Front	645 Right Rear
	1670 lbs. TOTAL FRONT	1290 TOTAL REAR

TOTAL WEIGHT OF MDB = 2960 lbs.

Impact Angle (MDB Centerline to Target Vehicle Centerline) = 27 degrees

Impact Speed = 37.80 mph

Maximum Static Crush of Honeycomb Impact Face:

1. ROW A at bumper level = 3.6 inches
2. ROW B at midstack level = 1.9 inches
3. ROW C at top of stack level = 7.2 inches

Instrumentation:

Number of MDB Data Channels = 5

SIDE IMPACT DUMMY (SID) RESULTS

Location of B-Post Upper Anchorage Bolt or Side Rail (Auto. Belts) for Head Contact Analysis:
Slide Rail Runs Along A-Pillar To Roof And To B-Pillar. Final Position Is

20.7 Inches Above The B-Post Striker.

Visible Dummy Contact Points--	FRONT SID	REAR SID
HEAD	B-Pillar, Seat Belt, Seat Belt Anchor, Right Side Headrest (Front)	C-Pillar, Rear Window
SHOULDER	B-Pillar, Door	Door
HIP	Door	Door
LEFT KNEE	Door	Door, Front Seat
RIGHT KNEE	Steering Column, Center Console	Front Seat

	FRONT SID # 136				REAR SID # 137			
	+DIRECT		-DIRECT		+DIRECT		-DIRECT	
	MaxG	ms	MaxG	ms	MaxG	ms	MaxG	ms
RIB ACCELERATIONS:								
Upper Rib Lateral Y	104.1	24.4	27.7	70.6	128.3	34.4	11.2	61.3
Lower Rib Lateral Y	77.3	23.8	31.7	73.1	154.2	33.1	44.5	63.8
SPINE ACCELERATIONS:								
Lower Lateral Y	96.8	35.0	35.6	79.4	118.4	33.1	46.3	63.8
PELVIS ACCELERATIONS:								
Lateral Y	128.3	29.4	26.4	72.5	218.2	27.5	27.2	65.0

REFERENCE: (+) DIRECTION Lateral Y = to the right
(-) DIRECTION Lateral Y = to the left

REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 7/2/92

APPROVED BY: [signature] DATE: 07/17/92

SIDE IMPACT DUMMY (SID) TEST DATA SUMMARY
1992 NISSAN SENTRA, 4-DOOR SEDAN, NHTSA NO. MN5203

TEST DATE: 06/26/92

	FRONT DUMMY -- ID # 136				REAR DUMMY -- ID # 137			
	POS. DIRECT		NEG. DIRECT		POS. DIRECT		NEG. DIRECT	
	MAX (g)	TIME (msec)	MAX (g)	TIME (msec)	MAX (g)	TIME (msec)	MAX (g)	TIME (msec)
HEAD ACCELERATIONS:								
Longitudinal --- X	25.6	47.2	111.5	34.8	29.2	53.3	13.3	106.4
Lateral -------- Y	6.8	27.8	221.2	35.0	21.6	33 1	164.0	53.4
Vertical ------- Z	27.4	40.5	73.1	34.9	37.7	54.4	36.6	60.0
RESULTANT ------ R	255.1	34.8	0.0	0.0	165.6	53.4	0.0	0.0
HIC ----------	1301.9				1380.5			
(TIME INTERVAL, SEC.)	(0.0343 TO 0.0362)				(0.0519 TO 0.0592)			
RIB ACCELERATIONS:								
1.Upper Rib Lateral Y	104.1	24.4	27.7	70.6	128.3	34.4	11.2	61.3
2.Upper Rib Lateral Y	108.9	24.4	30.6	71.3	126.5	34.4	13.0	61.3
1.Lower Rib Lateral Y	77.3	23.8	31.7	73.1	154.2	33.1	44.5	63.8
2.Lower Rib Lateral Y	88.3	23.8	31.5	73.1	155.4	33.1	46.3	63.8
SPINE ACCELERATIONS:								
1.Upper Spine LateralY	111.9	35.0	32.9	80.6	103.5	38.1	46.7	60.0
2.Upper Spine LateralY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.Lower Spine LateralY	96.8	35.0	35.6	79.4	118.4	33.1	46.3	63.8
2.Lower Spine LateralY	98.3	35.0	35.3	79.4	115.8	33.1	46.7	60.6
PELVIS ACCELERATIONS:								
Lateral Y	128.3	29.4	26.4	72.5	218.2	27.5	27.2	65.0
RIB DEFLECTION:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
THORACIC TRAUMA INDEX (TTI), G's (d)	100.5				136.3			

REFERENCE: Positive Direction -- Longitudinal (X) = forward
Lateral (Y) = to right
Vertical (Z) = down

Negative Direction -- Longitudinal (X) = rearward
Lateral (Y) = to left
Vertical (Z) = up

SECTION 3

SIDE IMPACT DUMMY (SID) AND VEHICLE TEST DATA

This section provides the test results and data for SID and the test vehicle. The data sheets are arranged as shown below:

Data Sheet No. 2: Pretest and Posttest Measurements (vehicle)

Data Sheet No. 3: SID Longitudinal Clearance Dimension

Data Sheet No. 4: SID Lateral Clearance Dimension

Data Sheet No. 5: Vehicle Side Measurements

Data Sheet No. 6A to 6E: Pretest and Posttest Vehicle Exterior Profile at Levels 1 to 5

Data Sheet No.6F: Summary of Vehicle Exterior Profile Static Crush

Data Sheet No. 7: Exterior Static Crush for Side Impactor

Data Sheet No. 8: Test Vehicle Accelerometer Locations and Data Summary

Data Sheet No. 9: Moving Deformable Barrier (MDB) Accelerometer Locations and Data Summary

Data Sheet No.10: High Speed Camera Locations and Data

Data Sheet No.11: Test Vehicle Data

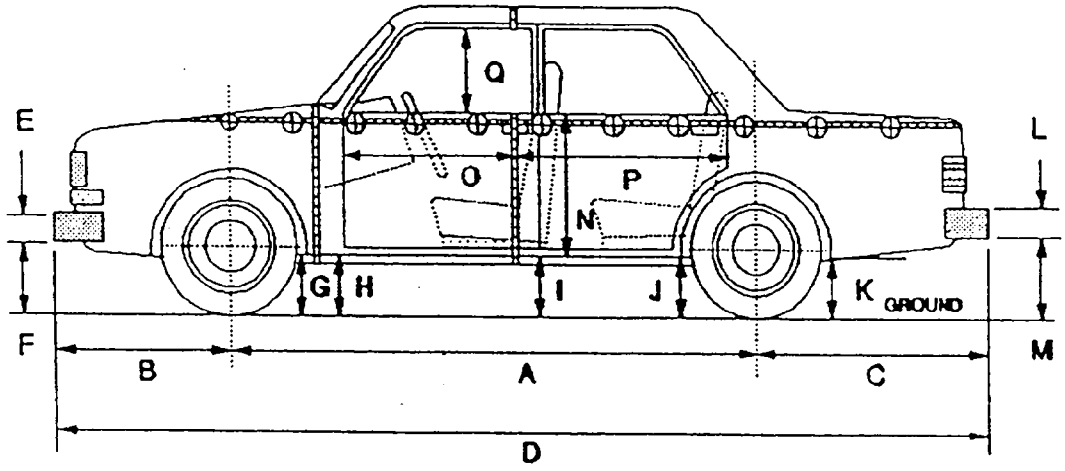
DATA SHEETS NO. 2

PRETEST AND POST TEST MEASUREMENTS

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



LEFT SIDE VIEW

	Pretest (inches)	Post Test (inches)	Change		Pretest (inches)	Post Test (inches)	Change
A	95.7	93.8	1.9	J	8.8	9.0	0.2
B	34.5	34.4	0.1	K	12.1	13.2	1.1
C	40.3	40.5	0.2	L	9.6	9.6	0.0
D	170.5	169.7	0.8	M	12.8	14.2	1.4
E	5.5	5.5	0.0	N	27.1	21.6	5.5
F	15.5	16.0	0.5	O	26.2	25.3	0.9
G	7.9	9.3	1.4	P	51.3	47.0	4.3
H	8.5	10.9	2.4	Q	16.5	15.6	0.9
I	8.6	10.9	2.3				

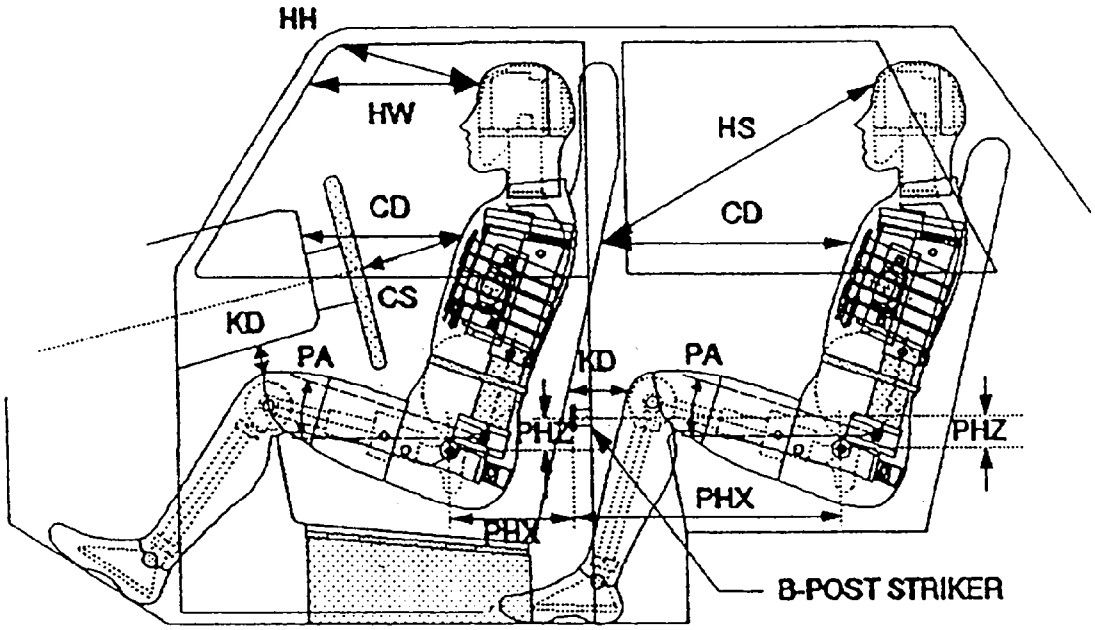
DATA SHEET NO. 3

SID LONGITUDINAL CLEARANCE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



NOTE: 2-DOOR VEHICLE SHOWN. REAR DUMMY PHX & PHZ MEASUREMENTS FOR A 4-DOOR VEHICLE WOULD USE THE C-POST STRIKER AS A REFERENCE POINT

LEFT SIDE VIEW

	DRIVER SID ID# 136		REAR SID ID# 137	
HH	17.4	inches	N/A	inches
HW	25.5	inches	N/A	inches
HS	22.8	inches	24.0	inches
CD	23.5	inches	16.0	inches
CS	16.0	inches	N/A	inches
KDL	2.0	inches	0.2	inches
KDR	2.7	inches	0.3	inches
PA	23	degrees	23	degrees
PHX	7.5	inches	12.0	inches
PHY	5.0	inches	12.0	inches

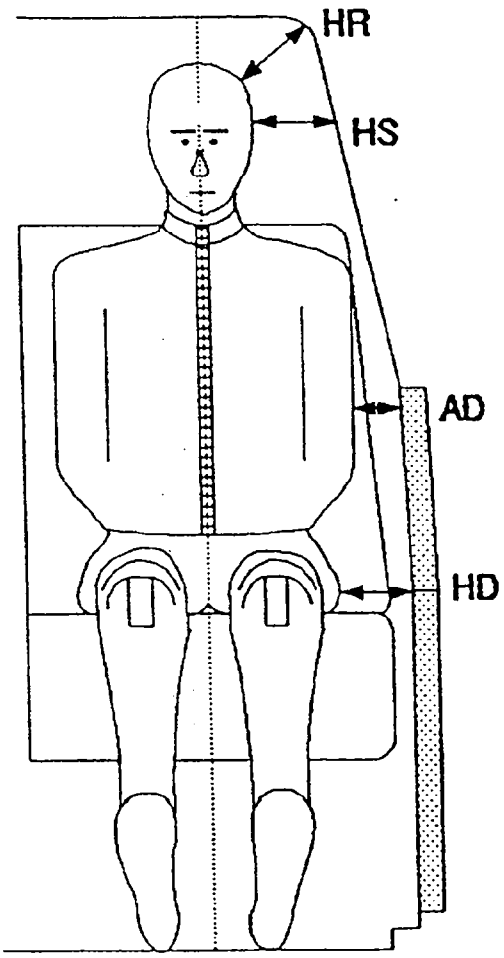
DATA SHEET NO. 4

SID LATERAL CLEARANCE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



	DRIVER SID ID# 136		REAR SID ID# 137	
HR	4.7	inches	6.3	inches
HS	6.0	inches	6.8	inches
AD	3.1	inches	3.7	inches
HD	5.5	inches	5.8	inches

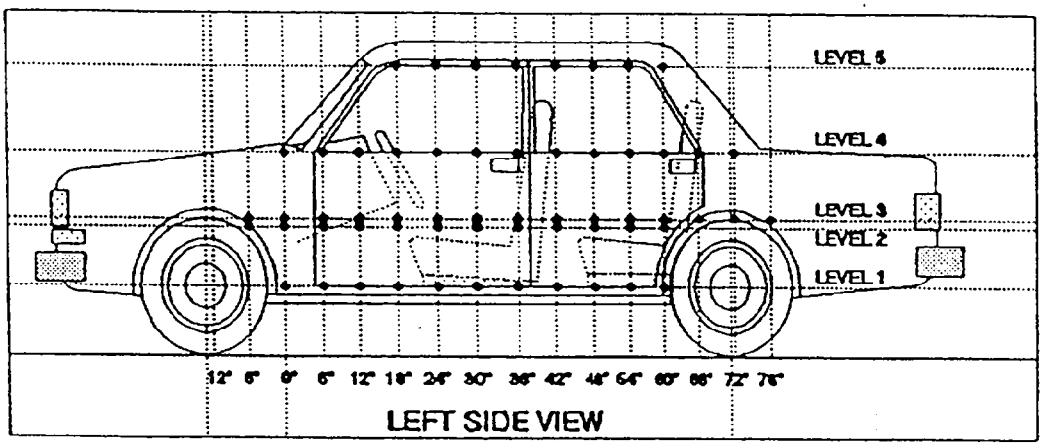
DATA SHEET NO. 5

VEHICLE SIDE MEASUREMENT

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



LEFT SIDE VIEW

LEVEL 5 - WINDOW TOP
LEVEL 4 - WINDOW SILL
LEVEL 3 - MID-DOOR
LEVEL 2 - OCCUPANT H-POINT
LEVEL 1 - AXLE CENTERLINE HEIGHT or SILL TOP HEIGHT

MEASUREMENTS ALONG THE VERTICAL 30" LINE SHOWN ABOVE:

LEVEL 5 @ Window Top = 51.1 inches

LEVEL 4 @ Window Sill = 36.0inches

LEVEL 3 @ Mid Door = 24.3 inches

LEVEL 2 @ Occupant H-Point = 19.4 inches

LEVEL 1 @ Axle Centerline Height = 10.7 inches
(or Sill Top Height)

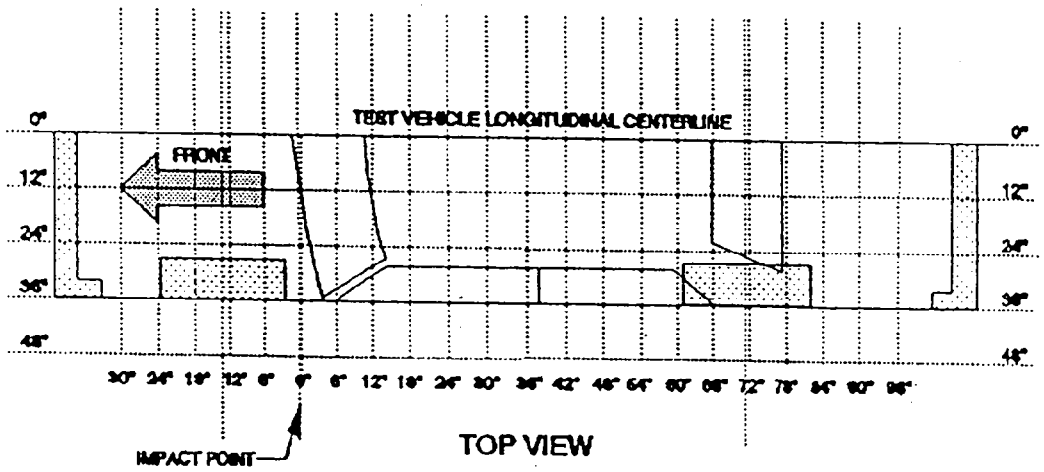
DATA SHEET NO. 6A

PRETEST AND POST TEST VEHICLE EXTERIOR PROFILES

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



TOP VIEW

LEVEL 1 AT AXLE CENTERLINE or TOP SIDE SILL

10.7 INCHES ABOVE GROUND LEVEL AT THE DOOR 30" LINE

ADD PROFILE INFORMATION ON THE NEXT PAGE

NOTE: ALL TEST VEHICLE EXTERIOR PROFILES TAKEN FROM REFERENCE PLANE WHICH IS PARALLEL TO AND 48 INCHES FROM TEST VEHICLE LONGITUDINAL CENTERLINE

LEVEL 1 AT AXLE CENTERLINE

	POST TEST (inches)	PRETEST (inches)	STATIC CRUSH (inches)
-6inches	N/A	N/A	N/A
0 inch (impact point)	N/A	N/A	N/A
6 inches	21.9	18.5	3.4
12 inches	24.4	18.5	5.9
18 inches	25.2	18.6	6.6
24 inches	25.5	18.6	6.9
30 inches	26.9	18.6	8.3
36 inches	27.3	18.6	8.7
42 inches	28.3	18.7	9.6
48 inches	27.2	18.8	8.4
54 inches	25.7	18.9	6.8
60 inches	23.8	18.9	4.9
66 inches	22.1	19.0	3.1
72 inches	N/A	N/A	N/A

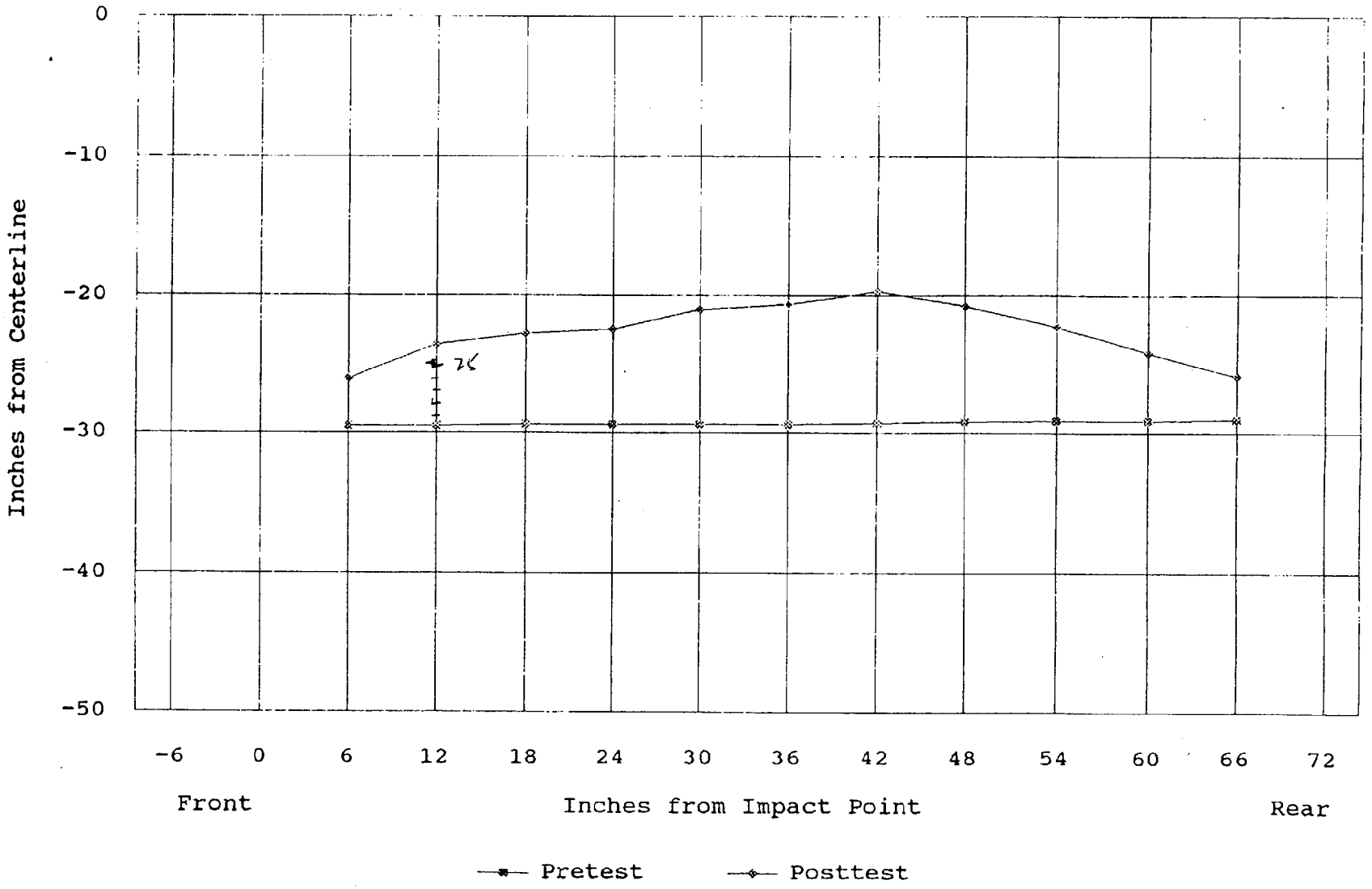
REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/92

Pretest and Posttest Exterior Profile

Level 1 - Axle Centerline - 10.7" Above Ground Level



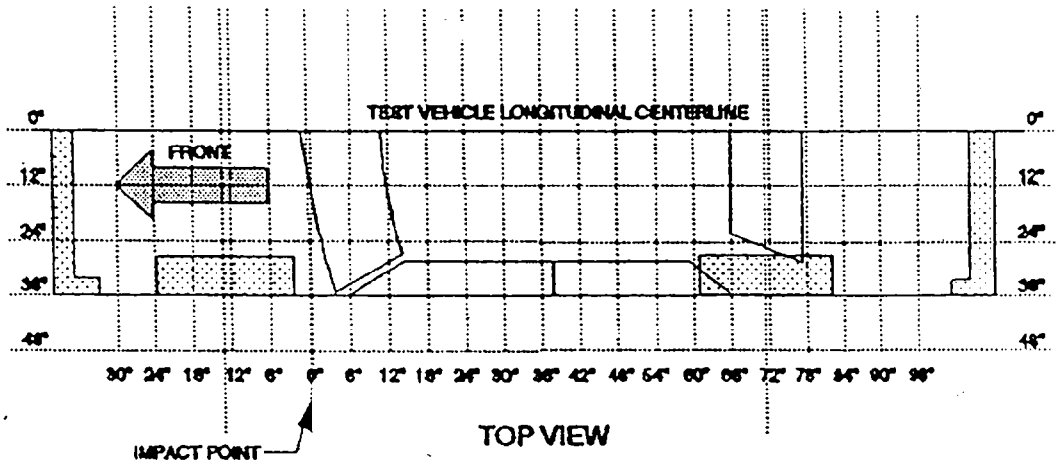
DATA SHEET NO. 68

PRETEST AND POST TEST VEHICLE EXTERIOR PROFILES

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



TOP VIEW

LEVEL 2 AT OCCUPANT H-POINT

19.4 INCHES ABOVE GROUND LEVEL AT THE DOOR 30" LINE

ADD PROFILE INFORMATION ON THE NEXT PAGE

NOTE: ALL TEST VEHICLE EXTERIOR PROFILES TAKEN FROM REFERENCE PLANE WHICH IS PARALLEL TO AND 48 INCHES FROM TEST VEHICLE LONGITUDINAL CENTERLINE

LEVEL 2 AT OCCUPANT H-POINT

	POST TEST (inches)	PRETEST (inches)	STATIC CRUSH (inches)
-6inches	17.9	15.0	2.9
0 inch (impact point)	N/A	N/A	N/A
6 inches	23.8	15.0	8.8
12 inches	24.9	15.0	9.9
18 inches	26.9	14.9	12.0
24 inches	28.3	14.9	13.4
30 inches	29.8	14.9	14.9
36 inches	30.9	14.9	16.0
42 inches	32.0	14.9	17.1
48 inches	33.0	14.9	18.1
54 inches	33.7	14.9	18.8
60 inches	34.3	14.9	19.4
66 inches	34.4	15.0	19.4
72 inches	19.6	15.1	4.5

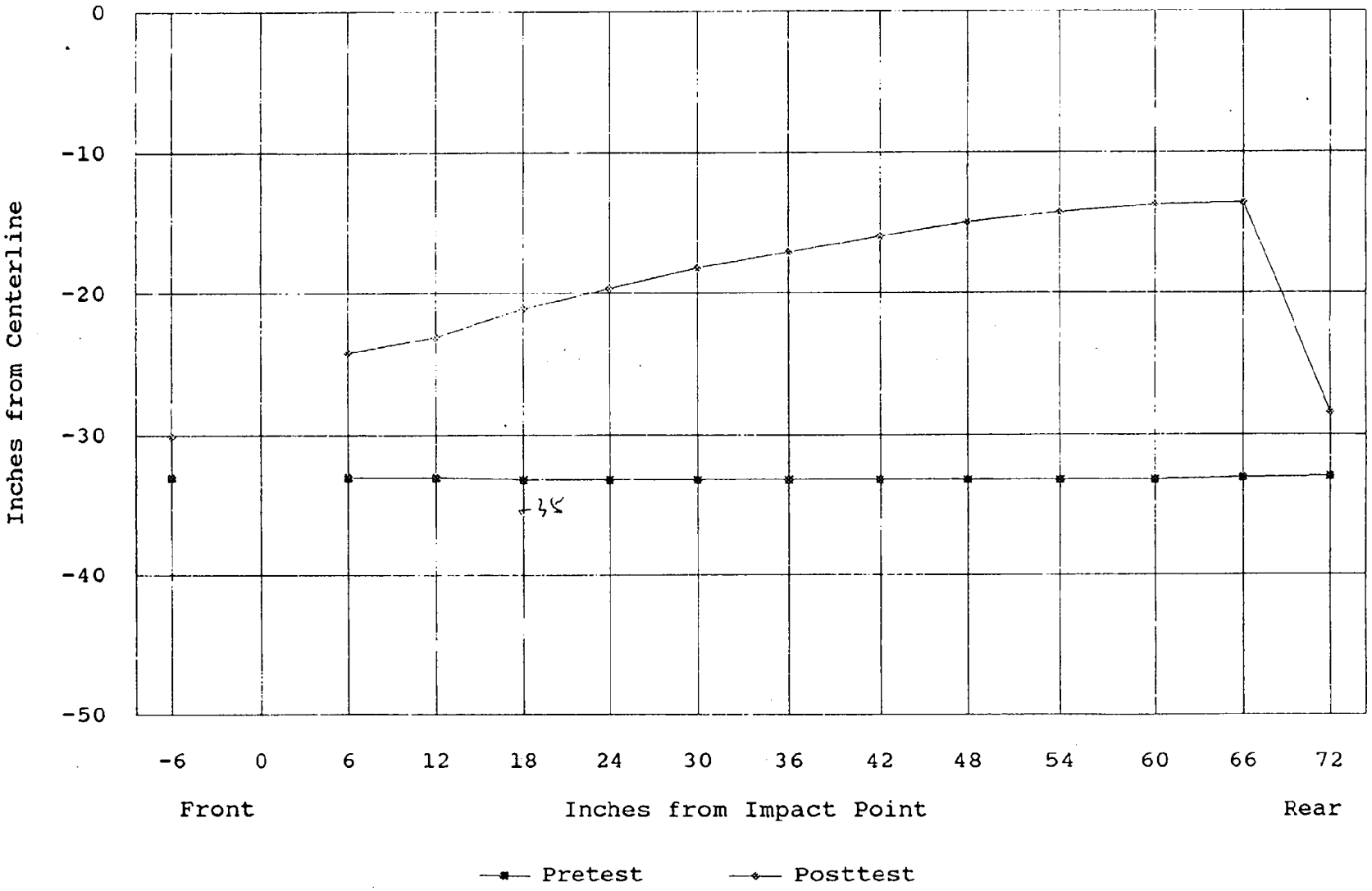
REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/92

Pretest and Posttest Exterior Profile

Level 2 - Occupant H-point - 19.4' Above Ground Level



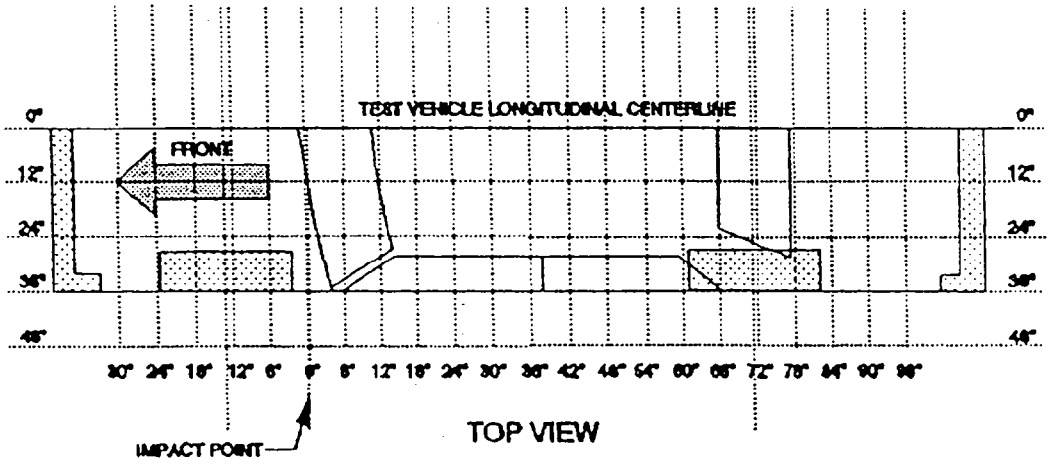
DATA SHEET NO. 6C

PRETEST AND POST TEST VEHICLE EXTERIOR PROFILES

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



TOP VIEW

LEVEL 3 AT MID DOOR

24.3 INCHES ABOVE GROUND LEVEL AT THE DOOR 30" LINE

ADD PROFILE INFORMATION ON THE NEXT PAGE

NOTE: ALL TEST VEHICLE EXTERIOR PROFILES TAKEN FROM REFERENCE PLANE WHICH IS PARALLEL TO AND 48 INCHES FROM TEST VEHICLE LONGITUDINAL CENTERLINE

LEVEL 3 AT MID-DOOR

	POST TEST (inches)	PRETEST (inches)	STATIC CRUSH (inches)
-6inches	N/A	N/A	N/A
0 inch (impact point)	22.2	15.4	6.8
6 inches	25.1	15.3	9.8
12 inches	22.0	15.2	6.8
18 inches	23.9	15.1	8.8
24 inches	25.6	15.0	10.6
30 inches	27.1	15.0	12.1
36 inches	28.4	15.0	13.4
42 inches	29.7	15.0	14.7
48 inches	31.2	15.0	16.2
54 inches	31.4	15.1	16.3
60 inches	31.9	15.1	16.8
66 inches	32.5	15.2	17.3
72 inches	18.7	15.3	3.4

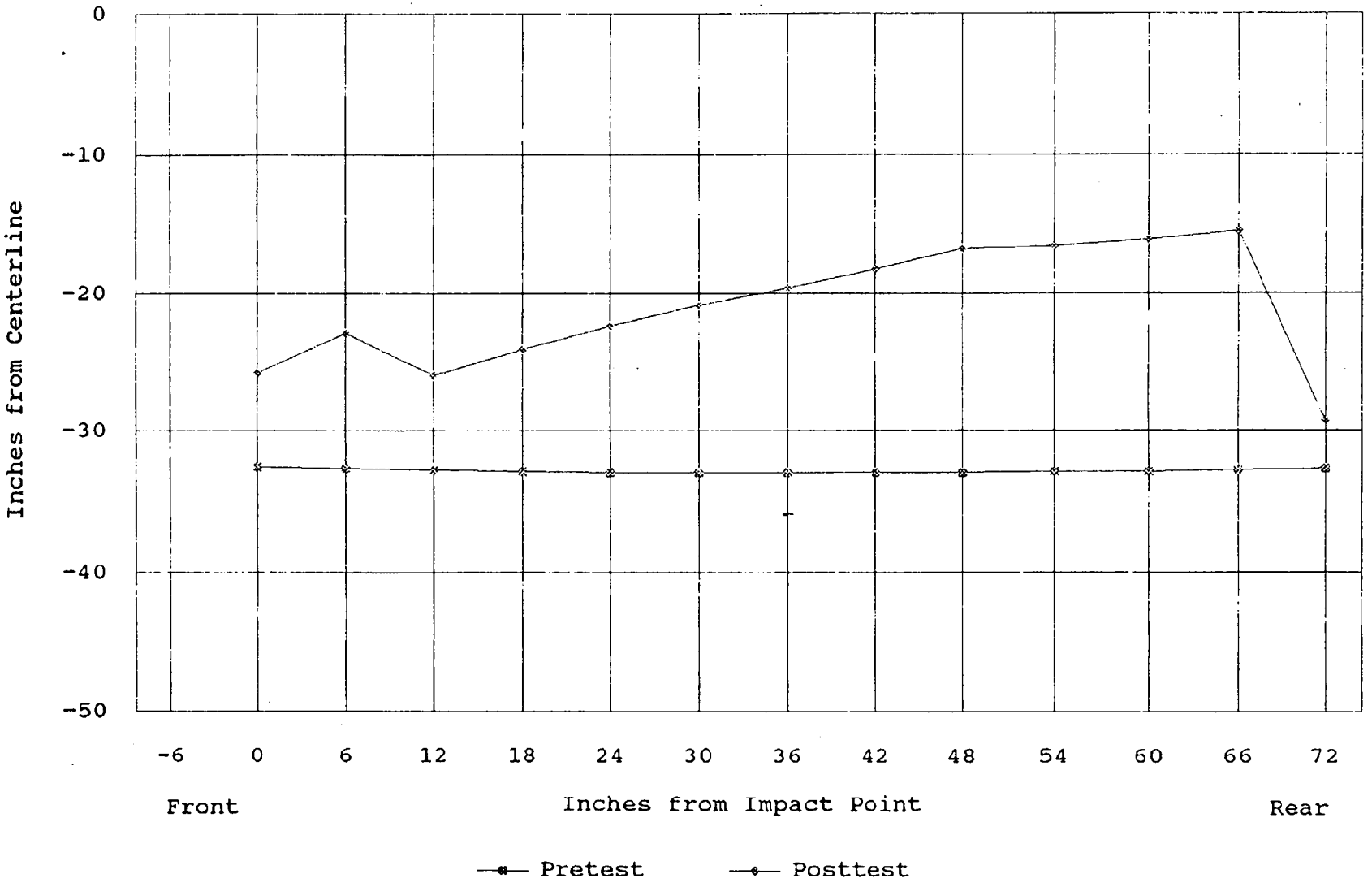
REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/12

Pretest and Posttest Exterior Profile

Level 3 - Mid-door - 24.3" Above Ground Level



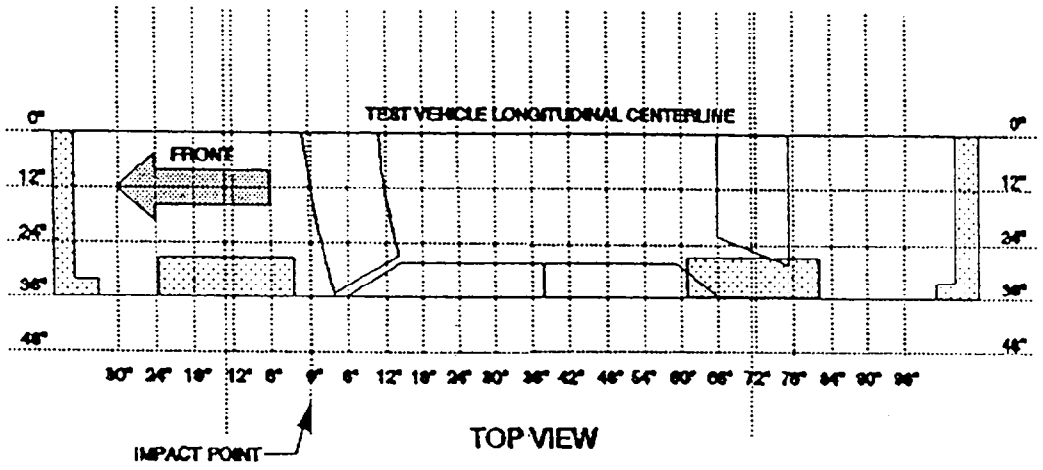
DATA SHEET NO. 6D

PRETEST AND POST TEST VEHICLE EXTERIOR PROFILES

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SENTRA

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



TOP VIEW

LEVEL 4 AT WINDOW SILL

36.0 INCHES ABOVE GROUND LEVEL AT THE DOOR 30" LINE

ADD PROFILE INFORMATION ON THE NEXT PAGE

NOTE: ALL TEST VEHICLE EXTERIOR PROFILES TAKEN FROM REFERENCE PLANE WHICH IS PARALLEL TO AND 48 INCHES FROM TEST VEHICLE LONGITUDINAL CENTERLINE

LEVEL 4 AT WINDOW SILL

	POST TEST (inches)	PRETEST (inches)	STATIC CRUSH (inches)
-6inches	N/A	N/A	N/A
0 inch (impact point)	N/A	N/A	N/A
6 inches	N/A	N/A	N/A
12 inches	23.1	19.3	3.8
18 inches	N/A	N/A	N/A
24 inches	25.9	19.4	6.5
30 inches	27.3	19.3	8.0
36 inches	28.7	19.0	9.7
42 inches	29.8	18.9	10.9
48 inches	30.7	18.8	11.9
54 inches	31.5	18.6	12.9
60 inches	31.8	18.5	13.3
66 inches	30.6	18.4	12.2
72 inches	22.8	18.3	4.5

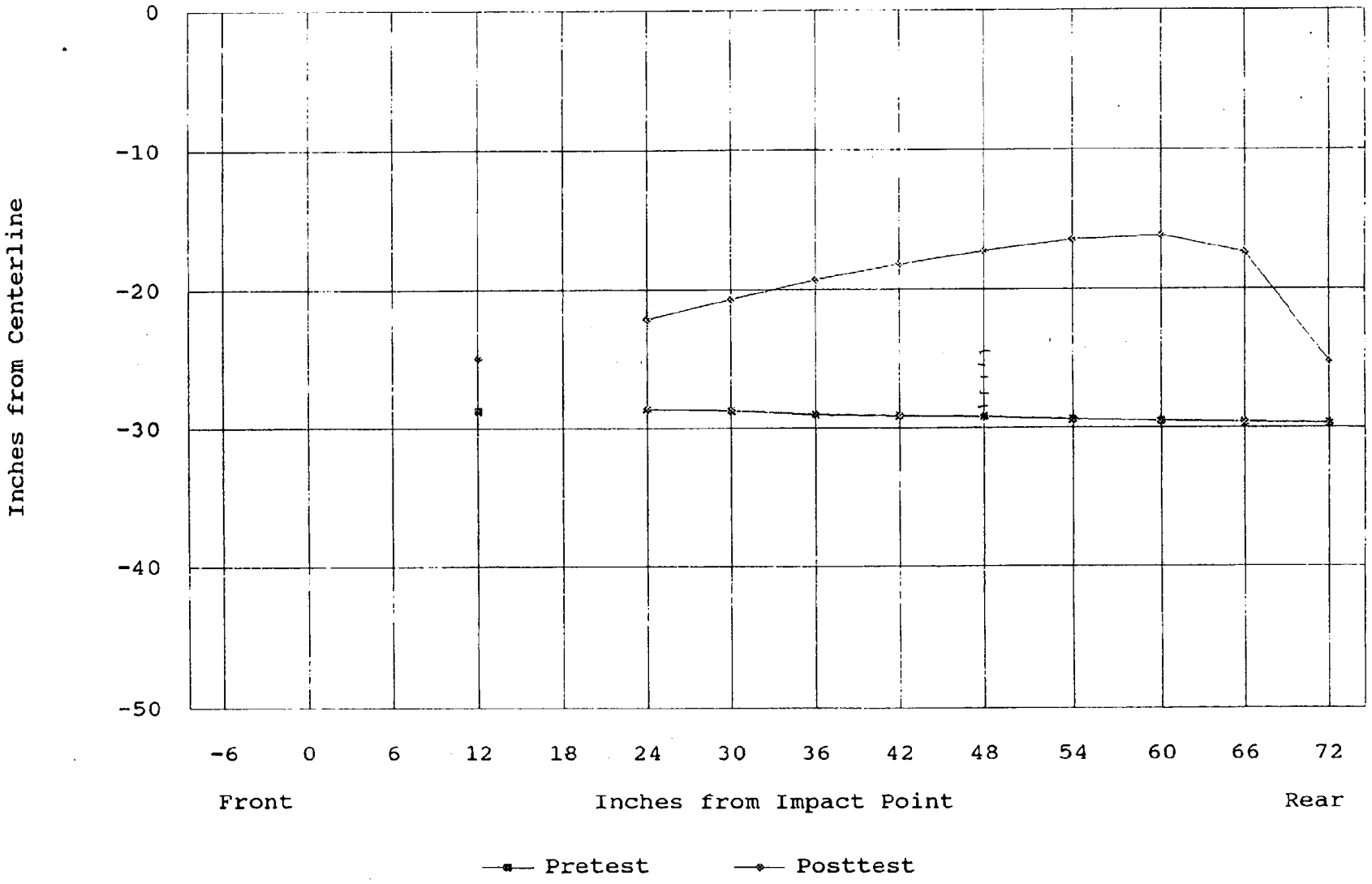
REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/92

Pretest and Posttest Exterior Profile

Level 4 - Window Sill - 36" Above Ground Level



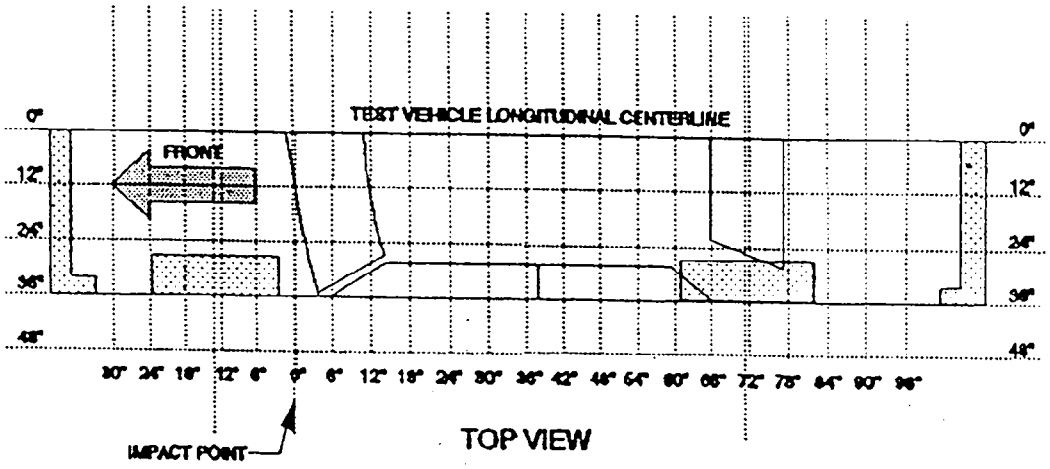
DATA SHEET NO. 6E

PRETEST AND POST TEST VEHICLE EXTERIOR PROFILES

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



TOP VIEW

LEVEL 5 AT WINDOW TOP

51.1 INCHES ABOVE GROUND LEVEL AT THE DOOR 30" LINE

ADD PROFILE INFORMATION ON THE NEXT PAGE

NOTE: ALL TEST VEHICLE EXTERIOR PROFILES TAKEN FROM REFERENCE PLANE WHICH IS PARALLEL TO AND 48 INCHES FROM TEST VEHICLE LONGITUDINAL CENTERLINE

LEVEL 5 AT WINDOW TOP

	POST TEST (inches)	PRETEST (inches)	STATIC CRUSH (inches)
-6inches	N/A	N/A	N/A
0 inch (impact point)	N/A	N/A	N/A
6 inches	N/A	N/A	N/A
12 inches	N/A	N/A	N/A
18 inches	N/A	N/A	N/A
24 inches	N/A	N/A	N/A
30 inches	N/A	N/A	N/A
36 inches	24.9	26.0	-1.1
42 inches	26.6	26.0	0.6
48 inches	29.9	26.3	3.6
54 inches	29.4	26.0	3.4
60 inches	26.1	26.3	-0.2
66 inches	23.1	26.1	-3.0
72 inches	28.8	26.3	2.5

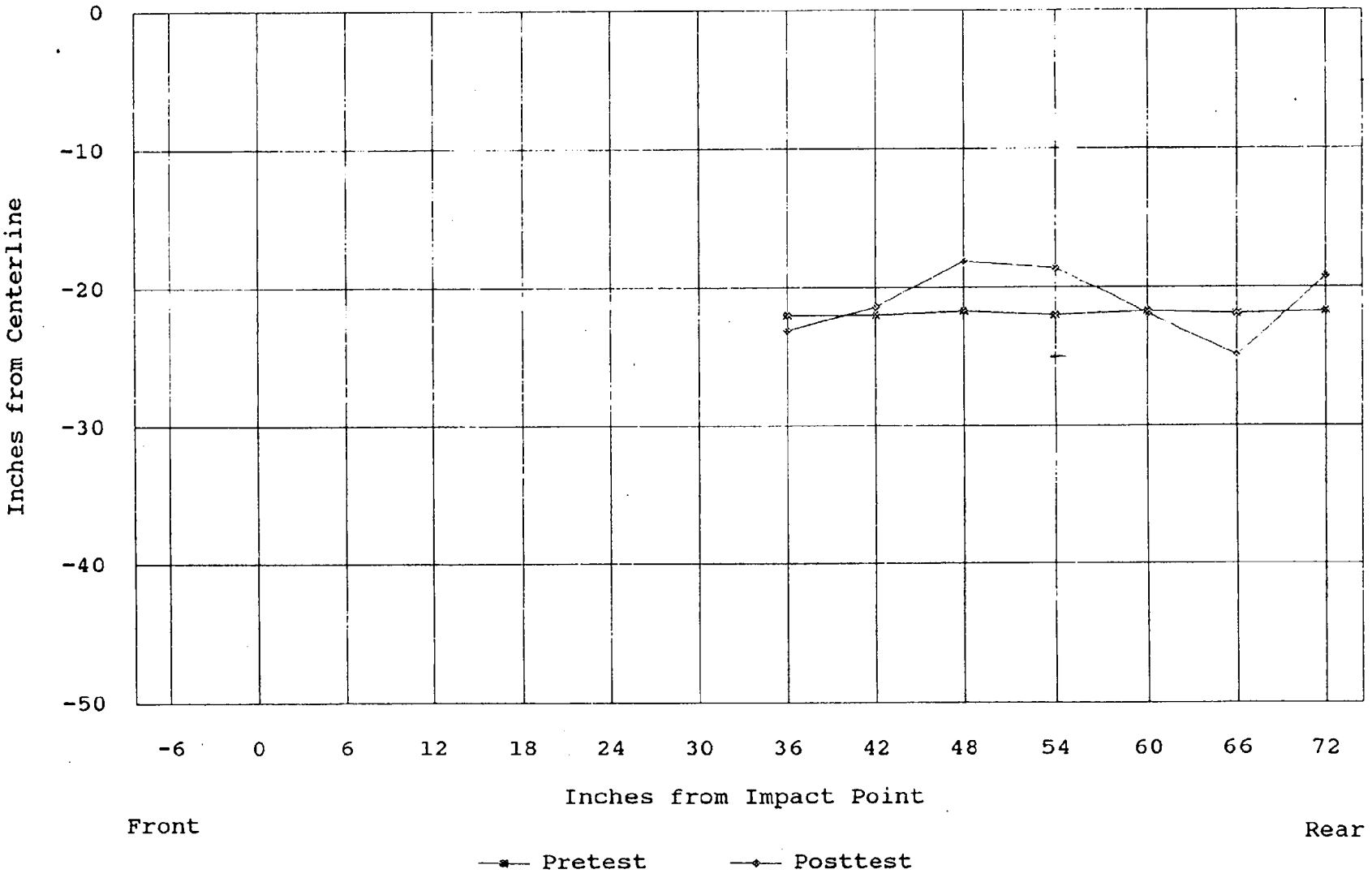
REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/92

Pretest and Posttest Exterior Profile

Level 5 - Window Top - 51.1" Above Ground Level



DATA SHEET NO. 6F

SUMMARY OF VEHICLE EXTERIOR PROFILE STATIC CRUSH

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.

POSITION	LEVEL 1 (inches)	LEVEL 2 (inches)	LEVEL 3 (inches)	LEVEL 4 (inches)	LEVEL 5 (inches)
-6 inches	N/A	2.9	N/A	N/A	N/A
0 inch Impact Point	N/A	N/A	6.8	N/A	N/A
6 inches	3.4	8.8	9.8	N/A	N/A
12 inches	5.9	9.9	6.8	3.8	N/A
18 inches	6.6	12.0	8.8	N/A	N/A
24 inch	6.9	13.4	10.6	6.5	N/A
30 inches	8.3	14.9	12.1	8.0	N/A
36 inches	8.7	16.0	13.4	9.7	-1.1
42 inches	9.6	17.1	14.7	10.9	0.6
48 inches	8.4	18.1	16.2	11.9	3.6
54 inches	6.8	18.8	16.3	12.9	3.4
60 inches	4.9	19.4	16.8	13.3	-0.2
66 inches	3.1	19.4	17.3	12.2	-3.0
72 inches	N/A	4.5	3.4	4.5	2.5

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/92

DATA SHEET NO. 7

EXTERIOR STATIC CRUSH FOR SIDE IMPACTOR

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.

LOCATION	TOP OF STACK LEVEL	MID-STACK LEVEL	BUMPER LEVEL
HEIGHT AT CENTERLINE*	32 inches	22 inches	17 inches
DISTANCES RIGHT OF CENTER**	(inches)	(inches)	(inches)
32 inches	7.2	1.9	3.6
28 inches	6.3	1.2	3.4
24 inches	4.0	0.8	2.8
20 inches	2.2	0.5	2.2
16 inches	1.1	0.4	2.0
12 inches	0.4	0.4	1.9
8 inches	0.2	0.3	1.8
4 inches	0.1	0.2	1.7
0 inches	0.0	0.1	1.6

DATA SHEET NO. 7 (Cont.)

LOCATION	TOP OF STACK LEVEL	MID-STACK LEVEL	BUMPER LEVEL
HEIGHT AT CENTERLINE*	32 inches	22 inches	17 inches
DISTANCES LEFT OF CENTER**	(inches)	(inches)	(inches)
4 inches	0.1	0.1	1.5
8 inches	0.1	0.1	1.4
12 inches	0.2	0.1	1.4
16 inches	-0.1	0.1	1.4
20 inches	-0.2	0.1	1.3
24 inches	-0.3	0.1	1.2
28 inches	0.3	0.2	1.3
32 inches	0.8	0.4	1.5

* Heights, in inches, measured above ground level
** Impact side

REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

APPROVED BY: [signature] DATE: 07/17/92

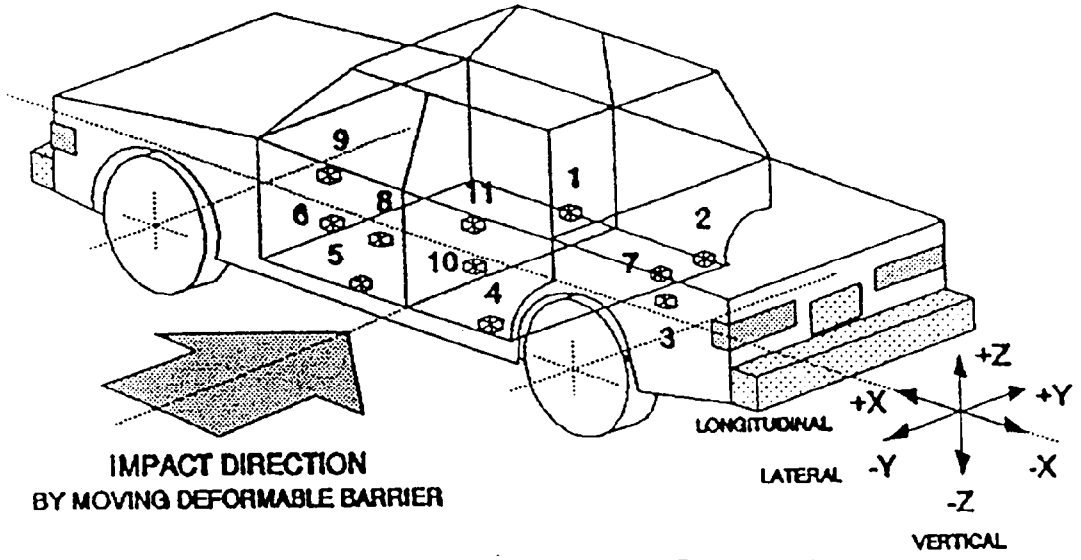
DATA SHEET NO. 8

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



IMPACT DIRECTION
BY MOVING DEFORMABLE BARRIER

1-Rt. Side Sill @ Frt Seat
2-Rt. Side Sill @ Rr. Seat
3-Rr. Floorpan Above Axle
4-Left Side Sill @ Rr. Seat
5-Left Side Sill @ Frt. Seat
6-Left Frt. Door On Centerline
7-Rt. Rr. Occ. Compartment
8-Midrear of Left Frt. Door
9-Left Frt. Door Upper Centerline
10-Midrear of Left Rear Door
11-Left Rear Door Upper Centerline

NO.	COORDINATES X (in.)	Y (in.)	Z (in.)	LONG.-X (+/-) MaxG	ms	LAT.-Y(+/-) MaxG	ms	VERT.-Z(+/-) MaxG	ms	RES.-R(+/-) MaxG	ms
1	107	21	8	-7.8	15.6	20.6	17.0	8.6	19.6	21.6	16.7
2	75	22	8	-7.1	16.1	22.1	22.8	-9.0	35.7	22.9	23.0
3	34	-3	12	-8.2	15.3	22.6	25.3	10.1	14.7	22.9	25.5
4	71	-26	11	--	--	87.4	10.2	--	--	--	--
5	105	-26	11	--	--	45.0	11.9	--	--	--	--
6	94	-28	25	--	--	-109.0	24.9	--	--	--	--

DATA SHEET NO. 8 (Cont.)

NO.	COORDINATES X (in.)	Y (in.)	Z (in.)	LONG.-X (+/-) MaxG	ms	LAT.-Y(+/-) MaxG	ms	VERT.-Z(+/-) MaxG	ms	RES.-R(+/-) MaxG	ms
1	75	16	7	-7.6	16.4	--	--	---	--	---	--
2	85	-28	25	---	--	-187.8	26.1	---	--	---	--
3	96	-28	29	---	--	-179.7	25.7	---	--	---	--
4	60	-28	27	---	--	101.4	___	---	--	---	--
5	57	-28	32	---	--	198.7	14.1	---	--	---	--

REFERENCE: X - Rear Bumper (+ = Forward)
Y - Vehicle Centerline (+ = To the Right)
Z - Ground Level (+ = Upward)

REMARKS:

RECORDED BY: MR. Brian O'Keefe DATE: 07/02/92

APPROVED BY: [signature] DATE: 07/17/92

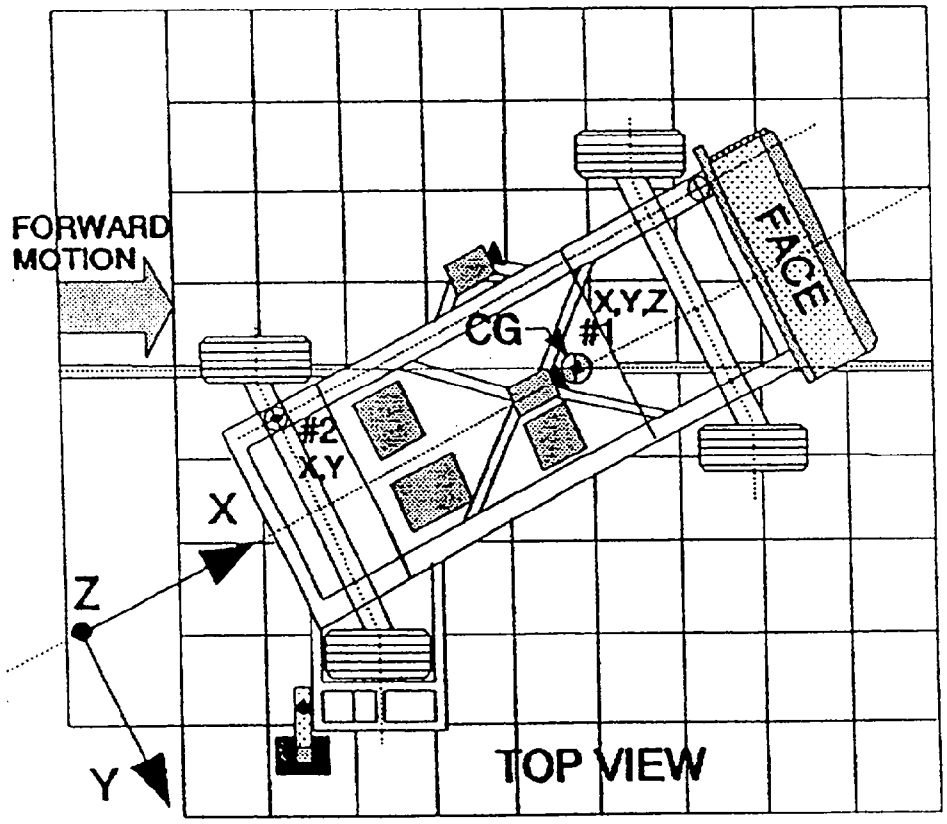
DATA SHEET NO. 9

MOVING DEFORMABLE BARRIER (MDB) ACCELEROMETER LOCATIONS AND SAMPLE DATA SUMMARY

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



ACCELEROMETER LOCATIONS:

1 - MDB Center of Gravity (CG)

2 - Rear Frame Member

DATA SHEET NO. 9 (Cont.)

NO.	COORDINATES X* (in.)	Y* (in.)	Z* (in.)	POS. DIRECTION MaxG	ms	NEG. DIRECTION MaxG	ms
1 Longitudinal X	73	0	12	1.9	189.4	18.3	31.0
1 Lateral Y	73	0	12	9.7	31.9	5.2	57.6
1 Vertical Z	73	0	12	28.8	45.2	28.2	52.5
1 Resultant R	73	0	12	30.8	45.2	--	--
2 Longitudinal X	12	-19	17	2.2	136.6	22.5	30.1
3 Longitudinal X	12	-19	17	1.6	79.1	5.1	21.5

REFERENCE: X - Rear Bumper (+ = Forward)
Y - Vehicle Centerline (+ = To the Right)
Z - Ground Level (+ = Upward)

REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 07/02/92

APPROVED BY: [signature] DATE: 07/17/92

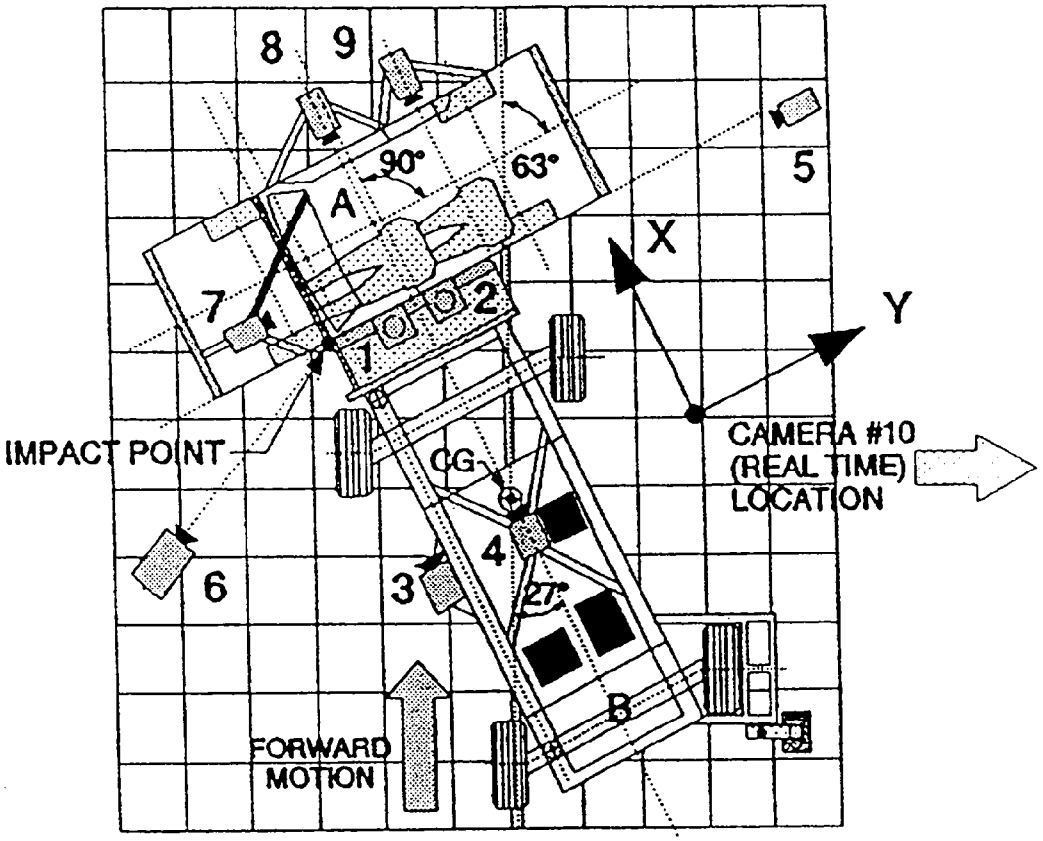
DATA SHEET NO. 10

HIGH SPEED CAMERA LOCATIONS AND DATA

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

TEST DATE: 06/26/92 TEST LAB.: MOBILITY SYSTEMS AND EQUIPMENT CO.



CAMERA LOCATIONS:

No. 1	Overhead view of test vehicle
No. 2	Overhead closeup view of impact plane
No. 3	MDB onboard closeup view of impact point
No. 4	MDB onboard view of driver dummy kinematics
No. 5	Right side ground level -- overall view
No. 6	Left side ground level -- overall view
No. 7	Test vehicle onboard driver dummy front view kinematics
No. 8	Test vehicle onboard driver dummy side view kinematics
No. 9	Test vehicle onboard passenger side view kinematics
No. 10	Real time (24 fps) film coverage of pretest, test and post test events

DATA SHEET NO. 10 (Cont.)

NO.	TYPE	LENS SPEED (mm)	(fps)	COORDINATES X*	Y*	Z*
1	FASTAX II	16	610	12	12	236
2	FASTAX II	28	600	-12	12	236
3	HIMAX	28	400	-121	-37	50
4	HIMAX	16	660	-151	0	72
5	PHOTOSONIC	13	610	-147	564	48
6	FASTAX II	28	605	-80	-480	48
7	FASTAX II	16	550	16	-41	47
8	FASTAX II	16	610	69	34	39
9	FASTAX II	16	600	68	77	40
10	ARRIFLEX	15-70 ZOOM	24	—	—	—

* REFERENCE (from point of impact)
  +X = Forward
  +Y = To The Right
  +Z = Upward

REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 07/06/92

APPROVED BY: [signature] DATE: 07/17/92

DATA SHEET NO. 11

TEST VEHICLE DATA

VEH. MOD YR/MAKE/MODEL/BODY: 1992 NISSAN SENTRA, 4 DOOR SEDAN

VEH. NHTSA NO.: MN5203 VIN.: JN1EB31P8NU141480

VEH. BUILD DATE: 01/92 TEST DATE: 06/26/92

TEST LABORATORY: MOBILITY SYSTEMS AND EQUIPMENT CO.

OBSERVERS: DR. BOB CHAN

Upon receipt, the vehicle will be examined visually for completeness, function, and damage. The roof and supporting structures such as the doors and windows should be checked for proper operation and any discrepancies which may influence the testing. The vehicle will be weighed.

DATA RECORDED FROM VEHICLE'S TIRE PLACARD:

Tire Pressure (at capacity): 33 psi Front; 29 psi Rear

Recommended Tire Size: P155/80R13 795

Size of Tires Installed on Test Vehicle: P155/80R13 795

Tire Manufacturer: GENERAL

Number of Occupants: 2 Front; 3 Rear; 5 TOTAL

Type of Front Seat(s): X Buckets; ____ Bench; ____ Split Bench

Type of Front Seat Back: ____ Fixed; X Adjustable with X Lever or ____ Knob

Vehicle Maximum Capacity Loading = 825 lbs. (A)

Number of Occupants x 150 lbs. = 750 lbs. (B)

Vehicle Cargo Capacity = 75 lbs. (A - B)

DATA SHEET NO. 11 (Cont.)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:
Front: Right = 701 lbs.; Left = 726 lbs.; Front Total = 1427 lbs.

(61 % of TOTAL shown below)

Rear: Right = 466 lbs.; Left = 444 lbs.; Front Total = 910 lbs.

(39 % of TOTAL shown below)

Front Total + Rear Total = TOTAL DELV. = 2337 lbs.

CALCULATION OF TEST VEHICLE TARGET WEIGHT:

Total Test Vehicle Delivered Weight With Maximum Fluids = 2337 lbs. (A)

Maximum Cargo Carry Capacity of Test Vehicle = 75 lbs. (B)

Weight of Two Side Impact Dummies (2 X 164 lbs.) = 328 lbs. (C)

Test Vehicle Target Weight = 2740(A + B + C)

ACTUAL WEIGHT OF TEST VEHICLE WITH TWO SIDs AND CARGO:

Front: Right = 752 lbs.; Left = 853 lbs.; Front Total = 1605 lbs.

(58 % of TOTAL shown below)

Rear: Right = 574 lbs.; Left = 596 lbs.; Front Total = 1170 lbs.

(42 % of TOTAL shown below)

Front Total + Rear Total = TOTAL ACTUAL = 2775 lbs. (which includes — lbs. of cargo ballast weight)

TEST VEHICLE ATTITUDE:

As Delivered	Ready For Test
26.2 inches Right Front	25.2 inches Right Front
25.8 inches Left Front	24.9 inches Left Front
25.4 inches Right Rear	24.1 inches Right Rear
25.3 inches Left Rear	23.6 inches Left Rear

DATA SHEET NO. 11 (Cont.)

Test Vehicle Wheelbase = 95.7 inches

C.G. = 40.3 inches Rearward of Front Wheel Centerline

Total Vehicle Length: 159.7 inches Right Side

161.3 inches Left Side

170.5 inches Centerline

Arm Rest Location: N/A

Seat Belt Upper Anchorage Location: Auto belt final position is 20.7 inches above the B-post striker.

FRONT SEAT CUSHION PLACEMENT: mid-point of fore/aft travel

Total Length of Seat Adjustment Travel = 8 inches

Total Number of Seat Adjustment Positions or Detents = 18

Front Seat Back Adjustment Position: 25°

Front Seat Back Torso Angle = 25 degrees

Front Seat Cushion Vertical Position: full down

DATA SHEET NO. 11 (Cont.)

ADJUSTABLE STEERING COLUMN POSITION: N/A
(using data supplied by the vehicle manufacturer)

WINDOW POSITIONS: CLOSED Left Front CLOSED Left Rear

OPEN Right Front OPEN Right Rear

Windows shall be in CLOSED position on the STRUCK side of the vehicle and in the OPEN position on the OPPOSITE side of the vehicle.

AMOUNT OF STODDARD SOLVENT IN FUEL TANK: 12.3 gallons (92-94% of UC)
(Usable Capacity (UC) supplied by the vehicle manufacturer)

LOCATION OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:

Wheelbase = 95.7 inches

Impact Point 10.9 is inches rearward of front axle centerline (which is 37" forward of the wheelbase midpoint)

REMARKS:

RECORDED BY: Mr. Brian O'Keefe DATE: 06/29/92

SECTION 4

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

This section shows full list of Test Equipment List and the calibration dates.

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 1
SENTYP: AC SENLOC: 01 SENATT: HDCG
AXIS: XL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-200, S/N: BJ27H
CALDAT: 26/MAR/92 INSRAT: 200 CHLMAX: 56 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 2
SENTYP: AC SENLOC: 01 SENATT: HDCG
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-200, S/N: BG78H
CALDAT: 26/MAR/92 INSRAT: 200 CHLMAX: 111 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 3
SENTYP: AC SENLOC: 01 SENATT: HDCG
AXIS: ZL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-200, S/N: AR39
CALDAT: 26/MAR/92 INSRAT: 200 CHLMAX: 36 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 4
SENTYP: AC SENLOC: 01 SENATT: SPNU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BF59J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 7 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 5
SENTYP: AC SENLOC: 01 SENATT: SPNU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: AN93
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 8 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: CF
INSCOM: CHANNEL FAILURE AFTER 37.0 MSEC.

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 6
SENTYP: AC SENLOC: 01 SENATT: RBLU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: AB97
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 7 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 7
SENTYP: AC SENLOC: 01 SENATT: RBLU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BE33J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 8 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 8
SENTYP: AC SENLOC: 01 SENATT: RBLL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BY89H
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 5 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 9
SENTYP: AC SENLOC: 01 SENATT: RBLL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BL93H
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 6 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 10
SENTYP: AC SENLOC: 01 SENATT: SPNL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BF50J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 6 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 11
SENTYP: AC SENLOC: 01 SENATT: SPNL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BH69J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 6 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 12
SENTYP: AC SENLOC: 01 SENATT: PVCN
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BM73J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 7 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 13
SENTYP: LC SENLOC: 01 SENATT: LPBO
AXIS: NA UNITS: LBS PREFIL: 1650
INSMAN: MFG: LEBOW, MODEL: 3371, S/N: 333
CALDAT: 09/APR/92 INSRAT: 3500 CHLMAX: 14 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 14
SENTYP: LC SENLOC: 01 SENATT: SHBT
AXIS: NA UNITS: LBS PREFIL: 1650
INSMAN: MFG: LEBOW, MODEL: 3371, S/N: 327
CALDAT: 09/APR/92 INSRAT: 3500 CHLMAX: 49 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 15
SENTYP: AC SENLOC: 04 SENATT: HDCG
AXIS: XL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-200, S/N: BJ28H
CALDAT: 26/MAR/92 INSRAT: 200 CHLMAX: 15 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 16
SENTYP: AC SENLOC: 04 SENATT: HDCG
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-200, S/N: BT28H
CALDAT: 26/MAR/92 INSRAT: 200 CHLMAX: 82 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 17
SENTYP: AC SENLOC: 04 SENATT: HDCG
AXIS: ZL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-200, S/N: AE29
CALDAT: 26/MAR/92 INSRAT: 200 CHLMAX: 19 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 18
SENTYP: AC SENLOC: 04 SENATT: SPNU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BY98H
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 6 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 19
SENTYP: AC SENLOC: 04 SENATT: SPNU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BH27J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 0 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO DATA COLLECTED ON THIS REDUNDANT CHANNEL

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 20
SENTYP: AC SENLOC: 04 SENATT: RBLU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: AN03
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 10 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 21
SENTYP: AC SENLOC: 04 SENATT: RBLU
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: AR17
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 9 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 22
SENTYP: AC SENLOC: 04 SENATT: RBLL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: AK29
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 12 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 23
SENTYP: AC SENLOC: 04 SENATT: RBLL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BA93
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 13 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 24
SENTYP: AC SENLOC: 04 SENATT: SPNL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BD12J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 9 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 25
SENTYP: AC SENLOC: 04 SENATT: SPNL
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BE91J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 10 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 26
SENTYP: AC SENLOC: 04 SENATT: PVCN
AXIS: YL UNITS: G'S PREFIL: 1650
INSMAN: MFG: ENDEVCO, MODEL: 7264-2000, S/N: BC98J
CALDAT: 02/JAN/92 INSRAT: 2000 CHLMAX: 20 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 27
SENTYP: LC SENLOC: 04 SENATT: LPBO
AXIS: NA UNITS: LBS PREFIL: 1650
INSMAN: MFG: LEBOW, MODEL: 3371, S/N: 330
CALDAT: 09/APR/92 INSRAT: 3500 CHLMAX: 10 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 28
SENTYP: LC SENLOC: 04 SENATT: SHBT
AXIS: NA UNITS: LBS PREFIL: 1650
INSMAN: MFG: LEBOW, MODEL: 3371, S/N: 308
CALDAT: 09/APR/92 INSRAT: 3500 CHLMAX: 21 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 29
SENTYP: AC SENLOC: 02 SENATT: DSRF
AXIS: XG UNITS: G'S PREFIL: 1650
INSMAN: MFG: BELL & HOWELL, MODEL: 4-202-0001, S/N: 21051
CALDAT: 10/APR/92 INSRAT: 250 CHLMAX: 26 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 30
SENTYP: AC SENLOC: 02 SENATT: DSRF
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: BELL & HOWELL, MODEL: 4-202-0001, S/N: 20839
CALDAT: 10/APR/92 INSRAT: 250 CHLMAX: 31 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 31
SENTYP: AC SENLOC: 02 SENATT: DSRF
AXIS: ZG UNITS: G'S PREFIL: 1650
INSMAN: MFG: BELL & HOWELL, MODEL: 4-202-0001, S/N: 19428
CALDAT: 10/APR/92 INSRAT: 250 CHLMAX: 15 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 32
SENTYP: AC SENLOC: 03 SENATT: DSRR
AXIS: XG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 1X-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 29 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: CF
INSCOM: NO CAL LEVEL SUPPLIED FOR A/D CONVERSION

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 33
SENTYP: AC SENLOC: 03 SENATT: DSRR
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 1Y-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 27 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 34
SENTYP: AC SENLOC: 03 SENATT: DSRR
AXIS: ZG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 1Z-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 16 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 35
SENTYP: AC SENLOC: 03 SENATT: FLRR
AXIS: XG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 2X-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 13 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 36
SENTYP: AC SENLOC: 03 SENATT: FLRR
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 2Y-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 19 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 37
SENTYP: AC SENLOC: 03 SENATT: FLRR
AXIS: ZG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 2Z-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 11 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 38
SENTYP: AC SENLOC: 04 SENATT: DSLR
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 20-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 111 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 39
SENTYP: AC SENLOC: 01 SENATT: DSLF
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSOR, MODEL: 3031-200, S/N: 24-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 99 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 40
SENTYP: AC SENLOC: 01 SENATT: DRLF
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 27-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 156 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 41
SENTYP: AC SENLOC: OT SENATT: FLRR
AXIS: XG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 22-200
CALDAT: 10/APR/92 INSRAT: 250 CHLMAX: 17 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 42
SENTYP: AC SENLOC: OT SENATT: DRLF
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 30-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 159 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 43
SENTYP: AC SENLOC: NA SENATT: DRLF
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 26-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 132 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 44
SENTYP: AC SENLOC: NA SENATT: DRLR
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 29-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 126 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: CF
INSCOM: NO CAL LEVEL APPLIED FOR A/D CONVERSION

Instrumentation Information

Inst. Group ID: 5 VEHNO: 2 CURNO: 45
SENTYP: AC SENLOC: NA SENATT: DRLR
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 23-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 155 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 1 CURNO: 46
SENTYP: AC SENLOC: OT SENATT: IMCG
AXIS: XG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 28-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 35 INIVEL: 33.8
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 1 CURNO: 47
SENTYP: AC SENLOC: OT SENATT: IMCG
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 31-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 16 INIVEL: 17.2
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 1 CURNO: 48
SENTYP: AC SENLOC: NA SENATT: IMCG
AXIS: ZG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-200, S/N: 32-200
CALDAT: 10/APR/92 INSRAT: 200 CHLMAX: 29 INIVEL: 0.0
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 1 CURNO: 49
SENTYP: AC SENLOC: NA SENATT: IMCR
AXIS: XG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-100, S/N: 7Z-100
CALDAT: 10/APR/92 INSRAT: 100 CHLMAX: 18 INIVEL: 33.8
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

Instrumentation Information

Inst. Group ID: 5 VEHNO: 1 CURNO: 50
SENTYP: AC SENLOC: NA SENATT: IMCR
AXIS: YG UNITS: G'S PREFIL: 1650
INSMAN: MFG: I.C. SENSORS, MODEL: 3031-100, S/N: 7X-100
CALDAT: 10/APR/92 INSRAT: 100 CHLMAX: 9 INIVEL: 17.2
NFP: -300 NLP: 2999 DELT: 100 DASTAT: AM
INSCOM: NO COMMENT

SECTION 5

PHOTOGRAPHS

The photographs listed on this page are included in this section.

1. Pretest Frontal View of Test Vehicle (Target Vehicle)
2. Posttest Frontal View of Test Vehicle
3. Pretest Rear View of Test Vehicle
4. Posttest Rear View of Test Vehicle
5. Pretest Struck Side View of Test Vehicle
6. Posttest Struck Side View of Test Vehicle
7. Pretest Frontal View of MDB Impact Face
8. Posttest Frontal View of MDB Impact Face
9. Pretest Left Side view of MDB Impact Face
10. Posttest Left Side View of MDB Impact Face
11. Pretest Right Side View of MDB Impact Face
12. Posttest Right Side View of MDB Impact Face
13. Pretest Top View of MDB Impact Face
14. Posttest Top View of MDB Impact Face
15. Pretest Overhead View of MDB Positioned Against Struck Side of Test Vehicle at Impact Locations
16. Posttest Overhead View of MDB Positioned Against Struck Side of Test Vehicle at Impact Locations
17. Pretest Occupant Compartment Left Side Showing Driver SID
18. Pretest Occupant Compartment Driver SID
19. Posttest Occupant Compartment Driver SID
20. Pretest Occupant Compartment Left Side View Showing Passenger SID
21. Pretest Occupant Compartment Right Side view Showing Passenger SID
22. Posttest Occupant Compartment View Showing Passenger SID
23. Pretest Right Side View of MDB with Impact Face in Position
24. Pretest Left Side View of MDB with Impact Face in Position
25. Tire Placard Label

25a. Vehicle VIN Plate

26. Driver Door Accelerometer Locations
27. Passenger Door Accelerometer Locations
28. Driver Door Accelerometers Installed, Door Panel in Place - Pretest
29. Passenger Door Accelerometers Installed, Door Panel in Place - Pretest
30. Driver Seating Position - Posttest
31. Passenger Seating Position - Posttest

* 32. 1992 Nissan Sentra, B-Pillar Cutout - View No. 1
* 33. 1992 Nissan Sentra, B-Pillar Cutout - View No. 2
* 34. 1992 Nissan Sentra, B-Pillar Cutout - View No. 3
* 35. 1992 Nissan Sentra, B-Pillar Cutout - View No. 4

36. 1992 Nissan Sentra, Passenger Door - Closeup View

*Taken from an earlier similar vehicle.

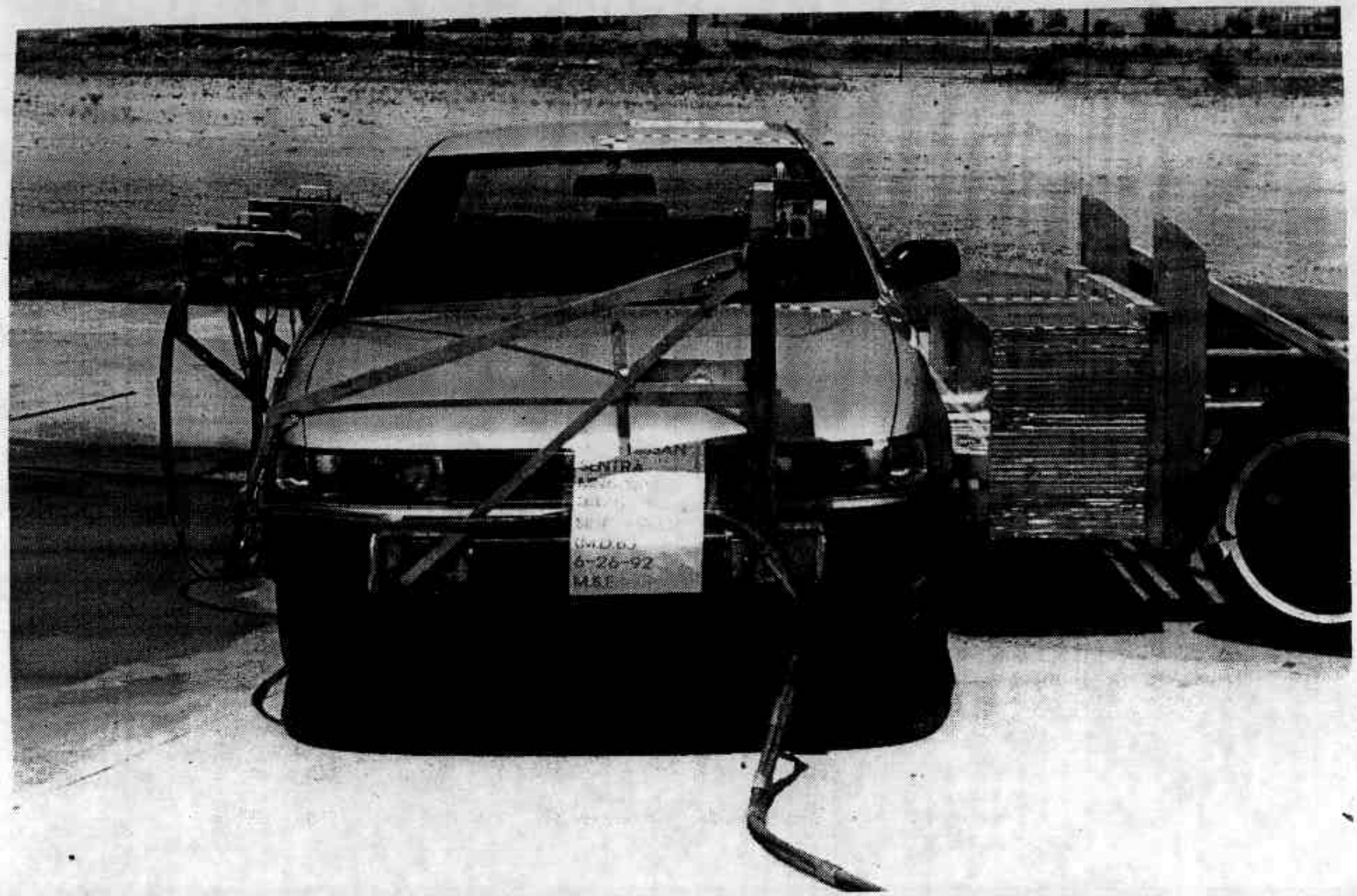


FIGURE 5-1 PRETEST FRONTAL VIEW OF TEST VEHICLE (TARGET VEHICLE)

FIGURE 5-2 POSTTEST FRONTAL VIEW OF TEST VEHICLE

FIGURE 5-3 PRETEST REAR VIEW OF TEST VEHICLE

FIGURE 5-4 POSTTEST REAR VIEW OF TEST VEHICLE

FIGURE 5-5 PRETEST STRUCK SIDE VIEW OF TEST VEHICLE

FIGURE 5-6 POSTTEST STRUCK SIDE VIEW OF TEST VEHICLE

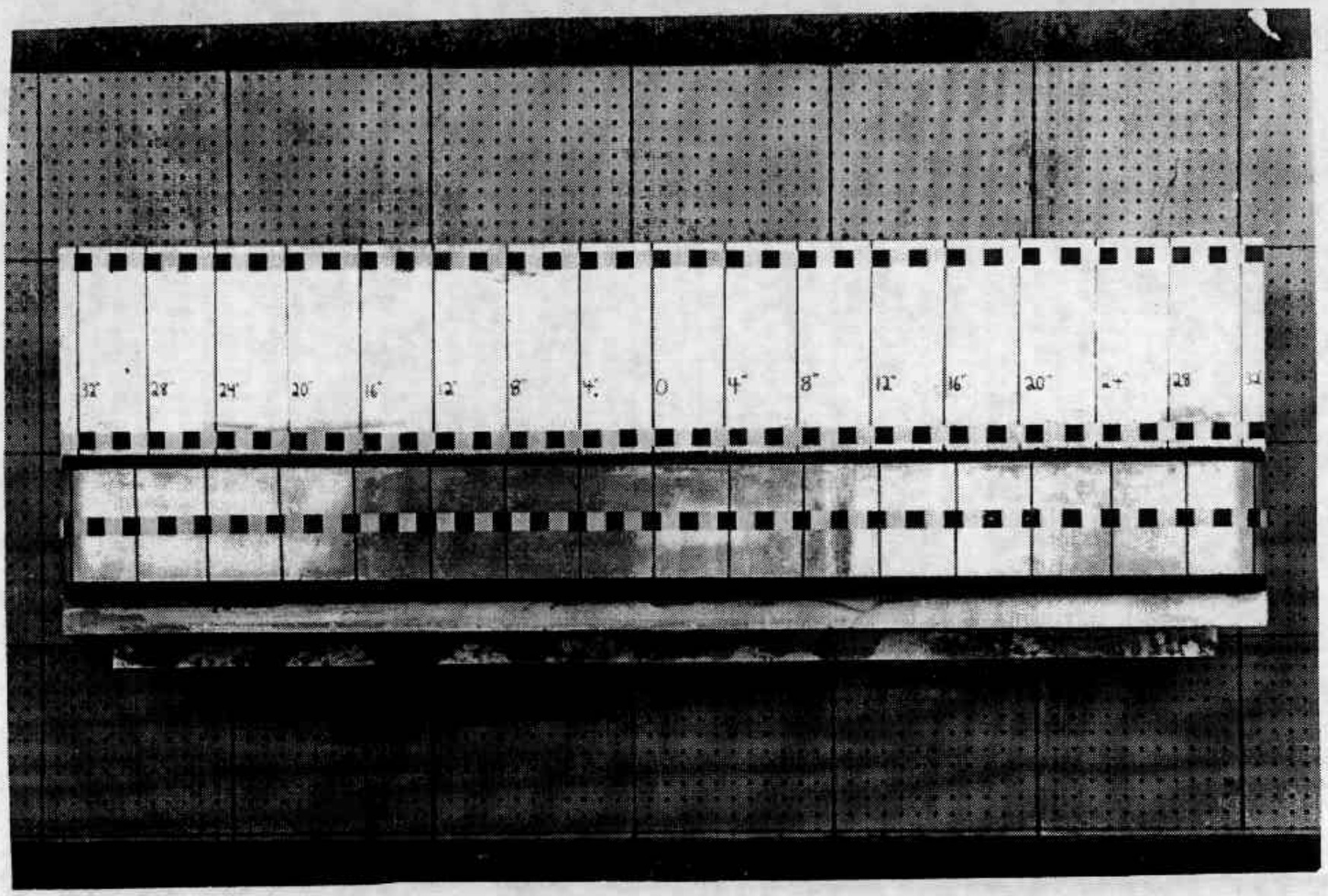


FIGURE 5-7 PRETEST FRONTAL VIEW OF MDB IMPACT FACE

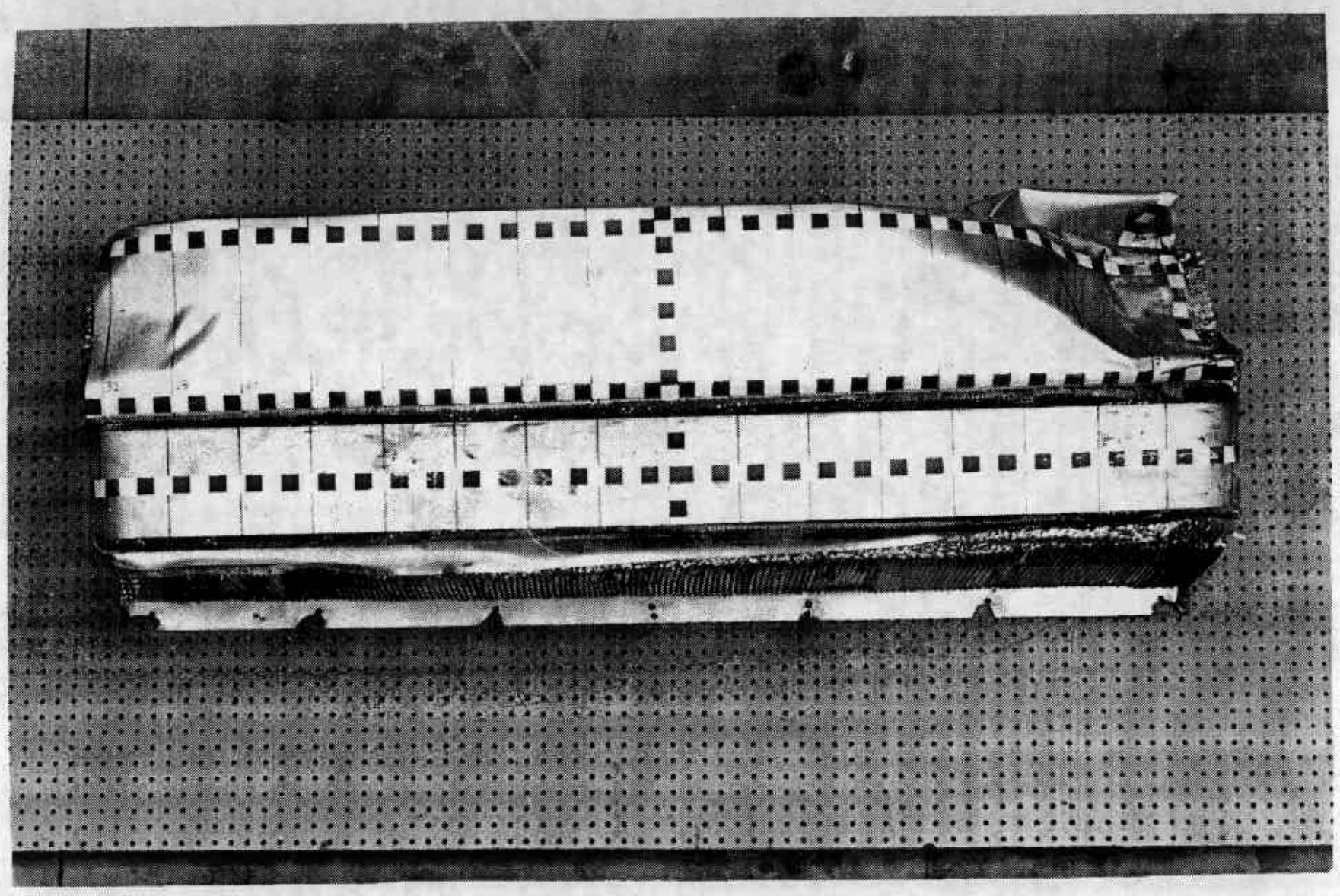


FIGURE 5-8 POSTTEST FRONTAL VIEW OF MDB IMPACT FACE

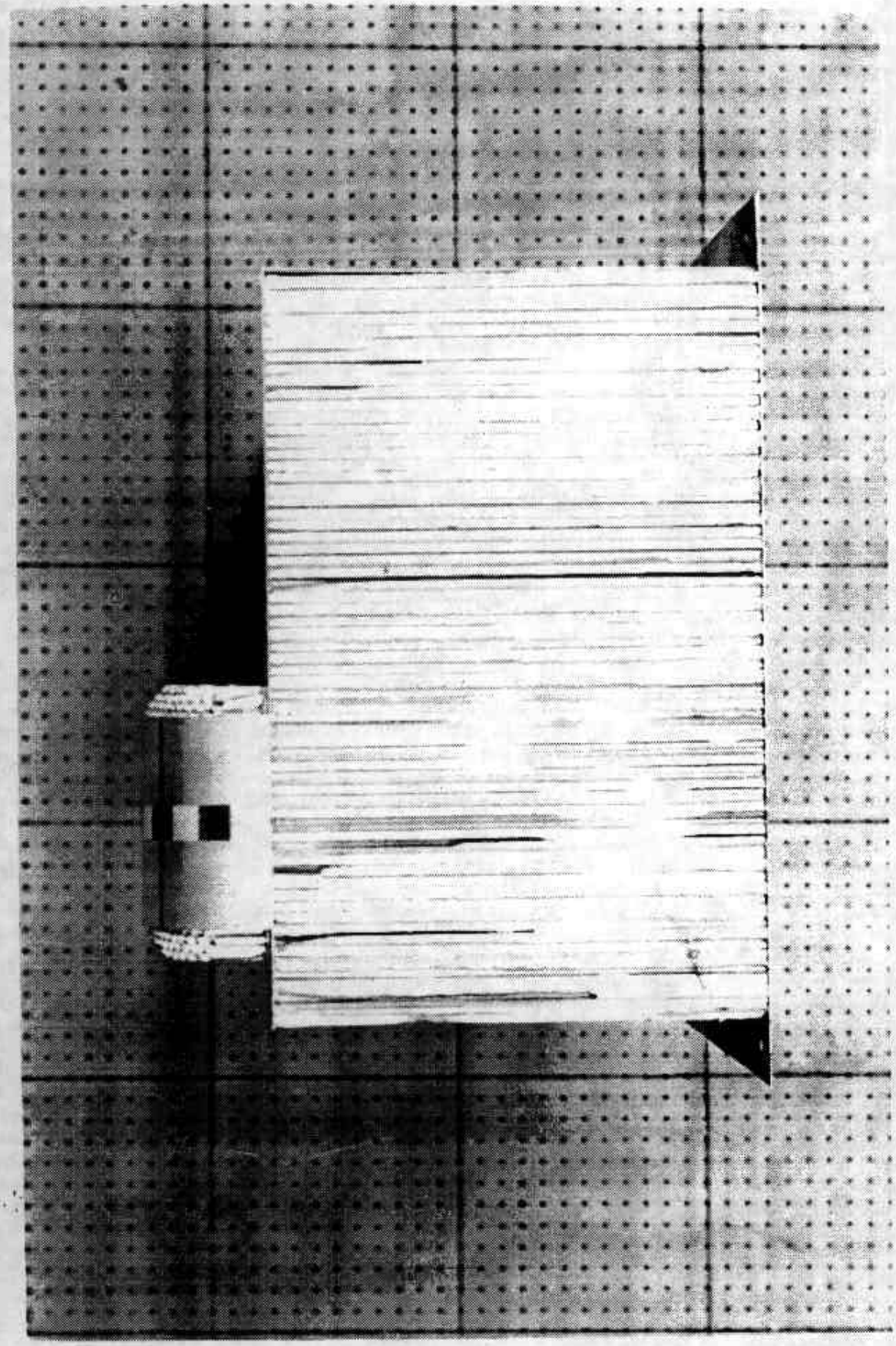


FIGURE 5-9 PRETEST LEFT SIDE VIEW OF MDB IMPACT FACE

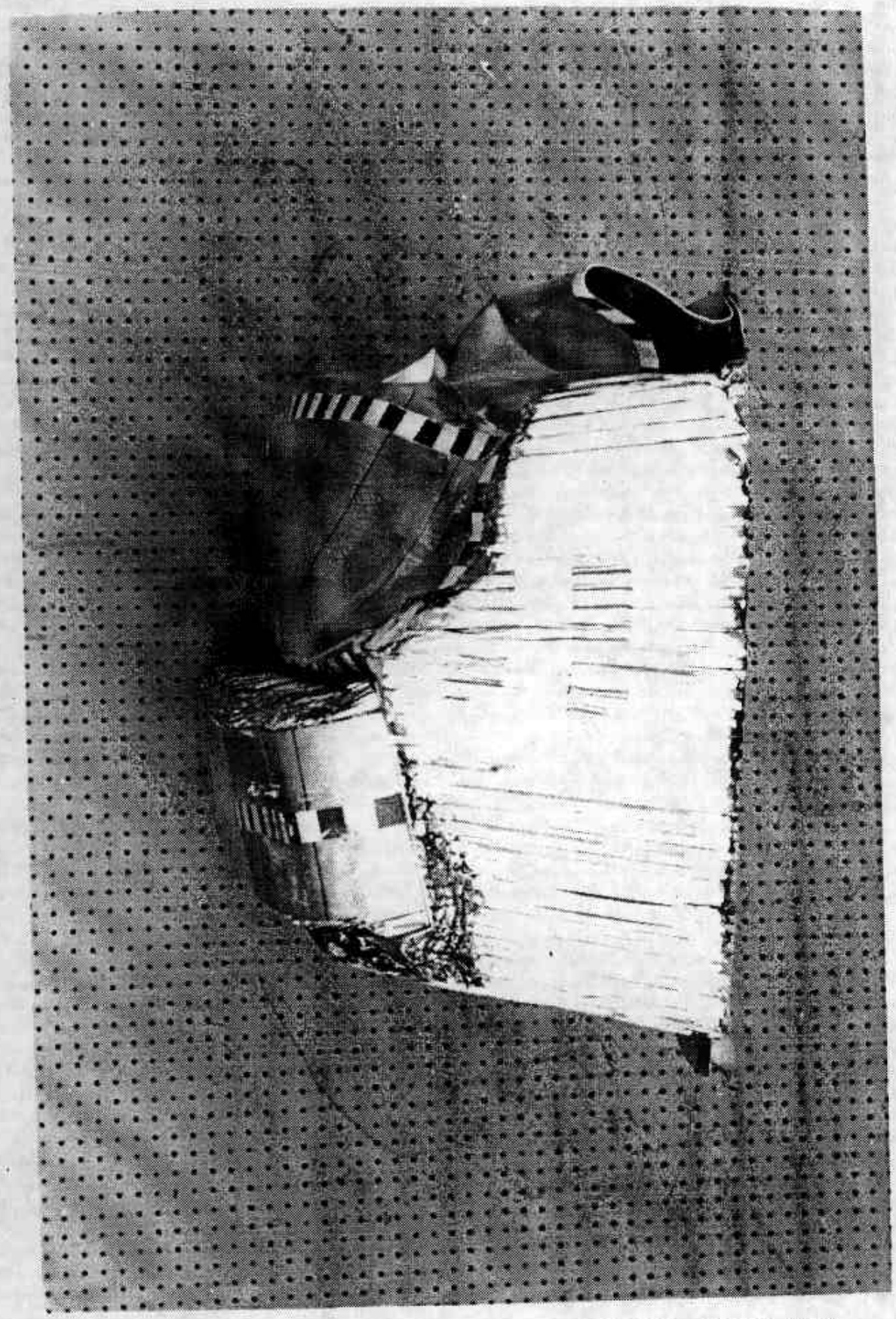


FIGURE 5-10 POSTTEST LEFT SIDE VIEW OF MDB IMPACT FACE

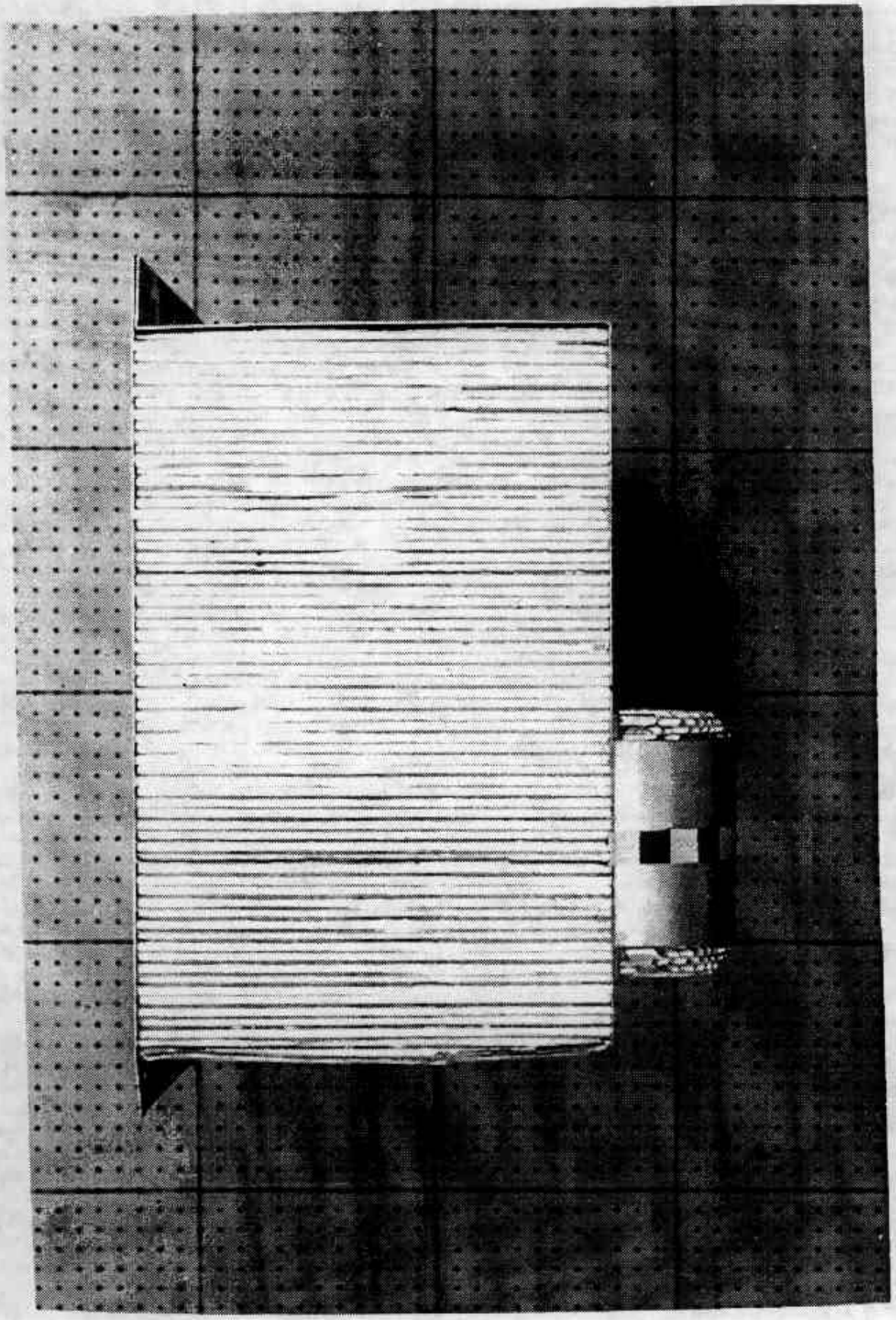


FIGURE 5-11 PRETEST RIGHT SIDE VIEW OF MDB IMPACT FACE

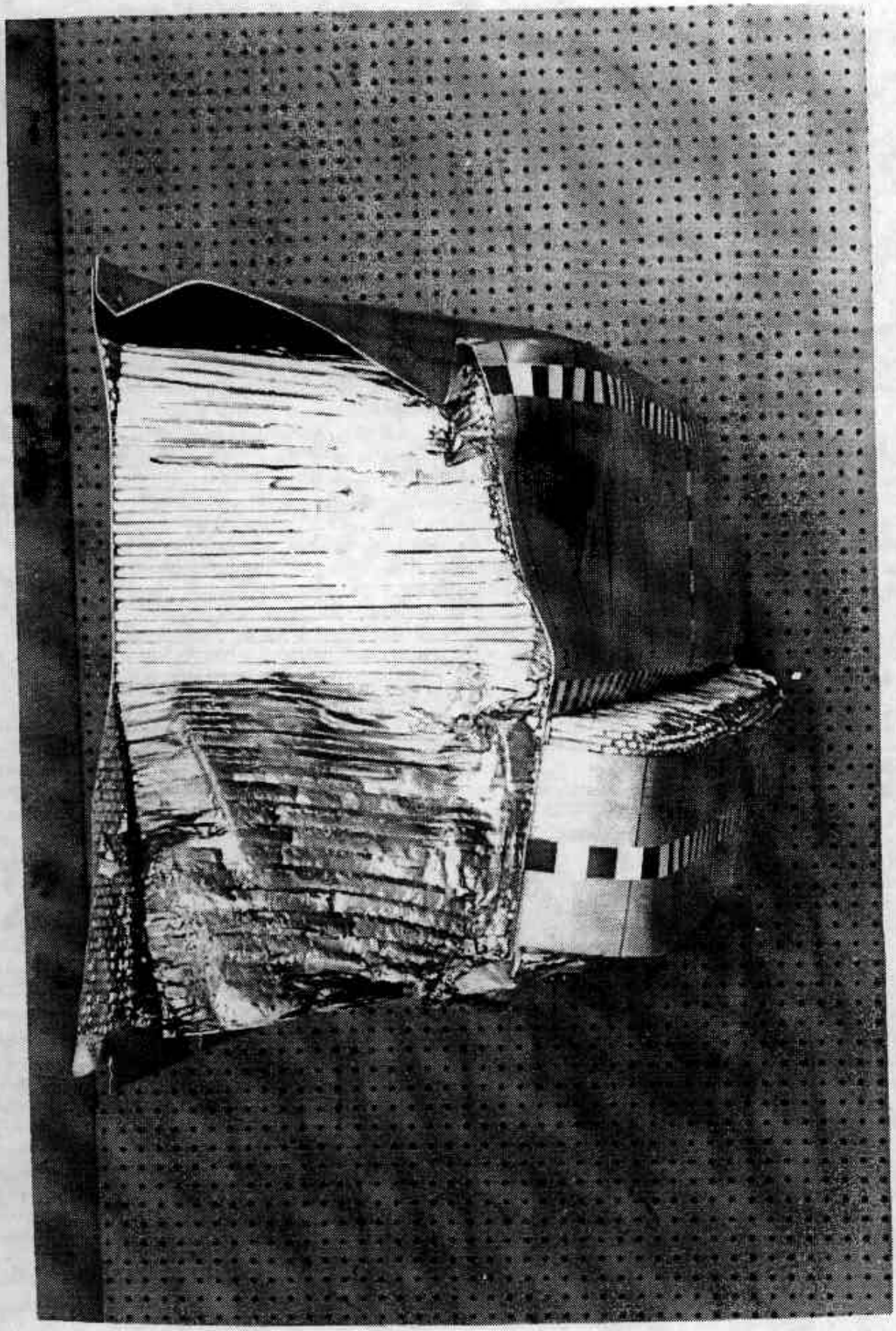


FIGURE 5-12 POSTTEST RIGHT SIDE VIEW OF MDB IMPACT FACE

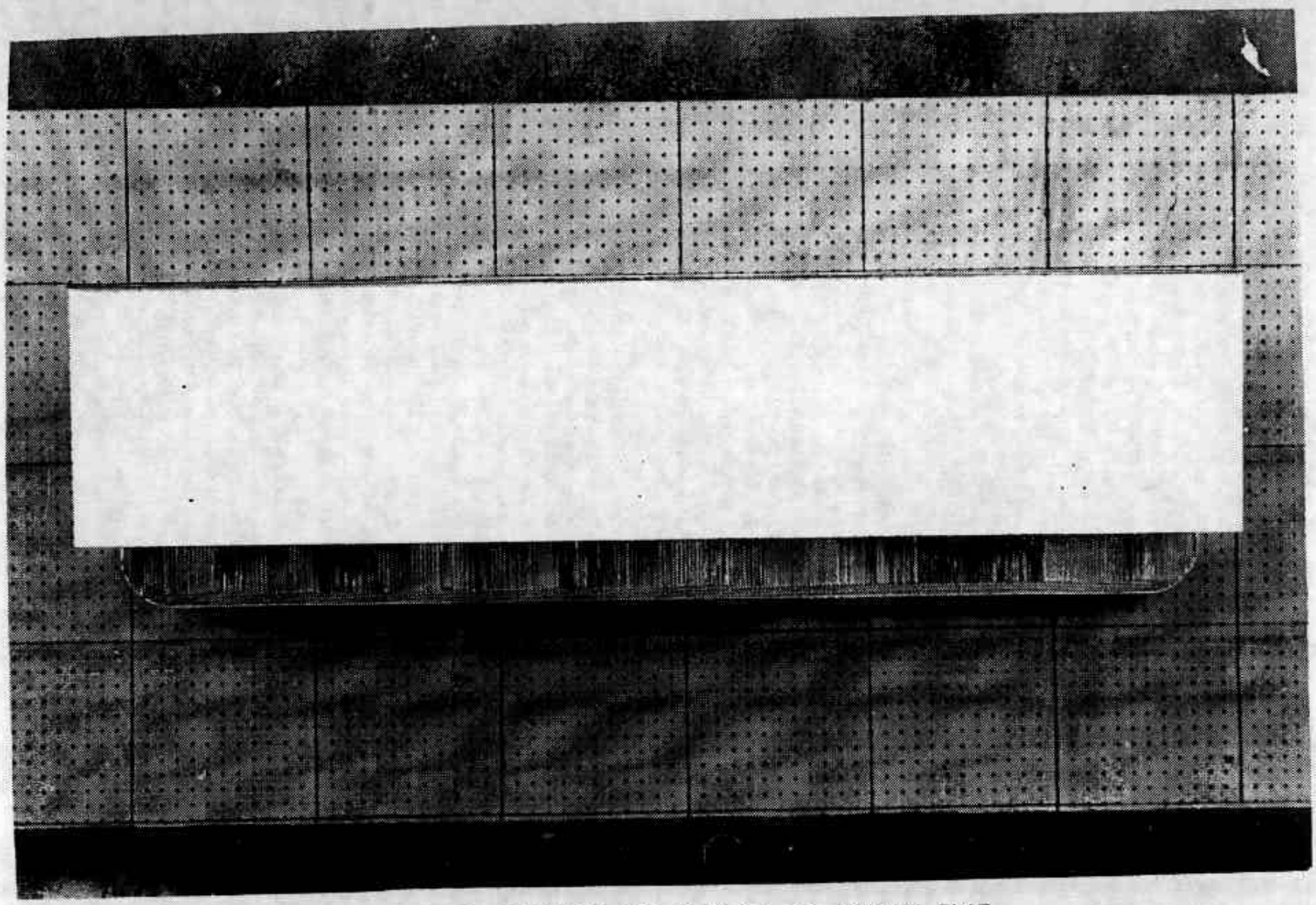


FIGURE 5-13 PRETEST TOP VIEW OF MDB IMPACT FACE

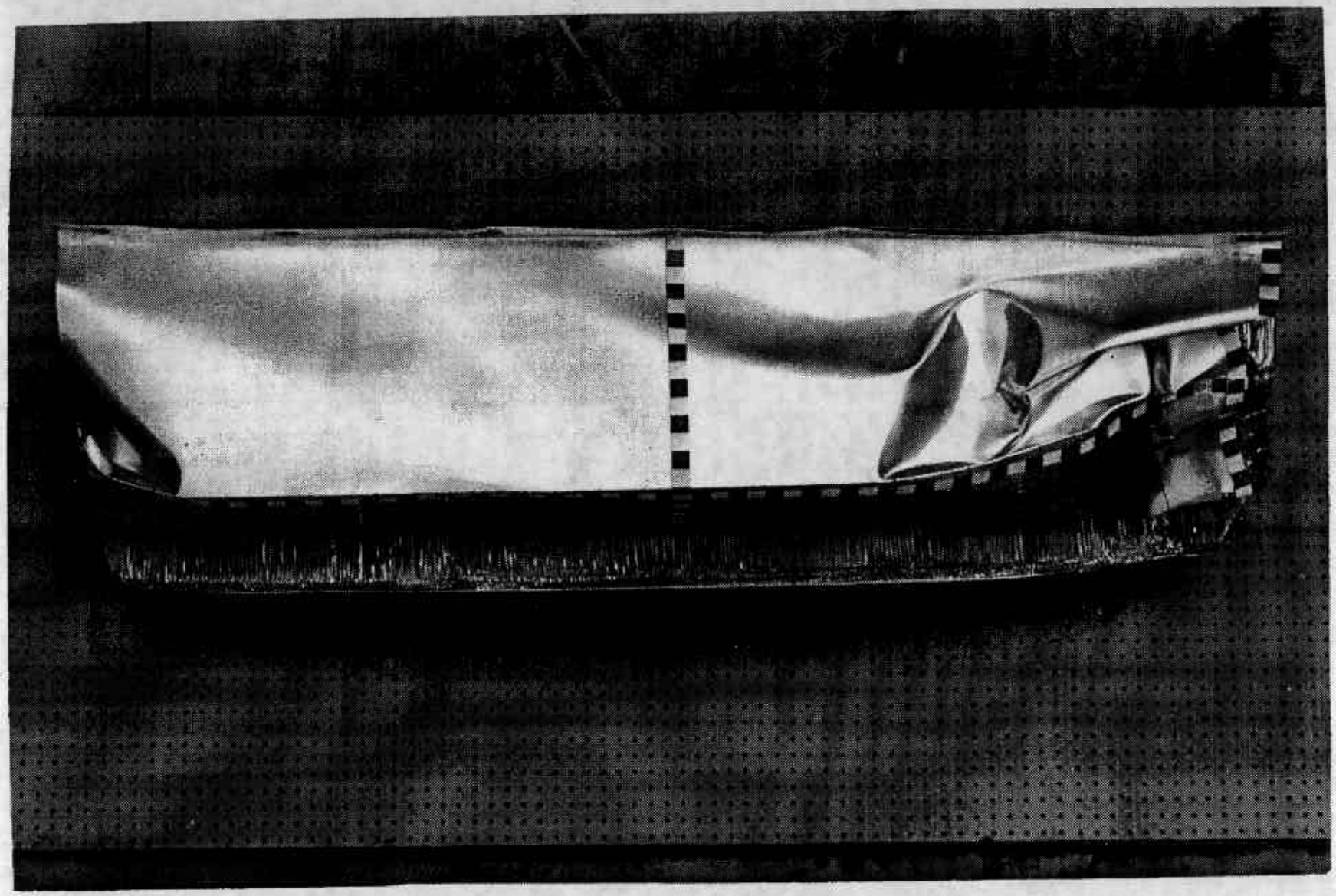


FIGURE 5-14 POSTTEST TOP VIEW OF MDB IMPACT FACE

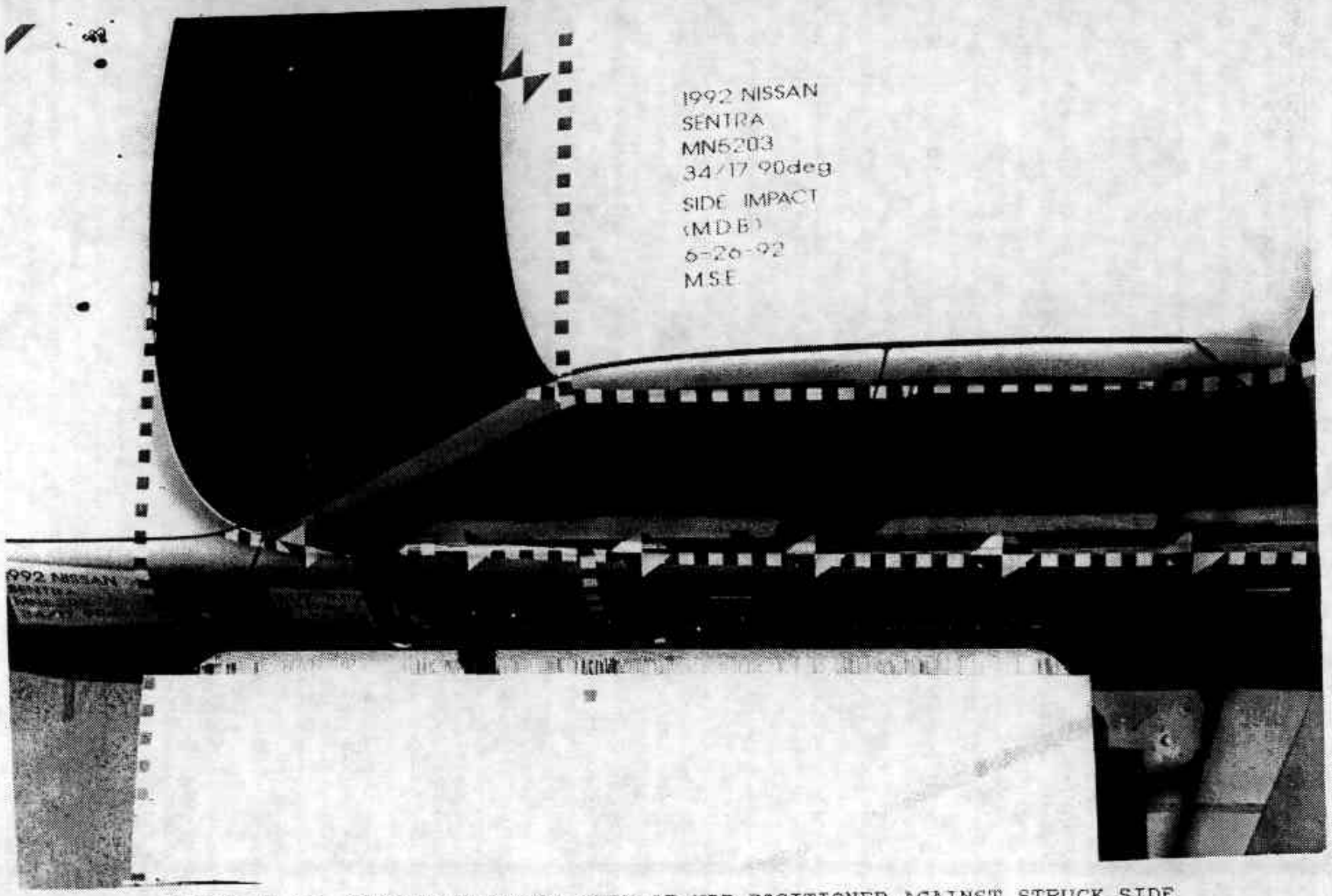


FIGURE 5-15 PRETEST OVERHEAD VIEW OF MDB POSITIONED AGAINST STRUCK SIDE OF TEST VEHICLE AT IMPACT LOCATION

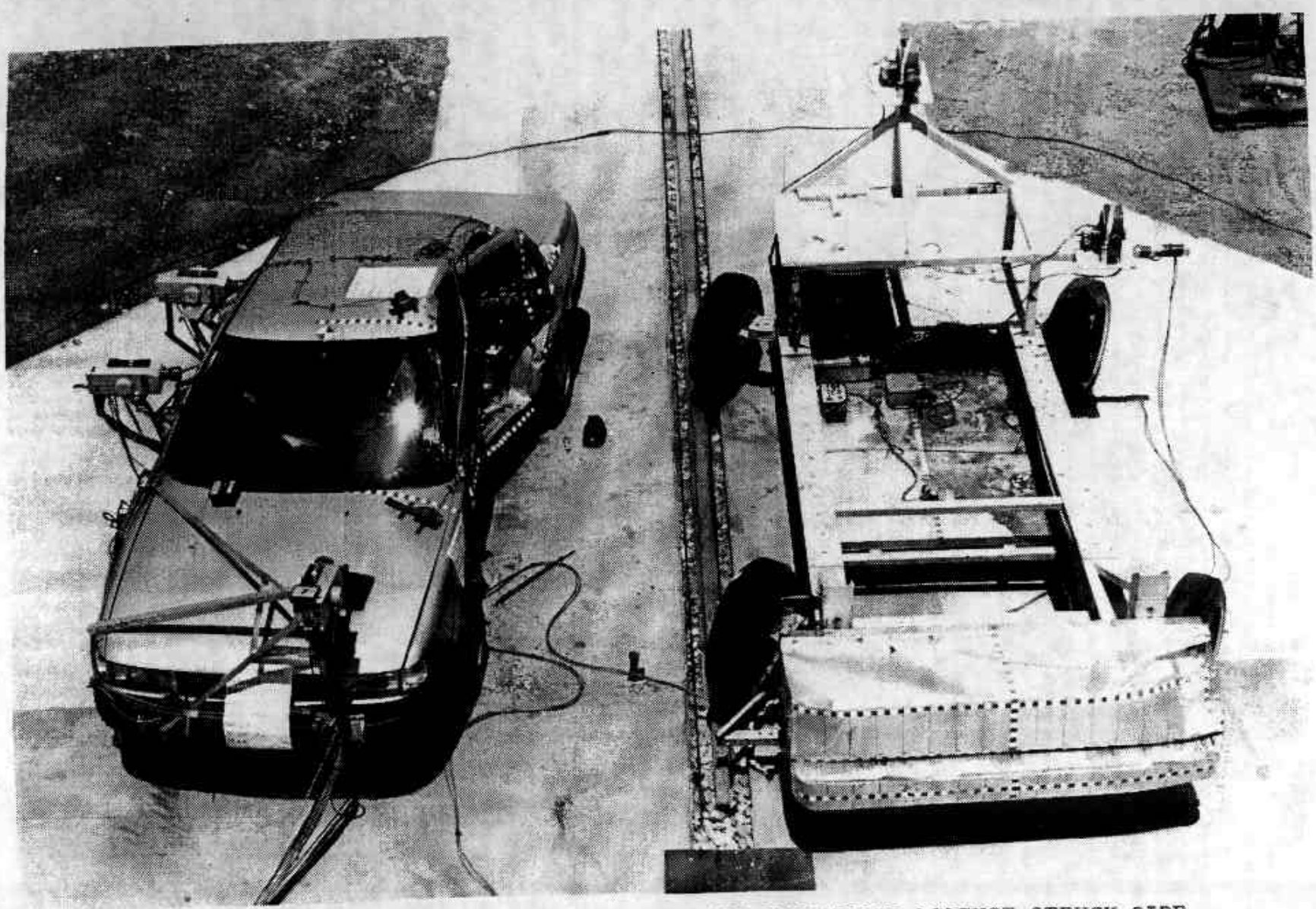


FIGURE 5-16 POSTTEST OVERHEAD VIEW OF MDB POSITIONED AGAINST STRUCK SIDE OF TEST VEHICLE AT IMPACT LOCATION

FIGURE 5-17 PRETEST OCCUPA 'T COMPARTMENT LEFT SIDE SHOWING DRIVER SID

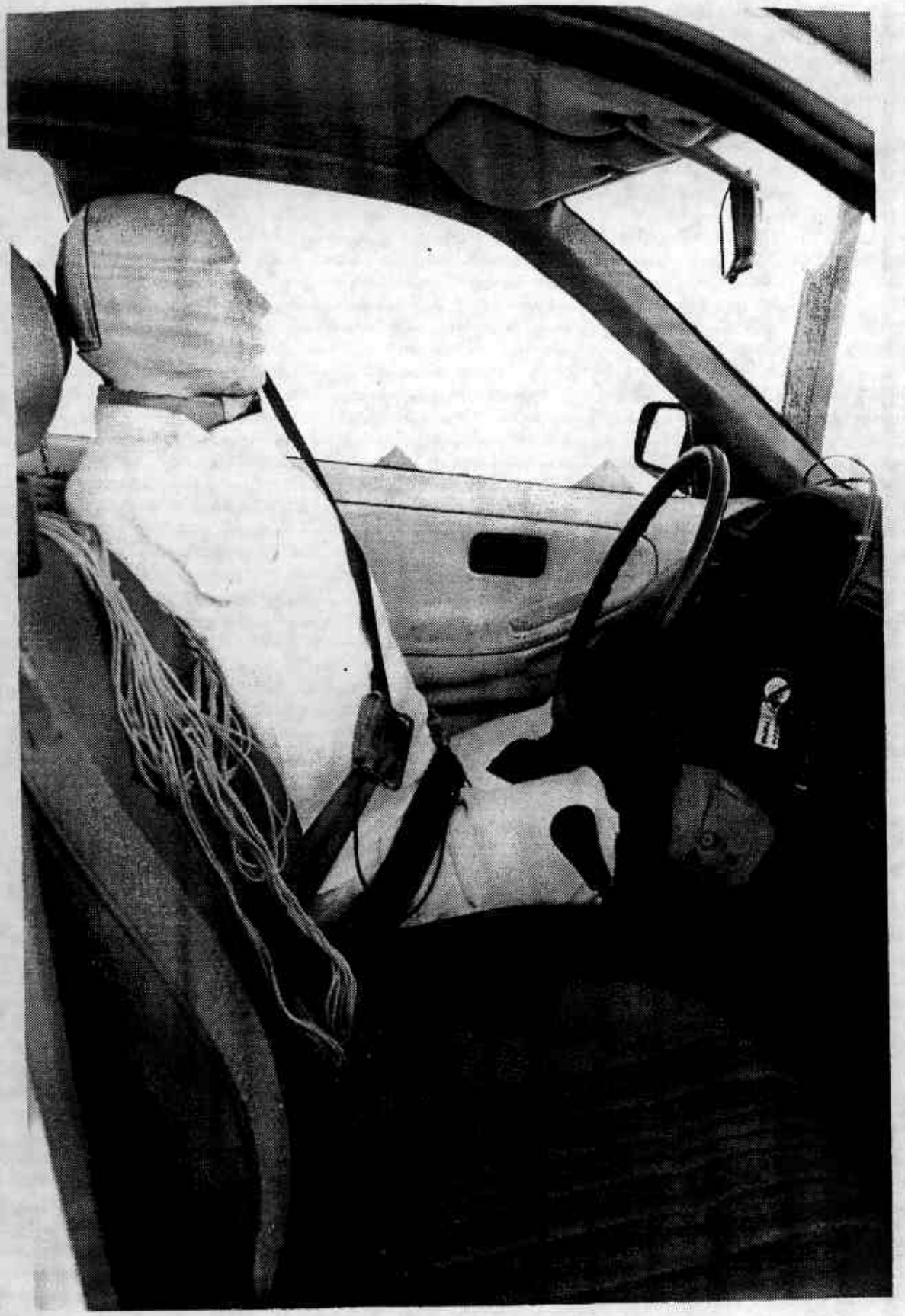


FIGURE 5-18 PRETEST OCCUPANT COMPARTMENT DRIVER SID

FIGURE 5-19 POSTTEST OCCUPANT COMPARTMENT DRIVER SID

FIGURE 5-20 PRETEST OCCUPANT COMPARTMENT LEFT SIDE VIEW SHOWING PASSENGER SID

FIGURE 5-21 PRETEST OCCUPANT COMPARTMENT RIGHT SIDE VIEW SHOWING PASSENGER SID

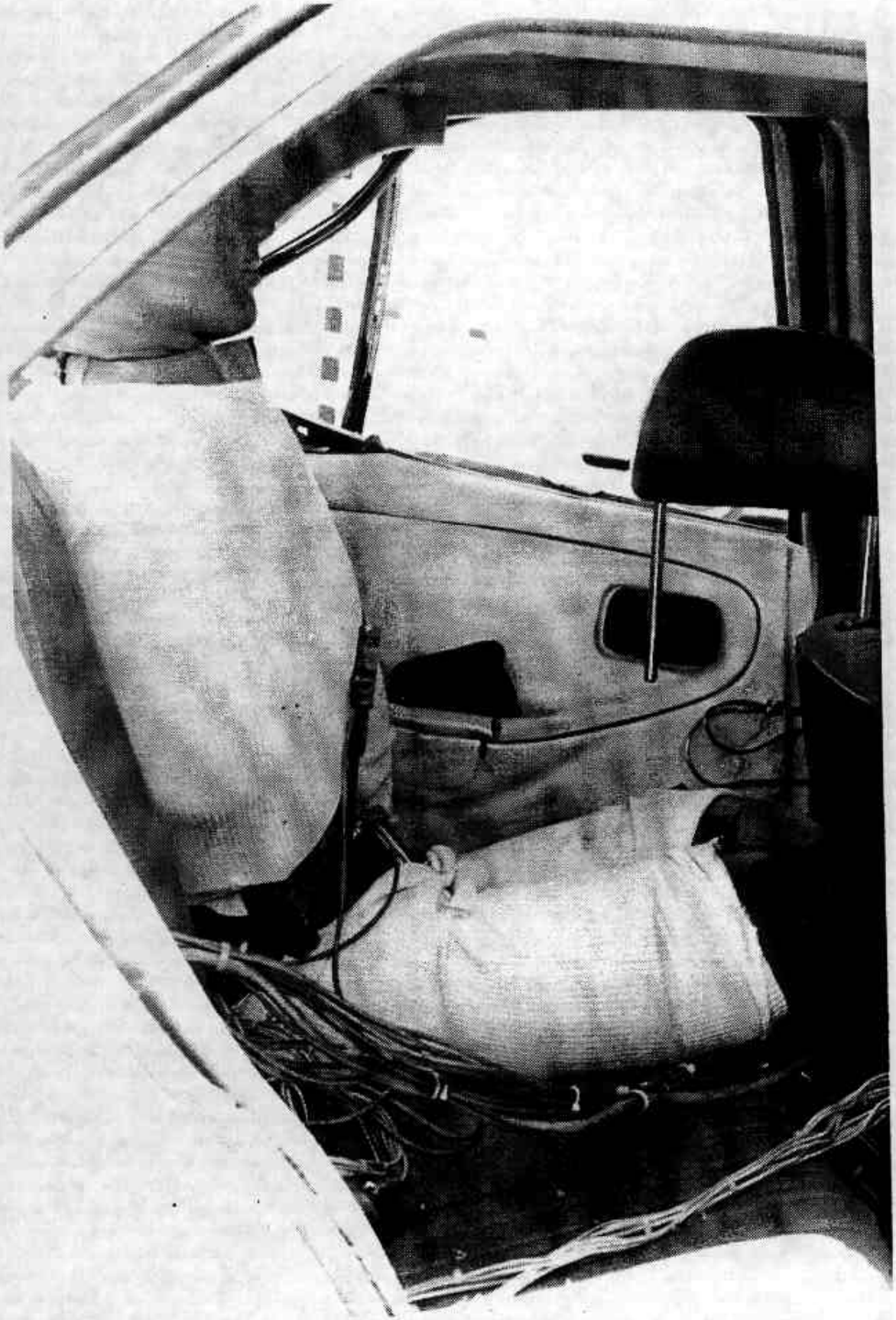


FIGURE 5-22 POSTTEST OCCUPANT COMPARTMENT VIEW SHOWING PASSENGER SID

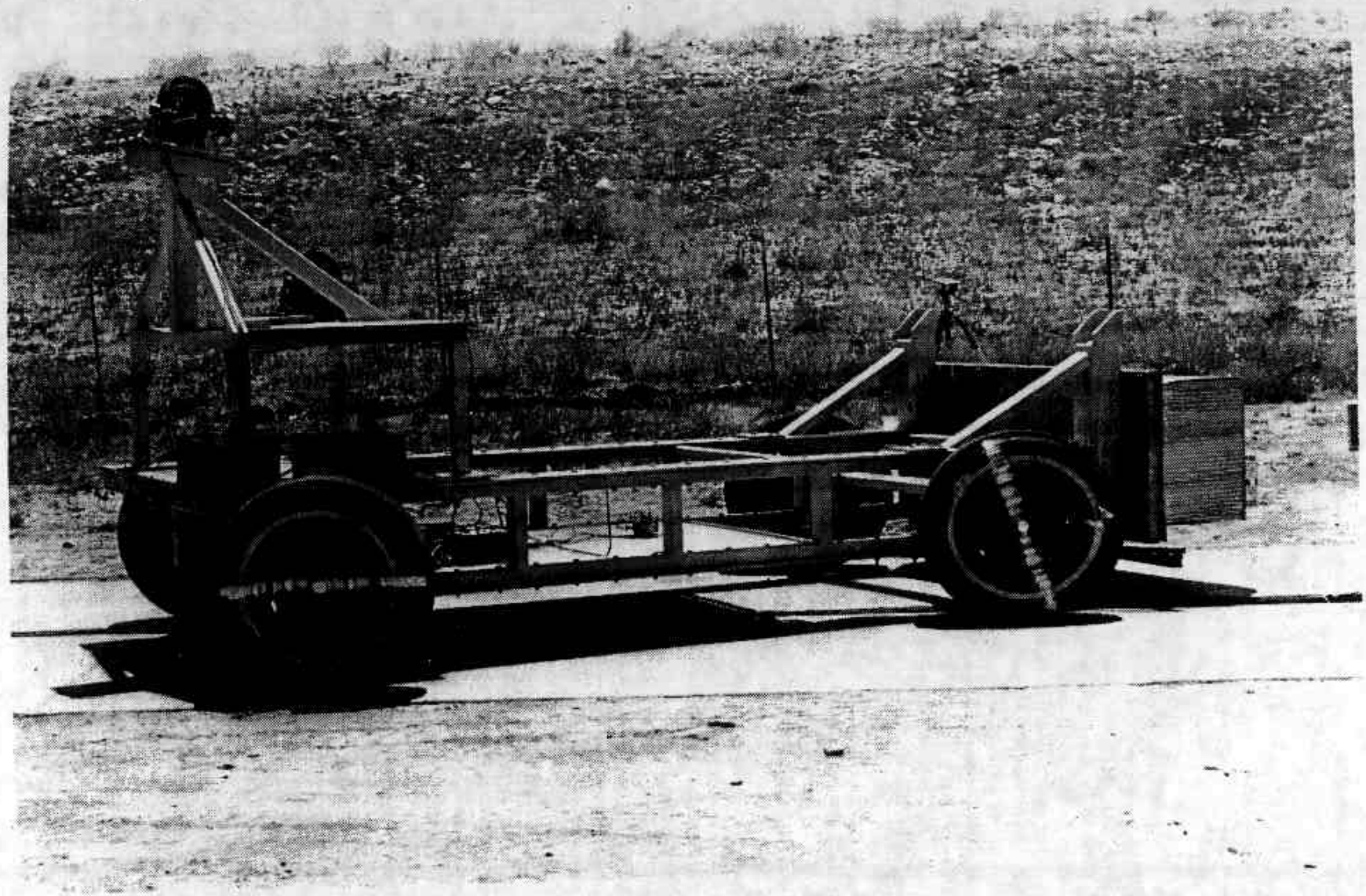


FIGURE 5-23 PRETEST RIGHT SIDE VIEW OF MDB WITH IMPACT FACE IN POSITION

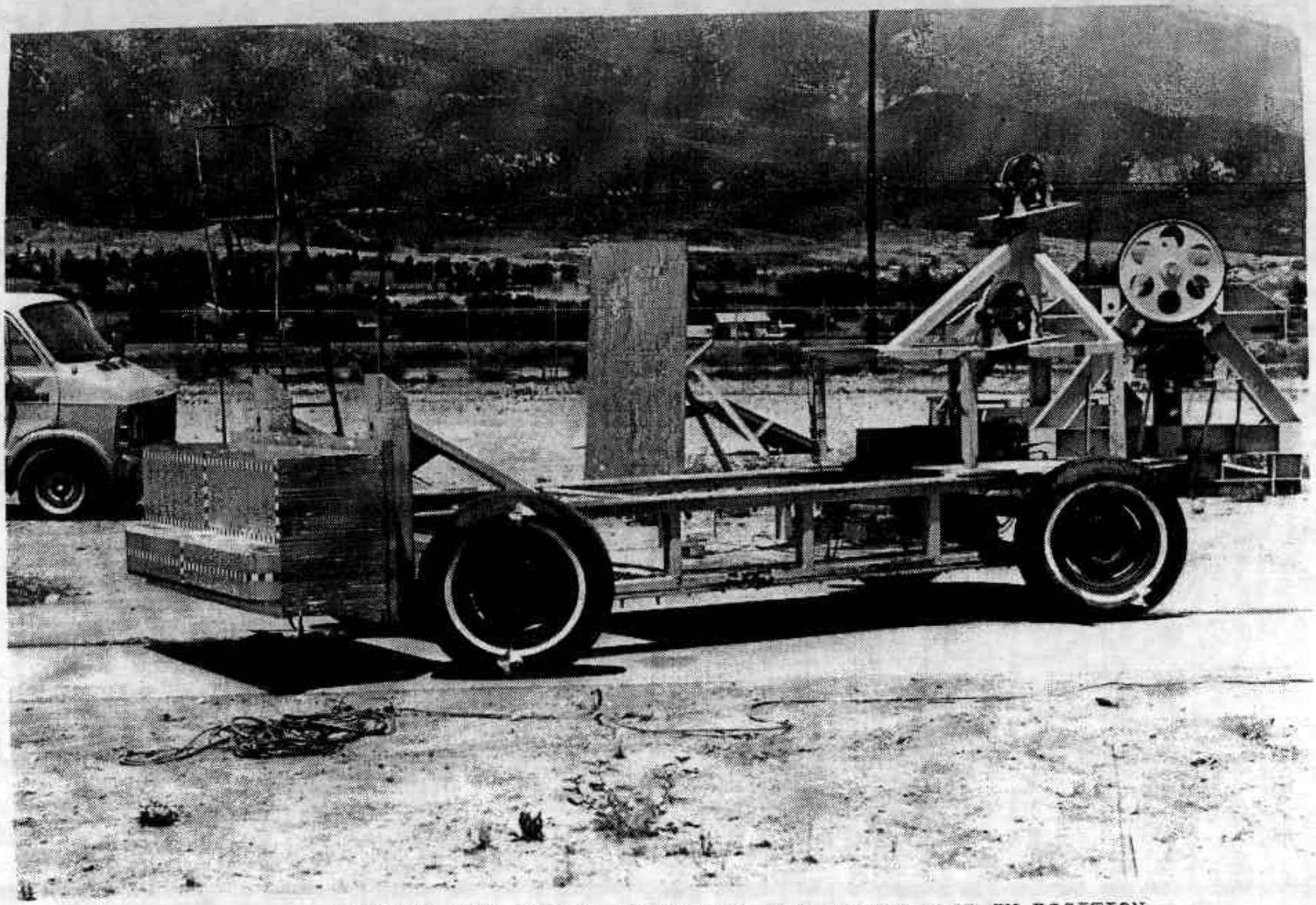


FIGURE 5-24 PRETEST LEFT SIDE VIEW OF MDB WITH IMPACT FACE IN POSITION

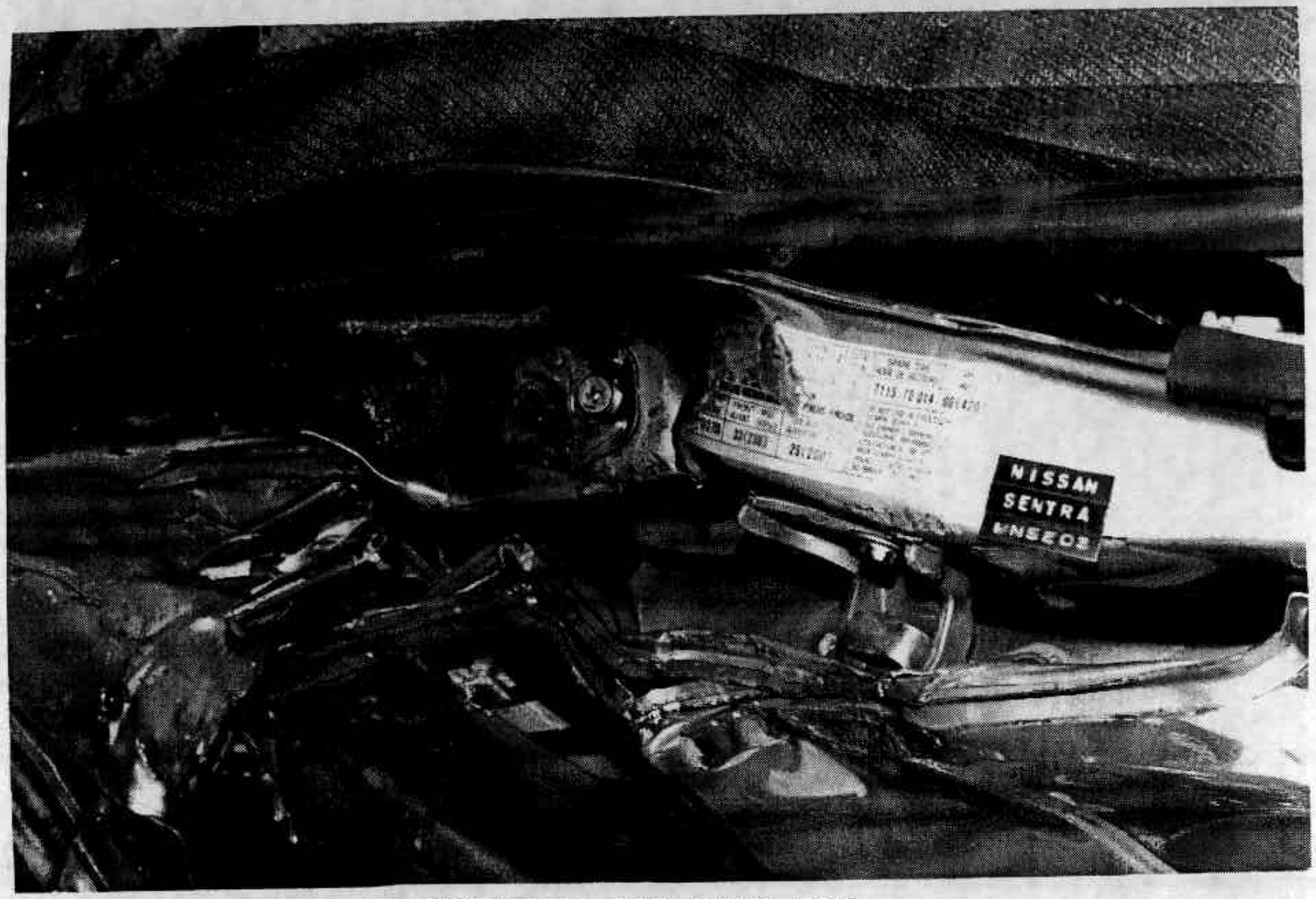


FIGURE 5-25 TIRE PLACARD LABEL

FIGURE 5-25(A) VEHICLE VIN PLATE

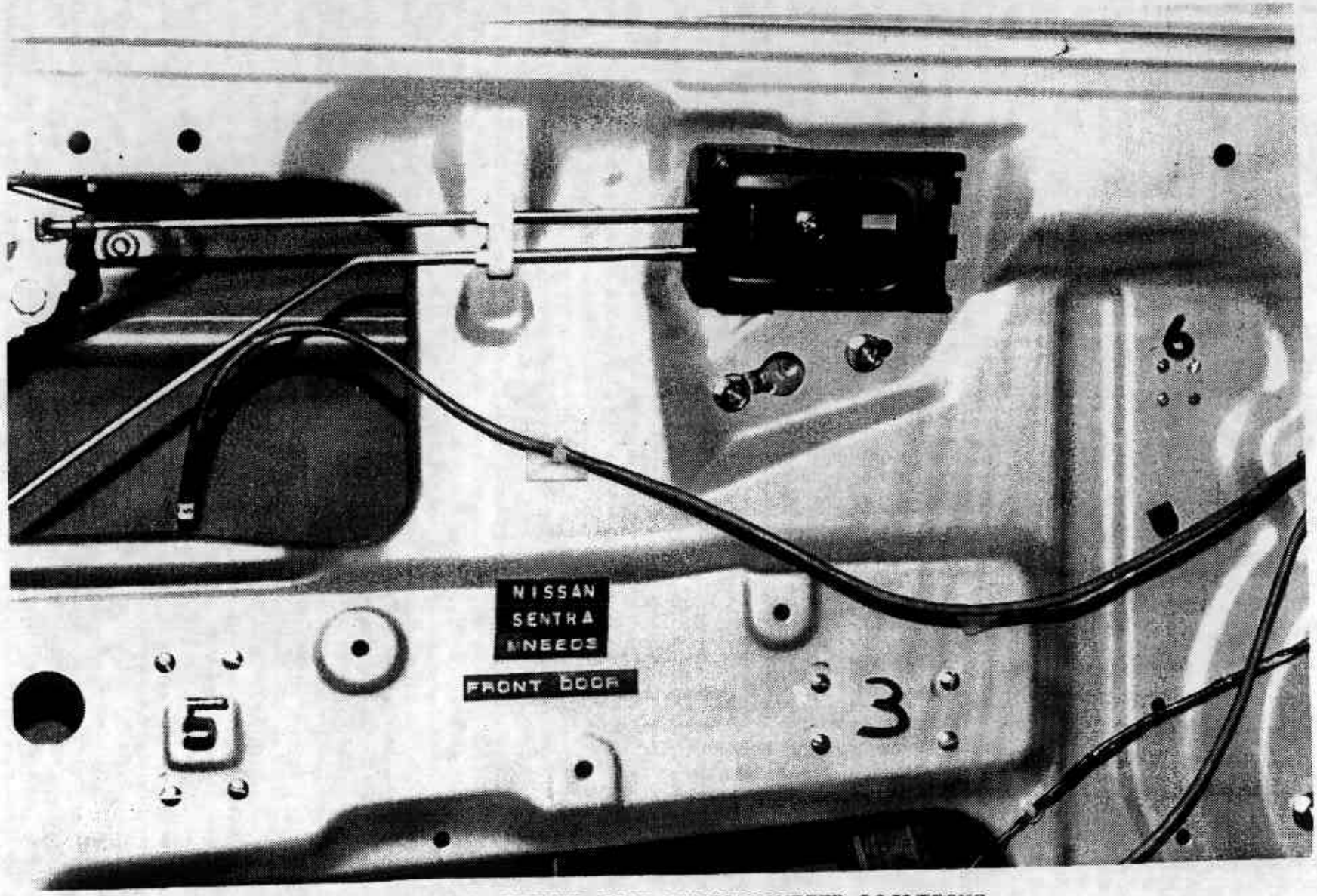


FIGURE 5-26 DRIVER DOOR ACCELEROMETER LOCATIONS

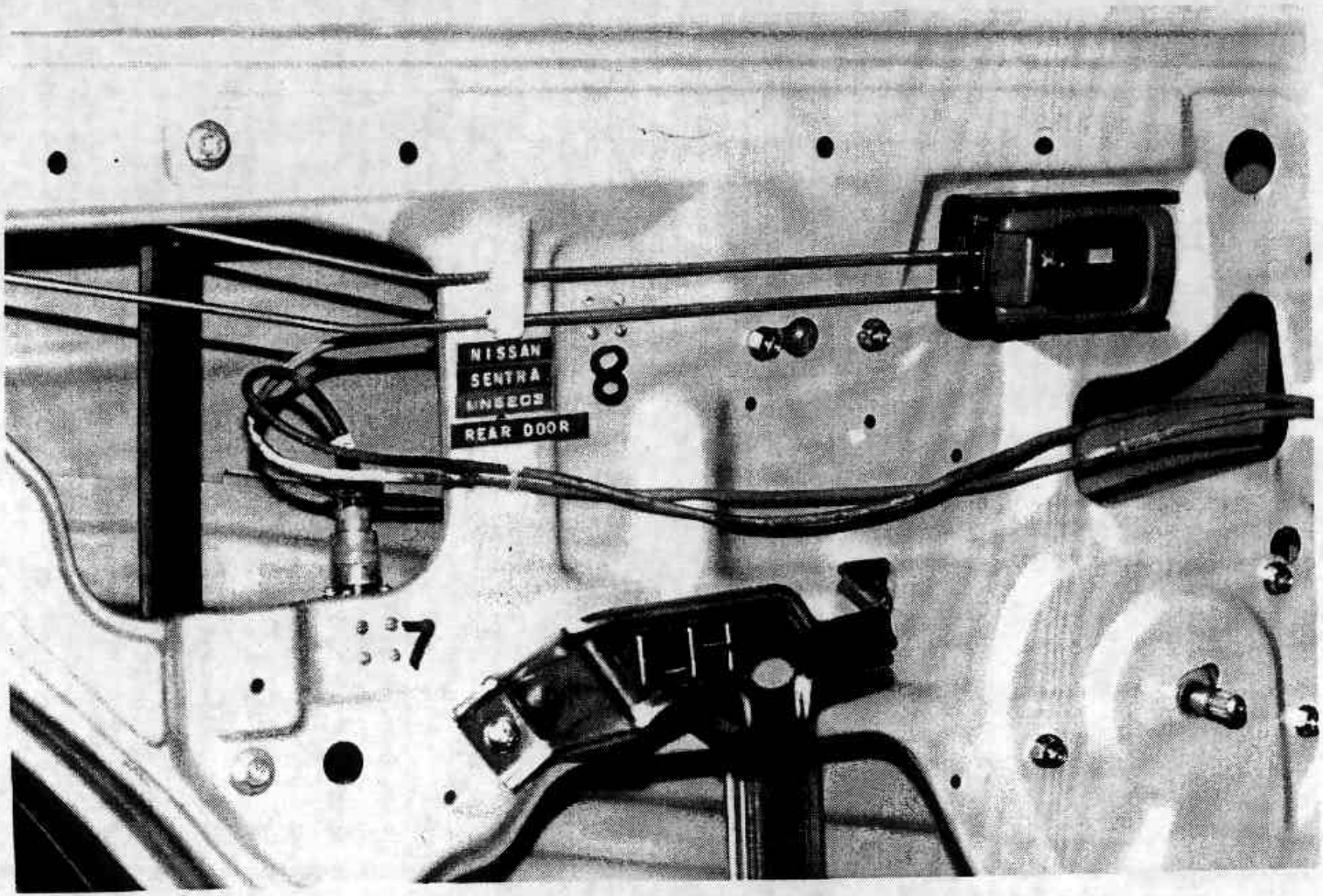


FIGURE 5-27 PASSENGER DOOR ACCELEROMETER LOCATIONS

FIGURE 5-28 DRIVER DOOR ACCELEROMETERS INSTALLED, DOOR PANEL IN PLACE-PRETEST

FIGURE 5-29 PASSENGER DOOR ACCELEROMETERS INSTALLED, DOOR PANEL IN PLACE-PRETEST

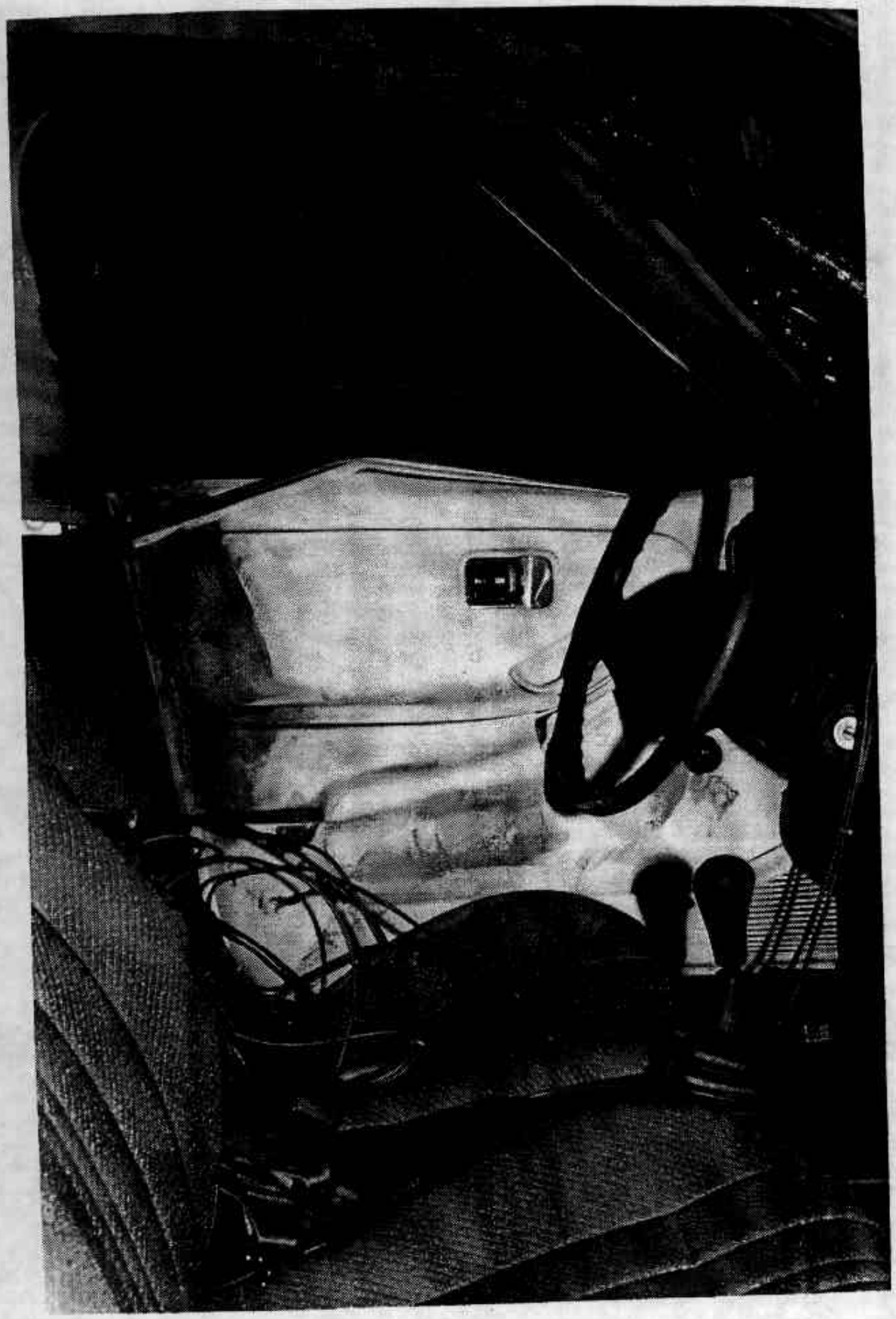


FIGURE 5-30 DRIVER SEATING POSITION - POSTTEST

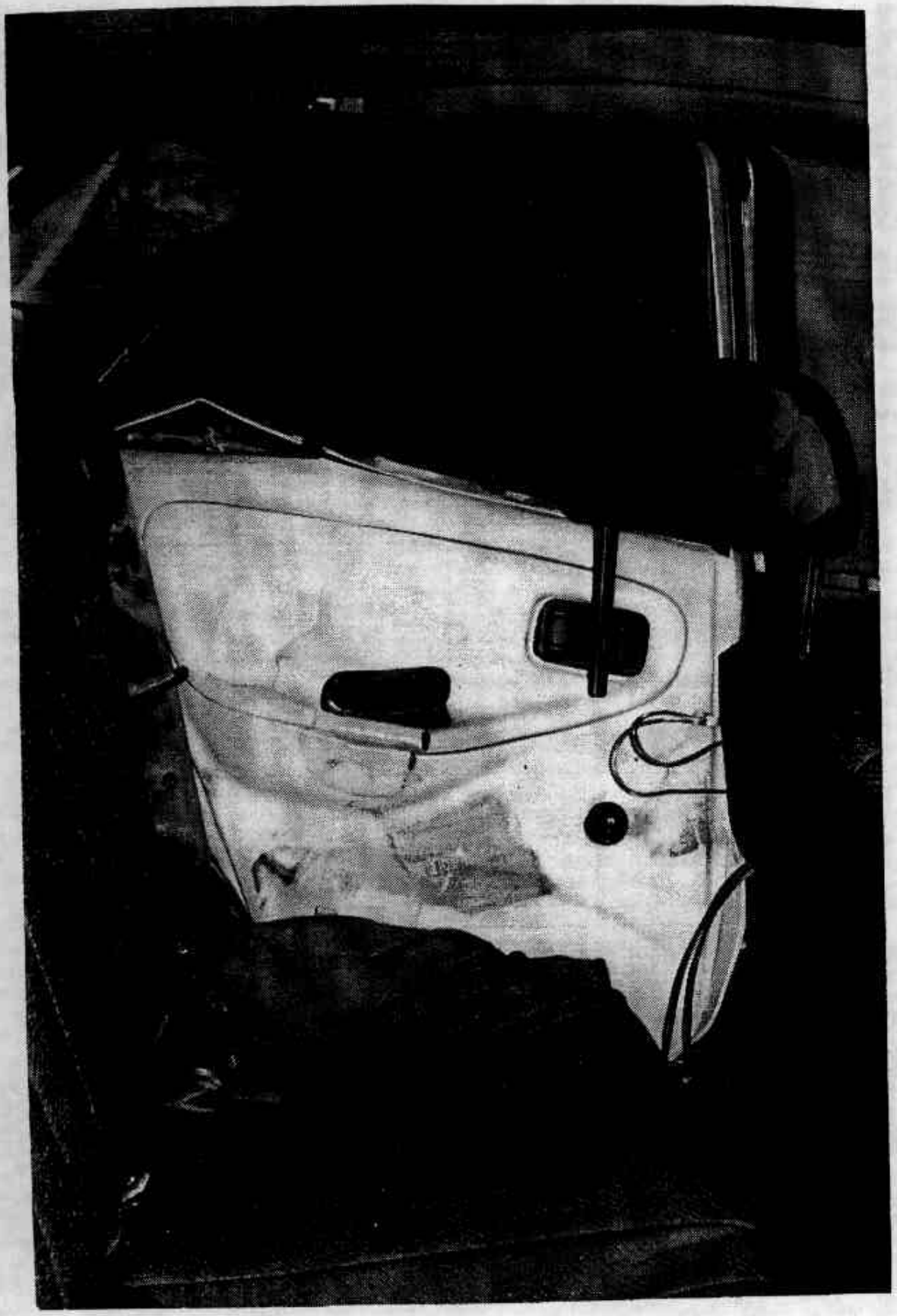


FIGURE 5-31 PASSENGER SEATING POSITION - POSTTEST

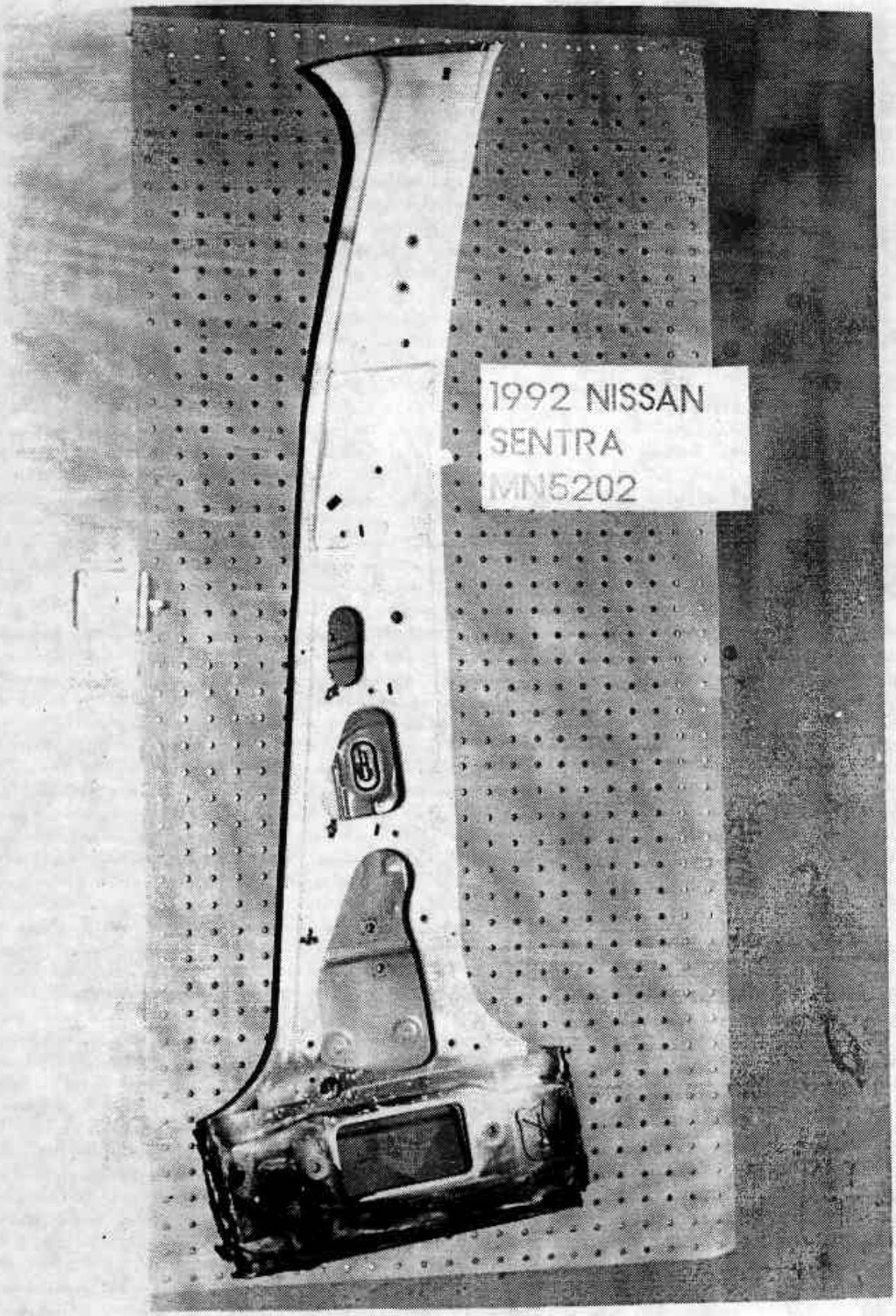


FIGURE 5-32 1992 NISSAN SENTRA, B-PILLAR CUTOUT - VIEW NO. 1

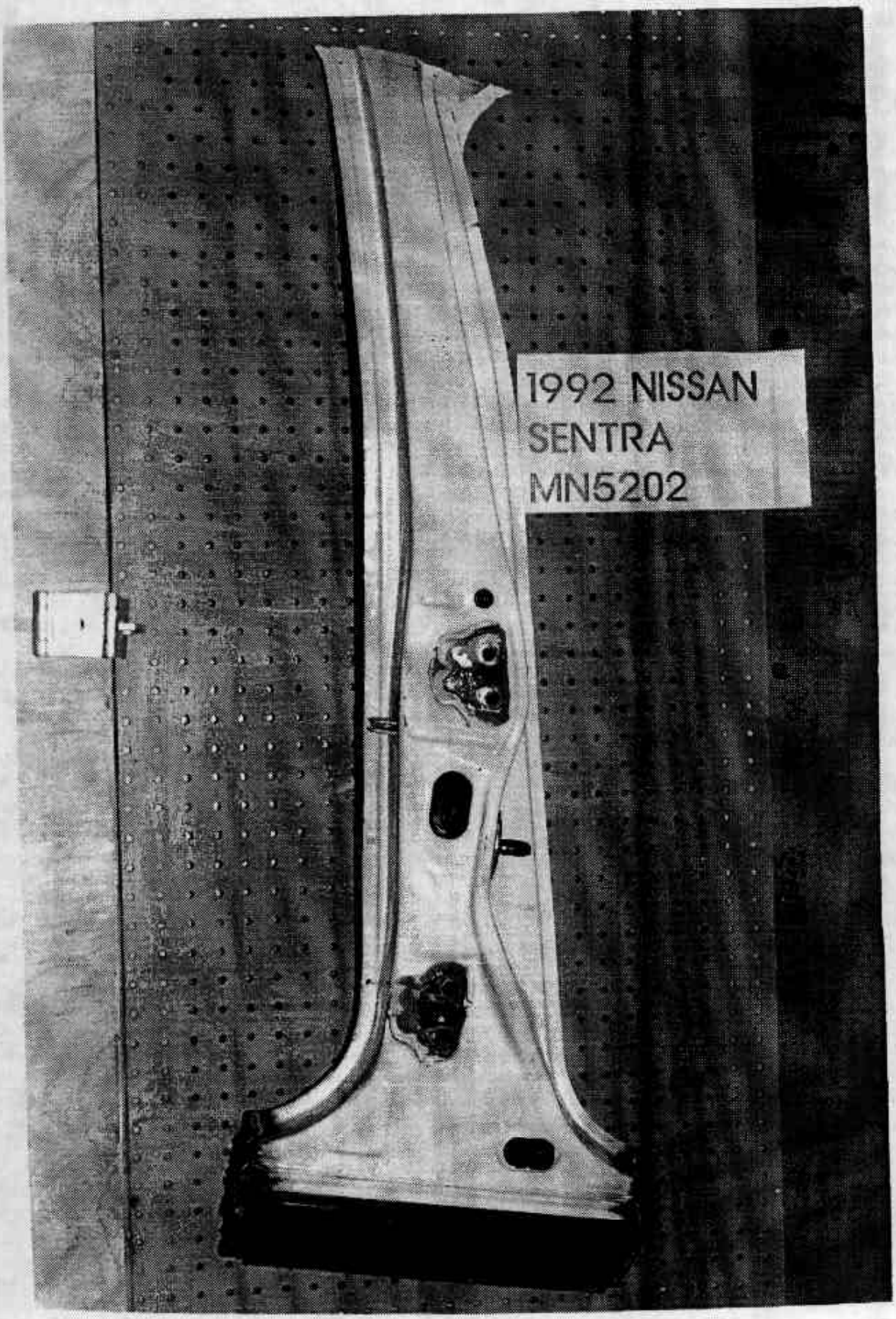


FIGURE 5-33 1992 NISSAN SENTRA, B-PILLAR CUTOUT - VIEW NO. 2

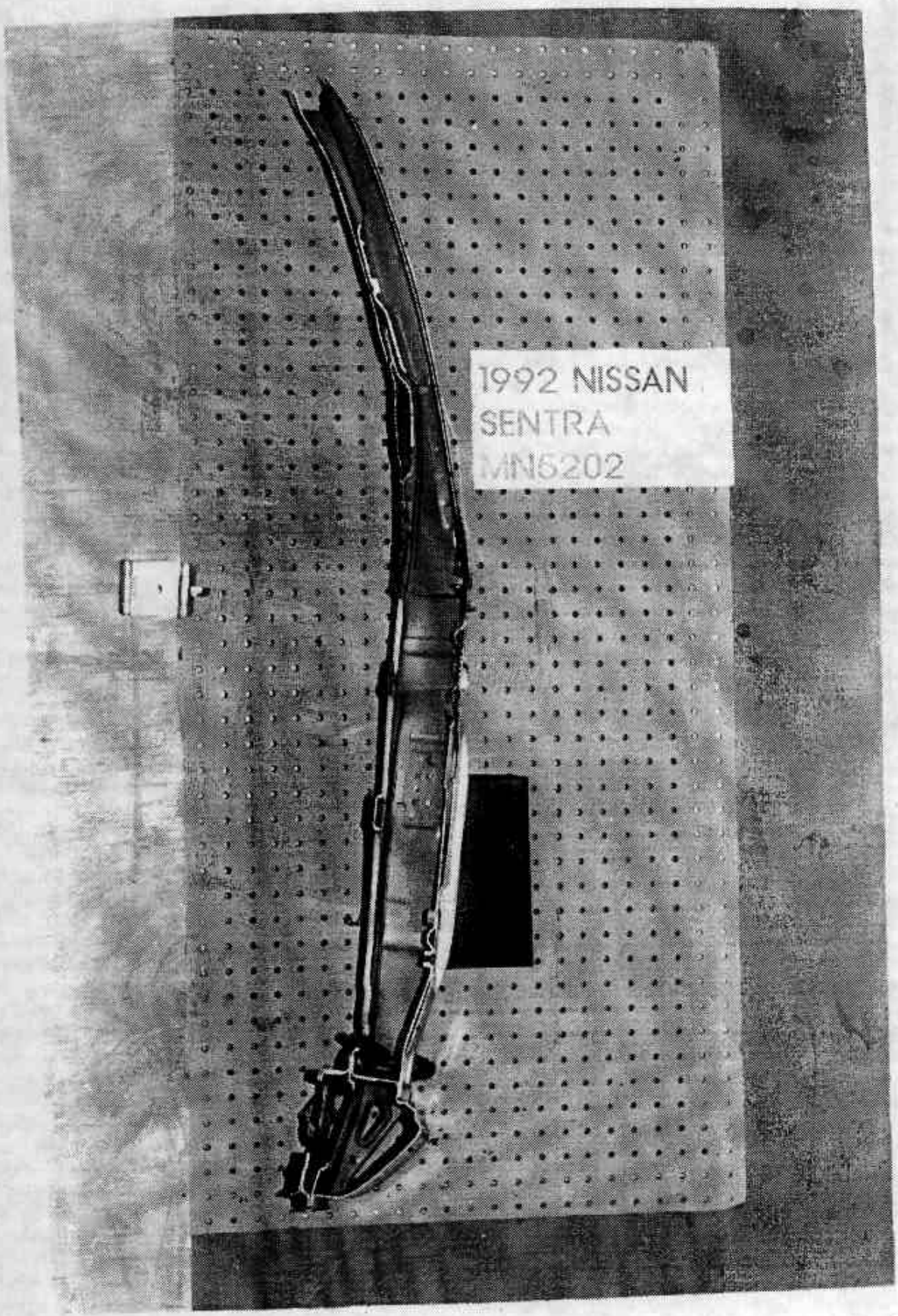


FIGURE 5-34 1992 NISSAN SENTRA, B-PILLAR CUTOUT - VIEW NO. 3

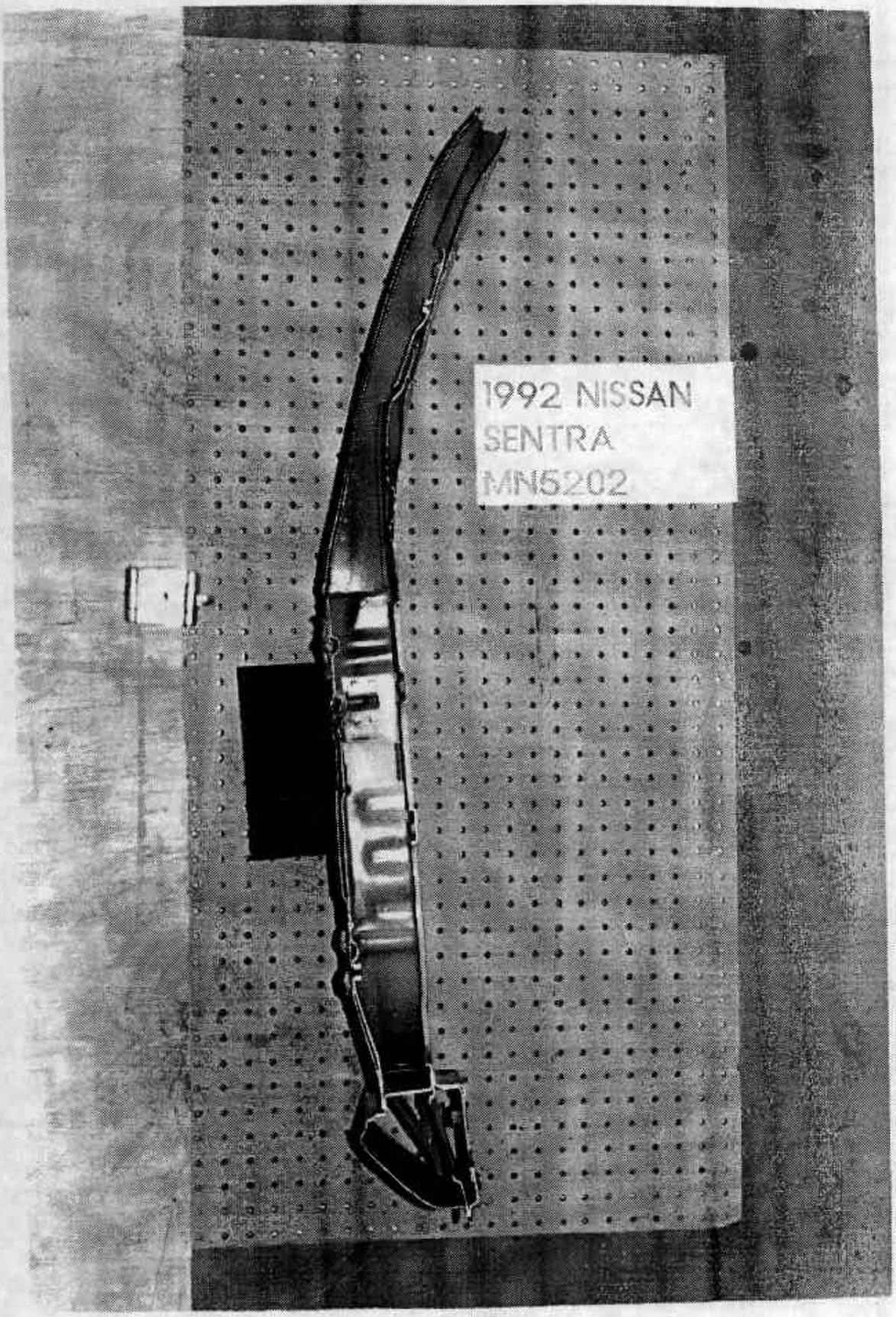


FIGURE 5-35 1992 NISSAN SENTRA, B-PILLAR CUTOUT - VIEW NO. 4

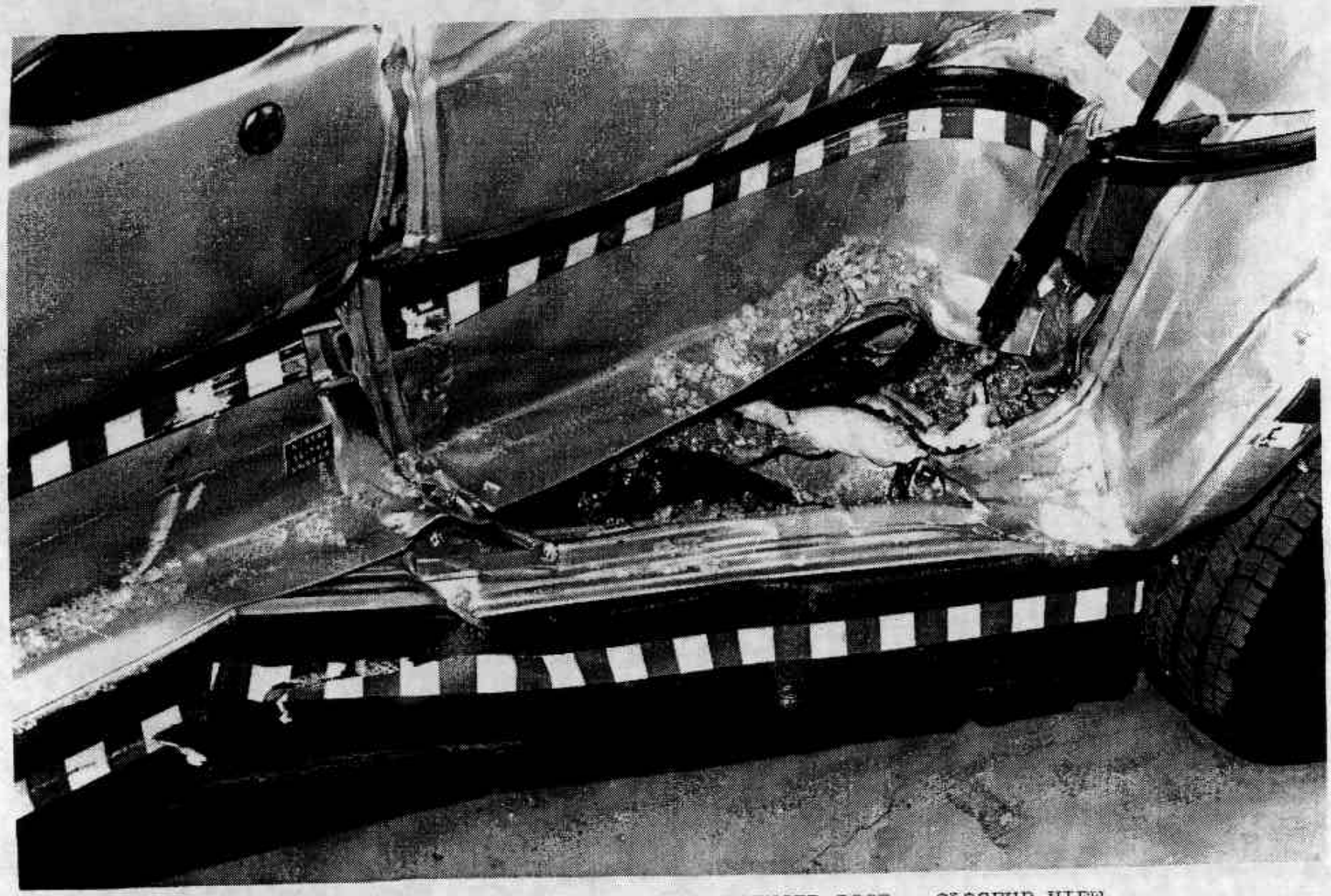


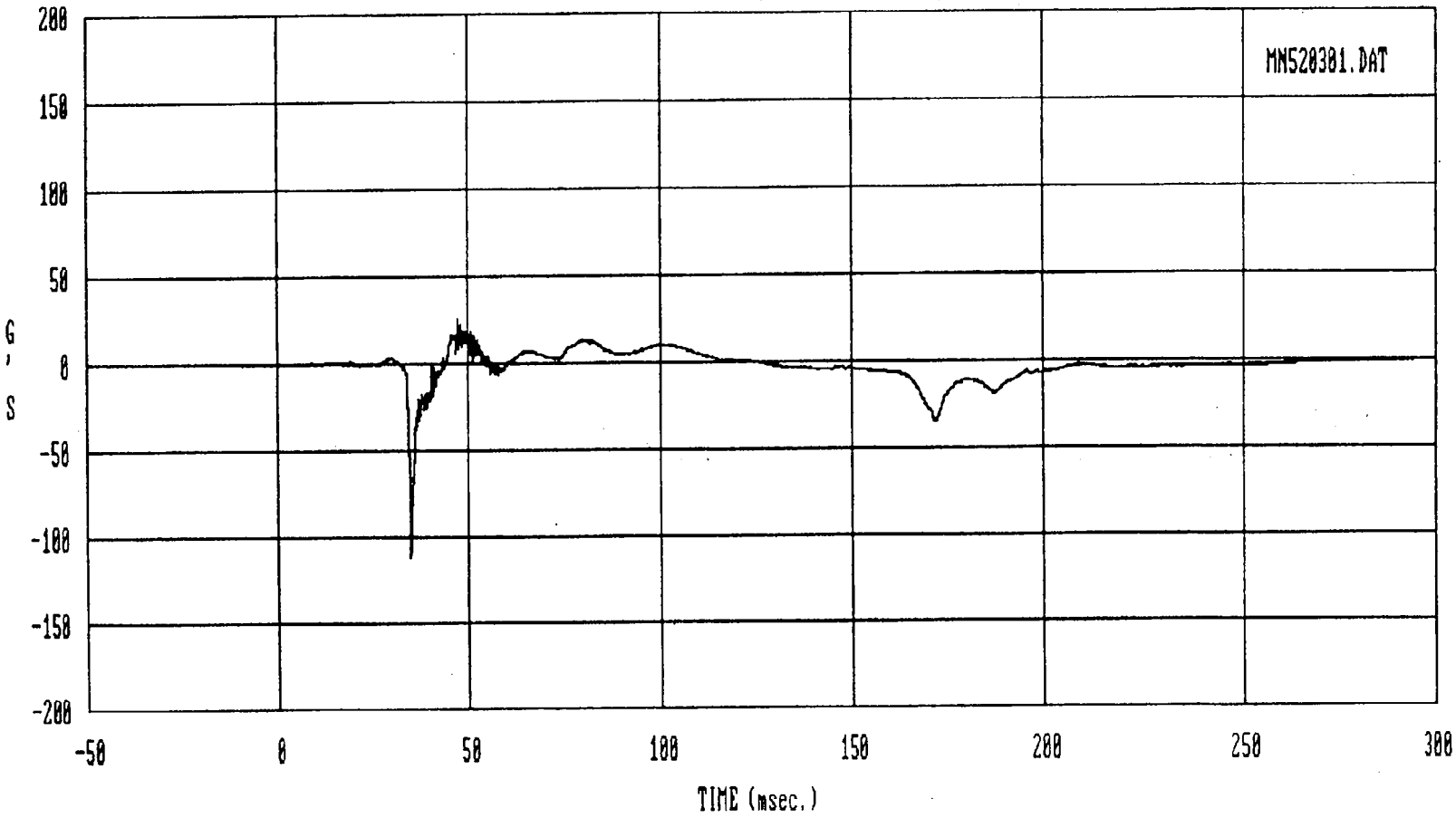
FIGURE 5-36 1992 NISSAN SENTRA, PASSENGER DOOR - CLOSEUP VIEW

SECTION 6

VEHICLE AND SID RESPONSE DATA

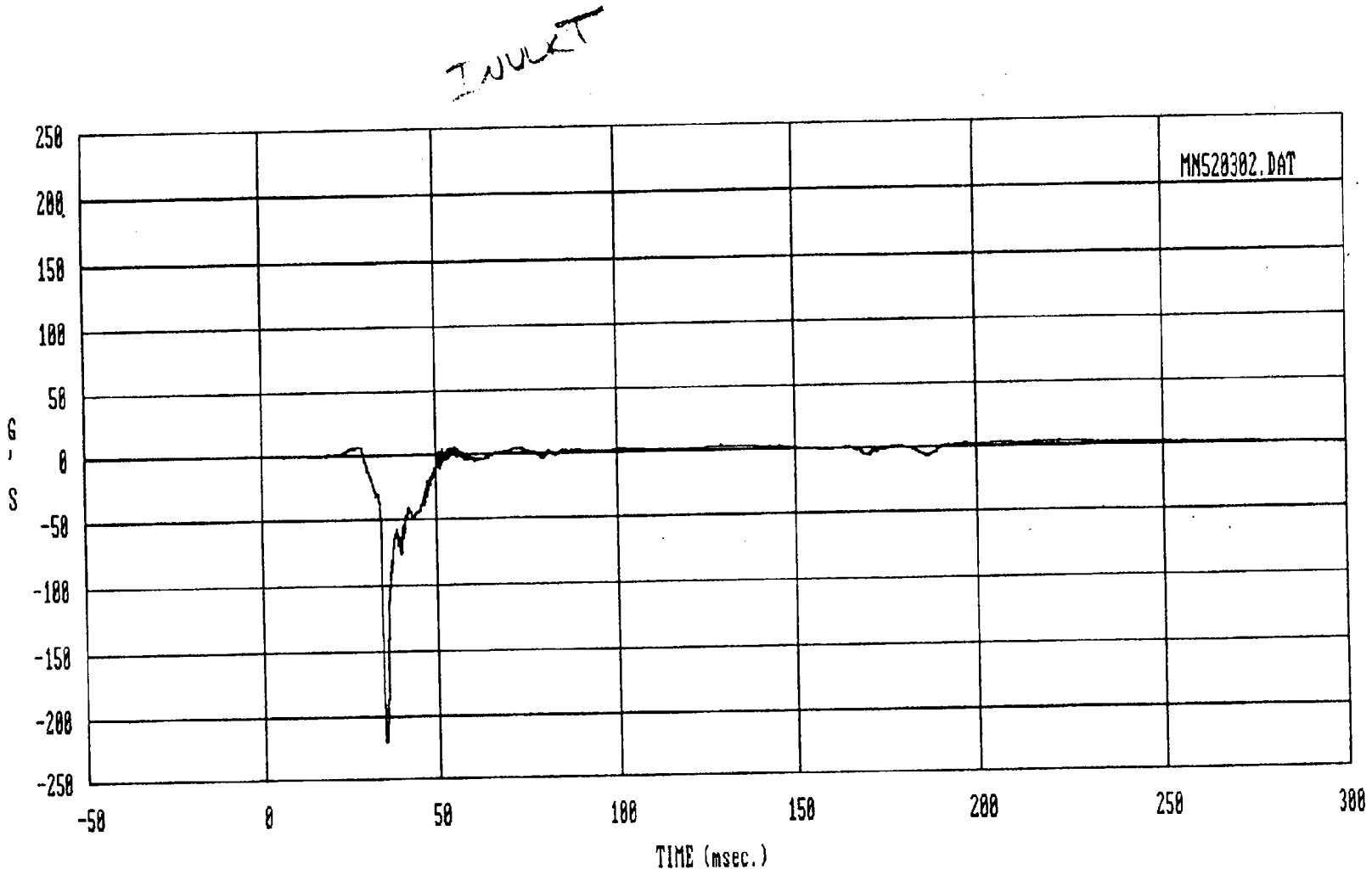
The dataplots from the side impact test are presented in this section.

SID DATA



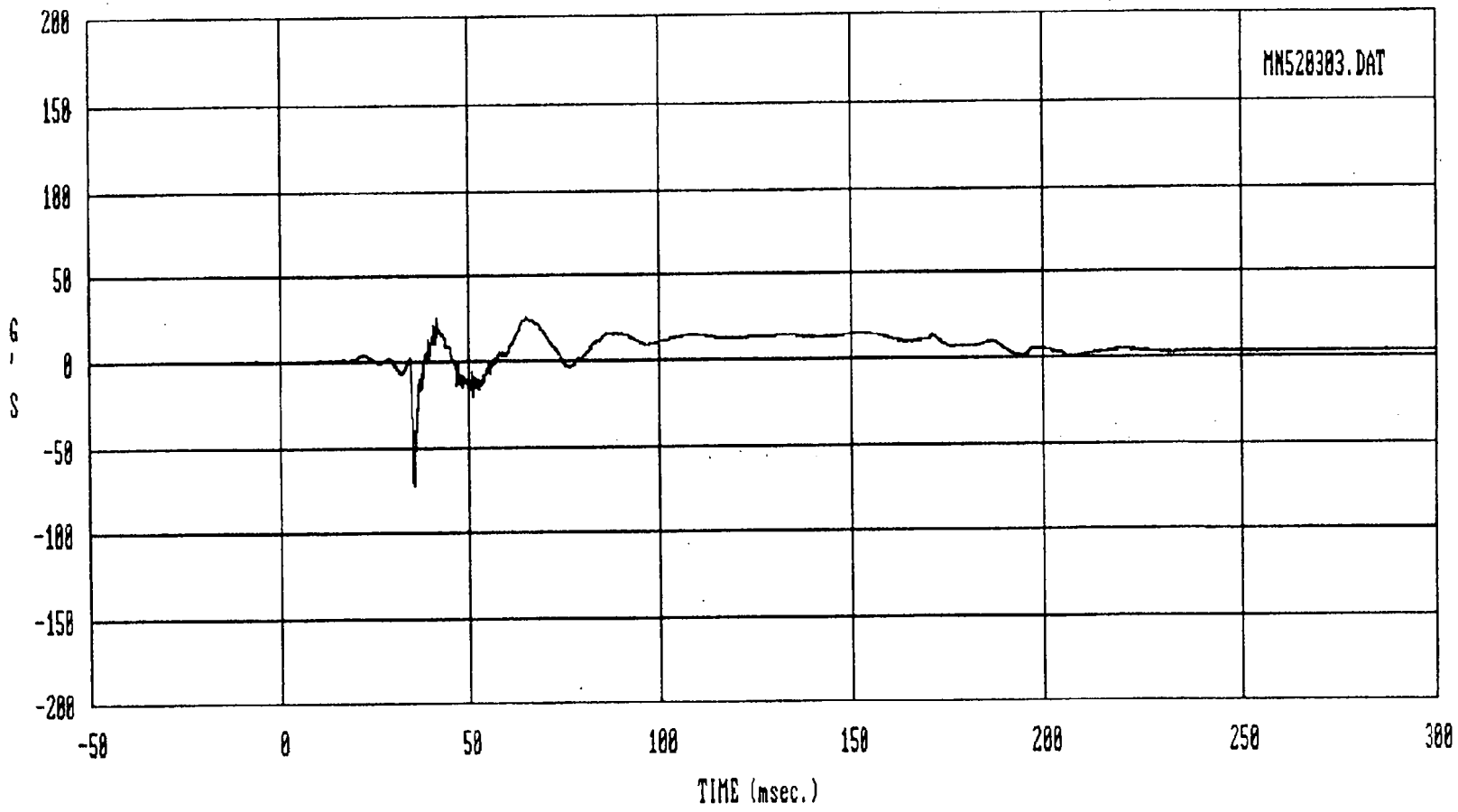
Curve: Driver Head acceleration -- X axis Filter: SAE CLASS 1000 Max = 25.621 Min = -111.52

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



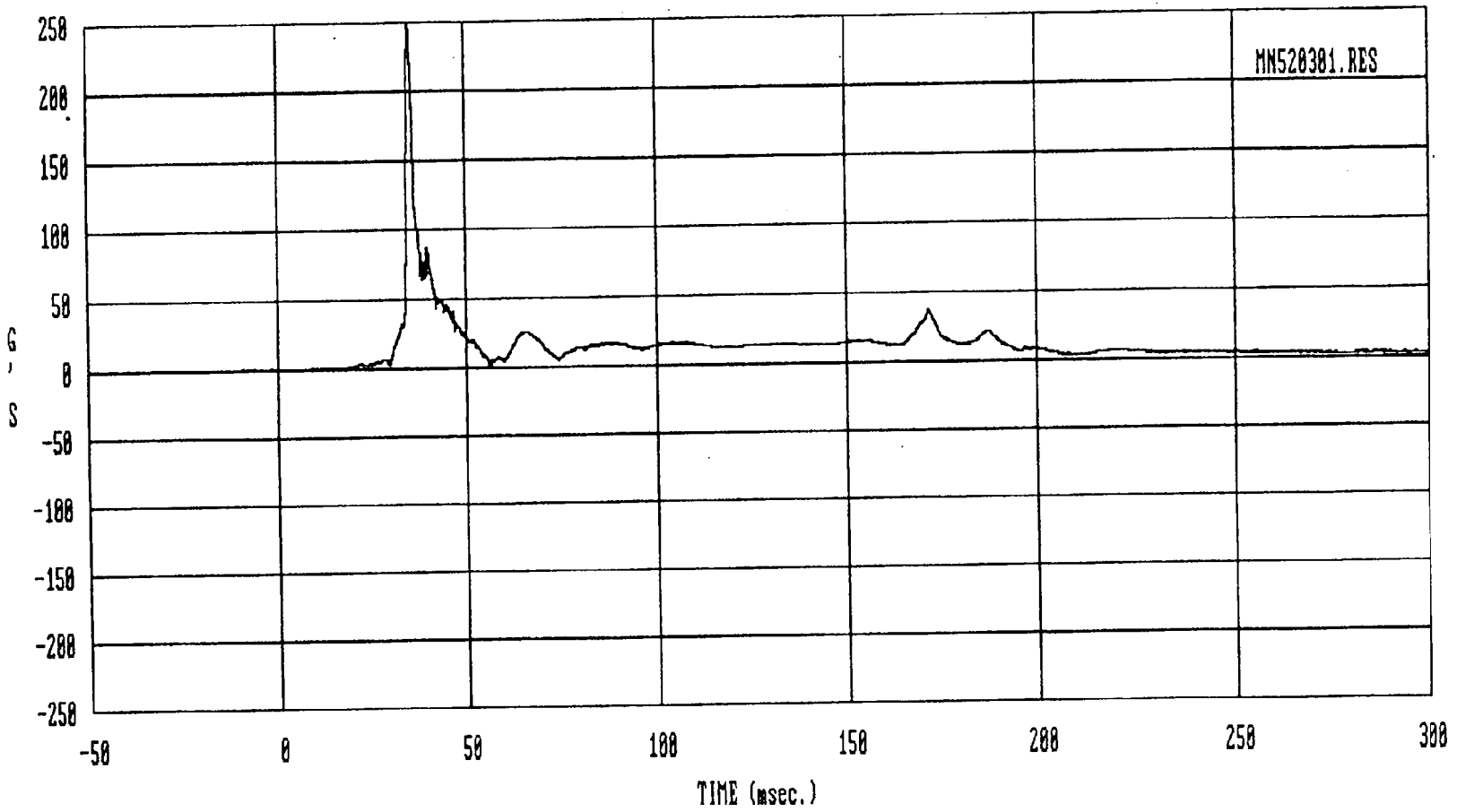
Curve: Driver Head acceleration -- Y axis Filter: SAE CLASS 1000 Max = 6.7727 Min = -221.20

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



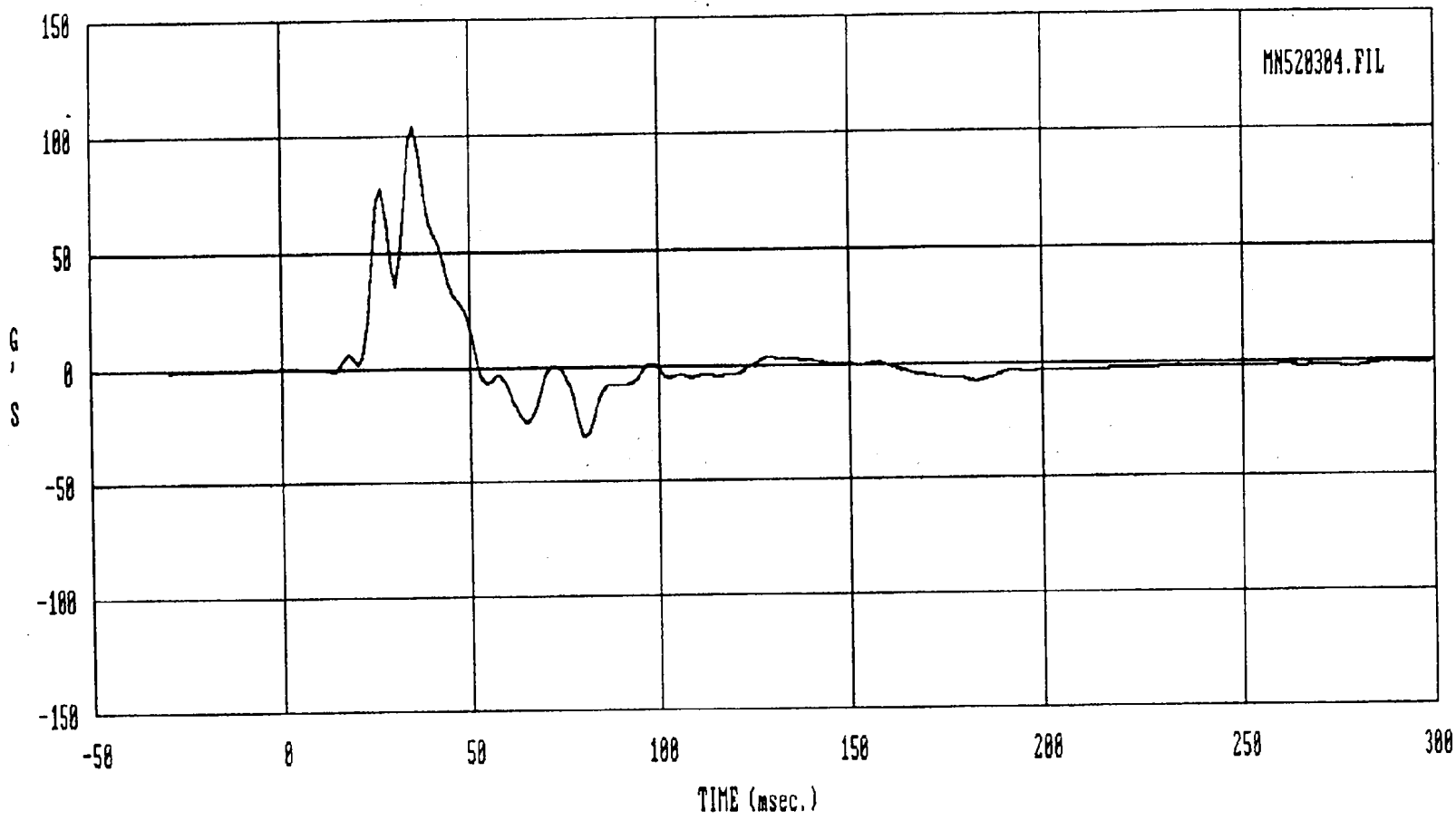
Curve: Driver Head acceleration -- Z axis Filter: SAE CLASS 1000 Max = 27.378 Min = -73.109

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



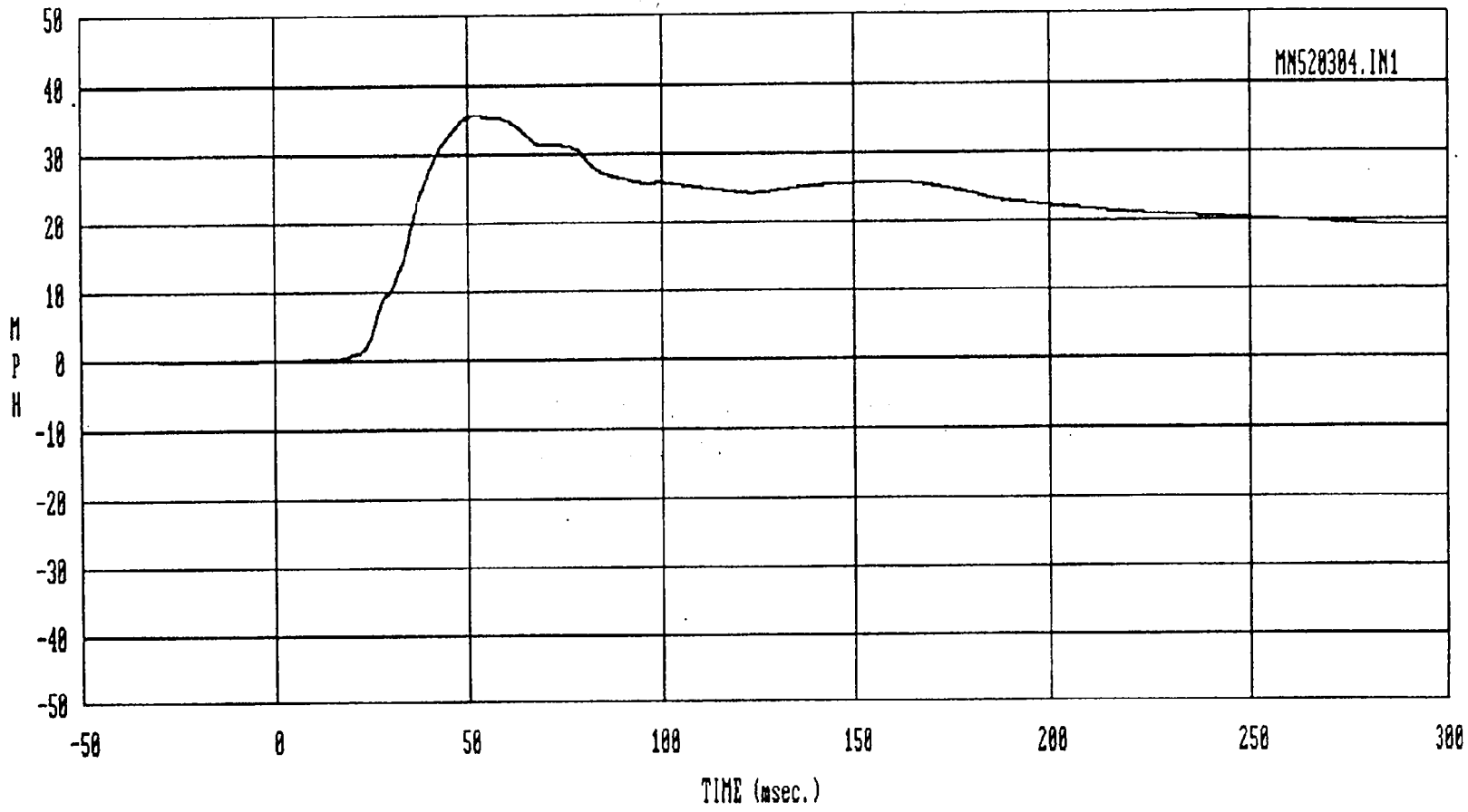
Curve: Driver head resultant acceleration Filter: SAE CLASS 1000 Max = 255.13 Min = .00000

MSE Date: 06/26/92 Program: Side Impact 34/17 90 Deg. Vehicle: 1992 Nissan Sentra



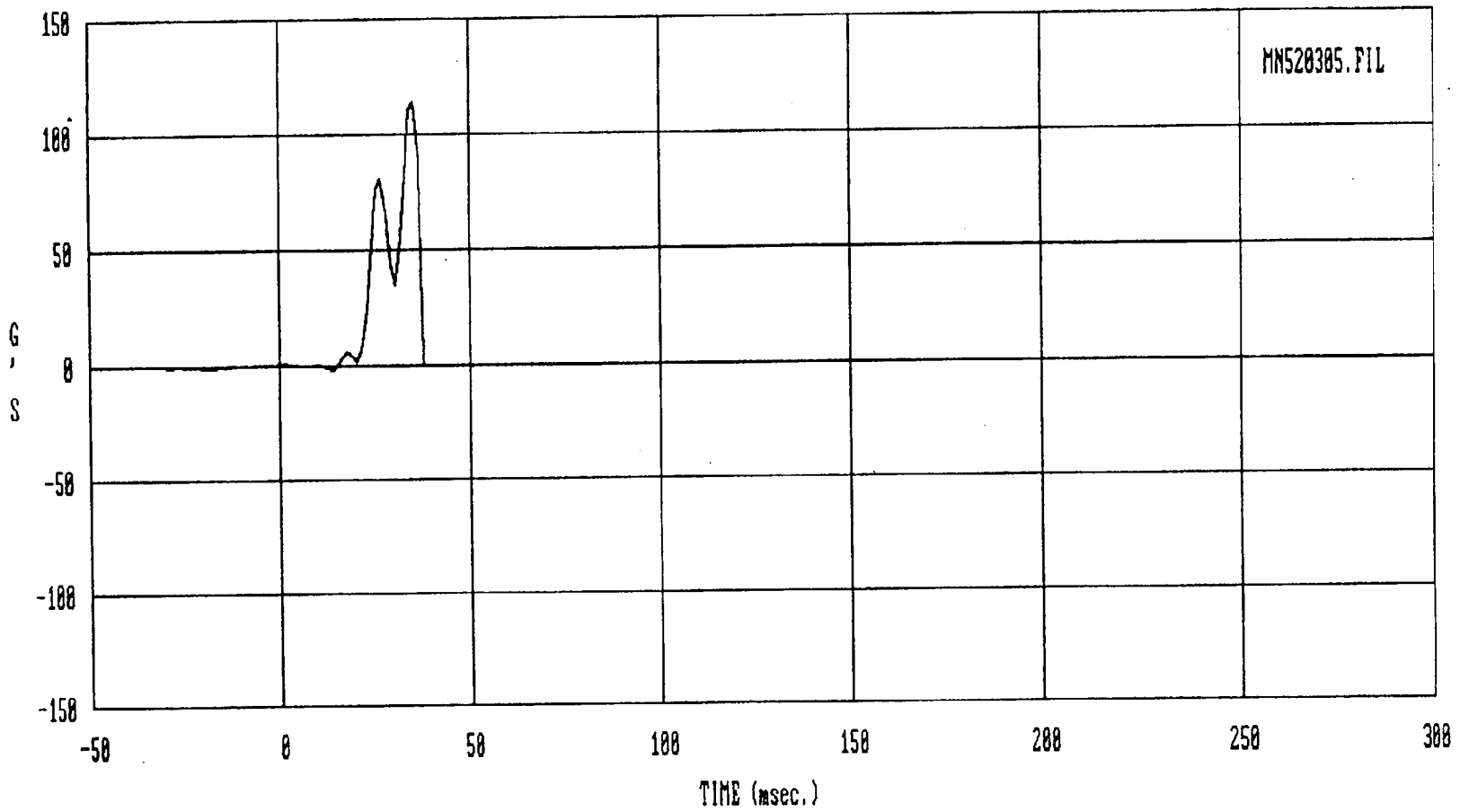
Curve: Driver upper spine acceleration -- Primary Filter: FIR 100 Max = 104.32 Min = -30.568

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



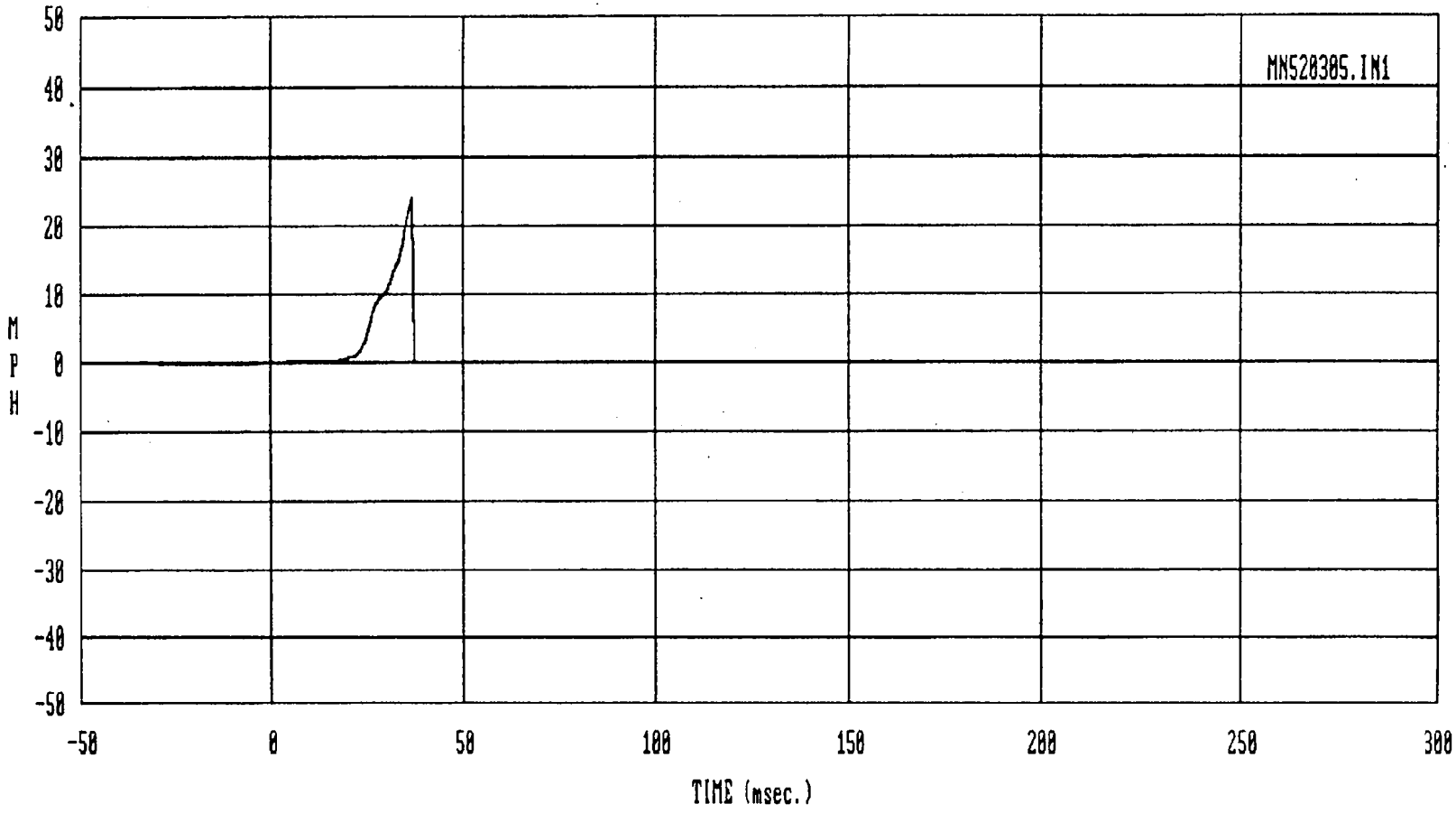
Curve: Driver upper spine delta V -- Primary Filter: FIR 100 Max = 35.811 Min = 19.226

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



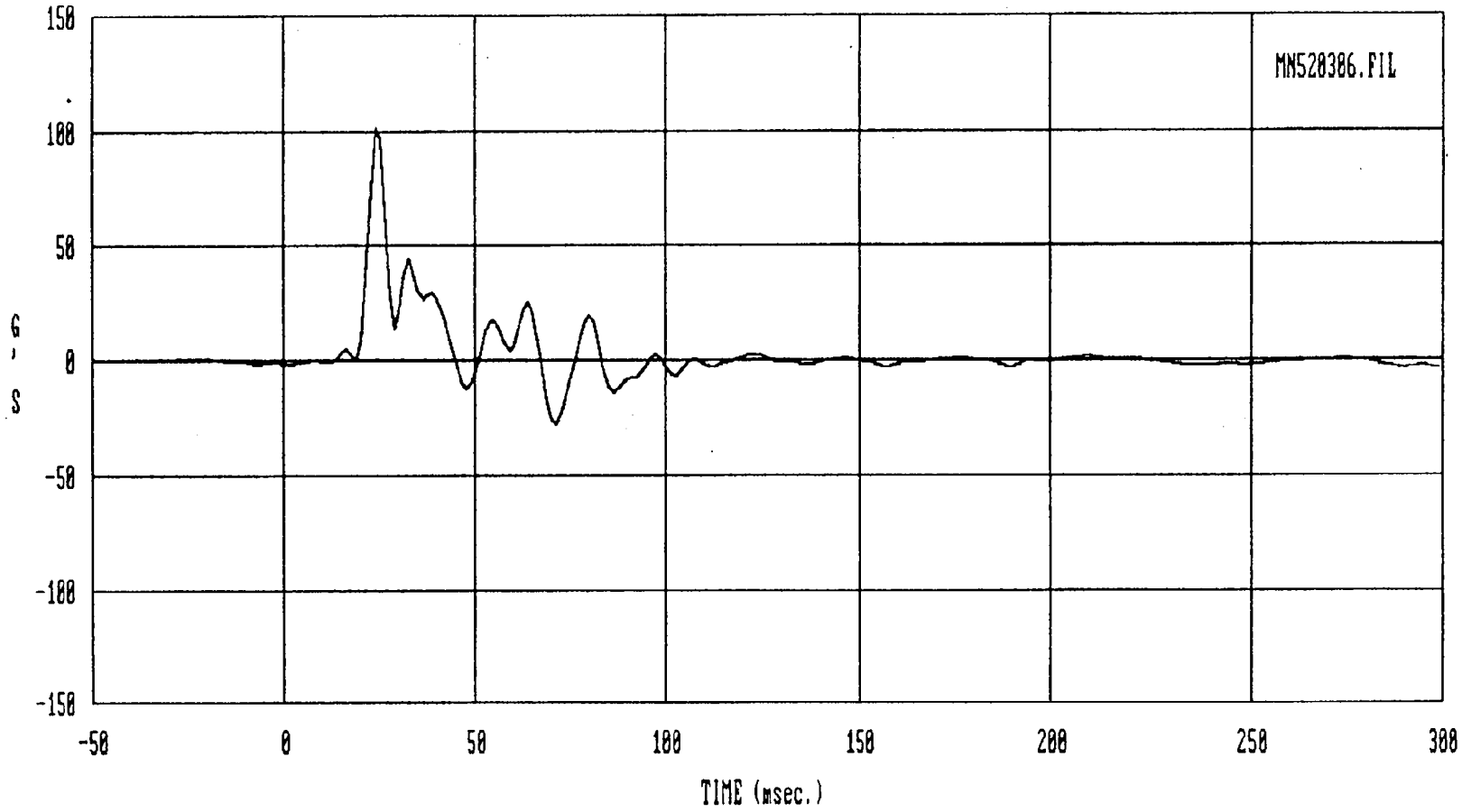
Curve: Driver upper spine acceleration -- Redundant Filter: FIR 100 Max = 116.39 Min = -1.6622

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



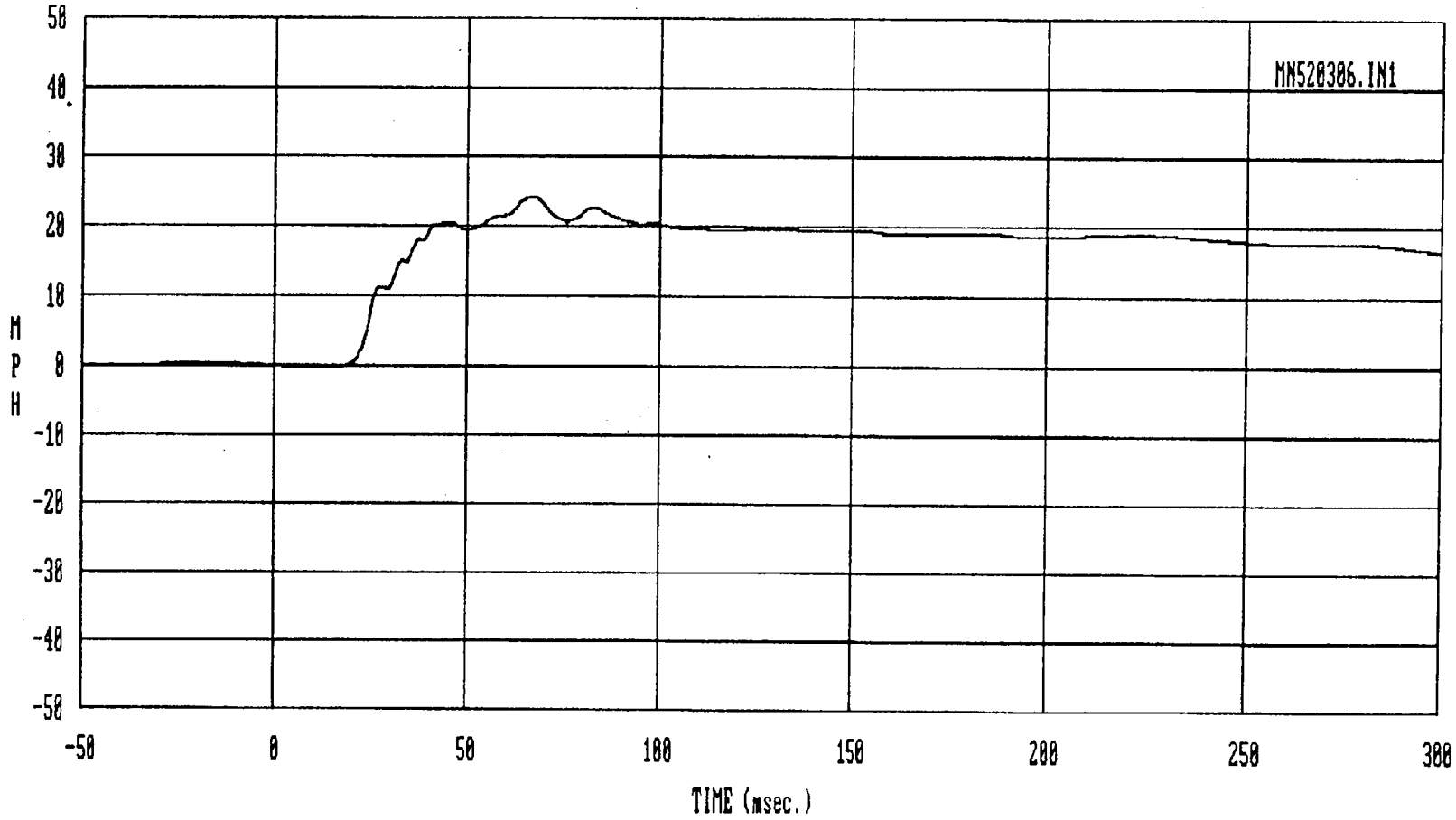
Curve: Driver upper spine delta V -- Redundant Filter: FIR 100 Max = 24.364 Min = .00000

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



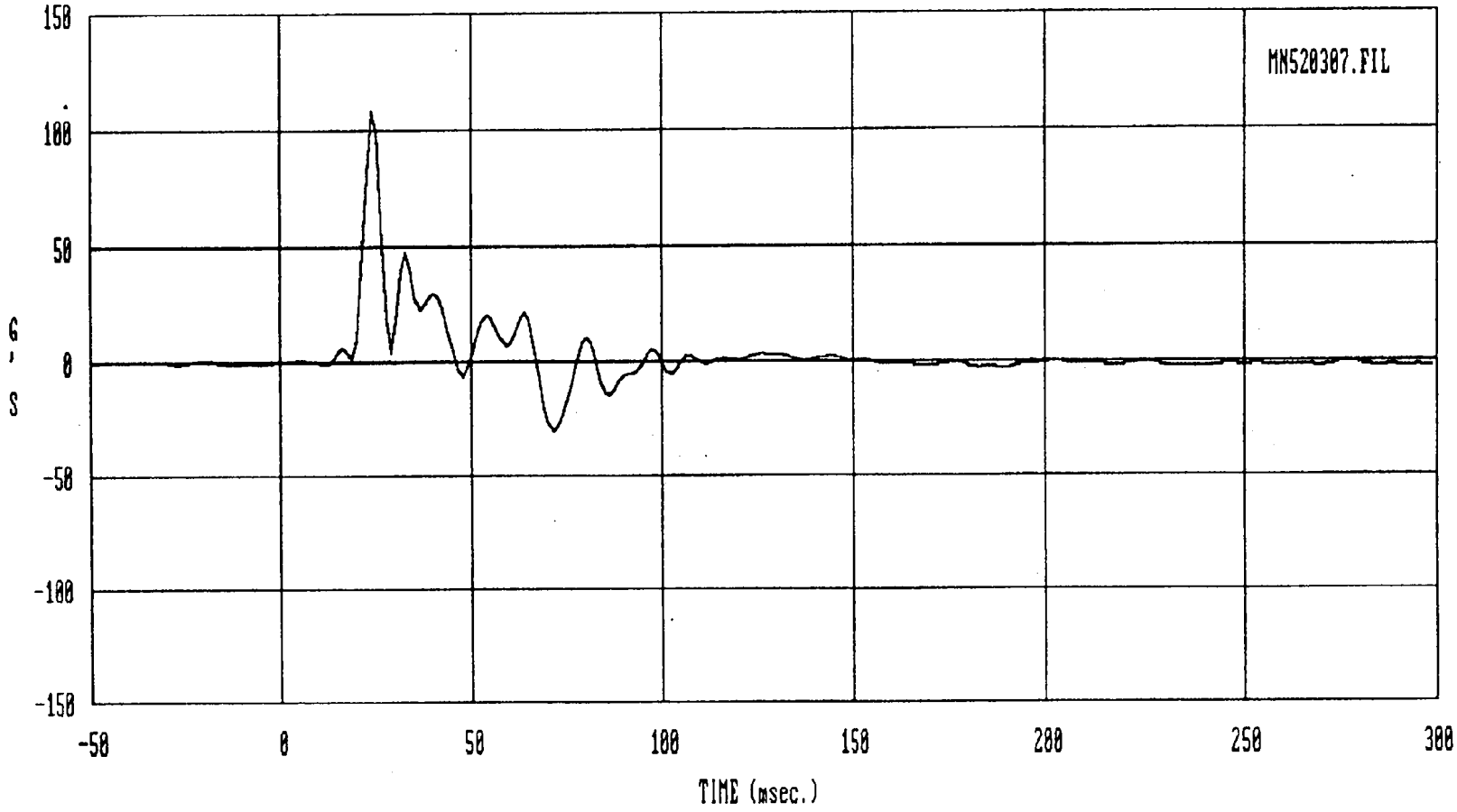
Curve: Driver upper rib acceleration -- Primary Filter: FIR 100 Max = 104.05 Min = -27.669

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



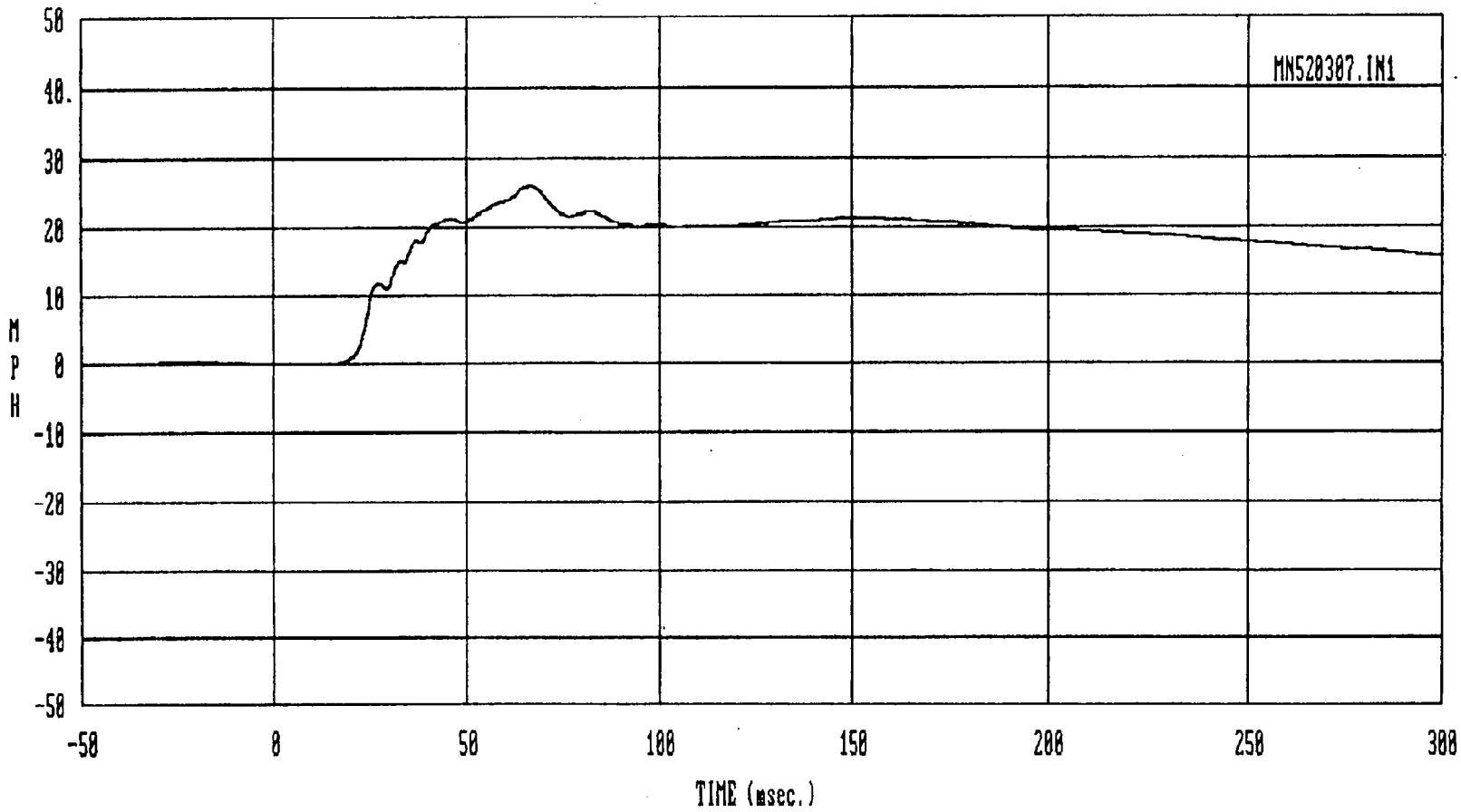
Curve: Driver upper rib delta V — Primary Filter: FIR 100 Max = 24.100 Min = -.23865

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



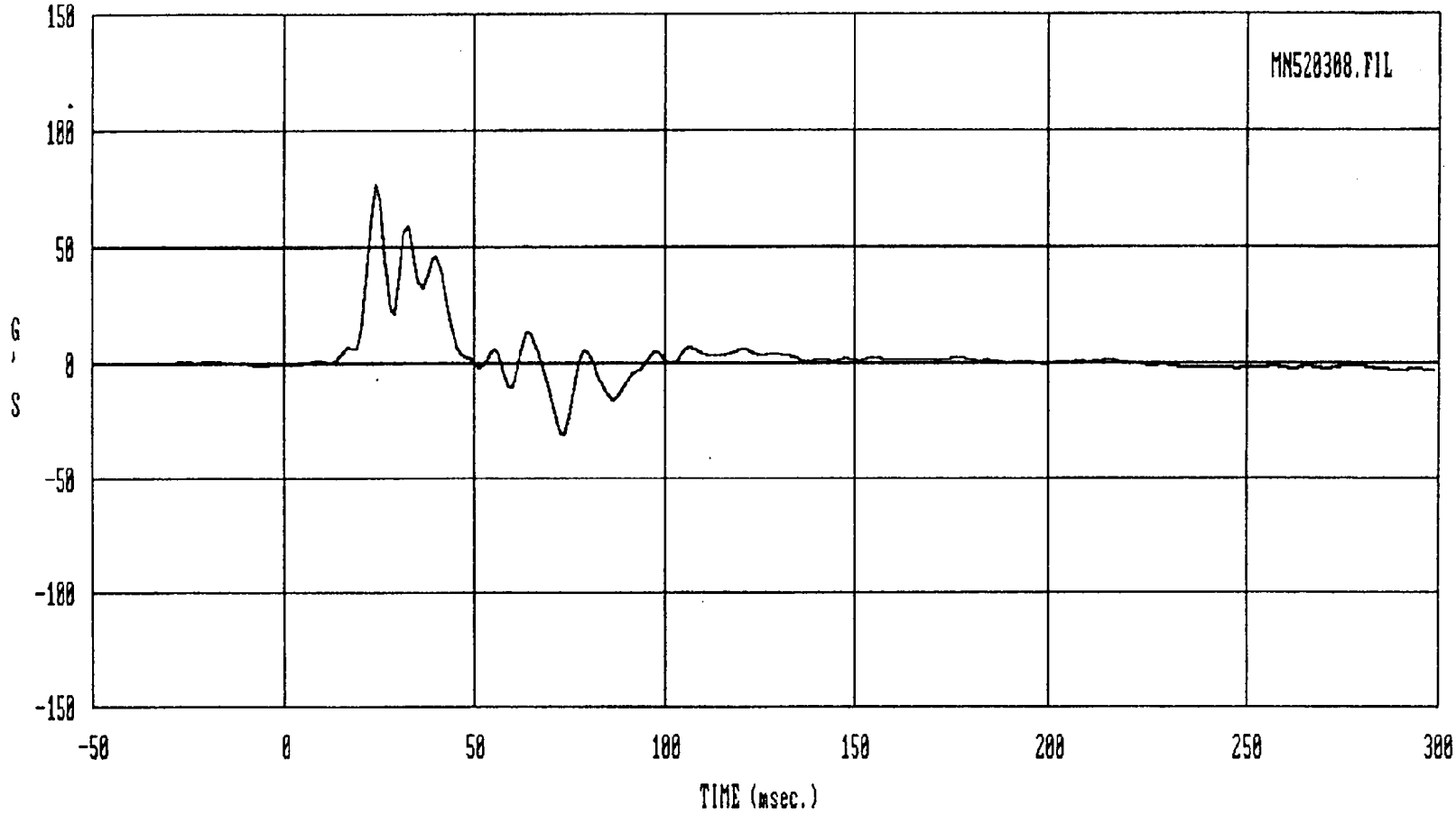
Curve: Driver upper rib acceleration -- Redundant Filter: FIR 100 Max = 100.88 Min = -30.637

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



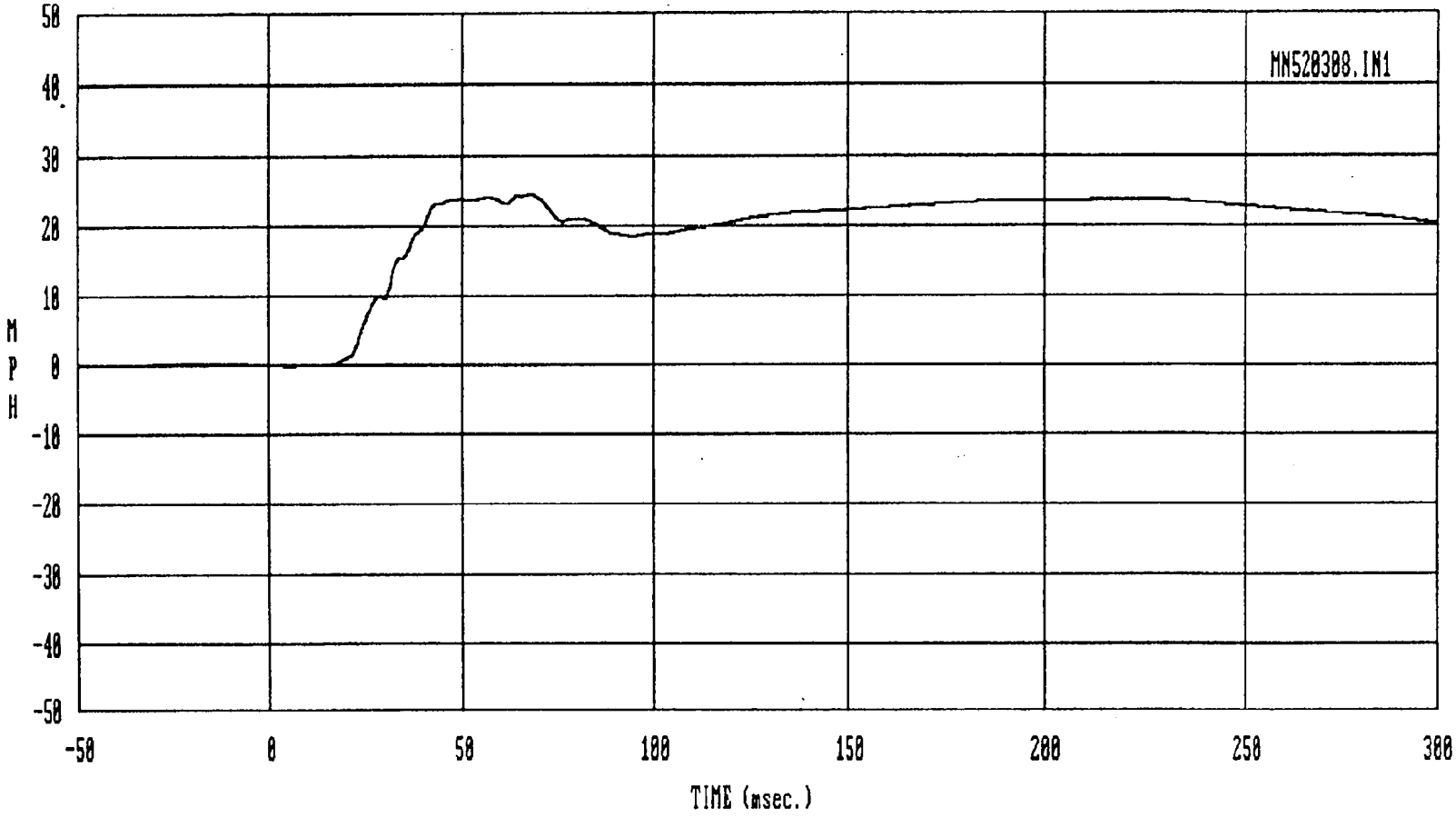
Curve: Driver upper rib delta V — Redundant Filter: FIR 100 Max = 26.873 Min = -.62503E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



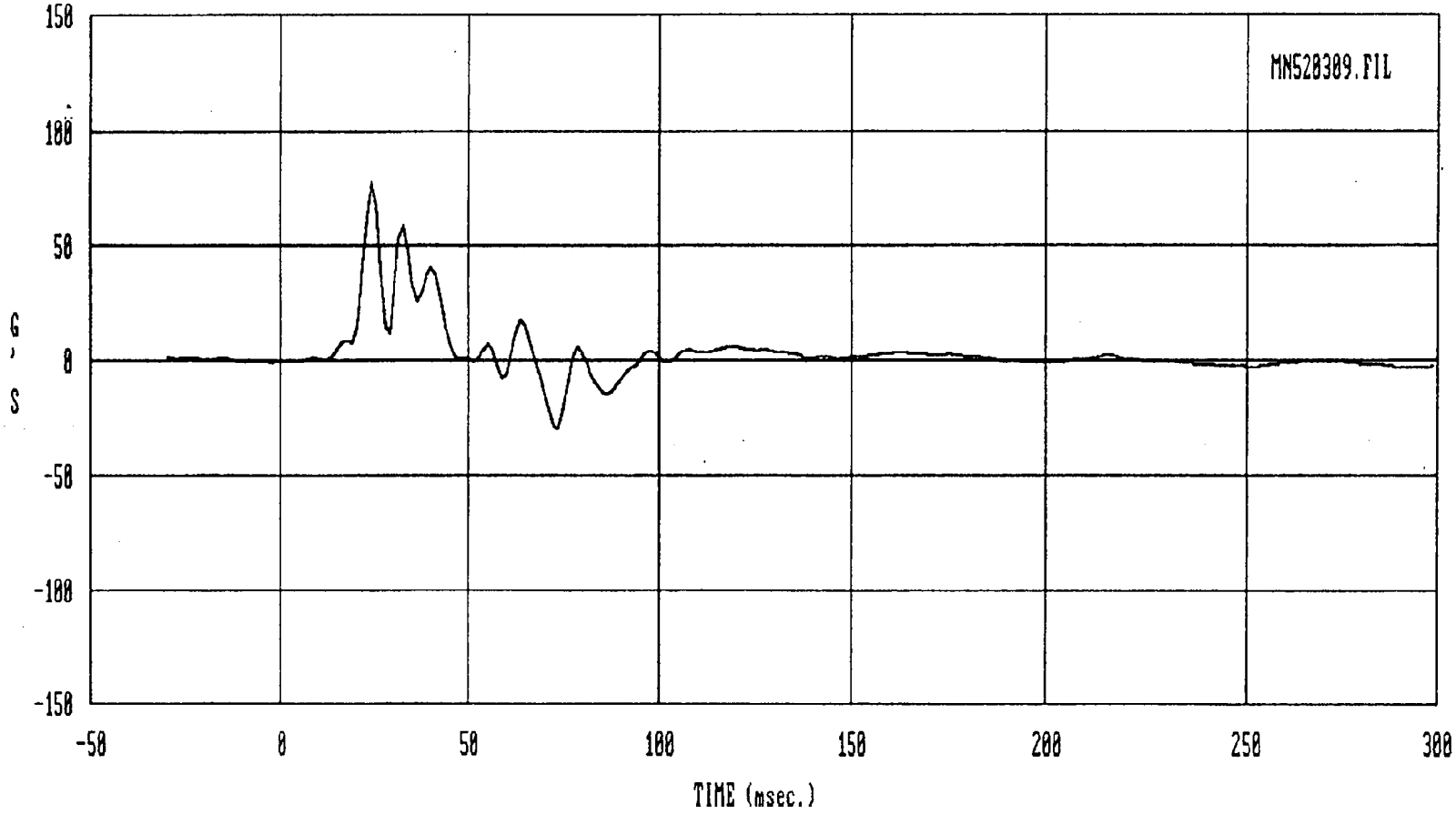
Curve: Driver lower rib acceleration -- Primary Filter: FIR 100 Max = 77.283 Min = -31.729

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



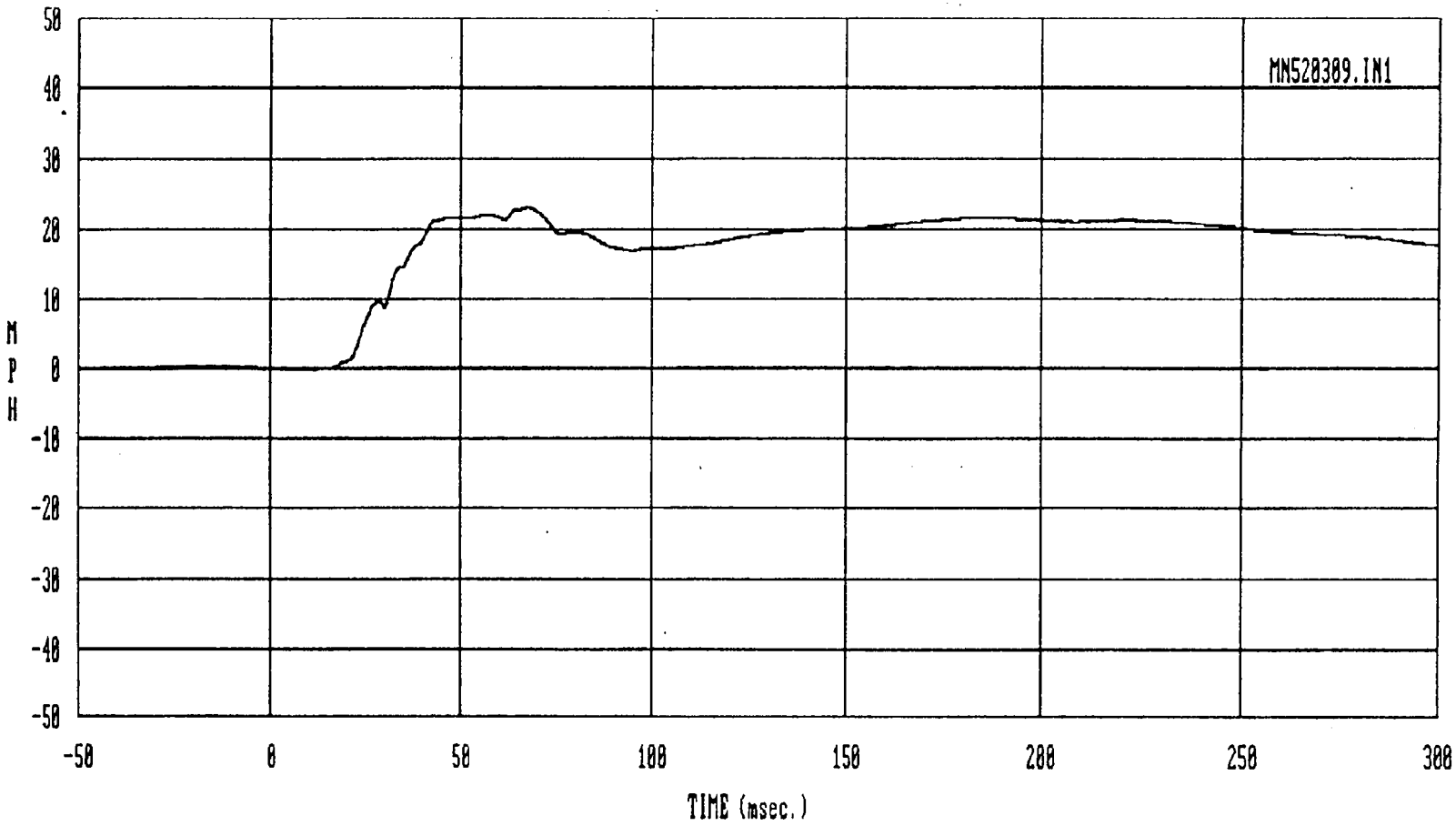
Curve: Driver lower rib delta V — Primary Filter: FIR 100 Max = 24.547 Min = -.89394E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



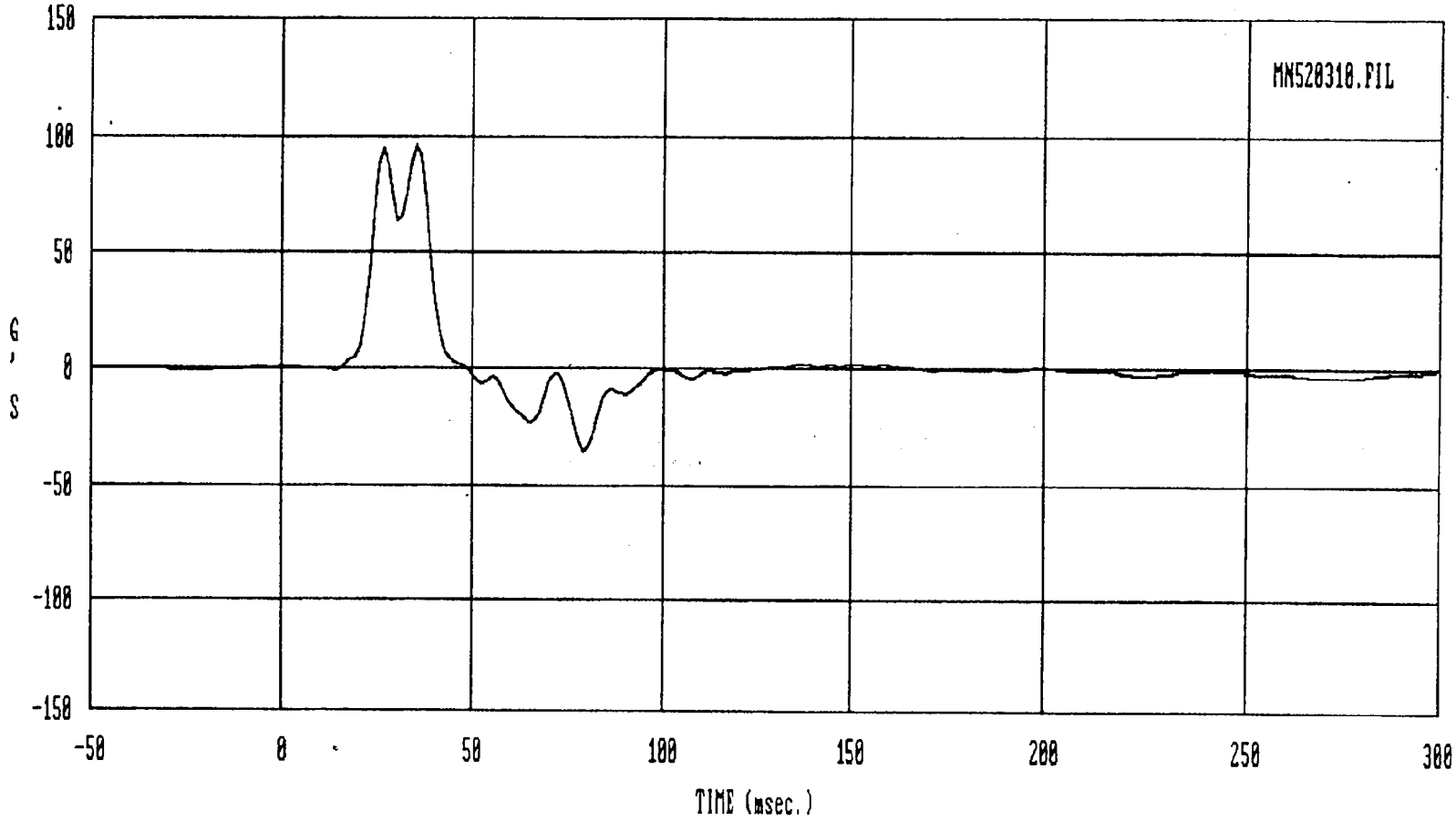
Curve: Driver lower rib acceleration -- Redundant Filter: FIR 100 Max = 78.292 Min = -30.044

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



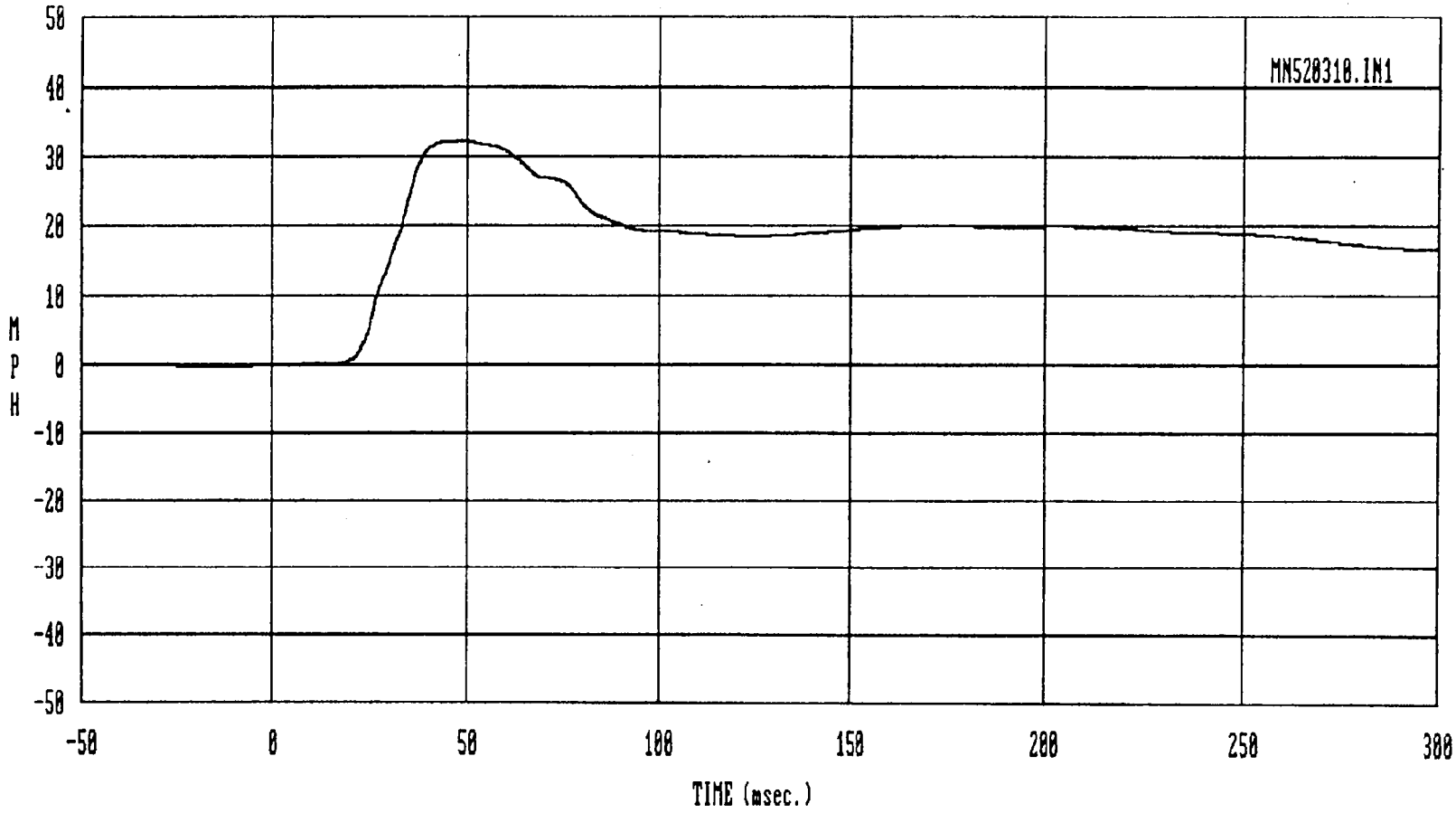
Curve: Driver lower rib delta V -- Redundant Filter: FIR 100 Max = 23.124 Min = -.14623

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



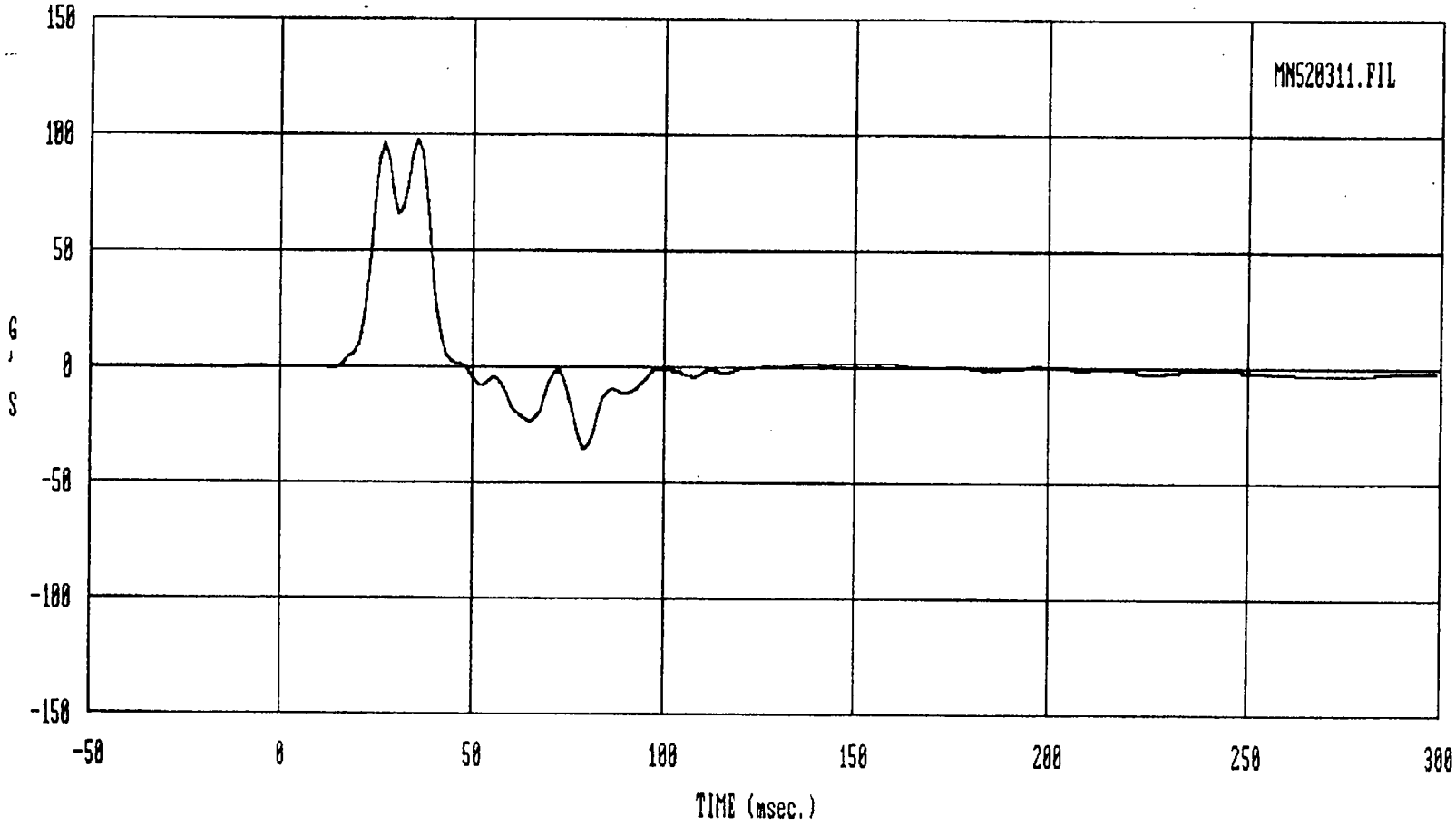
Curve: Driver lower spine acceleration -- Primary Filter: FIR 100 Max = 96.774 Min = -35.612

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



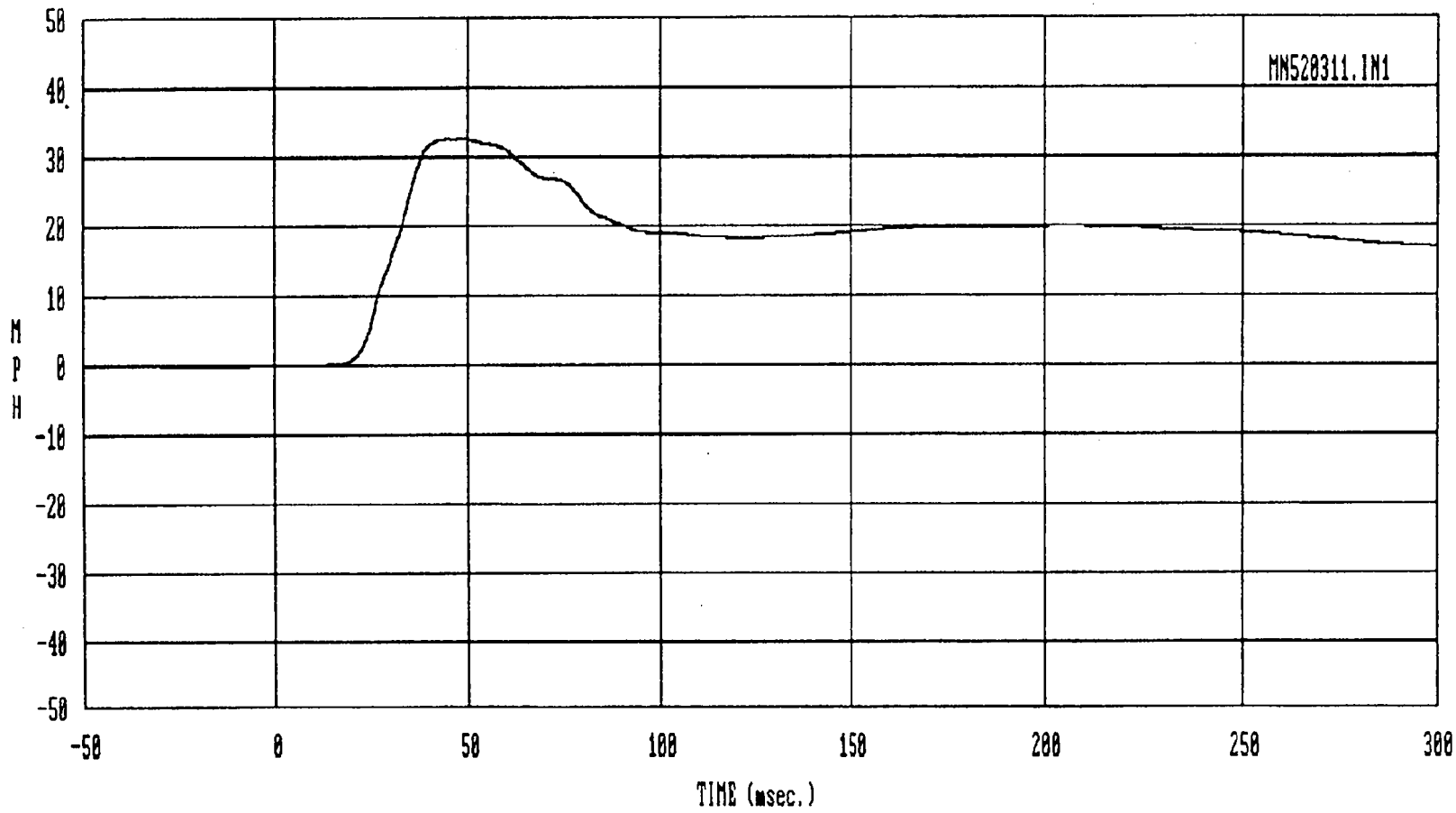
Curve: Driver lower spine delta V — Primary Filter: FIR 100 Max = 32.452 Min = .11878

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



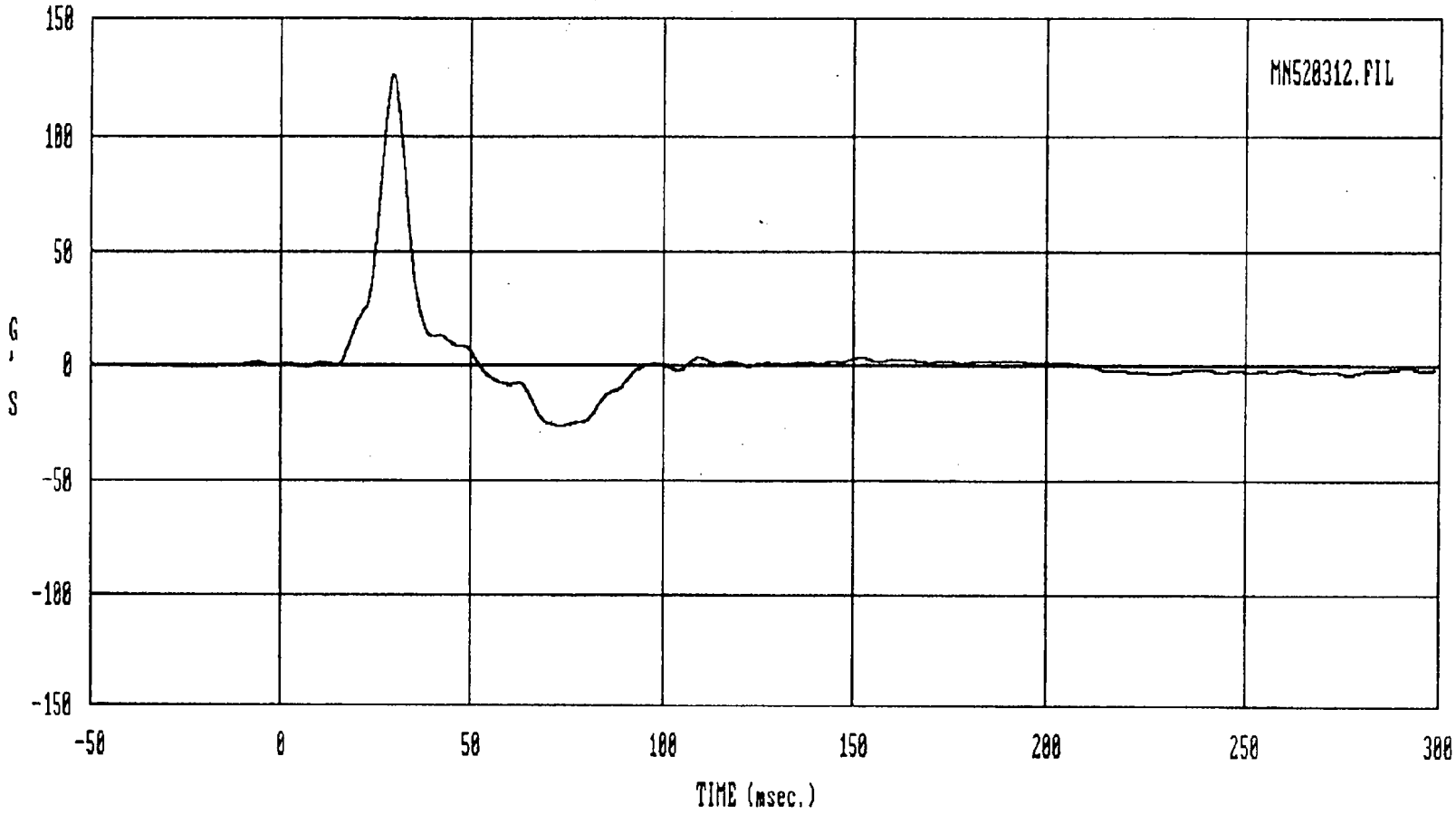
Curve: Driver lower spine acceleration -- Redundant Filter: FIR 100 Max = 98.331 Min = -35.388

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



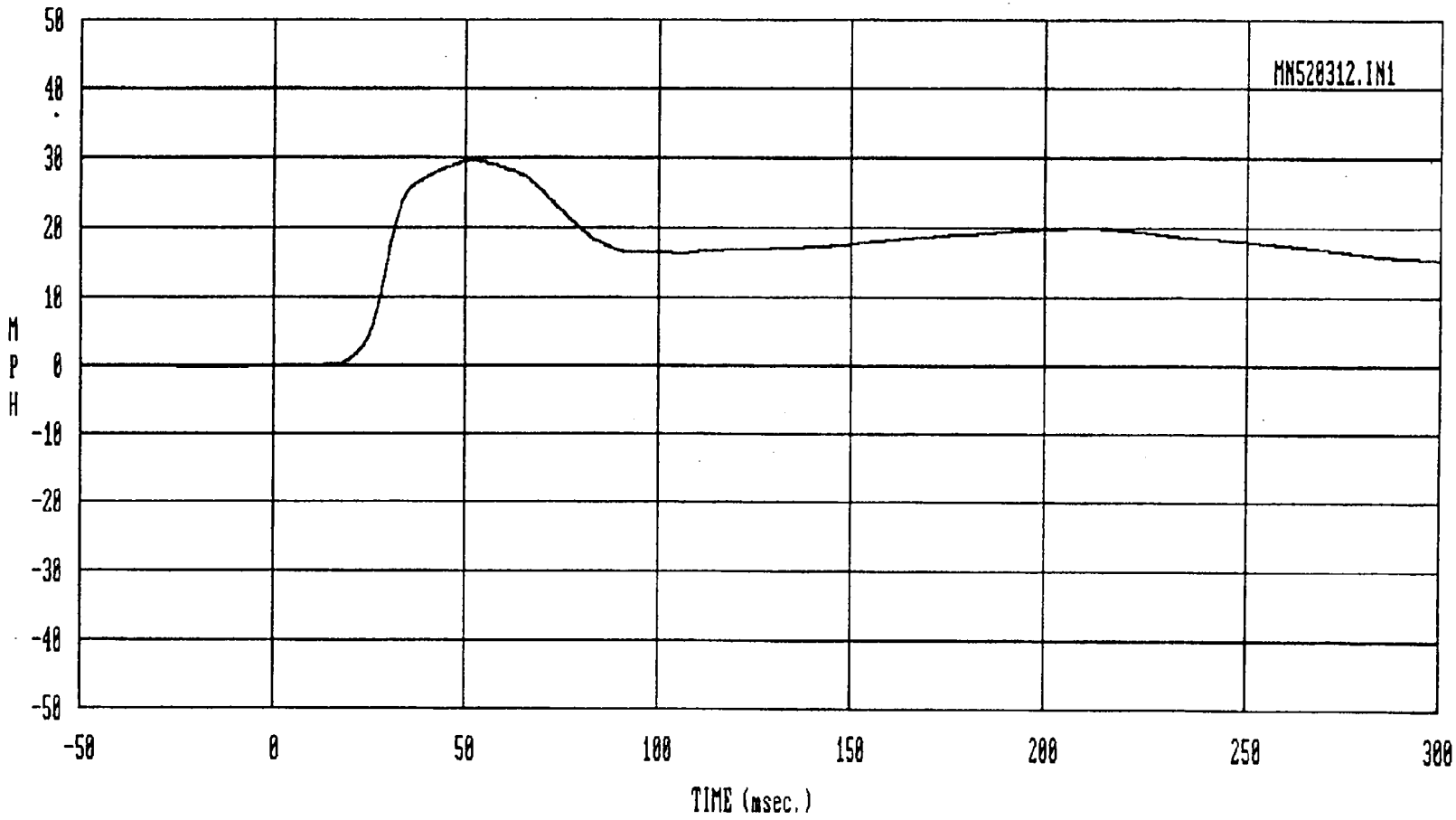
Curve: Driver lower spine delta V -- Redundant Filter: FIR 100 Max = 32.825 Min = -.68565E-02

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



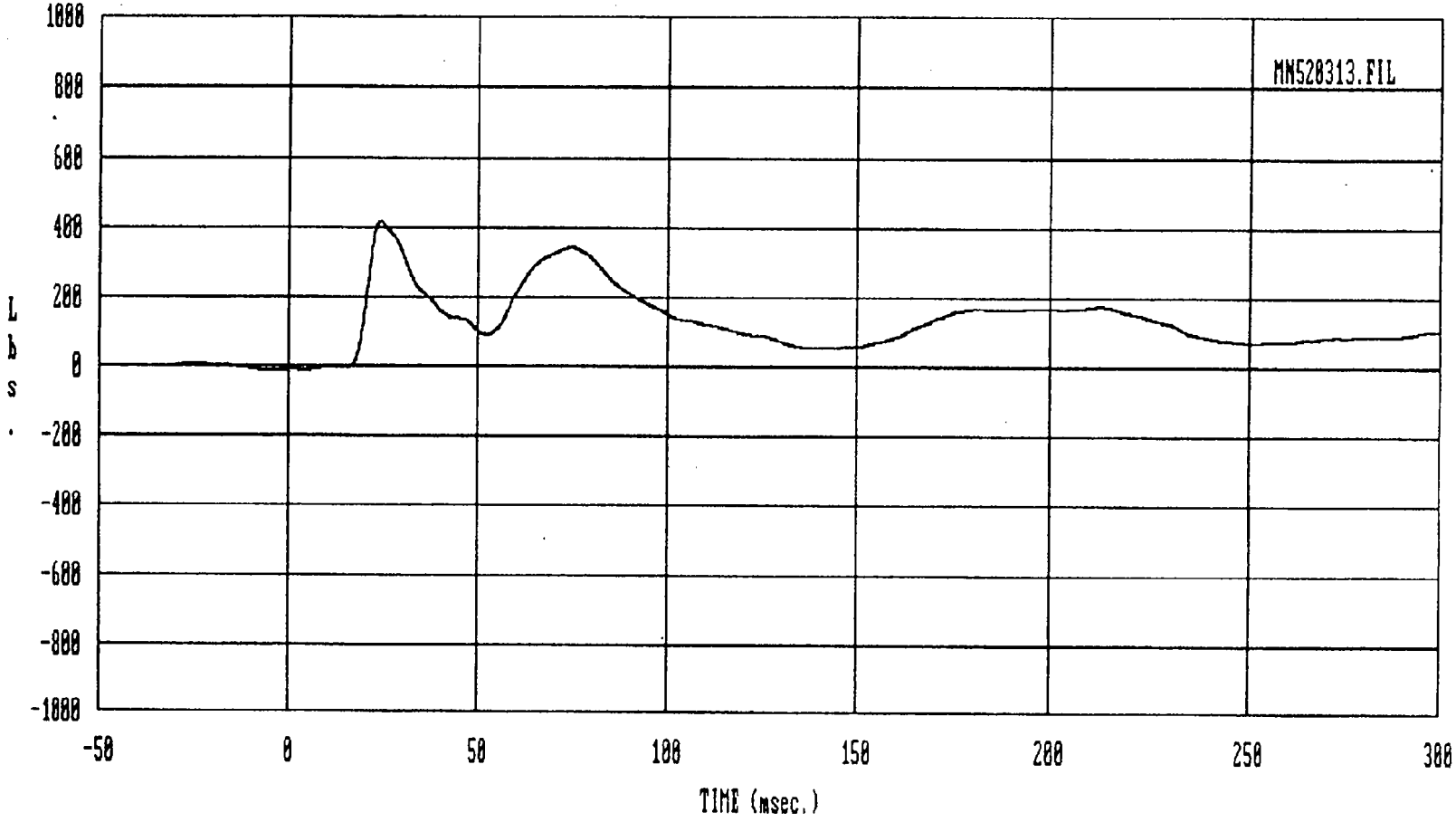
Curve: Driver pelvis acceleration Filter: FIR 100 Max = 128.31 Min = -26.355

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



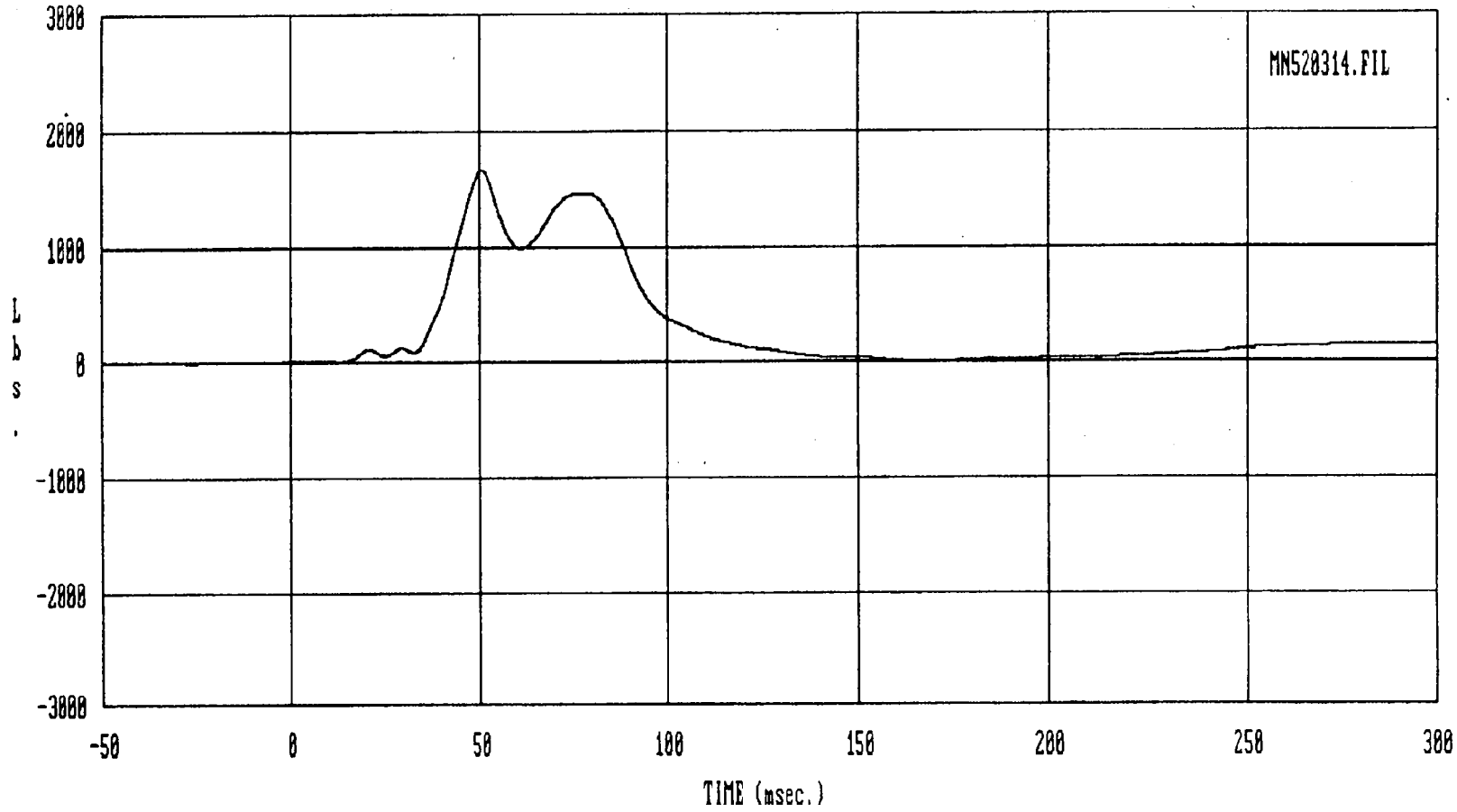
Curve: Driver pelvis delta V Filter: FIR 100 Max = 29.700 Min = -.78264E-02

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



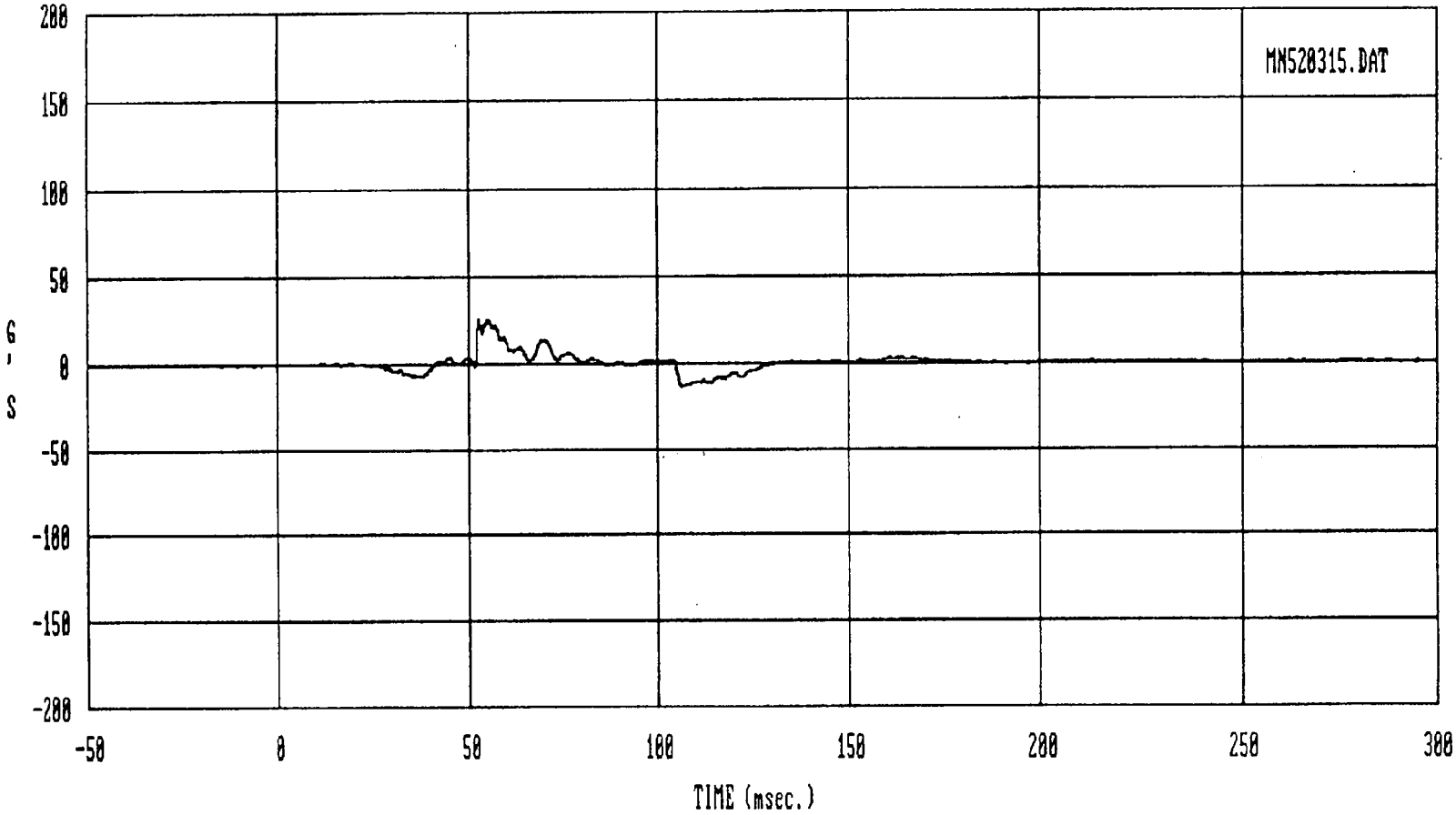
Curve: Driver lap belt load Filter: SAE CLASS 60 Max = 422.24 Min = -10.566

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



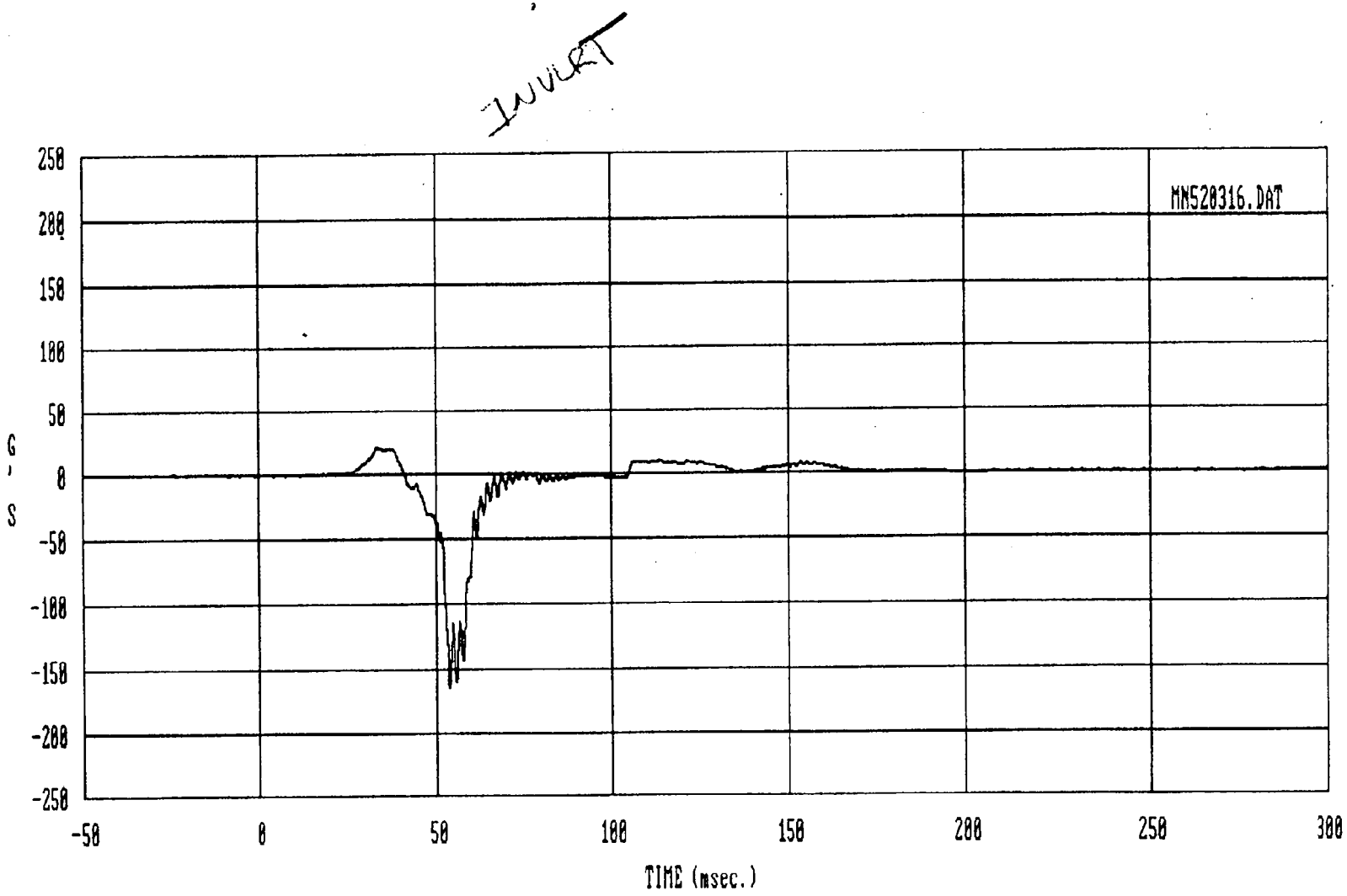
Curve: Driver shoulder belt load Filter: SAE CLASS 60 Max = 1677.9 Min = -3.3076

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



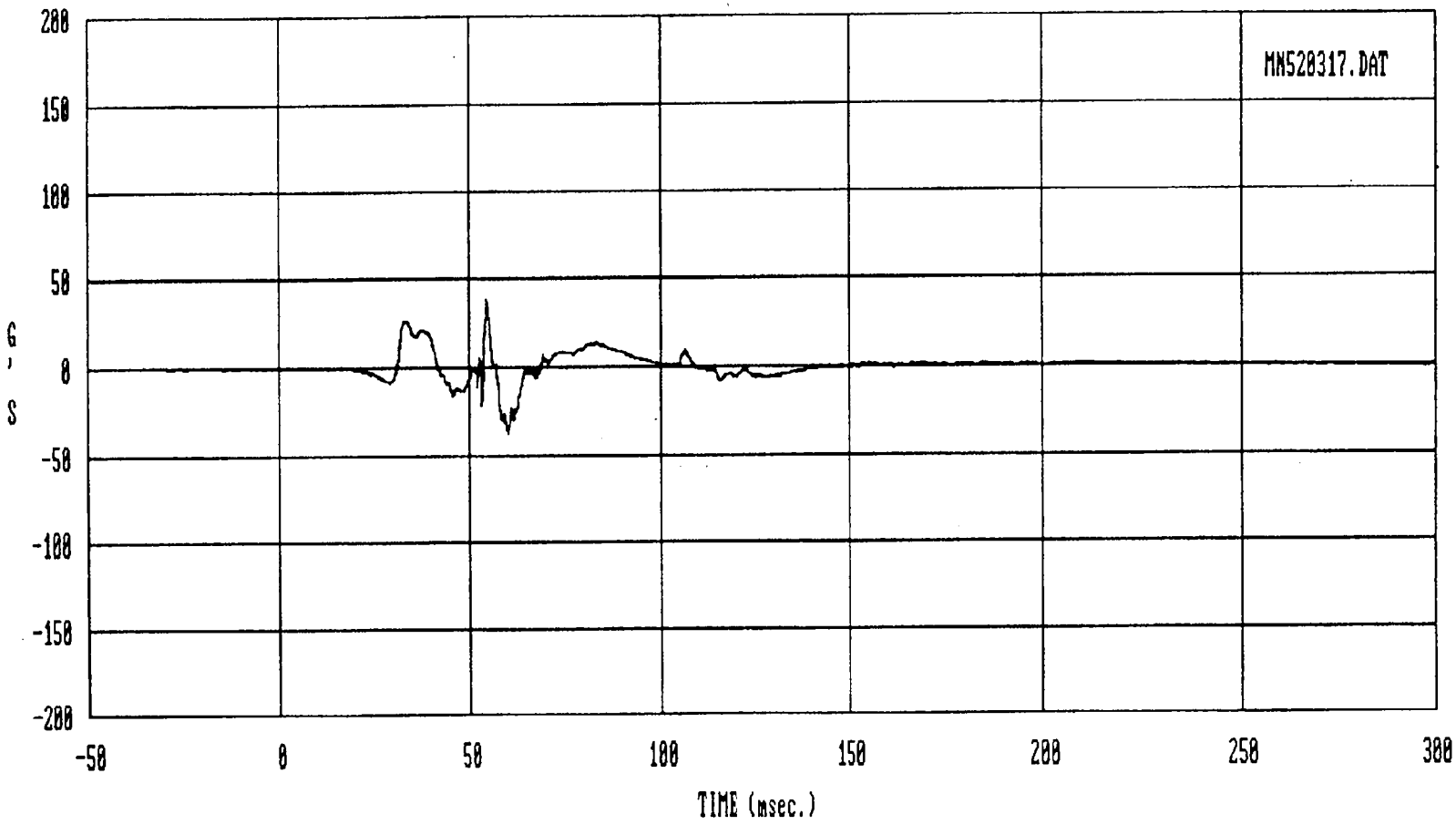
Curve: Passenger Head acceleration -- X axis Filter: SAE CLASS 1000 Max = 29.175 Min = -13.324

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



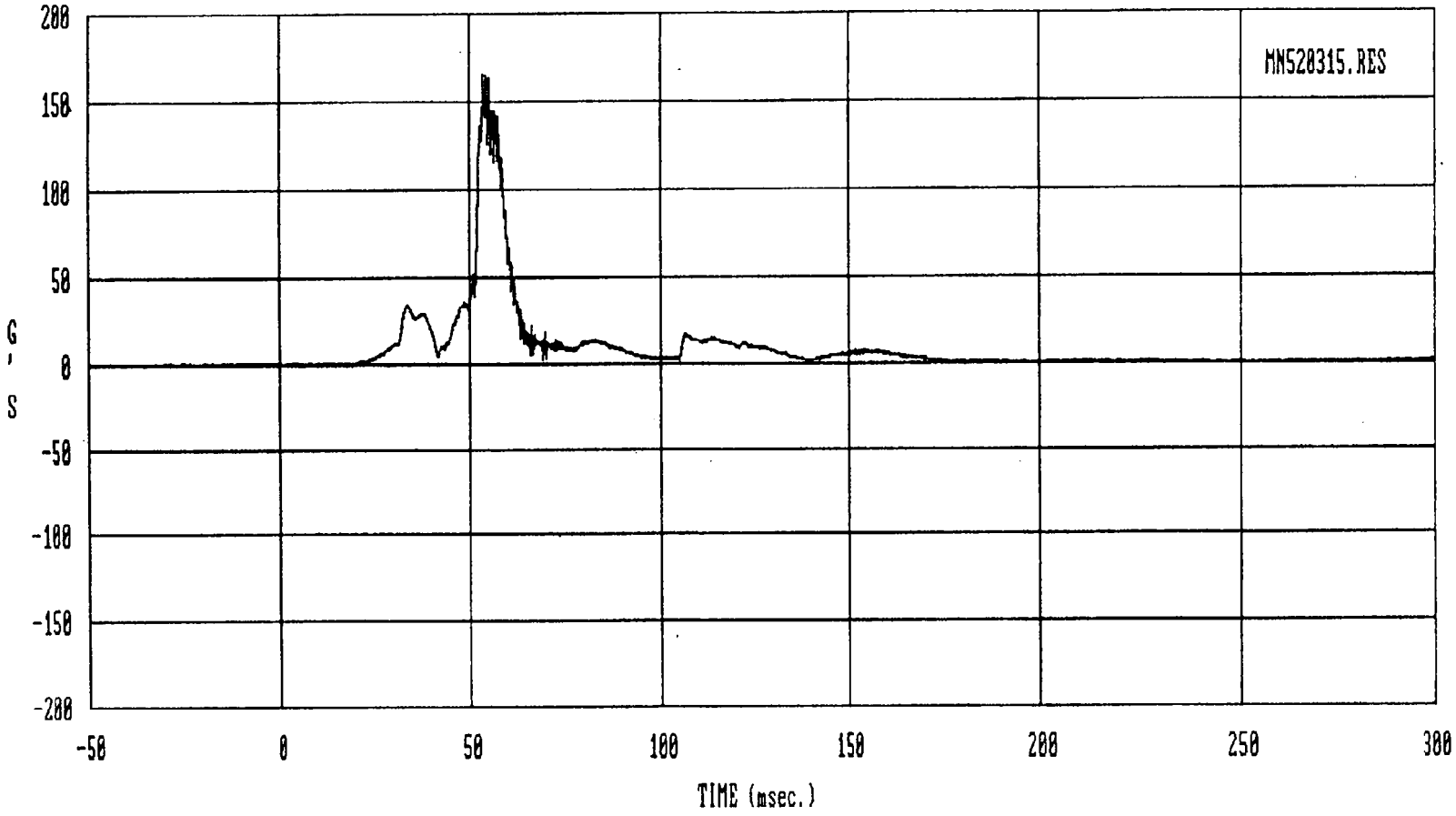
Curve: Passenger Head acceleration -- Y axis Filter: SAE CLASS 1000 Max = 21.591 Min = -163.99

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



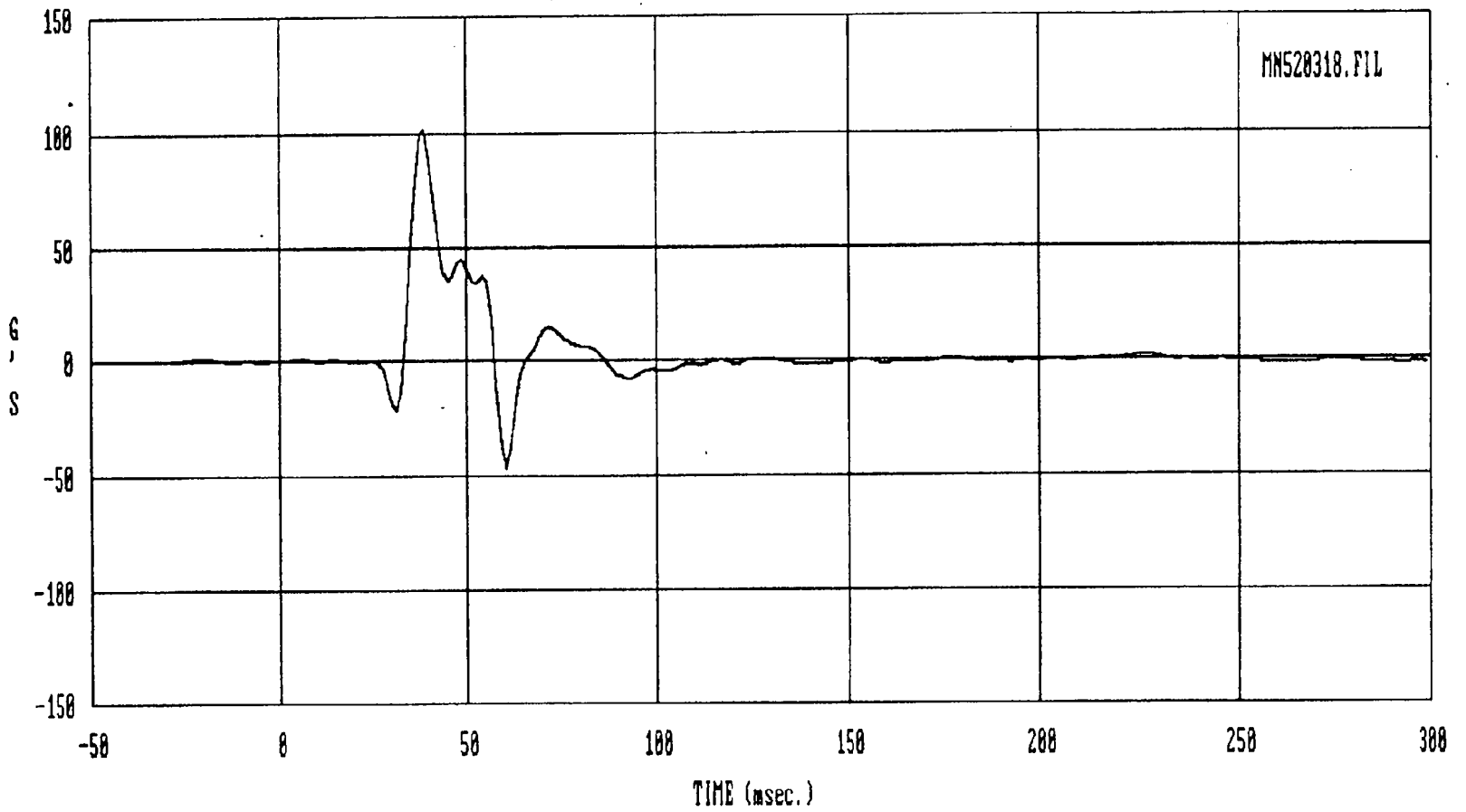
Curve: Passenger Head acceleration -- Z axis Filter: SAE CLASS 1000 Max = 37.732 Min = -36.596

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



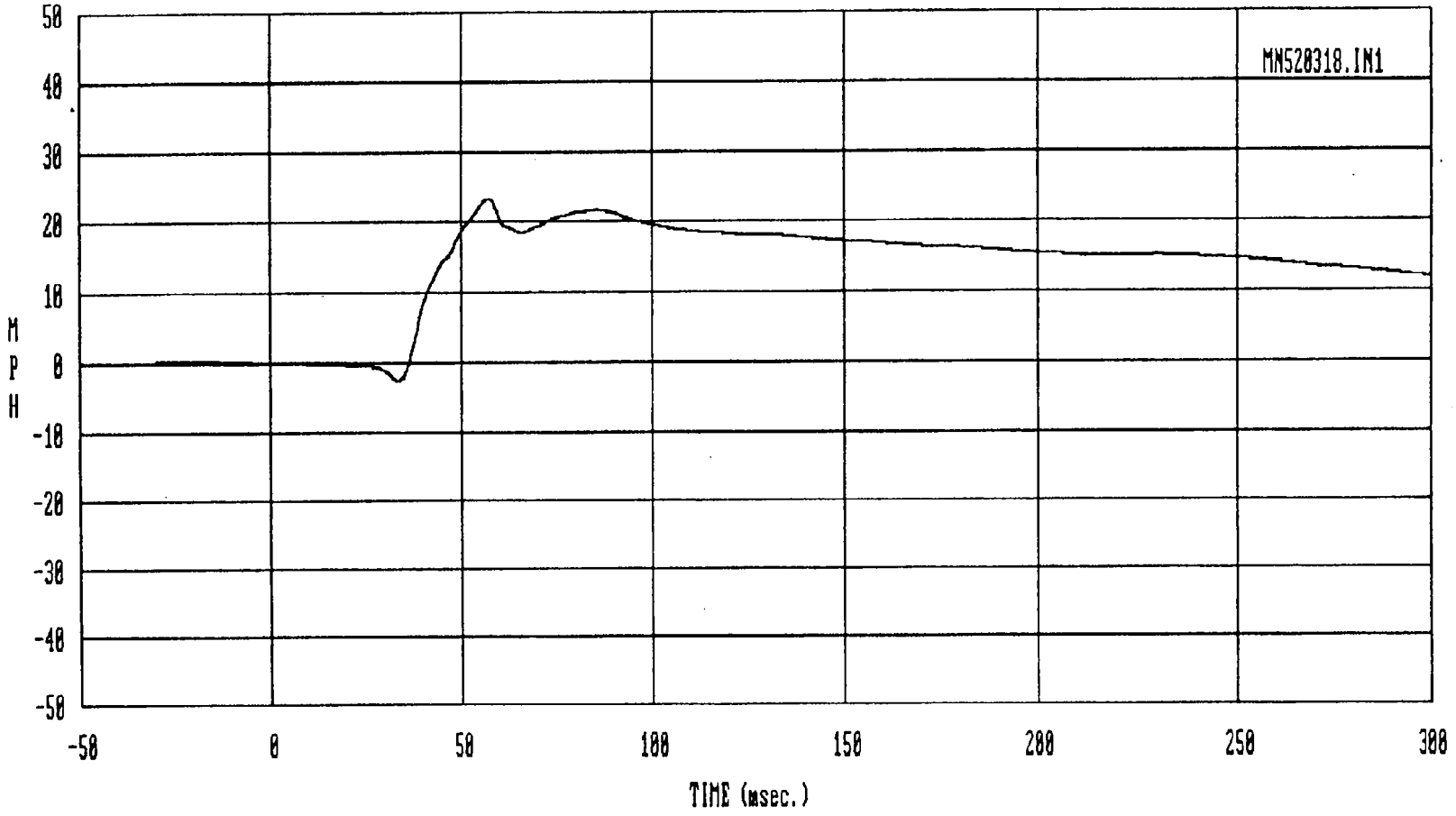
Curve: Passenger head resultant acceleration Filter: SAE CLASS 1000 Max = 165.63 Min = .00000

MSE Date: 06/26/92 Program: Side Impact 34/17 90 Deg. Vehicle: 1992 Nissan Sentra



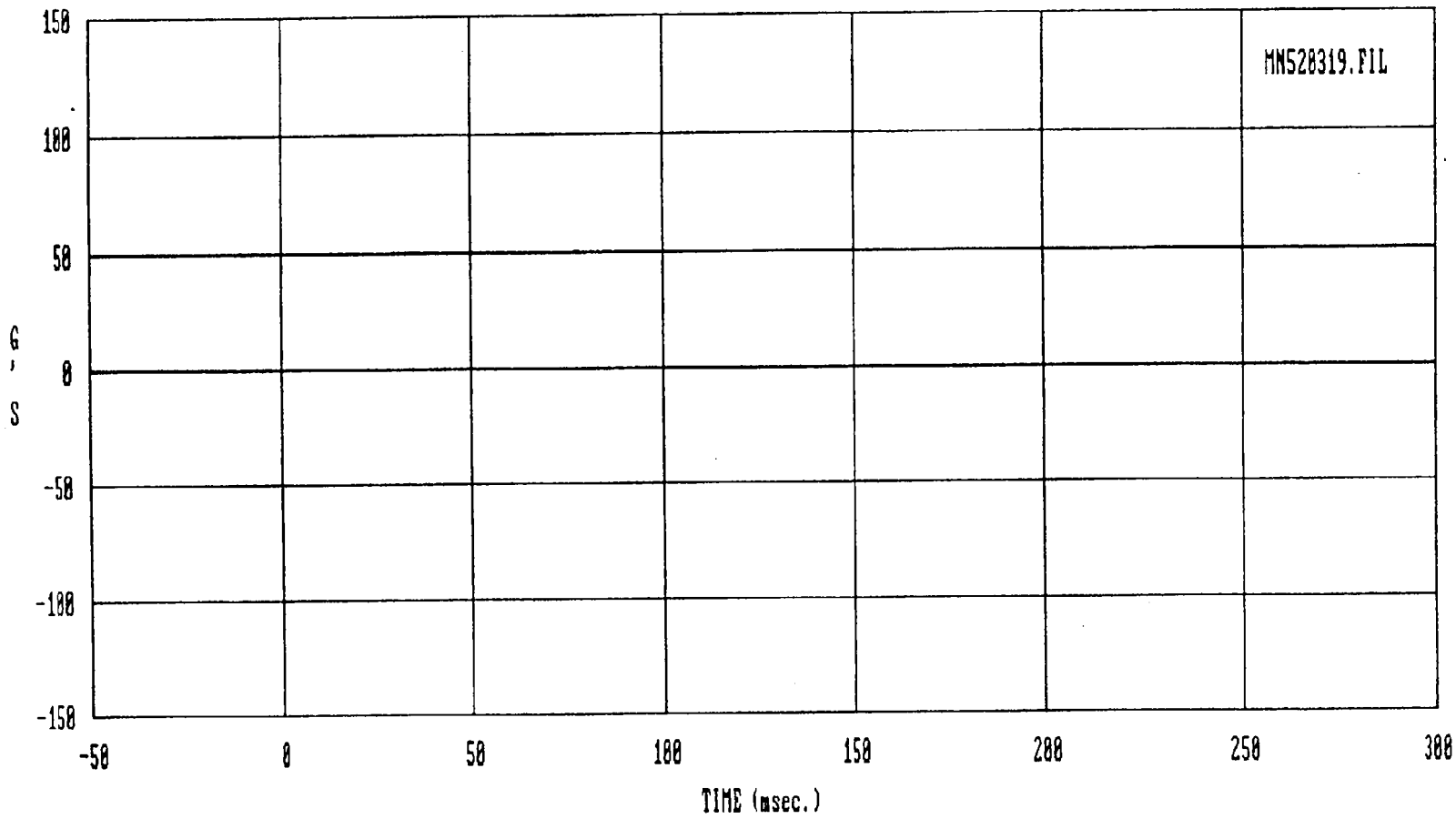
Curve: Passenger upper spine acceleration -- Primary Filter: FIR 100 Max = 103.49 Min = -46.732

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



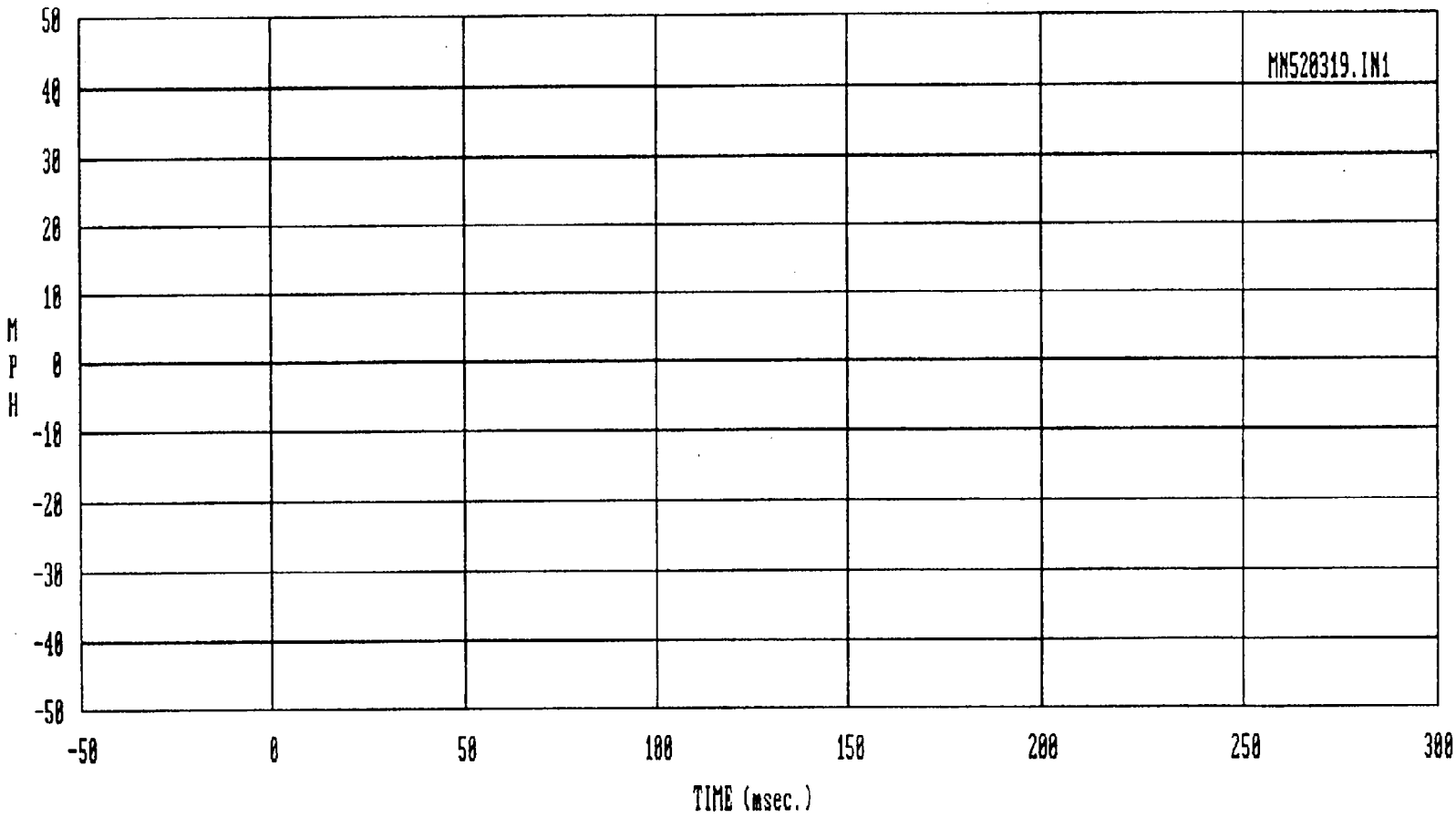
Curve: Passenger upper spine delta V -- Primary Filter: FIR 100 Max = 23.217 Min = -2.5126

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



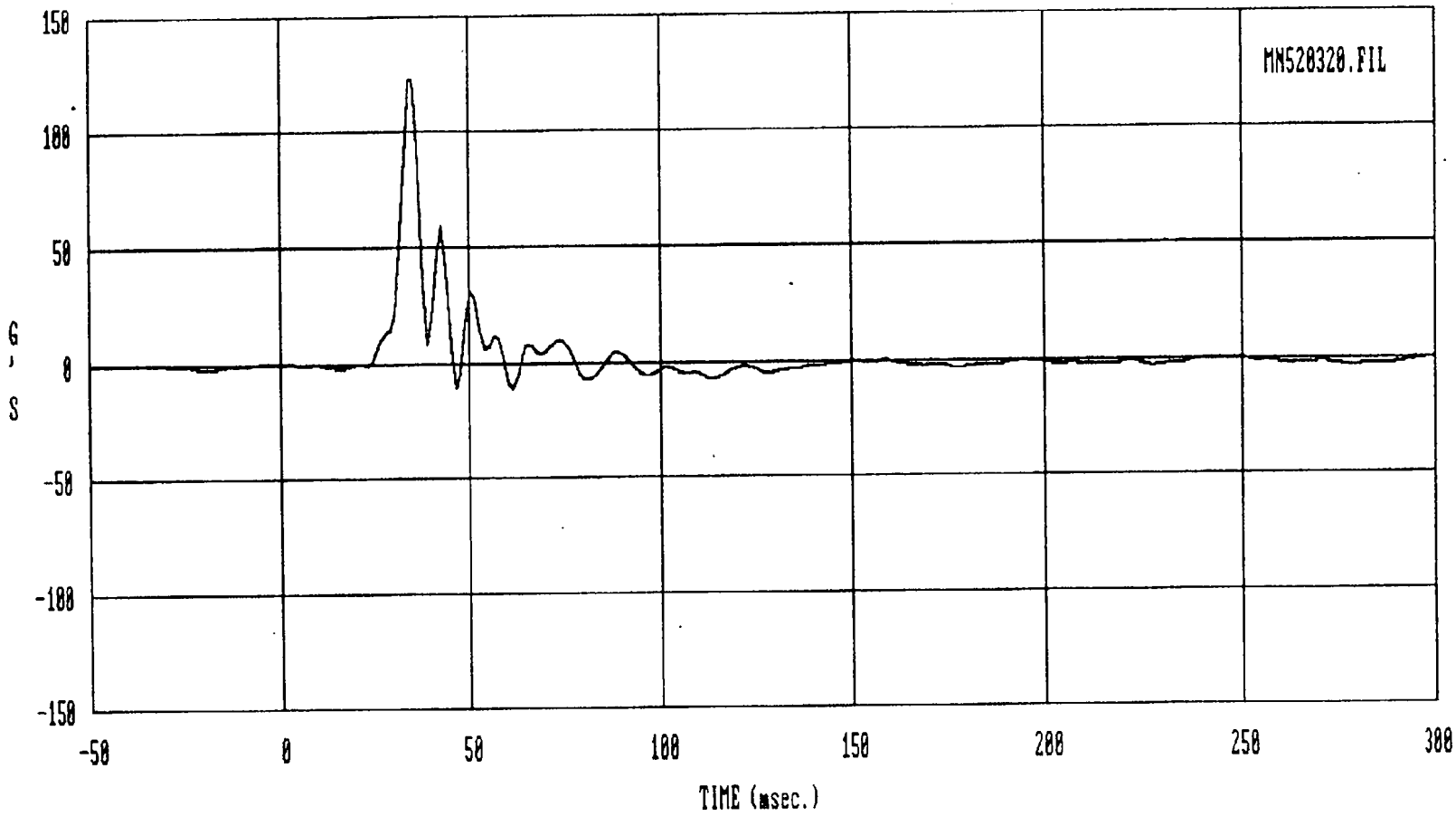
Curve: Passenger upper spine acceleration -- Redundant Filter: FIR 100 Max = .00000 Min = .00000

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



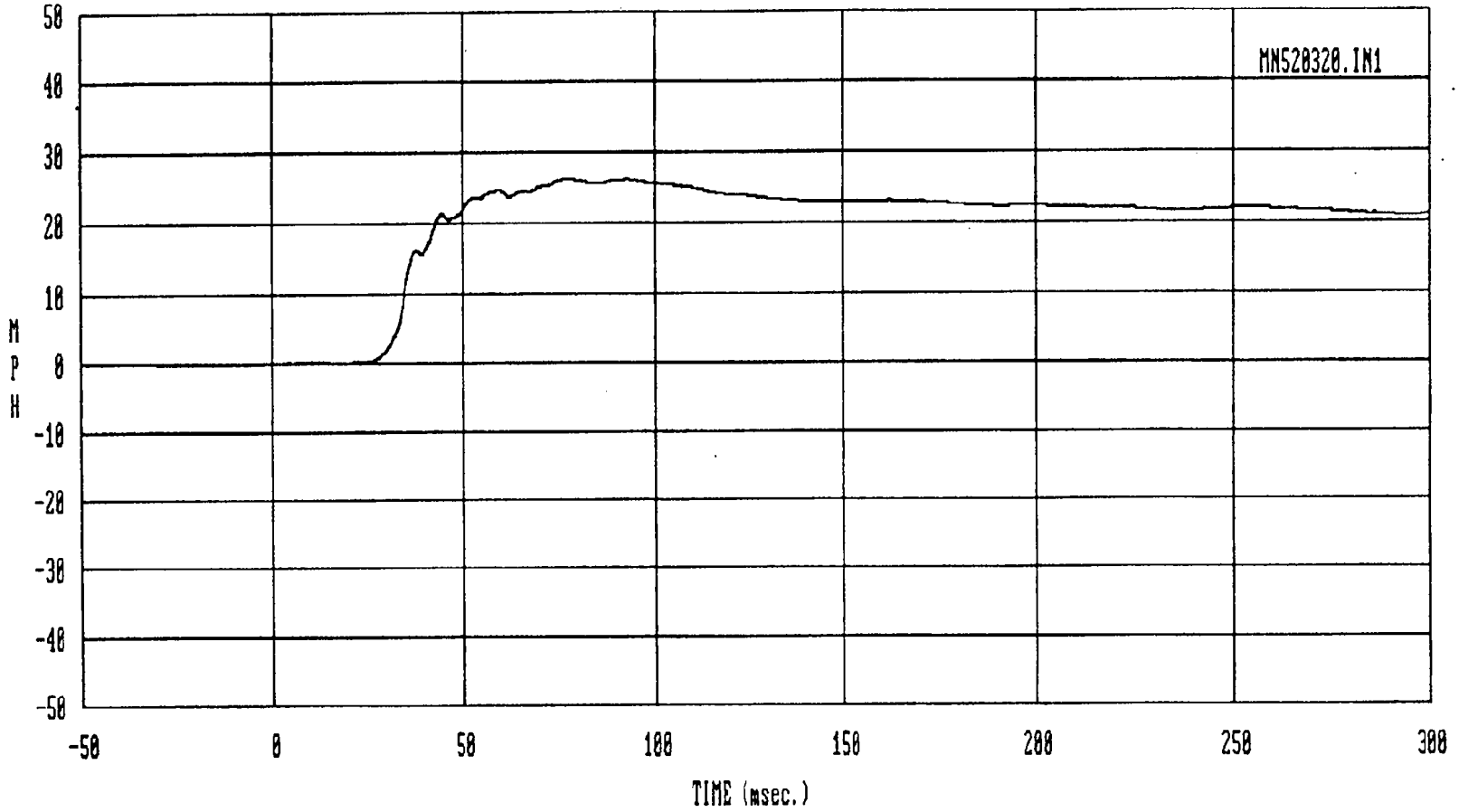
Curve: Passenger upper spine delta V -- Redundant Filter: FIR 100 Max = .00000 Min = .00000

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



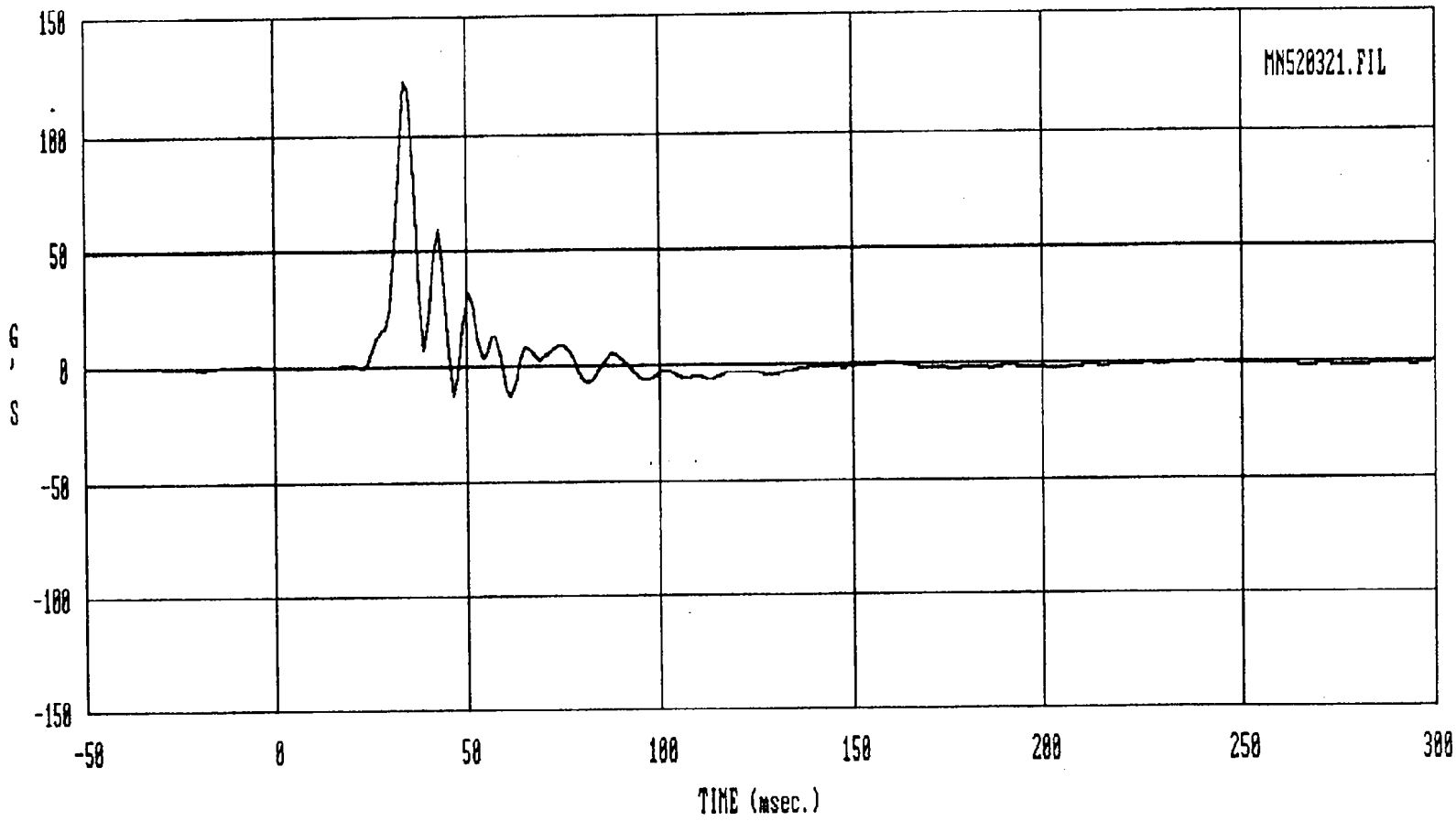
Curve: Passenger upper rib acceleration -- Primary Filter: FIR 100 Max = 128.32 Min = -11.171

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



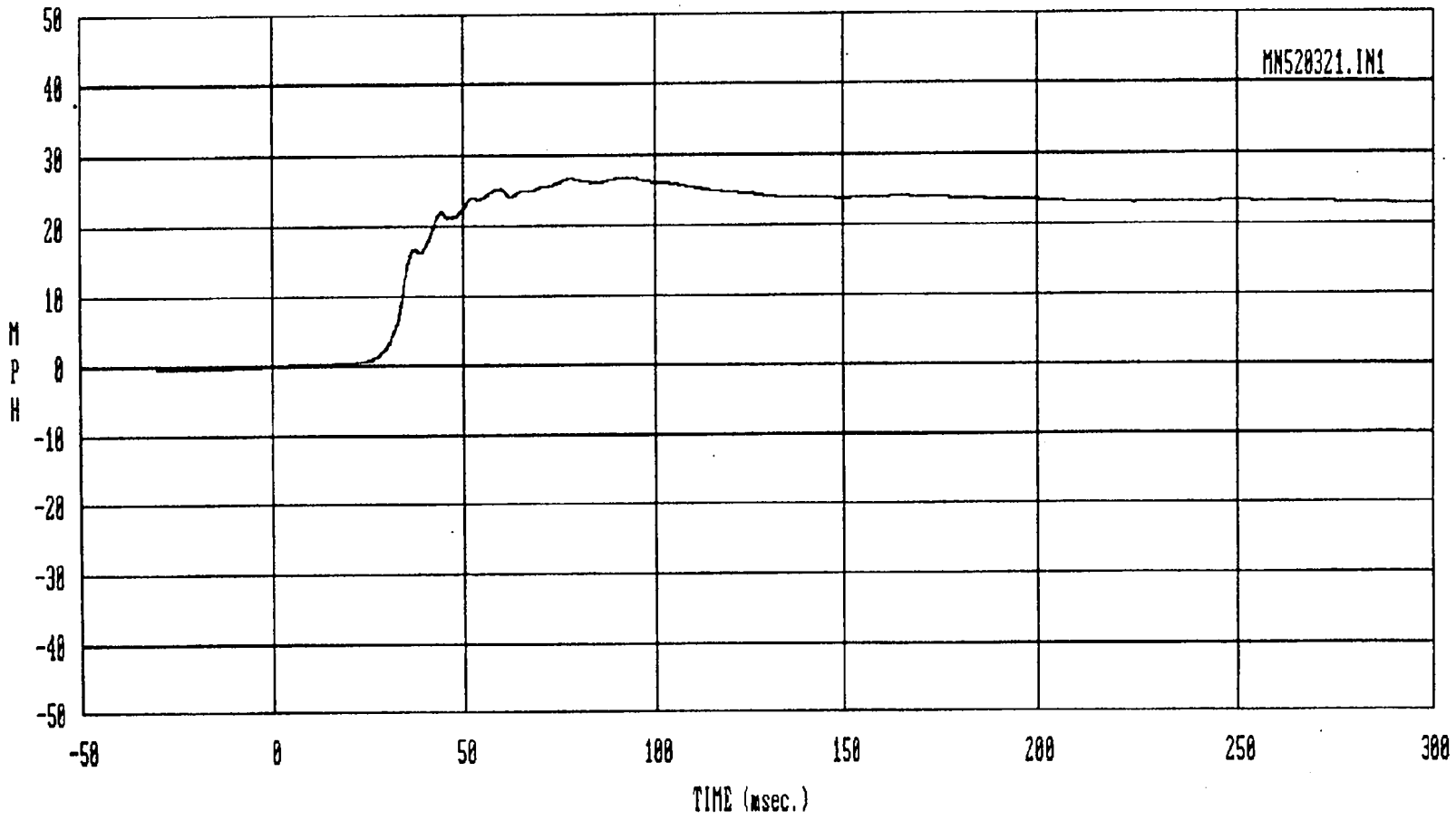
Curve: Passenger upper rib delta V -- Primary Filter: FIR 100 Max = 26.374 Min = .45387E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



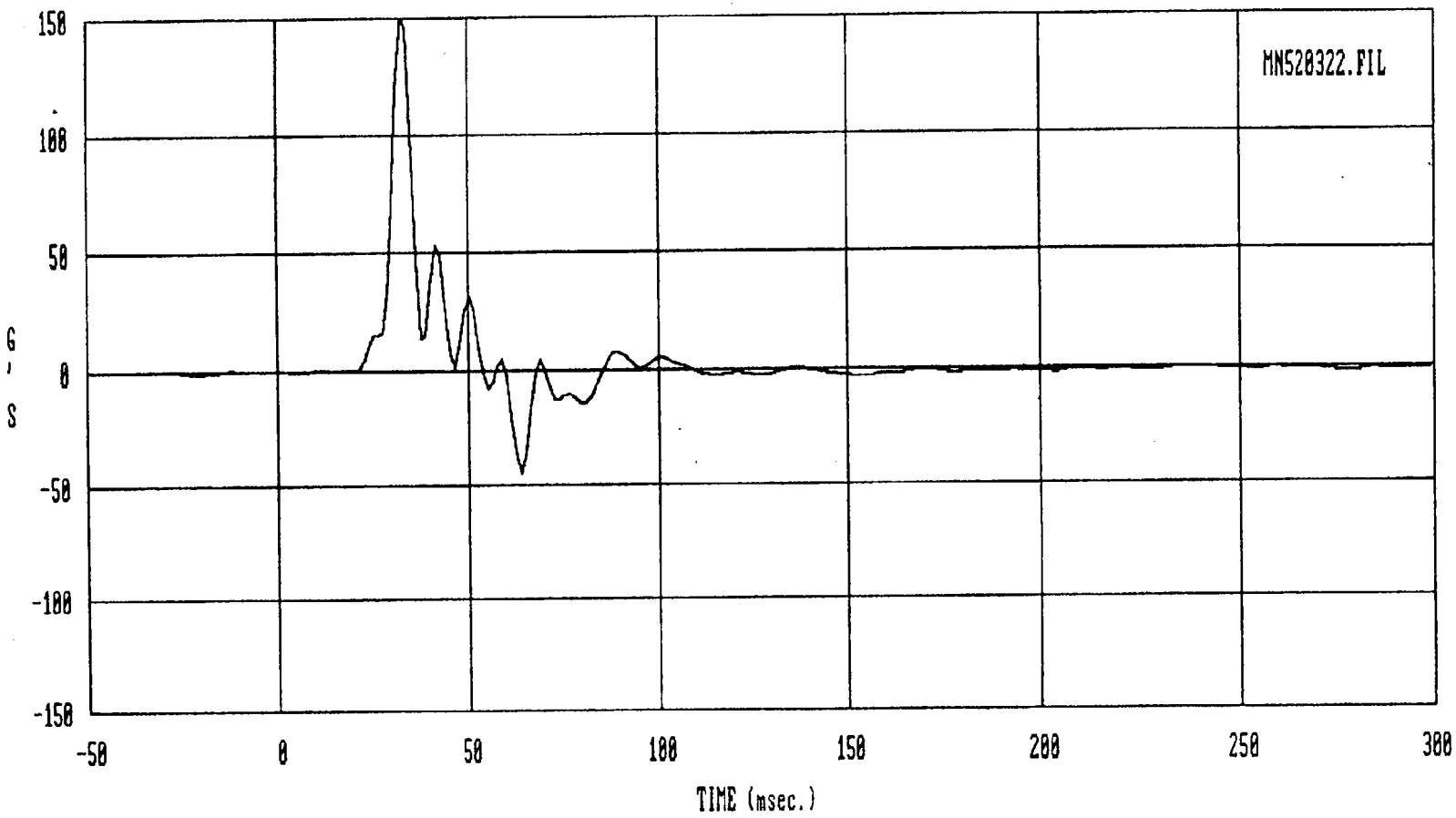
Curve: Passenger upper rib acceleration — Redundant Filter: FIR 100 Max = 126.54 Min = -13.820

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



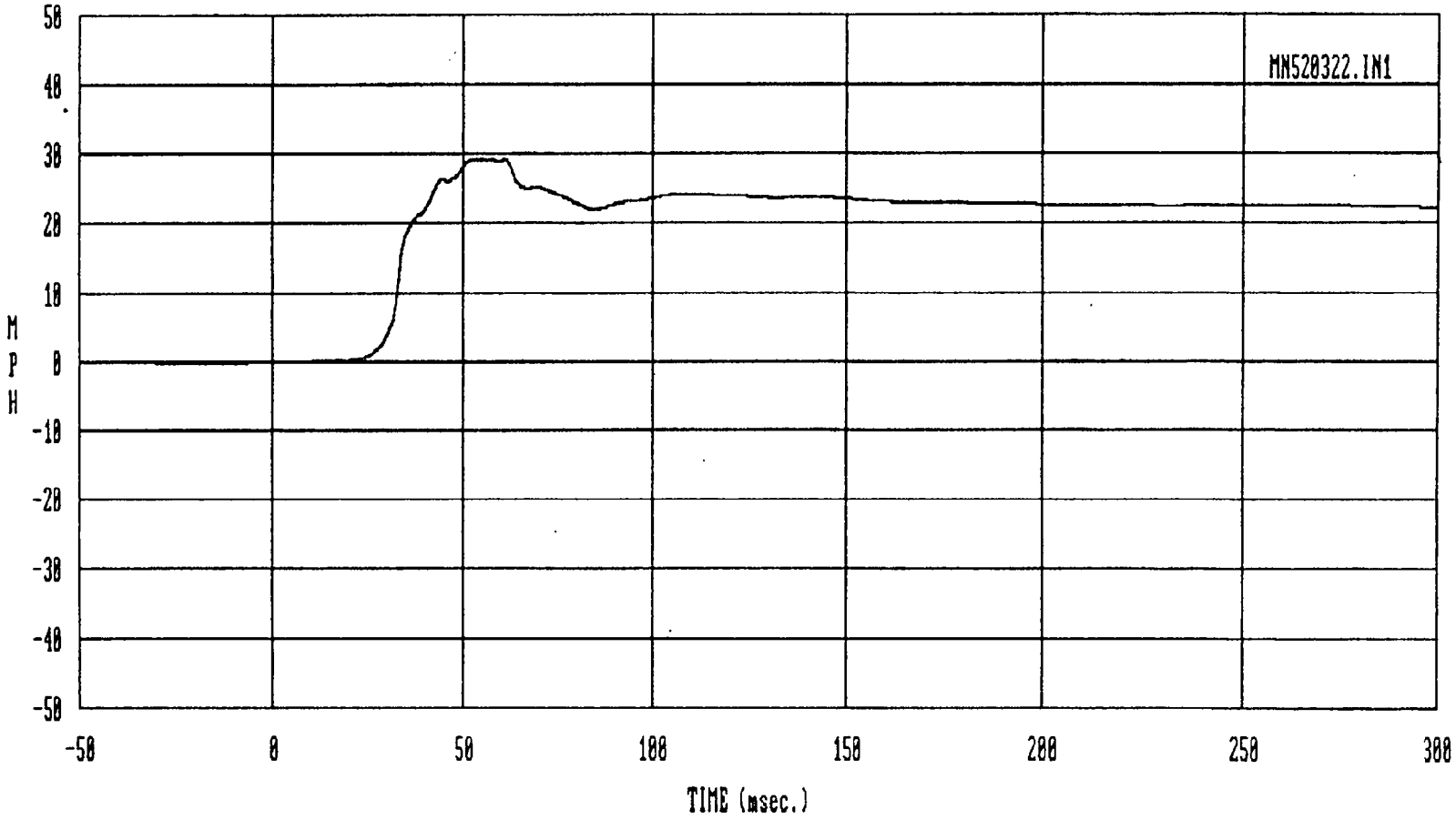
Curve: Passenger upper rib delta V -- Redundant Filter: FIR 100 Max = 26.818 Min = 16.270

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



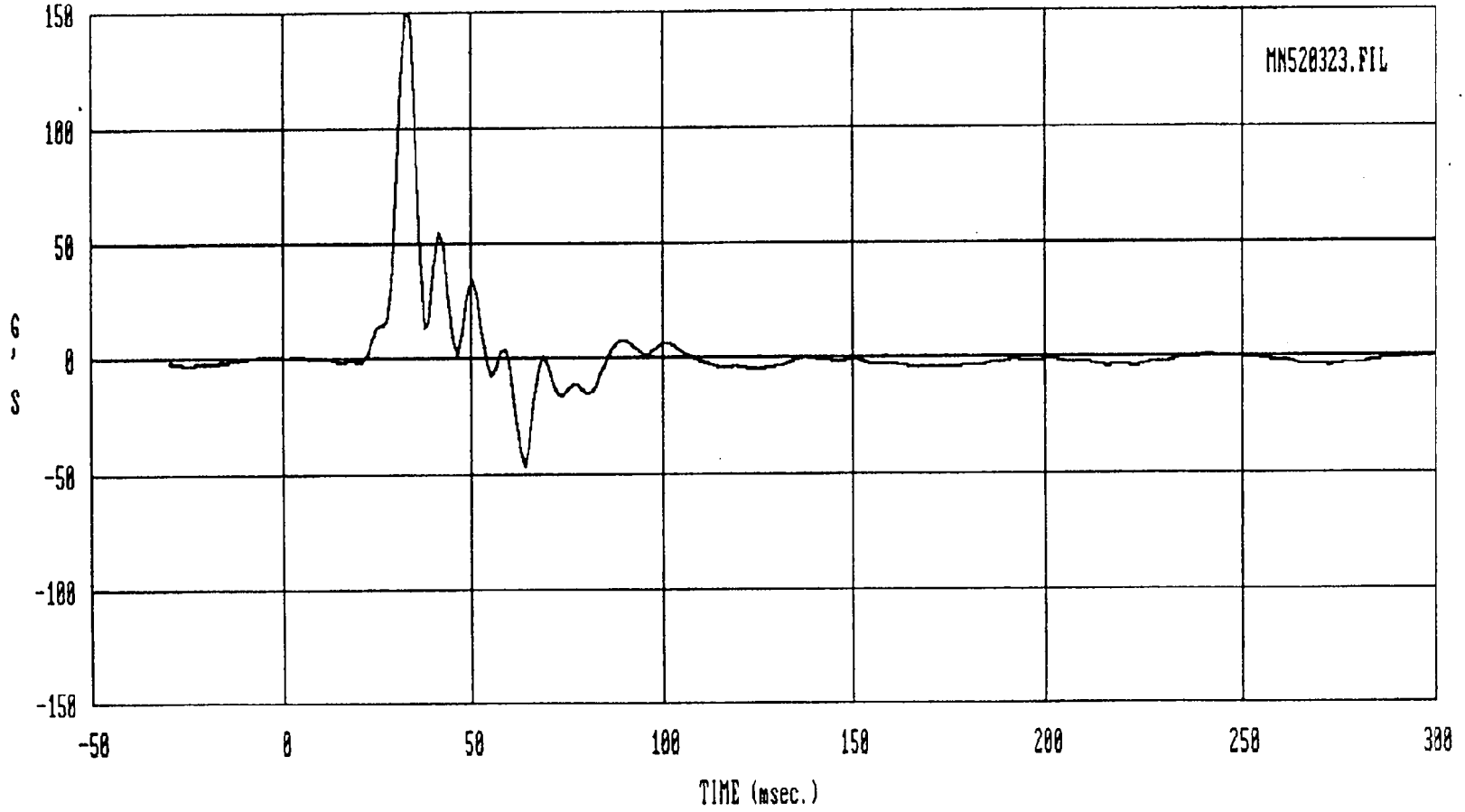
Curve: Passenger lower rib acceleration -- Primary Filter: FIR 100 Max = 154.16 Min = -44.535

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



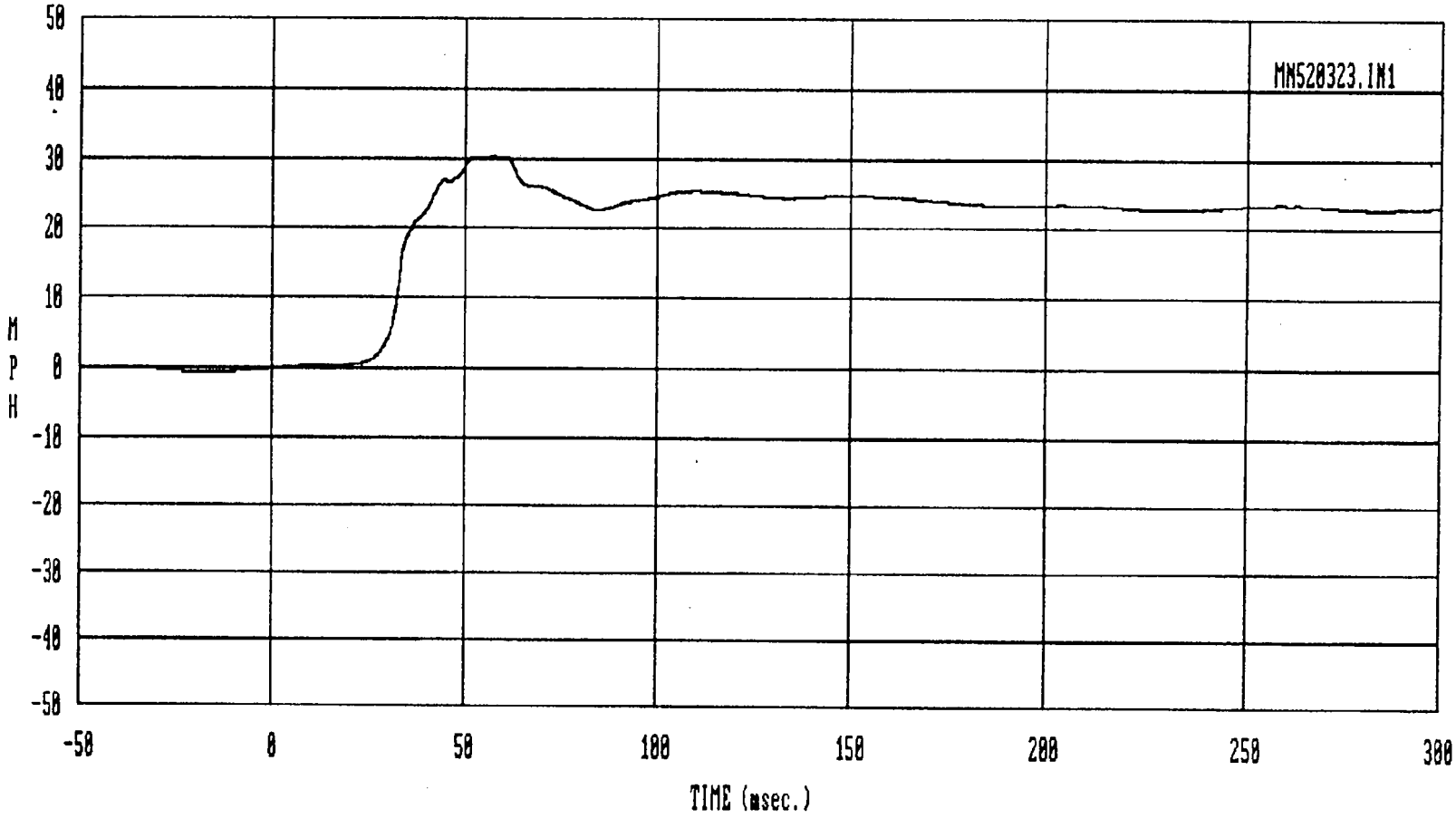
Curve: Passenger lower rib delta V -- Primary Filter: FIR 100 Max = 29.149 Min = .33220E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



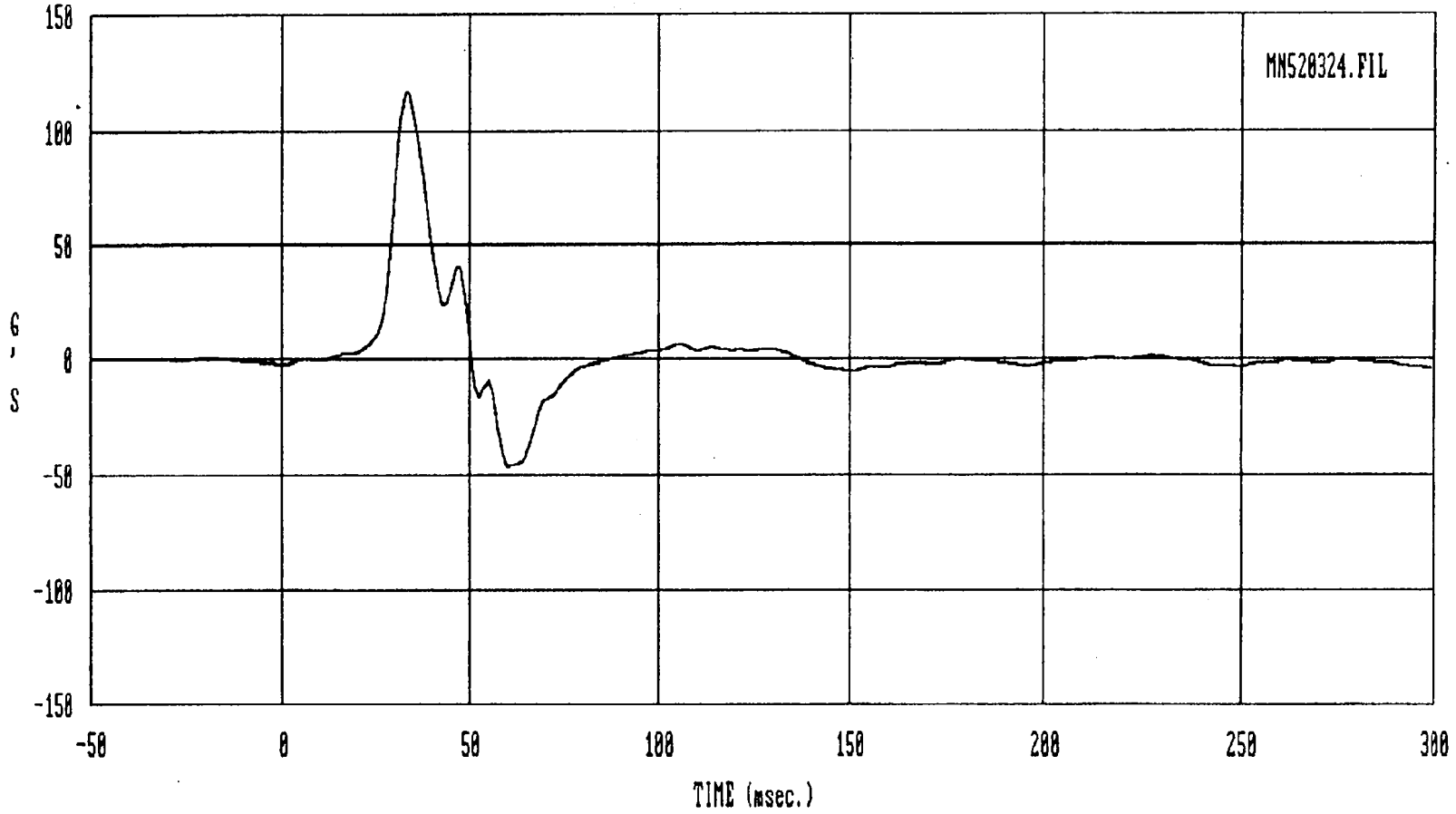
Curve: Passenger lower rib acceleration -- Redundant Filter: FIR 100 Max = 155.38 Min = -46.295

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



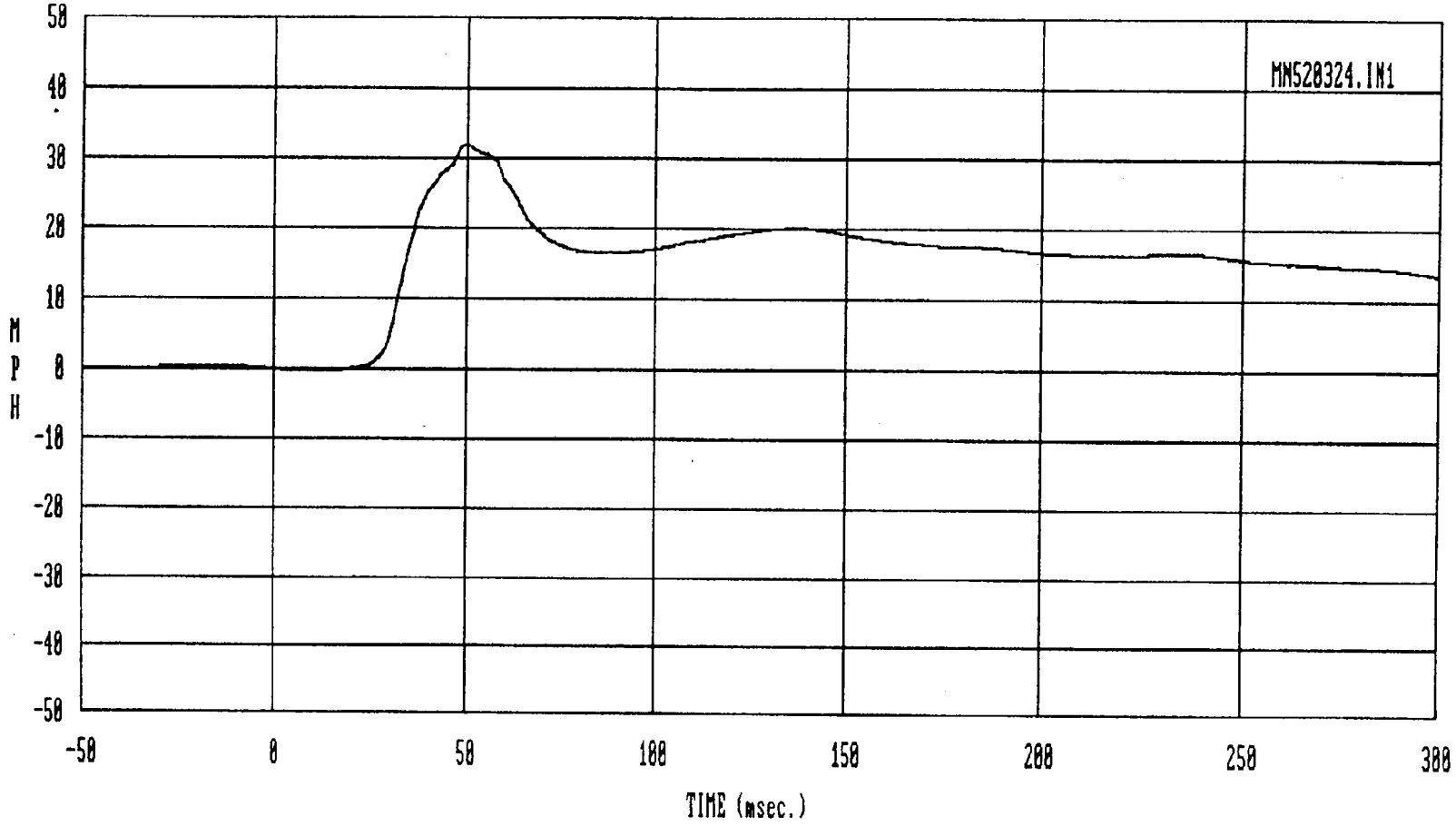
Curve: Passenger lower rib delta V -- Redundant Filter: FIR 100 Max = 30.384 Min = .47552

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



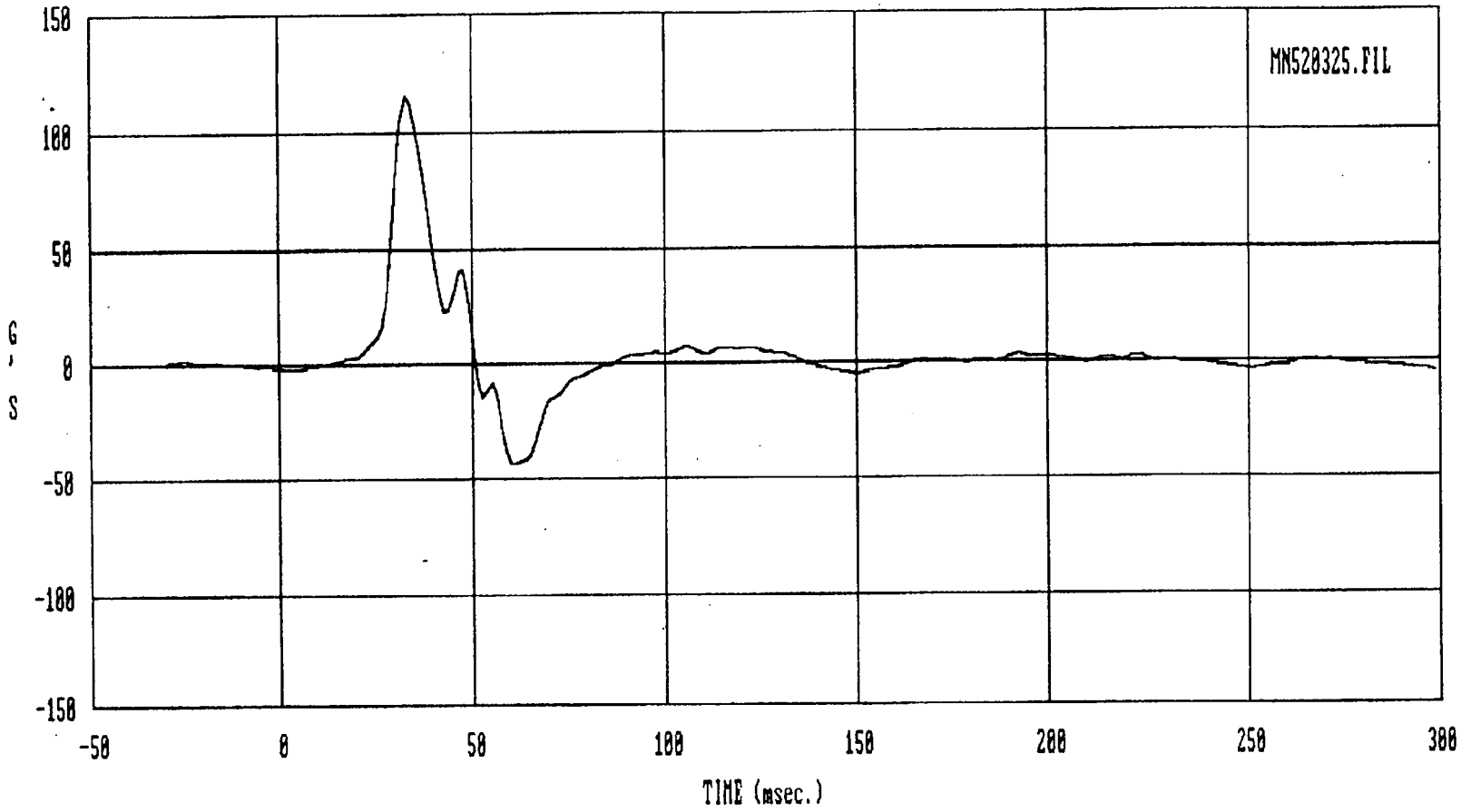
Curve: Passenger lower spine acceleration -- Primary Filter: FIR 100 Max = 118.42 Min = -46.714

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



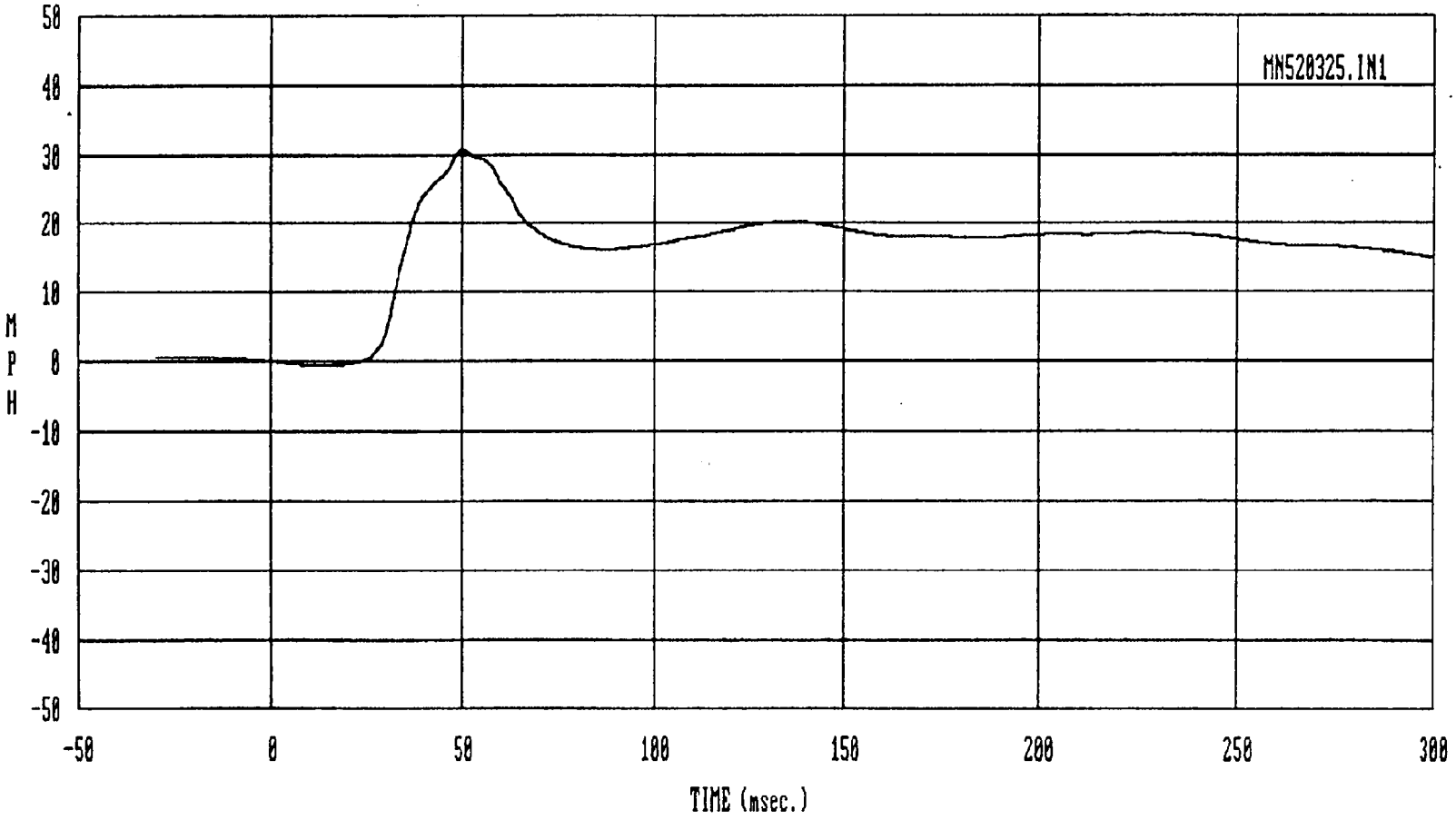
Curve: Passenger lower spine delta V -- Primary Filter: FIR 100 Max = 32.888 Min = -.24504

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



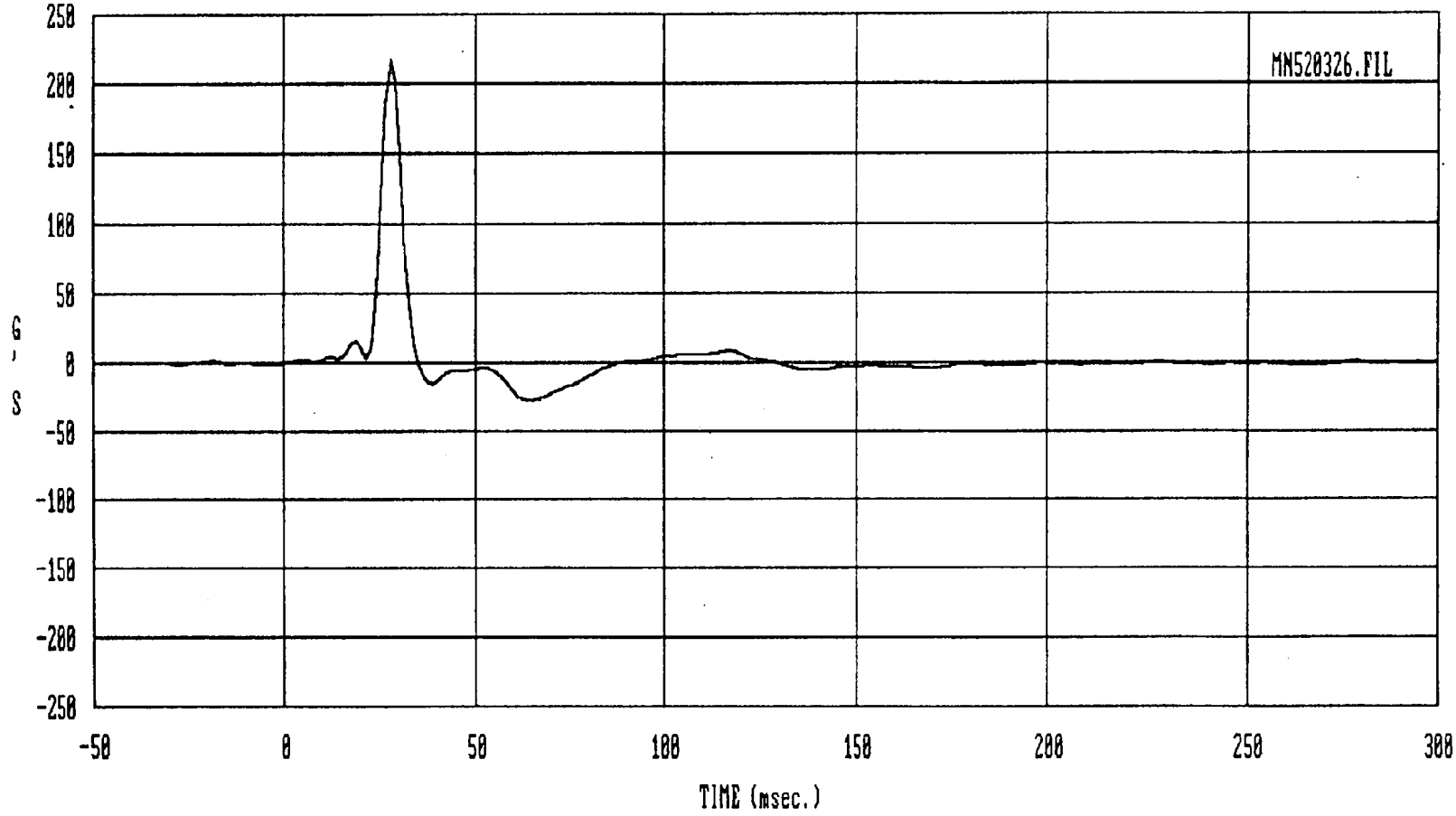
Curve: Passenger lower spine acceleration -- Redundant Filter: FIR 100 Max = 115.82 Min = -43.951

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



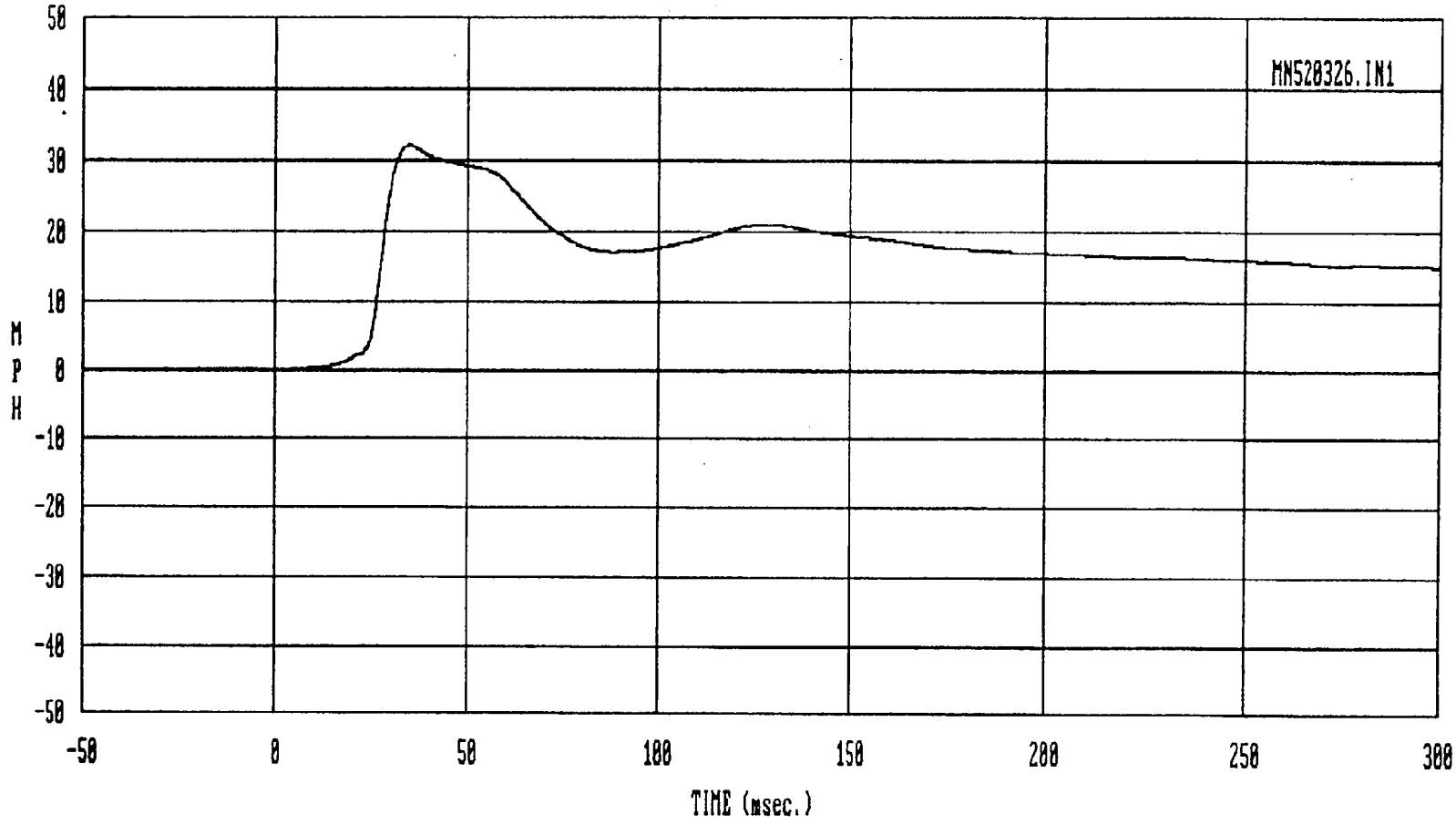
Curve: Passenger lower spine delta V -- Redundant Filter: FIR 100 Max = 30.763 Min = -.63139

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



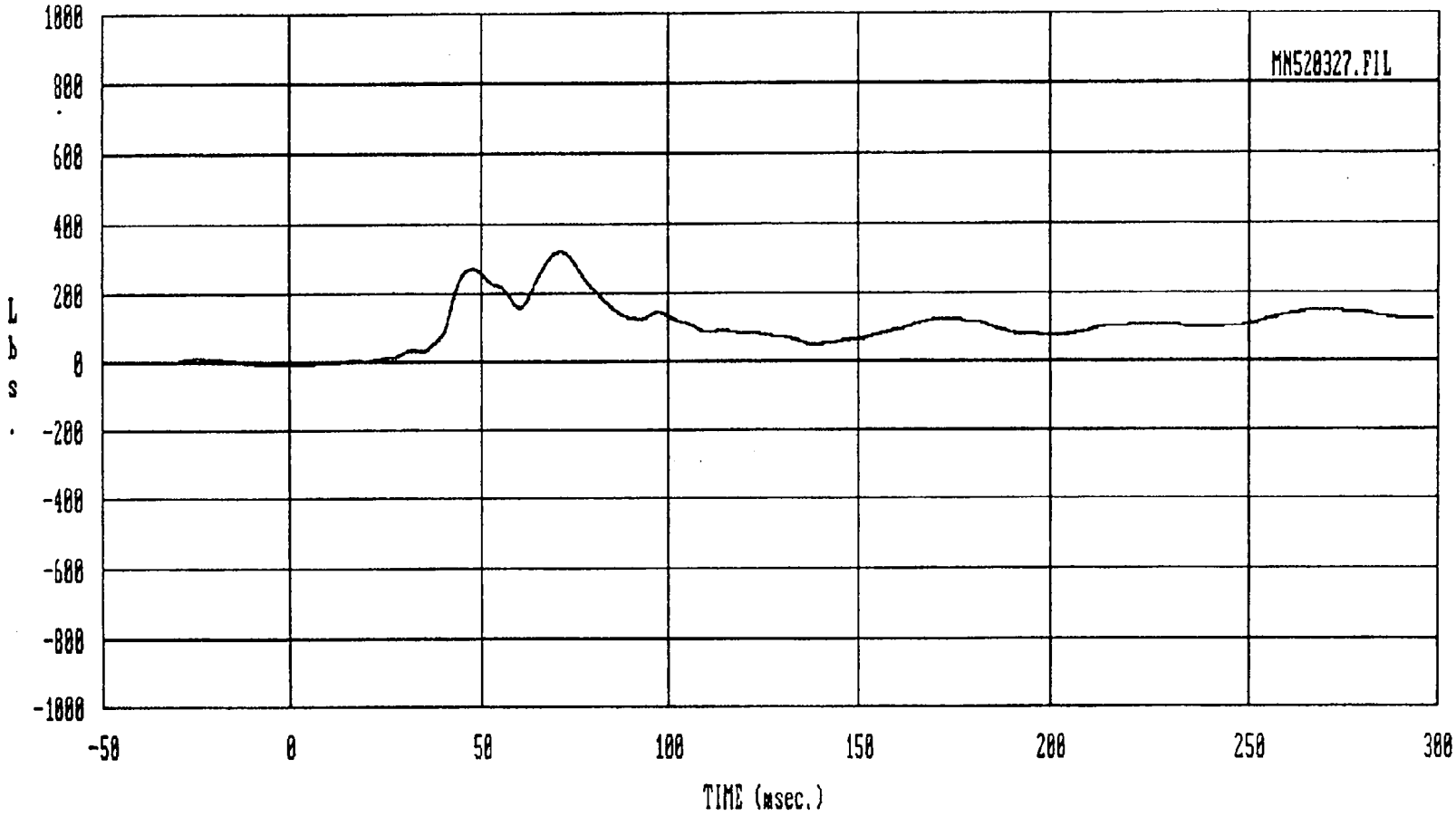
Curve: Passenger pelvis acceleration Filter: FIR 100 Max = 218.19 Min = -27.169

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



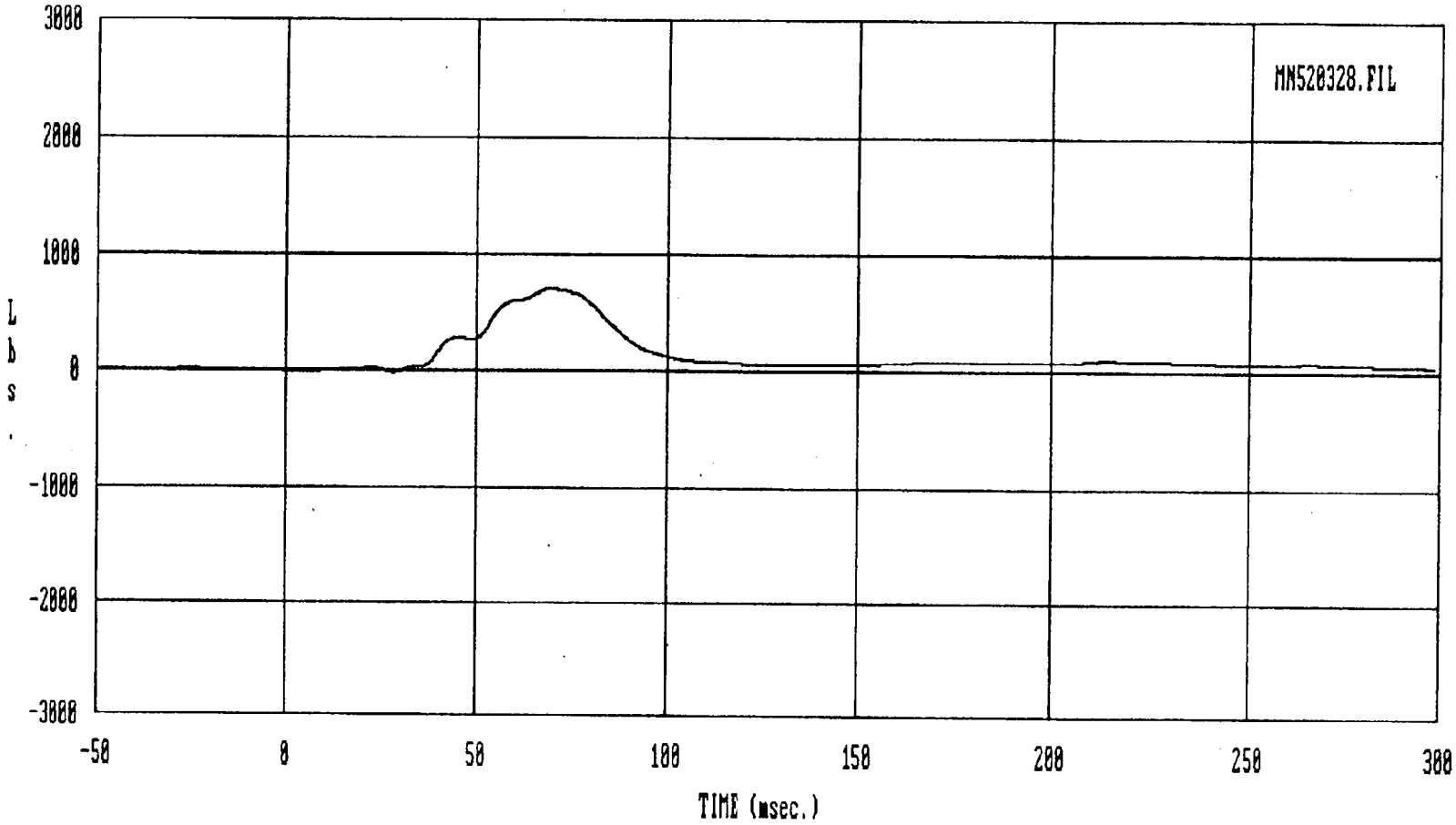
Curve: Passenger pelvis delta V Filter: FIR 100 Max = 32.196 Min = 15.184

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



Curve: Passenger lap belt load Filter: SAE CLASS 60 Max = 321.74 Min = -8.5925

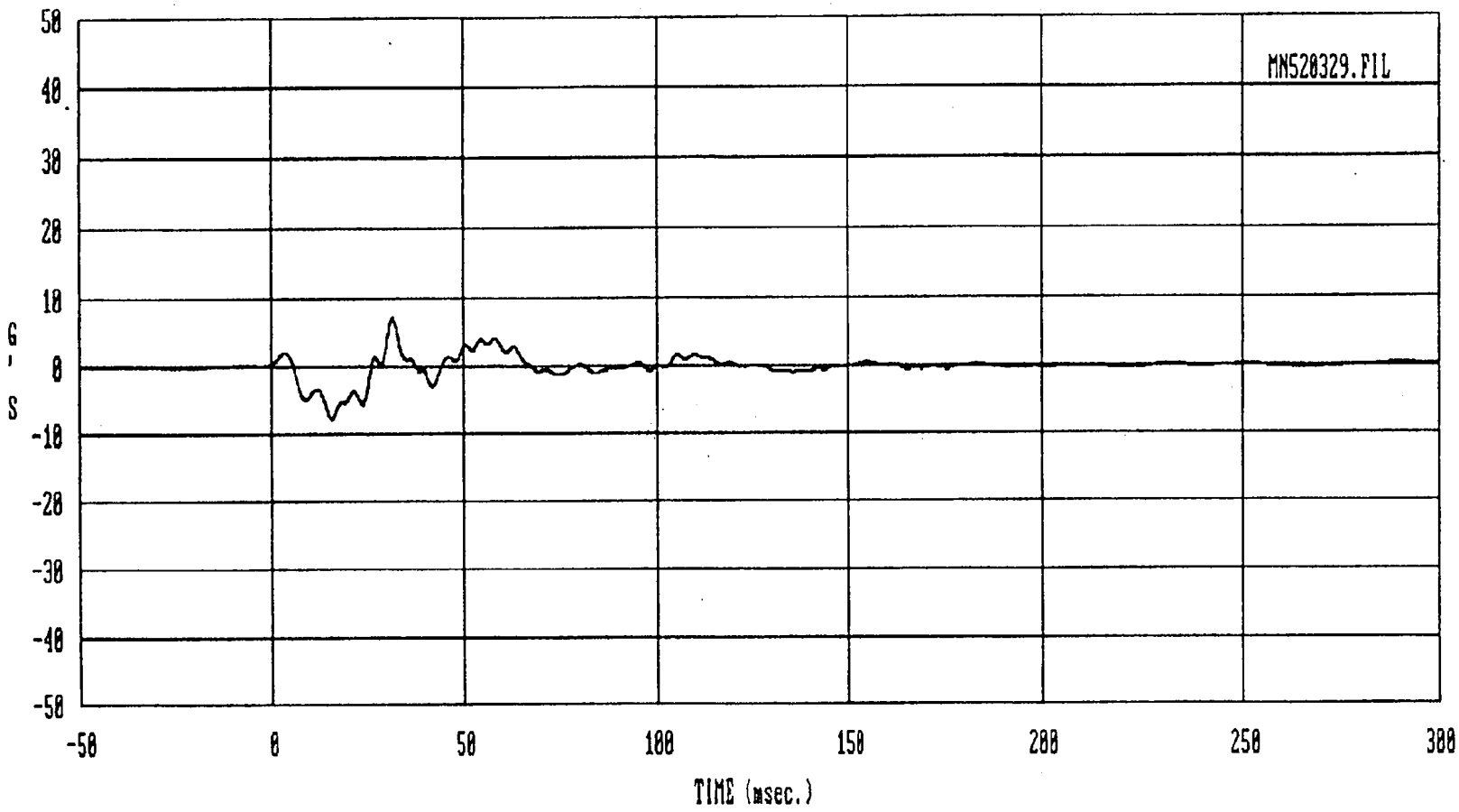
MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



Curve: Passenger shoulder belt load Filter: SAE CLASS 60 Max = 706.92 Min = -17.828

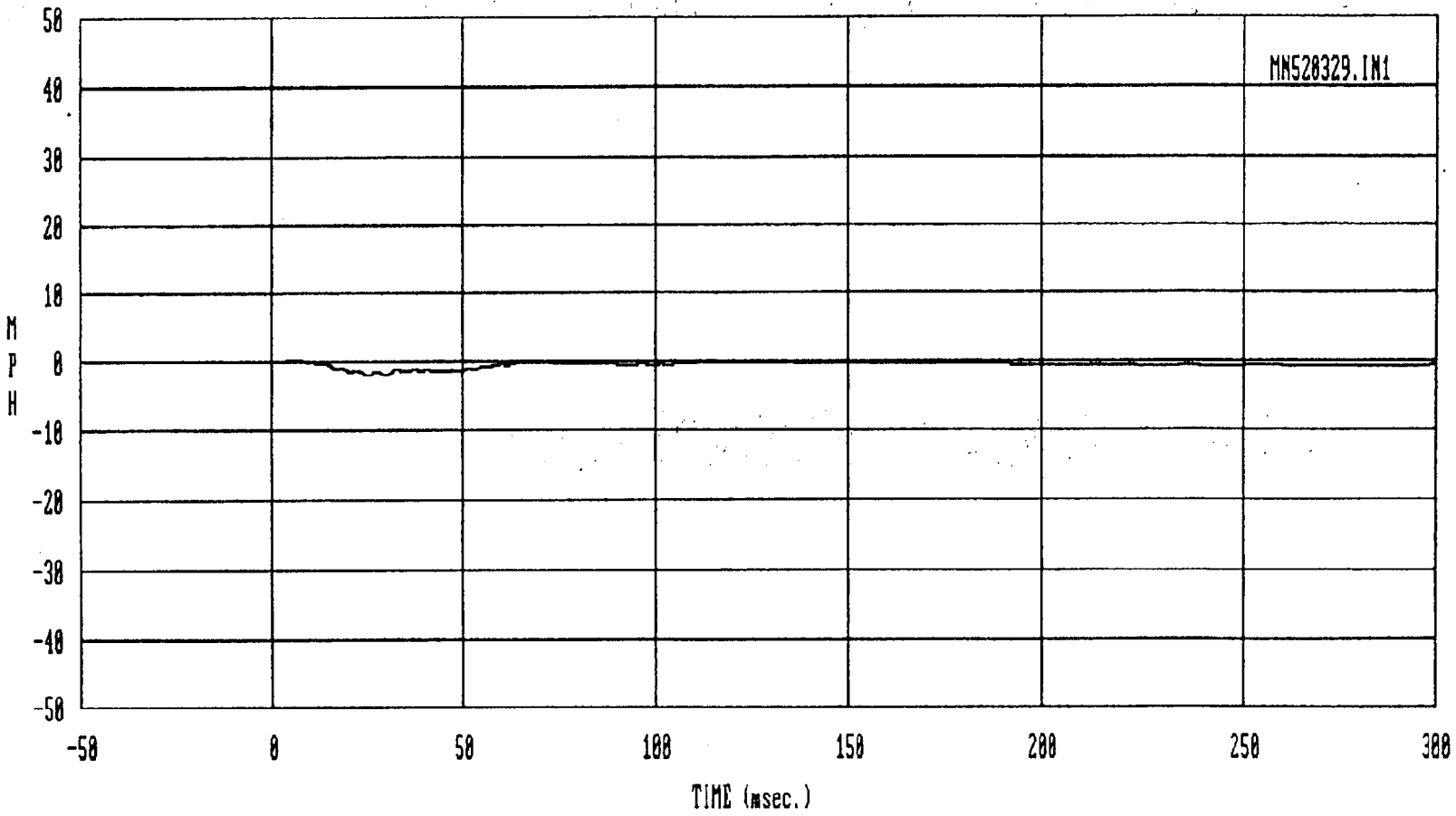
MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra

VEHICLE ACCELEROMETER DATA



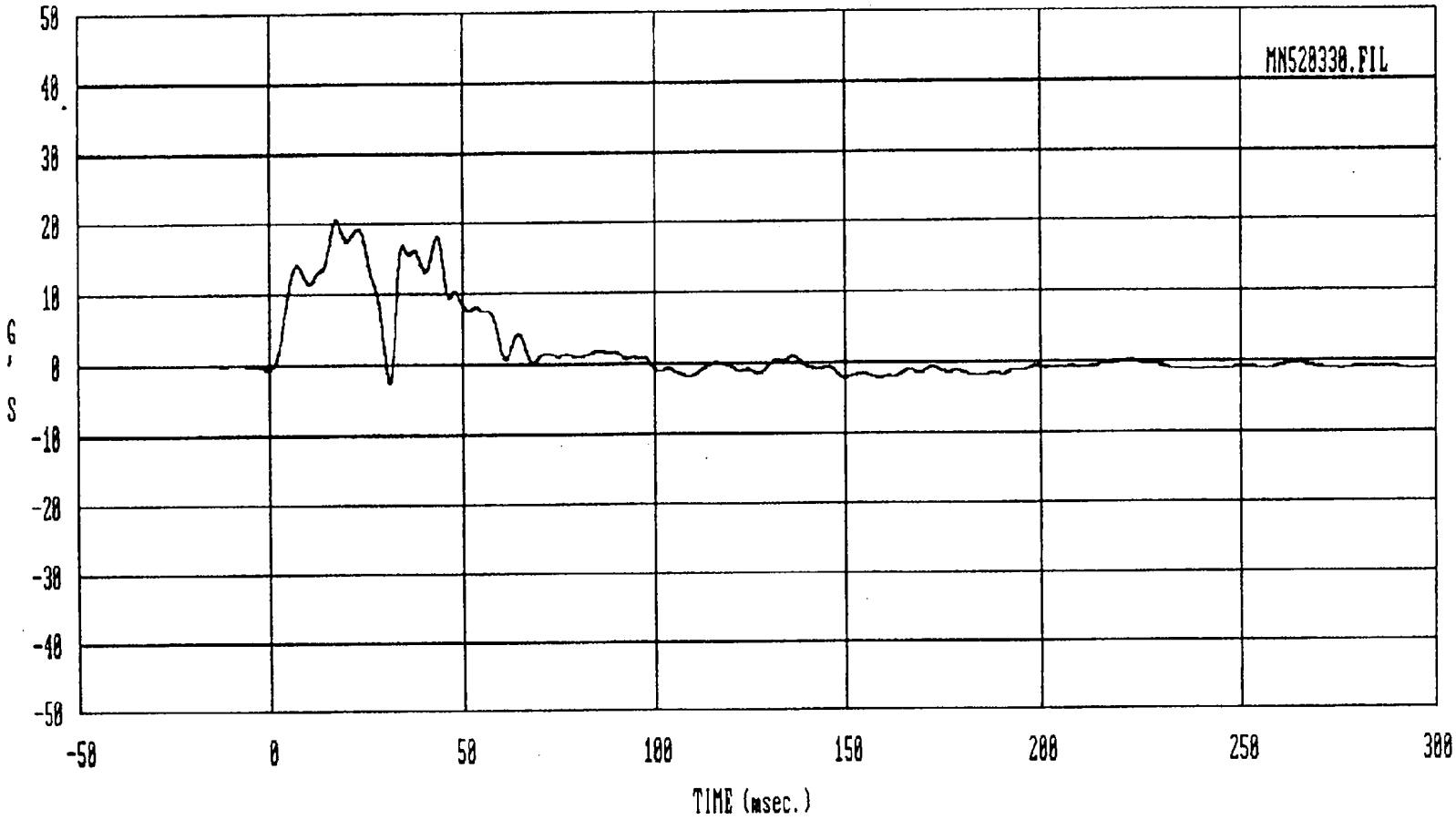
Curve: Front seat right sill acceleration — X axis Filter: SAE CLASS 60 Max = 7.2455 Min = -7.8474

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



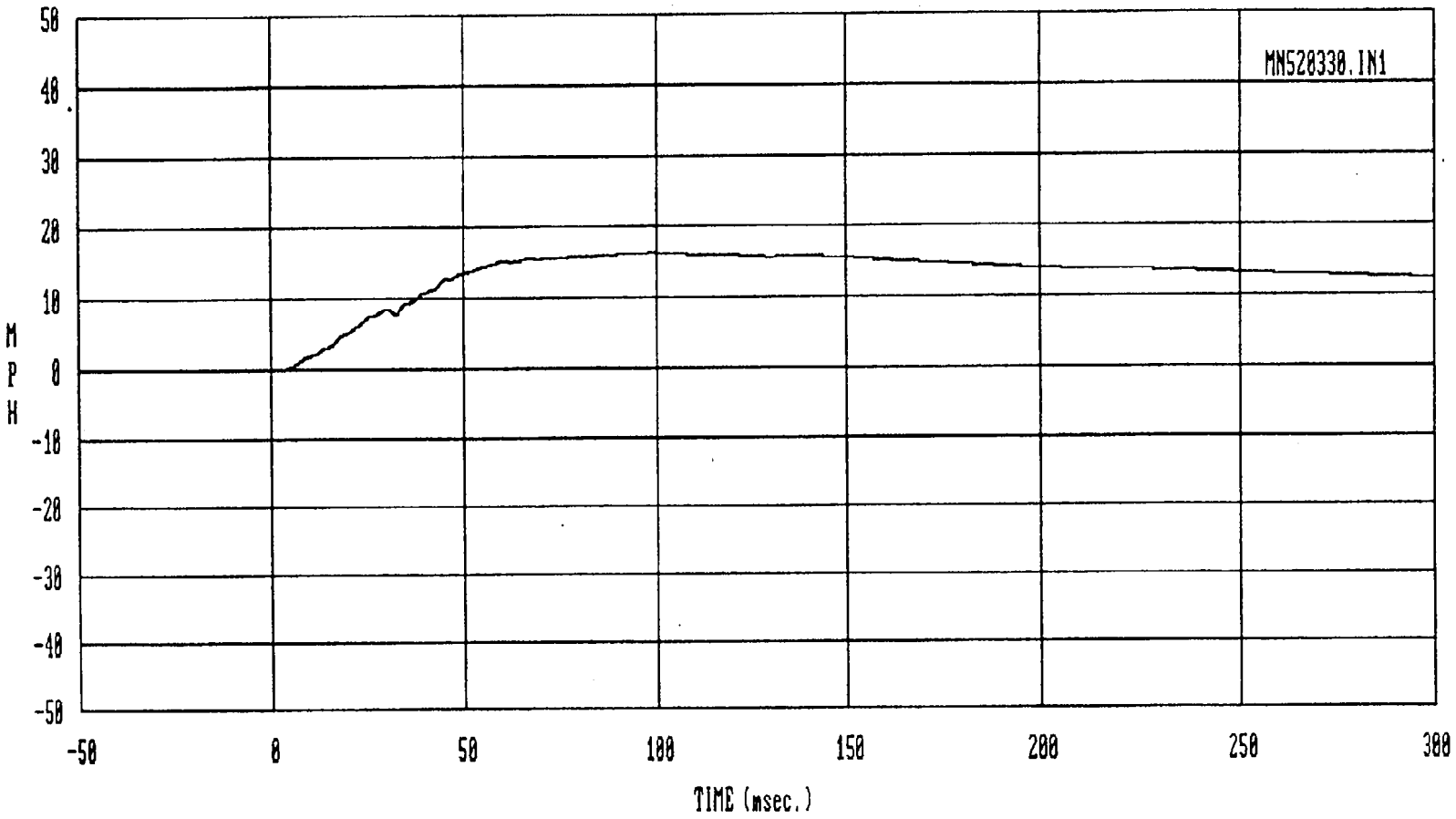
Curve: Front seat right sill delta V -- X axis Filter: SAE CLASS 180 Max = .20823 Min = -2.8312

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



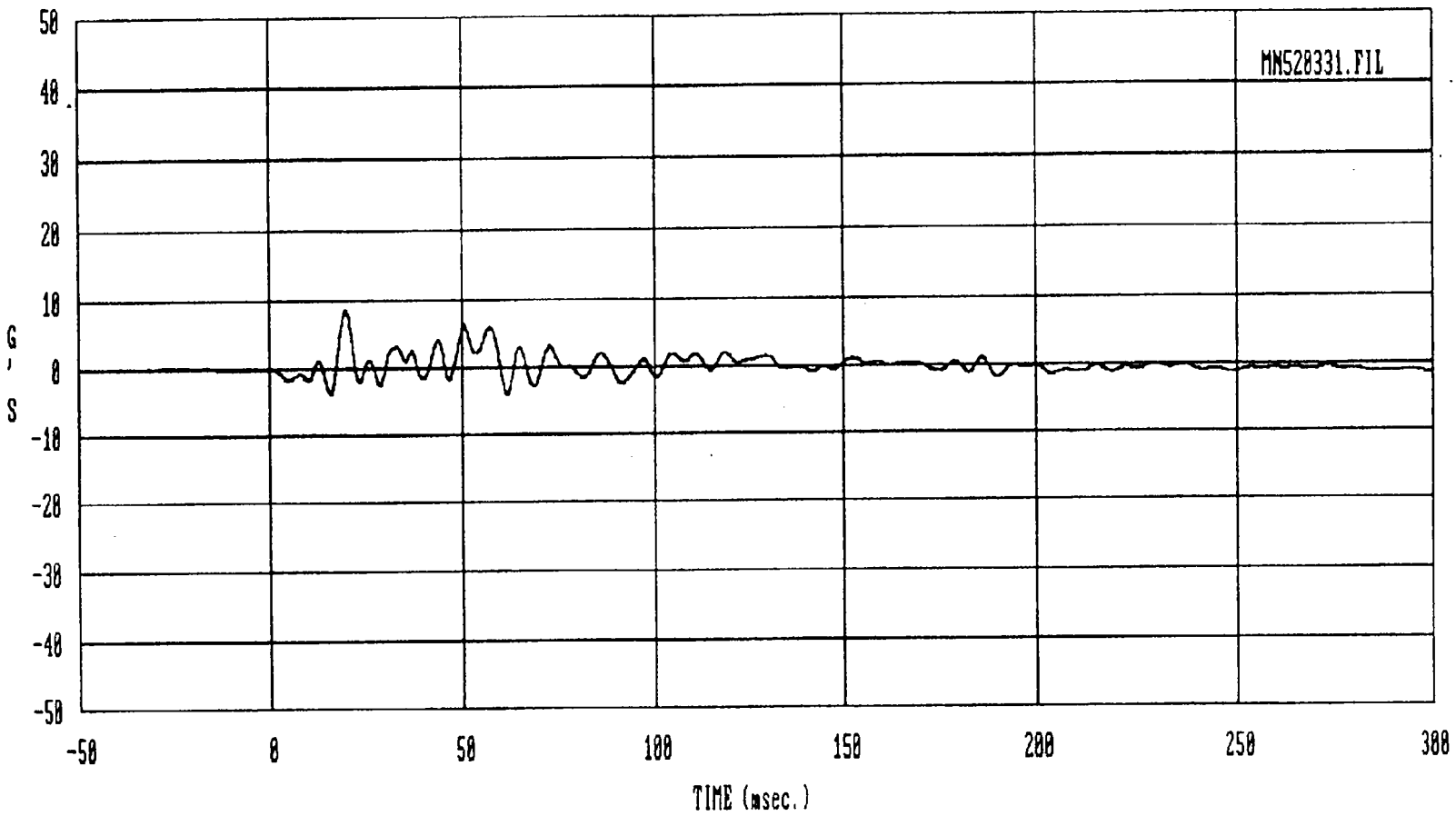
Curve: Front seat right sill acceleration -- Y axis Filter: SAE CLASS 60 Max = 28.632 Min = -2.5148

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



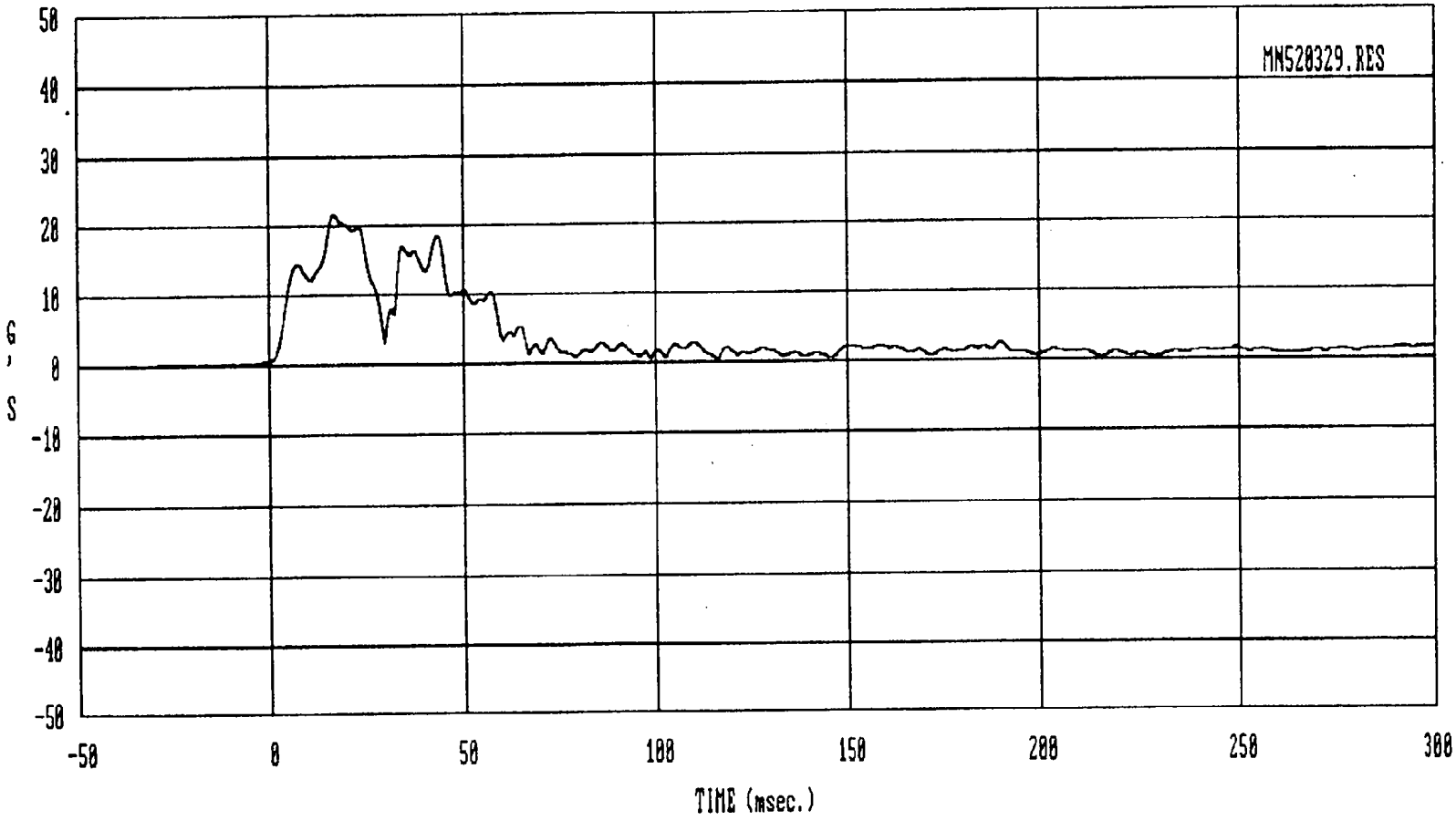
Curve: Front seat right sill delta V -- Y axis Filter: SAE CLASS 180 Max = 16.268 Min = -.11433E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



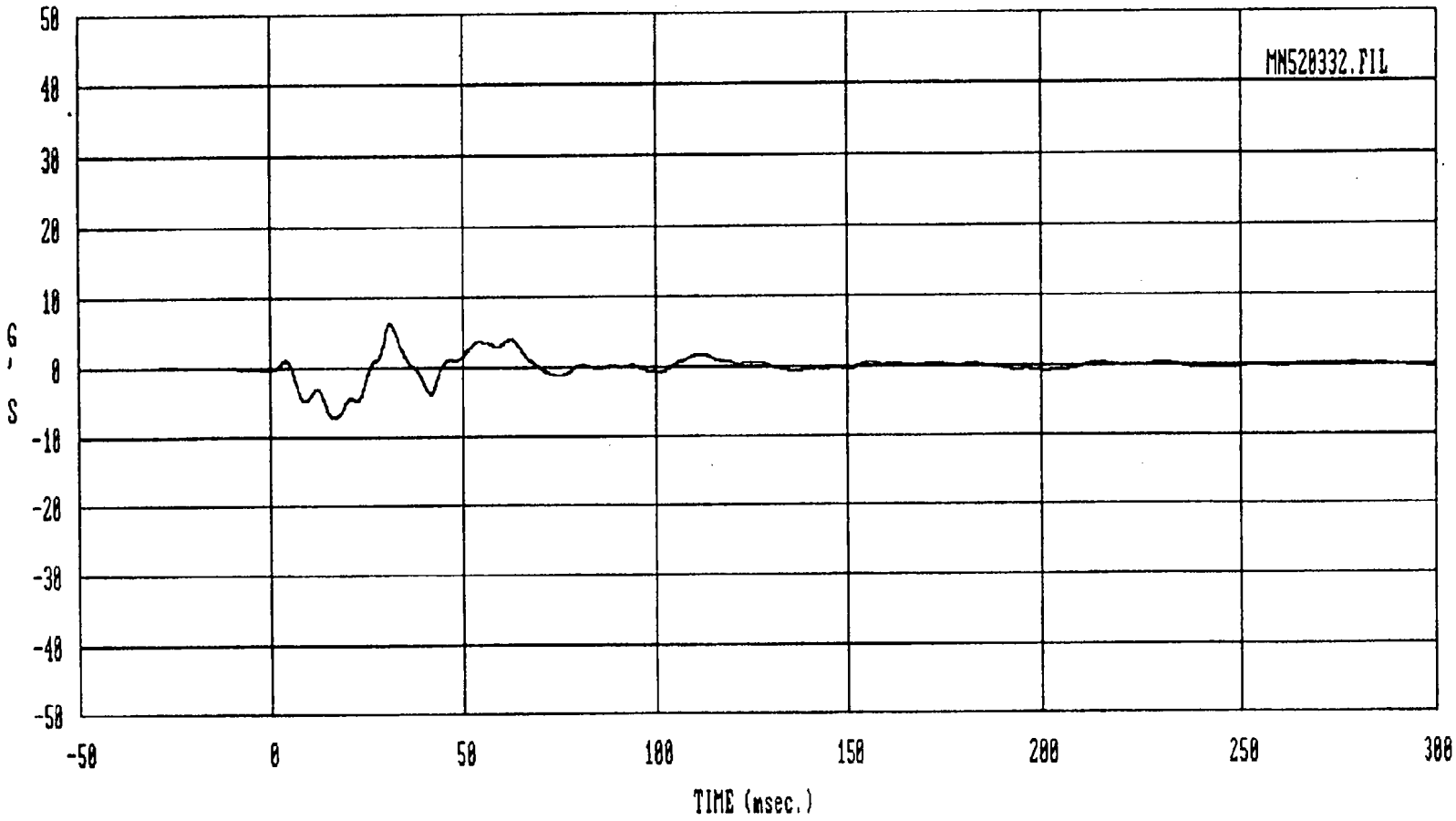
Curve: Front seat right sill acceleration -- Z axis Filter: SAE CLASS 60 Max = 8.6418 Min = -3.9455

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



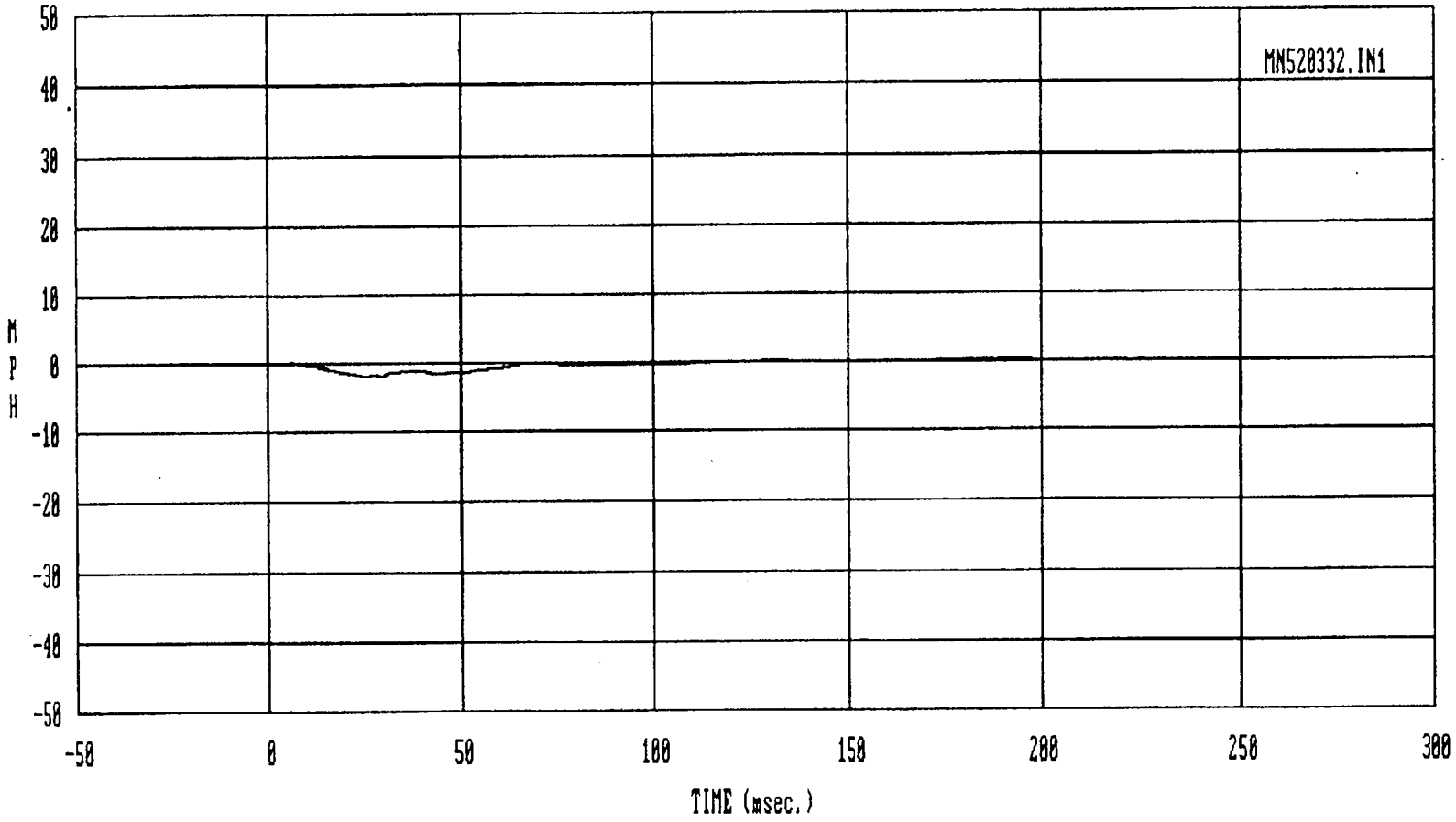
Curve: Front seat right sill resultant acceleration Filter: SAE CLASS 60 Max = 21.620 Min = .31866

MSE Date: 06/26/92 Program: Side Impact 34/17 90 Deg. Vehicle: 1992 Nissan Sentra



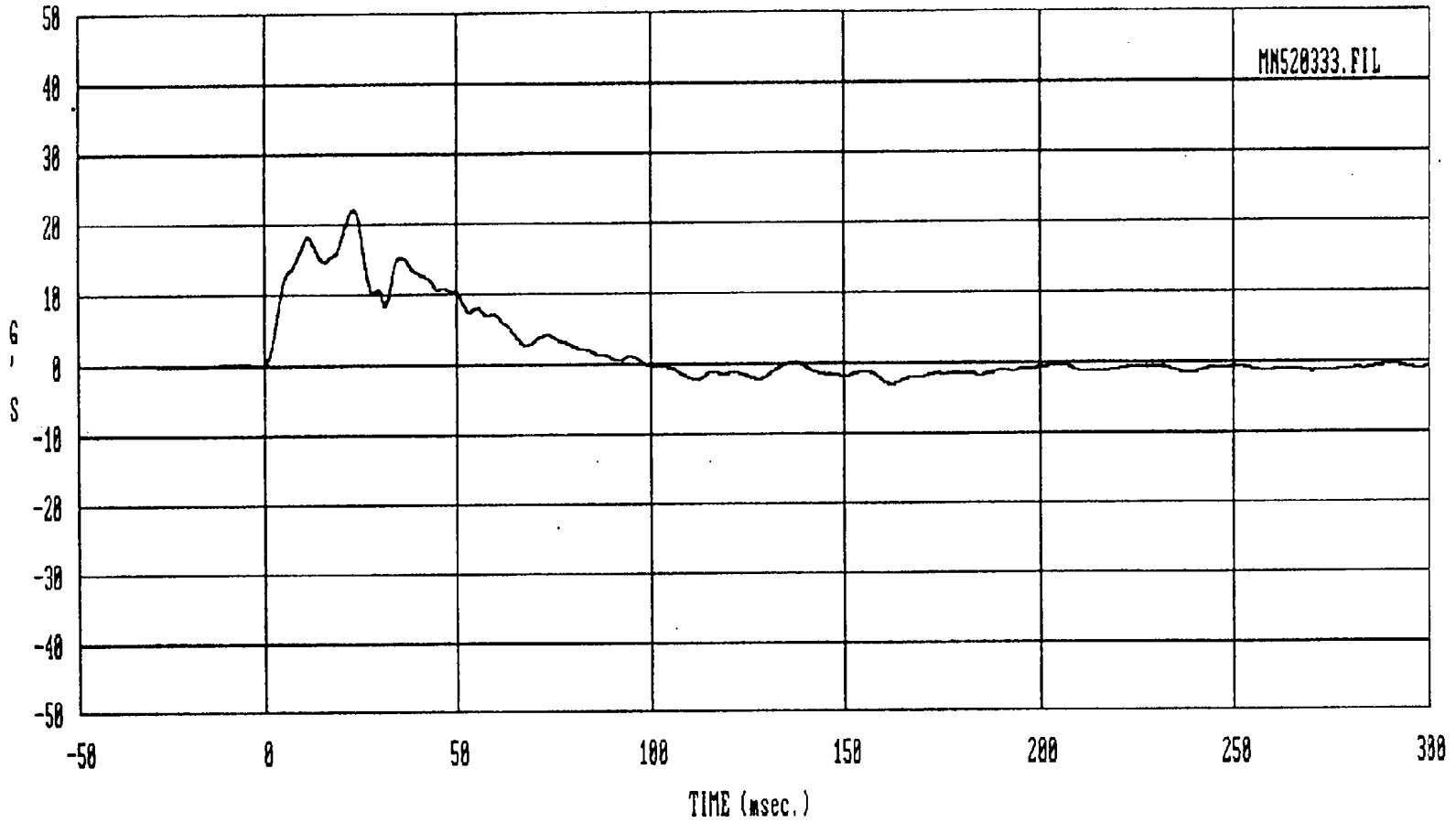
Curve: Rear seat right sill acceleration -- X axis Filter: SAE CLASS 60 Max = 6.3740 Min = -7.0564

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



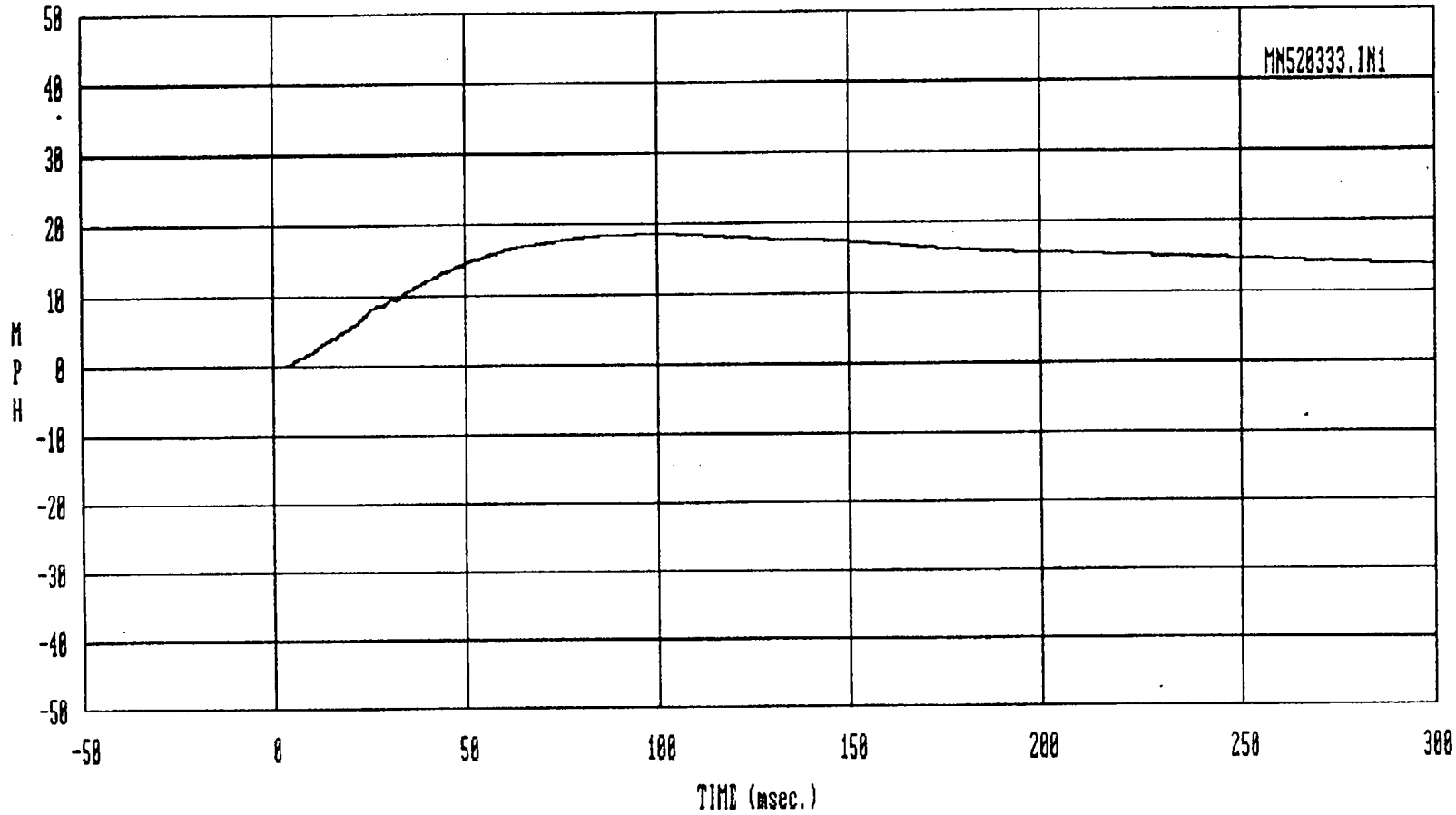
Curve: Rear seat right sill delta V -- X axis Filter: SAE CLASS 180 Max = .19687 Min = -1.9692

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



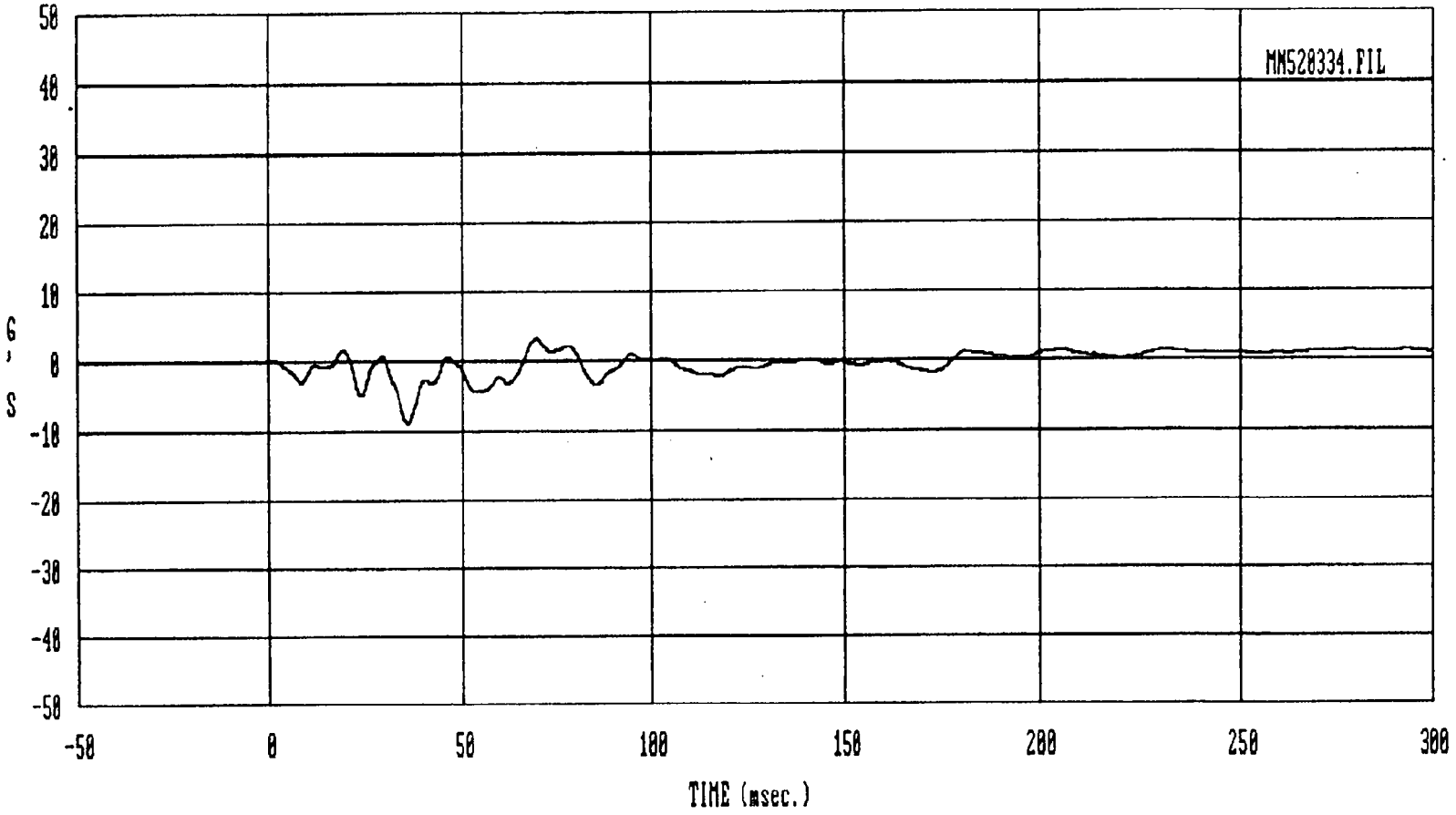
Curve: Rear seat right sill acceleration -- Y axis Filter: SAE CLASS 60 Max = 22.090 Min = -2.9124

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



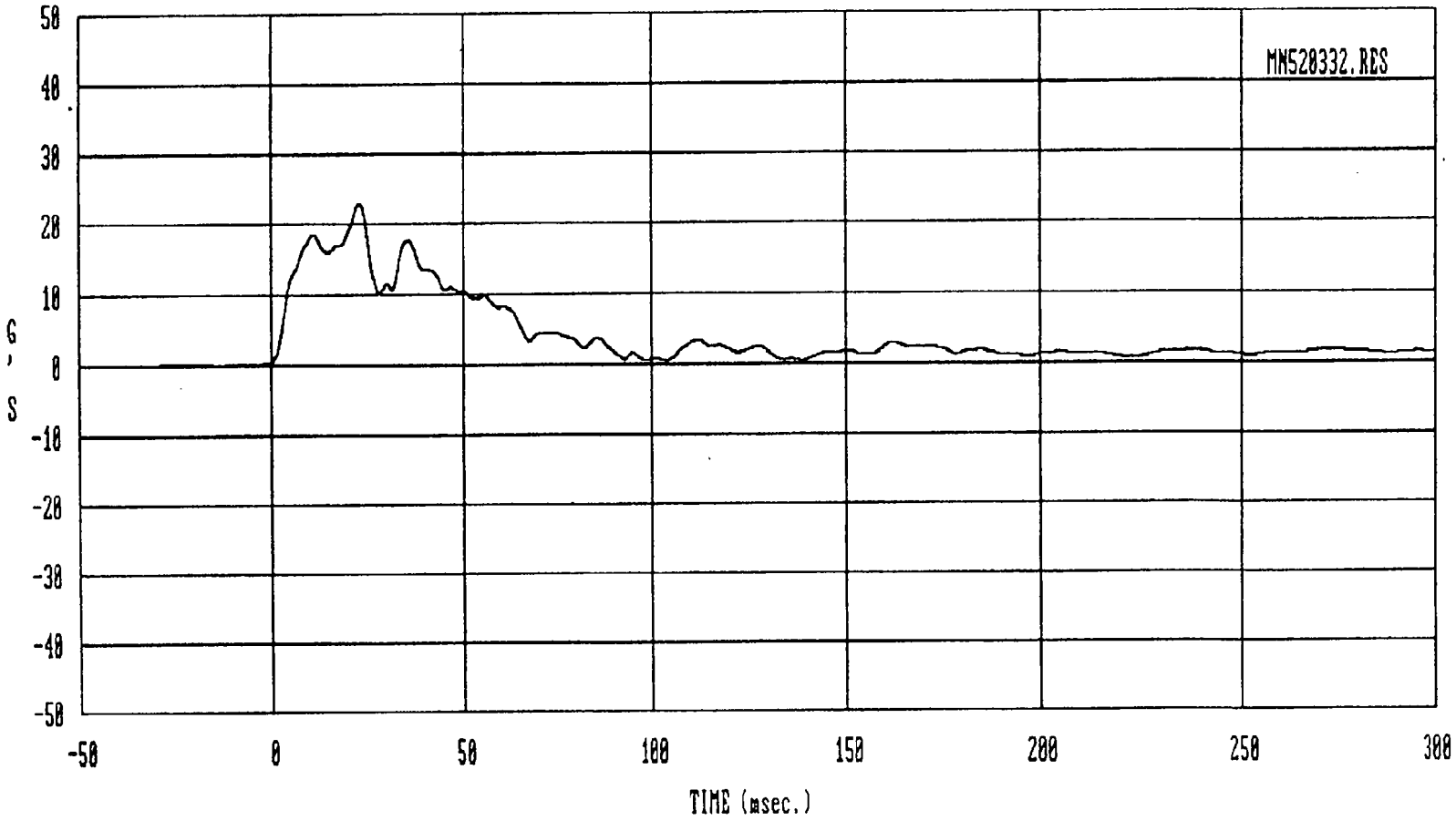
Curve: Rear seat right sill delta V -- Y axis Filter: SAE CLASS 180 Max = 18.644 Min = -.33226E-02

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



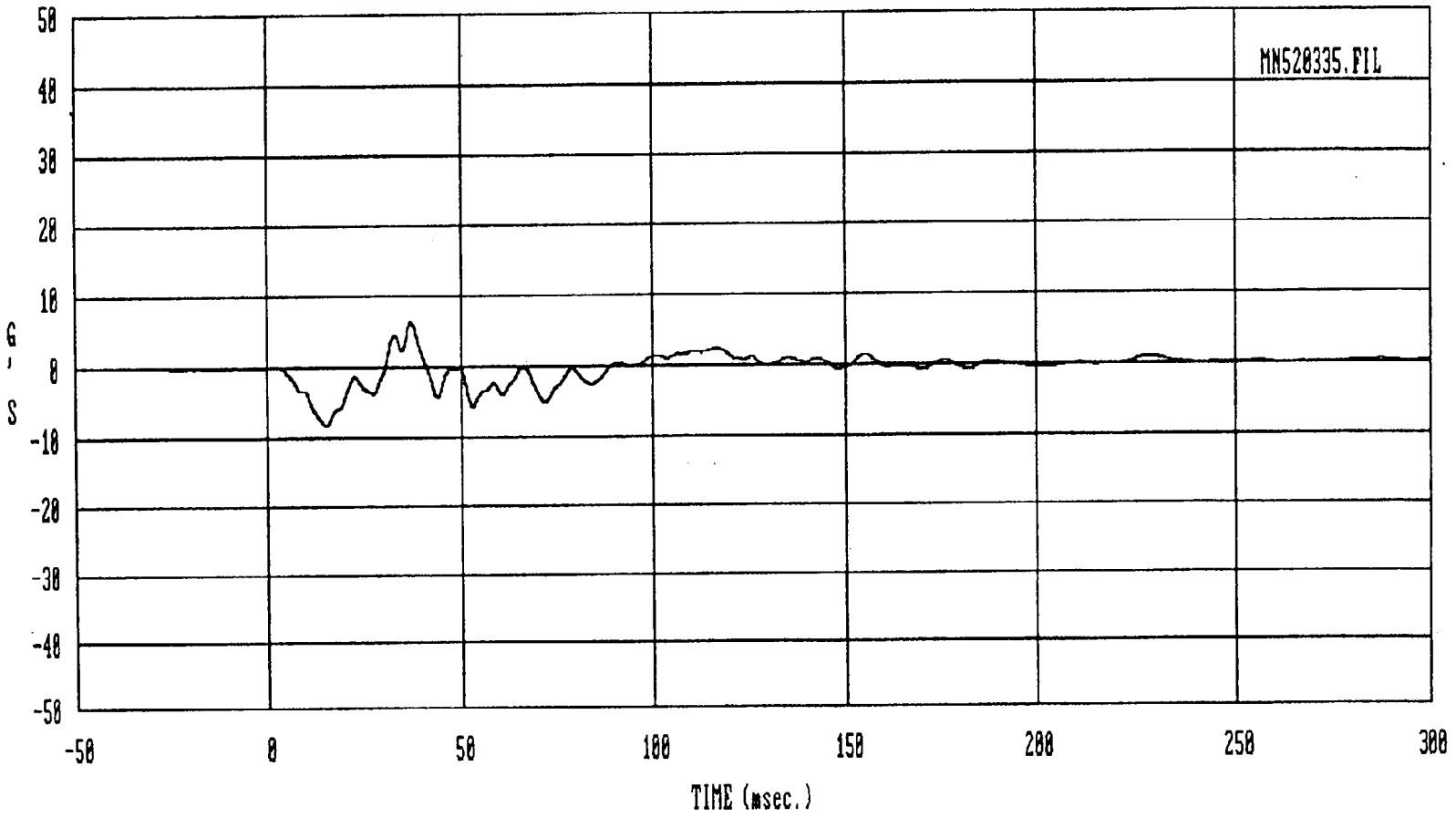
Curve: Rear seat right sill acceleration — Z axis Filter: SAE CLASS 60 Max = 3.2777 Min = -8.9745

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



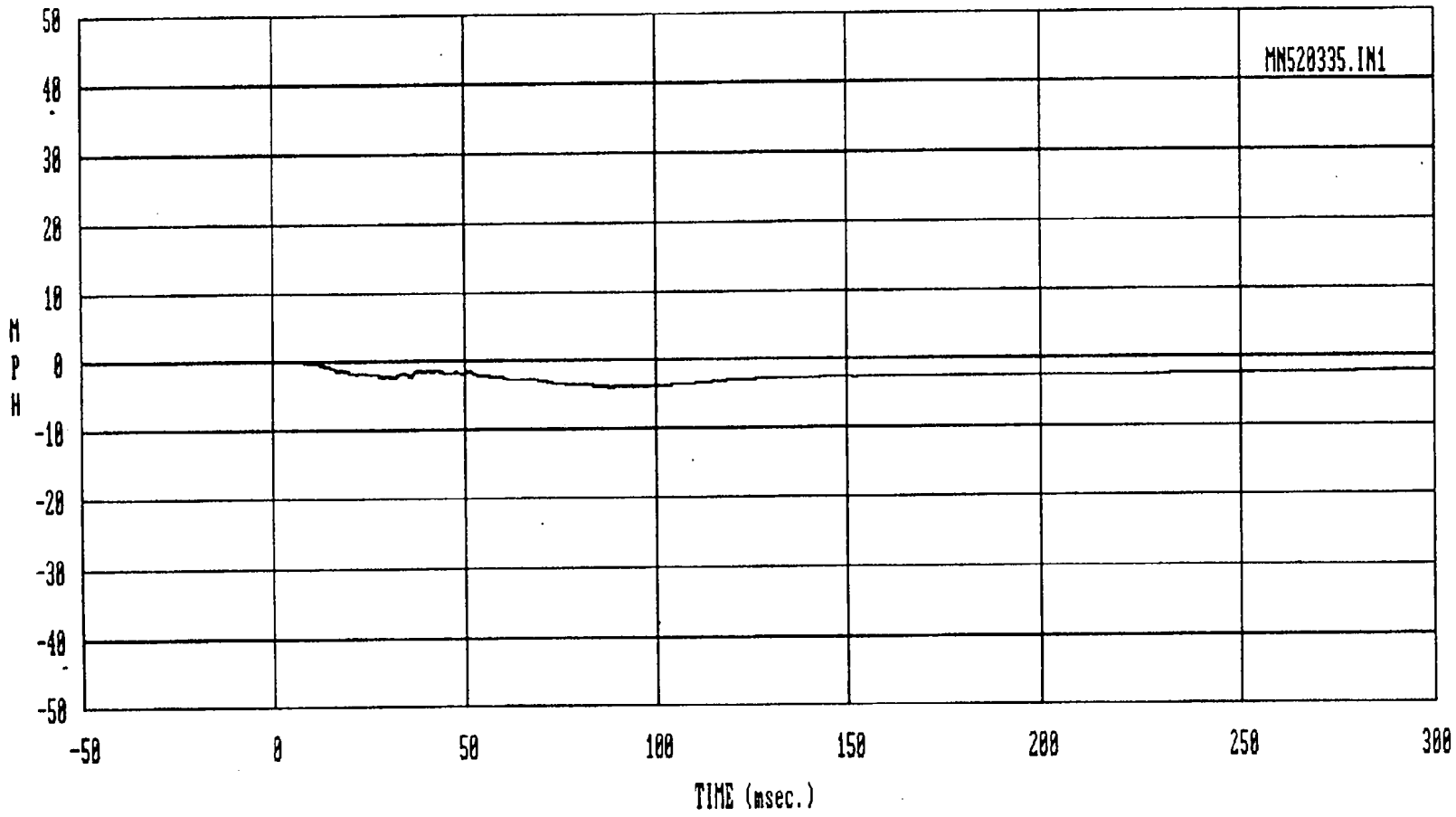
Curve: Rear seat right sill resultant acceleration Filter: SAE CLASS 60 Max = 22.987 Min = .45543

MSE Date: 06/26/92 Program: Side Impact 34/17 90 Deg. Vehicle: 1992 Nissan Sentra



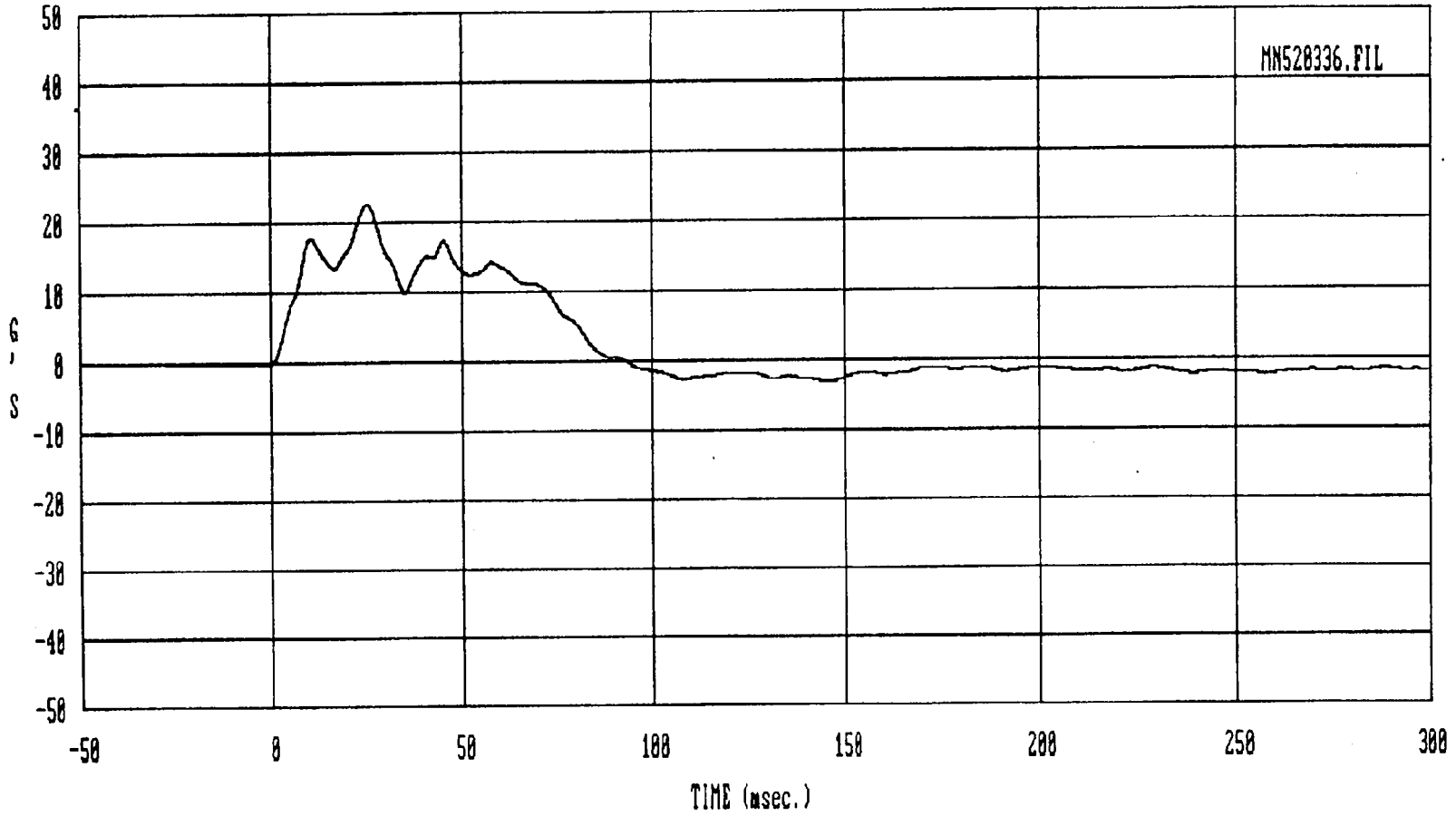
Curve: Rear floor above axle acceleration — X axis Filter: SAE CLASS 60 Max = 6.4054 Min = -8.2017

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



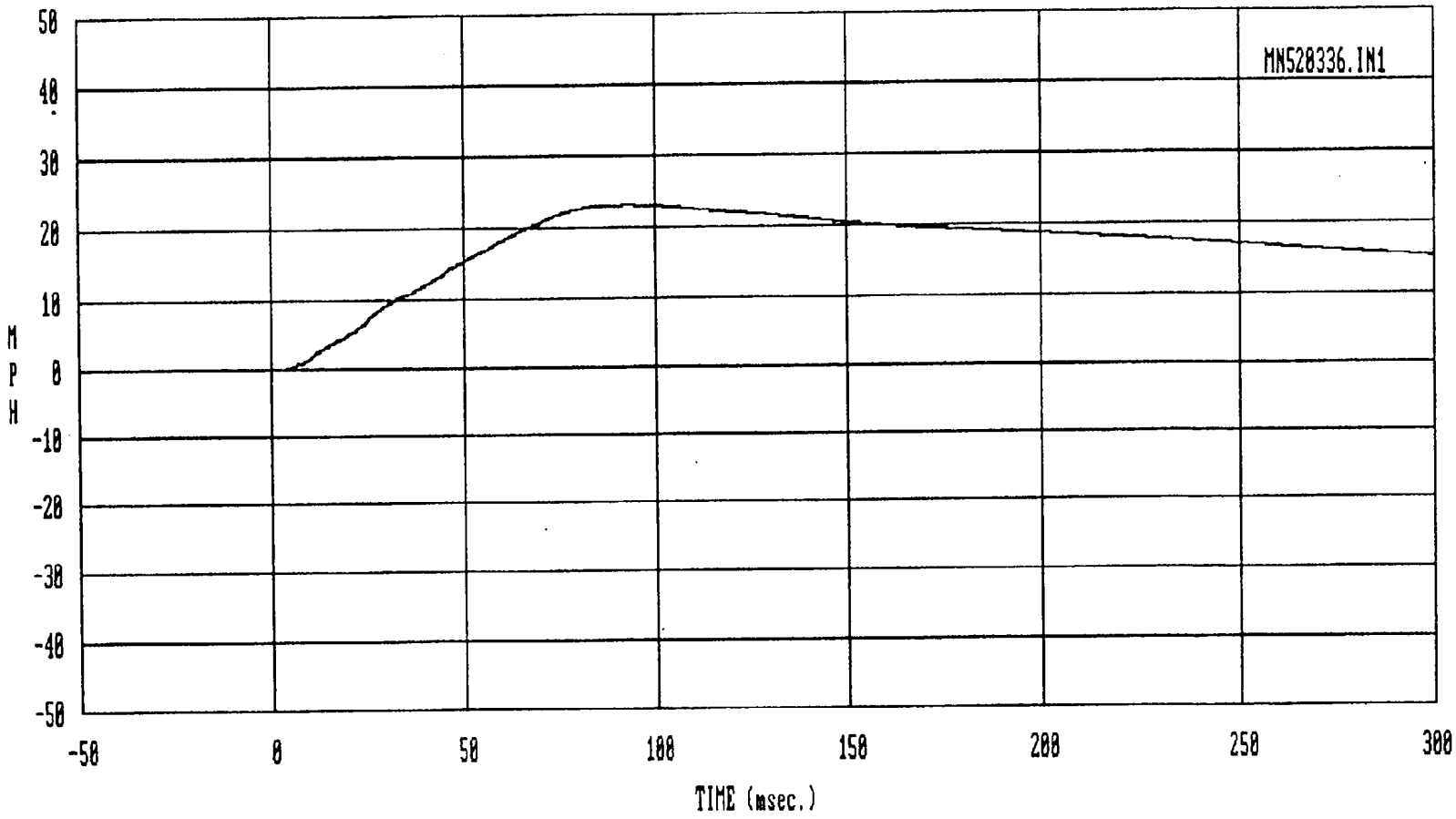
Curve: Rear floor above axle delta V -- X axis Filter: SAE CLASS 180 Max = .11299E-01 Min = -3.8313

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



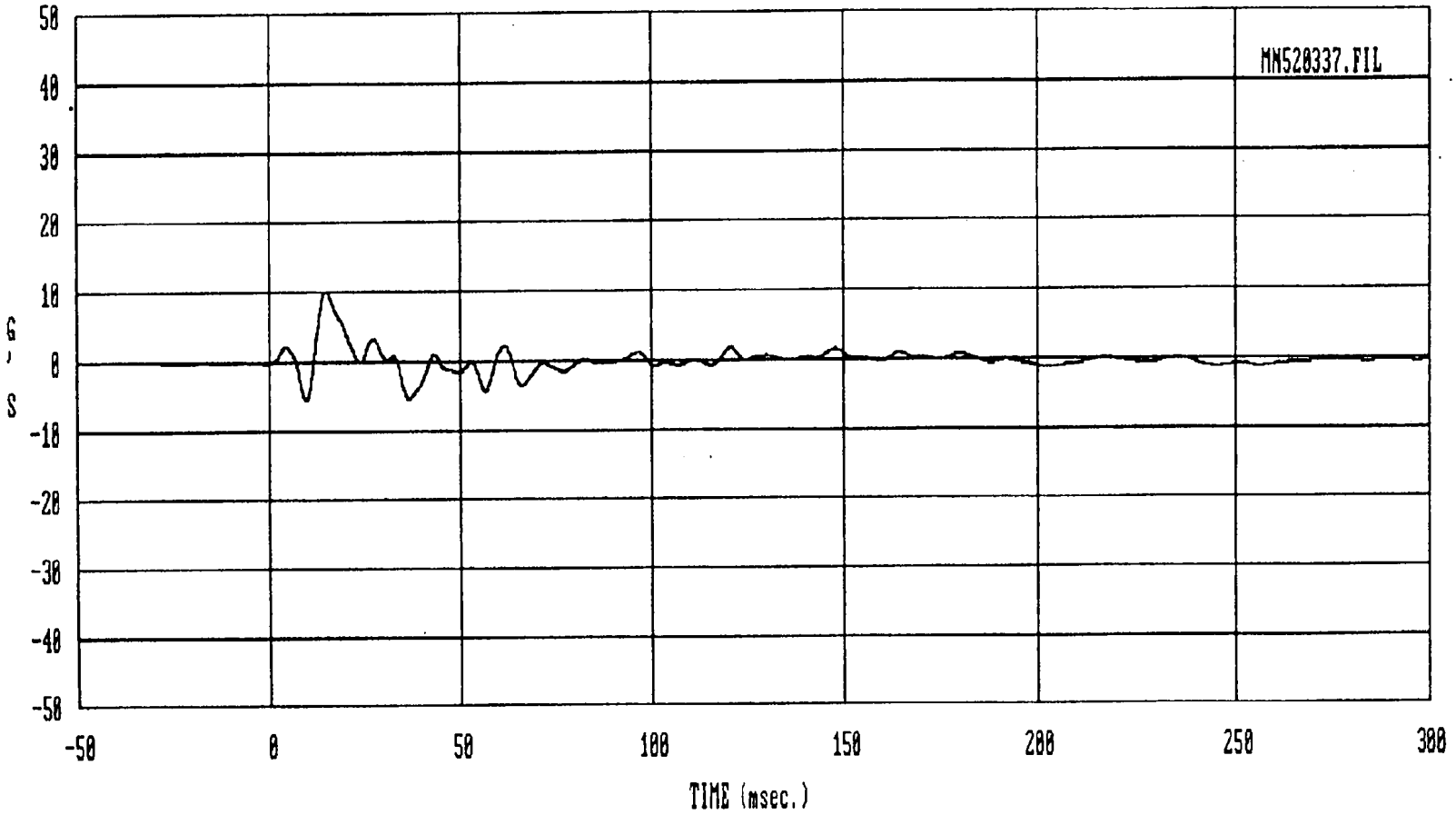
Curve: Rear floor above axle acceleration -- Y axis Filter: SAE CLASS 60 Max = 22.569 Min = -2.9924

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



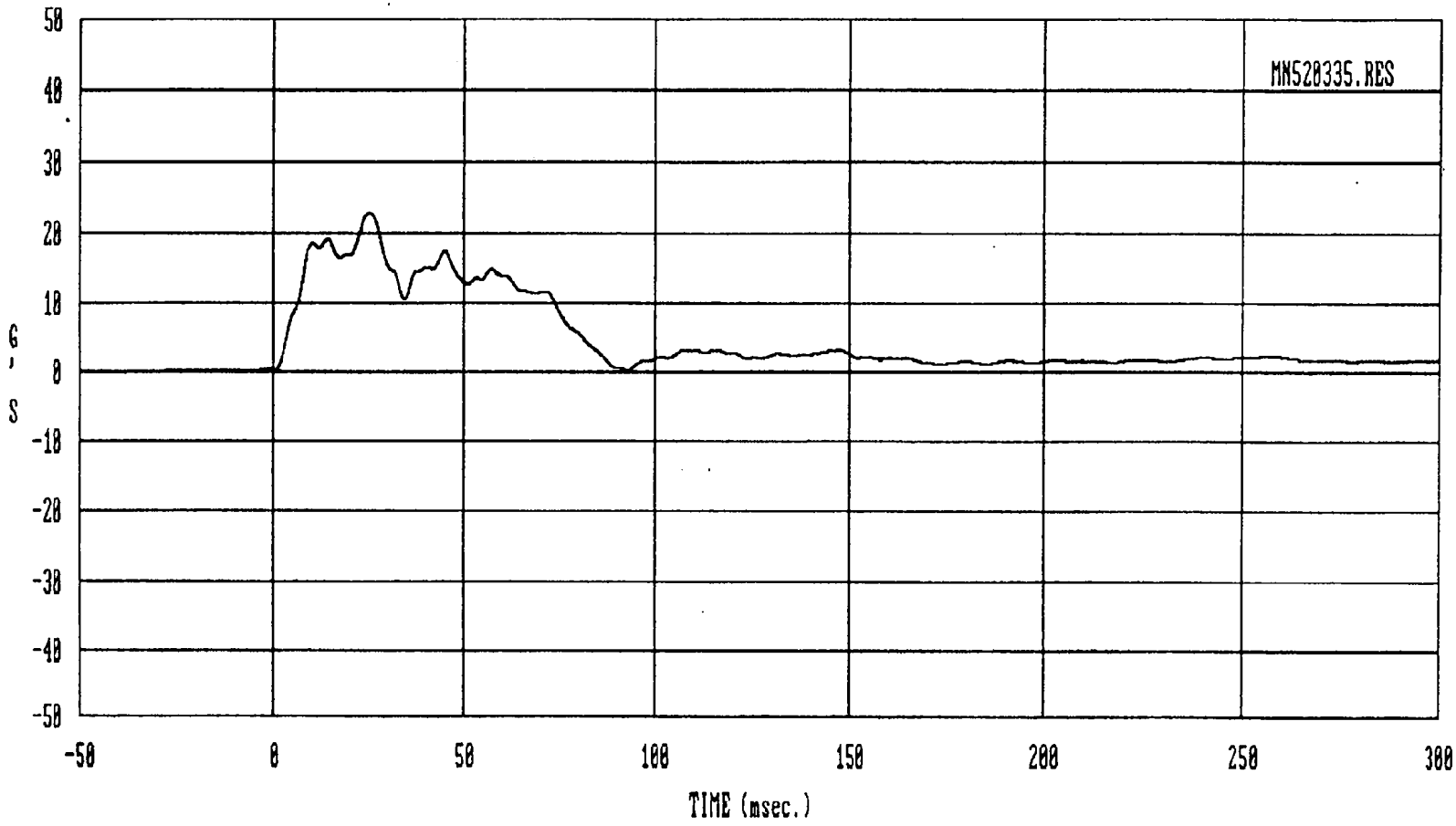
Curve: Rear floor above axle delta V -- Y axis Filter: SAE CLASS 180 Max = 23.186 Min = -.14768E-02

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



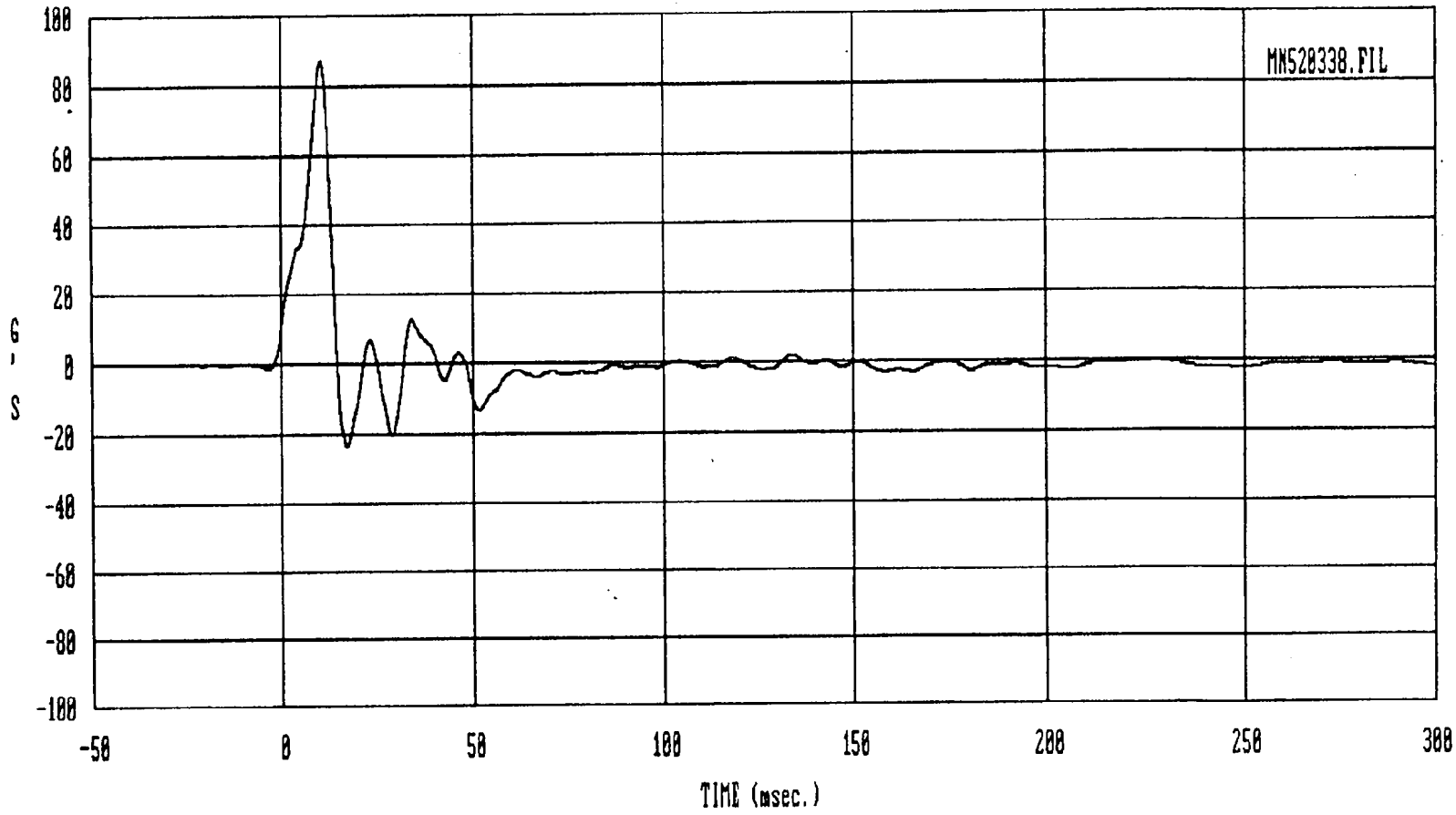
Curve: Rear floor above axle acceleration -- Z axis Filter: SAE CLASS 60 Max = 10.123 Min = -5.3338

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



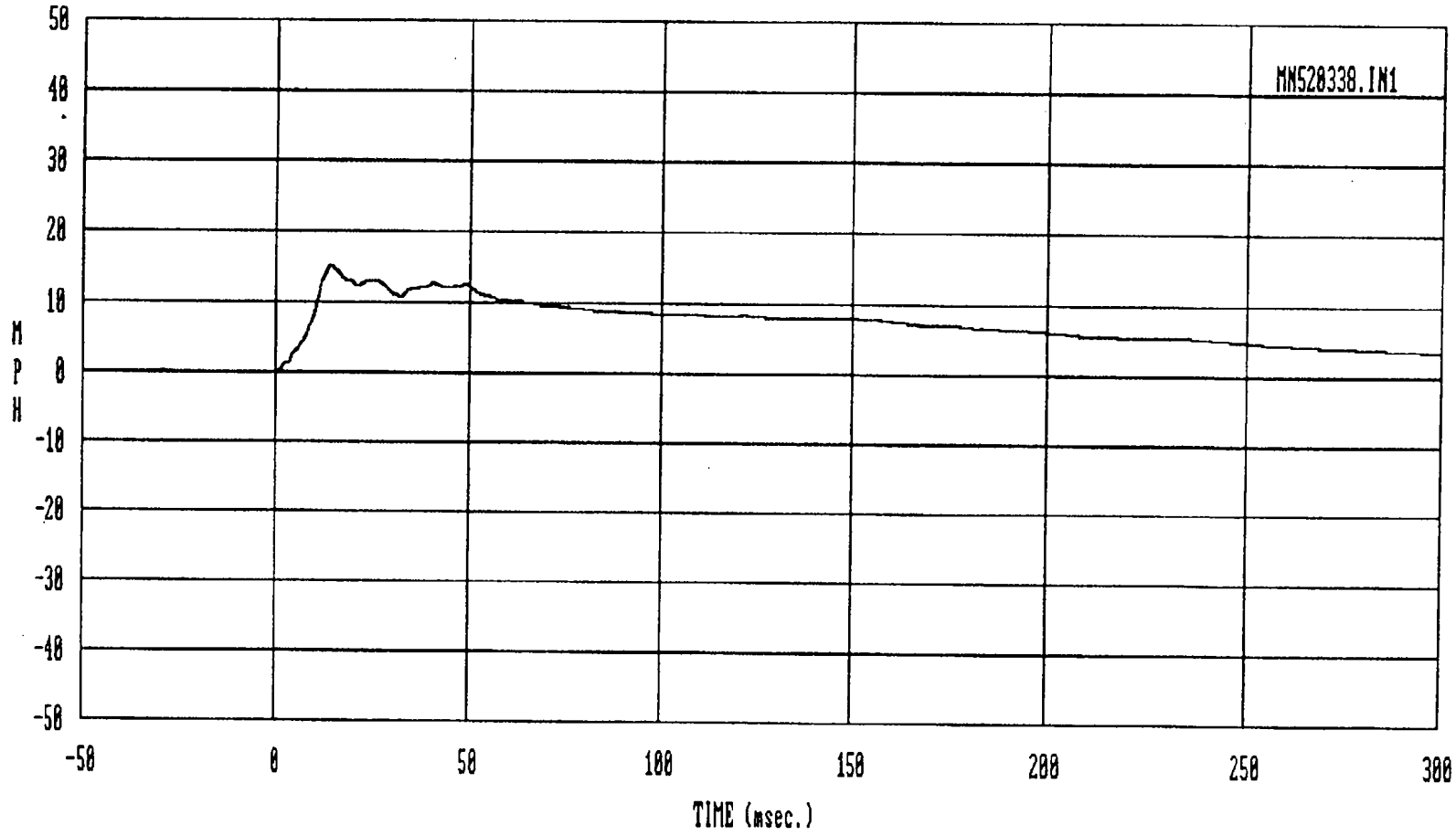
Curve: Rear floor above axle resultant acceleration Filter: SAE CLASS 60 Max = 22.858 Min = .10455

MSE Date: 06/26/92 Program: Side Impact 34/17 90 Deg. Vehicle: 1992 Nissan Sentra



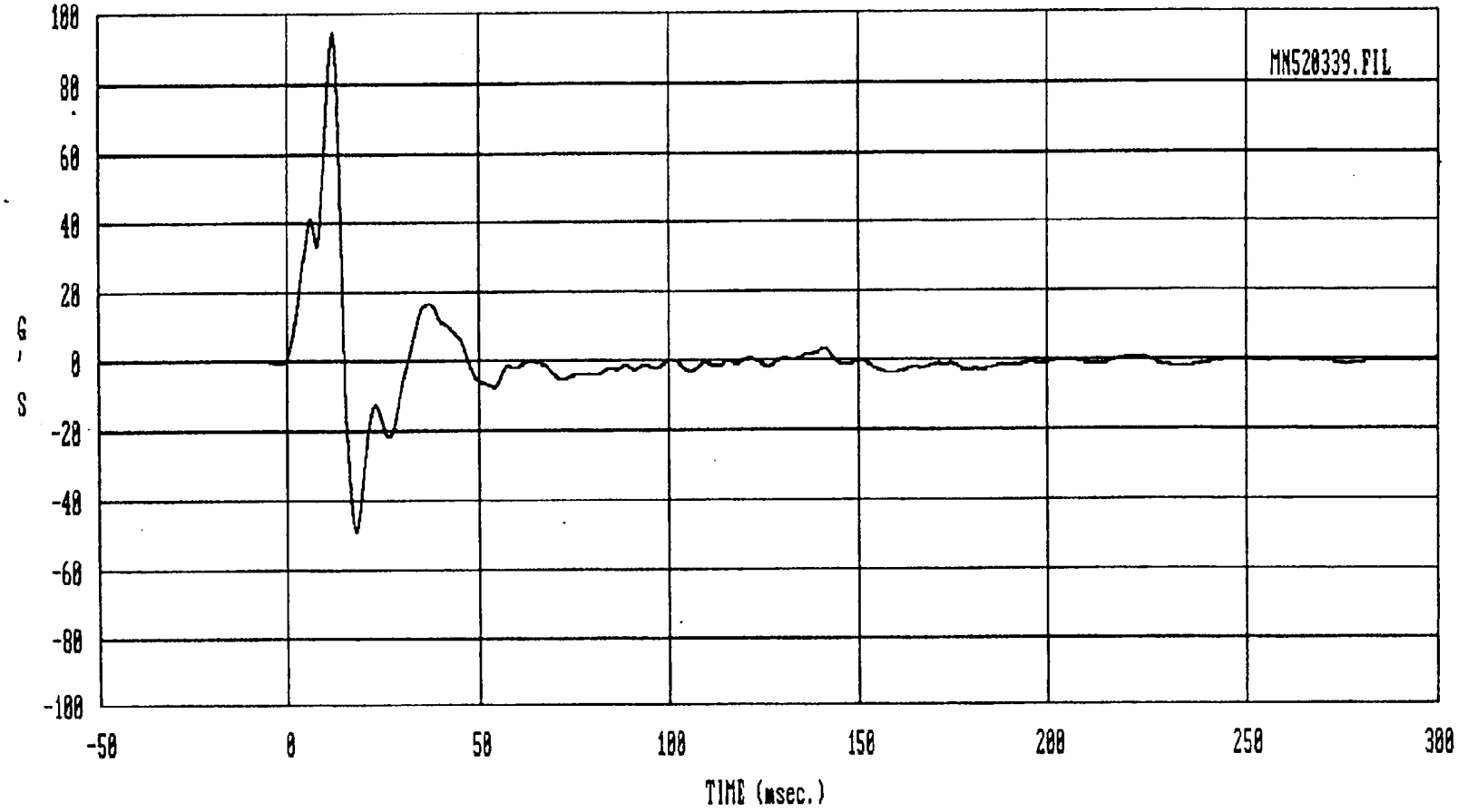
Curve: Rear seat left sill acceleration -- Y axis Filter: SAE CLASS 60 Max = 87.376 Min = -23.569

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



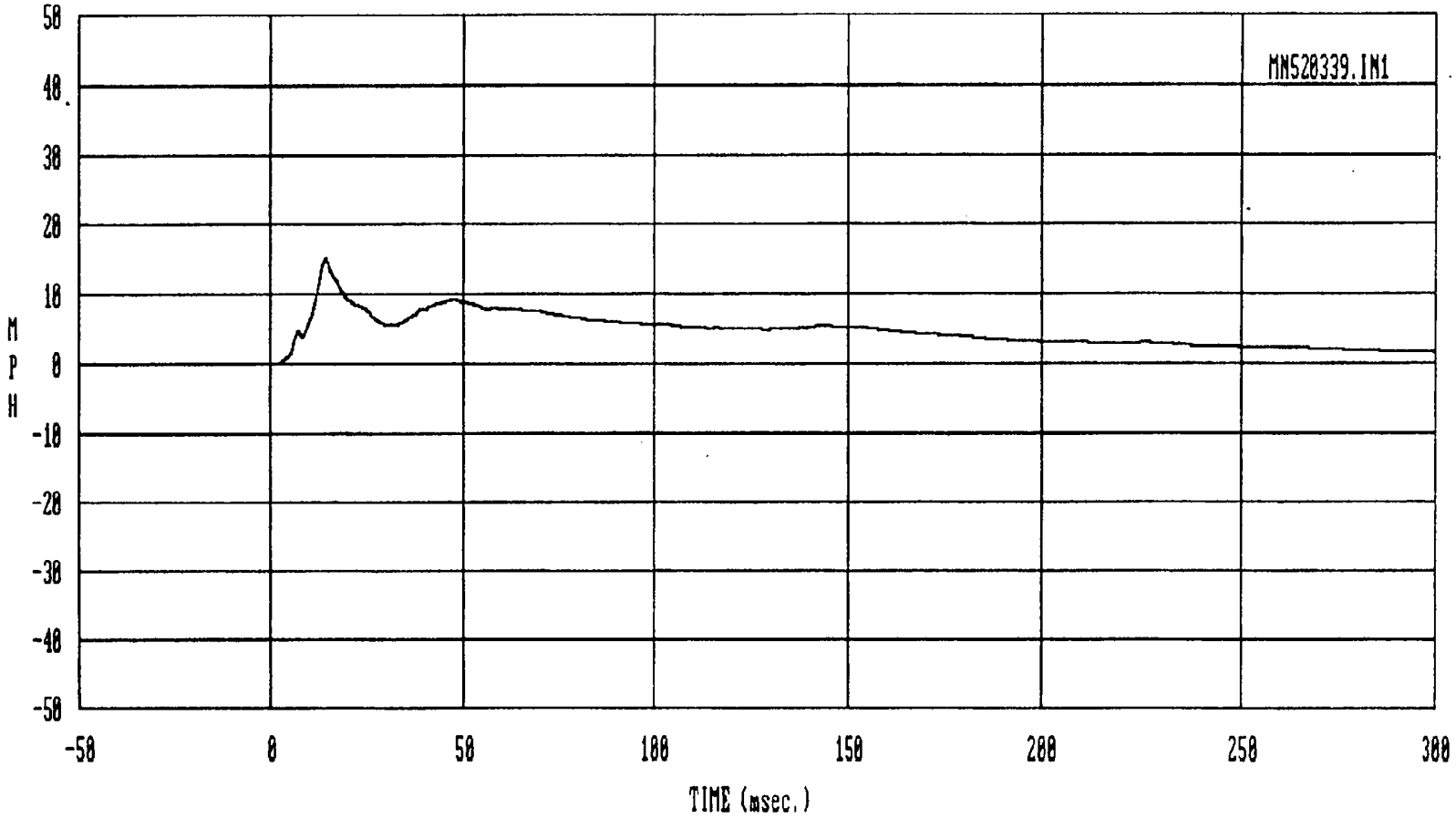
Curve: Rear seat left sill delta V -- Y axis Filter: SAE CLASS 180 Max = 15.154 Min = 3.4529

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



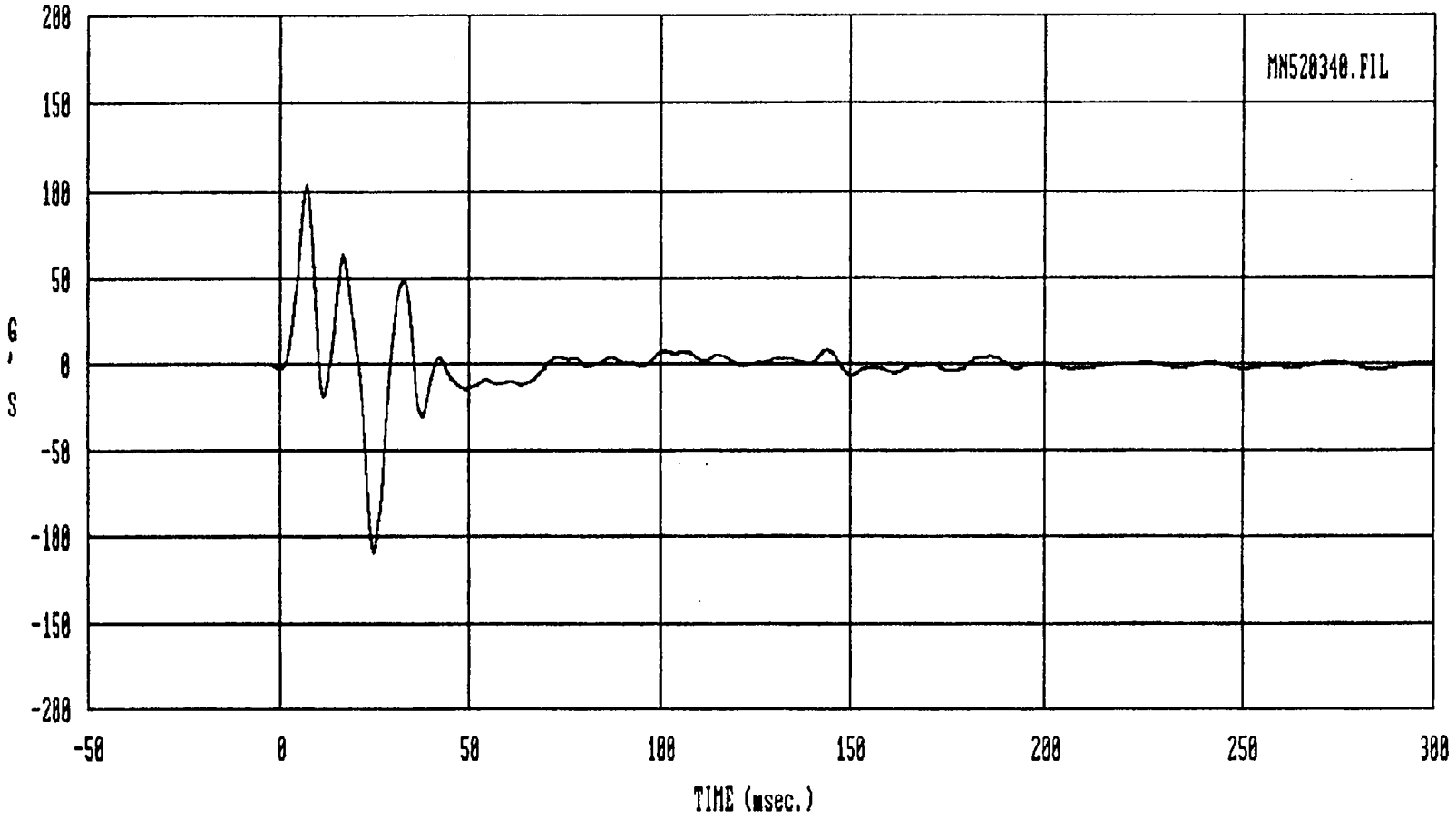
Curve: Front seat left Sill acceleration -- Y axis Filter: SAE CLASS 60 Max = 95.030 Min = -48.923

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



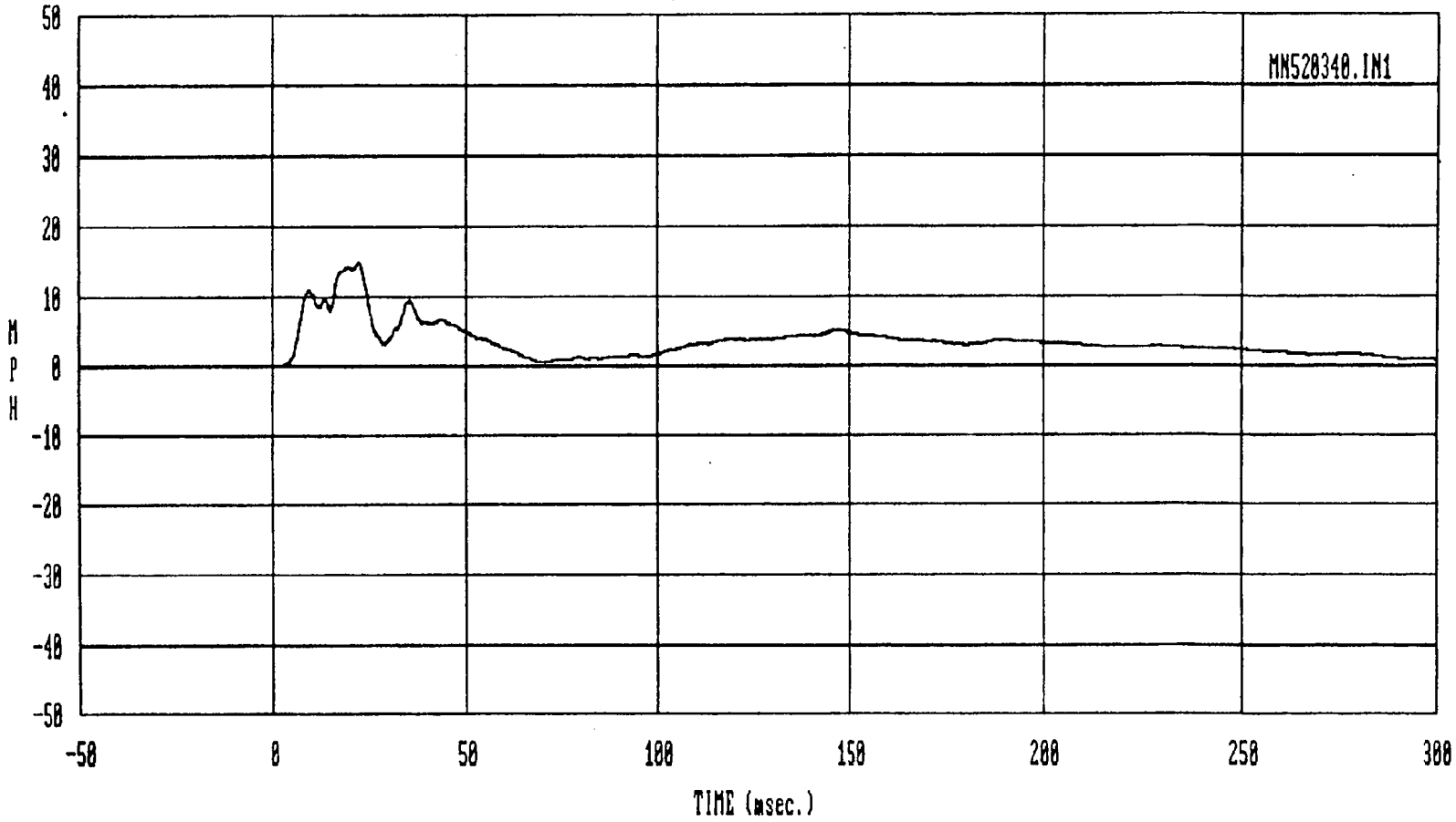
Curve: Front seat left Sill delta V -- Y axis Filter: SAE CLASS 180 Max = 15.861 Min = -.10888E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



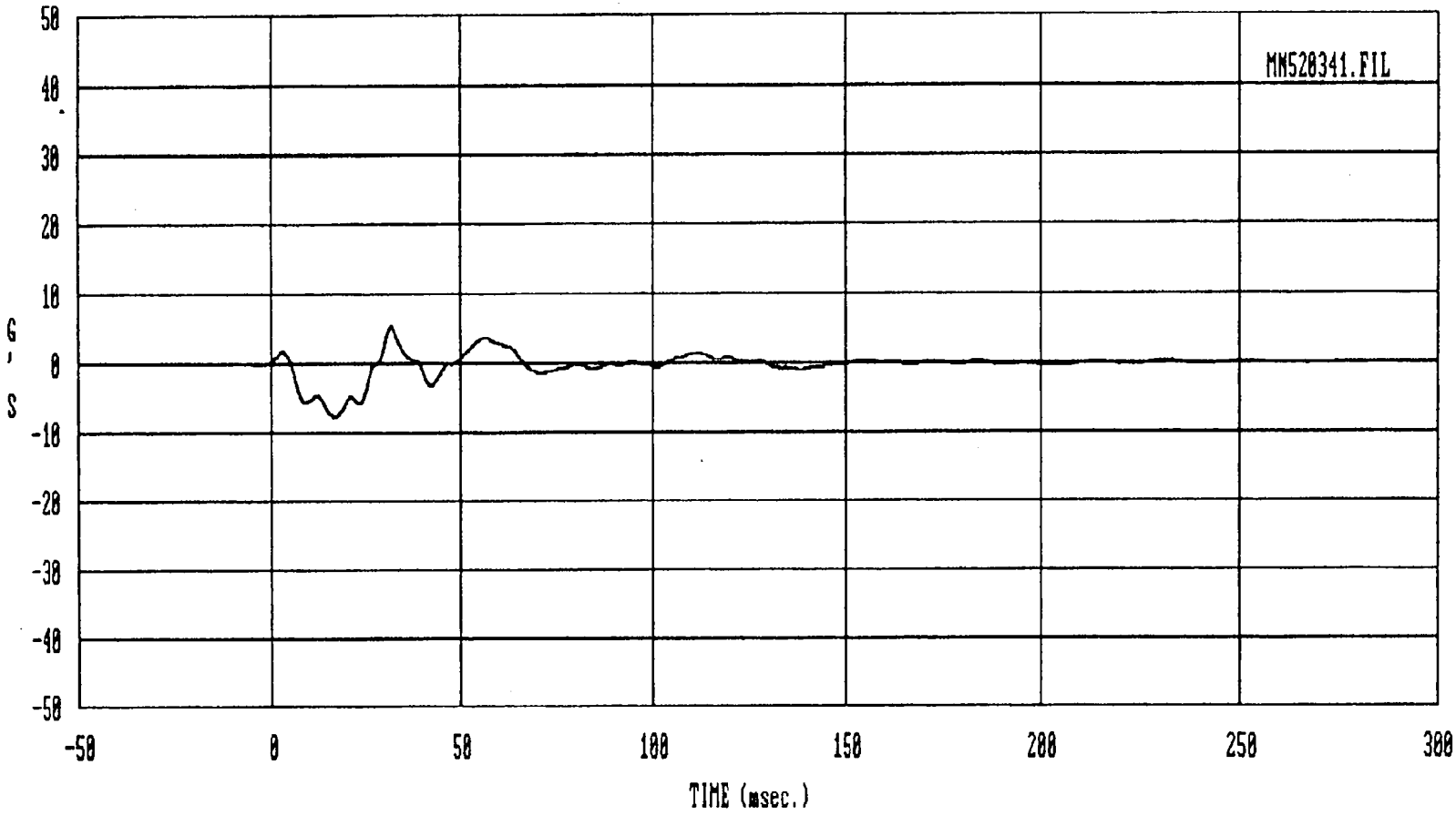
Curve: Left front door at centerline -- Y axis Filter: SAE CLASS 60 Max = 103.99 Min = -109.00

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



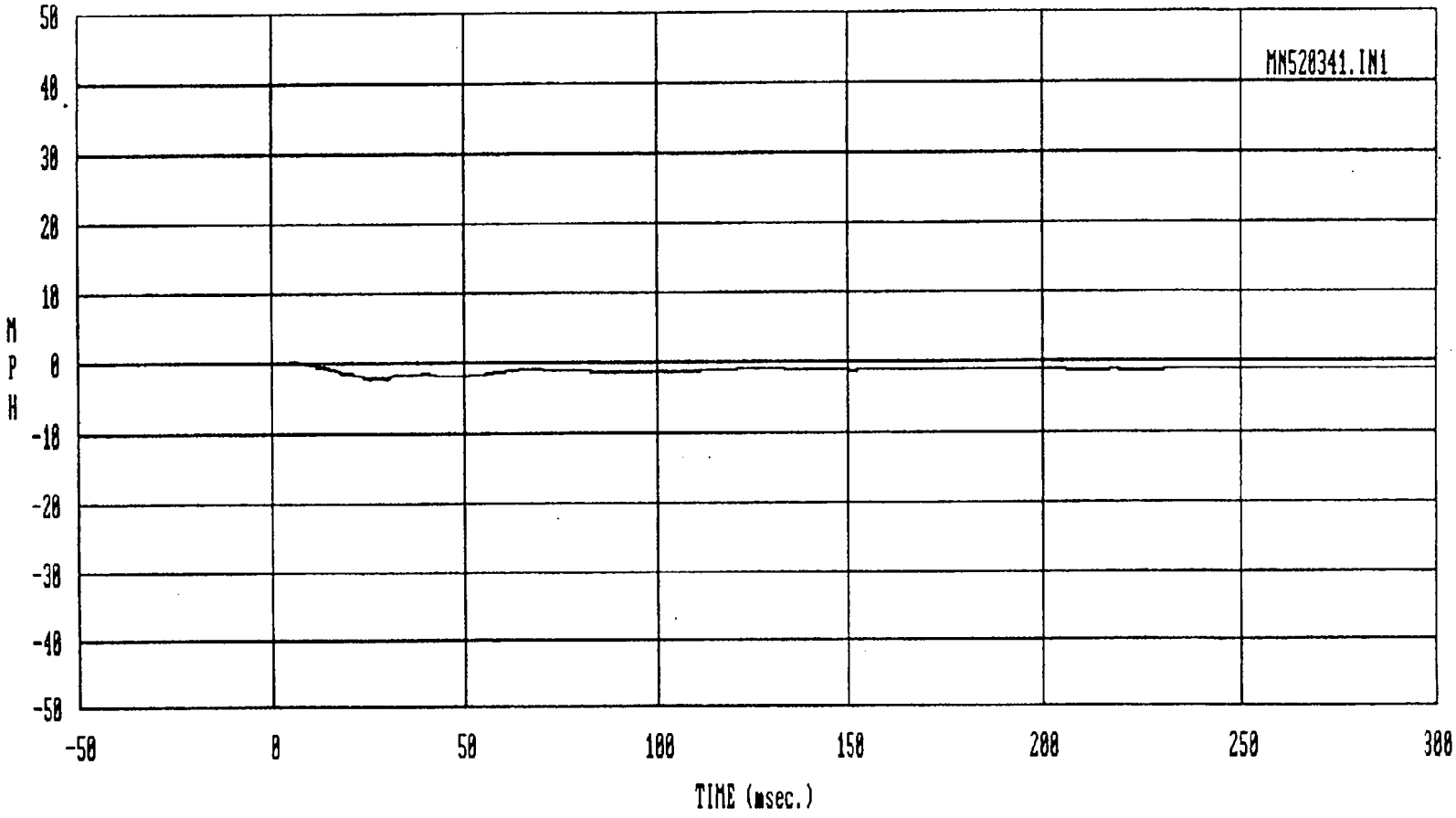
Curve: Left front door at centerline -- Y axis Filter: SAE CLASS 180 Max = 14.993 Min = -.51288E-02

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



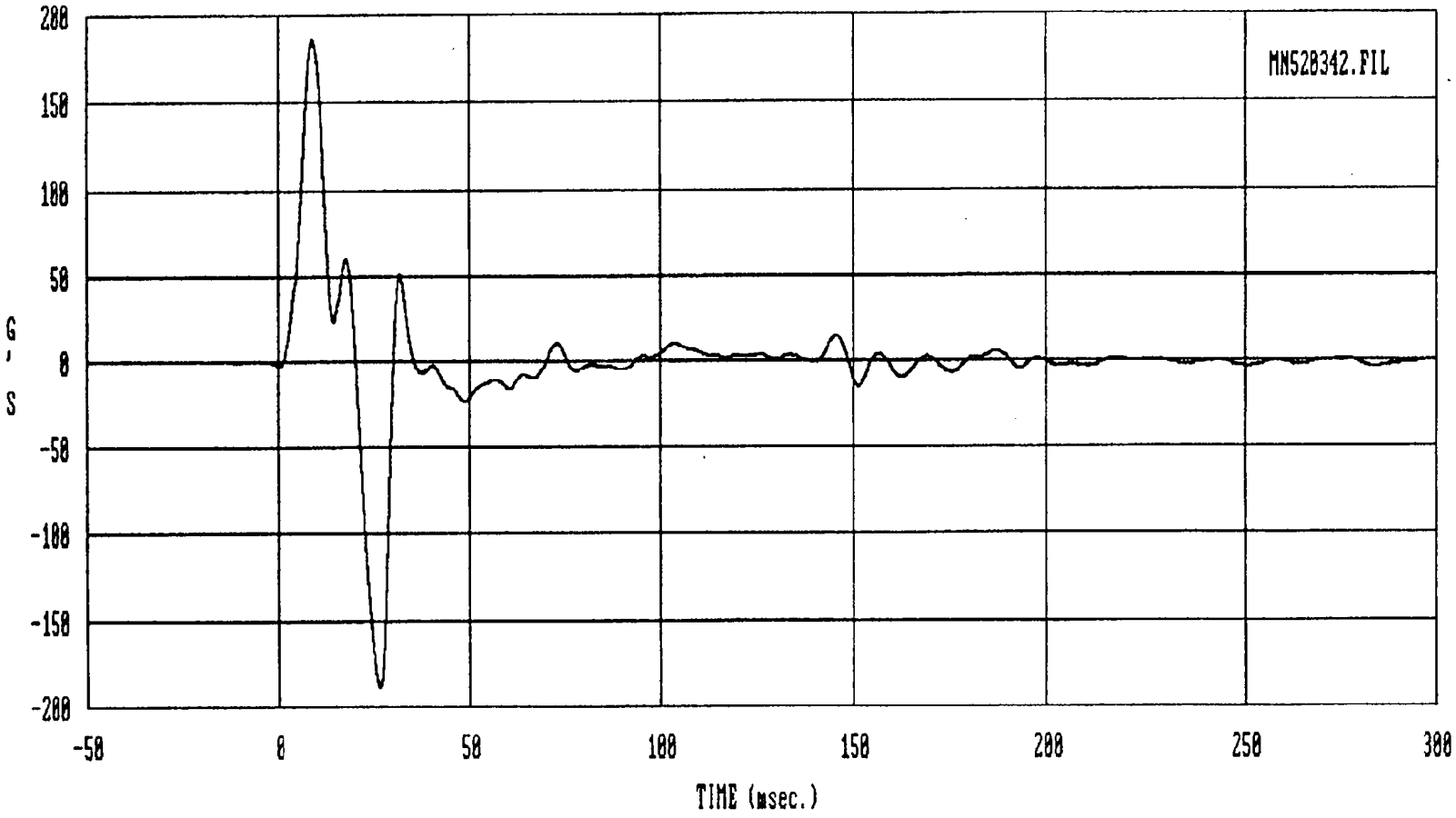
Curve: Right rear occupant compartment -- X axis Filter: SAE CLASS 60 Max = 5.4484 Min = -7.5929

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



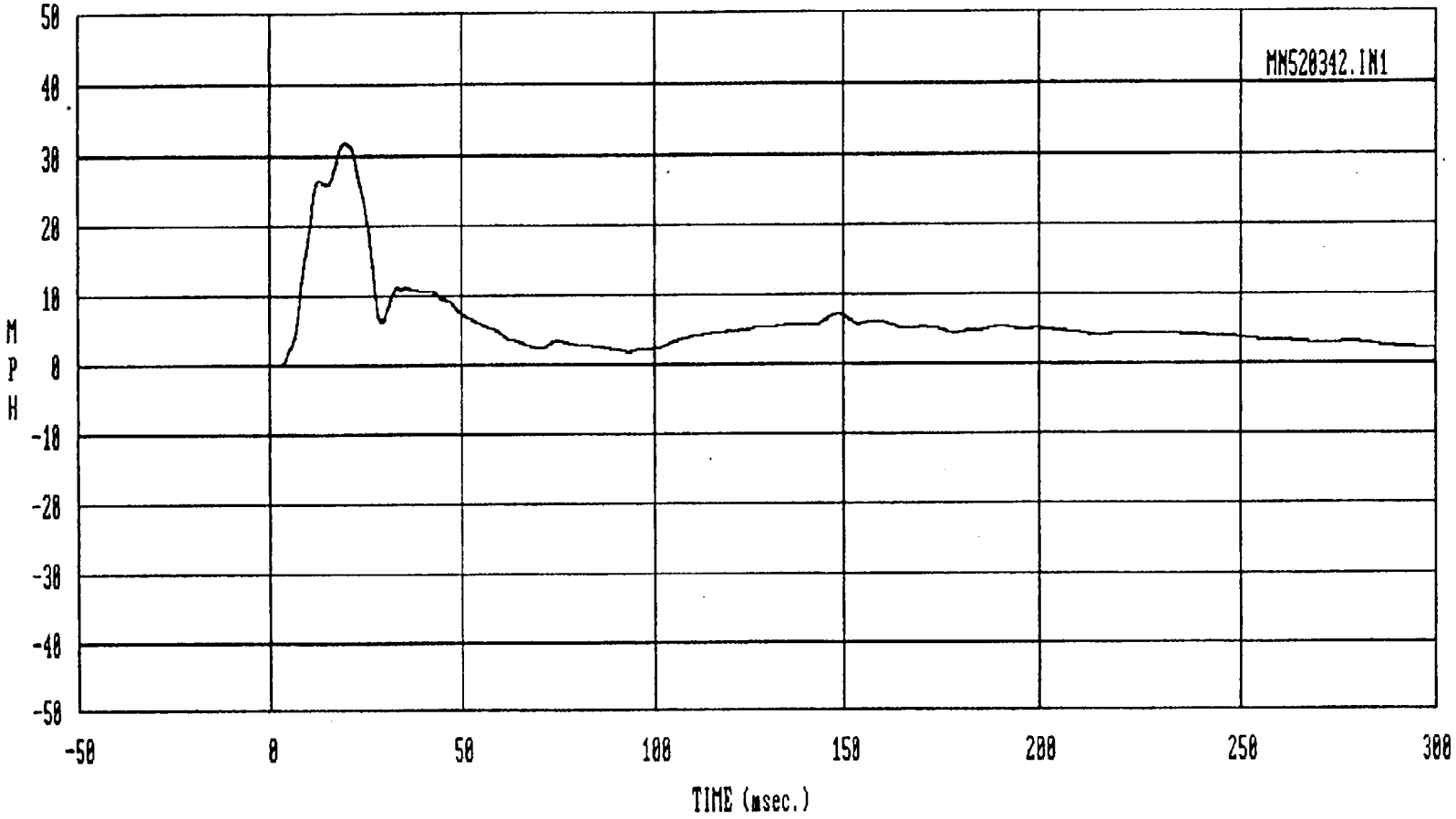
Curve: Right rear occupant compartment -- X axis Filter: SAE CLASS 180 Max = .14568 Min = -2.2855

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



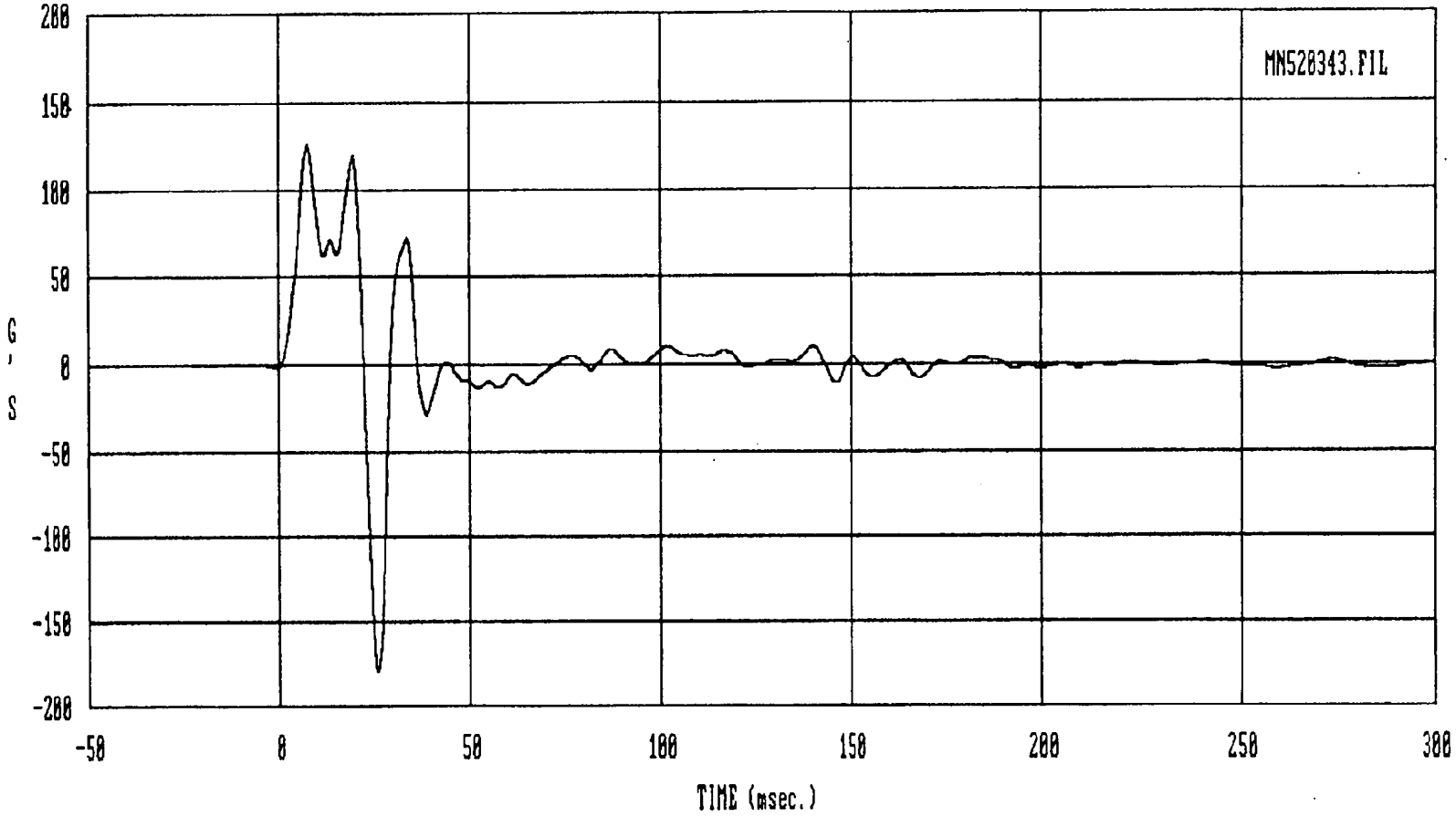
Curve: Left front door at mid-rear -- Y axis Filter: SAE CLASS 60 Max = 186.19 Min = -187.79

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



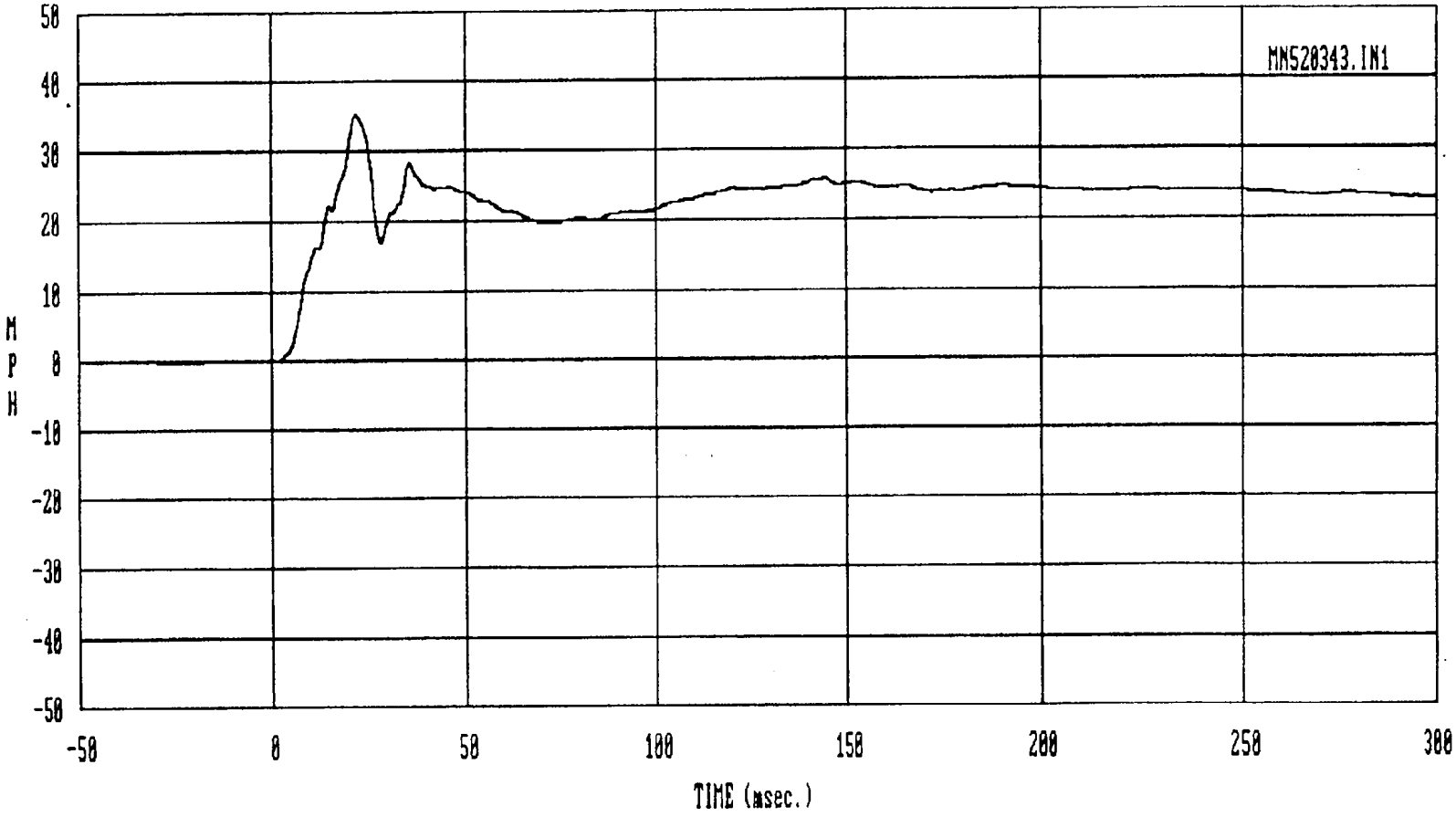
Curve: Left front door at mid-rear -- Y axis Filter: SAE CLASS 180 Max = 32.028 Min = -.59384E-01

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



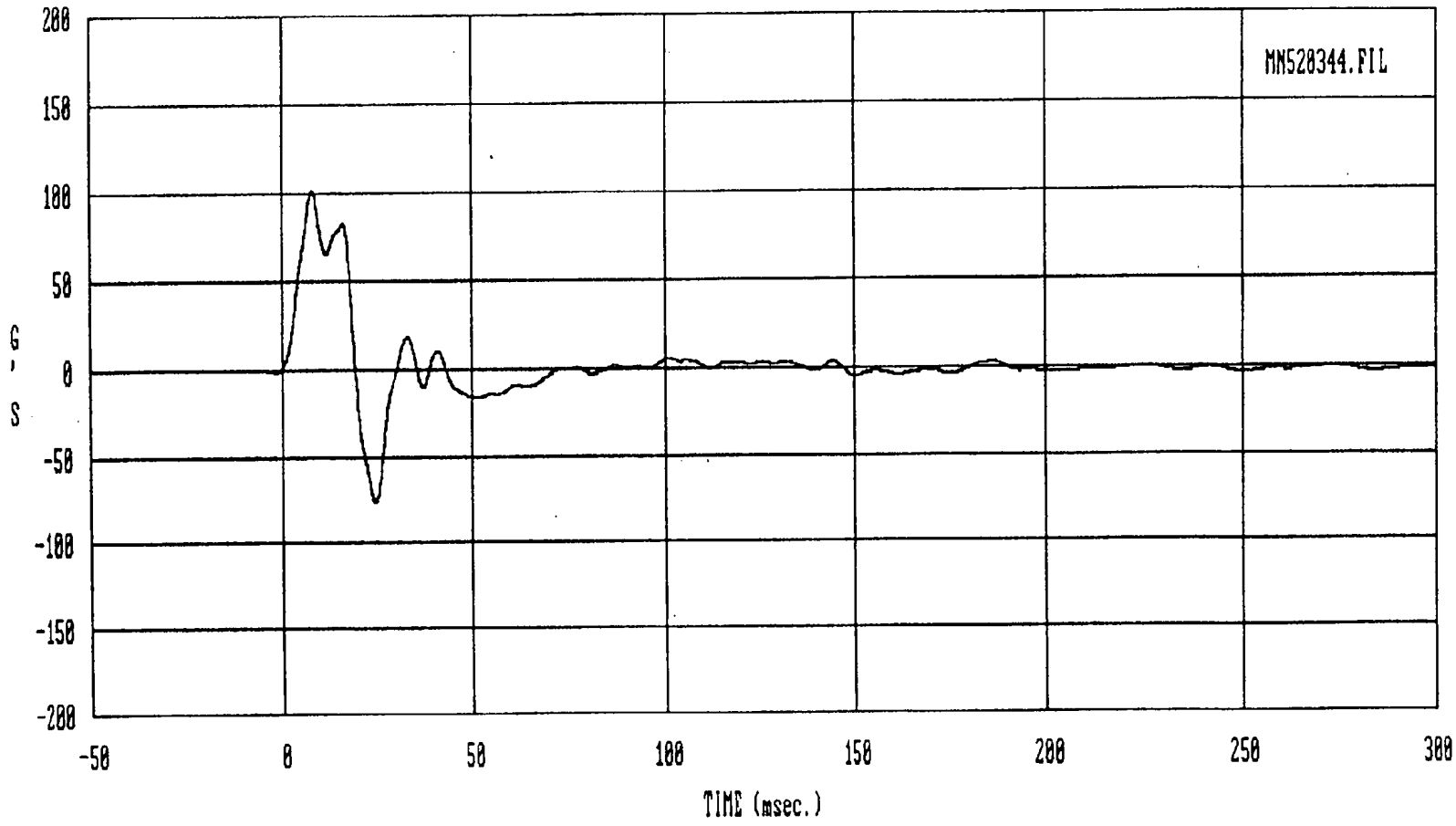
Curve: Left front door at upper centerline -- Y axis Filter: SAE CLASS 60 Max = 125.76 Min = -179.71

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



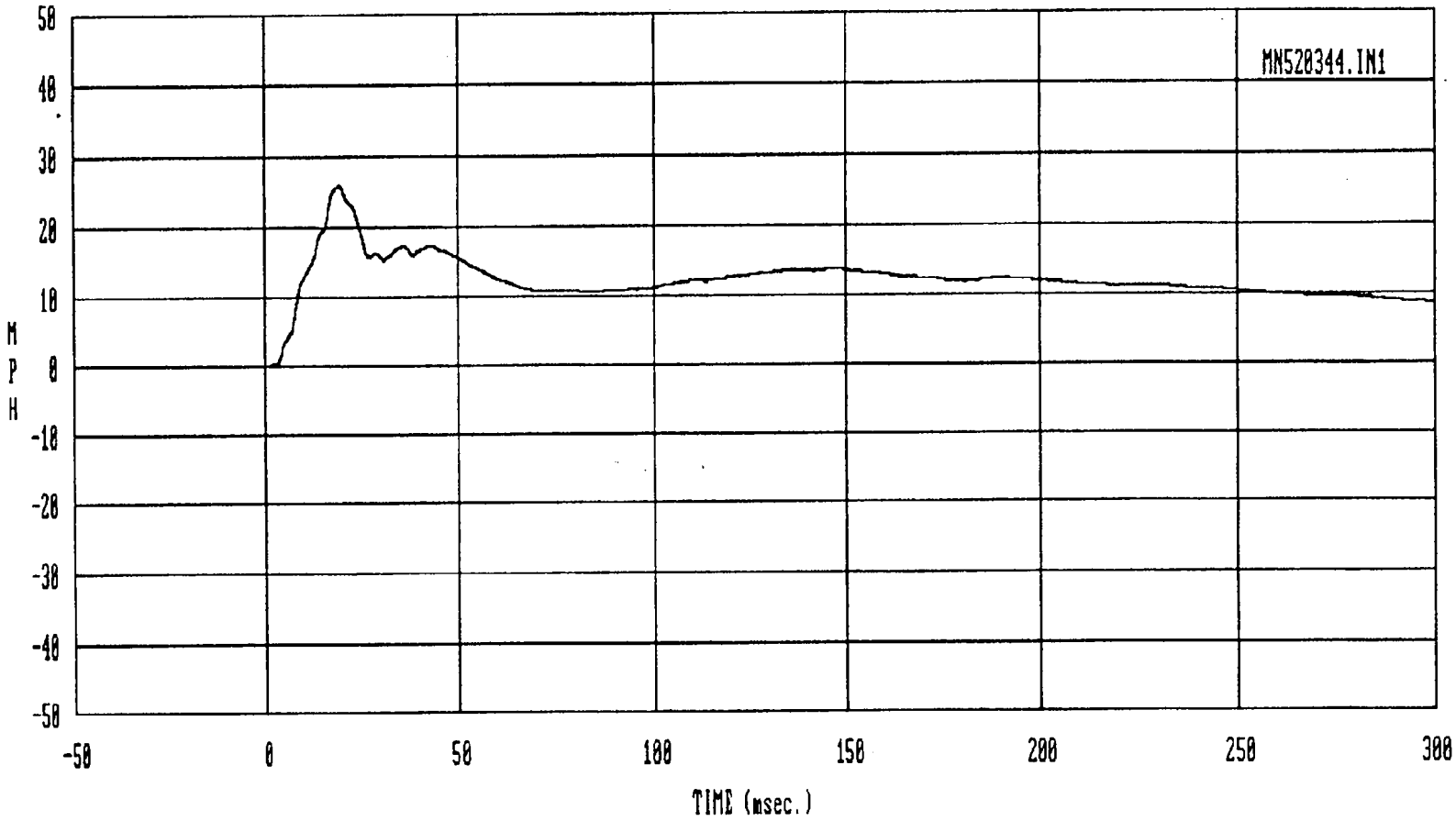
Curve: Left front door at upper centerline -- Y axis Filter: SAE CLASS 180 Max = 35.279 Min = 16.277

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



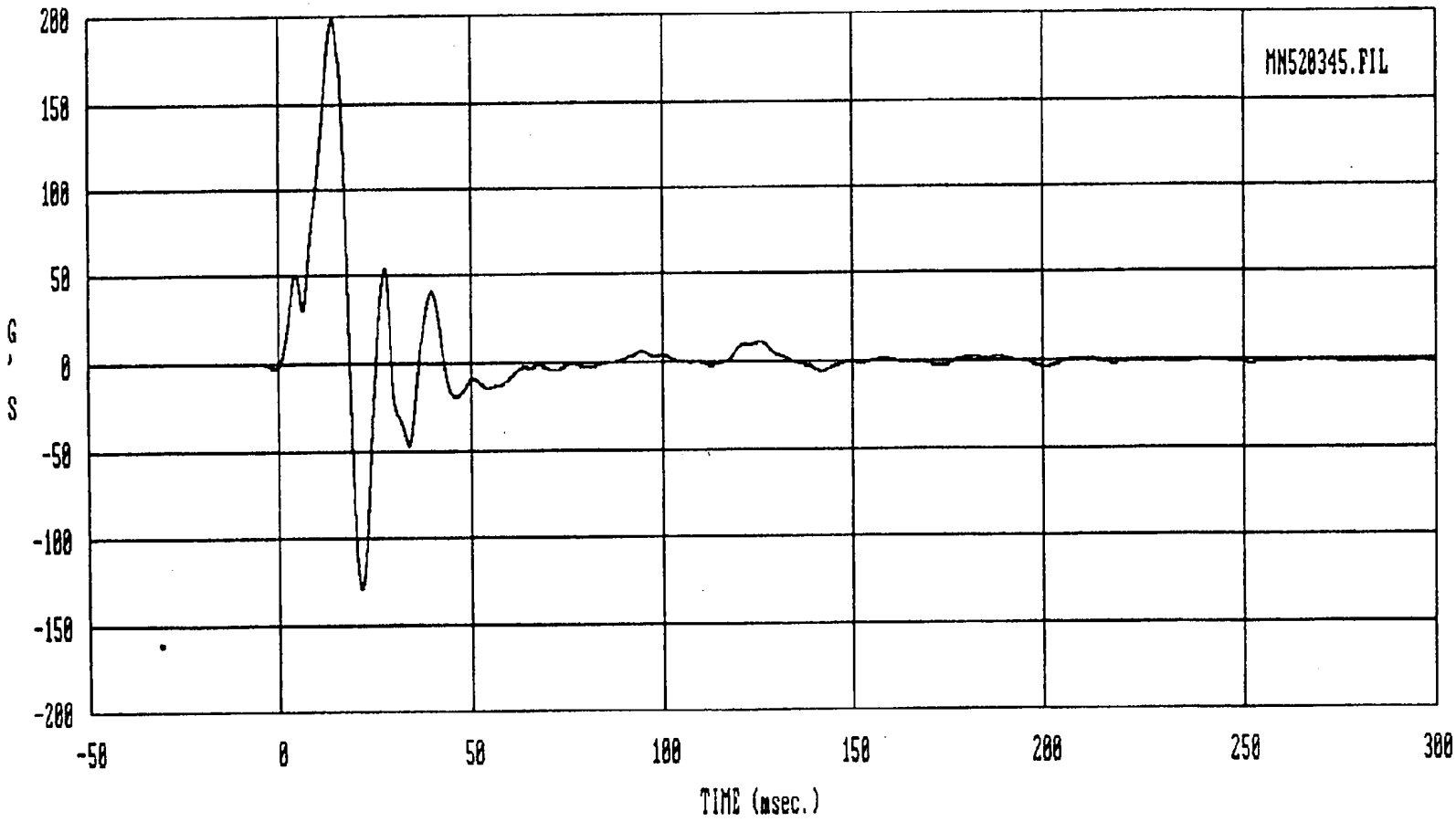
Curve: Left rear door at mid-rear -- Y axis Filter: SAE CLASS 60 Max = 101.44 Min = -75.995

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



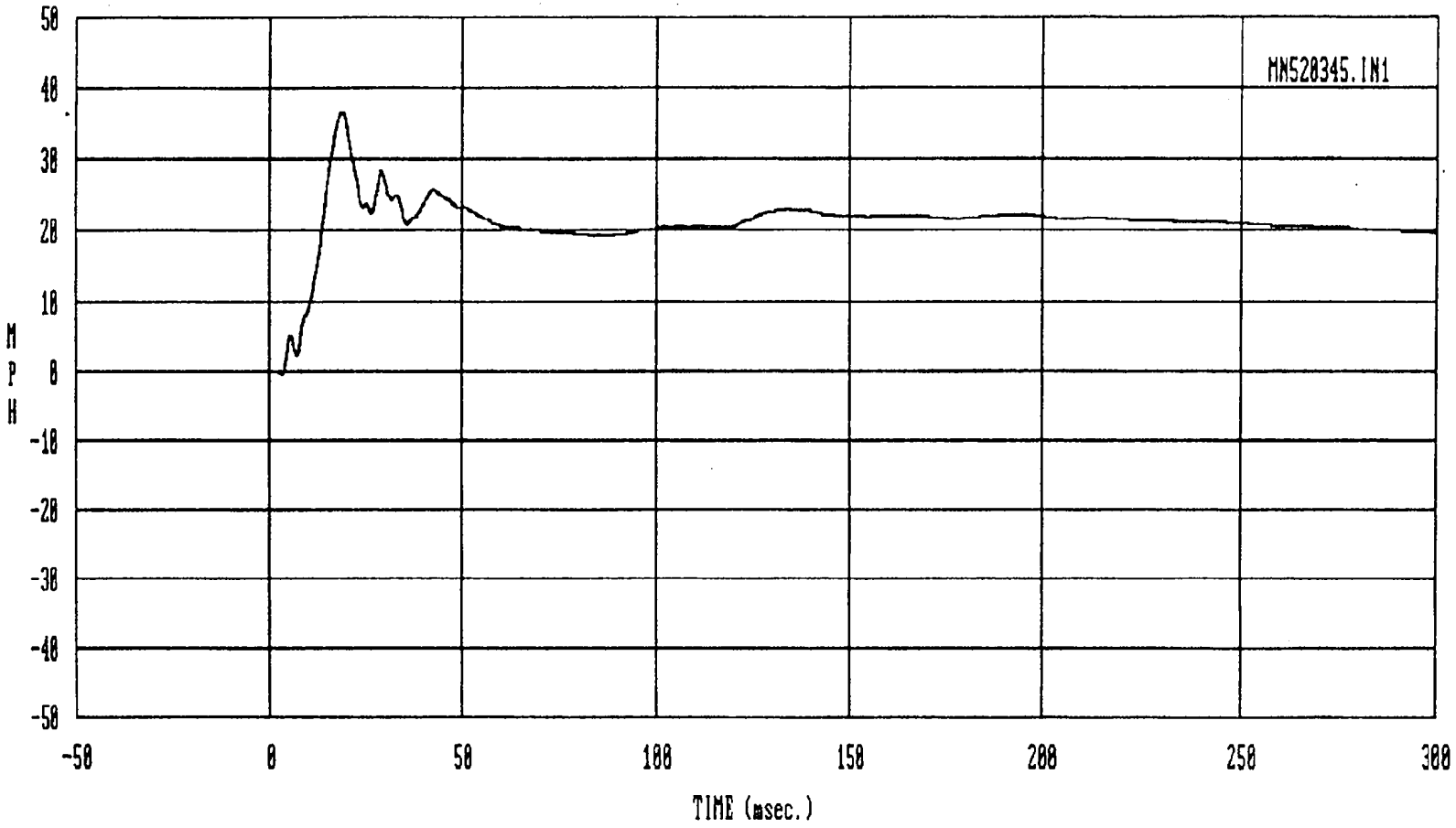
Curve: Left rear door at mid-rear -- Y axis Filter: SAE CLASS 180 Max = 25.996 Min = .42072

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



Curve: Left rear door at upper centerline -- Y axis Filter: SAE CLASS 60 Max = 198.74 Min = -128.49

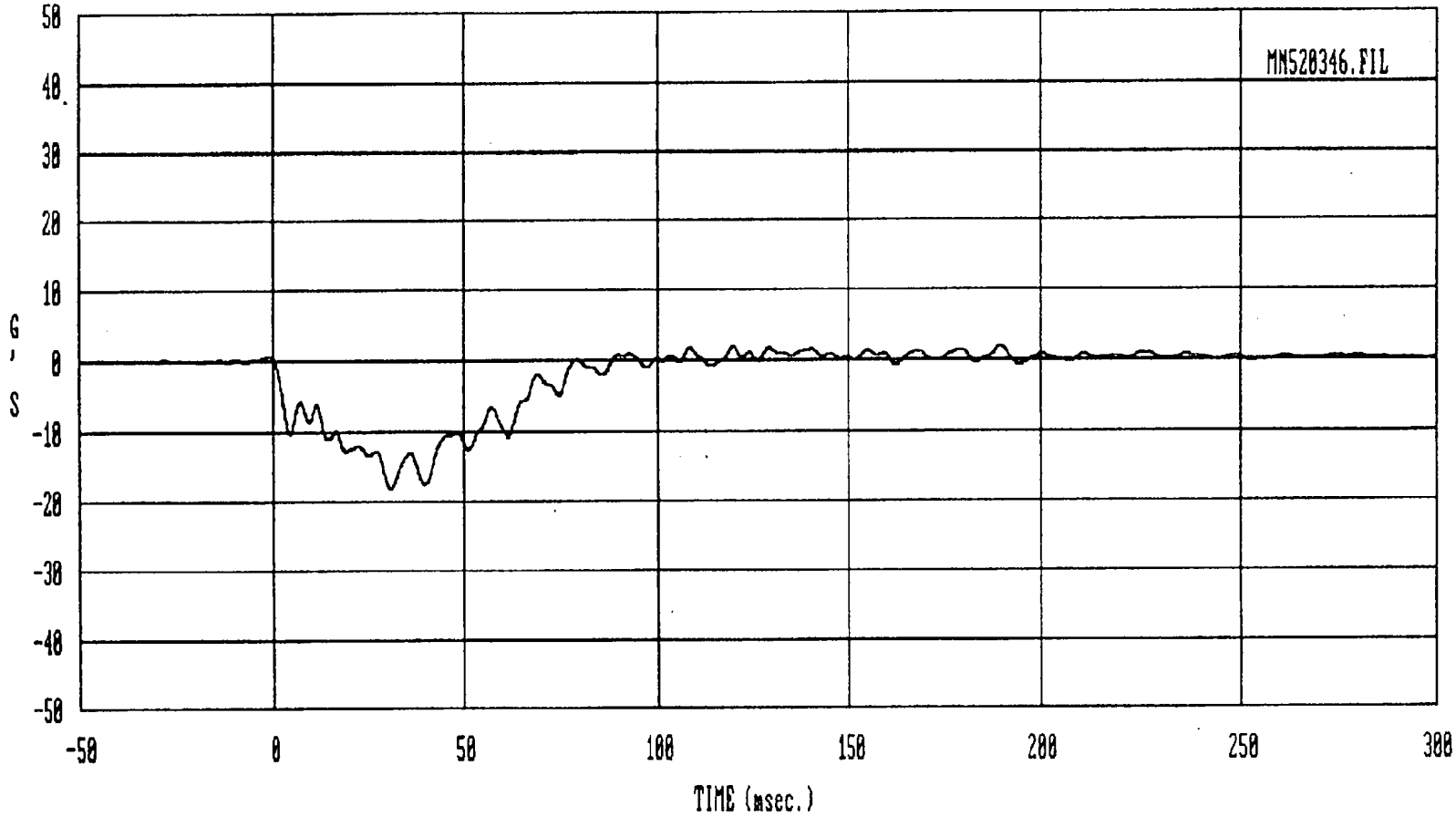
MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



Curve: Left rear door at upper centerline -- Y axis Filter: SAE CLASS 180 Max = 36.695 Min = -.46641

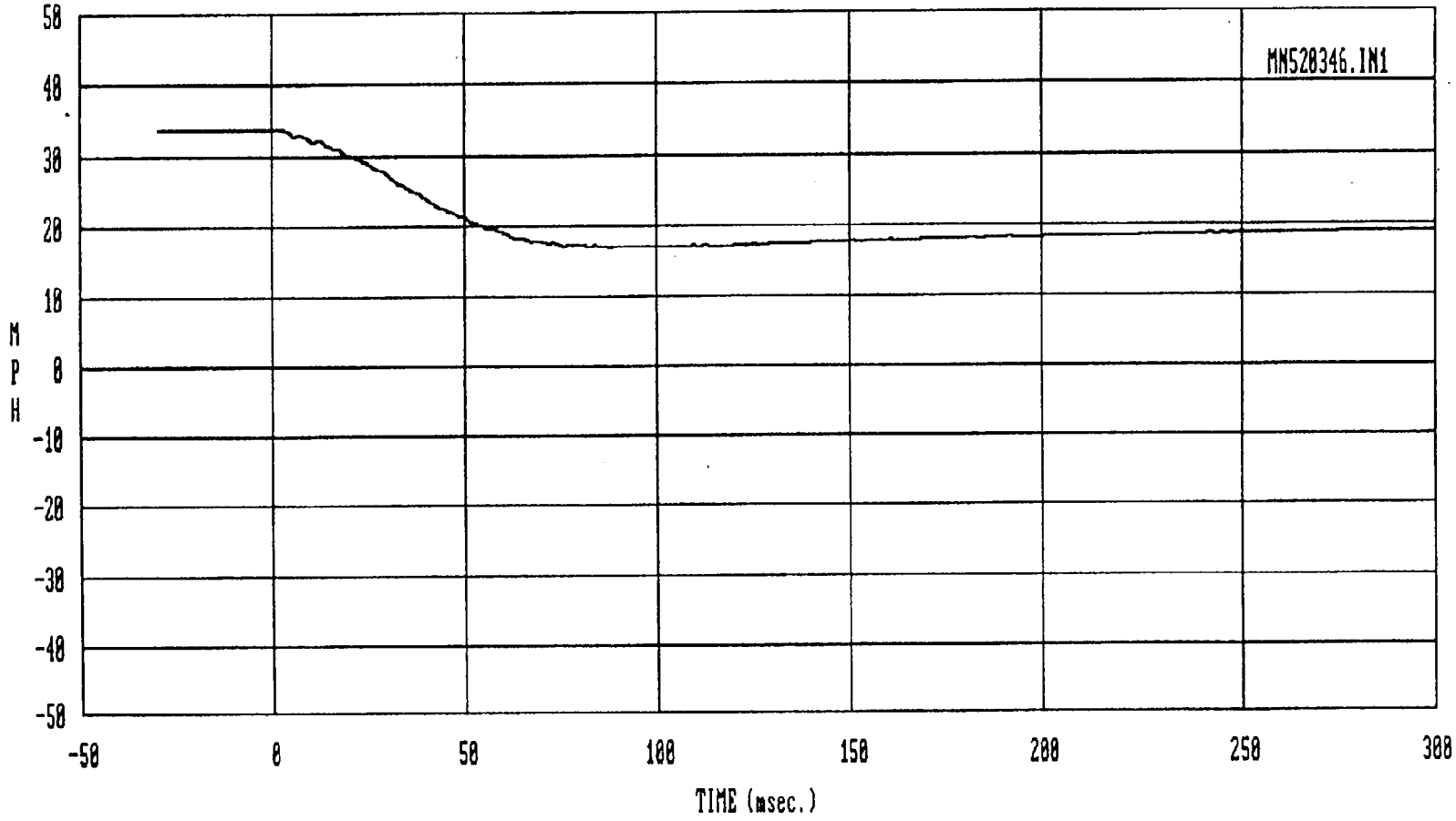
MSE Date: 86/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra

MDB ACCELEROMETER DATA



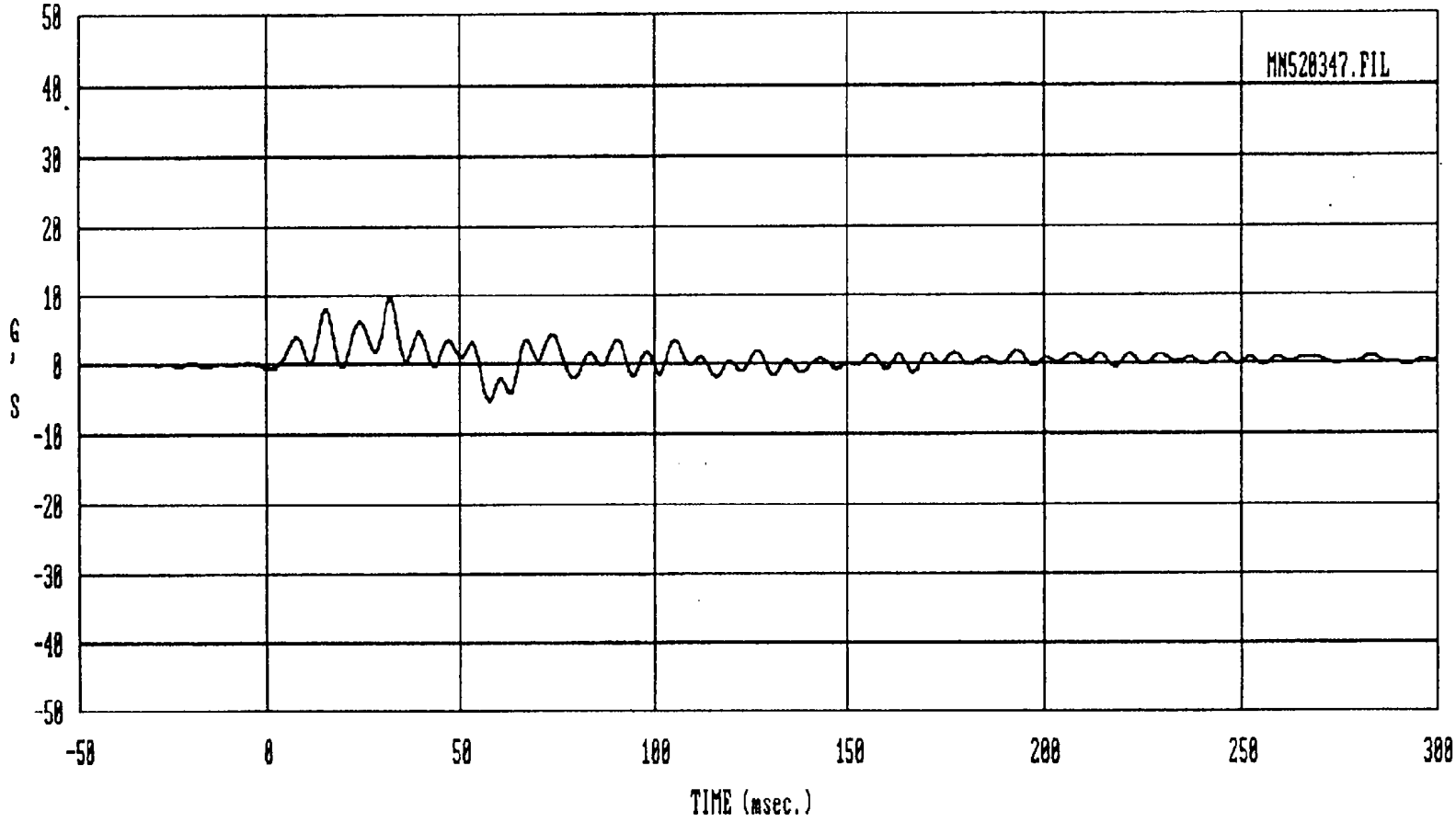
Curve: M.D.B. C/G acceleration -- X axis Filter: SAE CLASS 60 Max = 1.9485 Min = -18.322

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



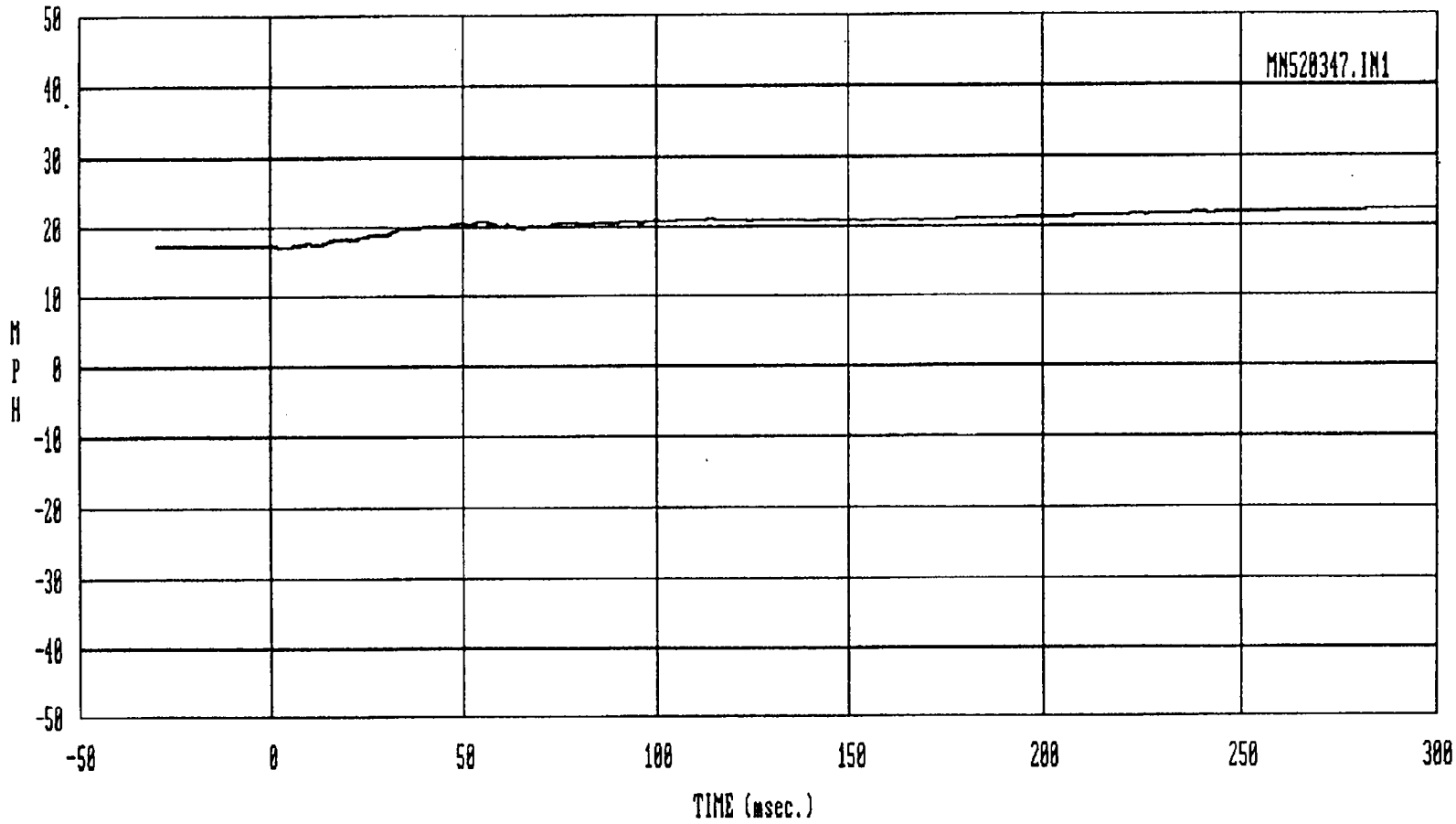
Curve: M.D.B. C/G delta V -- X axis Filter: SAE CLASS 180 Max = 33.882 Min = 16.979

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



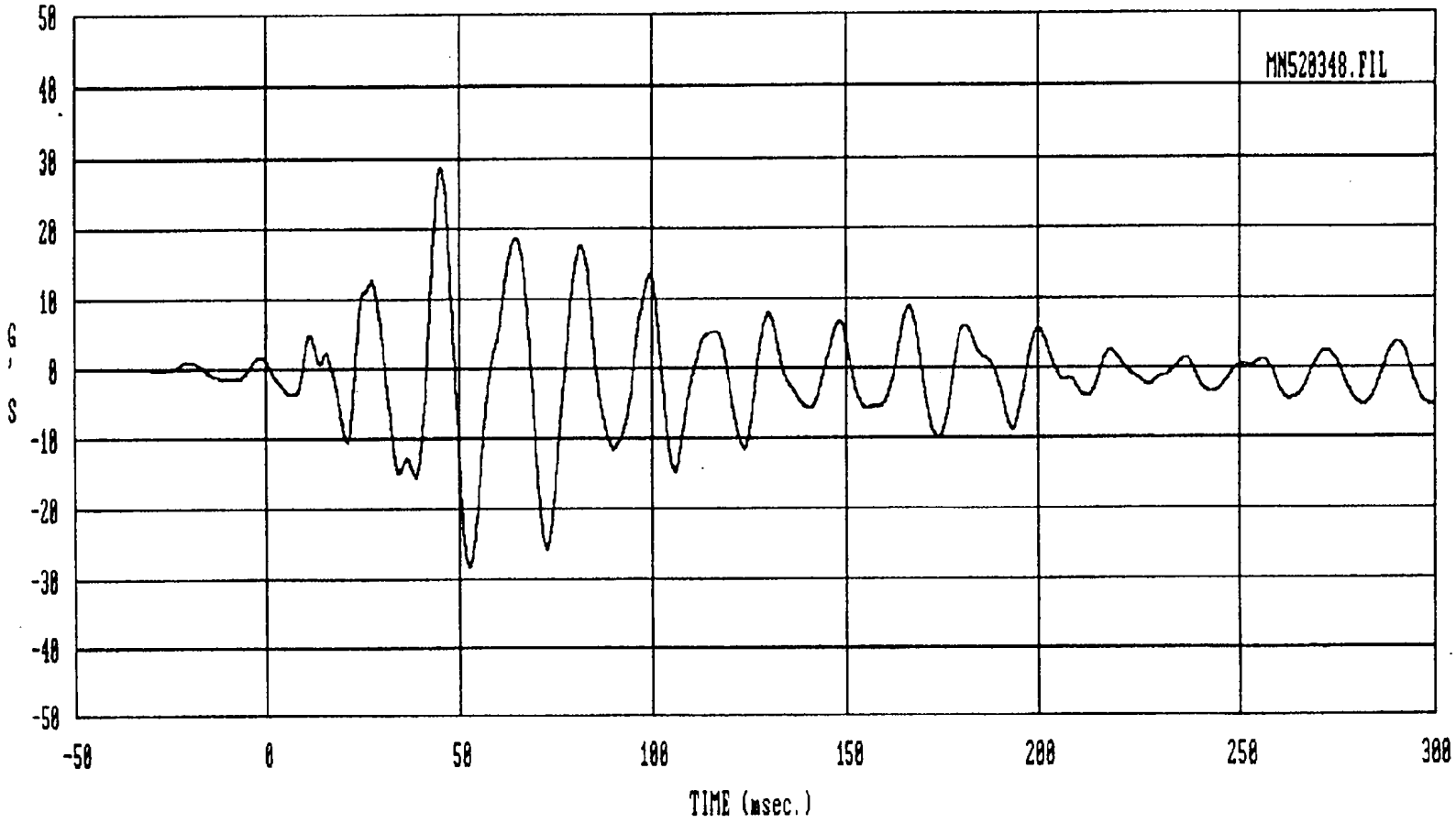
Curve: H.D.B. C/G acceleration — Y axis Filter: SAE CLASS 60 Max = 9.7292 Min = -5.2137

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



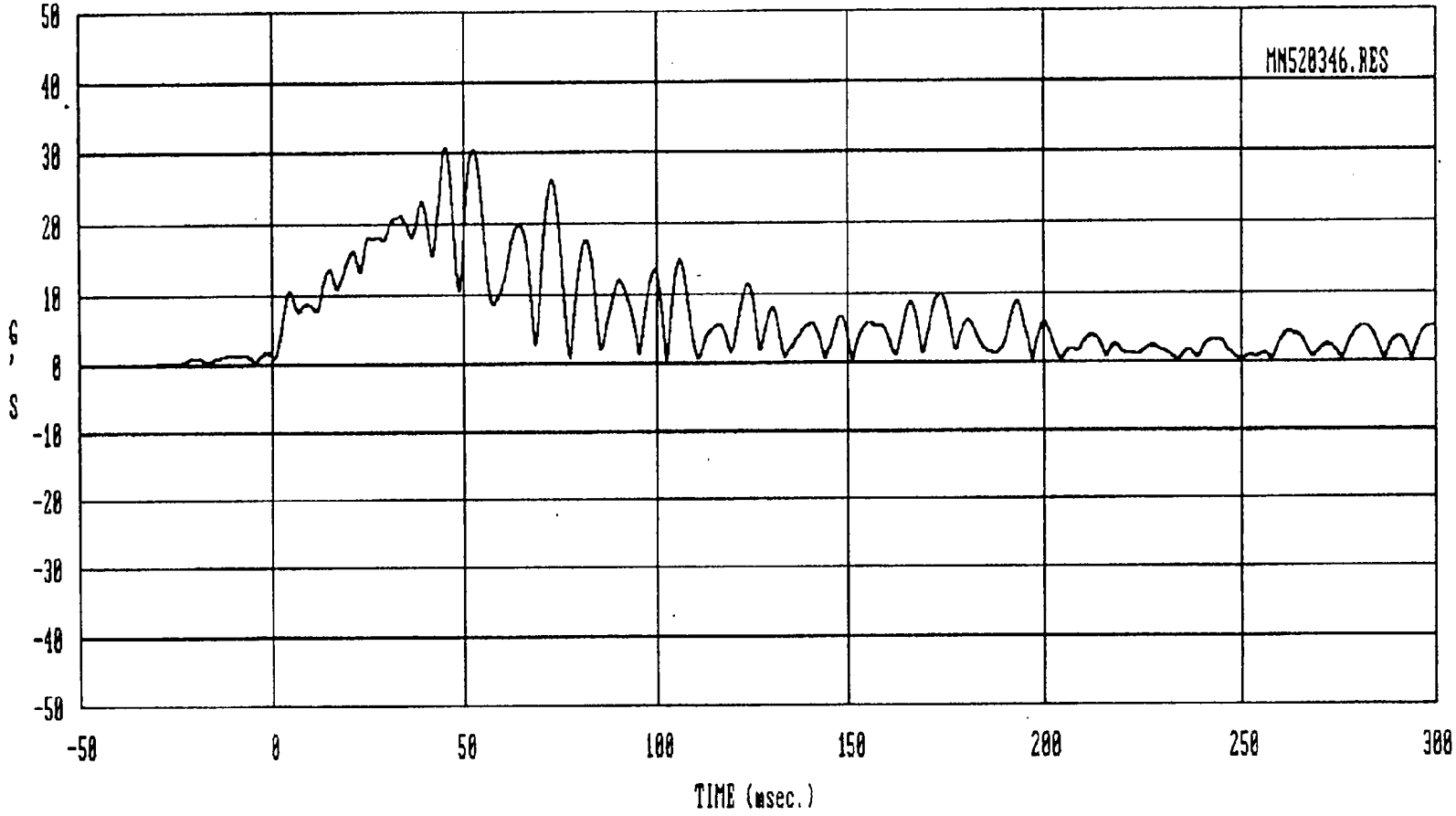
Curve: M.D.B. C/G delta V — Y axis Filter: SAE CLASS 180 Max = 22.441 Min = 17.174

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



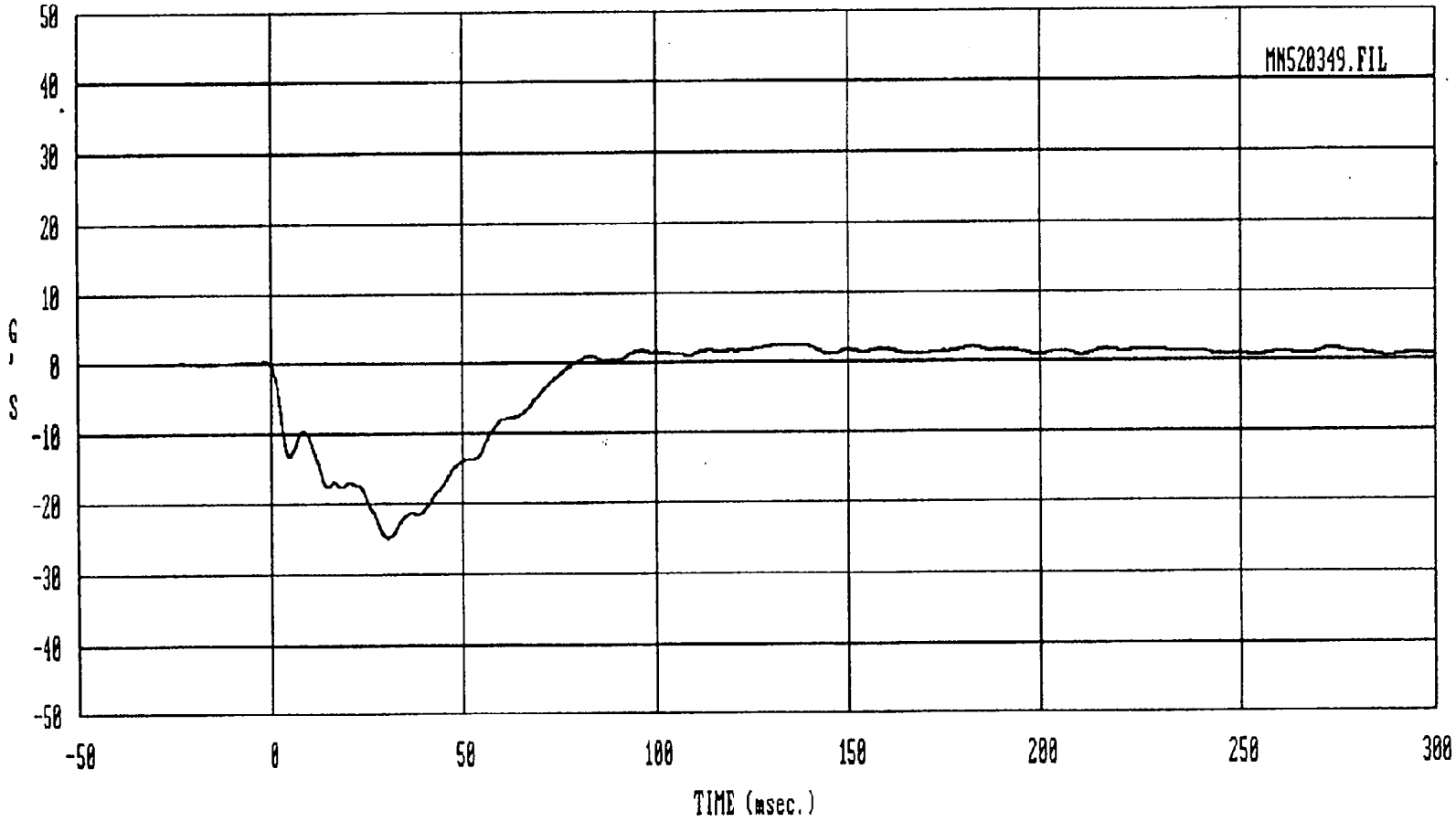
Curve: M.D.B. C/G acceleration -- Z axis Filter: SAE CLASS 60 Max = 28.816 Min = -28.185

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



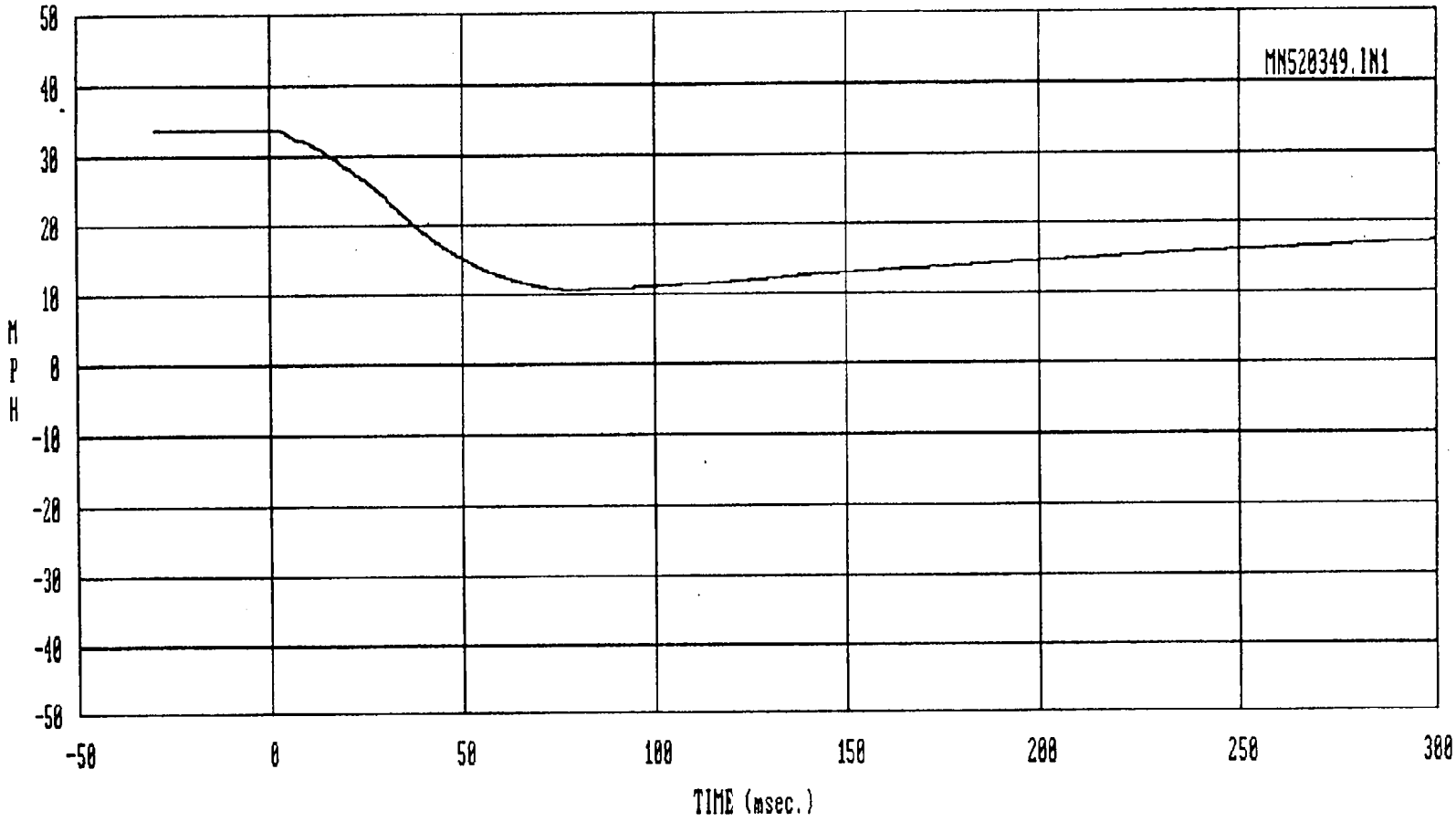
Curve: M.D.B. C/G resultant acceleration Filter: SAE CLASS 60 Max = 30.767 Min = .15484

MSE Date: 06/26/92 Program: Side Impact 34/17 90 Deg. Vehicle: 1992 Nissan Sentra



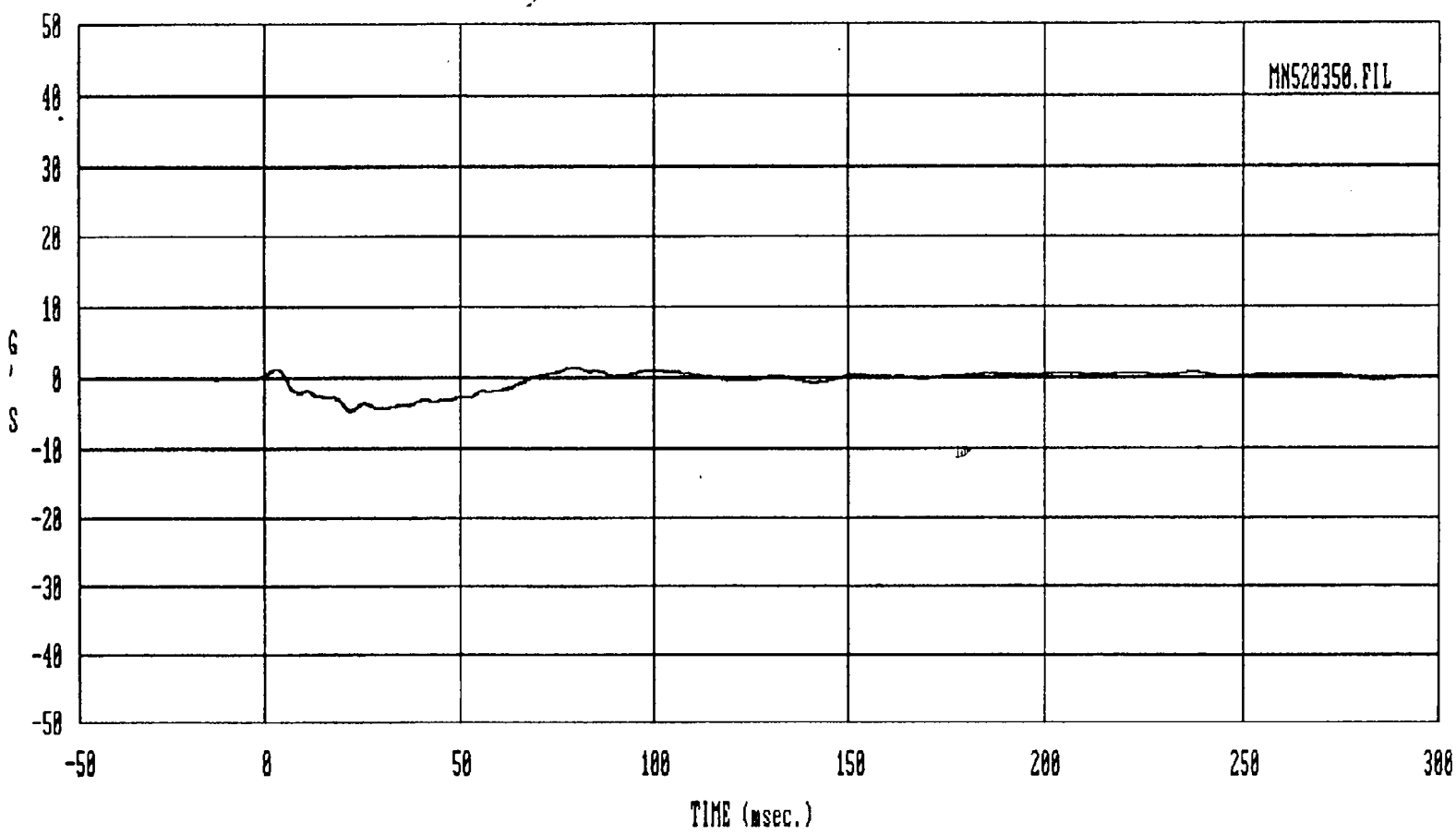
Curve: M.D.B. rear C/G acceleration -- X axis Filter: SAE CLASS 60 Max = 2.4507 Min = -24.844

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



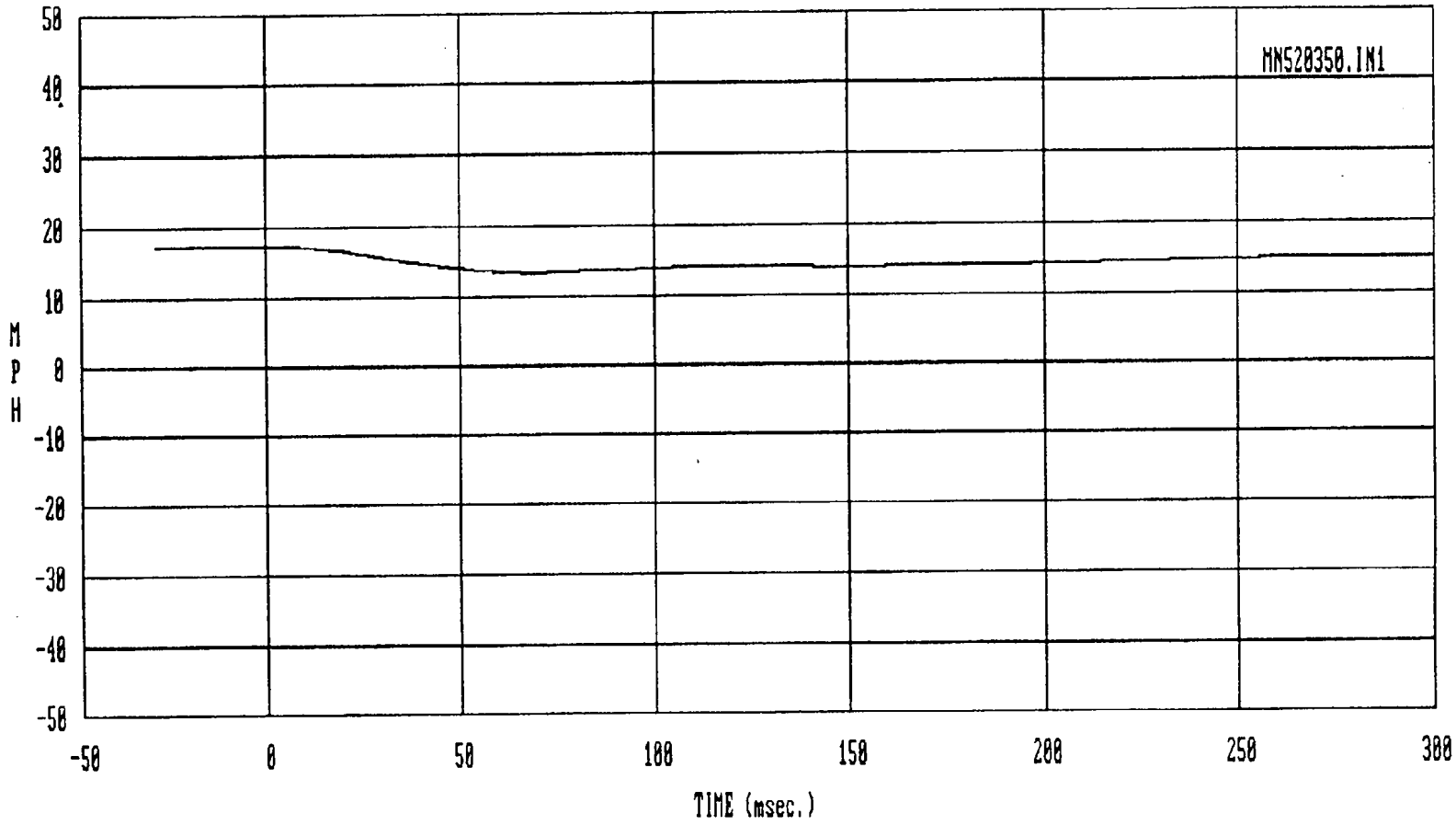
Curve: M.D.B. rear C/G delta V -- X axis Filter: SAE CLASS 180 Max = 33.807 Min = 10.688

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



Curve: M.D.B. rear C/G acceleration -- Y axis Filter: SAE CLASS 60 Max = 1.4880 Min = -4.6085

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra



Curve: M.D.B. rear C/G delta V -- Y axis Filter: SAE CLASS 180 Max = 17.351 Min = 13.433

MSE Date: 06/26/92 Program: Side Impact, 34/17, 90 deg. Vehicle: 1992 Nissan Sentra

SECTION 7

SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Two SID's were used during the test. They were:

DRIVER POSITION: SID, SERIAL NO. 136

LEFT REAR PASSENGER

POSITION: SID, SERIAL NO. 137

The pretest SID calibration data are shown in this section.

SID IMPACT CALIBRATION SUMMARY SHEET

S.I.D. I.D. NO. : 136 (DRIVER)

Sheet No. 2 of 3 TEST PARAMETER	SPECIFICATION	Pretest Calibration	Posttest Calibration
3. ABSOMINAL COMPRESSION TEST (Preload = 10 pounds)			
a. Force @ .5" - - - -	23 - 36 lbs.	N/A	
b. Force @ .75"- - - -	36 - 50 lbs.	N/A	
c. Force @ 1.0"- - - - -	50 - 63 lbs	N/A	
d. Force @ 1.3"- - - - -	73 - 88 lbs.	N/A	
4. LUMBAR FLEXION TEST:			
a. Force @ 20' - - - -	22 to 34 lbs	N/A	
b. Force @ 30' - - - -	34 to 46 lbs	N/A	
c. Force @ 40' - - - - -	46 to 58 lbs	N/A	
d. Return Angle - - - -	12 maximum	N/A	
5. THORAX IMPACT TEST:	VEL:14.05ft/sec		
	Primary	42.94	
a. Upper Rib accel.- - -	37 - 46g's Sec	43.37	
	Primary	40.99	
b. Lower Rib accel.- - -	37 - 46g's Sec	42.94	
	Primary	22.83	
c. Lower Spine accel - -	15 -22 g's Sec	21.67	
6. PELVIC IMPACT TEST:	Vel:14.01 ft/sec		
Pelvic accel. - - - -	40 - 60g's	43.01	

SID IMPACT CALIBRATION SUMMARY SHEET

S.I.D. I.D. NO. : 137 (PASSENGER)

Sheet No. 2 of 3 TEST PARAMETER	SPECIFICATION	Pretest Calibration	Posttest Calibration
3. ABSOMINAL COMPRESSION TEST (Preload = 10 pounds) a. Force @ .5" - - - - b. Force @ .75"- - - - c. Force @ 1.0"- - - - - d. Force @ 1.3"- - - - -	 23 - 36 lbs. 36 - 50 lbs. 50 - 63 lbs 73 - 88 lbs.	 N/A N/A N/A N/A	
4. LUMBAR FLEXION TEST: a. Force @ 20′ - - - - b. Force @ 30′ - - - - c. Force @ 40′ - - - - - d. Return Angle - - - -	 22 to 34 lbs 34 to 46 lbs 46 to 58 lbs 12 maximum	 N/A N/A N/A N/A	
5. THORAX IMPACT TEST: a. Upper Rib accel.- - - b. Lower Rib accel.- - - c. Lower Spine accel - -	VEL:14.02ft/sec Primary 37 - 46g's Sec Primary 37 - 46g's Sec Primary 15 -22 g's Sec	 42.21 42.72 41.72 42.36 21.61 22.09	
6. PELVIC IMPACT TEST: Pelvic accel. - - - -	Vel:14.12 ft/sec 40 - 60g's	 42.52	