

REPORT NO.: 214D-MGA-99-14

V2999

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TESTING
PASSENGER CARS

DAIMLERCHRYSLER MOTORS CORPORATION

1999 DODGE INTREPID
4 DOOR SEDAN

NHTSA NO: MX0305

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: January 8, 1999

Report Date: January 18, 1999

FINAL REPORT

Prepared For:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY PERFORMANCE STANDARDS
OFFICE OF CRASHWORTHINESS STANDARDS
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WASHINGTON, D.C. 20590

This Final Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-93-C-02047.

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TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. 214D-MGA-99-14		2. Government Accession No.		3. Recipient's Catalog No.																			
4. Title and Subtitle New Car Assessment Program Side Impact Test of a 1999 Dodge Intrepid 4 Door NHTSA No.: MX0305				5. Report Date January 18, 1999																			
				6. Performing Organization Code MGA																			
7. Author(s) Chad Gadberry, Project Engineer				8. Performing Organization Report No. MGA-DOT-214-14																			
9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105				10. Work Unit No.																			
				11. Contract or Grant No. DTNH22-97-D-22001																			
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Office of Crashworthiness Standards 400 Seventh St., S.W. Washington, D.C. 20590				13. Type of Report and Period Covered Final Test Report January 8, 1999 to January 18, 1999																			
				14. Sponsoring Agency Code NPS-10																			
15. Supplementary Notes																							
16. Abstract A 90° Moving Deformable Barrier NCAP side impact was conducted on the subject 1999 Dodge Intrepid 4 Door 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 January 8, 1999. The impact velocity of the Moving Deformable Barrier (MDB) was 61.3 kph, and the ambient temperature at the struck side (driver's) of the target vehicle at the time of impact was 21°C. The target vehicle post test maximum crush was 316 mm at level 2. The test vehicle's performance follows: <table border="1"> <thead> <tr> <th></th> <th>DRIVER</th> <th>PASS</th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td>60</td> <td>82</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td>60</td> <td>85</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td>71</td> <td>89</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td>65</td> <td>87</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td>69</td> <td>110</td> </tr> </tbody> </table> The doors on the struck side of the vehicle did not separate from the body at the hinges , but did separate at the latches. The opposite doors did not open during the side impact event.							DRIVER	PASS	Left Upper Rib (LUR) Accel., g	60	82	Left Lower Rib (LLR) Accel., g	60	85	Lower Spine (T ₁₂) Accel., g	71	89	Thoracic Trauma Index (TTI)	65	87	Pelvis (PEV) Accel., g	69	110
	DRIVER	PASS																					
Left Upper Rib (LUR) Accel., g	60	82																					
Left Lower Rib (LLR) Accel., g	60	85																					
Lower Spine (T ₁₂) Accel., g	71	89																					
Thoracic Trauma Index (TTI)	65	87																					
Pelvis (PEV) Accel., g	69	110																					
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																			
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 306																			
				22. Price																			

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SECTION 1
PURPOSE AND TEST PROCEDURE

This side impact test is part of the FY99 NCAP Side Impact Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-97-D-22001. The purpose of this test was to evaluate side impact protection of a 1999 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.

SECTION 2

SUMMARY OF SIDE IMPACT TEST

A 1999 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 38.1 mph (61.3 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 January 8, 1999. 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)
5. Head Center of Gravity triaxial accelerometers (X, Y, and Z-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
TTI (g)	65	87
Pelvis (g)	69	110

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: 1999/Dodge/Intrepid/4 Door
 Vehicle NHTSA No.: MX0305 VIN: 2B3HD46R4XH649151
 Vehicle Body Color: Green Build Date: 11/98
 Engine Data: 6 Cylinders; CID; 2.7 Liter; cc
 Placement Longitudinal; X Lateral
 Transmission: 3 Speed; Manual; X Automatic; X Overdrive
 Final Drive: Rear Wheel Drive; X Frt. Wheel Drive; Four Wheel Drive

Odometer Reading 90 miles

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

DATA FROM TIRE PLACARD:

Tire Pressure (at capacity): 32 Psi FRONT
32 Psi REAR

Recommended Tire Size: P205/70R15

Tires on Test Vehicle: P205/70R15 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>494.9</u> kg	Right Rear	=	<u>282.6</u> kg
Left Front	=	<u>500.8</u> kg	Left Rear	=	<u>282.1</u> kg
TOTAL FRONT	=	<u>995.7</u> kg	TOTAL REAR	=	<u>564.7</u> kg
% of Total Vehicle Weight	=	<u>63.8</u> %;	% of Total Weight	=	<u>36.2</u> %
TOTAL WEIGHT	=	<u>1560.4</u> kg			

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 DoorVehicle NHTSA No.: MX0305 Test Date: January 8, 1999CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Maximum Fluids = 1560.4 kg
 Cargo Carrying Capacity of Test Vehicle = 52.2 kg
 Weight of 2 Side Impact Dummies (2 x 80.7 kg.) = 161.4 kg
 TEST VEHICLE TARGET WEIGHT = 1774.0 kg

ACTUAL WEIGHT OF TEST VEHICLE WITH 2 DUMMIES AND CARGO (Fully Loaded):

Right Front = 500.8 kg Right Rear = 338.4 kg
 Left Front = 543.9 kg Left Rear = 389.6 kg
 TOTAL FRONT = 1044.7 kg TOTAL REAR = 728.0 kg
 % of Total Weight = 58.9 % % of Total Weight = 41.1 %
 TOTAL WEIGHT = 1772.7 kg

TEST VEHICLE ATTITUDE:

CURB WEIGHT ATTITUDE:

Right Front 738 mm Left Front 742 mm Right Rear 752 mm Left Rear 747 mm

FULLY LOADED WEIGHT ATTITUDE:

Right Front 735 mm Left Front 729 mm Right Rear 728 mm Left Rear 712 mm

TEST ATTITUDE:

Right Front 726 mm Left Front 731 mm Right Rear 730 mm Left Rear 712 mm

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

Test Vehicle Wheelbase: 2871 mm

C.G. = 1130 mm rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side = 4630 mm

Centerline = 5165 mm

Left Side = 4630 mm

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 DoorVehicle NHTSA No.: MX0305 Test Date: January 8, 1999FRONT SEAT CUSHION PLACEMENT:Total Length of Adjustment Travel: 220 mmTest Position: Mid-position (12th of 23 detents)FRONT SEAT BACK ADJUSTMENT POSITION:Seat Back Angle = 24°SECOND POSITION SEAT:Total Length of Fore/Aft Adjustment Travel: Non-adjustableSeat Back Adjustment Position: Non-adjustableADJUSTABLE STEERING COLUMN POSITION: Mid-position (3rd of 5 position)

<u>WINDOW POSITIONS:</u>	Left Front <u>Closed</u>	Left Rear <u>Closed</u>
	Right Front <u>Open</u>	Right Rear <u>Removed</u>

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:Fuel system usable capacity = 17.0 gallonsTest Volume: 15.8 gallons 93 % of capacityLOCATIONS OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:Wheelbase: = 2871 mmImpact Point is 496 mm rearward of front axle centerline

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

Overall Length = 5165 mm; Overall Width = 1884 mm

TEST WEIGHT:

Right Front = <u>523.0</u> kg	Right Rear = <u>341.1</u> kg
Left Front = <u>547.0</u> kg	Left Rear = <u>353.8</u> kg
TOTAL FRONT = <u>1070.0</u> kg	TOTAL REAR = <u>694.9</u> kg
% of Total Weight = <u>60.6</u> %	% of Total Weight = <u>39.4</u> %
TOTAL VEHICLE WEIGHT = <u>1764.9</u> kg	
Wheelbase = <u>2871</u> mm	
Longitudinal C.G. from Center of Front Axle = <u>1130</u> mm	
Impact Angle with Respect to Impactor = <u>90°</u> degrees	

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (270 mm above ground) = 132 mm
2. LEVEL 2 (490 mm above ground) = 316 mm
3. LEVEL 3 (568 mm above ground) = 311 mm
4. LEVEL 4 (870 mm above ground) = 254 mm
5. LEVEL 5 (1290 mm above ground) = 50 mm

Maximum Post-Test Intrusion = 316 mm

OCCUPANTS:

	<u>Driver</u>	<u>Left Rear Passenger</u>
Type of Dummy	<u>SID</u>	<u>SID</u>
Restraints Used	<u>Type II belt with</u> <u>frontal airbag</u>	<u>Type II belt</u>

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 RESULTSYear/Make/Model/Body Style: 1999/Dodge/Intrepid/4 DoorVehicle NHTSA No.: MX0305 Test Date: January 8, 1999POSITION OF IMPACT (MDB) ON MONORAIL:Crabbed 27° to leftMDB DETAILS:Overall Width of Framework Carriage = 1252 mmOverall Length of MDB (incl. honeycomb impact face) = 4115 mmWheelbase of Framework Carriage = 2591 mmTread of Framework Carriage (Front & Rear) = 1880 mmC.G. Location Rearward of Front Axle = 1098 mmC.G. Location From Center Line = -15 mmC.G. Location Above Ground Level = 485 mmMDB WEIGHT:Left Front = 457.7 kg Left Rear = 235.1 kgRight Front = 328.1 kg Right Rear = 342.6 kgTOTAL FRONT = 785.8 kg TOTAL REAR = 577.7 kgTOTAL MDB WEIGHT = 1363.5 kgImpact Angle (MDB C/L to Target Vehicle C/L) = 90° degreesImpact Speed = Primary: 38.1 mph (61.3 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) = 130 mm
2. Row B Mid Stack (686 mm) = 87 mm
3. Row C Top of Bumper (533 mm) = 89 mm
4. Row D Center of Bumper (432 mm) = 136 mm

INSTRUMENTATION:

Number of MDB Data Channels = 7

DATA SHEET NO. 4
POST-TEST OBSERVATIONS

Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head	<u>Left shoulder</u>	<u>C-post/seatback</u>
Arm	<u>Rear of door above armrest</u>	<u>Rear of door above</u> <u>armrest</u>
Pelvis	<u>Armrest</u>	<u>Armrest</u>
Left Knee	<u>Mid door below armrest</u>	<u>Mid door below armrest</u>
Right Knee	<u>Left Knee</u>	<u>Left knee</u>

DOOR OPENING:

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

MDB DISTANCE FROM TARGET IMPACT POINT:

Horizontal: 55 mm rearward

Vertical: 17 mm high

ARM REST LOCATIONS:

Front: 185 mm from bottom of window

Rear: 260 mm from bottom of window

* Door swung freely on hinges (opened to approximately 760 mm latch to striker)

** Door latch separated from striker by approximately 120 mm.

POST-TEST OBSERVATIONS (Cont'd)SEAT CRUSH:

Front Seat Back: 66 mm Front Seat Cushion: 50 mm
Left Rear Seat Back: 147 mm Rear Seat Cushion: 35 mm

GLAZING DAMAGE:

Windshield cracked; both left side windows broke

PILLAR PERFORMANCE:

No failure noted

SILL SEPARATION:

None noted

OTHER NOTABLE IMPACT EFFECTS:

None noted

AIRBAG DEPLOYMENT STATUS:

	<u>DRIVER</u>	<u>FRONT PASSENGER</u>	<u>REAR PASSENGER</u>
Frontal	<u>No</u>	<u>No</u>	<u>N/A</u>
Side	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

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

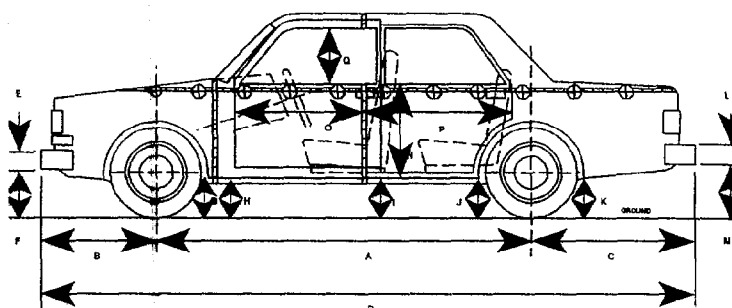
Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

	Driver SID ID # 271				Left Passenger SID ID # 272			
	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	59.7	40	-19.0	81	81.9	50	-5.1	121
Left Lower Rib (LLR) Y	59.7	40	-13.7	99	85.3	49	-27.1	75
SPINE ACCELERATIONS								
Lower Lateral Y	71.0	35	-13.7	76	89.2	51	-21.7	81
PELVIS ACCELERATIONS								
Lateral Y	68.5	38	-18.0	94	109.5	46	-9.2	111

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

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



LEFT SIDE VIEW

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)

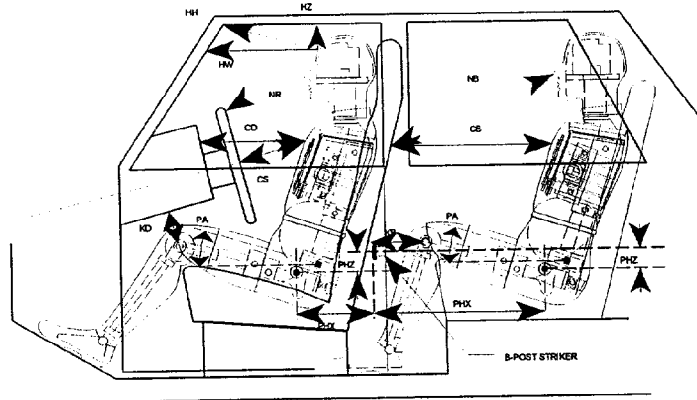
	PRE-TEST	POST-TEST	Δ CHANGE
A	2871	2841	30
B	1050	1054	4
C	1244	1237	7
D	5165	5132	33
E	200	200	0
F	400	420	20
G	150	135	15
H	185	172	13
I	185	202	17
J1/J2	175/175	135/176	40/1
K	225	225	0
L	110	110	0
M	335	345	10
N	672	555	117
O	900	848	52
P	1173	1066	107
Q	473	450	23
R	4630	4639	9
S	4630	4575	55
T	1884	1575	309

DATA SHEET NO. 7

SIDE IMPACT DUMMY (SID) LONGITUDINAL CLEARANCE DIMENSIONS

Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

NHTSA NO.: MX0305 Test Date: January 8, 1999



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

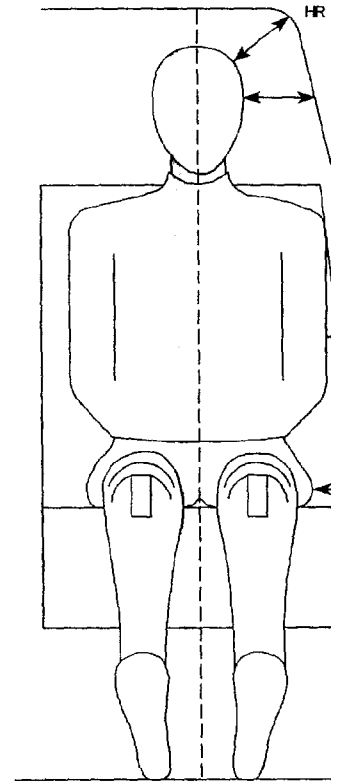
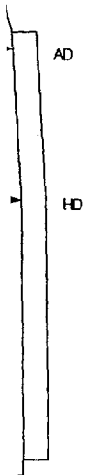
	DRIVER SID ID # 271
HH	411
HW	704
HZ	166
NR	445
CD	548
CS	335
KDL(KDA°)	184 (0.0°)
KDR(KDA°)	244 (0.0°)
PA°	24.1°
PHX	187
PHZ	124

	LEFT REAR PASSENGER SID ID # 272
HZ	148
NB	705
CB	611
KBL (KBA)	293 (0.0°)
KBR (KBA)	290 (0.0°)
PA°	24.4°
PHX	209
PHZ	277

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

SIDE IMPACT DUMMY (SID) LATERAL CLEARANCEYear/Make/Model/Body Style: 1999/NHTSA NO.: MX0305 Test D

.8

LEARANCE DIMENSIONSodge/Intrepid/4 Doore: January 8, 1999

in mm

LEFT REAR PASSENGER
SID ID # 272

203

347

120

174

NOTE: All dimensions

DRIVER
SID ID # 271

HR

183

HS

321

AD

121

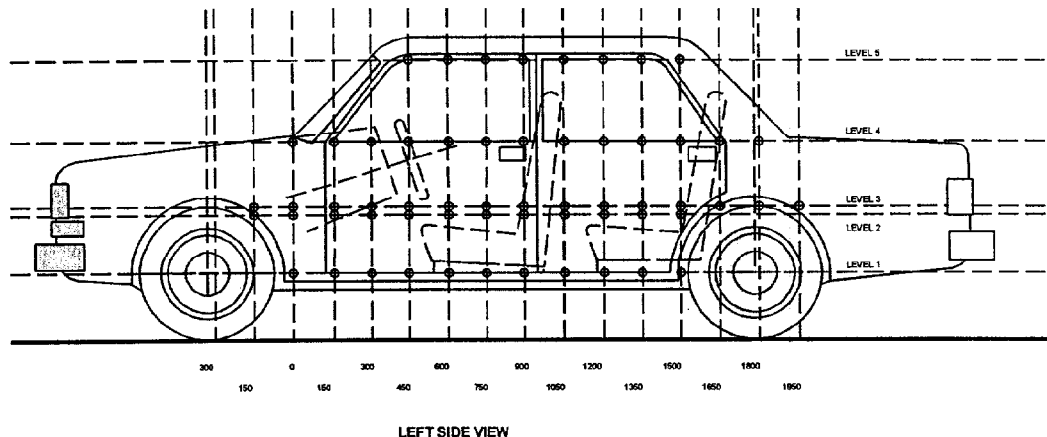
HD

147

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

NHTSA NO.: MX0305 Test Date: January 8, 1999



NOTE: All measurements are in millimeters (mm)

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

MEASUREMENTS 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>270</u> mm
Level 2 @ Occupant H-Point	= <u>490</u> mm
Level 3 @ Mid Door	= <u>568</u> mm
Level 4 @ Window Sill	= <u>870</u> mm
Level 5 @ Window Top	= <u>1290</u> mm

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

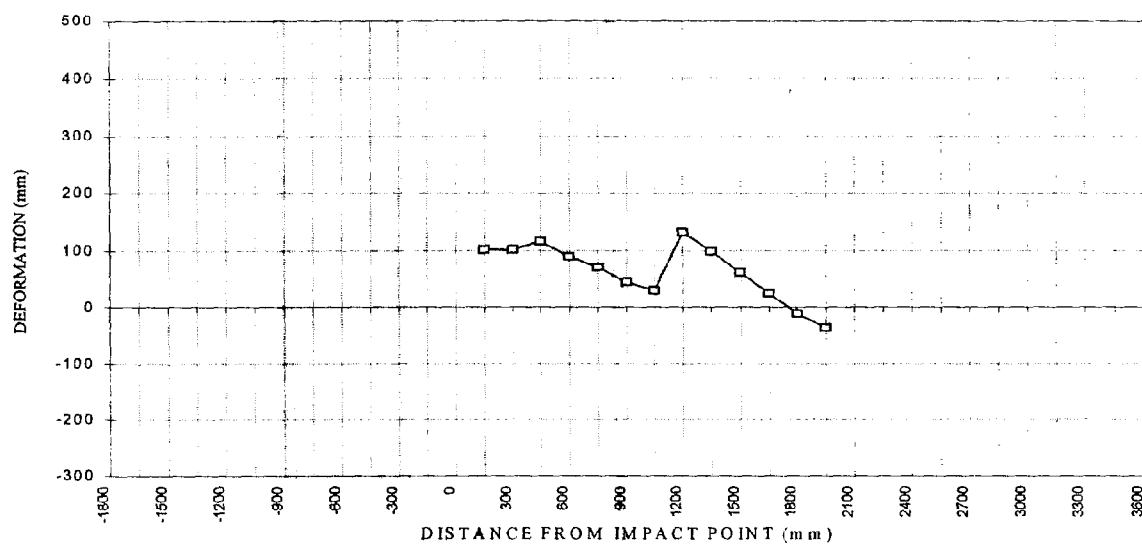
Longitudinal Distance (mm)	Level 1 - Axle Centerline		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150	698	800	102
300	700	802	102
450	700	816	116
600	703	793	90
750	705	775	70
900	705	749	44
1050	705	734	29
1200	706	838	132
1350	708	807	99
1500	711	771	60
1650	712	736	24
1800	706	695	-11

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)
1950	694	658	-36
2100			
2250			
2400			
2550			
2700			
2850			
3000			
3150			
3300			
3450			
3600			

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			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)	666	744	78
150	664	832	168
300	659	883	229
450	656	900	244
600	655	901	246
750	650	887	237
900	651	872	221
1050	649	848	199
1200	651	967	316
1350	651	939	288
1500	653	917	264
1650	654	885	231
1800	654	842	188

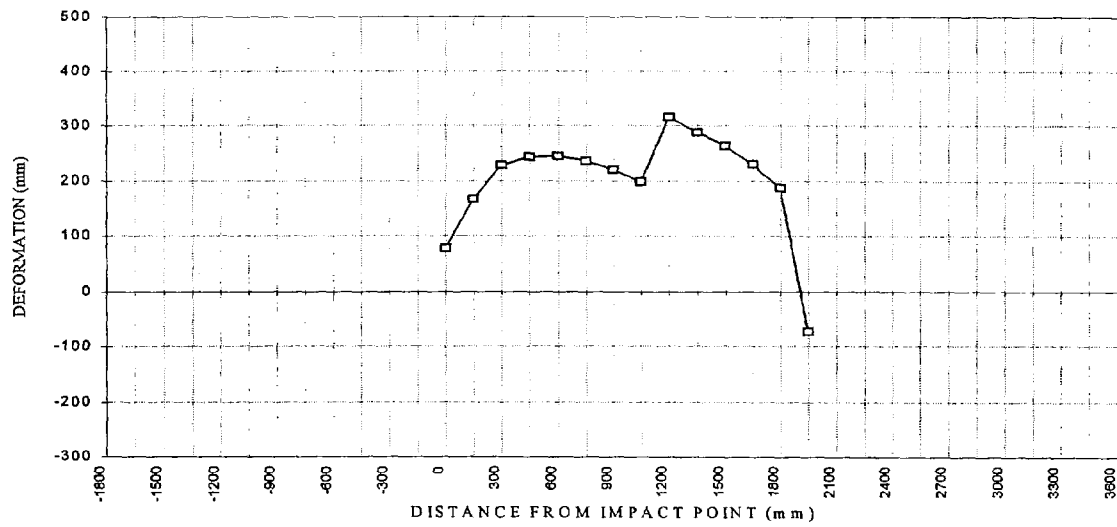
Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

	Level 2 - Occupant H-Point		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
1950	656	583	-73
2100			
2250			
2400			
2550			
2700			
2850			
3000			
3150			
3300			
3450			
3600			

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

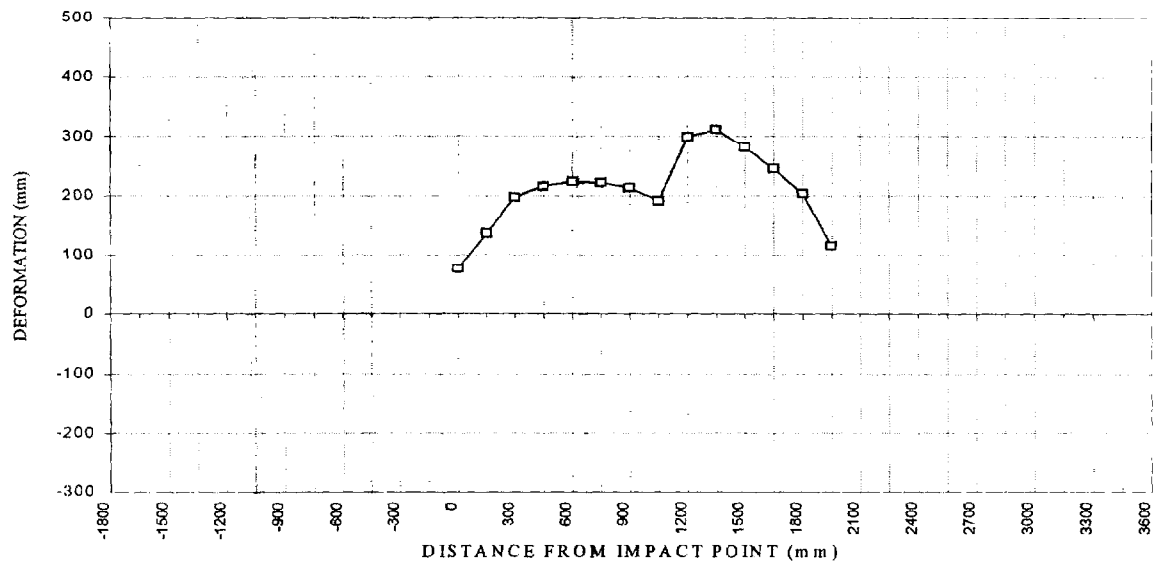
	Level 3 - Mid-Door		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)	654	730	76
150	648	785	137
300	645	843	198
450	642	858	216
600	639	863	224
750	638	860	222
900	636	850	214
1050	634	826	192
1200	635	934	299
1350	636	947	311
1500	638	920	282
1650	638	884	246
1800	639	843	204

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)
1950	641	757	116
2100			
2250			
2400			
2550			
2700			
2850			
3000			
3150			
3300			
3450			
3600			

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

	Level 4 - Window Sill		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050	807	807	0
-900	778	783	5
-750	753	764	11
-600	729	745	16
-450	712	736	24
-300	705	732	27
-150	700	729	29
0 (impact point)	700	737	37
150	700	776	76
300	697	794	97
450	694	827	133
600	694	830	136
750	691	818	127
900	691	815	124
1050	689	818	129
1200	693	947	254
1350	691	909	218
1500	692	880	188
1650	692	843	151
1800	697	779	82

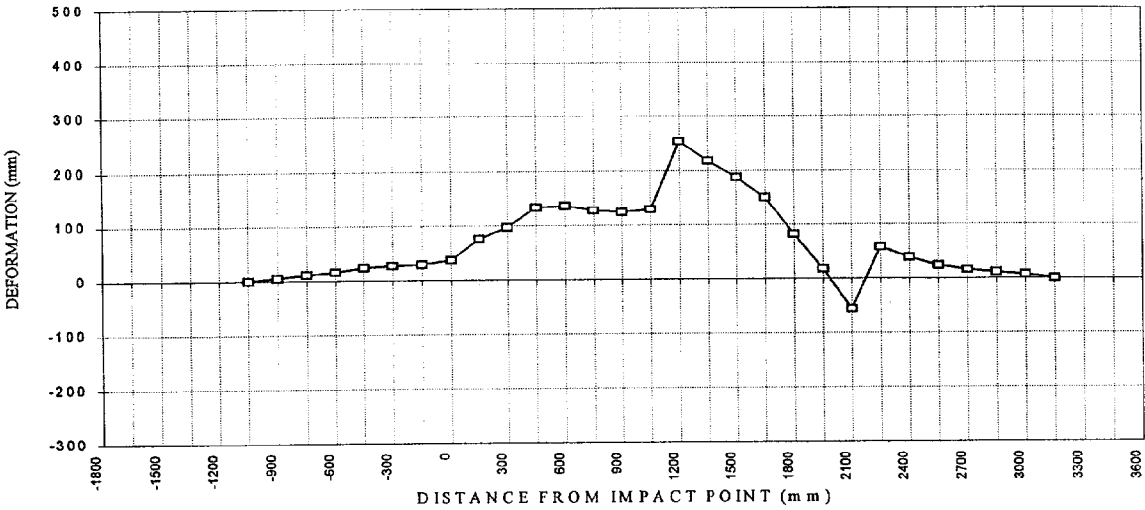
Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

	Level 4 - Window Sill		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
1950	694	712	18
2100	697	642	-55
2250	703	761	58
2400	708	747	39
2550	715	739	24
2700	723	739	16
2850	737	748	11
3000	755	762	7
3150	778	778	0
3300			
3450			
3600			

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

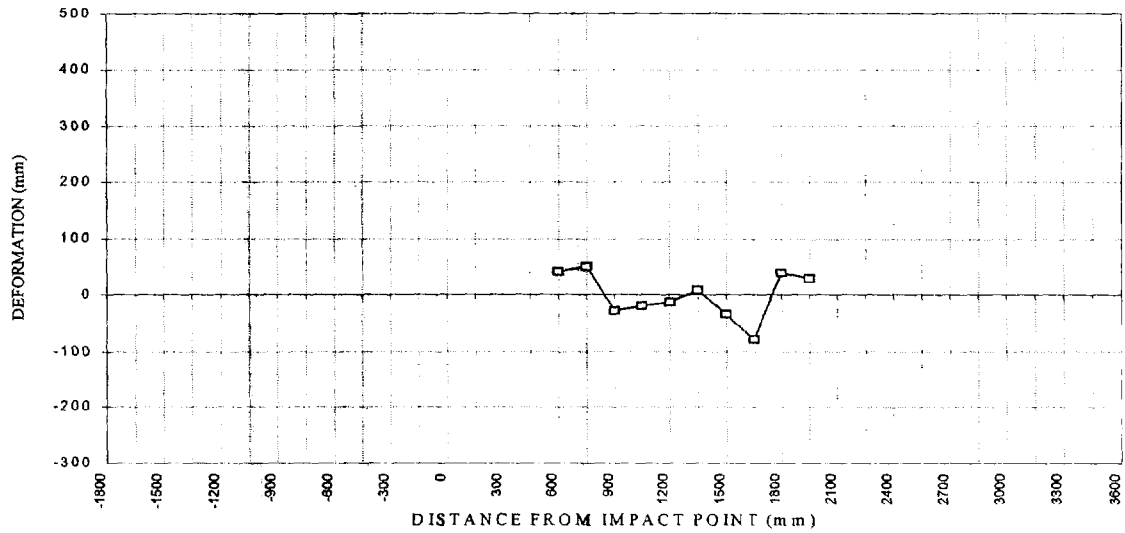
	Level 5 - Window Top		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150			
300			
450			
600	993	1034	41
750	983	1033	50
900	977	949	-28
1050	975	956	-19
1200	975	962	-13
1350	978	986	8
1500	978	944	-34
1650	979	901	-78
1800	984	1023	39

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 5 - Window Top		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
1950	992	1021	29
2100			
2250			
2400			
2550			
2700			
2850			
3000			
3150			
3300			
3450			
3600			

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

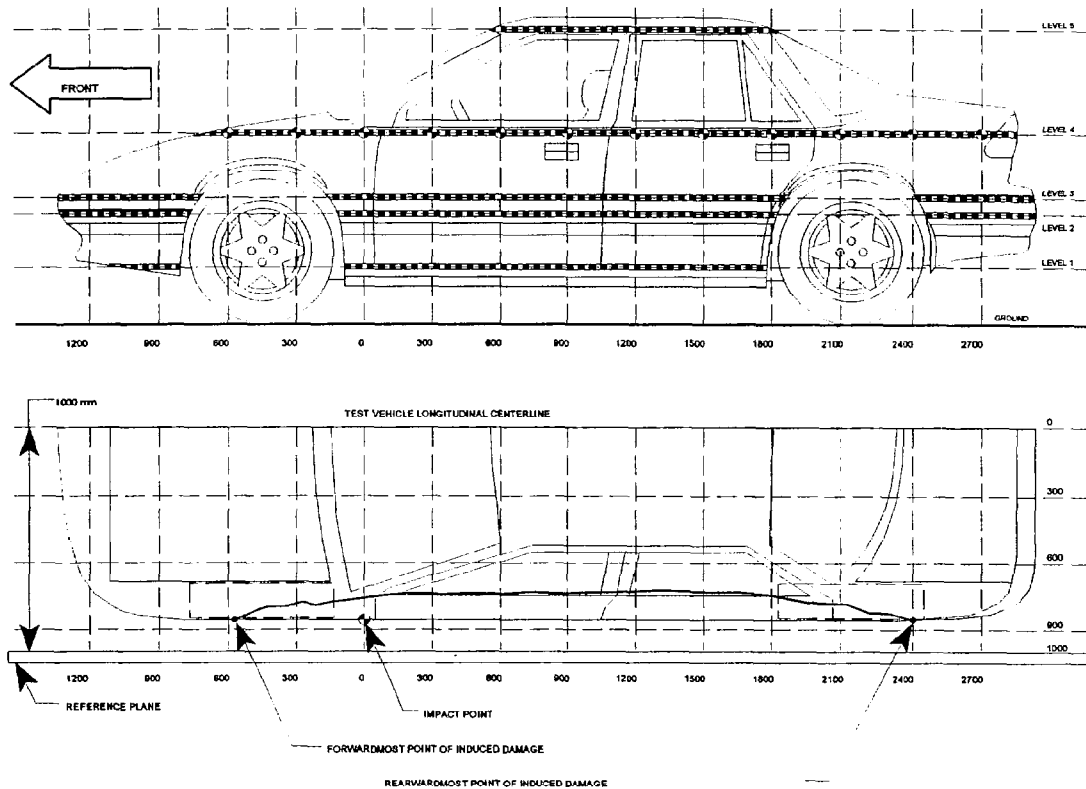
VEHICLE EXTERIOR STATIC CRUSH

LEVEL 5 - WINDOW TOP

DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

NHTSA NO.: MX0305 Test Date: January 8, 1999



NOTE: All measurements are in millimeters (mm)

DPD MEASUREMENTS	POST-TEST (mm)	PRE-TEST (mm)	STATIC CRUSH (mm)
1. (LF = <u>-1050</u> mm)	807	807	0
2. <u>-215</u> mm	727	702	25
3. <u>600</u> mm	901	655	246
4. <u>1426</u> mm	933	637	296
5. <u>2337</u> mm	752	706	46
6. (LR = <u>3150</u> mm)	778	778	0

DATA SHEET NO. 12
EXTERIOR STATIC CRUSH FOR SIDE IMPACTOR

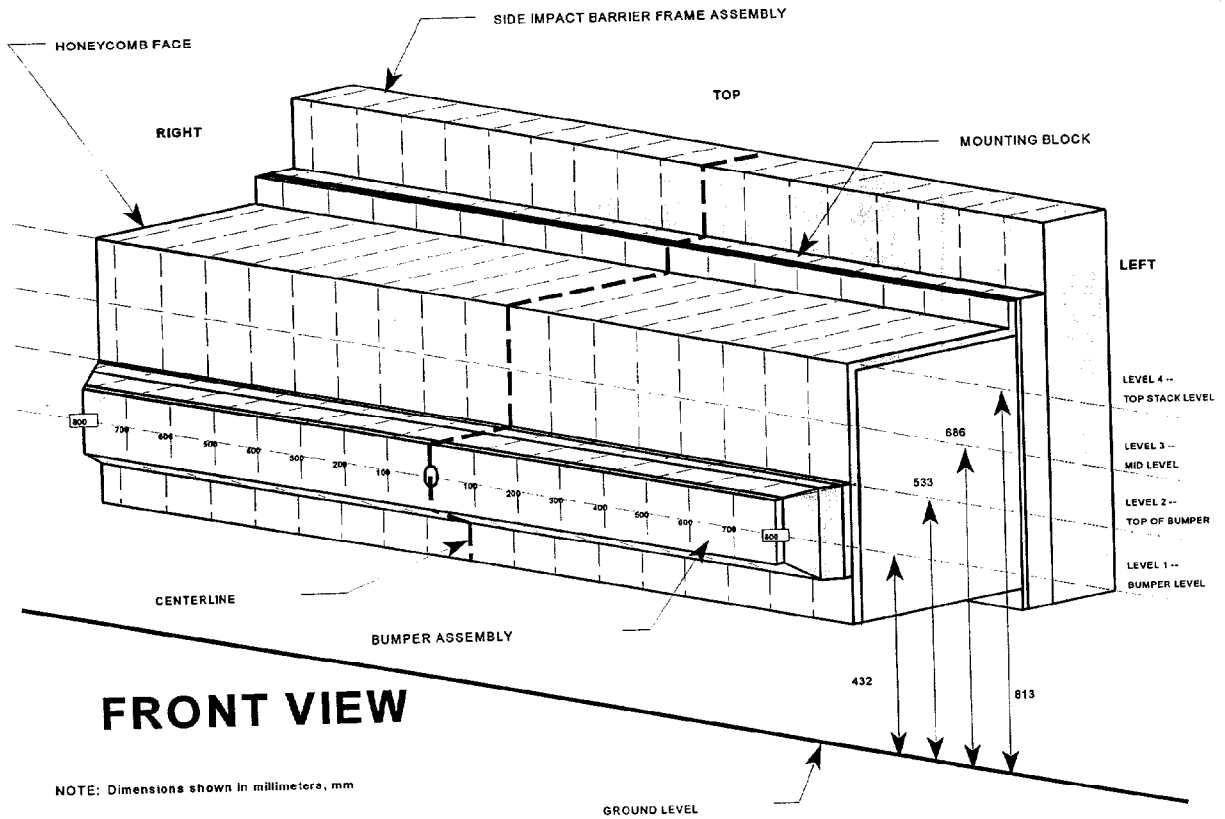
Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

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	75	47	21	9	6	5	7	10	12	14	19	21	24	25	39	85	130
Mid Level Level 3	686 mm	74	50	30	22	11	12	7	15	18	8	5	6	9	12	15	38	87
Top Bumper Level 2	533 mm	59	55	50	48	45	44	47	55	37	30	38	39	46	51	60	75	89
Mid Bumper Level 1	432 mm	136	127	116	110	106	103	105	106	93	85	76	75	77	80	86	101	115

See next page for Barrier Face Graphic

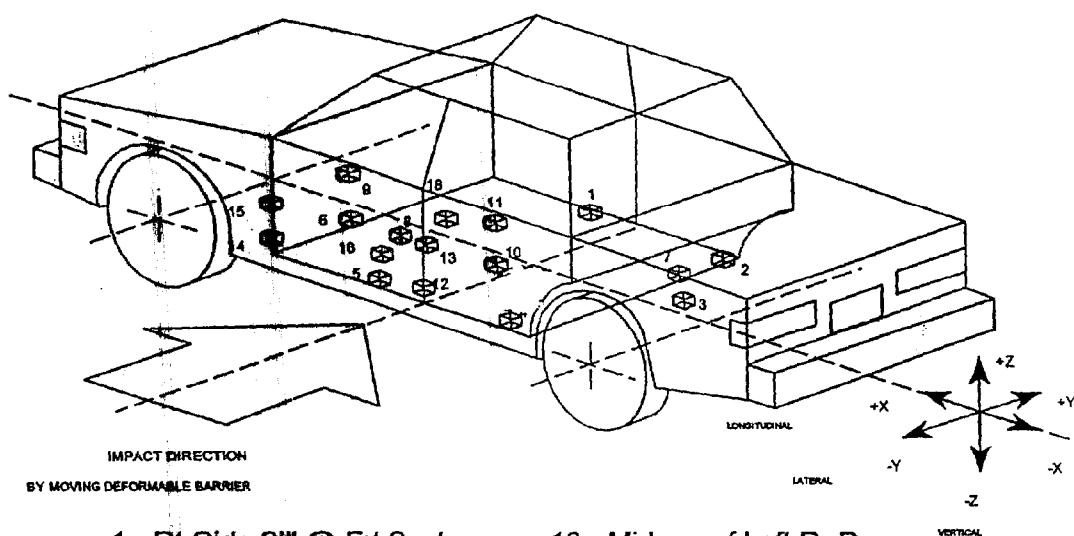
DATA SHEET NO. 12 (Cont'd)



DATA SHEET 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999



- 1 - Rt Side Sill @ Frt Seat
- 2 - Rt Side Sill @ Rr Seat
- 3 - Rr Floorpan Above Axle
- 4 - Left Side Sill @ Rr Seat
- 5 - Left Side Sill @ Frt Seat
- 6 - Left Frt Door on Centerline
- 7 - Rt Rr Occ Compartment
- 8 - Midrear of Left Frt Door
- 9 - Left Frt Door Uptr C/Line

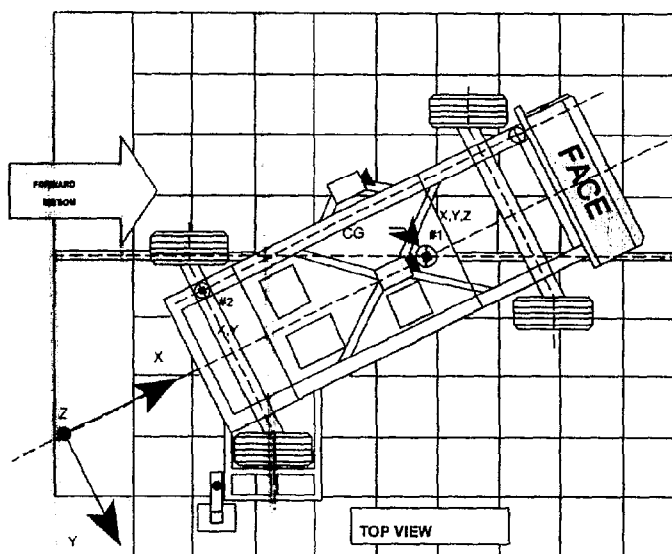
- 10 - Midrear of Left Rr Door
- 11 - Left Rr Door Uptr C/Line
- 12 - Left Lwr B-Post
- 13 - Left Middle B-Post
- 14 - Left Lwr A-Post
- 15 - Left Middle A-Post
- 16 - Frt Seat Track
- 18 - Vehicle C.G.

DATA SHEET NO. 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY
Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door
Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

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	2953	770	215	6.9	-4.9	18.3	-2.5	3.9	-7.1	18.9
2	Rt. Side Sill @ Rear Seat	2085	770	222	7.6	-4.1	23.4	-2.6	4.0	-9.5	23.4
3	Rr. Floorpan Above Axle	1172	0	534	1.8	-8.0	26.5	-2.1	4.5	-7.1	27.8
4	Left Side Sill @ Rr. Seat	2086	-770	216	---	---	35.4	-9.3	---	---	---
5	Left Side Sill @ Frt. Seat	2956	-770	211	---	---	77.1	-17.9	---	---	---
6	Left Front Door Centerline	3005	-803	643	---	---	240.3	-91.6	---	---	---
7	Right Rear Occupant Compartment	2112	404	363	---	---	10.6	-6.7	---	---	---
8	Mid Rear of Left Front Door	2657	-810	599	---	---	109.6	-50.7	---	---	---
9	Left Front Door Upper Centerline	3007	-806	822	---	---	78.4	-101.8	---	---	---
10	Left Rear Door Mid Rear	1698	-800	634	---	---	82.4	-87.1	---	---	---
11	Left Rear Door Upper Centerline	1993	-815	936	---	---	155.0	-99.7	---	---	---
12	Left Lower B-Post	2468	-729	311	---	---	87.3	-16.9	---	---	---
13	Left Mid B-Post	2459	-769	838	---	---	109.8	-35.2	---	---	---
14	Left Lower A-Post	3485	-750	385	---	---	53.4	-9.5	---	---	---
15	Left Mid A-Post **	3514	-786	869	---	---	50.0	-33.9	---	---	---
16	Driver Left Seat Track	2646	-571	239	---	---	65.1	-26.4	---	---	---
18	Vehicle CG	3003	204	196	5.4	-6.9	17.5	-2.4	10.6	-10.7	19.8

*Reference: X - Rear Bumper, (+ Forward) Y - Vehicle Centerline (+ To right) Z - Ground Level (+ Up)
** Data not valid after approximately 18 msec.

DATA SHEET NO. 14

MOVING DEFORMABLE BARRIER (MDB) ACCELEROMETER LOCATIONS AND DATA SUMMARYYear/Make/Model/Body Style: 1999/Dodge/Intrepid/4 DoorVehicle NHTSA No.: MX0305 Test Date: January 8, 1999

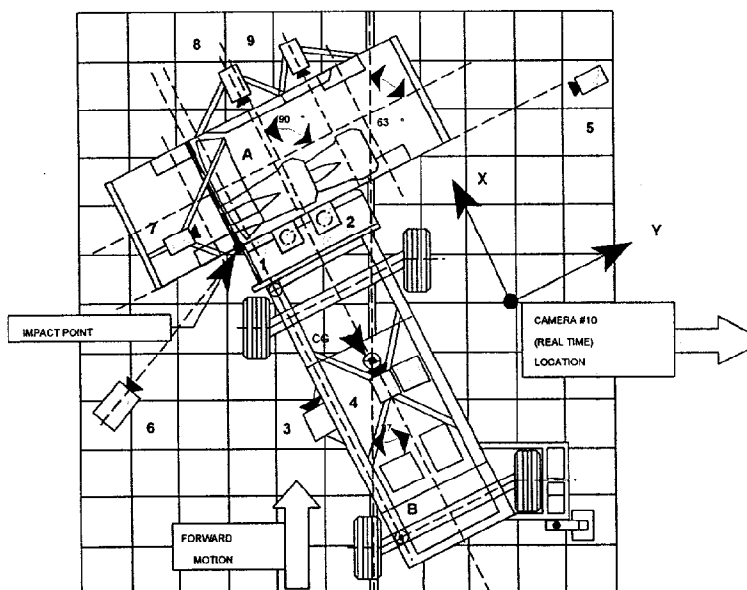
Accel. No.	Description	Coordinates (mm)*			(+) Positive		(-) Negative	
		X	Y	Z	Max. (g)	Time (msec)	Max. (g)	Time (msec)
1	MDB Center of Gravity	-1092	0	483				
	Longitudinal (X)	---	---	---	1.1	186	-15.2	46
	Lateral (Y)	---	---	---	1.3	67	-8.6	40
	Vertical (Z)	---	---	---	24.0	17	-21.6	28
	Resultant (R)	---	---	---	27.5	17	---	---
2	Rear Frame Member	-2501	-625	622				
	Longitudinal (X)	---	---	---	1.4	195	-21.0	38
	Lateral (Y)	---	---	---	6.8	41	-0.5	126

*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: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999



Camera No.	View	Coordinates (mm)*			Lens (mm)	Film Speed (fps)
		X	Y	Z		
	Real Time					
1	Top Overall	-60	1280	5000	8	943
2	Top Impact	-130	80	5000	13	1020
3	Cart Pointer				35	1005
4	Cart Overall				13	1015
5	Right Impact	-530	10385	1735	25	1010
6	Left Impact	-395	-2620	1680	13	1005
7	Onboard Hood				13	1005
8	Onboard Driver				8	1075
9	Onboard Passenger				8	926

* 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: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

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 38.1 mph (61.3 kph)

FUEL SPILLAGE MEASUREMENT:

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

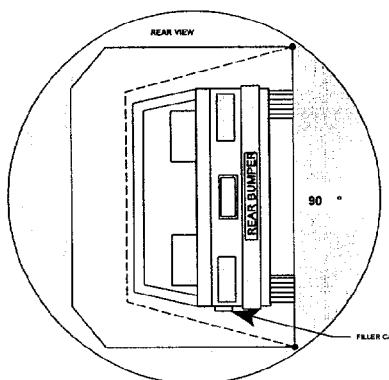
FUEL SPILLAGE LOCATION(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

TEST PHASE: 0° - 90°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 53 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 53 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

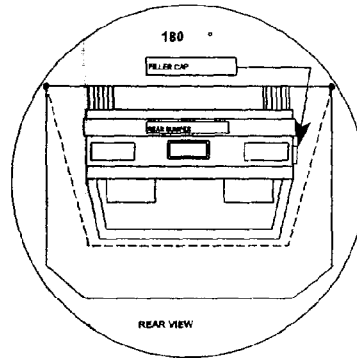
FUEL SPILLAGE LOCATIONS(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA (Cont'd)

Vehicle Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

TEST PHASE: 90° - 180°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 29 seconds
 (Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 29 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

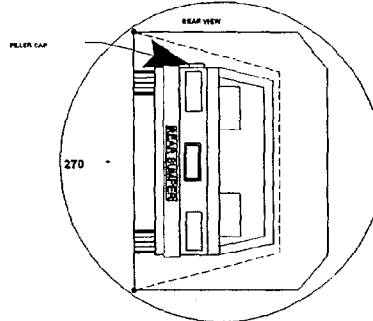
FUEL SPILLAGE LOCATIONS(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA (Cont'd)

Vehicle Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

TEST PHASE: 180° - 270°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 16 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 16 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

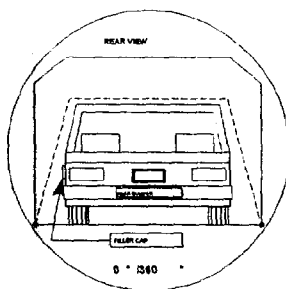
FUEL SPILLAGE LOCATIONS(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1999/Dodge/Intrepid/4 Door

Vehicle NHTSA No.: MX0305 Test Date: January 8, 1999

TEST PHASE: 270° - 360°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 46 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 46 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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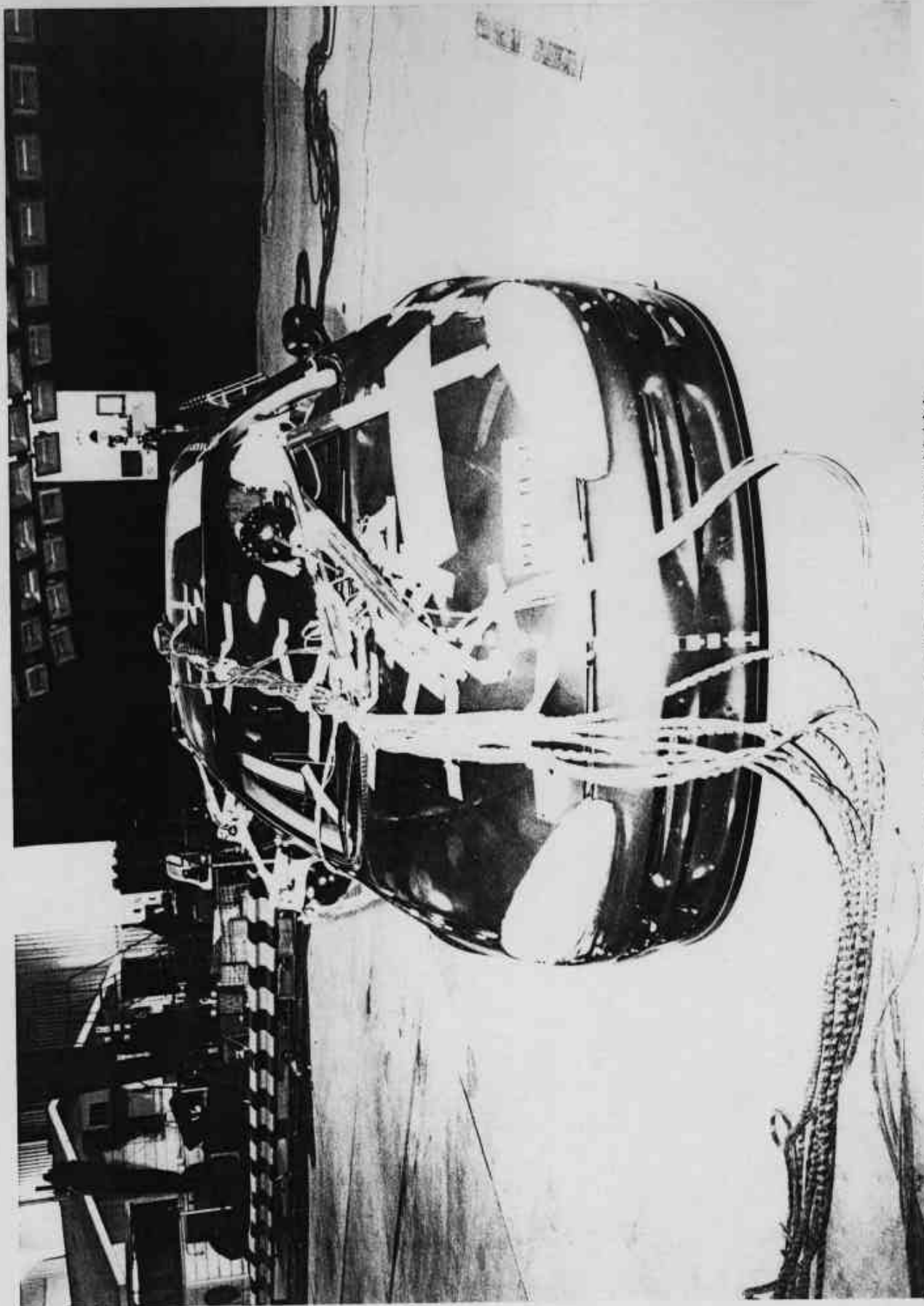


Photo No. A-1 - Pre-Test Front View of Test Vehicle

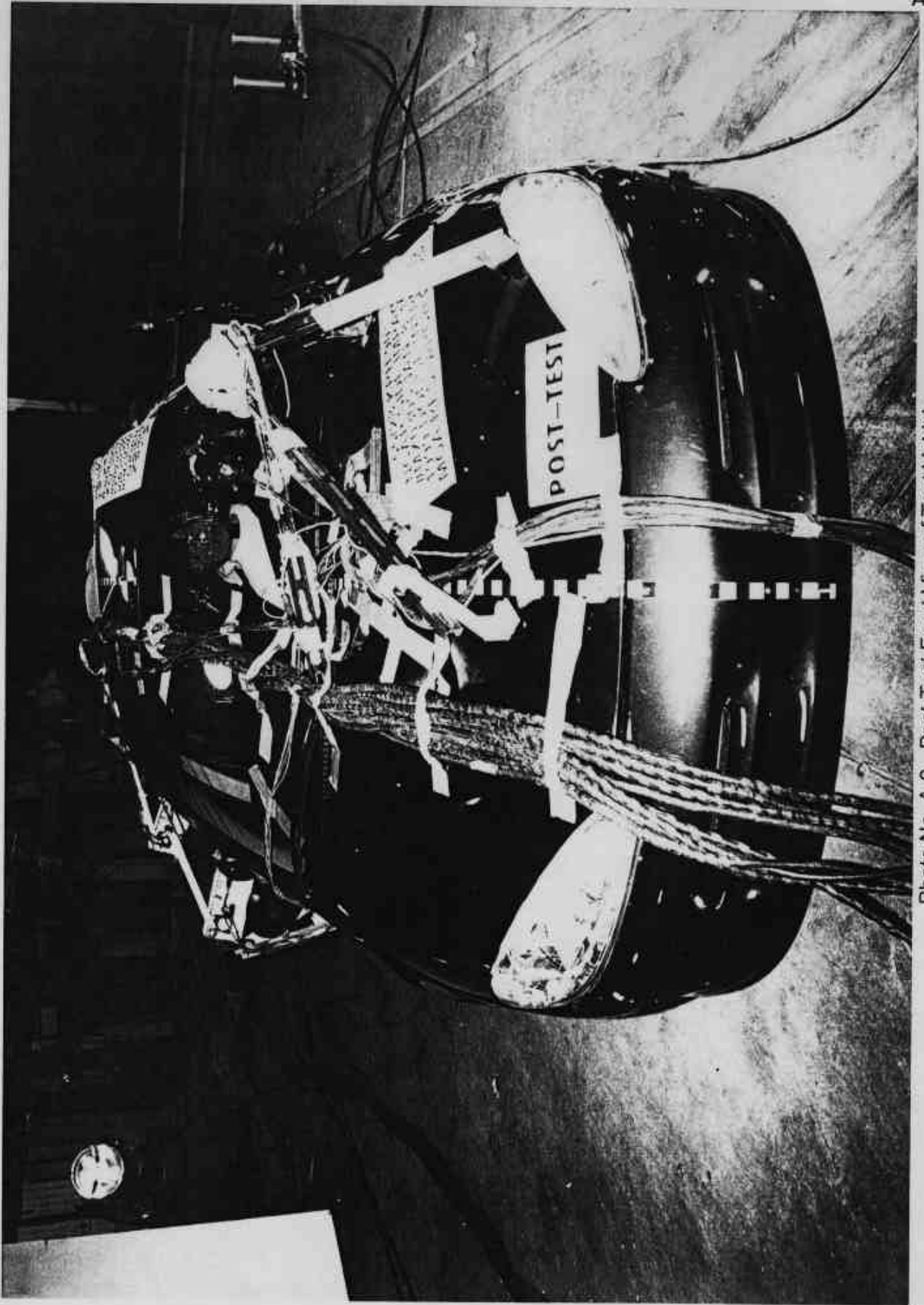


Photo No. A-2 - Post-Test Front View of Test Vehicle



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

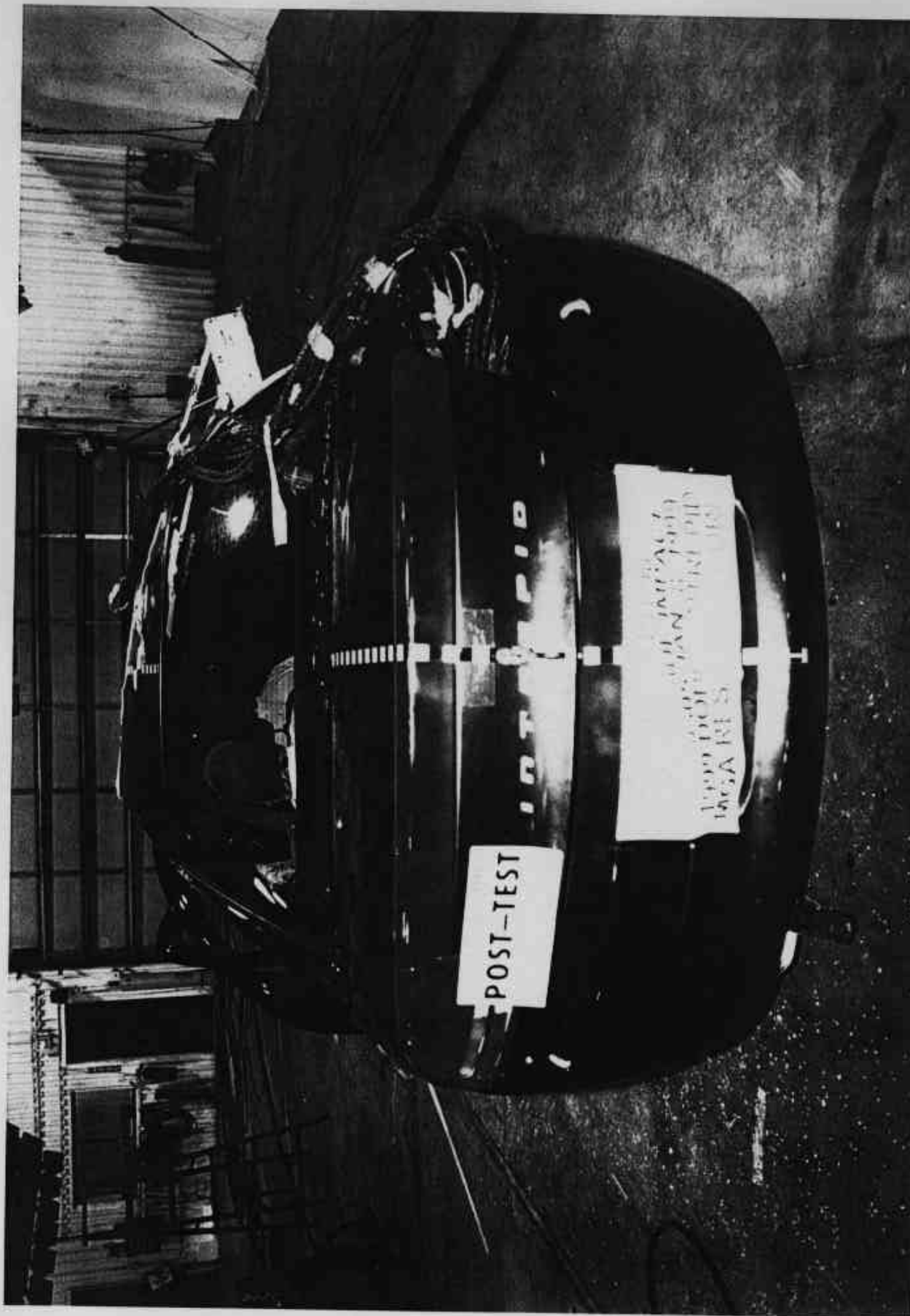


Photo No. A-4 - Post-Test Rear View of Test Vehicle

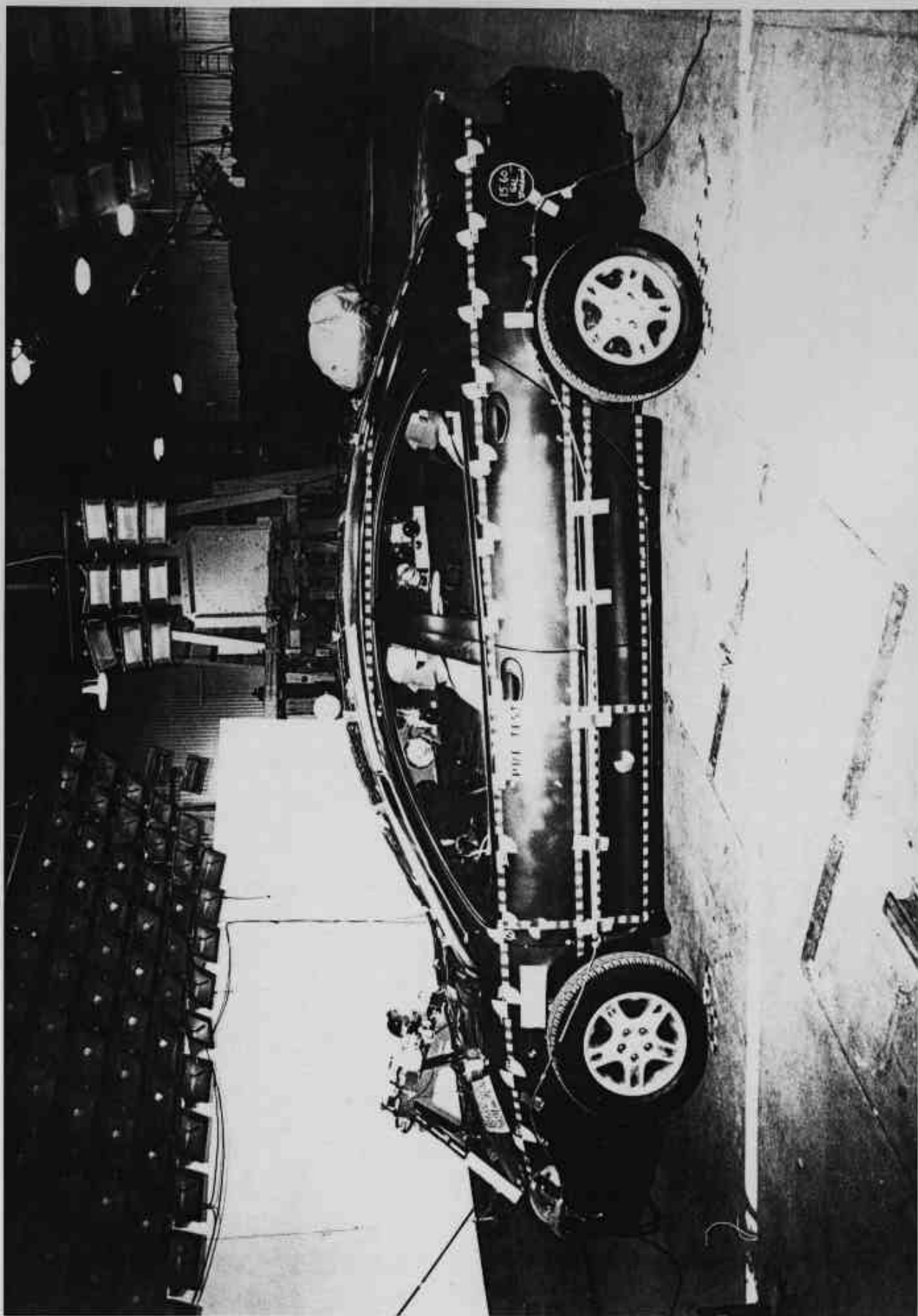


Photo No. A-5 - Pre-Test Left Side View of Test Vehicle

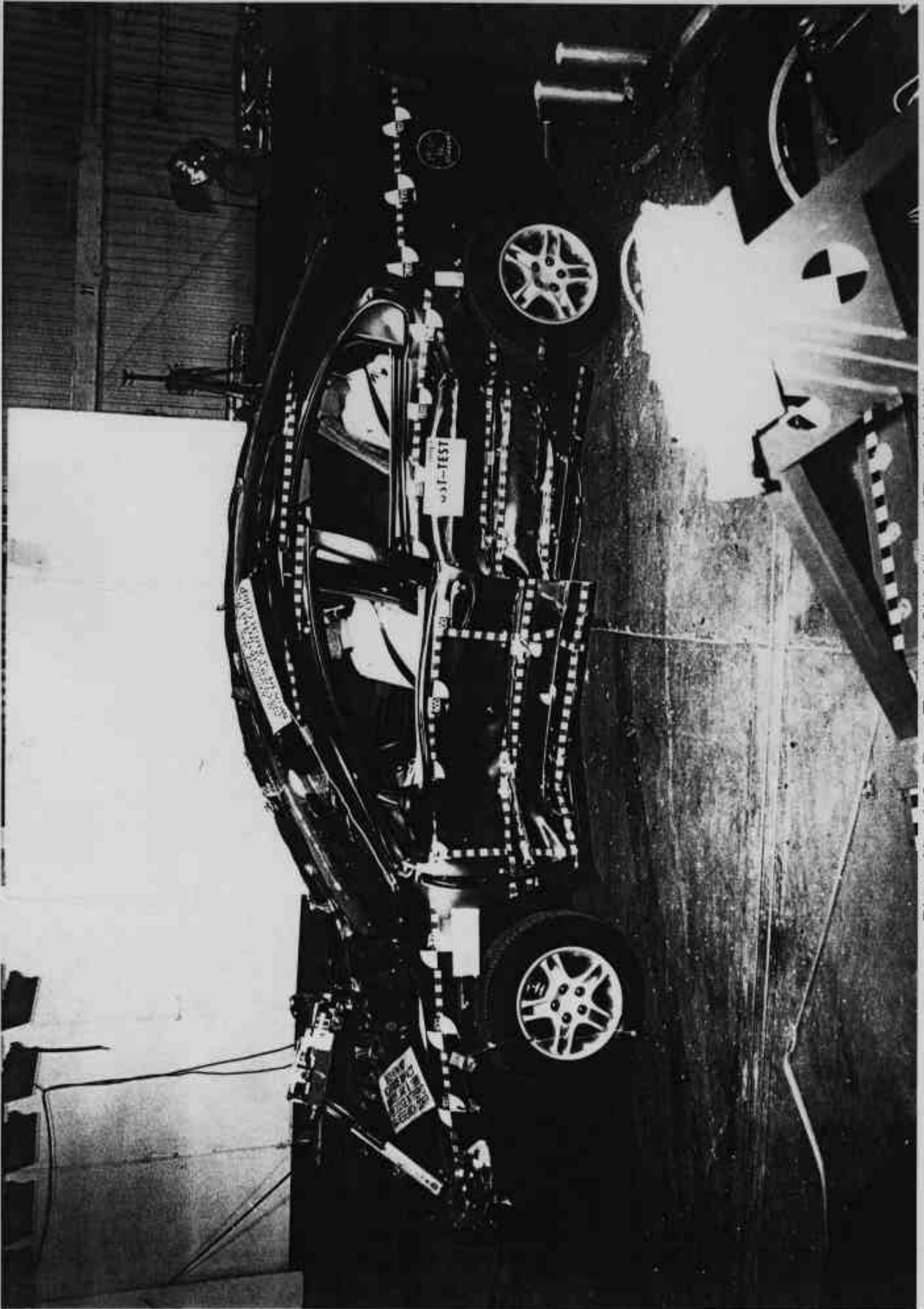


Photo No. A-6 - Post-Test Left Side View of Test Vehicle

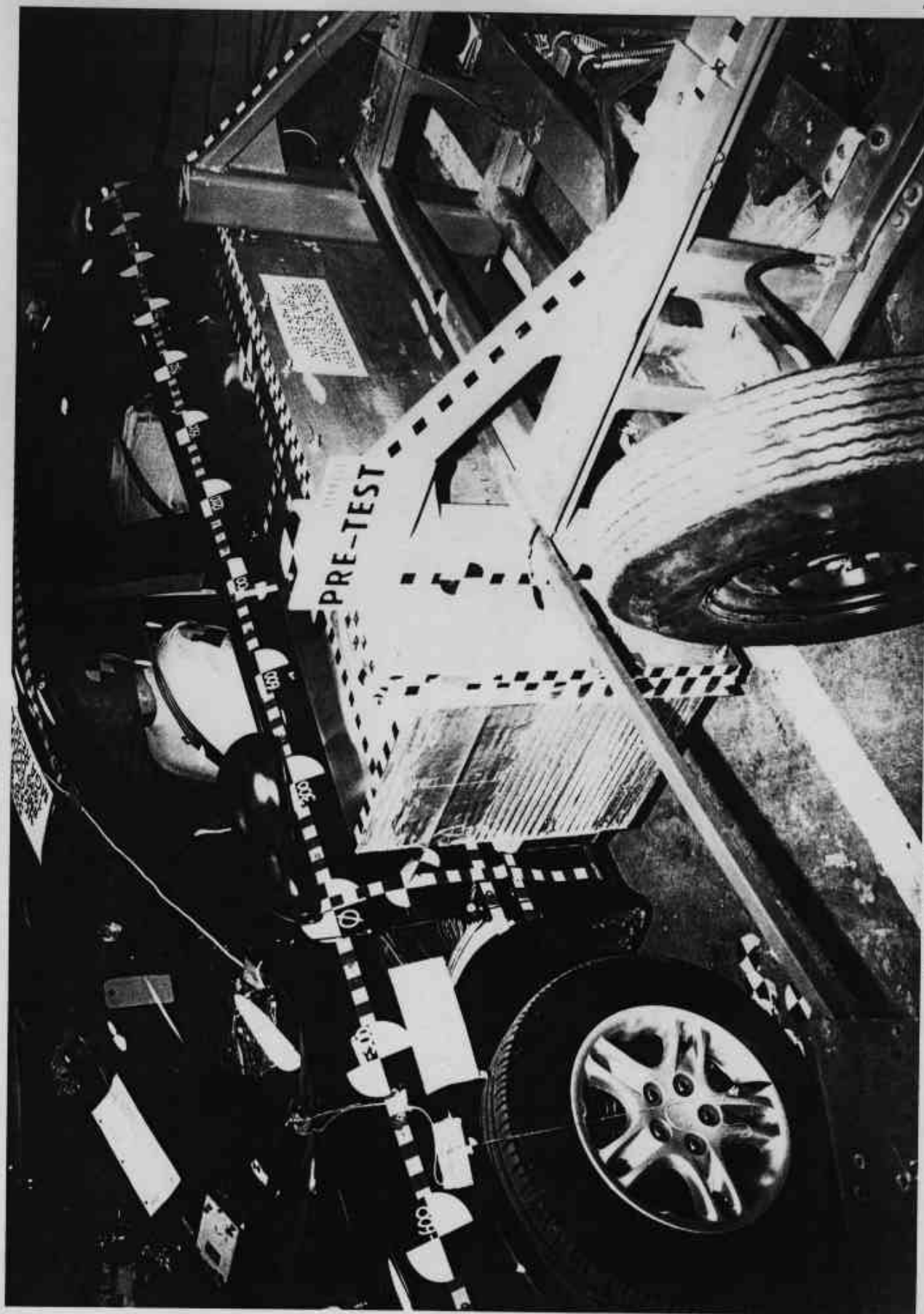


Photo No. A-7 - Pre-Test MDB Positioned Against Vehicle (left side)

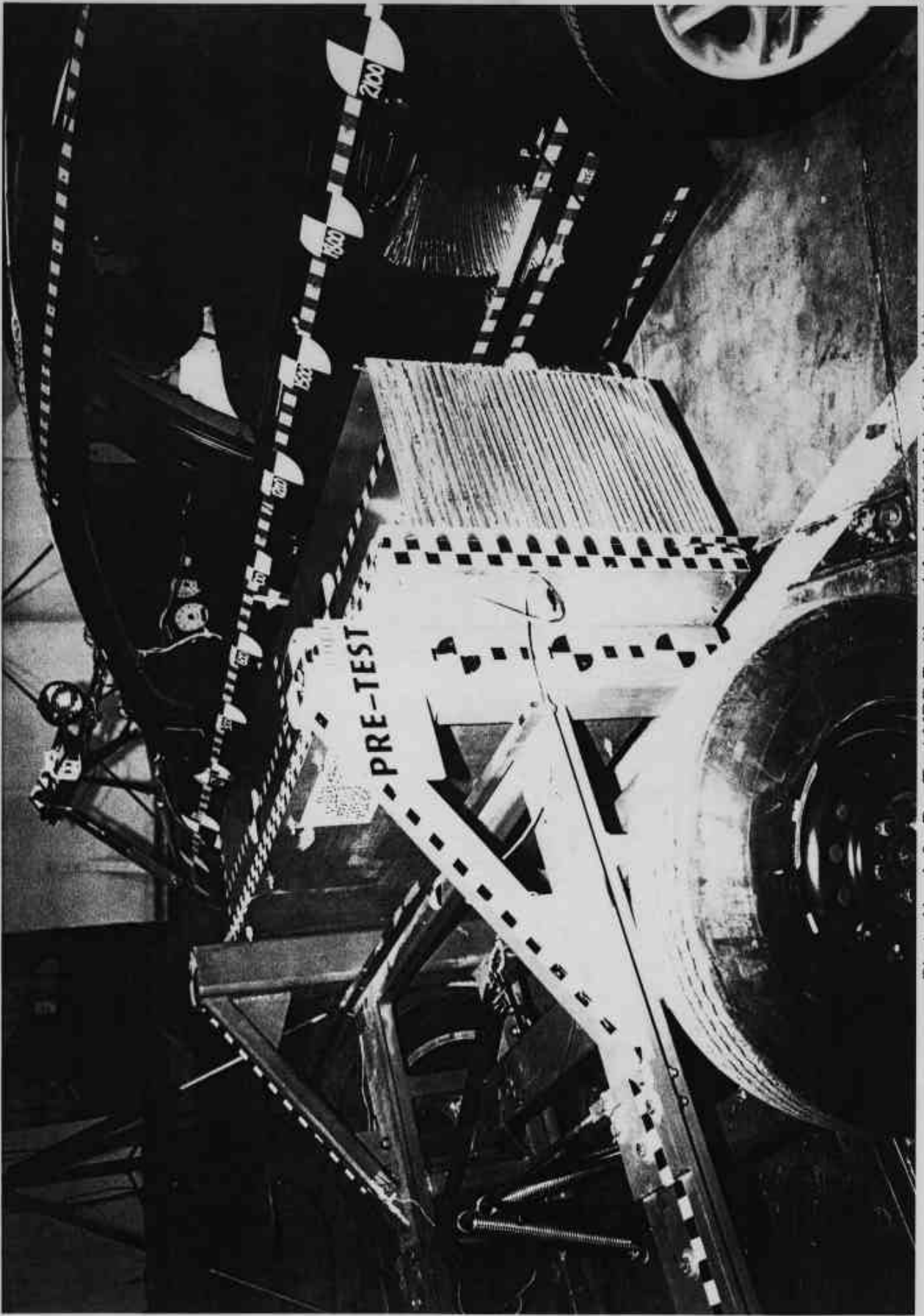


Photo No. A-8 - Pre-Test MDB Positioned Against Vehicle (right side)

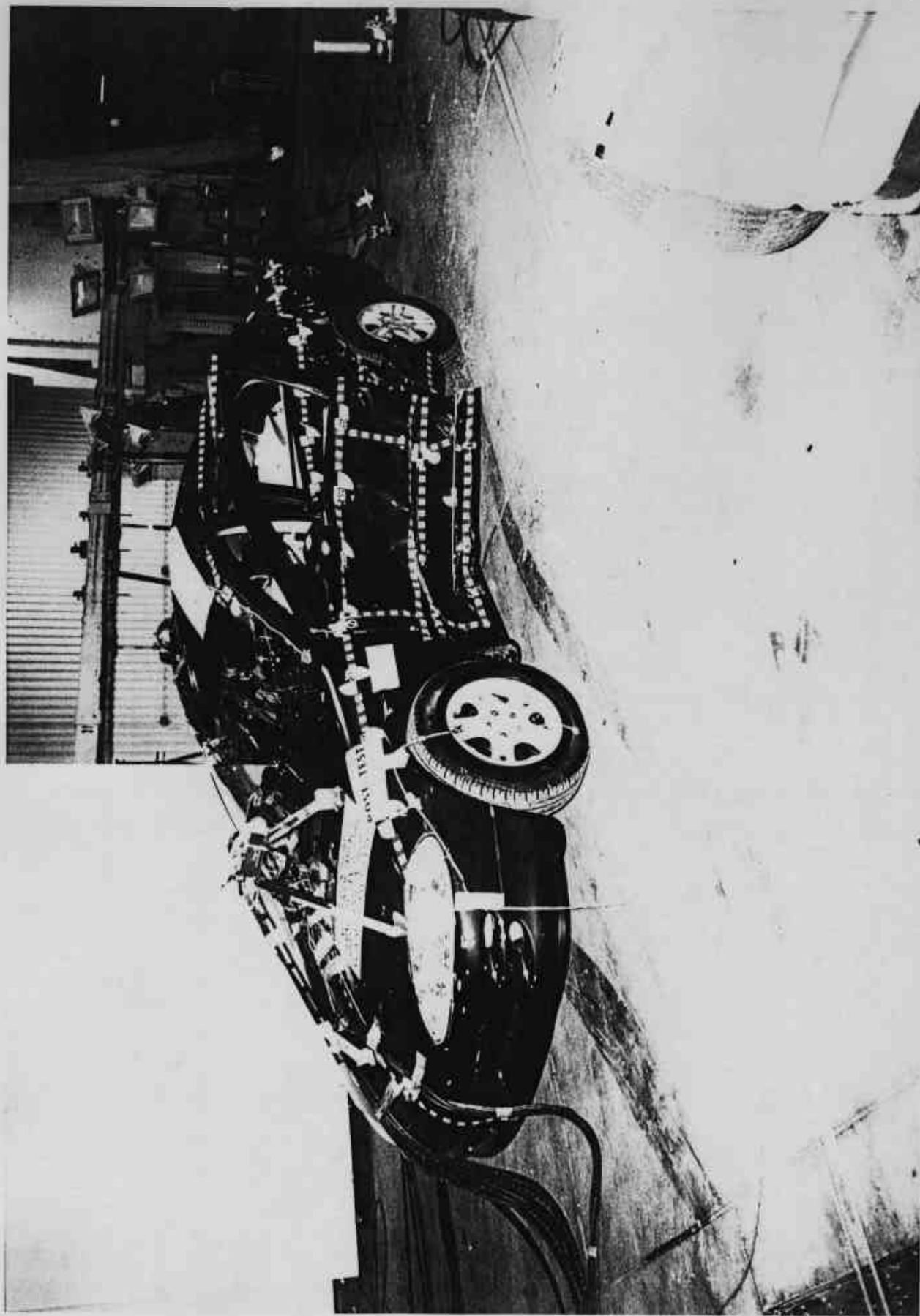


Photo No. A-10 - Post-Test MDB Positioned Against Vehicle (left side)



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

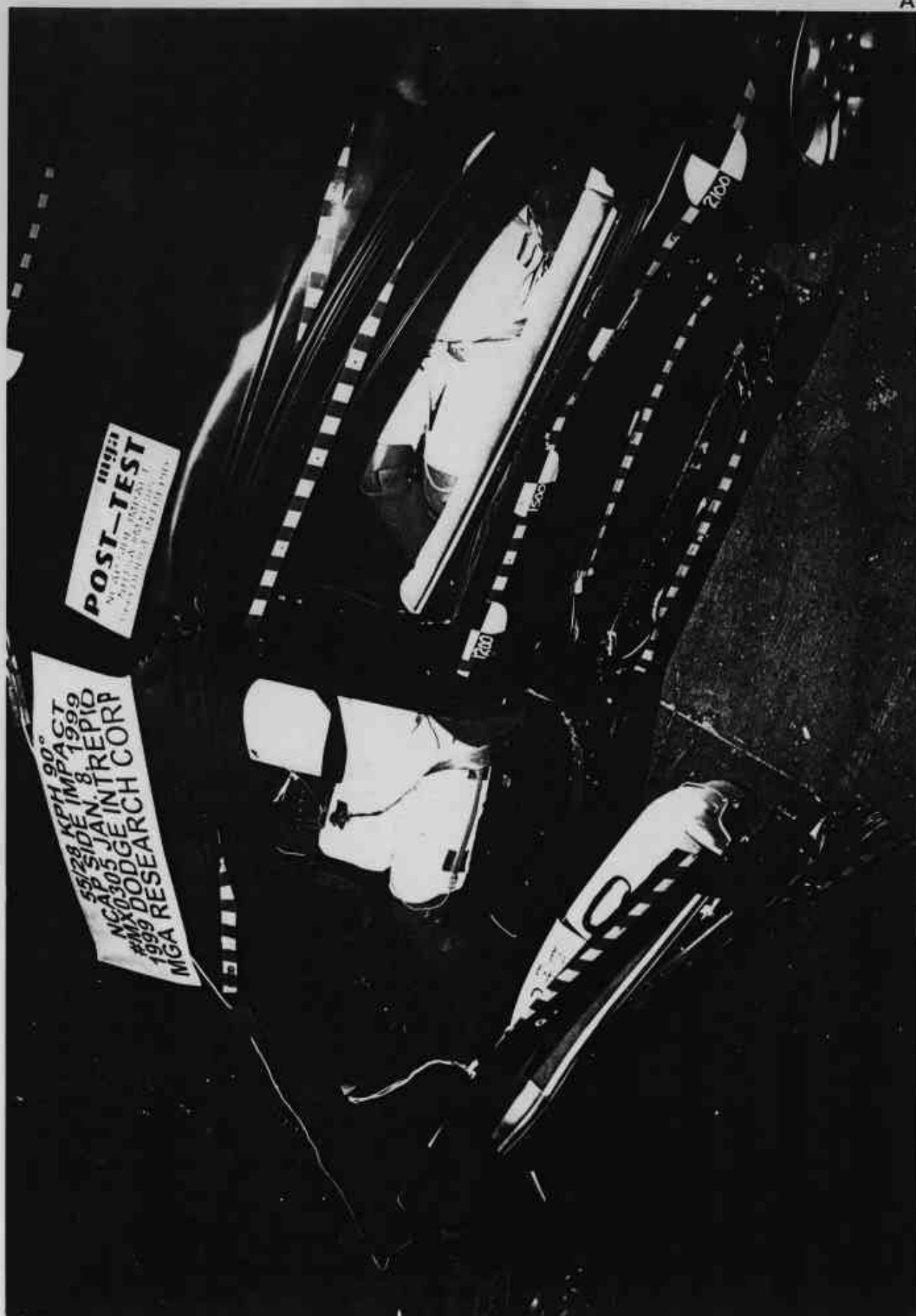


Photo No. A-12 - Post-Test MDB Positioned Against Vehicle Overhead View

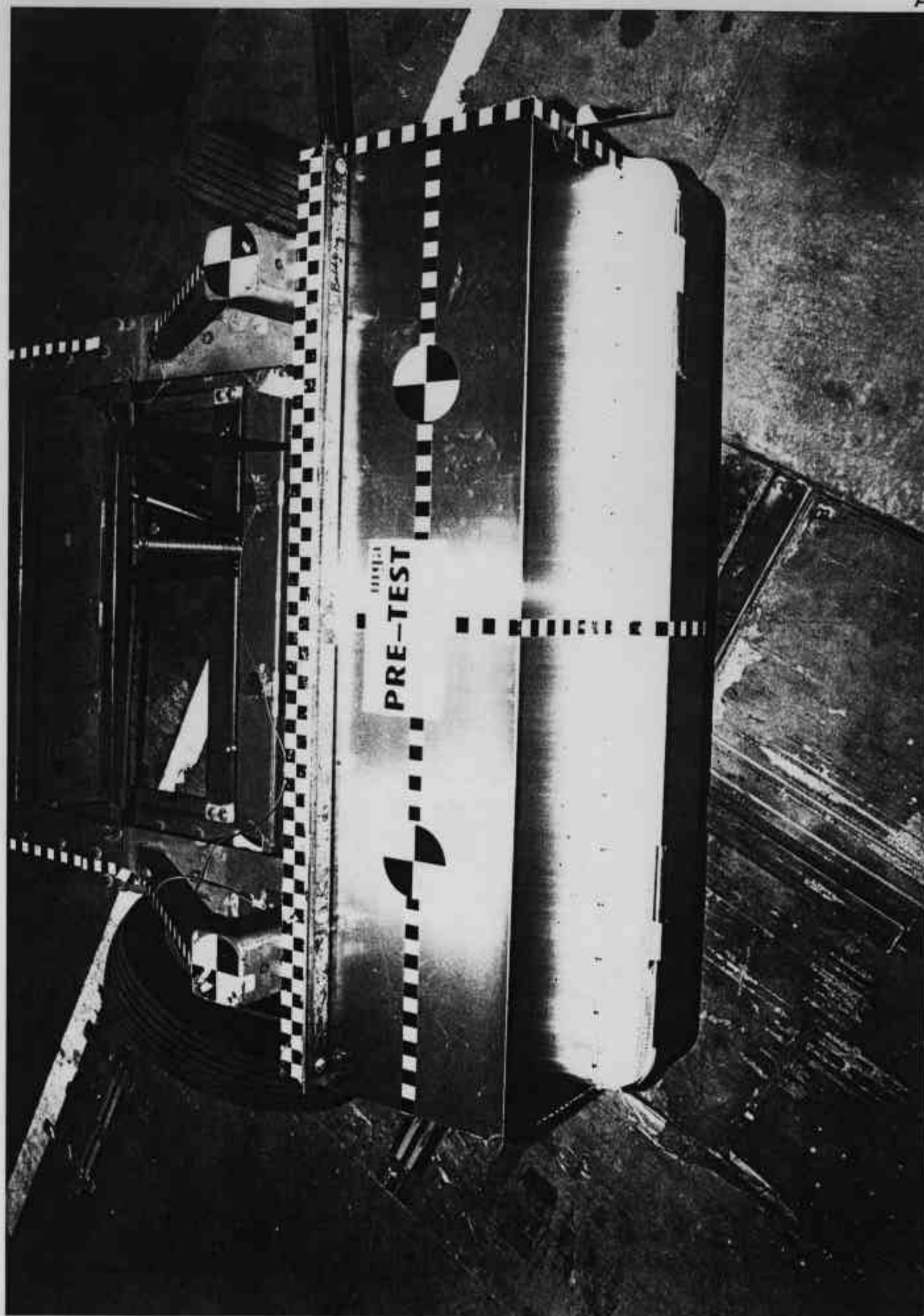


Photo No. A-13 - Pre-Test MDB Top View

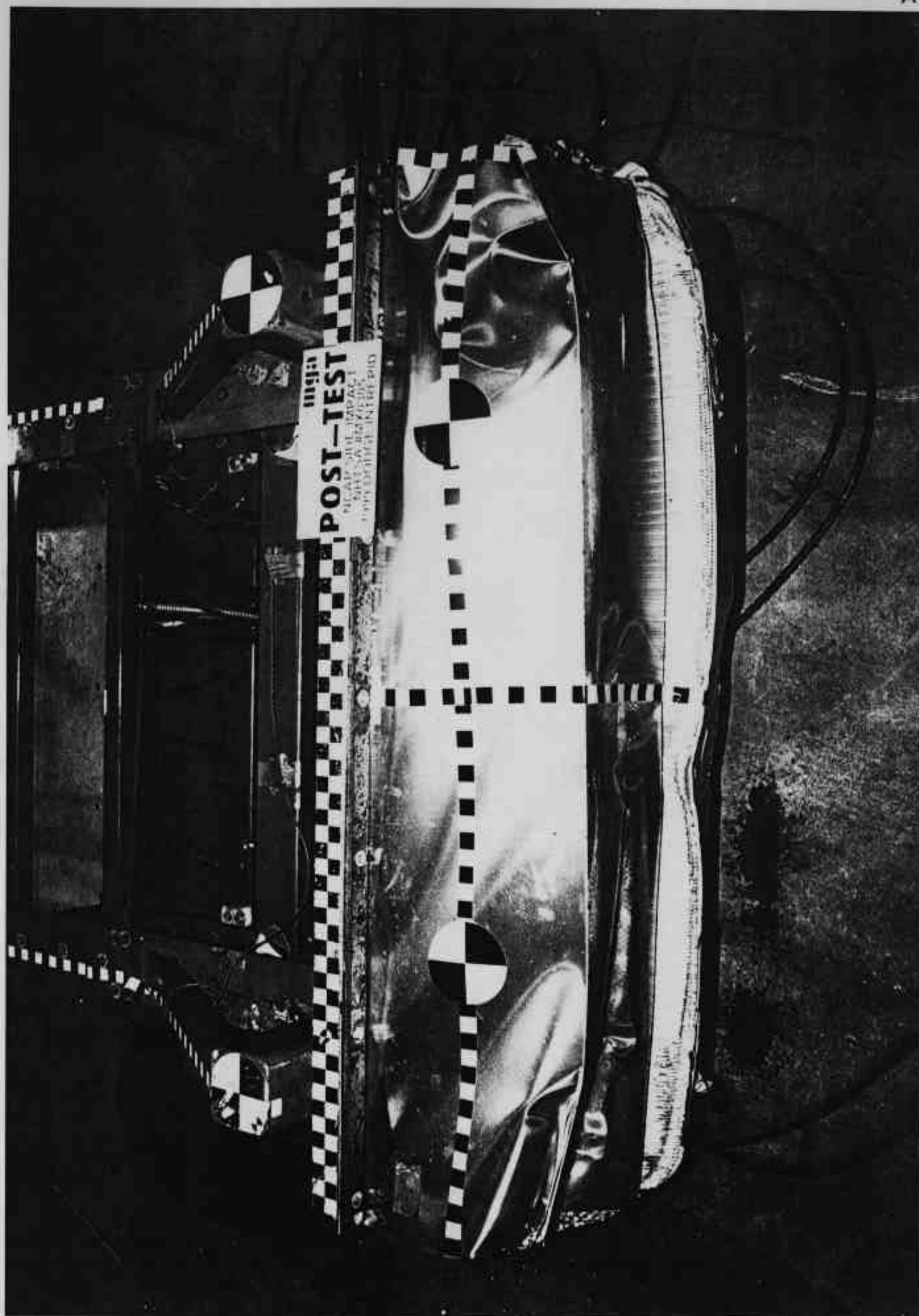


Photo No. A-14 - Post-Test MDB Top View

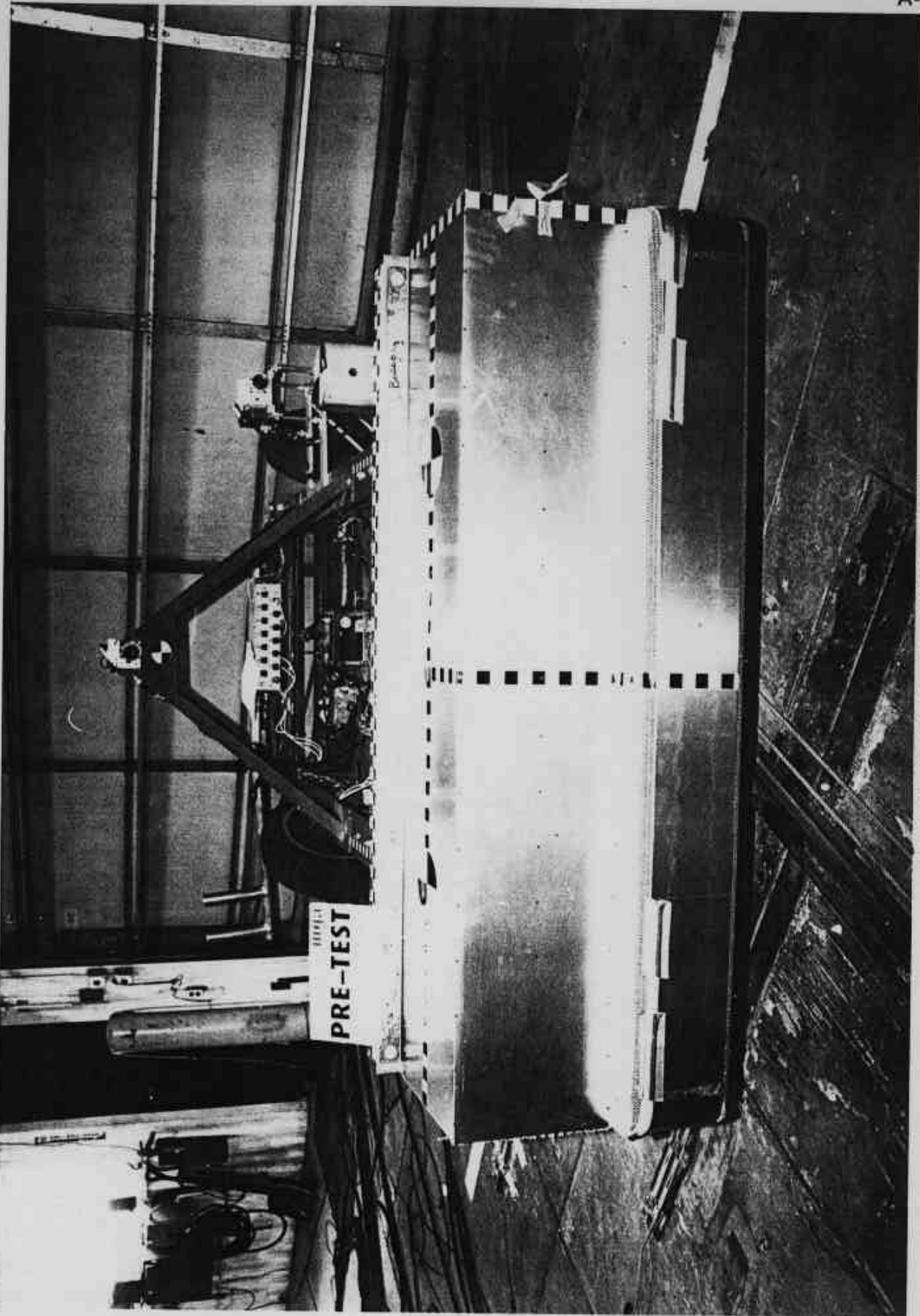


Photo No. A-15 - Pre-Test MDB Front View

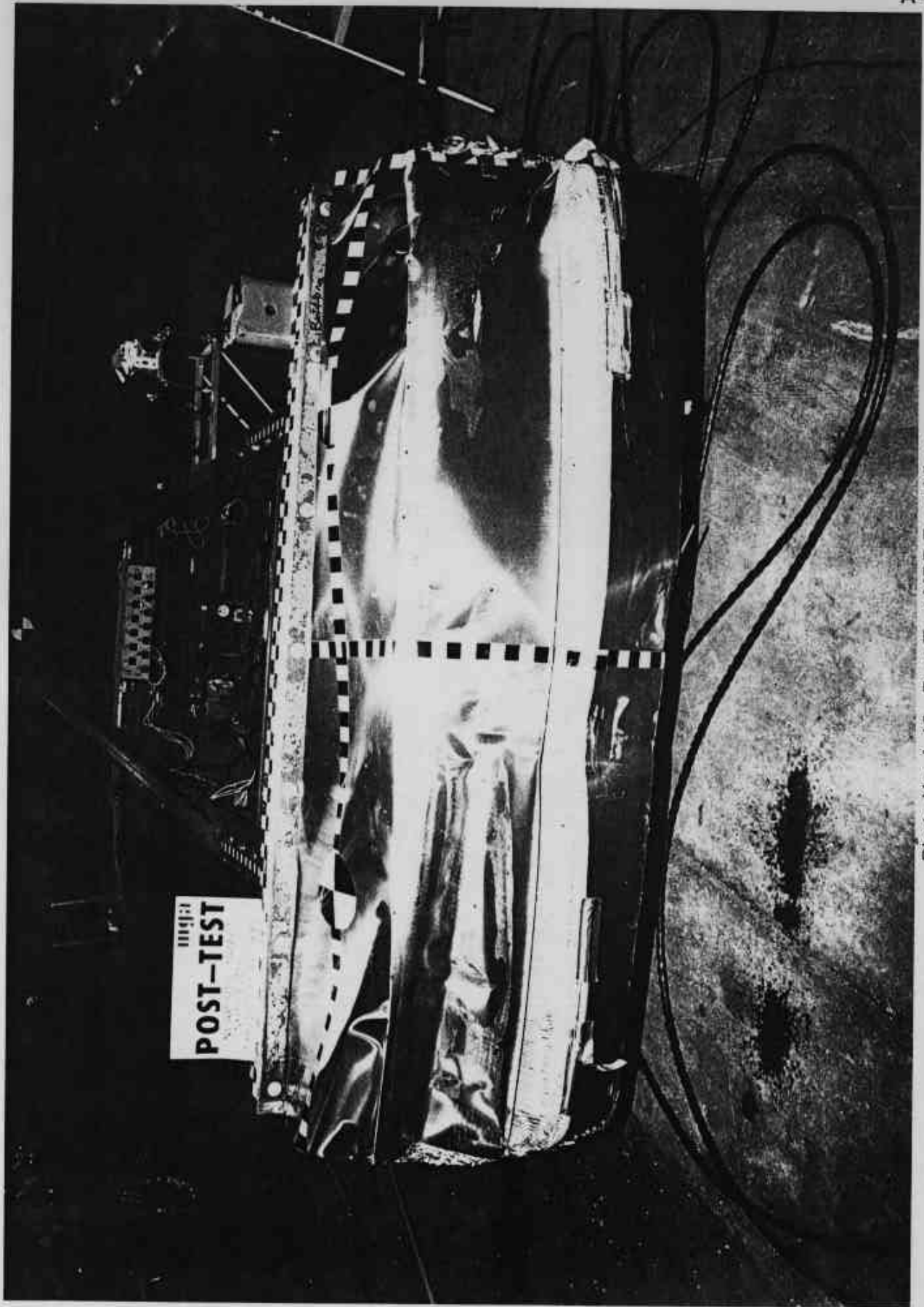


Photo No. A-16 - Post-Test MDB Front View

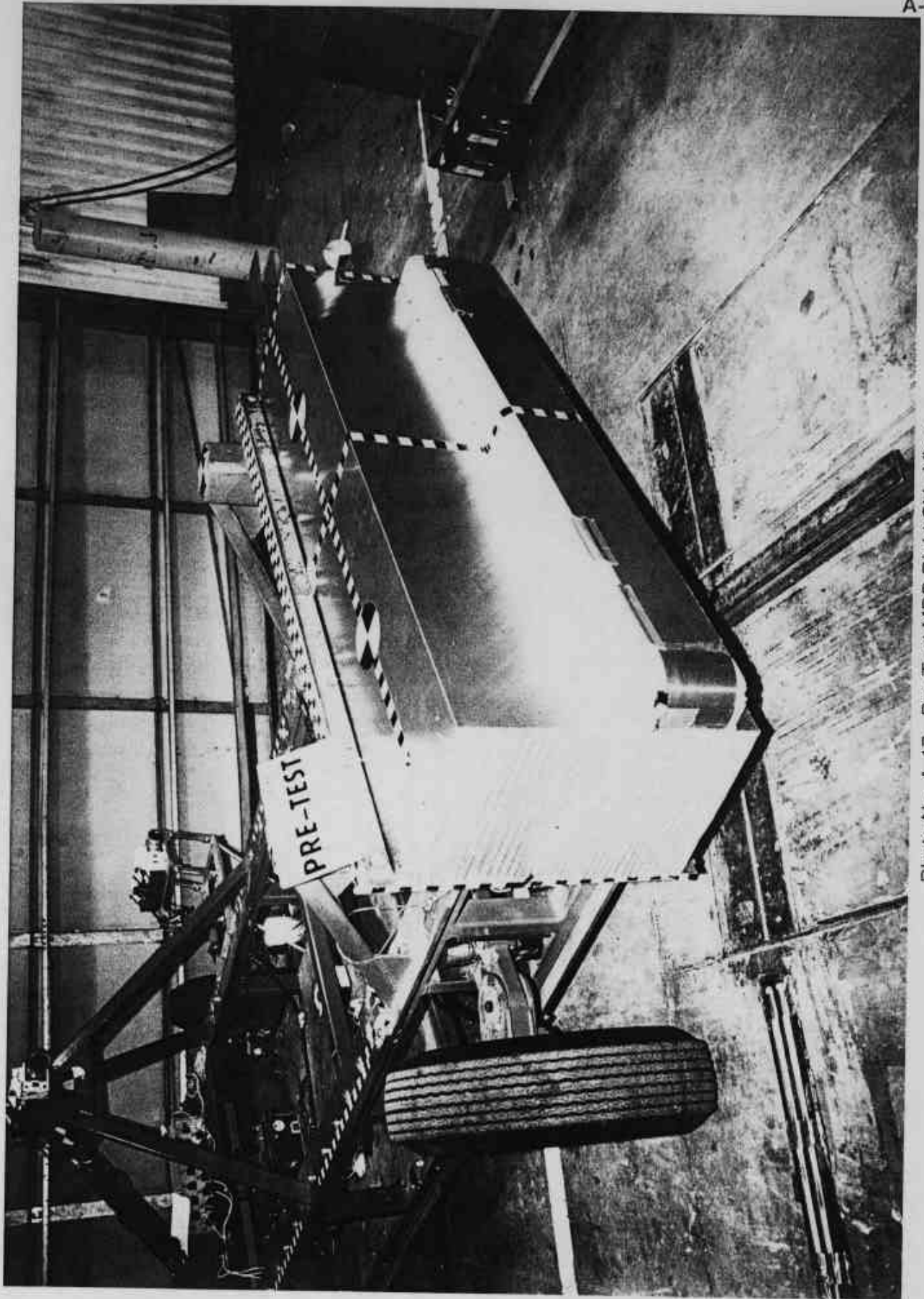


Photo No. A-17 - Pre-Test MDB Right Side View

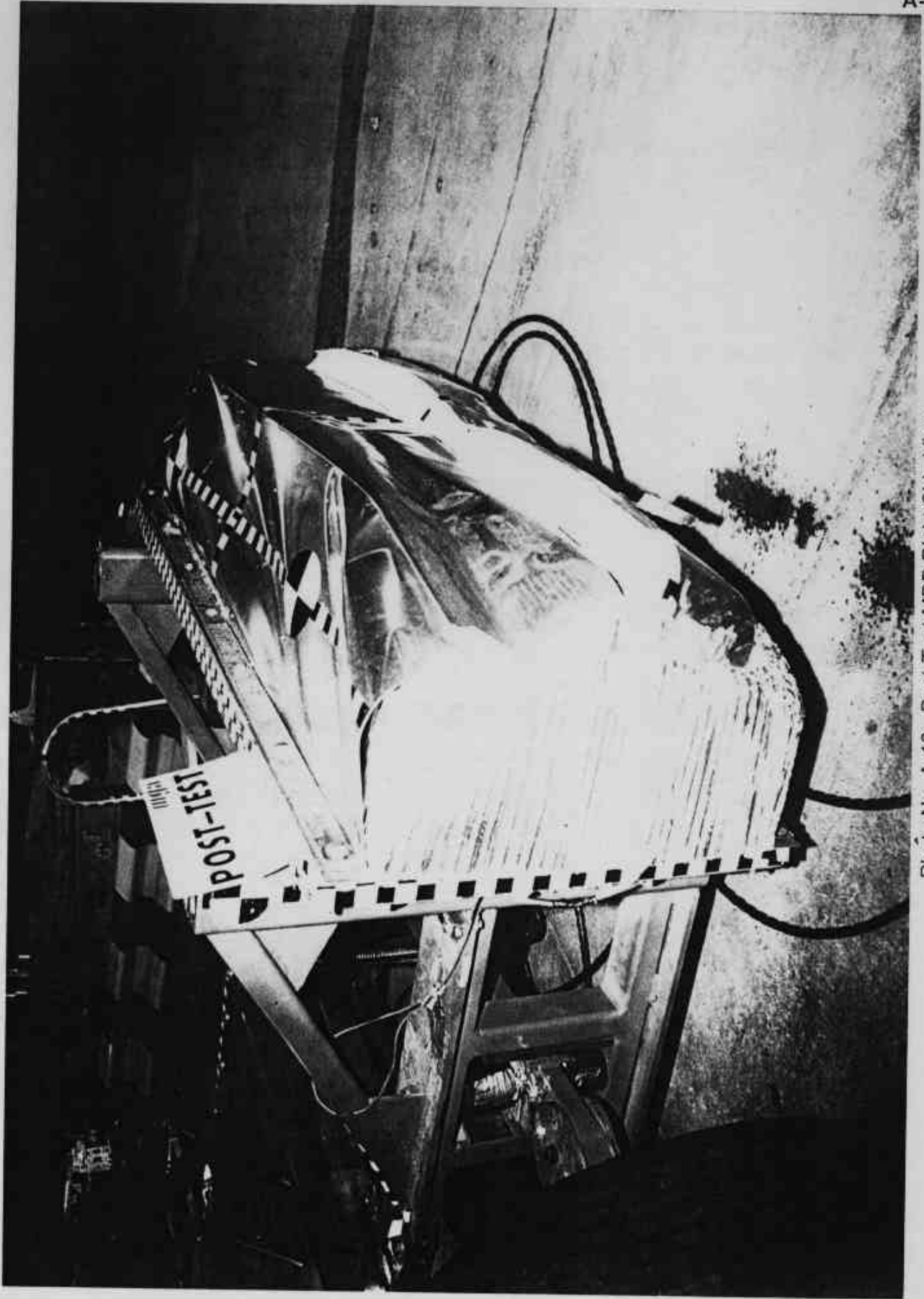


Photo No. A-18 - Post-Test MDB Right Side View

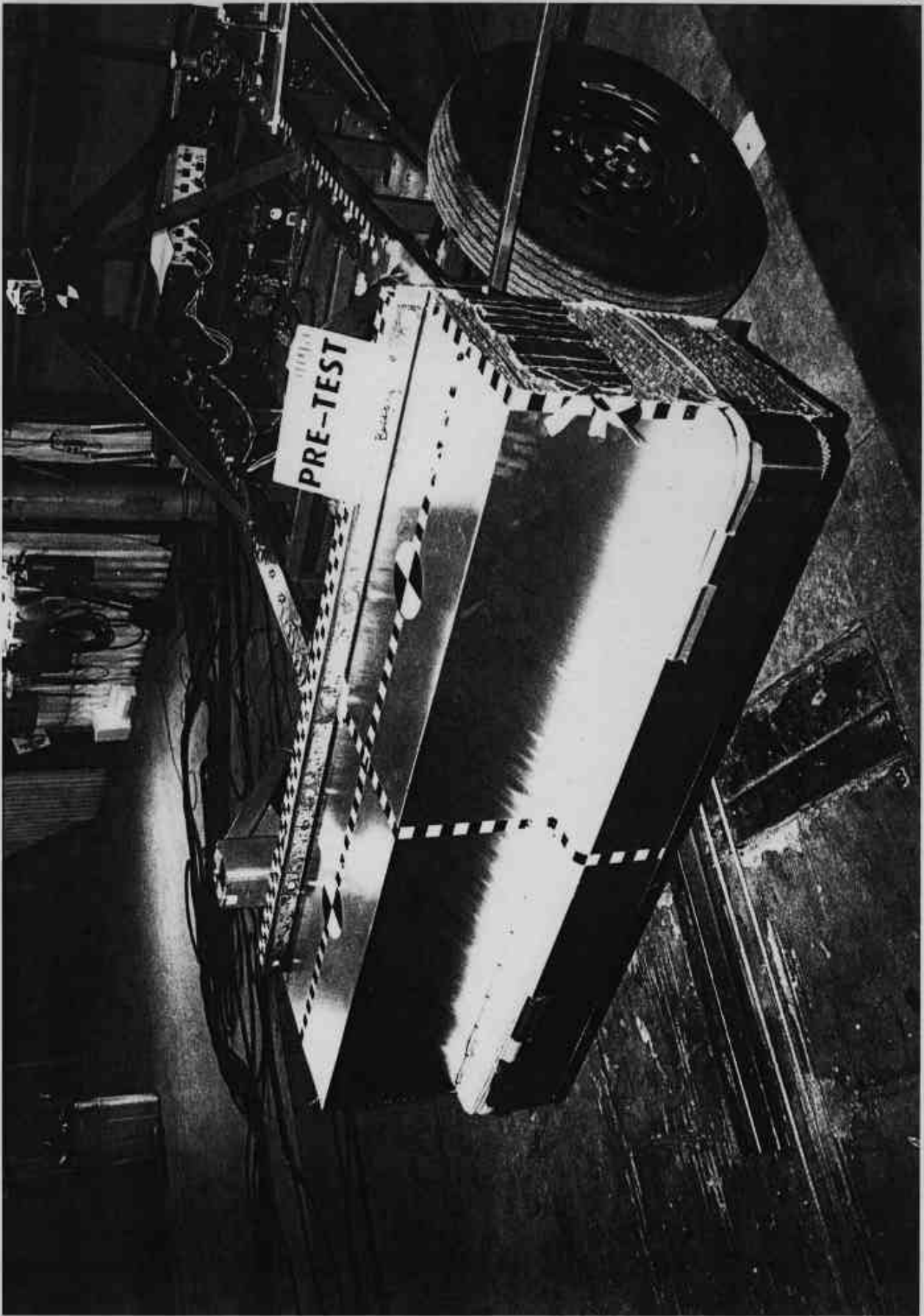


Photo No. A-19 - Pre-Test MDB Left Side View

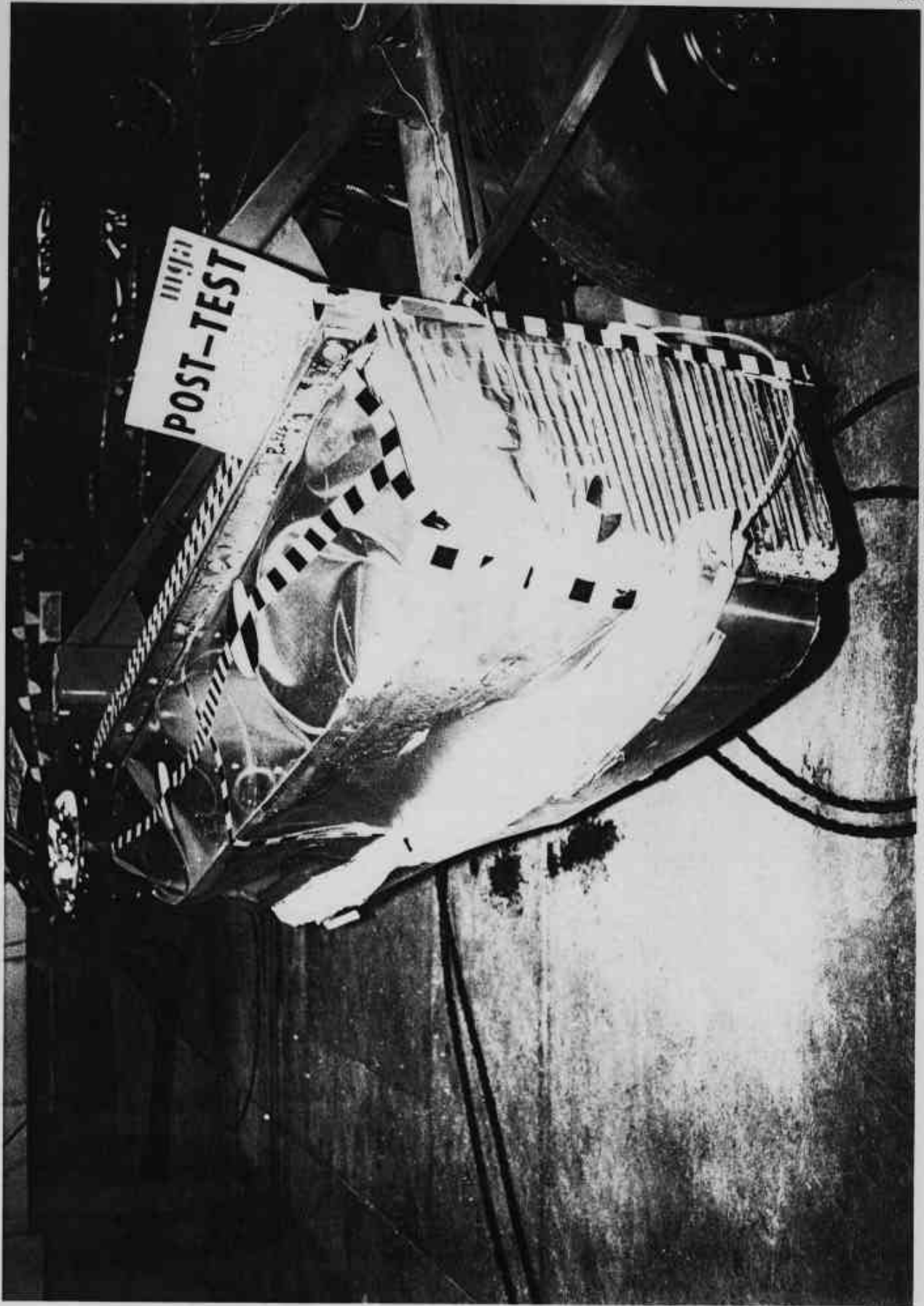


Photo No. A-20 - Post-Test MDB Left Side View



Photo No. A-21 - Pre-Test Driver Dummy Right Side View



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

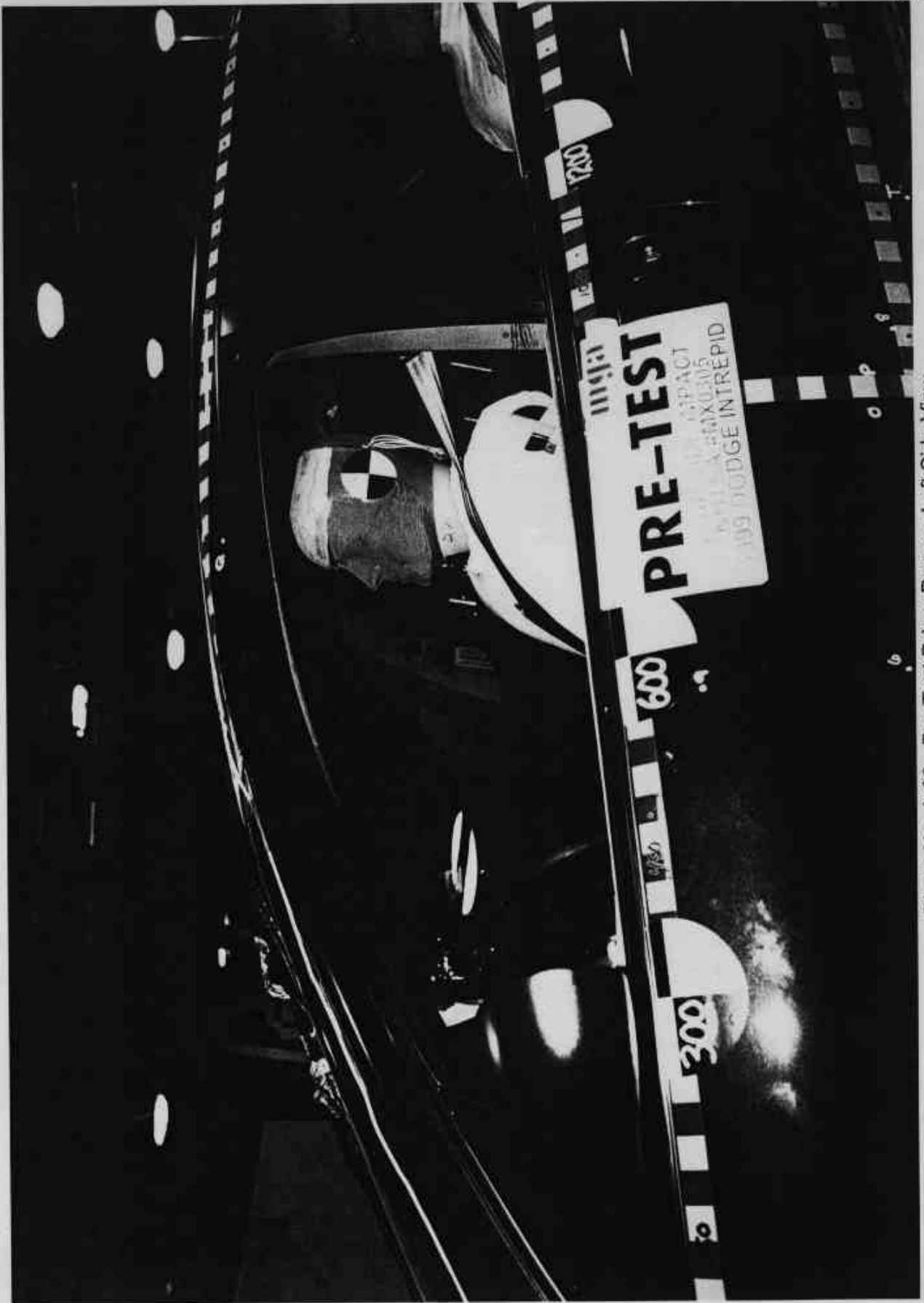


Photo No. A-23 - Pre-Test Driver Dummy Left Side View

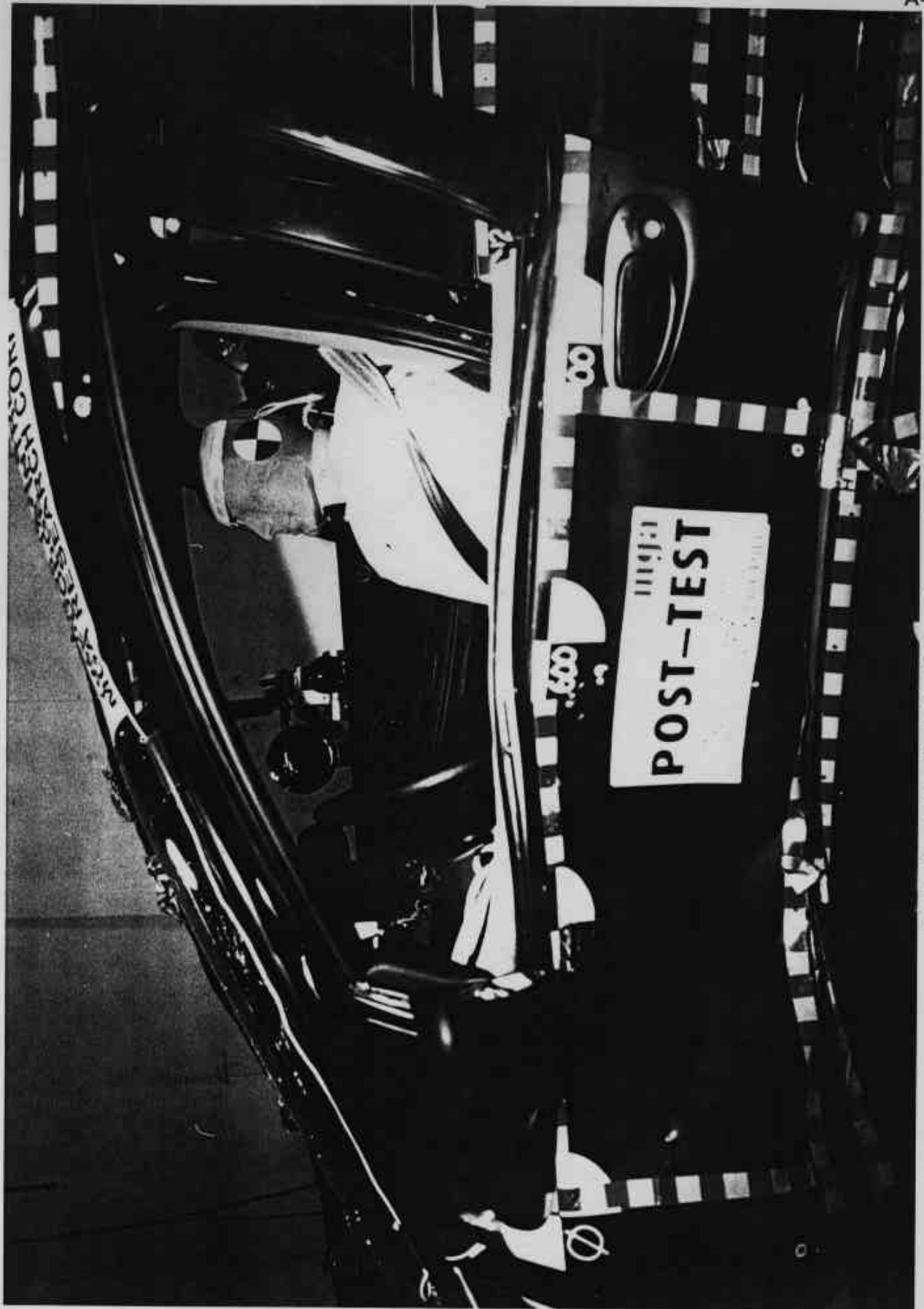


Photo No. A-24 - Post-Test Driver Dummy Left Side View

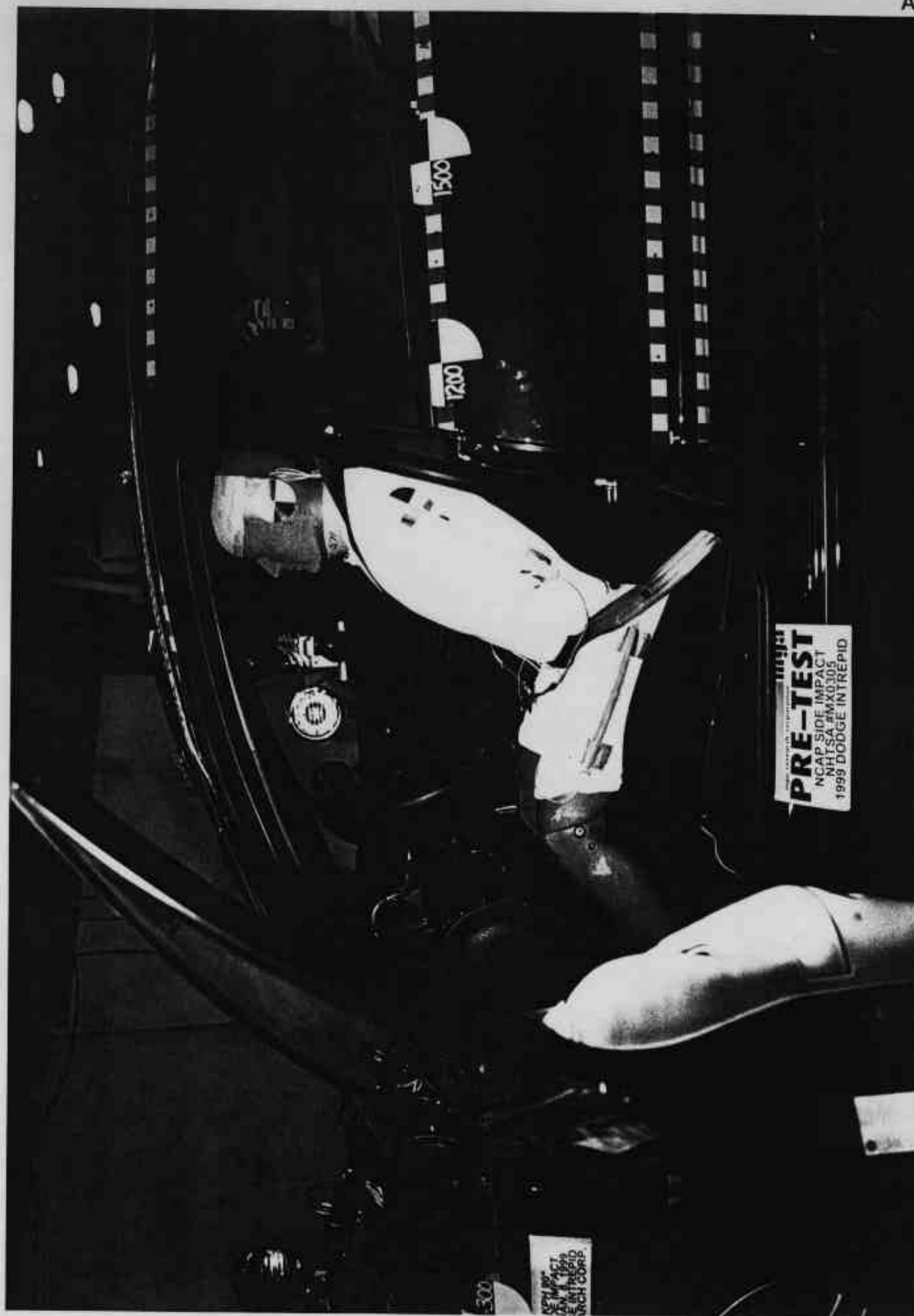


Photo No. A-25 - Pre-Test Driver Dummy Left Side View (Door Open)

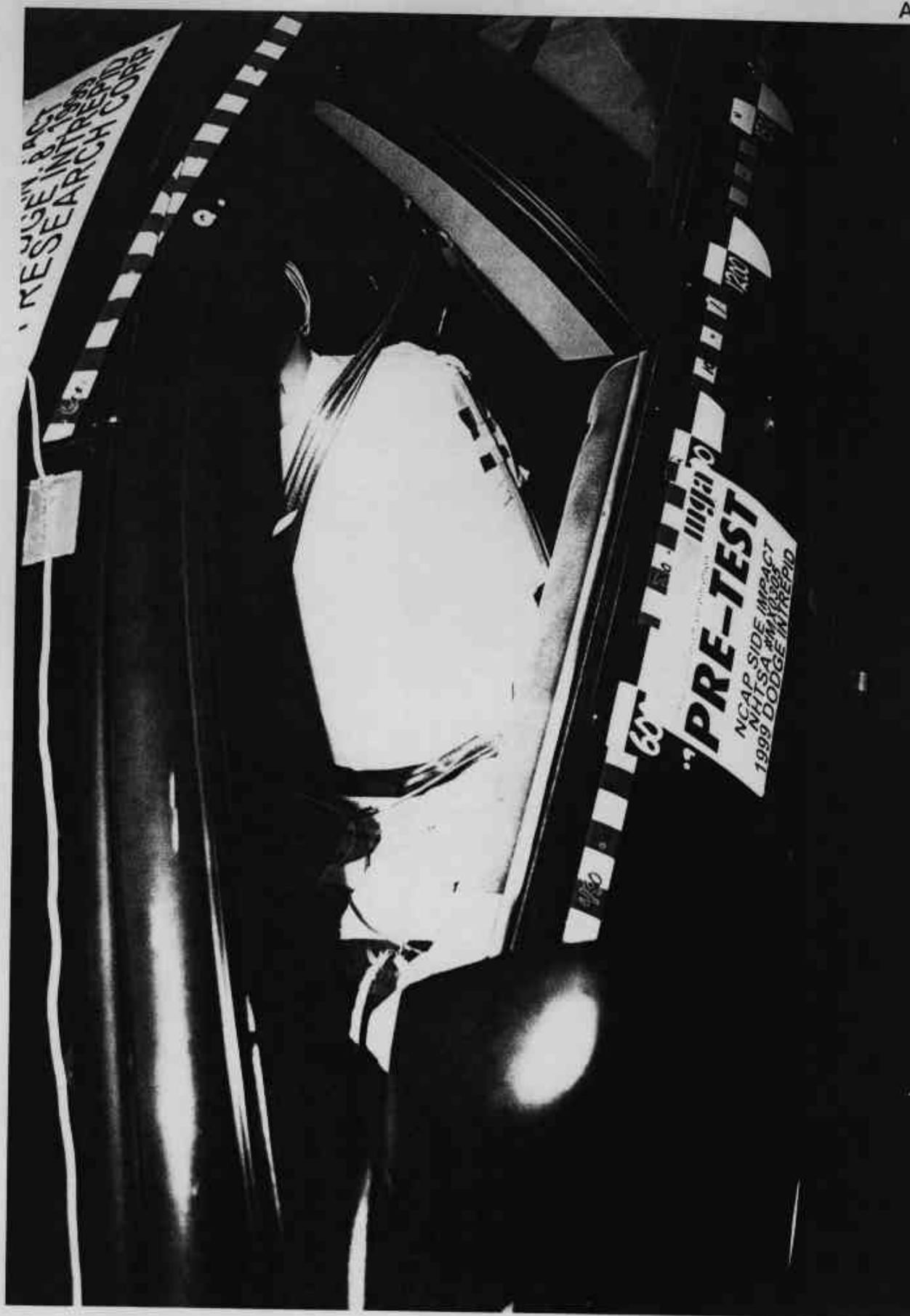


Photo No. A-26 - Pre-Test Driver Dummy Shoulder and Door Top View



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



Photo No. A-28 - Post-Test Driver Dummy Contact



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

A-29



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



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



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

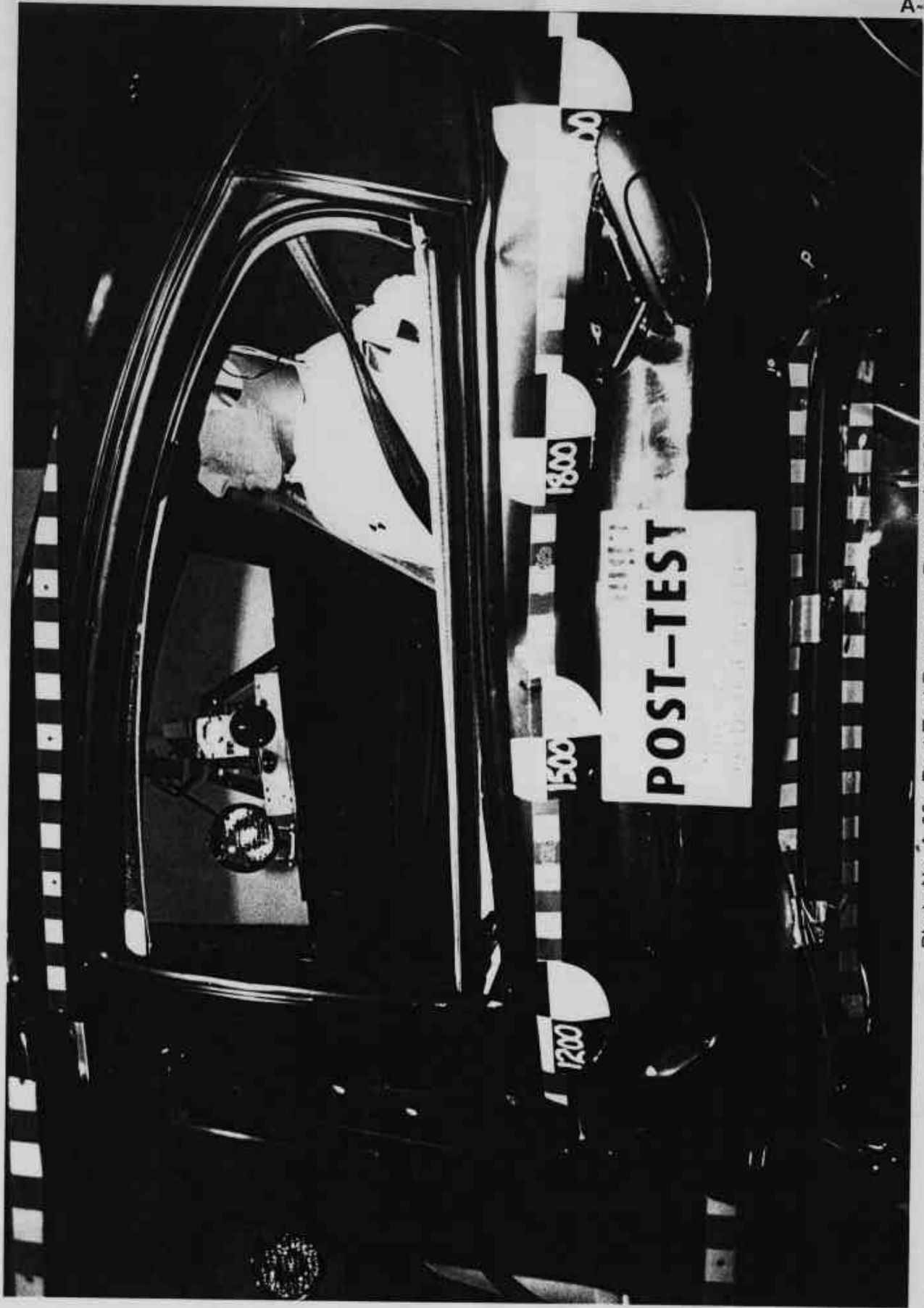


Photo No. A-33 - Post-Test Passenger Dummy Left Side View



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

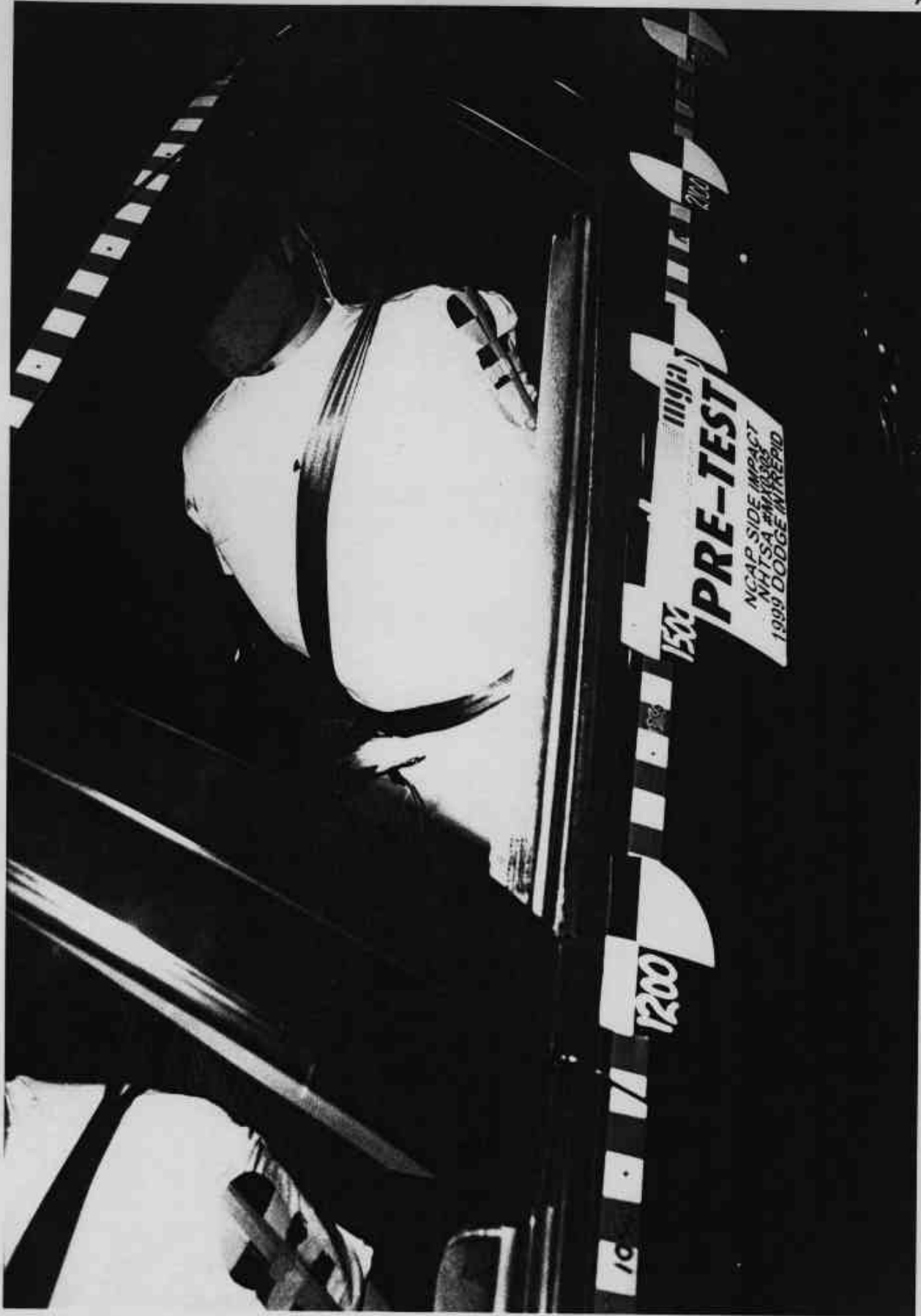


Photo No. A-35 - Pre-Test Passenger Dummy Shoulder and Door Top View



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

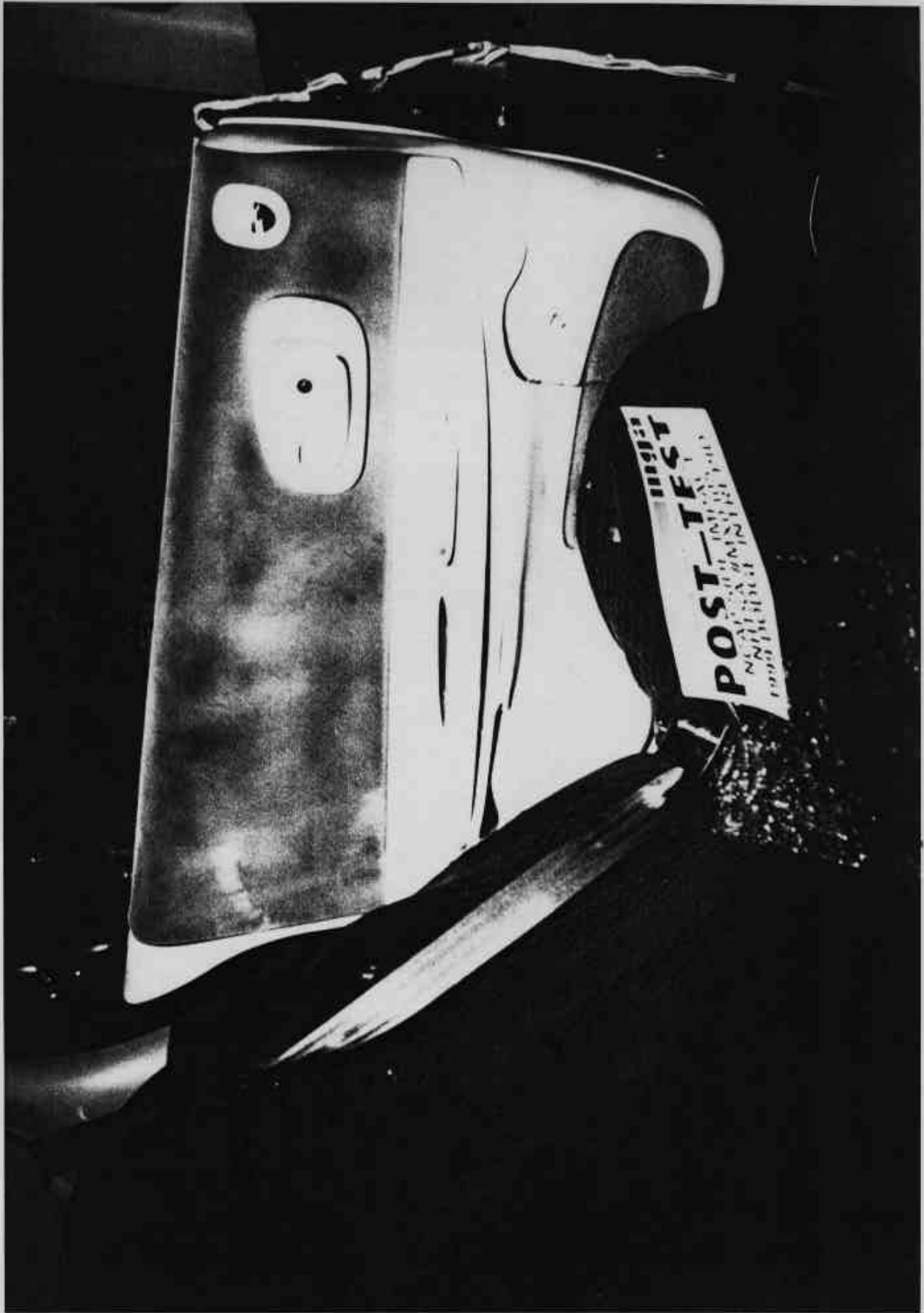


Photo No. A-37 - Post-Test Passenger Dummy Contact



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

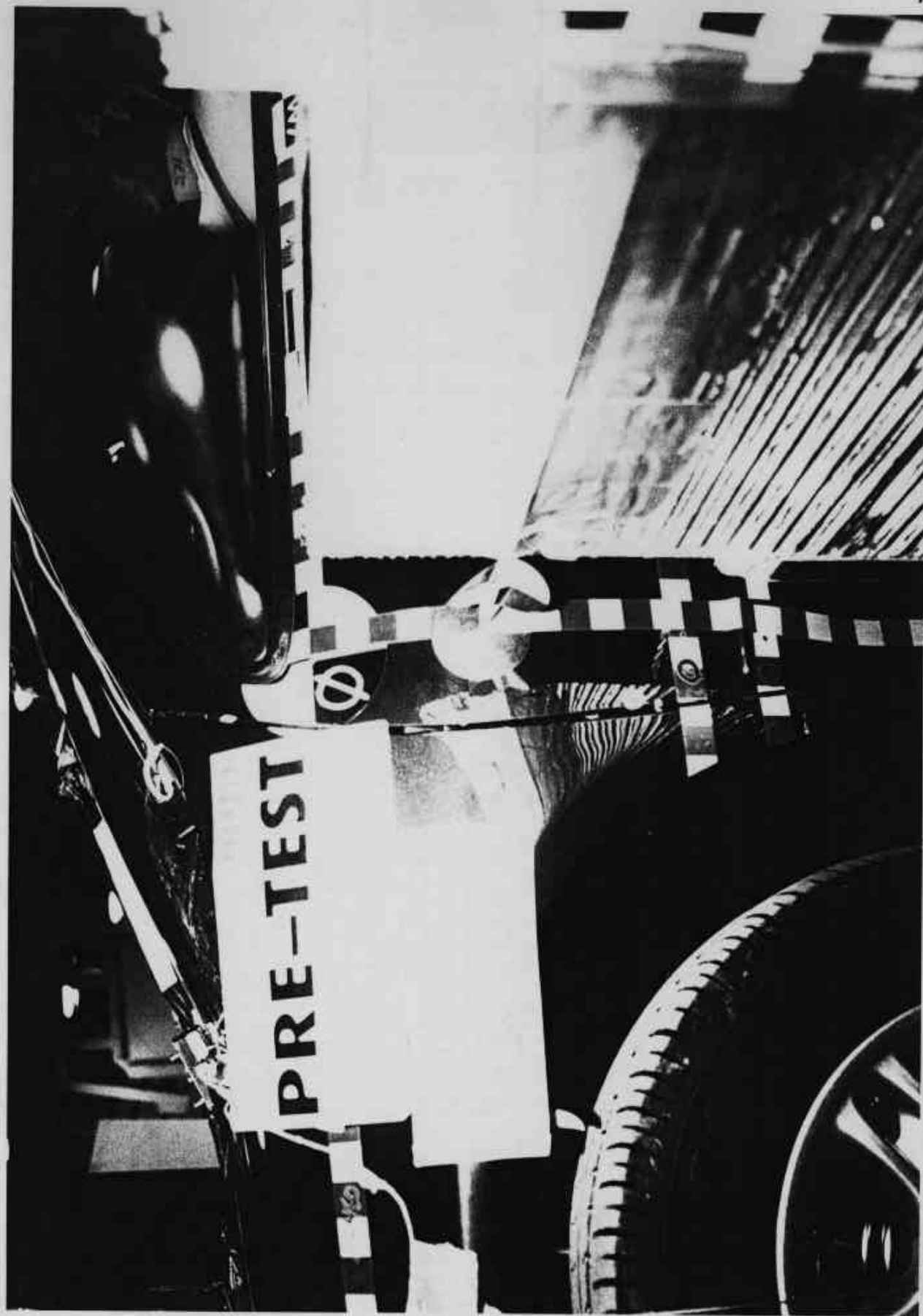


Photo No. A-39 - Pre-Test Left Front Impact Point on Vehicle

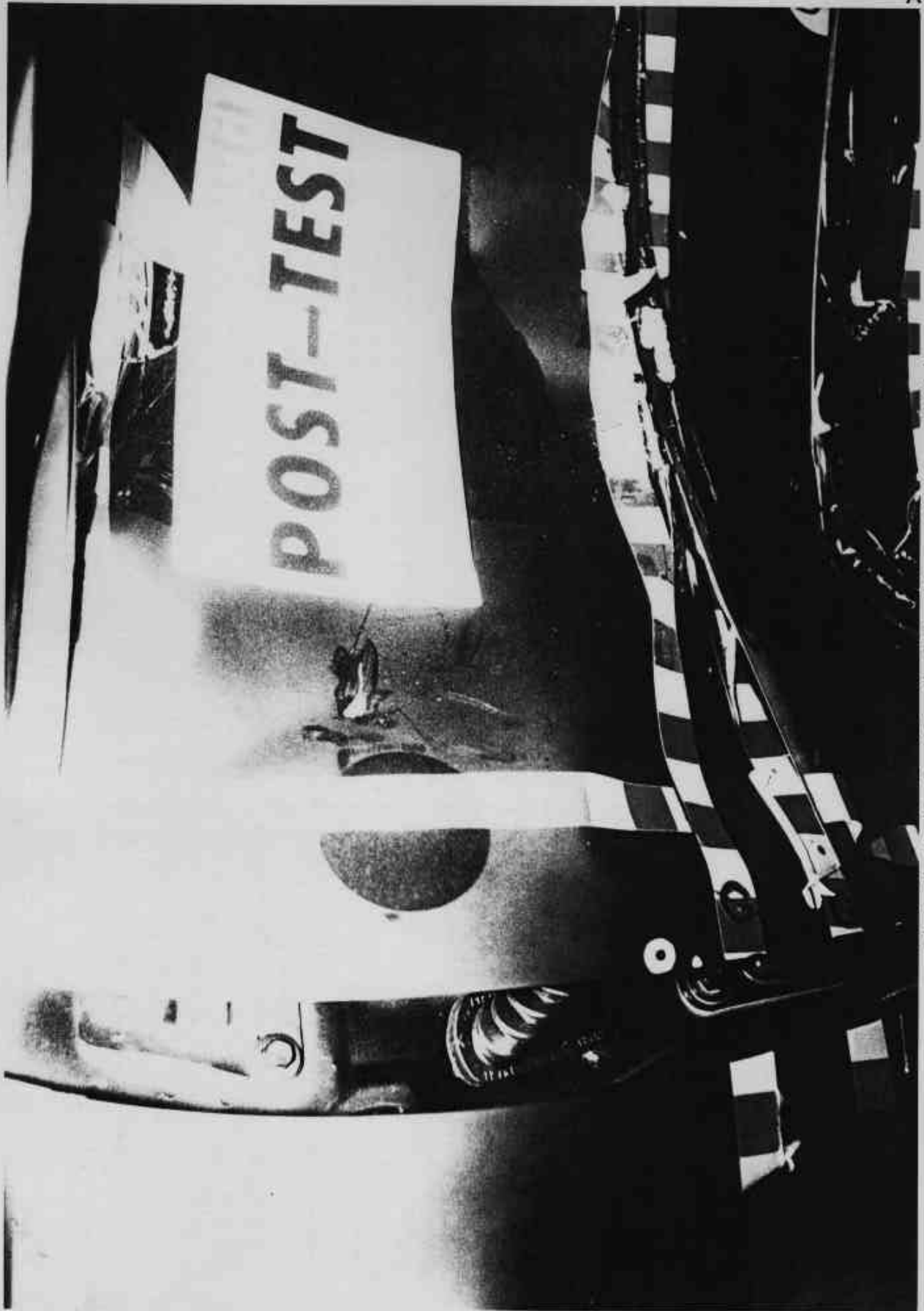


Photo No. A-40 - Post-Test Left Front Impact Point on Vehicle

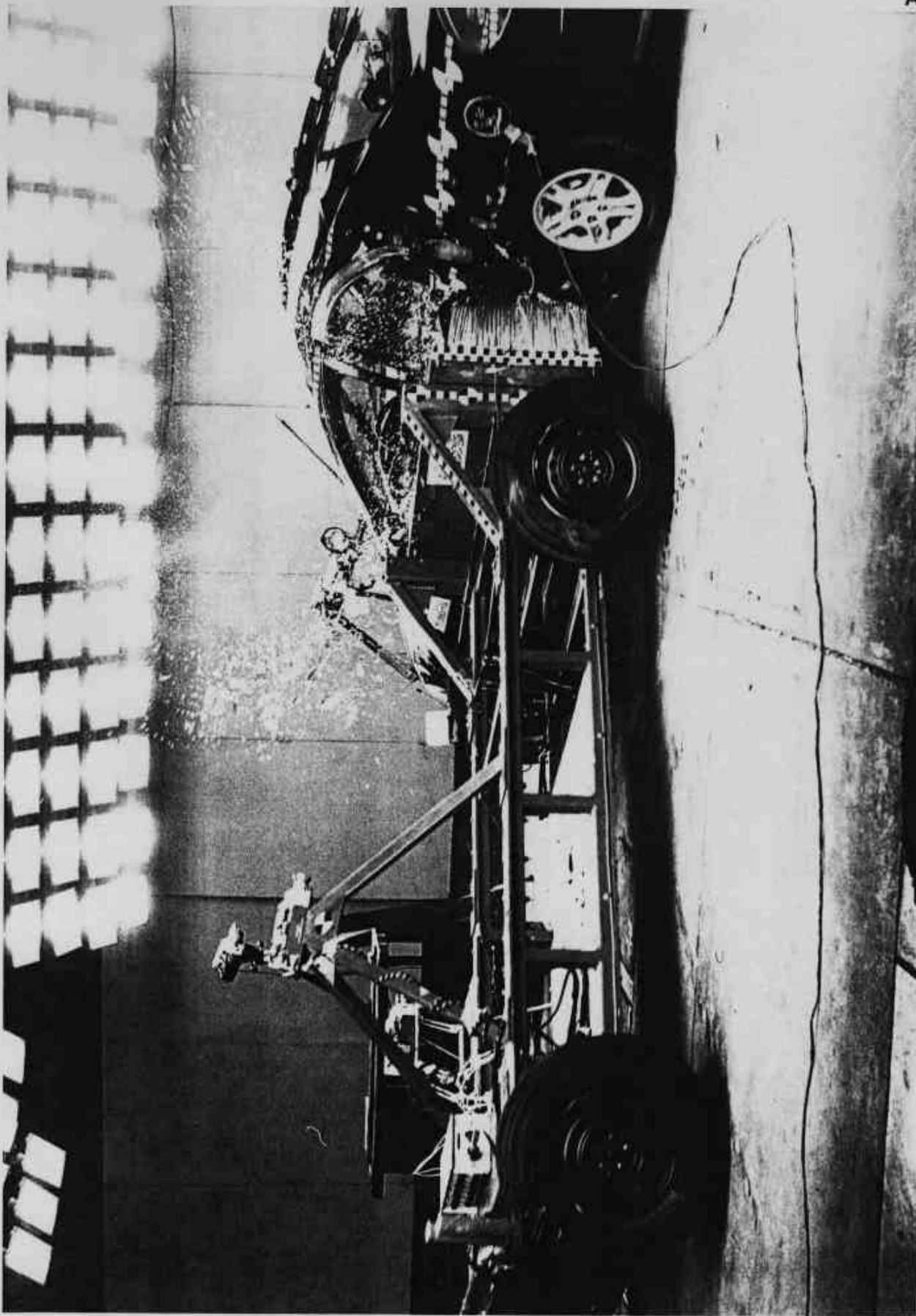


Photo No. A-41 - Impact

04551 LB 2001 2535 LB 2002 KG 2001 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: 283HD46R4XHG49151

TYPE: PASSENGER CAR



MDH: 112611 524AA PNT: P02

VEHICLE MADE IN CANADA

	VEHICLE CAPACITY OR LESS
1ST SEAT	* 3 PASS
2ND SEAT	3 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
* REDUCE VEHICLE CAPACITY TO 2 PASSENGERS IN 1ST SEAT - (865 LBS-392 kg-5 PASS. TOTAL) WHEN EQUIPPED WITH BUCKET SEATS WITHOUT CENTER SEAT	
MINIMUM TIRE SIZE	
P205/70R15 95T	
STANDARD LOAD	
SEE OWNERS MANUAL FOR ADDITIONAL DATA	
PRINTED IN USA 04774382	

Photo No. A-43 - Tire Placard

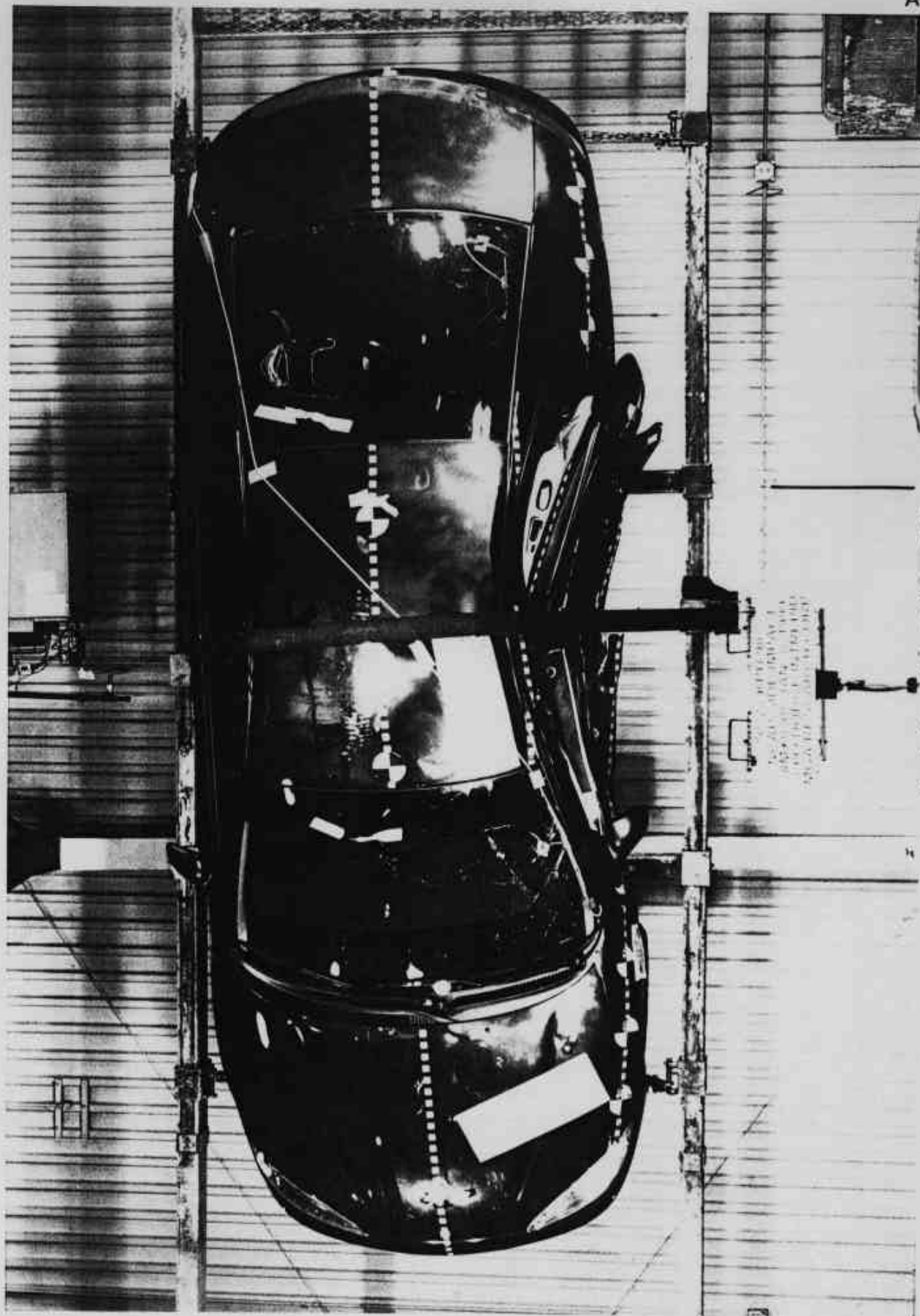


Photo No. A-44 - Rollover 90°

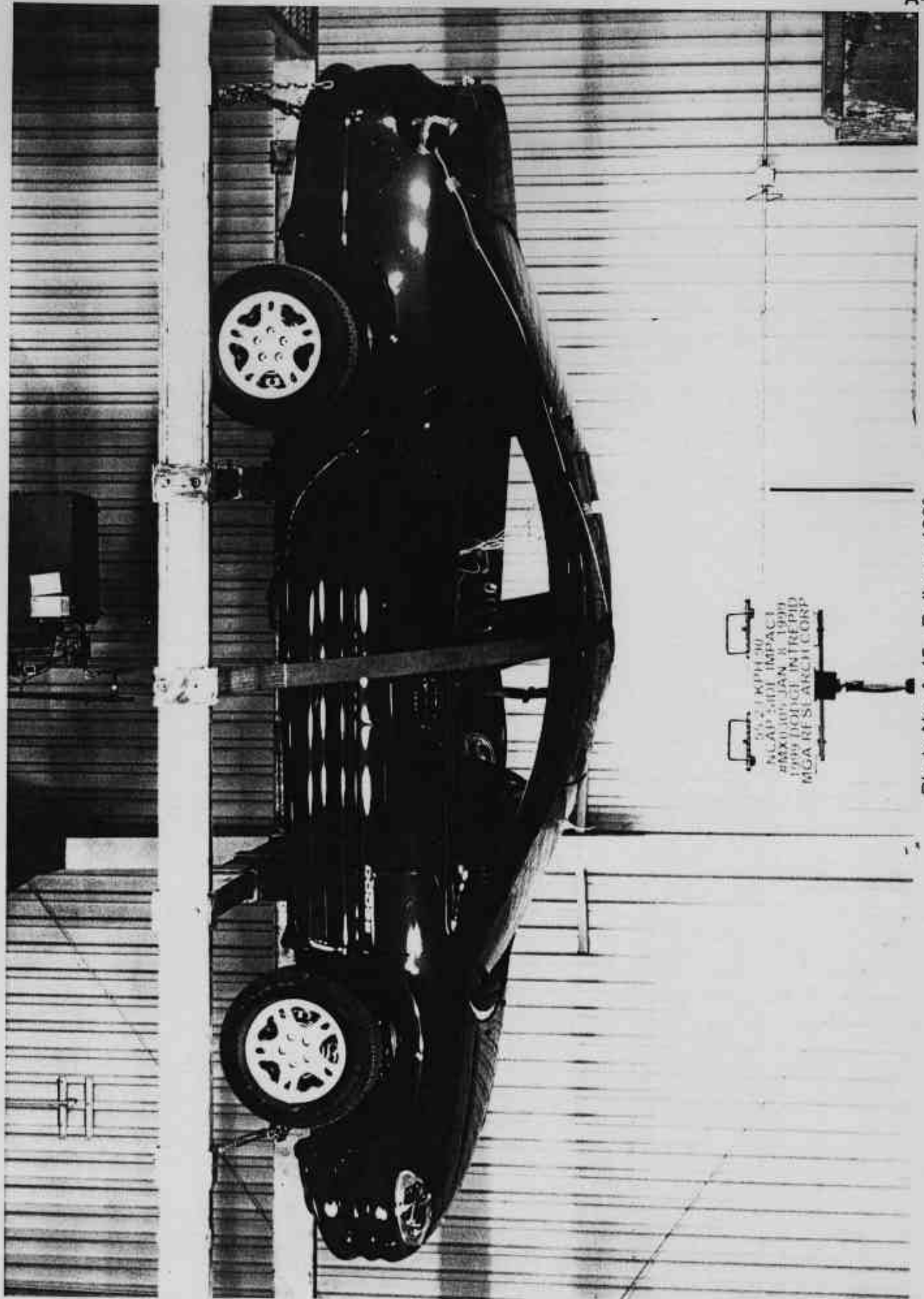


Photo No. A-45 - Rollover 180°

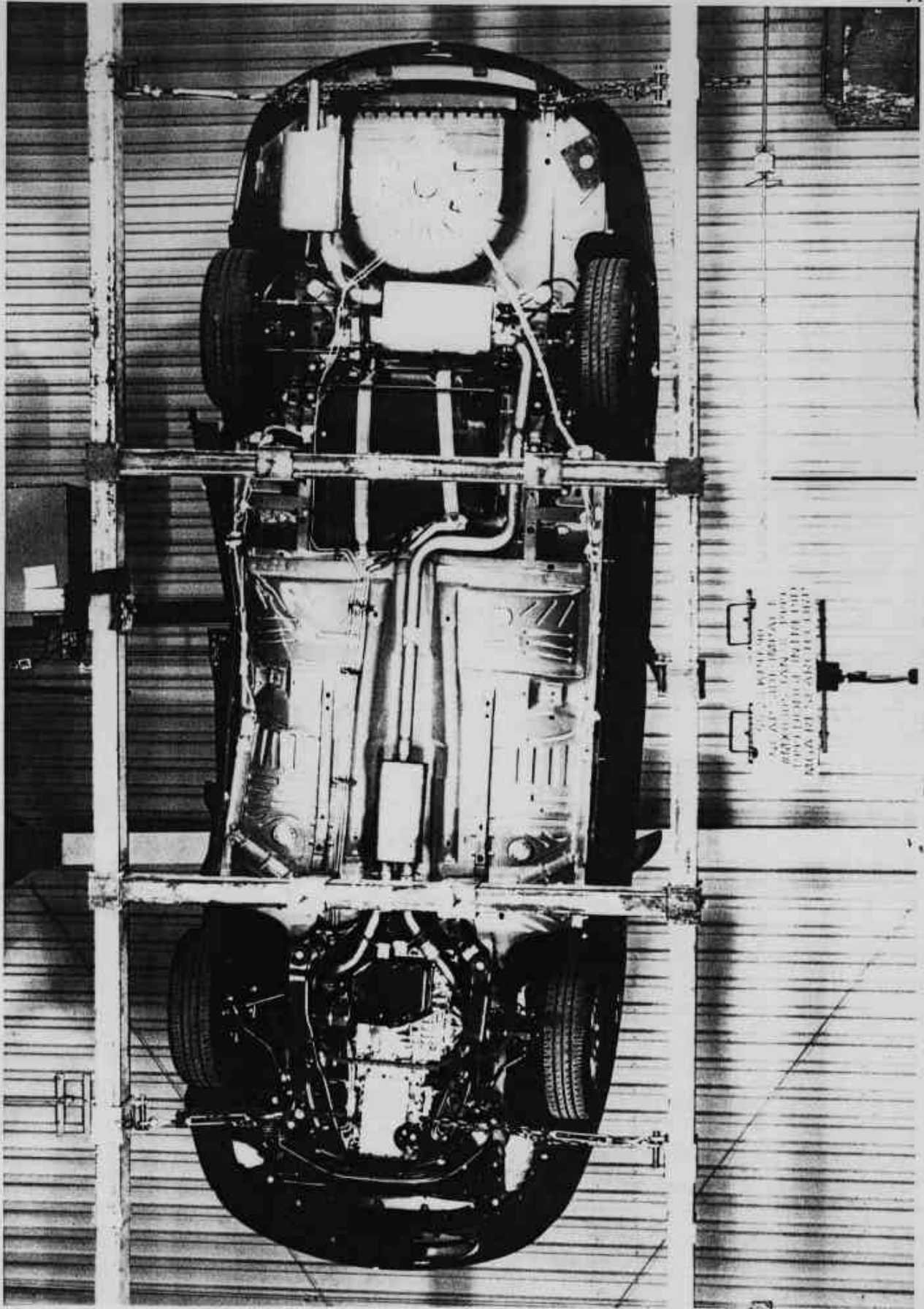


Photo No. A-46 - Rollover 270°

A-47

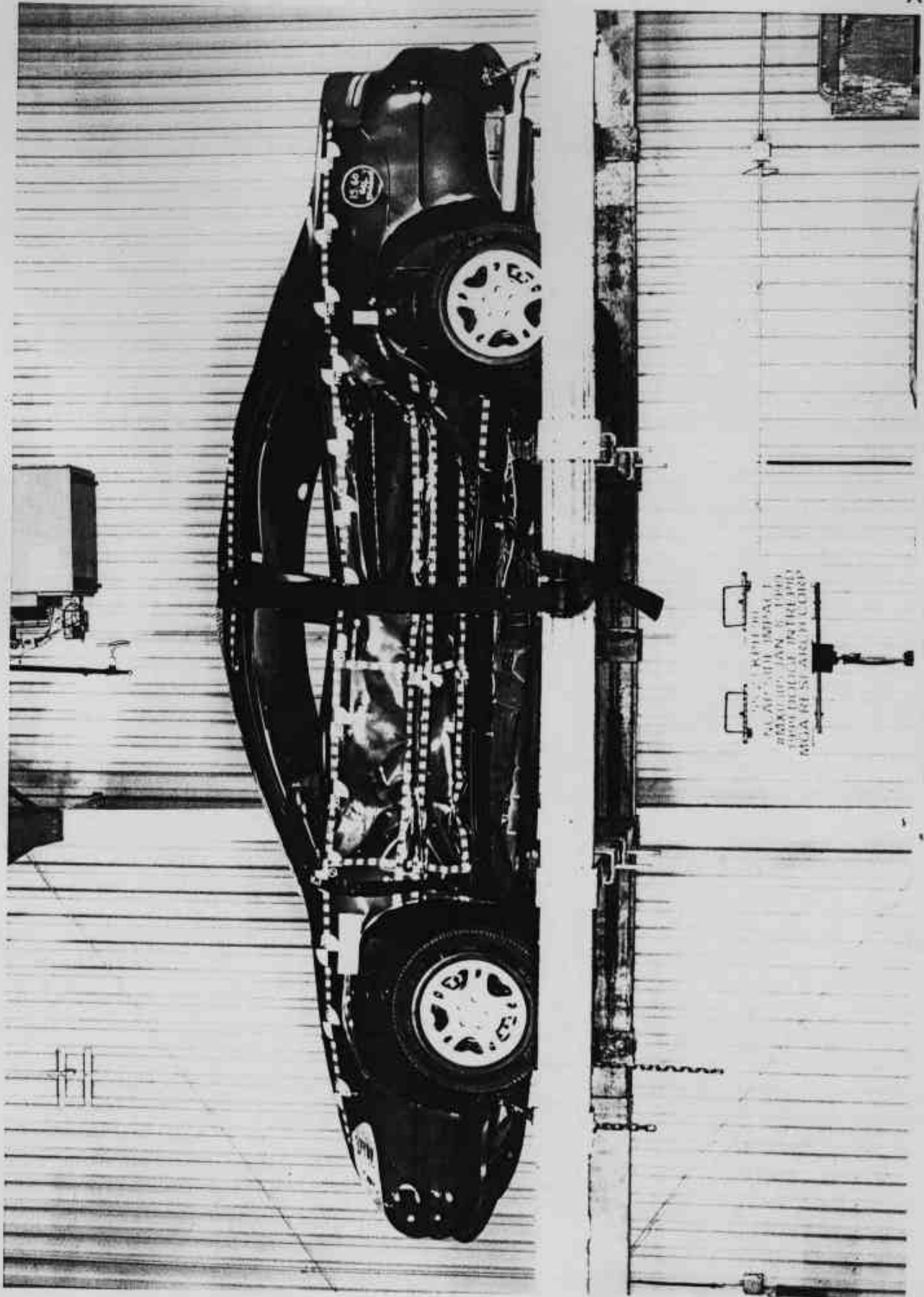


Photo No. A-47 - Rollover 360°

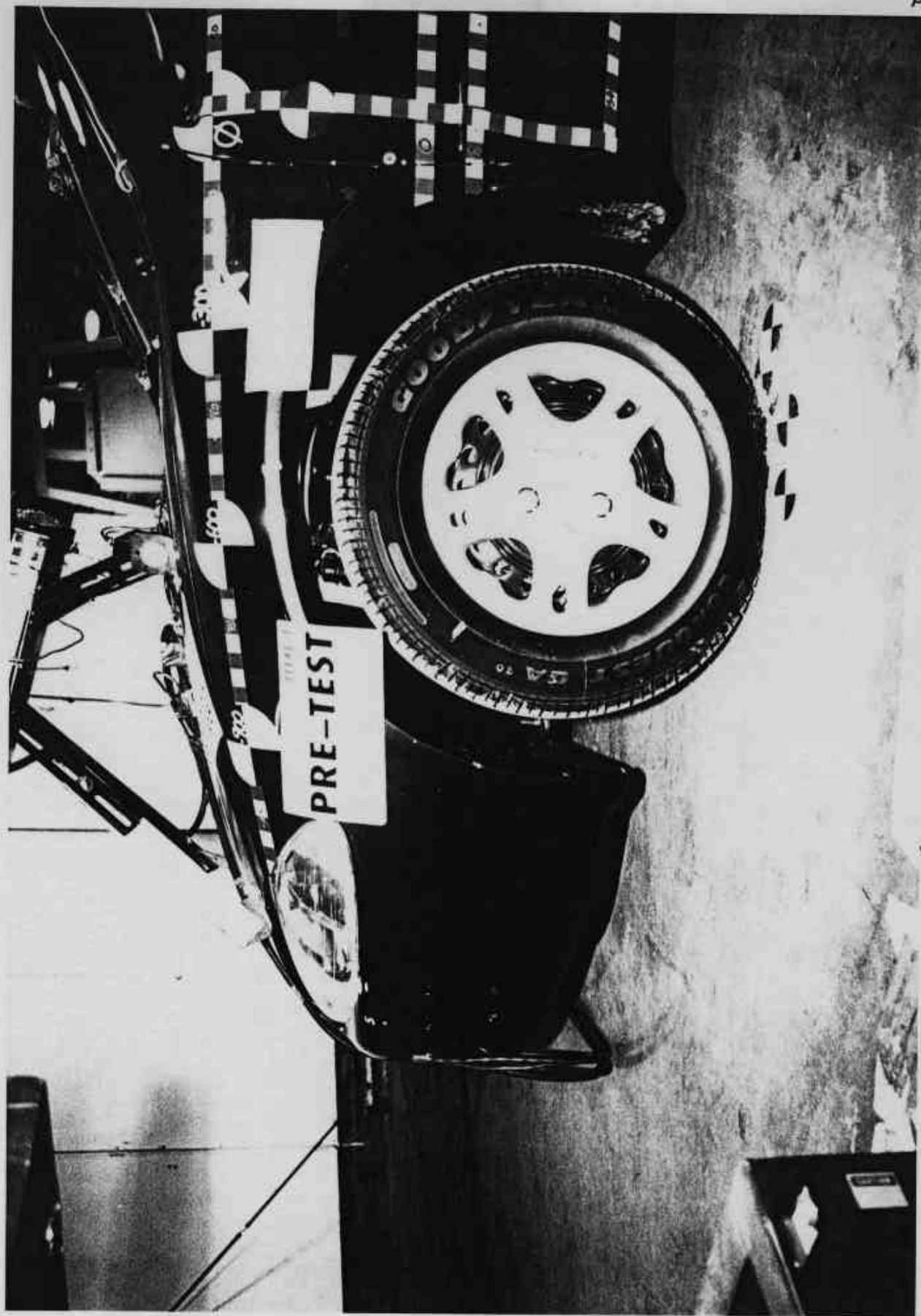
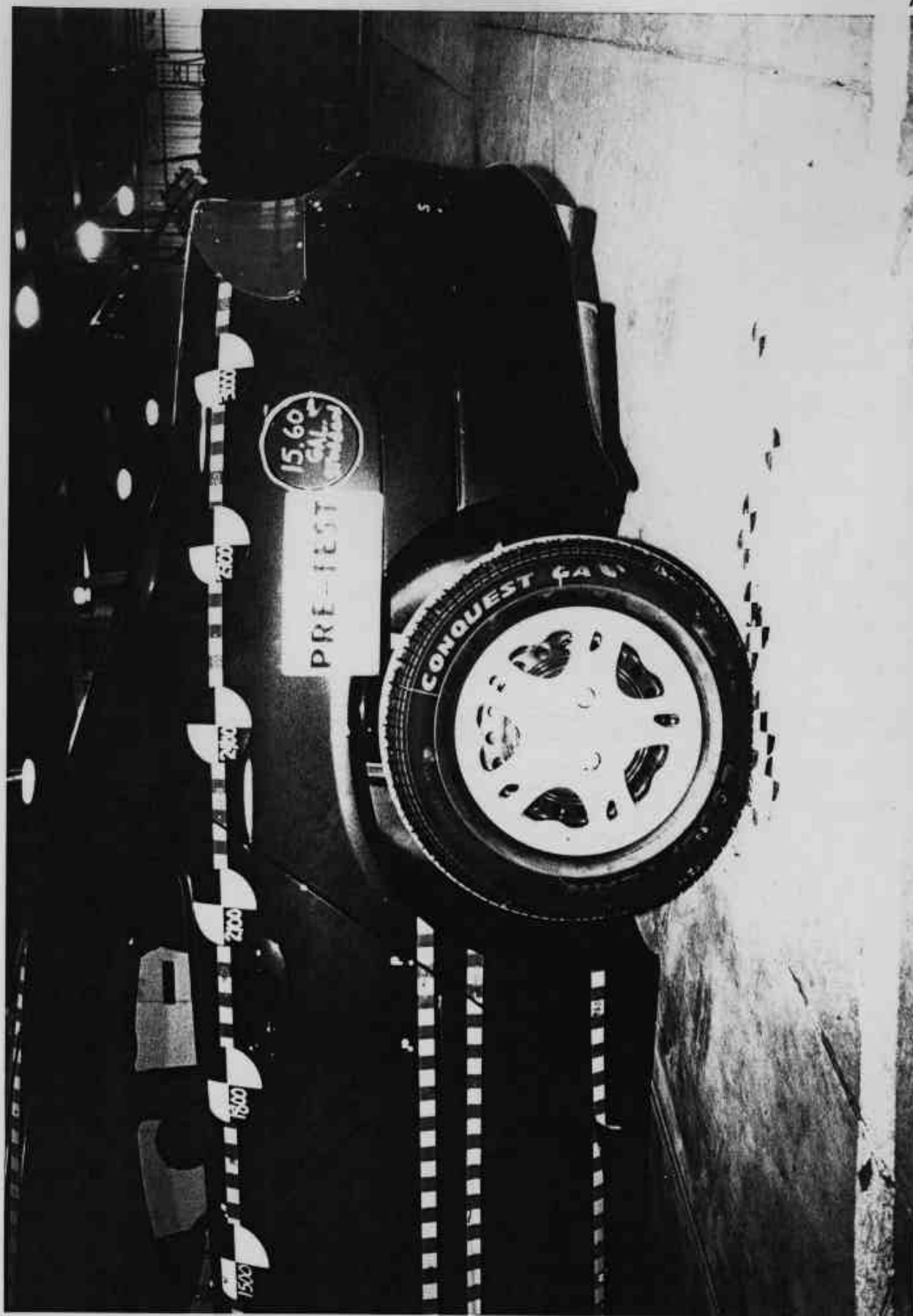


Photo No. A-48 - Left Front Attitude Point



Photo No. A-49 - Right Front Attitude Point



A-50

Photo No. A-50 - Left Rear Attitude Point

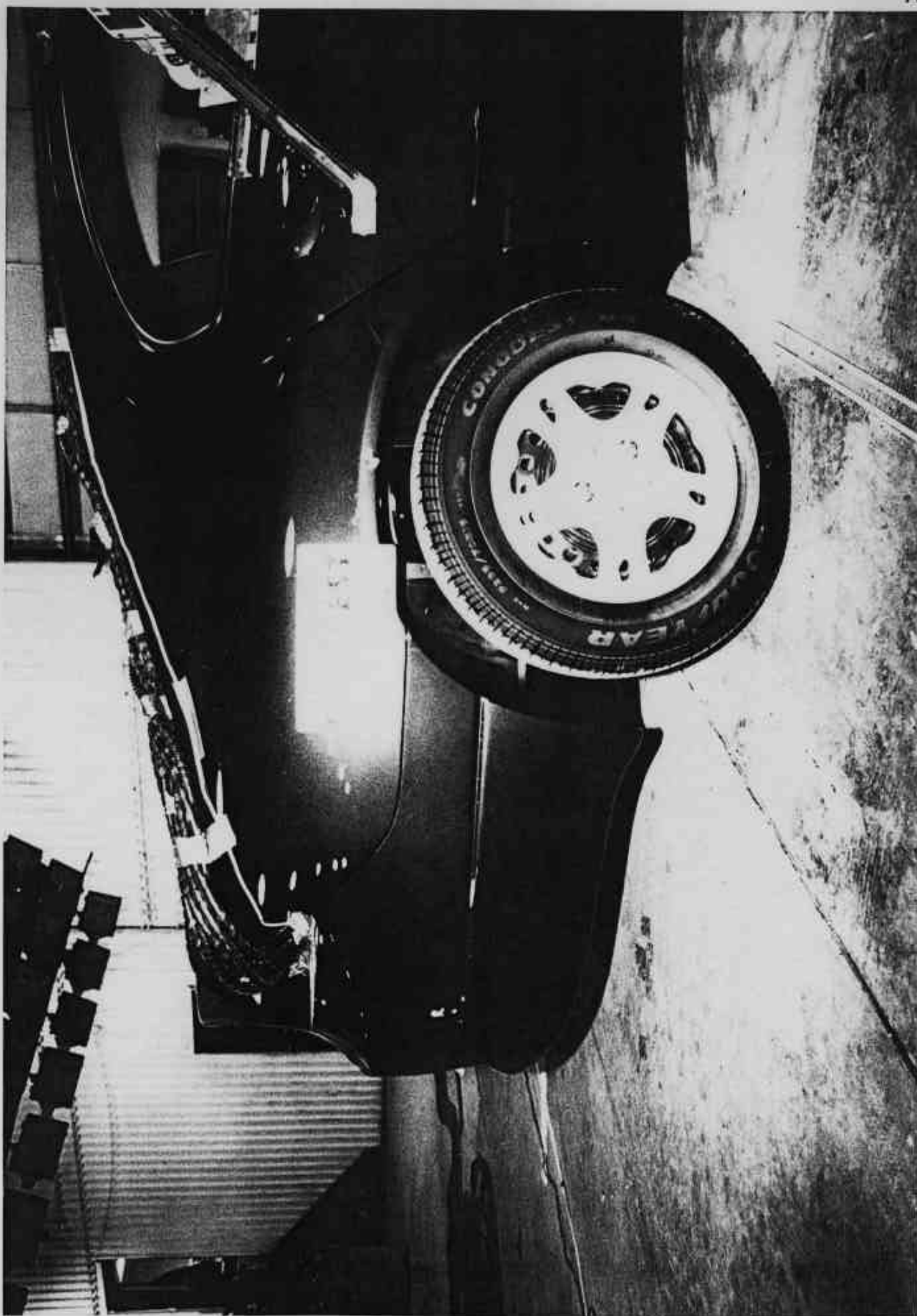


Photo No. A-51 - Right Rear Attitude Point

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* Data questionable

* No valid data collected

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* Data questionable

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TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

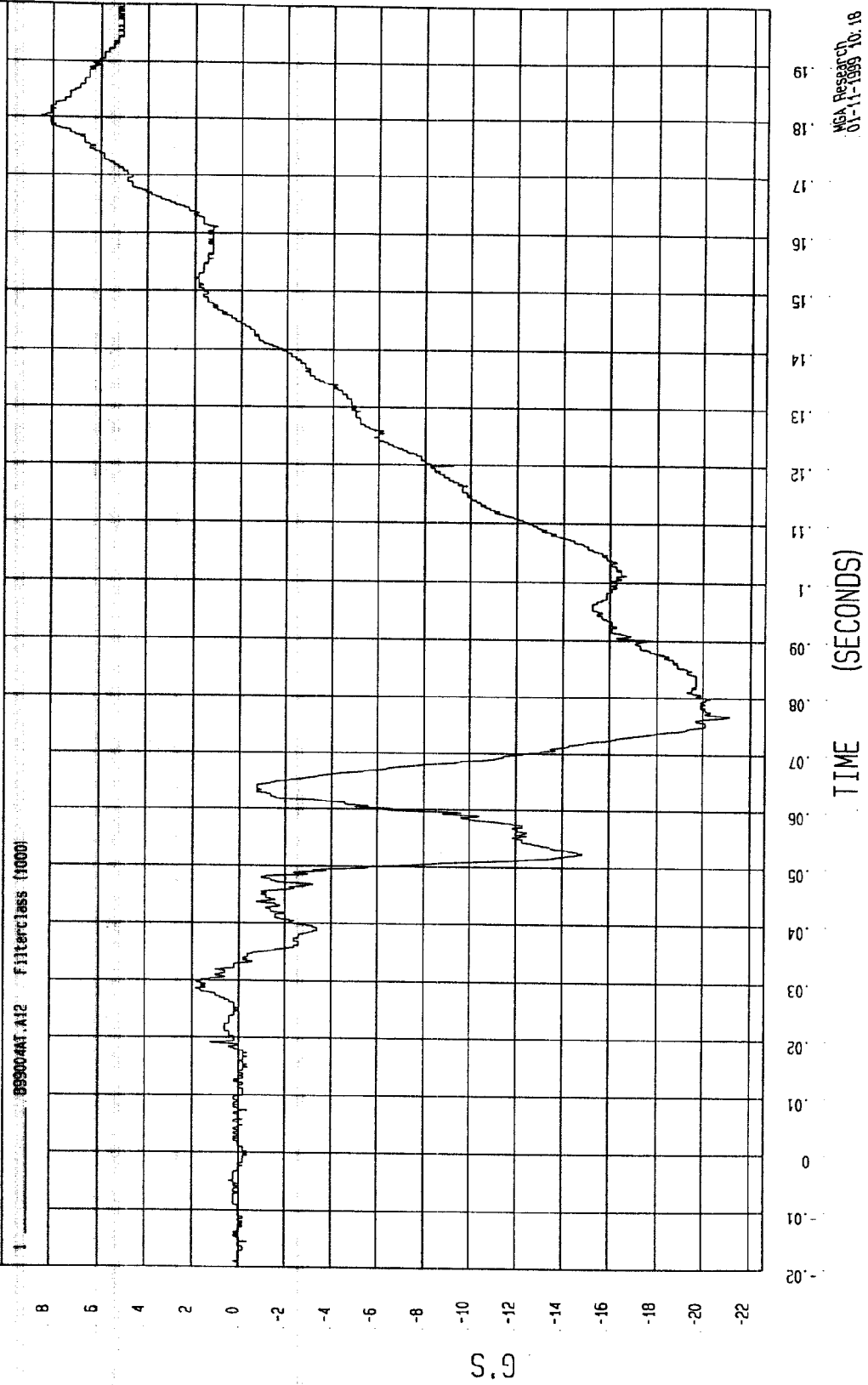
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 8.5 G'S at 180 msec

Minimum = -21.11 G'S at 77 msec

DRIVER HEAD X ACCELERATION

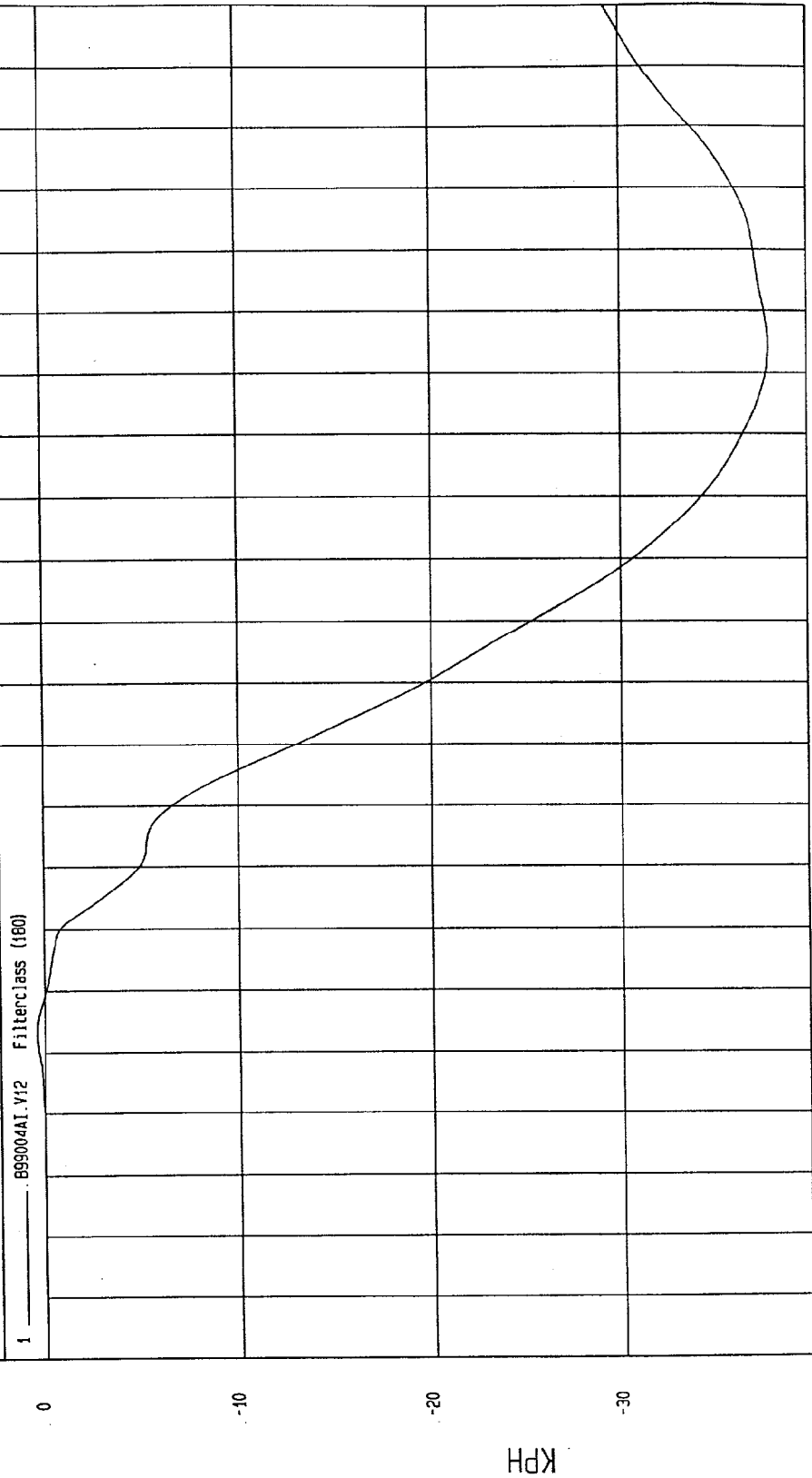


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -37.67 KPH at 144 msec Maximum = .38 KPH at 33 msec

DRIVER HEAD X VELOCITY



TIME Seconds

WCA Research
01-11-1999 10:25

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

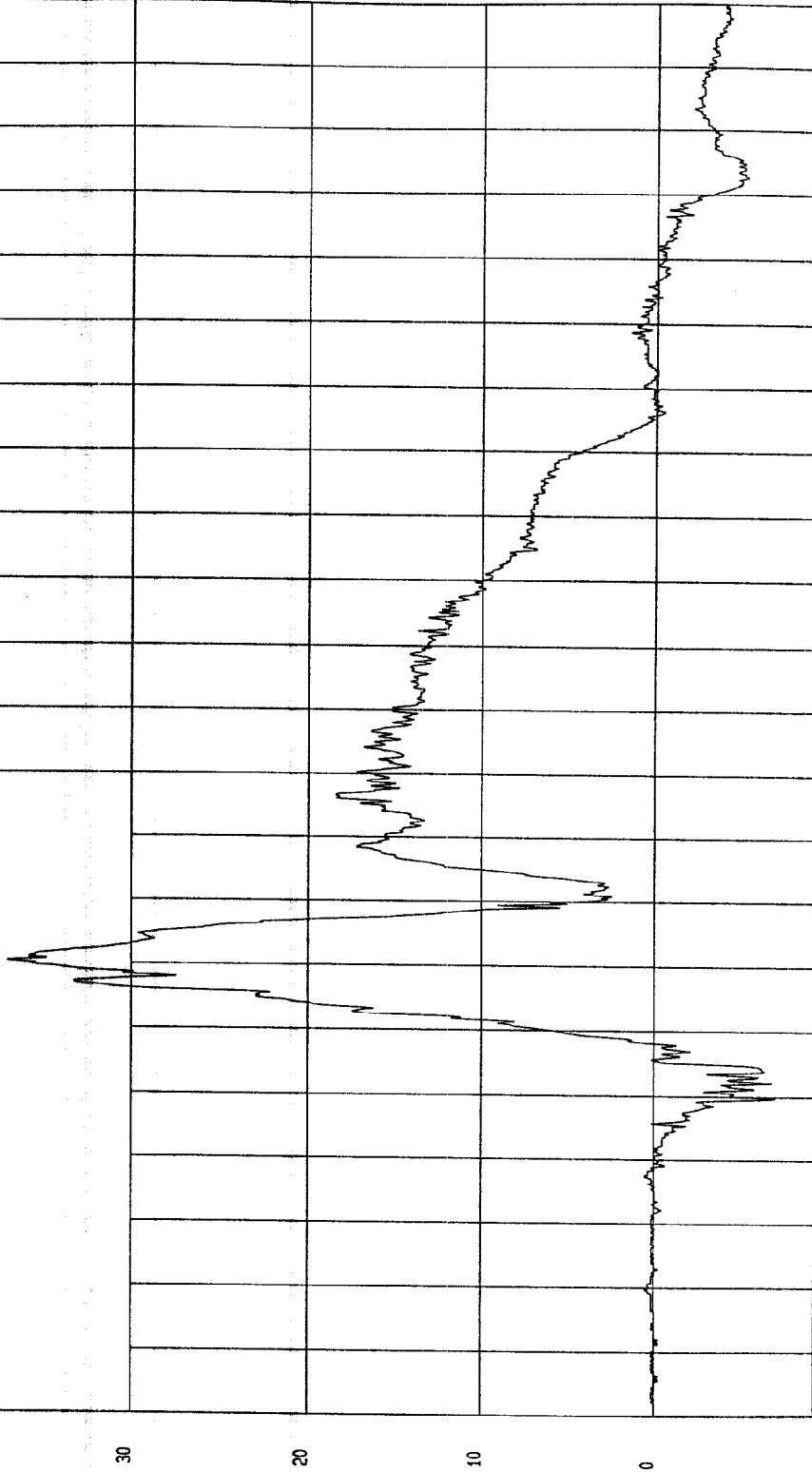
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 37 G'S at 50 msec

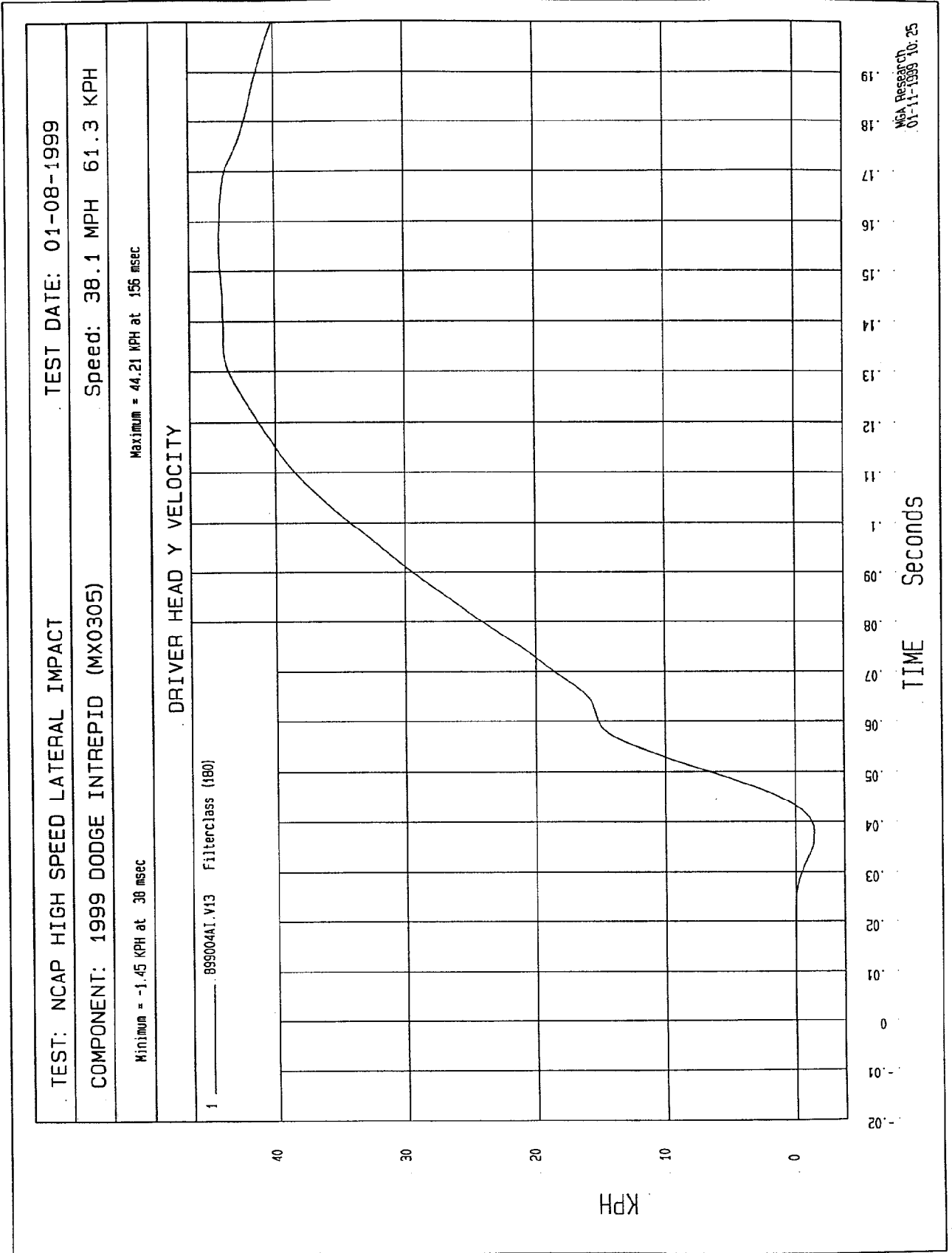
Minimum = -7.01 G'S at 30 msec

DRIVER HEAD Y ACCELERATION

1 899004AT.A13 Filterclass (1000)



NSA Research
01-11-1999 10:19



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

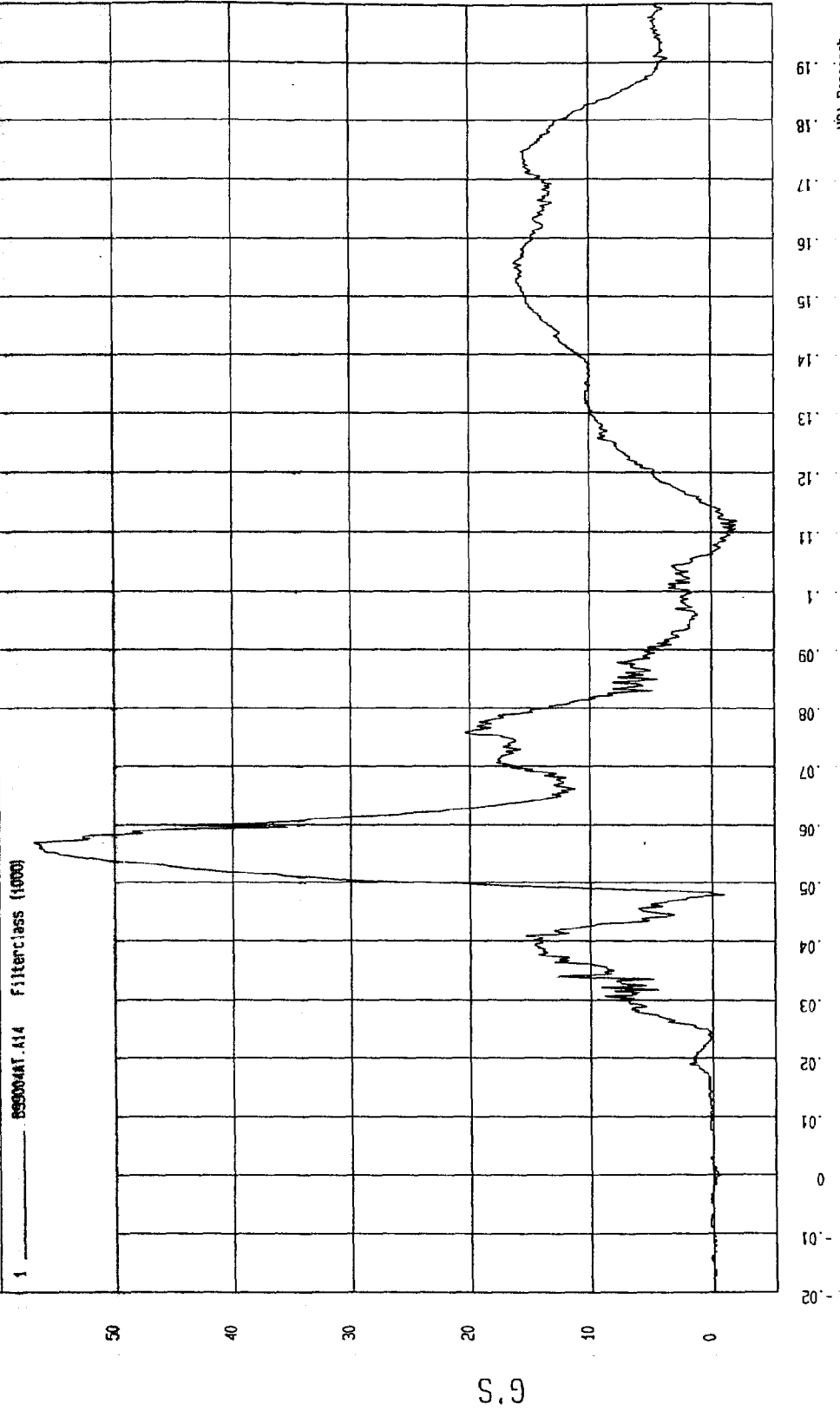
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 56.69 G'S at 57 msec

Minimum = -2.15 G'S at 112 msec

DRIVER HEAD Z ACCELERATION



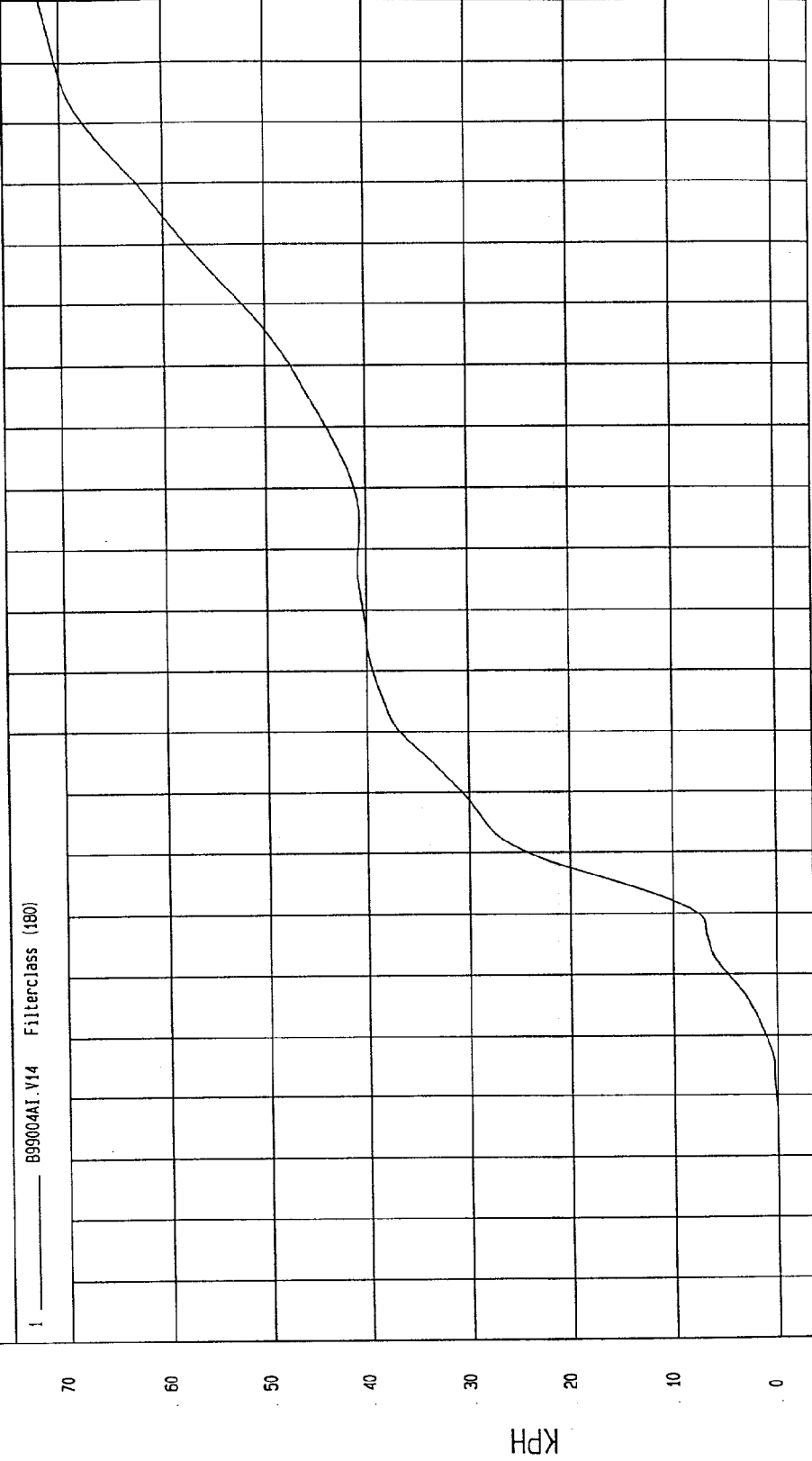
WCA Research
01-11-1999 10:19

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -2.56E-03 KPH at -16 msec Maximum = 71.96 KPH at 200 msec

DRIVER HEAD Z VELOCITY



TIME Seconds

0.19
0.18
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
-0.02

MPA Research
01-11-1999 10:25

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

SPEED: 38.1 MPH 61.3 KPH

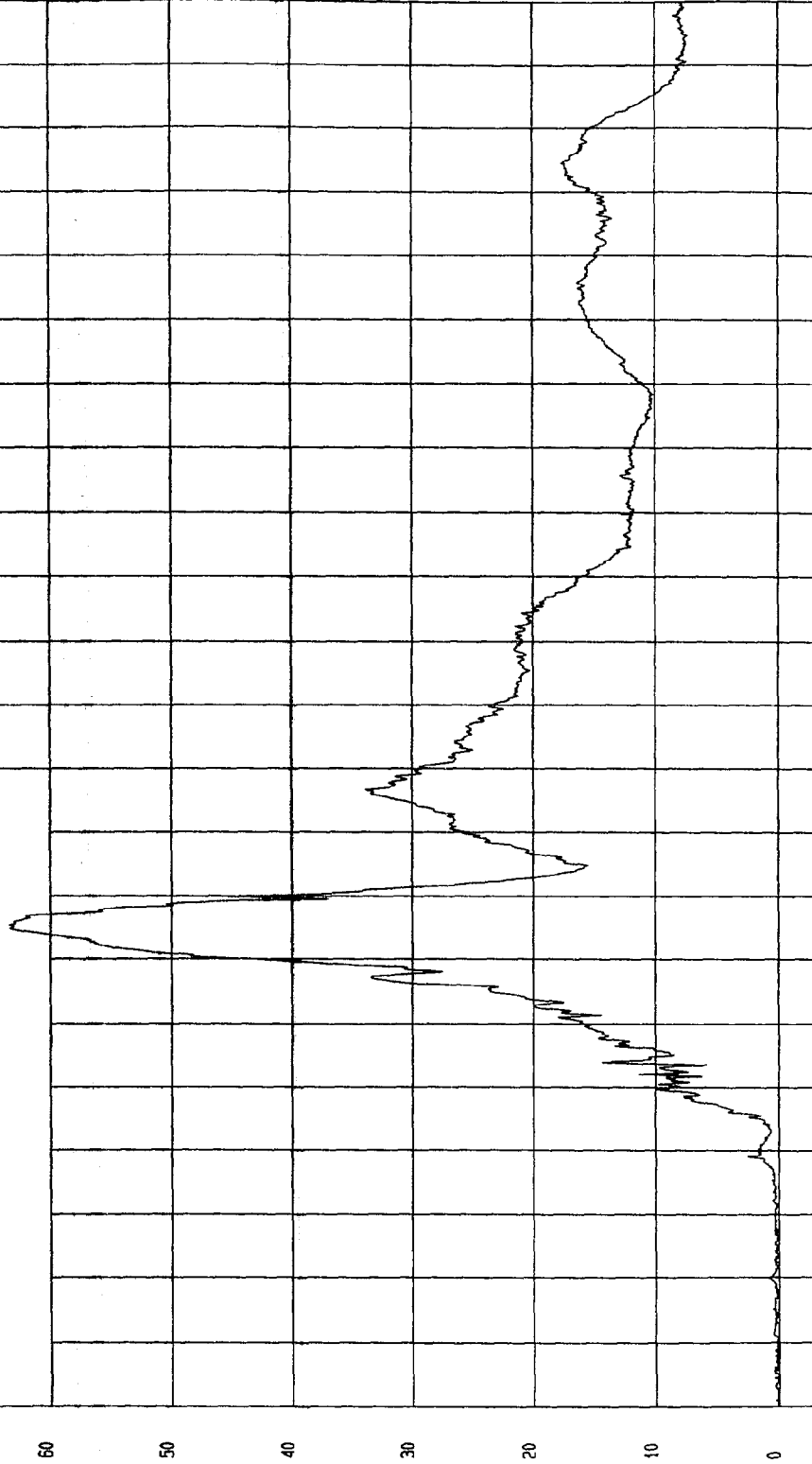
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 63.31 G'S at 55 msec

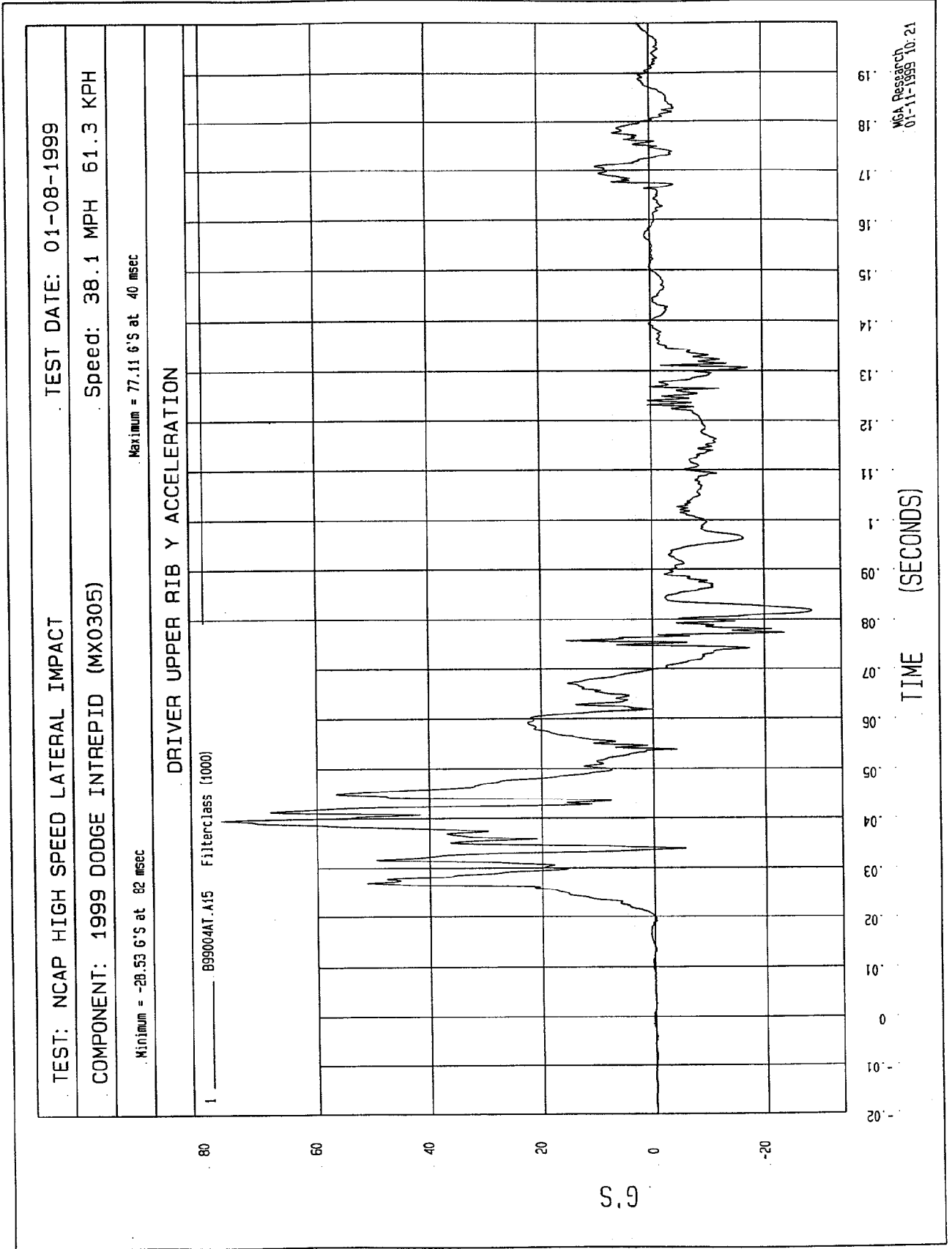
Minimum = 8.00E-02 G'S at -20 msec

DRIVER HEAD RESULTANT ACCELERATION

1 899004AV.A12 Filterclass (1000)



MOA Research
01-11-1999 10:19



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

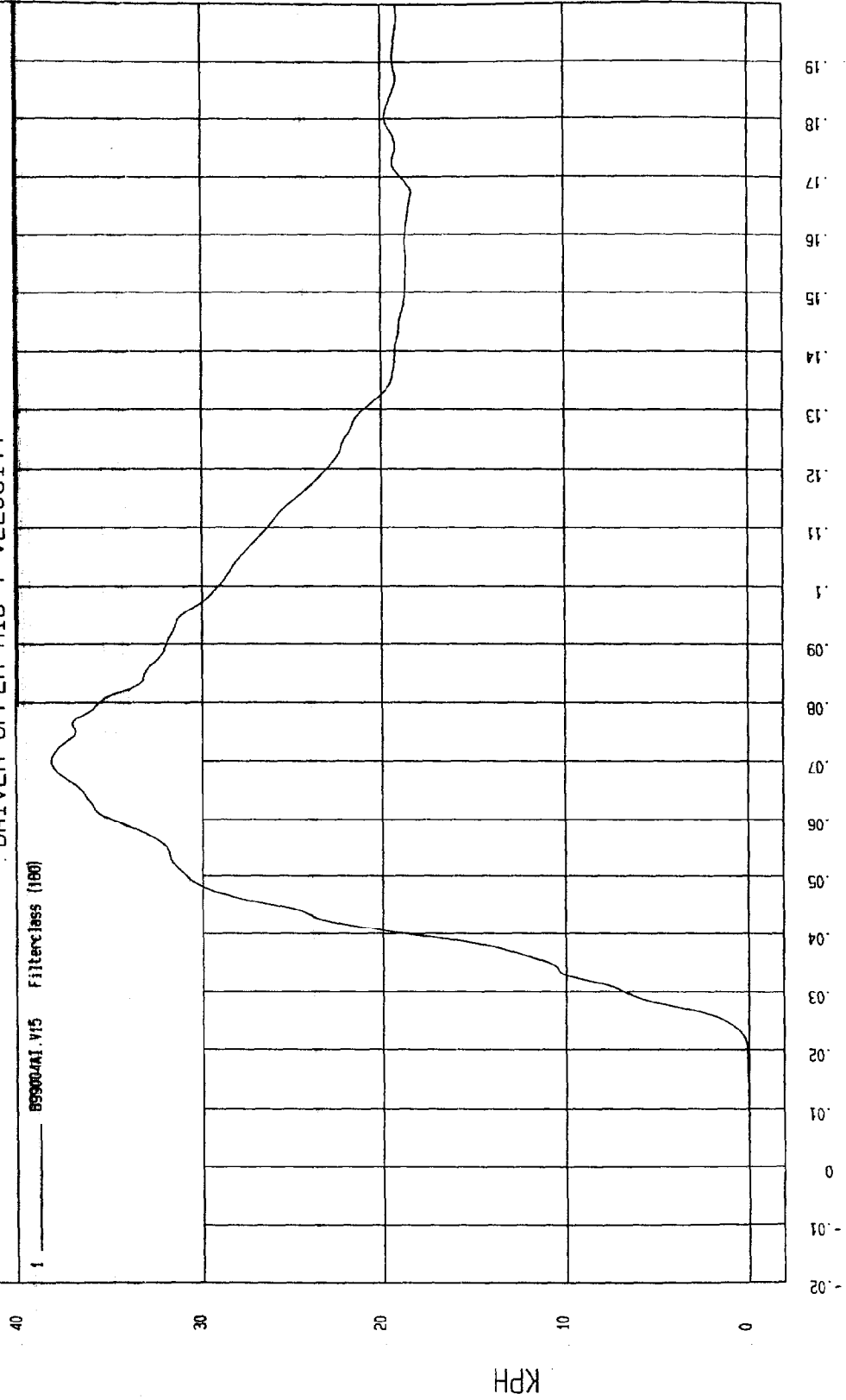
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 38.21 KPH at 70 msec

Minimum = -1.72E-02 KPH at -3 msec

DRIVER UPPER RIB Y VELOCITY

1 B5900JAI.V15 Filterclass (100)



MCA Research
01-11-1999 10:25

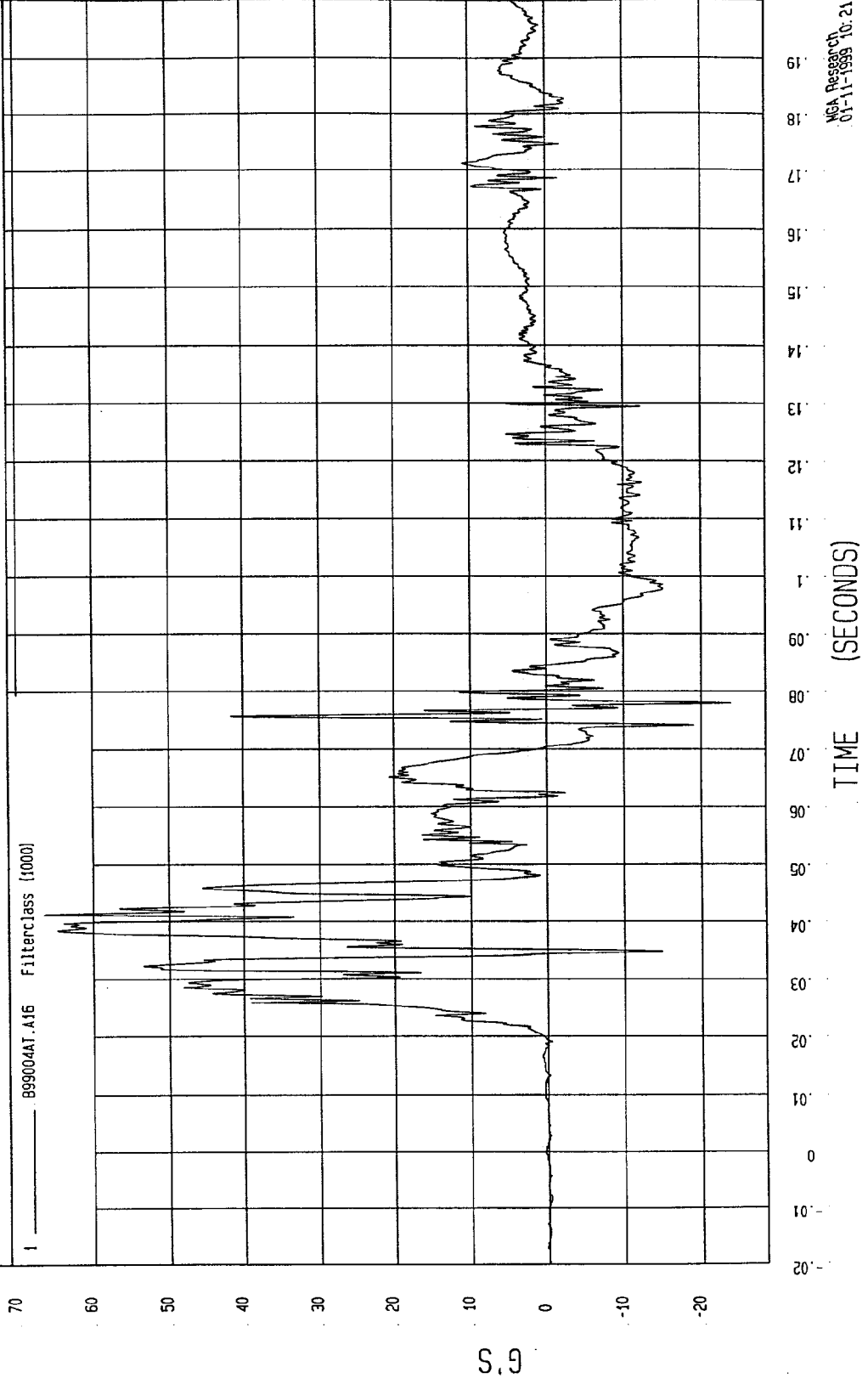
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -23.81 G'S at 78 msec Maximum = 66.54 G'S at 41 msec

DRIVER LOWER RIB Y ACCELERATION

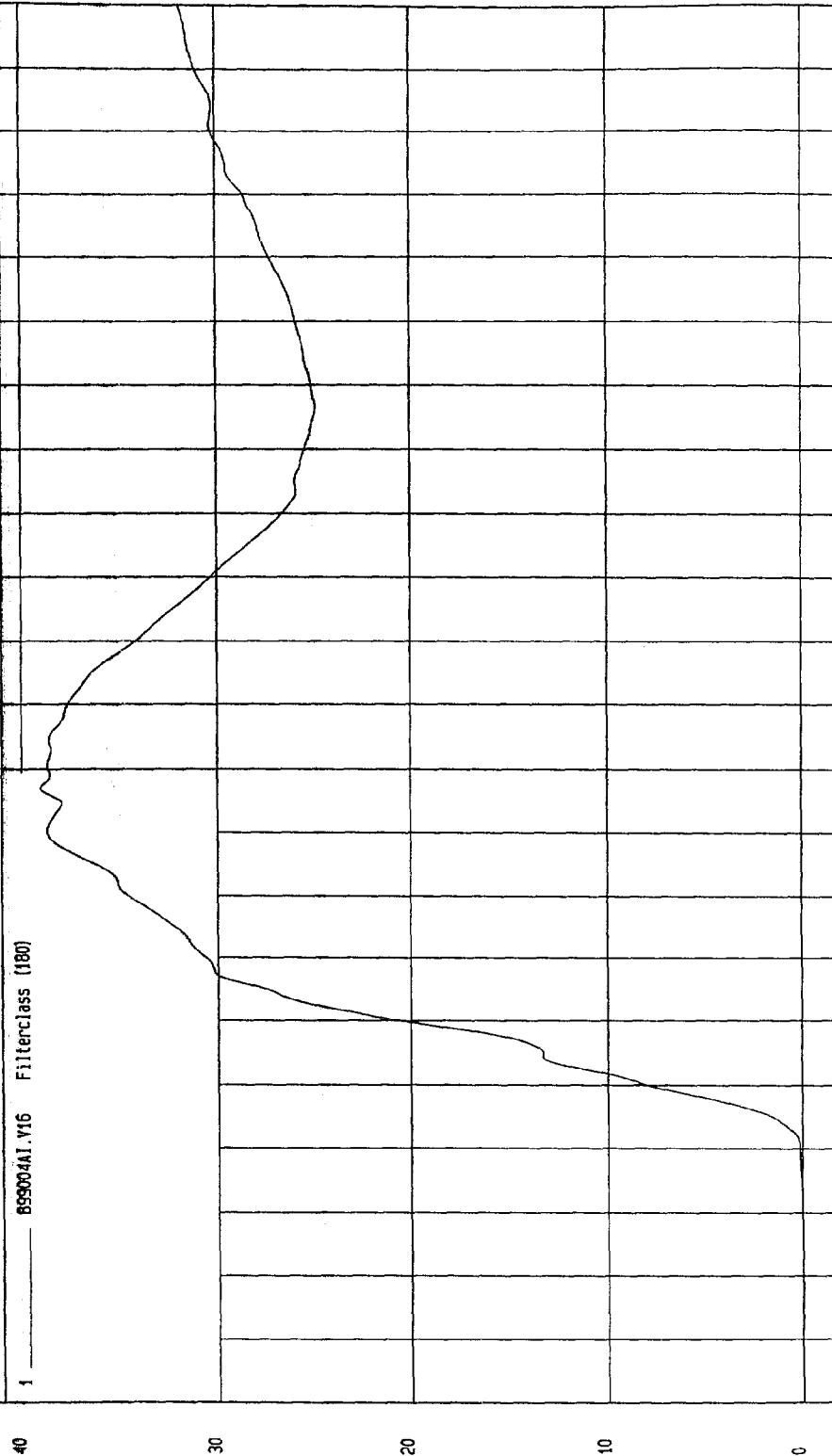


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -2.57E-02 KPH at -2 msec Maximum = 39.04 KPH at 77 msec

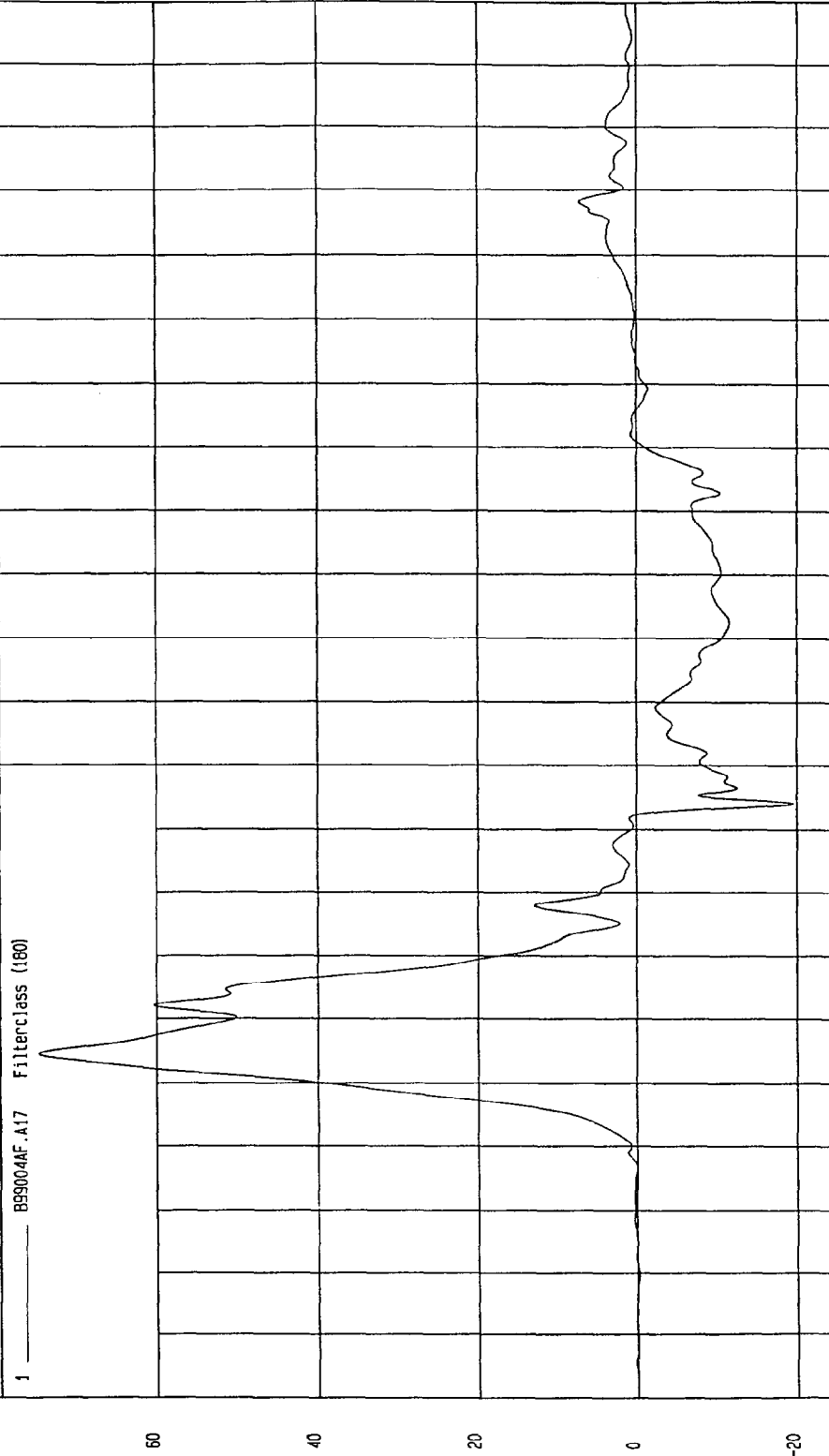
DRIVER LOWER RIB Y VELOCITY



NGA Research
01-11-1999 10:25

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999
COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH
Minimum = -19.62 G'S at 74 msec Maximum = 74.67 G'S at 34 msec

DRIVER LOWER SPINE Y ACCELERATION



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

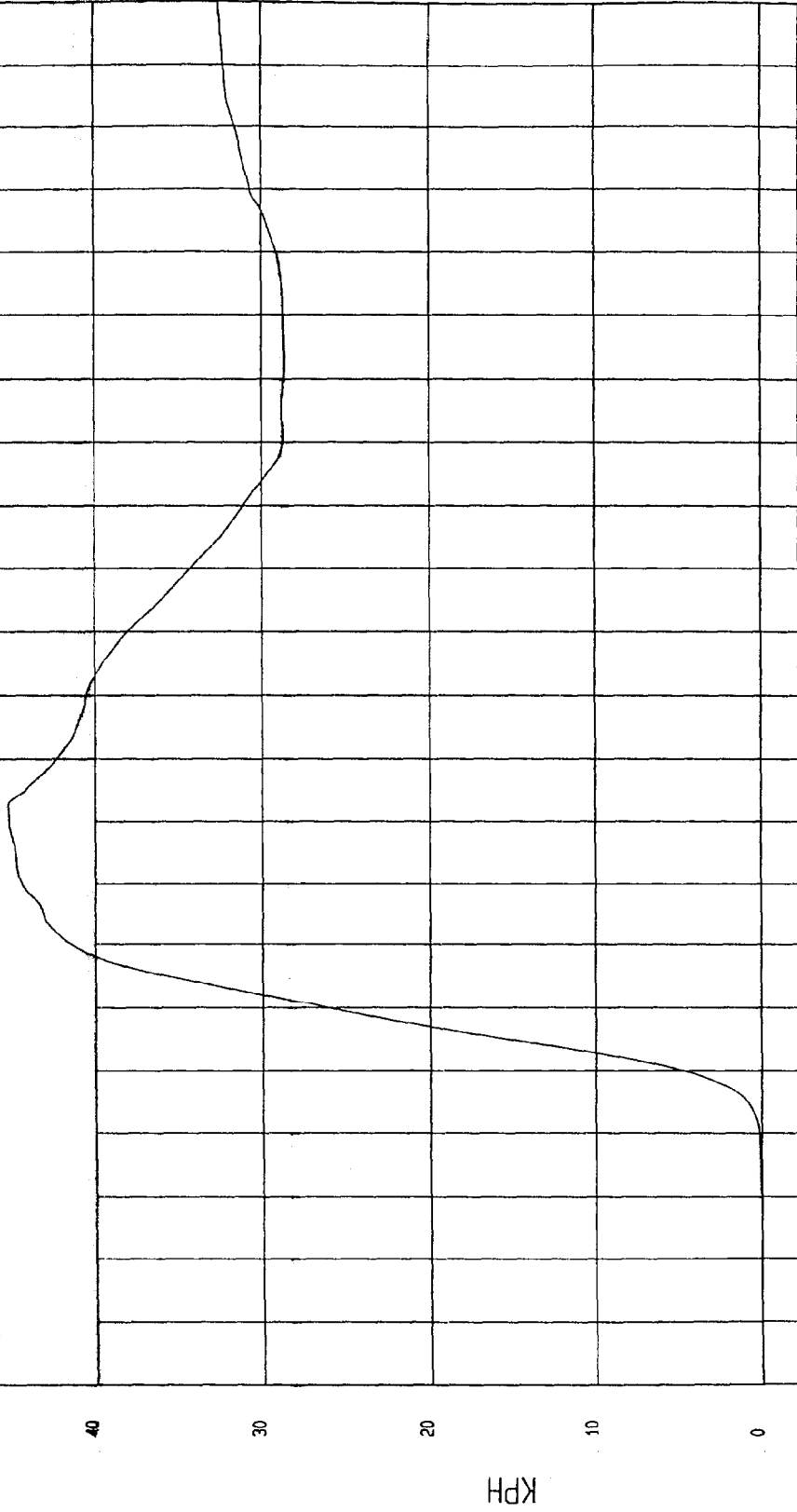
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 45.25 KPH at 72 msec

Minimum = -6.44E-03 KPH at -16 msec

DRIVER LOWER SPINE Y VELOCITY

1 899004A1.V17 Filter:less (100)



MGA Research
01-11-1999 10:25

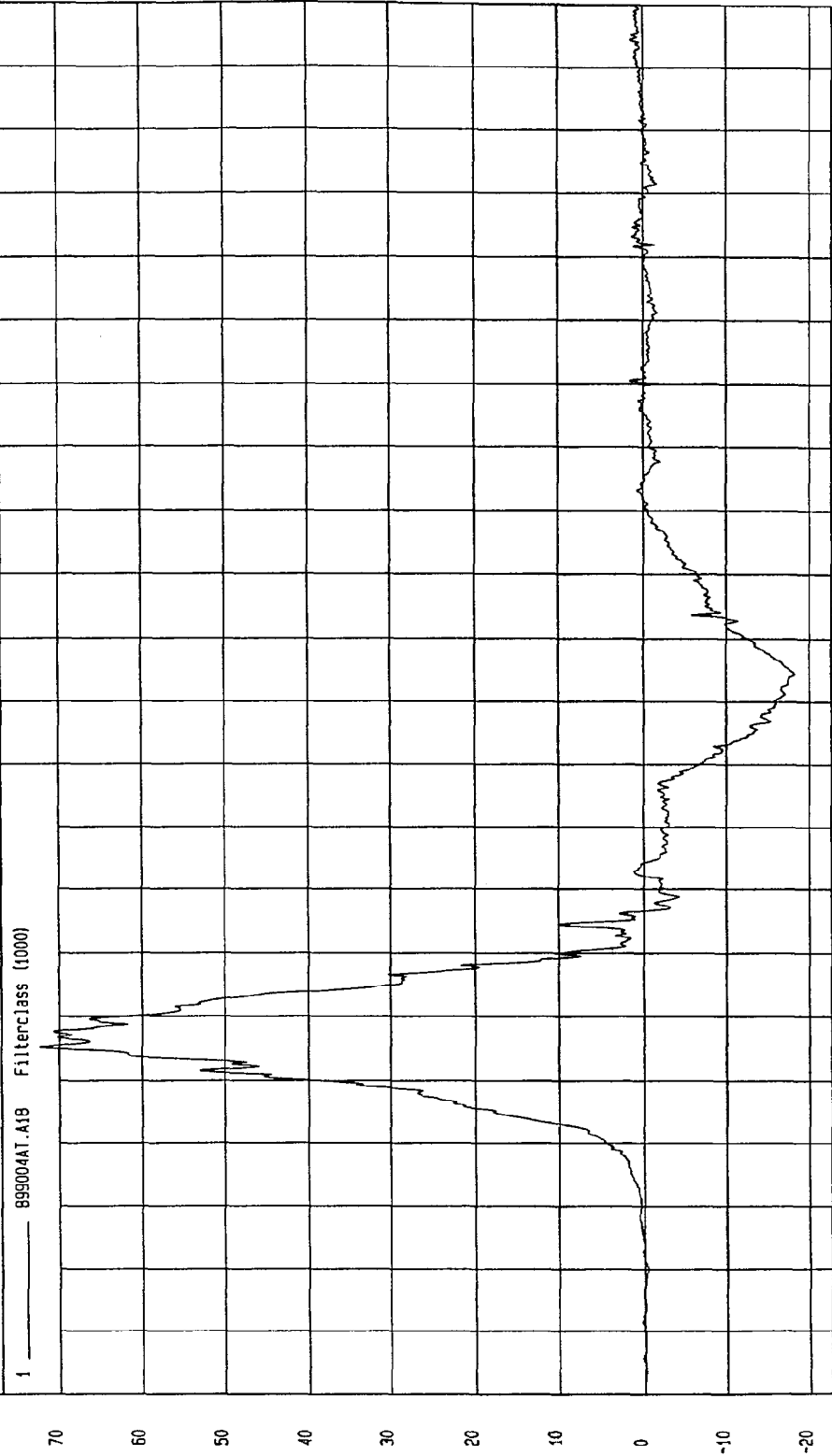
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

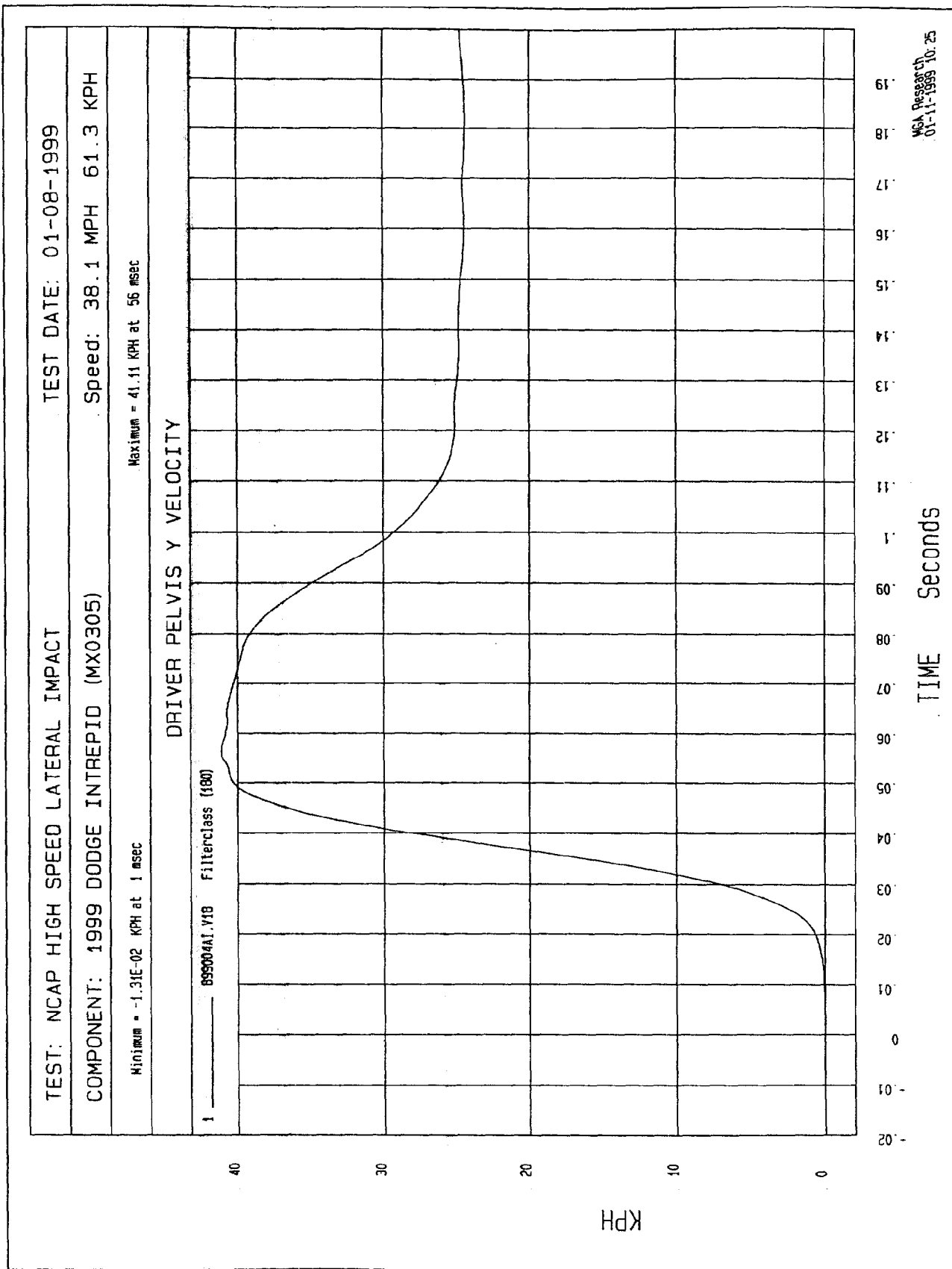
Minimum = -18.18 G'S at 94 msec Maximum = 72.31 G'S at 35 msec

DRIVER PELVIS Y ACCELERATION



WCA Research
01-11-1999 10:22

TIME (SECONDS)

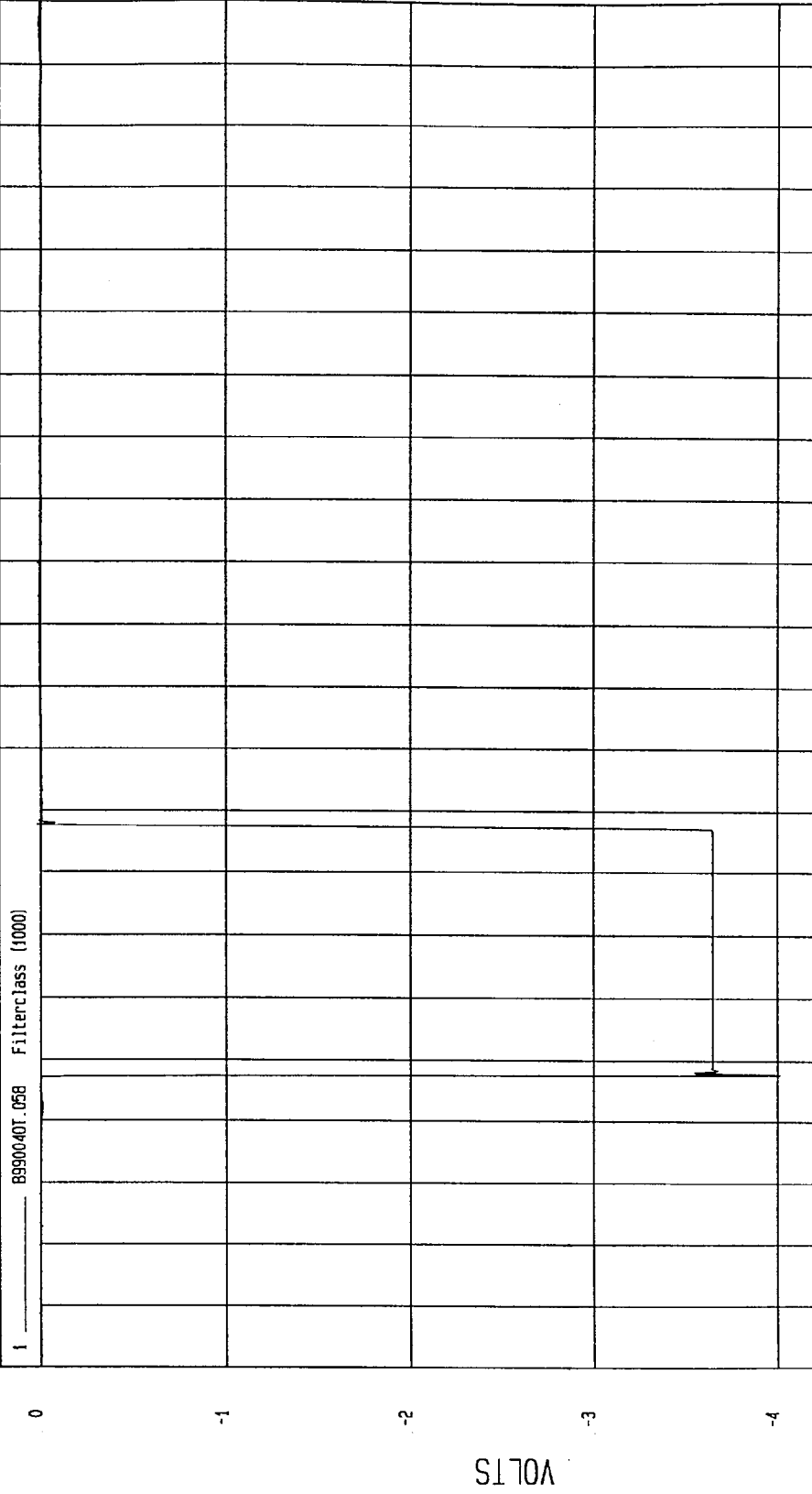


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -4.01 VOLTS at 28 msec Maximum = 1.82E-02 VOLTS at 68 msec

DRIVER SHOULDER CONTACT



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

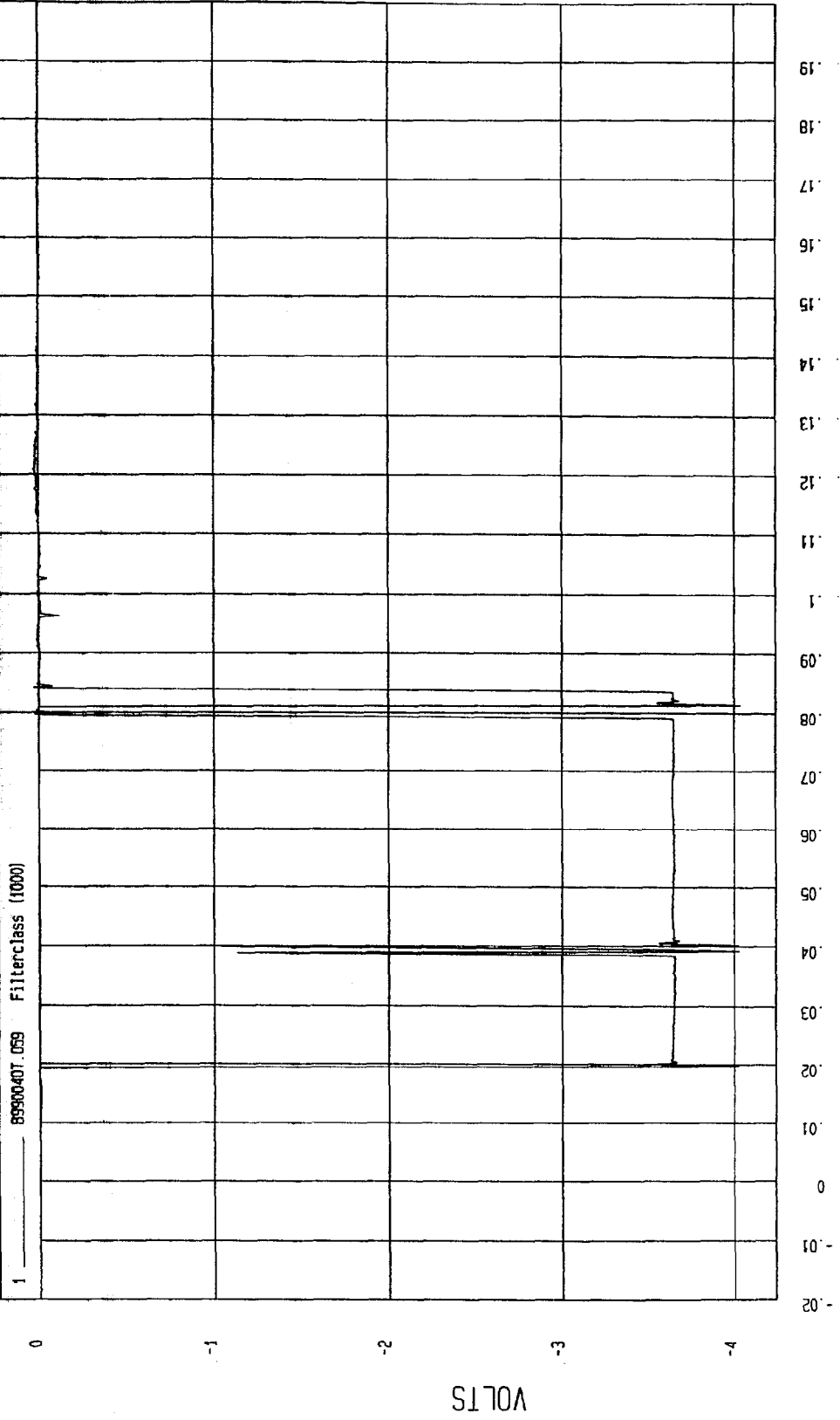
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 3.14E-02 VOLTS at 121 msec

Minimum = -4.03 VOLTS at 81 msec

DRIVER PELVIS CONTACT



MCA Research
01-11-1999 10:18

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

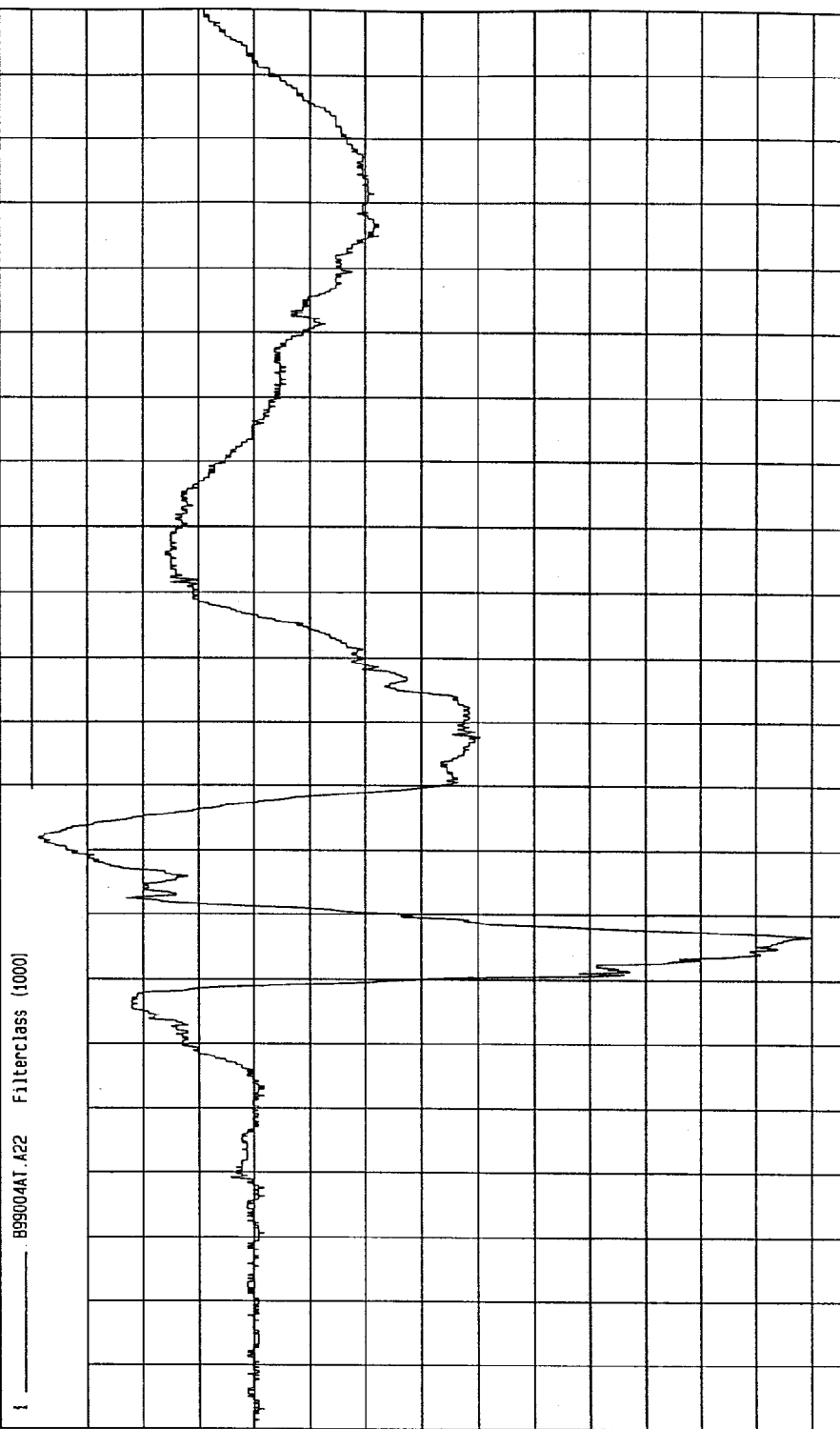
SPEED: 38.1 MPH 61.3 KPH

Maximum = 7.76 G'S at 72 msec

Minimum = -19.95 G'S at 57 msec

REAR PASSENGER HEAD X ACCELERATION

1 B99004AT.A22 Filterclass (1000)



NCA Research
01-11-1999 10.19

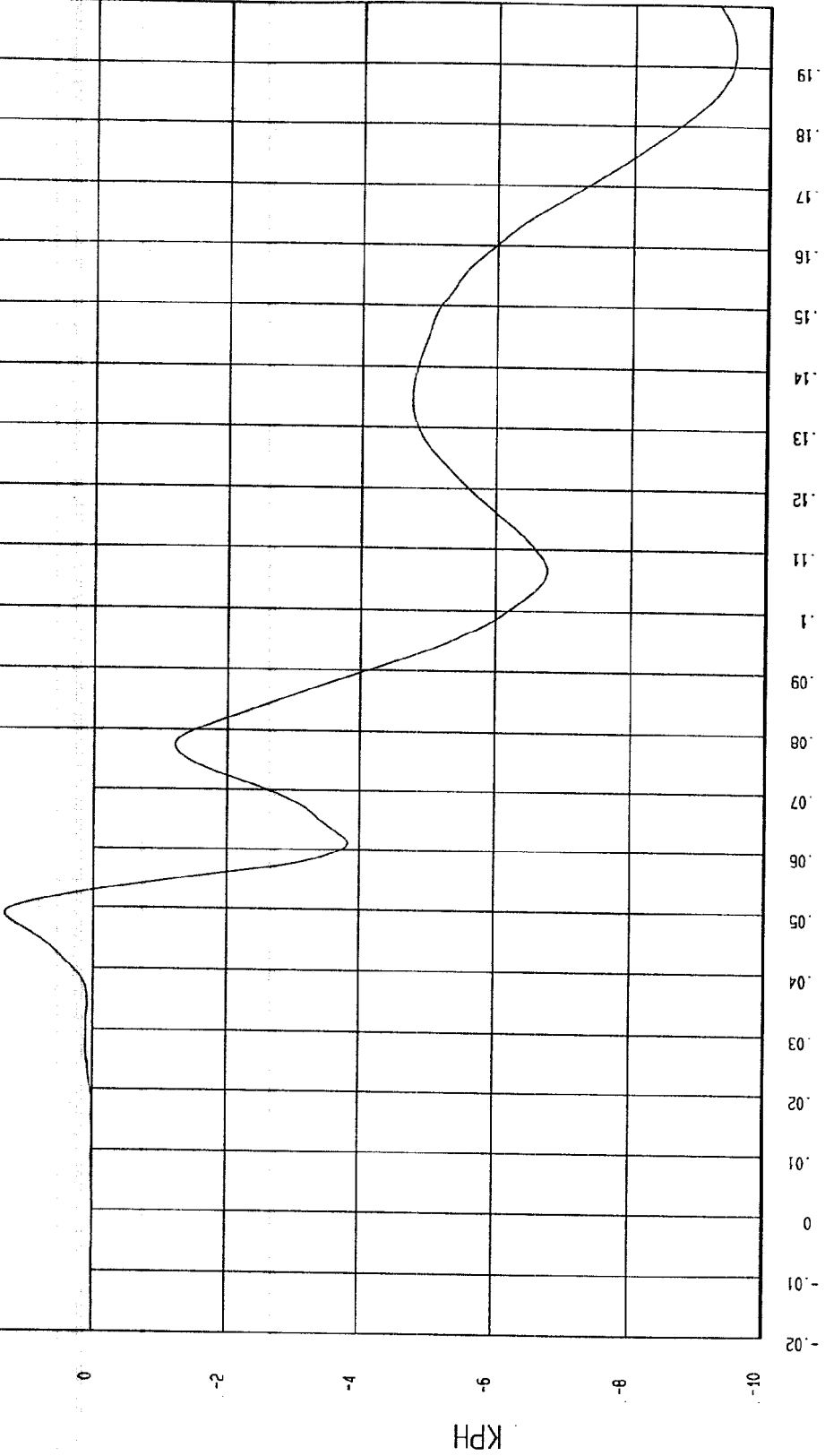
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

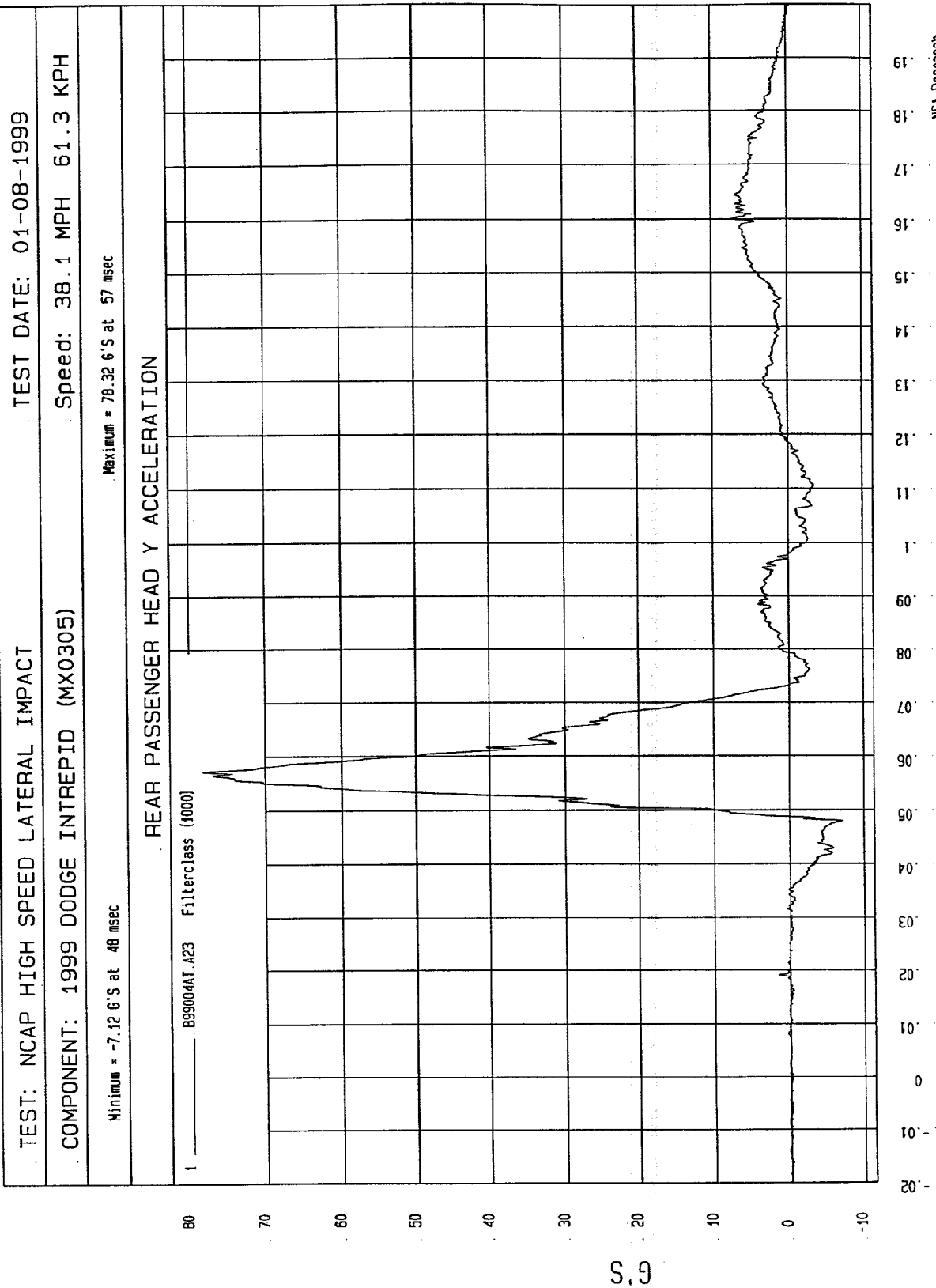
COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -9.49 KPH at 192 msec Maximum = 1.34 KPH at 419 msec

REAR PASSENGER HEAD X VELOCITY

1 _____ 099004A1.V22 FilterClass (180)





TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 36.63 KPH at 197 msec

Minimum = -1.7 KPH at 49 msec

REAR PASSENGER HEAD Y VELOCITY

1 ——— 899004A1.V23 Filterclass (180)

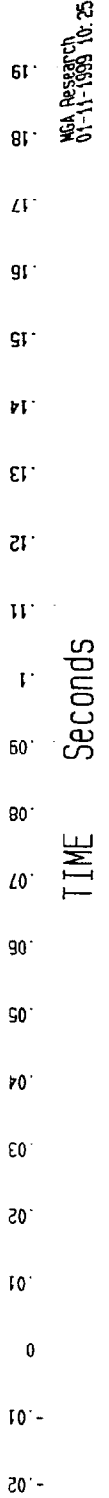
30

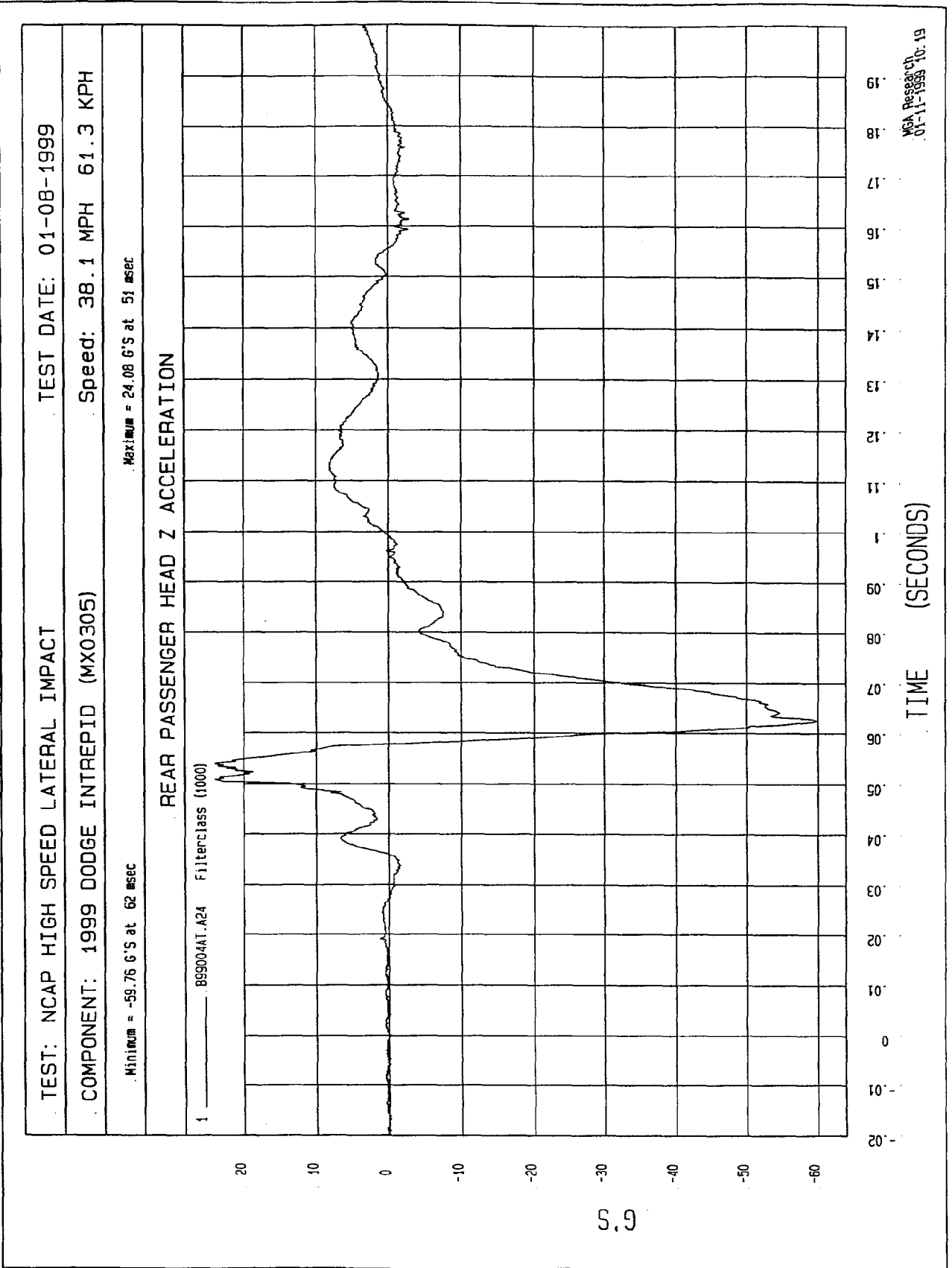
20

10

0

KPH





TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

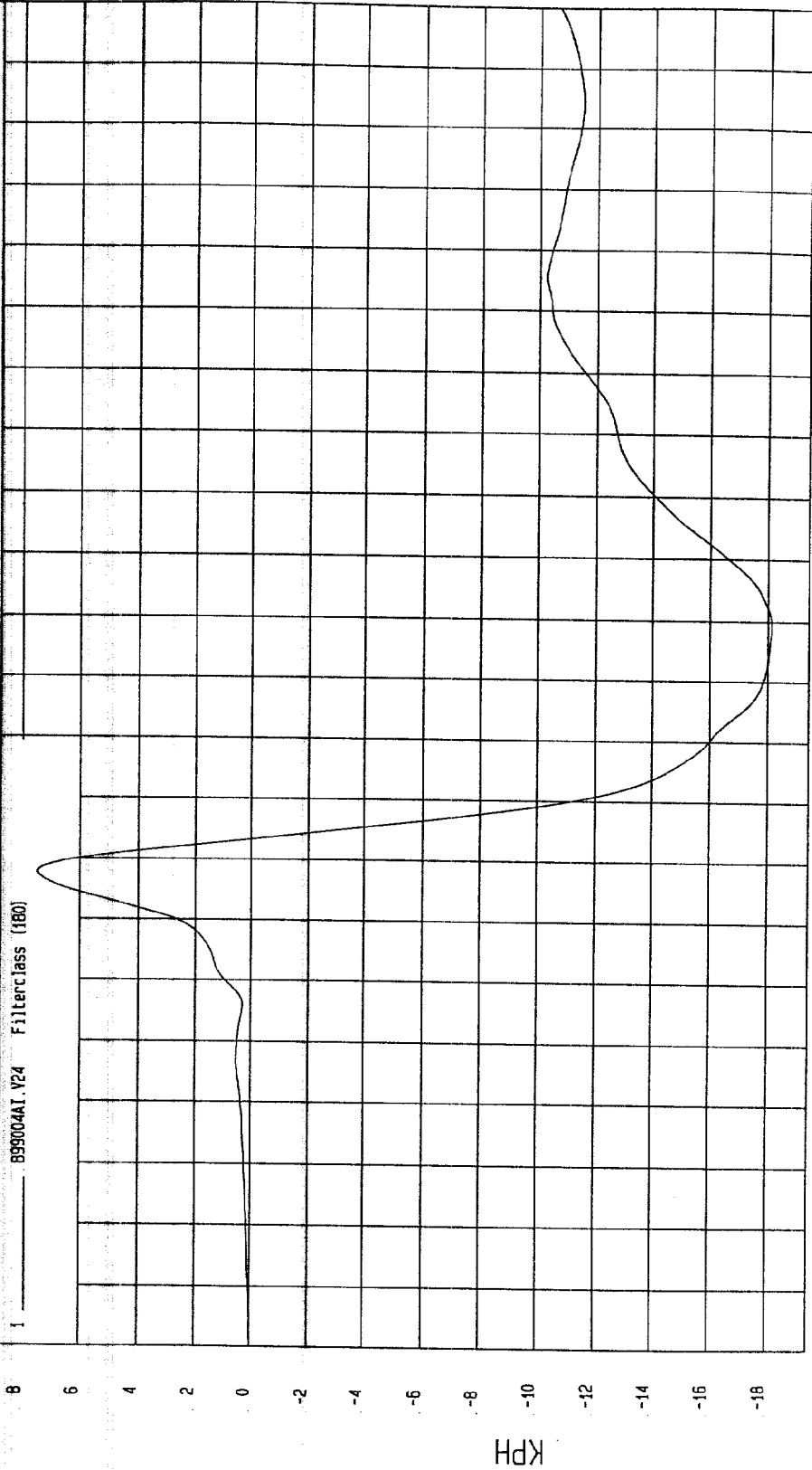
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 7.48 KPH at 58 msec

Minimum = -18.15 KPH at 99 msec

REAR PASSENGER HEAD Z VELOCITY

1 B99004AT.V24 Filterclass (180)



MCA Research
01-11-1999 10:25

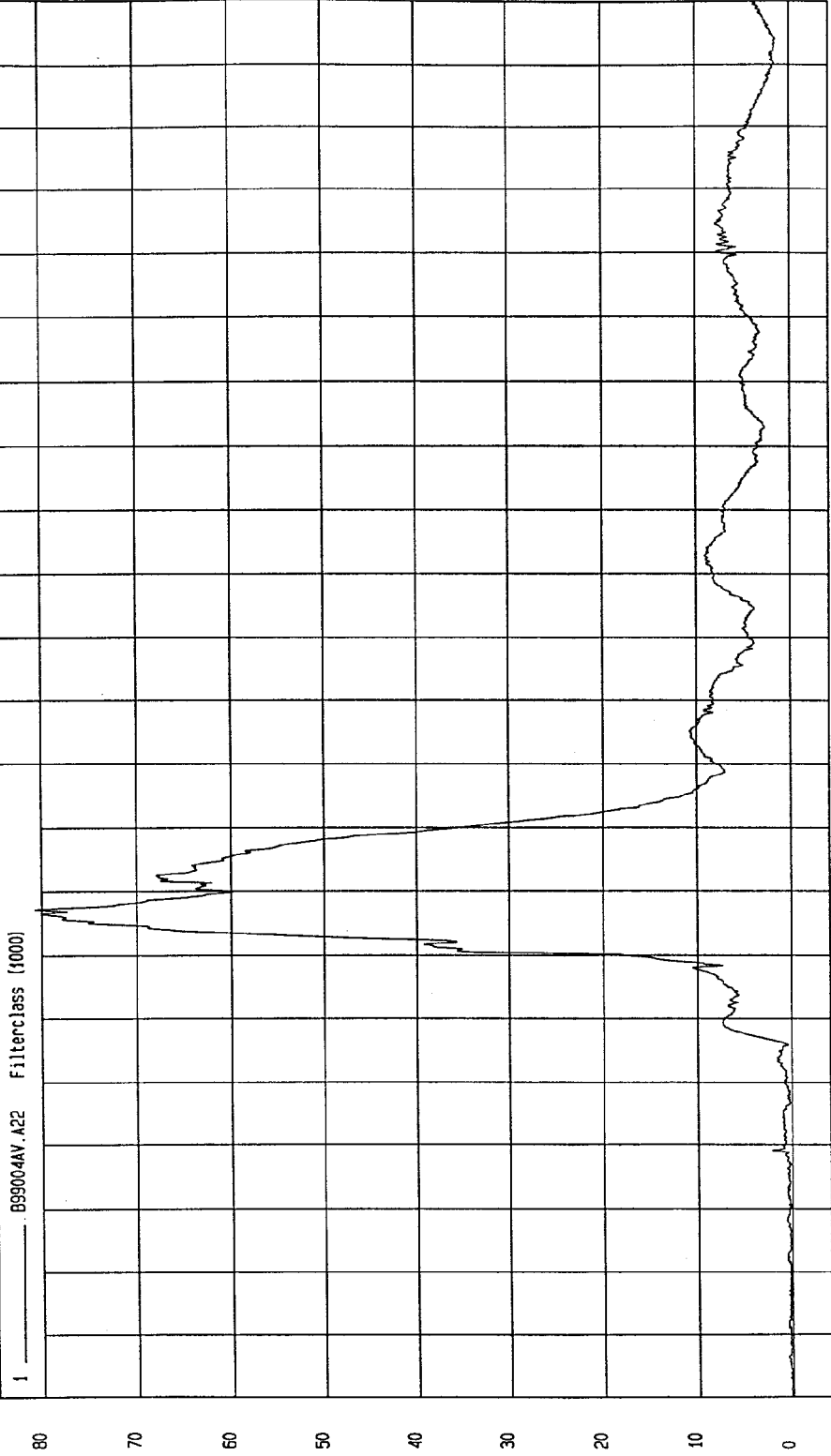
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = 5.98E-02 G'S at -20 msec Maximum = 80.7 G'S at 57 msec

REAR PASSENGER HEAD RESULTANT ACCELERATION



TIME (SECONDS)

MCA Research
01-11-1999 10:19

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

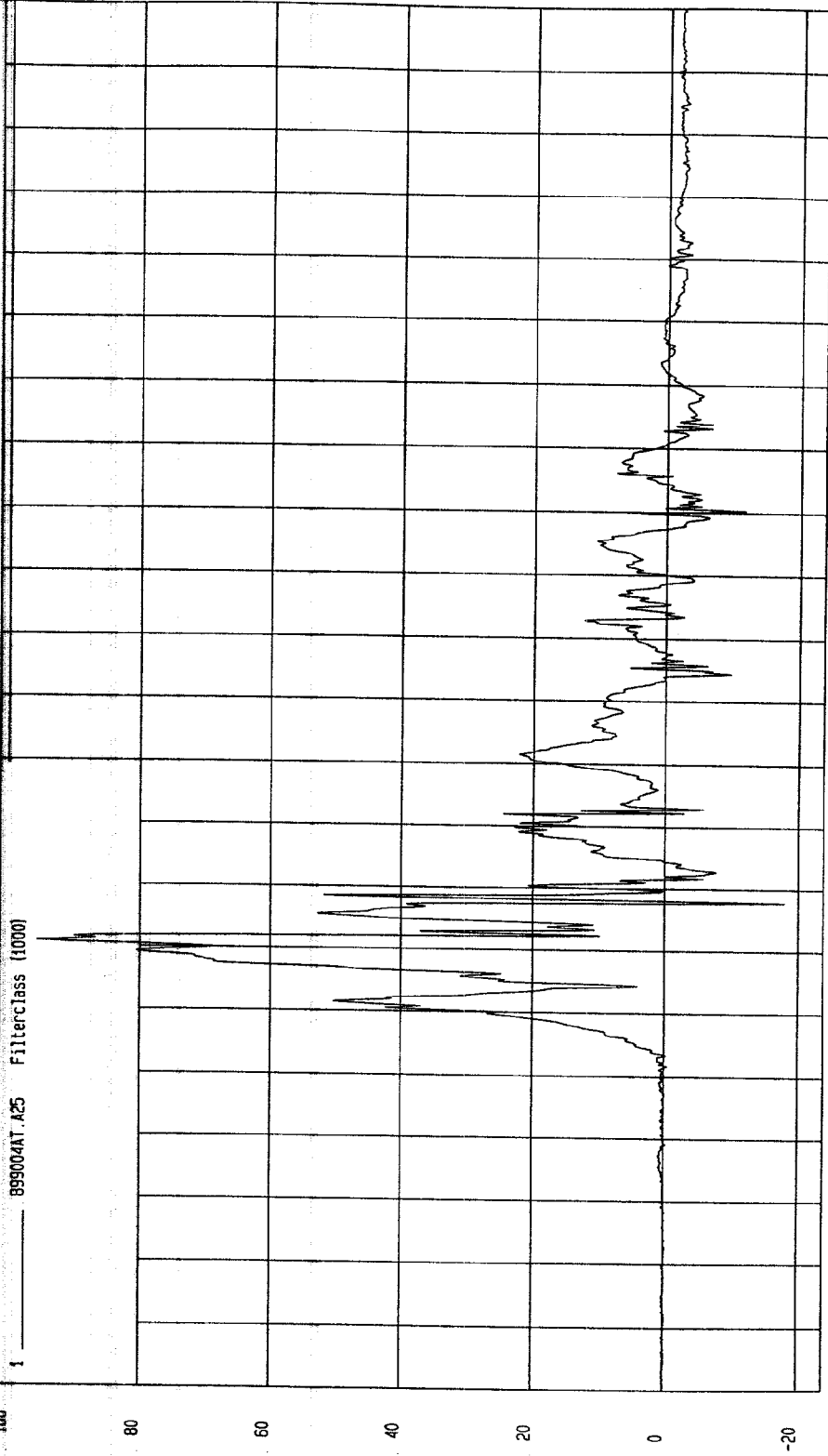
COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -18.01 G'S at 58 msec

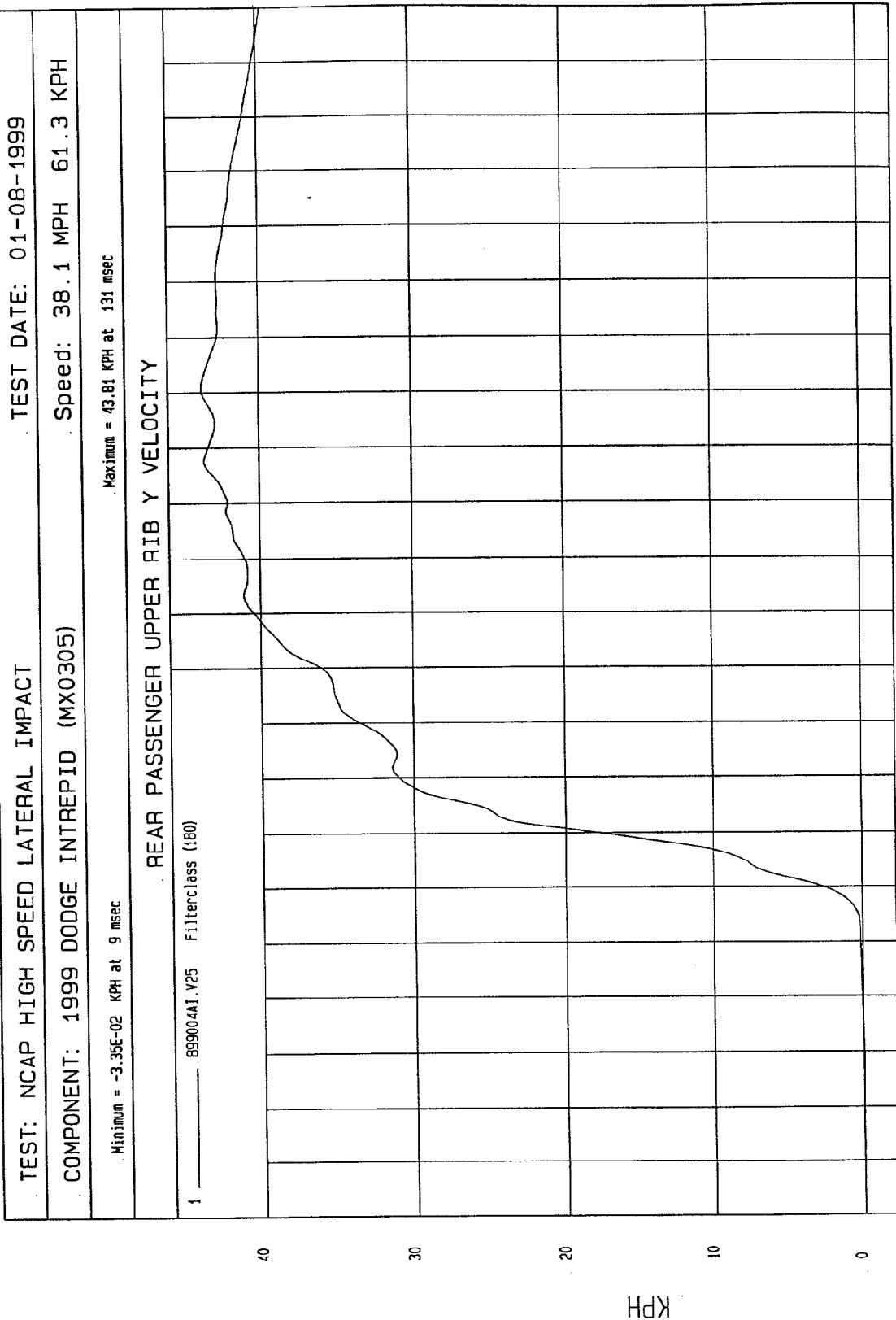
Maximum = 95.65 G'S at 51 msec

REAR PASSENGER UPPER RIB Y ACCELERATION

1 899004AT.A25 FilterClass (1000)



MCA Research
01-11-1999 10:22



NSA Research
01-11-1999 10:25

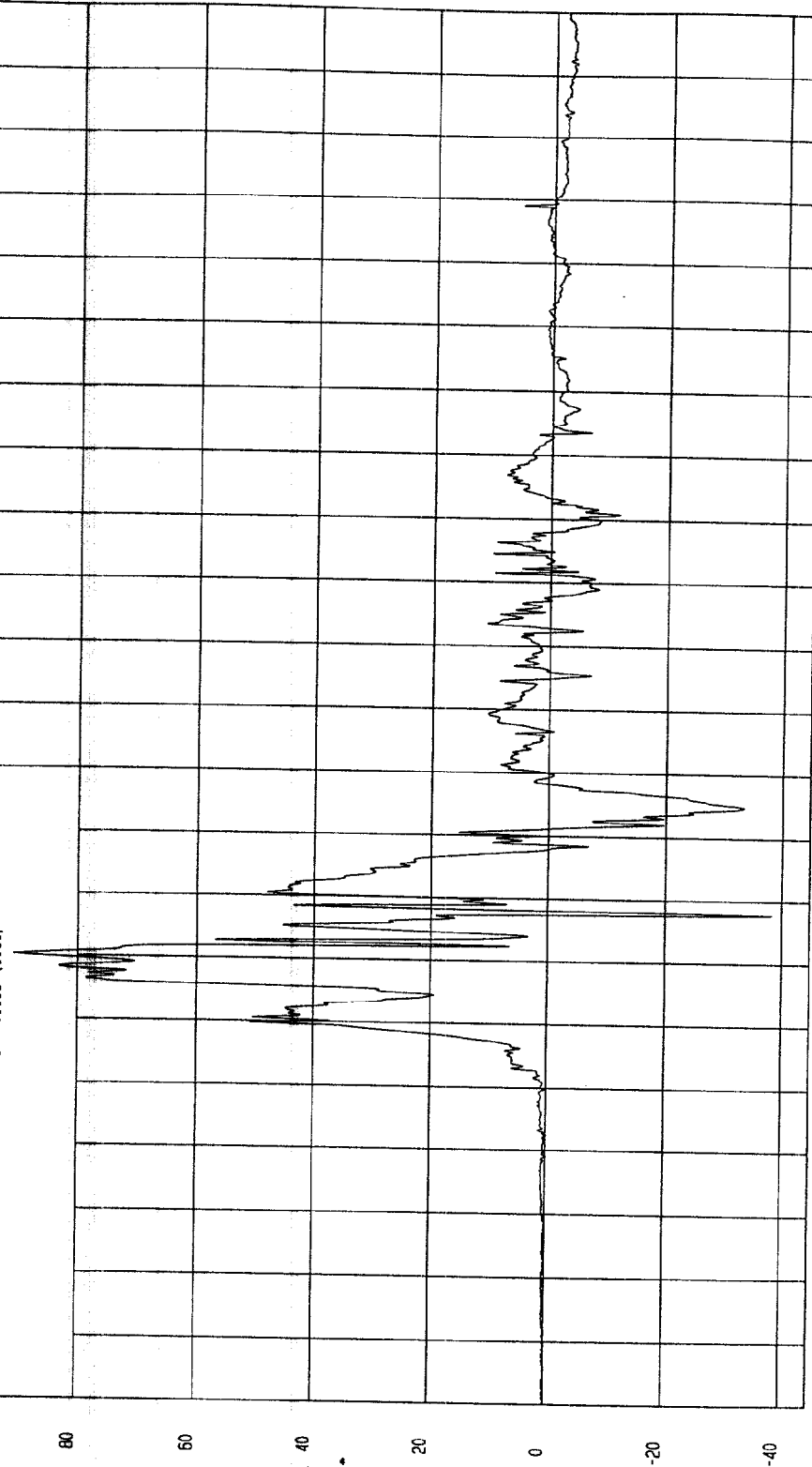
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

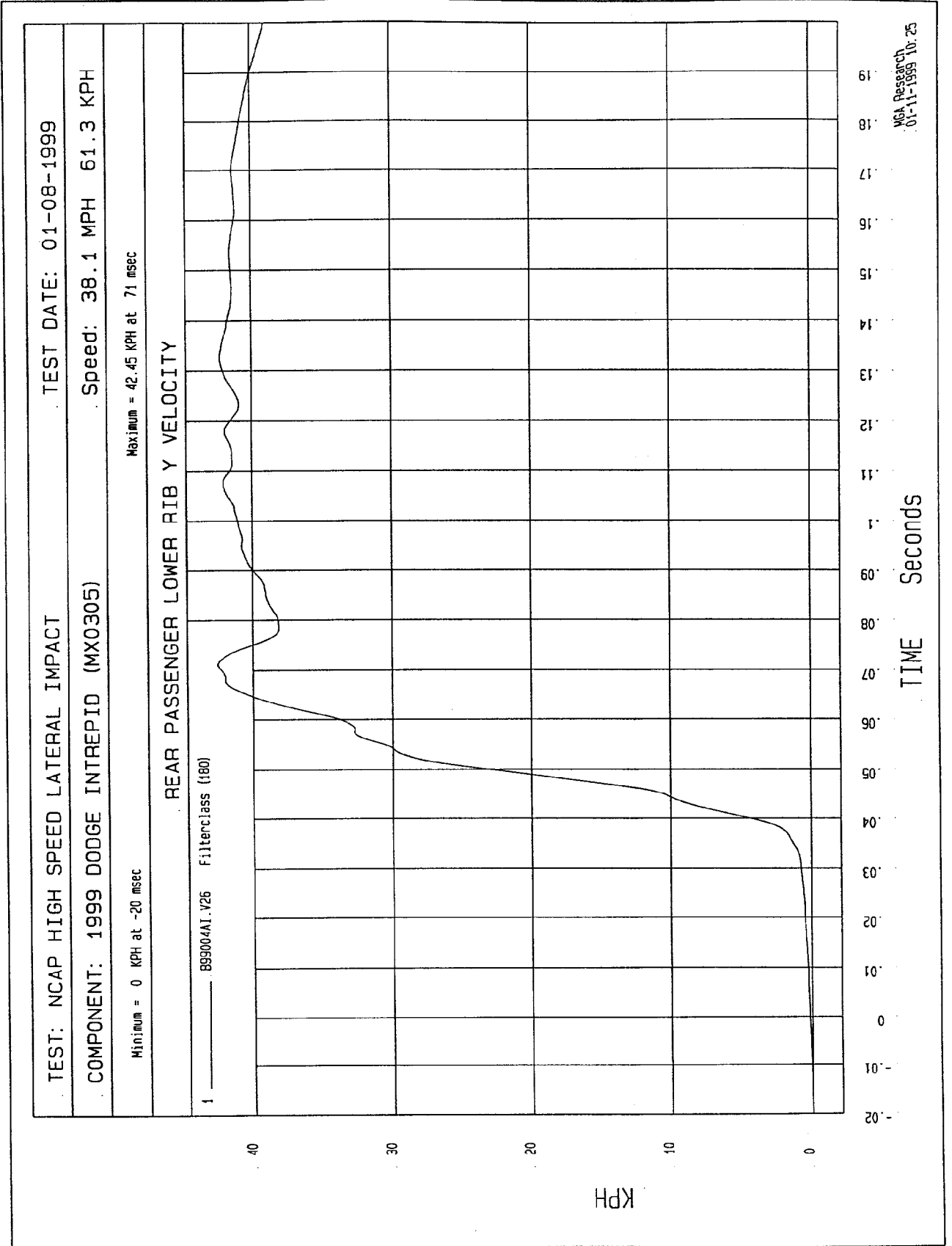
Minimum = -38.21 G'S at 59 msec Maximum = 90.99 G'S at 50 msec

REAR PASSENGER LOWER RIB Y ACCELERATION

1 B99004T.A26 Filterc(ess (1000)



MCA Research
01-11-1999 10:22



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

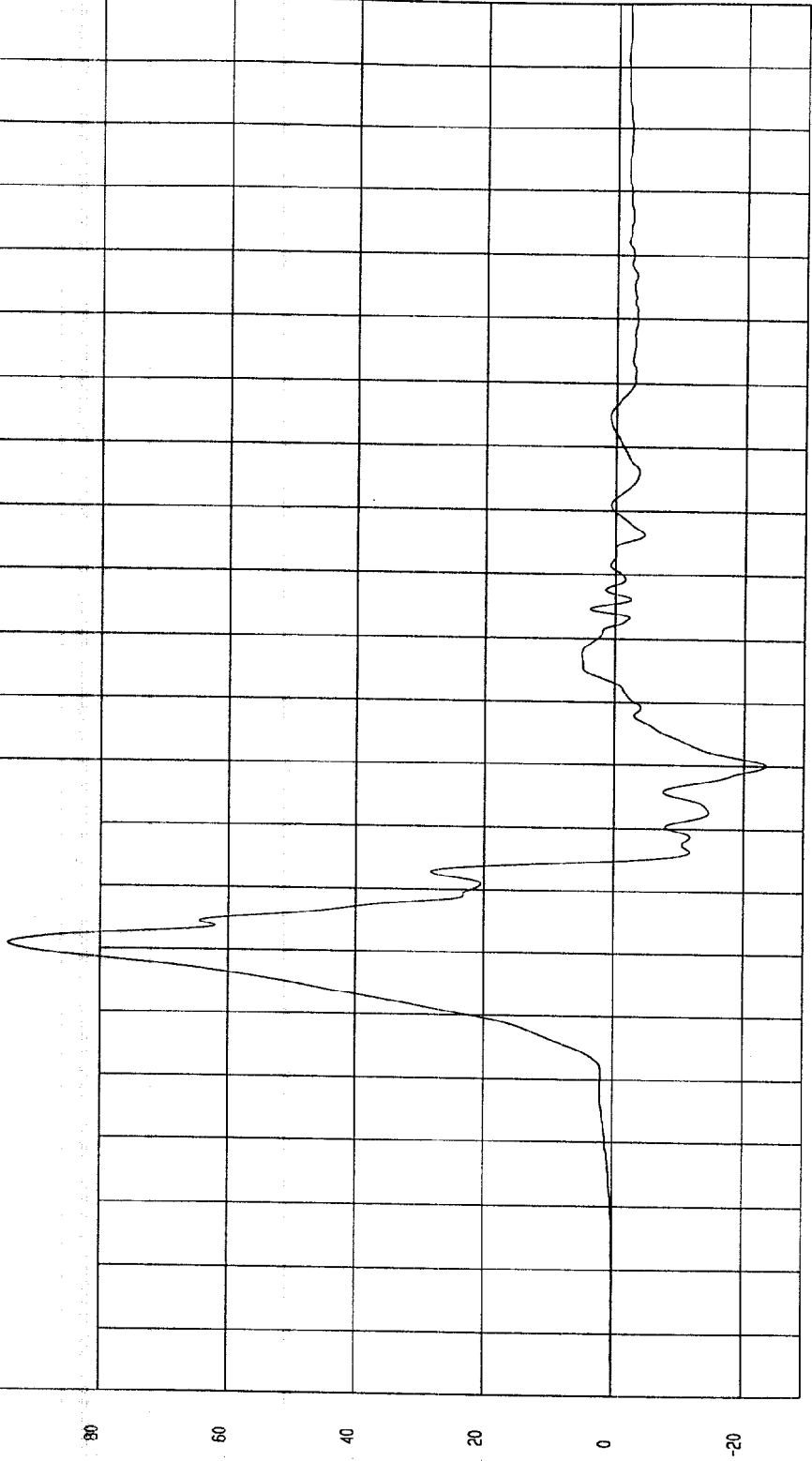
COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -23.37 G'S at 80 msec

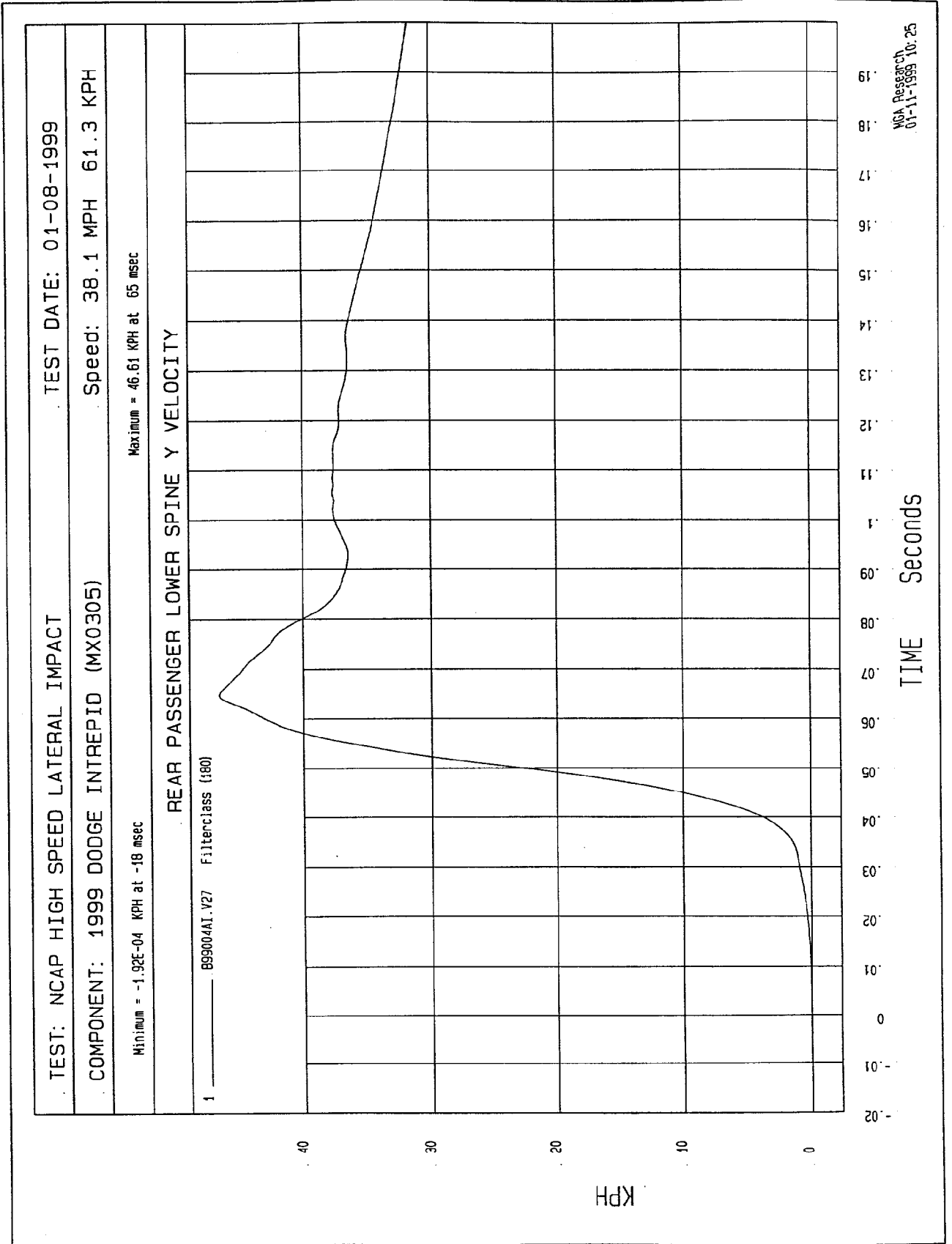
Maximum = 94 G'S at 51 msec

REAR PASSENGER LOWER SPINE Y ACCELERATION

1 B99004AF.A27 FilterClass (180)



MECA Research
01-11-1999 10:22



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

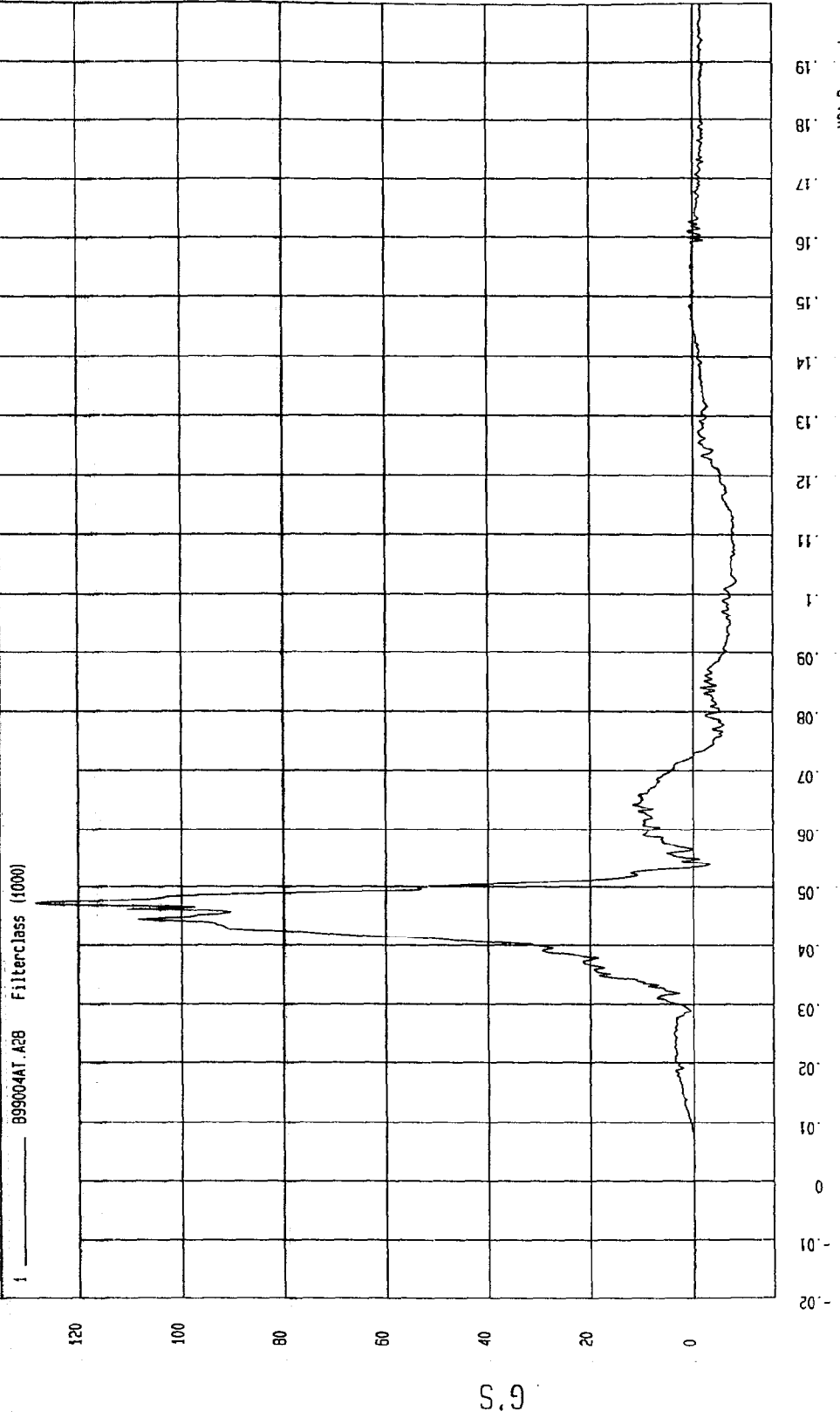
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 128.42 G'S at 47 msec

Minimum = -8.43 G'S at 102 msec

REAR PASSENGER PELVIS Y ACCELERATION



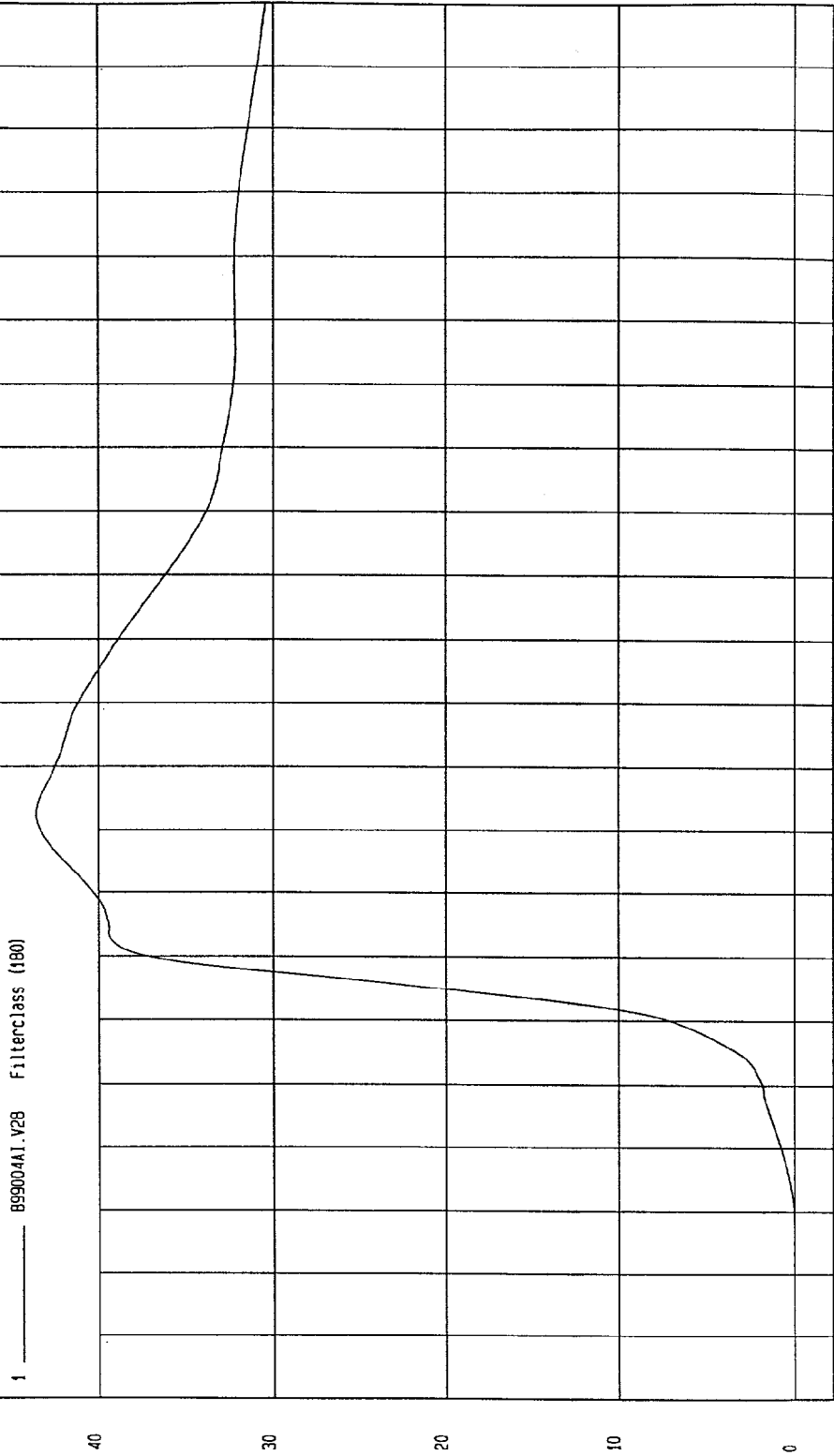
WCA Research
01-11-1999 10:22

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = 0 KPH at -20 msec Maximum = 43.52 KPH at 72 msec

REAR PASSENGER PELVIS Y VELOCITY



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

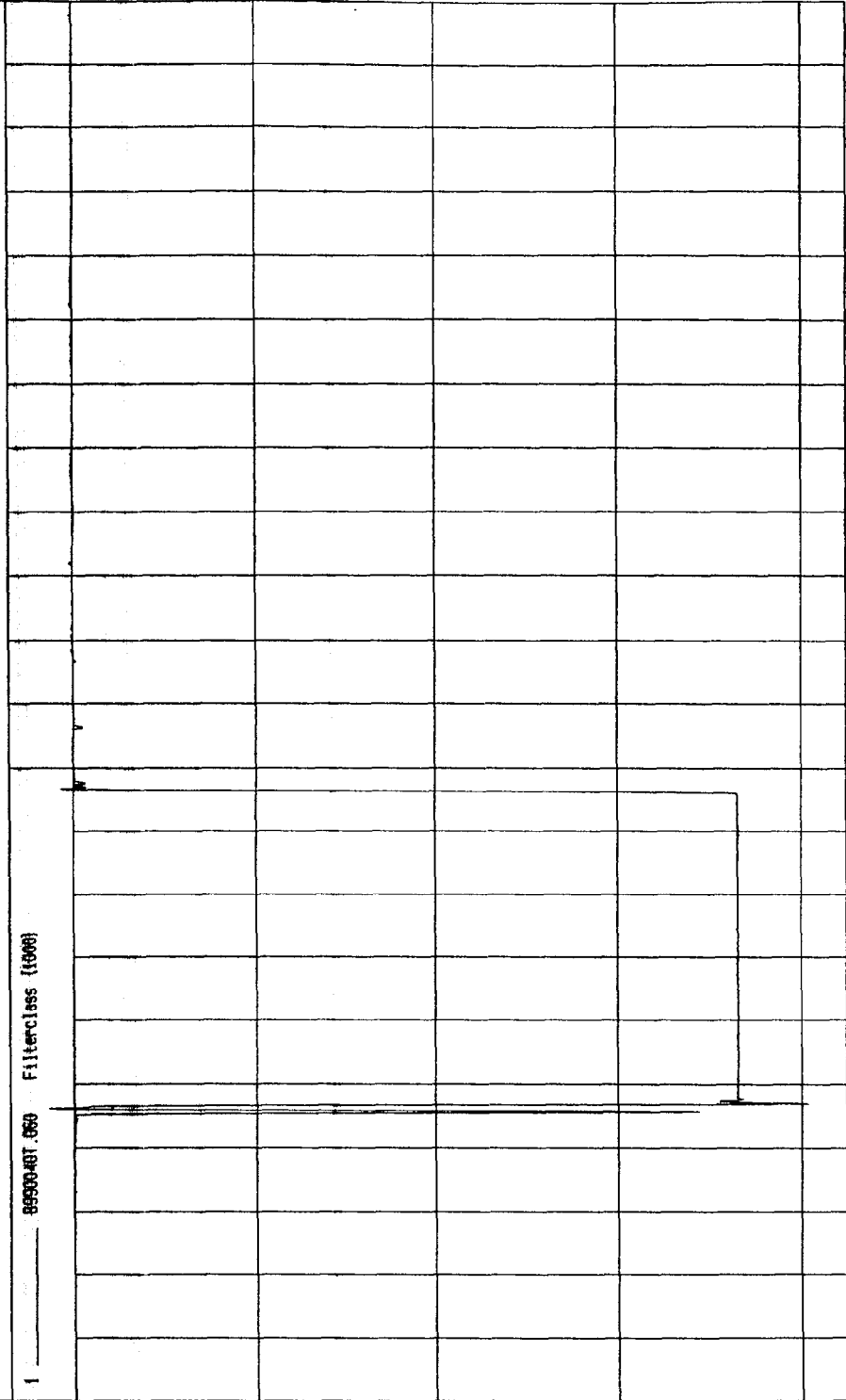
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = .14 VOLTS at 26 msec

Minimum = -4.03 VOLTS at 27 msec

REAR PASSENGER SHOULDER CONTACT

1 89900401.050 Filterclass (4000)



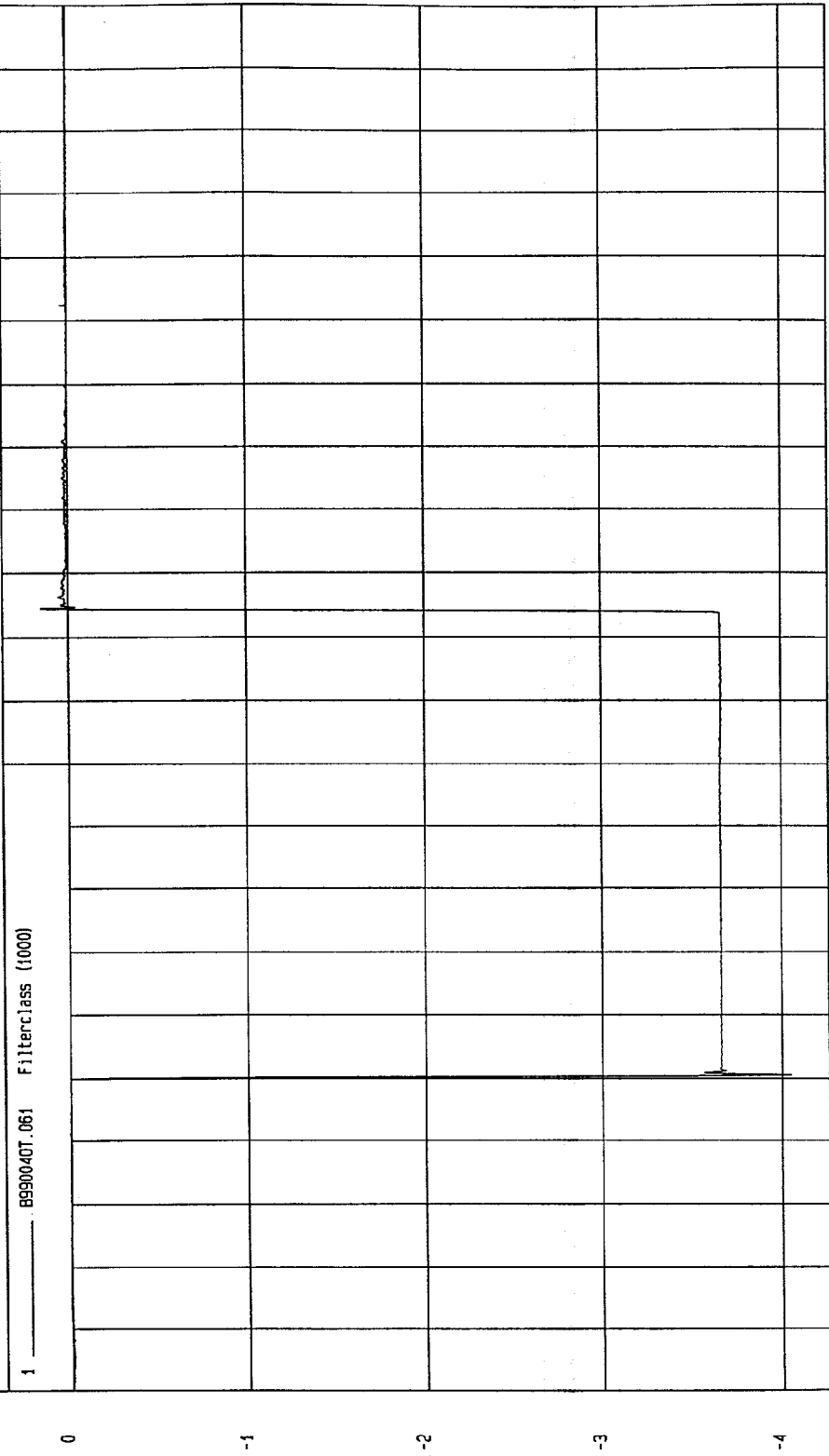
WGA Research
01-11-1999 10:16

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

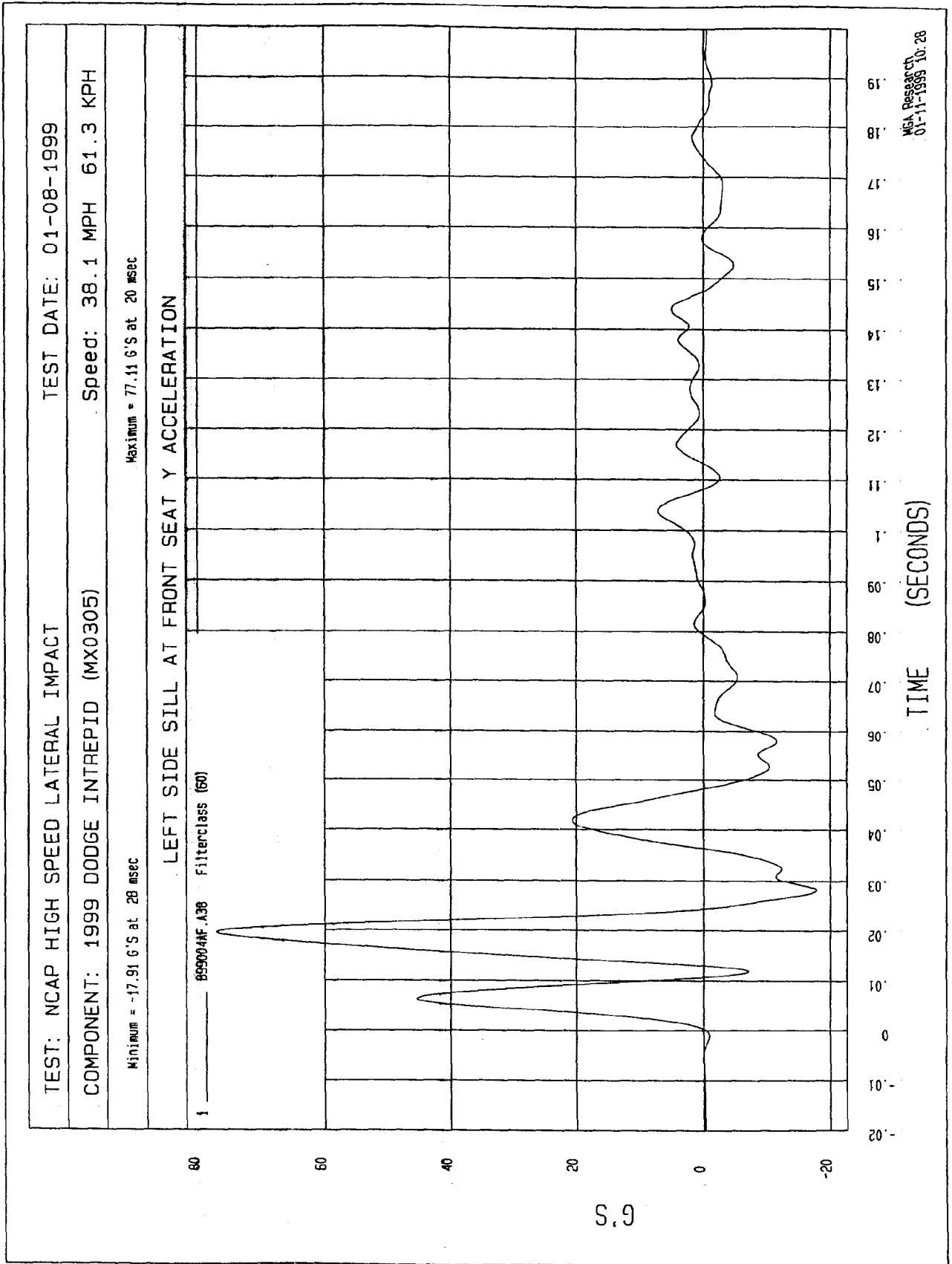
COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -4.05 VOLTS at 30 msec Maximum = .15 VOLTS at 104 msec

REAR PASSENGER PELVIS CONTACT



WGA Research
01-11-1999 10:18

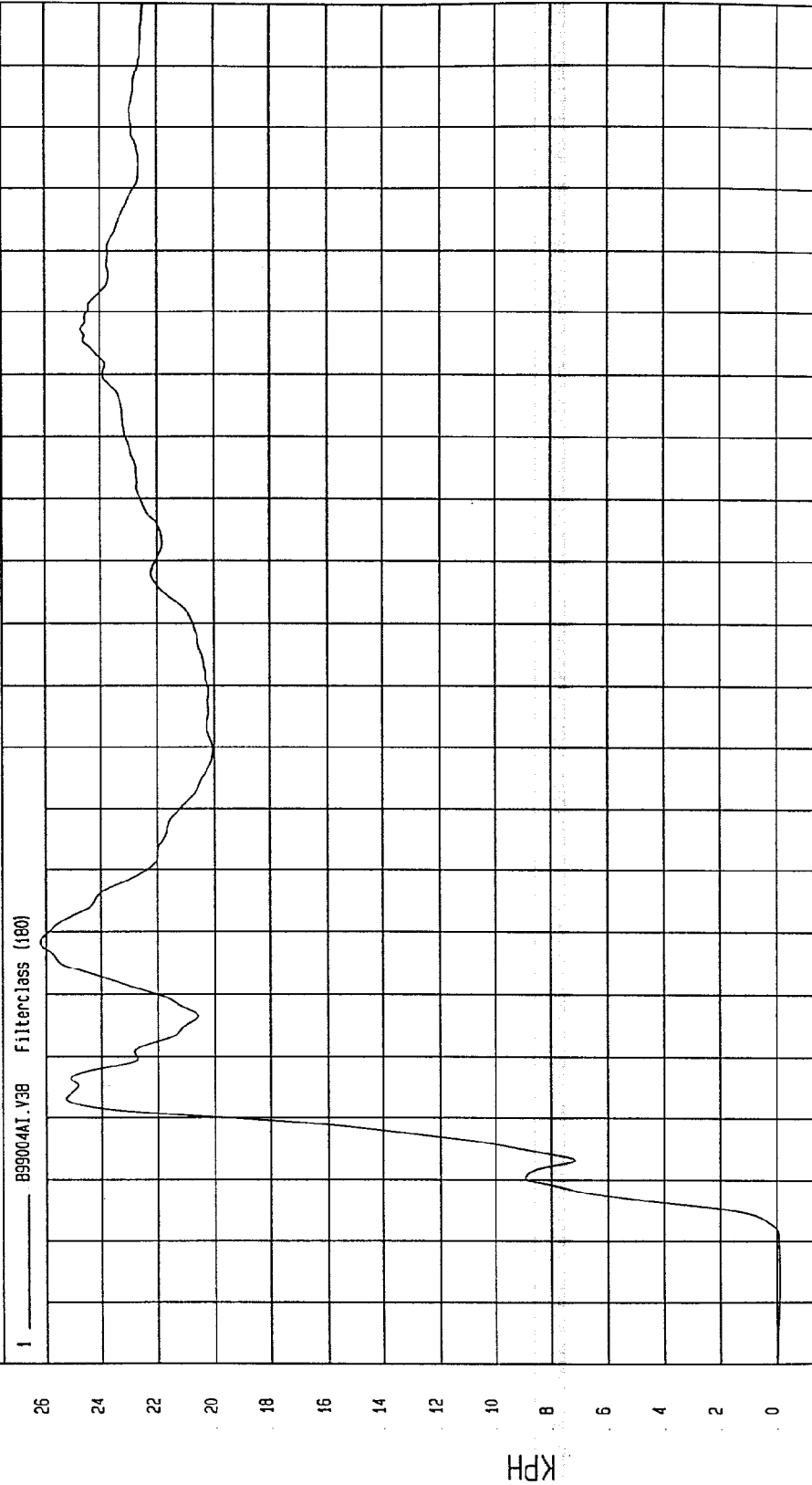


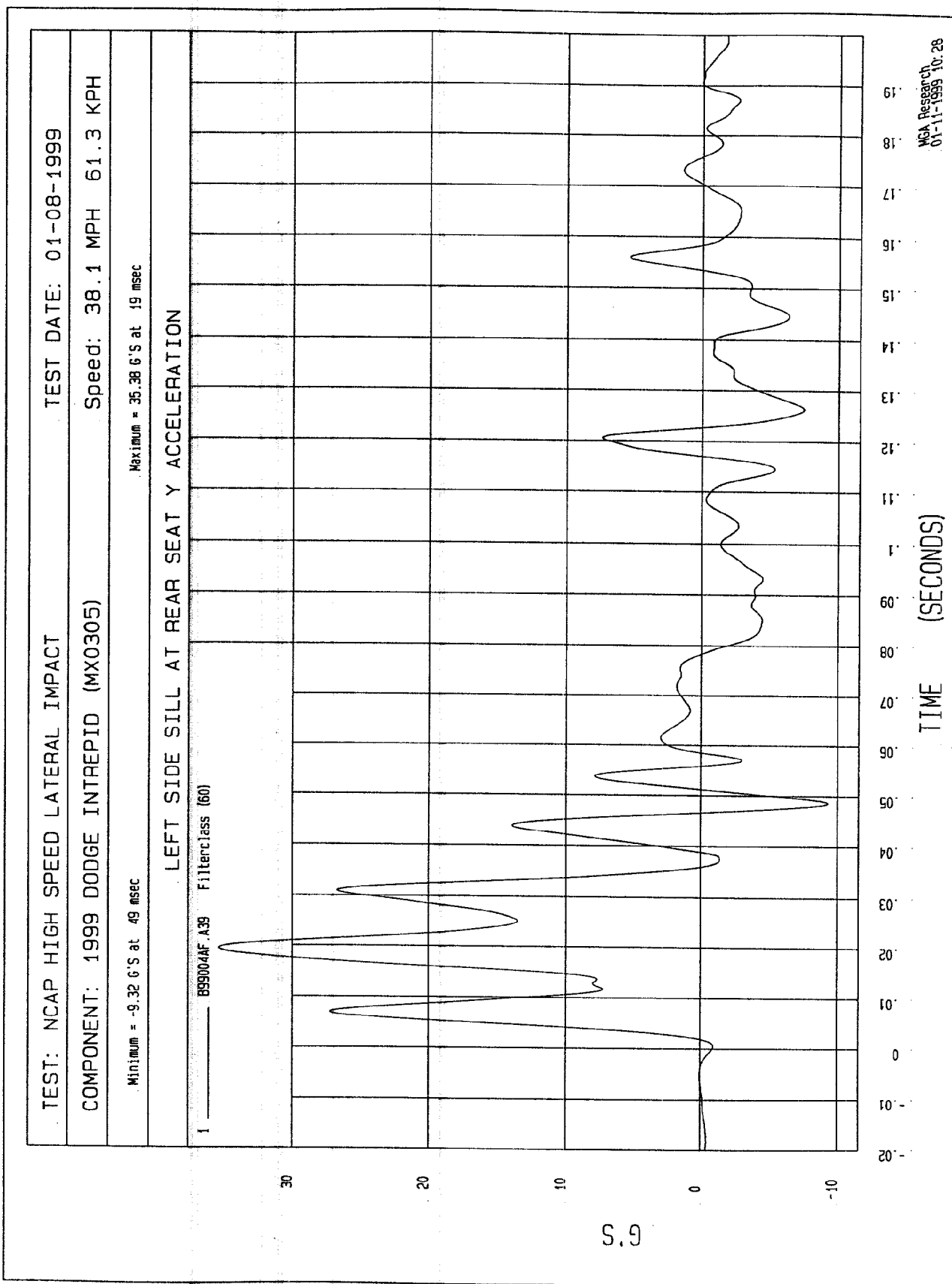
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -1 KPH at -6 msec Maximum = 26.19 KPH at 48 msec

LEFT SIDE SILL AT FRONT SEAT Y VELOCITY



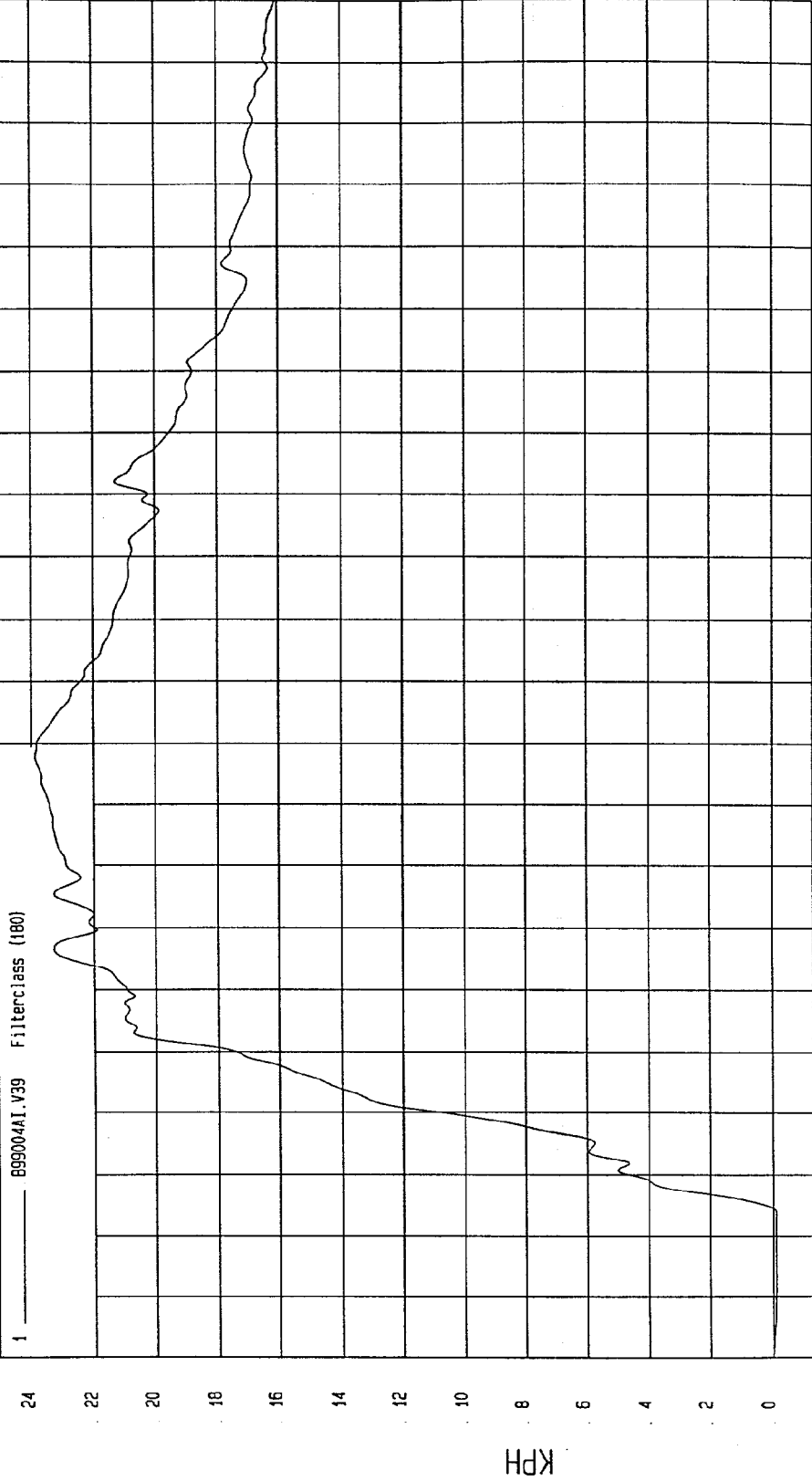


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -.13 KPH at 4 msec Maximum = 23.88 KPH at 78 msec

LEFT SIDE SILL AT REAR SEAT Y VELOCITY



MCA Research
01-11-1999 10:33

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

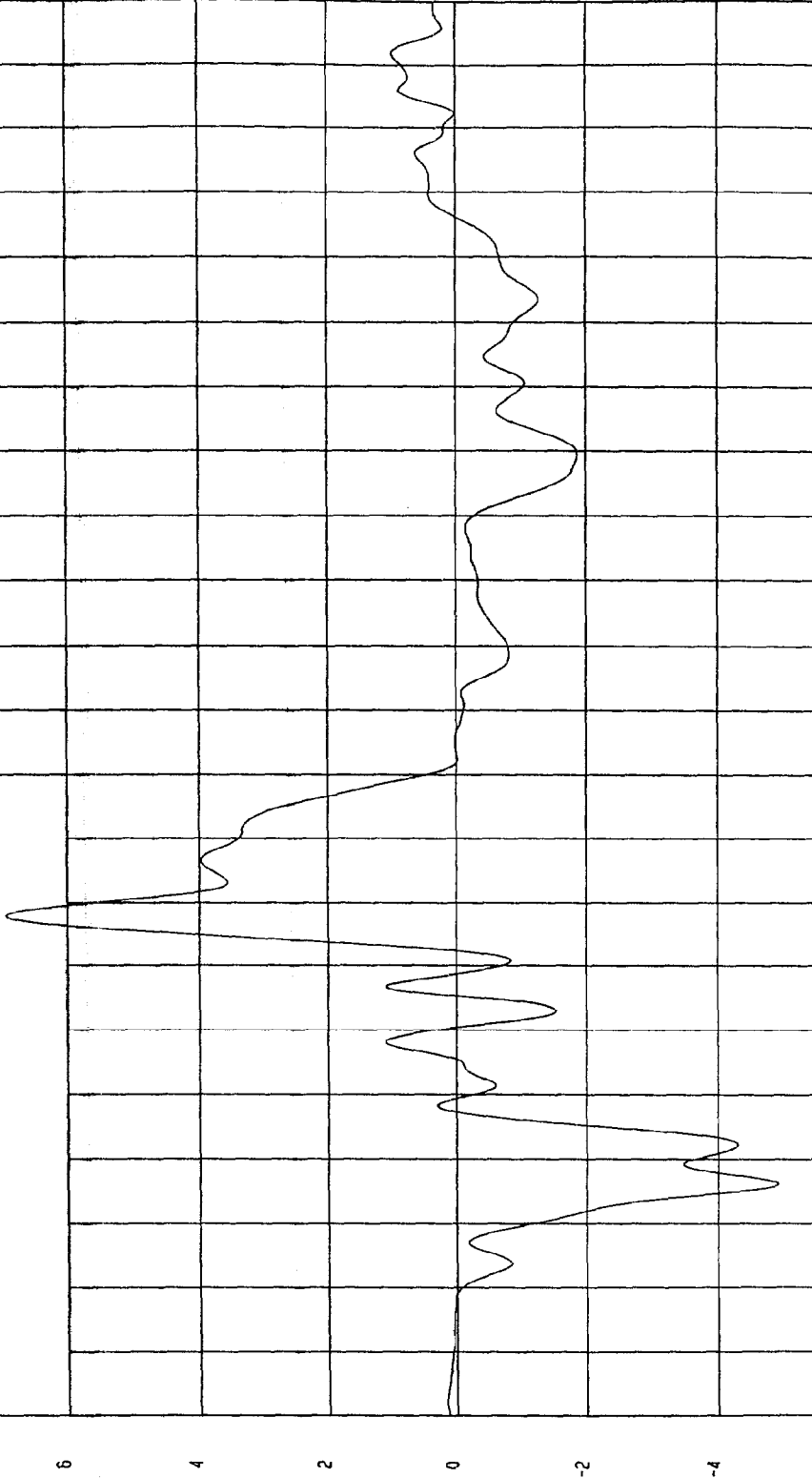
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 6.92 G's at 58 msec

Minimum = -4.91 G's at 16 msec

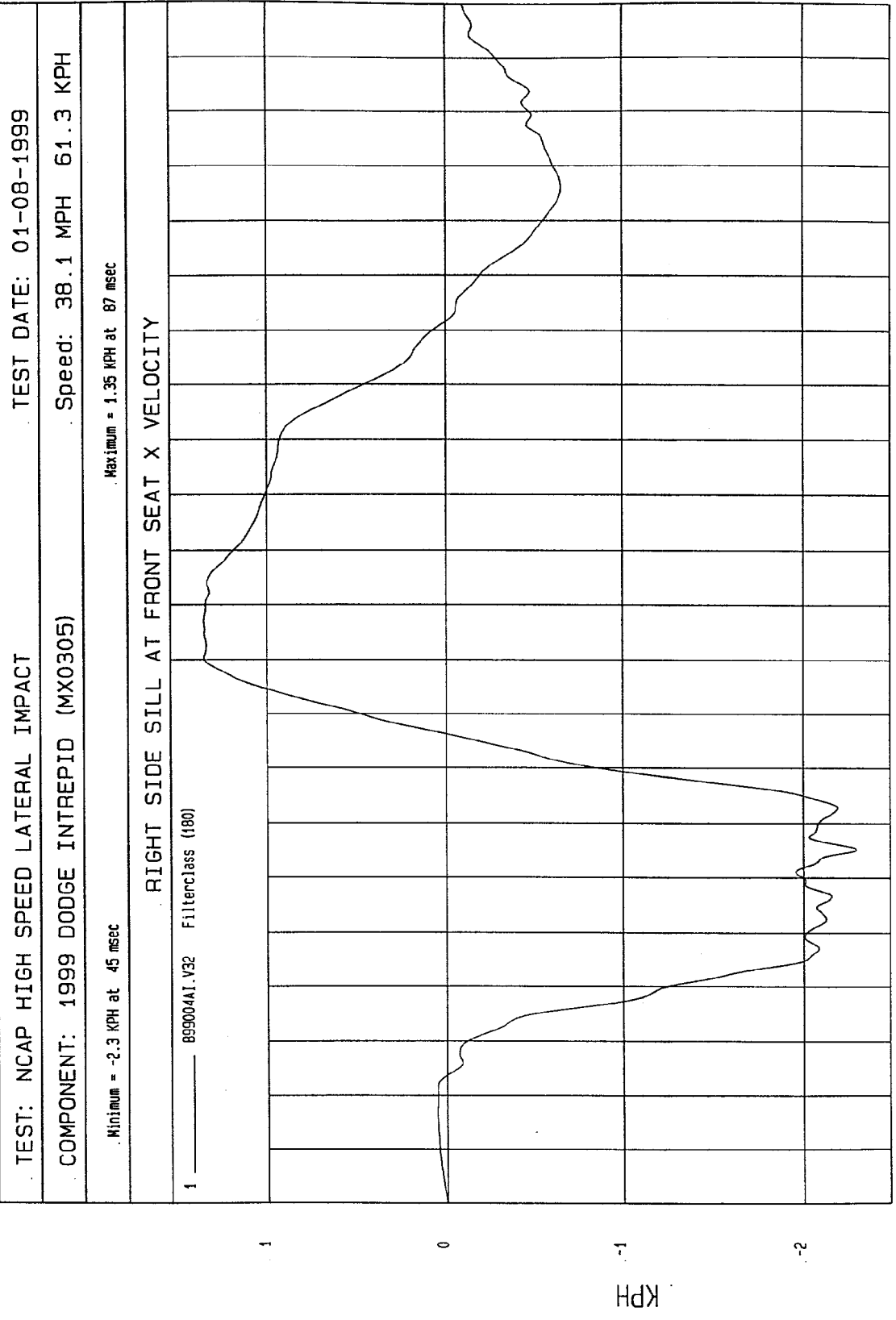
RIGHT SIDE SILL AT FRONT SEAT X ACCELERATION

1 899004AF.A32 Filterclass (60)



NGA Research
01-11-1999 10:28

TIME (SECONDS)



MCA Research
01-11-1999 10:33

TIME Seconds

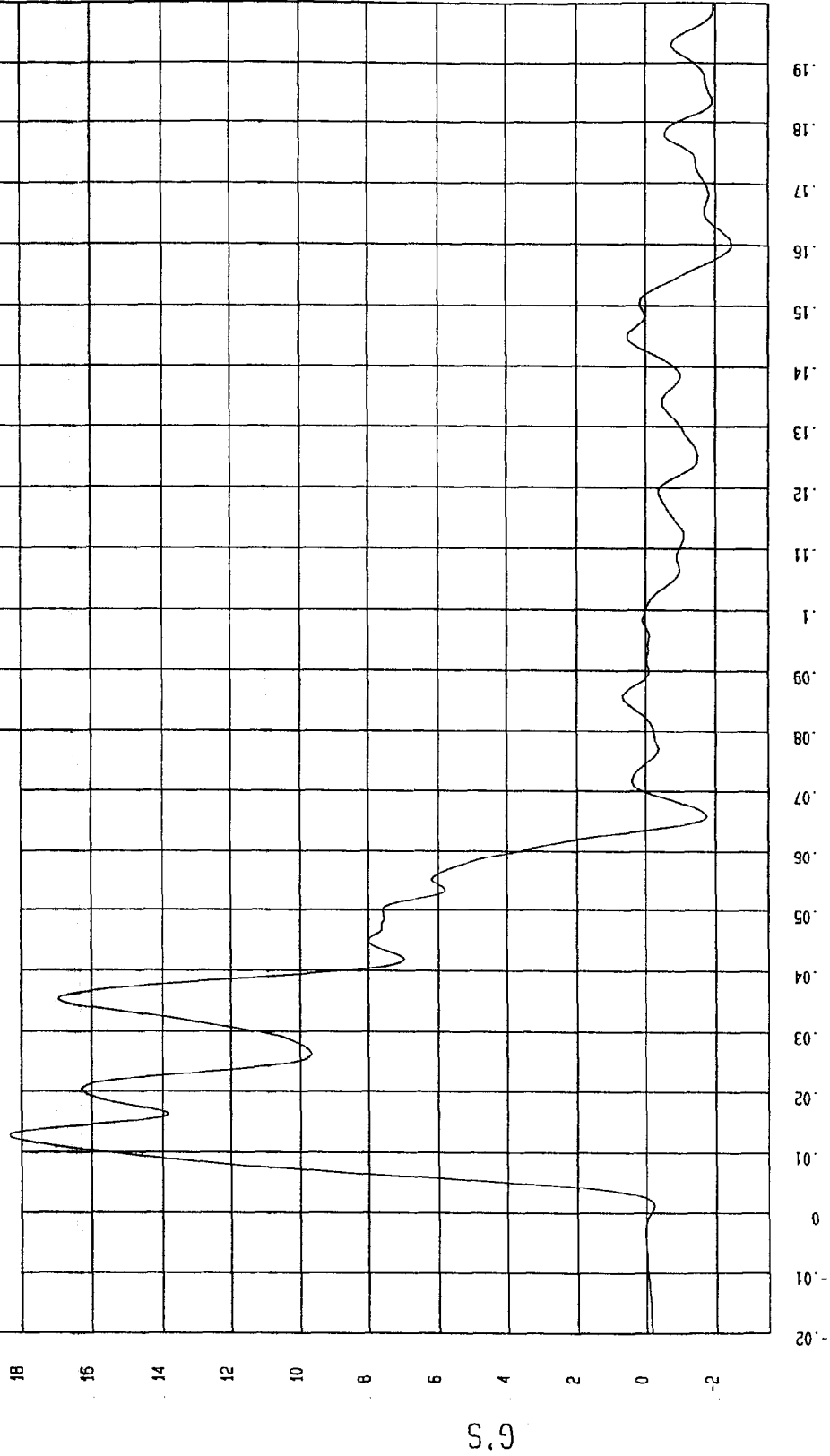
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

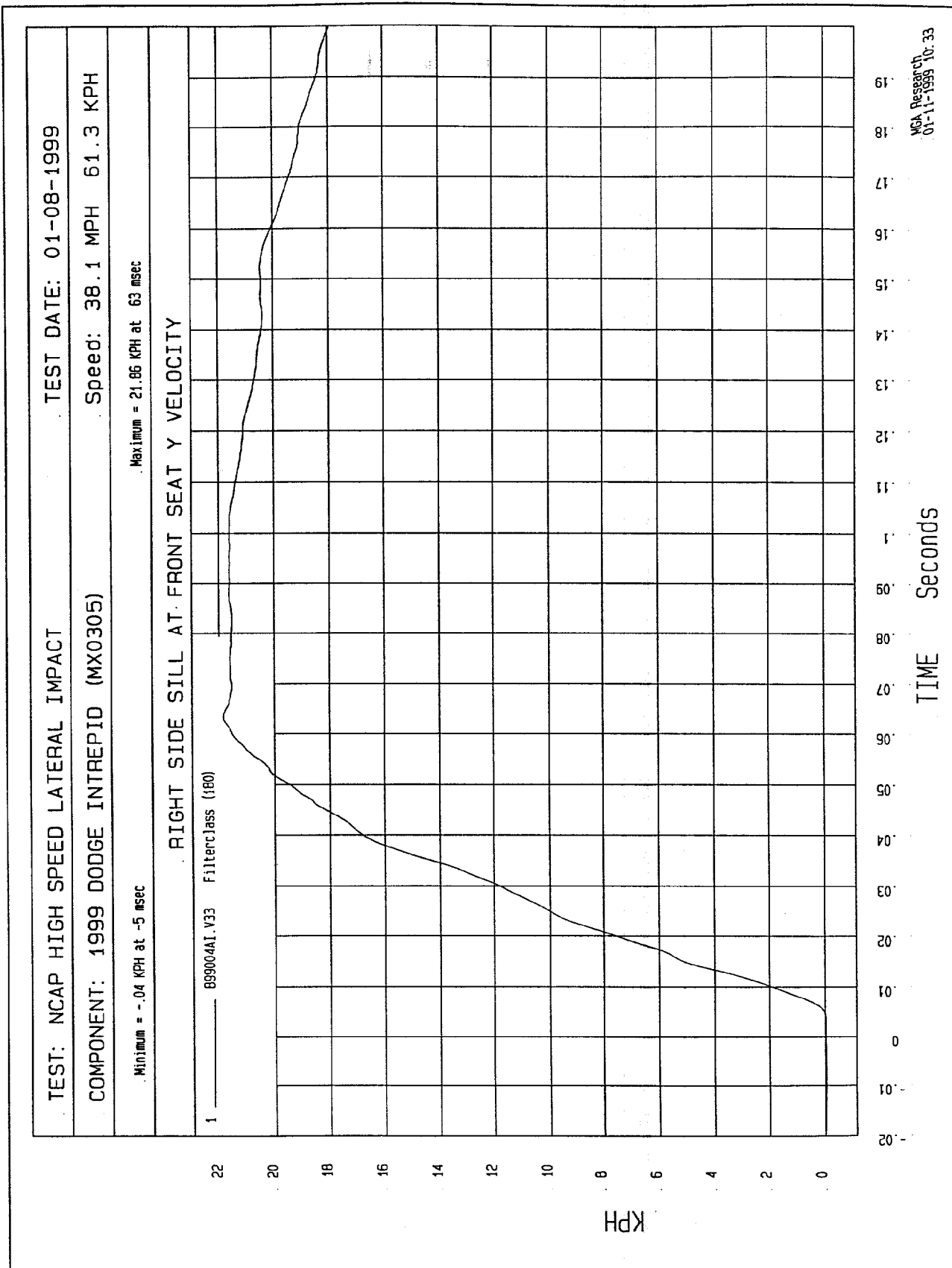
Minimum = -2.45 G'S at 160 msec Maximum = 18.34 G'S at 13 msec

RIGHT SIDE SILL AT FRONT SEAT Y ACCELERATION

1 899004AF.A33 Filterclass (60)



WCA Research
01-11-1999 10:28

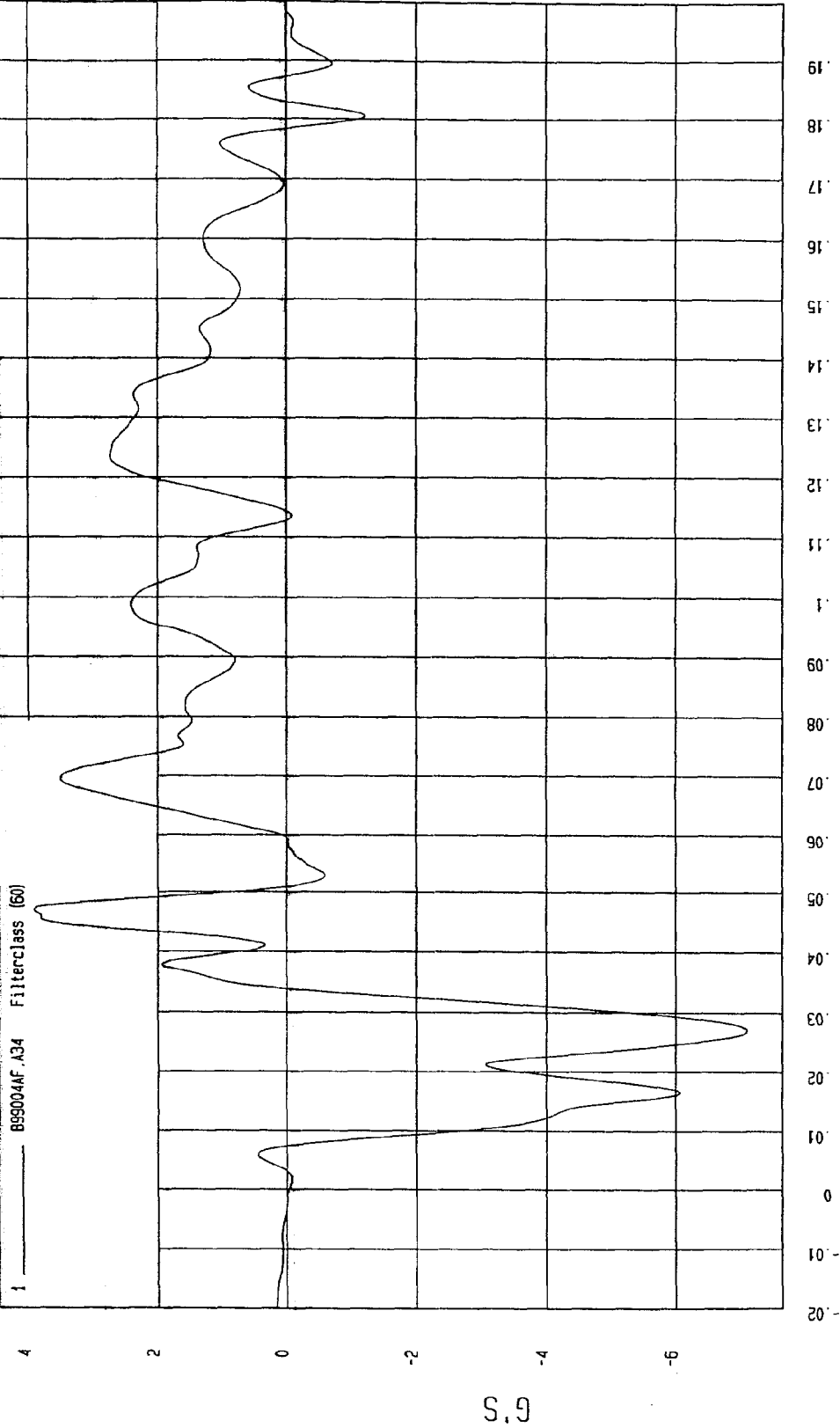


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -7.08 G'S at 27 msec Maximum = 3.91 G'S at 47 msec

RIGHT SIDE SILL AT FRONT SEAT Z ACCELERATION



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

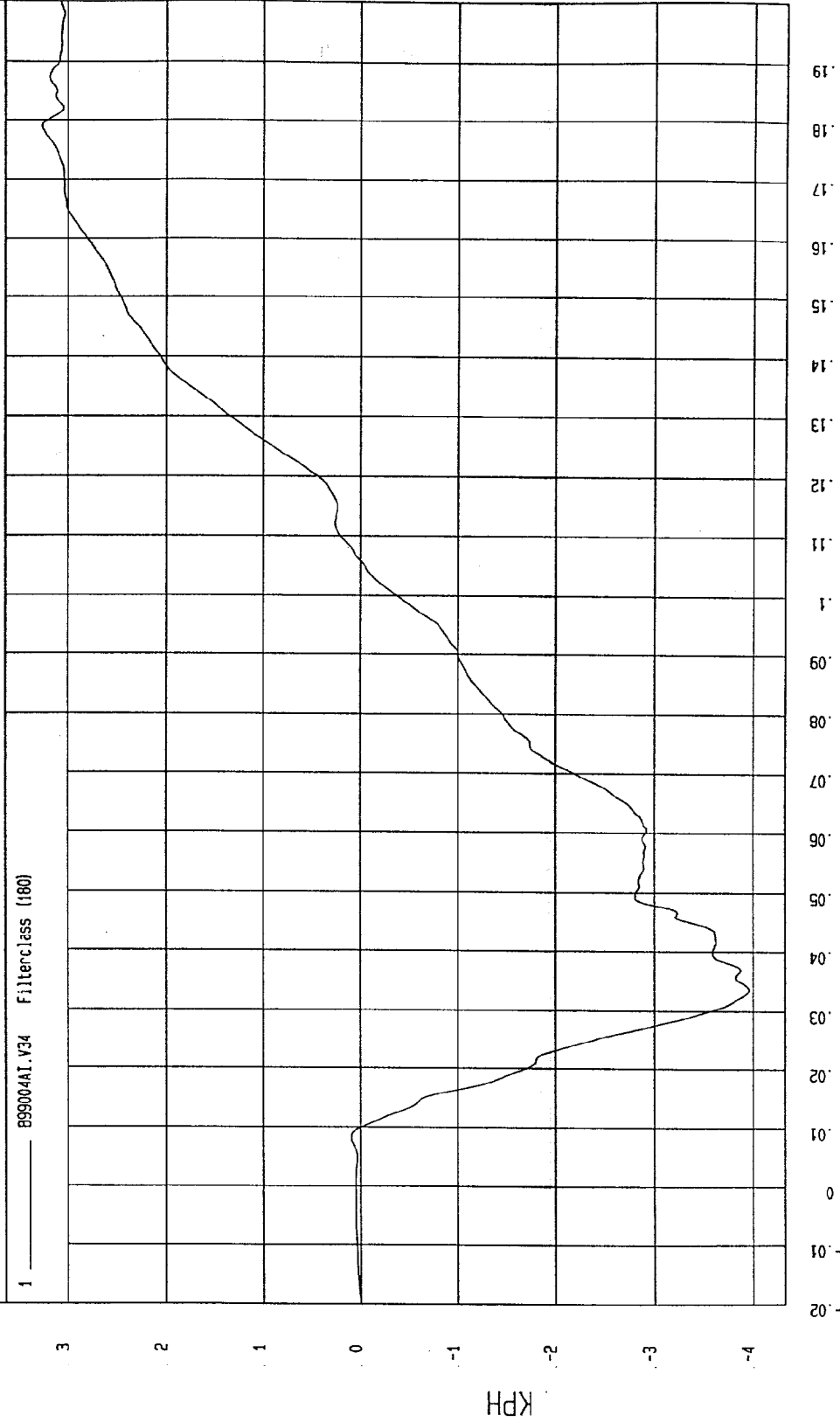
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 3.26 KPH at 179 msec

Minimum = -3.96 KPH at 34 msec

RIGHT SIDE SILL AT FRONT SEAT Z VELOCITY

1 ——— 899004A1.V34 Filterclass (180)



MCA Research
01-11-1999 10:33

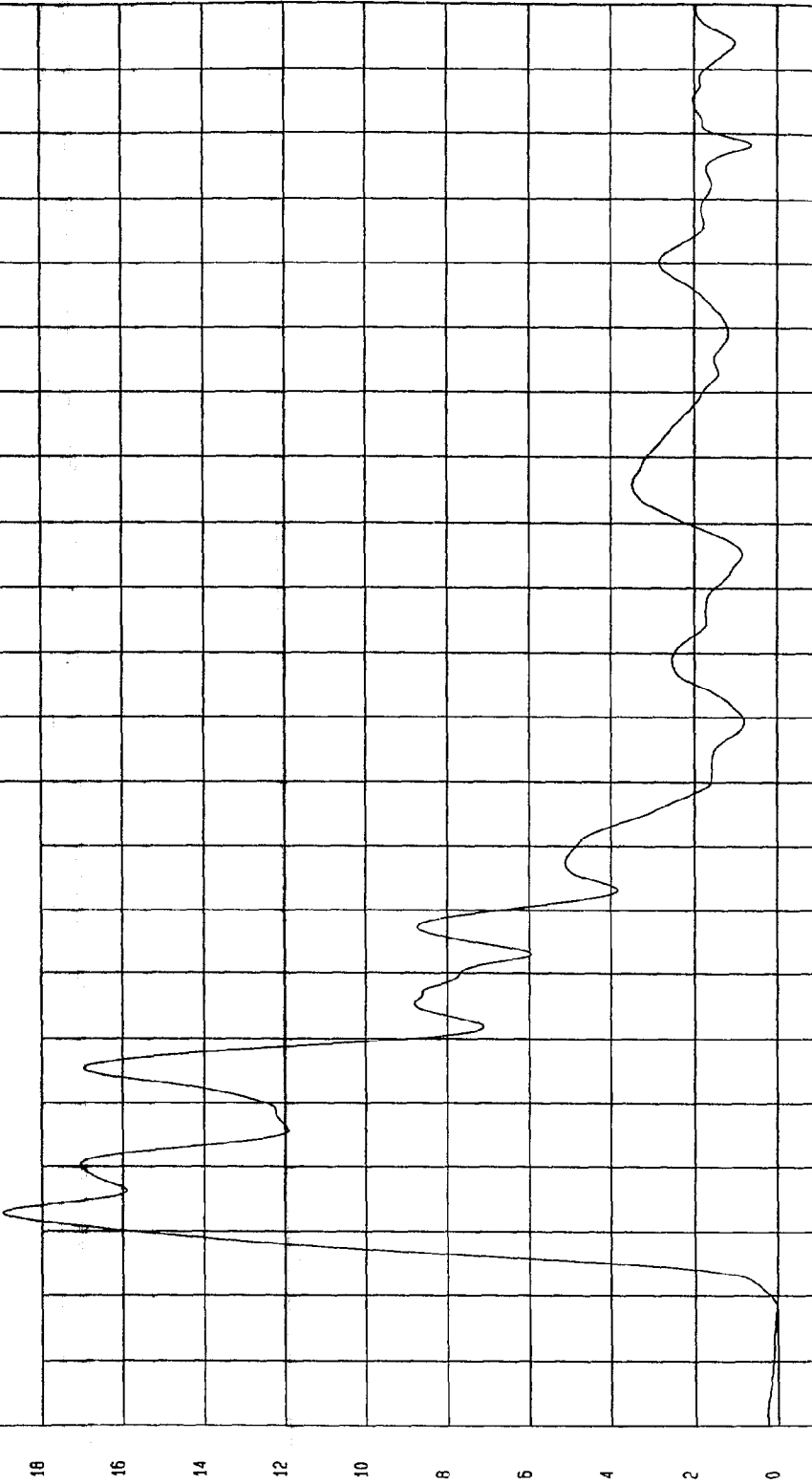
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = 1.59E-02 G'S at -2 msec Maximum = 18.94 G'S at 13 msec

RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

1 ——— 899004V.A32 Filterclass (50)



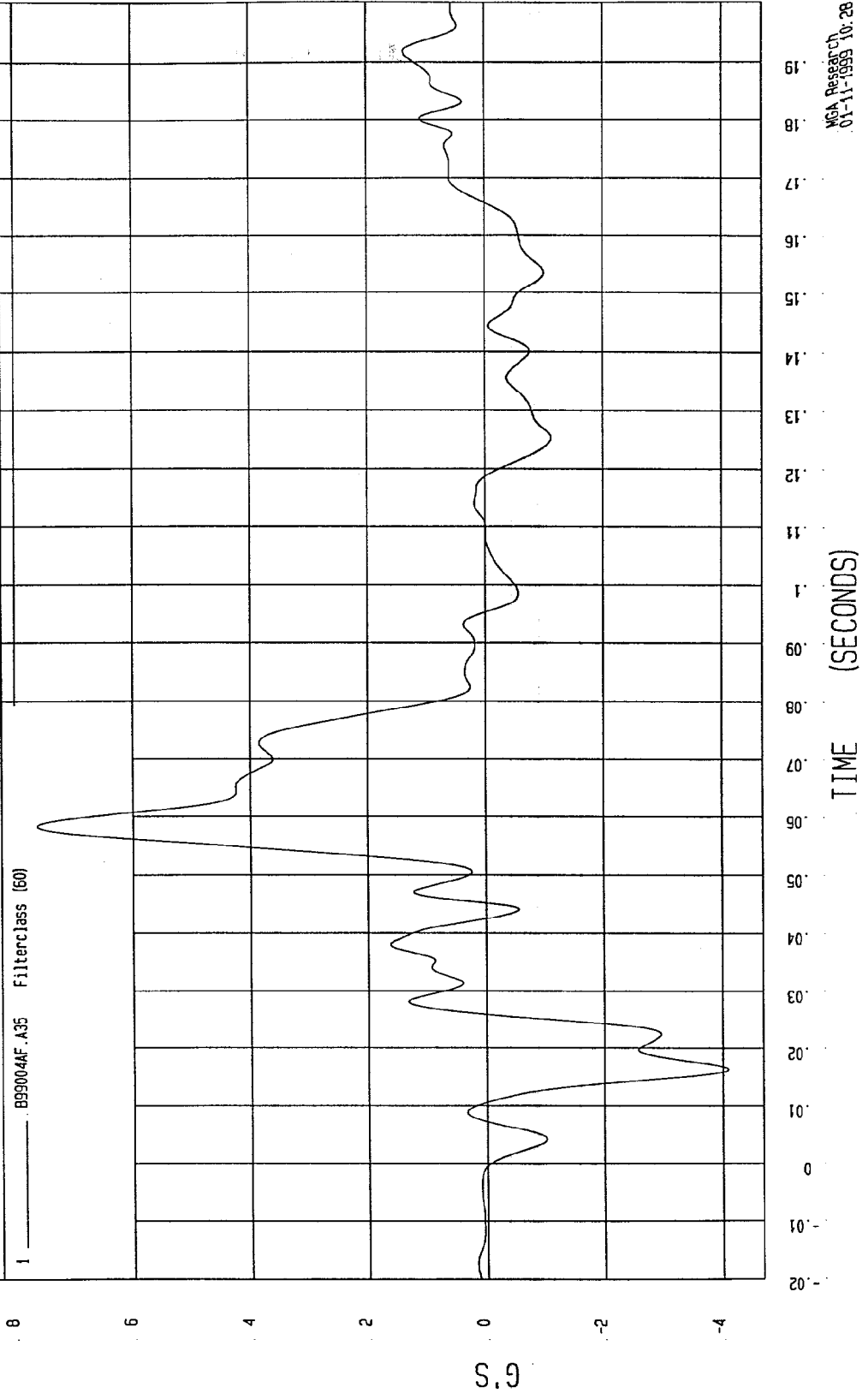
MGA Research
01-11-1999 10:28

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -4.09 G'S at 16 msec Maximum = 7.64 G'S at 58 msec

RIGHT SIDE SILL AT REAR SEAT X ACCELERATION



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

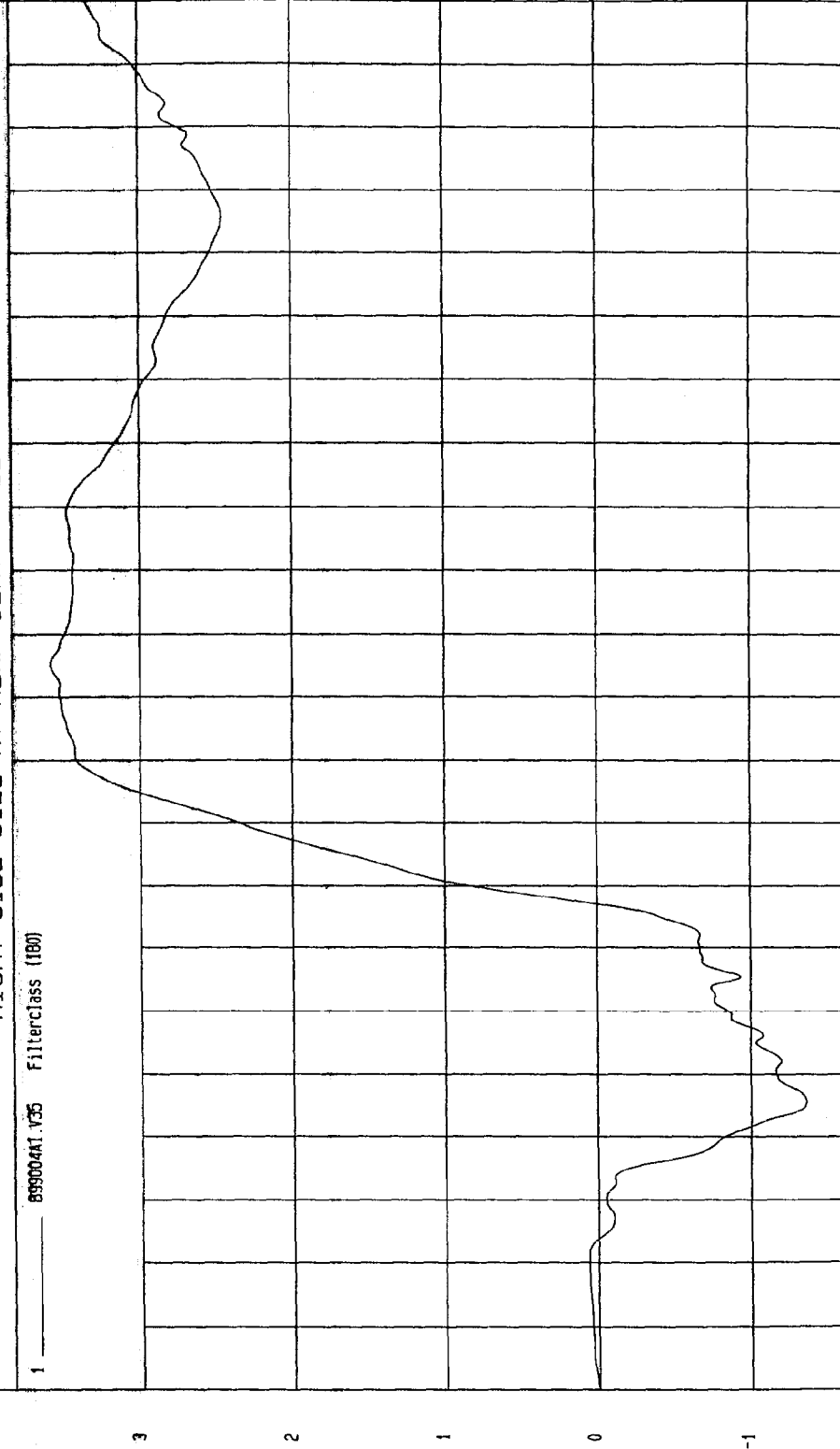
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 3.58 KPH at 95 msec

Minimum = -1.36 KPH at 26 msec

RIGHT SIDE SILL AT REAR SEAT X VELOCITY

1 899004A1.V35 Filterclass (180)



NGA Research
01-11-1999 10:33

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

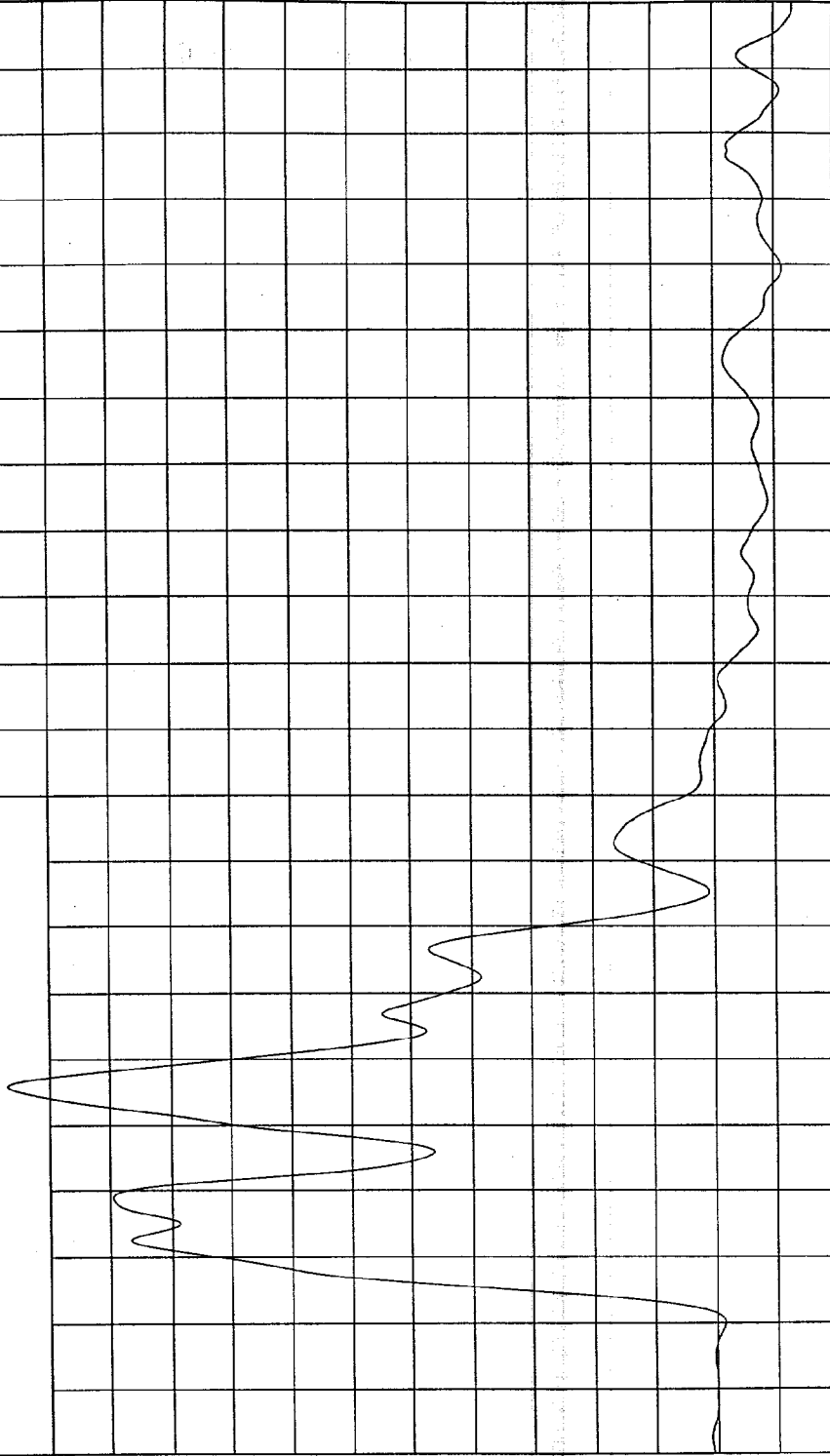
Minimum = -2.61 G'S at .199 msec Maximum = 23.39 G'S at .36 msec

RIGHT SIDE SILL AT REAR SEAT Y ACCELERATION

1 _____ B99004AF.A36 FilterClass (60)

24
22
20
18
16
14
12
10
8
6
4
2
0
-2

G



MGA Research
01-11-1999 10:29

TIME (SECONDS)

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

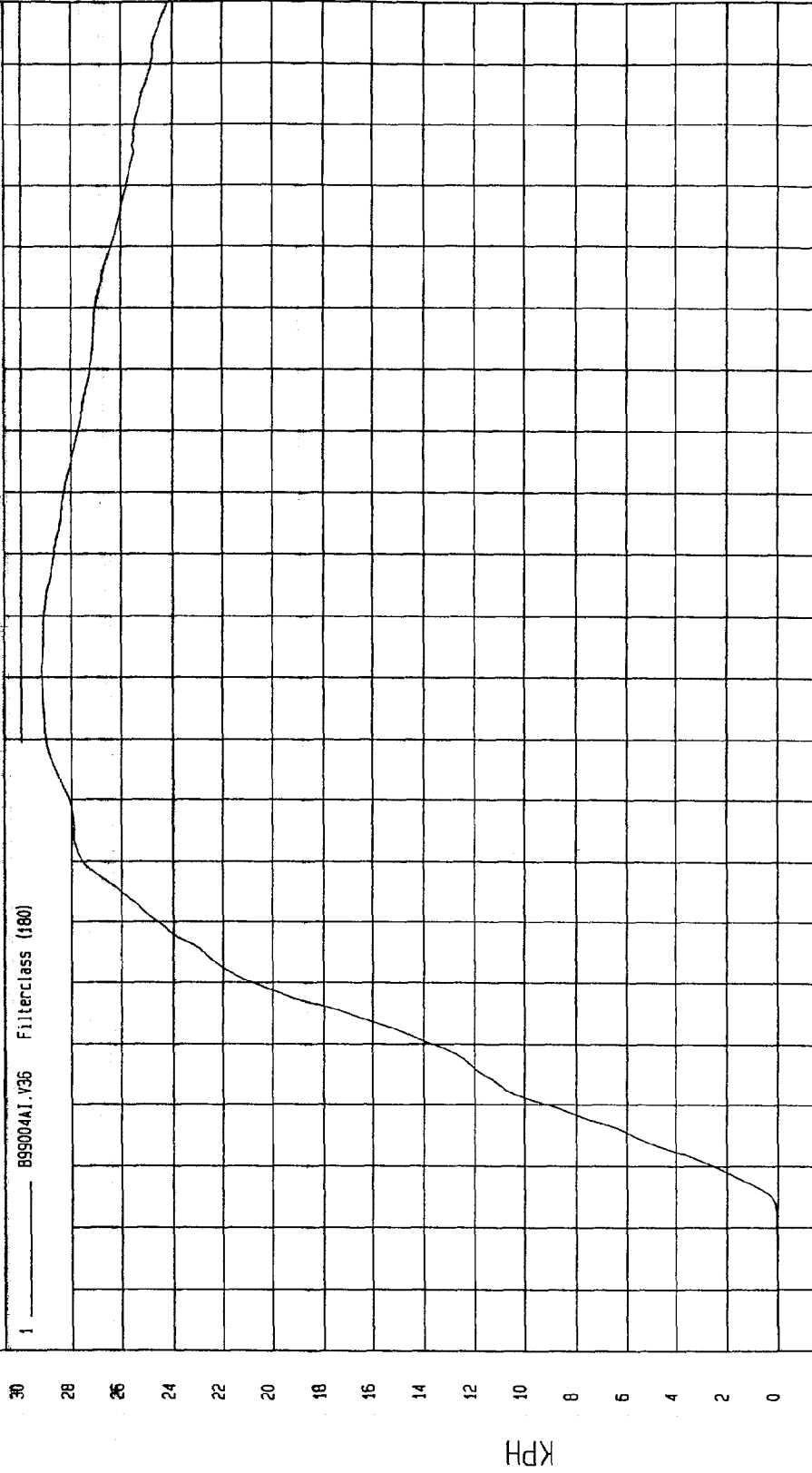
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 29.19 KPH at 91 msec

Minimum = 0 KPH at -20 msec

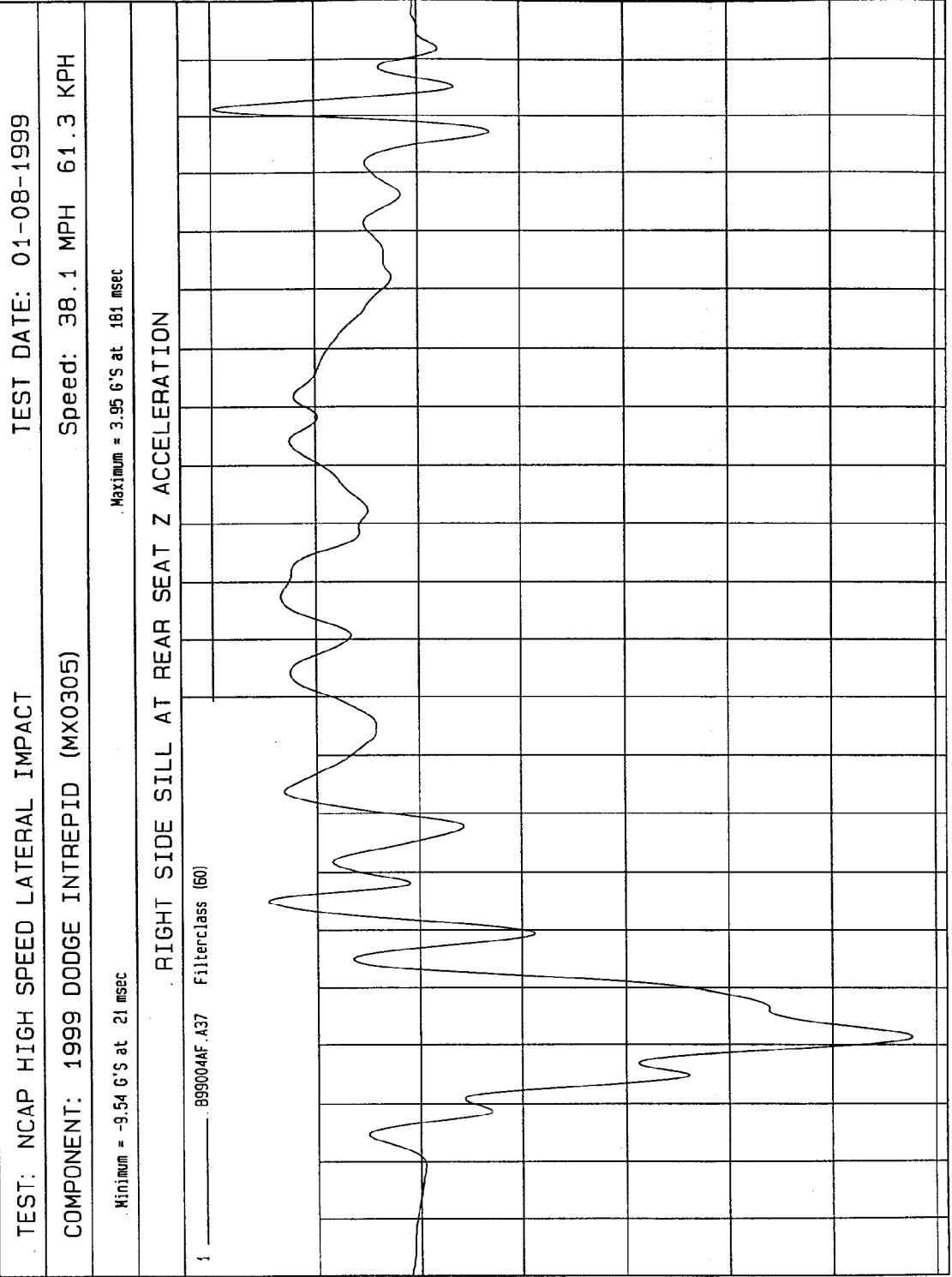
RIGHT SIDE SILL AT REAR SEAT Y VELOCITY

1 B99004A1.V36 Filterclass (180)



WGA Research
01-11-1999 10:34

TIME Seconds



McA Research
01-11-1999 10:29

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

SPEED: 38.1 MPH 61.3 KPH

Maximum = 2.81 KPH at 183 msec

Minimum = -4.55 KPH at 42 msec

RIGHT SIDE SILL AT REAR SEAT Z VELOCITY

1 ——— B99004A1.V37 Filterclass (180)

3

2

1

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-1

-2

-3

-4

KPH

19

18

17

16

15

14

13

12

11

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07

06

05

04

03

02

01

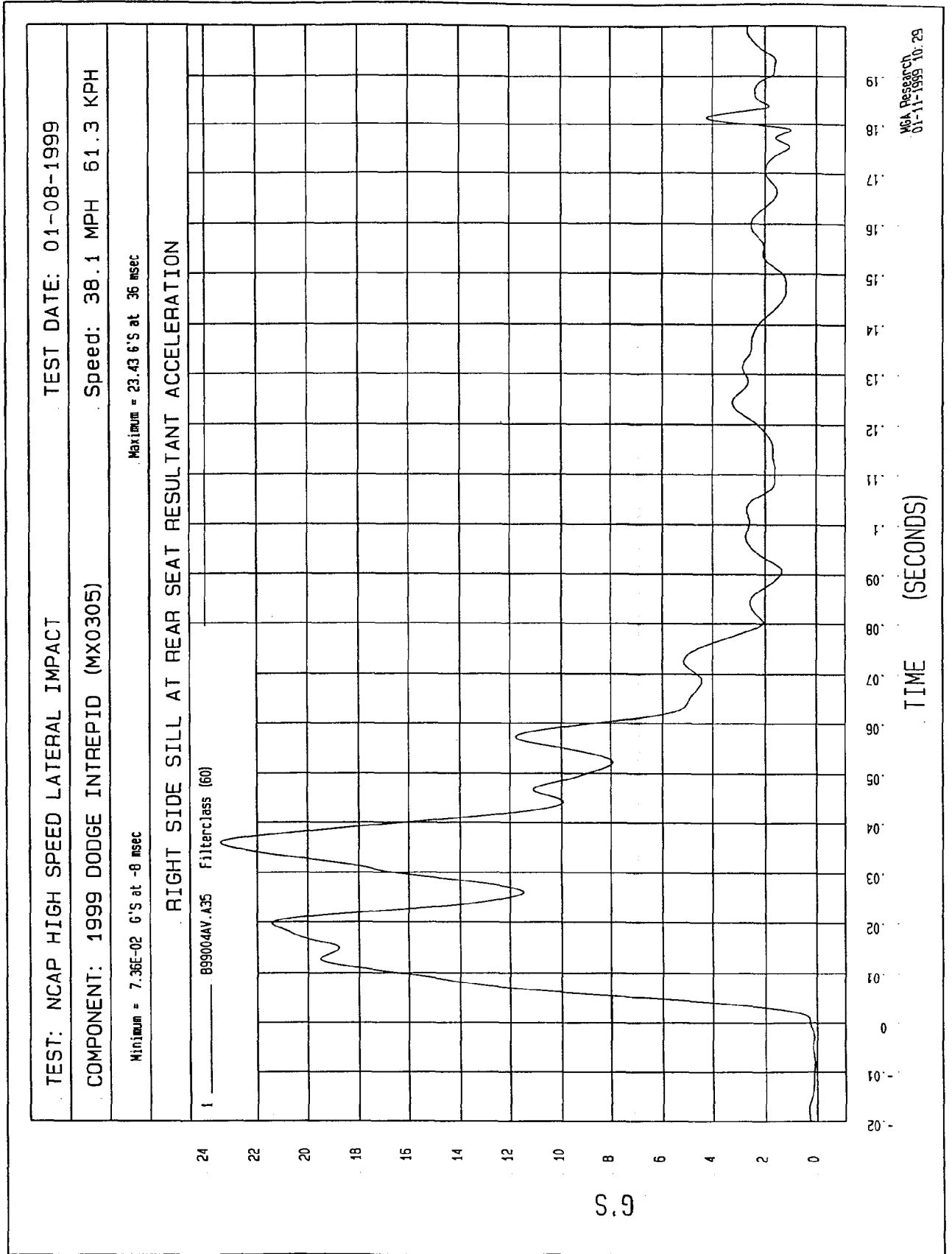
0

-01

-02

TIME Seconds

MCA Research
01-11-1999 10:34



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

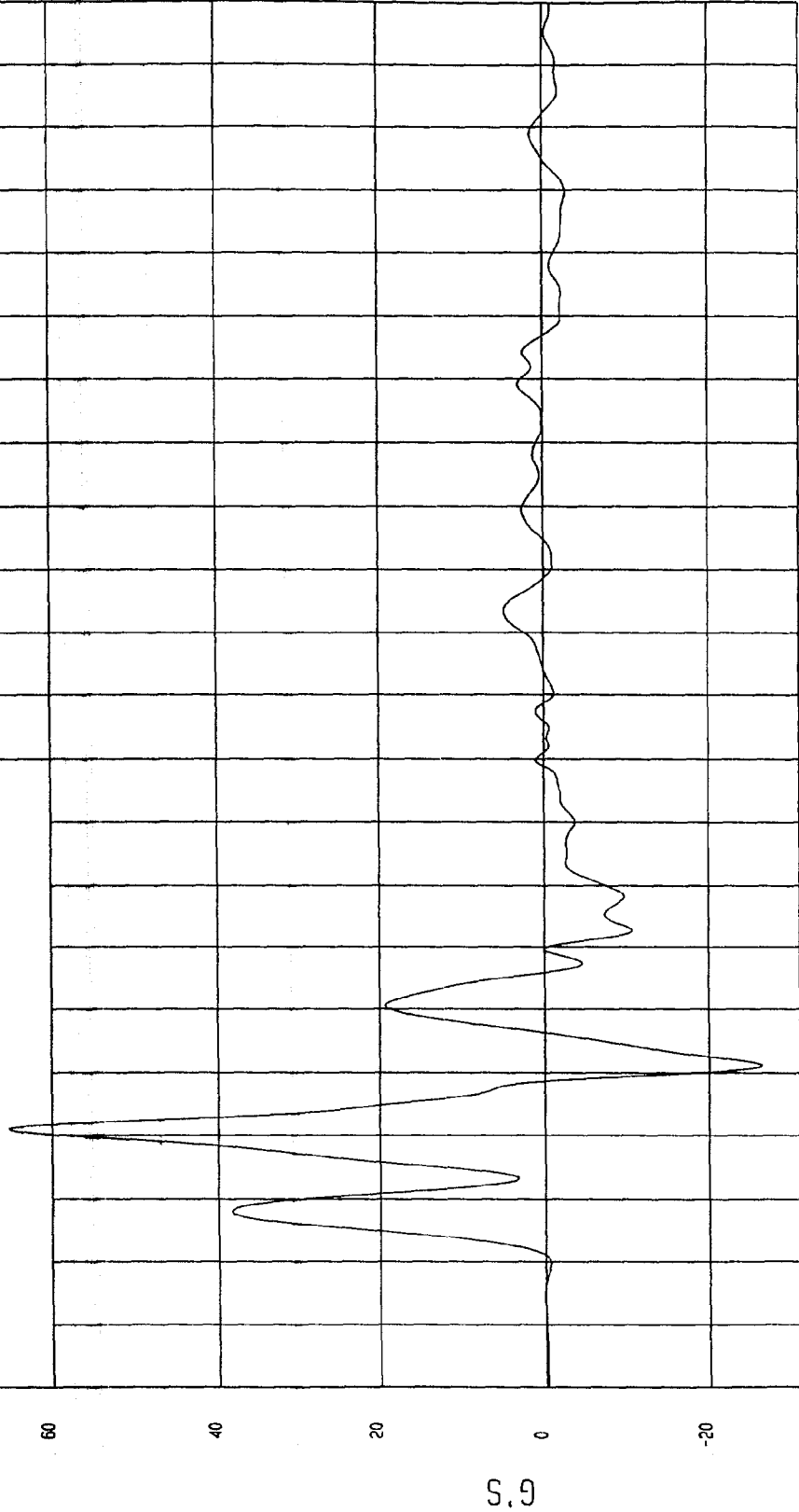
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 65.13 G'S at 21 msec

Minimum = -26.39 G'S at 31 msec

DRIVER SEAT TRACK Y ACCELERATION

1 899004NF AND Filterclass (R0)



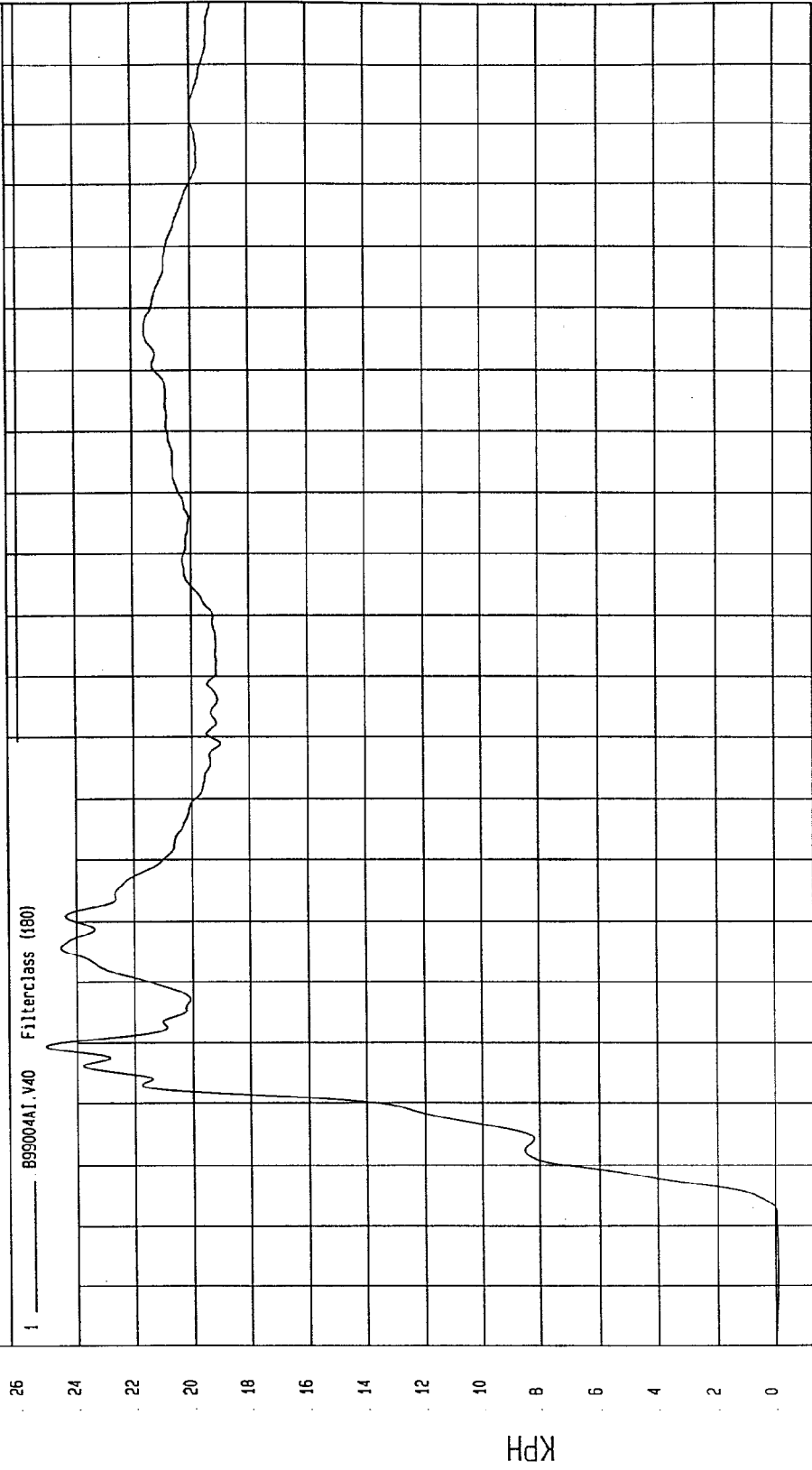
MCA Research
01-11-1999 10:29

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -8.61E-02 KPH at -7 msec Maximum = 25.09 KPH at 29 msec

DRIVER SEAT TRACK Y VELOCITY



TIME Seconds

NGA Research
01-11-1999 10:34

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

SPEED: 38.1 MPH 61.3 KPH

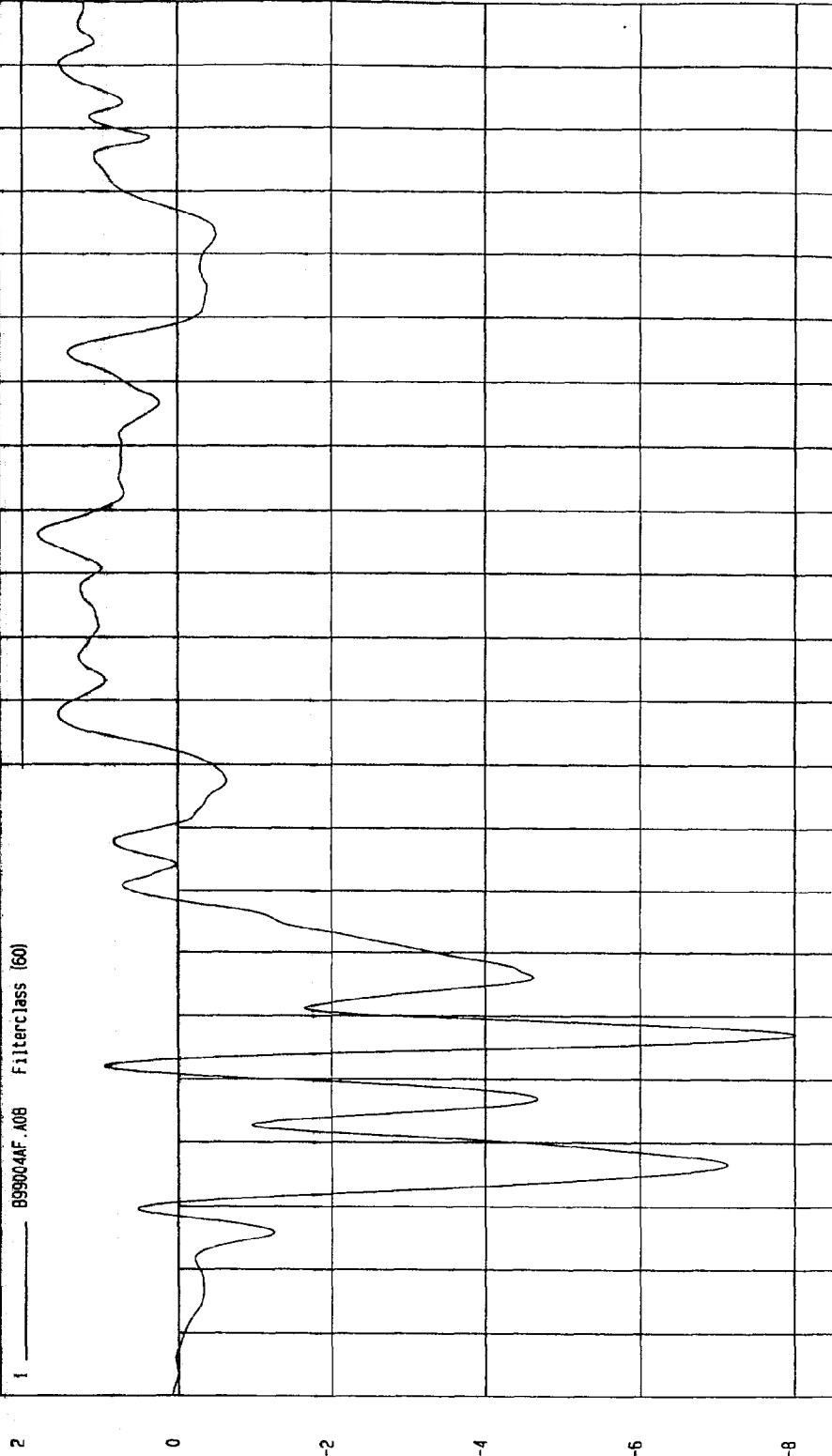
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 1.8 G'S at 116 msec

Minimum = -8.01 G'S at 37 msec

REAR FLOORPAN ABOVE AXLE X ACCELERATION

1 ——— B99004AF.A08 Filterclass (60)



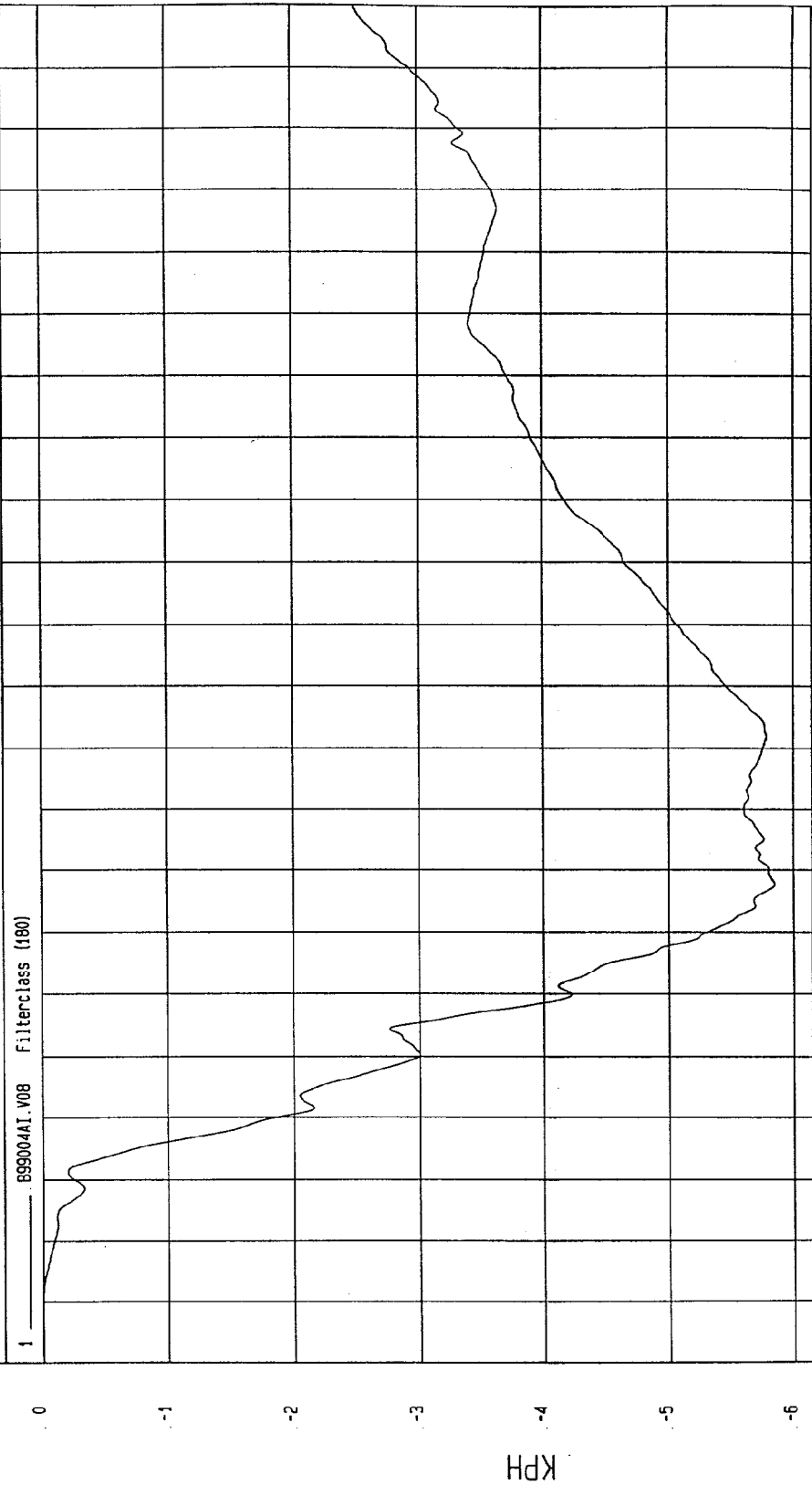
MSA Research
01-11-1999 10:23

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -5.85 KPH at 58 msec Maximum = 9.77E-03 KPH at -12 msec

REAR FLOORPAN ABOVE AXLE X VELOCITY



WCA Research
01-11-1999 10:34

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305)

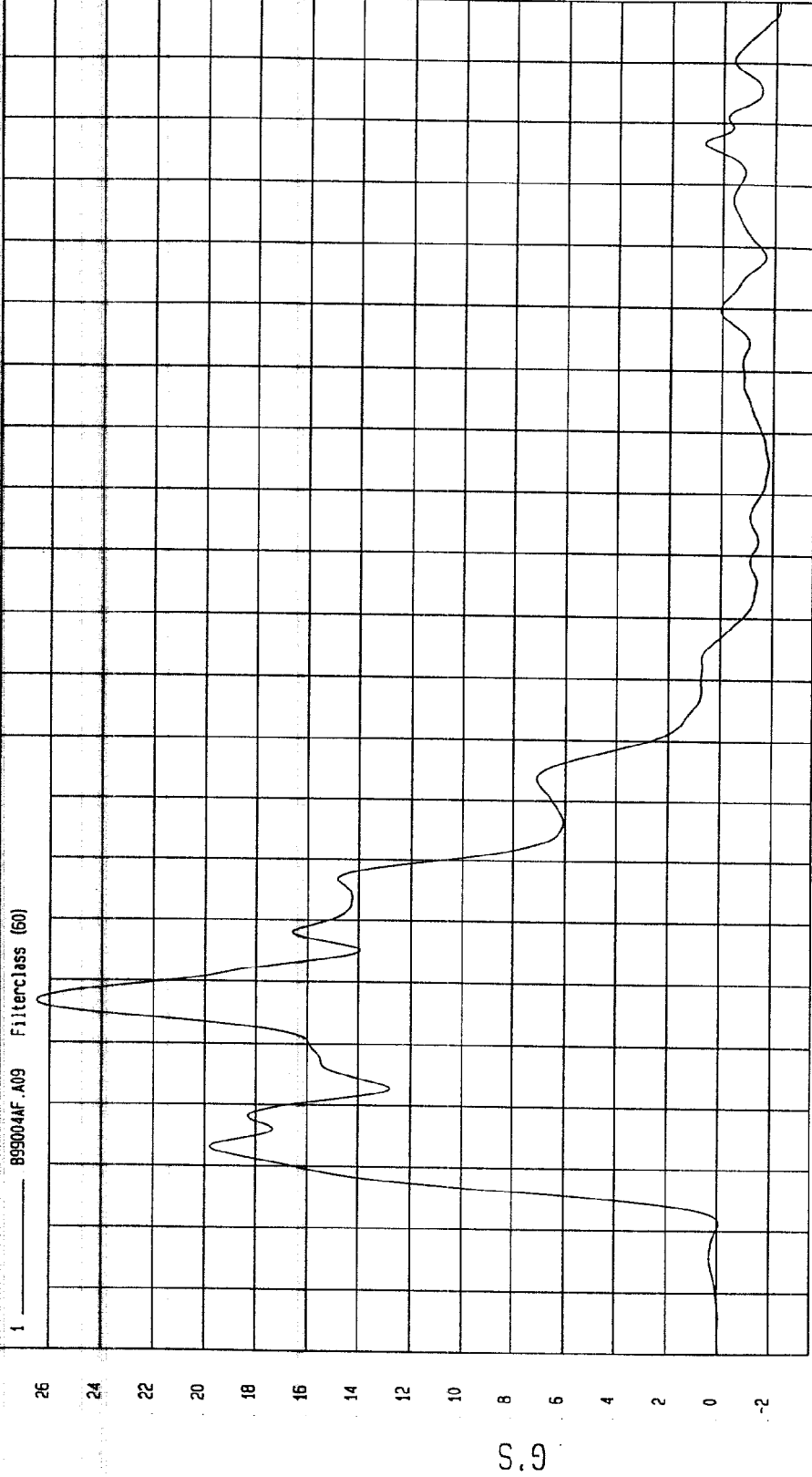
Speed: 38.1 MPH 61.3 KPH

Minimum = -2.13 G's at 199 msec

Maximum = 26.52 G's at 37 msec

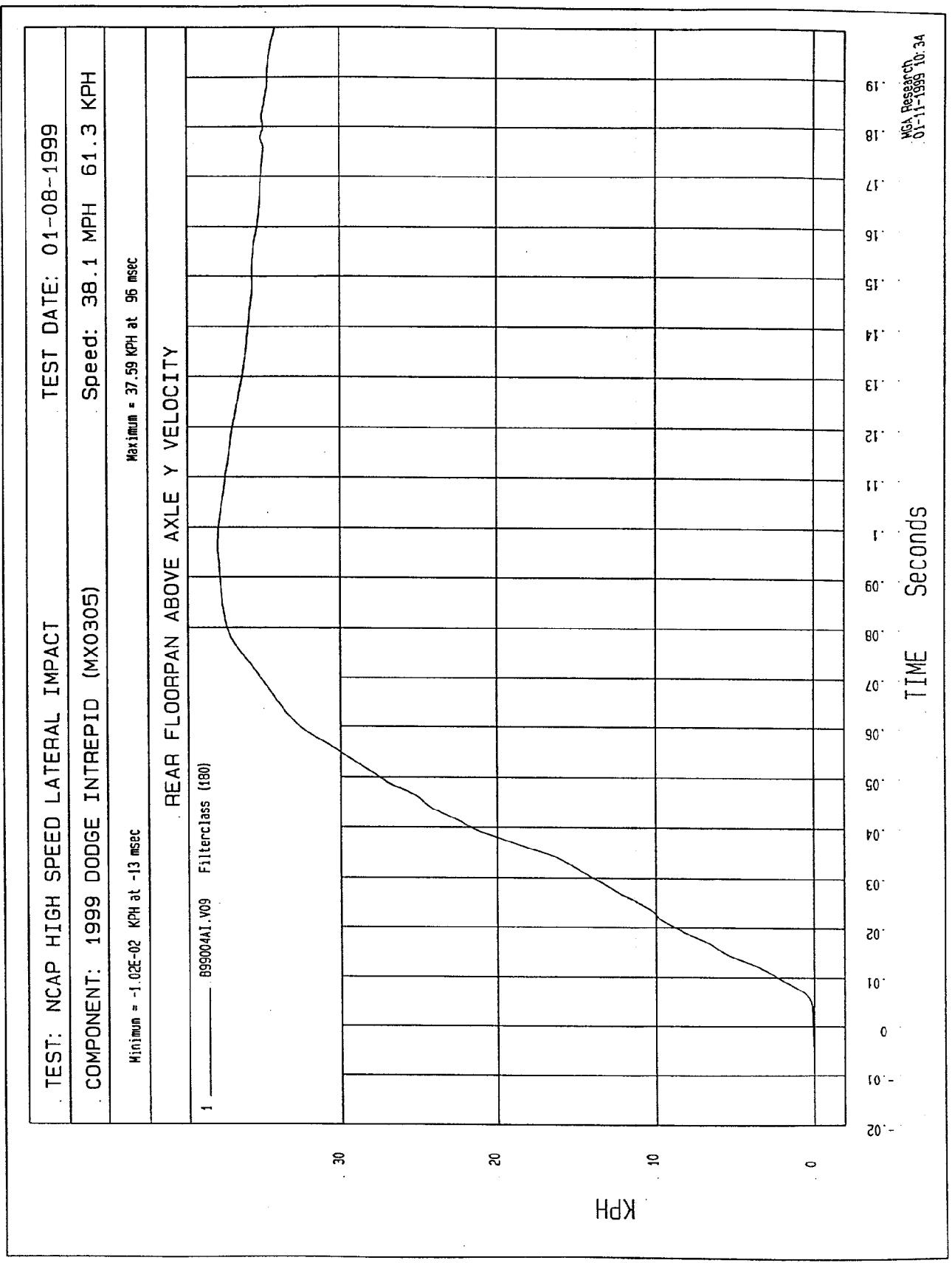
REAR FLOORPAN ABOVE AXLE Y ACCELERATION

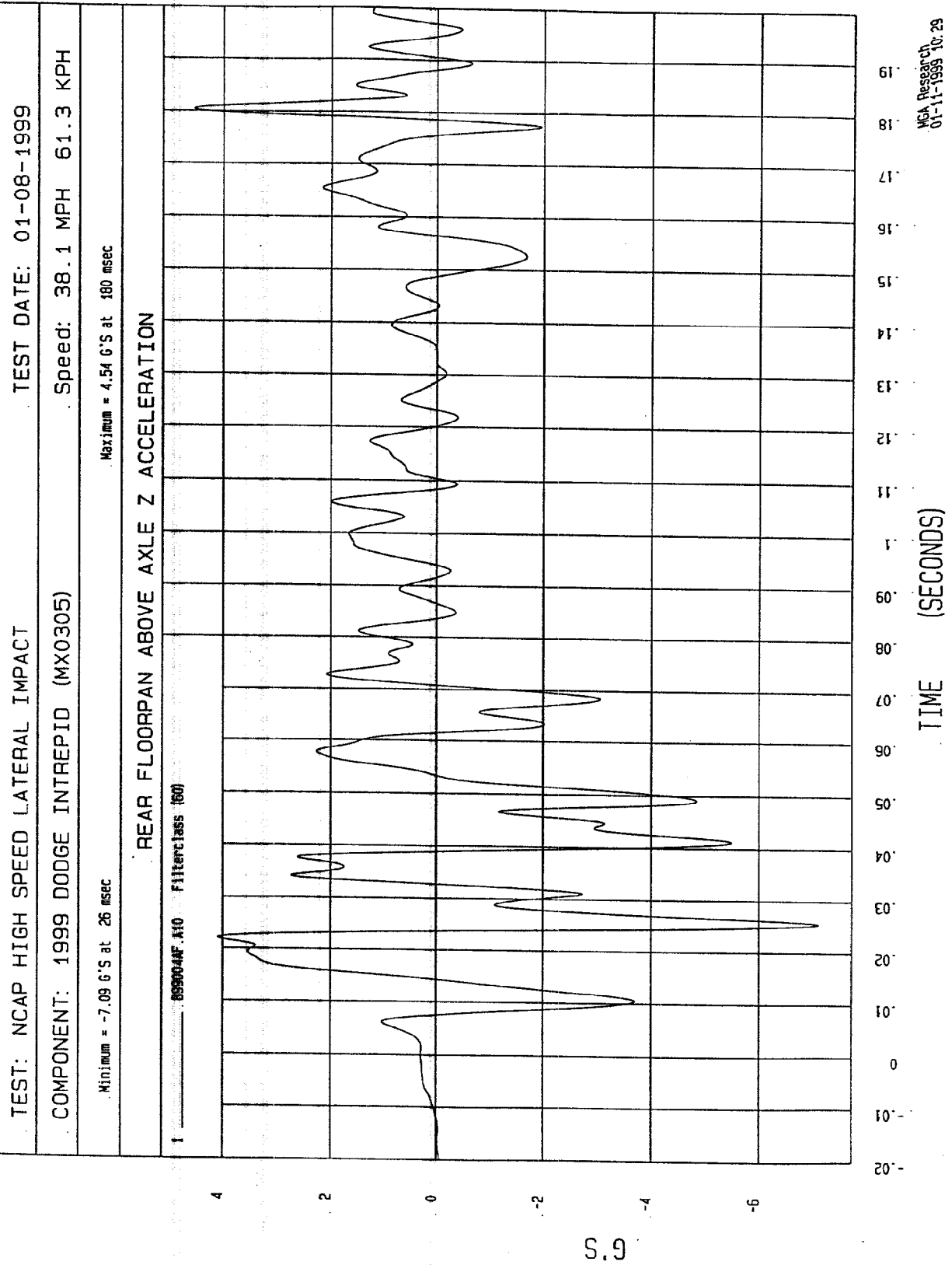
1 ——— B99004F.A09 Filterclass (60)

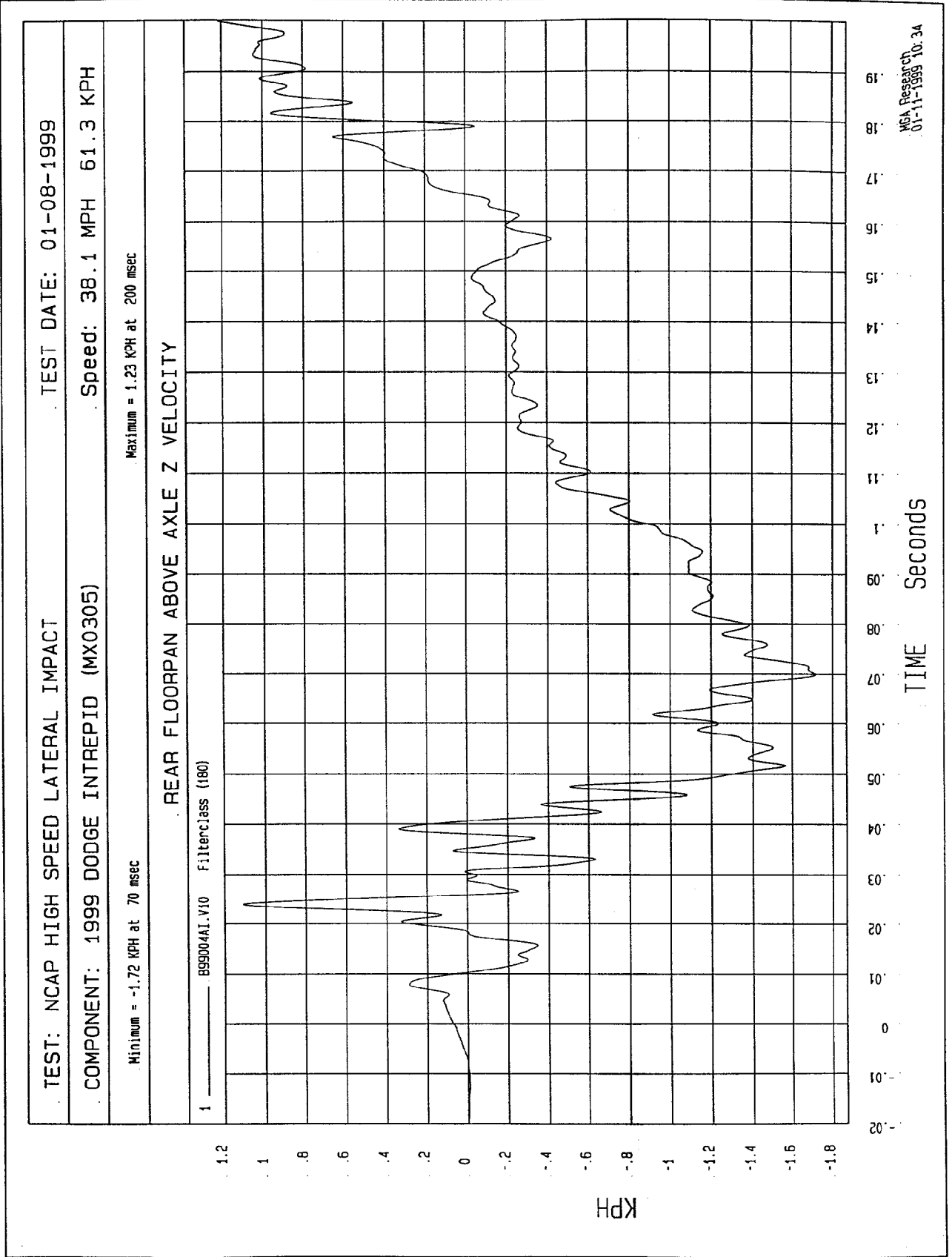


WCA Research
01-11-1999 10:29

TIME (SECONDS)







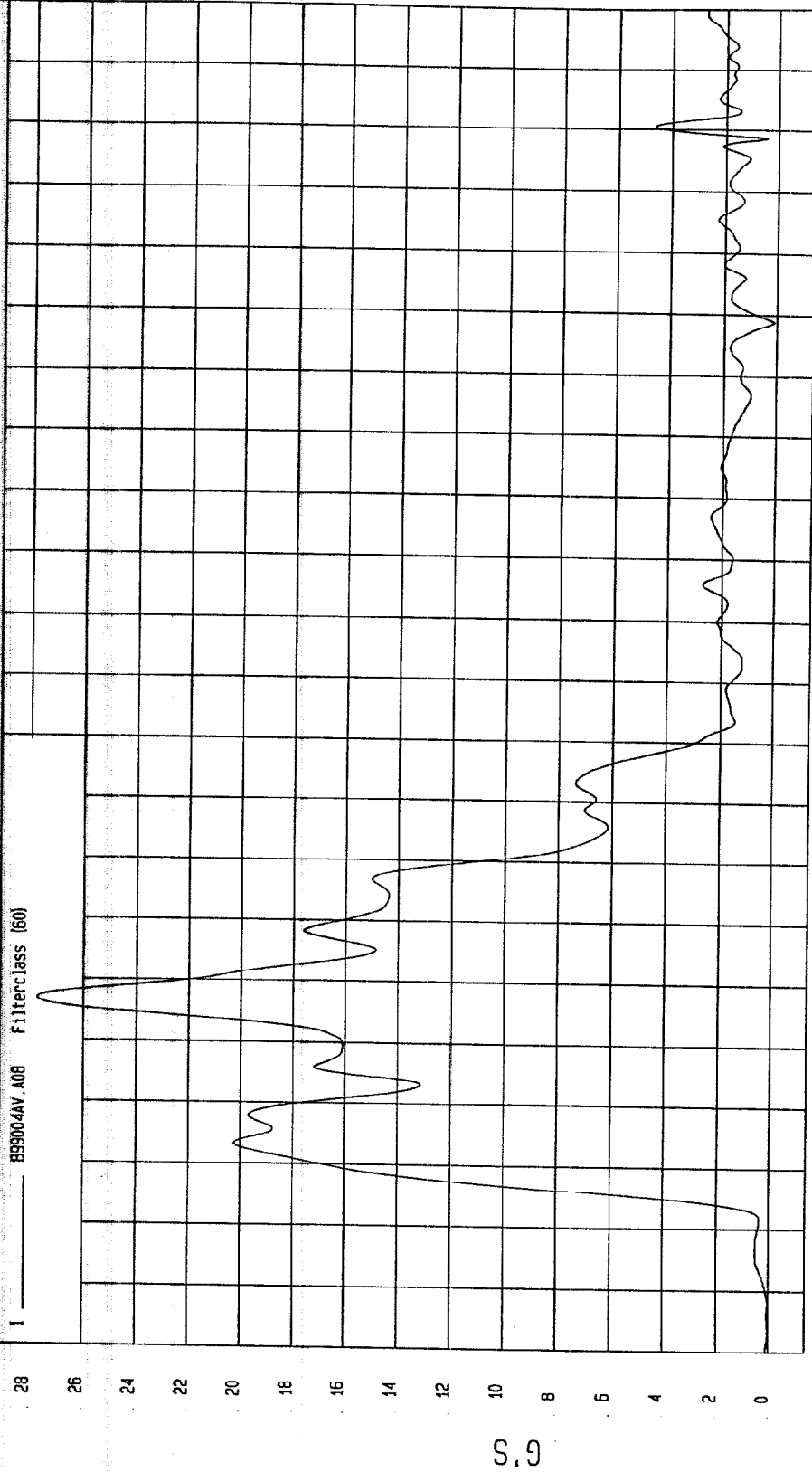
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

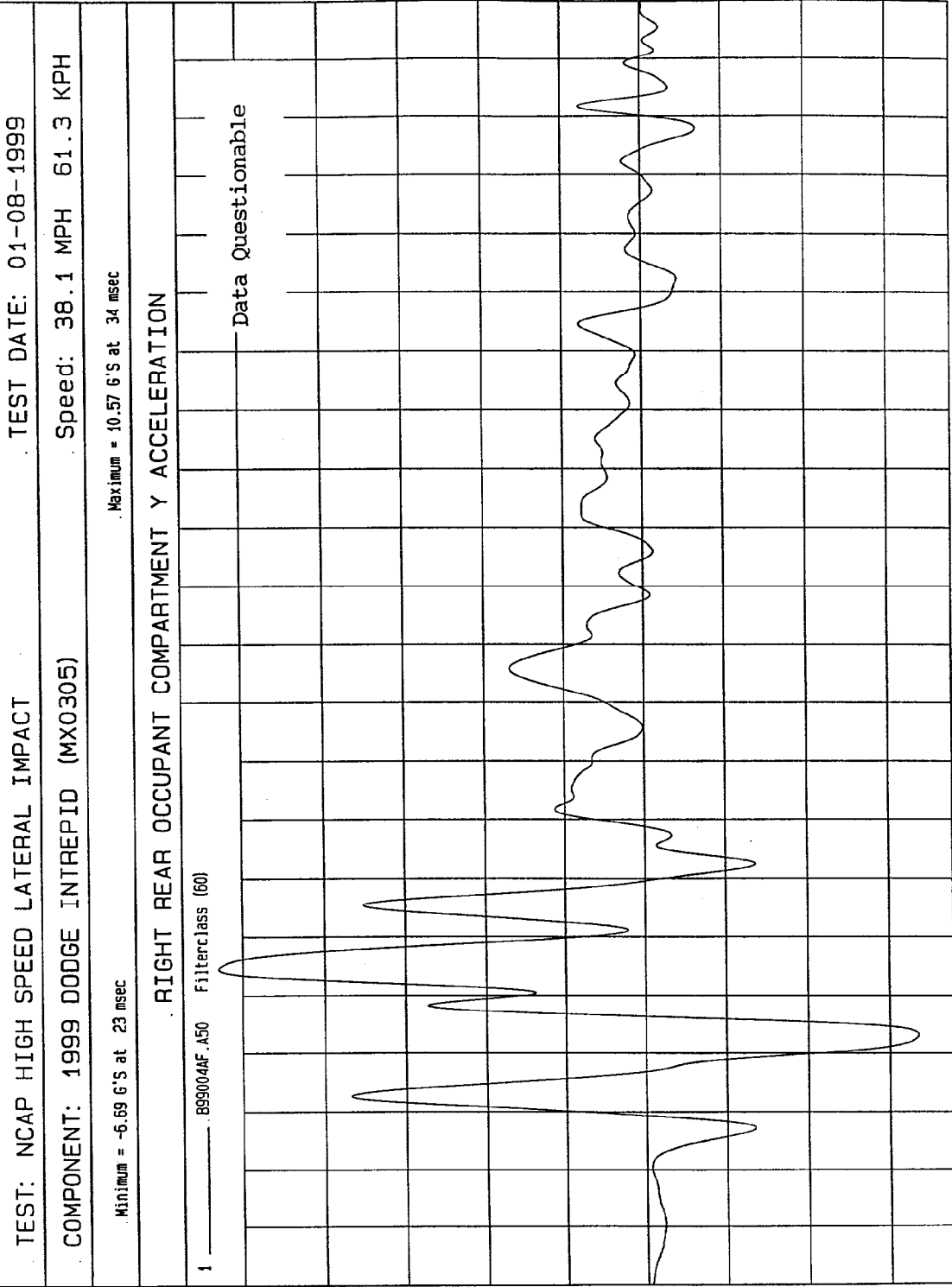
Minimum = 1.32E-02 G'S at -12 msec Maximum = 27.76 G'S at 37 msec

REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION

1 B59004AV.A08 FilterClass (60)



NSA Research
01-11-1999 10:29



MCA Research
01-11-1999 10:29

TIME (SECONDS)

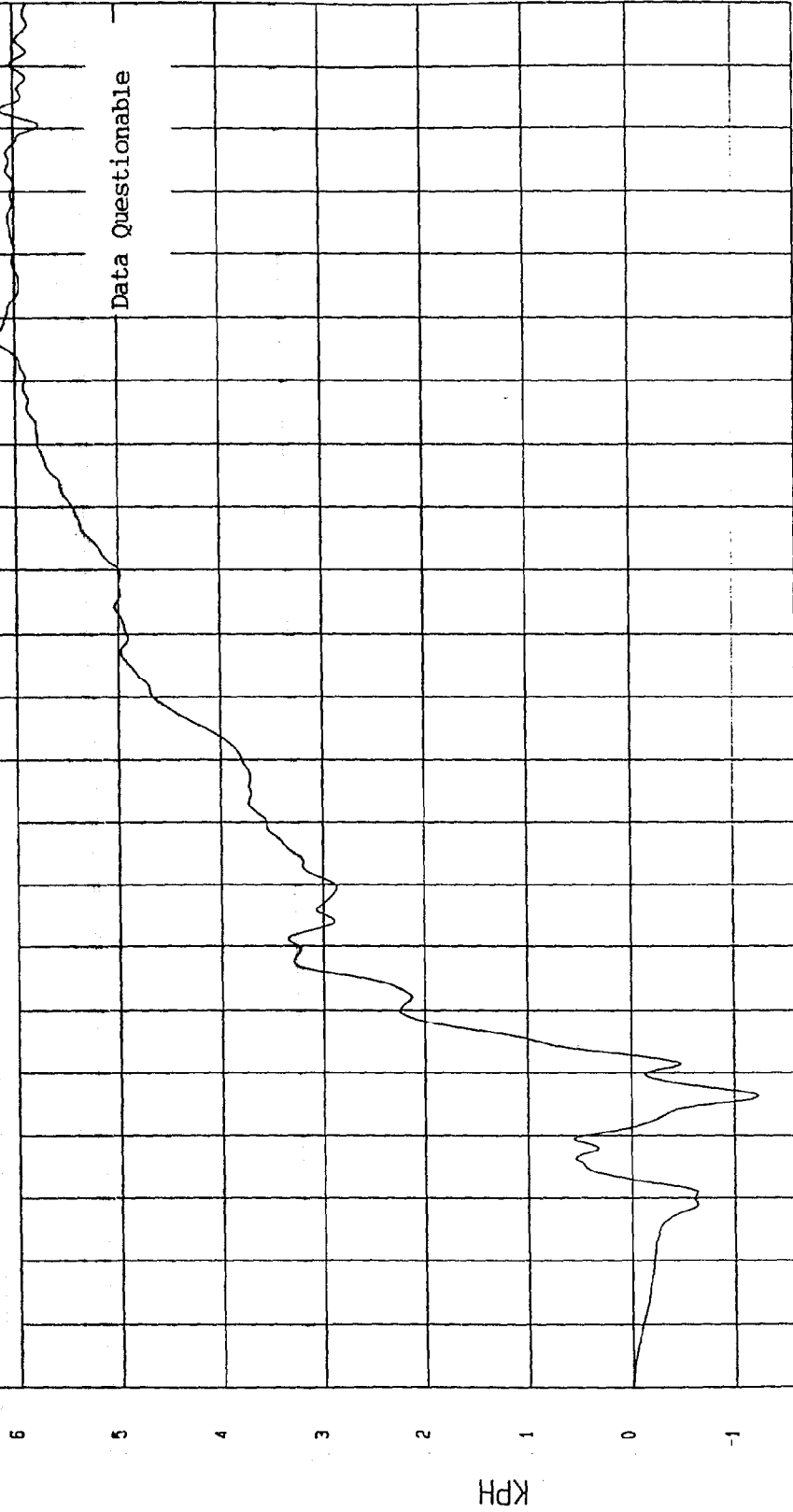
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -1.22 KPH at 26 msec Maximum = 6.19 KPH at 146 msec

RIGHT REAR OCCUPANT COMPARTMENT Y VELOCITY

1 B99004A1.V50 Filterclass (180)



MCA Research
01-11-1999 10:34

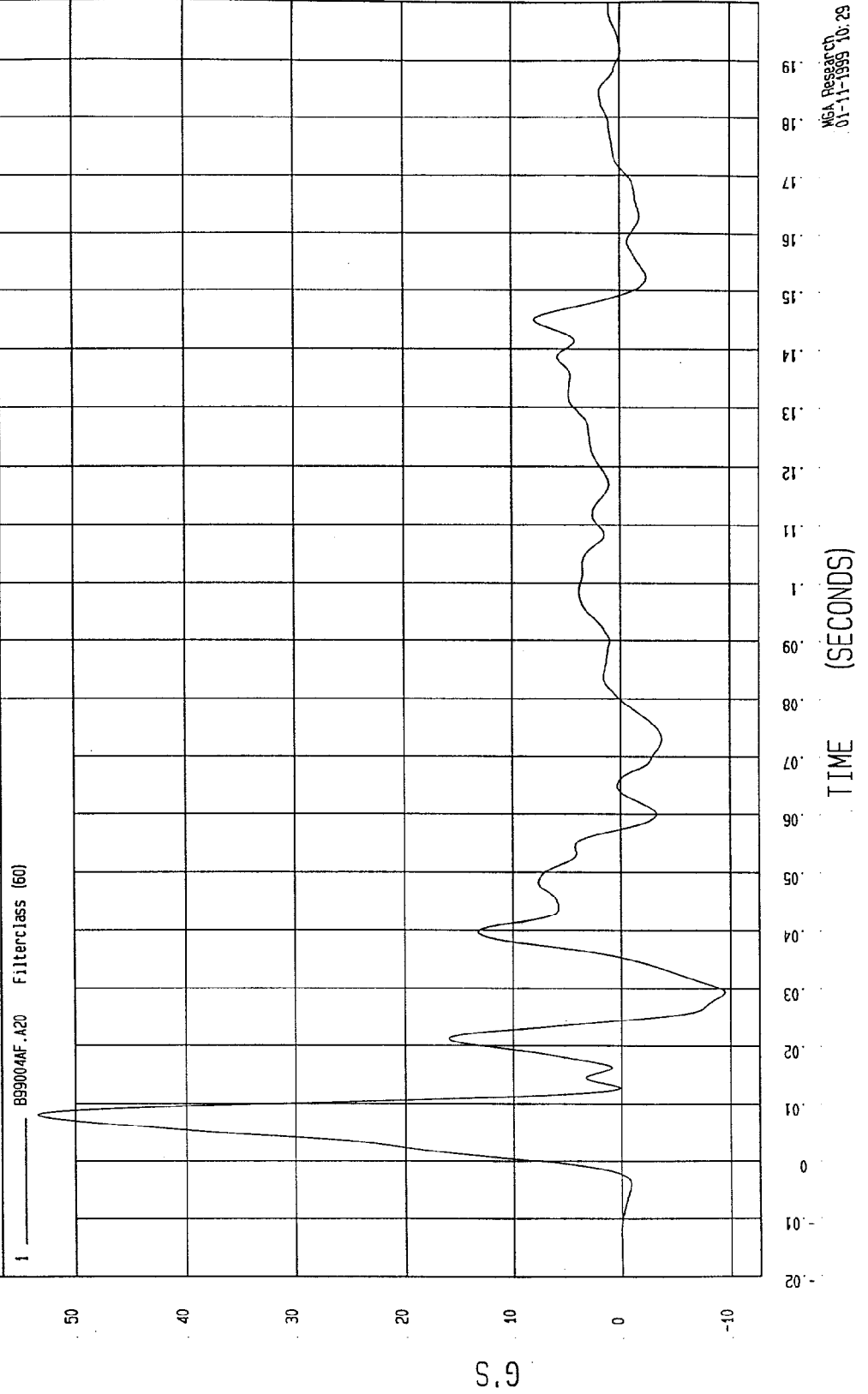
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -9.51 G'S at 29 msec Maximum = 53.36 G'S at 8 msec

LEFT LOWER A-POST Y ACCELERATION



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

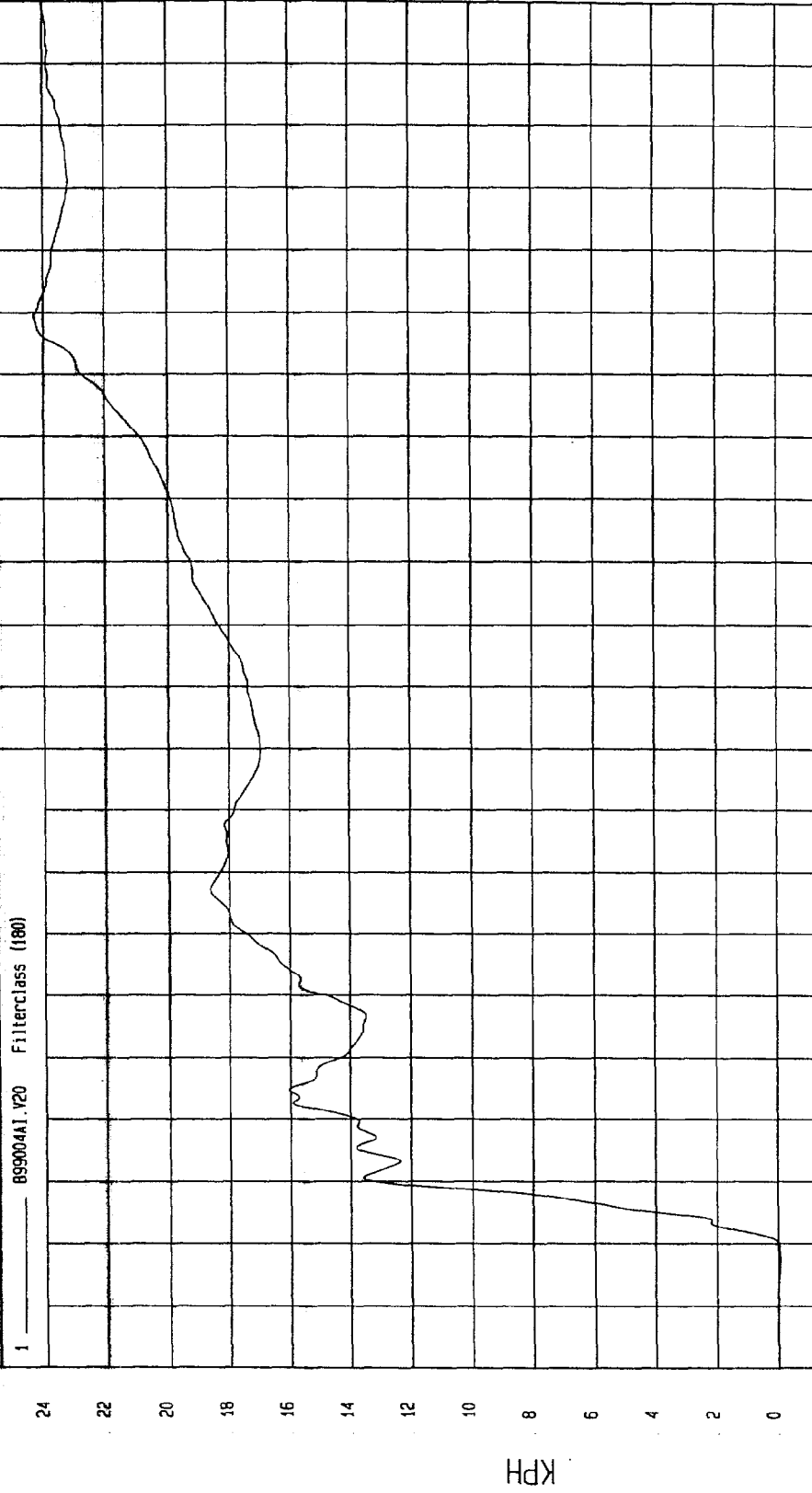
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 24.3 KPH at 149 msec

Minimum = -6.06E-02 KPH at -3 msec

LEFT LOWER A-POST Y VELOCITY



MSA Research
01-11-1999 10:34

LEFT MID A-POST Y ACCELERATION VS. TIME

NO VALID DATA COLLECTED

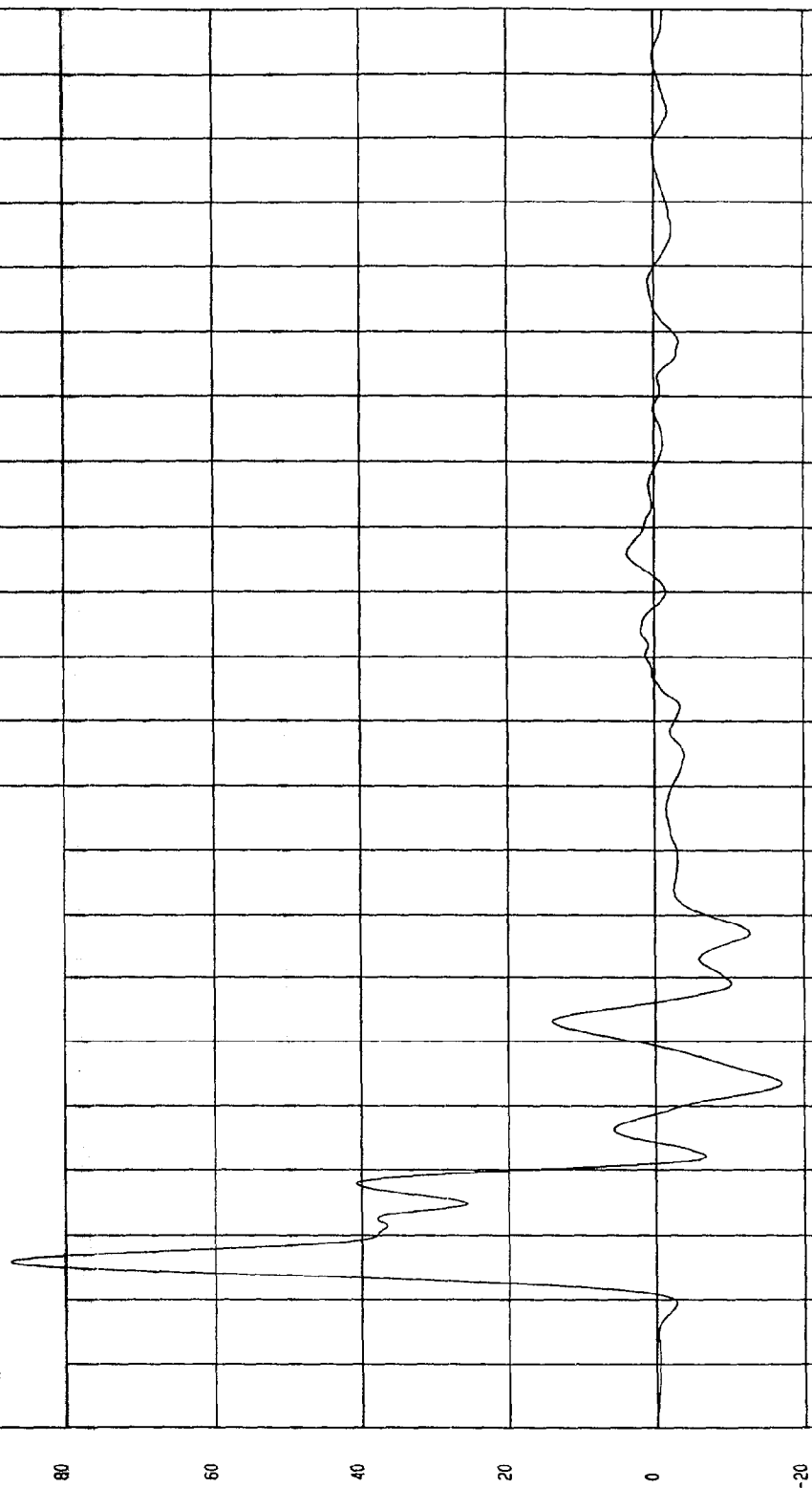
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -16.88 G'S at 34 msec Maximum = 87.32 G'S at 6 msec

LEFT LOWER B-POST Y ACCELERATION

1 B99004F.A30 Filterclass (60)



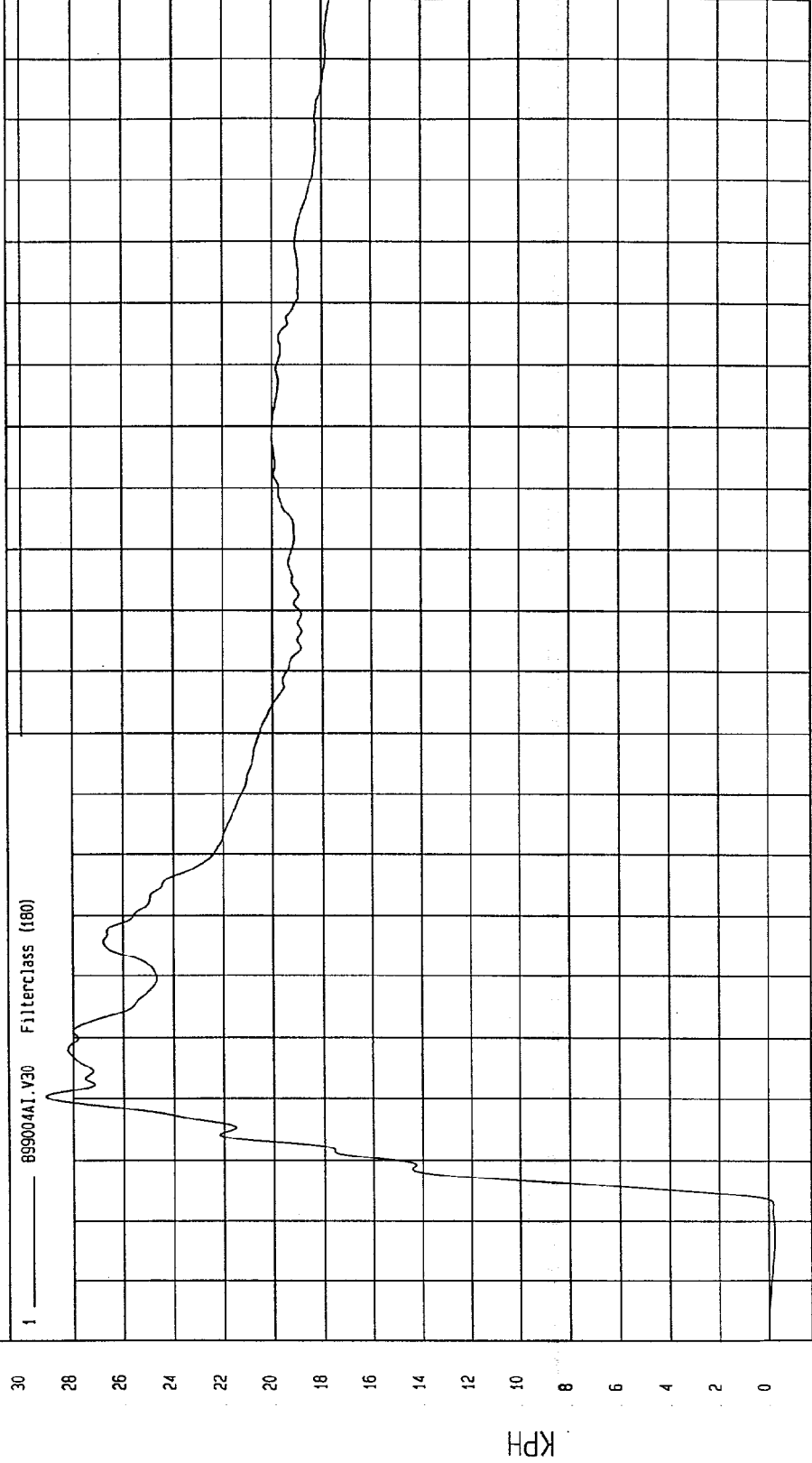
MGA Research
01-11-1999 10:29

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -22 KPH at -2 msec Maximum = 29.07 KPH at 20 msec

LEFT LOWER B-POST Y VELOCITY



TIME Seconds

NSA Research
01-11-1999 10:34

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

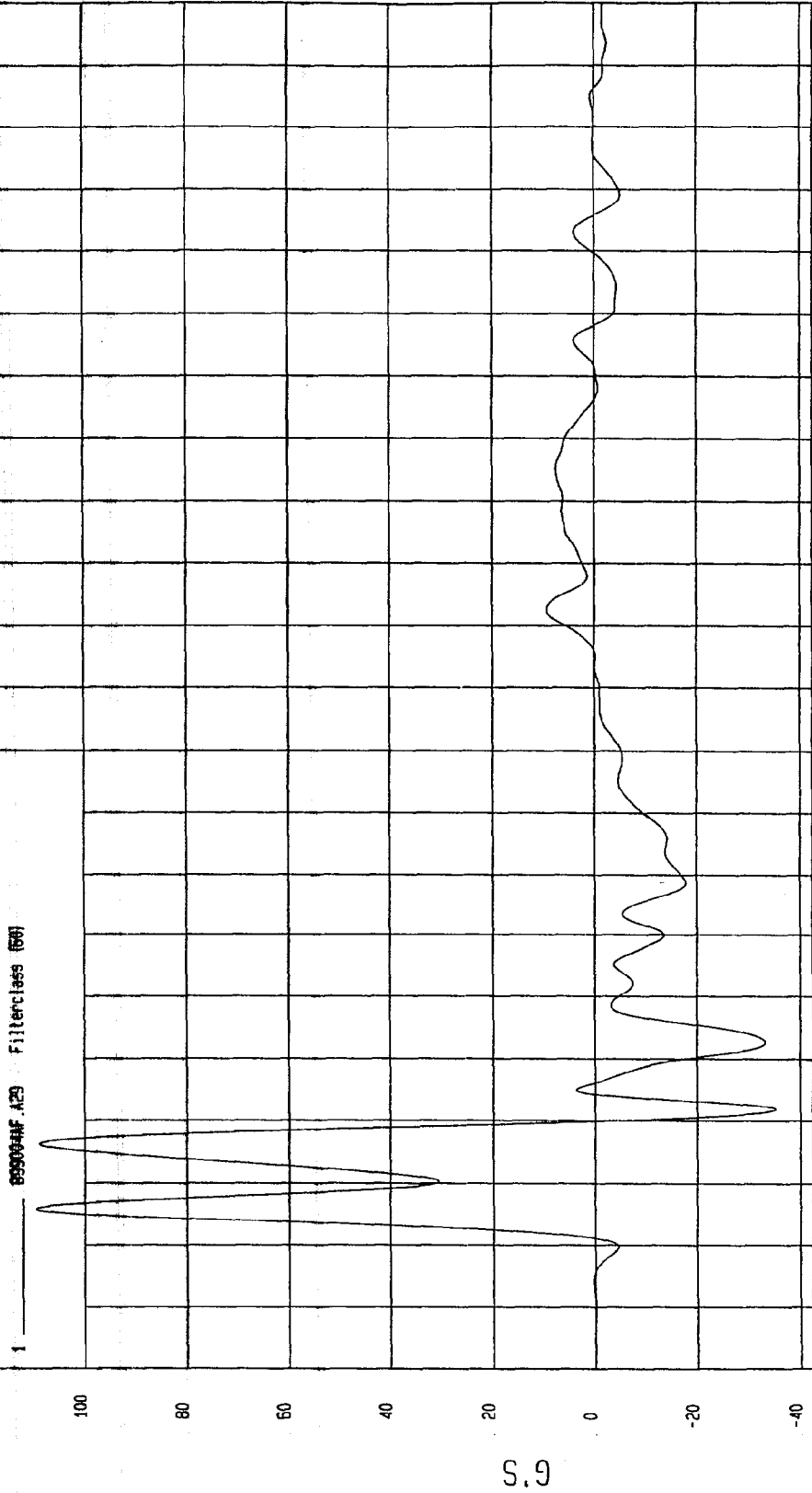
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 109.81 G'S at 6 msec

Minimum = -35.18 G'S at 22 msec

LEFT MID B-POST Y ACCELERATION



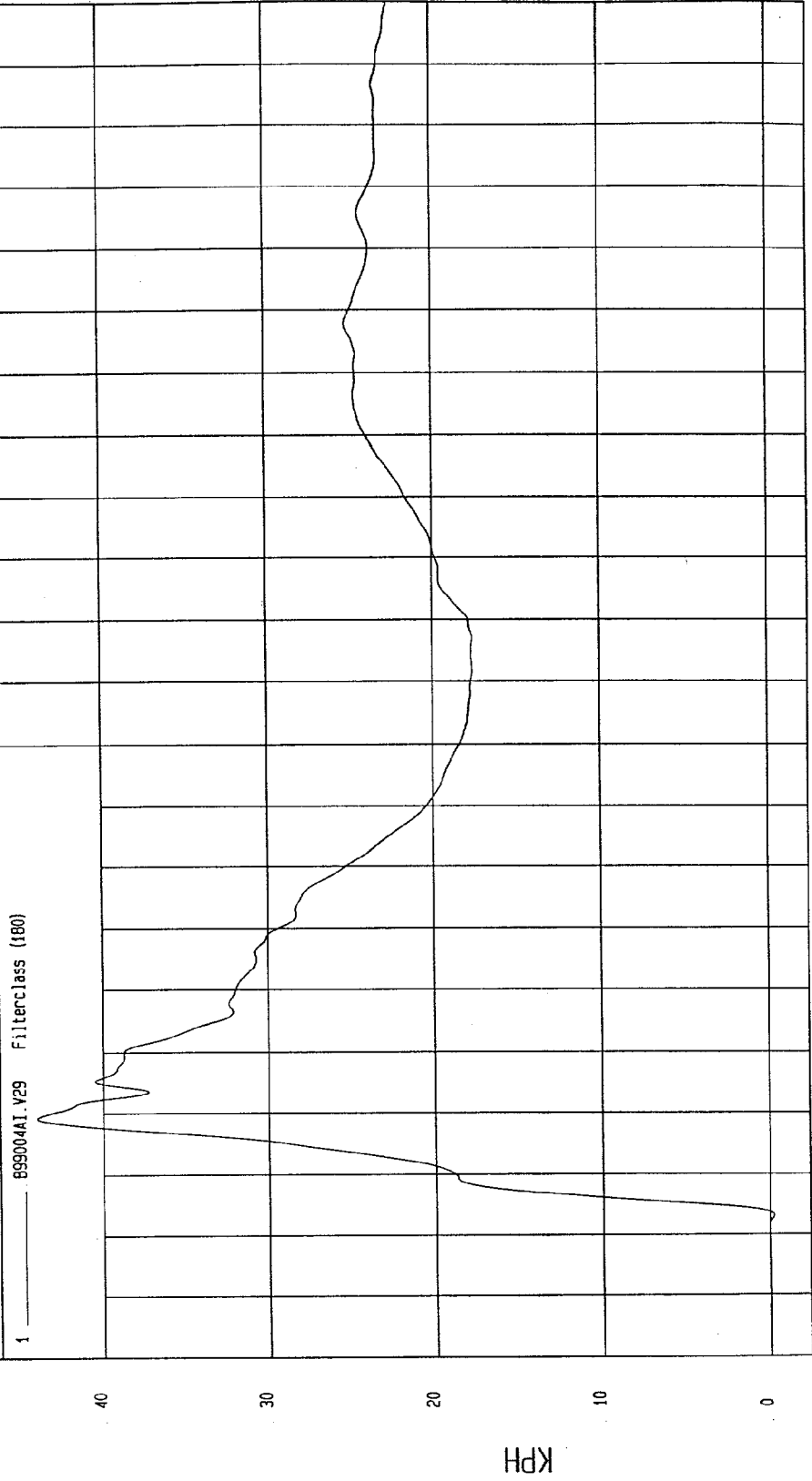
WBA Research
01-11-1999 10:29

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -24 KPH at 3 msec Maximum = 43.97 KPH at 19 msec

LEFT MID B-POST Y VELOCITY



TIME Seconds

0.19 0.18 0.17 0.16 0.15 0.14 0.13 0.12 0.11 0.10 0.09 0.08 0.07 0.06 0.05 0.04 0.03 0.02 0.01 0 -0.01 -0.02

NGA Research
01-11-1999 10:34

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

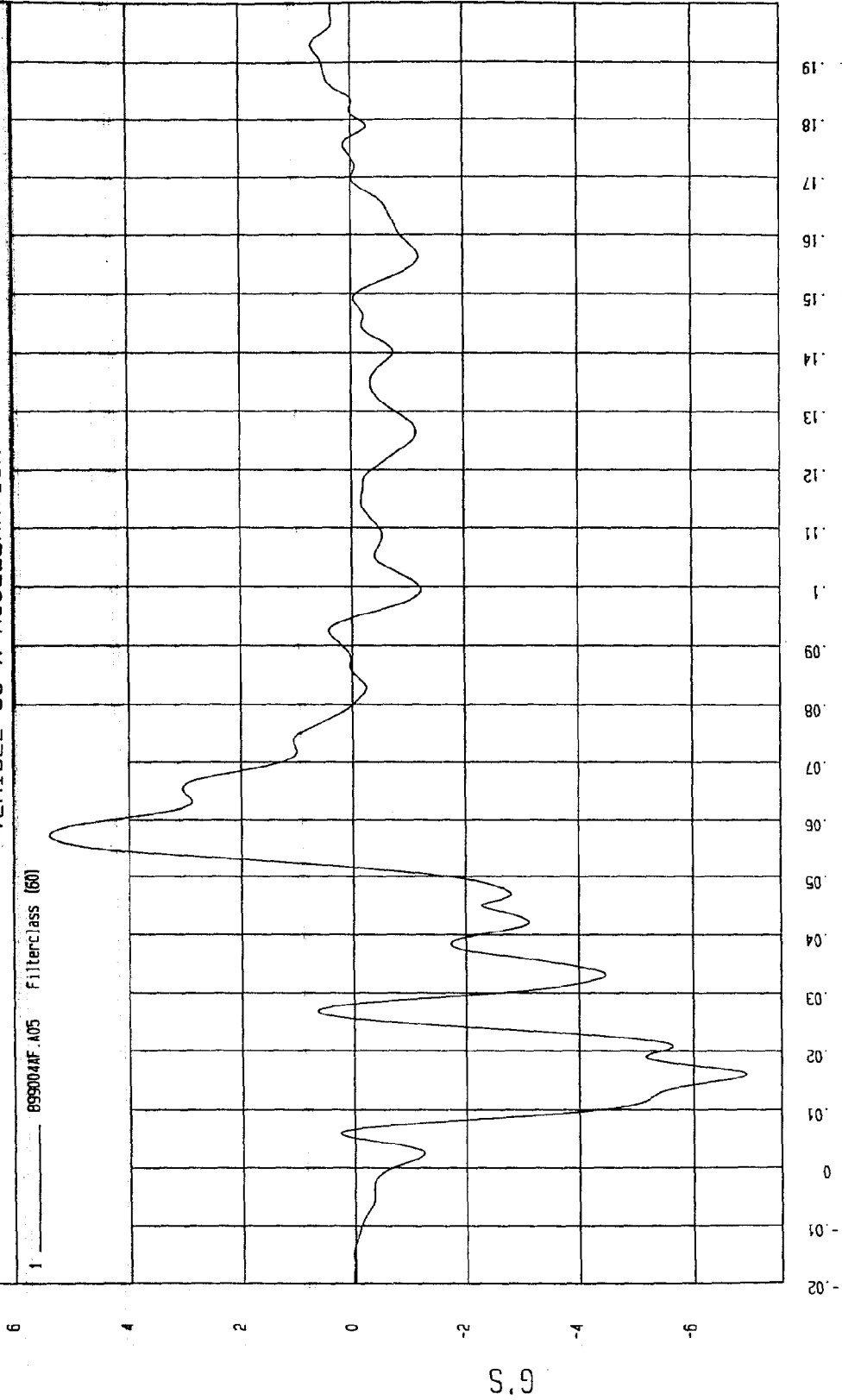
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 5.41 G'S at 57 msec

Minimum = -6.92 G'S at 16 msec

VEHICLE CG X ACCELERATION

1 — 899004AF.A05 Filterclass (50)



MSA Research
01-11-1999 10:29

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

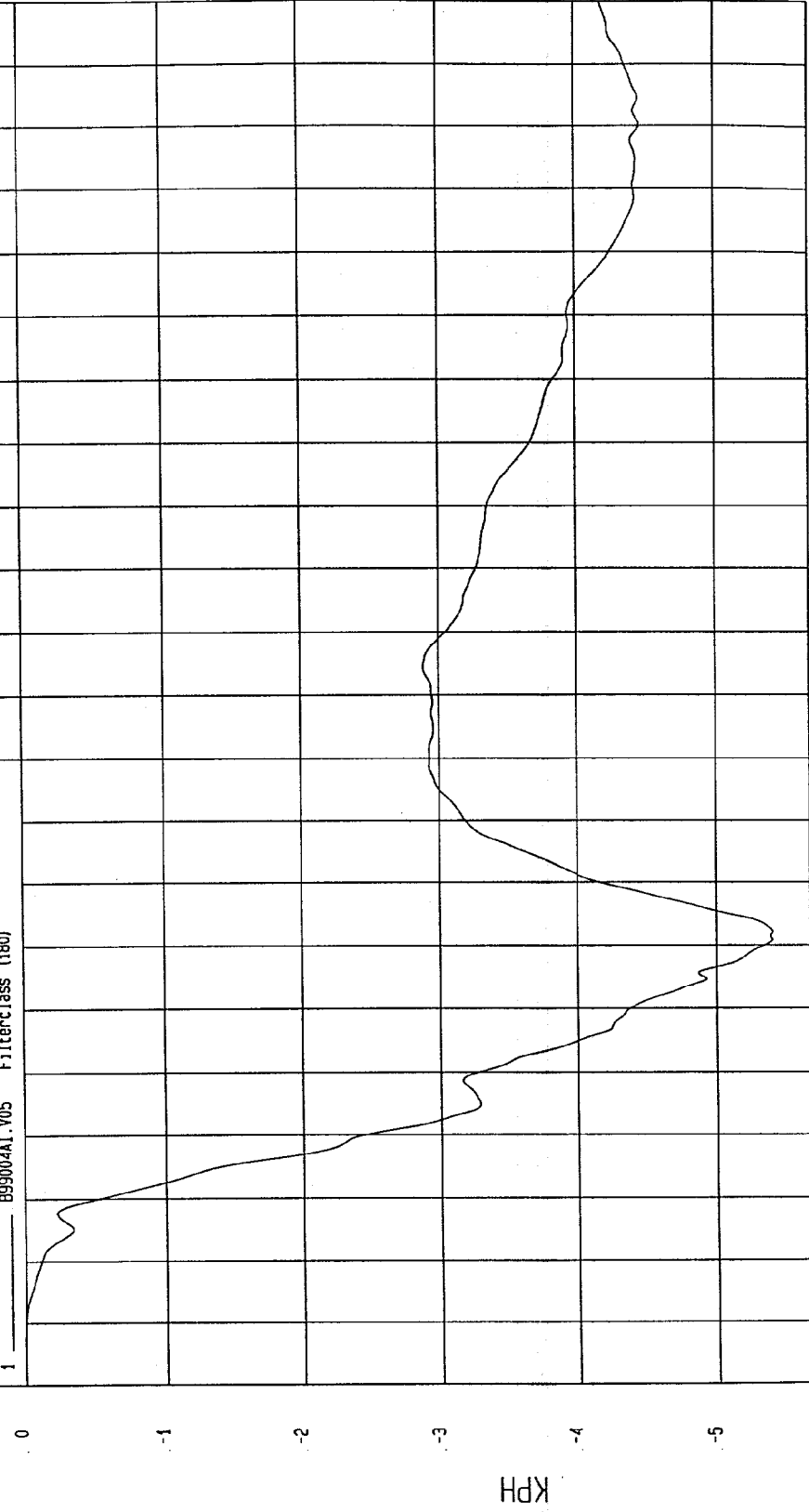
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 8.83E-03 KPH at -13 msec

Minimum = -5.4 KPH at 52 msec

VEHICLE CG X VELOCITY

1 B99004I.V05 Filterclass (180)



WCA Research
01-11-1999 10:34

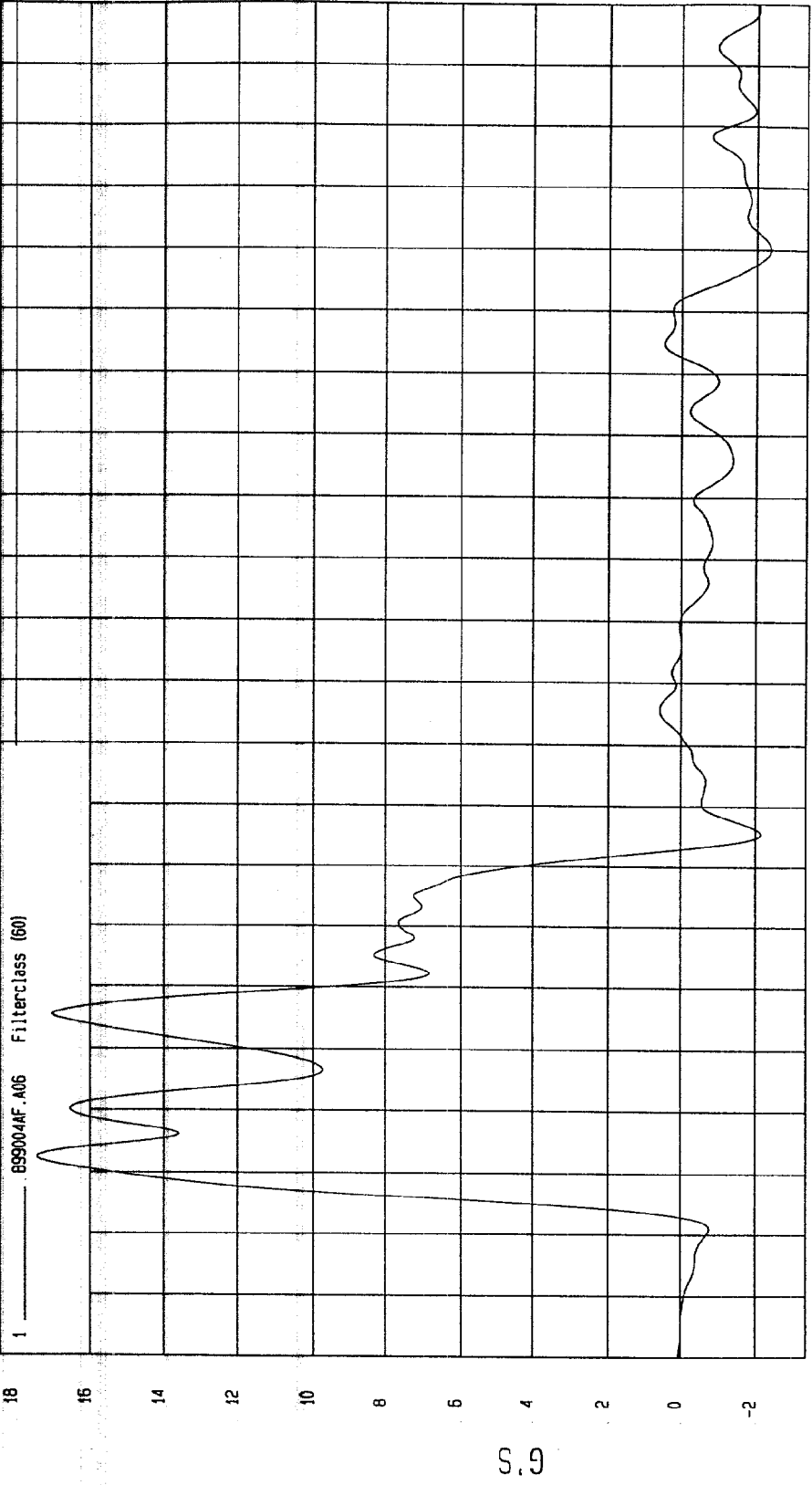
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -2.37 G'S at 160 msec Maximum = 17.45 G'S at 12 msec

VEHICLE CG Y ACCELERATION



TIME (SECONDS)

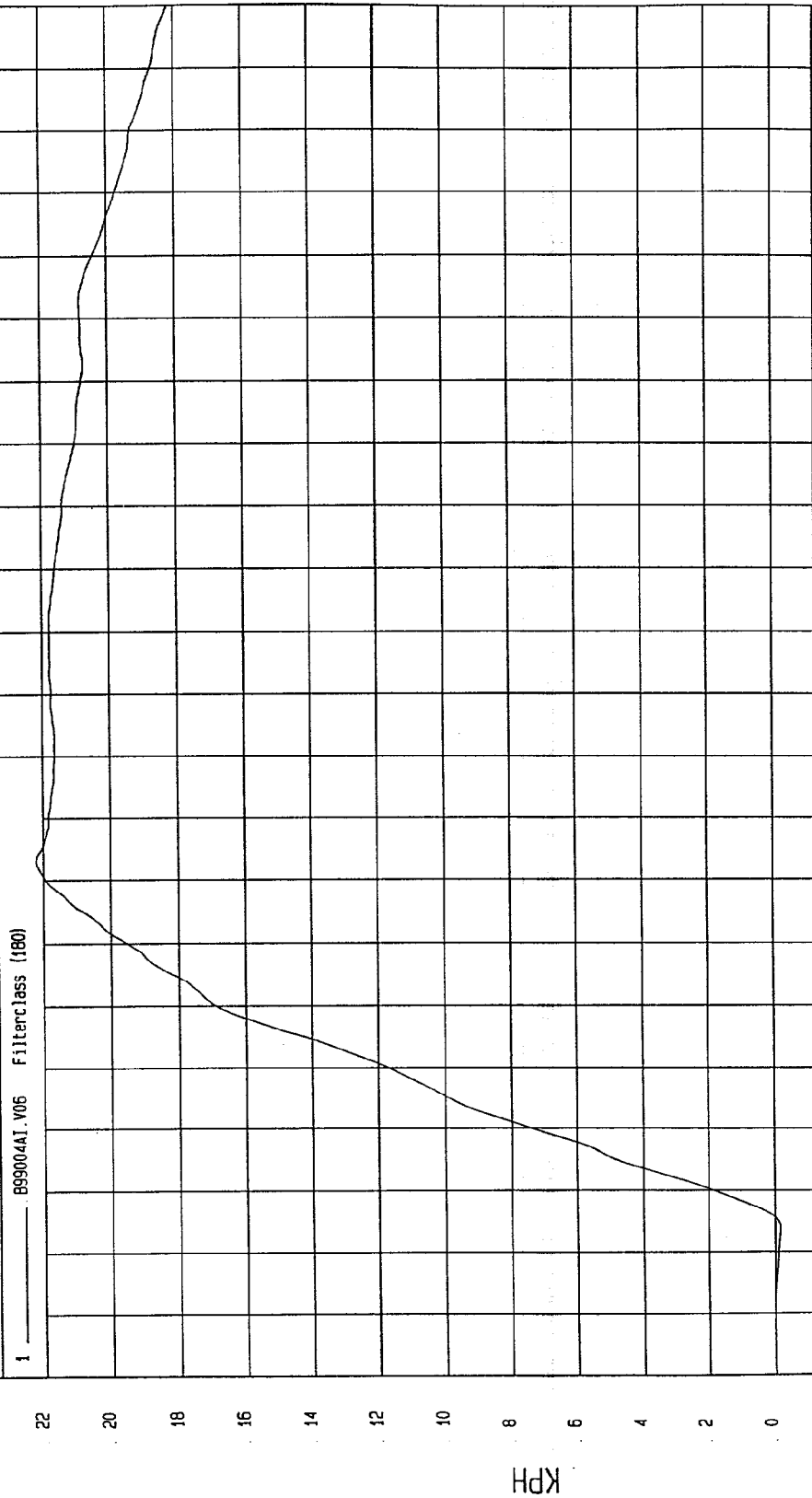
WCA Research
01-11-1999 10:29

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -.17 KPH at 4 msec Maximum = 22.22 KPH at 63 msec

VEHICLE CG Y VELOCITY



NSA Research
01-11-1999 10:34

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

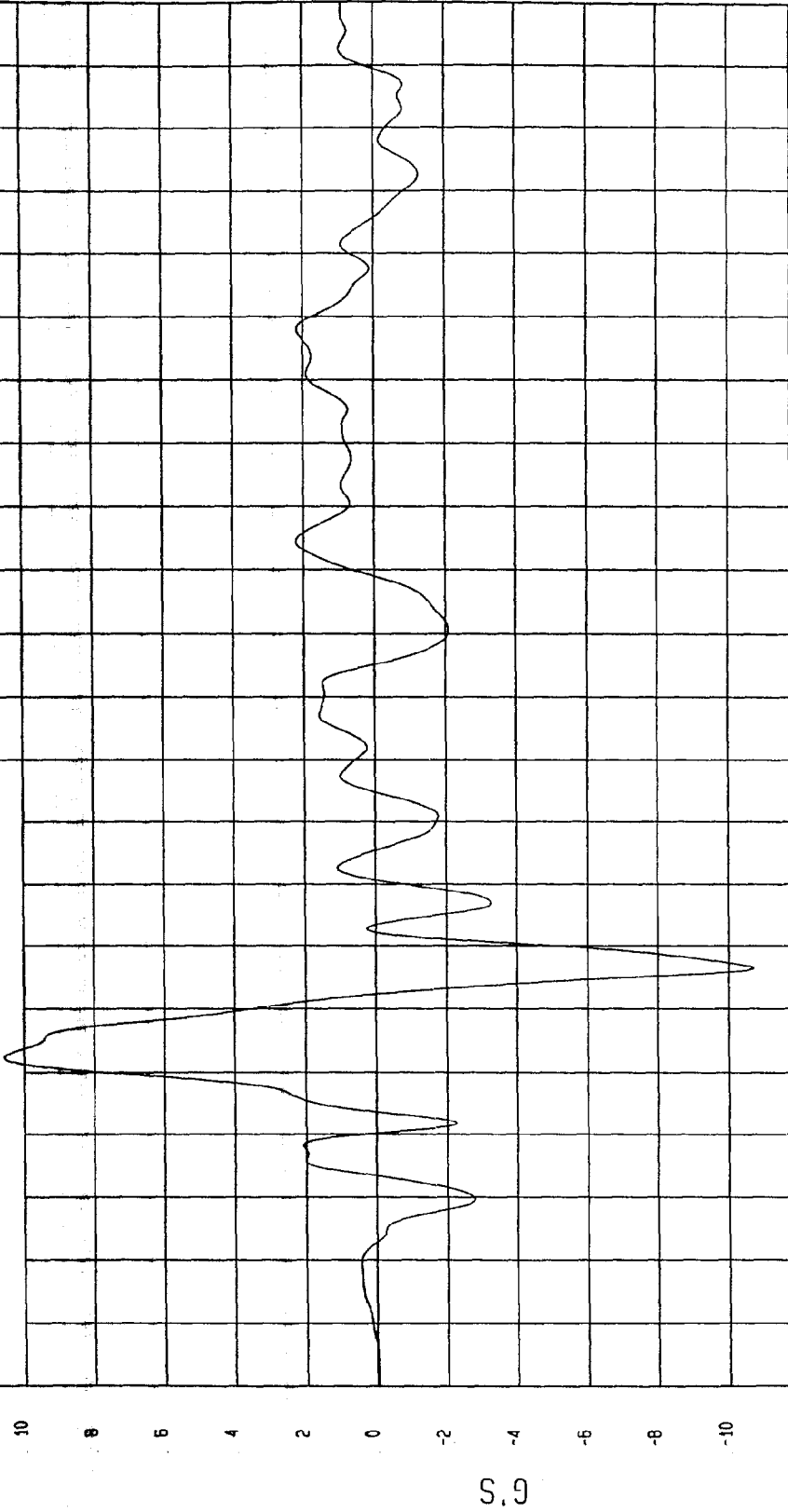
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 10.56 G's at 32 msec

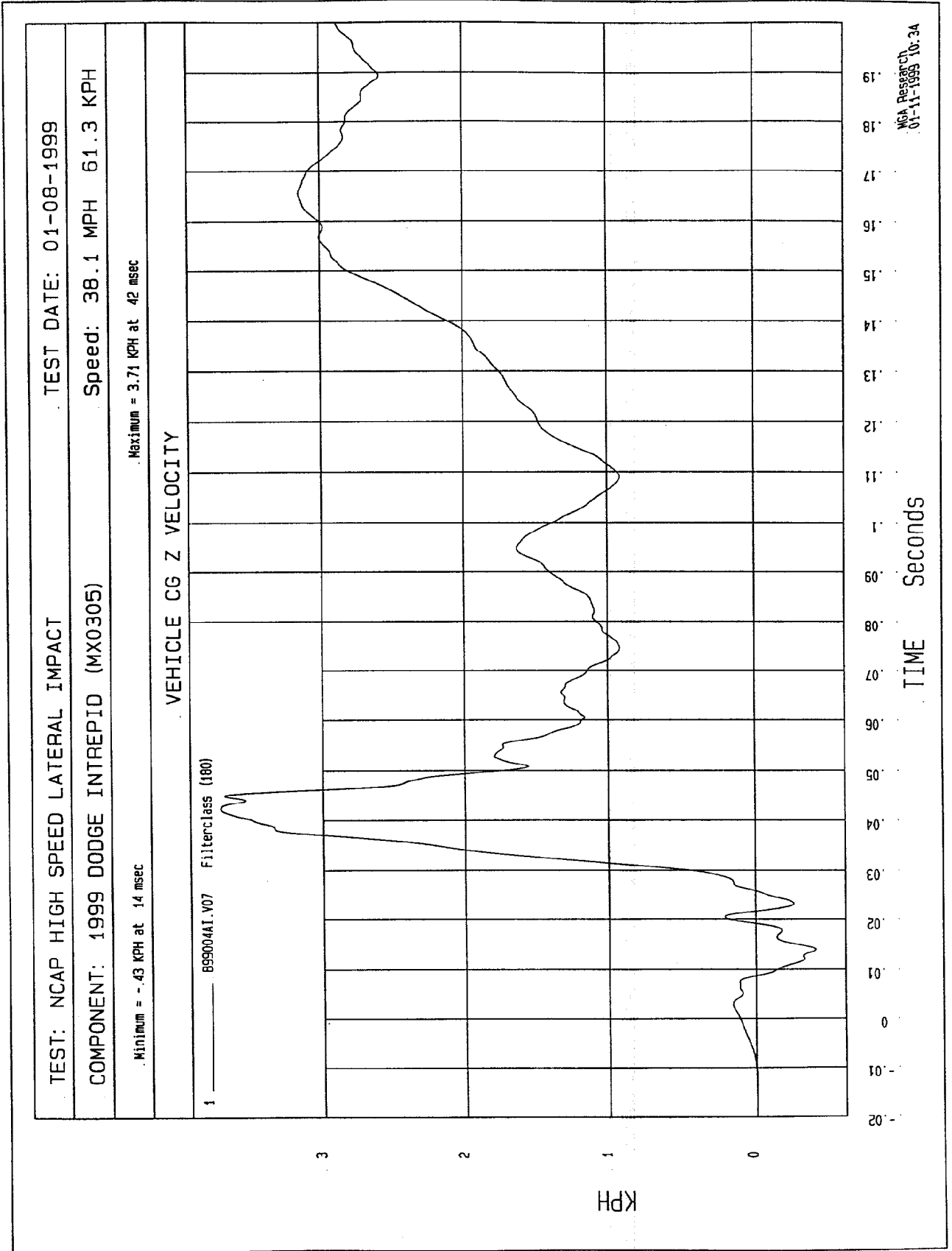
Minimum = -10.72 G's at 46 msec

VEHICLE CG Z ACCELERATION

1 899004AF.A07 Filterclass (50)



MCA Research
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TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

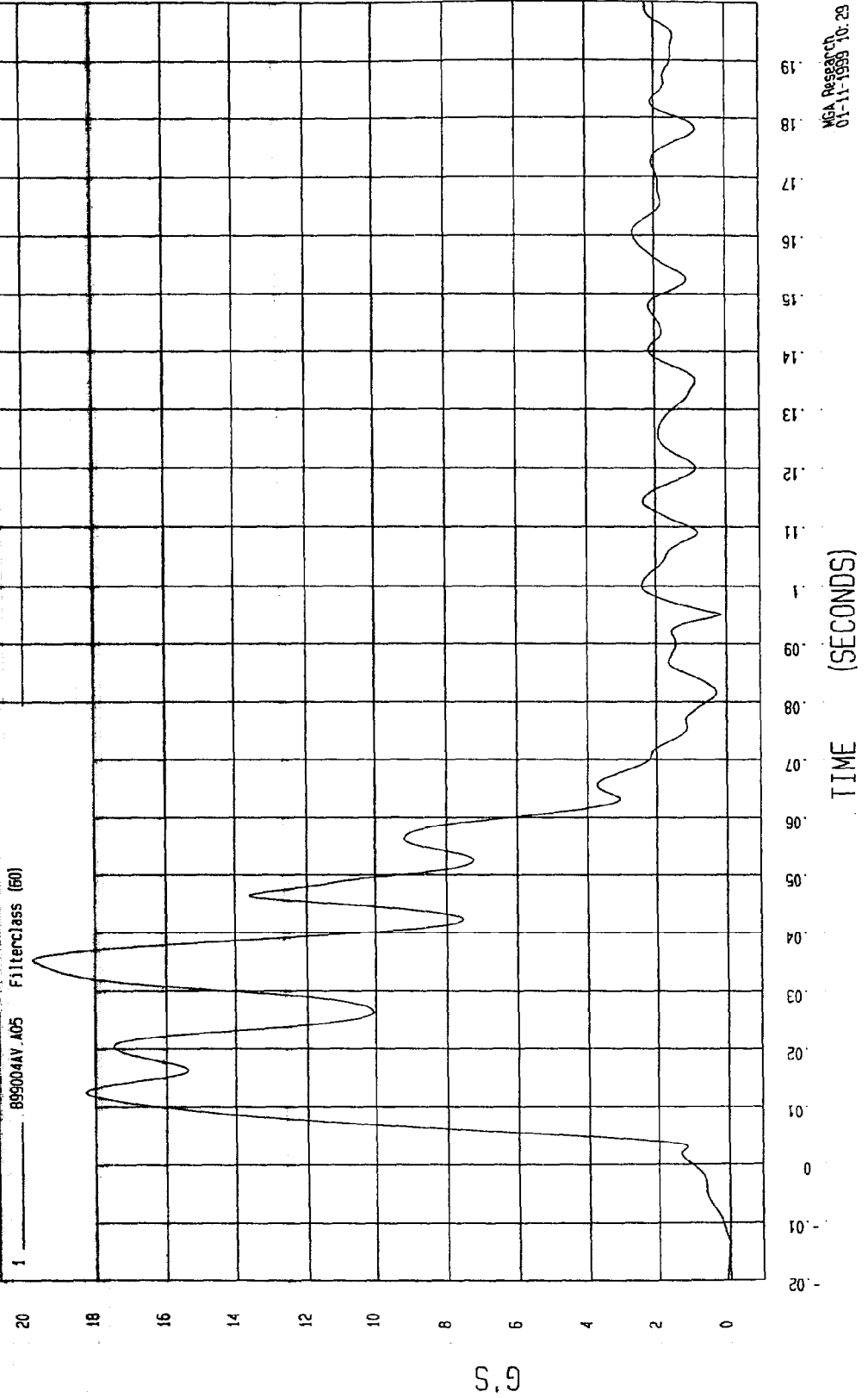
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 19.77 G'S at 35 msec

Minimum = 1.24E-02 G'S at -14 msec

VEHICLE CG RESULTANT ACCELERATION

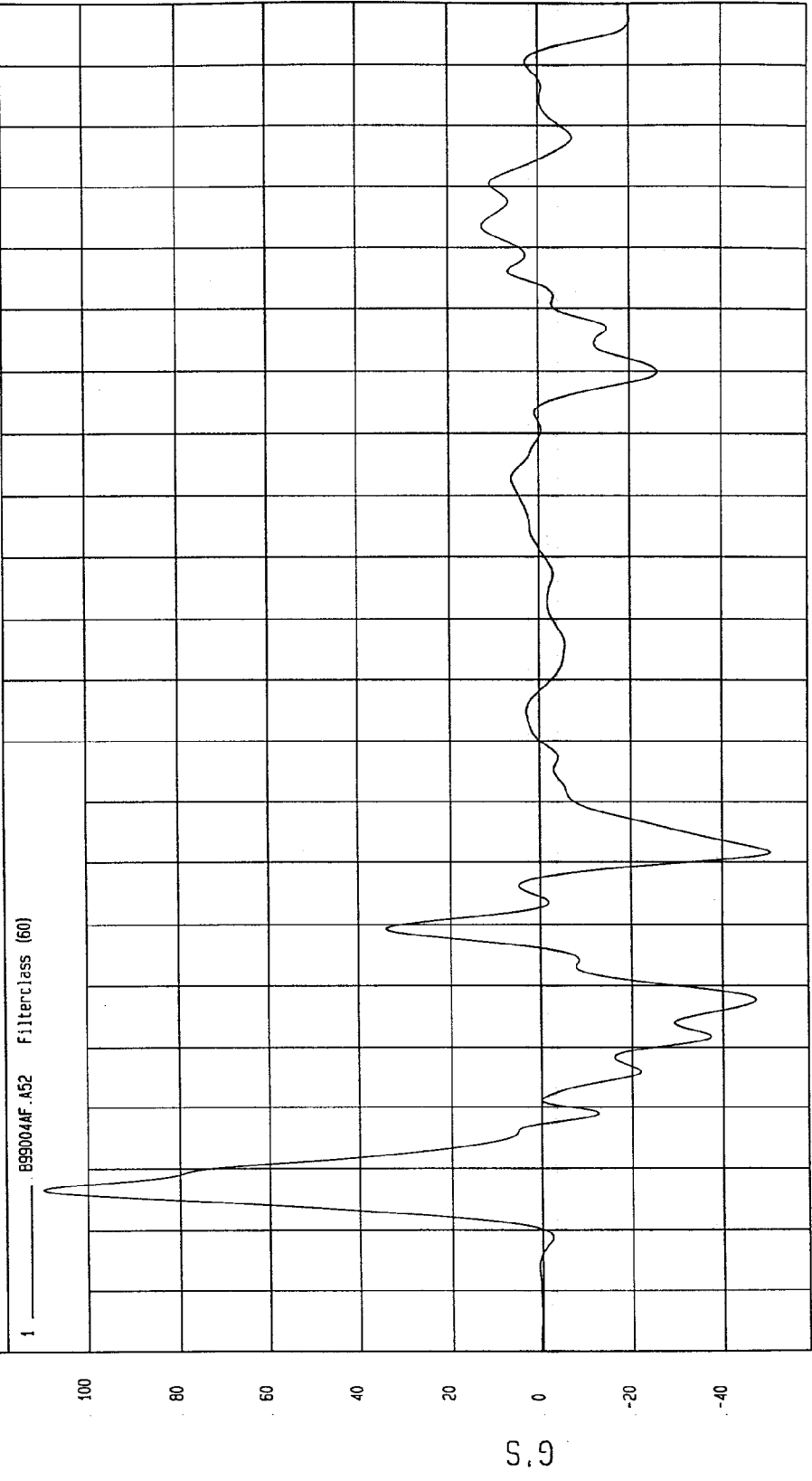


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -50.72 G'S at 62 msec Maximum = 109.61 G'S at 6 msec

LEFT FRONT DOOR MIDREAR Y ACCELERATION



TIME (SECONDS)

NCA Research
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TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

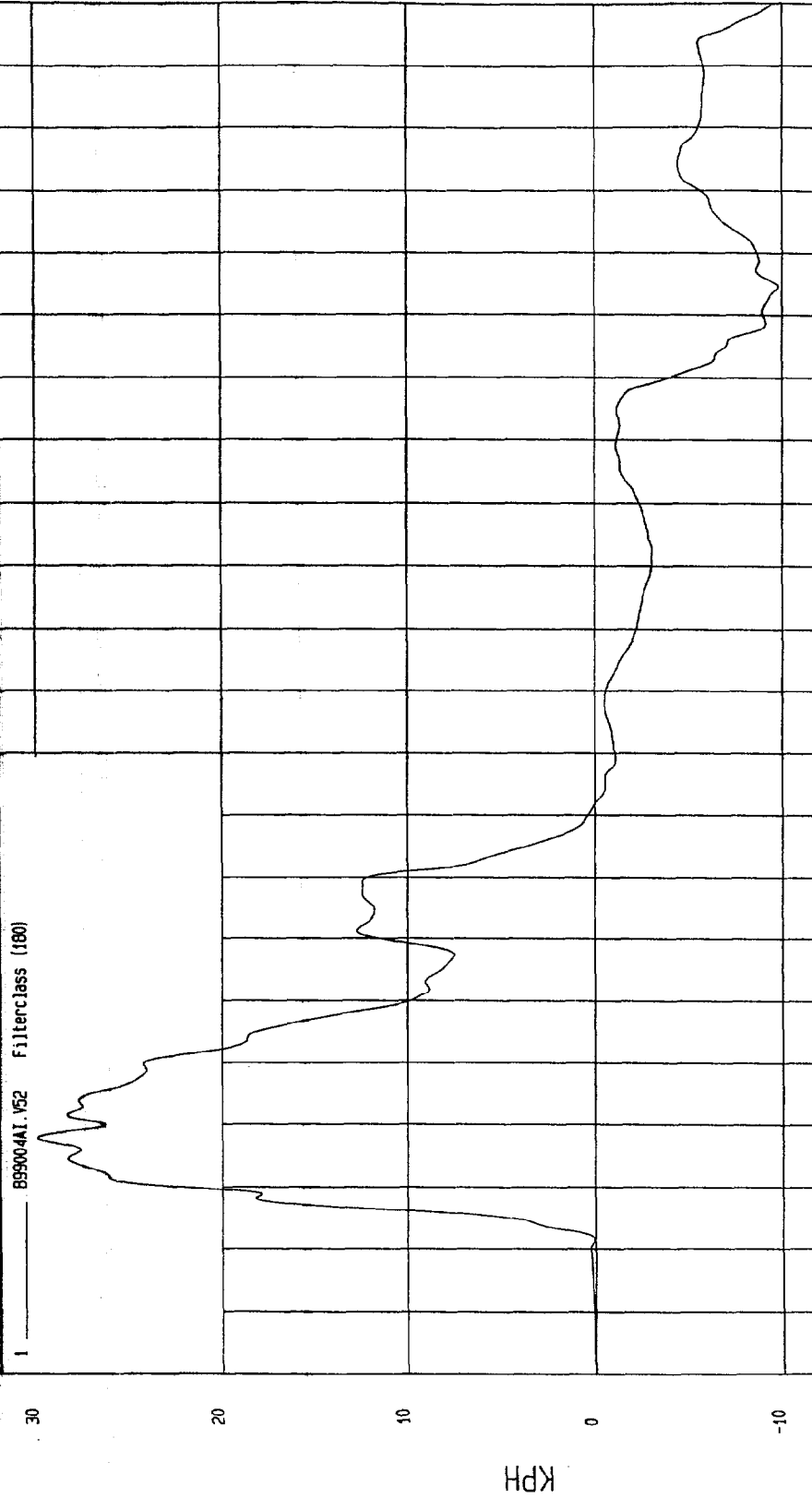
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 29.93 KPH at 18 msec

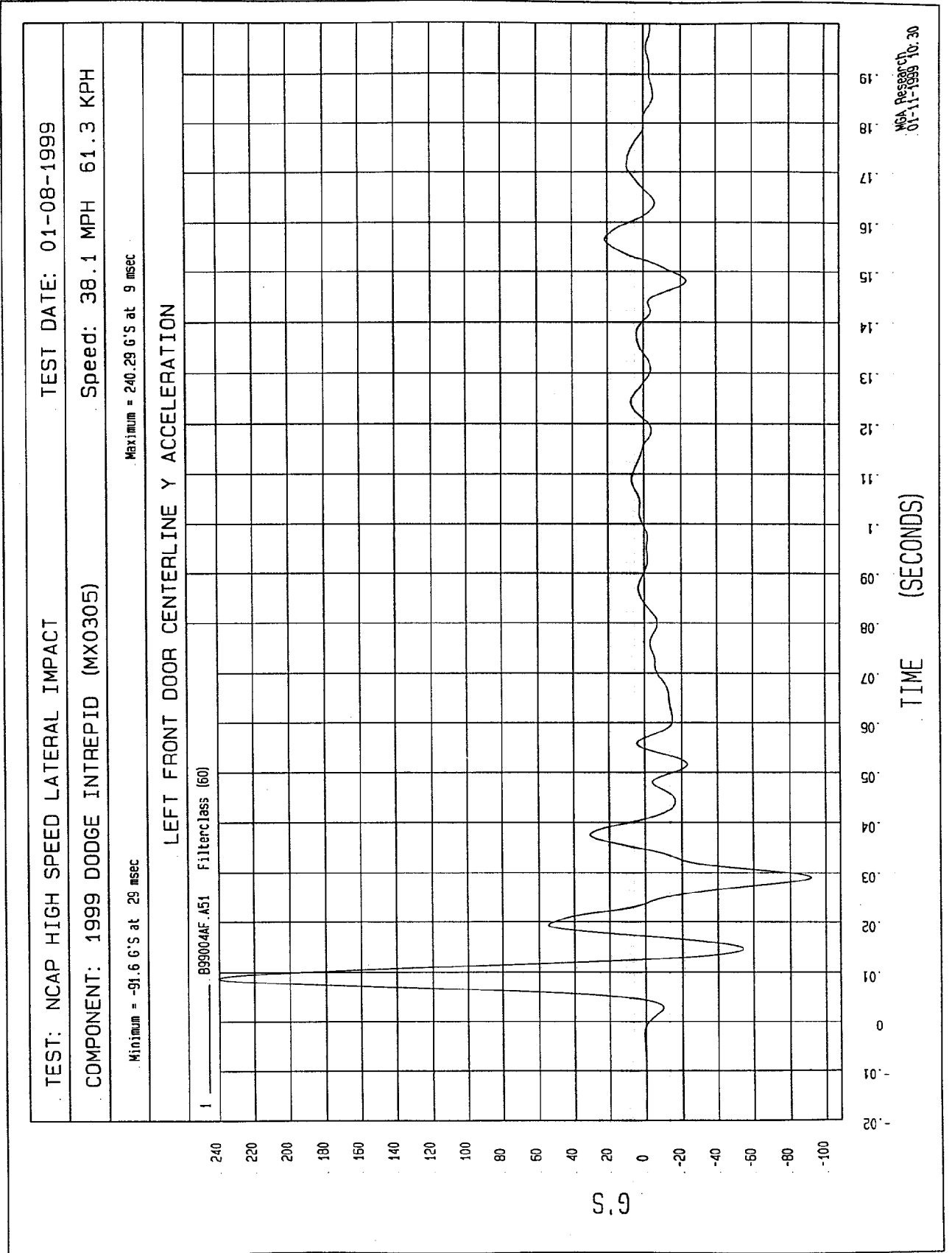
Minimum = -9.8 KPH at 155 msec

LEFT FRONT DOOR MIDREAR Y VELOCITY

1 899004A1.V52 Filterclass (180)



NSA Research
01-11-1999 10:34



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305)

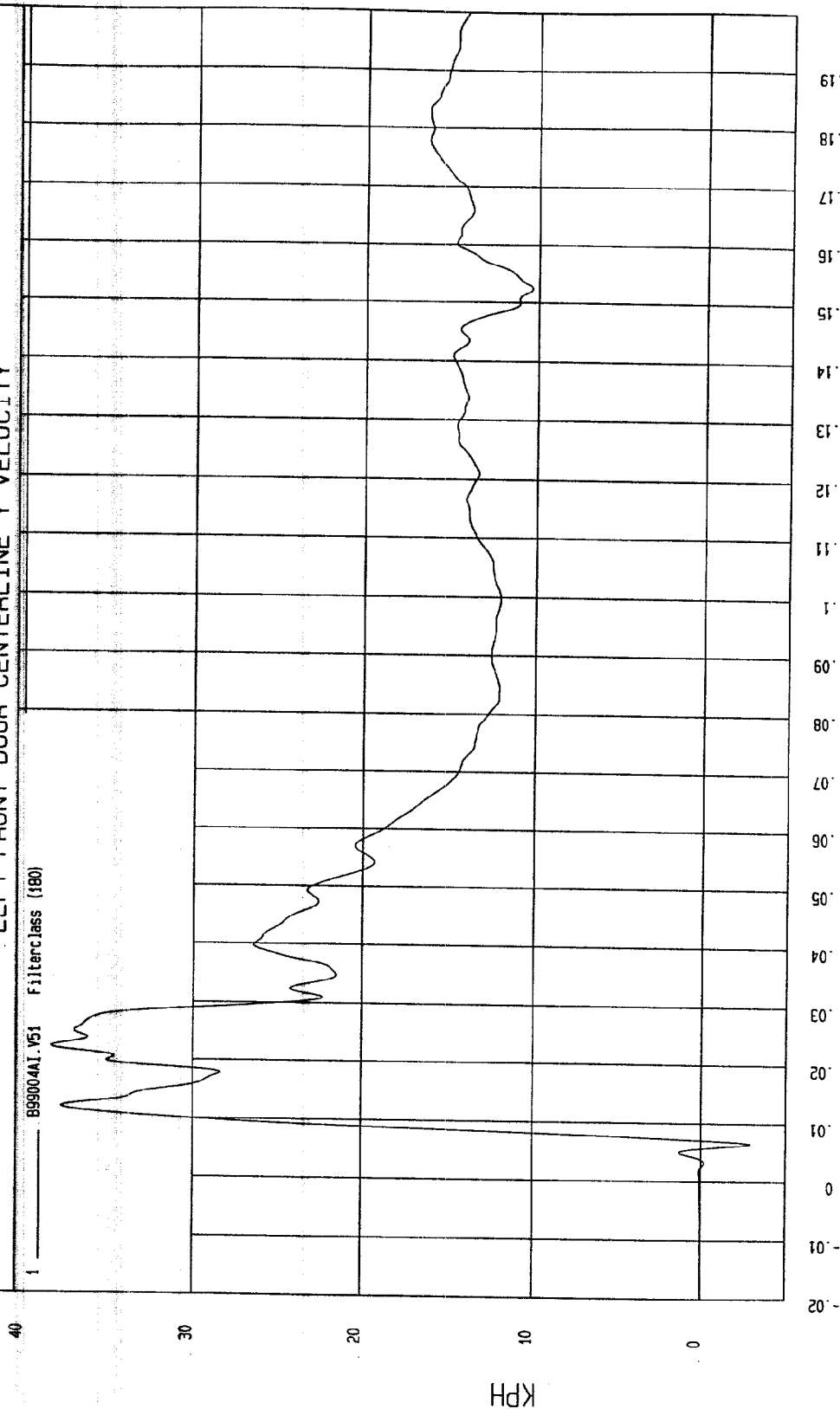
Speed: 38.1 MPH 61.3 KPH

Minimum = -2.91 KPH at 6 msec

Maximum = 38.35 KPH at 22 msec

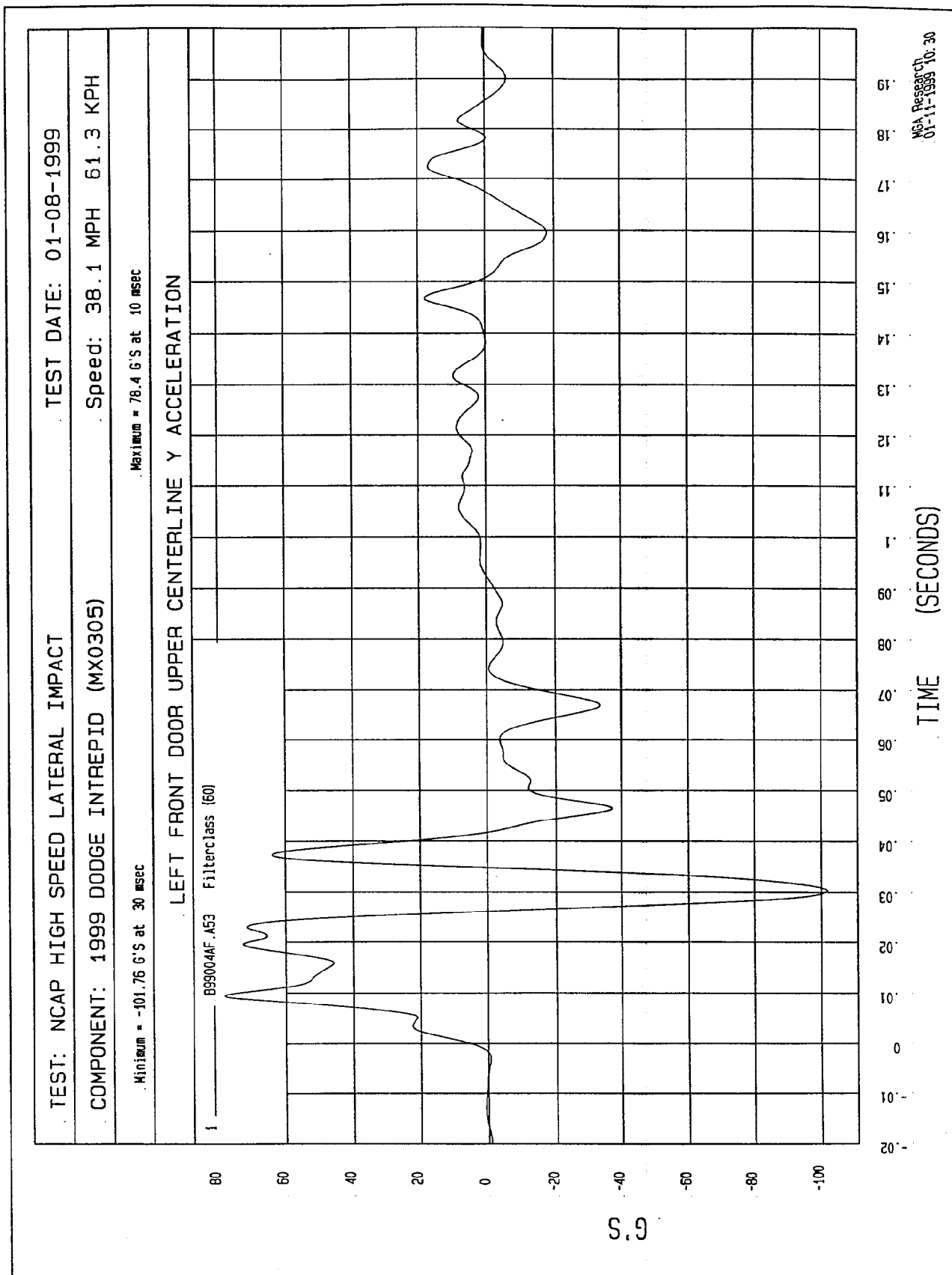
LEFT FRONT DOOR CENTERLINE Y VELOCITY

1 ——— 899004A1.V51 Filterclass (180)



NSA Research
01-11-1999 10:34

TIME Seconds



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

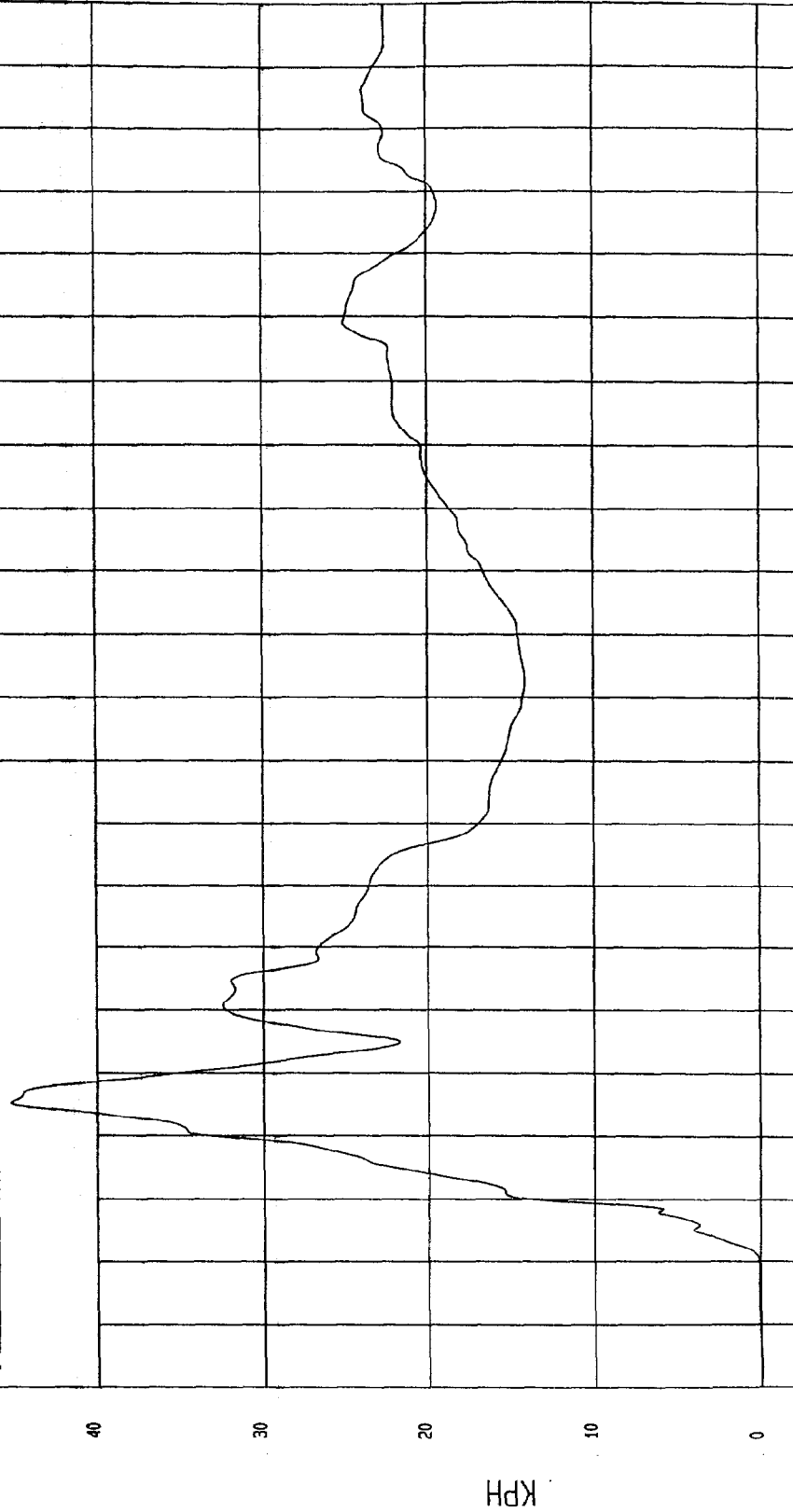
COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -0.29E-02 KPH at -17 msec

Maximum = 45.09 KPH at 25 msec

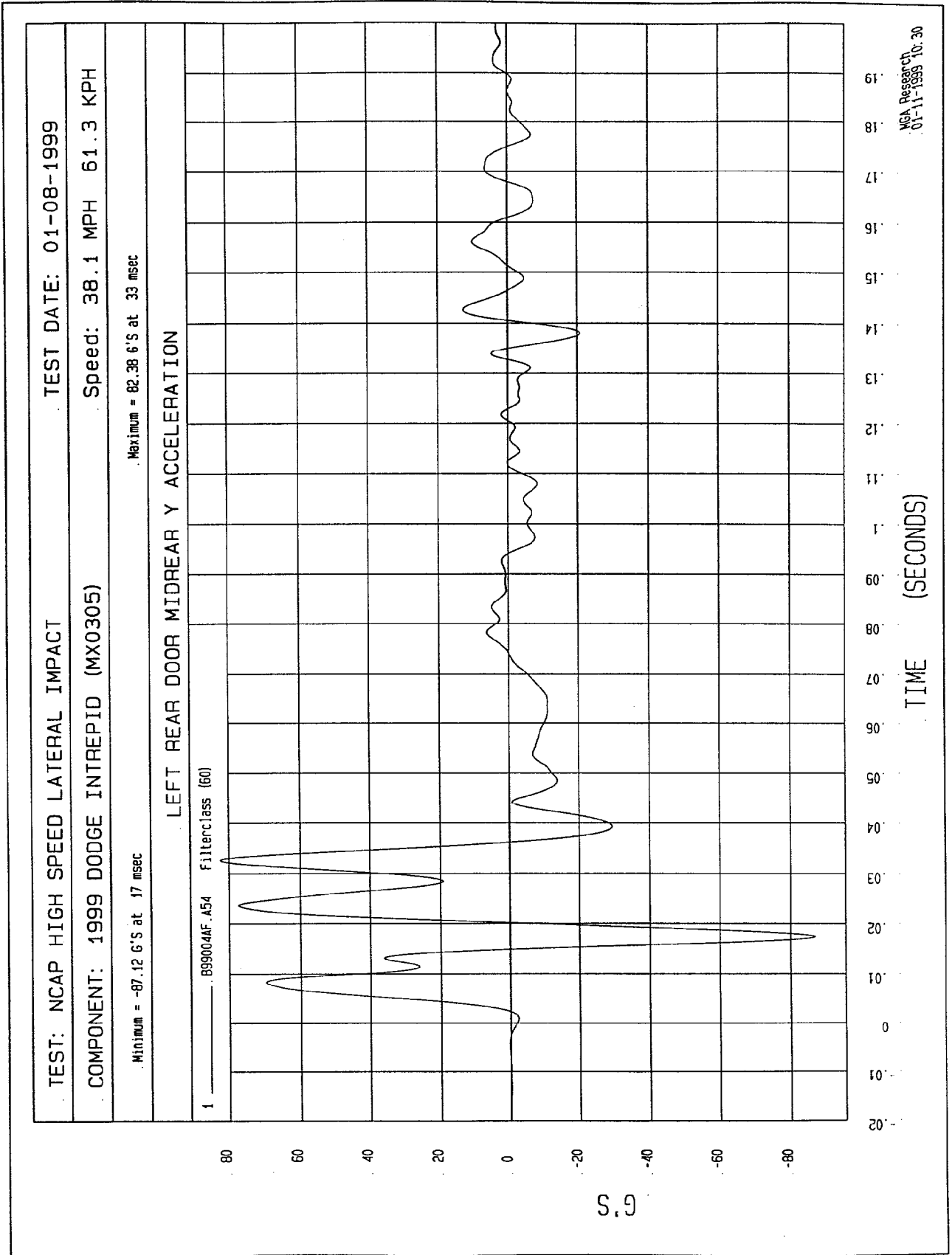
LEFT FRONT DOOR UPPER CENTERLINE Y VELOCITY

1 _____ B99004AT.V53 Filterclass (180)



NCA Research
01-11-1999 10:34

TIME Seconds

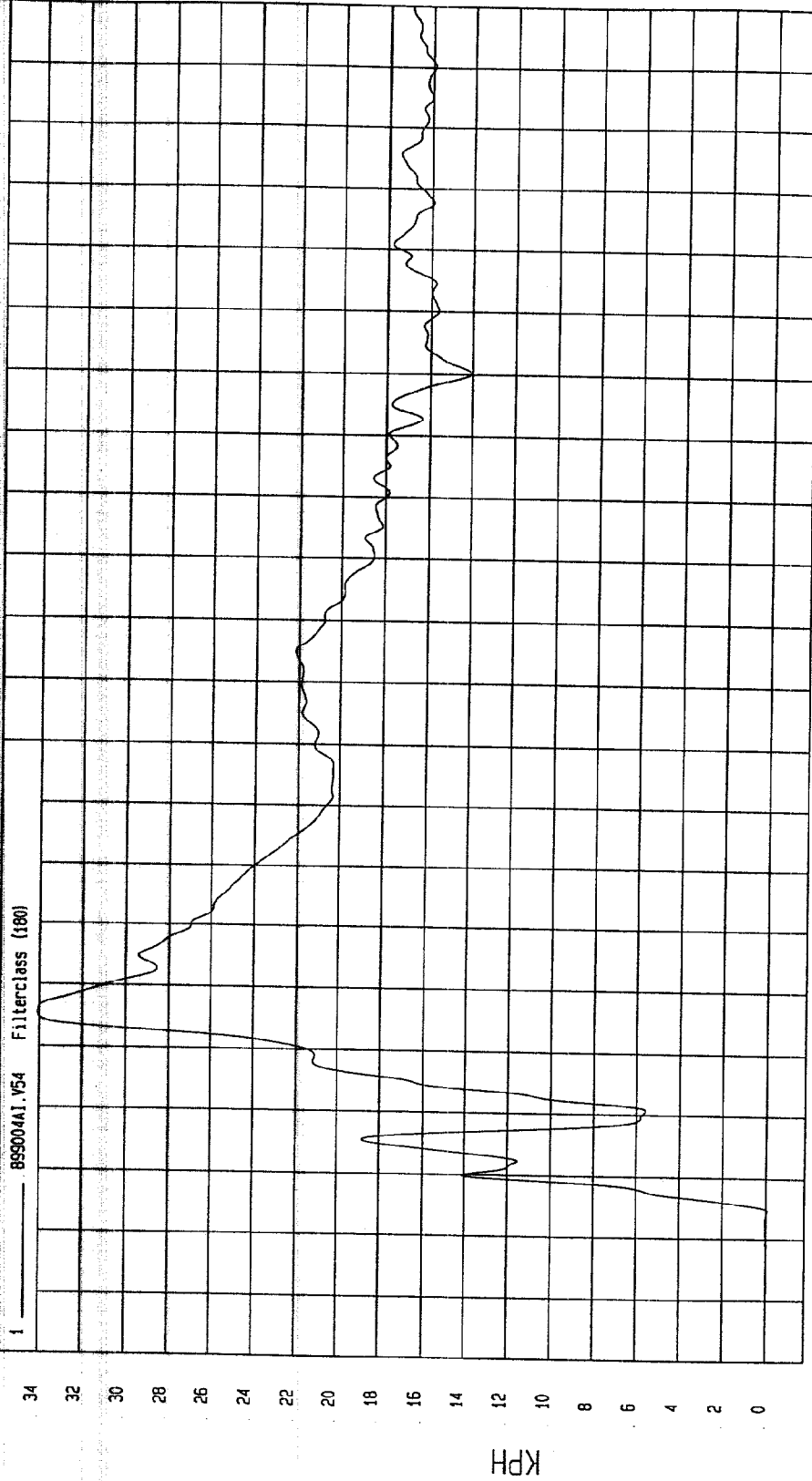


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -6.96E-02 KPH at 4 msec Maximum = 34.13 KPH at 36 msec

LEFT REAR DOOR MIDREAR Y VELOCITY



WGA Research
01-11-1999 10:34

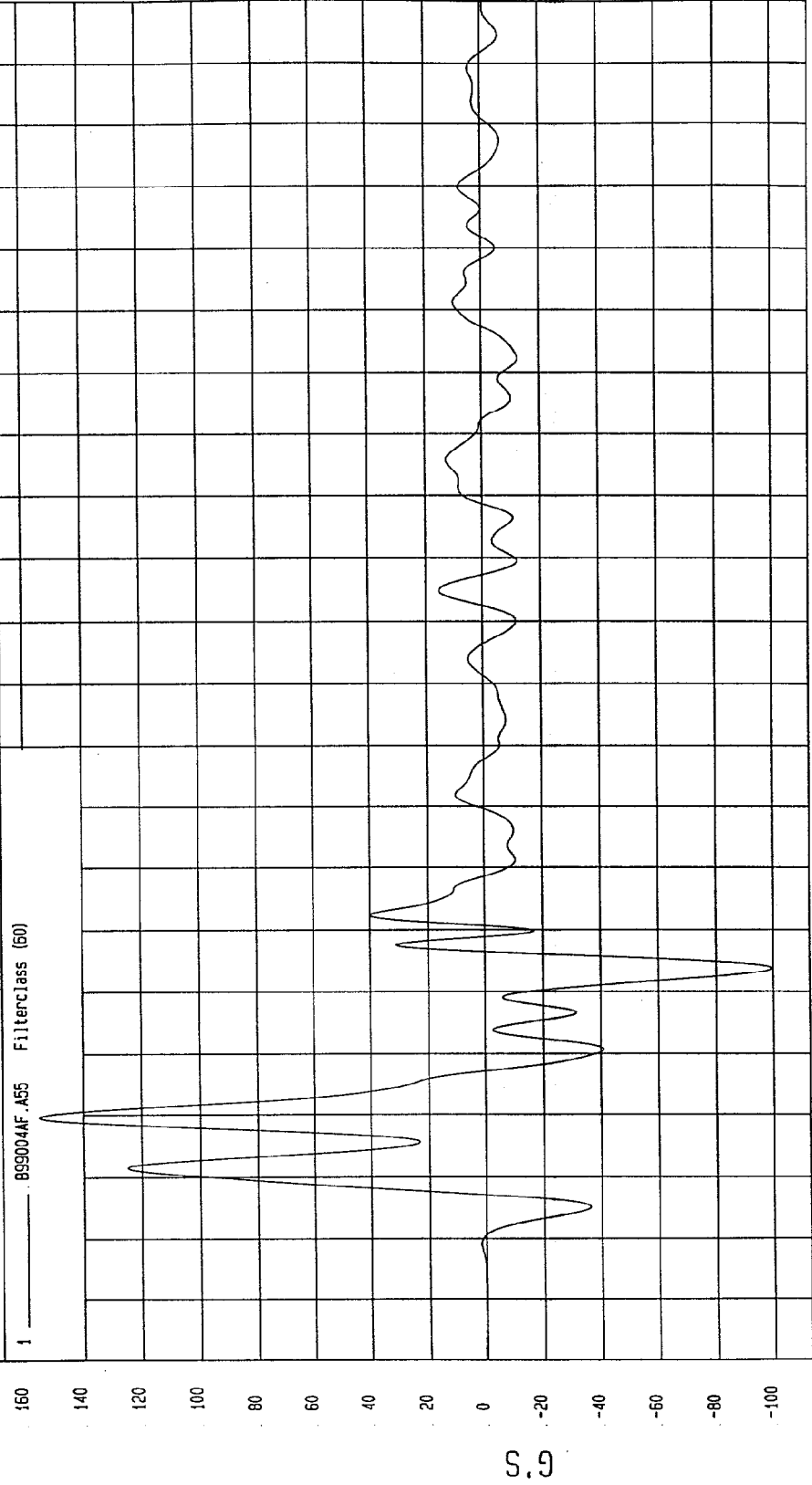
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -99.69 G'S at 44 msec Maximum = 154.95 G'S at 20 msec

LEFT REAR DOOR UPPER CENTERLINE Y ACCELERATION



TIME (SECONDS)

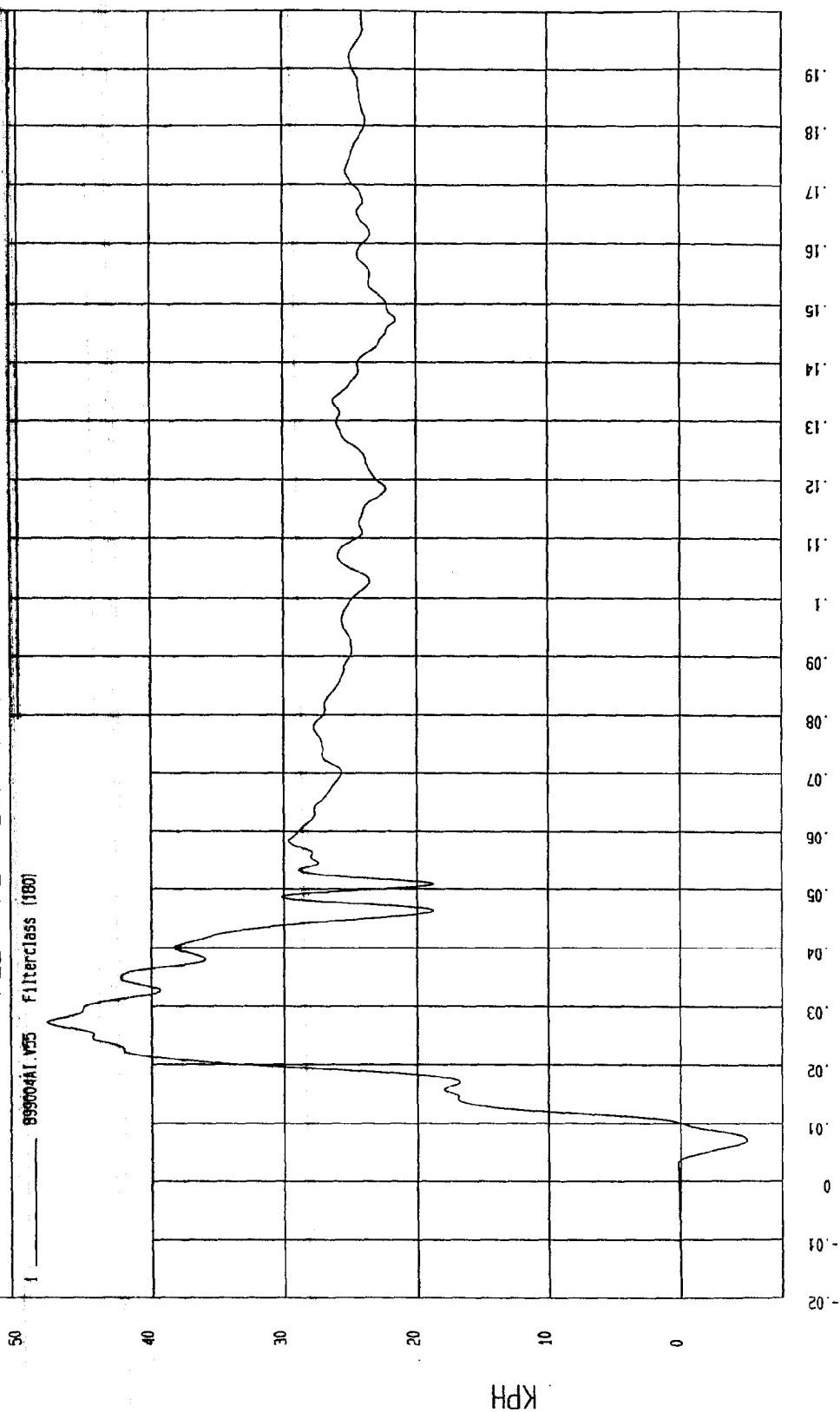
NCA Research
01-11-1999 10:30

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999
COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -5.08 KPH at 7 msec Maximum = 47.93 KPH at 27 msec

LEFT REAR DOOR UPPER CENTERLINE Y VELOCITY

1 8990041.V35 Filterclass (180)



MSA Research
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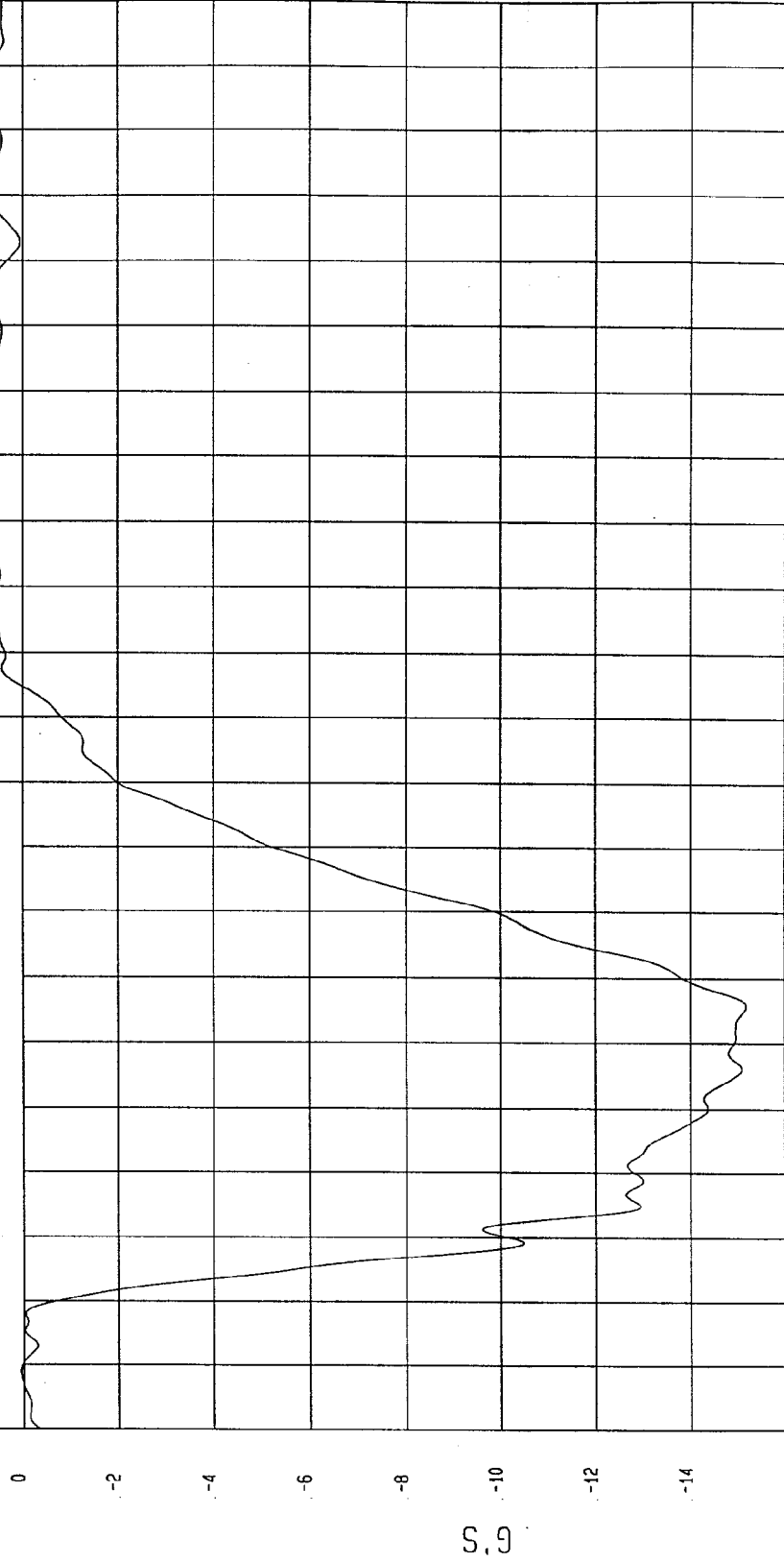
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

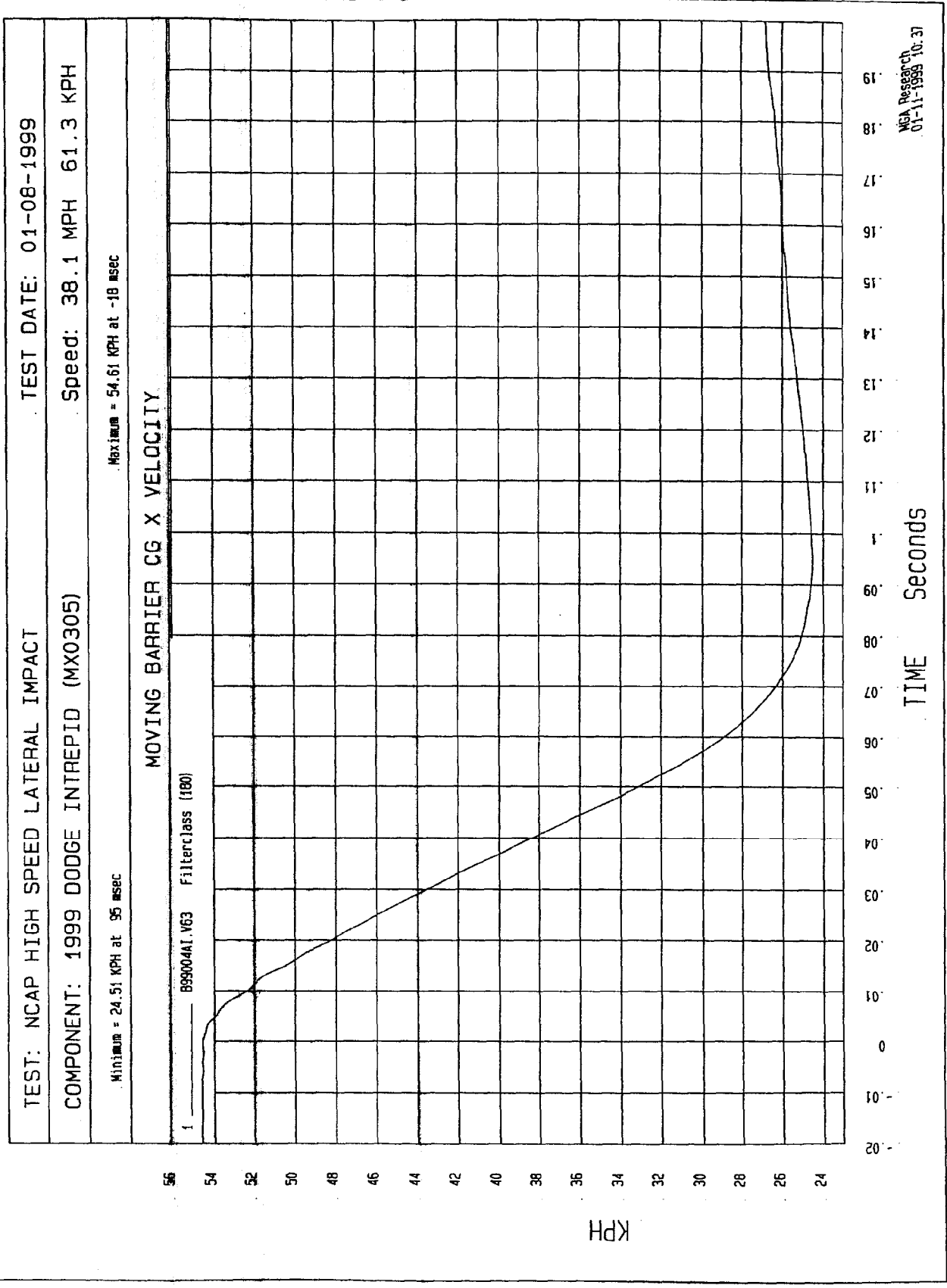
Minimum = -15.18 G'S at 46 msec Maximum = 1.12 G'S at 186 msec

MOVING BARRIER CG X ACCELERATION

1 899004AF.A63 Filterclass (60)



WGA Research
01-11-1999 10:30

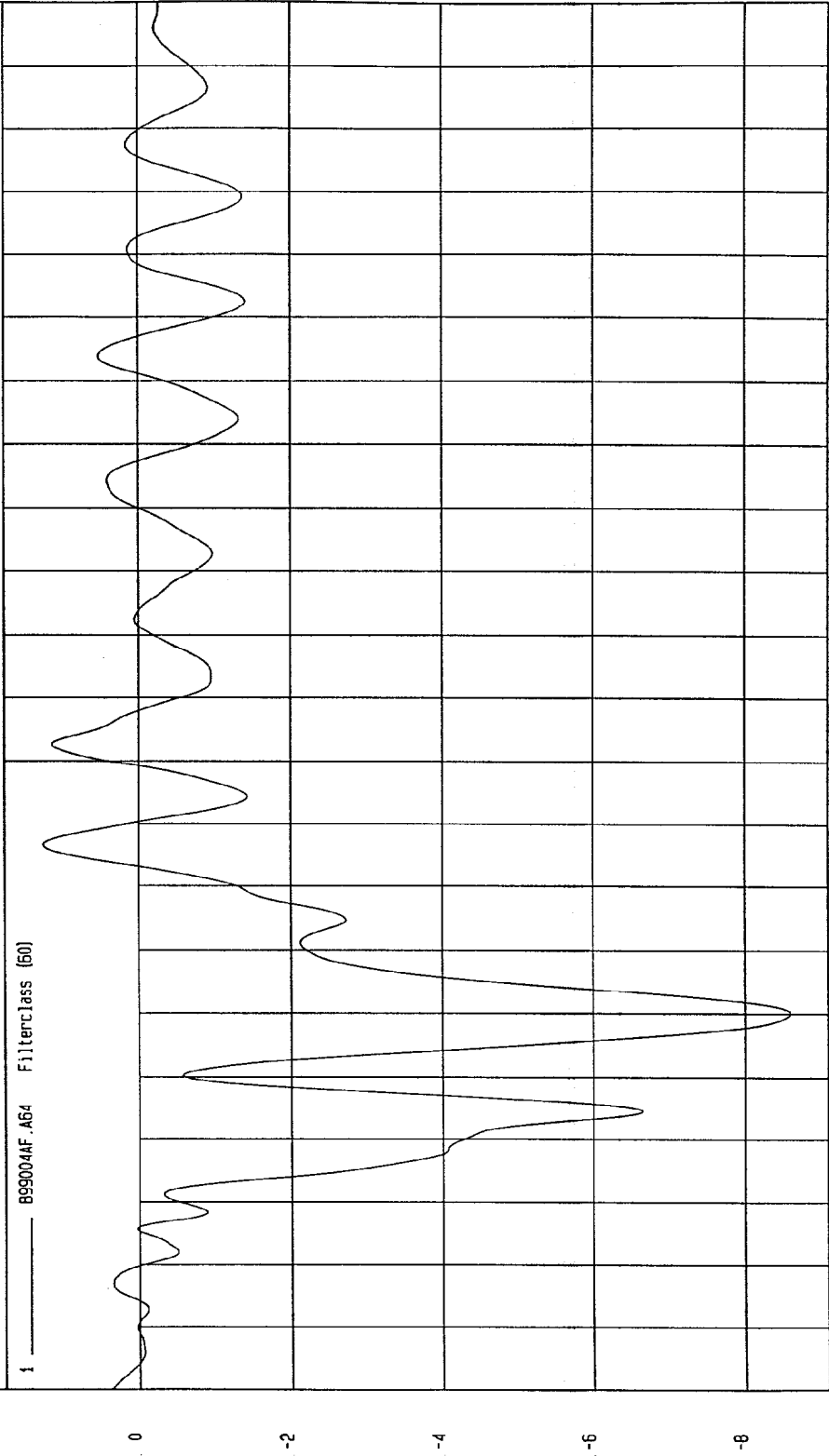


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -8.59 G'S at 40 msec Maximum = 1.27 G'S at 67 msec

MOVING BARRIER CG Y ACCELERATION



TIME (SECONDS)

WCA Research
01-11-1999 10:30

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

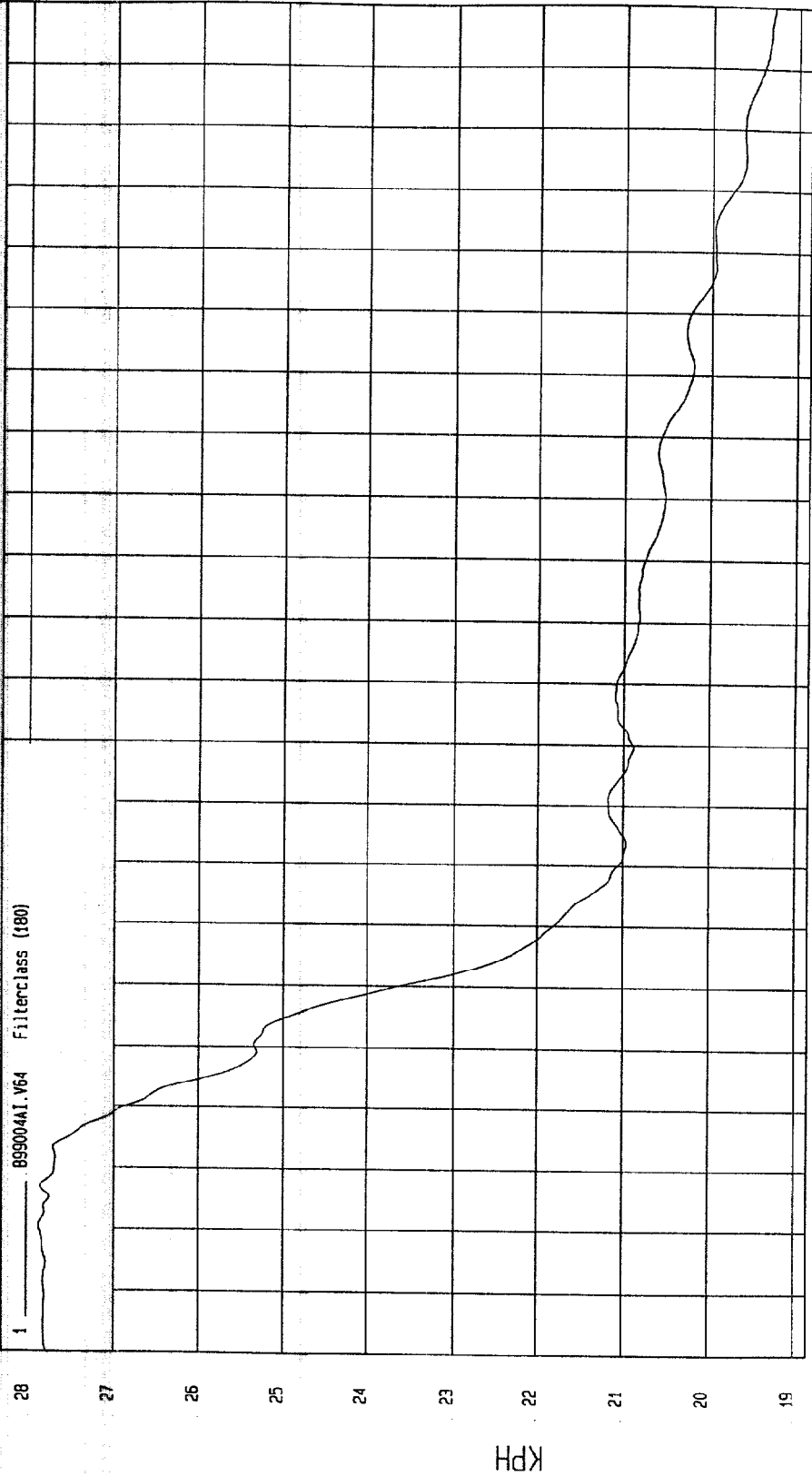
COMPONENT: 1999 DODGE INTREPID (MX0305)

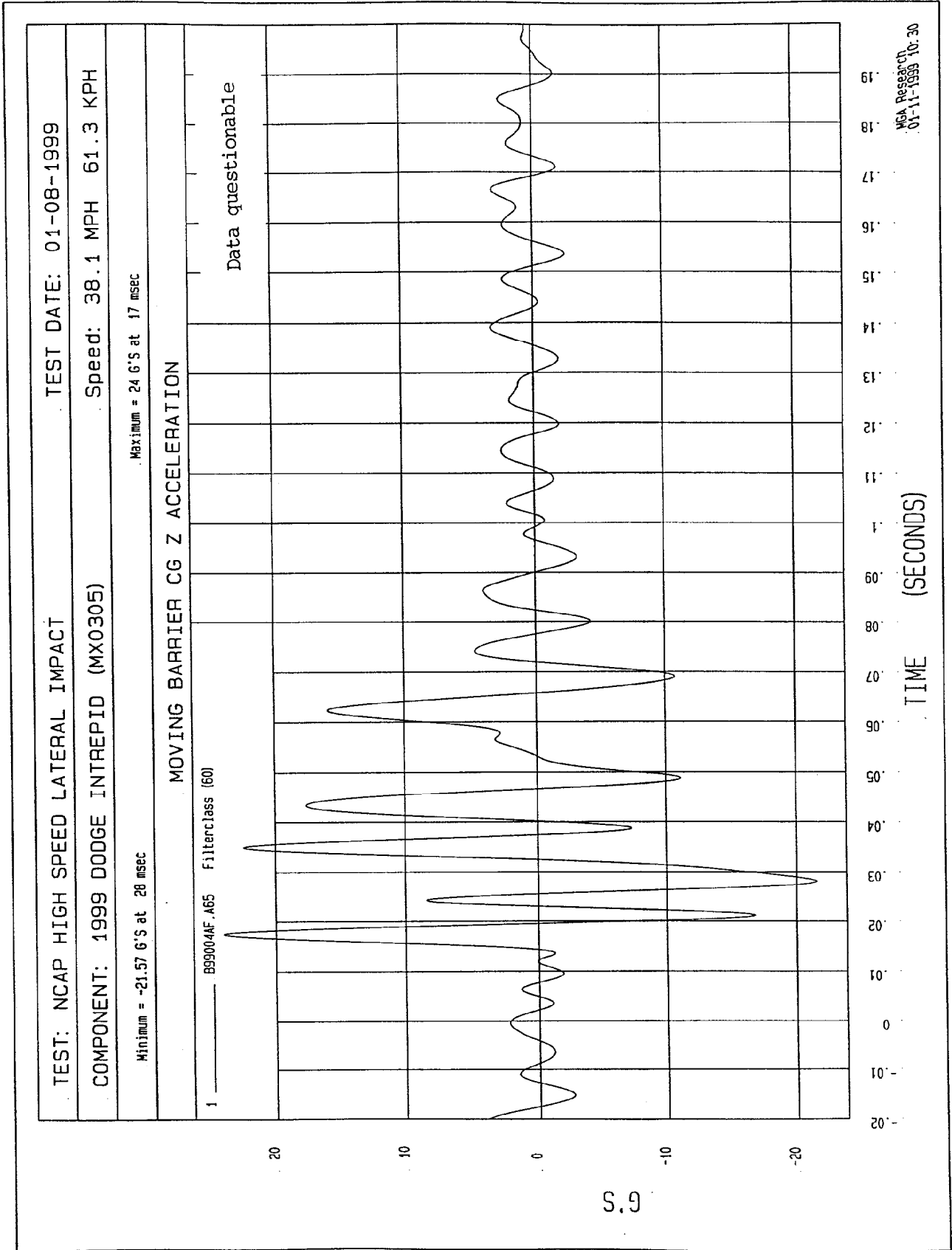
Minimum = 19.28 KPH at 200 msec

Maximum = 27.89 KPH at 0 msec

MOVING BARRIER CG Y VELOCITY

1 899004A1.V64 Filterclass (180)





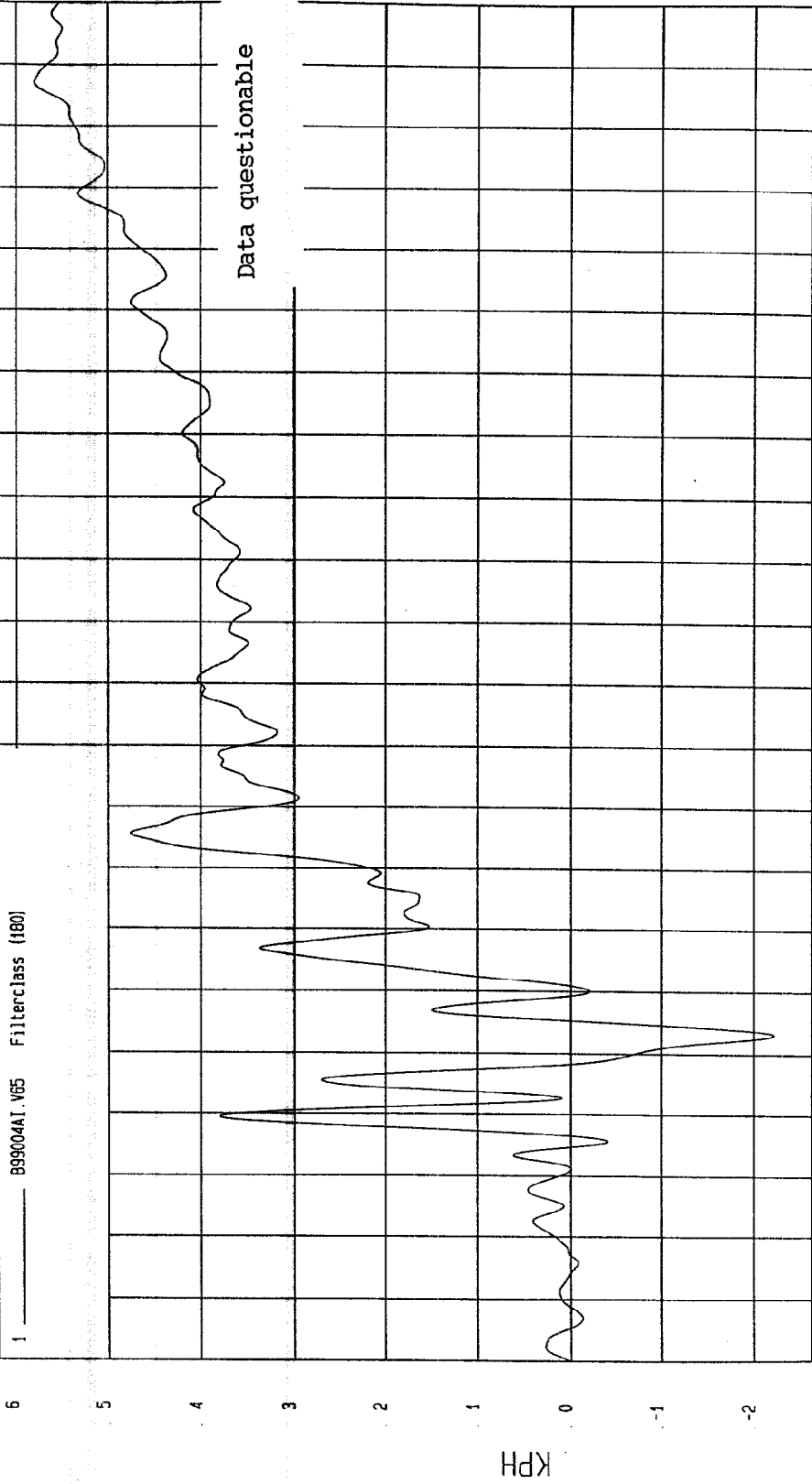
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -2.23 KPH at 33 msec Maximum = 5.8 KPH at 187 msec

MOVING BARRIER CG Z VELOCITY

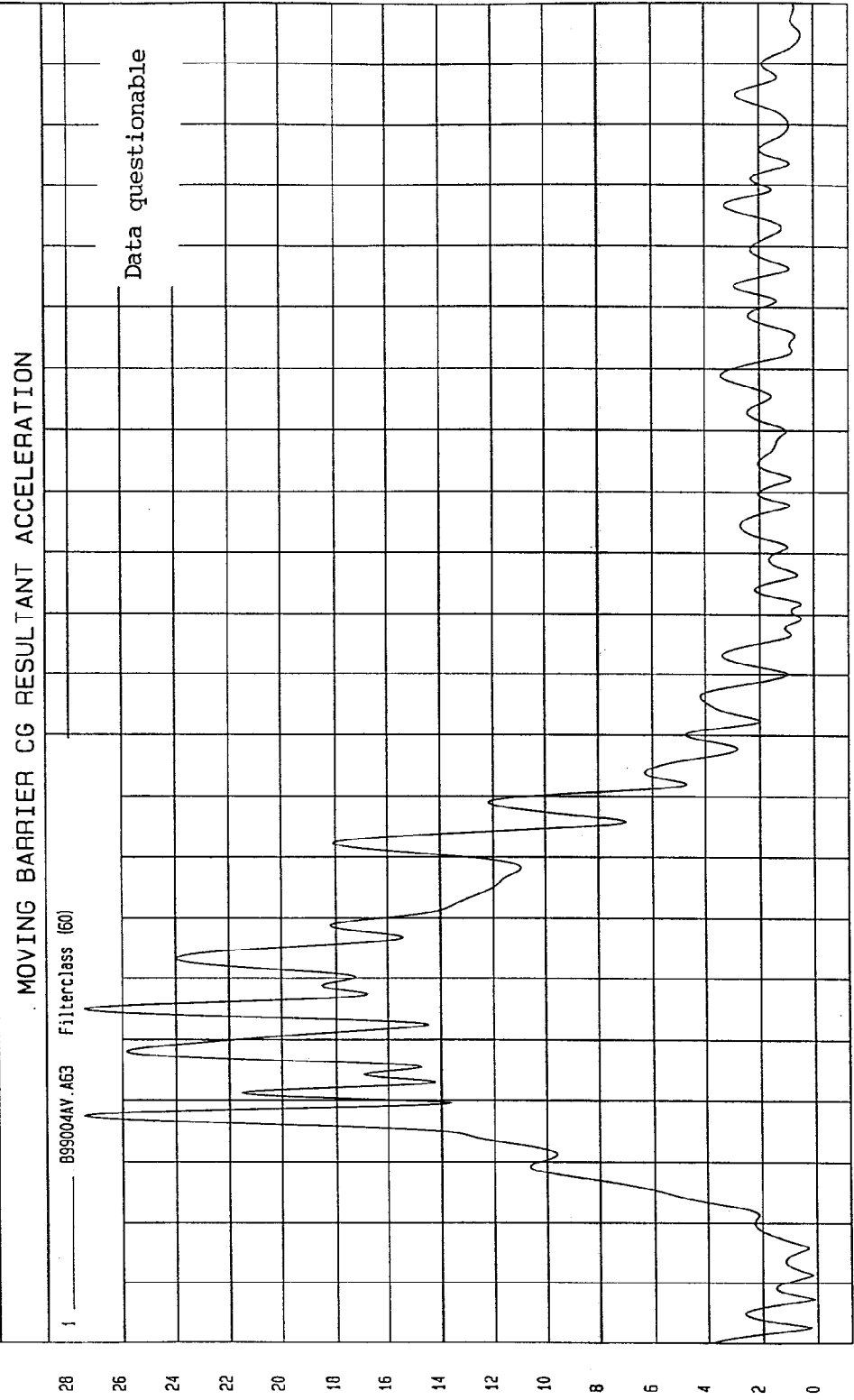
1 _____ B99004A1.V65 Filterclass (180)



TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = 7.80E-02 G'S at -13 msec Maximum = 27.46 G'S at 17 msec



NCA Research
01-11-1999 10:30

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

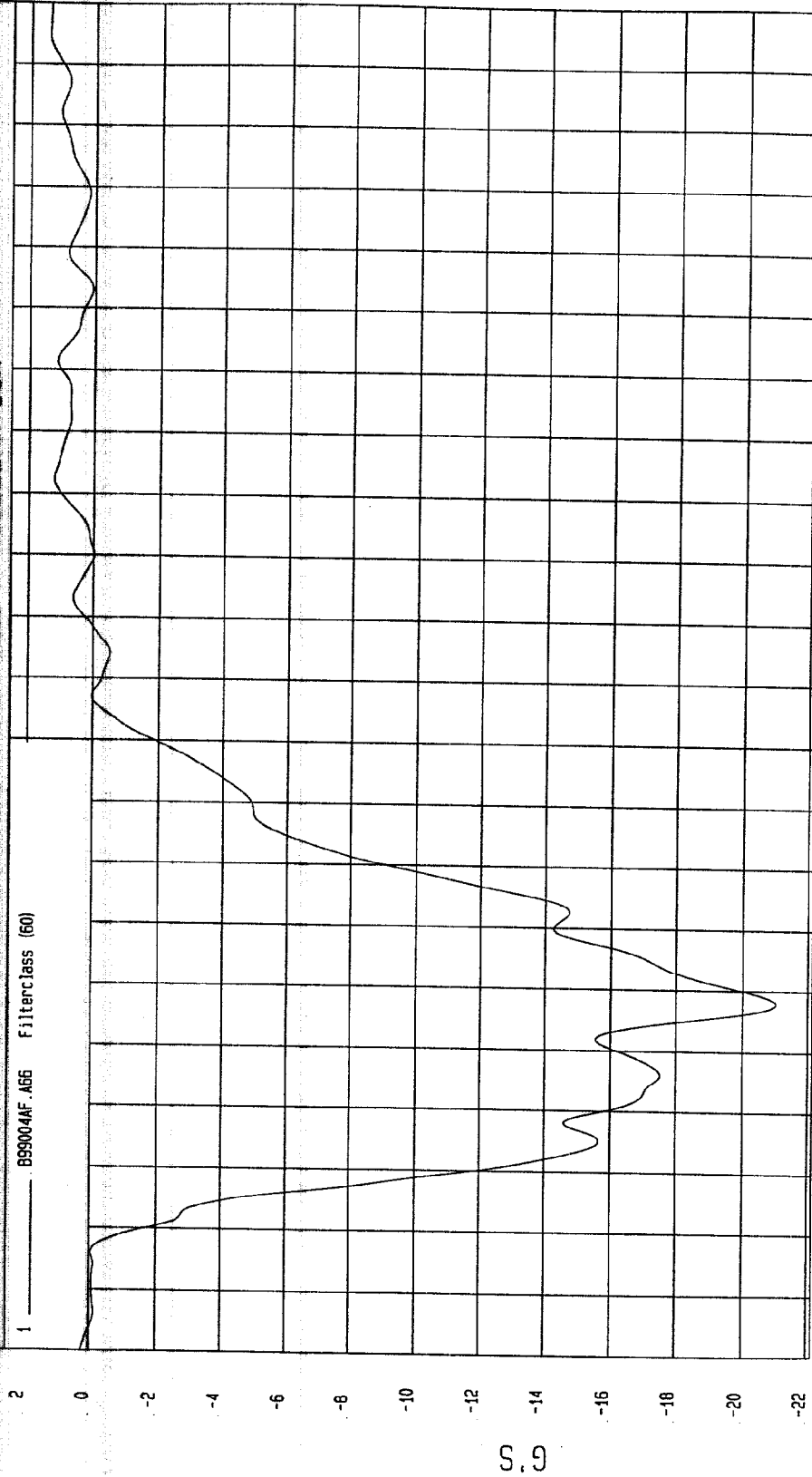
COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -21.02 G'S at 38 msec

Maximum = 1.42 G'S at 195 msec

MOVING BARRIER REAR AXLE X ACCELERATION

1 ——— B99004AF.A66 Filterclass (60)



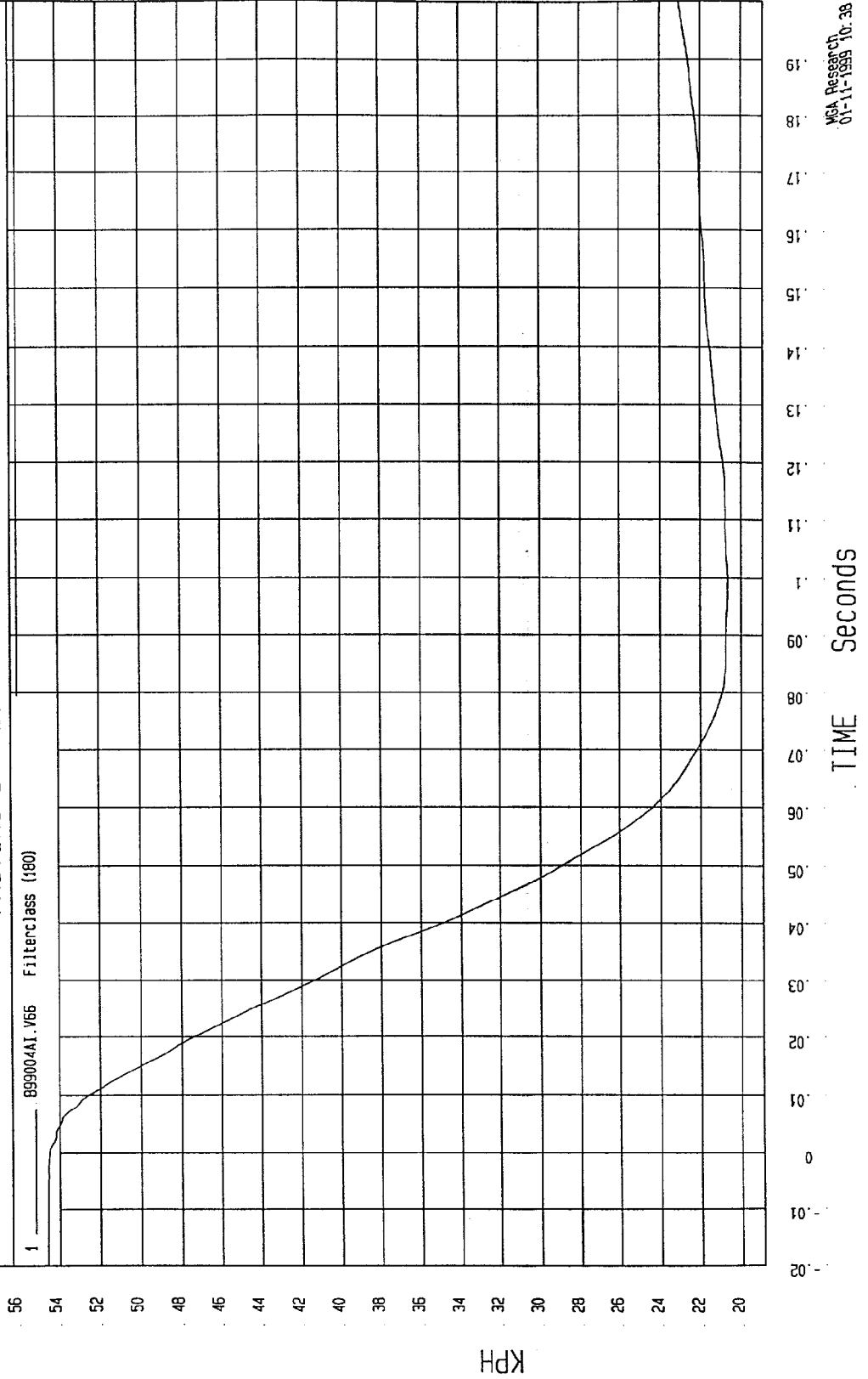
MCA Research
01-11-1999 10:30

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = 20.63 KPH at 100 msec Maximum = 54.62 KPH at -16 msec

MOVING BARRIER REAR AXLE X VELOCITY



MCA Research
01-11-1999 10:38

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

SPEED: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 6.8 G'S at 41 msec

Minimum = -.45 G'S at 126 msec

MOVING BARRIER REAR AXLE Y ACCELERATION

1 899004AF.A67 Filterclass (50)

7

6

5

4

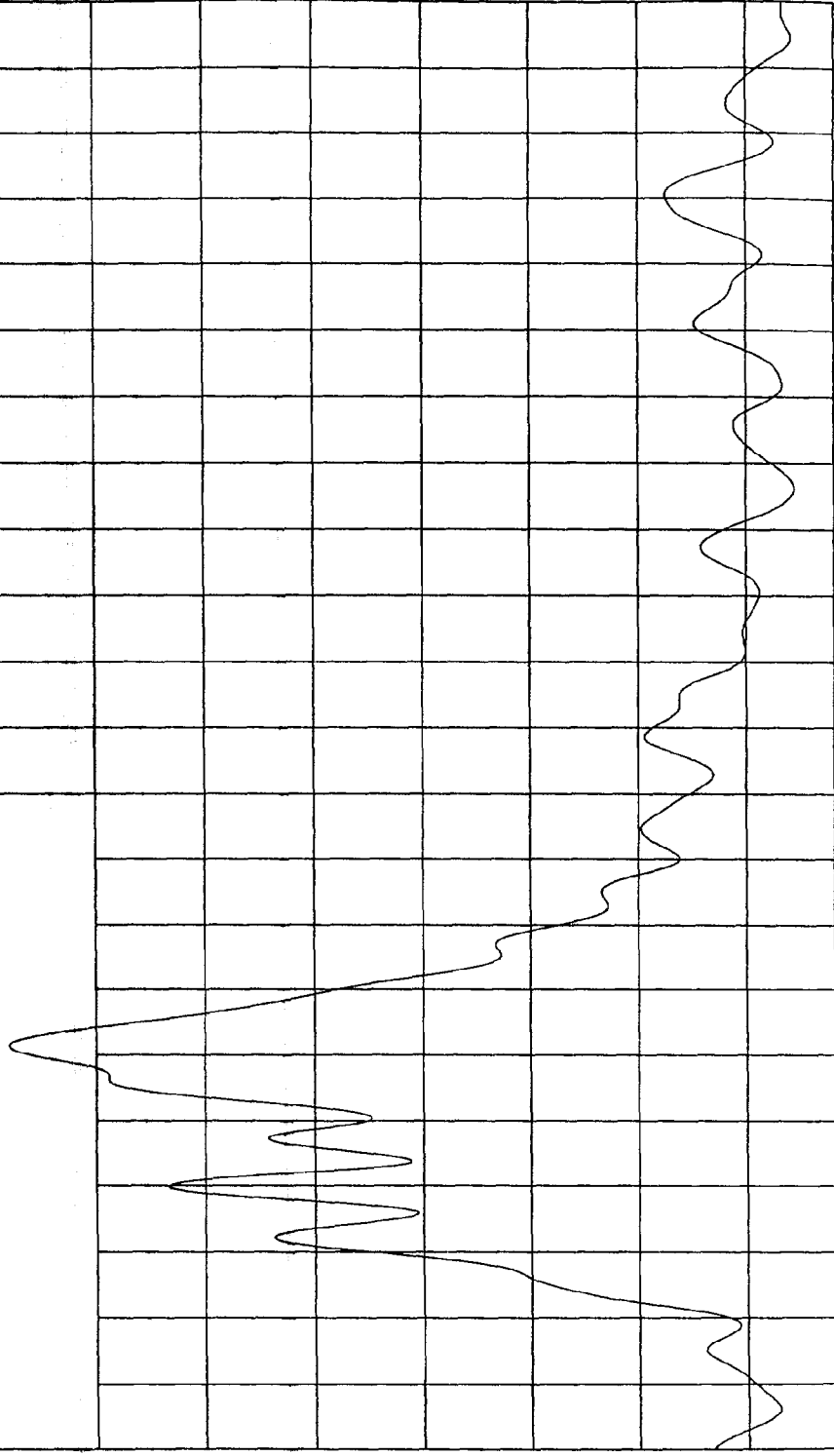
3

2

1

0

G.S



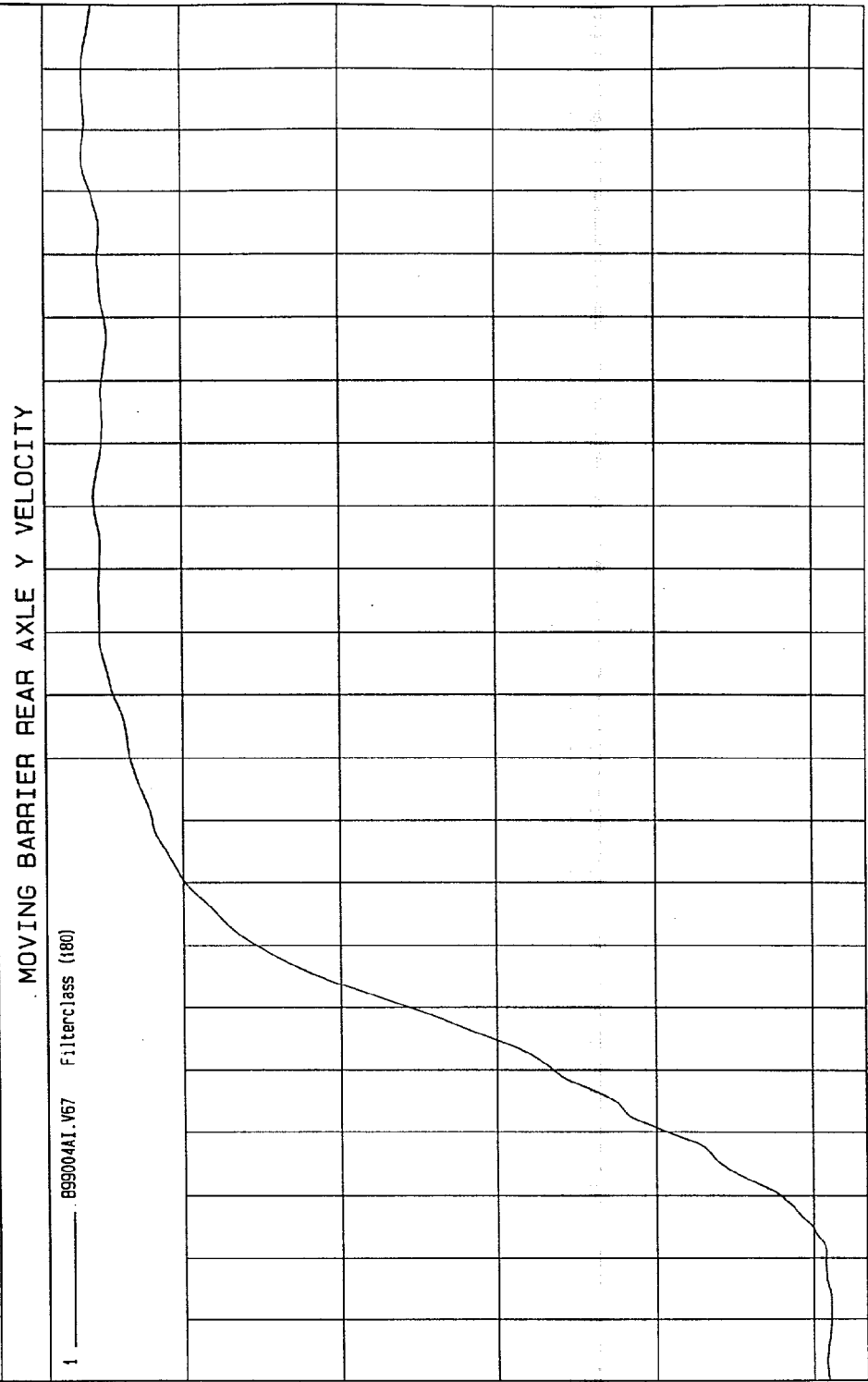
WCA Research
01-11-1999 10:30

TIME (SECONDS)

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = 27.77 KPH at -7 msec Maximum = 37.27 KPH at 176 msec



TIME Seconds

MSA Research
01-11-1999 10:38

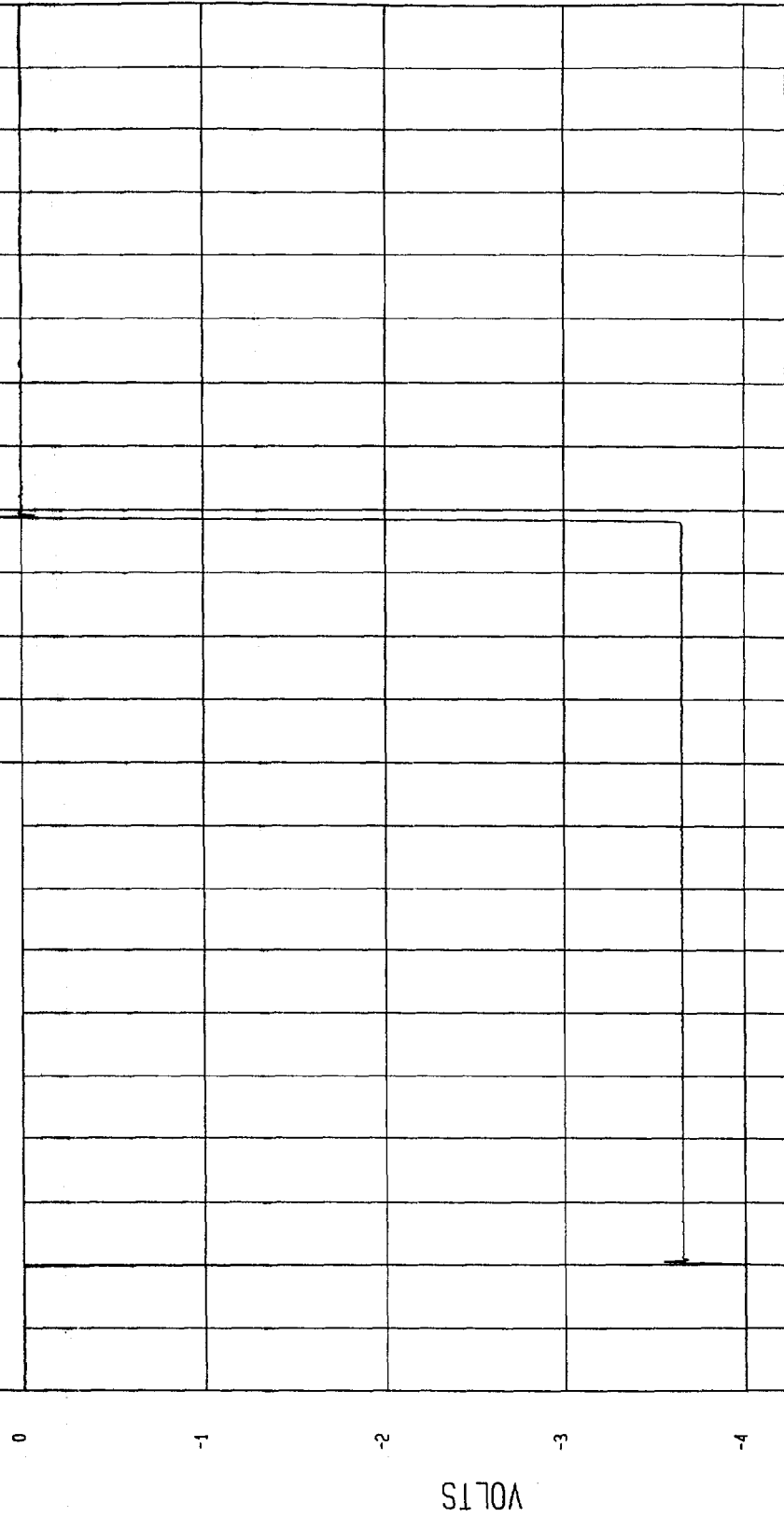
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

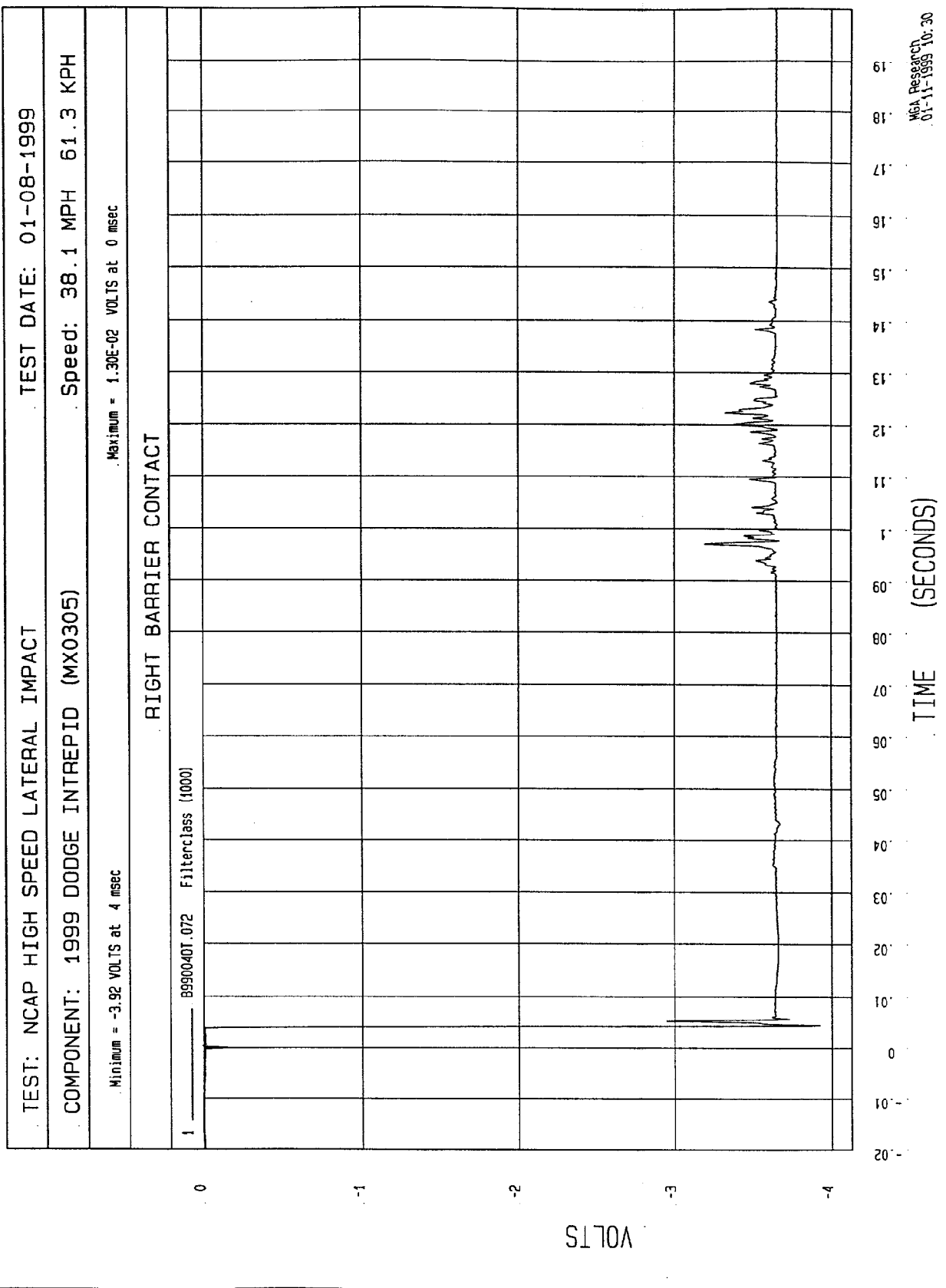
Minimum = -4.02 VOLTS at 0 msec Maximum = .14 VOLTS at 119 msec

LEFT BARRIER CONTACT

1 8990040T.071 Filterclass (1000)



MCA Research
01-11-1999 10:30



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

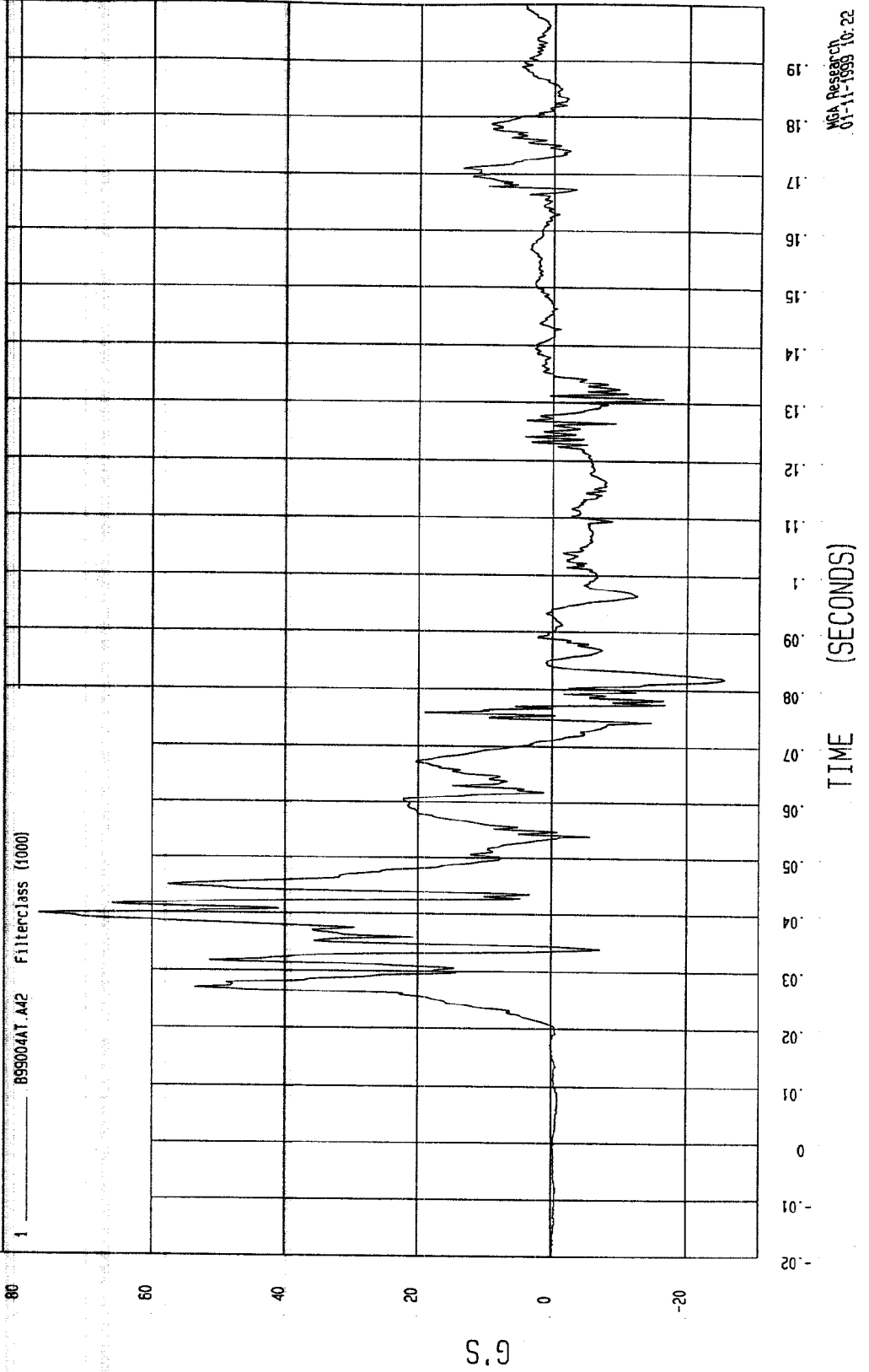
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -25.59 G'S at 82 msec

Maximum = 77.03 G'S at 40 msec

DRIVER UPPER RIB Y REDUNDANT ACCELERATION

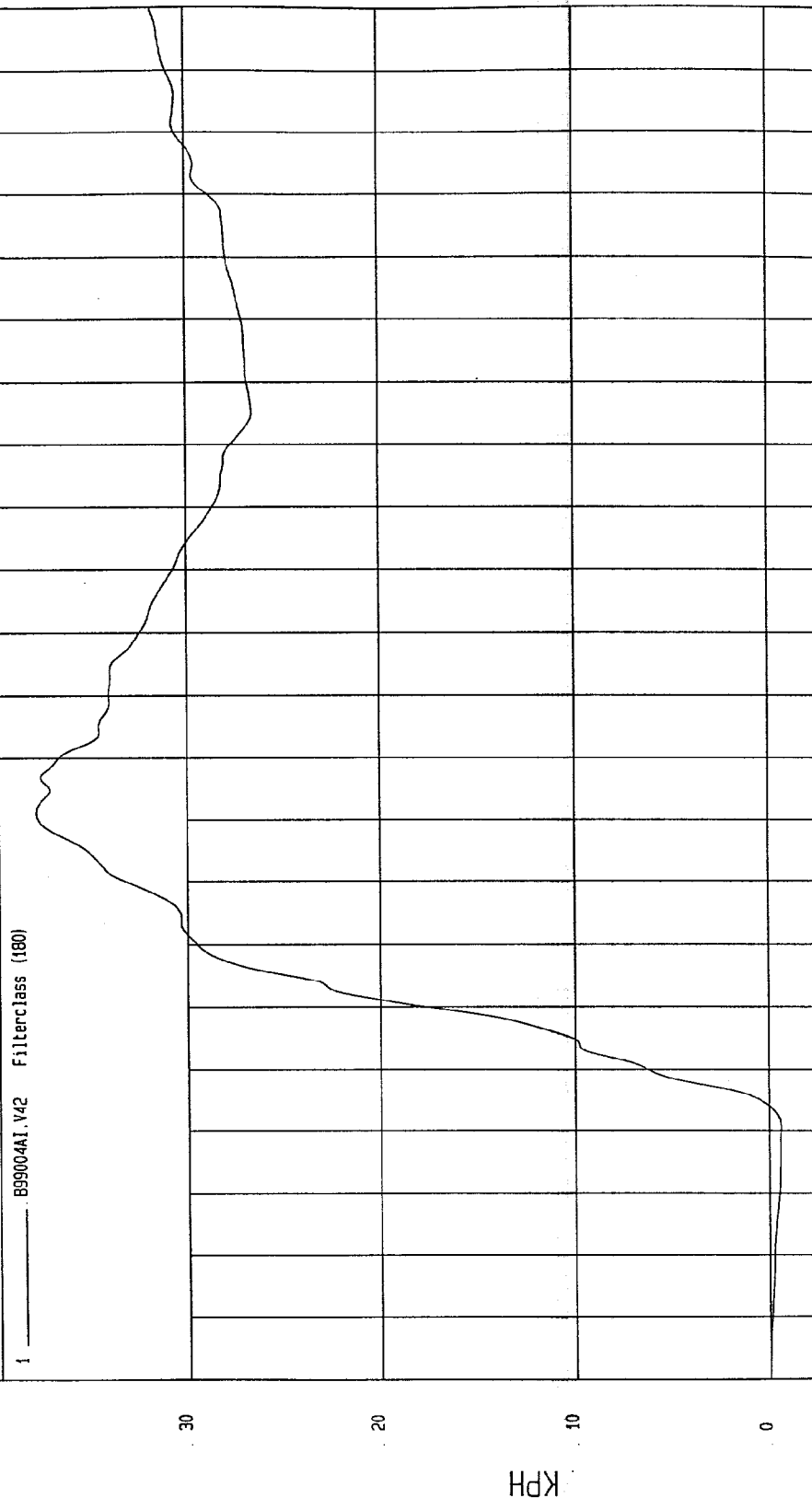


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -.62 KPH at 20 msec Maximum = 37.67 KPH at 71 msec

DRIVER UPPER RIB Y REDUNDANT VELOCITY



MCA Research
01-11-1999 10:25

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305)

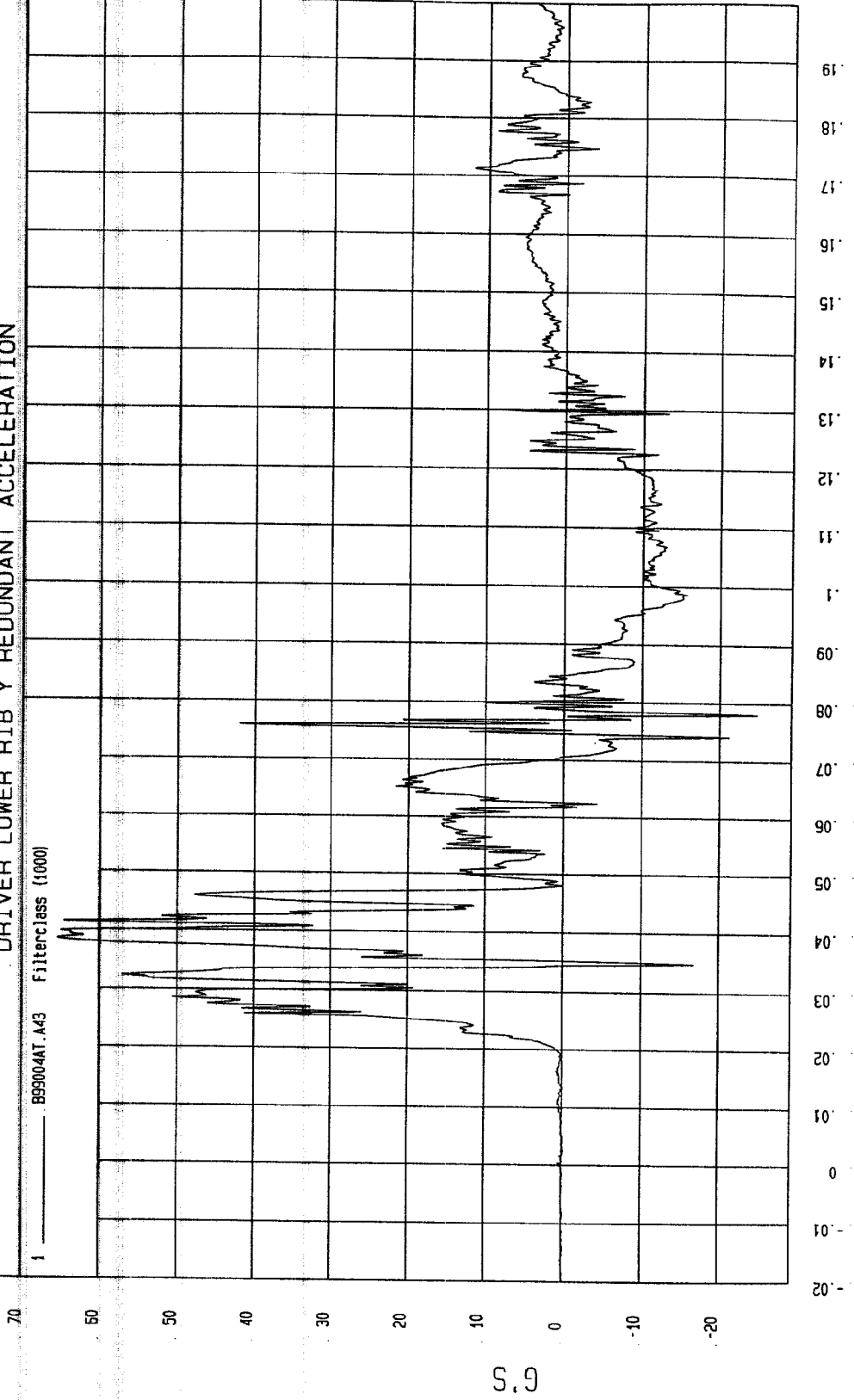
Speed: 38.1 MPH 61.3 KPH

Minimum = -24.78 G'S at 78 msec

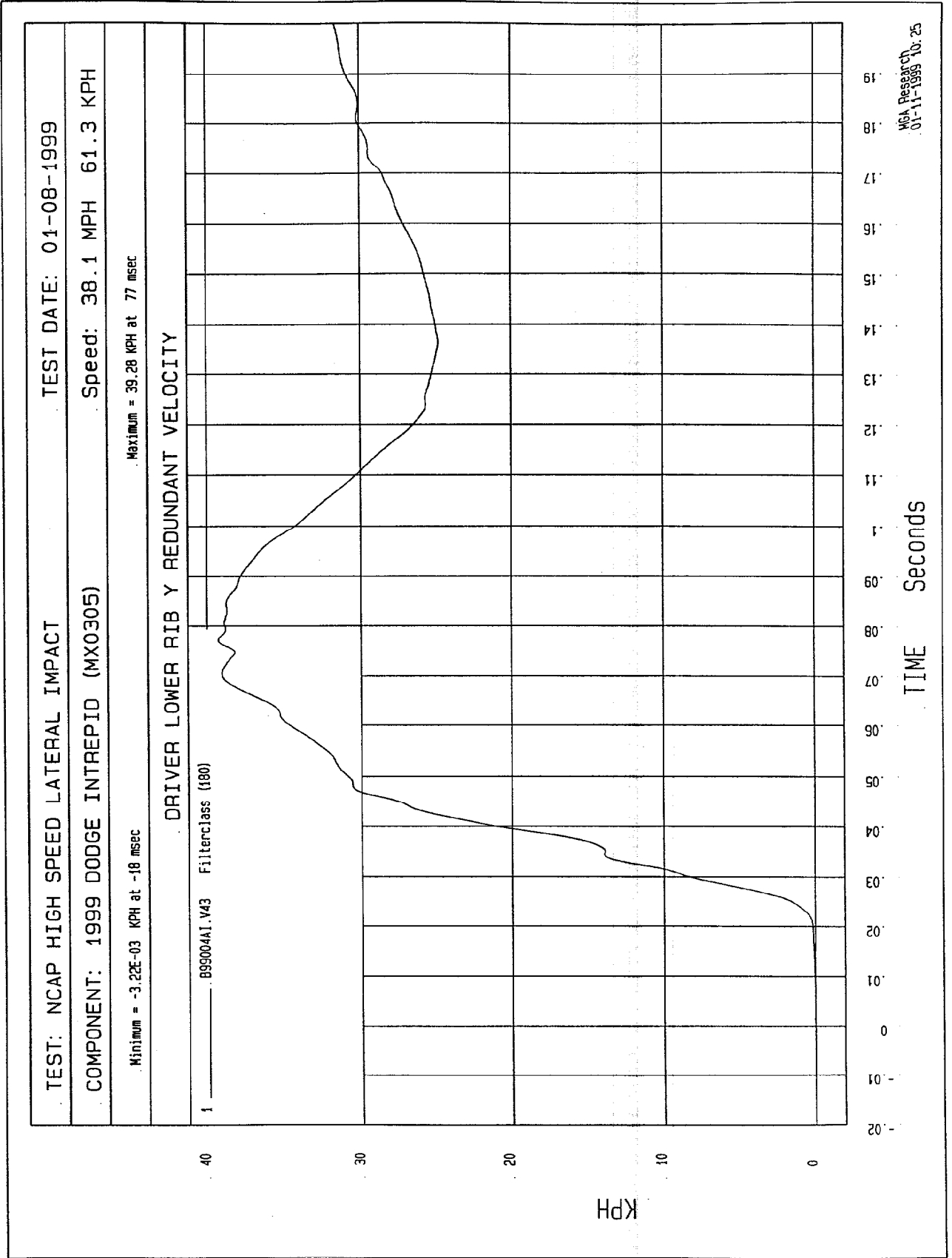
Maximum = 65.52 G'S at 38 msec

DRIVER LOWER RIB Y REDUNDANT ACCELERATION

1 B99004AT.A43 Filterclass (1000)



MOA Research
01-11-1999 10:22



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305)

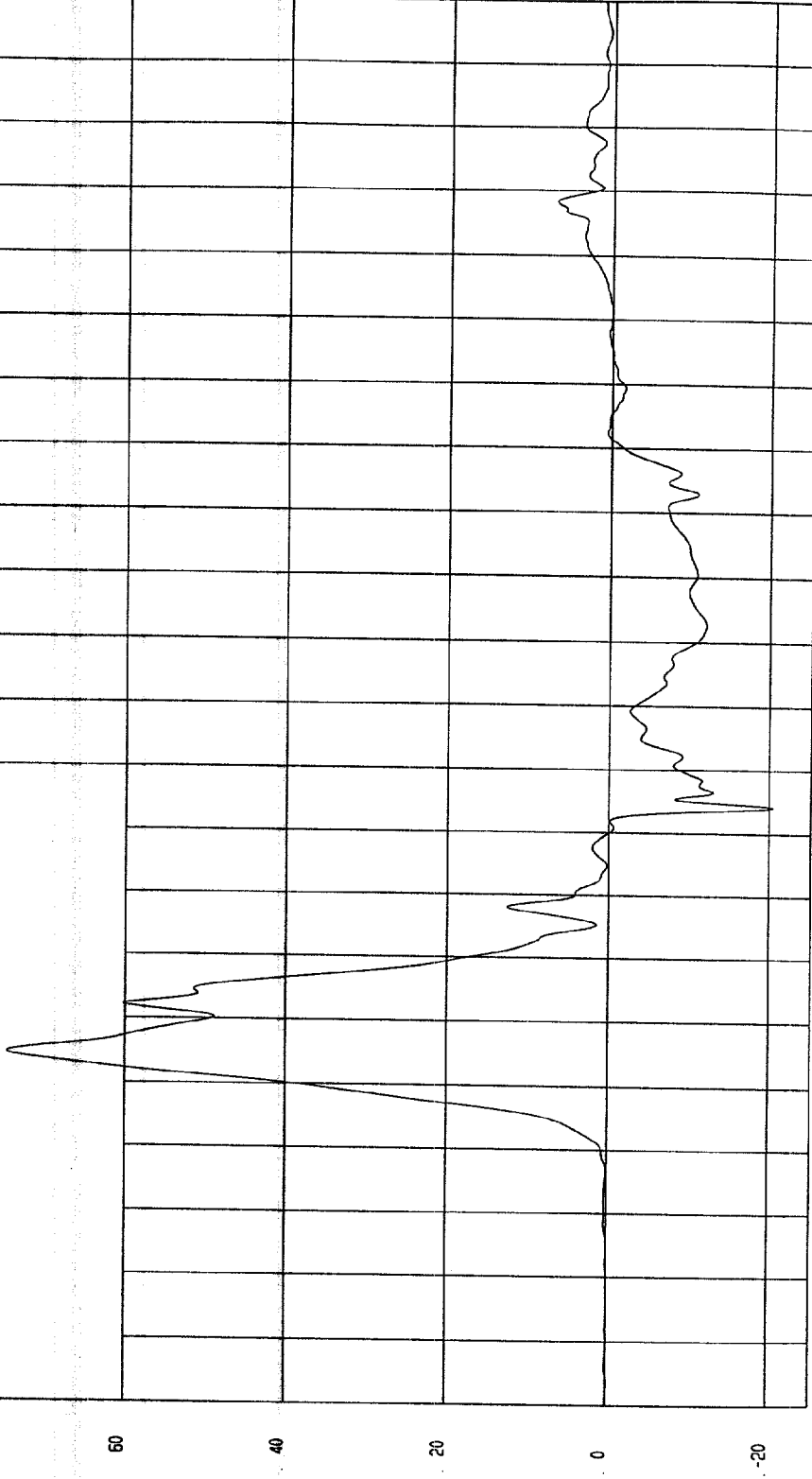
Speed: 38.1 MPH 61.3 KPH

Minimum = -20.48 G'S at 74 msec

Maximum = 74.6 G'S at 35 msec

DRIVER LOWER SPINE Y REDUNDANT ACCELERATION

1 ——— B99004AF.A44 Filterclass (180)



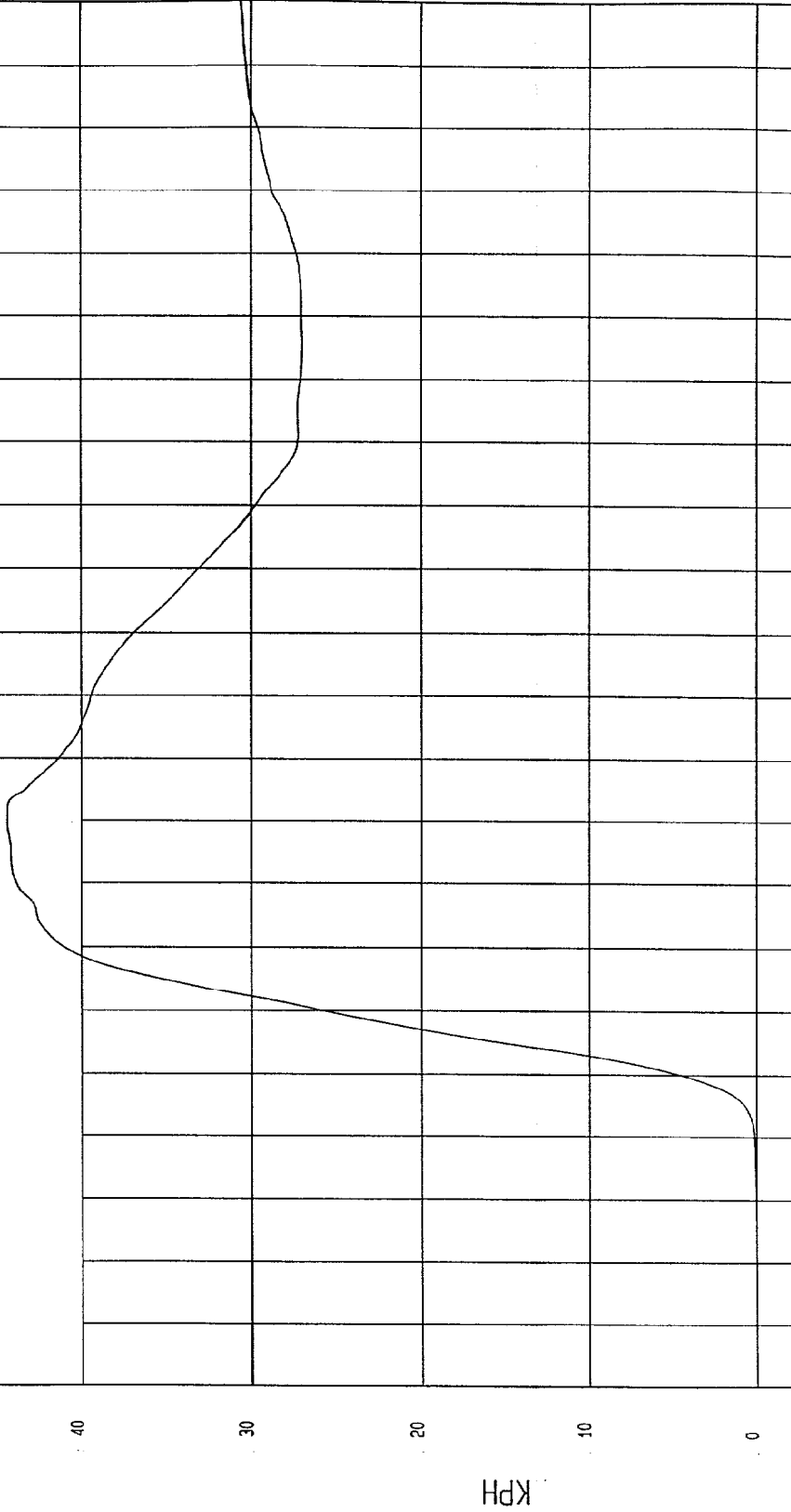
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -1.67E-03 KPH at -15 msec Maximum = 44.42 KPH at 70 msec

DRIVER LOWER SPINE Y REDUNDANT VELOCITY

1 _____ 899004A1.V44 FilterClass (180)



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

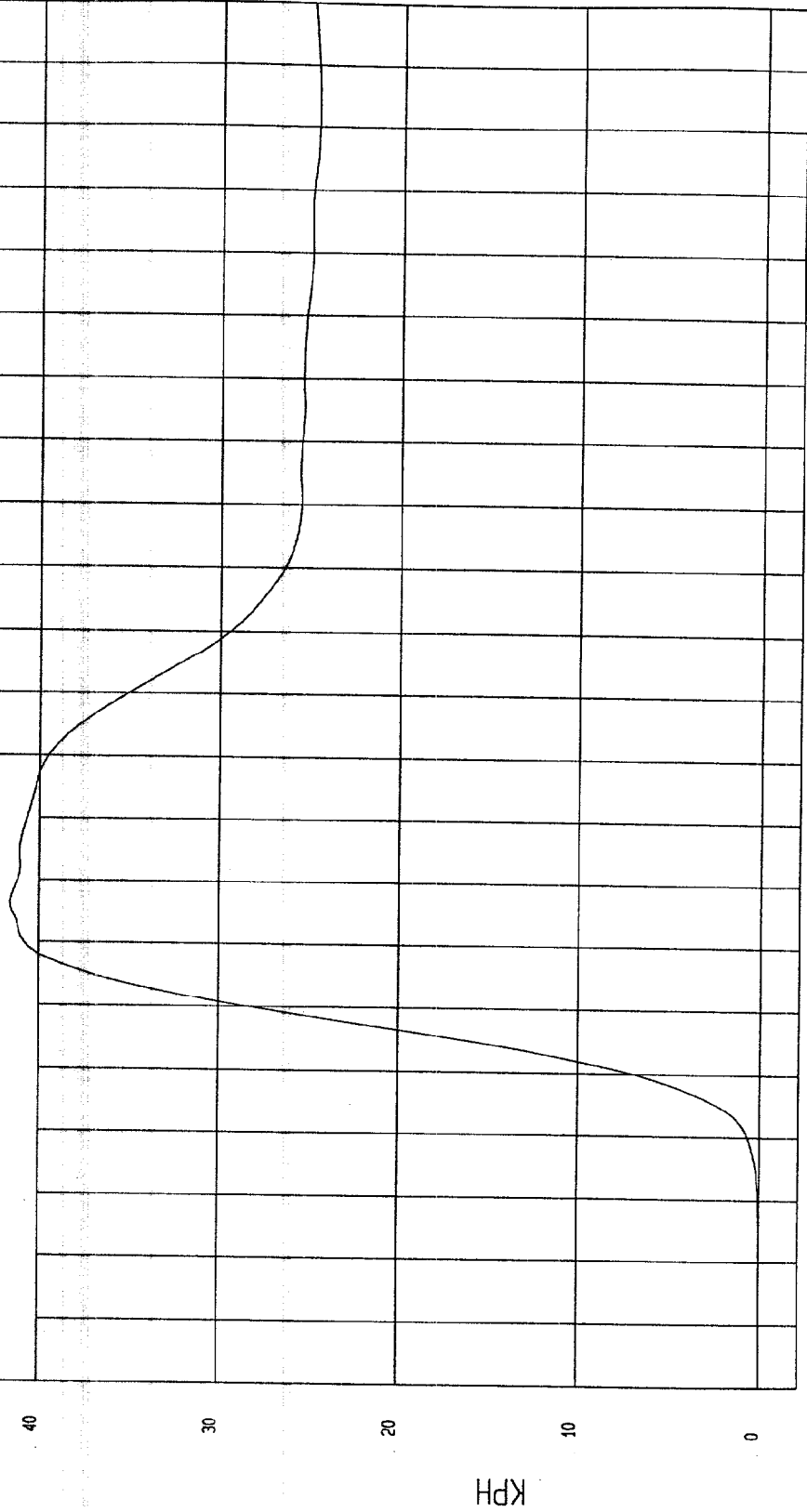
COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -1.95E-02 KPH at -17 msec

Maximum = 41.61 KPH at 56 msec

DRIVER PELVIS Y REDUNDANT VELOCITY

1 B99004A1.V45 Filterclass (180)



WCA Research
01-11-1999 10:25

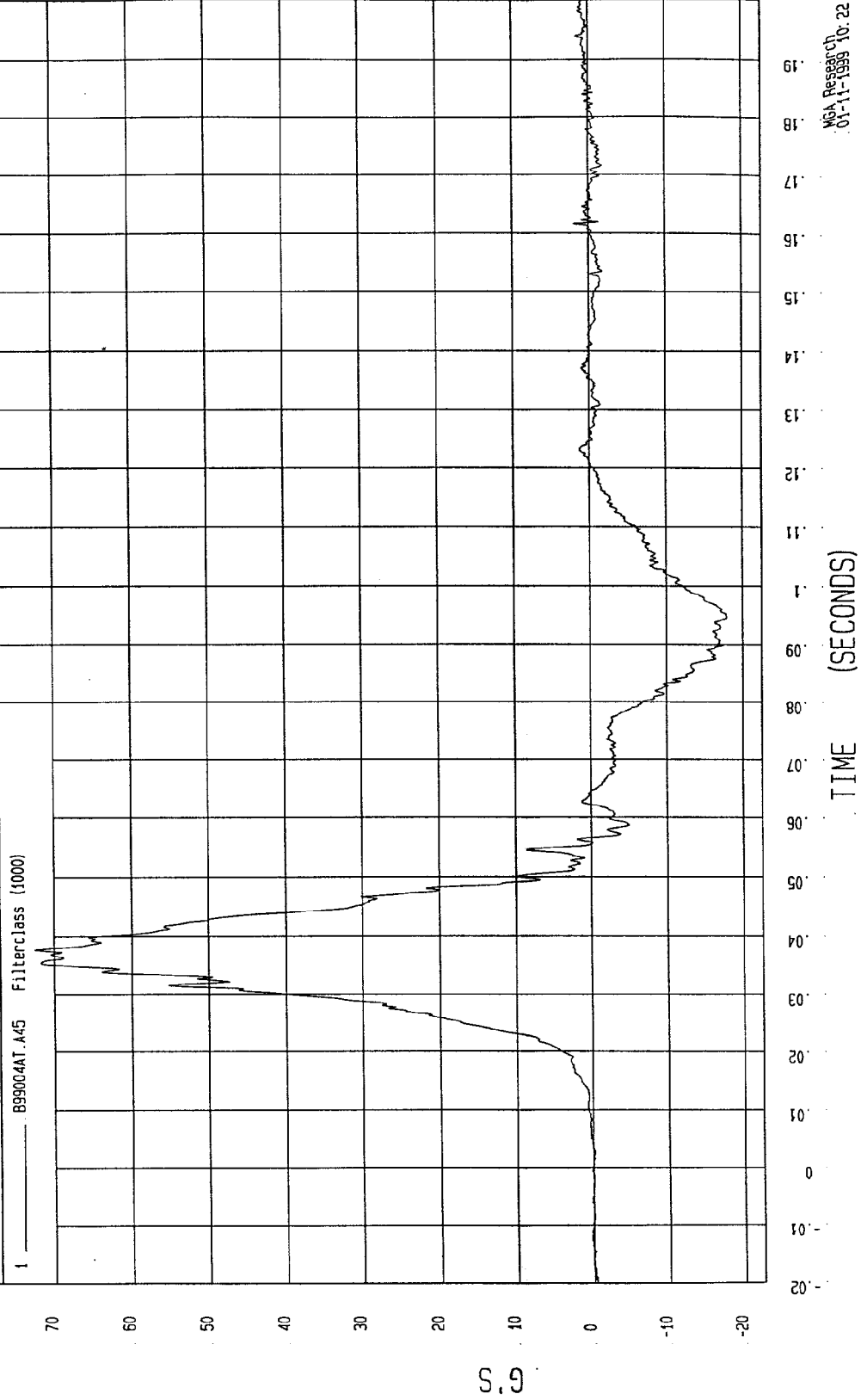
TIME Seconds

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -17.97 G'S at 94 msec Maximum = 72.49 G'S at 38 msec

DRIVER PELVIS Y REDUNDANT ACCELERATION



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

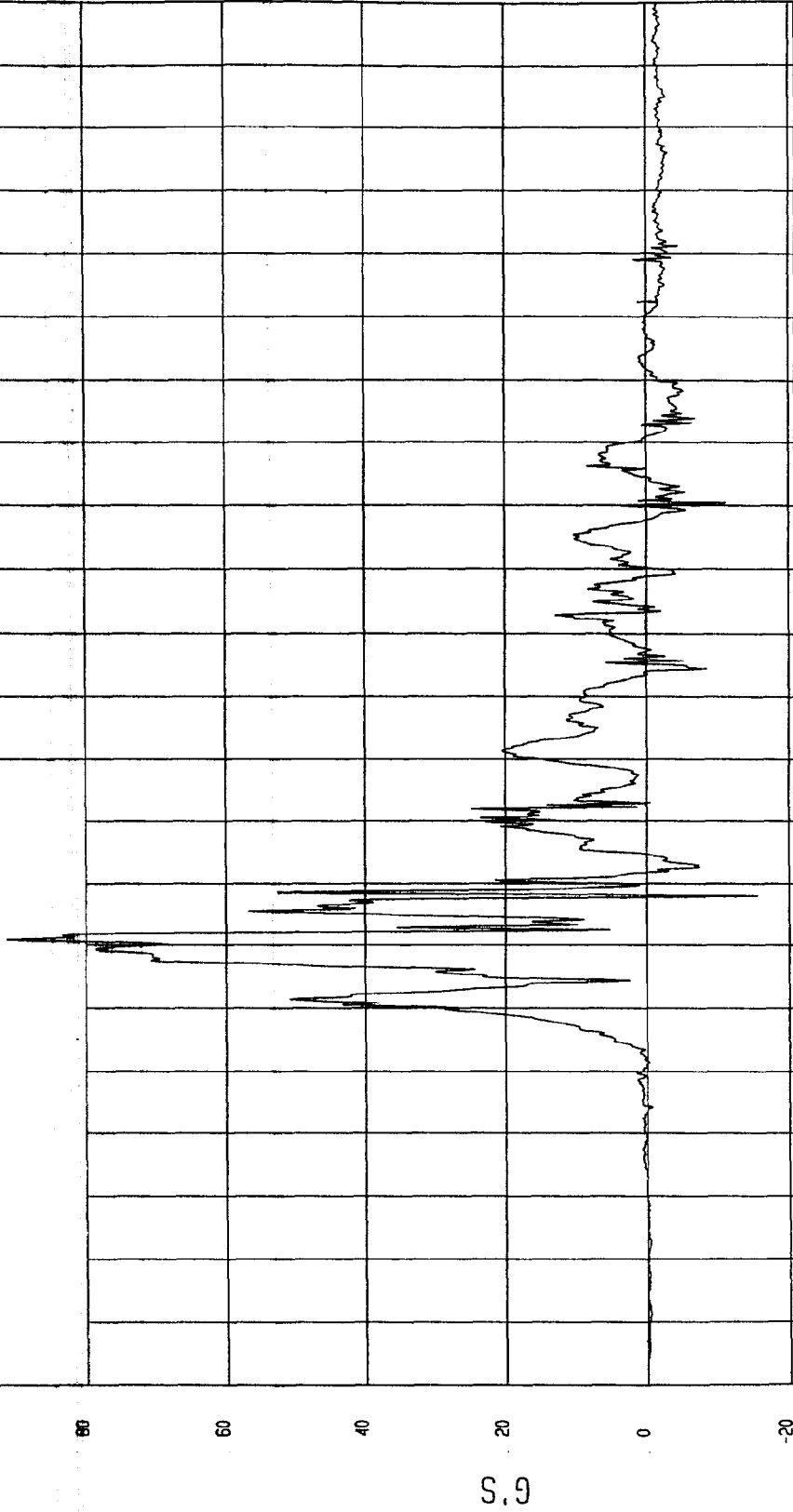
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 90.98 G'S at 51 msec

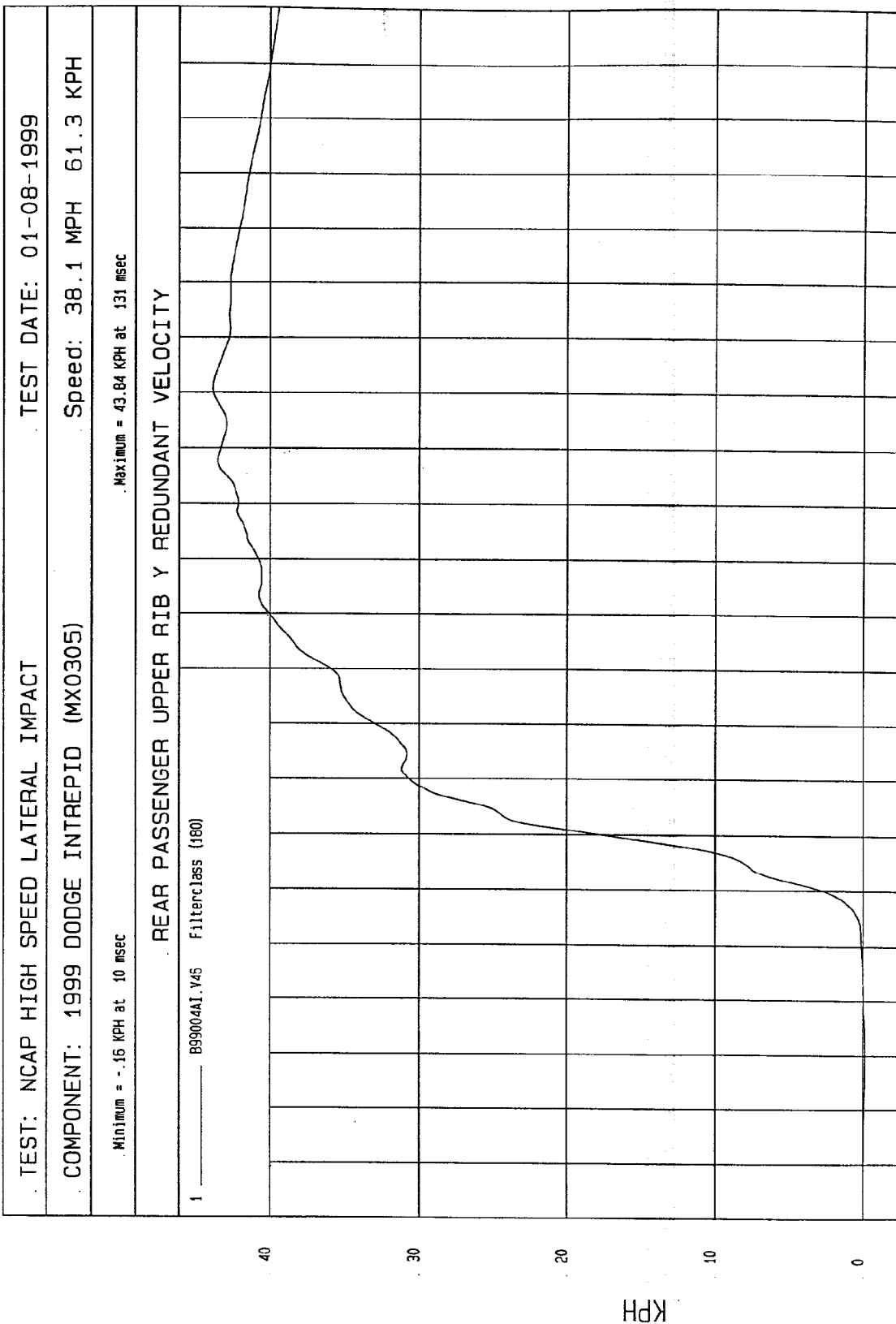
Minimum = -15.5 G'S at 58 msec

REAR PASSENGER UPPER RIB Y REDUNDANT ACCELERATION

1 899004AT.M46 Filterclass (1000)



MSA Research
01-11-1999 10:22



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

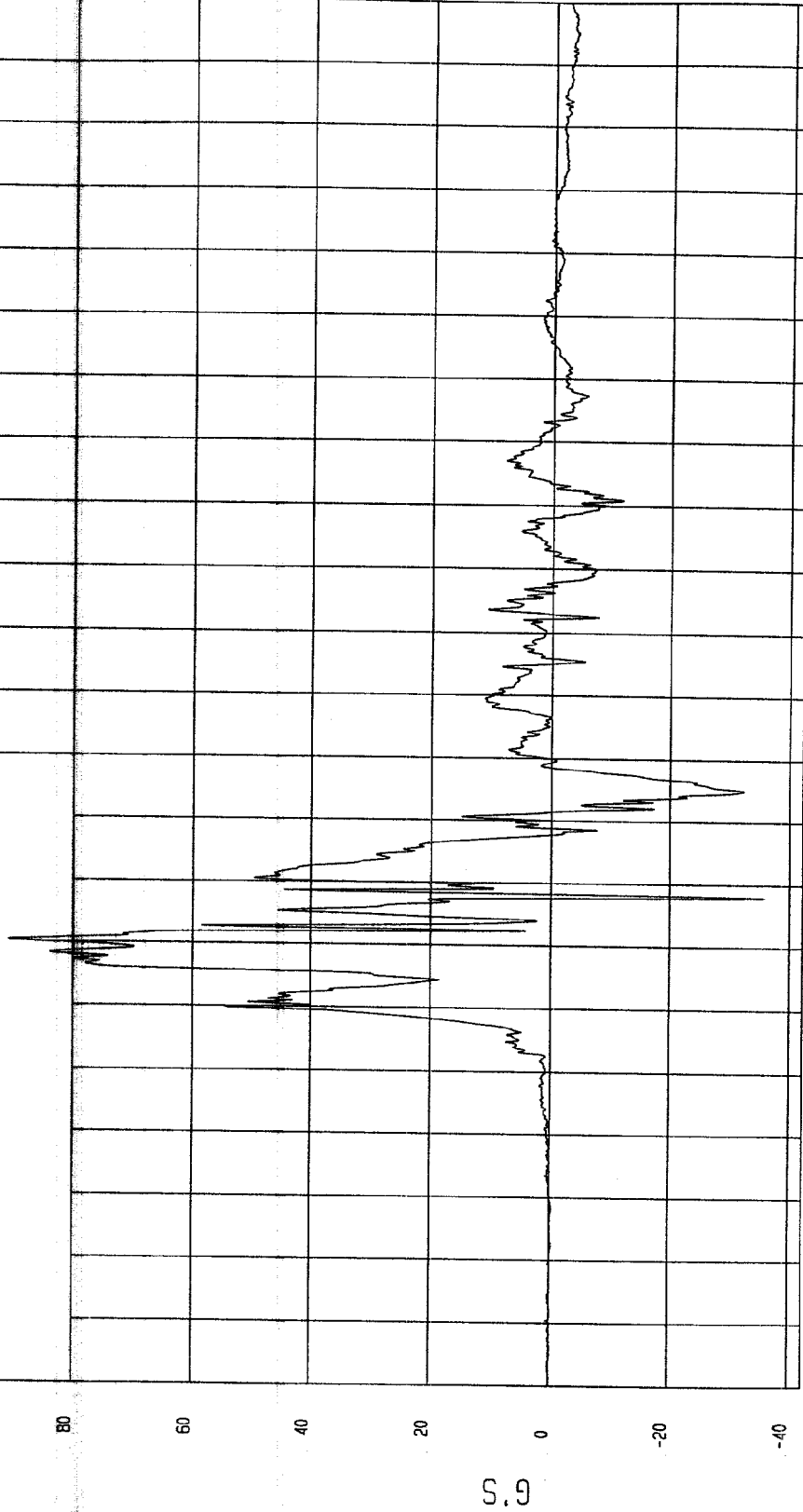
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 90.61 G'S at 50 msec

Minimum = -35.91 G'S at 50 msec

REAR PASSENGER LOWER RIB Y REDUNDANT ACCELERATION

1 ——— B99004AT.A47 Filterclass (1000)



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

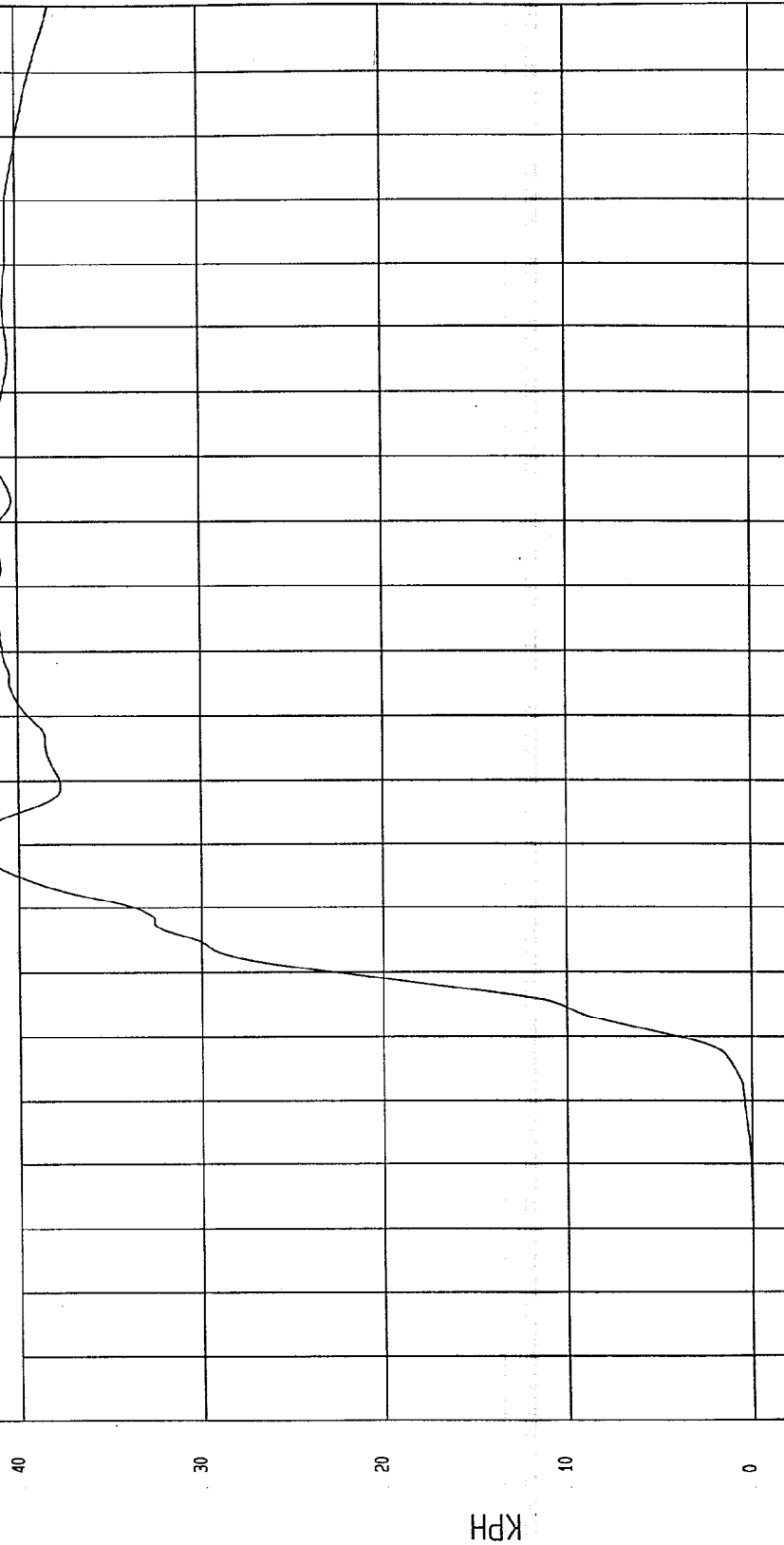
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 41.97 KPH at 71 msec

Minimum = -.02 KPH at 10 msec

REAR PASSENGER LOWER RIB Y REDUNDANT VELOCITY

1 899004AT.V47 Filterclass (180)



MOA Research
01-11-1999 10:25

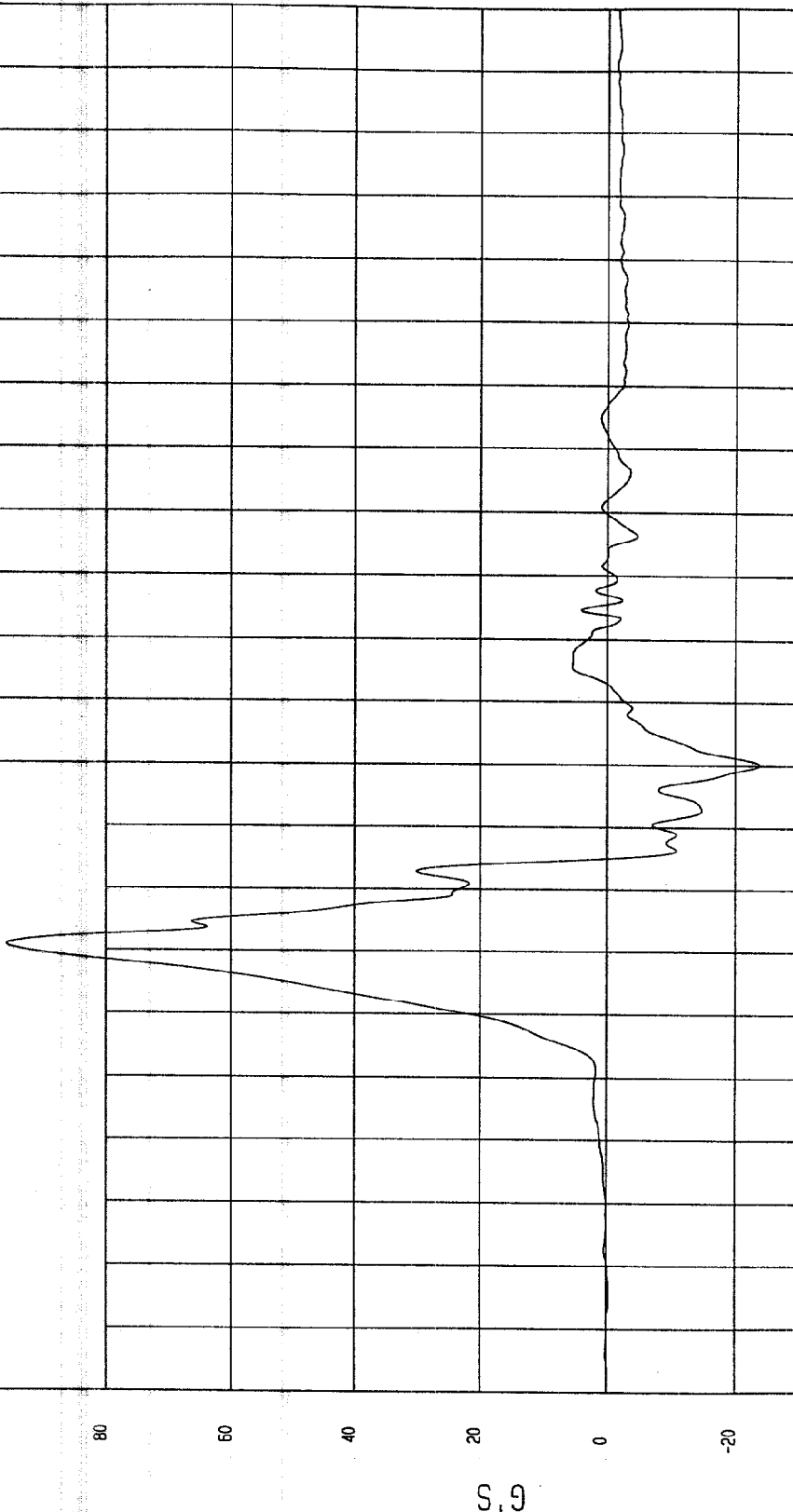
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -23.63 G'S at 80 msec Maximum = 95.91 G'S at 51 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT ACCELERATION

1 B99004AF.A48 FilterClass (180)



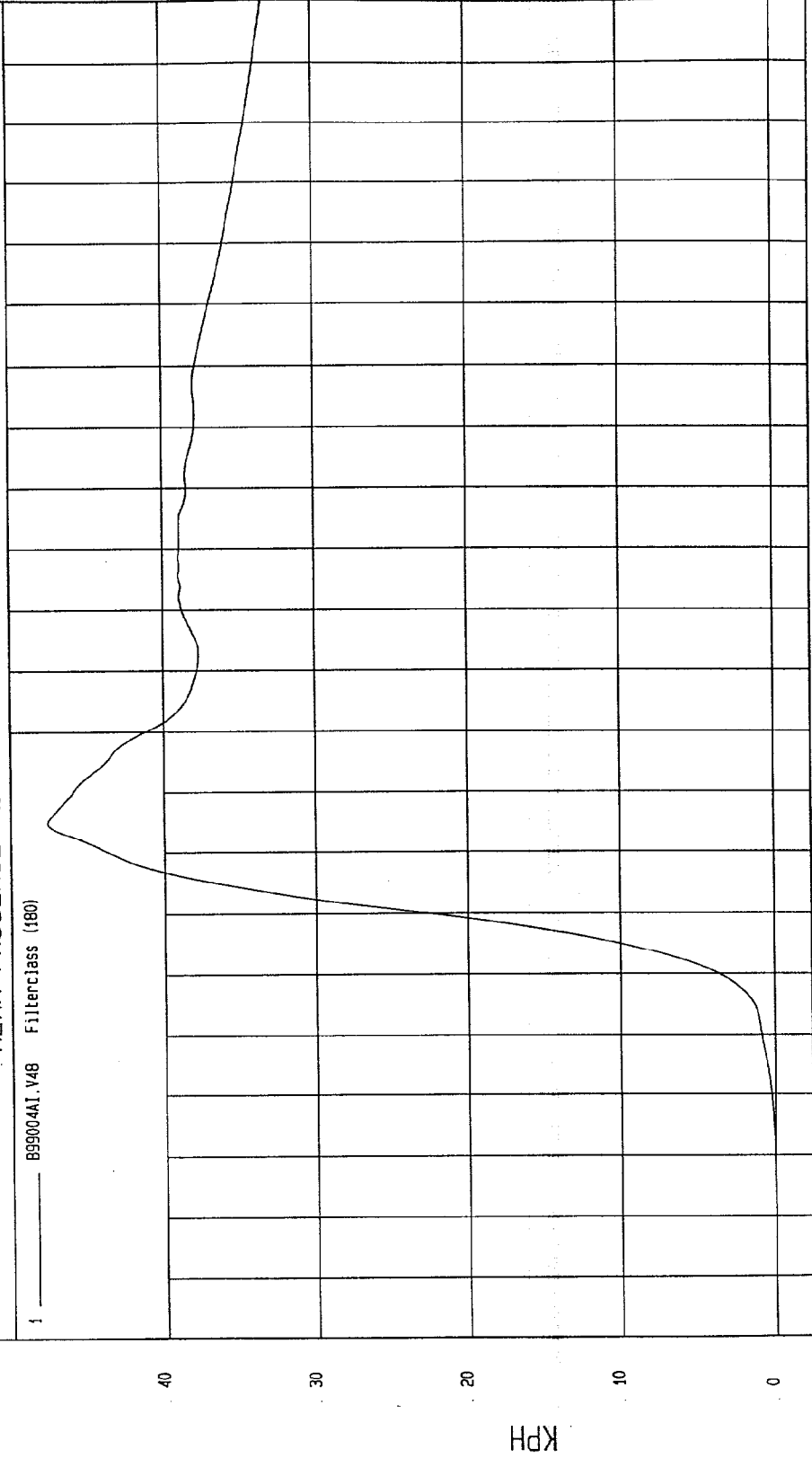
MSA Research
01-11-1999 10:22

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -2.20E-02 KPH at 0 msec Maximum = 47.55 KPH at 65 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT VELOCITY



TIME Seconds

NCA Research
01-11-1999 10:25

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -12.07 G'S at 97 msec

Maximum = 128.03 G'S at 47 msec

REAR PASSENGER PELVIS Y REDUNDANT ACCELERATION

1 _____ B95004AT.A49 Filterclass (1000)

120

100

80

60

40

20

0

G

-02

-01

0

01

02

03

04

05

06

07

08

09

1

11

12

13

14

15

16

17

18

19

TIME (SECONDS)

MCA Research
01-11-1999 10:22

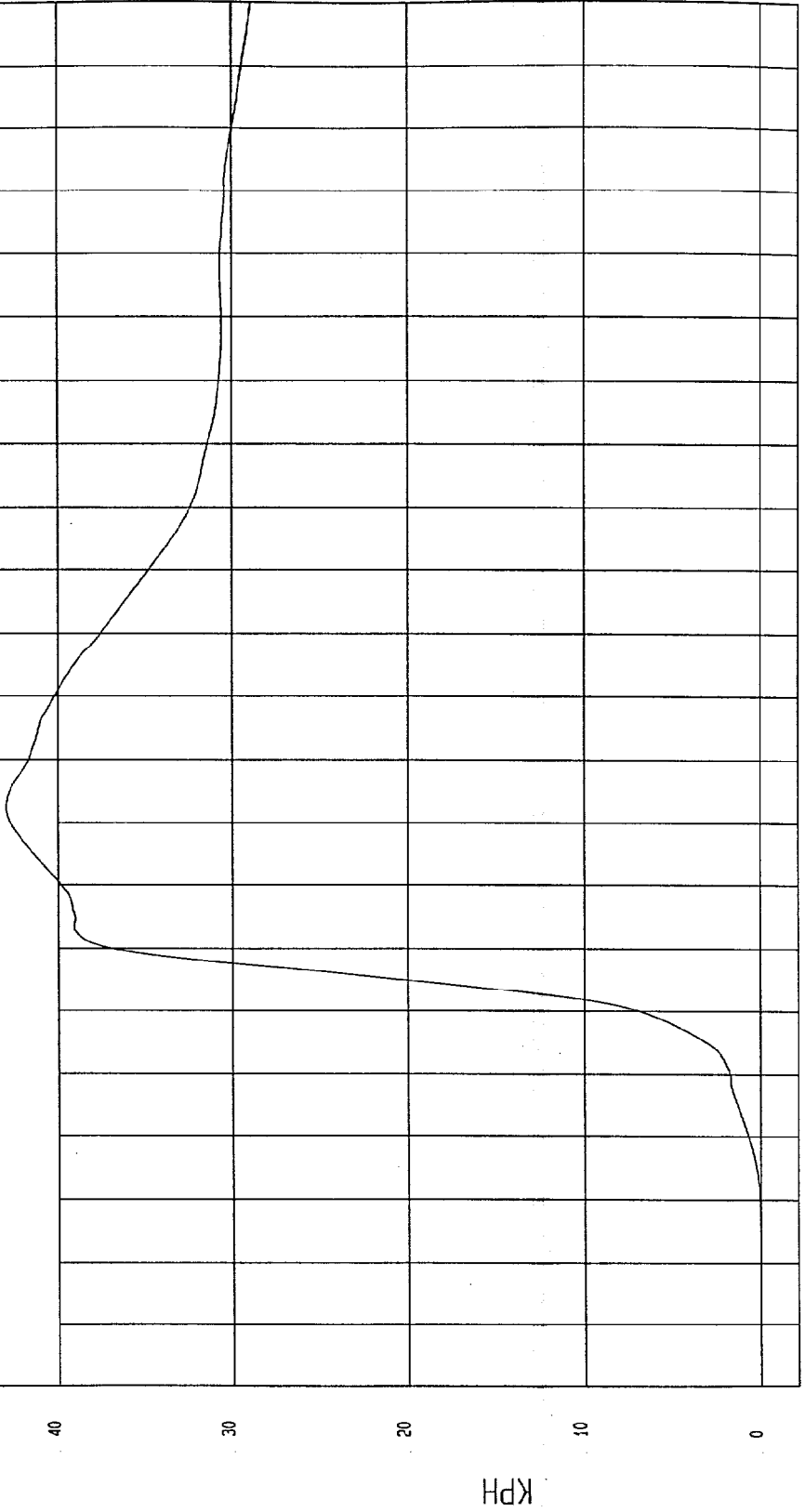
TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -5.14E-03 KPH at -16 msec Maximum = 42.98 KPH at 72 msec

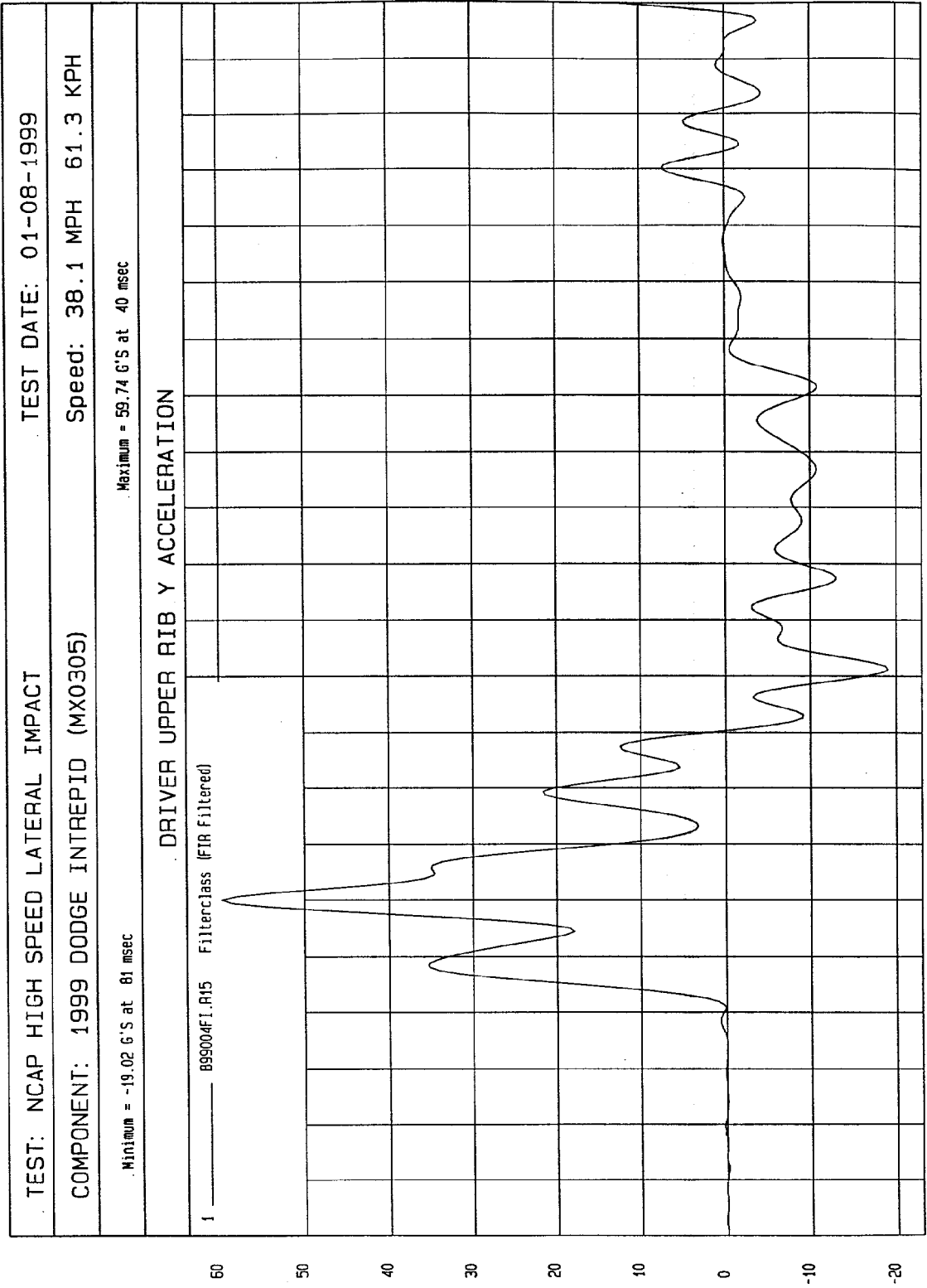
REAR PASSENGER PELVIS Y REDUNDANT VELOCITY

1 _____ B99004A1.V49 Filterclass (180)



MCA Research
01-11-1999 10:25

FINITE IMPULSE RESPONSE (FIR) FILTERED DATA



MGA Research
01-08-1999 20:25

TIME (SECONDS)

G.S

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

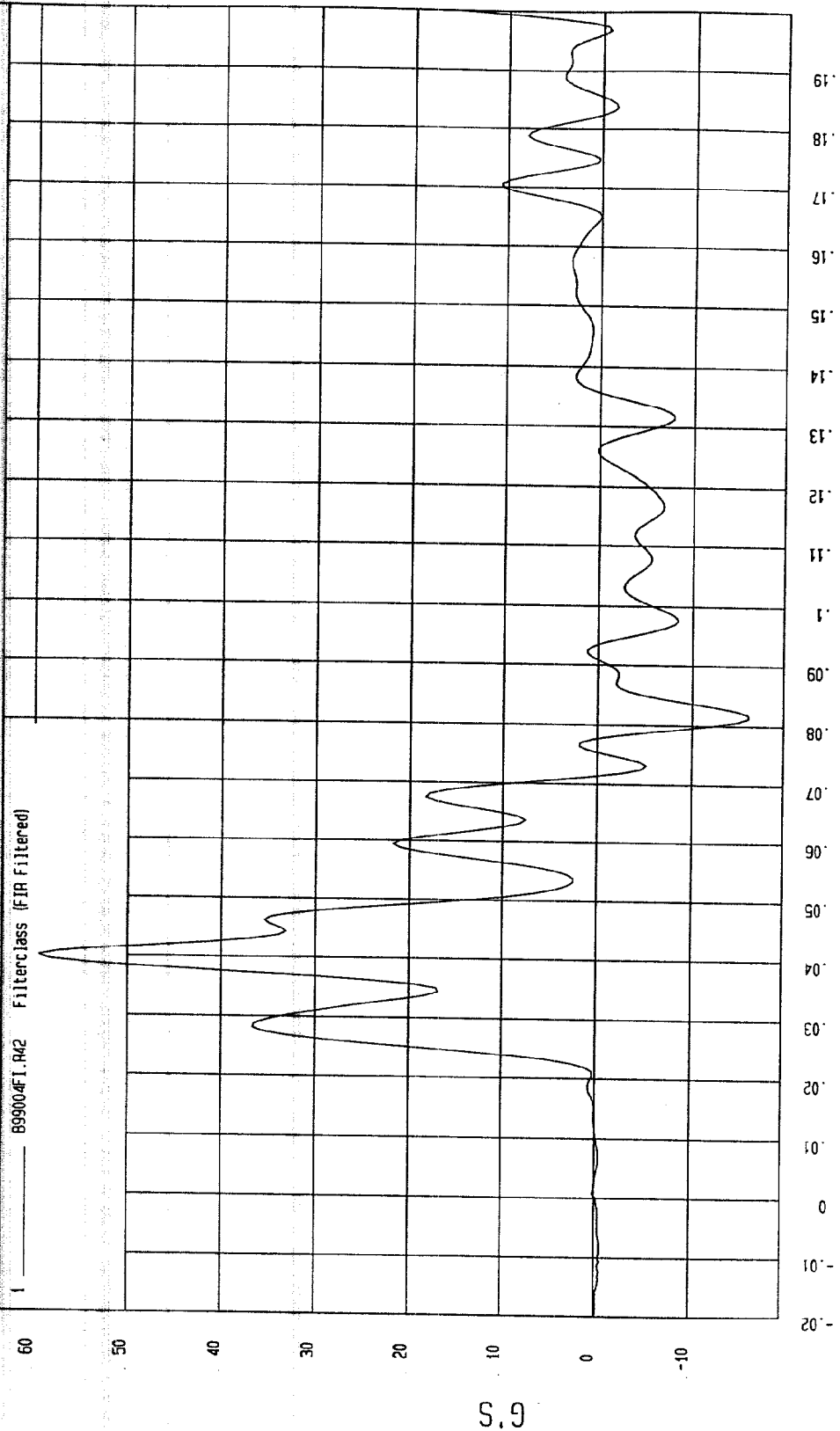
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -15.87 G'S at 81 msec

Maximum = 59.55 G'S at 40 msec

DRIVER UPPER RIB Y REDUNDANT ACCELERATION

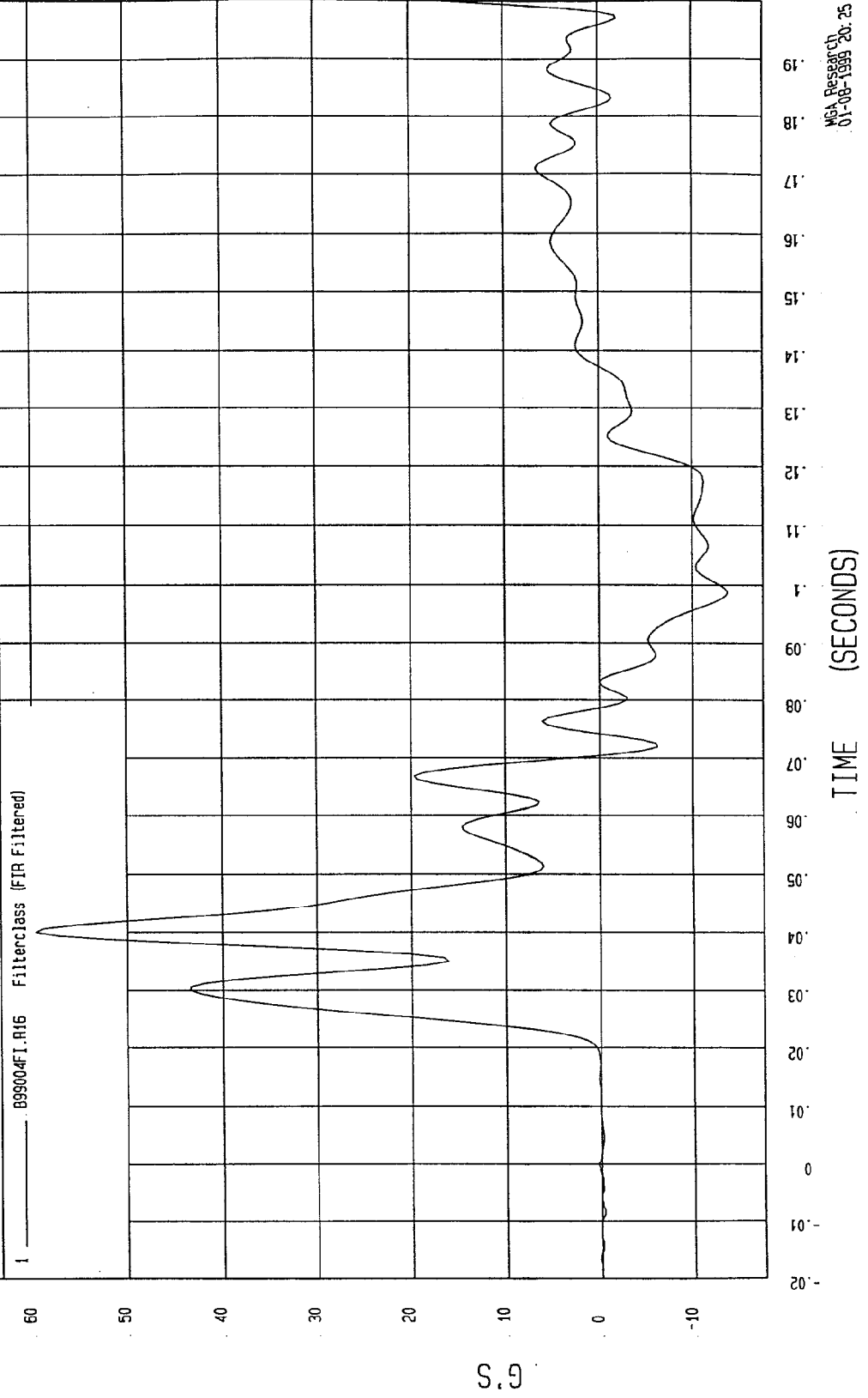


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -13.7 G'S at 99 msec Maximum = 59.69 G'S at 40 msec

DRIVER LOWER RIB Y ACCELERATION



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

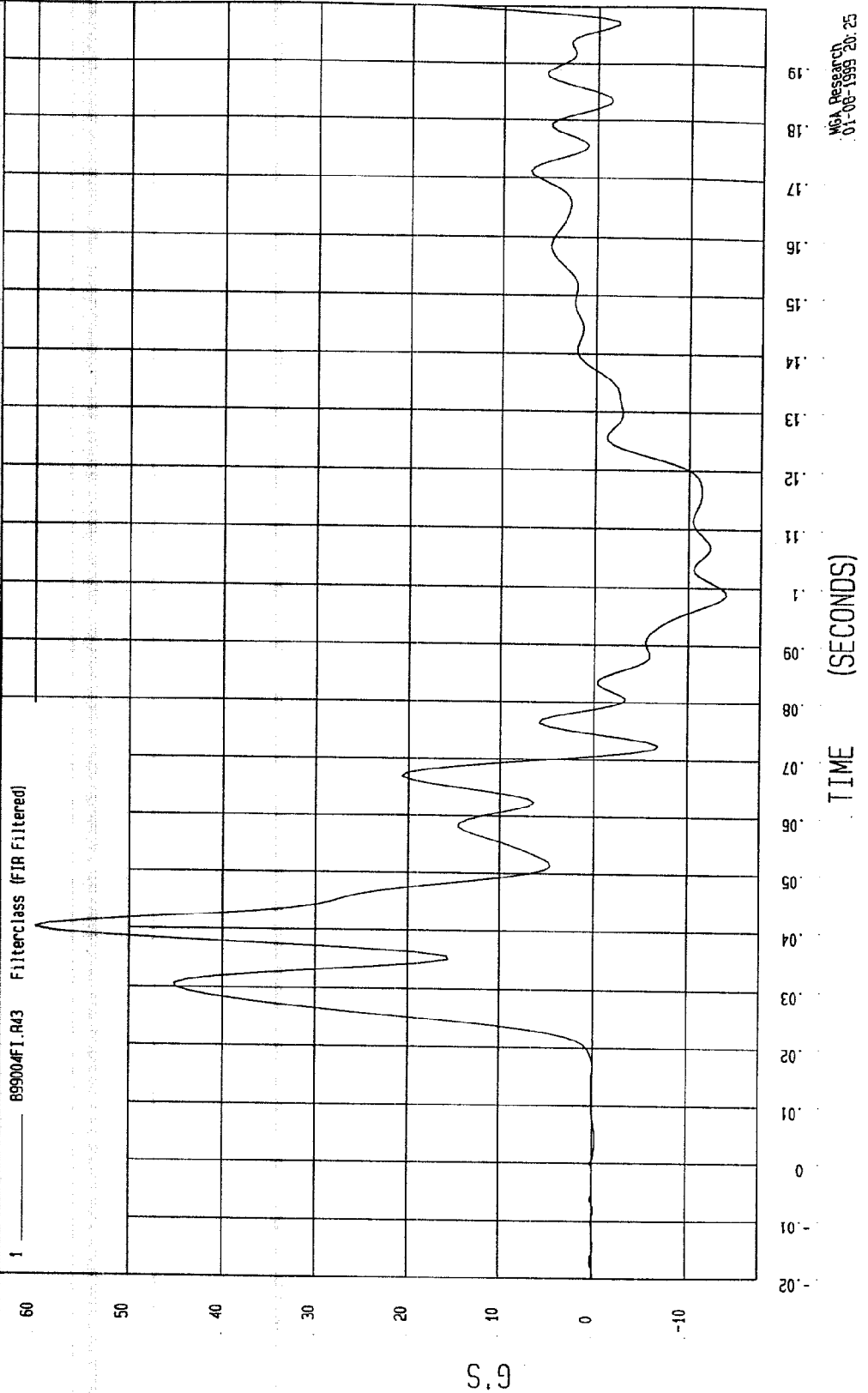
Speed: 38.1 MPH 61.3 KPH

COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 59.92 G'S at 40 msec

Minimum = -14.14 G'S at 99 msec

DRIVER LOWER RIB Y REDUNDANT ACCELERATION

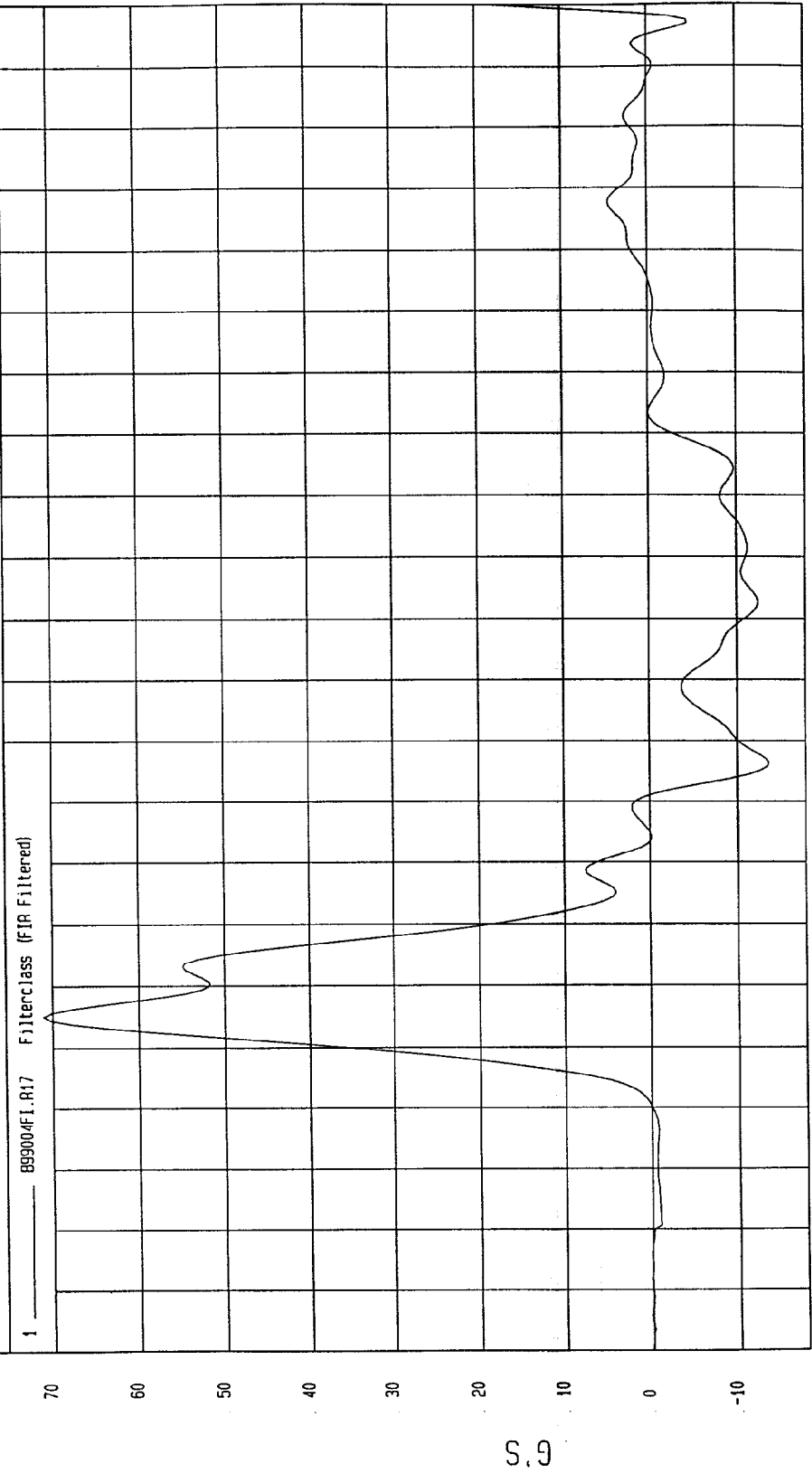


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -13.71 G'S at 76 msec Maximum = 71.01 G'S at 35 msec

DRIVER LOWER SPINE Y ACCELERATION



TIME (SECONDS)

NGA Research
01-08-1999 20:25

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

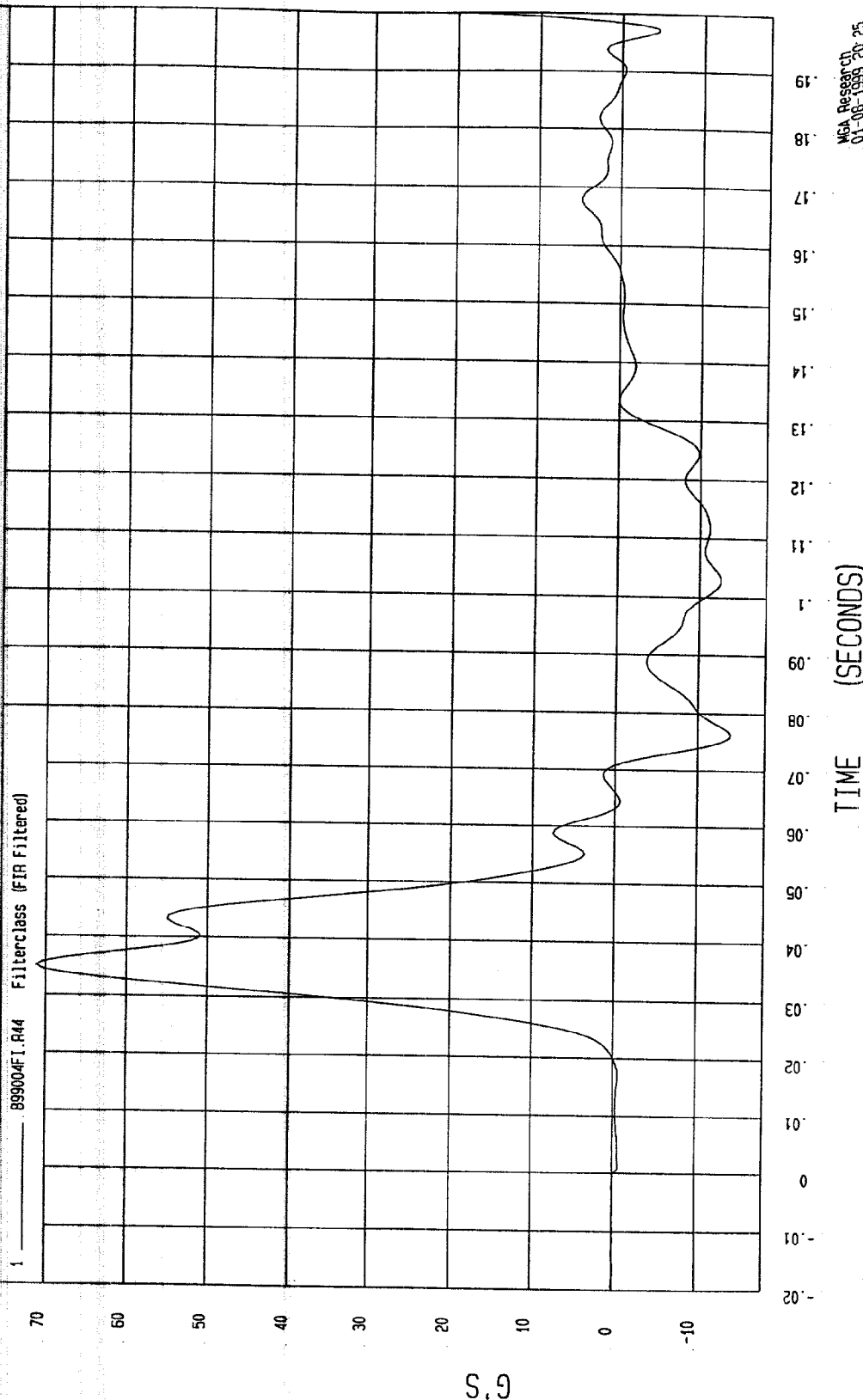
COMPONENT: 1999 DODGE INTREPID (MX0305)

Speed: 38.1 MPH 61.3 KPH

Minimum = -13.97 G'S at 76 msec

Maximum = 71.15 G'S at 35 msec

DRIVER LOWER SPINE Y REDUNDANT ACCELERATION

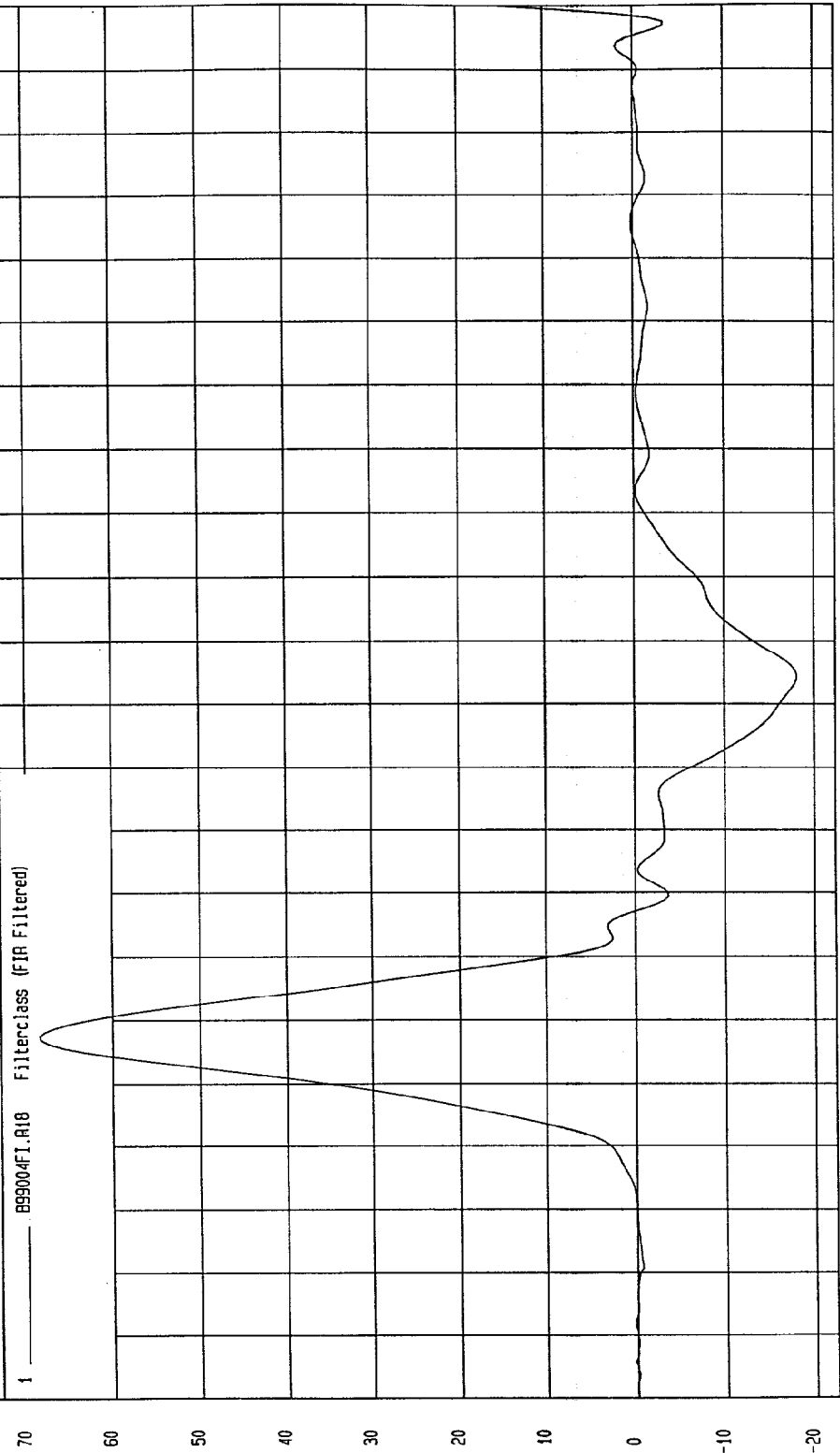


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -18.04 G'S at 94 msec Maximum = 68.54 G'S at 38 msec

DRIVER PELVIS Y ACCELERATION



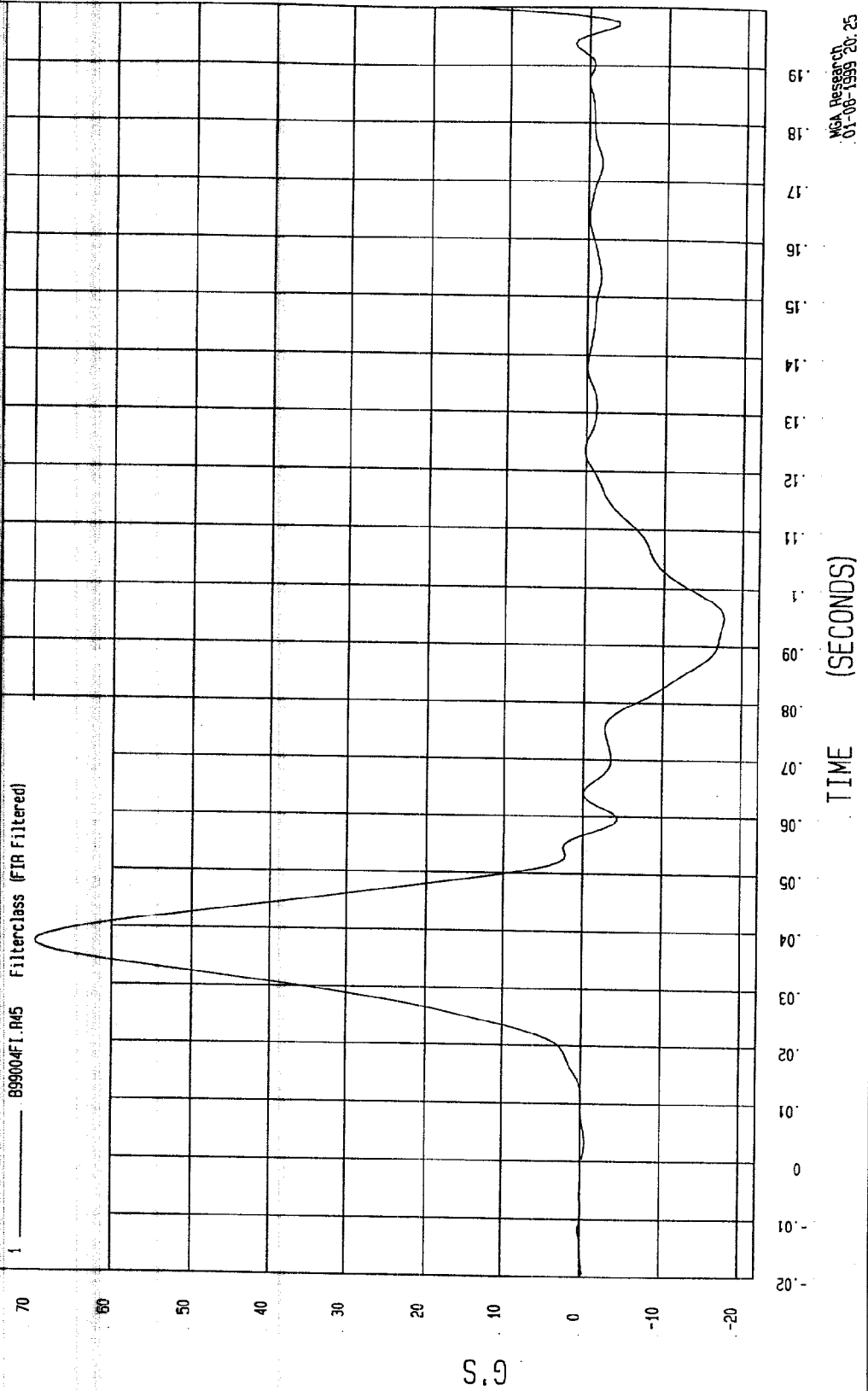
NCA Research
01-08-1999 20:25

TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -17.73 G'S at 95 msec Maximum = 69.66 G'S at 38 msec

DRIVER PELVIS Y REDUNDANT ACCELERATION

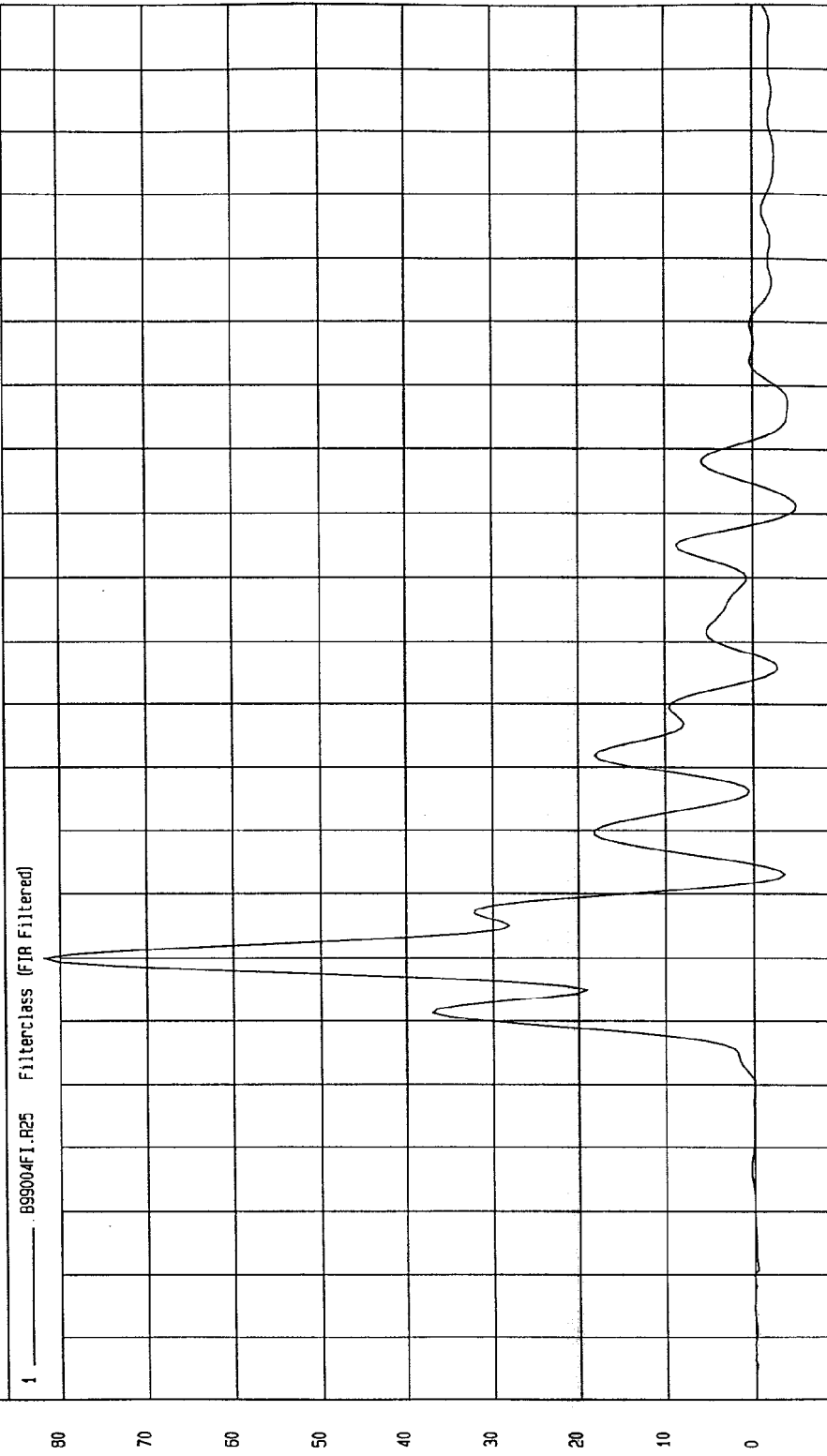


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -5.07 G'S at 121 msec Maximum = 81.91 G'S at 50 msec

REAR PASSENGER UPPER RIB Y ACCELERATION



MCA Research
01-08-1999 20:25

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

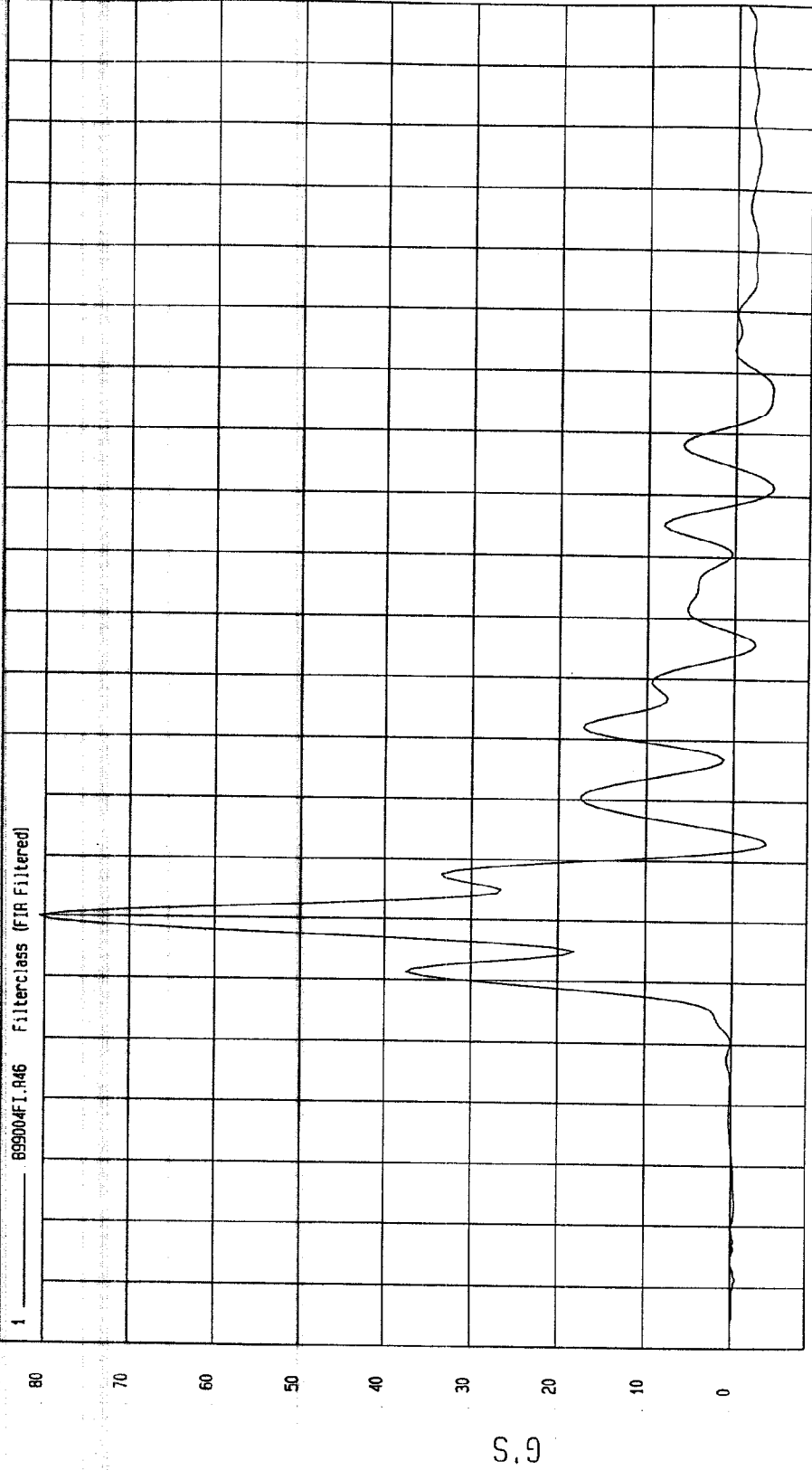
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 80.7 G's at 50 msec

Minimum = -4.44 G's at 121 msec

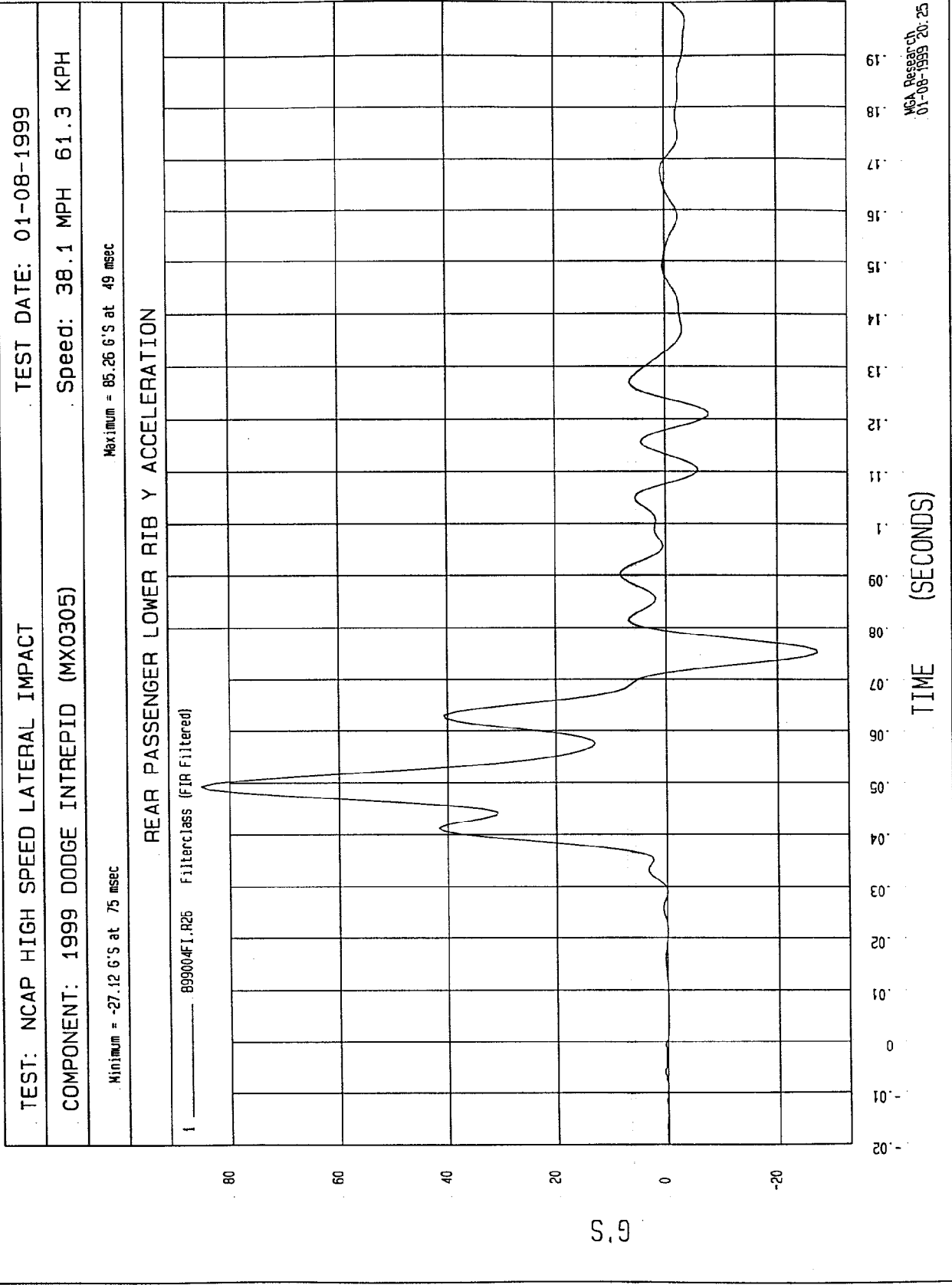
REAR PASSENGER UPPER RIB Y REDUNDANT ACCELERATION

1 — 899004F1.R46 Filterclass (FIR Filtered)



TIME (SECONDS)

NSA Research
01-08-1999 20:25



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

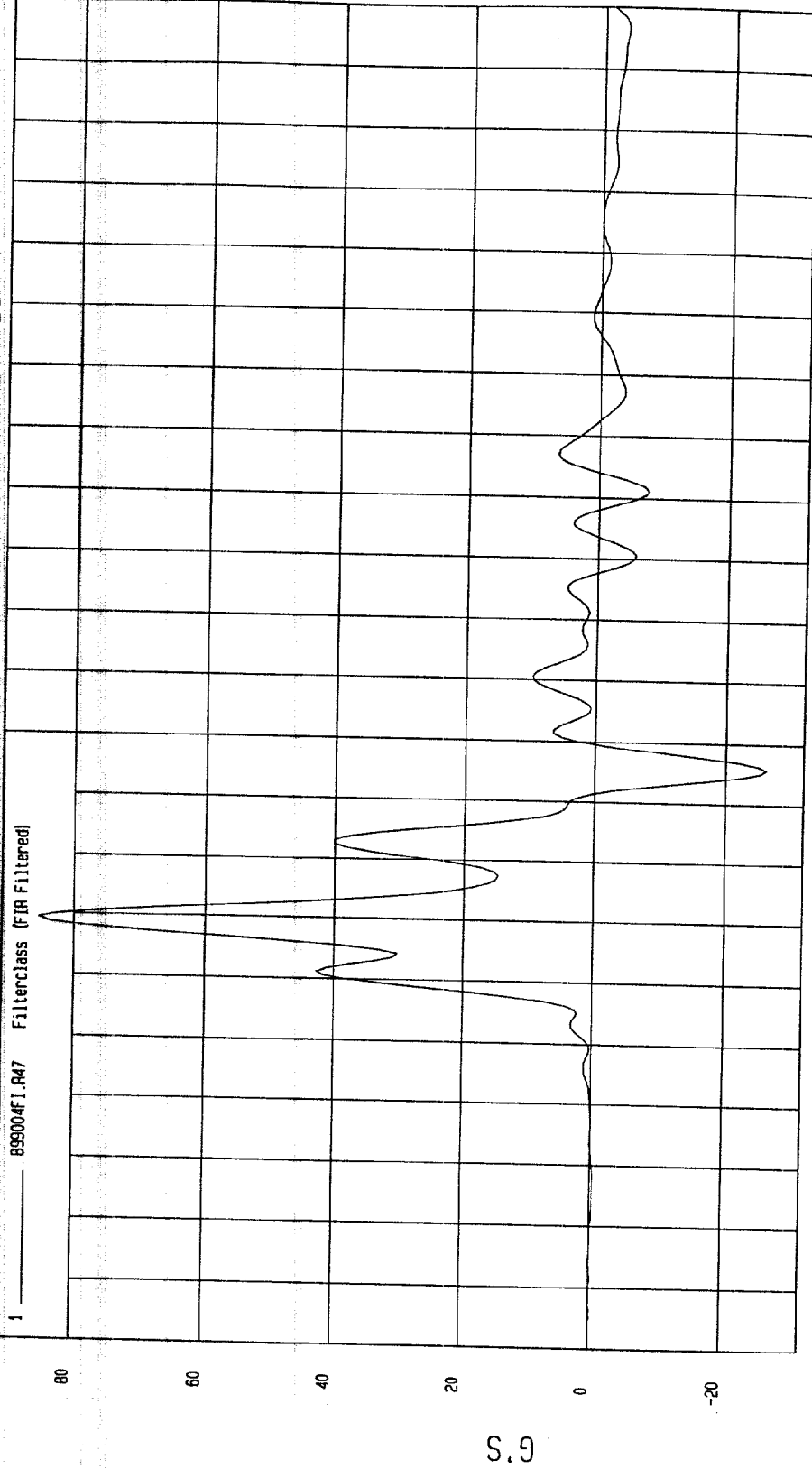
COMPONENT: 1999 DODGE INTREPID (MX0305)

Minimum = -26.29 G'S at 76 msec

Maximum = 85.31 G'S at 49 msec

REAR PASSENGER LOWER RIB Y REDUNDANT ACCELERATION

1 — 899004F1.R47 Filterclass (FIR Filtered)

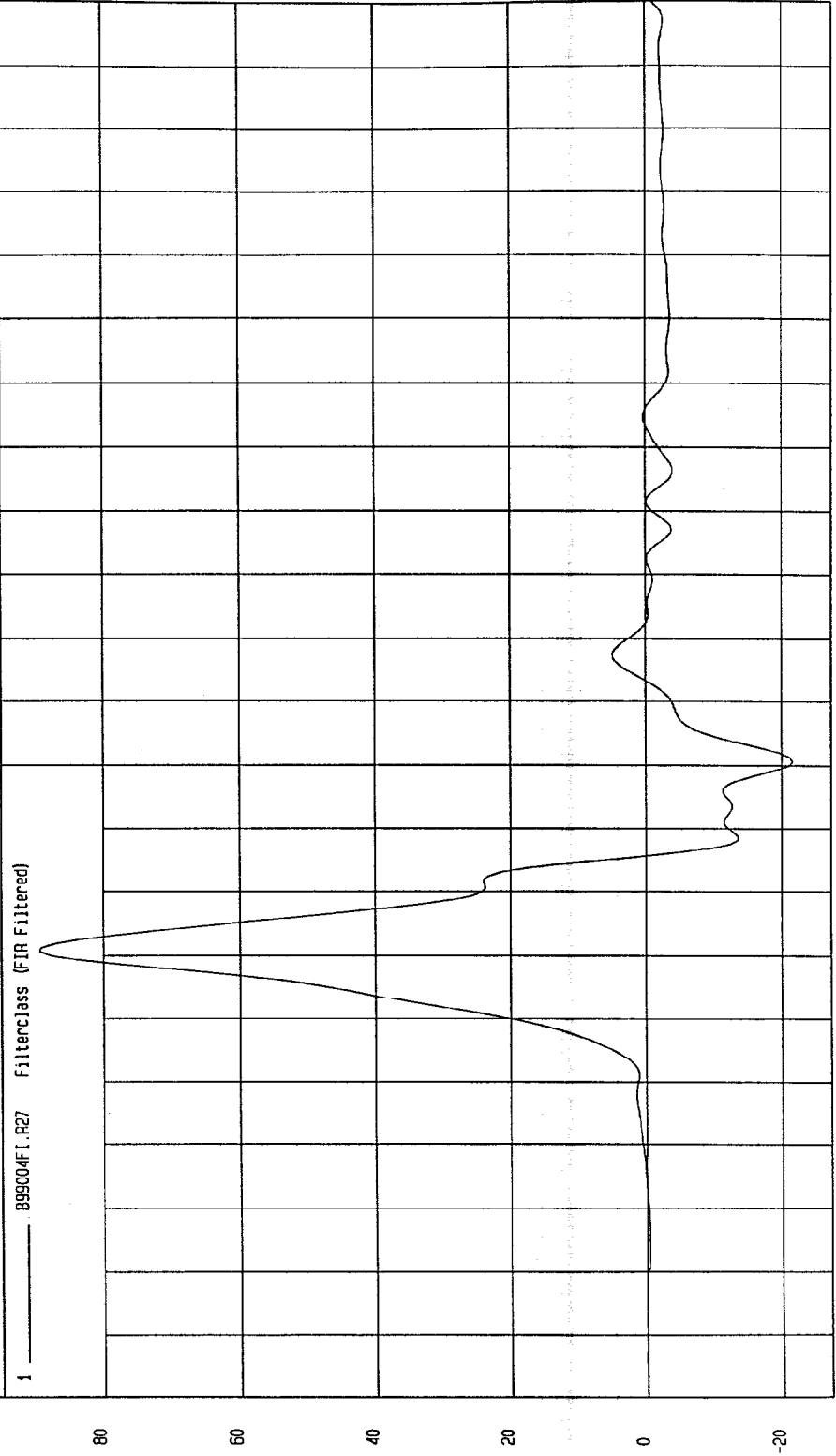


TEST: NCAP HIGH SPEED LATERAL IMPACT TEST DATE: 01-08-1999

COMPONENT: 1999 DODGE INTREPID (MX0305) Speed: 38.1 MPH 61.3 KPH

Minimum = -21.7 G'S at 81 msec Maximum = 89.23 G'S at 51 msec

REAR PASSENGER LOWER SPINE Y ACCELERATION



TIME (SECONDS)

0.19
0.18
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
-0.02

NGA Research
01-08-1999 20:25

TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

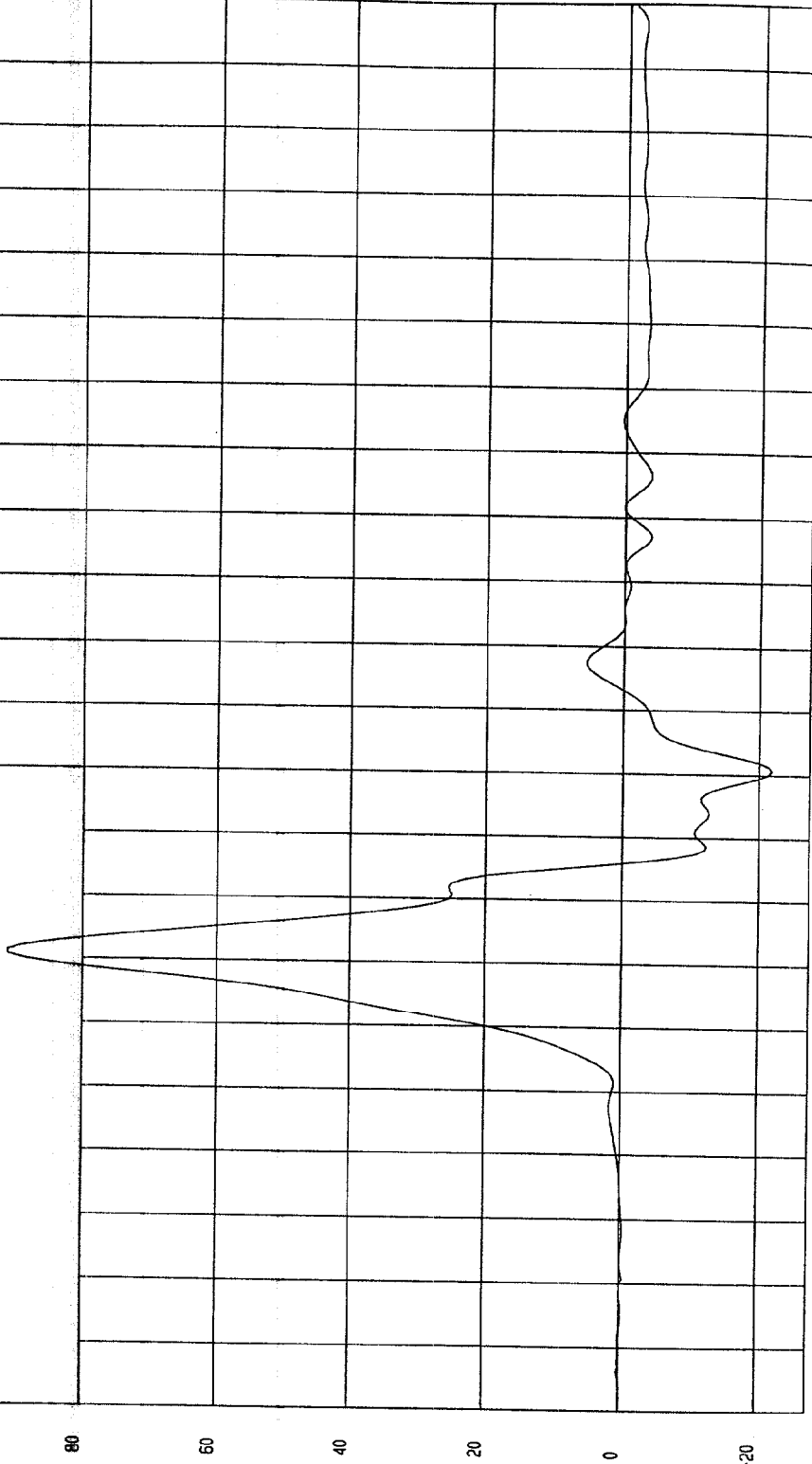
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 91.09 G'S at 51 msec

Minimum = -21.93 G'S at 81 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT ACCELERATION

1 ——— B99004F1.R40 Filterclass (FIR Filtered)



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

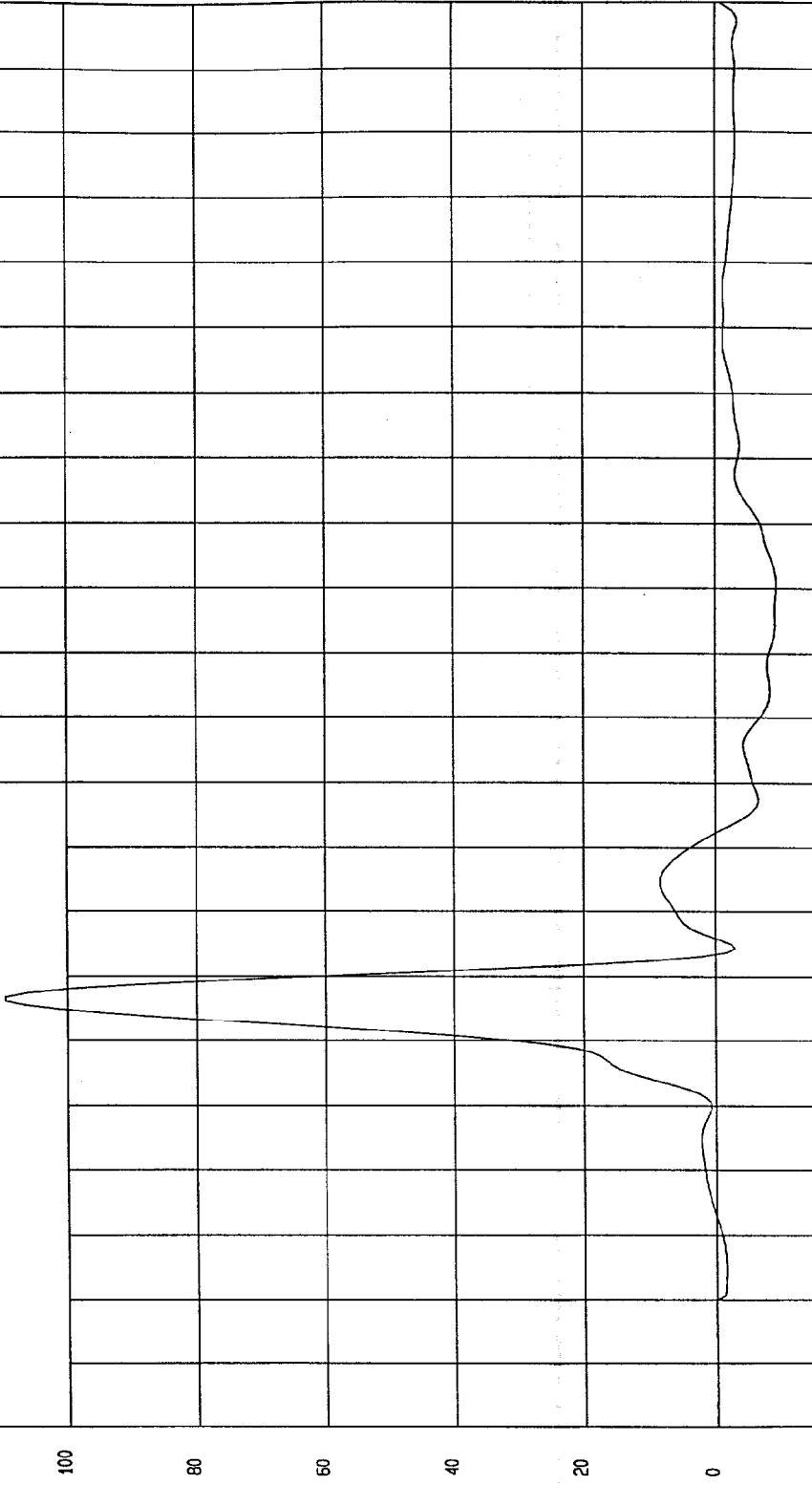
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 109.52 G'S at 45 msec

Minimum = -9.46 G'S at 111 msec

REAR PASSENGER PELVIS Y ACCELERATION

1 899004F1.R28 Filterclass (FIR Filtered)



TEST: NCAP HIGH SPEED LATERAL IMPACT

TEST DATE: 01-08-1999

Speed: 38.1 MPH 61.3 KPH

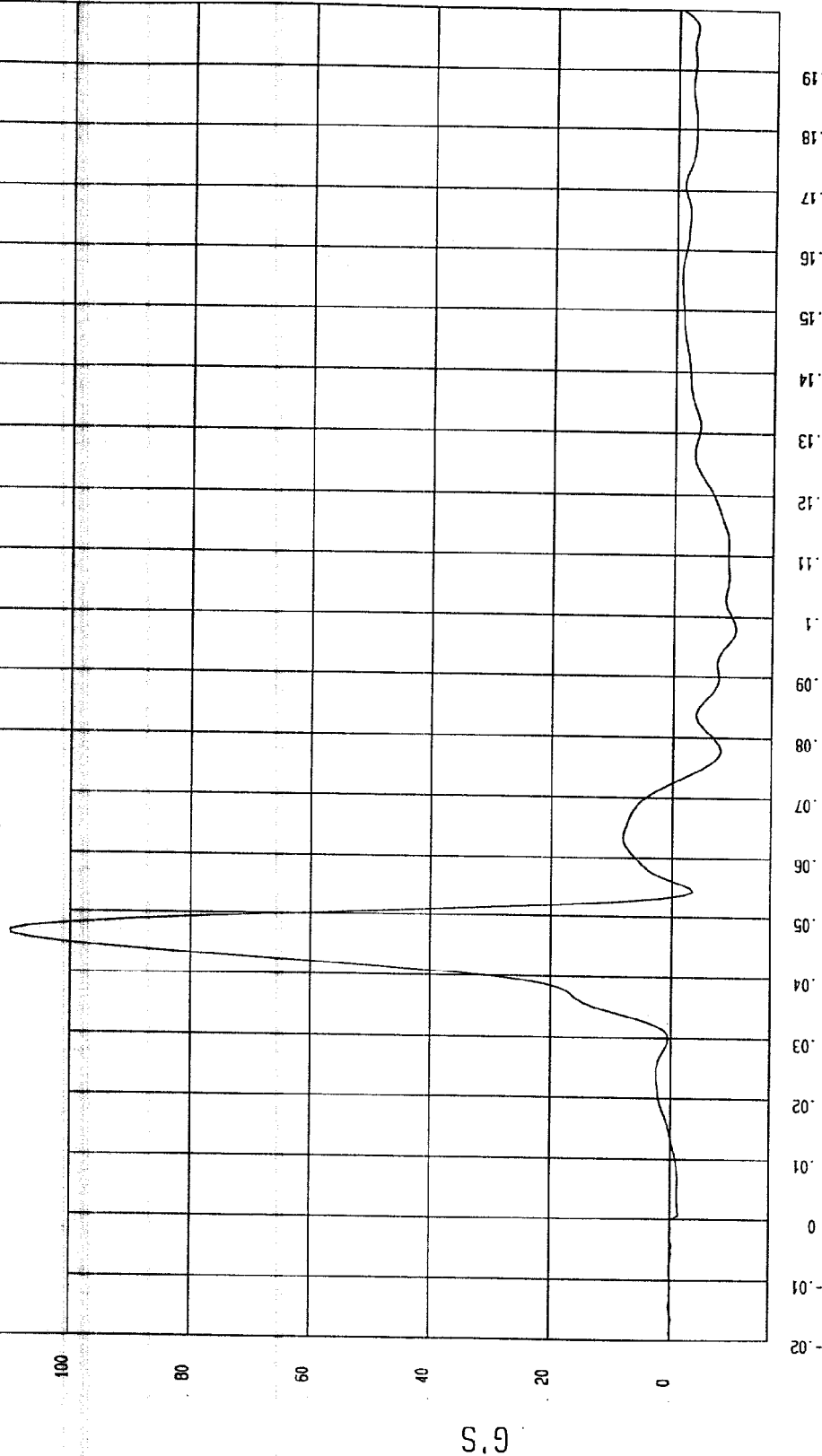
COMPONENT: 1999 DODGE INTREPID (MX0305)

Maximum = 109.8 G'S at 47 msec

Minimum = -10.21 G'S at 98 msec

REAR PASSENGER PELVIS Y REDUNDANT ACCELERATION

1 89500471.R49 FilterClass (FIR Filtered)

MCA Research
01-08-1999 20:25

APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION

PRE-TEST CERTIFICATION DATA

Driver Dummy Serial Number: 271

Calibration Test Results Summary

Driver Dummy Serial Number: 271

Pre-Test Calibration

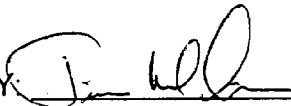
External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion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

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY SERIAL NUMBER: 271DATE OF VERIFICATION: January 7, 1999

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height (mm)	889 - 909	895
RH - Rib Height (mm)	501 - 521	505
HP - Hip Pivot Height (mm)	99 ref.	99
RD - Rib From Back Line (mm)	229 - 241	236
KV - Knee Pivot From Back Line (mm)	511 - 526	518
SW - Knee Pivot to Floor (mm)	490 - 505	493
HW - Hip Width (mm)	356 - 391	373

MEASUREMENTS BY:



APPROVED BY:



MGA RESEARCH CORPORATION

THORAX IMPACT TEST

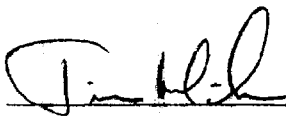
SIDE IMPACT DUMMY (SID)

DATE: January 7, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99042

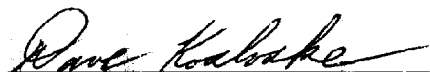
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	21%
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46 g's	39
LOWER RIB (g's)	37 - 46 g's	42
LOWER SPINE (g's)	15 - 22 g's	21

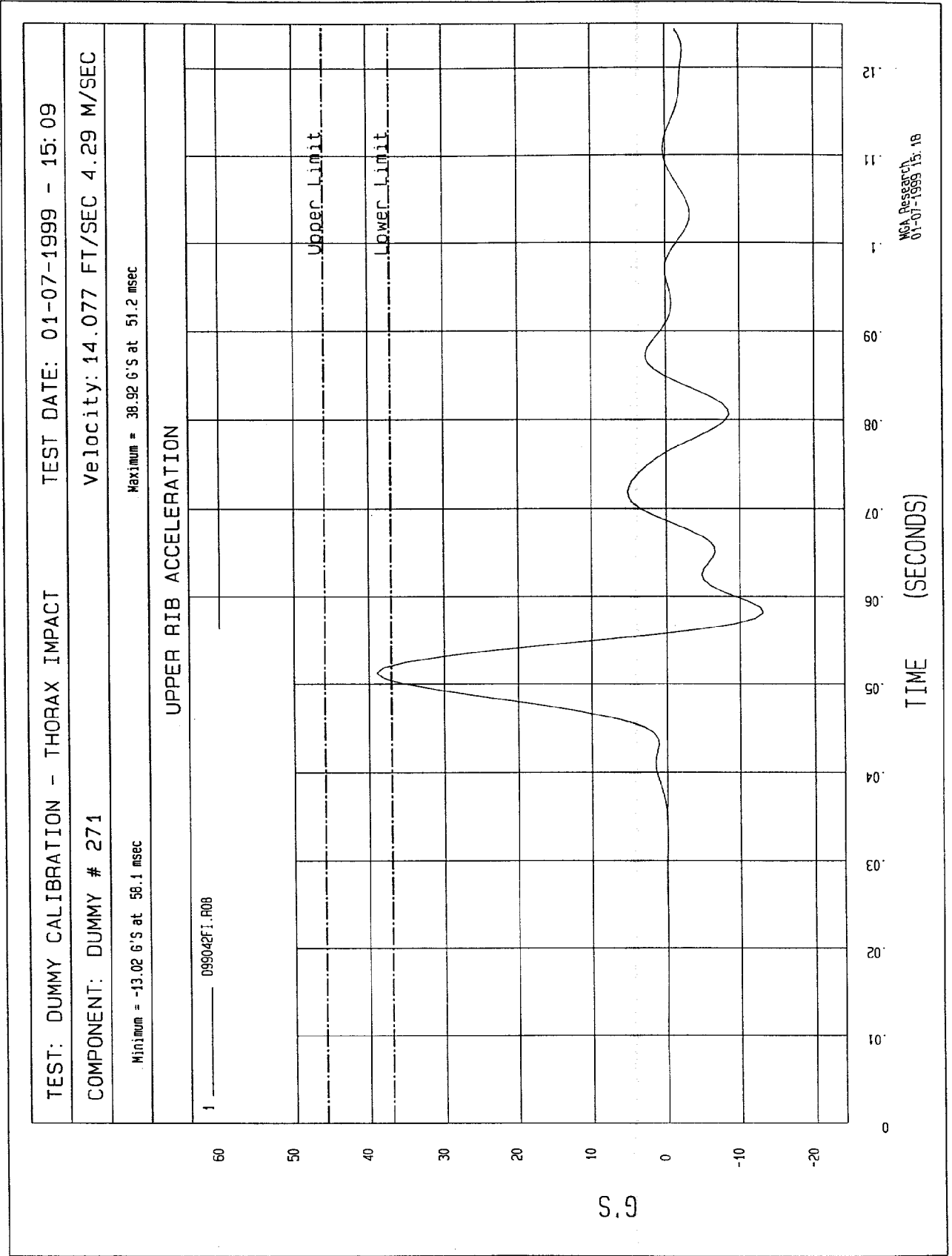
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





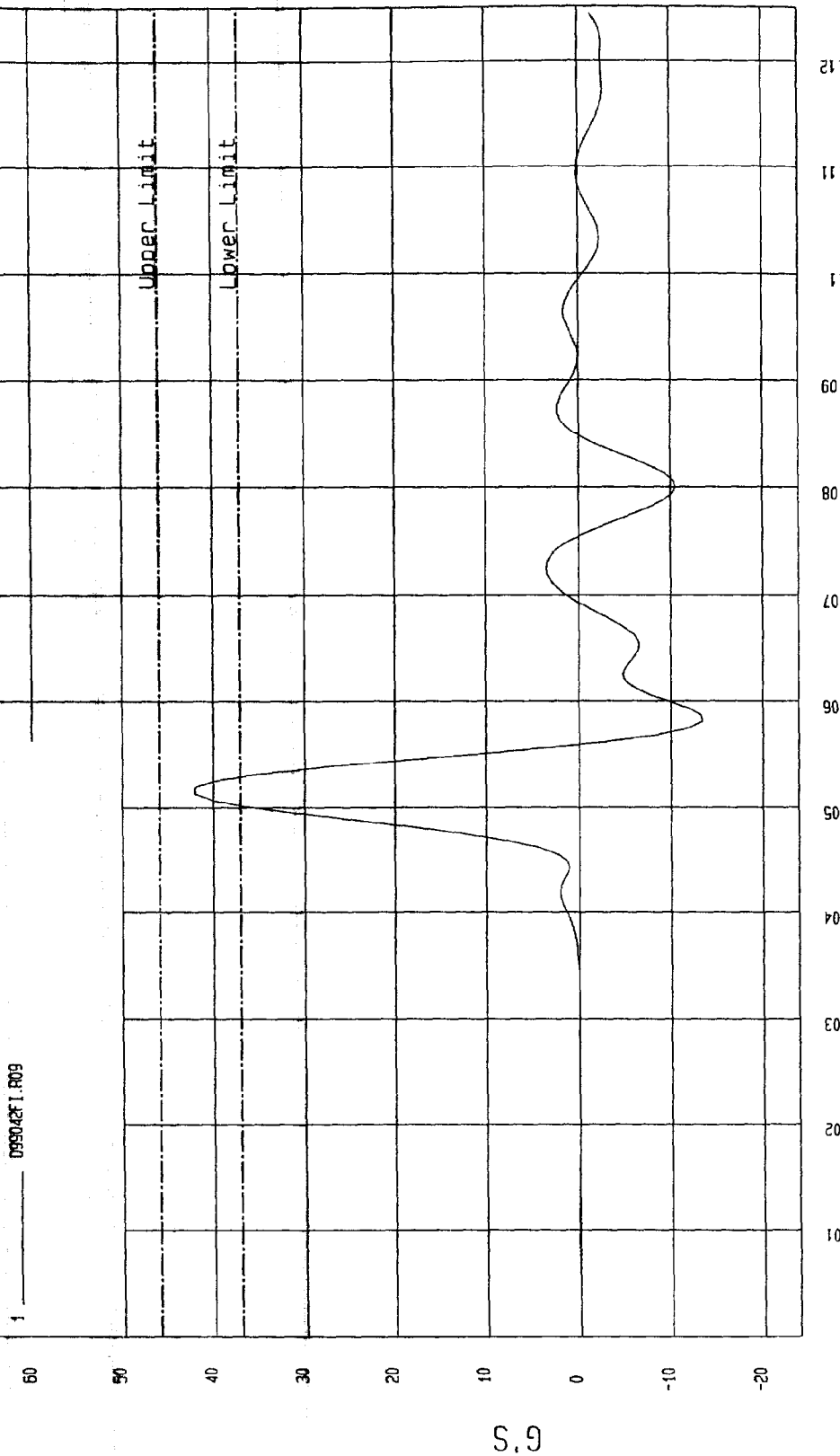
TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 01-07-1999 - 15:09

COMPONENT: DUMMY # 271 Velocity: 14.077 FT/SEC 4.29 M/SEC

Minimum = -13.37 G'S at 58.1 msec

Maximum = 42.12 G'S at 51.8 msec

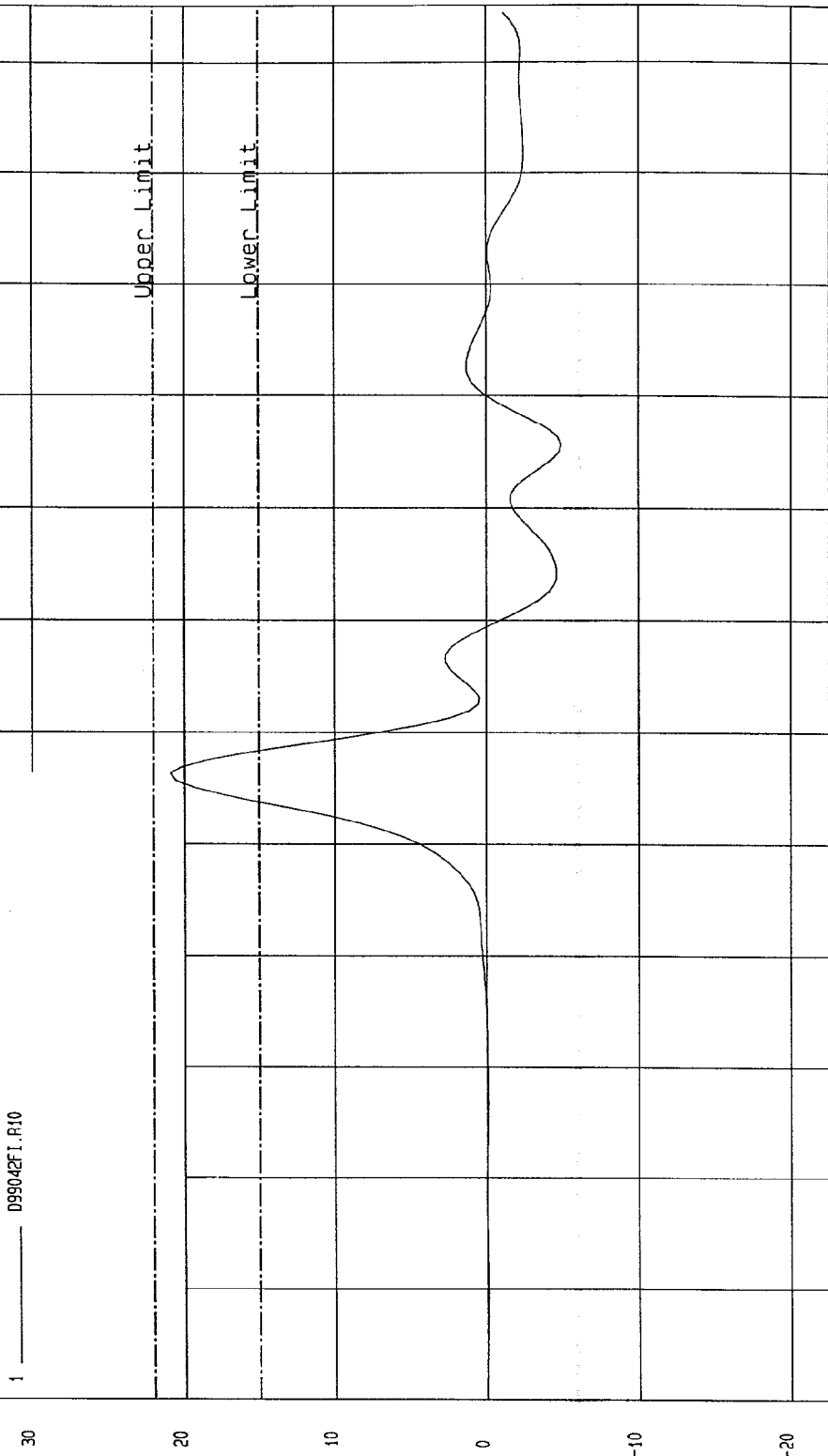
LOWER RIB ACCELERATION



MCA Research
01-07-1999 15:18

TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 01-07-1999 - 15:09
 COMPONENT: DUMMY # 271 Velocity: 14.077 FT/SEC 4.29 M/SEC
 Minimum = -4.99 G'S at 85.6 msec Maximum = 20.90 G'S at 56.2 msec

LOWER SPINE ACCELERATION



MCA Research
 01-07-1999 15:19

MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SIDE IMPACT DUMMY (SID)

DATE: January 7, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99043

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	21%
PROBE SPEED (m/s)	4.27 - 4.33	4.29
PELVIS ACCELERATION (g's)	40 - 60	60

TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY



TEST: DUMMY CALIBRATION - PELVIS IMPACT TEST DATE: 01-07-1999 - 15:17

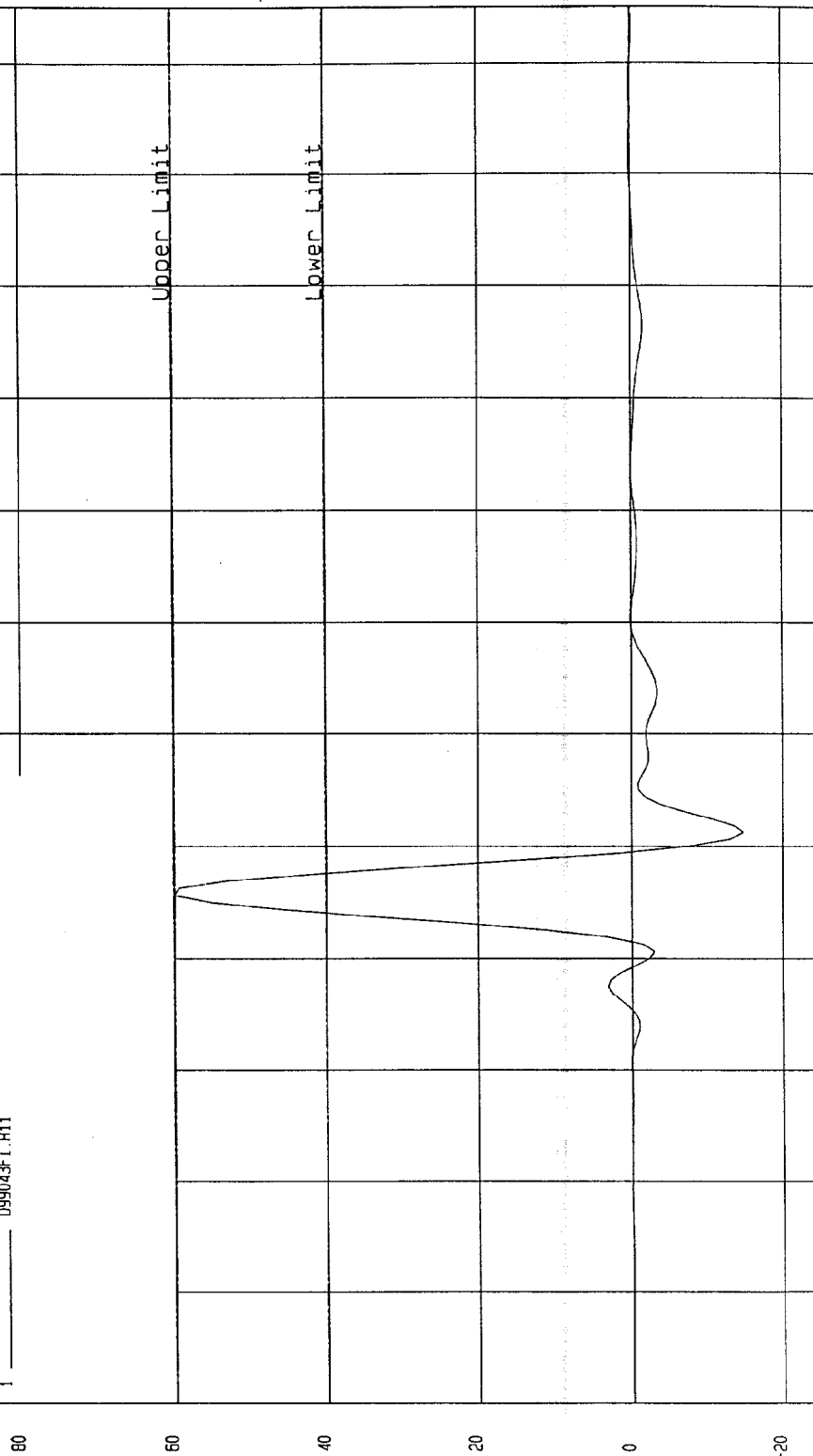
COMPONENT: DUMMY # 271 Velocity: 14.087 FT/SEC 4.29 M/SEC

Minimum = -14.66 G'S at 51.2 msec

Maximum = 59.99 G'S at 45.6 msec

PELVIS ACCELERATION

1 ——— D99043FL.R11



MGA Research
01-07-1999 15:19

TIME (SECONDS)

MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST

(PRELOAD = 10 LBS)

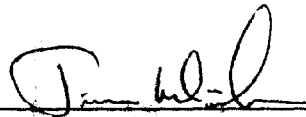
SIDE IMPACT DUMMY (SID)

DATE: January 7, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99044

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	18%
FORCE @ 12.7 mm	104 - 162	140
FORCE @ 19.0 mm	163 - 222	197
FORCE @ 25.4 mm	222 - 280	260
FORCE @ 33 mm	325 - 391	348

TEST MEETS SPECIFICATIONS

TECHNICIAN



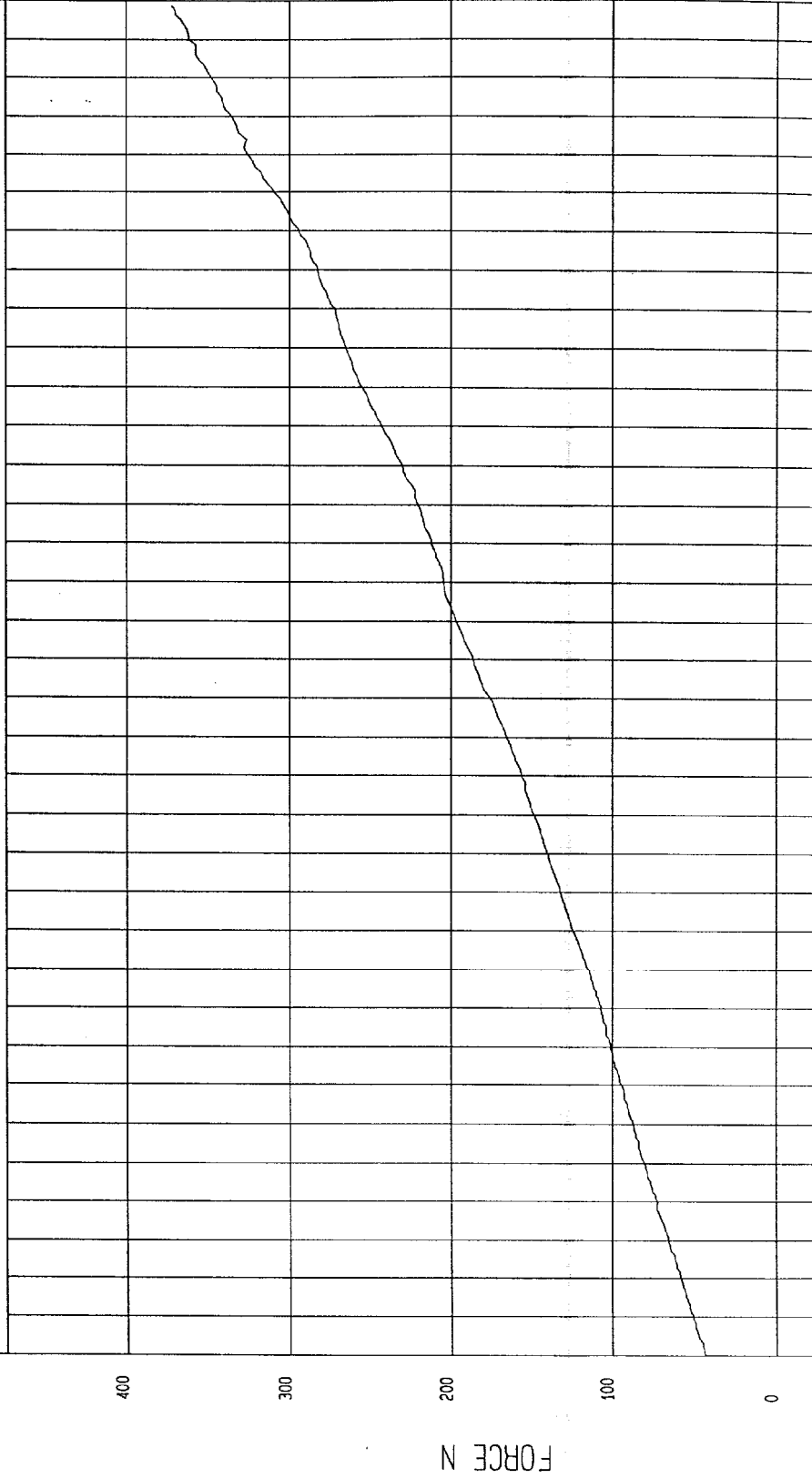
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 01-07-1999 - 11:40:12

COMPONENT: DUMMY # 271

FORCE as a function of DISPLACEMENT



WGA Research
01-12-1999 12:28

DISPLACEMENT mm

FORCE N

MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

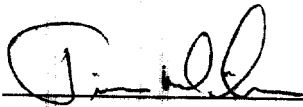
SIDE IMPACT DUMMY (SID)

DATE: January 6, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99045

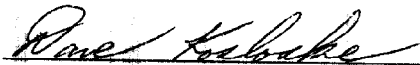
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	21%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	104.8
FORCE @ 30°	151.2 - 204.6	157.0
FORCE @ 40°	204.6 - 258.0	205.2
RETURN ANGLE	12° maximum	3°

TEST MEETS SPECIFICATIONS

TECHNICIAN



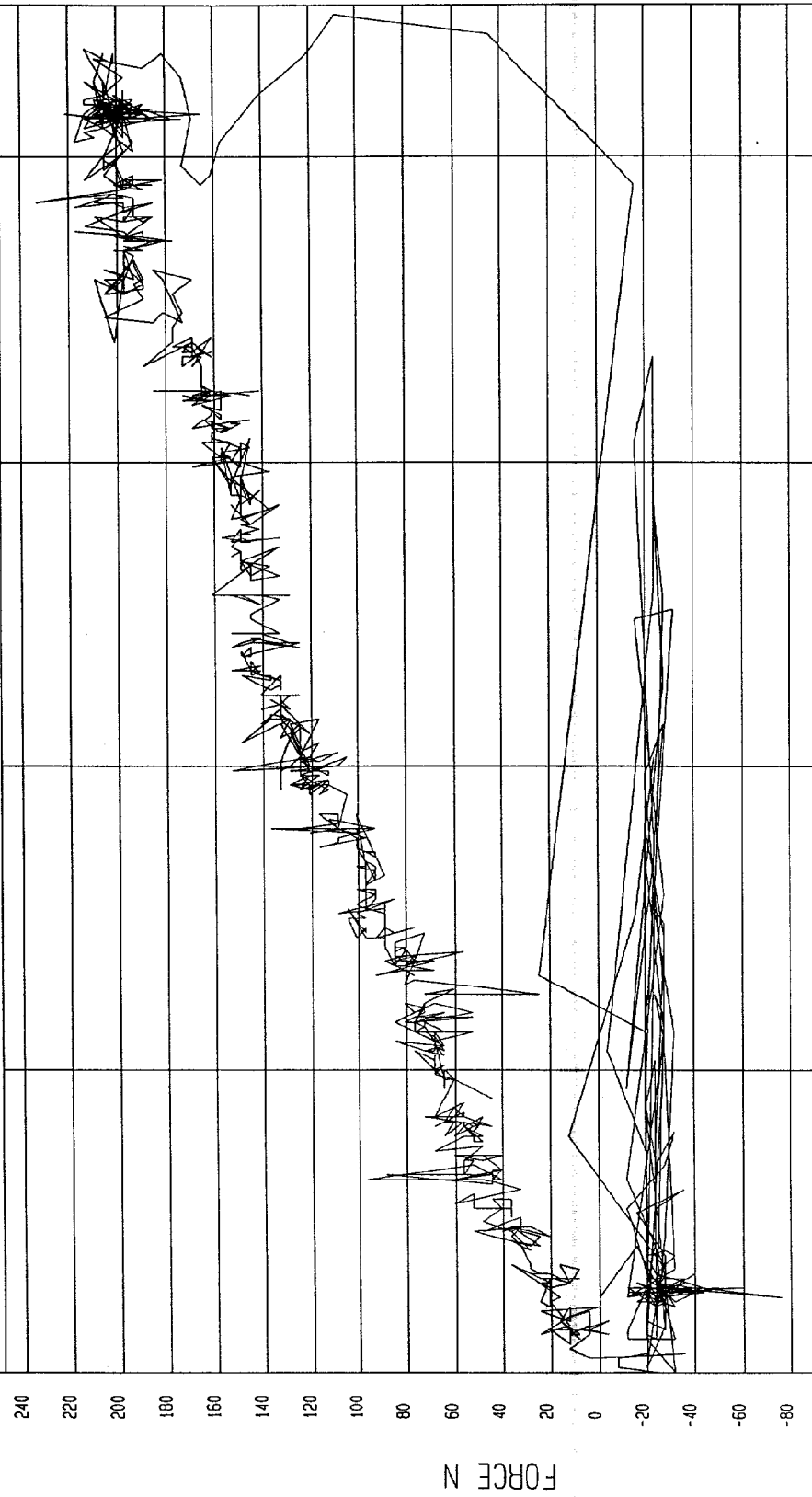
APPROVED BY



TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 01-06-1999 - 12:15:03

COMPONENT: DUMMY # 271

FORCE as a function of TORSO ROTATION



NGA Research
01-06-1999 12:15

PRE-TEST CERTIFICATION DATA

Passenger Dummy Serial Number: 272

Calibration Test Results Summary

Passenger Dummy Serial Number: 272

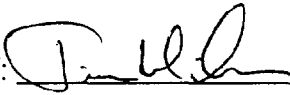
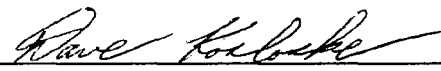
Pre-Test Calibration

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 SERIAL NUMBER: 272DATE OF VERIFICATION: January 7, 1999

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height (mm)	889 - 909	892
RH - Rib Height (mm)	501 - 521	512
HP - Hip Pivot Height (mm)	99 ref.	99
RD - Rib From Back Line (mm)	229 - 241	238
KV - Knee Pivot From Back Line (mm)	511 - 526	523
SW - Knee Pivot to Floor (mm)	490 - 505	493
HW - Hip Width (mm)	356 - 391	378

MEASUREMENTS BY: APPROVED BY: 

MGA RESEARCH CORPORATION

THORAX IMPACT TEST

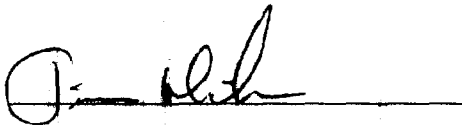
SIDE IMPACT DUMMY (SID)

DATE: January 7, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99052

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	21%
PROBE SPEED (m/s)	4.27 - 4.33	4.27
UPPER RIB (g's)	37 - 46 g's	42
LOWER RIB (g's)	37 - 46 g's	39
LOWER SPINE (g's)	15 - 22 g's	15

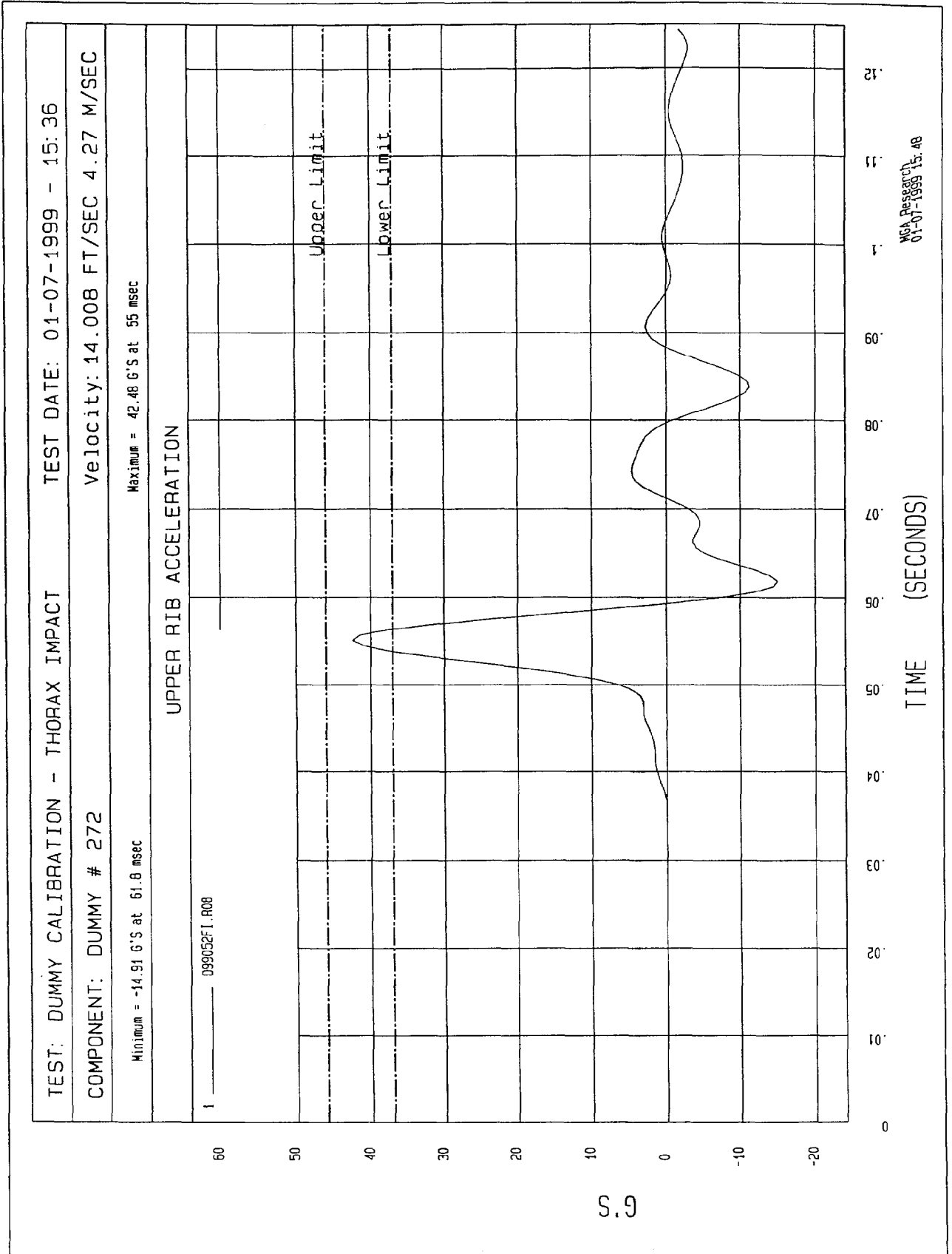
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





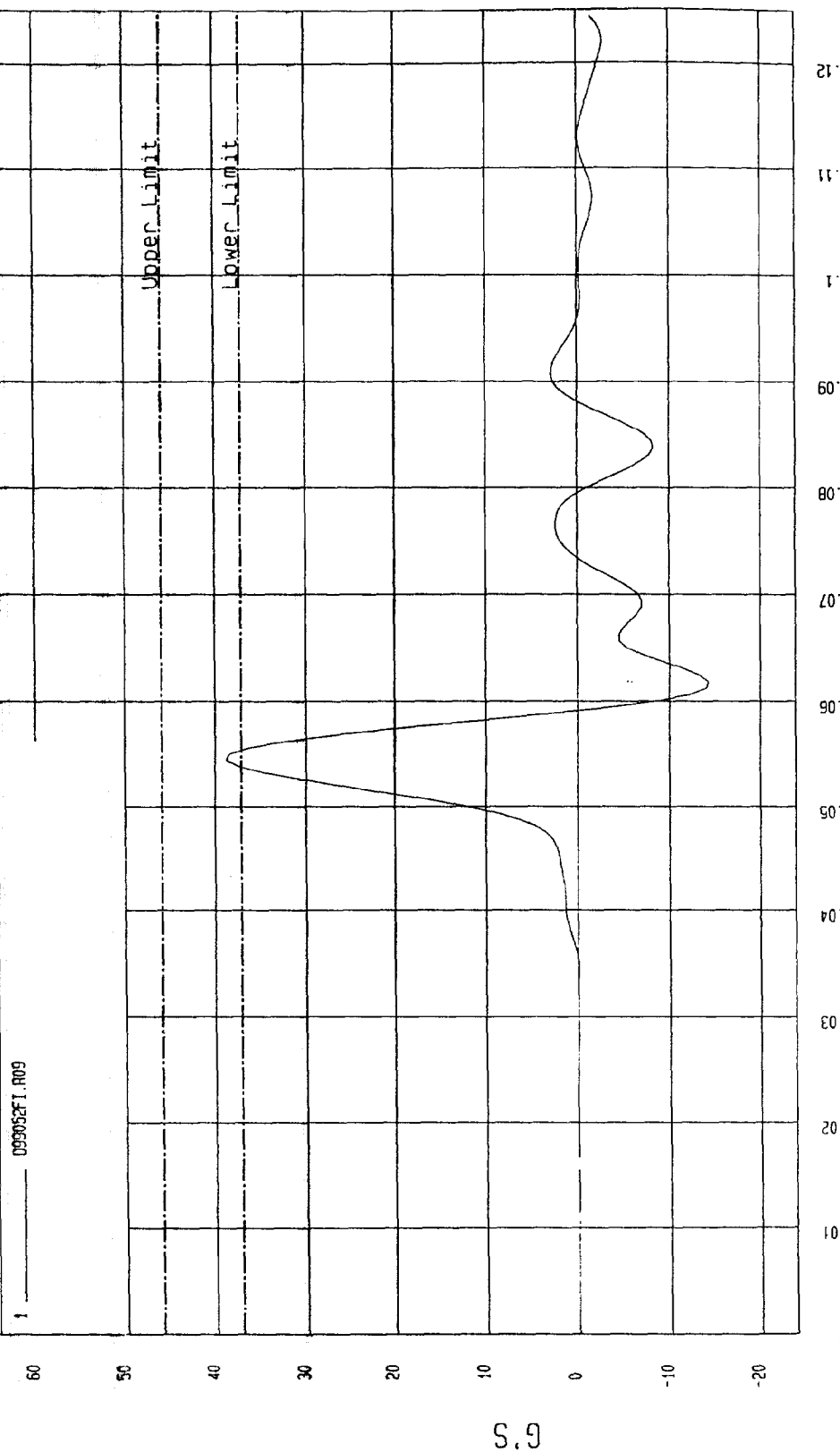
TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 01-07-1999 - 15:36

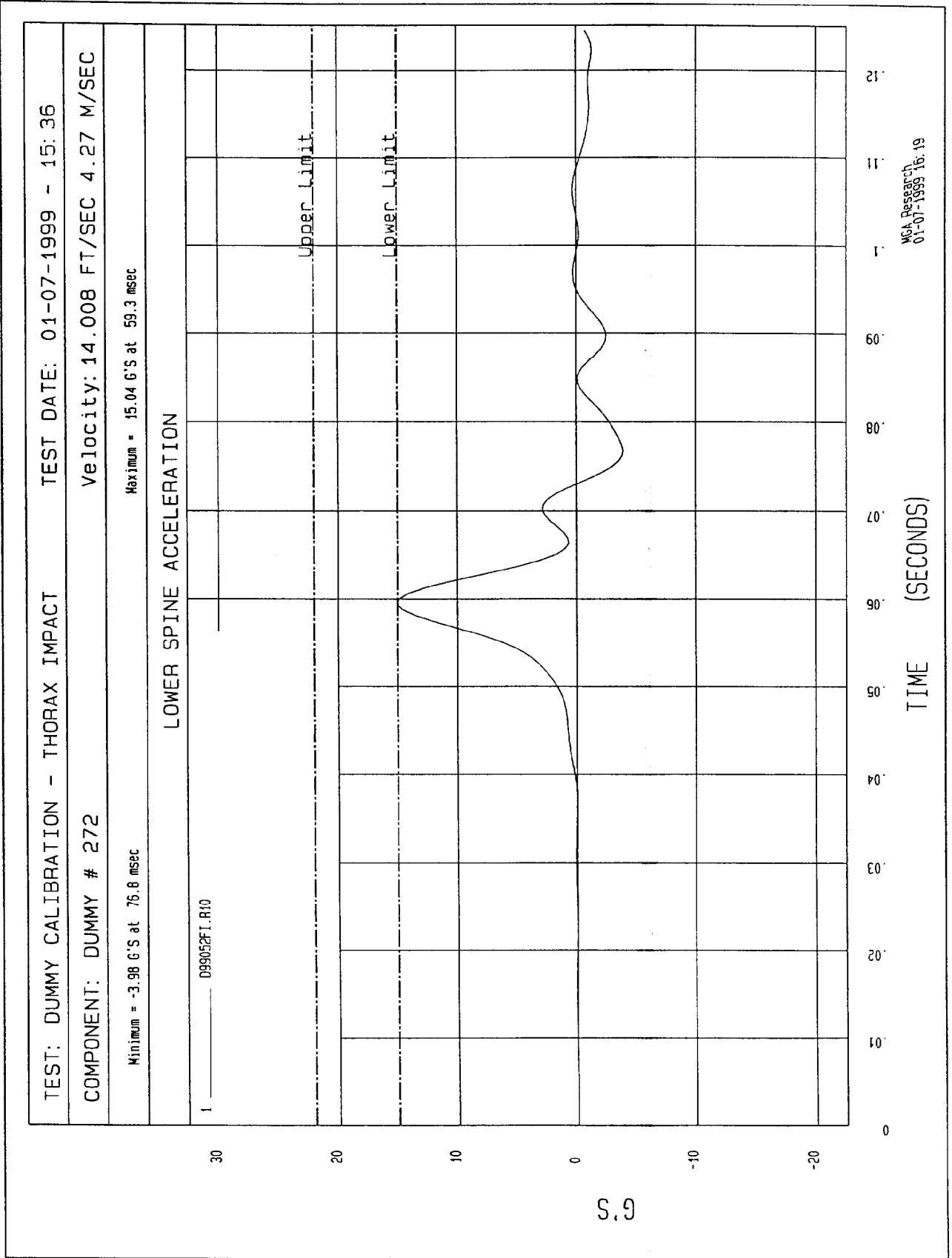
COMPONENT: DUMMY # 272 Velocity: 14.008 FT/SEC 4.27 M/SEC

Minimum = -14.32 G'S at 61.8 msec

Maximum = 38.71 G'S at 54.3 msec

LOWER RIB ACCELERATION

NGA Research
01-07-1999 16:19



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

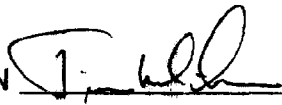
SIDE IMPACT DUMMY (SID)

DATE: January 7, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99053

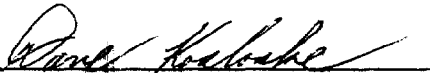
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	21%
PROBE SPEED (m/s)	4.27 - 4.33	4.27
PELVIS ACCELERATION (g's)	40 - 60	60

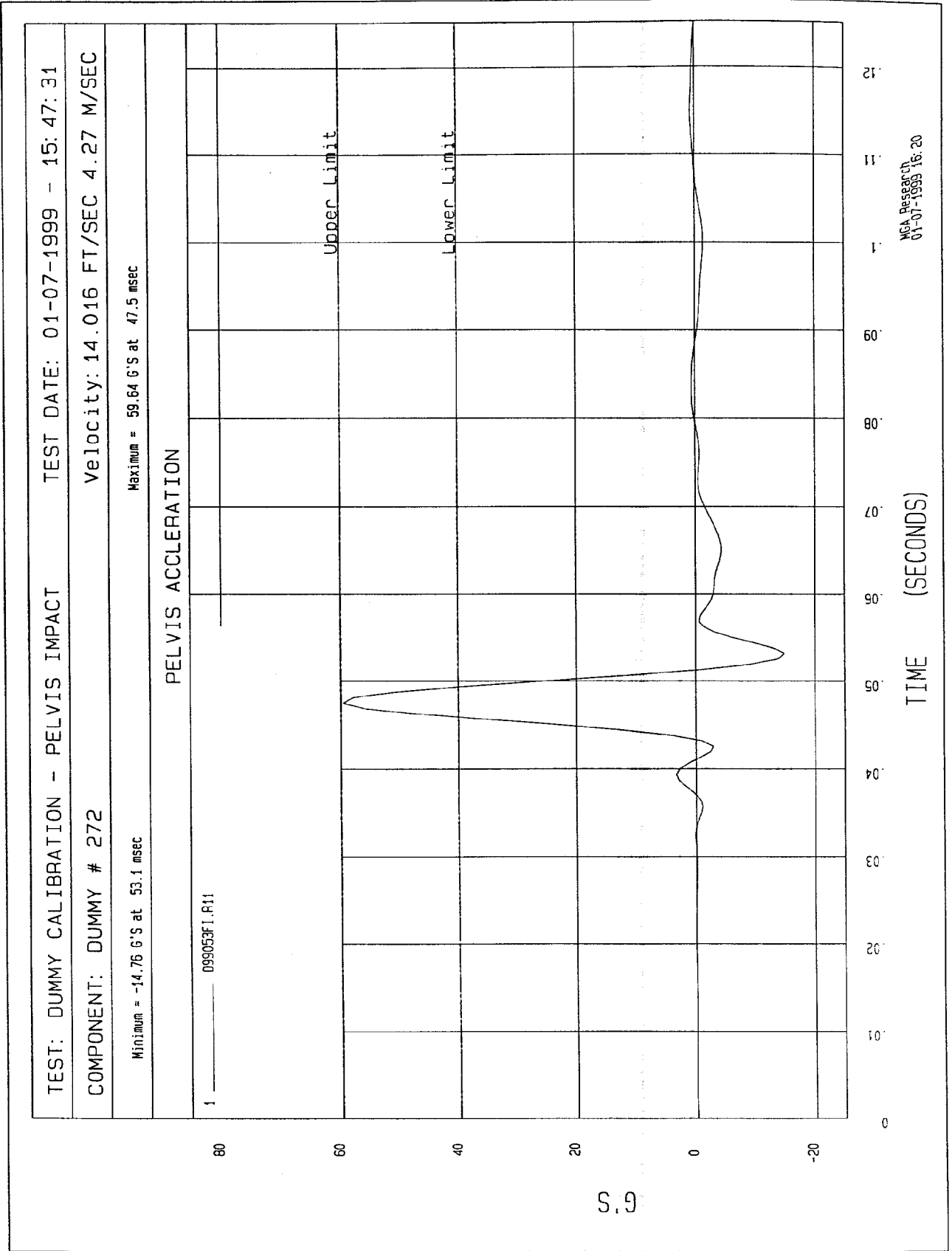
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST

(PRELOAD = 10 LBS)

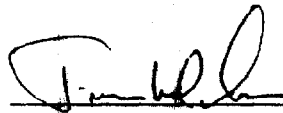
SIDE IMPACT DUMMY (SID)

DATE: January 7, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99054

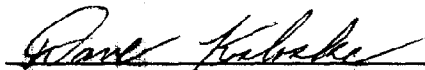
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	22%
FORCE @ 12.7 mm	104 - 162	139
FORCE @ 19.0 mm	163 - 222	192
FORCE @ 25.4 mm	222 - 280	252
FORCE @ 33 mm	325 - 391	341

TEST MEETS SPECIFICATIONS

TECHNICIAN



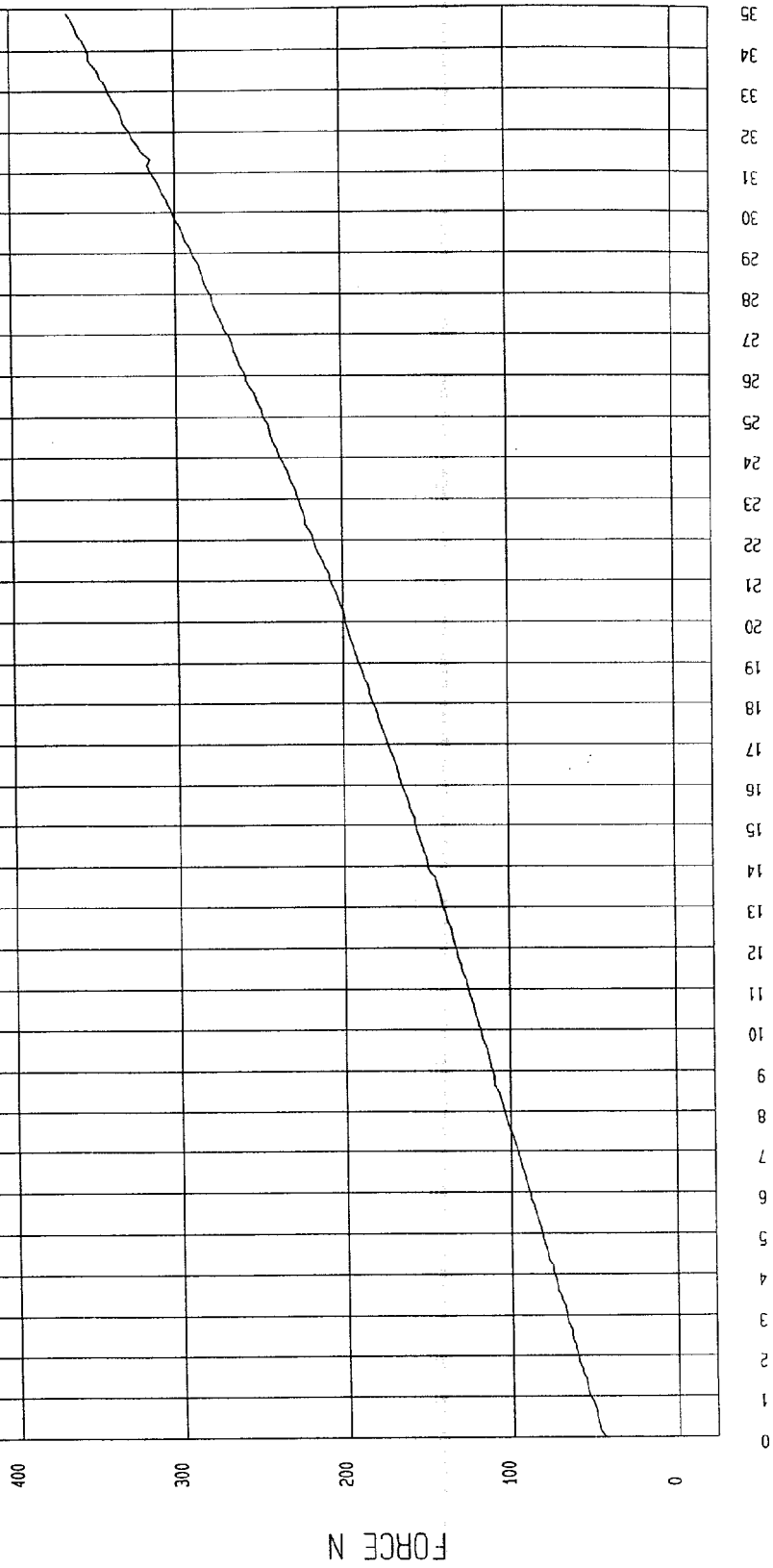
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 01-07-1999 - 11:45:57

COMPONENT: DUMMY # 272

FORCE as a function of DISPLACEMENT



MCA Research
01-12-1999 12:29

MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: January 6, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99055

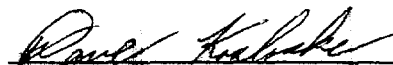
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	20%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	105.8
FORCE @ 30°	151.2 - 204.6	166.1
FORCE @ 40°	204.6 - 258.0	214.2
RETURN ANGLE	12° maximum	3°

TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY



TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 01-06-1999 - 10:23:00

COMPONENT: DUMMY # 272

FORCE as a function of TORSO ROTATION



TORSO ROTATION DEGREES

MCA Research
01-06-1999 12:15

POST-TEST CERTIFICATION DATA

Driver Dummy Serial Number: 271

Calibration Test Results Summary

Driver Dummy Serial Number: 271

Post-Test Calibration

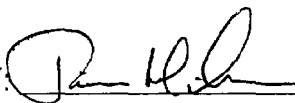
External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion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

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

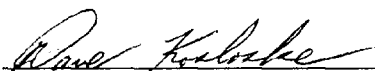
DUMMY SERIAL NUMBER: 271DATE OF VERIFICATION: January 18, 1999

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height (mm)	889 - 909	895
RH - Rib Height (mm)	501 - 521	505
HP - Hip Pivot Height (mm)	99 ref.	99
RD - Rib From Back Line (mm)	229 - 241	236
KV - Knee Pivot From Back Line (mm)	511 - 526	518
SW - Knee Pivot to Floor (mm)	490 - 505	493
HW - Hip Width (mm)	356 - 391	373

MEASUREMENTS BY:



APPROVED BY:



MGA RESEARCH CORPORATION

THORAX IMPACT TEST

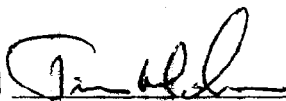
SIDE IMPACT DUMMY (SID)

DATE: January 15, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99182

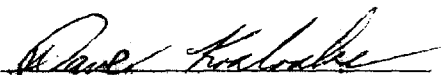
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46 g's	45
LOWER RIB (g's)	37 - 46 g's	45
LOWER SPINE (g's)	15 - 22 g's	22

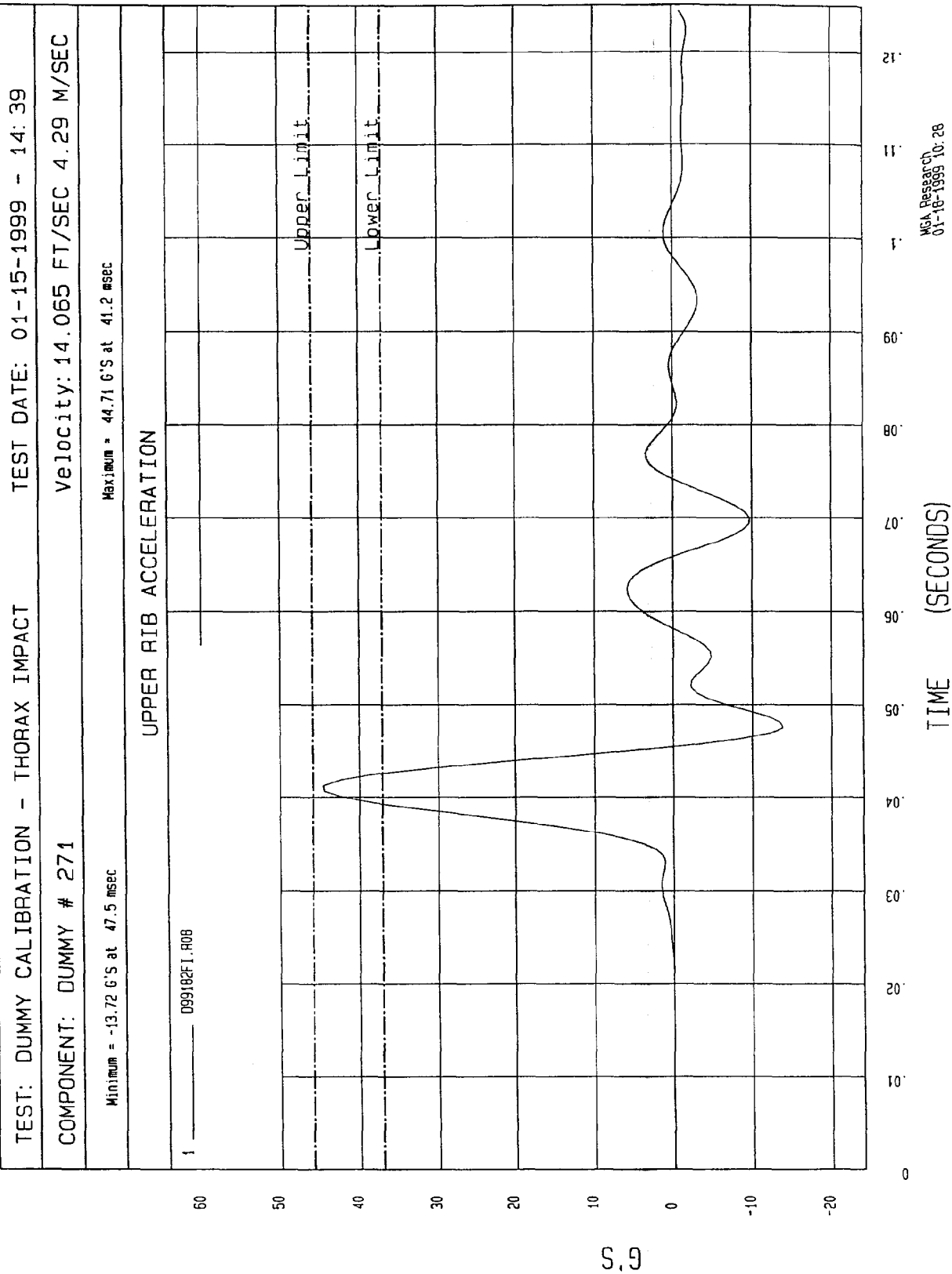
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 01-15-1999 - 14:39

COMPONENT: DUMMY # 271 Velocity: 14.065 FT/SEC 4.29 M/SEC

Minimum = -15.45 G'S at 47.5 msec Maximum = 44.91 G'S at 41.2 msec

LOWER RIB ACCELERATION

1 0991821.R09

60

50

40

30

20

10

0

-10

-20

G'S

Upper Limit

Lower Limit

12

11

10

09

08

07

06

05

04

03

02

01

0

TIME (SECONDS)

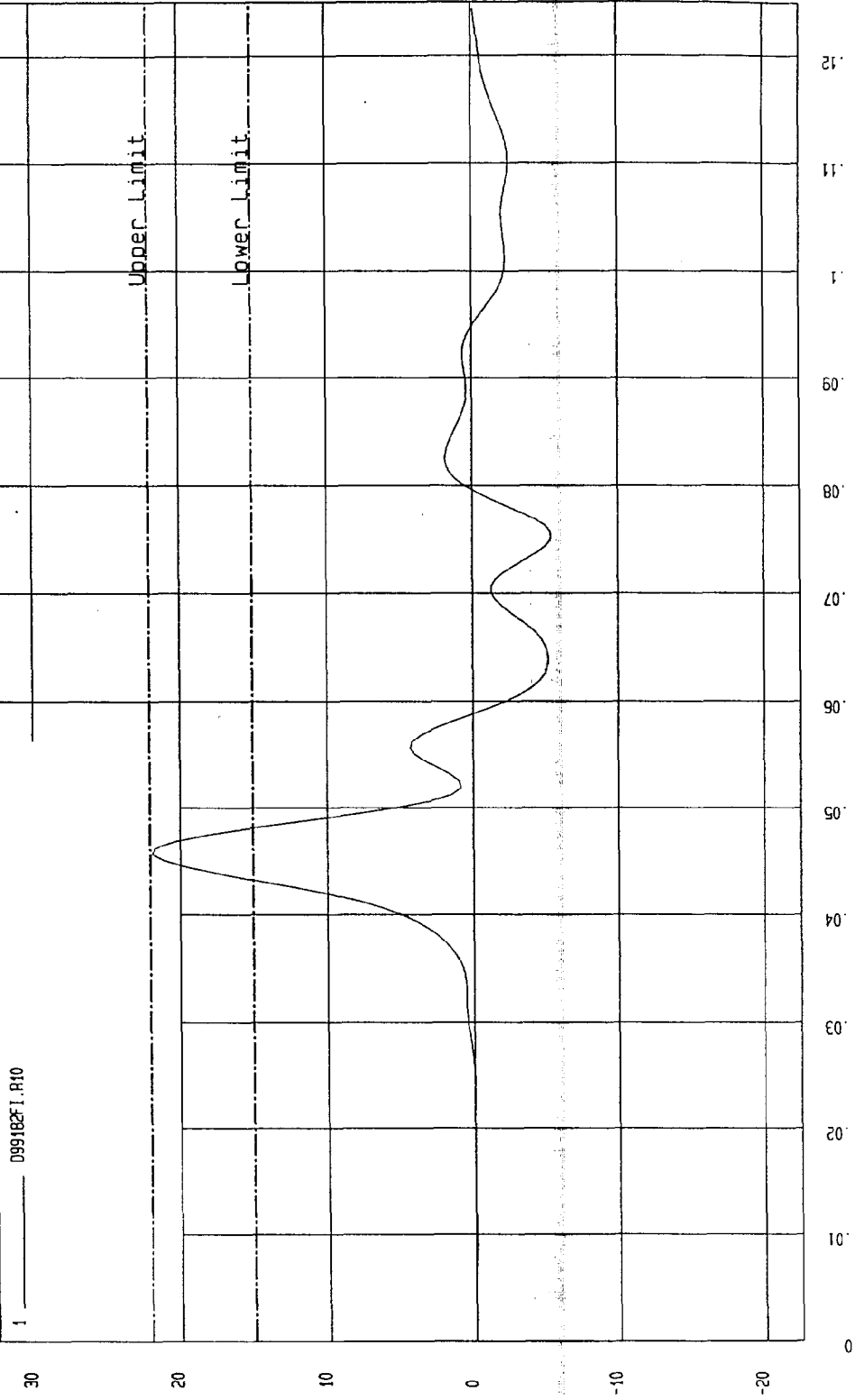
NCA Research
01-15-1999 14:52

TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 01-15-1999 - 14:39

COMPONENT: DUMMY # 271 Velocity: 14.065 FT/SEC 4.29 M/SEC

Minimum = -5.48 G'S at 75 msec Maximum = 21.87 G'S at 45.6 msec

LOWER SPINE ACCELERATION



MCA Research
01-15-1999 14:52

G.S.

MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SIDE IMPACT DUMMY (SID)

DATE: January 15, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99183

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
PROBE SPEED (m/s)	4.27 - 4.33	4.28
PELVIS ACCELERATION (g's)	40 - 60	58

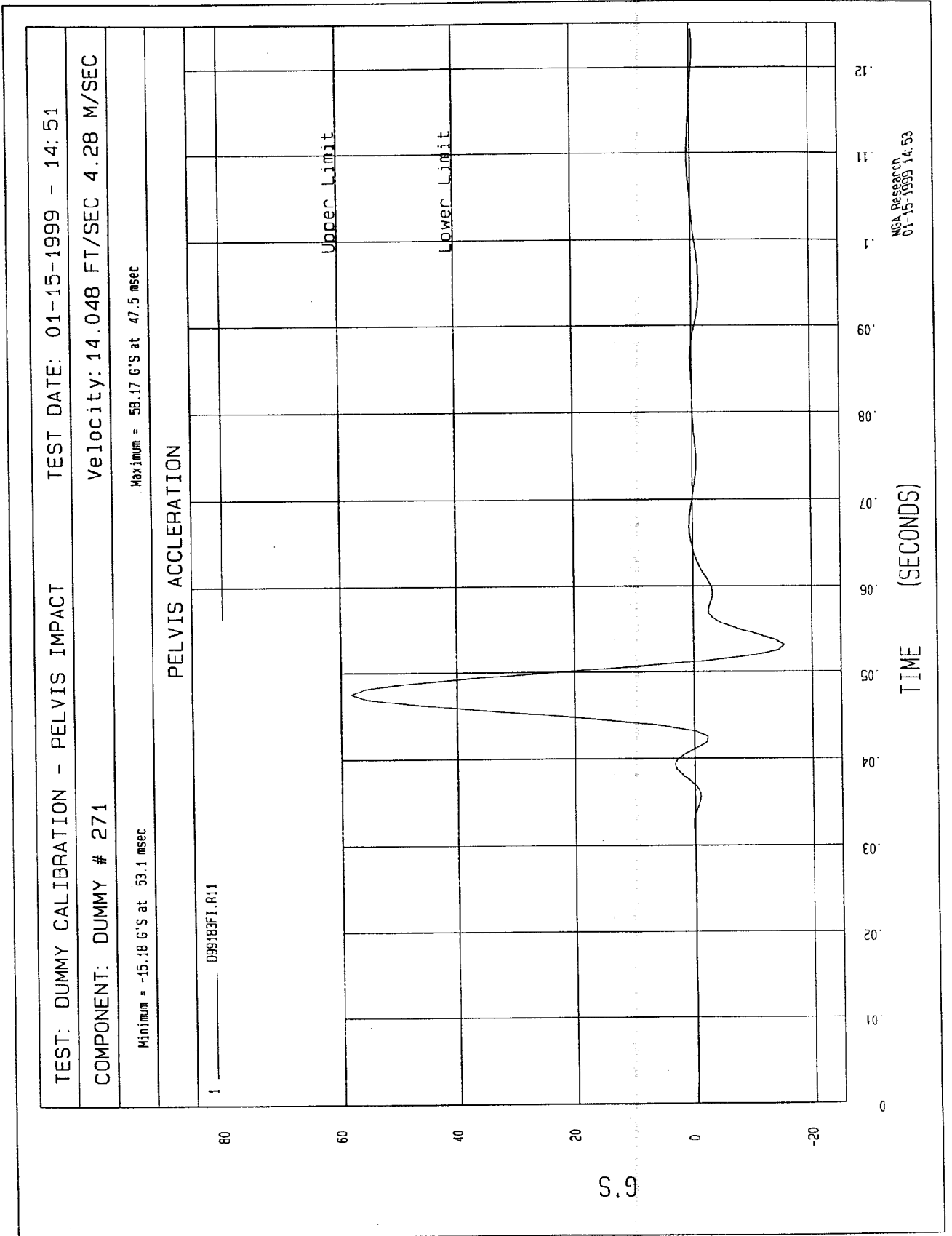
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST

(PRELOAD = 10 LBS)

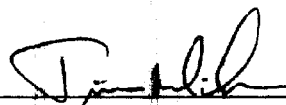
SIDE IMPACT DUMMY (SID)

DATE: January 18, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99184

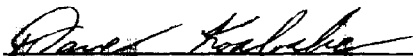
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
FORCE @ 12.7 mm	104 - 162	144
FORCE @ 19.0 mm	163 - 222	196
FORCE @ 25.4 mm	222 - 280	259
FORCE @ 33 mm	325 - 391	351

TEST MEETS SPECIFICATIONS

TECHNICIAN



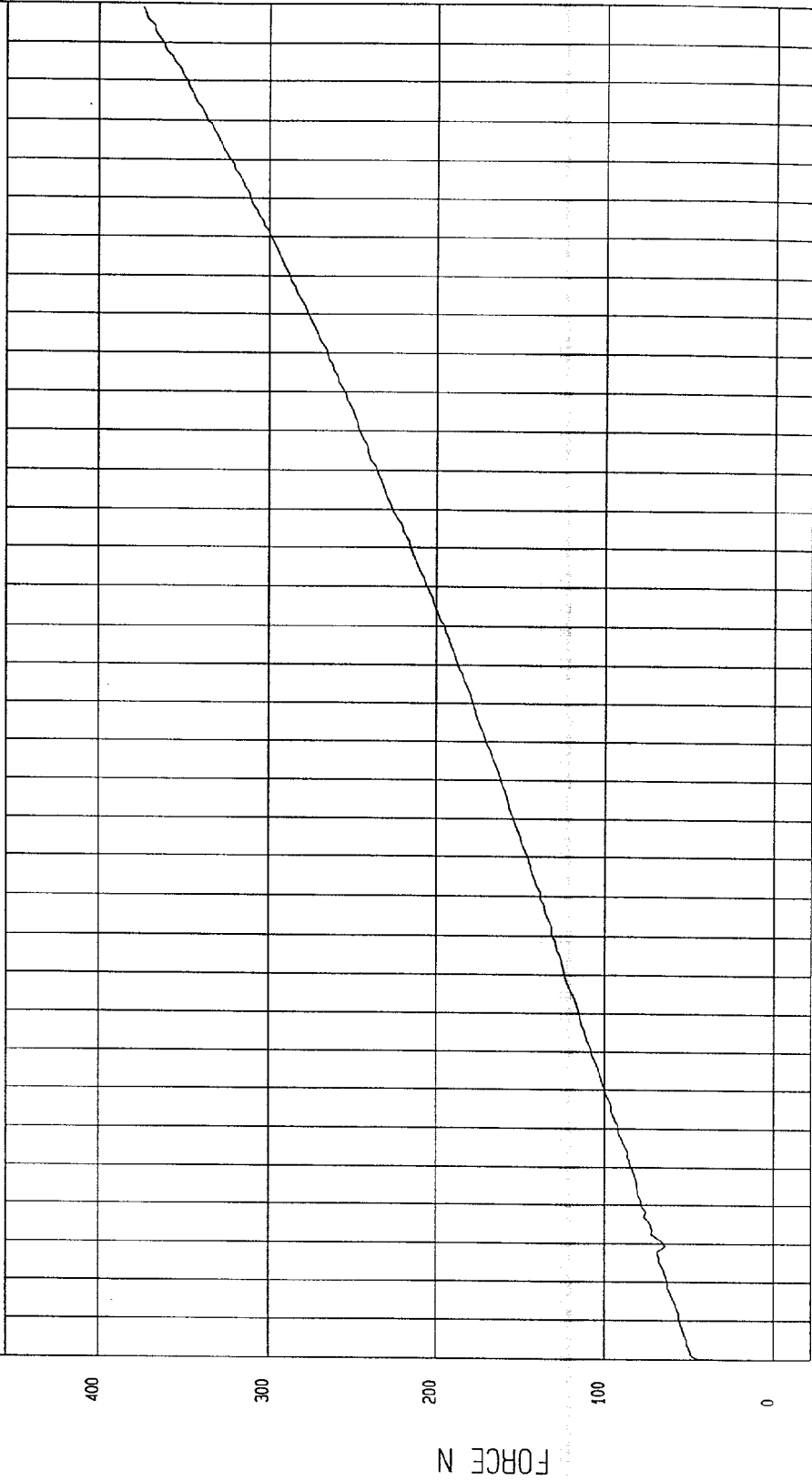
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 01-18-1999 - 09:32:41

COMPONENT: DUMMY # 271

FORCE as a function of DISPLACEMENT



MGA Research
01-18-1999 09:39

DISPLACEMENT mm

FORCE N

MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: January 18, 1999DUMMY SERIAL NUMBER: 271TEST NUMBER: D99185

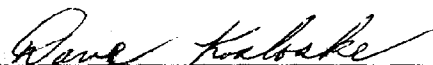
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	115.4
FORCE @ 30°	151.2 - 204.6	175.4
FORCE @ 40°	204.6 - 258.0	211.7
RETURN ANGLE	12° maximum	4°

TEST MEETS SPECIFICATIONS

TECHNICIAN



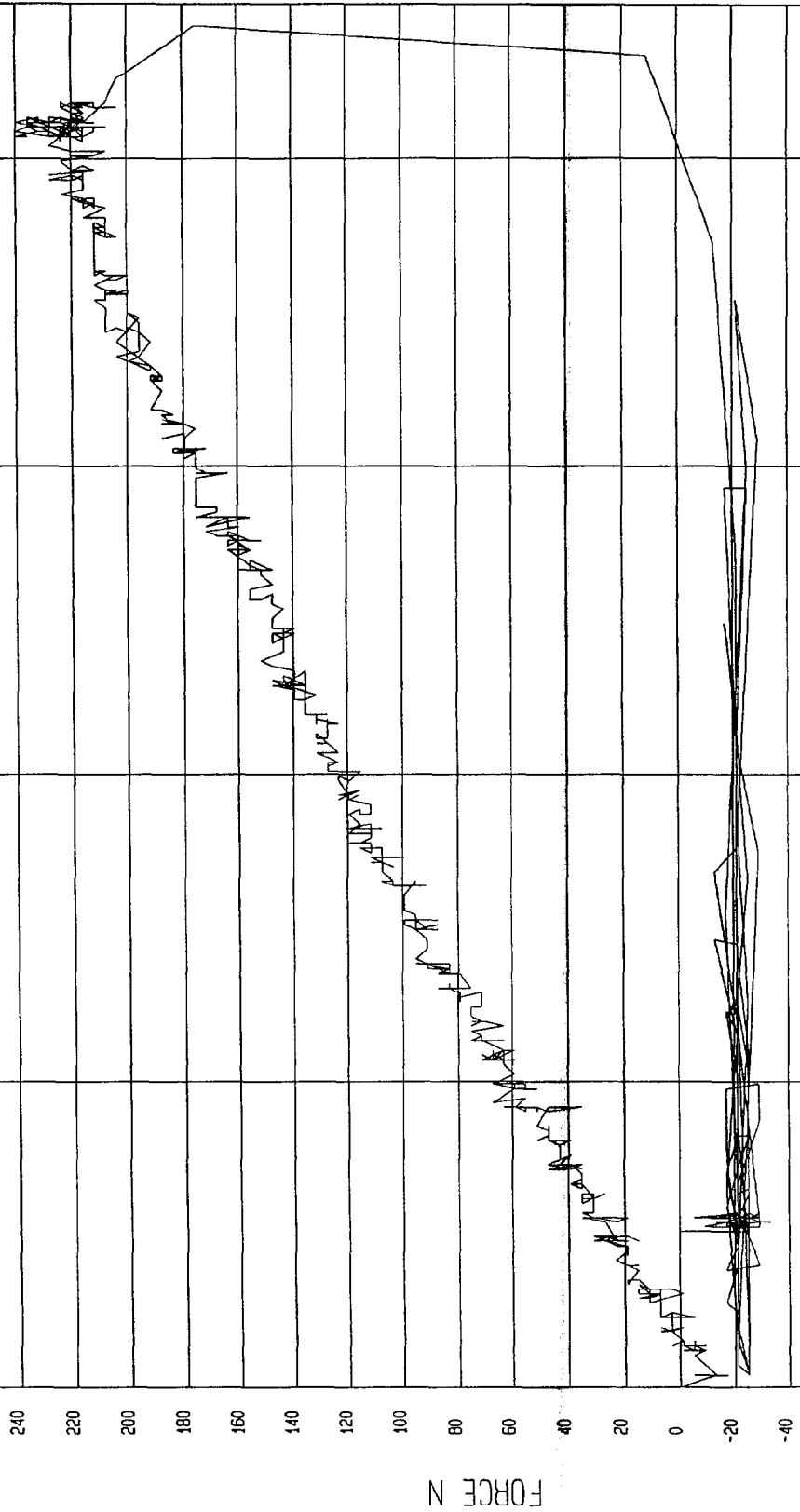
APPROVED BY



TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 01-18-1999 - 10:29:54

COMPONENT: DUMMY # 271

FORCE as a function of TORSO ROTATION



POST-TEST CERTIFICATION DATA

Passenger Dummy Serial Number: 272

Calibration Test Results Summary

Passenger Dummy Serial Number: 272

Post-Test Calibration

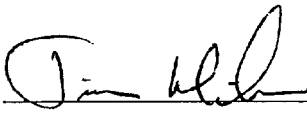
External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion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

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

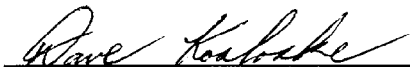
DUMMY SERIAL NUMBER: 272DATE OF VERIFICATION: January 19, 1999

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH - Seated Height (mm)	889 - 909	892
RH - Rib Height (mm)	501 - 521	512
HP - Hip Pivot Height (mm)	99 ref.	99
RD - Rib From Back Line (mm)	229 - 241	238
KV - Knee Pivot From Back Line (mm)	511 - 526	523
SW - Knee Pivot to Floor (mm)	490 - 505	493
HW - Hip Width (mm)	356 - 391	378

MEASUREMENTS BY:



APPROVED BY:



MGA RESEARCH CORPORATION

THORAX IMPACT TEST

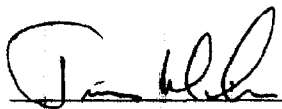
SIDE IMPACT DUMMY (SID)

DATE: January 15, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99192

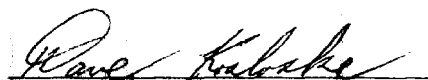
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
PROBE SPEED (m/s)	4.27 - 4.33	4.30
UPPER RIB (g's)	37 - 46 g's	44
LOWER RIB (g's)	37 - 46 g's	42
LOWER SPINE (g's)	15 - 22 g's	16

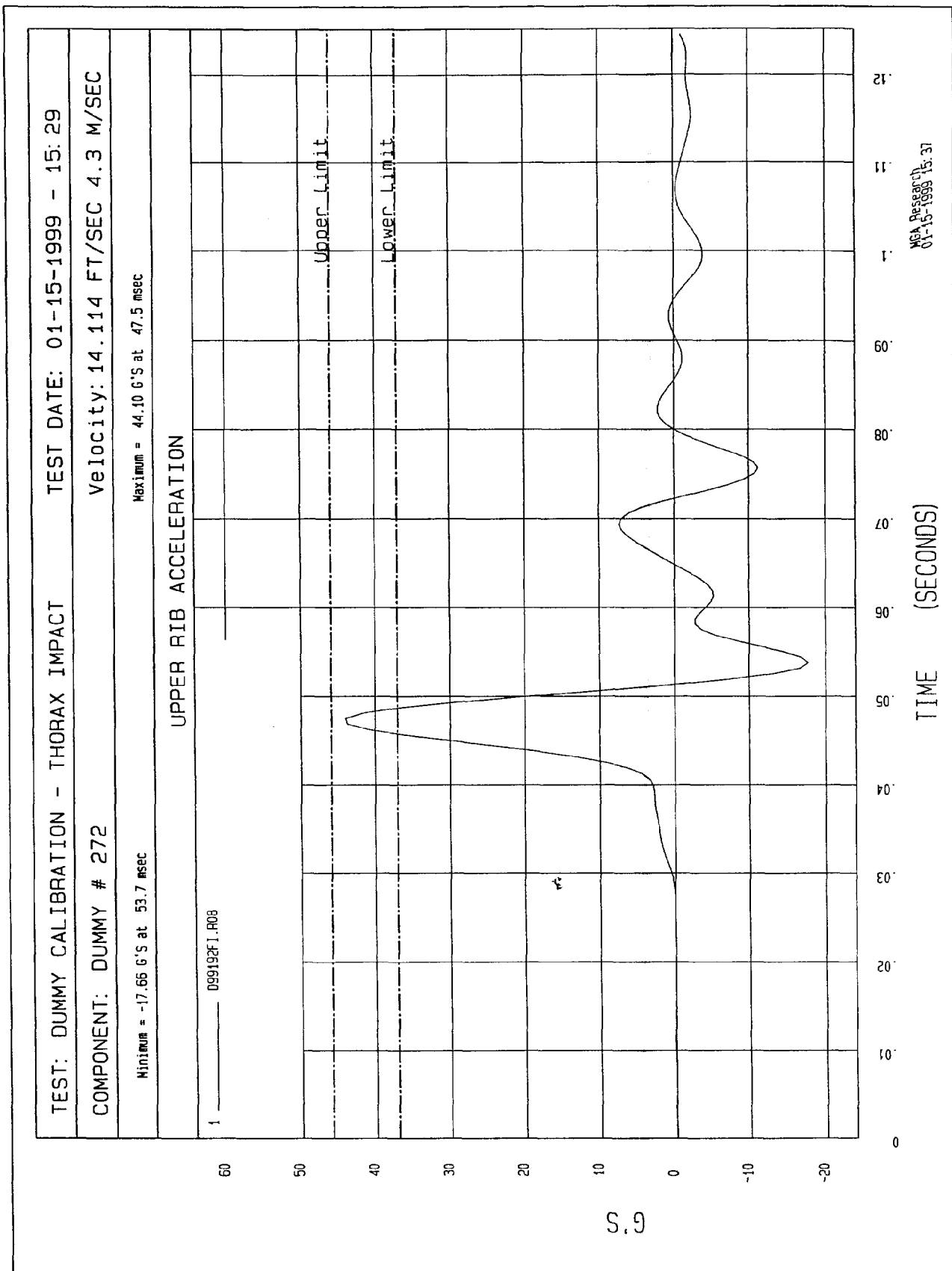
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 01-15-1999 - 15:29

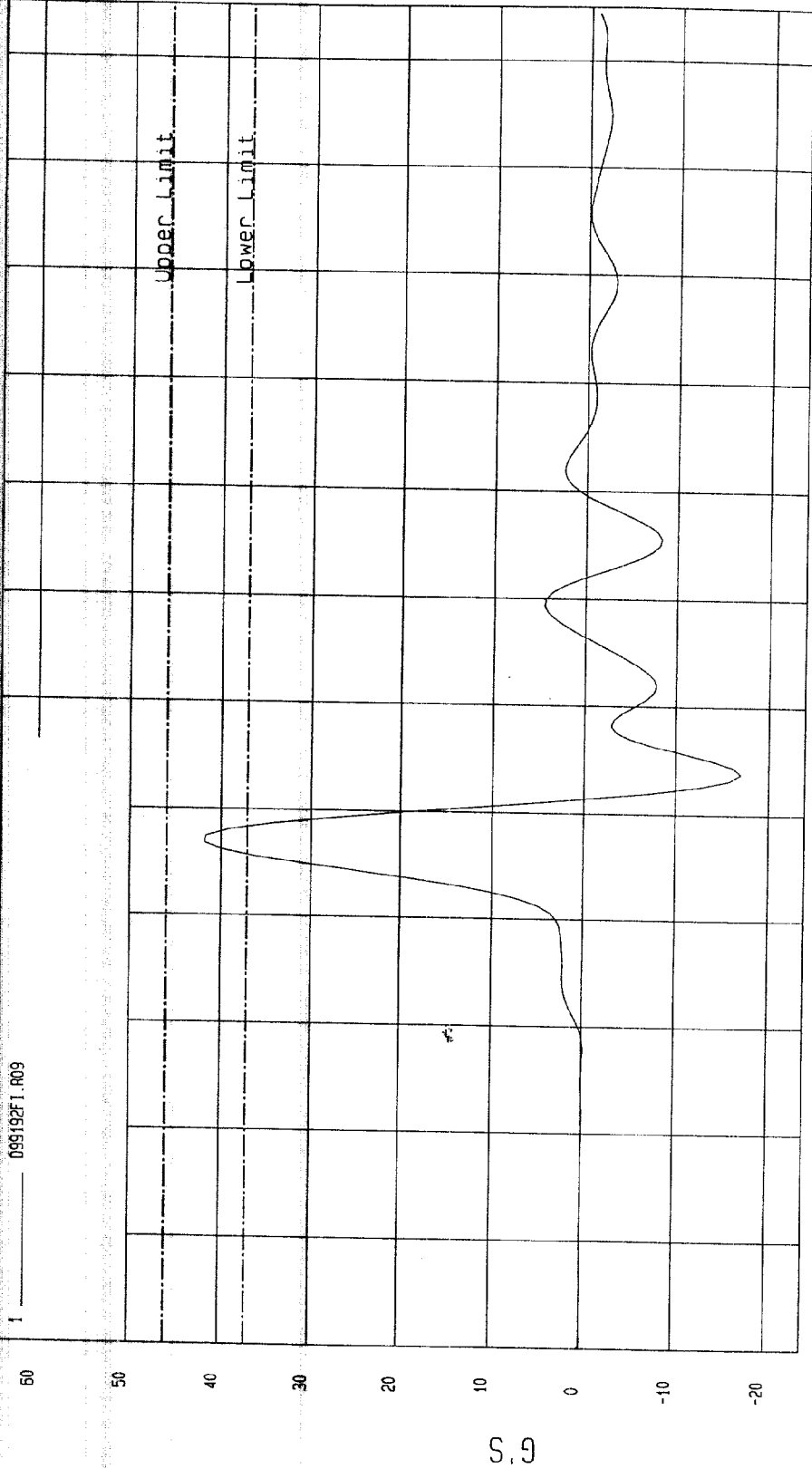
COMPONENT: DUMMY # 272 Velocity: 14.114 FT/SEC 4.3 M/SEC

Minimum = -16.97 G'S at 53.7 msec

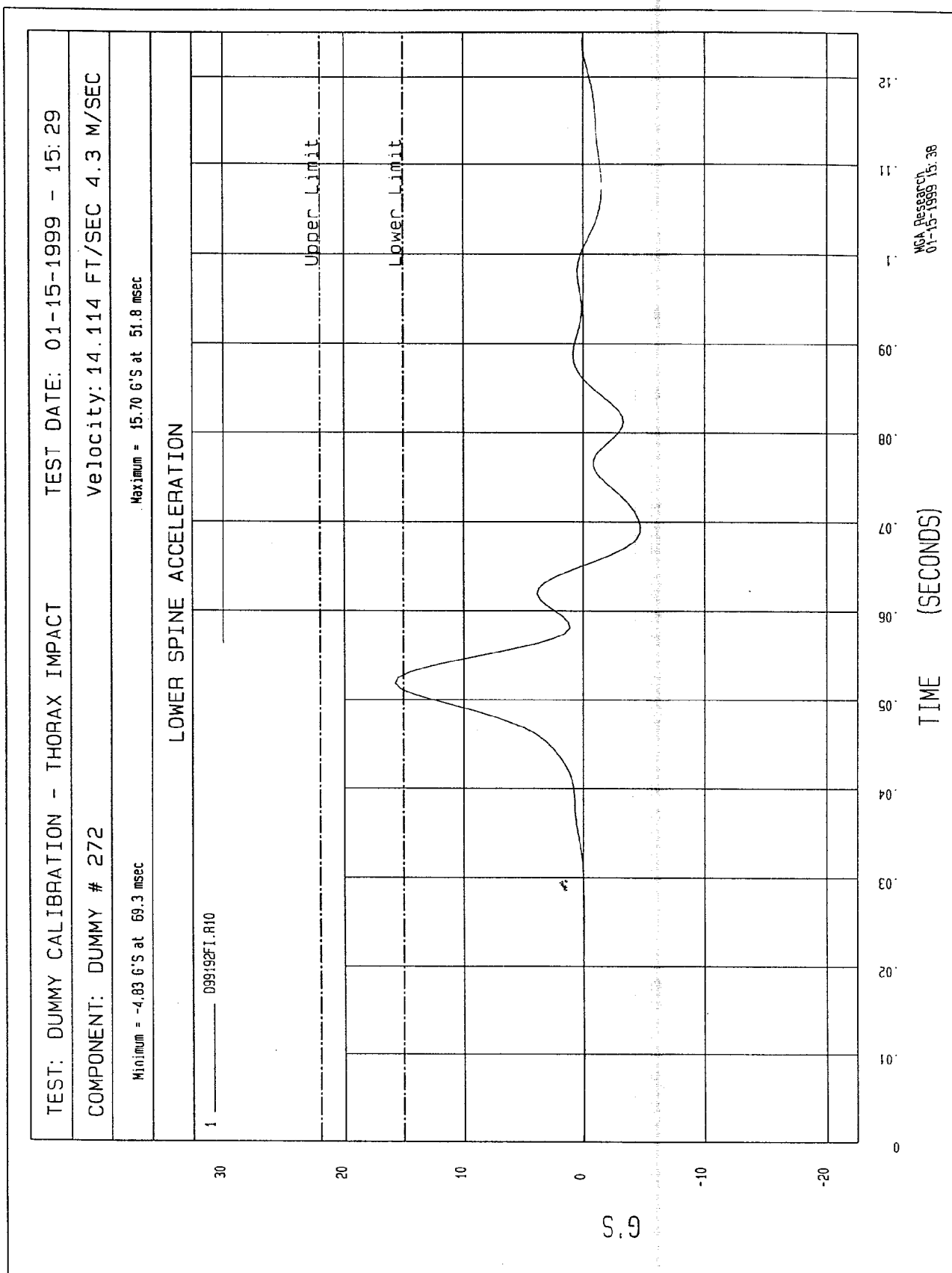
Maximum = 41.87 G'S at 46.8 msec

LOWER RIB ACCELERATION

1 099192F1.R09



MCA Research
01-15-1999 15:37



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

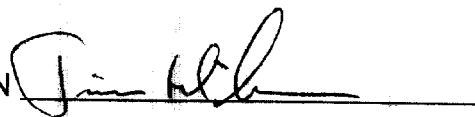
SIDE IMPACT DUMMY (SID)

DATE: January 15, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99193

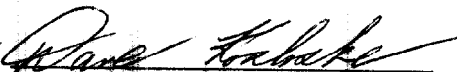
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
PROBE SPEED (m/s)	4.27 - 4.33	4.27
PELVIS ACCELERATION (g's)	40 - 60	59

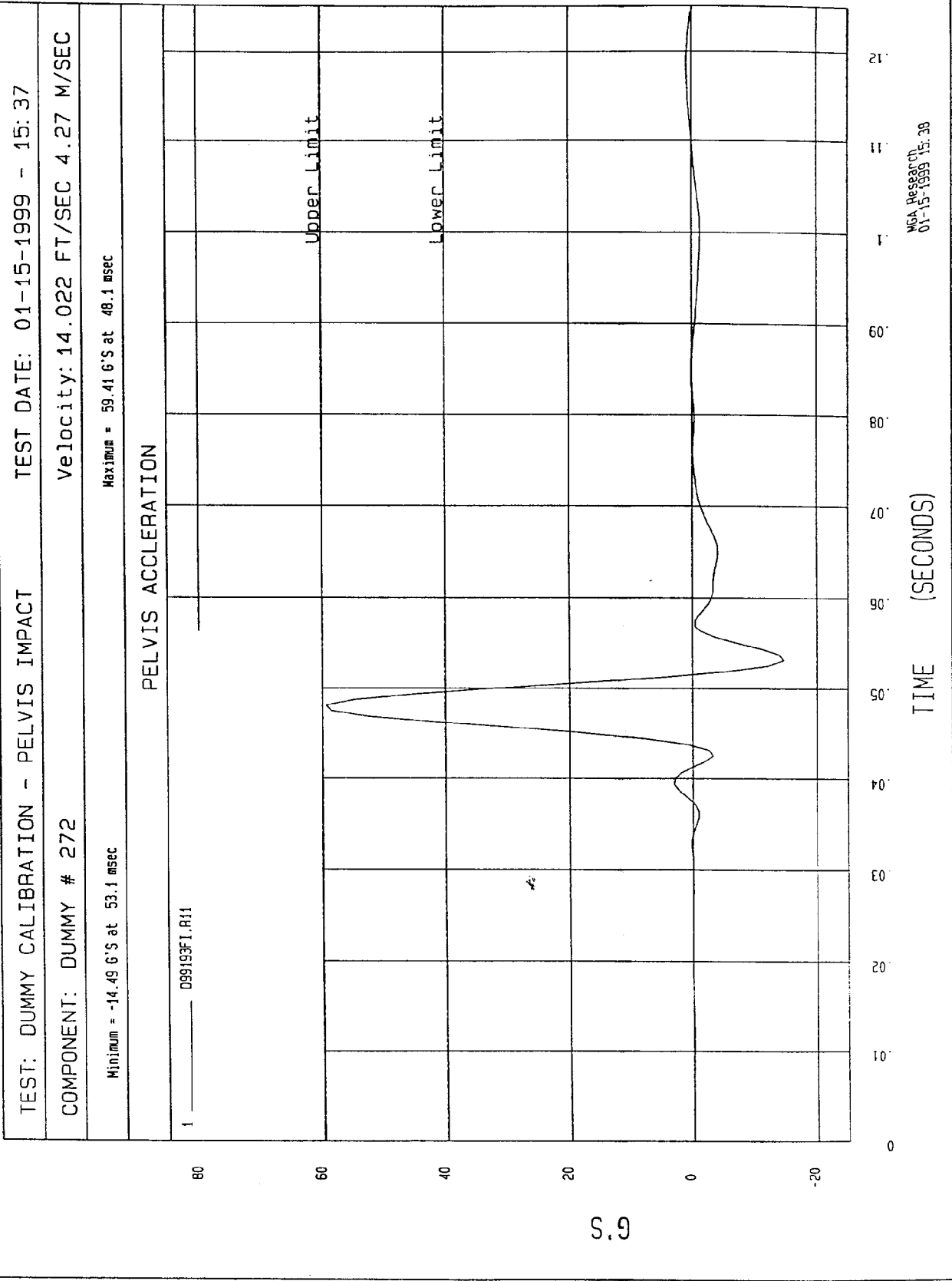
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST

(PRELOAD = 10 LBS)

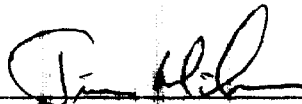
SIDE IMPACT DUMMY (SID)

DATE: January 18, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99194

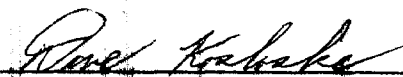
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
FORCE @ 12.7 mm	104 - 162	142
FORCE @ 19.0 mm	163 - 222	192
FORCE @ 25.4 mm	222 - 280	248
FORCE @ 33 mm	325 - 391	335

TEST MEETS SPECIFICATIONS

TECHNICIAN



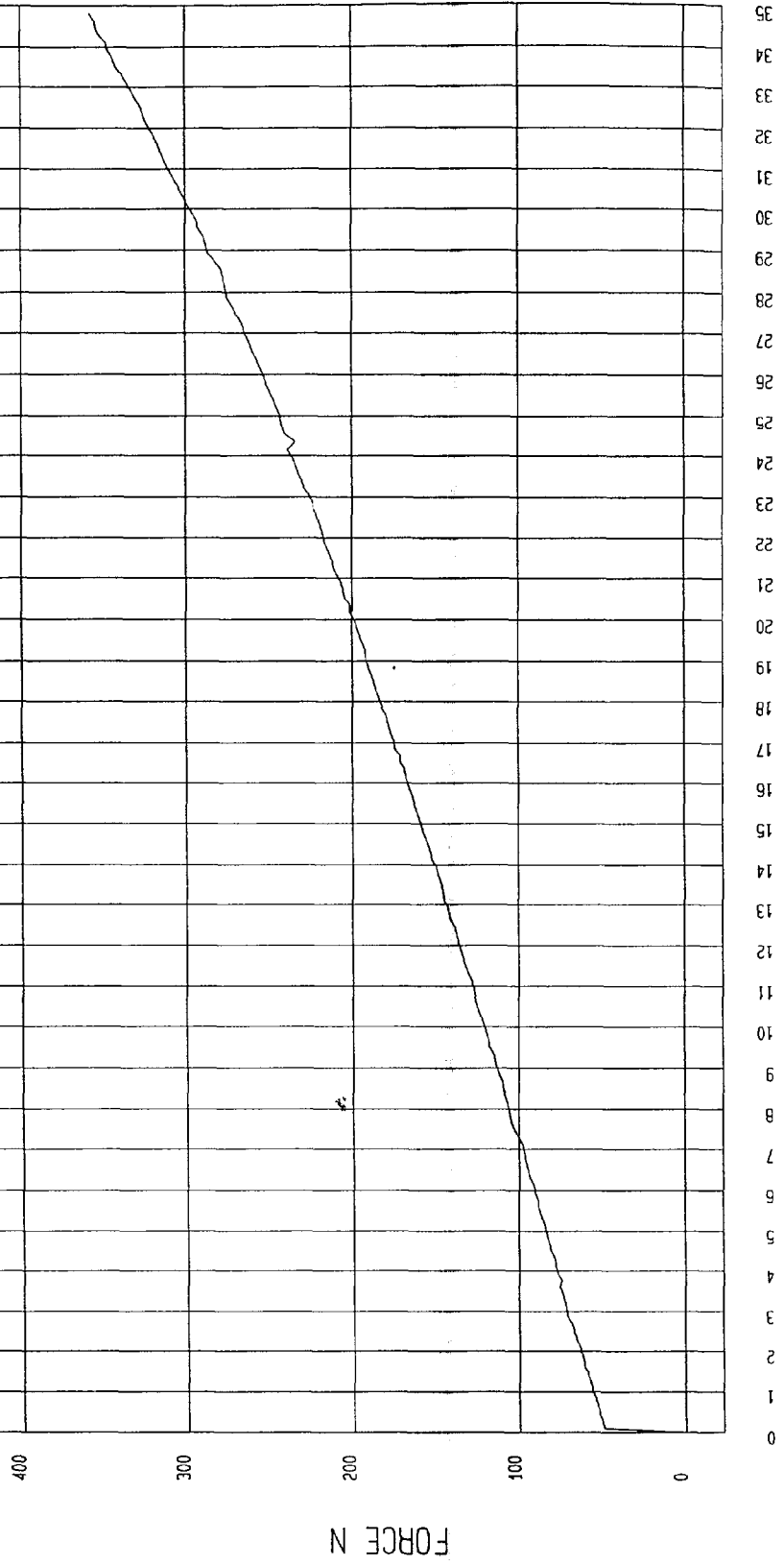
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 01-18-1999 - 09:38:43

COMPONENT: DUMMY # 272

FORCE as a function of DISPLACEMENT



MGA Research
01-18-1999 09:39

DISPLACEMENT mm

MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

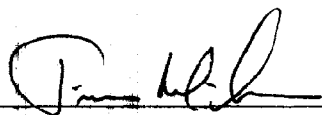
SIDE IMPACT DUMMY (SID)

DATE: January 18, 1999DUMMY SERIAL NUMBER: 272TEST NUMBER: D99195

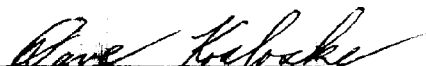
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	112.8
FORCE @ 30°	151.2 - 204.6	160.9
FORCE @ 40°	204.6 - 258.0	209.1
RETURN ANGLE	12° maximum	6°

TEST MEETS SPECIFICATIONS

TECHNICIAN



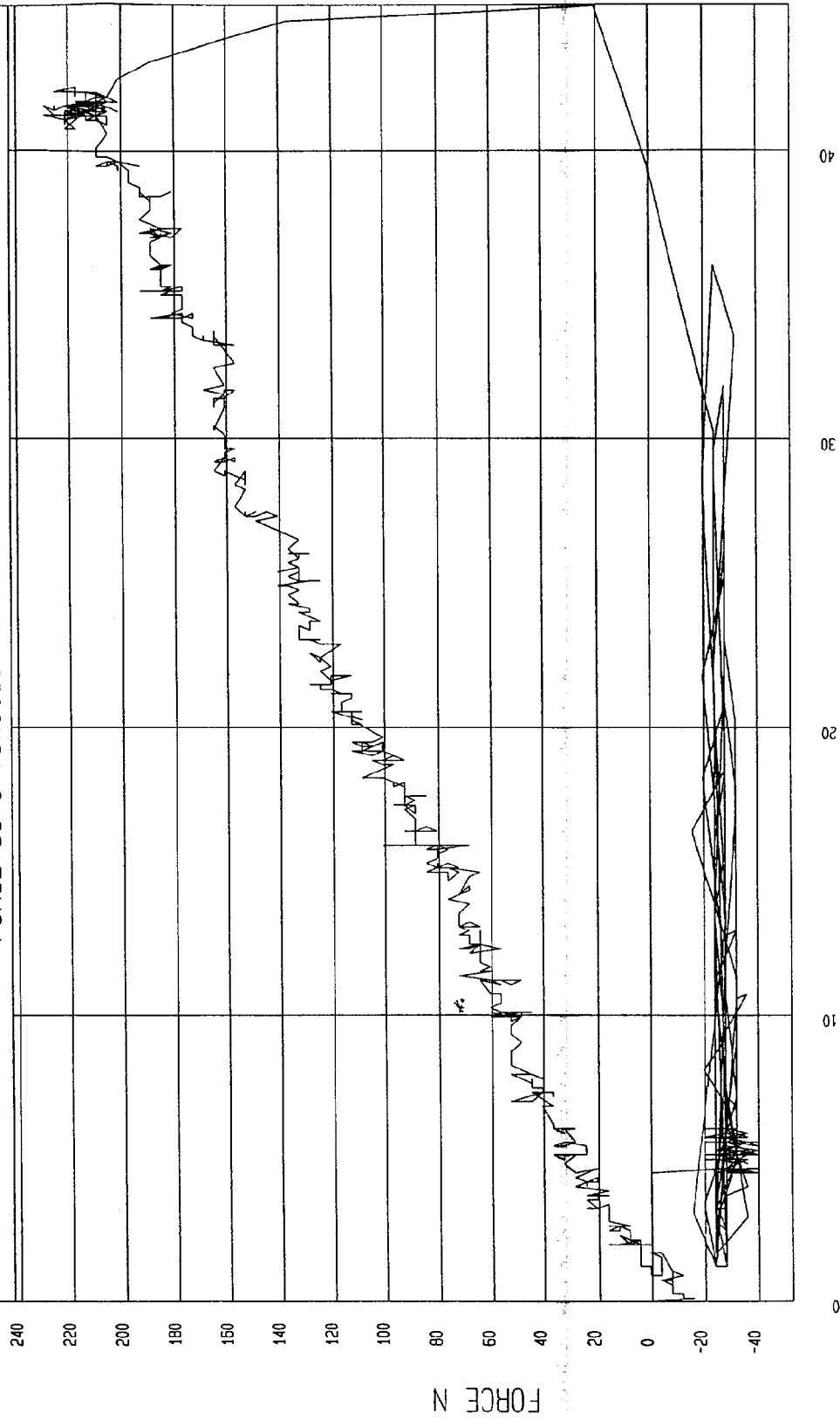
APPROVED BY



TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 01-18-1999 - 09:55:01

COMPONENT: DUMMY # 272

FORCE as a function of TORSO ROTATION



MCA Research
01-18-1999 10:30

POST-TEST DRIVER DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Serial Number: 271

Inspected By: Tim Michnay

Date: January 18, 1999

<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		

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

POST-TEST PASSENGER DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Serial Number: 272

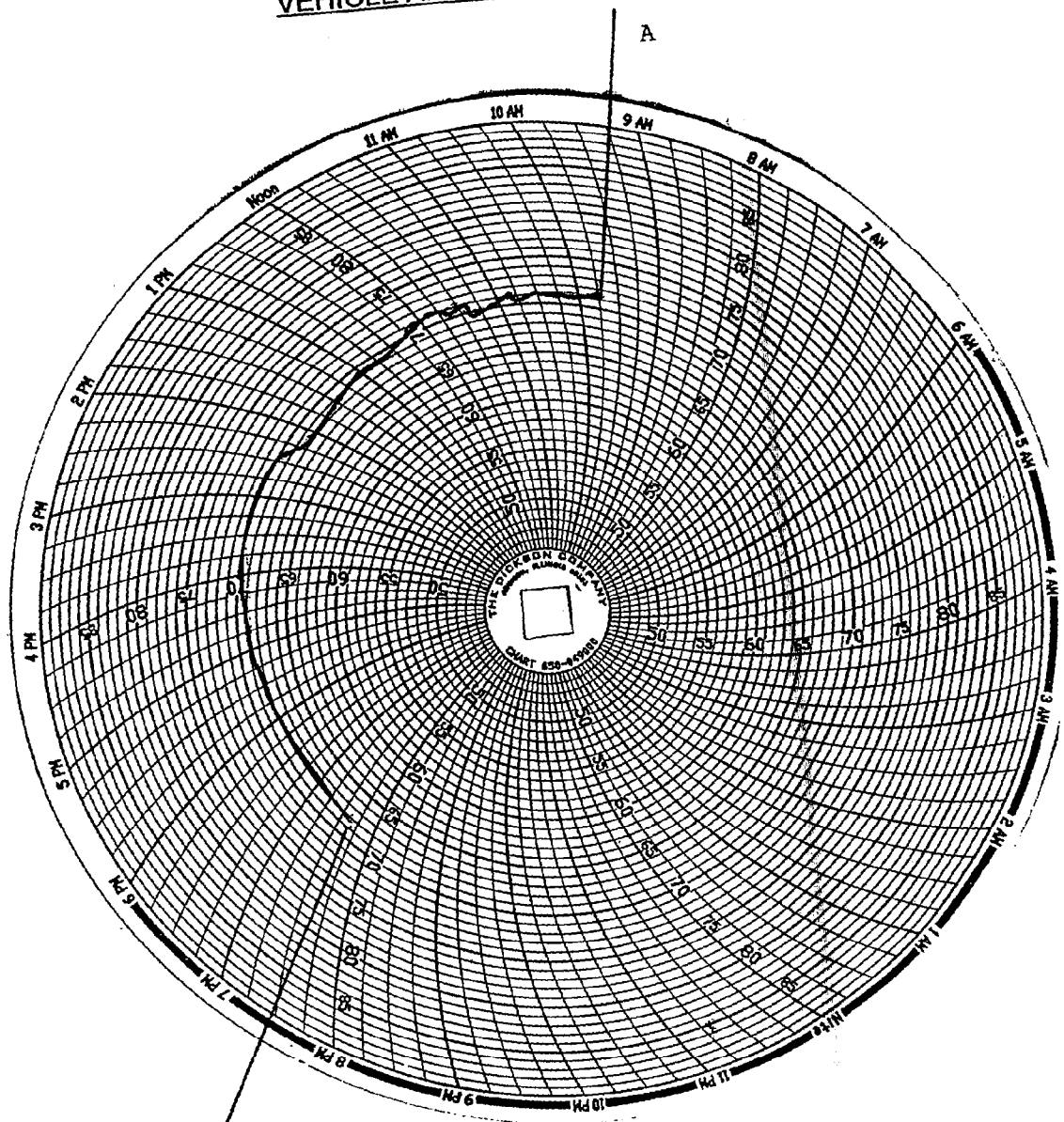
Inspected By: Tim Michnay

Date: January 18, 1999

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
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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		

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. 271

	DRIVER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Rib Y	AH0N9	Endevco	October 20, 1998
Lower Rib Y	AGP53	Endevco	October 20, 1998
Lower Spine Y	J12450	Endevco	October 20, 1998
Pelvis Y	AJ417	Endevco	October 20, 1998
Upper Rib Redundant Y	AHT20	Endevco	October 20, 1998
Lower Rib Redundant Y	AHTC3	Endevco	October 20, 1998
Lower Spine Redundant Y	J12461	Endevco	October 20, 1998
Pelvis Redundant Y	AGP20	Endevco	October 20, 1998
Head Center of Gravity X	J20392	Endevco	July 28, 1998
Head Center of Gravity Y	AGT18	Endevco	July 28, 1998
Head Center of Gravity Z	ALBA7	Endevco	July 28, 1998

DUMMY AND VEHICLE CALIBRATION DATA
INSTRUMENTS FOR PASSENGER DUMMY NO. 272

	LEFT REAR PASSENGER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Rib Y	AKAF3	Endevco	October 9, 1998
Lower Rib Y	ALEC1	Endevco	October 9, 1998
Lower Spine Y	J14120	Endevco	October 14, 1998
Pelvis Y	AKAH3	Endevco	October 14, 1998
Upper Rib Redundant Y	ALCN9	Endevco	October 9, 1998
Lower Rib Redundant Y	J10411	Endevco	October 9, 1998
Lower Spine Redundant Y	AP2F7	Endevco	October 14, 1998
Pelvis Redundant Y	AGM32	Endevco	October 14, 1998
Head Center of Gravity X	AJ9B0	Endevco	October 14, 1998
Head Center of Gravity Y	AHTR2	Endevco	October 14, 1998
Head Center of Gravity Z	AGTE9	Endevco	October 14, 1998

VEHICLE INSTRUMENT CALIBRATION

	VEHICLE ACCELEROMETERS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Moving Barrier CG X	K19-A11	Entran	August 27, 1998
Moving Barrier CG Y	K19-A15	Entran	August 27, 1998
Moving Barrier CG Z	K11-J17	Entran	August 28, 1998
Moving Barrier Rear Axle X	H02-J02	Entran	December 15, 1998
Moving Barrier Rear Axle Y	J04-F16	Entran	December 15, 1998
Left Mid A-Post Y	E10-F14	Entran	January 7, 1999
Left Lower A-Post Y	C06-G08	Entran	August 26, 1998
Left Mid B-Post Y	F07-A14	Entran	December 21, 1998
Left Lower B-Post Y	I18-G01	Entran	January 7, 1999
Rear Floorpan Above Axle X	I26-D09	Entran	December 15, 1998
Rear Floorpan Above Axle Y	G01-J10	Entran	December 15, 1998
Rear Floorpan Above Axle Z	F12-G05	Entran	December 15, 1998
Driver Seat Track Y	C05-Z13	Entran	January 7, 1999
Right Side Sill at Front Seat X	E13-D18	Entran	December 21, 1998
Right Side Sill at Front Seat Y	J13-F18	Entran	December 21, 1998
Right Side Sill at Front Seat Z	J06-D19	Entran	December 21, 1998
Right Side Sill at Rear Seat X	F11-G08	Entran	December 21, 1998
Right Side Sill at Rear Seat Y	I25-J05	Entran	September 24, 1998
Right Side Sill at Rear Seat Z	E10-F03	Entran	December 21, 1998

VEHICLE INSTRUMENT CALIBRATION

VEHICLE ACCELEROMETERS			
	SERIAL NO	MANUFACTURER	CALIBRATION DATE
Left Side Sill at Front Seat Y	F10-D02	Entran	December 16, 1998
Left Side Sill at Rear Seat Y	J10-E14	Entran	December 21, 1998
Right Rear Occupant Compartment Y	A09-G09	Entran	December 15, 1998
Vehicle CG X	F12-G09	Entran	December 21, 1998
Vehicle CG Y	K16-X10	Entran	August 27, 1998
Vehicle CG Z	F07-A16	Entran	December 16, 1998
Left Front Door on Centerline	F18-G03	Entran	January 7, 1999
Midrear of Left Front Door	G08-B04	Entran	January 7, 1999
Left Front Door Upper Centerline	J06-D20	Entran	December 22, 1998
Midrear of Left Rear Door	F18-G08	Entran	September 16, 1998
Left Rear Door Upper Centerline	J04-F10	Entran	December 16, 1998

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