

REPORT NO.: 214D-MGA-97-07

V2484

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TESTING
PASSENGER CARS

1997 DODGE INTREPID
4-DOOR SEDAN
NHTSA NO: MV0302

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: December 17, 1996

Report Date: January 21, 1997

FINAL REPORT

Prepared For:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
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16. Abstract A 90° Moving Deformable Barrier NCAP side impact was conducted on the subject 1997 Dodge Intrepid to obtain new car assessment and research data indicant of FMVSS No. 214D performance. The test was conducted at MGA Research Corporation in Burlington, Wisconsin, on December 17, 1996. The impact velocity of the Moving Deformable Barrier (MDB) was 61.5 kph, and the ambient temperature at the struck driver's side of the target vehicle at the time of impact was 22°C. The target vehicle post test maximum crush was 447 mm at level 2. The test vehicle's performance follows:					
		<u>DRIVER</u>		<u>PASS.</u>	
Left Upper Rib (LUR) Accel., g		78		102	
Left Lower Rib (LLR) Accel., g		80		92	
Lower Spine (T ₁₂) Accel., g		64		66	
Thoracic Trauma Index (TTI)		72		84	
Pelvis (PEV) Accel., g		109		105	
The doors on the struck side of the vehicle did not separate from the body. The opposite doors did not open during the side impact event.					
17. Key Words New Car Assessment Program (NCAP) FMVSS No. 214D Side Impact Dummy (SID) Occupant Side Impact Protection			18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Adm. Technical Ref. Division, Room 5108 (NAD-52) 400 Seventh Street, S.W. Washington, D.C. 20590 Telephone No. 202-366-4946 Attn: Robert Hornickle		
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SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FY97 NCAP Side Impact Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-93-C-02047. The purpose of this test was to evaluate side impact protection of a 1997 Dodge Intrepid 4-Door.

This side impact test was conducted in accordance with the New Car Assessment Program Side Impact Testing Procedure dated October 1996.

MGA does not endorse or certify products. The manufacturer's name appears solely for identification purposes only.

SECTION 2

SUMMARY OF SIDE IMPACT TEST

A 1997 Dodge Intrepid 4-Door was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 38.2 mph (61.5 kph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by MGA Research Corporation in Burlington, Wisconsin, on December 17, 1996. Pre- and post-test photographs of the test vehicle, the MDB and the side impact dummies (SIDs) are included in Appendix A.

Two Side Impact Dummies (SIDs) were placed in the driver and left rear designated seating positions according to instructions specified in the New Car Assessment Program Side Impact Laboratory Test Procedure which is dated October 1996. The side impact event was documented by nine high speed cameras. Camera locations and other pertinent camera information can be found in this report.

The SIDs were instrumented with the following accelerometers.

1. Left Upper Rib (LUR) uniaxial accelerometer (Y-direction)
2. Left Lower Rib (LLR) uniaxial accelerometer (Y-direction)
3. Lower Thoracic Spine (T₁₂) uniaxial accelerometer (Y-direction)
4. Pelvic (PEV) section uniaxial accelerometer (Y-direction)

Appendix B contains the vehicle and dummy response data traces. A summary of the side impact dummy (SID) configuration and performance verification test data is shown in Appendix C. Dummy and vehicle calibration data can be found in Appendix D of this report.

The following table summarizes the results of the test:

Injury Criteria	Front SID	Rear SID
TII (g)	72	84
Pelvis (g)	109	105

SECTION 3
SIDE IMPACT DUMMY (SID) AND
VEHICLE TEST DATA

DATA SHEET NO. 1
GENERAL VEHICLE TEST PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door
Vehicle NHTSA No.: MV0302 VIN: 2B3HD46TXVH549127
Vehicle Body Color: Spruce Pearl Build Date: 10/96
Engine Data: 6 Cylinders; CID; 3.3 Liter; cc
Placement X Longitudinal; Lateral
Transmission: 3 Speed; Manual; X Automatic; X Overdrive
Final Drive: Rear Wheel Drive; X Frt. Wheel Drive; Four Wheel Drive

Odometer Reading 59 miles
Options: X A/C; X Pwr. Steering; X Pwr. Brakes; X Pwr. Windows;
X Cruise Control; X Tilt Wheel; X Power Door Locks;

DATA FROM TIRE PLACARD:

Tire Pressure (at capacity): 32 Psi FRONT
32 Psi REAR
Recommended Tire Size: P205/70/R15
Tires on Test Vehicle: P225/60/R16 Manufacturer: Goodyear

Vehicle Capacity Data:

Number of Occupants: 2 Front; 3 Rear; 3rd Seat, 5 Total
Type of Front Seats: X Bucket; Bench; Split Bench
Type of Front Seat Back: Fixed; X Adjustable with X Lever
Vehicle Maximum Capacity Loading = 392.4 kg (A)
No. of Occupants x 68.04 kg. = 340.2 kg (B)
Cargo Capacity (A-B) = 52.2 kg

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

WEIGHT OF TEST VEHICLE WITH MAXIMUM FLUIDS:

Right Front	=	<u>479.0</u>	kg	Right Rear	=	<u>280.8</u>	kg
Left Front	=	<u>510.7</u>	kg	Left Rear	=	<u>264.0</u>	kg
TOTAL FRONT	=	<u>989.7</u>	kg	TOTAL REAR	=	<u>544.8</u>	kg
% of Total Vehicle Weight = <u>64.5</u> %;				% of Total Weight = <u>35.5</u> %			
TOTAL WEIGHT = <u>1534.5</u> kg							

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Maximum Fluids	=	<u>1534.5</u>	kg
Cargo Carrying Capacity of Test Vehicle	=	<u>52.2</u>	kg
Weight of 2 Side Impact Dummies (2 x <u>80.7</u> kg.)	=	<u>161.4</u>	kg
TEST VEHICLE TARGET WEIGHT	=	<u>1748.1</u>	kg

ACTUAL WEIGHT OF TEST VEHICLE WITH 2 DUMMIES AND CARGO:

Right Front	=	<u>496.2</u>	kg	Right Rear	=	<u>333.4</u>	kg
Left Front	=	<u>572.9</u>	kg	Left Rear	=	<u>339.3</u>	kg
TOTAL FRONT	=	<u>1069.1</u>	kg	TOTAL REAR	=	<u>672.7</u>	kg
% of Total Weight	=	<u>61.4</u>	%	% of Total Weight	=	<u>38.6</u>	%
TOTAL TEST WEIGHT	=	<u>1741.8</u>	kg				

TEST VEHICLE ATTITUDE:

CURB WEIGHT ATTITUDE:

Right Front 735 mm Left Front 738 mm Right Rear 730 mm Left Rear 723 mm

FULLY LOADED WEIGHT ATTITUDE:

Right Front 731 mm Left Front 723 mm Right Rear 708 mm Left Rear 688 mm

TEST ATTITUDE:

Right Front 725 mm Left Front 724 mm Right Rear 708 mm Left Rear 690 mm

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

Test Vehicle Wheelbase: 2874 mm

C.G. = 1110 mm rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side = 4772 mm

Centerline = 5106 mm

Left Side = 4772 mm

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

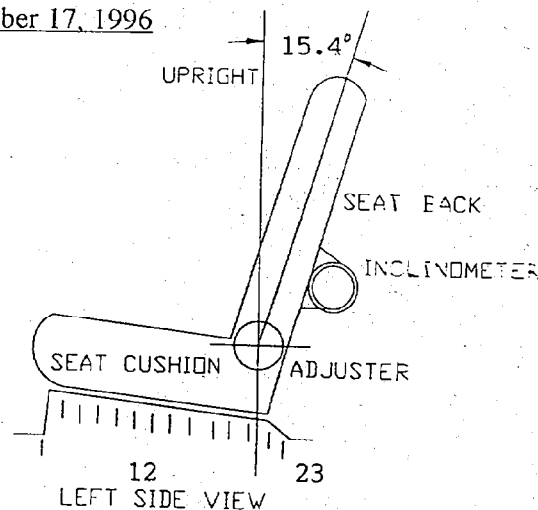
FRONT SEAT CUSHION PLACEMENT:

Total Length of Adjustment Travel: 220 mm

Test Position: 12th notch from foremost locking
position out of 23 detents

FRONT SEAT BACK ADJUSTMENT POSITION:

Seat Back Angle = 15.4° from vertical



SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: Non-adjustable

Seat Back Adjustment Position: Non-adjustable

ADJUSTABLE STEERING COLUMN POSITION: 2nd notch of 4

WINDOW POSITIONS: Left Front Up Left Rear Up
Right Front Down Right Rear Removed

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

Fuel system usable capacity = 18.0 gallons

Test Volume: 16.75 gallons 93 % of capacity

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

Wheelbase: = 2874 mm

Impact Point is 497 mm rearward of front axle centerline

DATA SHEET NO. 2

TEST VEHICLE SUMMARY OF RESULTS

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

Overall Length = 5106 mm; Overall Width = 1883 mm

TEST WEIGHT:

Right Front = 496.2 kg Right Rear = 334.4 kg

Left Front = 572.9 kg Left Rear = 339.3 kg

TOTAL FRONT = 1069.1 kg TOTAL REAR = 672.7 kg

% of Total Weight = 61.4 % % of Total Weight = 38.6 %

TOTAL VEHICLE WEIGHT = 1741.8 kg

Wheelbase = 2874 mm

Longitudinal C.G. from Center of Front Axle = 1110 mm

Impact Angle with Respect to Impactor = 90° degrees

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (250 mm above ground) = 162 mm

2. LEVEL 2 (481 mm above ground) = 447 mm

3. LEVEL 3 (628 mm above ground) = 381 mm

4. LEVEL 4 (880 mm above ground) = 315 mm

5. LEVEL 5 (1333 mm above ground) = 159 mm

Maximum Post-Test Intrusion = 447 mm

OCCUPANTS:

Left Front Passenger

Left Rear Passenger

Type of Dummy

SID

SID

Restraints Used

type II belt

type II belt

with frontal airbag

TEST VEHICLE SUMMARY OF RESULTS (Cont'd)

INSTRUMENTATION:

Number of Vehicle Data Channels:	=	<u>25</u>
Number of Cameras: Onboard Vehicle	=	<u>3</u>
Offboard Vehicle	=	<u>4</u>
Deformable Barrier	=	<u>2</u>
TOTAL	=	<u>9</u>

DATA SHEET NO. 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

POSITION OF IMPACT (MDB) ON MONORAIL:

Crabbed 27° to left

MDB DETAILS:

Overall Width of Framework Carriage	=	<u>1252 mm</u>
Overall Length of MDB (incl. honeycomb impact face)	=	<u>4115 mm</u>
Wheelbase of Framework Carriage	=	<u>2591 mm</u>
Tread of Framework Carriage (Front & Rear)	=	<u>1880 mm</u>
C.G. Location Rearward of Front Axle	=	<u>1102 mm</u>
C.G. Location From Center Line	=	<u>-8 mm</u>
C.G. Location Above Ground Level	=	<u>488 mm</u>

MDB WEIGHT:

Left Front	=	<u>496.7 kg</u>	Left Rear	=	<u>187.3 kg</u>
Right Front	=	<u>283.0 kg</u>	Right Rear	=	<u>389.2 kg</u>
TOTAL FRONT	=	<u>779.7 kg</u>	TOTAL REAR	=	<u>576.5 kg</u>
TOTAL MDB WEIGHT	=	<u>1356.2 kg</u>			

Impact Angle (MDB C/L to Target Vehicle C/L) = 90° degrees

Impact Speed = Primary: 38.2 mph (61.5 kph) Secondary: 38.3 mph (61.6 kph)

CRASH TEST SUMMARY FOR SIDE IMPACTOR (Cont'd)

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A Top of Stack (813 mm) = 142 mm
2. Row B Mid Stack (686 mm) = 76 mm
3. Row C Top of Bumper (533 mm) = 118 mm
4. Row D Center of Bumper (432 mm) = 175 mm

INSTRUMENTATION:

Number of MDB Data Channels = 7

DATA SHEET NO. 4
POST-TEST OBSERVATIONS

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head	<u>to window sill and left shoulder</u>	<u>to C-Post</u>
Arm	<u>to door panel</u>	<u>to door panel</u>
Pelvis	<u>to door panel</u>	<u>to door panel</u>
Left Knee	<u>to door panel</u>	<u>to door panel</u>
Right Knee	<u>to left knee</u>	<u>to left knee</u>

DOOR OPENING:

	<u>LEFT SIDE</u>	<u>RIGHT SIDE</u>
Front	<u>Remained closed</u>	<u>Remained closed</u>
Rear	<u>Remained closed</u>	<u>Remained closed</u>

MDB DISTANCE FROM TARGET IMPACT POINT:

Horizontal: 2 mm forward Vertical: 10 mm high

ARM REST LOCATIONS:

Front: 215 mm from bottom of window

Rear: 285 mm from bottom of window

POST-TEST OBSERVATIONS (Cont'd)

SEAT CRUSH:

Front Seat Back: 54 mm Front Seat Cushion: 93 mm

Left Rear Seat Back: 96 mm Rear Seat Cushion: 174 mm

GLAZING DAMAGE:

Left side front and rear door glass broken, windshield cracked

PILLAR PERFORMANCE:

No failure noted

SILL SEPARATION:

None noted

OTHER NOTABLE IMPACT EFFECTS:

None noted

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

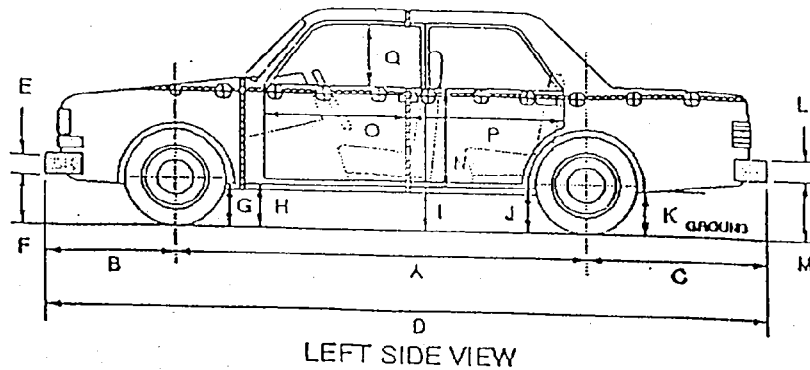
DATA SHEET NO. 5
SIDE IMPACT DUMMY (SID) INSTRUMENTATION DATA

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door
 Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

	Front Dummy ID # 269				Rear Dummy ID # 270			
	Pos. Direct.		Neg. Direct		Pos. Direct.		Neg. Direct	
	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
RIB ACCELERATIONS								
Left Upper Rib (LUR) Y	78.3	31	-11.7	80	102.3	46	-28.2	72
Left Lower Rib (LLR) Y	80.4	32	-14.4	102	92.0	46	-9.7	112
SPINE ACCELERATIONS								
Lower Lateral Y	64.5	34	-19.5	110	66.3	44	-15.5	69
PELVIS ACCELERATIONS								
Lateral Y	108.9	36	-21.2	95	104.7	38	-13.4	74

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

DATA SHEET NO. 6
VEHICLE PRE AND POST-TEST MEASUREMENTS



D = Length at Centerline
 R = Right Side Length
 S = Left Side Length
 T = Width at B Post
 E & L = Bumper Thickness

J1 = To Pinch Weld
 J2 = To Sill

ALL MEASUREMENTS IN (mm)

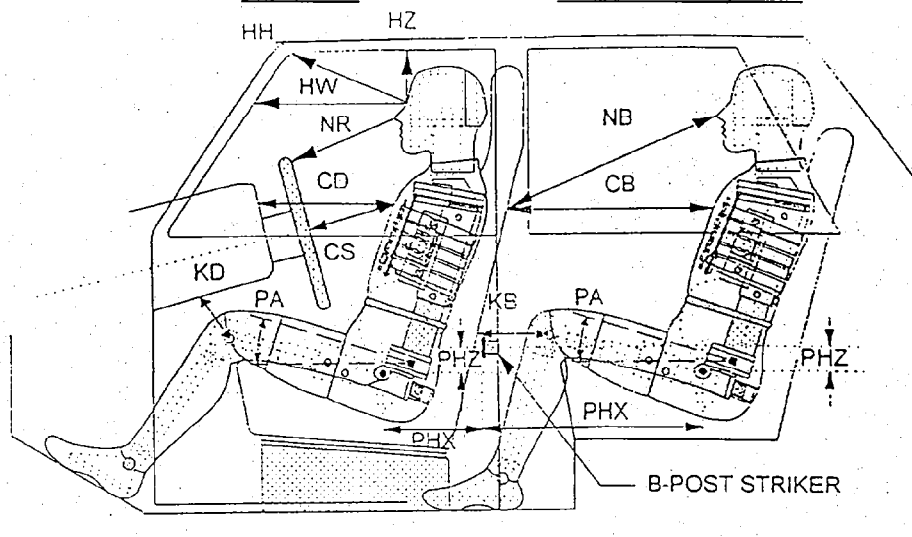
	PRE-TEST	POST-TEST	Δ CHANGE
A	2874	2822	52
B	1122	1126	4
C	1110	1113	3
D	5106	5061	45
E	170	170	0
F	417	426	9
G	210	197	13
H	191	147	44
I	210	178	32
J1/J2	214/222	183/194	31/28
K	299	273	26
L	280	280	0
M	367	318	49
N	632	597	35
O	884	808	76
P	1232	1171	61
Q	488	460	28
R	4772	4816	44
S	4772	4699	73
T	1883	1576	307

DATA SHEET NO. 7

SIDE IMPACT DUMMY (SID) LONGITUDINAL CLEARANCE DIMENSIONS

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

NHTSA NO.: MV0302 Test Date: December 17, 1996



NOTE: All dimensions are in mm with tolerance of ± 3 mm

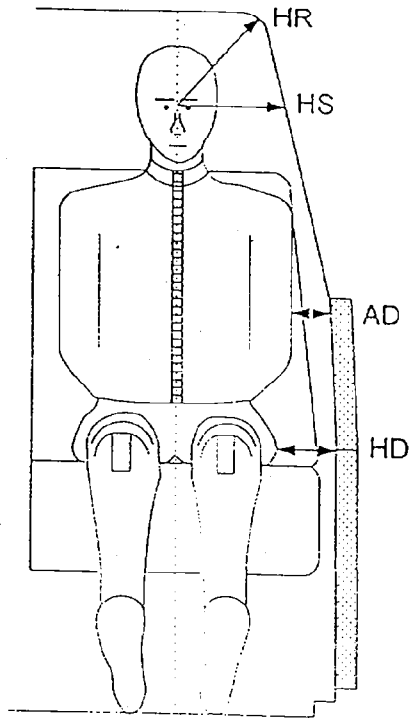
	FRONT SID ID # 269	REAR PASSENGER SID ID # 270	
HH	406	HZ	137
HW	646	NB	733
HZ	156	CB	631
NR	428	KBL (KBA)	156 (0°)
CD	558	KBR (KBA)	175 (0°)
CS	346	PA°	24.8°
KDL(KDA°)	141 (37.8°)	PHX	283
KDR(KDA°)	162 (38.6°)	PHZ	295
PA°	24.8°		
PHX	191		
PHZ	113		

NOTE: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as reference point.

DATA SHEET NO. 8
SIDE IMPACT DUMMY (SID) LATERAL CLEARANCE DIMENSIONS

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

NHTSA NO.: MV0302 Test Date: December 17, 1996



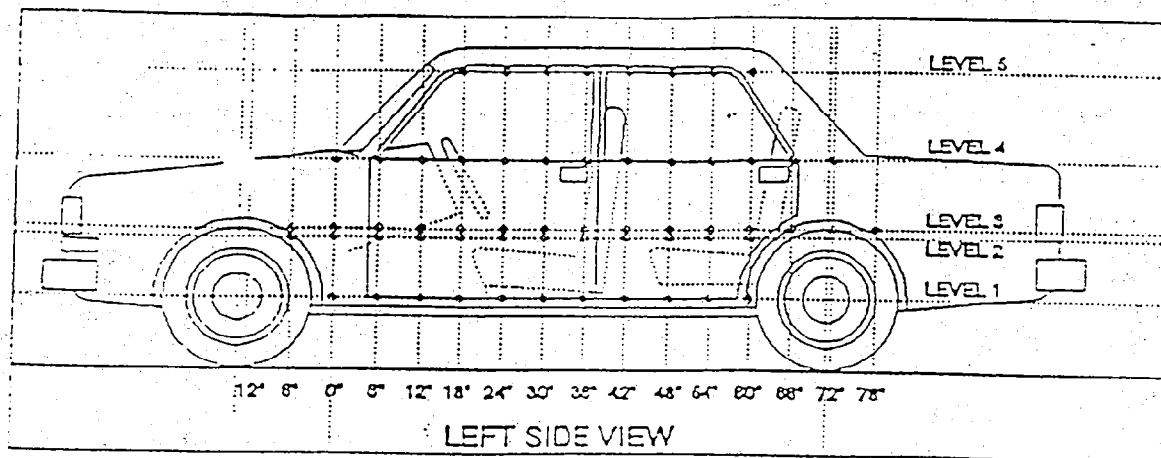
NOTE: All dimensions are in mm

	DRIVER ID # 269	LEFT REAR PASSENGER ID # 270
HR	173	244
HS	313	225
AD	129	132
HD	146	202

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

NHTSA NO.: MV0302 Test Date: December 17, 1996



MEASUREMENTS ARE TAKEN WHEN THE VEHICLE IS IN THE "AS TESTED"
CONFIGURATION

MEASUREMENTS ALONG THE VERTICAL 750 mm. LINE SHOWN ABOVE

Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>250</u> mm
Level 2 @ Occupant H-Point	=	<u>481</u> mm
Level 3 @ Mid Door	=	<u>628</u> mm
Level 4 @ Window Sill	=	<u>880</u> mm
Level 5 @ Window Top	=	<u>1333</u> mm

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 1 - Axle Centerline		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)	712	779	67
150	713	798	85
300	711	808	97
450	709	820	111
600	709	831	122
750	709	844	135
900	708	858	150
1050	709	871	162
1200	708	870	162
1350	708	857	149
1500	710	845	135
1650	711	830	119
1800	713	796	83
1950	710	803	93

Reference plane is parallel to test vehicle longitudinal centerline.

Given dimensions = Reference plane to car body

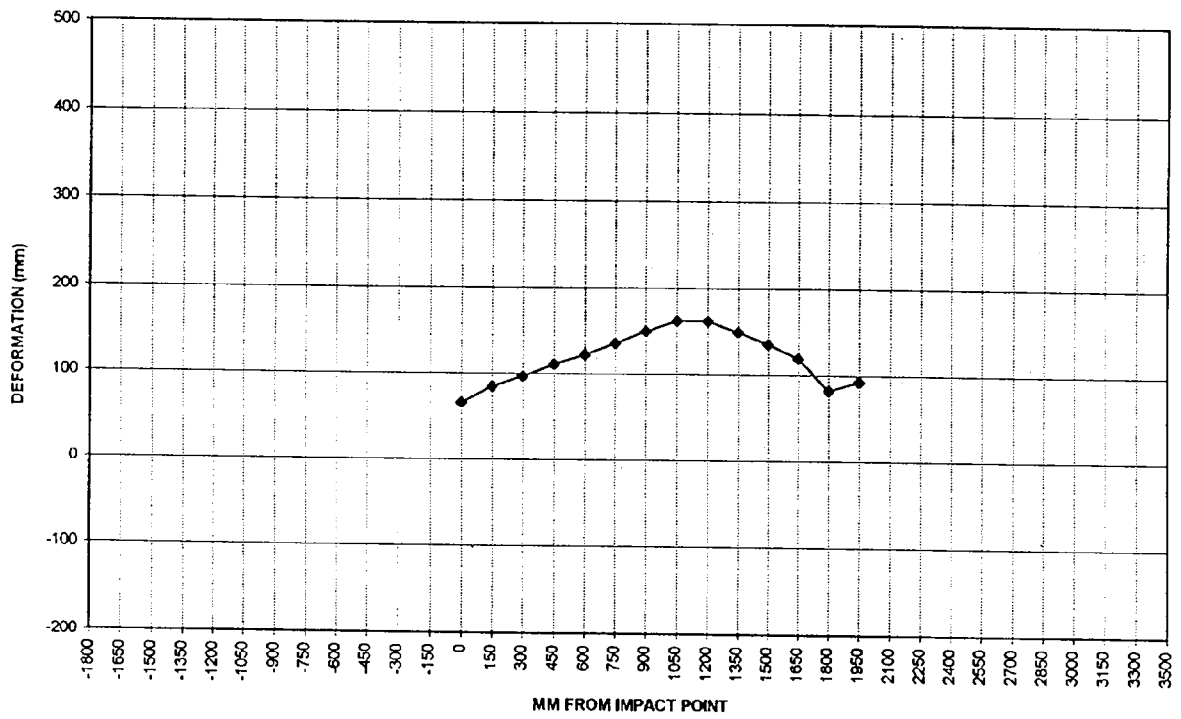
DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 1 - Axle Centerline		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
2100			
2250			
2400			
2550			
2700			
2850			
3000			
3150			
3300			

Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



LEVEL 1 - AXLE CENTERLINE

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 2 - Occupant H Point		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350	740	749	9
-1200	700	713	13
-1050	671	692	21
-900	648	674	46
-750			
-600			
-450			
-300			
-150			
0 (impact point)	636	813	177
150	633	943	310
300	631	1070	439
450	630	1004	374
600	629	1016	387
750	628	1009	381
900	627	1010	383
1050	626	975	349
1200	625	1072	447
1350	625	1052	427
1500	627	982	355
1650	627	940	313
1800	628	875	247
1950	627	774	147

Reference plane is parallel to test vehicle longitudinal centerline.

Given dimensions = Reference plane to car body

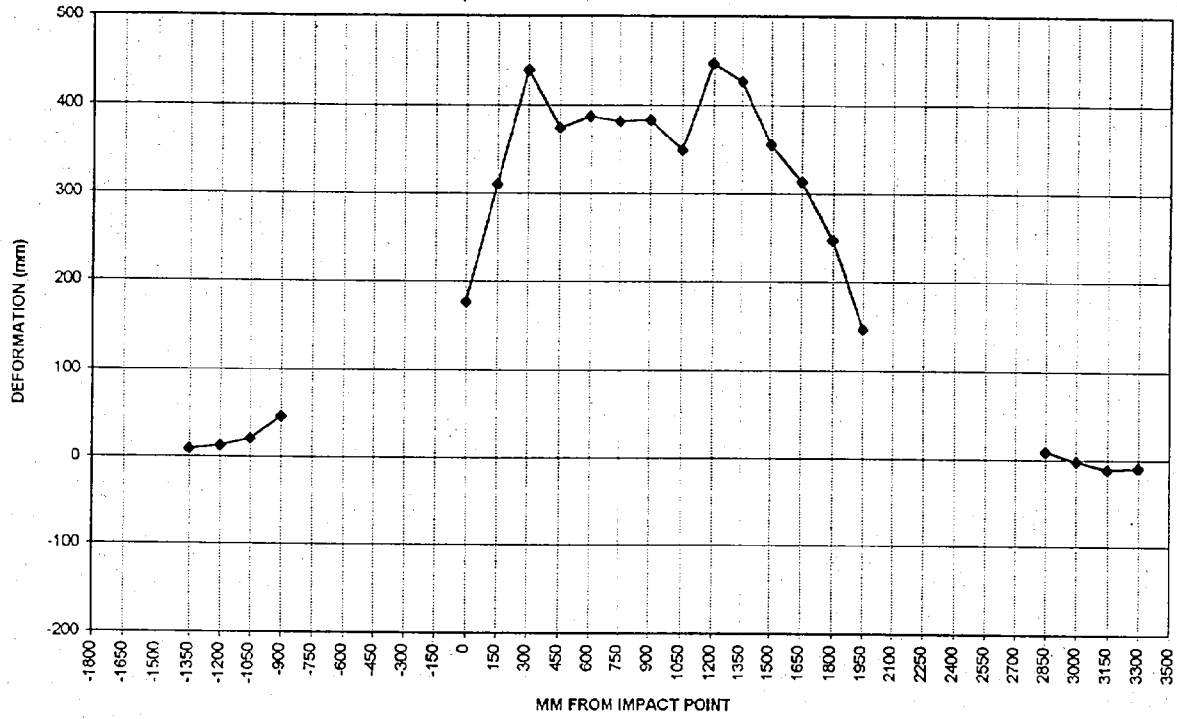
DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 2 - Occupant H Point		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
2100			
2250			
2400			
2550			
2700			
2850	648	657	9
3000	667	665	-2
3150	688	677	-11
3300	723	714	-9

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



LEVEL 2 - OCCUPANT H-POINT

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 3 - Mid Door		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350	761	734	-27
-1200	711	715	4
-1050	679	689	10
-900	655	671	16
-750			
-600			
-450			
-300			
-150	517	684	167
0 (impact point)	617	775	158
150	616	898	282
300	615	940	325
450	612	940	328
600	610	939	329
750	609	927	318
900	608	925	317
1050	607	927	320
1200	608	989	381
1350	608	986	378
1500	610	965	355
1650	611	850	239
1800	611	792	181
1950	610	680	70

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

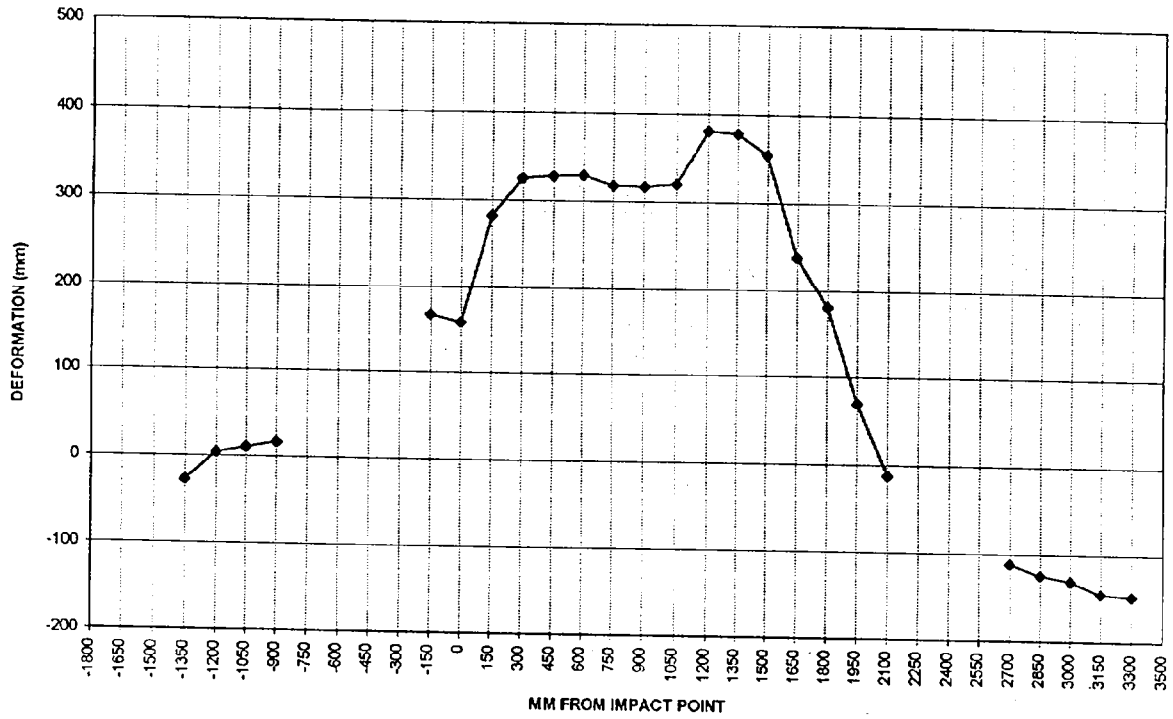
DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

	Level 3 - Mid Door		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
2100	605	593	-12
2250			
2400			
2550			
2700	629	518	-111
2850	653	529	-124
3000	674	543	-131
3150	704	559	-145
3300	750	602	-148

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



LEVEL 3 - MID DOOR

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 4 - Window Sill		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200	765	784	19
-1050	734	758	24
-900	713	748	35
-750	695	736	31
-600	683	730	47
-450	675	730	55
-300	672	735	63
-150	670	738	68
0 (impact point)	672	784	112
150	672	809	137
300	675	858	183
450	673	896	223
600	676	909	233
750	676	906	230
900	679	907	228
1050	679	914	235
1200	683	990	307
1350	683	998	315
1500	686	964	278
1650	690	924	234
1800	691	860	169
1950	691	788	97

Reference plane is parallel to to test vehicle longitudinal centerline.

Given dimensions = Reference plane to car body

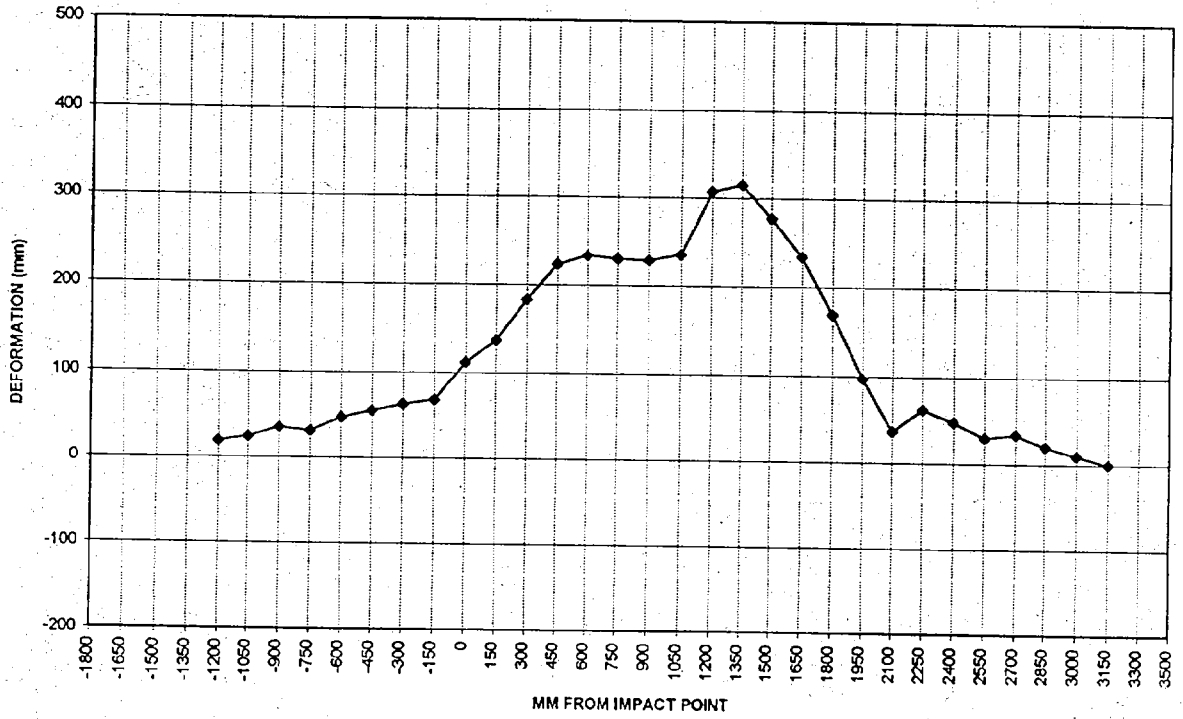
DATA SHEET No. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 4 - Window Sill		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
2100	691	728	37
2250	693	755	62
2400	701	749	48
2550	708	738	30
2700	712	746	34
2850	733	753	20
3000	750	760	10
3150	771	771	0
3300			

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



LEVEL 4 - WINDOW SILL

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 5 - Window Top		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150			
300			
450			
600	975	1048	73
750	967	1052	85
900	963	1072	109
1050	964	1093	129
1200	971	1108	137
1350	971	1130	159
1500	972	1082	110
1650	974	1052	78
1800			
1950			

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

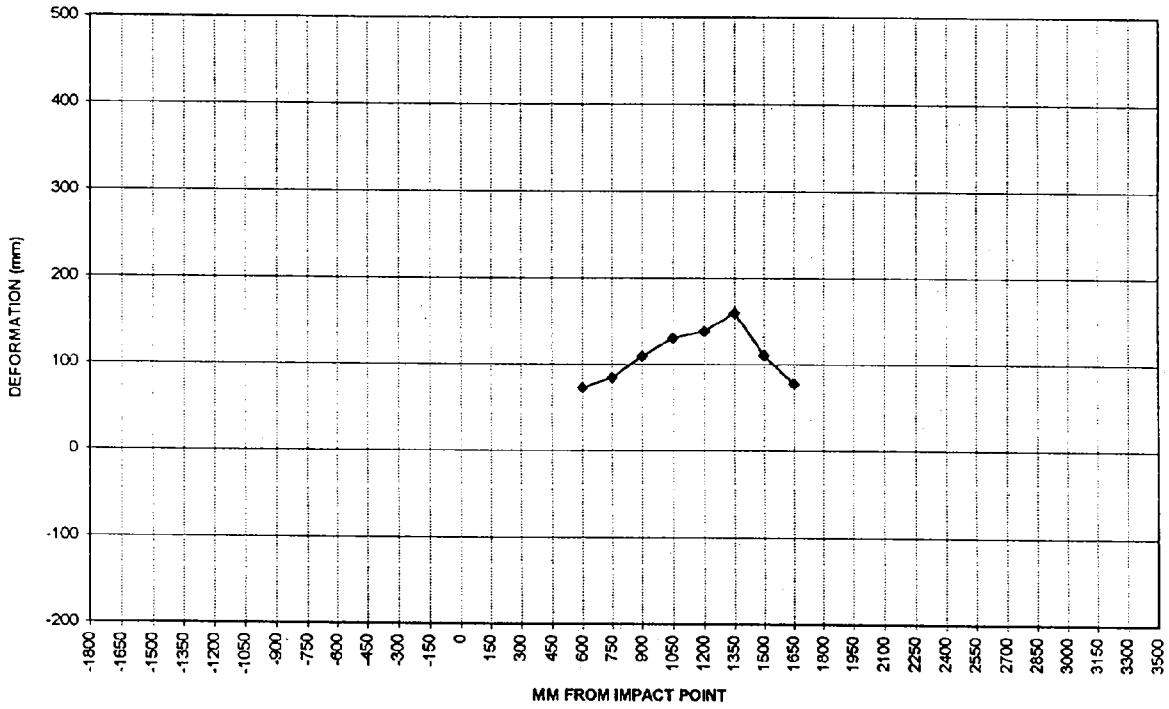
DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 5 - Window Top		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
2100			
2250			
2400			
2550			
2700			
2850			
3000			
3150			
3300			

Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



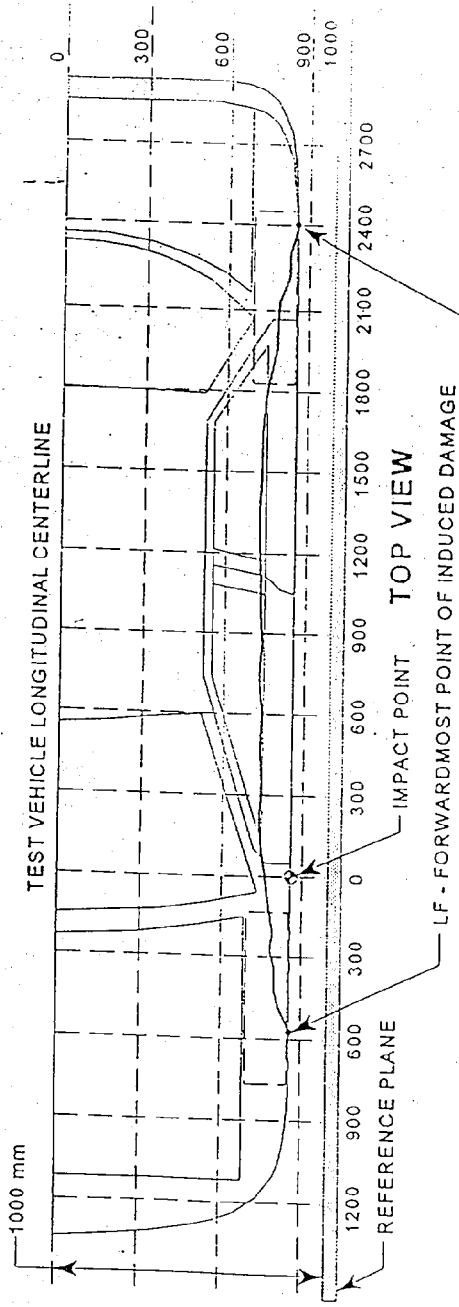
LEVEL 5 - WINDOW TOP

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

NHTSA NO.: MV0302 Test Date: December 17, 1996



MEASUREMENT CONVENTIONS: LR - REARWARDMOST POINT OF INDUCED DAMAGE
 Forward of the impact point (towards front of vehicle) is considered negative (-).
 Rearward of the impact point (toward rear of vehicle) is considered positive (+).

DPD MEASUREMENTS	POST-TEST (mm)	PRE-TEST (mm)	STATIC CRUSH (mm)
1. (LF = <u>-1350</u> mm)	749	740	9
2. <u>-438</u> mm	732	674	58
3. <u>442</u> mm	995	630	365
4. <u>1366</u> mm	1023	626	397
5. <u>2391</u> mm	766	700	66
6. (LR = <u>3300</u> mm)	714	723	-9

DATA SHEET NO. 12

EXTERIOR STATIC CRUSH FOR SIDE IMPACTOR

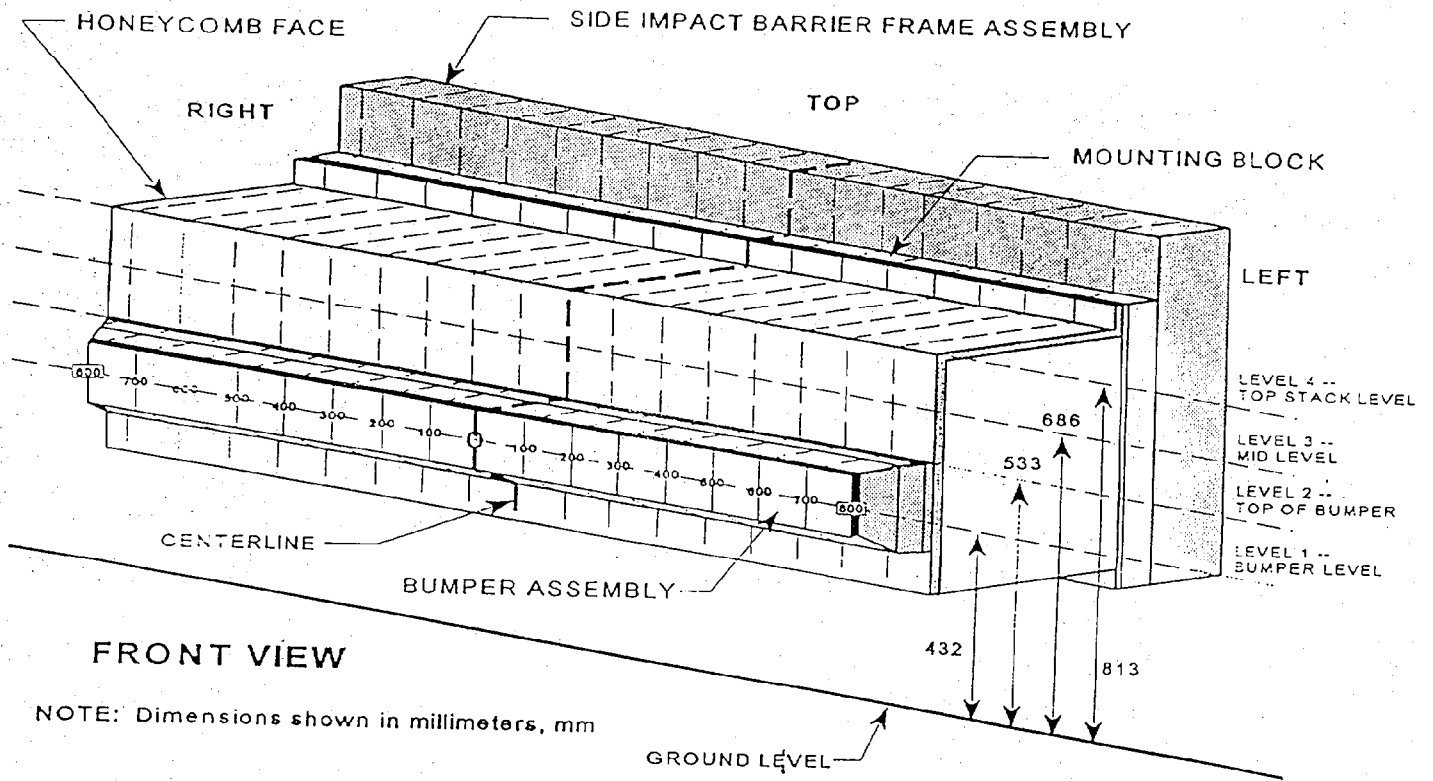
Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

Location	Height at CL	Distance Right of Center (mm)								Distance Left of Center (mm)								
		800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
Top Stack Level 4	813 mm	142	97	59	22	16	14	12	9	7	5	4	2	1	5	26	66	126
Mid Level Level 3	686 mm	74	33	14	6	3	3	2	2	4	3	0	1	2	4	9	33	76
Top Bumper Level 2	533 mm	67	59	43	35	29	29	28	31	29	29	30	31	38	47	65	94	118
Mid Bumper Level 1	432 mm	89	70	54	44	43	44	44	46	47	50	55	56	60	73	99	139	175

See next page for Barrier Face Graphic

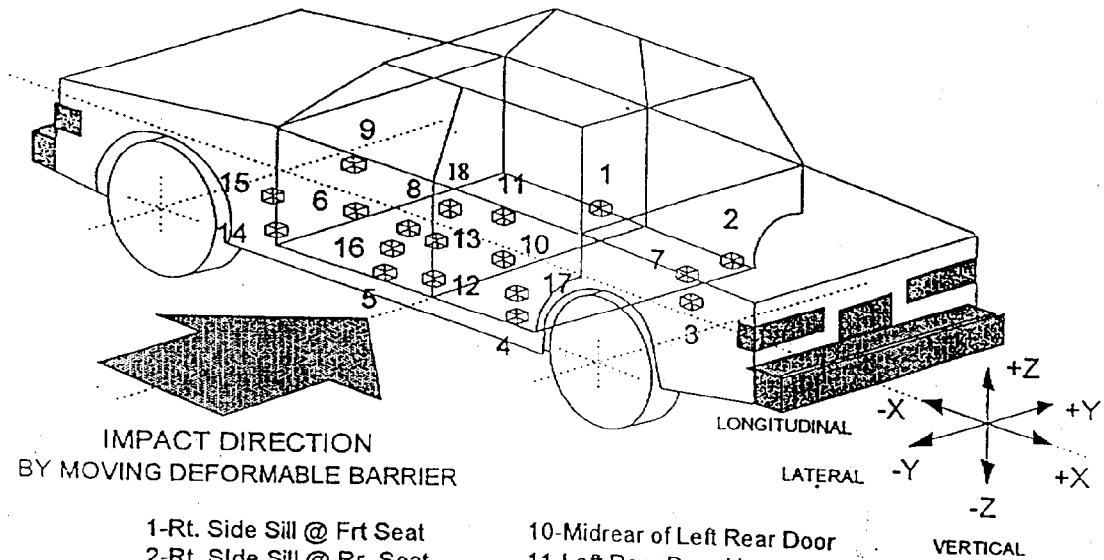
DATA SHEET NO. 12 (Cont'd)



DATA SHEET 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996



- | | |
|--------------------------------|---------------------------------|
| 1-Rt. Side Sill @ Frt Seat | 10-Midrear of Left Rear Door |
| 2-Rt. Side Sill @ Rr. Seat | 11-Left Rear Door Upper Ctrline |
| 3-Rr. Floorpan Above Axle | 12-Left Lower B-Post |
| 4-Left Side Sill @ Rr. Seat | 13-Left Middle B-Post |
| 5-Left Side Sill @ Frt. Seat | 14-Left Lower A-Post |
| 6-Left Frt. Door On Centerline | 15-Left Middle A-Post |
| 7-Rt. Rr. Occ Compartment | 16-Front Seat Track |
| 8-Midrear of Left Frt. Door | 18-Vehicle C.G. |
| 9-Left Frt. Door Upper Ctrline | |

DATA SHEET NO. 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door
Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

Accel. No.	Description	Coordinates (mm)*			Long. (X) Maximums (g's)		Lat. (Y) Maximums (g's)		Vert. (Z) Maximums (g's)		Resultant (g's)
		X	Y	Z	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	
1	Rt. Side Sill @ Front Seat	2747	713	227	4.5	-4.0	29.0	-5.5	5.9	-7.8	29.5
2	Rt. Side Sill @ Rear Seat	2058	713	225	7.9	-4.2	42.7	-5.3	6.6	-8.2	43.6
3	Rr. Floorpan Above Axle	1084	5	525	5.9	-7.5	23.3	-2.5	16.2	-14.6	25.3
4	Left Side Sill @ Rr. Seat	2045	-713	231	---	---	47.7	-34.0	---	---	---
5	Left Side Sill @ Frt. Seat	2712	-713	220	---	---	65.6	-29.6	---	---	---
6	Left Front Door on Centerline*	3094	-788	395	---	---	201.3	-101.7	---	---	---
7	Right Rear Occupant Compartment	2101	645	320	---	---	32.4	-3.8	---	---	---
8	Mid Rear of Left Front Door	2612	-790	691	---	---	248.9	-206.4	---	---	---
9	Left Front Door Upper Centerline**	3094	-829	758	---	---	---	---	---	---	---
10	Mid Rear of Left Rear Door	1955	-818	405	---	---	213.7	-53.1	---	---	---
11	Left Rear Door Upper Centerline	1941	-828	813	---	---	123.6	-107.1	---	---	---
12	Left Lower B-Post	2273	-725	331	---	---	76.6	-19.1	---	---	---
13	Left Mid B-Post	2432	-747	773	---	---	180.0	-39.9	---	---	---
14	Left Lower A-Post	3380	-738	305	---	---	50.0	-4.7	---	---	---
15	Left Mid A-Post	3512	-773	830	---	---	30.5	-14.2	---	---	---
16	Driver Left Seat Track	2571	-586	258	---	---	91.4	-24.4	---	---	---
18	Vehicle CG	2891	-30	385	3.3	-9.6	22.3	-4.0	16.4	-18.9	28.5

*Reference: X - Rear Bumper (+ Forward) * Data not valid after approximately 60 msec.

Y - Vehicle Centerline (+ To right) ** No valid data collected.

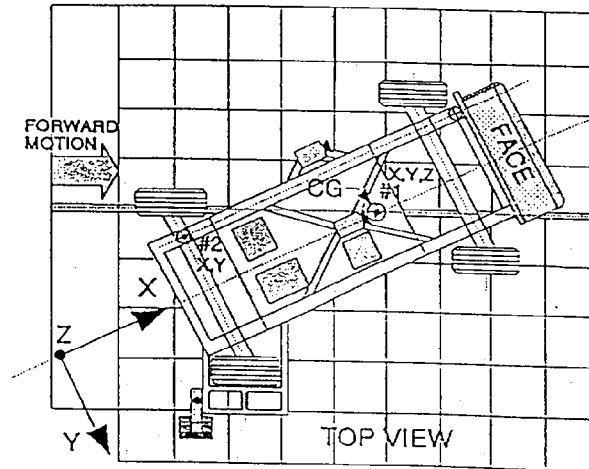
Z - Ground Level (+ Up)

DATA SHEET NO. 14

MOVING DEFORMABLE BARRIER (MDB) ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996



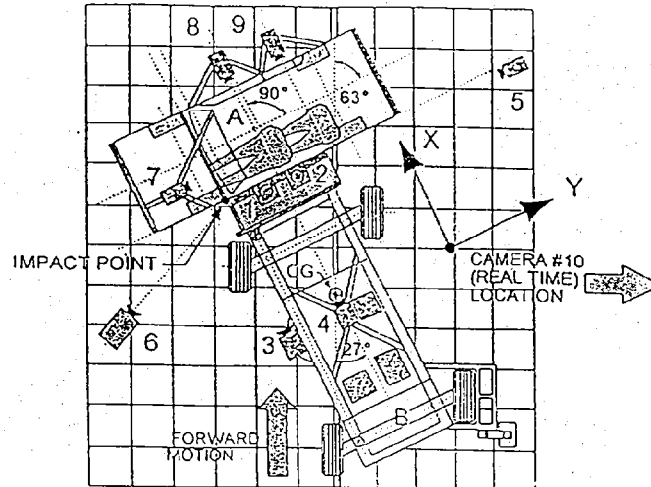
Accel. No.	Description	Coordinates (mm)*			(+) Positive		(-) Negative	
		X	Y	Z	Max. (g)	Time (msec)	Max. (g)	Time (msec)
1	MDB Center of Gravity	-1092	0	483				
	Longitudinal (X)	---	---	---	1.7	135	-16.9	41
	Lateral (Y)	---	---	---	0.8	11	-7.1	45
	Vertical (Z)	---	---	---	17.6	36	-20.6	50
	Resultant (R)	---	---	---	24.9	22	---	---
2	Rear Frame Member	-2591	-625	622				
	Longitudinal (X)	---	---	---	1.4	176	-22.3	36
	Lateral (Y)	---	---	---	1.1	11	-2.7	31

*Reference: X - Front Axle (+ Forward)
 Y - Vehicle Centerline (+ To right)
 Z - Ground Level (+ Up)

DATA SHEET NO. 15
HIGH SPEED CAMERA LOCATIONS AND DATA

Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996



Camera No.	View	Coordinates (mm)*			Angle	Lens (mm)	Film Speed (fps)
		X	Y	Z			
	Real Time						
6	Left Impact	-1030	-2330	1675	90	13	985
8	Onboard Driver					8	823
9	Onboard Passenger					8	962
7	Onboard Hood					13	758
5	Right Impact	-140	10860	1570	90	25	930
1	Top Overall	190	1520	5000		8	1020
2	Top Impact	-220	15	5000		13	885
4	Cart Overall					13	1005
3	Cart Pointer					35	1005

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

DATA SHEET 16
FUEL SYSTEM INTEGRITY POST IMPACT TEST DATA

Vehicle Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

TEST REQUIREMENTS:

Drain the test vehicle's fuel system and operate the engine until the fuel system is dry. Add Stoddard solvent, which has been dyed purple, until 92-94% of the stated usable capacity is reached. Operate the engine to assure the Stoddard solvent is present throughout the entire fuel system.

TEST VEHICLE IMPACT TYPE: X Side Impact MDB 38.2 mph (61.5 kph)

FUEL SPILLAGE MEASUREMENT:

POST IMPACT TEST	TEST RESULTS	MAXIMUM ALLOWABLE
1. From impact until vehicle motion ceases	0	1 oz
2. For 5 minute period after vehicle motion ceases	0	5 oz
3. For next 25 minutes	0	1 oz./1 min

FUEL SPILLAGE LOCATION(S): None

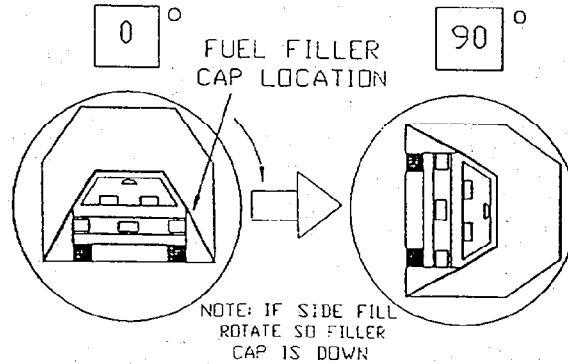
DATA SHEET 16

FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

TEST PHASE: 0° - 90°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 45 seconds
(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 45 seconds

Next Whole Minute Interval = 8 minutes

FUEL SPILLAGE MEASUREMENT:

0° TO 90° ROTATION (FILLER CAP DOWN)	TEST RESULTS	MAXIMUM ALLOWABLE
1. First 5 Minutes From Onset of Rotation	0 oz	5 oz
2. Sixth Minute From Onset of Rotation	0 oz	1 oz
3. Seventh Minute From Onset of Rotation	0 oz	1 oz
4. Eighth Minute if Required	0 oz	1 oz

FUEL SPILLAGE LOCATIONS(S): None

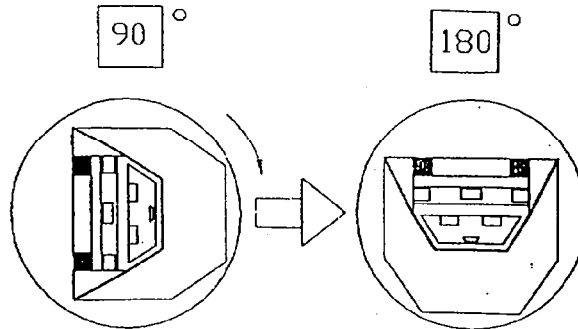
DATA SHEET 16

FMVSS 301 STATIC ROLLOVER TEST DATA (Cont'd)

Vehicle Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

TEST PHASE: 90° - 180°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 45 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 45 seconds

Next Whole Minute Interval = 8 minutes

FUEL SPILLAGE MEASUREMENT:

90° TO 180° ROTATION	TEST RESULTS	MAXIMUM ALLOWABLE
1. First 5 Minutes From Onset of Rotation	0 oz	5 oz
2. Sixth Minute From Onset of Rotation	0 oz	1 oz
3. Seventh Minute From Onset of Rotation	0 oz	1 oz
4. Eighth Minute if Required	0 oz	1 oz

FUEL SPILLAGE LOCATIONS(S): None

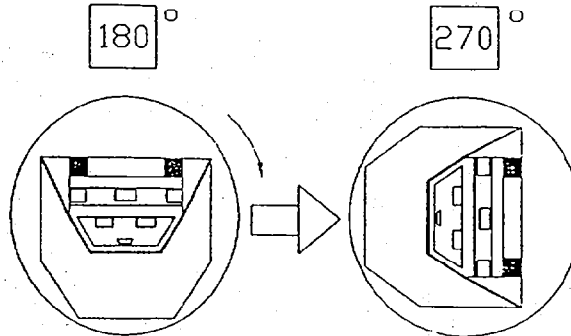
DATA SHEET 16

FMVSS 301 STATIC ROLLOVER TEST DATA (Cont'd)

Vehicle Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

TEST PHASE: 180° - 270°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 30 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 30 seconds

Next Whole Minute Interval = 8 minutes

FUEL SPILLAGE MEASUREMENT:

180° TO 270° ROTATION	TEST RESULTS	MAXIMUM ALLOWABLE
1. First 5 Minutes From Onset of Rotation	0 oz	5 oz
2. Sixth Minute From Onset of Rotation	0 oz	1 oz
3. Seventh Minute From Onset of Rotation	0 oz	1 oz
4. Eighth Minute if Required	0 oz	1 oz

FUEL SPILLAGE LOCATIONS(S): None

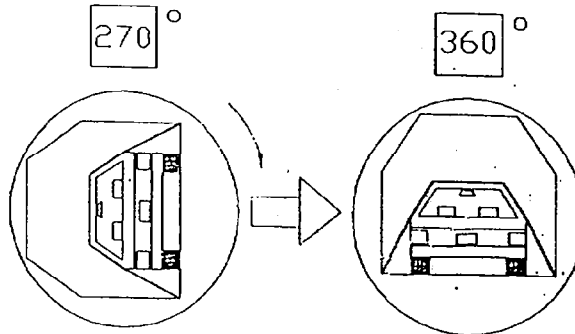
DATA SHEET 16

FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1997/Dodge/Intrepid/4-Door

Vehicle NHTSA No.: MV0302 Test Date: December 17, 1996

TEST PHASE: 270° - 360°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 40 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 40 seconds

Next Whole Minute Interval = 8 minutes

FUEL SPILLAGE MEASUREMENT:

270° TO 360° ROTATION	TEST RESULTS	MAXIMUM ALLOWABLE
1. First 5 Minutes From Onset of Rotation	0 oz	5 oz
2. Sixth Minute From Onset of Rotation	0 oz	1 oz
3. Seventh Minute From Onset of Rotation	0 oz	1 oz
4. Eighth Minute if Required	0 oz	1 oz

FUEL SPILLAGE LOCATIONS(S): None

APPENDIX A - PHOTOGRAPHS

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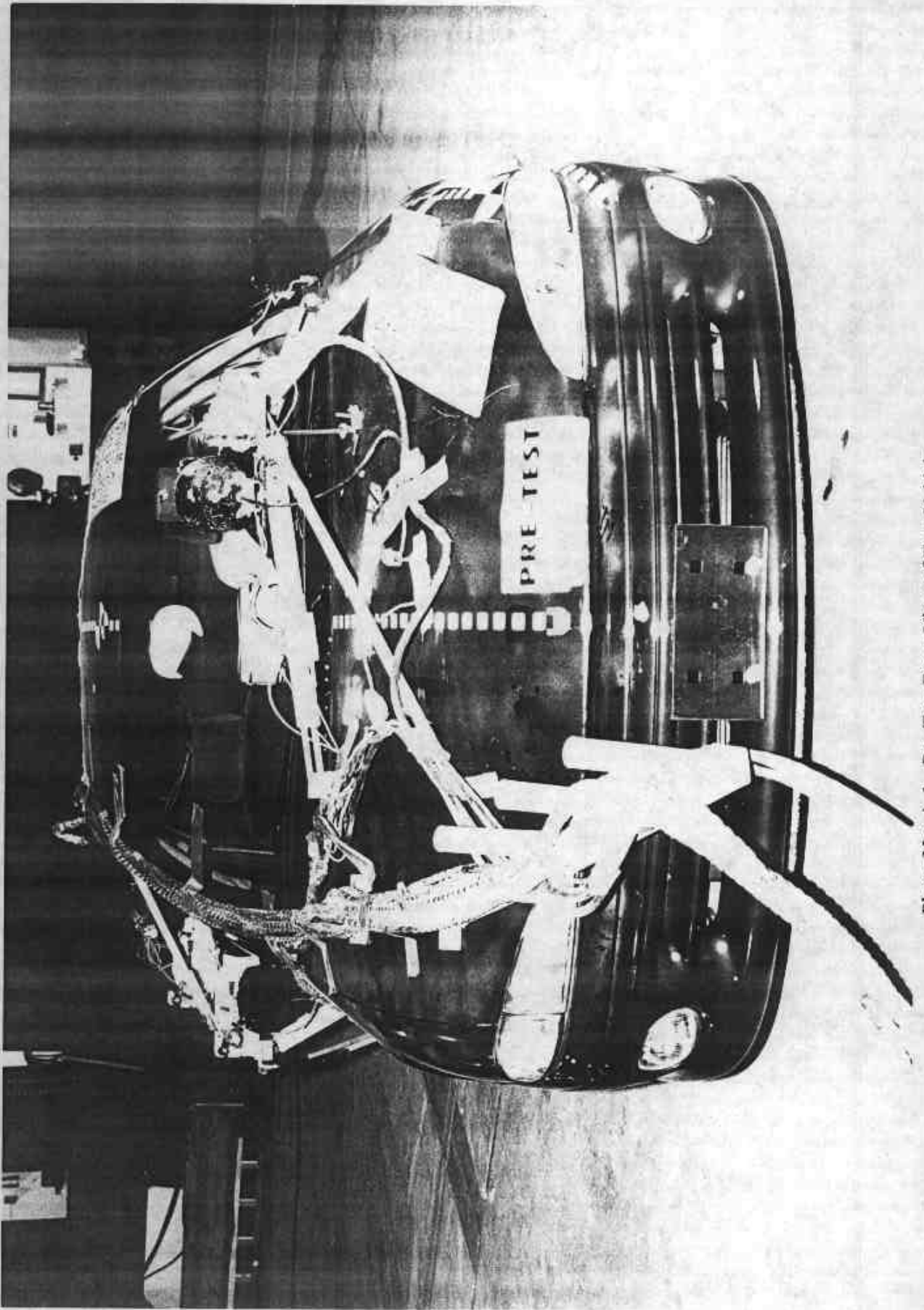


Photo No. A-1 - Pre-Test Front View of Test Vehicle

A-1

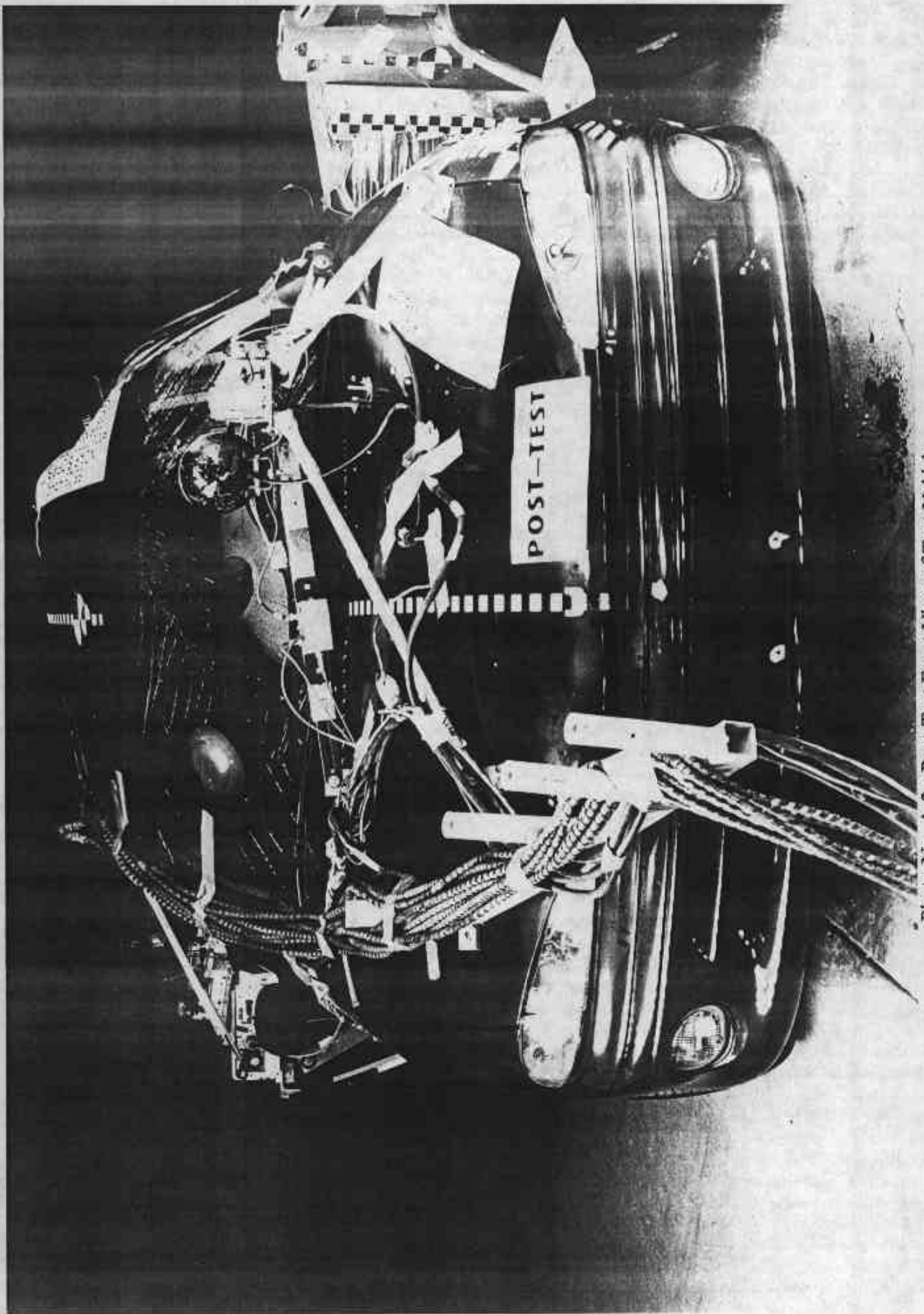
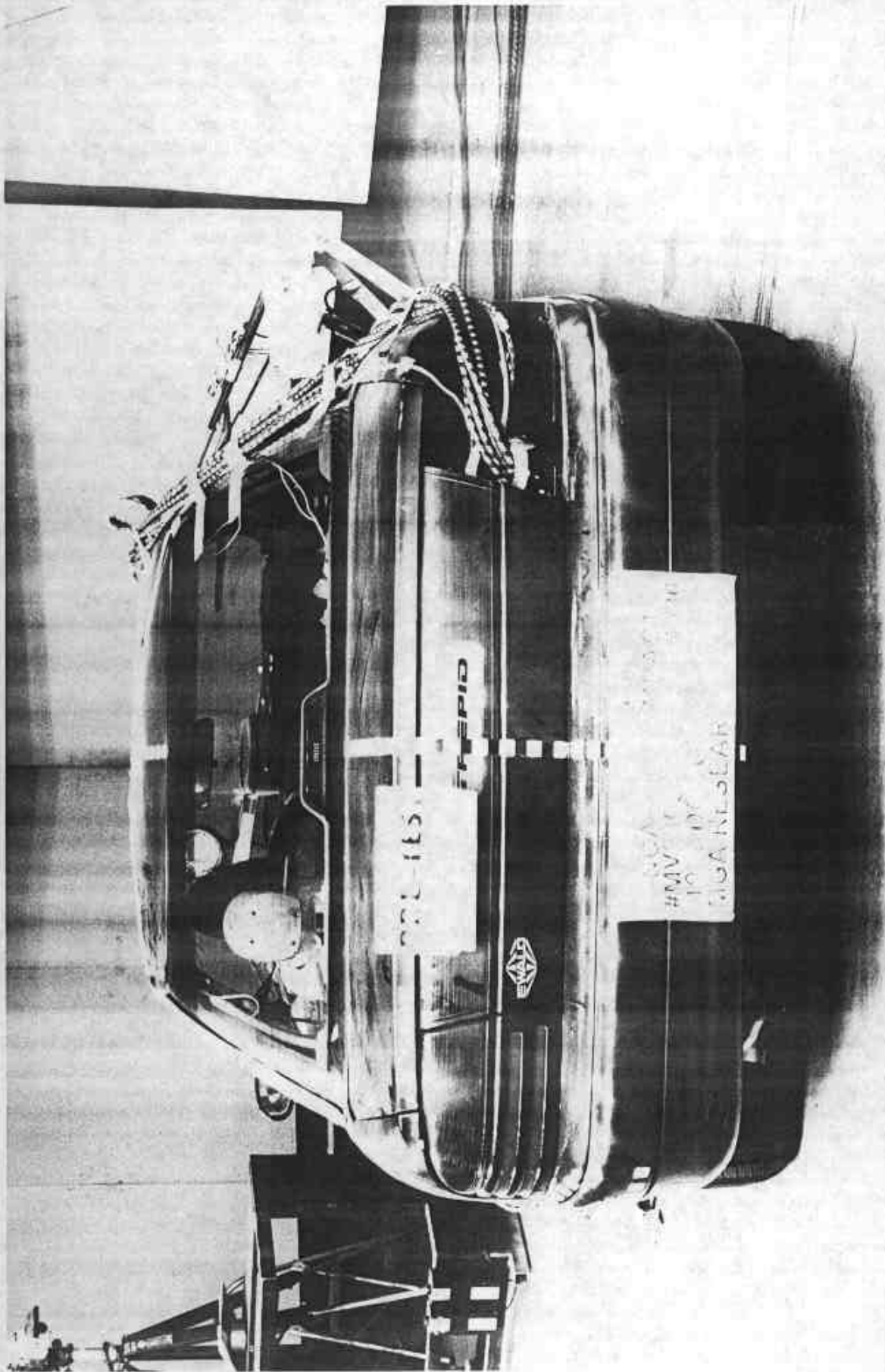
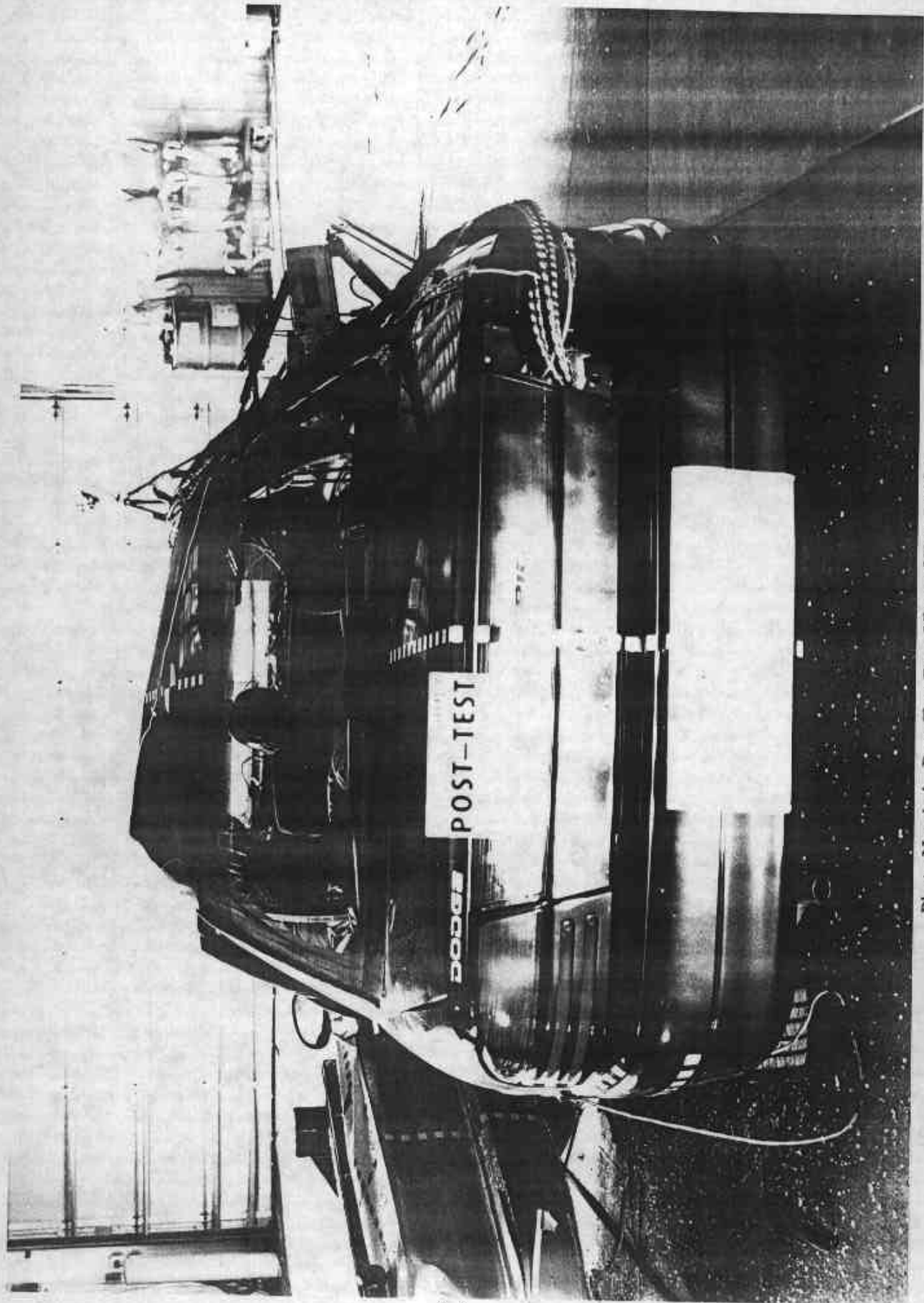


Photo No. A-2 - Post-Test Front View of Test Vehicle



A-3

Photo No. A-3 - Pre-Test Rear View of Test Vehicle



A-4

Photo No. A-4 - Post-Test Rear View of Test Vehicle

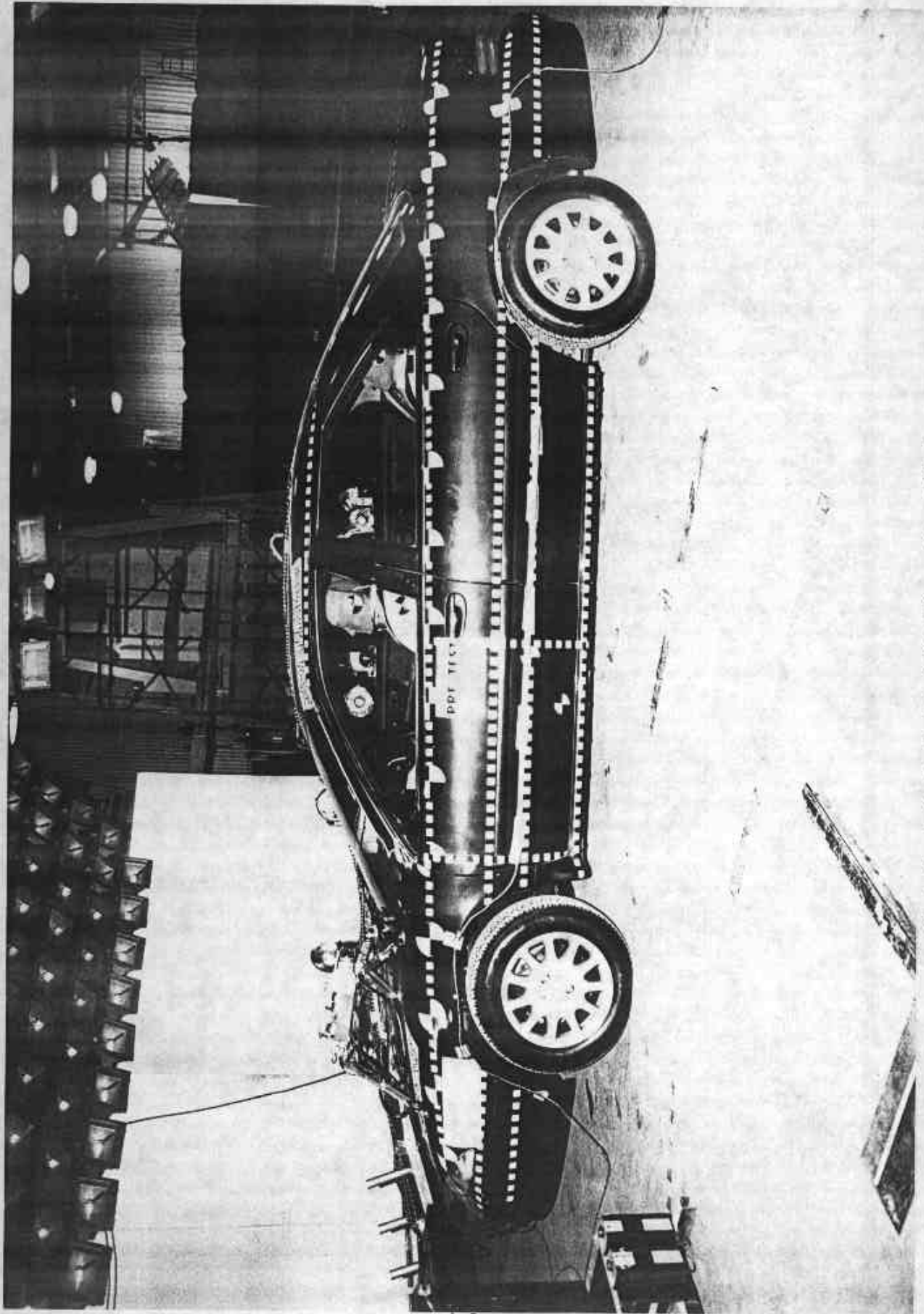
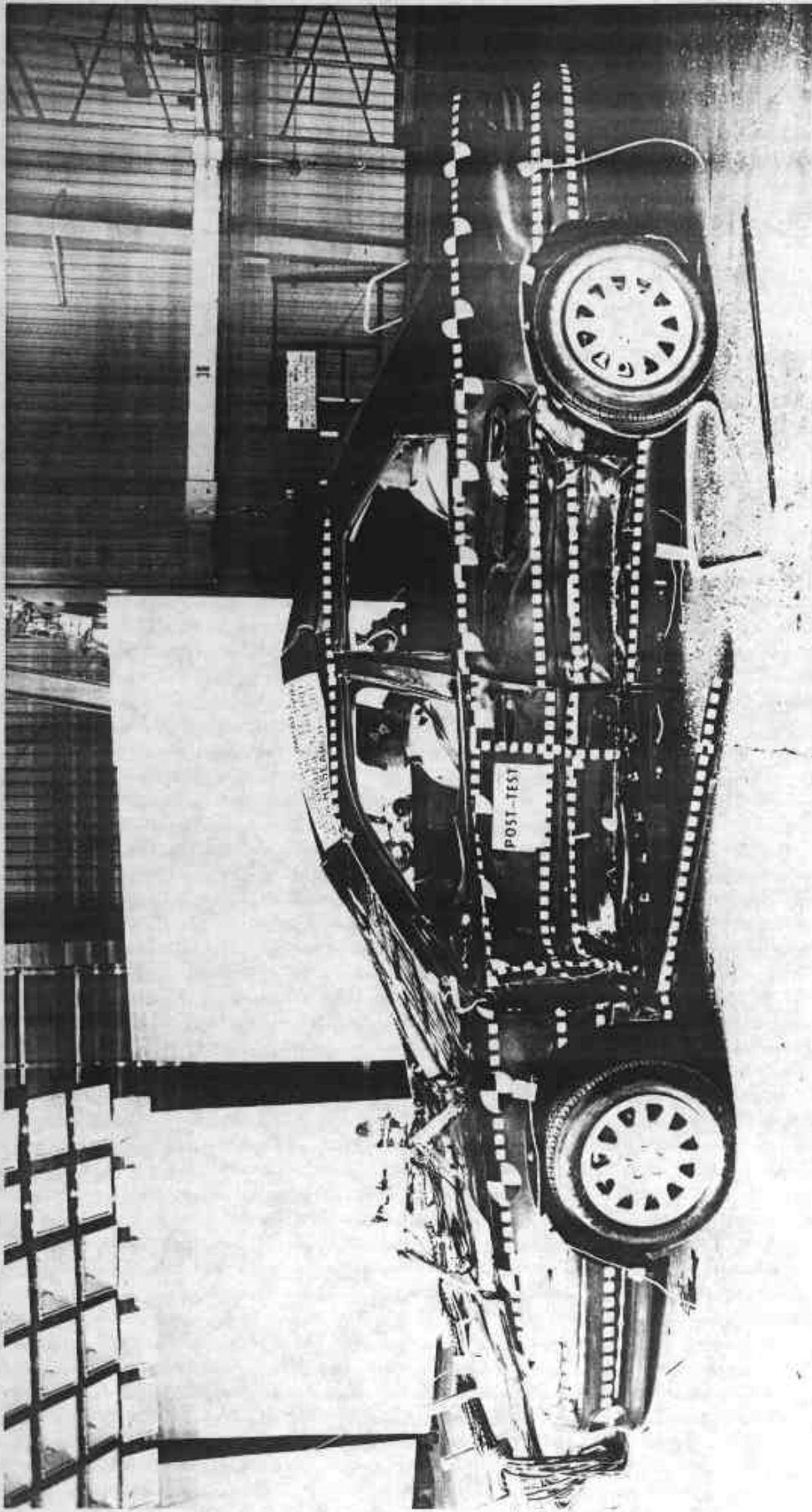


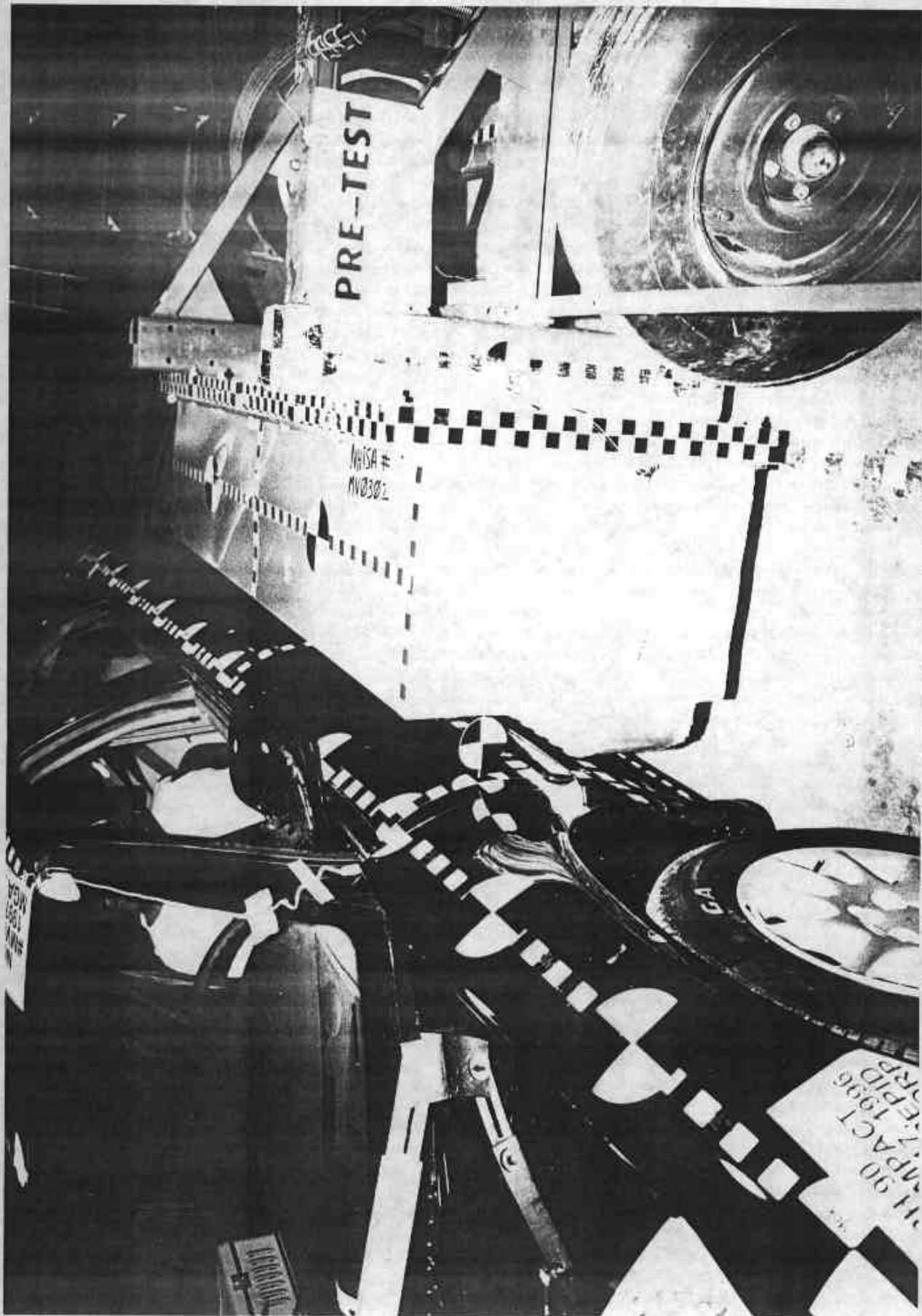
Photo No. A-5 - Pre-Test Left Side View of Test Vehicle

A-5



A-6

Photo No. A-6 - Post-Test Left Side View of Test Vehicle



A-7

Photo No. A-7 - Pre-Test MDB Positioned Against Vehicle (left side)

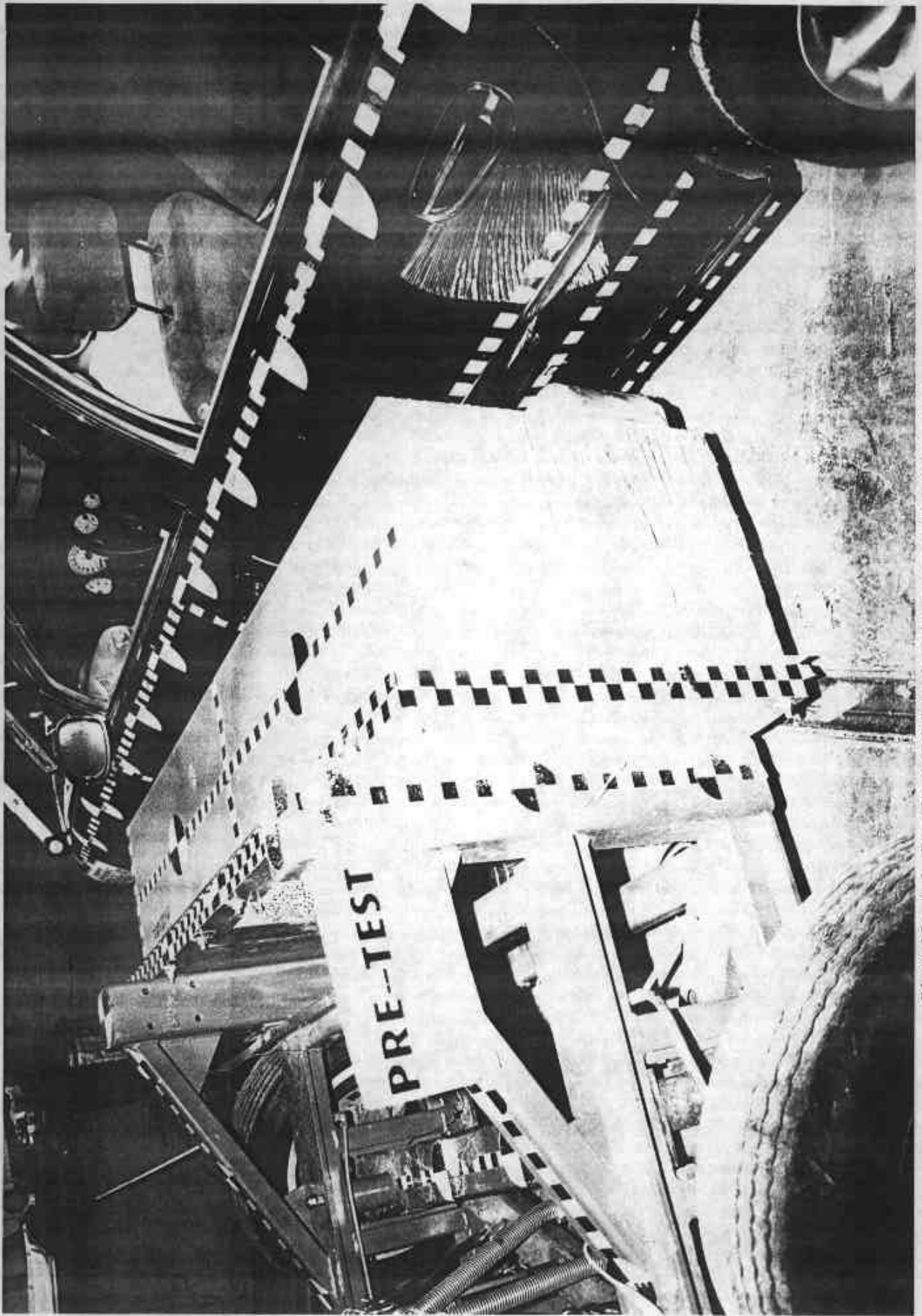


Photo No. A-8 - Pre-Test MDB Positioned Against Vehicle (right side)

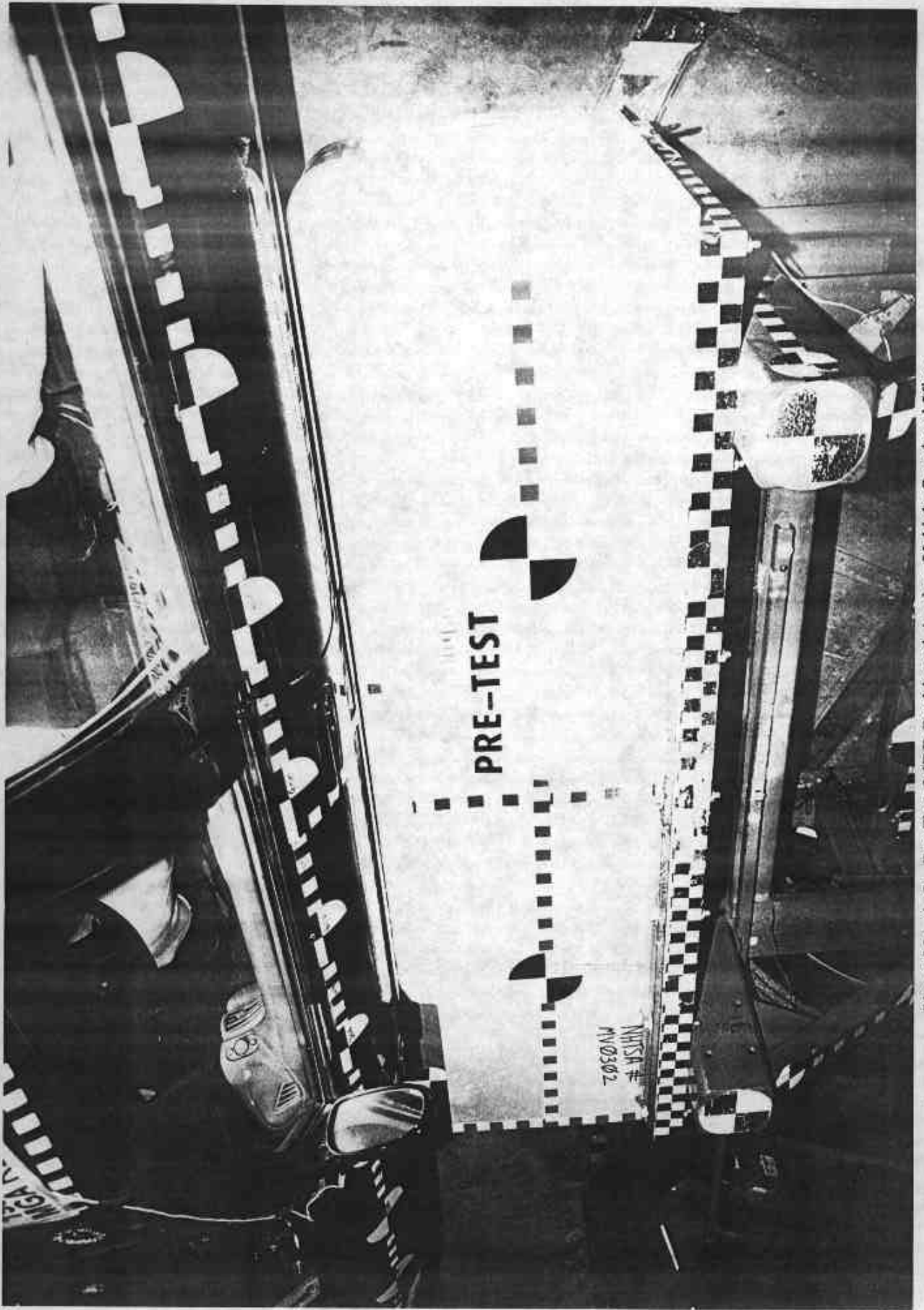
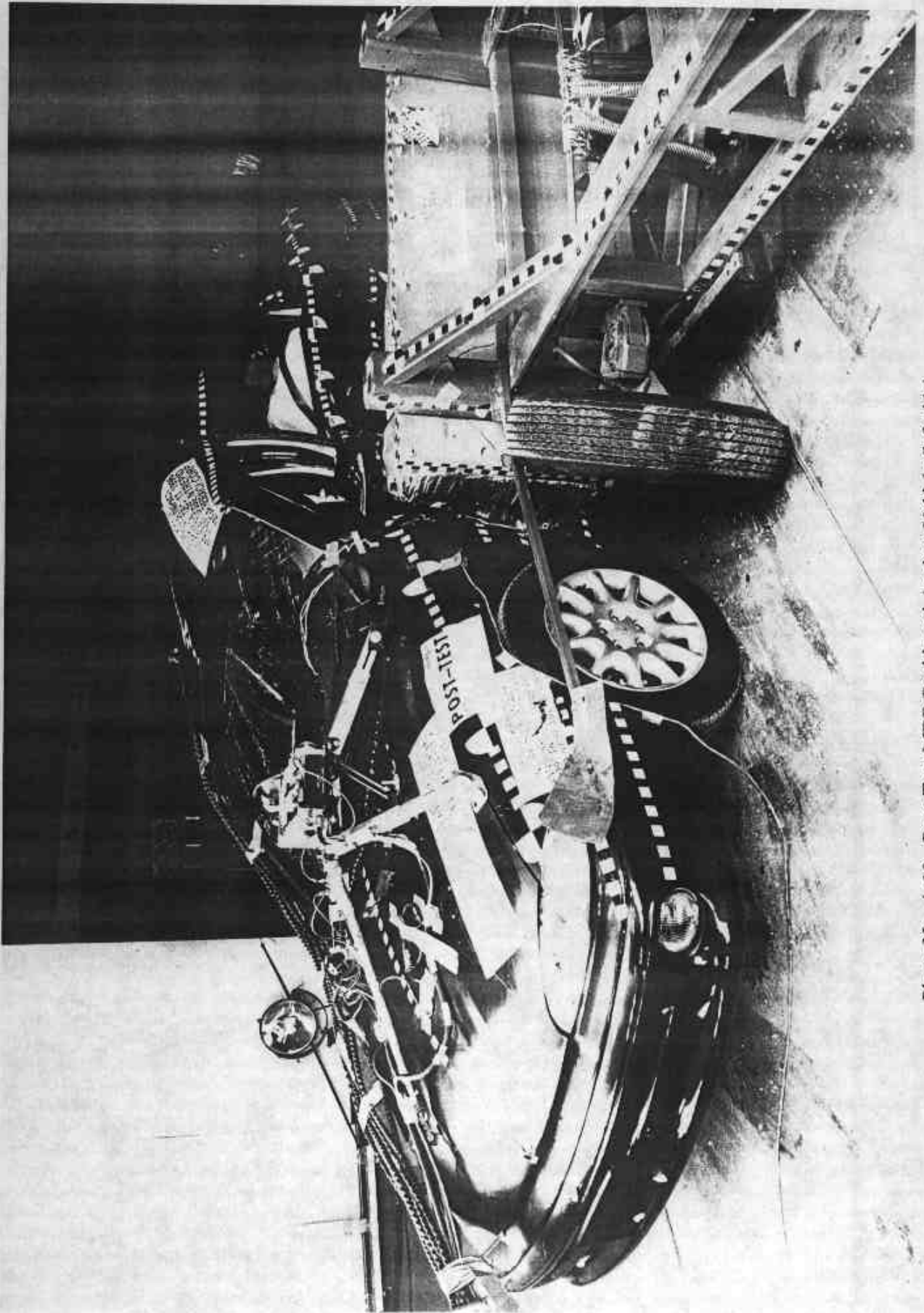


Photo No. A-9 - Pre-Test MDB Positioned Against Vehicle Overhead View



A-10

Photo No. A-10 - Post-Test MDB Positioned Against Vehicle (left side)

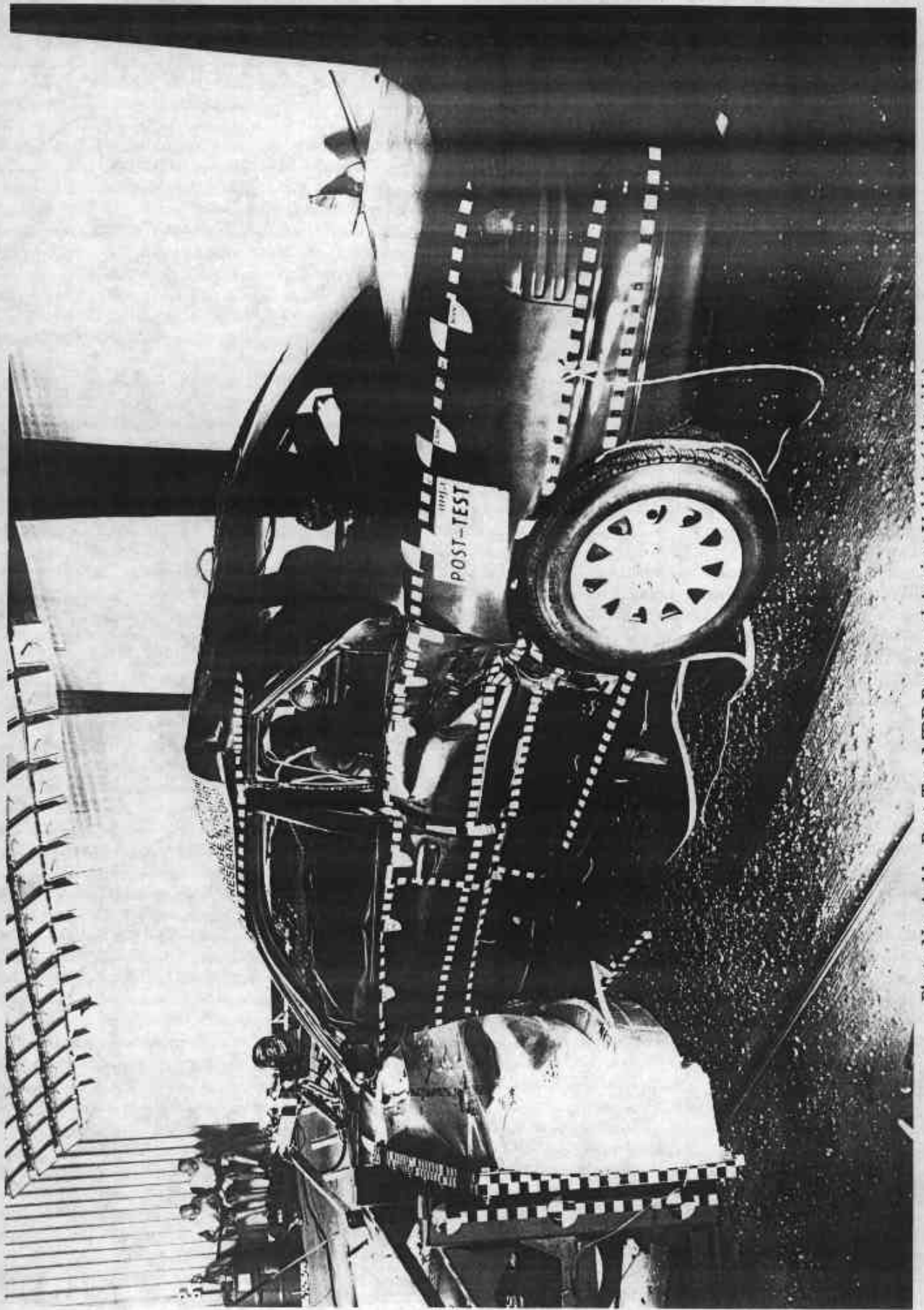


Photo No. A-11 - Post-Test MDB Positioned Against Vehicle (right side)

A-11

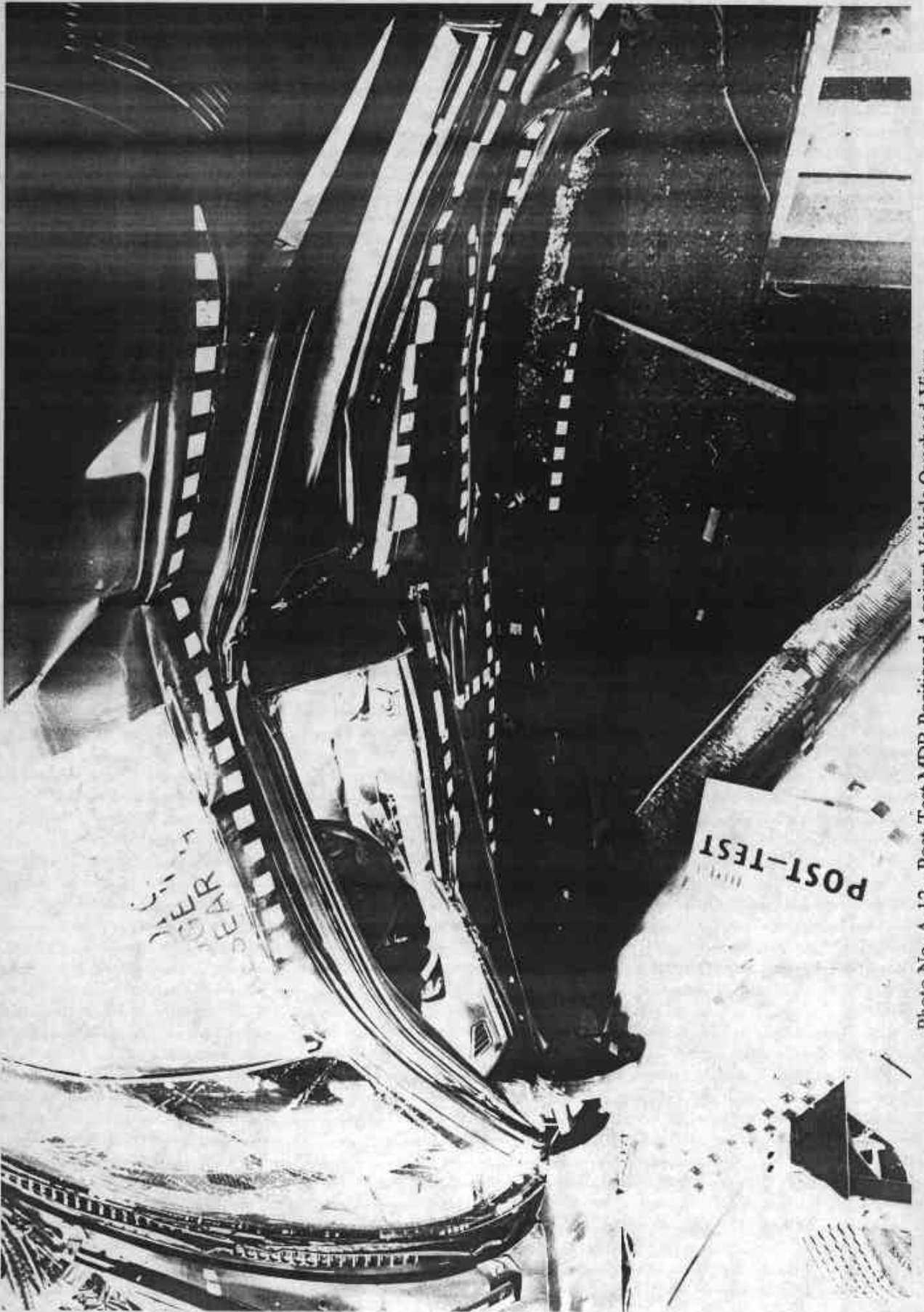
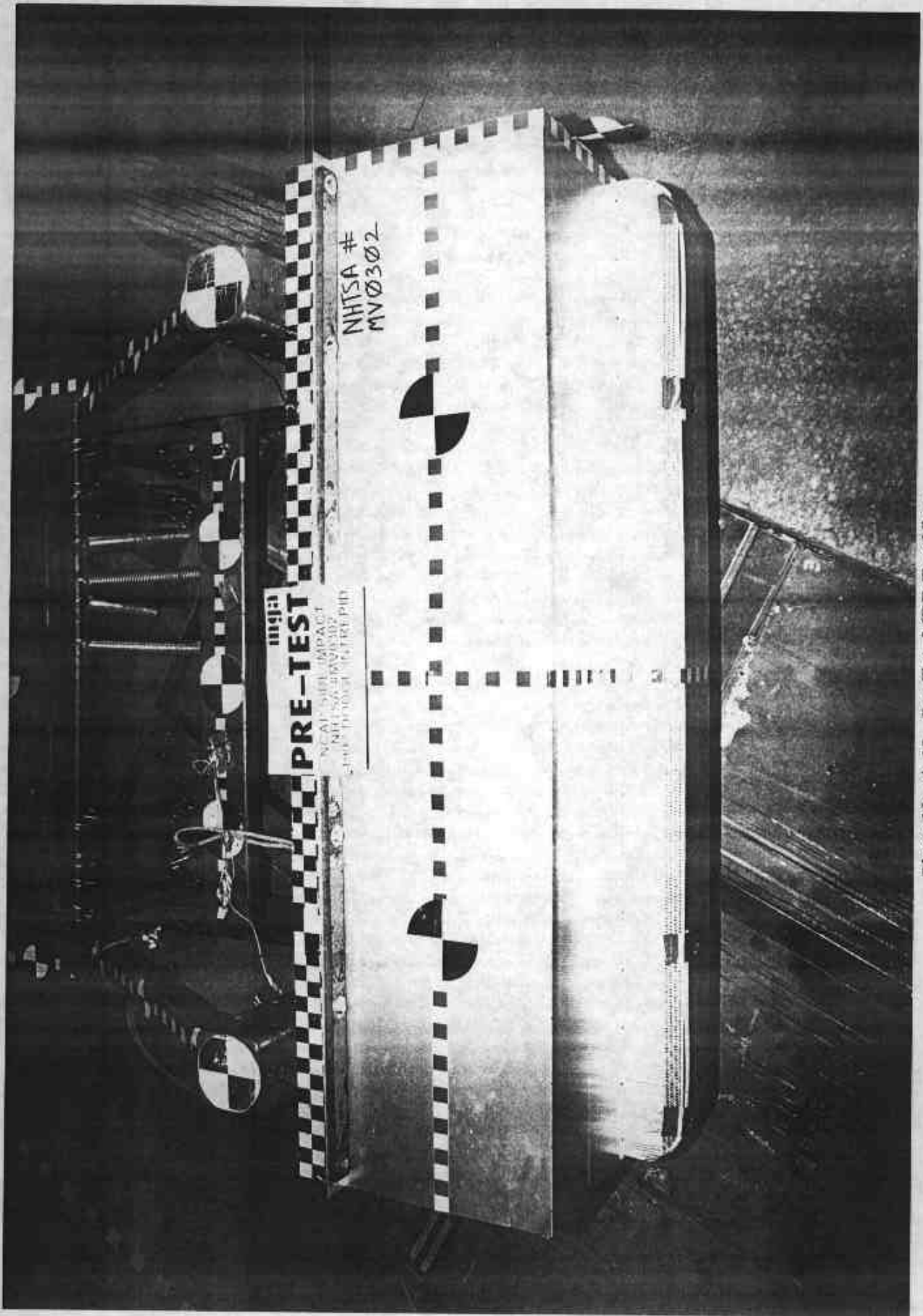


Photo No. A-12 - Post-Test MDB Positioned Against Vehicle Overhead View

A-12



PRE-TEST
NHTSA # MV0302

NHTSA #
MV0302

A-13

Photo No. A-13 - Pre-Test MDB Top View

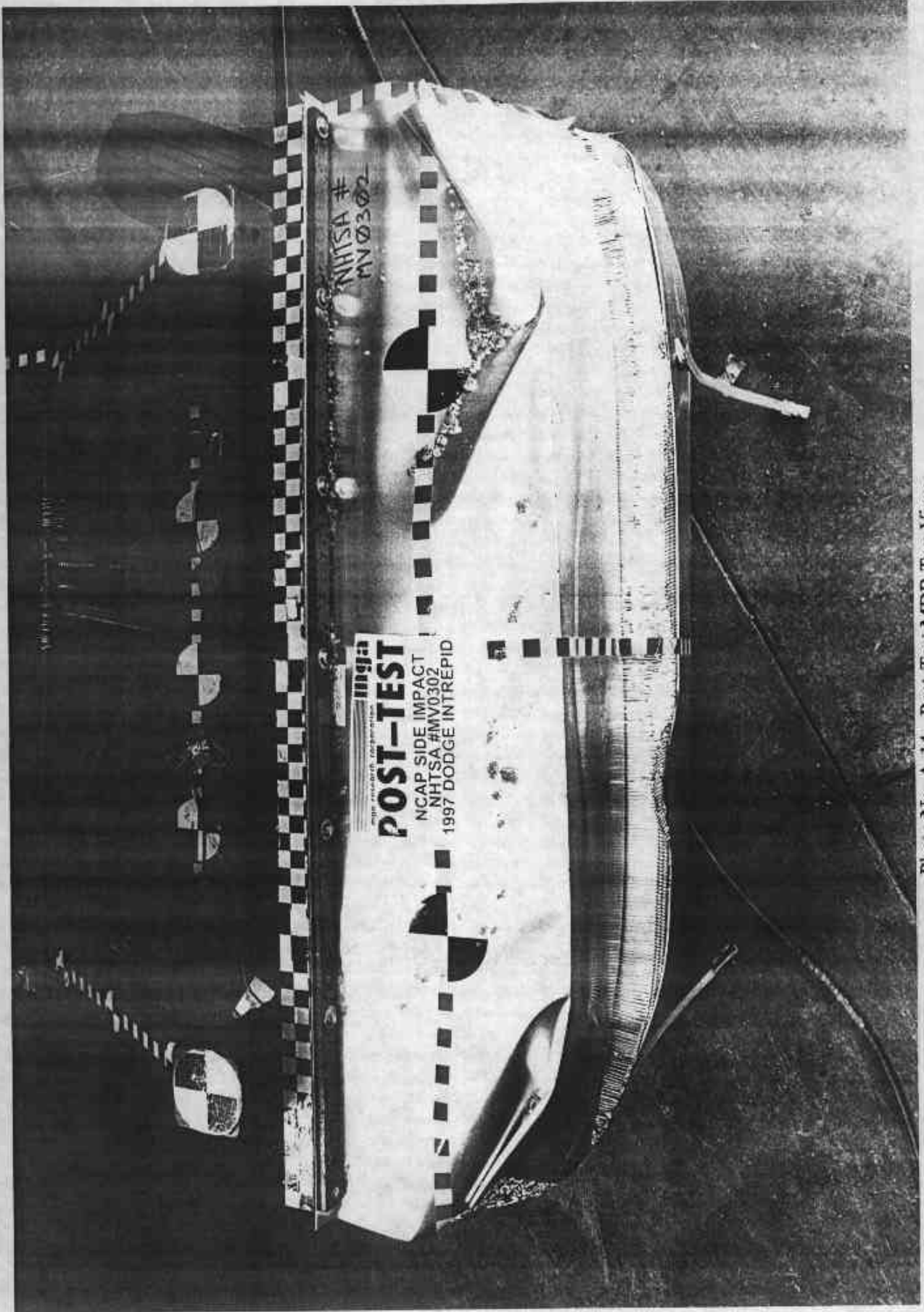
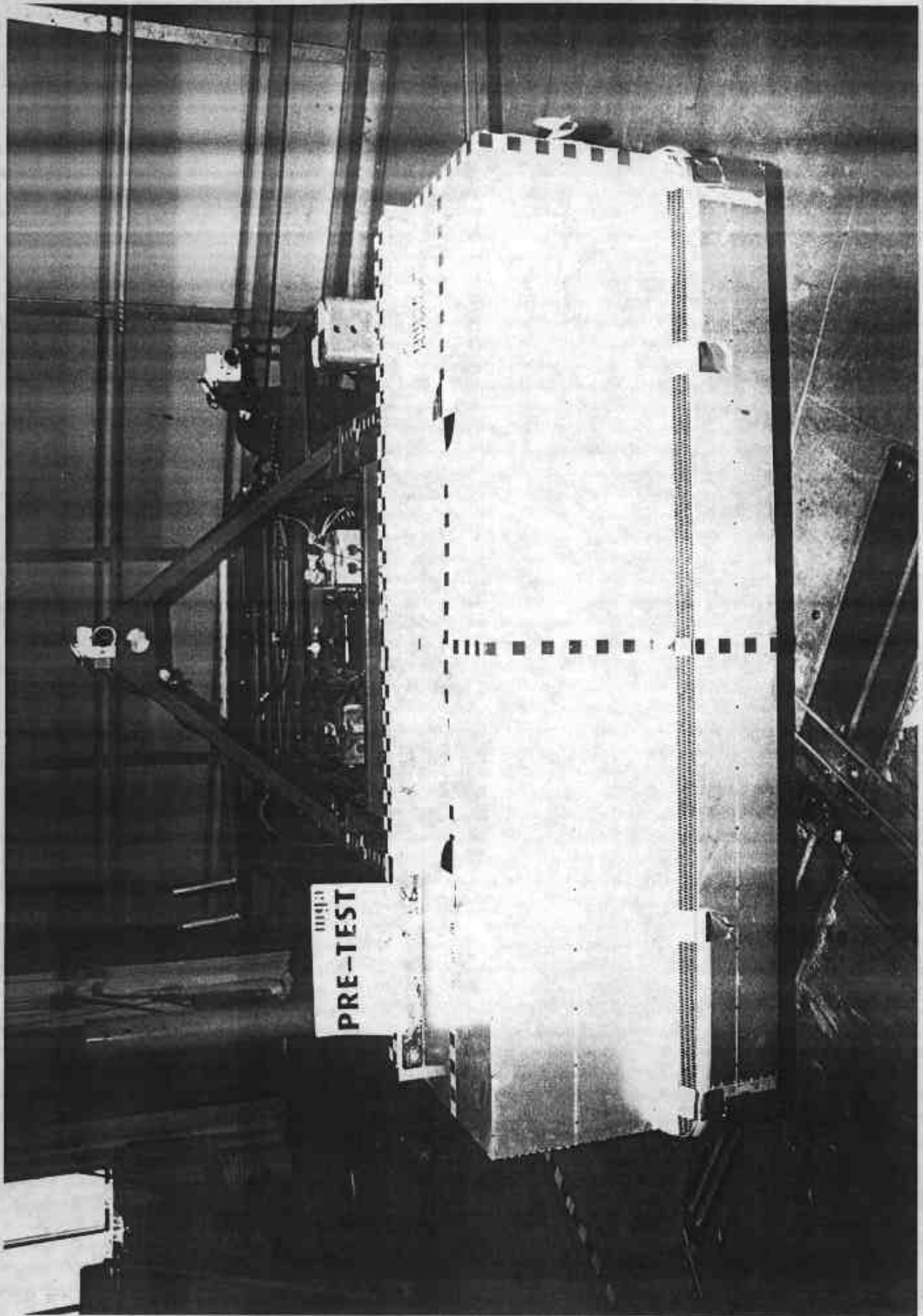


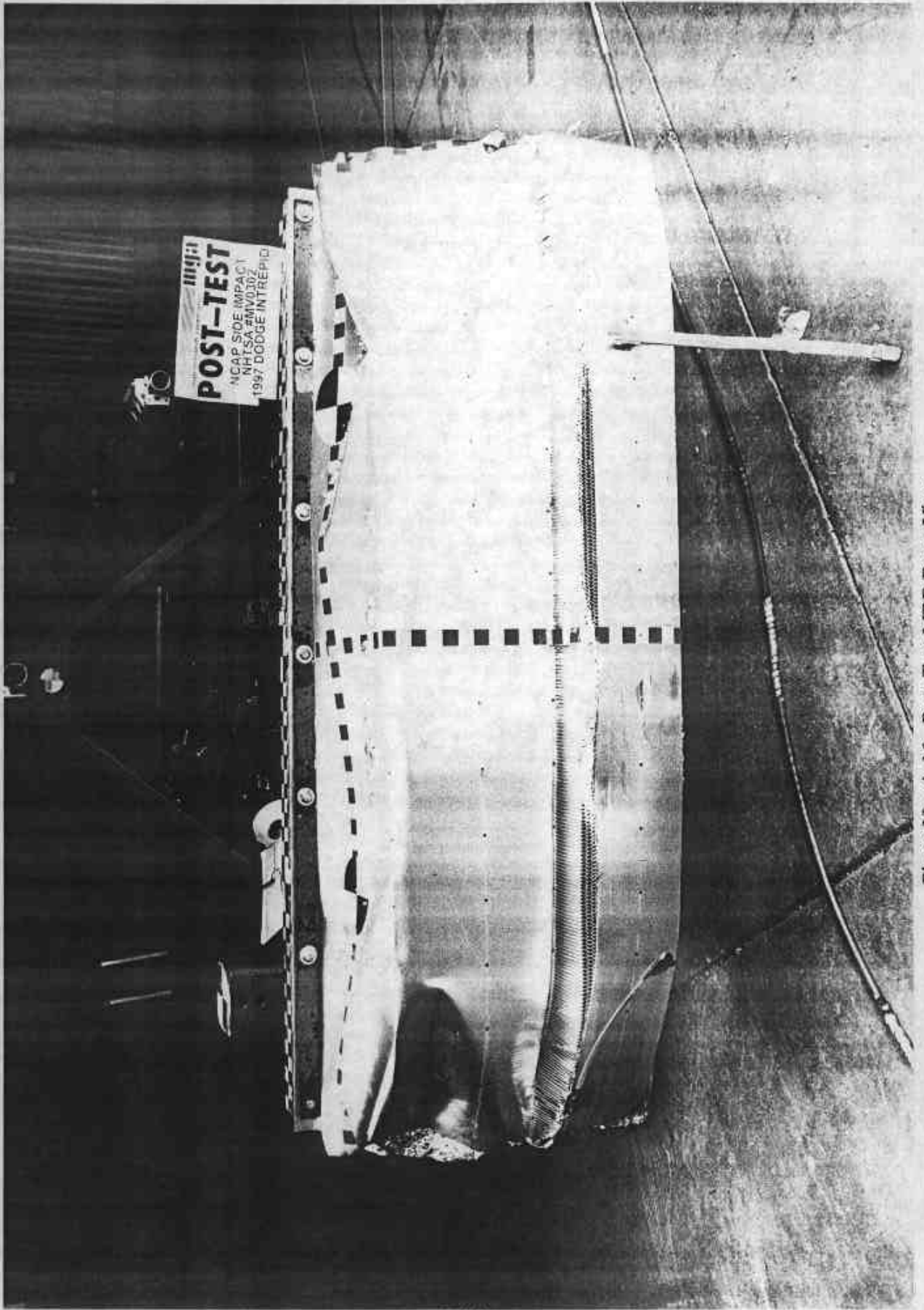
Photo No. A-14 - Post-Test MDB Top View

A-14



A-15

Photo No. A-15 - Pre-Test MDB Front View



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Photo No. A-16 - Post-Test MDB Front View

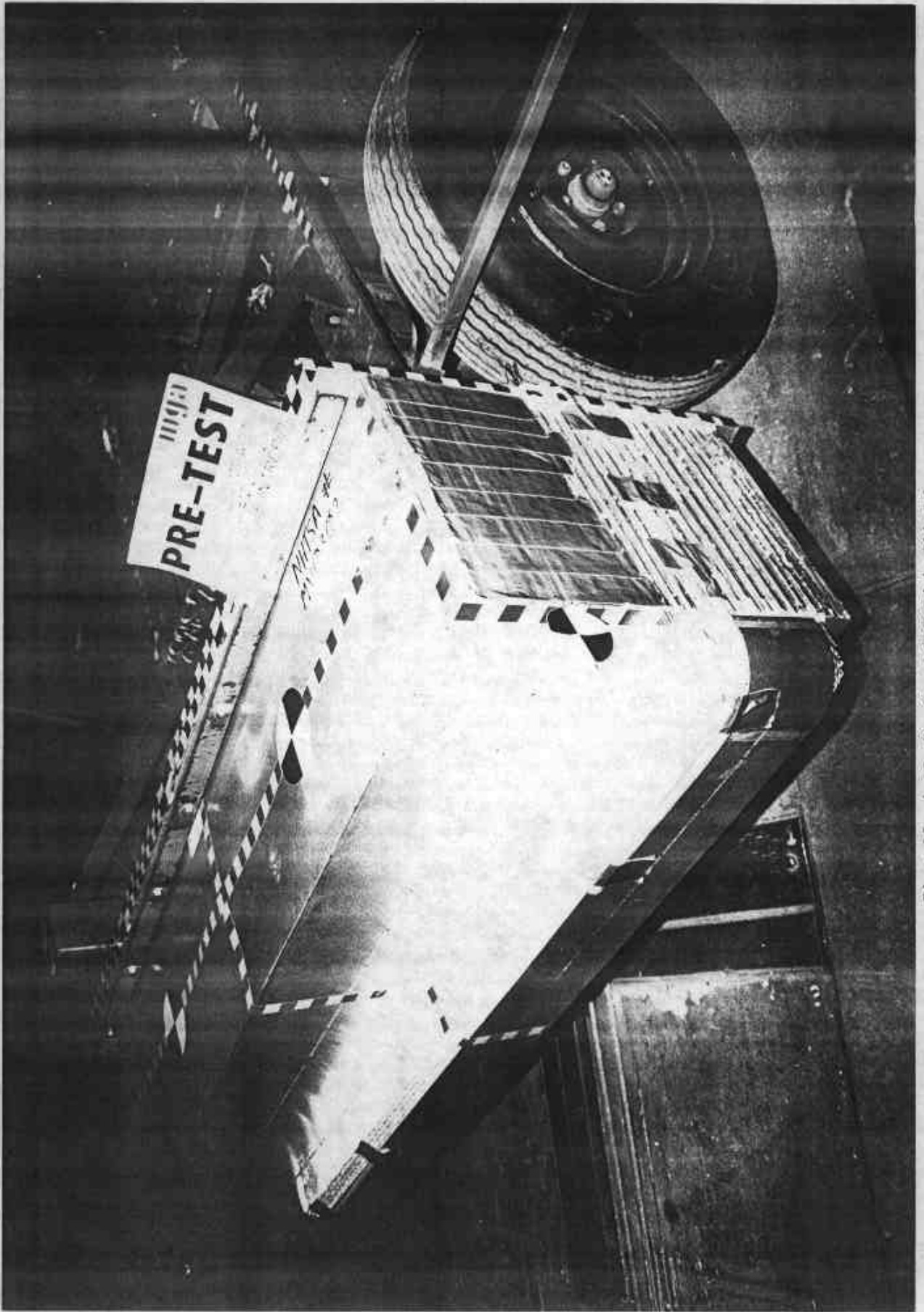
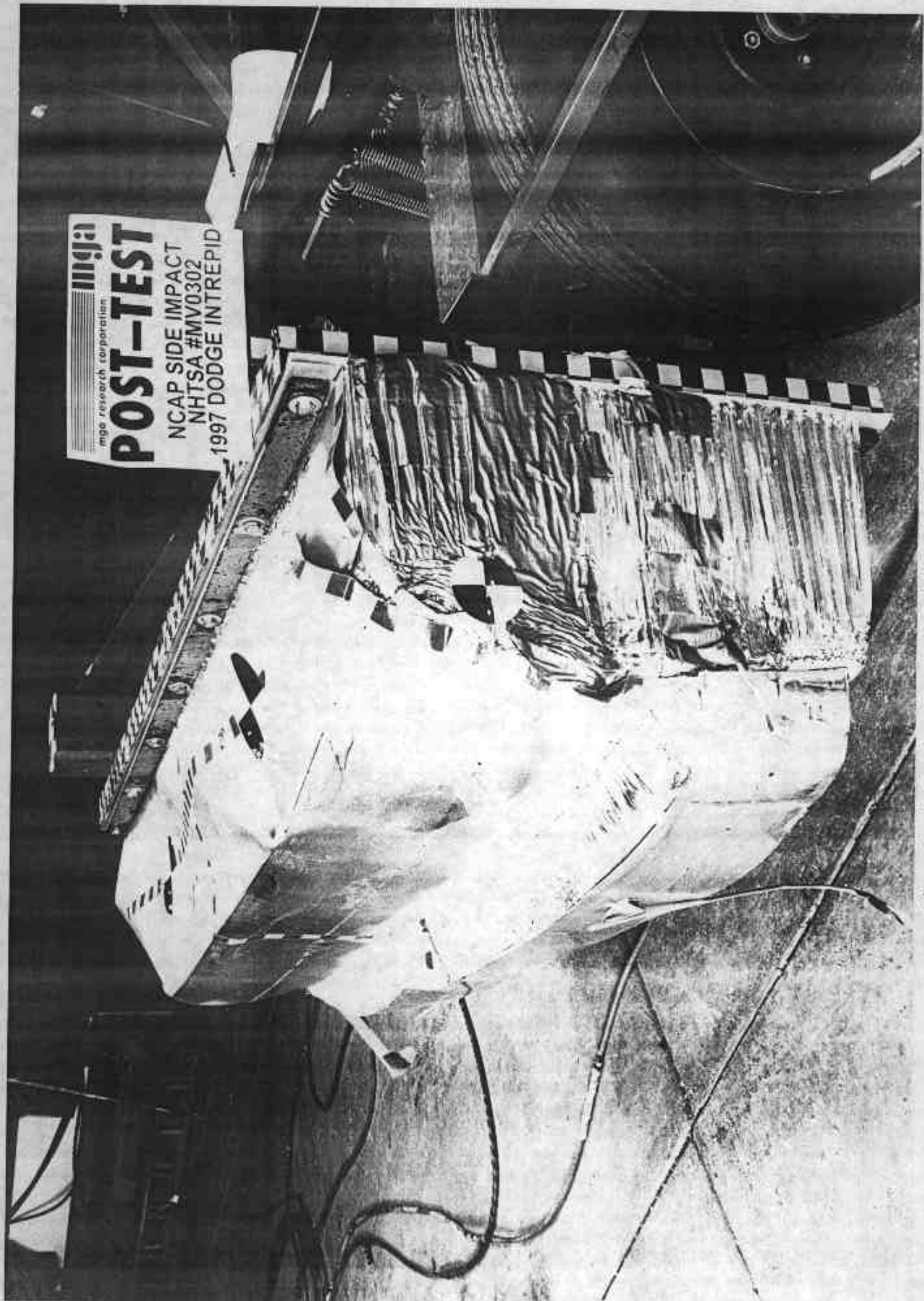


Photo No. A-17 - Pre-Test MDB Right Side View

A-17



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mgj research corporation
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NCAP SIDE IMPACT
NHTSA #MV0302
1997 DODGE INTREPID

Photo No. A-18 - Post-Test MDB Right Side View

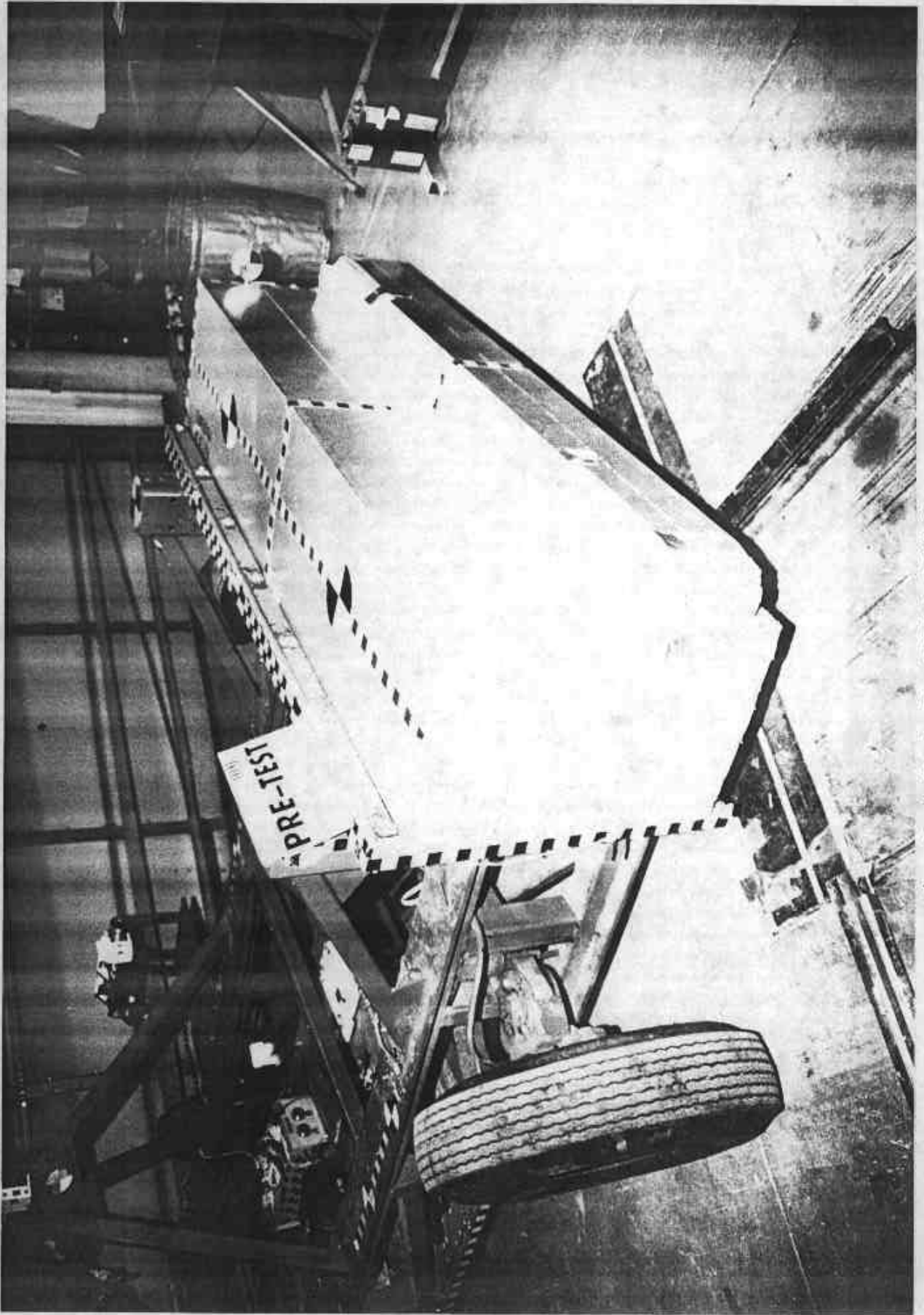


Photo No. A-19 - Pre-Test MDB Left Side View

A-19

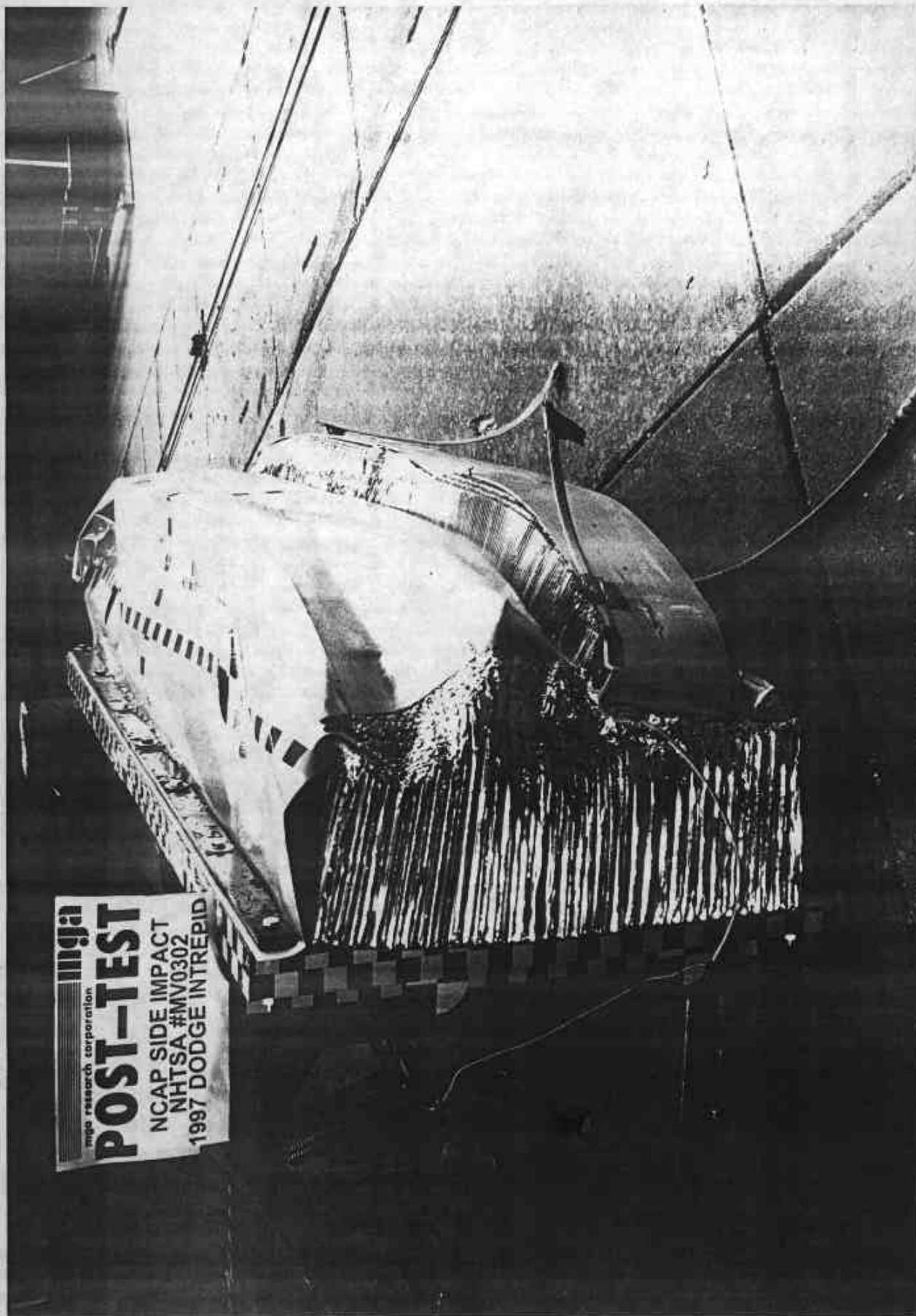


Photo No. A-20 - Post-Test MDB Left Side View

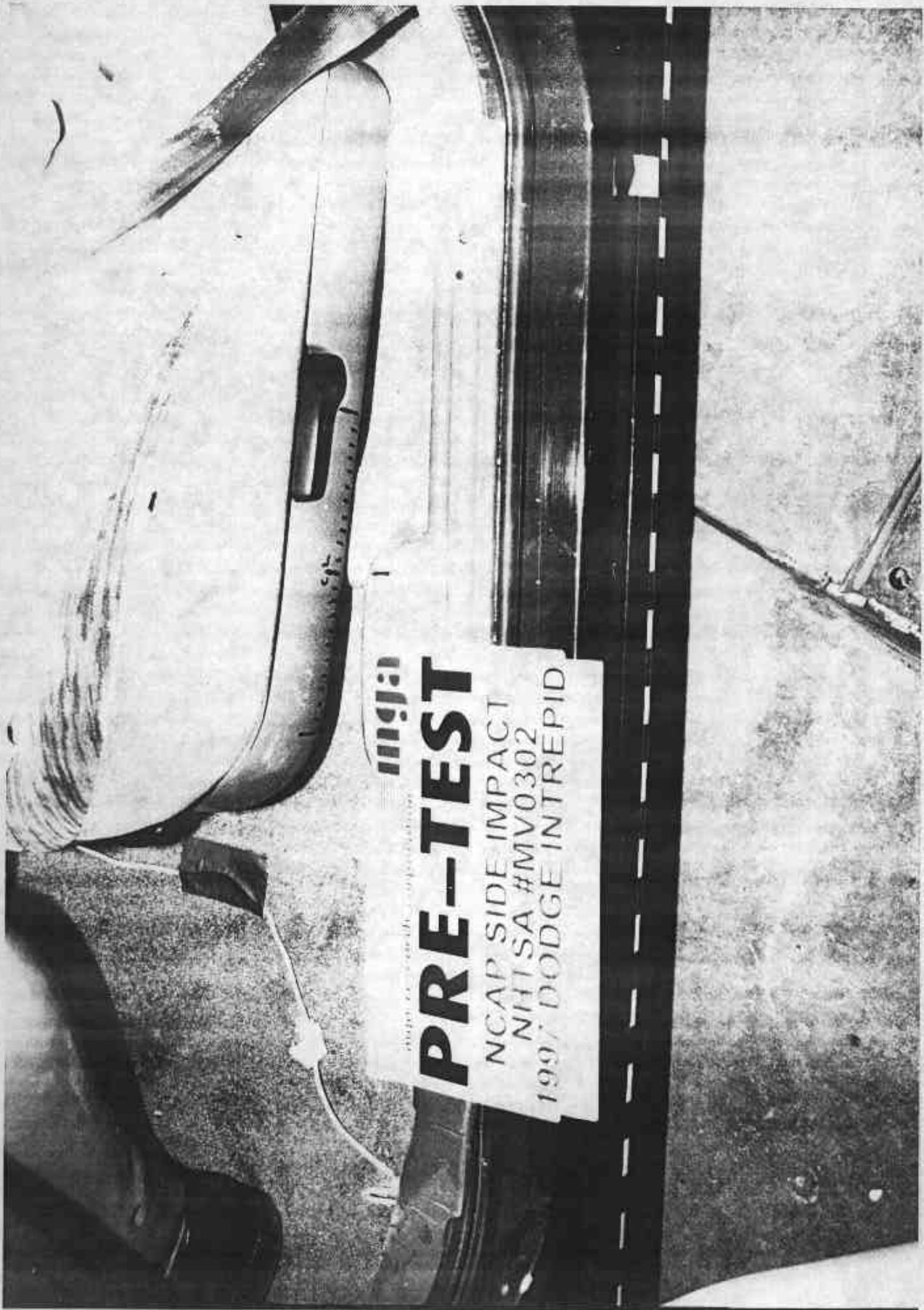


Photo No. A-21 - Pre-Test Driver Seat Position View



Photo No. A-22 - Pre-Test Driver Dummy Right Side View

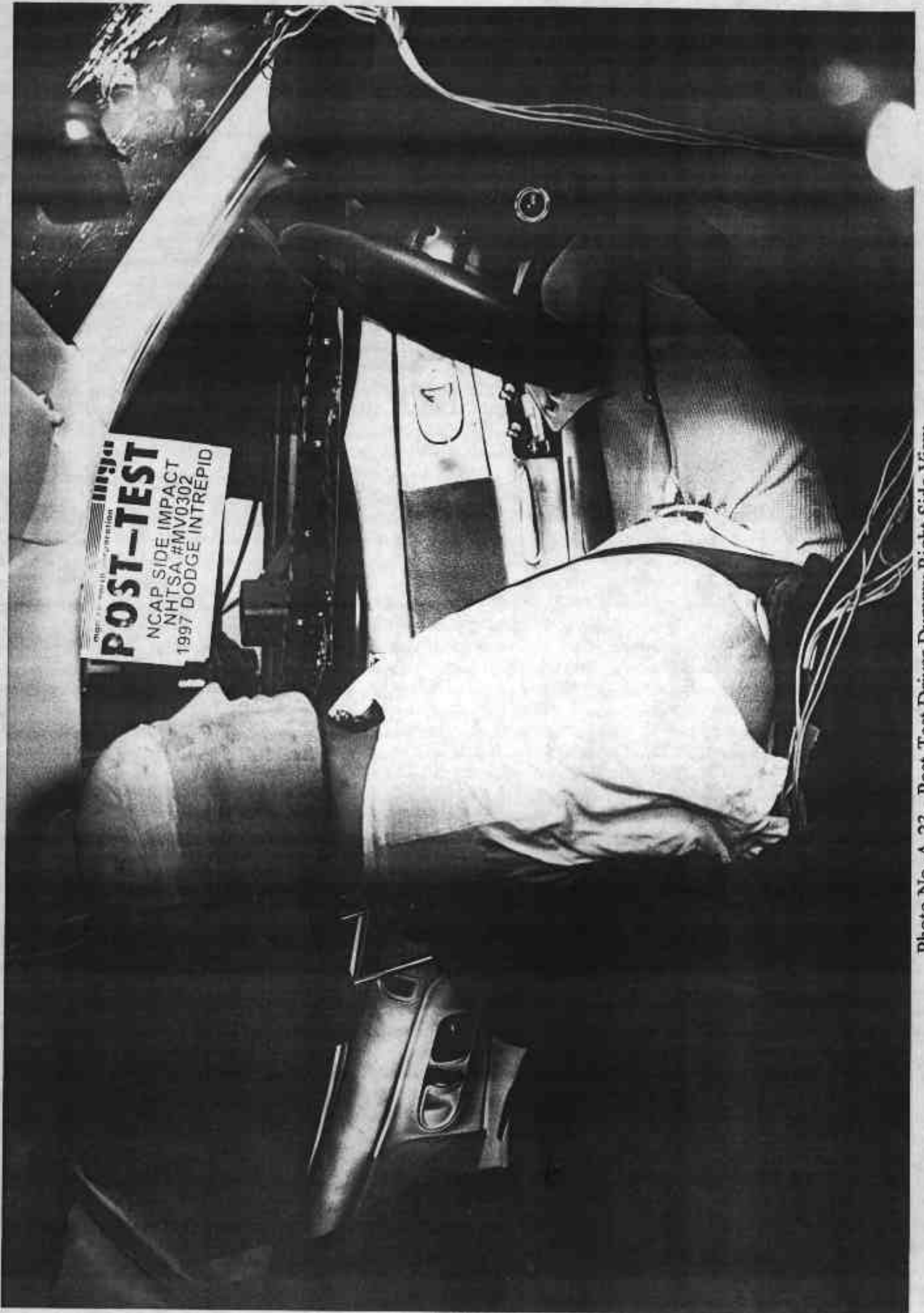
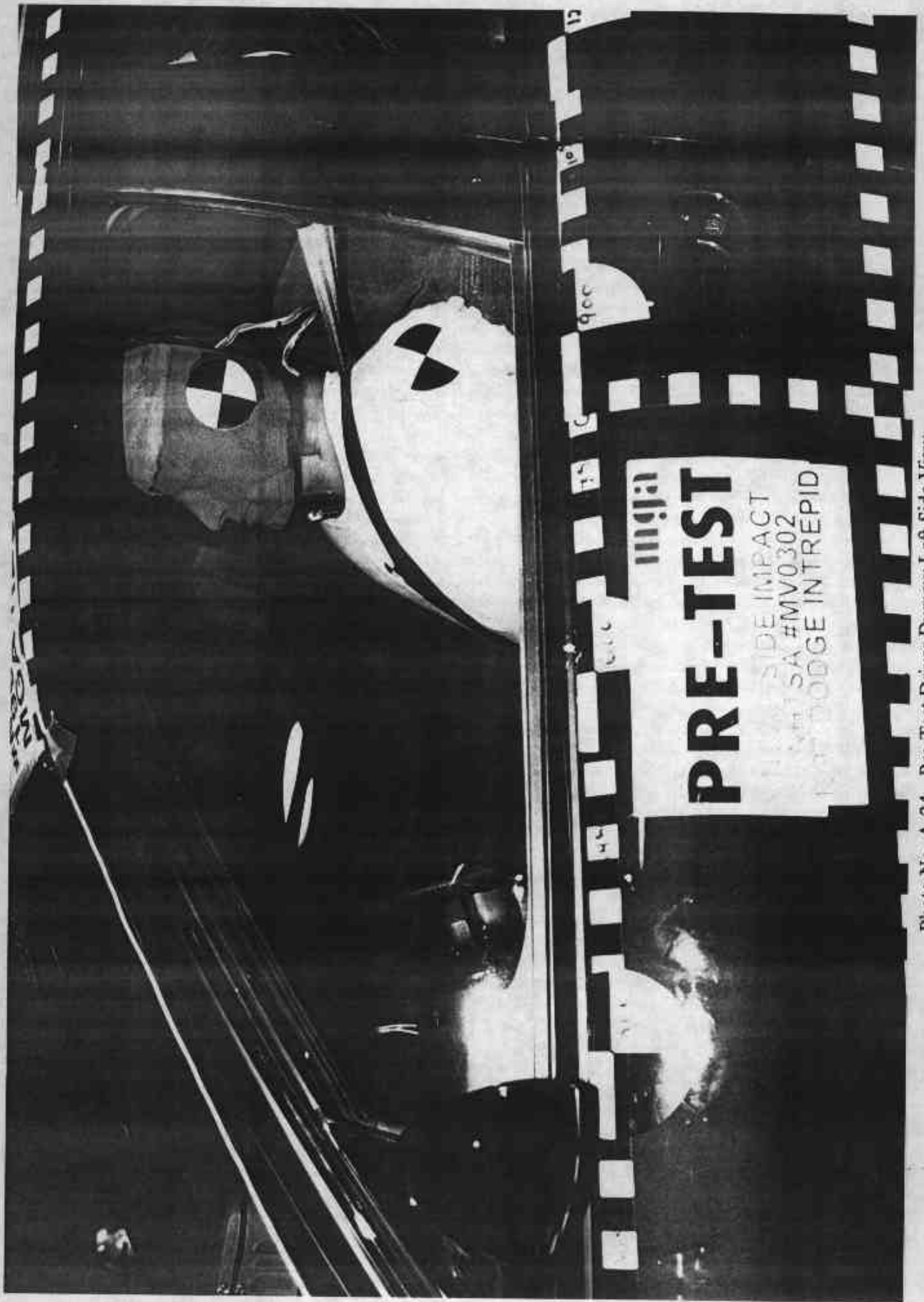


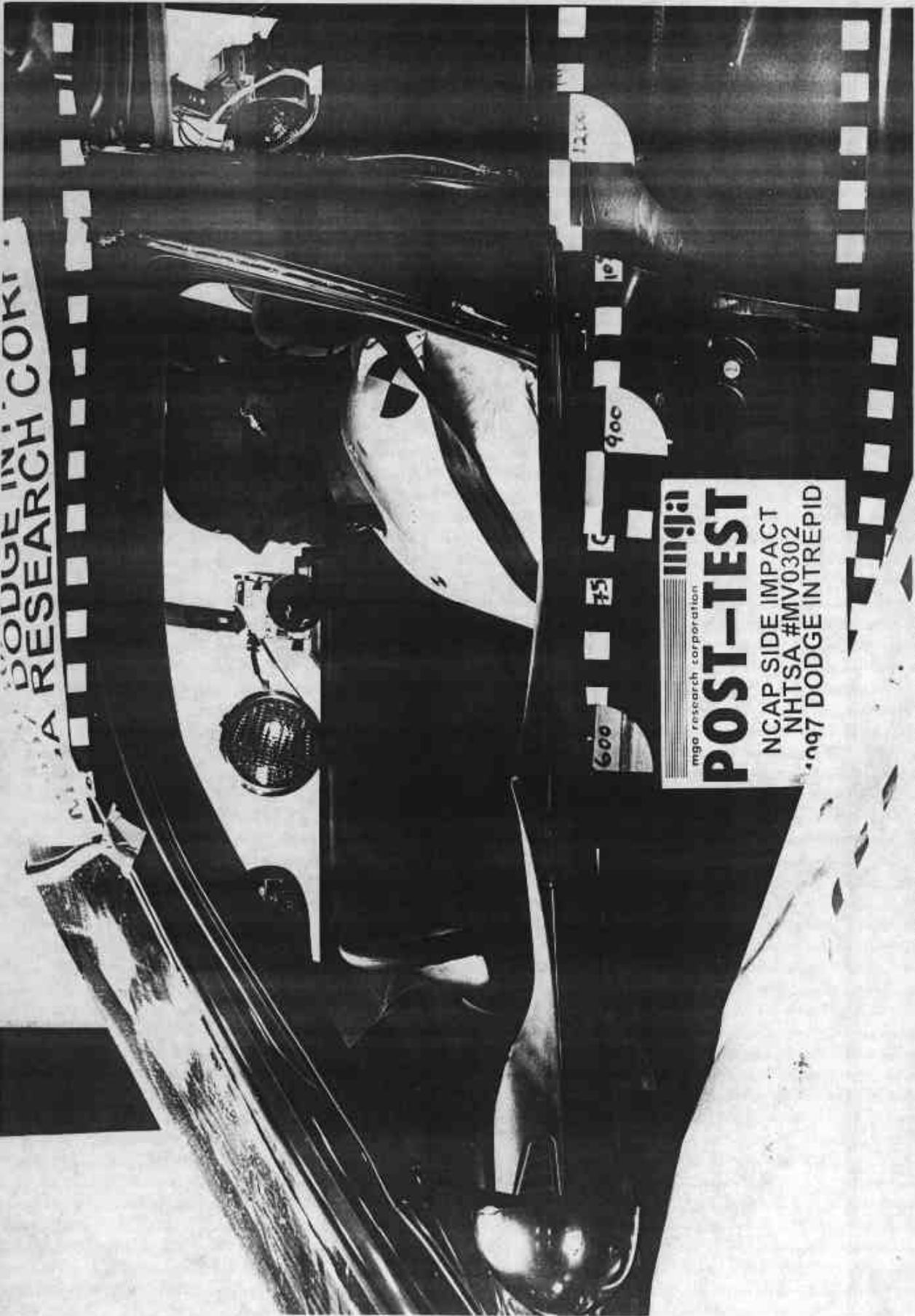
Photo No. A-23 - Post-Test Driver Dummy Right Side View



A-24

Photo No. A-24 - Pre-Test Driver Dummy Left Side View

DODGE IN-CORPORATED
A RESEARCH



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POST-TEST
NCAP SIDE IMPACT
NHTSA #MV0302
1997 DODGE INTREPID

A-25

Photo No. A-25 - Post-Test Driver Dummy Left Side View



Photo No. A-26 - Pre-Test Driver Dummy Left Side View (Door Open)

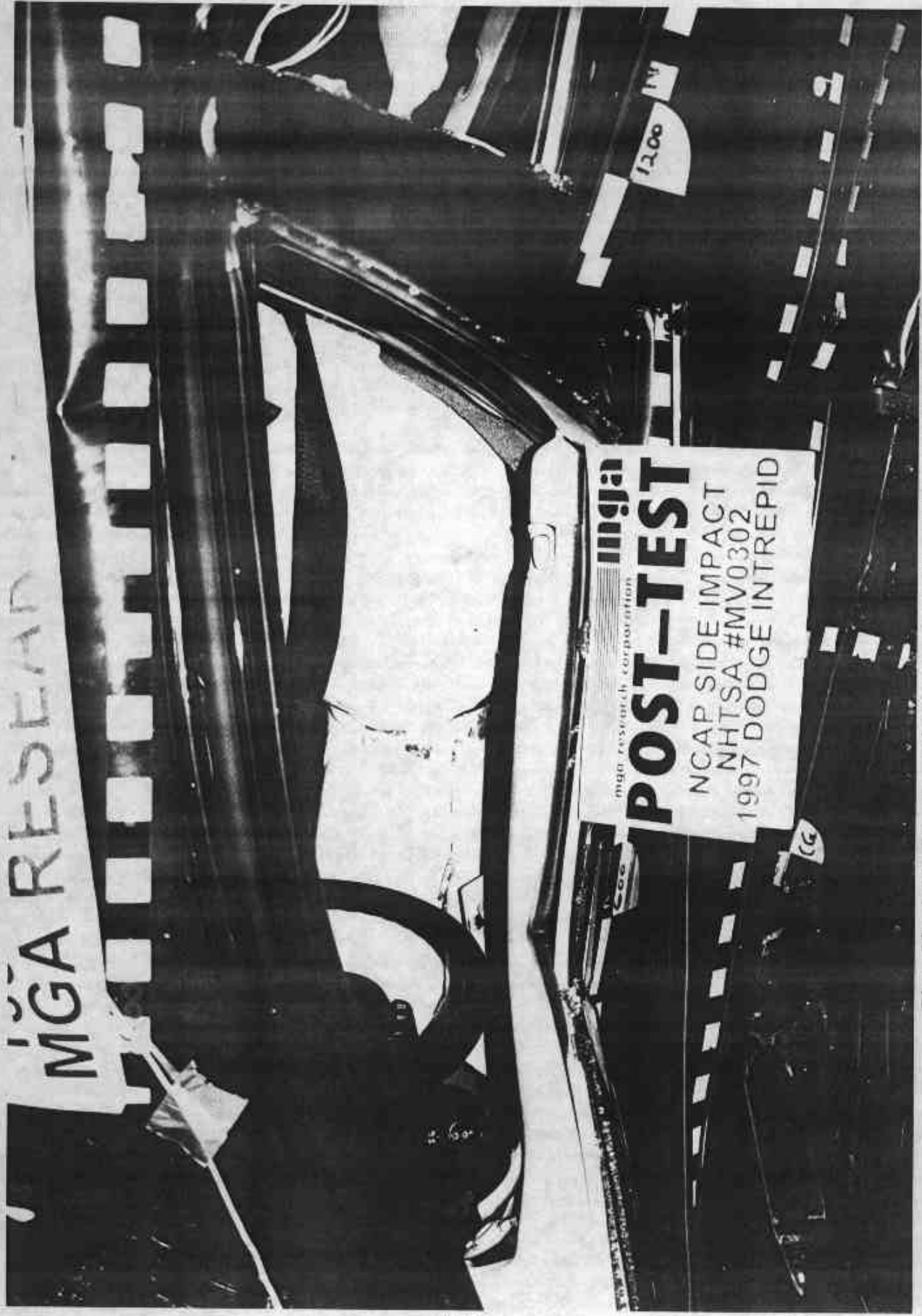


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Photo No. A-27 - Pre-Test Driver Dummy Shoulder and Door Top View

A-27

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1200

CG

A-28

Photo No. A-28 - Post-Test Driver Dummy Shoulder and Door Top View



ingja
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Photo No. A-29 - Post-Test Driver Dummy Contact

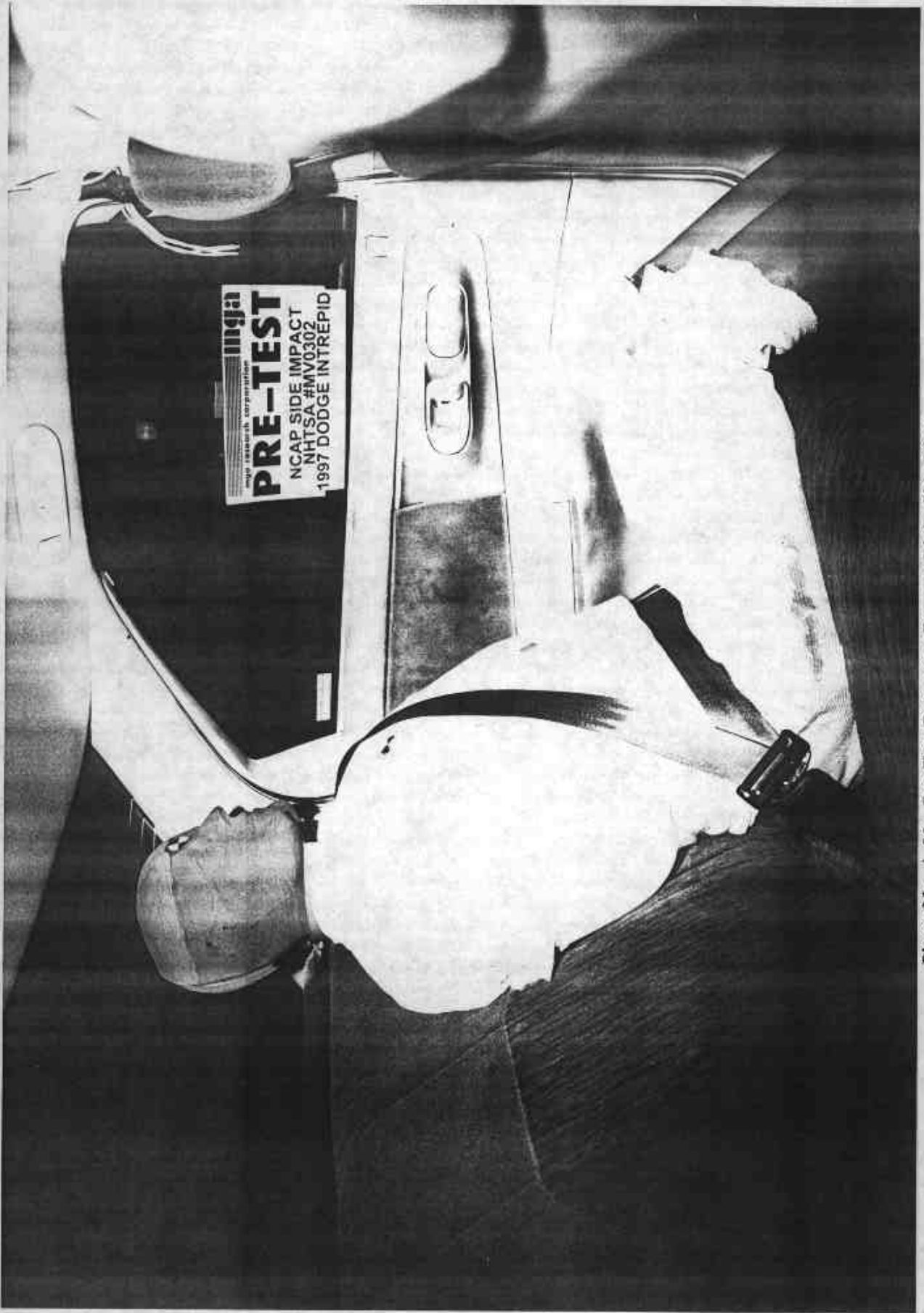
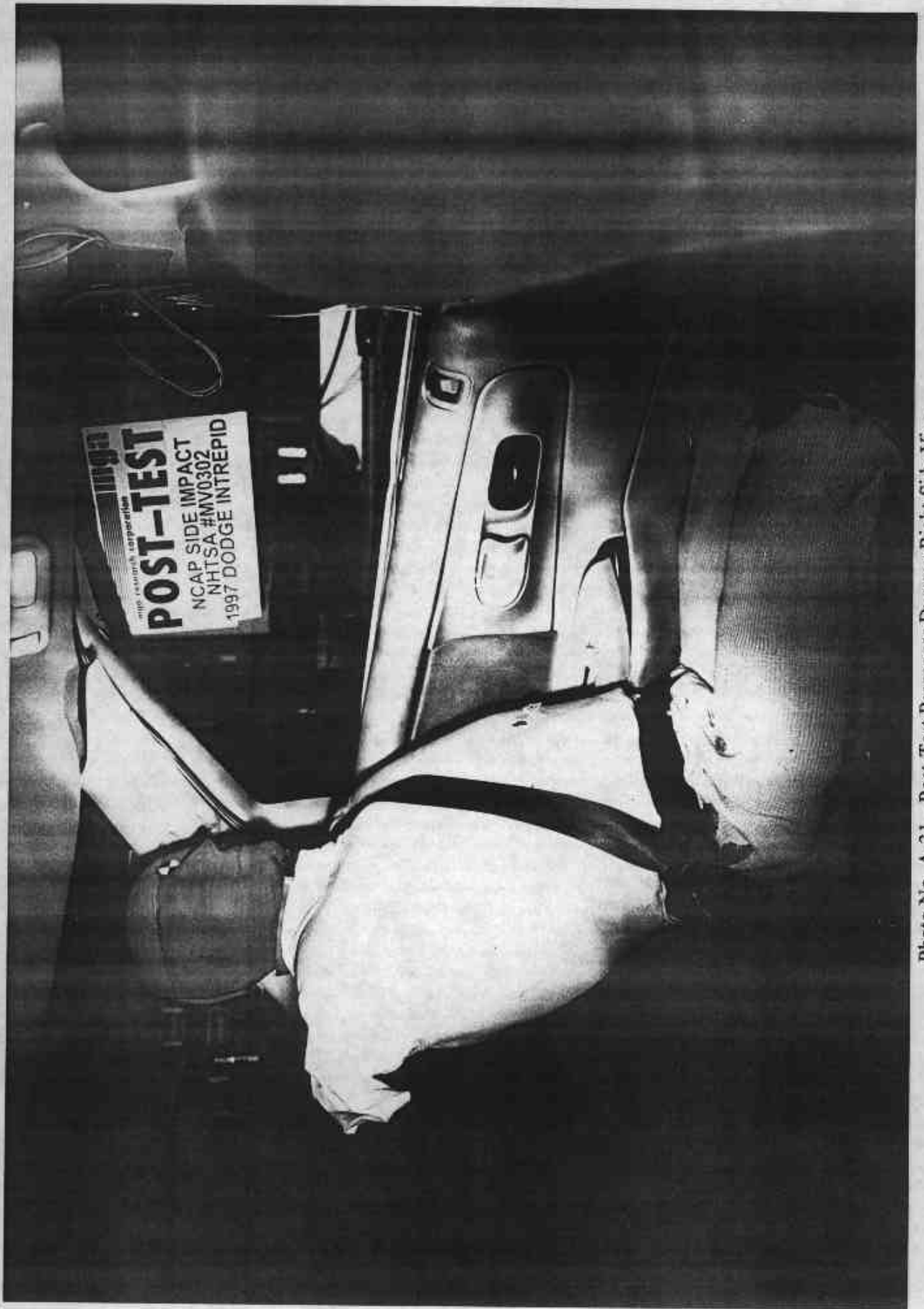
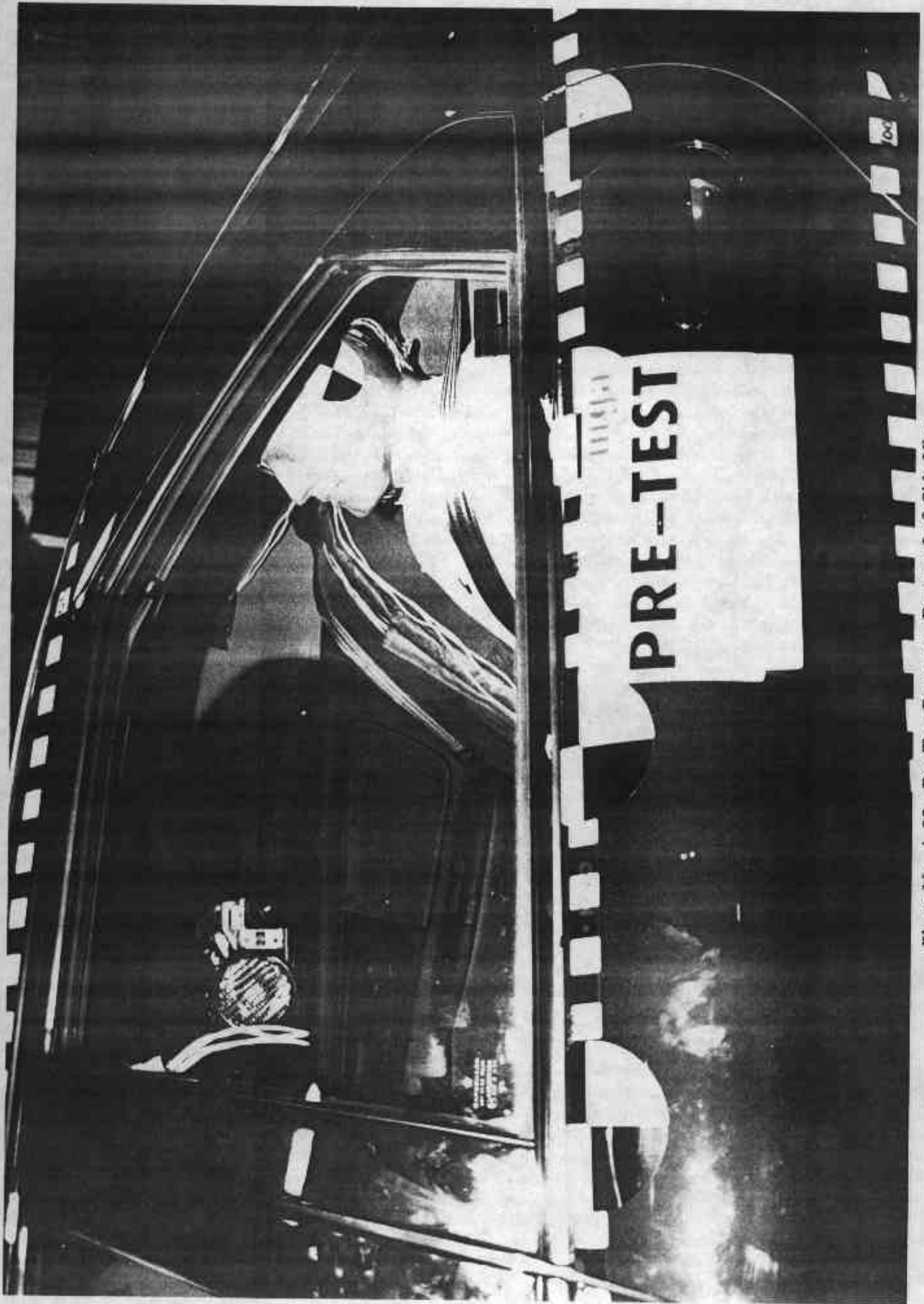


Photo No. A-30 - Pre-Test Passenger Dummy Right Side View



A-31

Photo No. A-31 - Post-Test Passenger Dummy Right Side View



A-32

Photo No. A-32 - Pre-Test Passenger Dummy Left Side View



Photo No. A-33 - Post-Test Passenger Dummy Left Side View

A-33

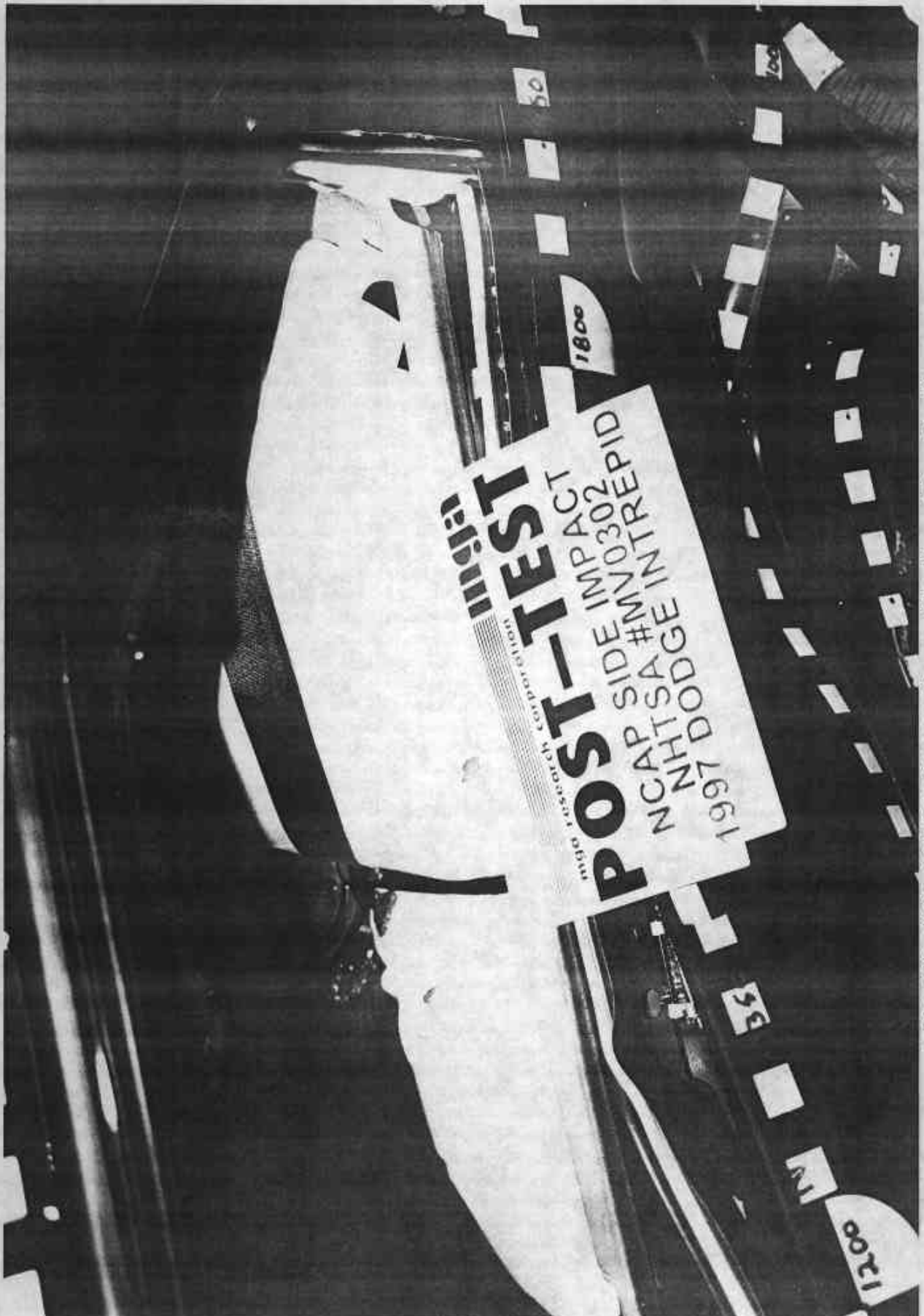


Photo No. A-34 - Pre-Test Passenger Dummy Left Side View (Door Open)



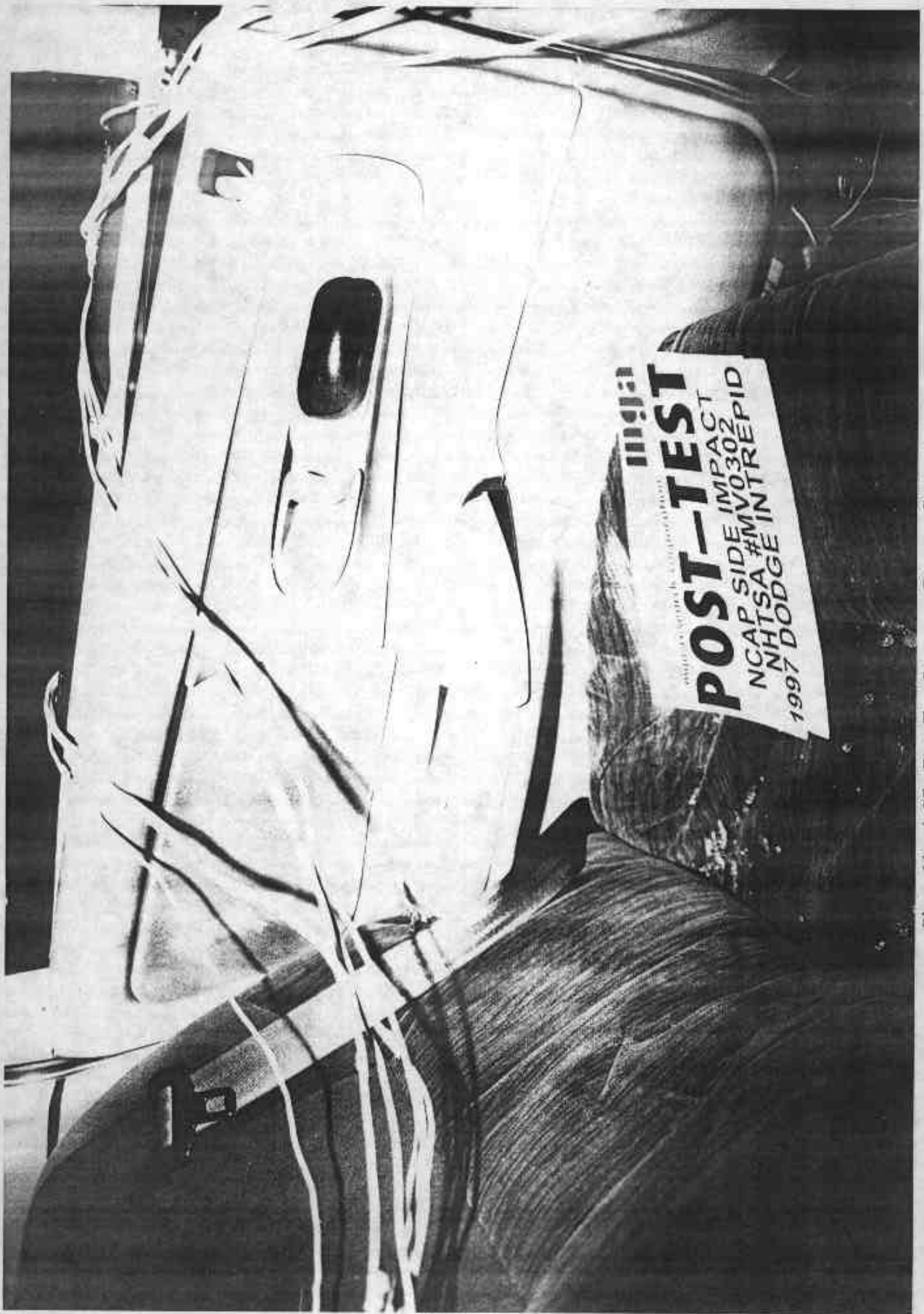
A-35

Photo No. A-35 - Pre-Test Passenger Dummy Shoulder and Door Top View



A-36

Photo No. A-36 - Post-Test Passenger Dummy Shoulder and Door Top View



A-37

Photo No. A-37 - Post-Test Passenger Dummy Contact

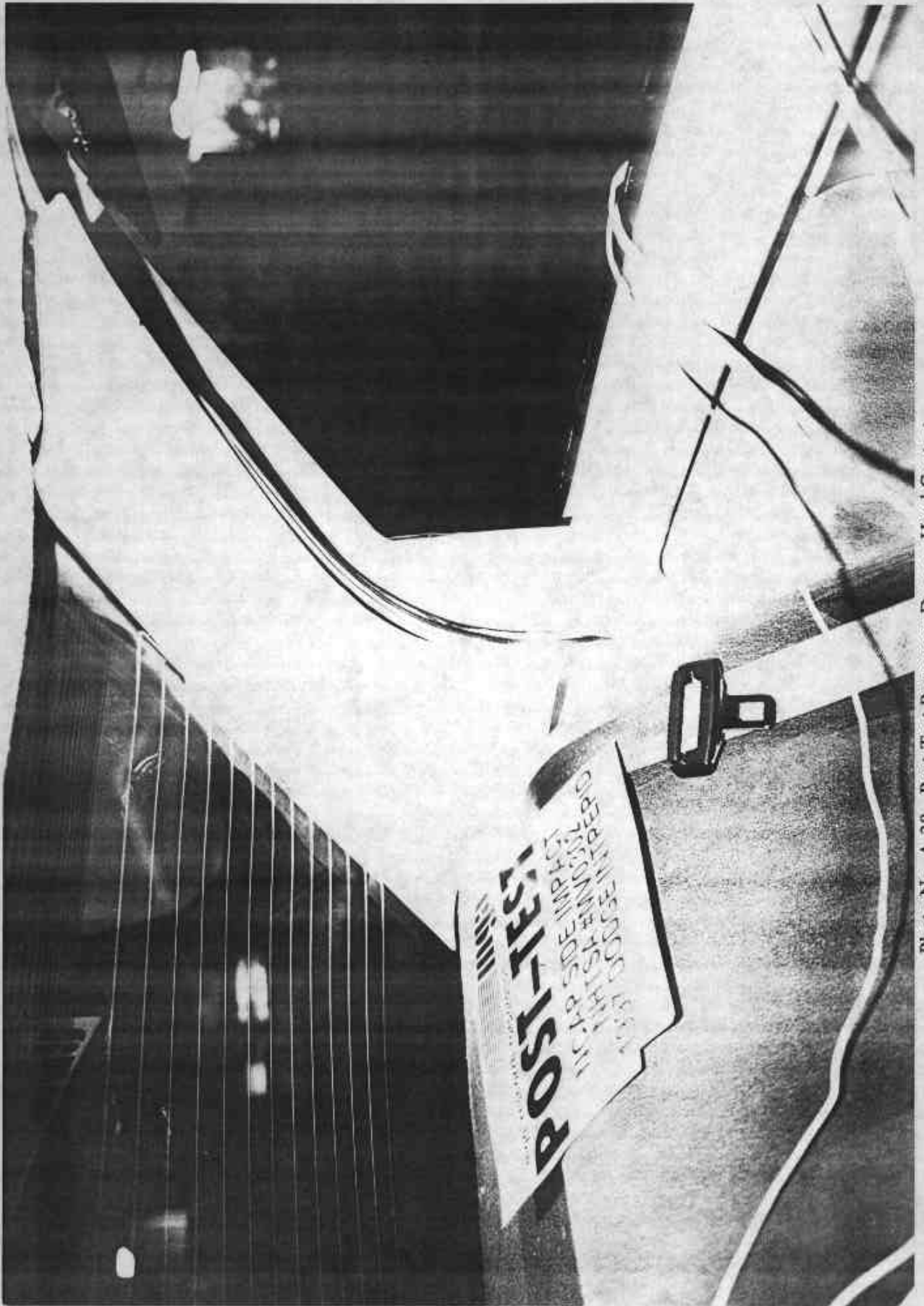


Photo No. A-38 - Post-Test Passenger Dummy Head Contact

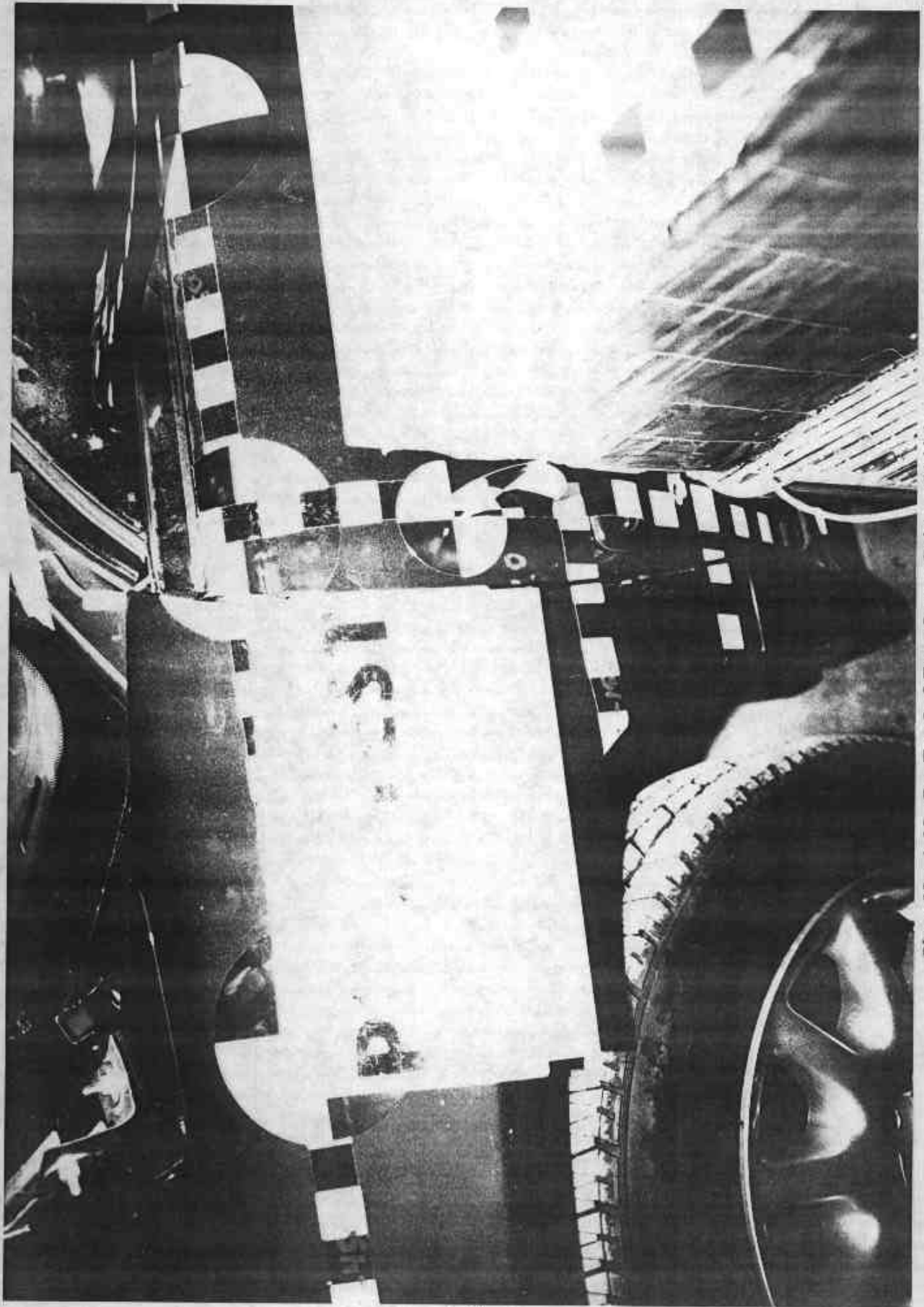


Photo No. A-39 - Pre-Test Left Front Impact Point on Vehicle

A-39



POST-TEST

A-40

Photo No. A-40 - Post-Test Left Front Impact Point on Vehicle



Photo No. A-41 - Impact

A-41

MADE BY CHRYSLER CORPORATION

DATE OF MANUFACTURE

GWR 2068 KG
04558 LB

GWR 1174 KG
FRONT 2587 LB

GWR 0917 KG
FRONT 2021 LB

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

VIN: 2B3-D46TXH549127

TYPE: PASSENGER CAR



MPN: 00921 355 PAINT: DPE VEHICLE MADE IN CANADA TRIM: L750 4648104



A-42

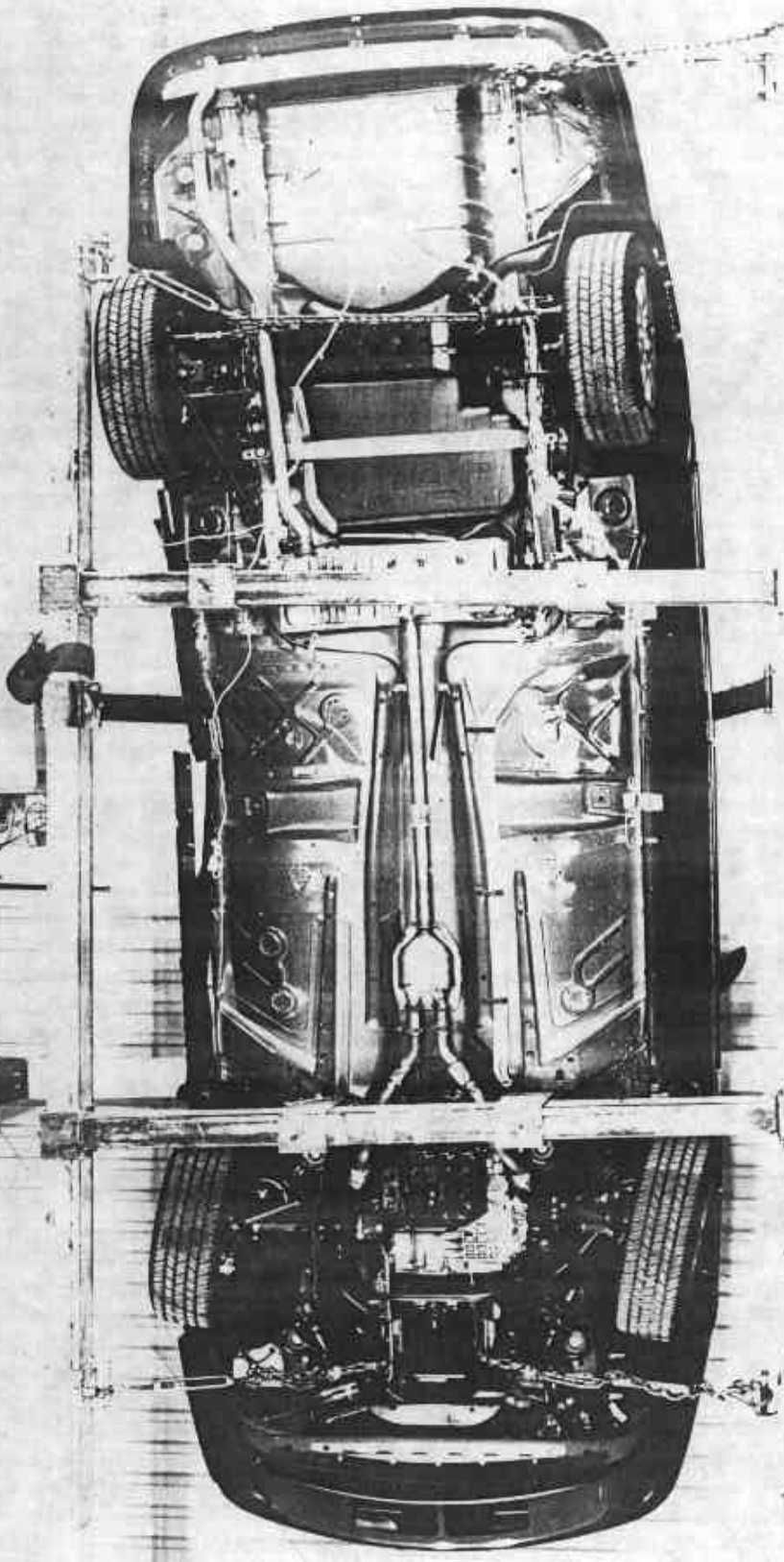
	VEHICLE CAPACITY OR LESS
1ST SEAT	• 1 PASS
2ND SEAT	• 5 PASS
LUGGAGE	115 LBS-52 kg
TOTAL	• 6 PASS
TOTAL WEIGHT	• 1015 LBS-461 kg
TIRE PRESSURE COLD	32 PSI 220 kPa FRONT AND REAR
<p>*REDUCE VEHICLE CAPACITY TO 2 PASSENGERS IN 1ST SEAT - (865 LBS-392 kg-5 PASS TOTAL) WHEN EQUIPPED WITH BUCKET SEATS WITHOUT CENTER SEAT</p>	

MINIMUM TIRE SIZE
P205/70R15 95S
STANDARD LOAD

SEE OWNERS MANUAL FOR ADDITIONAL DATA

PRINTED IN USA 4695 410

Photo No. A-43 - Tire Placard

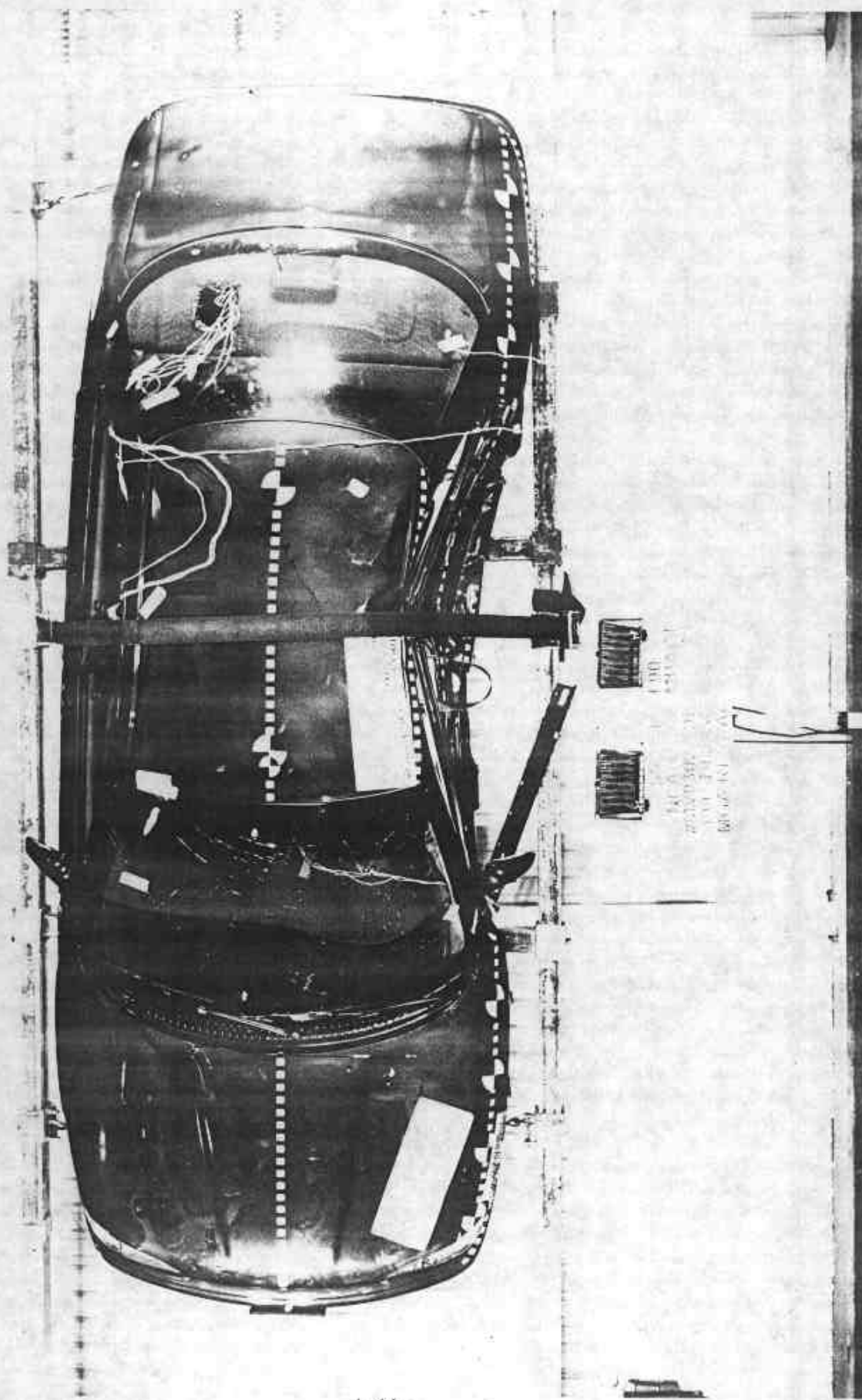


190
MCA
REARVIEW DR
100 100 100
MCA 100 100 100

17

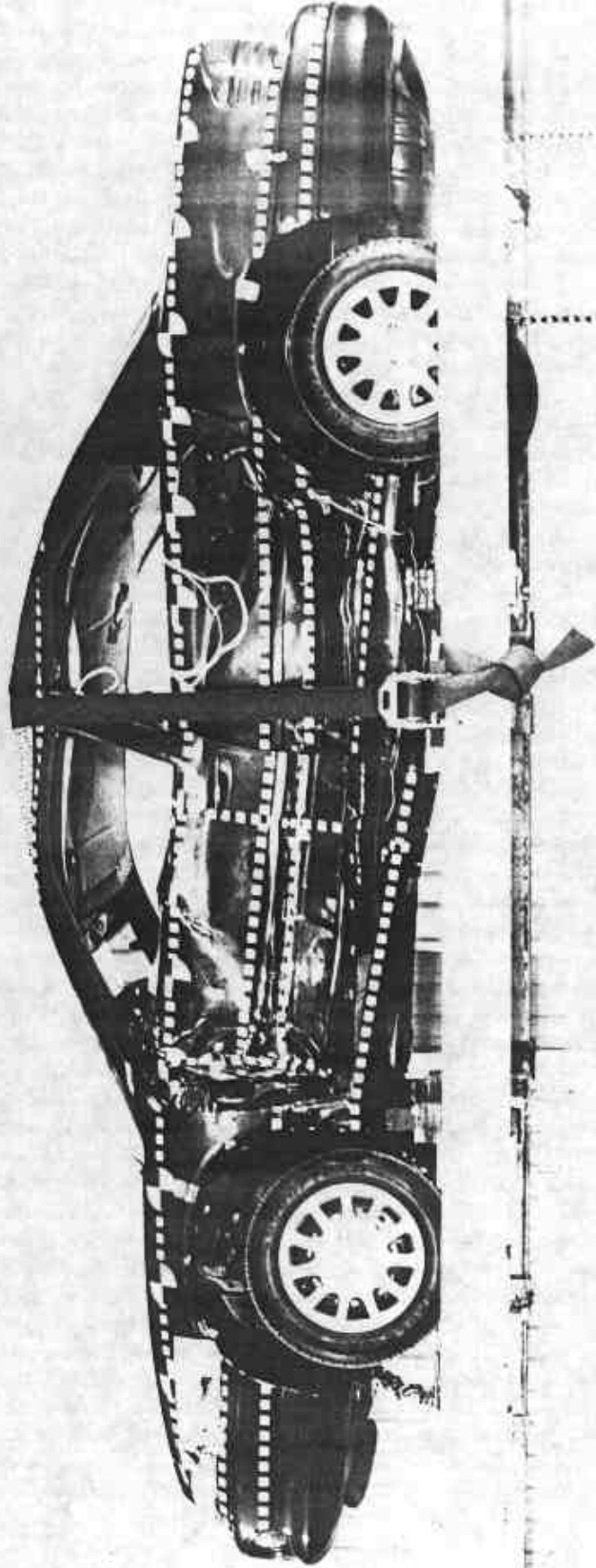
A-44

Photo No. A-44 - Rollover 90°



A-46

Photo No. A-46 - Rollover 270°



A-47

Photo No. A-47 - Rollover 360°



Photo No. A-48 - Left Front Attitude Point

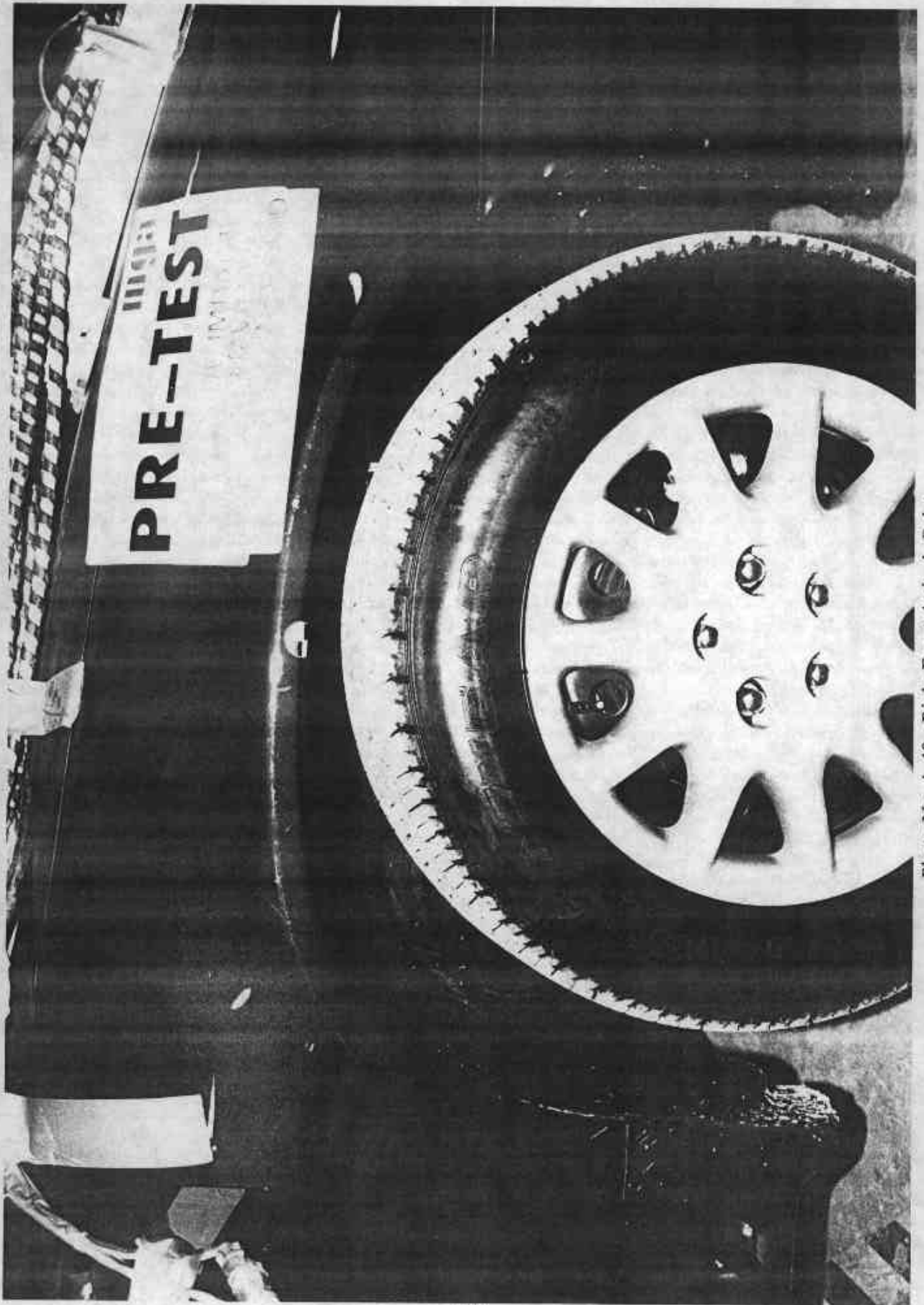


Photo No. A-49 - Right Front Attitude Point

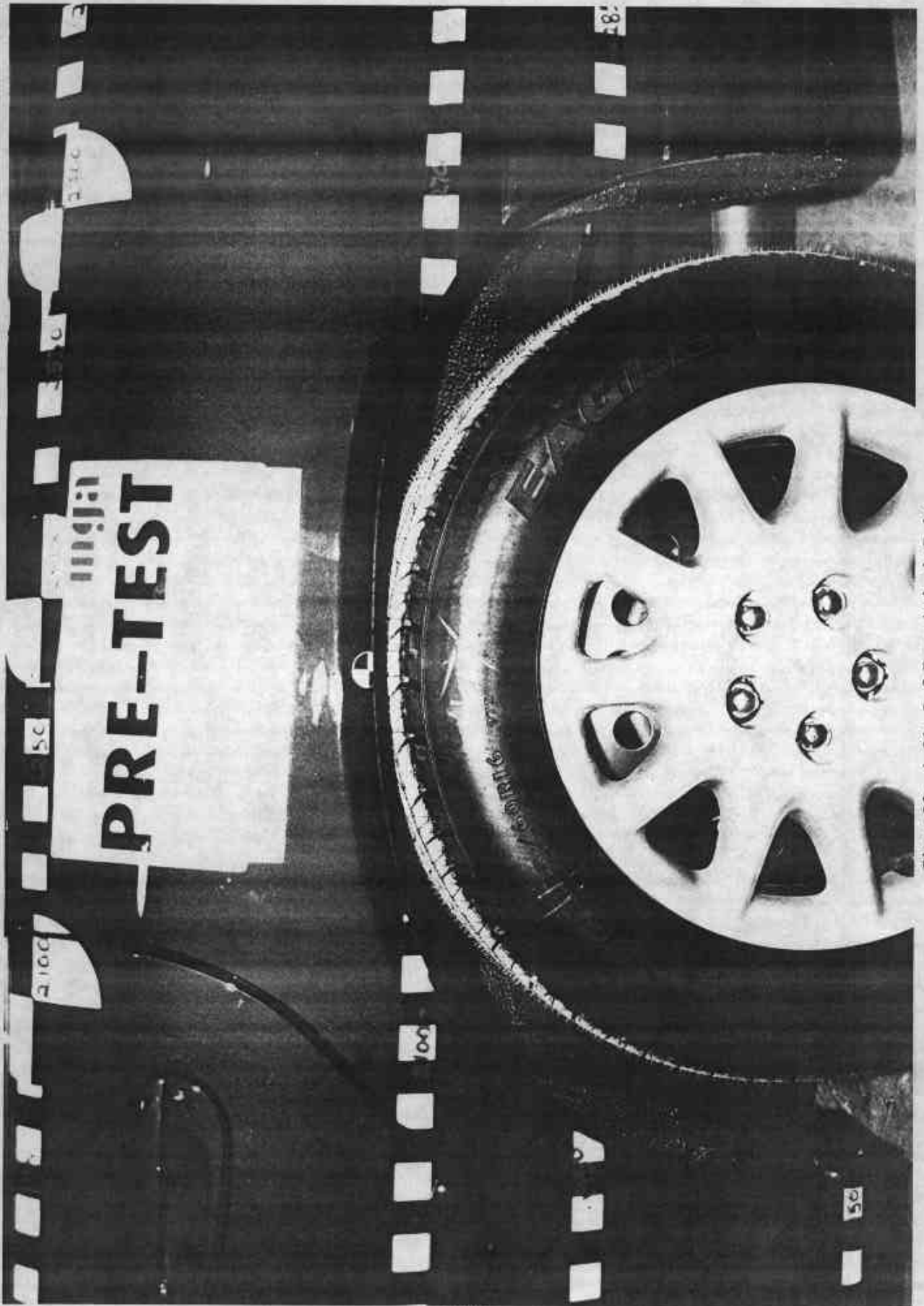


Photo No. A-50 - Left Rear Attitude Point

A-50

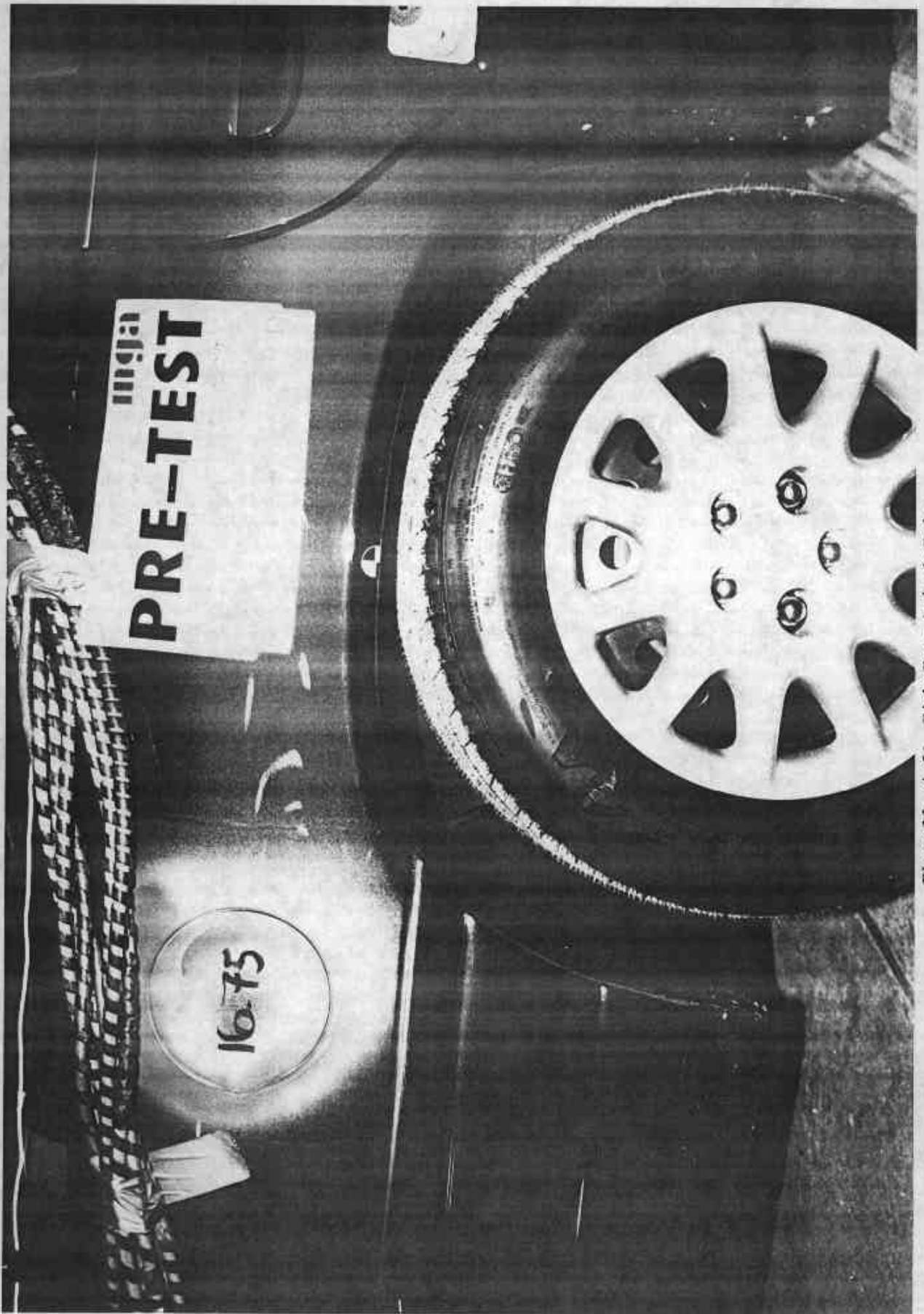
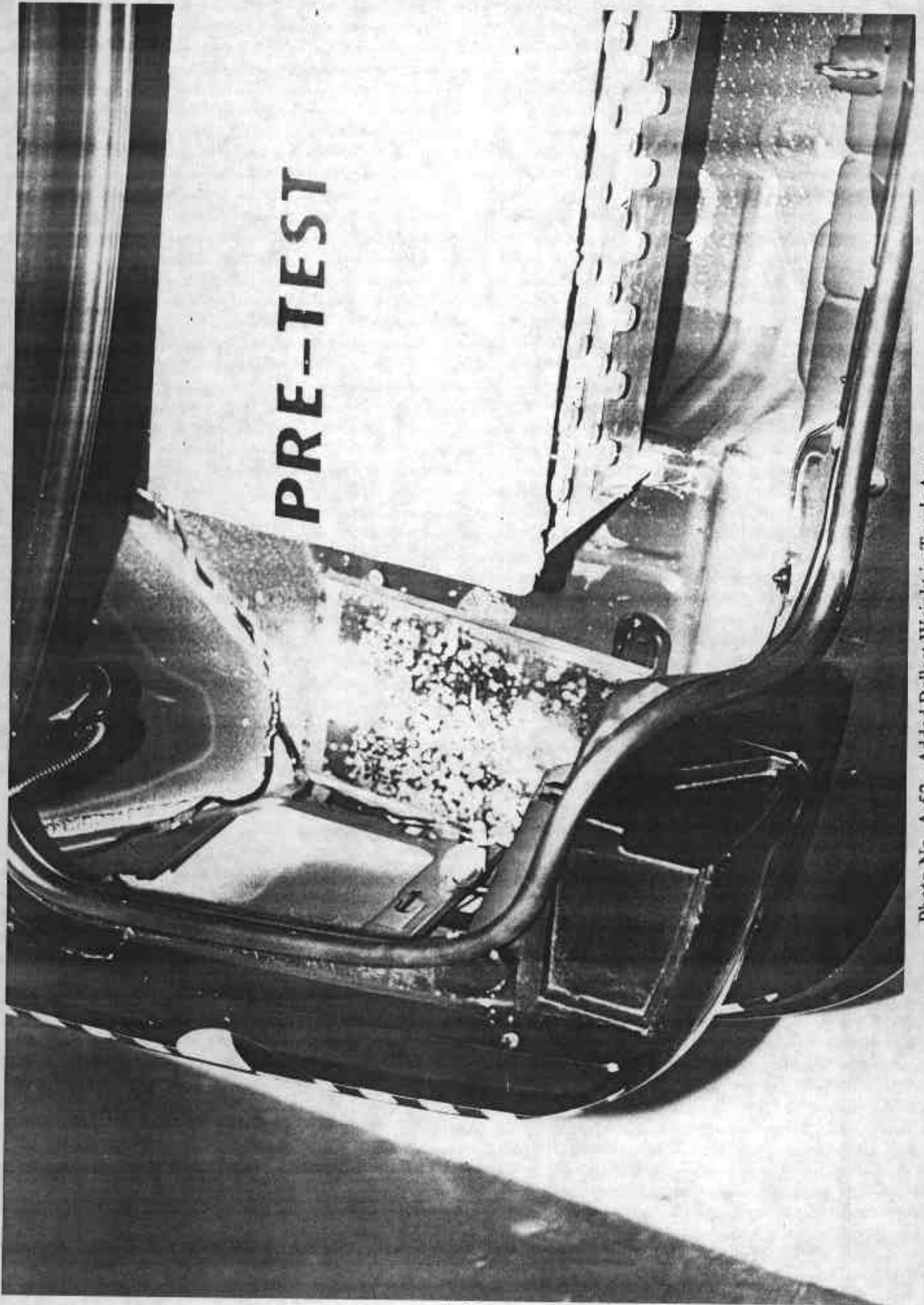


Photo No. A-51 - Right Rear Attitude Point

A-51



PRE-TEST

Photo No. A-52 - Added Ballast Weight in Trunk Area

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* Data Not Valid After Approximately 60 Msec.

** No Valid Data Collected

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TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

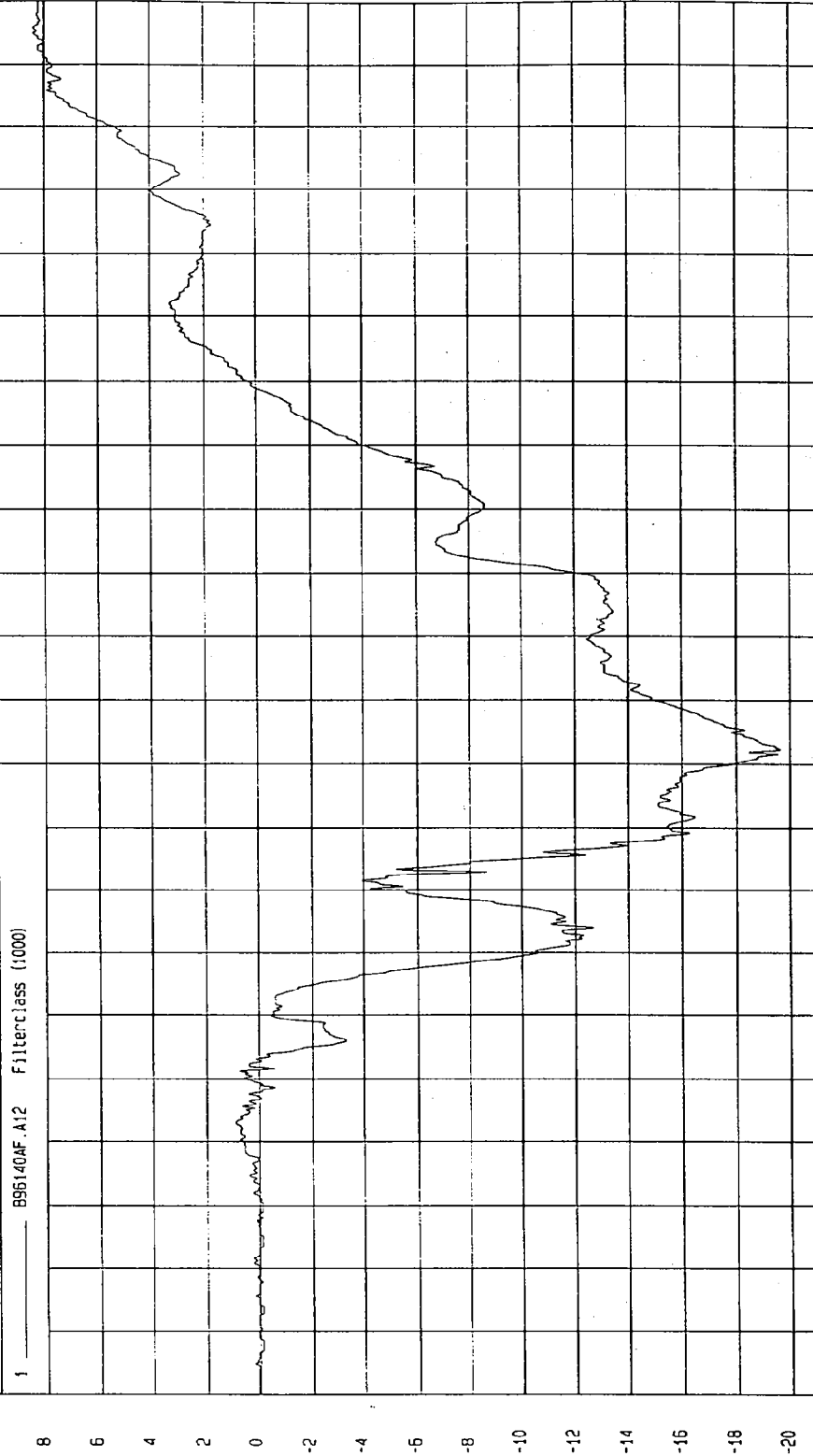
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19.64 G'S at 82 msec

Maximum = 0.38 G'S at 195 msec

DRIVER HEAD X ACCELERATION

1 896140AF.A12 Filterclass (1000)



MOA Research
01-17-1997 14:09

TIME (SECONDS)

G.S

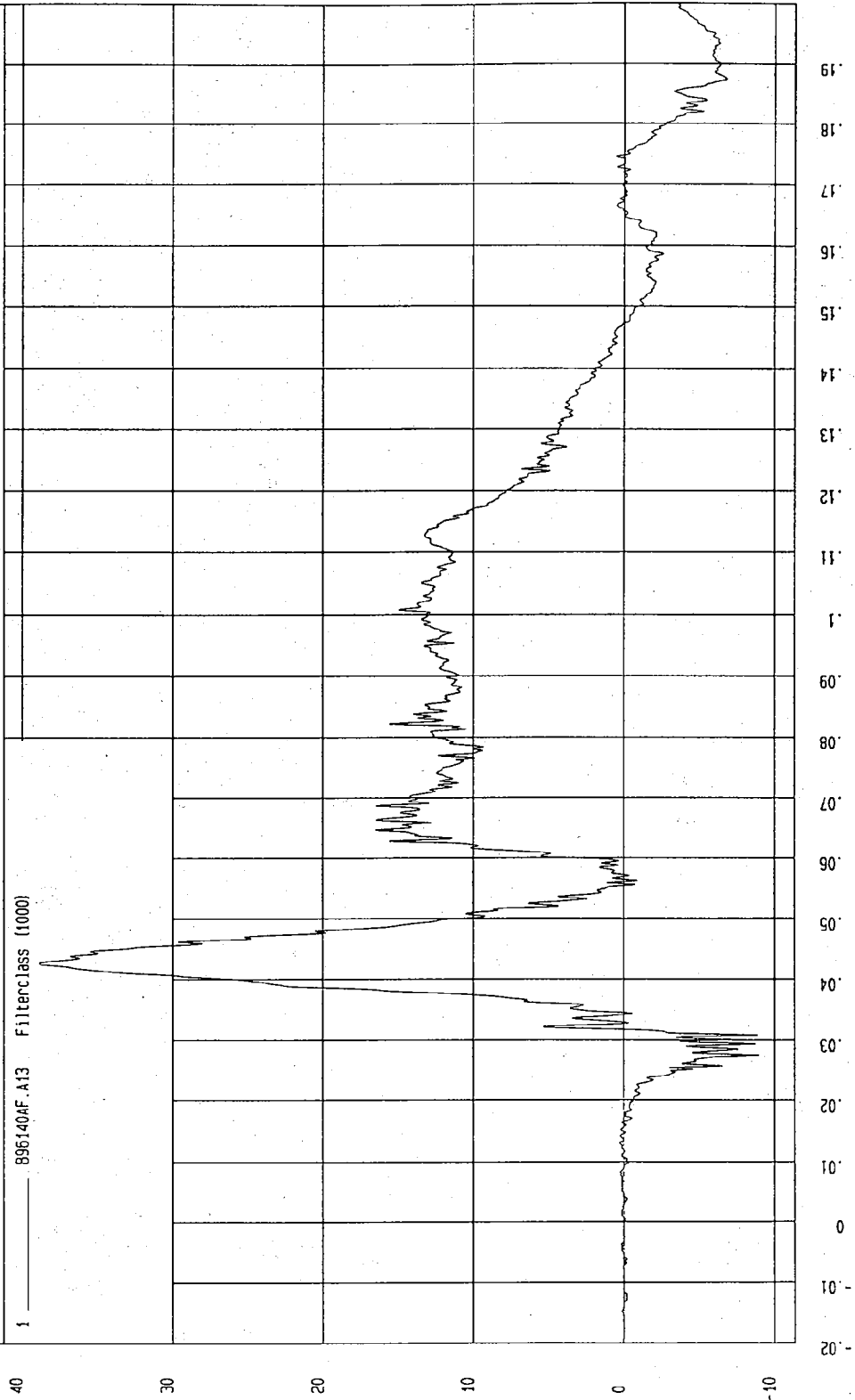
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -8.95 G'S at 28 msec Maximum = 38.84 G'S at 42 msec

DRIVER HEAD Y ACCELERATION

1 896140AF.A13 Filterclass (1000)



NGA Research
01-17-1997 14.08

G.S

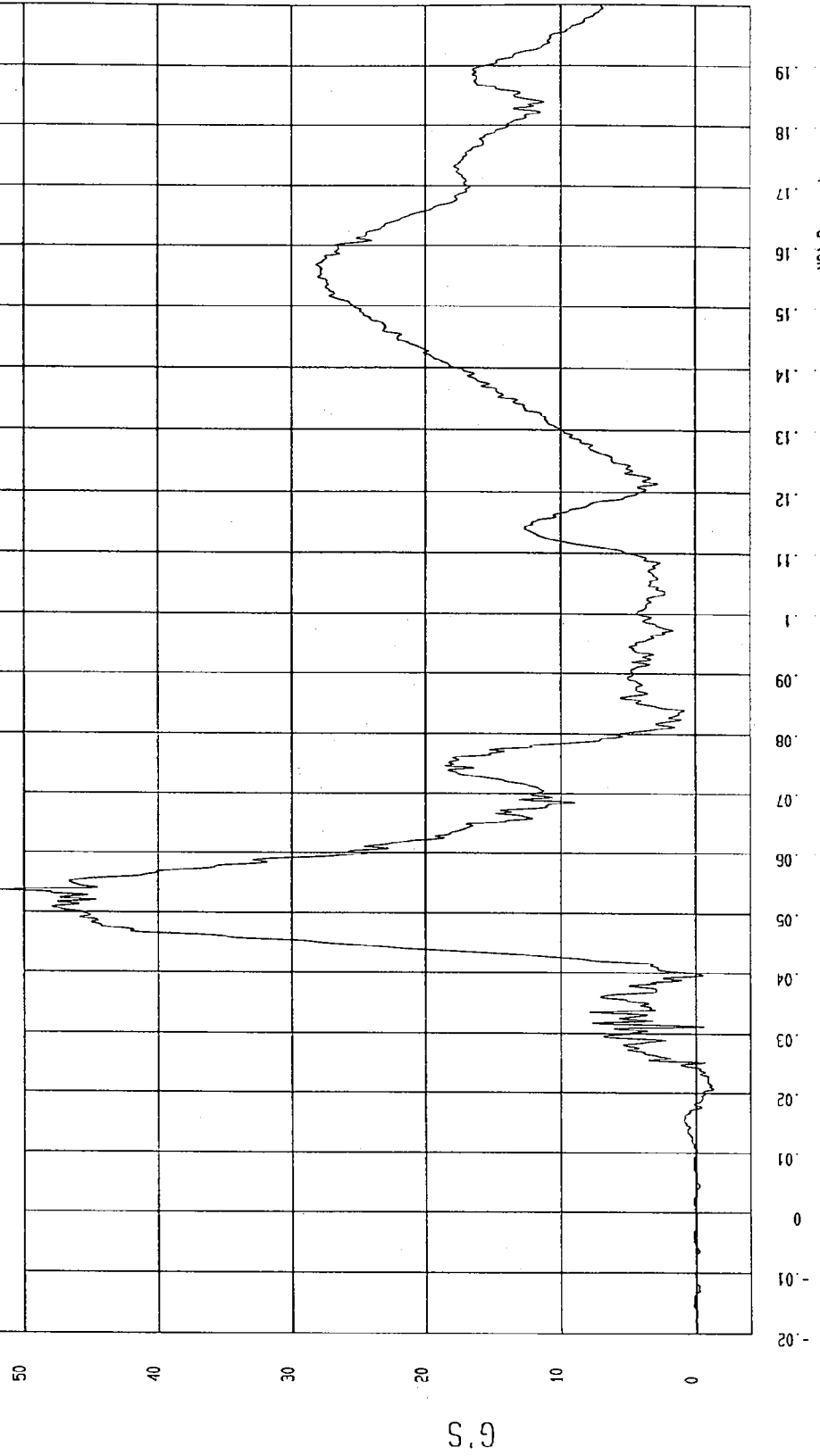
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -1.31 G'S at 21 msec Maximum = 52.07 G'S at 54 msec

DRIVER HEAD Z ACCELERATION

1 ——— 896140AF.A14 Filterclass (1000)



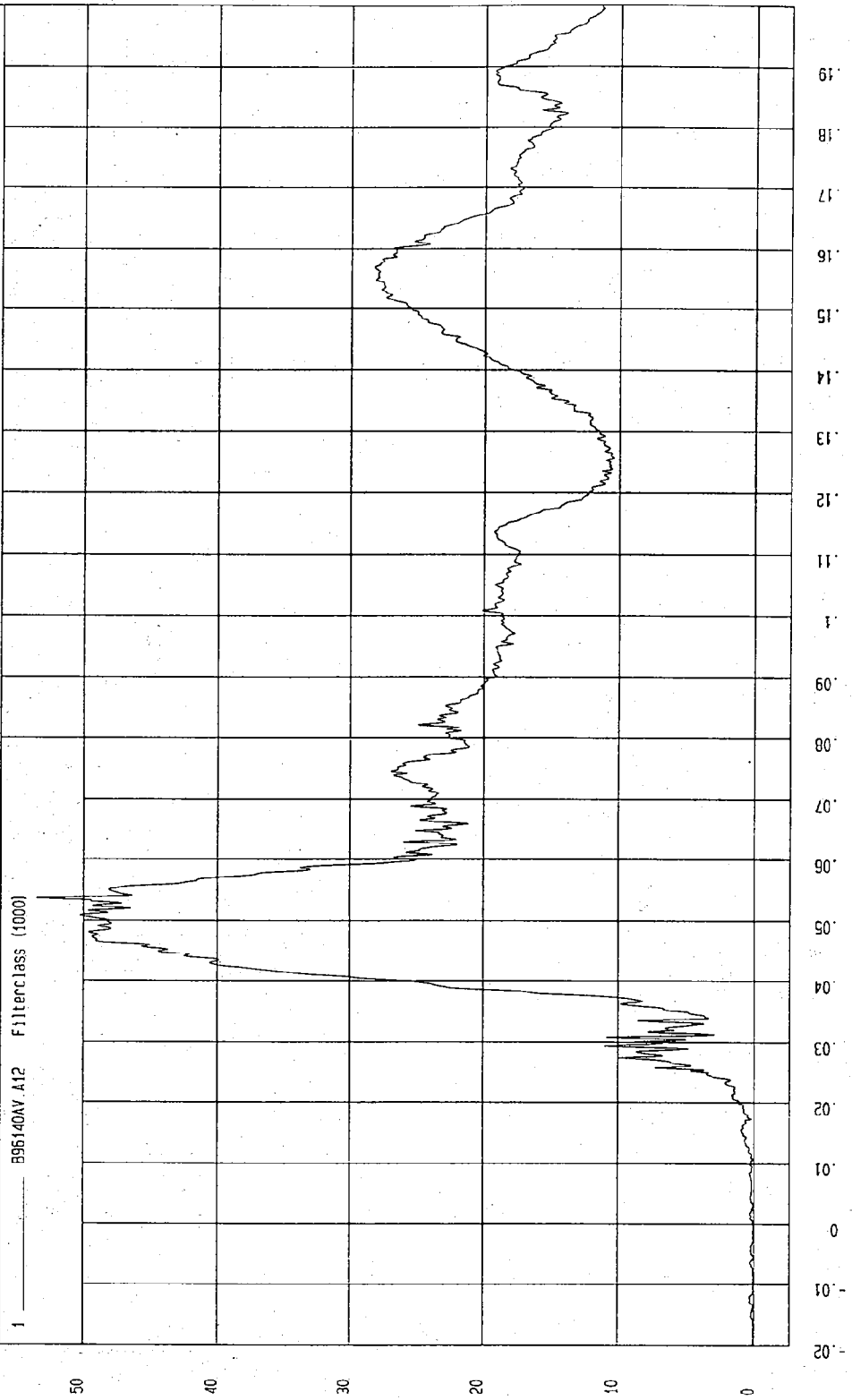
MCA Research
01-17-1997 14.08

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 1.01E-02 G'S at 2 msec Maximum = 53.51 G'S at 54 msec

DRIVER HEAD RESULTANT



MOA Research
01-17-1997 14.08

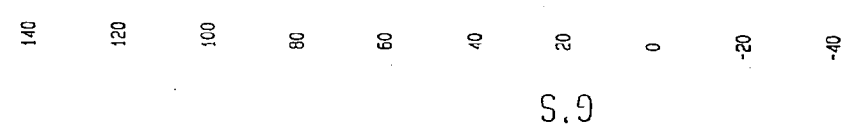
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -28.36 G'S at 37 msec Maximum = 85.04 G'S at 30 msec

DRIVER UPPER RIB Y ACCELERATION

1 _____ B96140AF.A15 FilterClass (180)



NGA Research
01-17-1997 14:09

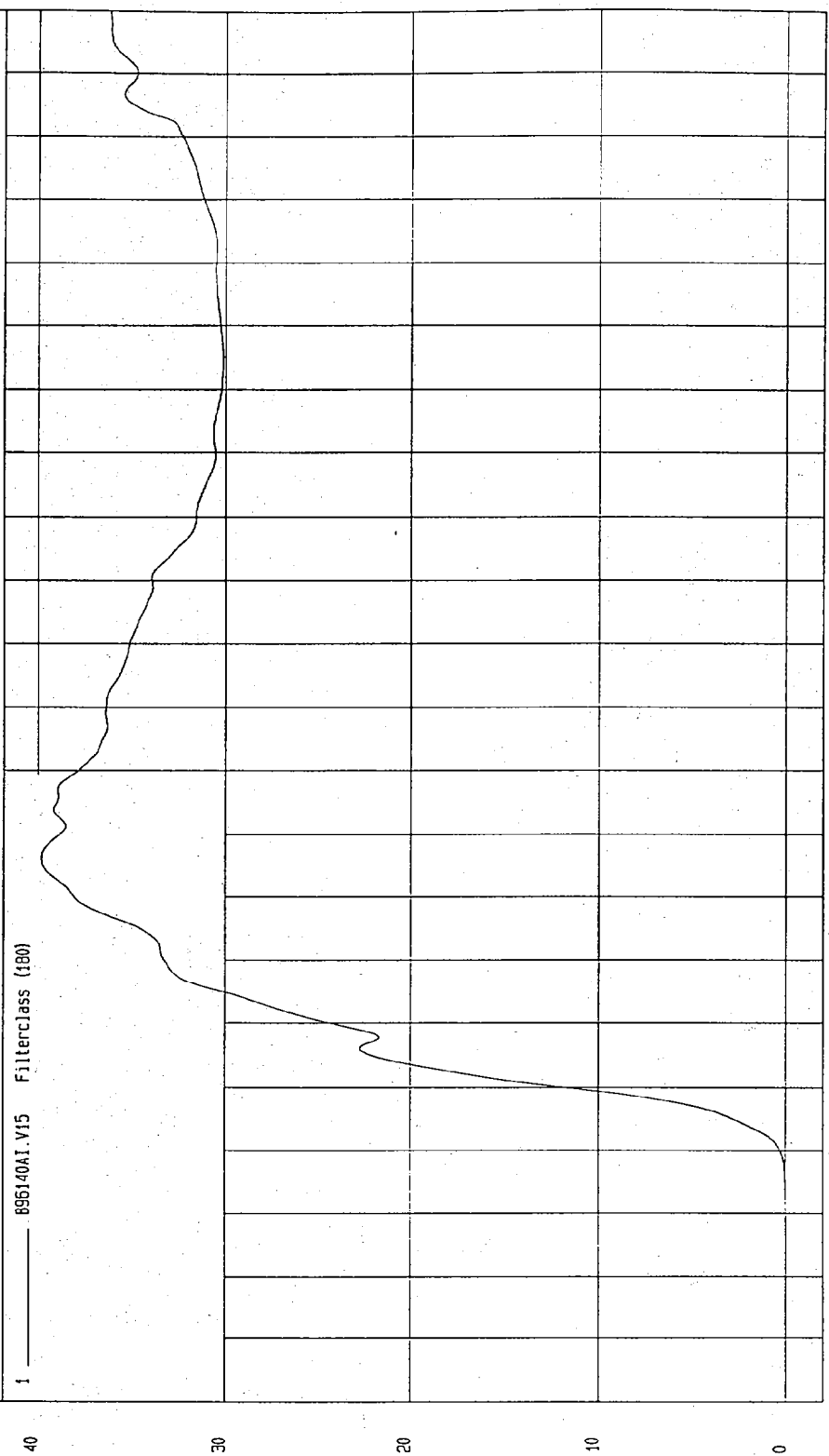
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -2.84E-02 KPH at 3 msec Maximum = 39.80 KPH at 66 msec

DRIVER UPPER RIB Y VELOCITY

1 — 895140A1.V15 Filterclass (180)



TIME Seconds
MCA Research
01-11-1997 14:19

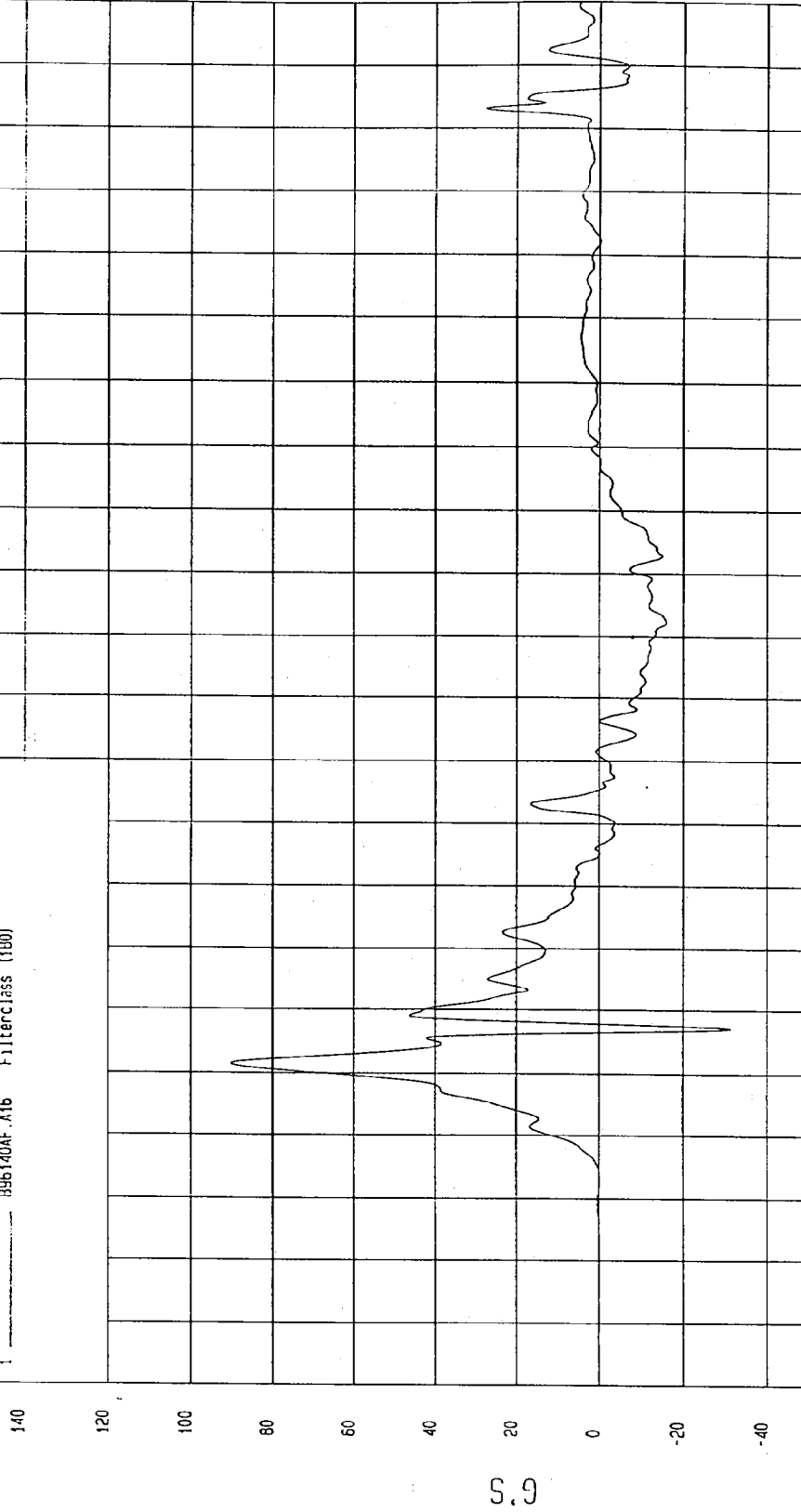
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -31.30 G'S at 37 msec Maximum = 90.22 G'S at 31 msec

DRIVER LOWER RIB Y ACCELERATION

1 896140AF.A16 Filterclass (180)



NGA Research
01-17-1997 14.09

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

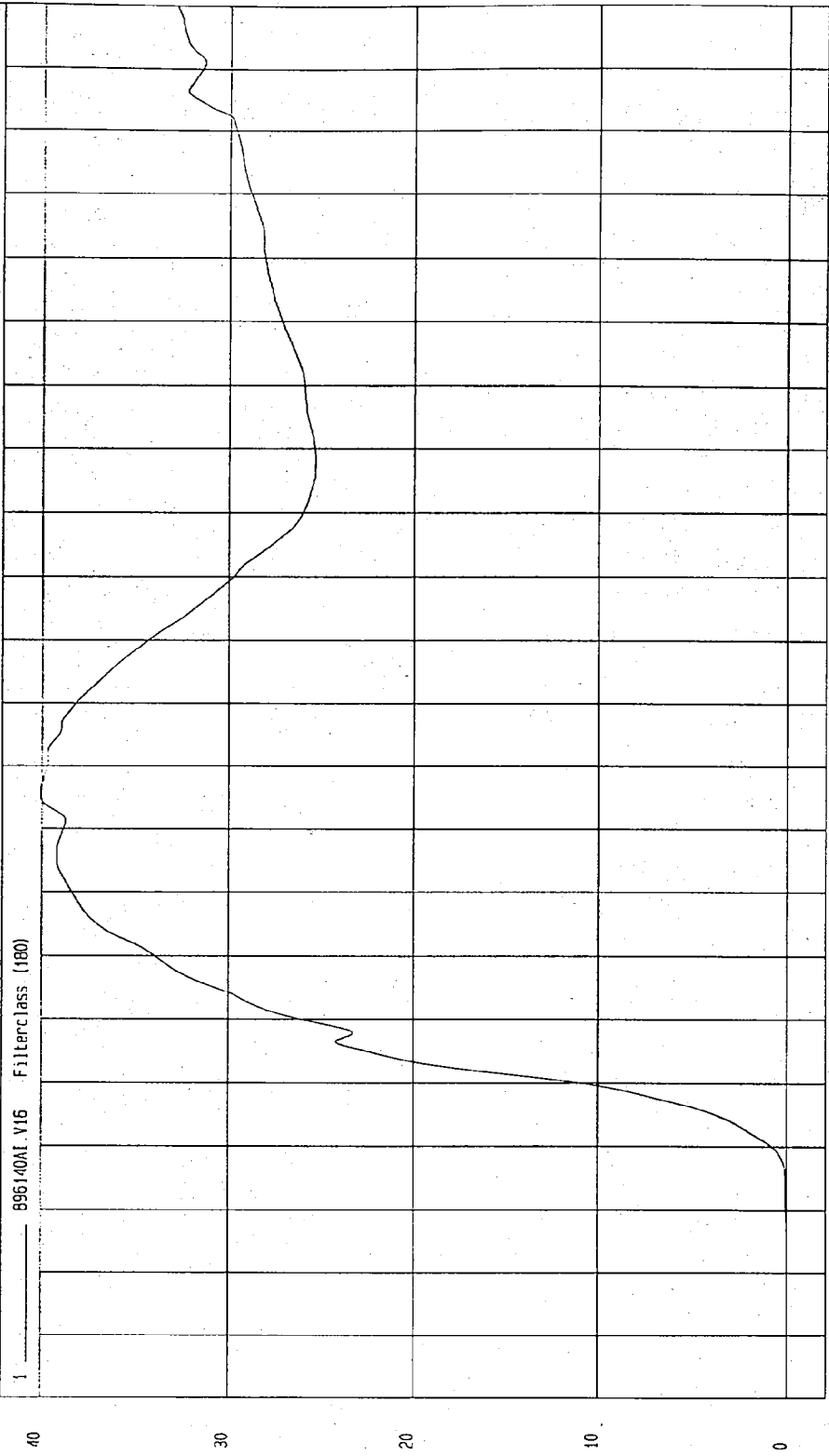
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -6.4E-03 KPH at -14 msec

Maximum = 40.10 KPH at 75 msec

DRIVER LOWER RIB Y VELOCITY

1 896140A1.V16 Filterclass (H80)



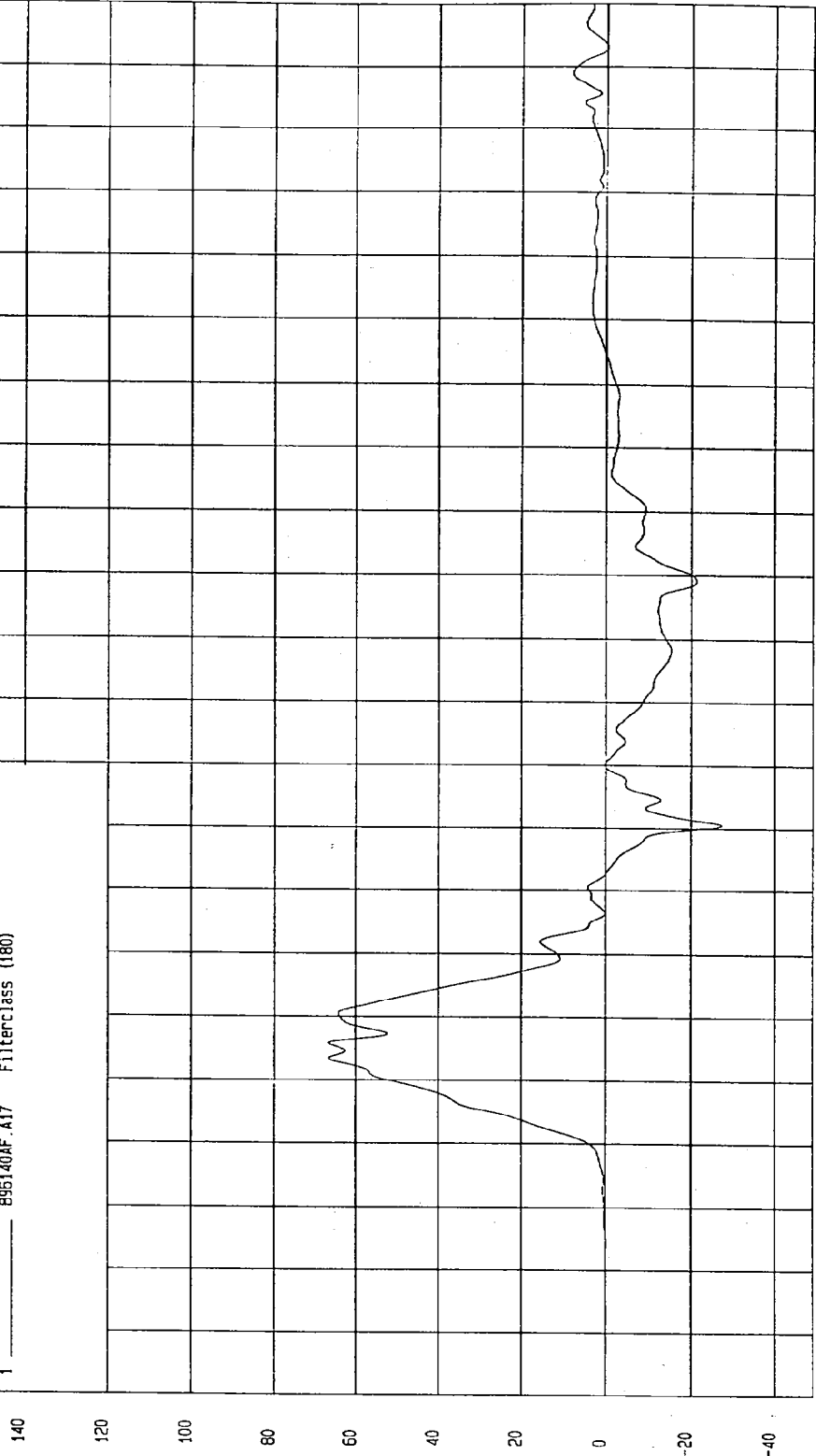
MCA Research
01-17-1997 14:19
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -27.32 G'S at 70 msec Maximum = 66.80 G'S at 36 msec

DRIVER LOWER SPINE Y ACCELERATION

1 ——— B95140AF-A17 Filterclass (180)



MOA Research
01-17-1997 14:09

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

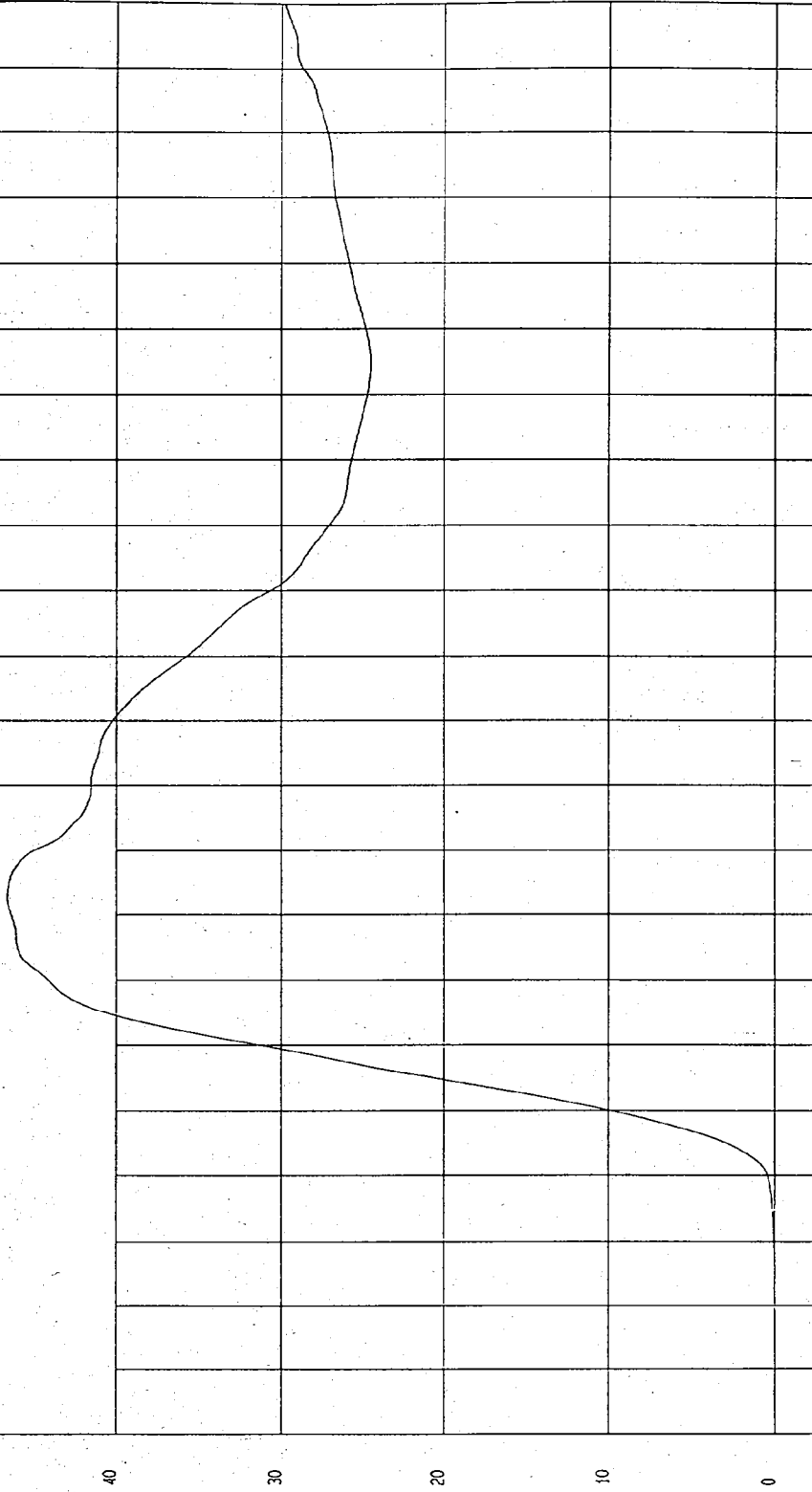
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -.01 KPH at -6 msec

Maximum = 46.65 KPH at 63 msec

DRIVER LOWER SPINE Y VELOCITY

1 806140AI.V17 Filterclass (180)



NGA Research
01-17-1997 14:20

TIME Seconds

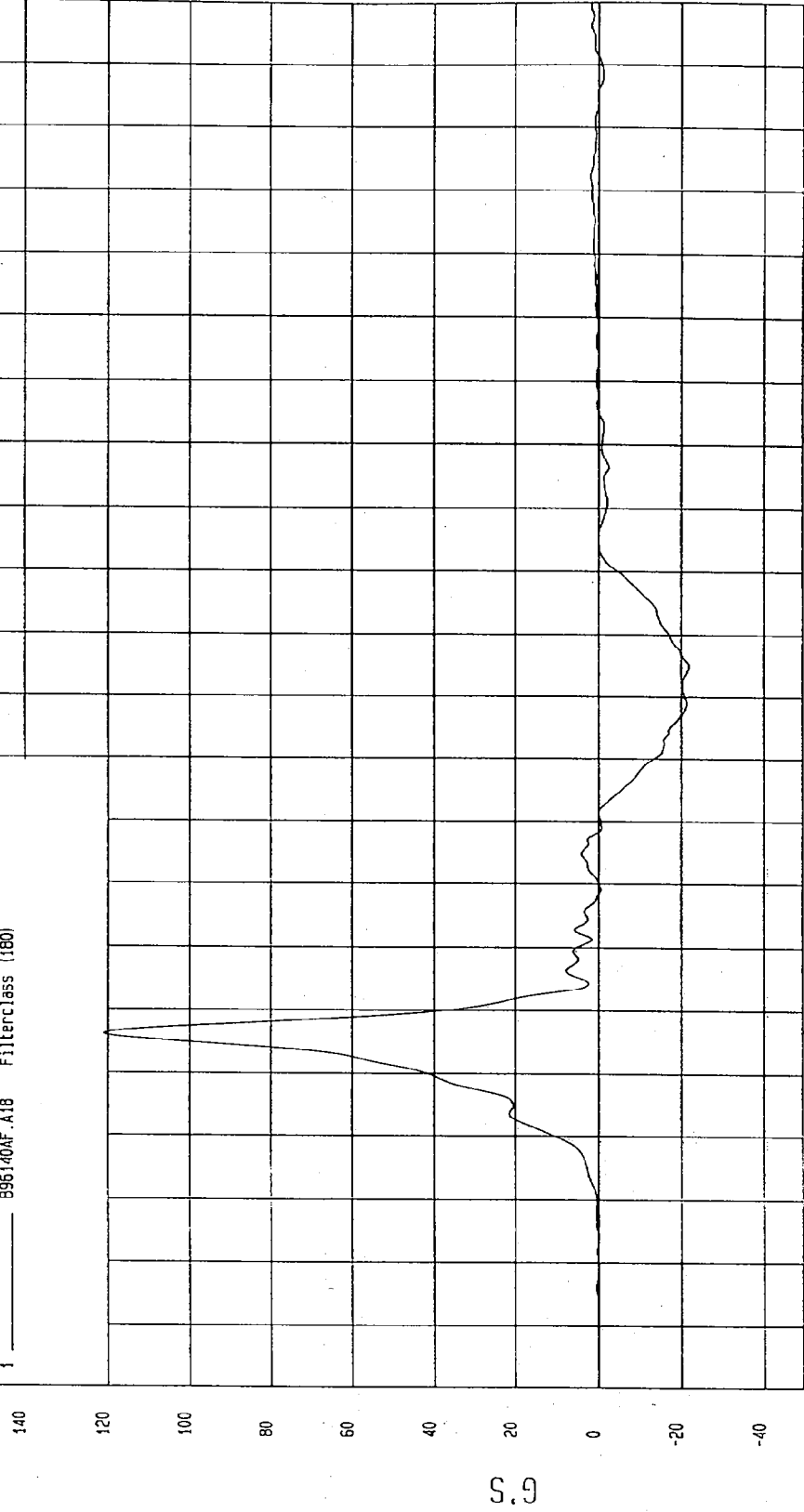
KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -21.86 G'S at 95 msec Maximum = 121.01 G'S at 36 msec

DRIVER PELVIS Y ACCELERATION

1 896140AF.A18 Filterclass (180)



MSA Research
01-17-1997 14:09

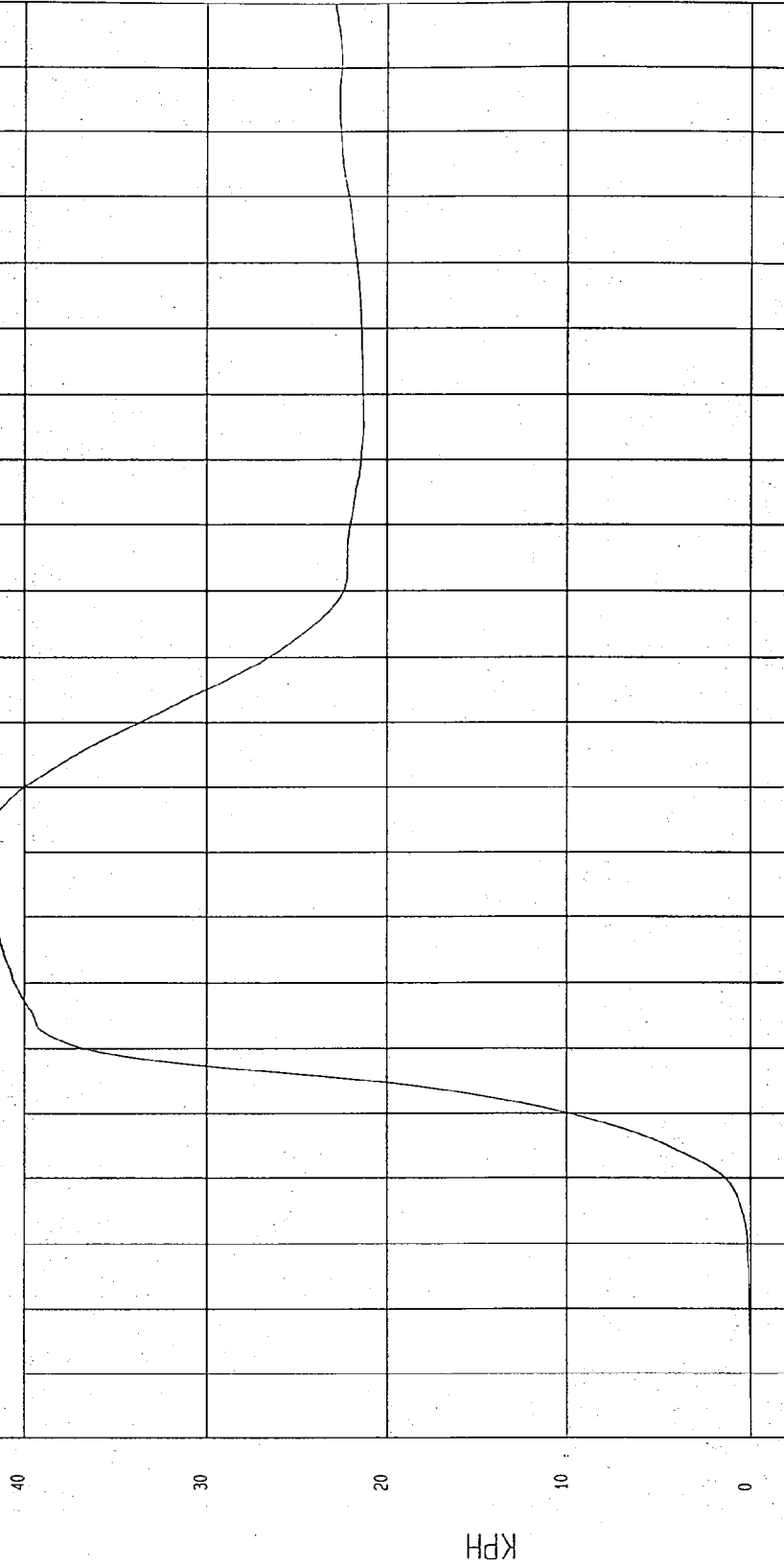
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 0 KPH at -20 msec Maximum = 42.04 KPH at 60 msec

DRIVER PELVIS Y VELOCITY

1 — 896140A1.V18 Filterclass (180)



TIME Seconds
MCA Research
01-17-1997 14:20

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

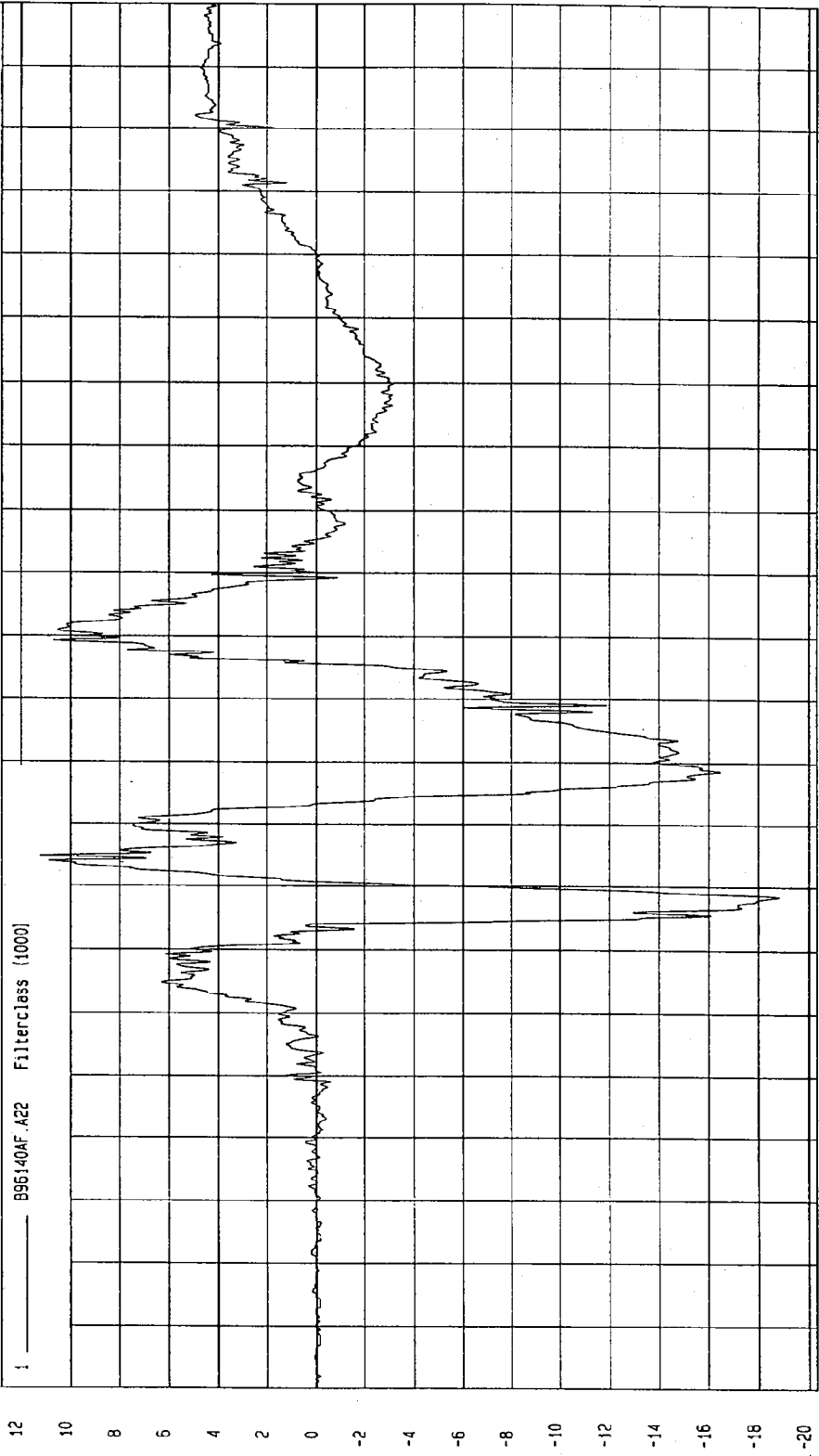
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -10.01 G'S at 58 msec

Maximum = 11.26 G'S at 65 msec

REAR PASSENGER HEAD X ACCELERATION

1 B96140AF.A22 Filterclass (1000)



MCA Research
01-17-1997 14:09

TIME (SECONDS)

G'S

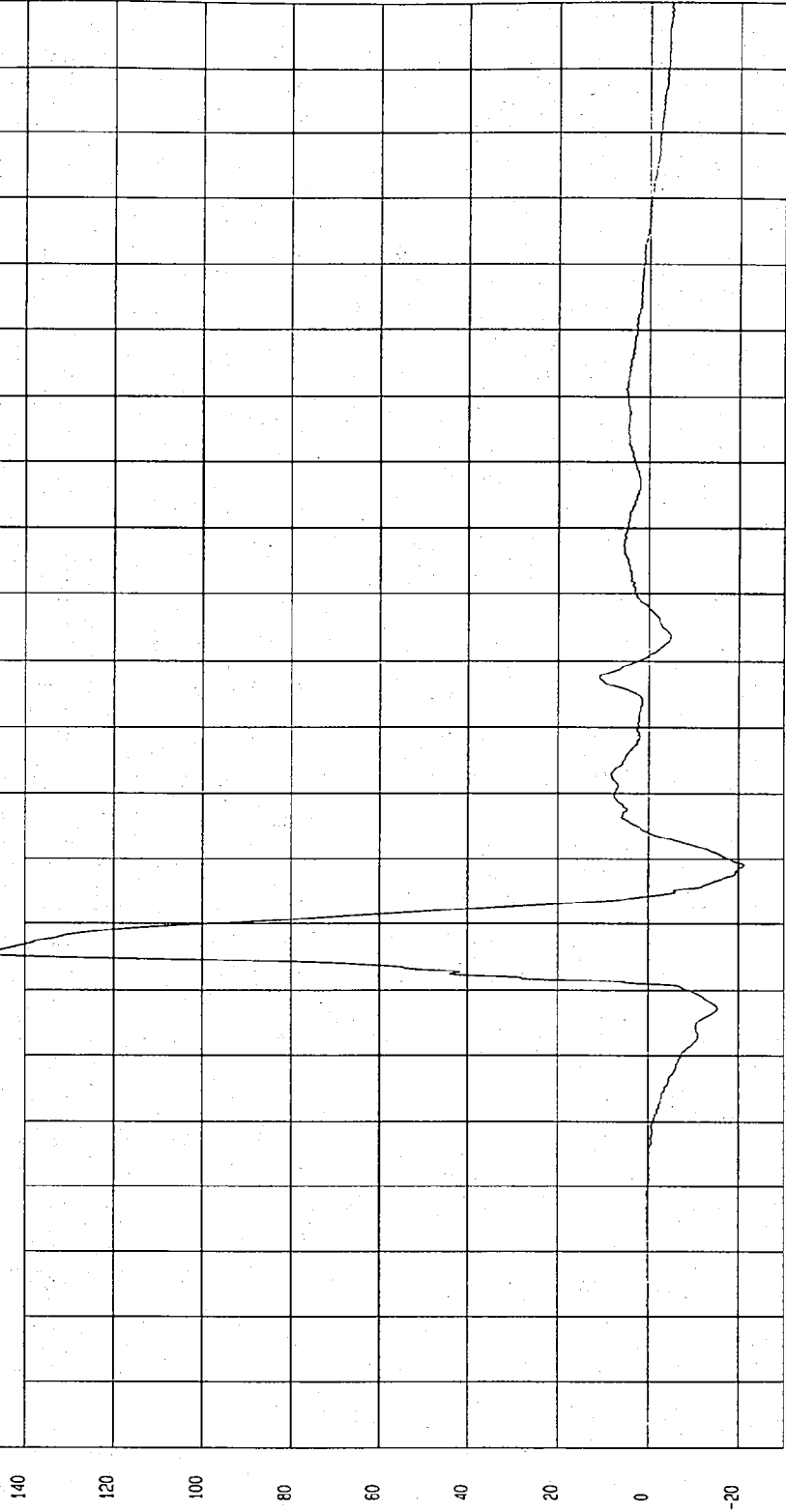
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -21.30 G'S at 69 msec Maximum = 151.20 G'S at 56 msec

REAR PASSENGER HEAD Y ACCELERATION

1 896140AF.A23 Filterclass (1000)

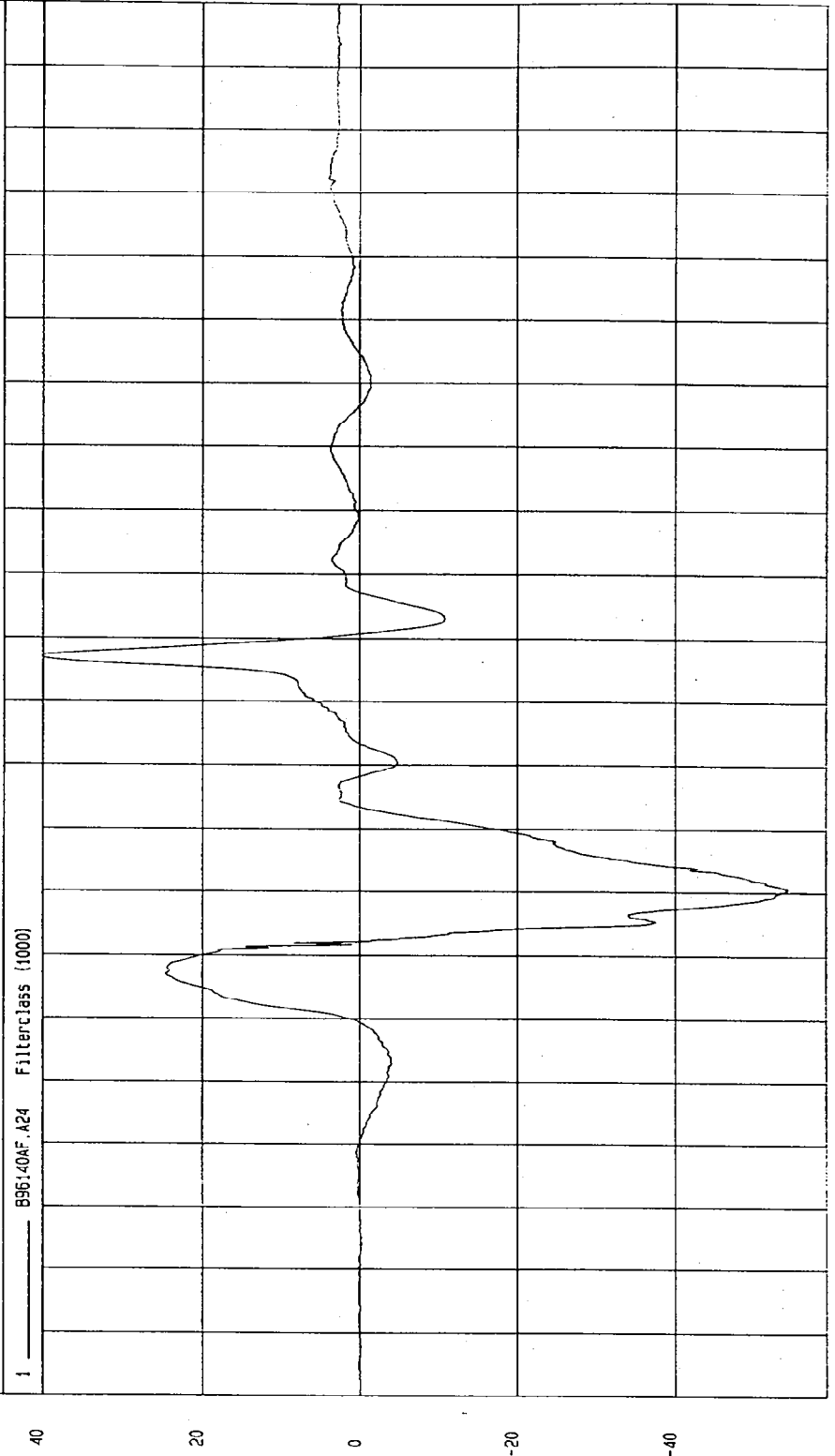


HGA Research
01-17-1997 14.09

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
 COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum: 54.00 G'S at 60 msec Maximum: 40.18 G'S at 97 msec

REAR PASSENGER HEAD Z ACCELERATION



TIME (SECONDS)

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NCAP Research
02-17-1998 14:08

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

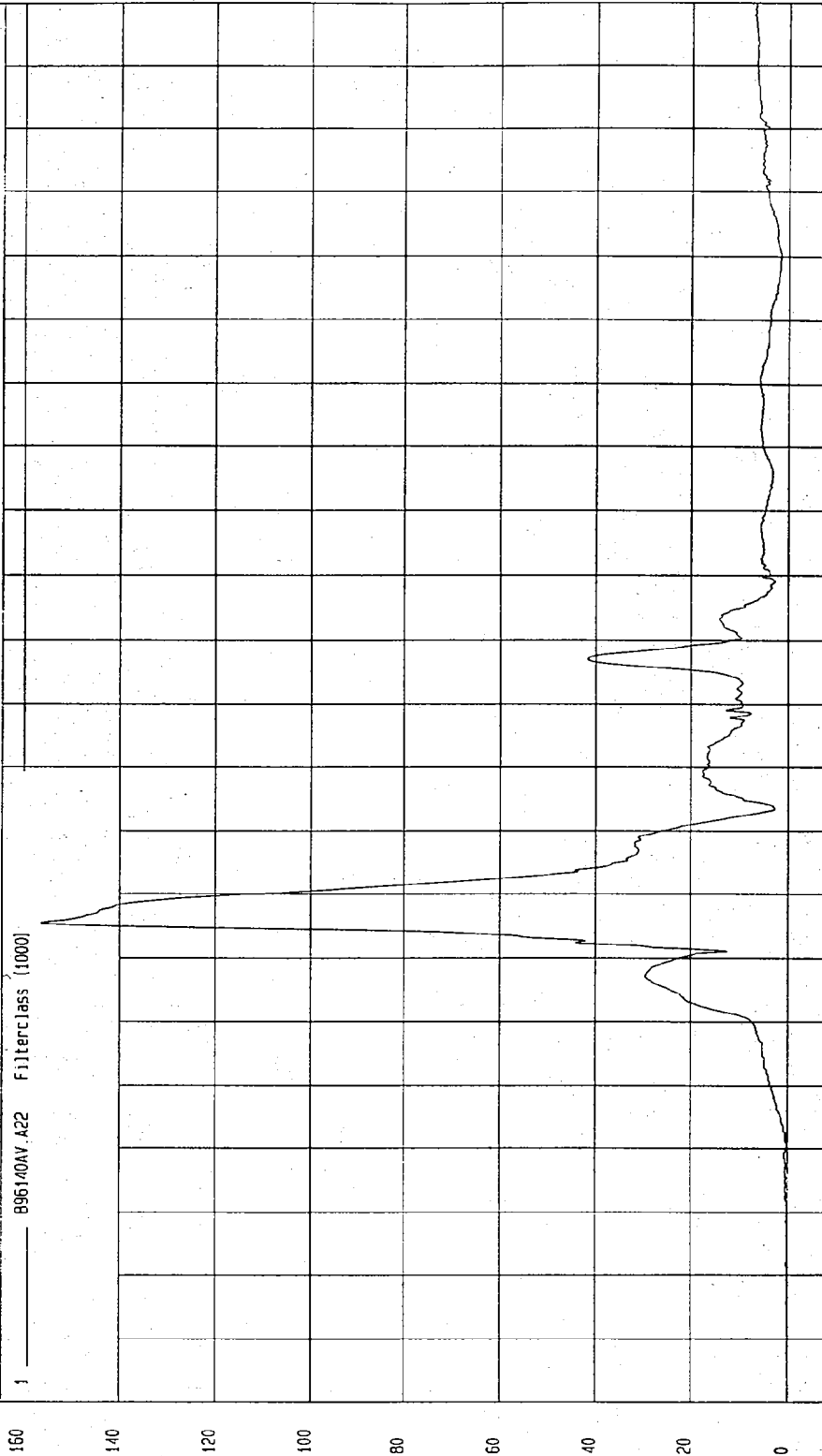
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 1.82E-02 G'S at -14 msec

Maximum = 156.51 G'S at 56 msec

REAR PASSENGER HEAD RESULTANT

1 — 896140V.A22 Filter: Pass (1000)



NCA Research
01-11-1997 14:09

TIME (SECONDS)

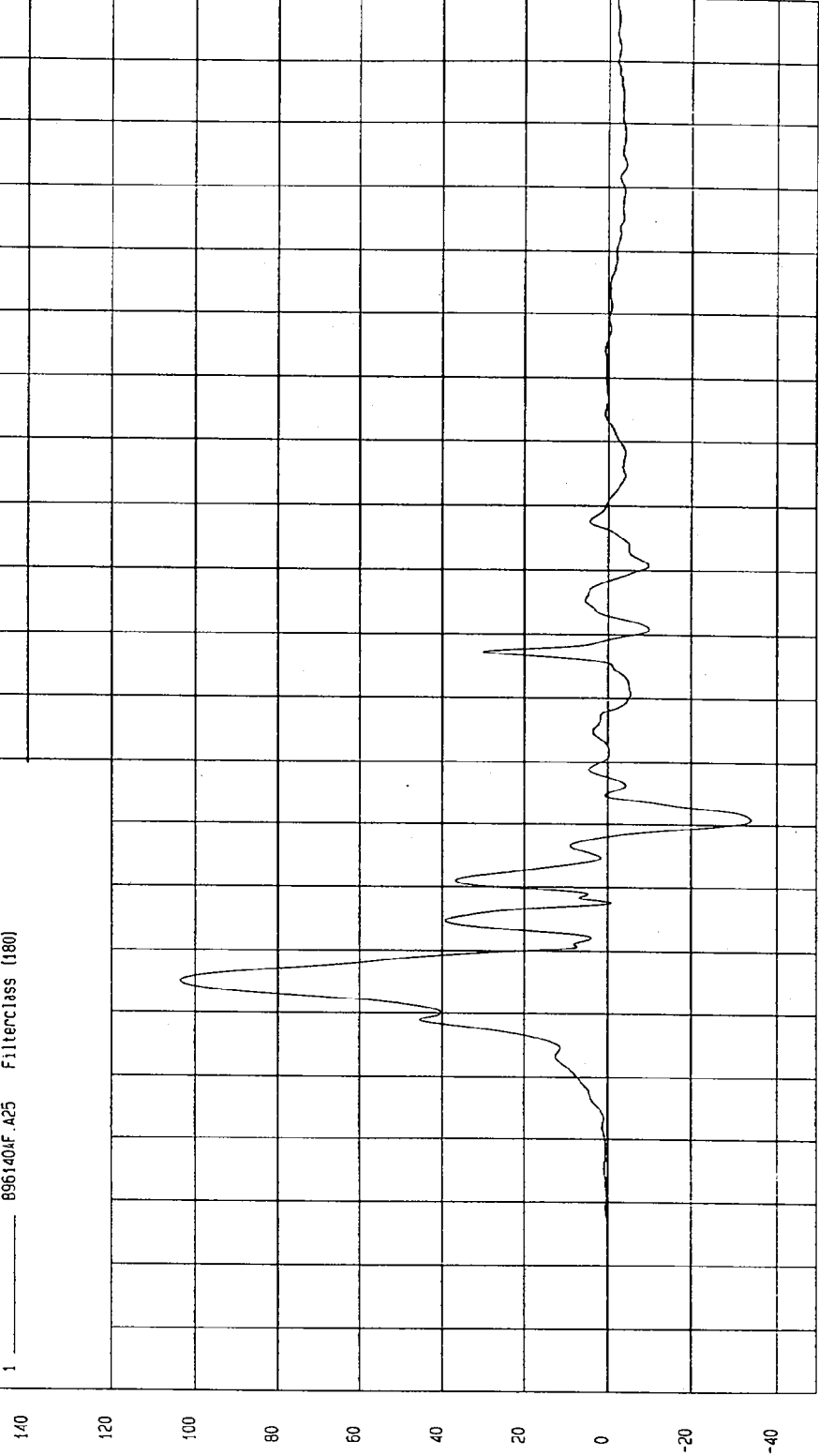
G.S.

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -34.10 G'S at 71 msec Maximum = 103.56 G'S at 45 msec

REAR PASSENGER UPPER RIB Y ACCELERATION

1 ——— 8961404F.A25 Filterclass (180)



NSA Research
01-17-1997 14:10

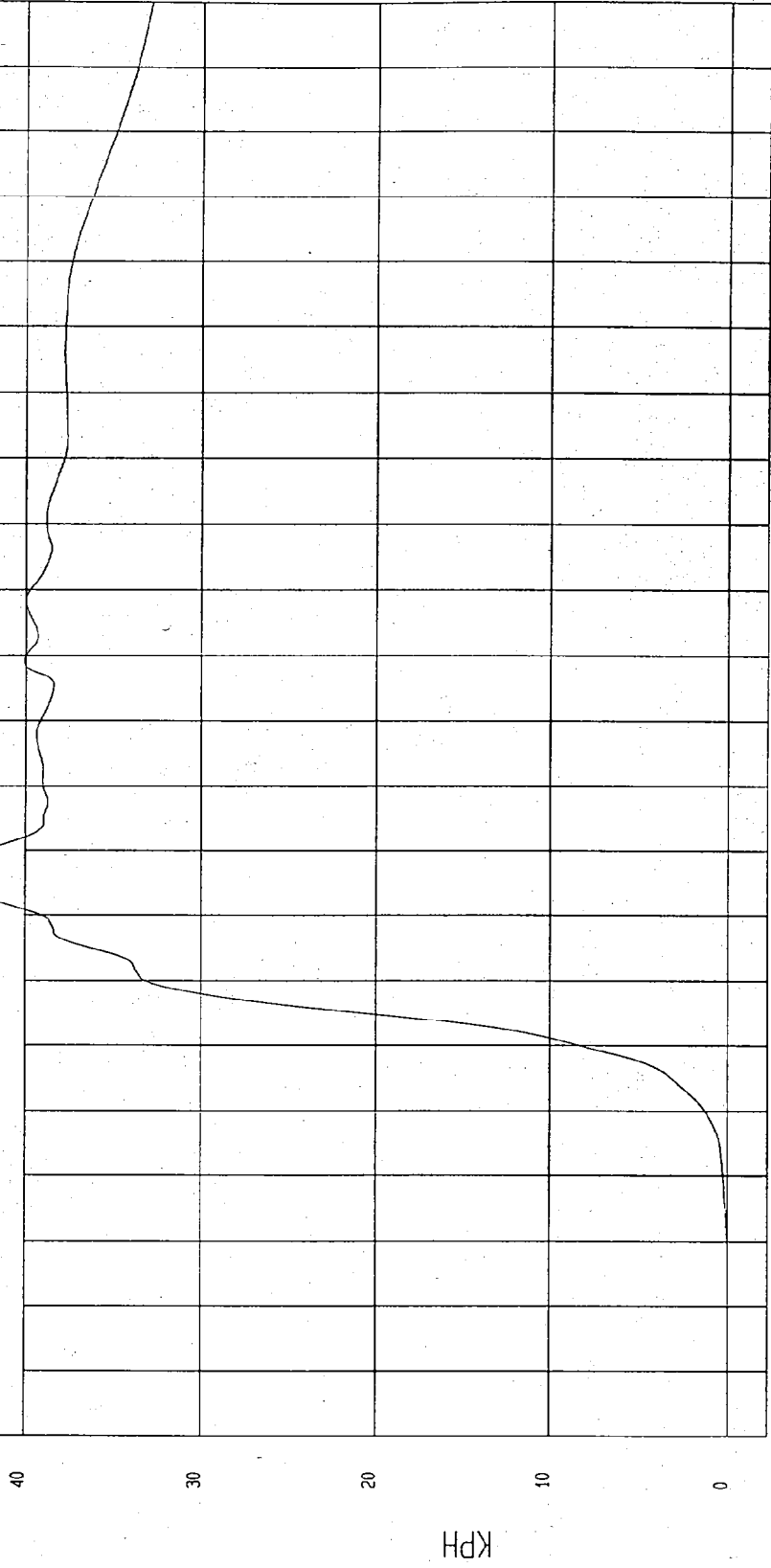
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -1.33E-03 KPH at -14 msec Maximum = 43.37 KPH at 68 msec

REAR PASSENGER UPPER RIB Y VELOCITY

1 ——— 895140A1.V25 Filterclass (180)



NSA Research
01-17-1997 14:20

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

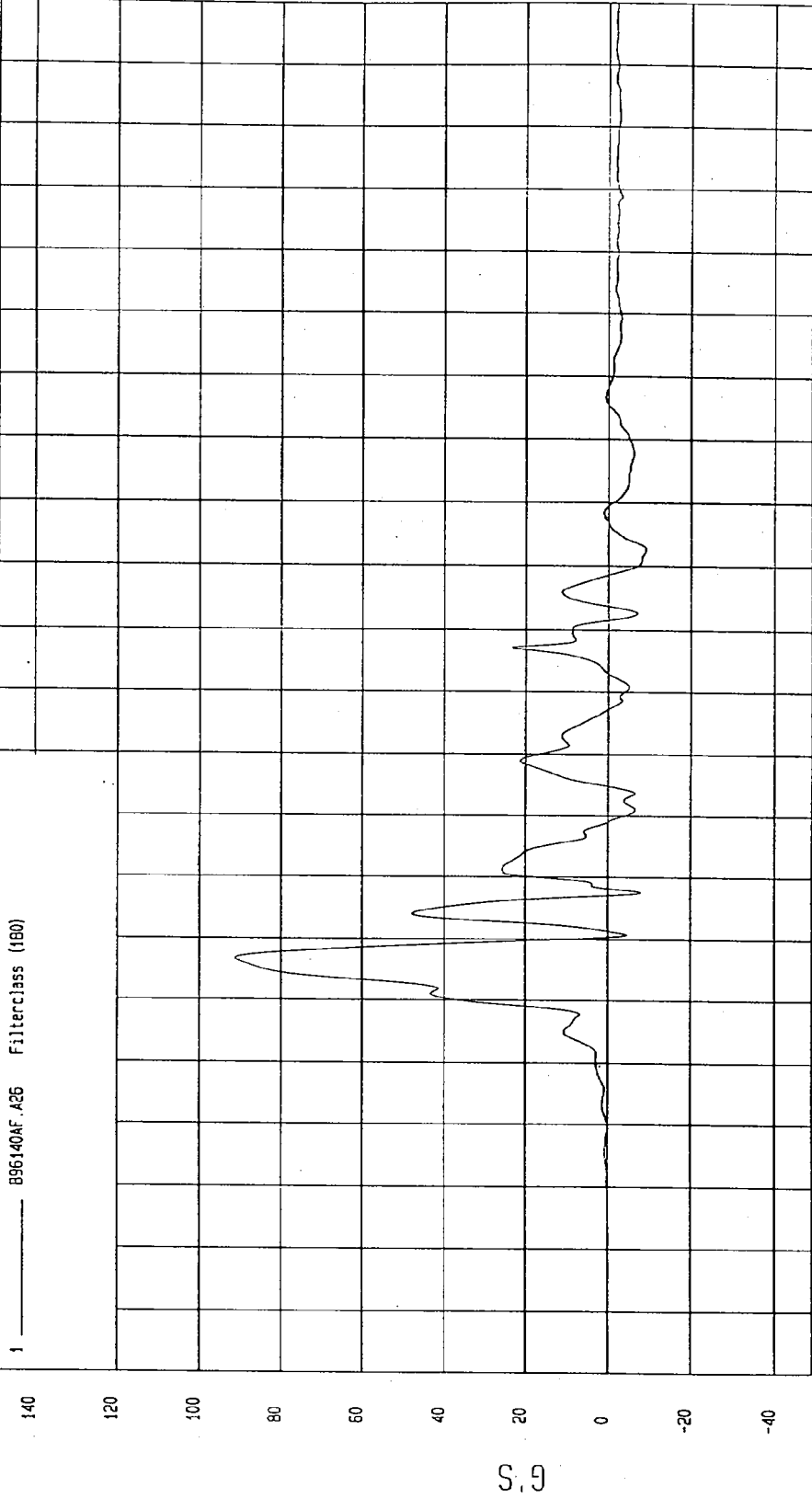
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -9.01 G'S at 113 msec

Maximum = 91.28 G'S at 47 msec

REAR PASSENGER LOWER RIB Y ACCELERATION

1 ——— B96140AF.A26 Filterclass (180)



NCA Research
01-17-1997 14.10

TIME (SECONDS)

G'S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

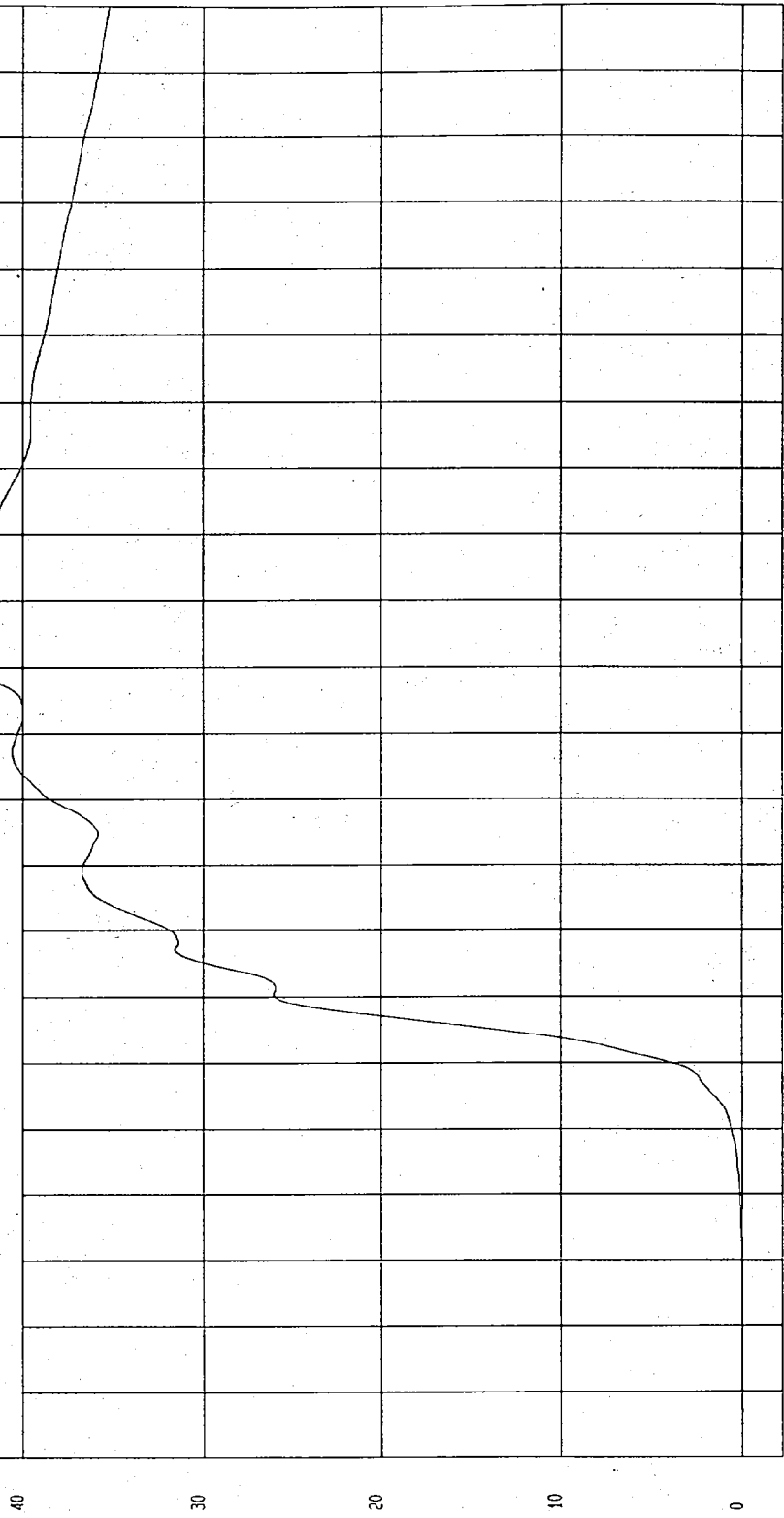
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -2.22E-02 KPH at 3 msec

Maximum = 43.33 KPH at 109 msec

REAR PASSENGER LOWER RIB Y VELOCITY

1 ——— B96140A1.V26 Filterclass (180)



MEA Research
01-17-1997 1A: 20

TIME Seconds

KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

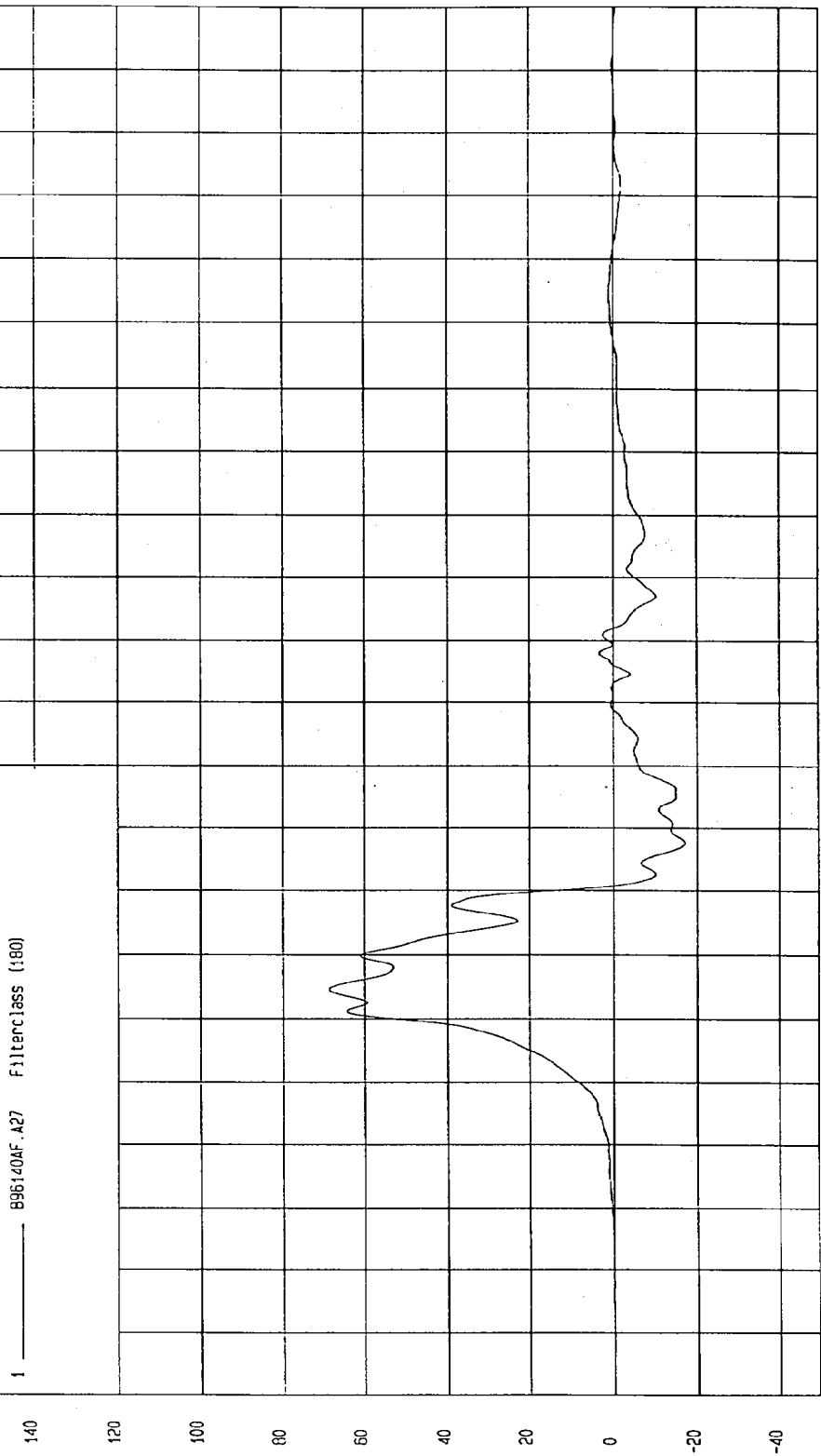
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -17.14 G'S at 68 msec

Maximum = 66.81 G'S at 45 msec

REAR PASSENGER LOWER SPINE Y ACCELERATION

1 ——— B96140AF.A27 Filterclass (180)



TIME (SECONDS)

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NGA Research
01-17-1997 14.10

S.9

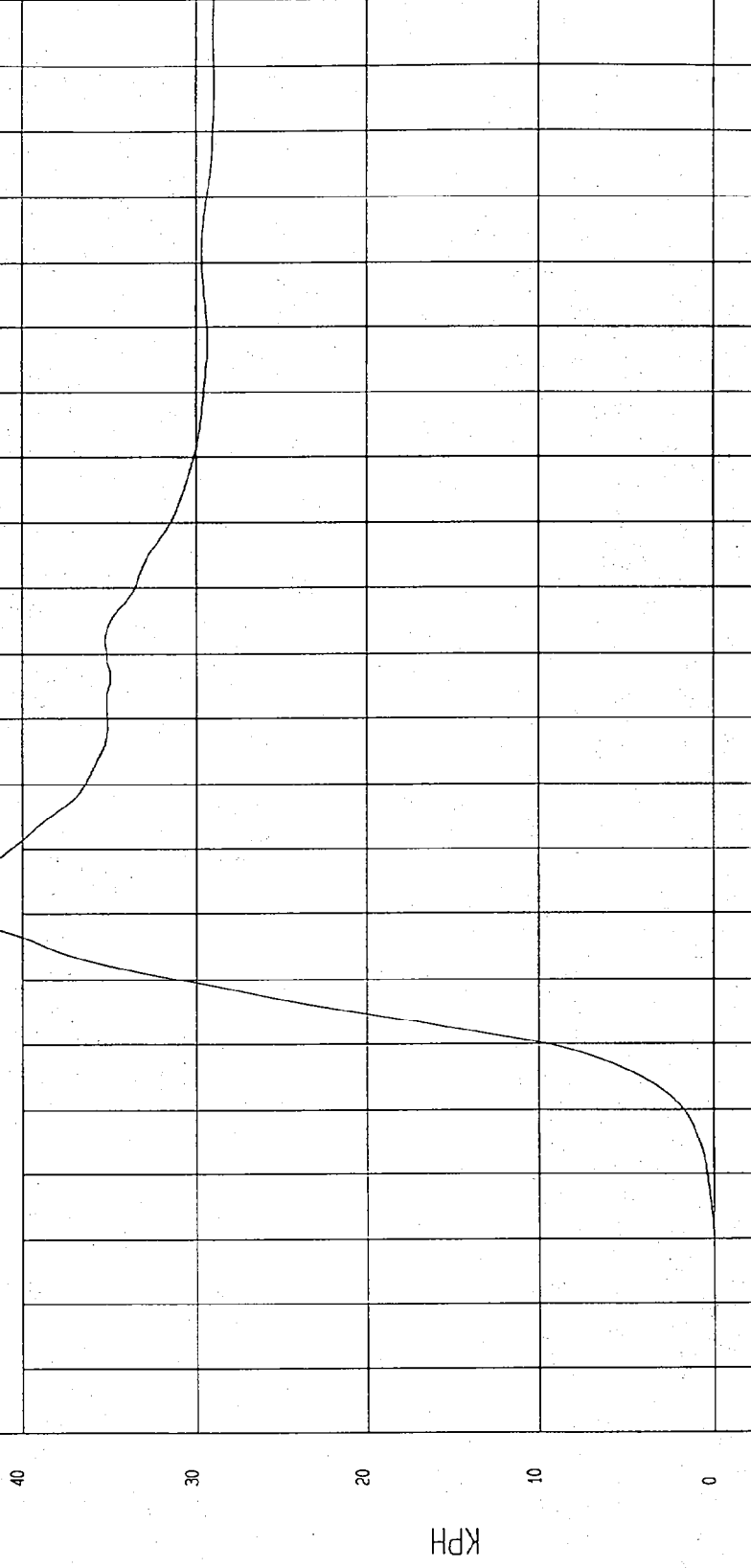
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.85E-02 KPH at 5 msec Maximum = 44.26 KPH at 61 msec

REAR PASSENGER LOWER SPINE Y VELOCITY

1 _____ 896140A1.Y27 Filterclass (180)



MCA Research
01-17-1997 14:20

TIME Seconds

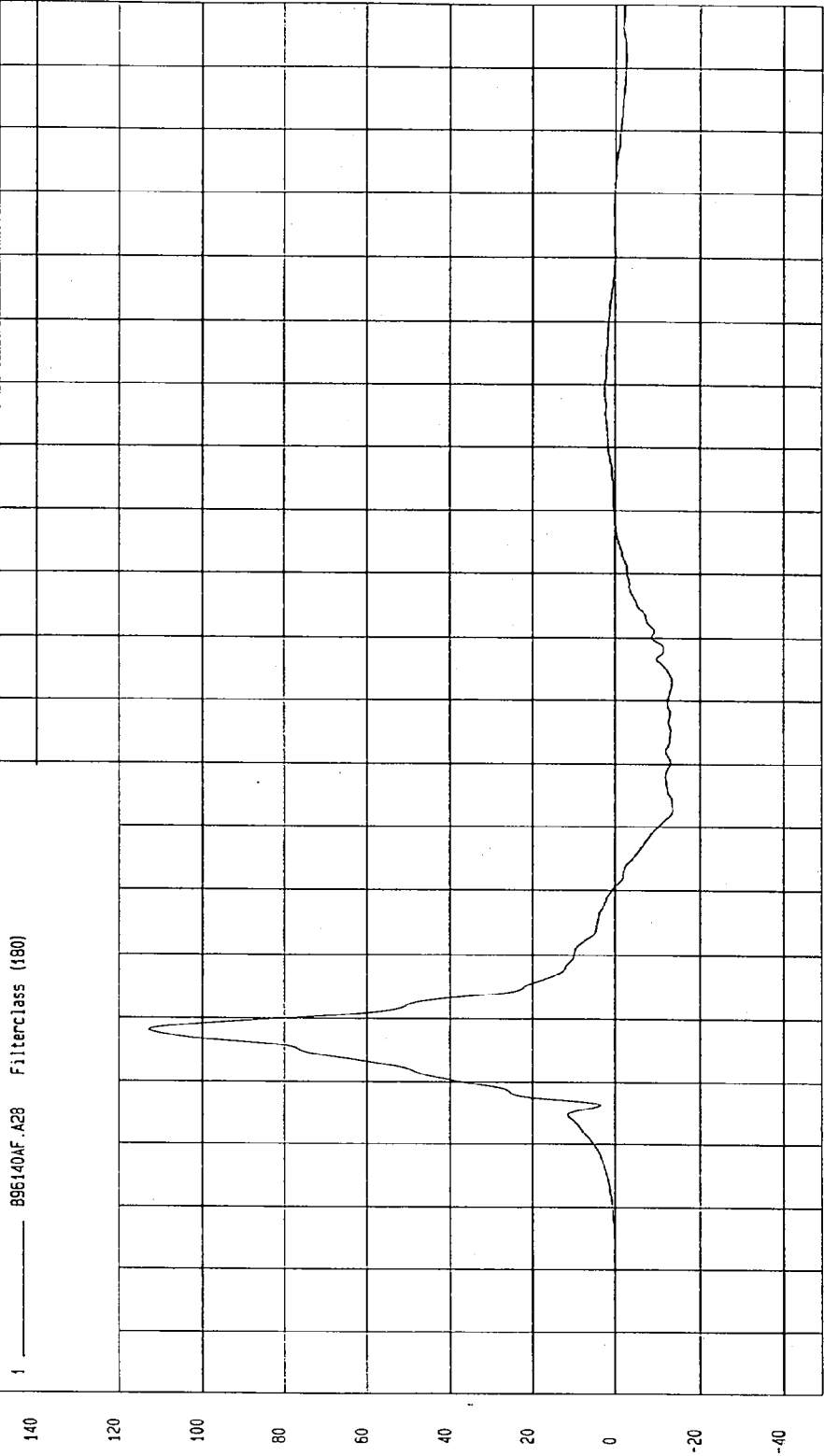
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -13.55 G'S at 73 msec Maximum = 112.48 G'S at 38 msec

REAR PASSENGER PELVIS Y ACCELERATION

1 ——— 896140AF.A28 Filterclass (180)



MCA Research
01-17-1997 14:10

TIME (SECONDS)

G.S

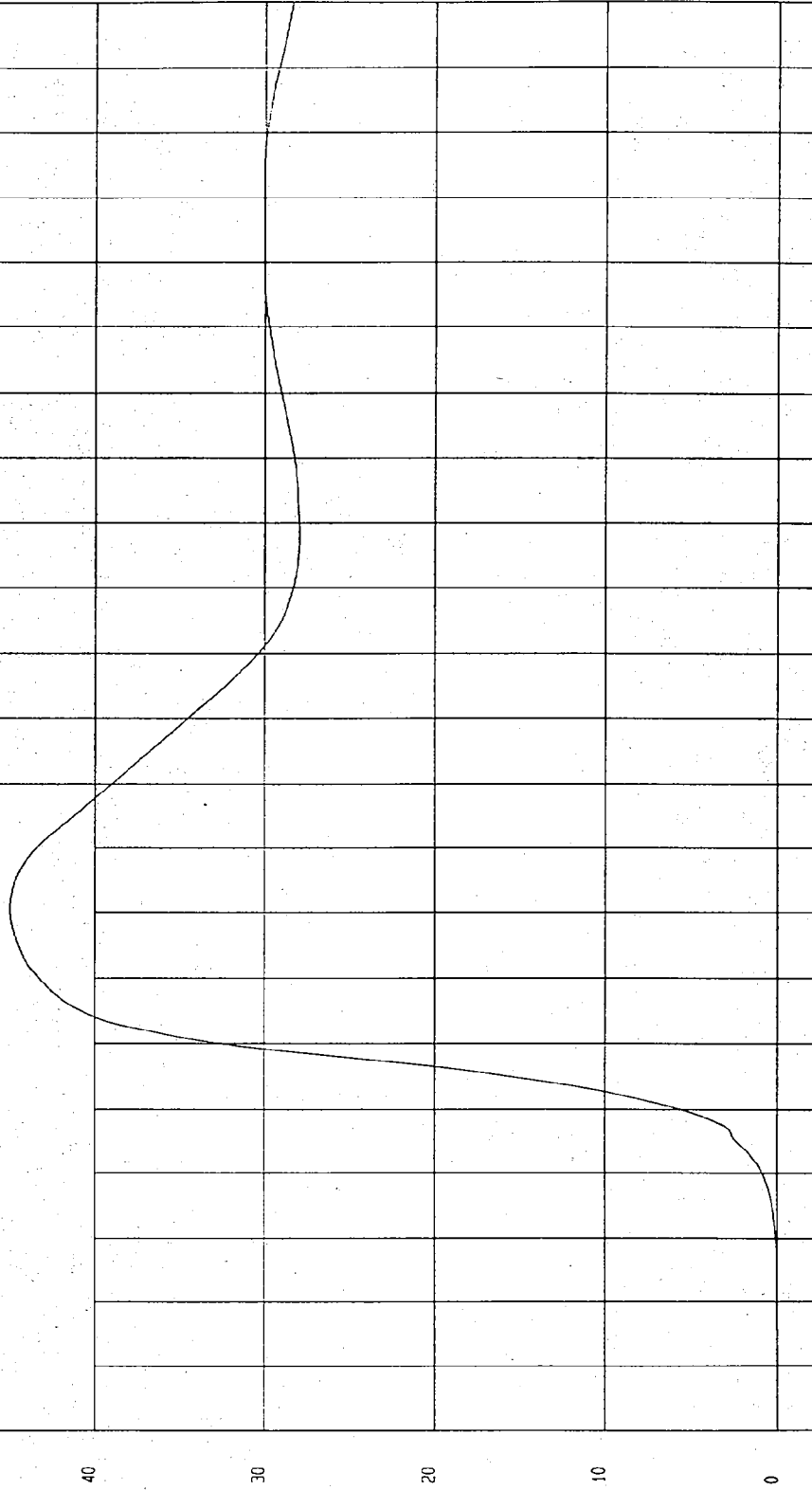
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 0 KPH at -20 msec Maximum = 44.99 KPH at 61 msec

REAR PASSENGER PELVIS Y VELOCITY

1 ——— 896140A1.V28 Filterclass (160)



NGA Research
01-17-1997 14:20

TIME Seconds

KPH

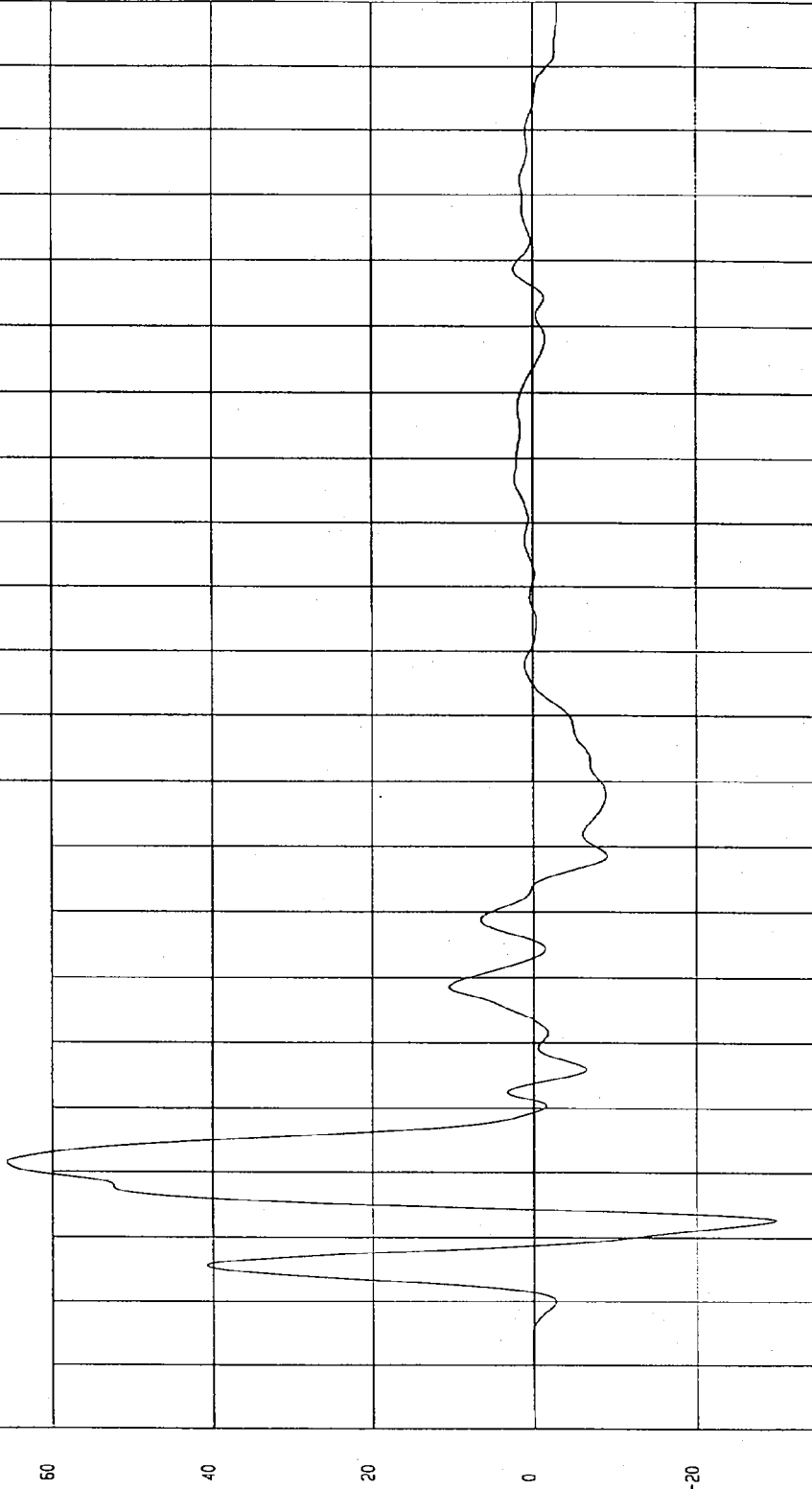
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -29.60 G'S at 13 msec Maximum = 65.58 G'S at 22 msec

LEFT SIDE SILL AT FRONT SEAT Y ACCELERATION

1 ——— B95140AF.A38 Filterclass (60)



TIME (SECONDS)

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NCAP Research
01-17-1997 14:43

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

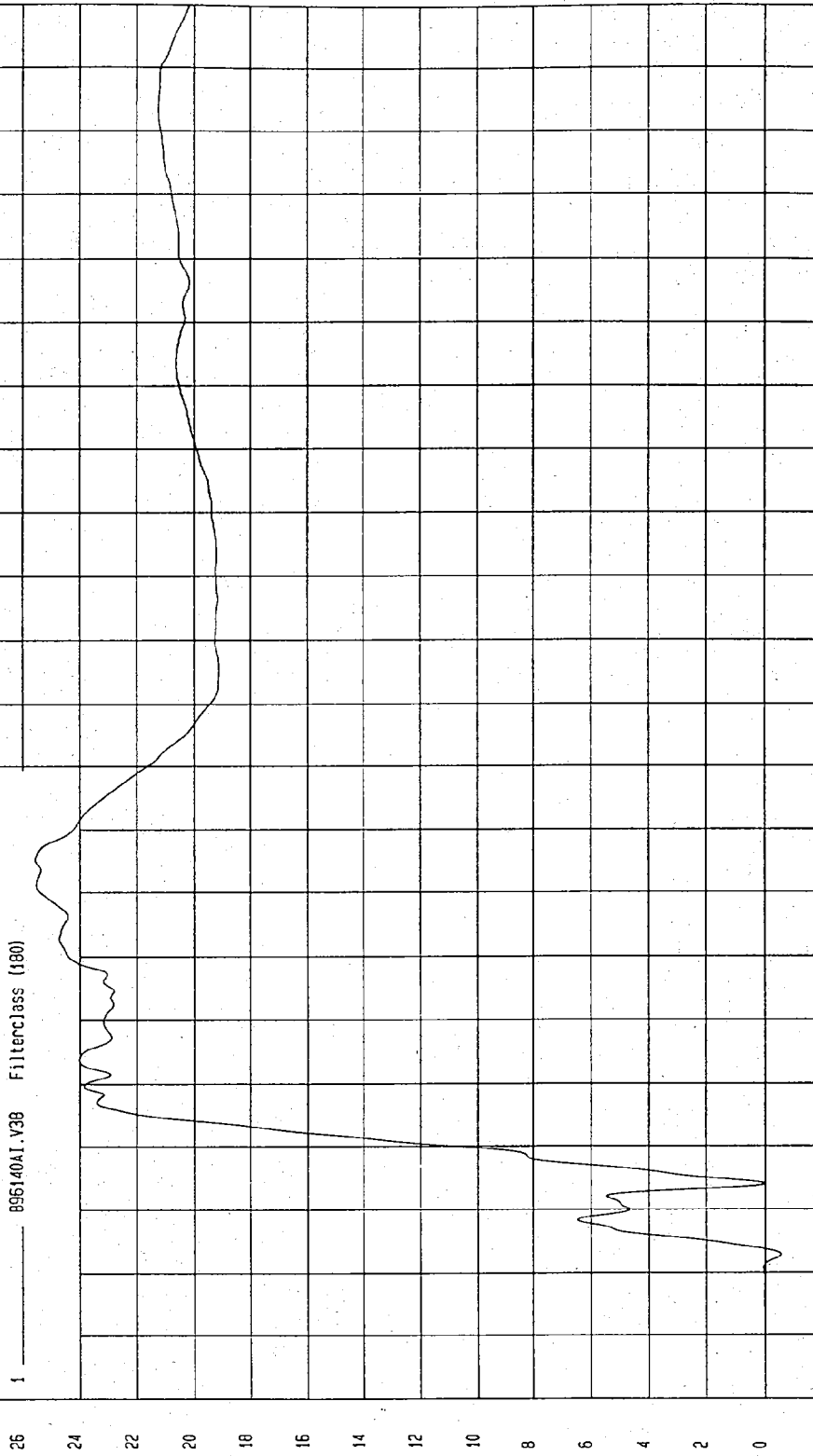
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -55 KPH at 3 msec

Maximum = 25.57 KPH at 65 msec

LEFT SIDE SILL AT FRONT SEAT Y VELOCITY

1 895140A1.V38 FilterClass (180)



MCA Research
01-17-1997 14:55

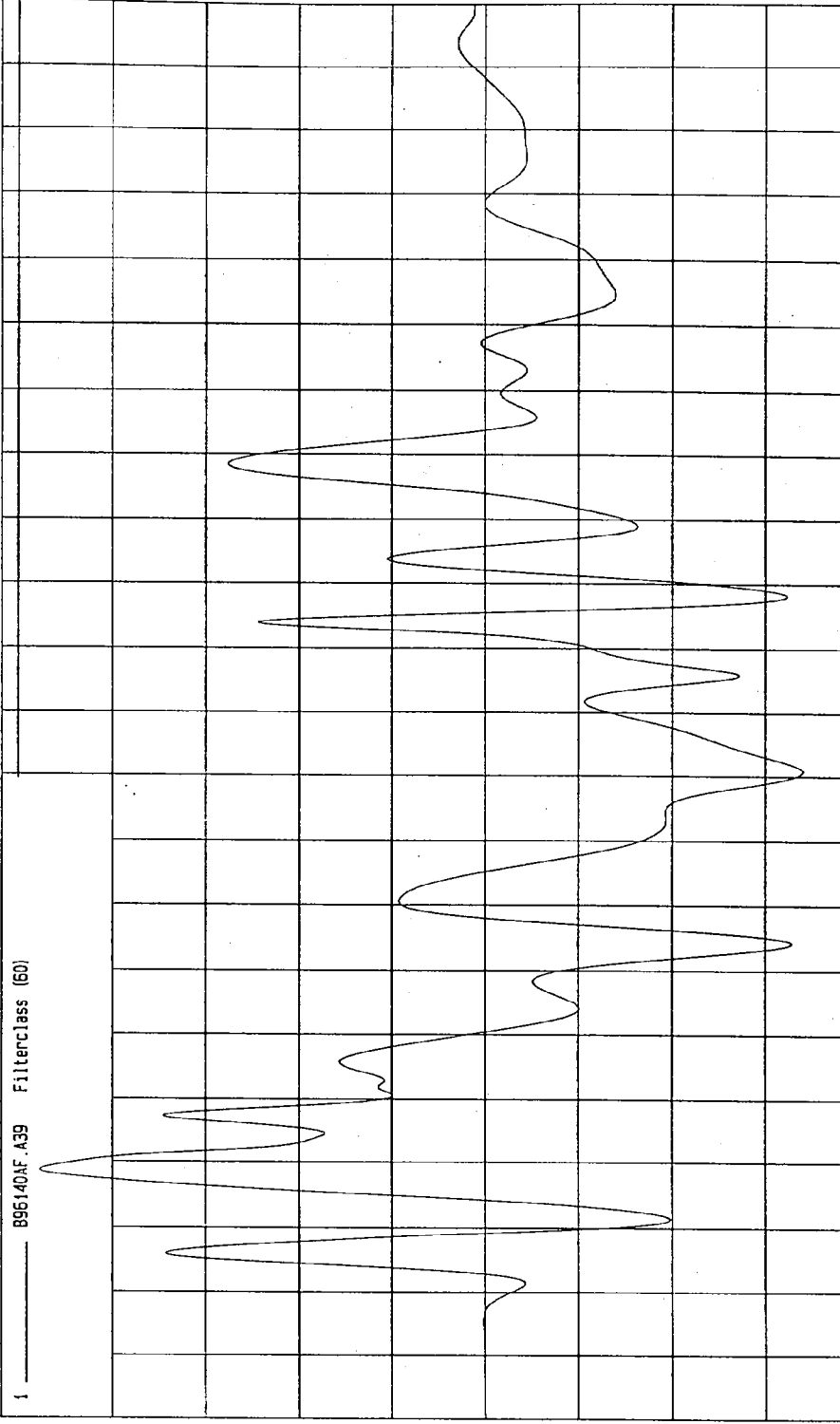
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -34.02 G'S at 81 msec Maximum = 47.71 G'S at 19 msec

LEFT SIDE SILL AT REAR SEAT Y ACCELERATION

1 896140AF.A39 Filterclass (60)



TIME (SECONDS)

MCA Research
01-17-1997 14.43

5.9

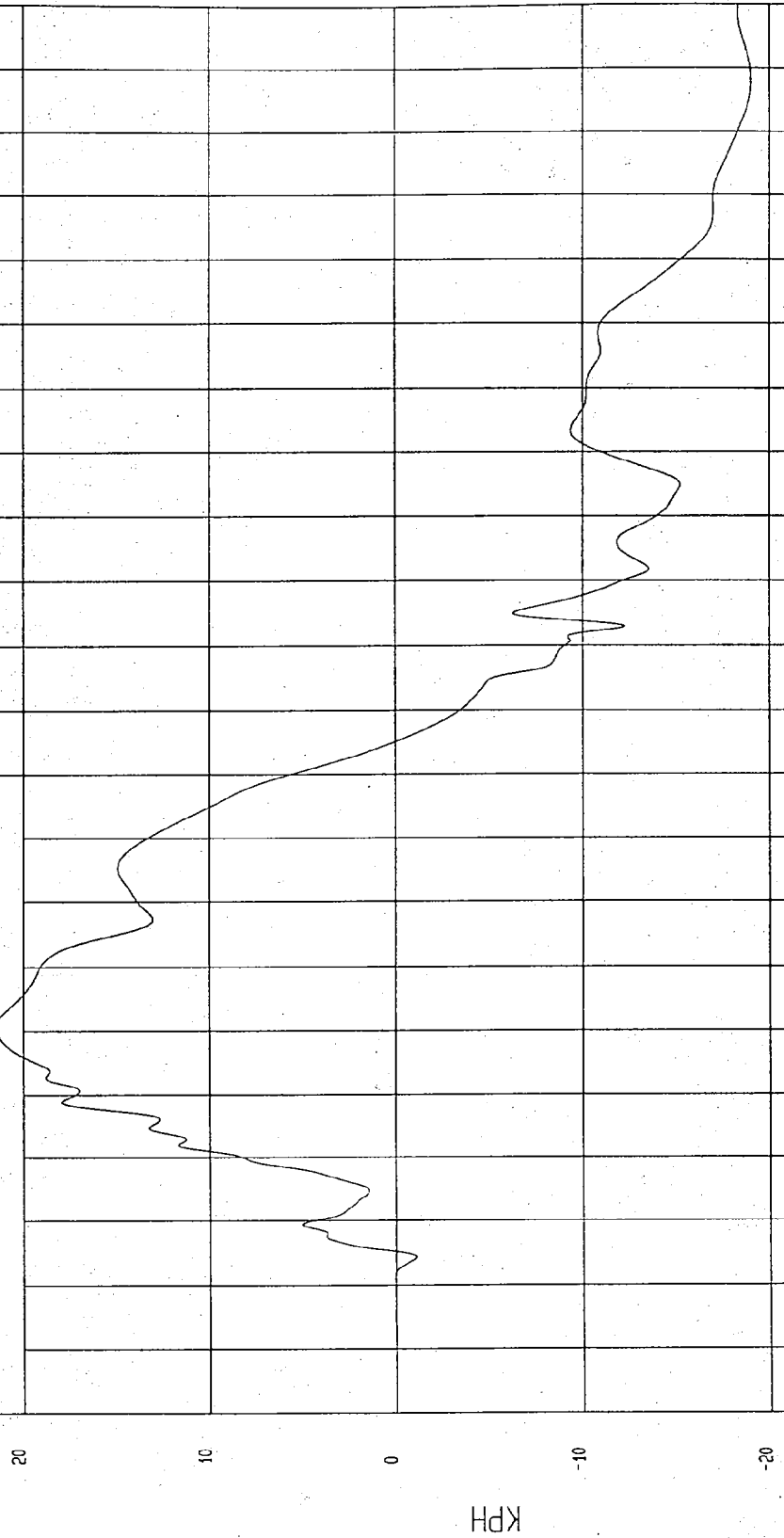
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19.00 KPH at 188 msec Maximum = 21.49 KPH at 41 msec

LEFT SIDE SILL AT REAR SEAT Y VELOCITY

1 ——— B96140A1.V39 Filterclass (180)



MGA Research
01-17-1997 14:55

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

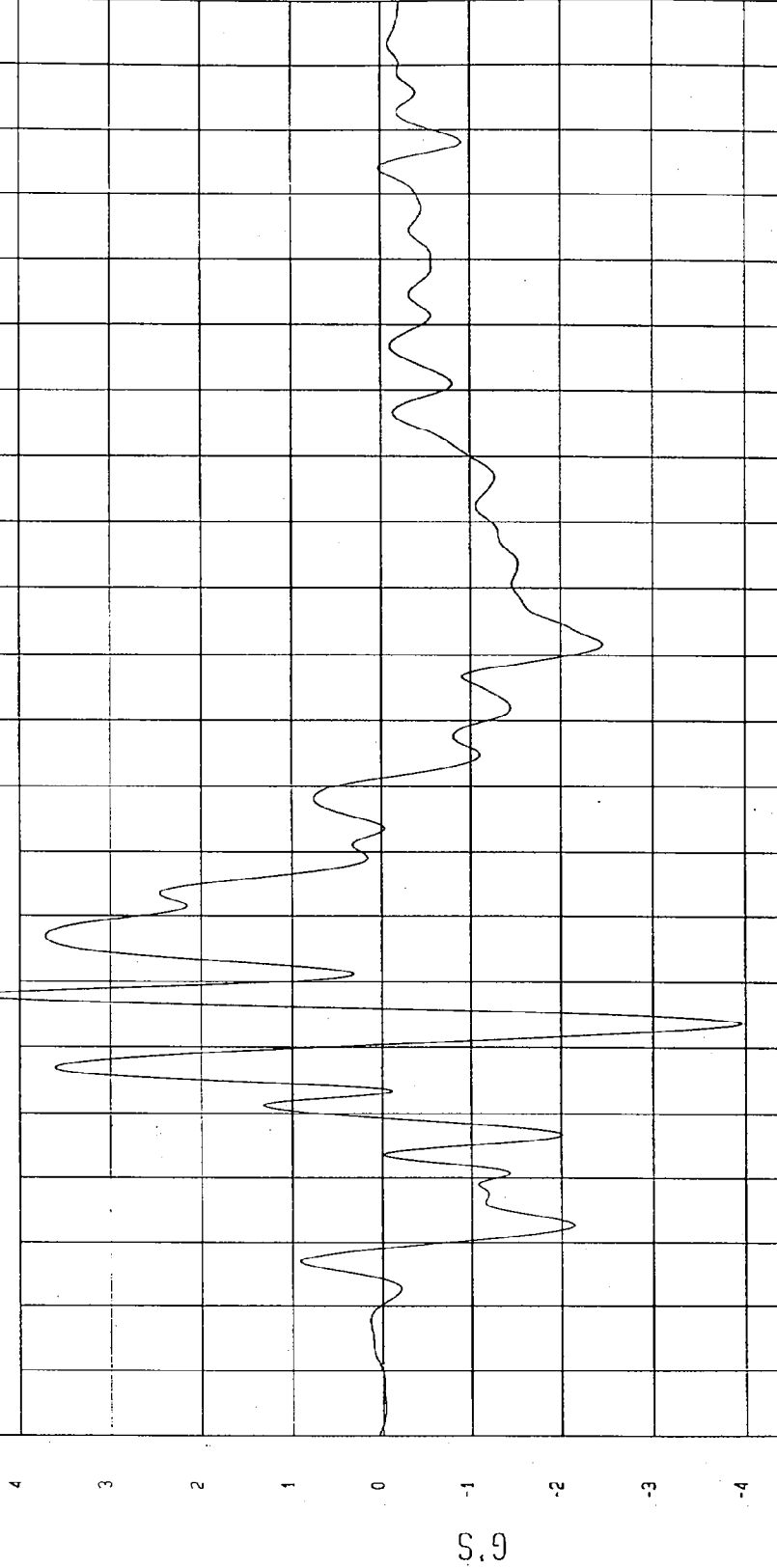
TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.95 G'S at 44 msec Maximum = 4.49 G'S at 48 msec

RIGHT SIDE SILL AT FRONT SEAT X ACCELERATION

1 ——— 896140AF.A32 Filterclass (60)



TIME (SECONDS)

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0.04
0.03
0.02
0.01
0
-0.01
-0.02

MSA Research
02-1-1997 Vt. A3

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

TEST DATE: 12-17-1996

Speed: 38.2 MPH 61.5 KPH

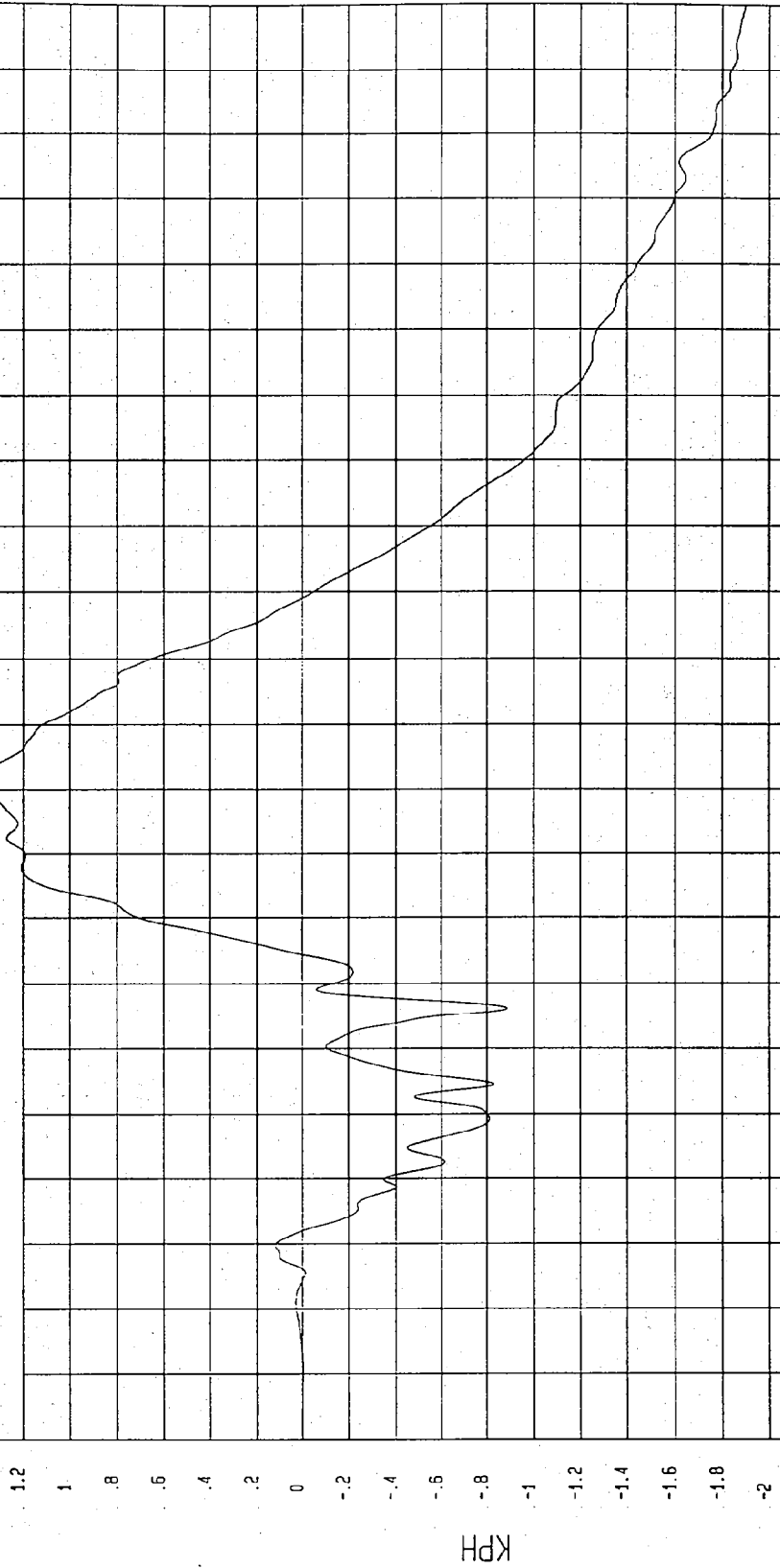
COMPONENT: 1997 DODGE INTREPID (MV0302)

Minimum = -1.09 KPH at 200 msec

Maximum = 1.38 KPH at 82 msec

RIGHT SIDE SILL AT FRONT SEAT X VELOCITY

1 ——— B95140A1.V32 Filterclass (180)



NSA Research
01-17-1997 14:55

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

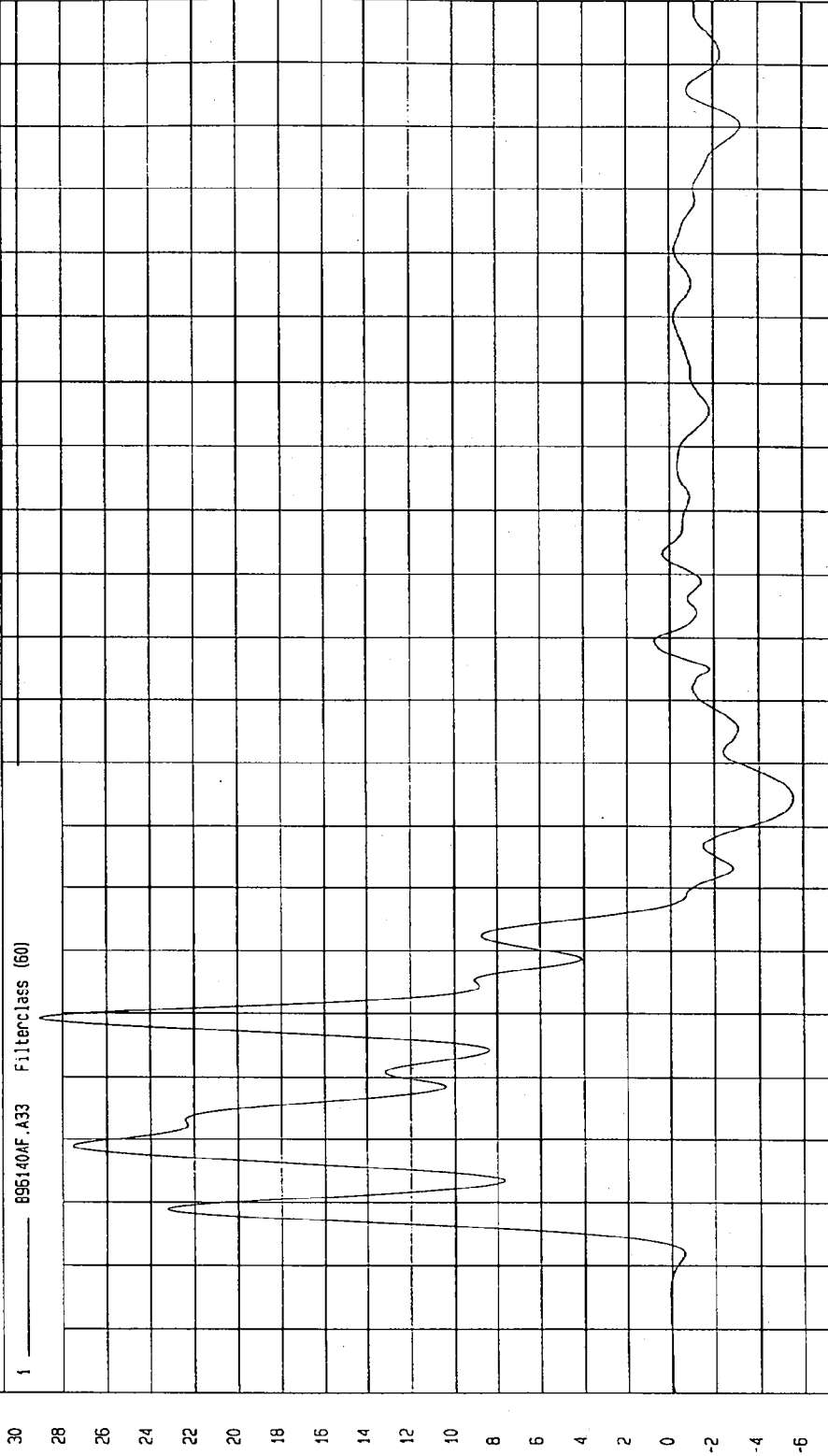
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -5.54 G'S at 75 msec

Maximum = 29.03 G'S at 39 msec

RIGHT SIDE SILL AT FRONT SEAT Y ACCELERATION

1 896140AF.A33 Filterclass (60)



NCA Research
01-17-1997 14.43

TIME (SECONDS)

S.9

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

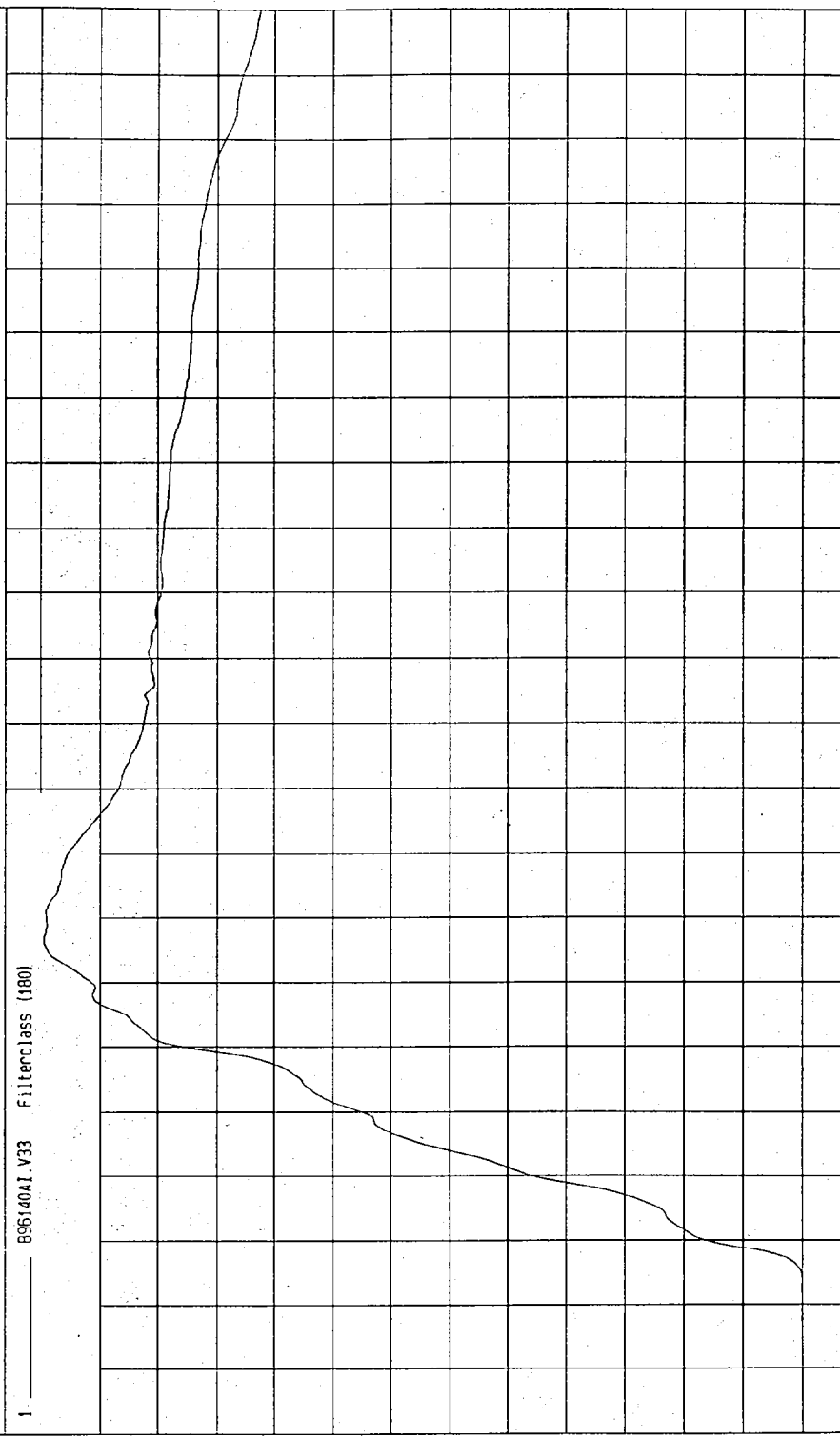
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -4.20E-03 KPH at -13 msec

Maximum = 25.89 KPH at 57 msec

RIGHT SIDE SILL AT FRONT SEAT Y VELOCITY

1 — 896140A1.V33 Filterclass (180)



MCA Research
01-17-1997 14:55

TIME Seconds

KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

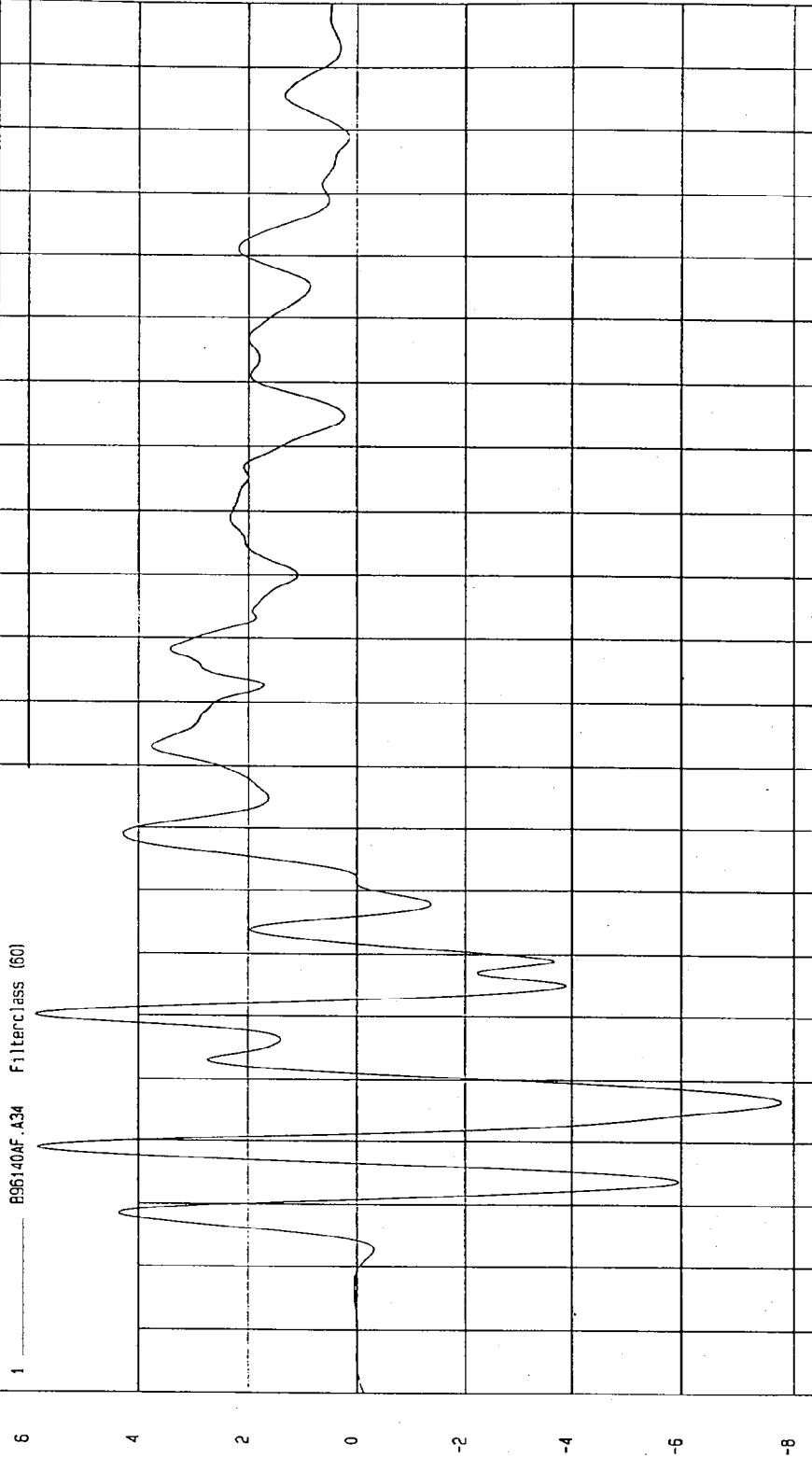
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -7.70 G'S at 27 msec

Maximum = 5.86 G'S at 40 msec

RIGHT SIDE SILL AT FRONT SEAT Z ACCELERATION

1 B96140AF.A34 Filterclass (60)



TIME (SECONDS)

MGA Research
01-17-1997 1A: 43

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

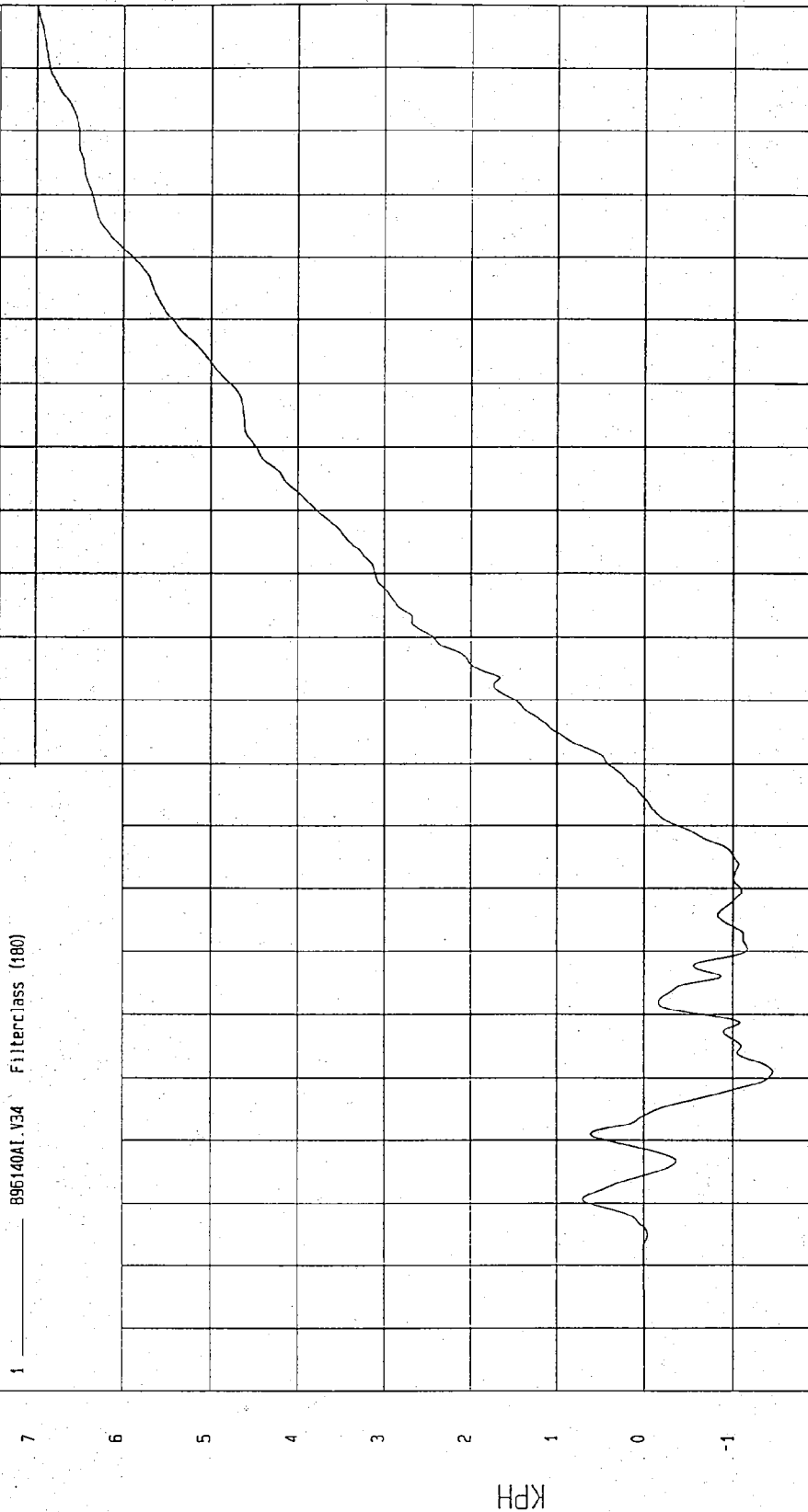
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -1.44 KPH at 31 msec

Maximum = 6.99 KPH at 200 msec

RIGHT SIDE SILL AT FRONT SEAT Z VELOCITY

1 896140A1.V34 Filterclass (180)



WCA Research
01-17-1997 14:55

TIME Seconds

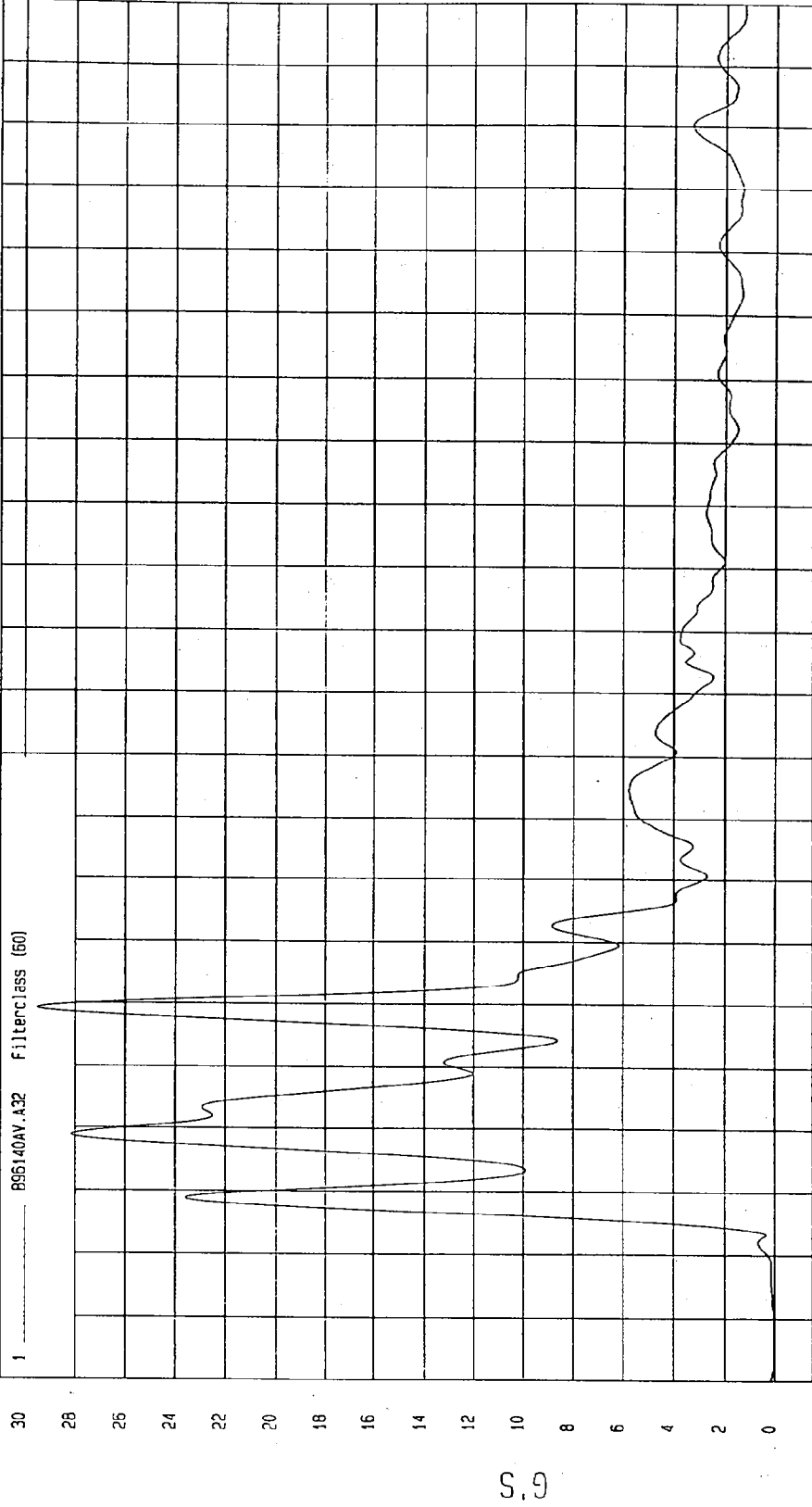
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 1.91E-02 G'S at -13 msec Maximum = 29.51 G'S at 39 msec

RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

895140AV.A32 Filterclass (60)



NSA Research
01-17-1997 14:47

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

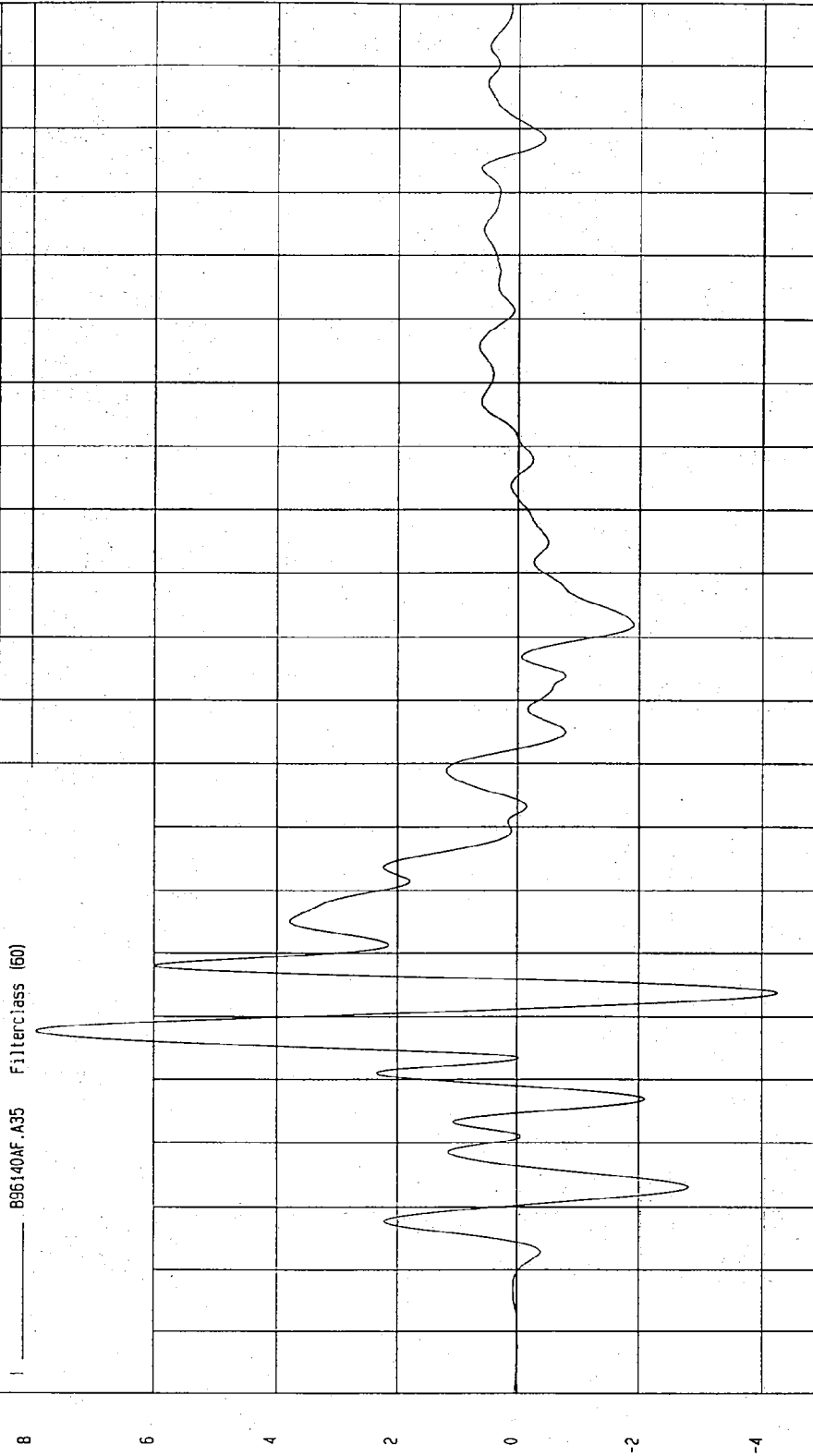
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -4.24 G'S at 44 msec

Maximum = 7.93 G'S at 30 msec

RIGHT SIDE SILL AT REAR SEAT X ACCELERATION

896140AF.A35 Filterclass (60)



MOA Research Co.
01-17-1997 14:43

TIME (SECONDS)

G.S

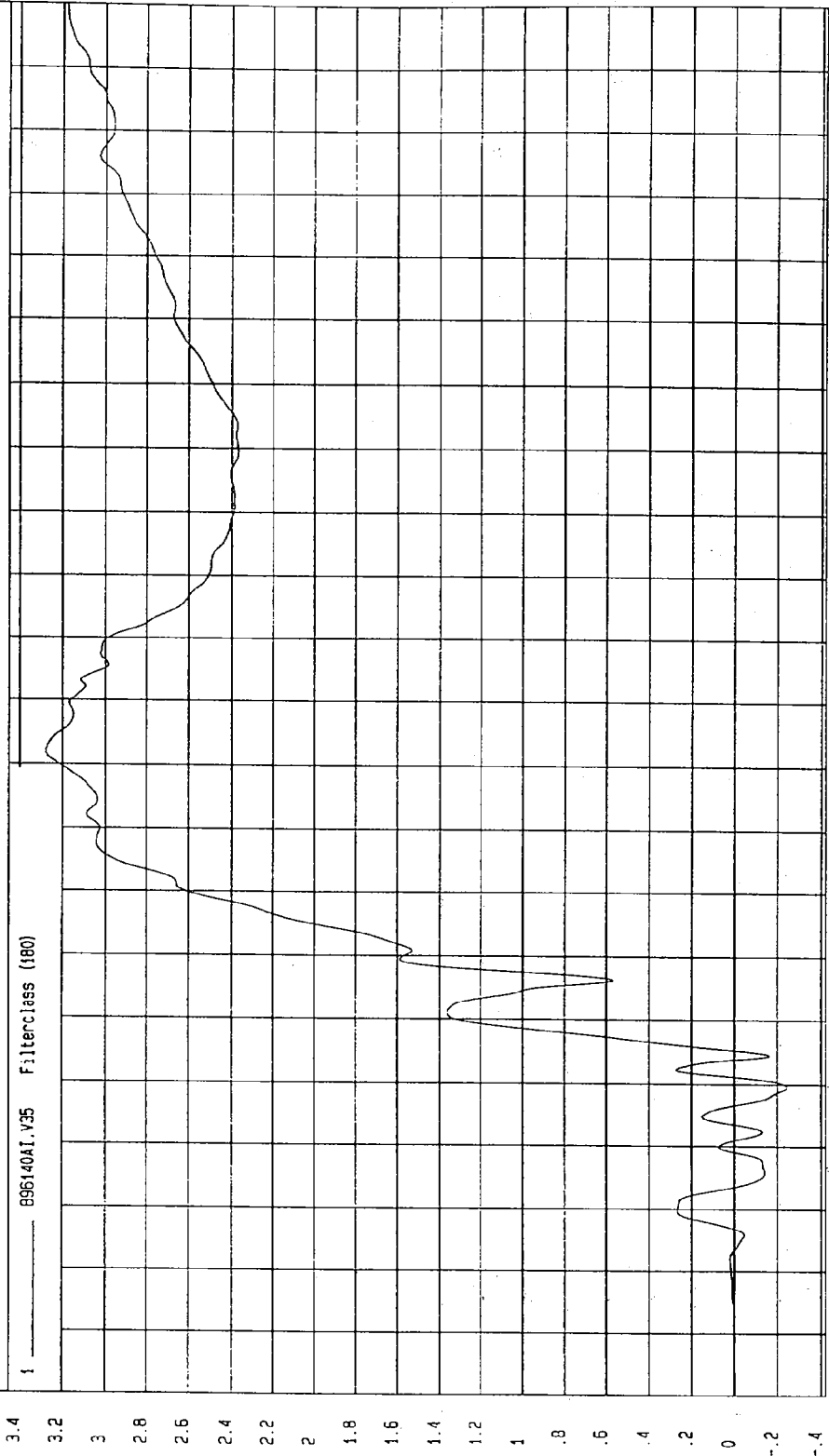
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -.24 KPH at 30 msec Maximum = 3.27 KPH at 82 msec

RIGHT SIDE SILL AT REAR SEAT X VELOCITY

1 896140A1.V35 Filterclass (180)



MCA Research
01-17-1997 14:55

TIME Seconds

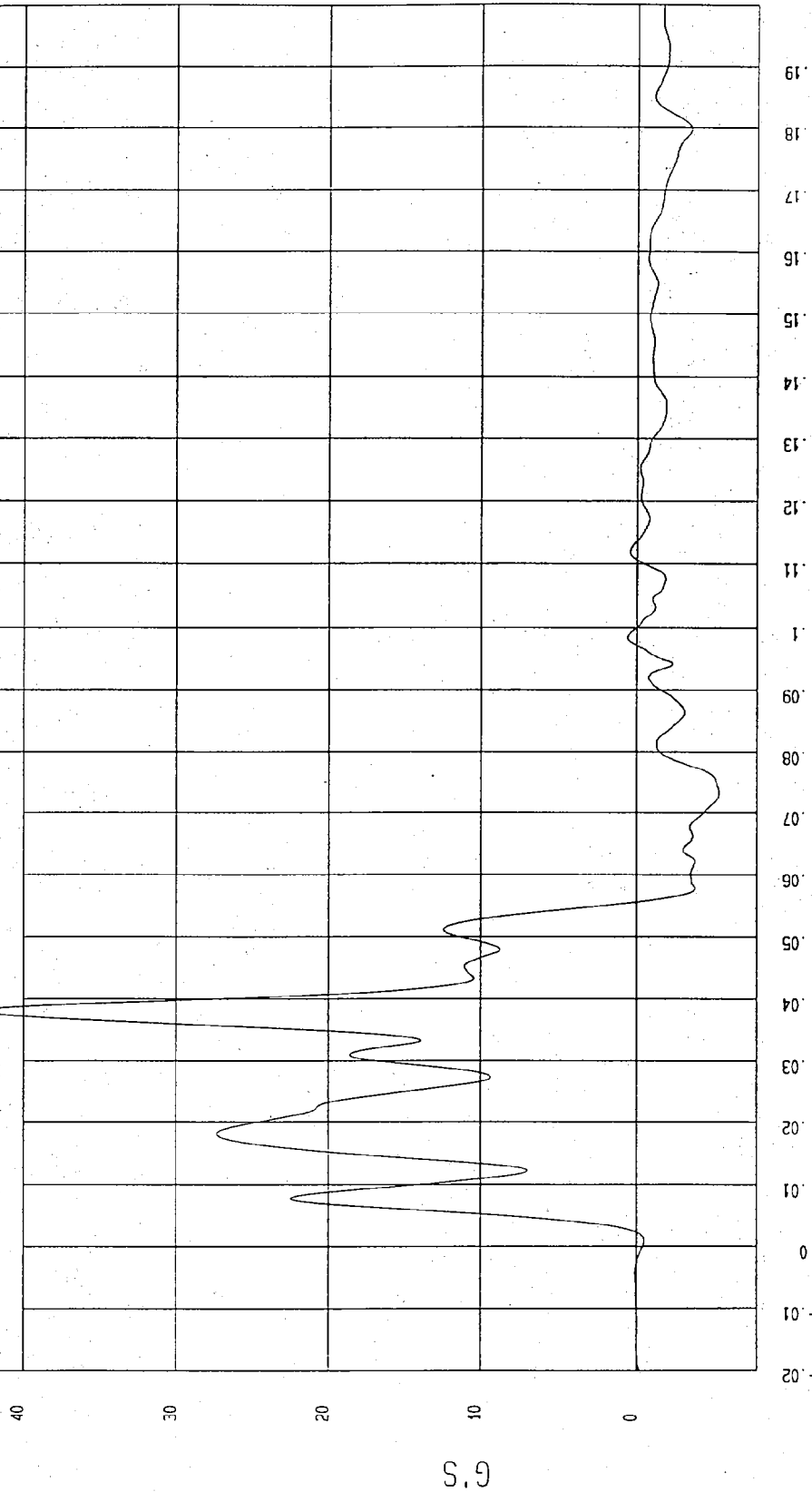
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -5.29 G'S at 73 msec Maximum = 42.73 G'S at 38 msec

RIGHT SIDE SILL AT REAR SEAT Y ACCELERATION

1 896140AF.A36 Filterclass (60)



WCA Research
01-17-1997 14.44

TIME (SECONDS)

G'S

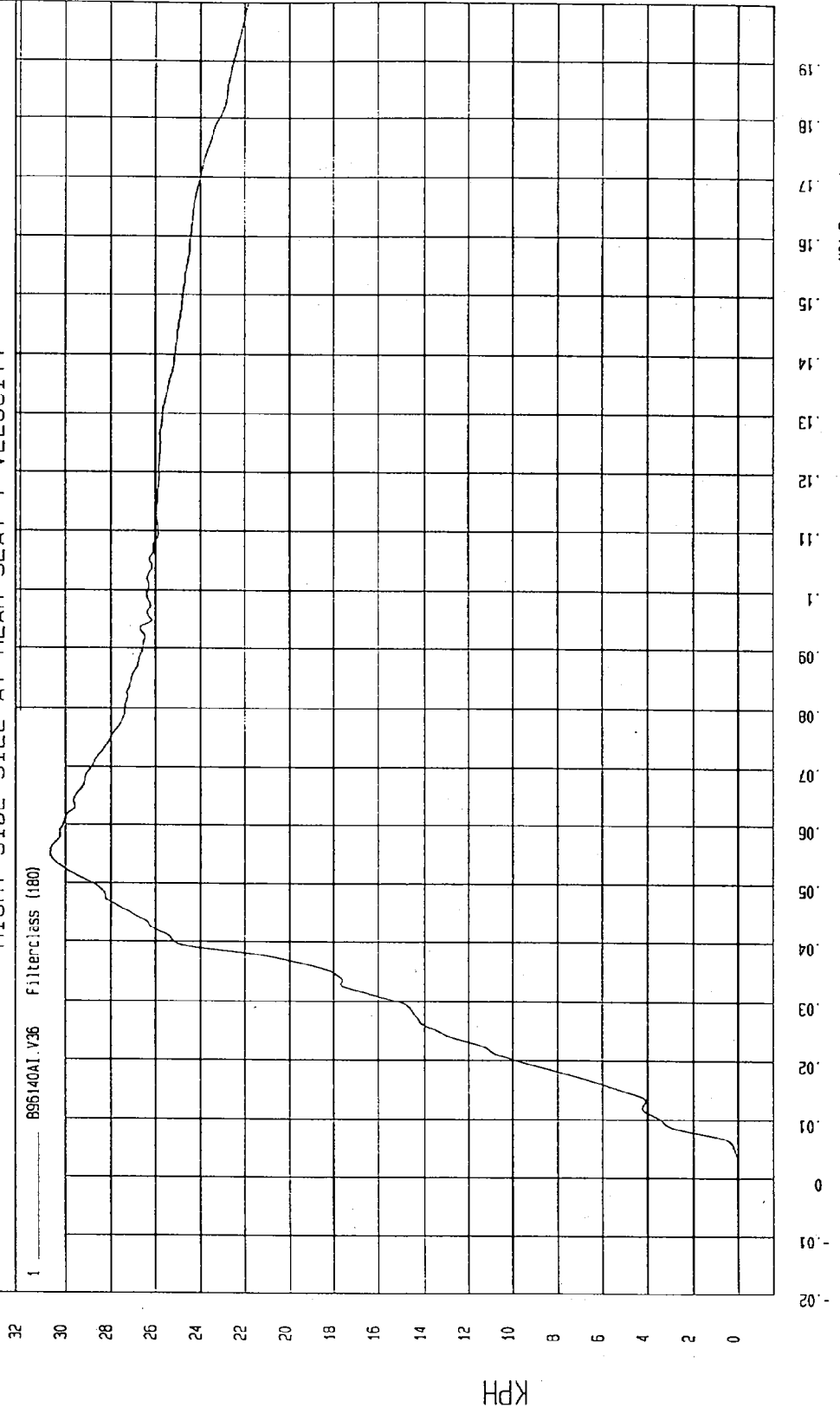
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -2.71f-03 KPH at -10 msec

Maximum = 30.68 KPH at 55 msec

RIGHT SIDE SILL AT REAR SEAT Y VELOCITY



MCA Research
01-17-1997 14:56

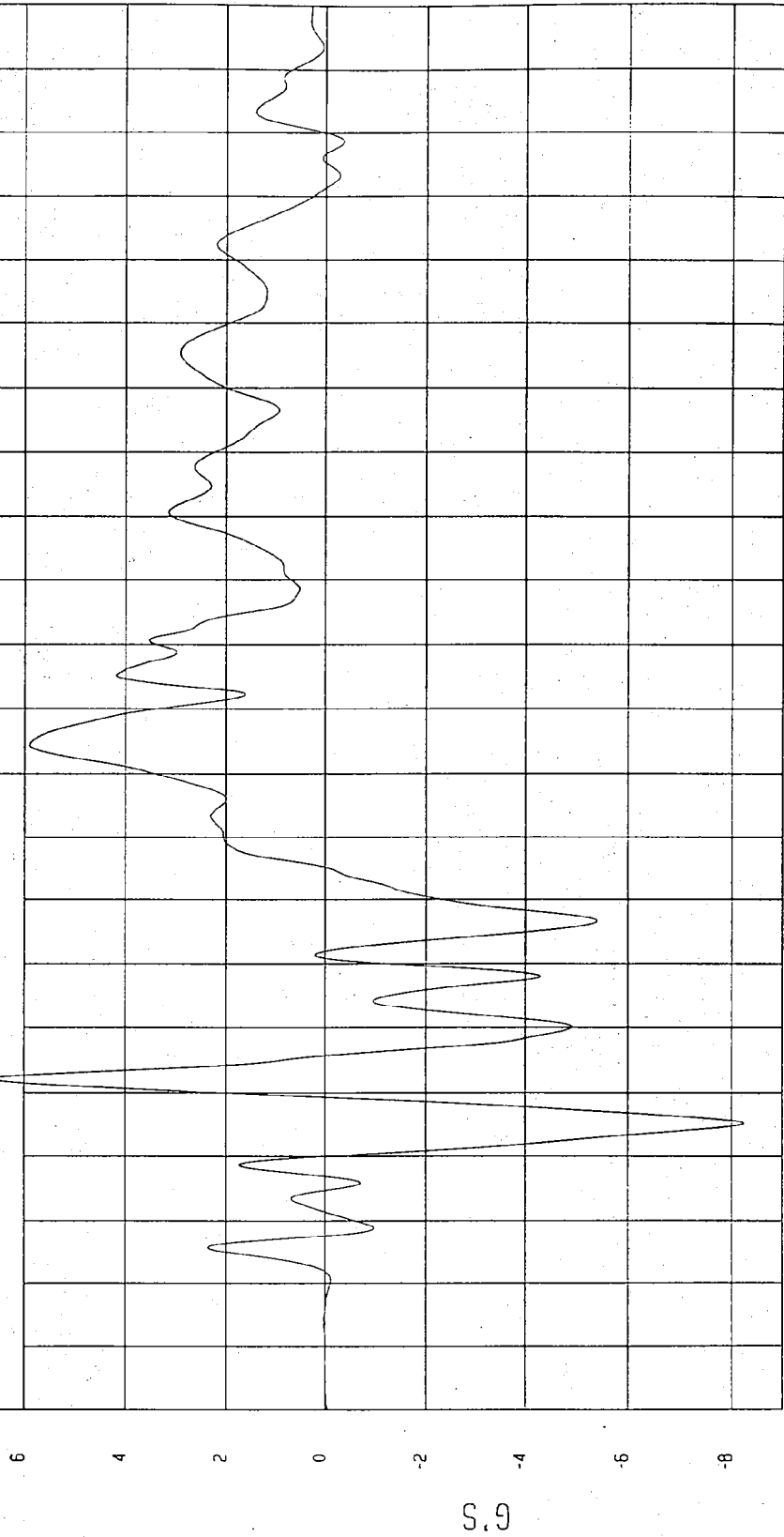
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -8.23 G'S at 25 msec Maximum = 6.62 G'S at 32 msec

RIGHT SIDE SILL AT REAR SEAT Z ACCELERATION

1 896140AF.A37 Filterclass (60)



MCA Research
01-17-1997 14:44

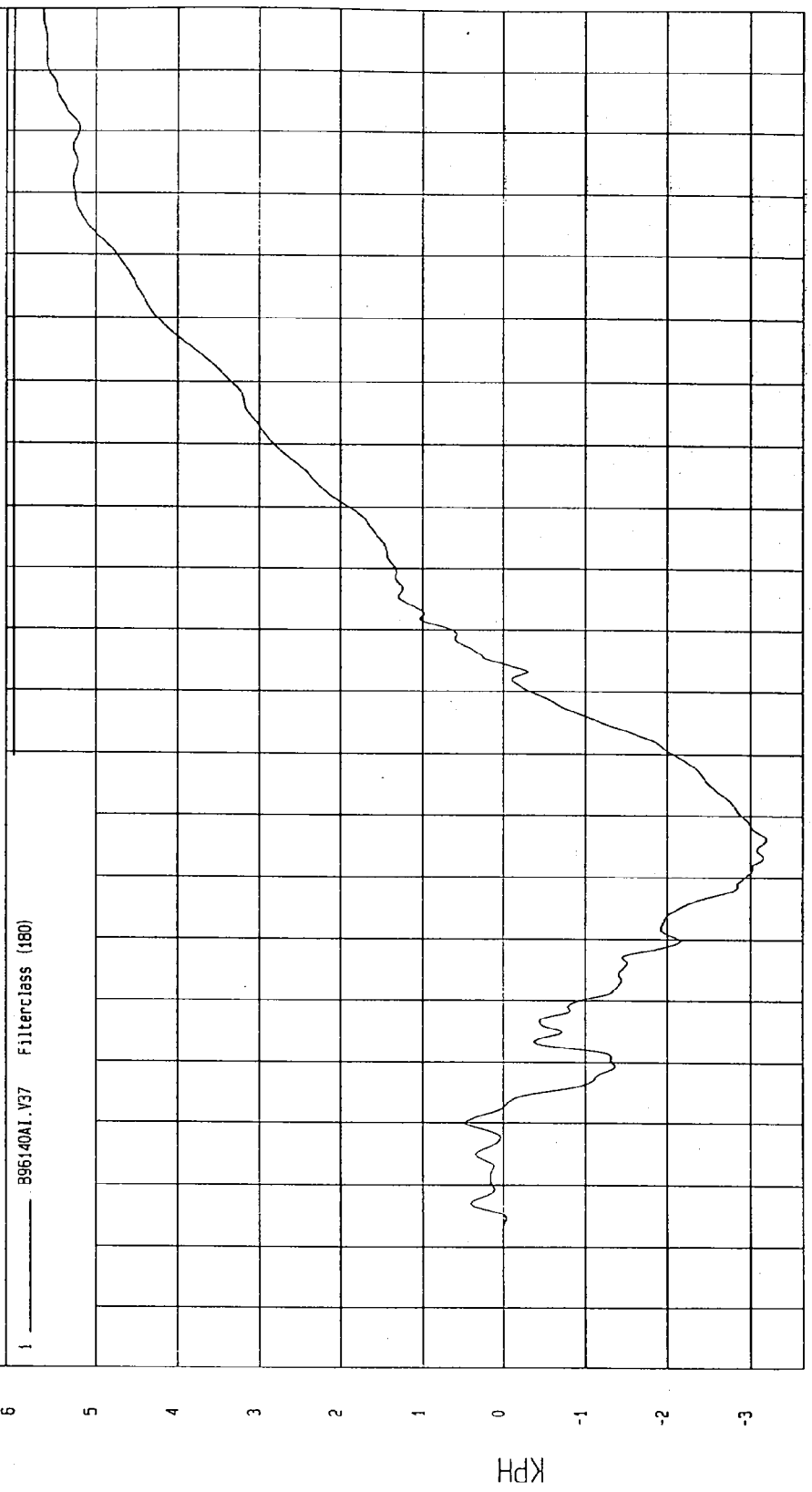
TIME (SECONDS)

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.19 KPH at 66 msec Maximum = 5.65 KPH at 200 msec

RIGHT SIDE SILL AT REAR SEAT Z VELOCITY

1 ——— 596140A1.V37 Filterclass (180)



TIME Seconds
MCA Research
01-17-1997 14:56

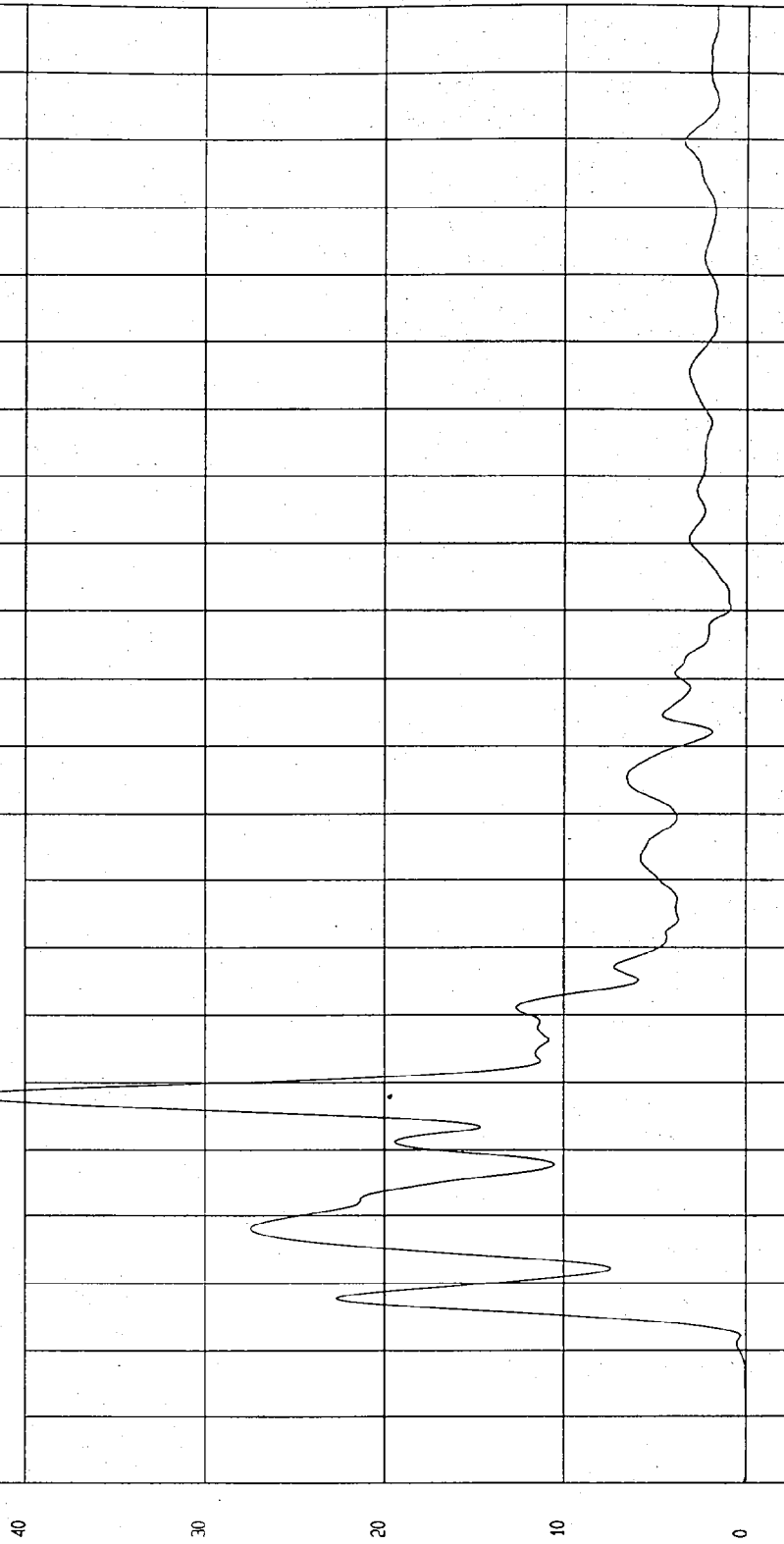
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 4.54E-03 G'S at -11 msec Maximum = 43.59 G'S at 38 msec

RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION

1 896140AV.A35 Filterclass (60)



WCA Research
01-17-1997 14:47

TIME (SECONDS)

G.S

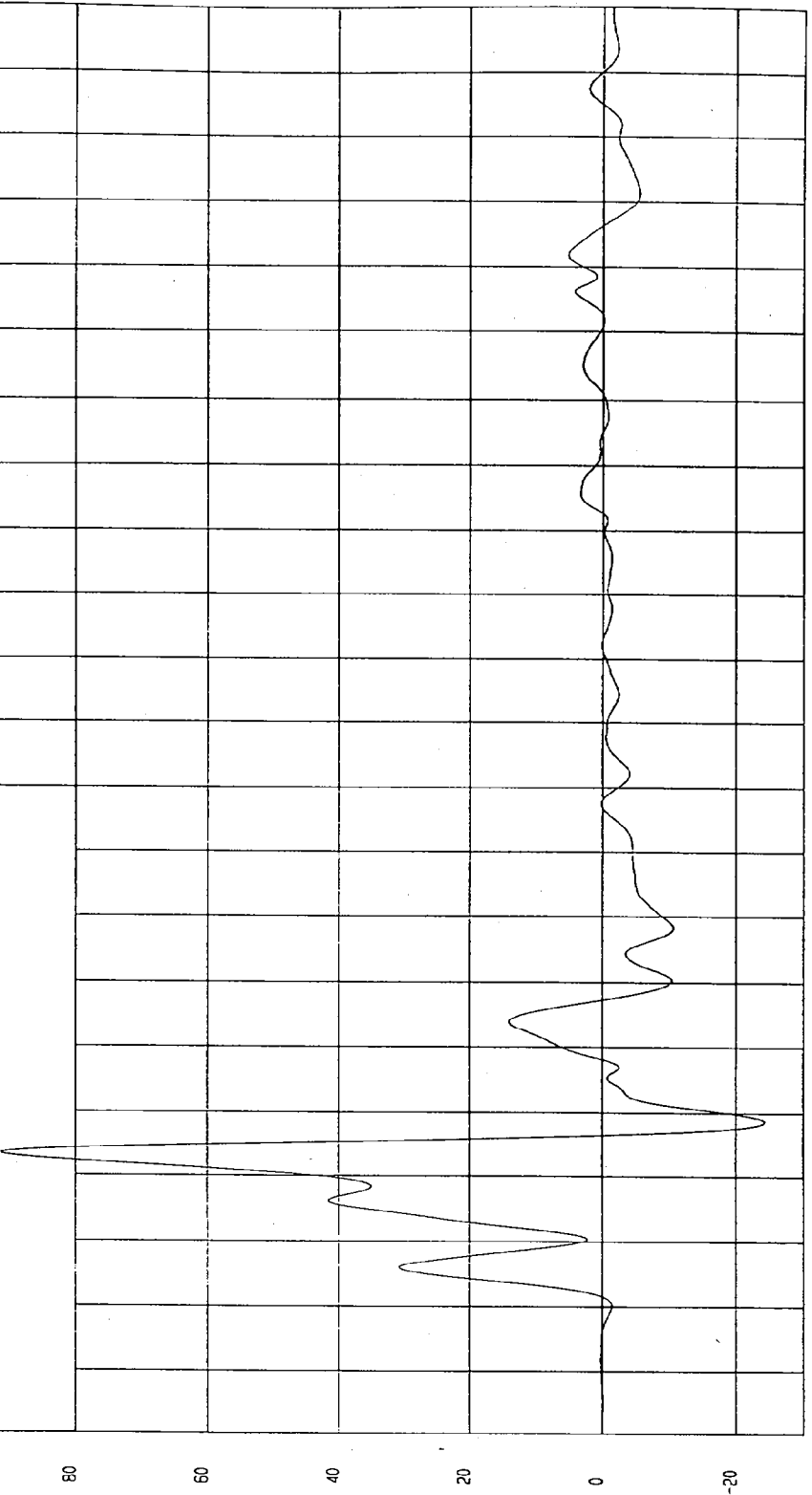
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -24.35 G'S at 29 msec Maximum = 91.40 G'S at 23 msec

LEFT DRIVER SEAT TRACK Y ACCELERATION

1 B95140AF.A40 Filterclass (50)



TIME (SECONDS)

MCA Research
01-17-1997 14:44

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -.16 KPH at 4 msec Maximum = 30.40 KPH at 26 msec

LEFT DRIVER SEAT TRACK Y VELOCITY



NSA Research
01-17-1997 14:56

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

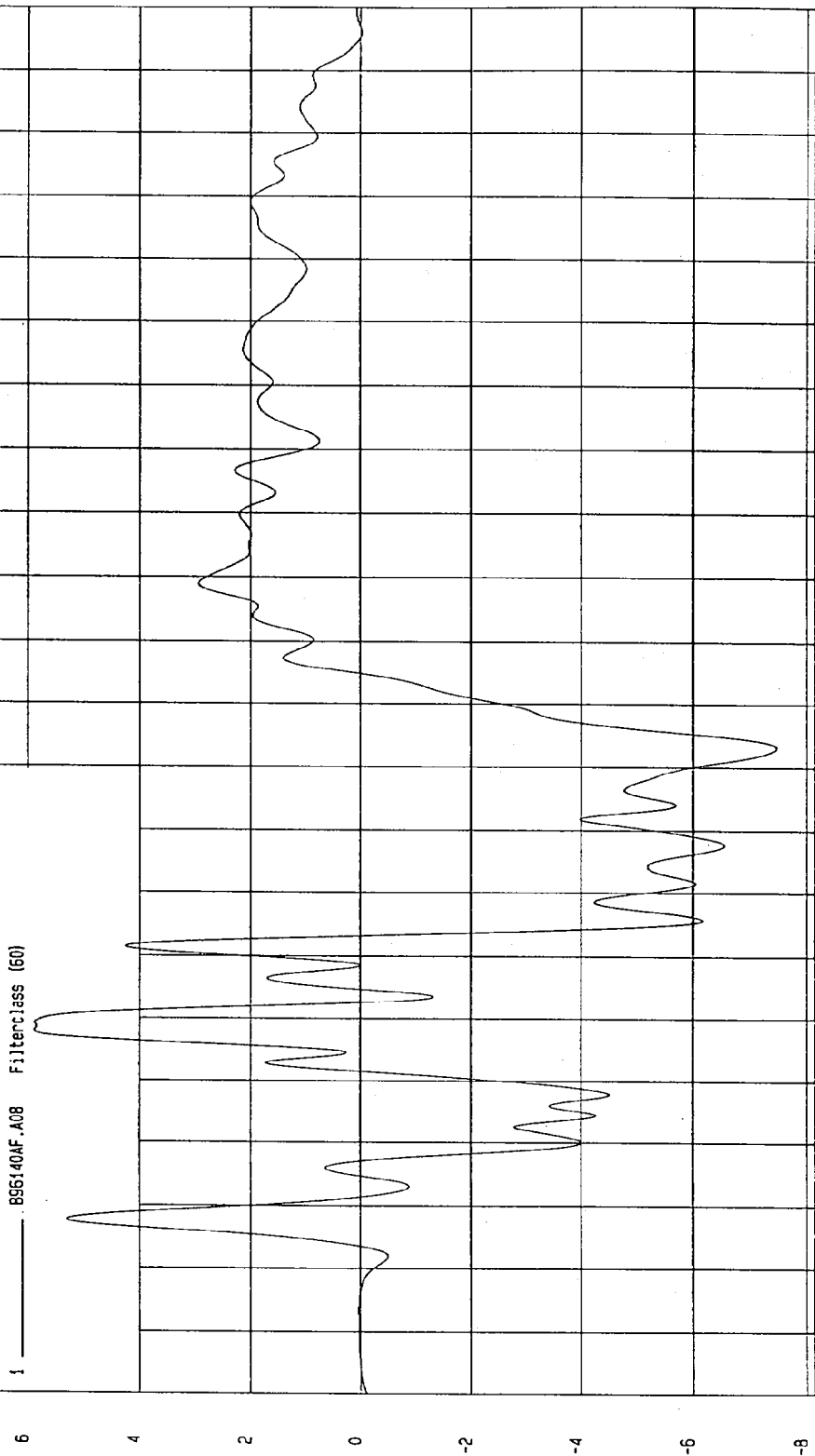
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -7.47 G'S at 83 msec

Maximum = 5.87 G'S at 38 msec

REAR FLOORPAN ABOVE AXLE X ACCELERATION

1 ——— 8956140AF.A08 Filterclass (60)



TIME (SECONDS)

MCA Research
01-17-1997 14:44

G.S

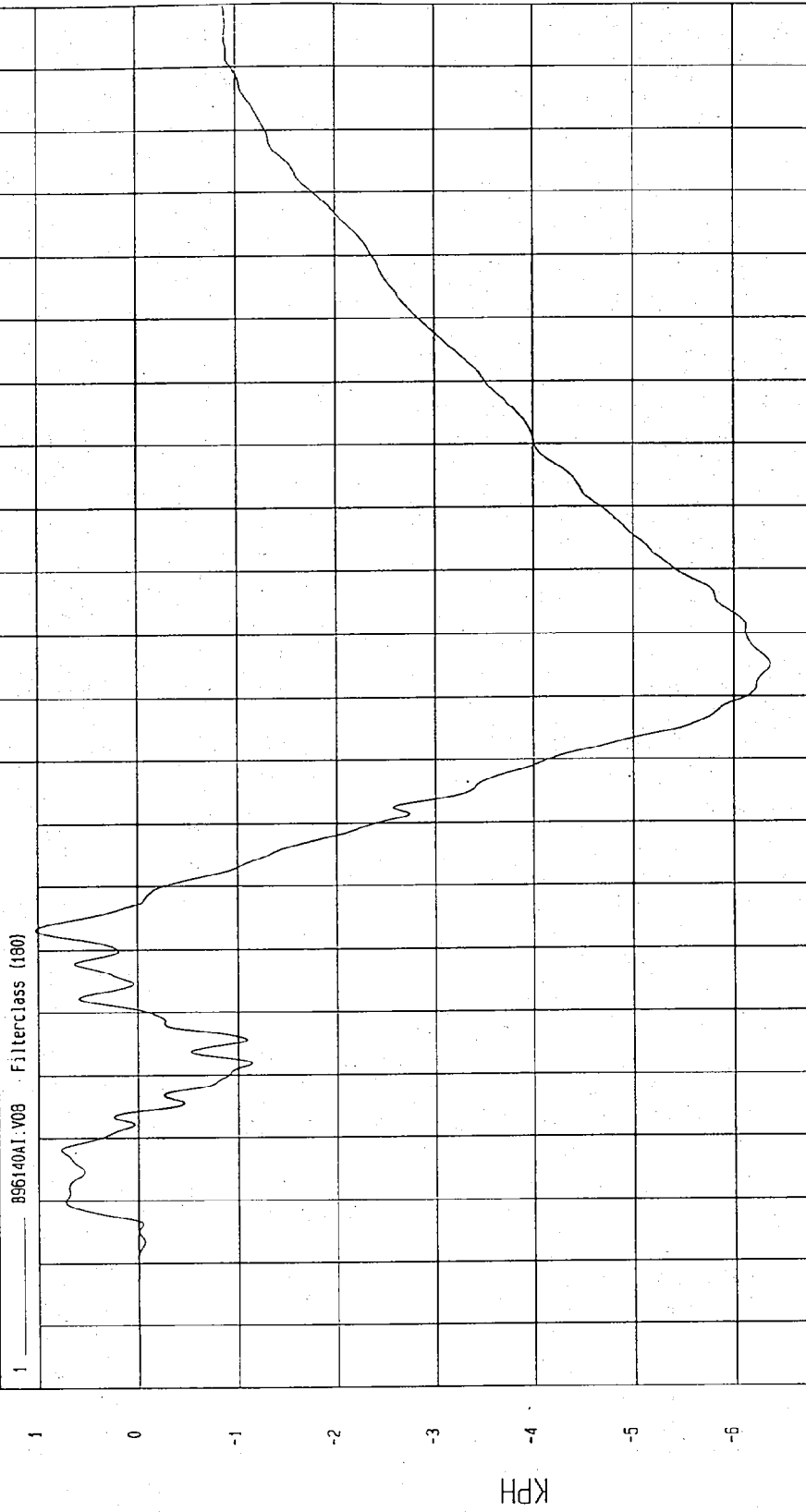
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -6.36 KPH at 95 msec

Maximum = 1.02 KPH at 53 msec

REAR FLOORPAN ABOVE AXLE X VELOCITY



MSA Research
01-17-1997 14:56

TIME Seconds

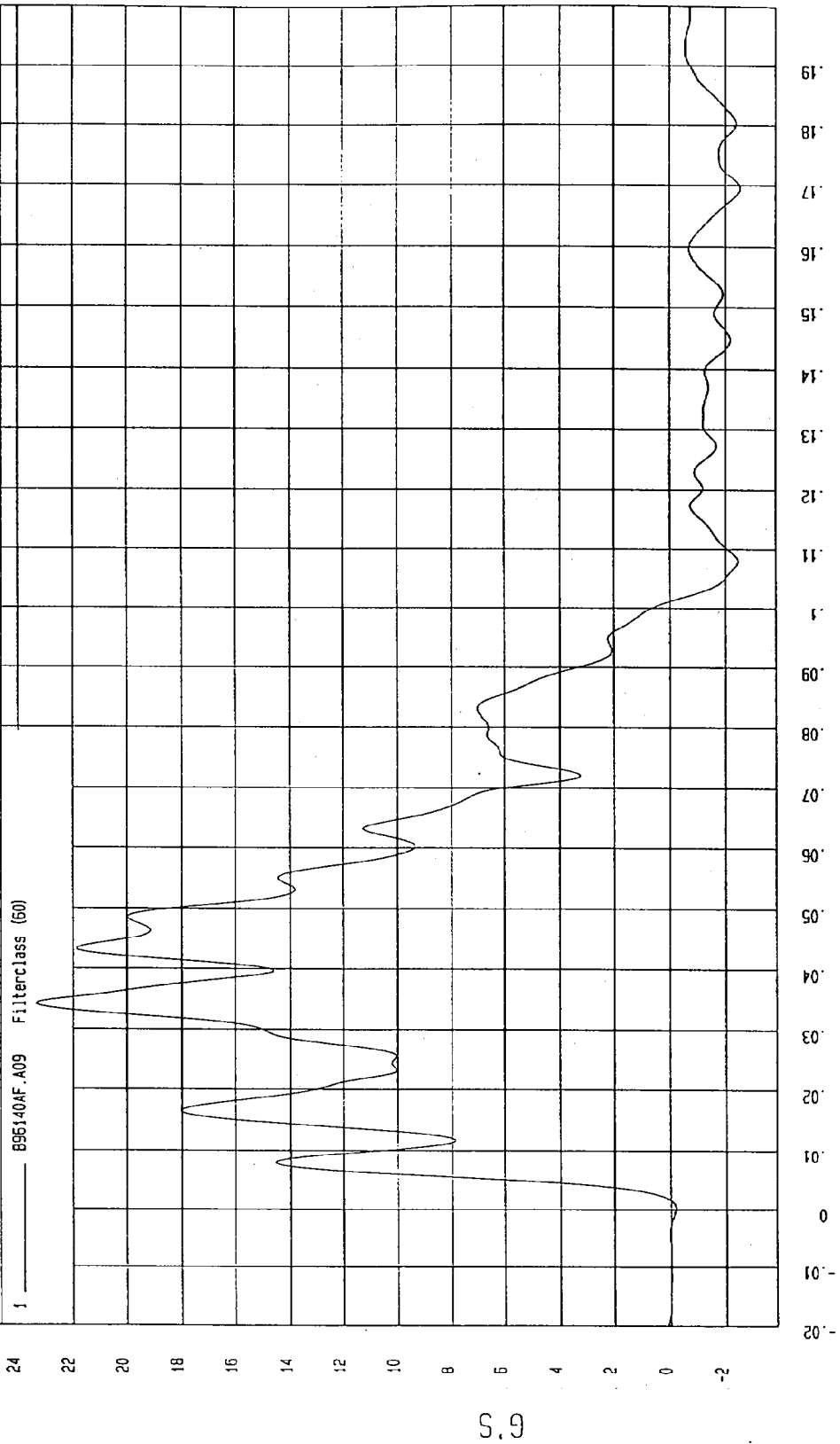
KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -2.53 G'S at 170 msec Maximum = 23.33 G'S at 34 msec

REAR FLOORPAN ABOVE AXLE Y ACCELERATION



NGA Research
01-17-1997 14:44

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

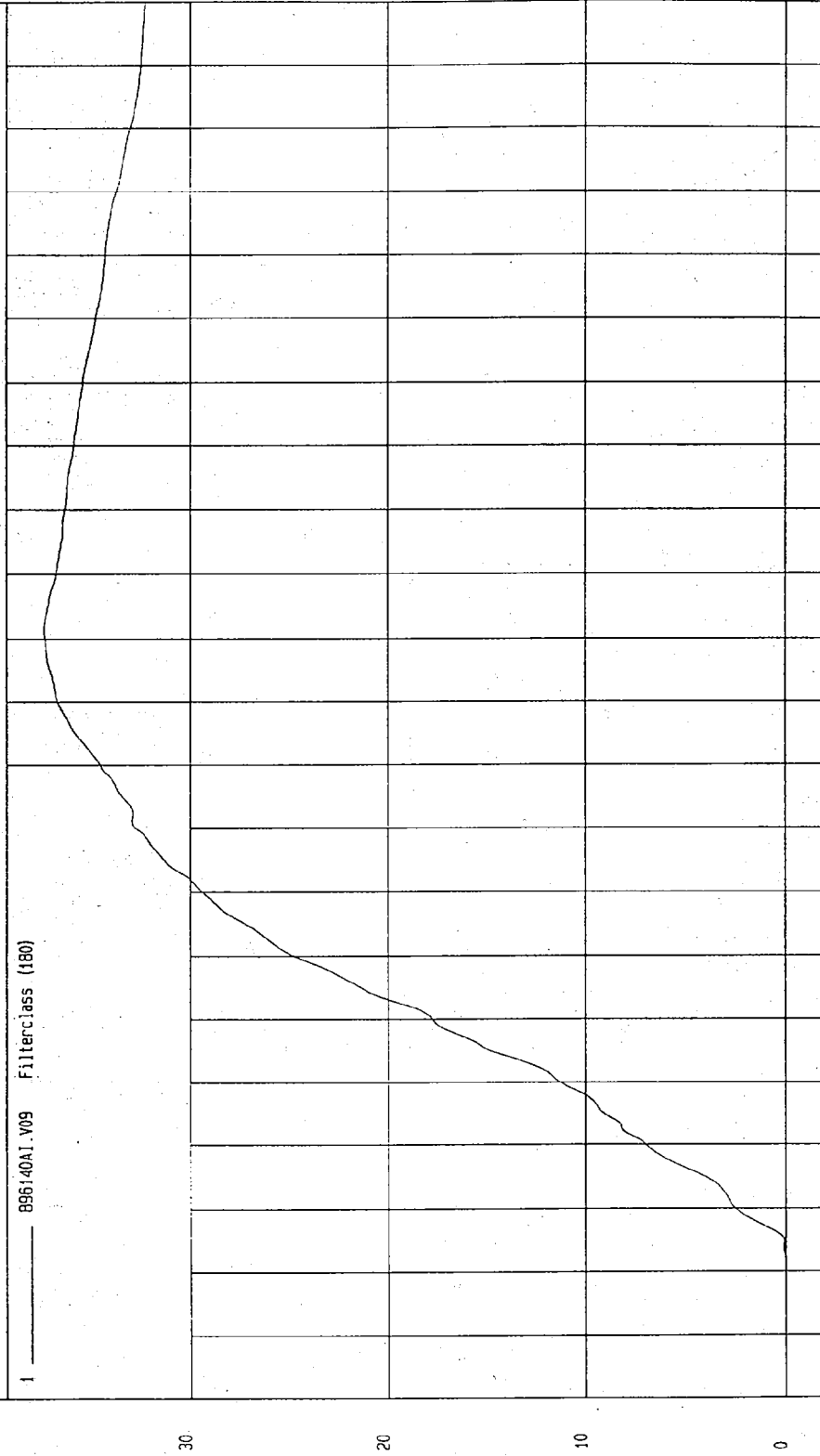
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.37E-03 KPH at -5 msec

Maximum = 37.34 KPH at 101 msec

REAR FLOORPAN ABOVE AXLE Y VELOCITY

1 ——— 896140A1.V09 Filterclass (180)



MOA Research 01-17-1997 14:56

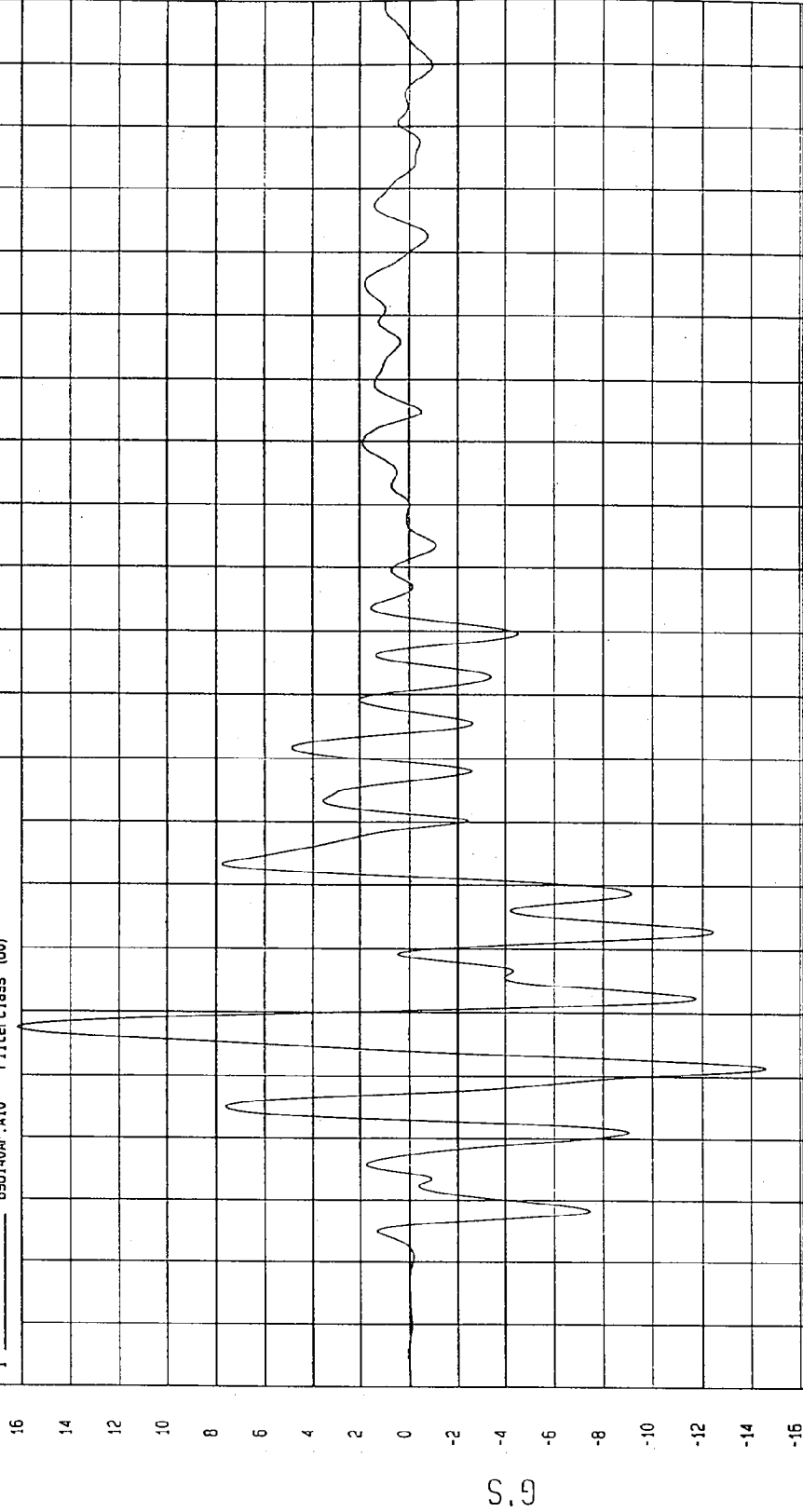
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -14.60 G'S at 31 msec Maximum = 15.19 G'S at 38 msec

REAR FLOORPAN ABOVE AXLE Z ACCELERATION

1 896140AF.A10 Filterclass (60)



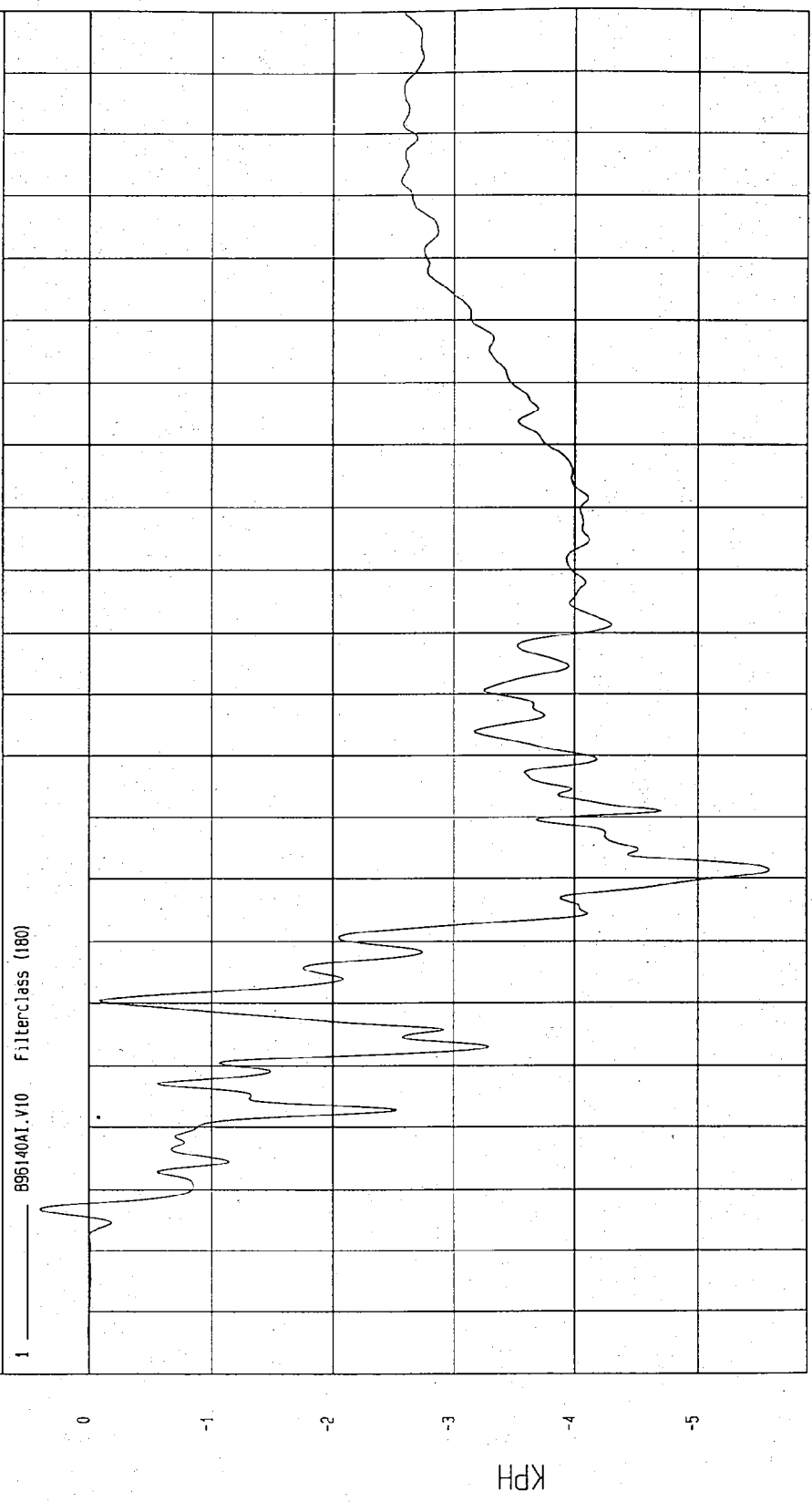
MGA Research
01-17-1997 14:44

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -5.57 KPH at 61 msec Maximum = .40 KPH at 7 msec

REAR FLOORPAN ABOVE AXLE Z VELOCITY



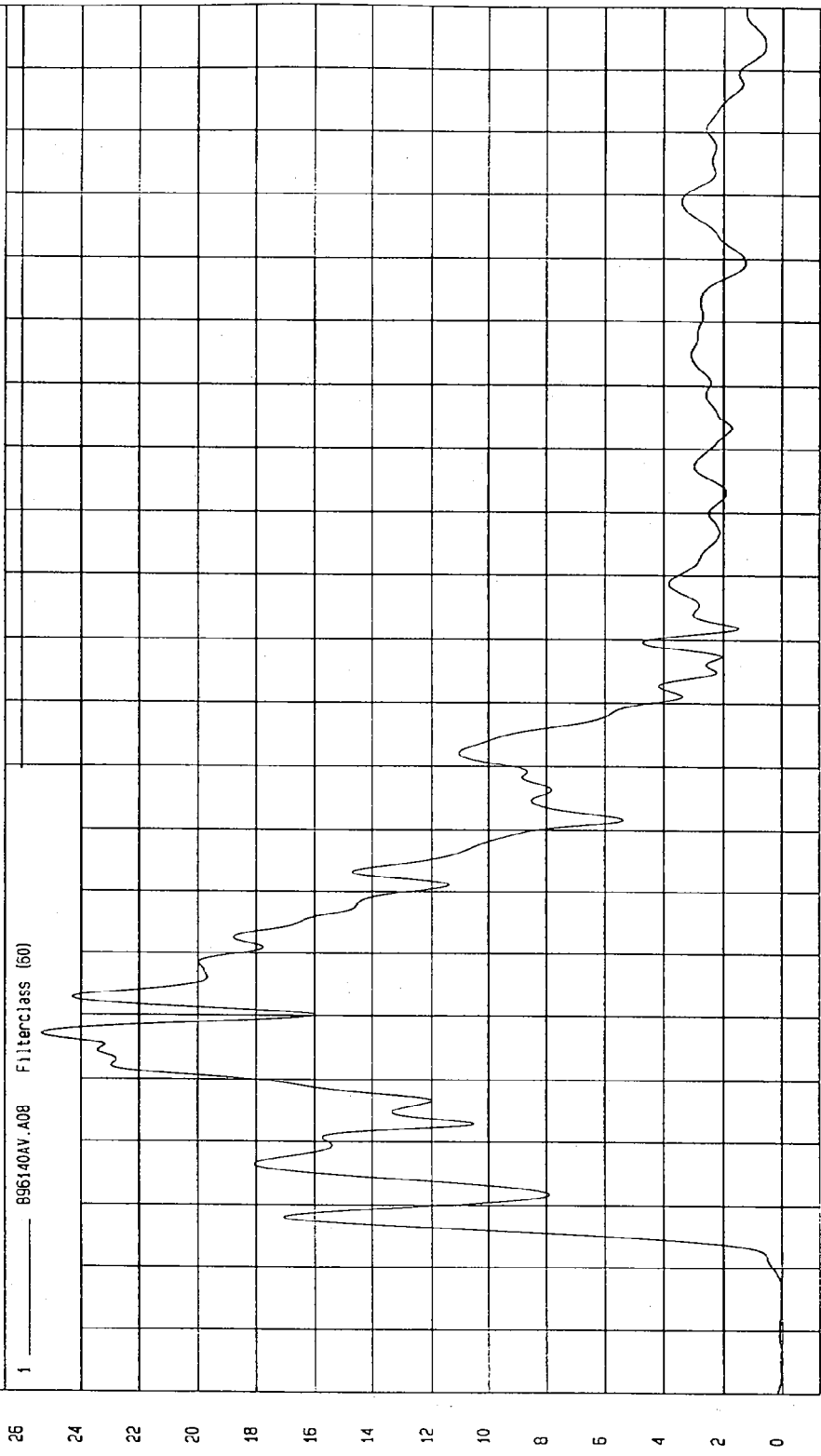
MCA Research
01-11-1997 14:56

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 2.13E-02 G'S at -13 msec Maximum = 25.31 G'S at 37 msec

REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION



TIME (SECONDS)

MOA Research
01-17-1997 14:47

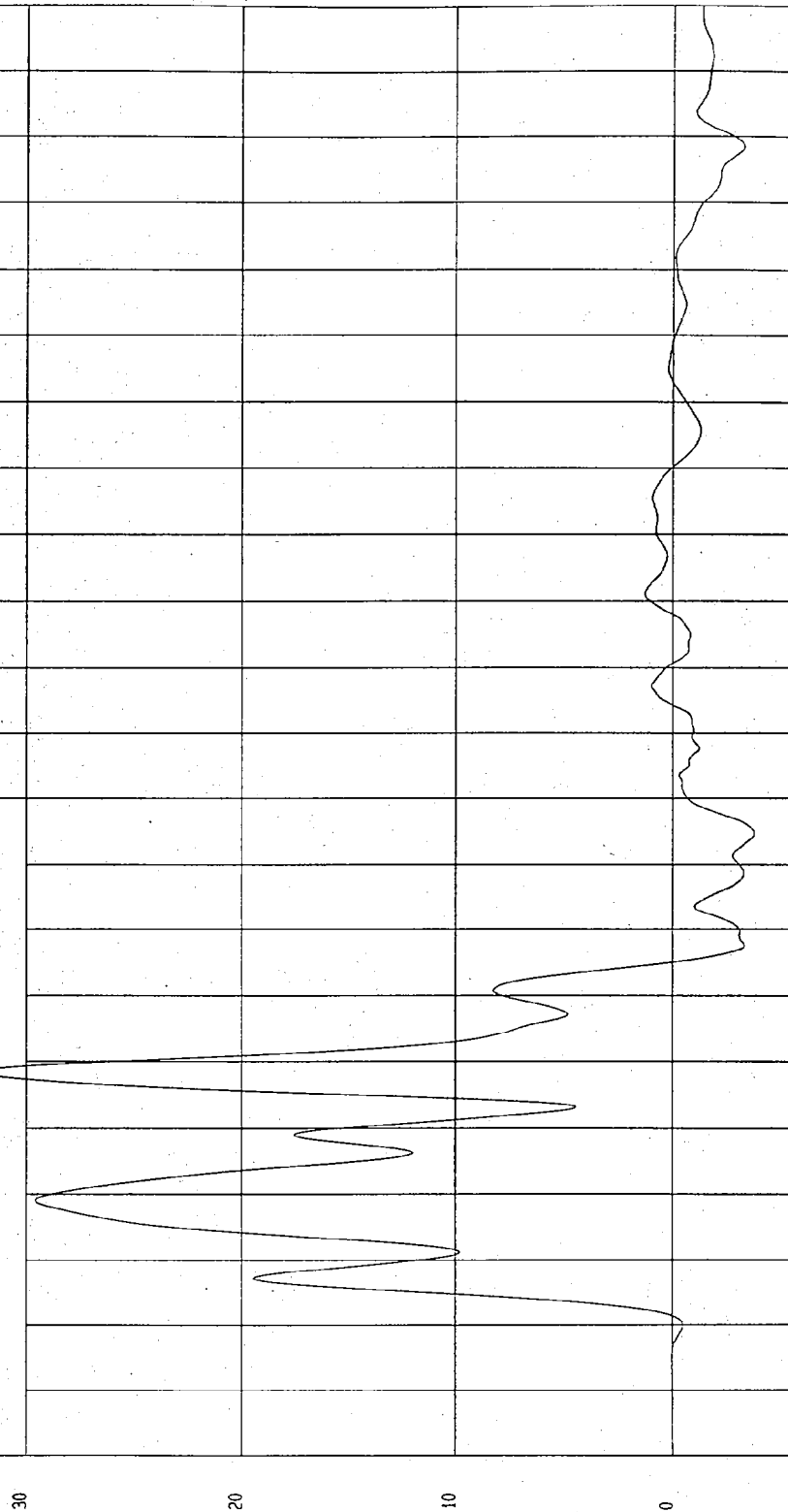
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.78 G'S at 75 msec Maximum = 32.39 G'S at 38 msec

RIGHT REAR OCCUPANT COMPARTMENT Y ACCELERATION

1 ——— 896140AF.A70 Filterclass (60)



NCA Research
01-17-1997 14:45

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

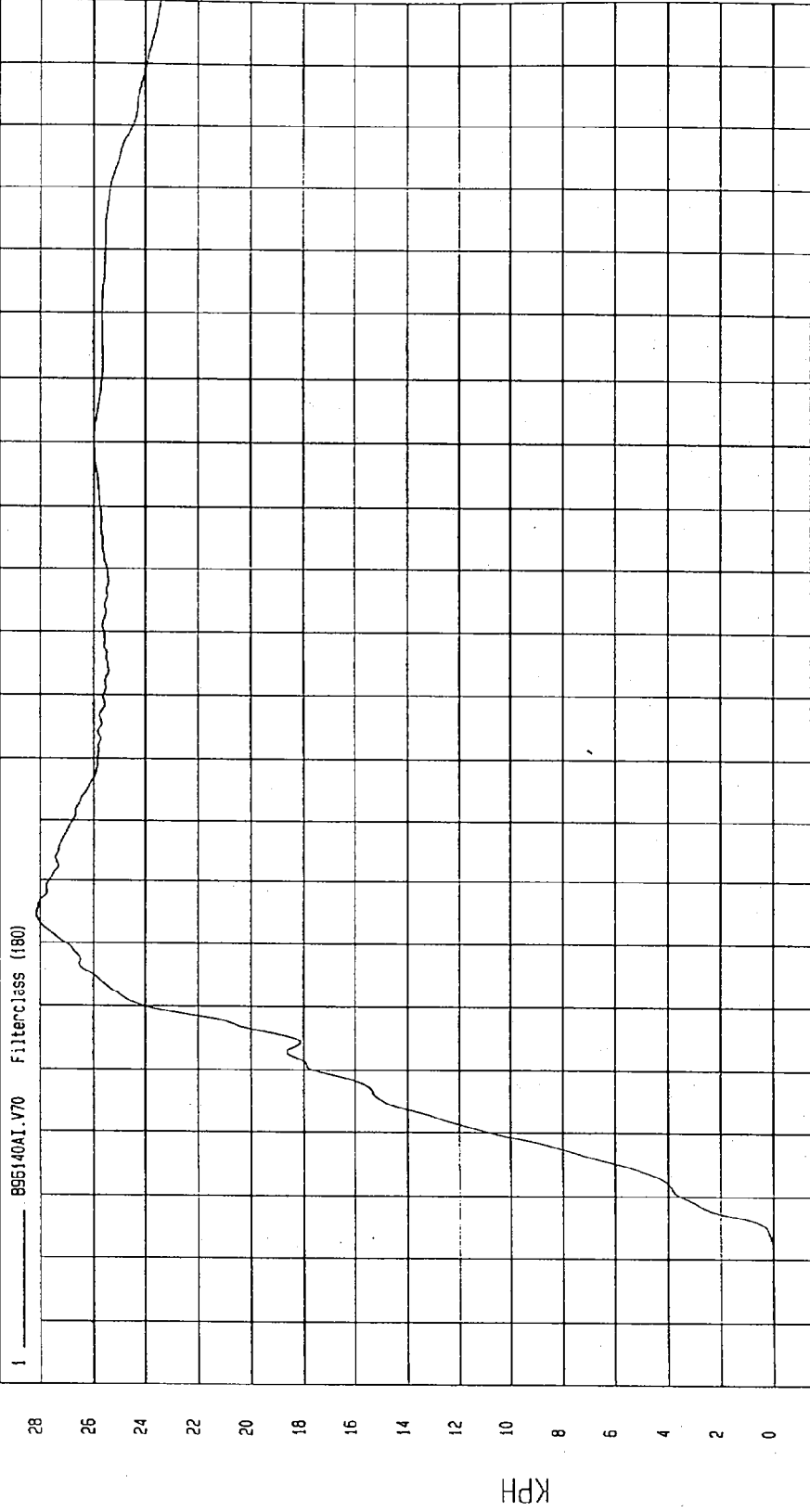
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -7.76E-04 KPH at -16 msec

Maximum = 28.16 KPH at 54 msec

RIGHT REAR OCCUPANT COMPARTMENT Y VELOCITY

1 895140A1.V70 Filtercless (180)



TIME Seconds
WCA Research
01-17-1997 14:56

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

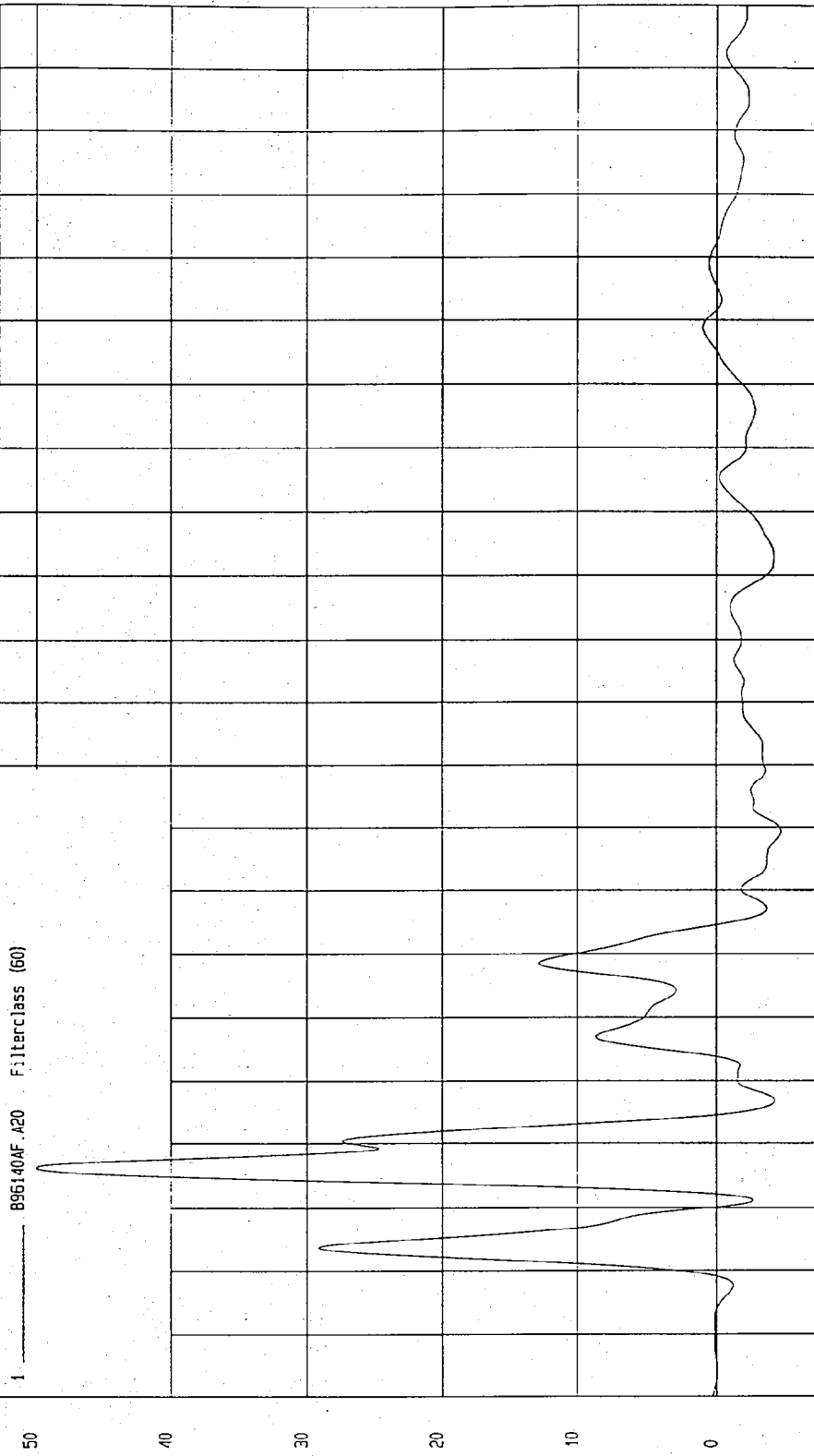
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -4.70 G'S at 69 msec

Maximum = 50.01 G'S at 16 msec

LEFT LOWER A-POST Y ACCELERATION

1 896140AF.A20 Filterclass (60)



WCA Research
01-17-1997 14.45

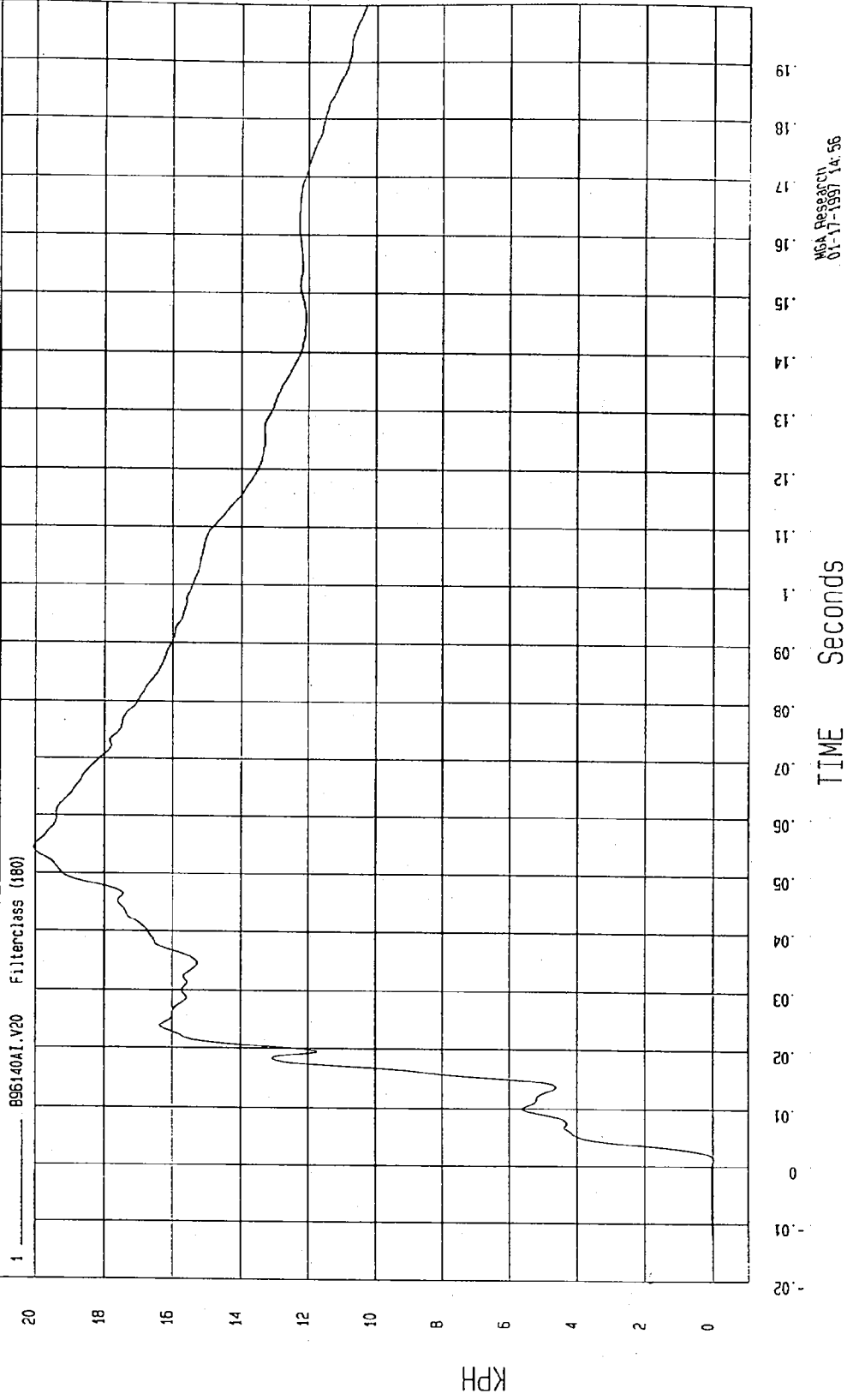
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 1.90E-02 KPH at 1 msec Maximum = 20.04 KPH at 54 msec

LEFT LOWER A-POST Y VELOCITY



TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

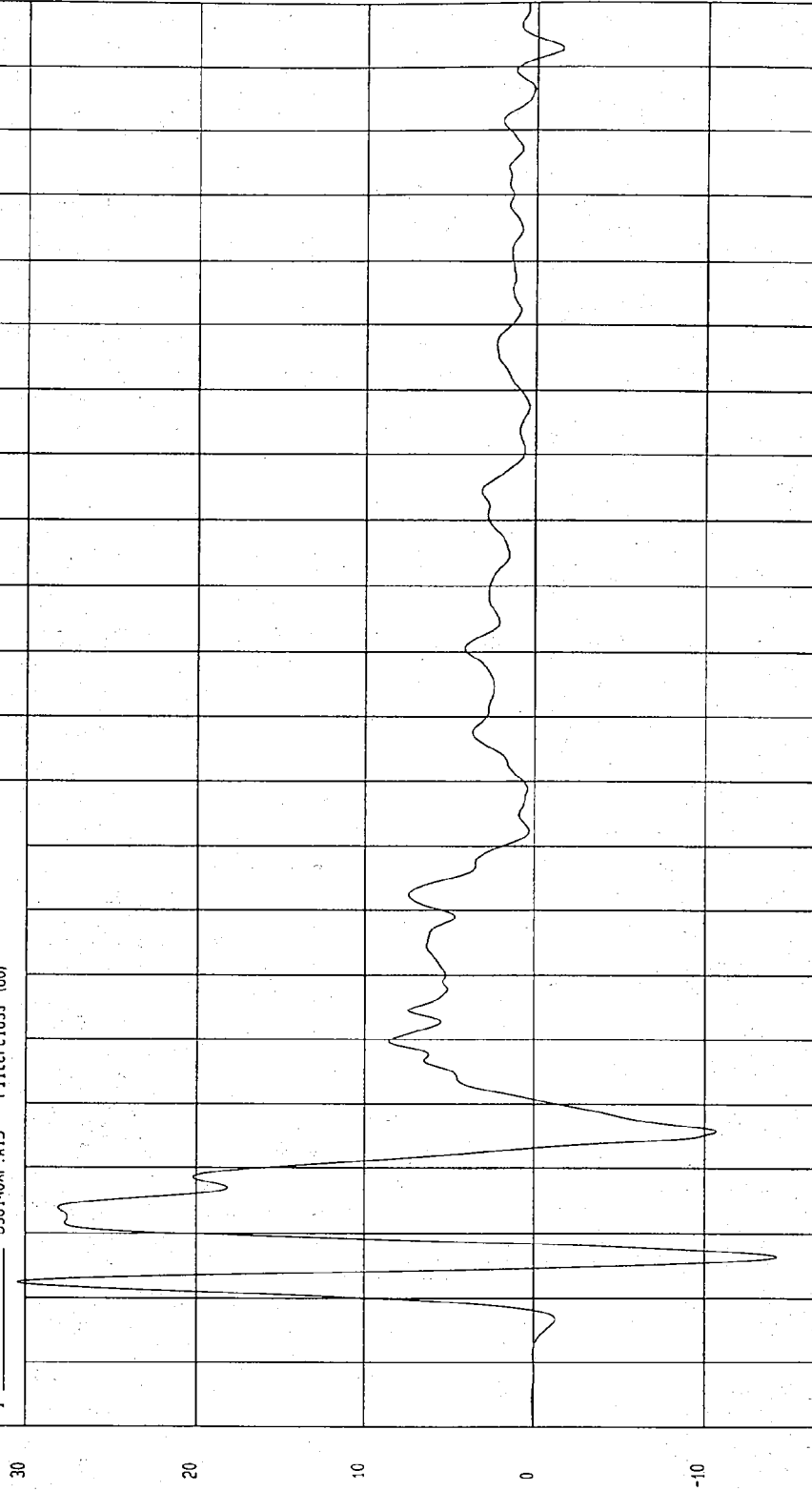
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -14.19 G'S at 6 msec

Maximum = 30.46 G'S at 2 msec

LEFT MID A-POST Y ACCELERATION

1 896140AF.A19 Filterclass (60)



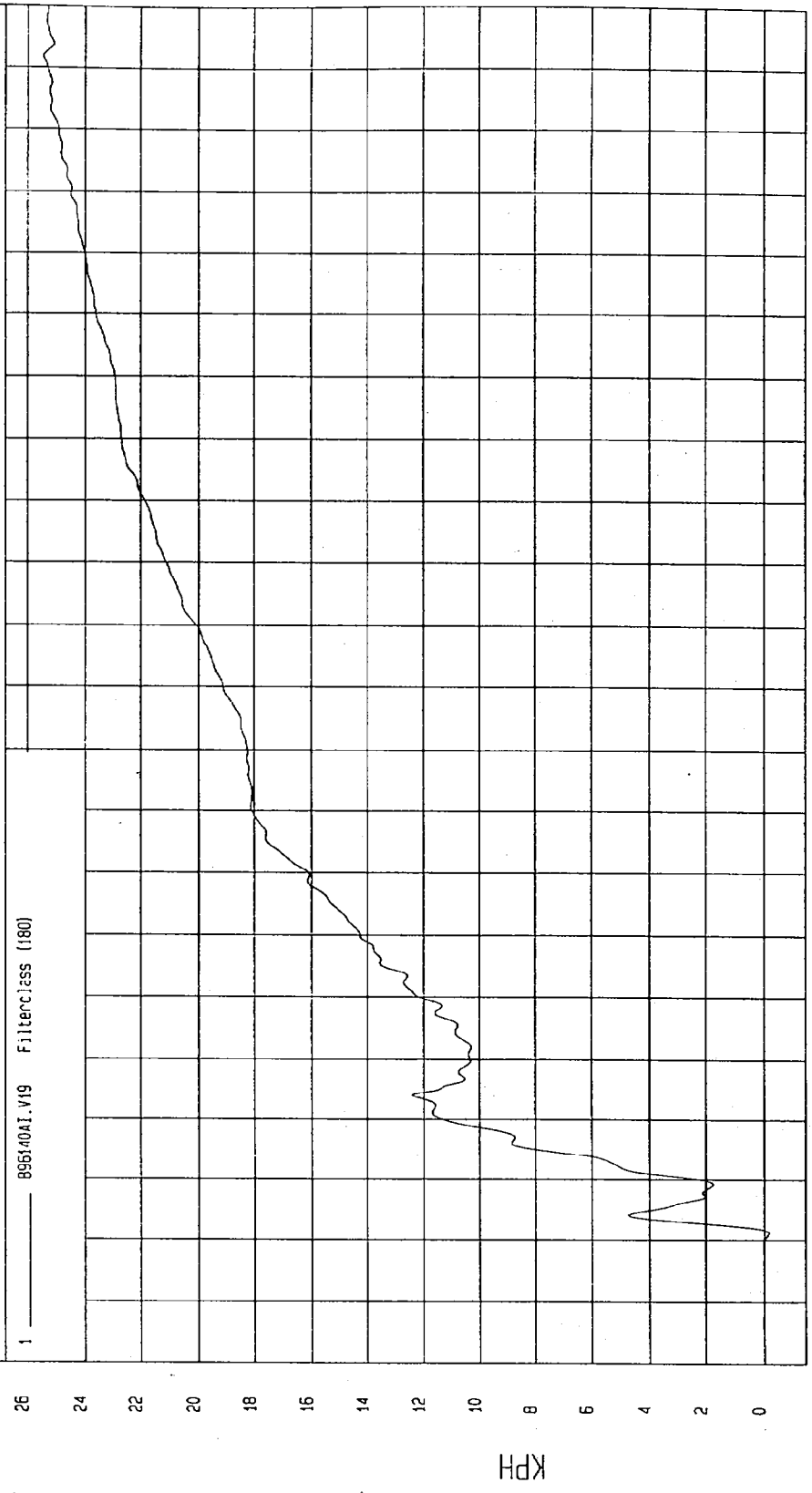
MGA Research
01-11-1997 14.45

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = .14 KPH at 1 msec Maximum = 25.47 KPH at 192 msec

LEFT MID A-POST Y VELOCITY

1 896140A1.V19 Filter:less (180)



TIME Seconds
MCA Research
01-17-1997 14:56

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

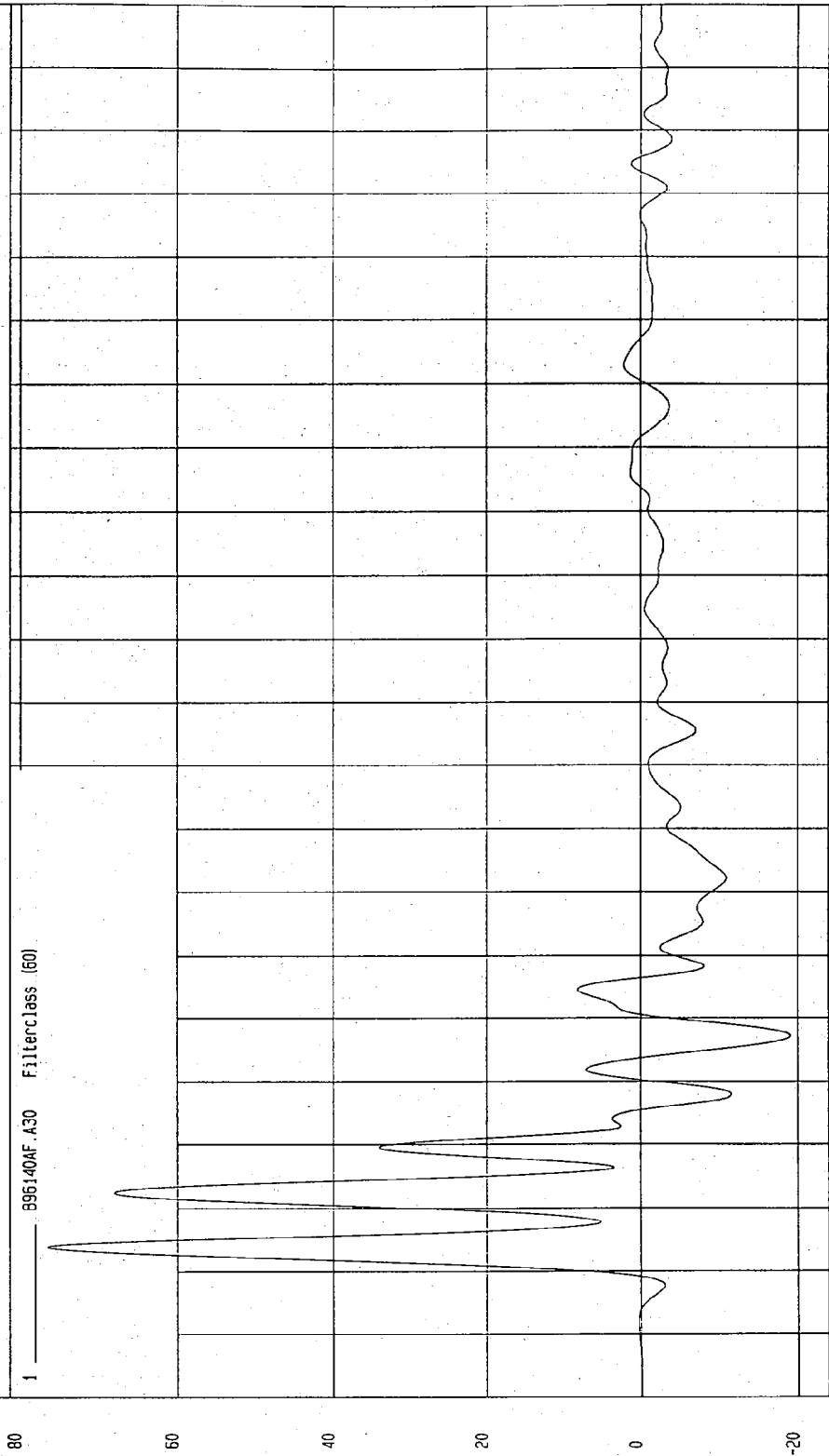
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19.05 G'S at 37 msec

Maximum = 76.57 G'S at 4 msec

LEFT LOWER B-POST Y ACCELERATION

1 896140AF.A30 Filterclass (60)



MCA Research
01-17-1997 1A: 05

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

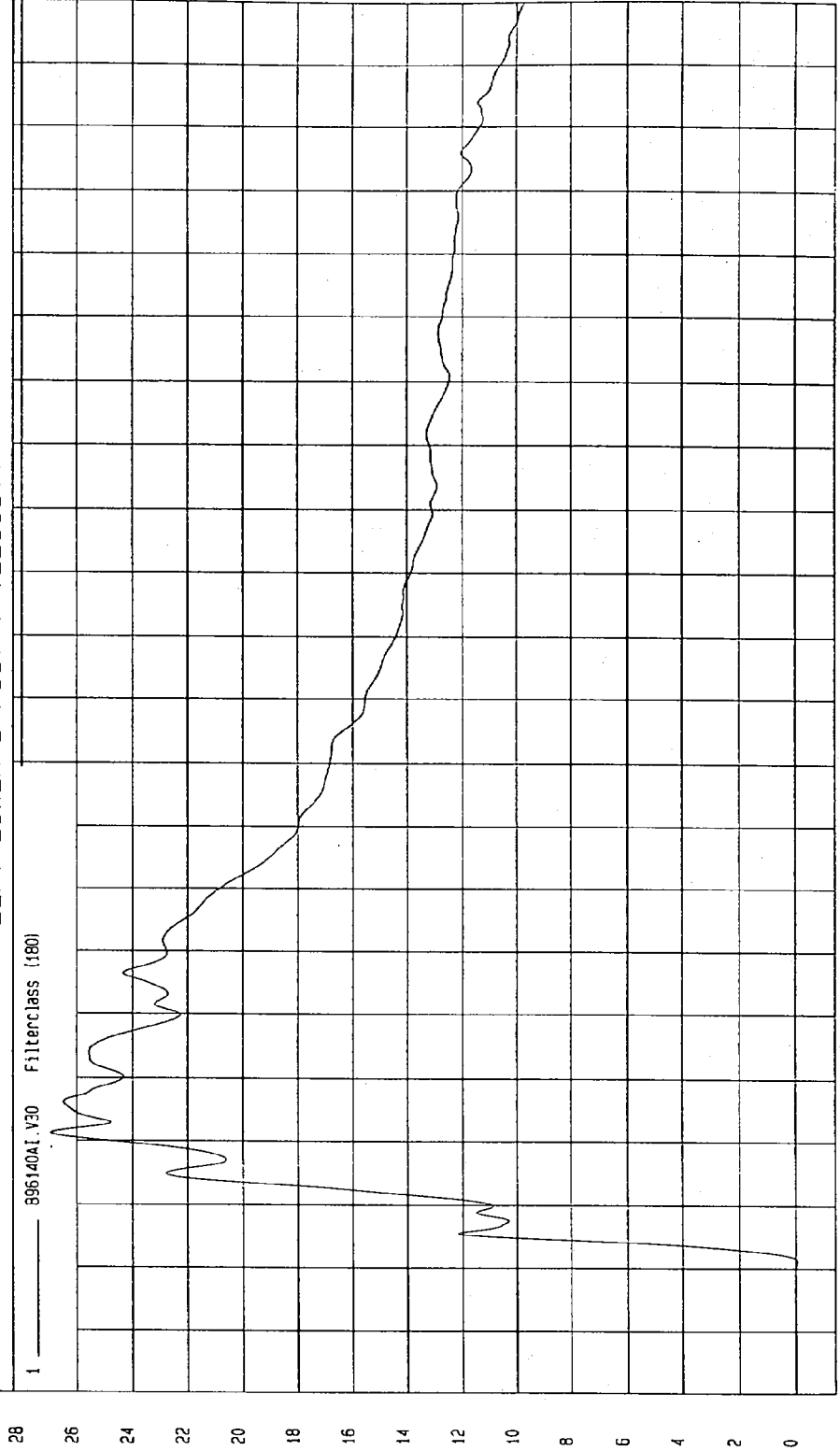
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -6.69E-02 KPH at 1 msec

Maximum = 26.96 KPH at 21 msec

LEFT LOWER B-POST Y VELOCITY

1 ——— 896140A1.V30 Filterclass (180)

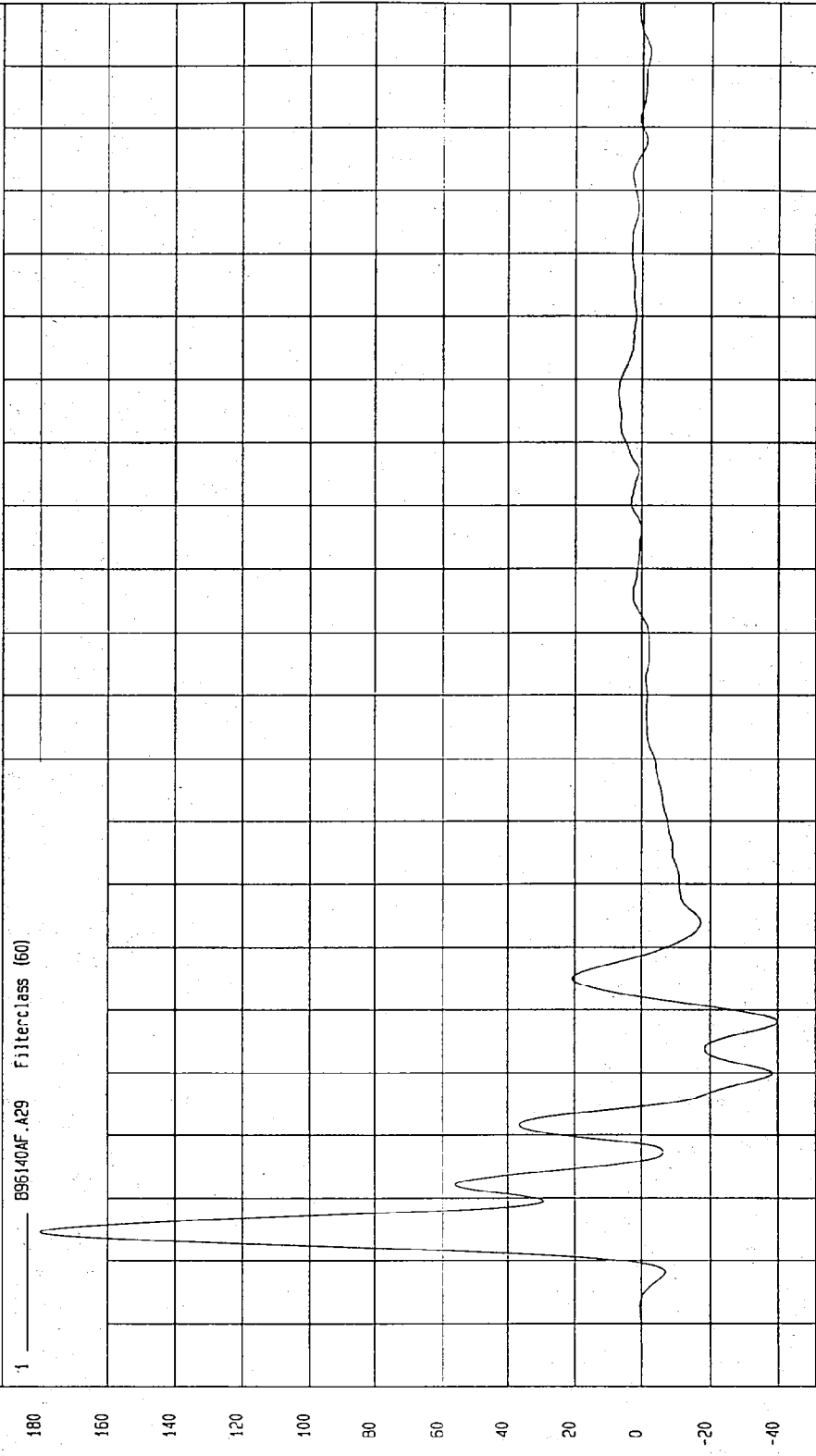


NCA Research
01-17-1997 14:56

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
 COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH
 Minimum = -39.00 G'S at .38 msec Maximum = 179.99 G'S at 4 msec

LEFT MID B-POST Y ACCELERATION



TIME (SECONDS)

19
18
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-02

NGA Research
01-17-1997 1A: 45

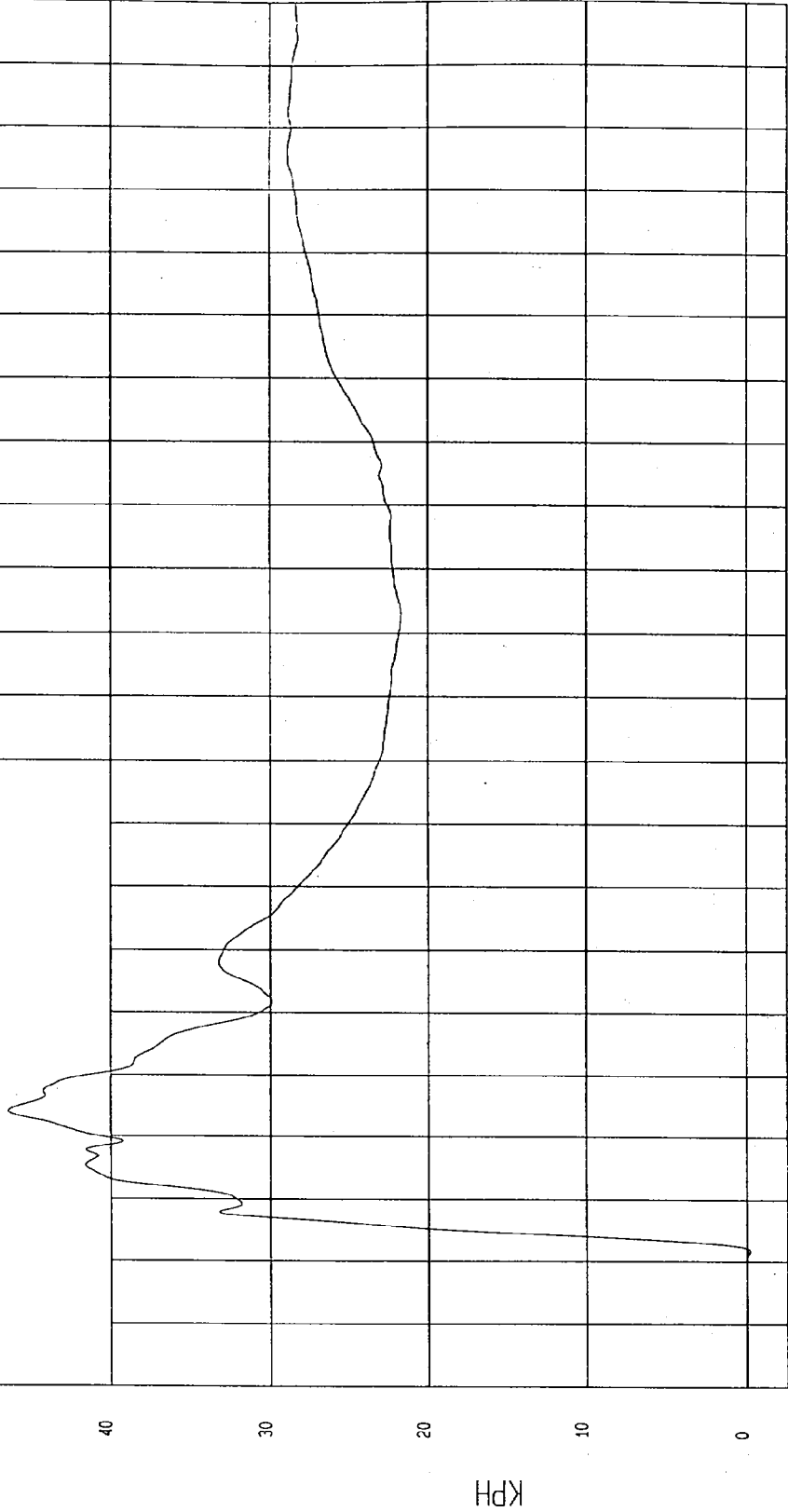
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19 KPH at 2 msec Maximum = 46.41 KPH at 24 msec

LEFT MID B-POST Y VELOCITY

1 ——— 896140A1.V29 Filterclass (180)



MCA Research
01-17-1997 14:51

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

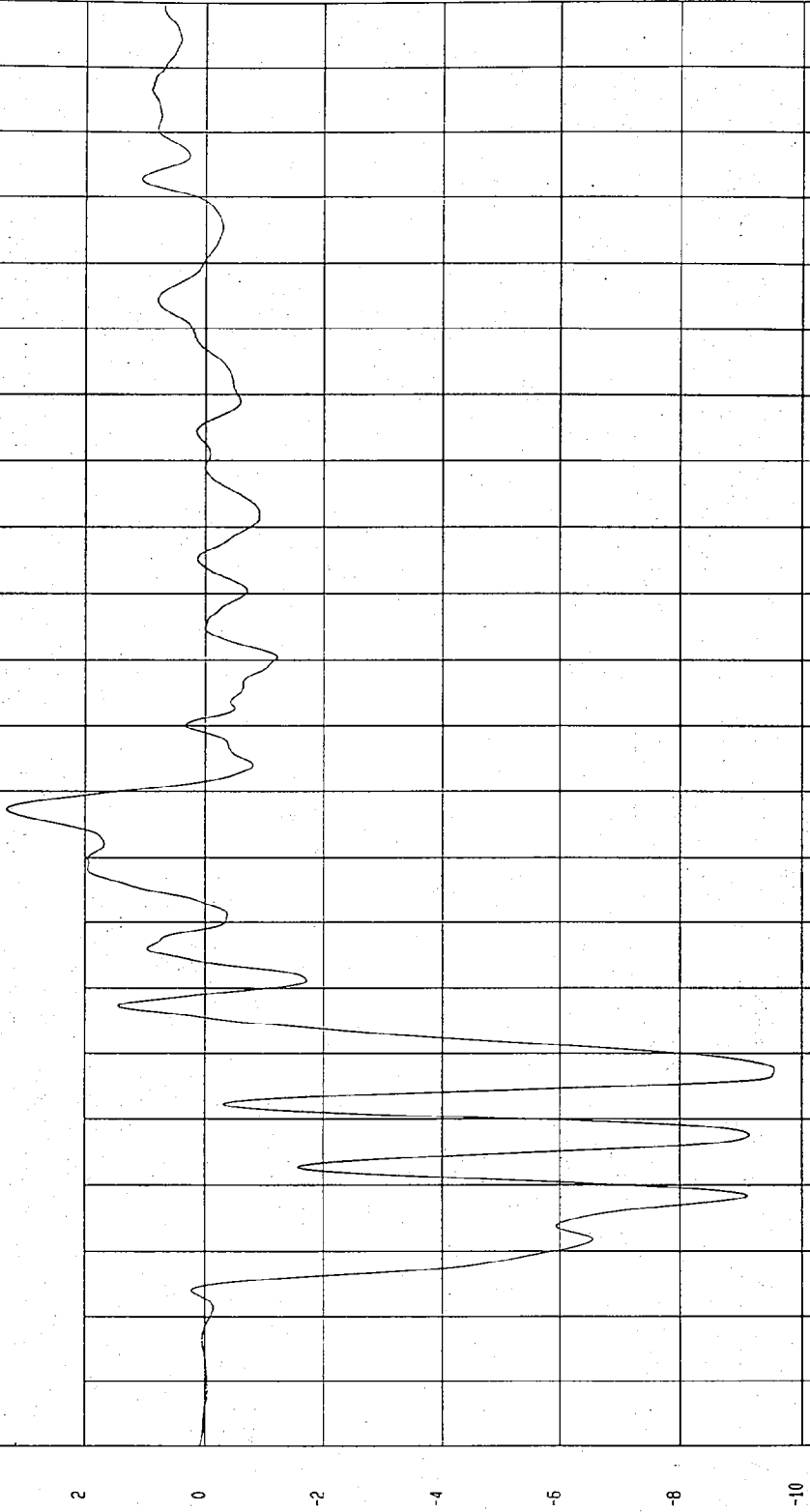
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -9.56 G'S at 38 msec

Maximum = 3.29 G'S at 77 msec

VEHICLE CG X ACCELERATION

1 — 896140AF.A58 Filterclass (60)



MCA Research
01-17-1997 14:45

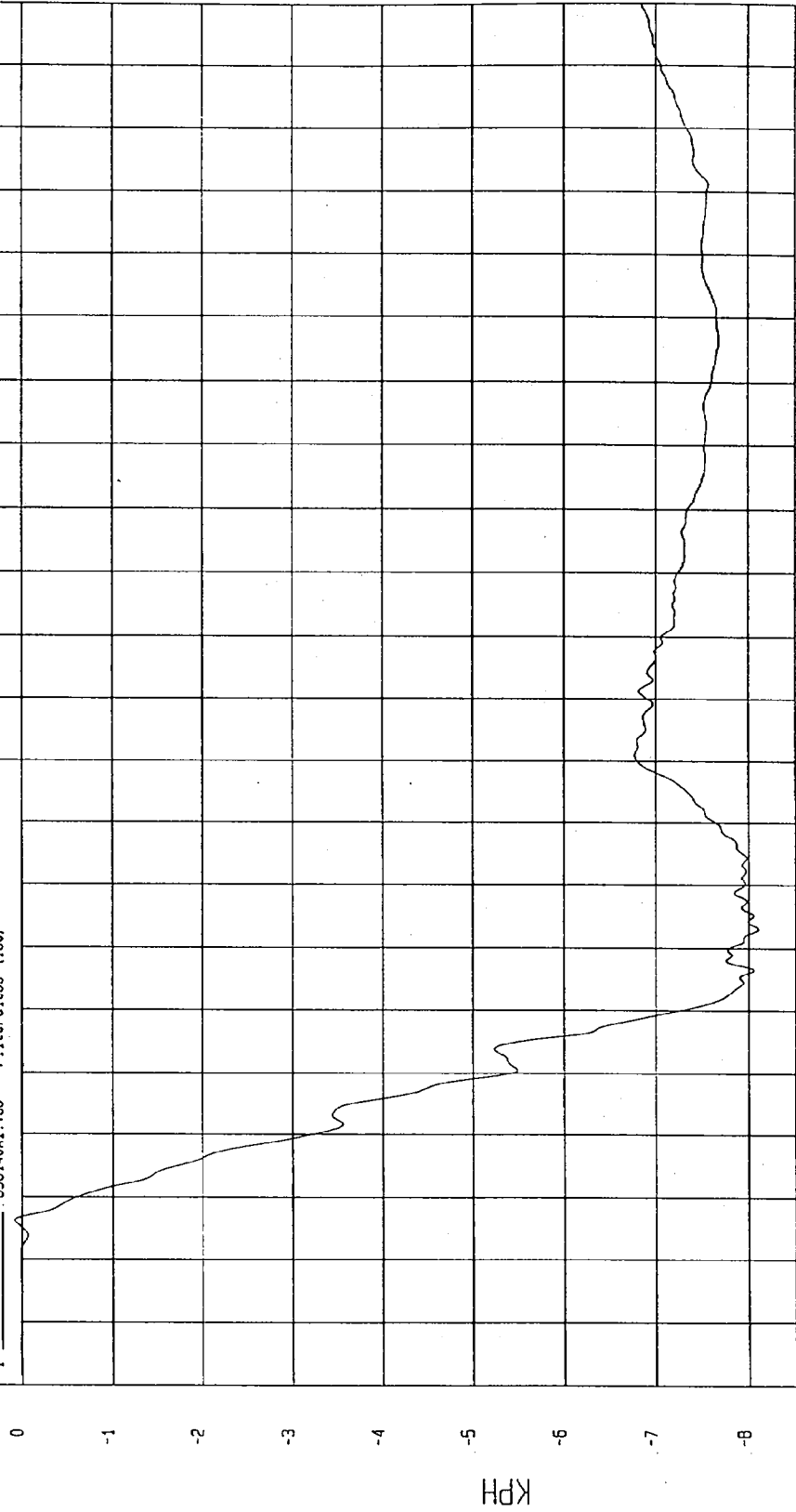
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -8.11 KPH at 53 msec Maximum = 8.21E-02 KPH at 6 msec

VEHICLE CG X VELOCITY

1 896140A1.V58 Filterclass (180)



MCA Research
01-17-1997 14:57

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

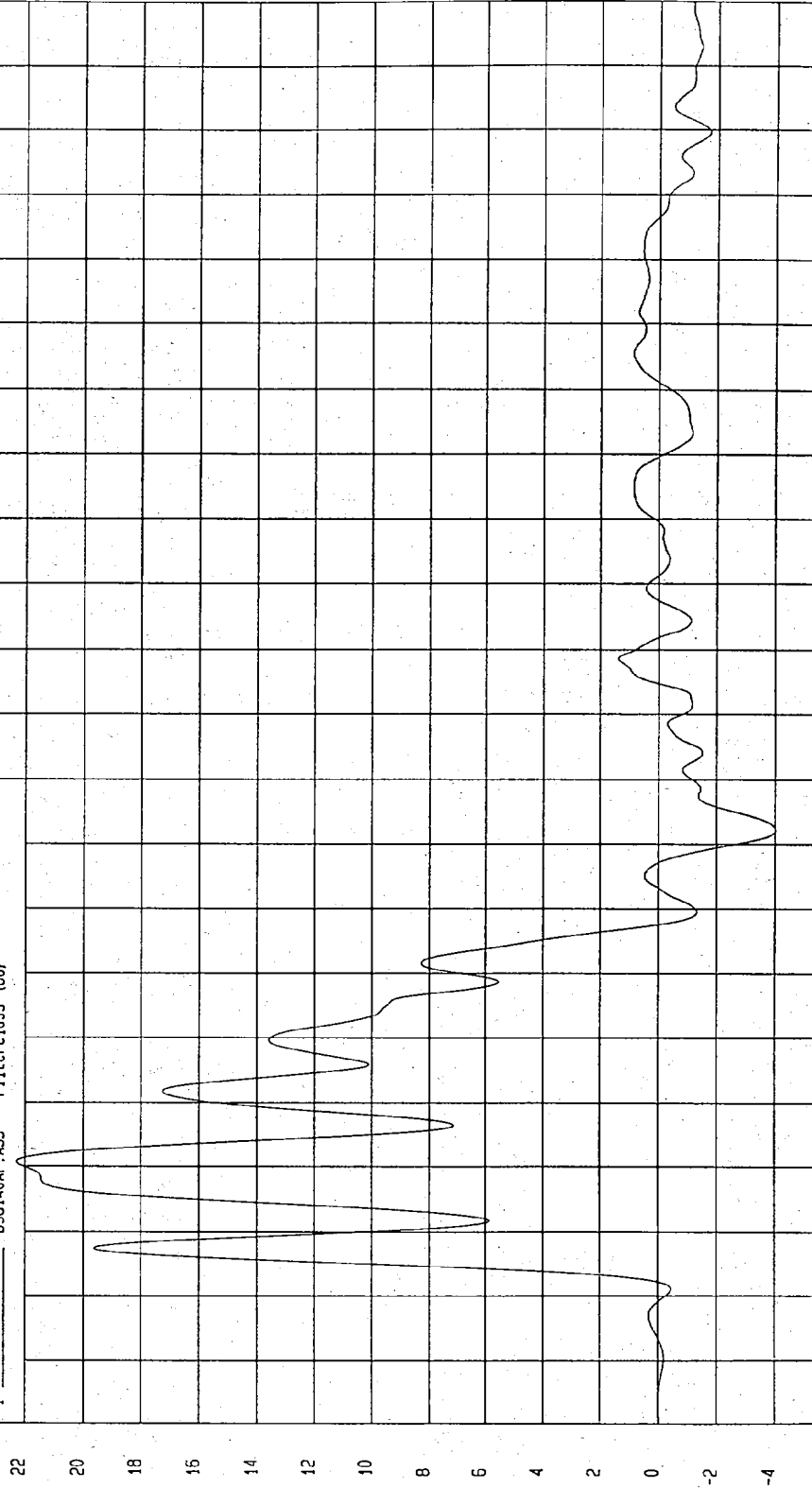
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -4.01 G'S at 72 msec

Maximum = 22.29 G'S at 21 msec

VEHICLE CG Y ACCELERATION

1 896140AF.A59 Filterclass (60)



MCA Research
01-17-1997 14:45

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

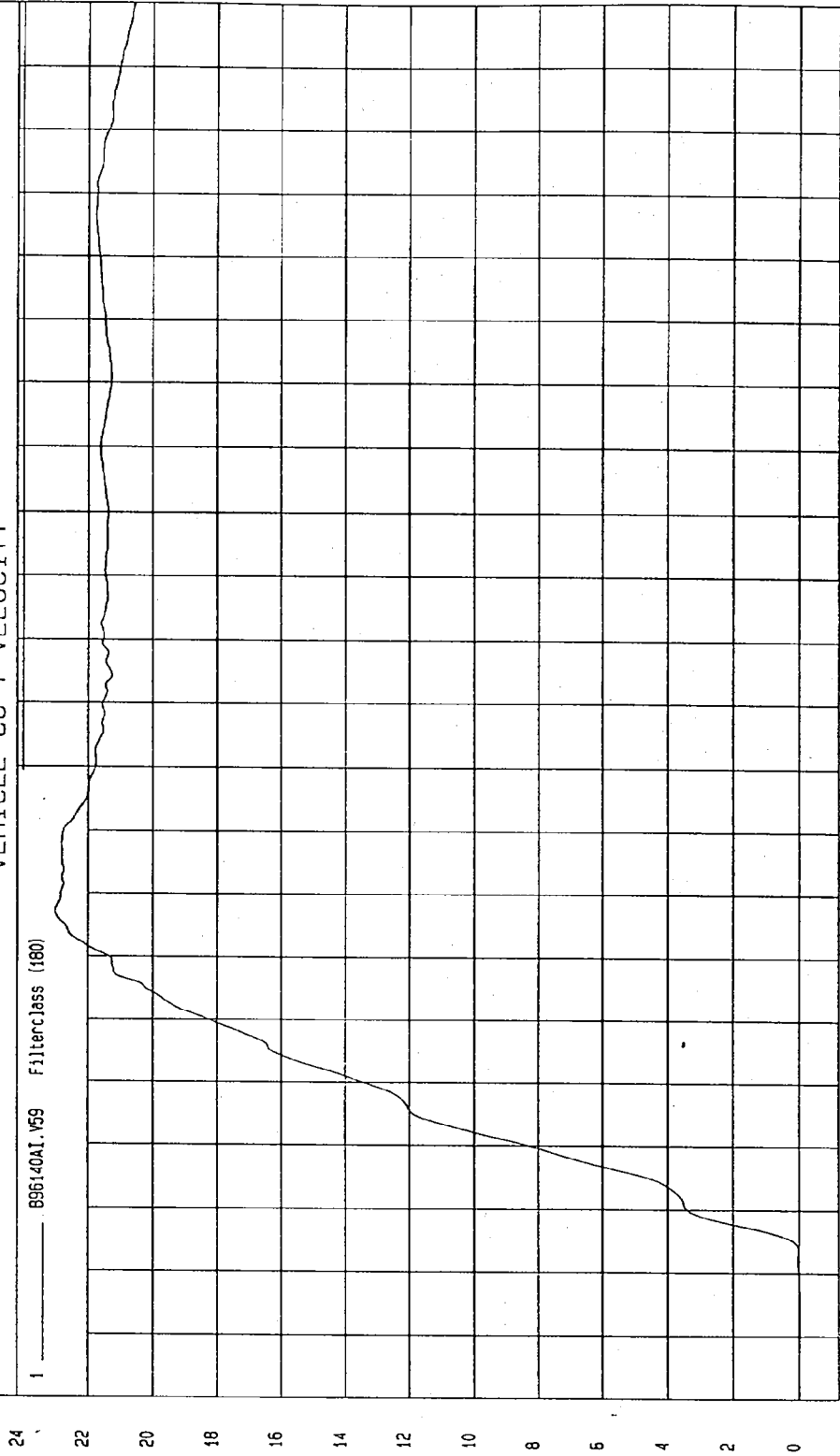
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.80E-02 KPH at -6 msec

Maximum = 23.01 KPH at 57 msec

VEHICLE CG Y VELOCITY

1 896140A1.159 Filterclass (180)



MGA Research
01-17-1997 14:57

TIME Seconds

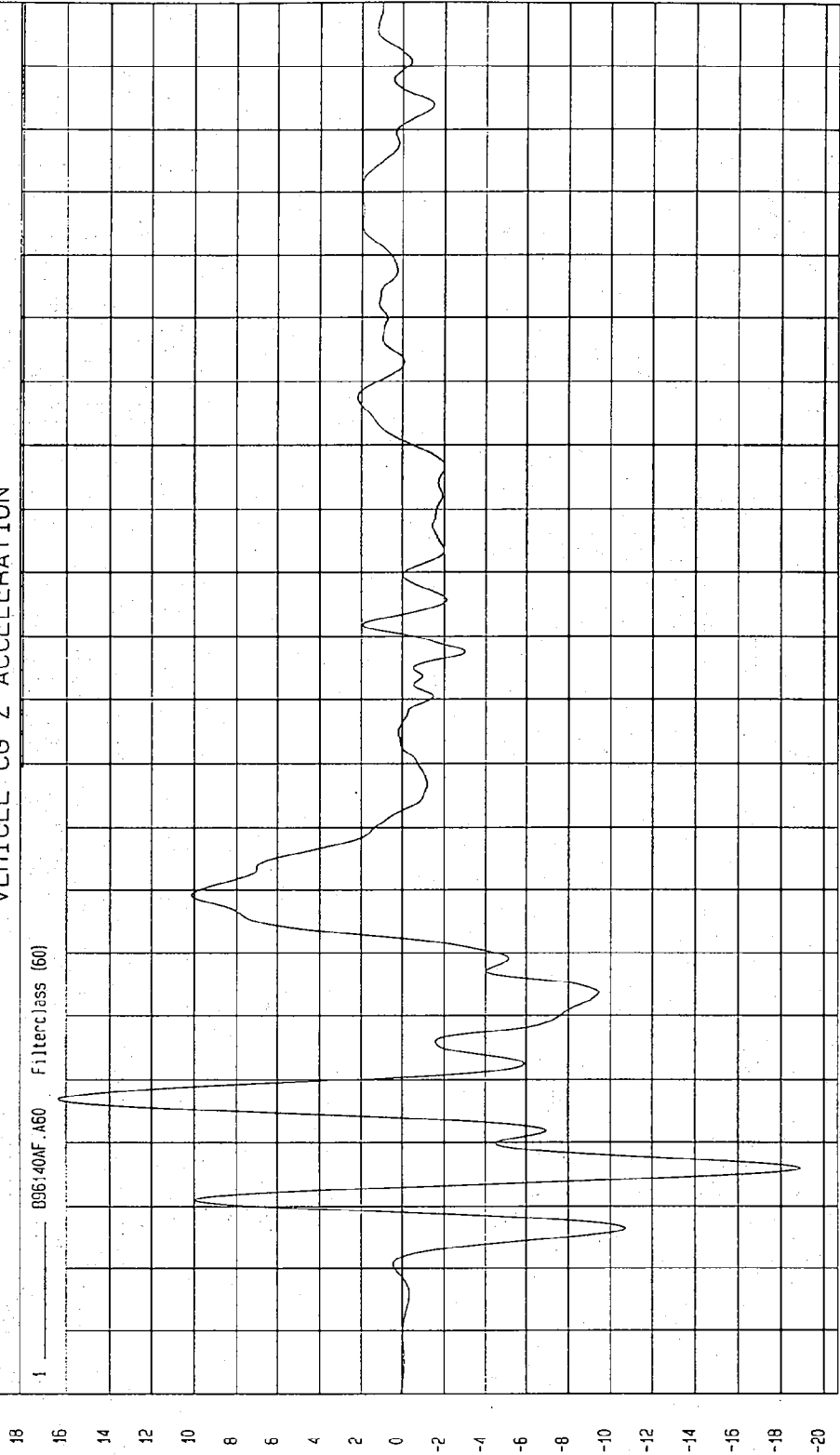
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -10.09 G'S at 16 msec

Maximum = 16.36 G'S at 27 msec

VEHICLE CG Z ACCELERATION



MCA Research
01-17-1997 14.45

TIME (SECONDS)

G'S

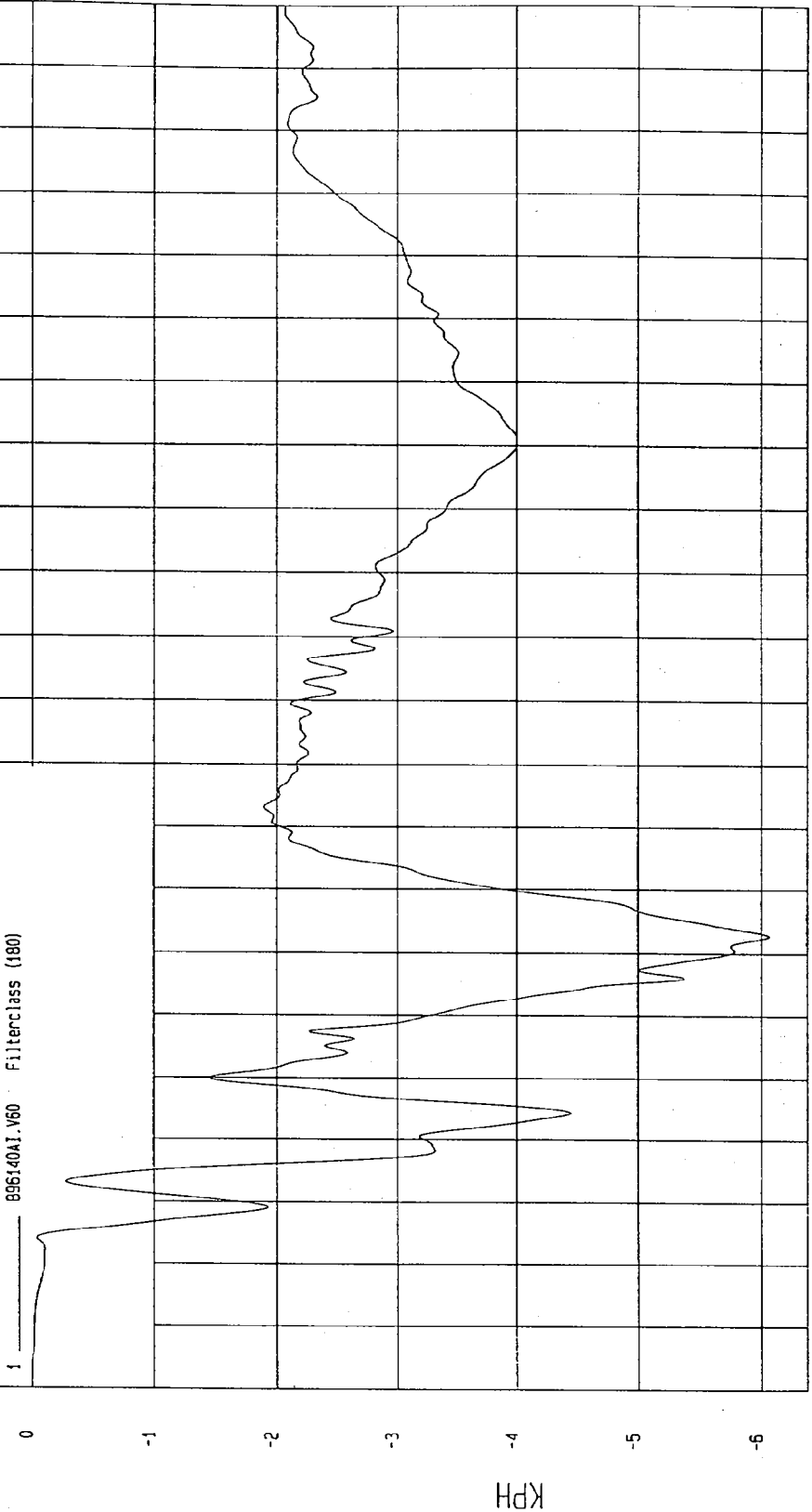
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -6.06 KPH at 53 msec Maximum = 1.32E-03 KPH at -19 msec

VEHICLE CG Z VELOCITY

1 896140A1.V60 Filterclass (180)



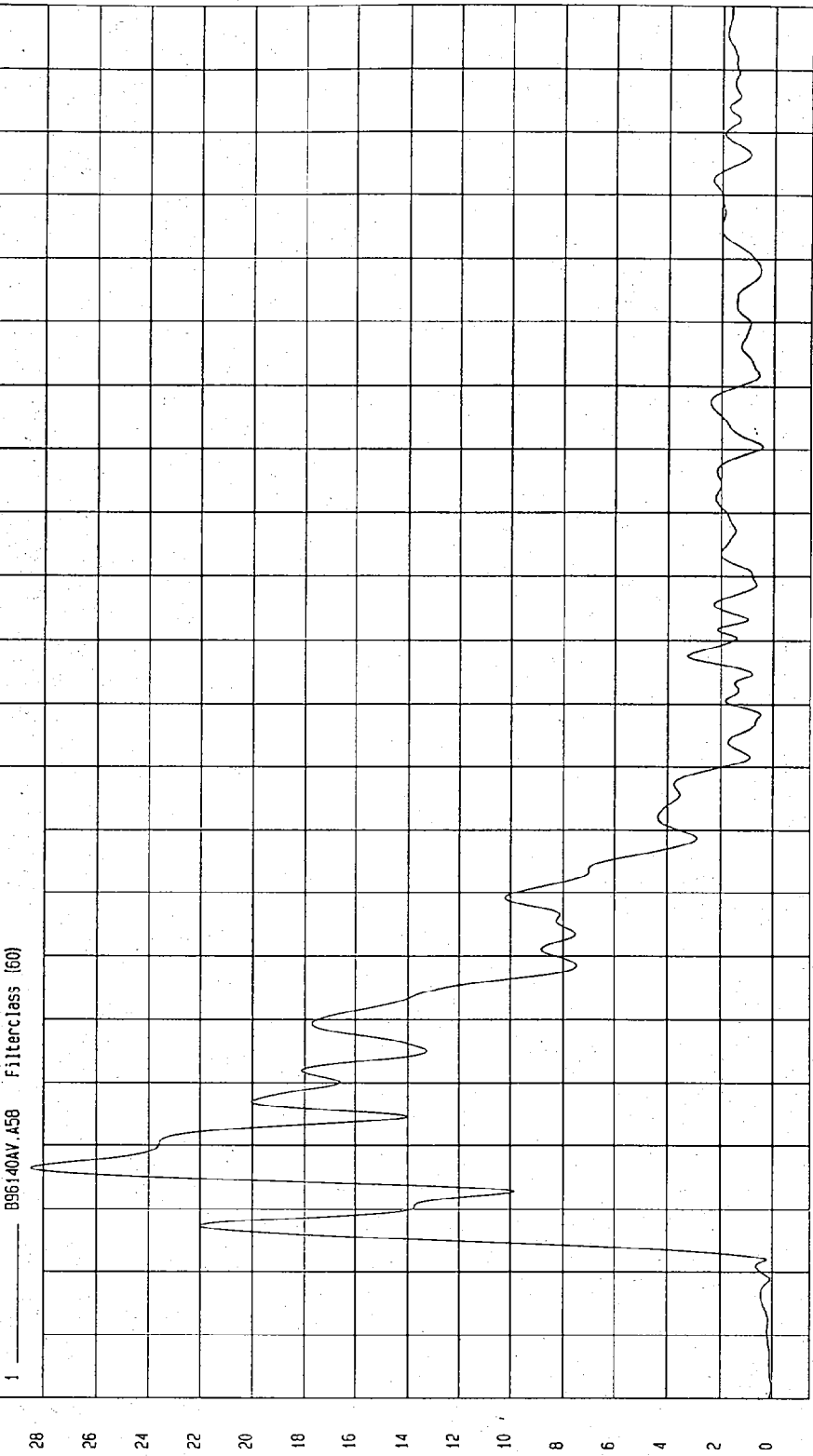
TIME Seconds
MCA Research
01-17-1997 14:57

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = .05 G'S at -18 msec Maximum = 28.48 G'S at 16 msec

VEHICLE CG RESULTANT ACCELERATION



MCA Research
01-1-1997 1:41

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

TEST DATE: 12-17-1996

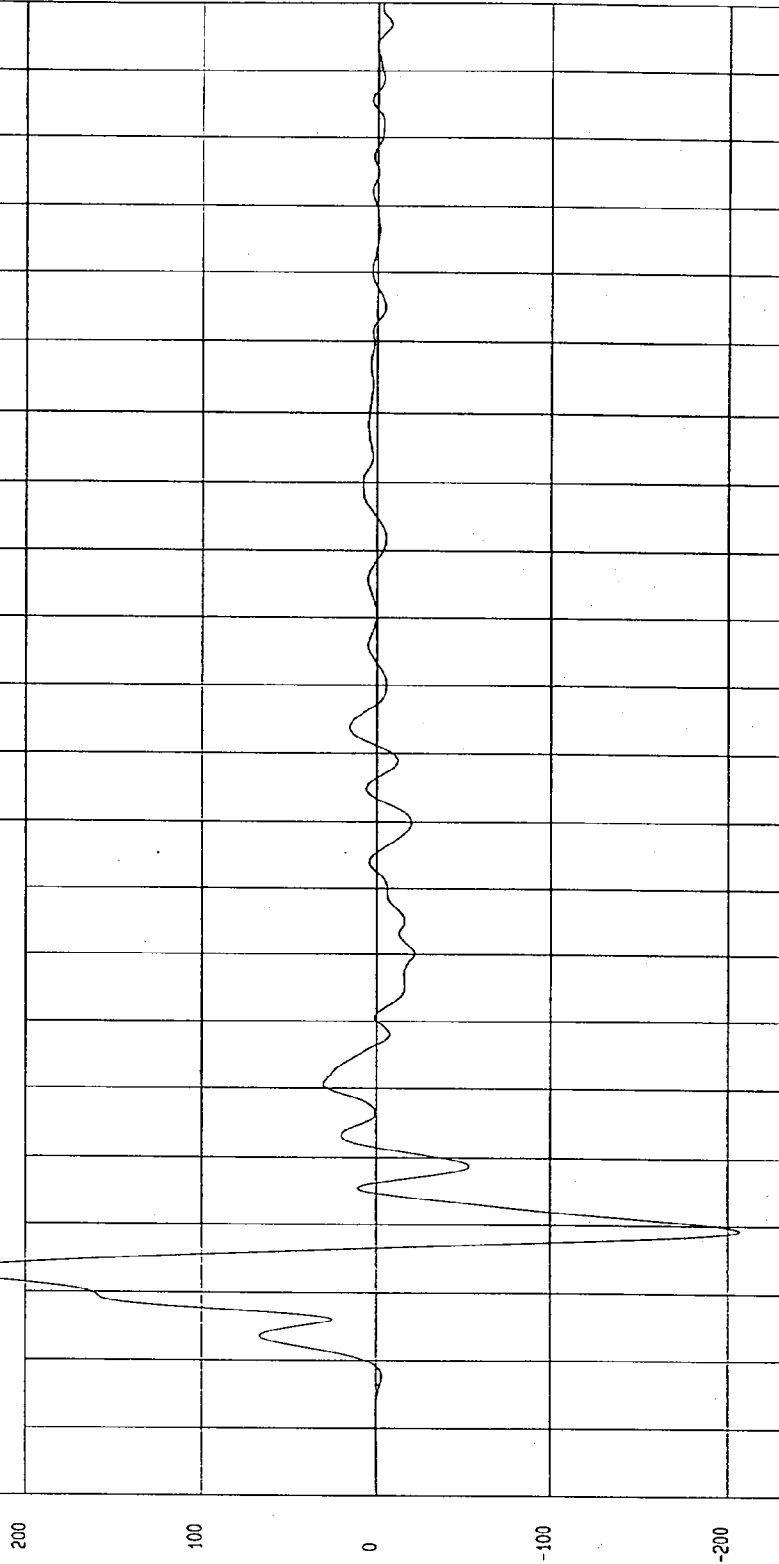
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -205.43 G'S at 19 msec

Maximum = 248.90 G'S at 13 msec

LEFT FRONT DOOR MIDREAR Y ACCELERATION

1 — 896140AF.A74 Filterclass (60)



TIME (SECONDS)

NCA Research
01-17-1997 14.46

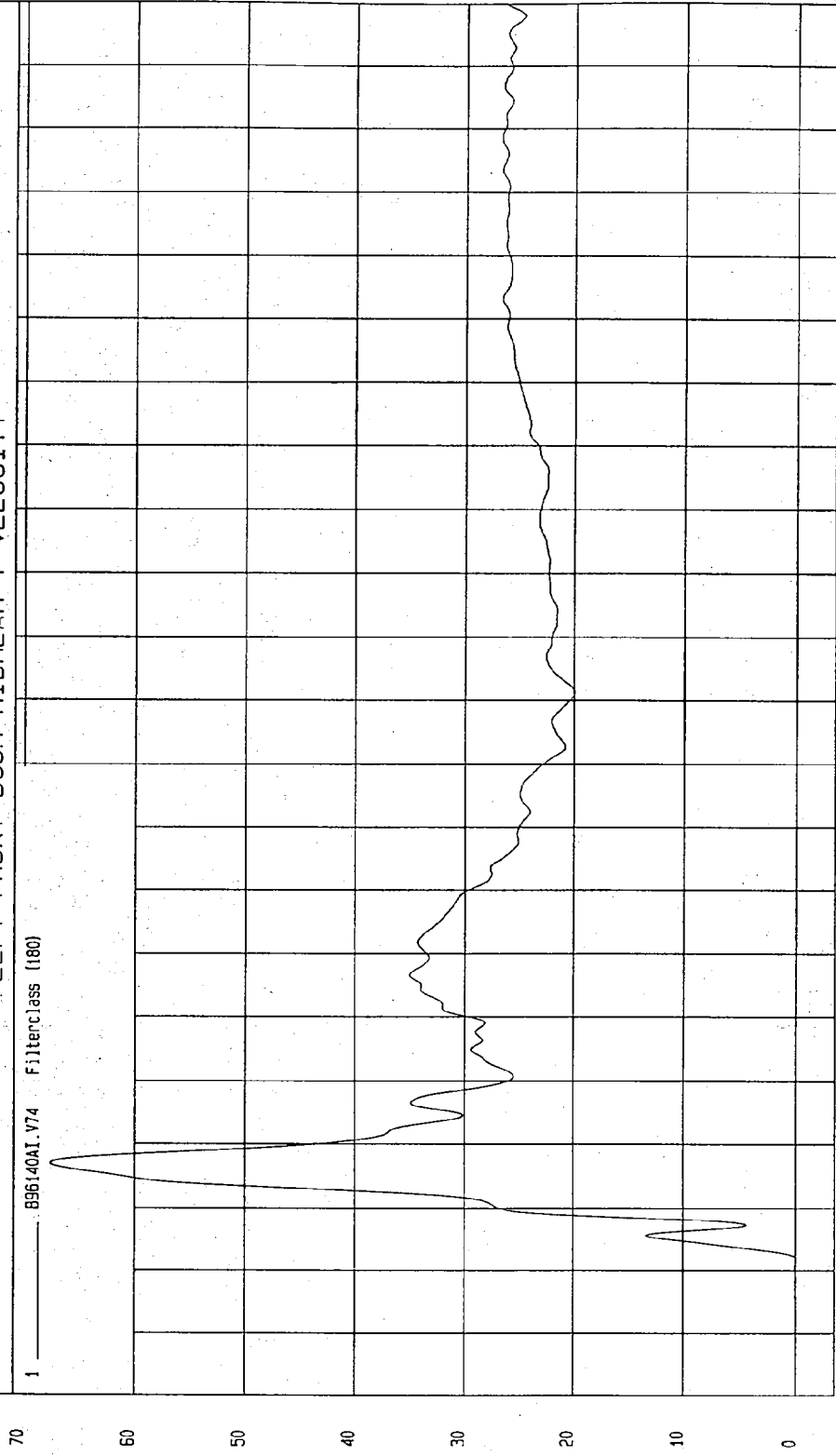
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -09 KPH at 2 msec Maximum = 67.53 KPH at 17 msec

LEFT FRONT DOOR MIDREAR Y VELOCITY

1 _____ B96140A1.V74 FilterClass (180)



MPA Research
01-17-1997 15.15

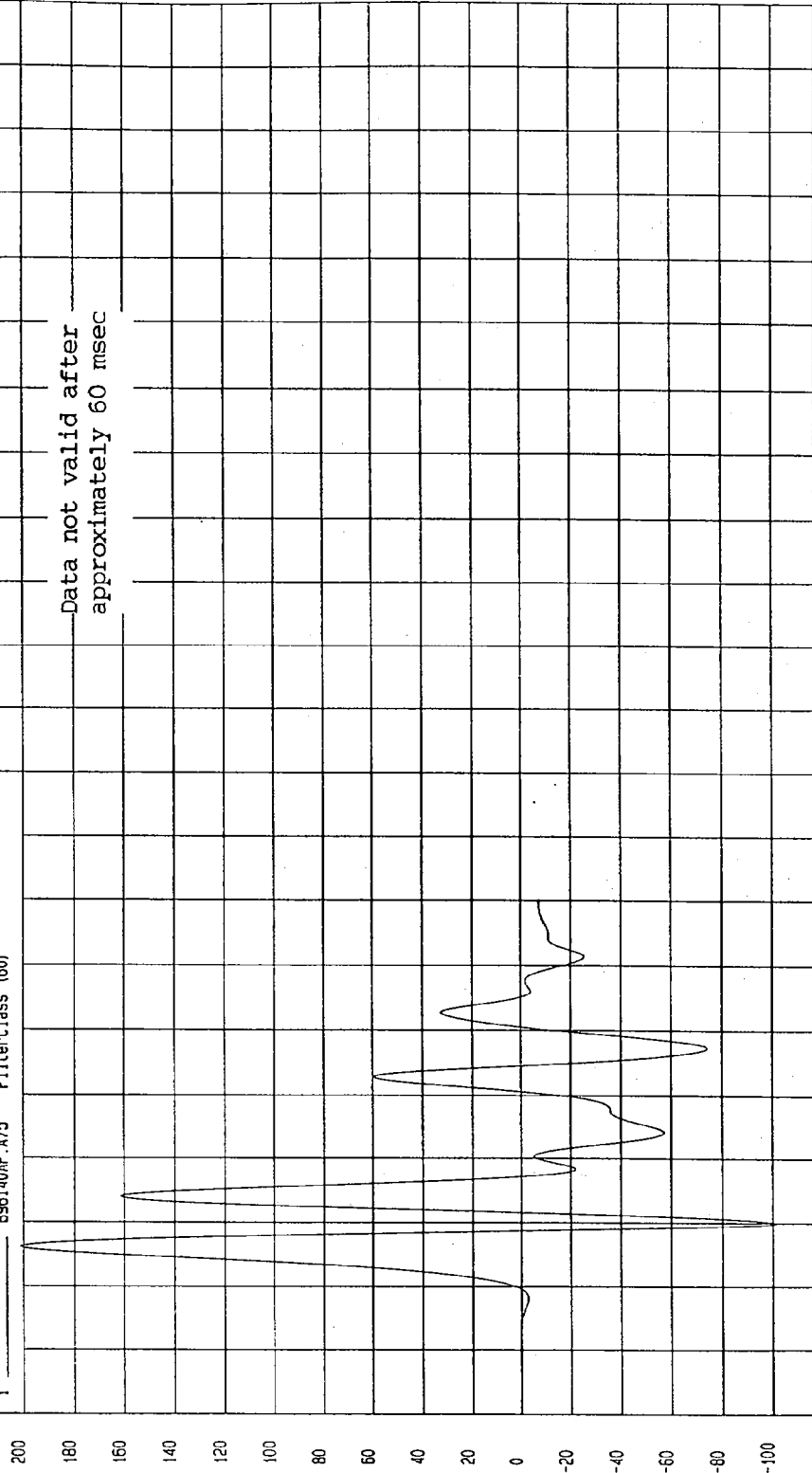
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -101.66 G'S at 10 msec Maximum = 201.33 G'S at 6 msec

LEFT FRONT DOOR CENTERLINE Y ACCELERATION

1 896140AF.A75 Filterclass (60)



TIME (SECONDS)

WGA Research
01-17-1997 15: 24

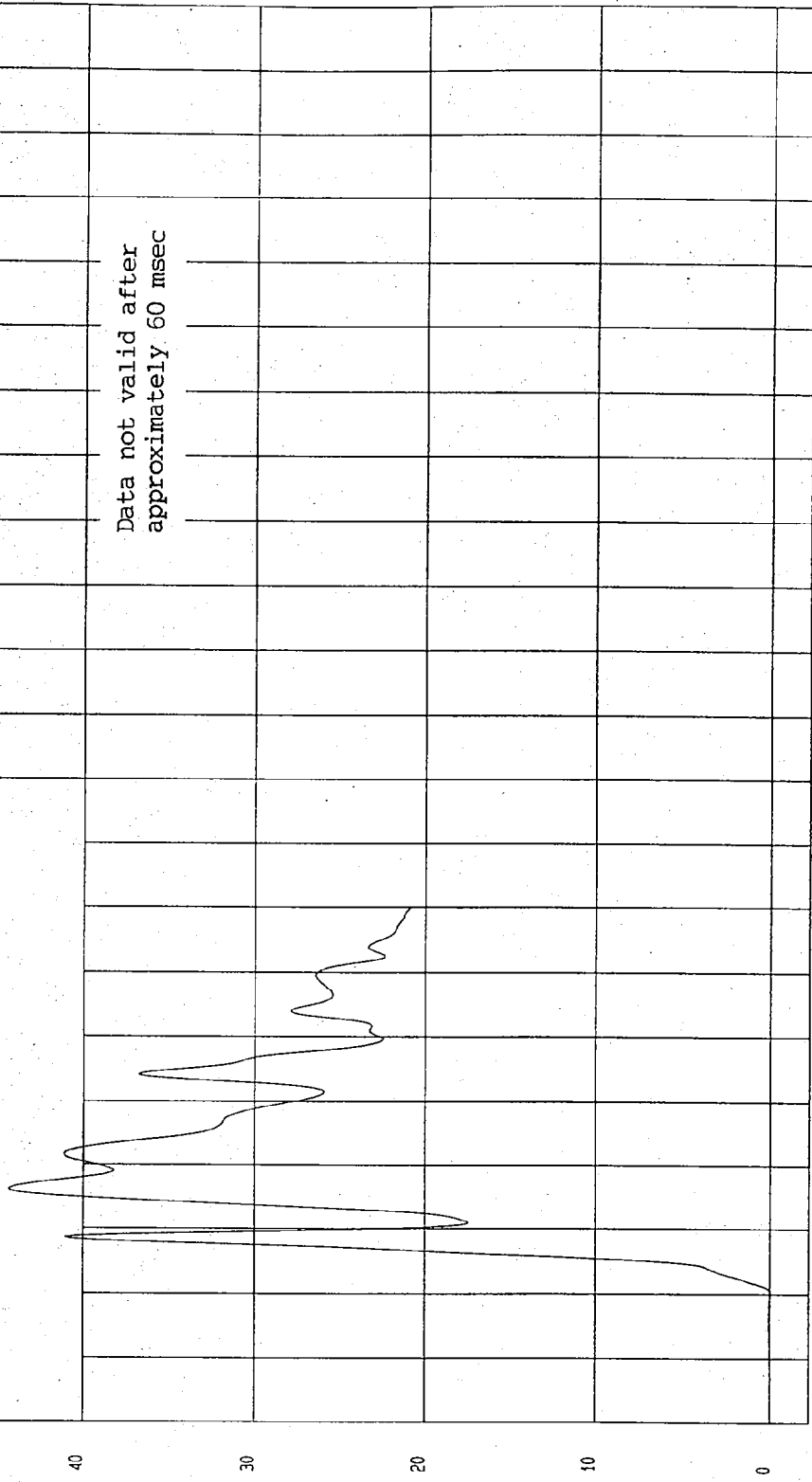
G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -02 KPH at 0 msec Maximum = 44.31 KPH at 16 msec

LEFT FRONT DOOR CENTERLINE Y VELOCITY

1 896140A1.V75 Filterclass (180)



61
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-02

TIME Seconds

MCA Research
01-17-1997 15:24

LEFT FRONT DOOR UPPER CENTERLINE Y ACCELERATION

NO VALID DATA COLLECTED



TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

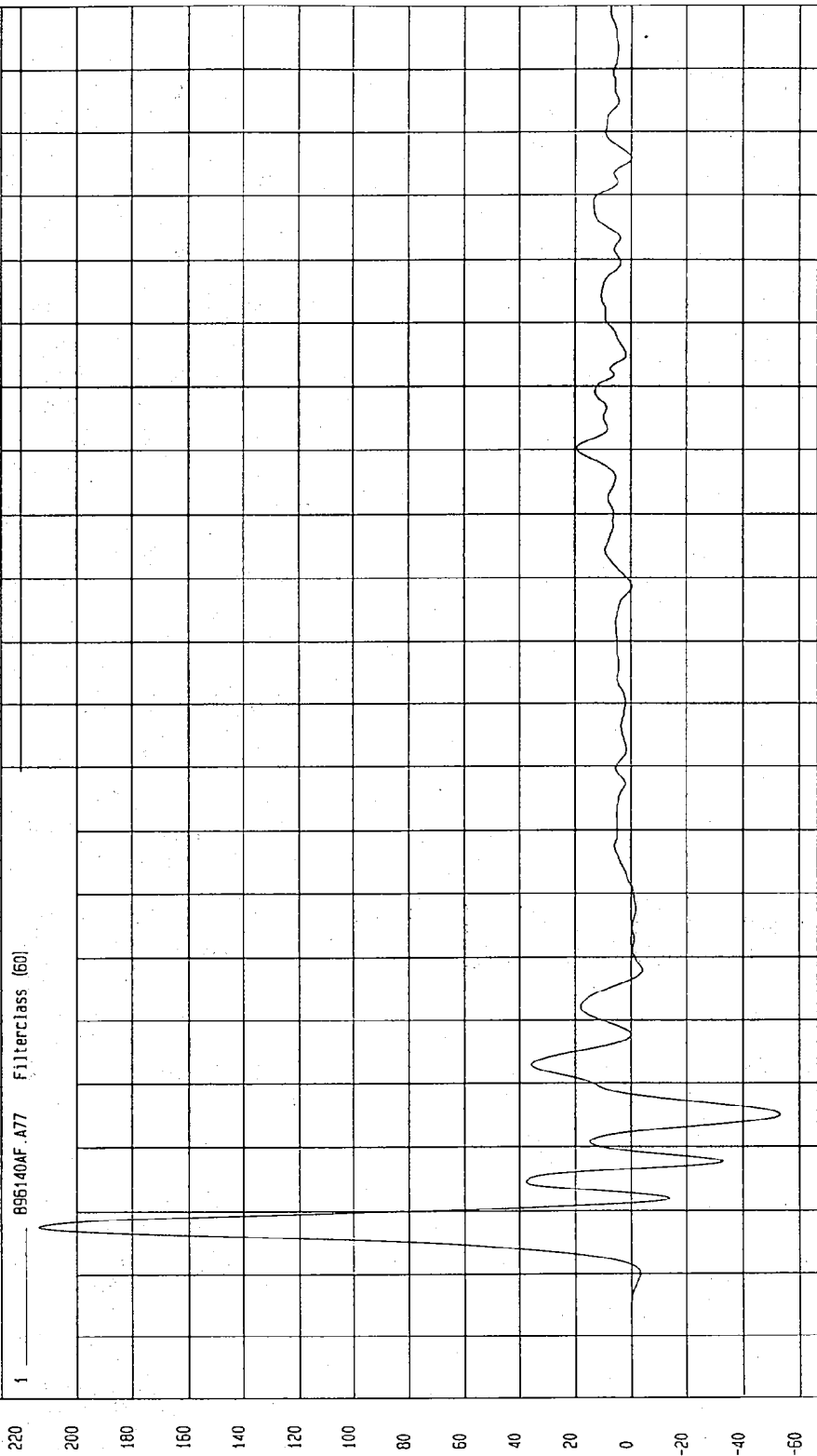
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -53.14 G'S at 25 msec

Maximum = 213.71 G'S at 8 msec

LEFT REAR DOOR MIDREAR Y ACCELERATION

1 896140AF.A77 Filterclass (60)



MCA Research
01-1-1997 14:46

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

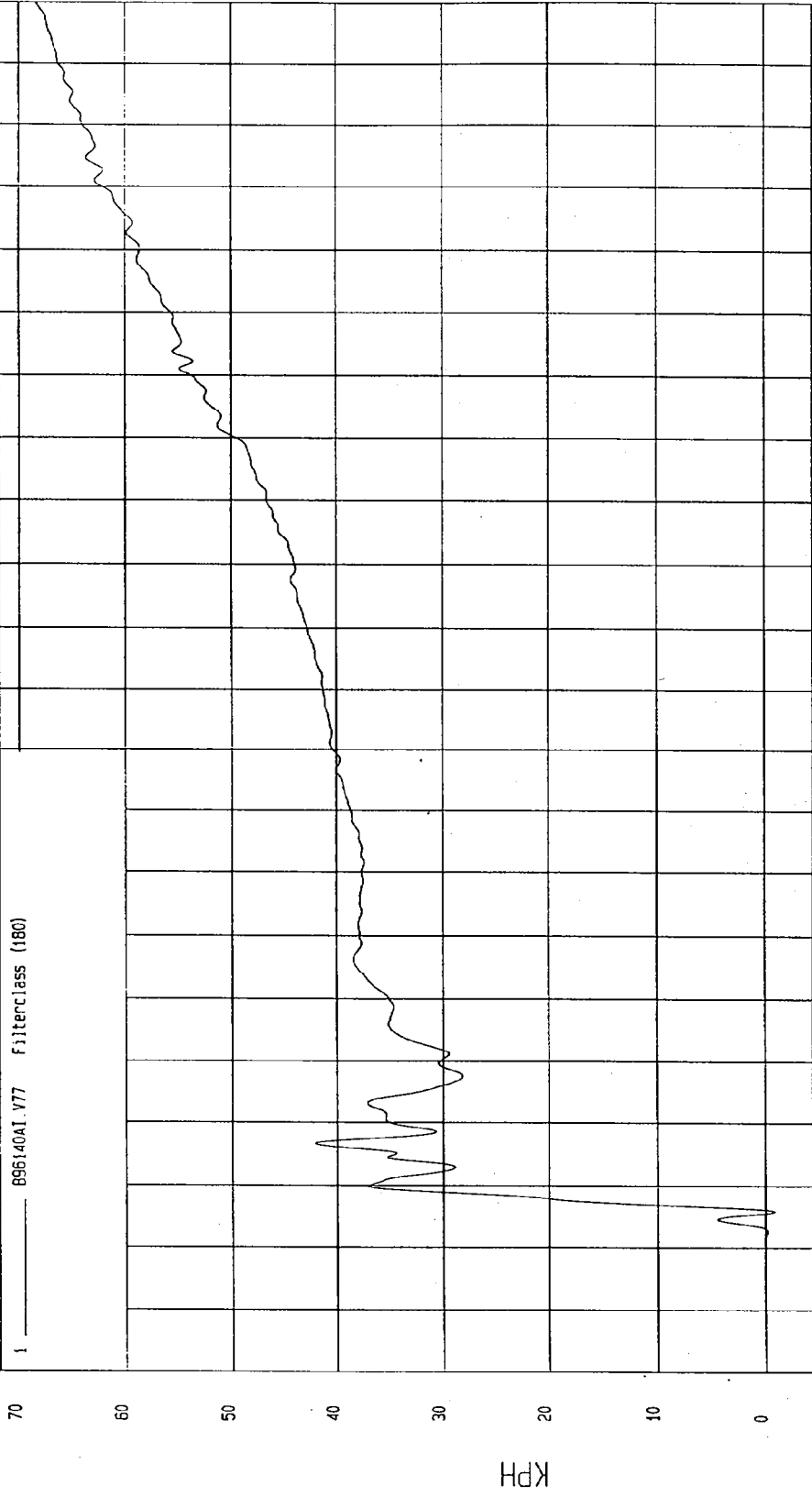
TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -94 KPH at 6 msec Maximum = 68.41 KPH at 200 msec

LEFT REAR DOOR MIDREAR Y VELOCITY

1 ——— 896140A1.V77 Filterclass (180)



TIME Seconds

MOA Research
01-17-1997 15: 16

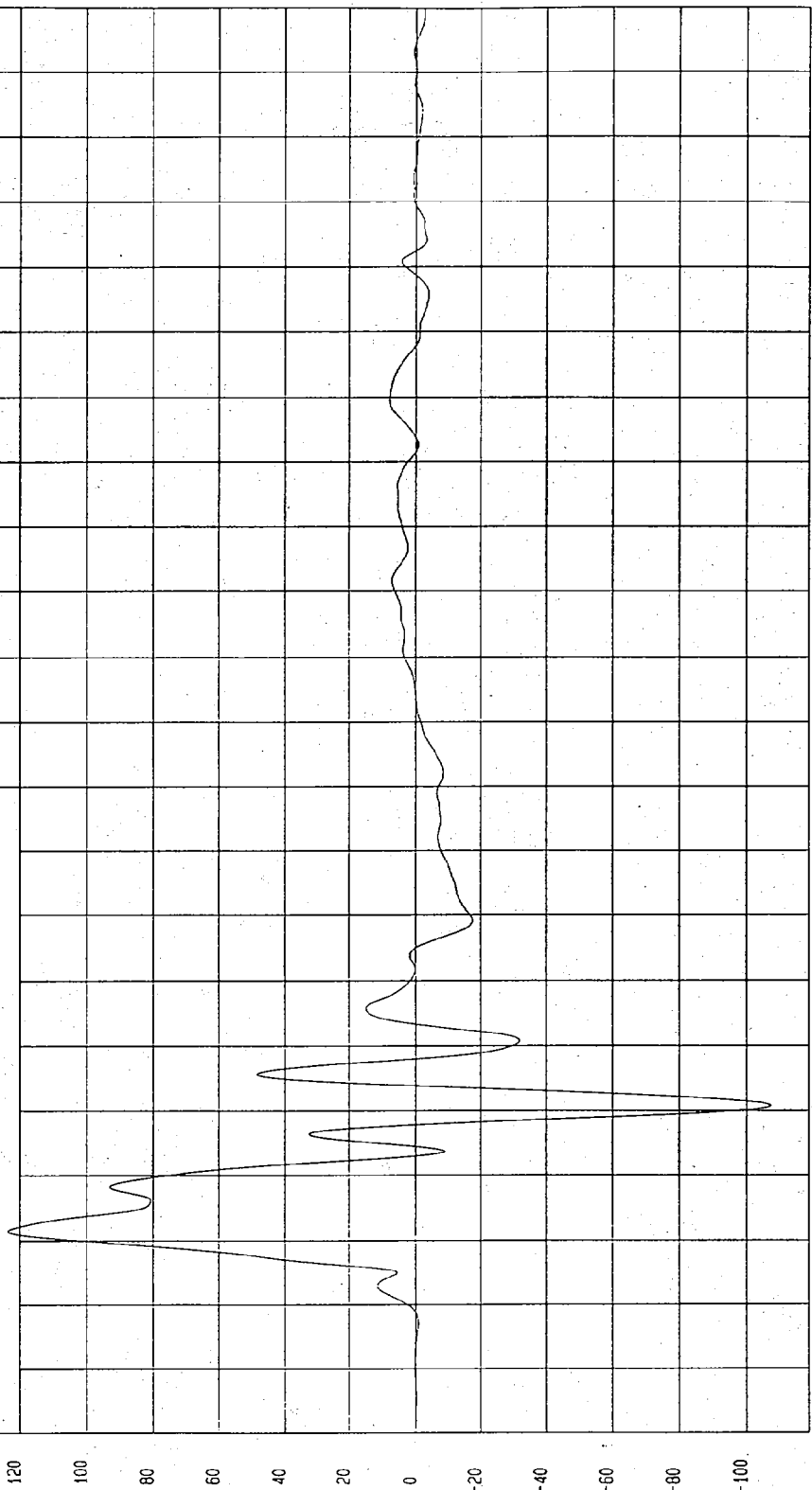
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -107.11 G'S at 31 msec Maximum = 123.61 G'S at 12 msec

LEFT REAR DOOR UPPER CENTERLINE Y ACCELERATION

1 896140AF.A78 FilterClass (60)



TIME (SECONDS) NCA Research 01-17-1997 1A: 47

G.S

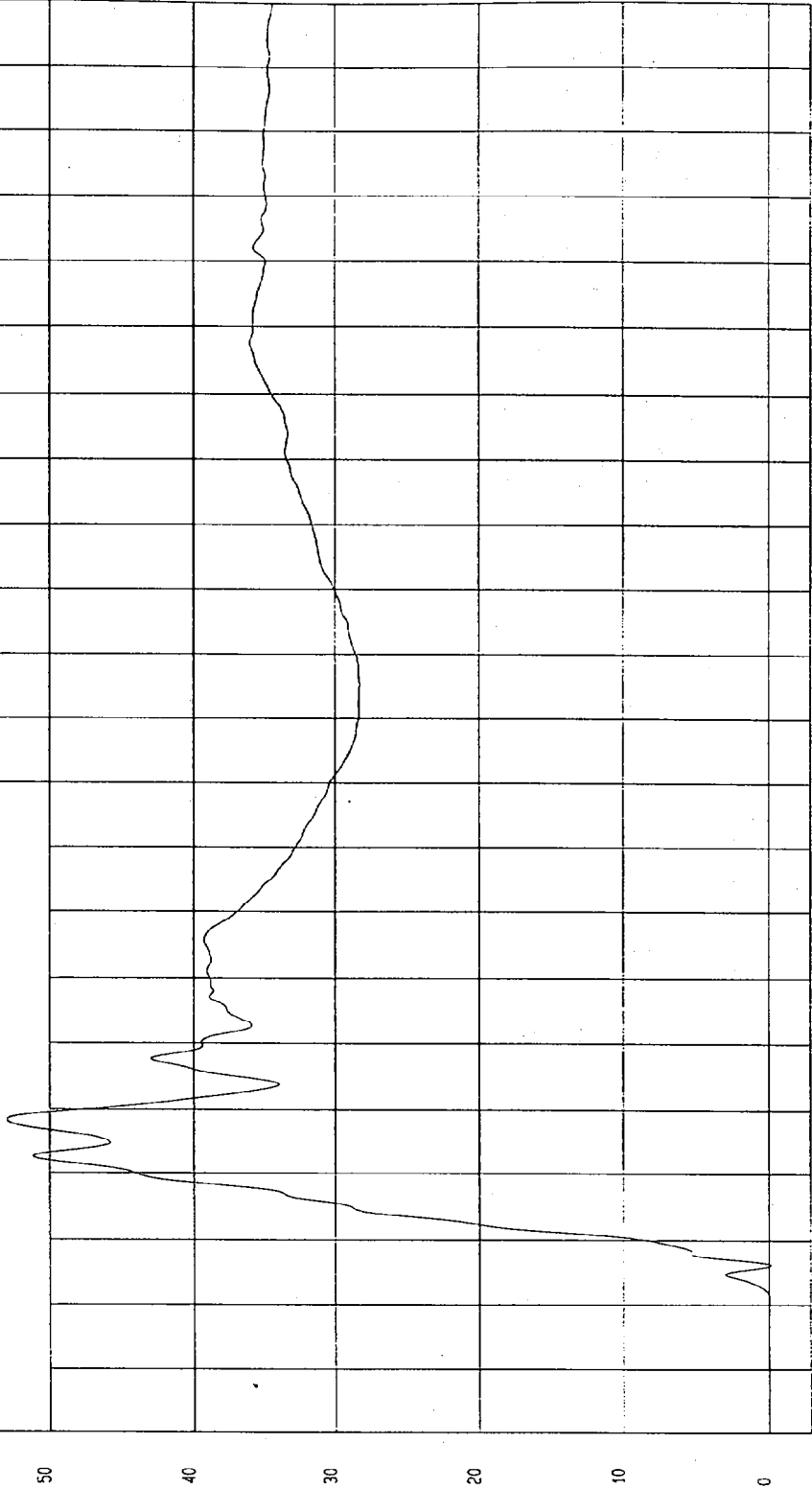
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -18 KPH at 6 msec Maximum = 52.95 KPH at 28 msec

LEFT REAR DOOR UPPER CENTERLINE Y VELOCITY

1 895140A1.V78 Filterclass (180)



NGA Research
01-17-1997 15:16

TIME Seconds

KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

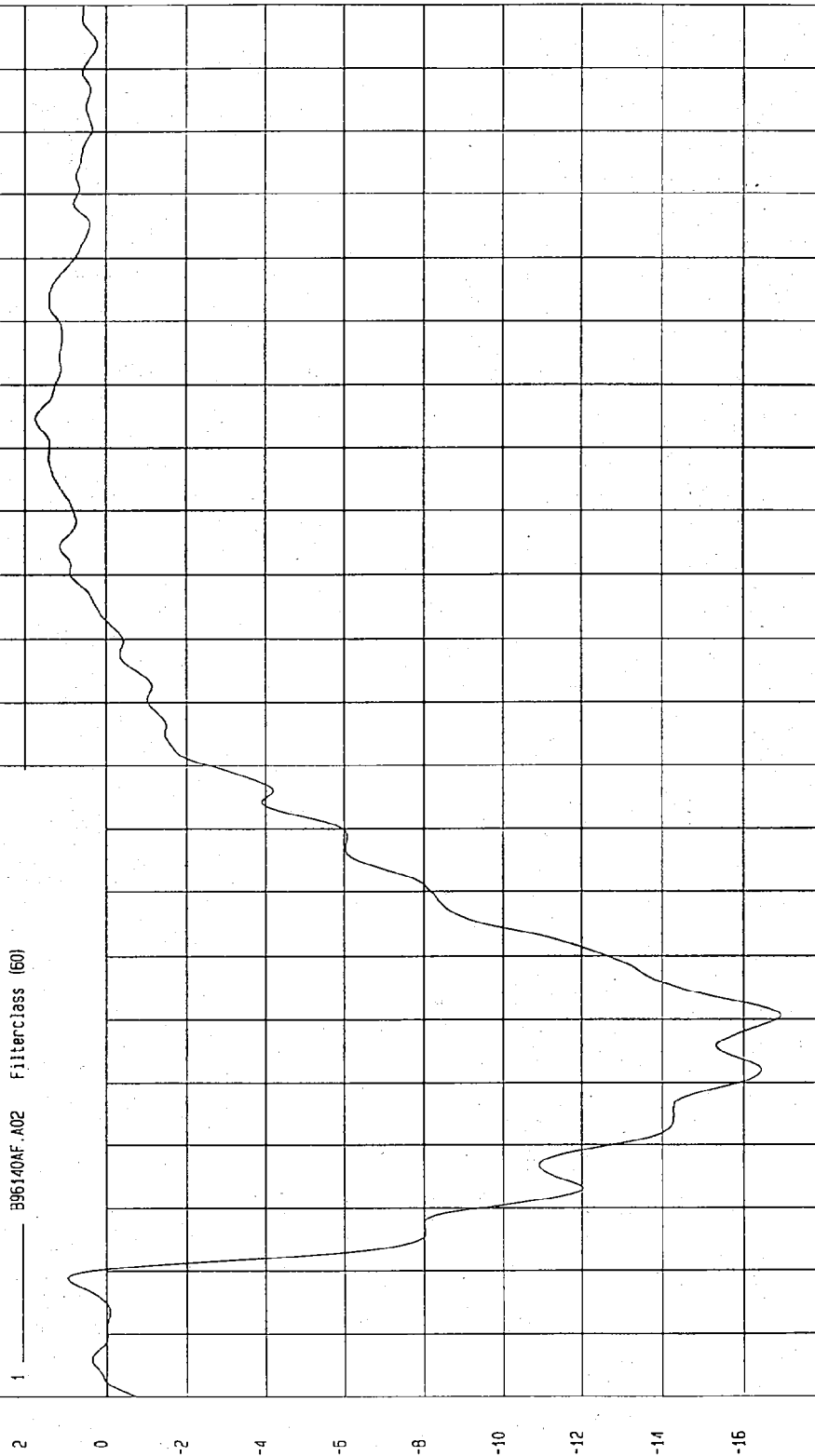
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -15.89 G'S at 41 msec

Maximum = 1.74 G'S at 135 msec

MOVING BARRIER CG X ACCELERATION

1 ——— B96140AF.A02 Filterclass (60)



MGA Research
01-17-1997 14:45

TIME (SECONDS)

G'S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

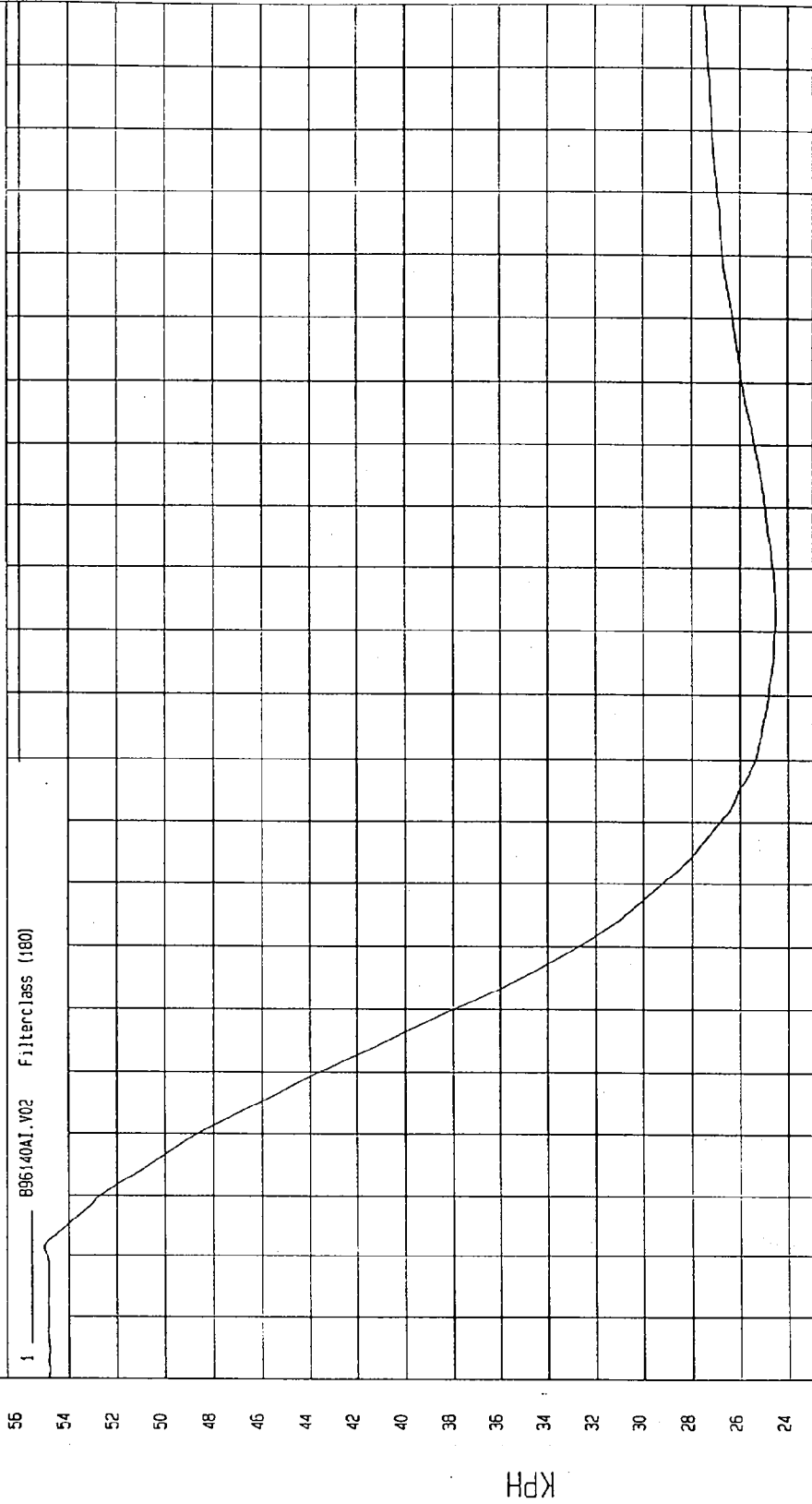
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 24.50 KPH at 103 msec

Maximum = 55.00 KPH at 1 msec

MOVING BARRIER CG X VELOCITY

1 B96140A1.V02 Filterclass (180)



TIME Seconds

MCA Research
01-17-1997 14:57

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

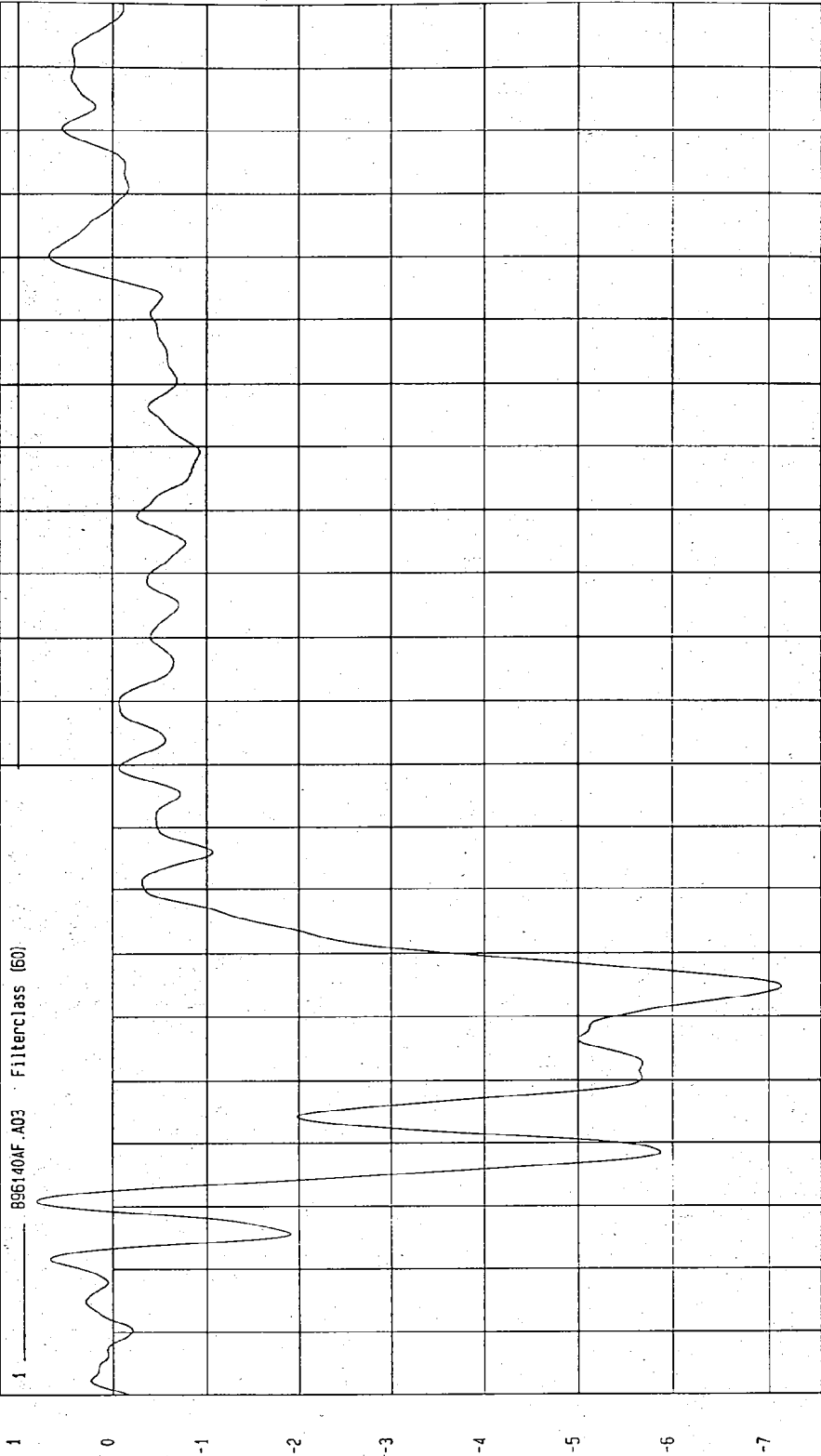
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -7.13 G'S at 45 msec

Maximum = .80 G'S at 11 msec

MOVING BARRIER CG Y ACCELERATION

1 896140AF.A03 FilterClass (60)



MCA Research
01-17-1997 14.45

TIME (SECONDS)

G.S

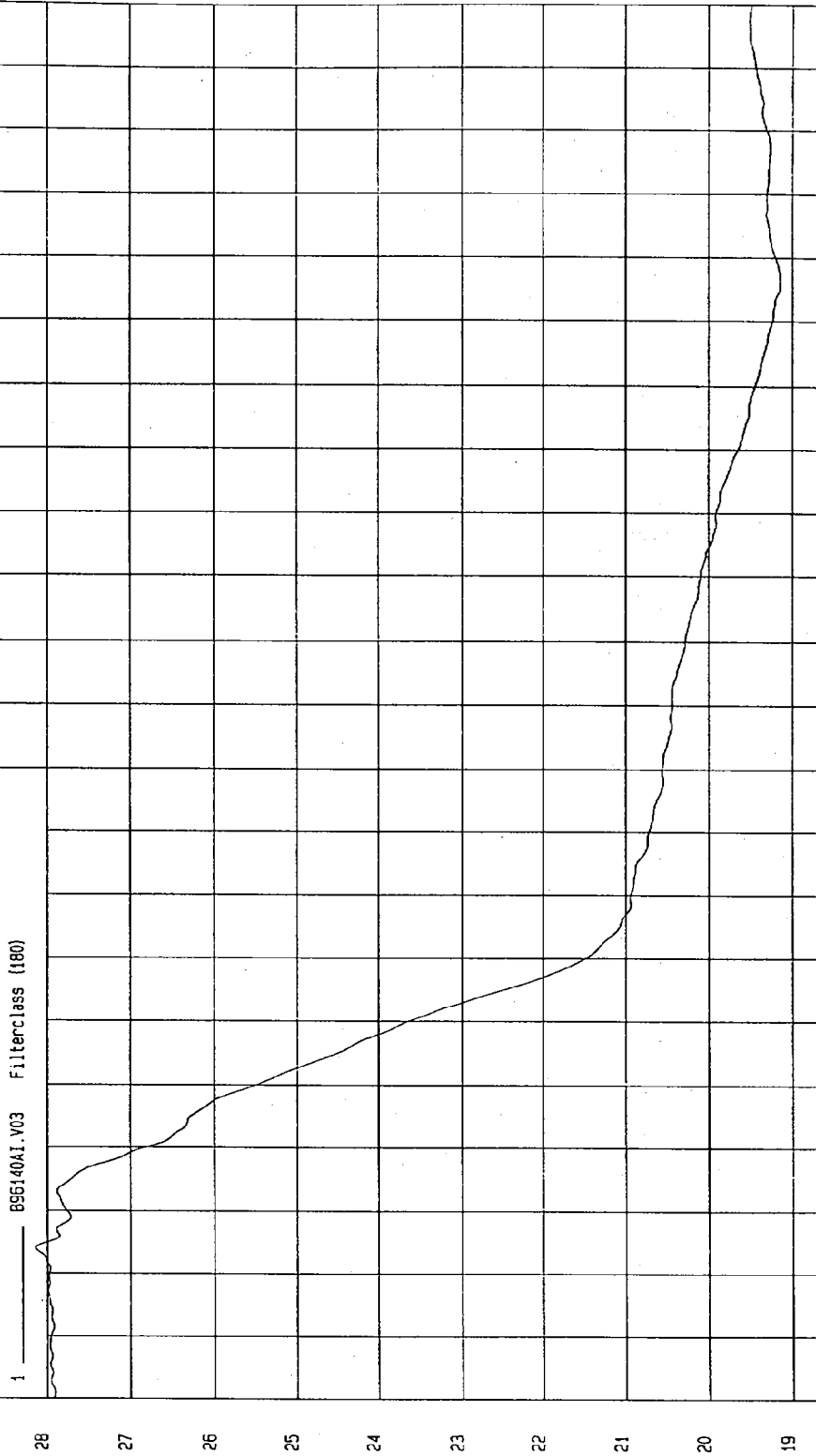
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 19.14 KPH at 156 msec Maximum = 28.14 KPH at 4 msec

MOVING BARRIER CG Y VELOCITY

1 895140A1.V03 Filterclass (180)



TIME Seconds

MGA Research
01-17-1997 14:57

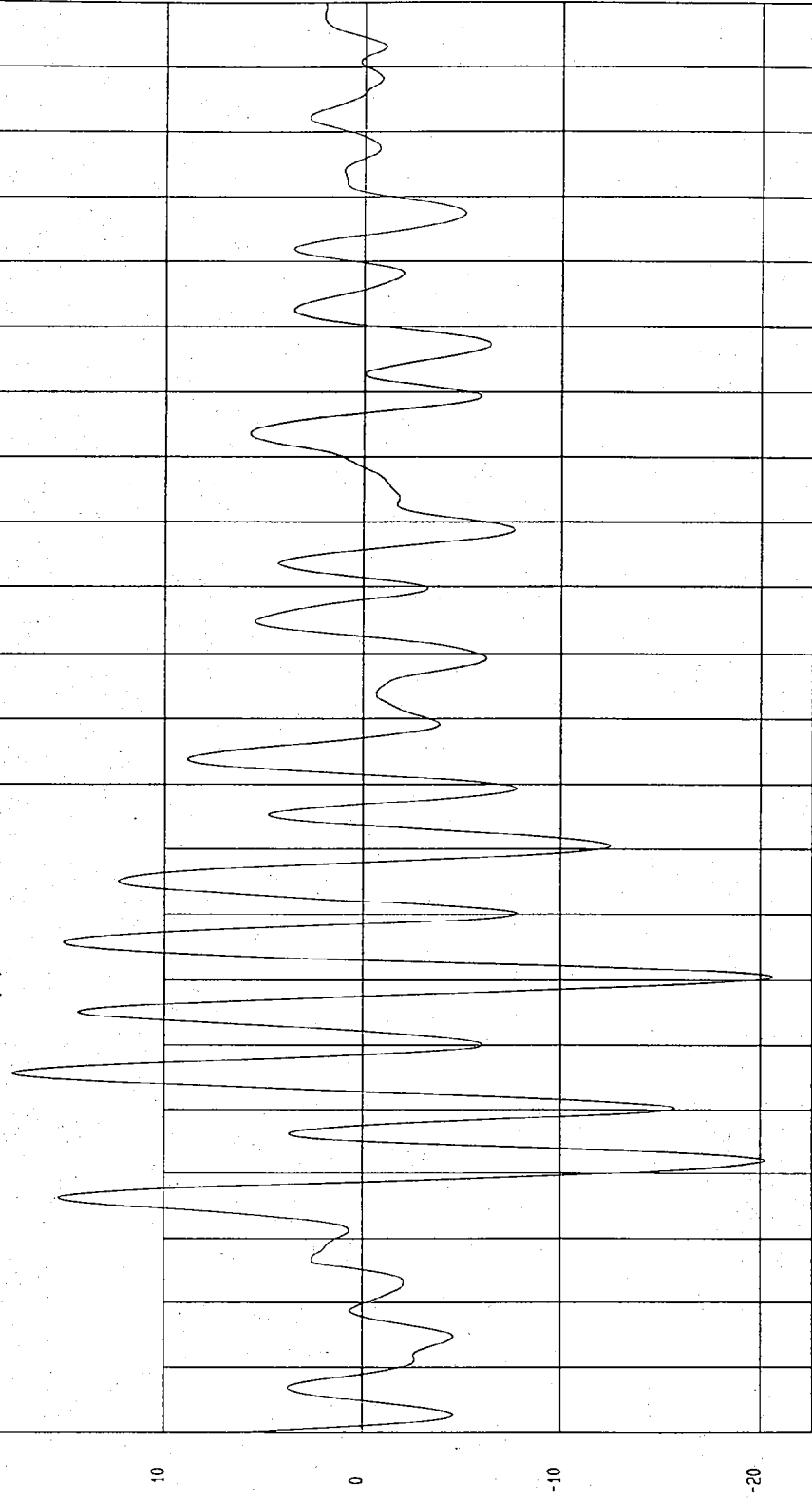
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -20.59 G'S at 50 msec Maximum = 17.62 G'S at 36 msec

MOVING BARRIER CG Z ACCELERATION

1 ——— 895140AF.A04 Filterclass (50)



MGA Research
01-17-1997 14:46

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

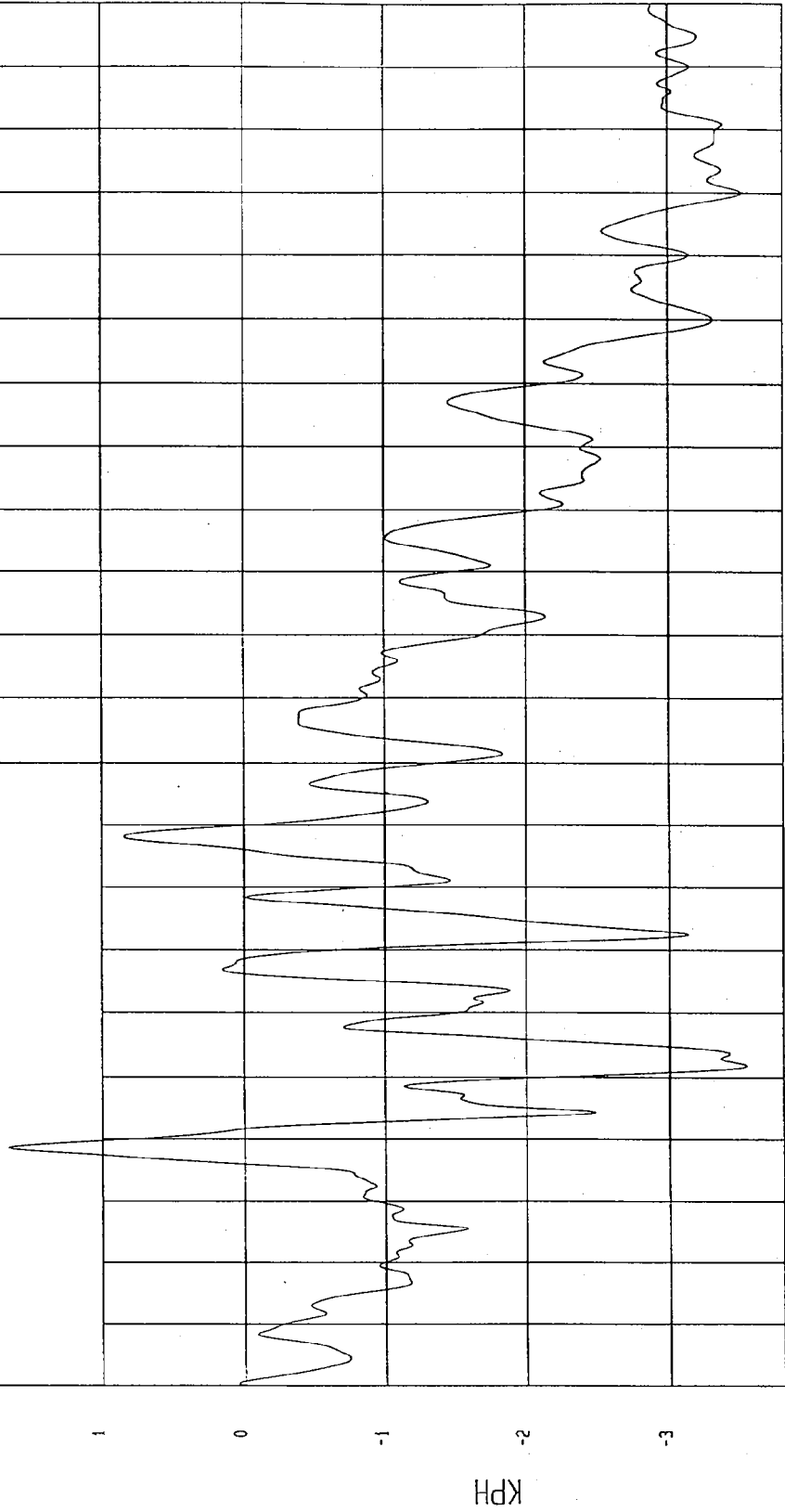
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.53 KPH at 32 msec

Maximum = 1.66 KPH at 19 msec

MOVING BARRIER CG Z VELOCITY

1 ——— 896140A1.V04 Filterclass (180)



NGA Research
01-17-1997 14:51

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH. 61.5 KPH

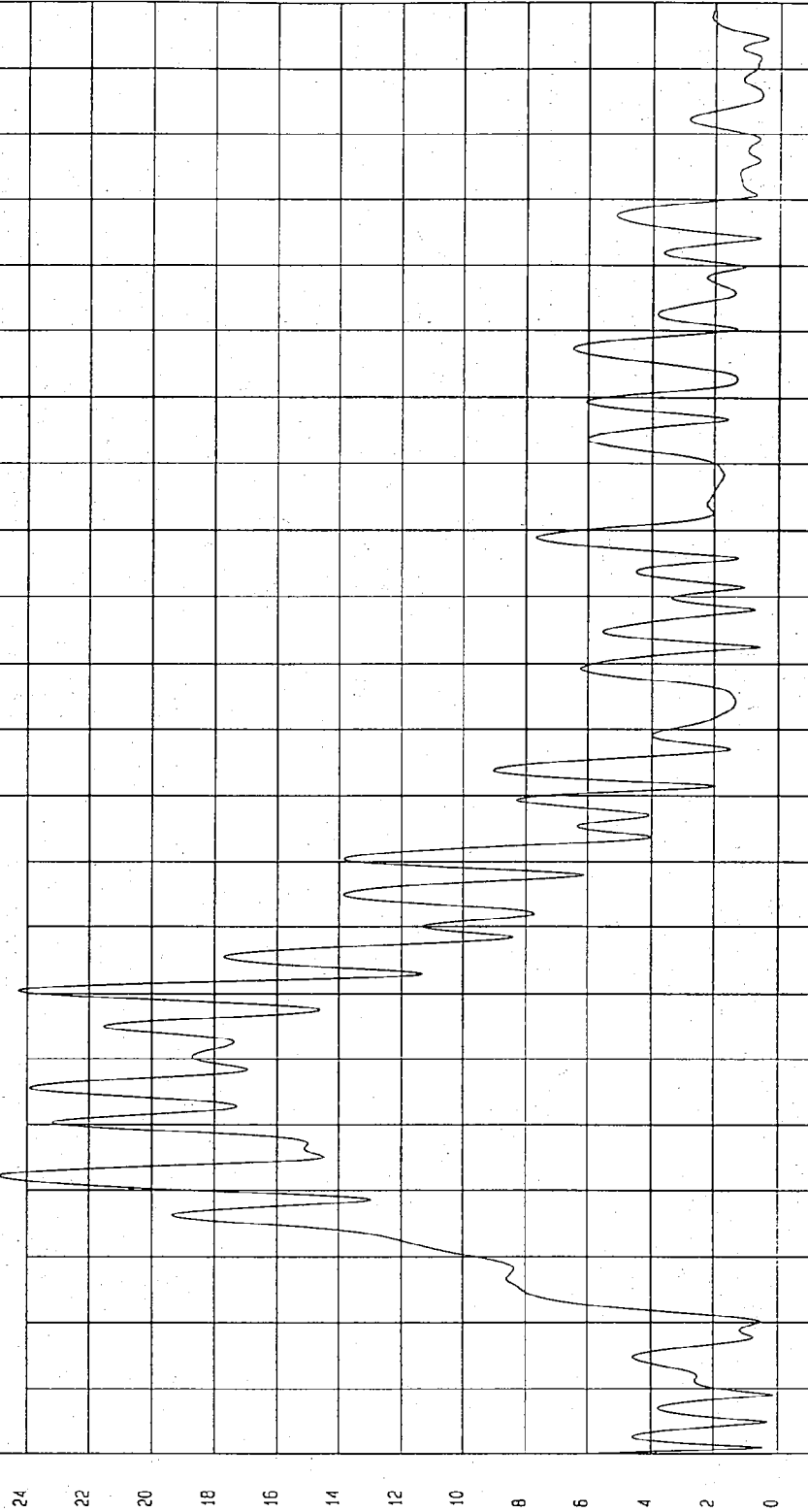
Minimum = .12 G'S at -11 msec

Maximum = 24.87 G'S at 22 msec

MOVING BARRIER CG RESULTANT ACCELERATION

26

1 896140AV A02 Filterclass (50)



MCA Research
01-17-1997 (A.A. A)

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

TEST DATE: 12-17-1996

Speed: 38.2 MPH 61.5 KPH

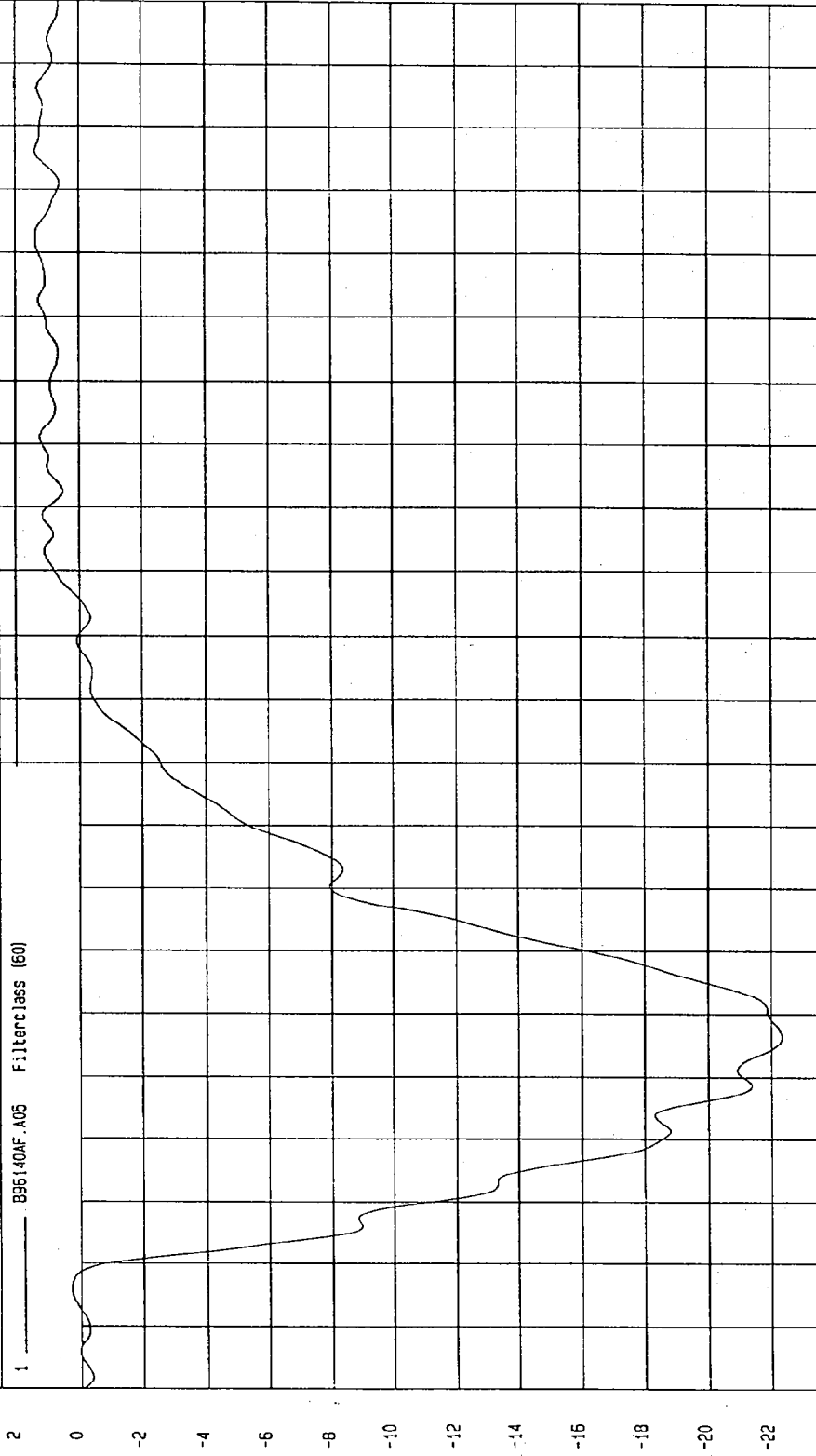
COMPONENT: 1997 DODGE INTREPID (MV0302)

Maximum = 1.37 G'S at 176 msec

Minimum = -22.33 G'S at 36 msec

MOVING BARRIER REAR AXLE X ACCELERATION

1 896140AF.A05 Filterclass (60)



TIME (SECONDS)

MSA Research
01-21-1997 13:42

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

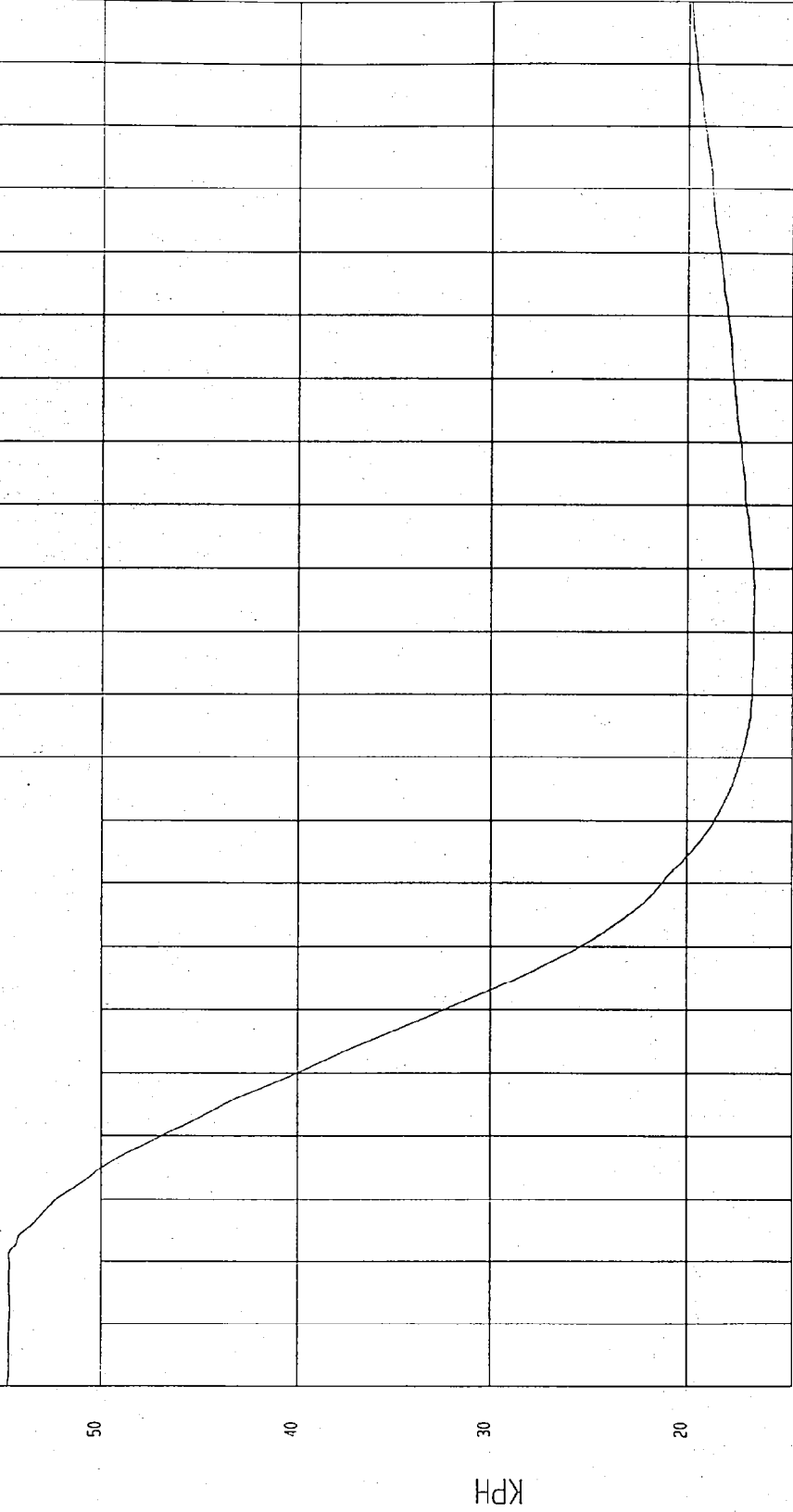
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 16.64 KPH at 107 msec

Maximum = 54.80 KPH at -20 msec

MOVING BARRIER REAR AXLE X VELOCITY

1 — 896140A1.V05 Filterclass (180)



MOA Research
01-17-1997 15:08

TIME Seconds

KPH

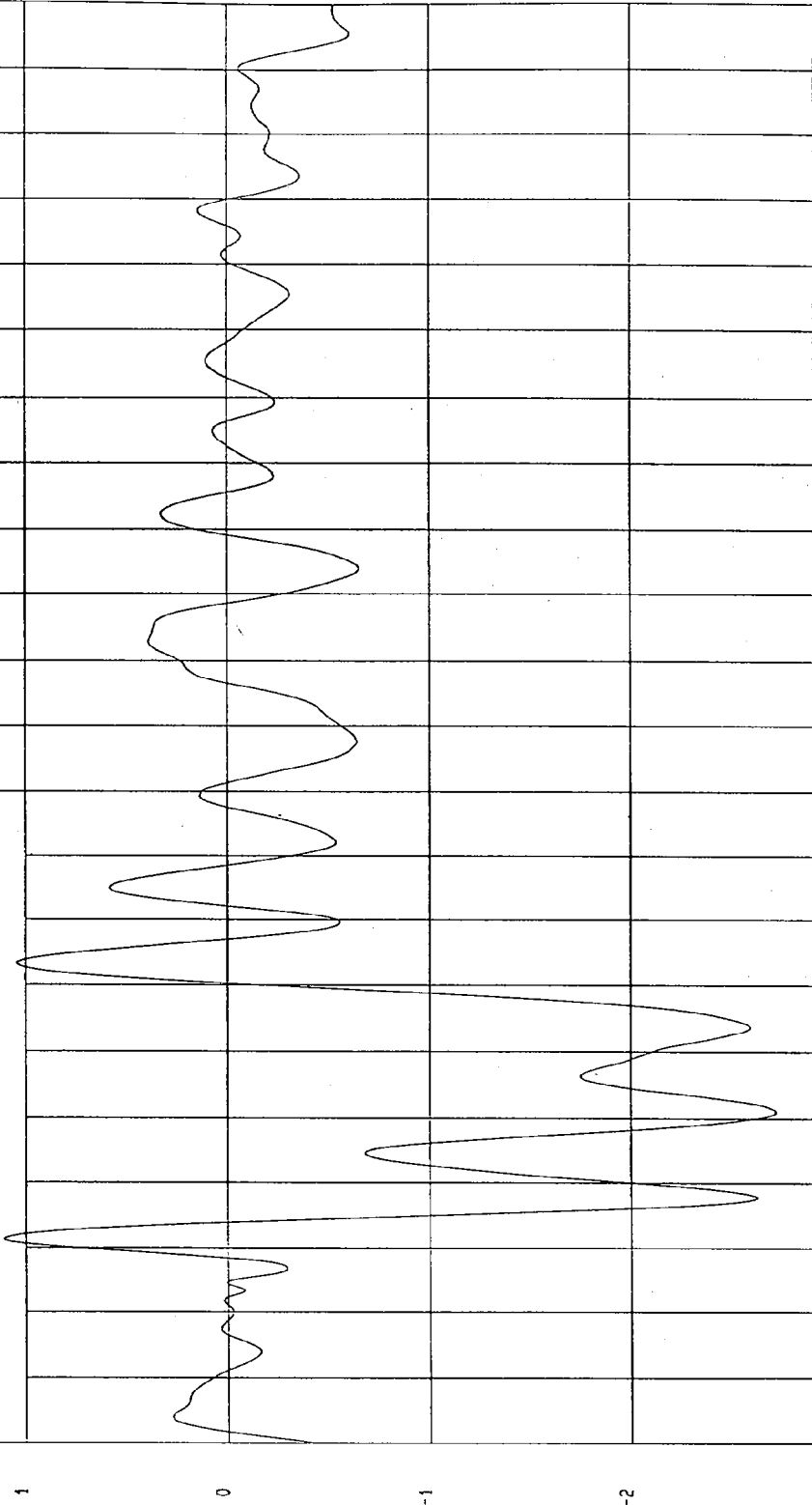
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -2.71 G'S at 31 msec Maximum = 1.11 G'S at 11 msec

MOVING BARRIER REAR AXLE Y ACCELERATION

1 B96140AF.A06 Filterclass (60)



19
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-02

TIME (SECONDS)

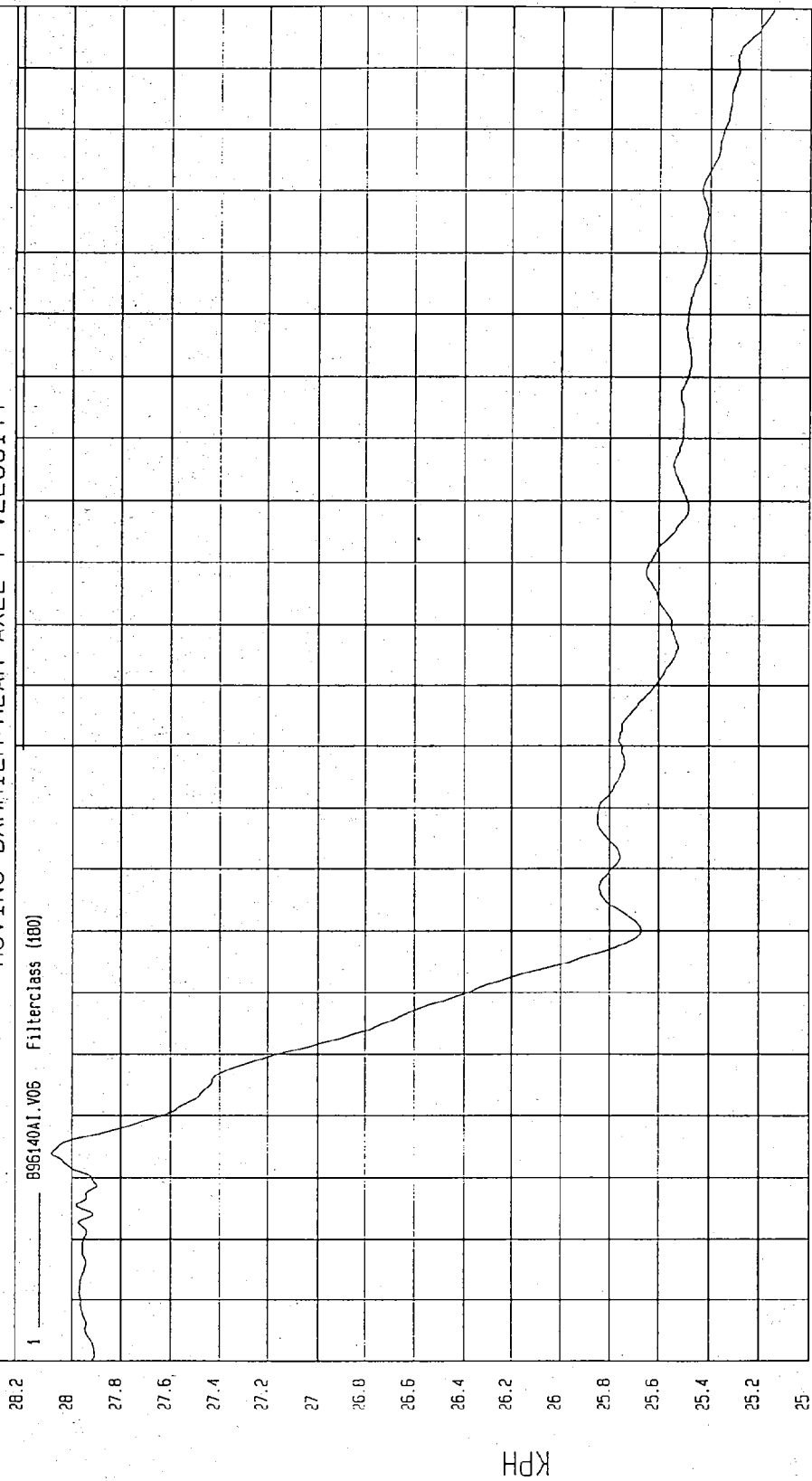
MCA Research
01-17-1997 14:45

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 25.14 KPH at 200 msec Maximum = 28.08 KPH at 14 msec

MOVING BARRIER REAR AXLE Y VELOCITY



MCA Research
01-17-1997 14:57

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

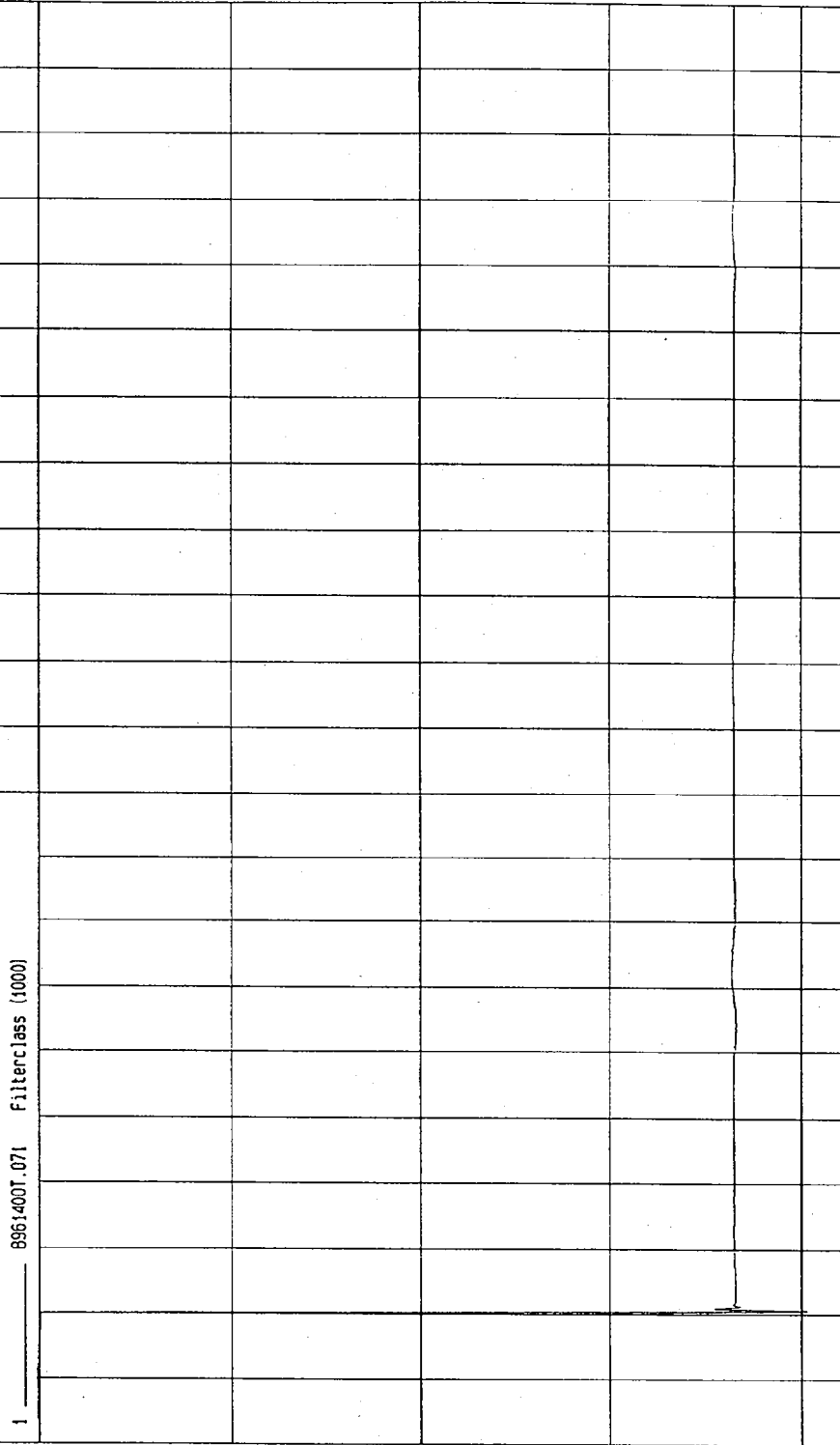
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -4.02 VOLTS at 0 msec

Maximum = 8.30E-03 VOLTS at -10 msec

LEFT BARRIER CONTACT

1 — 8961400T.071 Filterclass (1000)



TIME (SECONDS)

MGA Research
01-17-1997 14:47

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

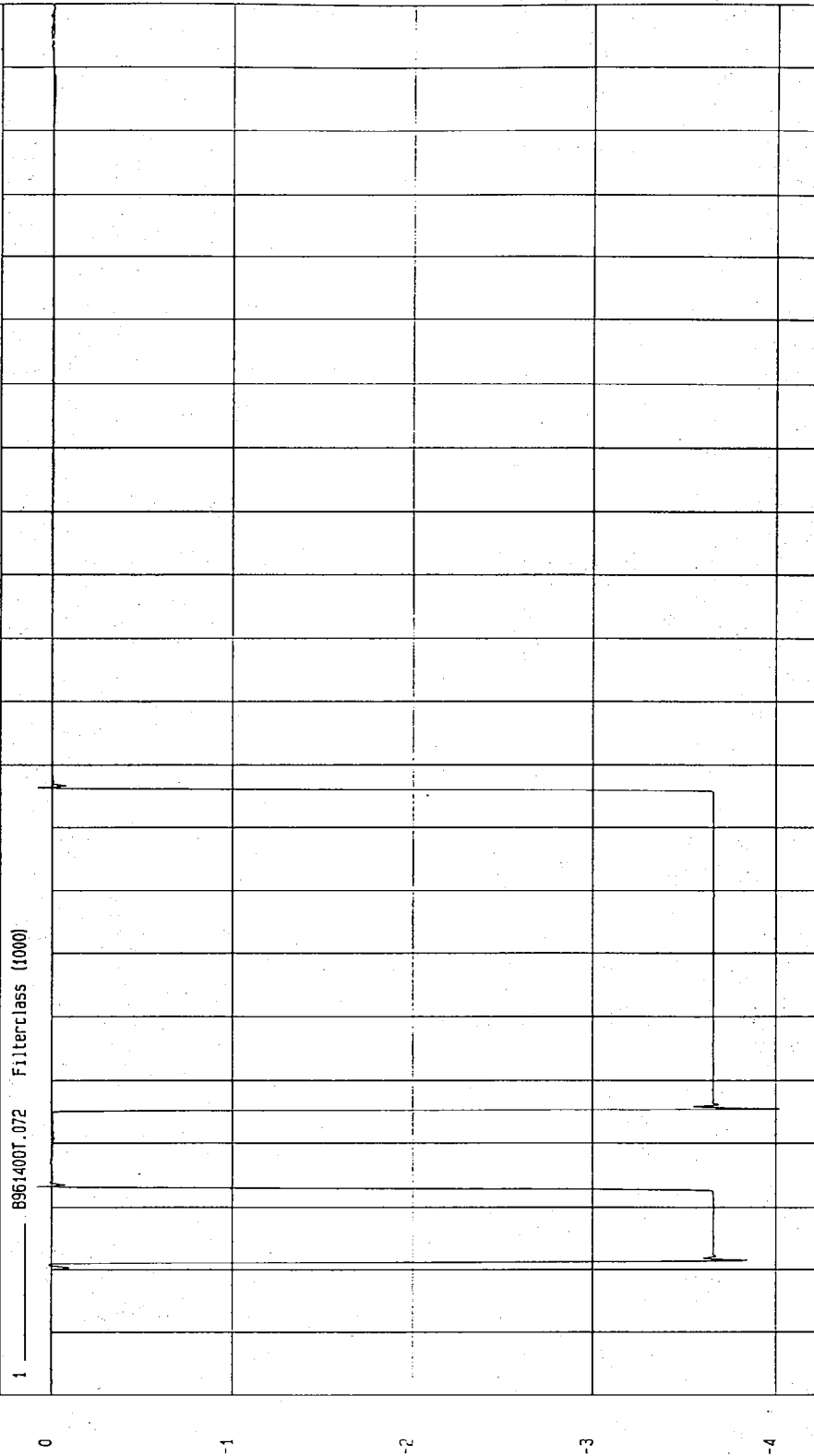
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -4.01 VOLTS at 26 msec

Maximum = 8.06E-02 VOLTS at 13 msec

RIGHT BARRIER CONTACT

1 8961400T.072 Filterclass (1000)



MGA Research
01-17-1997 1A.47

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

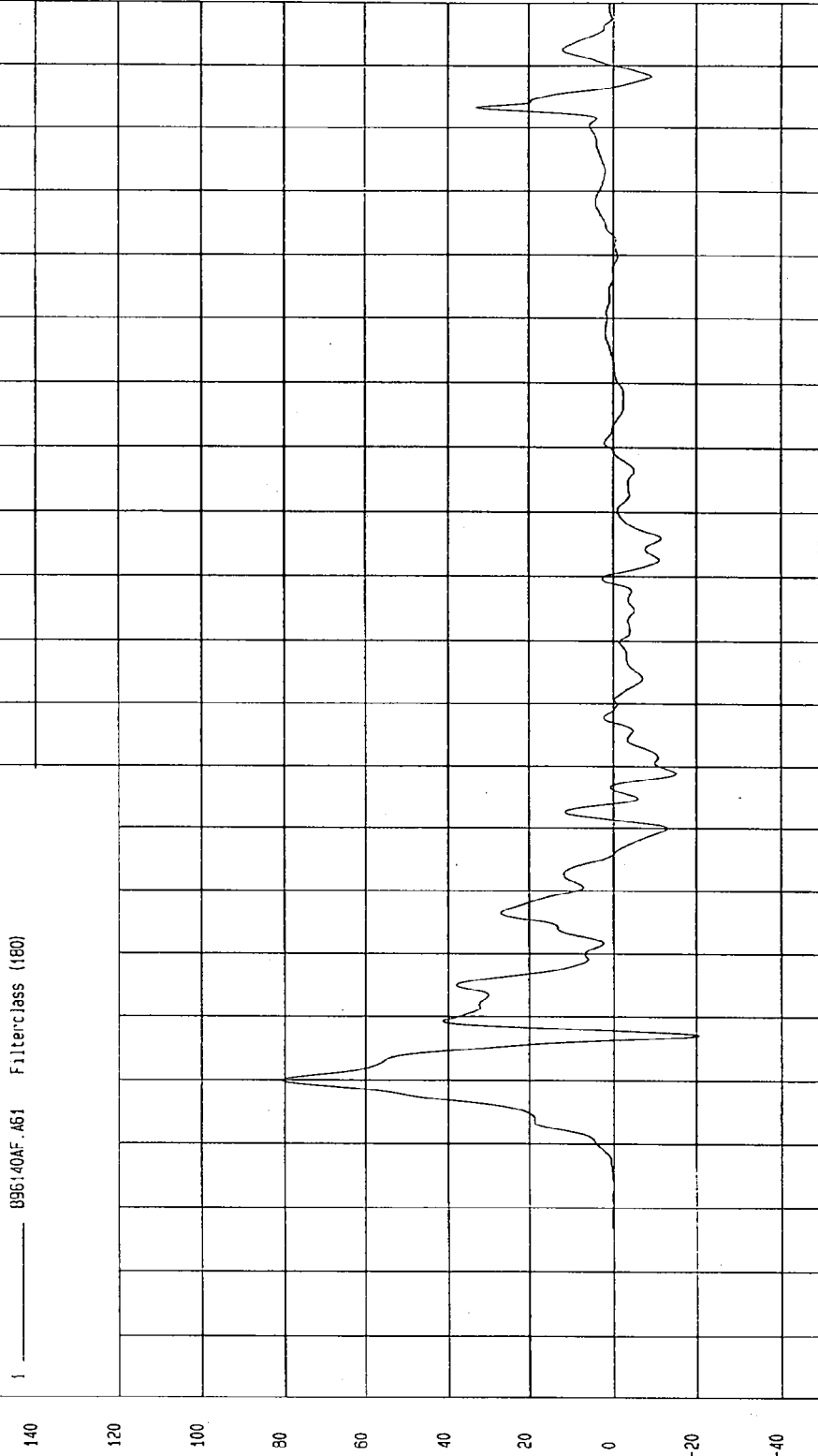
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -20.57 G'S at 37 msec

Maximum = 80.87 G'S at 30 msec

DRIVER UPPER RIB Y REDUNDANT ACCELERATION

1 896140AF.A61 Filterclass (180)



TIME (SECONDS)

MOA Research
01-17-1997 1A:10

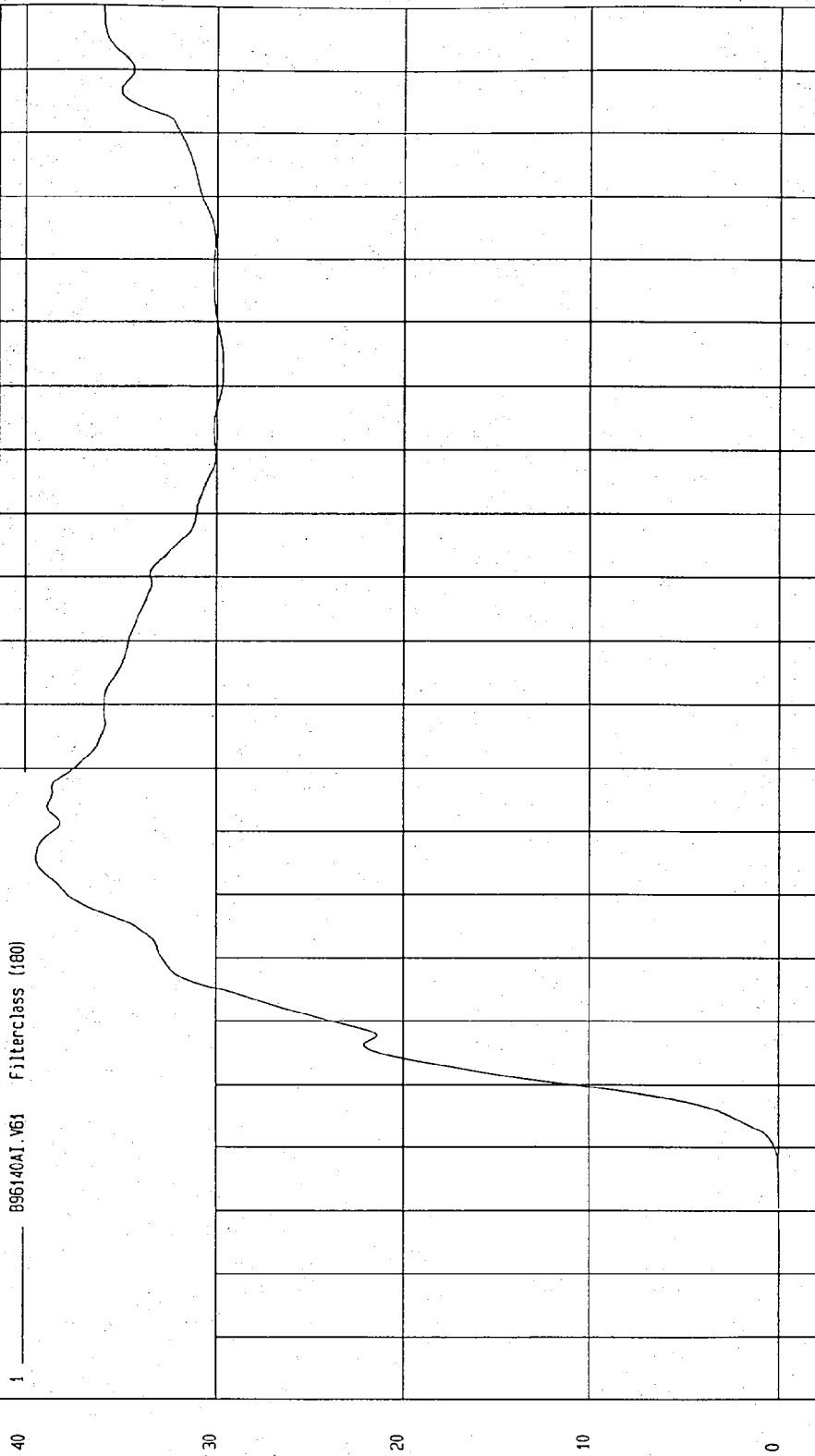
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -2.76E-02 KPH at 3 msec Maximum = 39.41 KPH at 66 msec

DRIVER UPPER RIB Y REDUNDANT VELOCITY

1 ——— 896140A1.V61 Filterclass (180)



TIME Seconds
MOA Research
01-11-1997 14:20

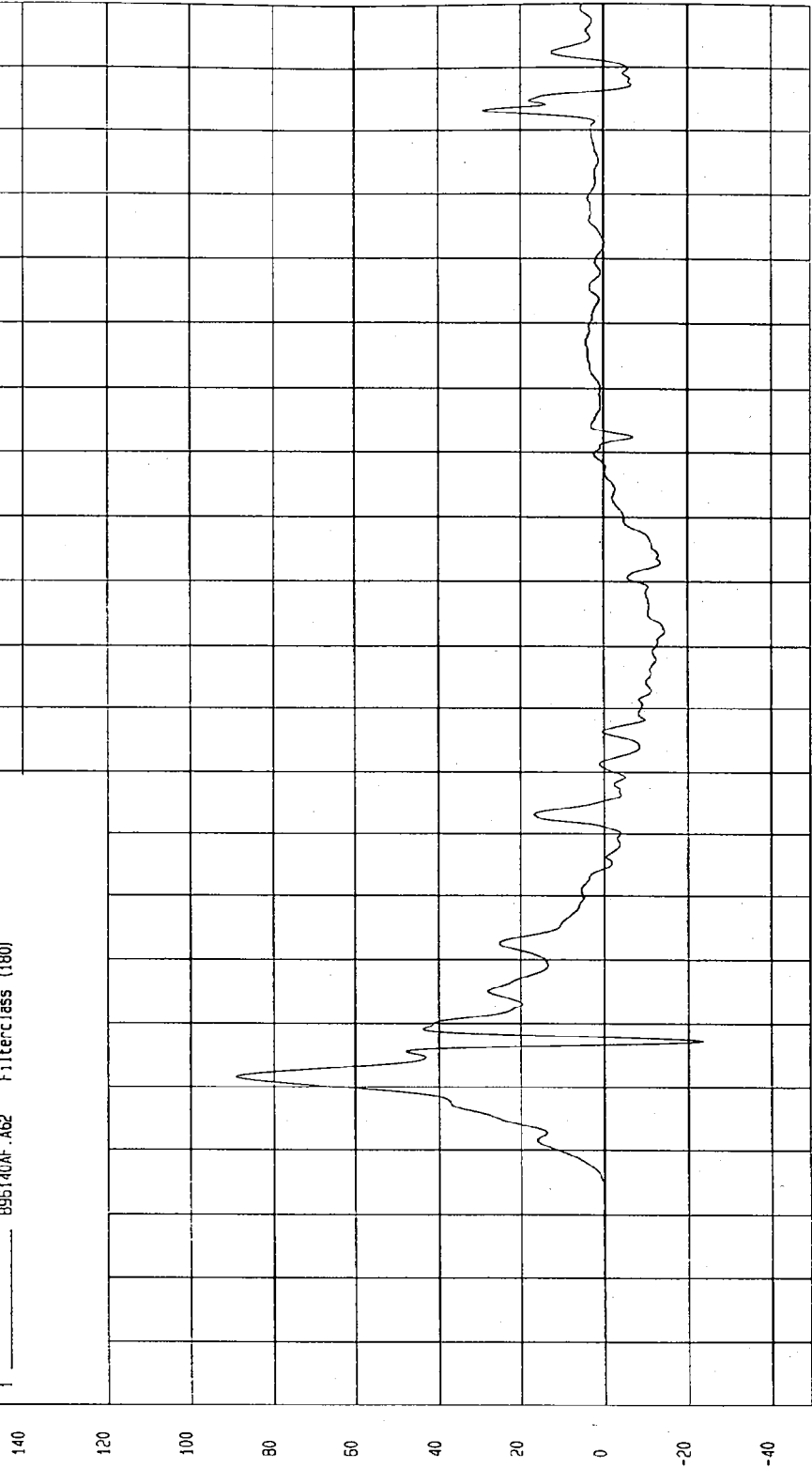
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -23.51 G'S at 37 msec Maximum = 89.22 G'S at 32 msec

DRIVER LOWER RIB Y REDUNDANT ACCELERATION

1 895140AF.A62 Filterclass (180)



MCA Research
01-17-1997 14.10

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

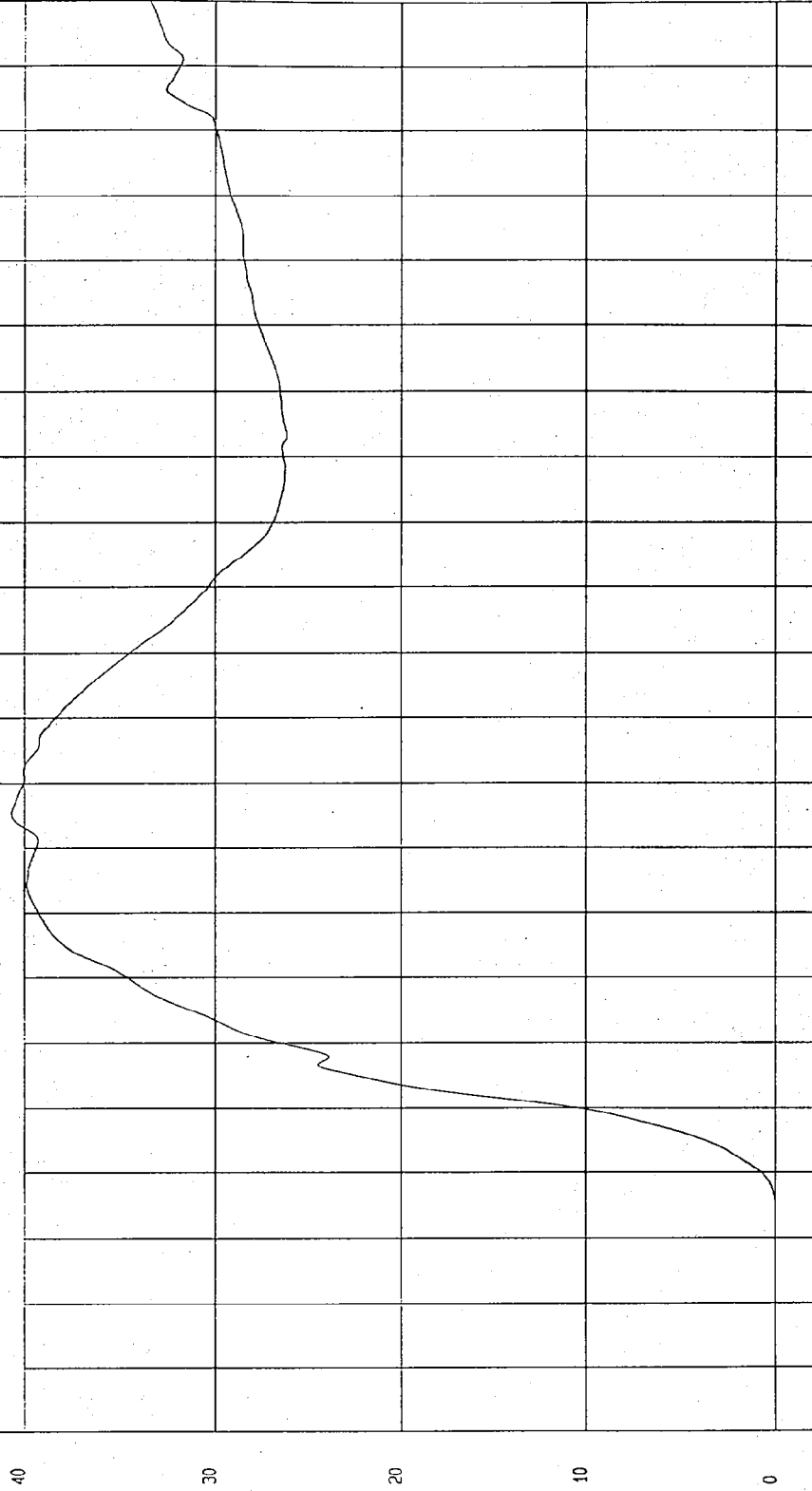
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -1.05E-03 KPH at -18 msec

Maximum = 40.64 KPH at 75 msec

DRIVER LOWER RIB Y REDUNDANT VELOCITY

1 896140A1.V62 Filterclass (180)



TIME Seconds
MGA Research
01-17-1997 14:20

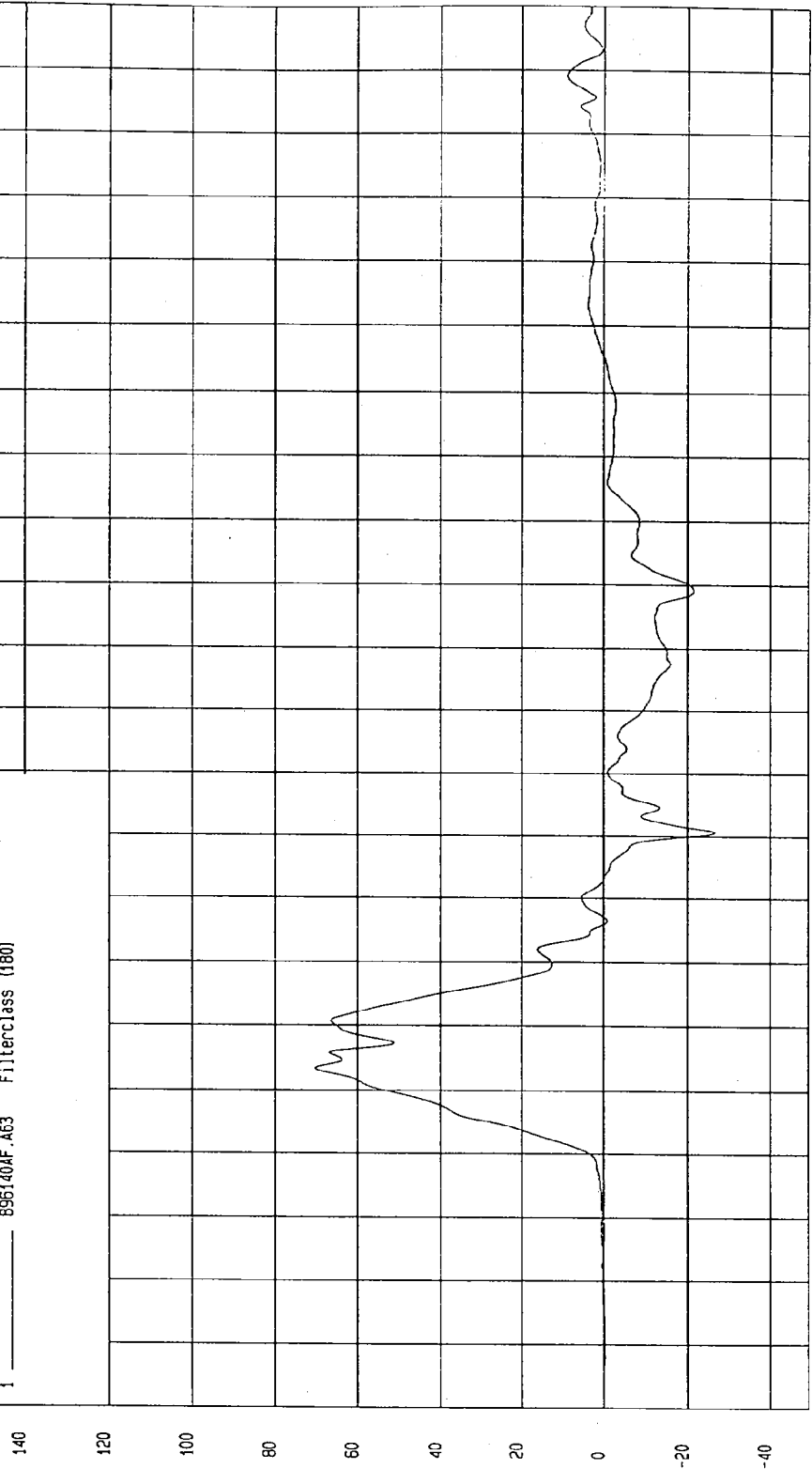
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -26.76 G'S at 71 msec Maximum = 70.34 G'S at 33 msec

DRIVER LOWER SPINE Y REDUNDANT ACCELERATION

1 — 895140AF.A63 Filterclass (180)



TIME (SECONDS)

MCA Research
01-17-1997 14:10

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST

TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -.13 KPH at -3 msec Maximum = 48.32 KPH at 53 msec

DRIVER LOWER SPINE Y REDUNDANT VELOCITY

1 896140A1.V63 Filterclass (180)



MCA Research
01-17-1997 14:20

TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

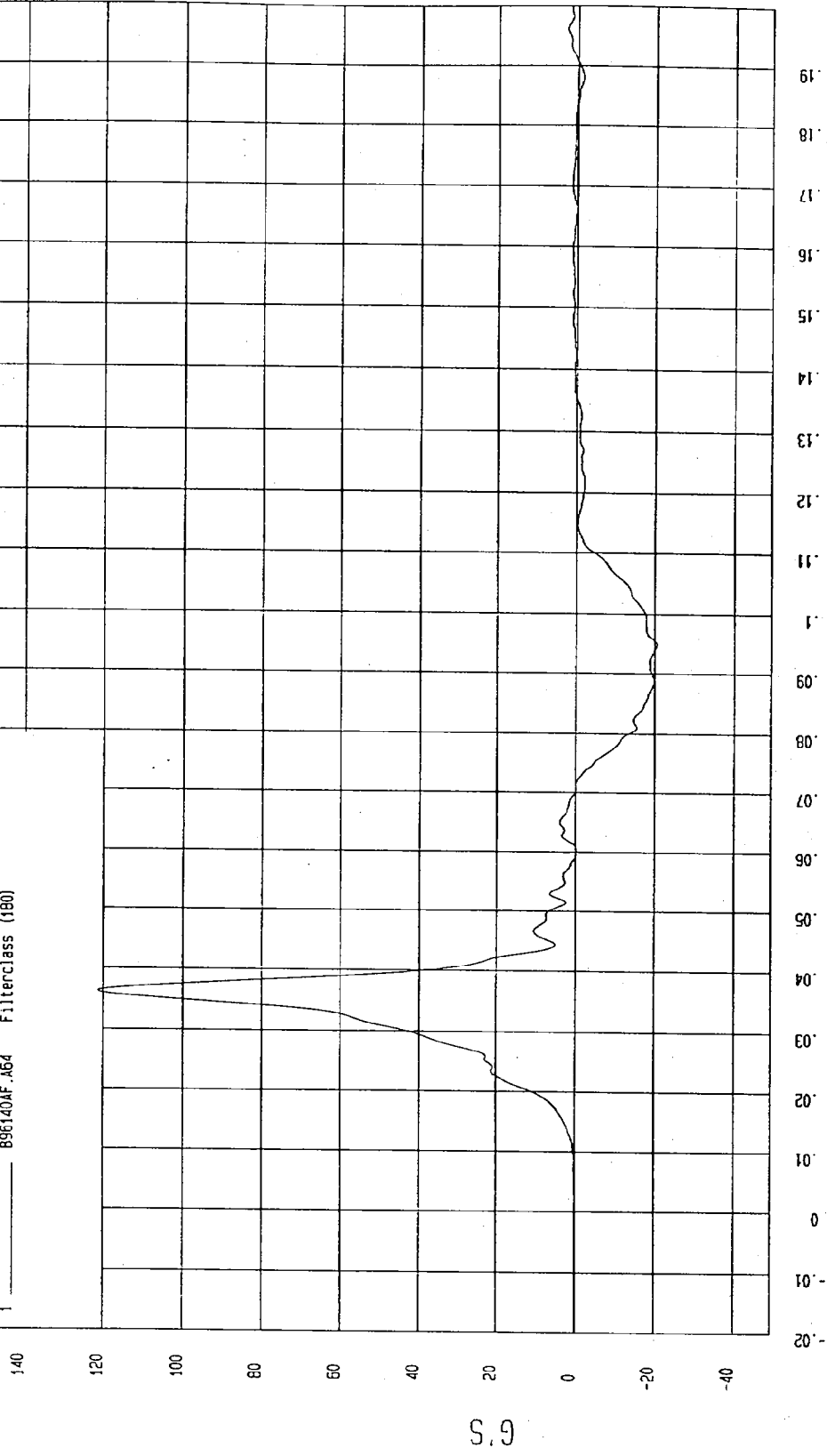
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -20.55 G'S at 95 msec

Maximum = 121.23 G'S at 36 msec

DRIVER PELVIS Y REDUNDANT ACCELERATION

1 ——— 896140AF.A64 Filterclass (180)



M&K Research
01-17-1997 14:10

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

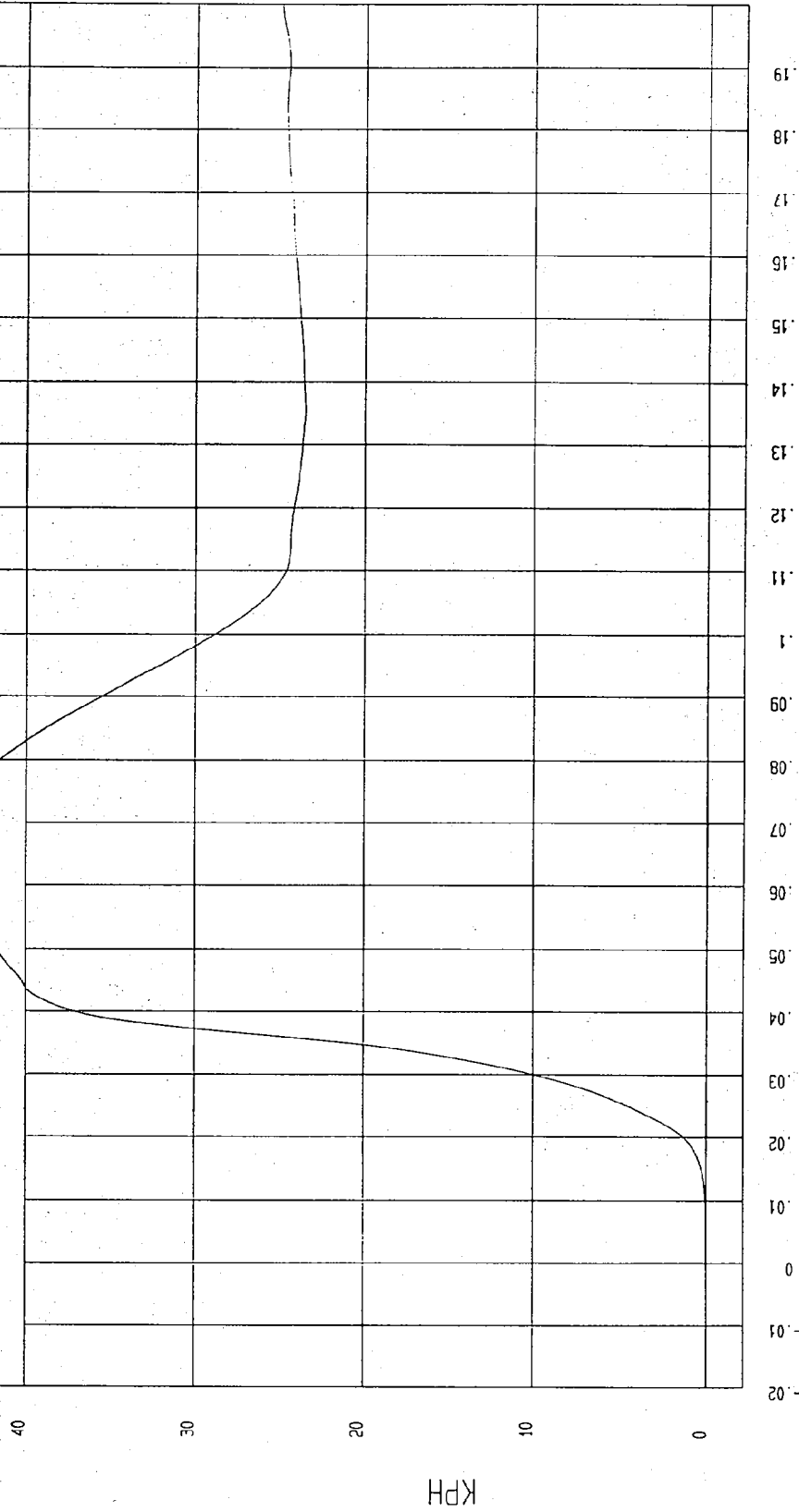
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -1.89E-03 KPH at -14 msec

Maximum = 43.47 KPH at 70 msec

DRIVER PELVIS Y REDUNDANT VELOCITY

1 ——— 895140A1.V64 Filterclass (180)



MGA Research
01-17-1997 14:20

TIME Seconds

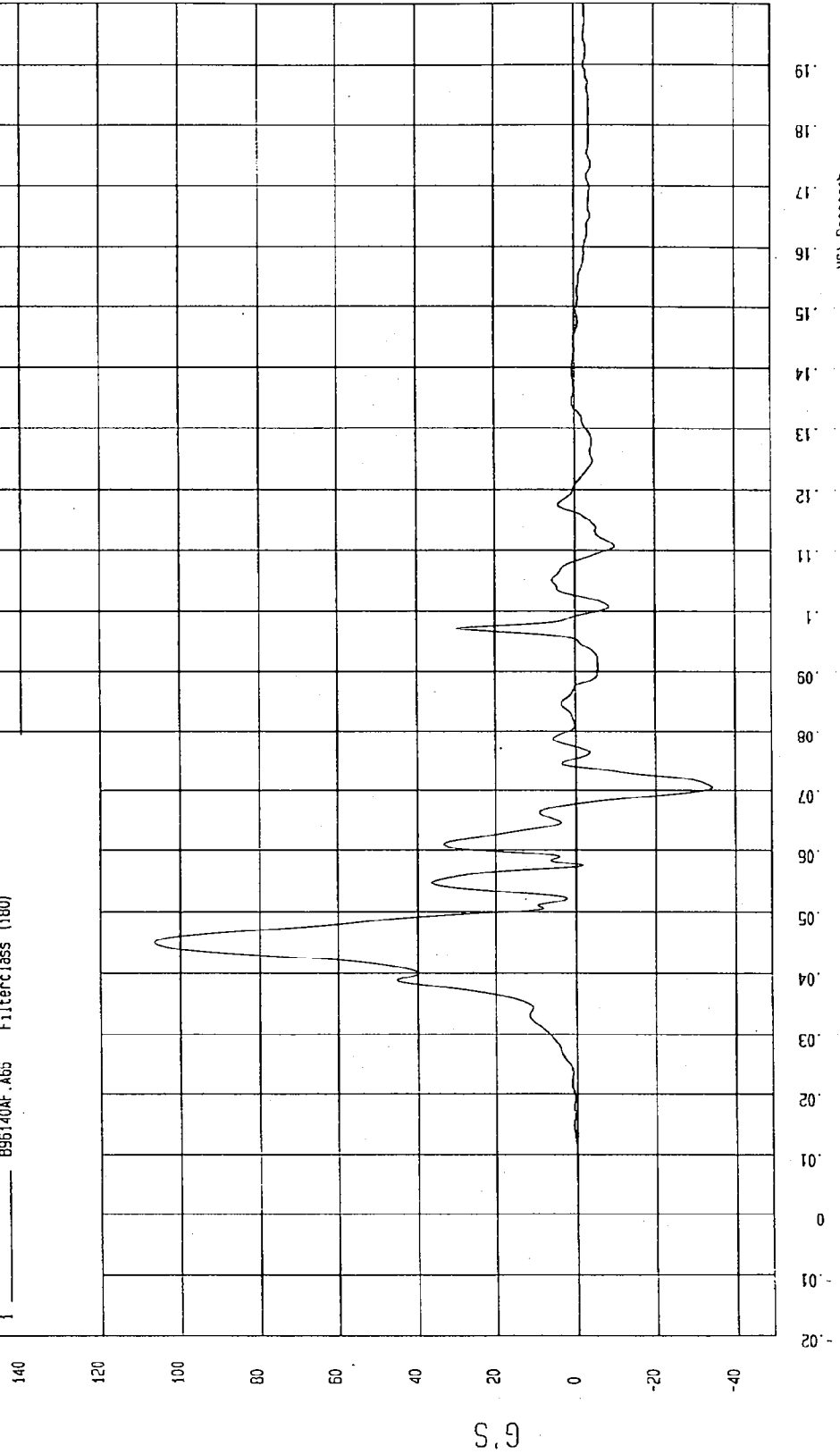
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -34.07 G'S at 70 msec Maximum = 106.60 G'S at 45 msec

REAR PASSENGER UPPER RIB Y REDUNDANT ACCELERATION

1 896140AF.A65 Filterclass (180)



MSA Research
01-17-1997 14:11

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

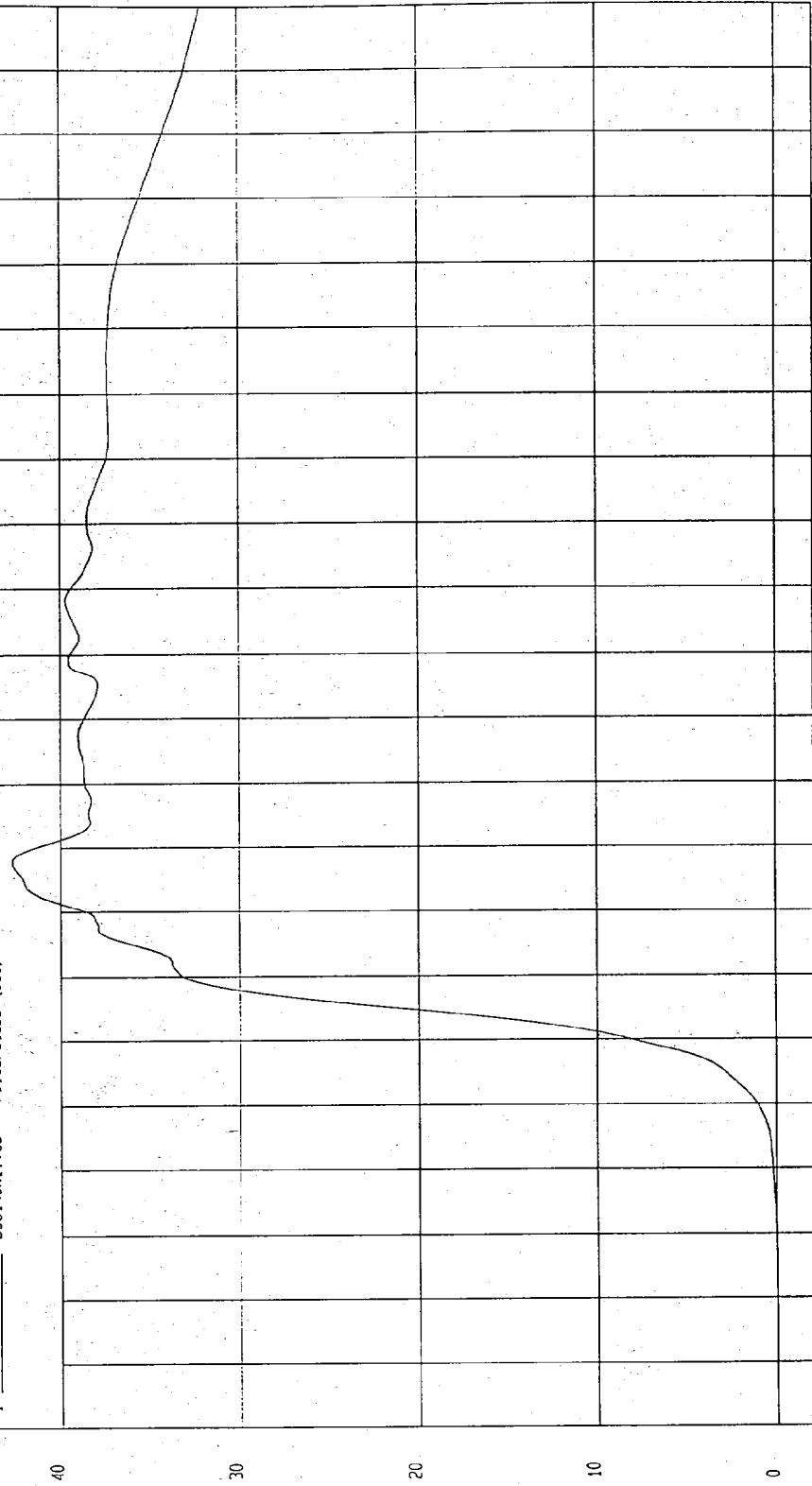
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 51.5 KPH

Minimum = -7.79E-03 KPH at -5 msec

Maximum = 42.71 KPH at 68 msec

REAR PASSENGER UPPER RIB Y REDUNDANT VELOCITY

1 896140A1.V66 Filterclass (180)



MEA Research
01-17-1997 14:20

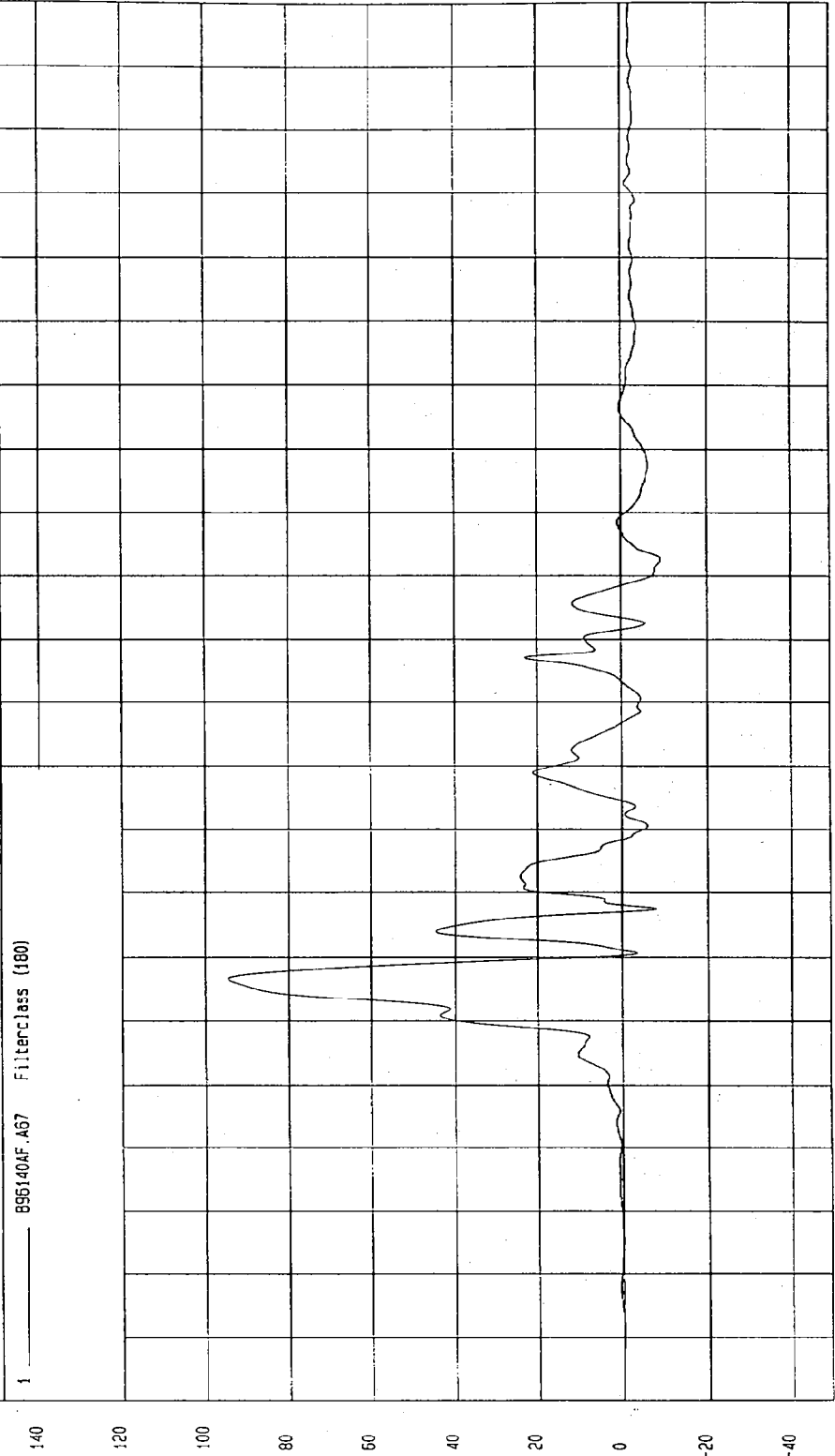
TIME Seconds

KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -9.27 G'S at 113 msec Maximum = 94.70 G'S at 47 msec

REAR PASSENGER LOWER RIB Y REDUNDANT ACCELERATION



MSA Research
02-17-1997 14:11

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

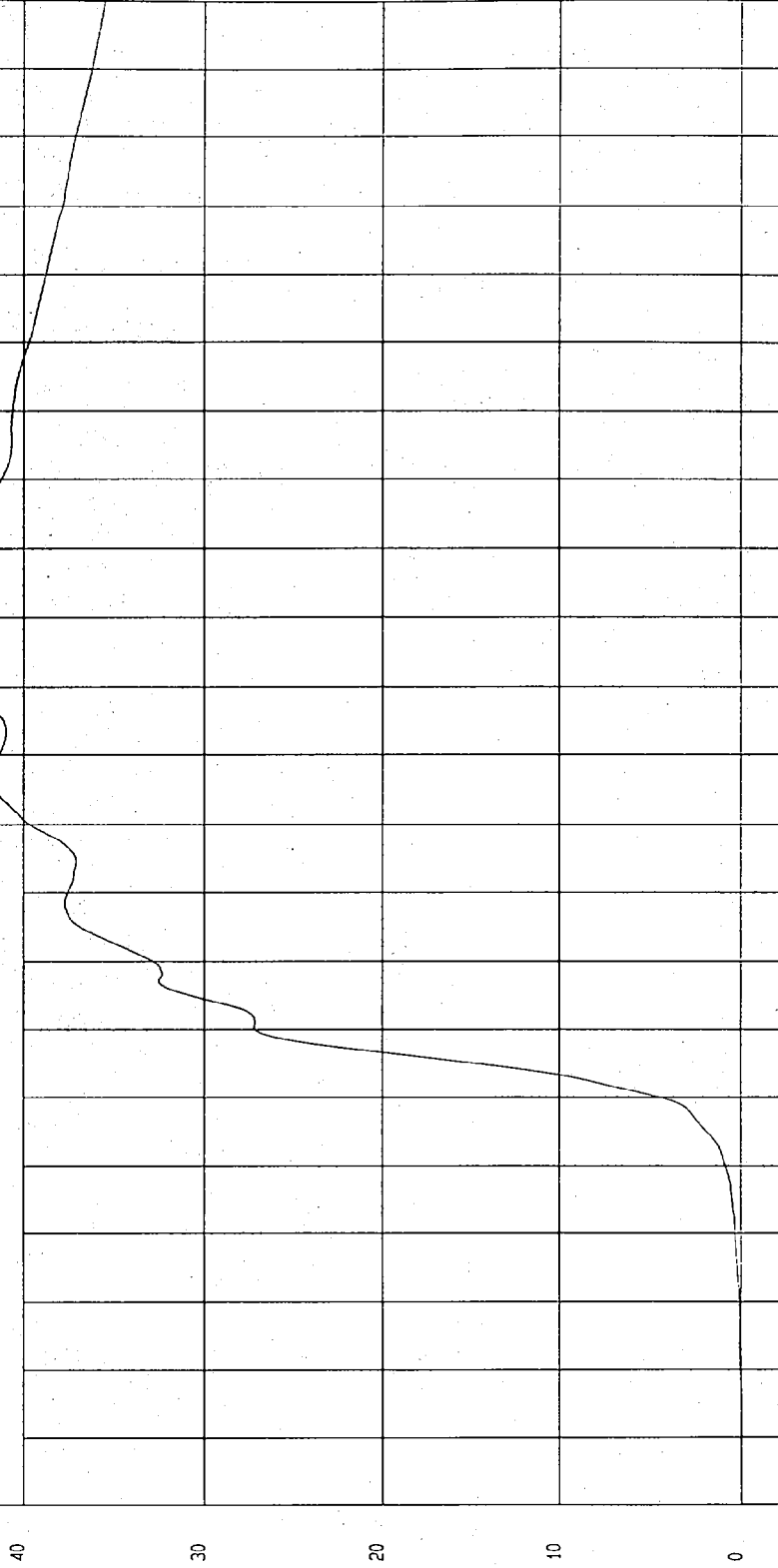
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -3.89E-02 KPH at -6 msec

Maximum = 44.51 KPH at 108 msec

REAR PASSENGER LOWER RIB Y REDUNDANT VELOCITY

1 896140A1.V67 Filterclass (180)



TIME Seconds

MCA Research
01-11-1997 14:21

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -17.10 G'S at 68 msec Maximum = 69.49 G'S at 45 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT ACCELERATION

1 895140AF.A68 Filterclass (180)



TIME (SECONDS)

M&A Research
01-17-1997 14.11

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

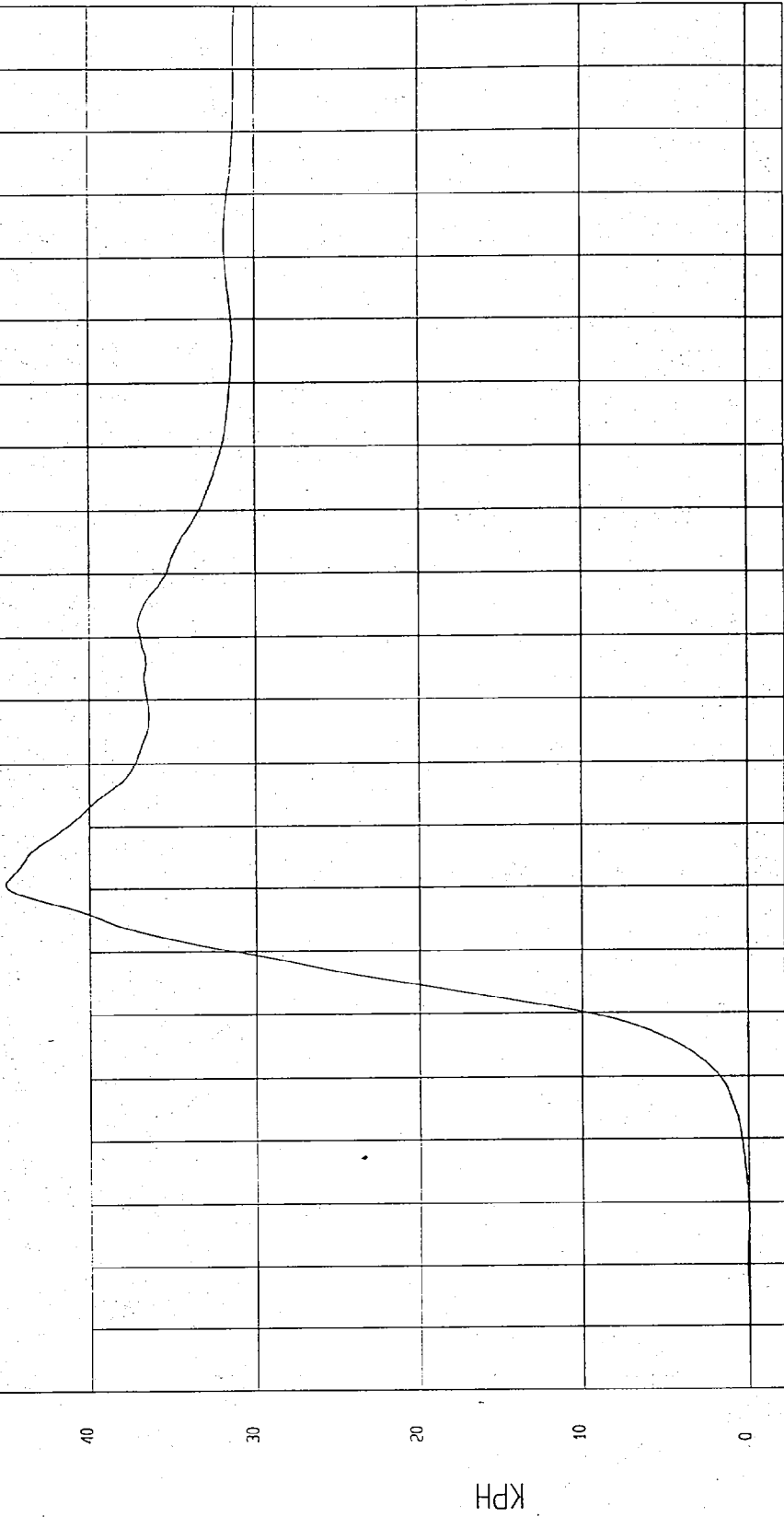
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -1.73E-03 KPH at -19 msec

Maximum = 45.02 KPH at 61 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT VELOCITY

1 896140A1.V68 Filterclass (180)



NGA Research
01-17-1997 14.21

TIME Seconds

KPH

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

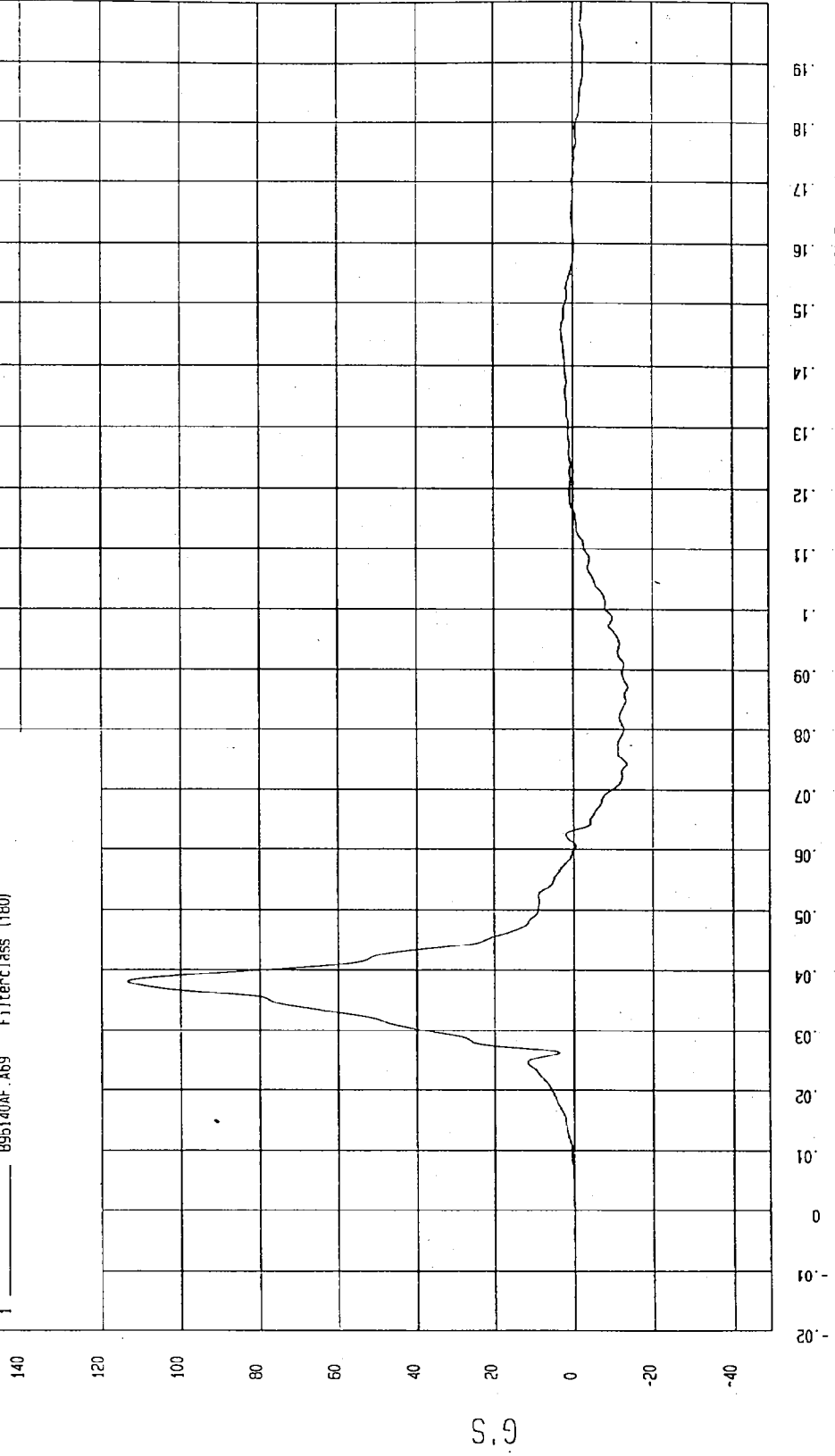
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -13.75 G'S at 87 msec

Maximum = 113.39 G'S at 38 msec

REAR PASSENGER PELVIS Y REDUNDANT ACCELERATION

1 ——— B95140AF.A69 Filterclass (160)



NCA Research
01-17-1997 14.11

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

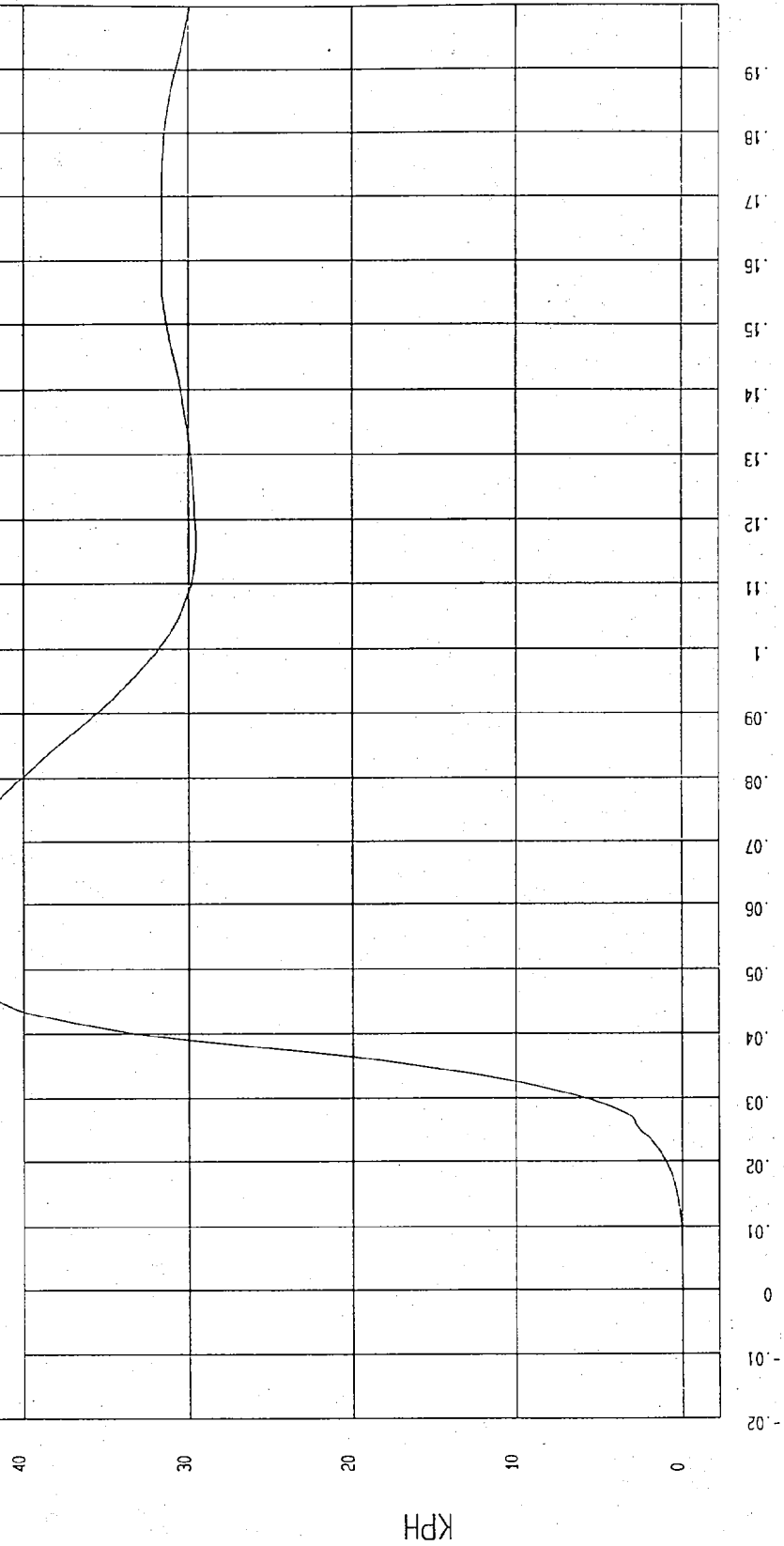
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = 5.79E-04 KPH at -16 msec

Maximum = 45.67 KPH at 63 msec

REAR PASSENGER PELVIS Y REDUNDANT VELOCITY

1 ——— 096140A1.V69 Filterclass: (180)



NGA Research
01-17-1997 14.21

FINITE IMPULSE RESPONSE (FIR) FILTERED DATA

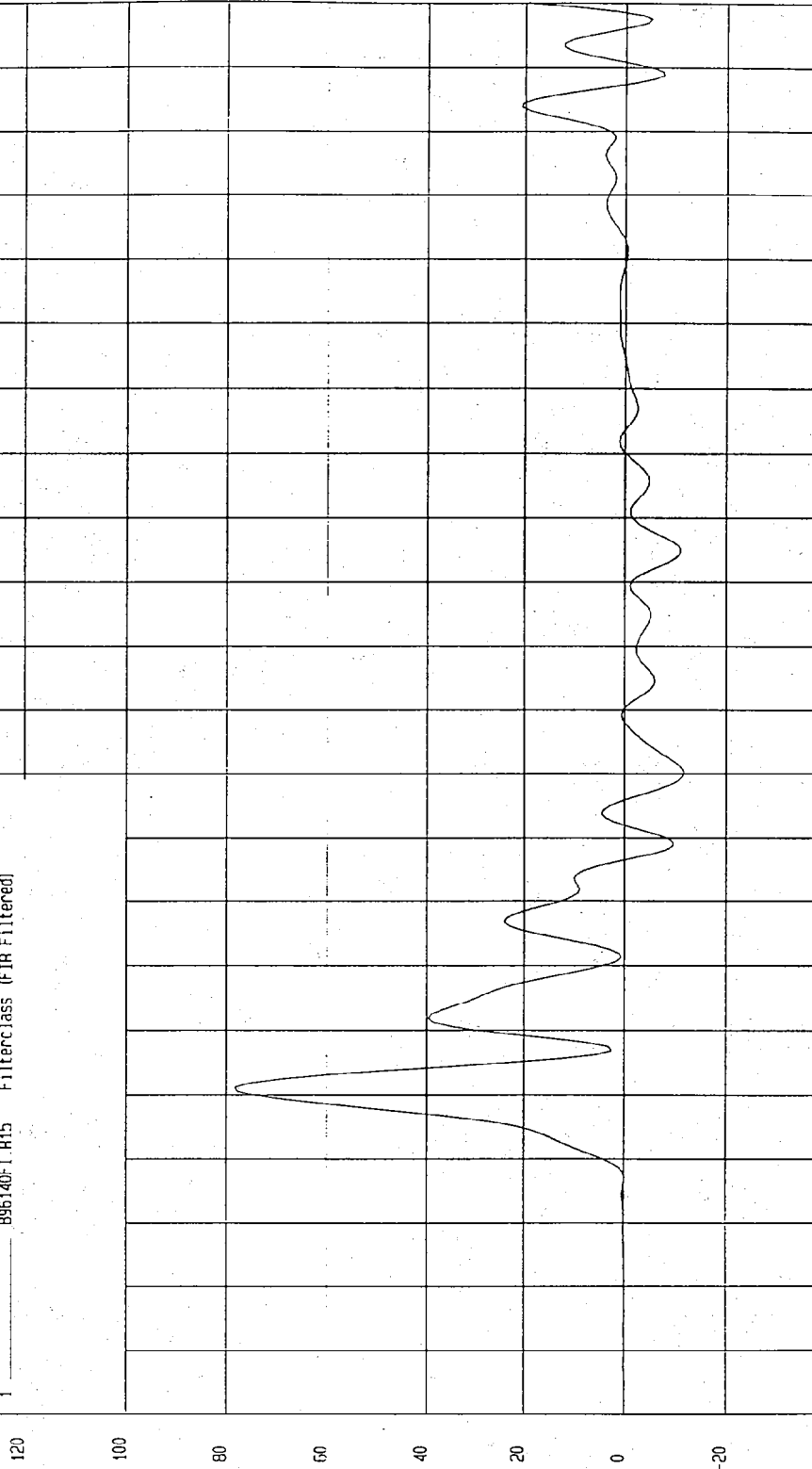
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -11.68 G'S at 60 msec Maximum = 78.27 G'S at 31 msec

DRIVER UPPER RIB Y ACCELERATION

1 896140F1.R15 Filterclass (FIR Filtered)



MPA Research
01-17-1997 14:06

TIME (SECONDS)

G.S

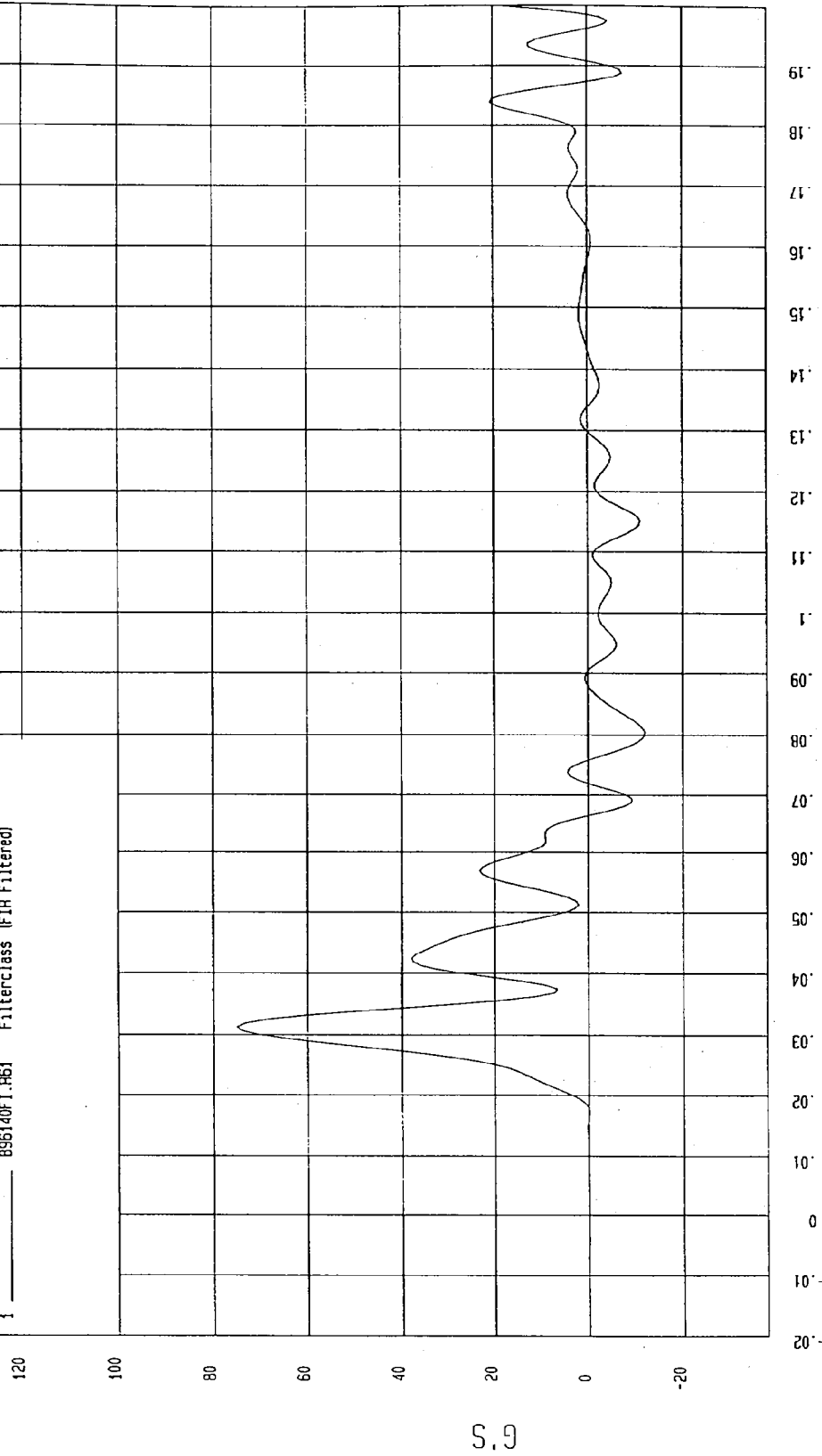
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -11.90 G'S at 80 msec Maximum = 75.11 G'S at 31 msec

DRIVER UPPER RIB Y REDUNDANT ACCELERATION

1 896140F1.R61 Filterclass (FIR Filtered)



MGA Research
01-17-1997 14:07

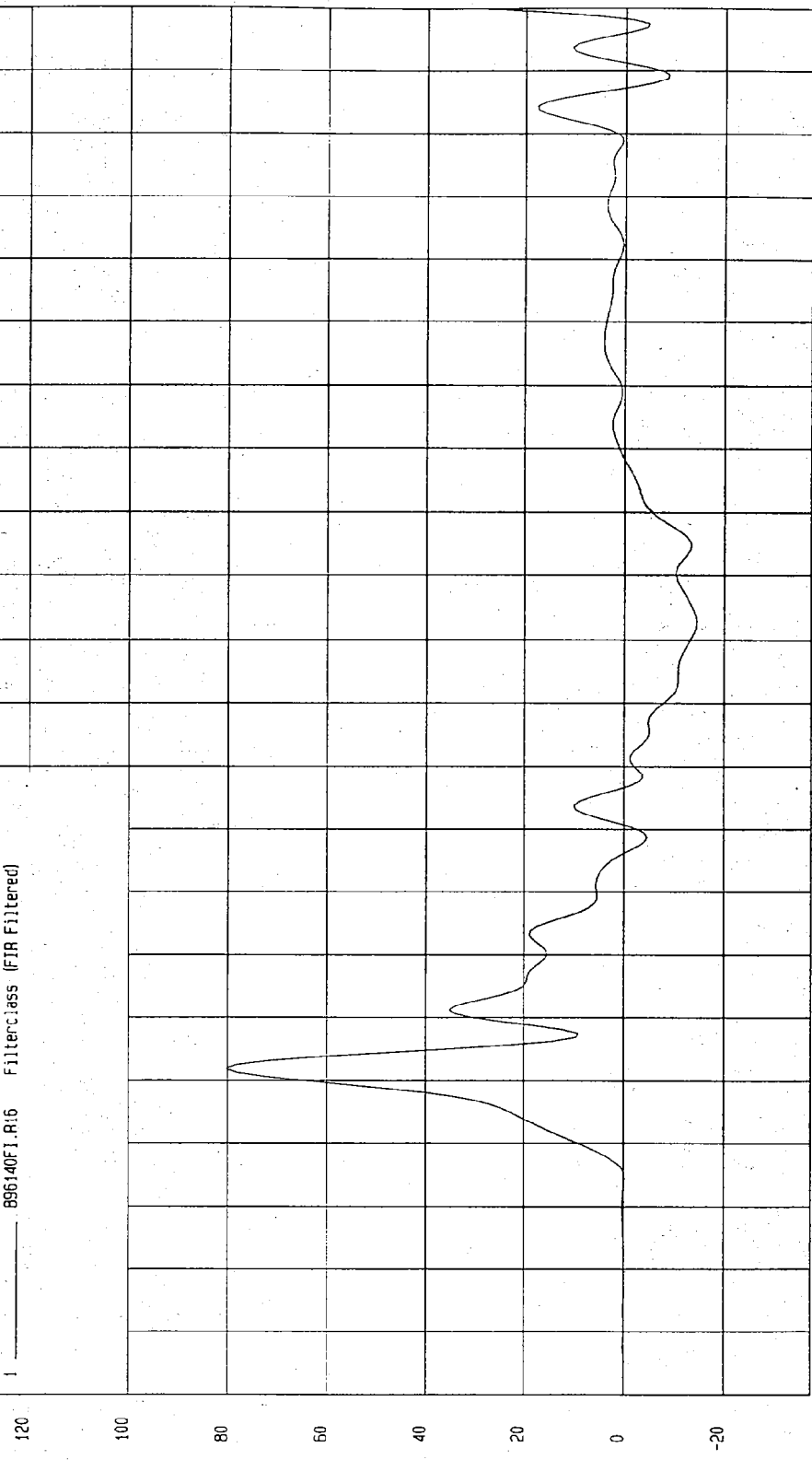
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -14.41 G'S at 102 msec Maximum = 80.40 G'S at 32 msec

DRIVER LOWER RIB Y ACCELERATION

1 896140F1.R16 Filterclass (FIR Filtered)



MGA Research
01-17-1997 14:07

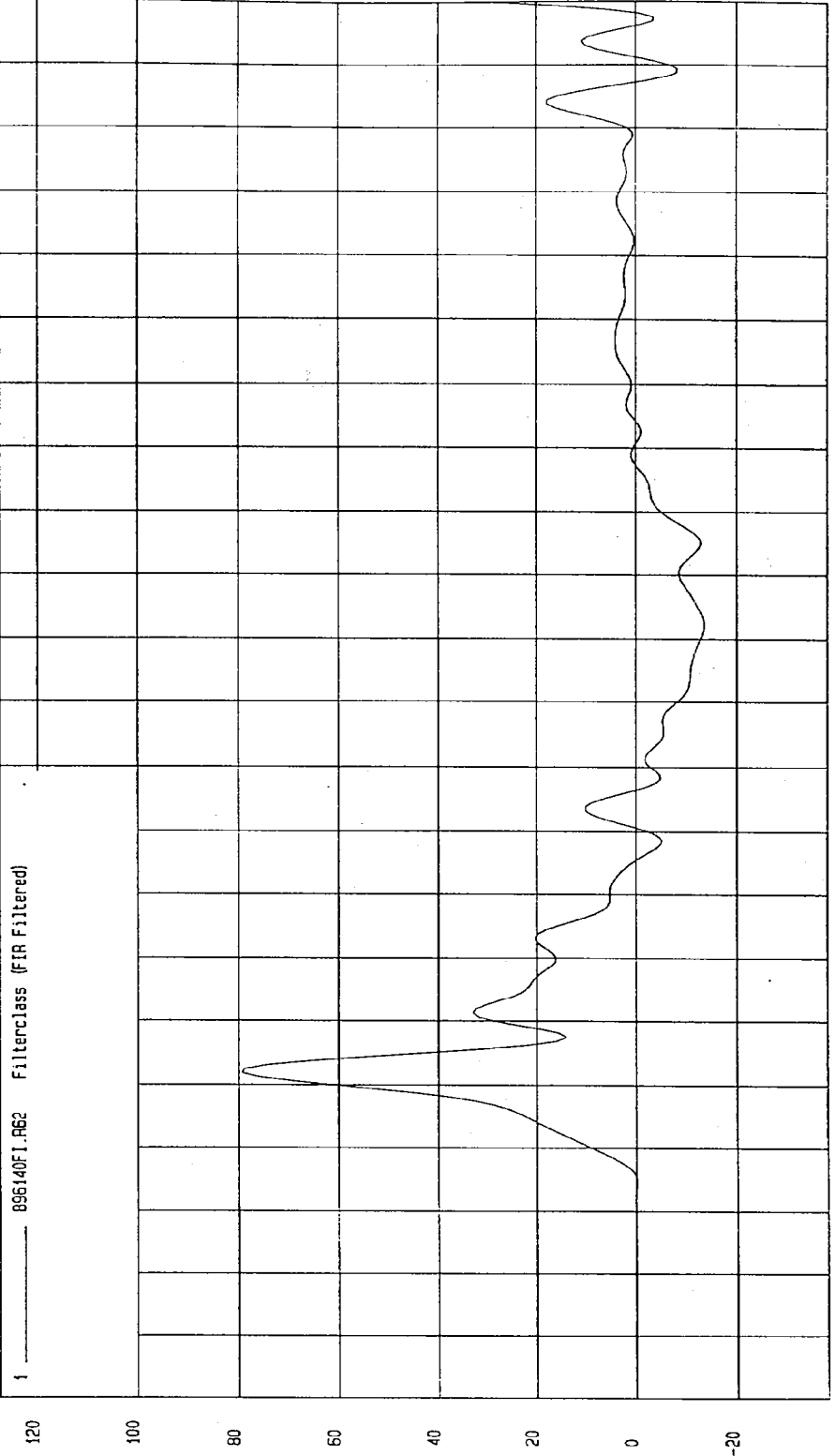
TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1995
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -13.44 G'S at 102 msec Maximum = 79.39 G'S at 32 msec

DRIVER LOWER RIB Y REDUNDANT ACCELERATION



TIME (SECONDS)

MCA Research
01-17-1997 14:07

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

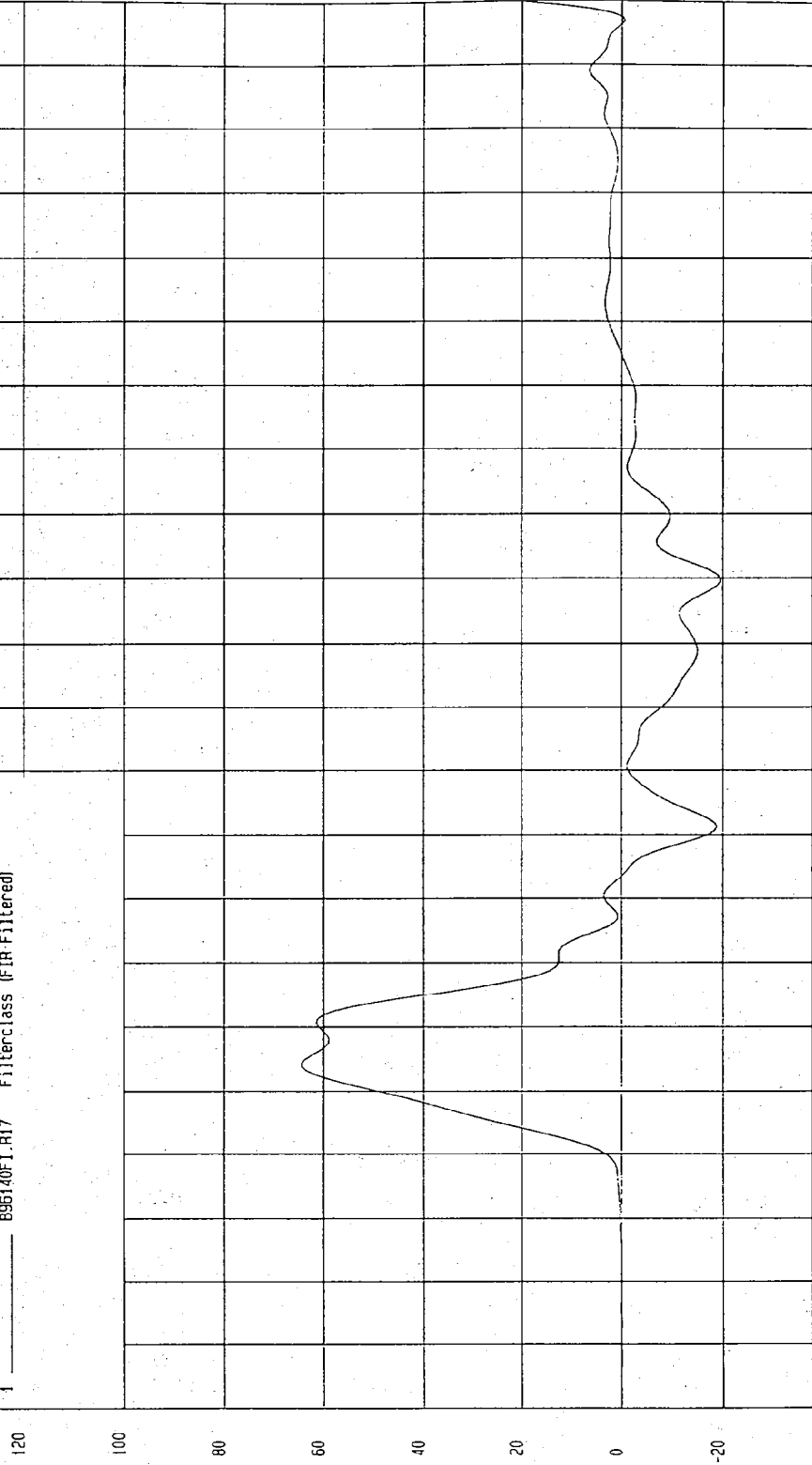
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19.53 G'S at 110 msec

Maximum = 64.49 G'S at 34 msec

DRIVER LOWER SPINE Y ACCELERATION

1 ——— B96140FI.R17 Filterclass (FIR Filtered)



MCA Research
01-17-1997 1A:07

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

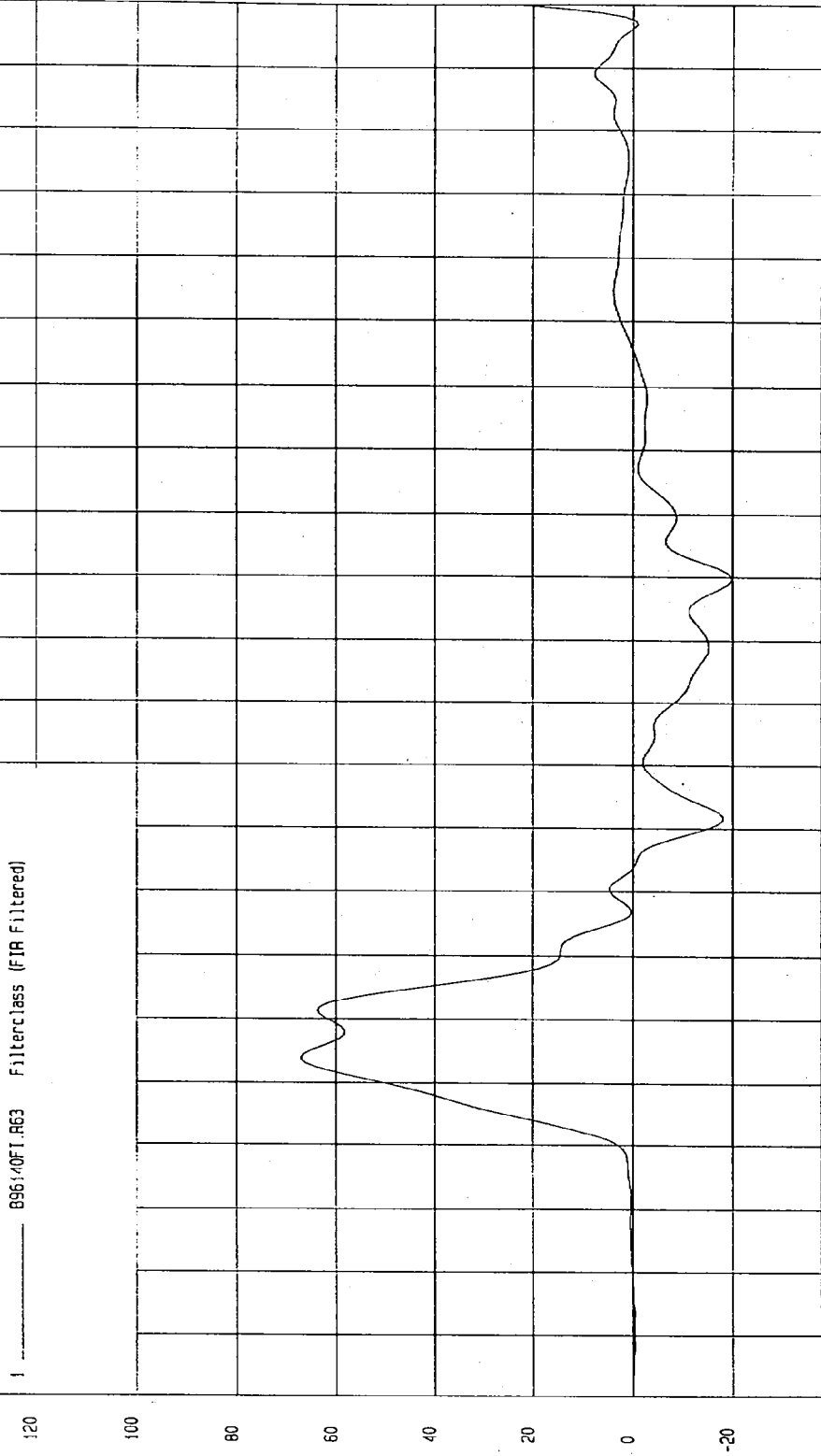
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19.77 G'S at 110 msec

Maximum = 67.21 G'S at 34 msec

DRIVER LOWER SPINE Y REDUNDANT ACCELERATION

1 896140FT.R63 Filterclass (FIR Filtered)



MCA Research
01-17-1997 14:07

TIME (SECONDS)

G'S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

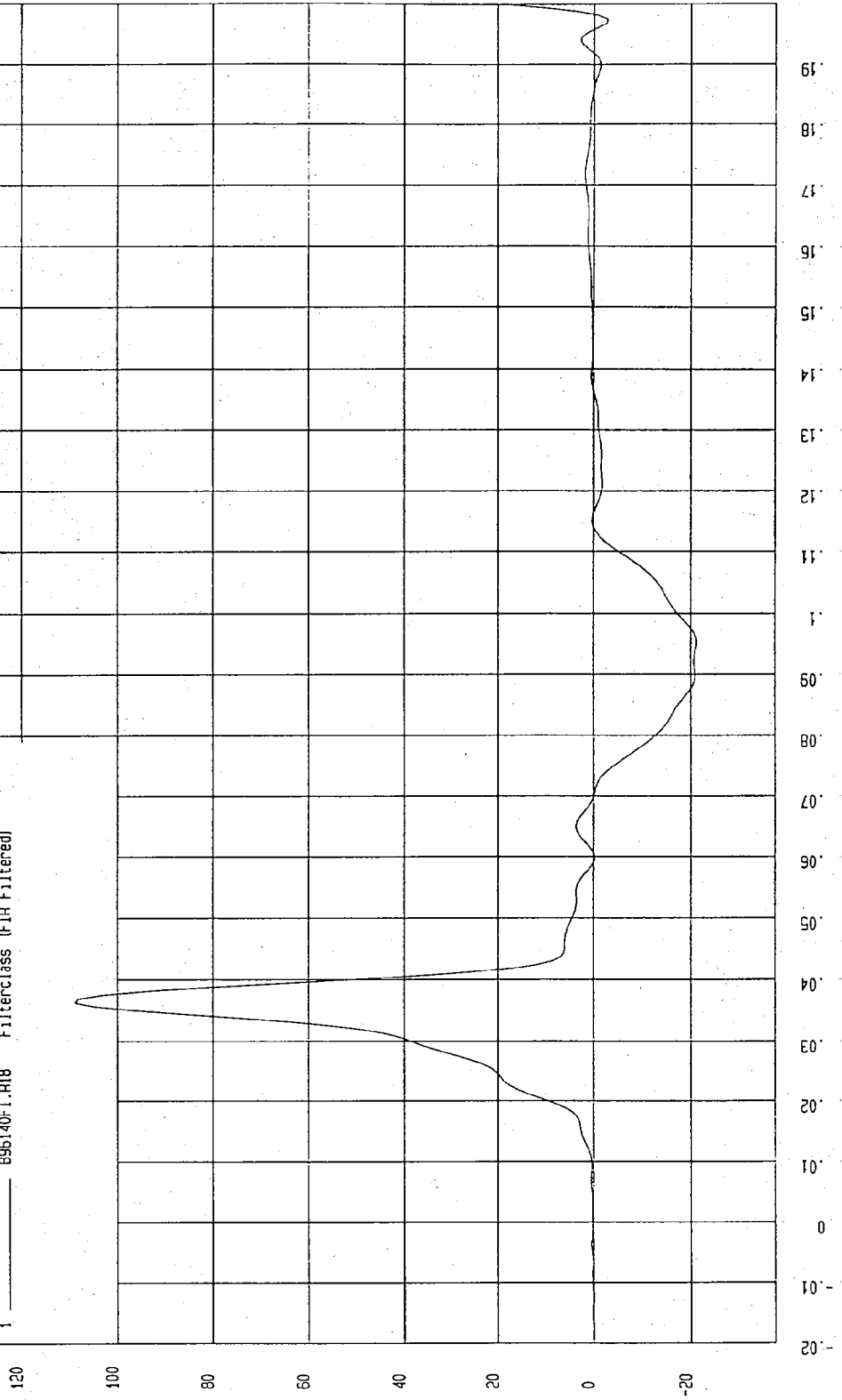
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -21.17 G'S at 95 msec

Maximum = 108.92 G'S at 36 msec

DRIVER PELVIS Y ACCELERATION

1 ——— 896140F1.R18 Filterclass (FIR Filtered)



MPA Research
01-17-1997 14:01

TIME (SECONDS)

G.S

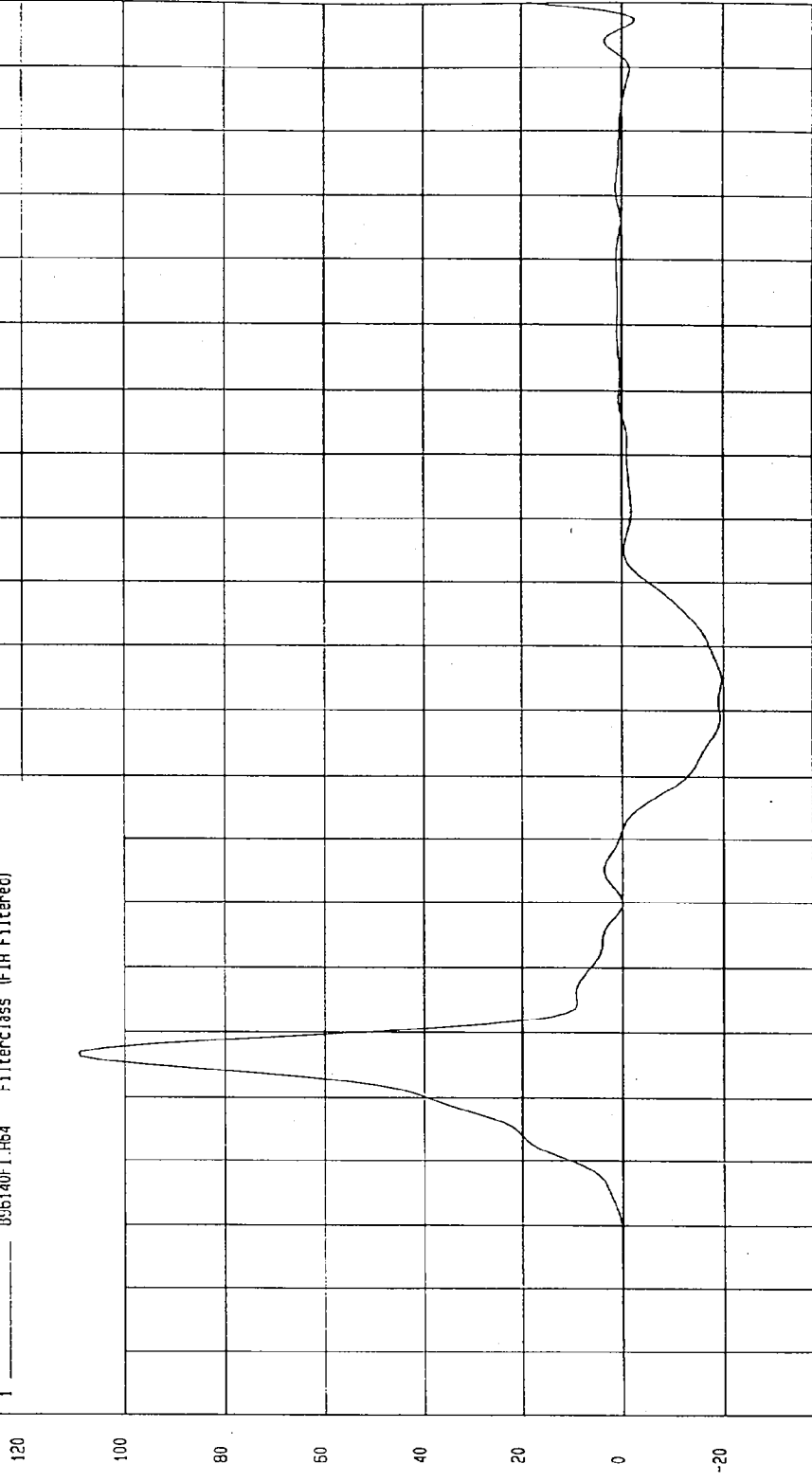
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -19.64 G'S at 95 msec Maximum = 108.97 G'S at 36 msec

DRIVER PELVIS Y REDUNDANT ACCELERATION

1 095140FI.R64 Filterclass (FIR Filtered)



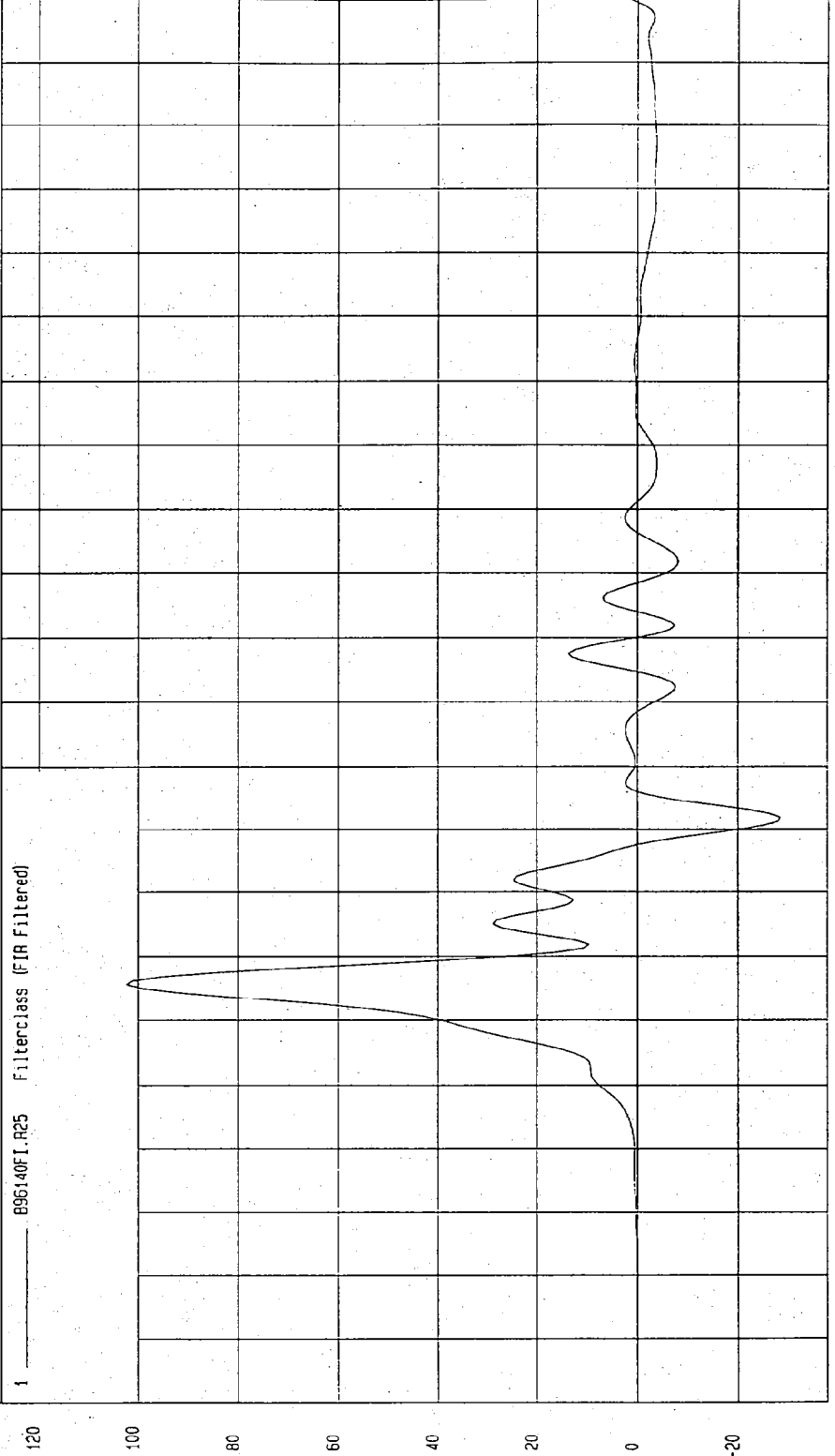
TIME (SECONDS)

NGA Research
01-17-1997 14:07

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -28.23 G'S at 72 msec Maximum = 102.25 G'S at 46 msec

REAR PASSENGER UPPER RIB Y ACCELERATION



TIME (SECONDS)

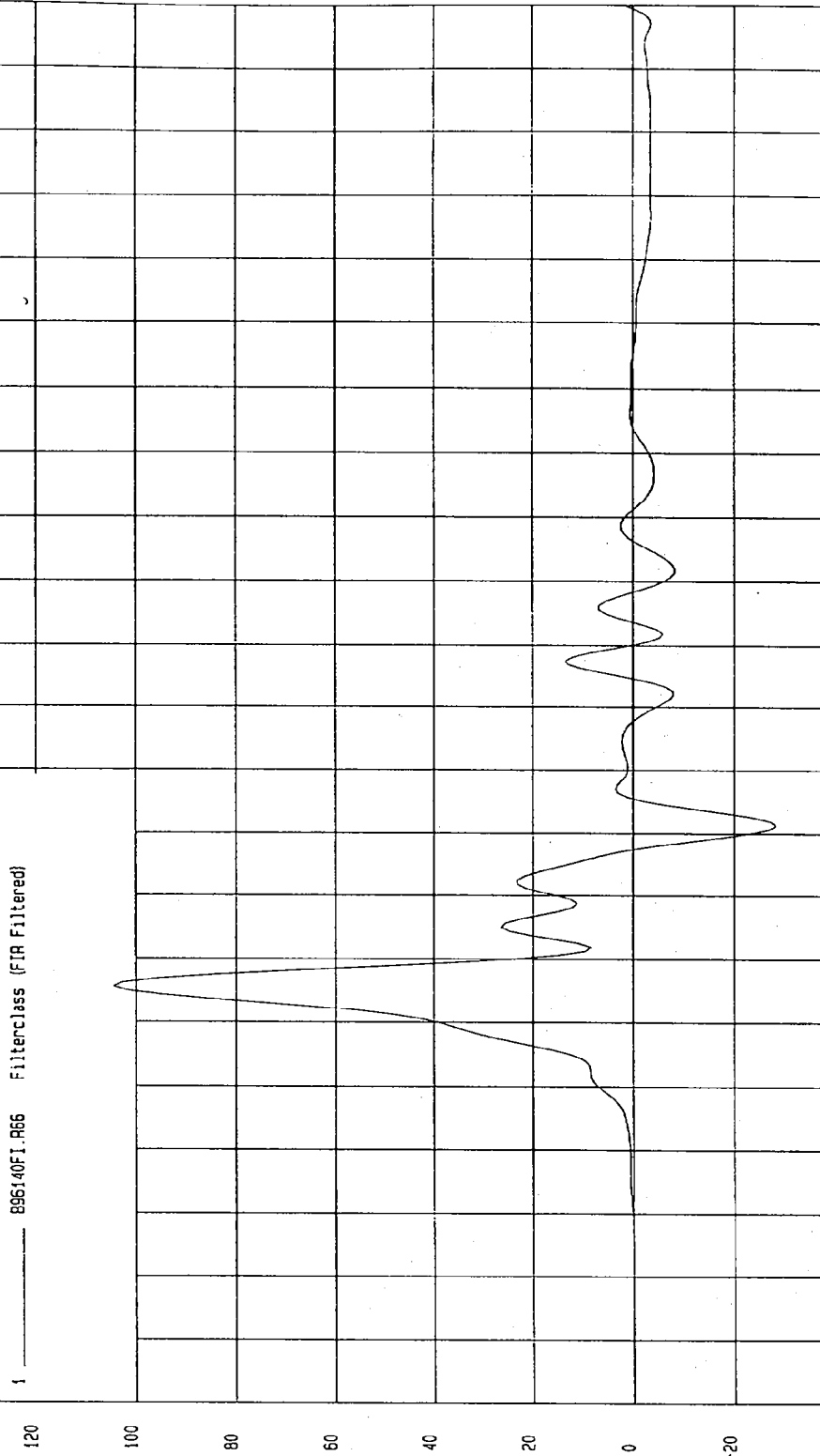
MCA Research
01-17-1997 14:07

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -28.32 G'S at 71 msec Maximum = 104.52 G'S at 46 msec

REAR PASSENGER UPPER RIB Y REDUNDANT ACCELERATION

1 896140F1.R66 FilterClass (FIR Filtered)



TIME (SECONDS)

MCA Research
01-17-1997 14:07

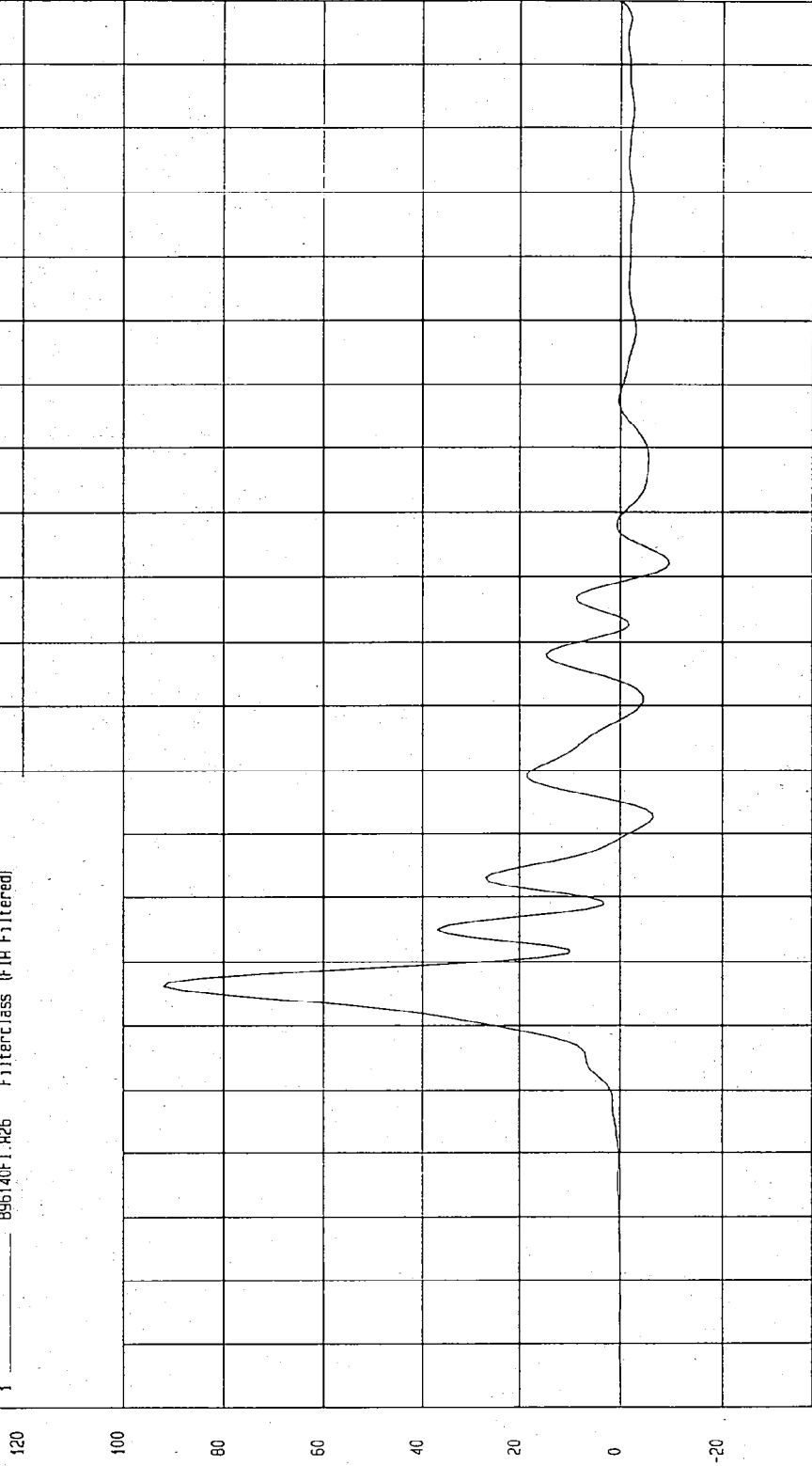
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -9.58 G'S at 112 msec Maximum = 92.01 G'S at 46 msec

REAR PASSENGER LOWER RIB Y ACCELERATION

1 ——— 895140FT.R26 FilterClass (FIR Filtered)



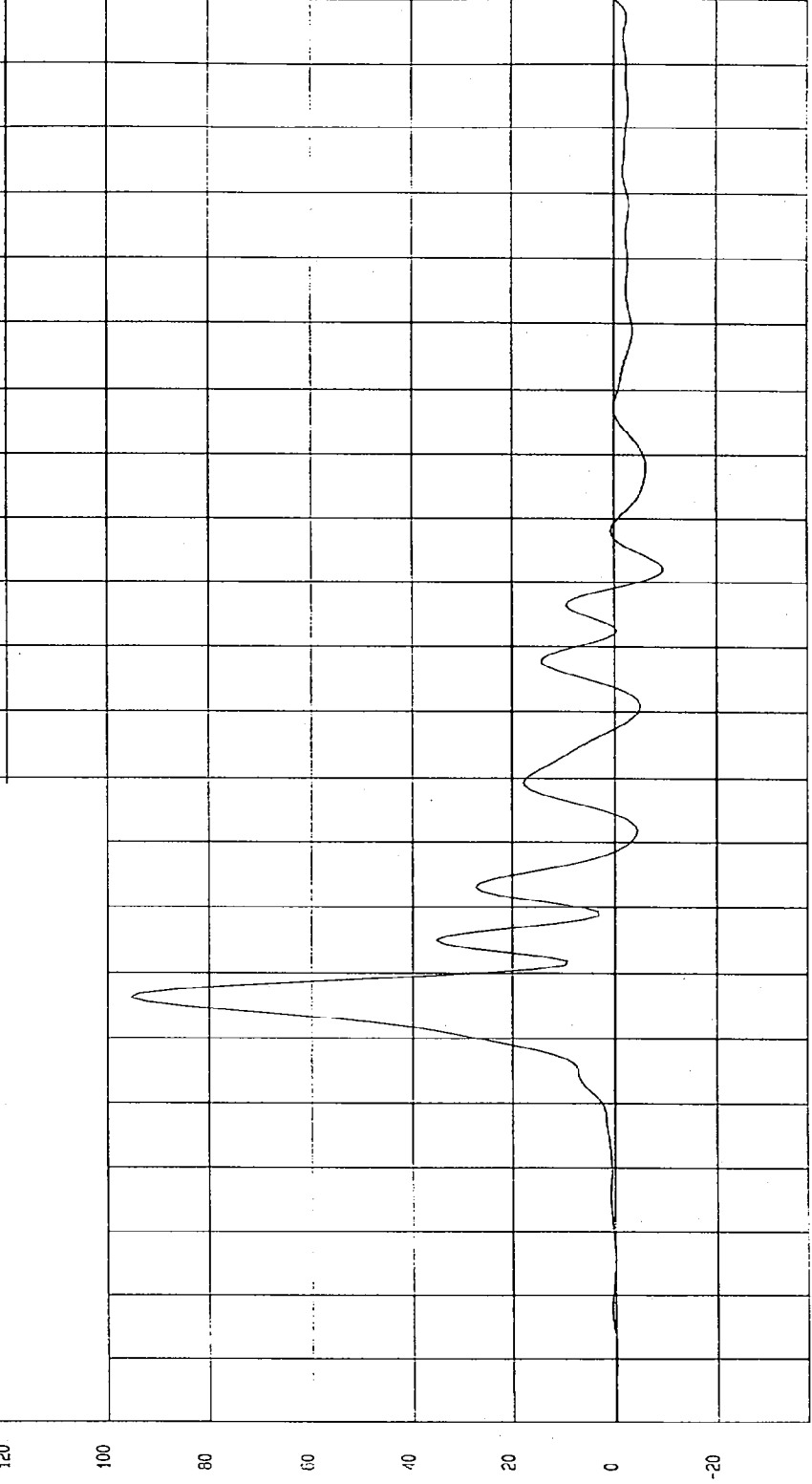
TIME (SECONDS)

MGA Research
01-17-1997 14:07

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -9.66 G'S at 112 msec Maximum = 95.60 G'S at 46 msec

REAR PASSENGER LOWER RIB Y REDUNDANT ACCELERATION
Filterclass (FIR Filtered)



NSA Research
01-17-1997 14.06
TIME (SECONDS)

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

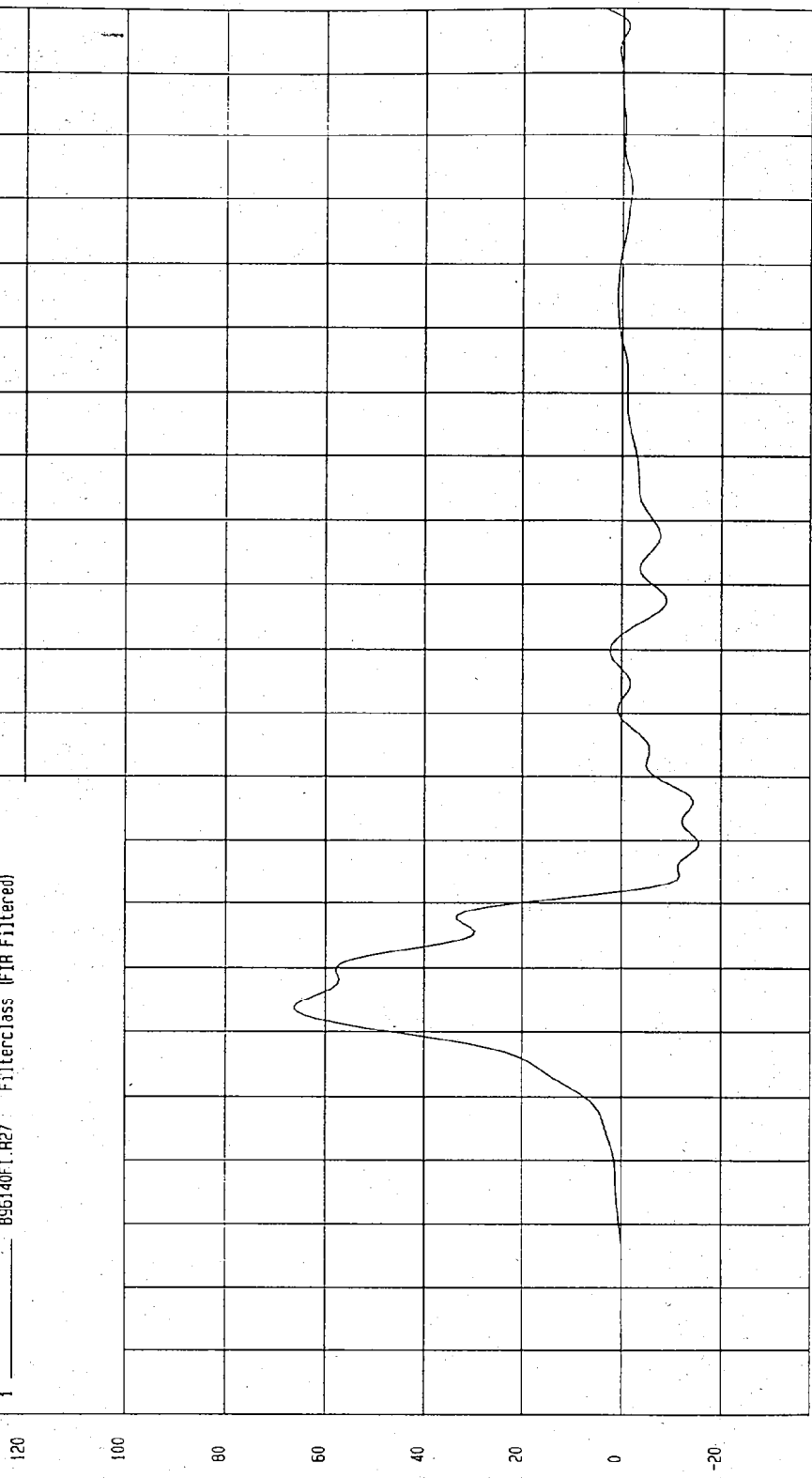
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -15.45 G'S at 69 msec

Maximum = 66.31 G'S at 44 msec

REAR PASSENGER LOWER SPINE Y ACCELERATION

1 ——— 896140F1.R27 Filterclass (FIR Filtered)



TIME (SECONDS)

MGA Research
01-17-1997 14.08

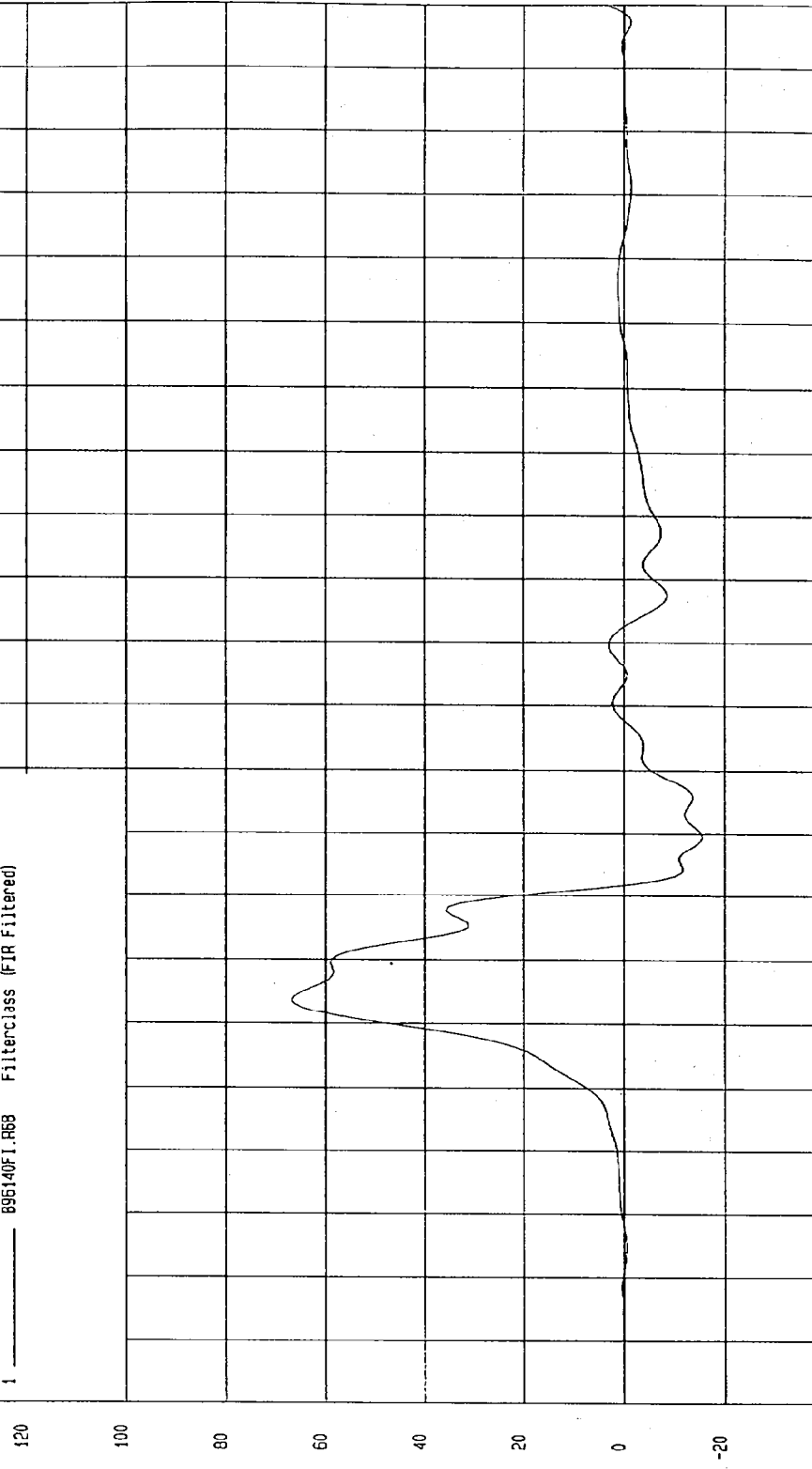
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -15.58 G'S at 69 msec Maximum = 66.79 G'S at 44 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT ACCELERATION

1 895140FL.R68 Filterclass (FIR Filtered)



TIME (SECONDS)

MGA Research
01-17-1997 14:08

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

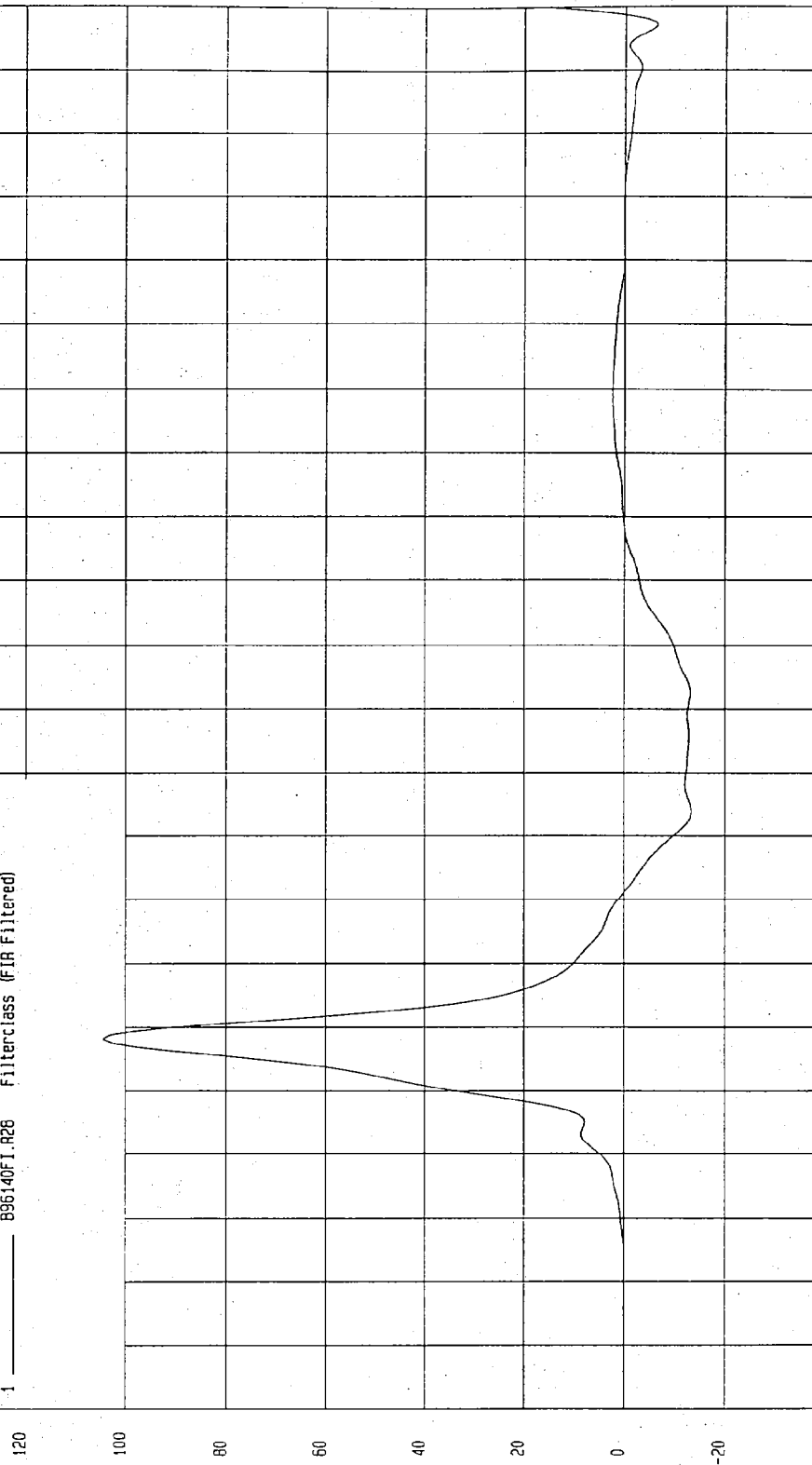
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -13.40 G'S at 74 msec

Maximum = 104.71 G'S at 38 msec

REAR PASSENGER PELVIS Y ACCELERATION

1 — 896140F1.R26 Filterclass (FIR Filtered)



TIME (SECONDS)

MCA Research
01-17-1997 1:00

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST TEST DATE: 12-17-1996

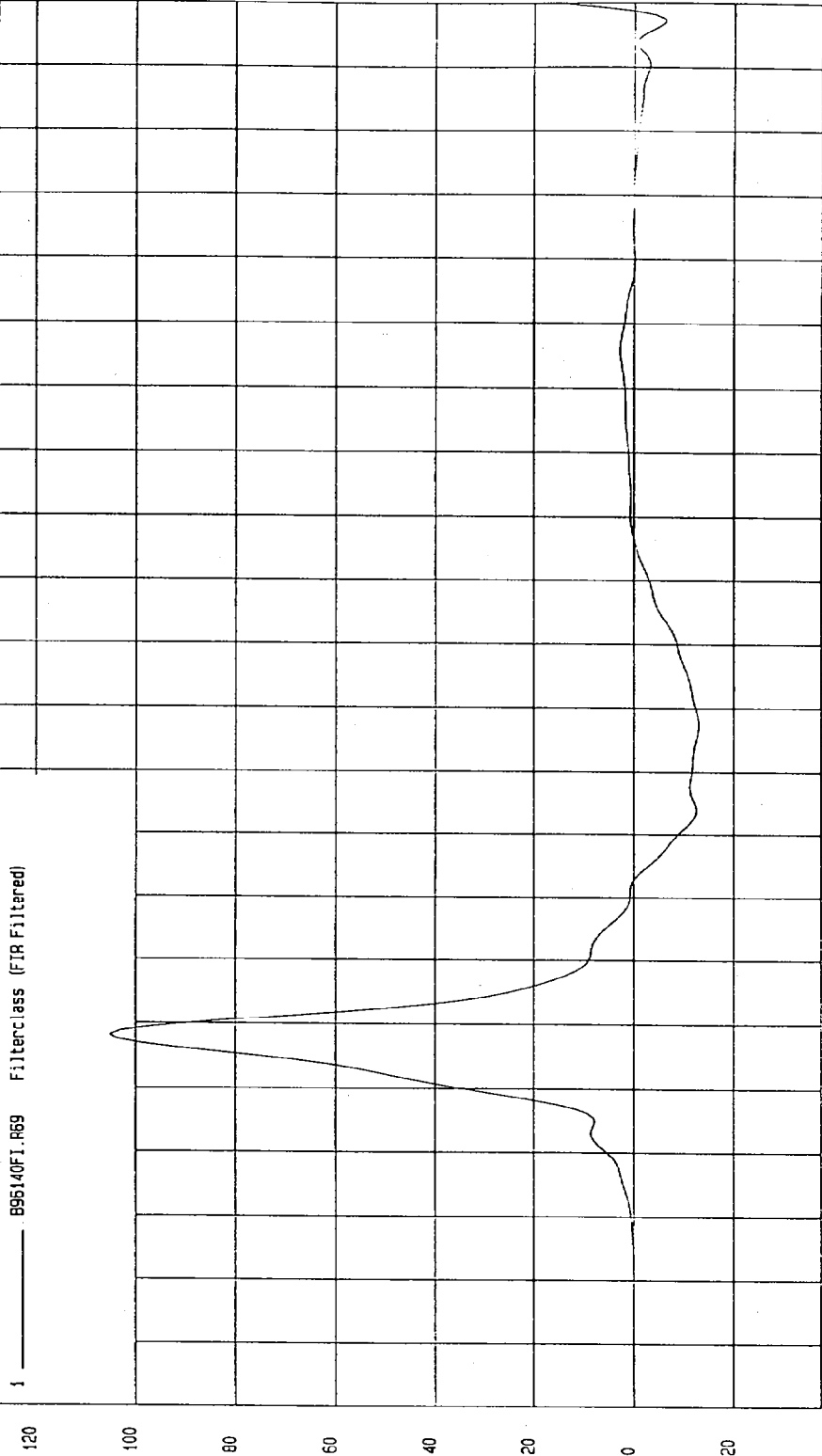
COMPONENT: 1997 DODGE INTREPID (MV0302) Speed: 38.2 MPH 61.5 KPH

Minimum = -13.27 G'S at 88 msec

Maximum = 105.12 G'S at 38 msec

REAR PASSENGER PELVIS Y REDUNDANT ACCELERATION

1 ——— B96140FI.R69 Filterclass (FIR Filtered)



TIME (SECONDS)

NSA Presentation
01-17-1997 14:08

G.S

APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION

REPORT NO. MGA-97-DC07

DUMMY PERFORMANCE CALIBRATIONS

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST

1997 DODGE INTREPID
4-DOOR
NHTSA NO. MV0302

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: December 17, 1996

Report Date: January 21, 1997

FINAL REPORT

Prepared For:

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF CRASHWORTHINESS STANDARDS
ROOM 5313, NPS-10
400 SEVENTH STREET, S.W.
Washington, D.C. 20590

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DUMMY S/N: 269	PRE-TEST CERTIFICATION DATA	1-1
DUMMY S/N: 270	PRE-TEST CERTIFICATION DATA	2-1
DUMMY S/N: 269	POST-TEST CERTIFICATION DATA	3-1
DUMMY S/N: 270	POST-TEST CERTIFICATION DATA	4-1
DUMMY S/N: 269	POST-TEST INSPECTION CHECKLIST	5-1
DUMMY S/N: 270	POST-TEST INSPECTION CHECKLIST	6-1
	VEHICLE AND DUMMY TEMPERATURE	7-1

PRE-TEST CERTIFICATION DATA

Front Dummy Serial Number: 269

Calibration Test Results Summary

Dummy Serial Number: 269

Pre-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 269

DATE OF VERIFICATION: December 16, 1996

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height	35.0" - 35.8"	35.1
RH - Rib Height	19.75" - 20.50"	20.00
HP - Hip Pivot Height	3.9" ref.	3.9
RD - Rib From Back Line	9.0" to 9.5"	9.3
KV - Knee Pivot From Back Line	20.1" - 20.7"	20.4
SW - Knee Pivot to Floor	19.3" - 19.9"	19.4
HW - Hip Width	14.0" - 15.4"	15.0

MEASUREMENTS BY: 

APPROVED BY: 

MGA RESEARCH CORPORATION

THORAX IMPACT TEST

SIDE IMPACT DUMMY (SID)

DATE: December 16, 1996

DUMMY NUMBER: 269

TEST NUMBER: D962162

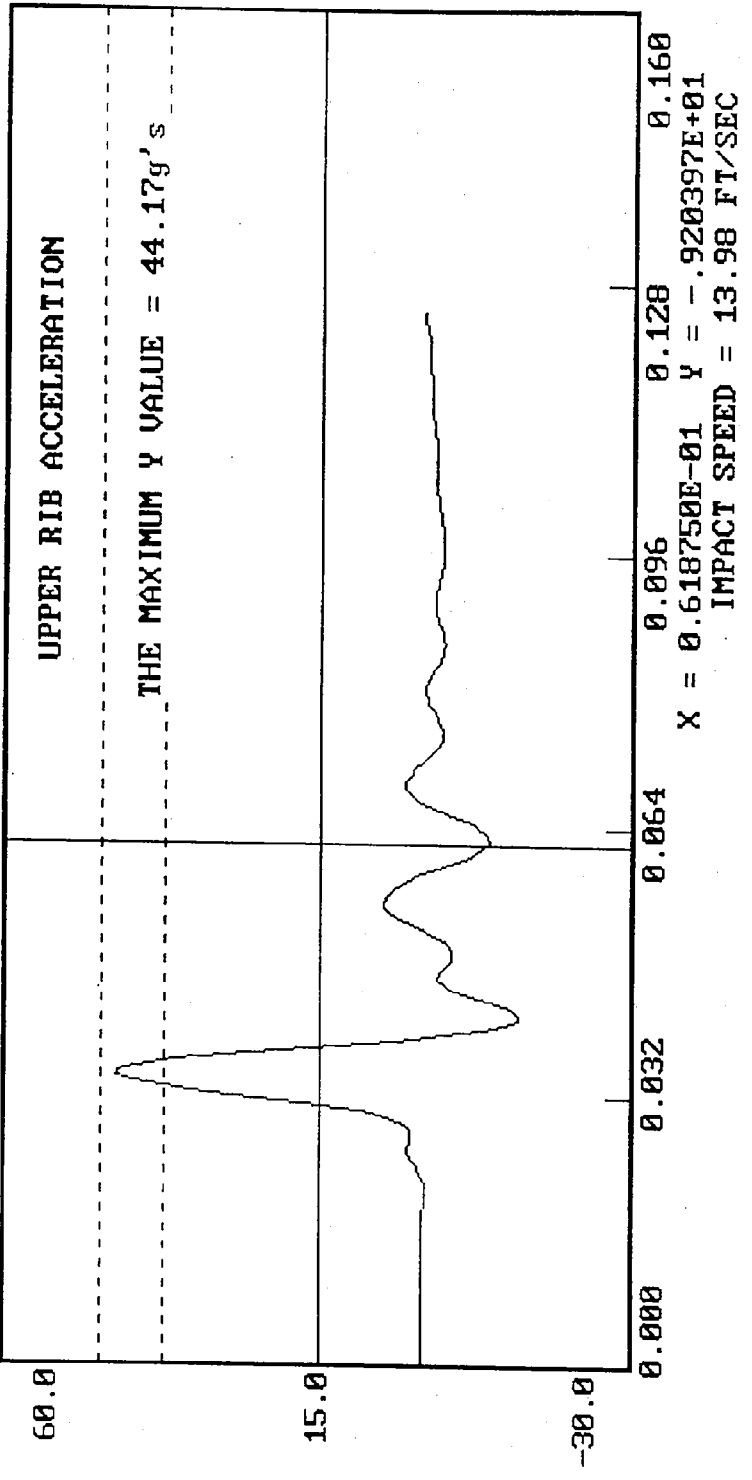
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
PROBE SPEED	13.8 - 14.2 fps	14.0
UPPER RIB	37 - 46 g's	44
LOWER RIB	37 - 46 g's	42
LOWER SPINE	15 - 22 g's	21

TEST MEETS SPECIFICATIONS

TECHNICIAN 

APPROVED BY 

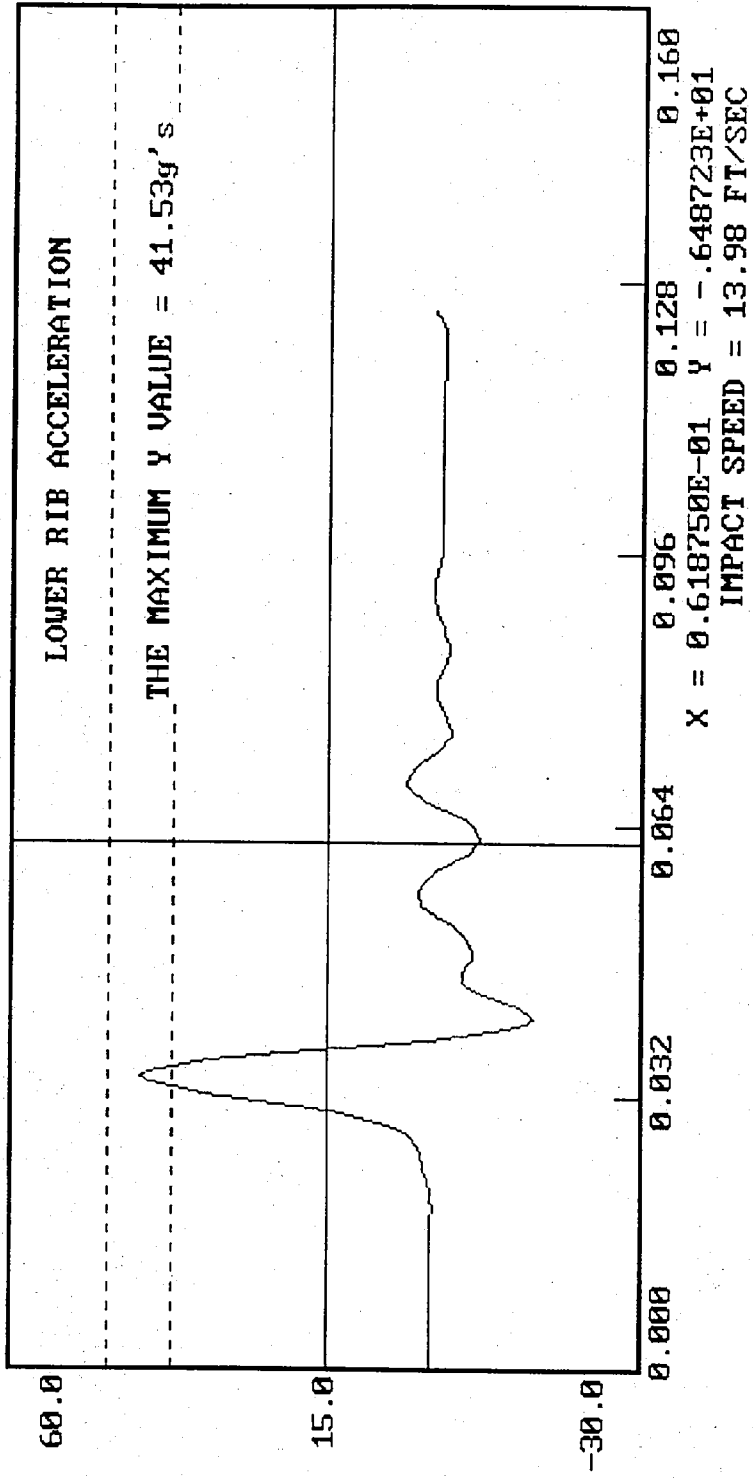
DUMMY CALIBRATION - THORAX IMPACT
 DUMMY # 269
 12-16-1996 15:15
 ACCELERATION (G'S) VS. TIME ((SECONDS))



DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 269

12-16-1996 15:15

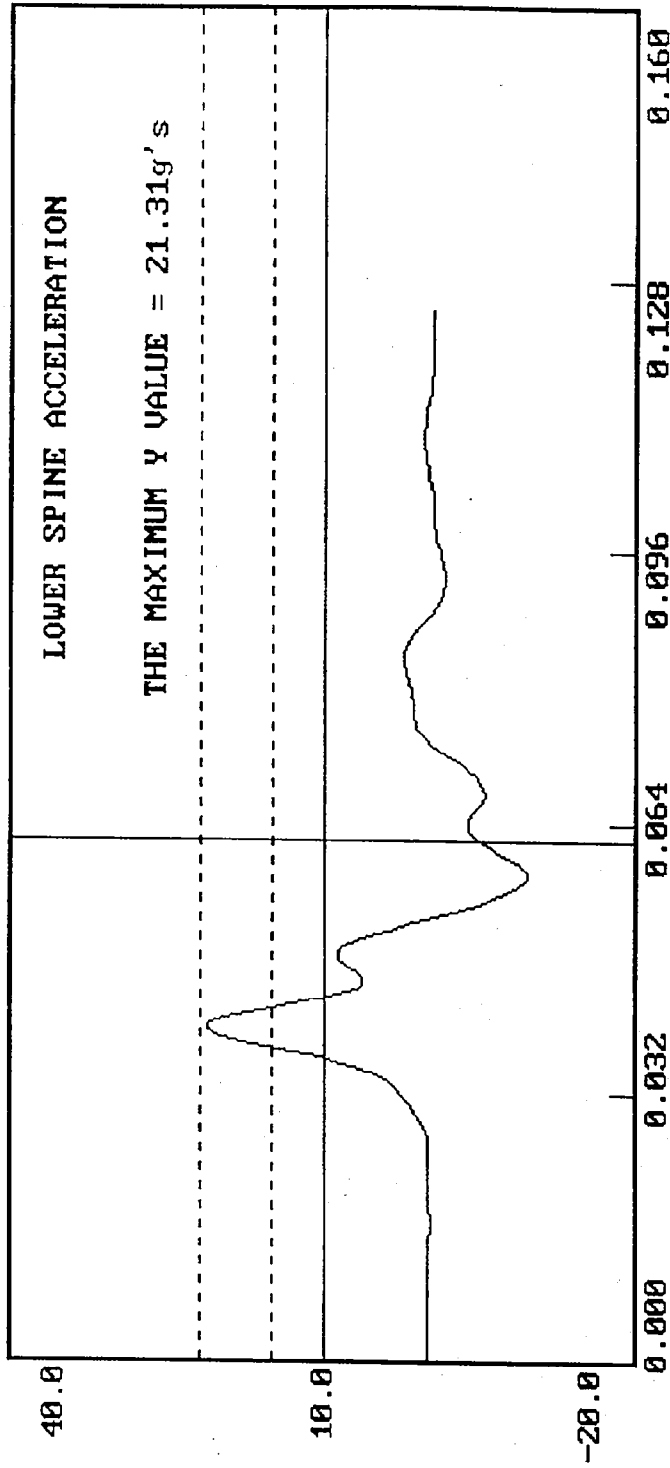
ACCELERATION (G'S) VS. TIME ((SECONDS))



DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 269

12-16-1996 15:15

ACCELERATION (G'S) VS. TIME ((SECONDS))



X = 0.618750E-01 Y = -.485849E+01
IMPACT SPEED = 13.98 FT/SEC

MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SIDE IMPACT DUMMY (SID)

DATE: December 16, 1996

DUMMY NUMBER: 269

TEST NUMBER: D962163

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
PROBE SPEED	13.8 - 14.2 f/s	14.0
PELVIS ACCELERATION	40 - 60 g's	45

TEST MEETS SPECIFICATIONS

TECHNICIAN *Tim [Signature]*

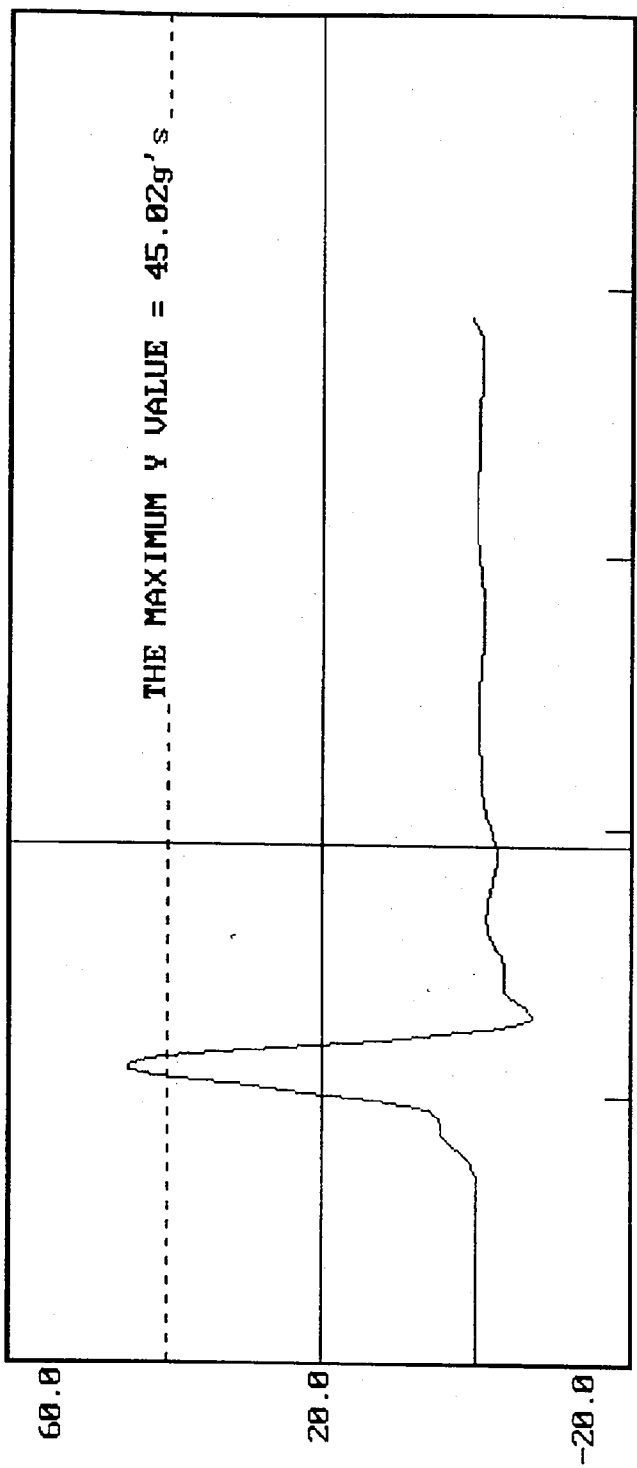
APPROVED BY *[Signature]*

12-16-1996 15:24

DUMMY CALIBRATION - PELVIS IMPACT

DUMMY # 269

ACCELERATION (G'S) VS. TIME ((SECONDS))



X = 0.618750E-01 Y = -.263161E+01
IMPACT SPEED = 13.99 FT/SEC

MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)

SIDE IMPACT DUMMY (SID)

DATE: December 16, 1996

DUMMY NUMBER: 269

TEST NUMBER: D962164

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
FORCE @ 0.5 in	23.3 - 36.5 lbs	34.3
FORCE @ 0.75 in	36.7 - 49.8 lbs	48.7
FORCE @ 1.0 in	50 - 63 lbs	63
FORCE @ 1.3 in	73 - 88 lbs	87

TEST MEETS SPECIFICATIONS

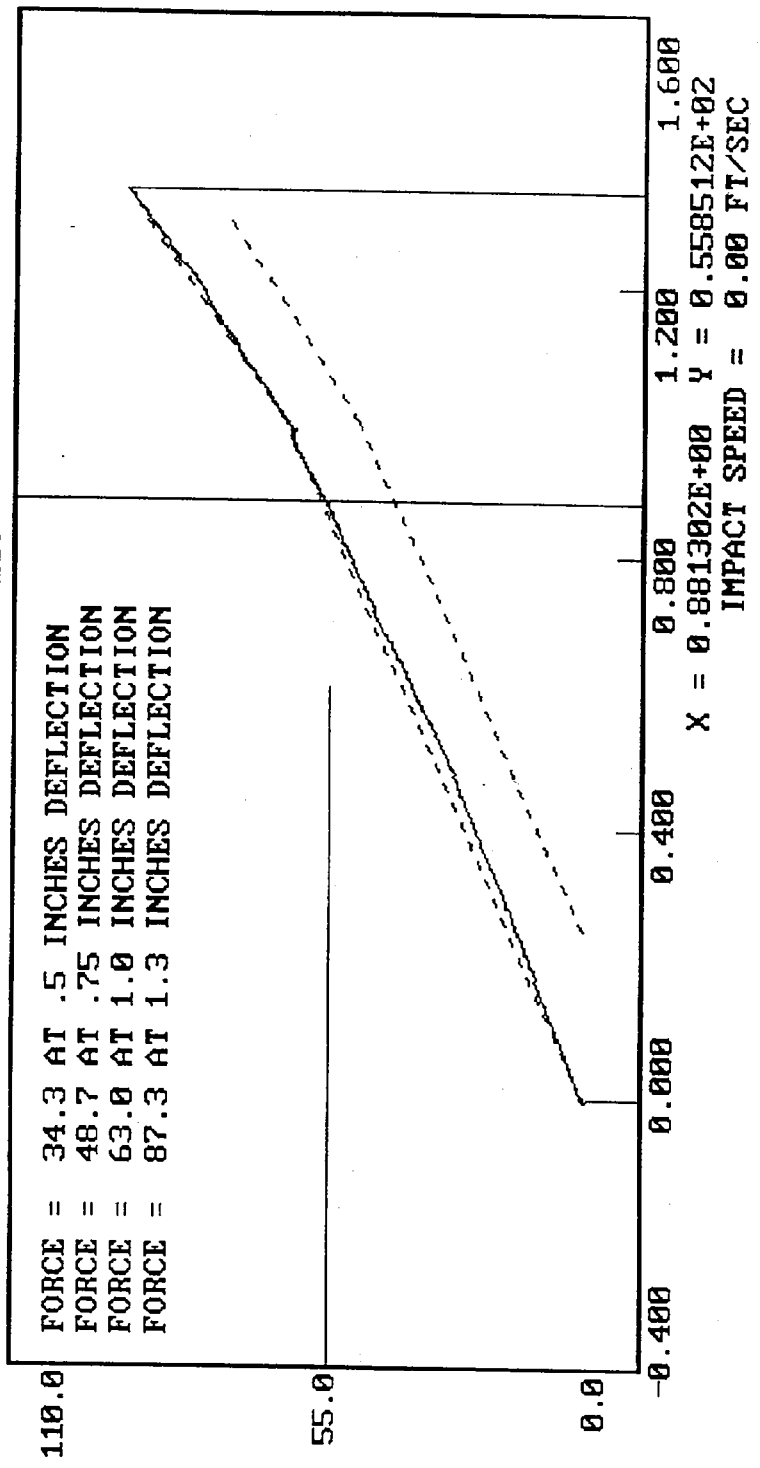
TECHNICIAN 

APPROVED BY 

DUMMY CALIBRATION - ABDOMEN COMPRESSION
 DUMMY # 269

12-16-1996 12:12

ABDOMEN FORCE (LBS) VS. ABDOMEN DISPLACEMENT (INCHES)



MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

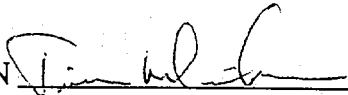
DATE: December 16, 1996

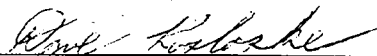
DUMMY NUMBER: 269

TEST NUMBER: D962165

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
FORCE @ 0°	0 - 6 lbs	0
FORCE @ 20°	22 - 34 lbs	31
FORCE @ 30°	34 - 46 lbs	40
FORCE @ 40°	46 - 58 lbs	49
RETURN ANGLE	12° maximum	2°

TEST MEETS SPECIFICATIONS

TECHNICIAN 

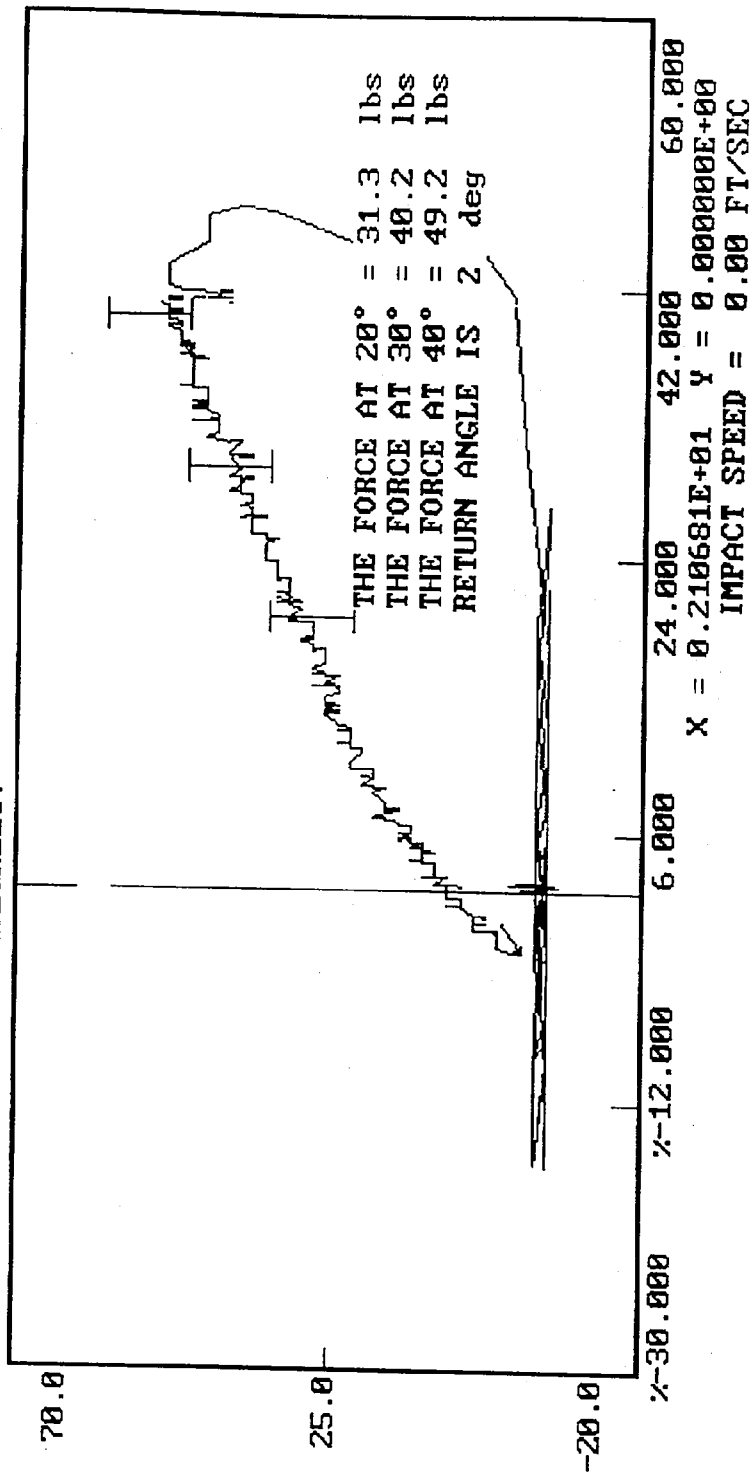
APPROVED BY 

DUMMY CALIBRATION - LUMBAR FLEXION

12-16-1996 14:48

DUMMY # 269

FORCE (LBS) VS. TORSO ROTATION (DEGREES)



PRE-TEST CERTIFICATION DATA

Rear Dummy Serial Number: 270

Calibration Test Results Summary

Dummy Serial Number: 270

Pre-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 270

DATE OF VERIFICATION: December 16, 1996

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height	35.0" - 35.8"	35.2
RH - Rib Height	19.75" - 20.50"	20.50
HP - Hip Pivot Height	3.9" ref.	3.9
RD - Rib From Back Line	9.0" to 9.5"	9.5
KV - Knee Pivot From Back Line	20.1" - 20.7"	20.6
SW - Knee Pivot to Floor	19.3" - 19.9"	19.5
HW - Hip Width	14.0" - 15.4"	15.0

MEASUREMENTS BY: 

APPROVED BY: 

MGA RESEARCH CORPORATION

THORAX IMPACT TEST

SIDE IMPACT DUMMY (SID)

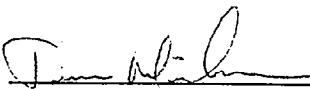
DATE: December 16, 1996

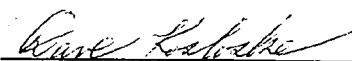
DUMMY NUMBER: 270

TEST NUMBER: D962212

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
PROBE SPEED	13.8 - 14.2 fps	14.0
UPPER RIB	37 - 46 g's	42
LOWER RIB	37 - 46 g's	42
LOWER SPINE	15 - 22 g's	22

TEST MEETS SPECIFICATIONS

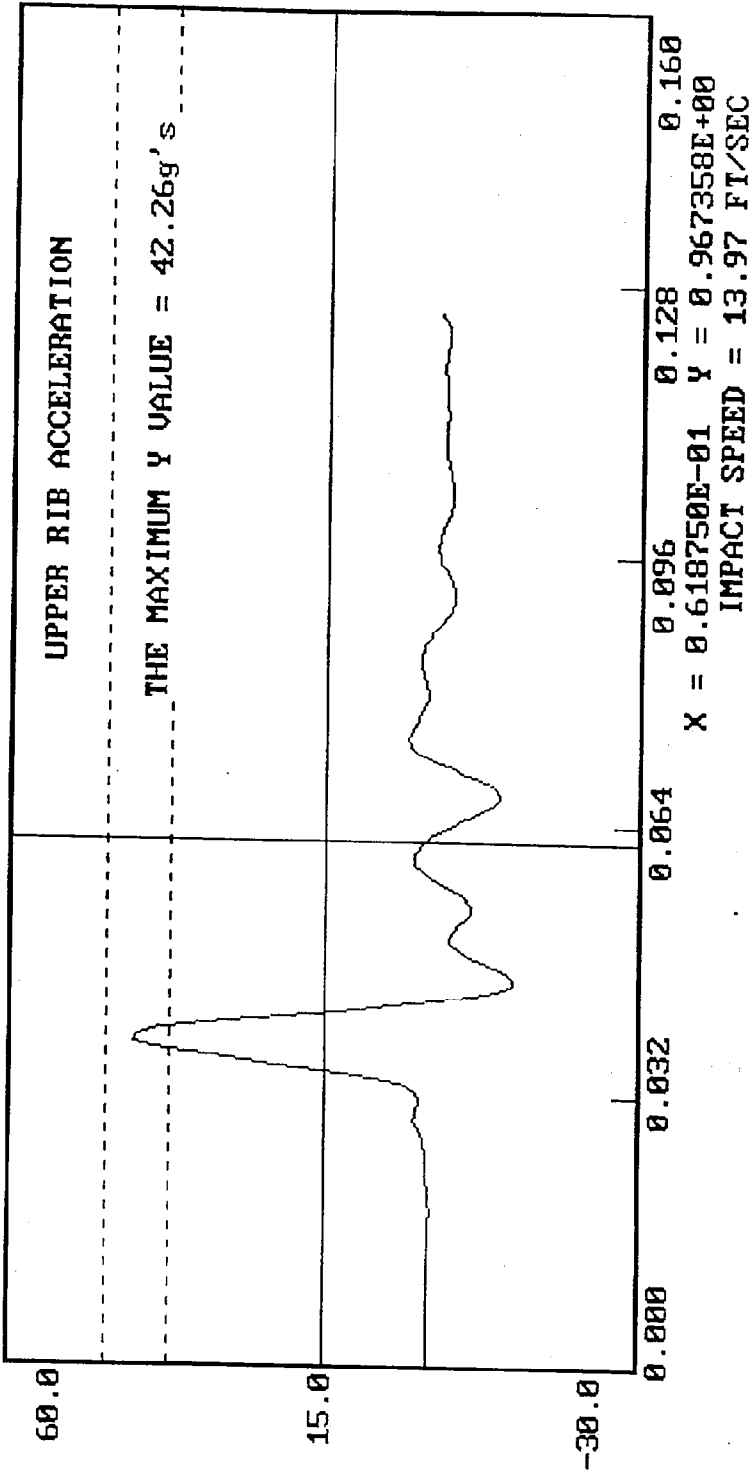
TECHNICIAN 

APPROVED BY 

DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 270

12-16-1996 22:33

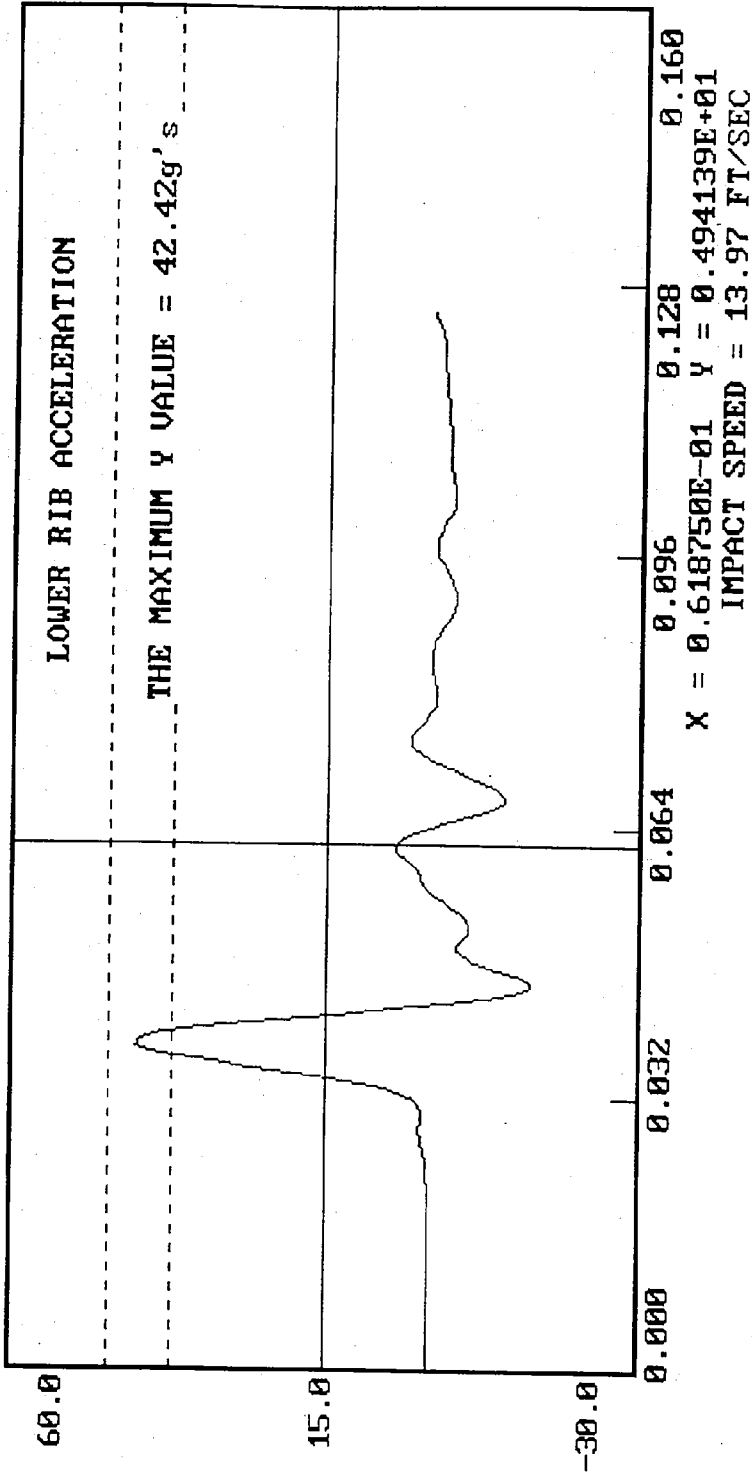
ACCELERATION (G'S) VS. TIME (SECONDS)



DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 270

12-16-1996 22:33

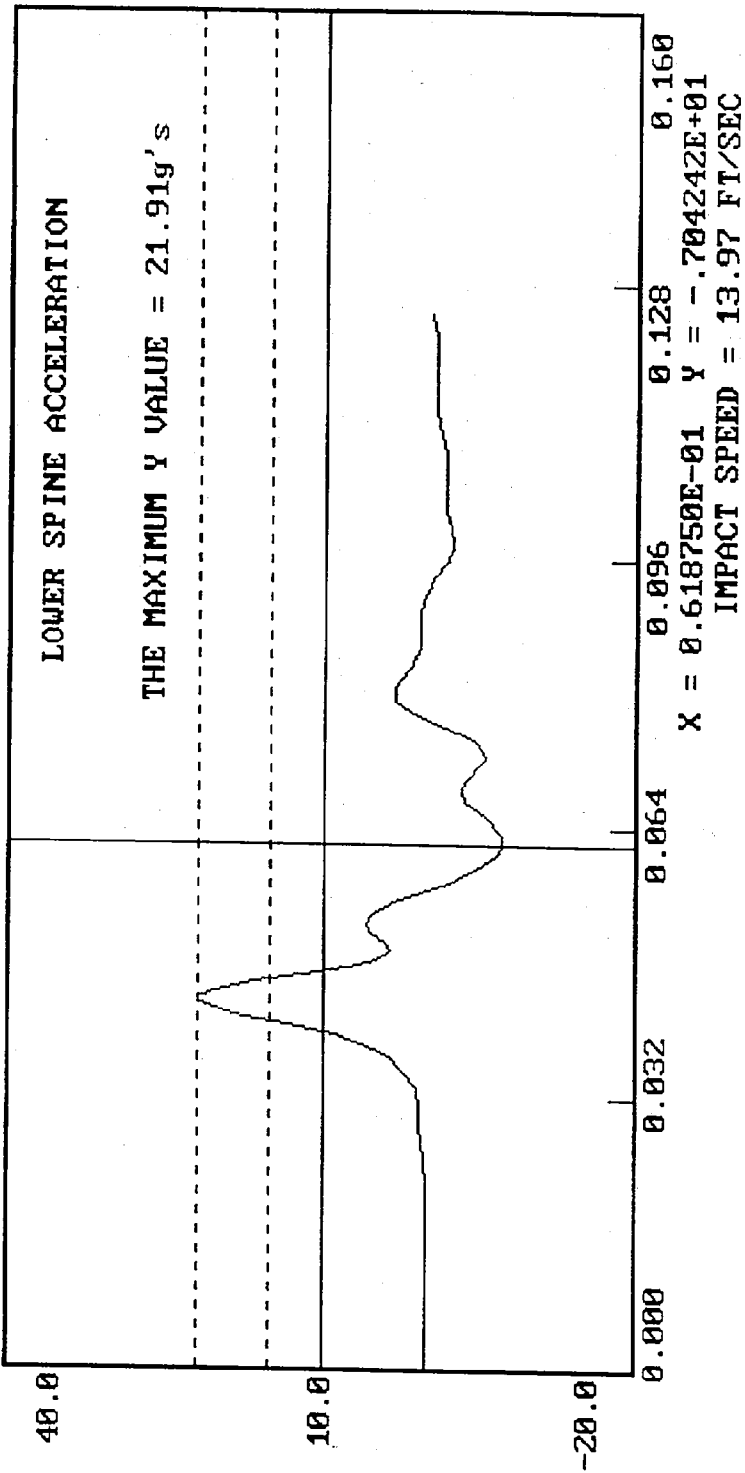
ACCELERATION (G'S) VS. TIME ((SECONDS))



DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 278

12-16-1996 22:34

ACCELERATION (G'S) VS. TIME ((SECONDS))



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SIDE IMPACT DUMMY (SID)

DATE: December 16, 1996

DUMMY NUMBER: 270

TEST NUMBER: D962213

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
PROBE SPEED	13.8 - 14.2 f/s	14.0
PELVIS ACCELERATION	40 - 60 g's	53

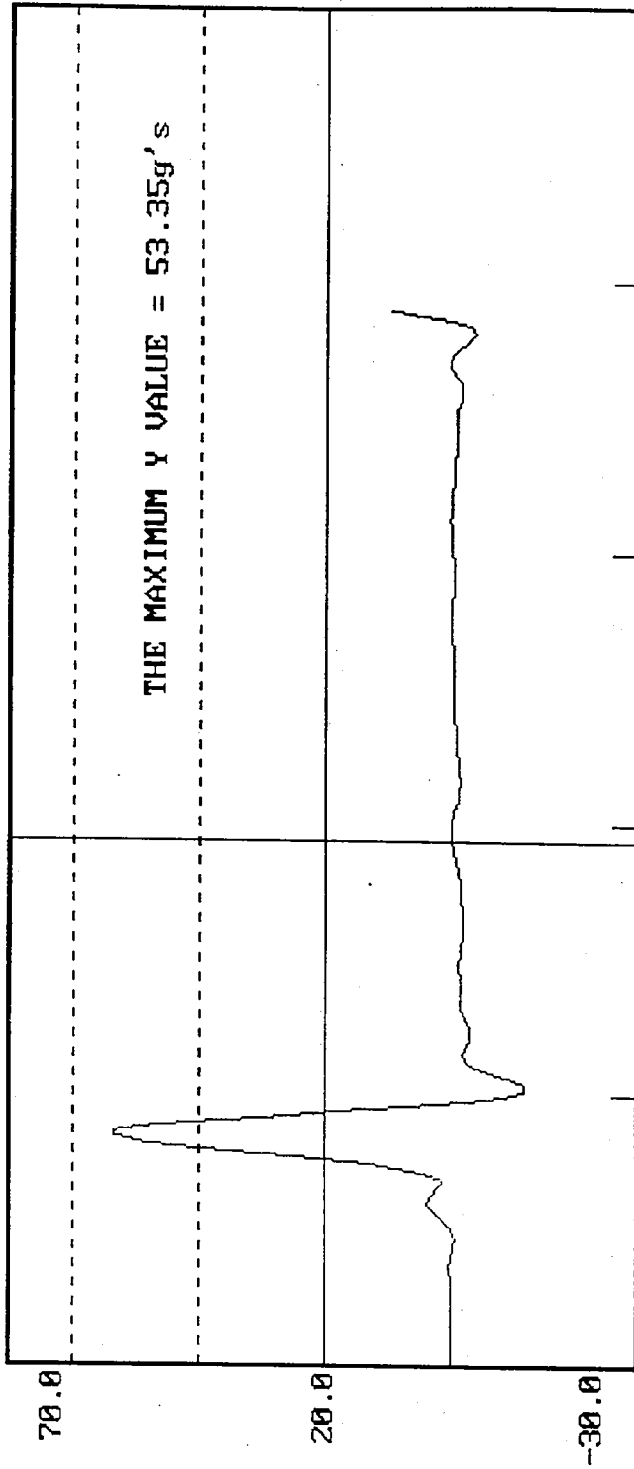
TEST MEETS SPECIFICATIONS

TECHNICIAN 

APPROVED BY 

12-16-1996 22:02

DUMMY CALIBRATION - PELVIS IMPACT
DUMMY # 270
ACCELERATION (G'S) VS. TIME ((SECONDS))



THE MAXIMUM Y VALUE = 53.35g's

X = 0.618750E-01 Y = -.819369E-01
IMPACT SPEED = 13.99 FT/SEC

MGA RESEARCH CORPORATION
ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)
SIDE IMPACT DUMMY (SID)

DATE: December 16, 1996

DUMMY NUMBER: 270

TEST NUMBER: D962214

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
FORCE @ 0.5 in	23.3 - 36.5 lbs	31.6
FORCE @ 0.75 in	36.7 - 49.8 lbs	44.1
FORCE @ 1.0 in	50 - 63 lbs	60
FORCE @ 1.3 in	73 - 88 lbs	83

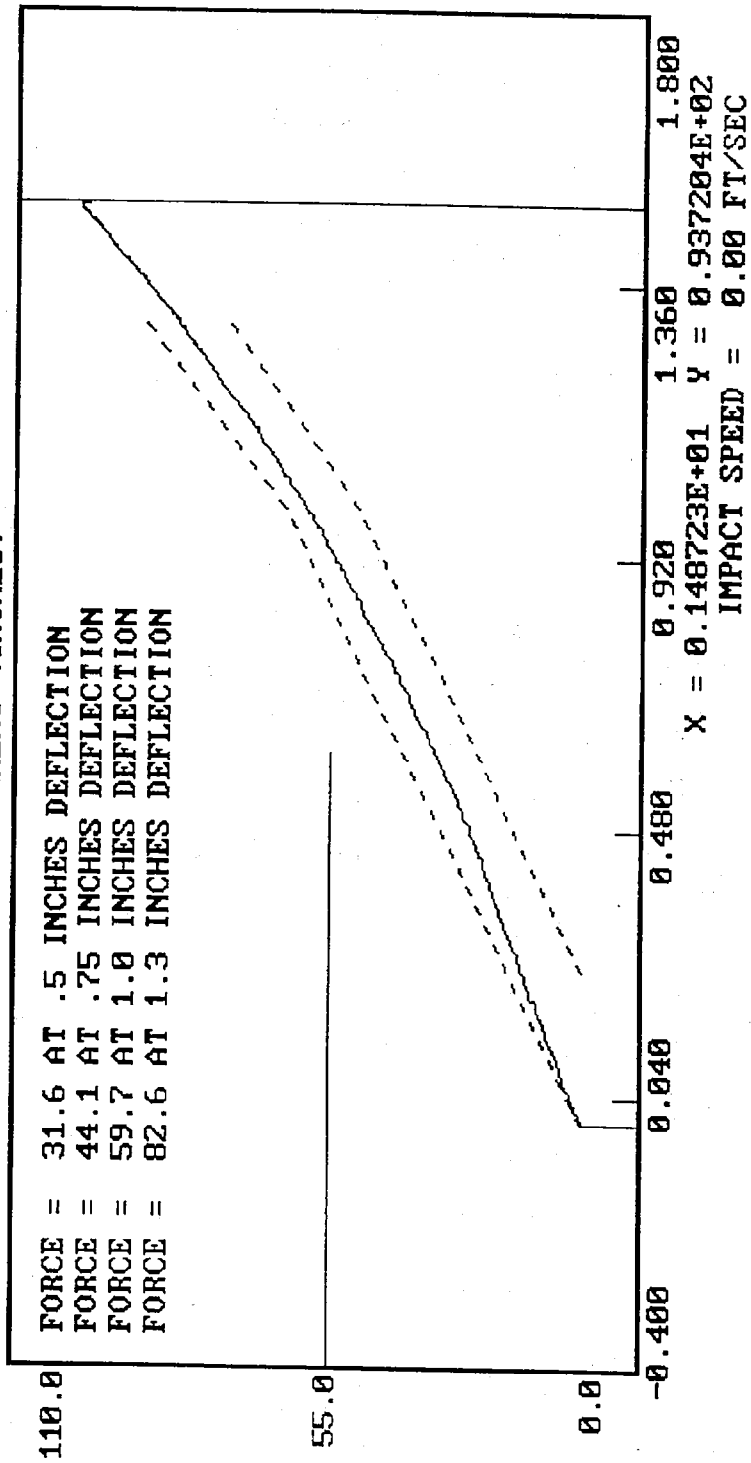
TEST MEETS SPECIFICATIONS

TECHNICIAN 

APPROVED BY 

DUMMY CALIBRATION - ABDOMEN COMPRESSION
 DUMMY # 270
 12-16-1996 12:16

ABDOMEN FORCE (LBS) VS. ABDOMEN DISPLACEMENT (INCHES)



MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: December 16, 1996

DUMMY NUMBER: 270

TEST NUMBER: D962215

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	20%
FORCE @ 0°	0 - 6 lbs	0
FORCE @ 20°	22 - 34 lbs	28
FORCE @ 30°	34 - 46 lbs	40
FORCE @ 40°	46 - 58 lbs	56
RETURN ANGLE	12° maximum	1°

TEST MEETS SPECIFICATIONS

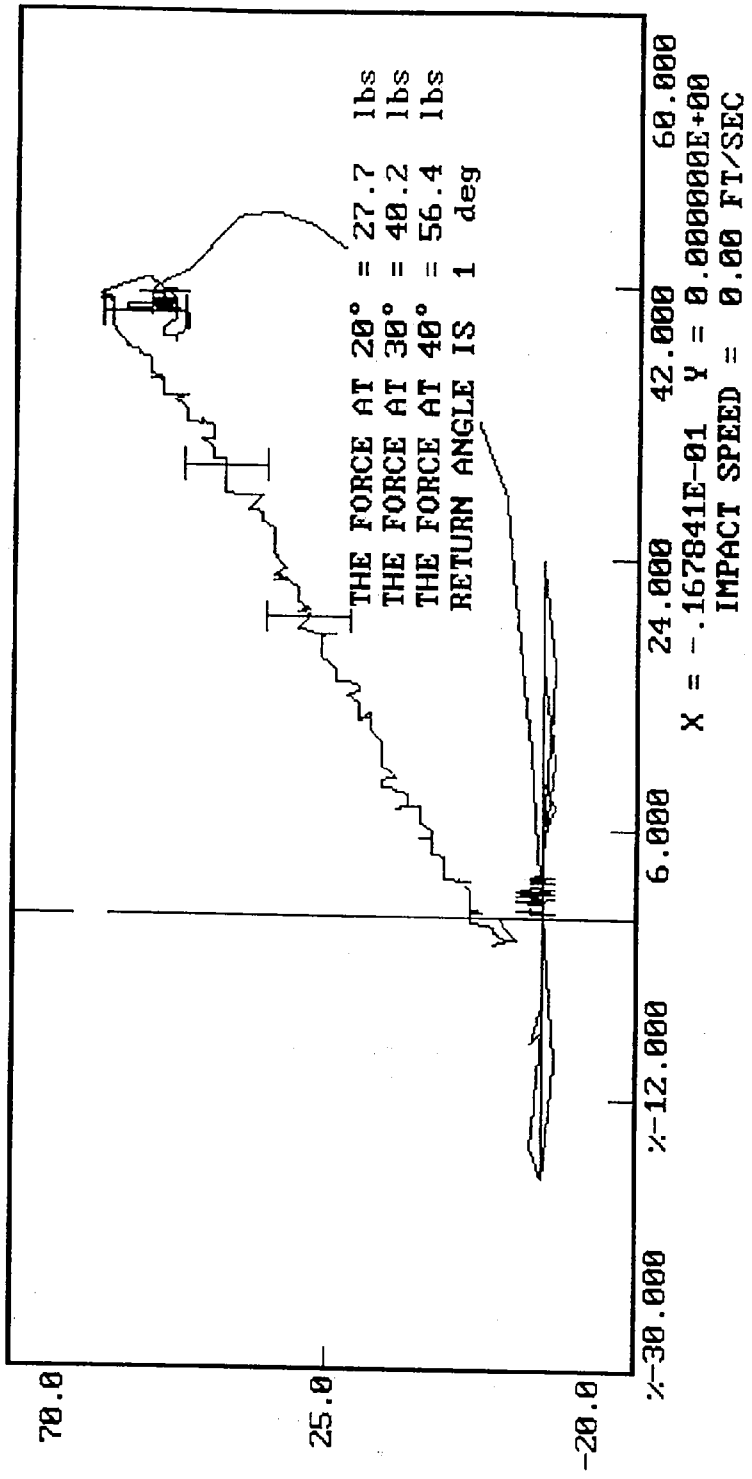
TECHNICIAN *Jim H. [Signature]*

APPROVED BY *Paul K. [Signature]*

DUMMY CALIBRATION - LUMBAR FLEXION
DUMMY # 270

12-16-1996 14:33

FORCE (LBS) VS. TORSO ROTATION (DEGREES)



POST-TEST CERTIFICATION DATA

Front Dummy Serial Number: 269

Calibration Test Results Summary

Dummy Serial Number: 269

Post-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 269

DATE OF VERIFICATION: December 19, 1996

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height	35.0" - 35.8"	35.1
RH - Rib Height	19.75" - 20.50"	20.00
HP - Hip Pivot Height	3.9" ref.	3.9
RD - Rib From Back Line	9.0" to 9.5"	9.5
KV - Knee Pivot From Back Line	20.1" - 20.7"	20.4
SW - Knee Pivot to Floor	19.3" - 19.9"	19.4
HW - Hip Width	14.0" - 15.4"	15.0

MEASUREMENTS BY: 

APPROVED BY: 

MGA RESEARCH CORPORATION

THORAX IMPACT TEST

SIDE IMPACT DUMMY (SID)

DATE: December 18, 1996

DUMMY NUMBER: 269

TEST NUMBER: D962242

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	18%
PROBE SPEED	13.8 - 14.2 fps	14.0
UPPER RIB	37 - 46 g's	46
LOWER RIB	37 - 46 g's	46
LOWER SPINE	15 - 22 g's	19

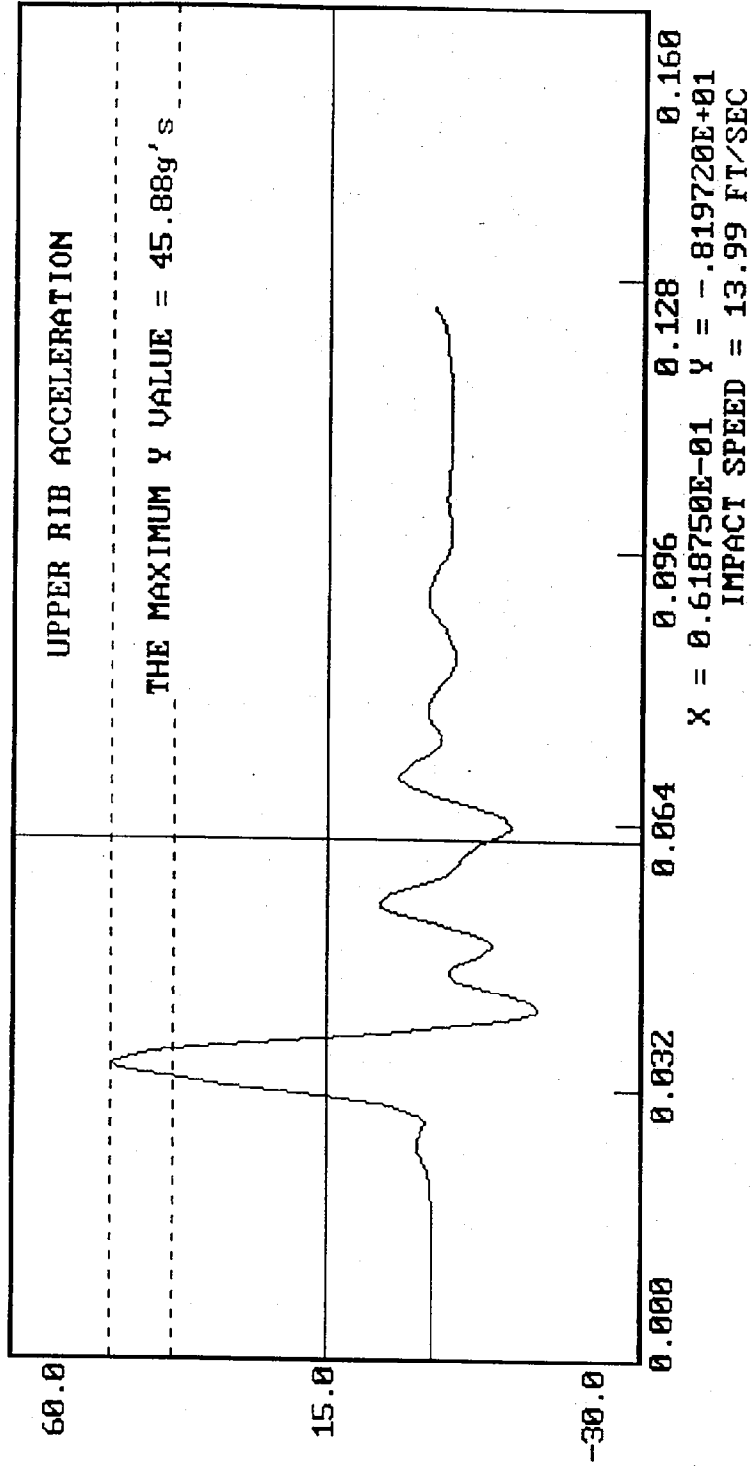
TEST MEETS SPECIFICATIONS

TECHNICIAN *Jim Wilson*

APPROVED BY *Gene Kalske*

DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 269
ACCELERATION (G'S) VS. TIME ((SECONDS))

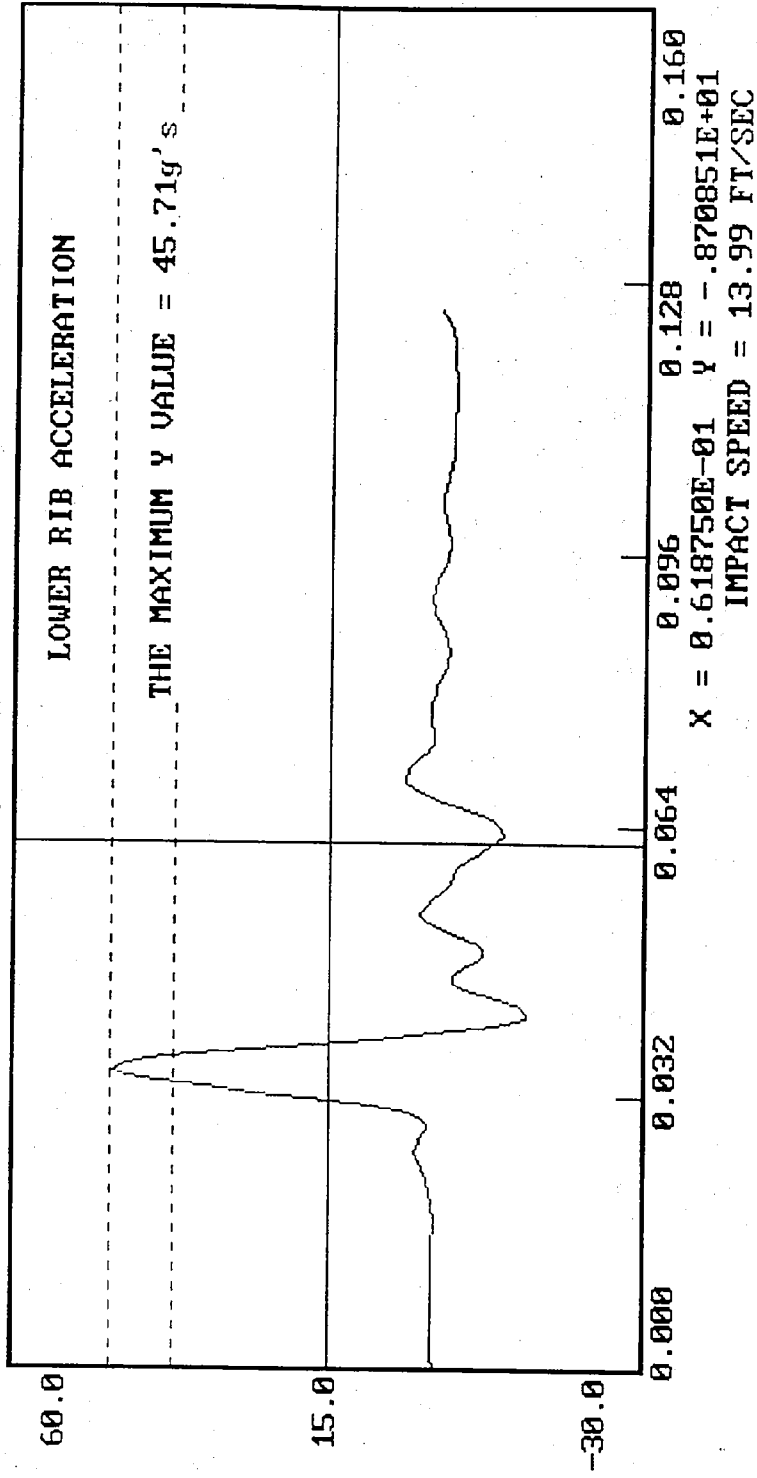
12-18-1996 16:23



DUMMY CALIBRATION - THORAX IMPACT
DUMMY # 269

12-18-1996 16:31

ACCELERATION (G'S) VS. TIME ((SECONDS))

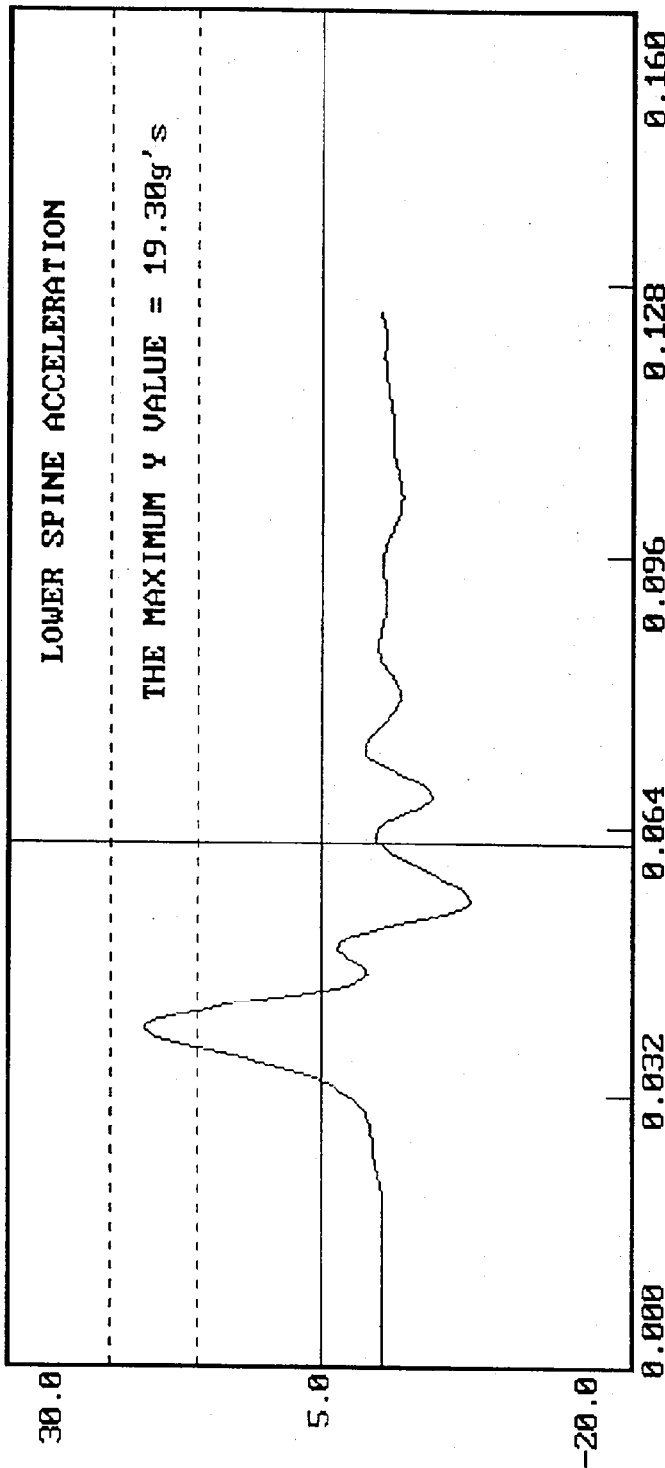


12-18-1996 16:35

DUMMY CALIBRATION -- THORAX IMPACT

DUMMY # 269

ACCELERATION (G'S) VS. TIME ((SECONDS))



X = 0.618750E-01 Y = 0.290217E+00

IMPACT SPEED = 13.99 FT/SEC

MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SIDE IMPACT DUMMY (SID)

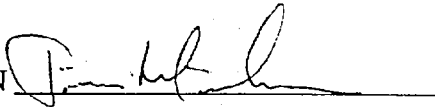
DATE: December 18, 1996

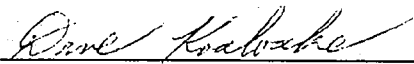
DUMMY NUMBER: 269

TEST NUMBER: D962243

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	18%
PROBE SPEED	13.8 - 14.2 f/s	13.9
PELVIS ACCELERATION	40 - 60 g's	54

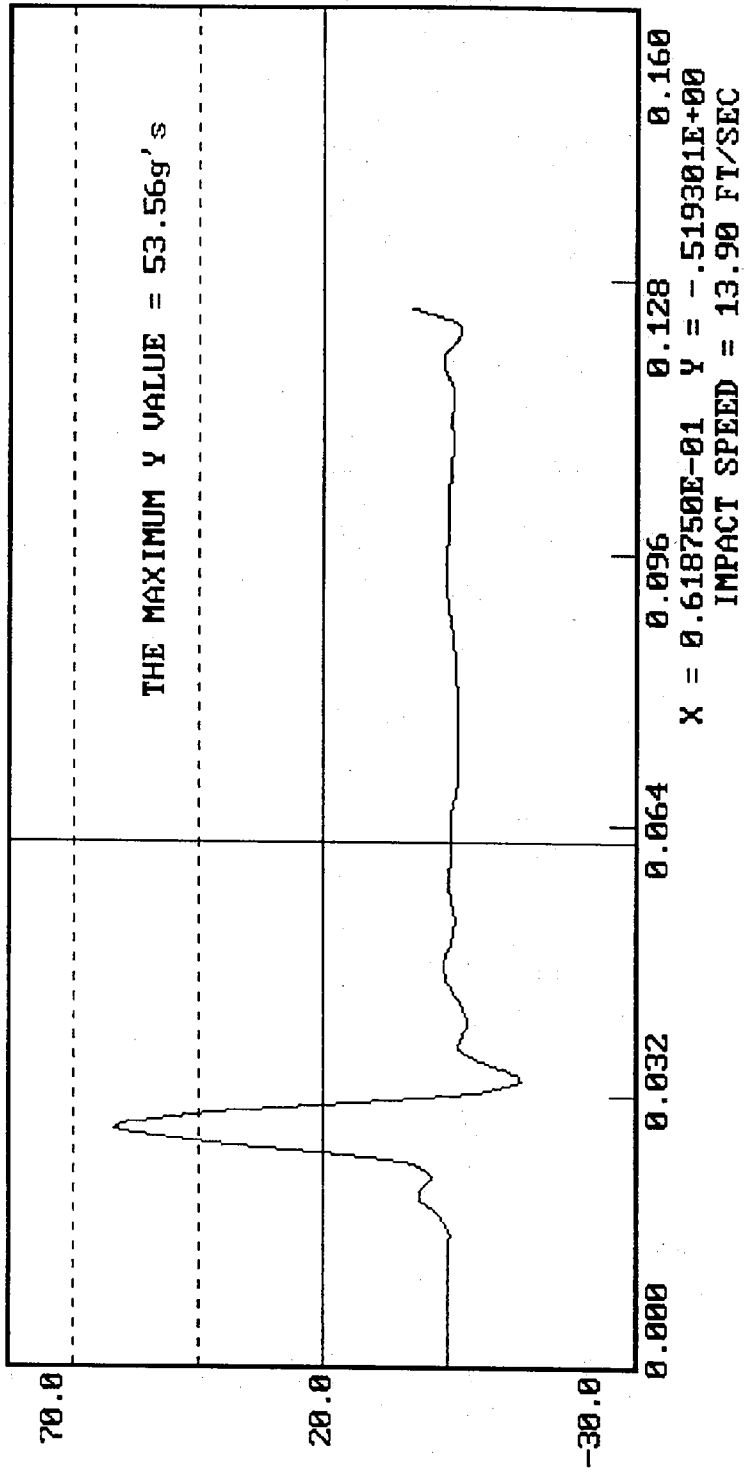
TEST MEETS SPECIFICATIONS

TECHNICIAN 

APPROVED BY 

DUMMY CALIBRATION - PELVIS IMPACT
DUMMY # 269
ACCELERATION (G'S) VS. TIME ((SECONDS))

12-18-1996 16:44



MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)

SIDE IMPACT DUMMY (SID)

DATE: December 19, 1996

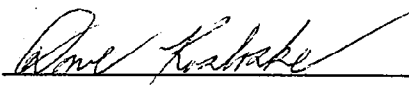
DUMMY NUMBER: 269

TEST NUMBER: D962244

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	18%
FORCE @ 0.5 in	23.3 - 36.5 lbs	34.1
FORCE @ 0.75 in	36.7 - 49.8 lbs	47.0
FORCE @ 1.0 in	50 - 63 lbs	62
FORCE @ 1.3 in	73 - 88 lbs	84

TEST MEETS SPECIFICATIONS

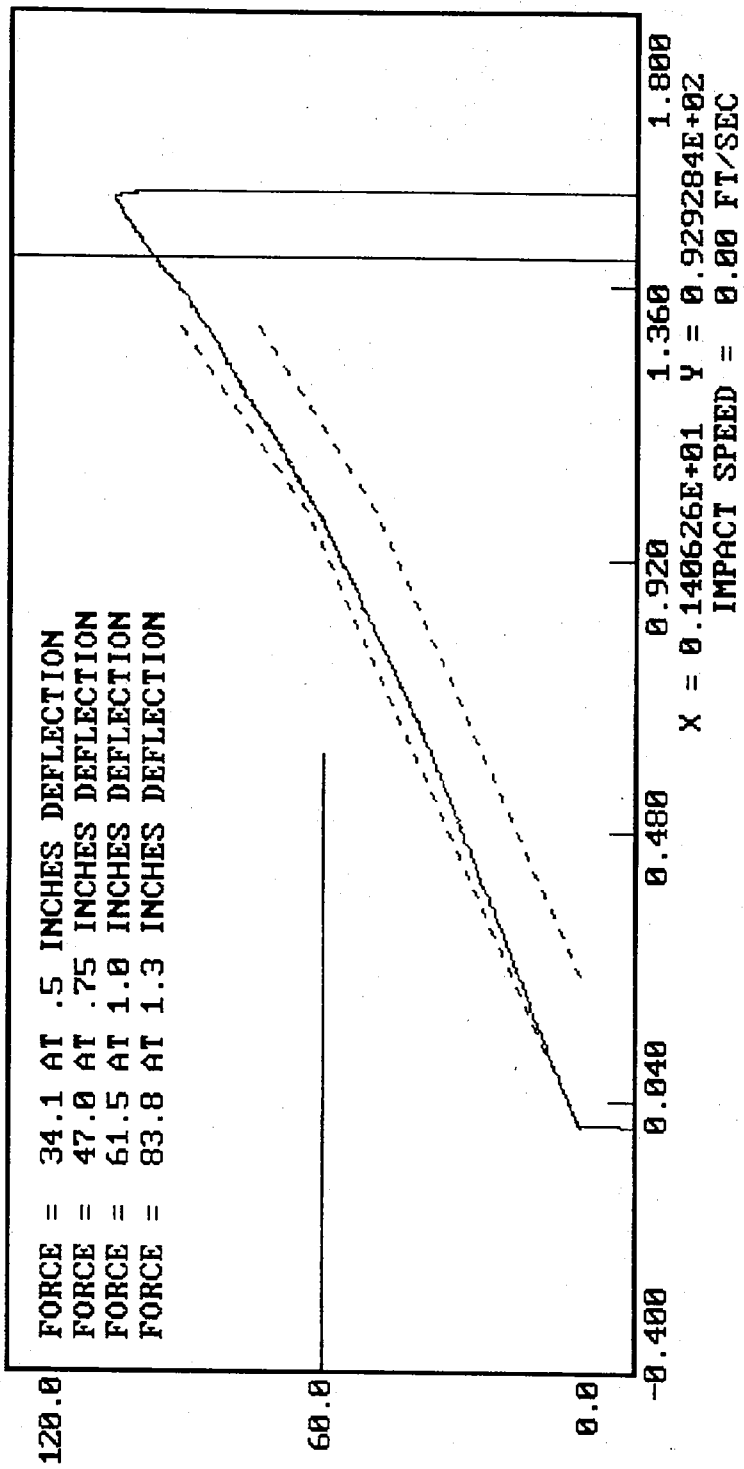
TECHNICIAN 

APPROVED BY 

DUMMY CALIBRATION - ABDOMEN COMPRESSION
DUMMY # 269

12-19-1996 15:53

ABDOMEN FORCE (LBS) VS. ABDOMEN DISPLACEMENT (INCHES)



MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: December 19, 1996

DUMMY NUMBER: 269

TEST NUMBER: D962245

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	18%
FORCE @ 0°	0 - 6 lbs	0
FORCE @ 20°	22 - 34 lbs	30
FORCE @ 30°	34 - 46 lbs	39
FORCE @ 40°	46 - 58 lbs	49
RETURN ANGLE	12° maximum	4°

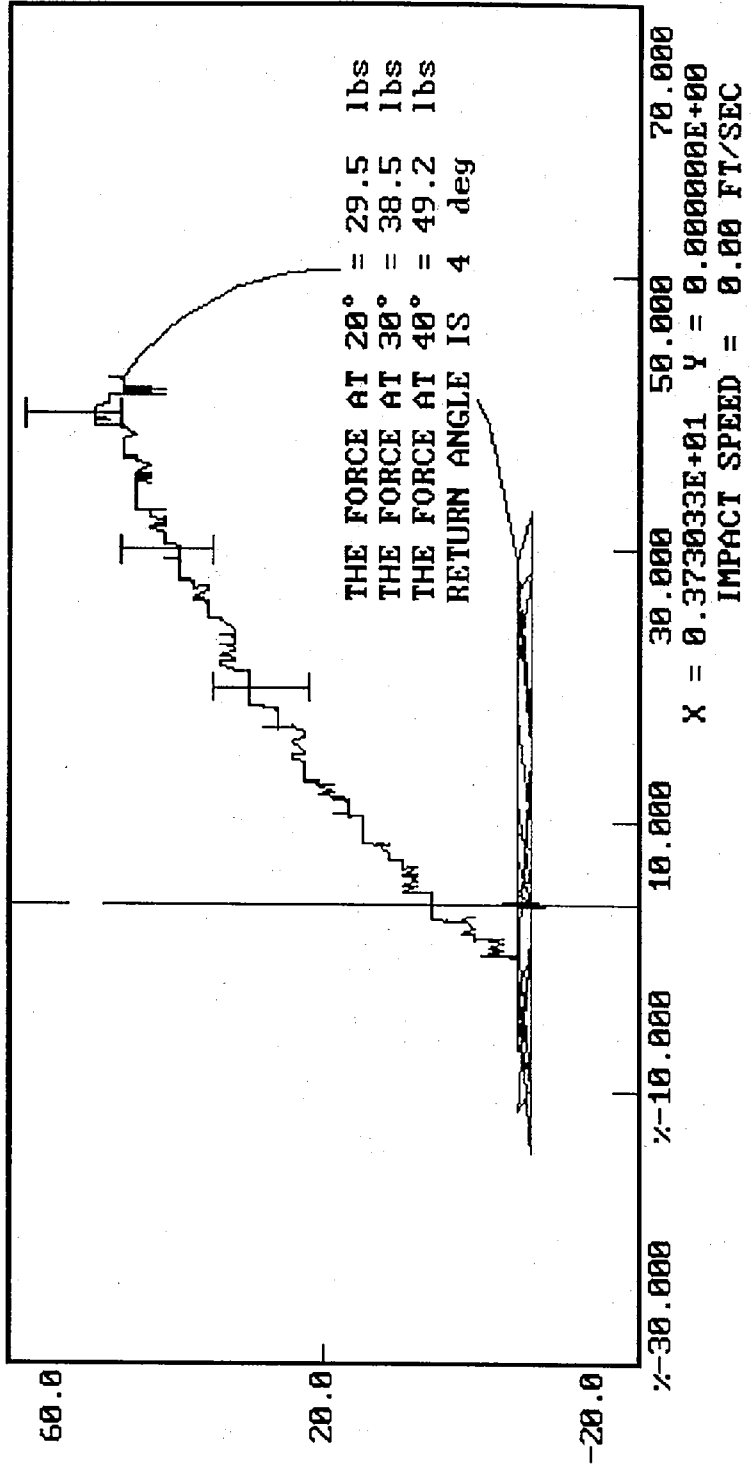
TEST MEETS SPECIFICATIONS

TECHNICIAN 

APPROVED BY 

12-19-1996 15:01

DUMMY CALIBRATION - LUMBAR FLEXION
DUMMY # 269
FORCE (LBS) VS. TORSO ROTATION (DEGREES)



POST-TEST CERTIFICATION DATA

Rear Dummy Serial Number: 270

Calibration Test Results Summary

Dummy Serial Number: 270

Post-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax did not pass all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 270

DATE OF VERIFICATION: December 19, 1996

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height	35.0" - 35.8"	35.2
RH - Rib Height	19.75" - 20.50"	20.50
HP - Hip Pivot Height	3.9" ref.	3.9
RD - Rib From Back Line	9.0" to 9.5"	9.5
KV - Knee Pivot From Back Line	20.1" - 20.7"	20.6
SW - Knee Pivot to Floor	19.3" - 19.9"	19.5
HW - Hip Width	14.0" - 15.4"	15.0

MEASUREMENTS BY:

Tim Blahut

APPROVED BY:

Gene Kalsche

MGA RESEARCH CORPORATION

THORAX IMPACT TEST

SIDE IMPACT DUMMY (SID)

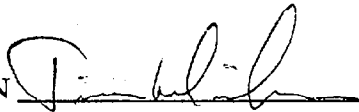
DATE: December 19, 1996

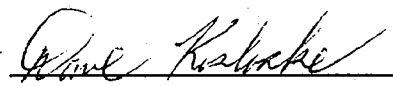
DUMMY NUMBER: 270

TEST NUMBER: D962252

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	15%
PROBE SPEED	13.8 - 14.2 fps	13.8
UPPER RIB	37 - 46 g's	43
LOWER RIB	37 - 46 g's	49*
LOWER SPINE	15 - 22 g's	21

* FAILURE--DOES NOT MEET SPECIFICATIONS

TECHNICIAN 

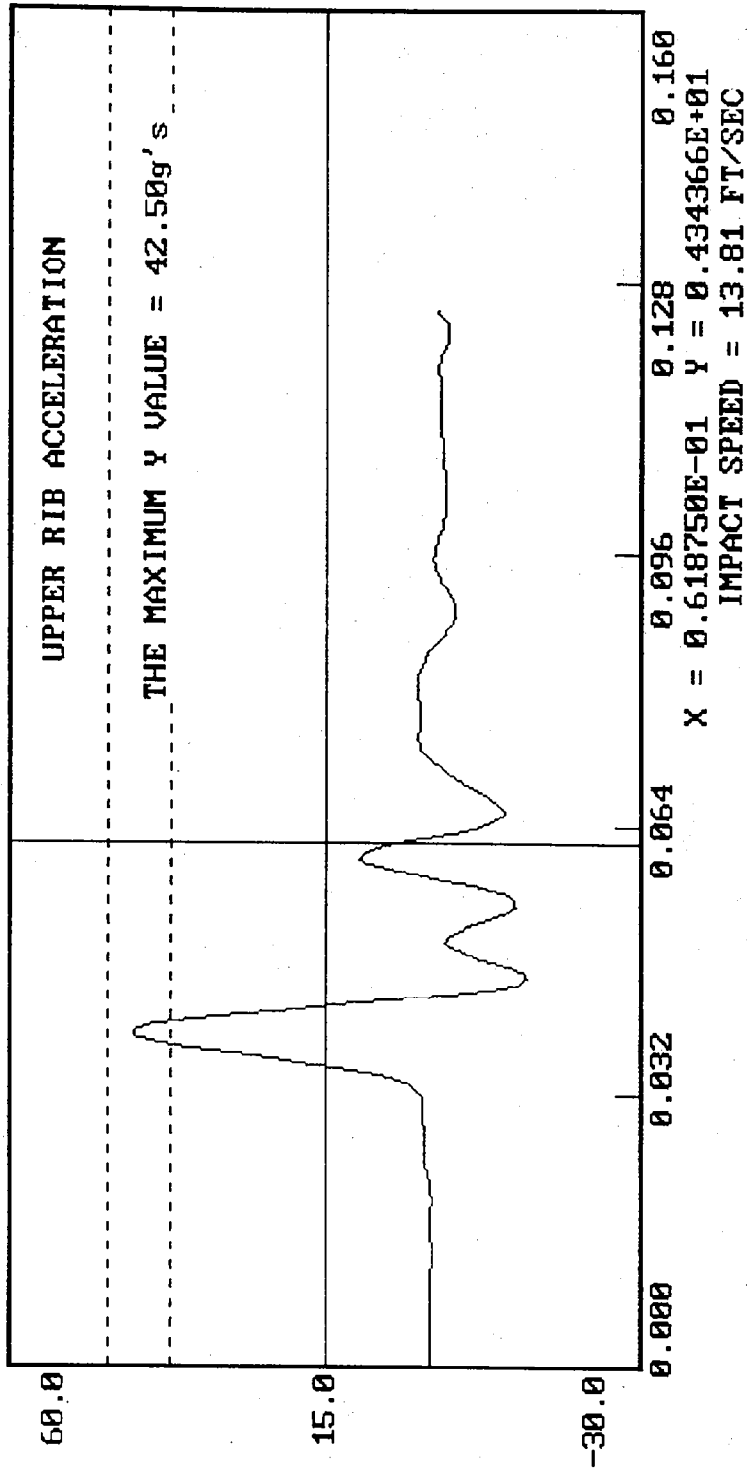
APPROVED BY 

12-19-1996 11:04

DUMMY CALIBRATION - THORAX IMPACT

DUMMY # 270

ACCELERATION (G'S) VS. TIME ((SECONDS))

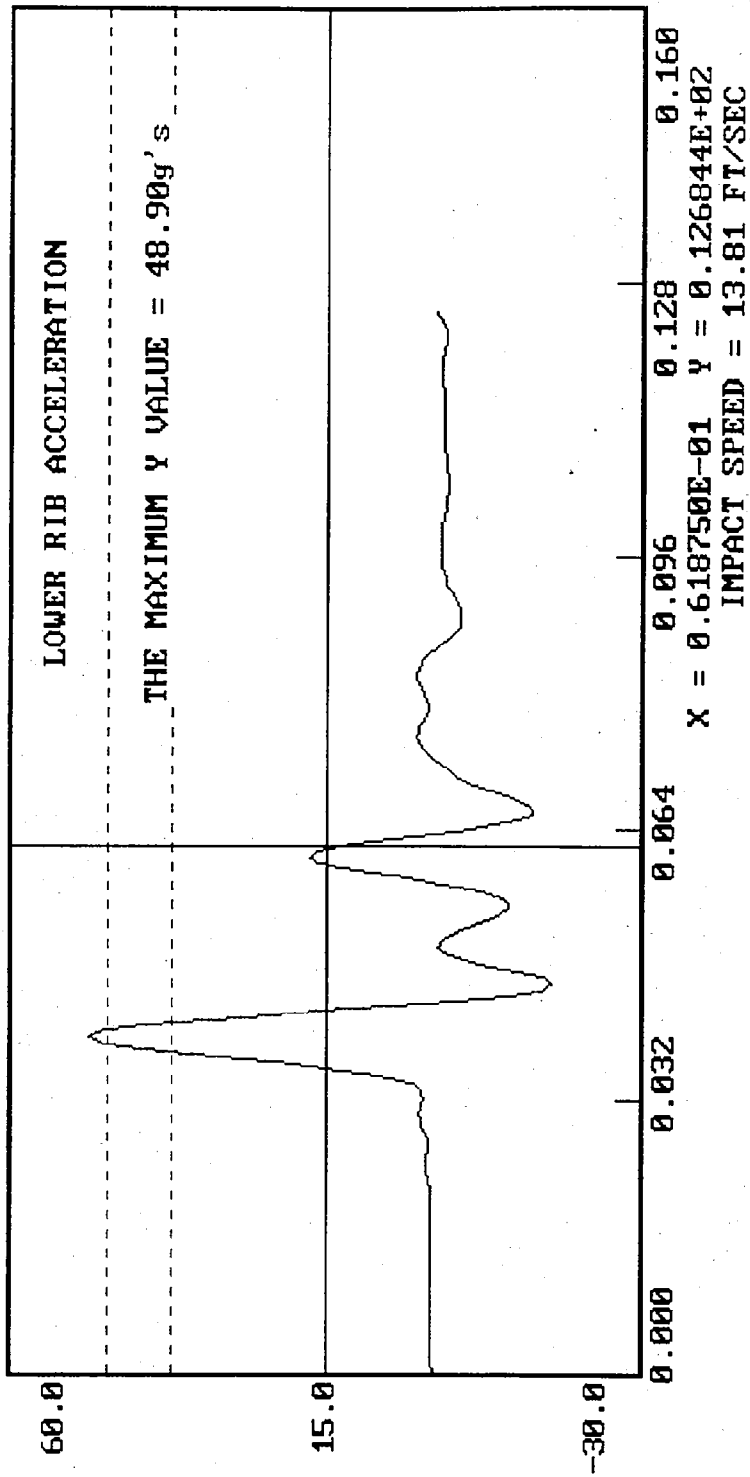


DUMMY CALIBRATION - THORAX IMPACT

DUMMY # 270

ACCELERATION (G'S) VS. TIME ((SECONDS))

12-19-1996 11:04

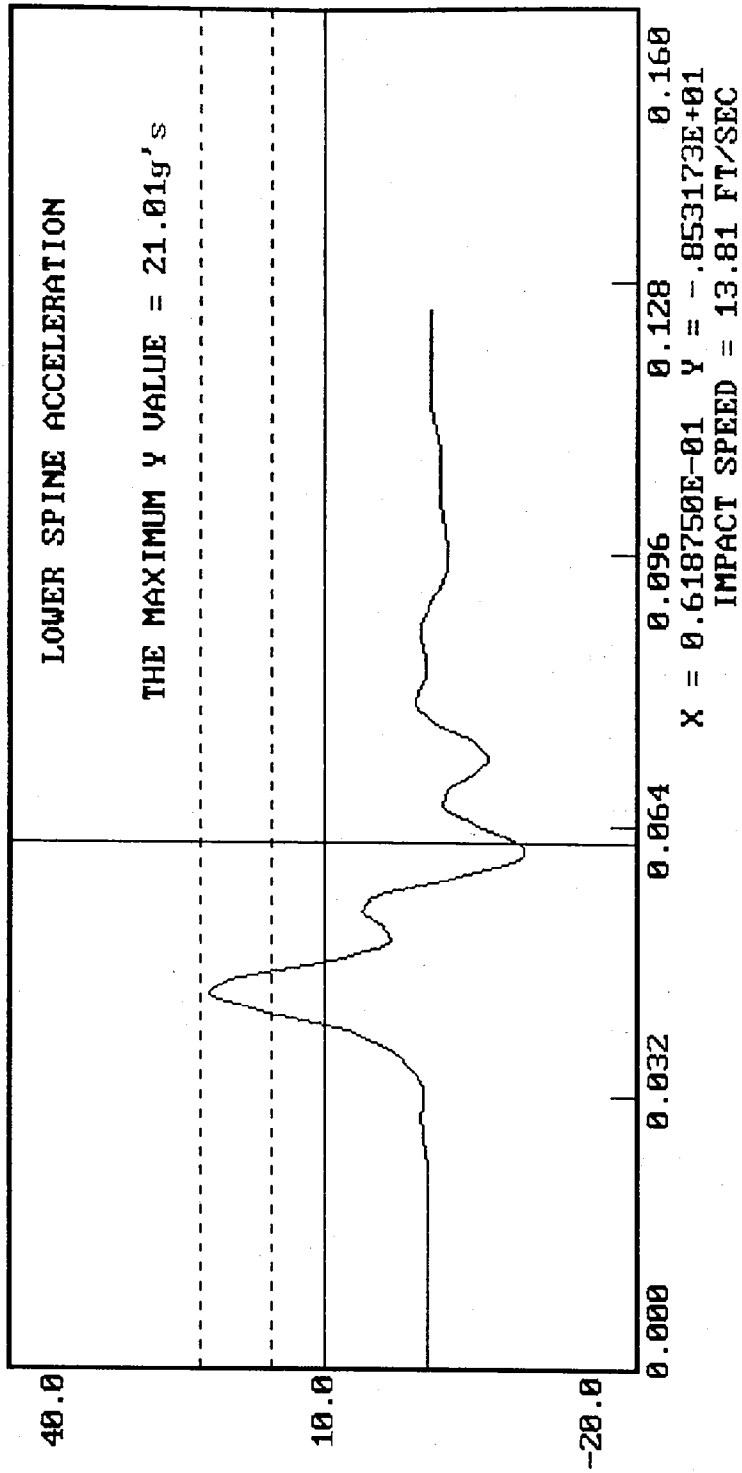


DUMMY CALIBRATION - THORAX IMPACT

DUMMY # 270

ACCELERATION (G'S) VS. TIME ((SECONDS))

12-19-1996 11:04



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SIDE IMPACT DUMMY (SID)

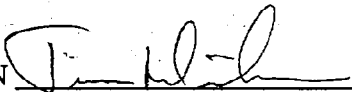
DATE: December 19, 1996

DUMMY NUMBER: 270

TEST NUMBER: D962253

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	15%
PROBE SPEED	13.8 - 14.2 f/s	13.9
PELVIS ACCELERATION	40 - 60 g's	58

TEST MEETS SPECIFICATIONS

TECHNICIAN 

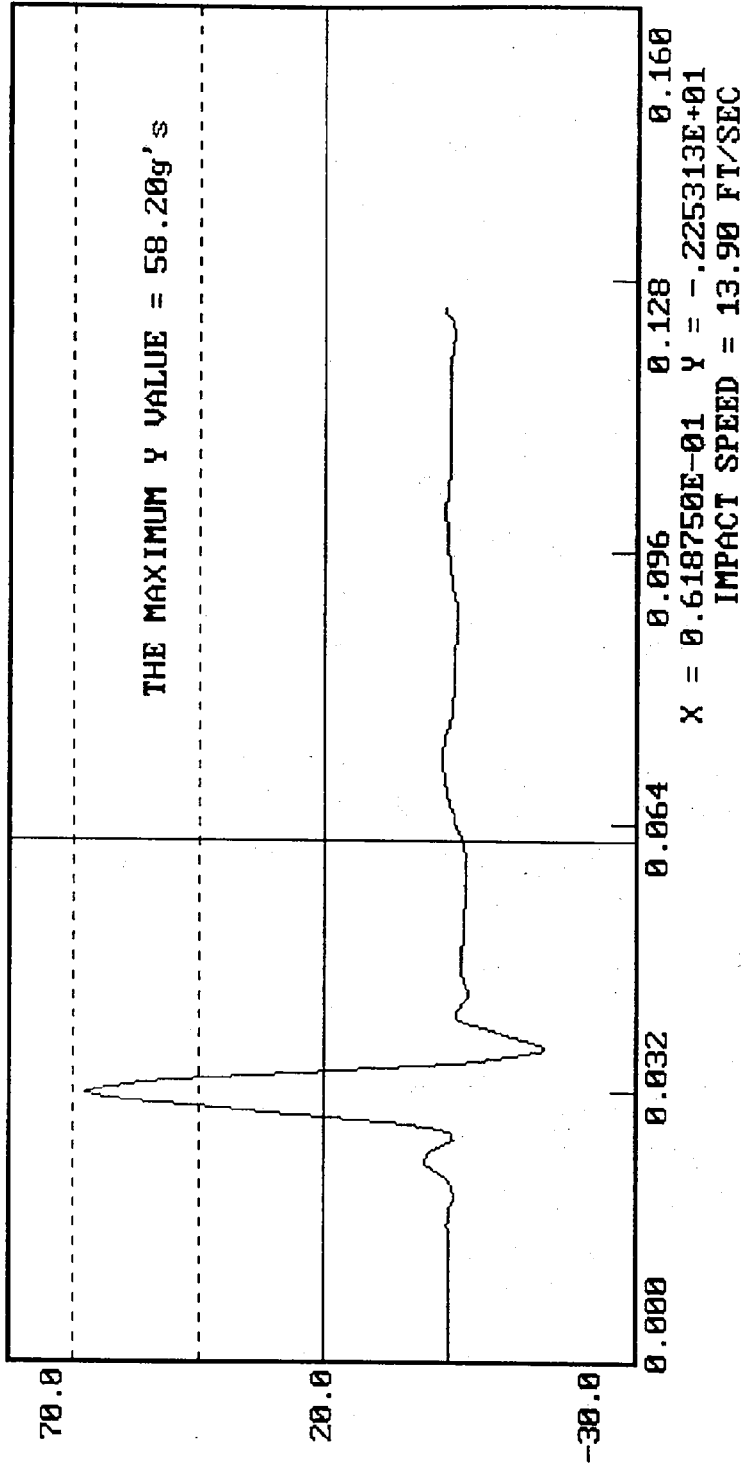
APPROVED BY 

12-19-1996 13:27

DUMMY CALIBRATION - PELVIS IMPACT

DUMMY # 270

ACCELERATION (G'S) VS. TIME ((SECONDS))



MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)

SIDE IMPACT DUMMY (SID)

DATE: December 19, 1996

DUMMY NUMBER: 270

TEST NUMBER: D962254

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	18%
FORCE @ 0.5 in	23.3 - 36.5 lbs	31.5
FORCE @ 0.75 in	36.7 - 49.8 lbs	44.2
FORCE @ 1.0 in	50 - 63 lbs	59
FORCE @ 1.3 in	73 - 88 lbs	81

TEST MEETS SPECIFICATIONS

TECHNICIAN 

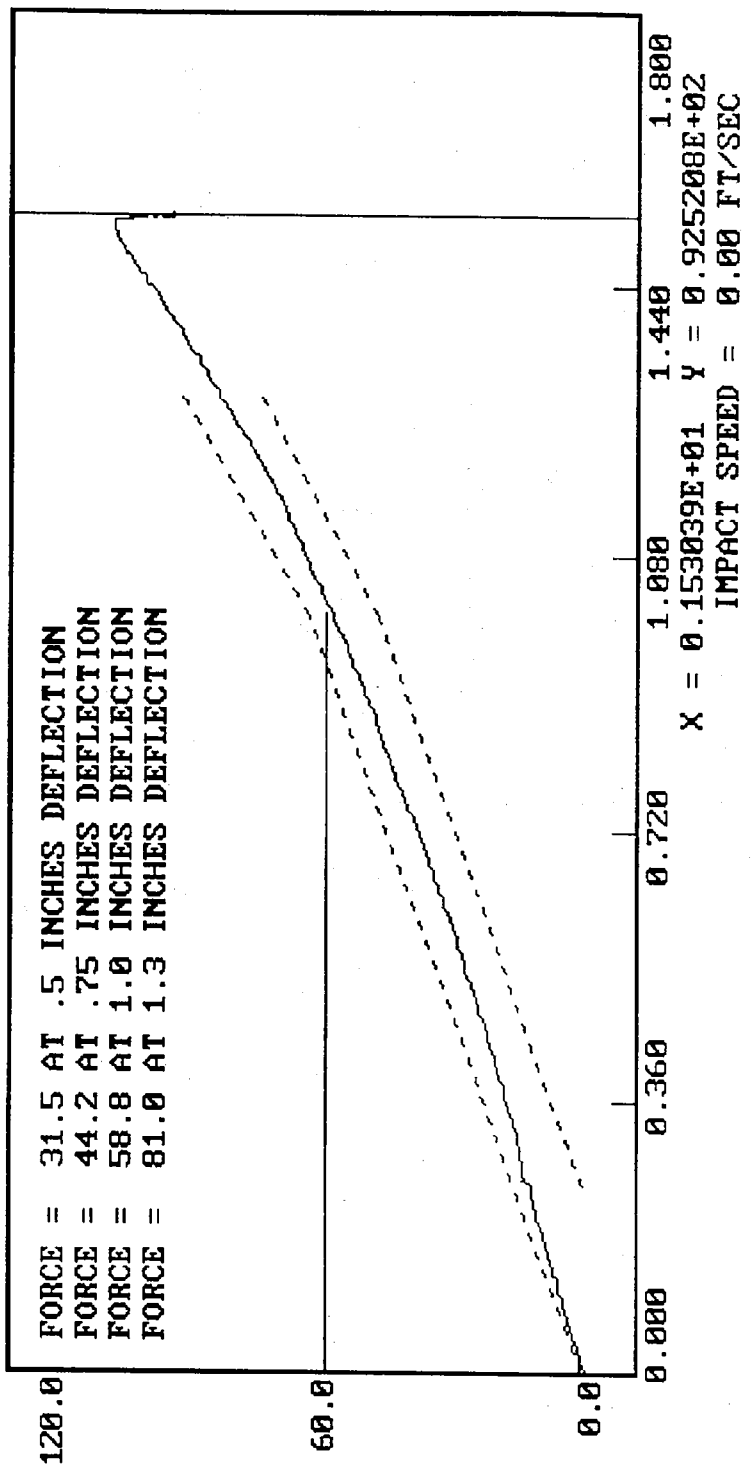
APPROVED BY 

DUMMY CALIBRATION - ABDOMEN COMPRESSION

DUMMY # 270

ABDOMEN FORCE (LBS) VS. ABDOMEN DISPLACEMENT (INCHES)

12-19-1996 15:46



MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: December 19, 1996

DUMMY NUMBER: 270

TEST NUMBER: D962255

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	66 - 78° F	70°
RELATIVE HUMIDITY	10 - 70%	18%
FORCE @ 0°	0 - 6 lbs	0
FORCE @ 20°	22 - 34 lbs	28
FORCE @ 30°	34 - 46 lbs	41
FORCE @ 40°	46 - 58 lbs	51
RETURN ANGLE	12° maximum	1°

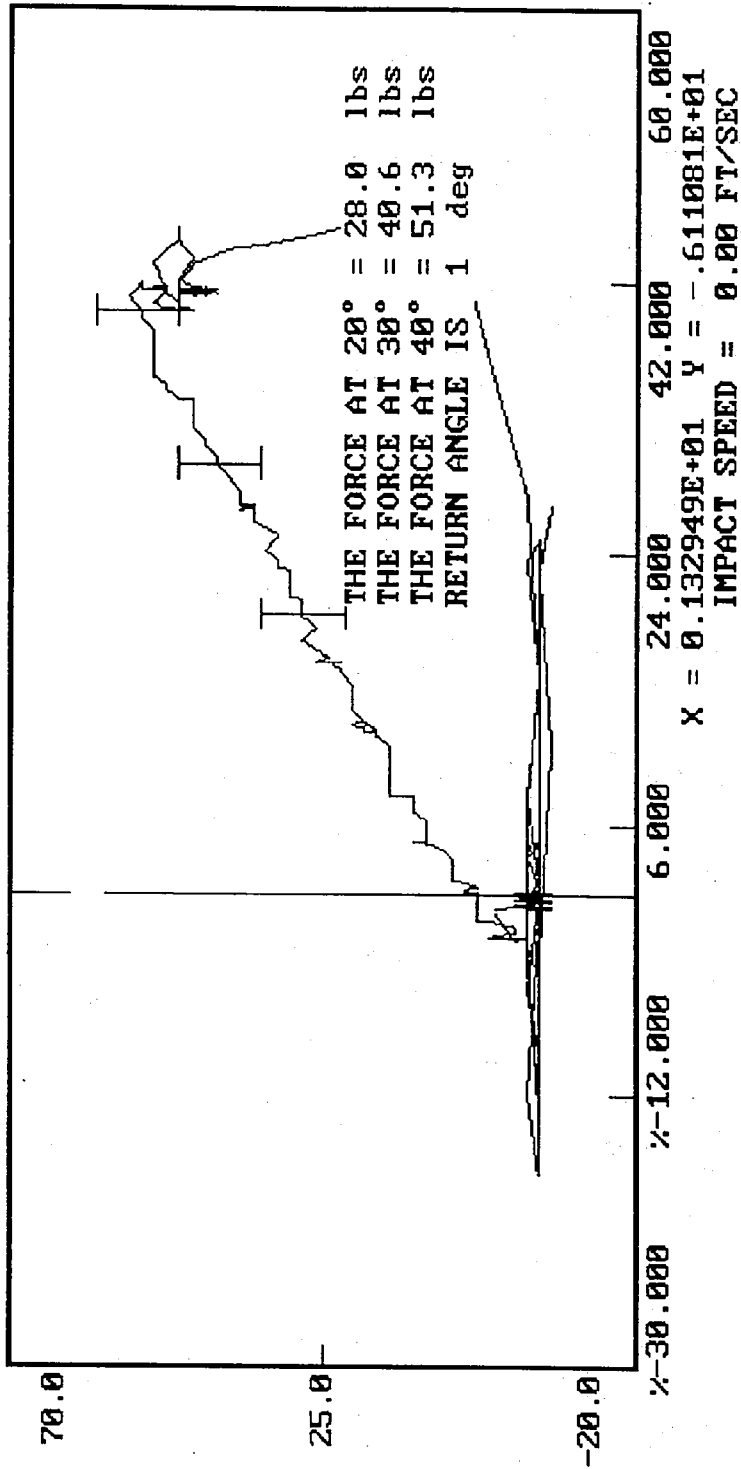
TEST MEETS SPECIFICATIONS

TECHNICIAN 

APPROVED BY 

12-19-1996 15:25

DUMMY CALIBRATION - LUMBAR FLEXION
DUMMY # 278
FORCE (LBS) VS. TORSO ROTATION (DEGREES)



POST-TEST DRIVER DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Serial Number: 269

Inspected By: Tim Michnay

Date: December 19, 1996

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
Skin	visual inspection	OK
Head	visual, ballast, accelerometer mount	OK
Neck	visual	OK
Spine box	visual, ballast, weldment, accelerometer mount	OK
Rib cage	visual, measure	OK
Sternum	visual	OK
Lumbar spine	visual	OK
Abdomen	visual	OK
Pelvis	visual, palpate, accelerometer mount	OK
Upper legs	visual	OK
Knees	visual	OK
Lower legs	visual, range of motion	OK
Ankles	visual, range of motion	OK
Feet	visual, range of motion	OK
Joints	1 to 2 g range	OK
Other	Jacket torn on right (impact) side Replaced	

NOTES: (include component/problem/action/reason):

POST-TEST PASSENGER DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Serial Number: 270

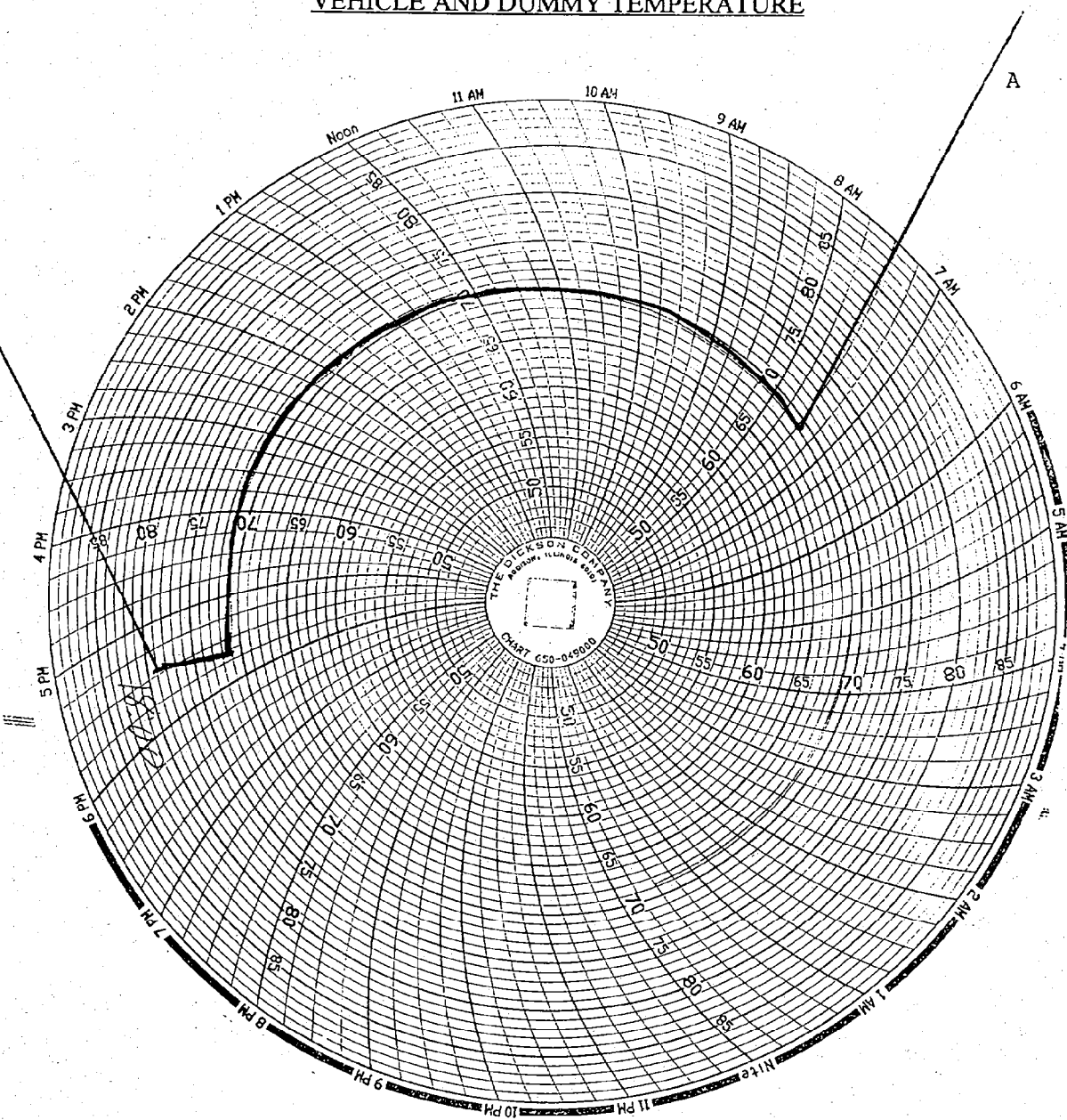
Inspected By: Tim Michnay

Date: December 20, 1996

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
Skin	visual inspection	OK
Head	visual, ballast, accelerometer mount	OK
Neck	visual	OK
Spine box	visual, ballast, weldment, accelerometer mount	OK
Rib cage	visual, measure	OK
Sternum	visual	OK
Lumbar spine	visual	OK
Abdomen	visual	OK
Pelvis	visual, palpate, accelerometer mount	OK
Upper legs	visual	OK
Knees	visual	OK
Lower legs	visual, range of motion	OK
Ankles	visual, range of motion	OK
Feet	visual, range of motion	OK
Joints	1 to 2 g range	OK
Other	Rib wrap torn from rivets on non-impact (right) side Arm foam on impact (left) side damaged Both items replaced and dummy retested	

NOTES: (include component/problem/action/reason):

VEHICLE AND DUMMY TEMPERATURE



A = dummies installed in vehicle
B = test conducted

APPENDIX D
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

DUMMY AND VEHICLE CALIBRATION DATA
INSTRUMENTS FOR DRIVER DUMMY NO. 269

	DRIVER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Rib Y	AGTM2	Endevco	9/10/96
Lower Rib Y	ALEC1	Endevco	9/16/96
Lower Spine Y	AHIG2	Endevco	9/11/96
Pelvis Y	ALCN9	Endevco	9/10/96
Upper Rib Redundant Y	AGTB5	Endevco	9/10/96
Lower Rib Redundant Y	J10411	Endevco	9/16/96
Lower Spine Redundant Y	AM751	Endevco	9/11/96
Pelvis Redundant Y	AKAF3	Endevco	9/10/96

INSTRUMENTS FOR PASSENGER DUMMY NO. 270

LEFT REAR PASSENGER		
	SERIAL NO.	CALIBRATION DATE
Upper Rib Y	AP1H2	9/10/96
Lower Rib Y	AJ9C2	9/09/96
Lower Spine Y	AP2D7	9/10/96
Pelvis Y	ALCH7	9/09/96
Upper Rib Redundant Y	AH0B0	9/10/96
Lower Rib Redundant Y	AHTT2	9/09/96
Lower Spine Redundant Y	AP1T8	9/10/96
Pelvis Redundant Y	AJ420	9/09/96

VEHICLE INSTRUMENT CALIBRATION

VEHICLE ACCELEROMETERS			
SERIAL NO.	MANUFACTURER	CALIBRATION DATE	
C14-Z10	Entran	7/12/96	Moving Barrier CG X
B14-R01	Entran	7/15/96	Moving Barrier CG Y
B13-Z05	Entran	7/11/96	Moving Barrier CG Z
B14-R03	Entran	7/11/96	Moving Barrier Rear Axle X
B14-R13	Entran	7/15/96	Moving Barrier Rear Axle Y
C25-A11	Entran	12/03/96	Left Mid A-Post Y
A10-G04	Entran	7/11/96	Left Lower A-Post Y
B13-Z02	Entran	7/11/96	Left Mid B-Post Y
G19-G08	Entran	12/03/96	Left Lower B-Post Y
J06-D23	Entran	7/03/96	Rear Floorpan Above Axle X
D05-R14	Entran	7/11/96	Rear Floorpan Above Axle Y
A09-G08	Entran	7/11/96	Rear Floorpan Above Axle Z
L14-D19	Entran	12/04/96	Driver Seat Track Y
C14-Z08	Entran	7/11/96	Right Side Sill at Front Seat X
E25-G11	Entran	10/01/96	Right Side Sill at Front Seat Y
B14-R09	Entran	7/15/96	Right Side Sill at Front Seat Z
B14-R04	Entran	12/04/96	Right Side Sill at Rear Seat X
C05-Z13	Entran	12/04/96	Right Side Sill at Rear Seat Y
H16-X11	Entran	12/04/96	Right Side Sill at Rear Seat Z
C05-Z10	Entran	7/11/96	Left Side Sill at Front Seat Y

VEHICLE INSTRUMENT CALIBRATION

VEHICLE ACCELEROMETERS			
	SERIAL NO	MANUFACTURER	CALIBRATION DATE
Right Side Sill at Rear Seat Y	F10-D02	Entran	12/03/96
Left Rear Occupant Compartment Y	E13-D07	Entran	7/10/96
Vehicle CG X	C14-Z15	Entran	7/11/96
Vehicle CG Y	B28-B03	Entran	7/11/96
Vehicle CG Z	L22-G05	Entran	7/11/96
Left Front Door Mid Rear Y	C14-Z05	Entran	12/04/96
Left Front Door on Centerline Y	C06-G12	Entran	12/03/96
Left Front Door Upper Centerline Y	C27-B05	Entran	10/02/96
Left Rear Door Mid Rear Y	E25-G03	Entran	12/03/96
Left Rear Door Upper Centerline Y	C25-A22	Entran	12/03/96

Note: All Endevo accelerometers are Model No. 7264-2000 All Entran accelerometers are Model No. EGE-72