

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TESTING
PASSENGER CARS

HONDA MOTOR COMPANY

1999 HONDA ACCORD
2 DOOR
NHTSA NO: MX5303

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: December 1, 1998

Report Date: December 11, 1998

FINAL REPORT

Prepared For:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
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				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 Honda Accord 2 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 December 1, 1998. The impact velocity of the Moving Deformable Barrier (MDB) was 61.7 kph, and the ambient temperature at the struck side (driver's) of the target vehicle at the time of impact was 22.2 °C. The target vehicle post test maximum crush was 282 mm at level 3. The test vehicle's performance follows: <table border="1"> <thead> <tr> <th></th> <th><u>DRIVER</u></th> <th><u>PASS</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td>73</td> <td>51</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td>86</td> <td>47</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td>79</td> <td>65</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td>83</td> <td>58</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td>74</td> <td>49</td> </tr> </tbody> </table> The door on the struck side of the vehicle did not separate from the body at the hinges or latche and the opposite door did not open during the side impact event.							<u>DRIVER</u>	<u>PASS</u>	Left Upper Rib (LUR) Accel., g	73	51	Left Lower Rib (LLR) Accel., g	86	47	Lower Spine (T ₁₂) Accel., g	79	65	Thoracic Trauma Index (TTI)	83	58	Pelvis (PEV) Accel., g	74	49
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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																			
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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 Honda Accord 2 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 Honda Accord 2 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 38.34 mph (61.7 kph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by MGA Research Corporation in Burlington, Wisconsin, on December 1, 1998. 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)	83	58
Pelvis (g)	74	49

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

DATA SHEET NO. 1

GENERAL VEHICLE TEST PARAMETER DATATEST VEHICLE INFORMATION:Year/Make/Model/Body Style: 1999/Honda/Accord/2 DoorVehicle NHTSA No.: MX5303 VIN: 1HGCG3252XA003460Vehicle Body Color: Green Build Date: 11/98Engine Data: 4 Cylinders; CID; 2.3 Liter; ccPlacement Longitudinal; X LateralTransmission: 4 Speed; Manual; X Automatic; OverdriveFinal Drive: Rear Wheel Drive; X Frt. Wheel Drive; Four Wheel DriveOdometer Reading 190 milesOptions: X A/C; X Pwr. Steering; X Pwr. Brakes; X Pwr. Windows;X Cruise Control; X Tilt Wheel; X Power Door Locks;DATA FROM TIRE PLACARD:Tire Pressure (at capacity): 29 Psi FRONT29 Psi REARRecommended Tire Size: 195/65R15Tires on Test Vehicle: 195/65R15 Manufacturer: Bridgestone

Vehicle Capacity Data:

Number of Occupants: 2 Front; 3 Rear; 3rd Seat, 5 TotalType of Front Seats: X Bucket; Bench; Split BenchType of Front Seat Back: Fixed; X Adjustable with X LeverVehicle Maximum Capacity Loading = 385.6 kg (A)No. of Occupants x 68.04 kg. = 340.2 kg (B)Cargo Capacity (A-B) = 45.4 kg

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)WEIGHT OF TEST VEHICLE WITH MAXIMUM FLUIDS:

Right Front = 431.8 kg Right Rear = 269.0 kg

Left Front = 431.8 kg Left Rear = 266.7 kg

TOTAL FRONT = 863.6 kg TOTAL REAR = 535.7 kg

% of Total Vehicle Weight = 61.7 %; % of Total Weight = 38.3 %

TOTAL WEIGHT = 1399.3 kg

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)Year/Make/Model/Body Style: 1999/Honda/Accord/2 DoorVehicle NHTSA No.: MX5303 Test Date: December 1, 1998CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Maximum Fluids	=	<u>1399.3</u> kg
Cargo Carrying Capacity of Test Vehicle	=	<u>45.4</u> kg
Weight of 2 Side Impact Dummies (2 x <u>80.7</u> kg.)	=	<u>161.4</u> kg
TEST VEHICLE TARGET WEIGHT	=	<u>1606.1</u> kg

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

Right Front	=	<u>441.4</u> kg	Right Rear	=	<u>326.1</u> kg
Left Front	=	<u>481.3</u> kg	Left Rear	=	<u>356.5</u> kg
TOTAL FRONT	=	<u>922.7</u> kg	TOTAL REAR	=	<u>682.6</u> kg
% of Total Weight	=	<u>57.5</u> %	% of Total Weight	=	<u>42.5</u> %
TOTAL TEST WEIGHT	=	<u>1605.3</u> kg			

TEST VEHICLE ATTITUDE:

CURB WEIGHT ATTITUDE:

Right Front 705 mm Left Front 711 mm Right Rear 706 mm Left Rear 702 mm

FULLY LOADED WEIGHT ATTITUDE:

Right Front 689 mm Left Front 687 mm Right Rear 674 mm Left Rear 660 mm

TEST ATTITUDE:

Right Front 685 mm Left Front 690 mm Right Rear 675 mm Left Rear 666 mm

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

Test Vehicle Wheelbase: 2670 mm

C.G. = 1107 mm rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side = 4020 mm

Centerline = 4690 mm

Left Side = 4022 mm

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)Year/Make/Model/Body Style: 1999/Honda/Accord/2 DoorVehicle NHTSA No.: MX5303 Test Date: December 1, 1998FRONT SEAT CUSHION PLACEMENT:Total Length of Adjustment Travel: 236 mmTest Position: 13th position rearward out of 25 possible positionsFRONT SEAT BACK ADJUSTMENT POSITION:Seat Back Angle = set 3 positions back from the first locking position (1st position is 0)SECOND POSITION SEAT:Total Length of Fore/Aft Adjustment Travel: Not adjustableSeat Back Adjustment Position: N/AADJUSTABLE STEERING COLUMN POSITION: Mid-position

WINDOW POSITIONS: Left Front Closed Left Rear Fixed
 Right Front Open Right Rear Removed

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:Fuel system usable capacity = 17.1 gallonsTest Volume: 15.85 gallons 92.7 % of capacityLOCATIONS OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:Wheelbase: = 2670 mmImpact Point is 395 mm rearward of front axle centerline

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

Overall Length = 4690 mm; Overall Width = 1824 mm

TEST WEIGHT:

Right Front = 454.5 kg

Right Rear = 325.2 kg

Left Front = 483.1 kg

Left Rear = 338.8 kg

TOTAL FRONT = 937.6 kg

TOTAL REAR = 664.0 kg

% of Total Weight = 58.5 %

% of Total Weight = 41.5 %

TOTAL VEHICLE WEIGHT = 1601.6 kg

Wheelbase = 2670 mm

Longitudinal C.G. from Center of Front Axle = 1107 mm

Impact Angle with Respect to Impactor = 90 ° degrees

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (296 mm above ground) = 128 mm

2. LEVEL 2 (478 mm above ground) = 261 mm

3. LEVEL 3 (593 mm above ground) = 273 mm

4. LEVEL 4 (862 mm above ground) = 266 mm

5. LEVEL 5 (1292 mm above ground) = 61 mm

Maximum Post-Test Intrusion = 282 mm

OCCUPANTS:

	<u>Driver</u>	<u>Left Rear Passenger</u>
Type of Dummy	<u>SID</u>	<u>SID</u>
Restraints Used	<u>3 point belt</u>	<u>3 point 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/Honda/Accord/2 DoorVehicle NHTSA No.: MX5303 Test Date: December 1, 1998POSITION 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: 38.34 mph (61.7 kph) Secondary: 38.36 mph (61.7 kph)

CRASH TEST SUMMARY FOR SIDE IMPACTOR (Cont'd)MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

- | | | | |
|----|---------------------------------|---|---------------|
| 1. | Row A Top of Stack (813 mm) | = | <u>210</u> mm |
| 2. | Row B Mid Stack (686 mm) | = | <u>162</u> mm |
| 3. | Row C Top of Bumper (533 mm) | = | <u>126</u> mm |
| 4. | Row D Center of Bumper (432 mm) | = | <u>183</u> mm |

INSTRUMENTATION:

Number of MDB Data Channels = 7

DATA SHEET NO. 4
POST-TEST OBSERVATIONS

Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head	<u>Window sill/headrest</u>	<u>C-post</u>
Arm	<u>Door panel</u>	<u>Side panel</u>
Pelvis	<u>Armrest</u>	<u>Armrest</u>
Left Knee	<u>Door panel</u>	<u>Side panel</u>
Right Knee	<u>Left knee</u>	<u>Left knee</u>

DOOR OPENING:

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

MDB DISTANCE FROM TARGET IMPACT POINT:

Horizontal: 7 mm rear Vertical: 3 mm high

ARM REST LOCATIONS:

Front: 246 mm down from window sill

Rear: 342 mm down from window sill

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

Front Seat Back: 30 mm Front Seat Cushion: 75 mm
Left Rear Seat Back: 55 mm Rear Seat Cushion: 76 mm

GLAZING DAMAGE:

Driver door window broke, windshield cracked

PILLAR PERFORMANCE:

No separation

SILL SEPARATION:

None

OTHER NOTABLE IMPACT EFFECTS:

None noted

AIRBAG DEPLOYMENT STATUS:

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

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

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

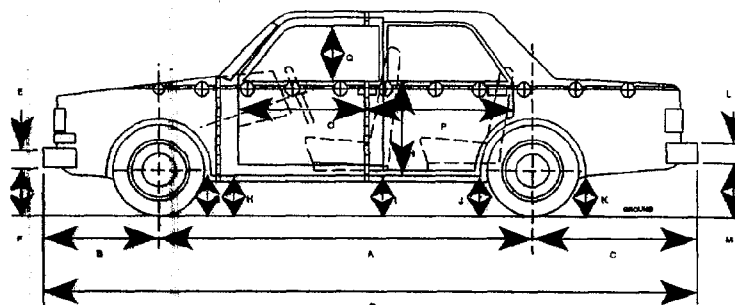
Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

	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	73.1	38	-15.3	79	51.1	58	-5.8	92
Left Lower Rib (LLR) Y	85.5	38	-13.1	94	47.0	44	-4.6	92
SPINE ACCELERATIONS								
Lower Lateral Y	79.4	41	-13.1	78	64.8	53	-15.4	72
PELVIS ACCELERATIONS								
Lateral Y	74.2	32	-8.4	102	49.3	48	-5.7	142

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

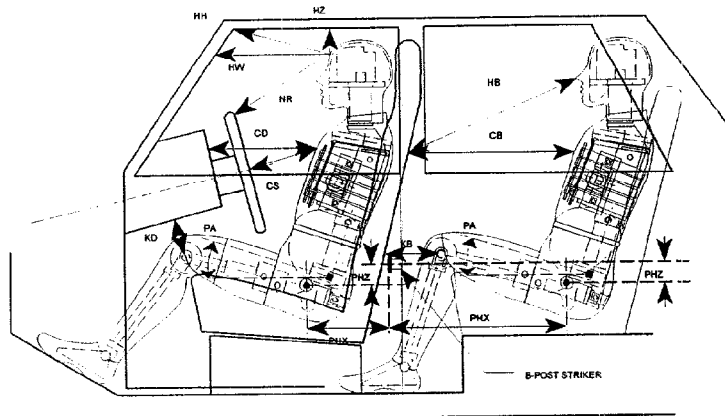
J1 = To Pinch Weld

J2 = To Sill

ALL MEASUREMENTS IN (mm)

	PRE-TEST	POST-TEST	Δ CHANGE
A	2670	2643	27
B	980	980	0
C	1040	1040	0
D	4690	4663	27
E	122	122	0
F	403	410	-7
G	188	195	-7
H	166	180	-14
I	177	204	-27
J1/J2	178/157	195/157	-17/0
K	244	250	-6
L	248	248	0
M	444	456	-12
N	674	605	69
O	842	812	30
P	539	536	3
Q	426	391	35
R	4020	4020	0
S	4022	3968	54
T	1824	1814	10

DATA SHEET NO. 7

SIDE IMPACT DUMMY (SID) LONGITUDINAL CLEARANCE DIMENSIONSYear/Make/Model/Body Style: 1999/Honda/Accord/2 DoorNHTSA NO.: MX5303 Test Date: December 1, 1998

LEFT SIDE VIEW

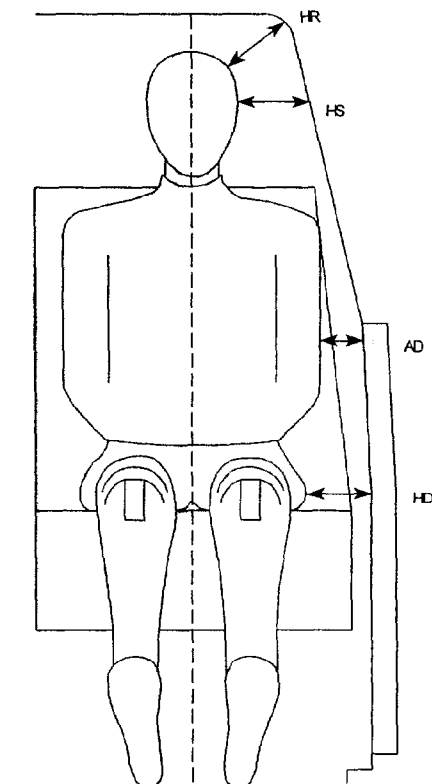
NOTE: 2-DOOR VEHICLE SHOWN
 REAR DUMMY PHX & PHZ
 MEASUREMENTS FOR A 4-DOOR
 VEHICLE WOULD USE THE C-POST
 STRIKER AS A REFERENCE POINT

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

	DRIVER SID ID # 271		LEFT REAR PASSENGER SID ID # 272
HH	309	HZ	142
HW	605	NB	578
HZ	136	CB	472
NR	427	KBL (KBA)	173 (0.0°)
CD	538	KBR (KBA)	170 (0.0°)
CS	326	PA°	24.8°
KDL(KDA°)	169 (38.7°)	PHX	446
KDR(KDA°)	223 (0.0°)	PHZ	192
PA°	24.2°		
PHX	417		
PHZ	179		

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

DATA SHEET NO. 8

SIDE IMPACT DUMMY (SID) LATERAL CLEARANCE DIMENSIONSYear/Make/Model/Body Style: 1999/Honda/Accord/2 DoorNHTSA NO.: MX5303 Test Date: December 1, 1998

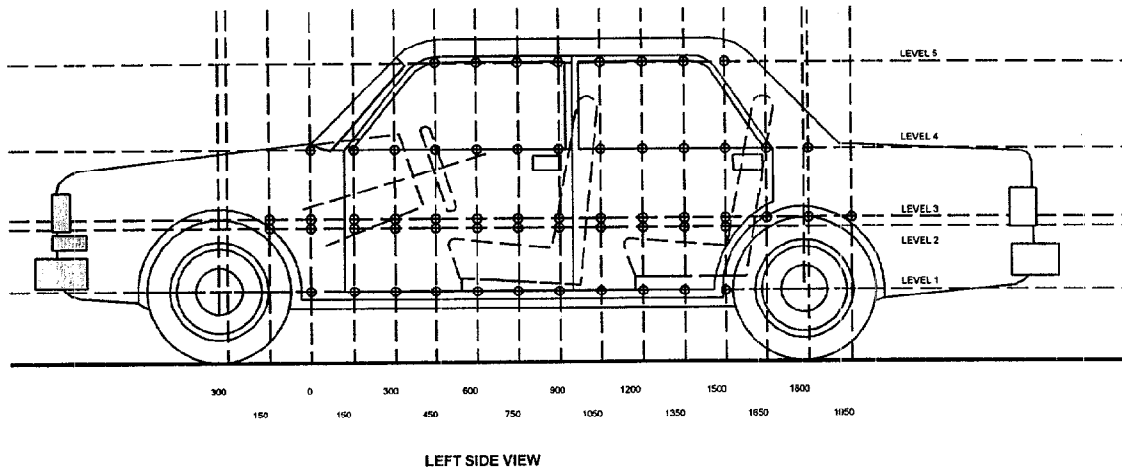
NOTE: All dimensions are in mm

	DRIVER SID ID # 271	LEFT REAR PASSENGER SID ID # 272
HR	234	230
HS	292	253
AD	110	117
HD	118	101

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

NHTSA NO.: MX5303 Test Date: December 1, 1998



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)

= 296 mm

Level 2 @ Occupant H-Point

= 478 mm

Level 3 @ Mid Door

= 593 mm

Level 4 @ Window Sill

= 862 mm

Level 5 @ Window Top

= 1292 mm

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

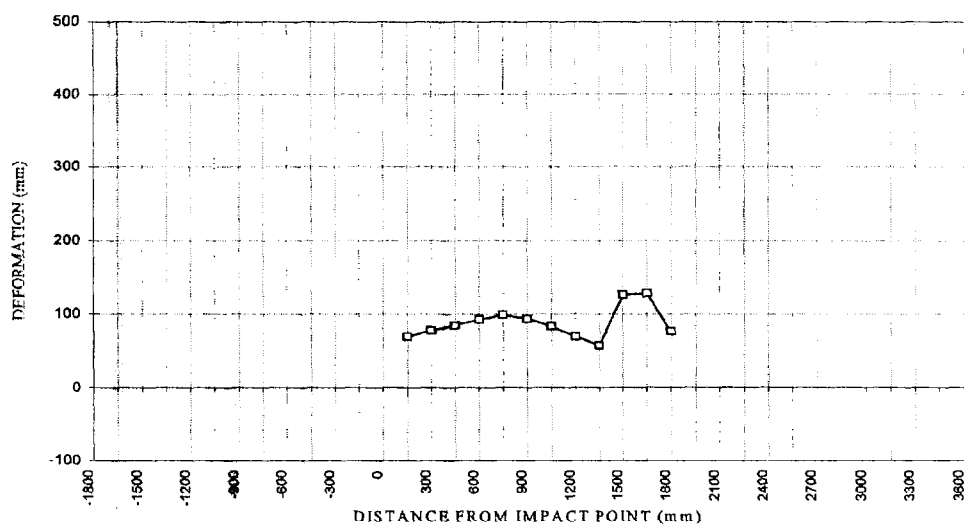
Longitudinal Distance (mm)	Level 1 - Axle Centerline		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150	732	802	70
300	729	807	78
450	729	814	85
600	730	823	93
750	728	827	99
900	728	822	94
1050	728	812	84
1200	728	798	70
1350	728	786	58
1500	731	857	126
1650	731	859	128
1800	733	810	77

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 1 - Axle Centerline		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
1950			
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

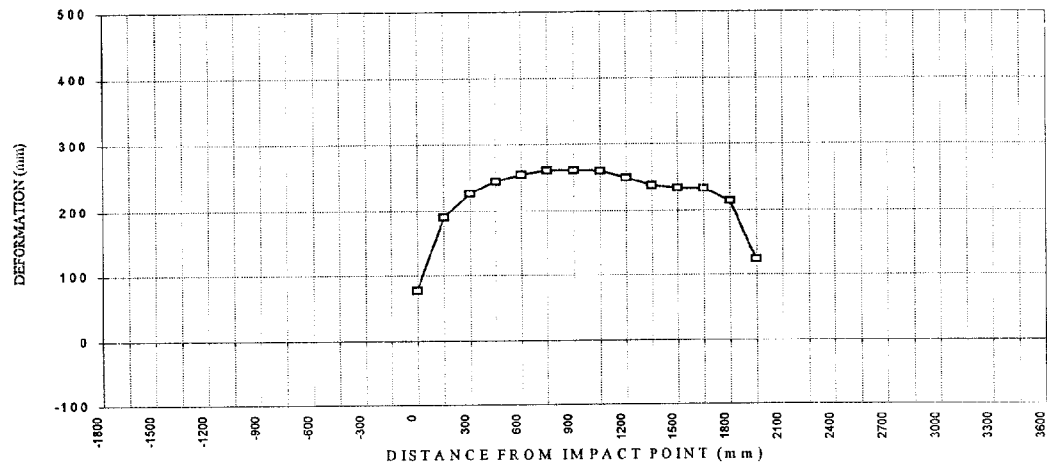
Longitudinal Distance (mm)	Level 2 - Occupant H-Point		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)	696	774	78
150	708	899	191
300	707	934	227
450	706	951	245
600	707	962	255
750	707	968	261
900	708	969	261
1050	708	968	260
1200	709	959	250
1350	709	947	238
1500	710	944	234
1650	711	944	233
1800	710	924	214

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

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance (mm)	Level 2 - Occupant H-Point		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
1950	691	814	123
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

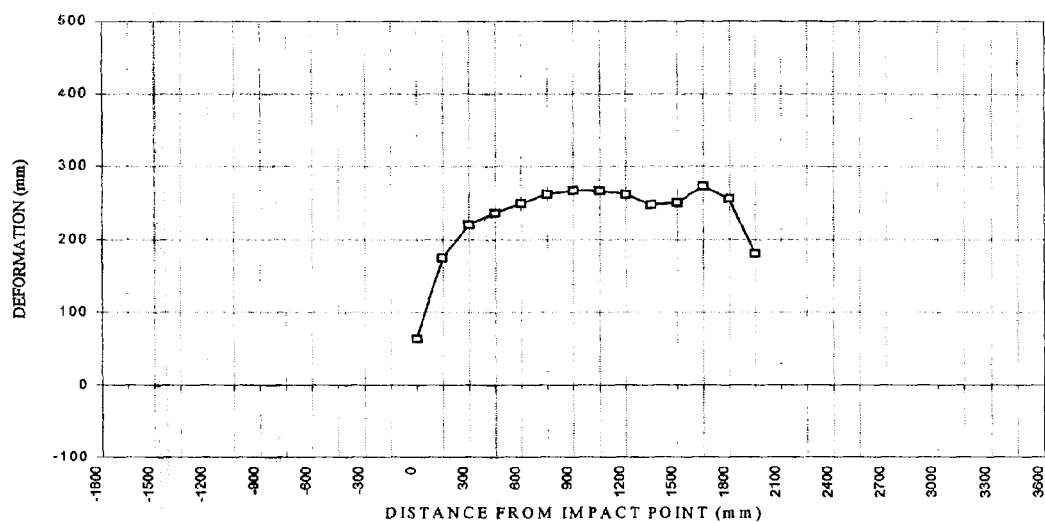
Longitudinal Distance (mm)	Level 3 - Mid-Door		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)	692	756	64
150	697	872	175
300	694	915	221
450	694	931	237
600	692	942	250
750	693	955	262
900	693	960	267
1050	693	960	267
1200	694	956	262
1350	694	942	248
1500	696	947	251
1650	698	971	273
1800	699	955	256

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	690	871	181
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

Longitudinal Distance (mm)	Level 4 - Window Sill		
	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900	837	839	2
-750	807	811	4
-600	786	792	6
-450	769	782	13
-300	759	772	13
-150	754	772	18
0 (impact point)	751	779	28
150	748	816	68
300	745	856	111
450	742	906	164
600	742	936	194
750	743	951	208
900	742	959	217
1050	742	966	224
1200	744	974	230
1350	743	984	241
1500	748	1014	266
1650	747	991	244
1800	750	924	174

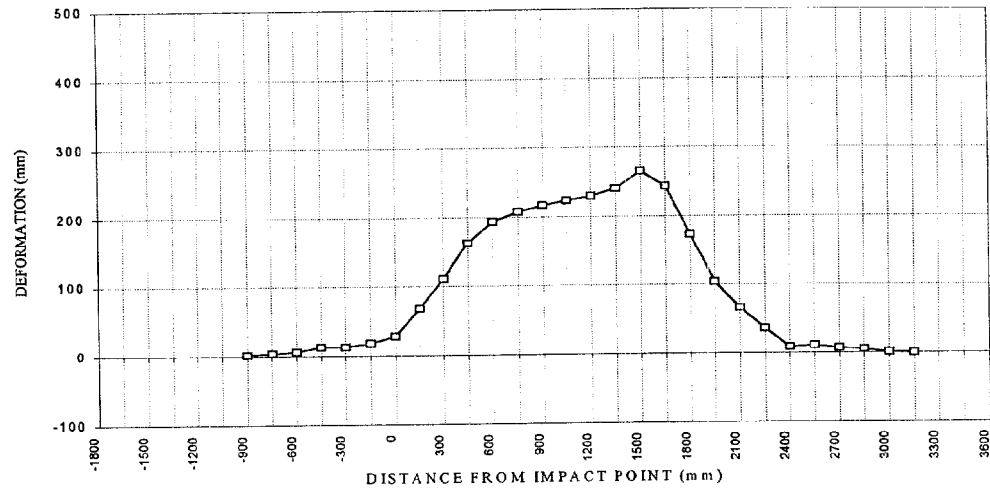
Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

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	750	854	104
2100	751	817	66
2250	752	788	36
2400	767	776	9
2550	774	785	11
2700	787	794	7
2850	801	806	5
3000	822	823	1
3150	853	853	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

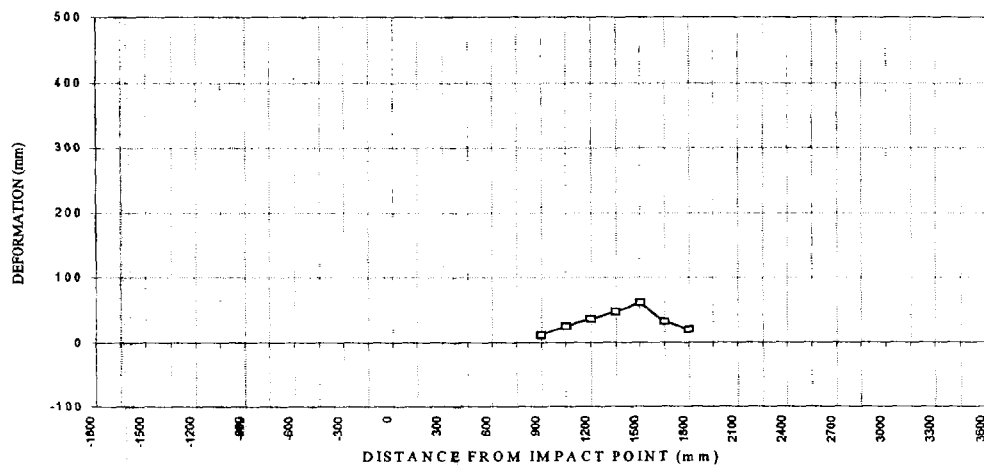
	Level 5 - Window Top		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-1800			
-1650			
-1500			
-1350			
-1200			
-1050			
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150			
300			
450			
600			
750			
900	1007	1019	12
1050	1004	1029	25
1200	1005	1041	36
1350	1004	1051	47
1500	1003	1064	61
1650	1008	1040	32
1800	1009	1029	20

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			
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

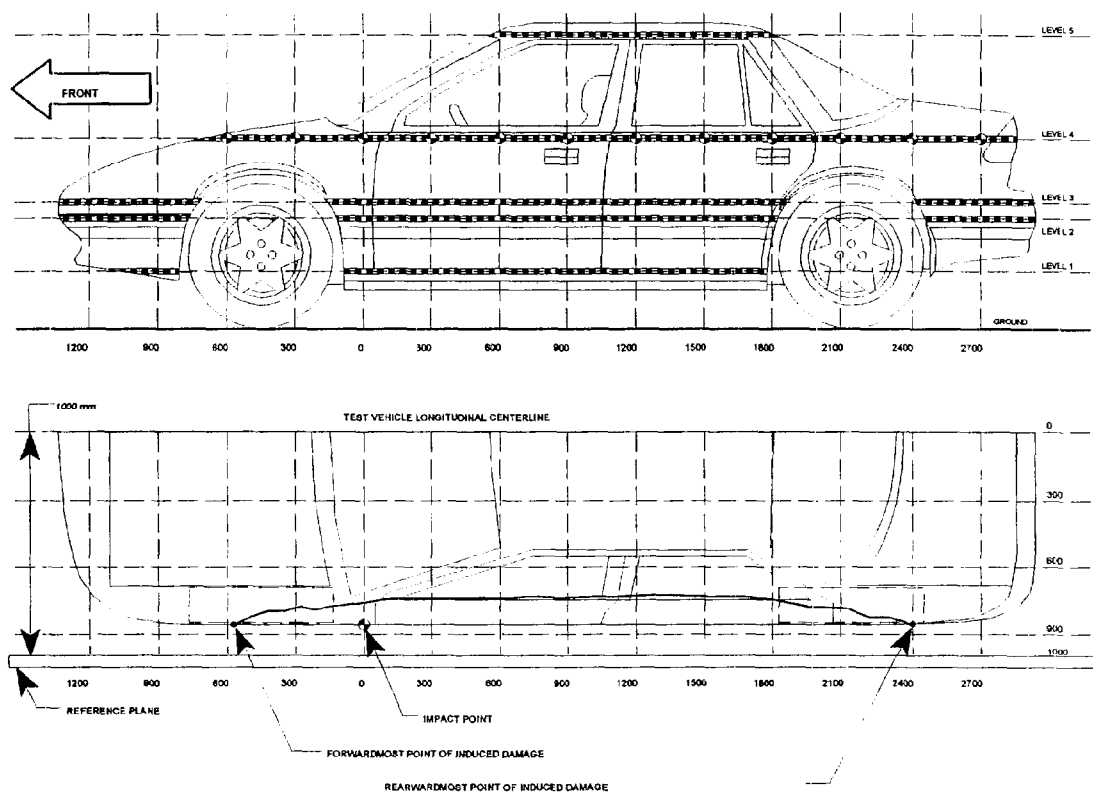
VEHICLE EXTERIOR STATIC CRUSH

LEVEL 5 - WINDOW TOP

DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

NHTSA NO.: MX5303 Test Date: December 1, 1998



NOTE: All measurements are in millimeters (mm)

DPD MEASUREMENTS	POST-TEST (mm)	PRE-TEST (mm)	STATIC CRUSH (mm)
1. (LF = <u>-900</u> mm)	837	837	0
2. 55 mm	866	700	166
3. 725 mm	982	700	282
4. 1460 mm	924	747	177
5. 2160 mm	851	751	100
6. (LR = <u>3000</u> mm)	822	822	0

DATA SHEET NO. 12
EXTERIOR STATIC CRUSH FOR SIDE IMPACTOR

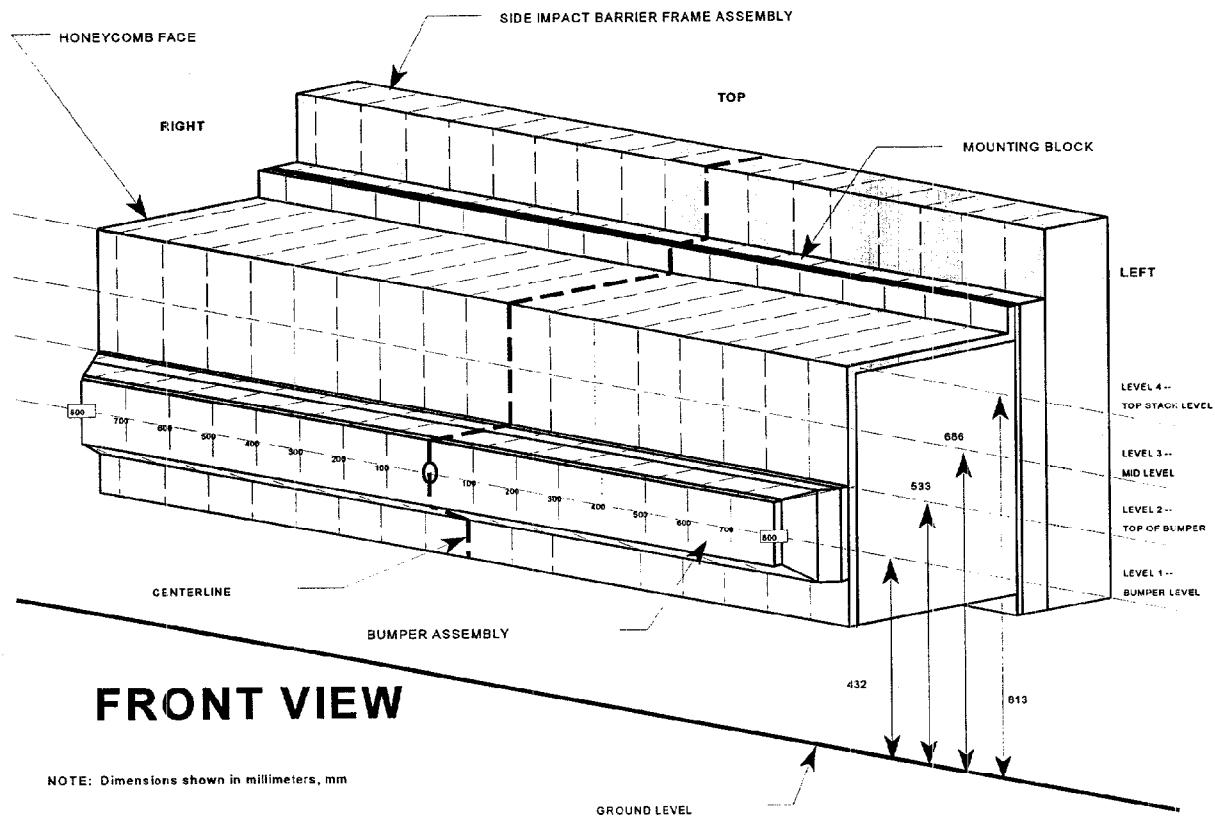
Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

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	24	10	7	1	3	11	19	26	36	48	55	49	84	120	164	210
Mid Level Level 3	686 mm	49	19	21	40	38	22	14	10	9	10	13	19	26	36	62	101	162
Top Bumper Level 2	533 mm	94	98	101	105	95	86	66	62	55	56	60	61	69	78	88	105	126
Mid Bumper Level 1	432 mm	163	167	173	183	175	157	138	123	111	108	107	110	119	128	145	165	175

See next page for Barrier Face Graphic

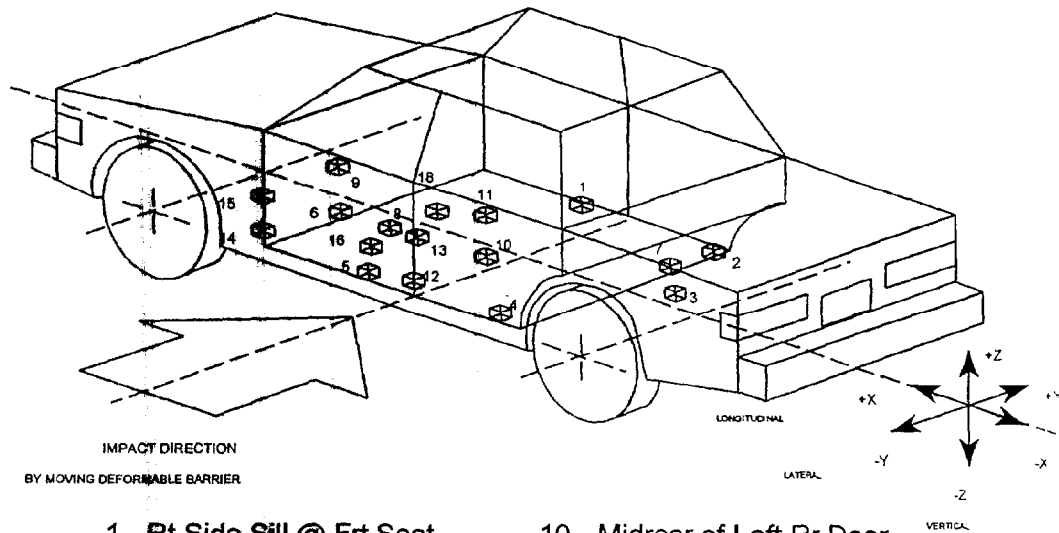
DATA SHEET NO. 12 (Cont'd)



DATA SHEET 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998



- 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

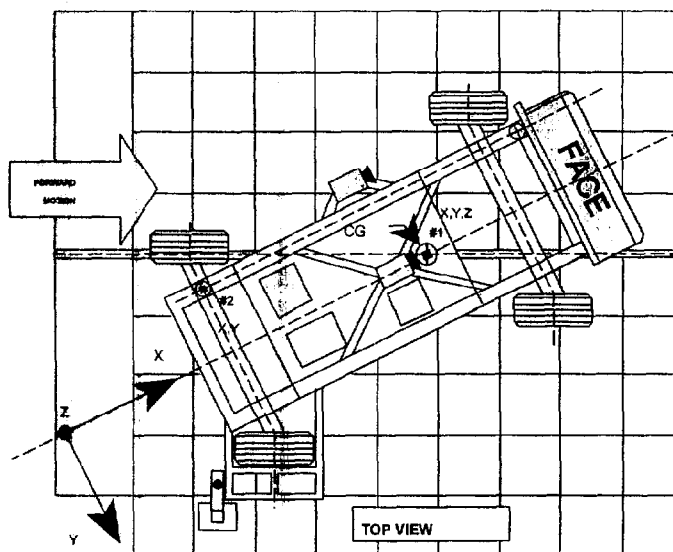
- 10 - Midrear of Left Rr Door
- 11 - Left Rr Door Uptr C/Line
- 12 - Left Lwr B-Post
- 13 - Left Middle B-Post
- 14 - Left Lwr A-Post
- 15 - Left Middle A-Post
- 16 - Frt Seat Track
- 18 - Vehicle C.G.

DATA SHEET NO. 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY
 Year/Make/Model/Body Style: 1999/Honda/accord/2 Door
 Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

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	2539	722	200	3.9	-4.1	25.4	-2.1	-5.7	5.0	25.7
2	Rt. Side Sill @ Rear Seat	1822	705	208	3.9	-4.5	30.0	-2.2	-7.9	6.4	30.0
3	Rr. Floorpan Above Axle	1078	32	450	10.0	-6.9	24.3	-2.4	-18.2	18.3	28.6
4	Left Side Sill @ Rr. Seat	1799	-705	214	---	---	36.1	4.7	---	---	---
5	Left Side Sill @ Frt. Seat	2532	-722	210	---	---	25.6	2.9	---	---	---
6	Left Front Door Centerline	2622	-756	662	---	---	183.2	113.4	---	---	---
7	Right Rear Occupant Compartment	1831	347	328	---	---	25.1	2.0	---	---	---
8	Mid Rear of Left Front Door	2327	-751	635	---	---	149.7	82.2	---	---	---
9	Left Front Door Upper Centerline	2632	-738	899	---	---	328.4	122.9	---	---	---
10	Left Rear Door Mid Rear	1445	-743	615	---	---	87.8	19.7	---	---	---
11	Left Rear Door Upper Centerline	1582	-769	998	---	---	70.2	62.7	---	---	---
12	Left Lower B-Post	1913	-668	267	---	---	44.2	2.8	---	---	---
13	Left Mid B-Post	1965	-736	895	---	---	113.9	**	---	---	---
14	Left Lower A-Post	3167	-706	322	---	---	33.5	5.1	---	---	---
15	Left Mid A-Post	3120	-734	940	---	---	28.6	24.8	---	---	---
16	Driver Left Seat Track	2247	-570	255	---	---	43.2	17.7	---	---	---
18	Vehicle CG	2611	0	240	4.5	9.0	21.4	2.0	14.8	7.7	23.3

*Reference: X - Rear Bumper (+ Forward) Y - Vehicle Centerline (+ To right) Z - Ground Level (+ Up) ** Not valid after 30 msec. 4-26

DATA SHEET NO. 14

MOVING DEFORMABLE BARRIER (MDB) ACCELEROMETER LOCATIONS AND DATA SUMMARYYear/Make/Model/Body Style: 1999/Honda/Accord/2 DoorVehicle NHTSA No.: MX5303 Test Date: December 1, 1998

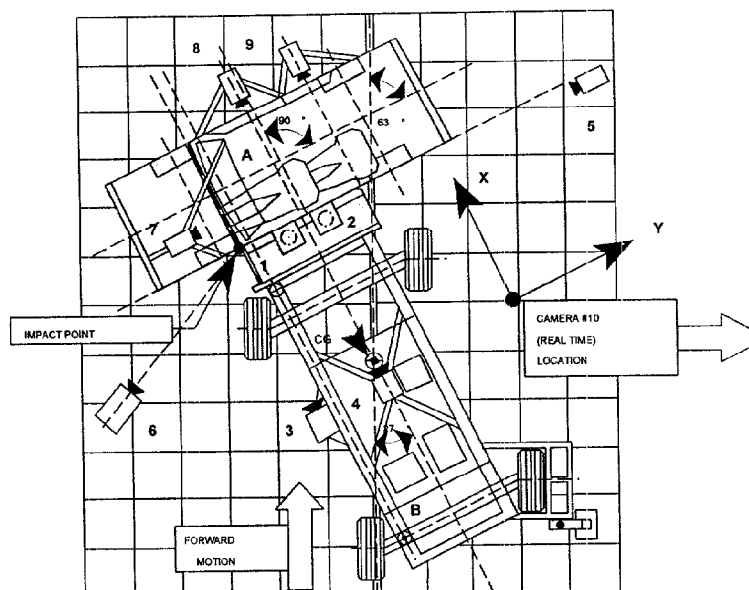
Accel. No.	Description	Coordinates (mm)*			(+) Positive		(-) Negative	
		X	Y	Z	Max. (g)	Time (msec)	Max. (g)	Time (msec)
1	MDB Center of Gravity	-1092	0	483				
	Longitudinal (X)	---	---	---	1.4	101	-19.9	37
	Lateral (Y)	---	---	---	1.6	71	-8.0	26
	Vertical (Z)	---	---	---	13.9	50	-13.5	44
	Resultant (R)	---	---	---	24.9	44	----	----
2	Rear Frame Member	-2501	-625	622				
	Longitudinal (X)	---	---	---	1.5	190	-22.8	38
	Lateral (Y)	---	---	---	5.7	28	-1.7	186

*Reference: X - Front Axis (+ 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/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998



Camera No.	View	Coordinates (mm)*			Lens (mm)	Film Speed (fps)
		X	Y	Z		
	Real Time					
1	Top Overall	-180	1900	5000	8	943
2	Top Impact	-240	10	5000	13	922
3	Cart Pointer				35	1010
4	Cart Overall				13	1000
5	Right Impact	-700	10310	1780	25	1010
6	Left Impact	-435	-2090	1650	13	1000
7	Onboard Hood				13	1005
8	Onboard Driver				8	1036

* 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/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

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 38.34 mph (61.7 kph)

FUEL SPILLAGE MEASUREMENT:

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

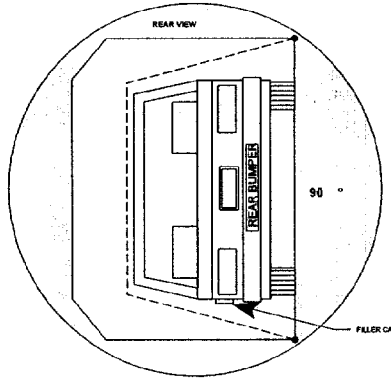
FUEL SPILLAGE LOCATION(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

TEST PHASE: 0° - 90°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 40 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 40 seconds

Next Whole Minute Interval = 8 minutes

FUEL SPILLAGE MEASUREMENT:

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

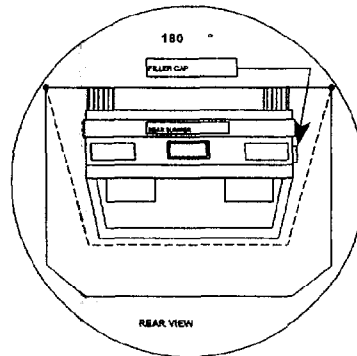
FUEL SPILLAGE LOCATIONS(S): None

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

Vehicle Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

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

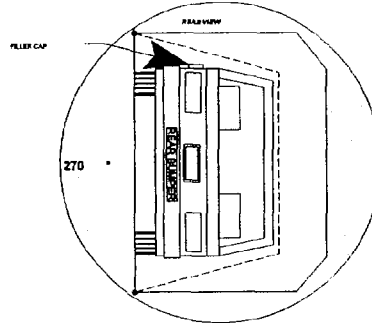
FUEL SPILLAGE LOCATIONS(S): None

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

Vehicle Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

TEST PHASE: 180° - 270°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 23 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 23 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

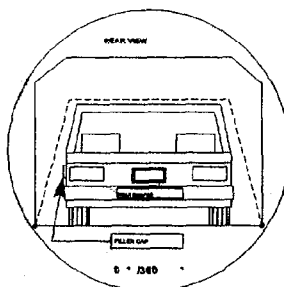
FUEL SPILLAGE LOCATIONS(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1999/Honda/Accord/2 Door

Vehicle NHTSA No.: MX5303 Test Date: December 1, 1998

TEST PHASE: 270° - 360°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 51 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 51 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

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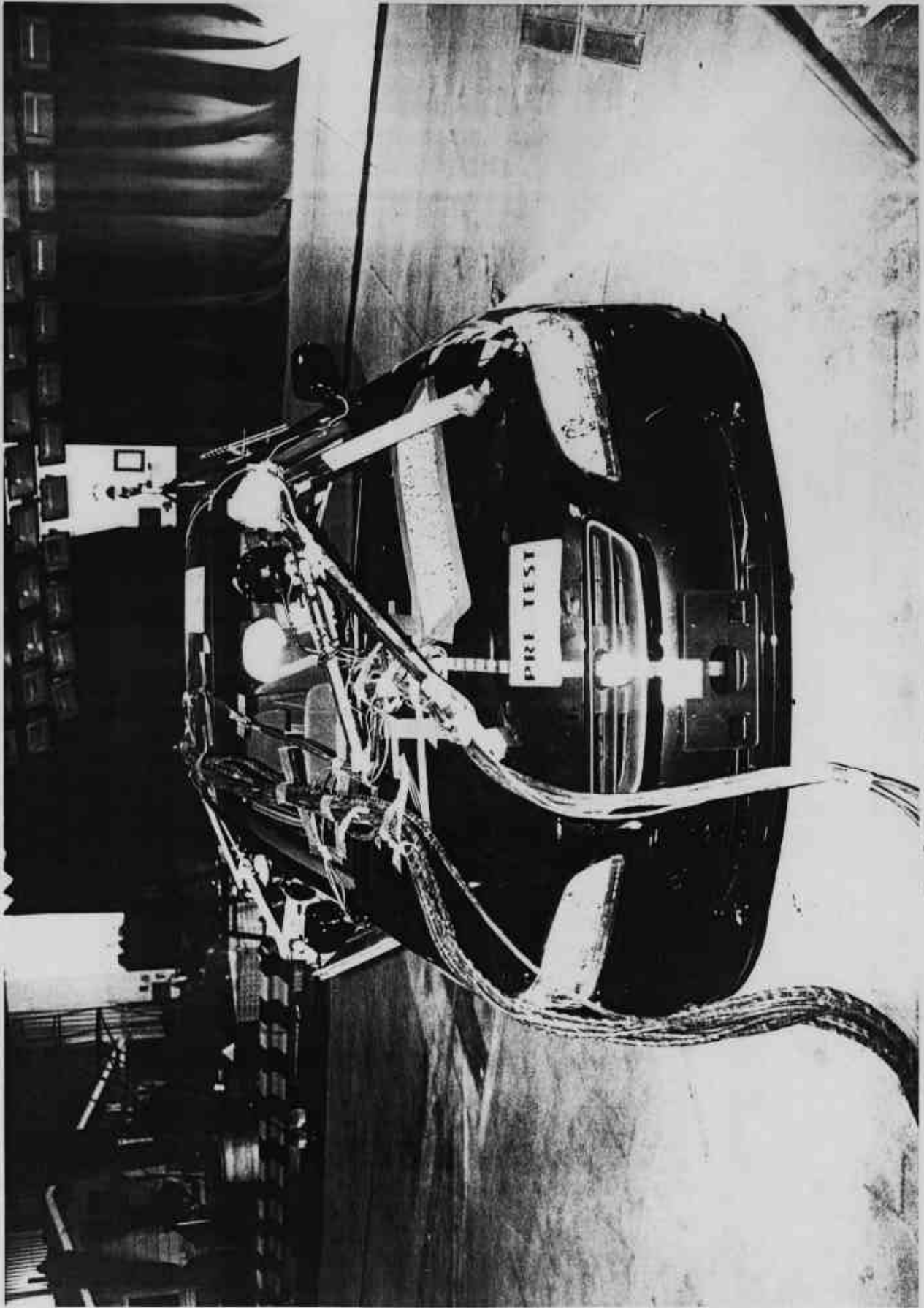


Photo No. A-1 - Pre-Test Front View of Test Vehicle

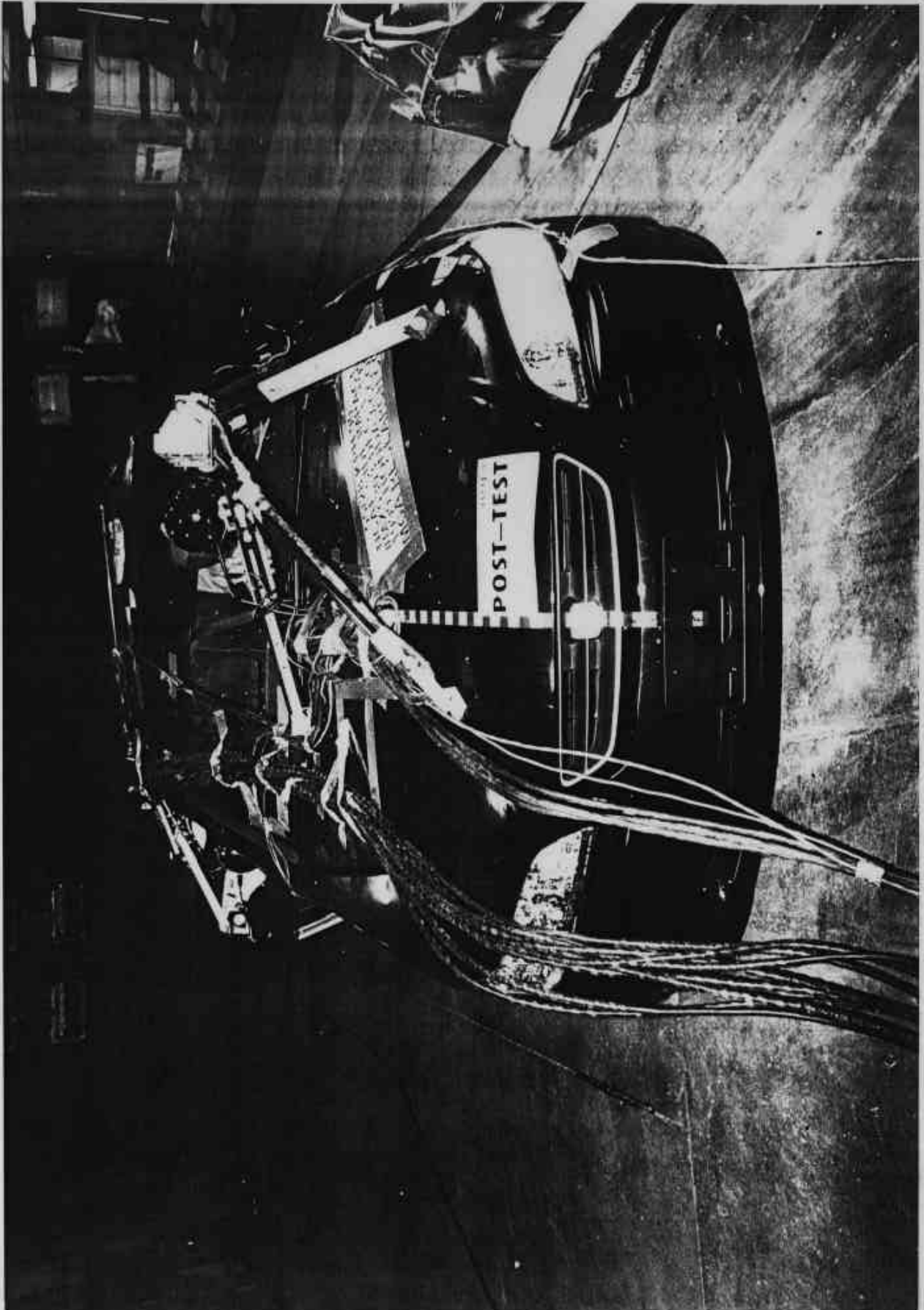


Photo No. A-2 - Post-Test Front View of Test Vehicle

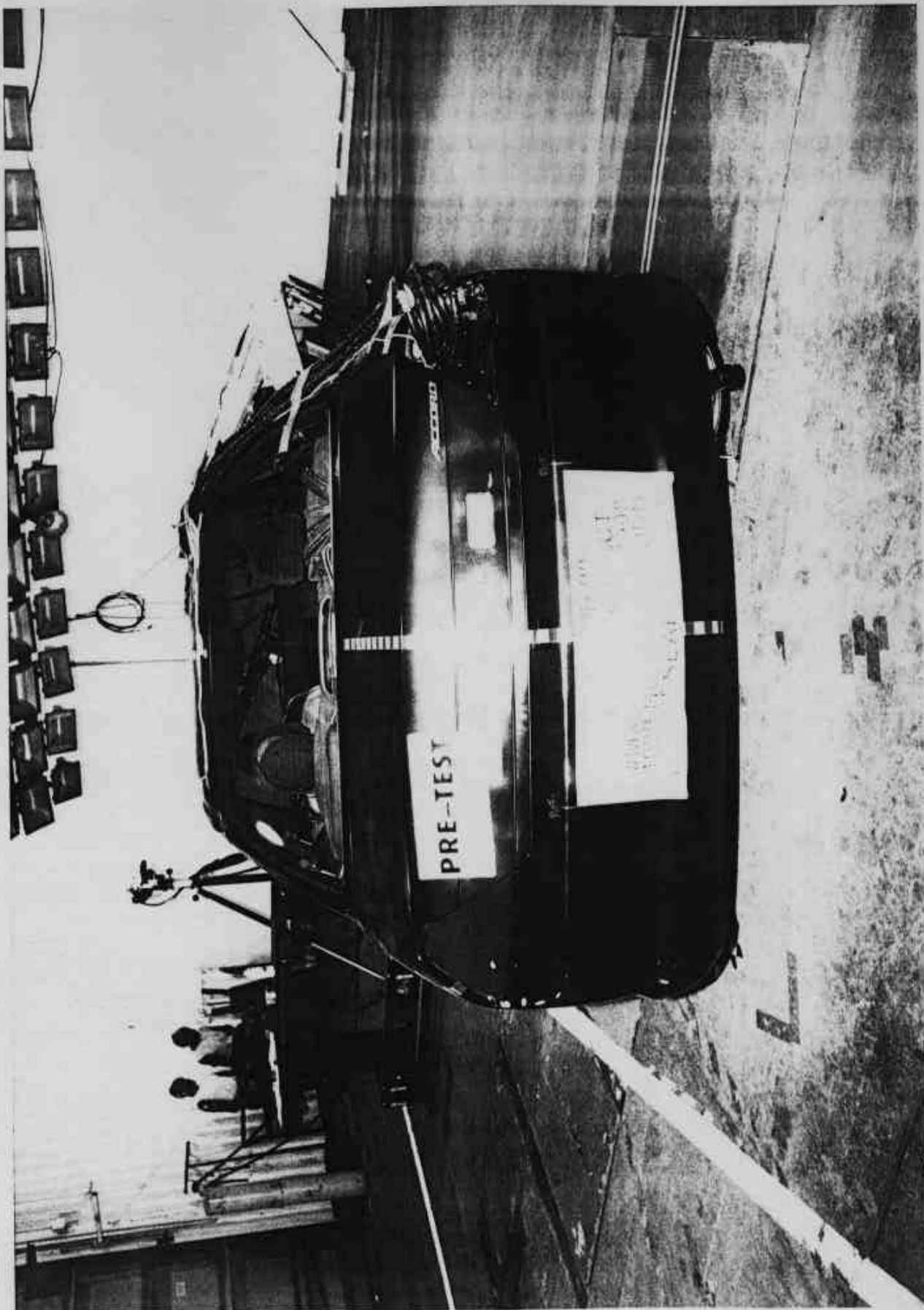


Photo No. A-3 - Pre-Test Rear View of Test Vehicle

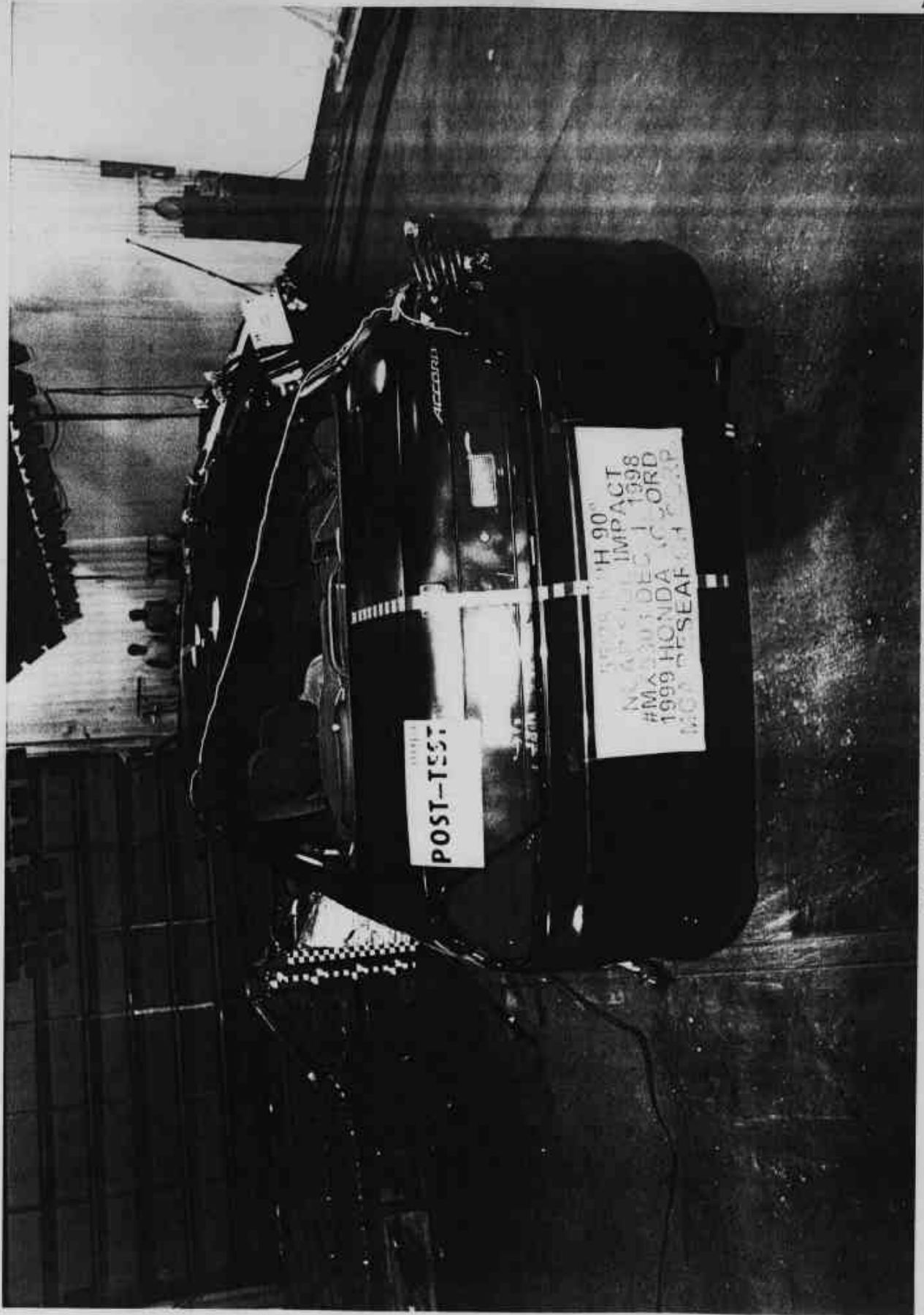


Photo No. A-4 - Post-Test Rear View of Test Vehicle

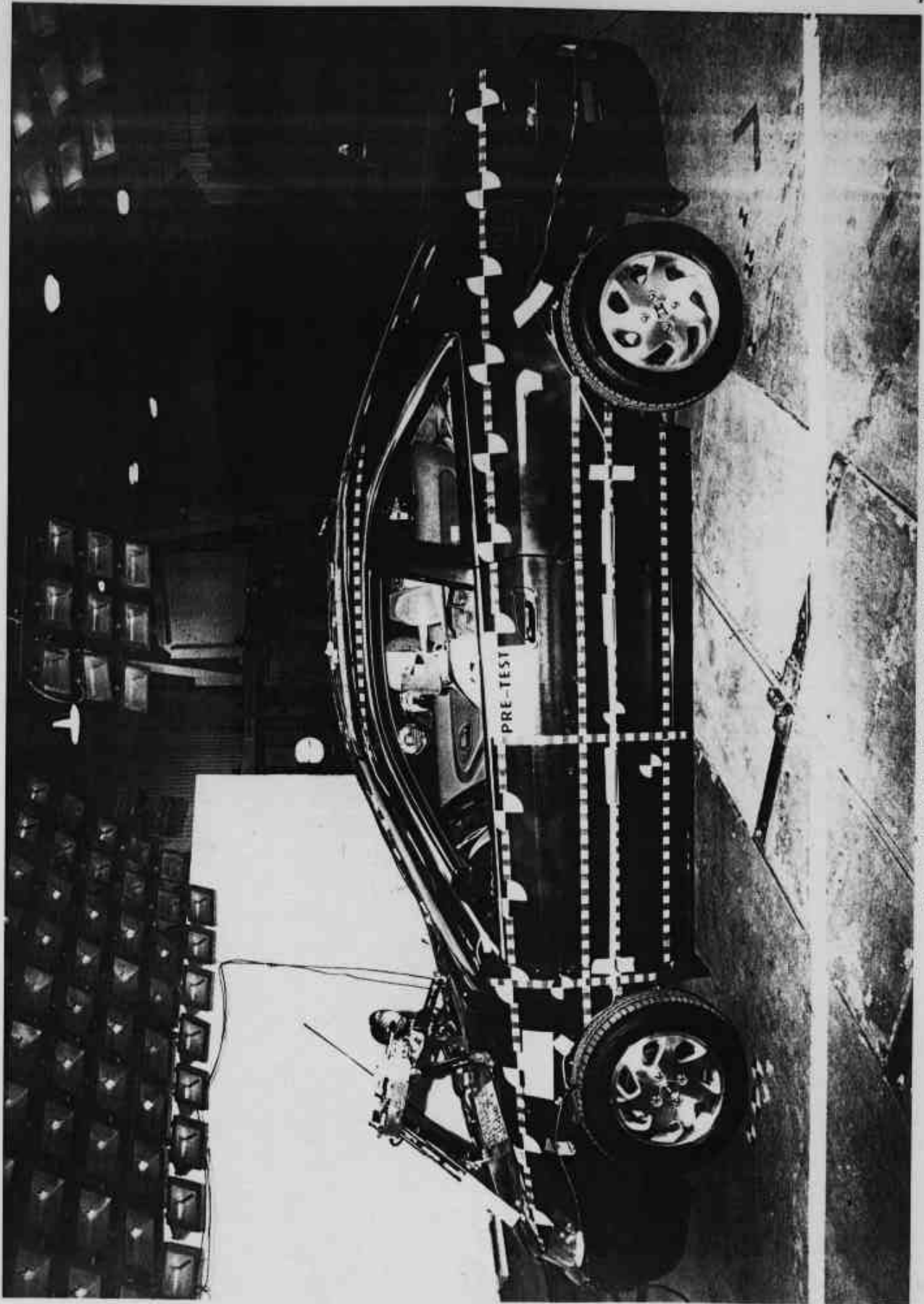


Photo No. A-5 - Pre-Test Left Side View of Test Vehicle

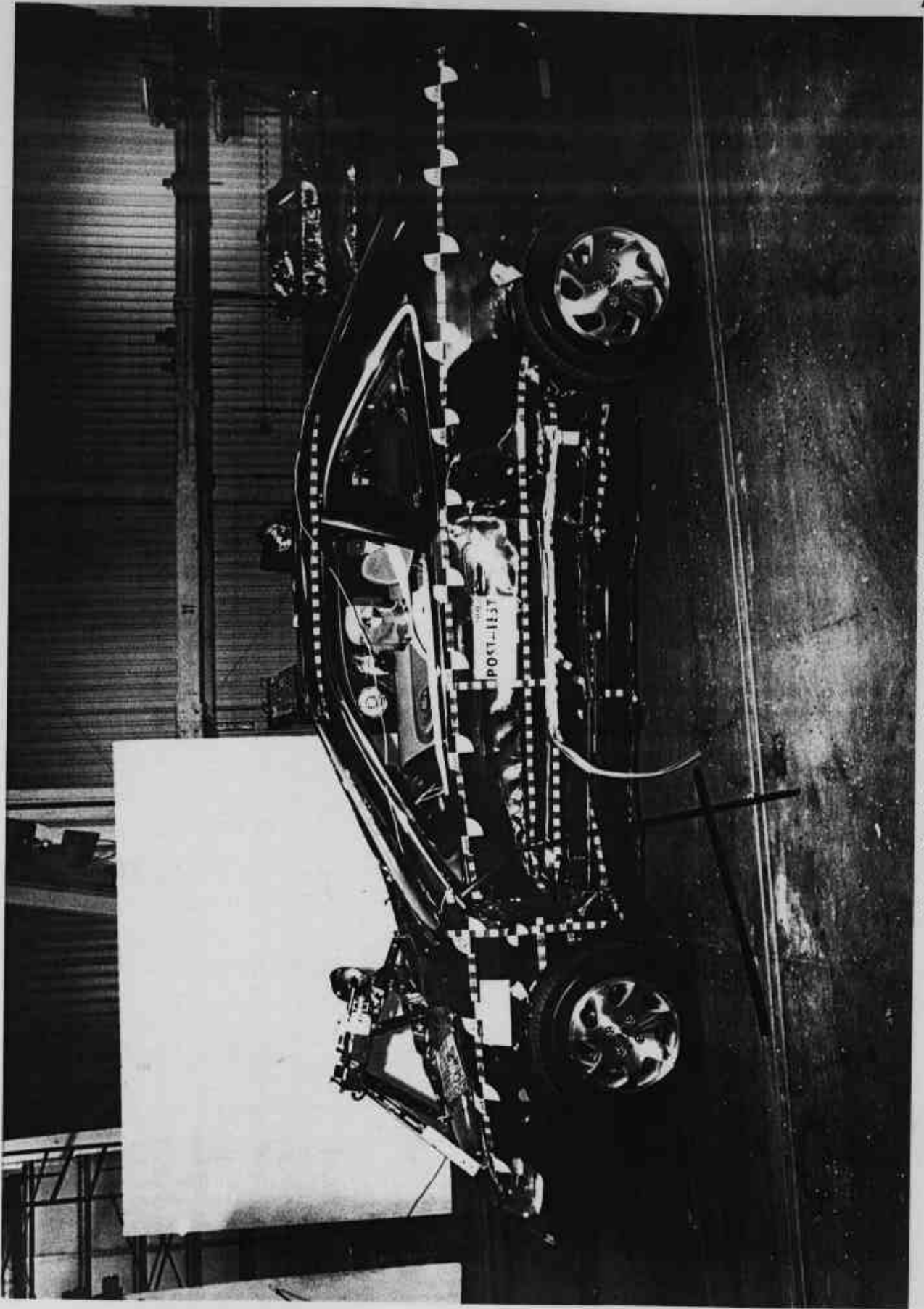


Photo No. A-6 - Post-Test Left Side View of Test Vehicle

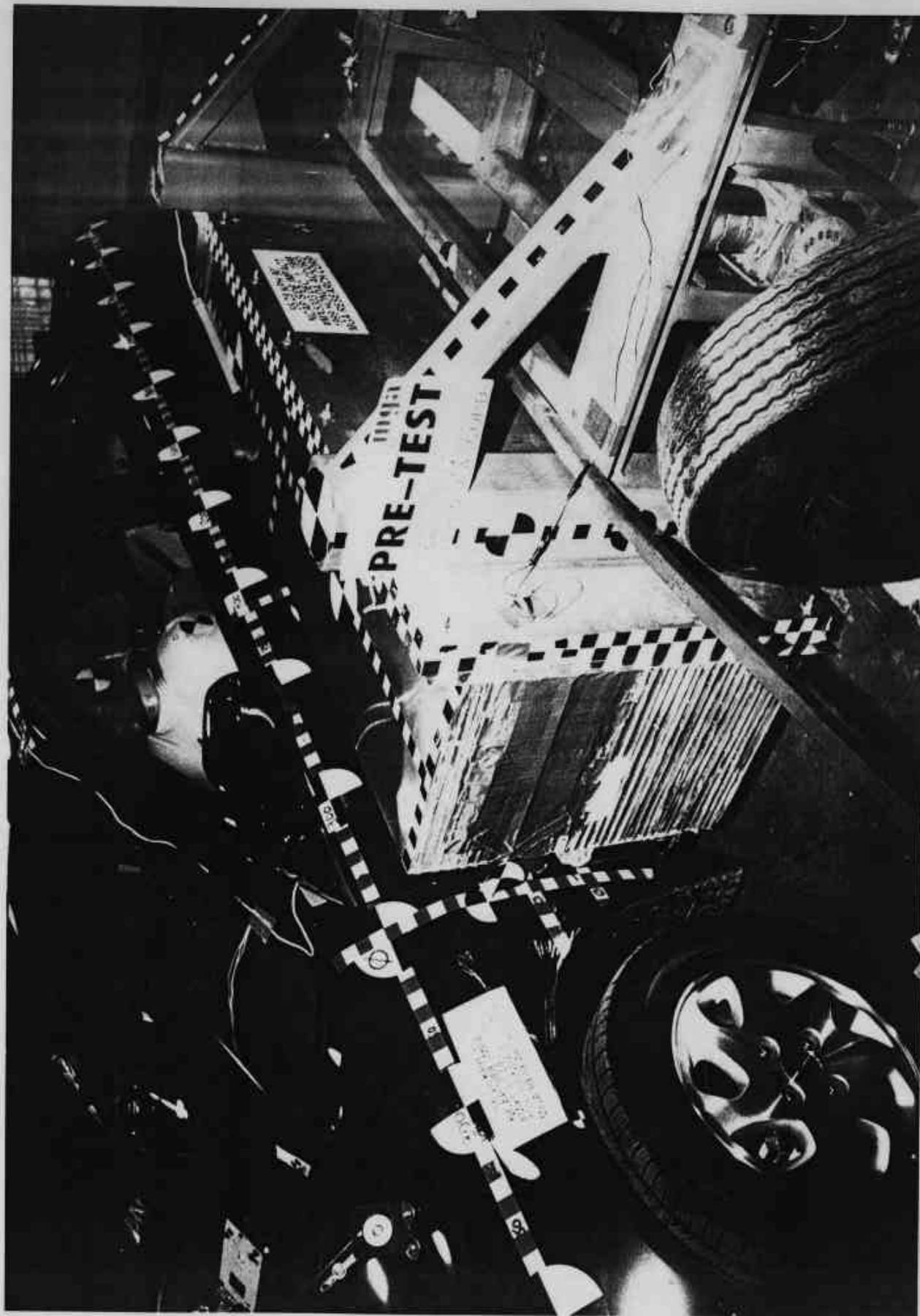


Photo No. A-7 - Pre-Test MDB Positioned Against Vehicle (left side)

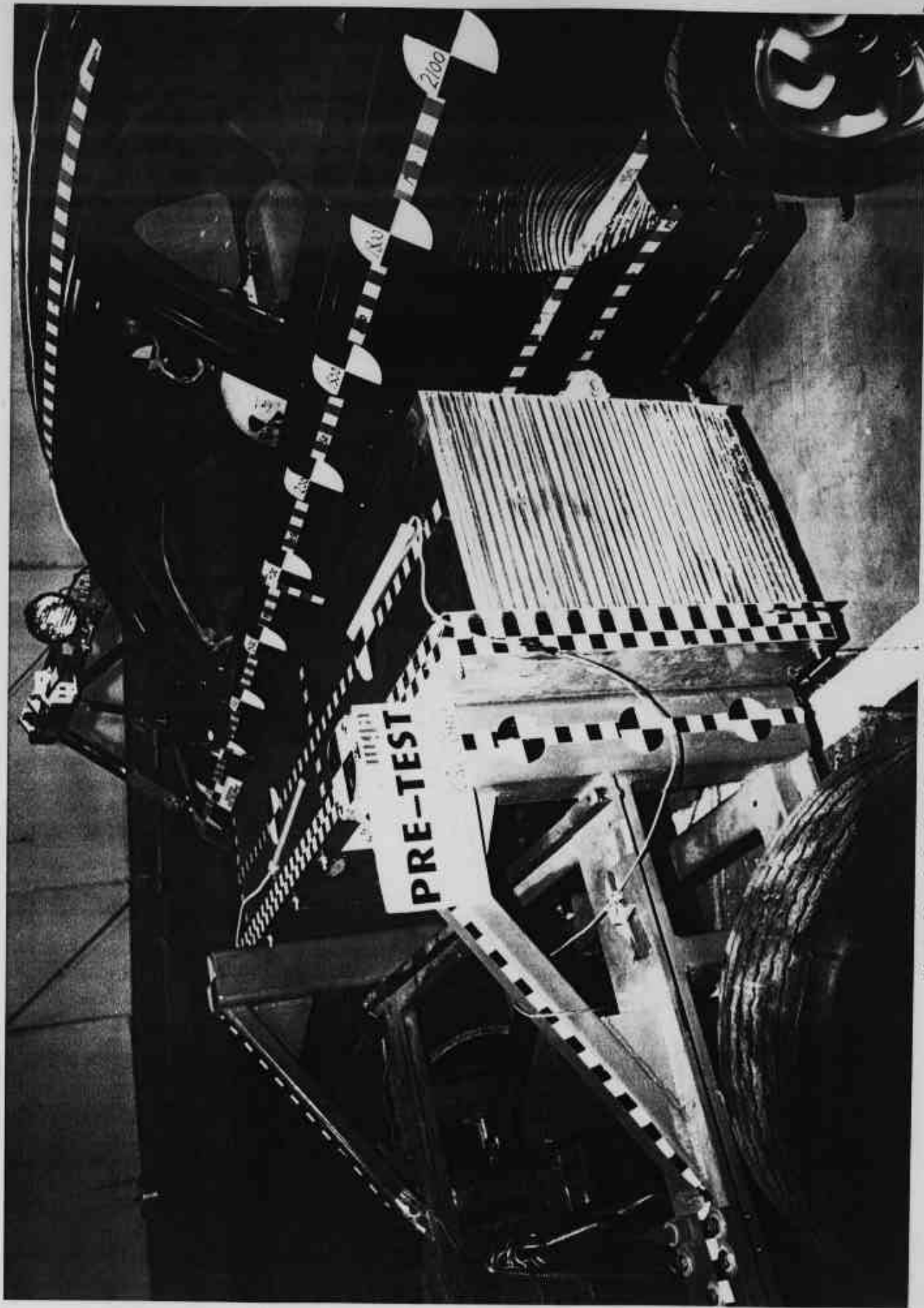


Photo No. A-8 - Pre-Test MDB Positioned Against Vehicle (right side)

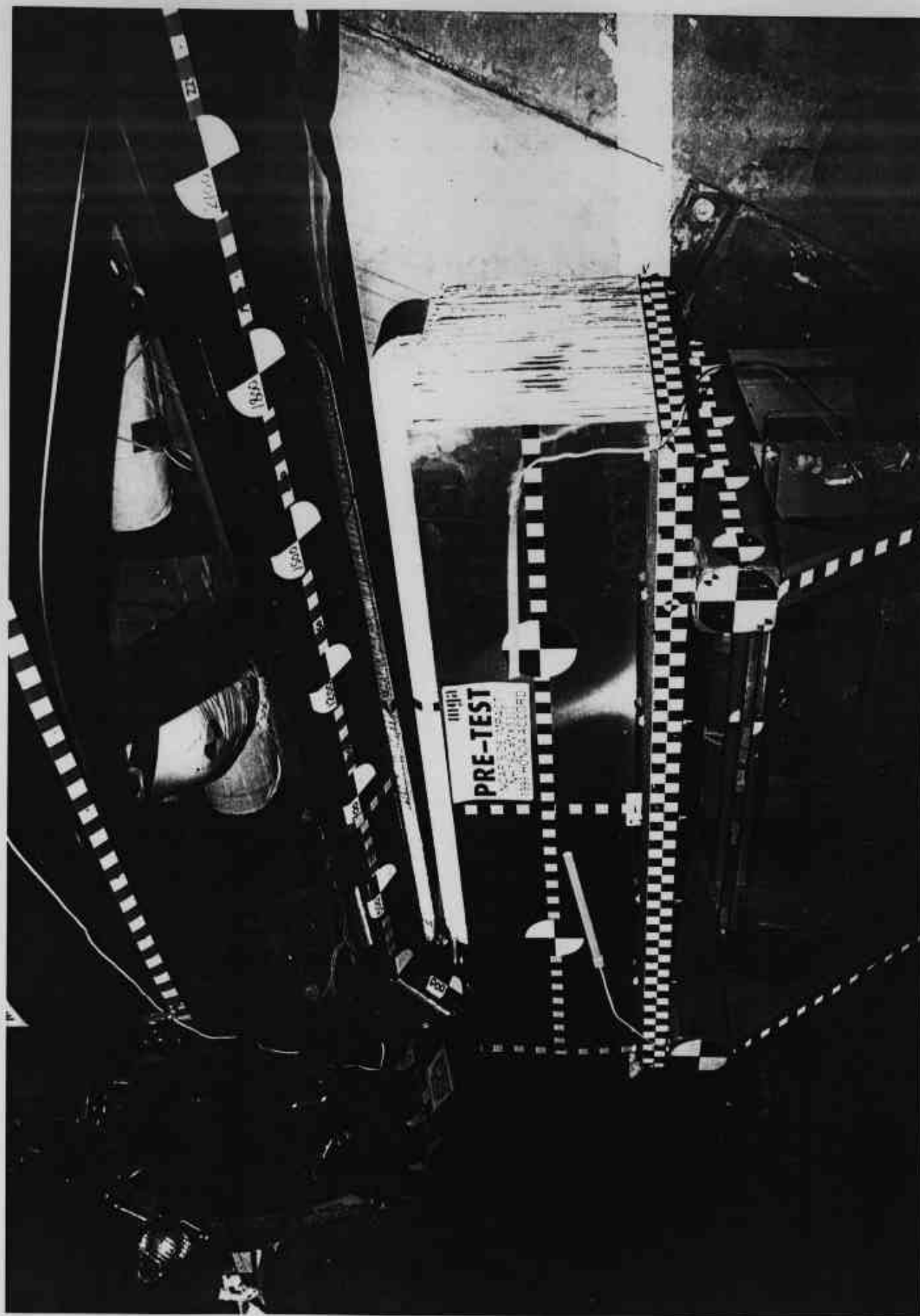


Photo No. A-9 - Pre-Test MDB Positioned Against Vehicle Overhead View

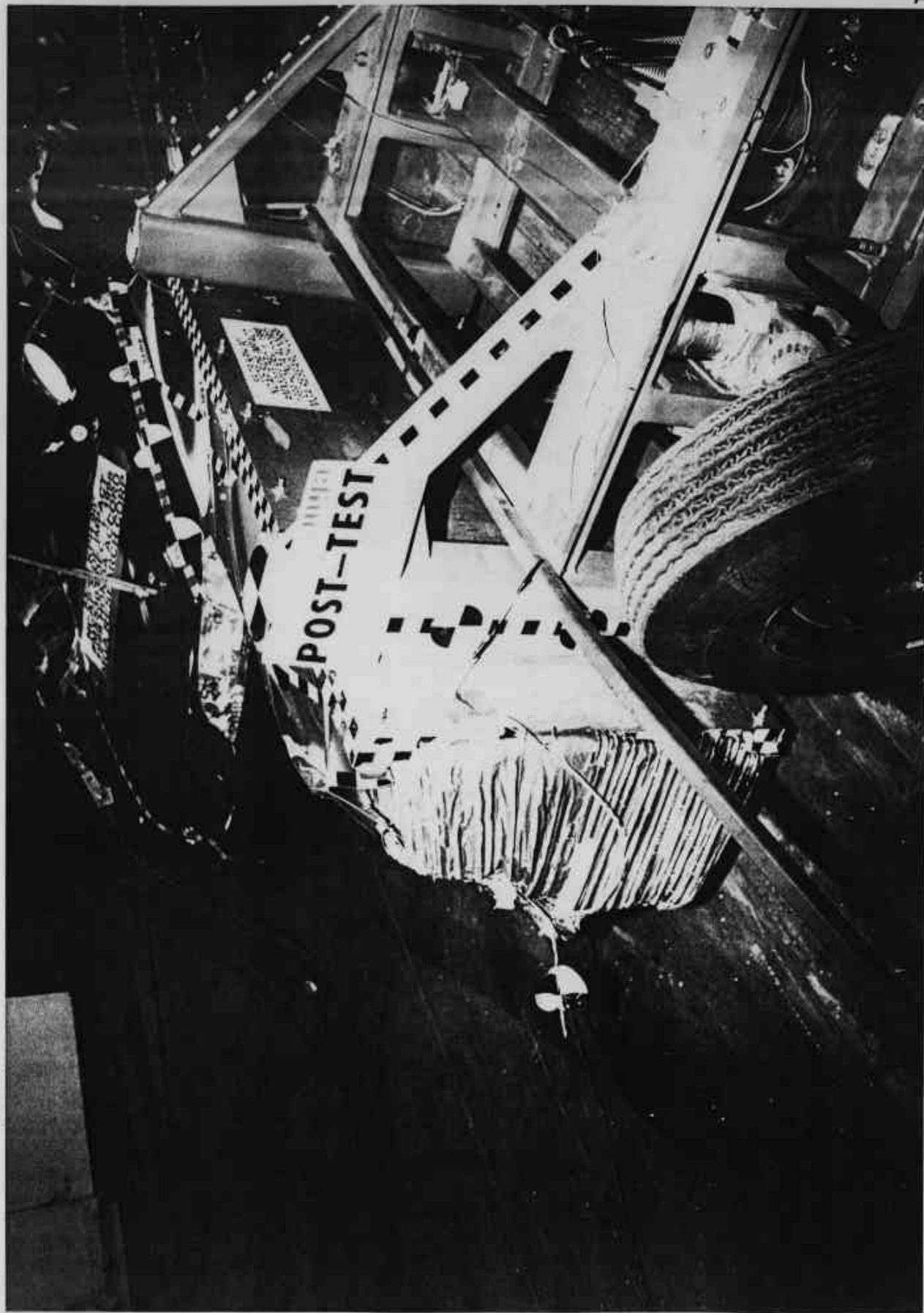


Photo No. A-10 - Post-Test MDB Positioned Against Vehicle (left side)

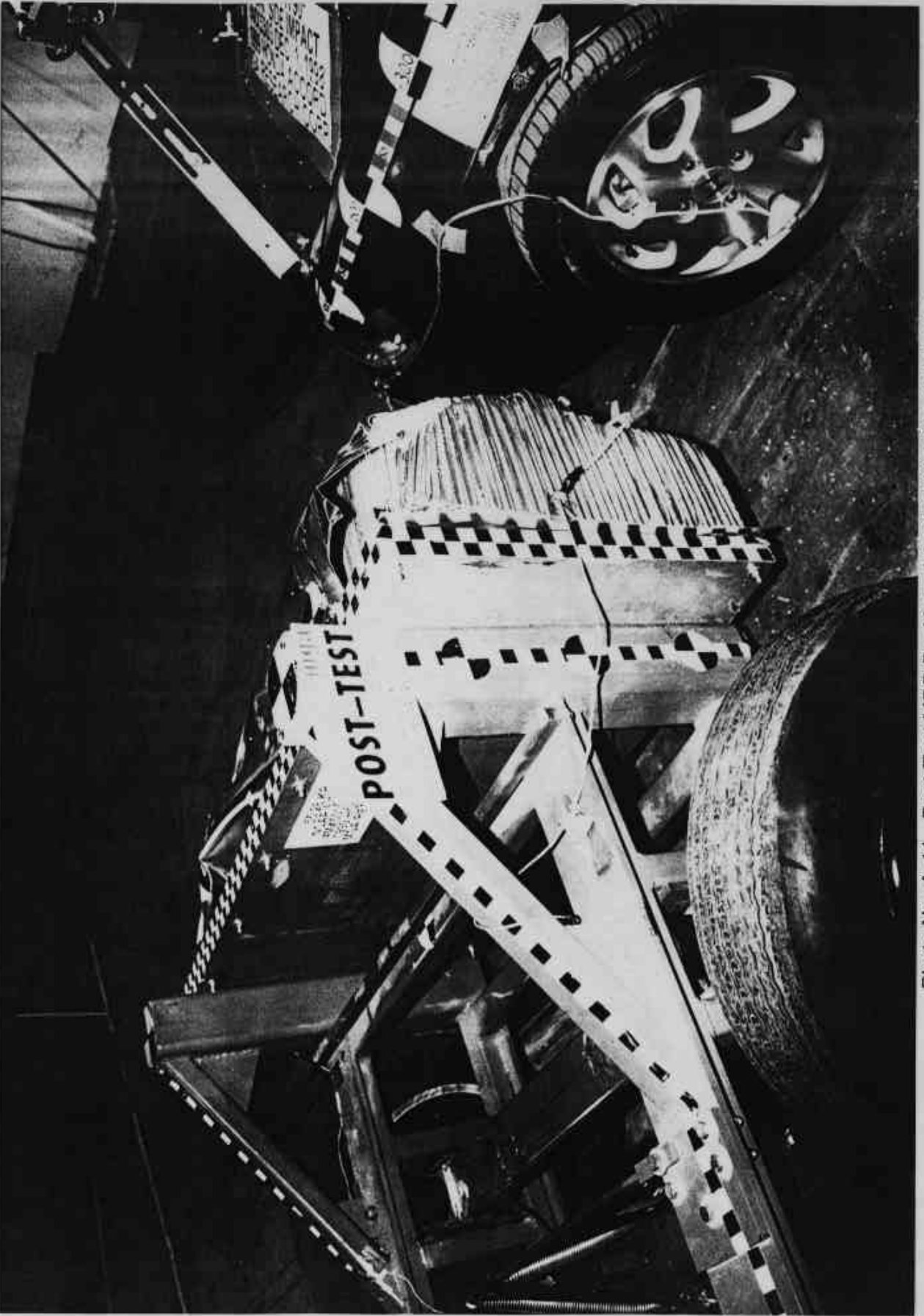


Photo No. A-11 - Post-Test MDB Positioned Against Vehicle (right side)

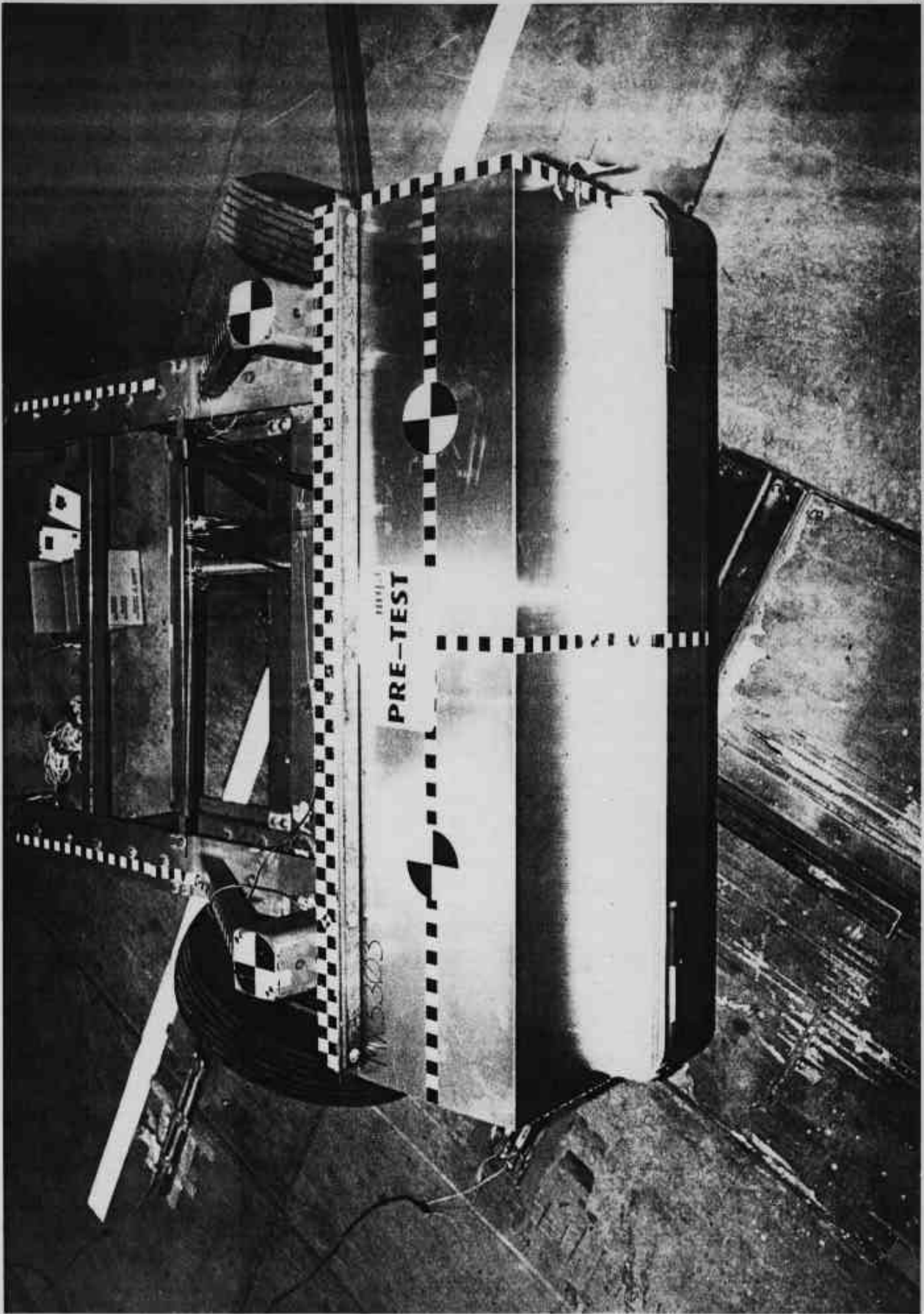


Photo No. A-12 - Pre-Test MDB Top View

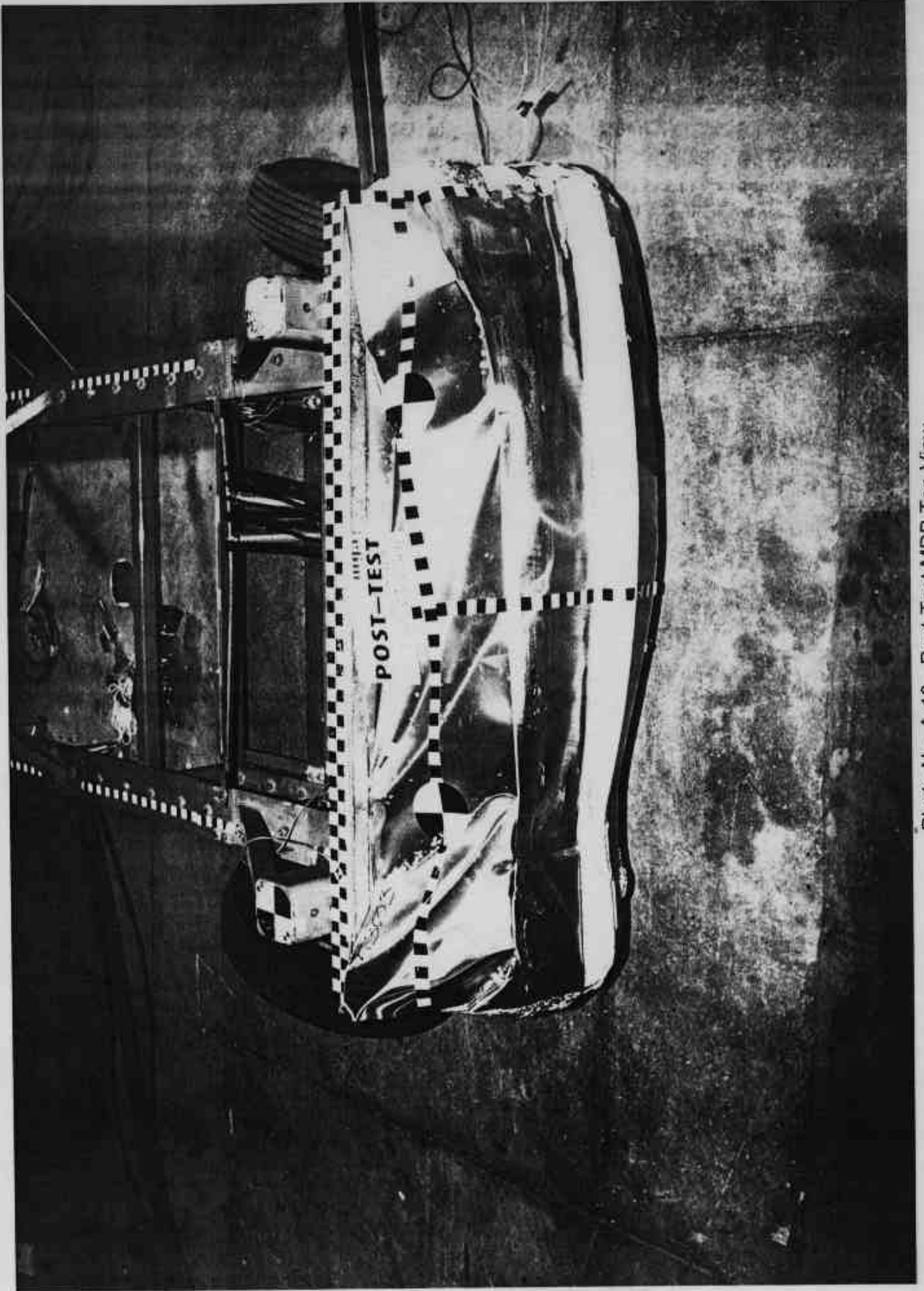


Photo No. A-13 - Post-Test MDB Top View

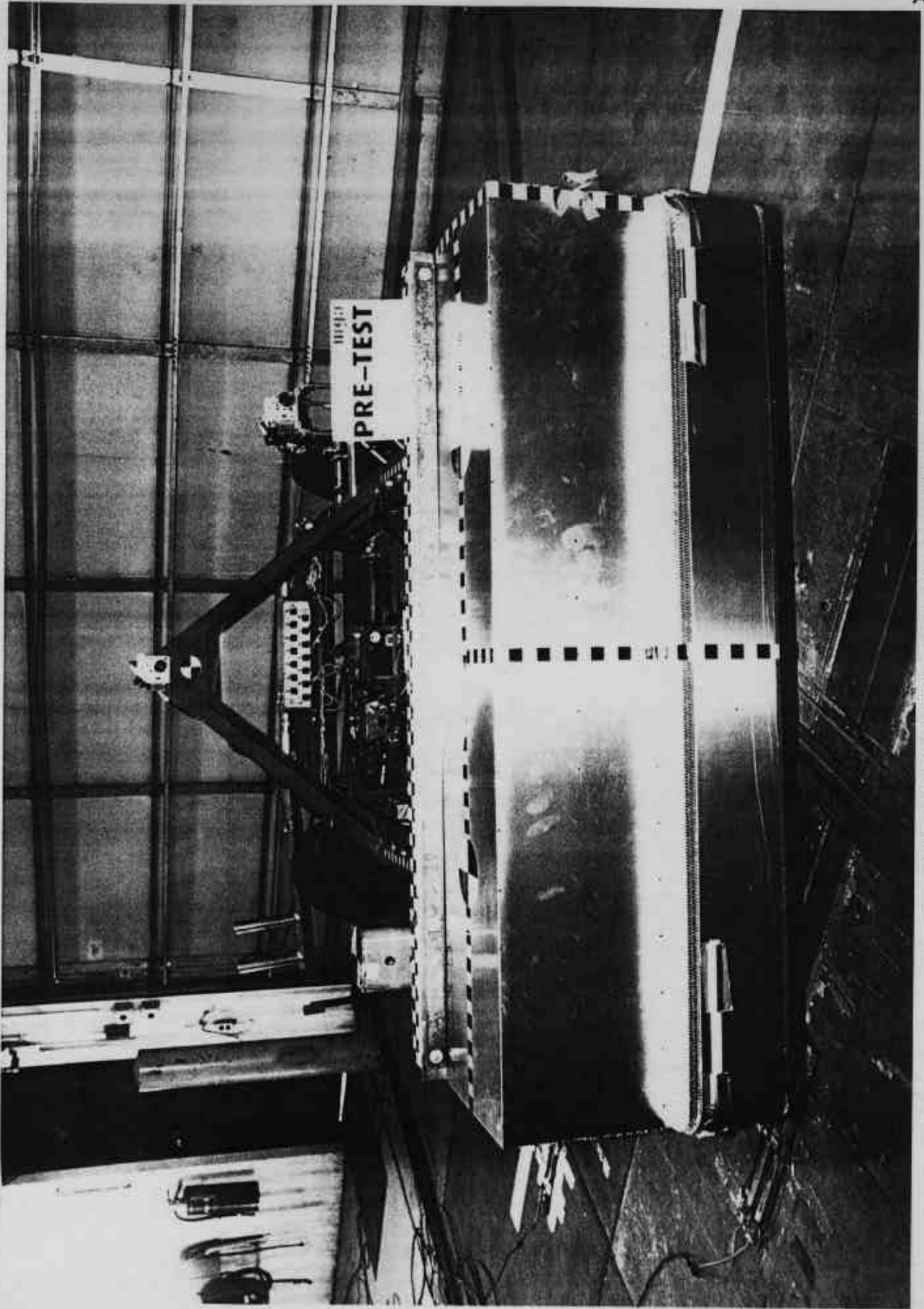


Photo No. A-14 - Pre-Test MDB Front View

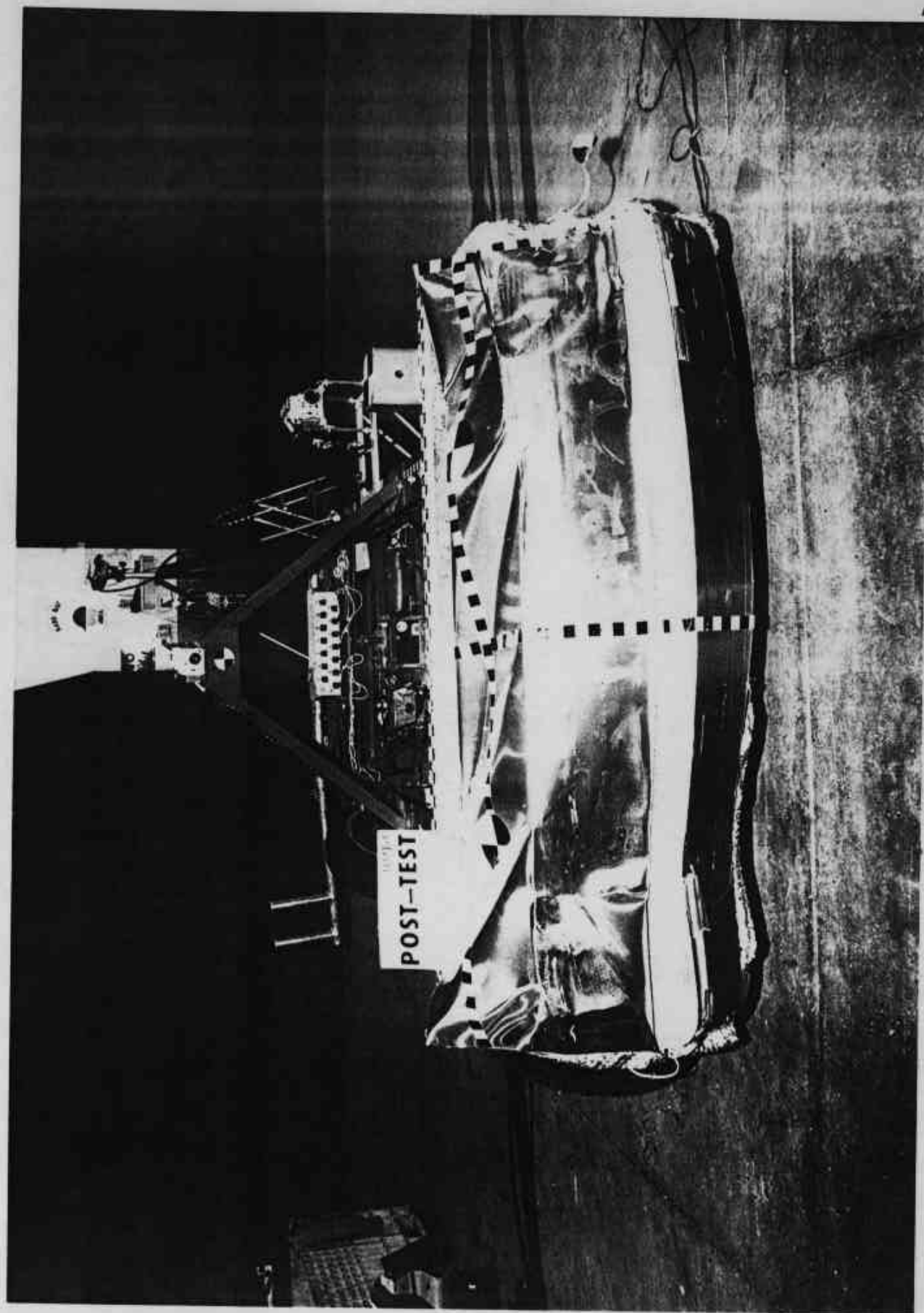


Photo No. A-15 - Post-Test MDB Front View

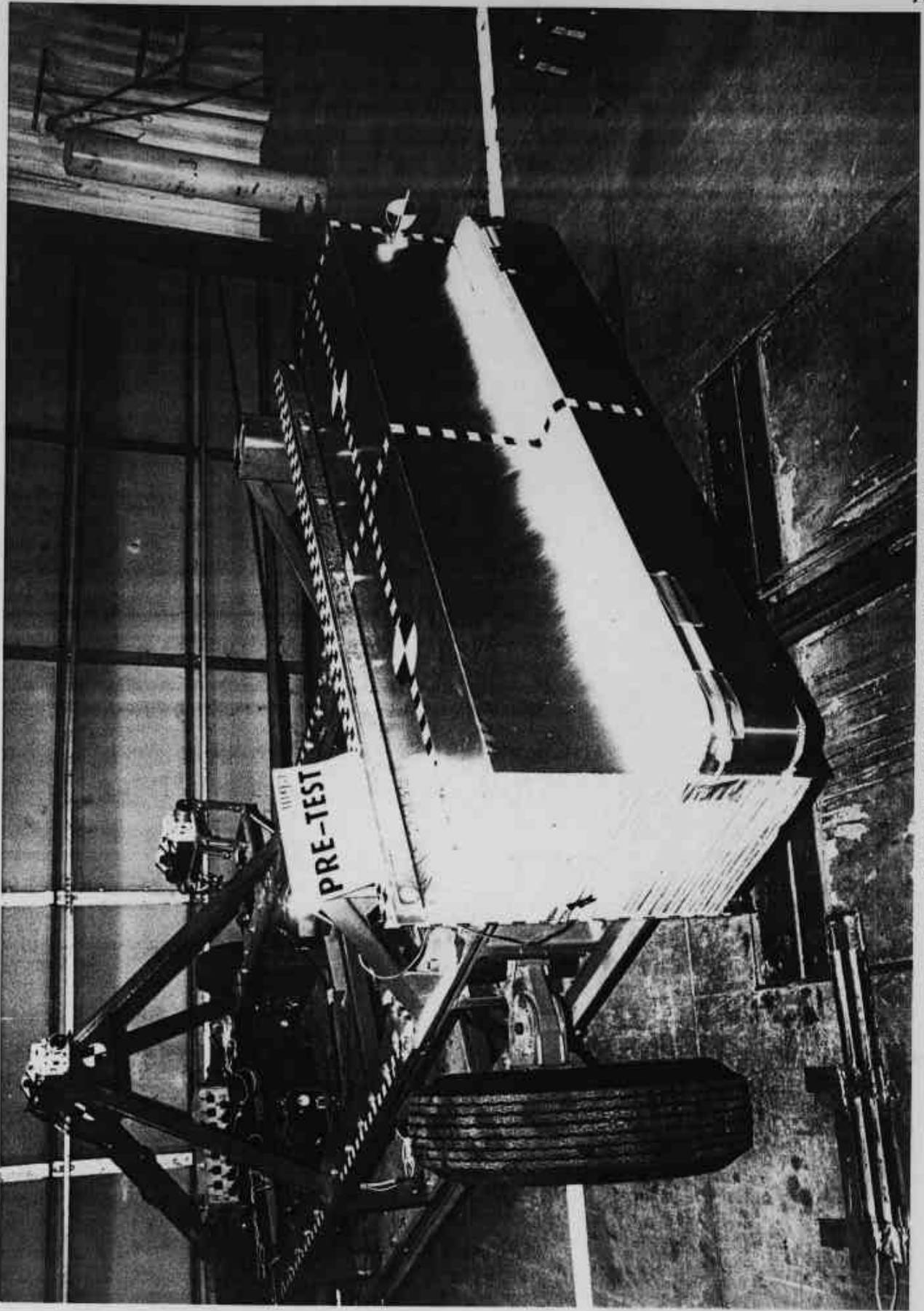


Photo No. A-16 - Pre-Test MDB Right Side View

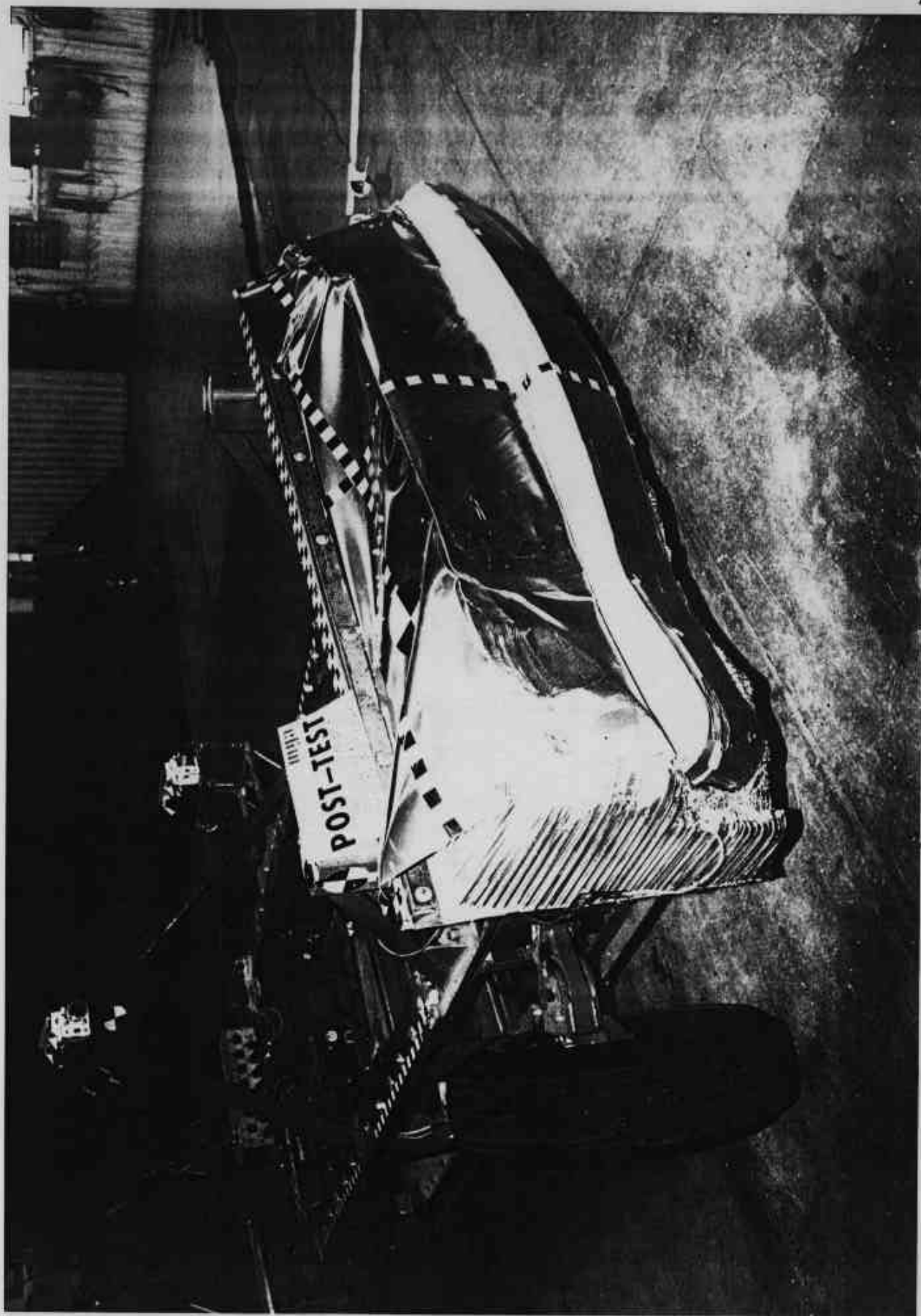


Photo No. A-17 - Post-Test MDB Right Side View

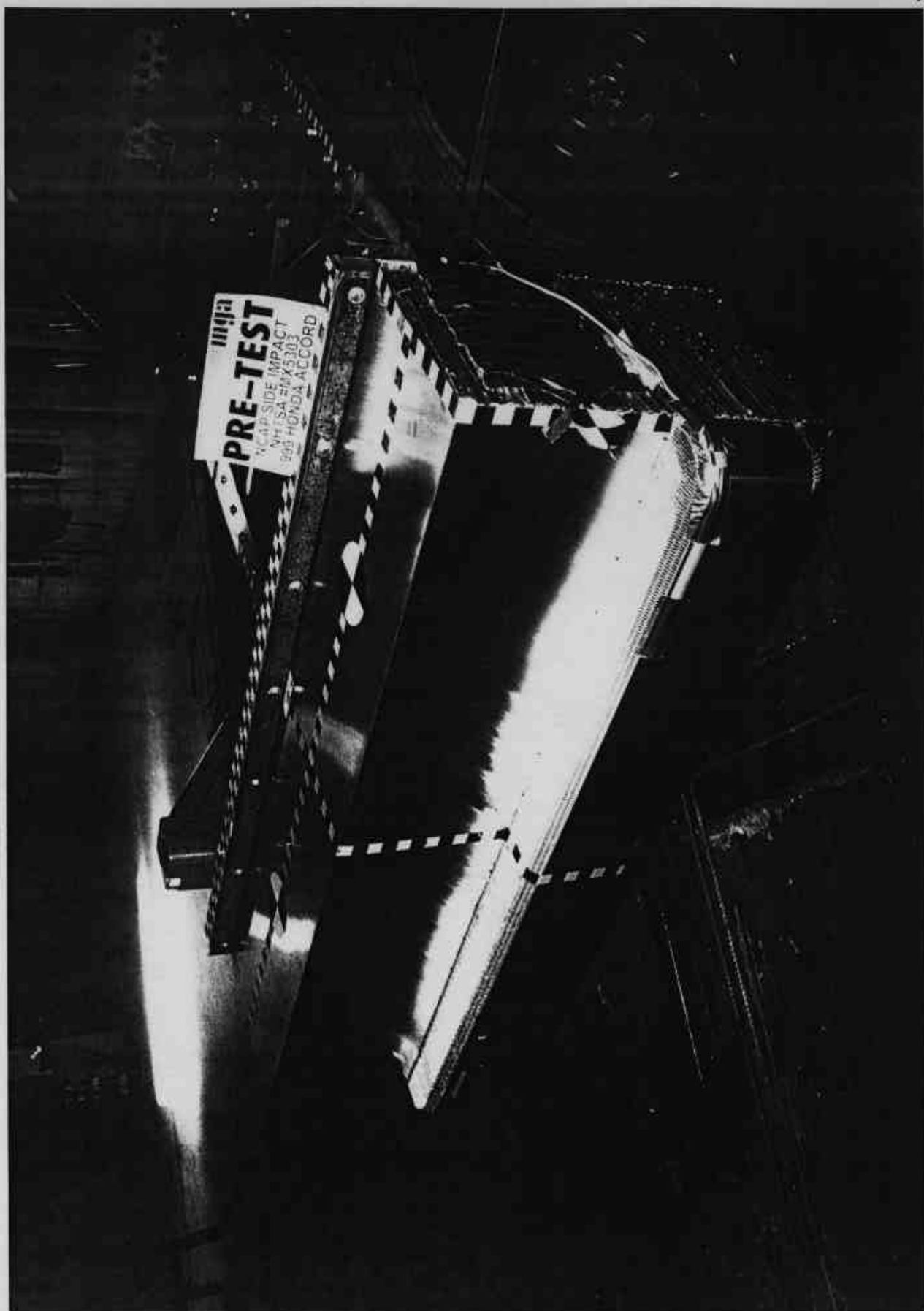


Photo No. A-18 - Pre-Test MDB Left Side View

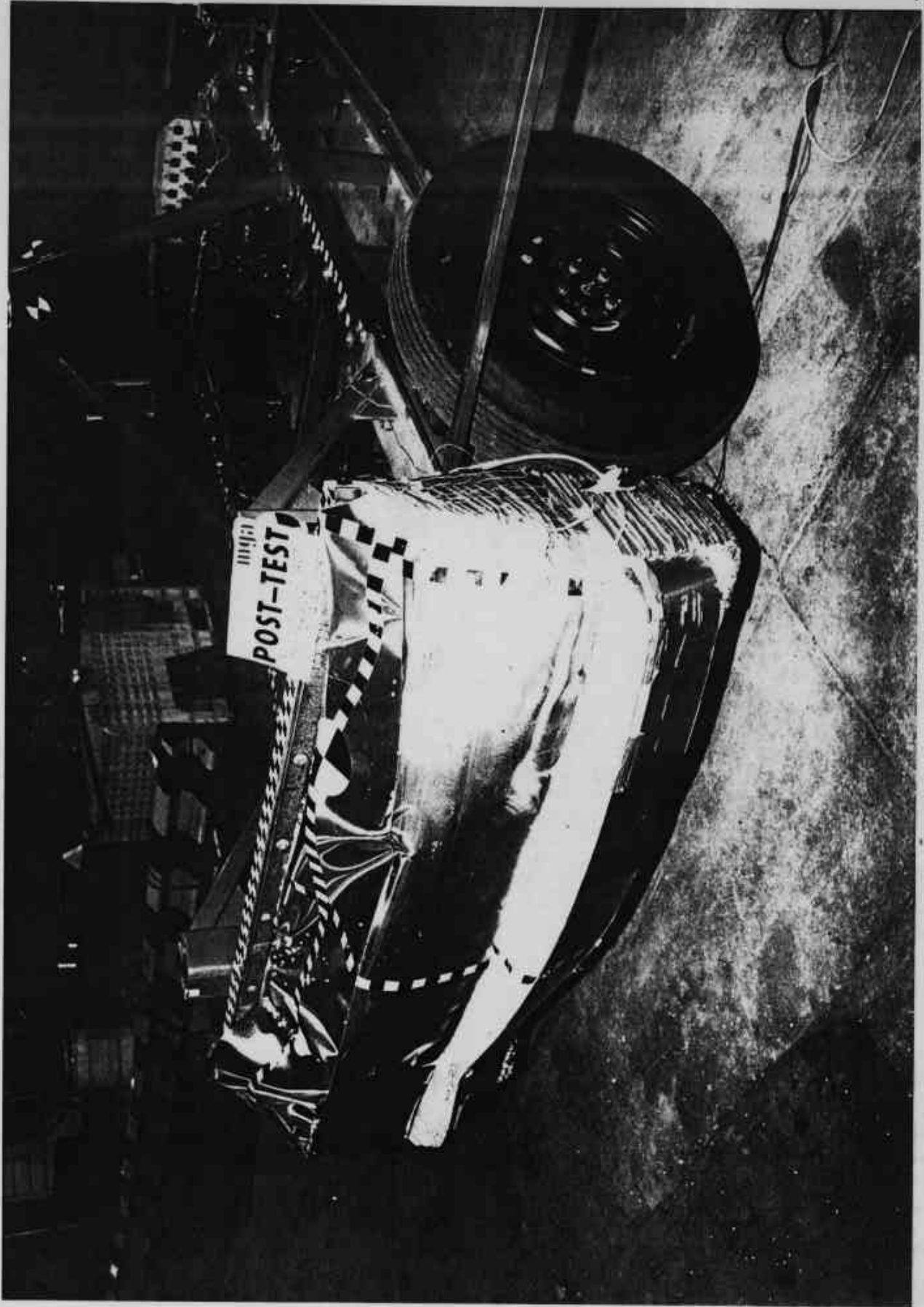


Photo No. A-19 - Post-Test MDB Left Side View



Photo No. A-20 - Pre-Test Driver Dummy Right Side View

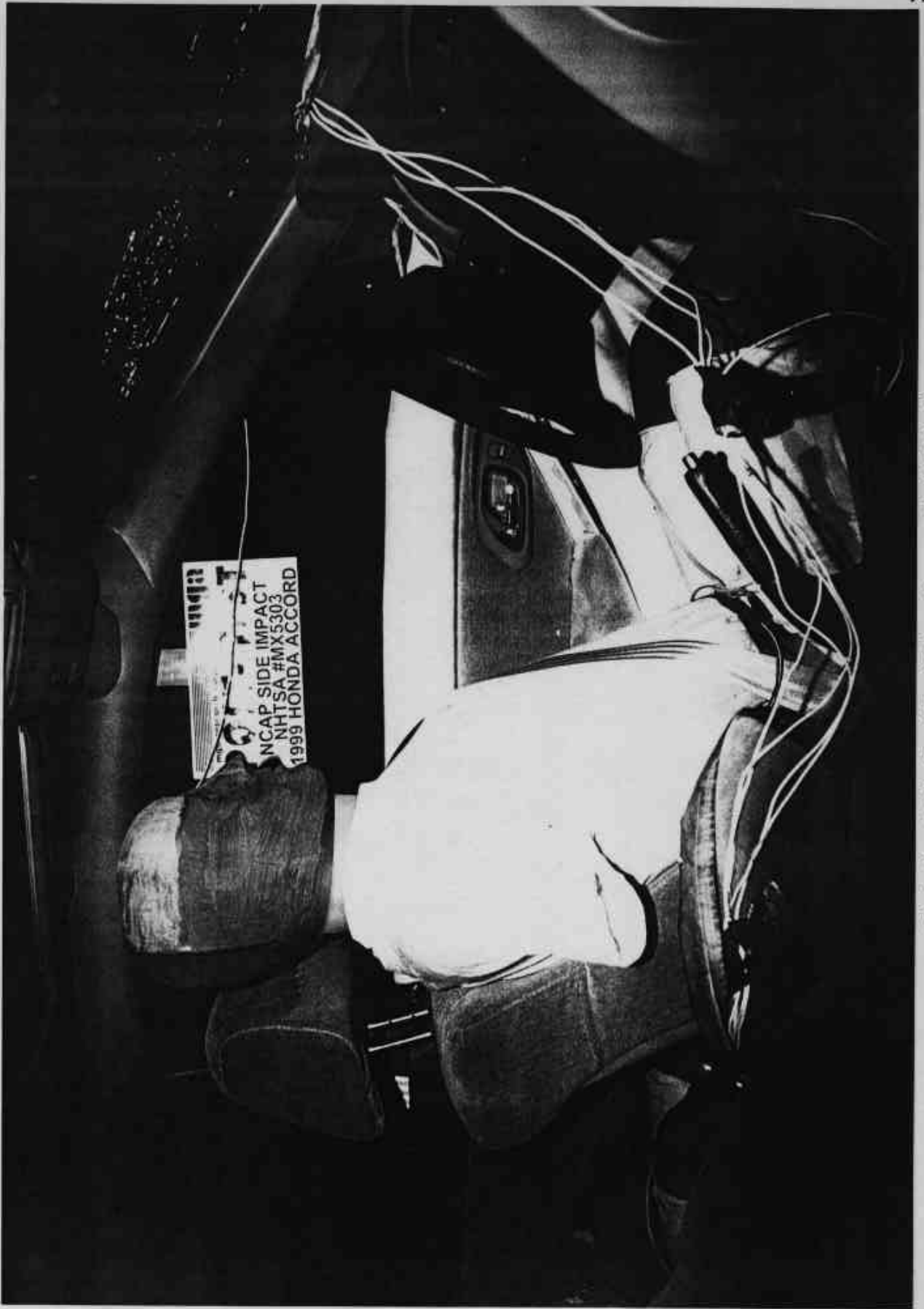


Photo No. A-21 - Post-Test Driver Dummy Right Side View

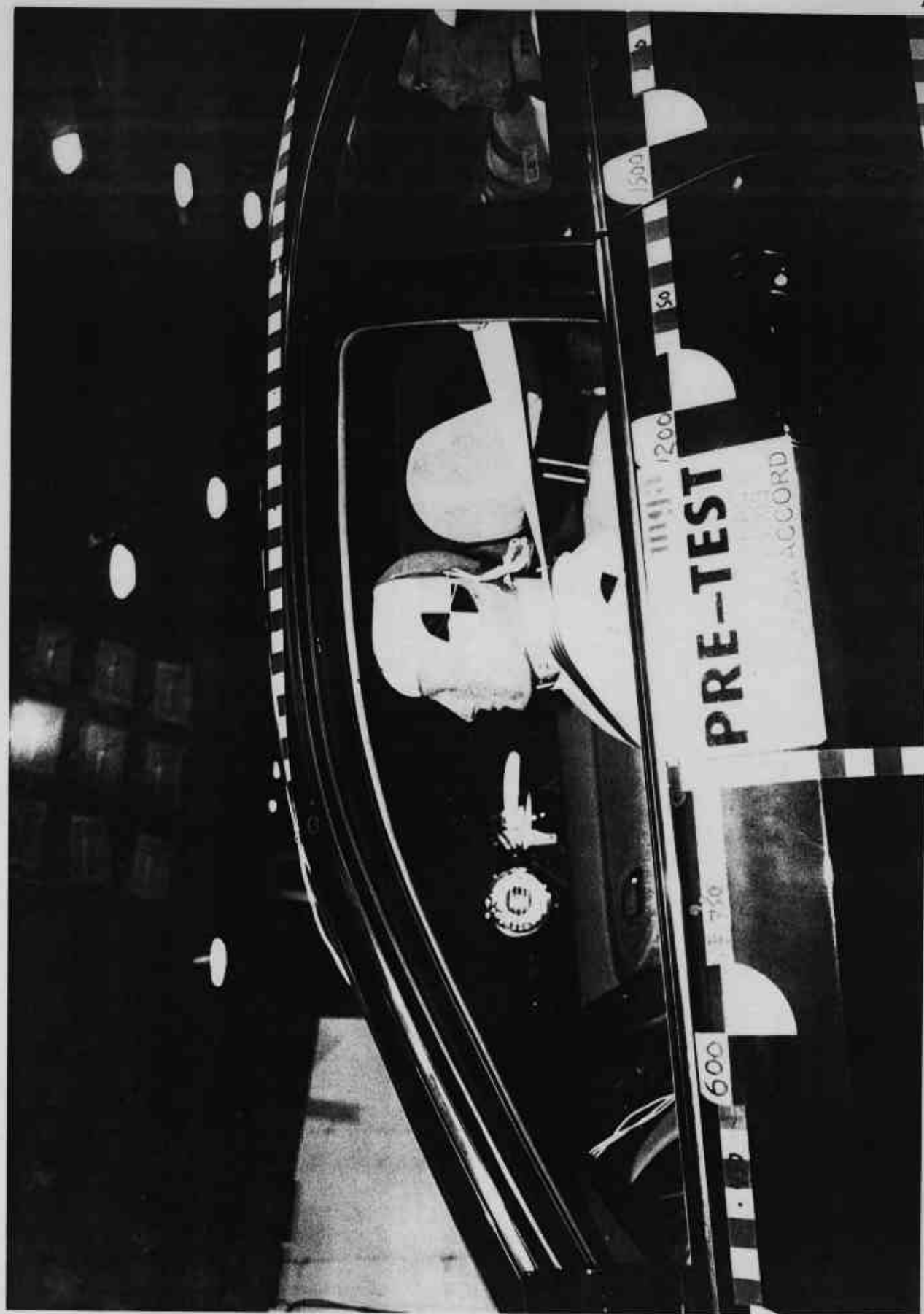


Photo No. A-22 - Pre-Test Driver Dummy Left Side View

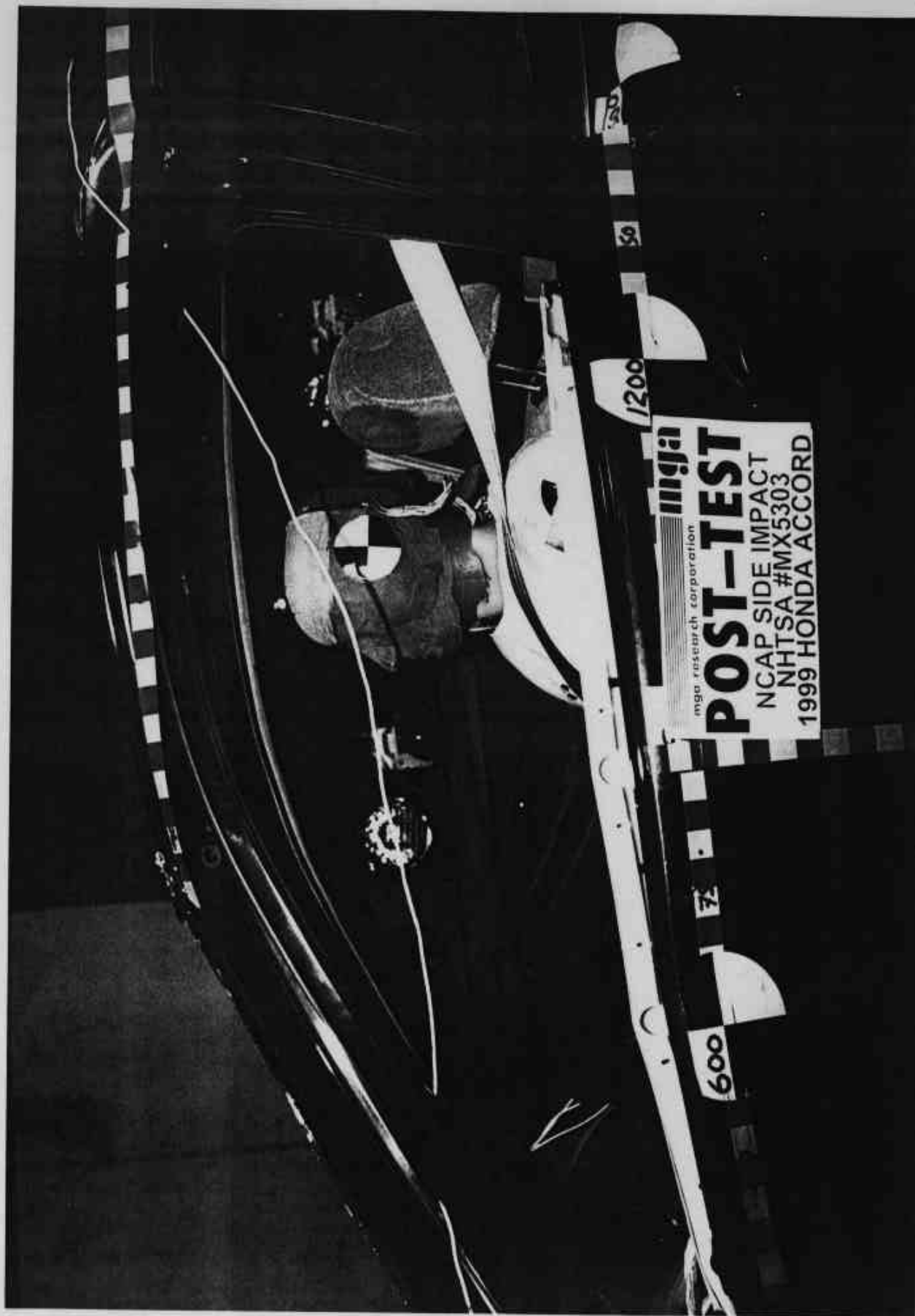


Photo No. A-23 - Post-Test Driver Dummy Left Side View

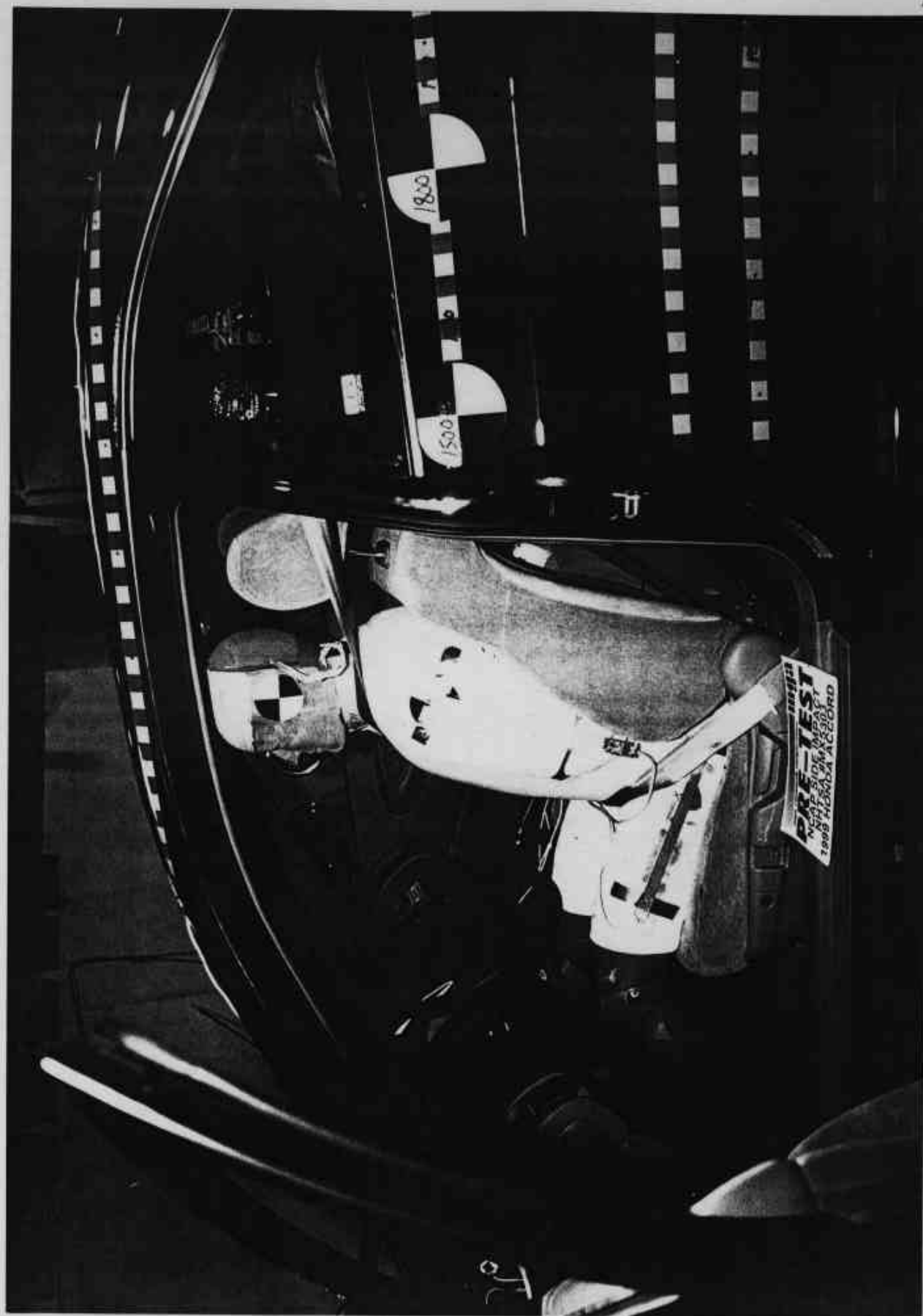


Photo No. A-24 - Pre-Test Driver Dummy Left Side View (Door Open)

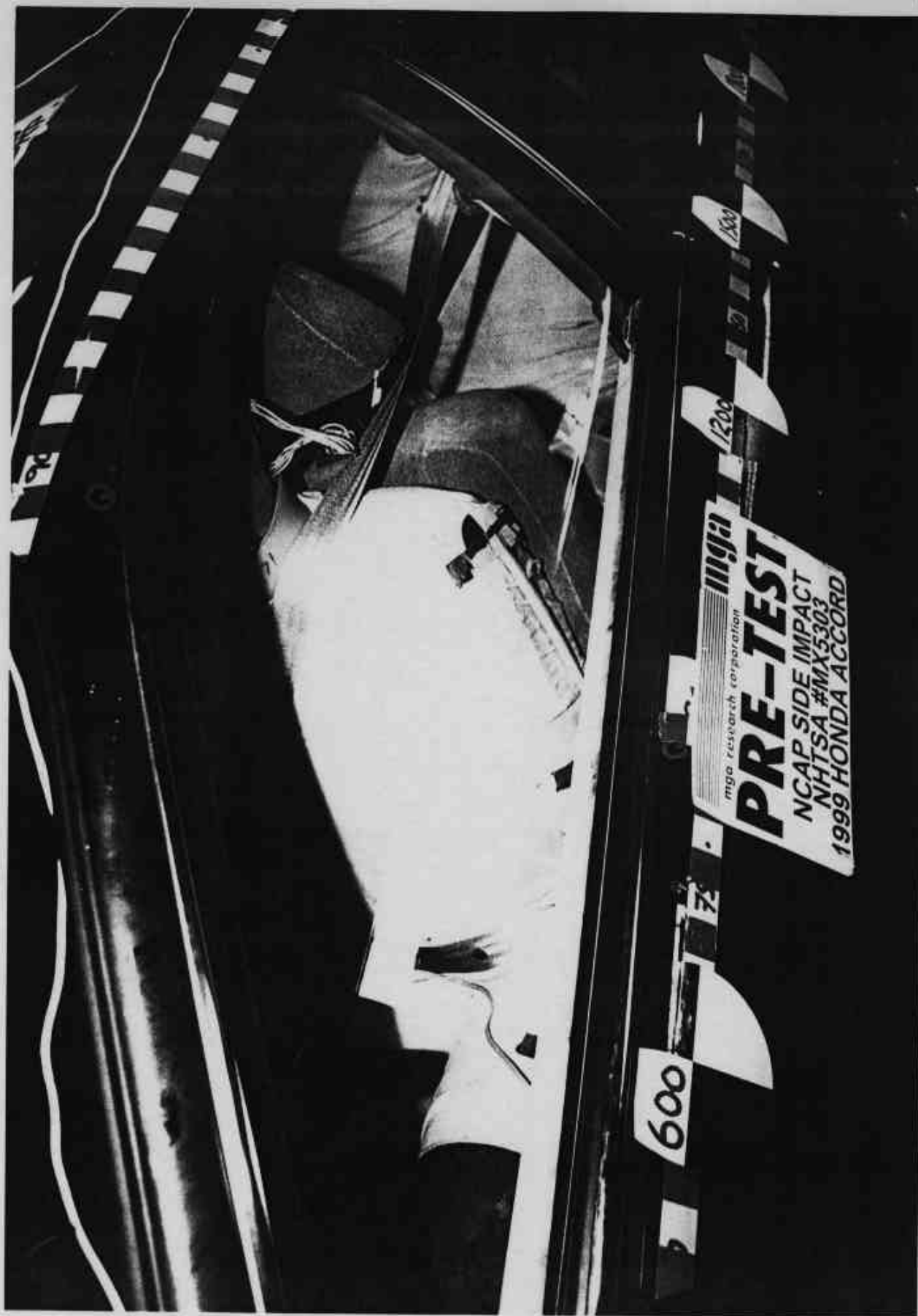


Photo No. A-25 - Pre-Test Driver Dummy Shoulder and Door Top View

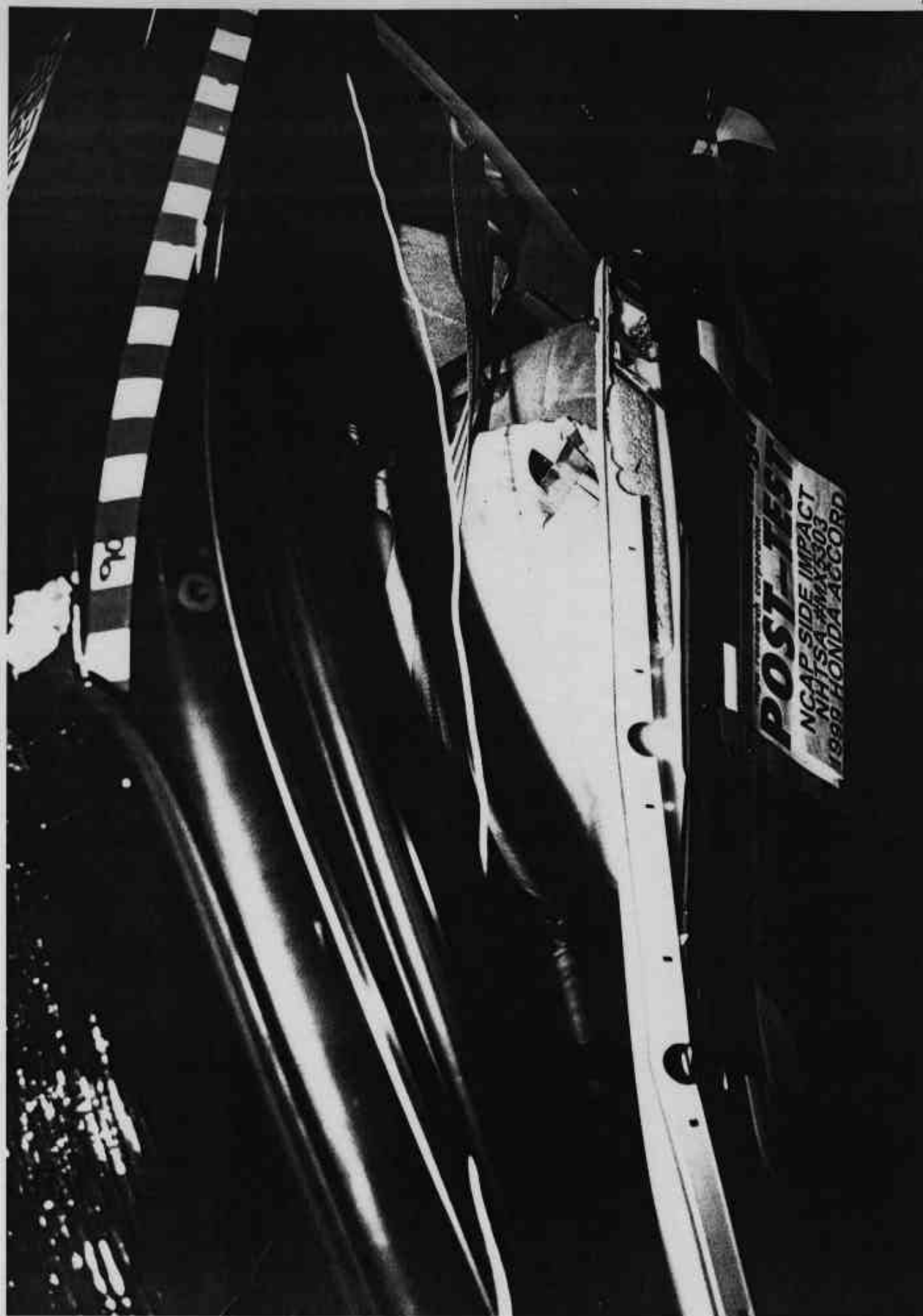


Photo No. A-26 - Post-Test Driver Dummy Shoulder and Door Top View



Photo No. A-27 - Post-Test Driver Dummy Contact



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

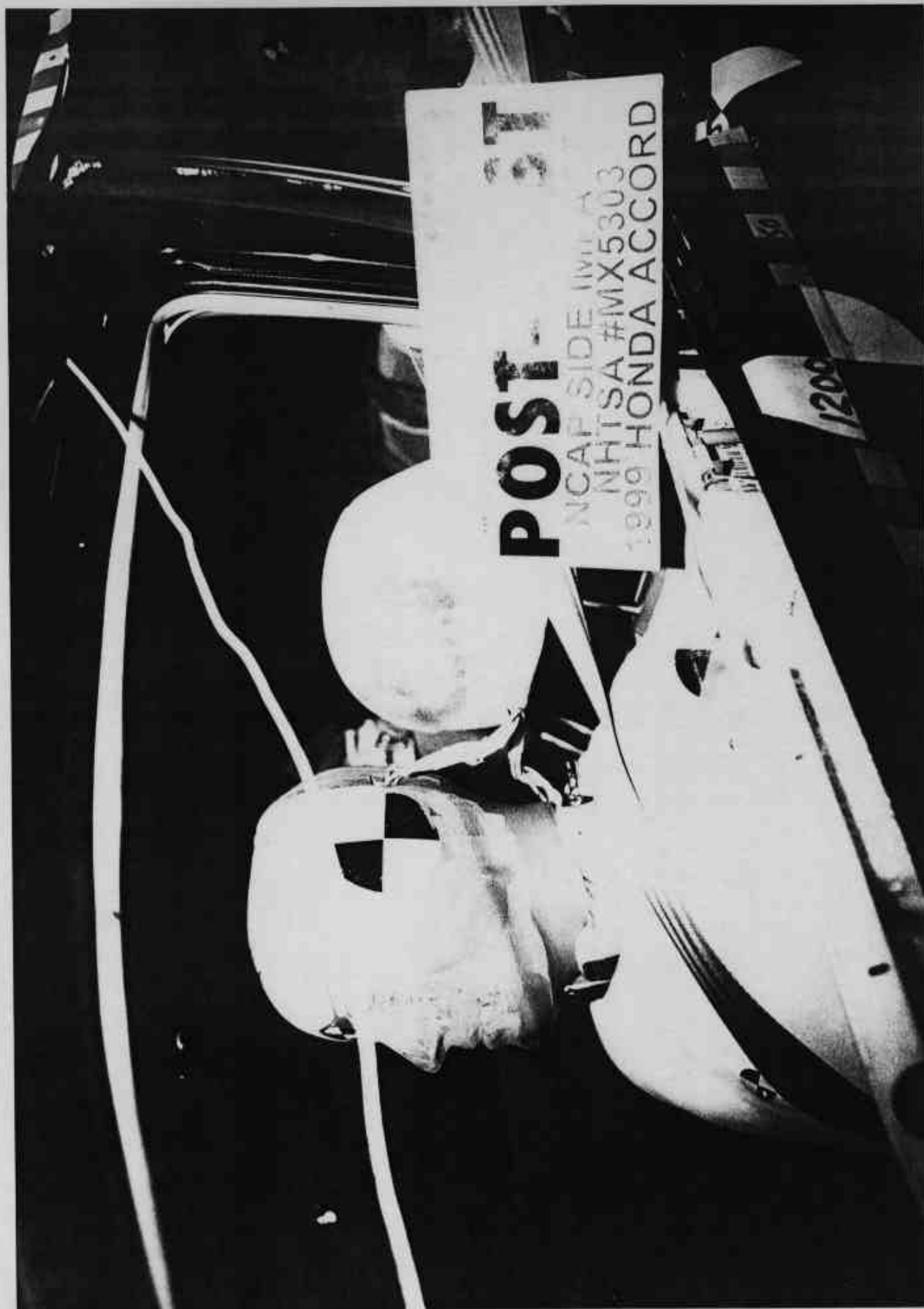


Photo No. A-29 - Post-Test Driver Dummy Head Contact

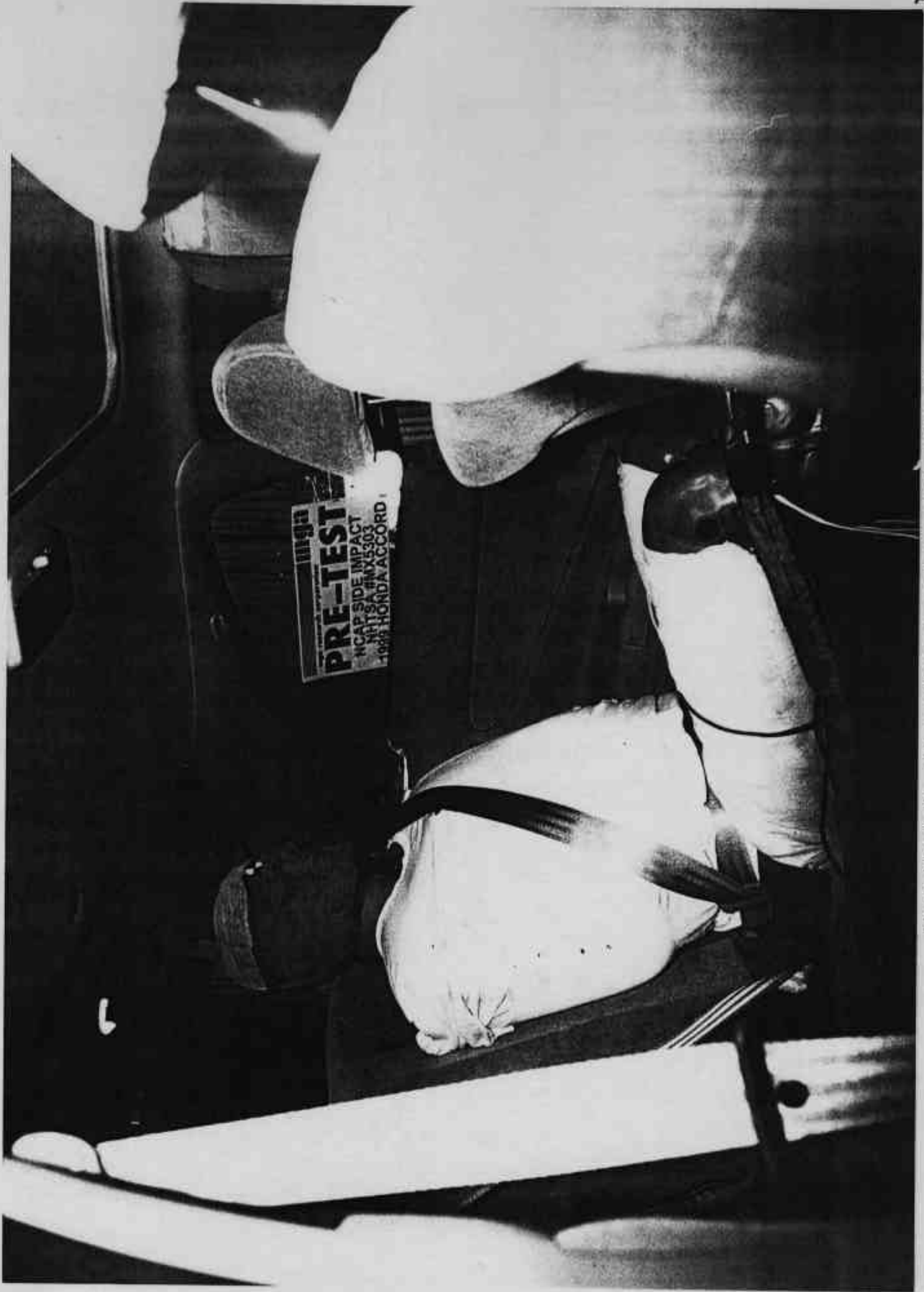


Photo No. A-30 - Pre-Test Passenger Dummy Right Side View

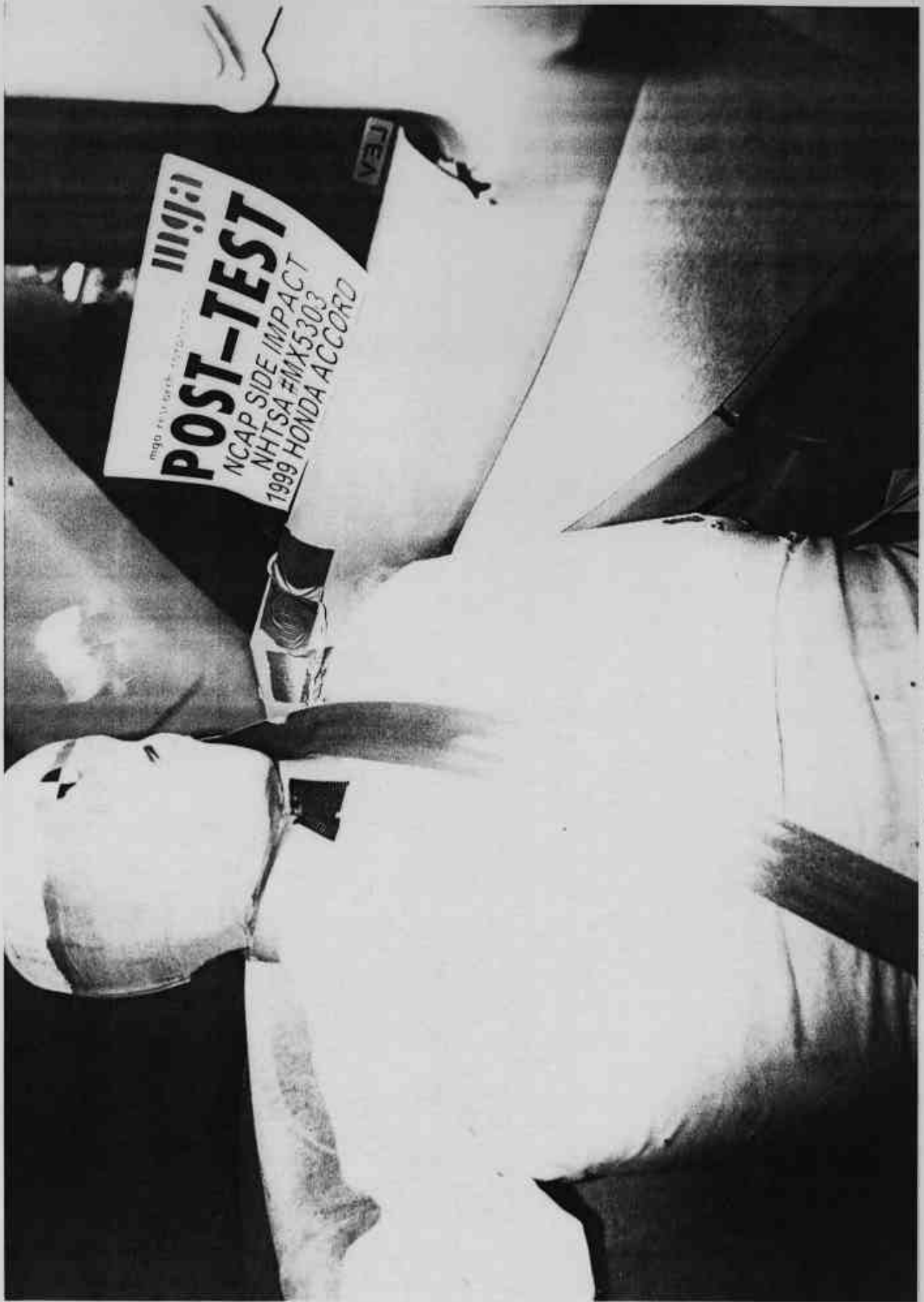


Photo No. A-31 - Post-Test Passenger Dummy Right Side View



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 Shoulder and Door Top View



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



Photo No. A-36 - Post-Test Passenger Dummy Contact



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



Photo No. A-38 - Pre-Test Left Front Impact Point on Vehicle

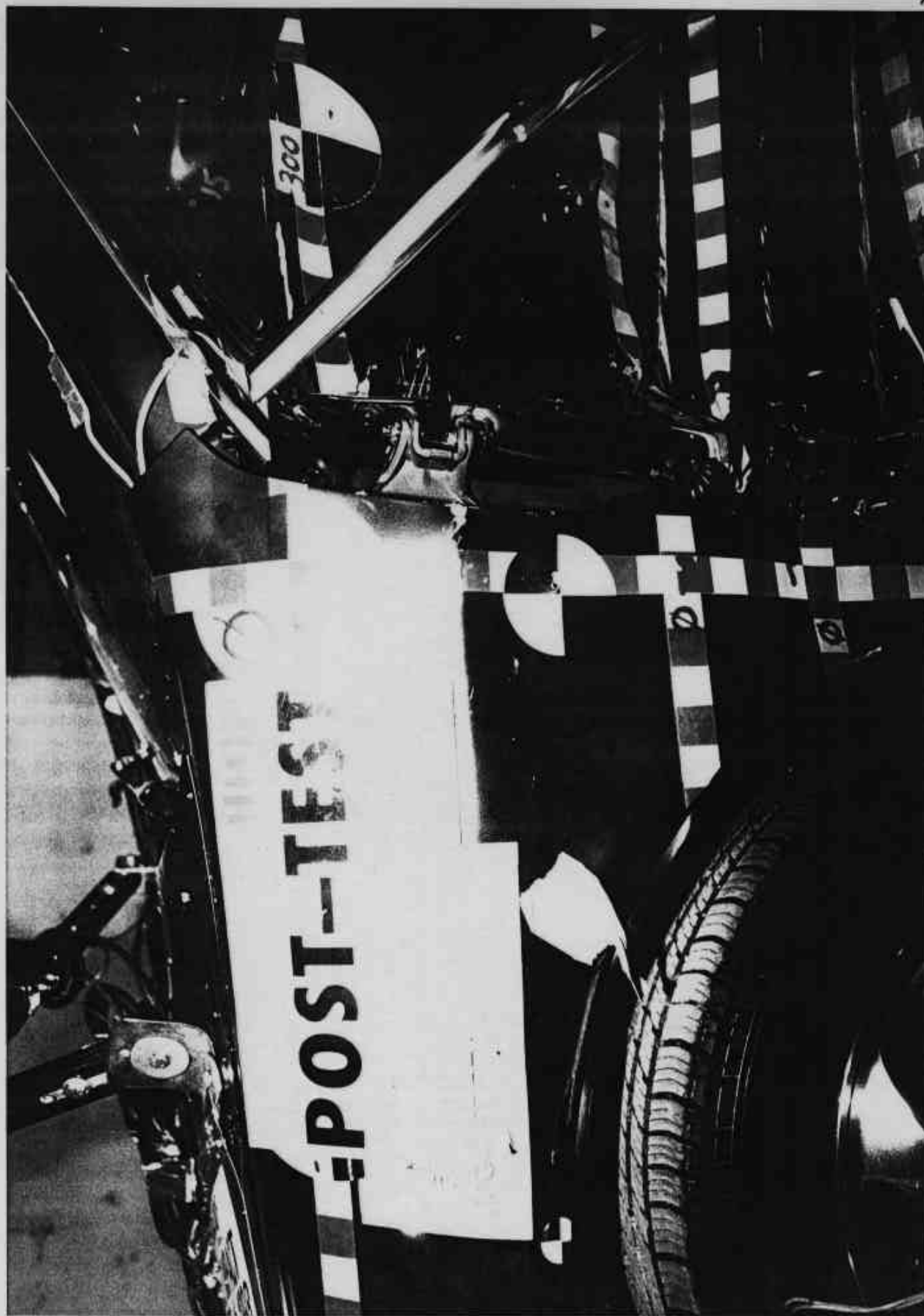


Photo No. A-39 - Post-Test Left Front Impact Point on Vehicle

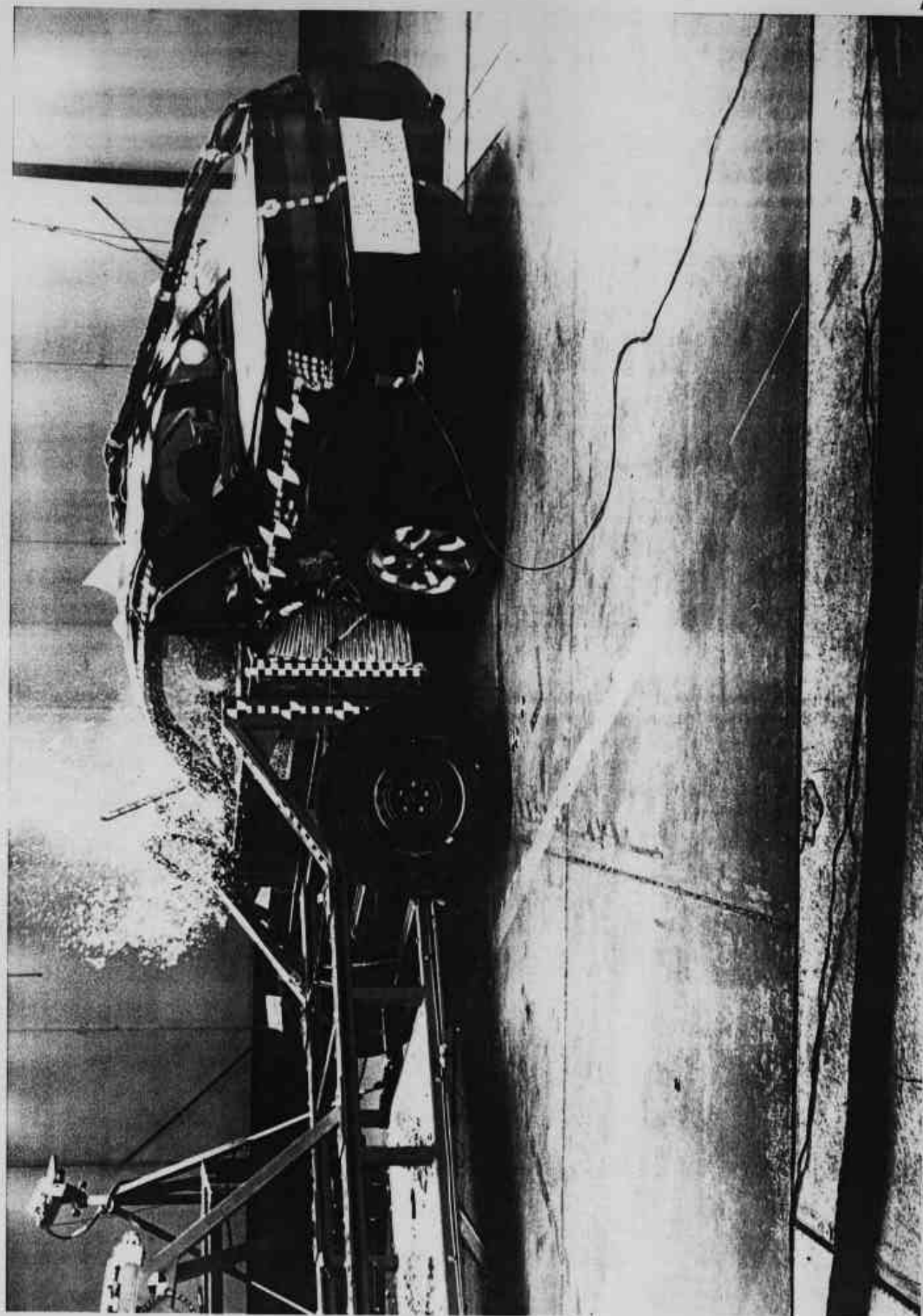
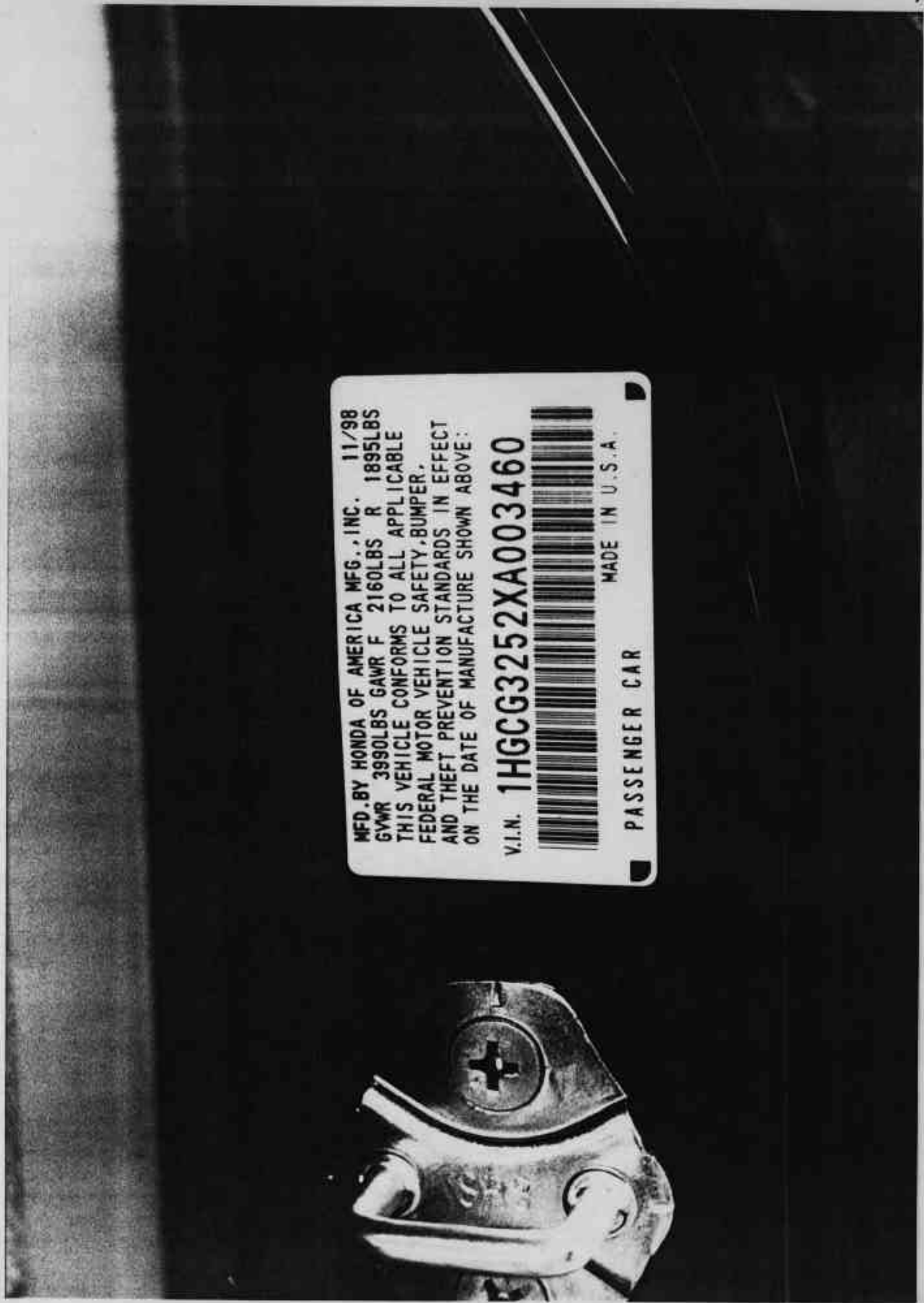


Photo No. A-40 - Impact



MFD. BY HONDA OF AMERICA MFG., INC. 11/98
GVWR 3990LBS GAWR F 2160LBS R 1895LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY, BUMPER,
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE:

V.I.N. 1HGCG3252XA003460



MADE IN U.S.A.

PASSENGER CAR

Photo No. A-41 - Vehicle Certification Label

TIRE INFORMATION		VEHICLE CAPACITY WEIGHT		500 LBS			
SEATING CAPACITY		TOTAL	5	FRONT	2	REAR	3
RECOMMENDED TIRE SIZE		INFLATION PRESSURE		SEE OWNER'S			
FRONT	200 KPA, 29 PSI	MANUAL FOR		ADDITIONAL			
REAR	200 KPA, 29 PSI	INFORMATION					
SPARE TIRE	UP TO VEHICLE CAPACITY WEIGHT						
170 D15 95M	420 KPA, 60 PSI						
		42762-S82-A000					

Photo No. A-42 - Tire Placard

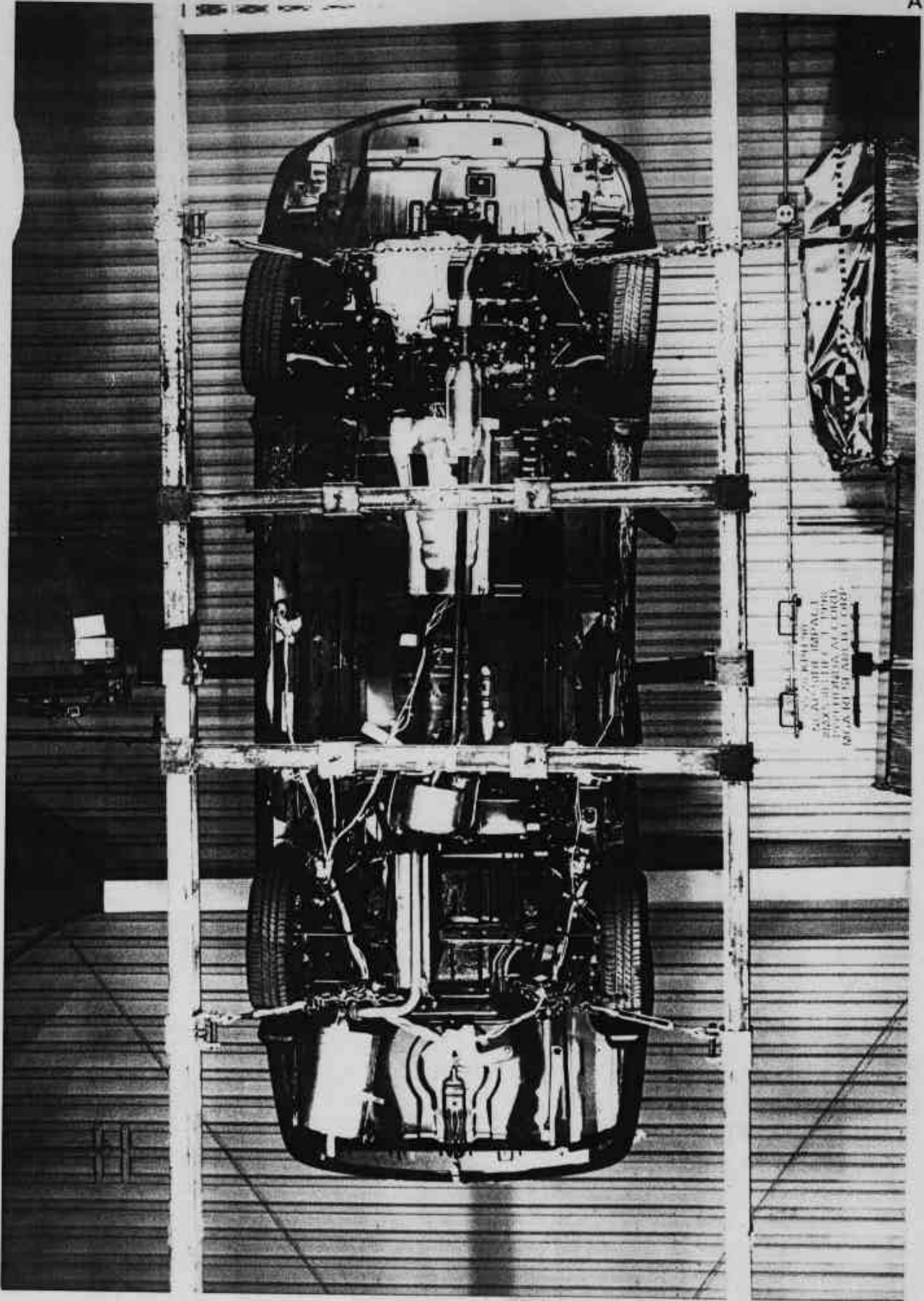


Photo No. A-43 - Rollover 90°

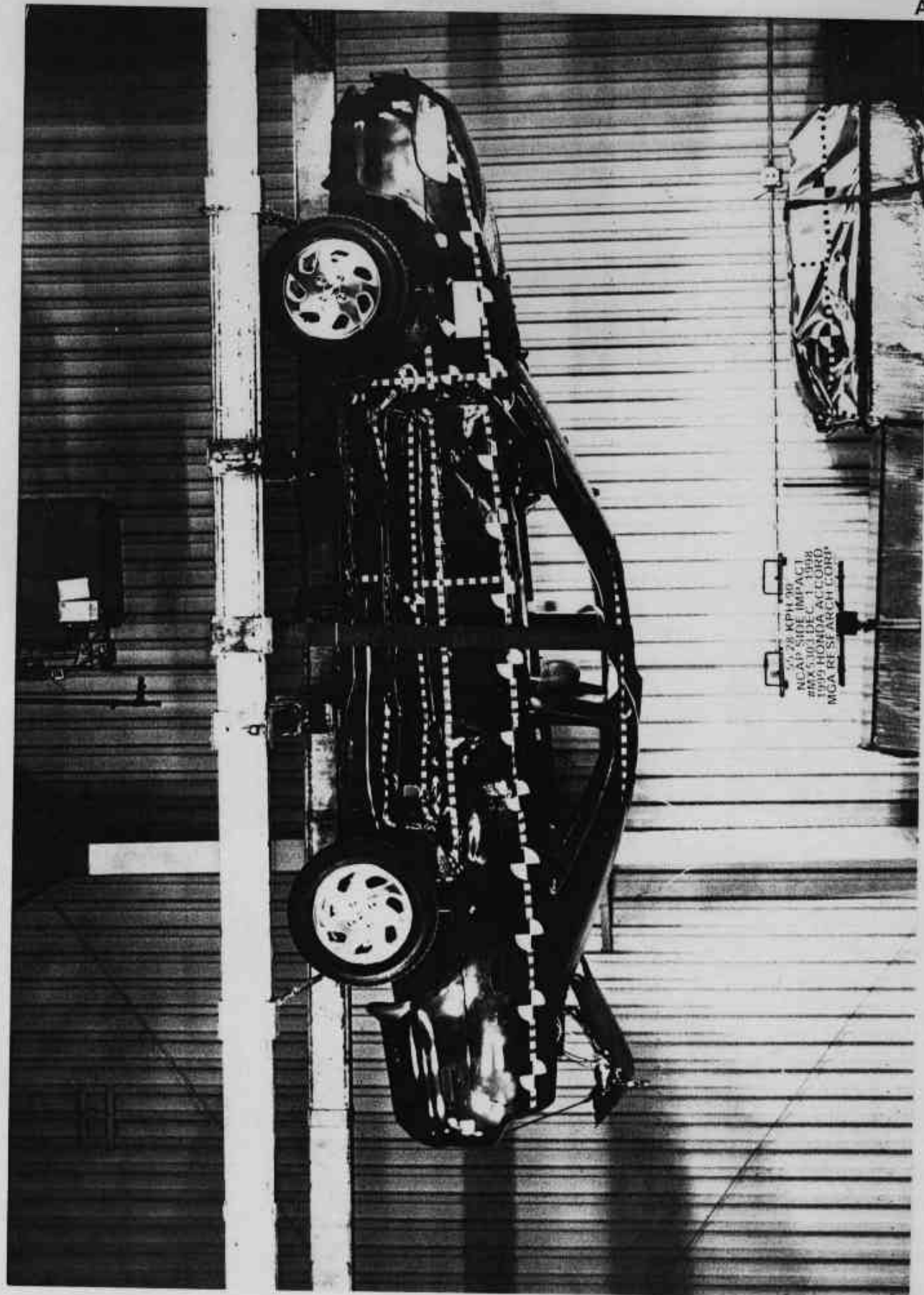


Photo No. A-44 - Rollover 180°

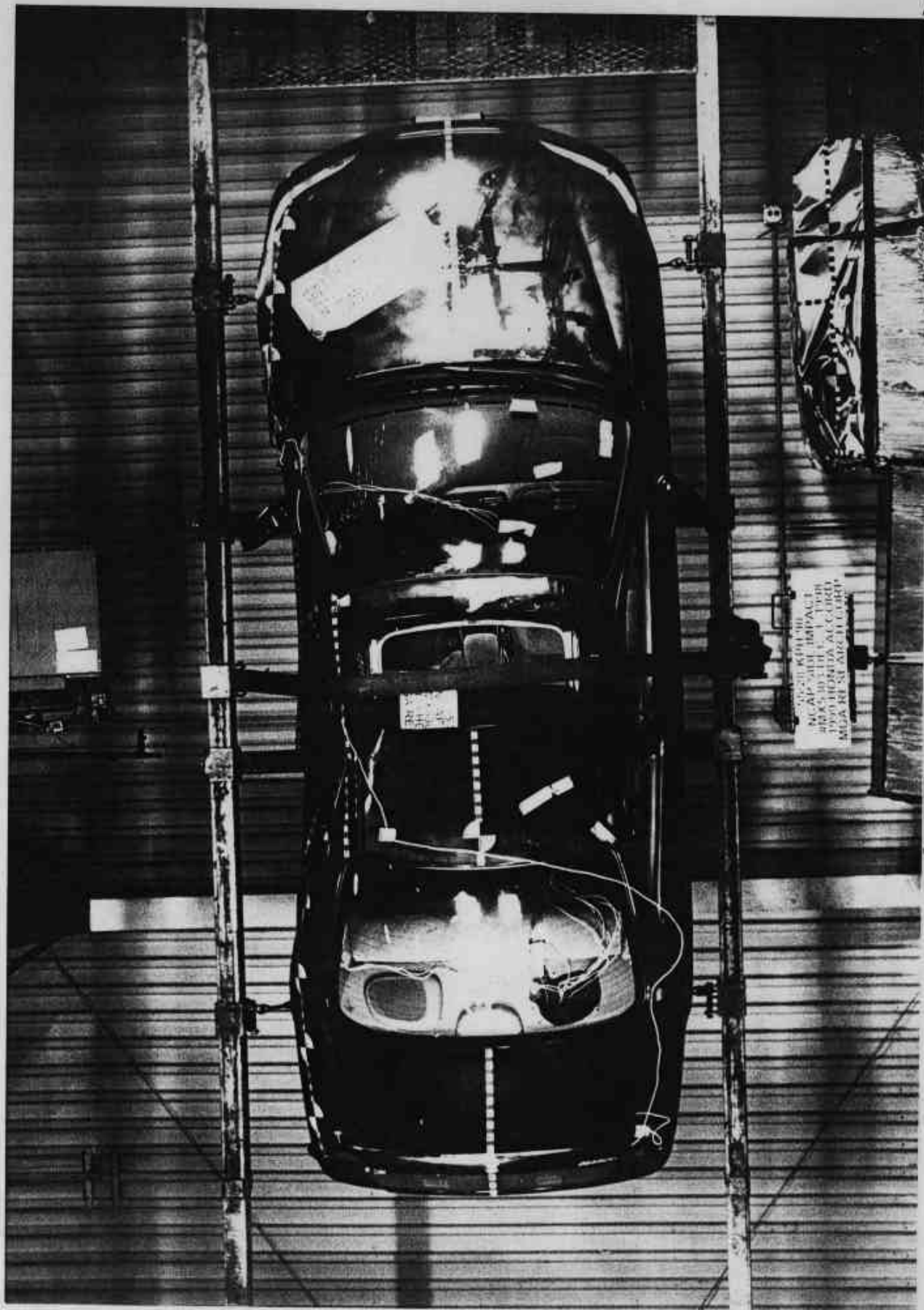


Photo No. A-45 - Rollover 270°

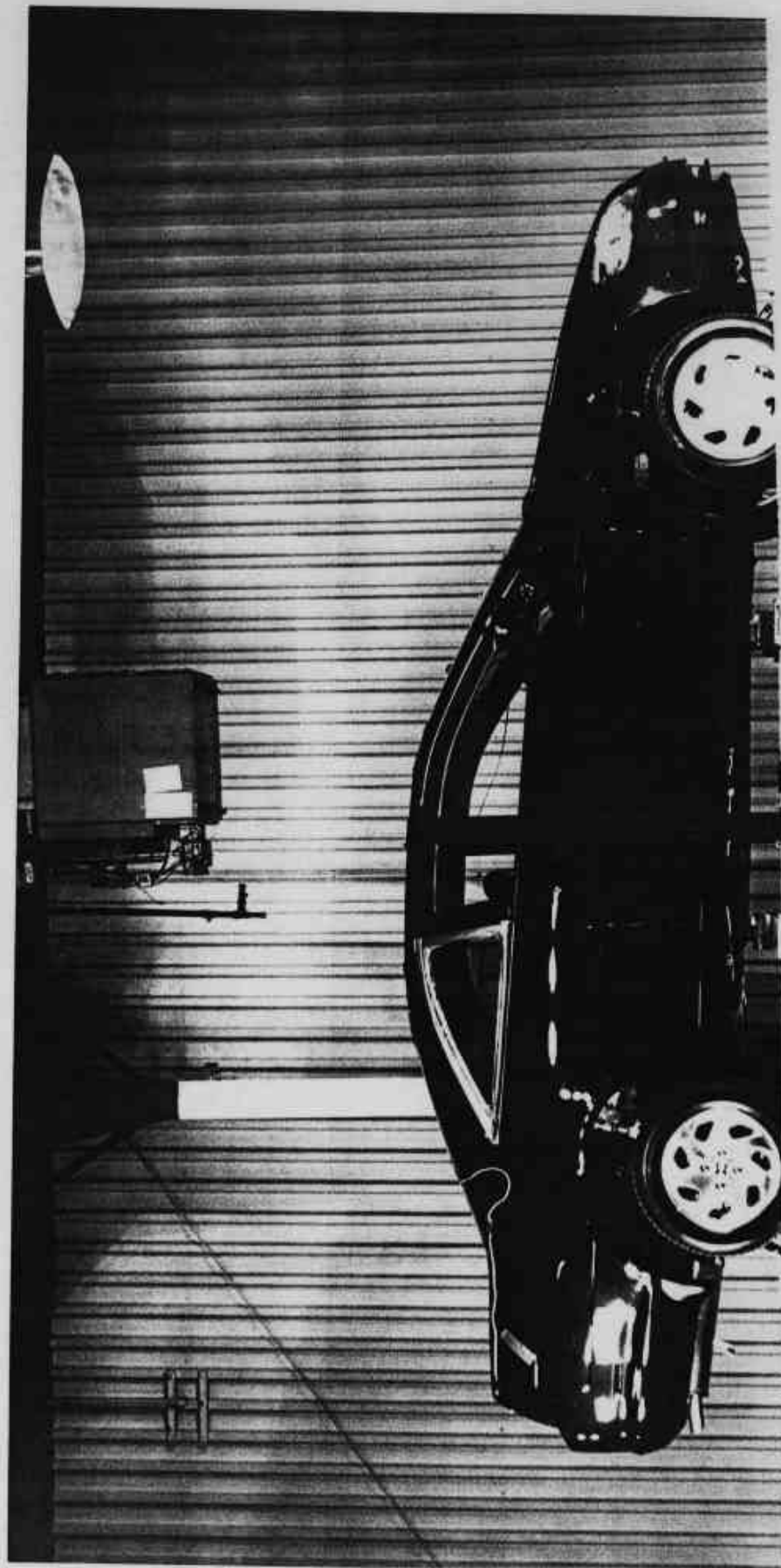


Photo No. A-46 - Rollover 360°

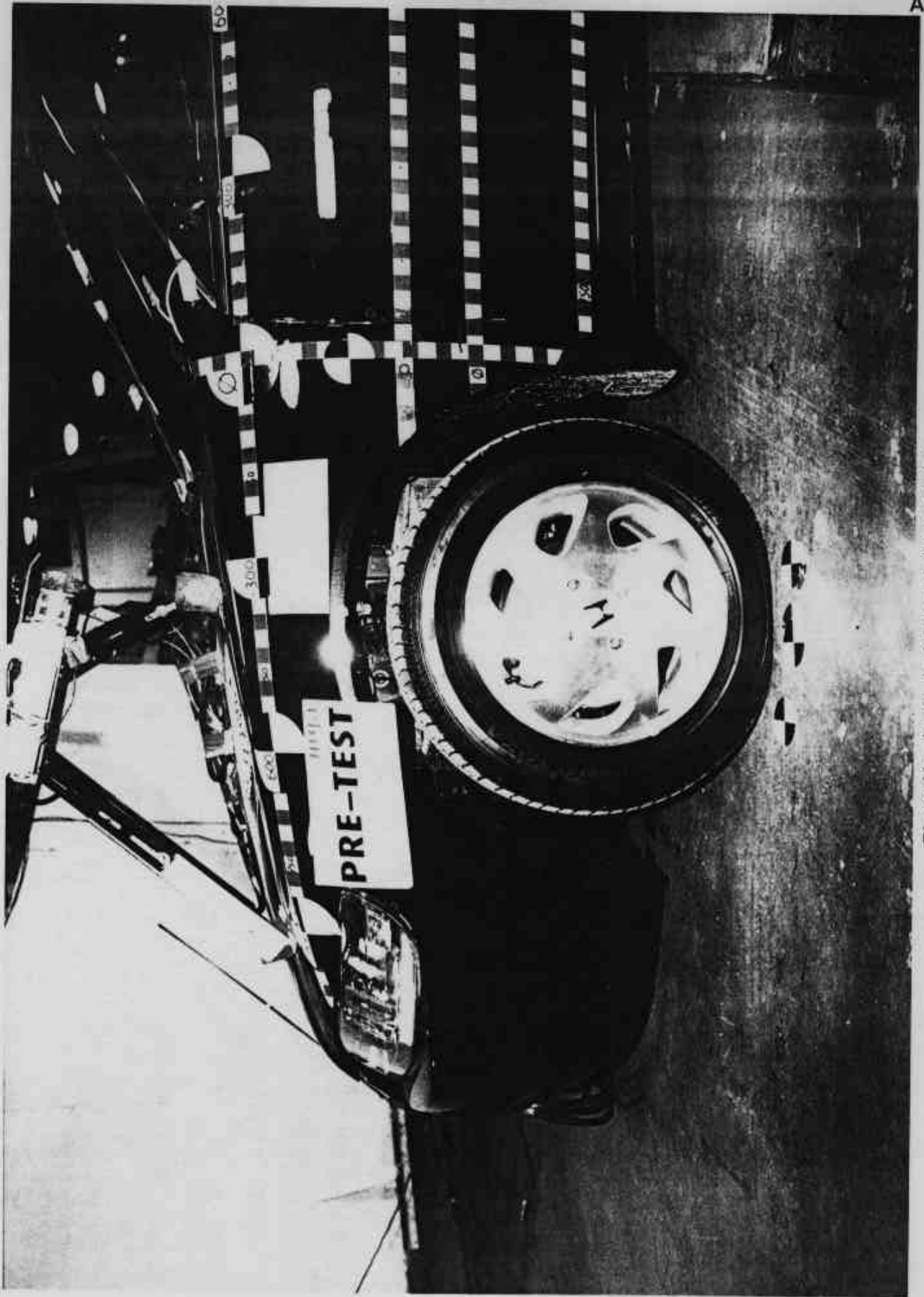


Photo No. A-47 - Left Front Attitude Point

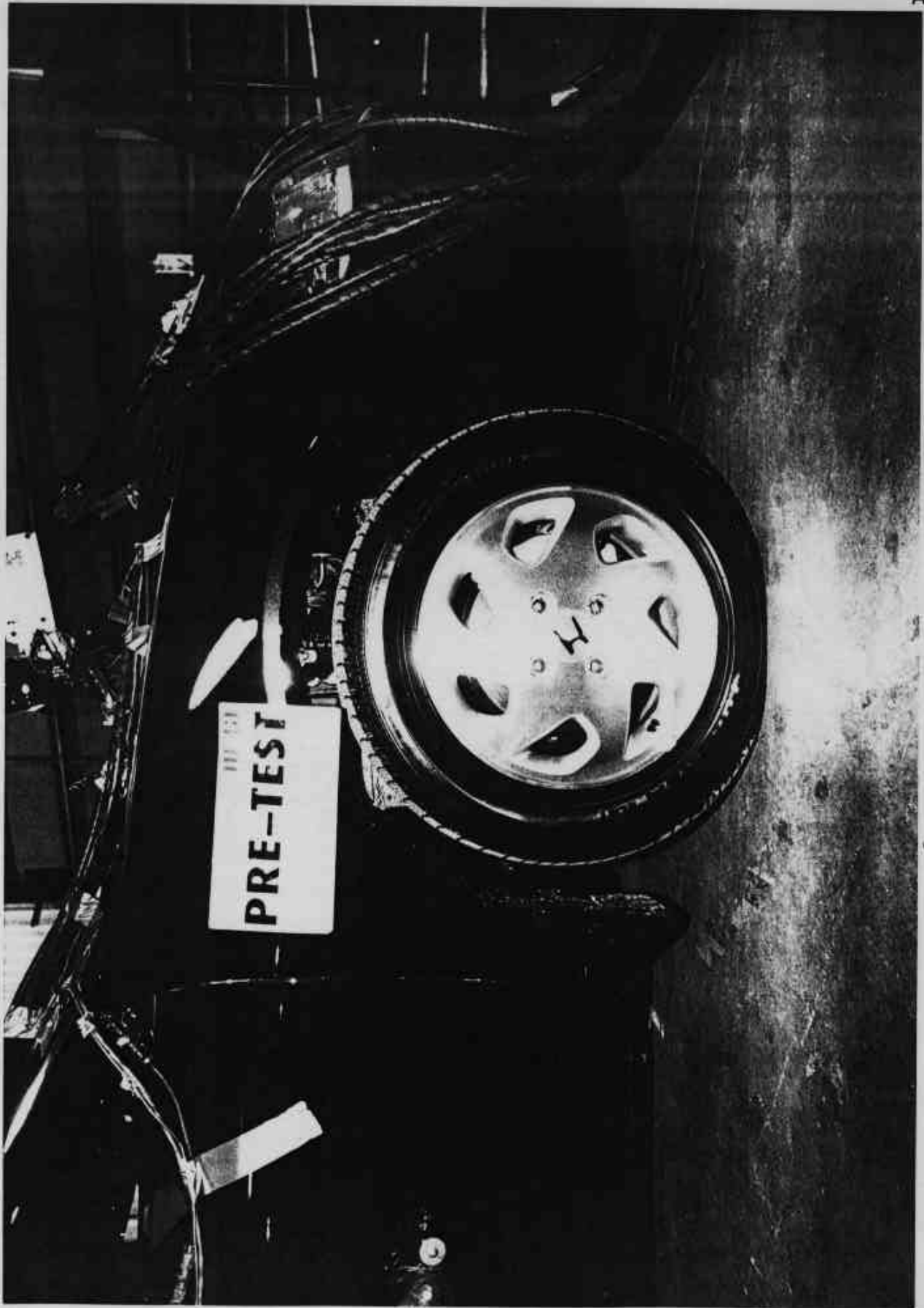


Photo No. A-48 - Right Front Attitude Point

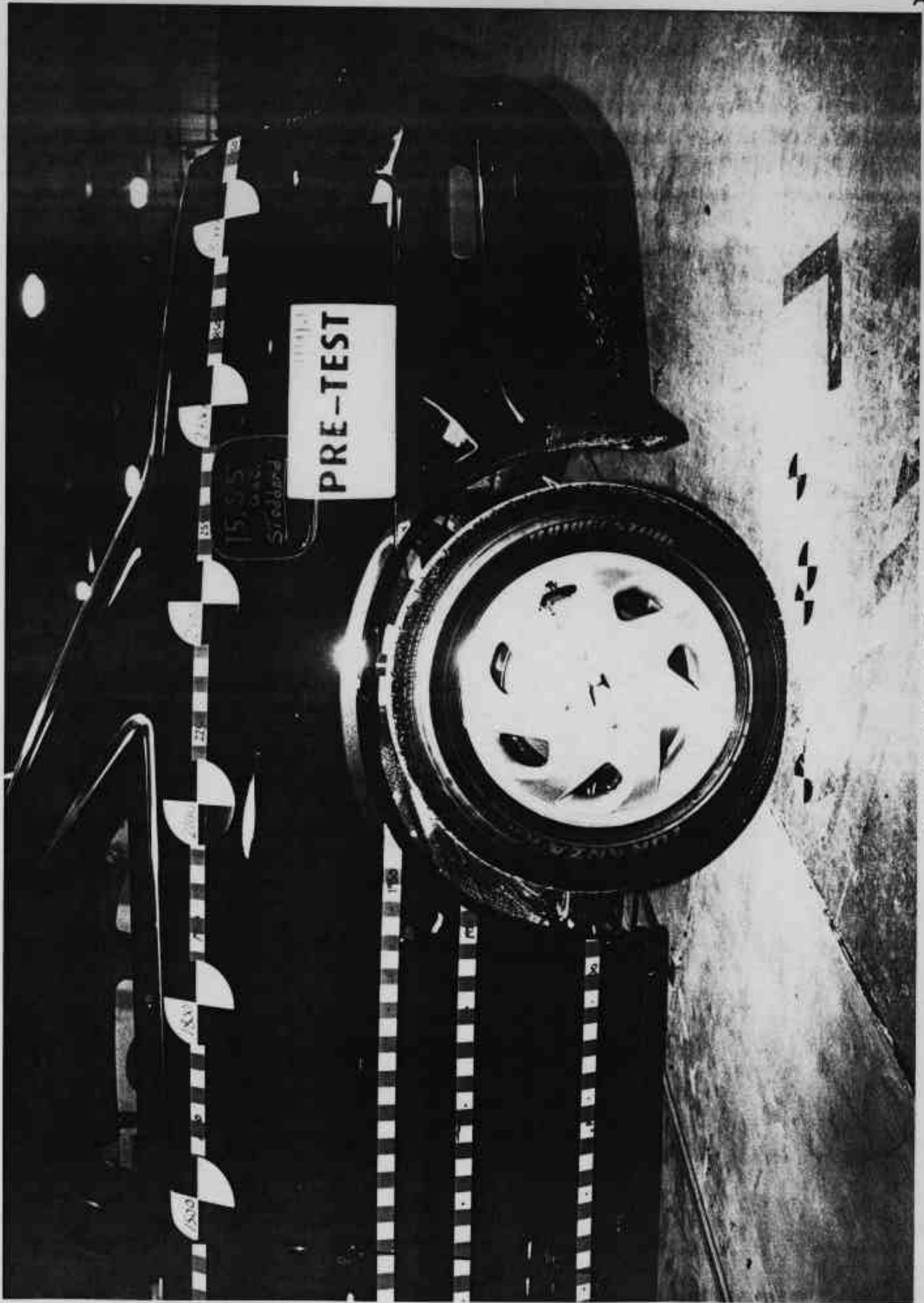


Photo No. A-49 - Left Rear Attitude Point

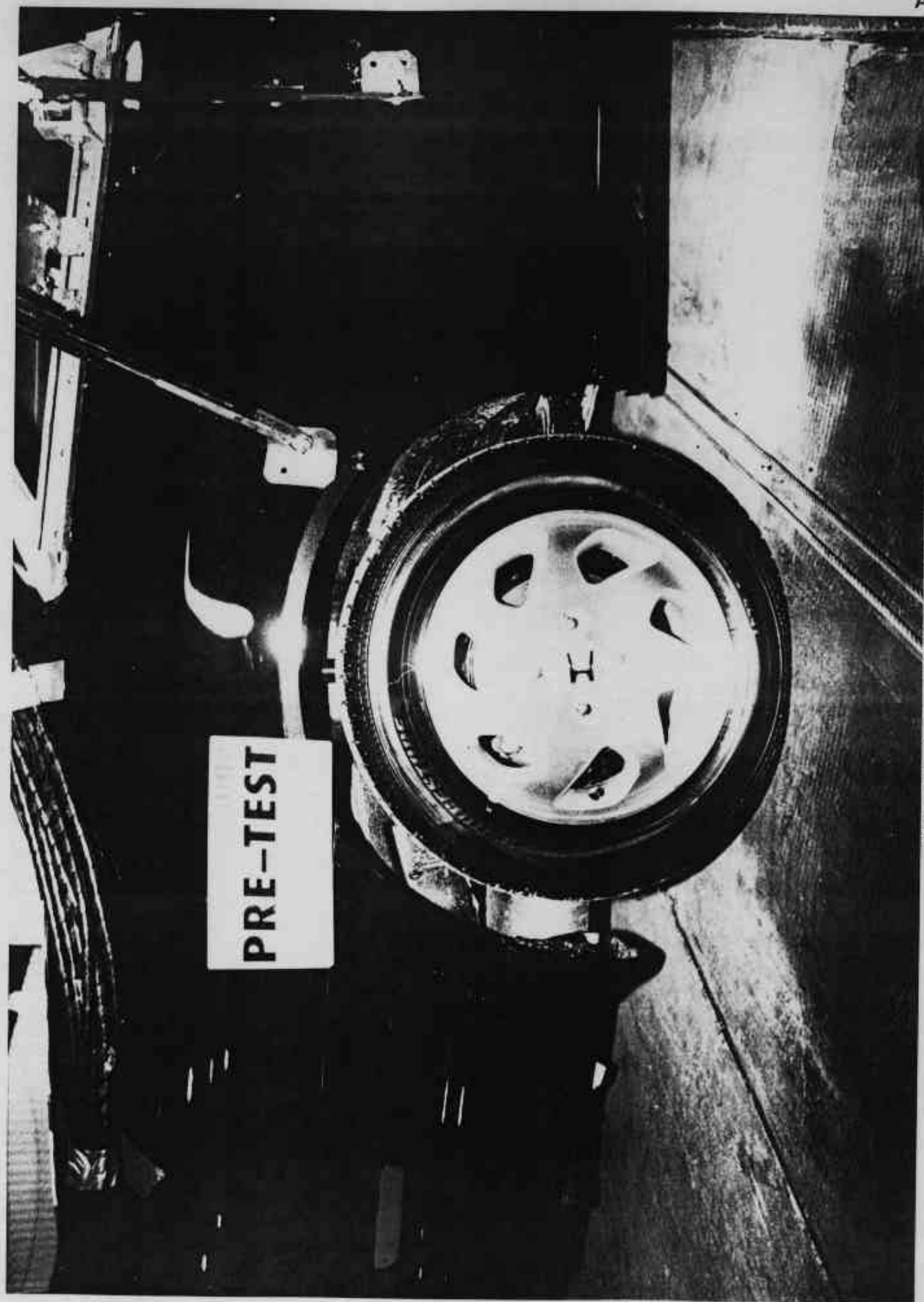


Photo No. A-50 - Right Rear Attitude Point

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* Data is questionable after approximately 30 msec.

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TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

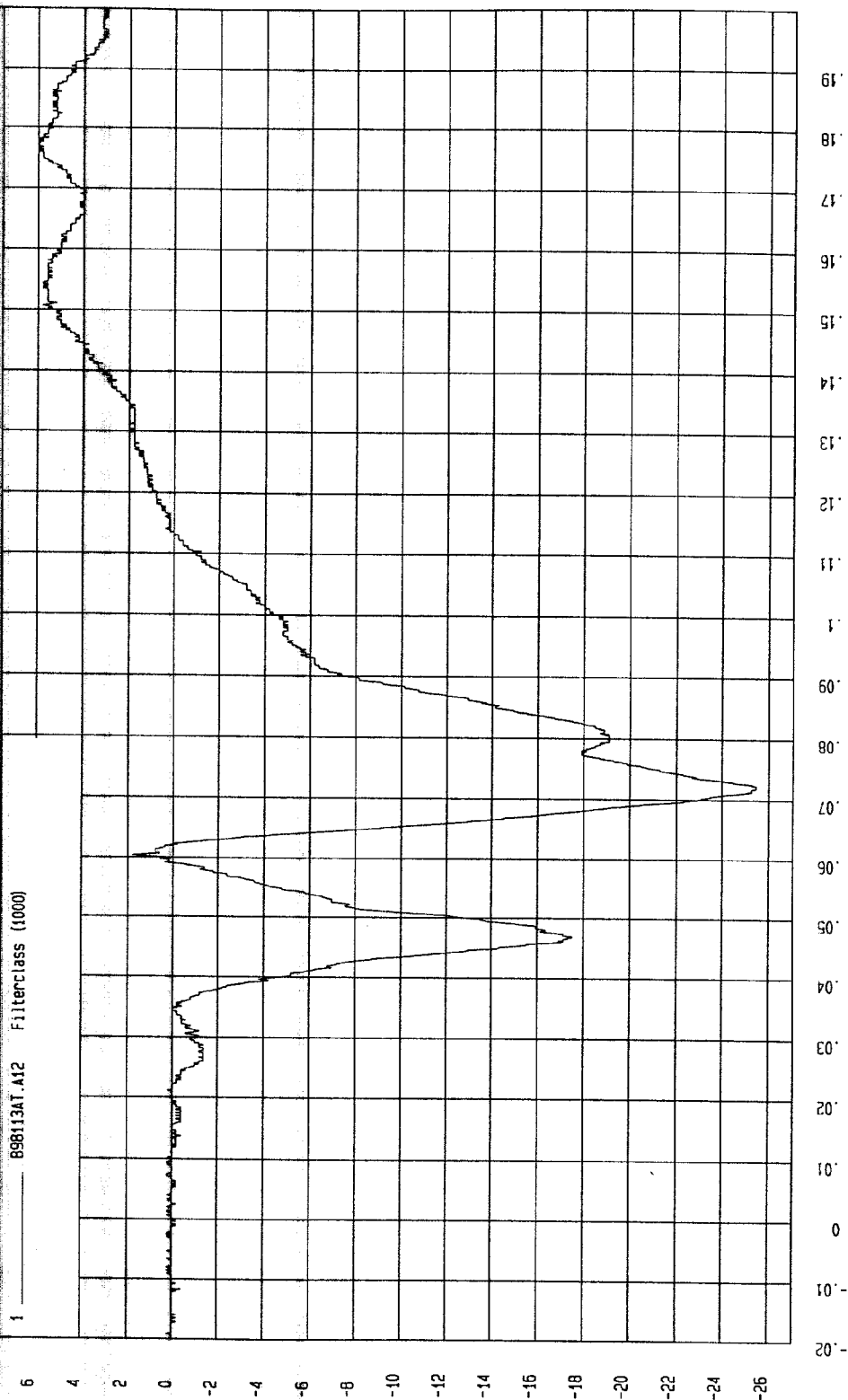
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 5.97 G'S at 176 msec

Minimum = -25.47 G'S at 72 msec

DRIVER HEAD X ACCELERATION

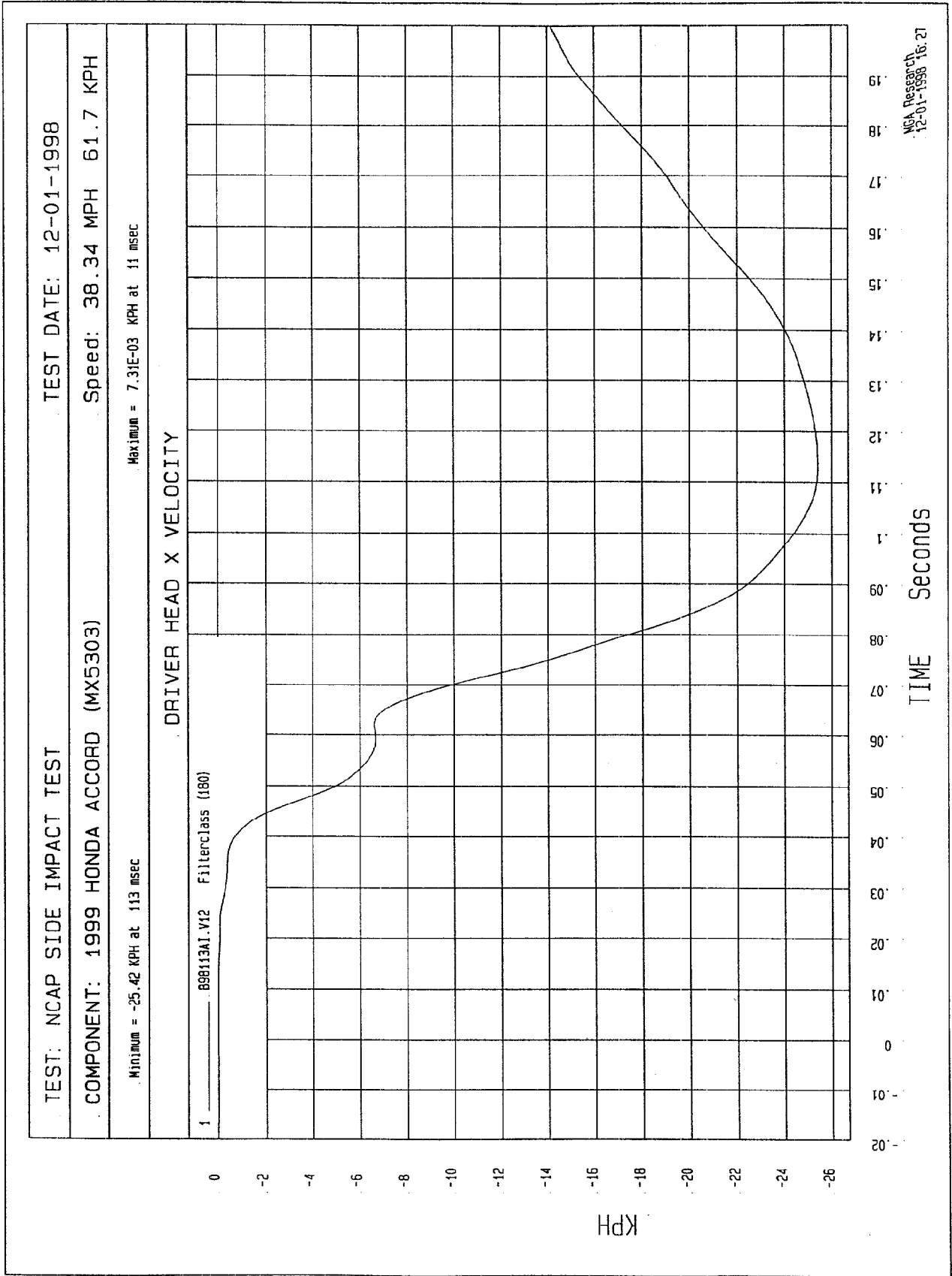
1 898113AT.A12 Filterclass (1000)



WCA Research
12-01-1998 16:27

TIME (SECONDS)

G'S



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

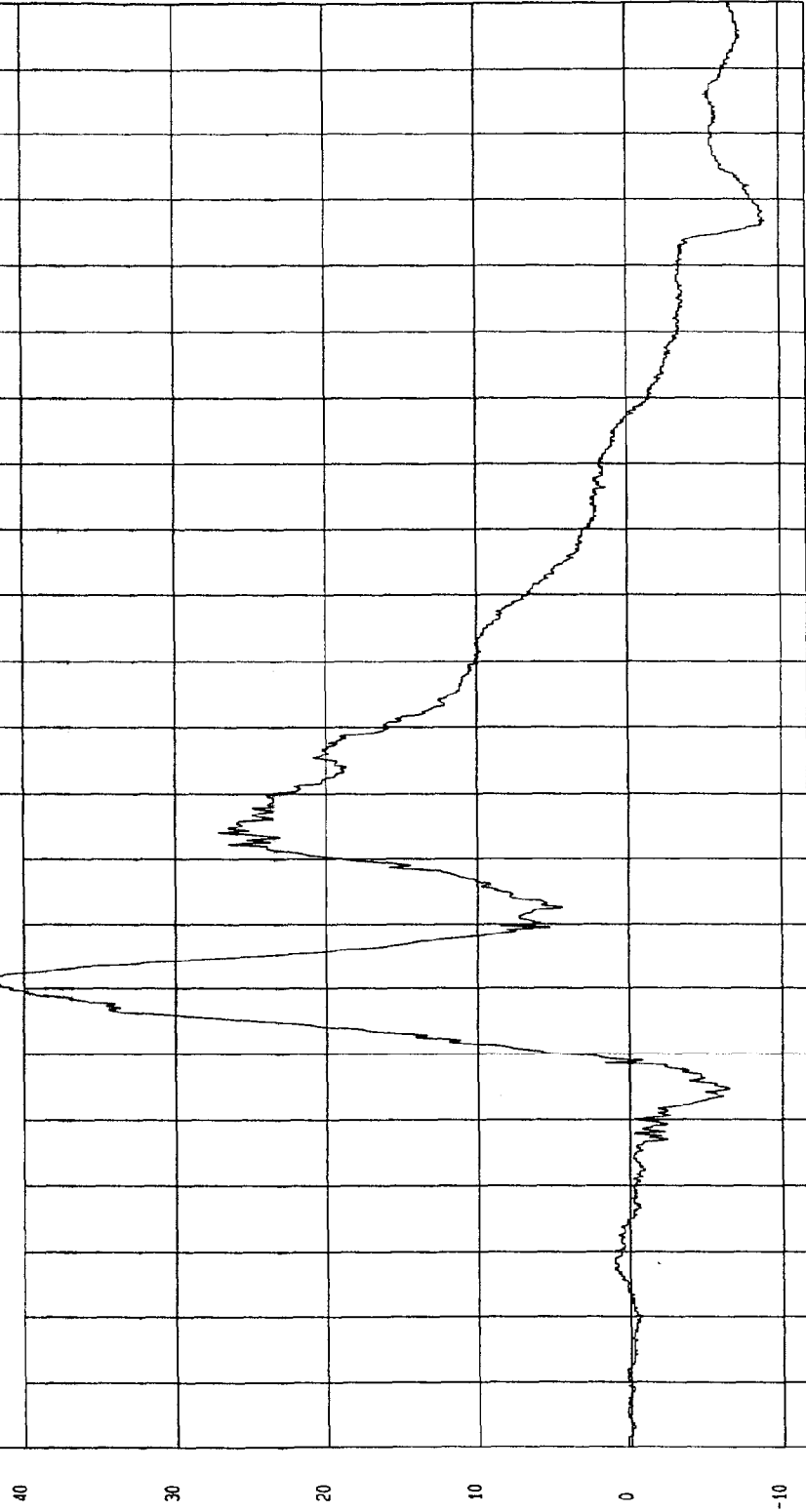
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 42.56 G'S at 51 msec

Minimum = -9.14 G'S at 167 msec

DRIVER HEAD Y ACCELERATION

1 ——— B96113AT.A13 FilterClass (1000)



MGA Research
12-01-1998 16:27

TIME (SECONDS)

G's

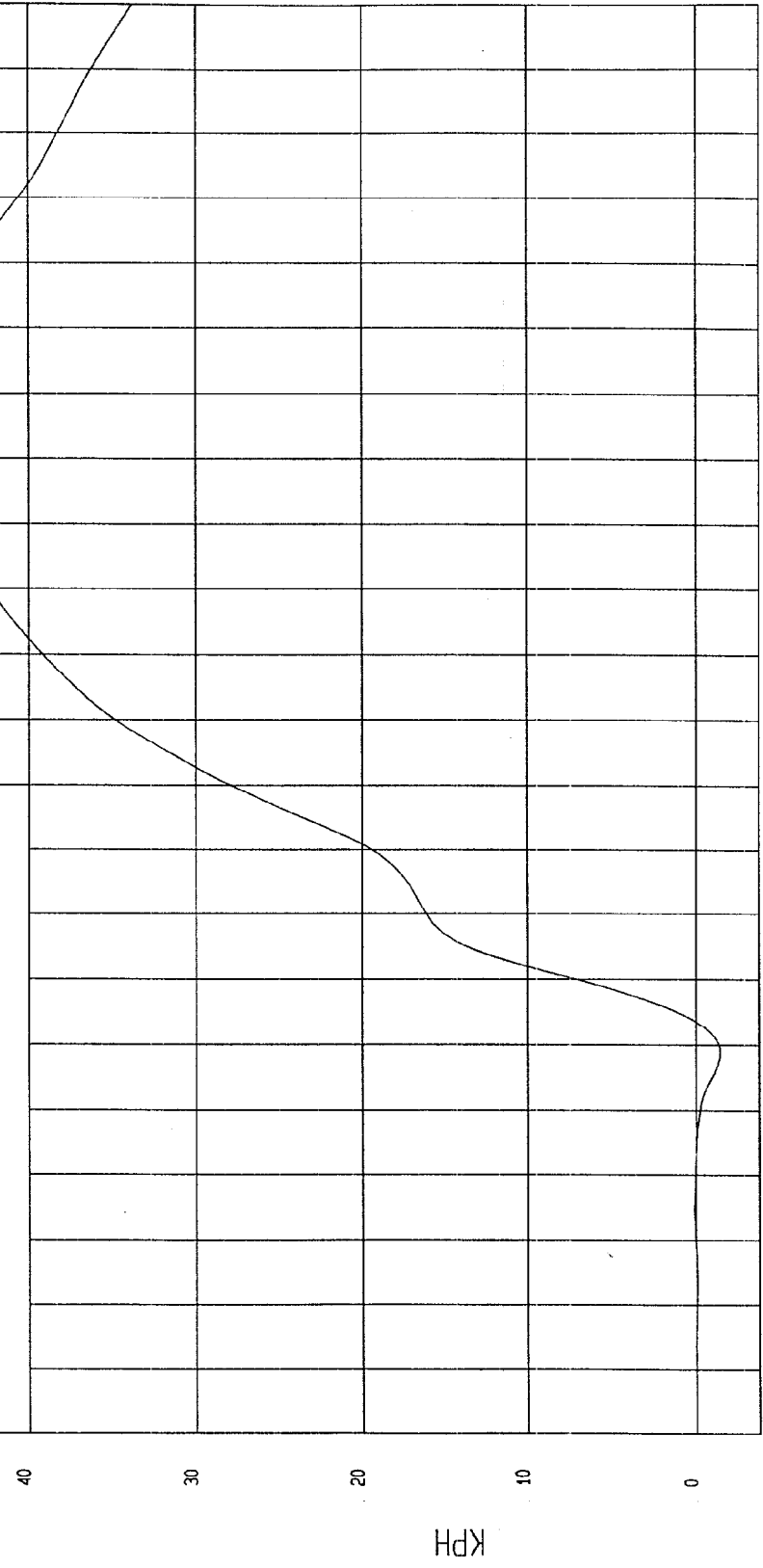
TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -1.41 KPH at 39 msec Maximum = 44.91 KPH at 137 msec

DRIVER HEAD Y VELOCITY

1 ——— B98113A1.V13 Filterclass (180)



TIME Seconds

WCA Research
12-01-1998 16:27

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

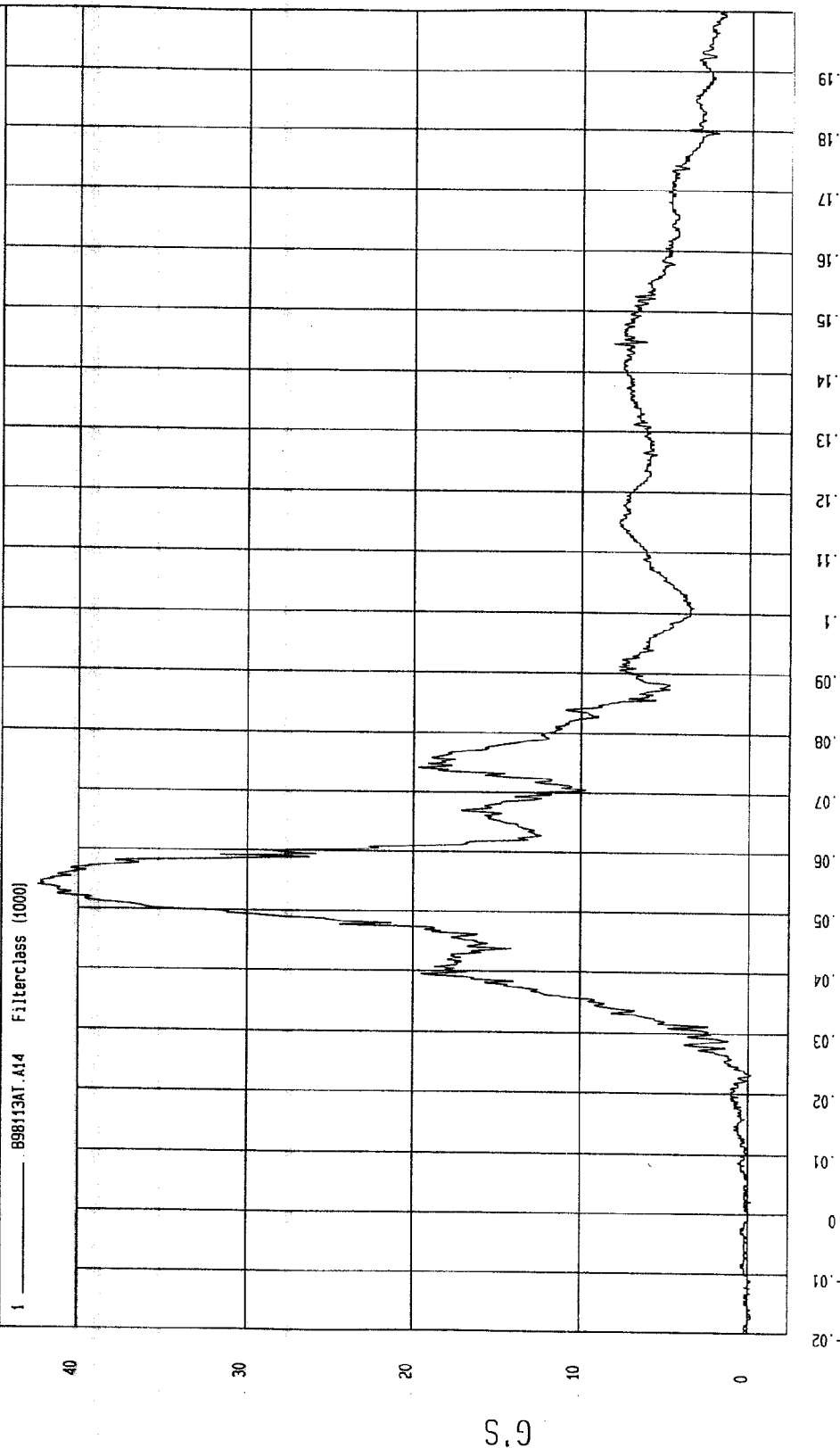
SPEED: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

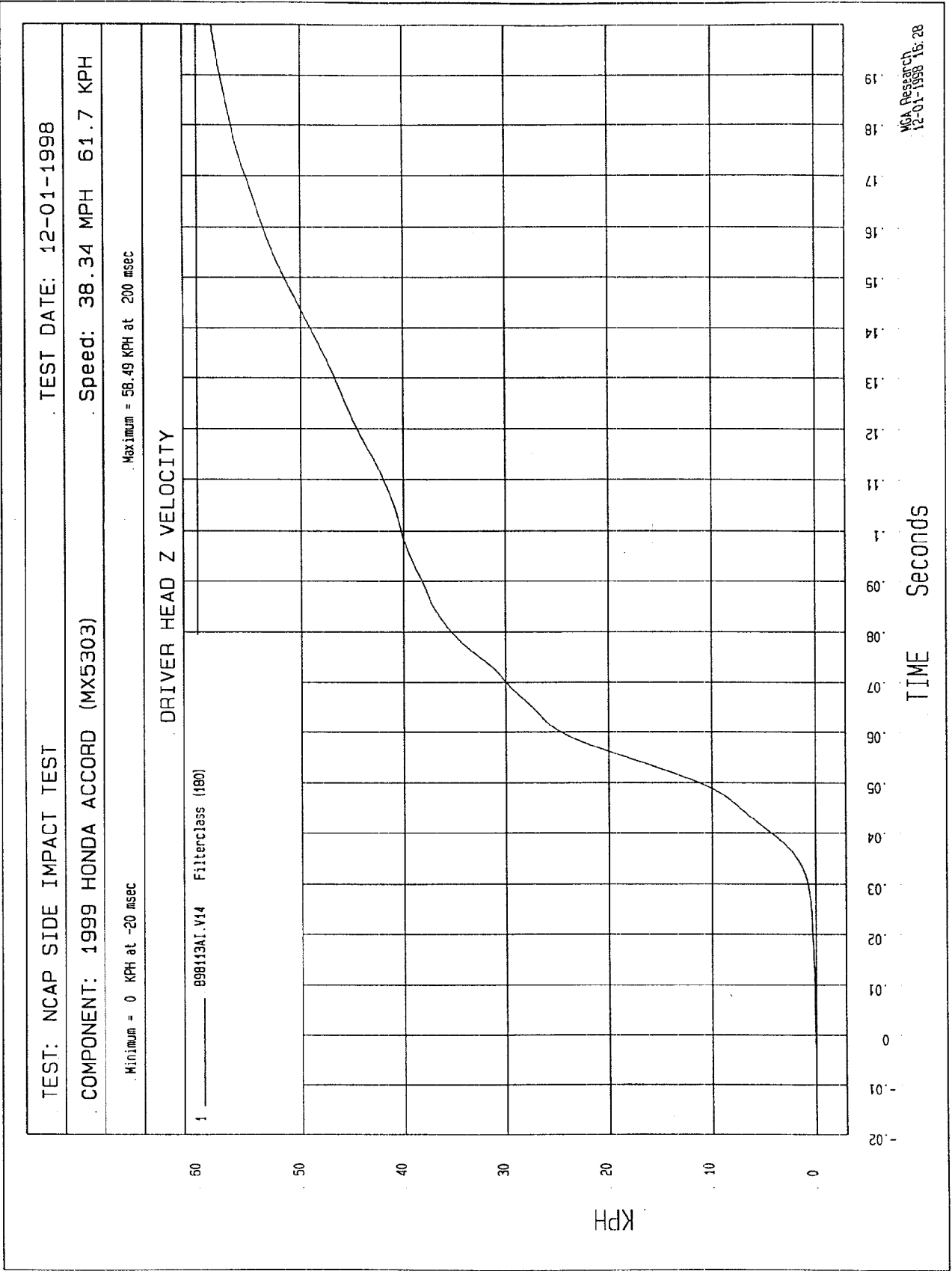
Maximum = 42.42 G'S at 54 msec

Minimum = -.21 G'S at -18 msec

DRIVER HEAD Z ACCELERATION



NGA Research
12-01-1998 16:27



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

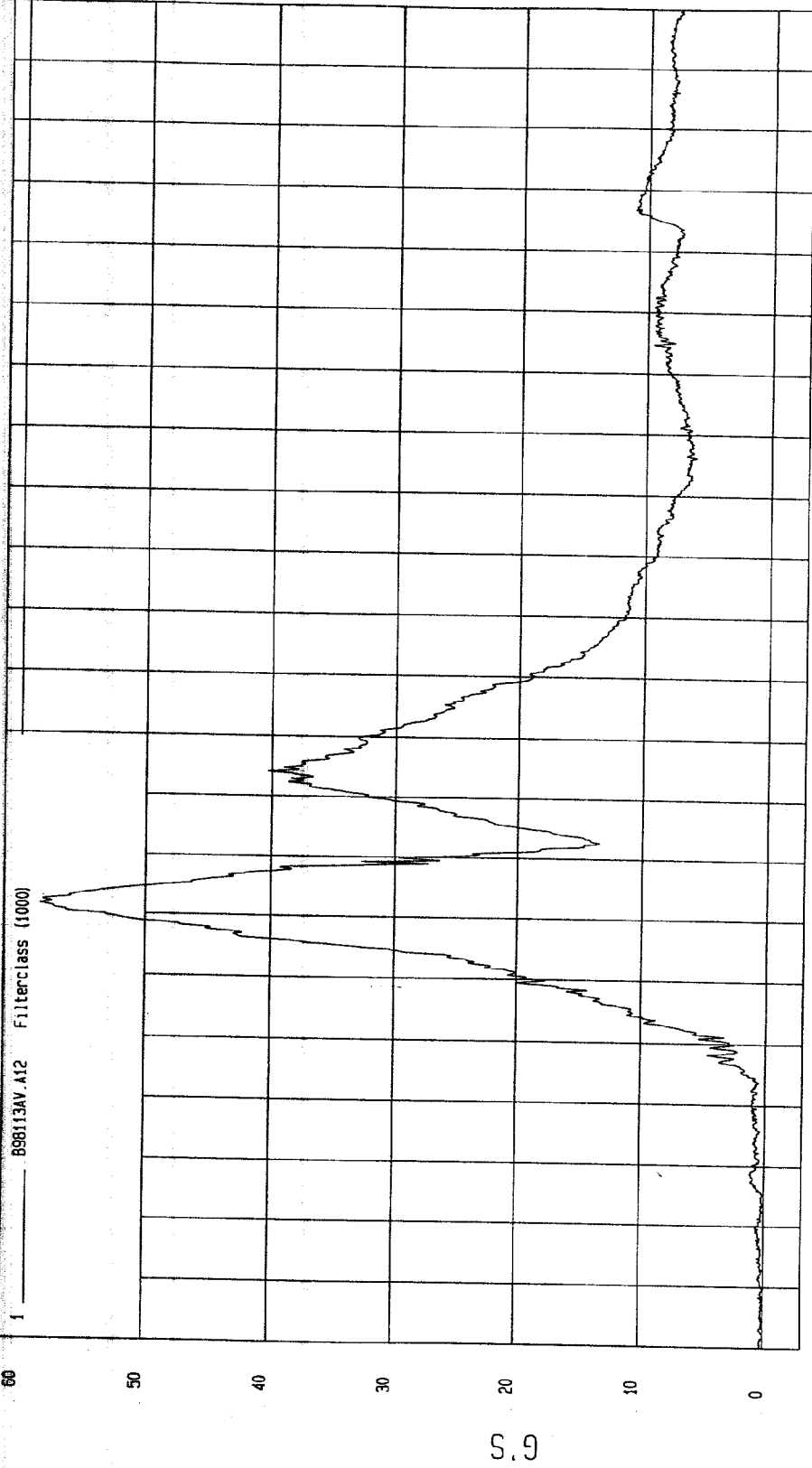
Speed: 38.34 MPH 61.7 KPH

Minimum = 1.63E-02 G'S at -18 msec

Maximum = 58.41 G'S at 52 msec

DRIVER HEAD RESULTANT

1 898113AV.A12 Filterclass (1000)



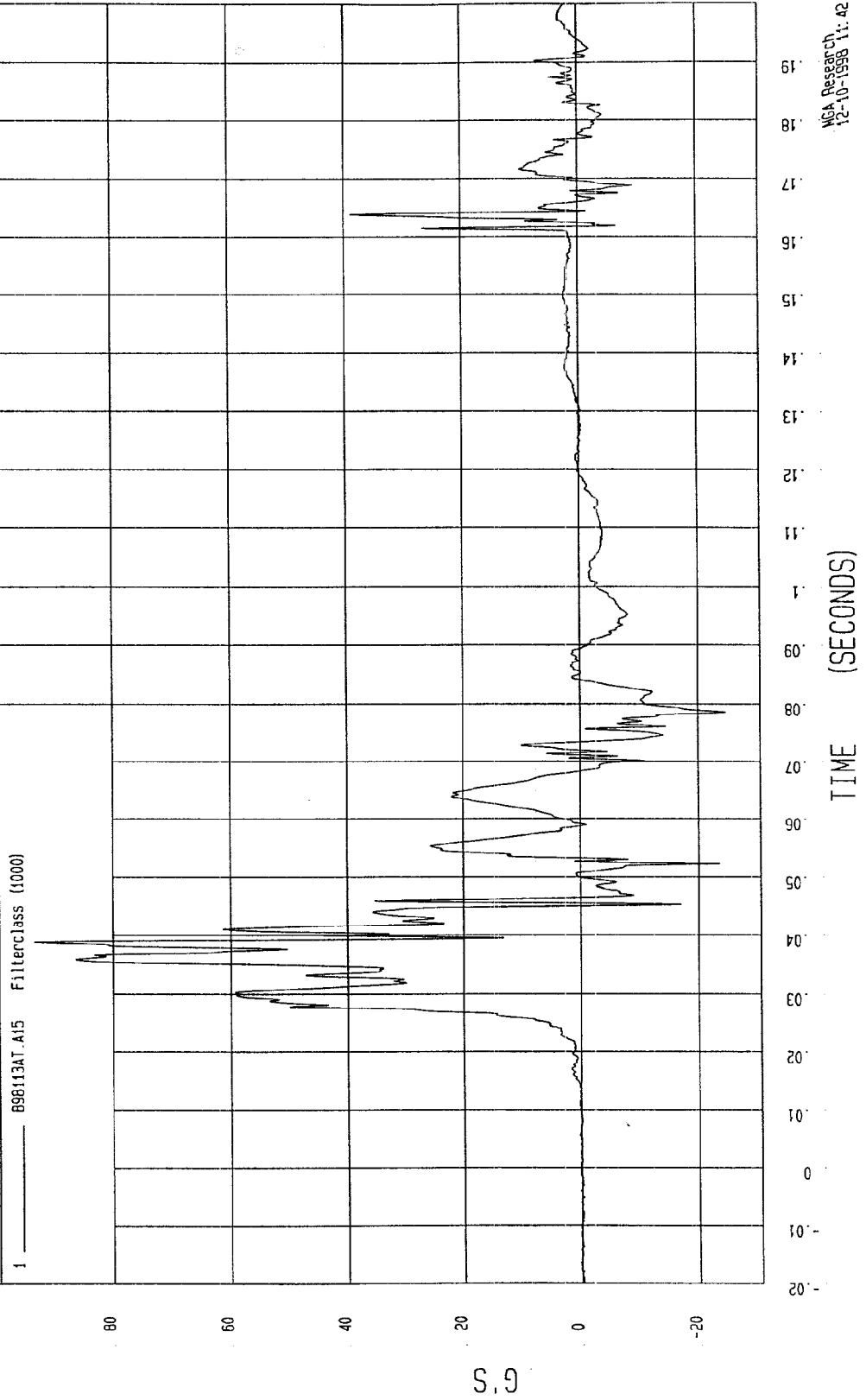
NGA Research
12-01-1998 16:28

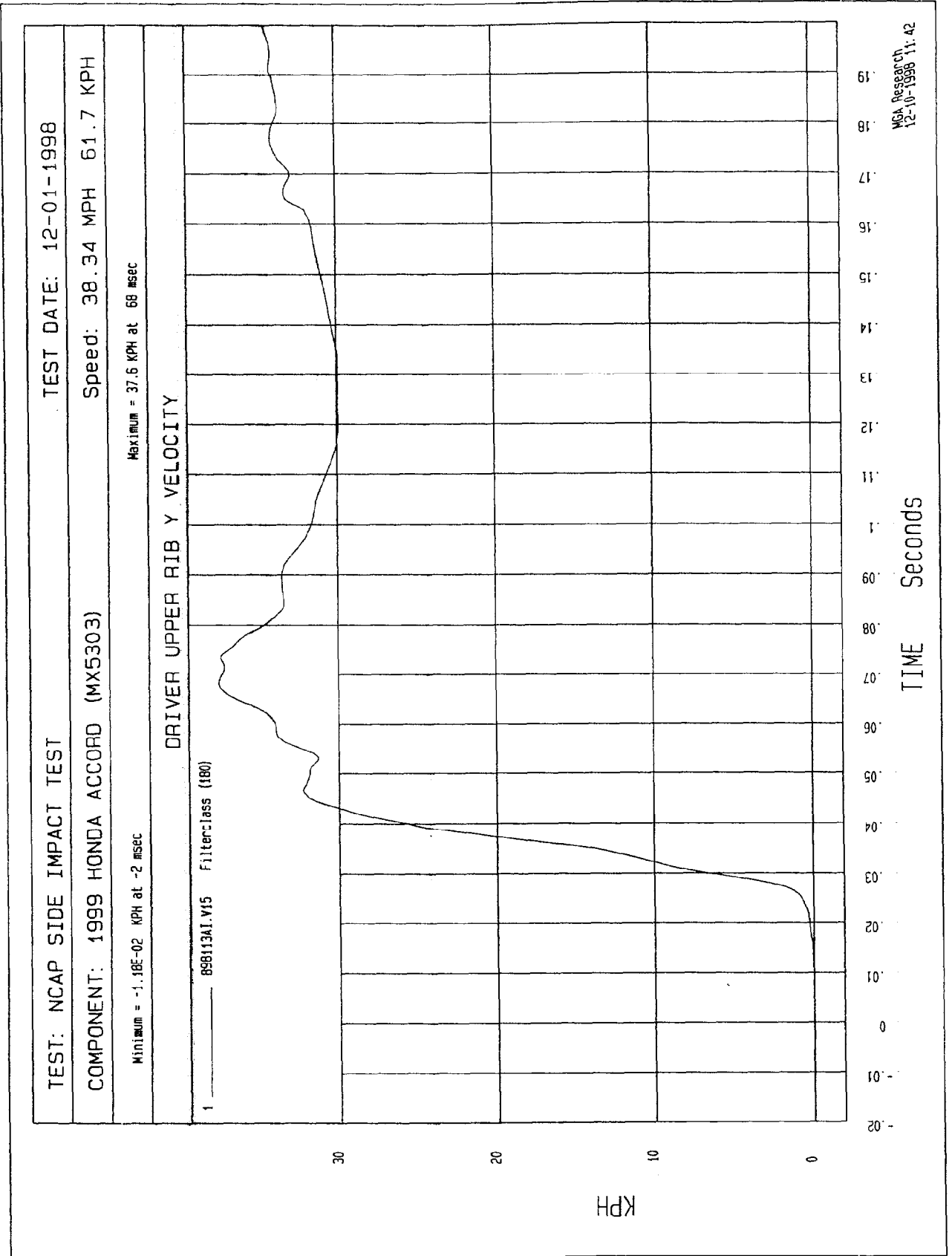
TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -24.7 G'S at 79 msec Maximum = 93.35 G'S at 39 msec

DRIVER UPPER RIB Y ACCELERATION





TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

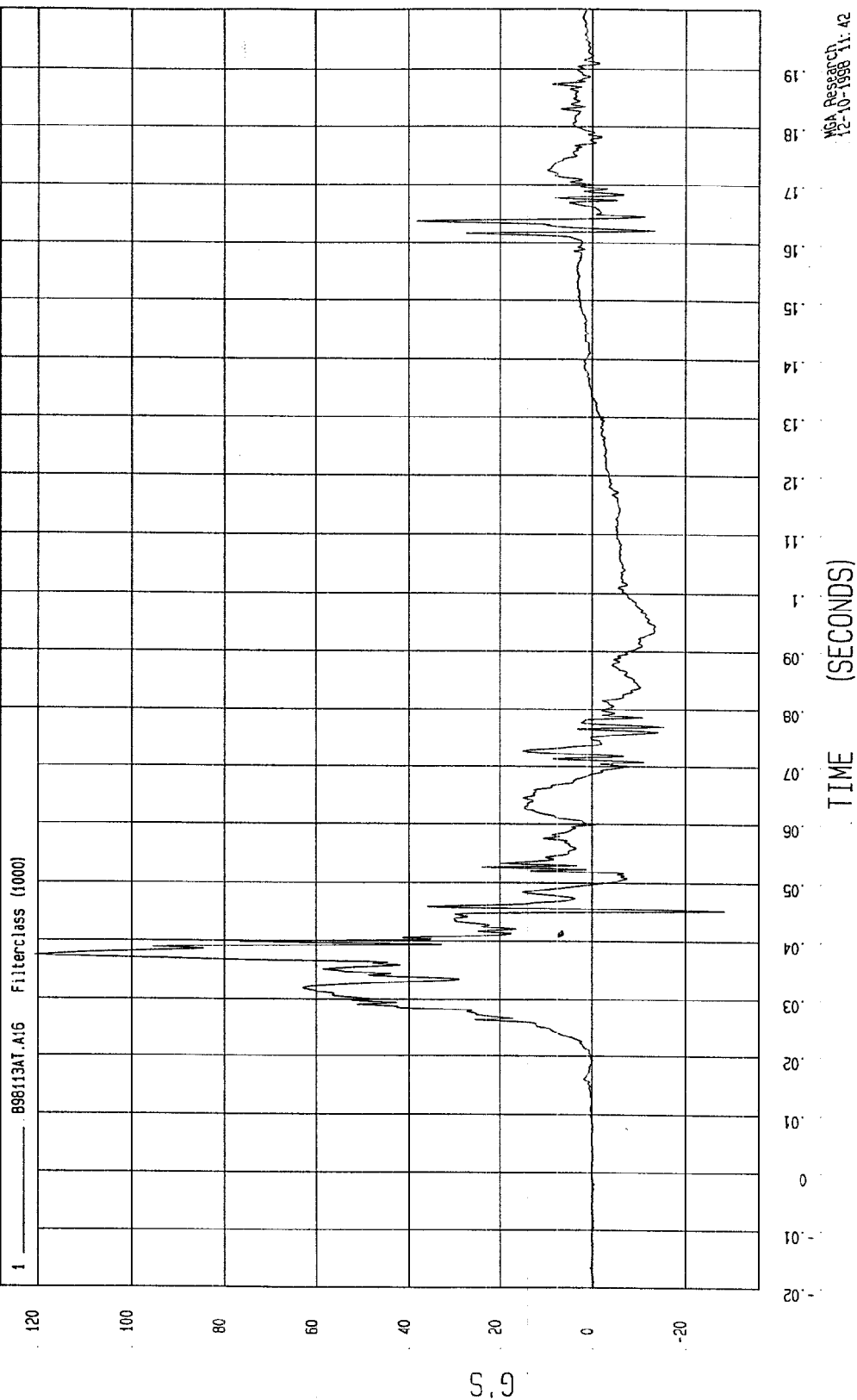
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 120.61 G'S at 37 msec

Minimum = -28.45 G'S at 45 msec

DRIVER LOWER RIB Y ACCELERATION



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

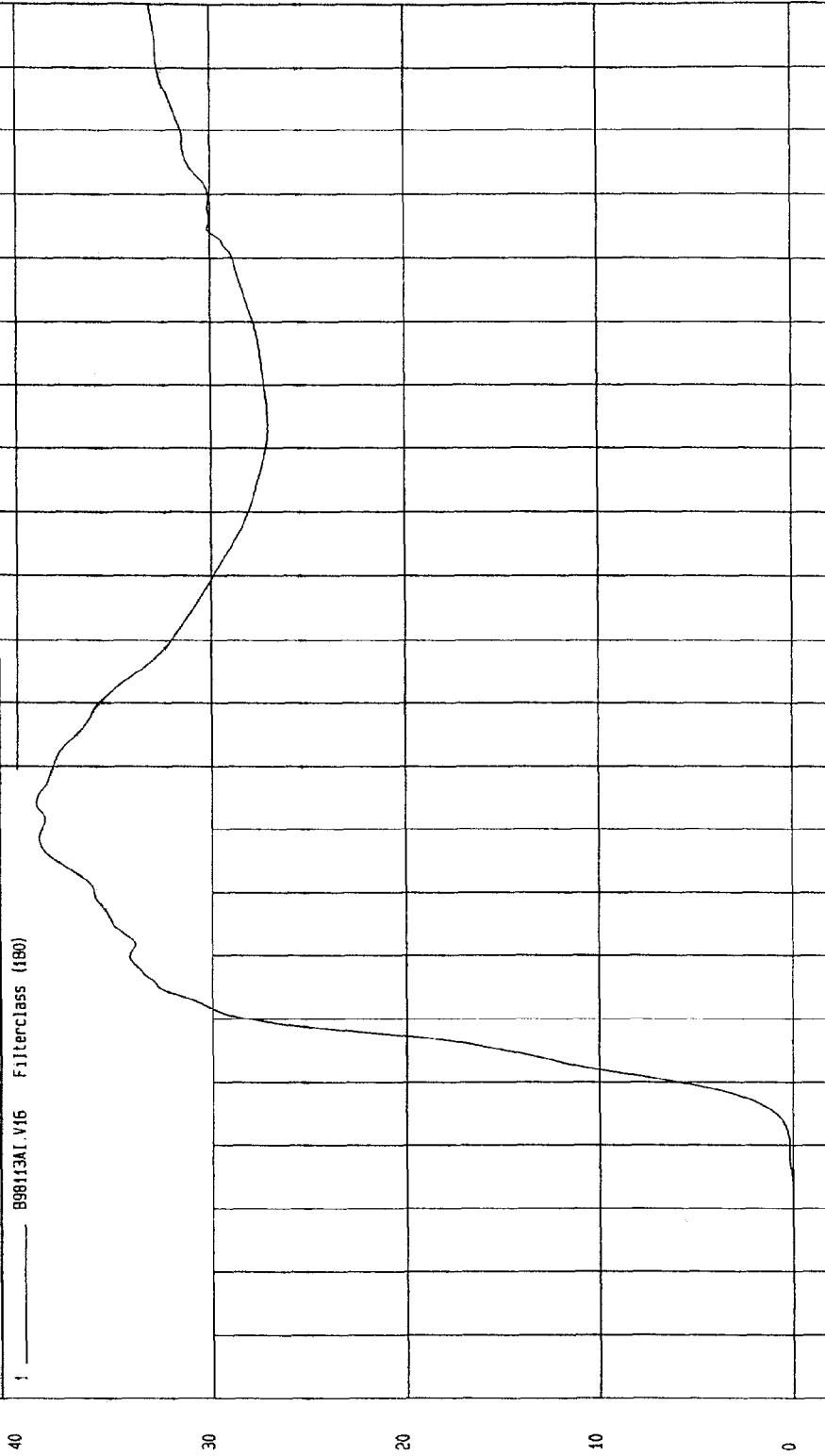
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 39.01 KPH at 74 msec

Minimum = -1.21E-02 KPH at -1 msec

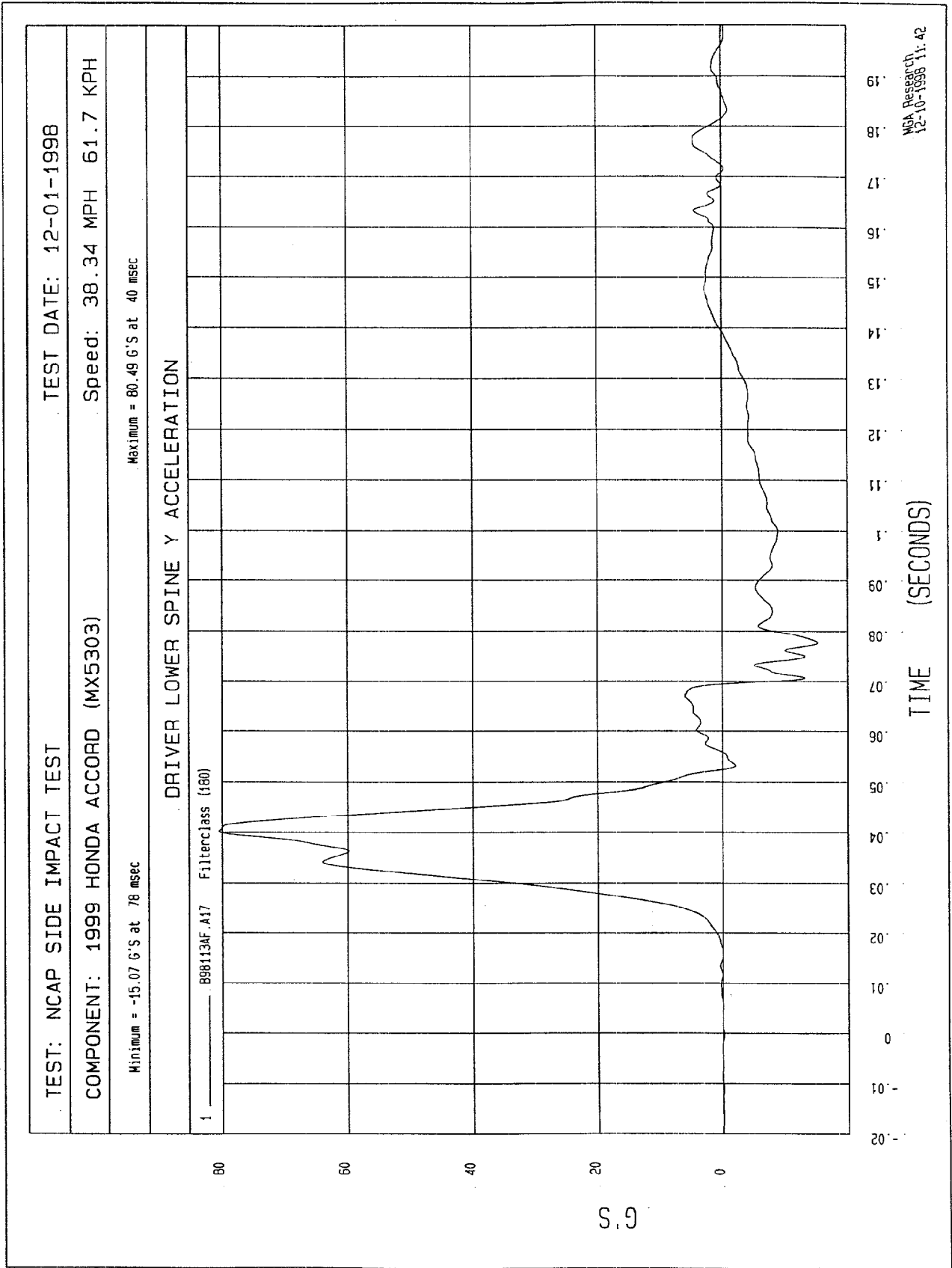
DRIVER LOWER RIB Y VELOCITY

898113A1.V16 FilterClass (180)



MSA Research
12-10-1998 11:42

TIME Seconds



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

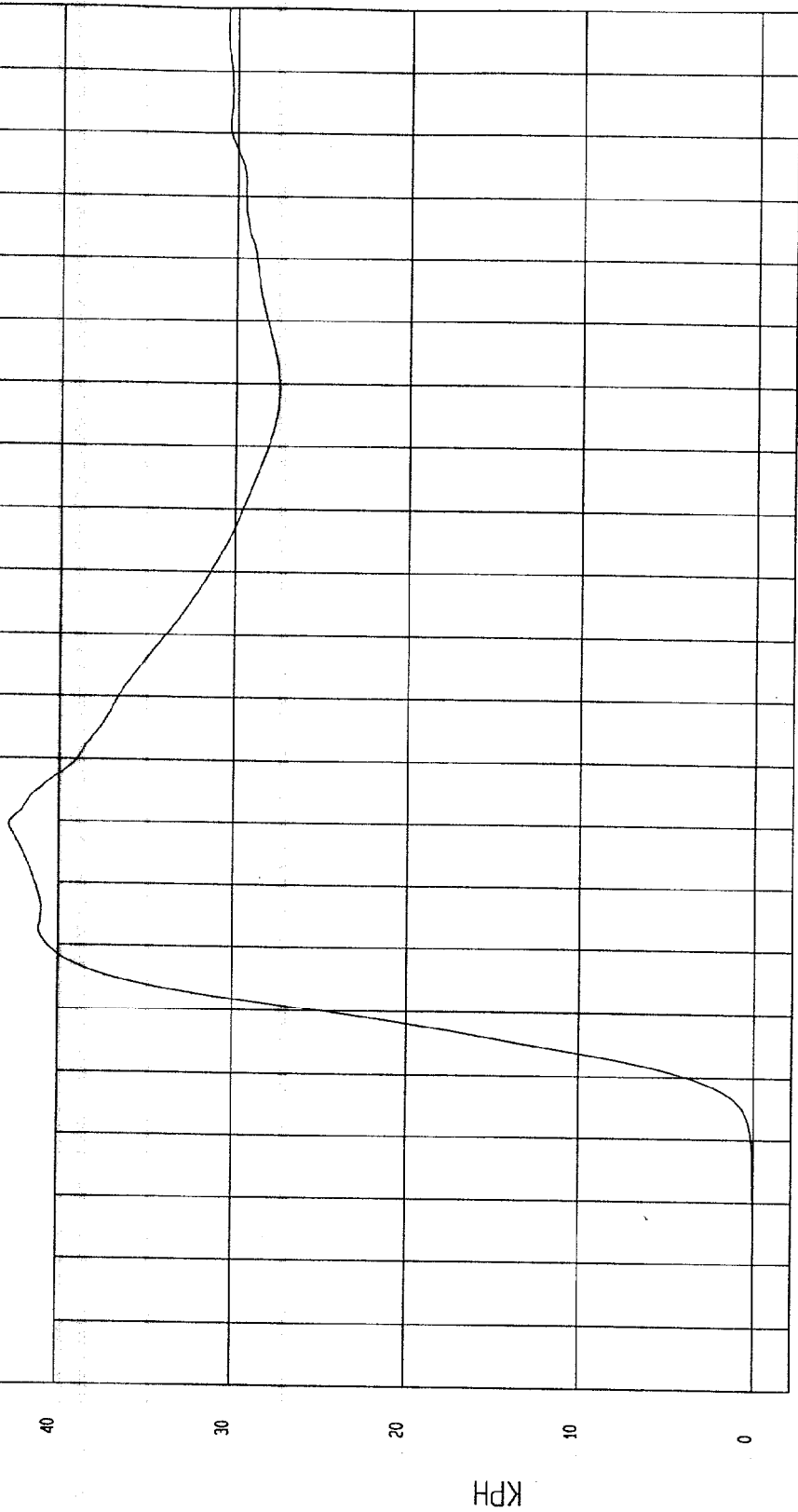
Speed: 38.34 MPH 61.7 KPH

Minimum = -7.89E-03 KPH at -10 msec

Maximum = 42.83 KPH at 70 msec

DRIVER LOWER SPINE Y VELOCITY

1 — B9813A1.V17 Filterclass (180)



MCA Research
12-10-1998 11:42

TIME Seconds

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

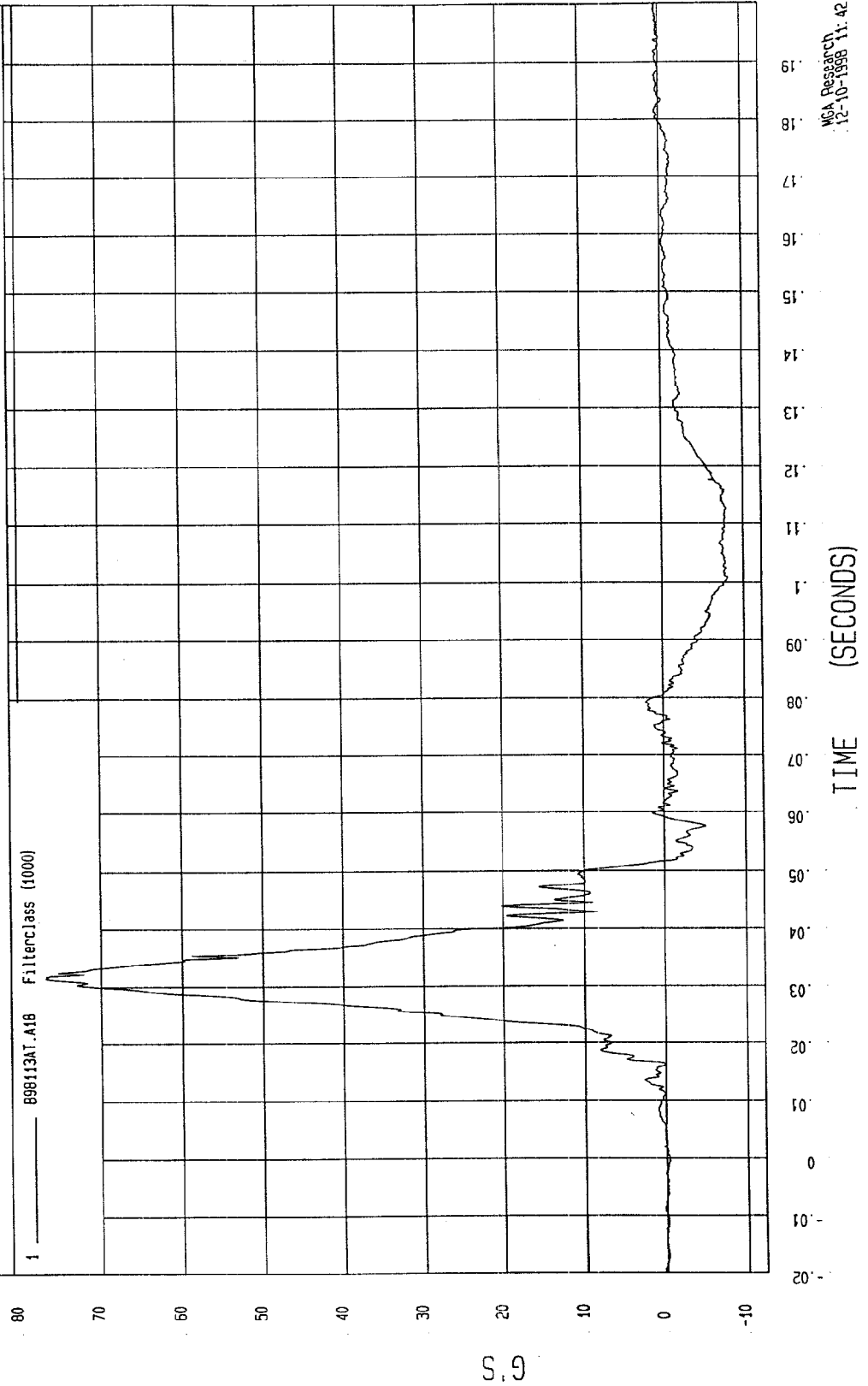
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 76.8 G'S at 32 msec

Minimum = -8.01 G'S at 101 msec

DRIVER PELVIS Y ACCELERATION



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

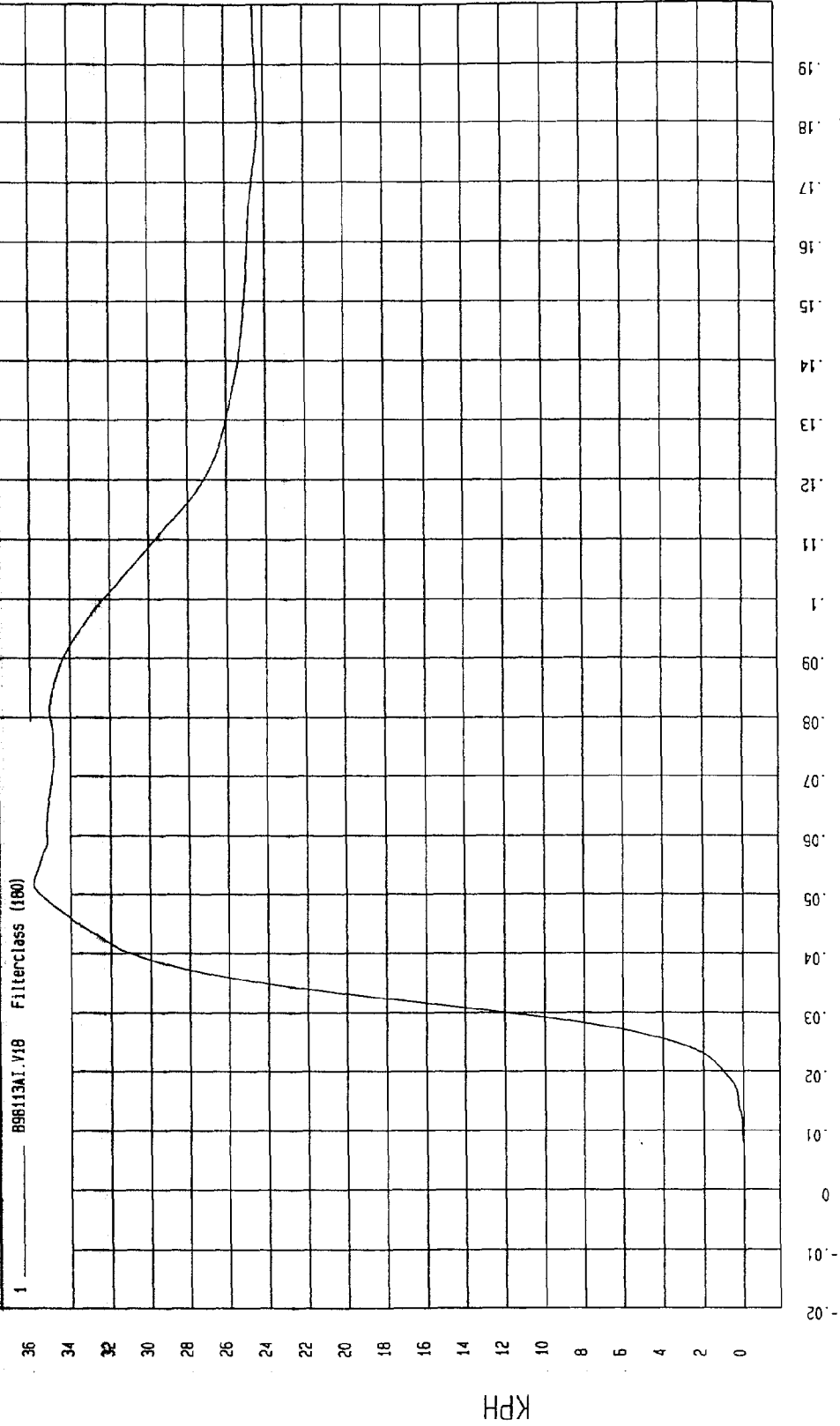
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

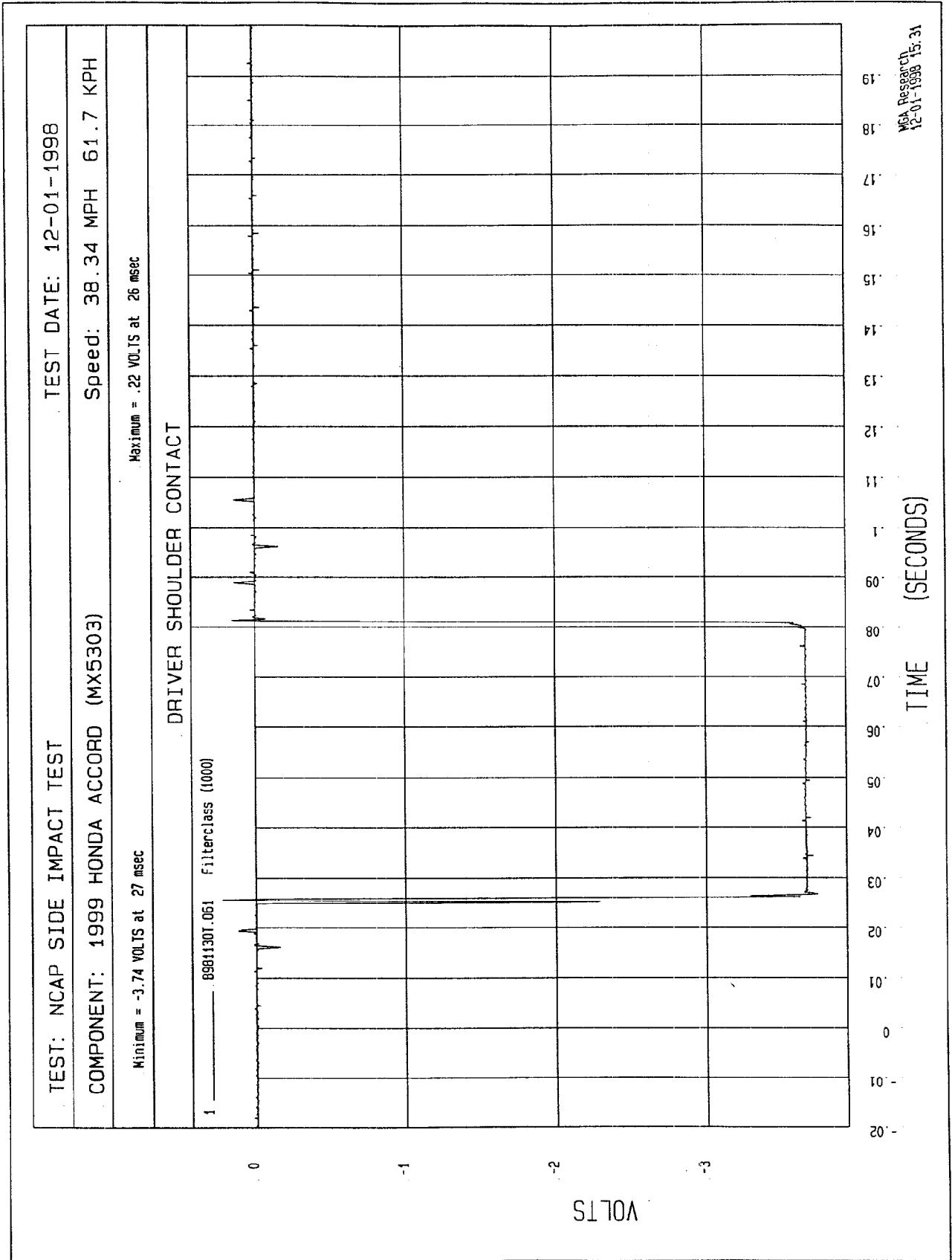
Maximum = 35.85 KPH at 52 msec

Minimum = -4.07E-02 KPH at 2 msec

DRIVER PELVIS Y VELOCITY



MCA Research
12-10-1998 11:42

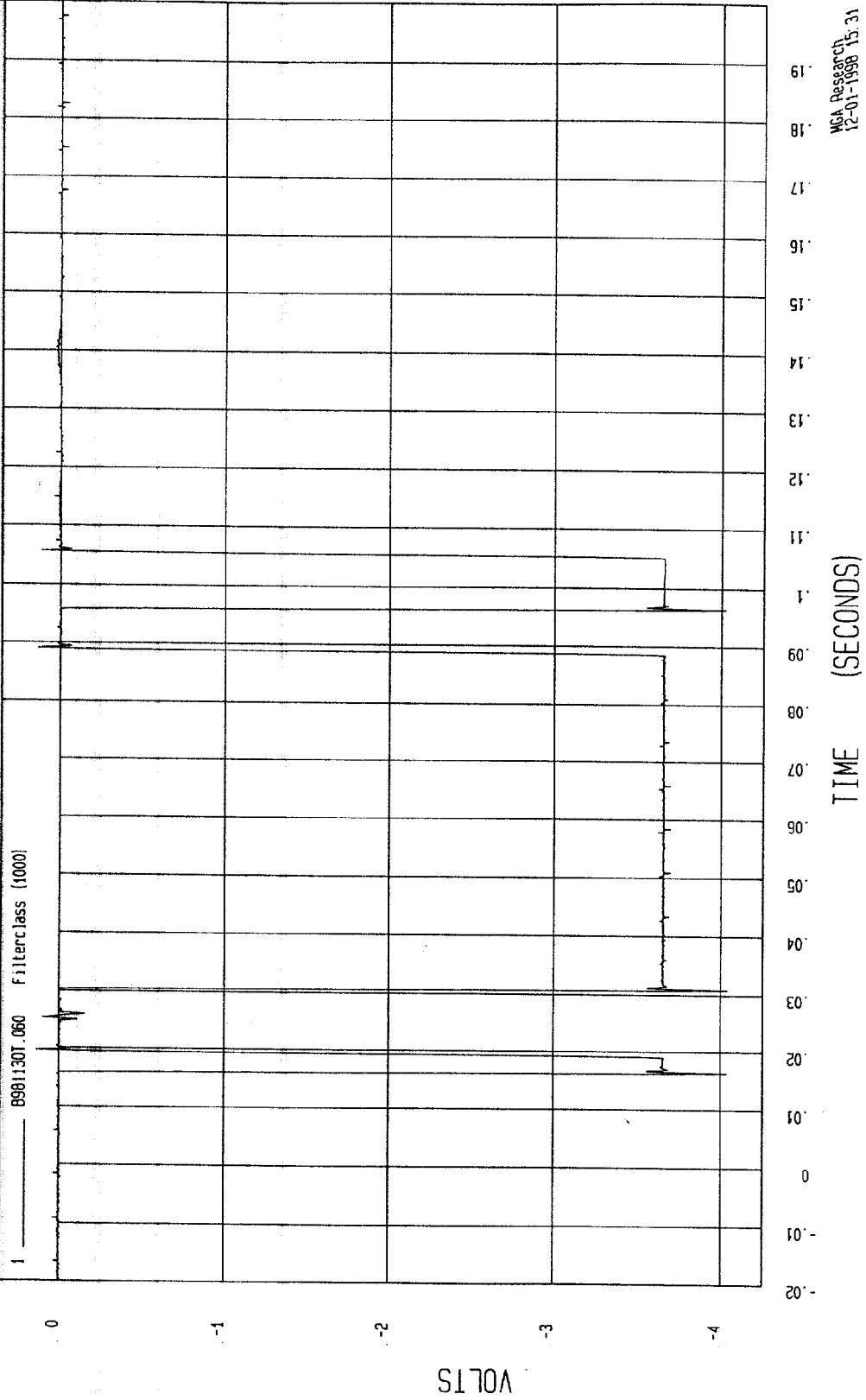


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -4.04 VOLTS at 31 msec Maximum = .13 VOLTS at 20 msec

DRIVER PELVIS CONTACT

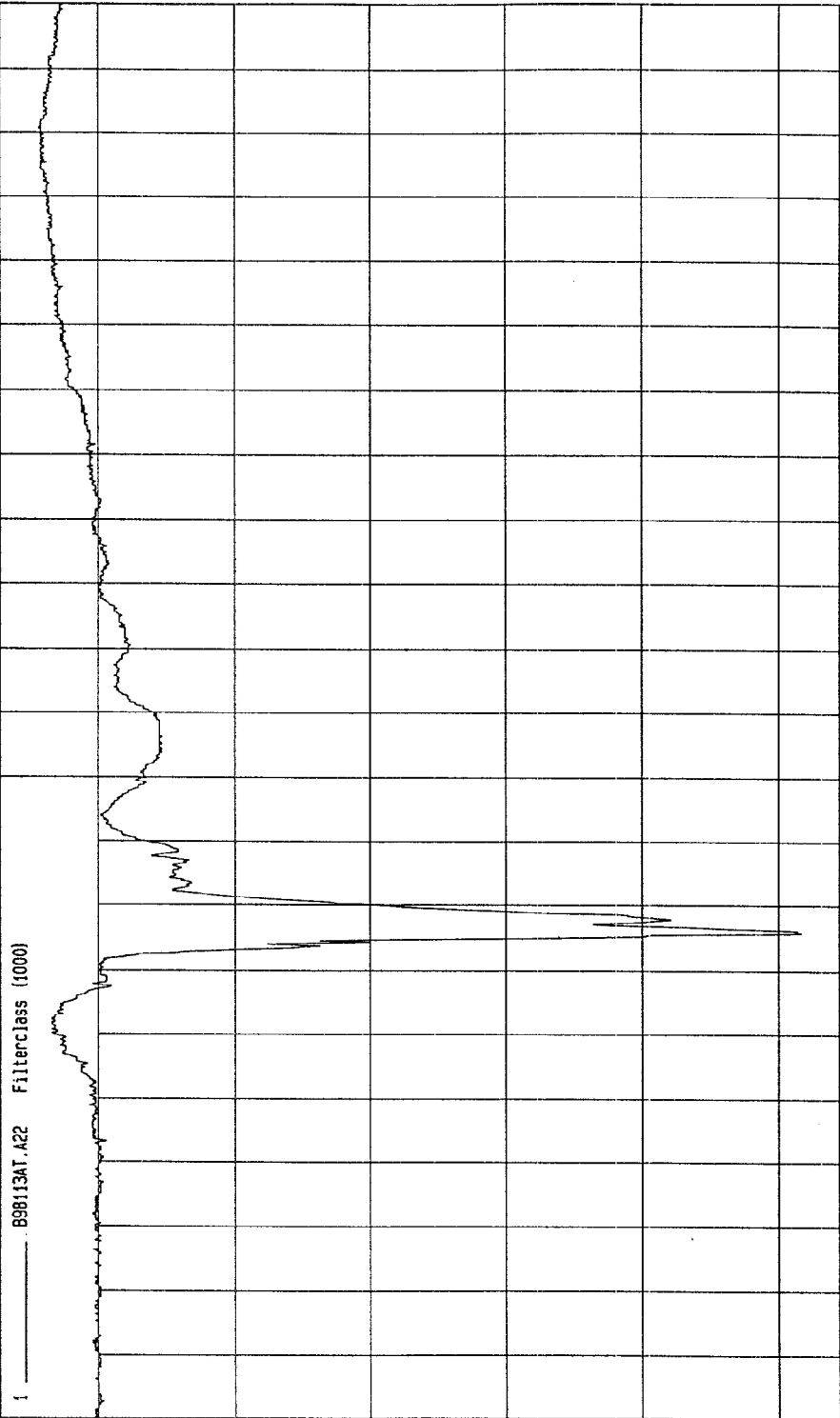


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -51.58 G'S at 56 msec Maximum = 4.35 G'S at 181 msec

REAR PASSENGER HEAD X ACCELERATION



TIME (SECONDS)

MSA Research
12-01-1998 16:28

G.S

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

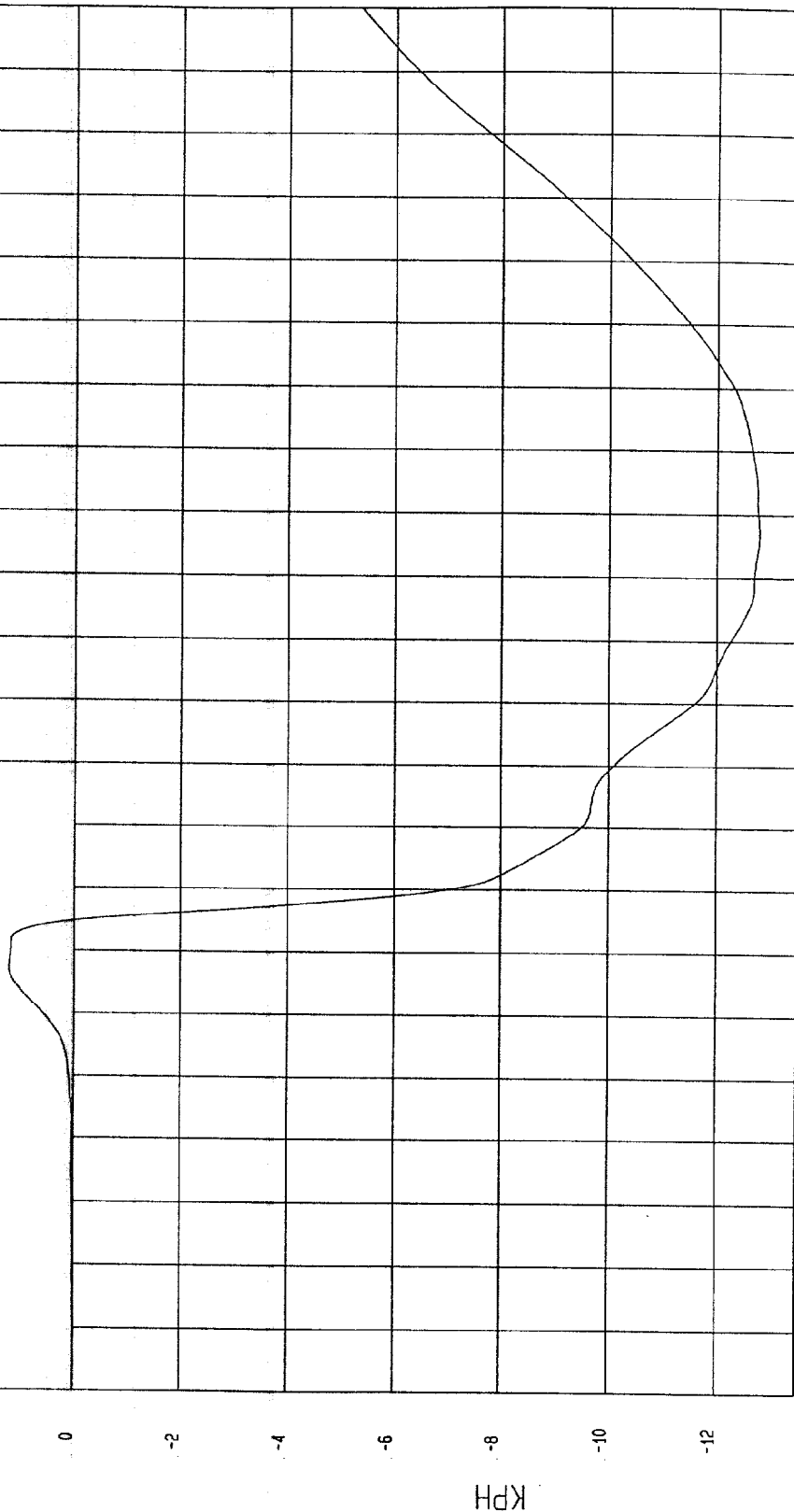
COMPONENT: 1999 HONDA ACCORD (MX5303)

Minimum = -12.78 KPH at 117 msec

Maximum = 1.21 KPH at 47 msec

REAR PASSENGER HEAD X VELOCITY

1 B9813AI.V22 Filterclass (180)



NCAP Research
12-01-1998 16:20

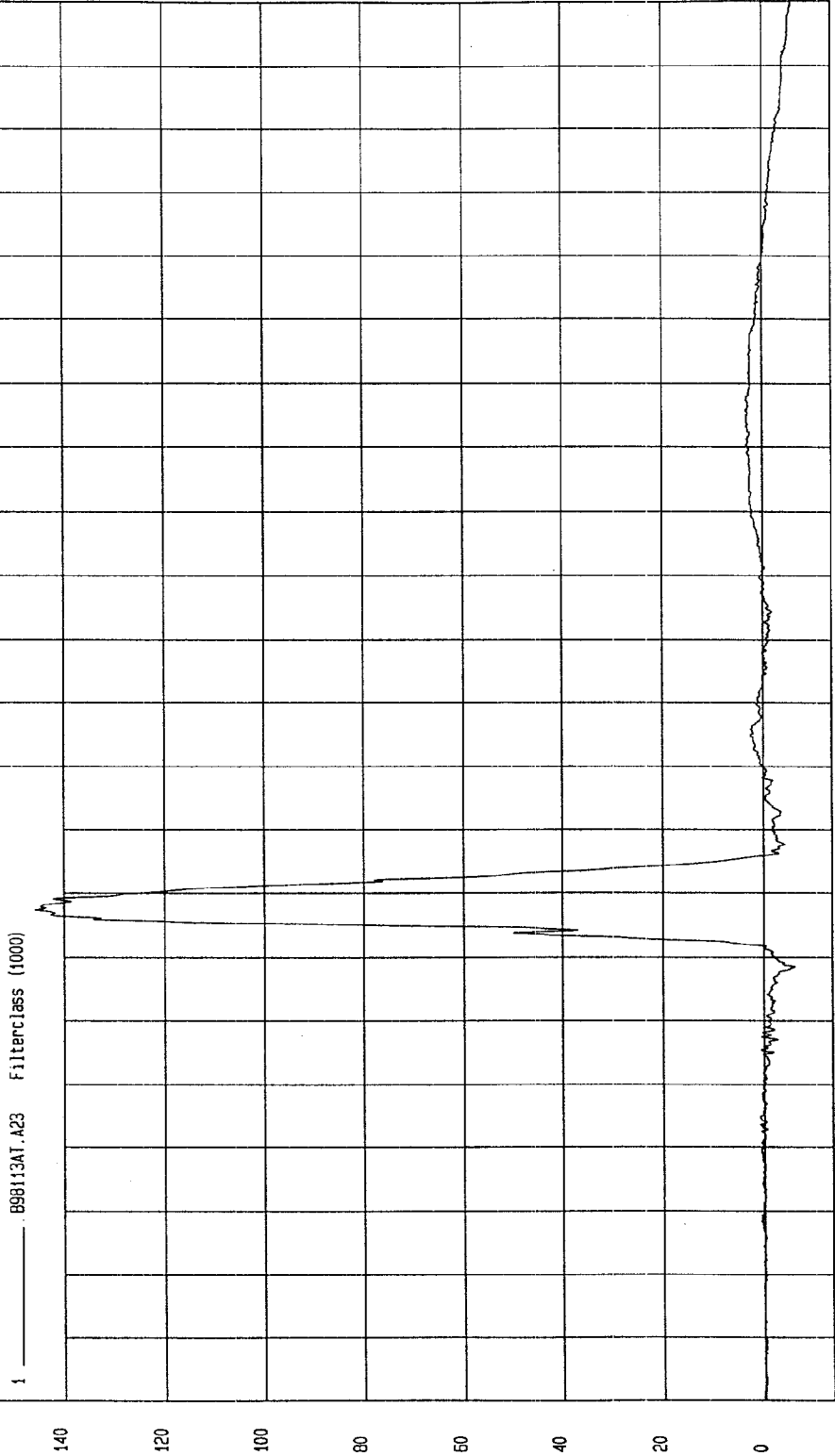
TIME Seconds

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -6.17 G'S at 48 msec Maximum = 145.73 G'S at 57 msec

REAR PASSENGER HEAD Y ACCELERATION



MCA Research
12-01-1998 15:28

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

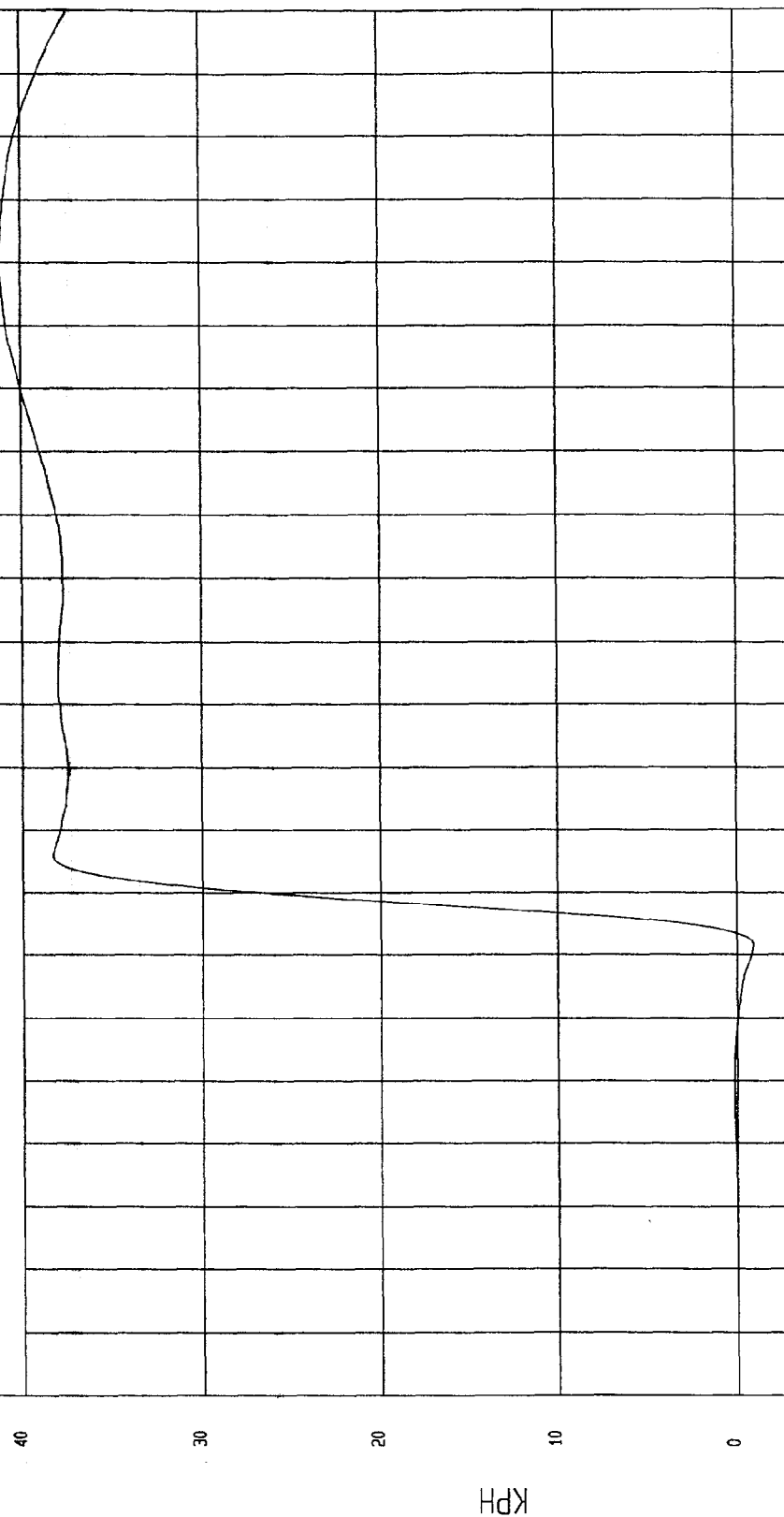
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 41.17 KPH at 150 msec

Minimum = -9 KPH at 52 msec

REAR PASSENGER HEAD Y VELOCITY

1 — 890113A1.V23 Filterclass (180)



TIME Seconds

MGA Research
12-01-1998 15:28

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

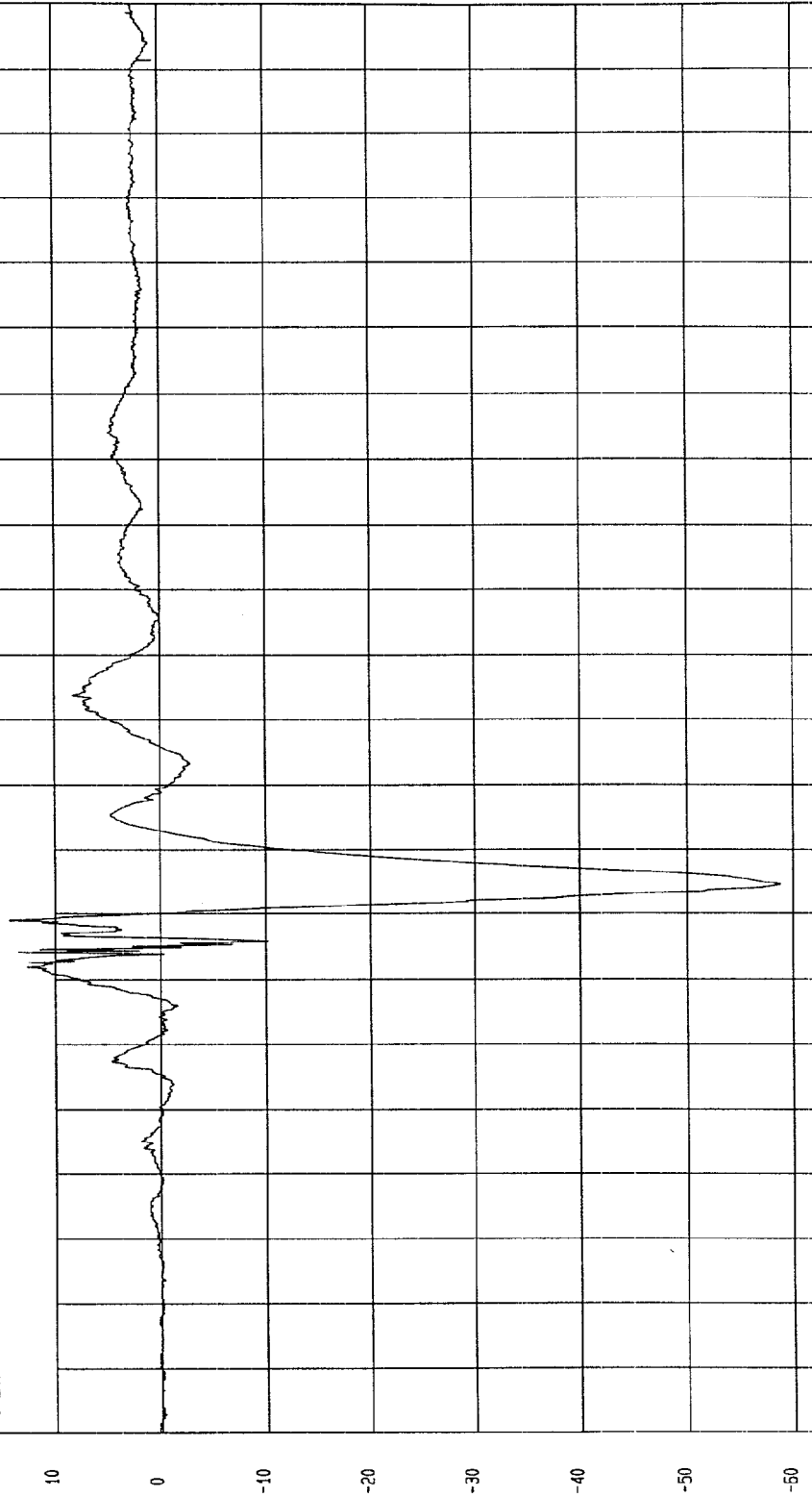
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 14.24 G'S at 59 msec

Minimum = -58.82 G'S at 65 msec

REAR PASSENGER HEAD Z ACCELERATION

1 B98113AT.A24 FilterClass (1000)



MGA Research
12-01-1998 16:28

TIME (SECONDS)

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

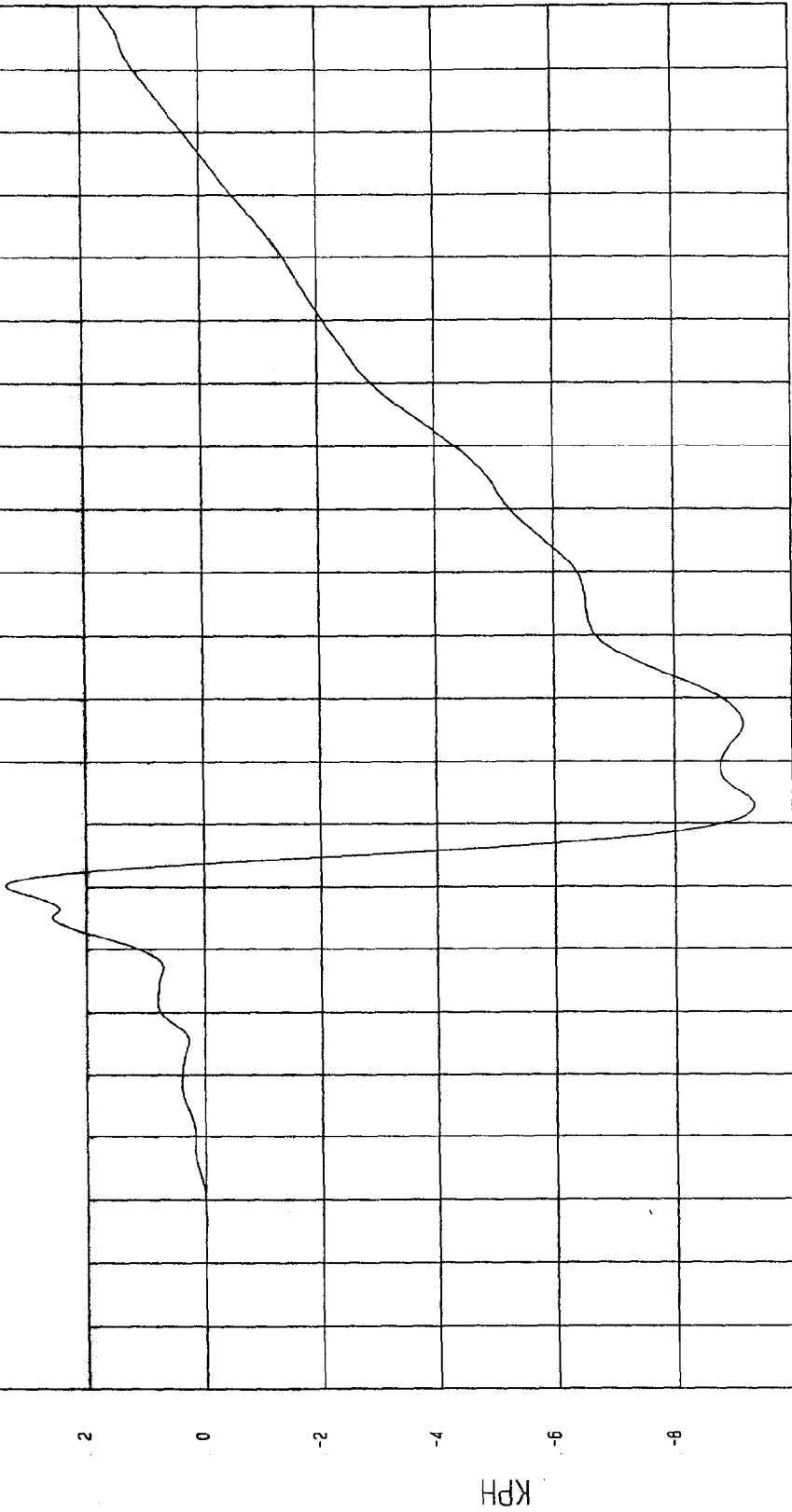
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 3.33 KPH at 60 msec

Minimum = -9.33 KPH at 73 msec

REAR PASSENGER HEAD Z VELOCITY

1 69013AT V24 Filterclass (160)



WCA Research
12-01-1998 16:29

TIME Seconds

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

Speed: 38.34 MPH 61.7 KPH

Minimum = 3.19E-02 G'S at -18 msec

Maximum = 151.12 G'S at 57 msec

REAR PASSENGER HEAD RESULTANT

1 898113AV.A22 Filterclass (1000)



MCA Research
12-01-1998 16:28

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

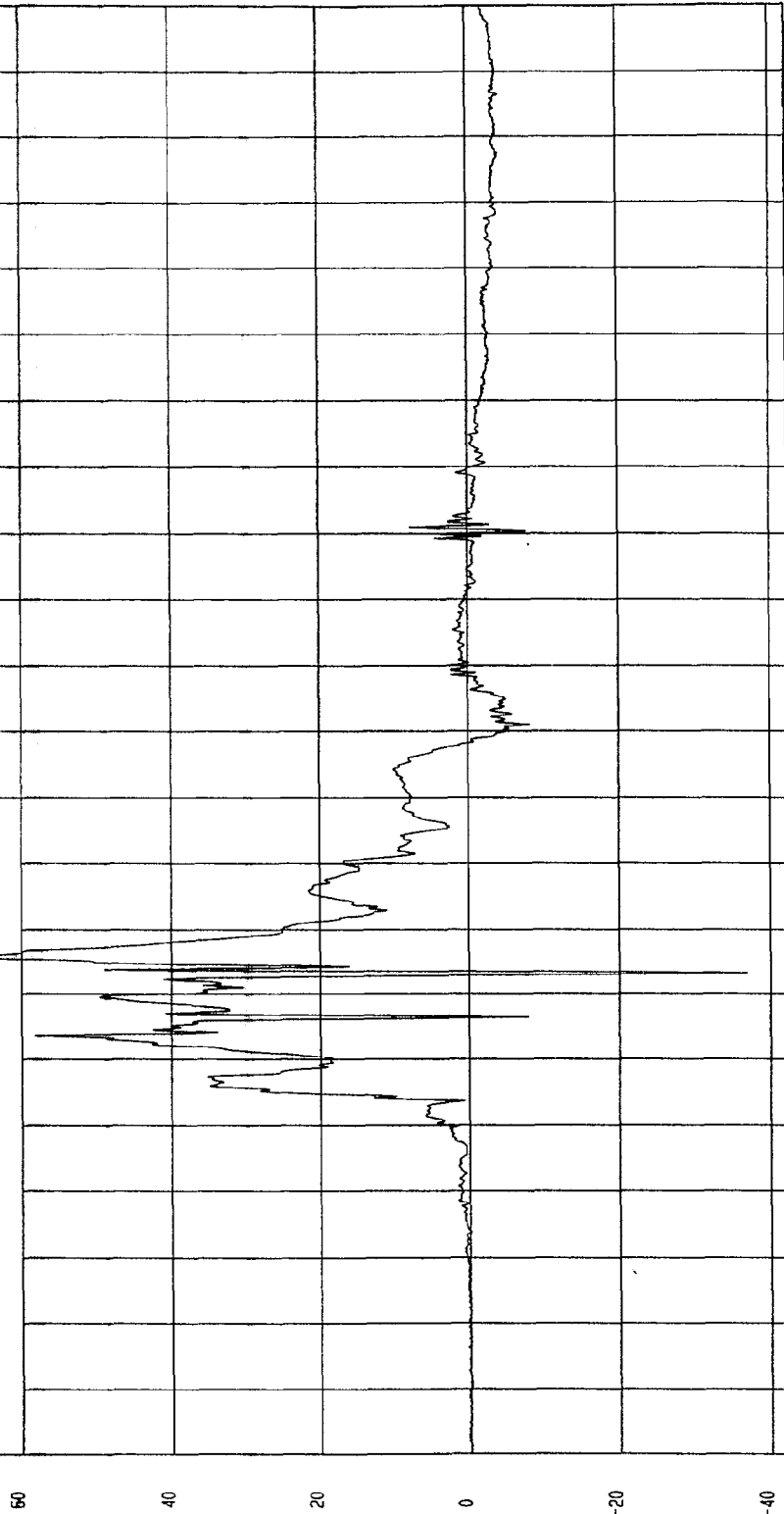
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 67.73 G'S at 56 msec

Minimum = -37.01 G'S at 53 msec

REAR PASSENGER UPPER RIB Y ACCELERATION

1 898113A1.A25 Filterclass (1000)



WGA Research
12-10-1998 11:42

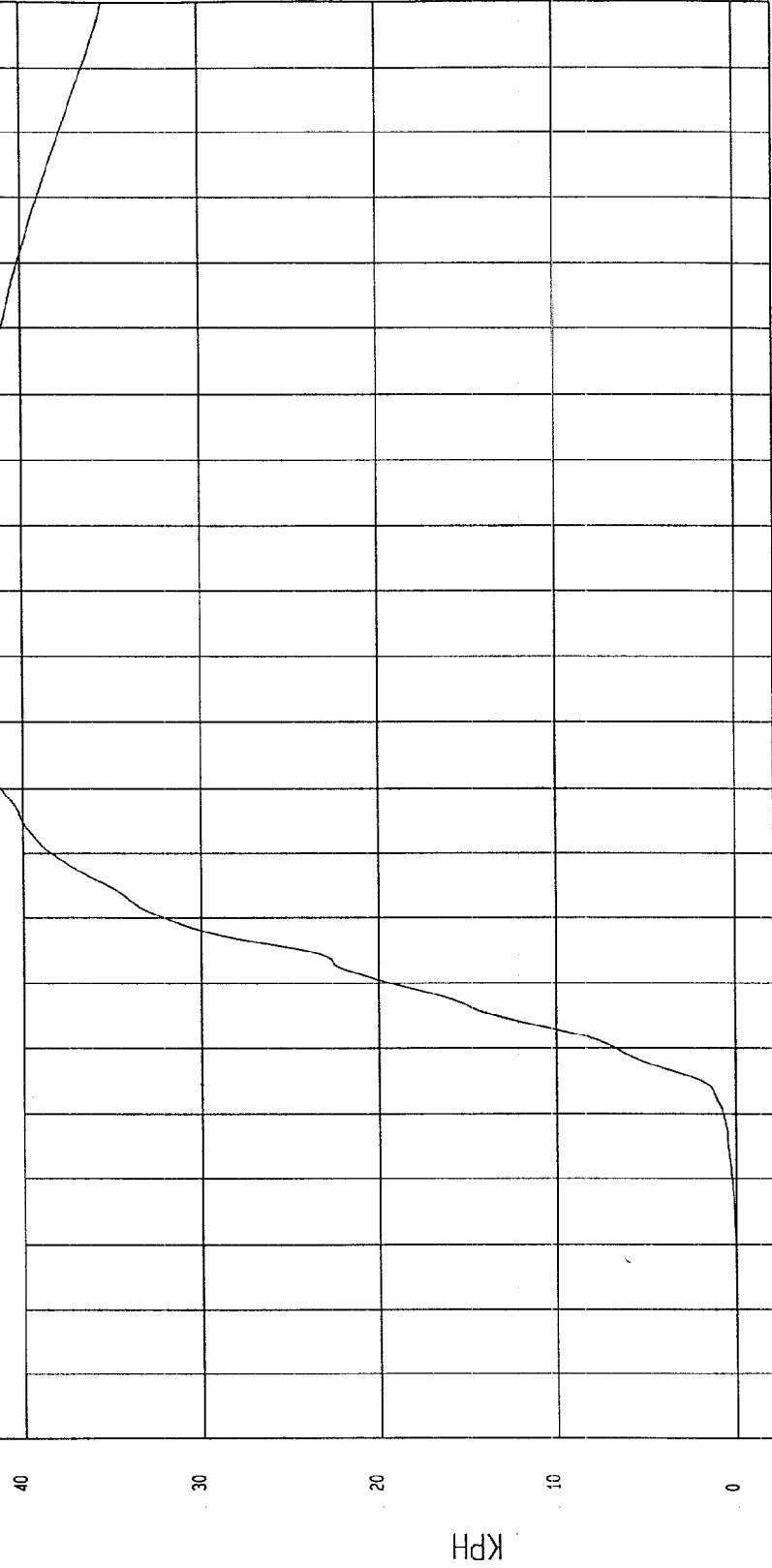
TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -3.75E-03 KPH at -18 msec Maximum = 43.43 KPH at 88 msec

REAR PASSENGER UPPER RIB Y VELOCITY

1 898113A1.V25 Filterclass (180)



MSA Research
12-10-1998 11:42

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

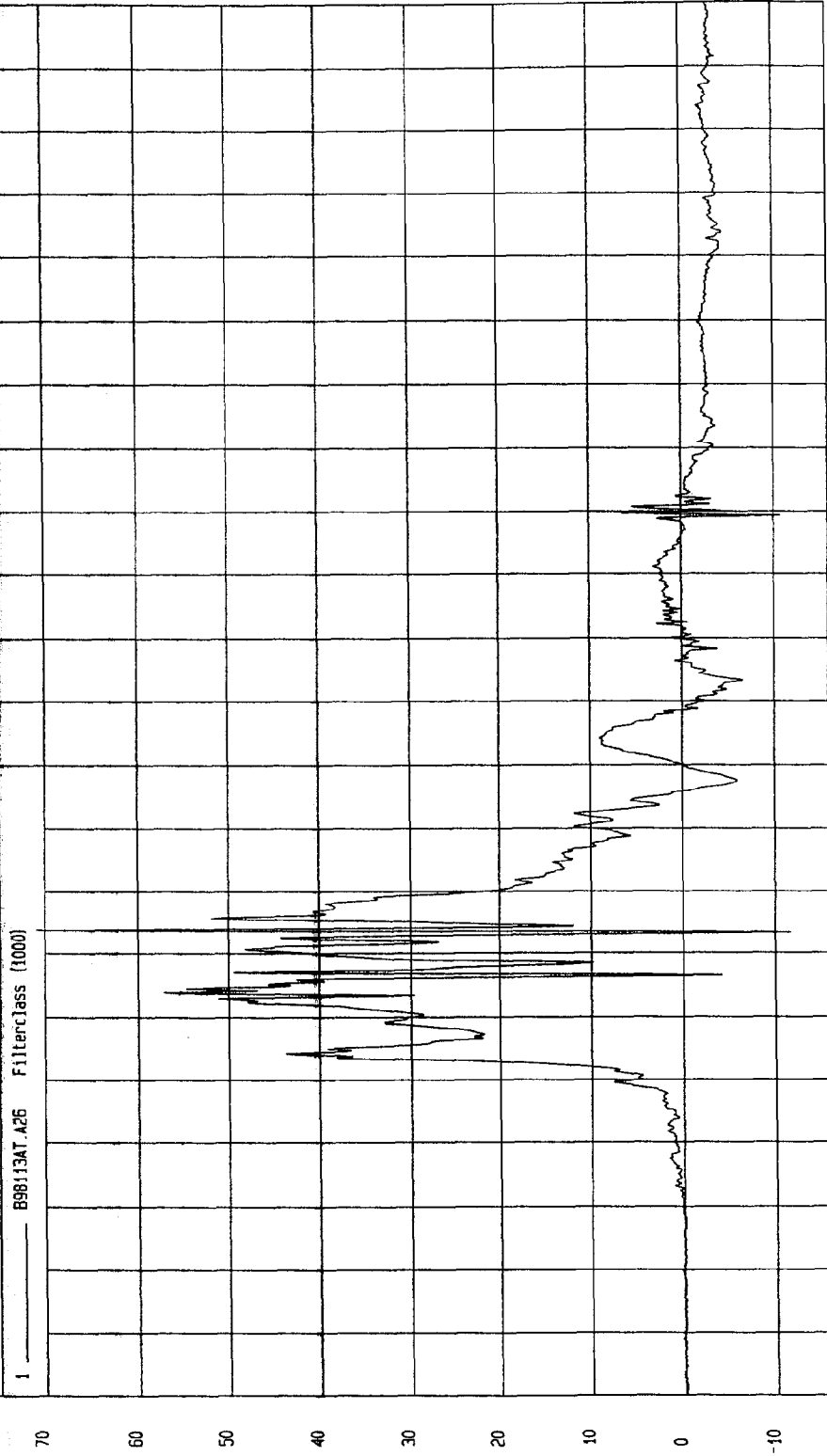
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 70.87 G'S at 54 msec

Minimum = -11.61 G'S at 53 msec

REAR PASSENGER LOWER RIB Y ACCELERATION

1 — B9813AT.A26 FilterClass (1000)



MCA Research
12-10-1998 11:42

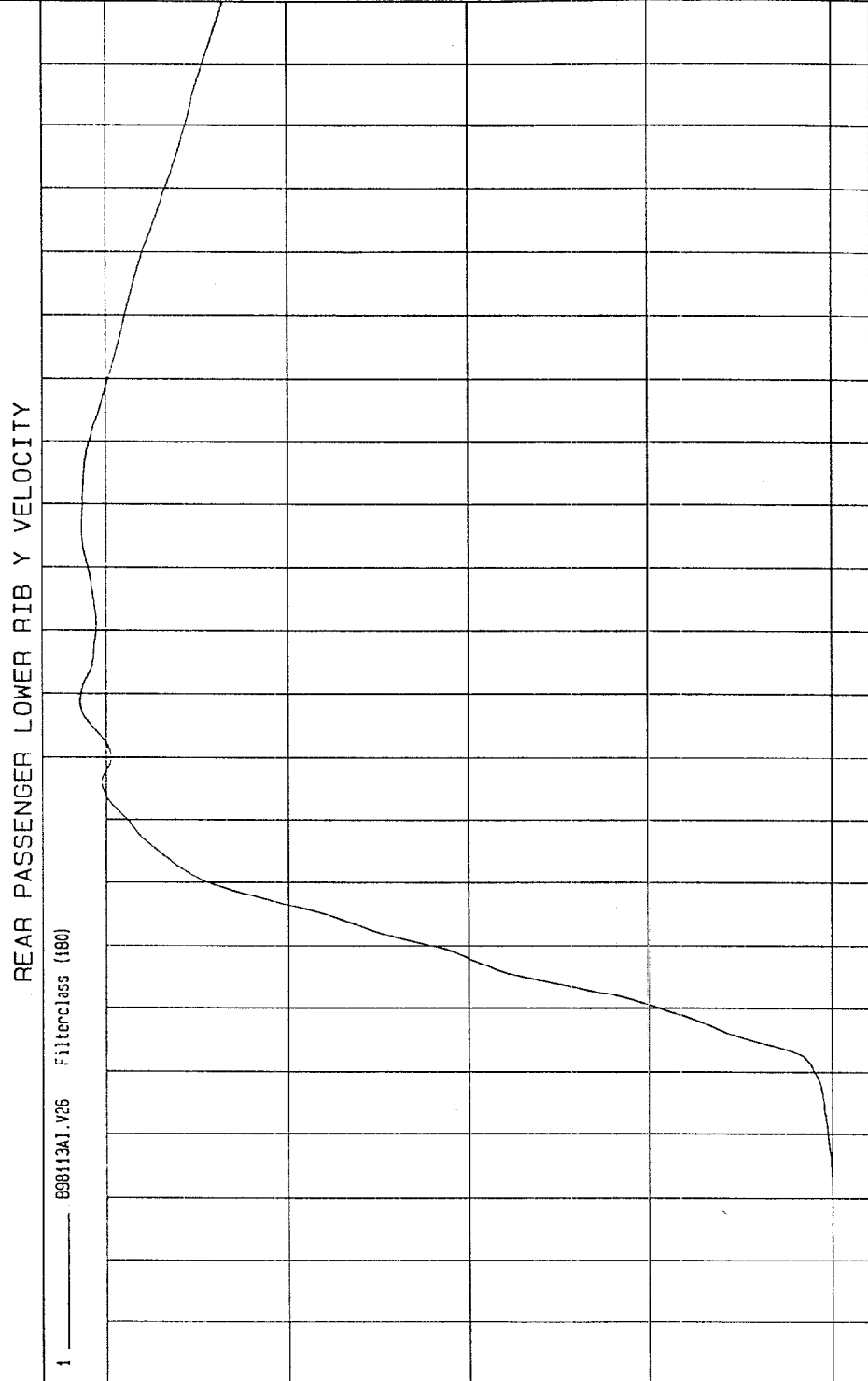
TIME (SECONDS)

G

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -2.32E-02 KPH at 8 msec Maximum = 41.38 KPH at 89 msec



KPH

TIME Seconds

MOA Research
12-10-1998 11:42

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

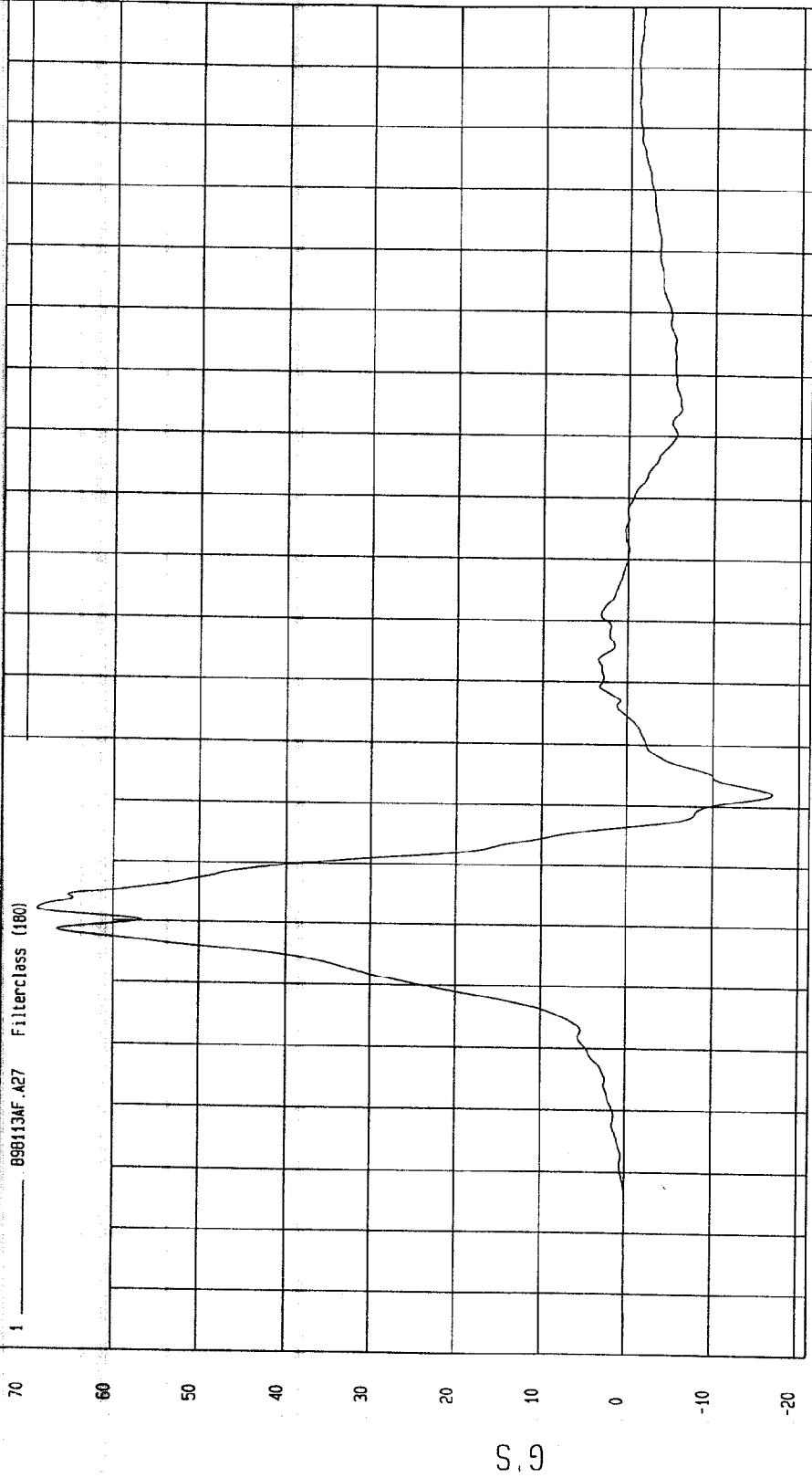
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 68.64 G'S at 52 msec

Minimum = -16.99 G'S at 72 msec

REAR PASSENGER LOWER SPINE Y ACCELERATION

1 — 898113AF.A27 Filterclass (180)



WCA Research
12-10-1998 11:42

TIME (SECONDS)

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

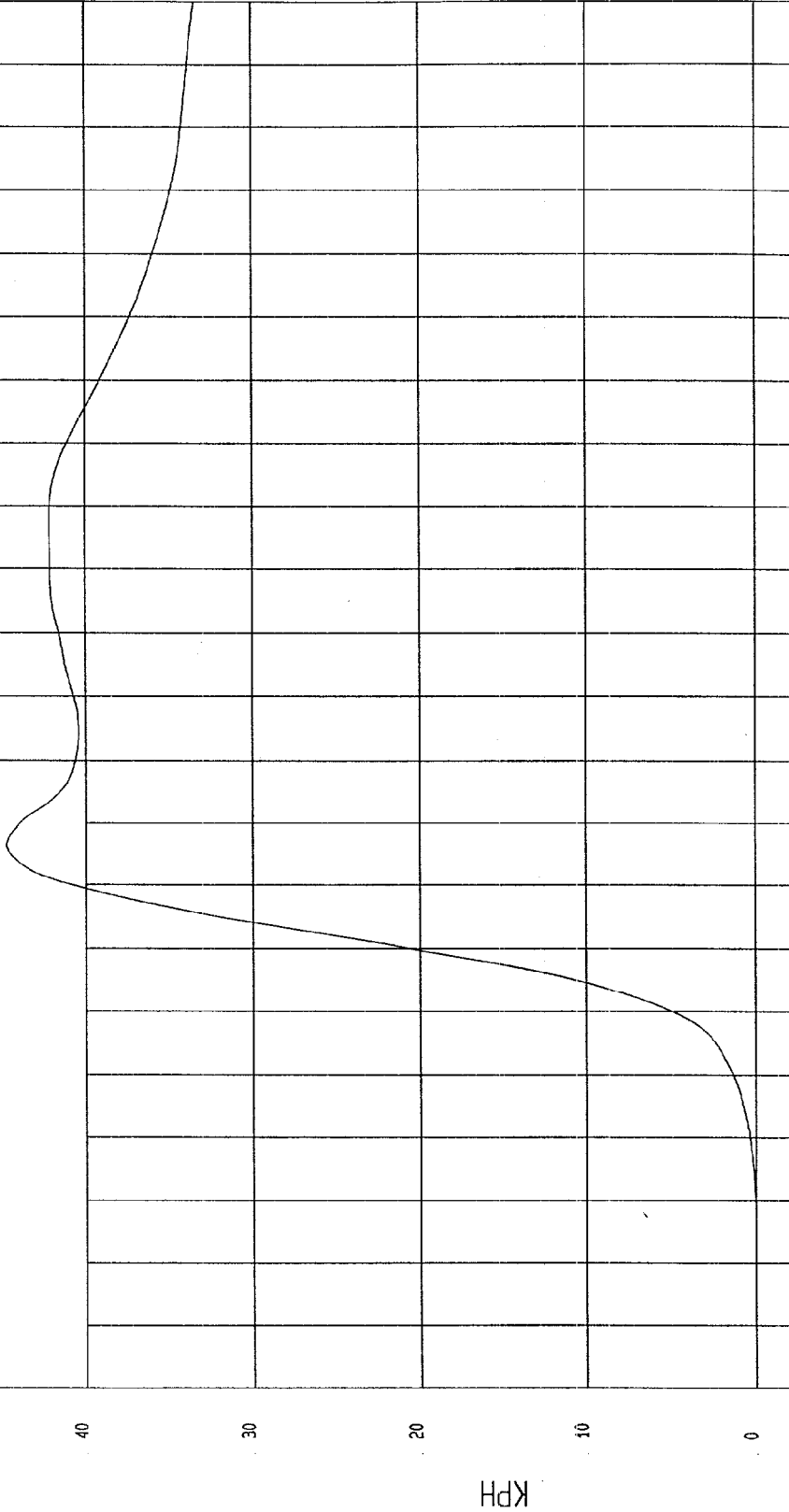
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 44.66 KPH at 56 msec

Minimum = -8.78E-03 KPH at -13 msec

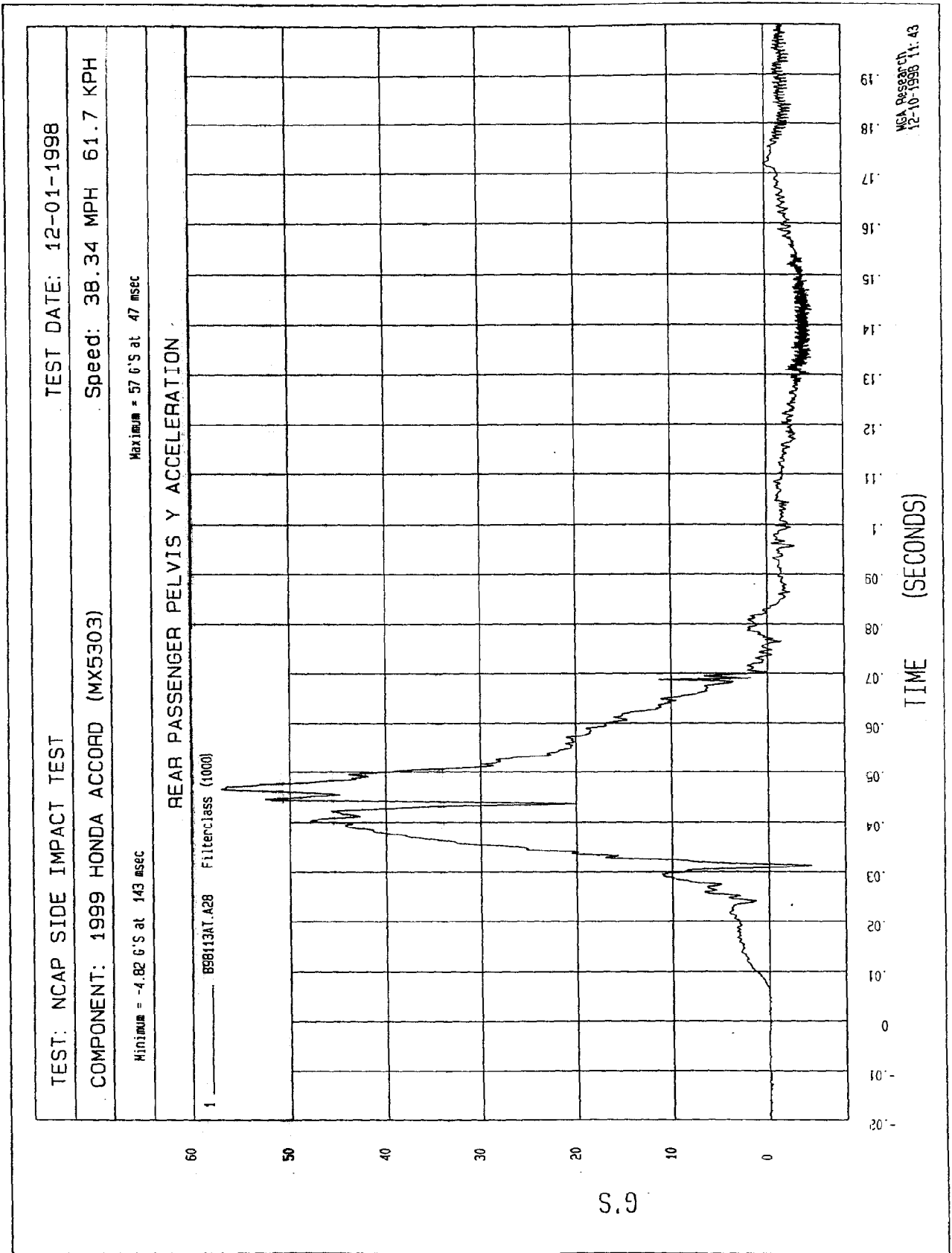
REAR PASSENGER LOWER SPINE Y VELOCITY

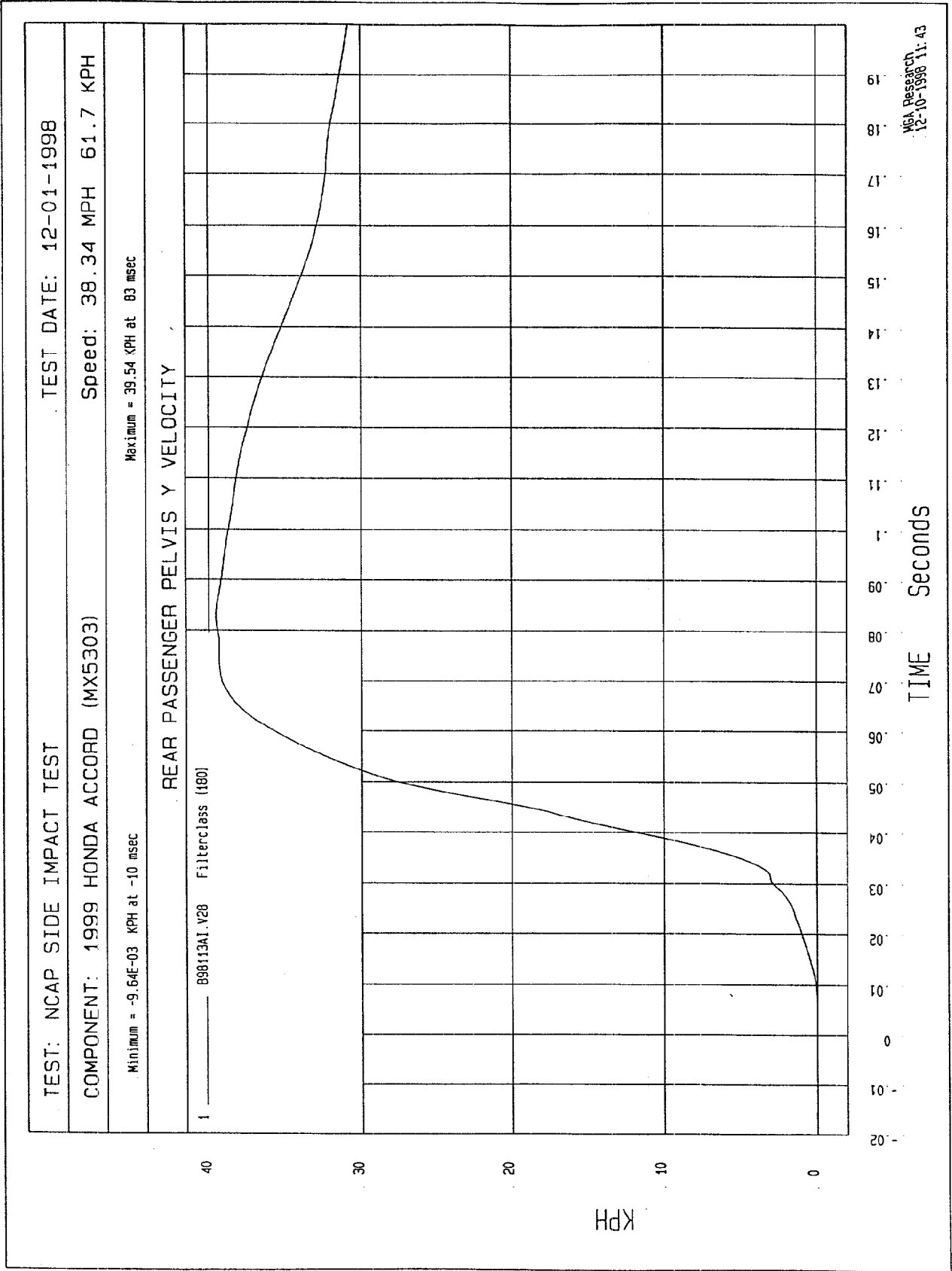
1 998113A1.V27 Filterclass (180)

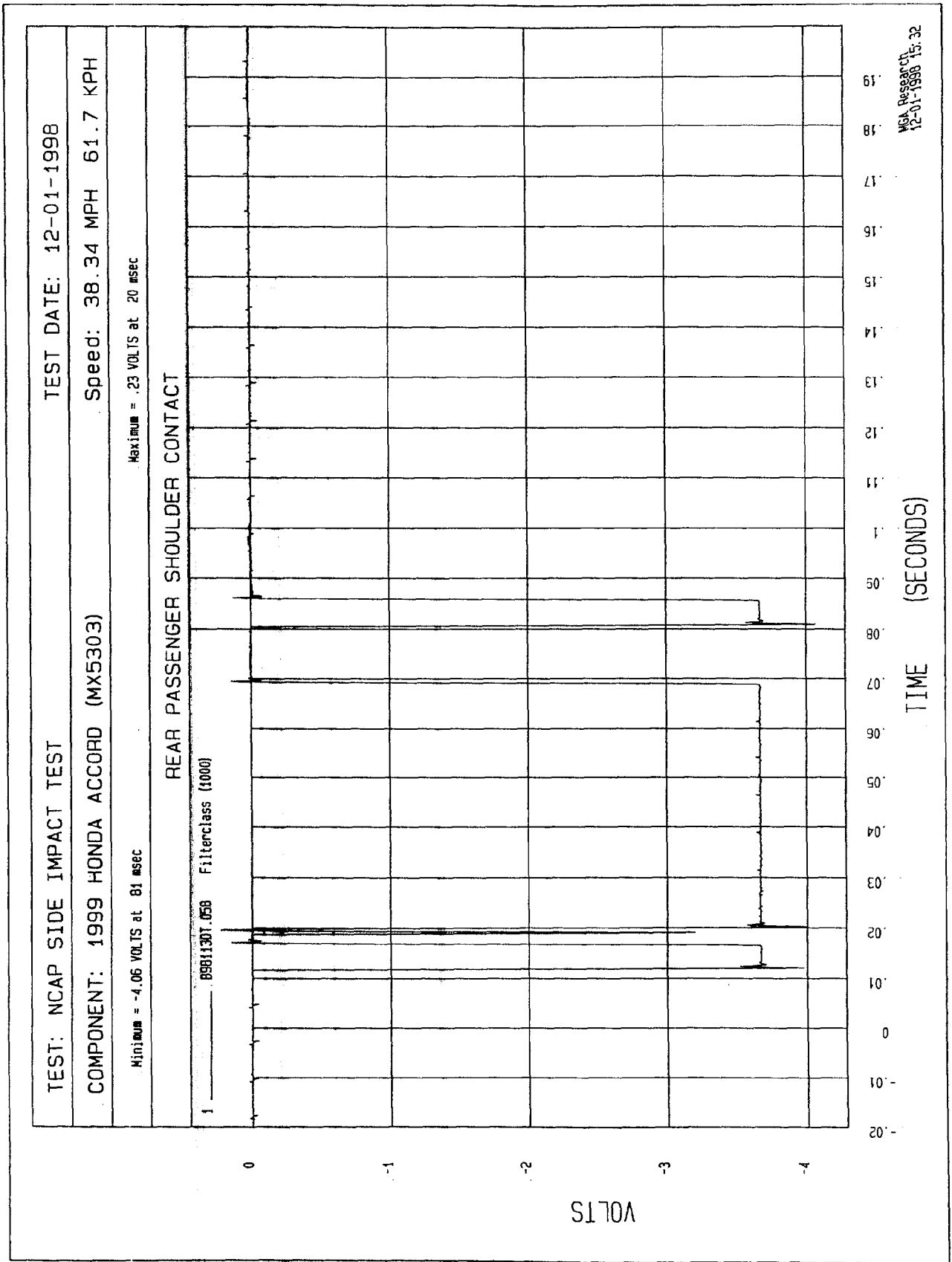


NCA Research
12-10-1998 11:42

TIME Seconds

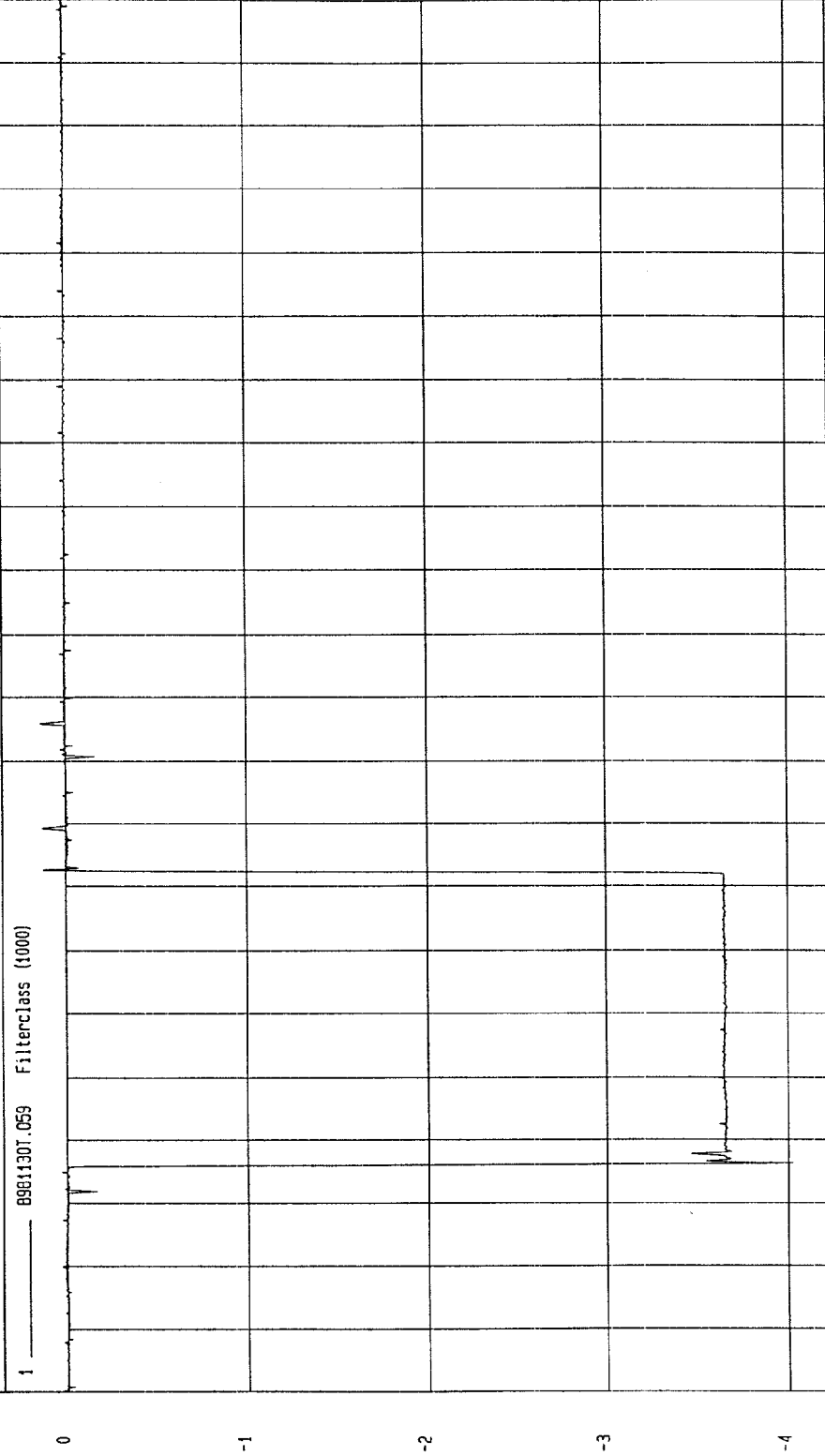




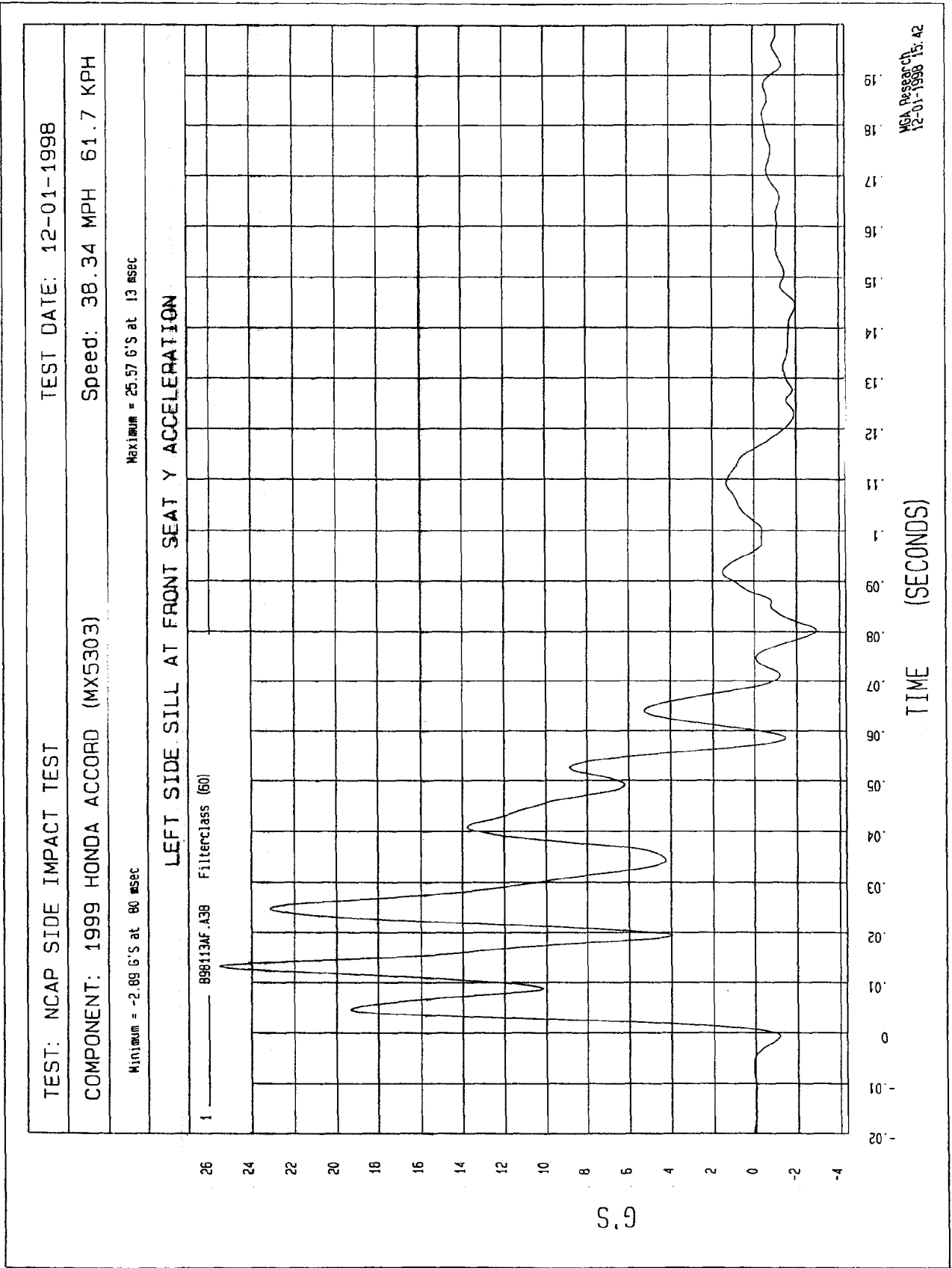


TEST: NCAP SIDE IMPACT TEST	TEST DATE: 12-01-1998
COMPONENT: 1999 HONDA ACCORD (MX5303)	Speed: 38.34 MPH 61.7 KPH
Minimum = -4.02 VOLTS at .16 msec	Maximum = .14 VOLTS at 86 msec

REAR PASSENGER PELVIS CONTACT



WCA Research
12-01-1998 15:32



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

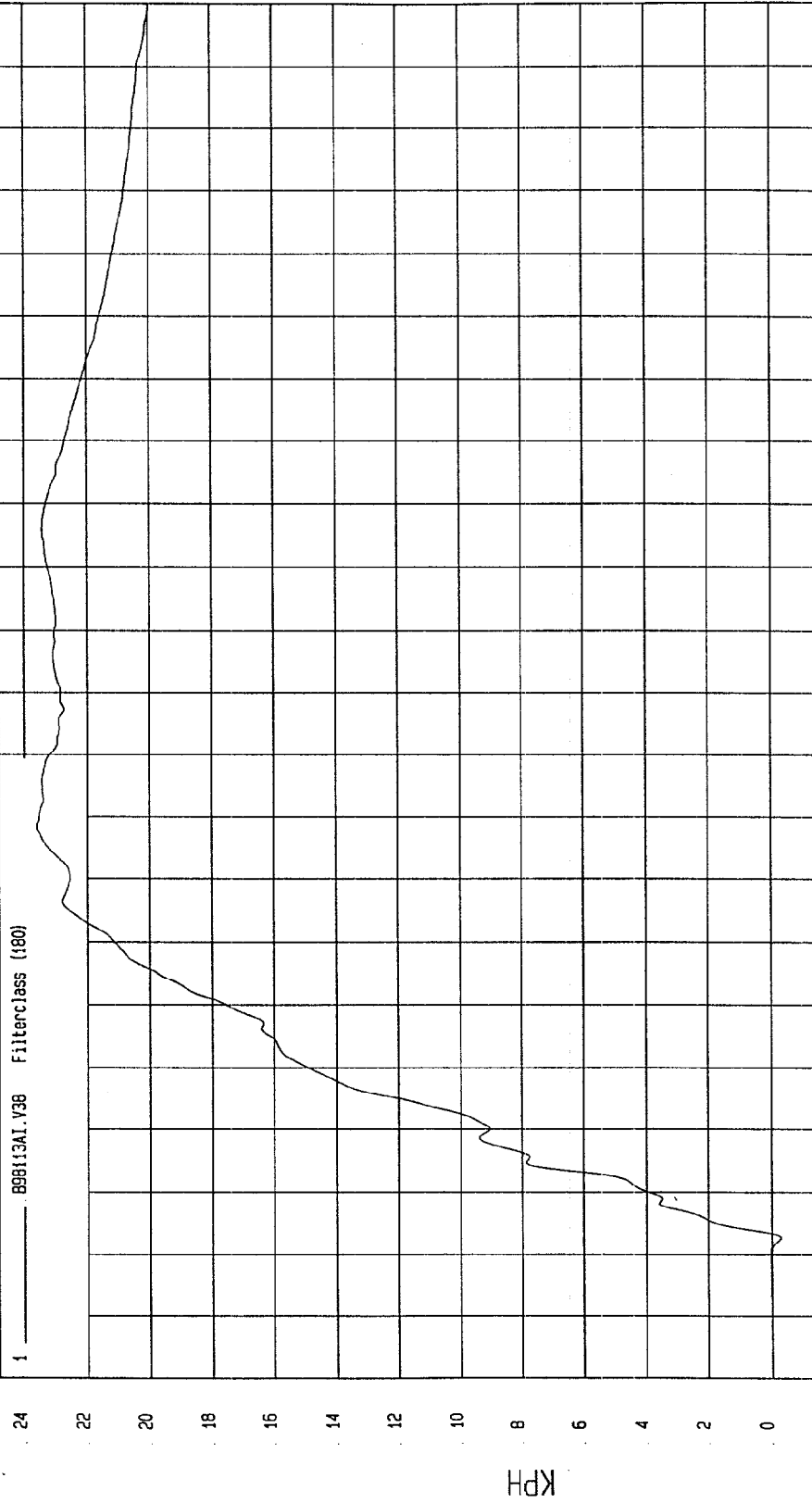
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 23.62 KPH at 68 msec

Minimum = -29 KPH at 3 msec

LEFT SIDE SILL AT FRONT SEAT Y VELOCITY

1 ——— B9813A1.V38 Filterclass (180)



MCA Research
12-01-1998 15.42

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

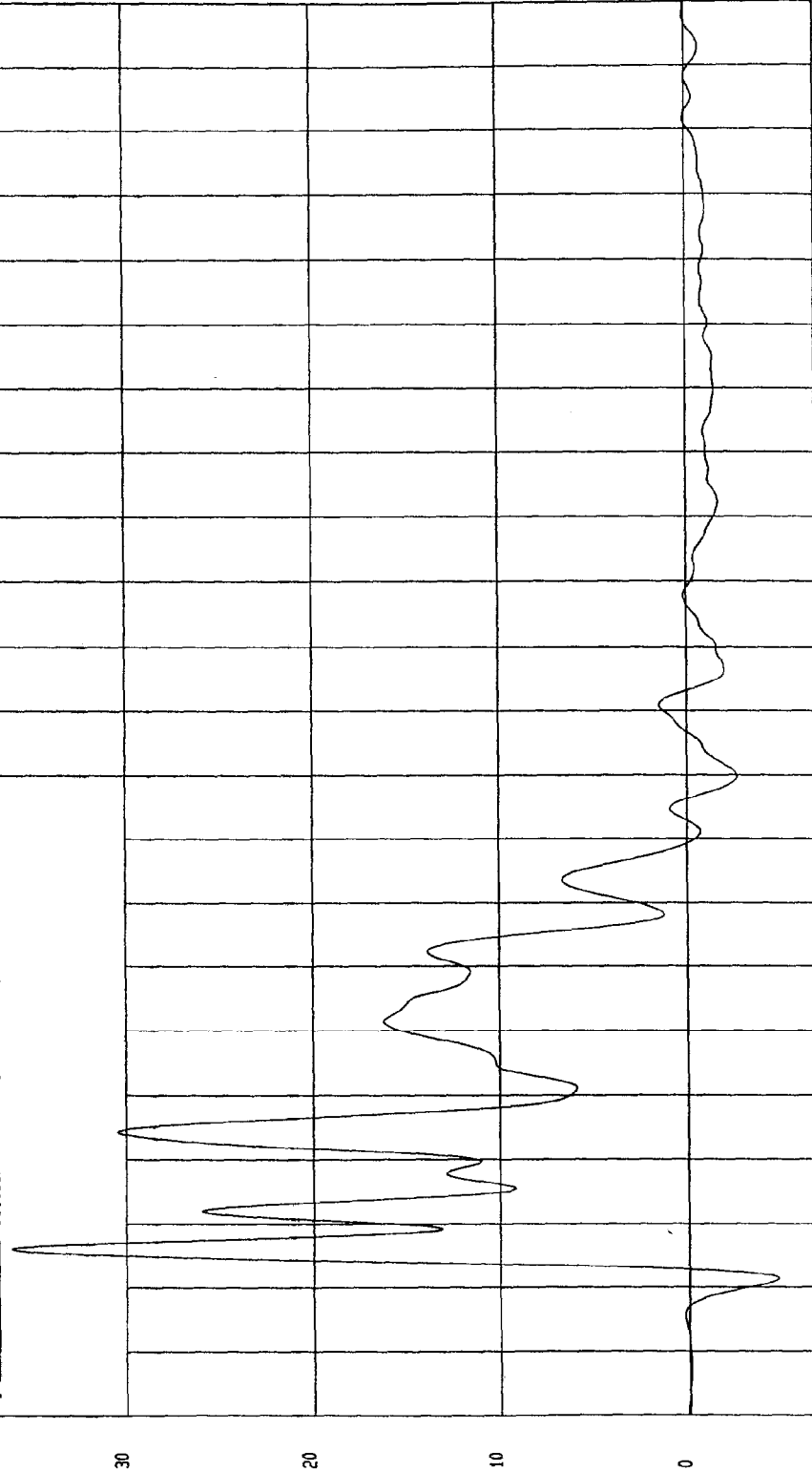
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 36.08 G'S at 6 msec

Minimum = -4.73 G'S at 1 msec

LEFT SIDE SILL AT REAR SEAT Y ACCELERATION

1 B98113AF.A39 Filterclass (60)



MCA Research
12-01-1998 15.42

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

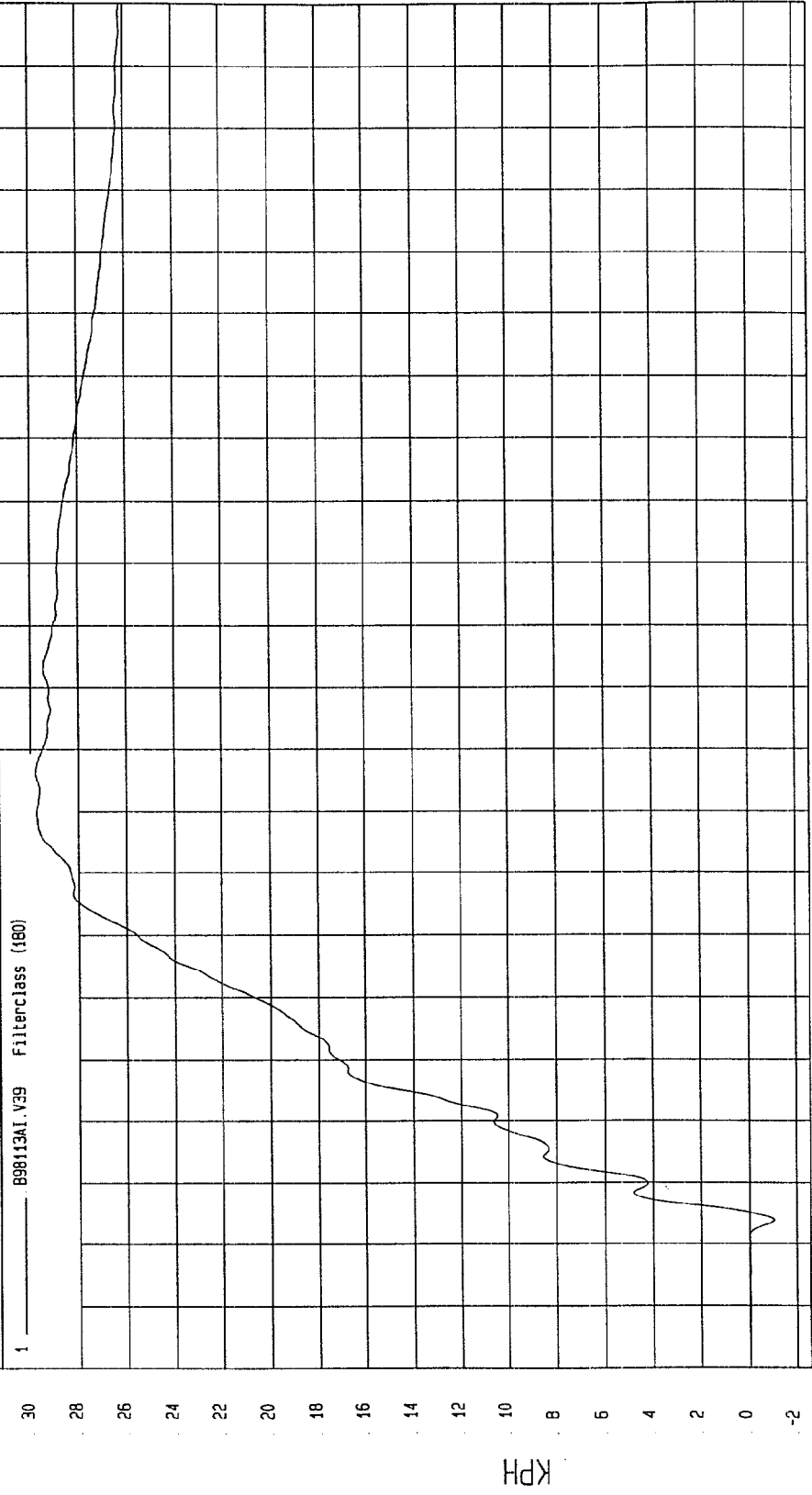
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 29.78 KPH at 76 msec

Minimum = -1.05 KPH at 4 msec

LEFT SIDE SILL AT REAR SEAT Y VELOCITY



MOA Research
12-01-1998 15:42

TIME Seconds

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

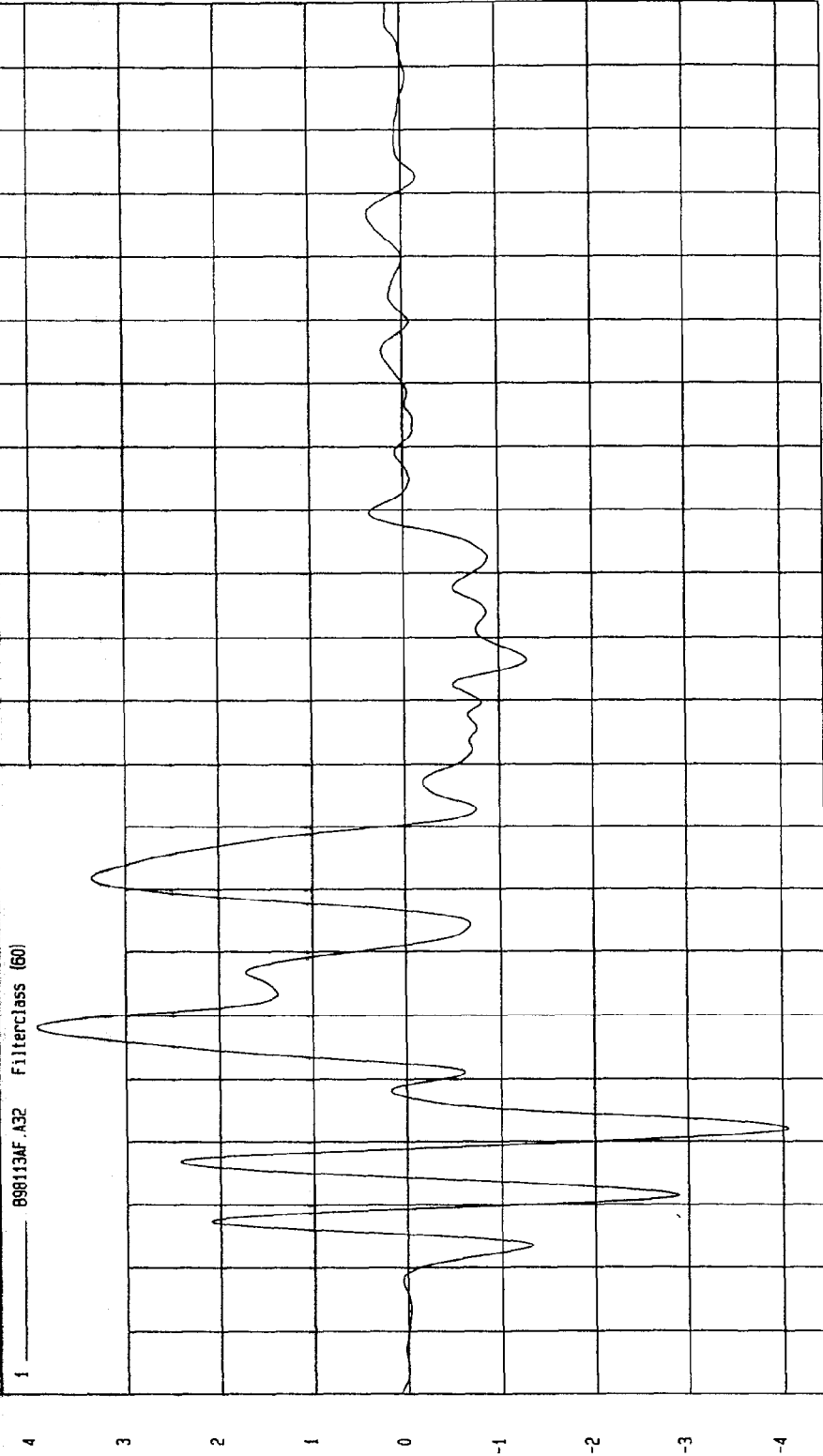
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 3.94 G'S at 38 msec

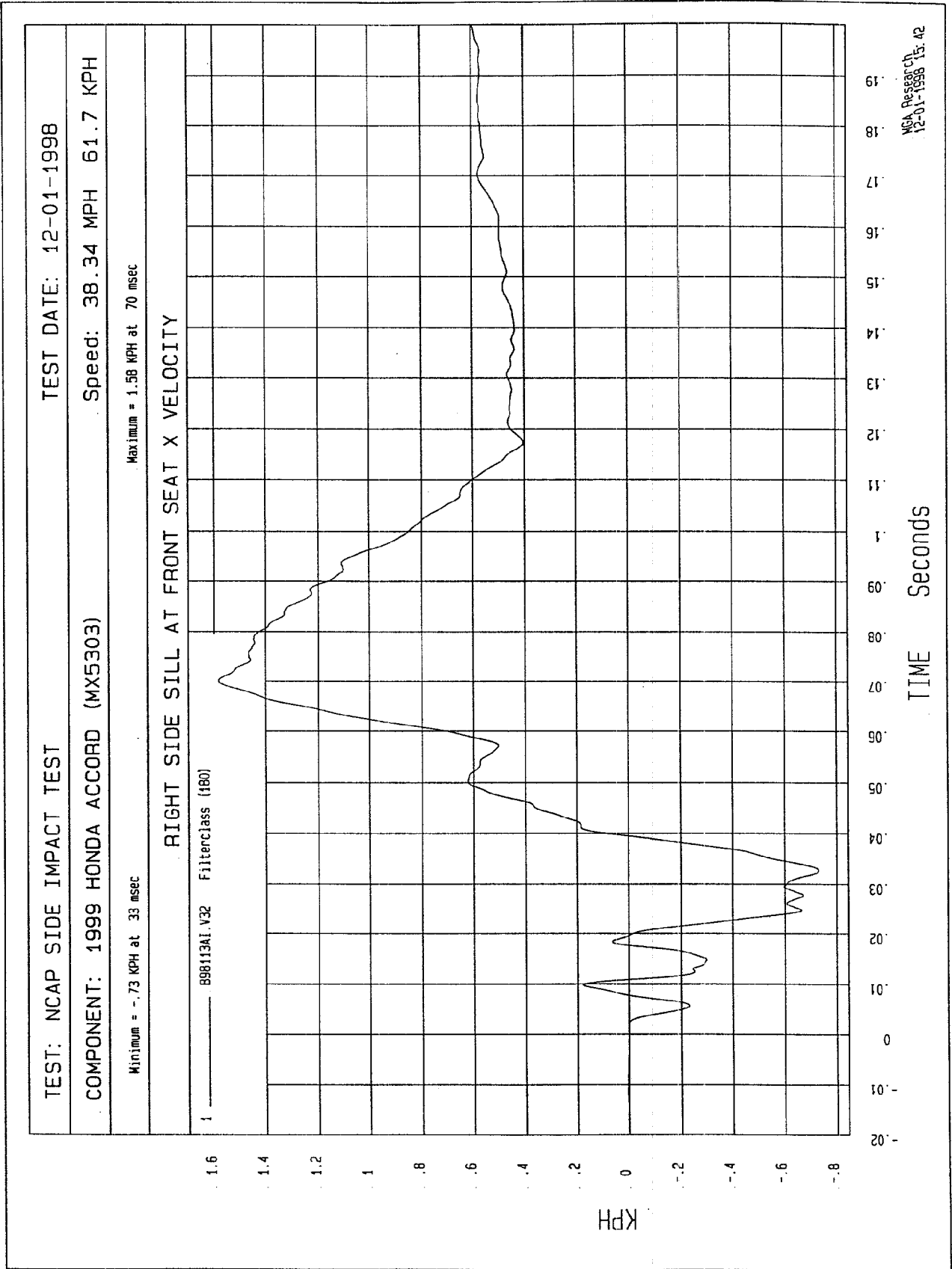
Minimum = -4.05 G'S at 22 msec

RIGHT SIDE SILL AT FRONT SEAT X ACCELERATION

1 898113AF.A32 Filterclass (60)



MGA Research
12-01-1998 15:42



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 25.43 G'S at 16 msec

Minimum = -2.05 G'S at 142 msec

RIGHT SIDE SILL AT FRONT SEAT Y ACCELERATION

1 898113AF.A33 Filterclass (60)

26

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13

12

11

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07

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TIME (SECONDS)

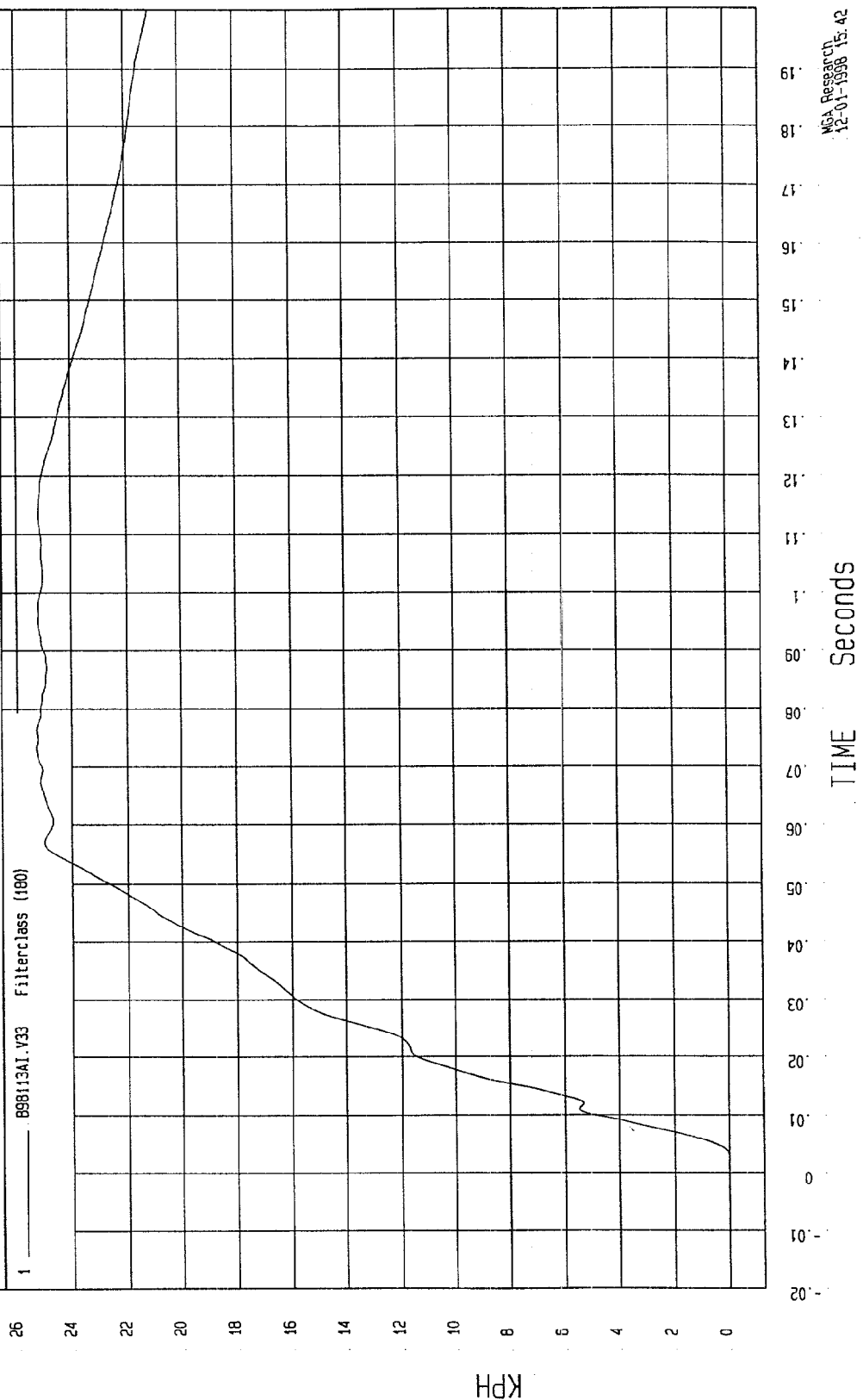
MSA Research
12-01-1998 15.42

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -1.06E-03 KPH at -19 msec
Maximum = 25.29 KPH at 73 msec

RIGHT SIDE SILL AT FRONT SEAT Y VELOCITY



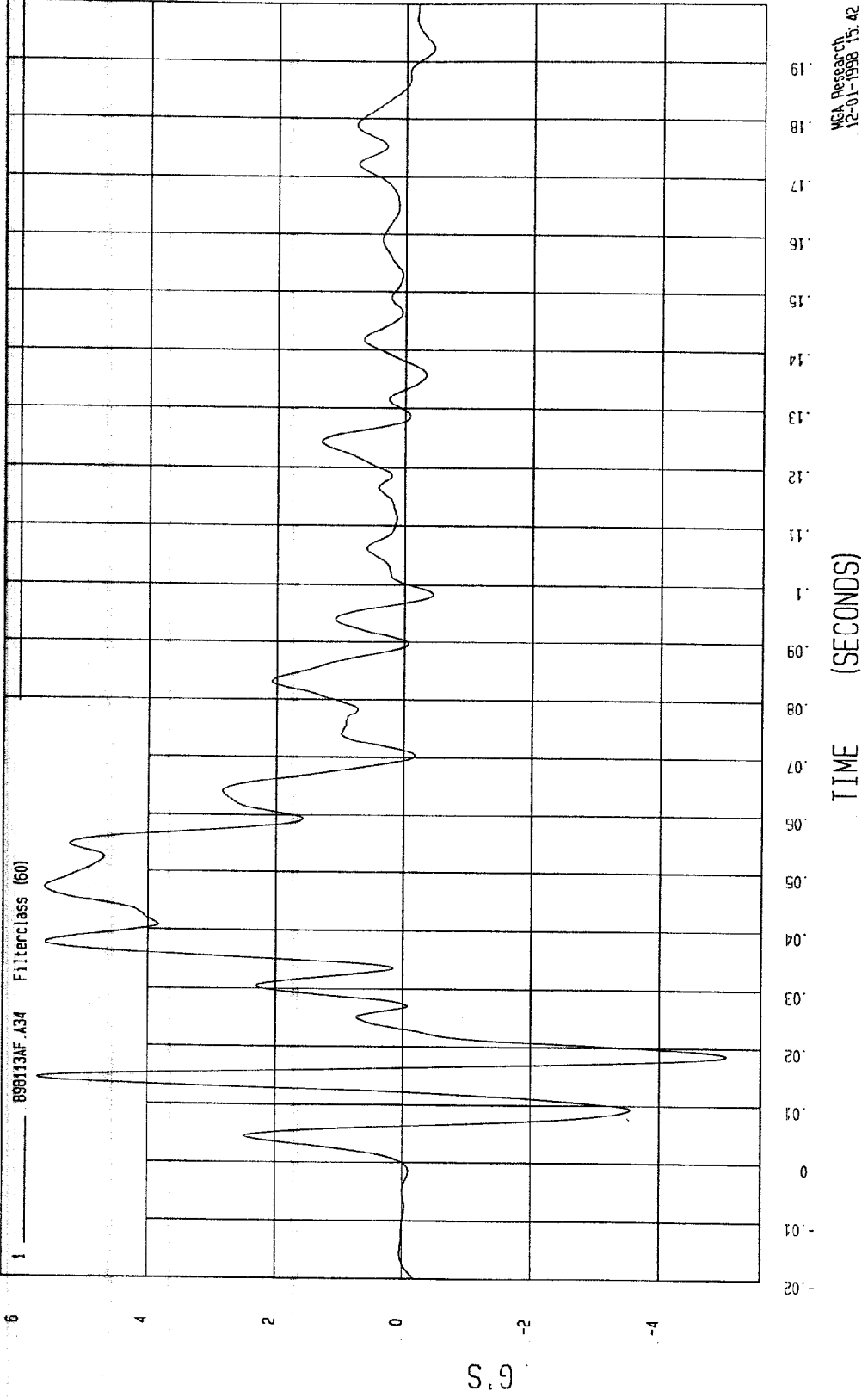
MSA Research
12-01-1998 15:42

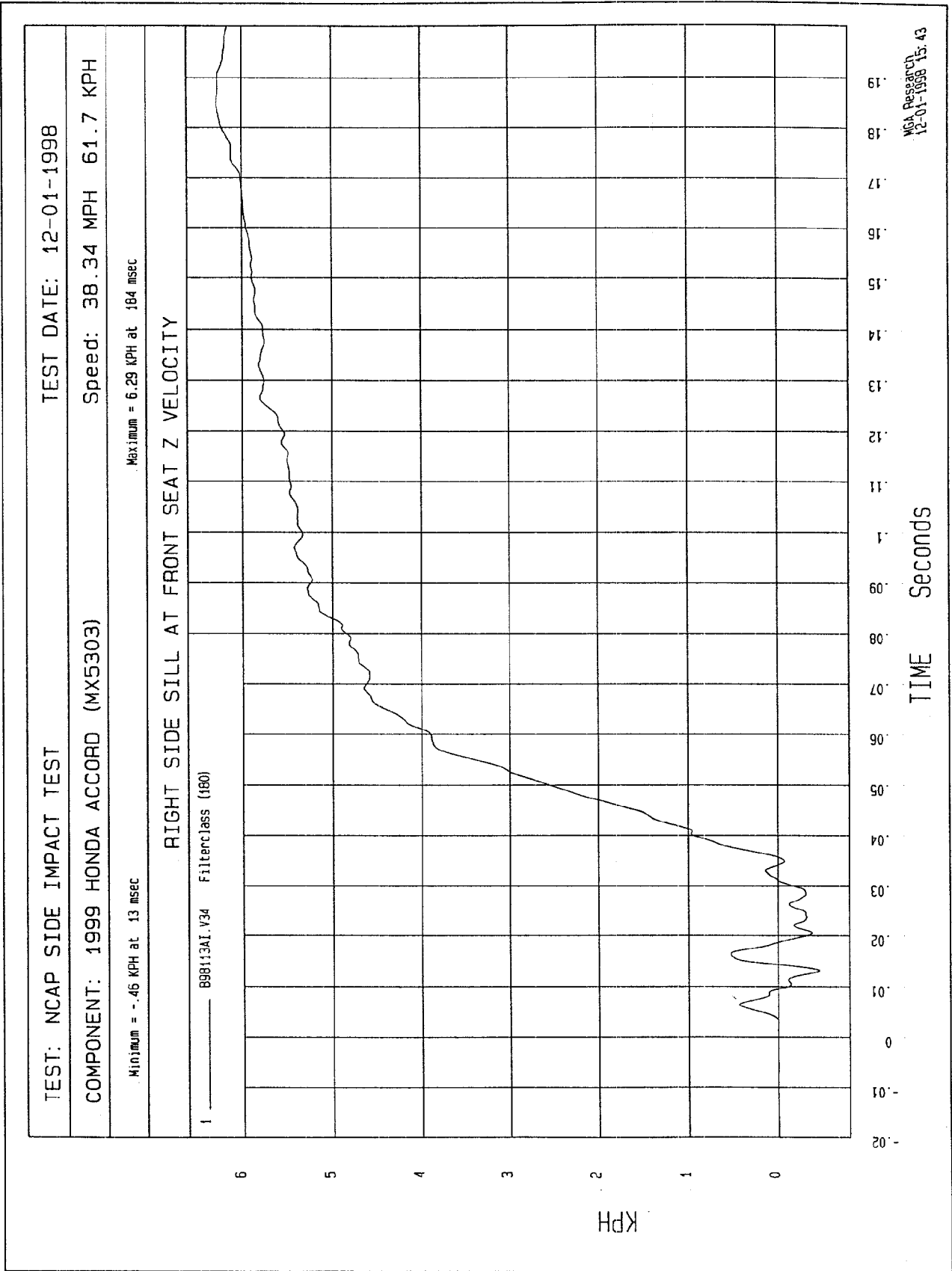
TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -5.03 G'S at 19 msec Maximum = 5.72 G'S at 14 msec

RIGHT SIDE SILL AT FRONT SEAT Z ACCELERATION





TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

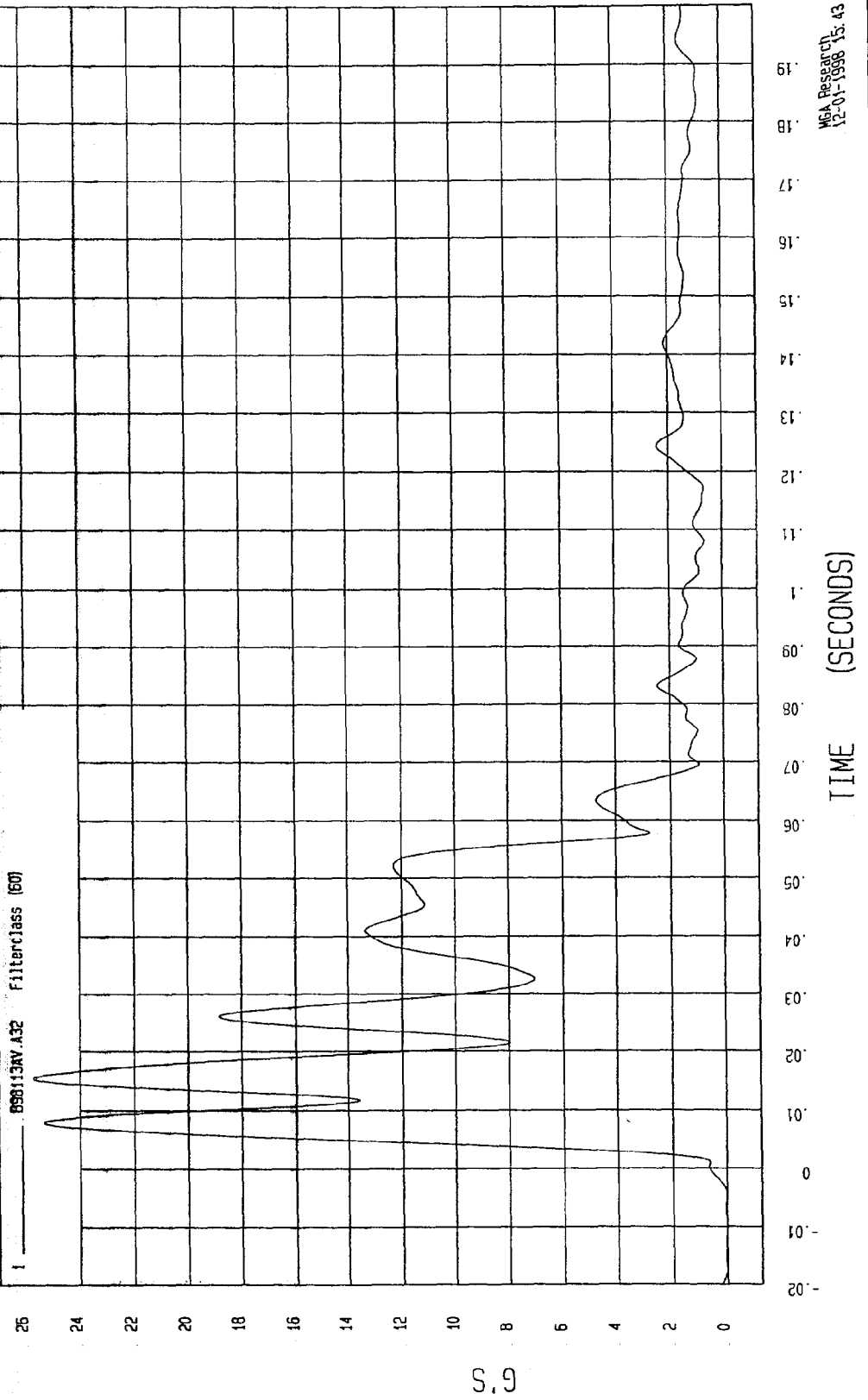
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 25.71 G'S at 16 msec

Minimum = 1.11E-02 G'S at -4 msec

RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

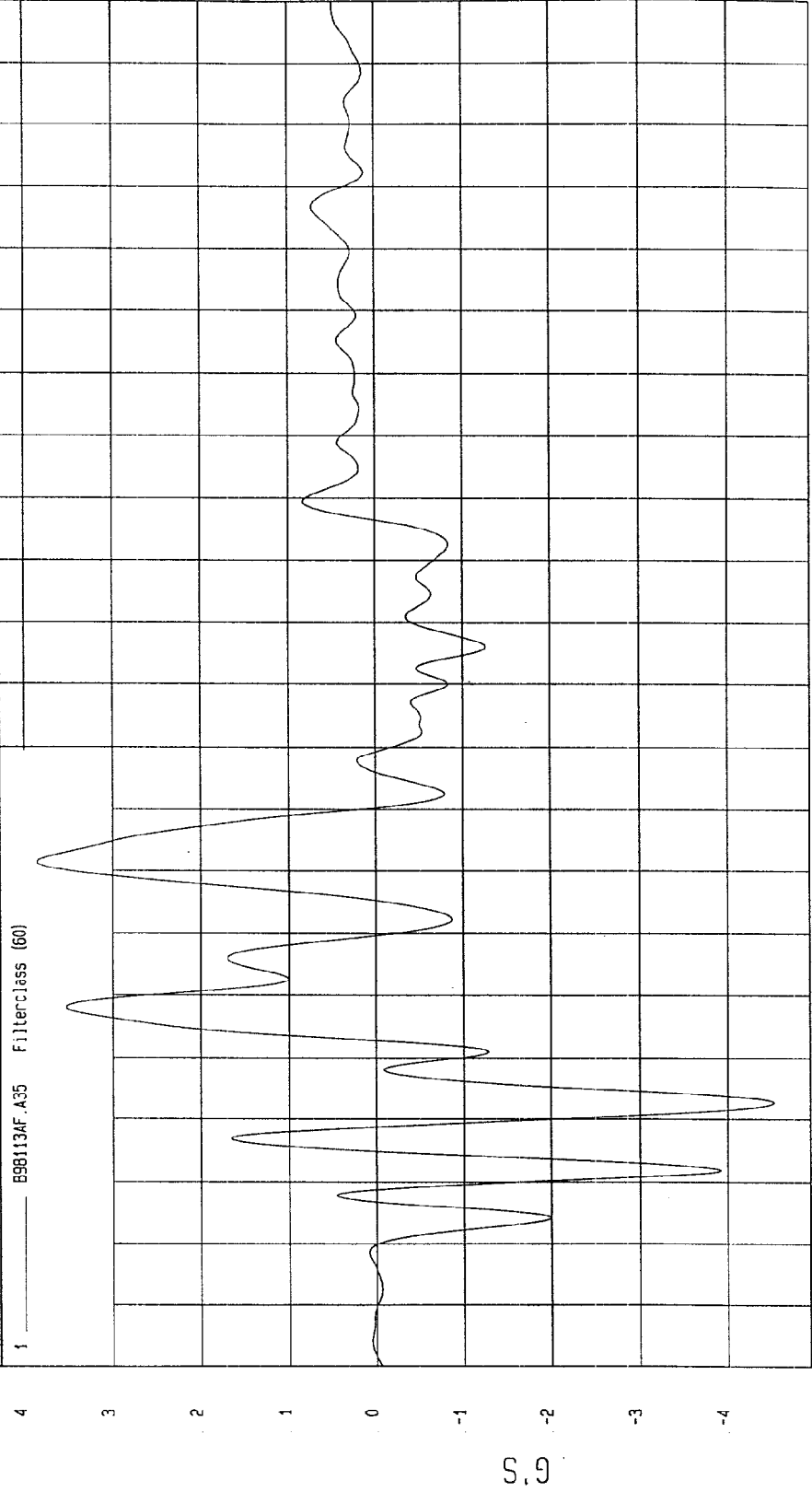


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -4.52 G'S at 23 msec Maximum = 3.85 G'S at 62 msec

RIGHT SIDE SILL AT REAR SEAT X ACCELERATION



TIME (SECONDS)

19
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-01
-02

NCAP Research
12-10-1998 11:10

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

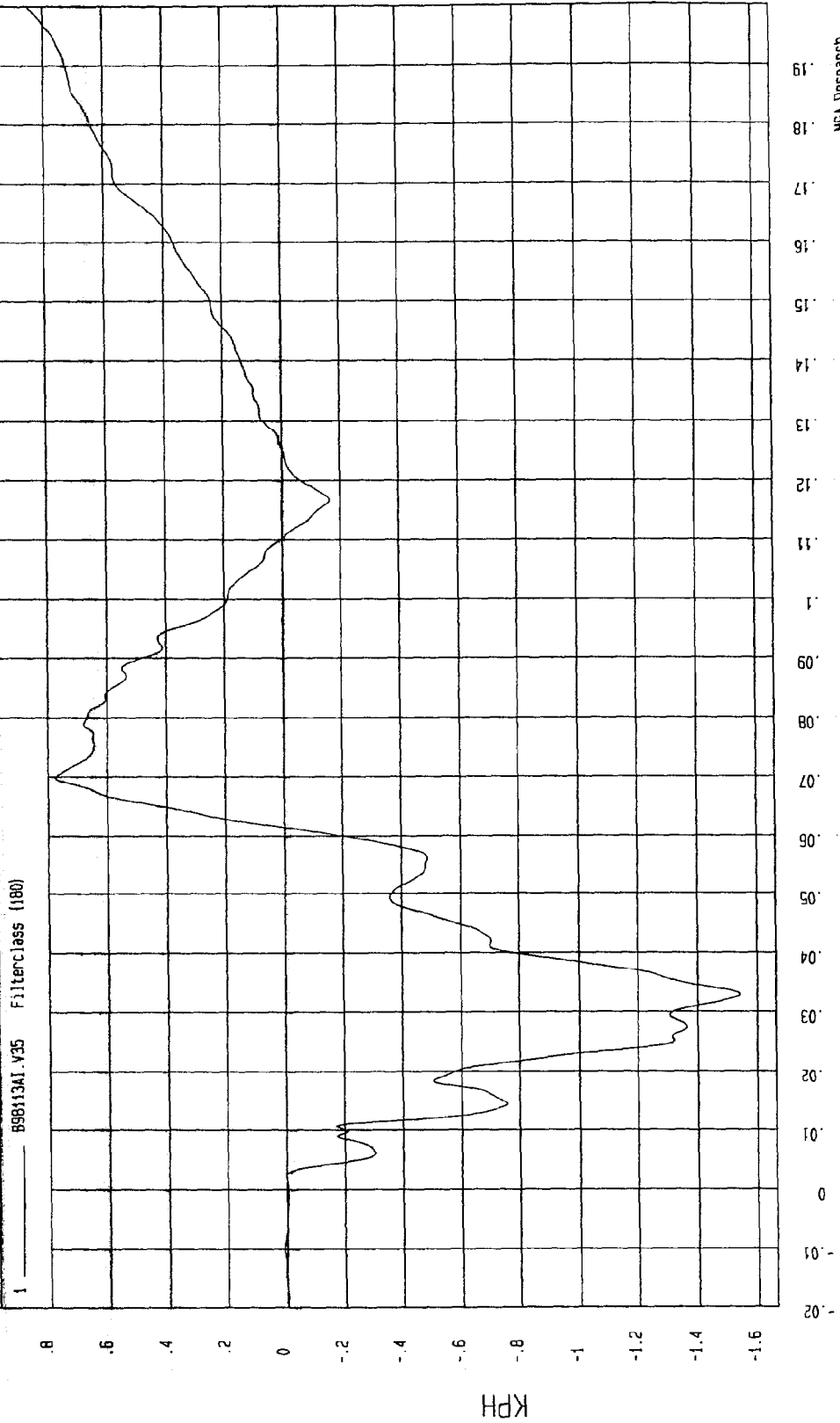
COMPONENT: 1999 HONDA ACCORD (MX5303)

Speed: 38.34 MPH 61.7 KPH

Minimum = -1.54 KPH at 33 msec

Maximum = .85 KPH at 200 msec

RIGHT SIDE SILL AT REAR SEAT X VELOCITY



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

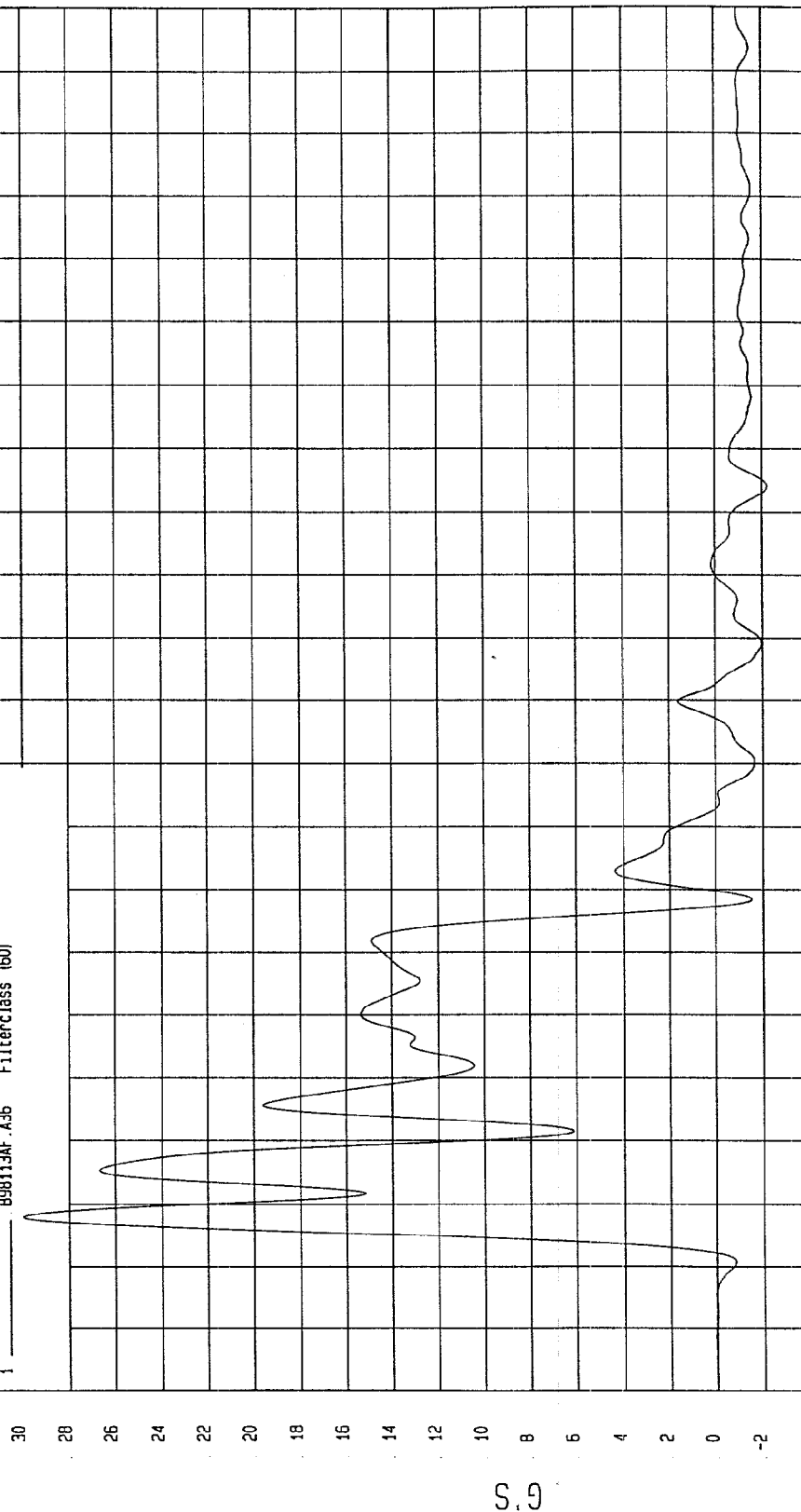
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 30.01 G'S at 8 msec

Minimum = -2.23 G'S at 124 msec

RIGHT SIDE SILL AT REAR SEAT Y ACCELERATION

1 898134F.A36 Filterclass (60)



MCA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

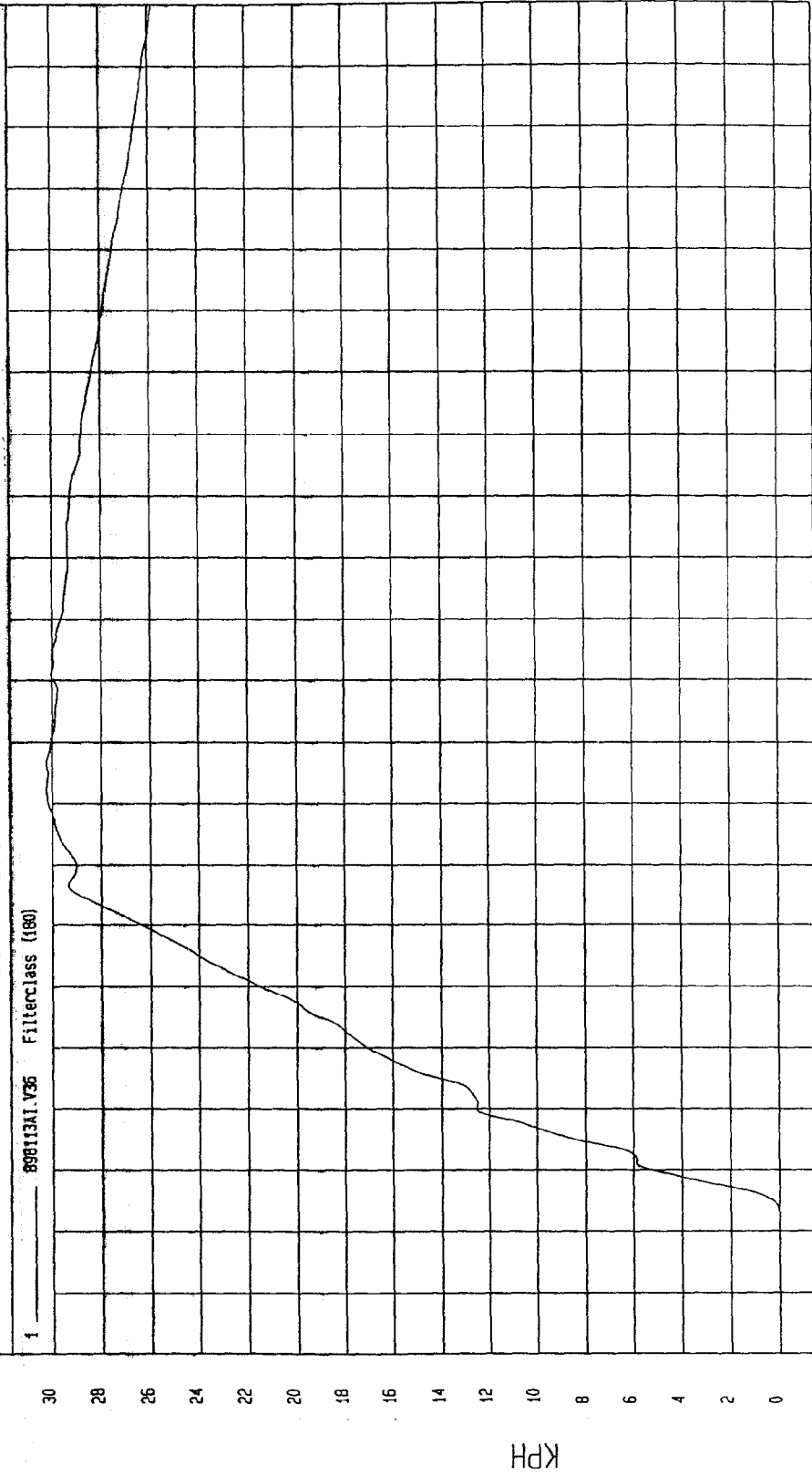
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 30.24 KPH at 76 msec

Minimum = -2.72E-03 KPH at -18 msec

RIGHT SIDE SILL AT REAR SEAT Y VELOCITY

1 898113A1.V36 Filterclass (100)



SEA Research
12-01-1998 15:43

TIME Seconds

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

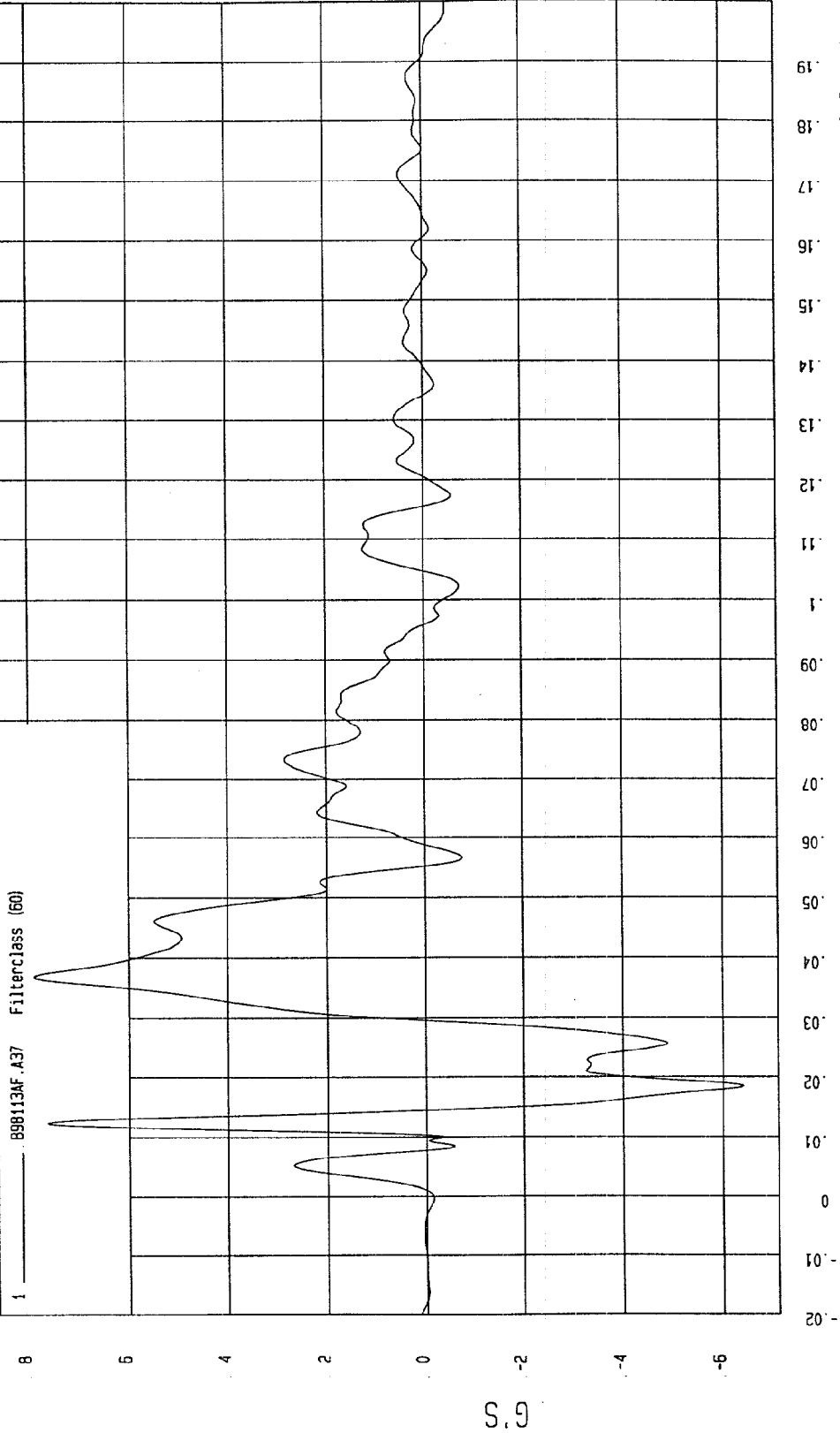
Speed: 38.34 MPH 61.7 KPH

Minimum = -6.42 G'S at 18 msec

Maximum = 7.9 G'S at 37 msec

RIGHT SIDE SILL AT REAR SEAT Z ACCELERATION

1 898113AF.A37 Filterclass (60)



MSA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

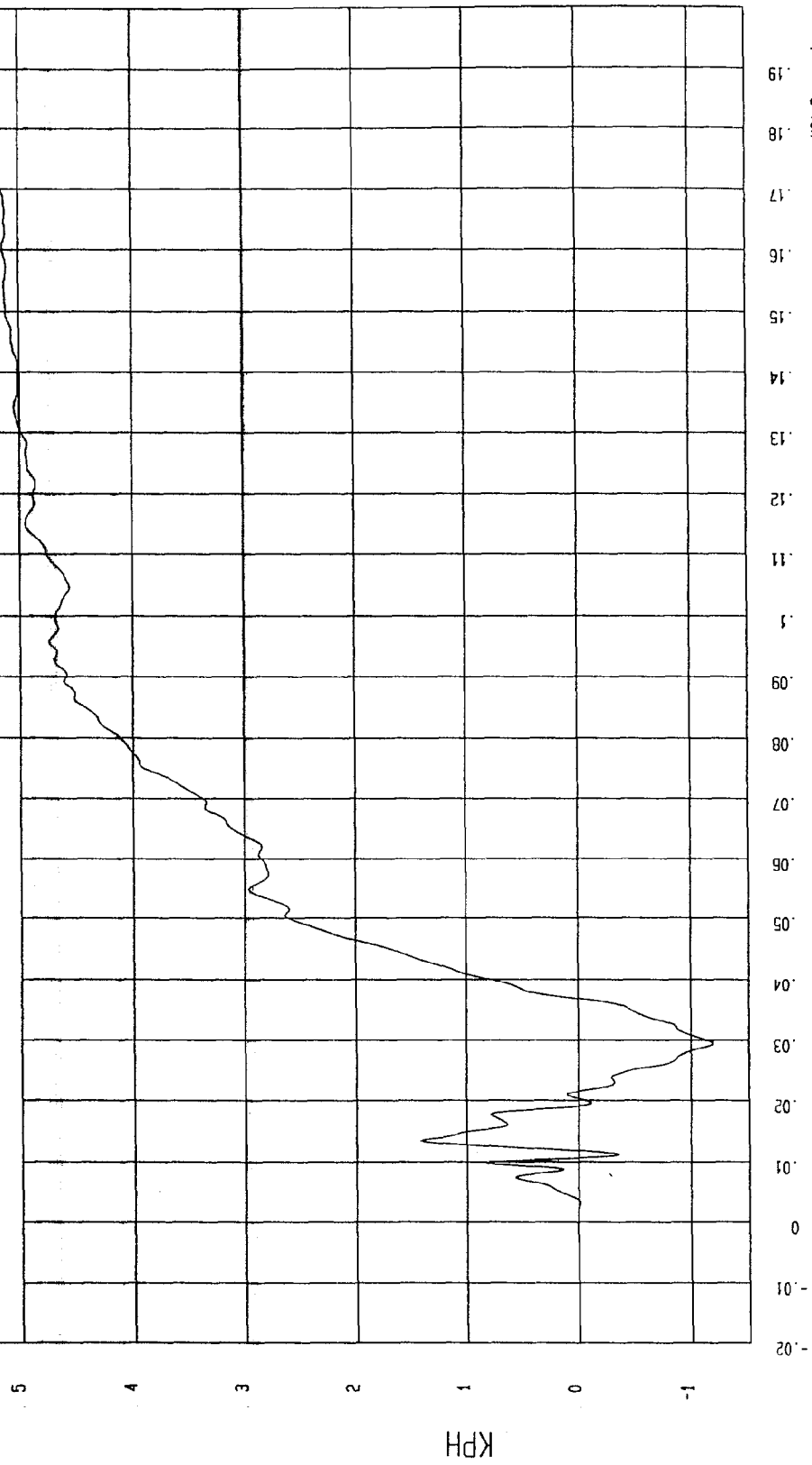
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 5.31 KPH at 190 msec

Minimum = -1.19 KPH at 30 msec

RIGHT SIDE SILL AT REAR SEAT Z VELOCITY

1 ——— B9813A1.V37 Filterclass (180)



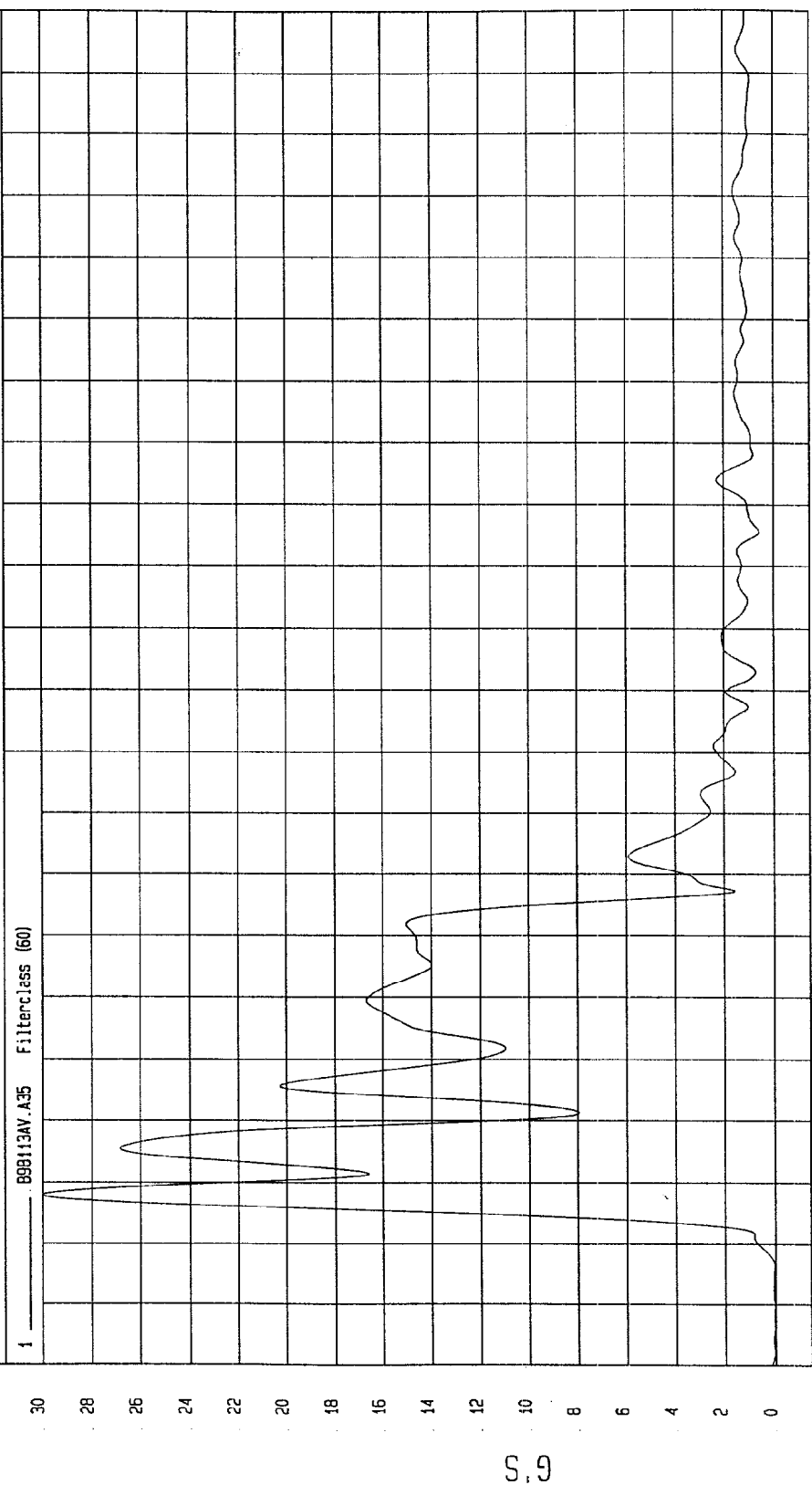
MGA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = 1.95E-02 G'S at -18 msec Maximum = 30.01 G'S at 8 msec

RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION



TIME (SECONDS)

NCA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

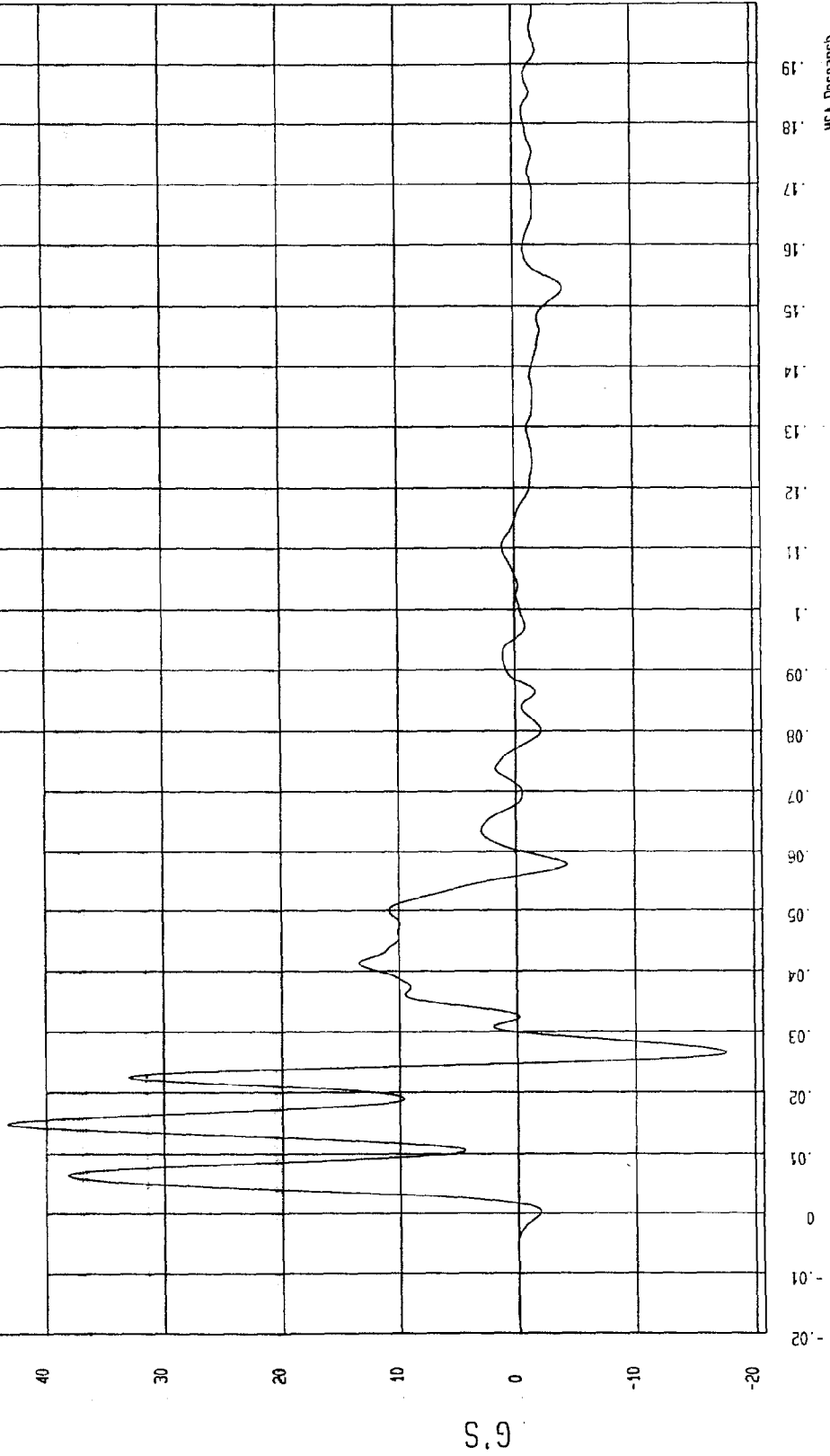
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 43.18 G'S at 15 msec

Minimum = -17.65 G'S at 27 msec

DRIVER SEAT TRACK Y ACCELERATION

1 B96113AF.A40 Filterclass (50)



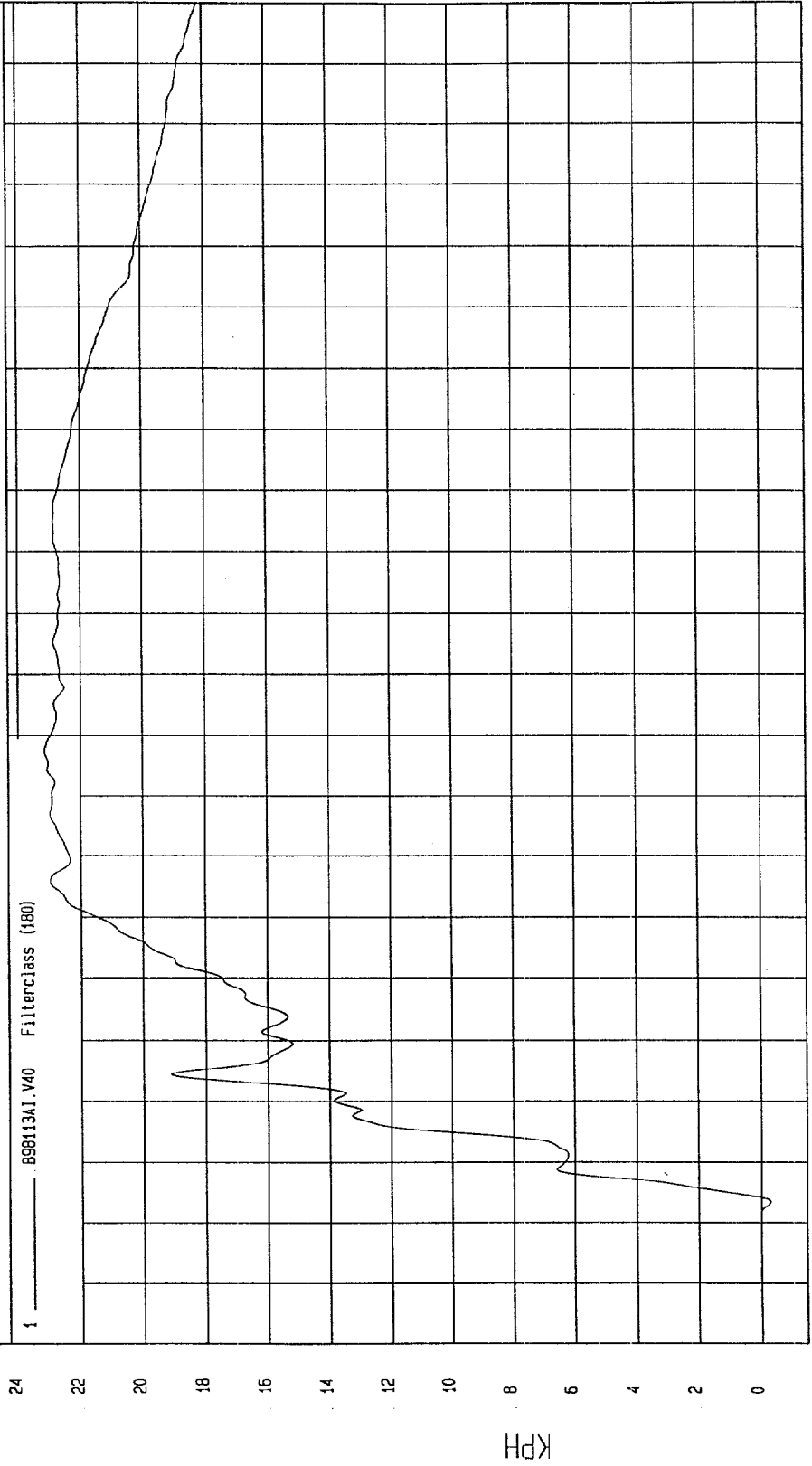
MSA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -29 KPH at 3 msec Maximum = 23.15 KPH at 77 msec

DRIVER SEAT TRACK Y VELOCITY



WCA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

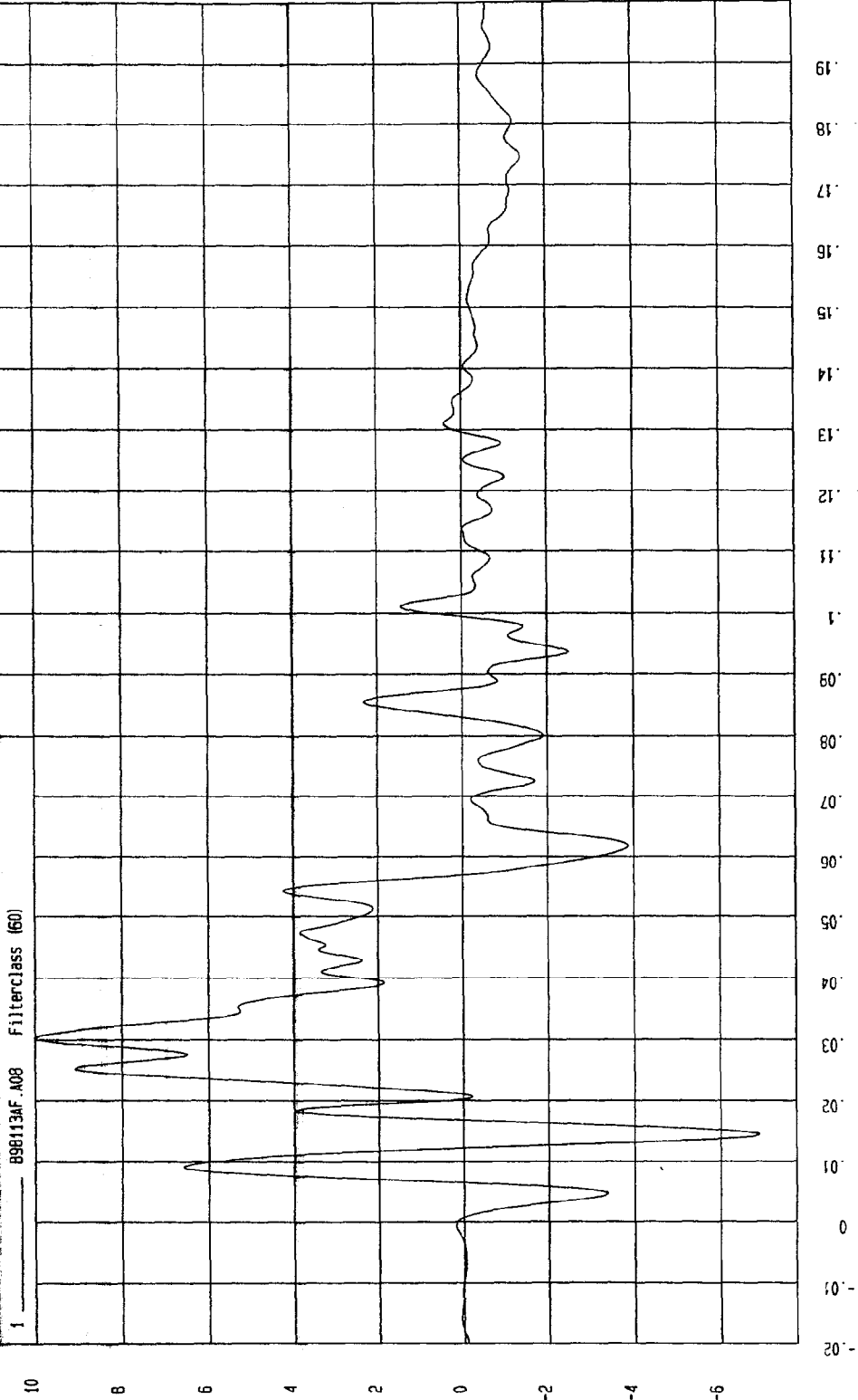
Maximum = 10.03 G'S at 30 msec

TEST: NCAP SIDE IMPACT TEST

COMPONENT: 1999 HONDA ACCORD (MX5303)

Minimum = -6.88 G'S at 14 msec

REAR FLOORPAN ABOVE AXLE X ACCELERATION



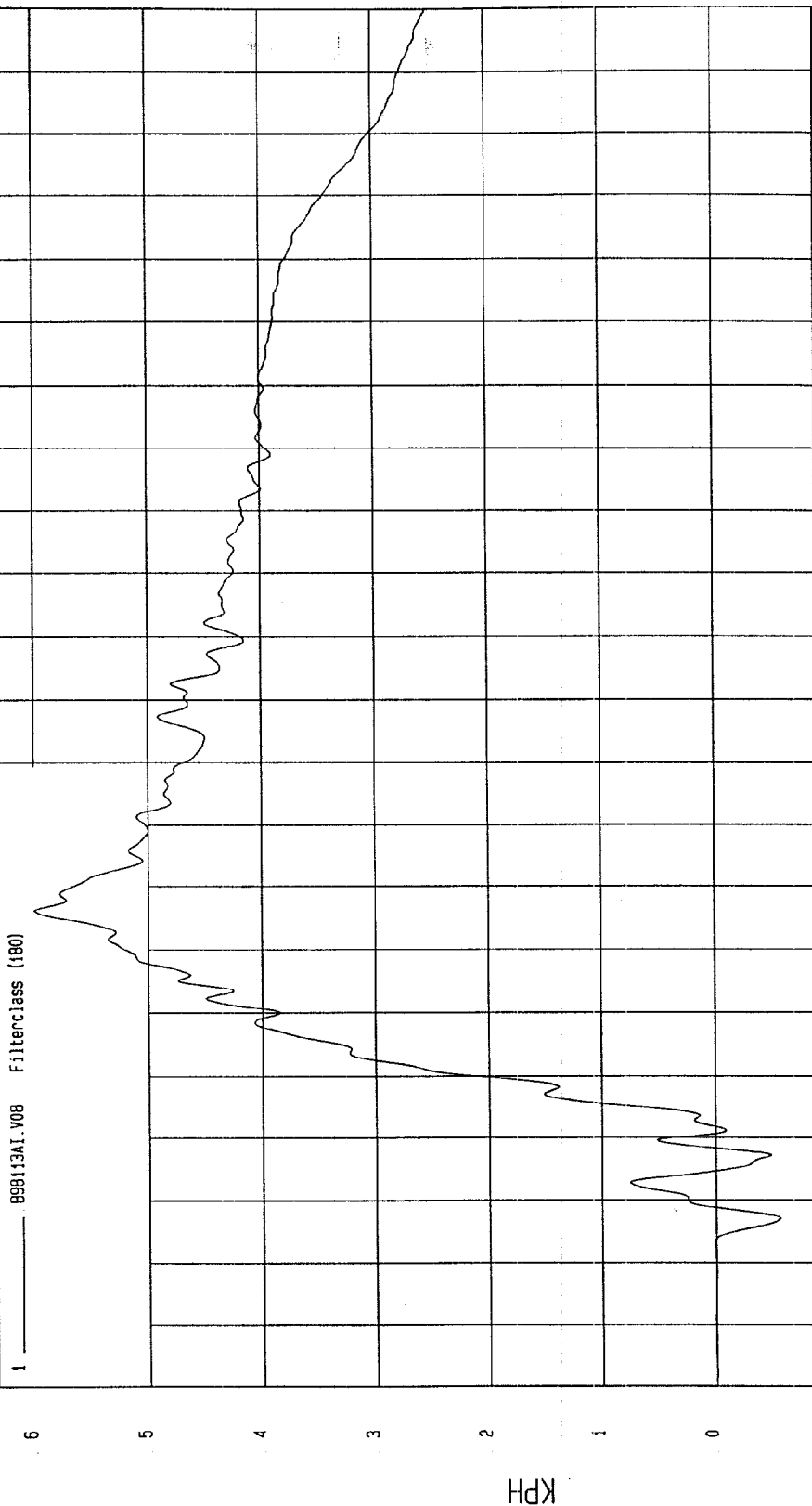
MGA Research
12-01-1998 15.43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -56 KPH at 7 msec Maximum = 6 KPH at 56 msec

REAR FLOORPAN ABOVE AXLE X VELOCITY



MSA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

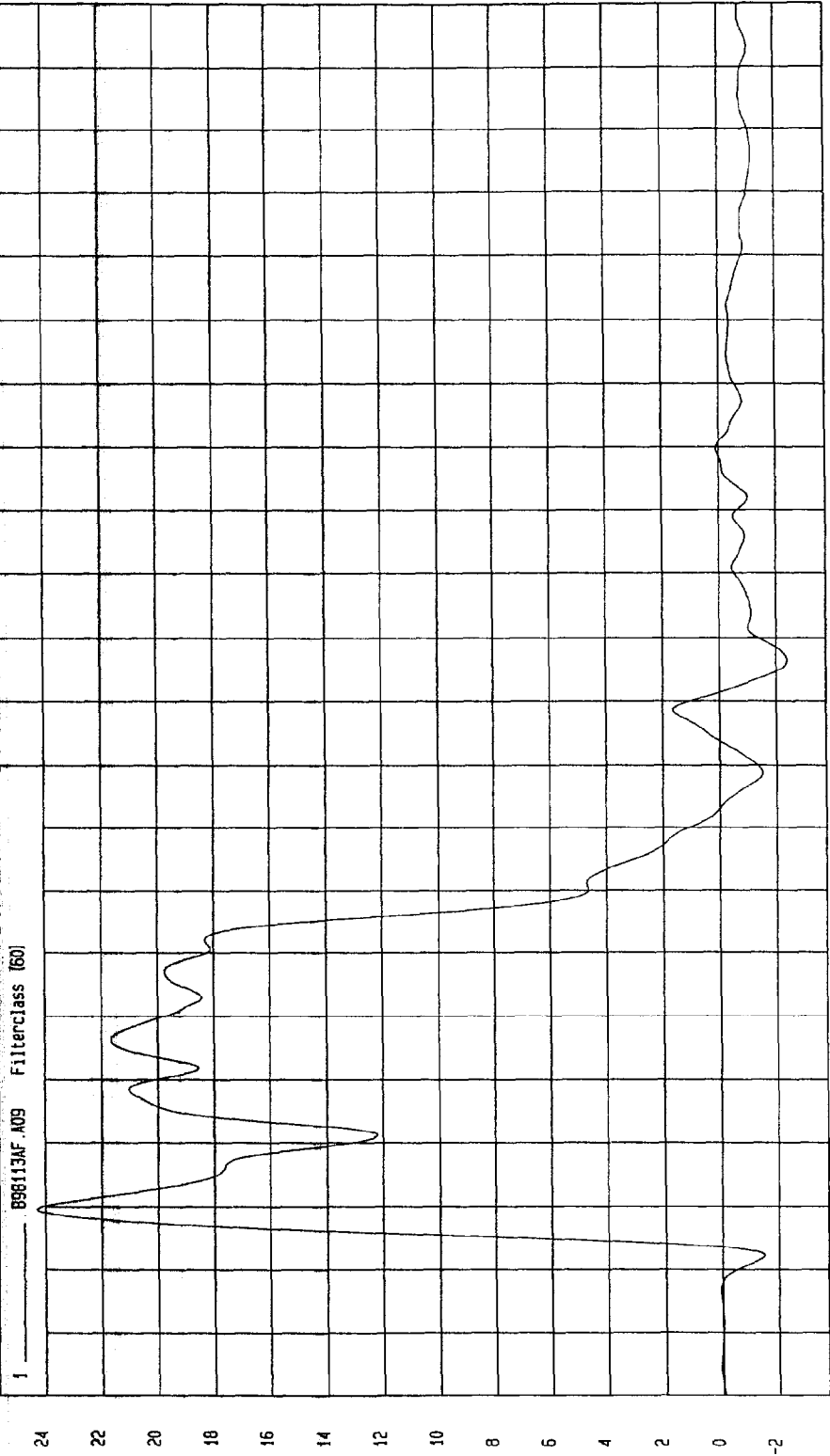
Speed: 38.34 MPH 61.7 KPH

Minimum = -2.37 G'S at 96 msec

Maximum = 24.3 G'S at 10 msec

REAR FLOORPAN ABOVE AXLE Y ACCELERATION

1 B96113AF.A09 Filterclass 160



NCA Research
12-01-1998 15.43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

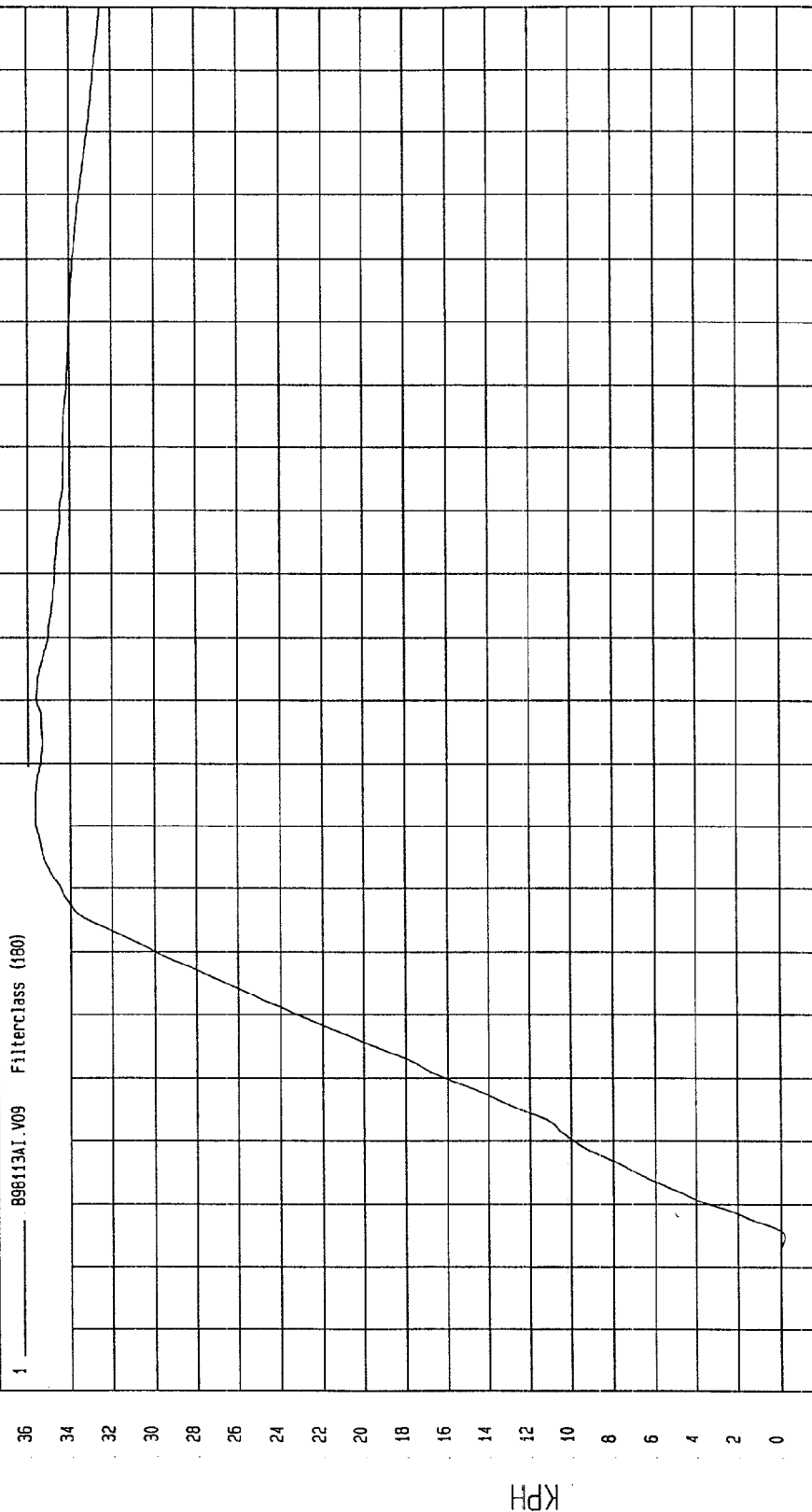
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -2 KPH at 5 msec

Maximum = 35.65 KPH at 74 msec

REAR FLOORPAN ABOVE AXLE Y VELOCITY

1 898113A1.V09 Filterclass (180)



WCA Research
12-01-1998 15:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

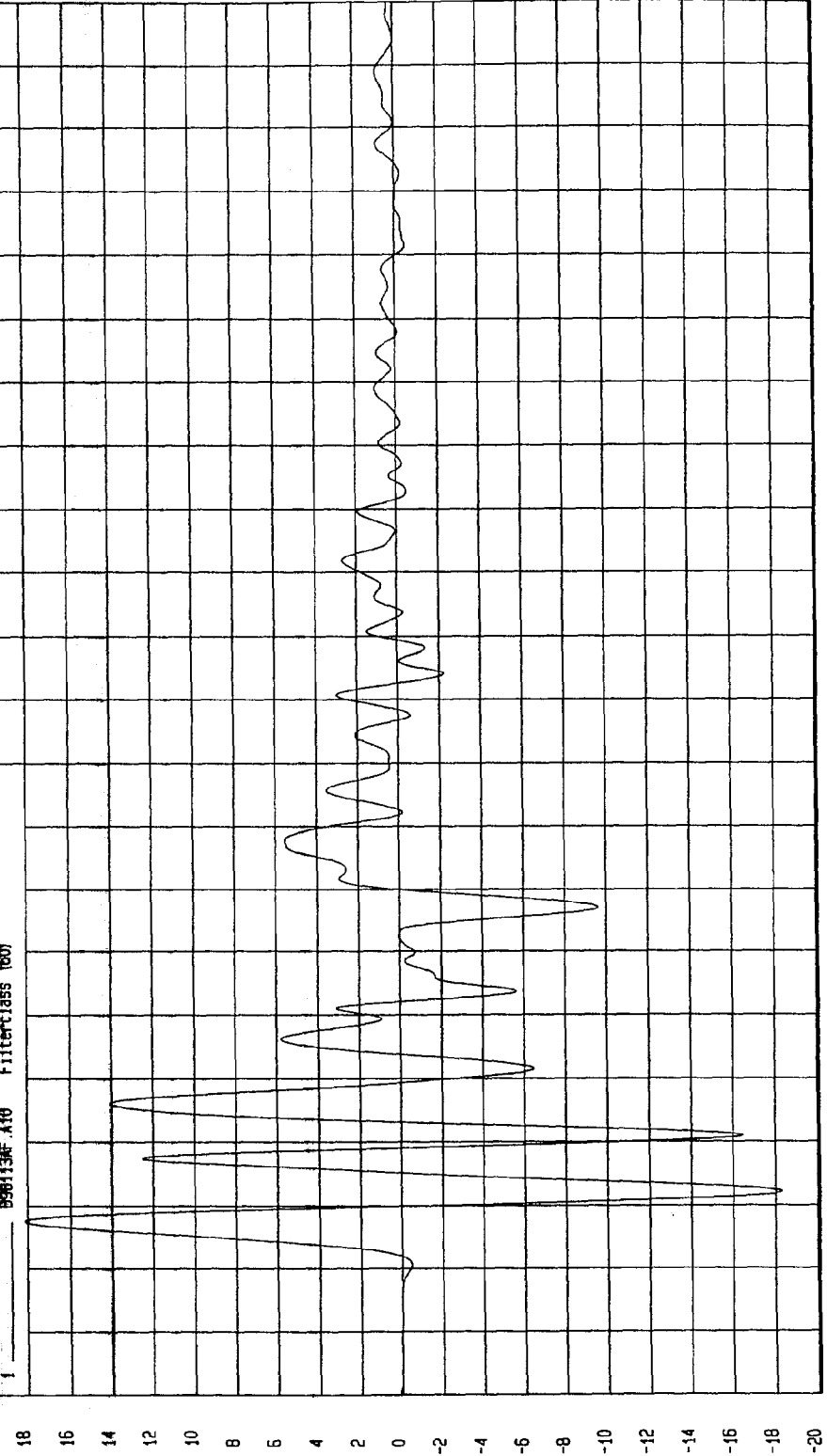
Maximum = 18.17 G'S at 8 msec

Minimum = -18.28 G'S at 12 msec

REAR FLOORPAN ABOVE AXLE Z ACCELERATION

1 898113AF.A10 Filterclass (60)

G.S



TIME (SECONDS)

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-0.01
-0.02

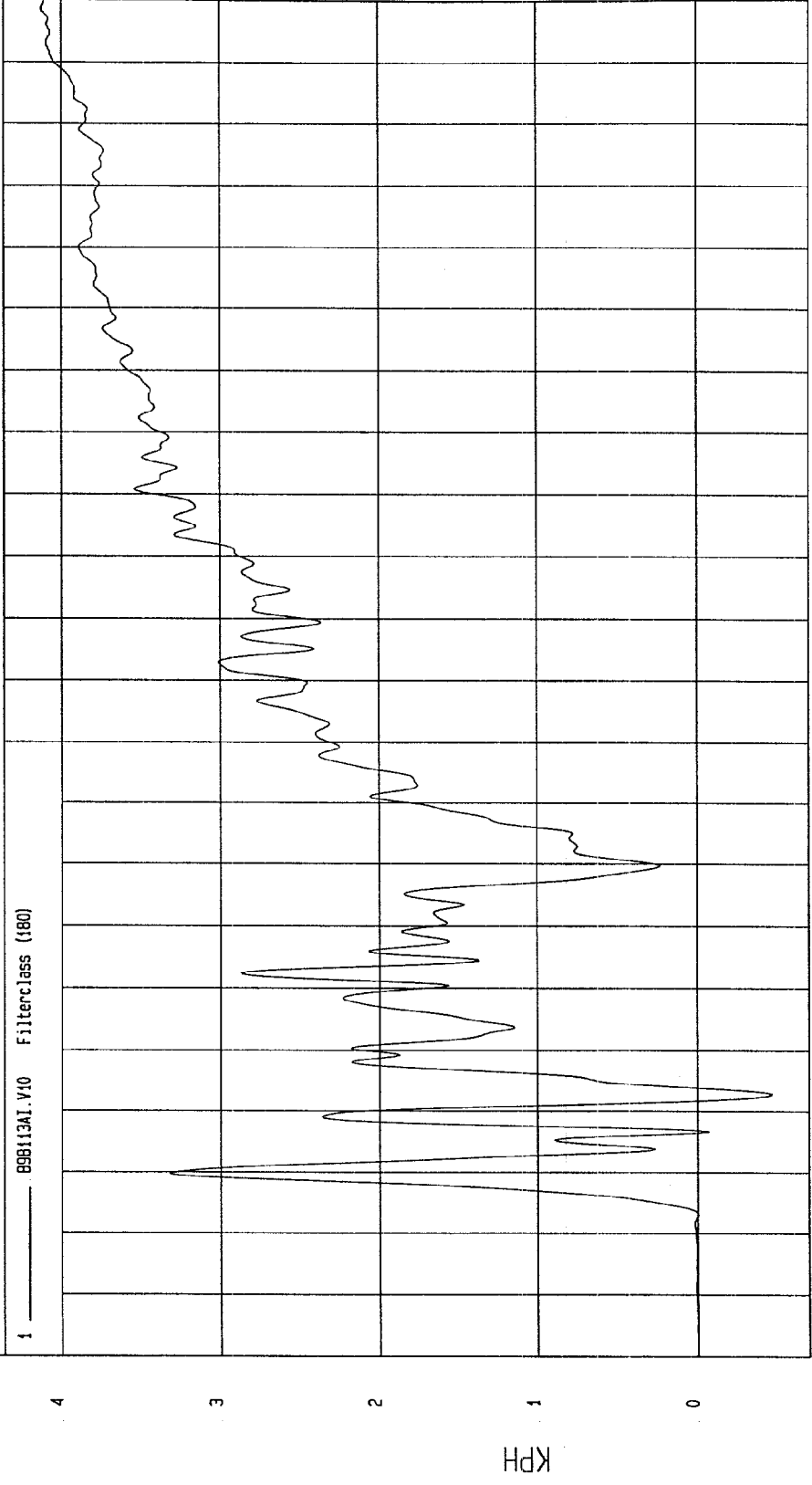
MEA Research
12-01-1998 15: 43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -.47 KPH at 23 msec Maximum = 4.13 KPH at 198 msec

REAR FLOORPAN ABOVE AXLE Z VELOCITY

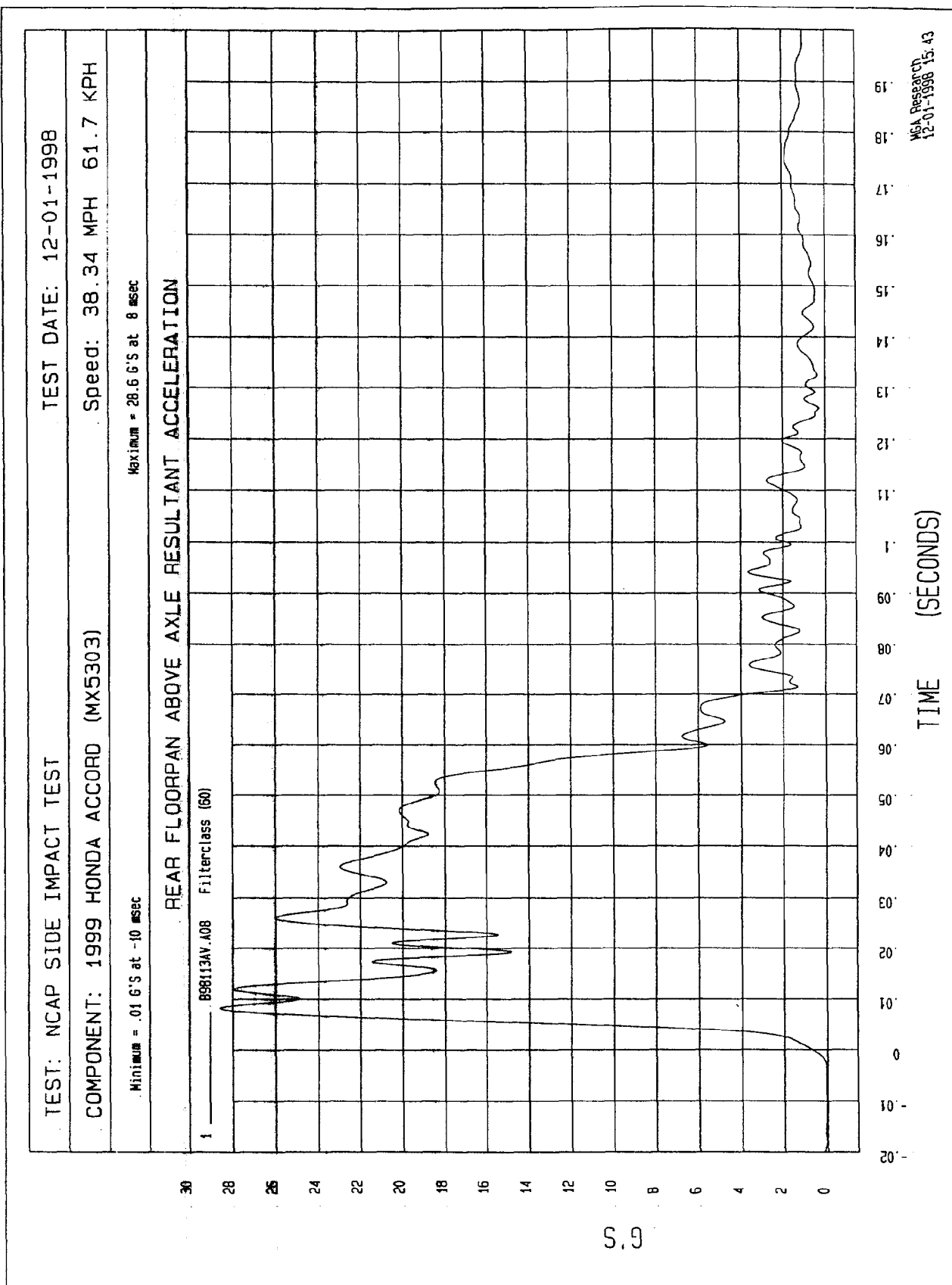


TIME Seconds

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MCA Research
12-01-1998 15.43



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

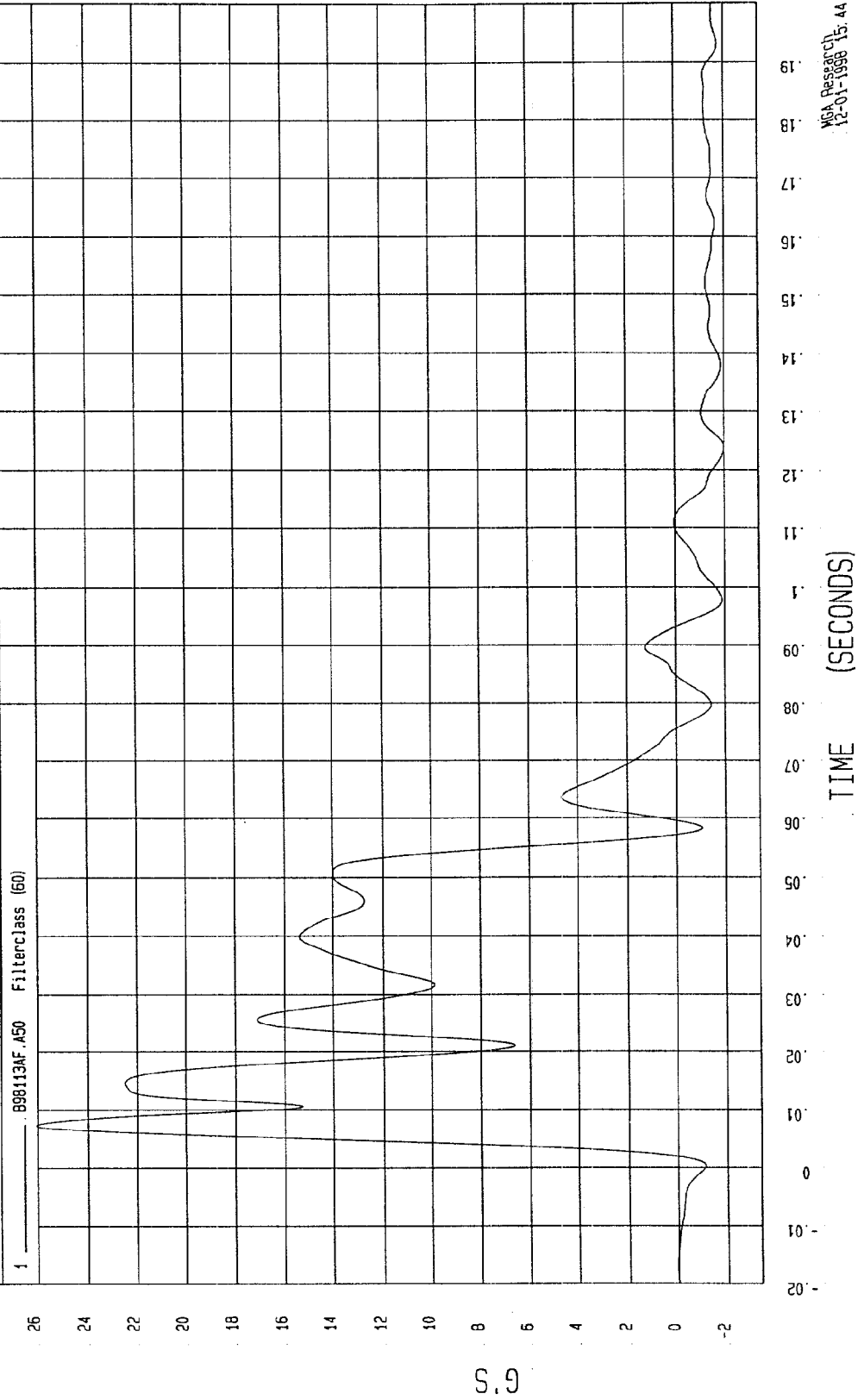
COMPONENT: 1999 HONDA ACCORD (MX5303)

Speed: 38.34 MPH 61.7 KPH

Minimum = -1.98 G'S at 124 msec

Maximum = 26.06 G'S at 7 msec

RIGHT REAR OCCUPANT COMPARTMENT Y ACCELERATION



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

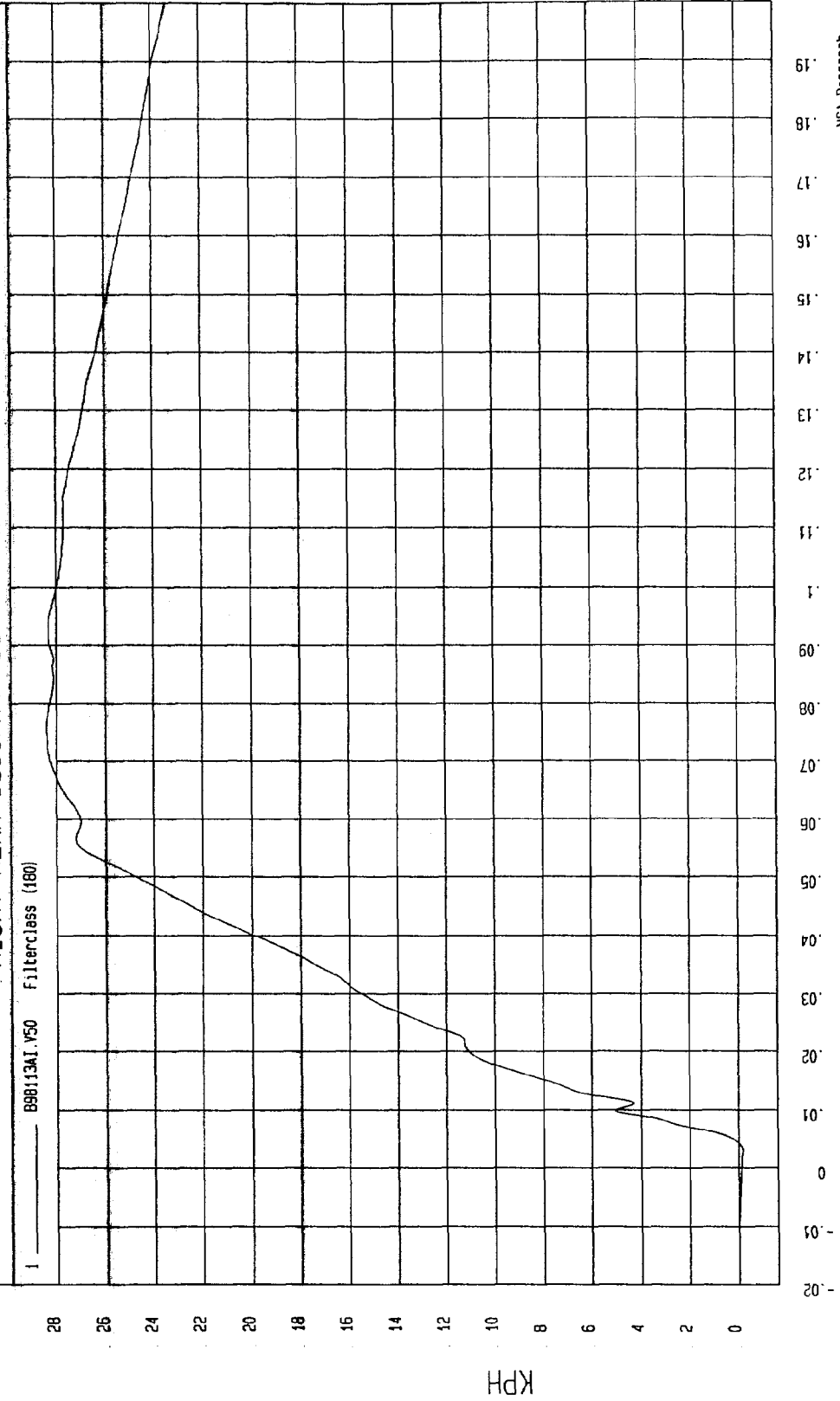
Speed: 38.34 MPH 61.7 KPH

Minimum = -15 KPH at 3 msec

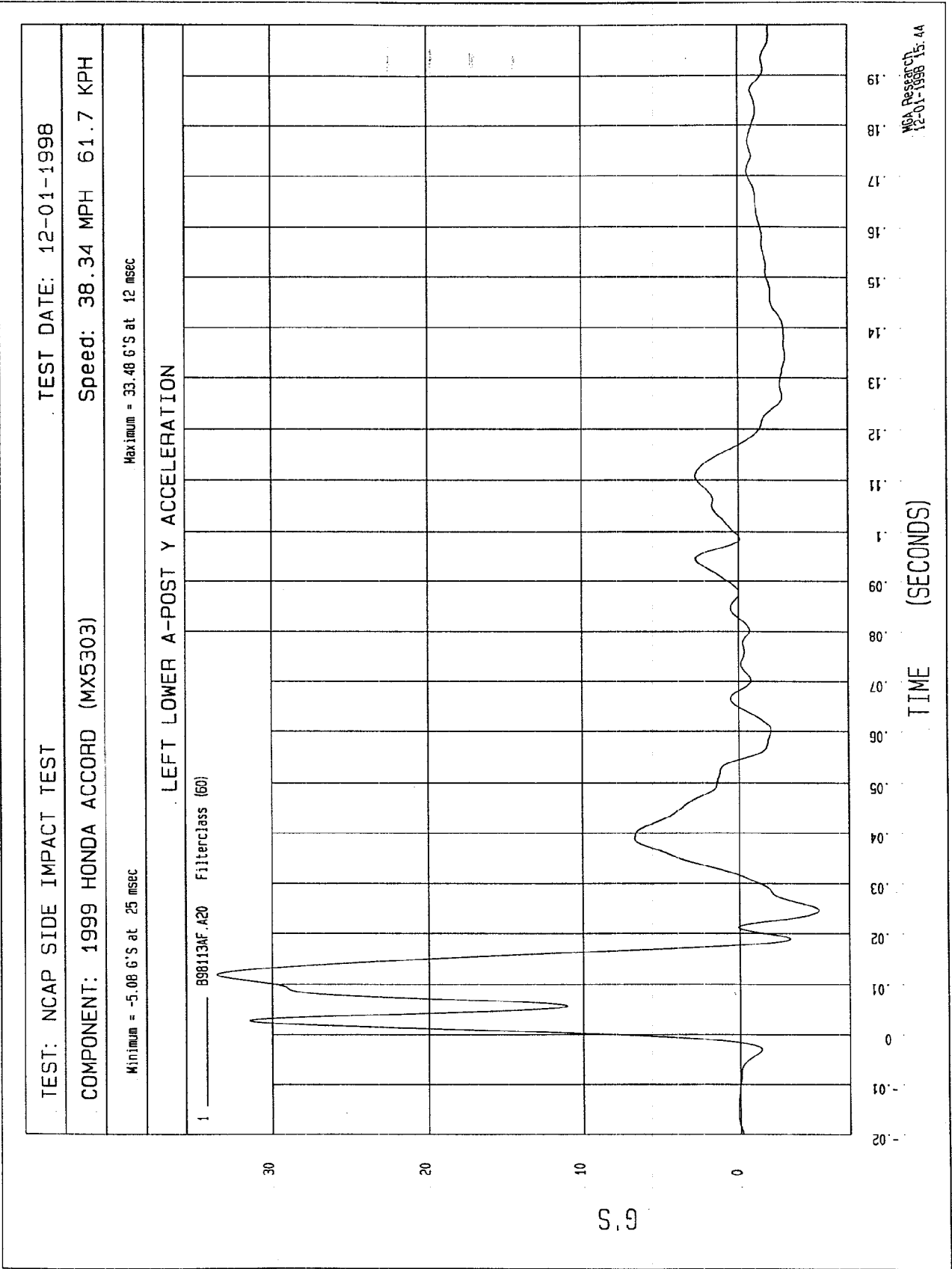
Maximum = 28.43 KPH at 76 msec

RIGHT REAR OCCUPANT COMPARTMENT Y VELOCITY

1 B981341.V50 Filterclass (180)



MGA Research
12-01-1998 15:44



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

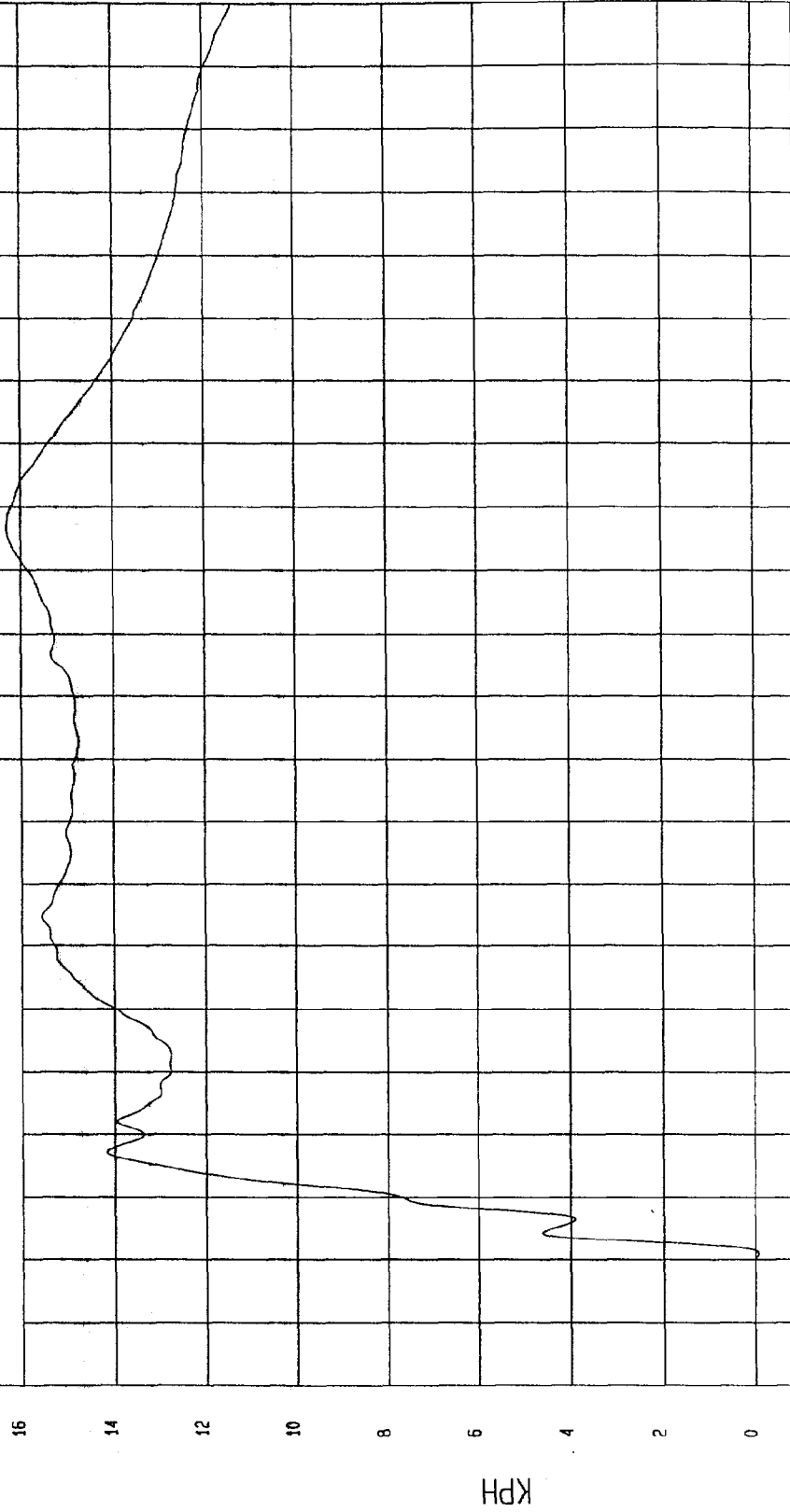
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 16.3 KPH at 117 msec

Minimum = -7.33E-02 KPH at 1 msec

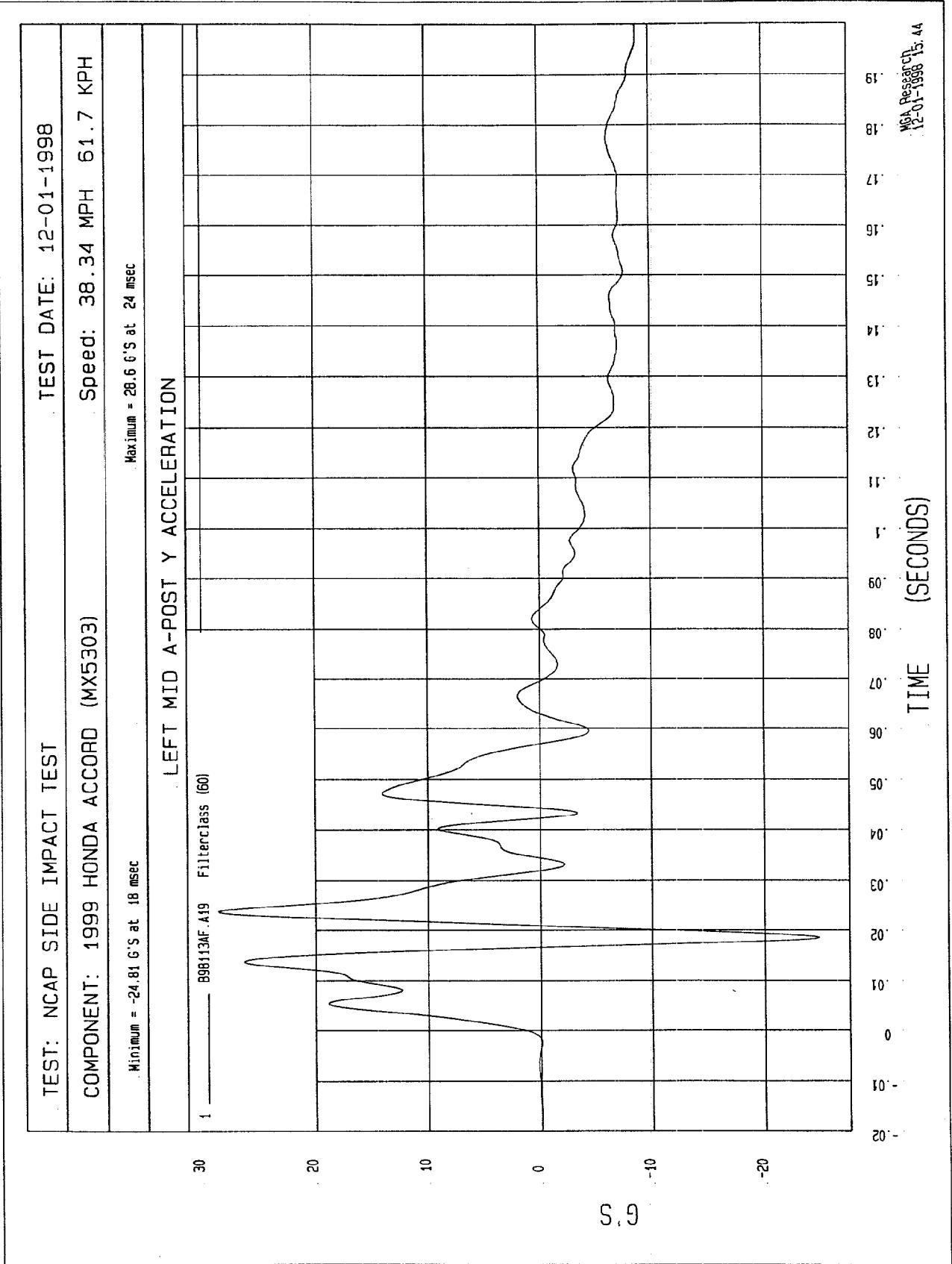
LEFT LOWER A-POST Y VELOCITY

1 B98113A1.V20 Filterclass (180)



TIME Seconds

MGA Research
12-01-1998 15:44



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

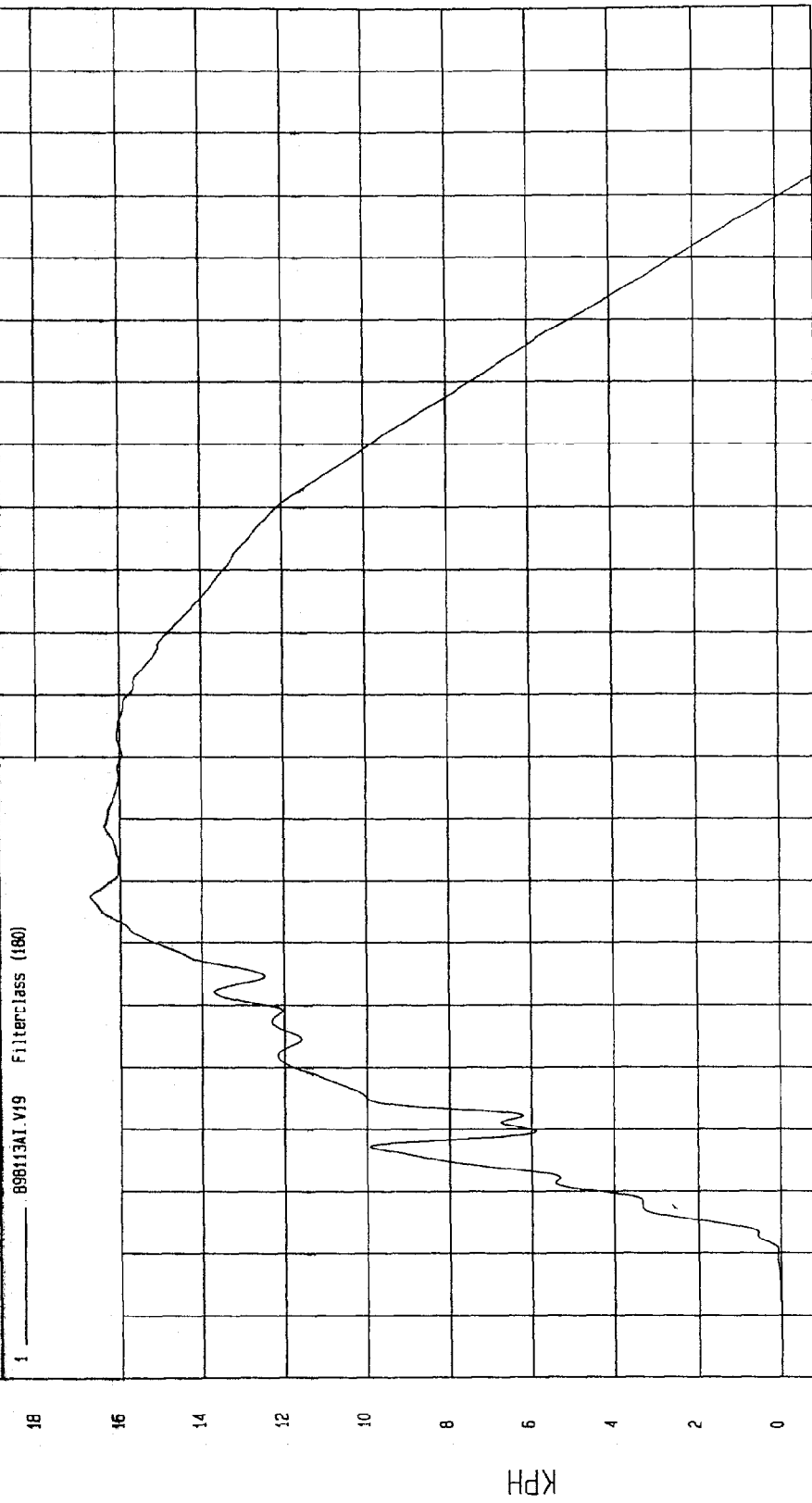
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 16.73 KPH at 57 msec

Minimum = -7.96 KPH at 200 msec

LEFT MID A-POST Y VELOCITY

1 898113A1.V19 Filterclass (180)



MCA Research
12-10-1998 11:29

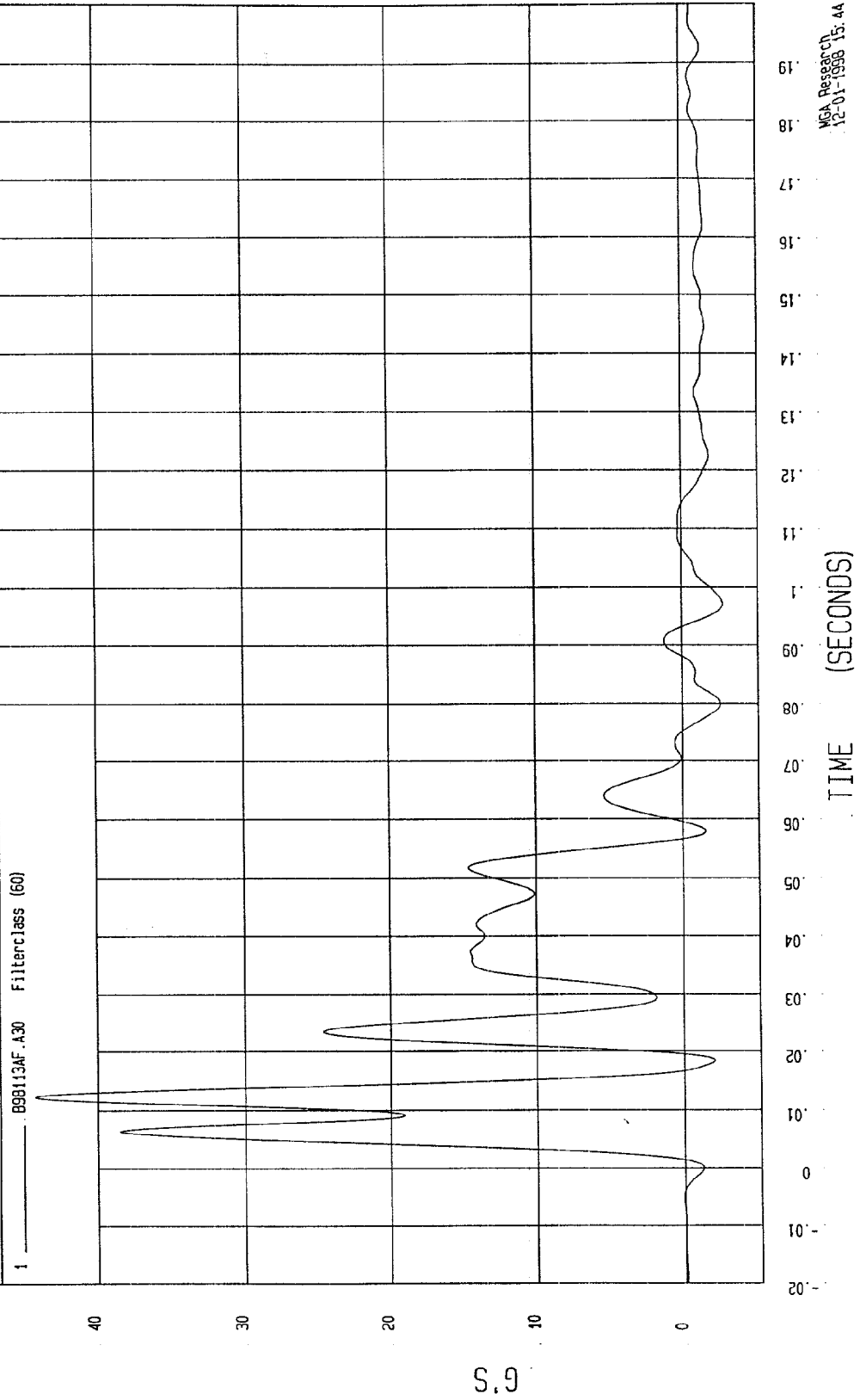
TIME Seconds

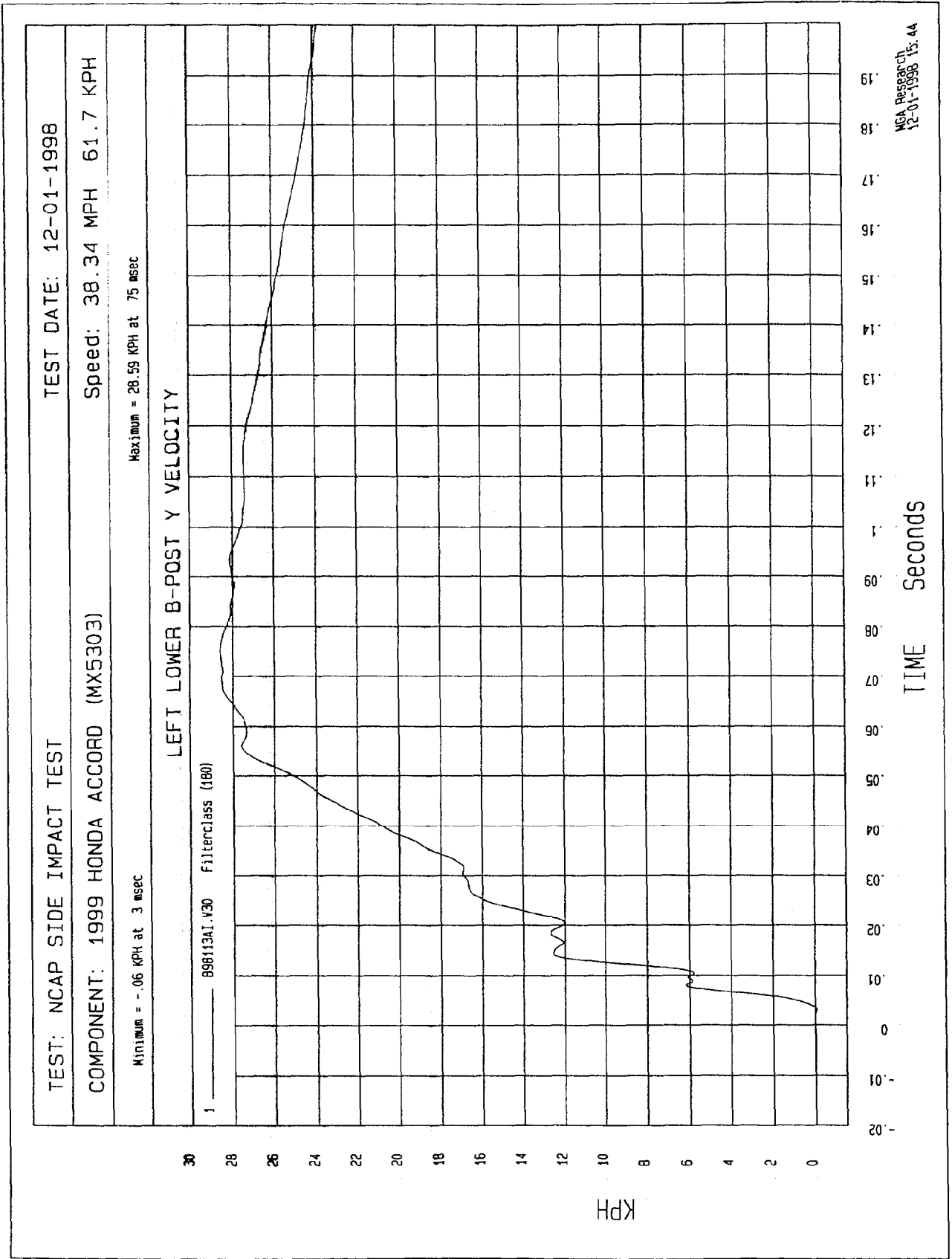
TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -2.82 G'S at 97 msec Maximum = 44.2 G'S at 12 msec

LEFT LOWER B-POST Y ACCELERATION





TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

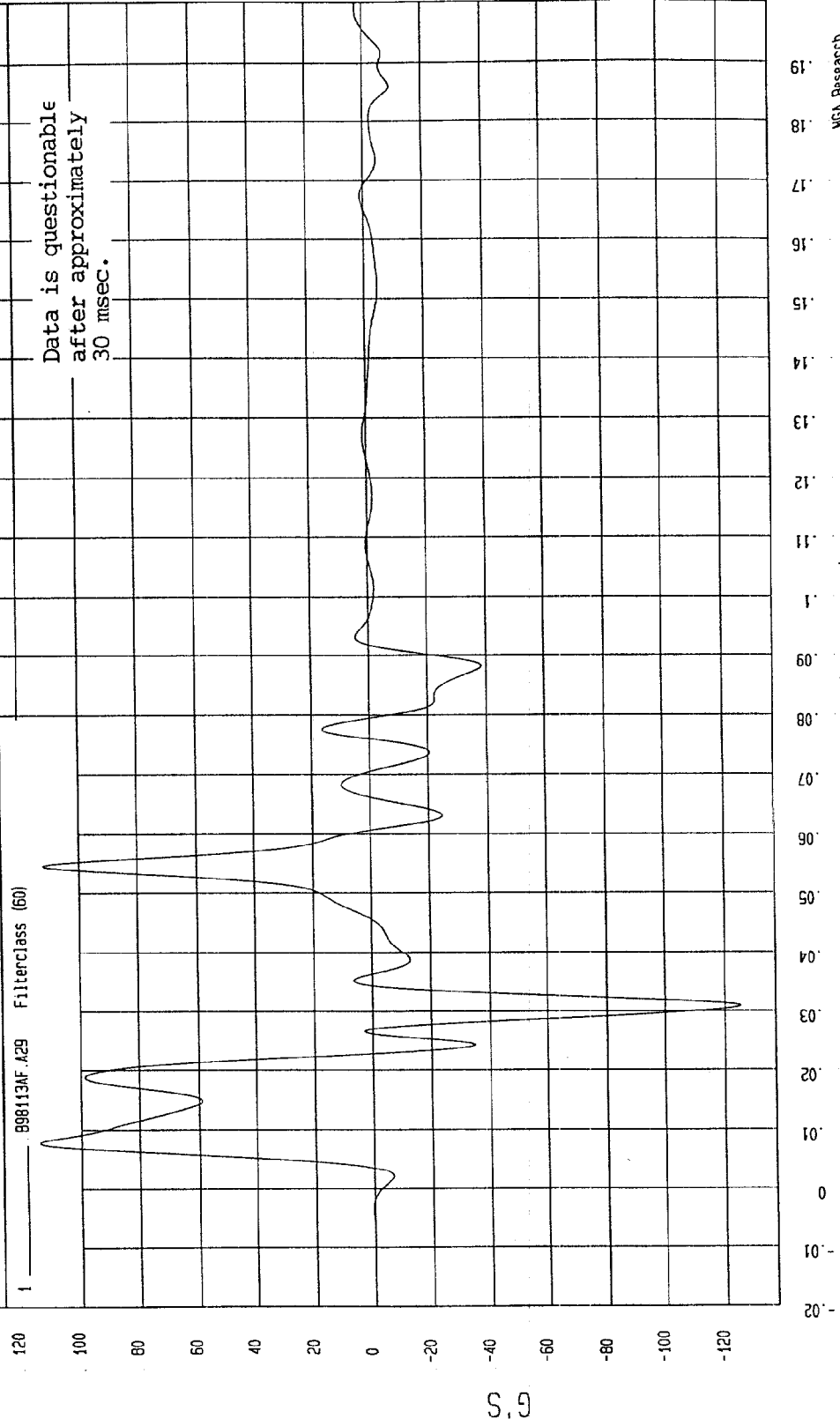
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 113.9 G'S at 8 msec

Minimum = -125.28 G'S at 31 msec

LEFT MID B-POST Y ACCELERATION



NGA Research
12-01-1998 15.44

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

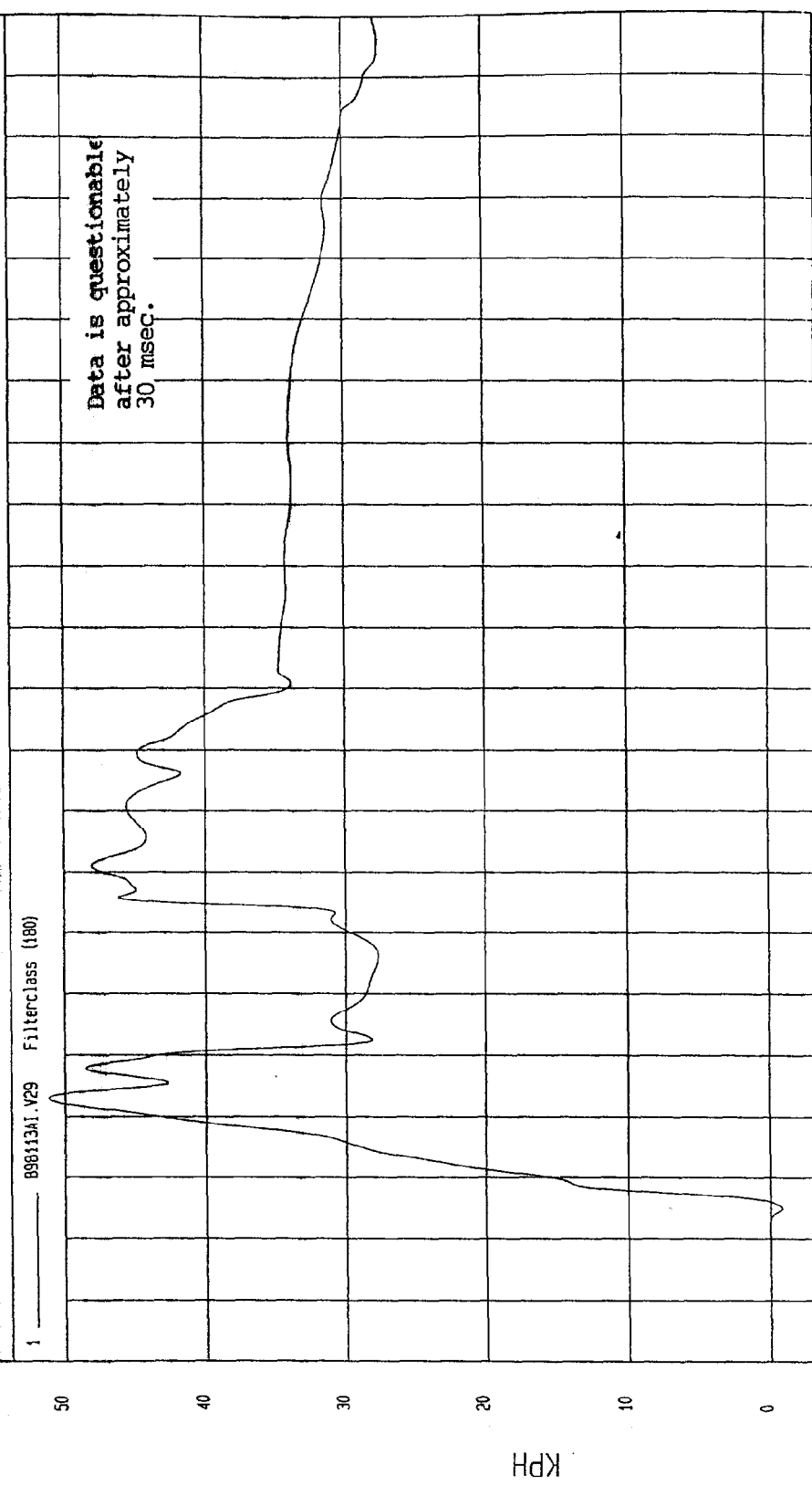
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 51.11 KPH at 23 msec

Minimum = -0.02 KPH at 5 msec

LEFT MID B-POST Y VELOCITY



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

Maximum = 4.52 G'S at 58 msec

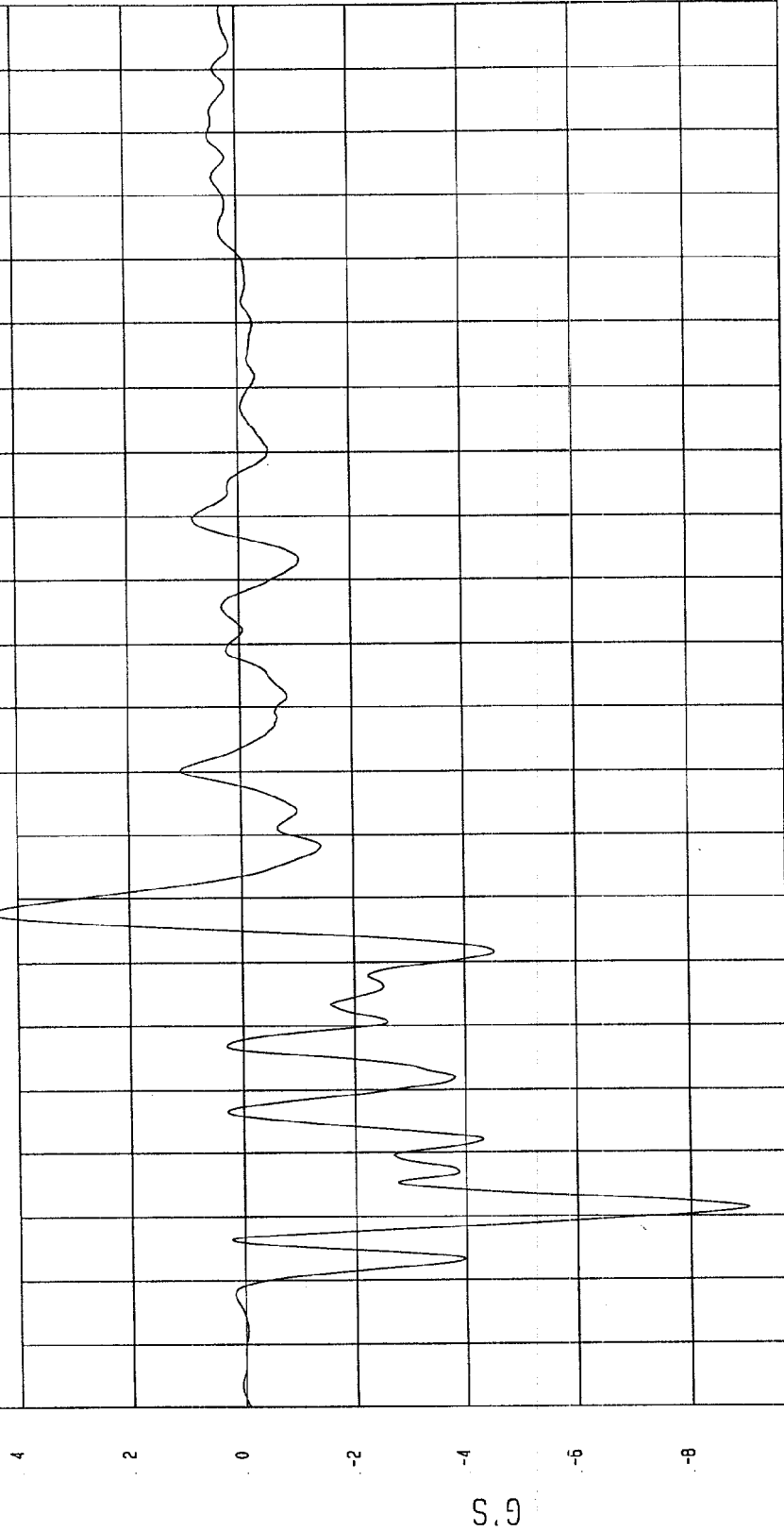
TEST: NCAP SIDE IMPACT TEST

COMPONENT: 1999 HONDA ACCORD (MX5303)

Minimum = -9.04 G'S at 11 msec

VEHICLE CG X ACCELERATION

1 B9813AF.A05 FilterClass (50)



MGA Research
12-01-1998 15:44

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

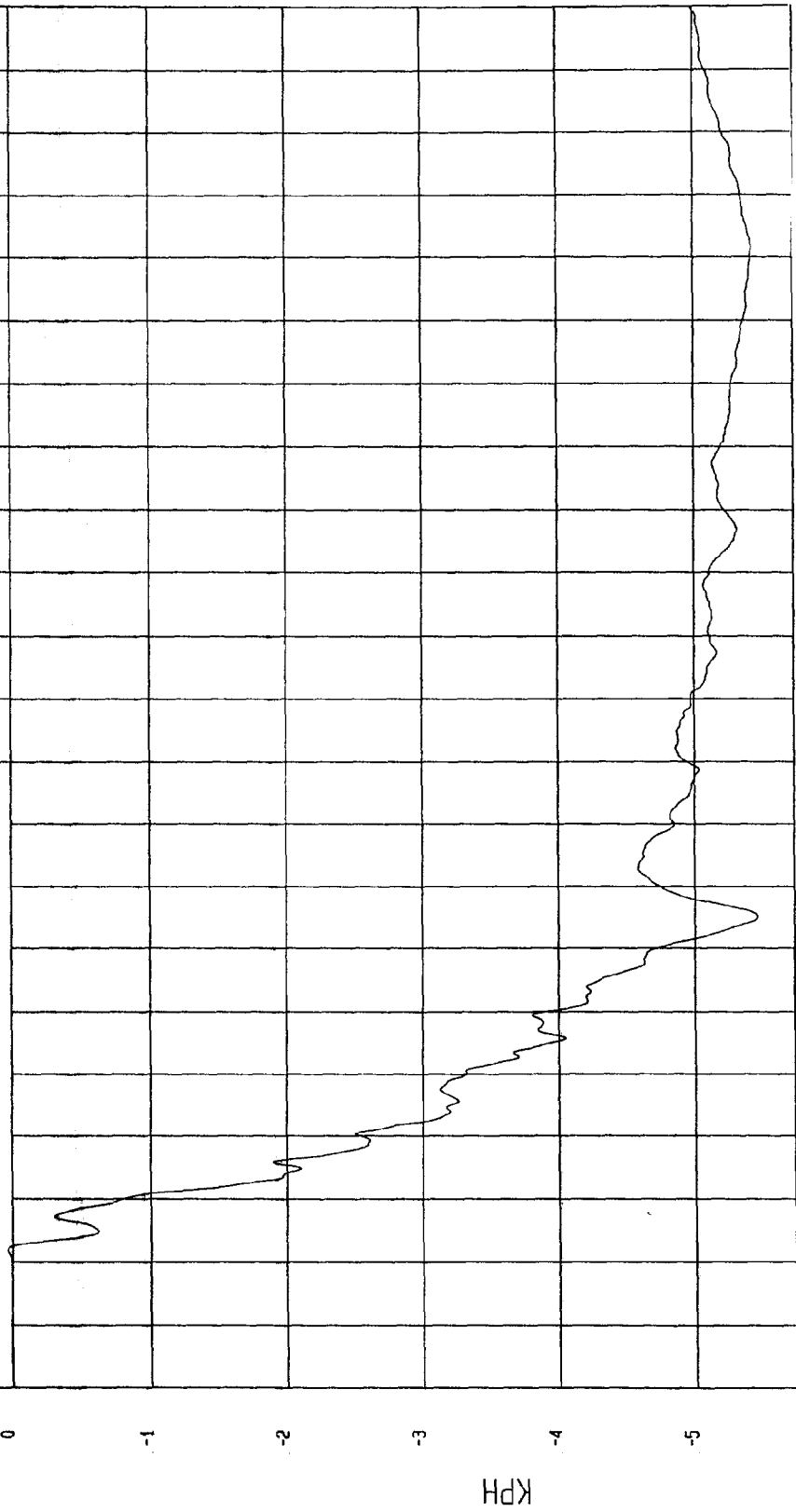
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 3.62E-02 KPH at 2 msec

Minimum = -5.44 KPH at 55 msec

VEHICLE CG X VELOCITY

1 89813A1.V05 FilterClass (160)



MOA Research
12-01-1998 15:44

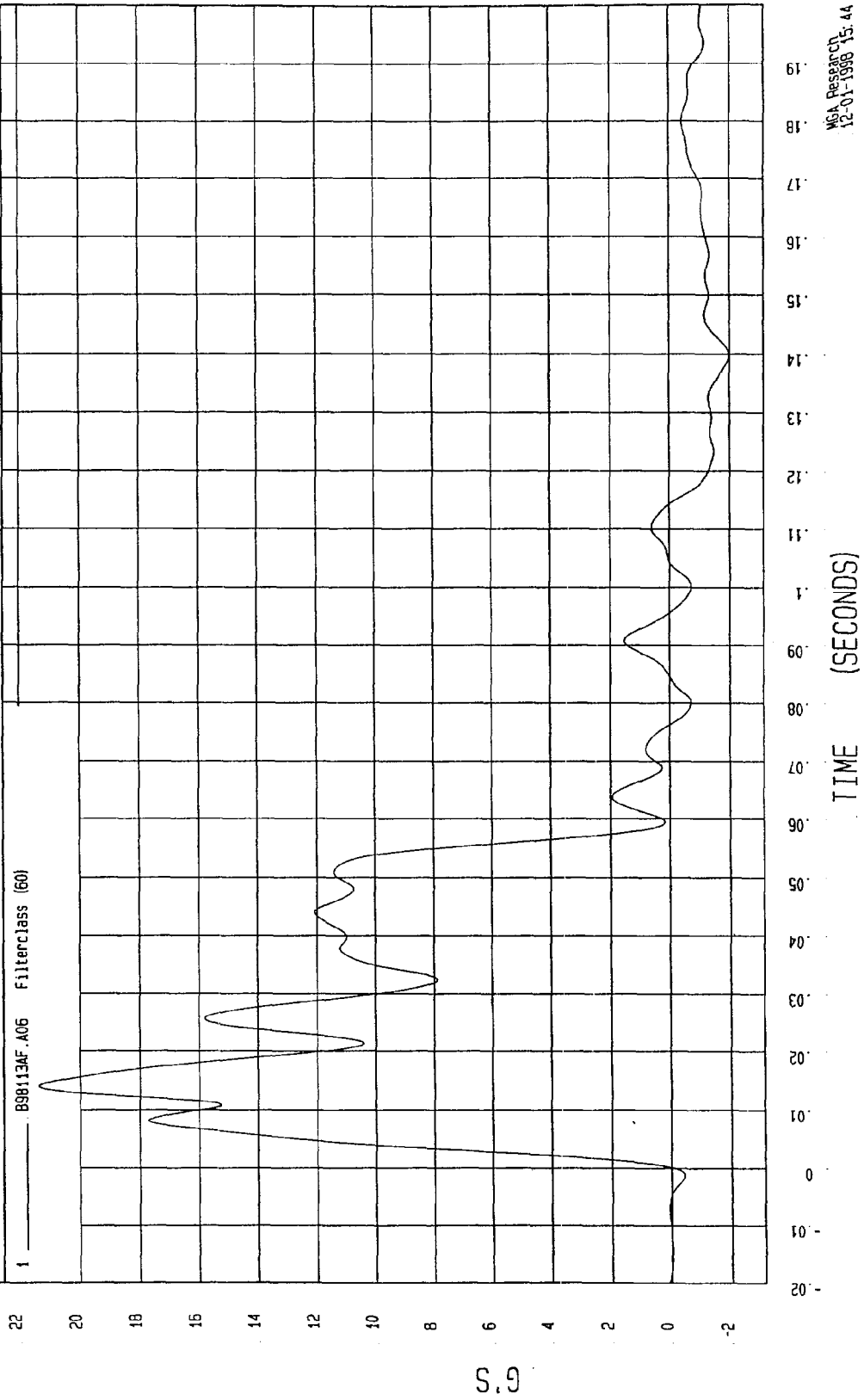
TIME Seconds

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -1.98 G'S at 140 msec Maximum = 21.37 G'S at 14 msec

VEHICLE CG Y ACCELERATION



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

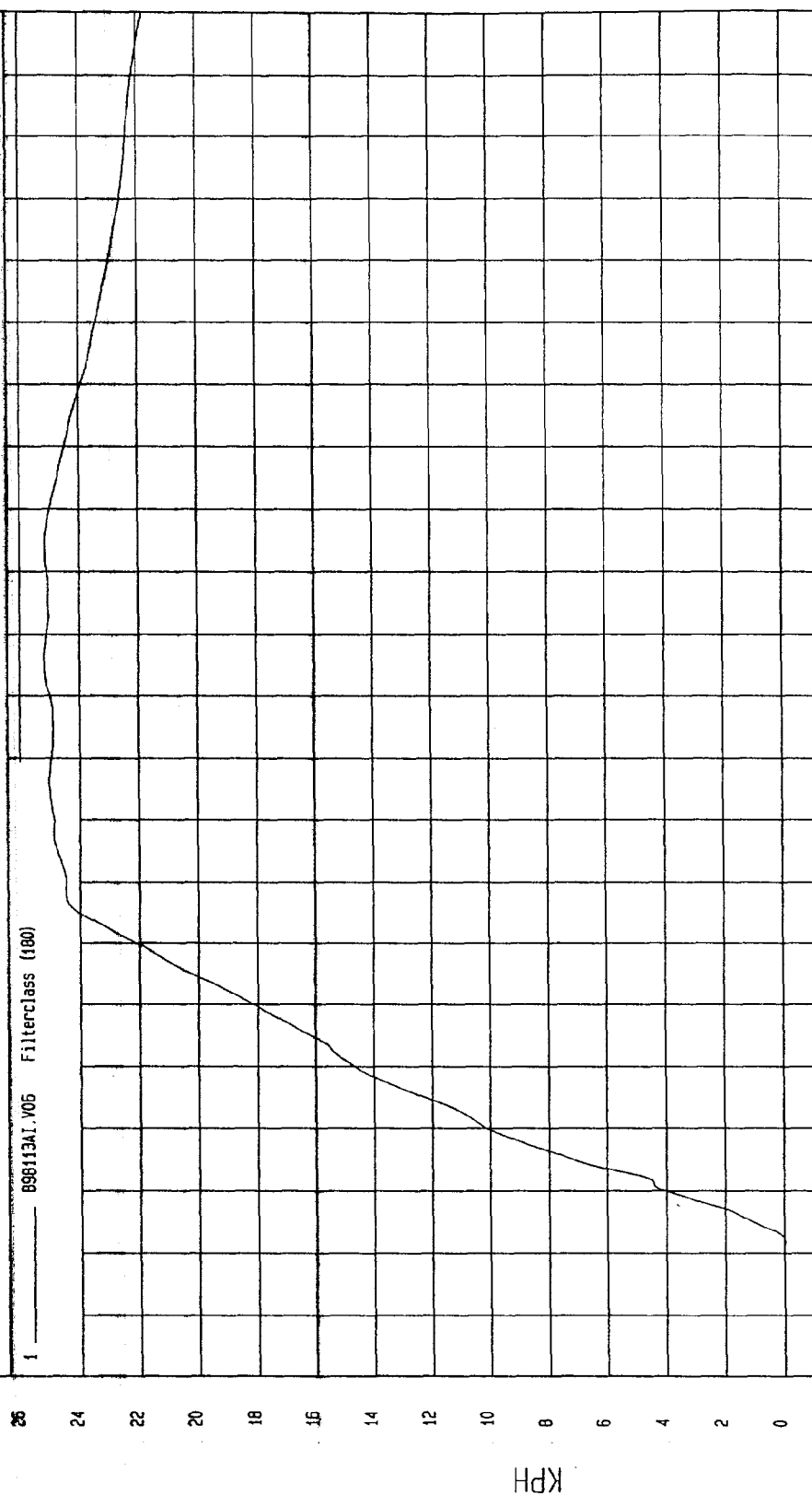
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 25.17 KPH at 95 msec

Minimum = -1.64E-02 KPH at 2 msec

VEHICLE CG Y VELOCITY

1 898113A1.V05 Filterclass (180)



WCA Research
12-01-1998 15:44

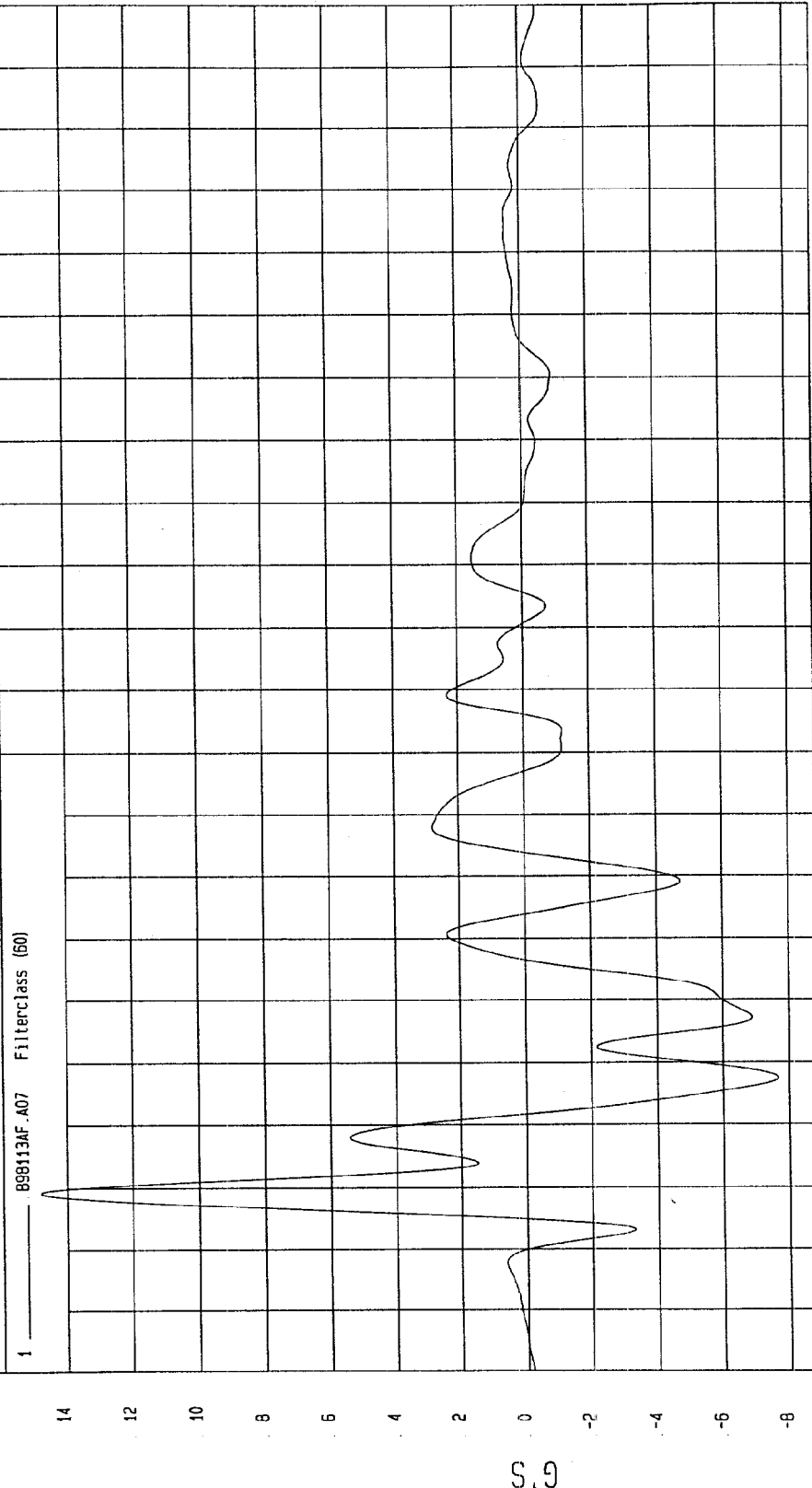
TIME Seconds

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -7.67 G'S at 28 msec Maximum = 14.78 G'S at 9 msec

VEHICLE CG Z ACCELERATION



NCA Research
12-01-1998 15.44

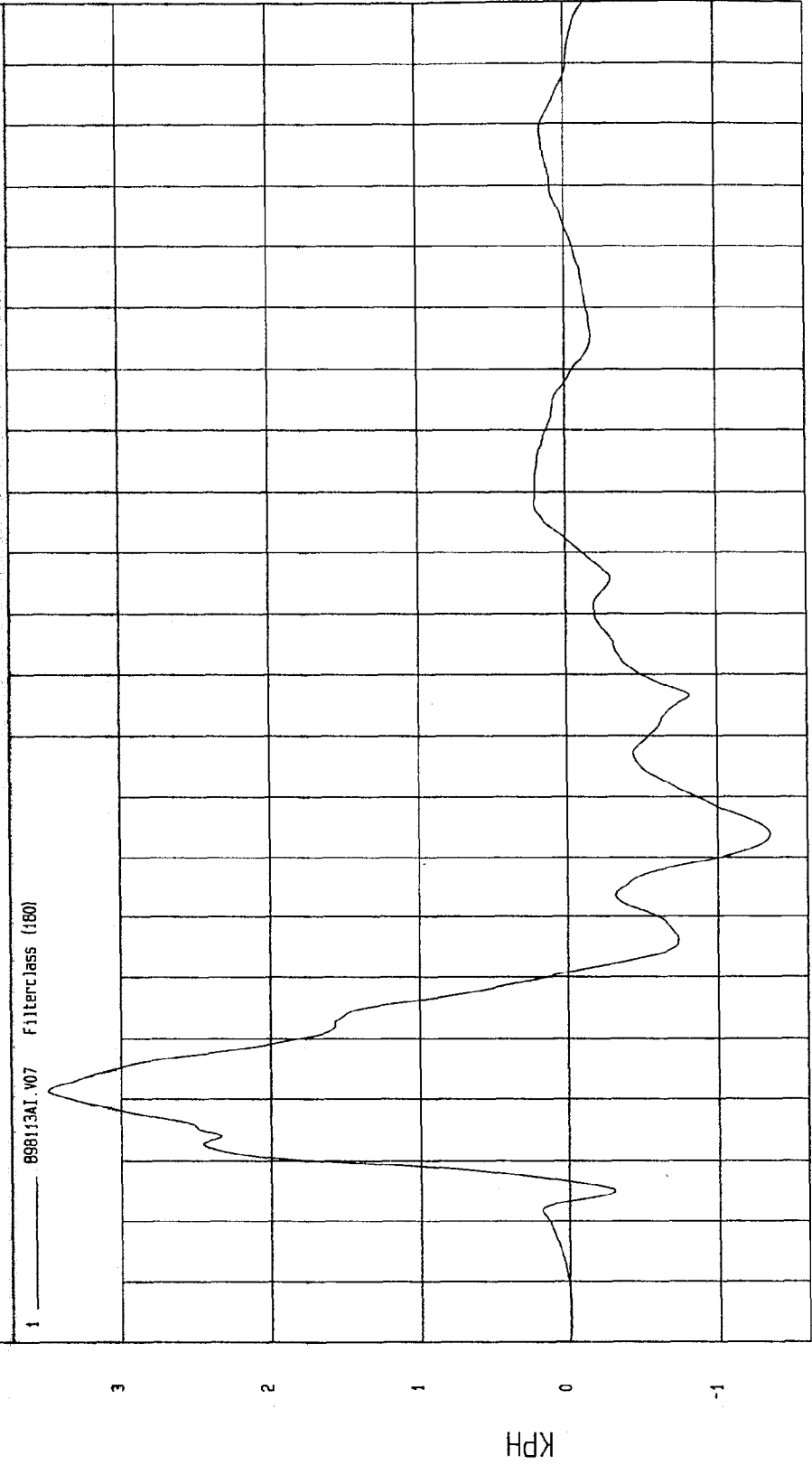
TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -1.34 KPH at 64 msec Maximum = 3.48 KPH at 21 msec

VEHICLE CG Z VELOCITY

1 ——— 898113A1.V07 Filterclass (180)



TIME Seconds

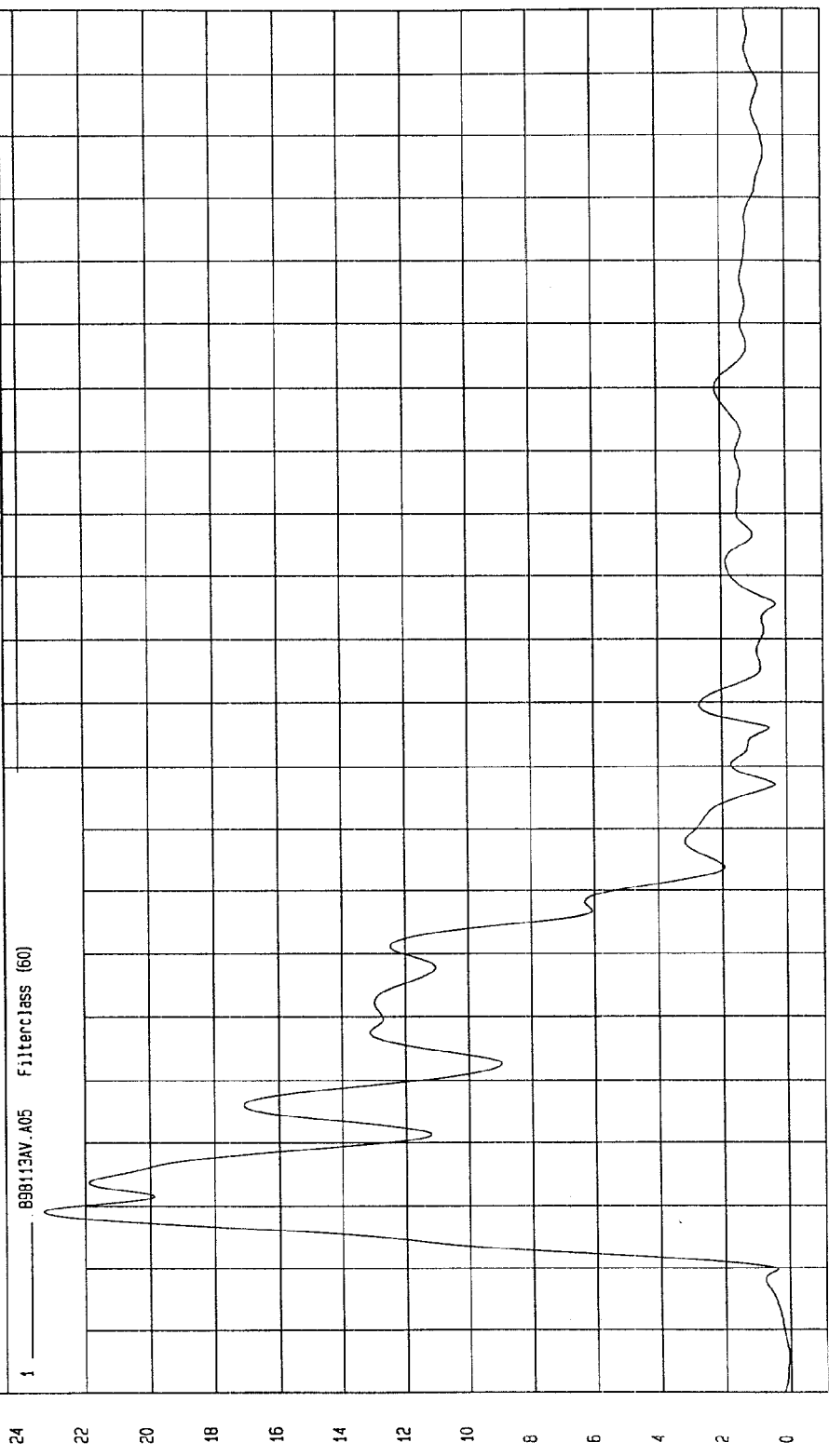
WCA Research
12-01-1998 15:44

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = 4.32E-02 G'S at -14 msec Maximum = 23.27 G'S at 9 msec

VEHICLE CG RESULTANT ACCELERATION



TIME (SECONDS)

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VEA Research
12-01-1998 15:44

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

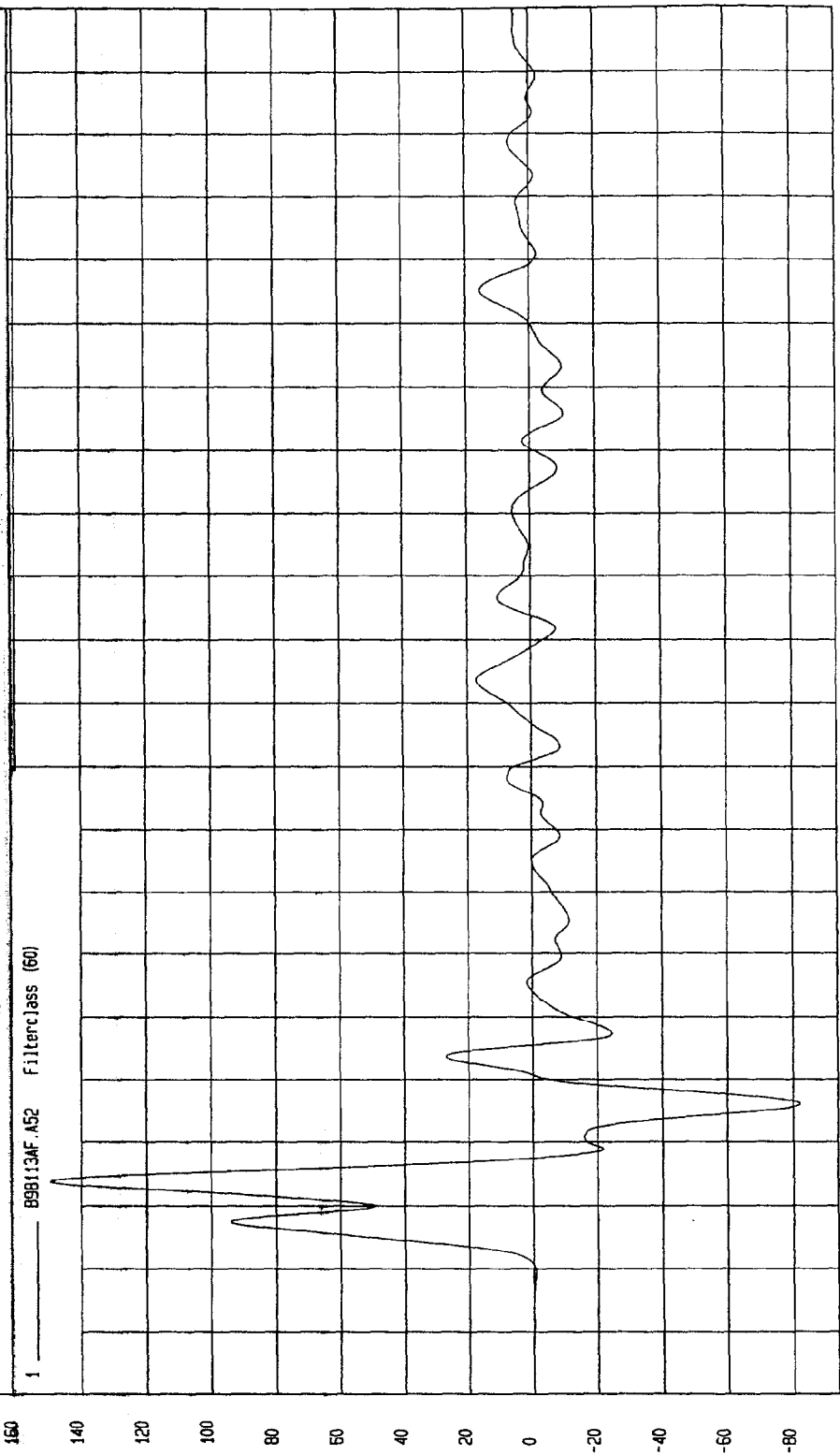
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 149.69 G'S at 14 msec

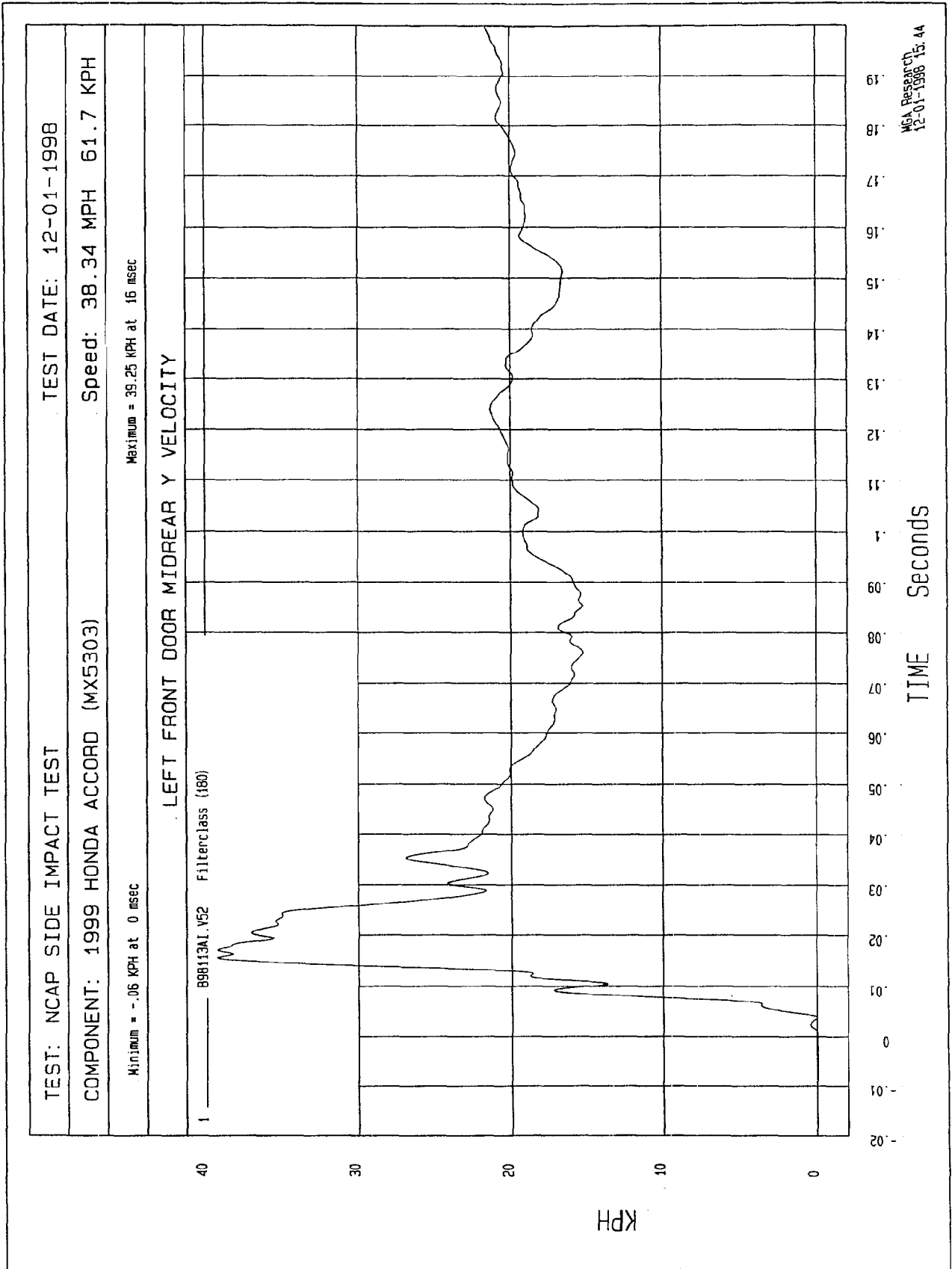
Minimum = -82.22 G'S at 25 msec

LEFT FRONT DOOR MIDREAR Y ACCELERATION



MCA Research
12-01-1998 15:44

TIME (SECONDS)



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

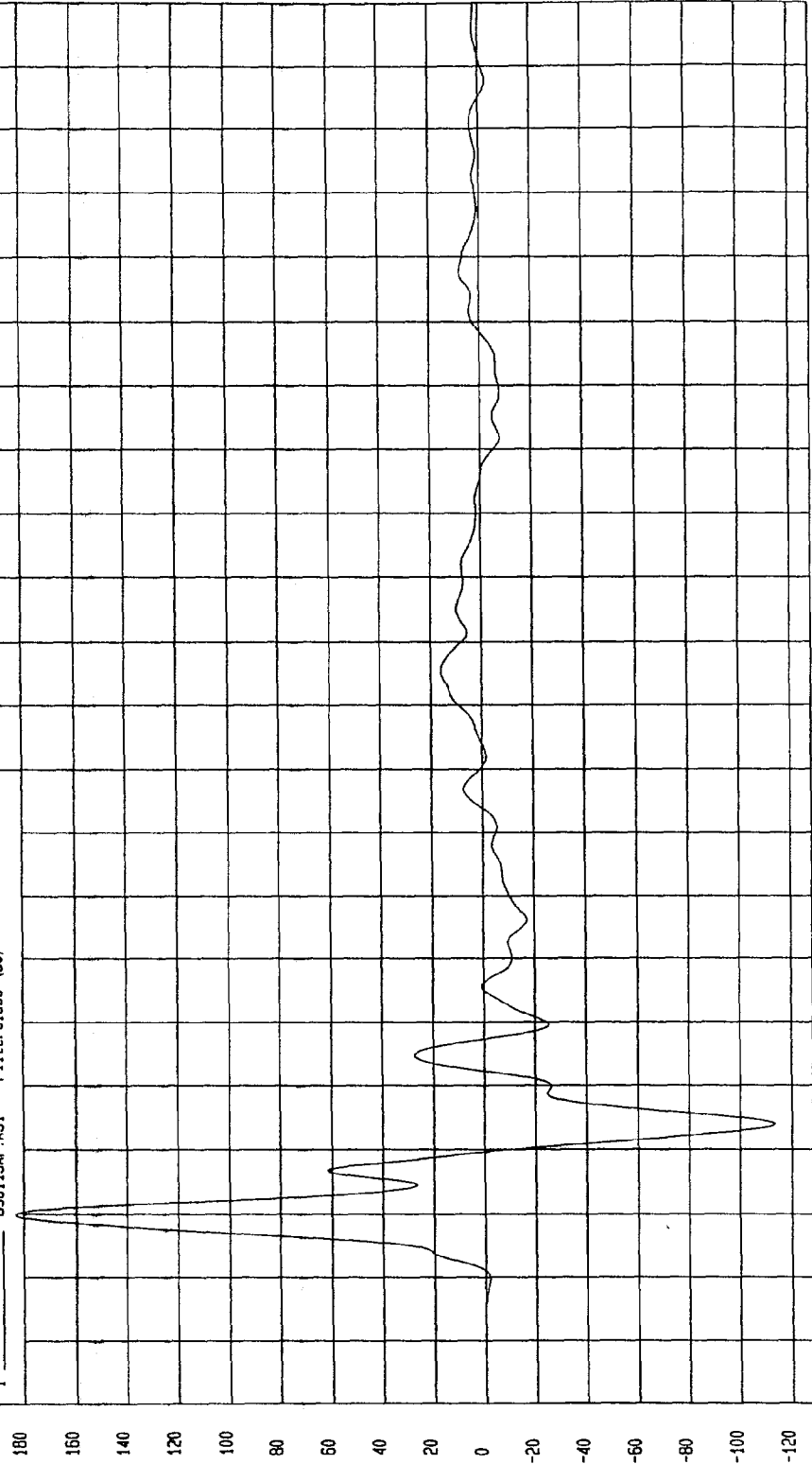
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 183.18 G'S at 10 msec

Minimum = -113.4 G'S at 24 msec

LEFT FRONT DOOR CENTERLINE Y ACCELERATION

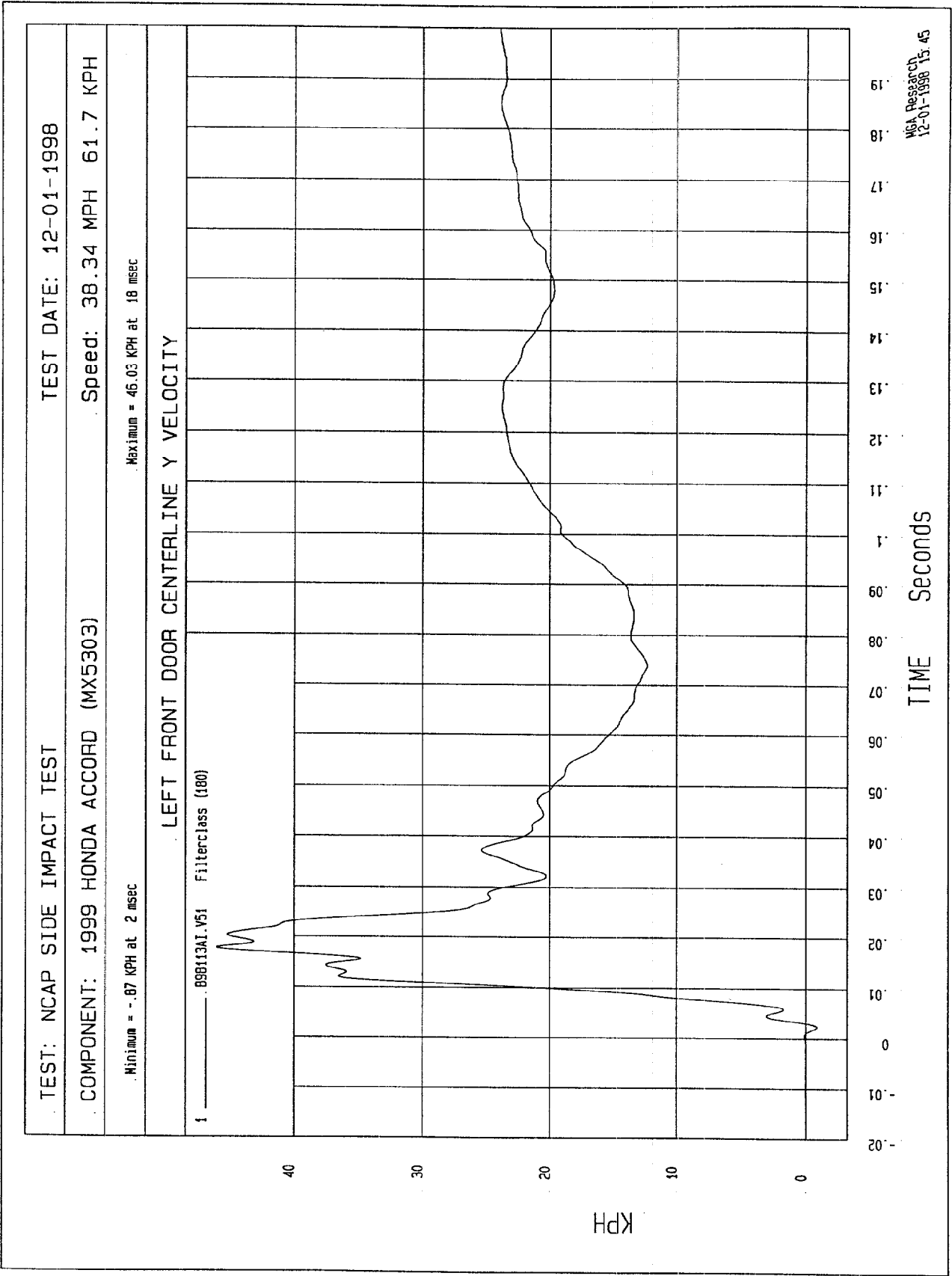
1 896113AF.A51 Filterclass 160



WCA Research
12-01-1998 15:45

TIME (SECONDS)

G.S



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

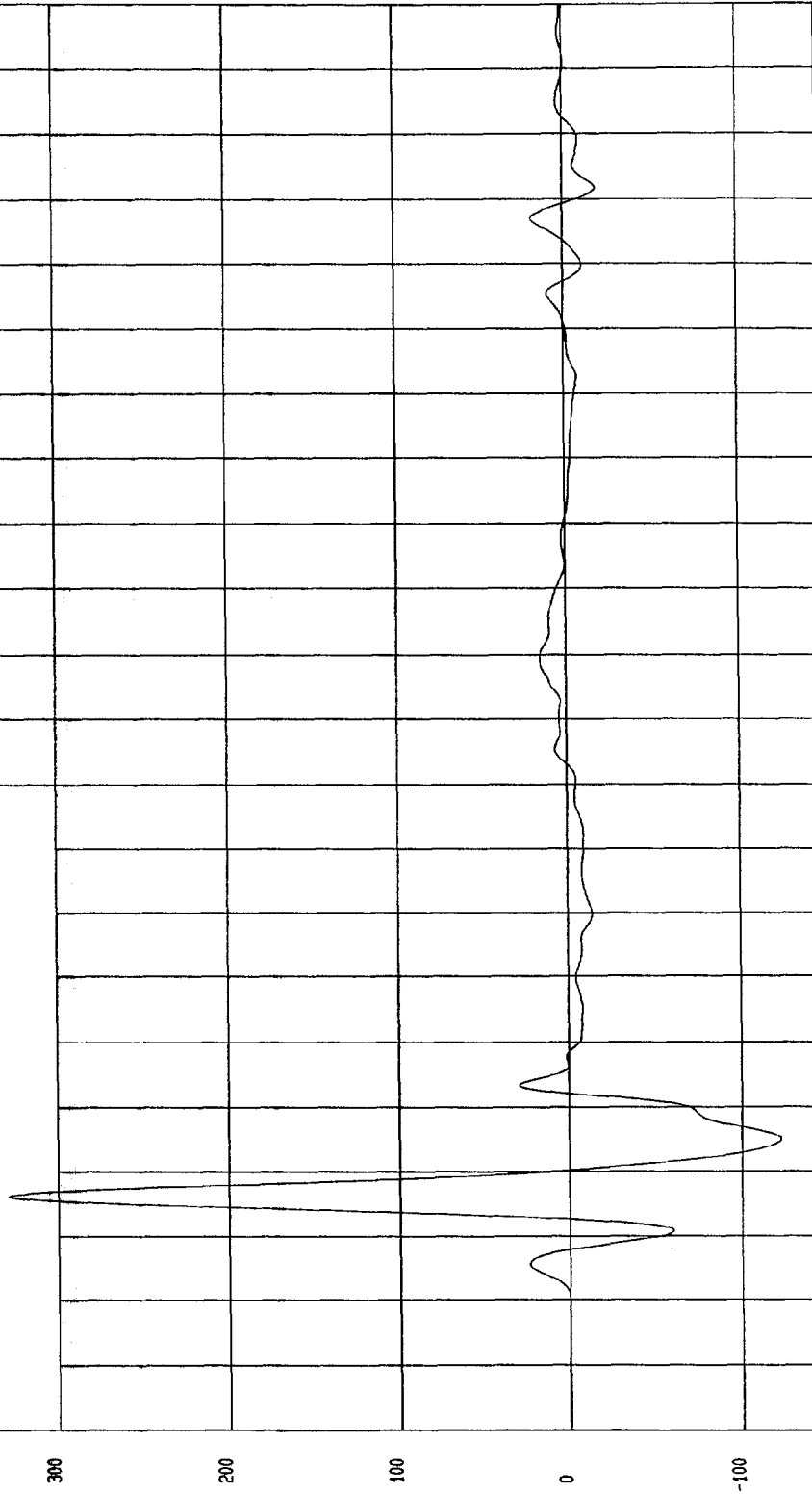
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 328.39 G'S at 16 msec

Minimum = -122.9 G'S at 25 msec

LEFT FRONT DOOR UPPER CENTERLINE Y ACCELERATION

1 898113AF.A53 FilterClass (50)



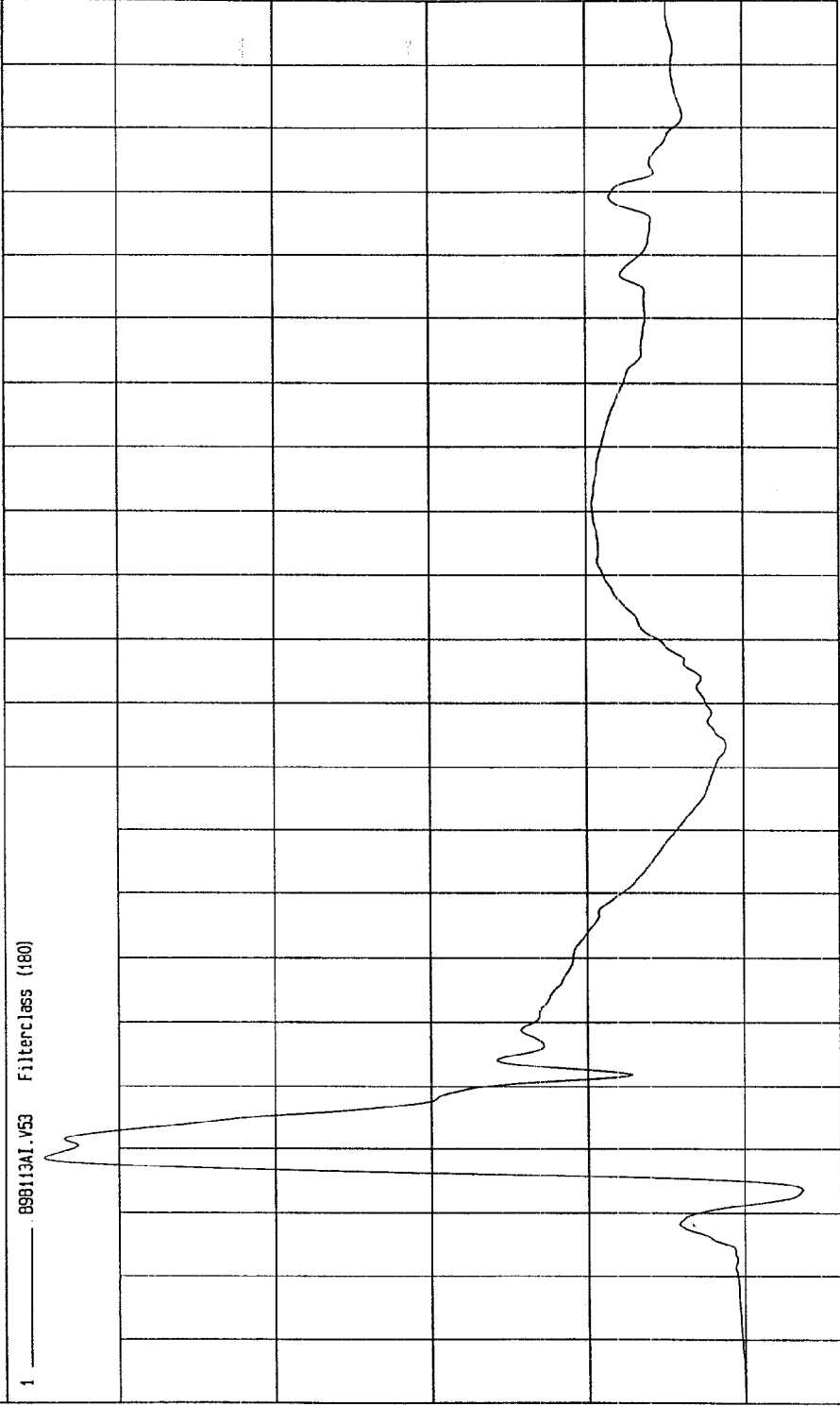
MCA Research
12-01-1998 15:45

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -3.68 KPH at 14 msec Maximum = 44.74 KPH at 18 msec

LEFT FRONT DOOR UPPER CENTERLINE Y VELOCITY



TIME Seconds

WCA Research
12-01-1998 15.45

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

Maximum = 87.8 G'S at 9 msec

TEST: NCAP SIDE IMPACT TEST

COMPONENT: 1999 HONDA ACCORD (MX5303)

Minimum = -19.65 G'S at 54 msec

LEFT REAR DOOR MIDREAR Y ACCELERATION

1 898113AF.A54 Filterclass (60)

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TIME (SECONDS)

WCA Research
12-01-1998 15:45

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

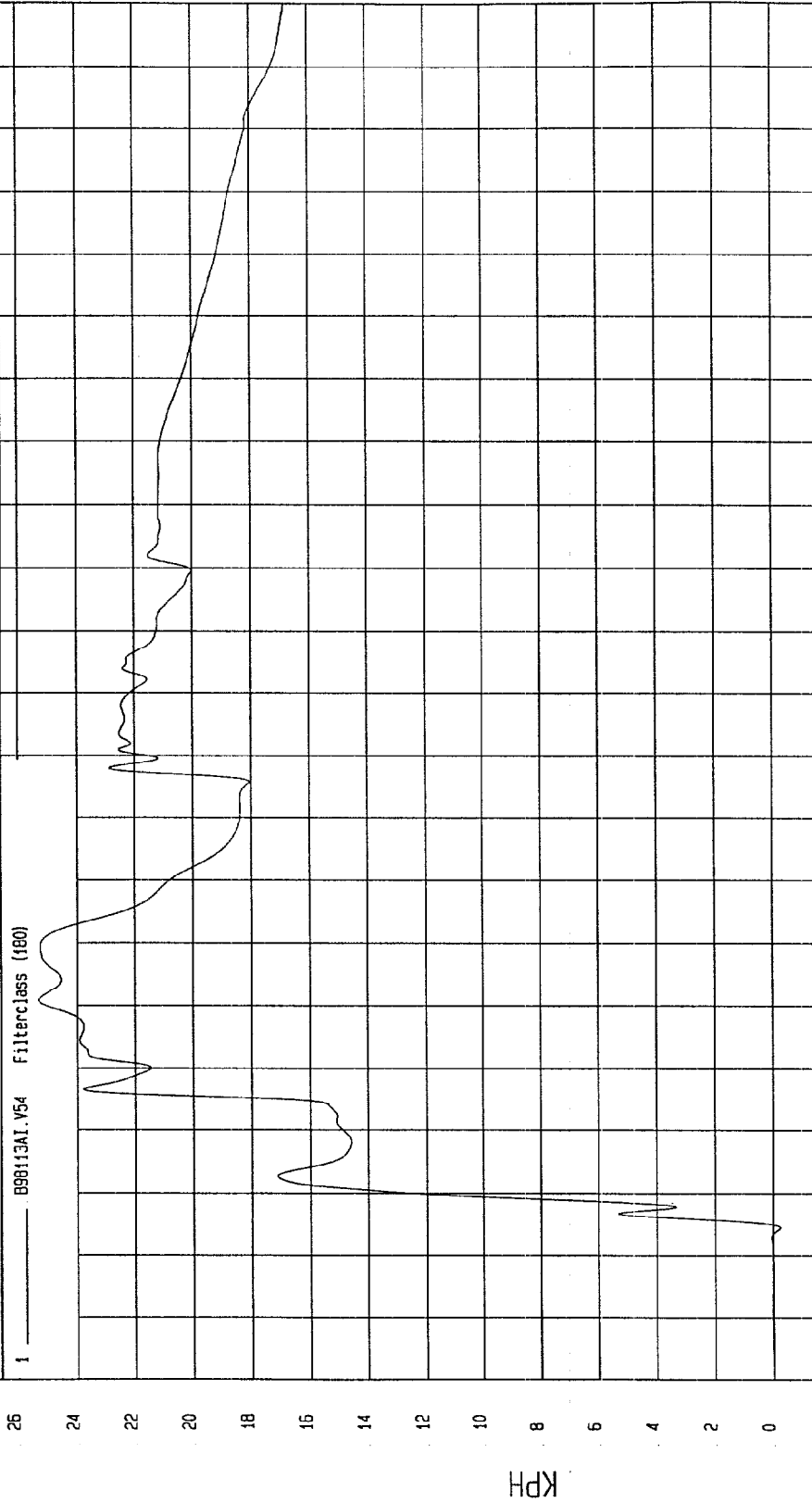
SPEED: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

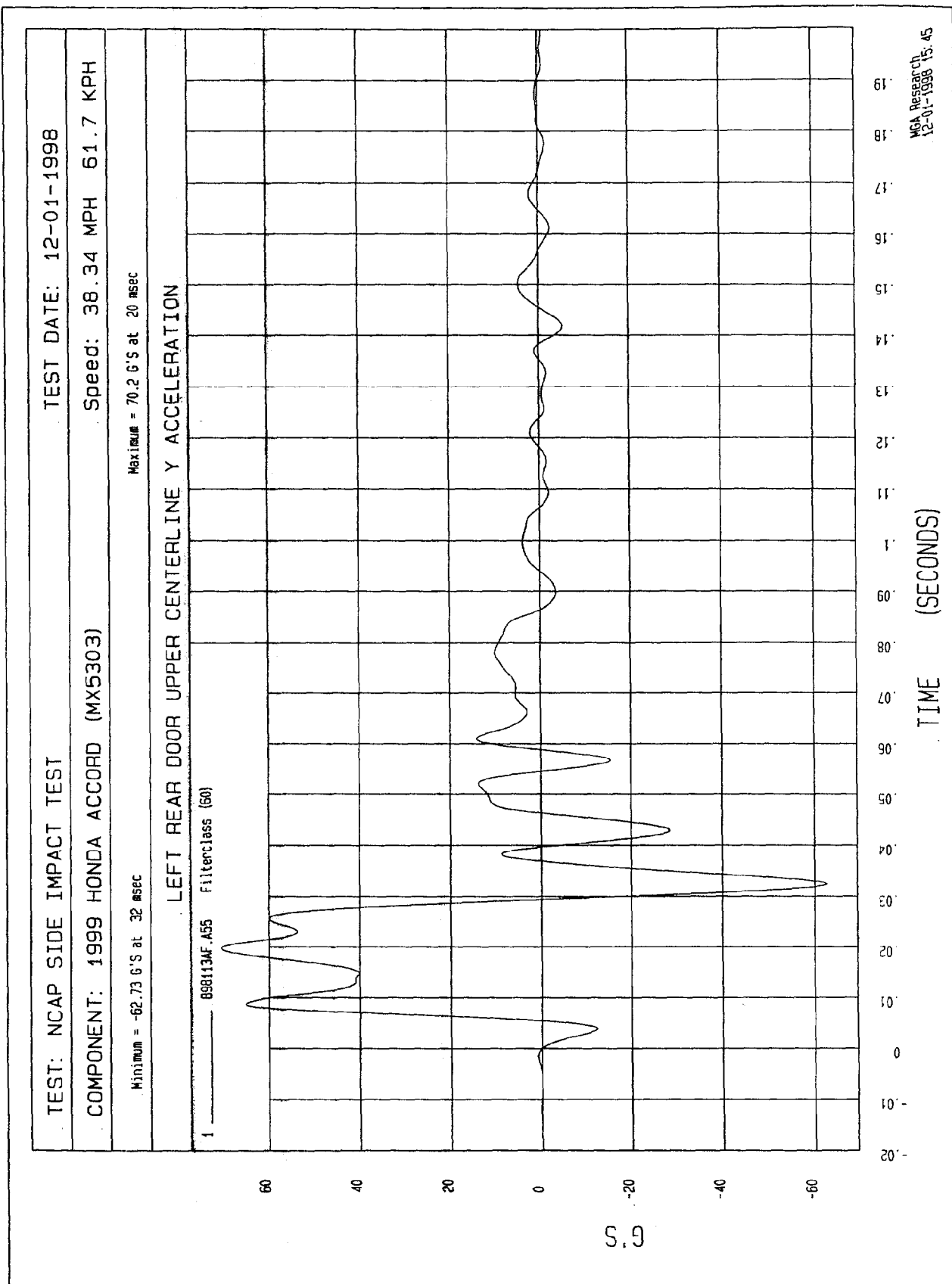
Maximum = 25.3 KPH at 41 msec

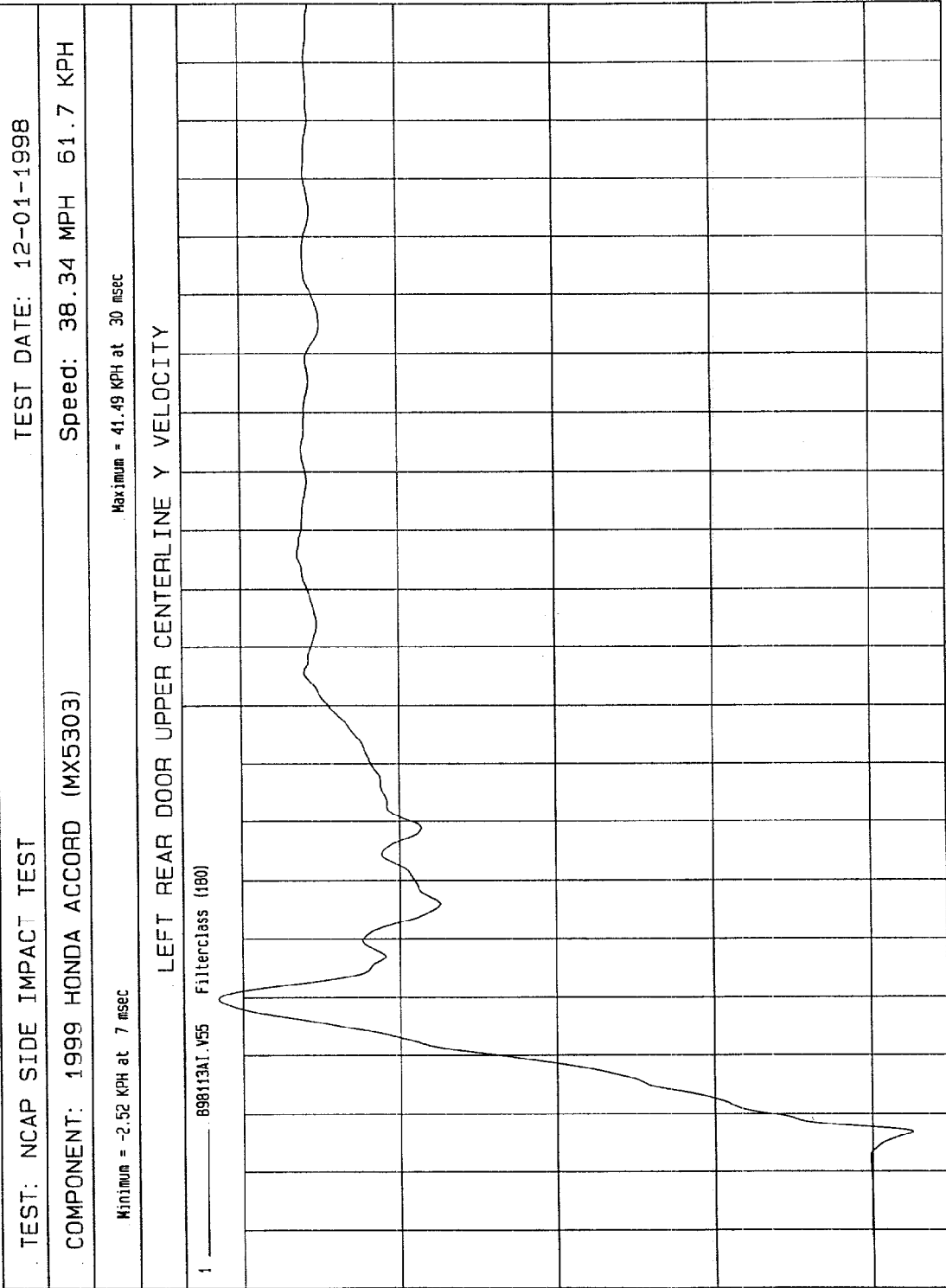
Minimum = -.26 KPH at 4 msec

LEFT REAR DOOR MIDREAR Y VELOCITY



WCA Research
12-01-1998 15:45





MGA Research
12-01-1998 15:45

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

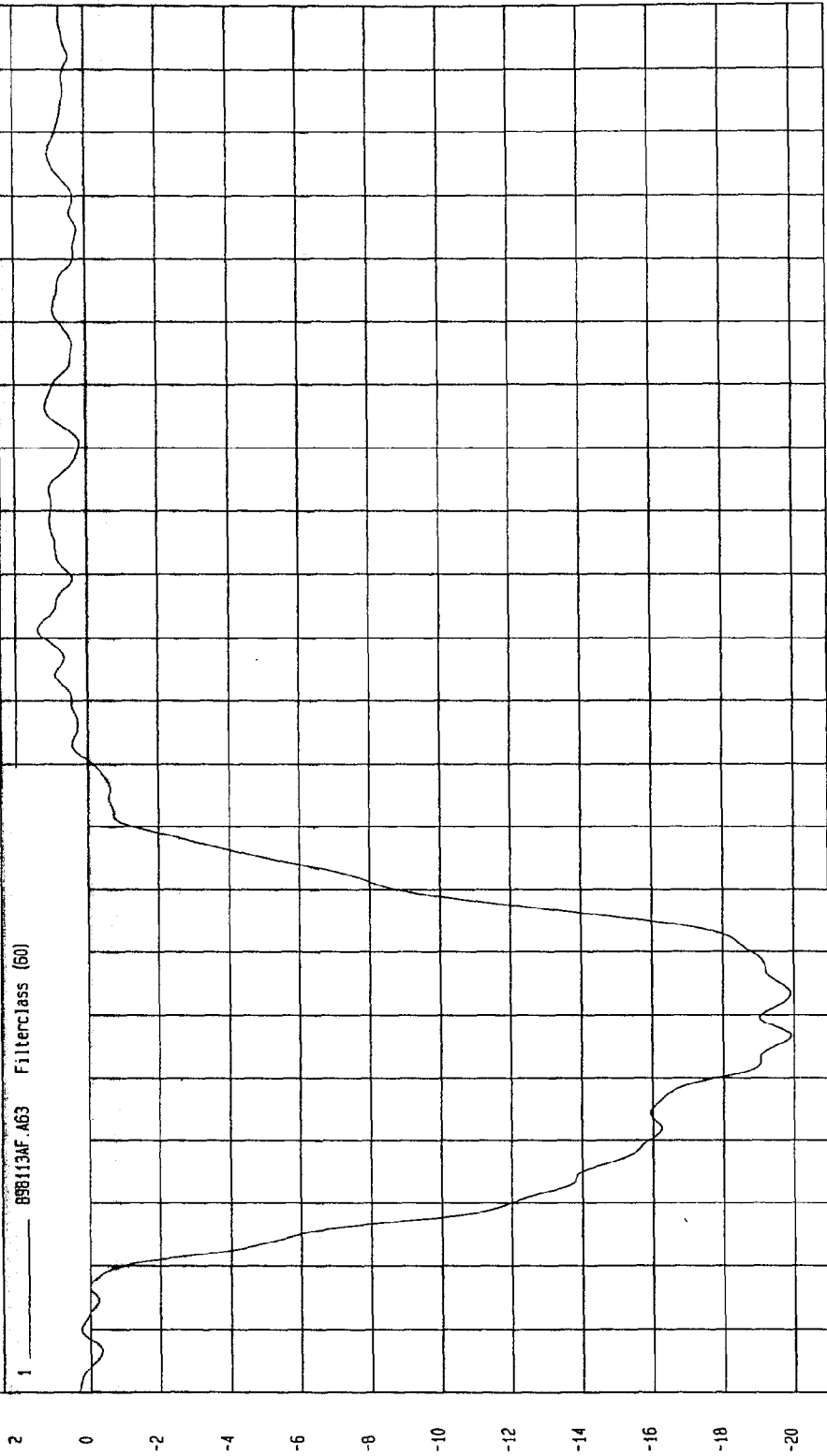
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 1.38 G'S at 101 msec

Minimum = -19.93 G'S at 37 msec

MOVING BARRIER CG X ACCELERATION

1 898113AF.A63 Filterclass (50)

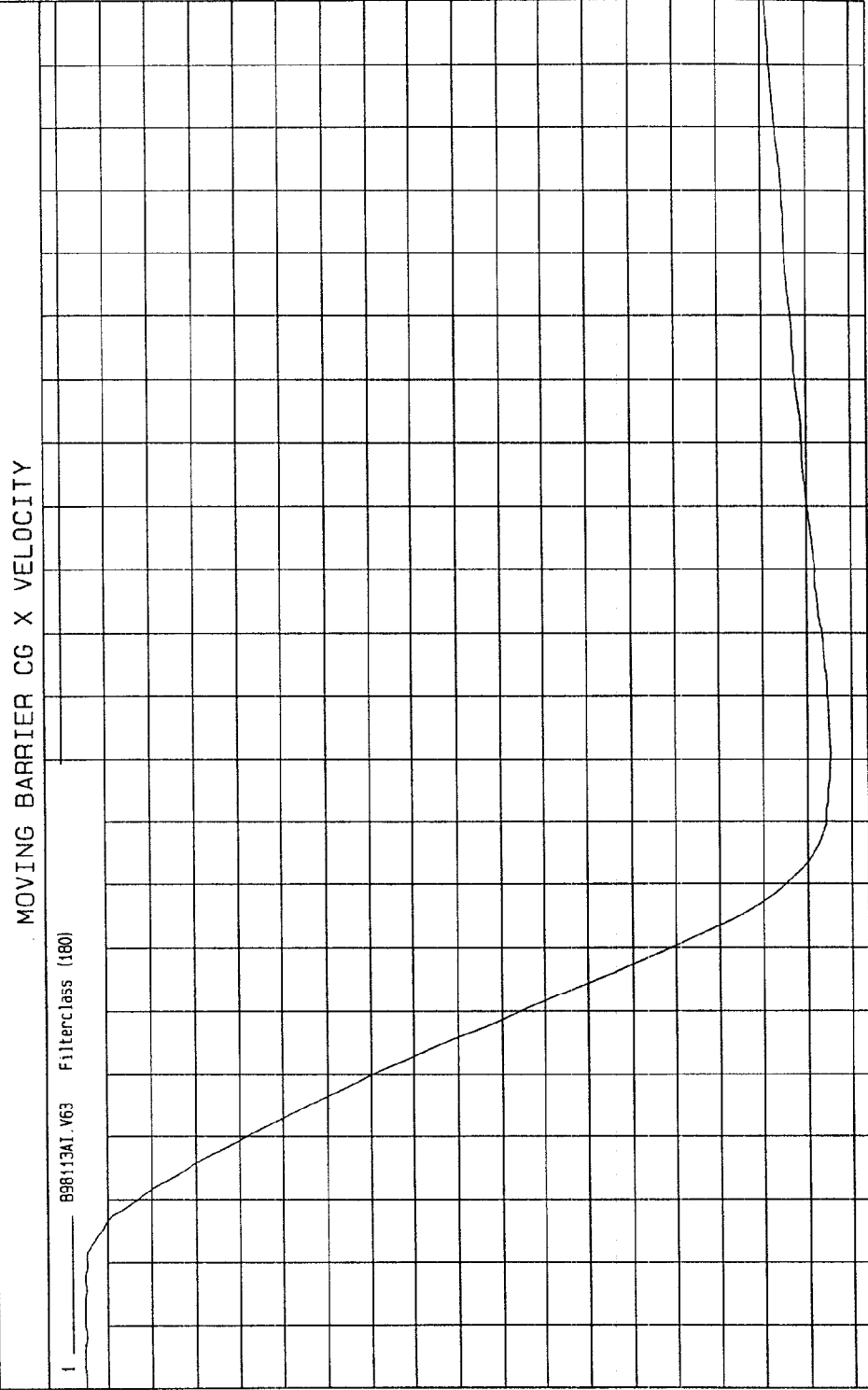


MSA Research
12-10-1998 11:10

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

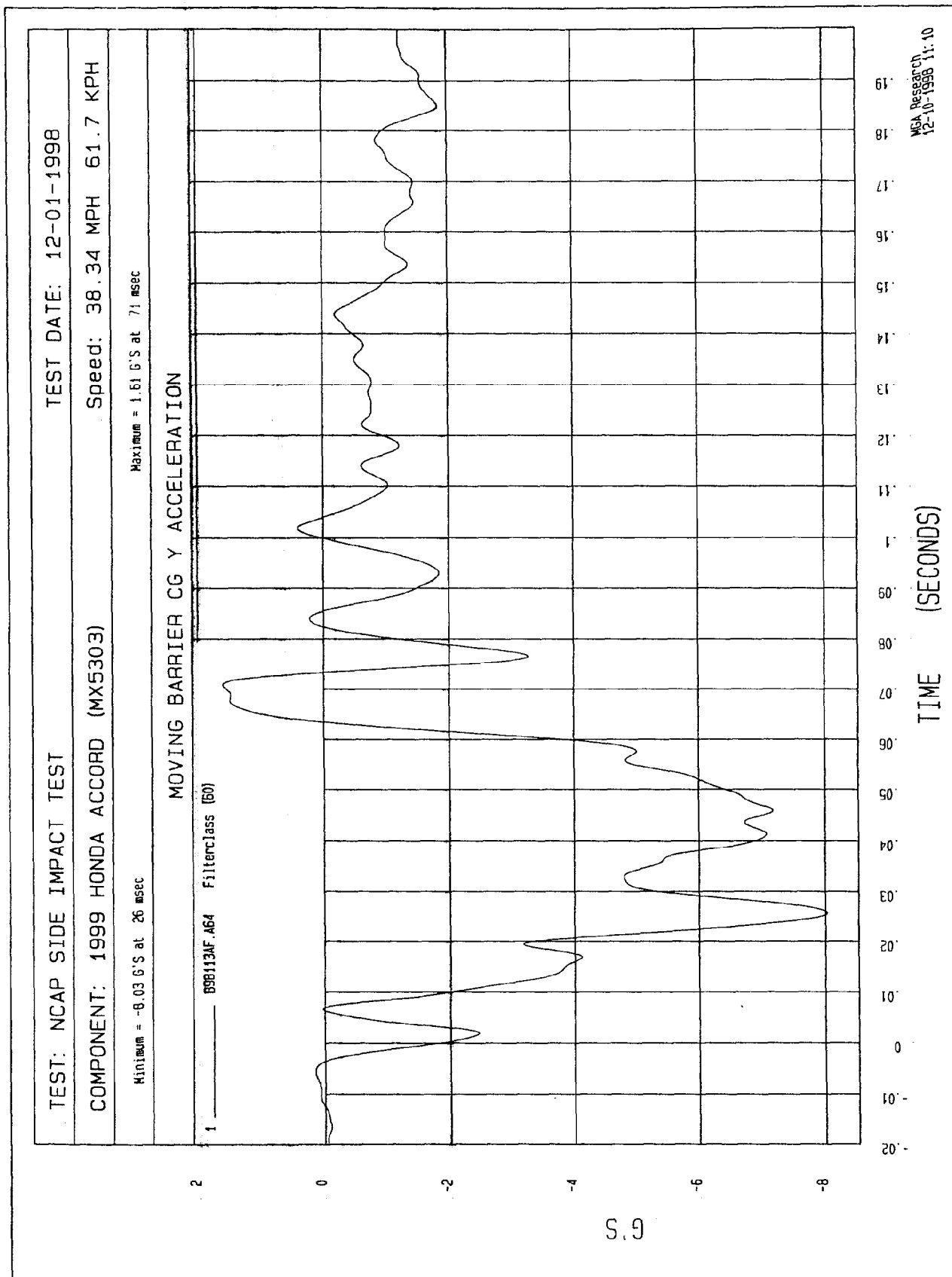
Minimum = 20.96 KPH at 81 msec Maximum = 55.03 KPH at -16 msec



TIME Seconds

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NSA Research
12-01-1998 15:45



TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = 13.5 KPH at 200 msec Maximum = 28.01 KPH at -3 msec

MOVING BARRIER CG Y VELOCITY



MGA Research
12-01-1998 15:45

TIME Seconds

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

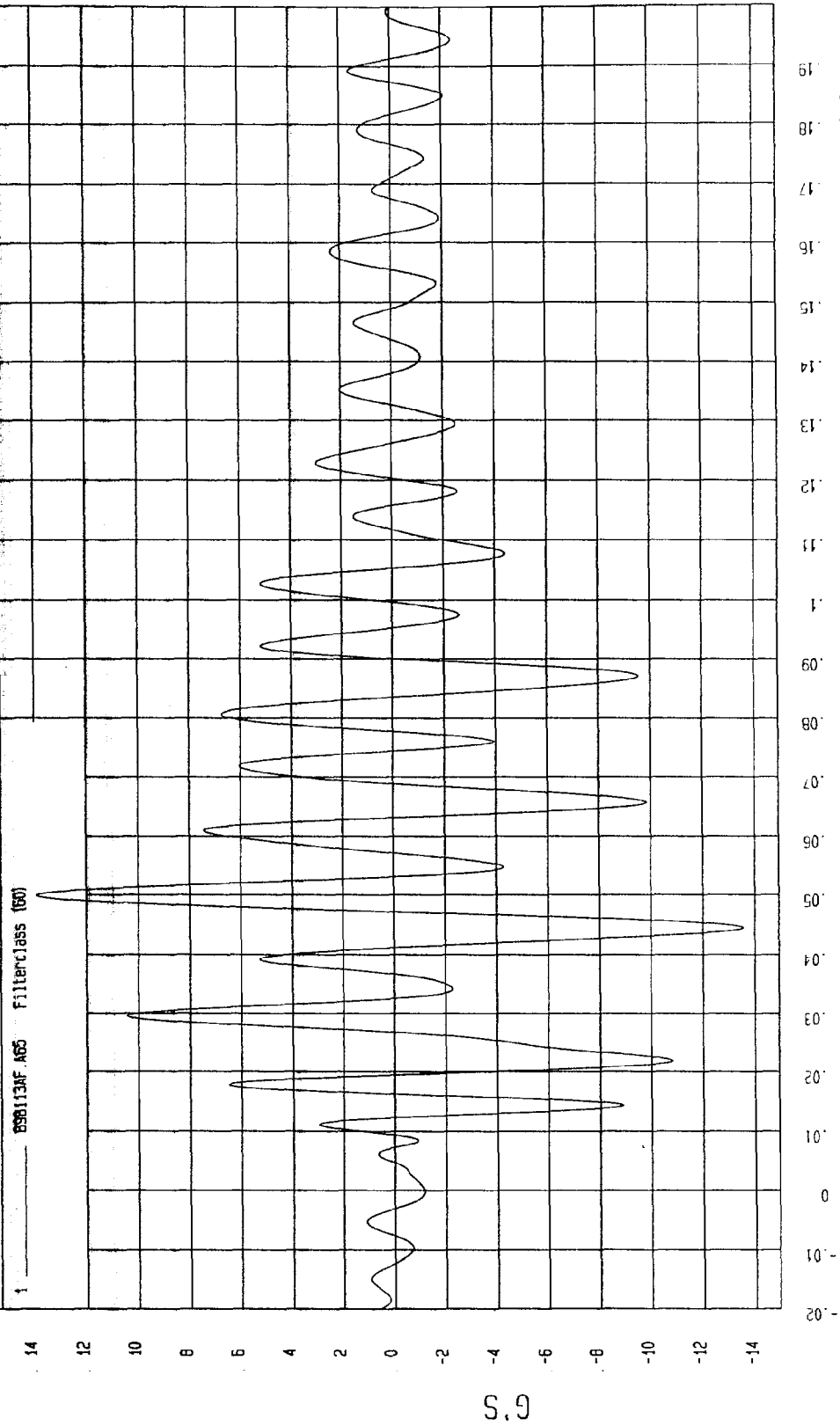
Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

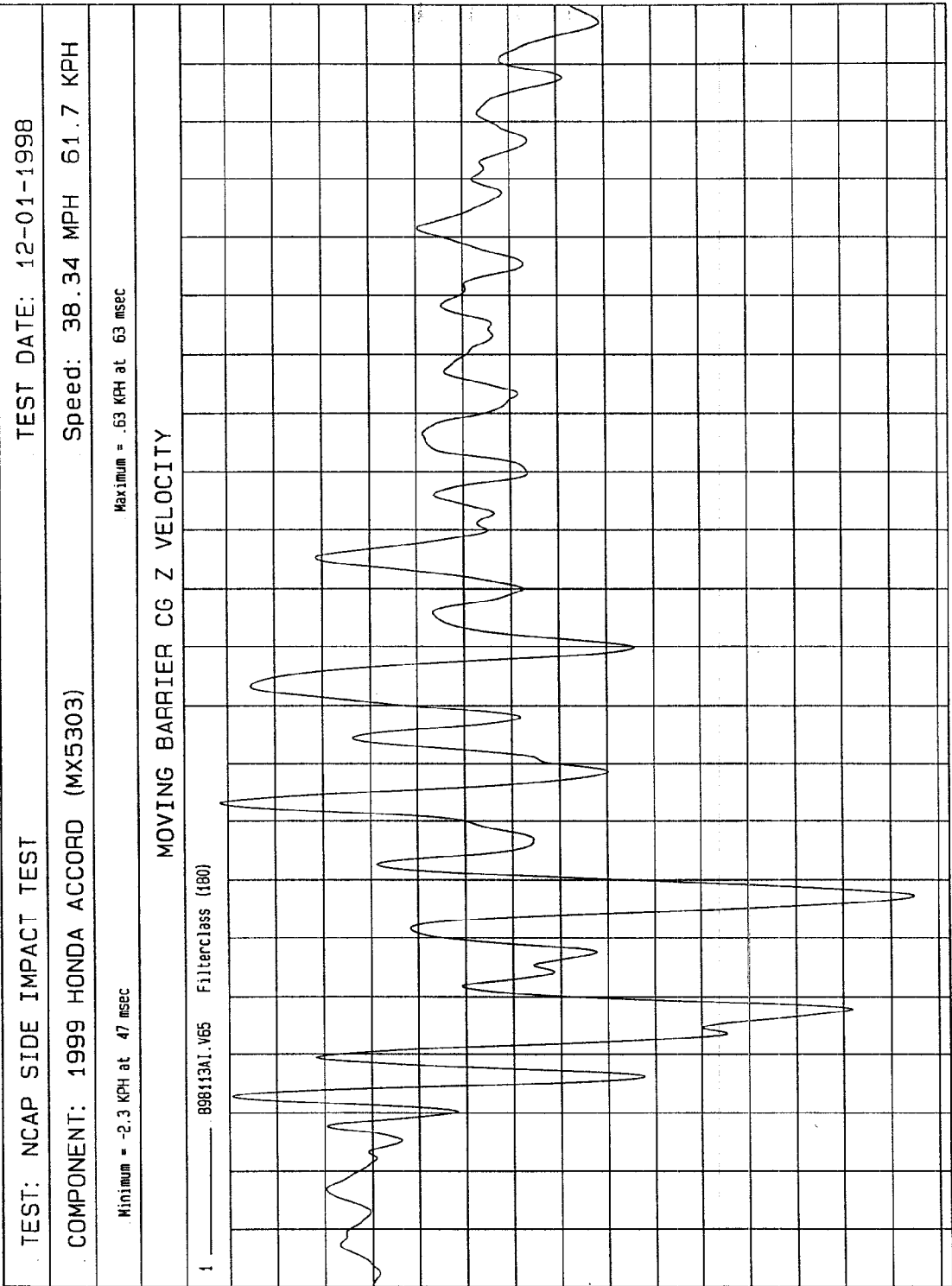
Maximum = 13.92 G'S at 50 msec

Minimum = -13.54 G'S at 44 msec

MOVING BARRIER CG Z ACCELERATION



MCA Research
12-10-1998 11:10



WCA Research
12-01-1998 15:45

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

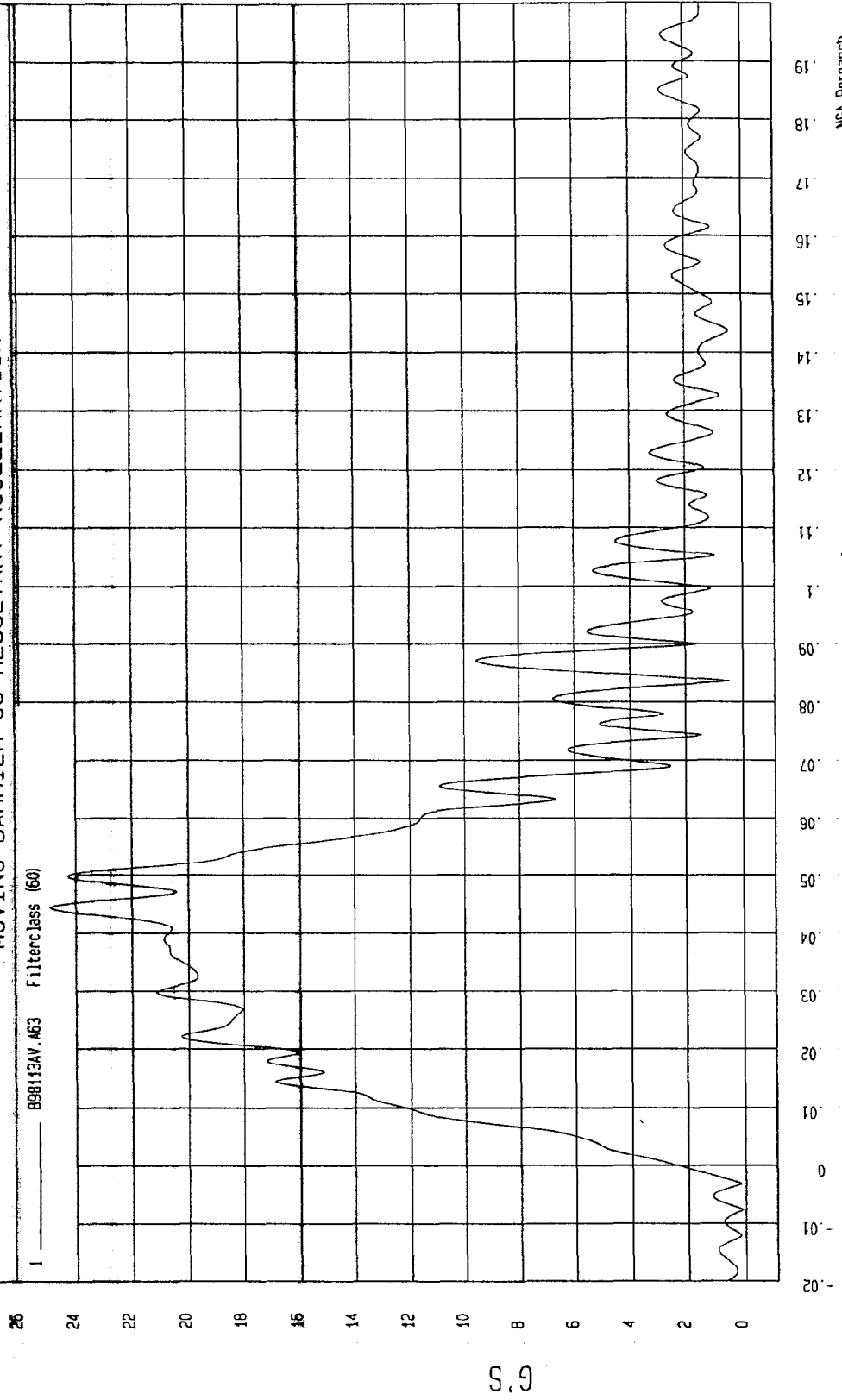
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 24.92 G'S at 44 msec

Minimum = 9.90E-02 G'S at -8 msec

MOVING BARRIER CG RESULTANT ACCELERATION

1 898113AV.A63 Filterclass (60)



WGA Research
12-10-1998 11:10

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

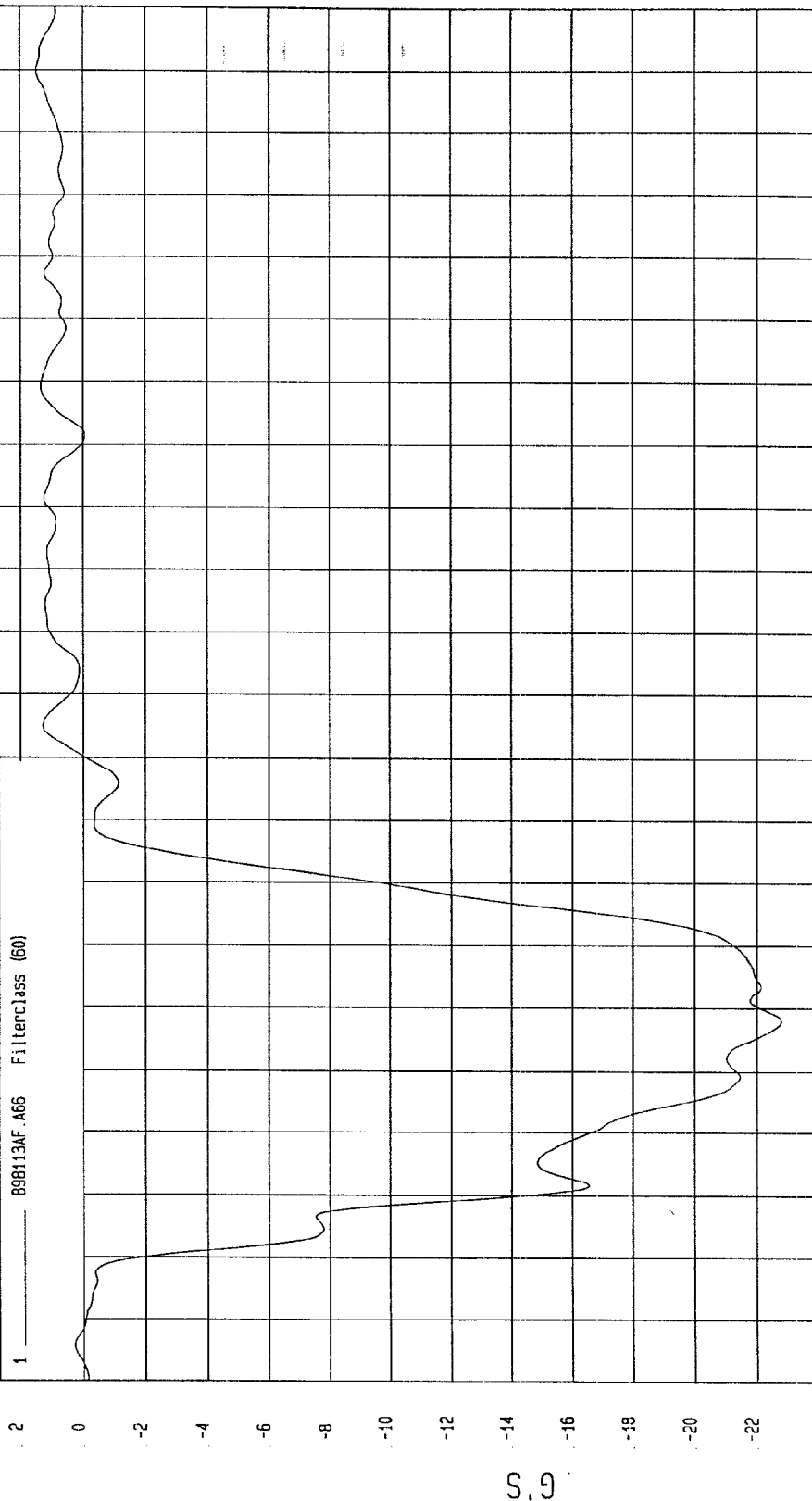
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 1.48 G'S at 190 msec

Minimum = -22.78 G'S at 38 msec

MOVING BARRIER REAR AXLE X ACCELERATION

1 898113AF.A66 FilterClass (60)



MSA Research
12-10-1998 11:10

TIME (SECONDS)

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

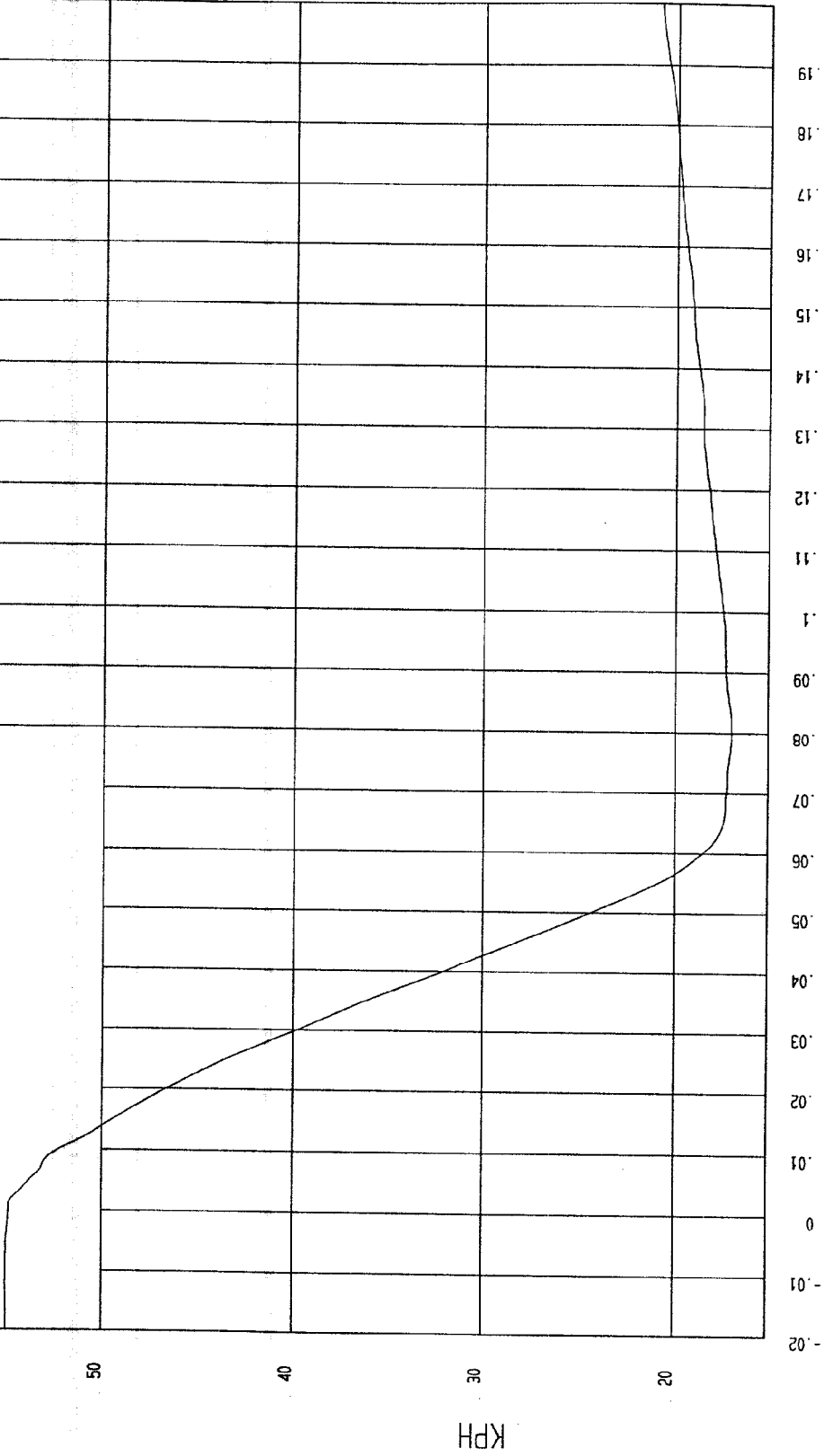
Speed: 38.34 MPH 61.7 KPH

Minimum = 17.09 KPH at 80 msec

Maximum = 55.03 KPH at -12 msec

MOVING BARRIER REAR AXLE X VELOCITY

1 — 898113A1.V65 Filterclass (180)



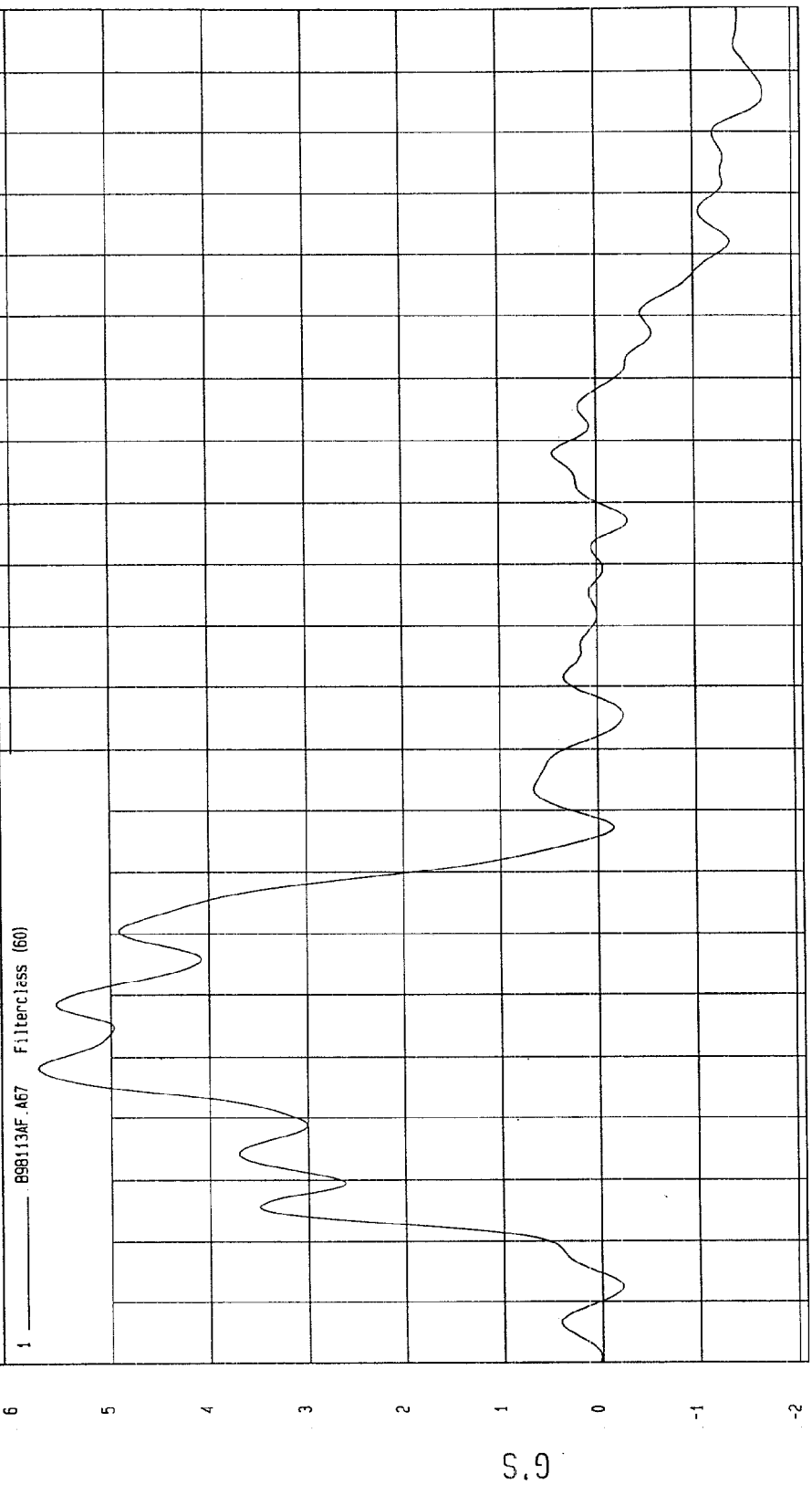
MGA Research
12-01-1998 15:45

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

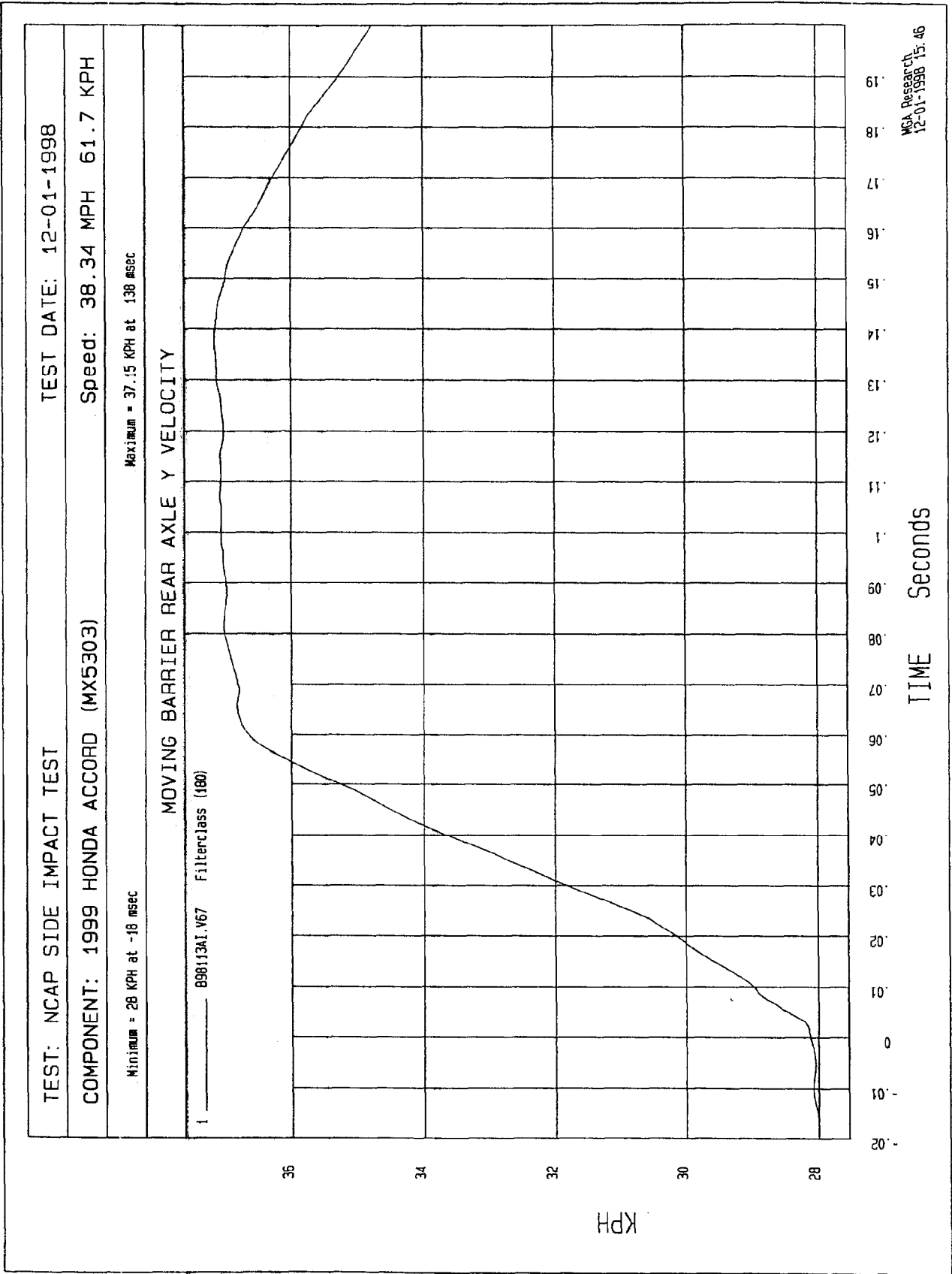
Minimum = -1.71 G'S at 185 msec Maximum = 5.74 G'S at 28 msec

MOVING BARRIER REAR AXLE Y ACCELERATION



TIME (SECONDS)

MCA Research
12-10-1998 11:21

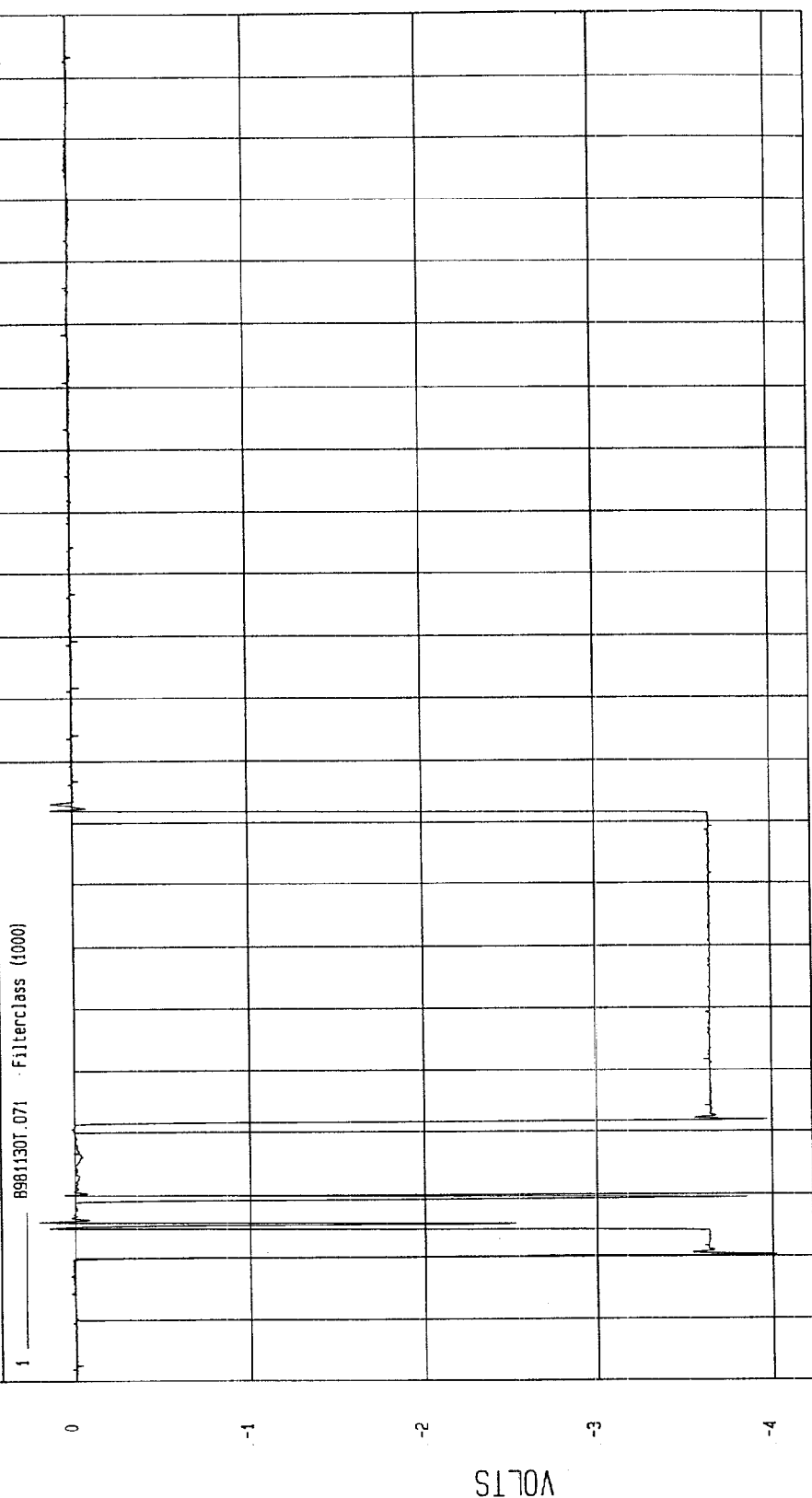


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -4.02 VOLTS at 0 msec Maximum = .2 VOLTS at 5 msec

LEFT BARRIER CONTACT



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

0 -1 -2 -3 -4

VOLTS

MGA Research
12-01-1998 15:46

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

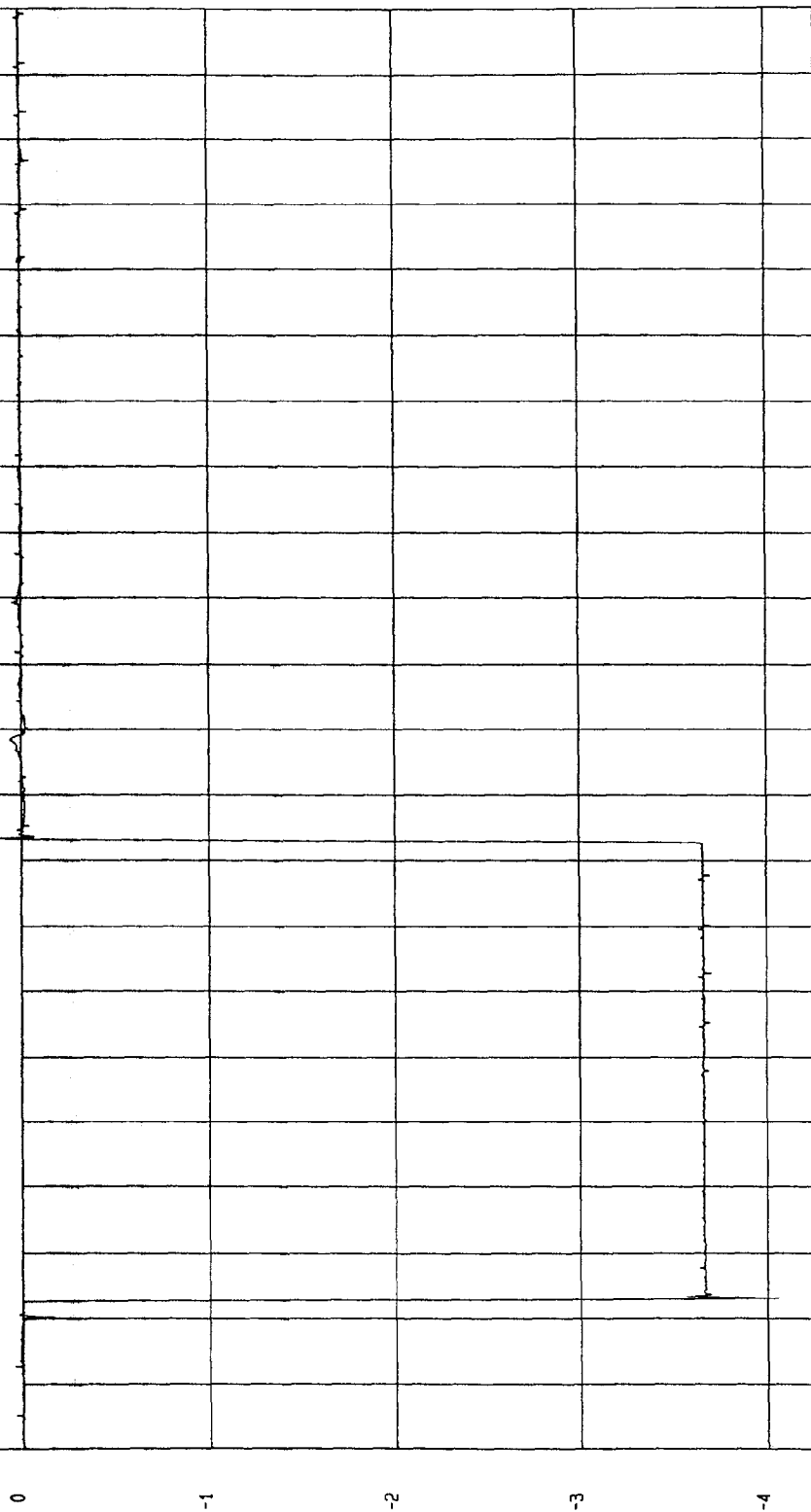
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = .13 VOLTS at 73 msec

Minimum = -4.06 VOLTS at 3 msec

RIGHT BARRIER CONTACT

1 ——— 898130T.072 Filterclass (1000)



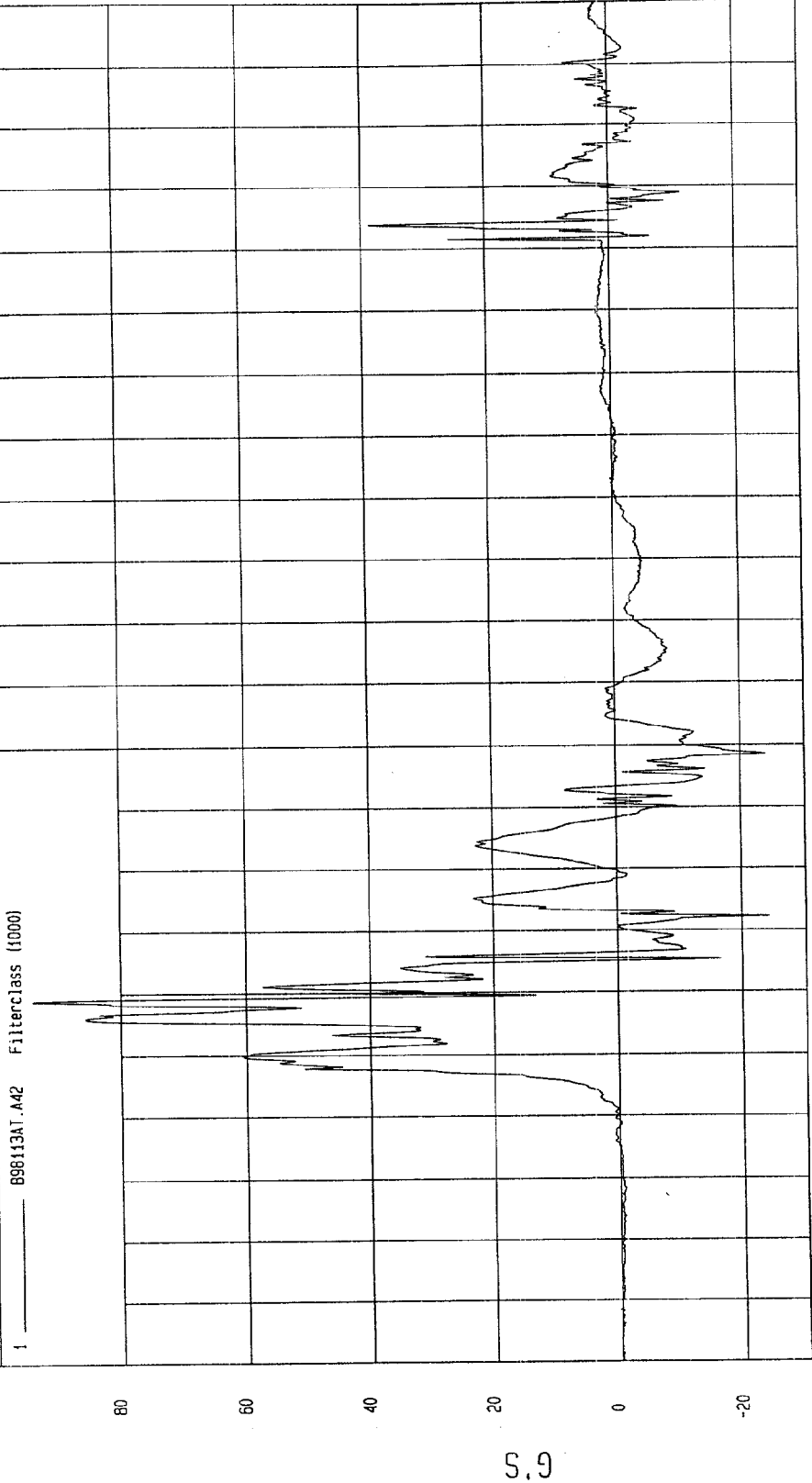
MGA Research
12-01-1998 15:46

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -24.3 G'S at 52 msec Maximum = 93.84 G'S at 39 msec

DRIVER UPPER RIB Y REDUNDANT ACCELERATION



TIME (SECONDS)

MSA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

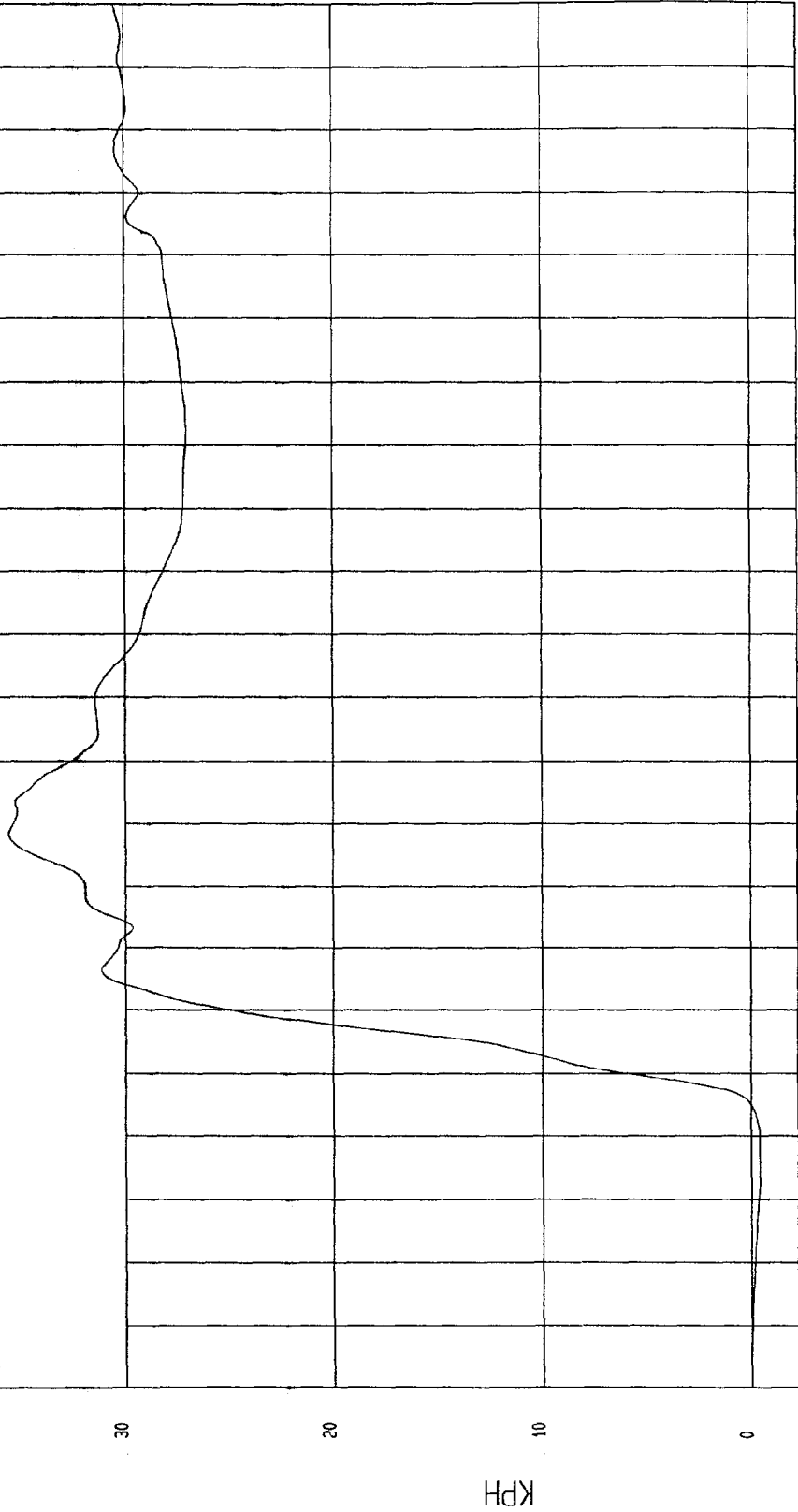
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 35.52 KPH at 68 msec

Minimum = -42 KPH at 15 msec

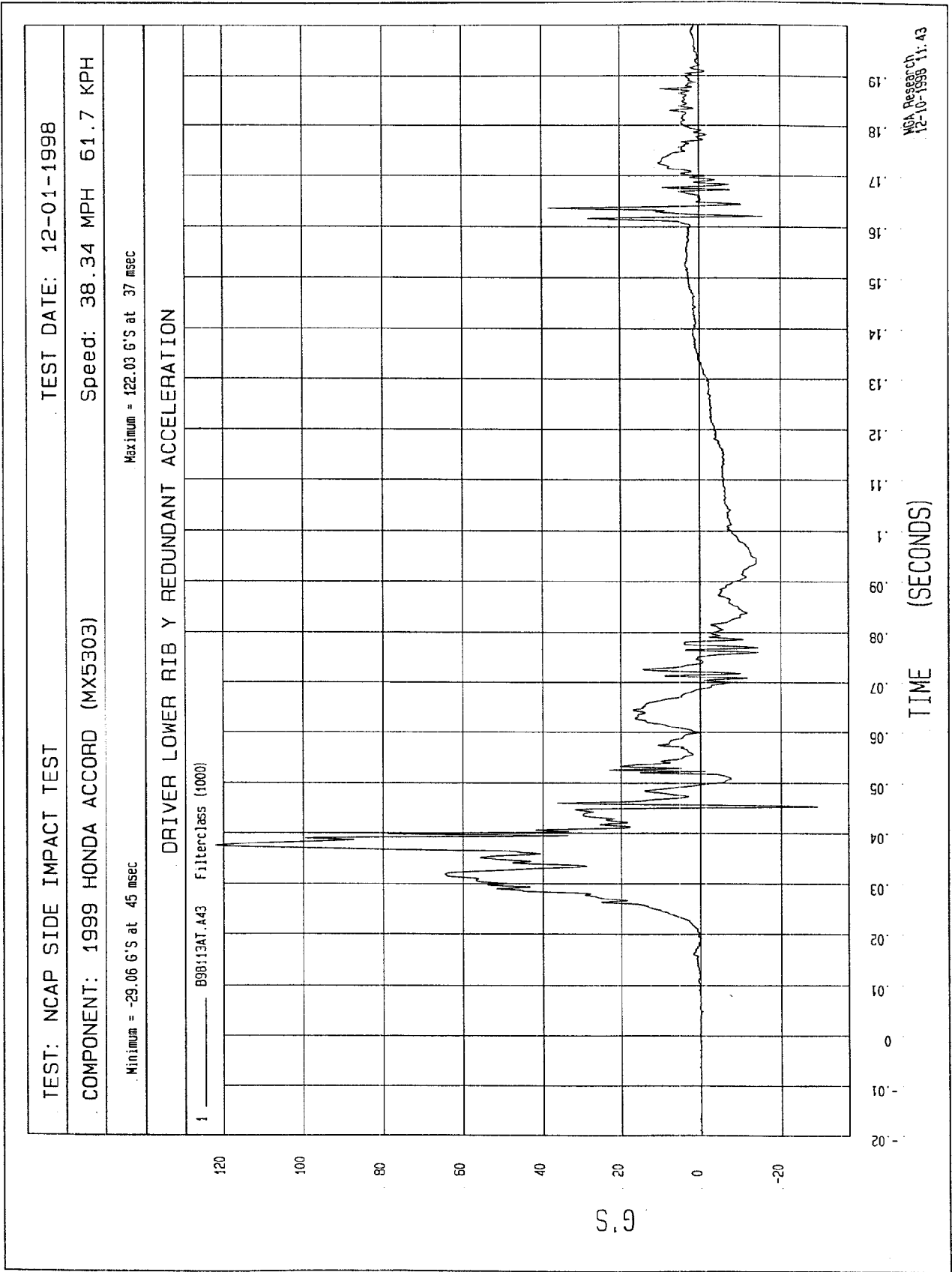
DRIVER UPPER RIB Y REDUNDANT VELOCITY

1 ——— 896113AT.V42 Filterclass (180)



TIME Seconds

MSA Research
12-10-1998 11:43



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

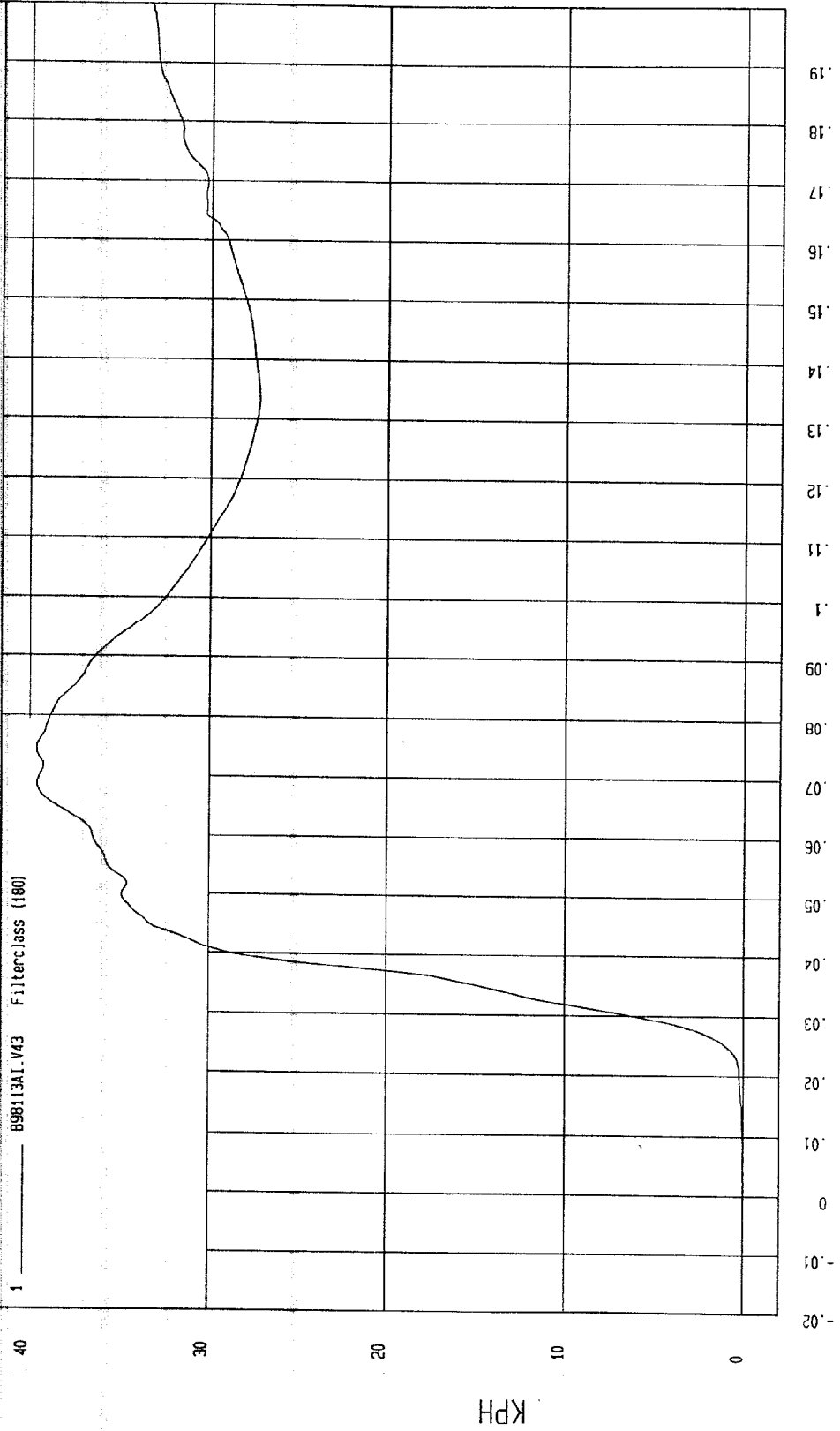
COMPONENT: 1999 HONDA ACCORD (MX5303)

Speed: 38.34 MPH 61.7 KPH

Minimum = -9.46E-03 KPH at -2 msec

Maximum = 39.62 KPH at 74 msec

DRIVER LOWER RIB Y REDUNDANT VELOCITY



MGA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

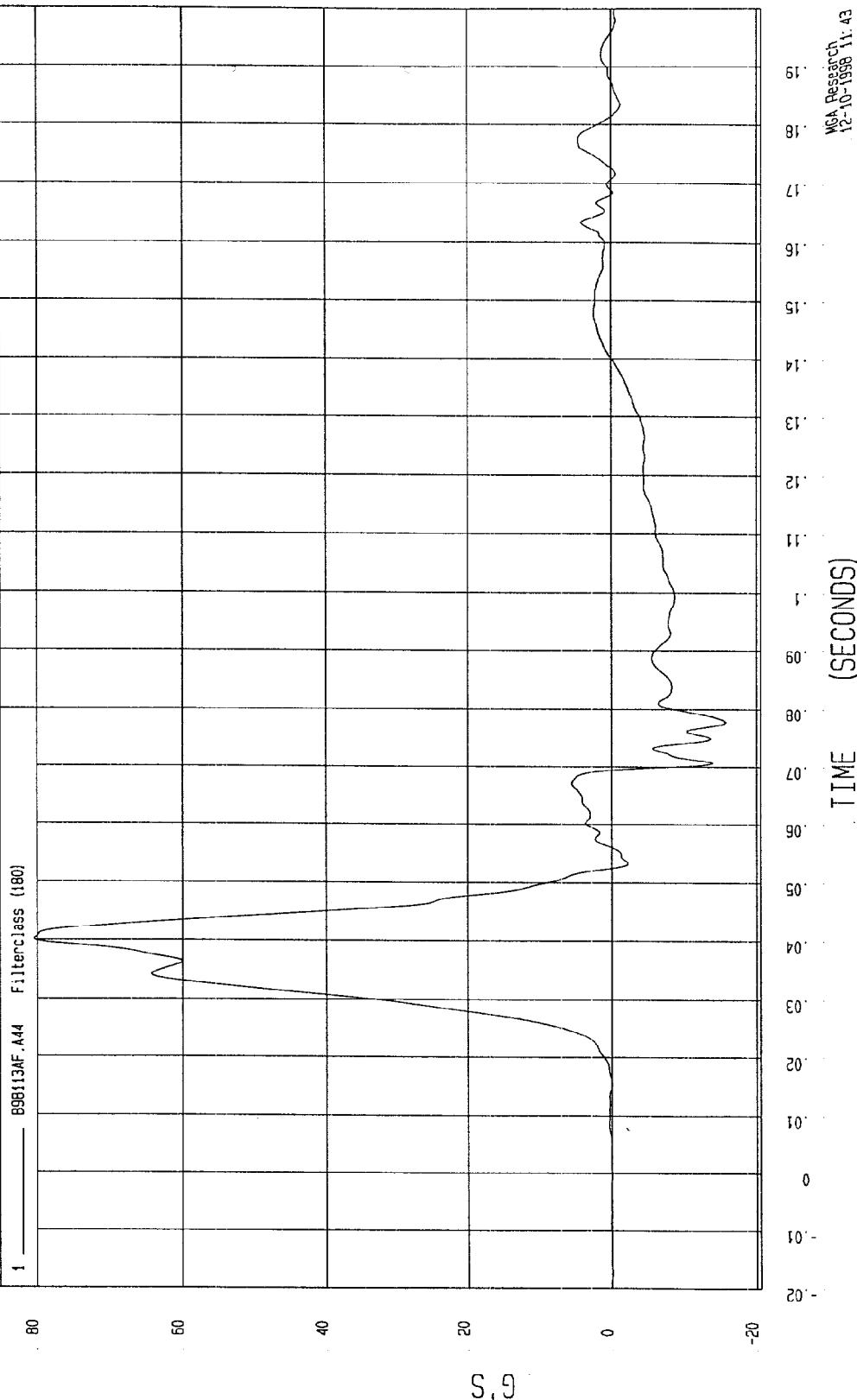
SPEED: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 80.39 G'S at 40 msec

Minimum = -15.77 G'S at 78 msec

DRIVER LOWER SPINE Y REDUNDANT ACCELERATION



G.S

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

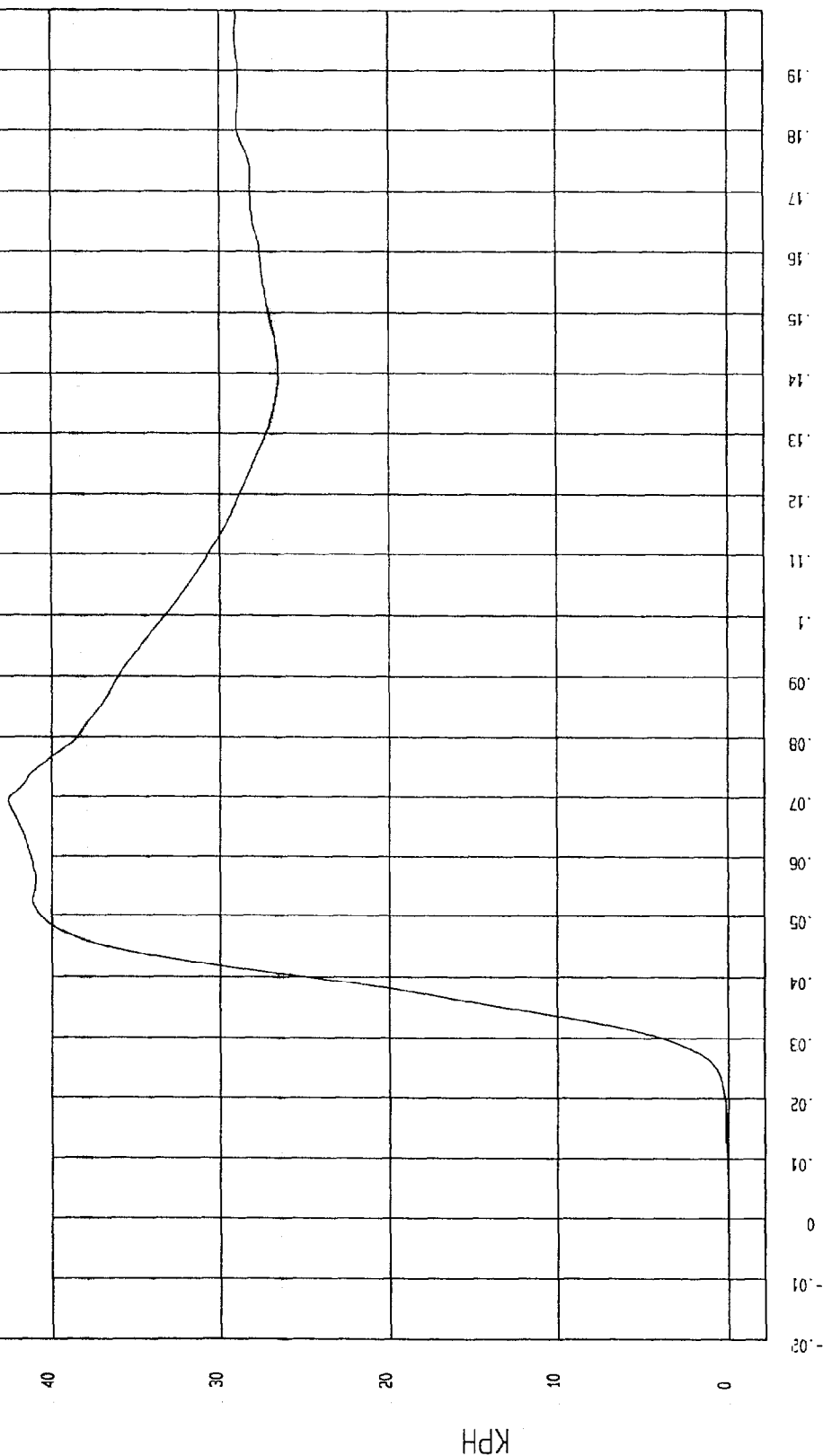
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 42.55 KPH at 69 msec

Minimum = -1.30e-03 KPH at -16 msec

DRIVER LOWER SPINE Y REDUNDANT VELOCITY

1 B55113A1.V44 Filterclass (180)



NCA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

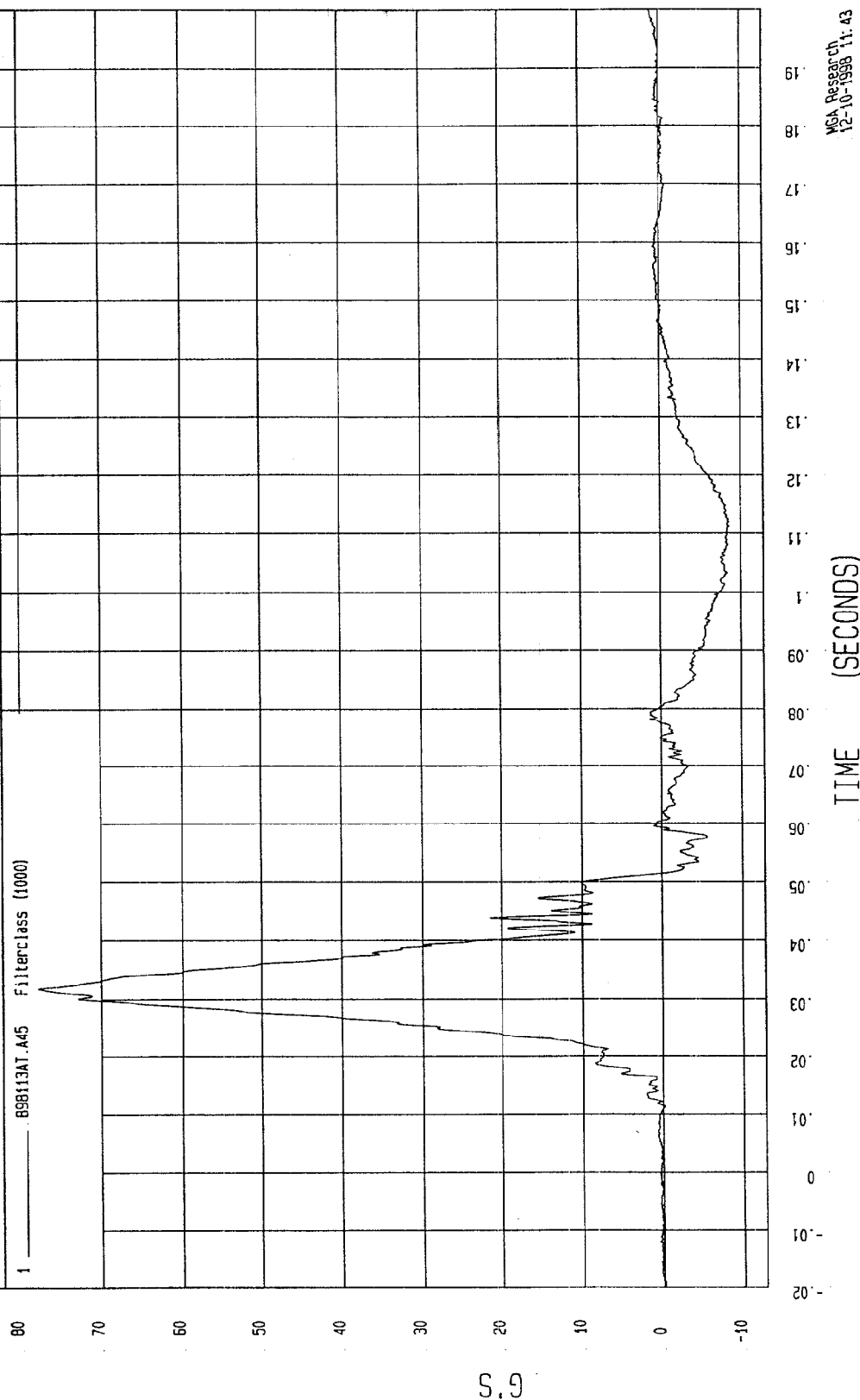
SPEED: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 77.87 G'S at 32 msec

Minimum = -8.5 G'S at 111 msec

DRIVER PELVIS Y REDUNDANT ACCELERATION

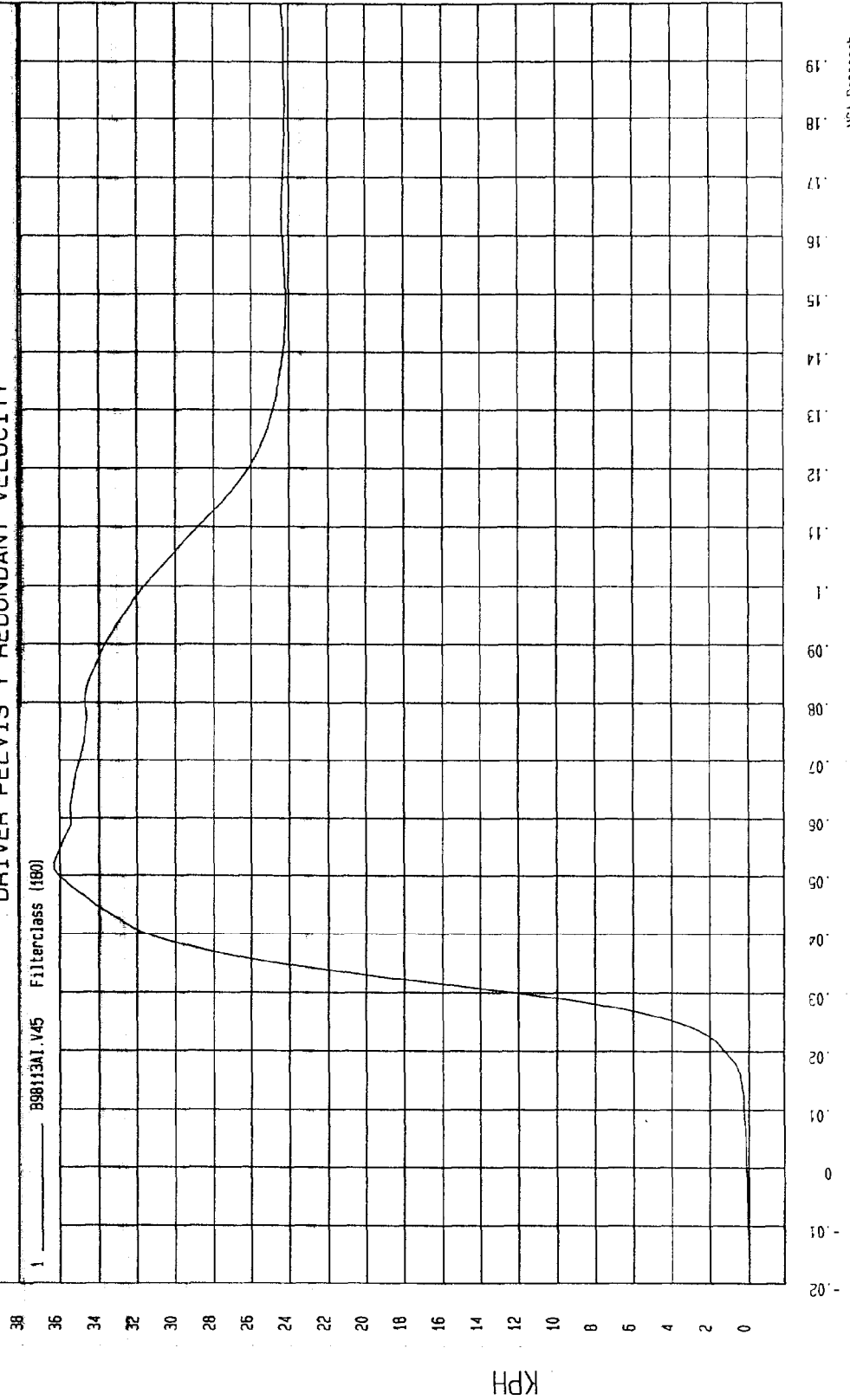


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

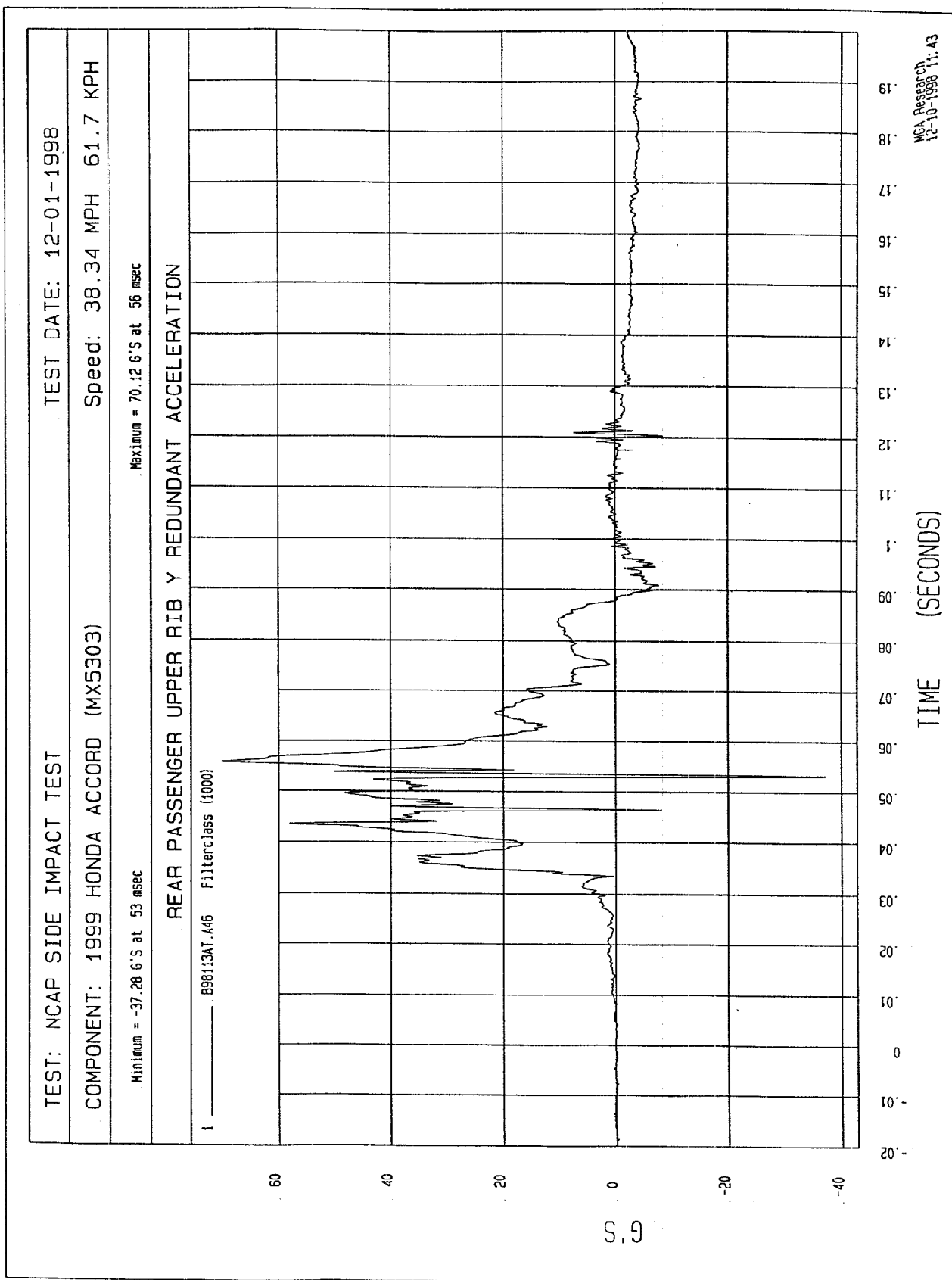
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -2.24E-03 KPH at -19 msec Maximum = 36.32 KPH at 52 msec

DRIVER PELVIS Y REDUNDANT VELOCITY



WCA Research
12-10-1998 11:43



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

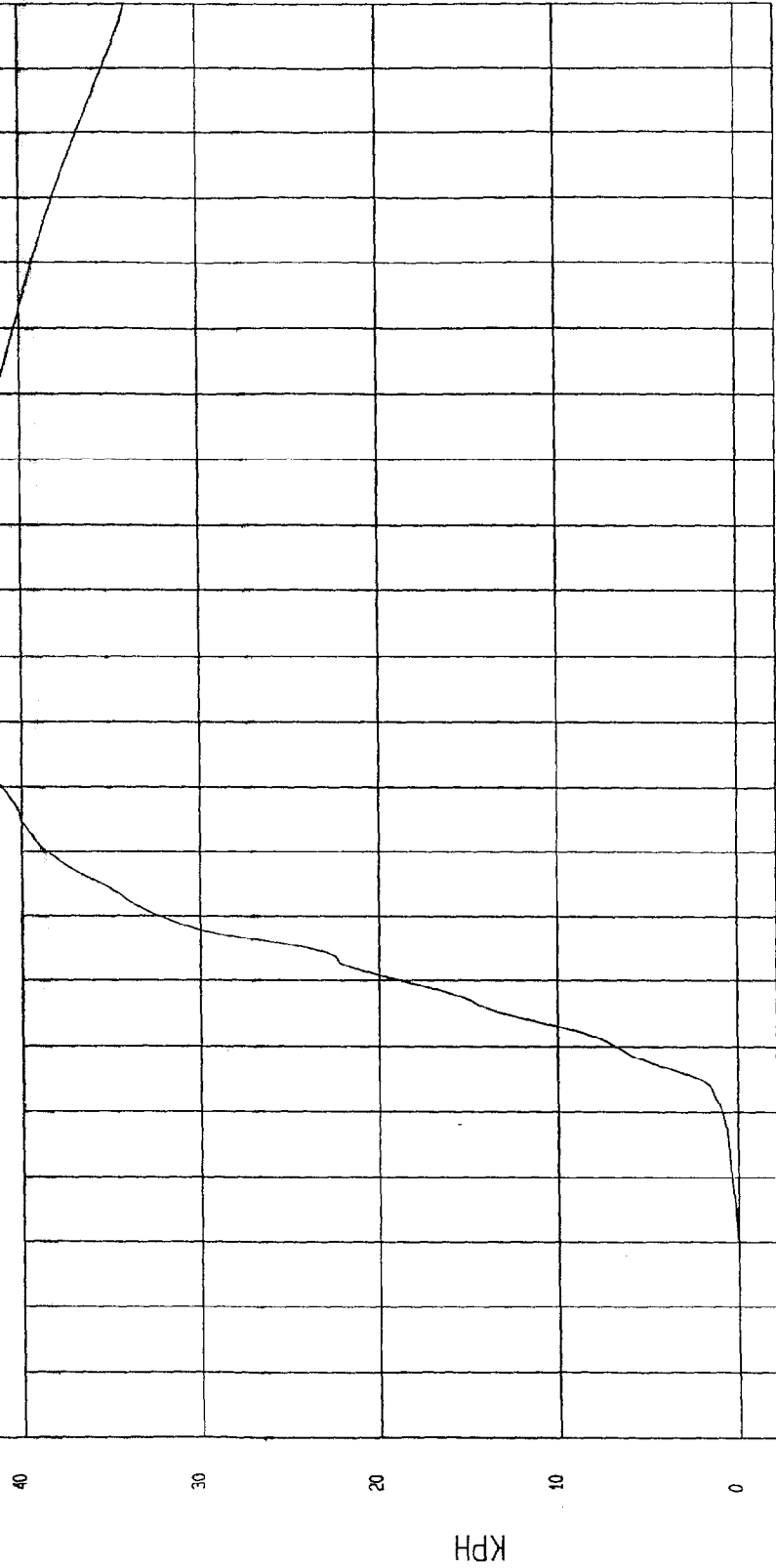
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 43.34 KPH at 88 msec

Minimum = -1.13E-02 KPH at -57 msec

REAR PASSENGER UPPER RIB Y REDUNDANT VELOCITY

1 ——— B98113A1.V46 Filterclass (180)



MOA Research
12-10-1998 11:43

2

TIME (SECONDS)

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

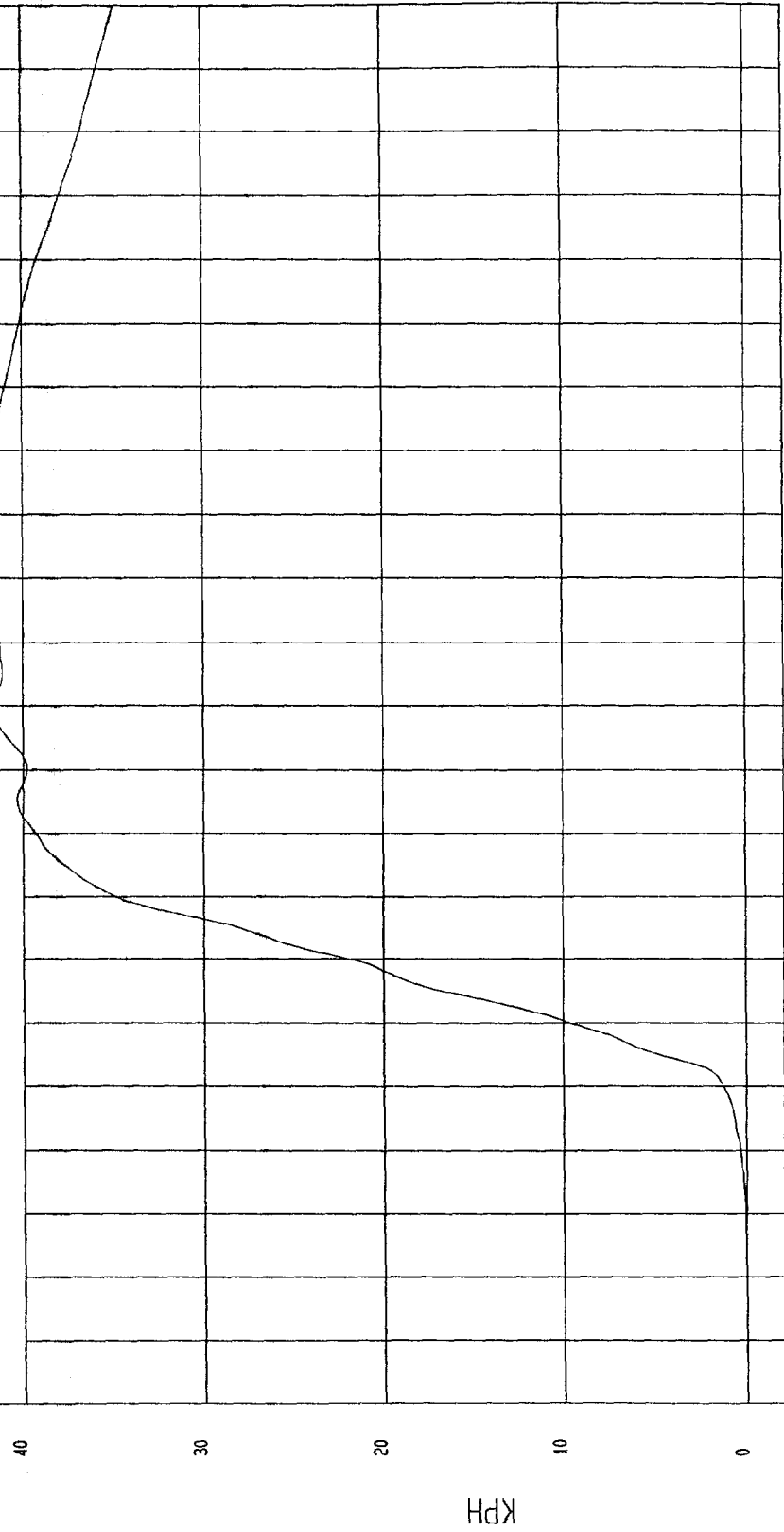
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Maximum = 42.08 KPH at 114 msec

Minimum = -5.67E-03 KPH at -18 msec

REAR PASSENGER LOWER RIB Y REDUNDANT VELOCITY

1 898113A1.V47 Filterclass (180)



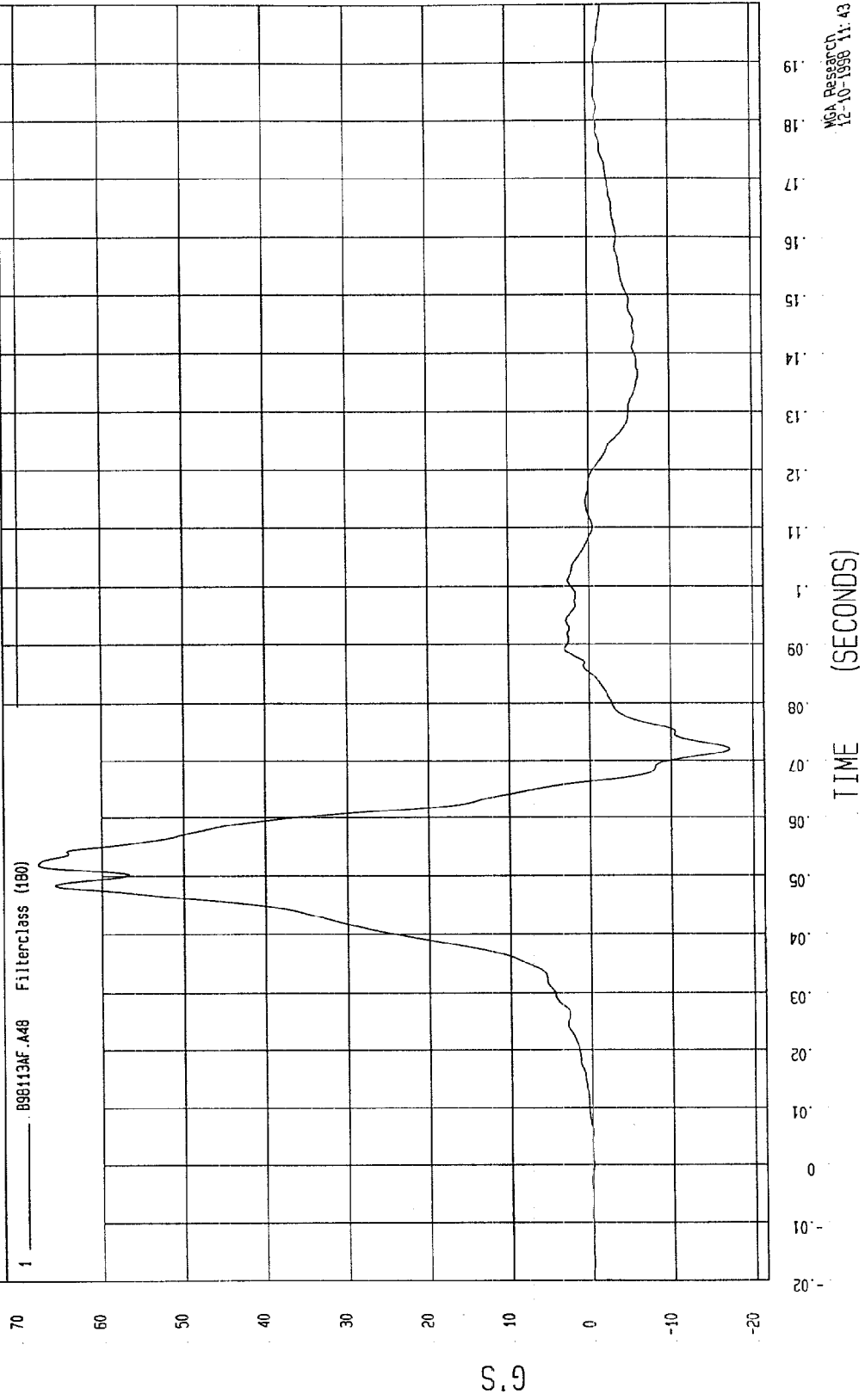
NSA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -17.1 G'S at 72 msec Maximum = 67.59 G'S at 52 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT ACCELERATION



MCA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

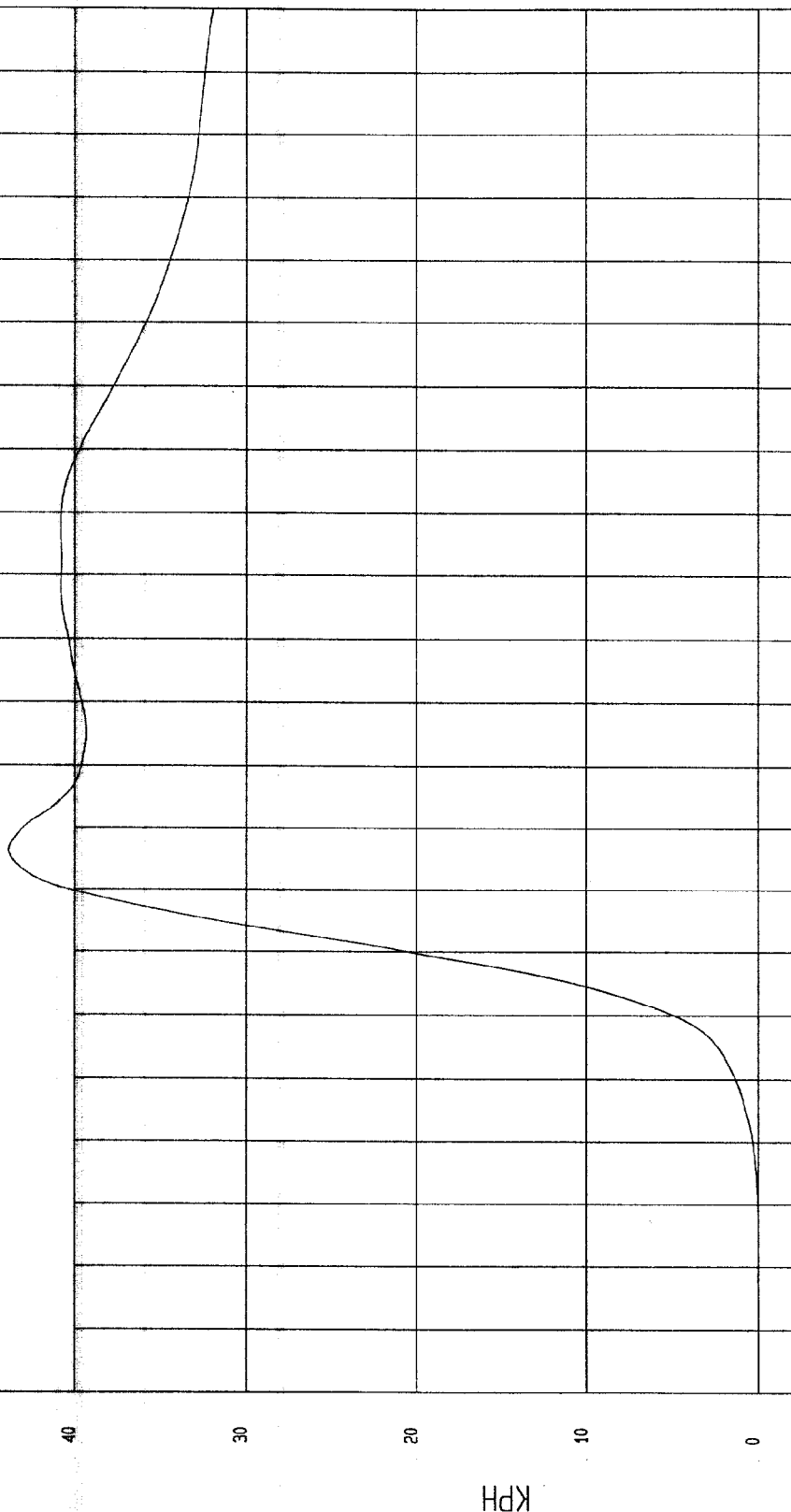
Speed: 38.34 MPH 61.7 KPH

Minimum = -8.67E-04 KPH at -16 msec

Maximum = 43.8 KPH at 66 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT VELOCITY

1 ——— 898113A1.V48 Filterclass (180)



NCA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

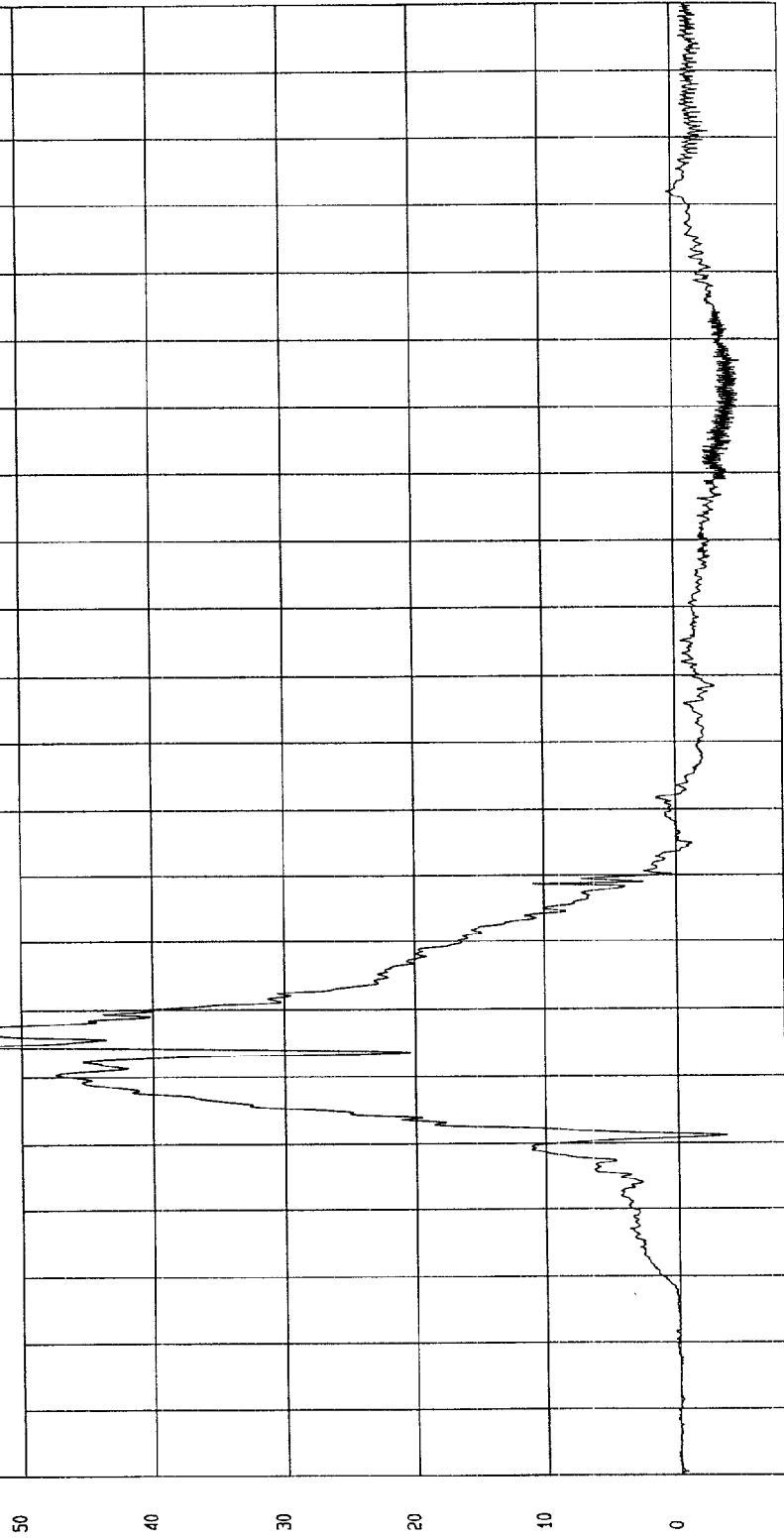
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 55.56 G'S at 47 msec

Minimum = -5.02 G'S at 147 msec

REAR PASSENGER PELVIS Y REDUNDANT ACCELERATION

1 B98113AT.A49 FilterClass (1000)



MSA Research
12-10-1998 11:43

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

SPEED: 38.34 MPH 61.7 KPH

Maximum = 40.04 KPH at 82 msec

Minimum = -5.71E-03 KPH at -18 msec

REAR PASSENGER PELVIS Y REDUNDANT VELOCITY

Filterclass (180)

89813A1.V49

1

40

30

20

10

0

KPH

-02

-01

0

01

02

03

04

05

06

07

08

09

10

11

12

13

14

15

16

17

18

19

TIME Seconds

MGA Research
12-10-1998 11:43

FINITE IMPULSE RESPONSE (FIR) FILTERED DATA

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

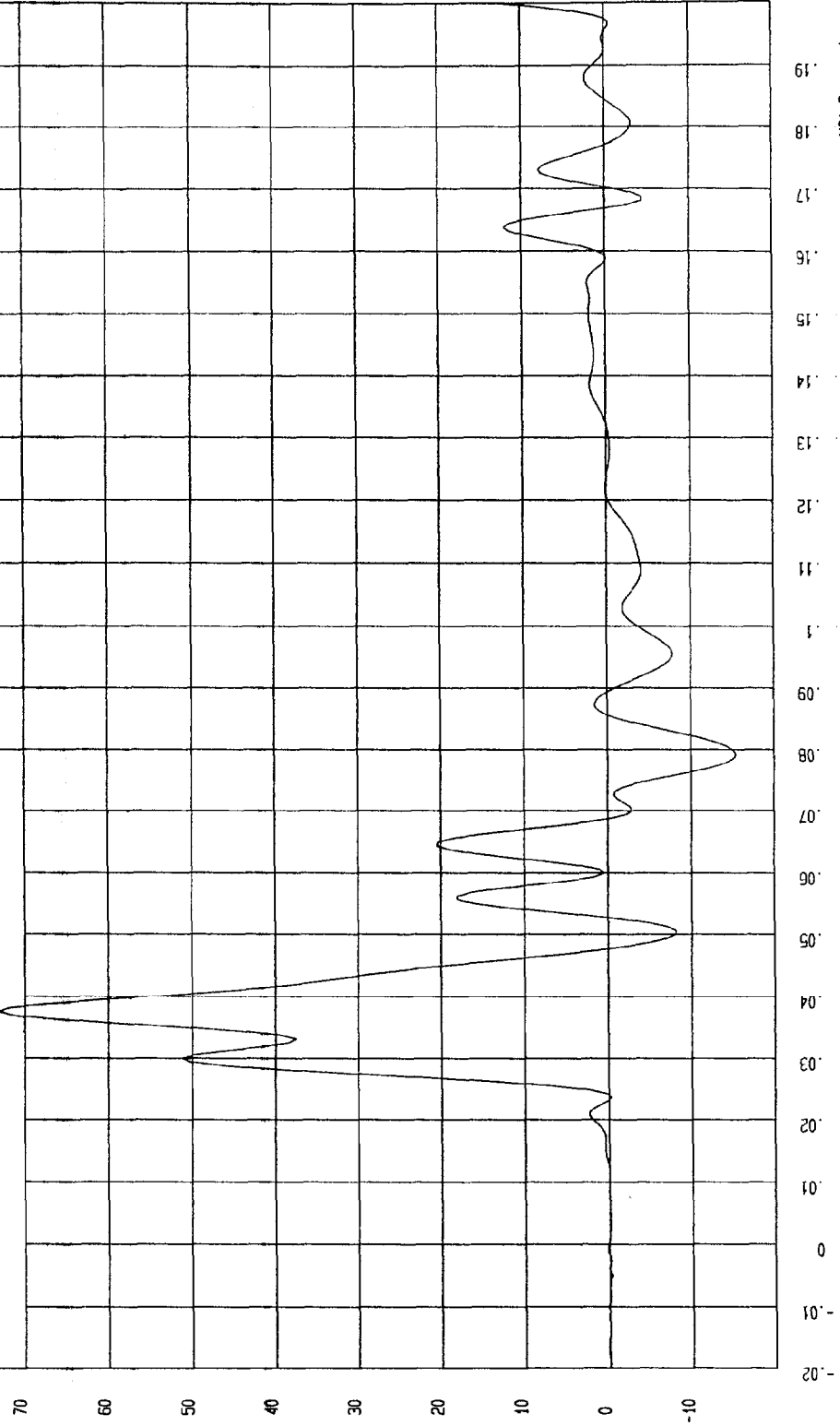
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 73.06 G'S at 38 msec

Minimum = -15.34 G'S at 79 msec

DRIVER UPPER RIB Y ACCELERATION

1 898113FI.R15 Filterclass (FIR Filtered)

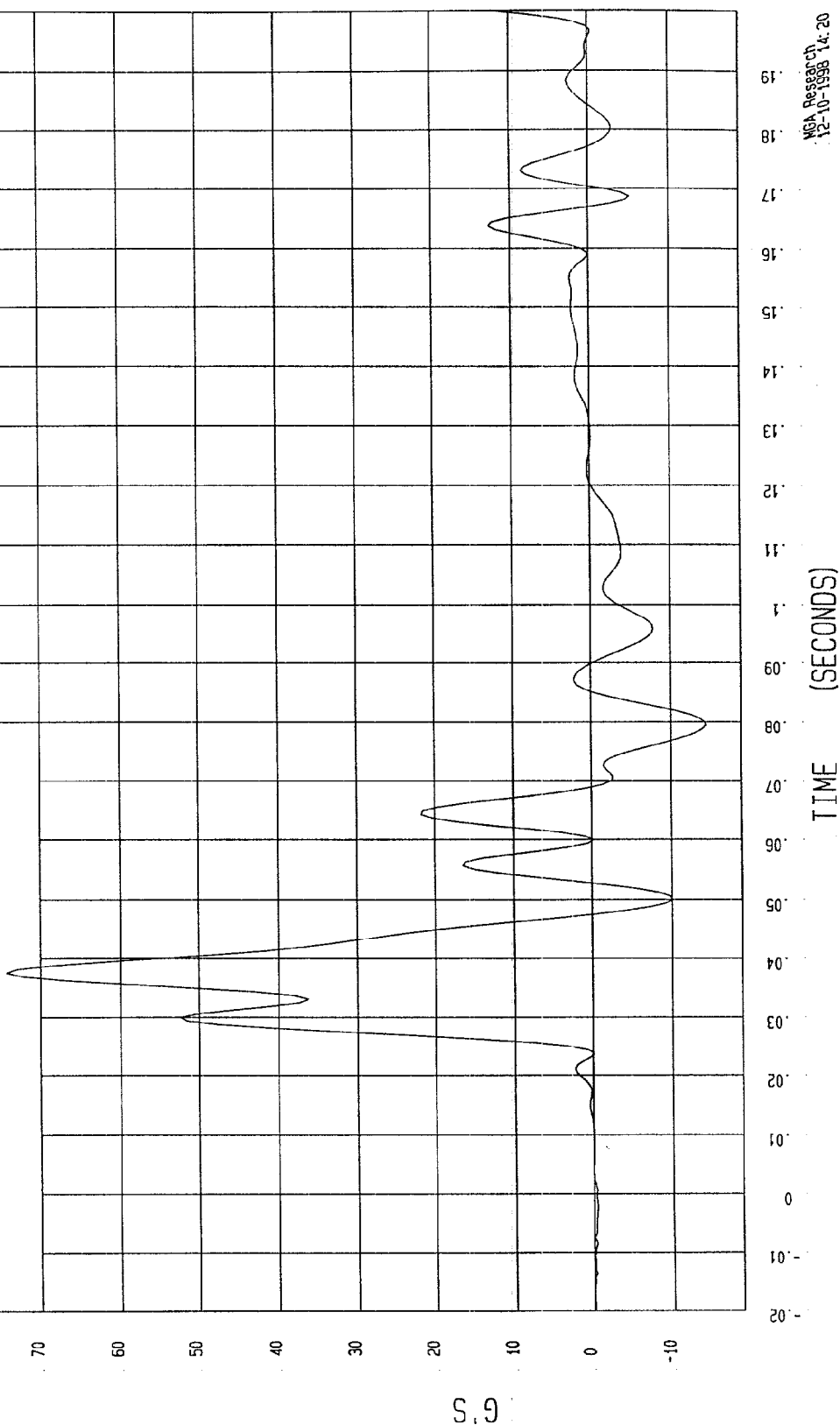


MGA Research
12-10-1998 14:20

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH
Minimum = -14.45 G'S at 79 msec Maximum = 74.36 G'S at 38 msec

DRIVER UPPER RIB Y REDUNDANT ACCELERATION

1 898113F1.R42 Filterclass (FIR Filtered)

MCA Research
12-10-1998 14:20

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 85.5 G's at 38 msec

Minimum = -13.13 G's at 94 msec

DRIVER LOWER RIB Y ACCELERATION

1 8981131.R16 FilterClass (FIR Filtered)

80

60

40

20

0

G's

.19

.18

.17

.16

.15

.14

.13

.12

.11

.1

.09

.08

.07

.06

.05

.04

.03

.02

.01

0

-.01

-.02

TIME (SECONDS)

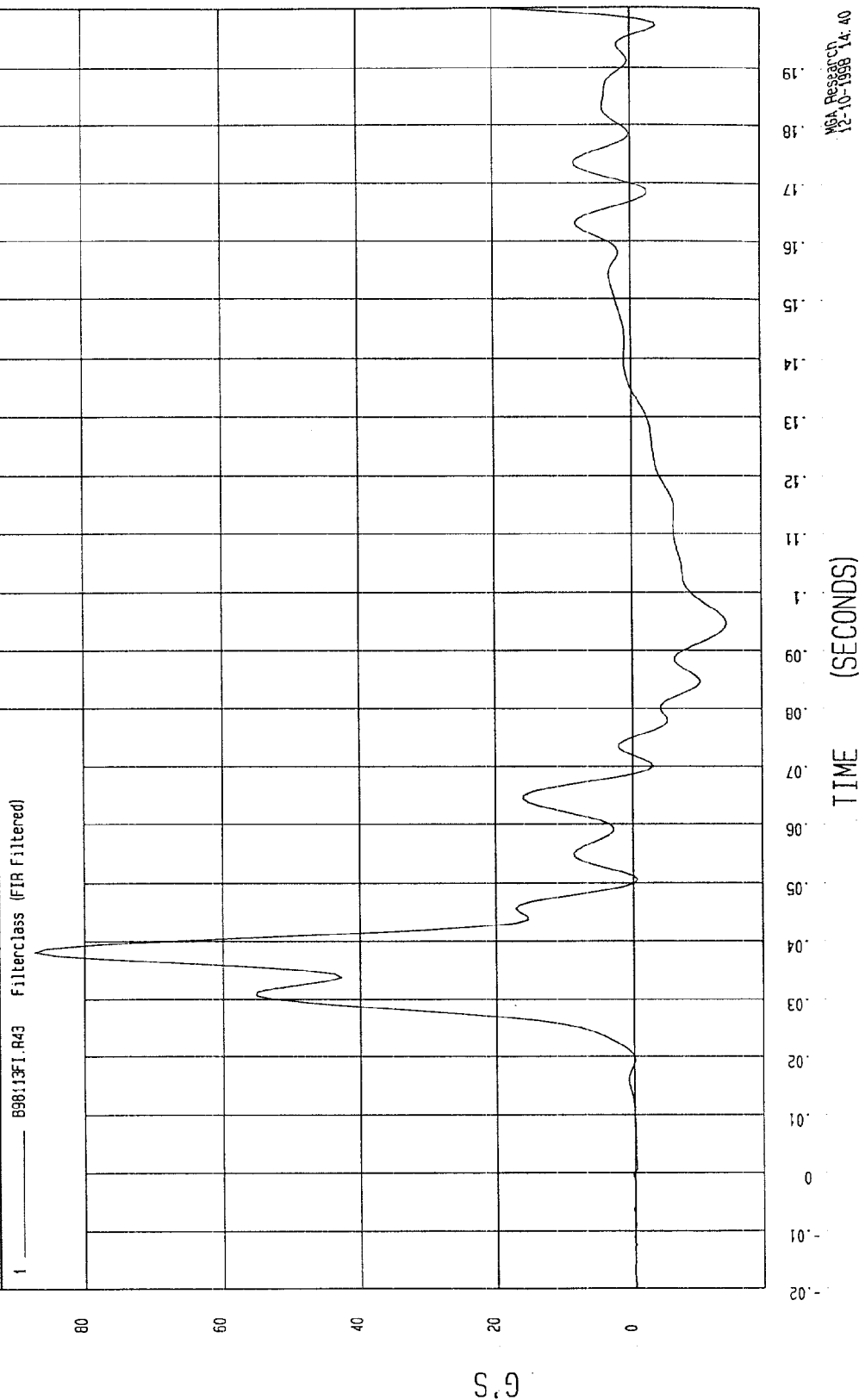
MCA Research
12-10-1998 14:20

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

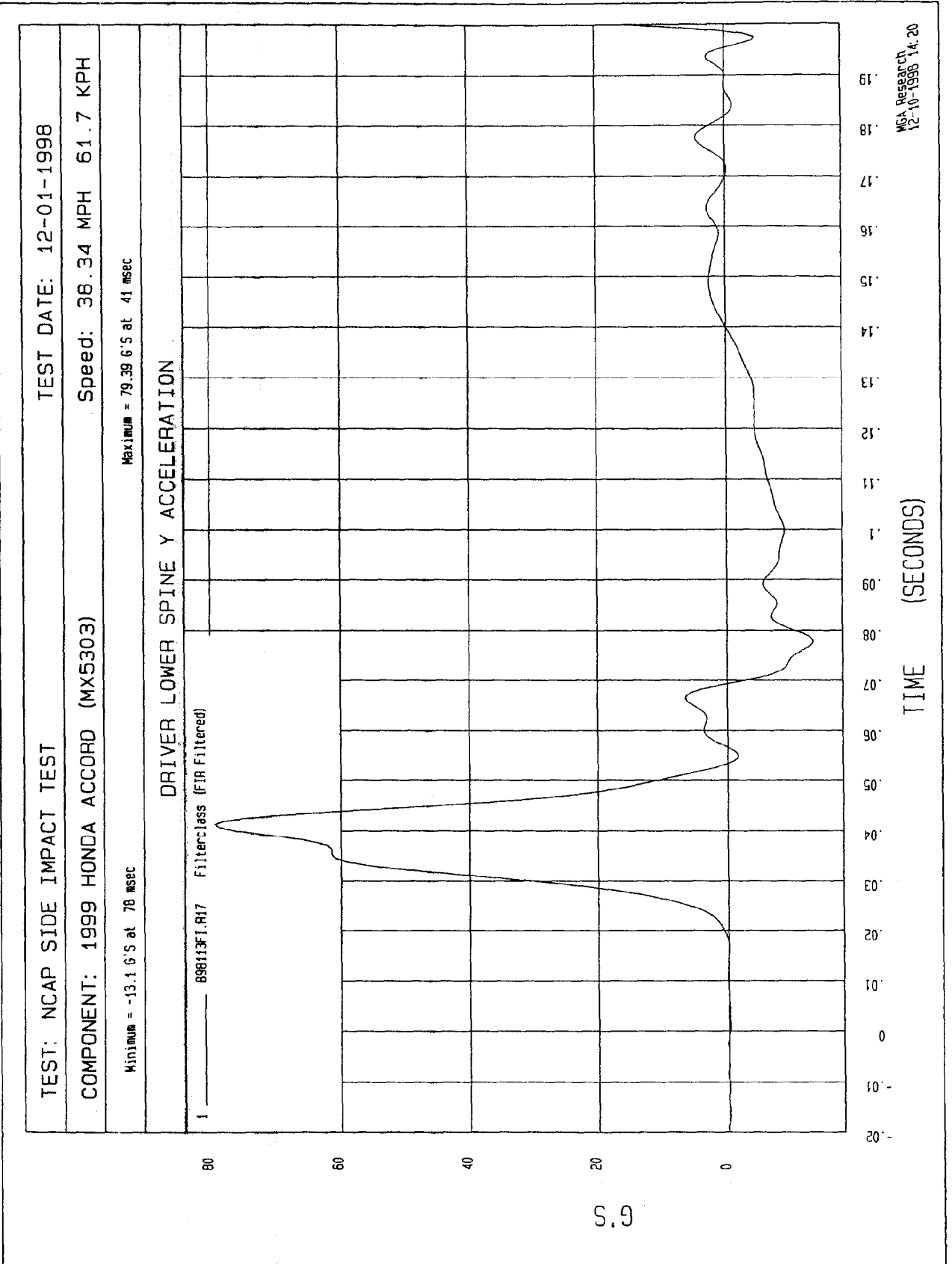
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

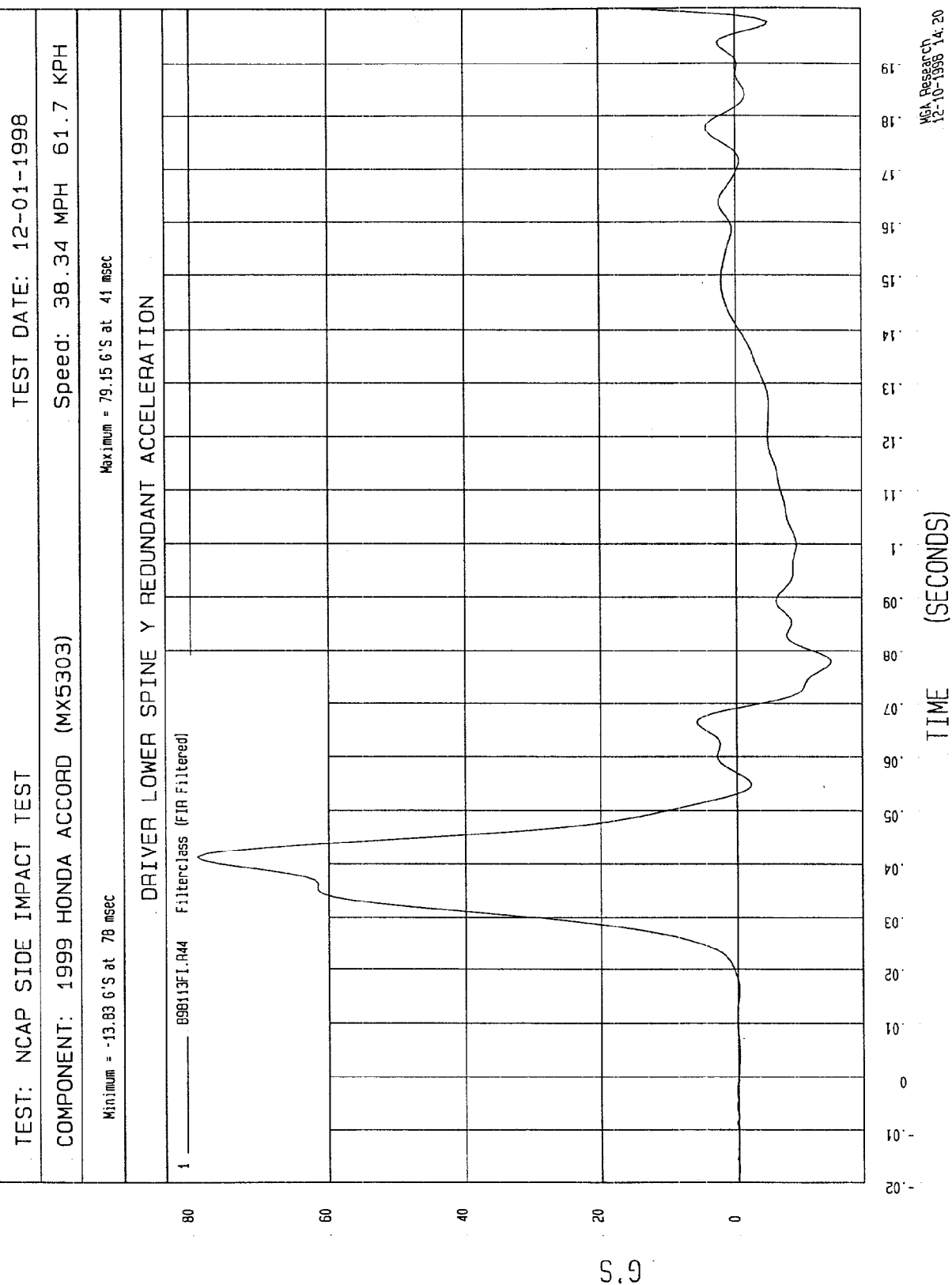
Minimum = -13.53 G'S at 94 msec Maximum = 87.26 G'S at 38 msec

DRIVER LOWER RIB Y REDUNDANT ACCELERATION



M&A Research
12-10-1998 14:40





TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 74.2 G'S at 32 msec

Minimum = -8.35 G'S at 102 msec

DRIVER PELVIS Y ACCELERATION

1 ——— B9813FI.R18 Filterclass (FIR Filtered)

G.S

TIME (SECONDS)

MCA Research
12-10-1998 14:20

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

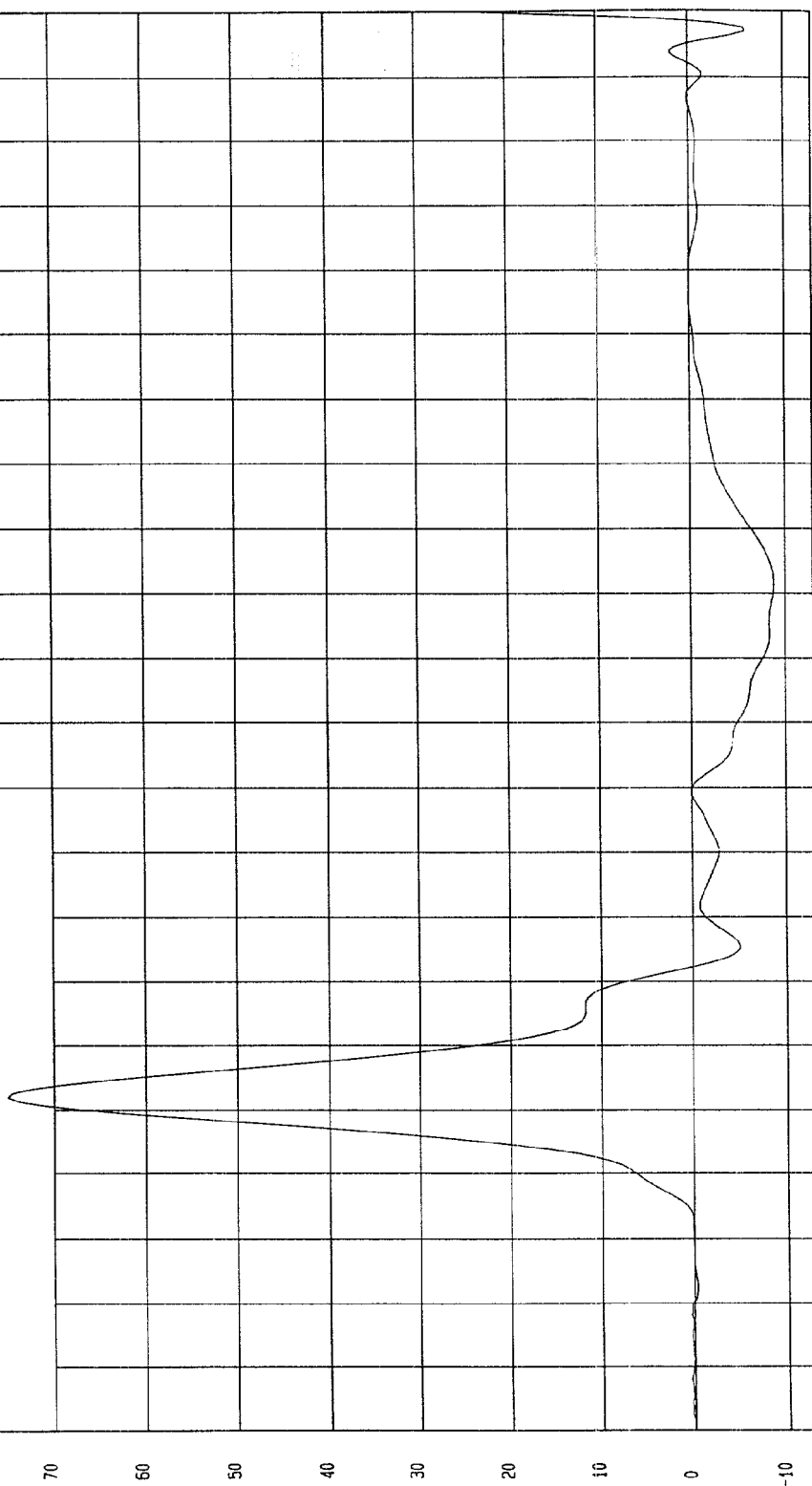
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 74.86 G'S at 32 msec

Minimum = -8.78 G'S at 111 msec

DRIVER PELVIS Y REDUNDANT ACCELERATION

1 898113F1.R45 Filterclass (FIR Filtered)

MGA Research
12-10-1998 14:20

TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

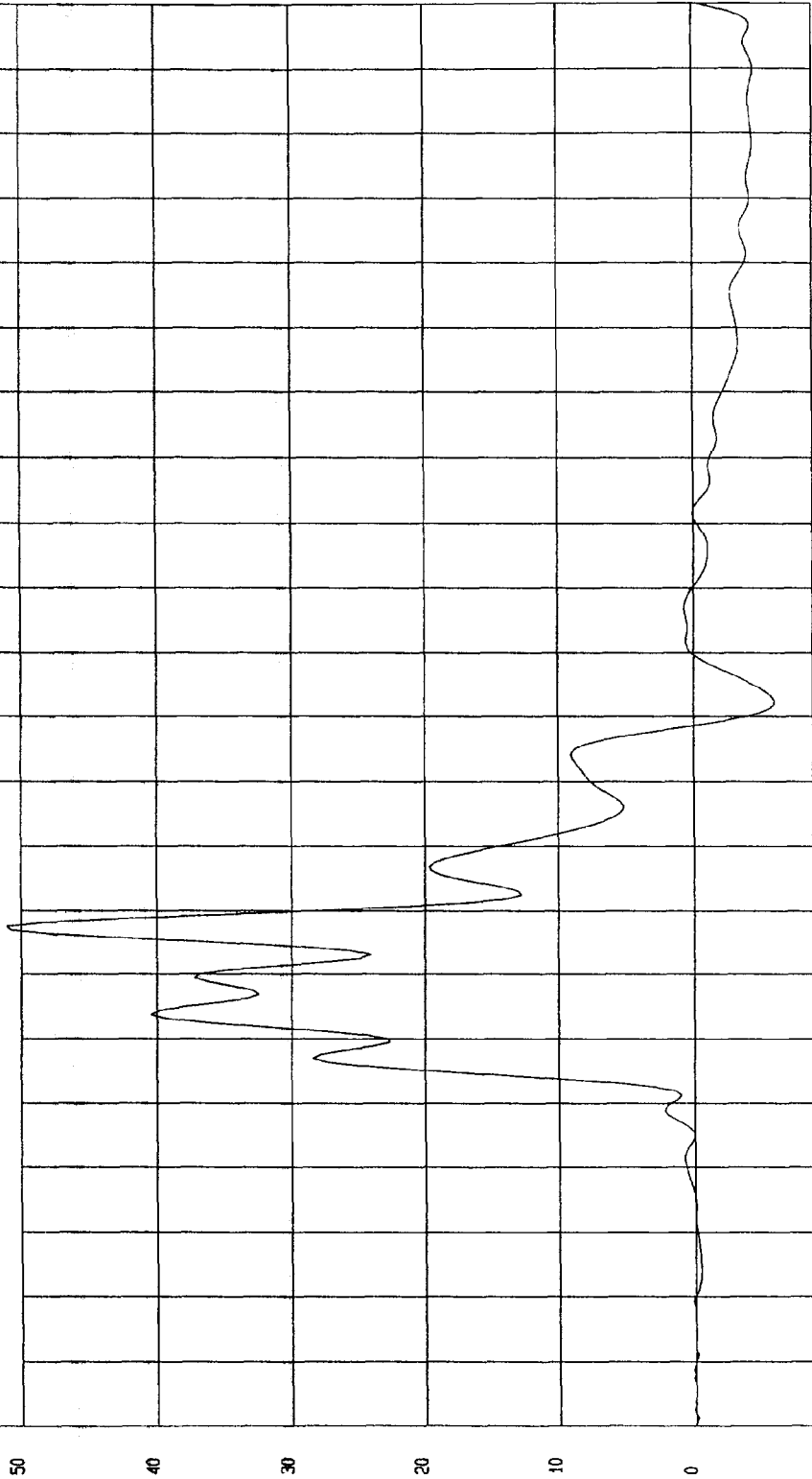
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 51.09 G'S at 58 msec

Minimum = -5.84 G'S at 92 msec

REAR PASSENGER UPPER RIB Y ACCELERATION

1 898113F1.R25 Filterclass (FIR Filtered)



MGA Research
12-10-1998 14:27

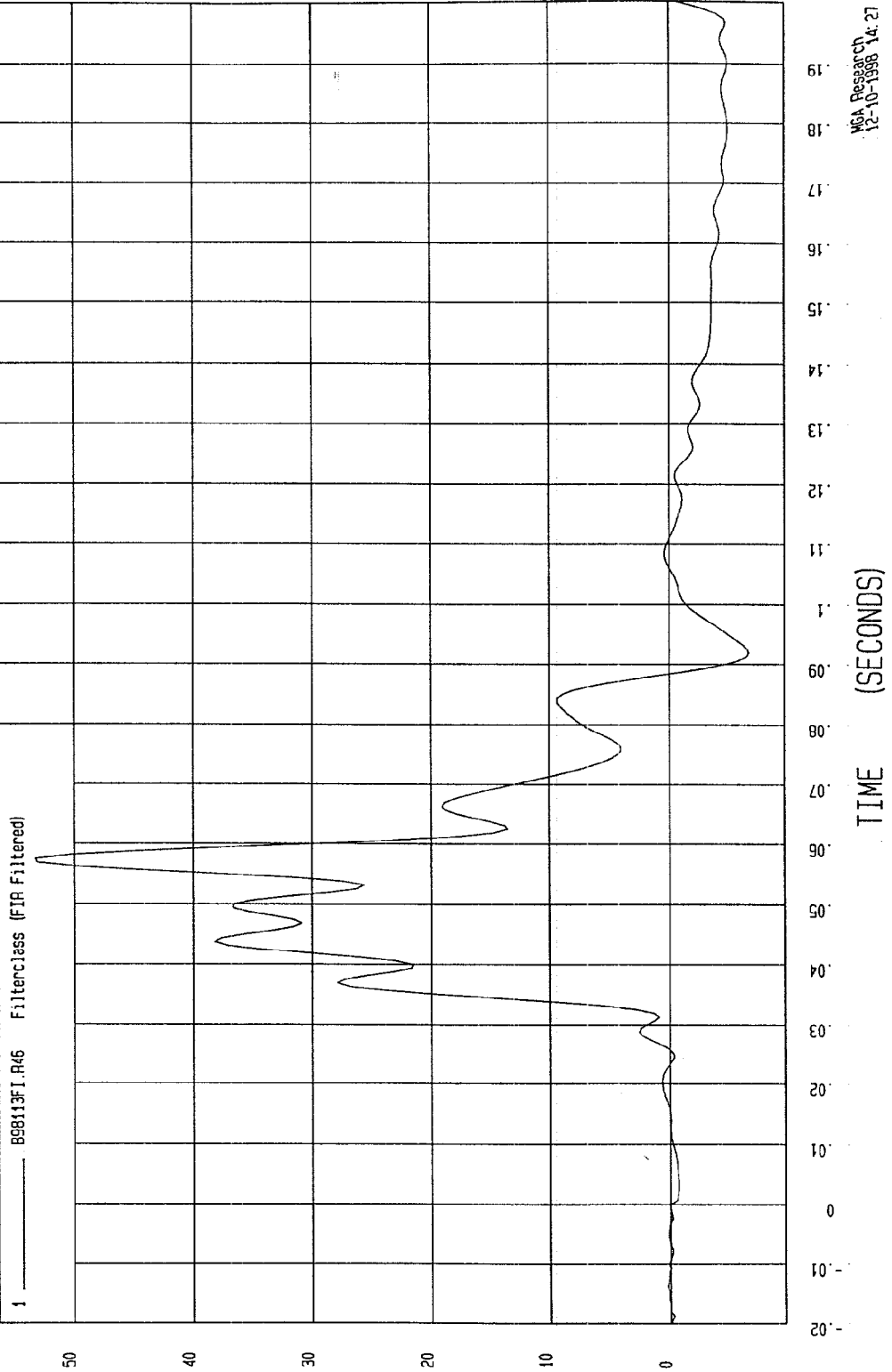
TIME (SECONDS)

G's

TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -6.55 G'S at 92 msec Maximum = 53.19 G'S at 58 msec

REAR PASSENGER UPPER RIB Y REDUNDANT ACCELERATION



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

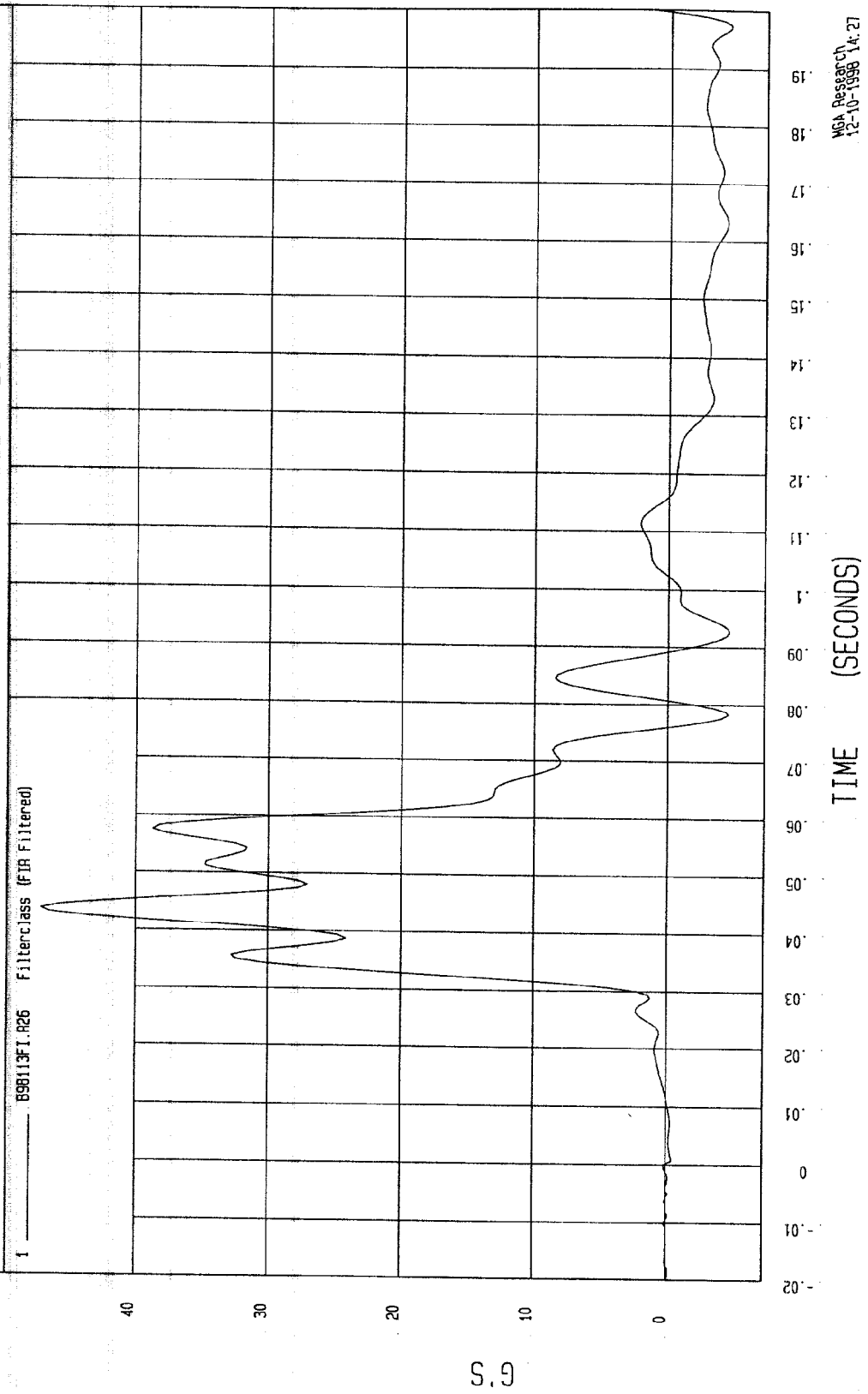
COMPONENT: 1999 HONDA ACCORD (MX5303)

Speed: 38.34 MPH 61.7 KPH

Minimum = -4.55 G'S at 92 msec

Maximum = 46.98 G'S at 44 msec

PEAR PASSENGER LOWER RIB Y ACCELERATION

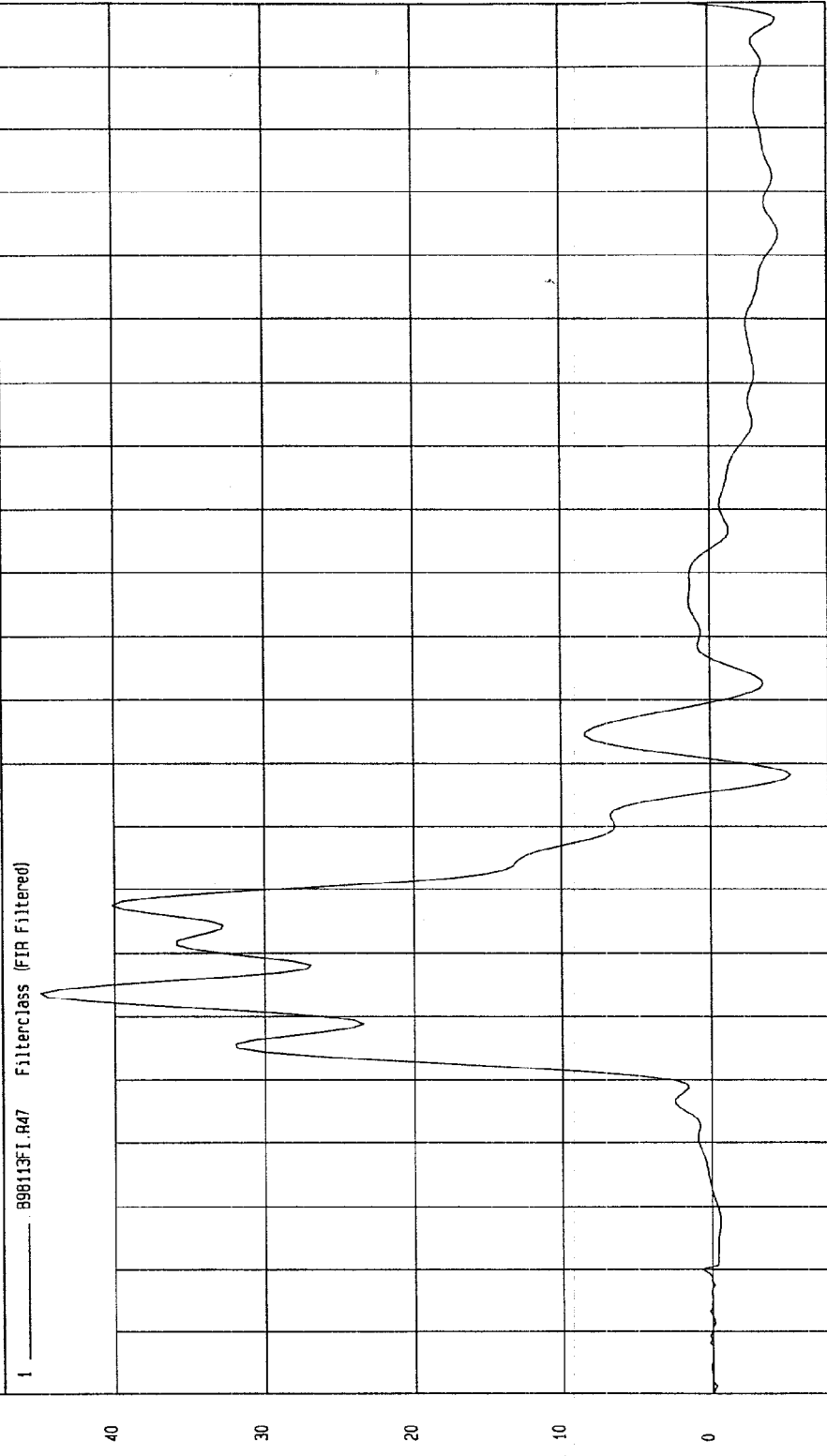


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -5.34 G'S at 78 msec Maximum = 44.94 G'S at 44 msec

REAR PASSENGER LOWER RIB Y REDUNDANT ACCELERATION



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

Speed: 38.34 MPH 61.7 KPH

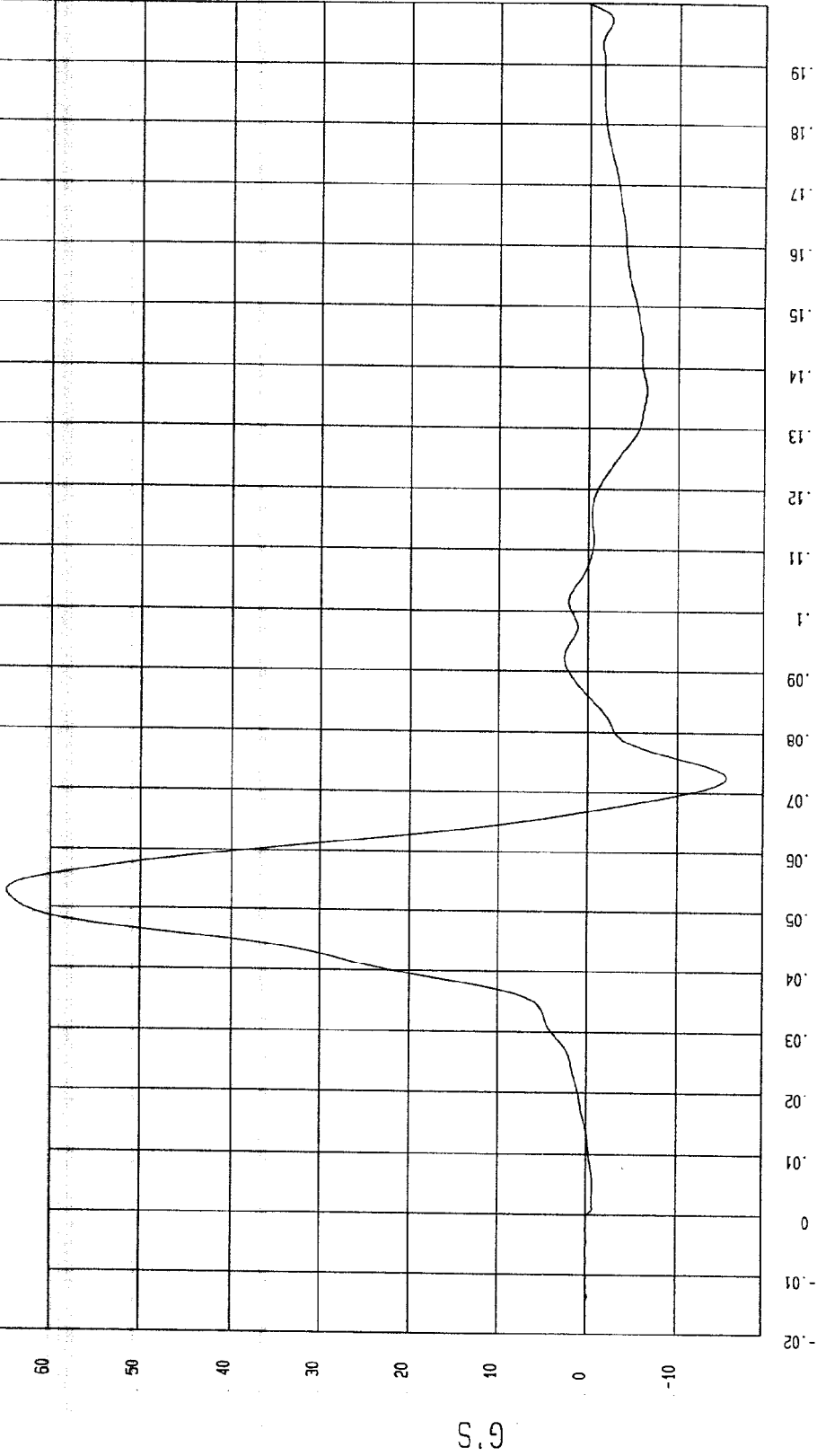
COMPONENT: 1999 HONDA ACCORD (MX5303)

Maximum = 64.78 G'S at 53 msec

Minimum = -15.42 G'S at 72 msec

REAR PASSENGER LOWER SPINE Y ACCELERATION

1 _____ 898113F1.R27 Filterclass (FIR Filtered)

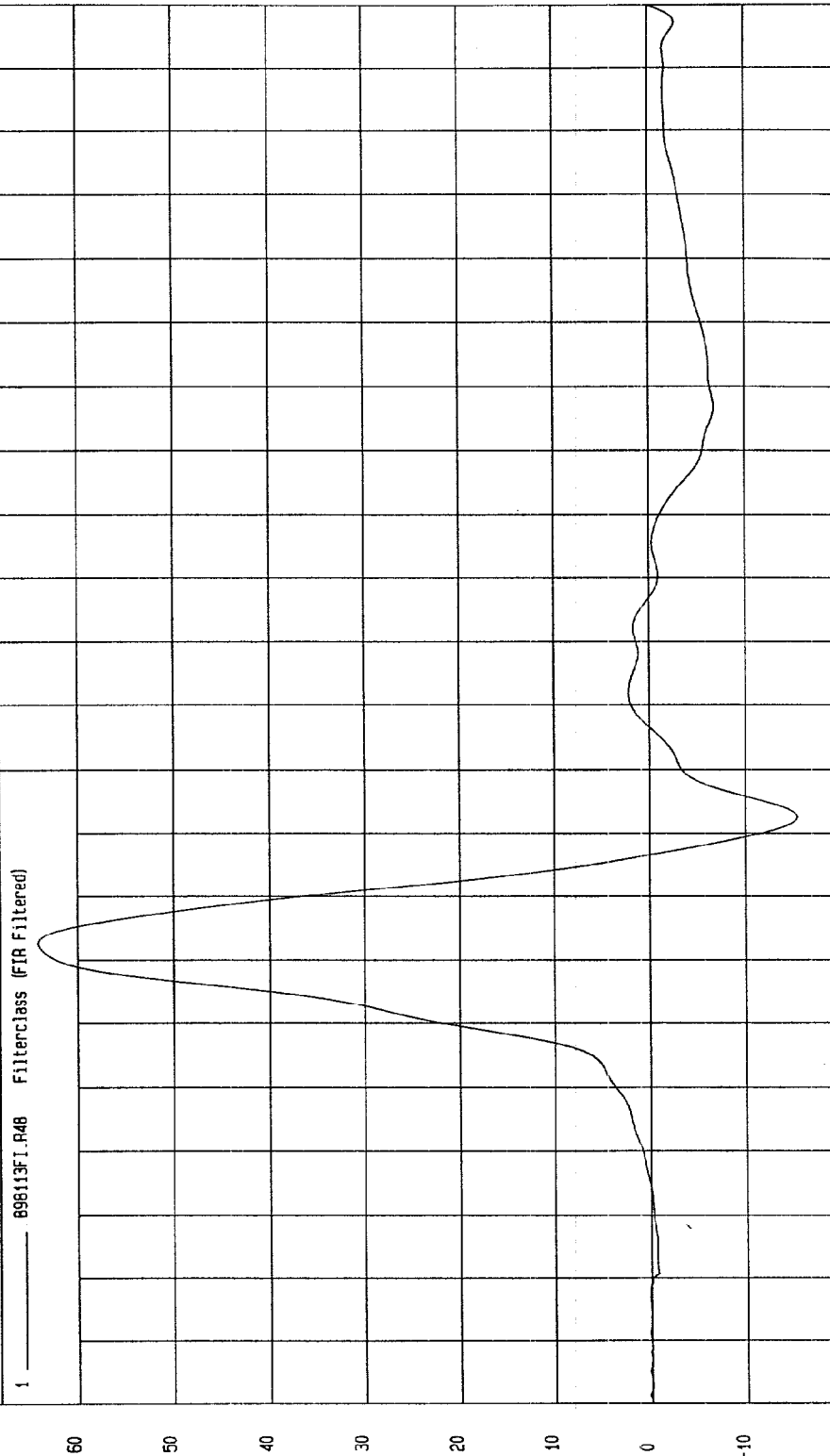


TEST: NCAP SIDE IMPACT TEST TEST DATE: 12-01-1998

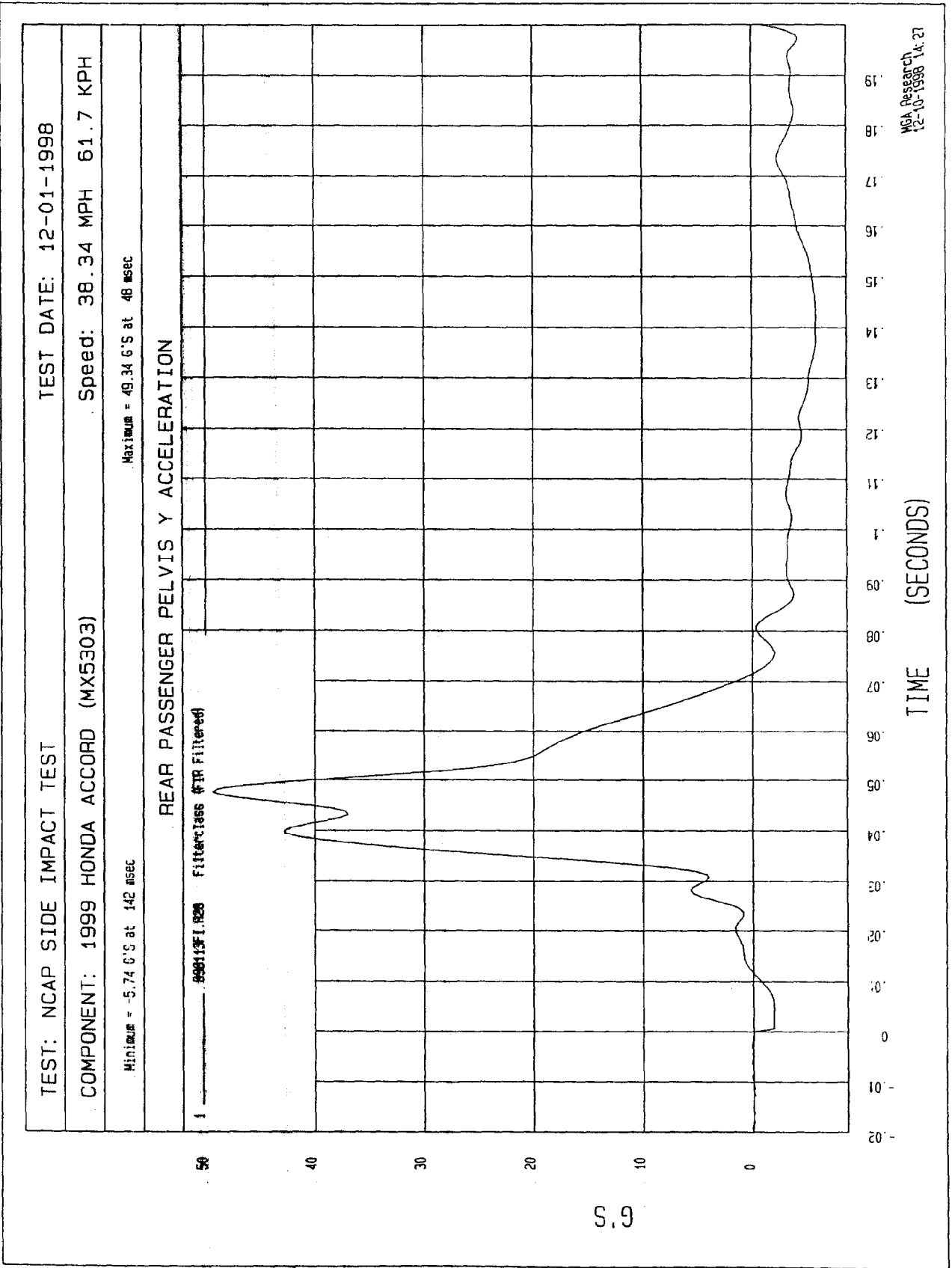
COMPONENT: 1999 HONDA ACCORD (MX5303) Speed: 38.34 MPH 61.7 KPH

Minimum = -15.36 G'S at 72 msec Maximum = 64.12 G'S at 52 msec

REAR PASSENGER LOWER SPINE Y REDUNDANT ACCELERATION



MGA Research
12-10-1998 14:27



TEST: NCAP SIDE IMPACT TEST

TEST DATE: 12-01-1998

COMPONENT: 1999 HONDA ACCORD (MX5303)

Speed: 38.34 MPH 61.7 KPH

Minimum = -6.17 G'S at 144 msec

Maximum = 48.58 G'S at 48 msec

REAR PASSENGER PELVIS Y REDUNDANT ACCELERATION

1 898113FI.R49 FilterClass (FIR Filtered)

50

40

30

20

10

0

G'S

-0.02

-0.01

0

0.01

0.02

0.03

0.04

0.05

0.06

0.07

0.08

0.09

0.1

0.11

0.12

0.13

0.14

0.15

0.16

0.17

0.18

0.19

TIME (SECONDS)

MSA Research
12-10-1998 14:27

APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION

1

PRE-TEST CERTIFICATION DATA

Driver Dummy Serial Number: 271

Calibration Test Results Summary

Driver Dummy Serial Number: 271

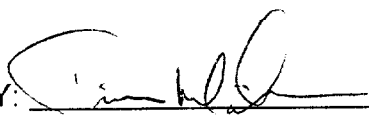
Pre-Test Calibration

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: November 30, 1998

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

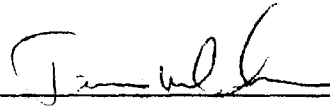
SIDE IMPACT DUMMY (SID)

DATE: November 30, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981492

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	48%
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46 g's	43
LOWER RIB (g's)	37 - 46 g's	43
LOWER SPINE (g's)	15 - 22 g's	22

TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY

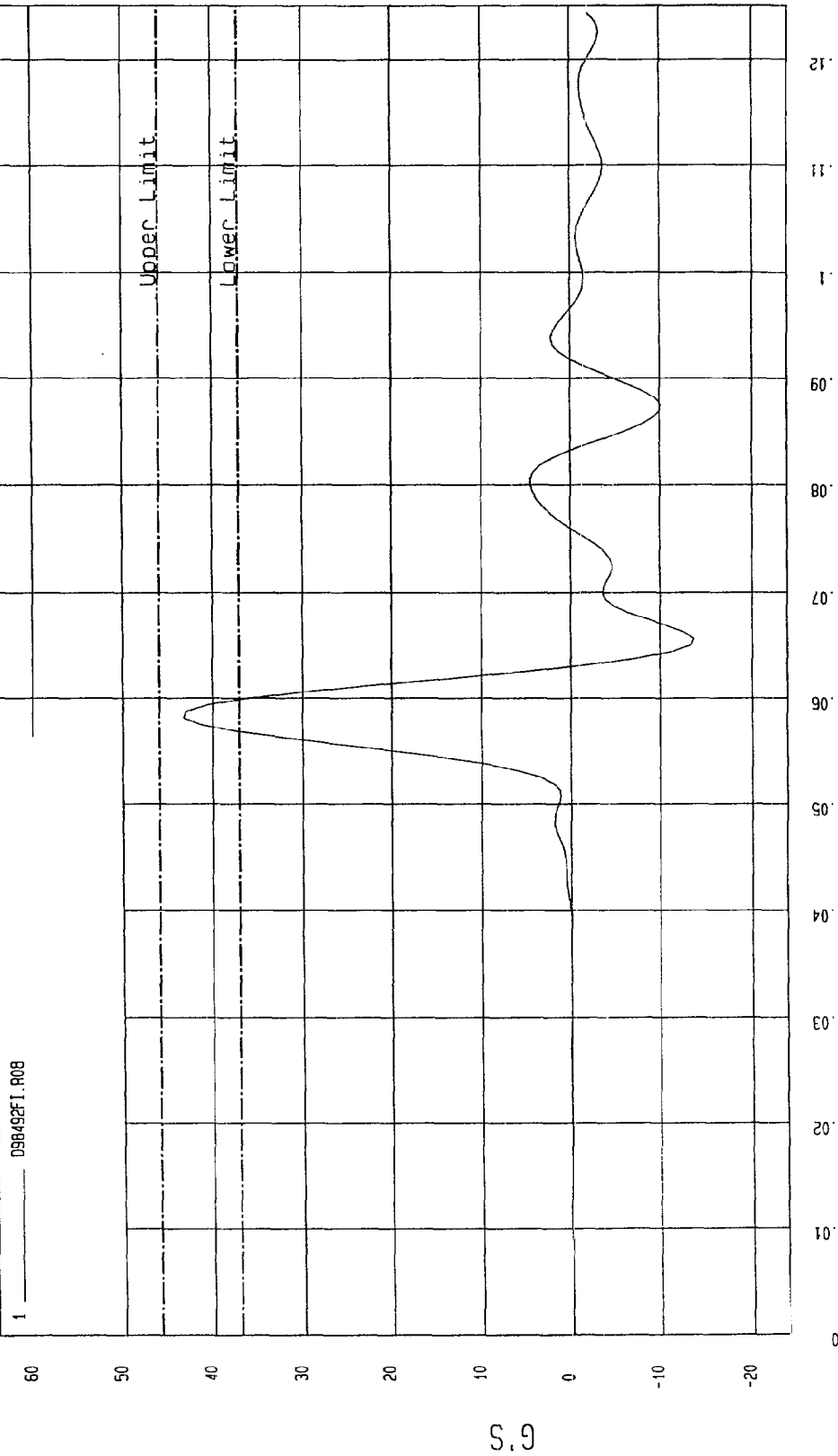


TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 11-30-1998 - 10:19

COMPONENT: DUMMY # 271 Velocity: 14.06 FT/SEC 4.29 M/SEC

Minimum = -13.64 G'S at 65.6 msec Maximum = 43.25 G'S at 58.1 msec

UPPER RIB ACCELERATION



TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 11-30-1998 - 10:19

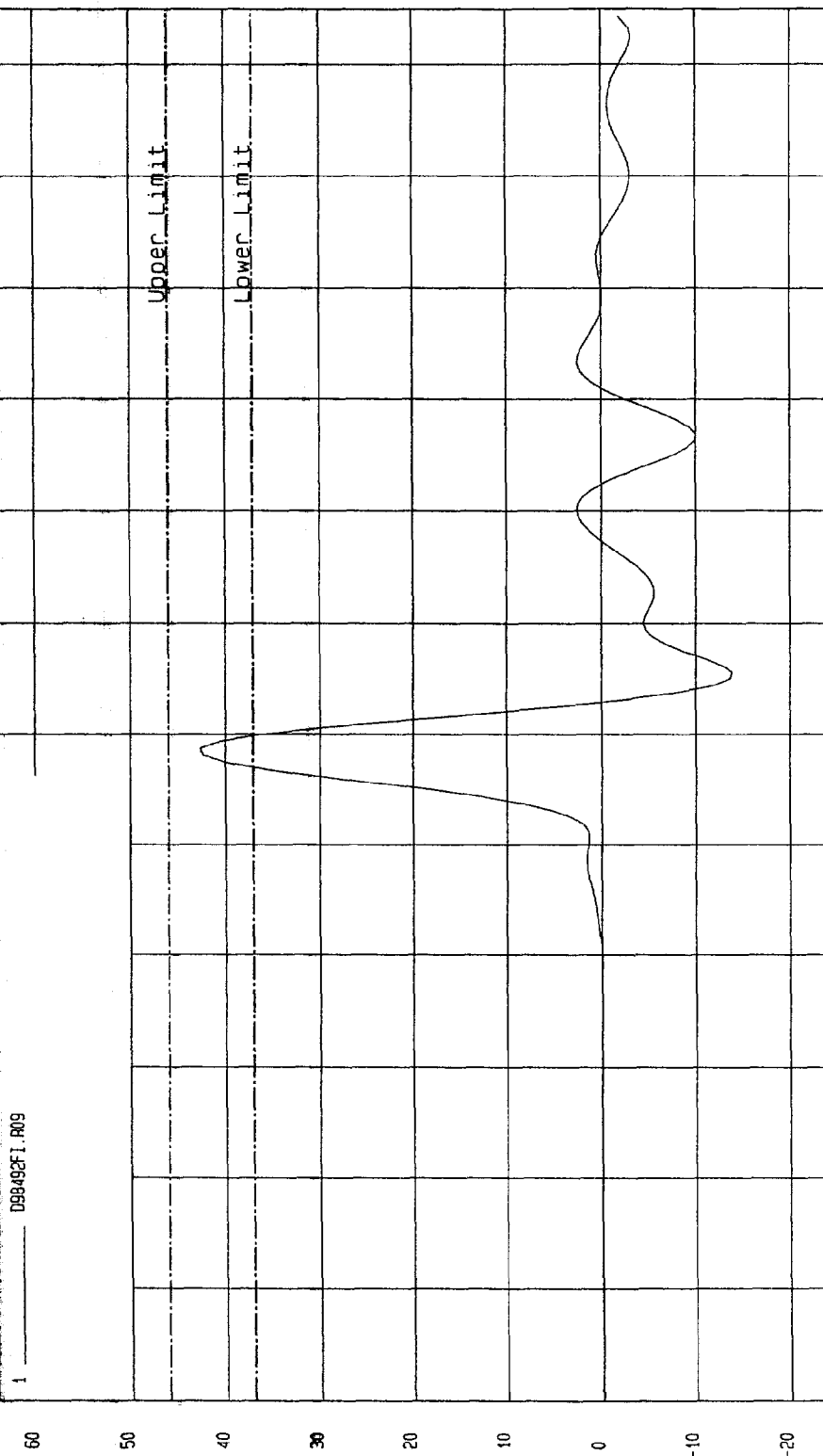
COMPONENT: DUMMY # 271 Velocity: 14.06 FT/SEC 4.29 M/SEC

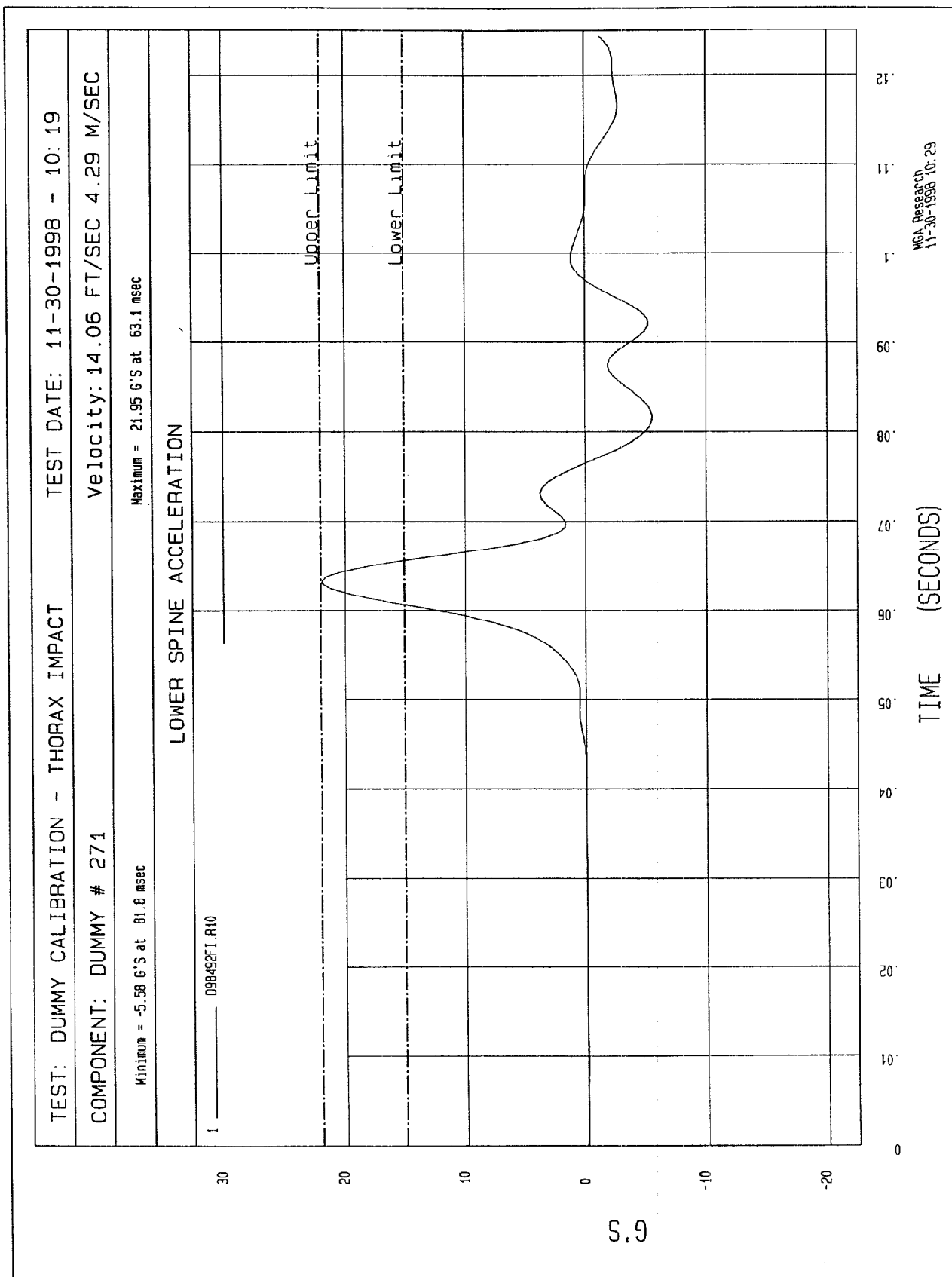
Minimum = -13.76 G'S at 65.6 msec

Maximum = 42.66 G'S at 58.7 msec

LOWER RIB ACCELERATION

1 D98492FI.R09

WGA Research
11-30-1998 10:29



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

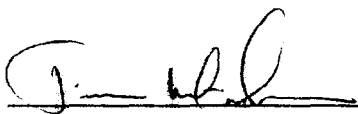
SIDE IMPACT DUMMY (SID)

DATE: November 30, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981493

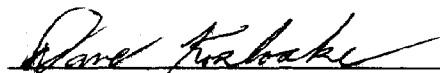
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	48%
PROBE SPEED (m/s)	4.27 - 4.33	4.30
PELVIS ACCELERATION (g's)	40 - 60	58

TEST MEETS SPECIFICATIONS

TECHNICIAN



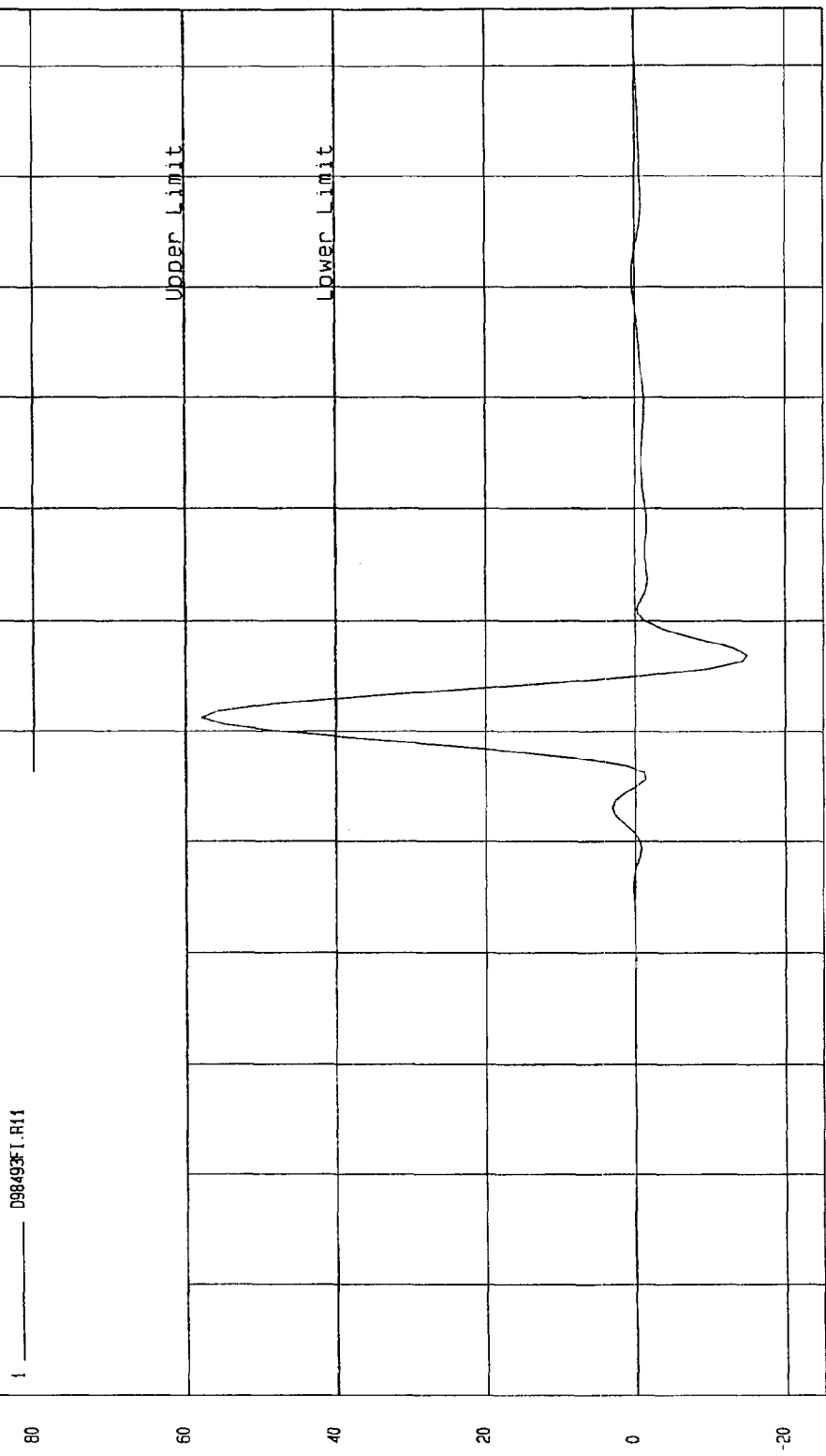
APPROVED BY



TEST: DUMMY CALIBRATION - PELVIS IMPACT TEST DATE: 11-30-1998 - 10:28
COMPONENT: DUMMY # 271 Velocity: 14.102 FT/SEC 4.3 M/SEC

Minimum = -14.84 G'S at 66.8 msec Maximum = 57.93 G'S at 61.2 msec

PELVIS ACCELERATION



MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)

SIDE IMPACT DUMMY (SID)

DATE: November 30, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981494

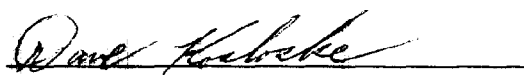
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	45%
FORCE @ 12.7 mm	104 - 162	147
FORCE @ 19.0 mm	163 - 222	201
FORCE @ 25.4 mm	222 - 280	266
FORCE @ 33 mm	325 - 391	357

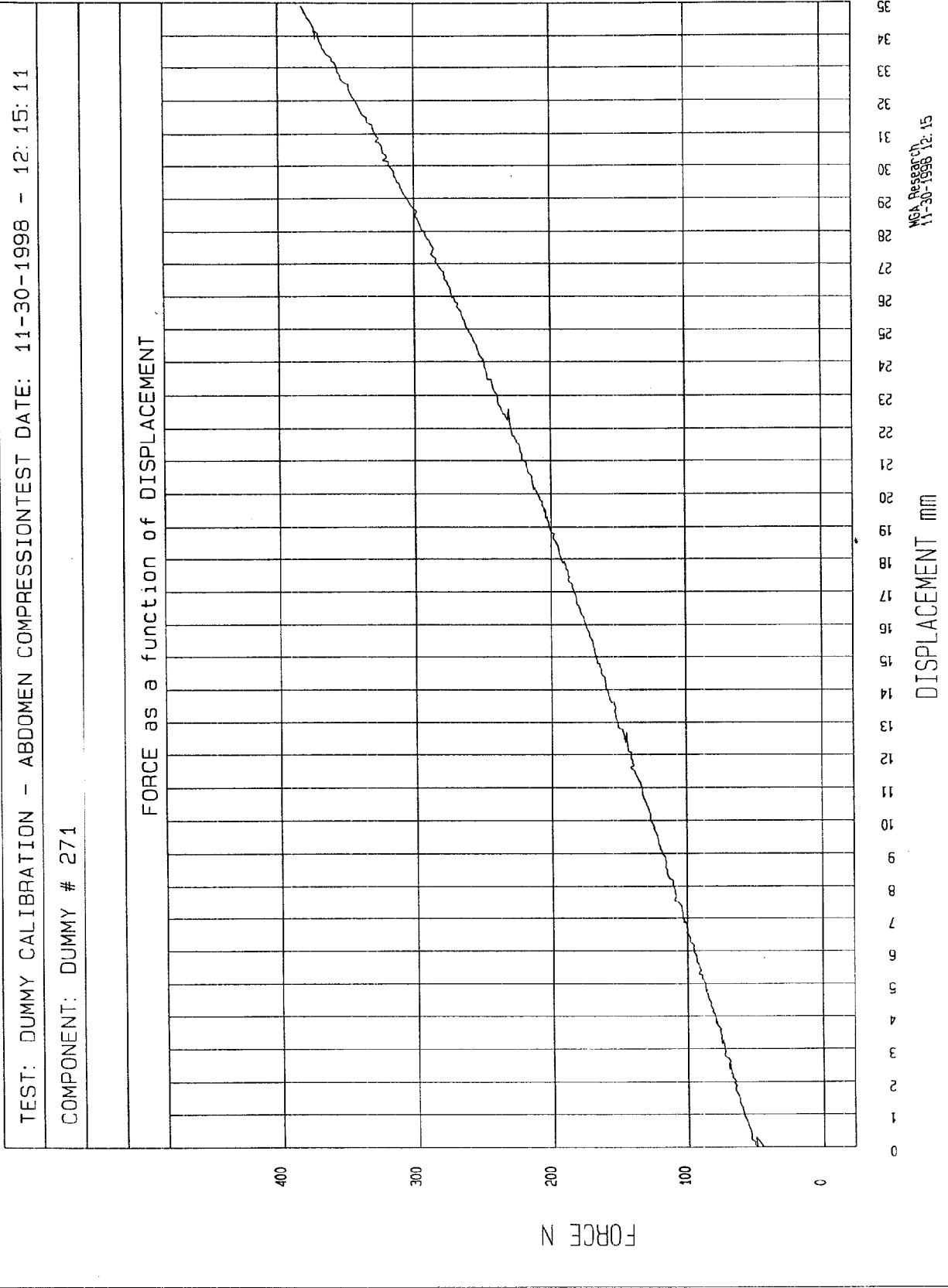
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





MGA RESEARCH CORPORATION

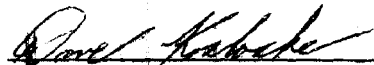
LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: November 30, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981495

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	40%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	121.1
FORCE @ 30°	151.2 - 204.6	161.2
FORCE @ 40°	204.6 - 258.0	213.3
RETURN ANGLE	12° maximum	1°

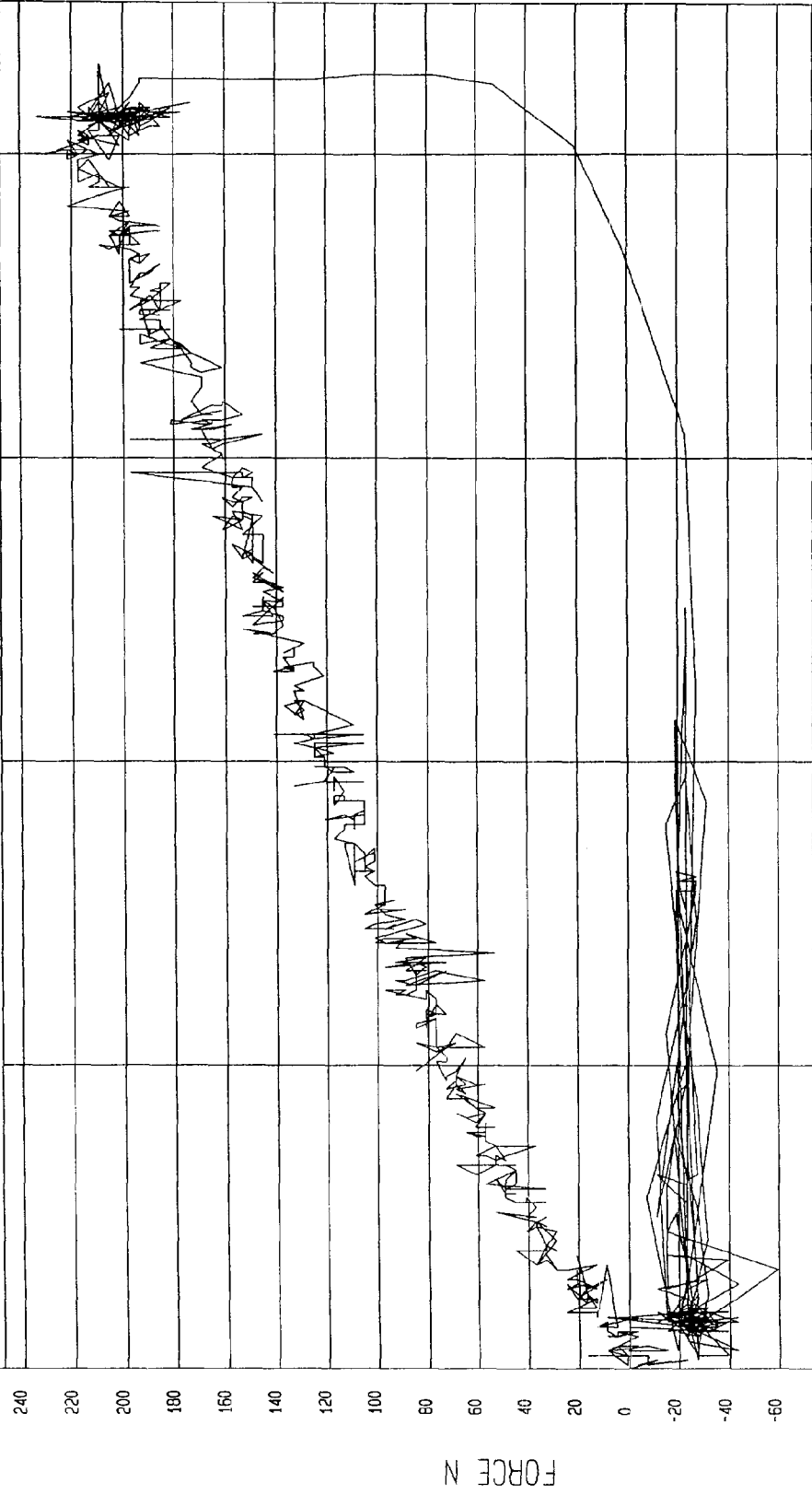
TEST MEETS SPECIFICATIONS

TECHNICIAN APPROVED BY 

TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 11-30-1998 - 16:00:53

COMPONENT: DUMMY # 271

FORCE as a function of TORSO ROTATION.



MSA Research
11-30-1998 16:02

PRE-TEST CERTIFICATION DATA

Passenger Dummy Serial Number: 272

Calibration Test Results Summary

Passenger Dummy Serial Number: 272

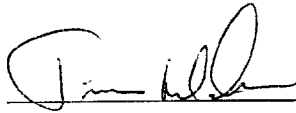
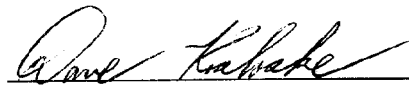
Pre-Test Calibration

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: November 19, 1998

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: November 18, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981442

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
PROBE SPEED (m/s)	4.27 - 4.33	4.27
UPPER RIB (g's)	37 - 46 g's	44
LOWER RIB (g's)	37 - 46 g's	39
LOWER SPINE (g's)	15 - 22 g's	19

TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY

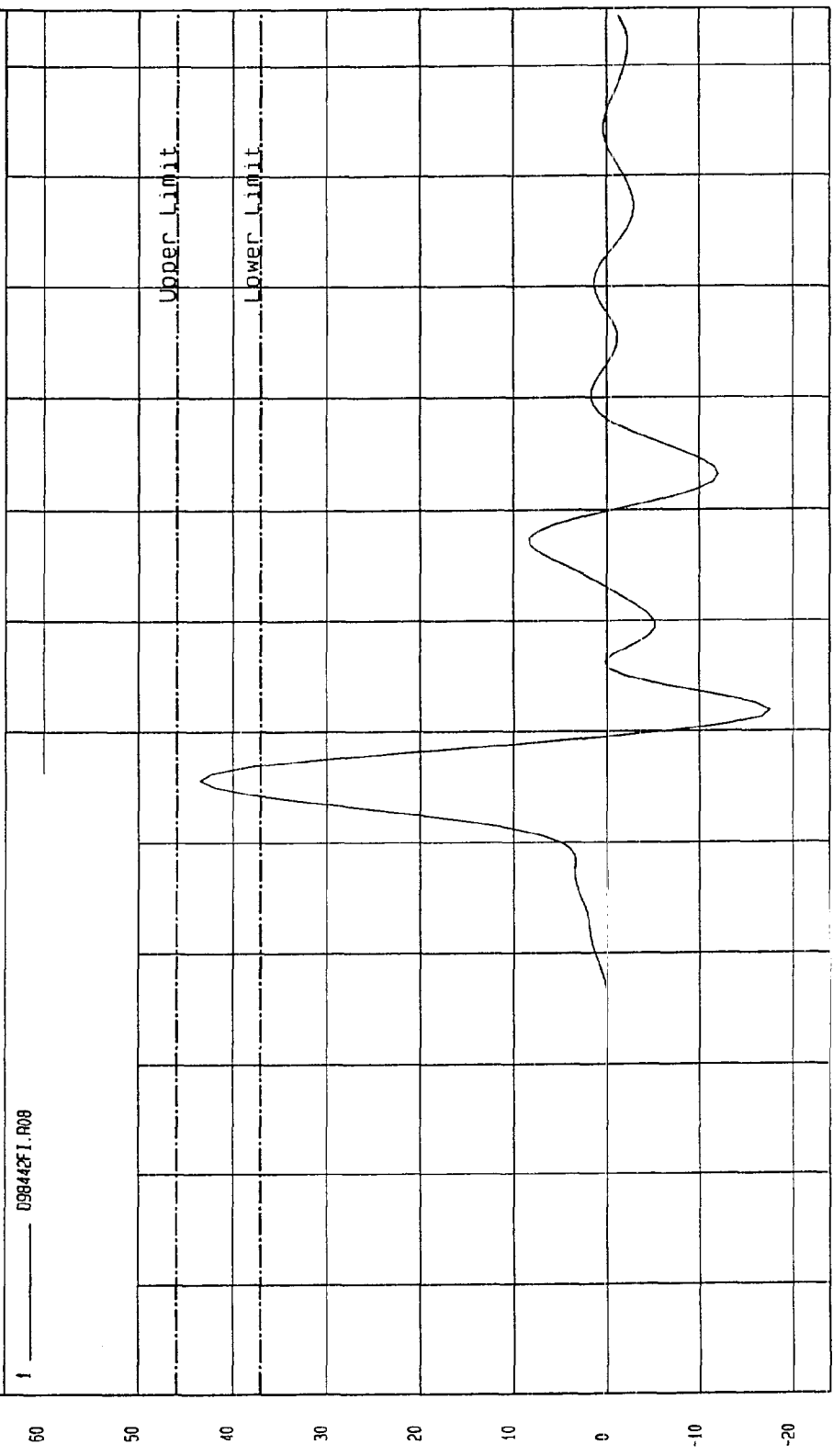


TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 11-18-1998 - 08:39

COMPONENT: DUMMY # 272 Velocity: 14.014 FT/SEC 4.27 M/SEC

Minimum = -17.54 G'S at 61.8 msec Maximum = 43.51 G'S at 55.6 msec

UPPER RIB ACCELERATION



WCA Research
11-18-1998 09:45

TEST: DUMMY CALIBRATION - THORAX IMPACT TEST DATE: 11-18-1998 - 08:39

COMPONENT: DUMMY # 272 Velocity: 14.014 FT/SEC 4.27 M/SEC

Minimum = -15.69 G's at 61.8 msec

Maximum = 39.12 G's at 55 msec

LOWER RIB ACCELERATION

1 ——— 09844371.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

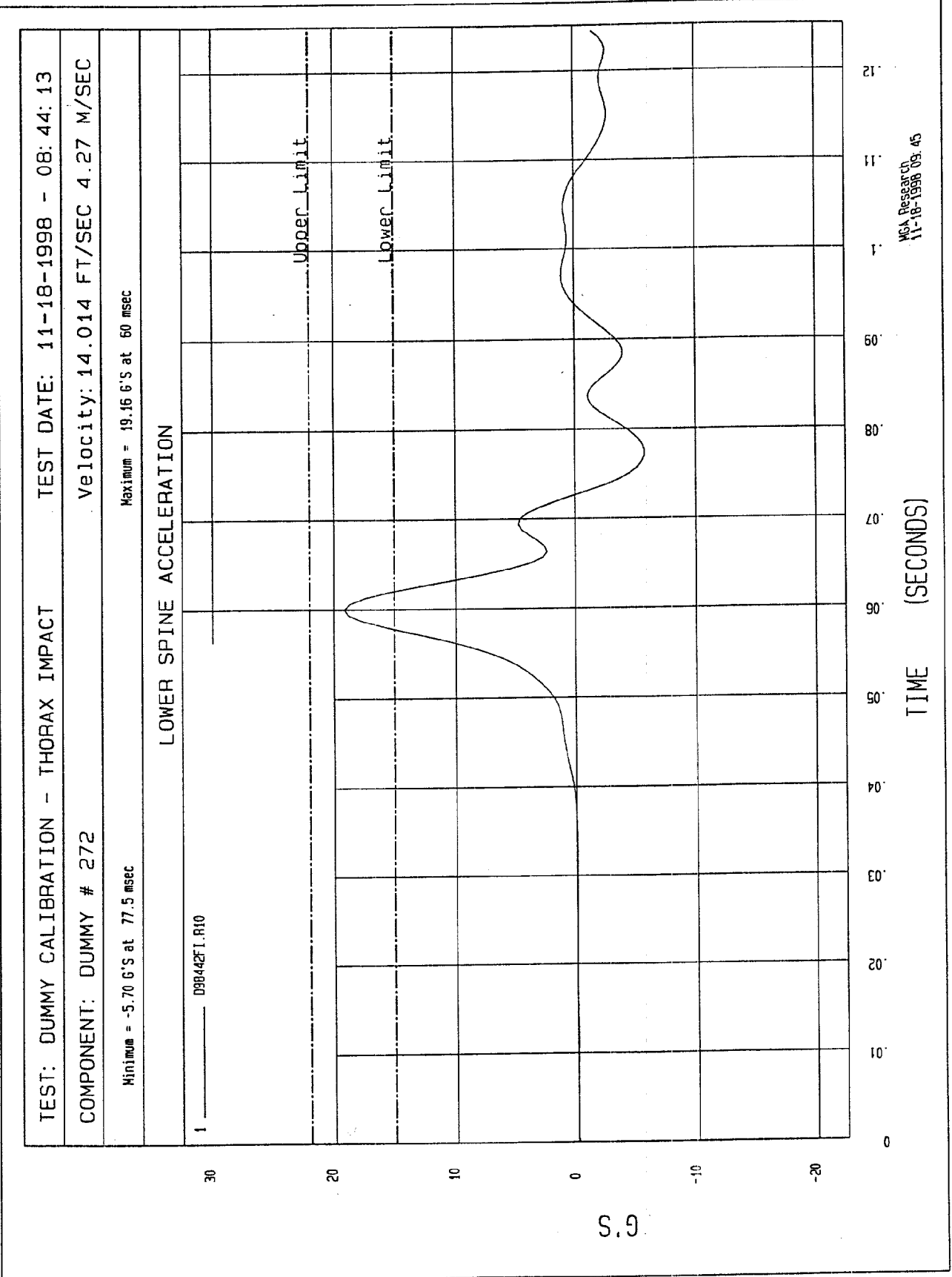
02

01

0

TIME (SECONDS)

MCA Research
11-18-1998 09:45



VCA Research
11-18-1998 09:45

MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

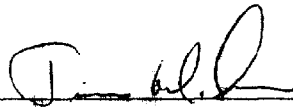
SIDE IMPACT DUMMY (SID)

DATE: November 18, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981443

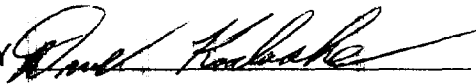
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
PROBE SPEED (m/s)	4.27 - 4.33	4.29
PELVIS ACCELERATION (g's)	40 - 60	54

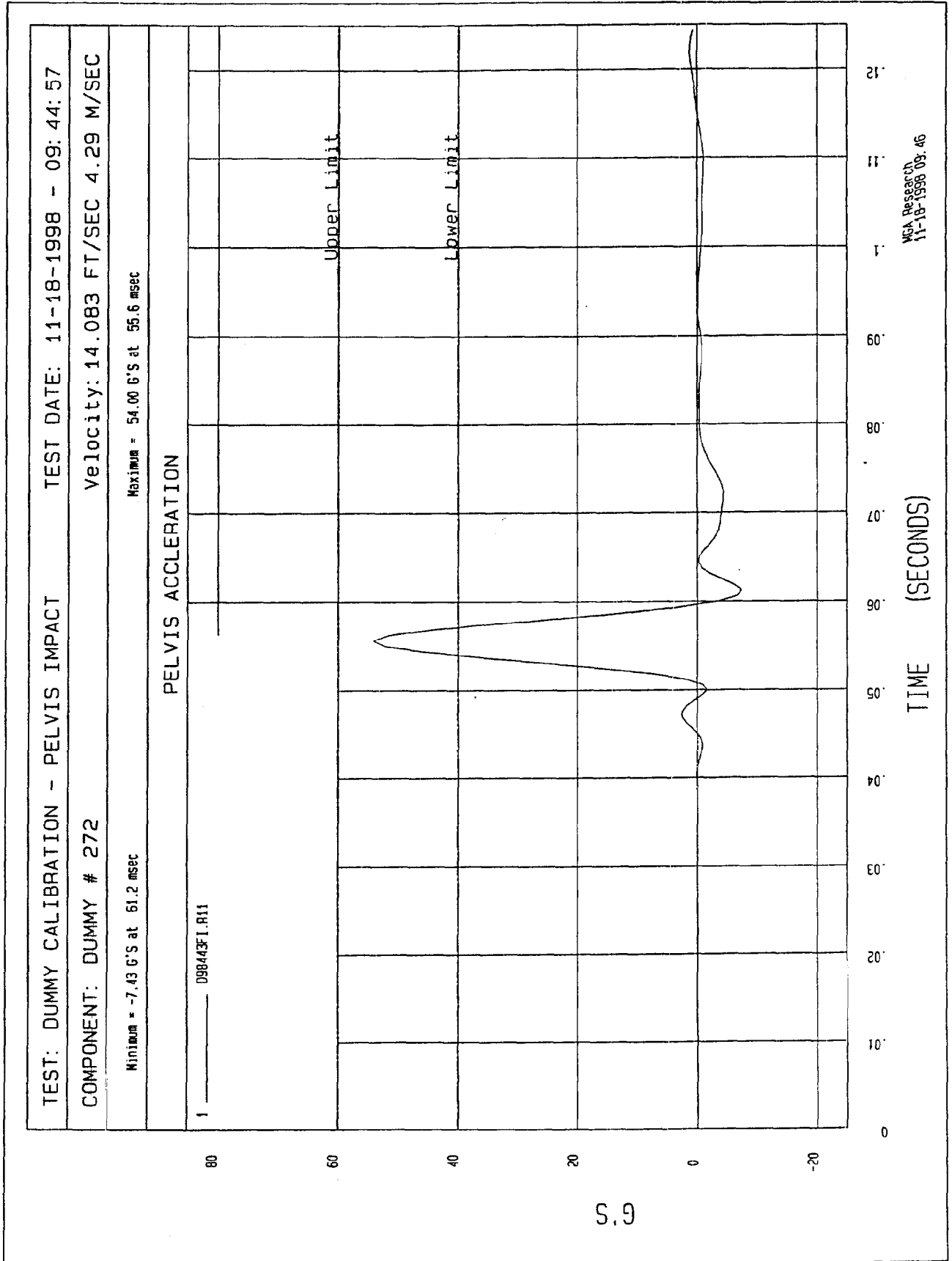
TEST MEETS SPECIFICATIONS

TECHNICIAN



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ABDOMINAL COMPRESSION TEST

(PRELOAD = 10 LBS)

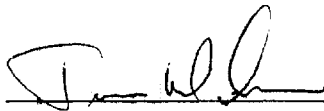
SIDE IMPACT DUMMY (SID)

DATE: November 19, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981444

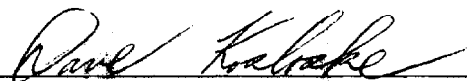
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
FORCE @ 12.7 mm	104 - 162	133
FORCE @ 19.0 mm	163 - 222	190
FORCE @ 25.4 mm	222 - 280	254
FORCE @ 33 mm	325 - 391	359

TEST MEETS SPECIFICATIONS

TECHNICIAN



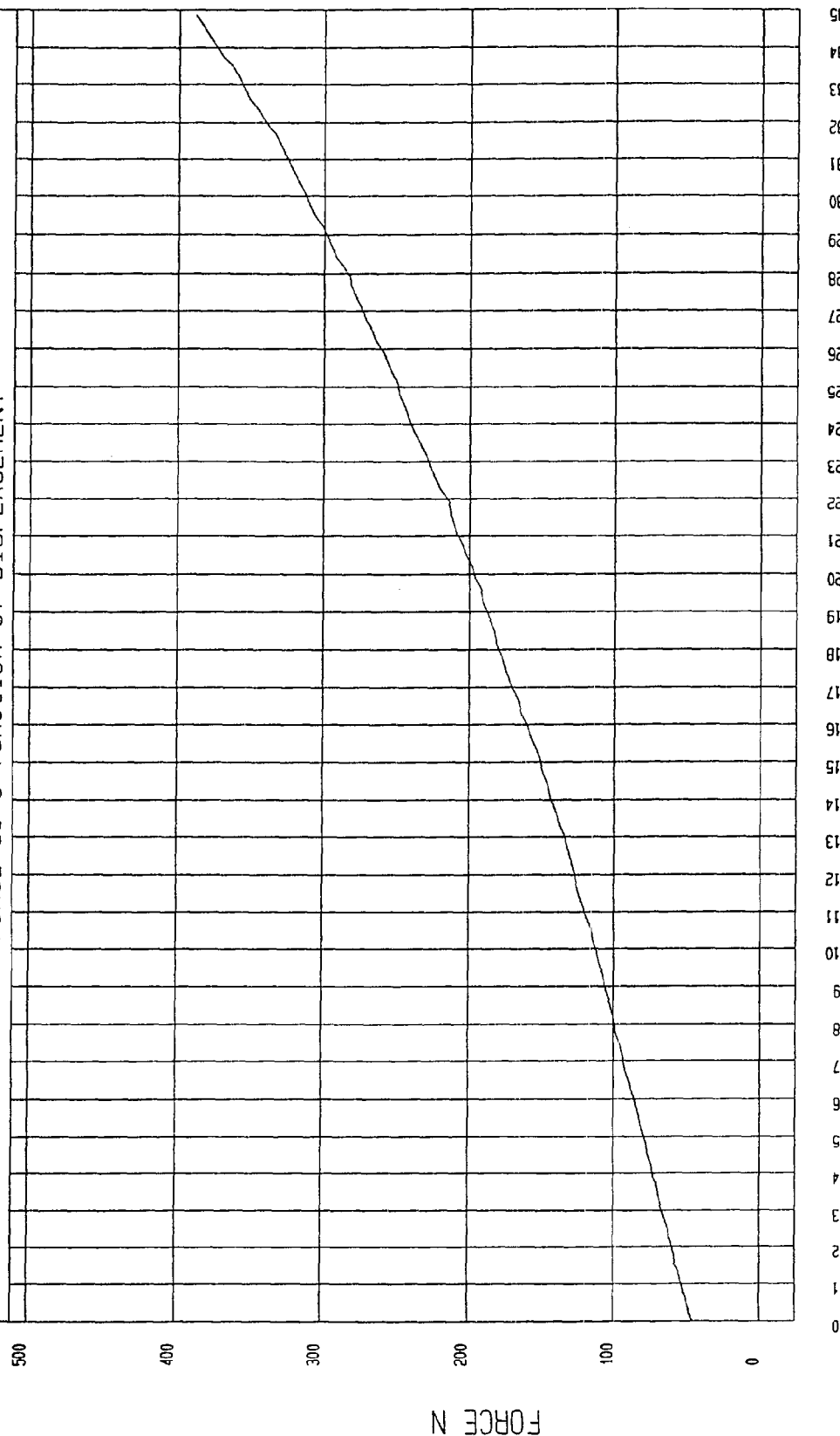
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 11-19-1998 - 08:49:39

COMPONENT: DUMMY # 272

FORCE as a function of DISPLACEMENT



MCA Research
11-19-1998 08:52

DISPLACEMENT mm

FORCE N

MGA RESEARCH CORPORATION

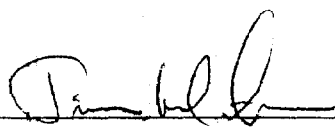
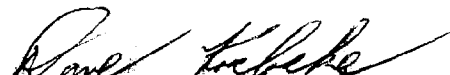
LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: November 18, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981445

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	109.9
FORCE @ 30°	151.2 - 204.6	162.4
FORCE @ 40°	204.6 - 258.0	206.4
RETURN ANGLE	12° maximum	7°

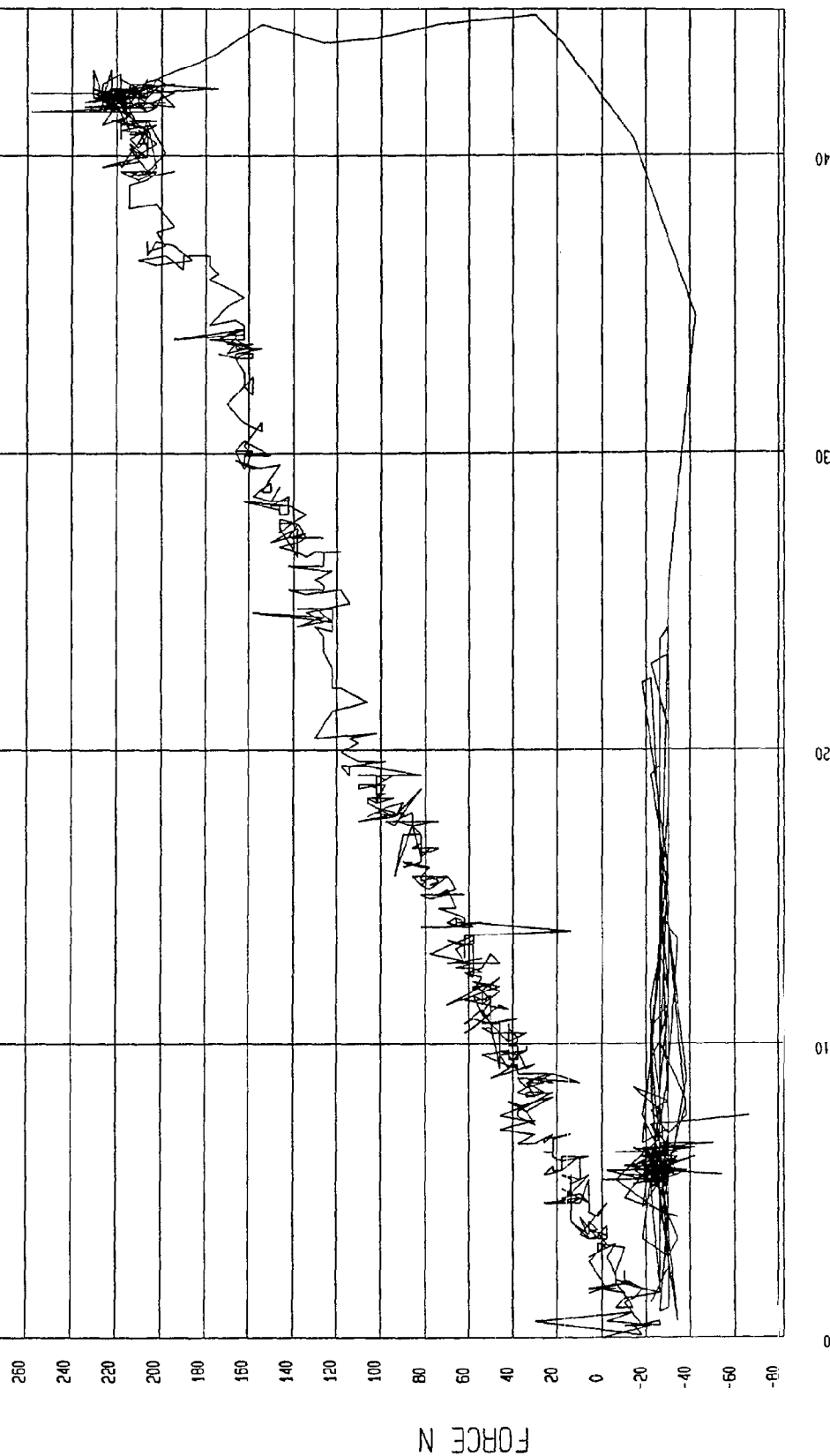
TEST MEETS SPECIFICATIONS

TECHNICIAN APPROVED BY 

TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 11-18-1998 ~ 11:57:36

COMPONENT: DUMMY # 272

FORCE as a function of TORSO ROTATION



MGA Research
11-18-1998 14:21

TORSO ROTATION DEGREES

FORCE N

POST-TEST CERTIFICATION DATA

Driver Dummy Serial Number: 271

Calibration Test Results Summary

Driver Dummy Serial Number: 271

Post-Test Calibration

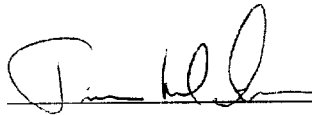
External Dimensions:	The dummy passed all external dimension requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion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

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

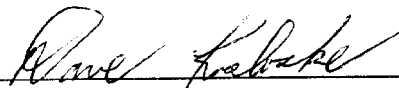
DUMMY SERIAL NUMBER: 271DATE OF VERIFICATION: December 9, 1998

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

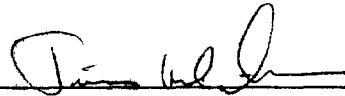
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981592

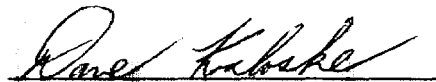
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	24%
PROBE SPEED (m/s)	4.27 - 4.33	4.29
UPPER RIB (g's)	37 - 46 g's	42
LOWER RIB (g's)	37 - 46 g's	42
LOWER SPINE (g's)	15 - 22 g's	22

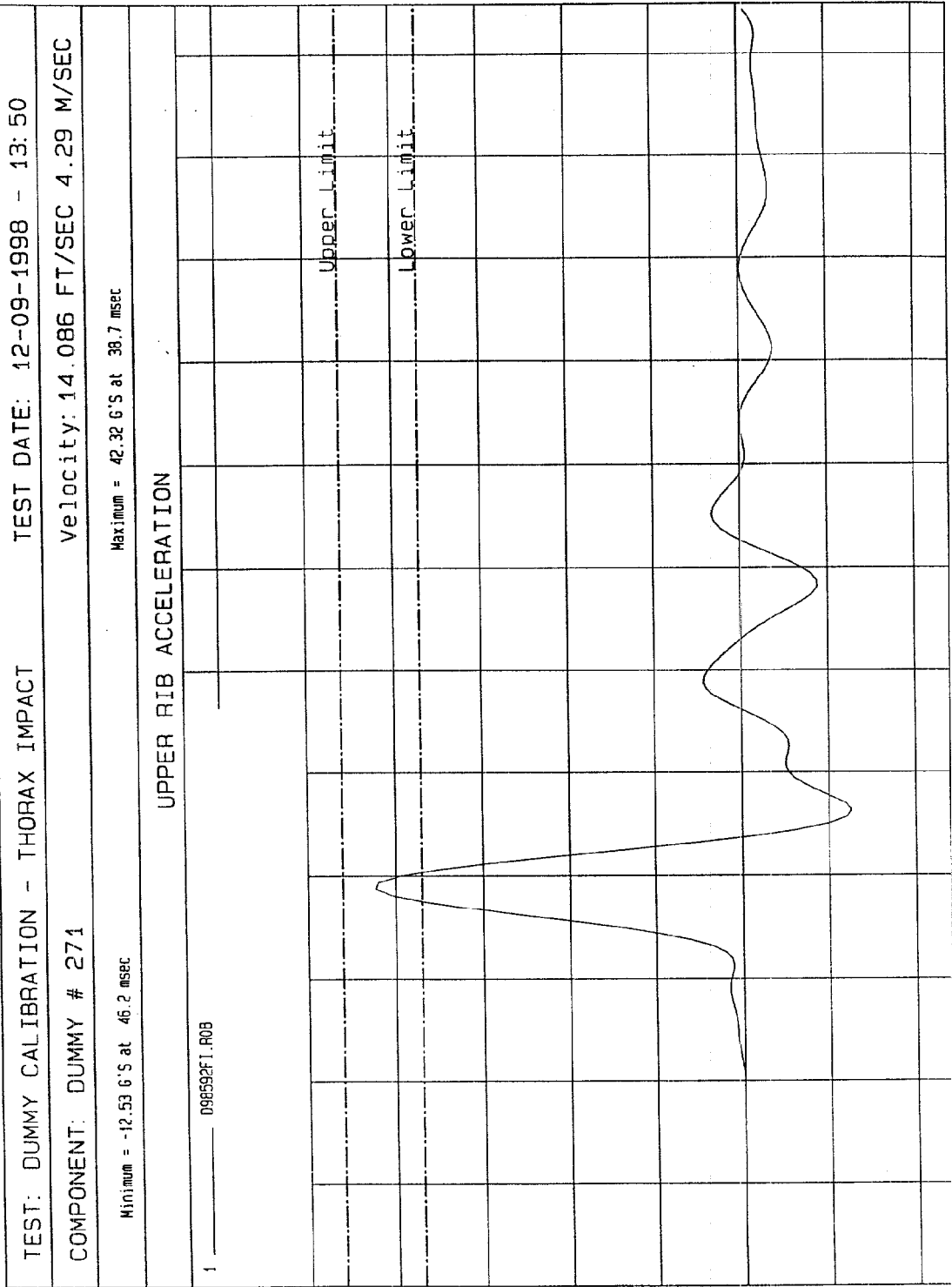
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY

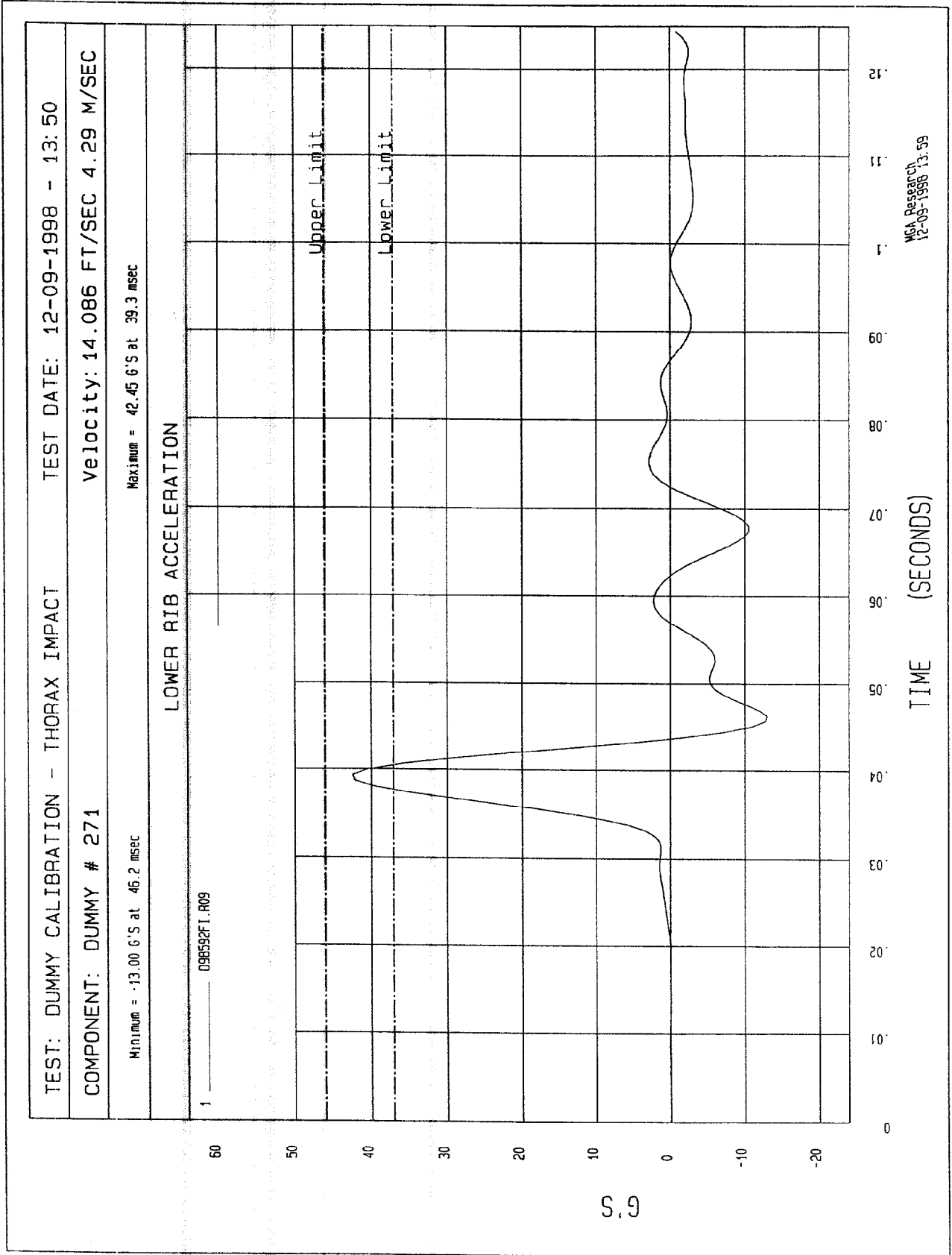


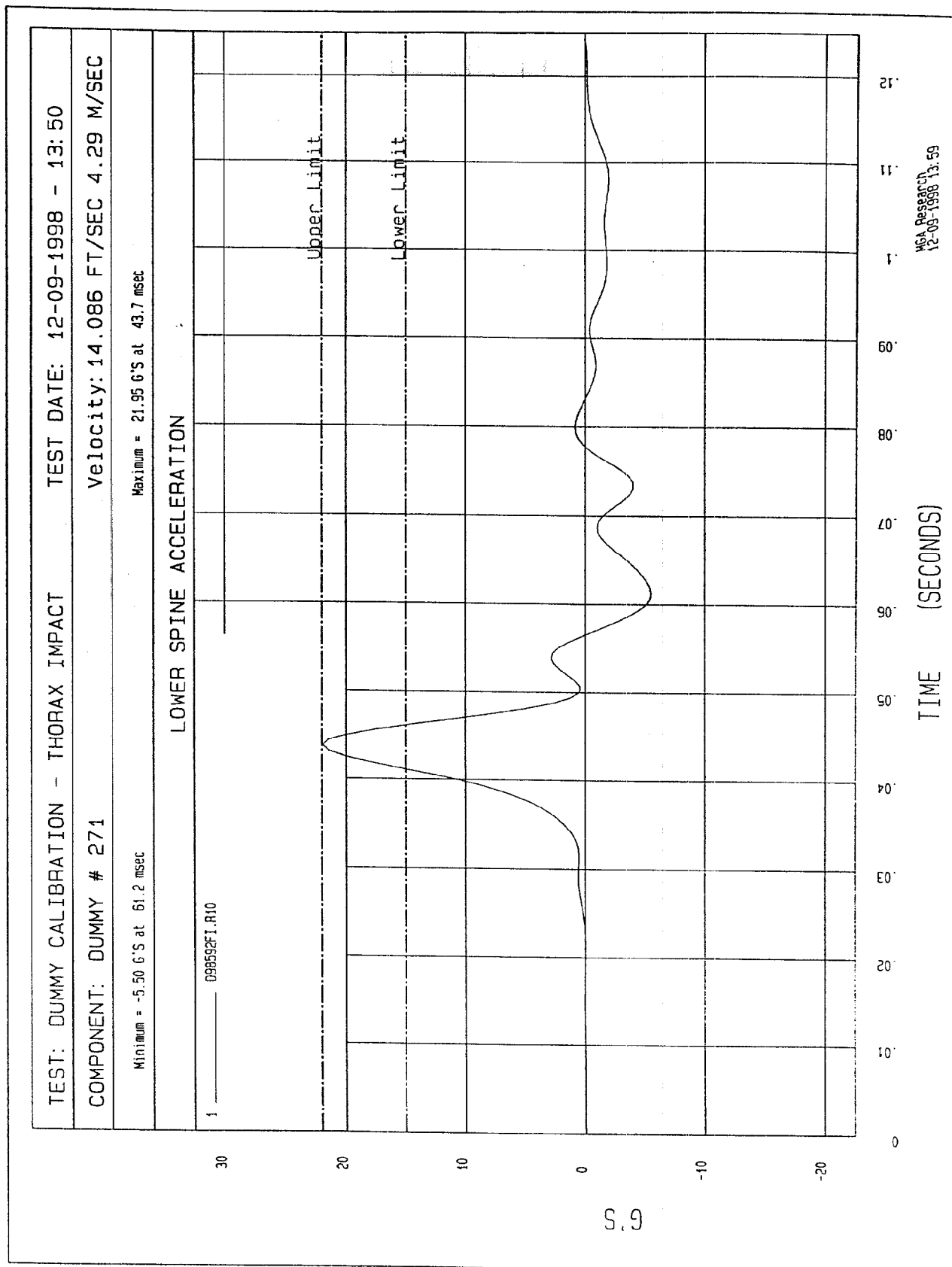


MGA Research
12-09-1998 13:59

TIME (SECONDS)

G.S.





MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

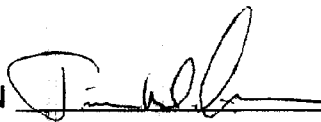
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981593

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
PROBE SPEED (m/s)	4.27 - 4.33	4.28
PELVIS ACCELERATION (g's)	40 - 60	55

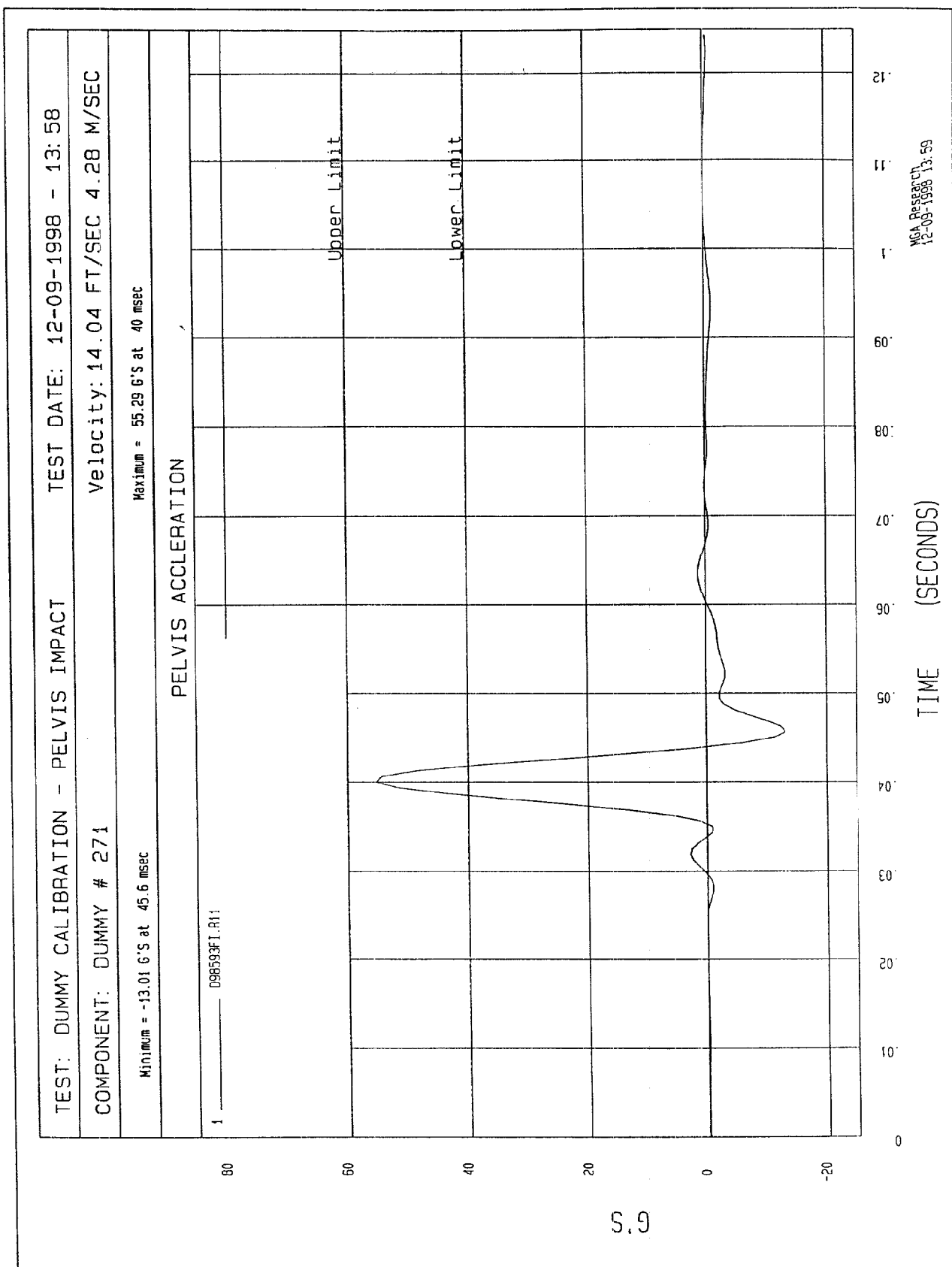
TEST MEETS SPECIFICATIONS

TECHNICIAN



APPROVED BY





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ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)

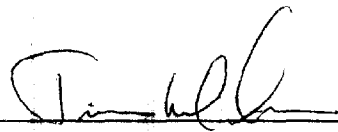
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981594

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
FORCE @ 12.7 mm	104 - 162	142
FORCE @ 19.0 mm	163 - 222	197
FORCE @ 25.4 mm	222 - 280	258
FORCE @ 33 mm	325 - 391	353

TEST MEETS SPECIFICATIONS

TECHNICIAN



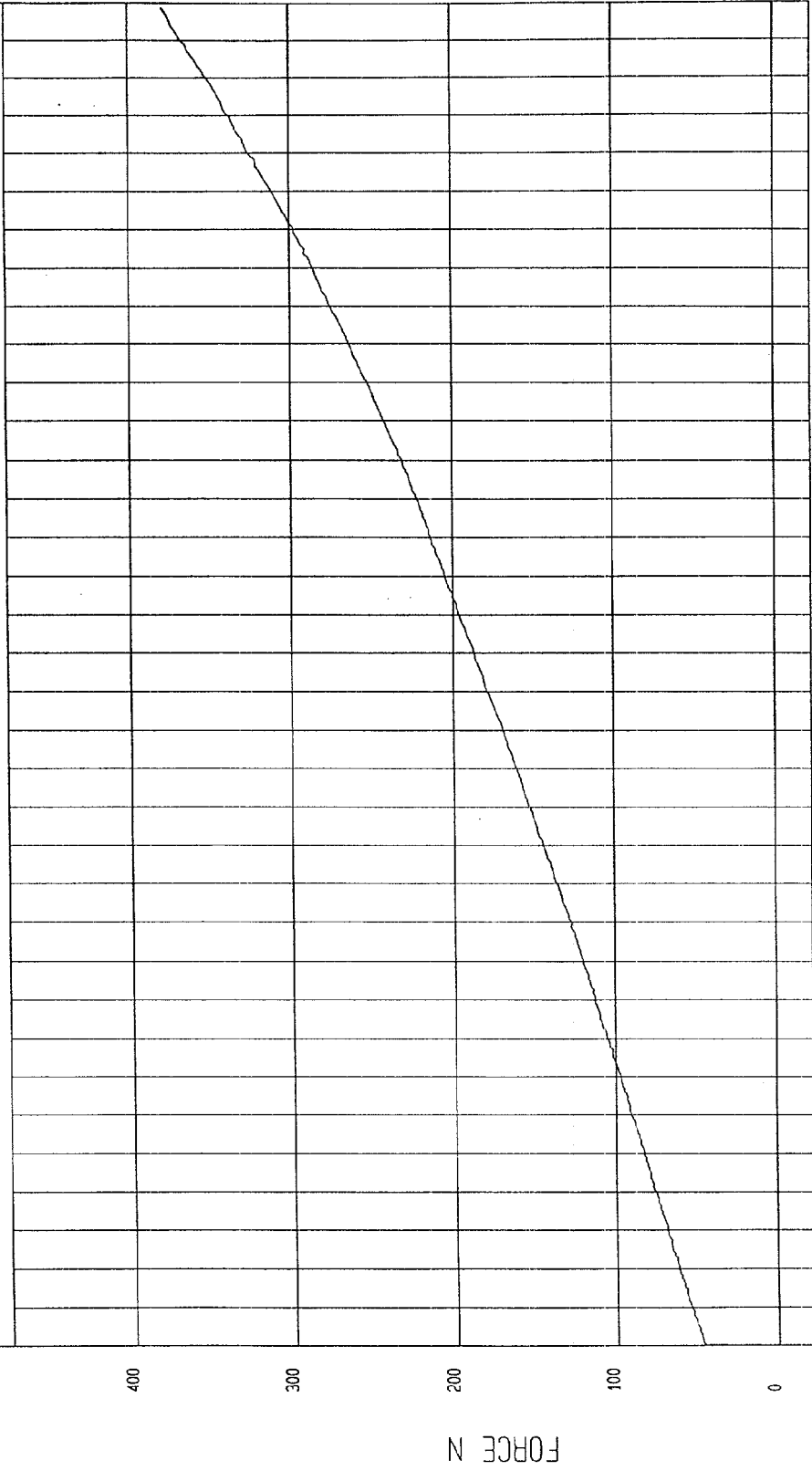
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 12-09-1998 - 16:38:21

COMPONENT: DUMMY # 271

FORCE as a function of DISPLACEMENT



WCA Research
12-09-1998 16:38

DISPLACEMENT mm

MGA RESEARCH CORPORATION

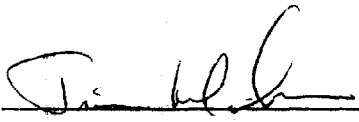
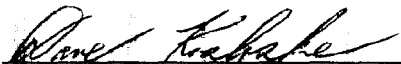
LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 271TEST NUMBER: D981595

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	110.1
FORCE @ 30°	151.2 - 204.6	158.2
FORCE @ 40°	204.6 - 258.0	214.4
RETURN ANGLE	12° maximum	4°

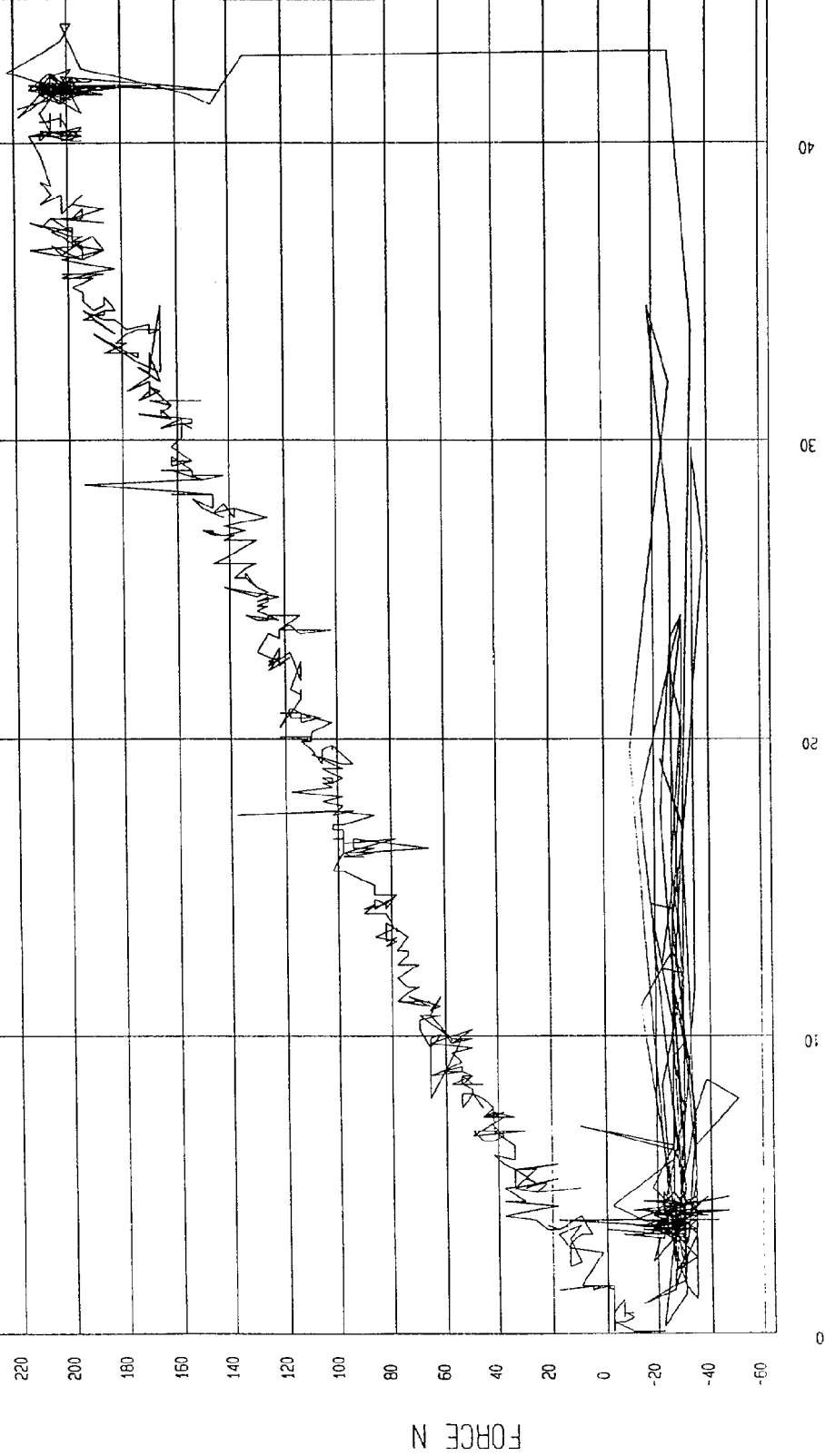
TEST MEETS SPECIFICATIONS

TECHNICIAN APPROVED BY 

TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 12-09-1998 - 15:42:37

COMPONENT: DUMMY # 271

FORCE as a function of TORSO ROTATION.



WGA Research
12-09-1998 16:16

POST-TEST CERTIFICATION DATA

Passenger Dummy Serial Number: 272

Calibration Test Results Summary

Passenger Dummy Serial Number: 272

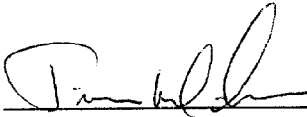
Post-Test Calibration

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: December 9, 1998

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

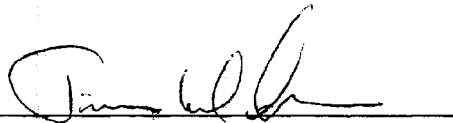
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981602

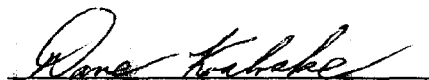
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
PROBE SPEED (m/s)	4.27 - 4.33	4.27
UPPER RIB (g's)	37 - 46 g's	46
LOWER RIB (g's)	37 - 46 g's	45
LOWER SPINE (g's)	15 - 22 g's	17

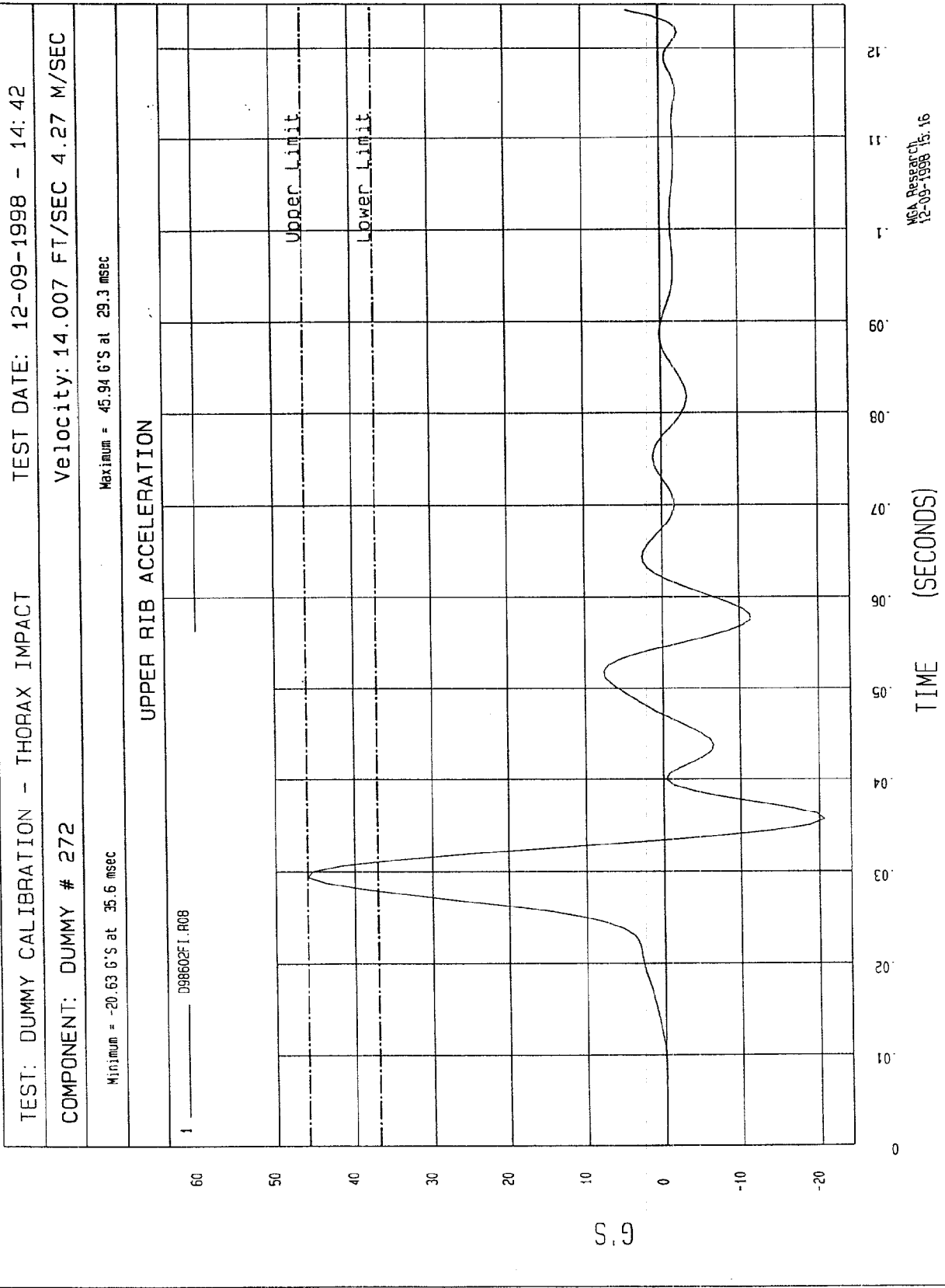
TEST MEETS SPECIFICATIONS

TECHNICIAN

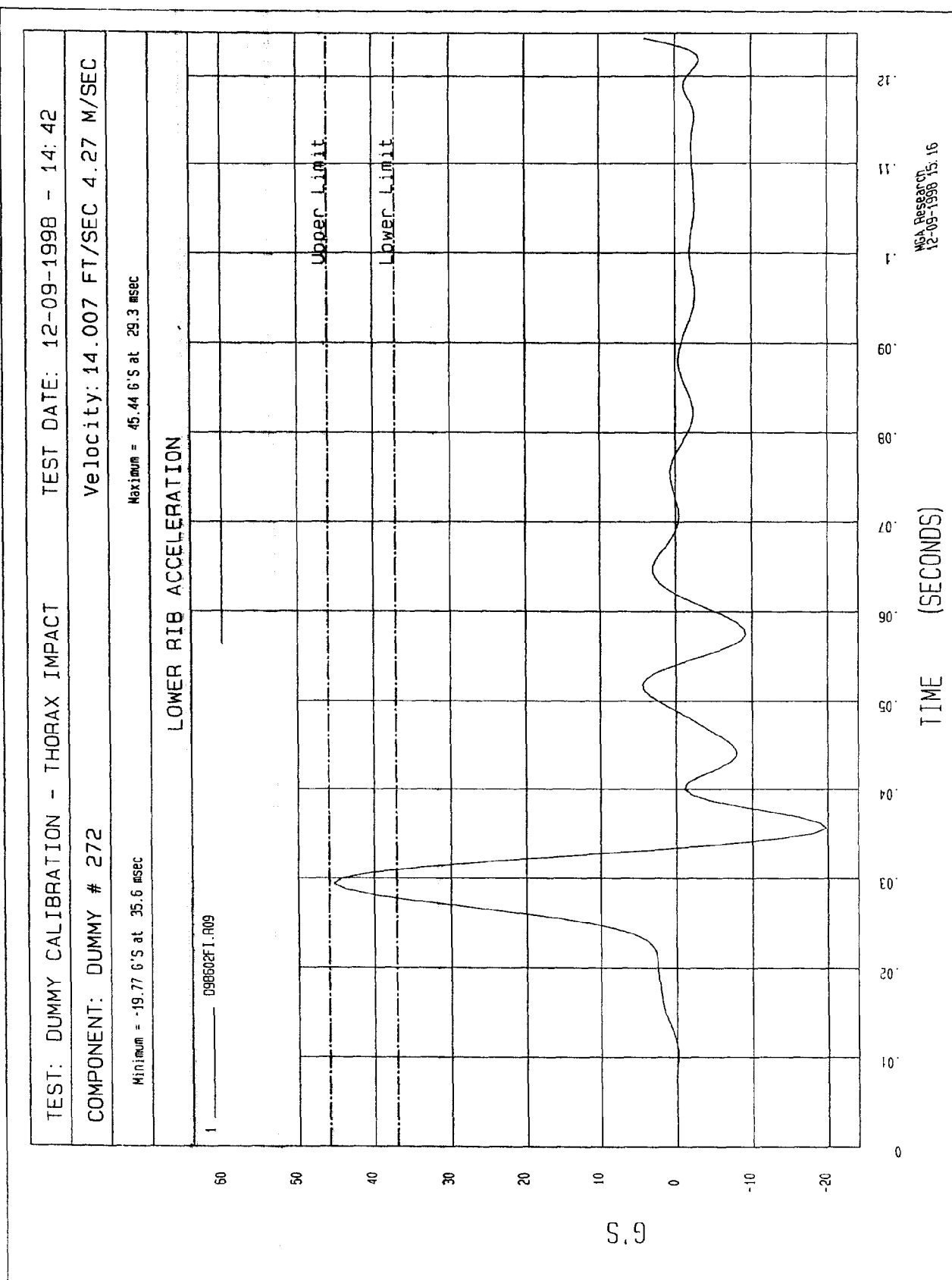


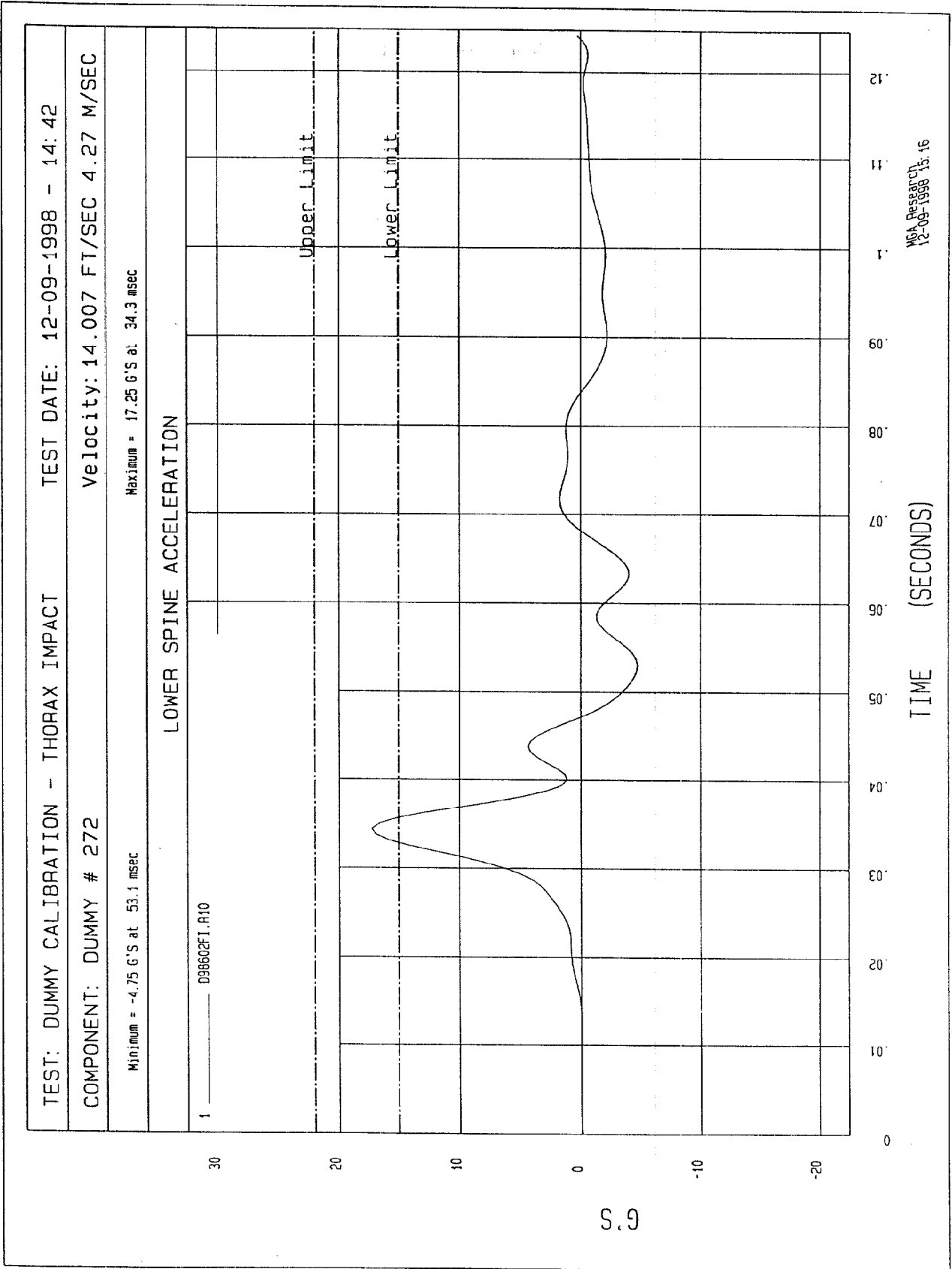
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MCA Research
12-09-1998 15: 16





MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

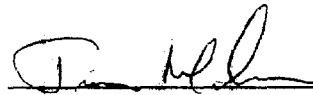
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981603

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
PROBE SPEED (m/s)	4.27 - 4.33	4.28
PELVIS ACCELERATION (g's)	40 - 60	60

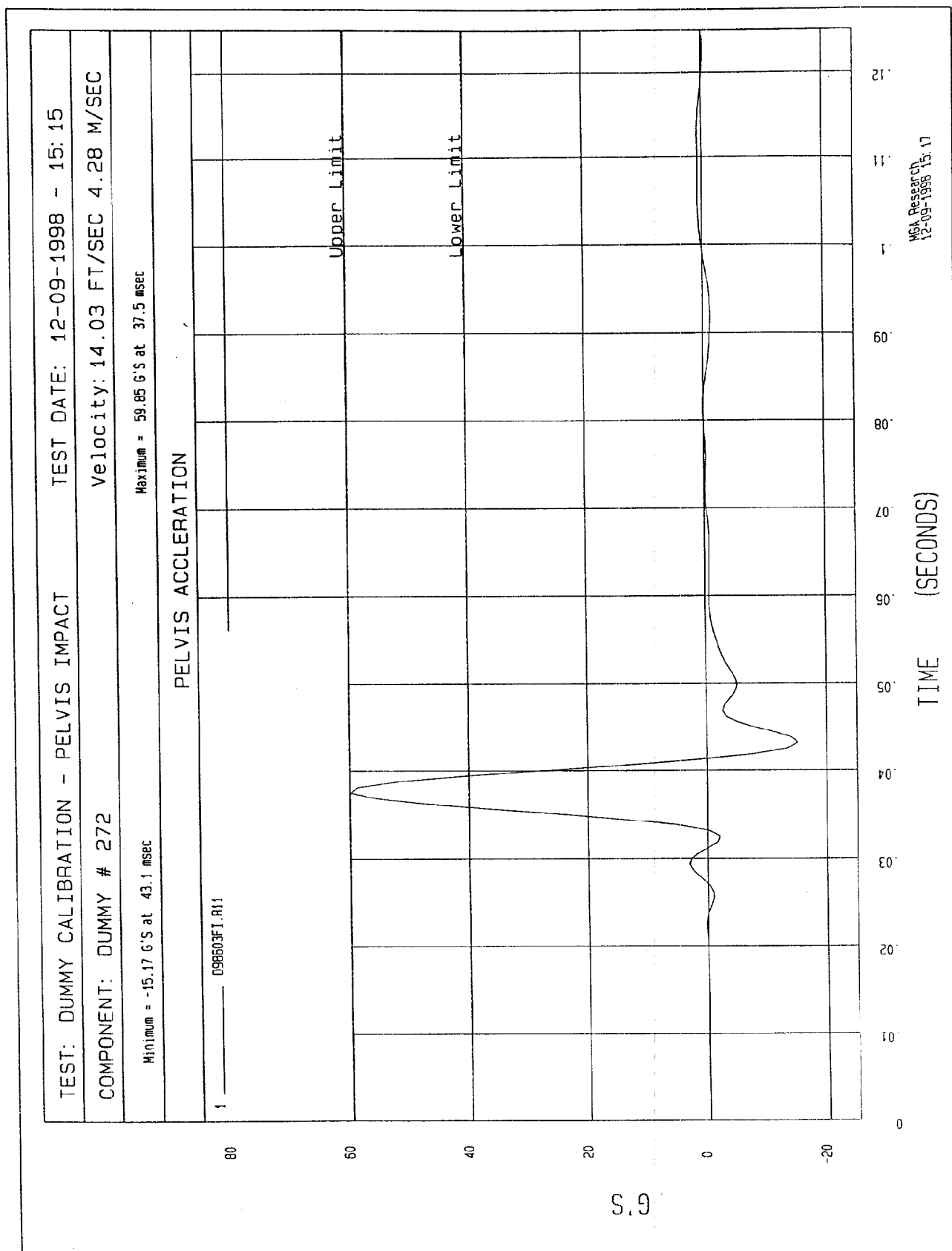
TEST MEETS SPECIFICATIONS

TECHNICIAN



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MGA RESEARCH CORPORATION

ABDOMINAL COMPRESSION TEST
(PRELOAD = 10 LBS)

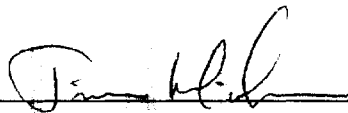
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981604

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
FORCE @ 12.7 mm	104 - 162	140
FORCE @ 19.0 mm	163 - 222	189
FORCE @ 25.4 mm	222 - 280	250
FORCE @ 33 mm	325 - 391	344

TEST MEETS SPECIFICATIONS

TECHNICIAN



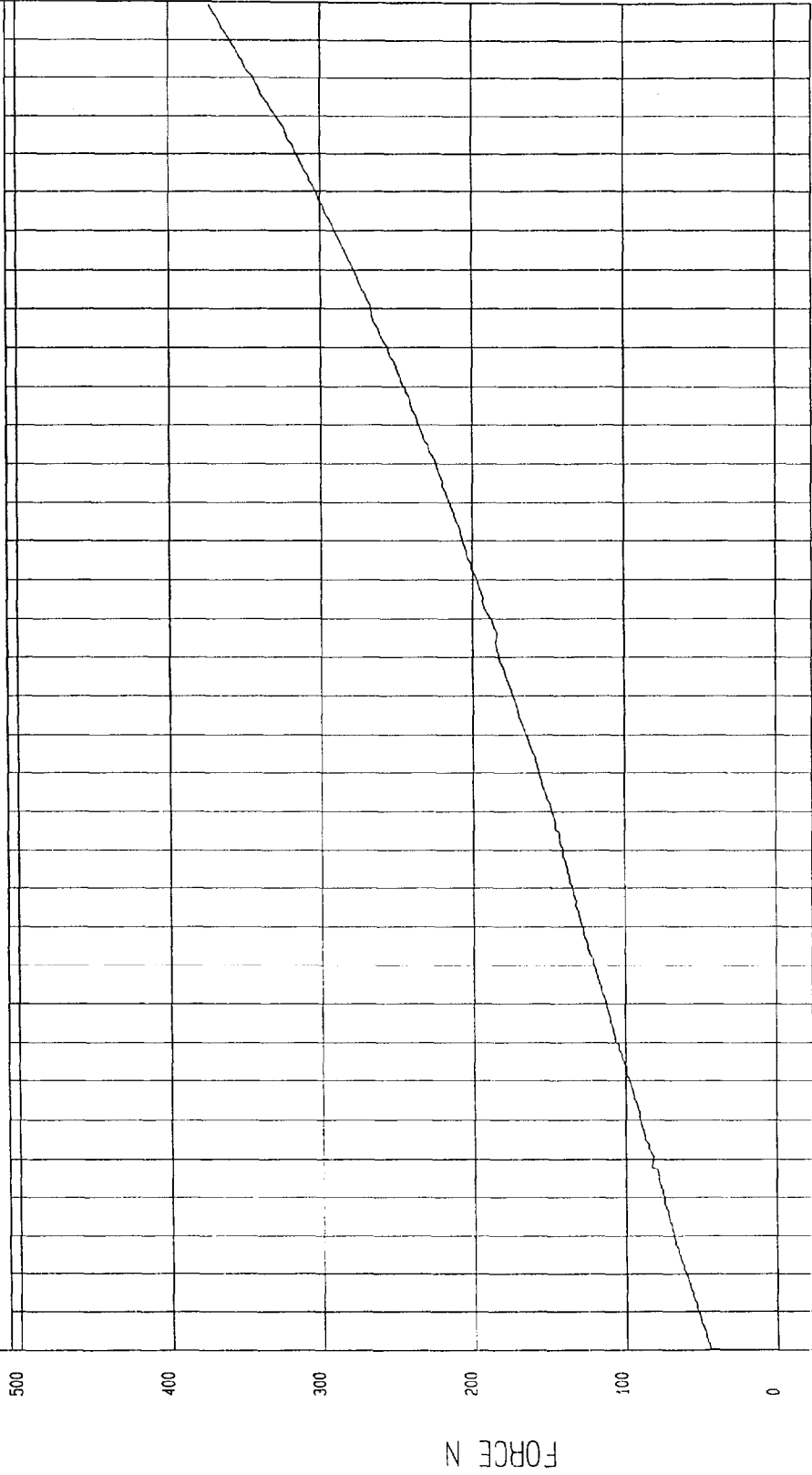
APPROVED BY



TEST: DUMMY CALIBRATION - ABDOMEN COMPRESSION TEST DATE: 12-09-1998 - 13:26:42

COMPONENT: DUMMY # 272

FORCE as a function of DISPLACEMENT



MCA Research
12-21-1998 13:27

MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

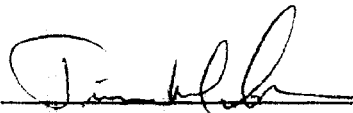
SIDE IMPACT DUMMY (SID)

DATE: December 9, 1998DUMMY SERIAL NUMBER: 272TEST NUMBER: D981605

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.0°
RELATIVE HUMIDITY (%)	10 - 70	25%
FORCE @ 0°	0 - 26.7	0
FORCE @ 20°	97.9 - 151.2	114.6
FORCE @ 30°	151.2 - 204.6	186.8
FORCE @ 40°	204.6 - 258.0	218.9
RETURN ANGLE	12° maximum	3°

TEST MEETS SPECIFICATIONS

TECHNICIAN



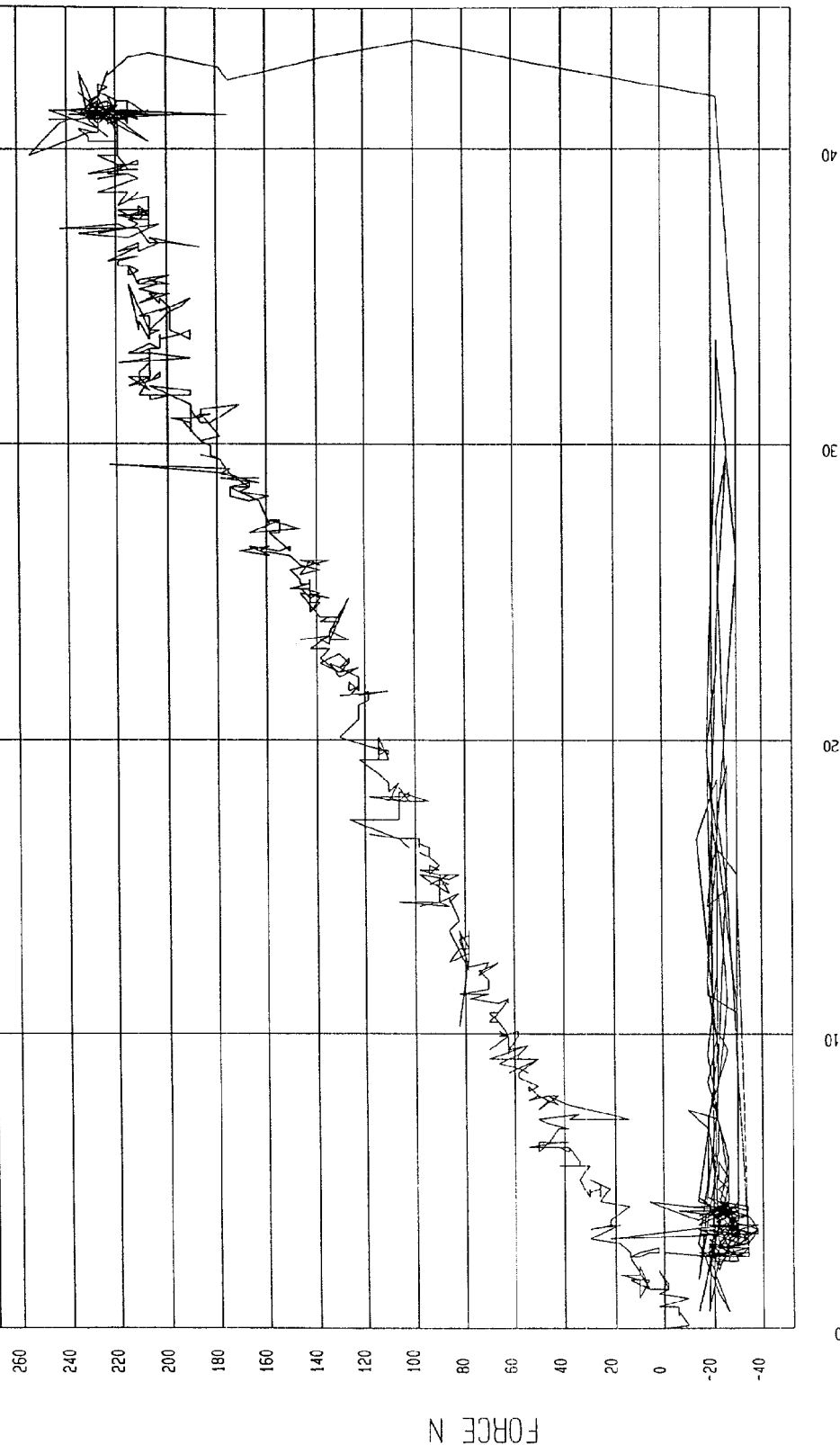
APPROVED BY



TEST: DUMMY CALIBRATION - LUMBAR FLEXION TEST DATE: 12-09-1998 - 16:13:36

COMPONENT: DUMMY # 272

FORCE as a function of TORSO ROTATION.



MCA Research
12-09-1998 16:16

POST-TEST DRIVER DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Serial Number: 271

Inspected By: Tim Michnay

Date: December 9, 1998

<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

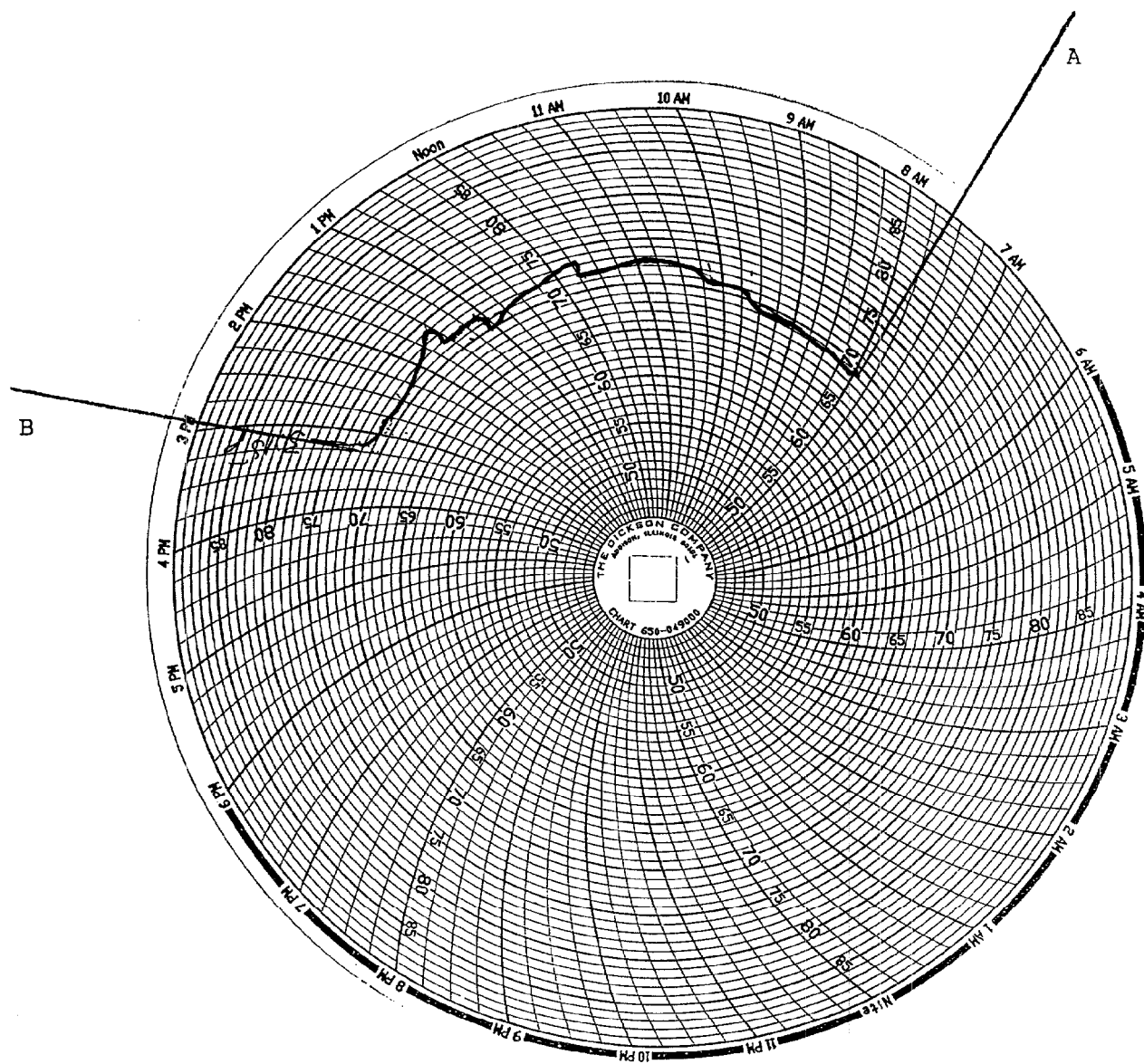
Serial Number: 272

Inspected By: Tim Michnay

Date: December 9, 1998

<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):

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	AGWA4	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	AP2F7	Endevco	October 14, 1998
Pelvis Y	AGM32	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	J14120	Endevco	October 14, 1998
Pelvis Redundant Y	AKAH3	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	J06-D22	Entran	June 22, 1998
Moving Barrier CG Y	I18-E18	Entran	September 16, 1998
Moving Barrier CG Z	F12-G02	Entran	June 28, 1998
Moving Barrier Rear Axle X	J10-E14	Entran	June 16, 1998
Moving Barrier Rear Axle Y	F07-A14	Entran	June 16, 1998
Left Mid A-Post Y	J10-E05	Entran	June 16, 1998
Left Lower A-Post Y	B02-G09	Entran	June 16, 1998
Left Mid B-Post Y	C14-Z05	Entran	June 16, 1998
Left Lower B-Post Y	G01-J12	Entran	June 22, 1998
Rear Floorpan Above Axle X	J13-F18	Entran	June 28, 1998
Rear Floorpan Above Axle Y	J06-D19	Entran	June 28, 1998
Rear Floorpan Above Axle Z	E13-D18	Entran	June 28, 1998
Driver Seat Track Y	G01-J09	Entran	June 28, 1998
Right Side Sill at Front Seat X	F18-G07	Entran	September 15, 1998
Right Side Sill at Front Seat Y	F20-G10	Entran	September 15, 1998
Right Side Sill at Front Seat Z	F18-G13	Entran	September 15, 1998
Right Side Sill at Rear Seat X	K16-X06	Entran	September 15, 1998
Right Side Sill at Rear Seat Y	B14-R14	Entran	August 26, 1998
Right Side Sill at Rear Seat Z	C25-A17	Entran	June 16, 1998

VEHICLE INSTRUMENT CALIBRATION

	VEHICLE ACCELEROMETERS		
	SERIAL NO	MANUFACTURER	CALIBRATION DATE
Left Side Sill at Front Seat Y	G08-B04	Entran	June 17, 1998
~~Left Side Sill at Rear Seat Y~~	~~F13-B12~~	~~Entran~~	~~June 18, 1998~~
Right Rear Occupant Compartment Y	B13-Z05	Entran	June 18, 1998
Vehicle CG X	J04-F14	Entran	June 16, 1998
Vehicle CG Y	E23-R06	Entran	June 26, 1998
Vehicle CG Z	F12-G01	Entran	June 28, 1998
Left Front Door on Centerline	F07-A20	Entran	August 26, 1998
Midrear of Left Front Door	E13-D02	Entran	August 27, 1998
Left Front Door Upper Centerline	F12-G07	Entran	June 16, 1998
Midrear of Left Rear Door	I25-J06	Entran	September 24, 1998
Left Rear Door Upper Centerline	H02-J16	Entran	June 16, 1998

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