

V2 428
A.D.

REPORT NO. MGA-96-N016

NEW CAR ASSESSMENT PROGRAM (NCAP)

FRONTAL BARRIER IMPACT TEST

HONDA MOTORS COMPANY
1996 HONDA CIVIC 2 DOOR
NHTSA NO. CT5301

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: March 22, 1996

Report Date: April 2, 1996

FINAL REPORT

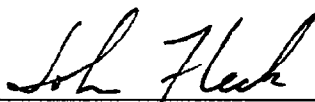
Prepared For:

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF MARKET INCENTIVES
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This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-90-D-12121. This document is disseminated under the sponsorship of the U.S. Dept. of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

APPROVED BY:



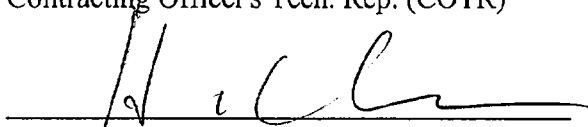
John Fleck
MGA Research Corporation

FINAL REPORT ACCEPTED BY:

Manager, New Car Assess. Program (NCAP)

Date of Report Acceptance

Contracting Officer's Tech. Rep. (COTR)



Date of Report Acceptance

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. MGA-96-N016		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle NHTSA New Car Assessment Program (NCAP) Frontal Barrier Impact Test of a 1996 Honda Civic 2 Door NHTSA No. MT0100 to the requirements of FMVSS No. 208, 212, 219 (partial) and 301.				5. Report Date April 2, 1996	
				6. Performing Organization Code MGA	
7. Author(s) John Fleck				8. Performing Organization Report No. MGA-OMI-016	
9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105				10. Work Unit No. MGA-96-DOT-016	
				11. Contract or Grant No. DTNH22-90-D-12121	
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Office of Vehicle Safety Compliance (Mail Code: NEF-30) 400 Seventh St., S.W., Room 6115 Washington, D.C. 20590				13. Type of Report and Period Covered Final Report March 22, 1996 - April 2, 1996	
				14. Sponsoring Agency Code DOT/NHTSA/RM/OMI	
15. Supplementary Notes					
16. Abstract A 56 kph (35 mph) frontal barrier impact using a 30 load cell barrier was conducted on a 1996 Honda Civic 2 Door at the MGA Proving Grounds and Crash Test Center in Burlington, WI. on March 22, 1996. The barrier impact velocity was 56.6 kph (35.1 mph), and the ambient temperature at the time of impact was 22°C. The post-test maximum static crush was 532 mm. The test vehicle appeared to comply with the requirements of the following Federal Motor Vehicle Safety Standards: 1. FMVSS 212, "Windshield Mounting" 2. FMVSS 219 (partial), "Windshield Zone Intrusion" 3. FMVSS 301, "Fuel System Integrity" With regard to FMVSS 208, "Occupant Crash Protection" injury criteria, the driver's HIC was 375 and the 3 msec. Clip (Chest g's) was 46 g's. The left and right femur loads for the driver were 5127 and 2243 Newtons, respectively. The passenger's HIC was 531 and the 3 msec Clip was 45 g's. The left and right femur maximum loads were 5949 and 5085 Newtons respectively.					
17. Key Words 35 mph Frontal Barrier Impact Test New Car Assessment Program (NCAP) FMVSS 212 Indicant Testing FMVSS 219 (partial) Indicant Testing FMVSS 301 Indicant Testing				18. Distribution Statement Copies of this report are available from: Technical Ref. Division, NHTSA, NASSIF Building, Room 5108 400 Seventh Street, S.W. Washington, D.C. 20590	
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 242	
				22. Price	

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SECTION 1

PURPOSE AND TEST PROCEDURE

This 35 mph frontal barrier impact test is part of the Composite FY'96 Vehicle Barrier Impact Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-90-D-12121. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 48 kph (30 mph) FMVSS 208/212/219/301-75 requirements.

The 56 kph (35 mph) frontal barrier impact test was conducted in accordance with the National Highway Traffic Safety Administration (NHTSA) Indicant Test Procedure for New Car Assessment Program (NCAP) dated January 1, 1990. Data for FMVSS No. 212, "Windshield Mounting", FMVSS No. 219 (Partial), "Windshield Zone Intrusion", FMVSS No. 301-75, "Fuel System Integrity," as well as occupant performance data are provided herein.

SECTION 2

SUMMARY OF FRONTAL BARRIER IMPACT TEST

A load cell barrier consisting of 30 load cells was impacted by a 1996 Honda Civic 2 Door at a velocity of 56.6 kph (35.14 mph). The test was performed at the MGA Proving Grounds and Crash Test Center on March 22, 1996. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The frontal barrier impact event was documented by one real-time camera and 16 high speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572E, 50th percentile male anthropomorphic test devices (ATDs) were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with head and chest primary and redundant triaxial accelerometers, pelvis triaxial accelerometers, chest displacement transducer, neck load cell, right/left femur load cells, right/left lower leg sensors, and right/left feet accelerometers. Seat belt load cells were also on the driver and passenger shoulder and lap belts to measure dummy torso and pelvic section loading. Calibrated ATDs, driver (serial No. 065), and the right front passenger (Serial No. 066), were used for this test. Certification details, along with instrumentation calibration data, are found in Appendix C and D.

The 109 channels of data were recorded on 10 computers. Appendix B contains the vehicle, load cell barrier and dummy response data traces.

The driver's head struck the airbag. The driver HIC was 375 and the maximum chest (CLIP) deceleration over 3 milliseconds was 46 g's. The maximum chest displacement was 33 mm. The left and right femur loads were 5127 and 2243 Newtons respectively.

The right front passenger's head struck the airbag. The passenger HIC was 531 and maximum chest (CLIP) deceleration over 3 milliseconds was 45 g's. The maximum chest displacement was 31 mm. The left and right femur loads were 5949 and 5085 Newtons respectively.

GENERAL TEST AND VEHICLE PARAMETER DATA

Vehicle Yr/Make/Model/Body Style: 1996/Honda/Civic/2 Door

NHTSA No.: CT5301 VIN.: 1HGE56228TL035197

Body color: Black Date of Manufacture: 2/96

Engine: 4 Cylinders; 97 C.I.D.; Liters;
 X Gas; Diesel; Turbocharged
 Longitudinal; X Transverse

Transmission: 4 Speed; Manual; X Automatic; Overdrive

Final Drive: X Front Wheel; Rear Wheel; Four Wheel

Odometer Reading: 106 miles

 A/C; X P/S; P/B; P/wdo;
 P/seats; X Tilt Wheel; Cruise Control;

Type of Occupant Restraint: Type II belts with driver and passenger airbags

DATA RECORDED FROM VEHICLE'S TIRE PLACARD:

Tire Pressure (at capacity): Front 241 kPa (35 Psi) Rear 241 kPa (35 Psi)

Recommended Tire Size: P175/70R13 82S

Recommended Cold Tire Pressure: Front 221 kPa (32 Psi) Rear 221 kPa (32 Psi)

Tires on Vehicle: P175/70R13; Manufacturer: Dunlop

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

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

Type of Front Seat Back: Fixed; X Adj. With; Power; X Lever

Vehicle Capacity Weight (VCW) = 386 kg. (A)

No. of Occupants x 68.0 kg. = 340 kg. (B)

Rated Cargo Weight (RCW) A-B = 46 kg.

GVWR 1492 kg. GAWR: Front 785 kg.; Rear 712 kg.

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (WITH MAXIMUM FLUIDS) = UDW:

Right Front = 320.7 kg Right Rear = 201.4 kg
Left Front = 323.9 kg Left Rear = 203.2 kg
TOTAL FRONT WEIGHT = 644.6 kg (61.4% of Total Vehicle Weight)
TOTAL REAR WEIGHT = 404.6 kg (38.6% of Total Vehicle Weight)
TOTAL UNLOADED DELIVERED WEIGHT (UDW) = 1049.2 kg

CALCULATION FOR TARGET TEST WEIGHT:

UDW = Unloaded Delivered Weight 1049.2 kg
VCW = Vehicle Capacity Weight 386.0 kg
DSC = Designated Seating Capacity 5 RCW = VCW - 68 (DSC) = 46 kg
Target Test Weight = UDW + RCW + (2 dummies x 78.0 kg/dummy)
Target Test Weight = 1251.2 kg

WEIGHT OF TEST VEHICLE WITH REQUIRED DUMMIES AND CARGO:

Right Front = 360.2 kg Right Rear = 252.2 kg
Left Front = 373.3 kg Left Rear = 259.0 kg
TOTAL FRONT WEIGHT = 733.5 kg (58.9% of Total Vehicle Weight)
TOTAL REAR WEIGHT = 511.2 kg (41.1% of Total Vehicle Weight)
TOTAL TEST WEIGHT = 1244.7 kg
Weight of ballast secured in vehicle trunk area = 0 kg
Vehicle components removed to meet target weight: Side mirrors, rear seat, rear bumper,
taillights, rear deck cover, all trunk interior

VEHICLE ATTITUDE (all dimensions in mm):

Delivered Attitude: RF 641 LF 641 RR 642 LR 641
Test Attitude: RF 620 LF 616 RR 616 LR 613
Wheel Base: 2616 mm; C.G. = 1074 mm rearward of front wheel C/L
Remarks: None Noted

* light trucks and MPVs RCW is 136 kgs or manufacturer's value, whichever is less

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

POST-IMPACT DATA:

Type of Test: 35 mph Frontal Impact Impact Angle: 90°
Date of Test: March 22, 1996 Time of Test: 2:39 p.m.
Ambient Temperature: 21 °C (Spec. Range = 18.8 to 25.6°C)
Temperature in Occupant Compartment: 21.° C
Windshield Molding Temperature: 21.° C
Required Impact Velocity Range: 55.5 to 57.1 kph
Impact Velocity: primary = 56.5 kph; secondary = 56.5 kph
Distance From Front Bumper to Barrier Face When
Entering Speed Trap: 279 mm
Exiting Speed Trap: 1279 mm

VEHICLE REBOUND AND CRUSH (mm):

Vehicle Length: Pre-test = R 4074 C_L 4251 L 4072
Post-test = R 3641 C_L 3718 L 3666
Crush = R 433 C_L 533 L 406

Distance from front of test vehicle to point of impact (rebound):

R 393 mm C_L 372 mm L 393 mm

VISIBLE DUMMY CONTACT POINTS:

	<u>Driver</u>	<u>Passenger</u>
Head	<u>Airbag</u>	<u>Airbag</u>
Chest	<u>Belt</u>	<u>Belt</u>
Abdomen	<u>None noted</u>	<u>None noted</u>
Left Knee	<u>Column and instrument panel</u>	<u>Glovebox</u>
Right Knee	<u>Column and instrument panel</u>	<u>Glovebox</u>

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

Front

<u>Post-Test Door Opening</u>	<u>Left</u>	<u>Right</u>
(without use of tools)	<u>Yes</u>	<u>Yes</u>

Front

<u>Seat Movement</u>	<u>Left</u>	<u>Right</u>
Seat Back Movement	<u>0</u>	<u>0</u>
Seat Shift (mm)	<u>0 mm forward</u>	<u>256 mm forward</u>

Glazing Damage

Backlight/Windshield Windshield cracked

Other Notable Impact Effects: Passenger seat rack did not stay latched,
seat moved forward as far as possible during impact

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

POST TEST AIRBAG DATA

Vehicle Yr/Make/Model/Body Style: 1996/Honda/Civic/2 Door

NHTSA No.: CT5301 VIN.: 1HGE56228TL035197

- A. Number of Vent Holes: Driver 2; Passenger 2
- B. Size of Vent Holes: Driver 35 mm; Passenger 64 mm
- C. Total Vent Area; Driver 9.6 cm² Passenger 32.2 cm²
- D. Deflated Airbag Length and Width Dimensions or, if Round, Diameter
Driver; Length 561, Width 482, Diameter N/A mm
Passenger; Length 730 mm, Width 535, Diameter N/A mm
- E. Is the Airbag Tethered?
Driver; Yes; X No; If yes, record length of tether N/A mm
Passenger; Yes; X No; If yes, record length of tether N/A mm

SECTION 3

SUMMARY OF RESULTS FOR-----

FMVSS 212, "Windshield Mounting"

FMVSS 219 (Partial), "Windshield Zone Intrusion"

FMVSS 301-75, "Fuel System Integrity"

FMVSS NO. 212, "WINDSHIELD MOUNTING", DATA SHEET

Details of windshield mounting such as retention method, trim type, etc.:

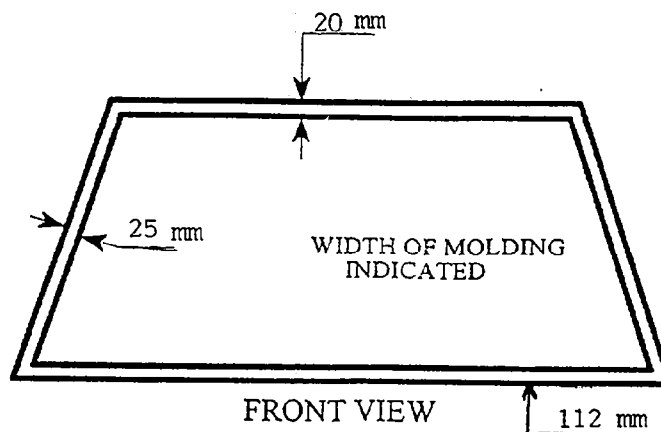
Windshield set in rubber molding with glue

FMVSS 212 Requirements: The Post-Test periphery retention amount must be at least 75% of the Pre-Test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of windshield for vehicles equipped with automatic restraint systems for front occupants.

FMVSS 212 TEST DATA:

	WINDSHIELD PERIPHERY		
	PRE-TEST (mm)	POST-TEST (mm)	PERCENT RETENTION
RIGHT SIDE	2000	2000	100%
LEFT SIDE	2000	2000	100%
TOTAL	4000	4000	100%

AREA OF RETENTION FAILURE: None



FAILURE DETAILS: None

FMVSS NO. 219, "WINDSHIELD ZONE INTRUSION", DATA SHEET

PROTECTED ZONE LOWER EDGE REQUIREMENT:

The lower edge of the protected zone is determined by placing a 6.5" dia. rigid sphere weighing 15 pounds in a position such that it simultaneously contacts the inner surface of the windshield and the surface of the instrument panel, including padding, and drawing the locus of points on the inner surface of the windshield contactable by the sphere across the width of the instrument panel. From the outermost contact points, extend the locus line horizontally to the edges of the windshield, and then draw a line on the inner surface of the windshield below and $\frac{1}{2}$ " distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection onto the outer surface of the windshield of this line.

FMVSS 219 TEST DATA:

A= 1032 mm

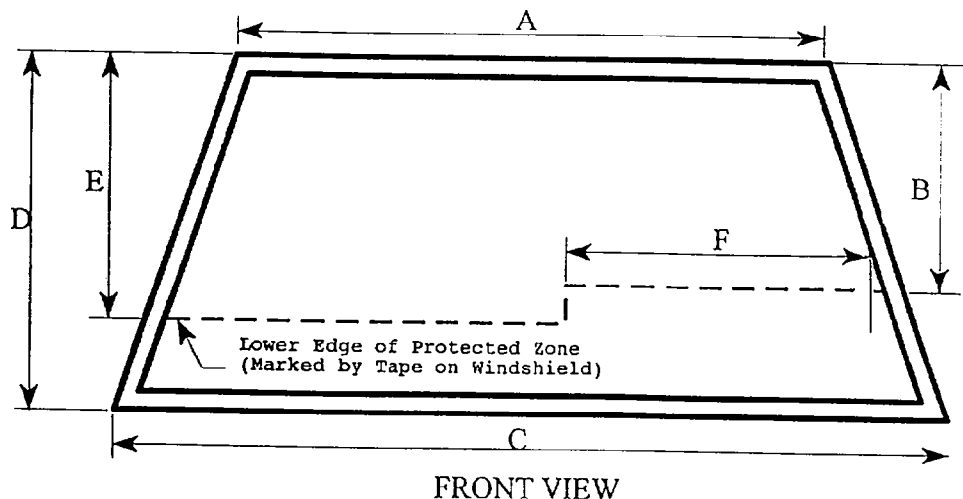
B= 487 mm

C= 1436 mm

D= 761 mm

E= 489 mm

F= 587 mm



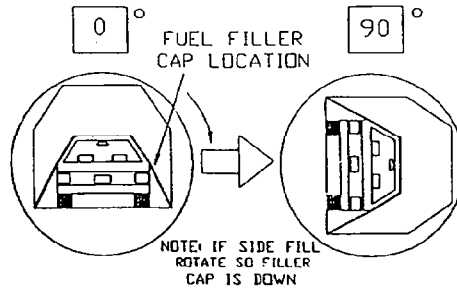
DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 1/4":
(Show location of penetration)

NONE

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 0° - 90°

Vehicle NHTSA ID No.: CT5301



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 41 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 41 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
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III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
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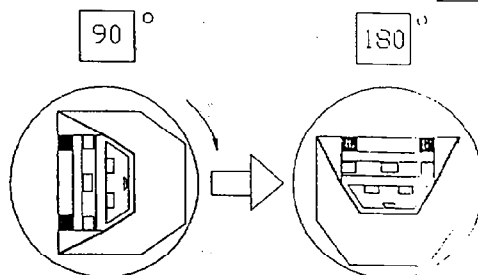
Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 90° - 180°

Vehicle NHTSA ID No.: CT5301



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 28 seconds
(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 28 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
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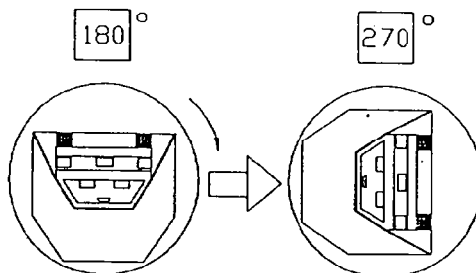
Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 180° - 270°

Vehicle NHTSA ID No.: CT5301



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 16 seconds
(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 16 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
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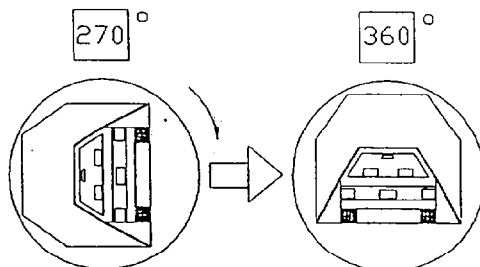
Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 270° - 360°

Vehicle NHTSA ID No.: CT5301



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 46 seconds
(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 46 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
---	---	---	---

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

IV. SOLVENT SPILLAGE LOCATIONS(S): None

SECTION 4
OMI FINAL DATA

Occupant and Vehicle Information

I. OMI DATA

1. Dummy Injury Criteria Data Summary
2. Dummy Positioning Data
3. Seat Belt Positioning Data
4. Seat Belt Performance Assessment Data
5. Camera Locations
6. Vehicle Target Locations

II. OVR DATA

1. Load Cell Barrier Data
2. Vehicle Accelerometer Data
3. Test Vehicle Measurements

III. AID DATA

1. Accident Investigation Damage Data Summary

FMVSS NO. 208, "OCCUPANT CRASH PROTECTION", DATA SHEET

VEH. YR./MAKE/MODEL/BODY STYLE: 1996/Honda/Civic/2 Door

VEH. NHTSA NO.: CT5301 TEST DATE: March 22, 1996

MAX. ACCELERATION VALUES: (g's)	DRIVER #065	PASSENGER #066
Head Channel X	-47.3 @ 73 msec.	-61.2 @ 77 msec.
Head Channel Y	-15.2 @ 107 msec.	-16.3 @ 86 msec.
Head Channel Z	27.9 @ 71 msec.	26.8 @ 64 msec.
HEAD RESULTANT	52.2 @ 72 msec.	63.2 @ 77 msec.
Chest Channel X	-47.6 @ 73 msec.	-46.9 @ 83 msec.
Chest Channel Y	-4.8 @ 61 msec.	10.8 @ 77 msec.
Chest Channel Z	-14.6 @ 96 msec.	-23.9 @ 96 msec.
CLIP	45.5	44.7
TIME INTERVAL (msec) [0.003 seconds minimum]	t ₁ = 66.6 t ₂ = 69.6	t ₁ = 82.1 t ₂ = 85.2

**HEAD INJURY CRITERIA (HIC)
VALUES:**

HIC	375	531
t ₁ = (msec)	48.4	59.0
t ₂ = (msec)	84.4	91.1
Avg. Accel. t ₁ to t ₂ (g's)	40.4	48.7

[The maximum time interval from t₁ to t₂ is 36 milliseconds.]

MAX. COMPRESSIVE FEMUR FORCES:

Left Side (N)	-5127	-5949
Right Side (N)	-2243	-5085

MAXIMUM SEAT BELT FORCES:

Lap Belt (N)	4054	*
Shoulder Belt (N)	7237	6246

* No valid data collected

HYBRID III NECK, CHEST AND PELVIS DATA SHEET

VEHICLE YR./MAKE/MODEL/BODY STYLE: 1996/Honda/Civic/2 Door

VEHICLE NHTSA NO.: CT5301 TEST DATE: March 22, 1996

MAXIMUM VALUES	DRIVER DUMMY #065	PASSENGER DUMMY #066
Neck Load X (N)	-469 @ 112 msec.	866 @ 70 msec.
Neck Load Y (N)	185 @ 149 msec.	-336 @ 69 msec.
Neck Load Z (N)	1758 @ 60 msec.	1256 @ 43 msec.
Neck Moment X (NM)	9.2 @ 156 msec.	-28.5 @ 121 msec.
Neck Moment Y (NM)	44.9 @ 123 msec.	-82.2 @ 70 msec.
Neck Moment Z (NM)	-10.3 @ 89 msec.	31.5 @ 91 msec.
Chest Deflection X (mm)	-32.8	-30.5
Time of Max. Occurrence	77 msec.	86 msec.
Pelvis X Acceleration (g's)	-57.3 @ 58 msec.	-47.0 @ 82 msec.
Pelvis Y Acceleration (g's)	10.8 @ 62 msec.	21.5 @ 72 msec.
Pelvis Z Acceleration (g's)	-22.2 @ 73 msec.	-38.3 @ 91 msec.
Pelvis Resultant (g's)	58.9 @ 58 msec.	53.7 @ 84 msec.

PART 572 DUMMY IN-VEHICLE POSITION

Vehicle NHTSA No.: CT5301 Vehicle: 1996 Honda Civic 2 Door

SEAT TYPE:

 Bench
 X Bucket
 Split Bench

ADJUSTER TYPE:

Driver: X Manual
 Power

Passenger: X Manual
 Power

BUCKET SEAT BACK TYPE:

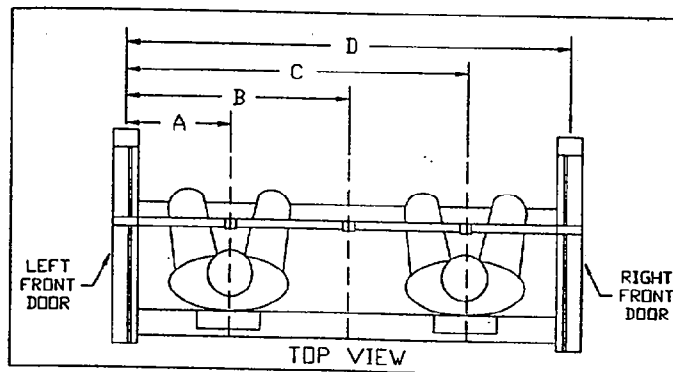
 Fixed
 X Adjustable Reclining

DRIVER SEAT POSITION

13th detent of 26 detents

PASSENGER SEAT POSITION

13th detent of 26 detents



066 DUMMY ID 065

A = Left Door to Driver Centerline	<u>420</u> mm
B = Left Door to Center Passenger Centerline	<u>734</u> mm
C = Left Door to Right Passenger Centerline	<u>1057</u> mm
D = Left Door to Right Door	<u>1468</u> mm

FRONT SEAT MEASUREMENT TABLE

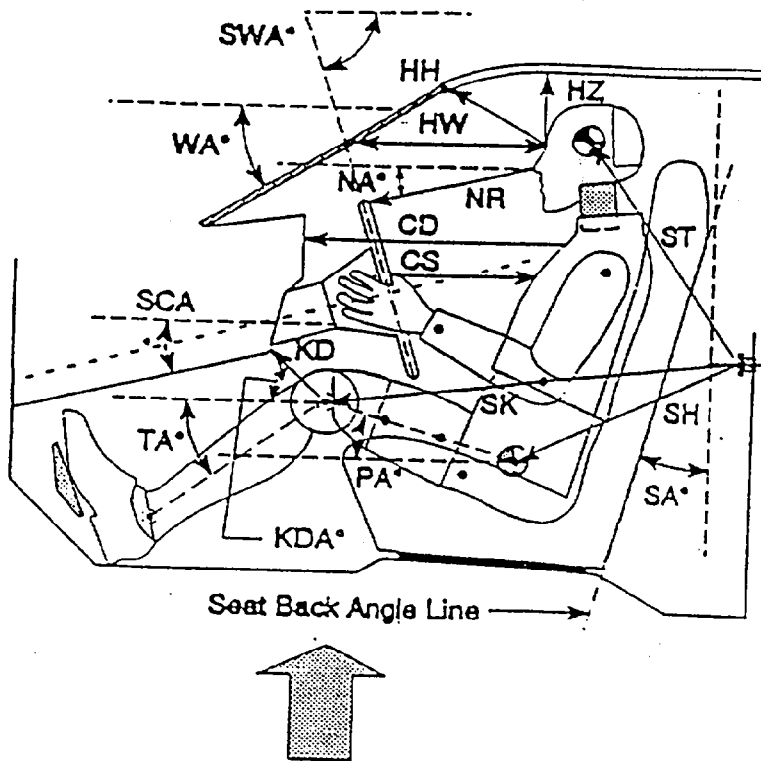
Units (mm)

	DRIVER (Serial #065)	PASSENGER (Serial #066)
WA°	30°	
SWA°	25.5°	N/A
SCA°	23.5°	N/A
SA°	4th notch rearward	4th notch rearward
HZ	148	143
HH	273	278
HW	493	467
HR	229	193
NR	396 Angle (NA) 14.9°	N/A
CD	536	535
CS	306	N/A
RA	187	N/A
KDL	163 Angle (KDA) 36.4°	102
KDR	147	170 Angle 19.3°
PA°	22.1°	23.1°
TA°	38.9°	31.7°
KK	325	261
ST*	566 Angle 33.9°	571 Angle 36.5°
SK*	810 Angle 94.1°	836 Angle 97.0°
SH*	459 Angle 110.5°	479 Angle 113.5°
SHY	260	251
HS	327	310
HD	118	132
AD	92	138

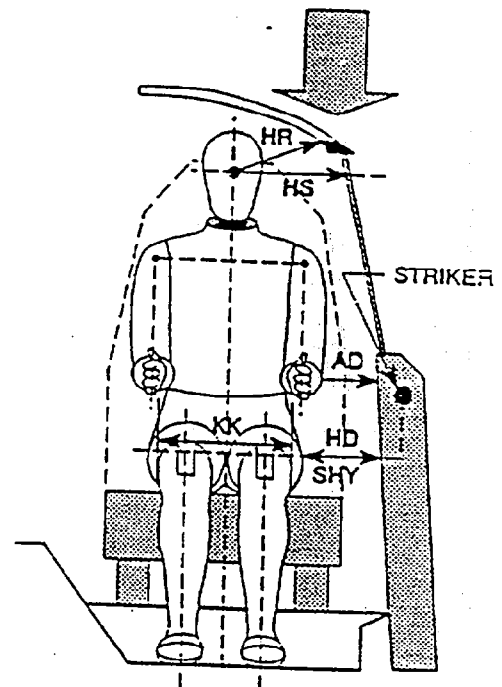
N/A = Not Applicable

* Angles measured from vertical

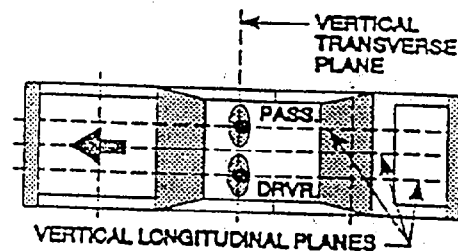
FRONT SEAT MEASUREMENTS



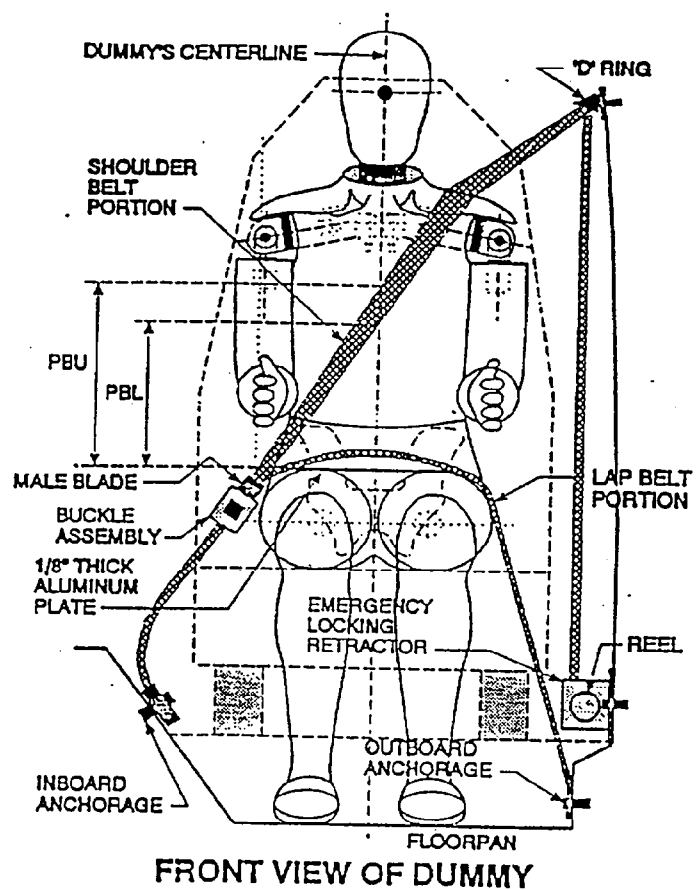
- AD - Arm to Door
- HD - H-Point to Door
- HR - Head to Side Header
- HS - Head to Side Window
- KK - Knee to Knee
- SHY - Striker to H-Point (Y-Direction)



- CD - Chest to Dash
- CS - Steering Wheel to Chest
- HH - Head to Header
- HW - Head to Windshield
- HZ - Head to Roof
- KDA - Knee to Dash Angle
- KDL - Left Knee to Dash
- KDR - Right Knee to Dash
- NA - Nose to Rim Angle
- NR - Nose to Rim
- PA - Pelvic Angle
- RA - Rim to Abdomen
- SA - Seat Back Angle
- SCA - Steering Column Angle
- SH - Striker to H-Point
- SK - Striker to Knee
- ST - Striker to Head
- SWA - Steering Wheel Angle
- TA - Tibial Angle
- WA - Windshield Angle



SEAT BELT POSITIONING DATA



(illustration)

Dimension = mm

	DRIVER DUMMY	PASSENGER DUMMY
<u>PBU</u> -- Top surface of alum. plate to upper edge	358	355
<u>PBL</u> -- Top surface of alum. plate to belt lower edge	279	271

SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA:

	<u>Driver</u>	<u>Passenger</u>
Length from trim above retractor reel to "D" ring as measured on dummy.	<u>492 mm</u>	<u>491 mm</u>
Shoulder belt length as measured on Part 572 Dummy.	<u>1050 mm</u>	<u>1043 mm</u>
Lap belt length as measured on Part 572 Dummy.	<u>830 mm</u>	<u>820 mm</u>

SHOULDER BELT SPOOL-OFF DATA:

As determined by film analysis	<u>*</u>	<u>*</u> at shoulder
As determined mechanically	<u>29 mm</u>	<u>39 mm</u> at retractor
	<u>64 mm</u>	<u>56 mm</u> at shoulder

BELT STRETCH DATA:

Measured electronically between shoulder belt load cell and the "D" ring.	<u>NR</u>	<u>NR</u>
Measured mechanically	<u>NR</u>	<u>NR</u>

RETRACTOR LOCK-UP TIME:

As determined by shoulder belt spool-off observed in on-board cameras	<u>*</u>	<u>*</u>
---	----------	----------

NR Not Recorded

* No onboard cameras due to weight requirements.

CAMERA LOCATIONS

VEH. NHTSA NO.: CT5301 ; TEST DATE: March 22, 1996 ; TIME: 2:39 p.m.

VEH. YEAR/MAKE/MODEL/BODY STYLE: 1996/Honda/Civic/2 Door

CAMERA POSITION NO.	VIEW	CAMERA POSITIONS (mm.)*			ANGLE (deg)	FILM PLANE TO HEAD TARGET (mm)	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Left Side View	-	-	-	-	-		
2	Left Front View	1000	8280	1500	90°	7865	25	1075
3	Steering Column Top	1880	7990	1560	90°	7575	25	901
4	Steering Column Bottom	1880	8000	1020	90°	7585	25	862
5	Left Driver Close-up	1240	7660	1420	90°	7245	50	971
6	Left Angle	4870	5890	1990			50	1020
7	Driver Onboard							N/A
8	Passenger Onboard							N/A
9	Right Overall	2130	7490	1190	90°	7070	13	1053
10	Right Front	1140	8460	1120	90°	8040	25	1111
11	Right Passenger Close-up	1540	10200	1110	90°	9780	50	NT
12	Right Angle	5180	5540	1980			50	826
13	Top View Wide	1630	0	5200			8	990
14	Top Driver	100	630	1725			13	1064
15	Top Passenger	120	690	1715			13	943
16	Pit Engine	1130	0	3125			13	1031
17	Fuel Tank	2760	0	3125			13	1020

*** COORDINATES:**

+X = film plane rearward of barrier

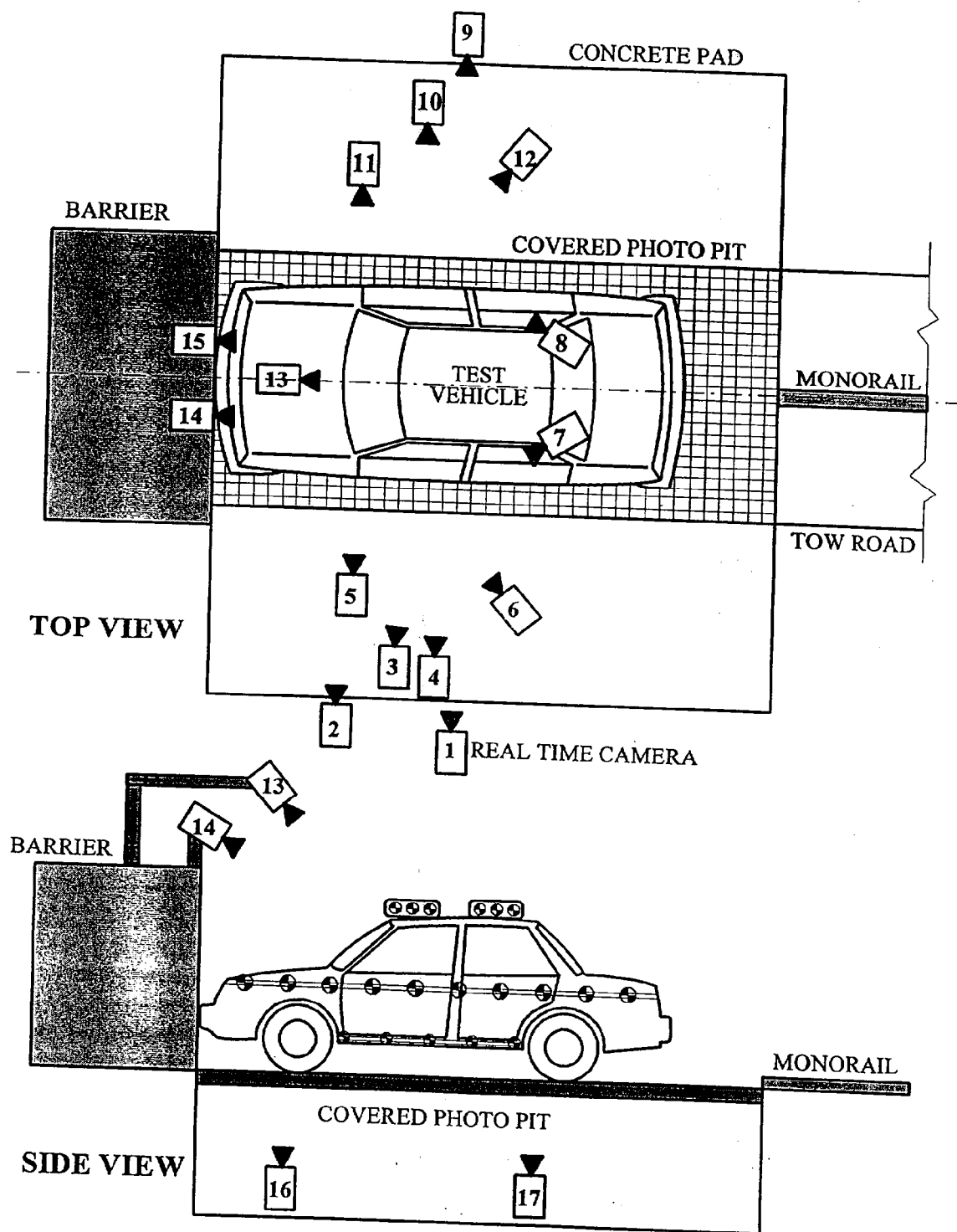
+Y = film plane to left of monorail centerline

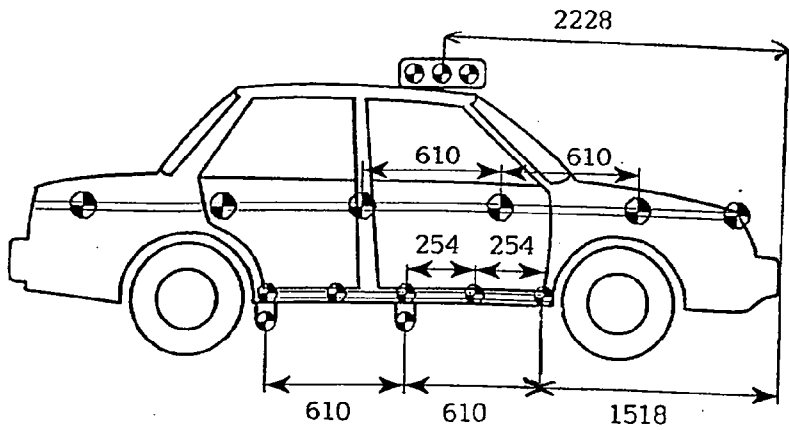
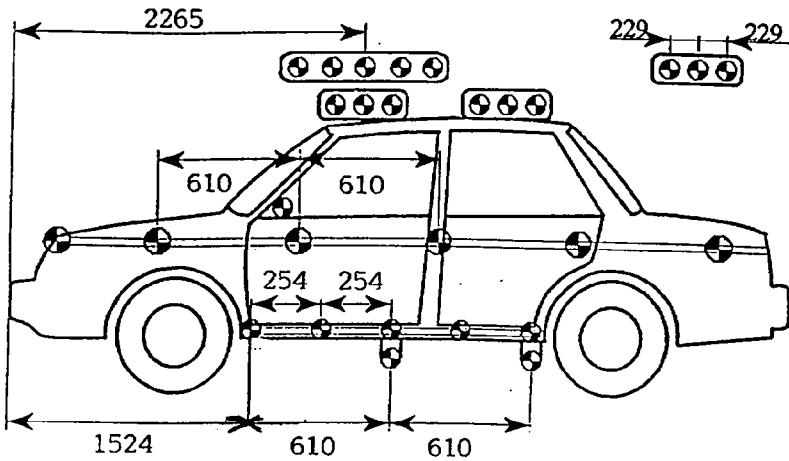
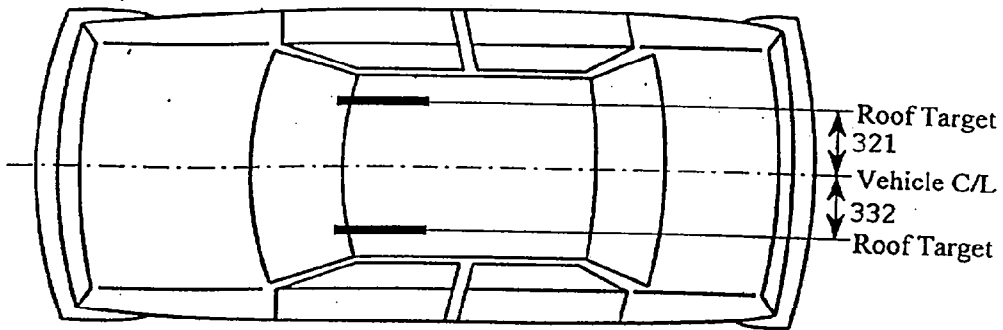
+Z = film plane to above ground level

ORIGIN: For X and Y it is the Impact Point. For Z it is the Floor.

NT = No timing available

CAMERA LOCATIONS (Cont'd)



[illegible]

(DIMENSIONS IN MM)

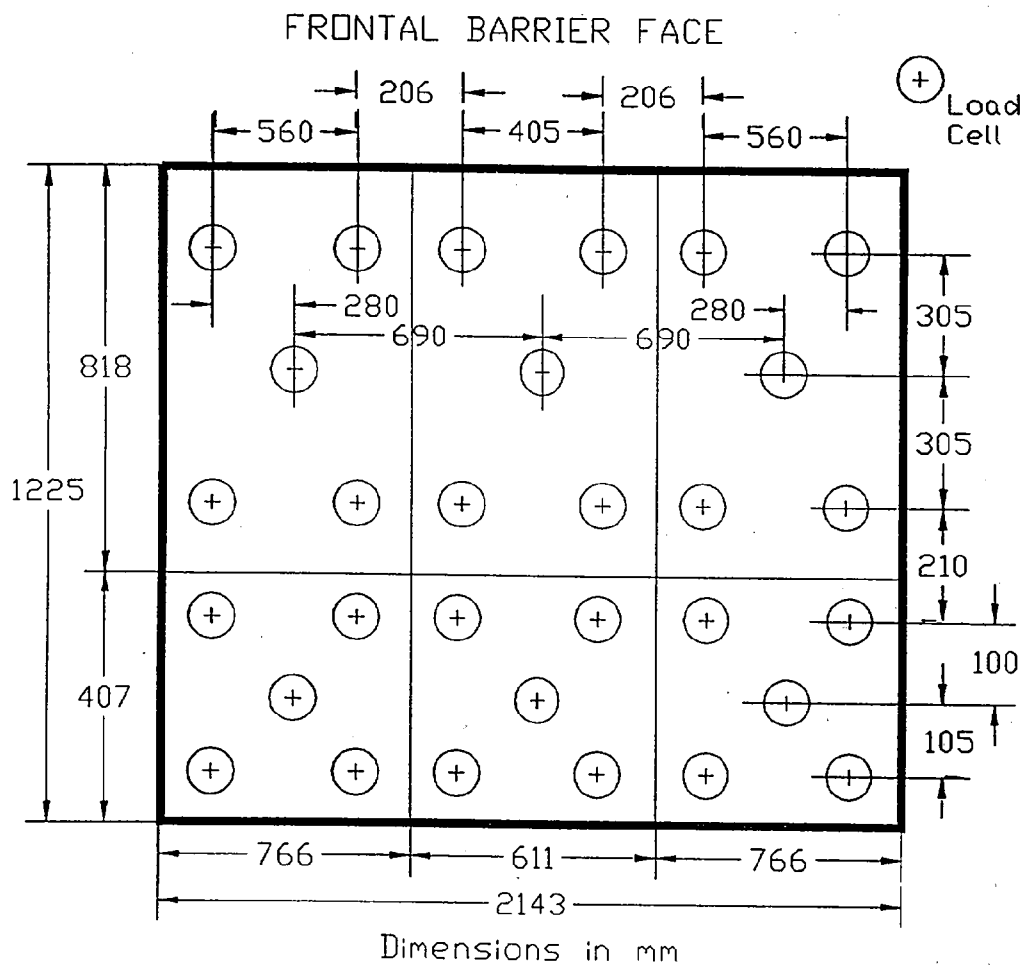
LOAD CELL LOCATIONS ON FIXED BARRIER

30 Load Cells

6 Rows

9 Columns

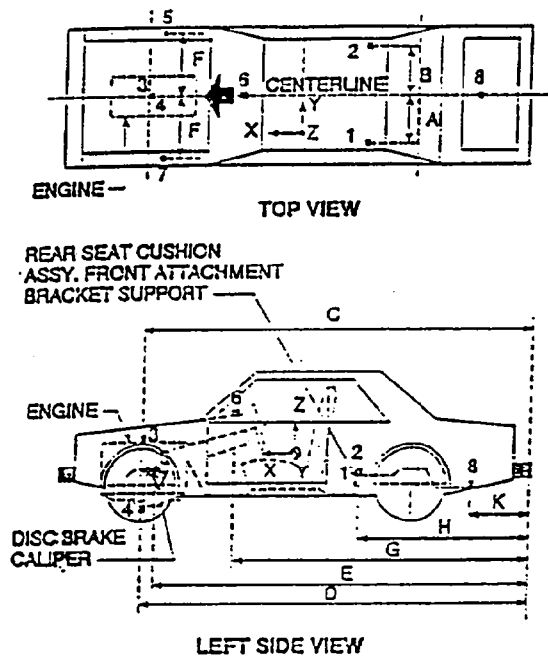
6 Groupings (5 cells/group)



The following data is presented in Appendix B:

- (1) Total or Sum of 30 individual load cells
- (2) Data from 6 Groupings shown above (5 cells/group)

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



Units: (mm)

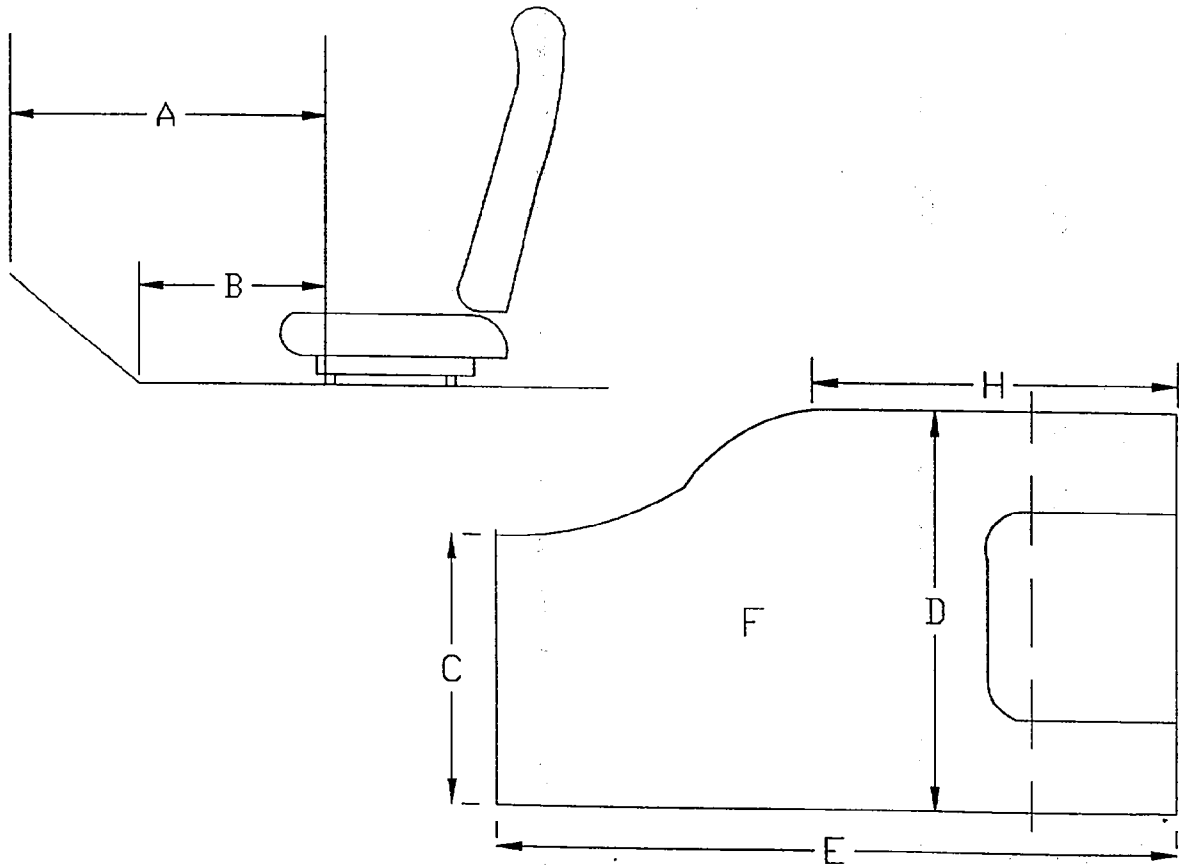
Dimension	Length
A	402
B	402
C	3557
D	3446
E	3472
F	641
G	2574
H	1443
J	641

ACCEL. NO.	ACCELEROMETER	DIRECTION
1 and 8	Left Rear Seat Crossmember	X
2 and 9	Right Rear Seat Crossmember	X
3	Top of Engine	X
4	Bottom of Engine	X
5	Right Side Brake Caliper	X
6	Instrument Panel	X
7	Left Disc Brake Caliper	X

TEST VEHICLE MEASUREMENTS

STATIC FOOTWELL DEFORMATION

Driver's Side



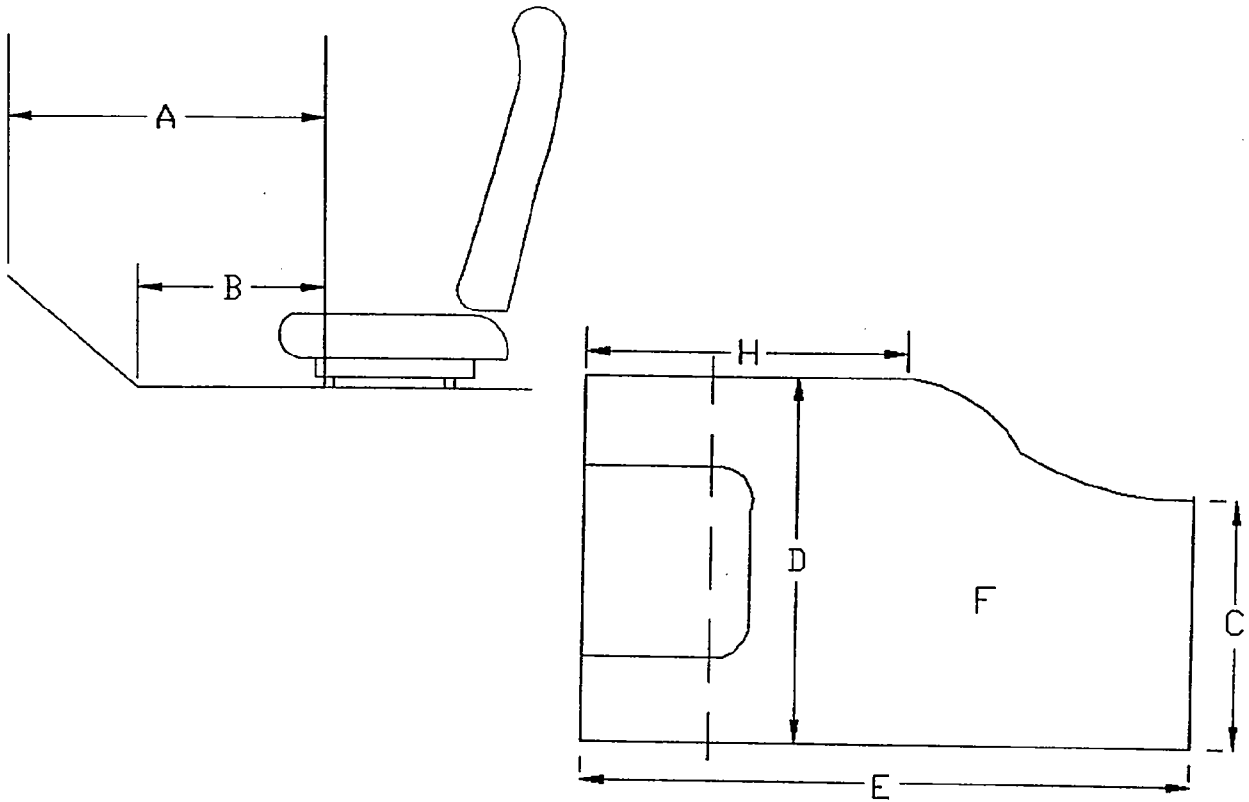
Units = mm

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	794	627	167
B	594	520	74
C	416	420	-4
D	411	407	4
E	1327	1271	56
H	1069	988	81

TEST VEHICLE MEASUREMENTS (Cont'd)

STATIC FOOTWELL DEFORMATION

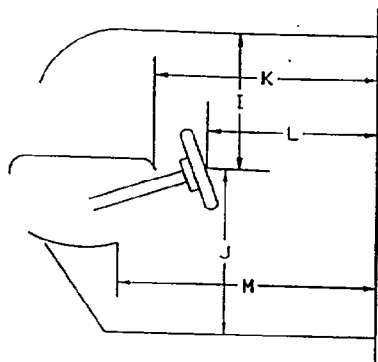
Passenger's Side



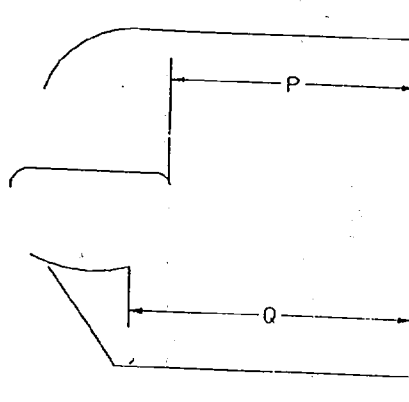
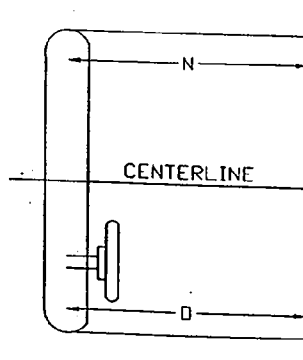
Units = mm

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	792	652	140
B	544	517	27
C	398	420	-22
D	480	481	-1
E	1338	1280	58
H	1152	1145	7

TEST VEHICLE MEASUREMENTS (Cont'd)
 STATIC PASSENGER COMPARTMENT INTRUSION



MEASUREMENTS
FROM C-PILLAR
BELT ANCHORAGE



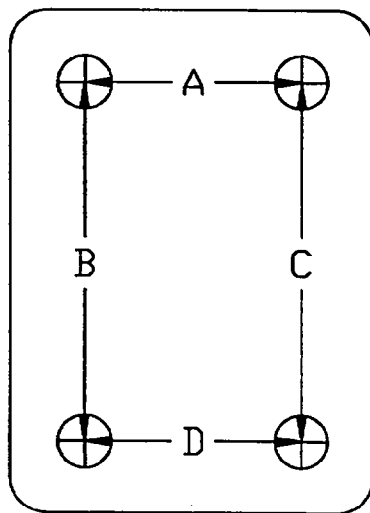
Units = mm

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
I	460	440	20
J	623	650	-27
K	941	945	-4
L	710	717	-7
M	1118	1111	7
N	1136	1156	-20
O	1126	1120	6
P	1012	1014	-2
Q	1096	1142	-46

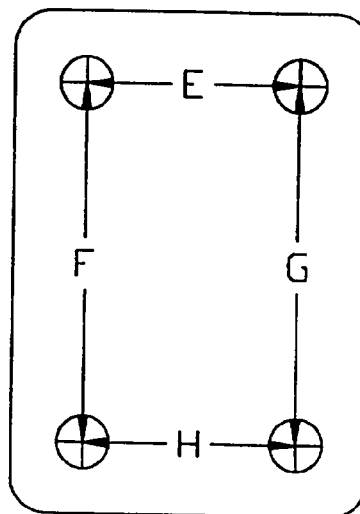
TEST VEHICLE MEASUREMENTS (Cont'd)

UNDERBODY FLOORBOARD DEFORMATION

DRIVER'S SIDE



PASSENGER'S SIDE

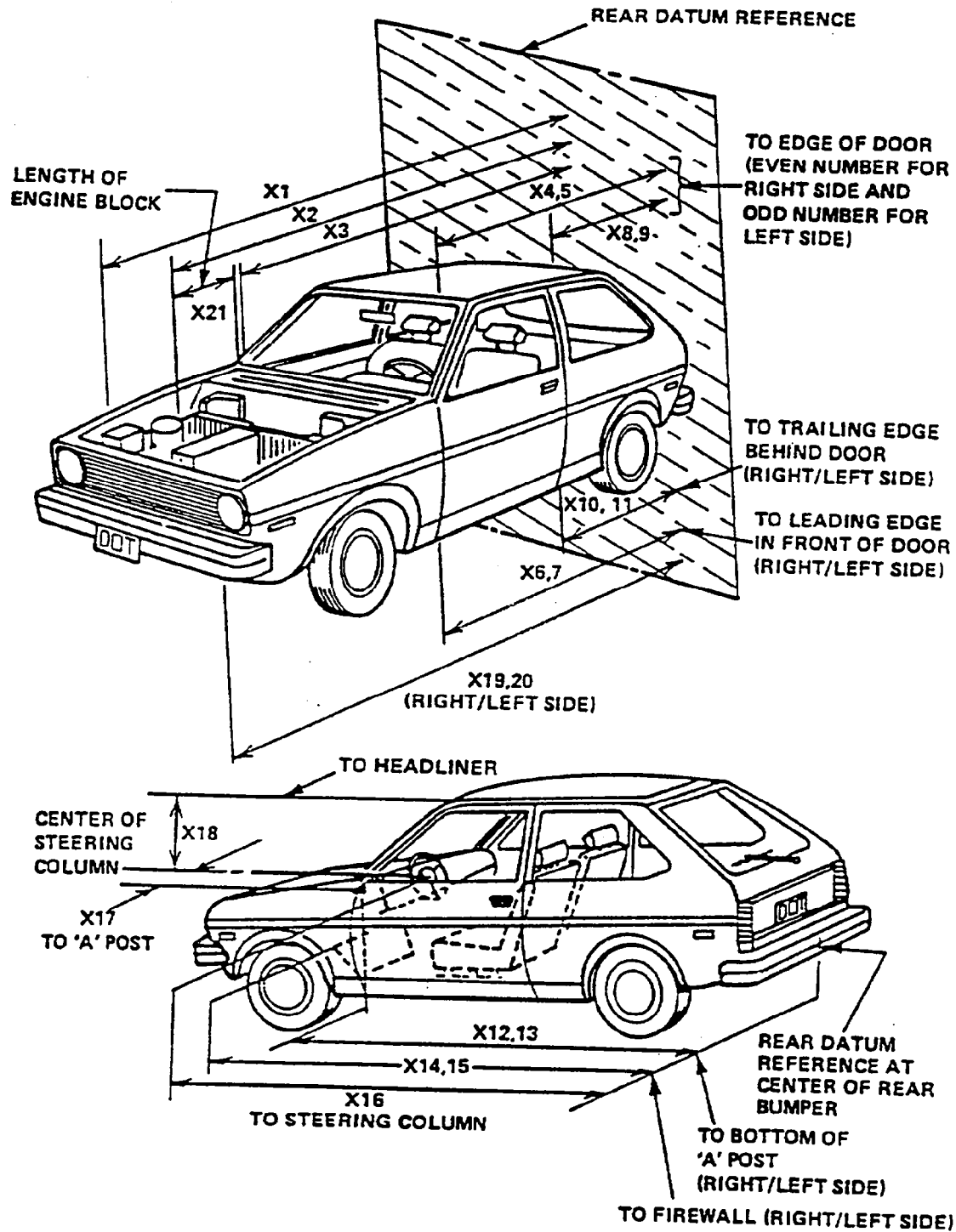


MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	366	343	23
B	442	435	7
C	410	370	40
D	411	423	-12
E	356	310	46
F	407	368	39
G	407	412	-5
H	428	415	13

TEST VEHICLE MEASUREMENTS (Cont'd)

No.	MEASUREMENT DESCRIPTION:	Pre-Test (mm)	Post-Test (mm)	Diff. (mm)
X1	Total Length of Test Vehicle at Centerline	4251	3718	533
X2	Rear Surface of Vehicle to Front of Engine	3699	3418	281
X3	Rear Surface of Vehicle to Firewall	3179	3053	126
X4	Rear Surface to Upr. Leading Edge of Rt. Door	2822	2818	4
X5	Rear Surface to Upr. Leading Edge of Left Door	2824	2826	-2
X6	Rear Surface to Lwr. Leading Edge of Rt. Door	2831	2800	31
X7	Rear Surface to Lwr. Leading Edge of Left Door	2835	2829	6
X8	Rear Surface to Upr. Trailing Edge of Rt. Door	1601	1611	-10
X9	Rear Surface to Upr. Trailing Edge of Left Door	1604	1615	-11
X10	Rear Surface to Lwr. Trailing Edge of Rt. Door	1618	1606	12
X11	Rear Surface to Lwr. Trailing Edge of Left Door	1619	1610	9
X12	Rear Surface to Bottom of A-Post on Rt. Side	2831	2808	23
X13	Rear Surface to Bottom of A-Post on Left Side	2835	2829	6
X14	Rear Surface to Firewall on Right Side	3105	3081	24
X15	Rear Surface to Firewall on Left Side	3107	3075	32
X16	Rear Surface to Steering Column	2372	2338	34
X17	Center of Steering Column to A-Post	390	355	35
X18	Center of Steering Column to Headlining	475	415	60
X19	Rear Surface to Right Side of Front Bumper	4074	3641	433
X20	Rear Surface to Left Side of Front Bumper	4072	3666	406
X21	Length of Engine Block	425	425	0

TEST VEHICLE MEASUREMENTS (Cont'd)



ACCIDENT INVESTIGATION DIVISION DATA
FOR 35 MPH FRONTAL BARRIER IMPACT

VEHICLE MAKE/MODEL/BODY STYLE: 1996/Honda/Civic 2 Door

VEH. NHTSA NO.: CT5301; VIN: 1HGE56228TL035197

MODEL YEAR: 1996; BUILD DATE: 2/96; TEST DATE: March 22, 1996

VEH. SIZE CATEGORY: Compact; TEST WEIGHT: 1245.0 kg

VEH. WHEELBASE: 2616 mm; FRONT OVERHANG: 852 mm; OVERALL WIDTH: 1688 mm

ACCELEROMETER DATA:

LOCATION: As per measurements on pages 4-13

CALIBRATION PROCEDURE: As per MGA Calibration Procedure

LINEARITY: >99.9%; INTEGRATION ALGORITHM: Trapezoidal

VEH. IMPACT SPEED: 56.5 kph; TIME OF SEPARATION: 75 msec

VELOCITY CHANGE: 66.4 kph

COLLISION DEFORMATION CLASSIFICATION (CDC) CODE: F (Frontal)

CRUSH DEPTH C1 = 406 mm

DIMENSIONS: C2 = 459 mm

C3 = 517 mm

C4 = 532 mm

C5 = 502 mm

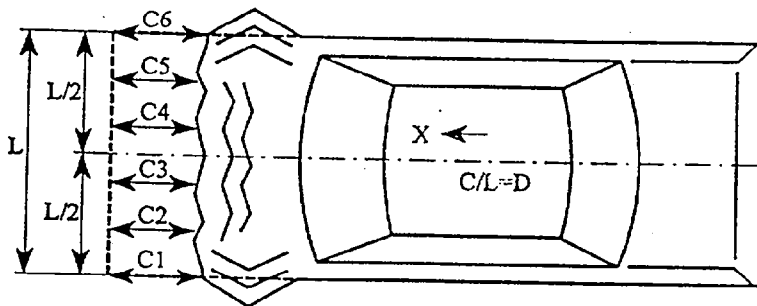
C6 = 433 mm

MIDPOINT OF D = Vehicle Centerline

DAMAGE: (Longitude)

LENGTH OF L = 1364 mm

DAMAGED REGION:



APPENDIX A
PHOTOGRAPHS

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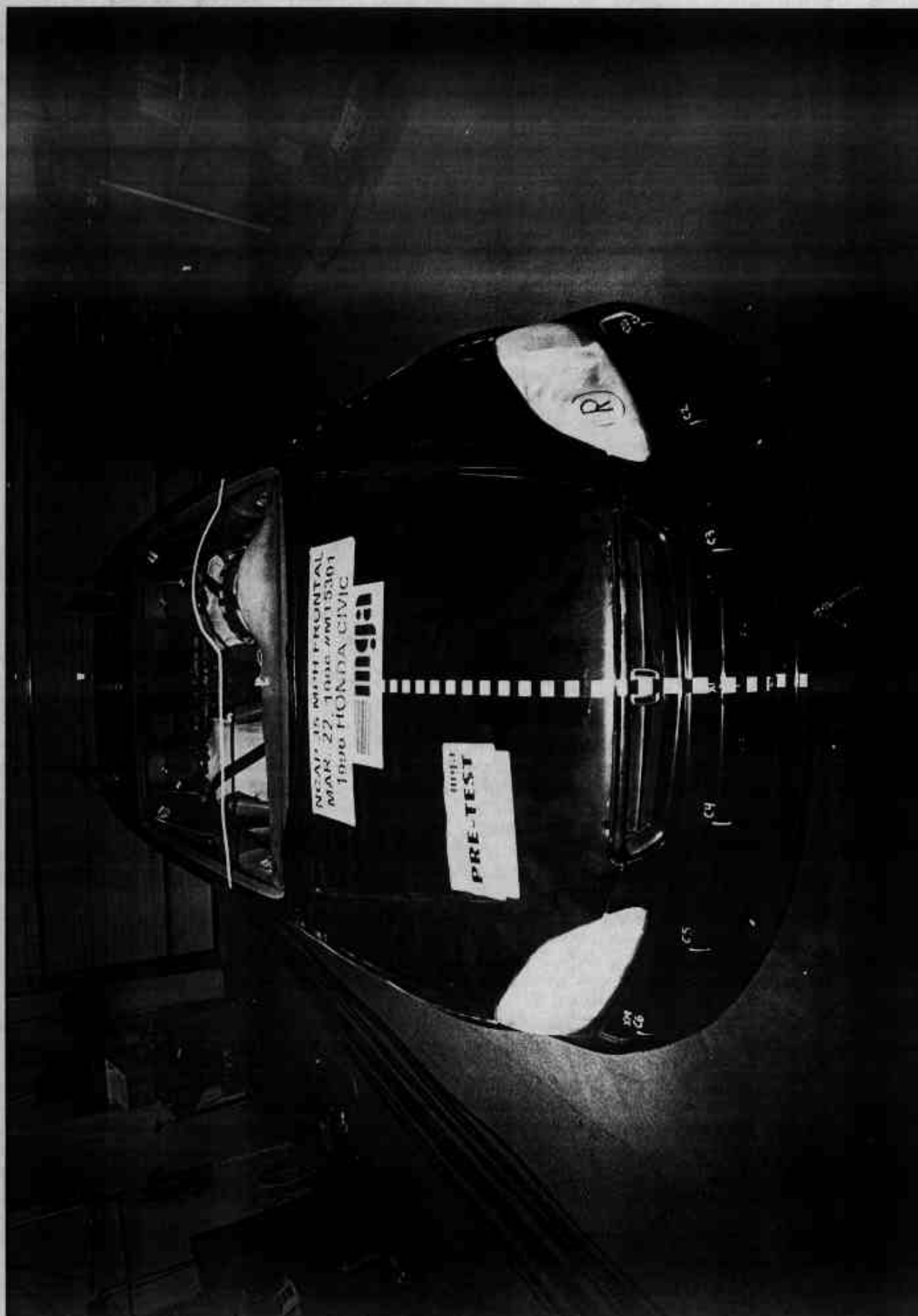


Photo No. A-1 - Pre-Test Front View of Test Vehicle

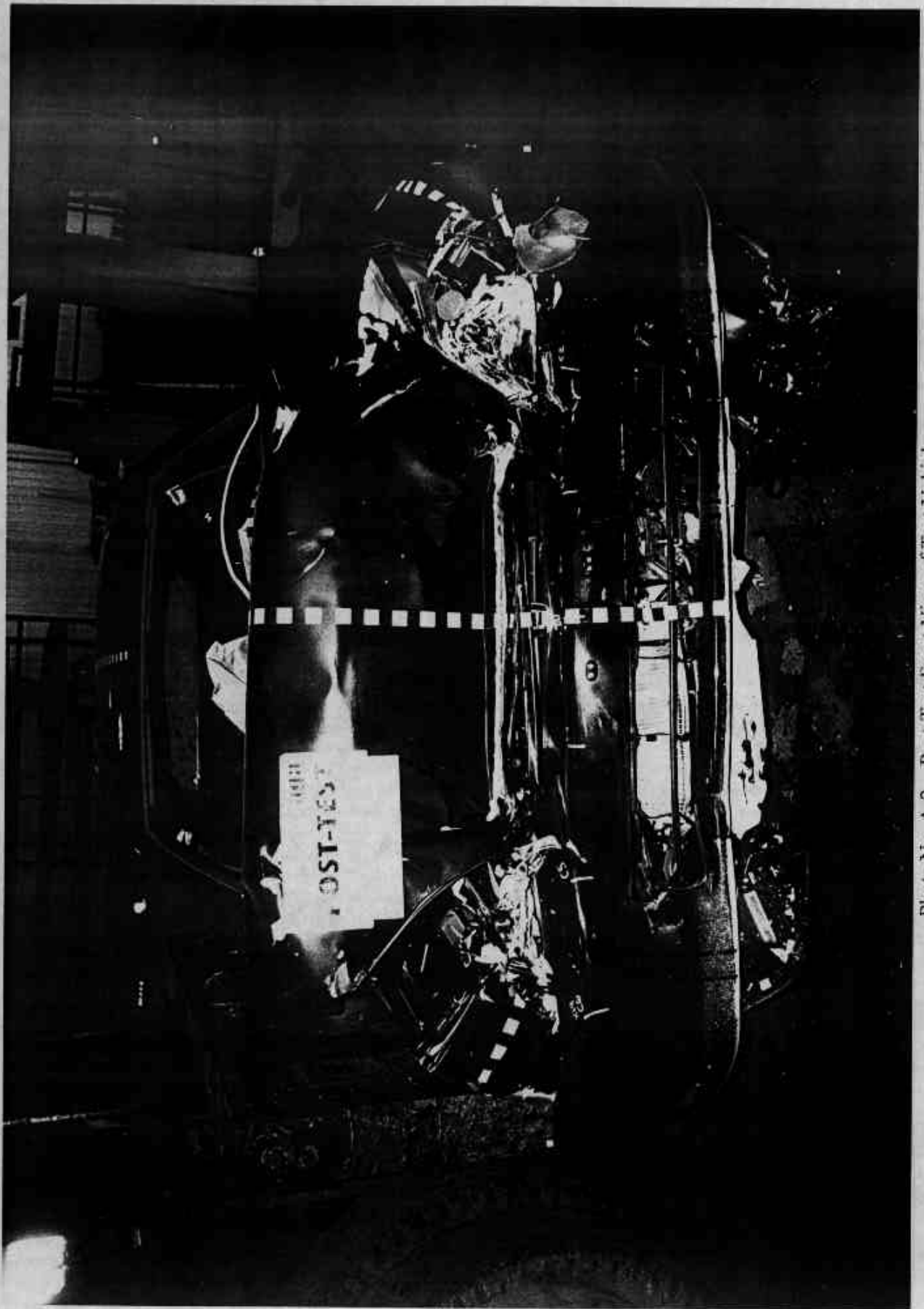


Photo No. A-2 - Post-Test Front View of Test Vehicle

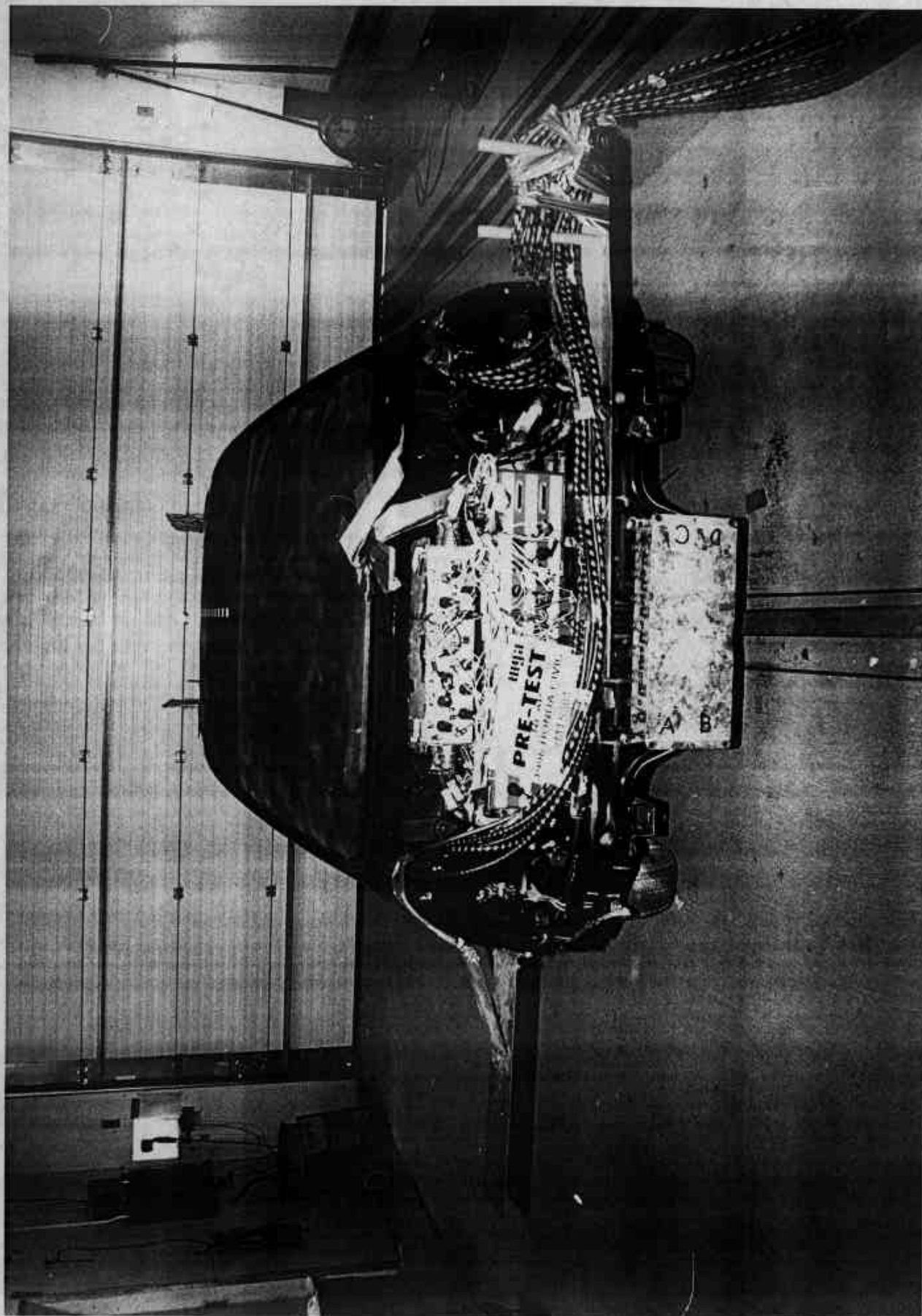


Photo No. A-3 - Pre-Test Rear View of Test Vehicle

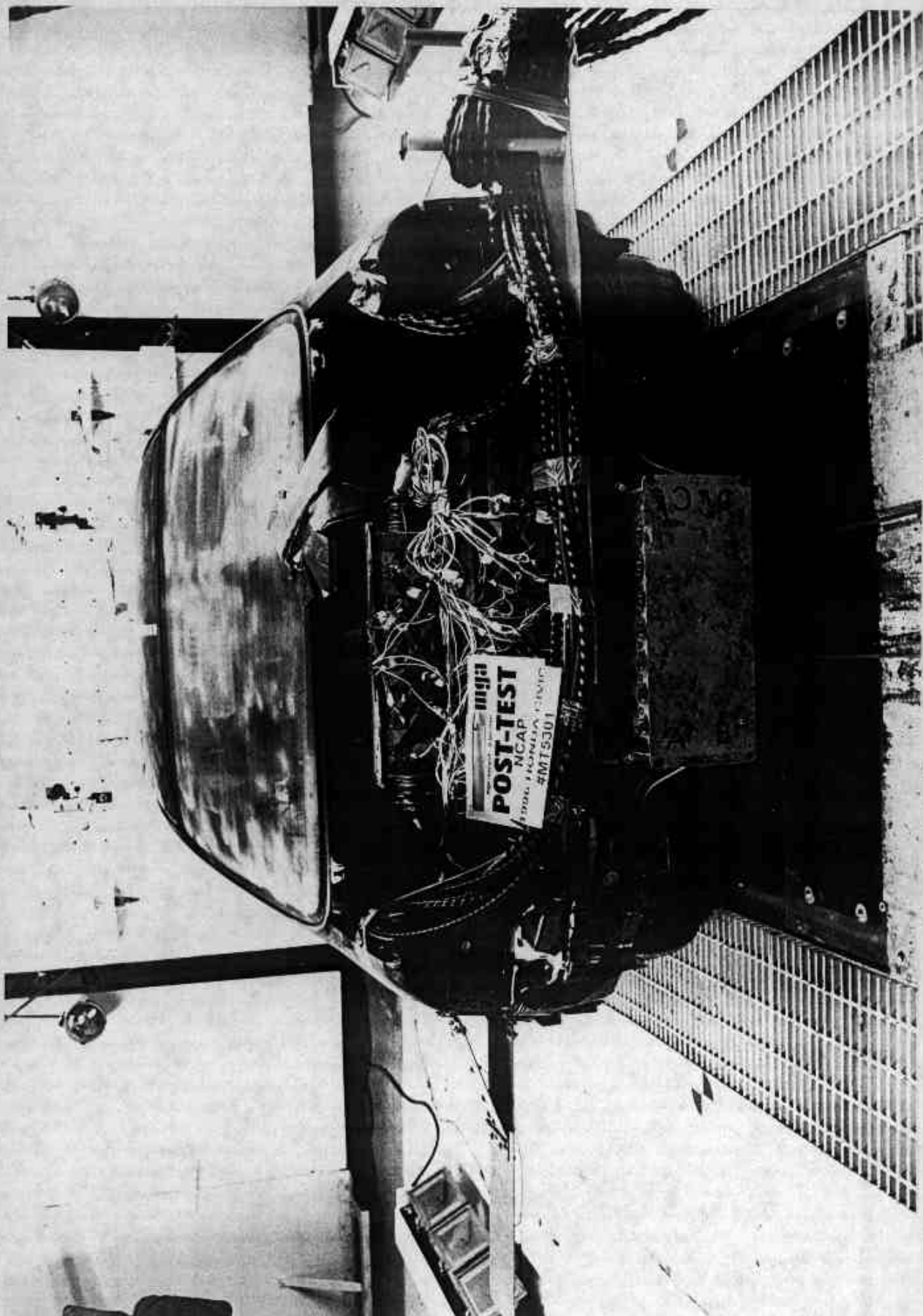


Photo No. A-4 - Post-Test Rear View of Test Vehicle

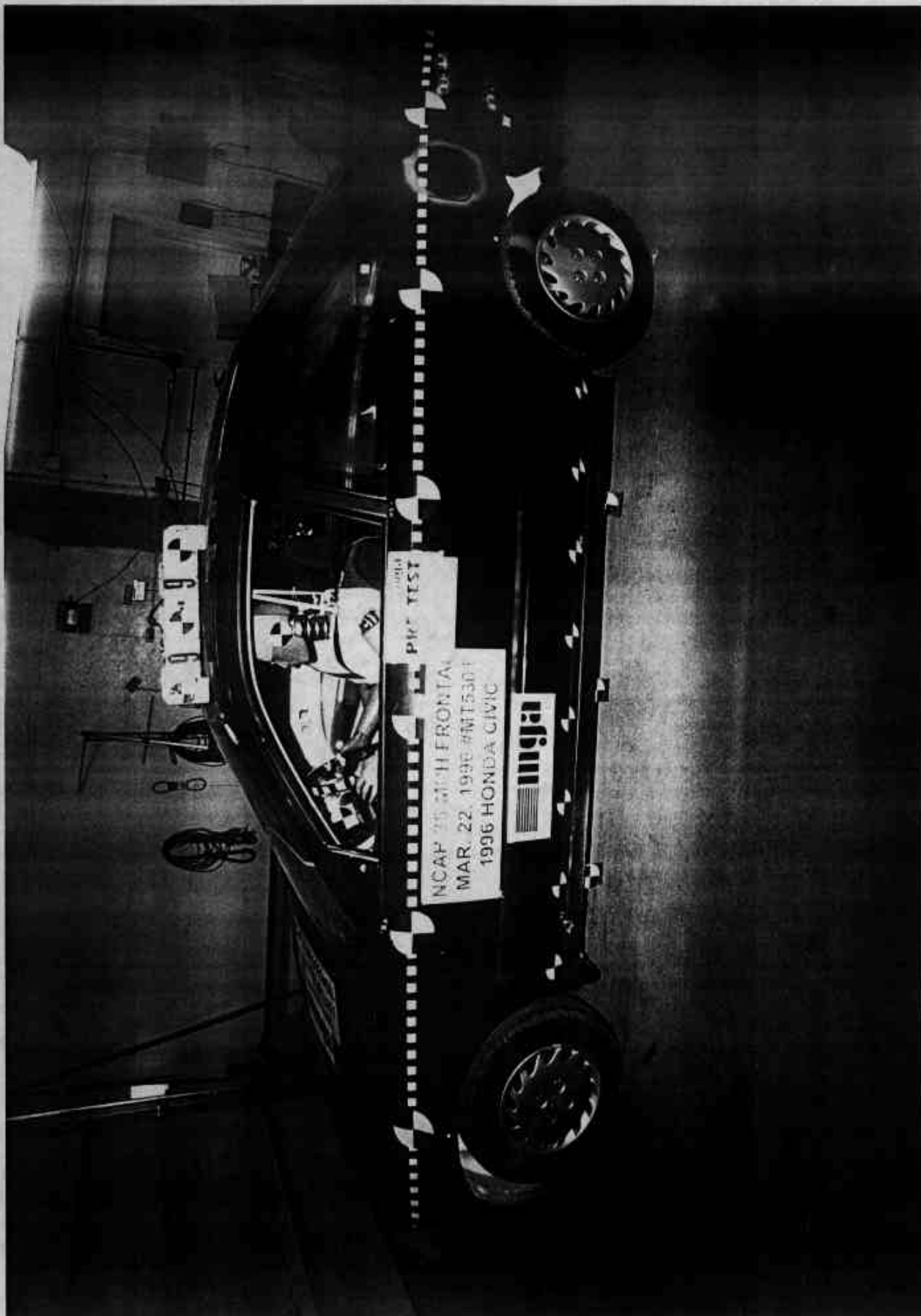
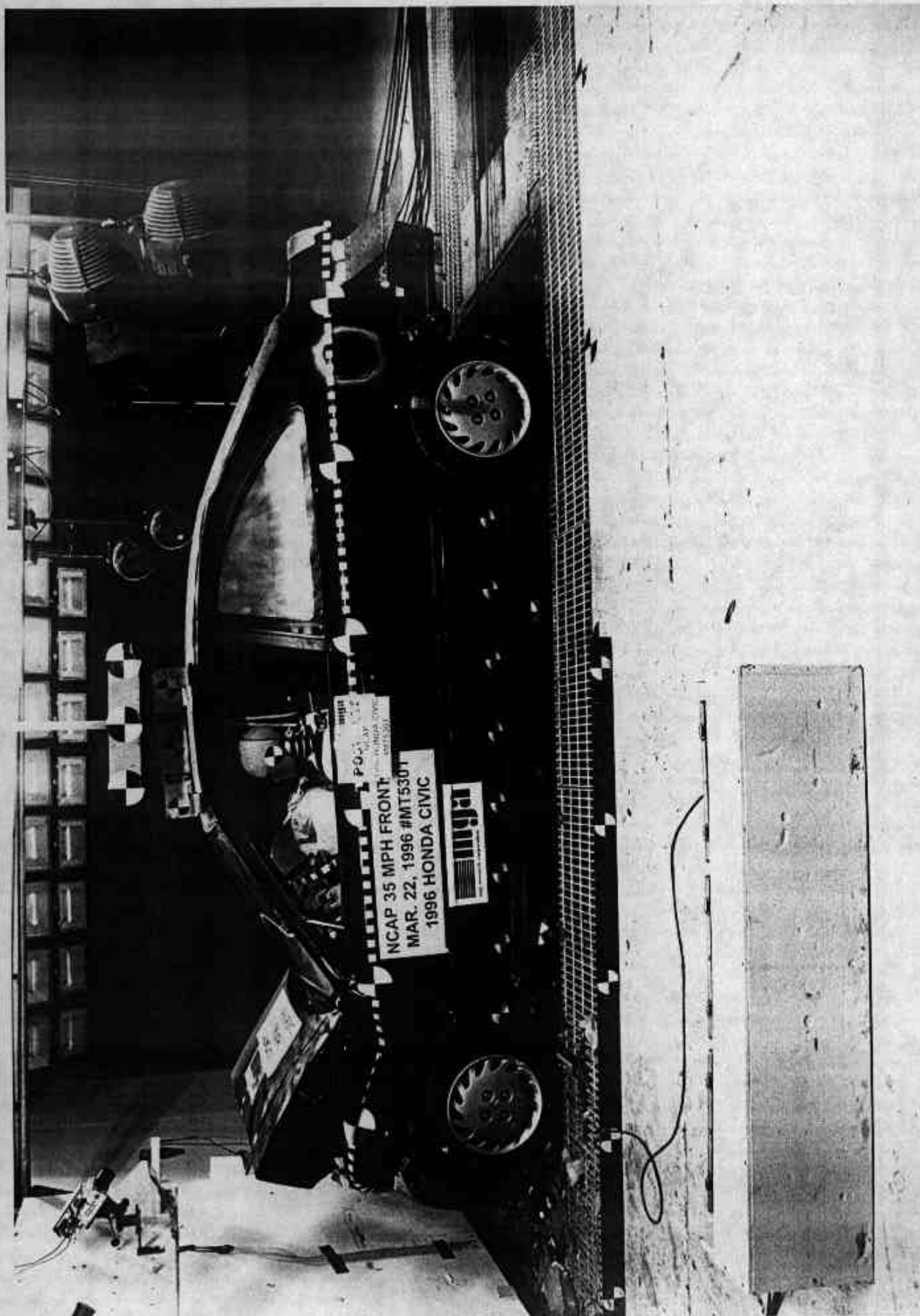


Photo No. A-5 - Pre-Test Left Side View of Test Vehicle



A-6

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

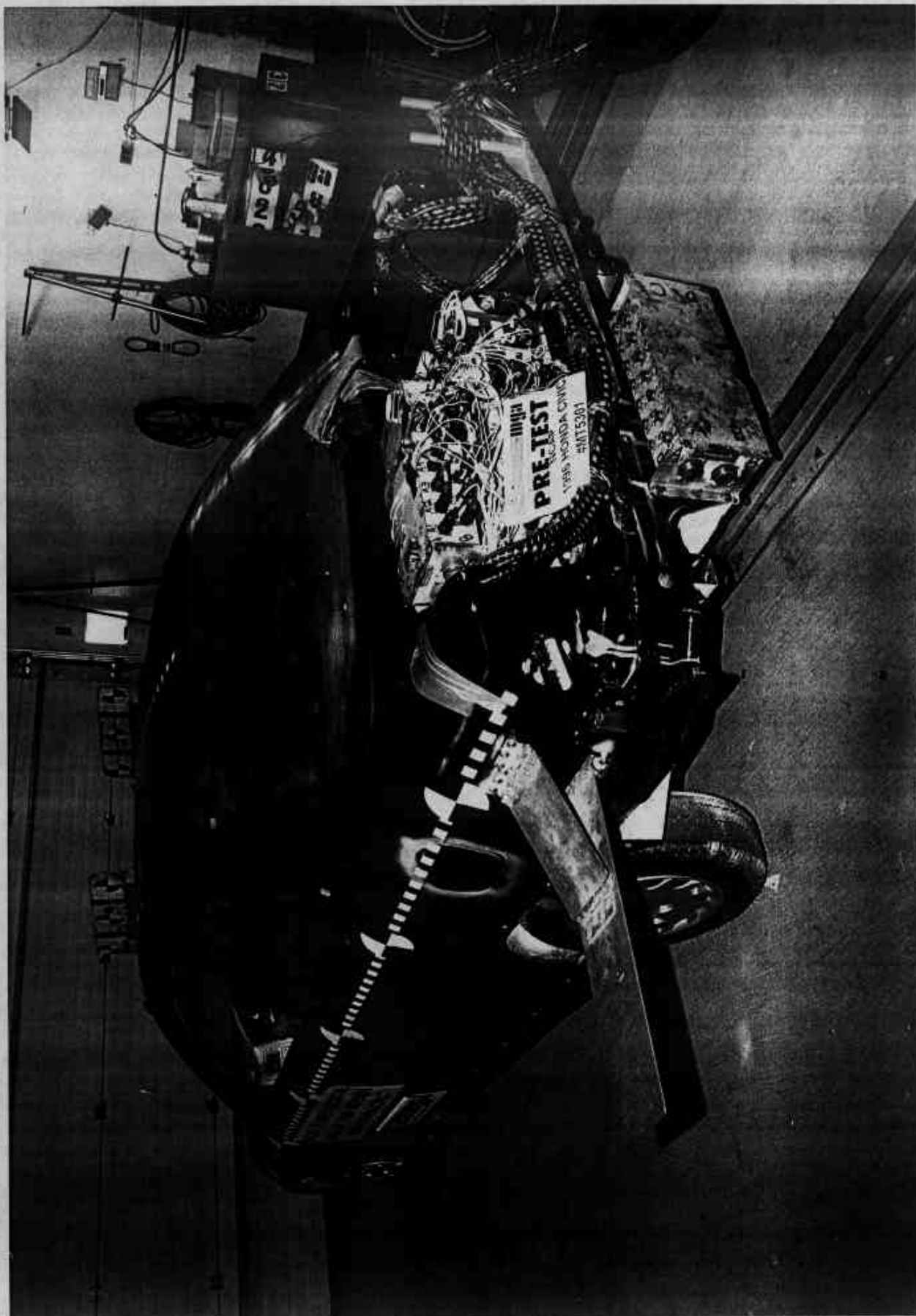


Photo No. A-7 - Pre-Test Left Rear Three-Quarter View of Test Vehicle

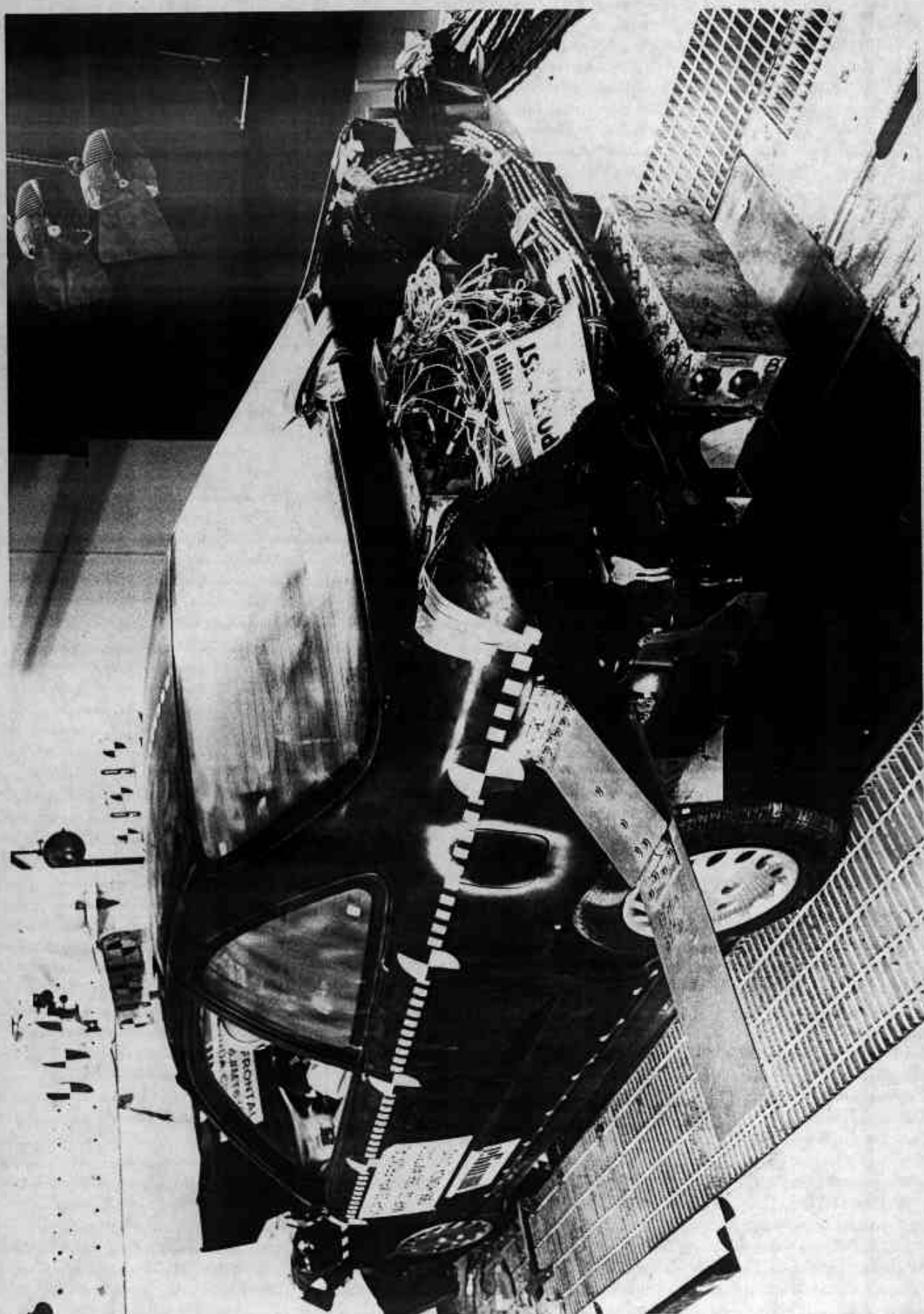


Photo No. A-8 - Post-Test Left Rear Three-Quarter View of Test Vehicle

A-8

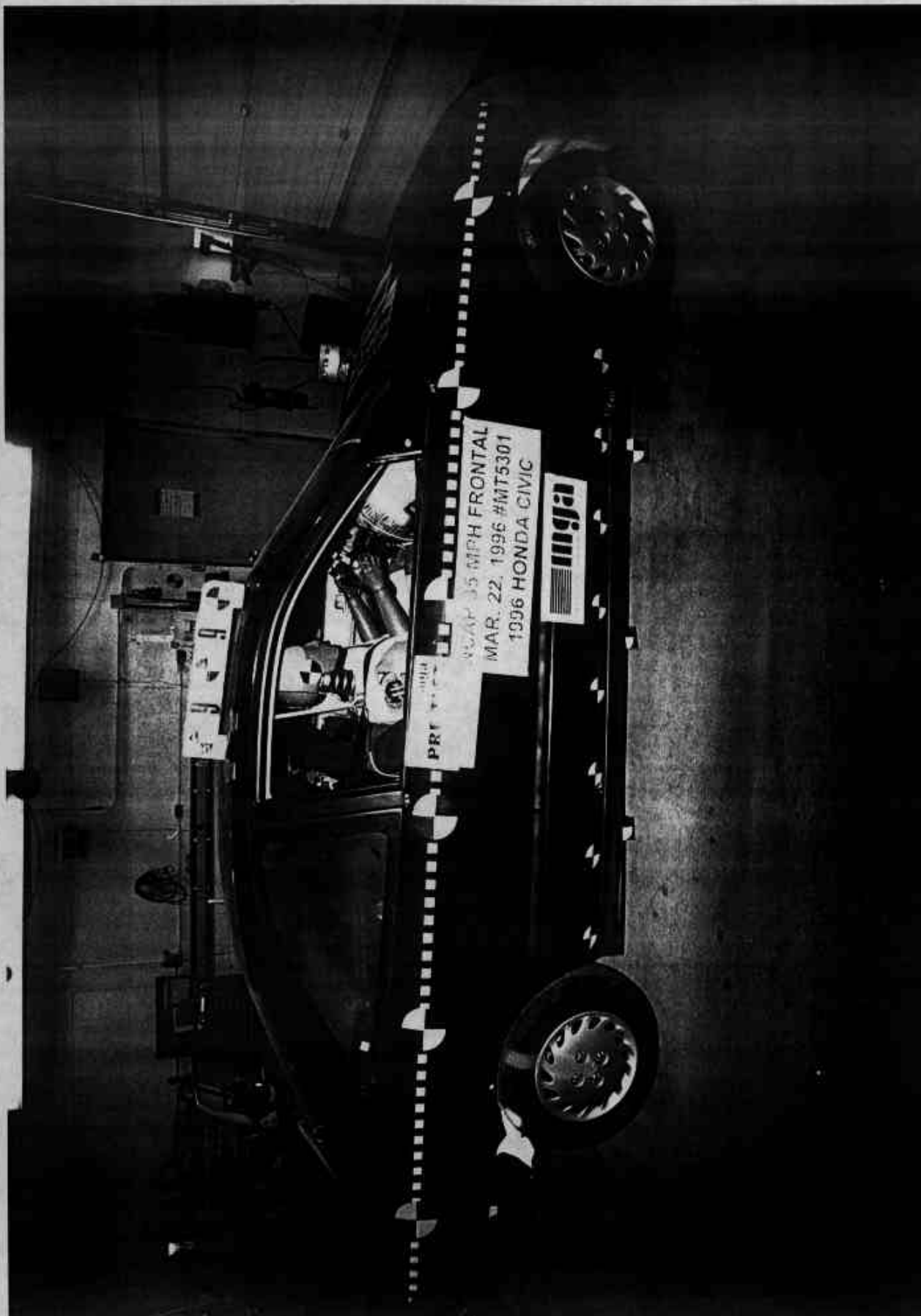


Photo No. A-9 - Pre-Test Right Side View of Test Vehicle

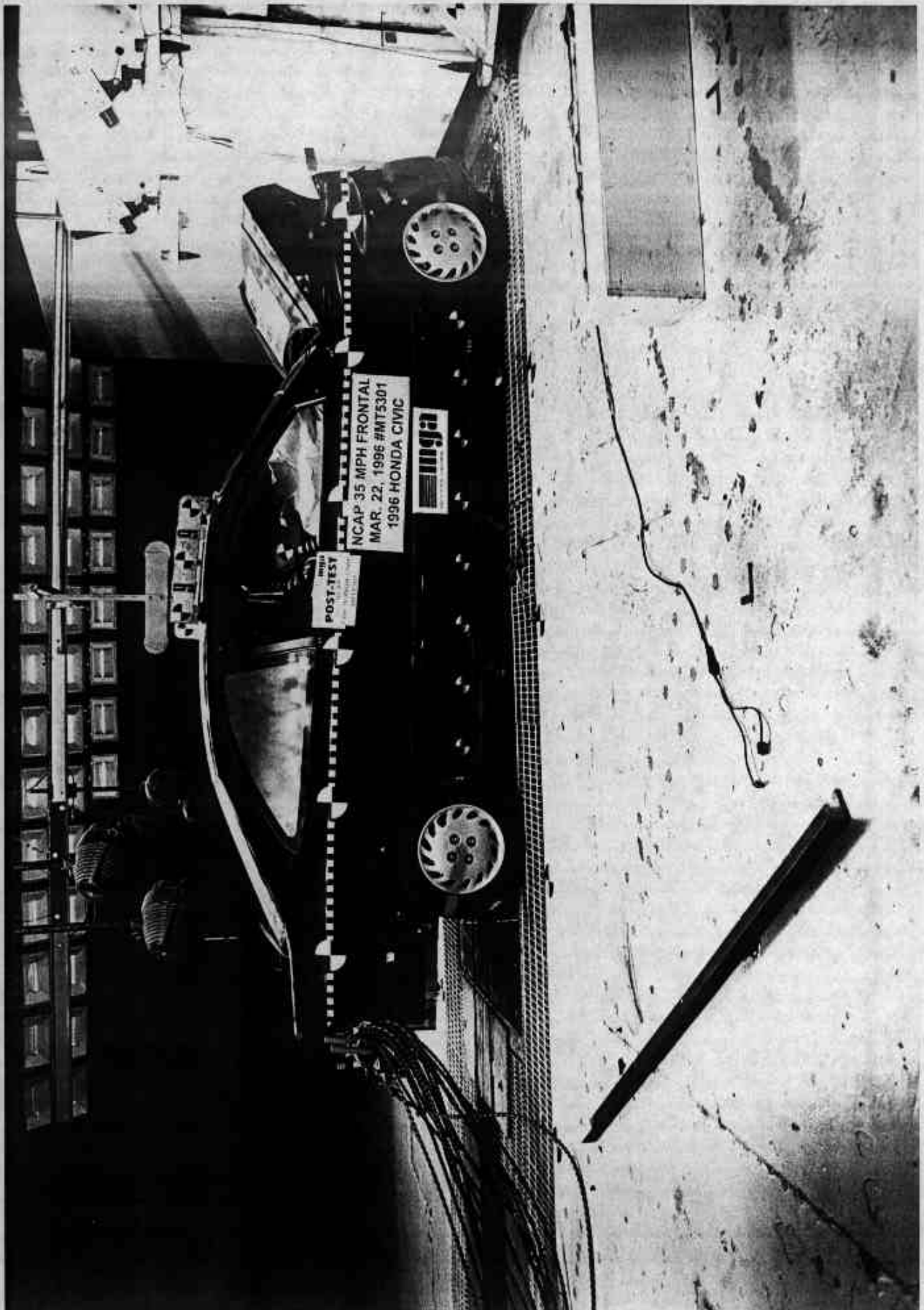


Photo No. A-10 - Post-Test Right Side View of Test Vehicle



A-11

Photo No. A-11 - Pre-Test Right Front Three-Quarter View of Test Vehicle

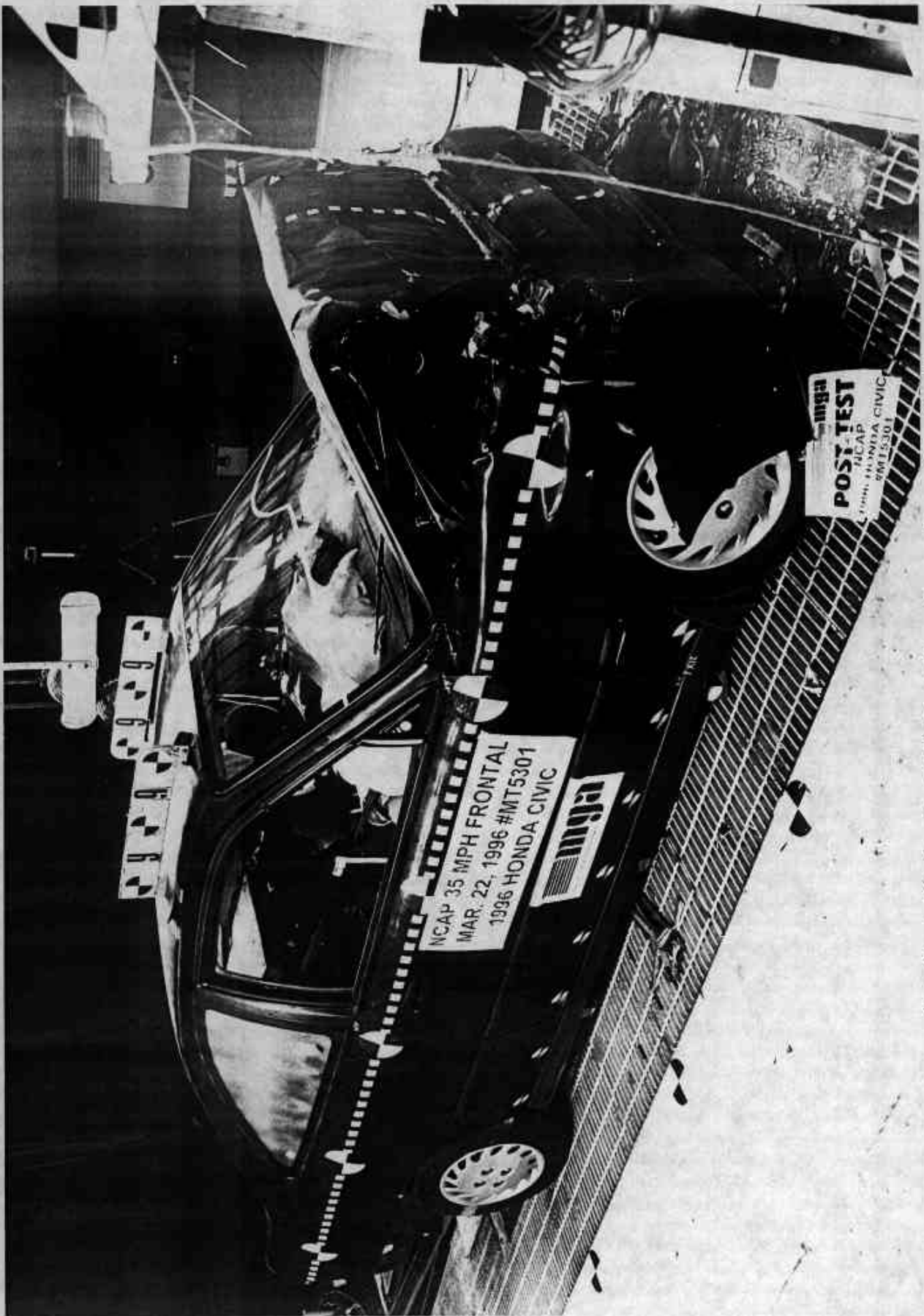


Photo No. A-12 - Post-Test Right Front Three-Quarter View of Test Vehicle



A-13

Photo No. A-13 - Pre-Test Fuel Filler Cap View

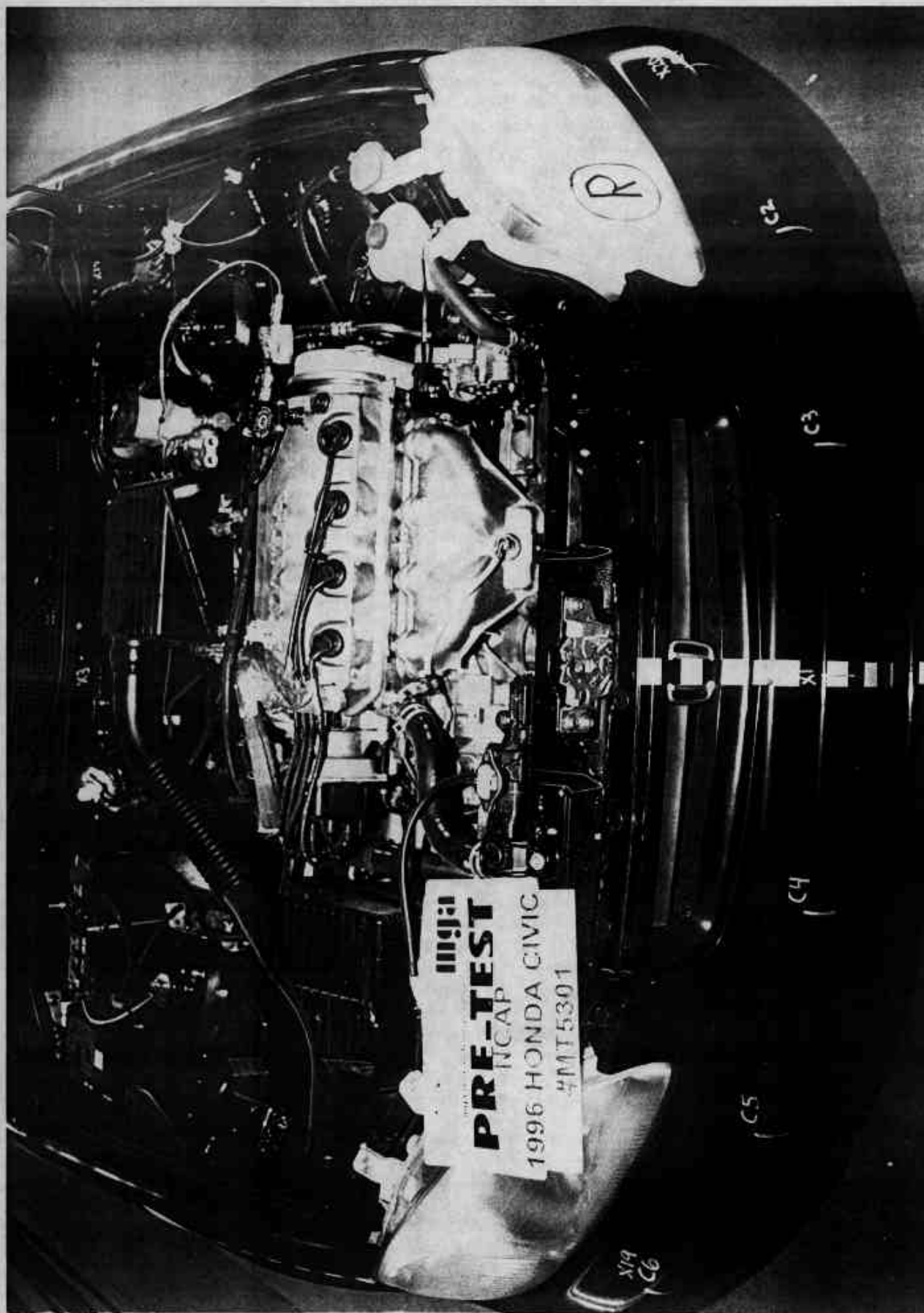
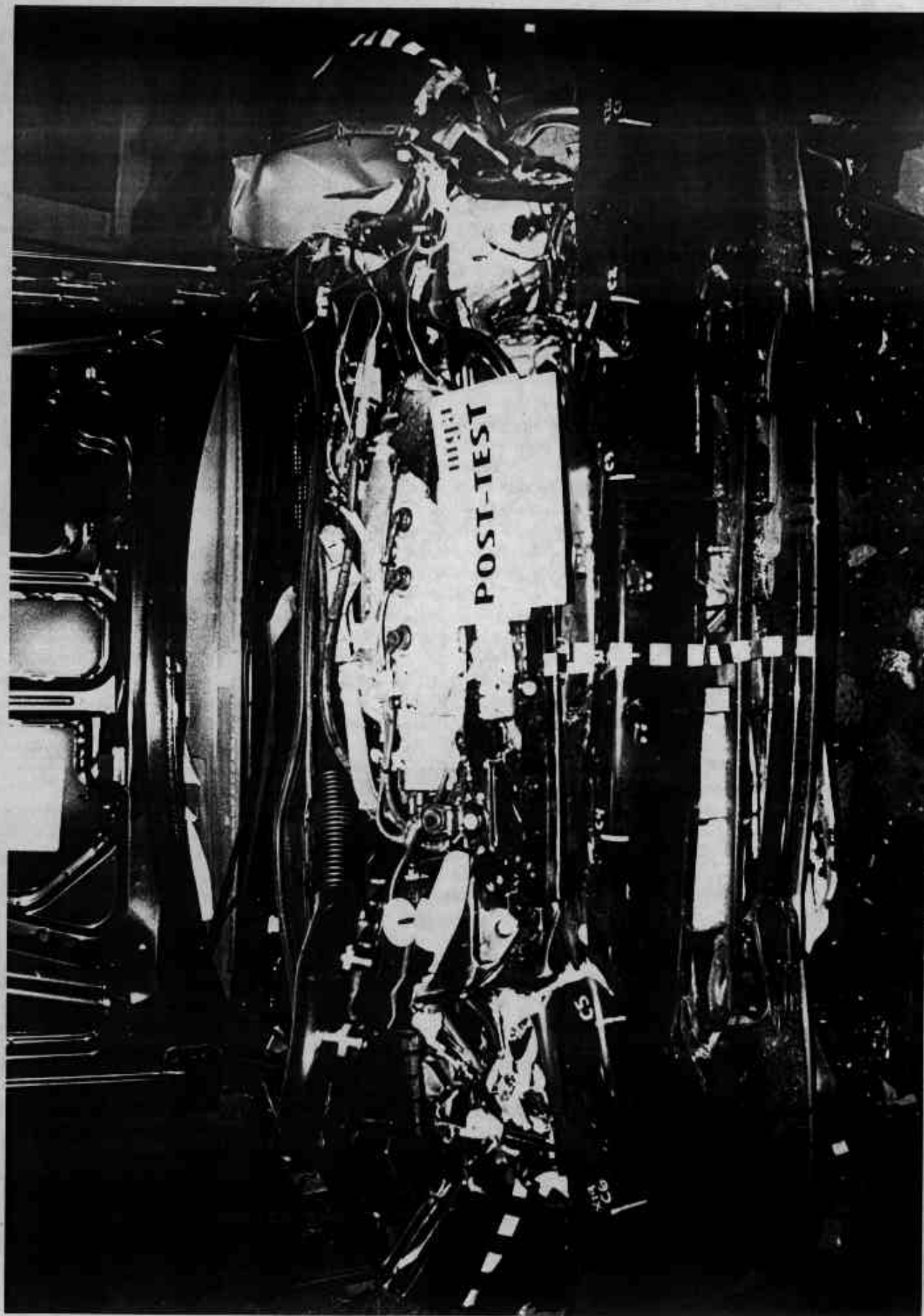
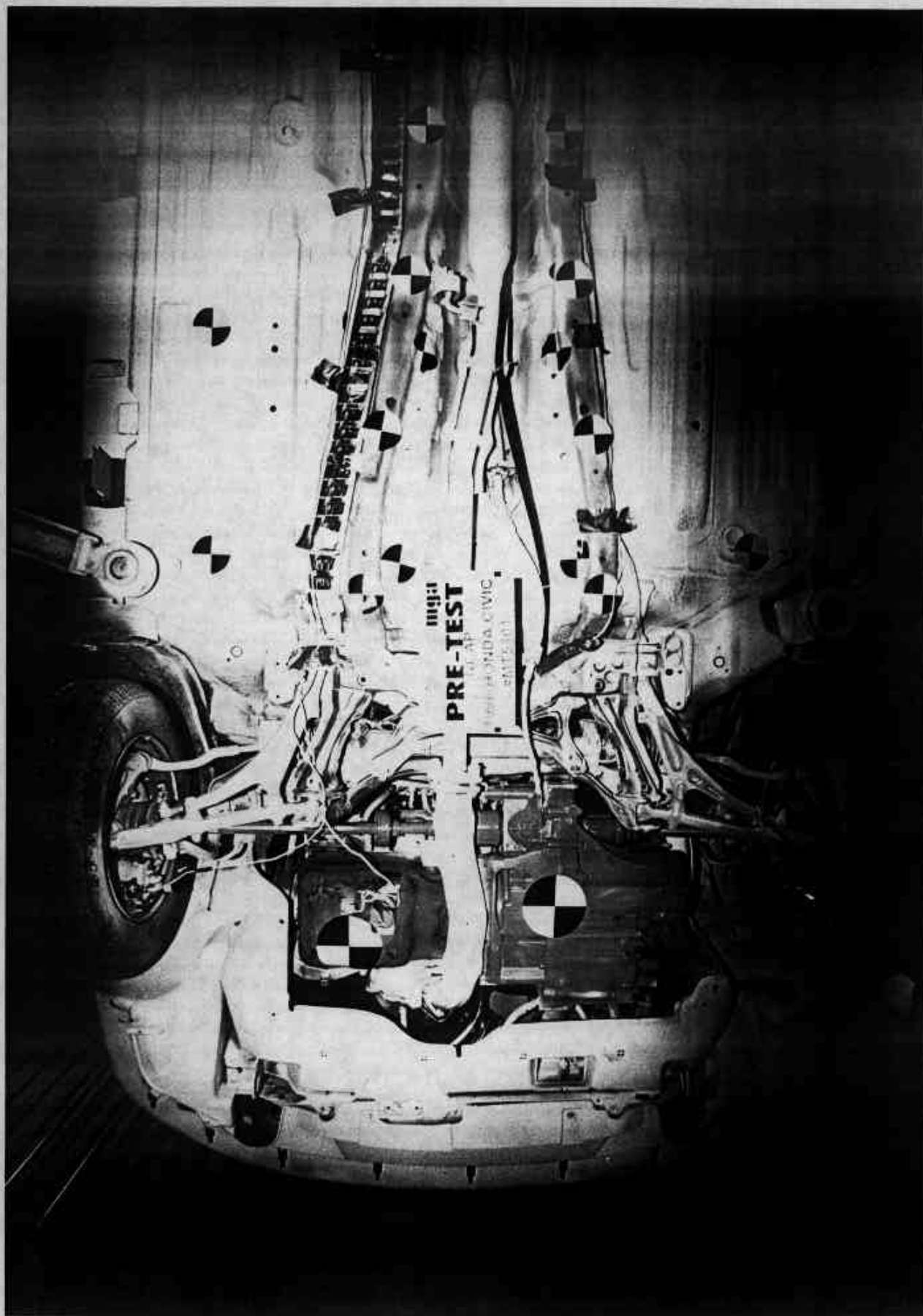


Photo No. A-14 - Pre-Test Engine Compartment View



A-15

Photo No. A-15 - Post-Test Engine Compartment View



A-16

Photo No. A-16 - Pre-Test Front Underbody View

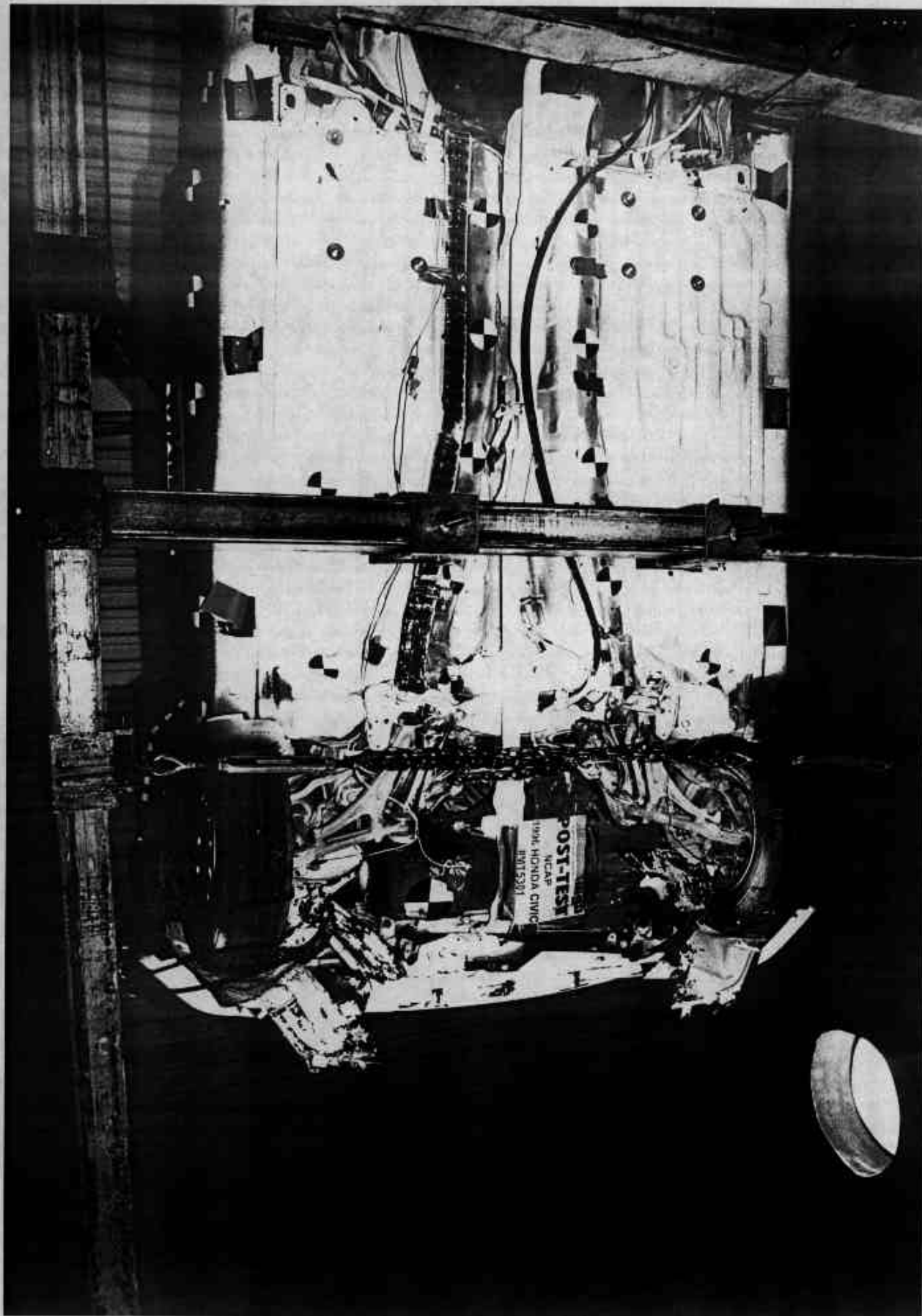


Photo No. A-17 - Post-Test Front Underbody View

A-17

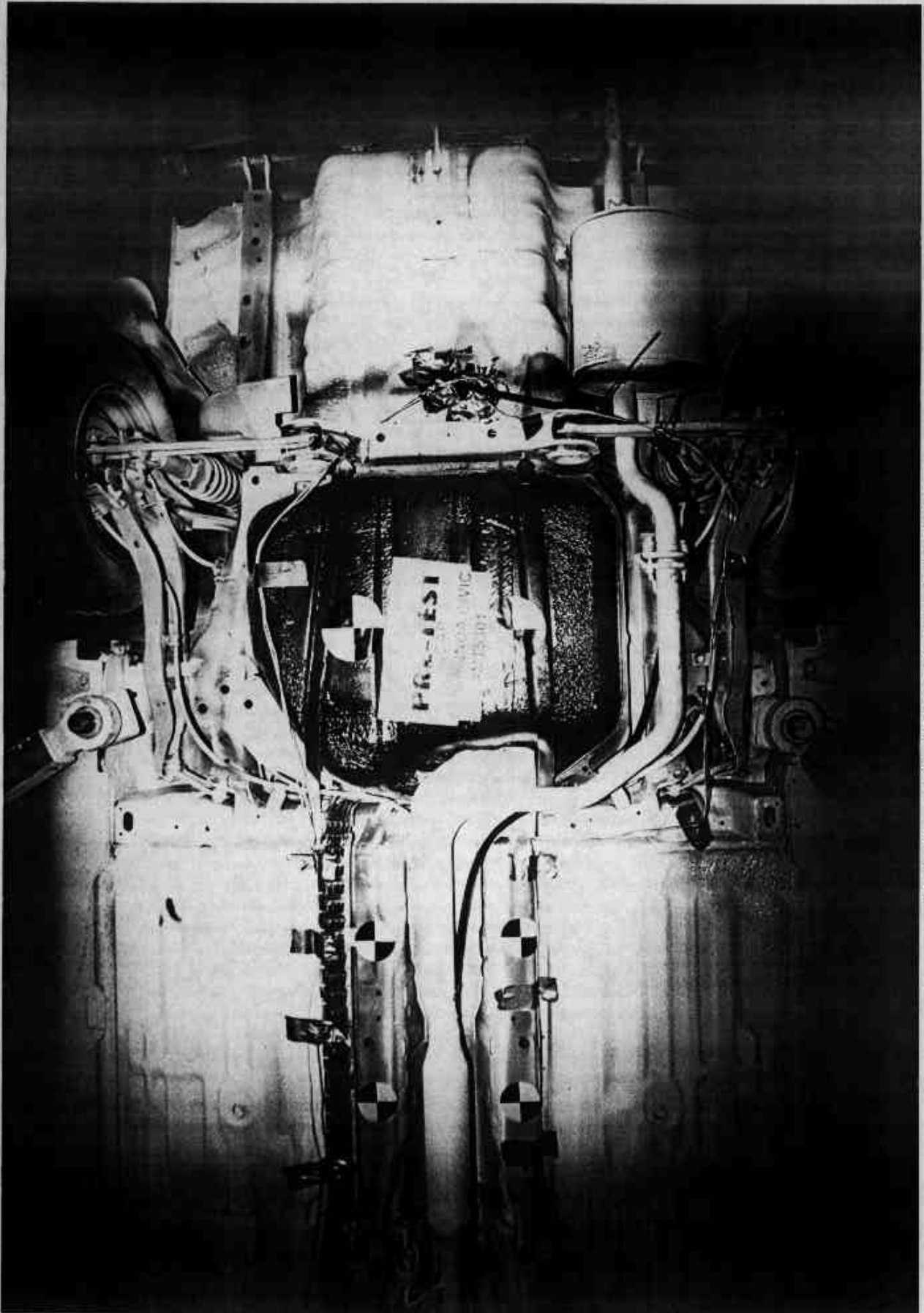


Photo No. A-18 - Pre-Test Rear Underbody View

A-18

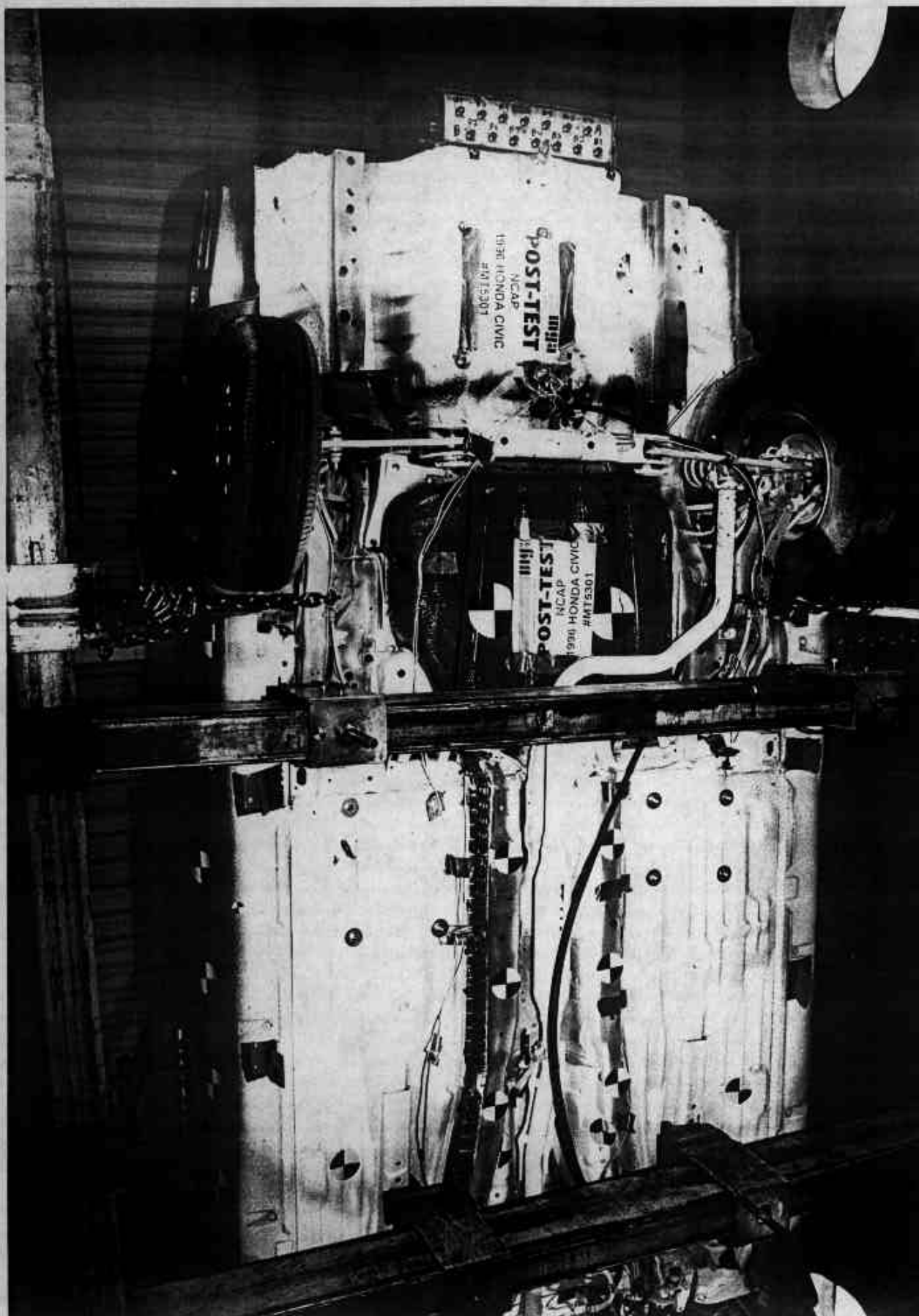
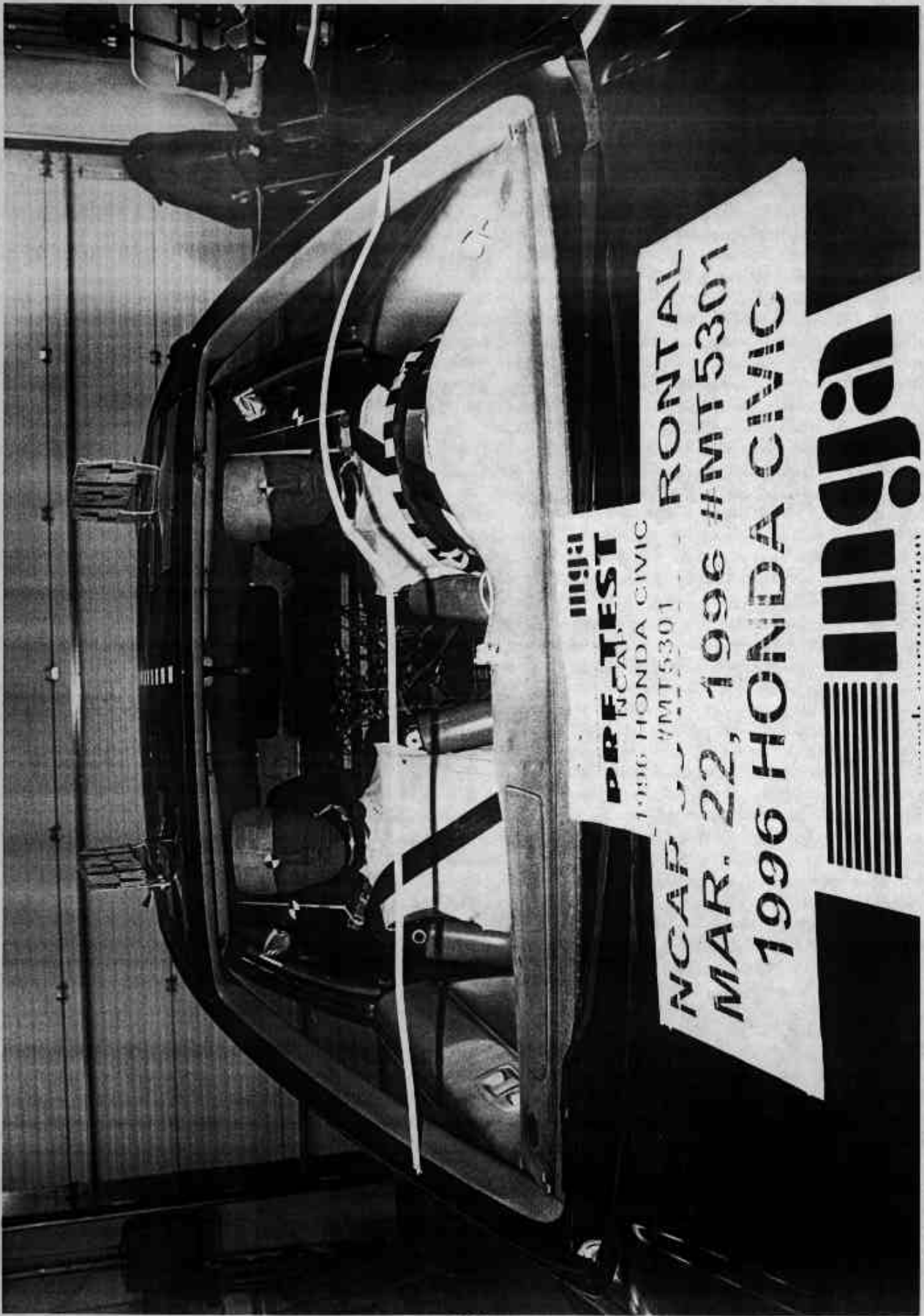


Photo No. A-19 - Post-Test Rear Underbody View



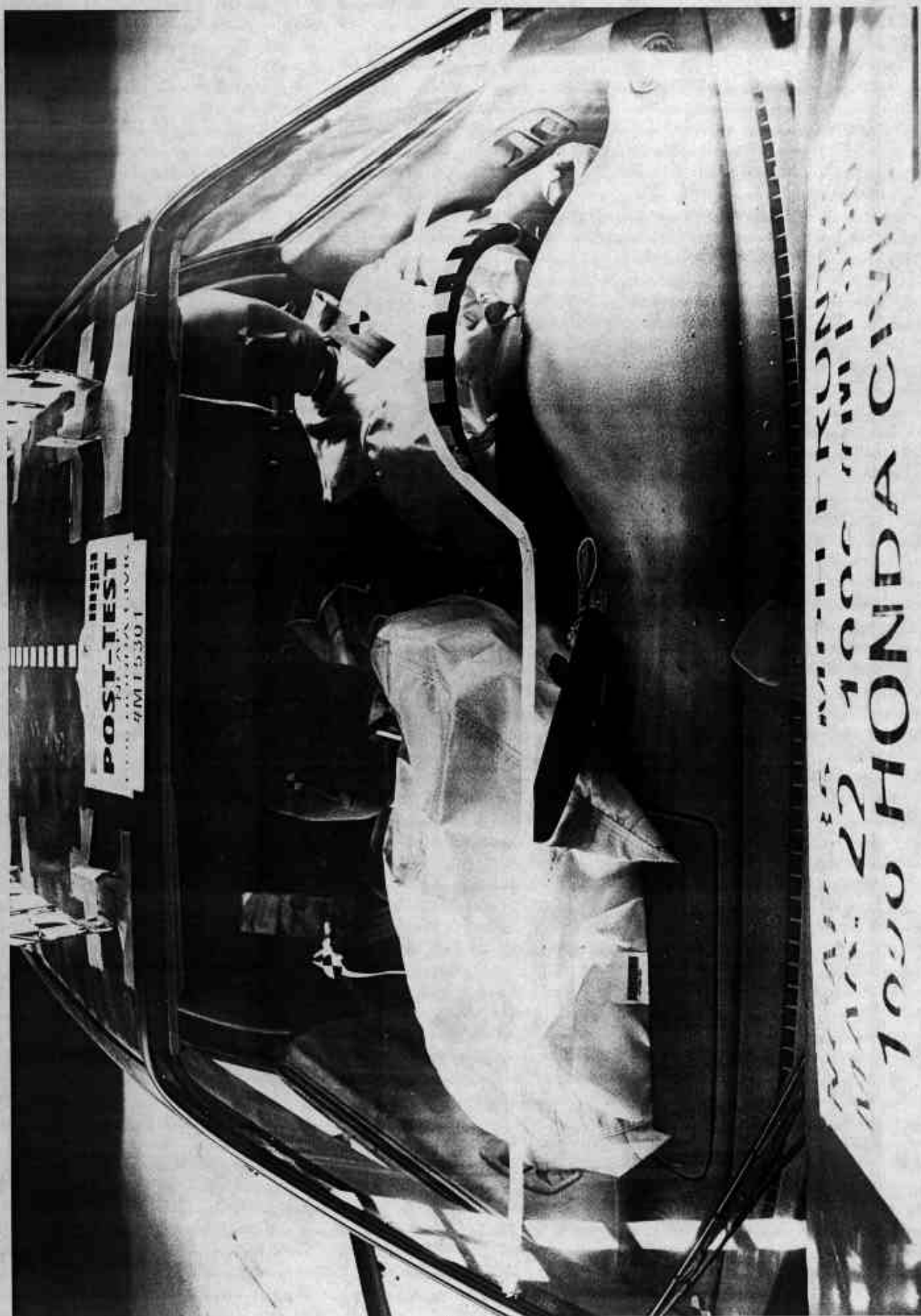
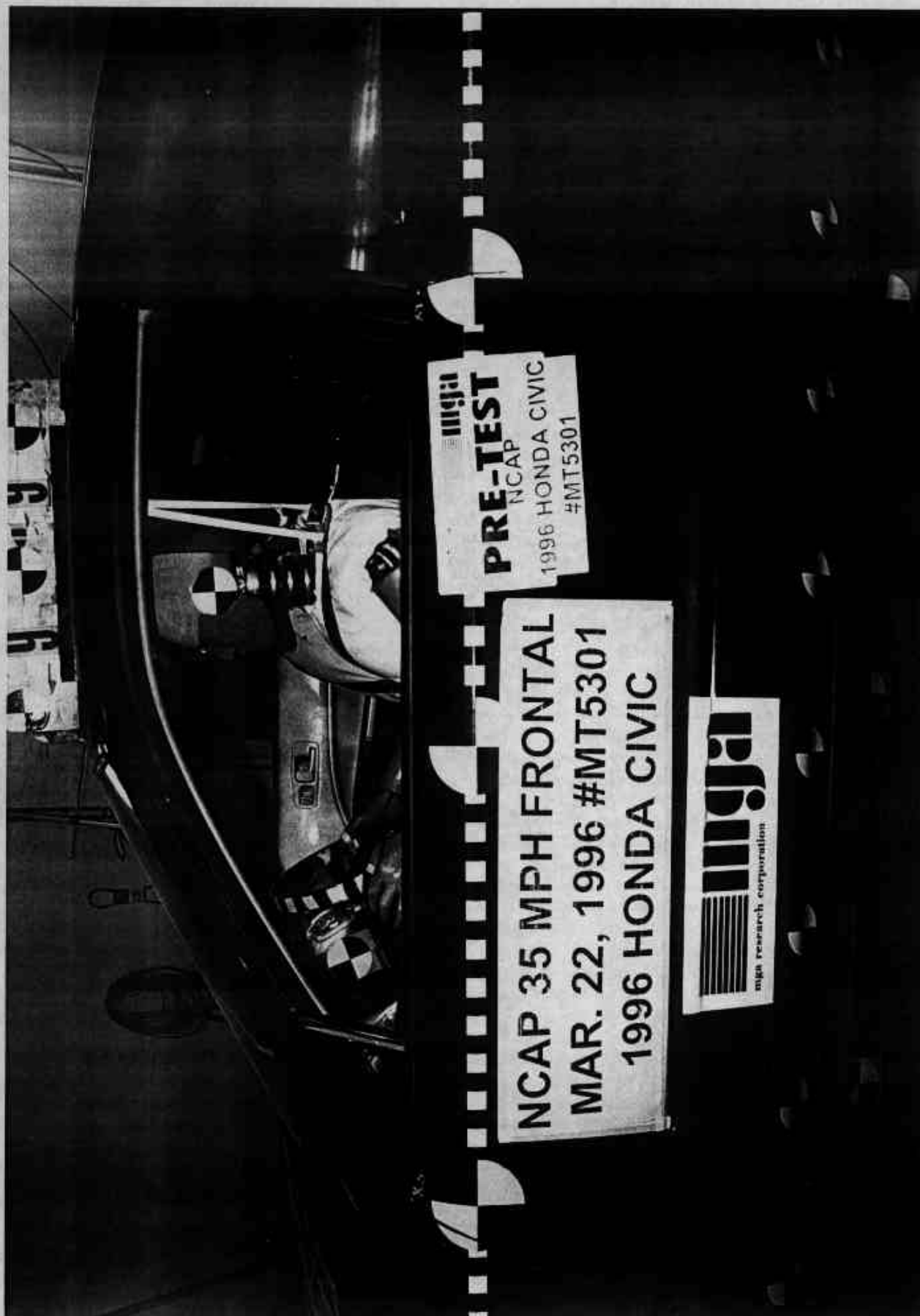


Photo No. A-21 - Post-Test Windshield View

A-21



A-22

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

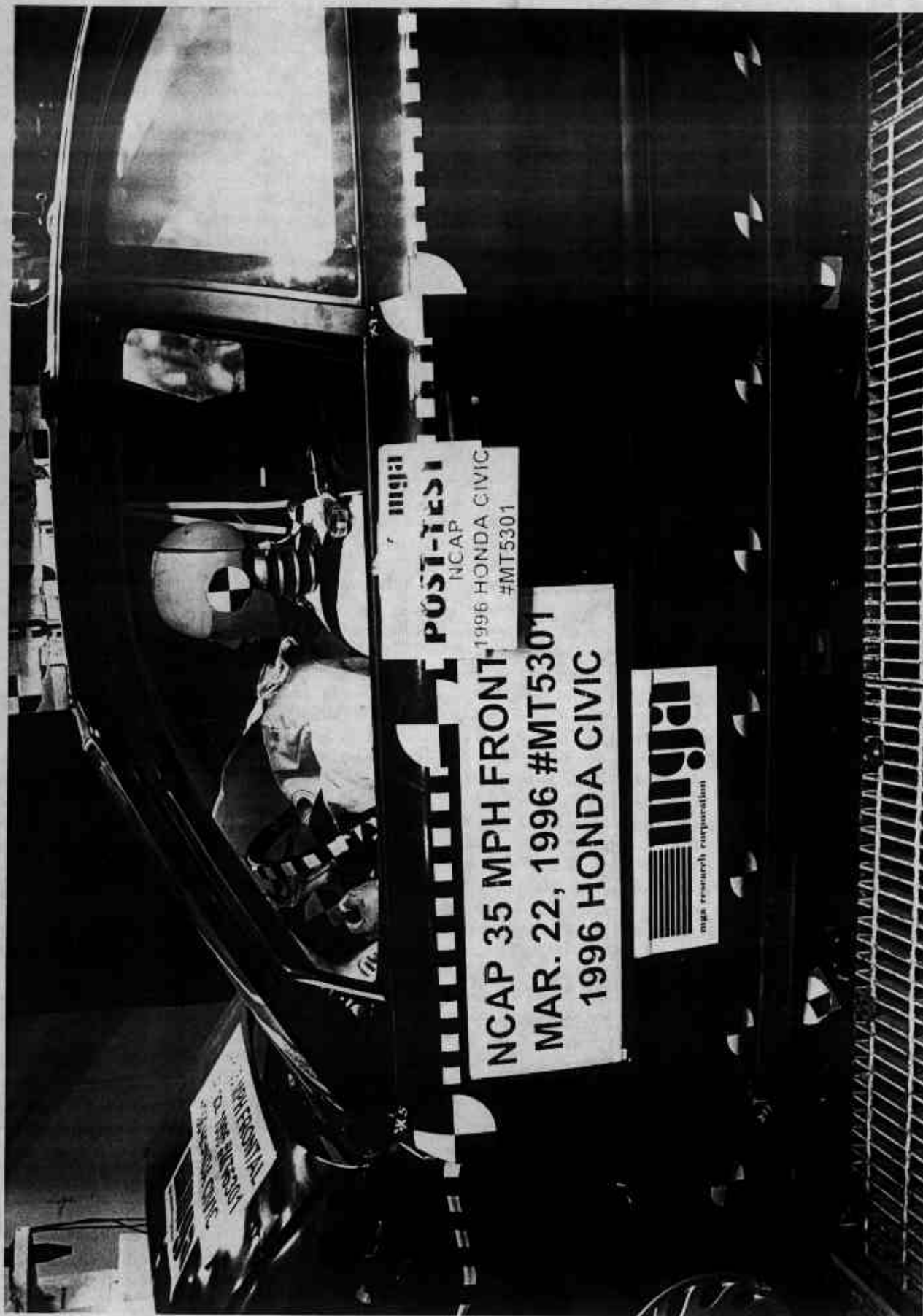


Photo No. A-23 - Post-Test Driver Dummy Position Left Side View



A-24

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

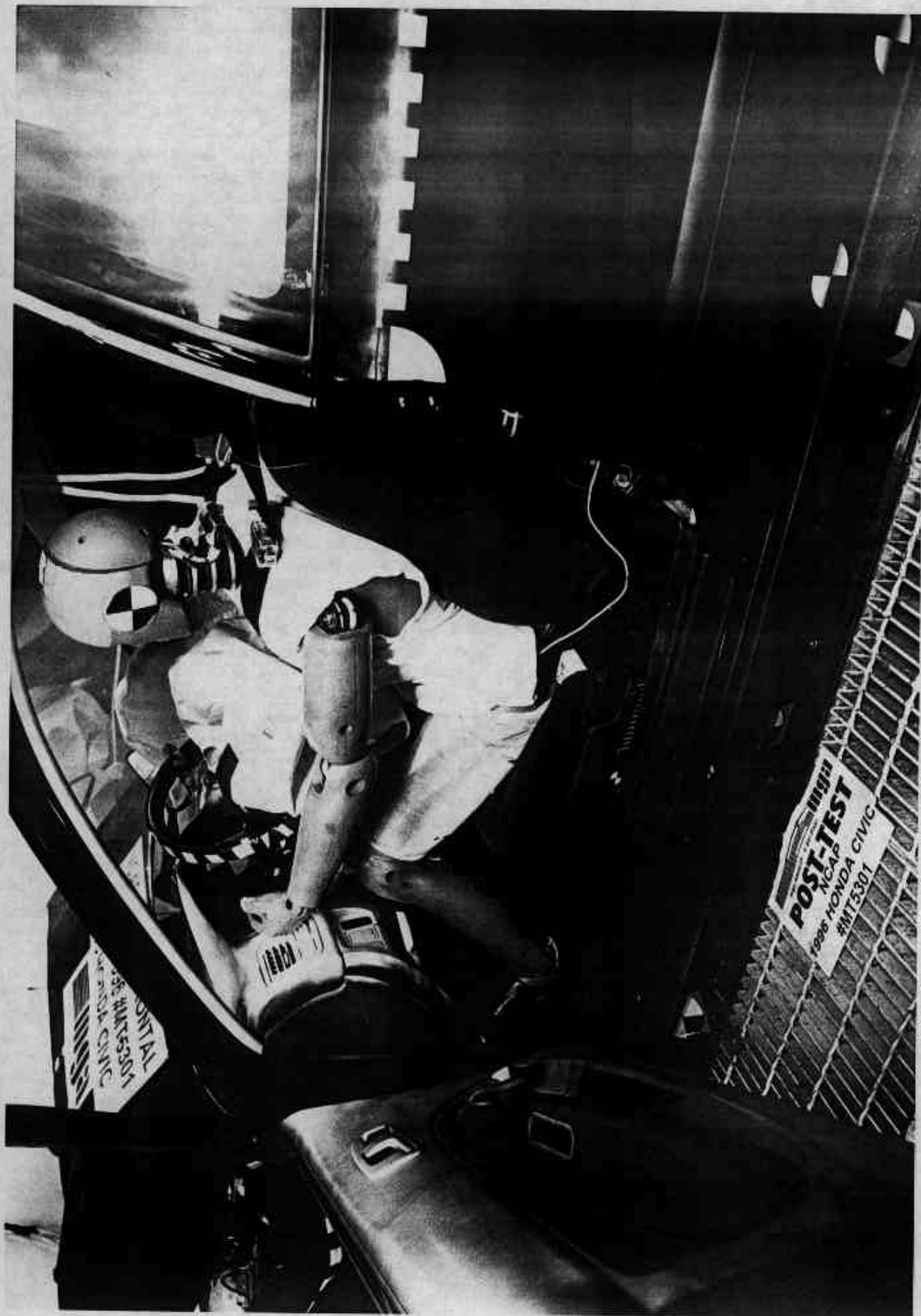


Photo No. A-25 - Post-Test Driver Dummy Position Left Side View (Door Open)



Photo No. A-26 - Pre-Test Driver Seat Position View

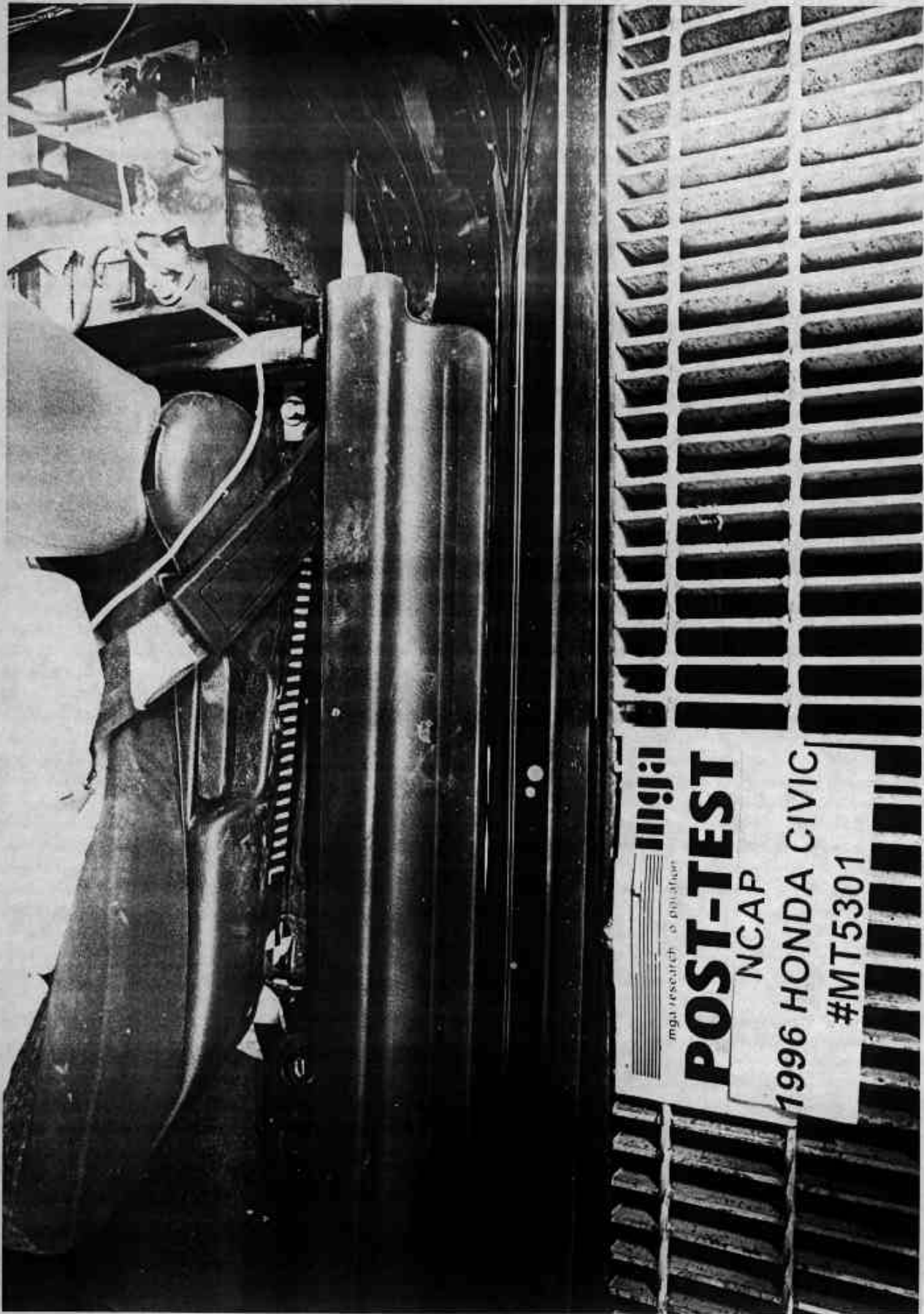


Photo No. A-27 - Post-Test Driver Seat Position View



Photo No. A-28 - Pre-Test Driver Dummy Knee Position



Photo No. A-29 - Post-Test Driver Dummy Knee Position



Photo No. A-30 - Post-Test Driver Airbag Contact

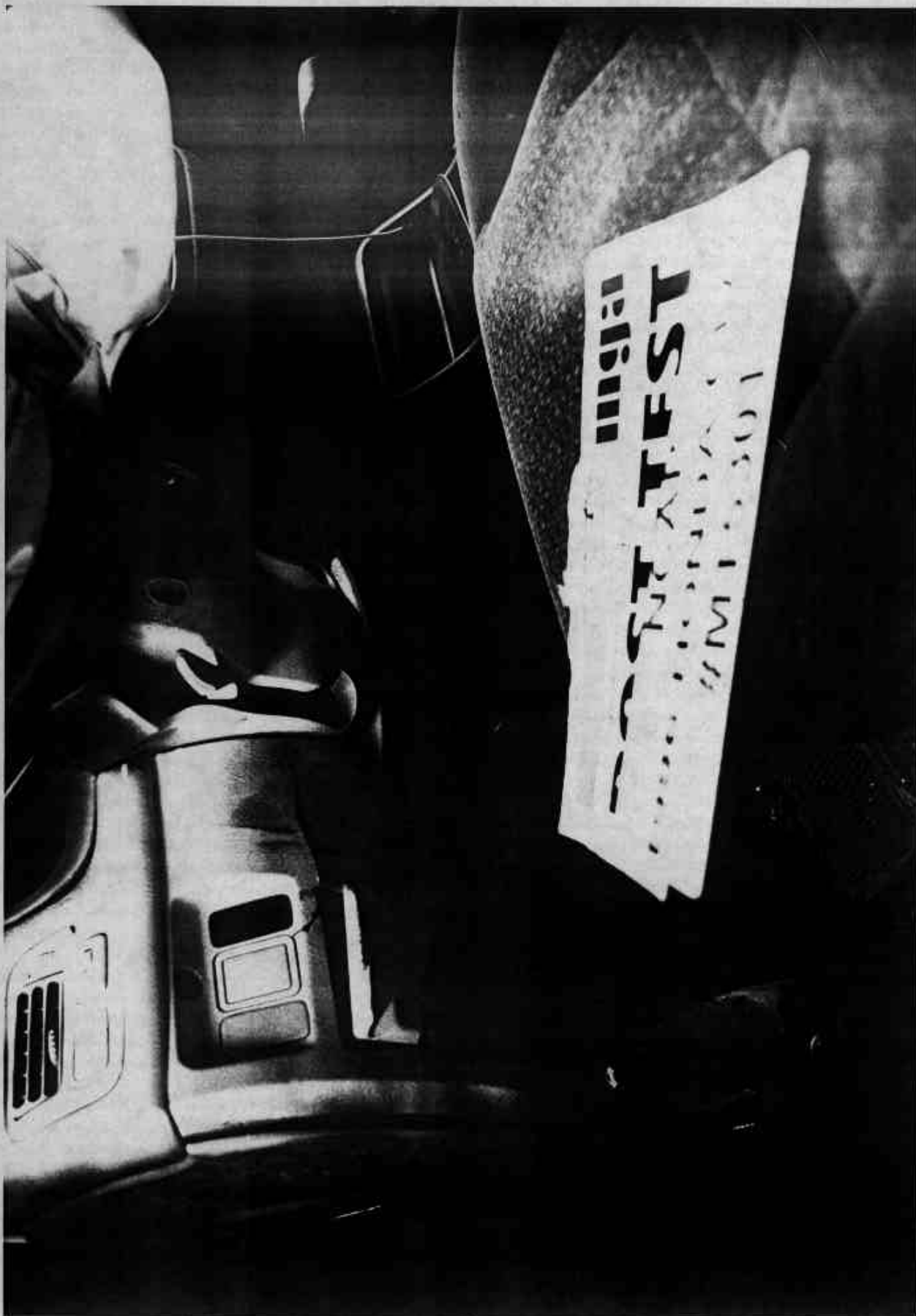
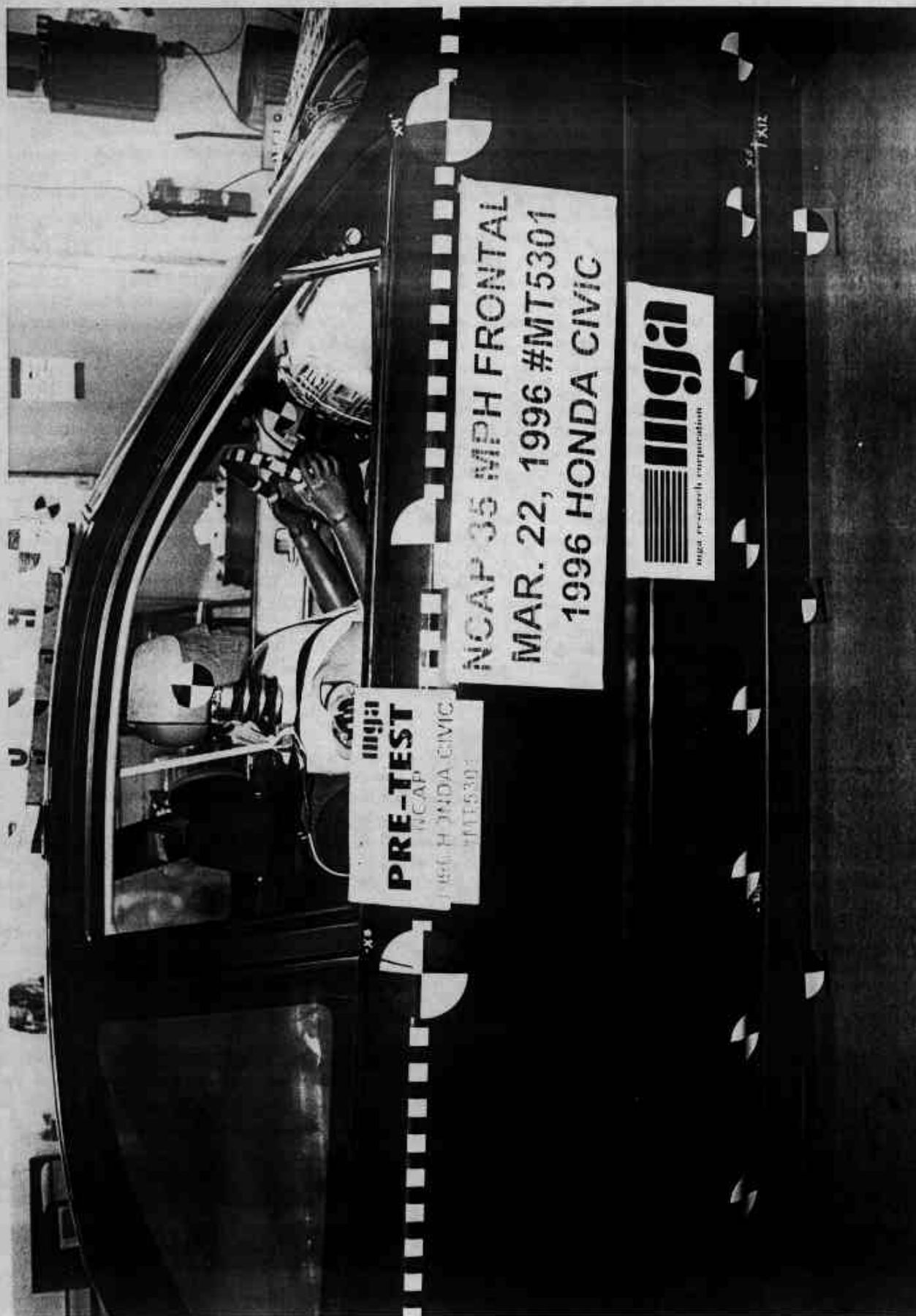


Photo No. A-31 - Post-Test Driver Knee Contact View



A-32

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



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



A-34

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

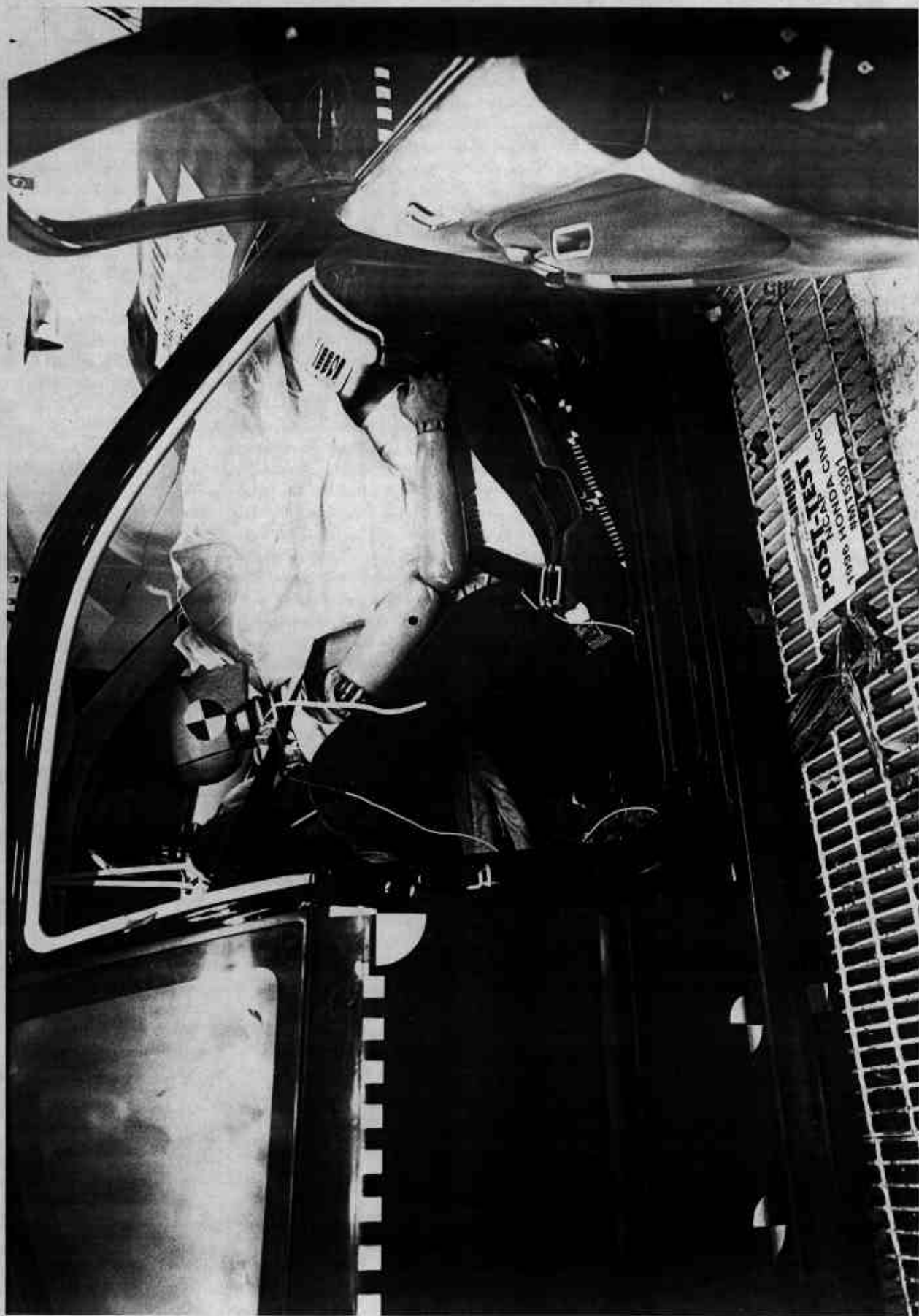


Photo No. A-35 - Post-Test Passenger Dummy Position Right Side View (Door Open)

A-35



Photo No. A-36 - Pre-Test Passenger Seat Position View



Photo No. A-37 - Post-Test Passenger Seat Position View



Photo No. A-38 - Pre-Test Passenger Dummy Knee Position



A-39

Photo No. A-39 - Post-Test Passenger Dummy Knee Position



Photo No. A-40 - Post-Test Passenger Airbag Contact



Photo No. A-41 - Post-Test Passenger Knee Contact View

A-41

OF AMERICA MFG., INC. 2/96
 S. GAWR F 1730LBS R 1570LBS
 LE CONFORMS TO ALL APPLICABLE
 MOTOR VEHICLE SAFETY, BUMPER,
 AND THEFT PREVENTION STANDARDS IN EFFECT
 ON THE DATE OF MANUFACTURE SHOWN ABOVE:

V.I.N. 1HGEJ6228TL035197



MADE IN U.S.A.

PASSENGER CAR

TIRE INFORMATION

VEHICLE CAPACITY WEIGHT			850 Lbs
TOTAL	5	FRONT	2
		REAR	3

SEE OWNER'S
 MANUAL FOR
 ADDITIONAL
 INFORMATION

SEATING CAPACITY		COLD TIRE INFLATION PRESSURE	
RECOMMENDED TIRE SIZE		FRONT	220kPa, 32psi
		REAR	220kPa, 32psi

P175/70R13 82S

UP TO VEHICLE CAPACITY WEIGHT	
COMPACT SPARE TIRE	415kPa, 60psi
T105/80D13	

42762-S01-A000

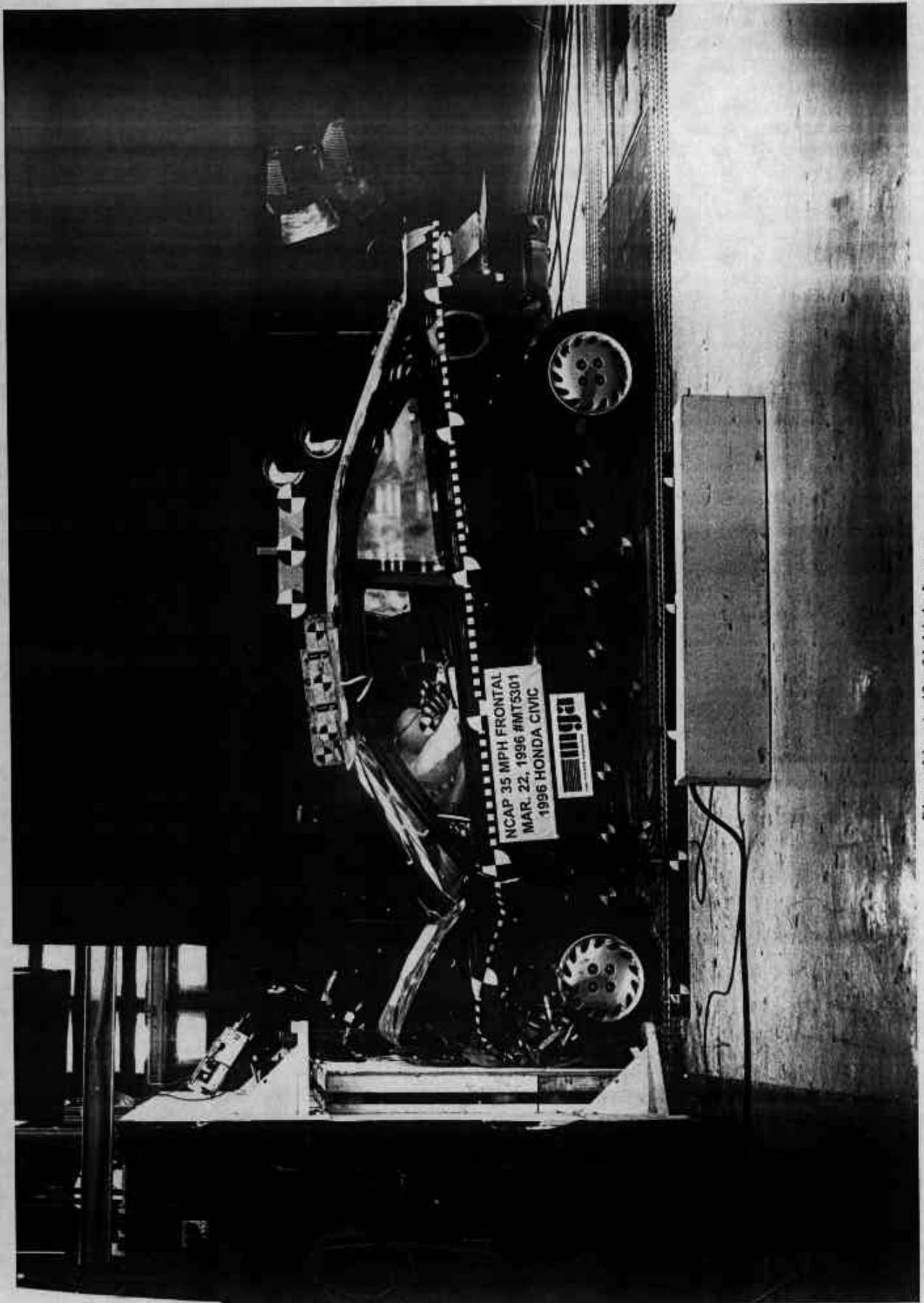


Photo No. A-43 - Vehicle Impact

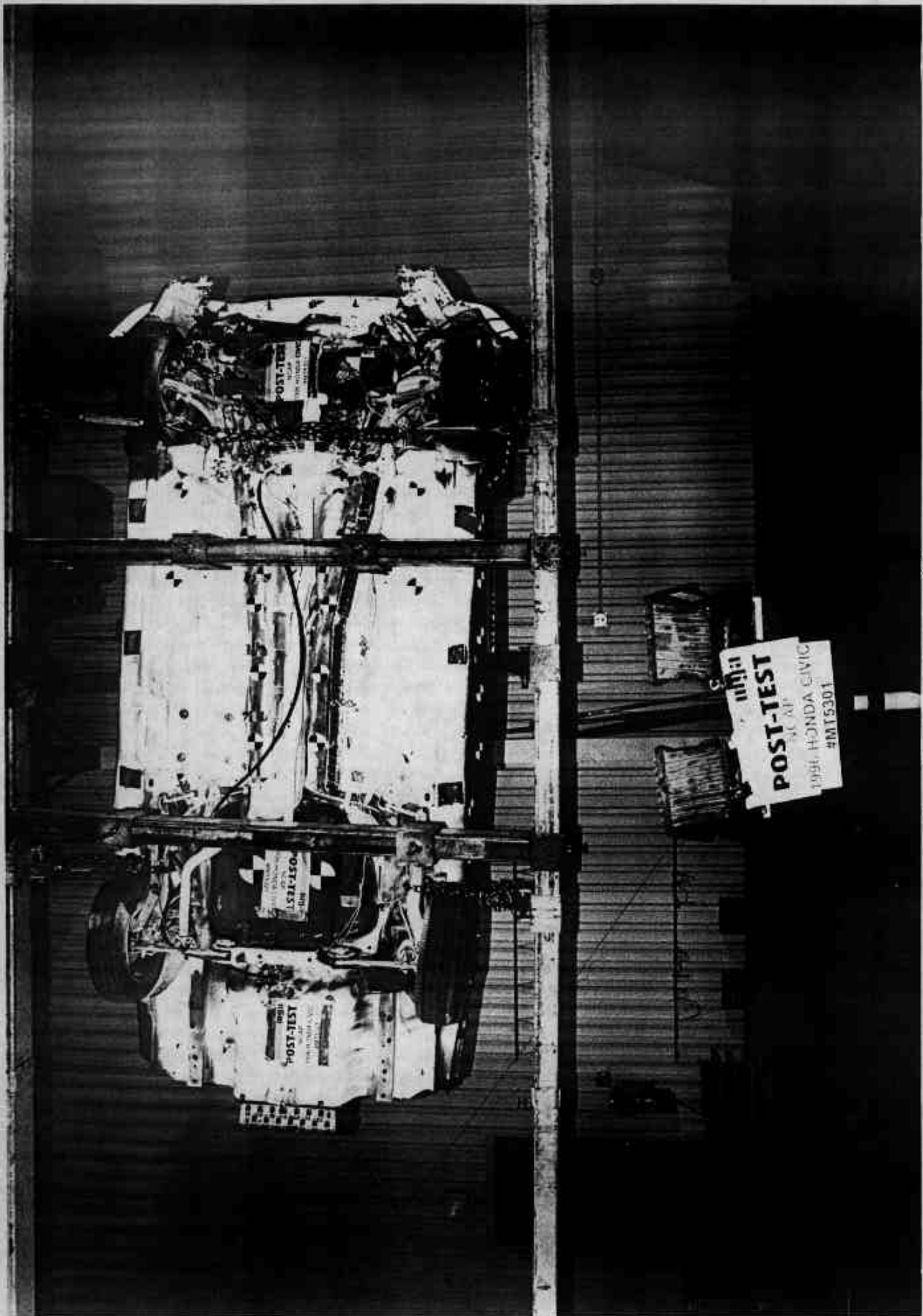


Photo No. A-44 - Rollover 90°

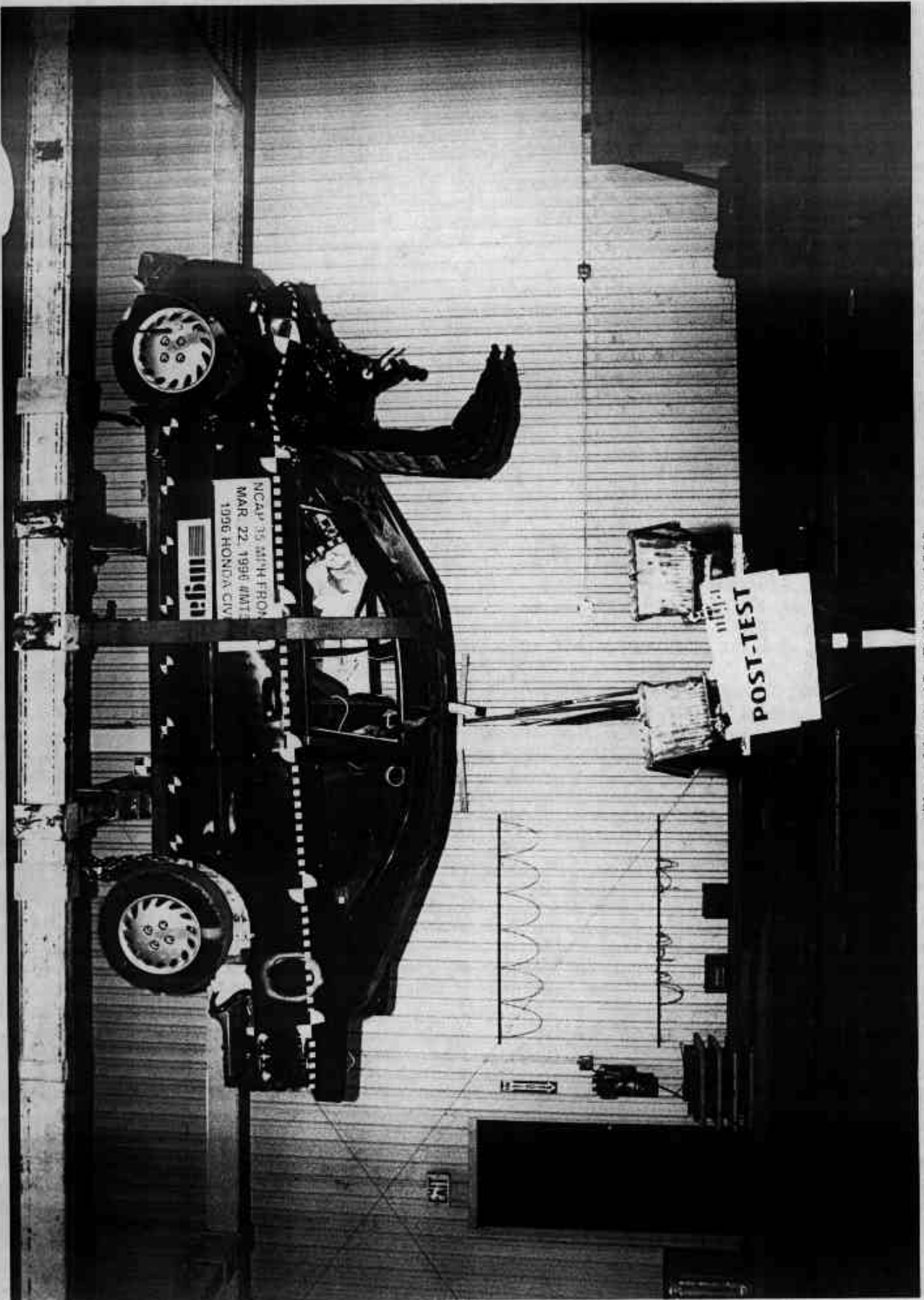


Photo No. A-45 - Rollover 180°

A-45

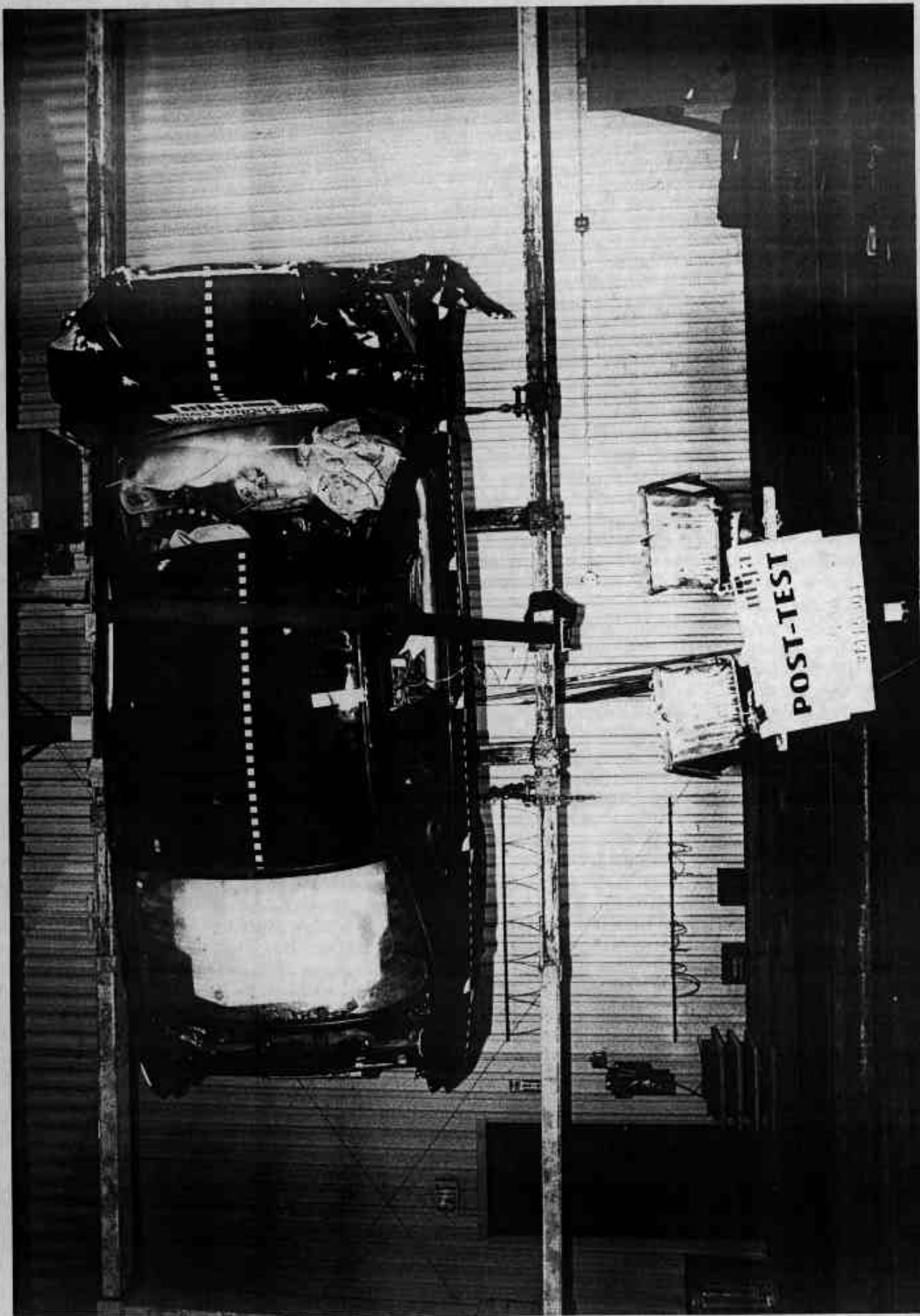
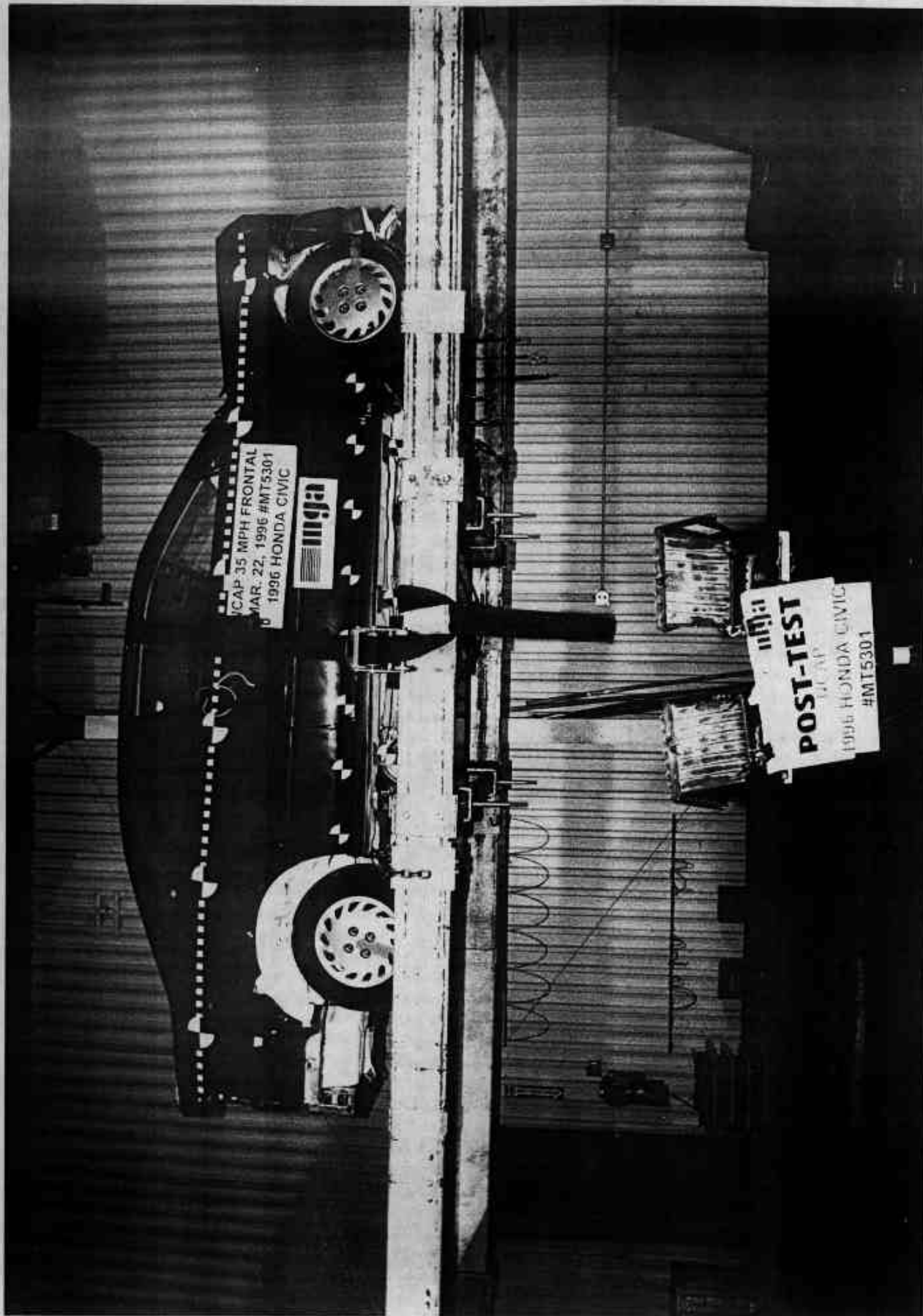


Photo No. A-46 - Rollover 270°

A-46



A-47

Photo No. A-47 - Rollover 360°

APPENDIX B

Vehicle, Load Cell Barrier and Dummy Response Data

1996 Honda Civic 2 Door

NHTSA NO.: CT5301

VEHICLE DATA FILTER CHANNEL CLASS

Head Accelerations 1000 (1650 Hz)

Chest Accelerations 180 (300 Hz)

Vehicle Accelerations 60 (100 Hz)

Barrier Load Cells 60 (100 Hz)

Femur Load Cells 600 (1000 Hz)

Lap and Torso Belts 60 (100 Hz)

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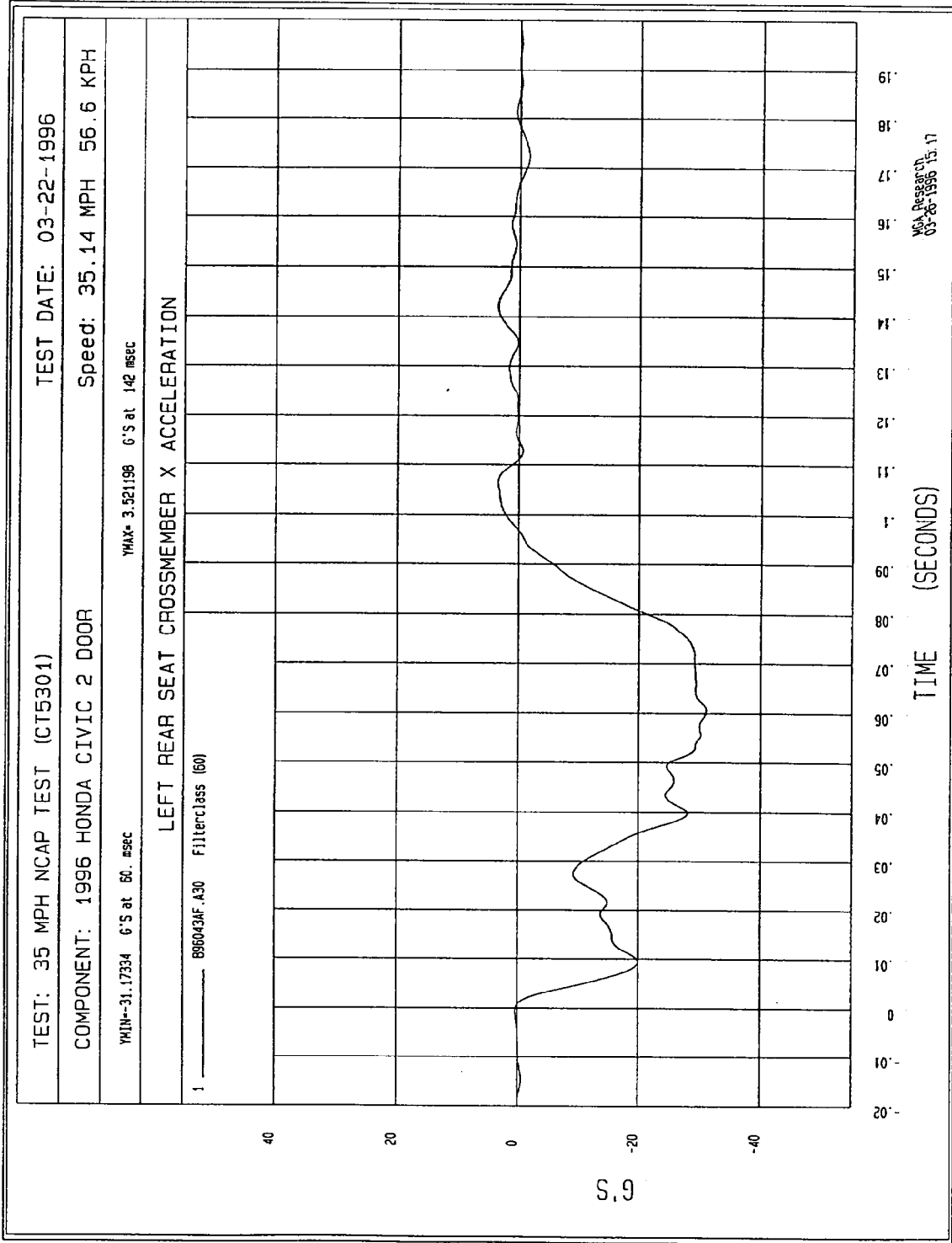
Figure B-147 - Passenger Right Foot Heel Z Acceleration vs. Time

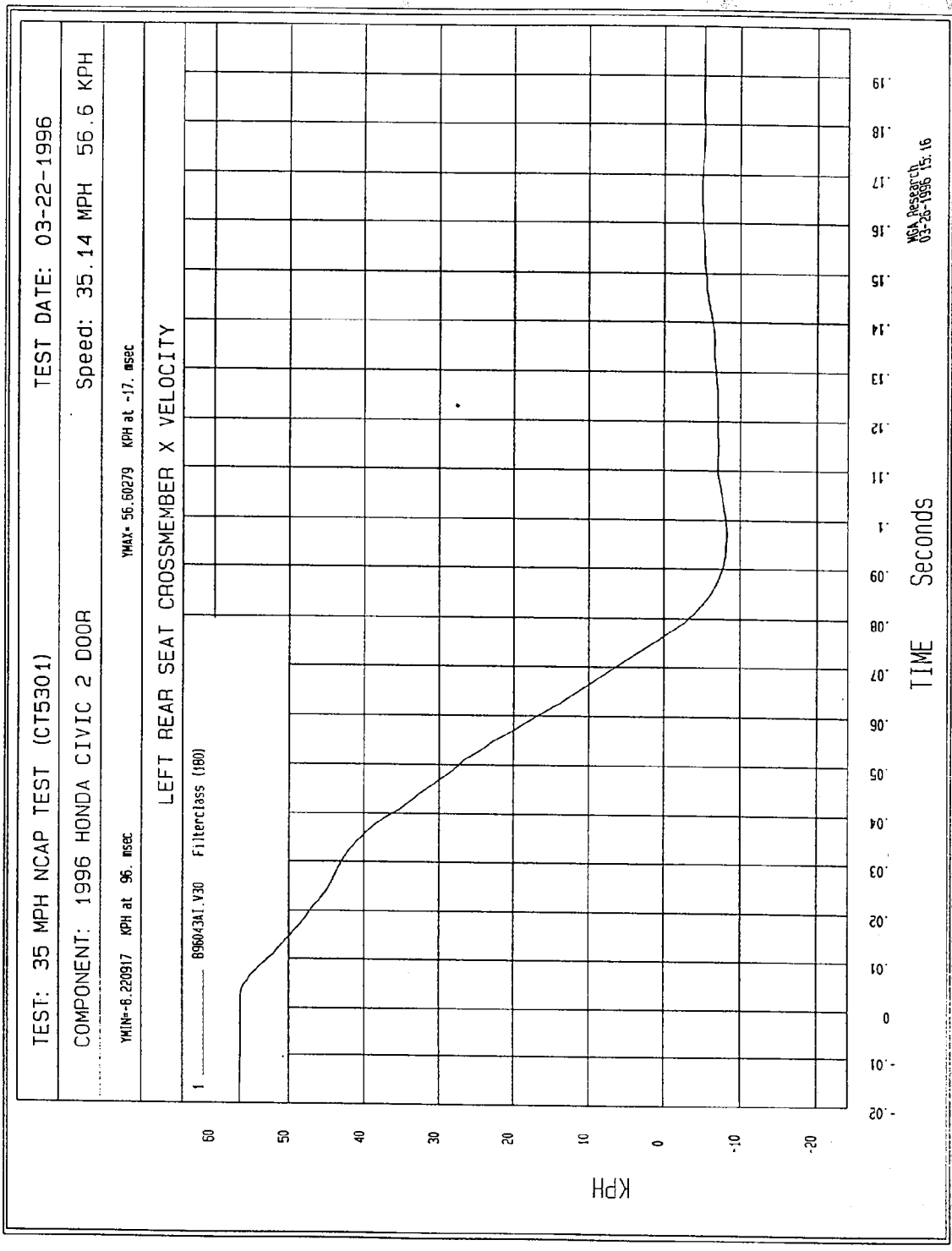
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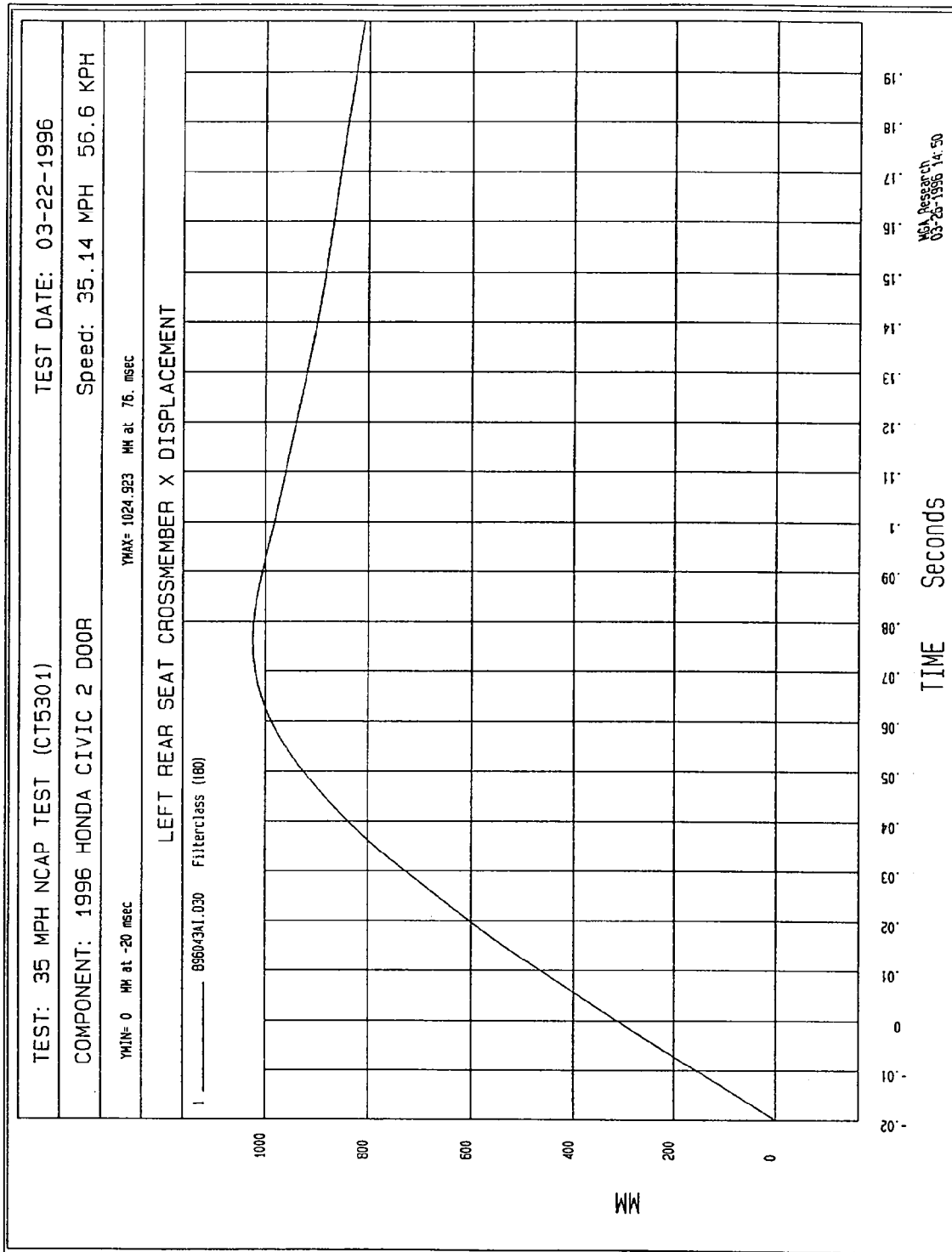
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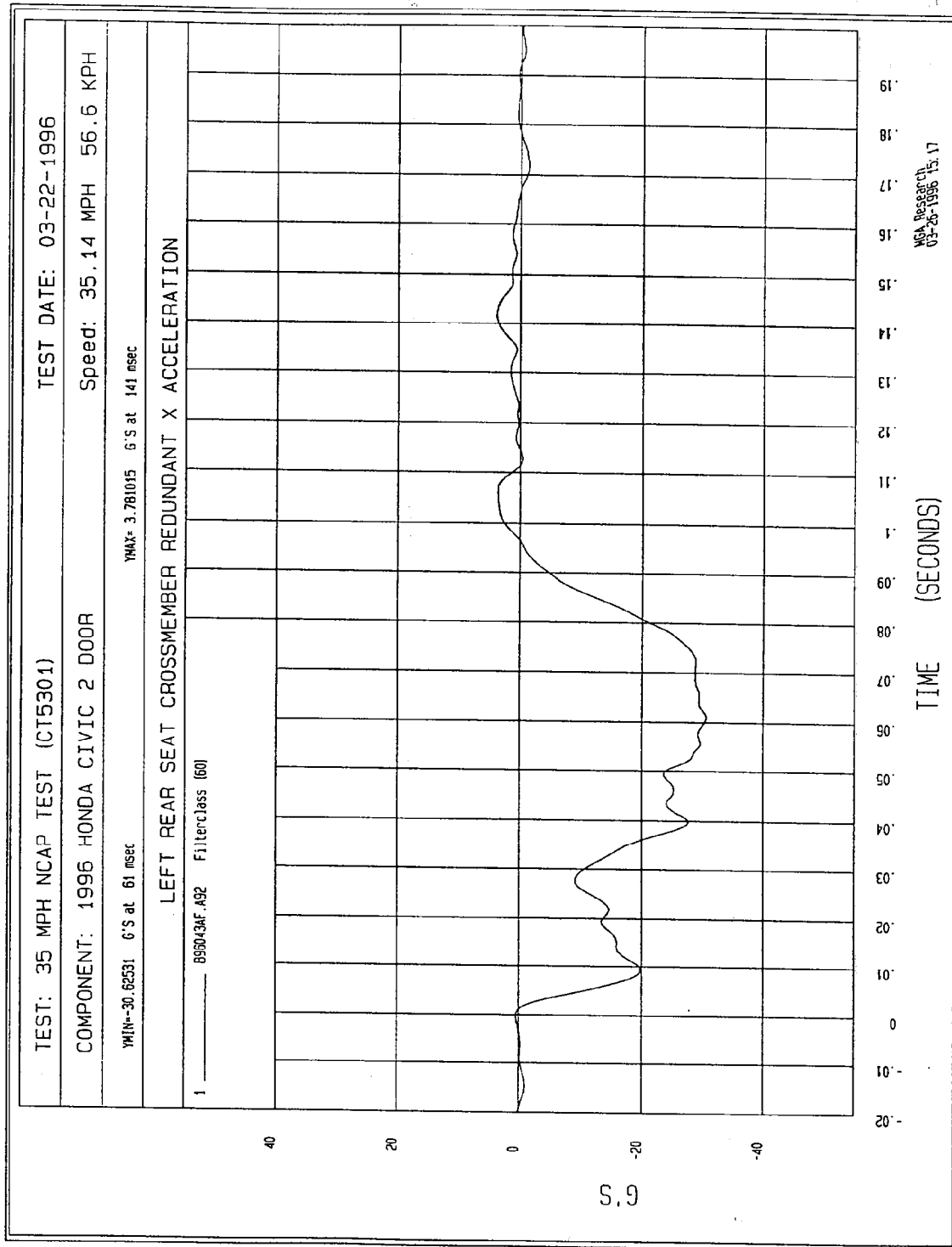
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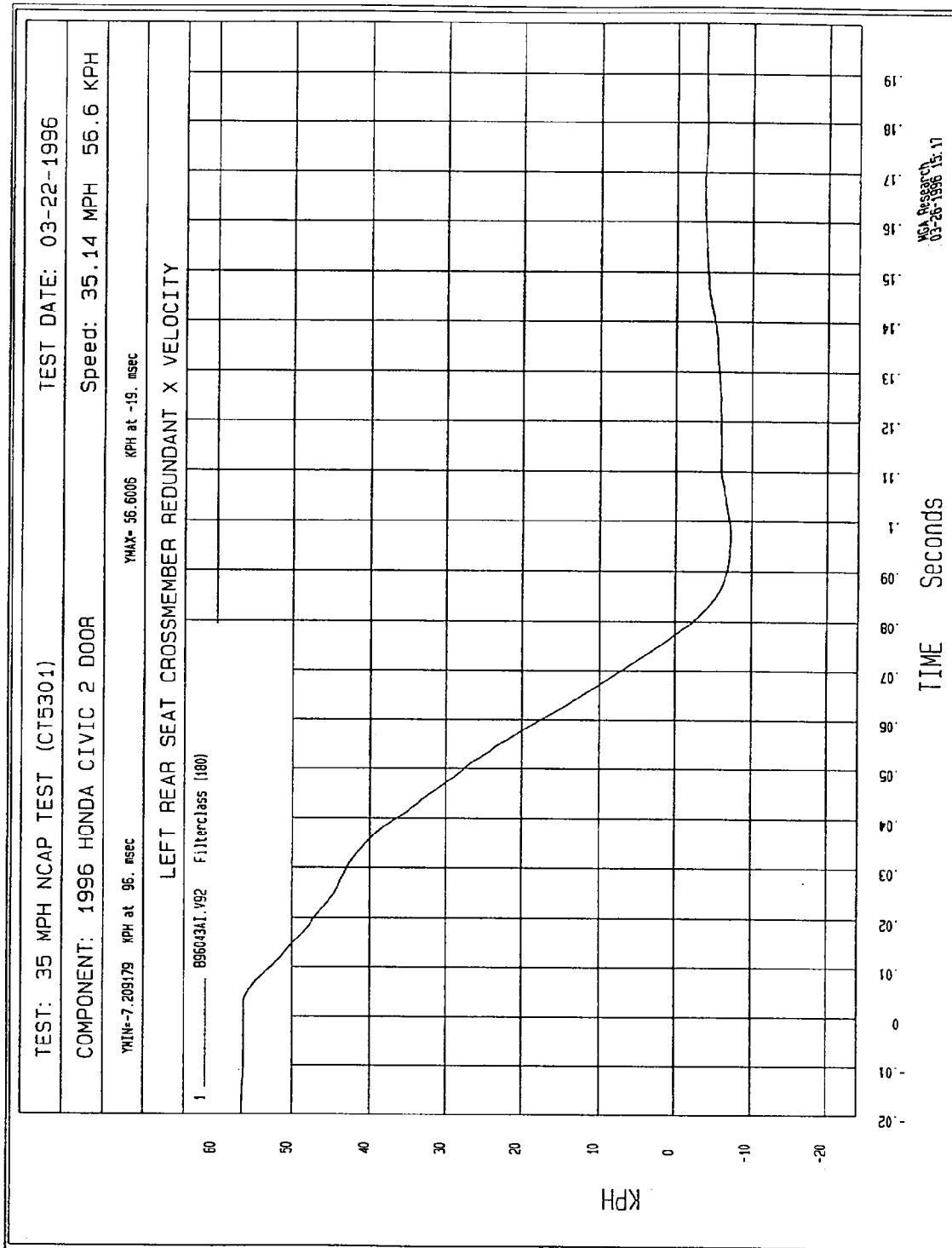
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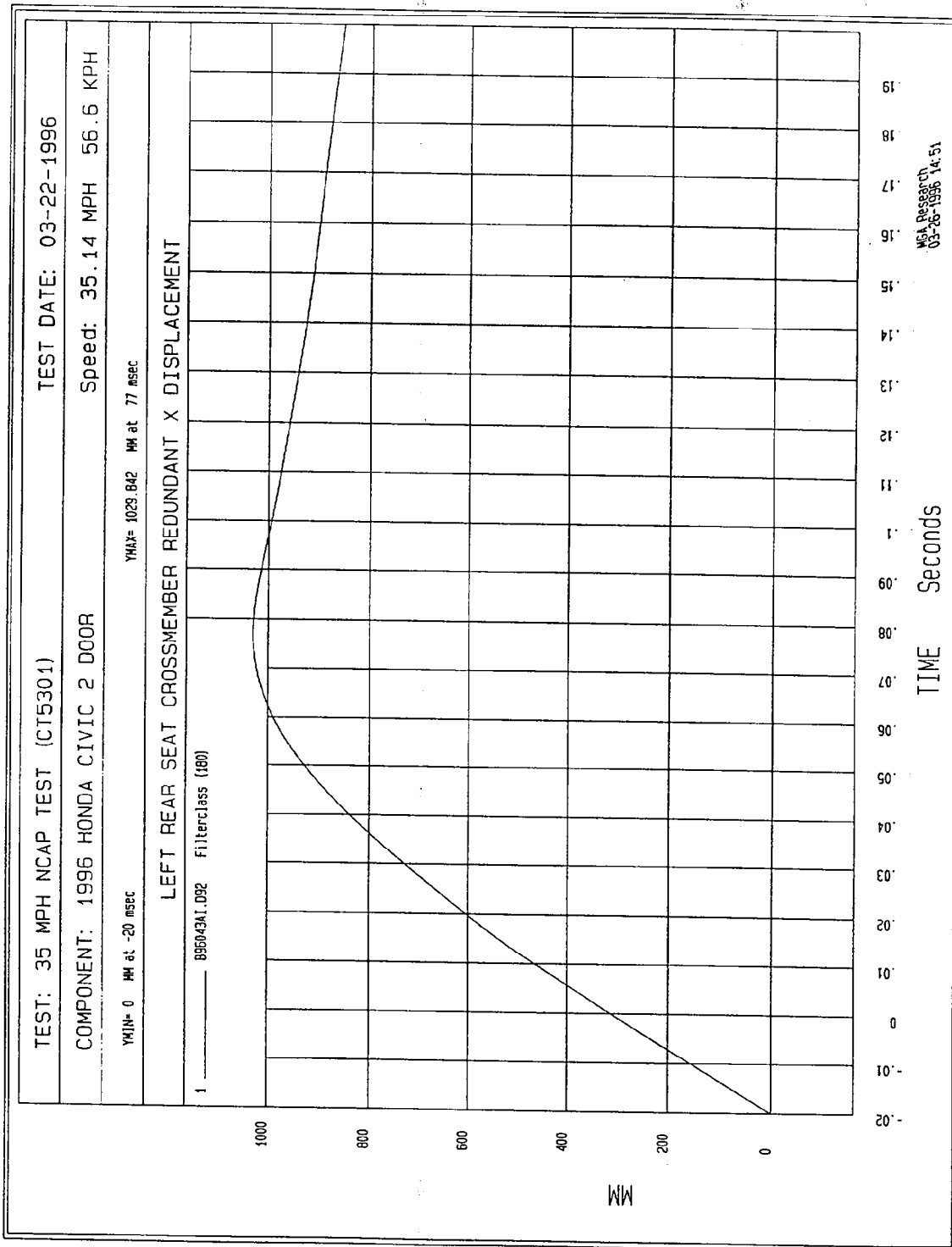


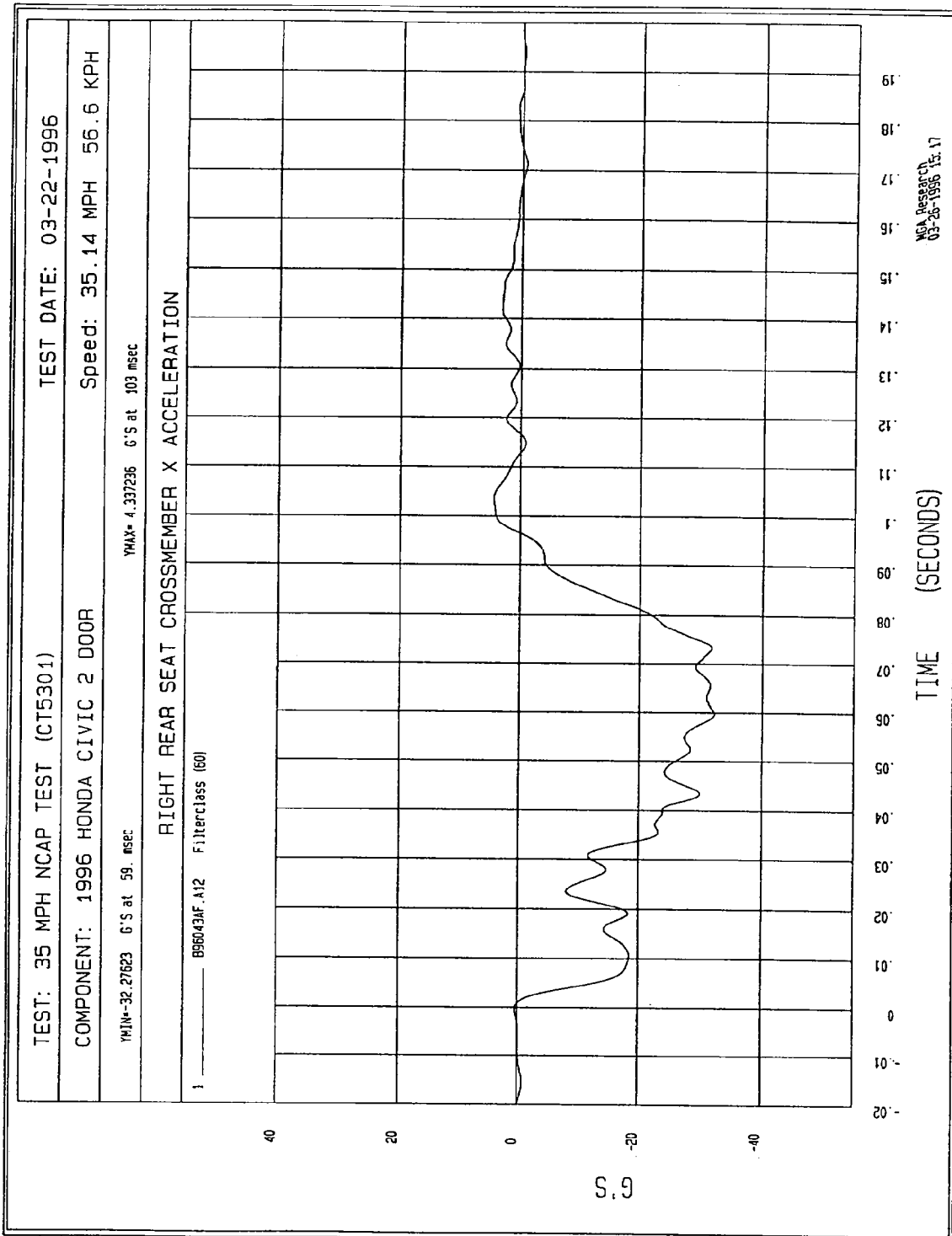


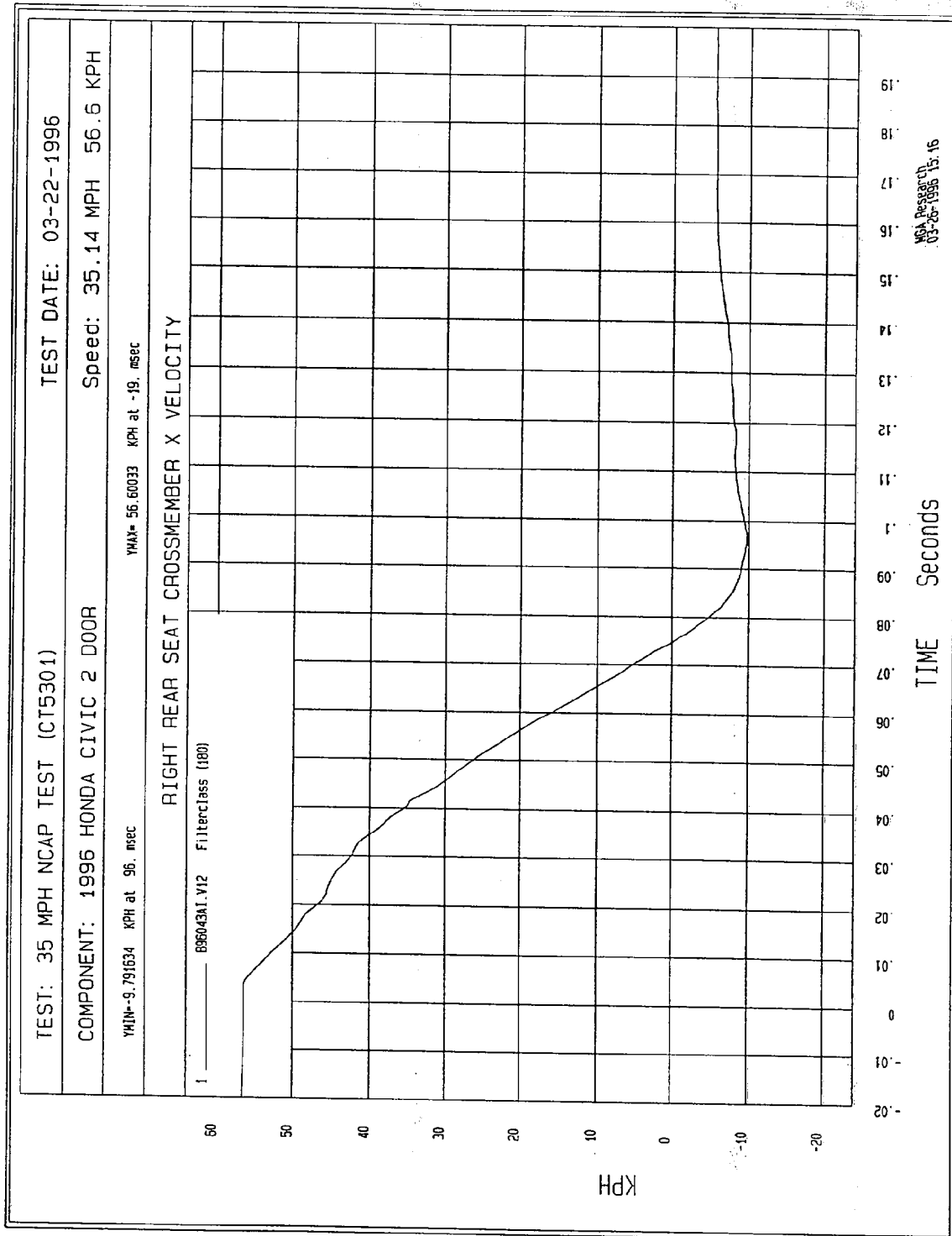


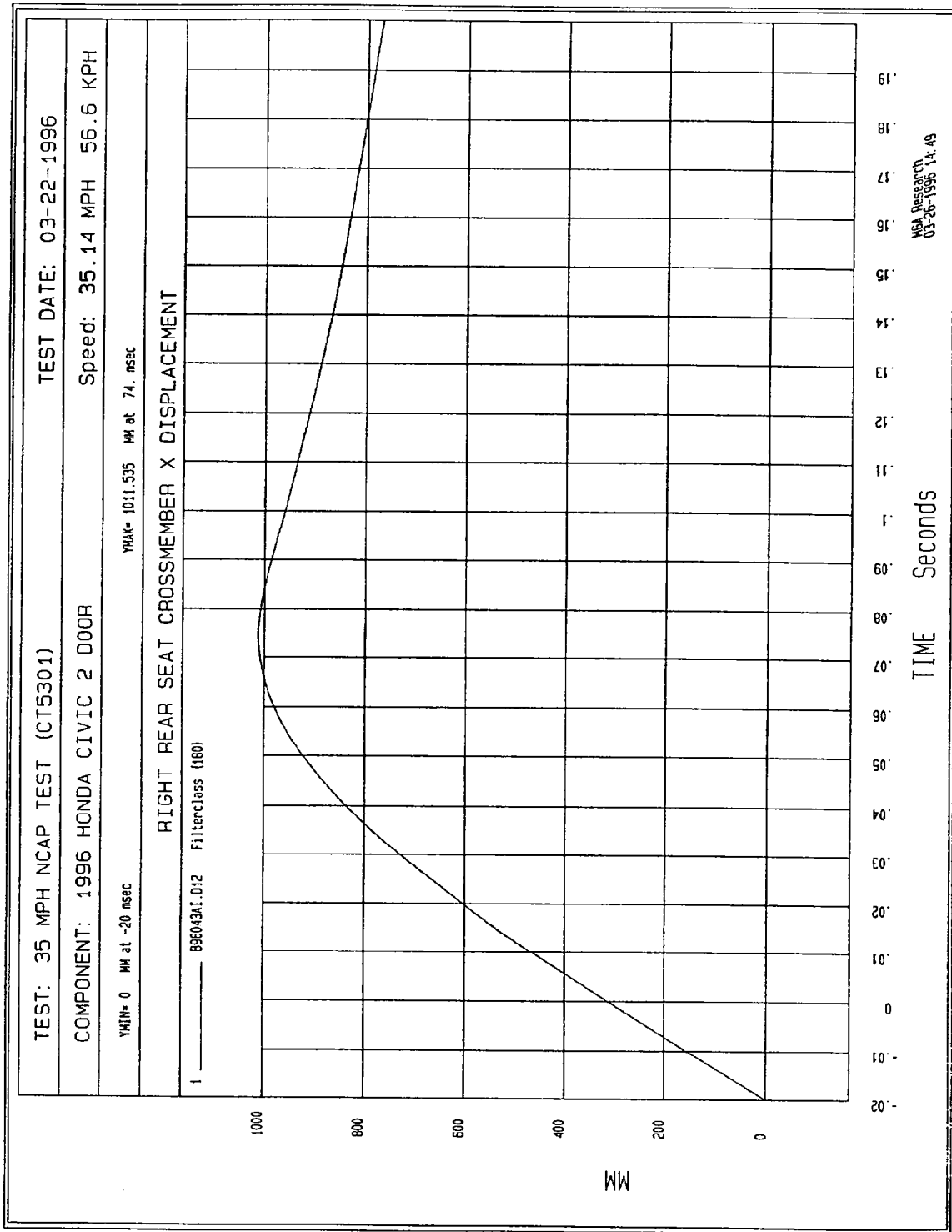


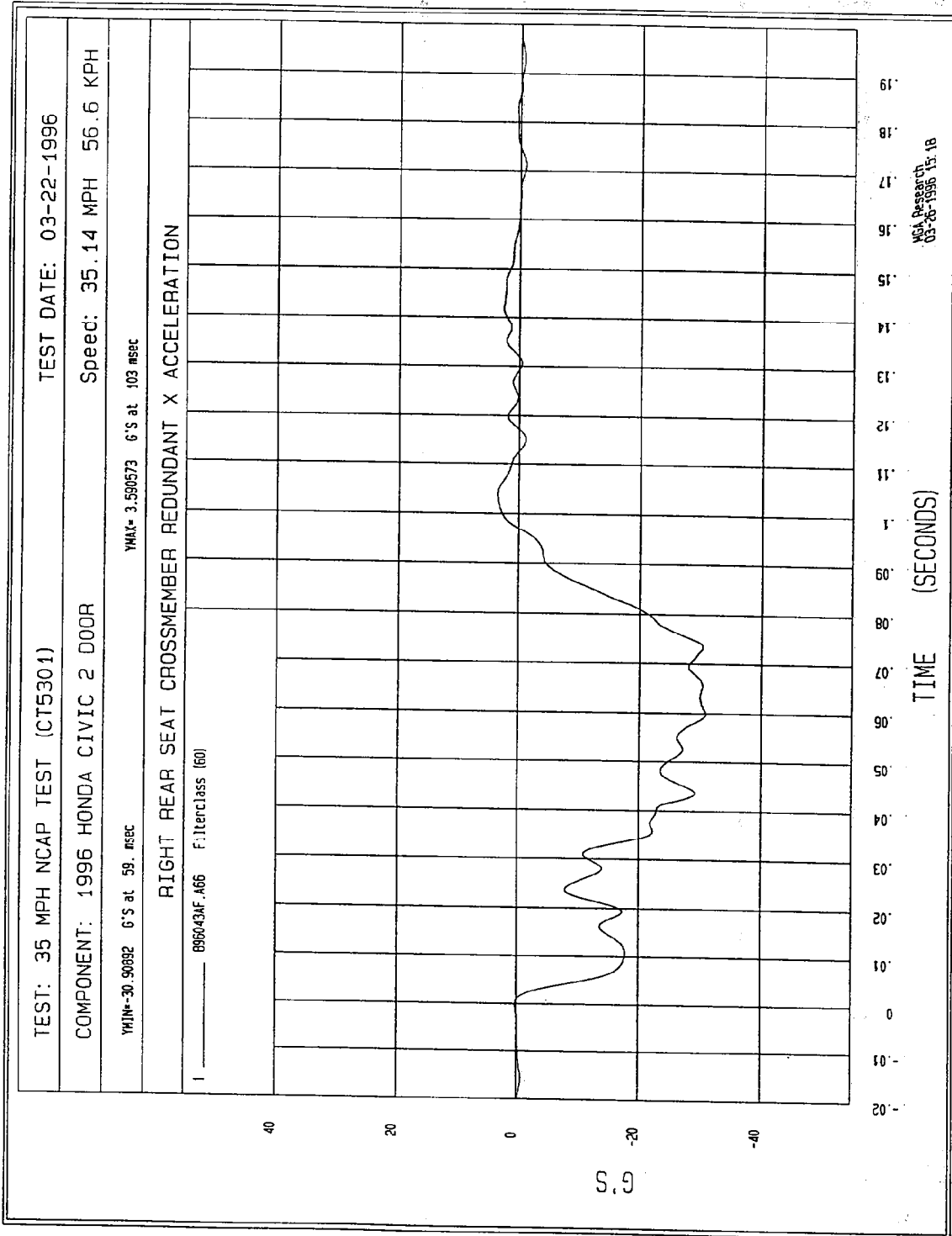


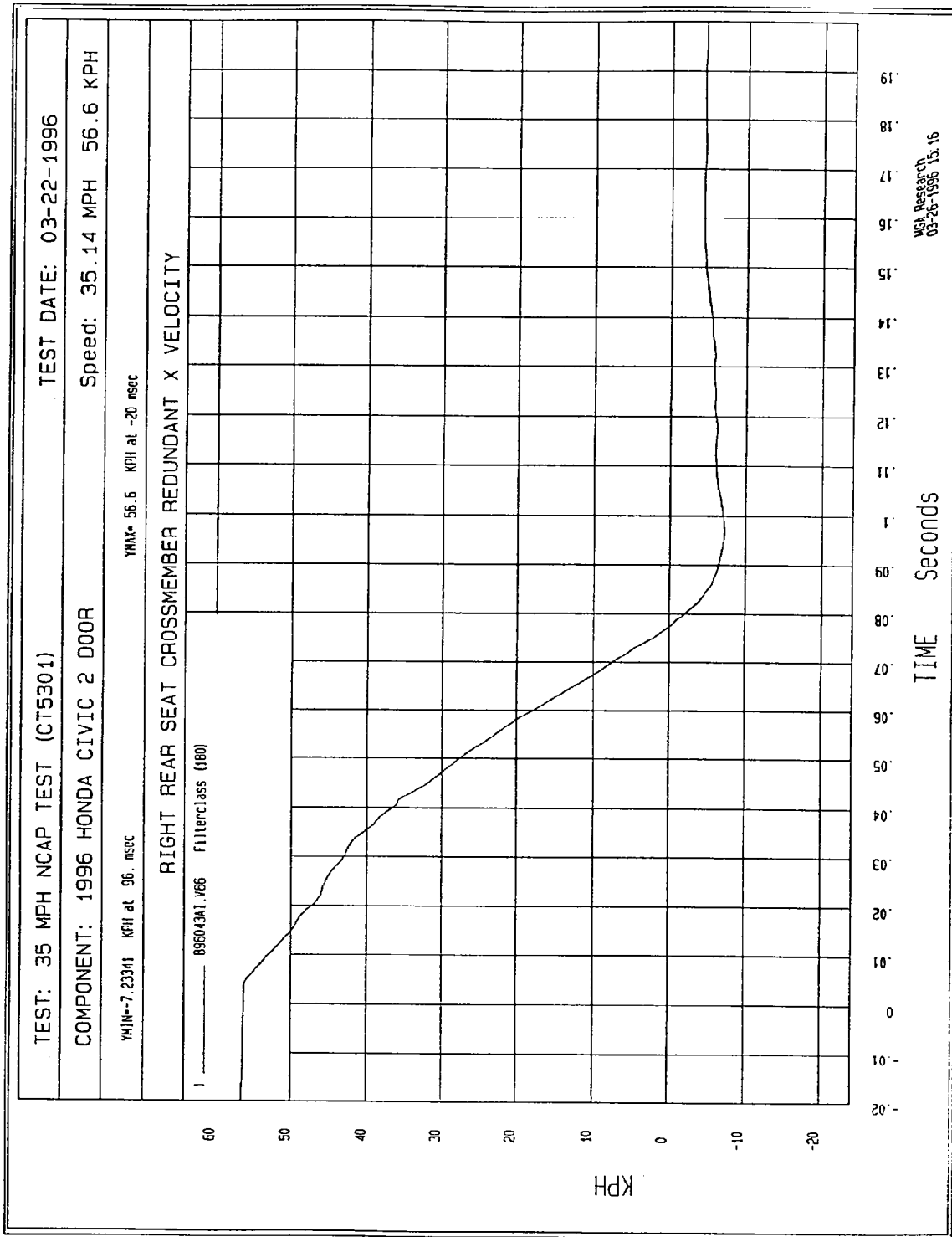


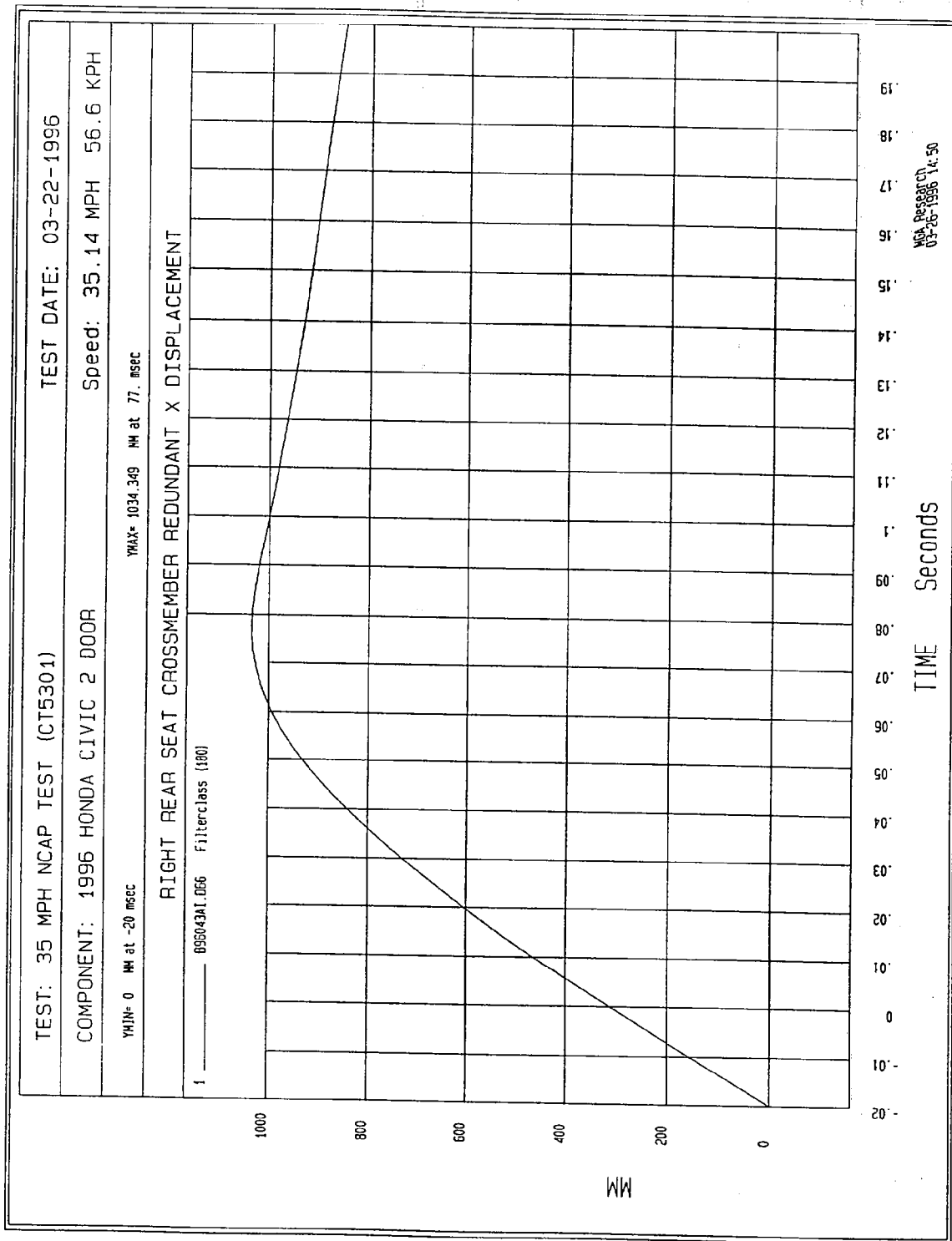


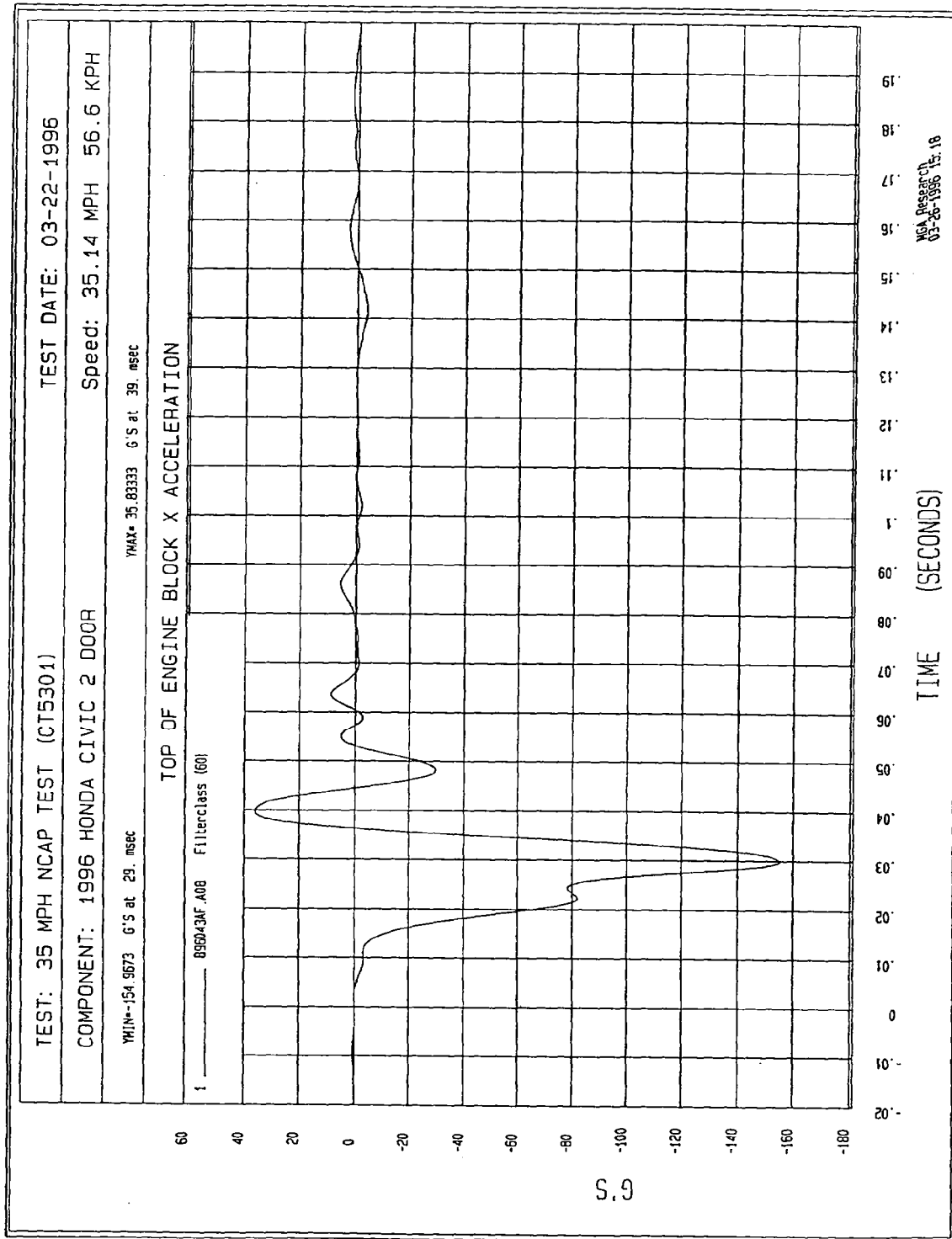


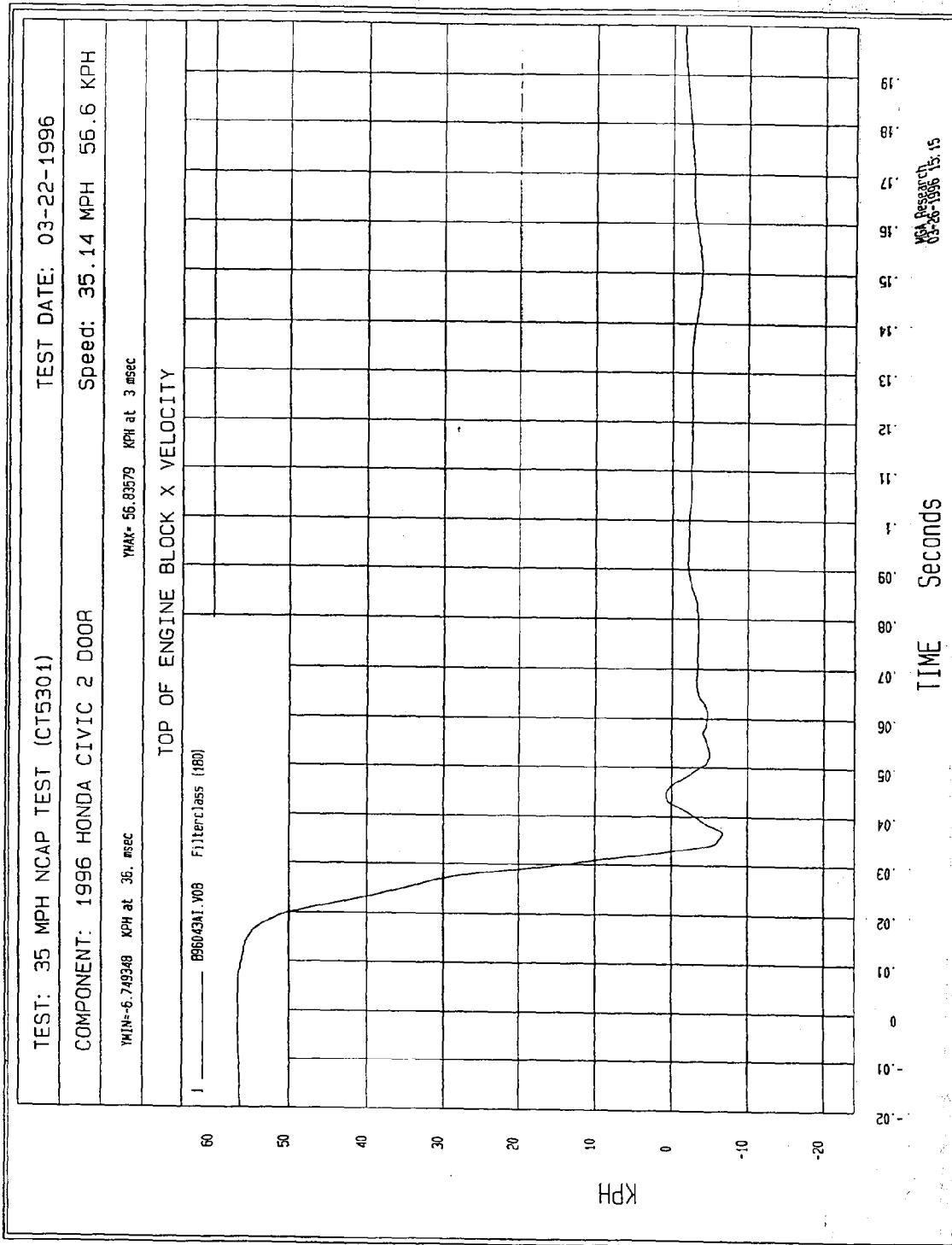


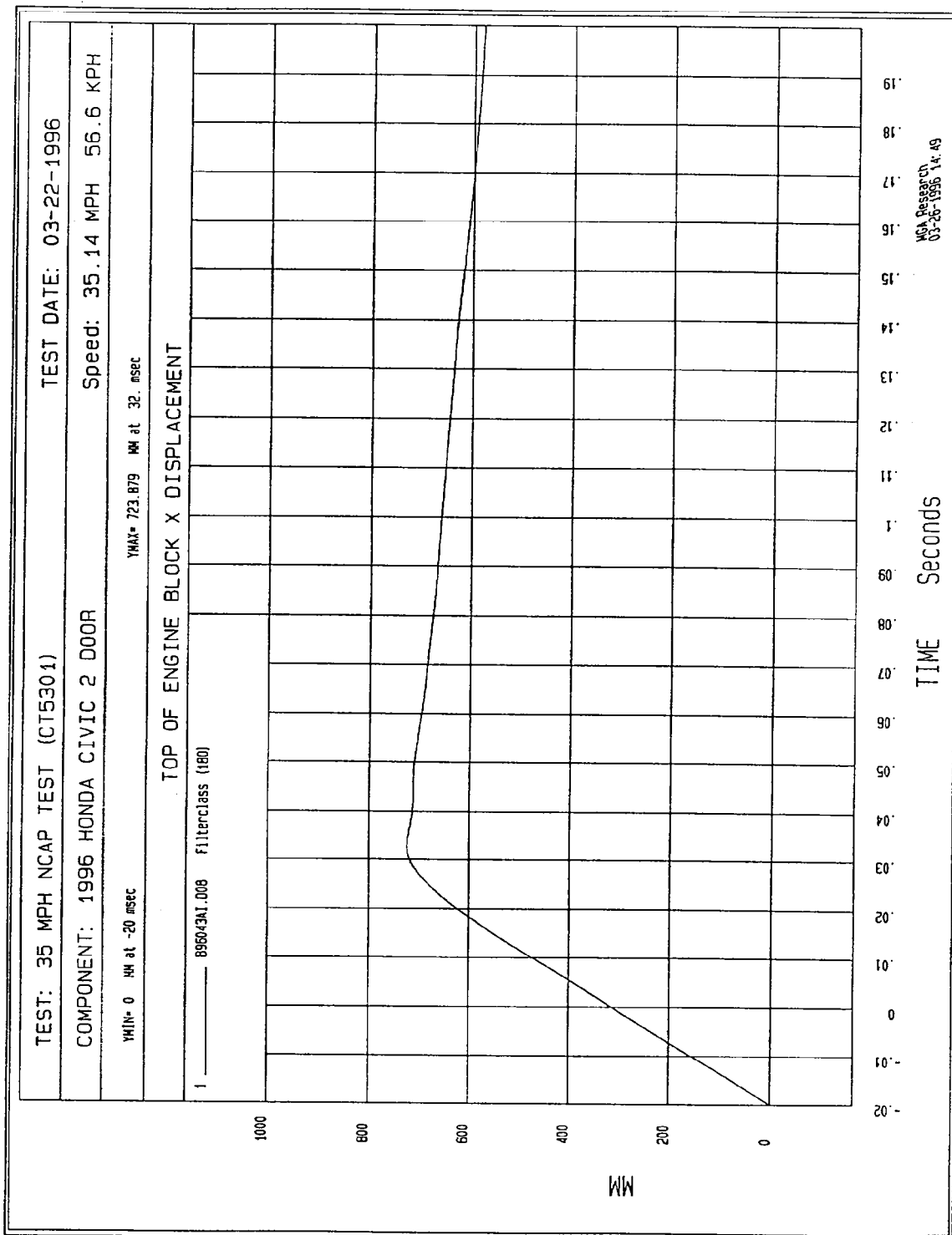


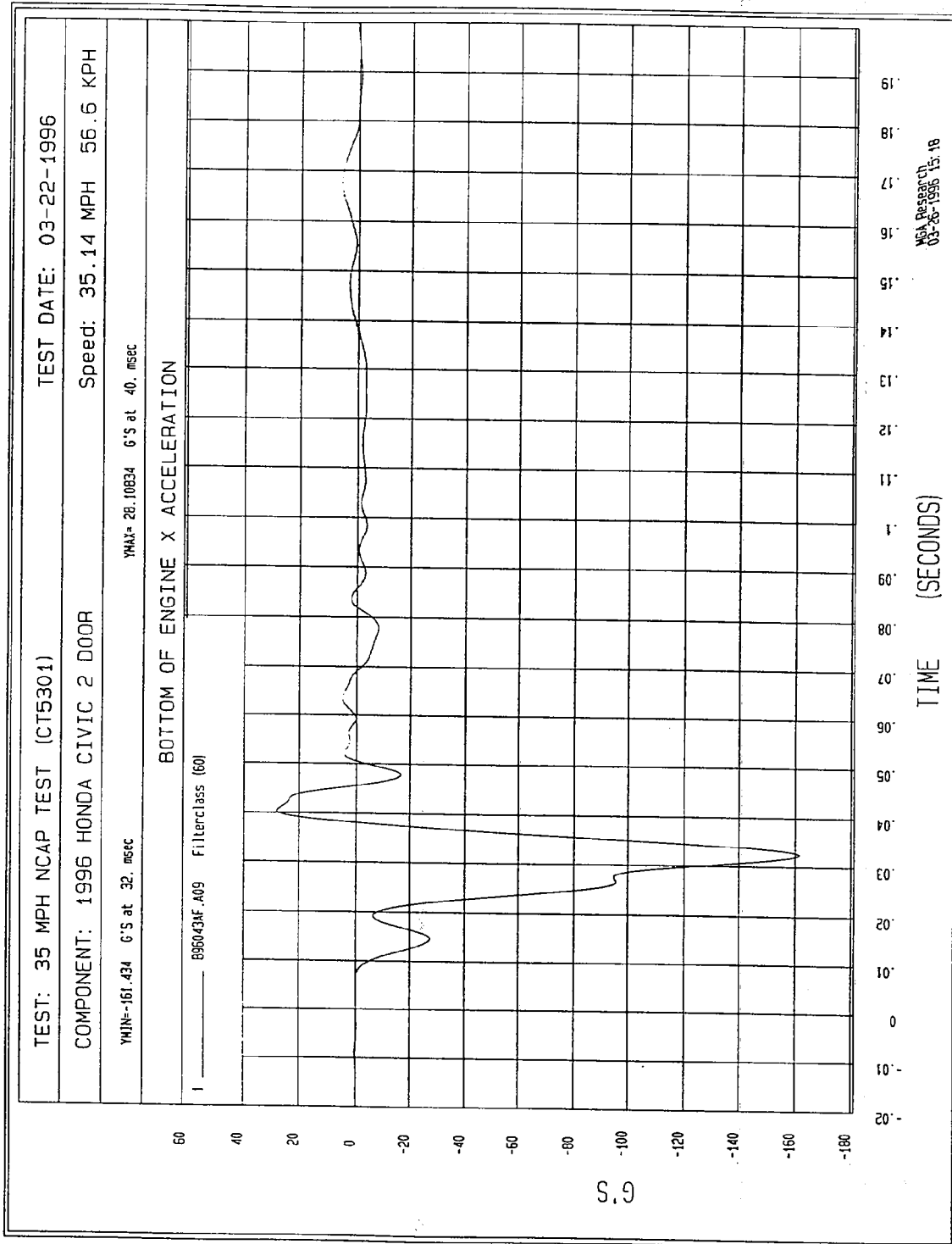


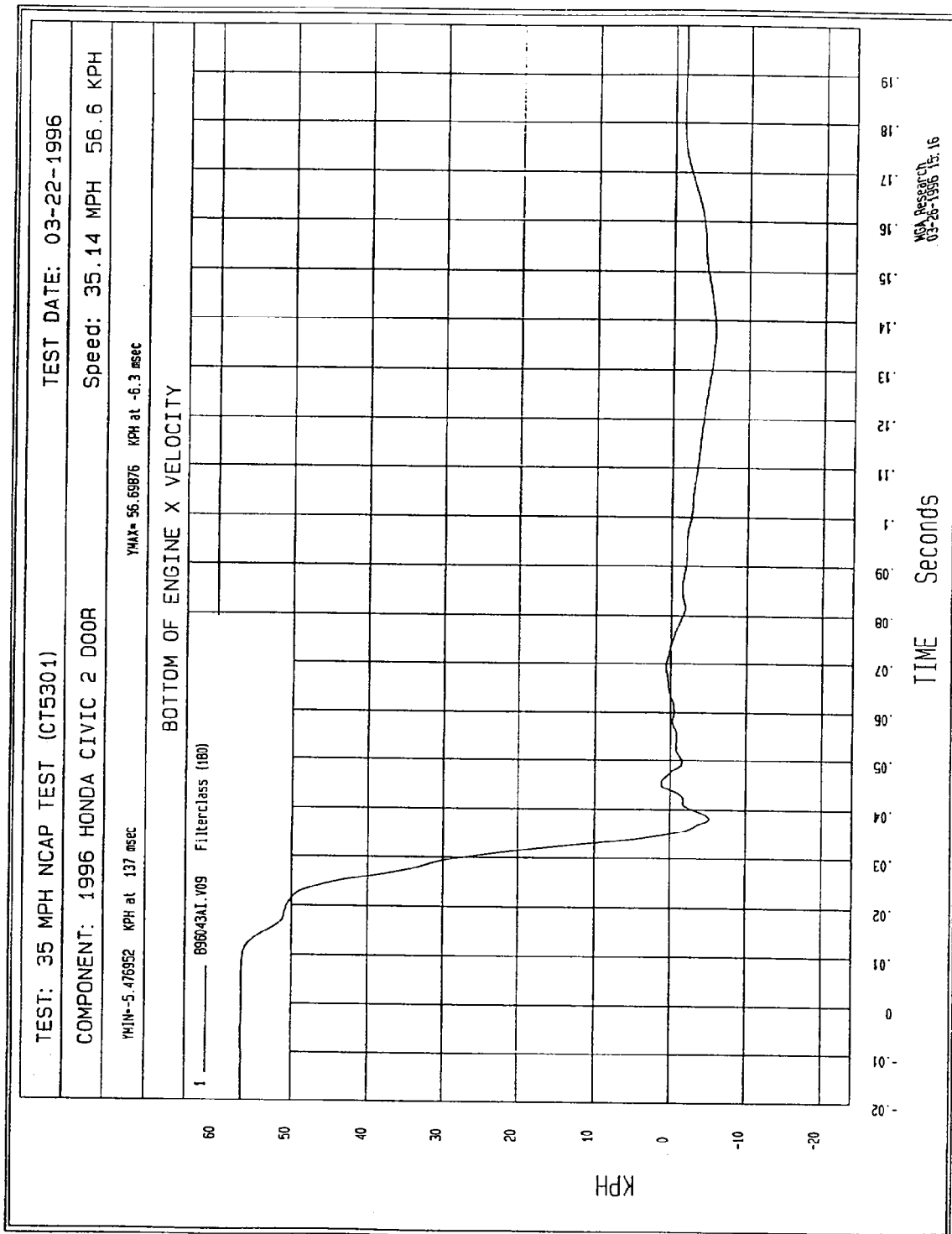


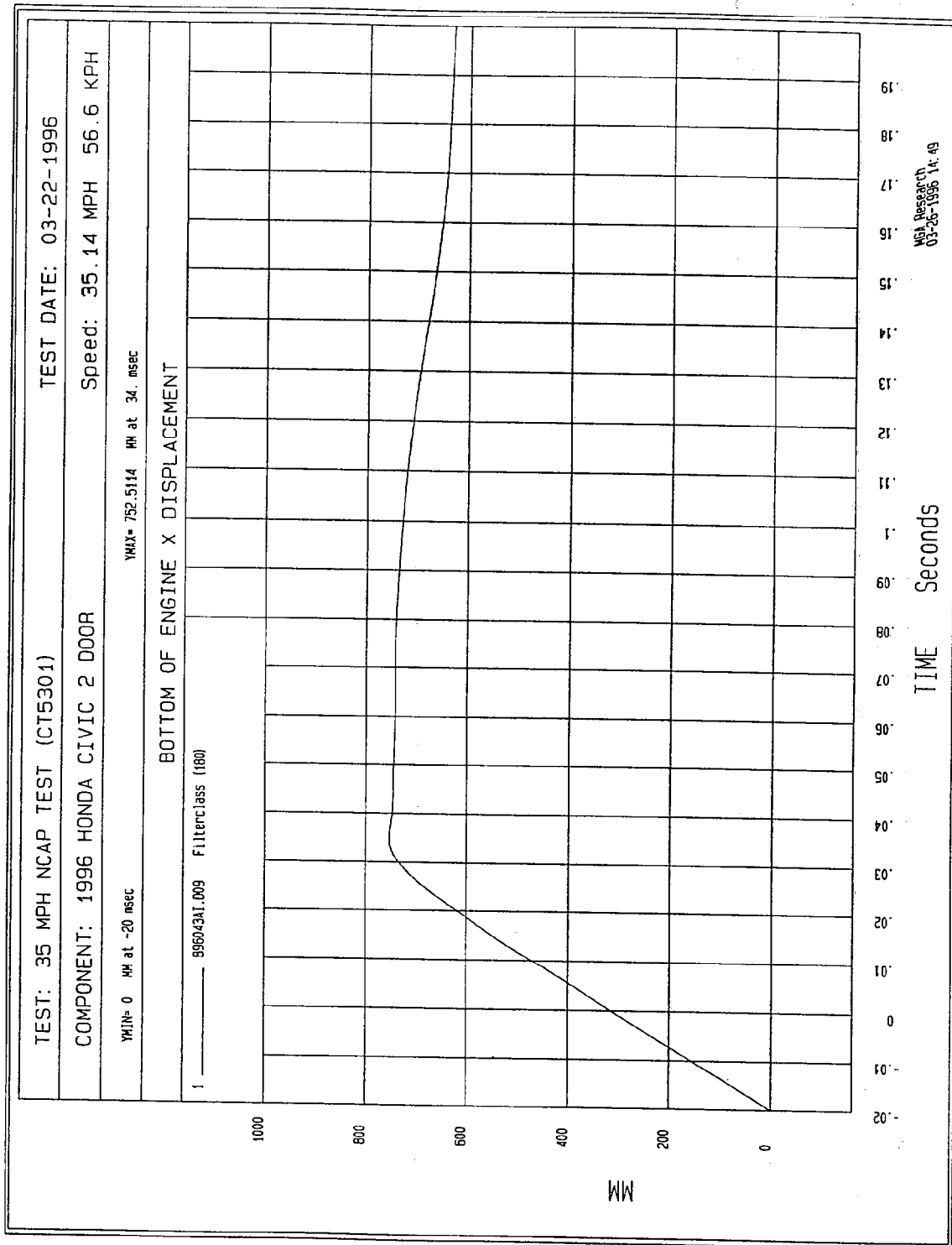


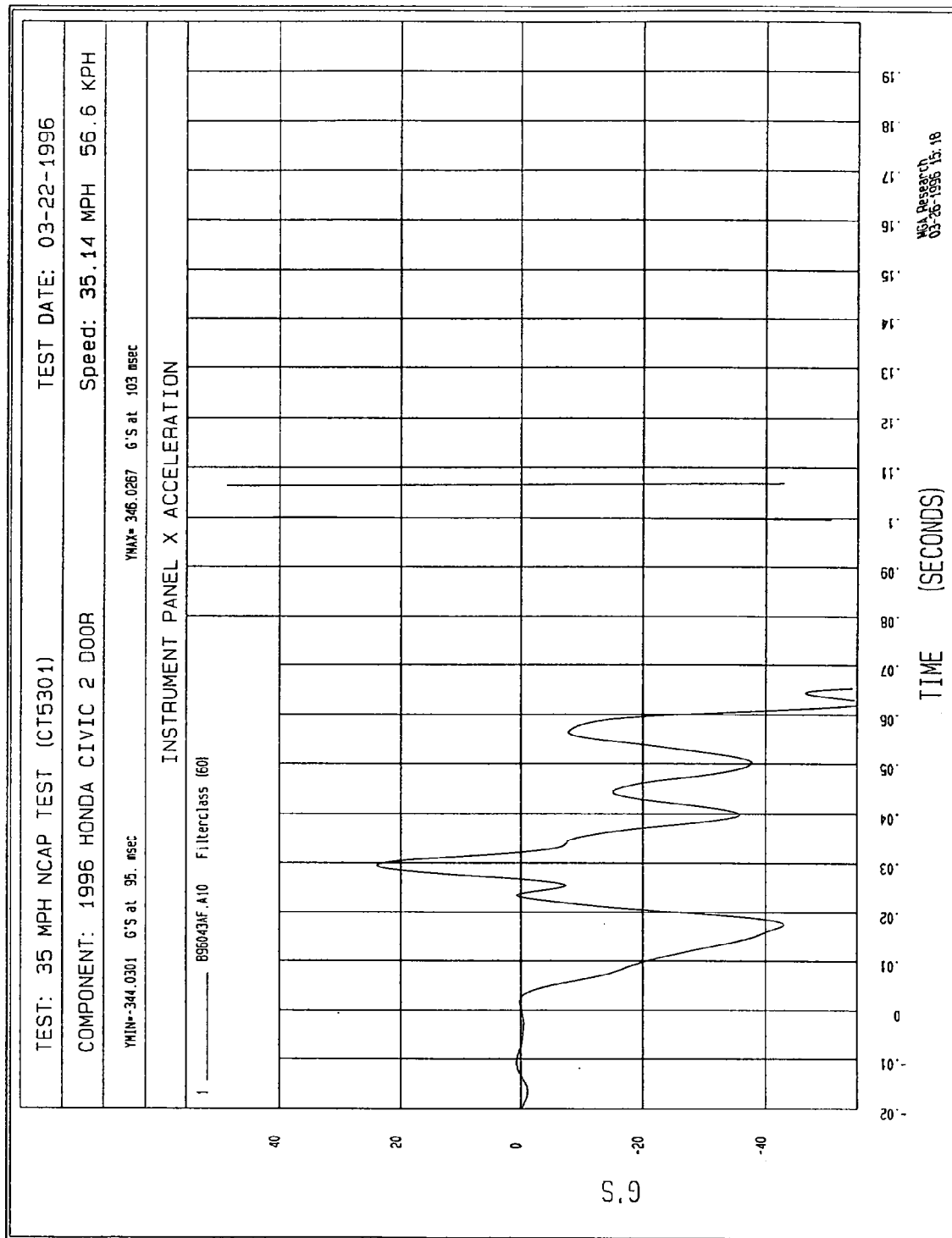


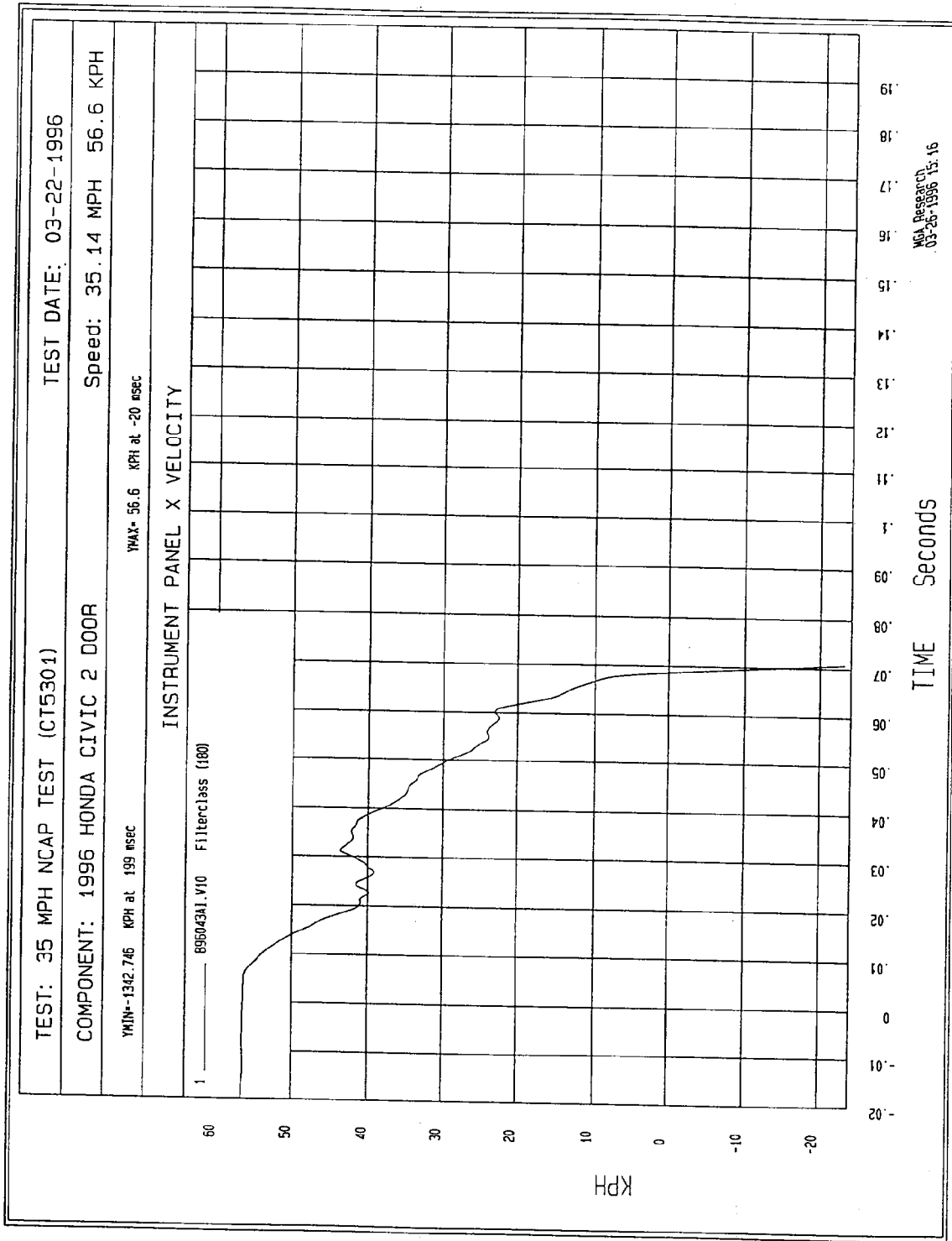


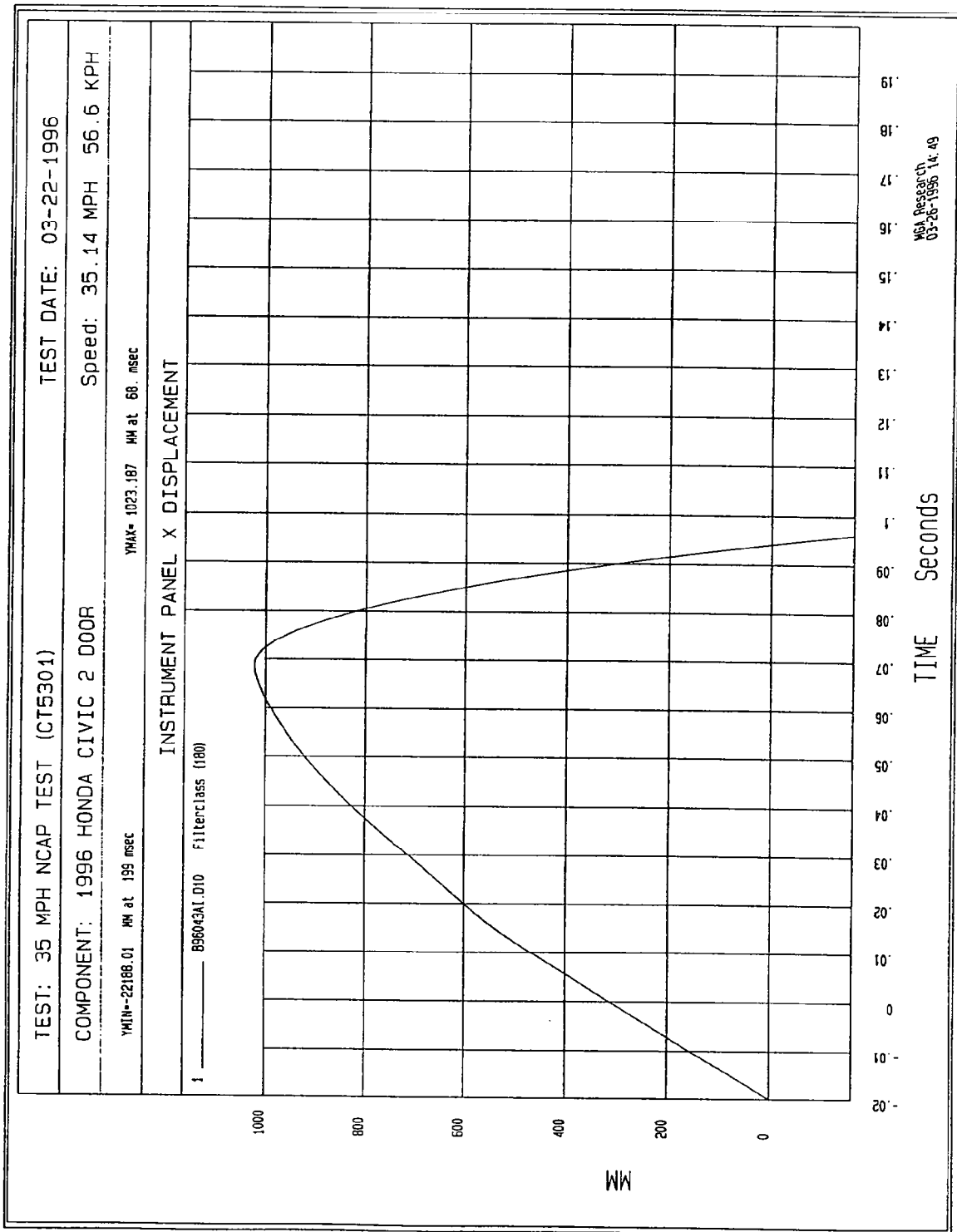


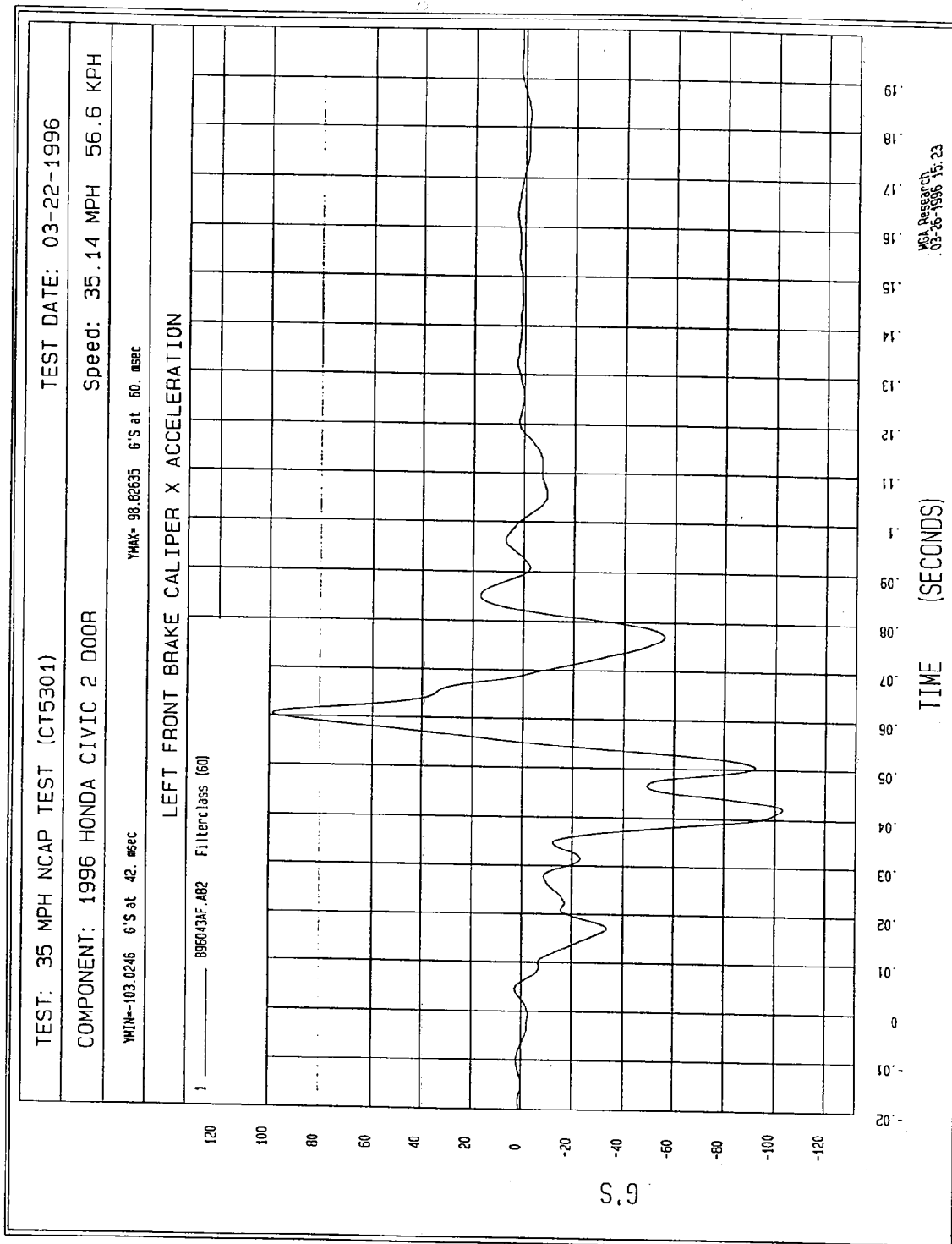


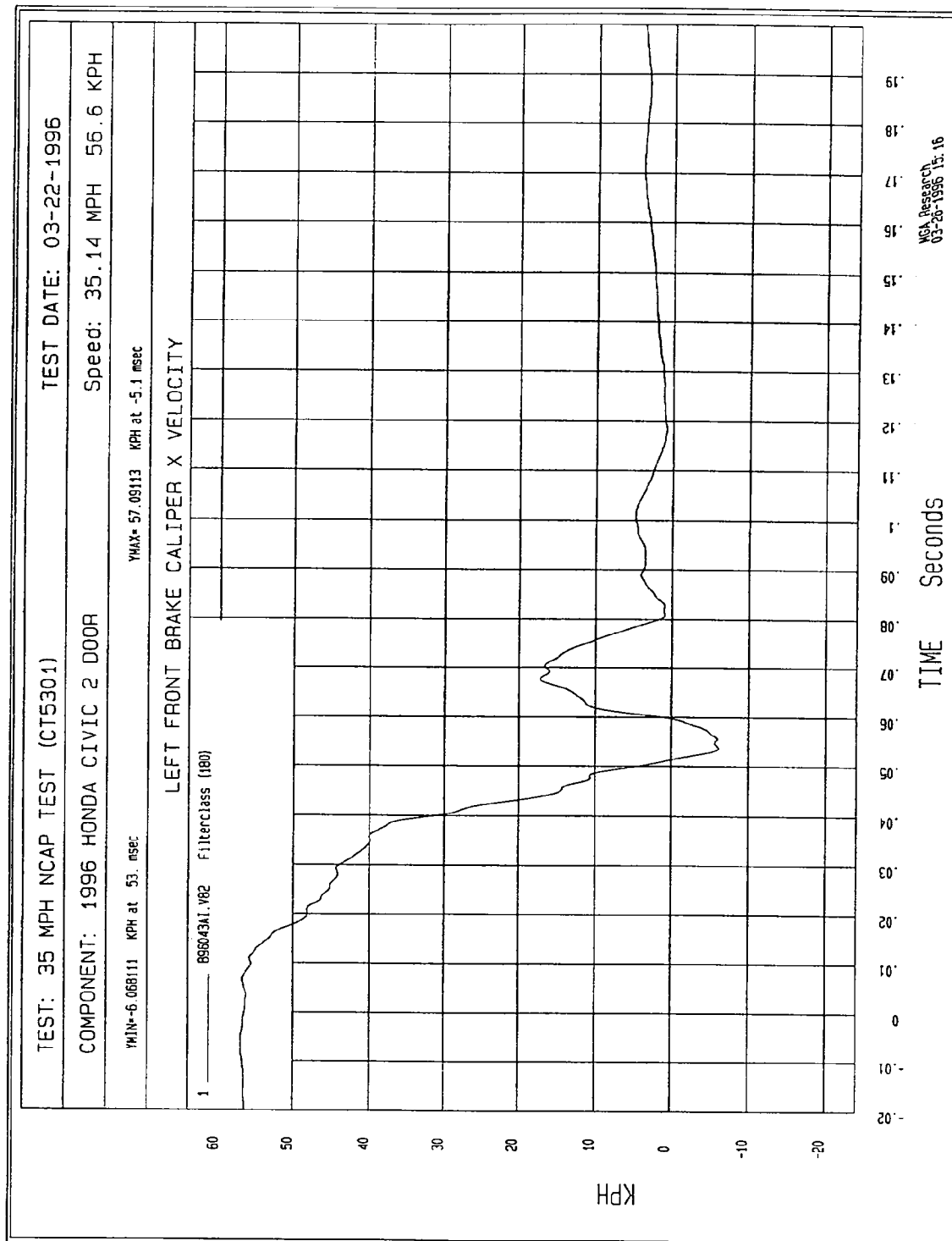


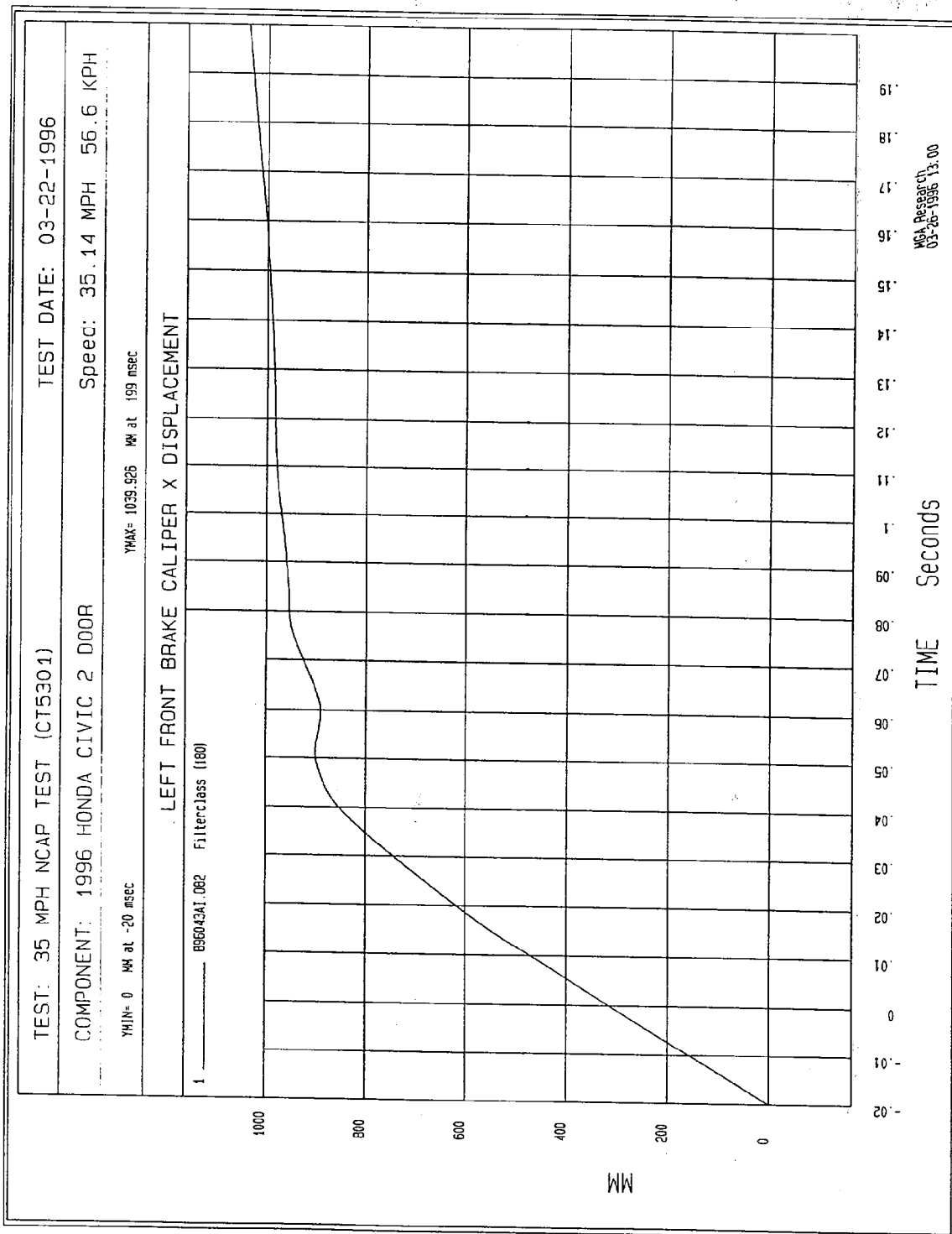


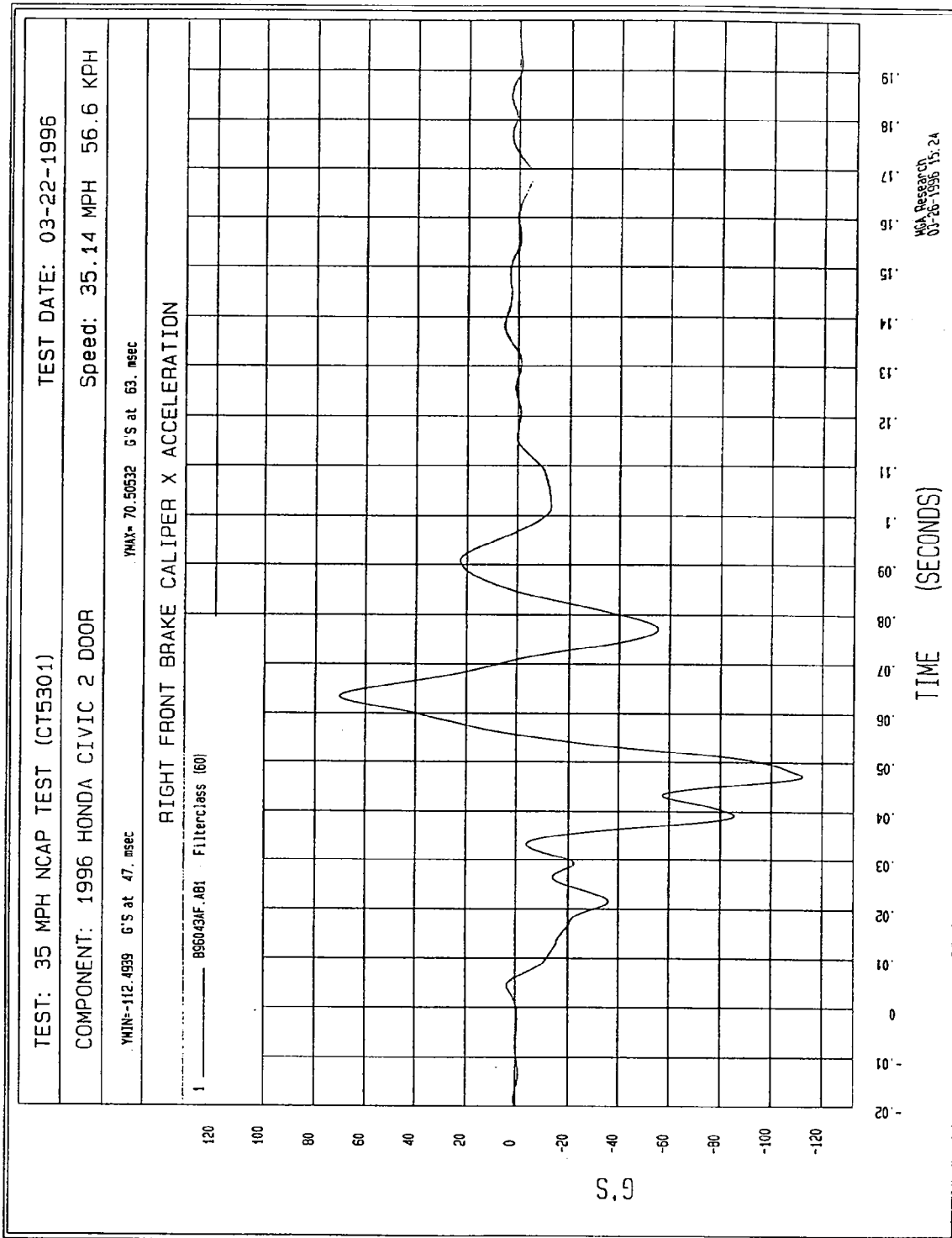


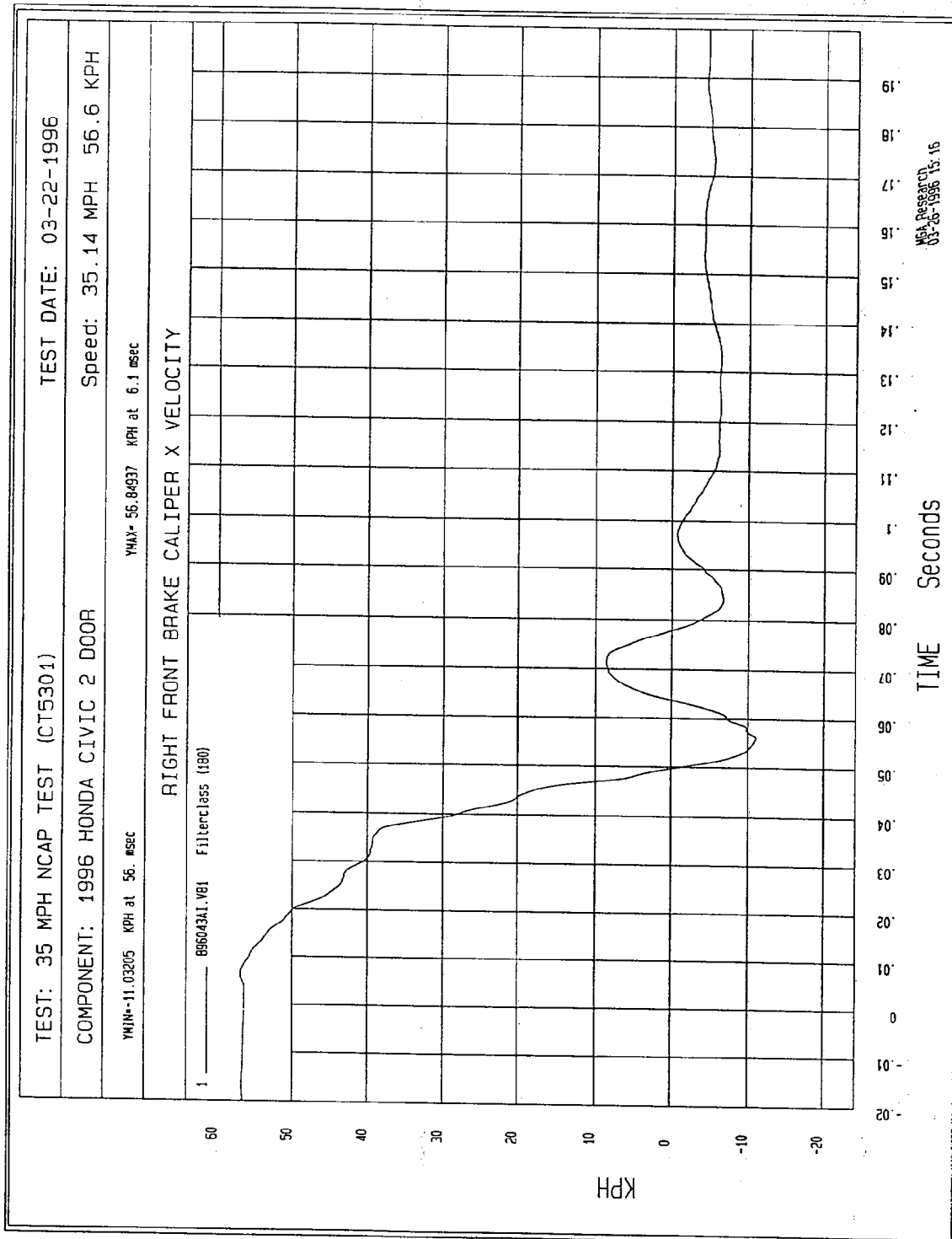


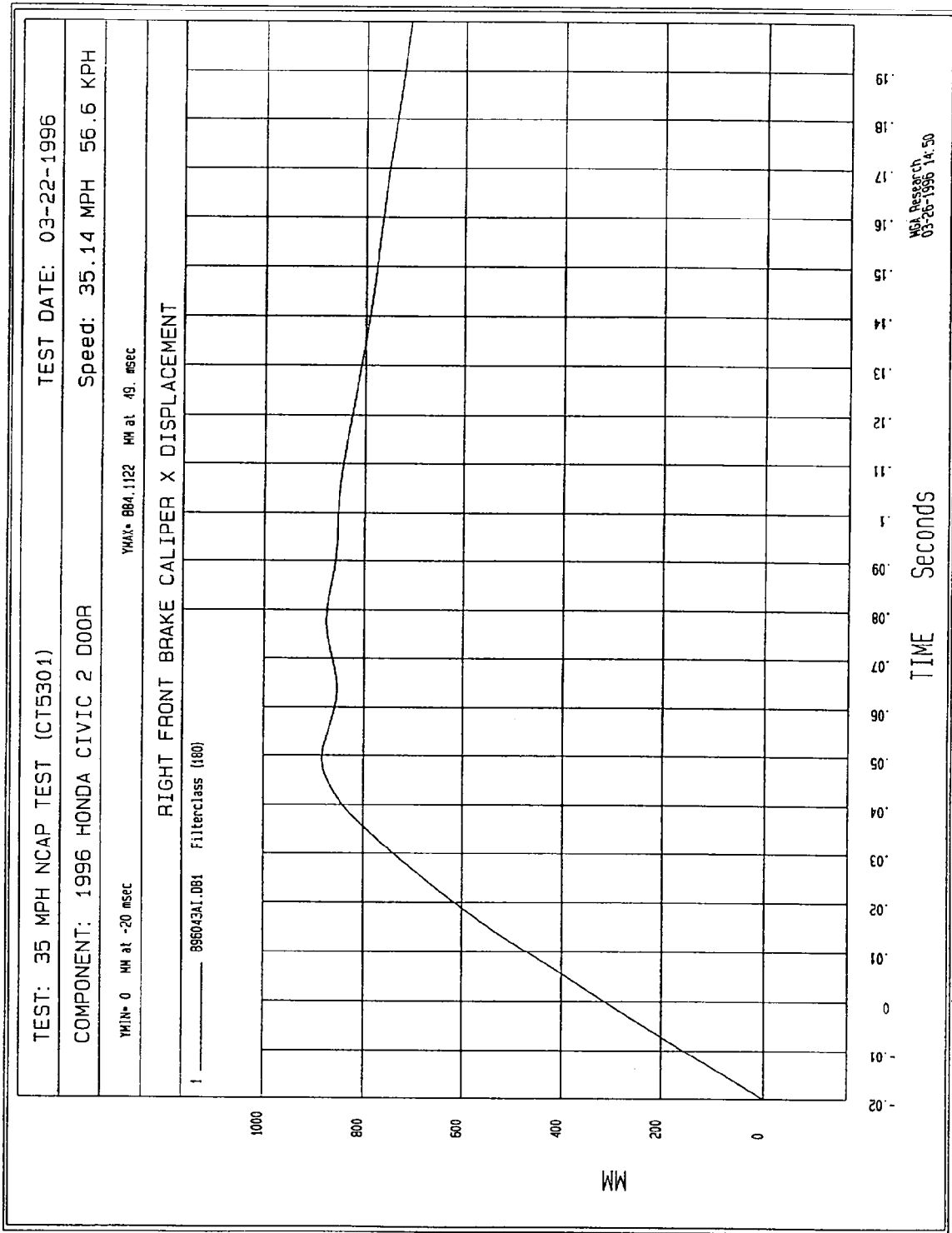










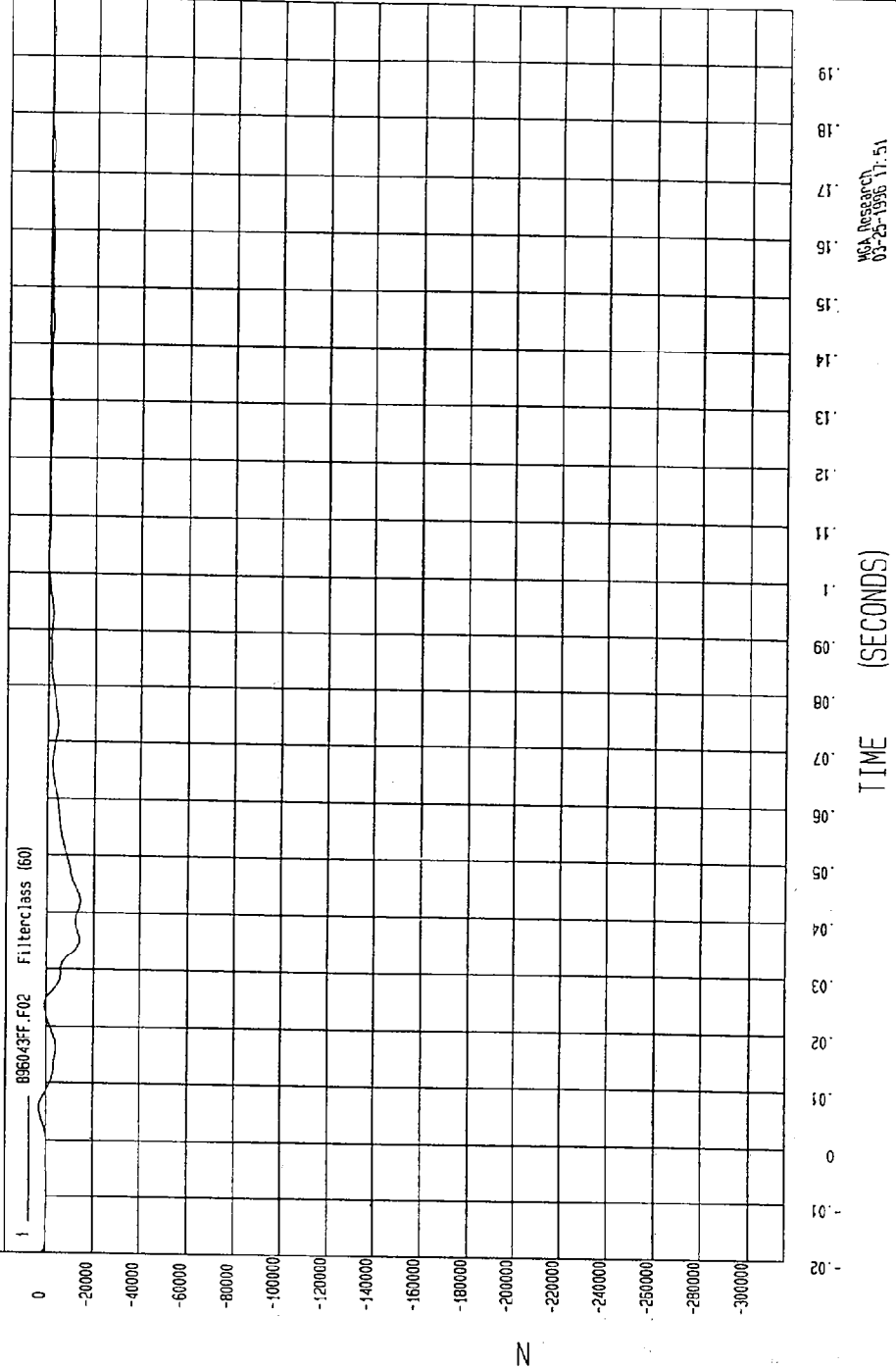


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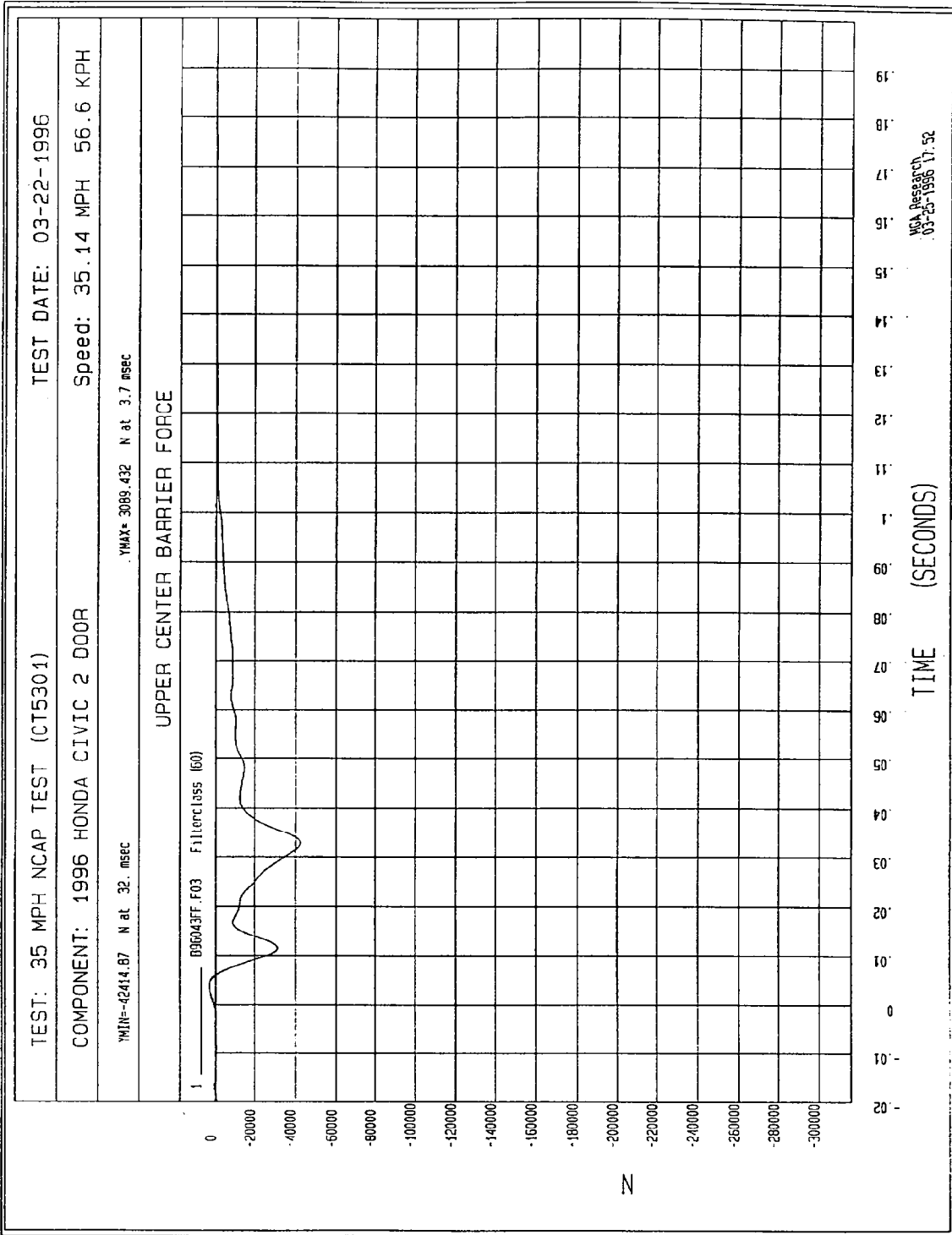
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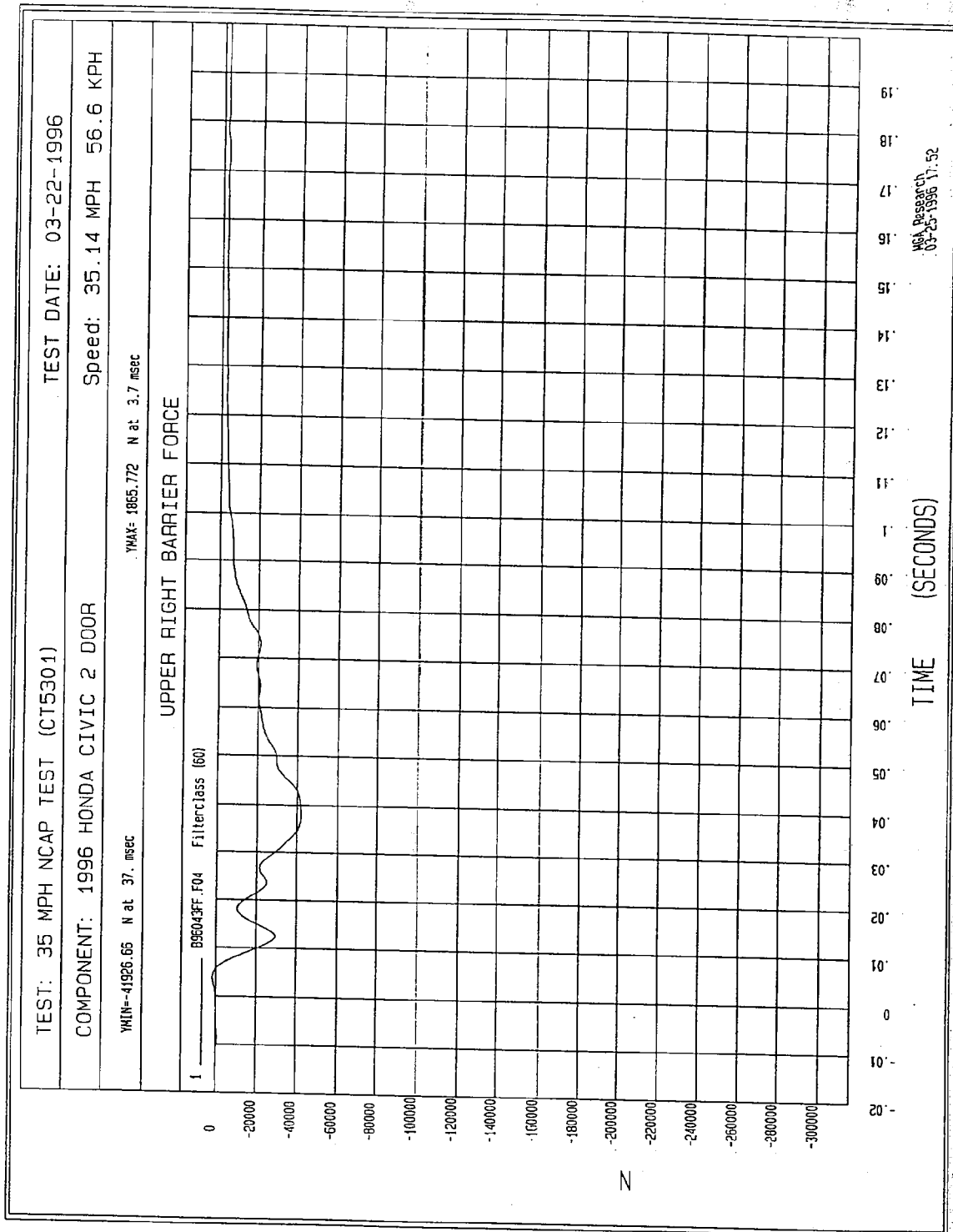
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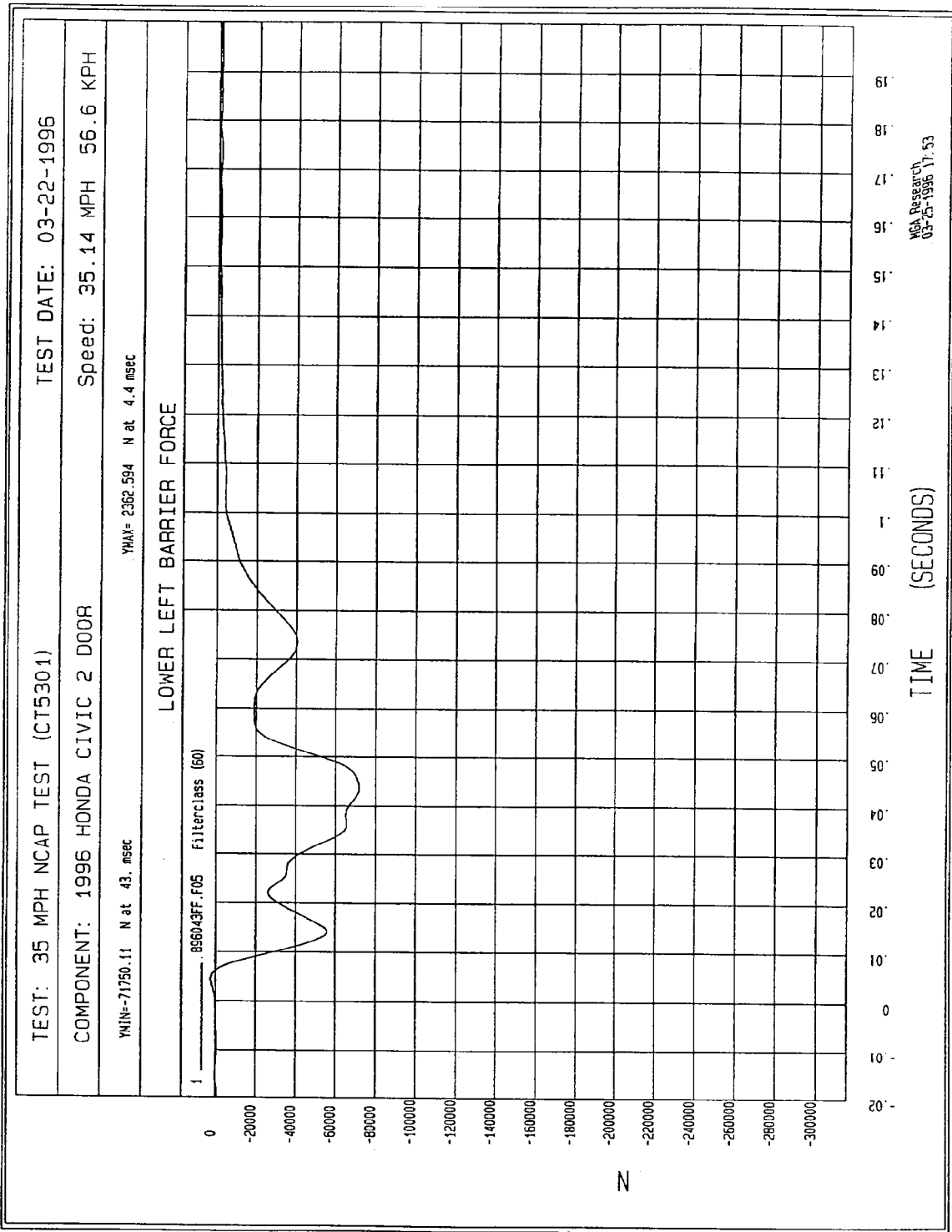
UPPER LEFT BARRIER FORCE

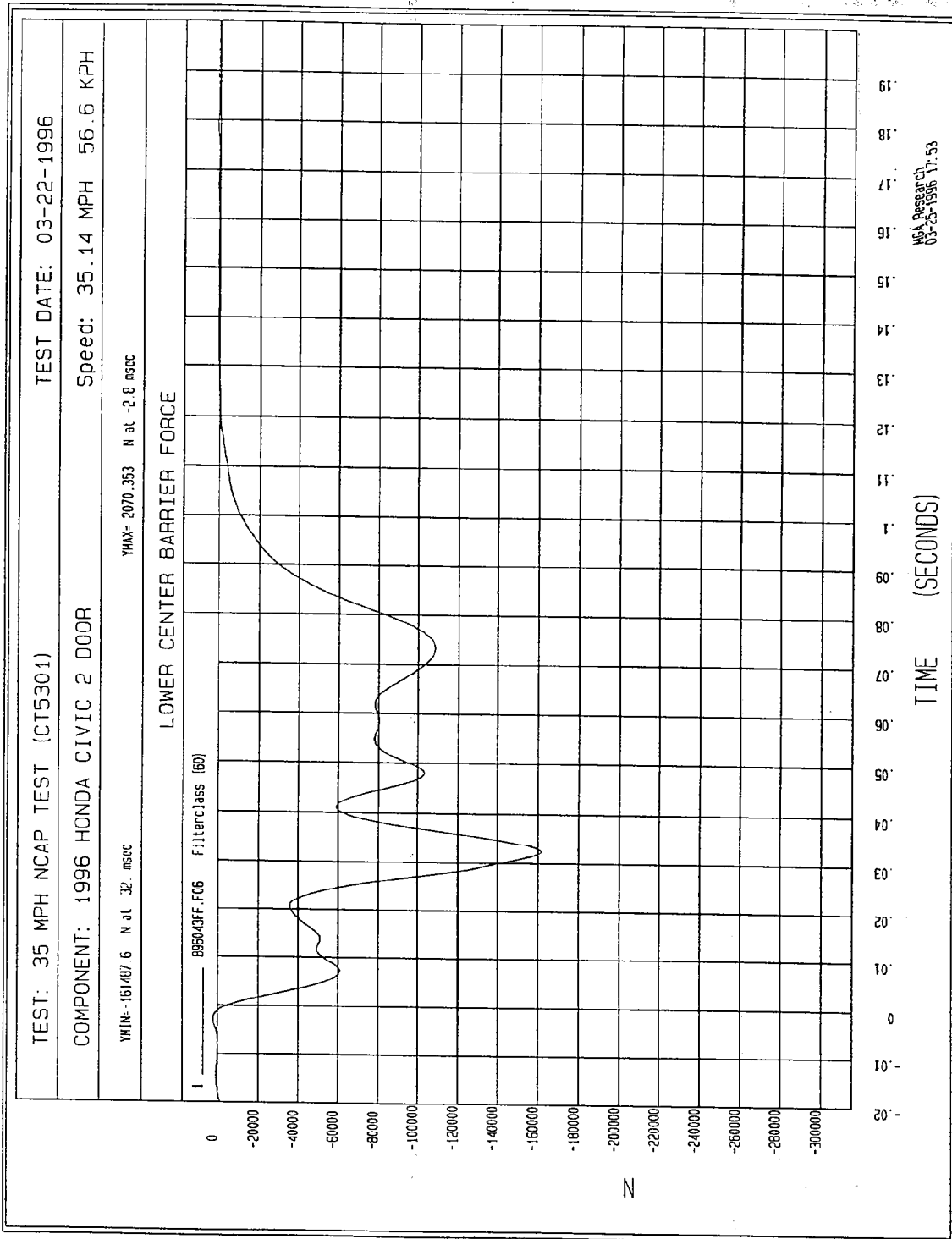


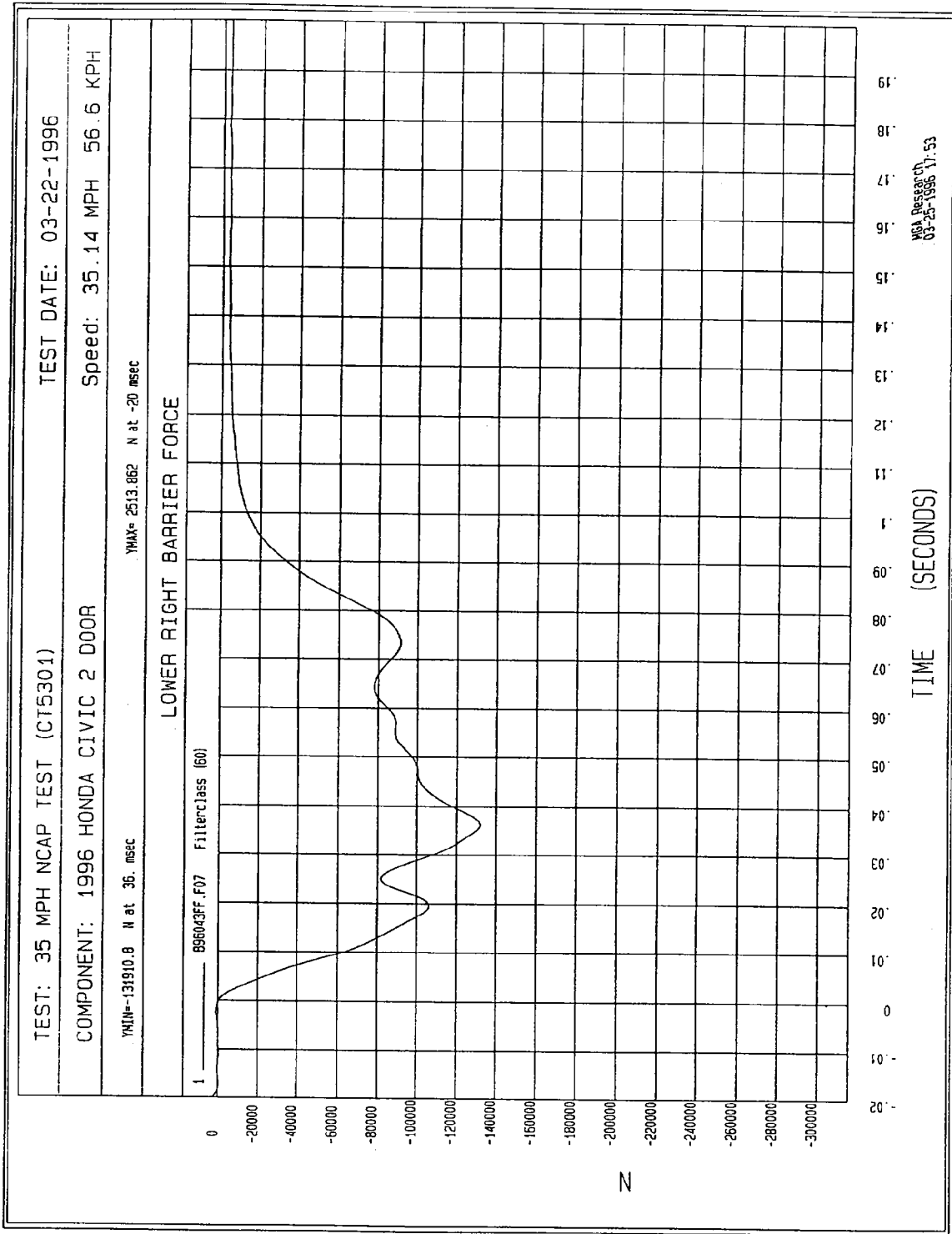
WCA Research
03-25-1996 17:51

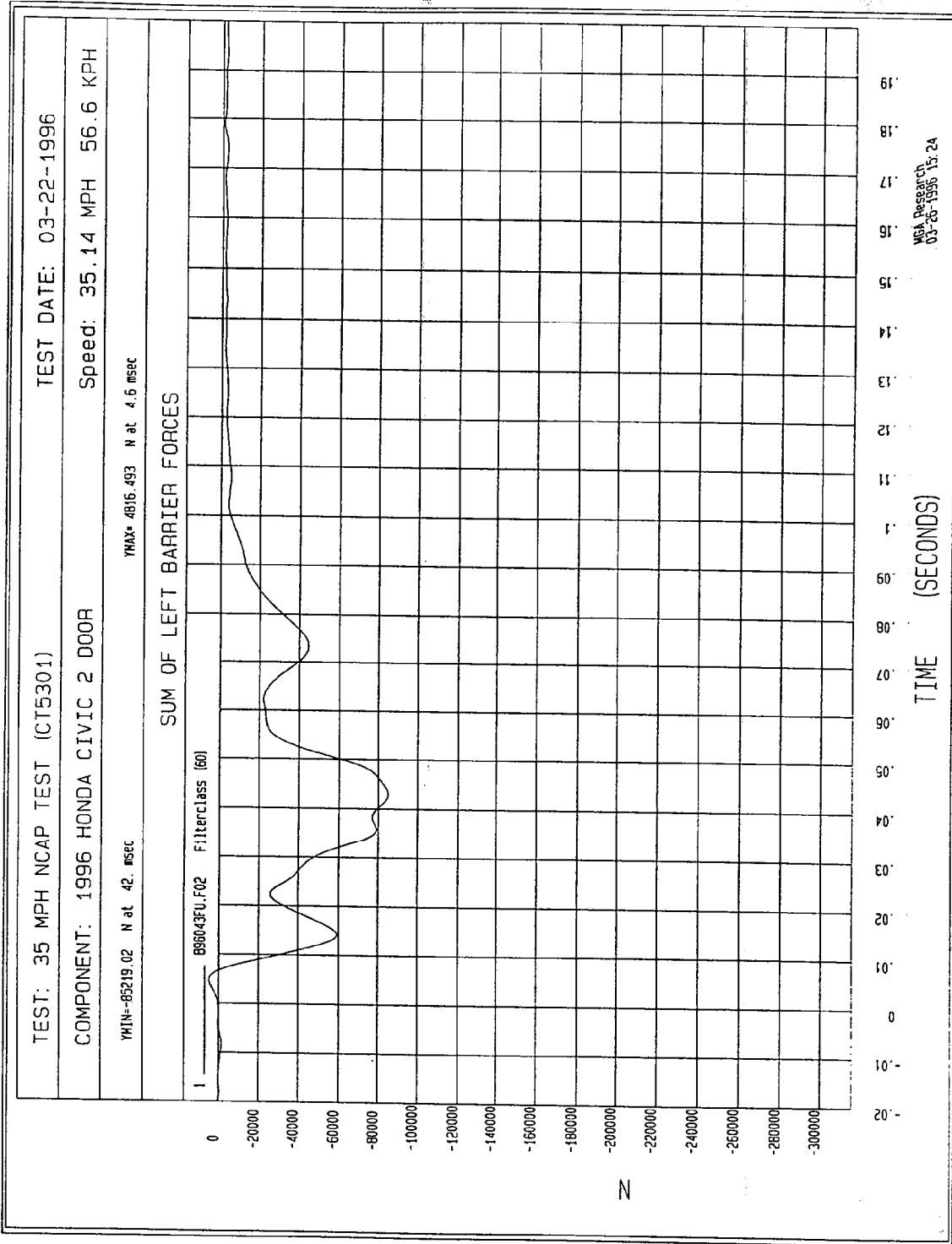










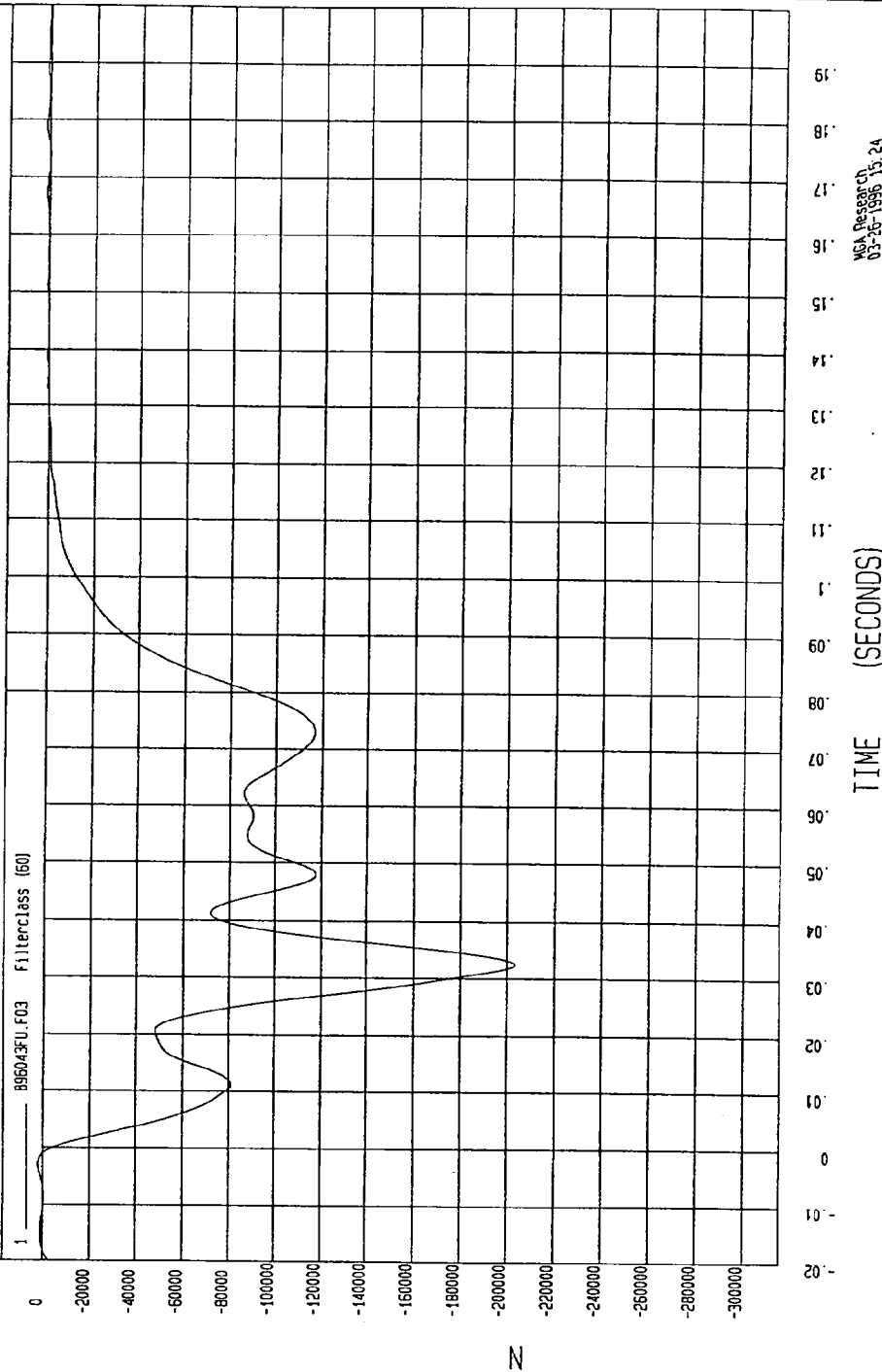


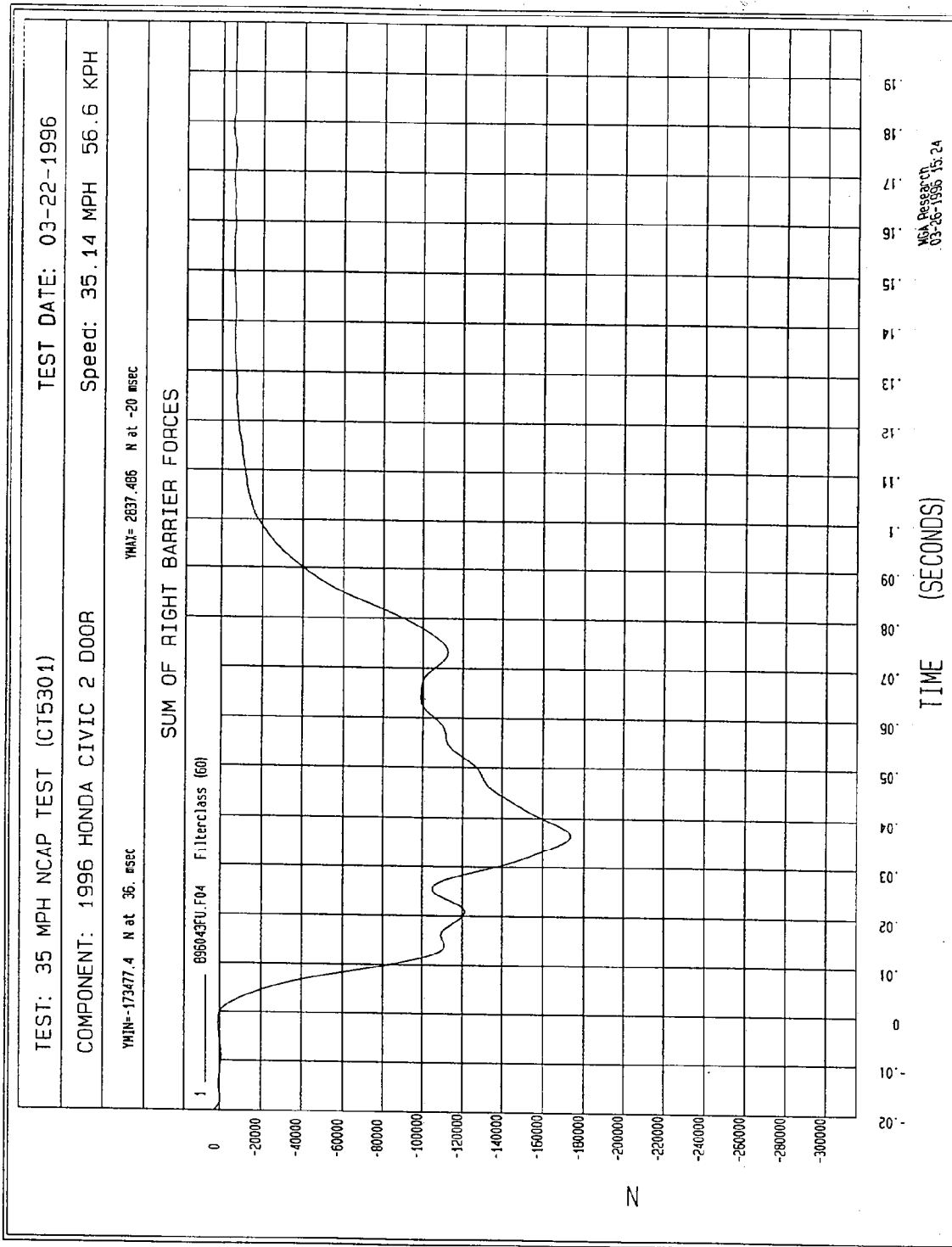
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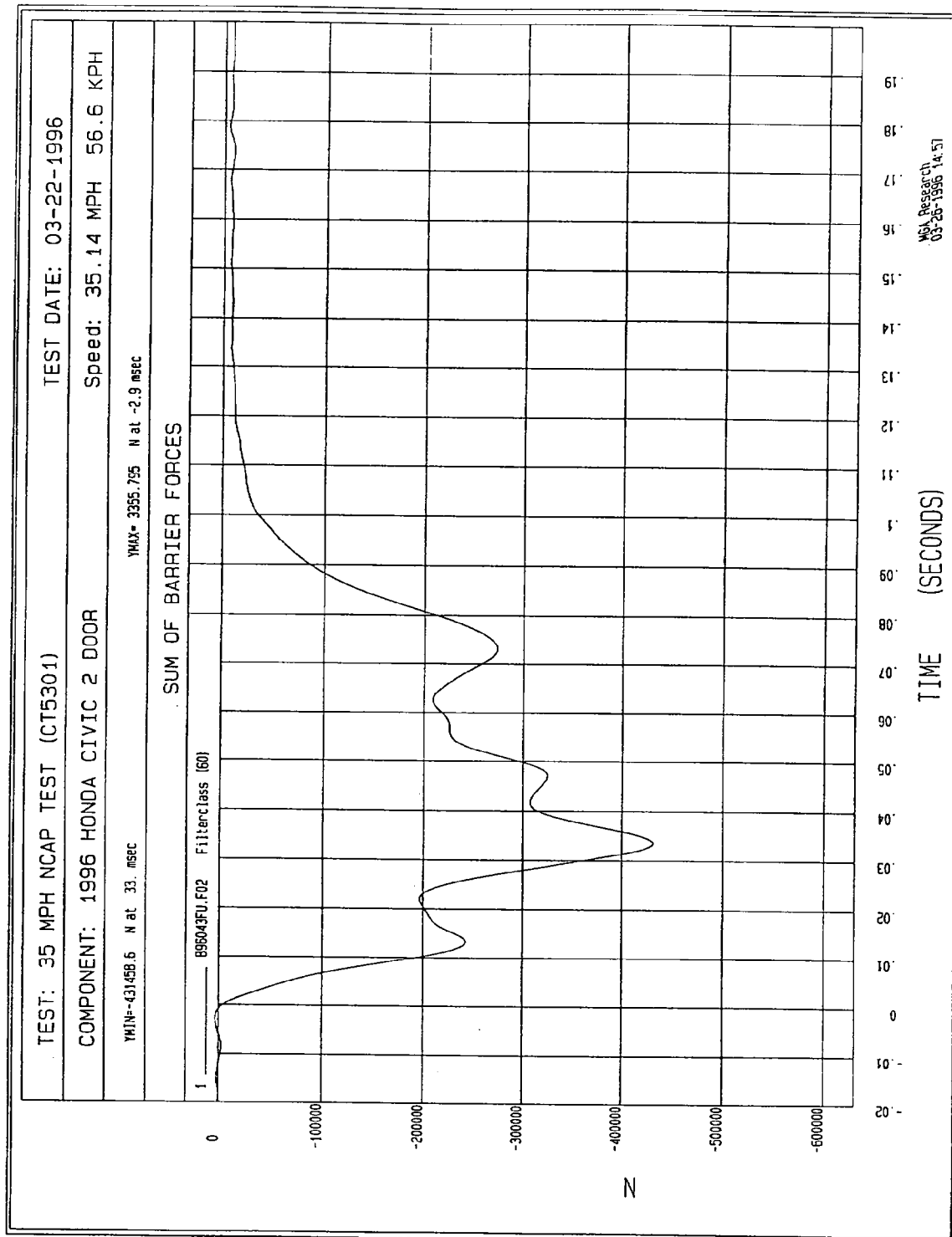
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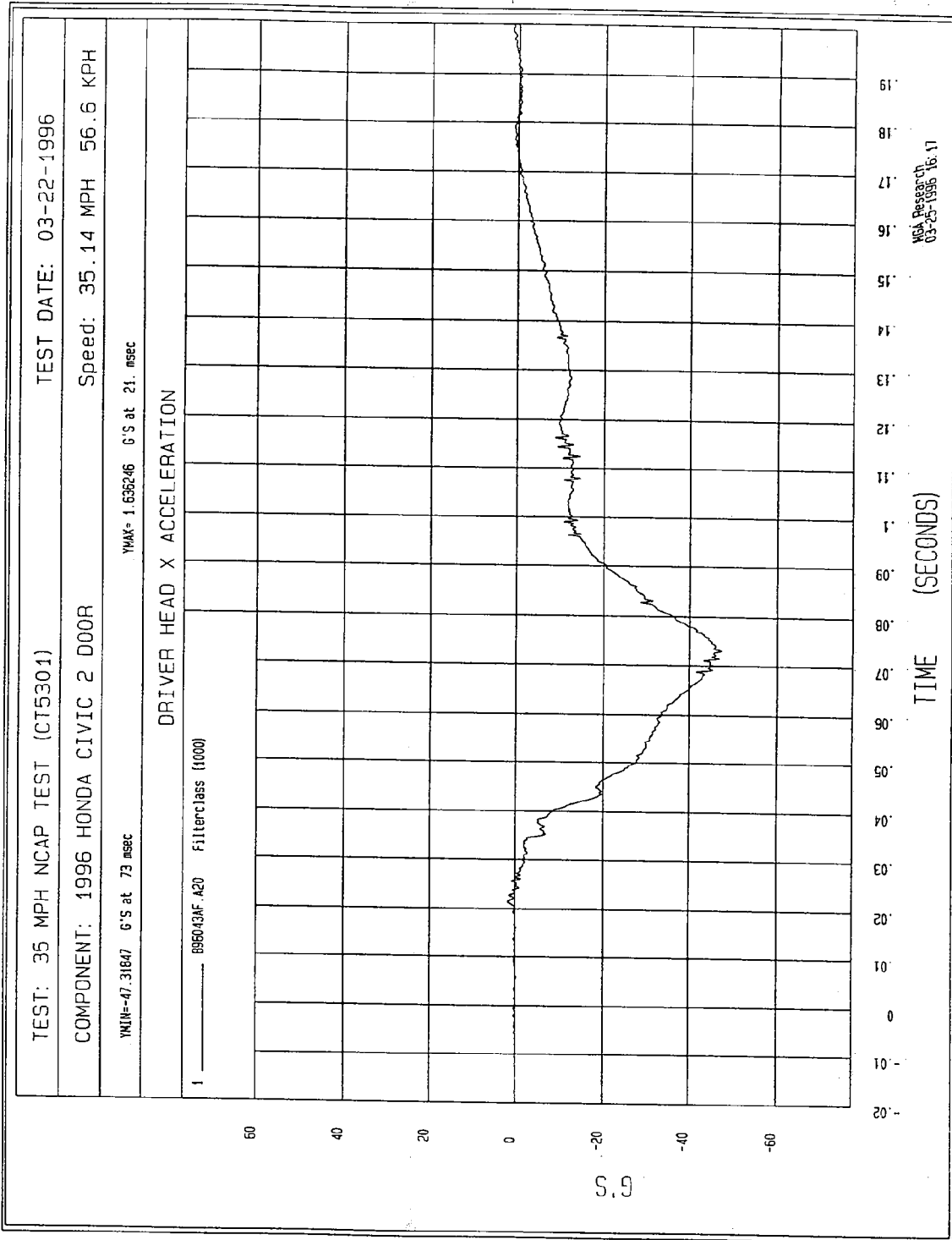
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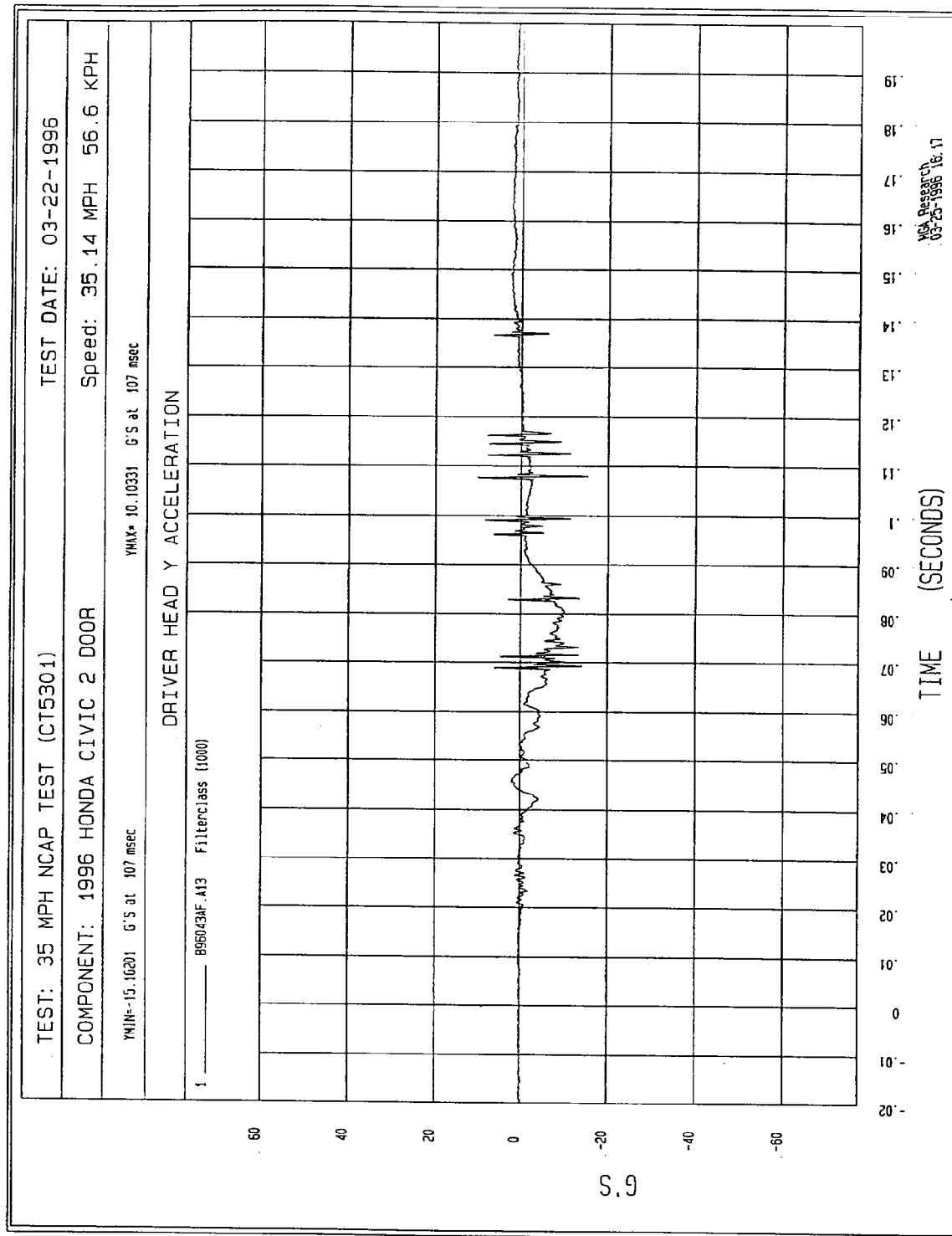
SUM OF CENTER BARRIER FORCES

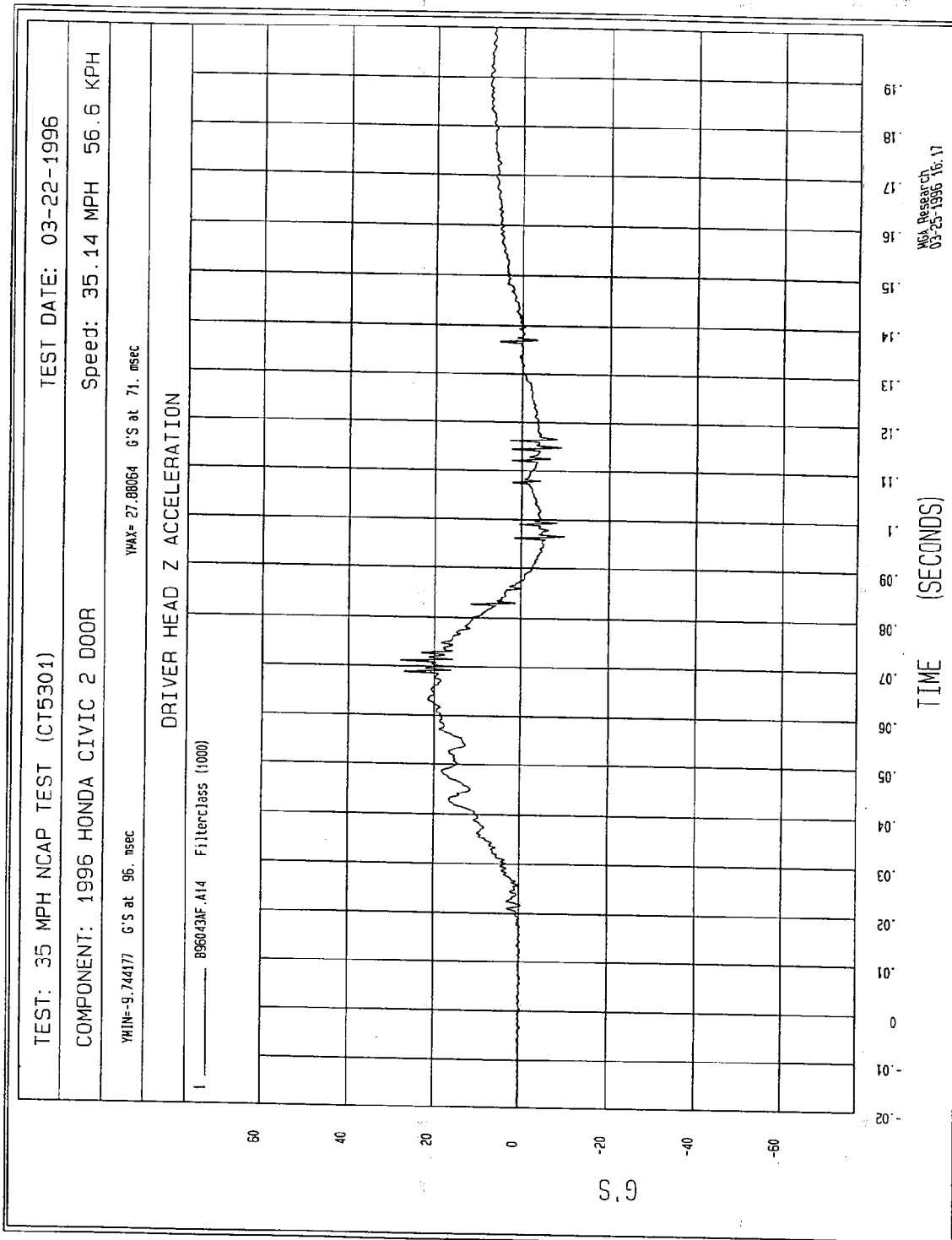


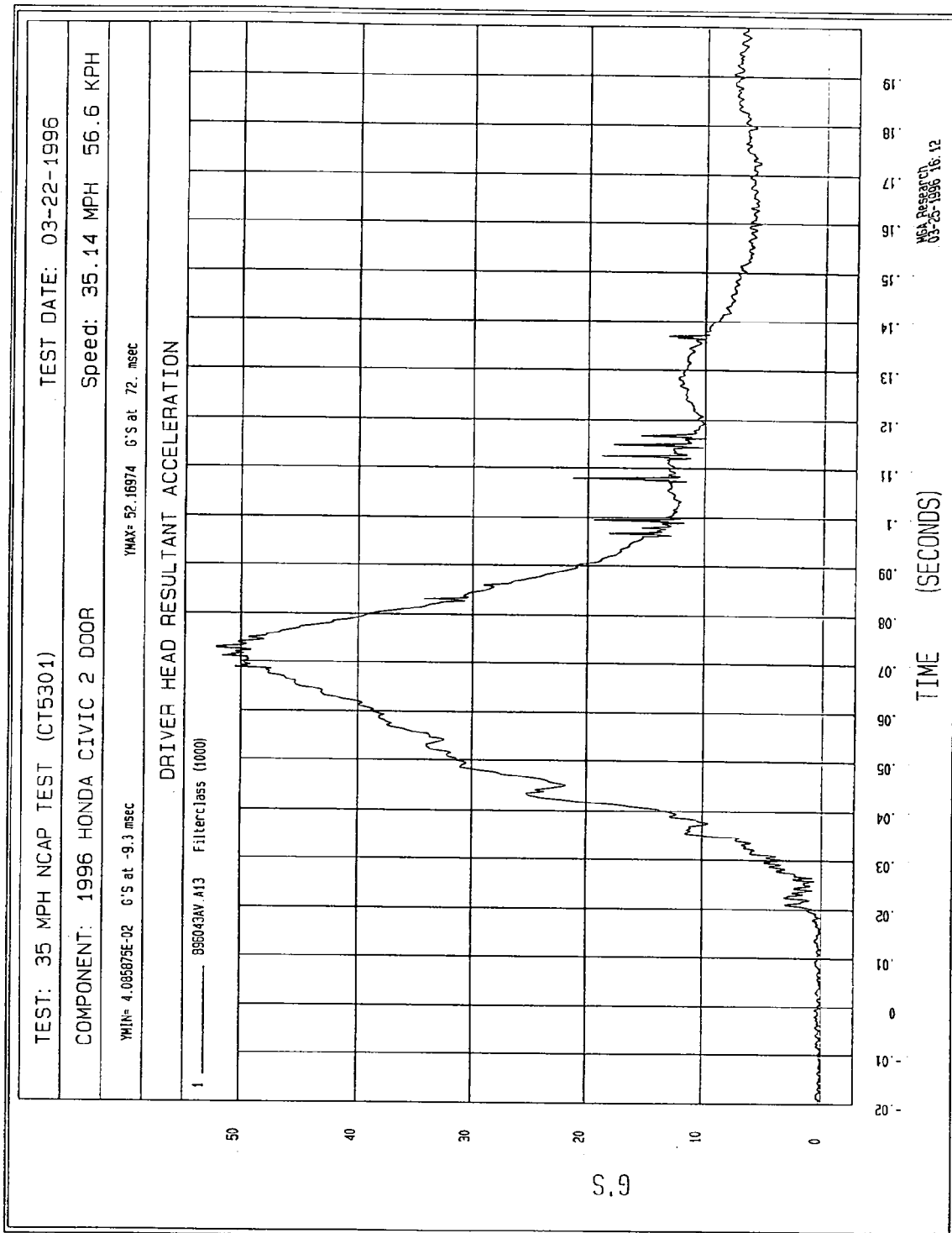


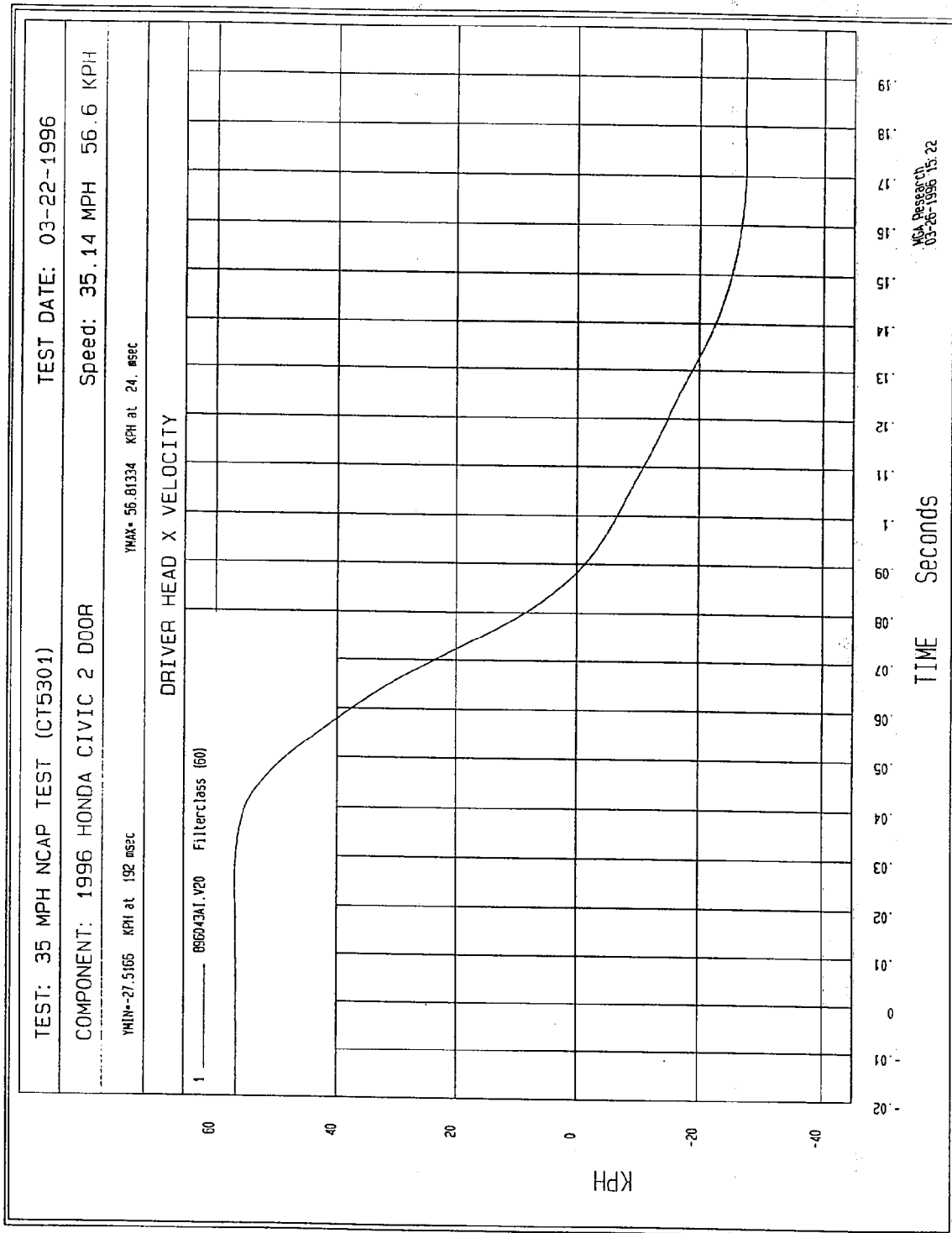


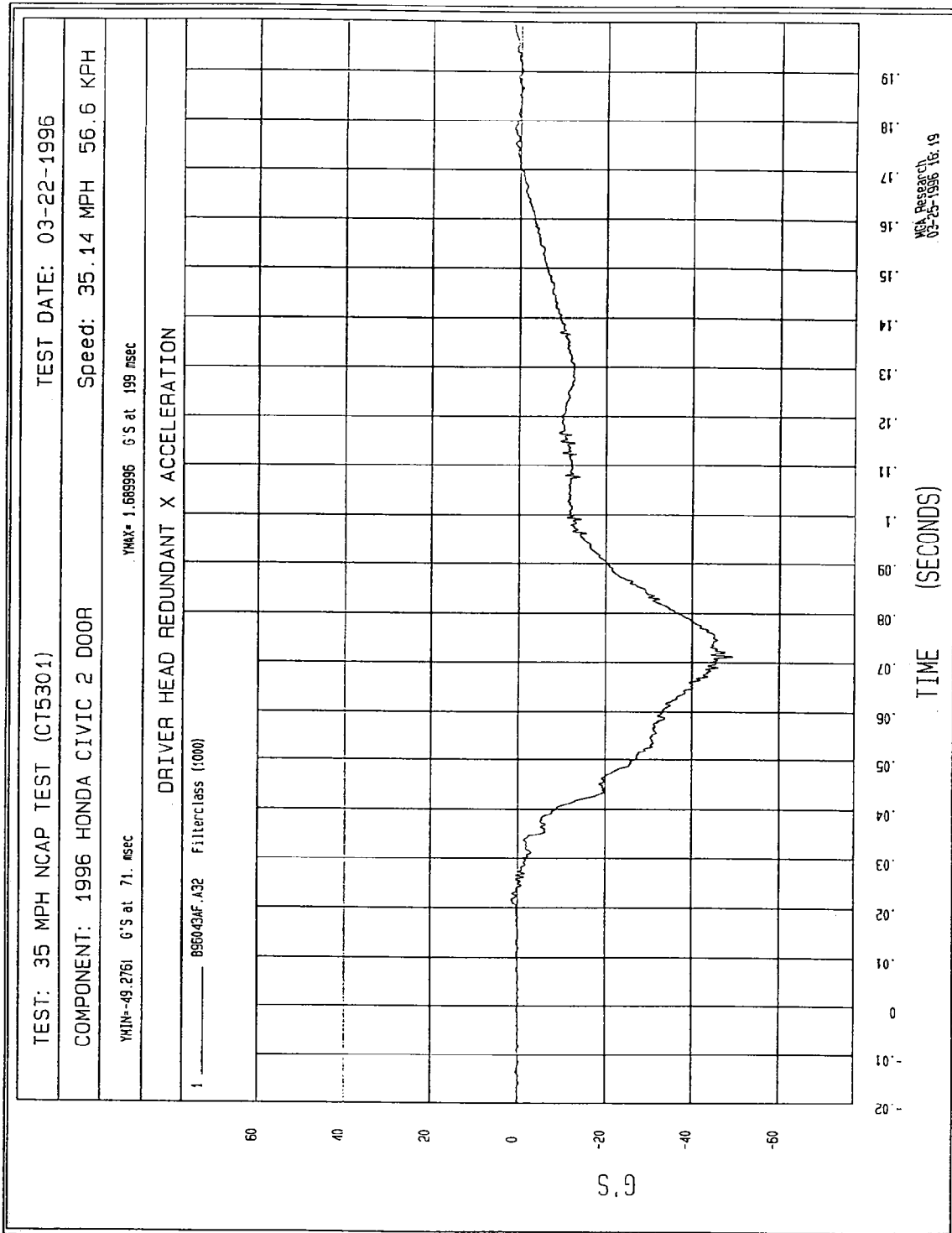


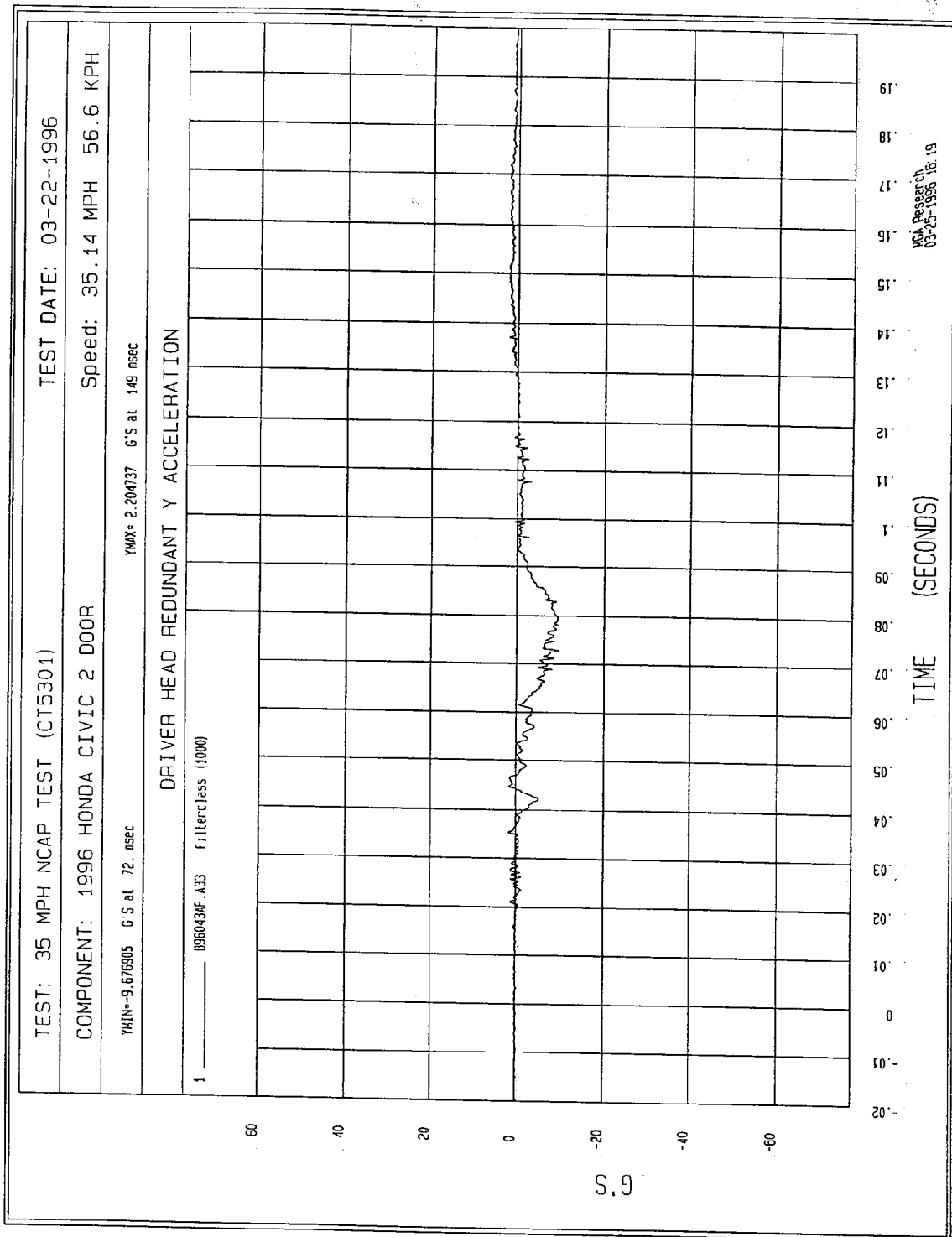


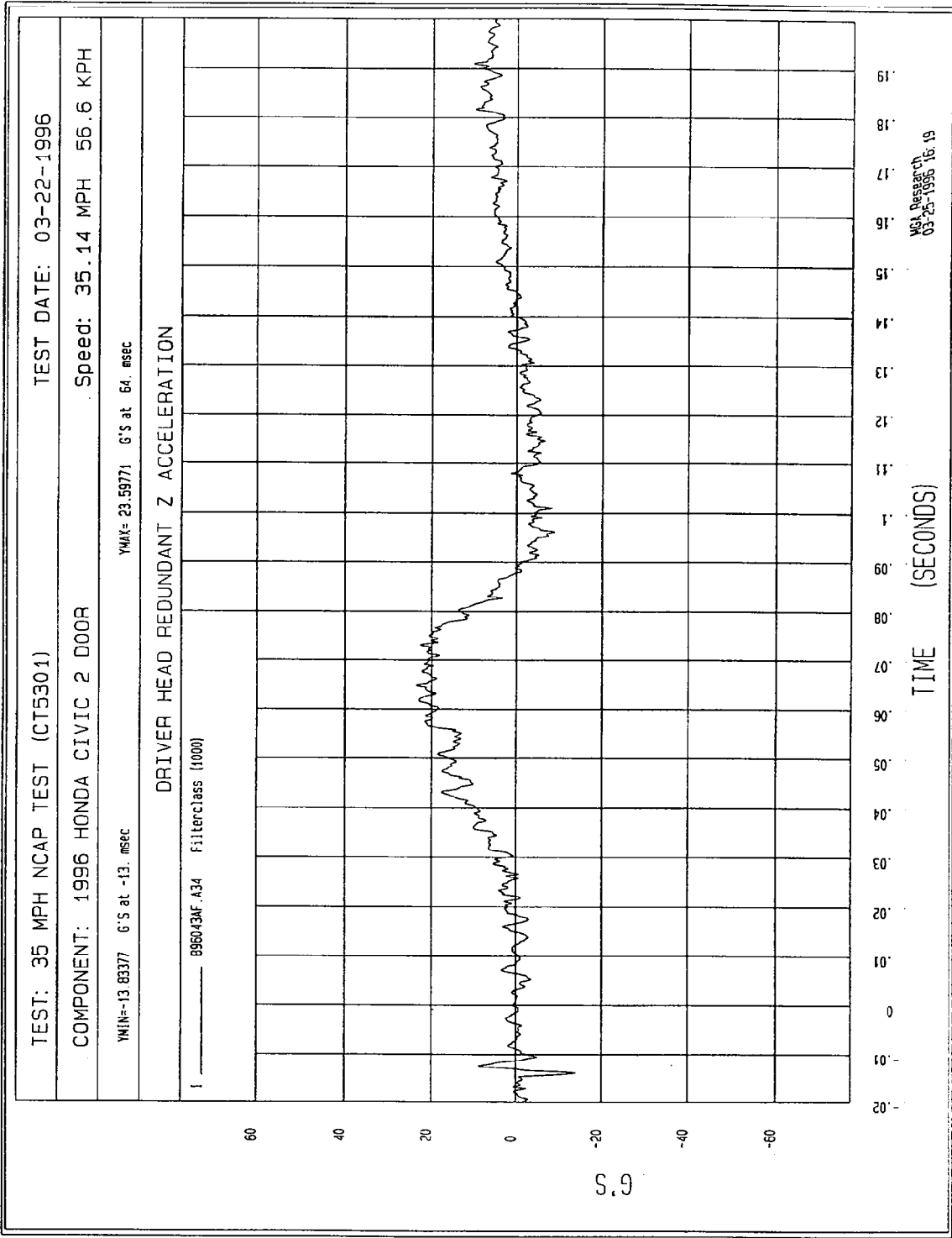


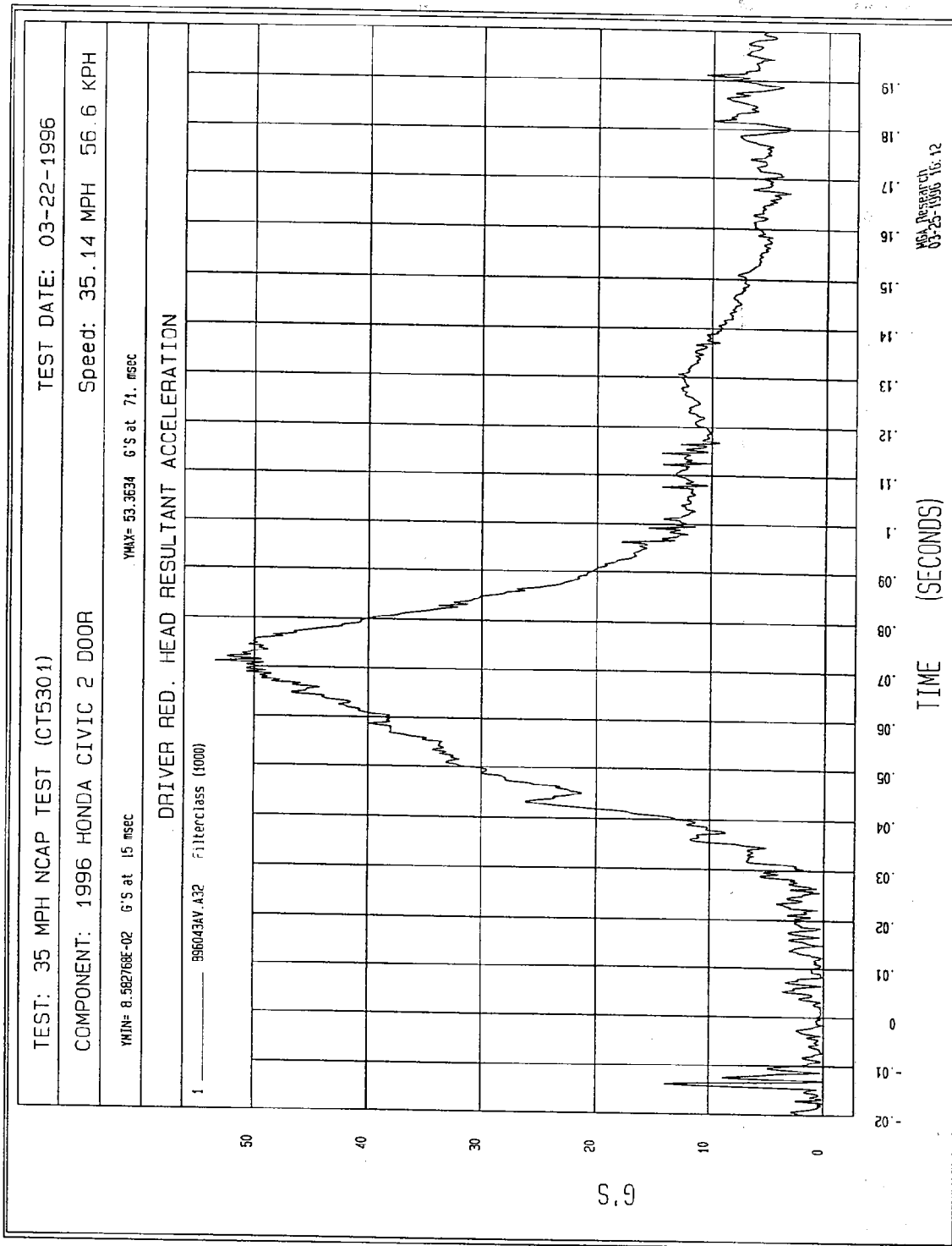


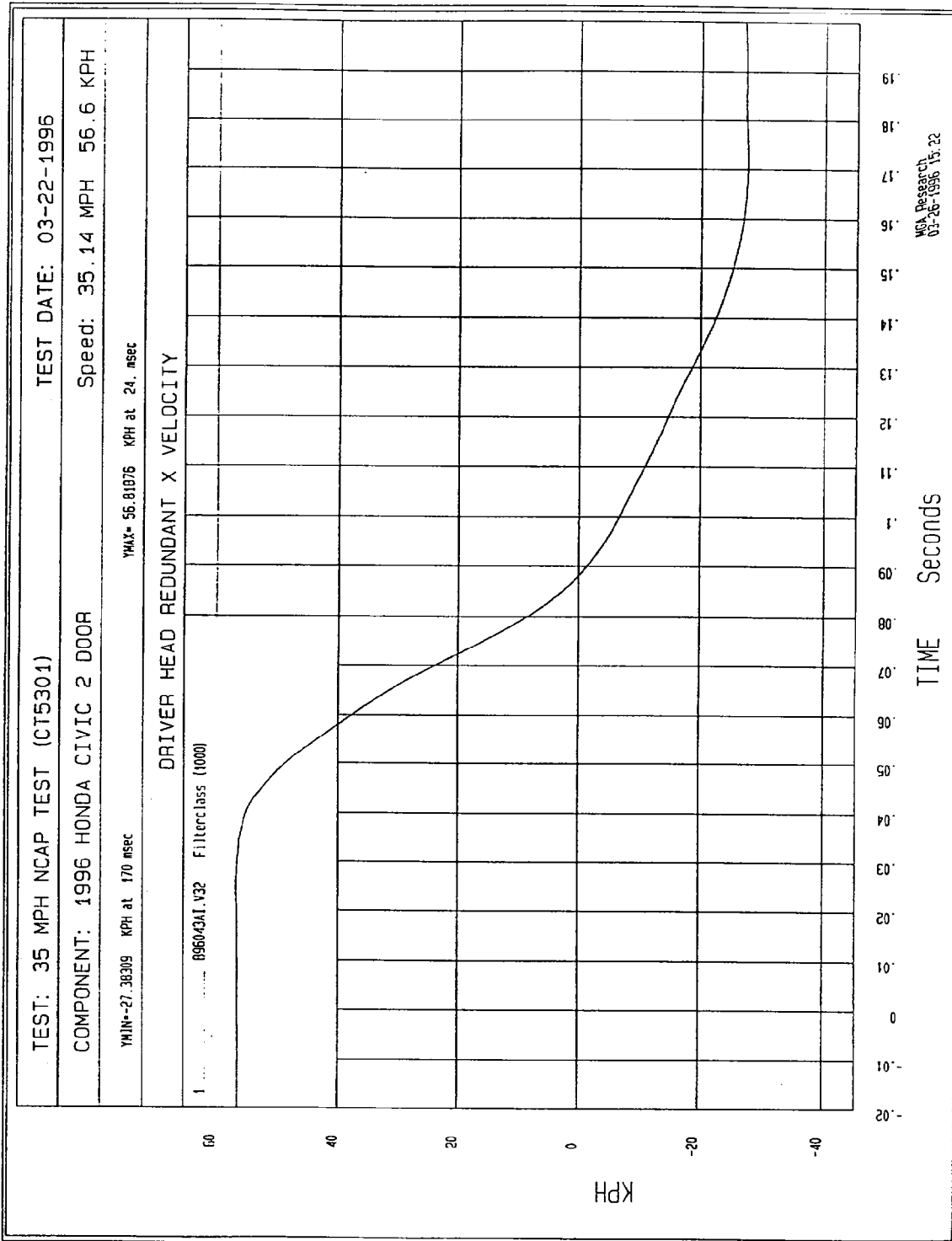


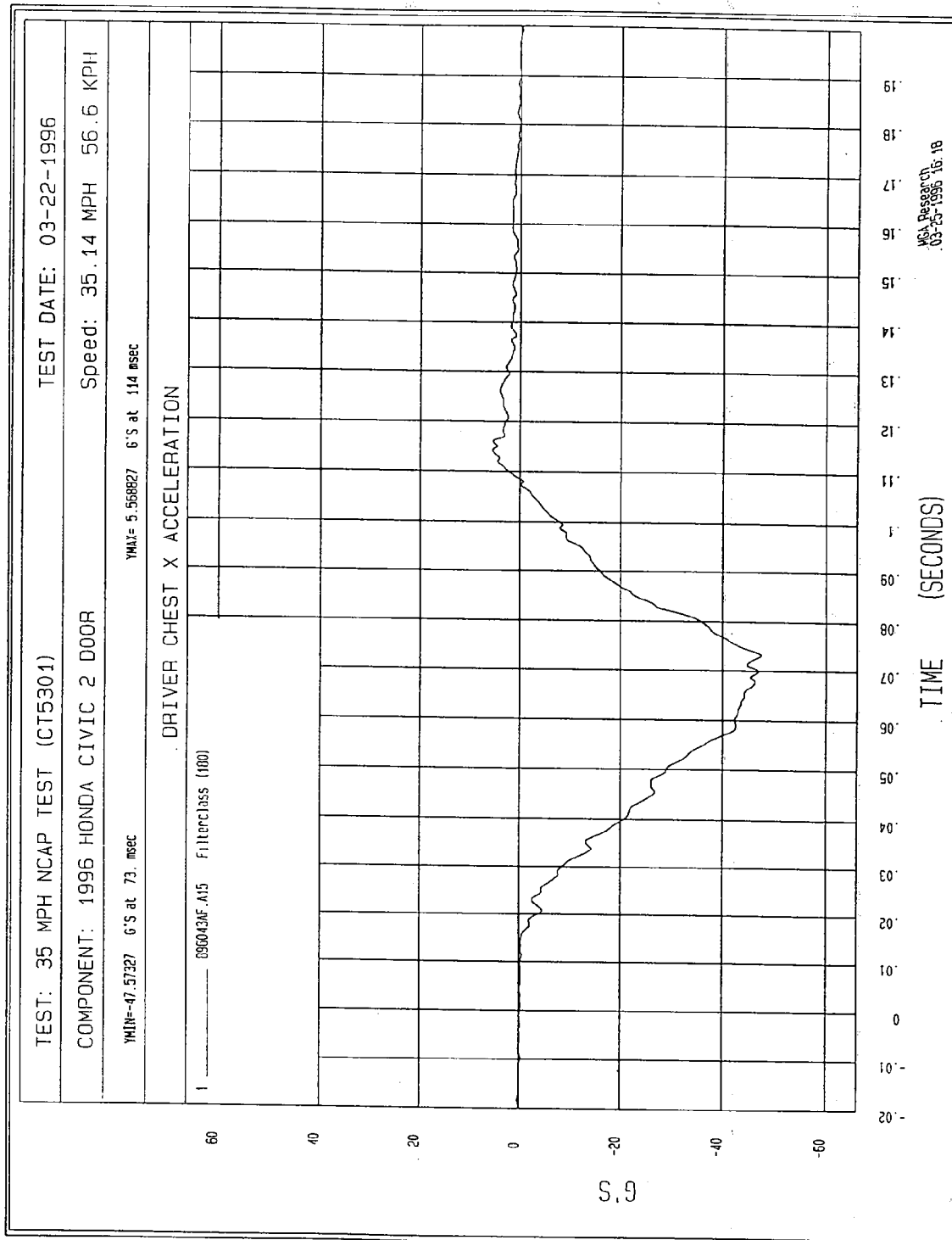


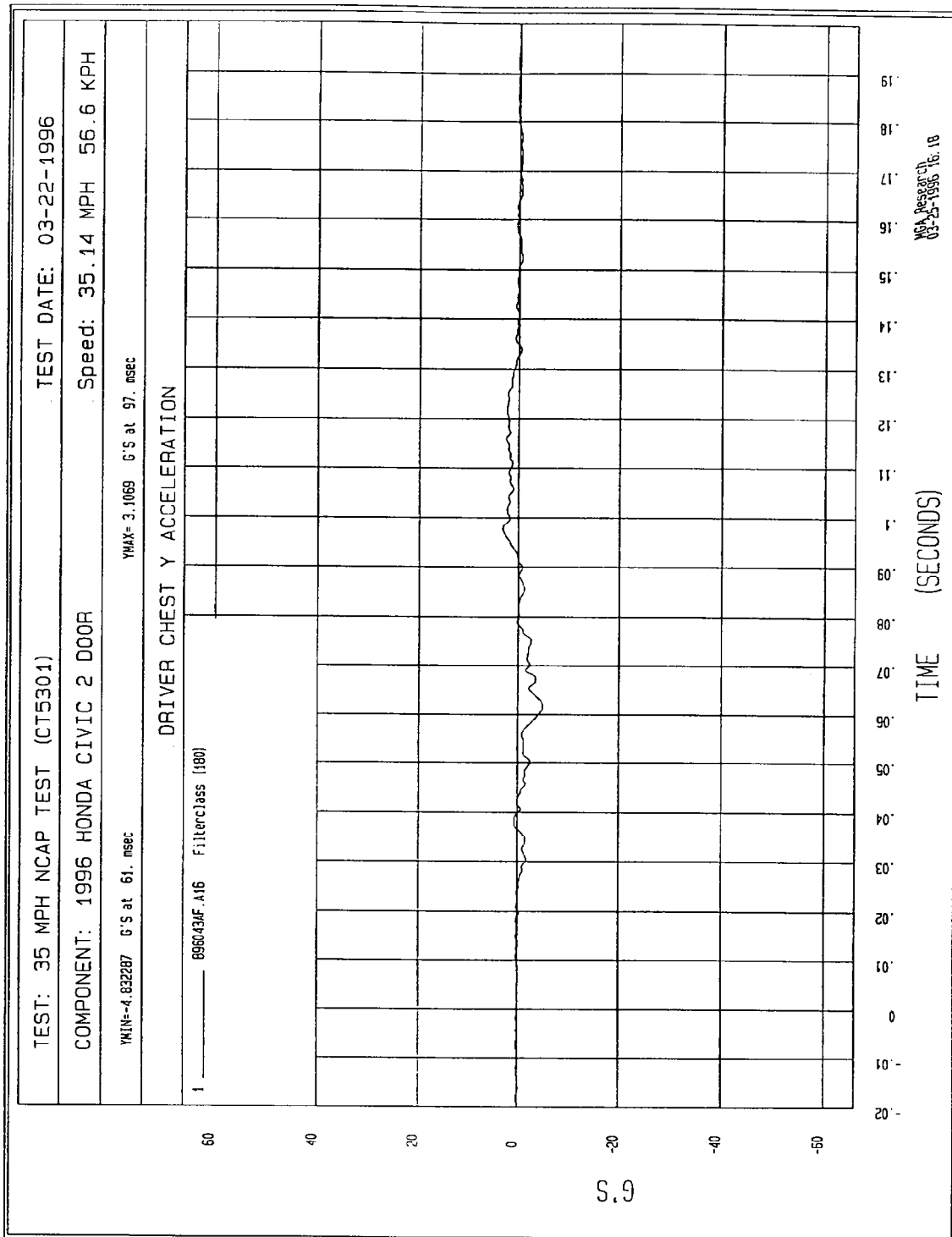


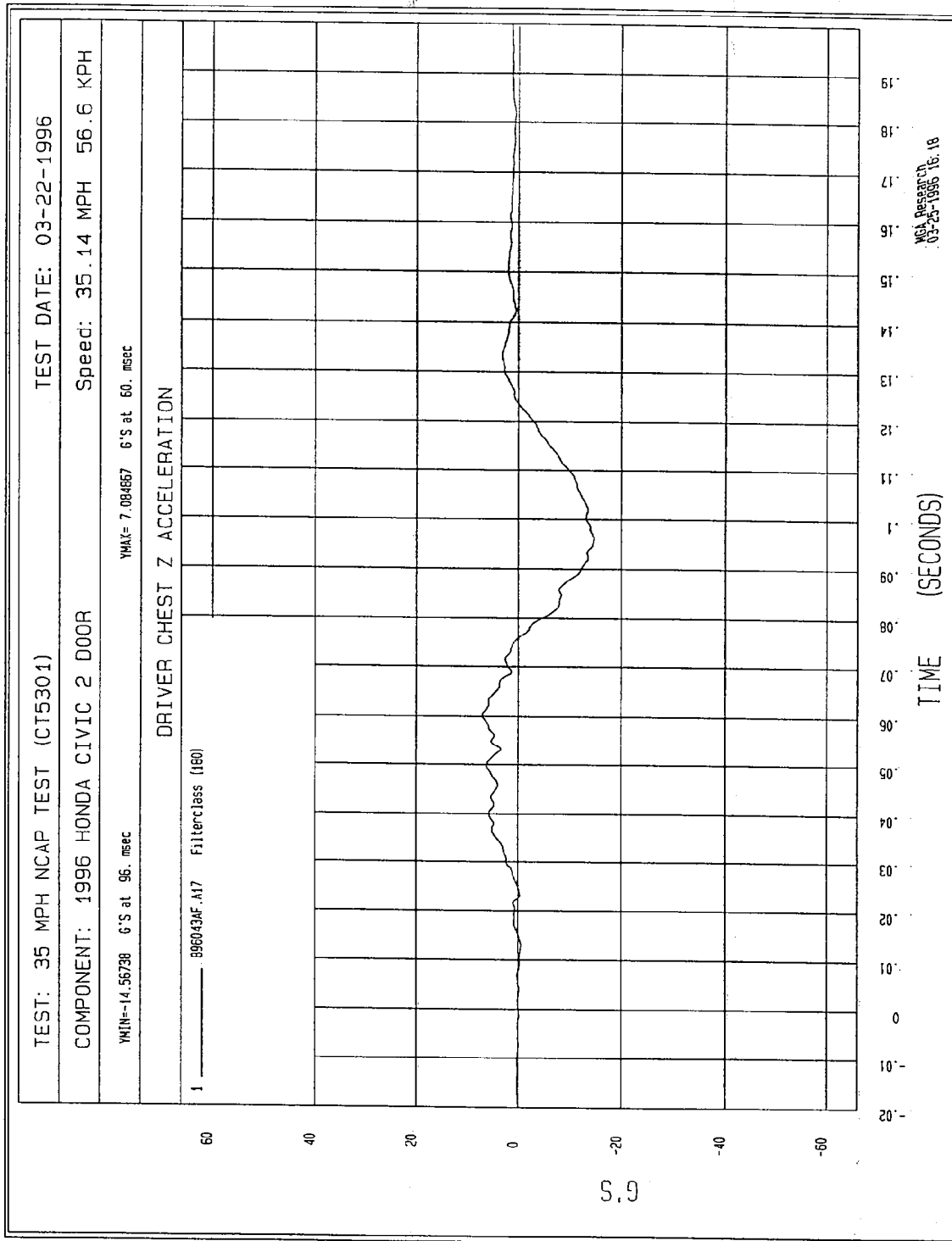


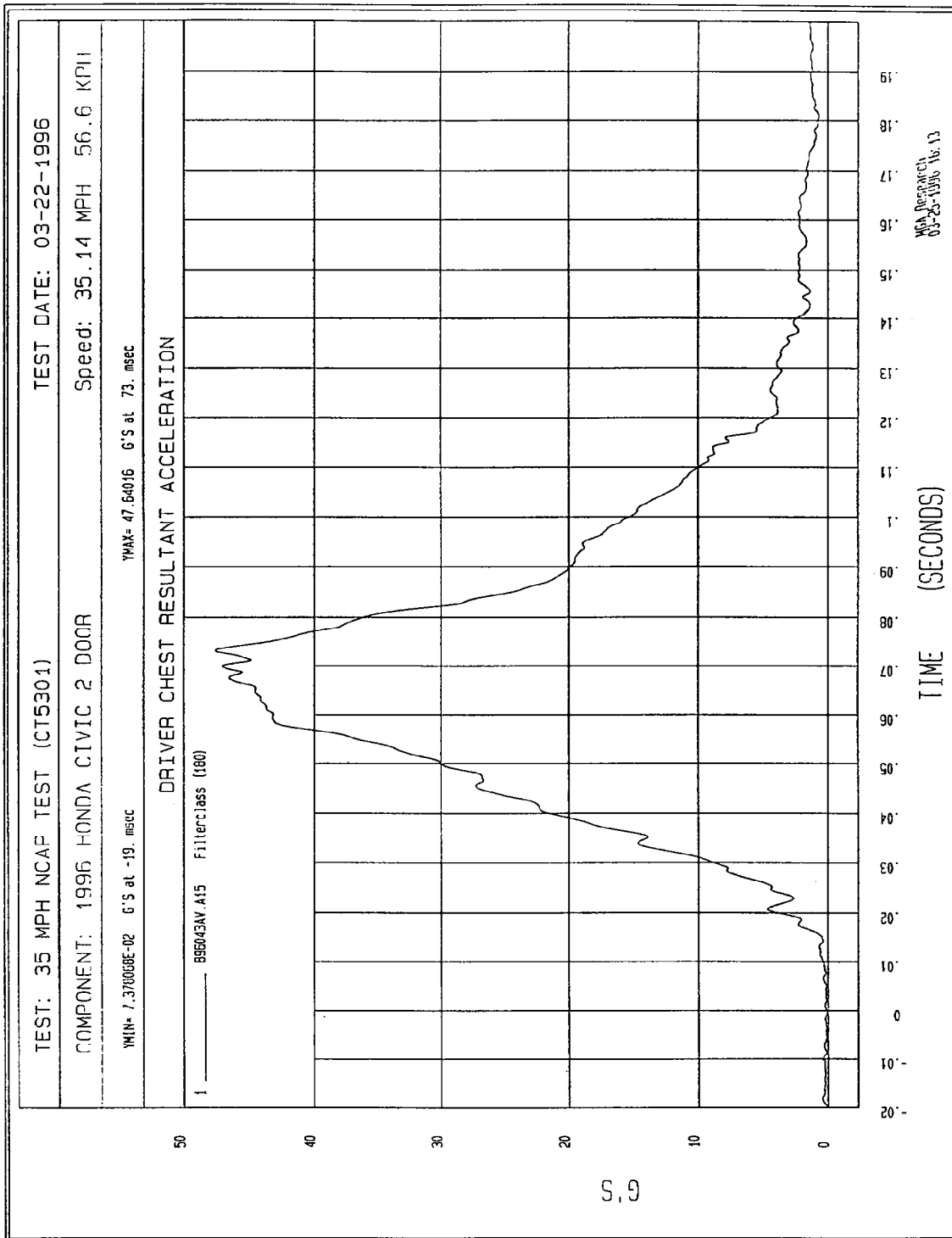


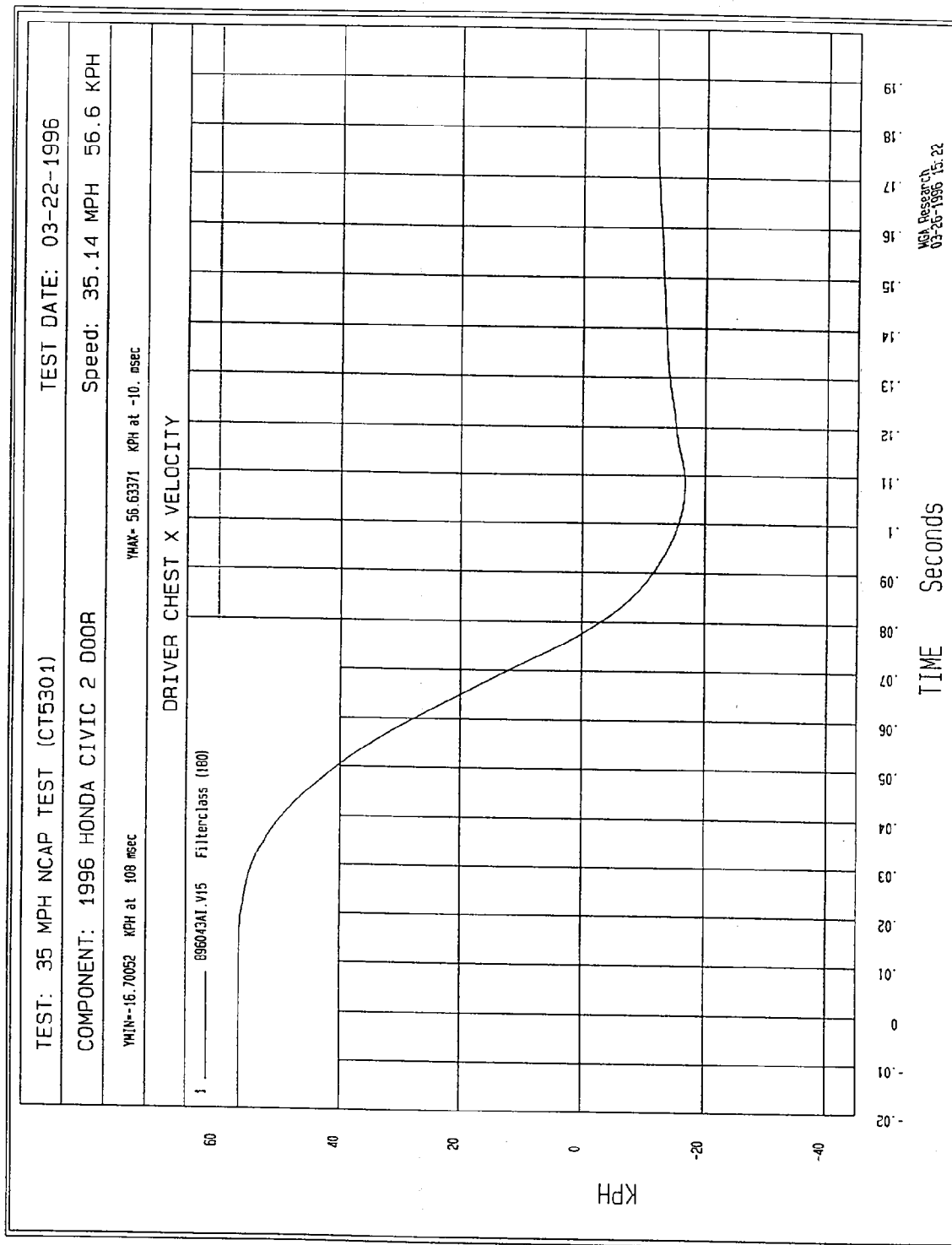


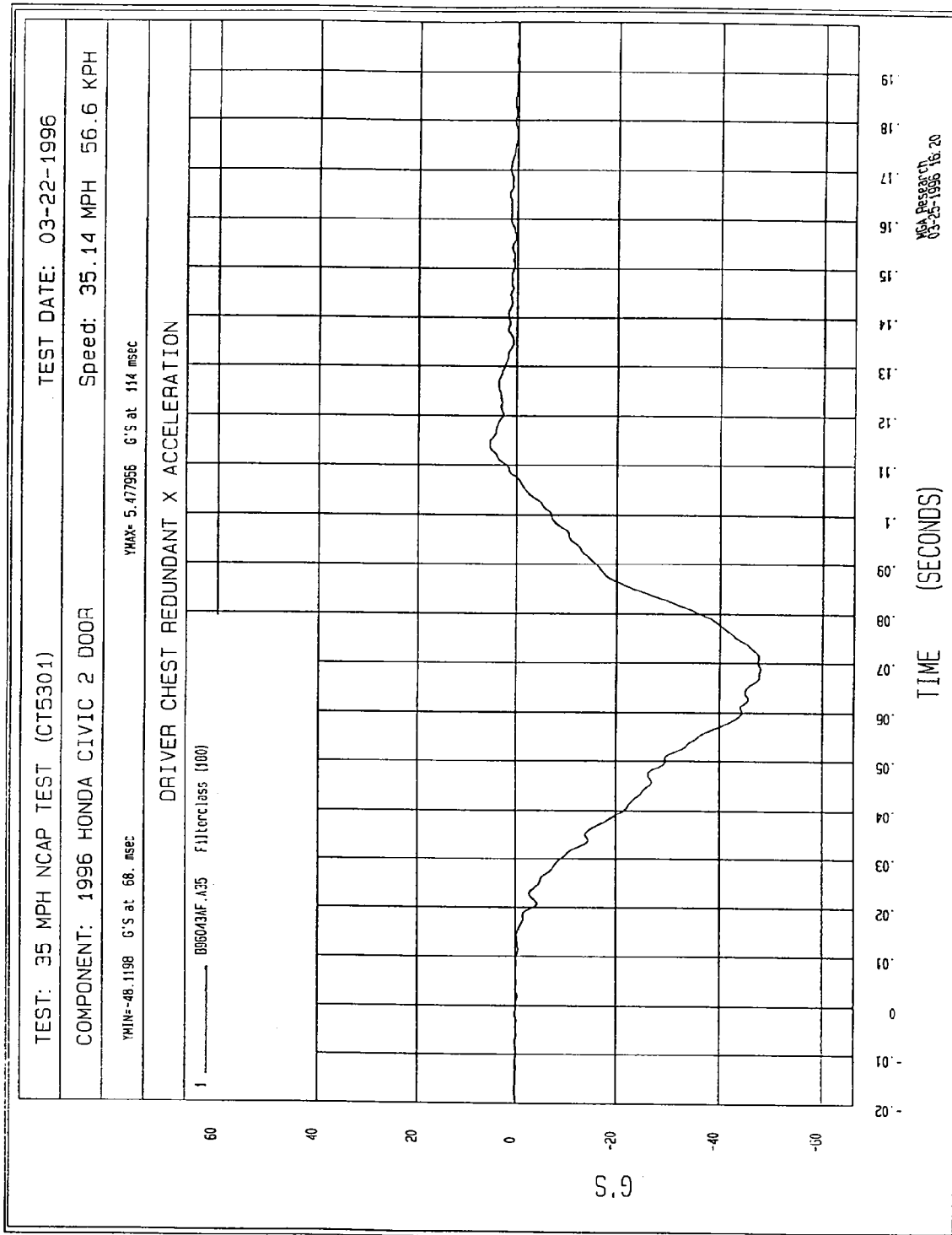


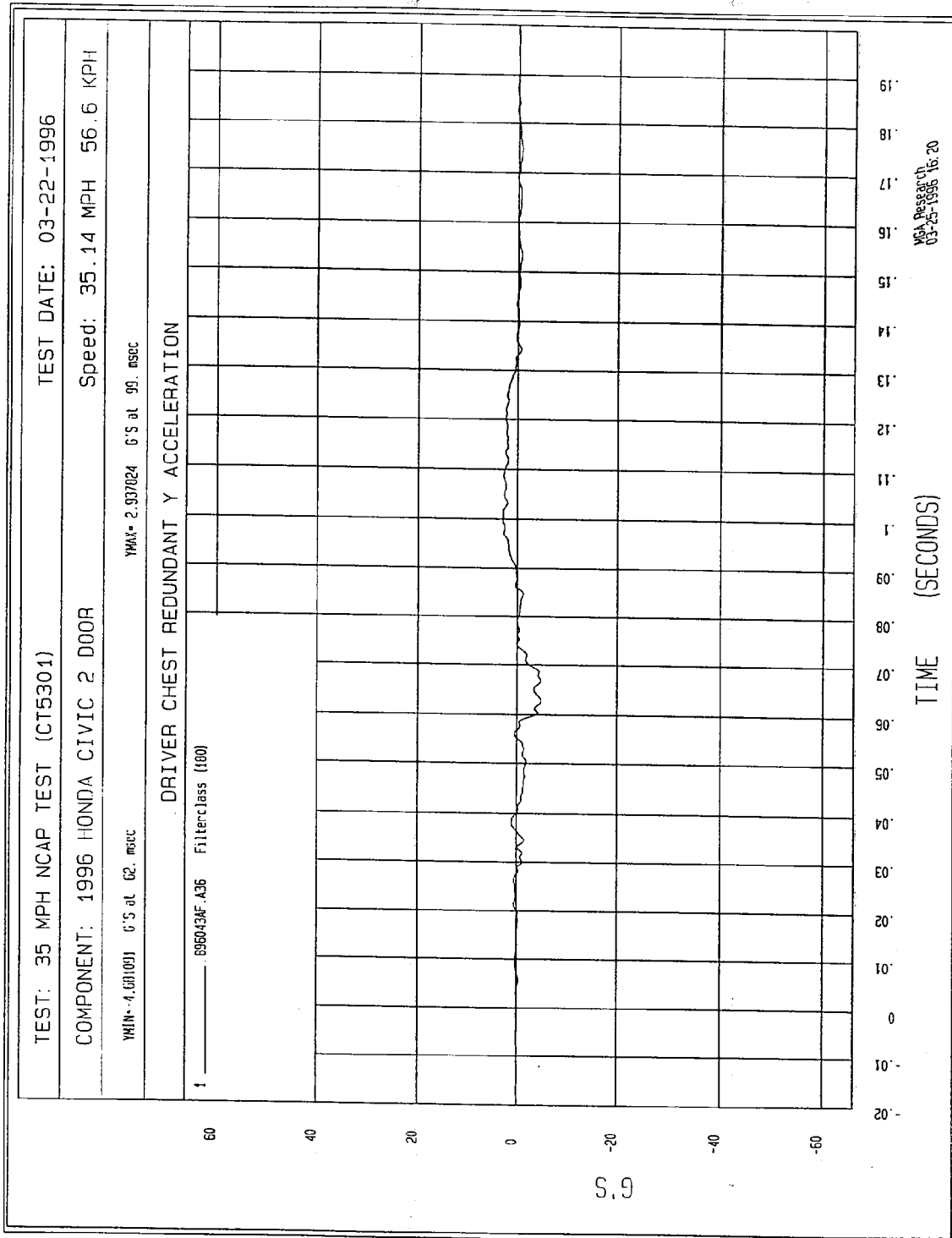


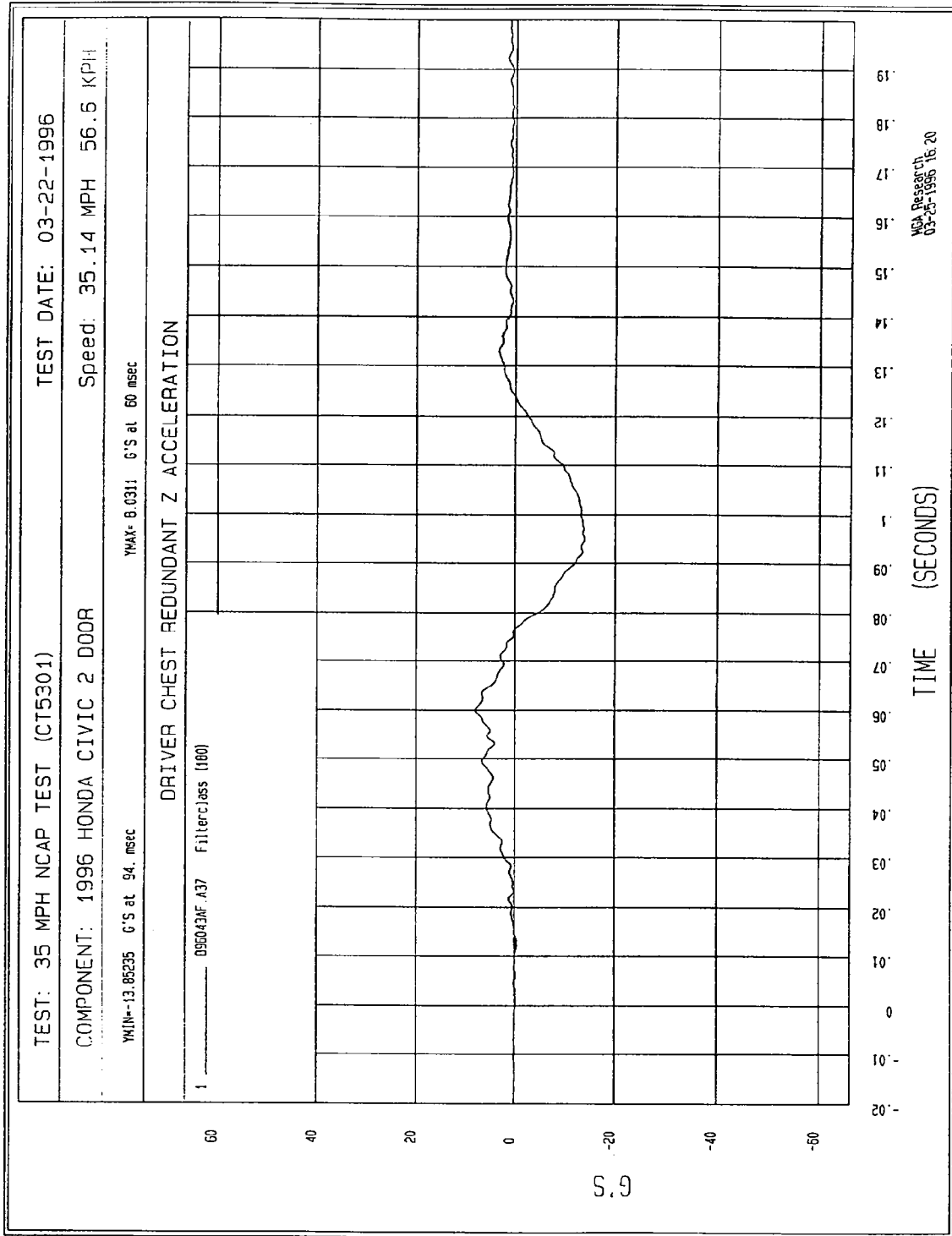


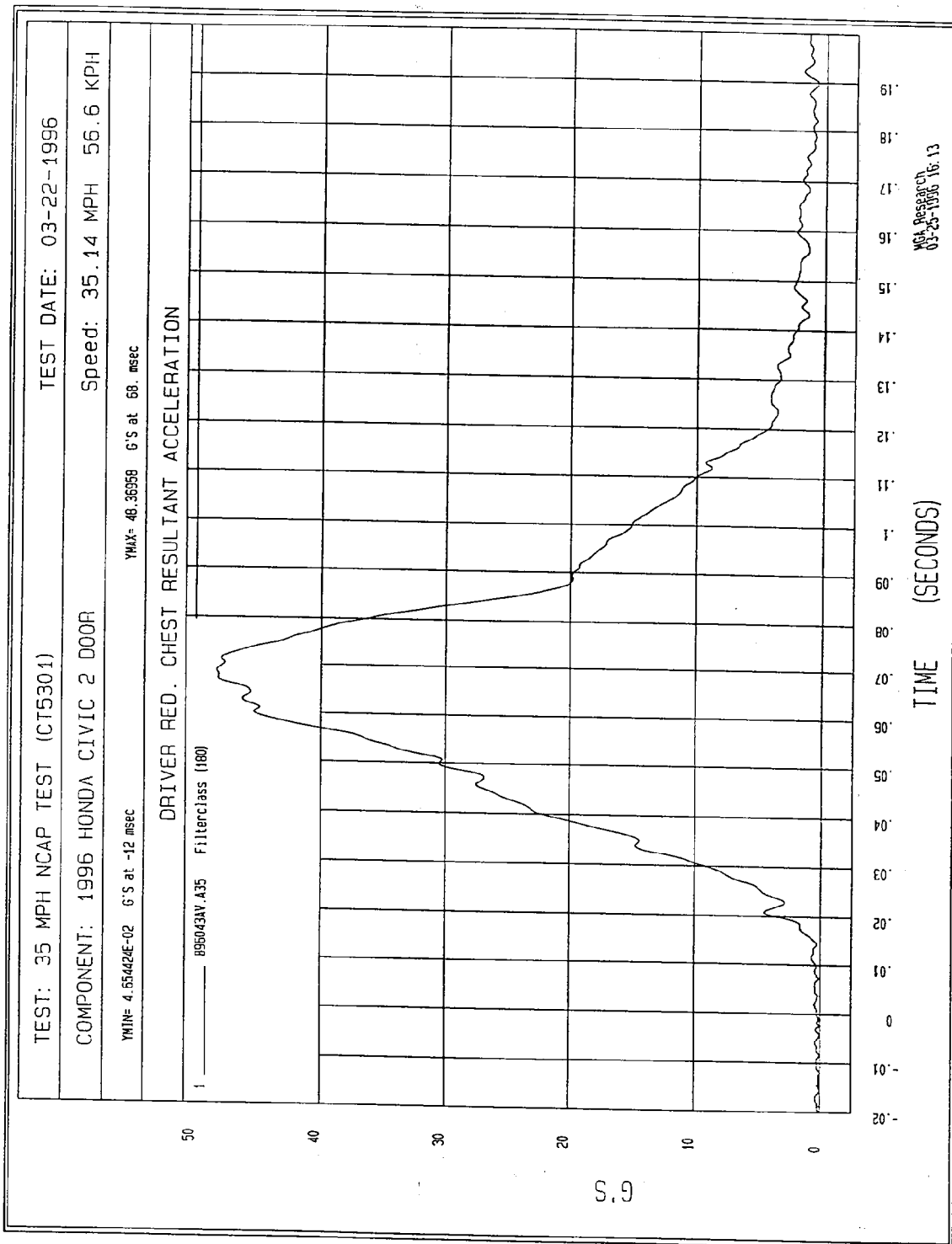


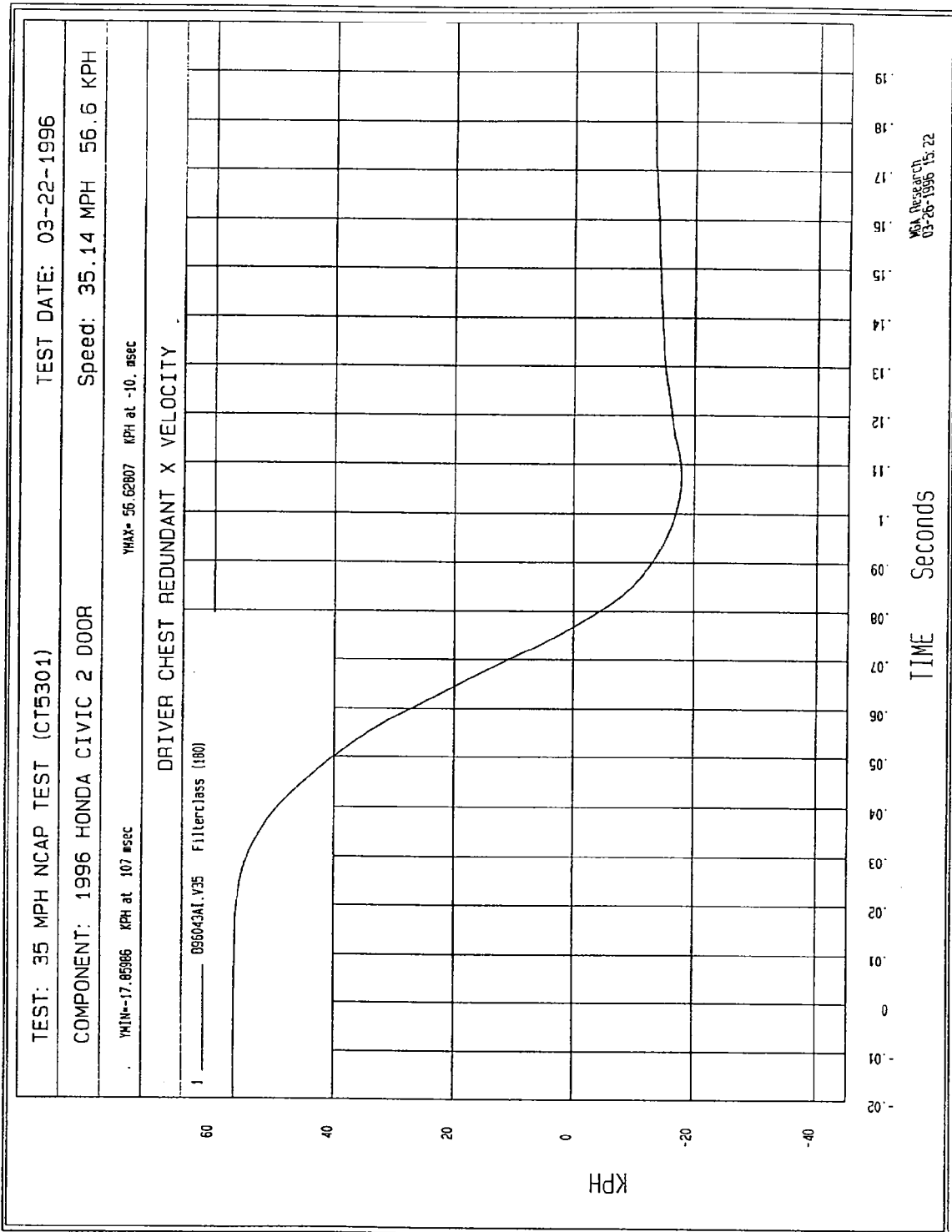


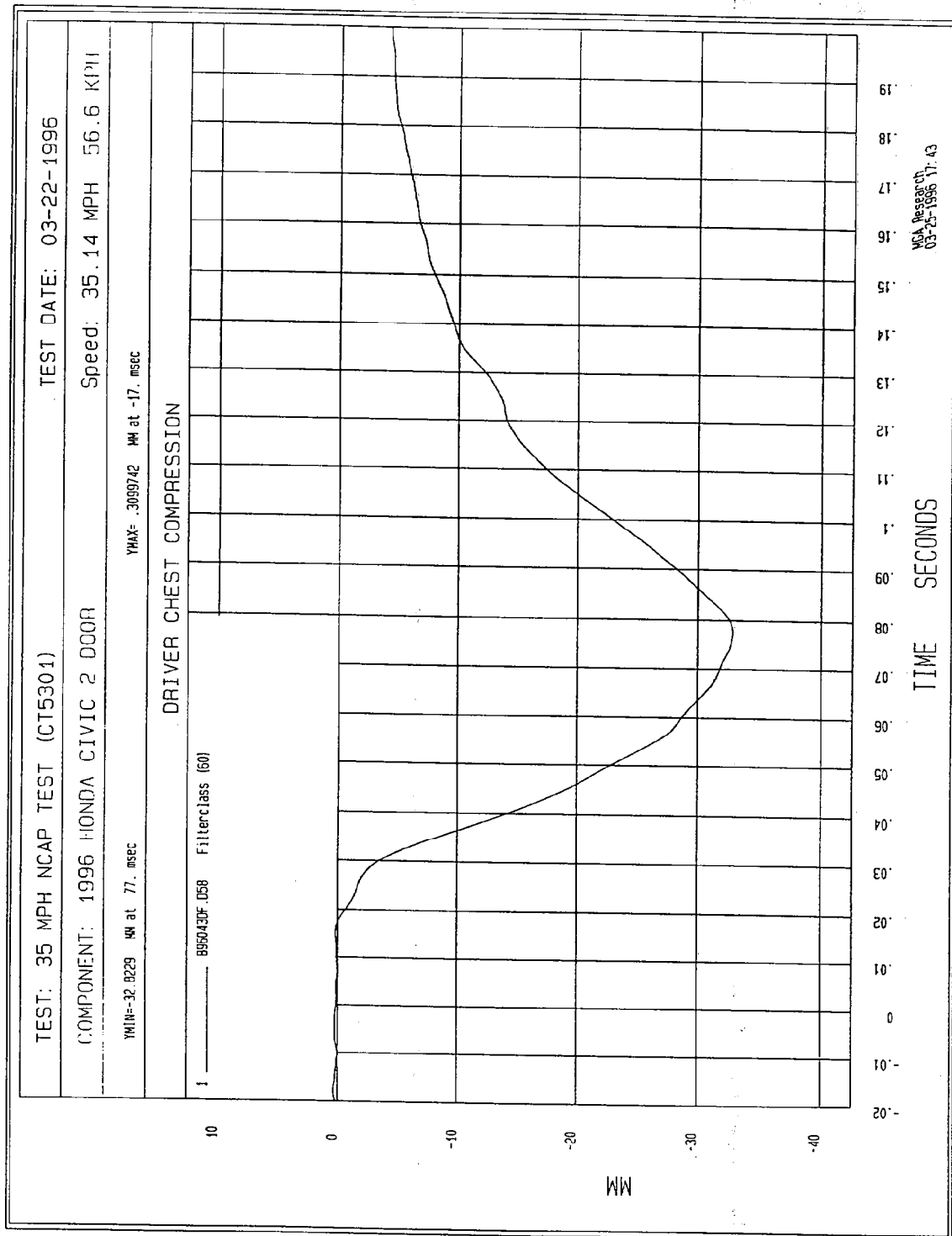


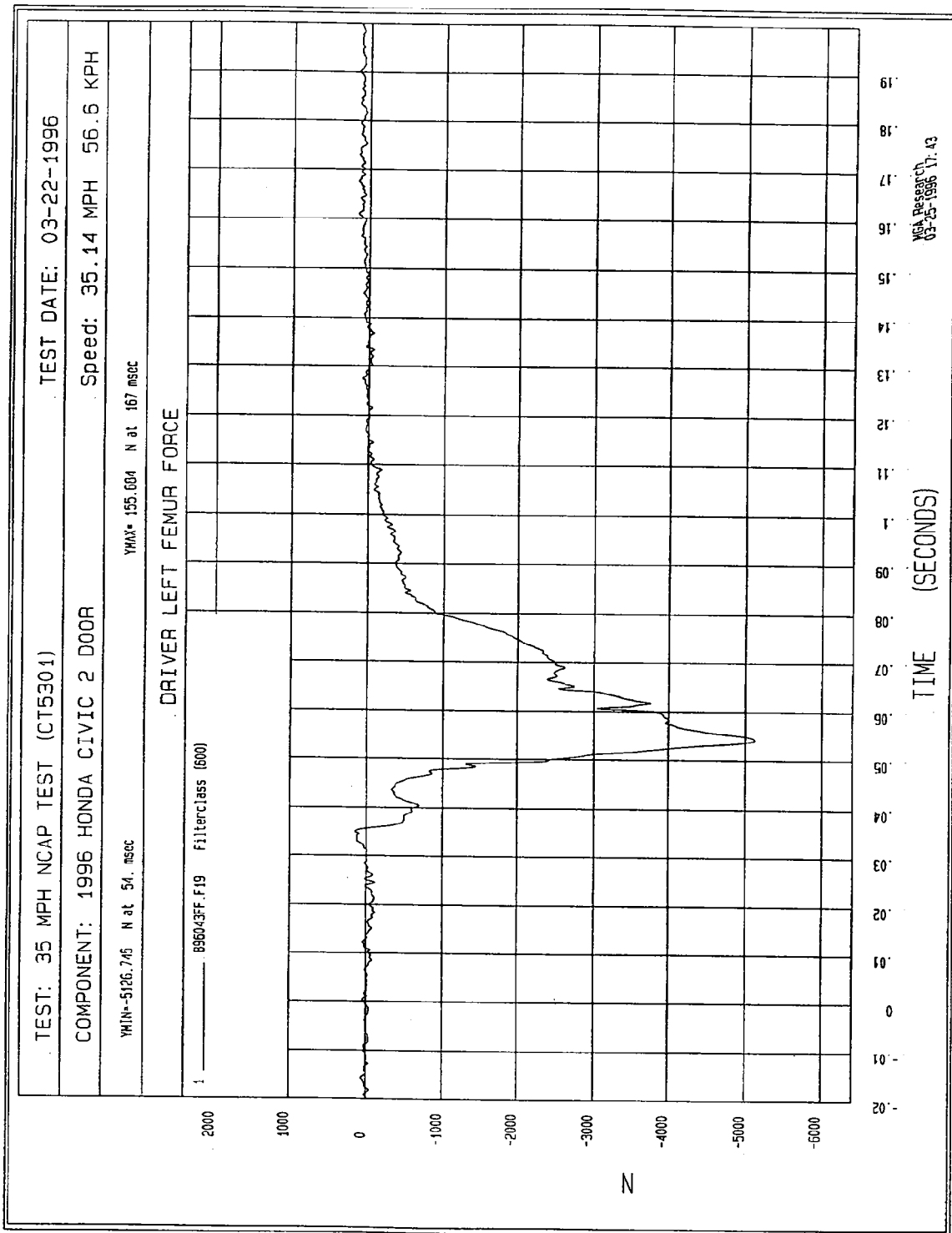


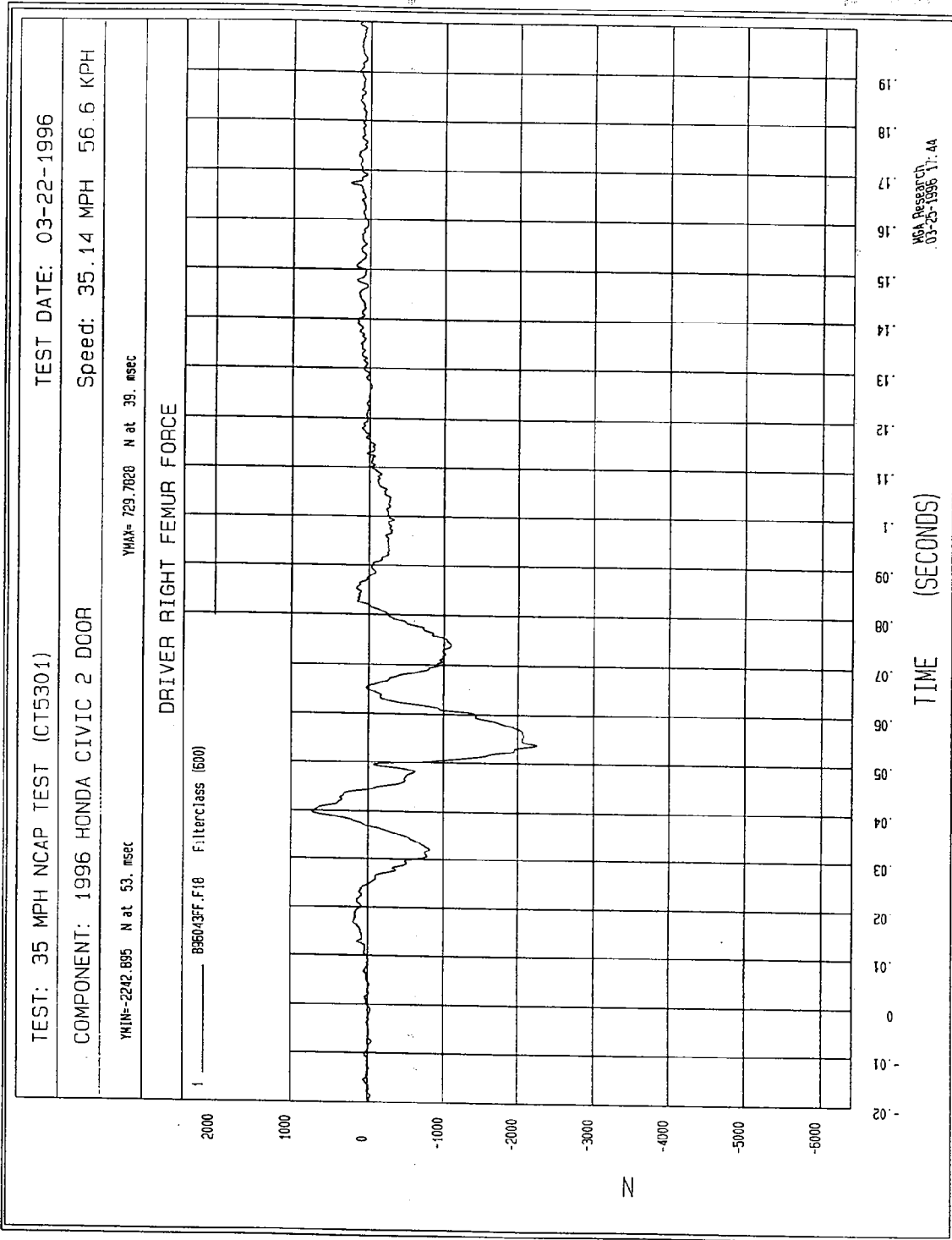


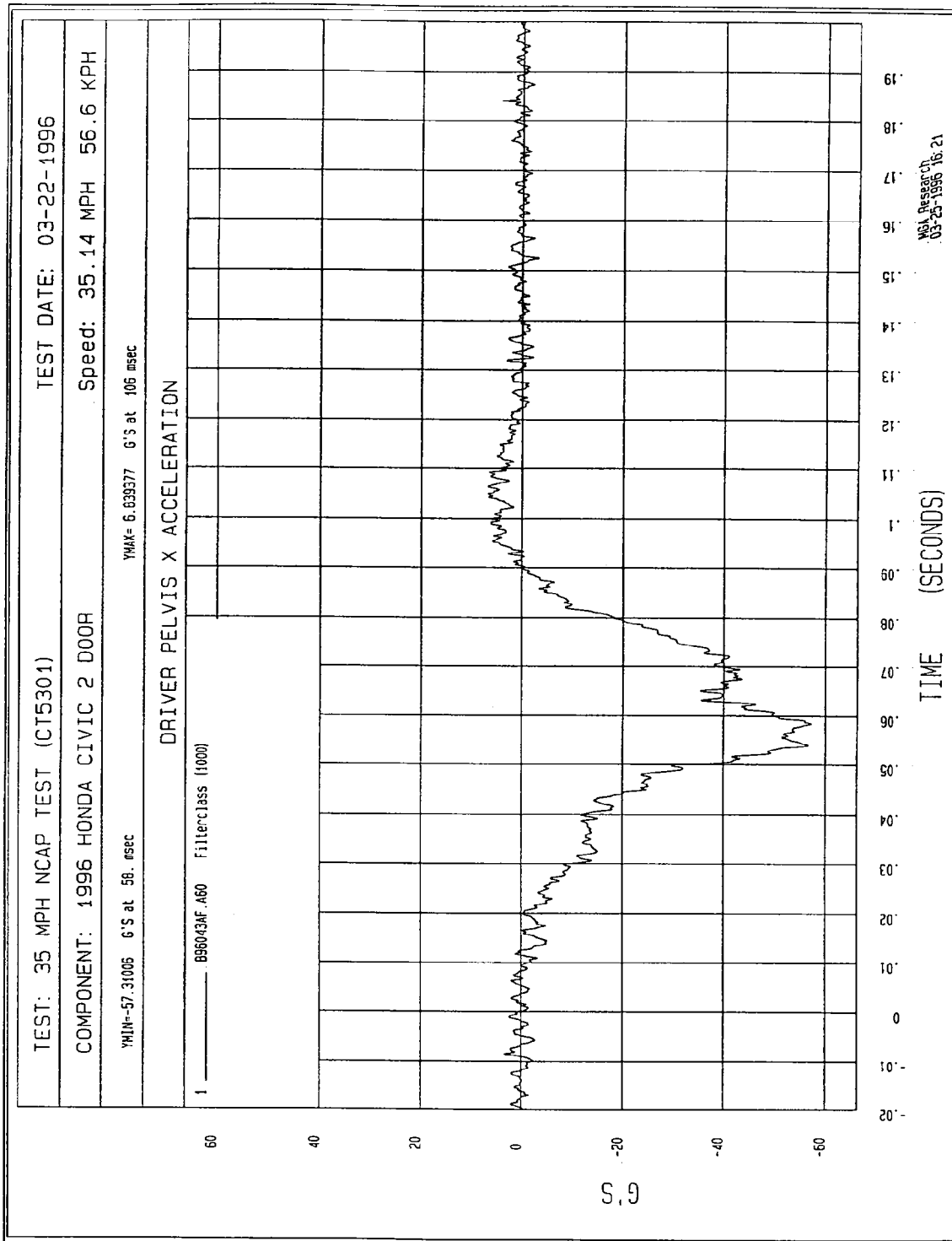


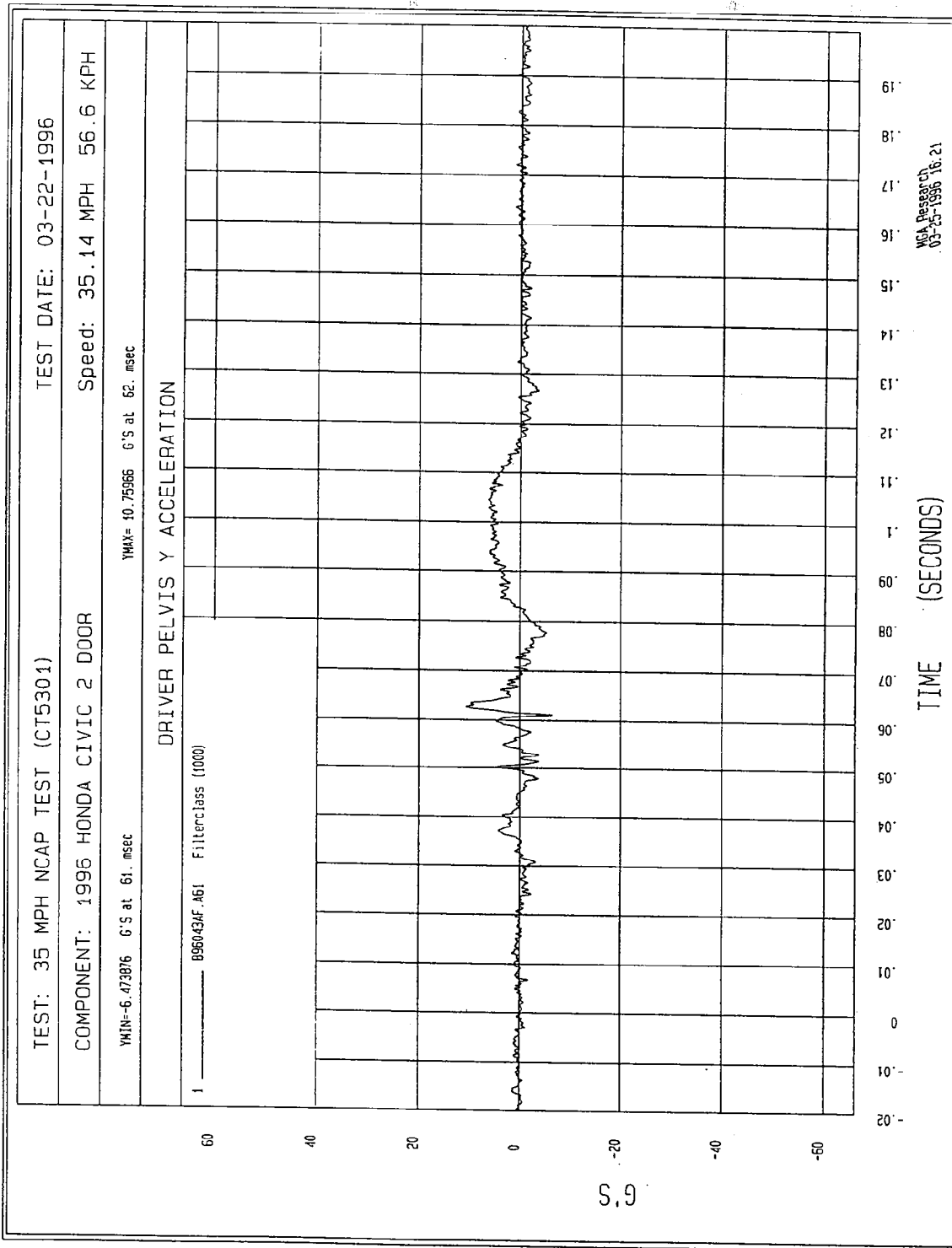


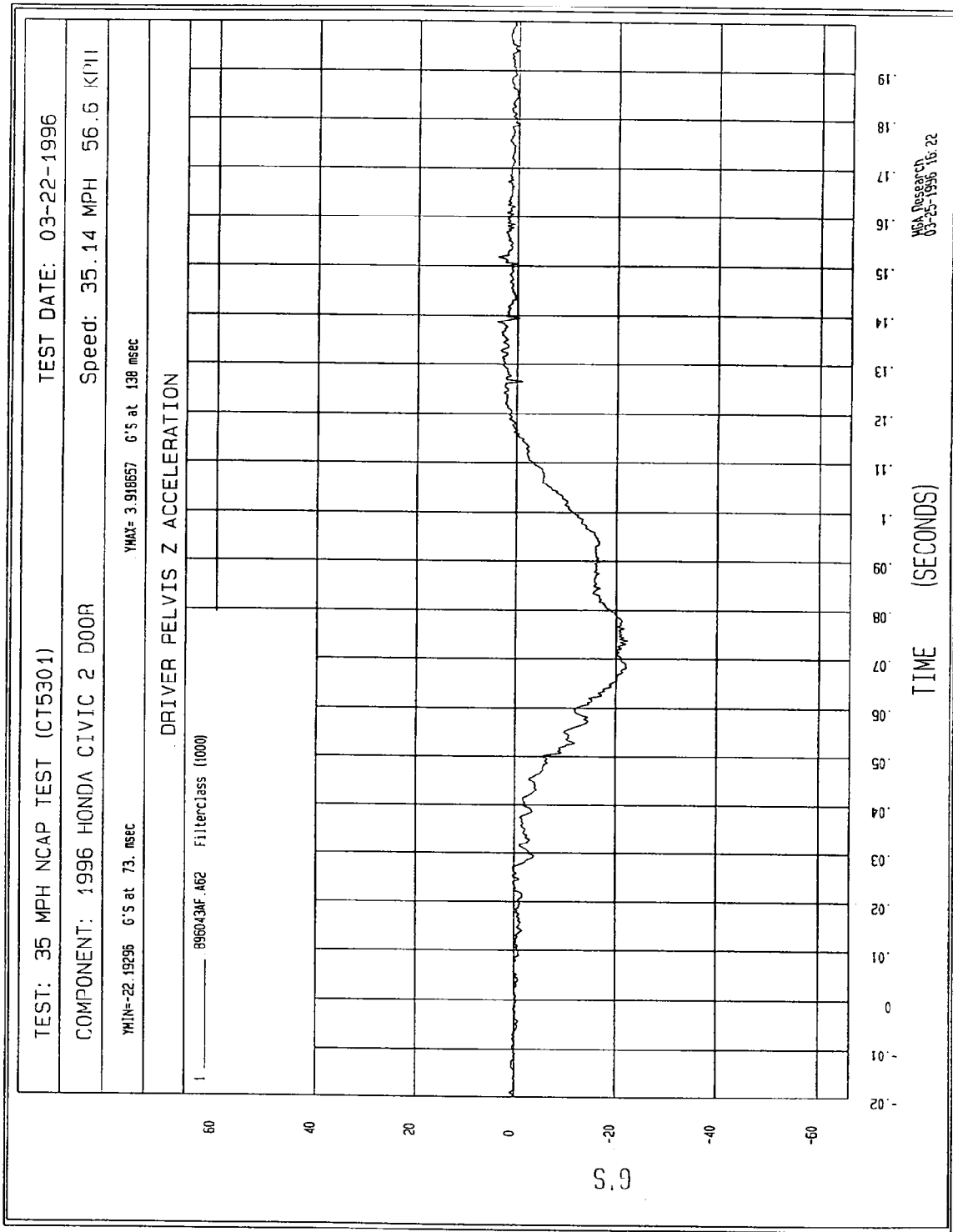


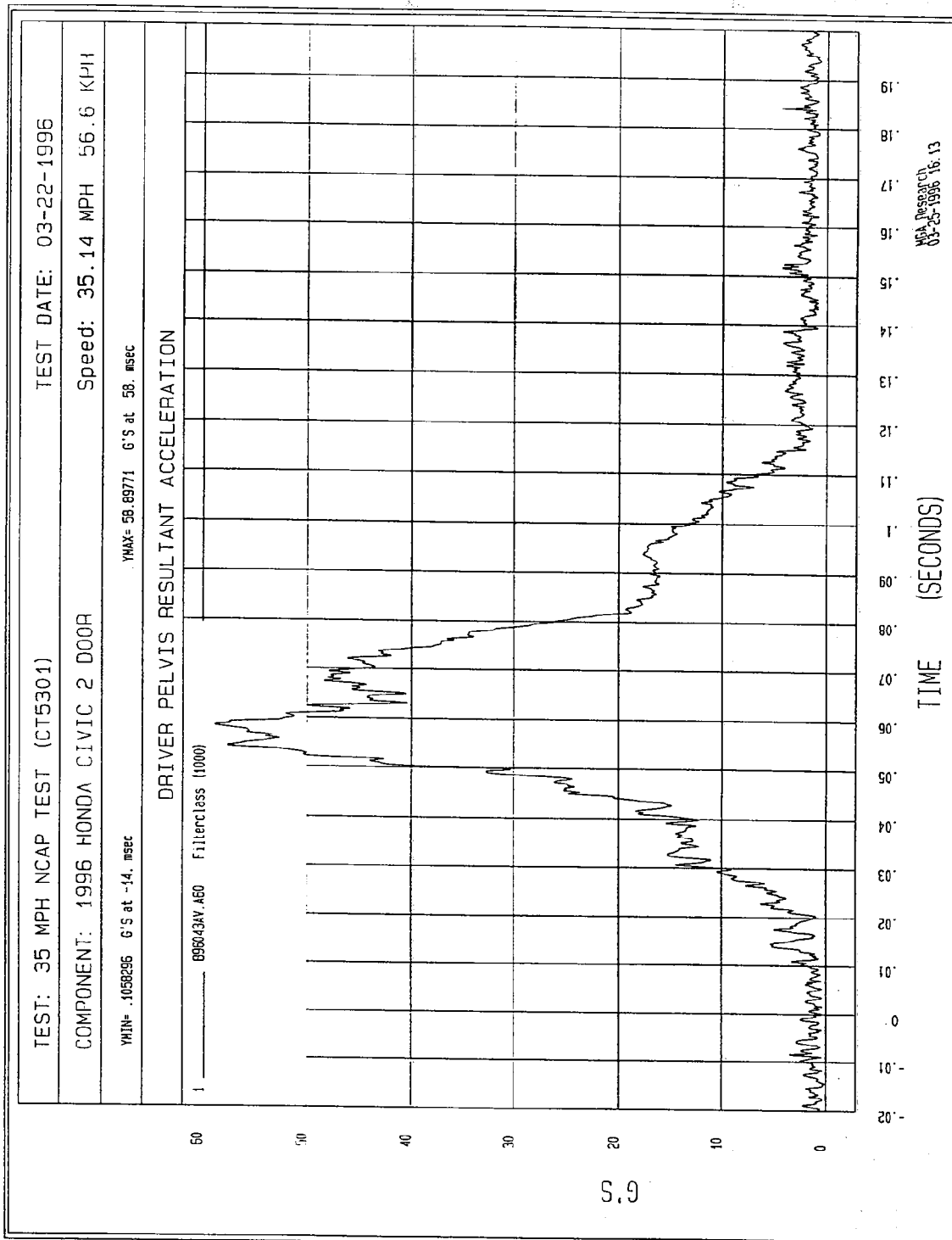


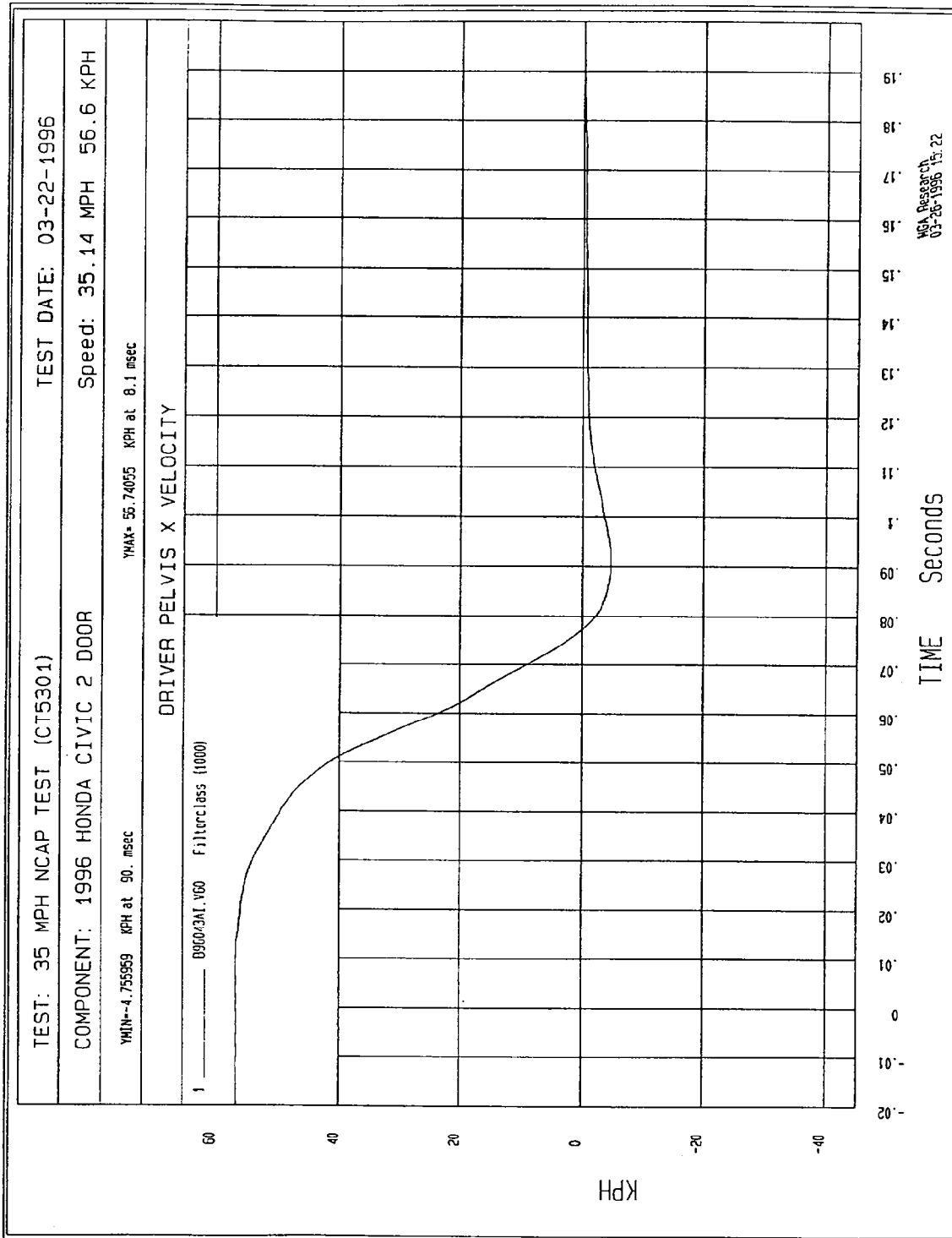


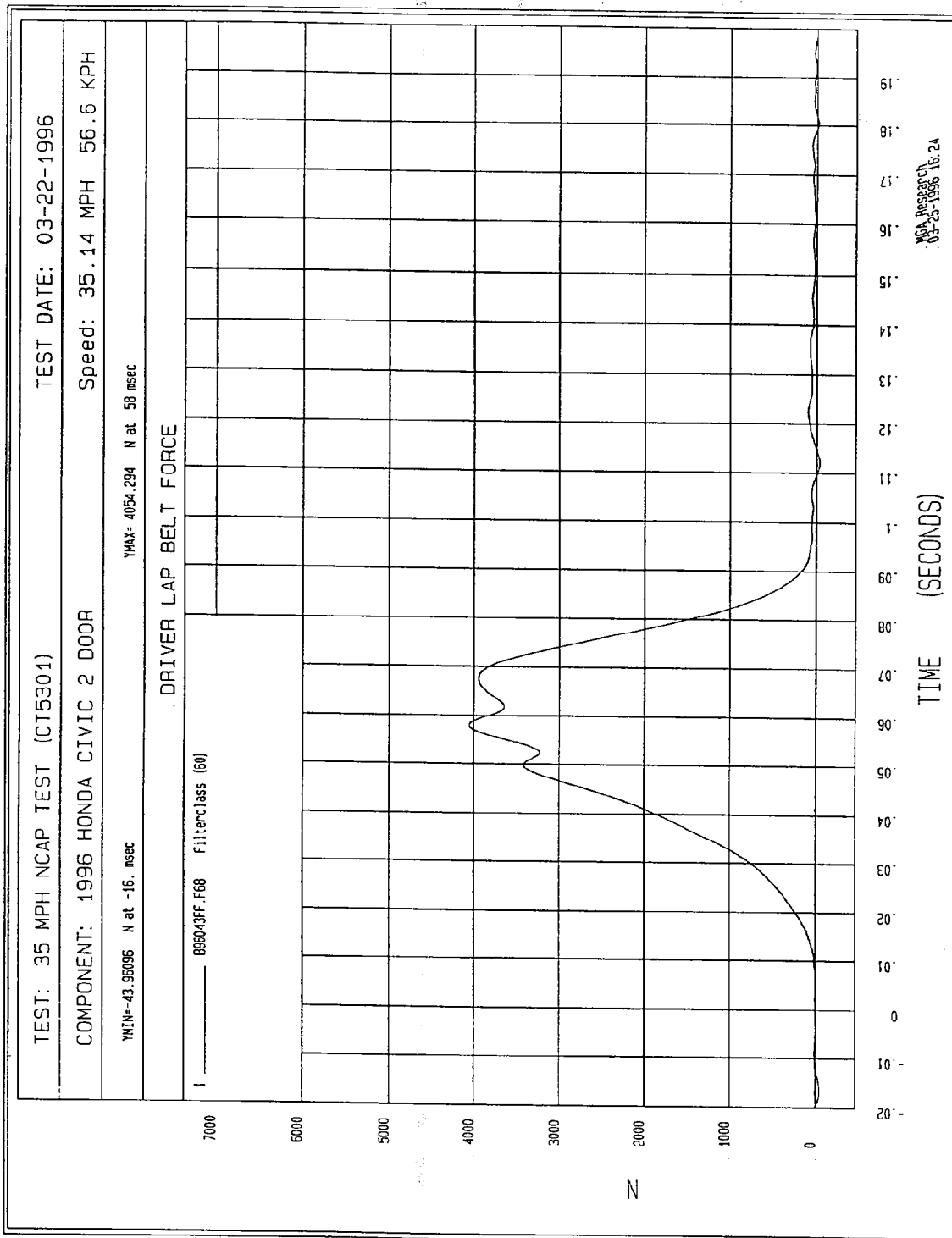


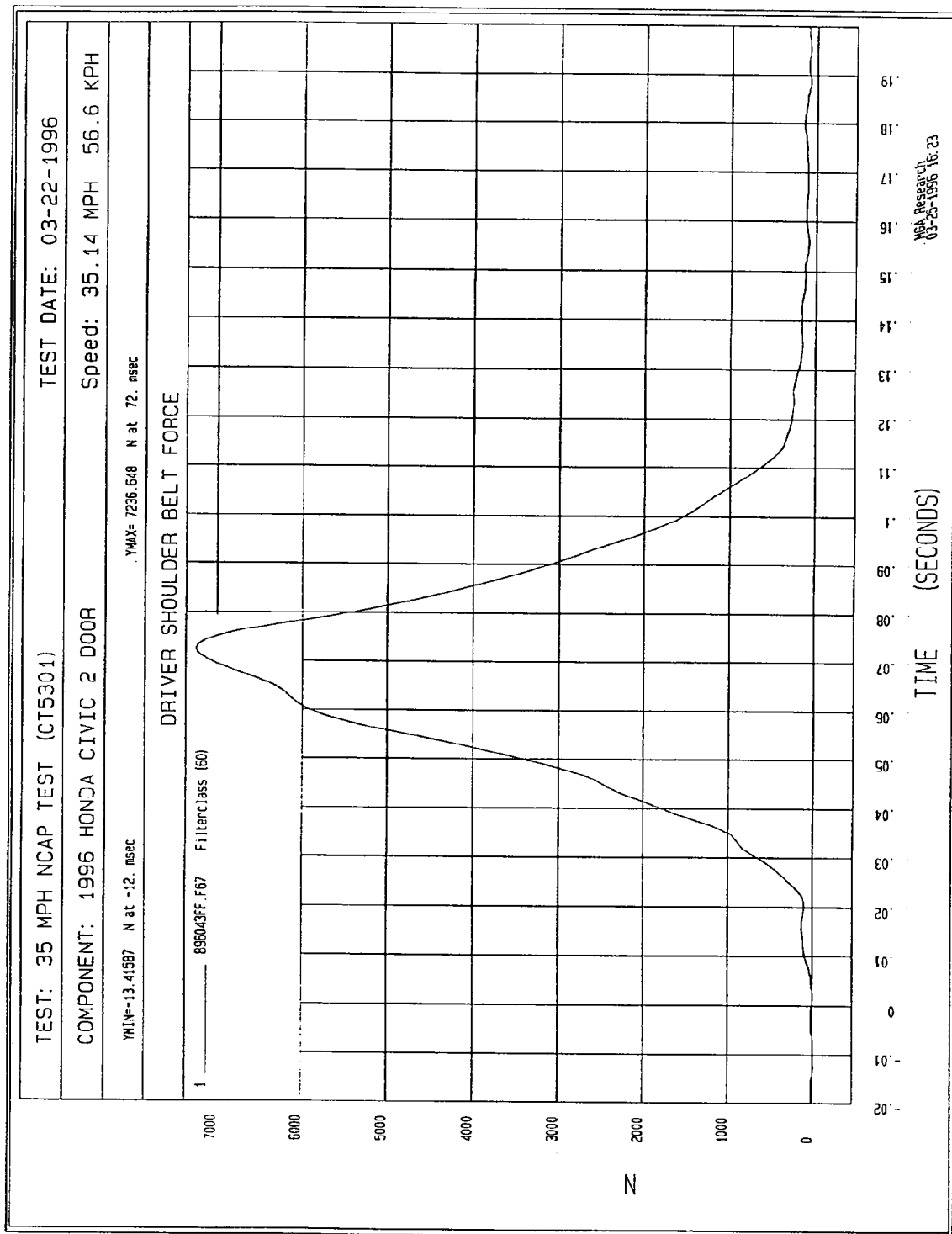


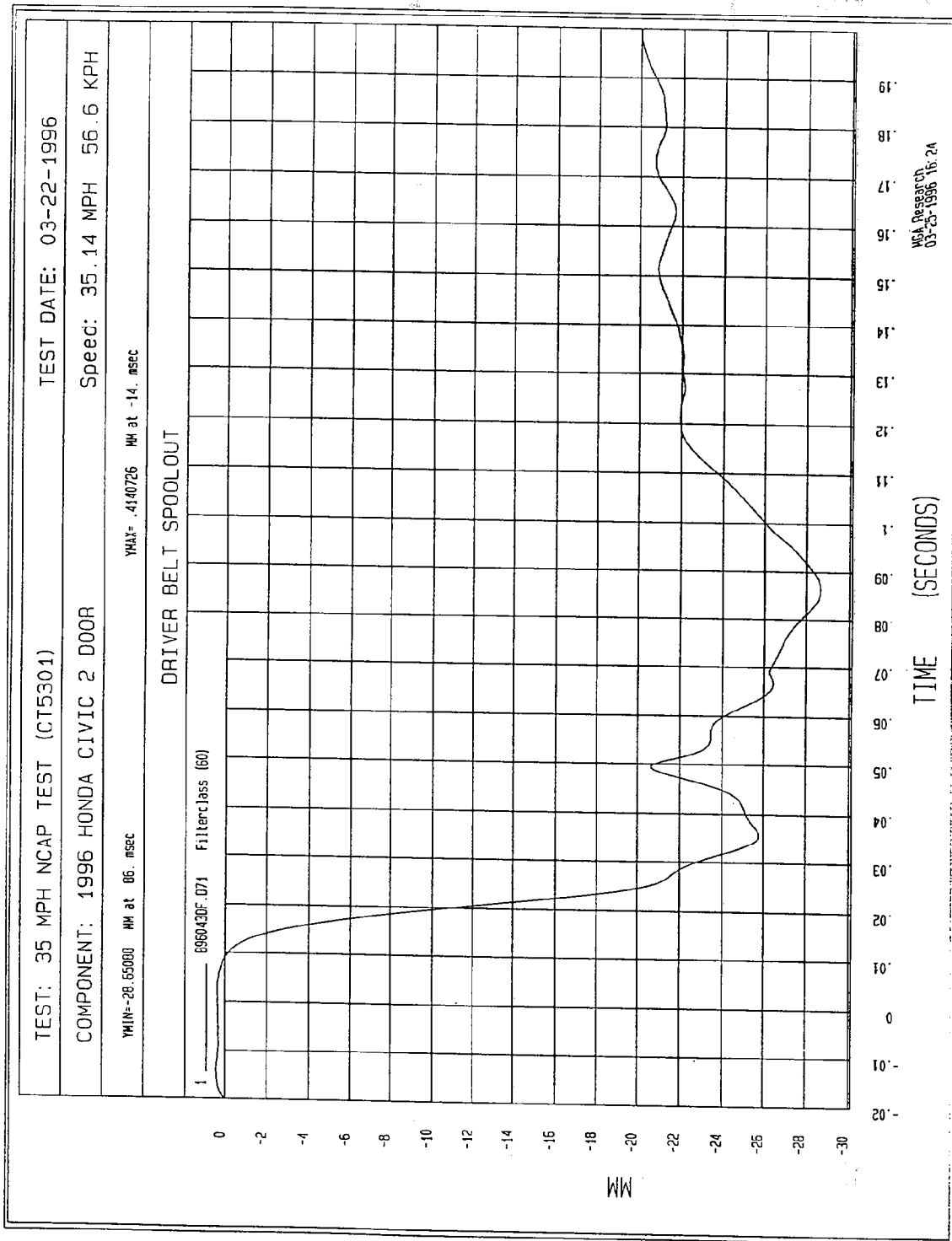


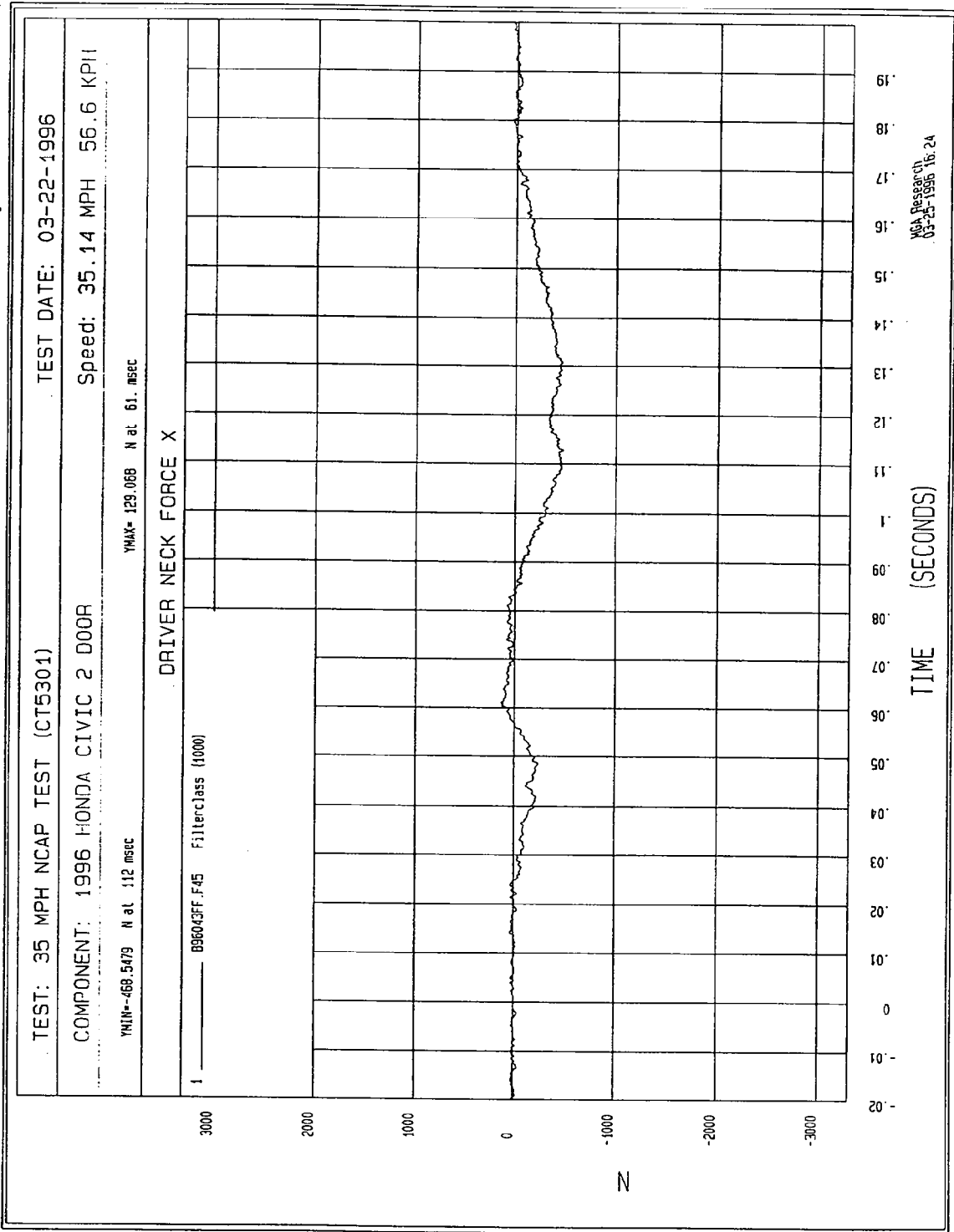


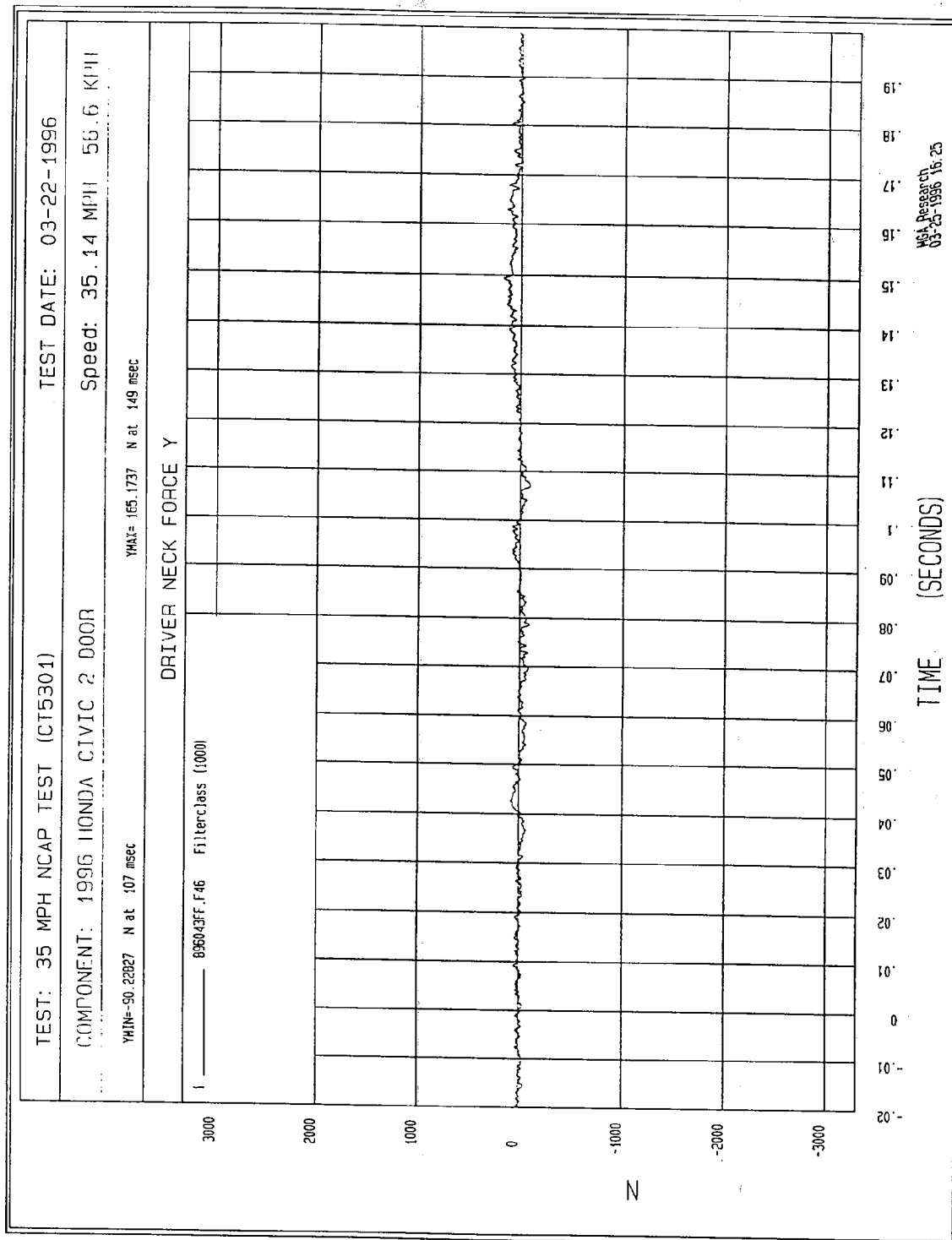


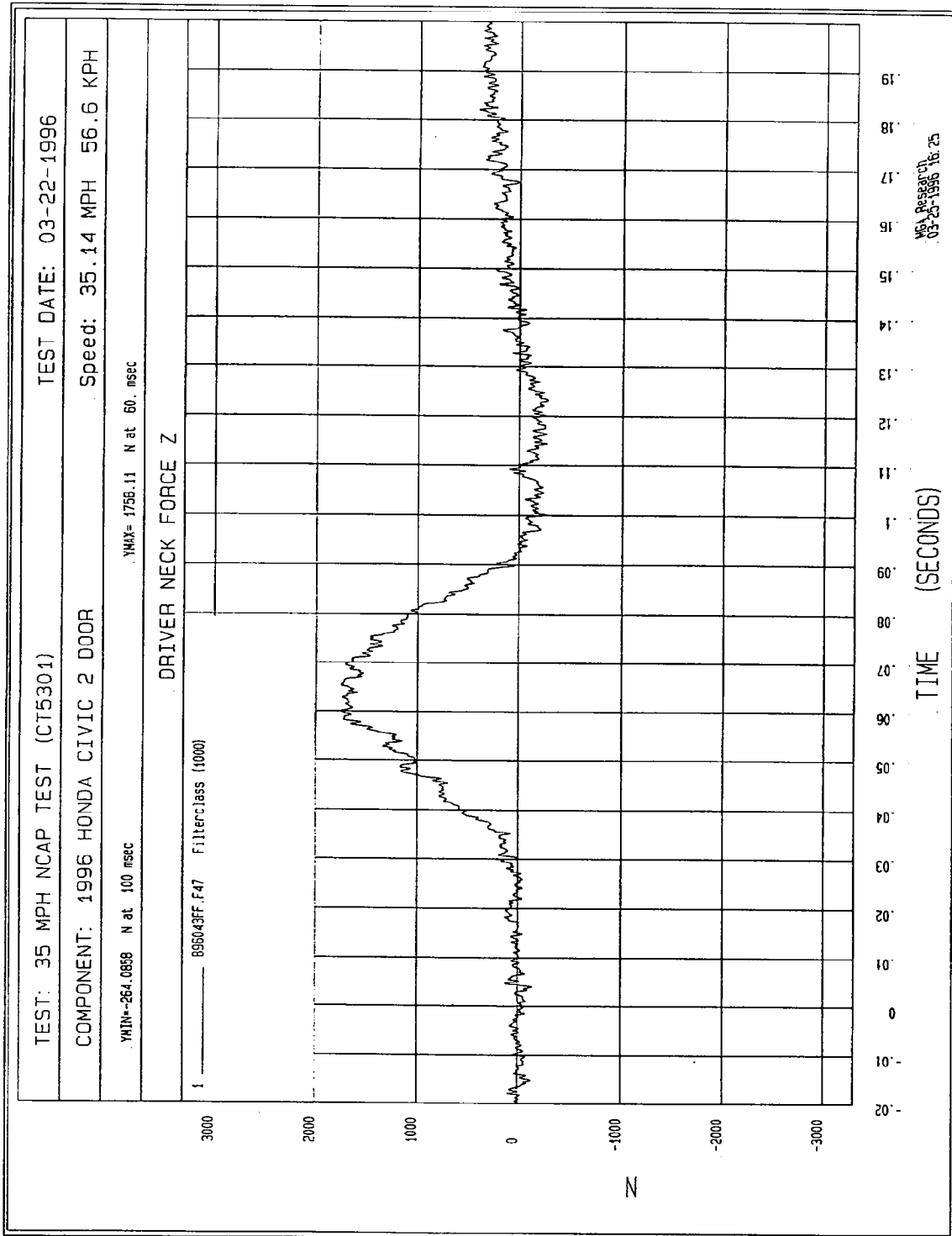


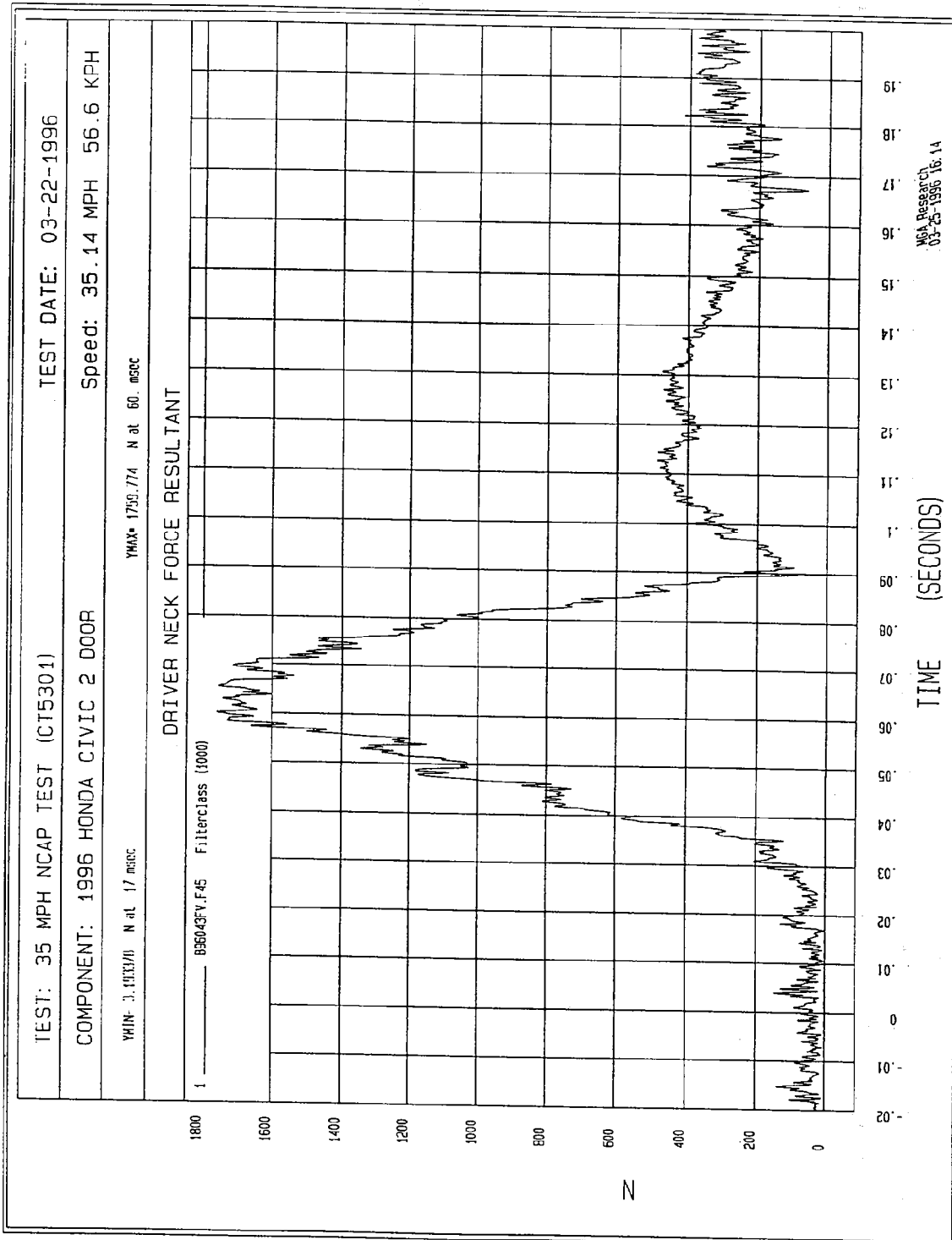


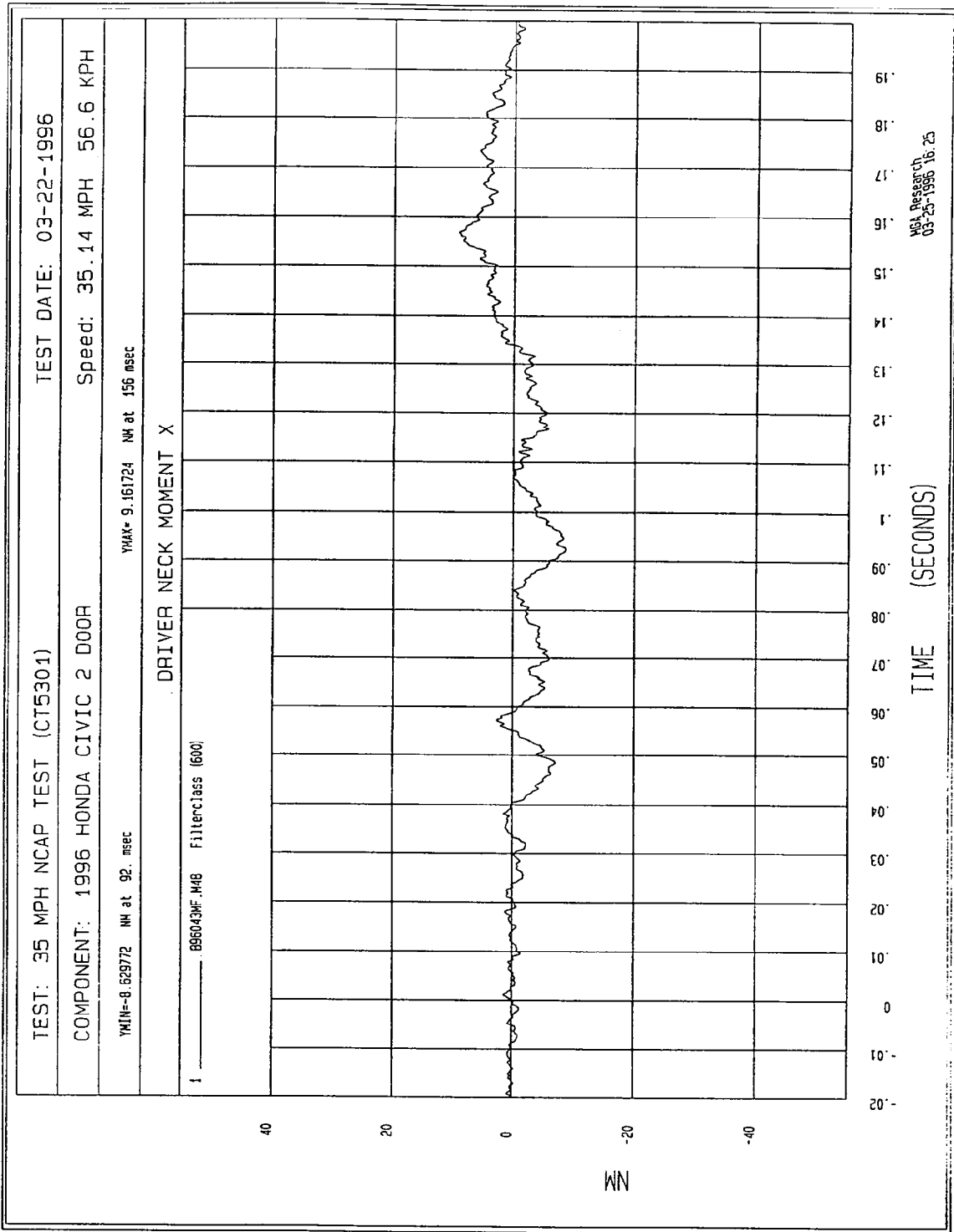


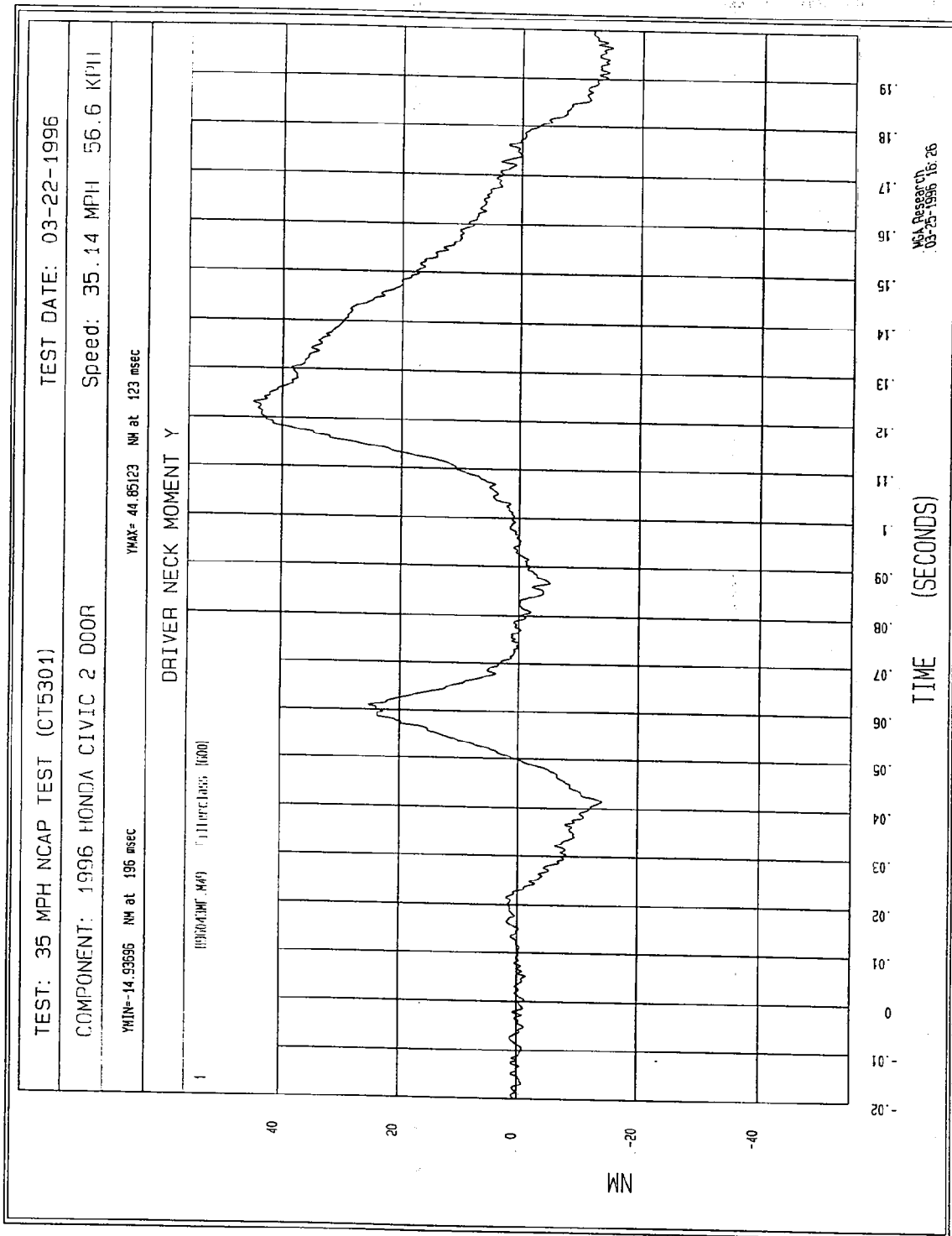


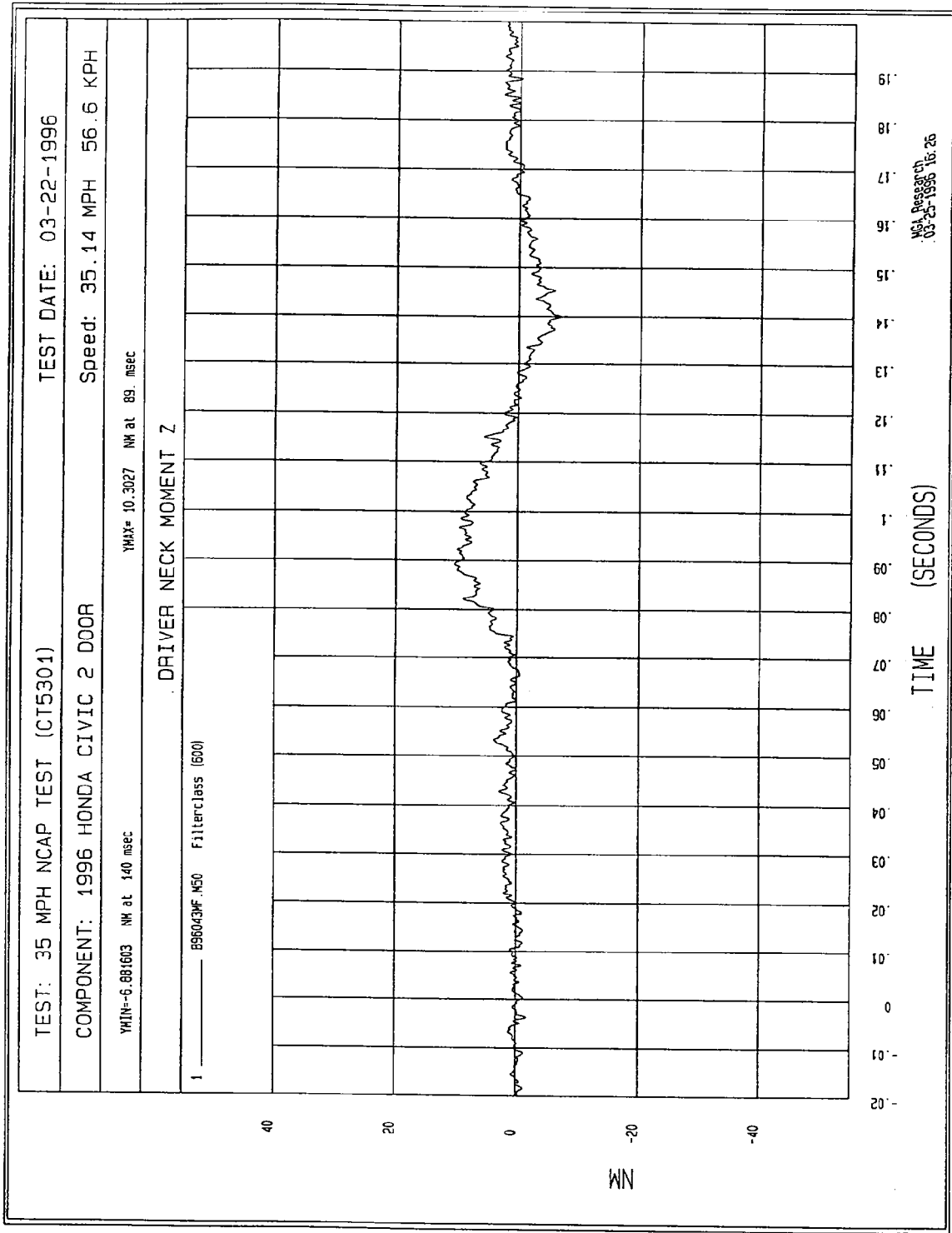


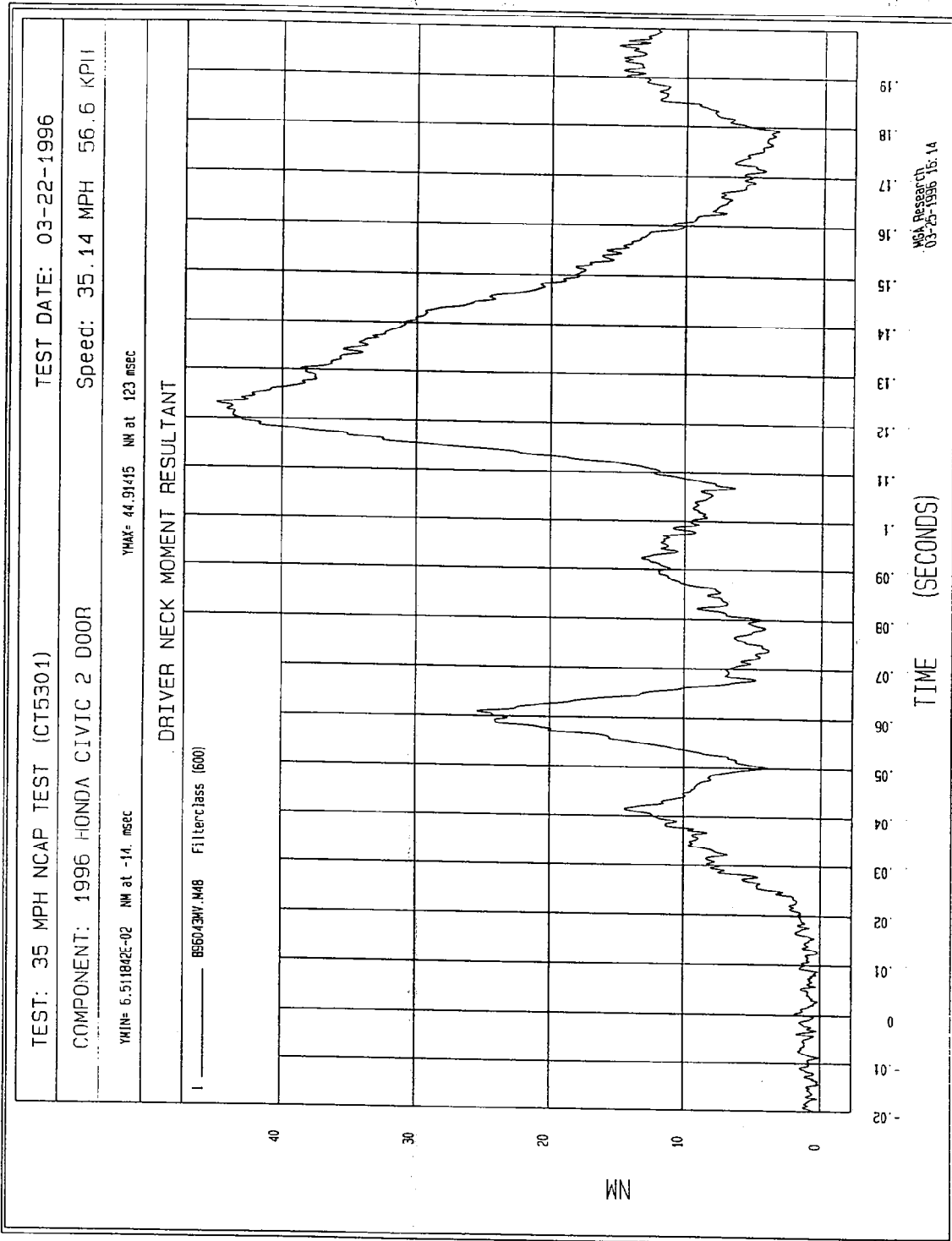


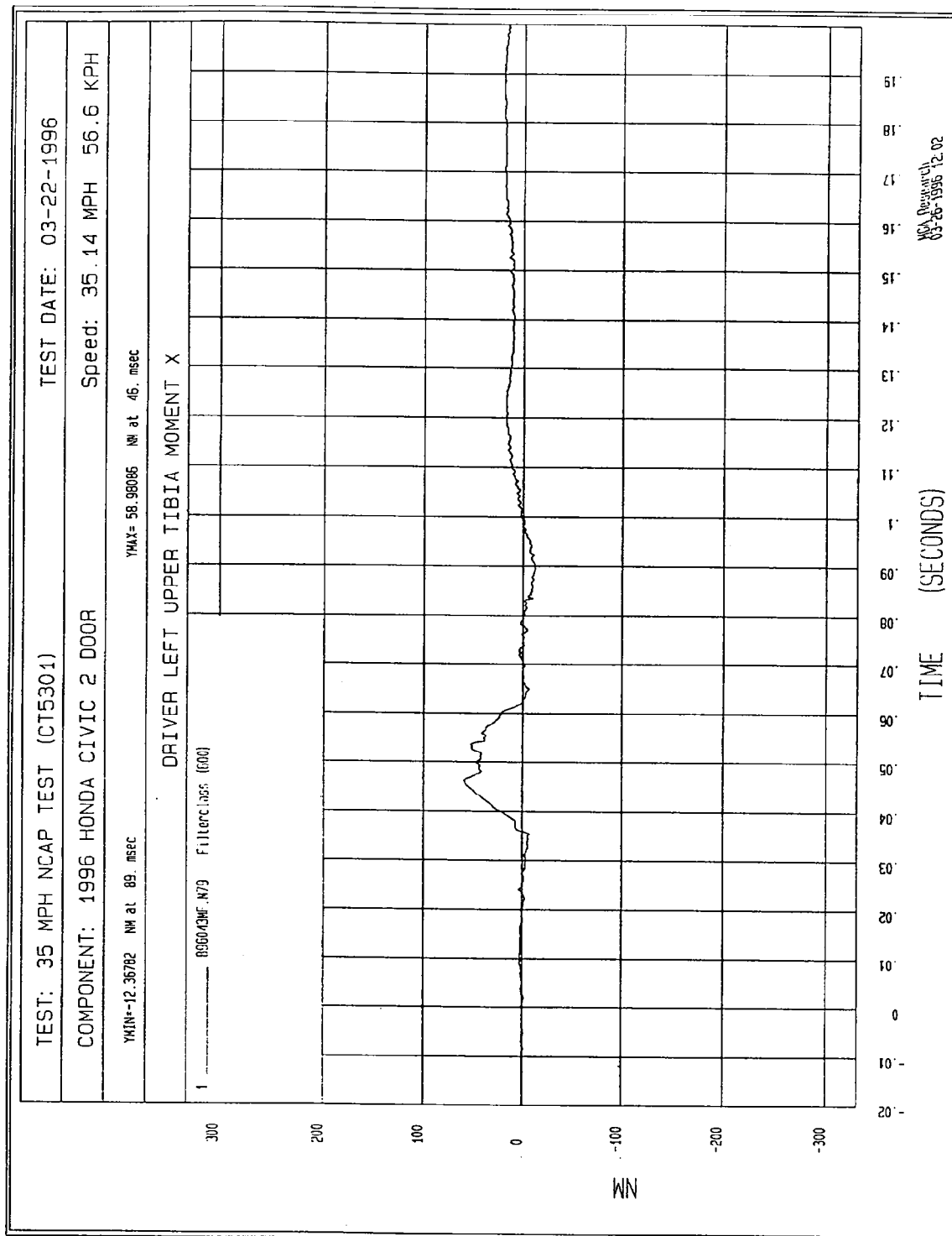




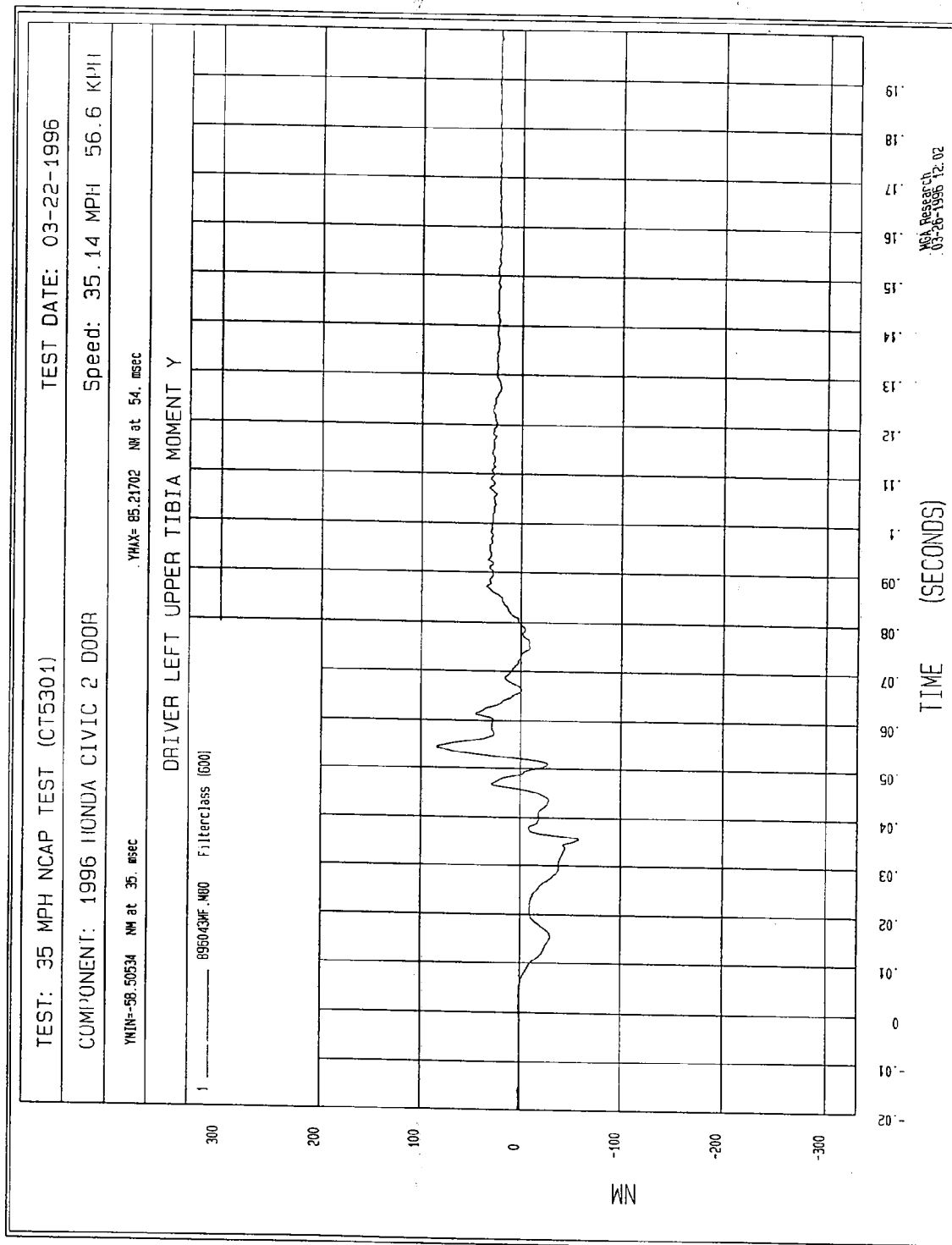


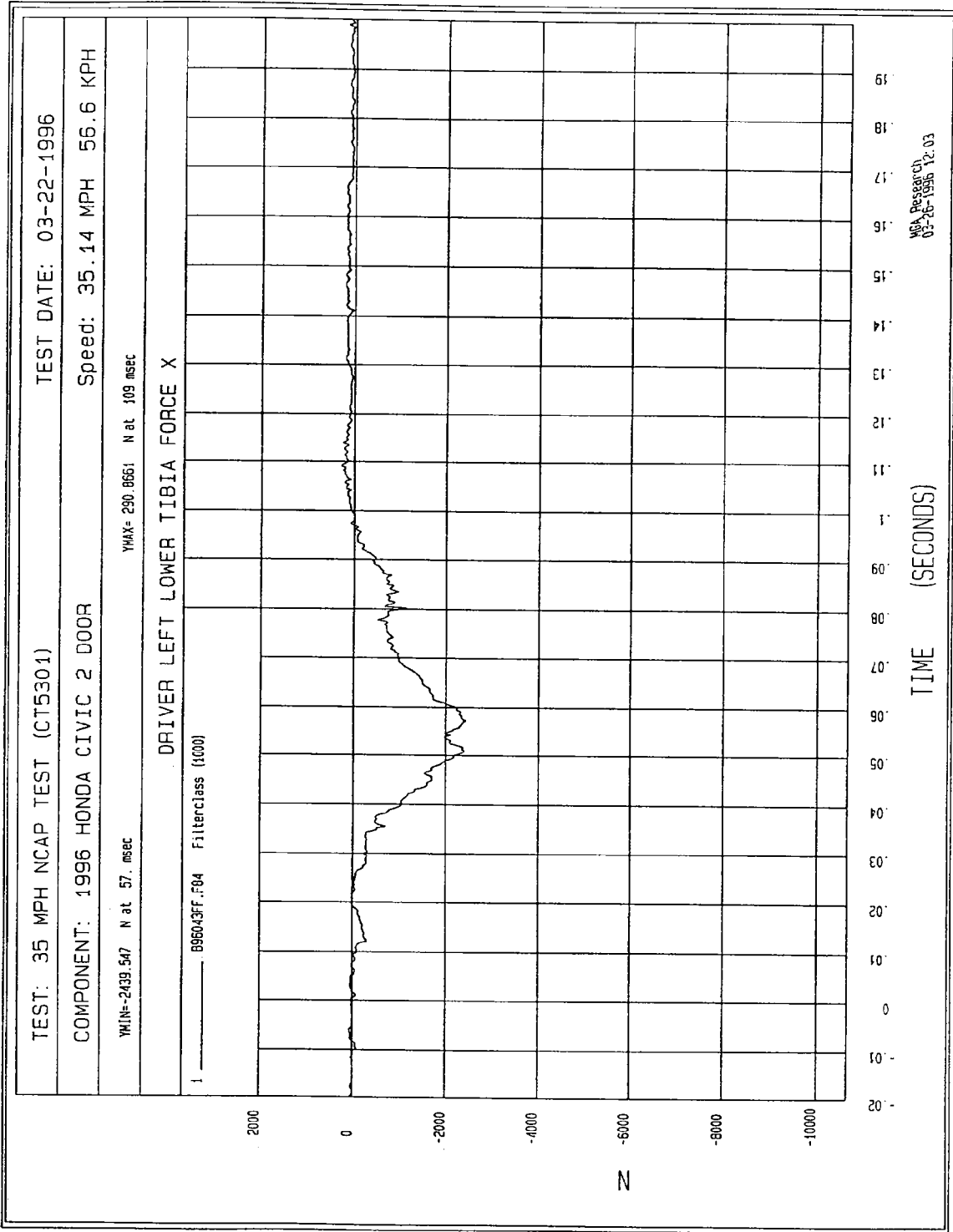


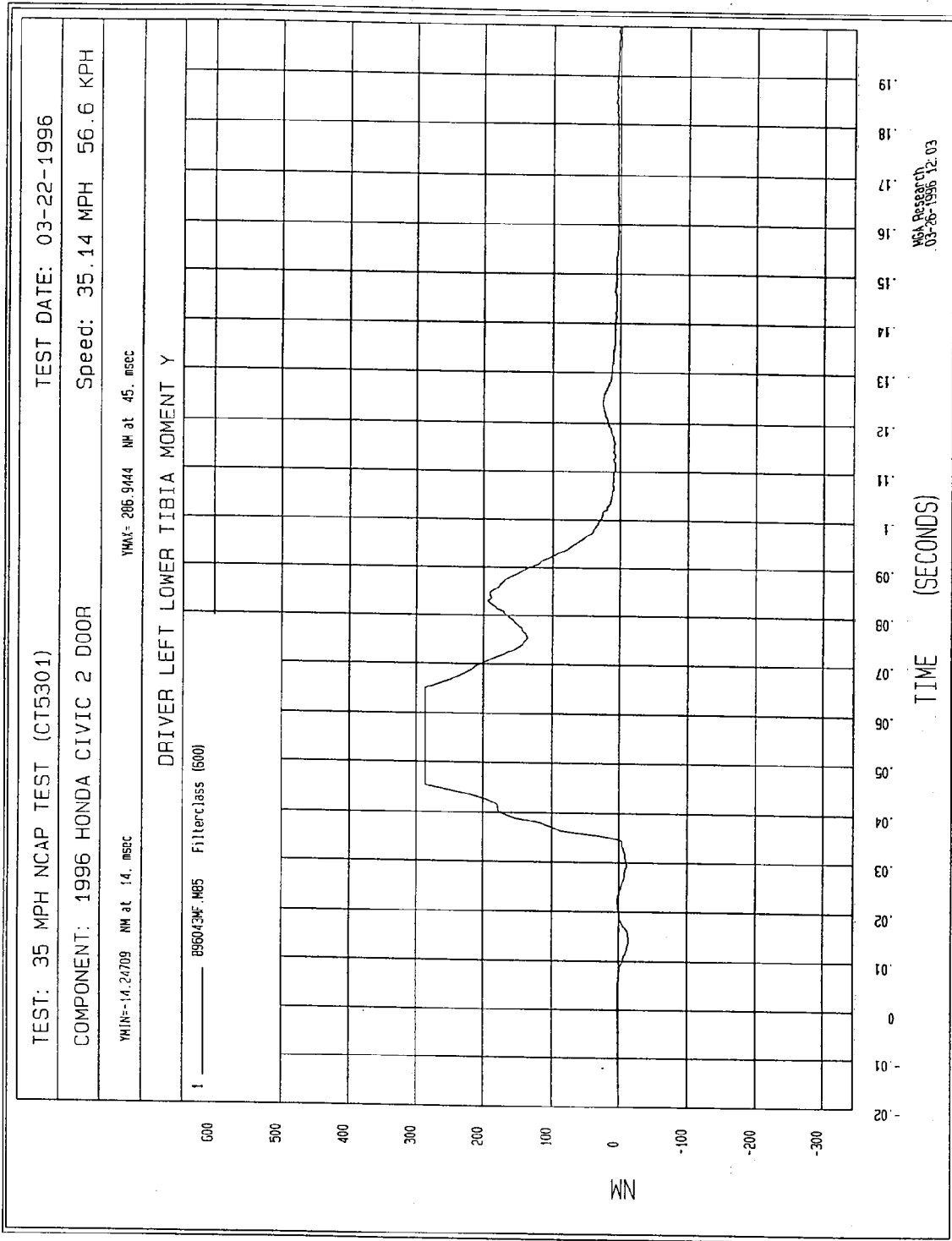


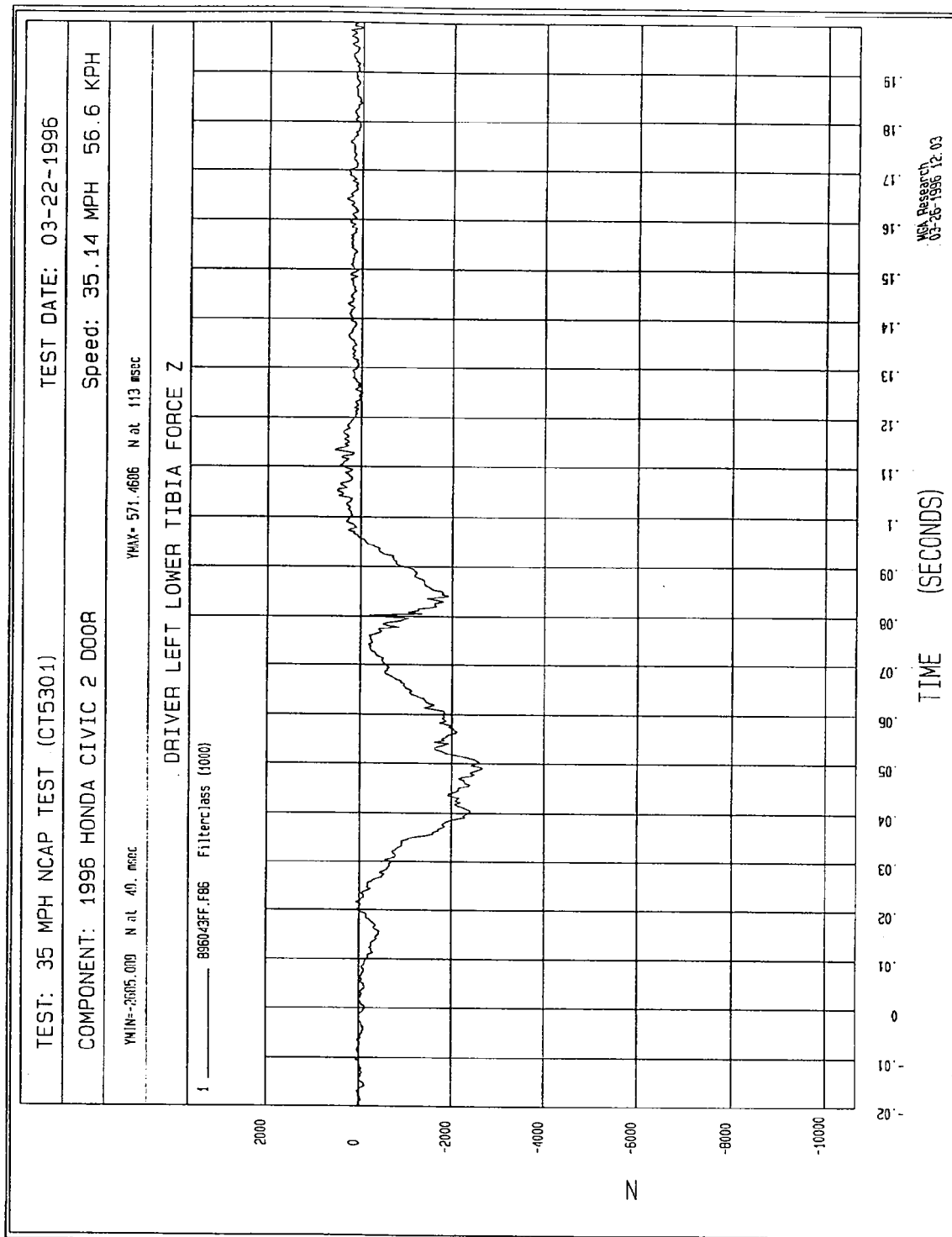


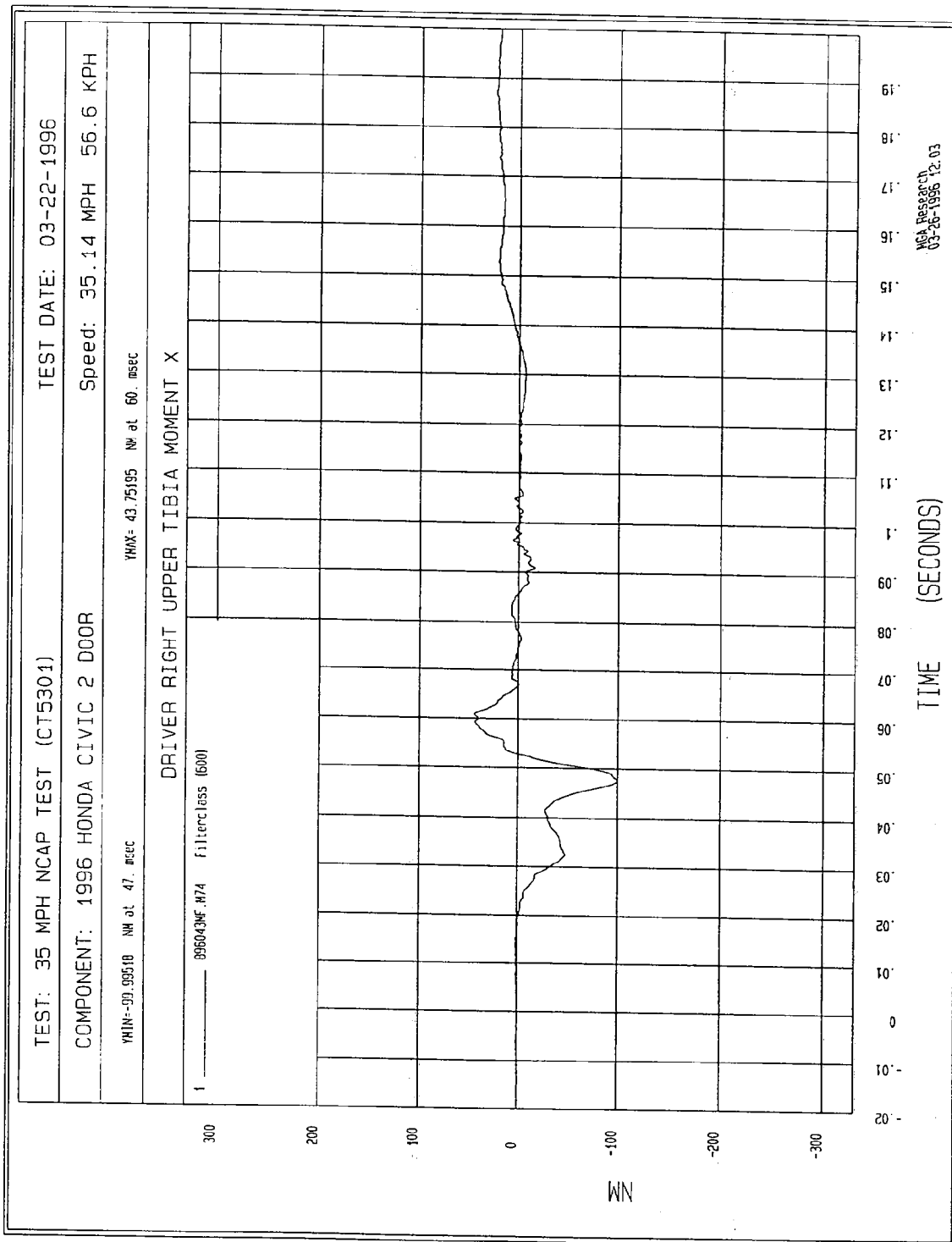
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03-26-1996 12:02

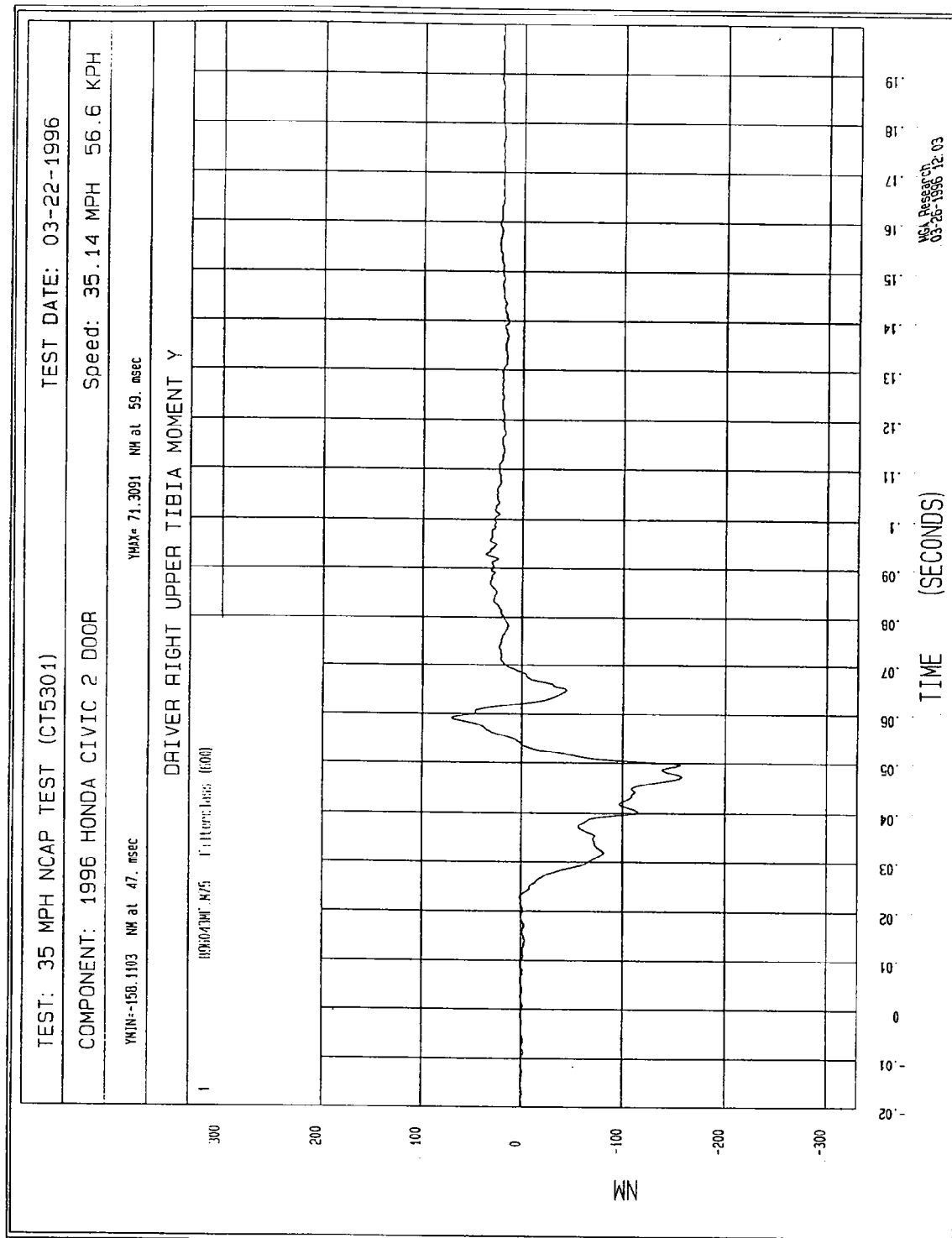


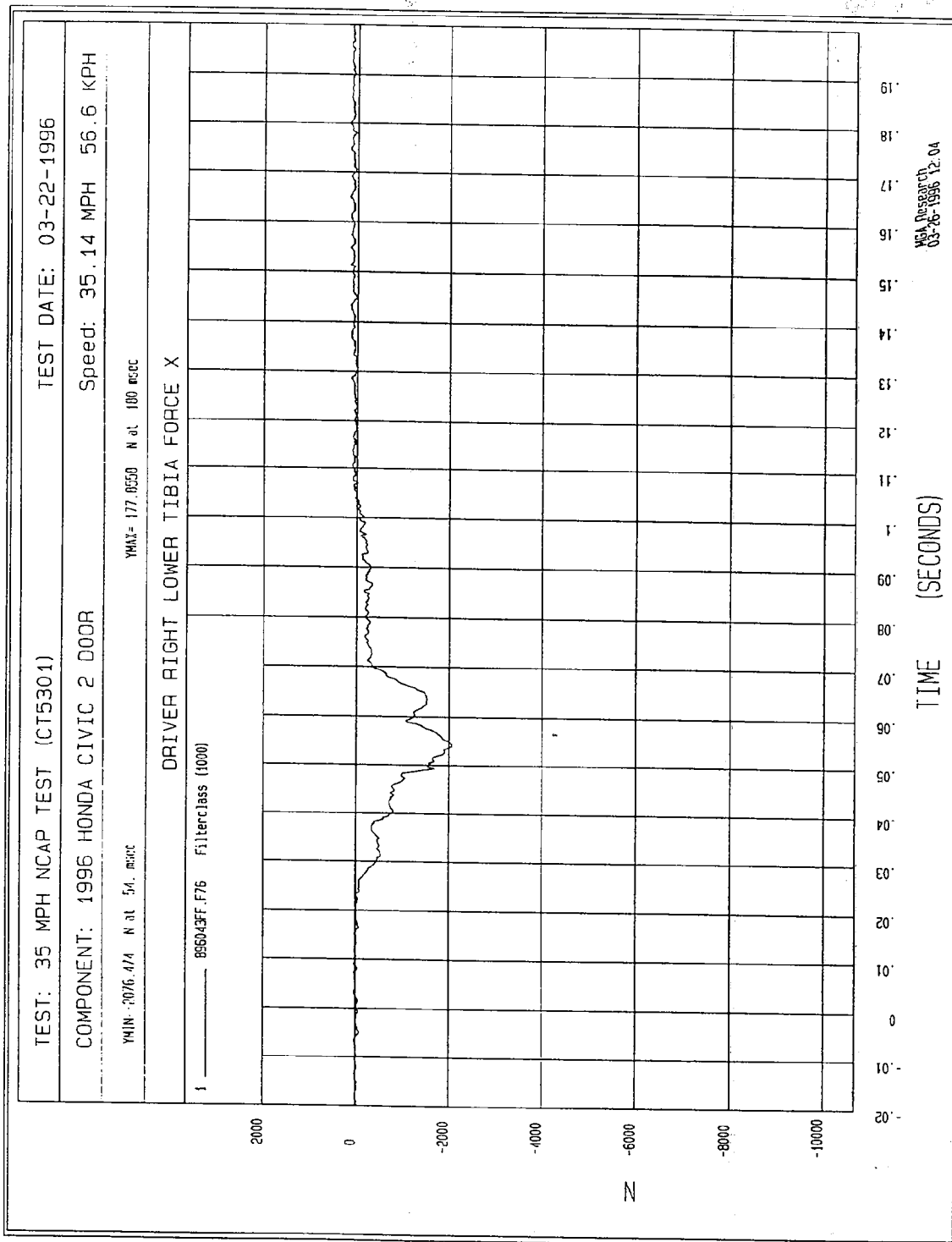


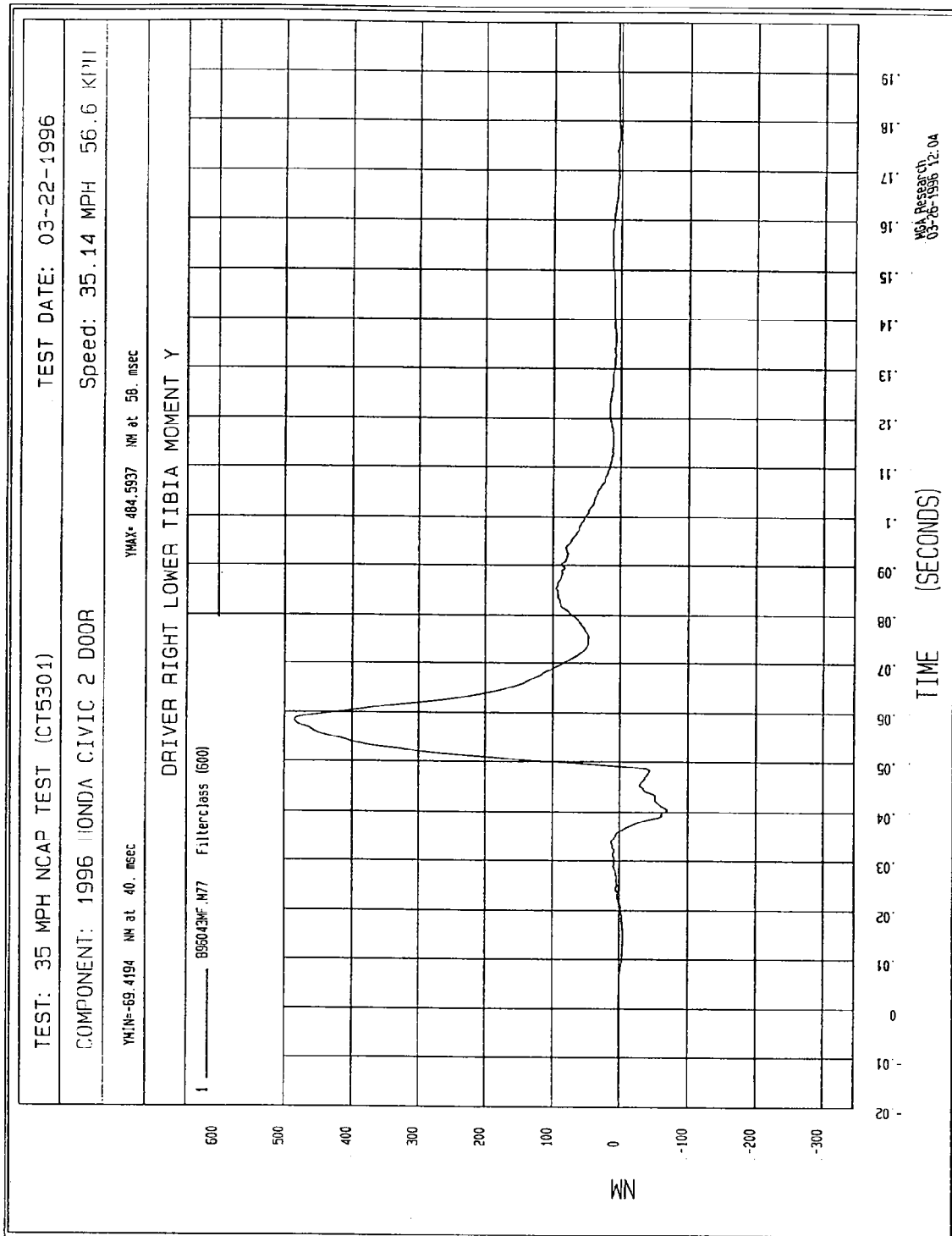


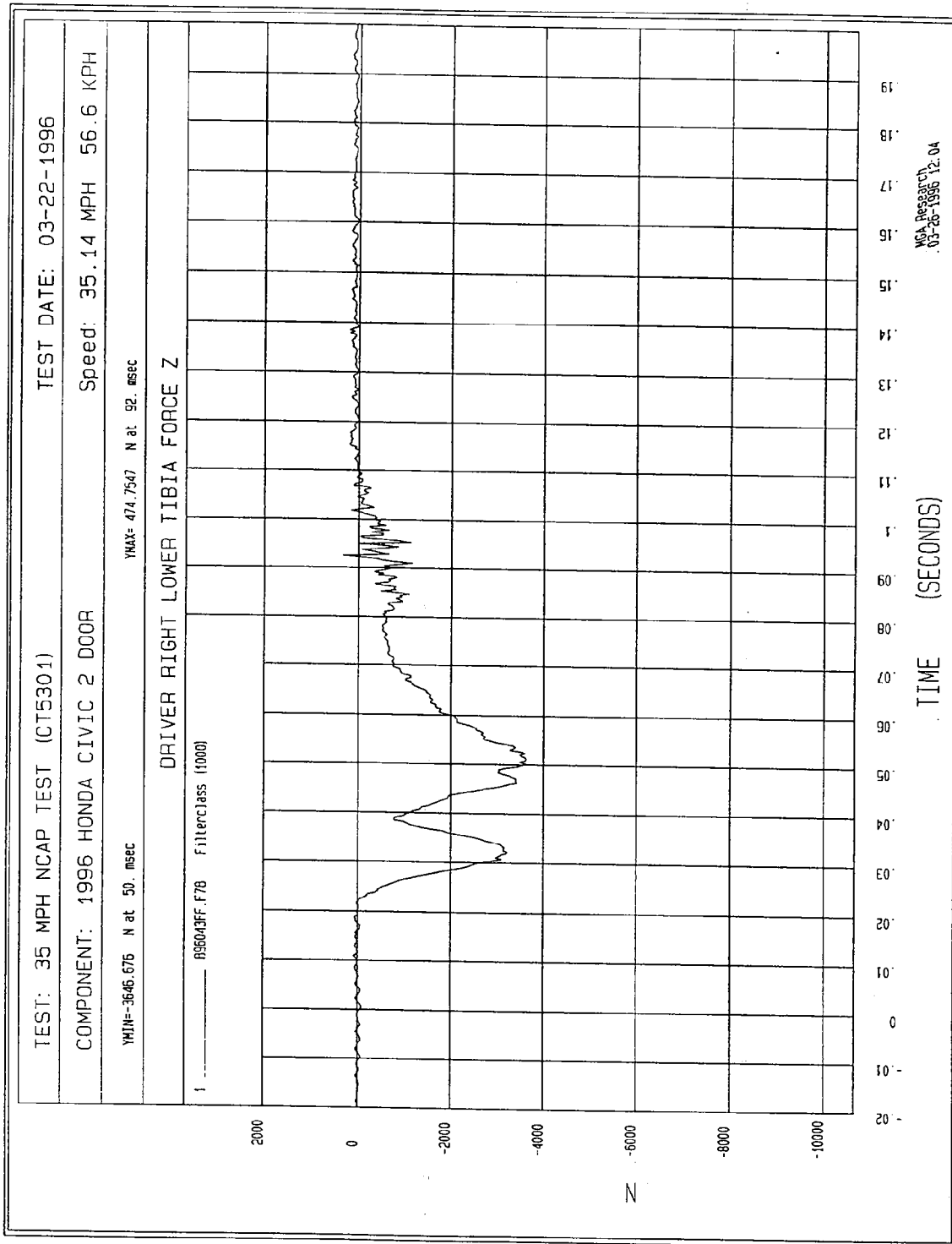


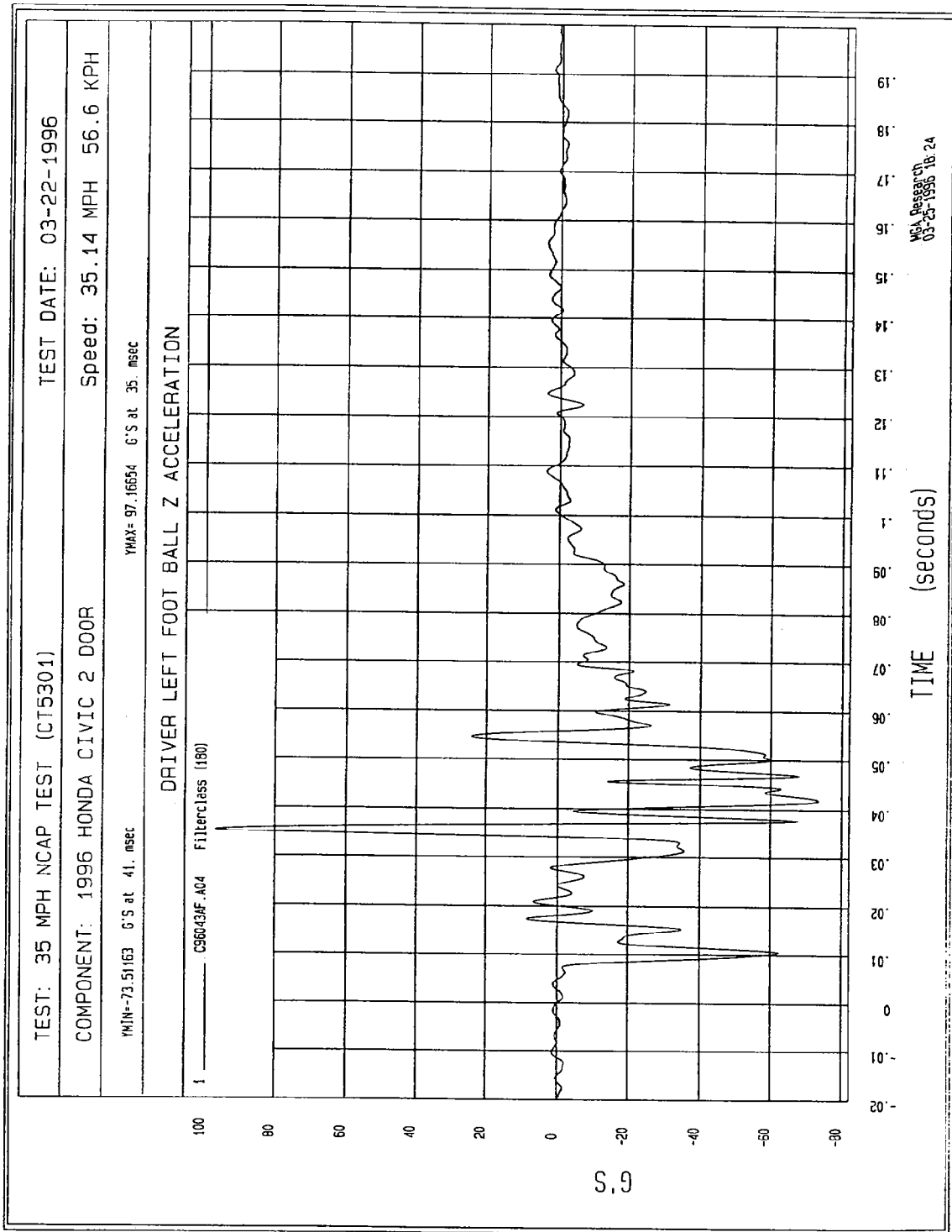


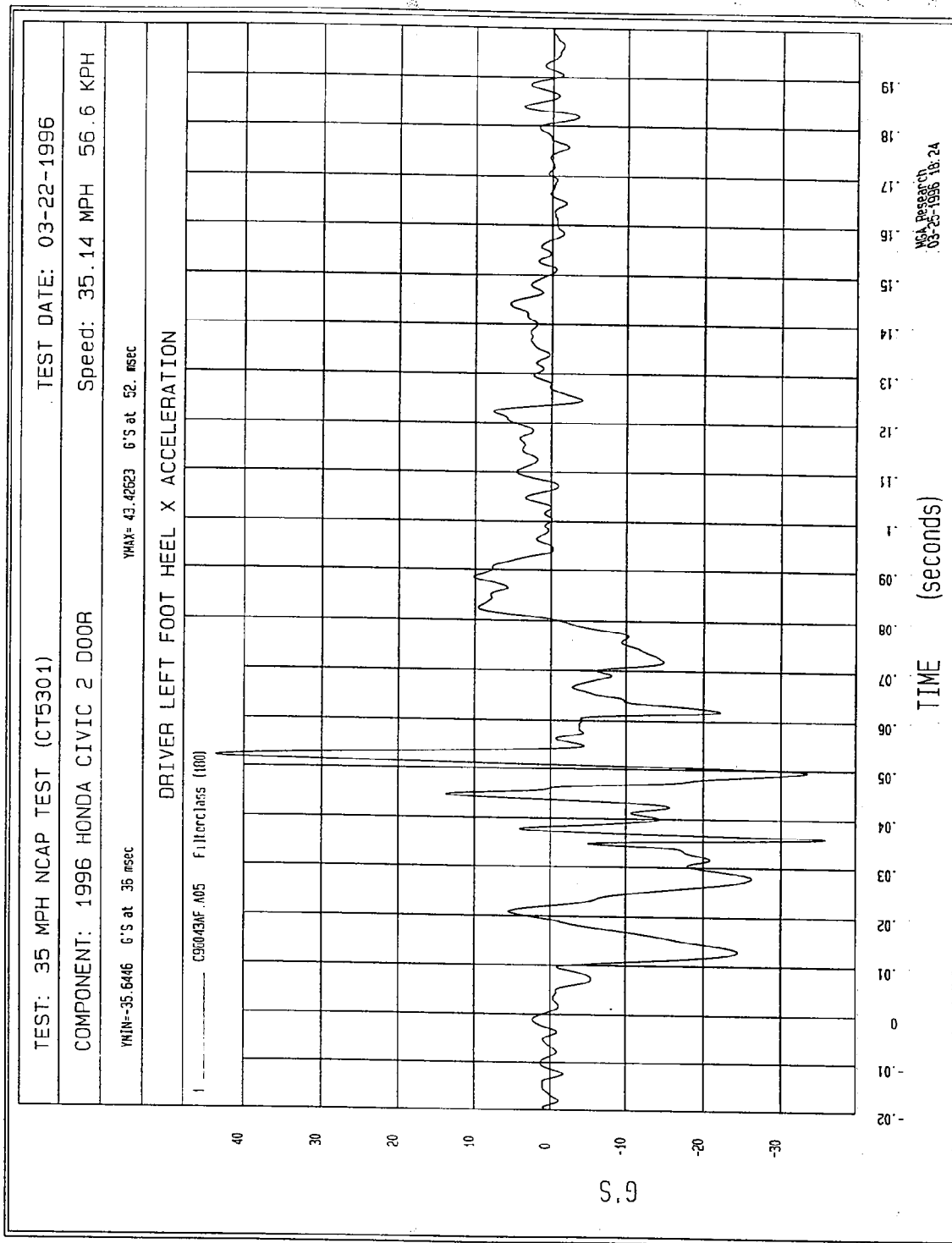


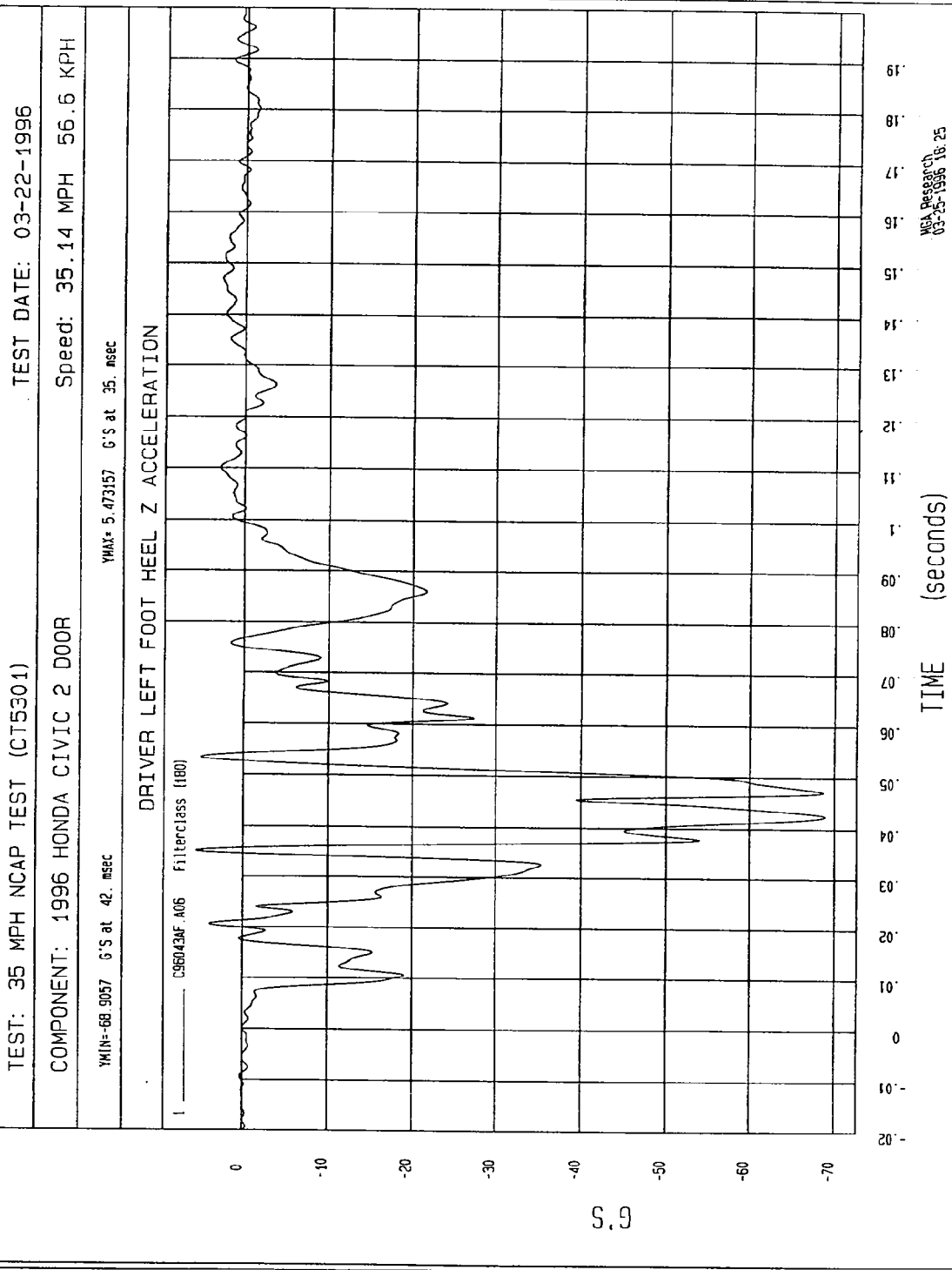


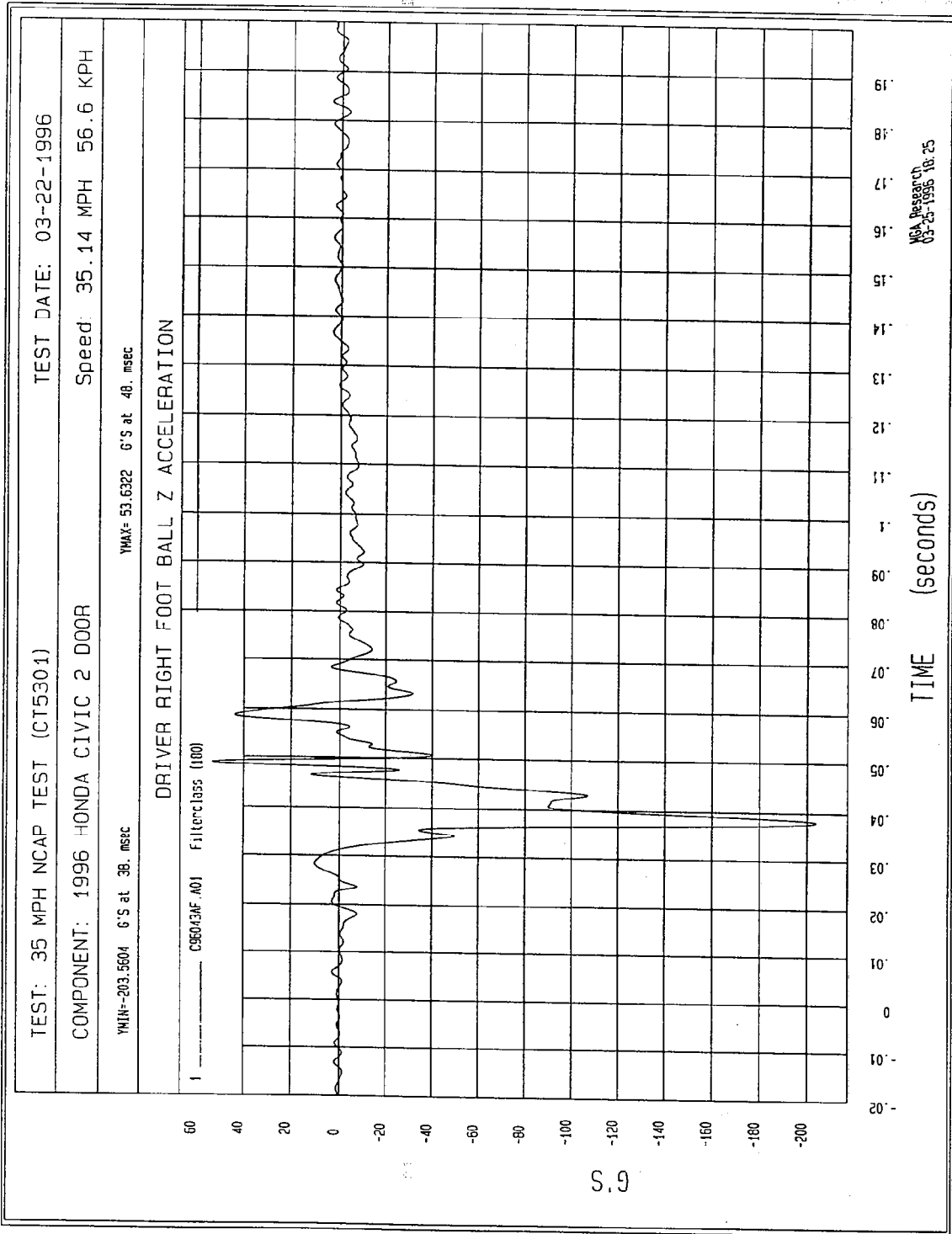


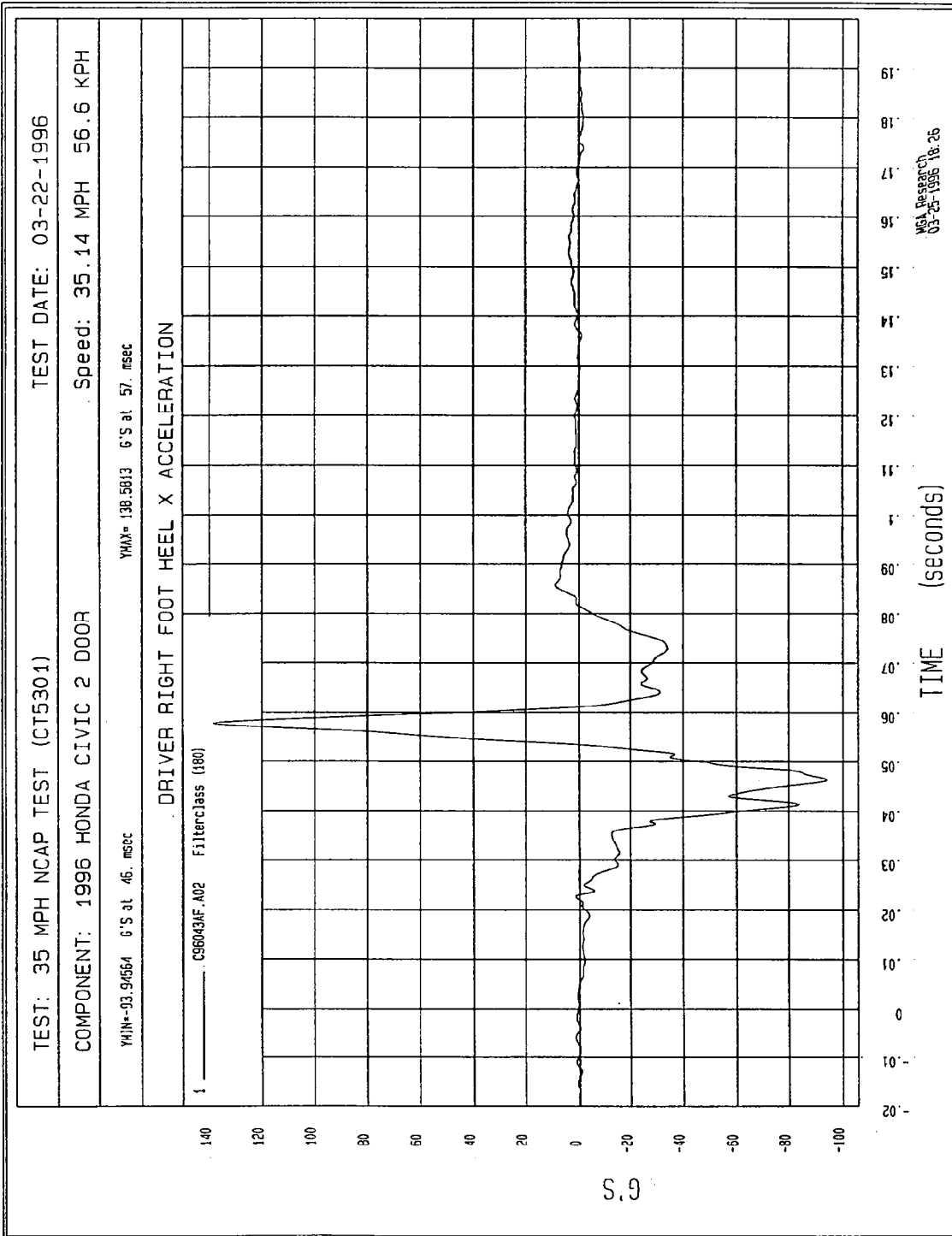


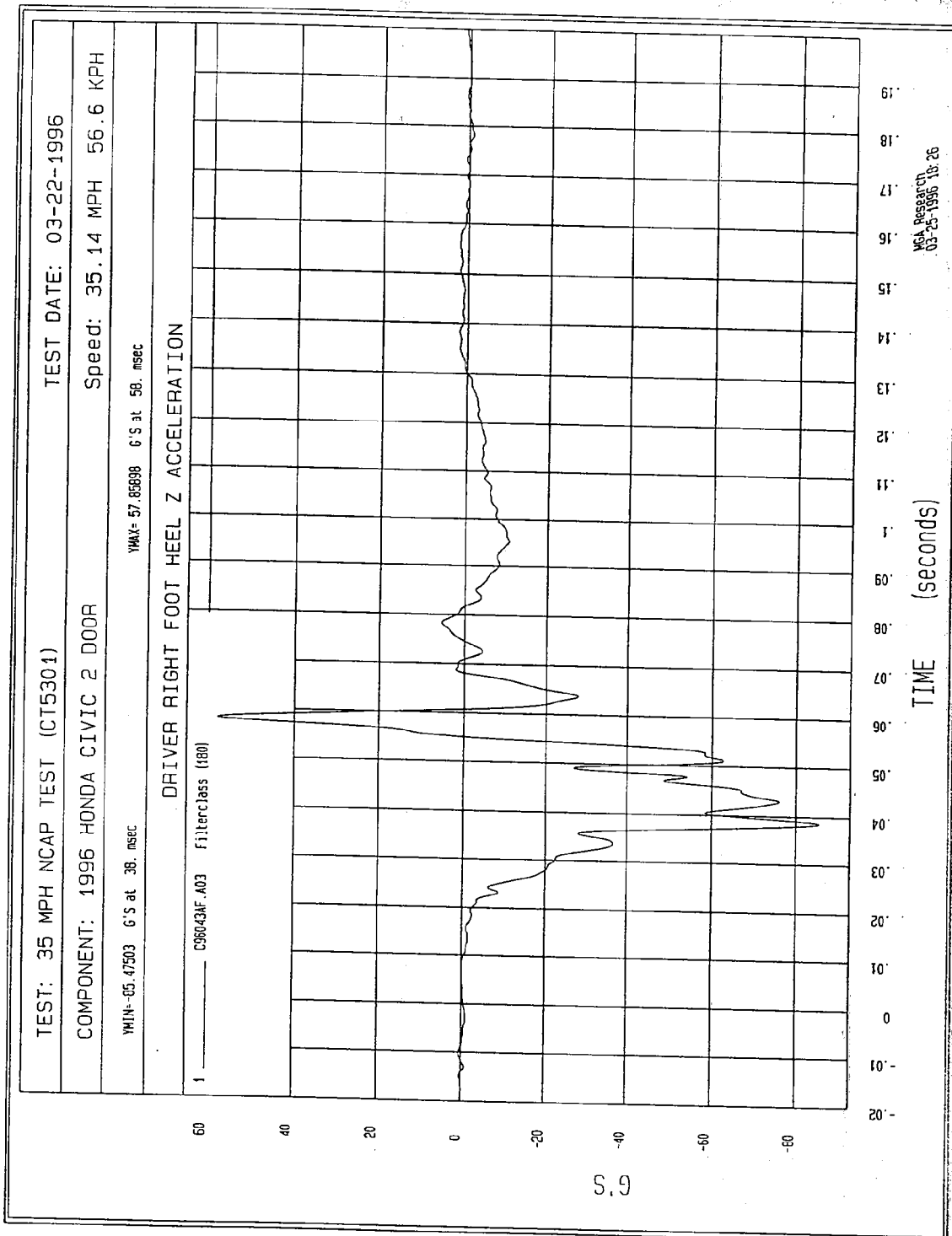


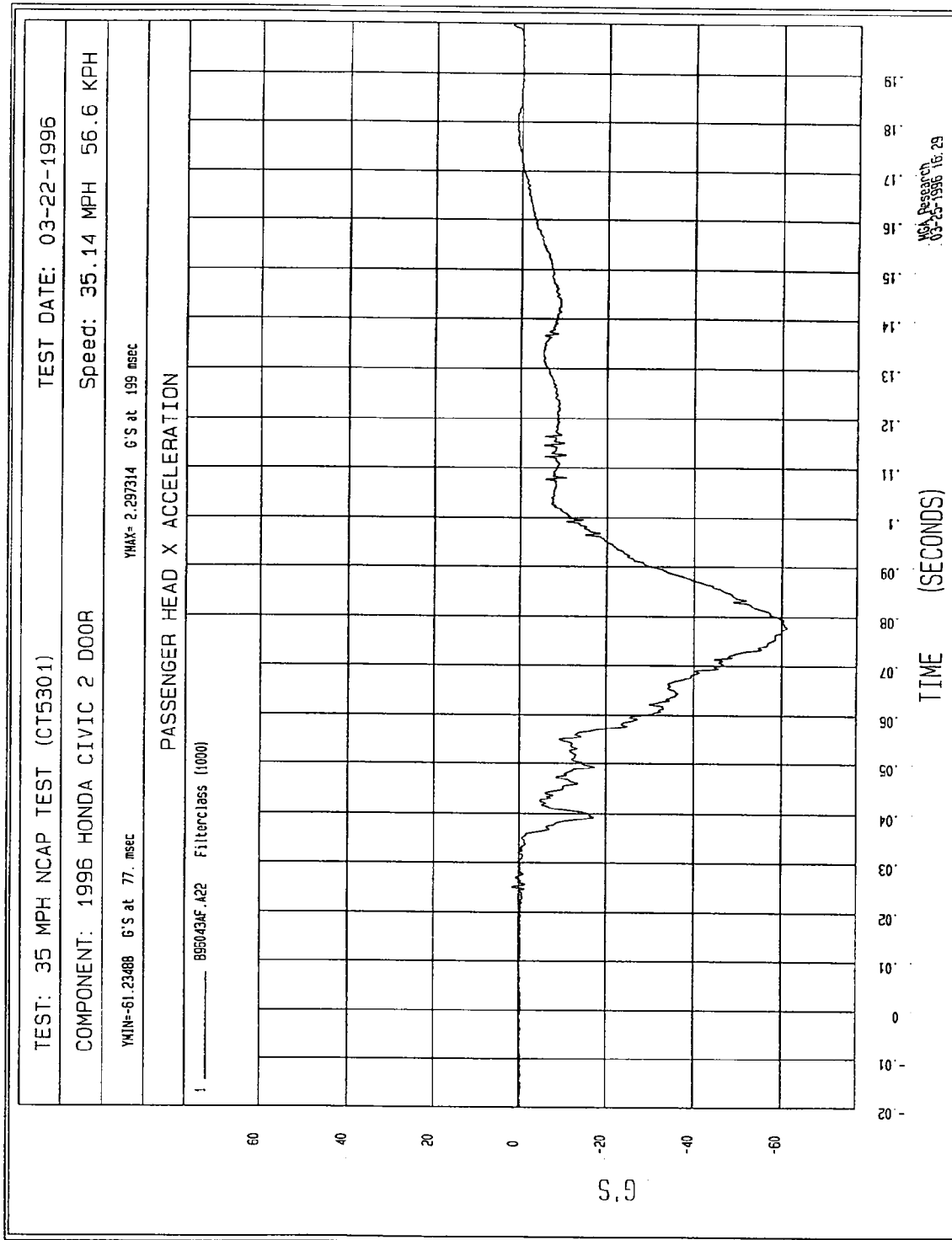


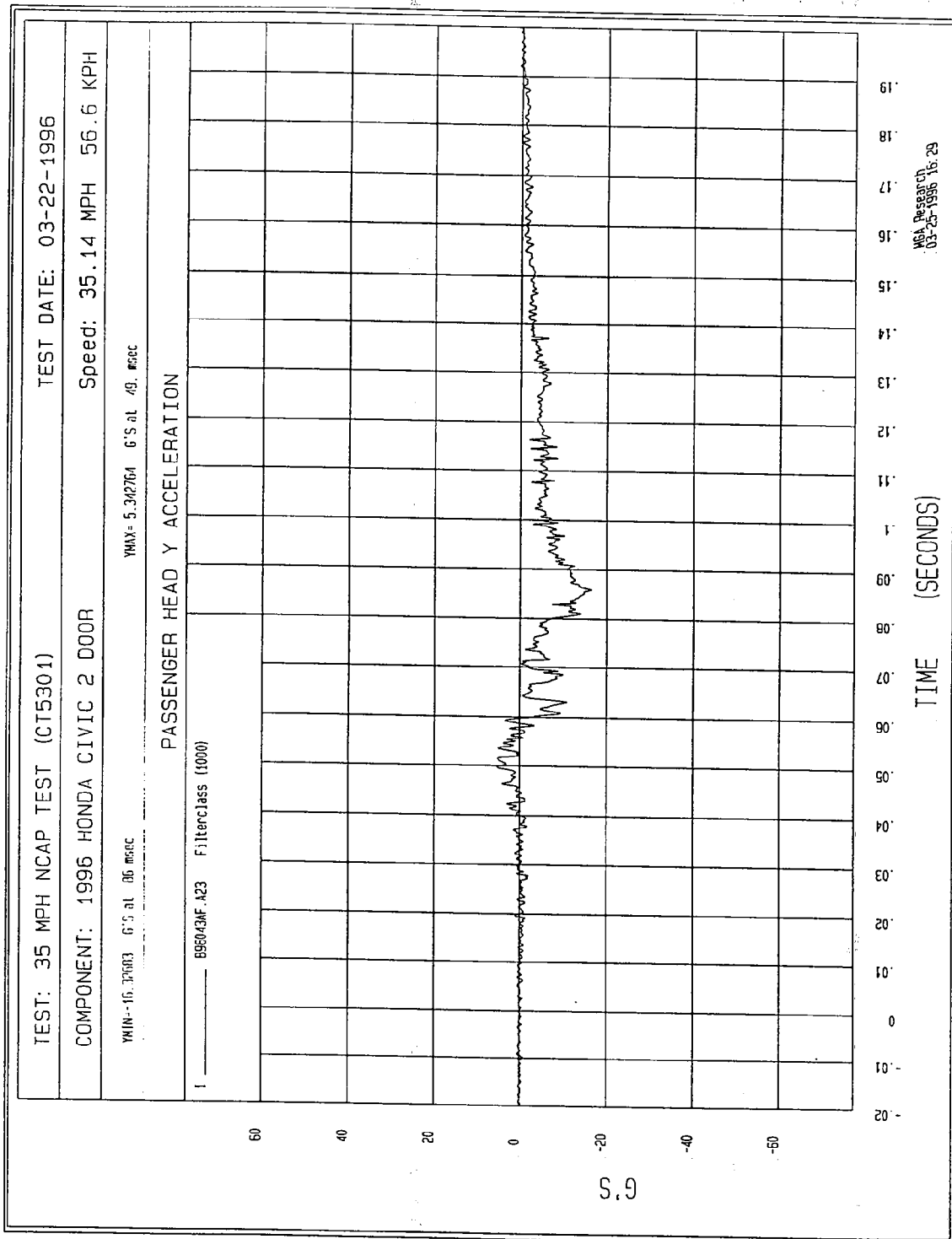


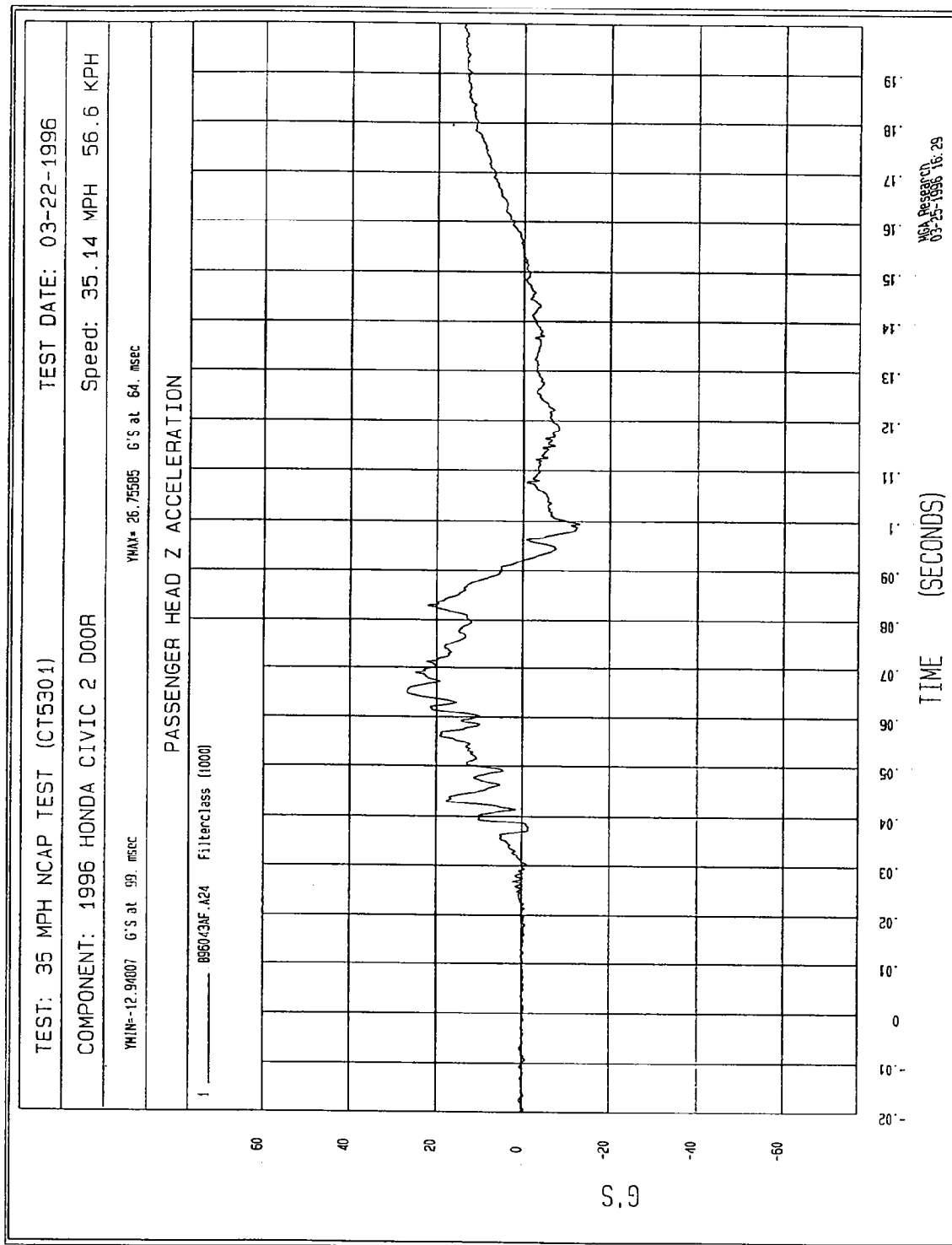












TEST: 35 MPH NCAP TEST (CT5301)

TEST DATE: 03-22-1996

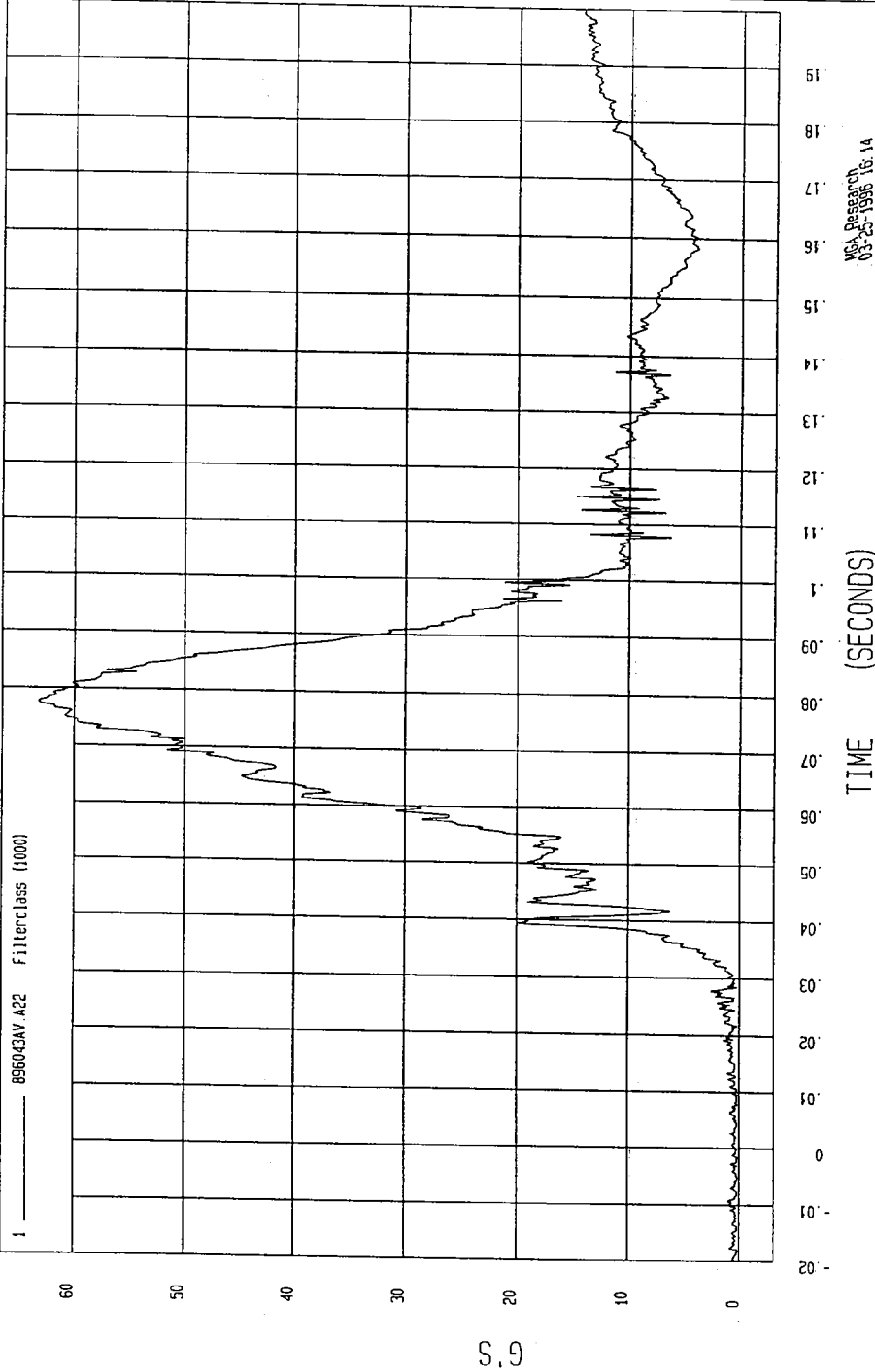
SPEED: 35.14 MPH 56.6 KPH

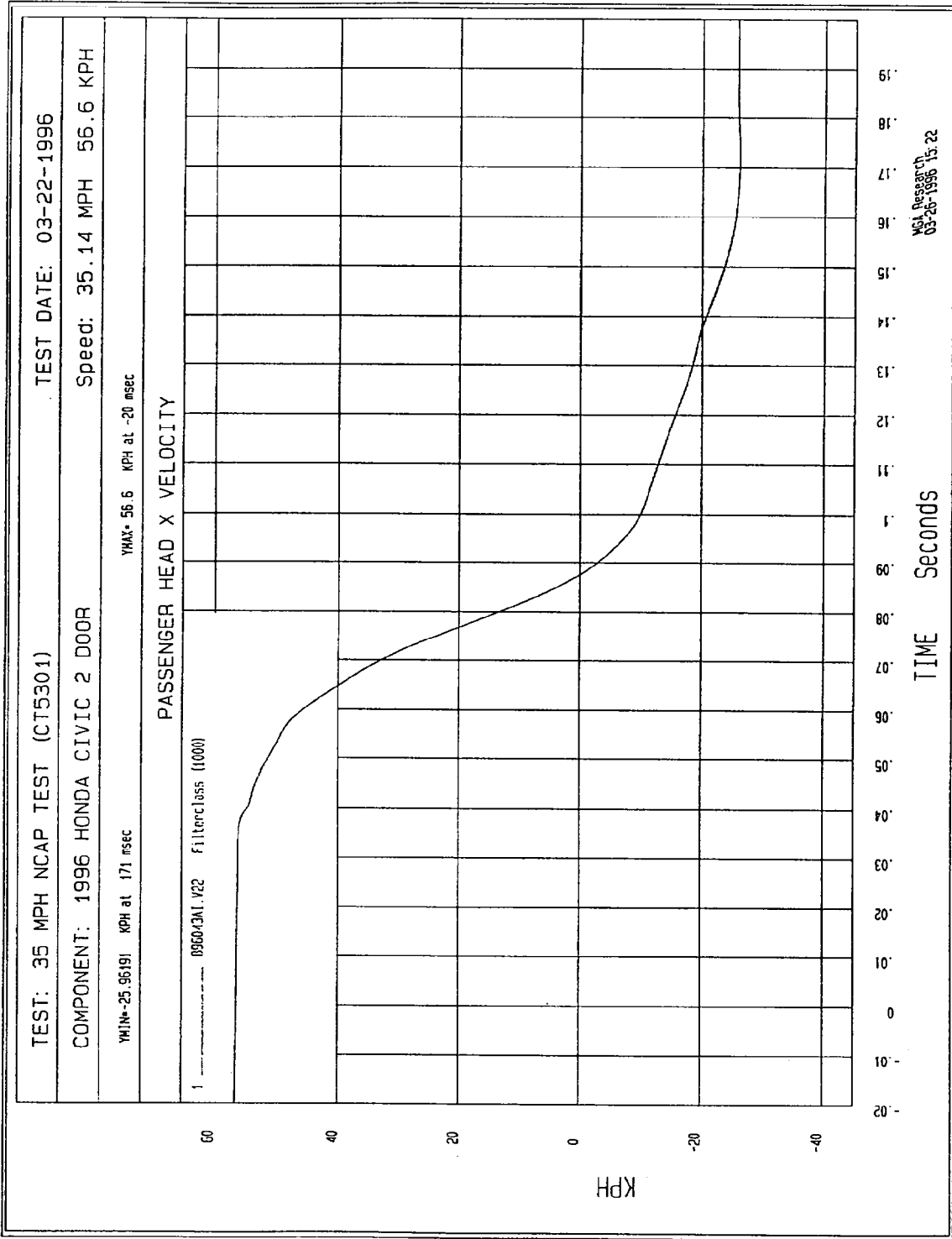
COMPONENT: 1996 HONDA CIVIC 2 DOOR

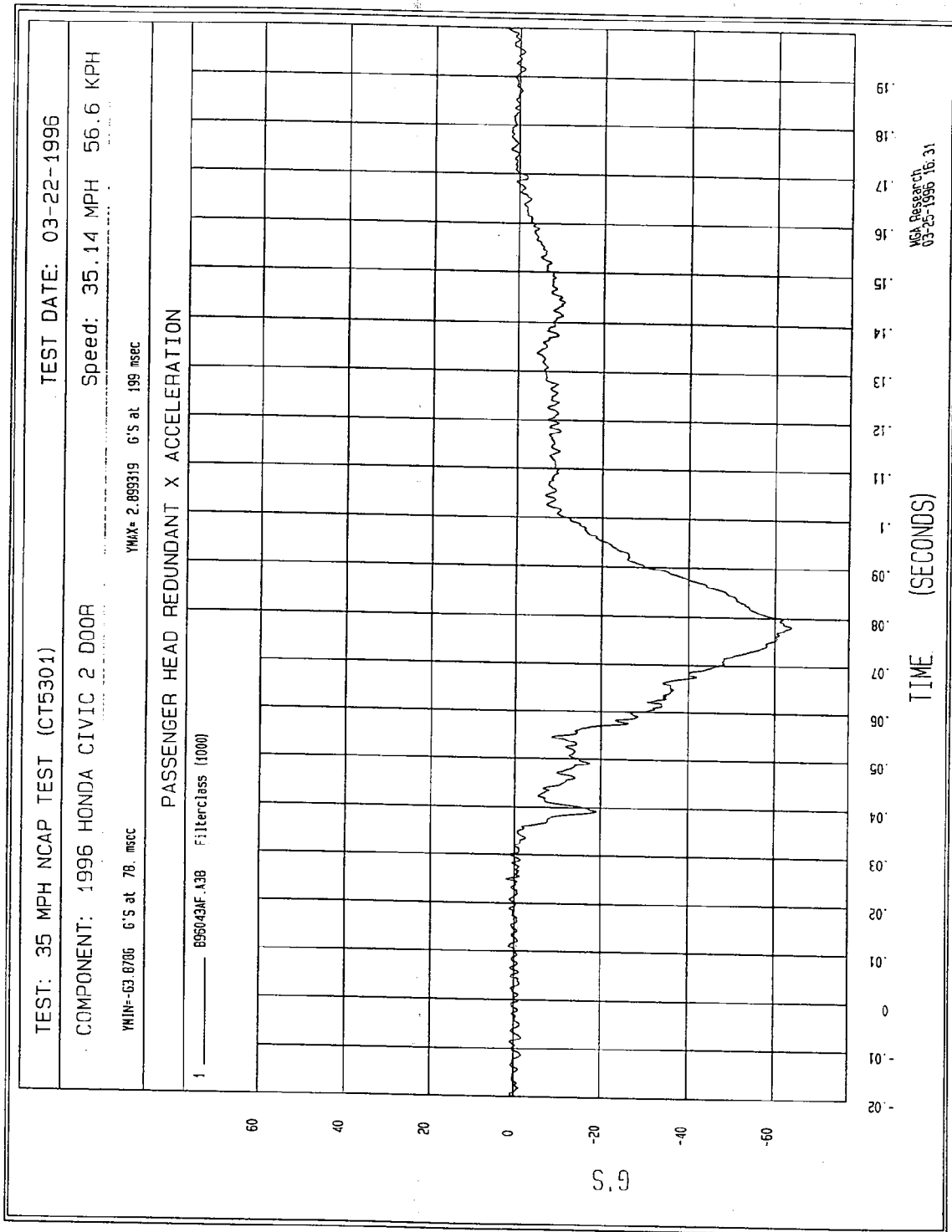
YMAX= 63.2332 G'S at 77. msec

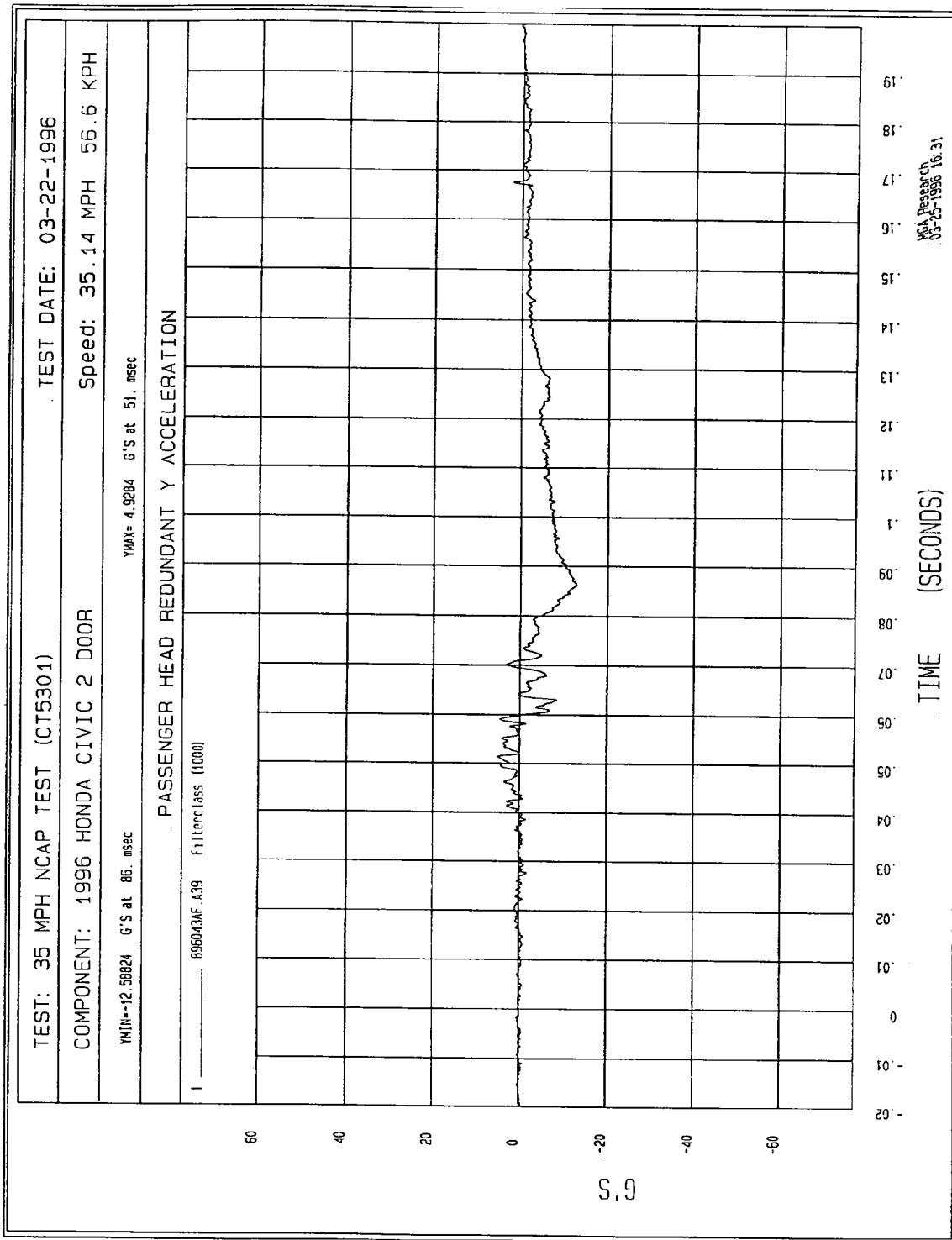
YMIN= 8.378066E-02 G'S at 9.5 msec

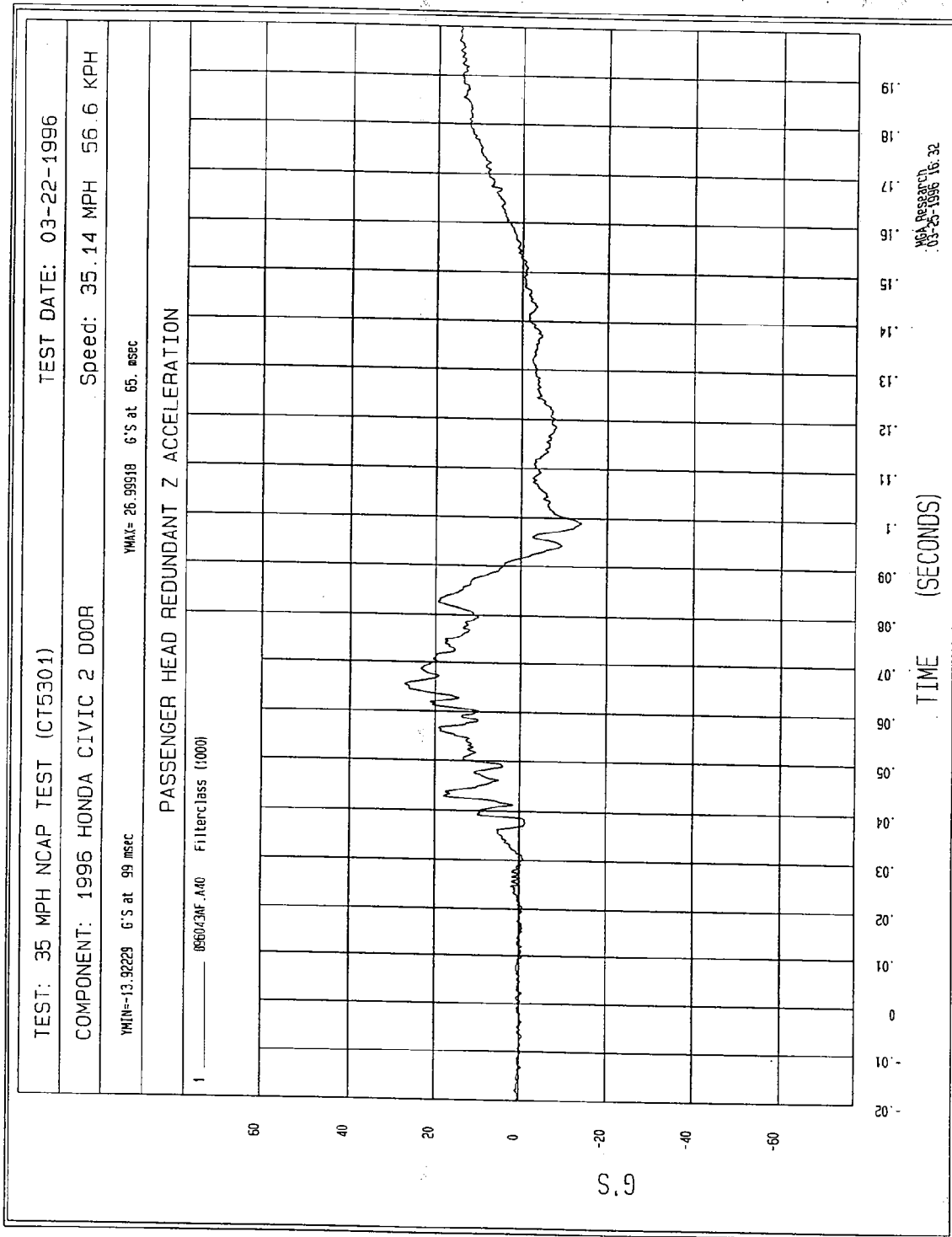
PASSENGER HEAD RESULTANT ACCELERATION

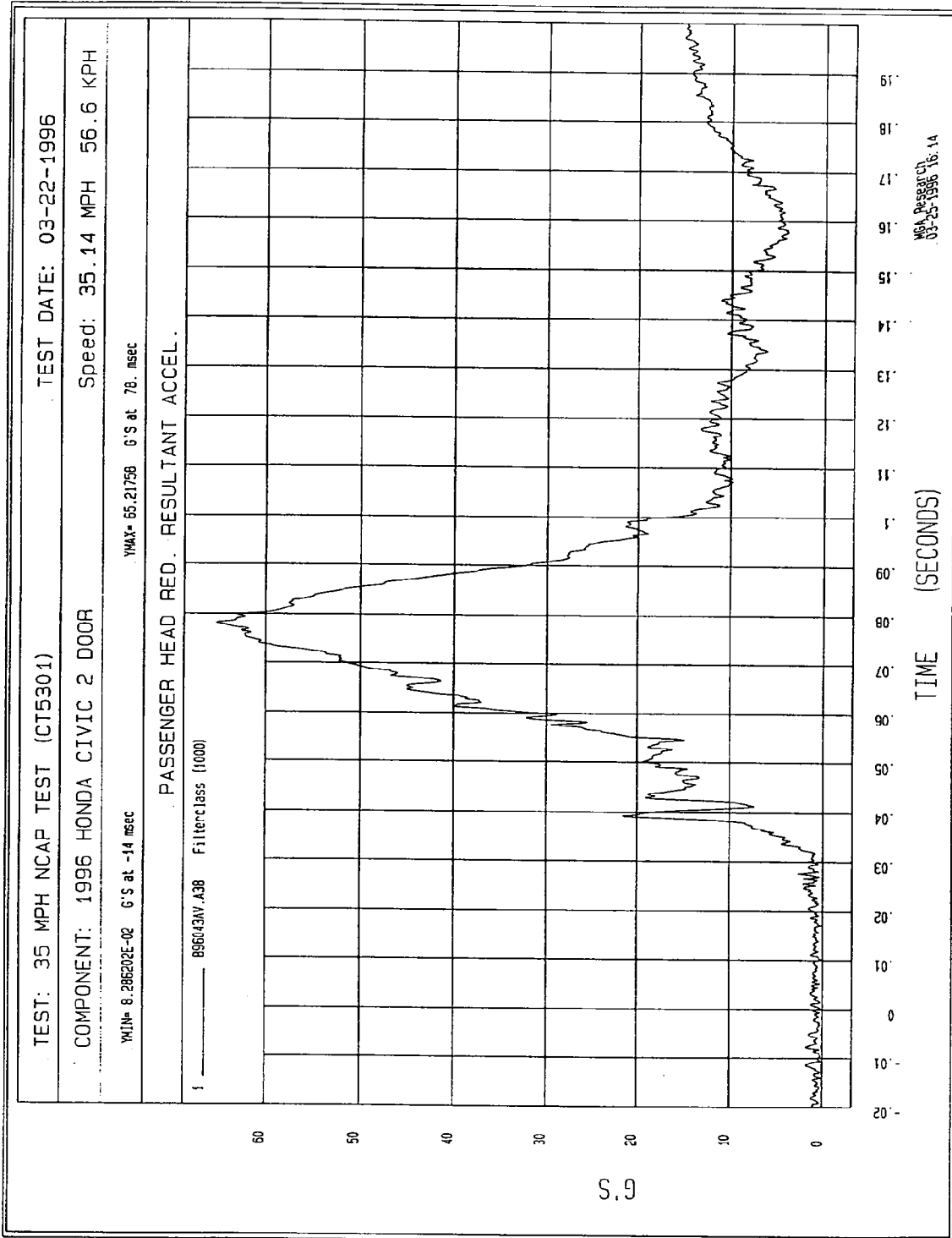


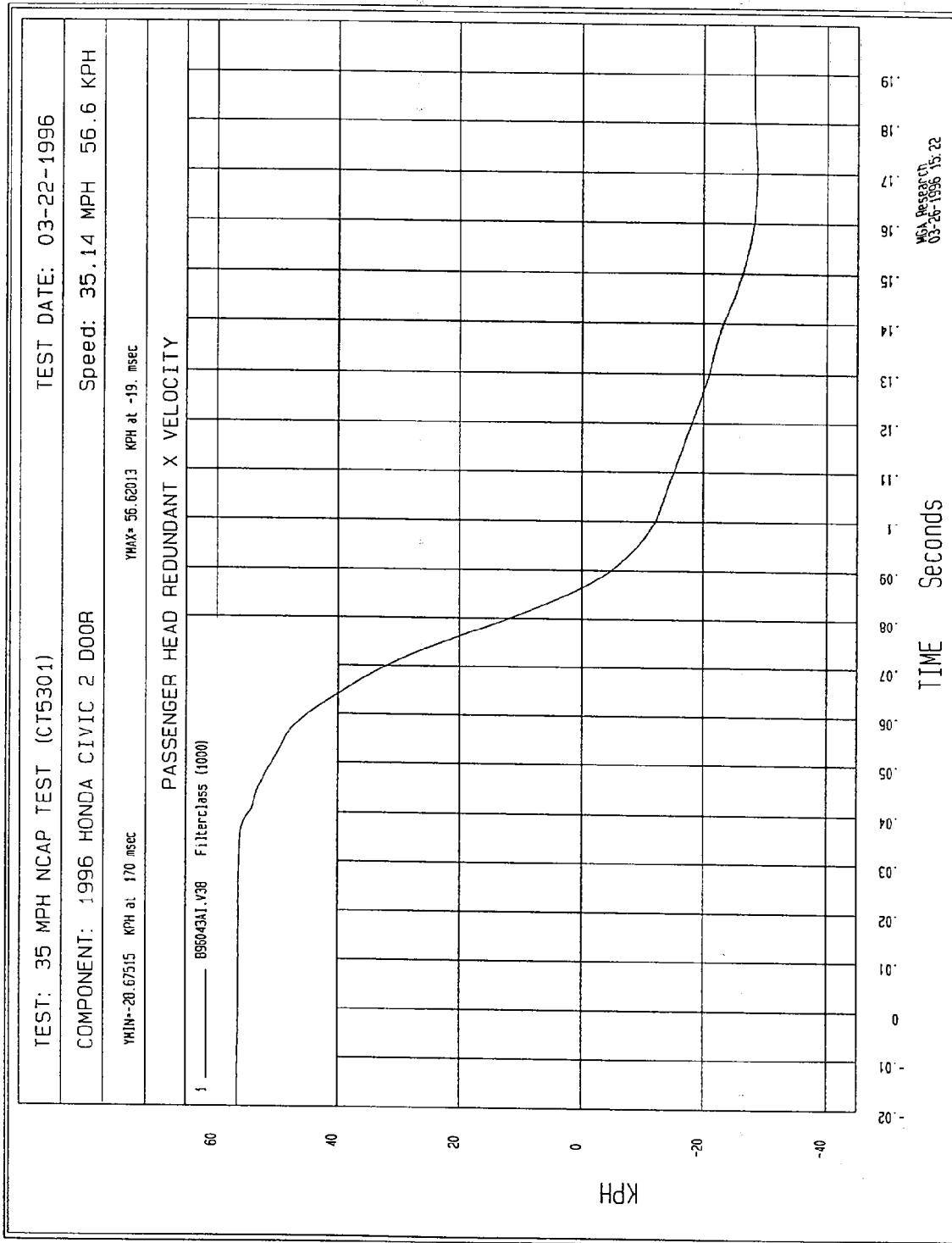


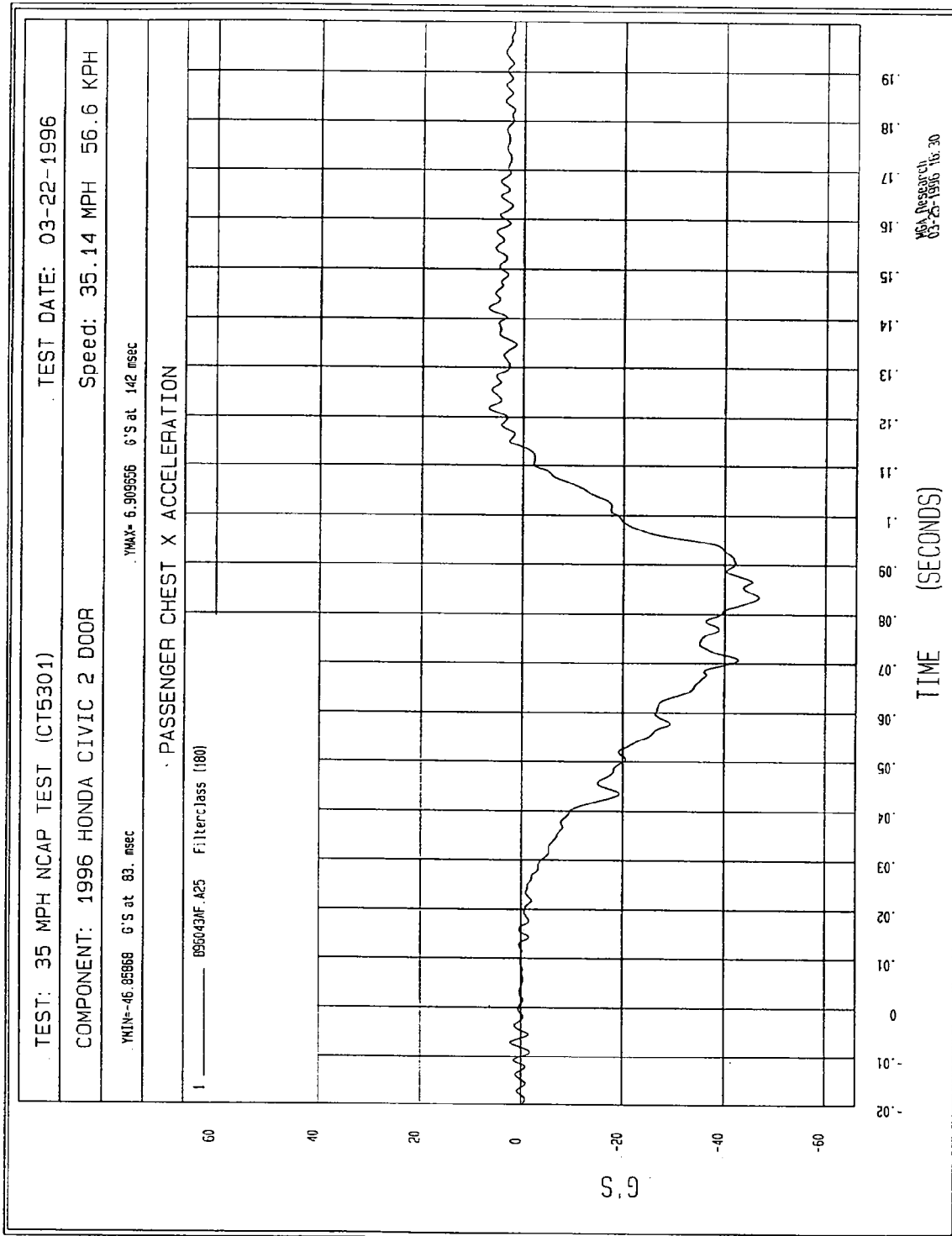


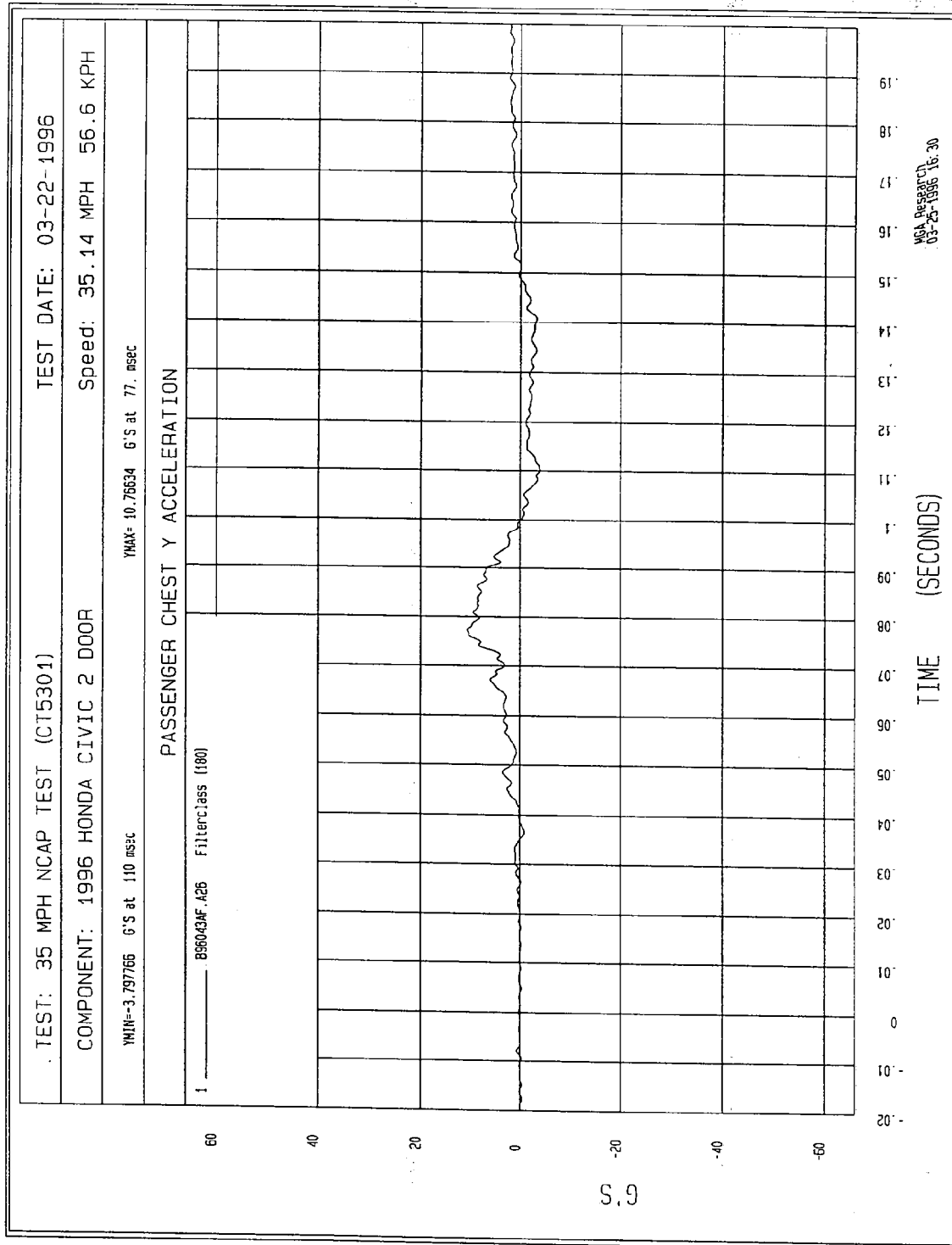


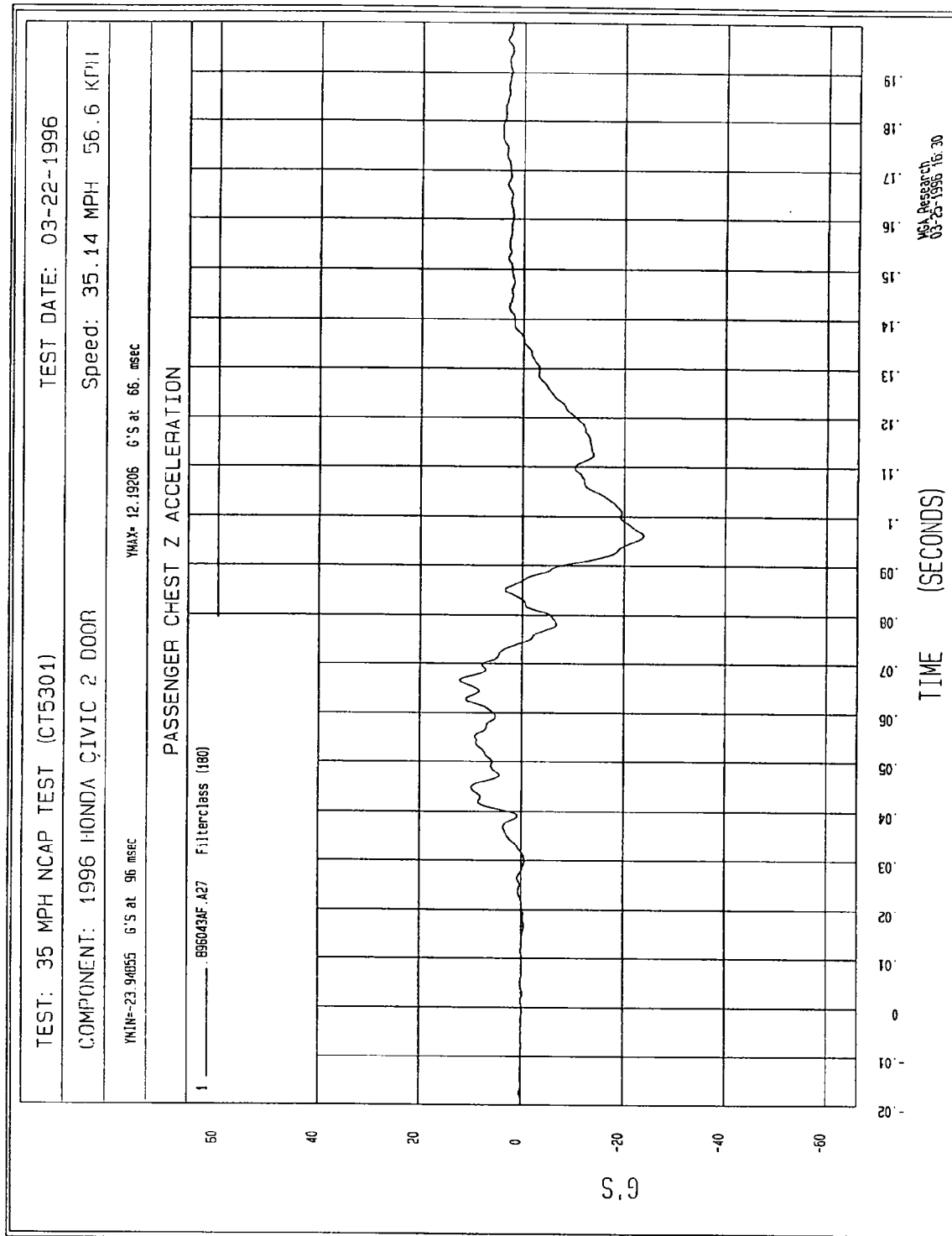


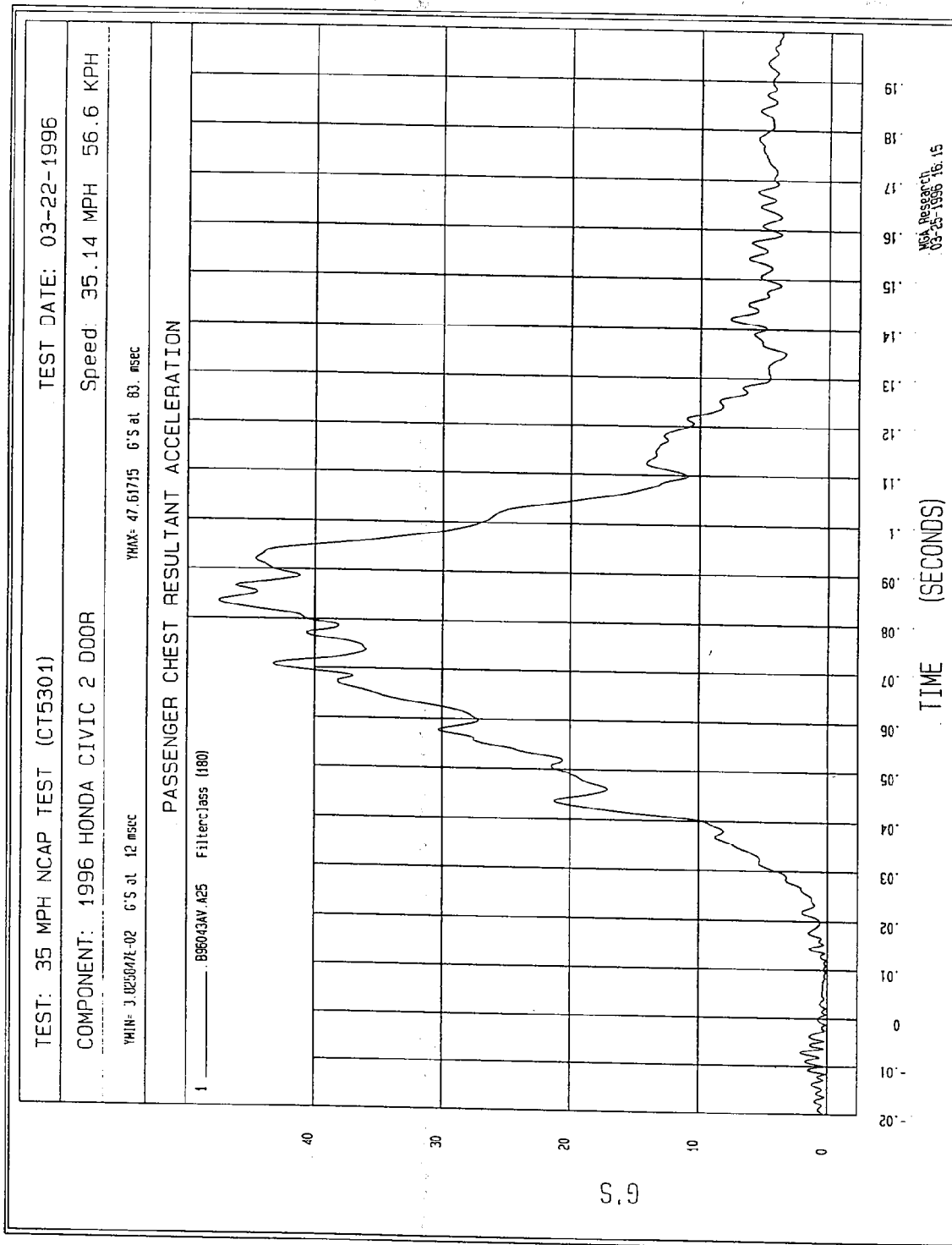


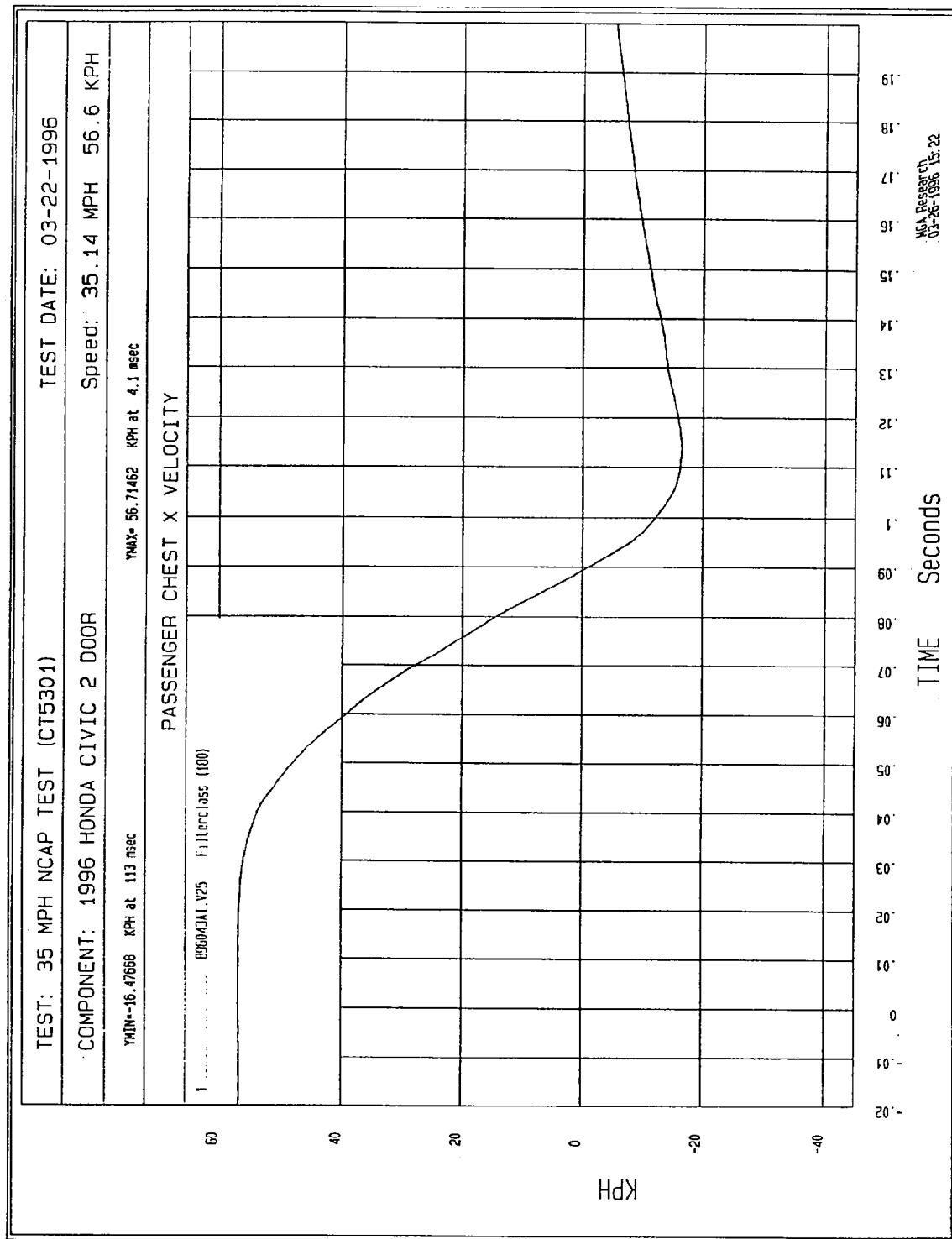


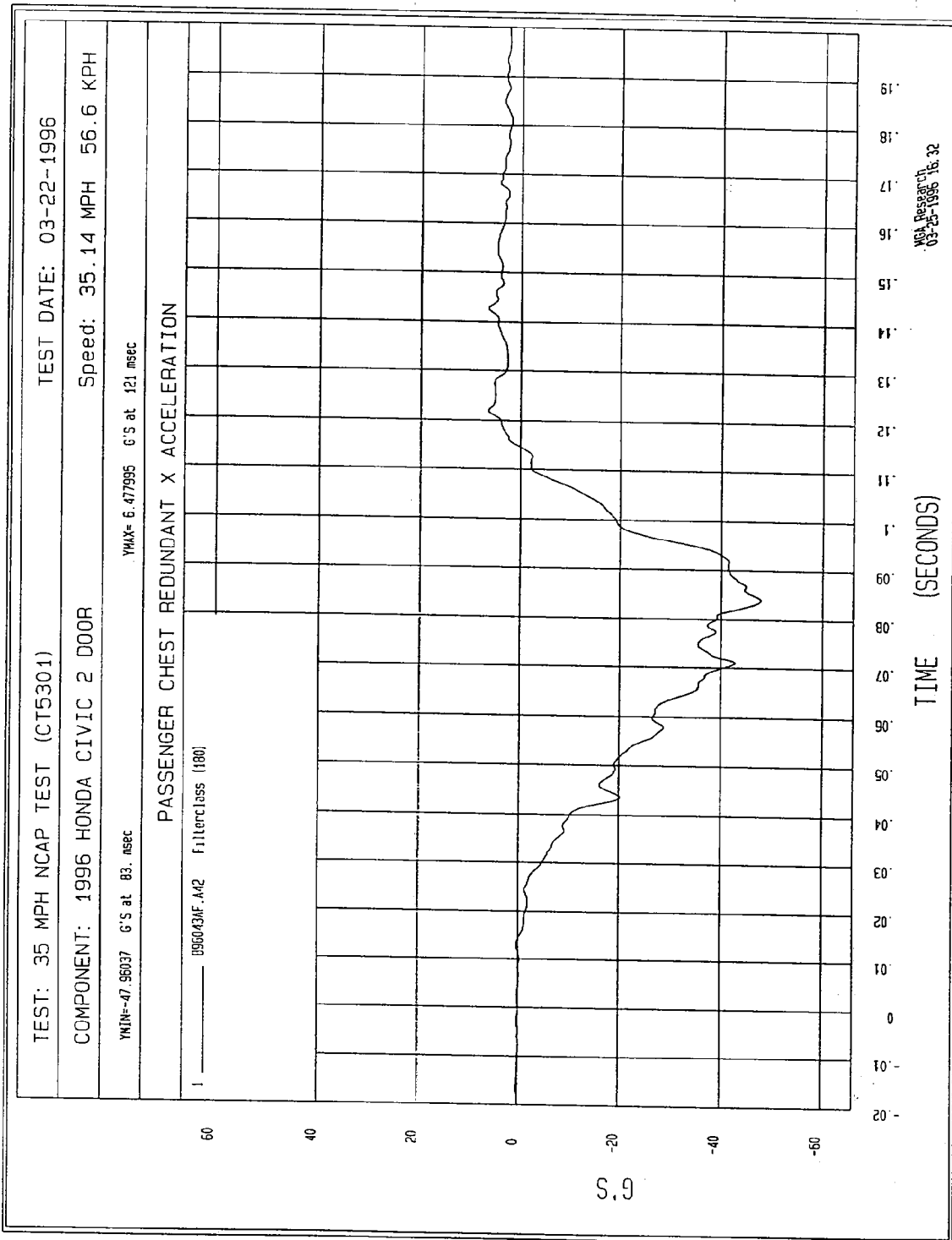


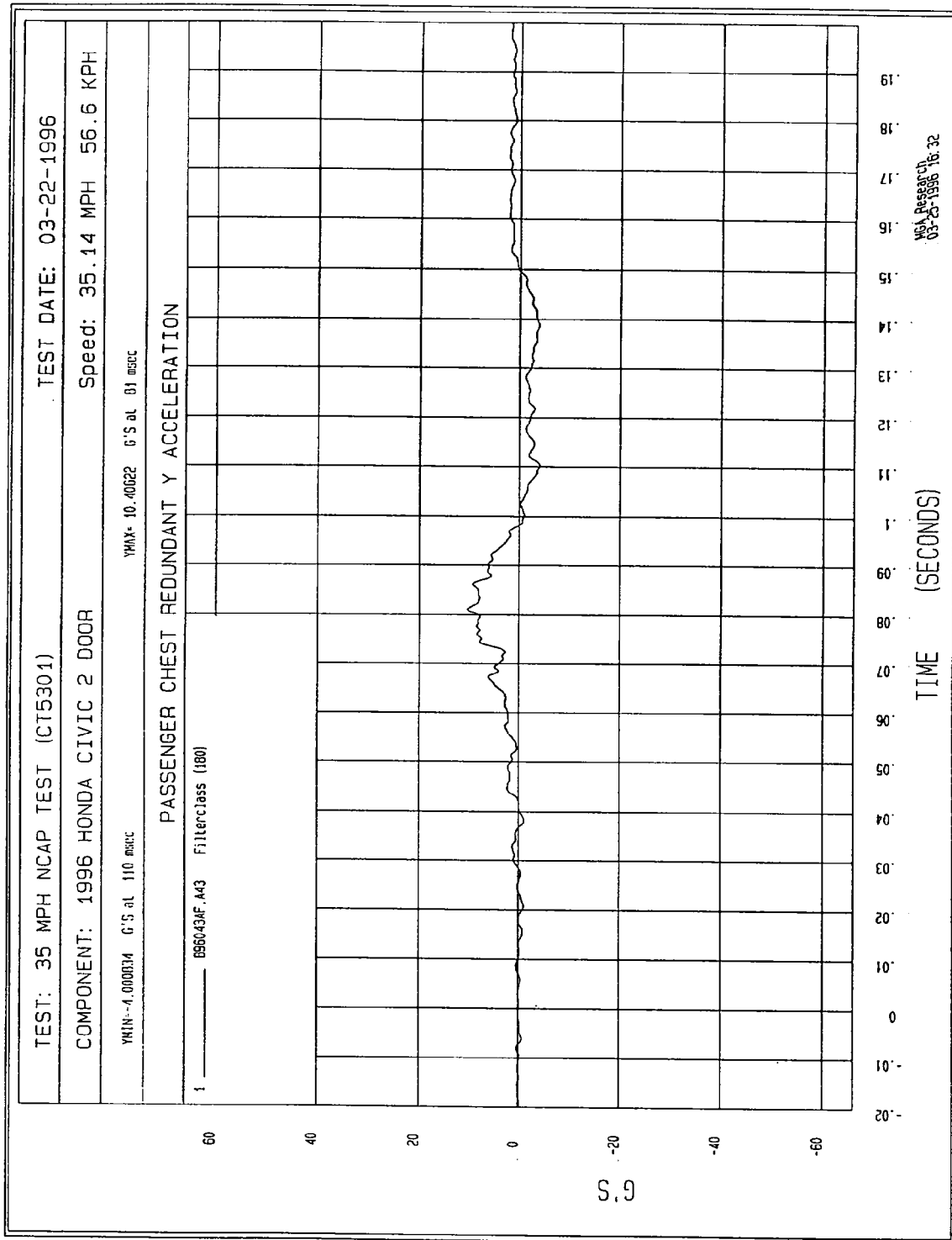


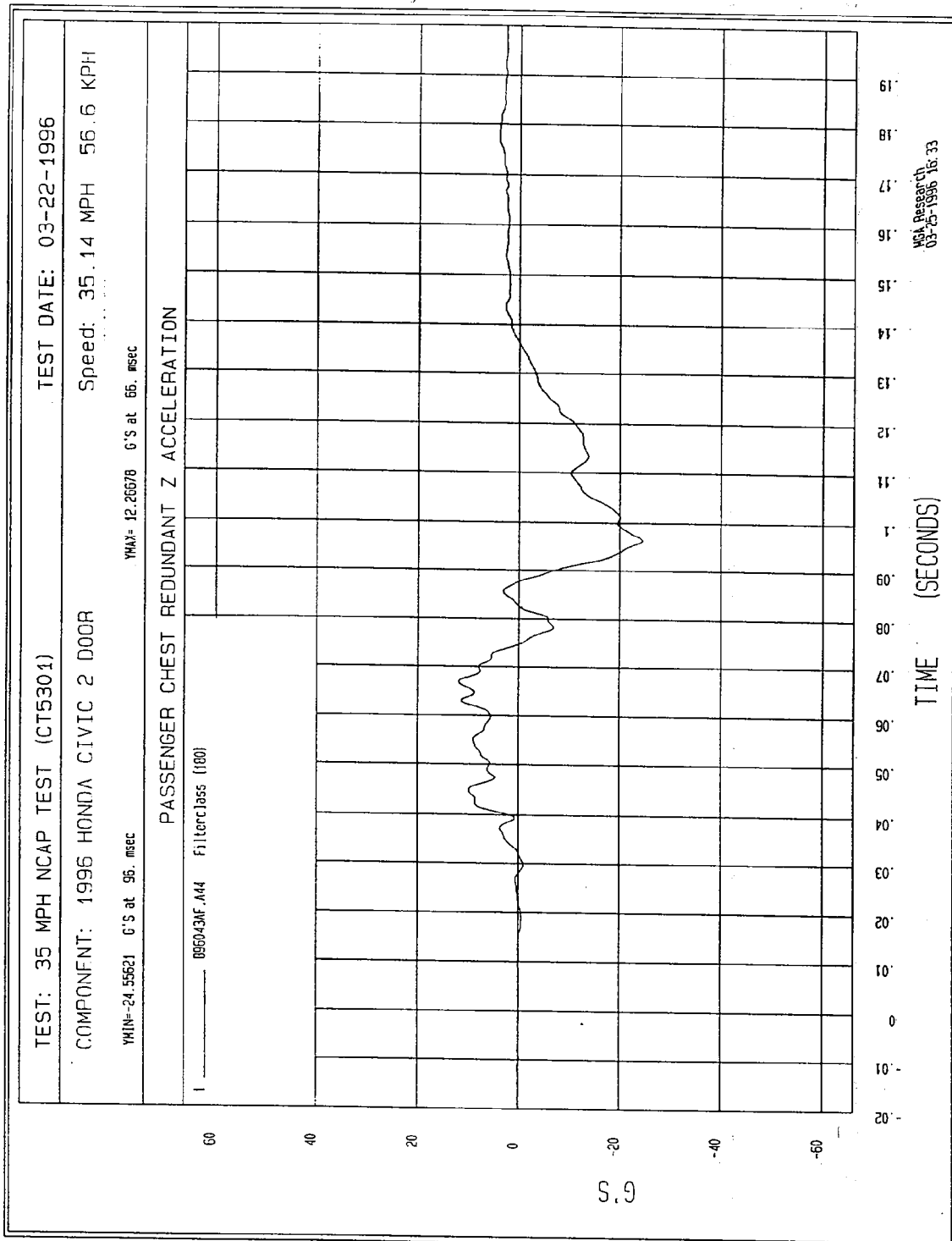


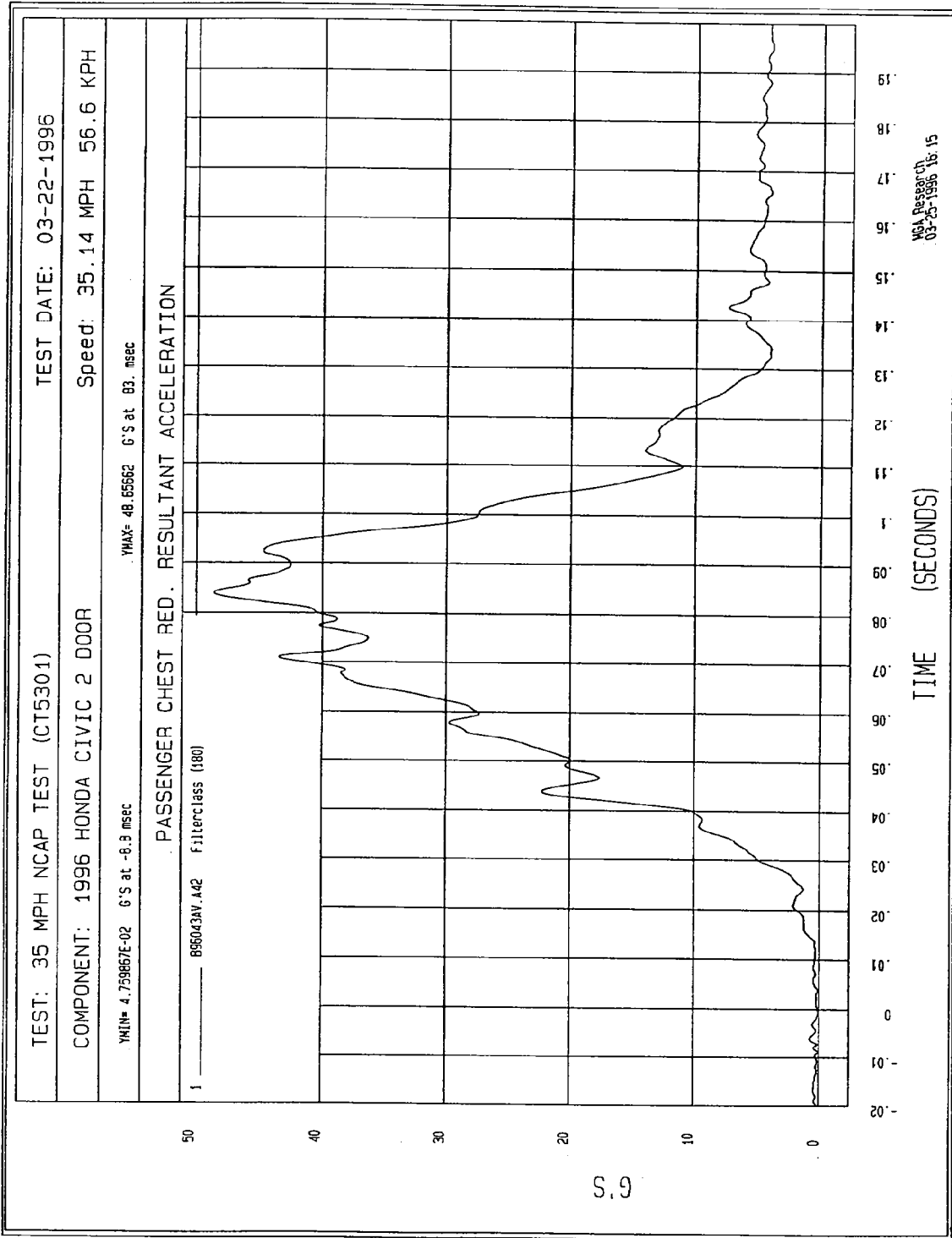


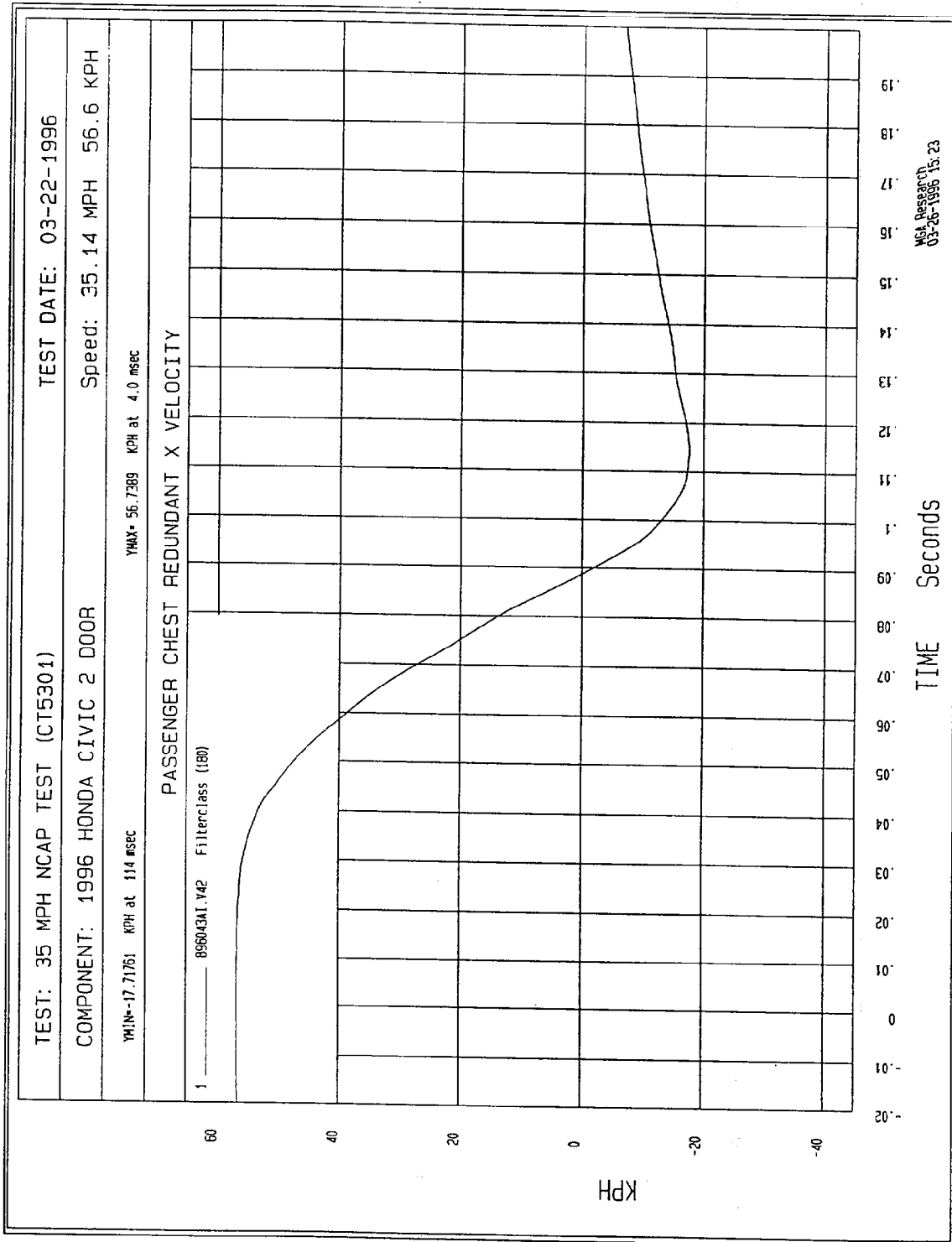


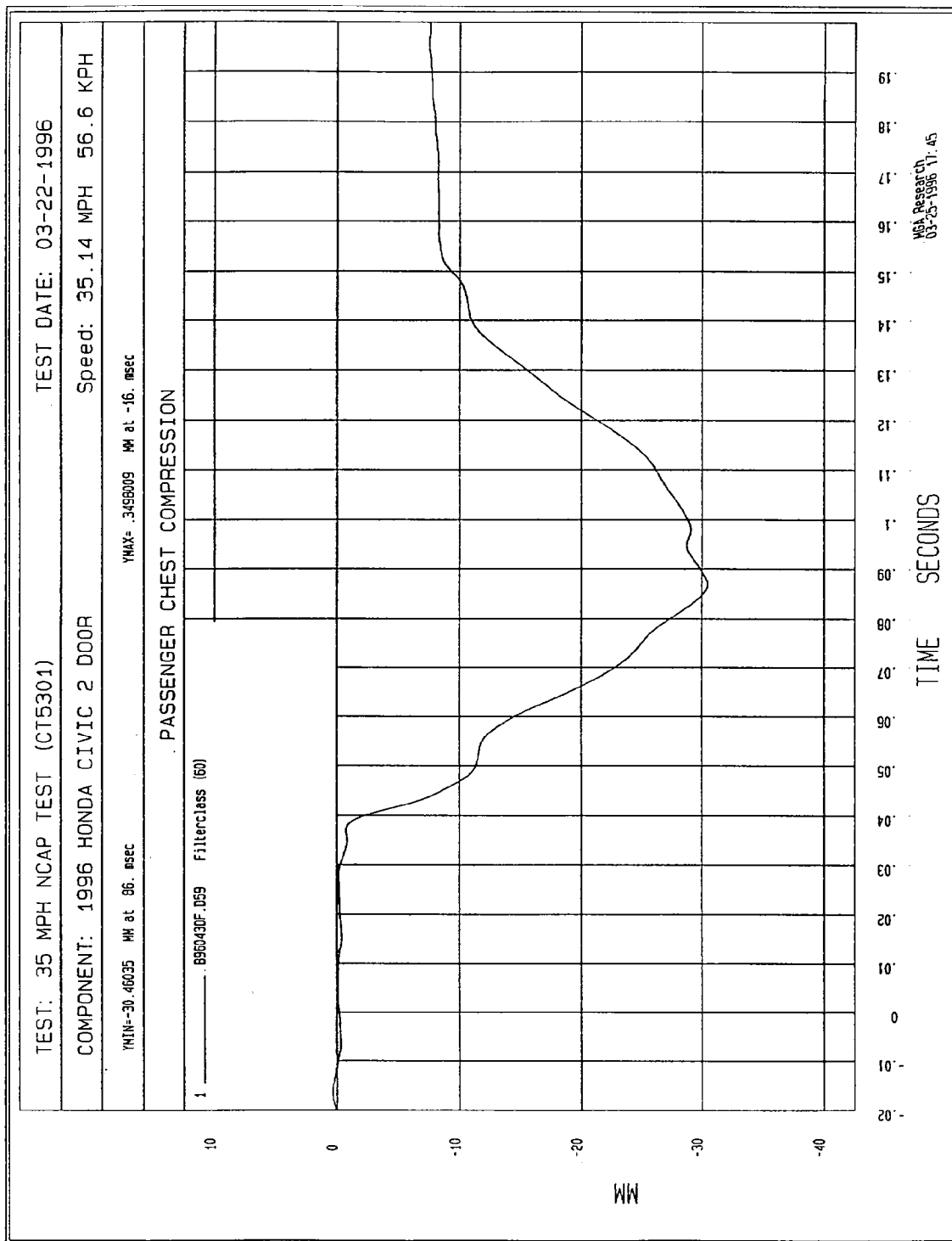


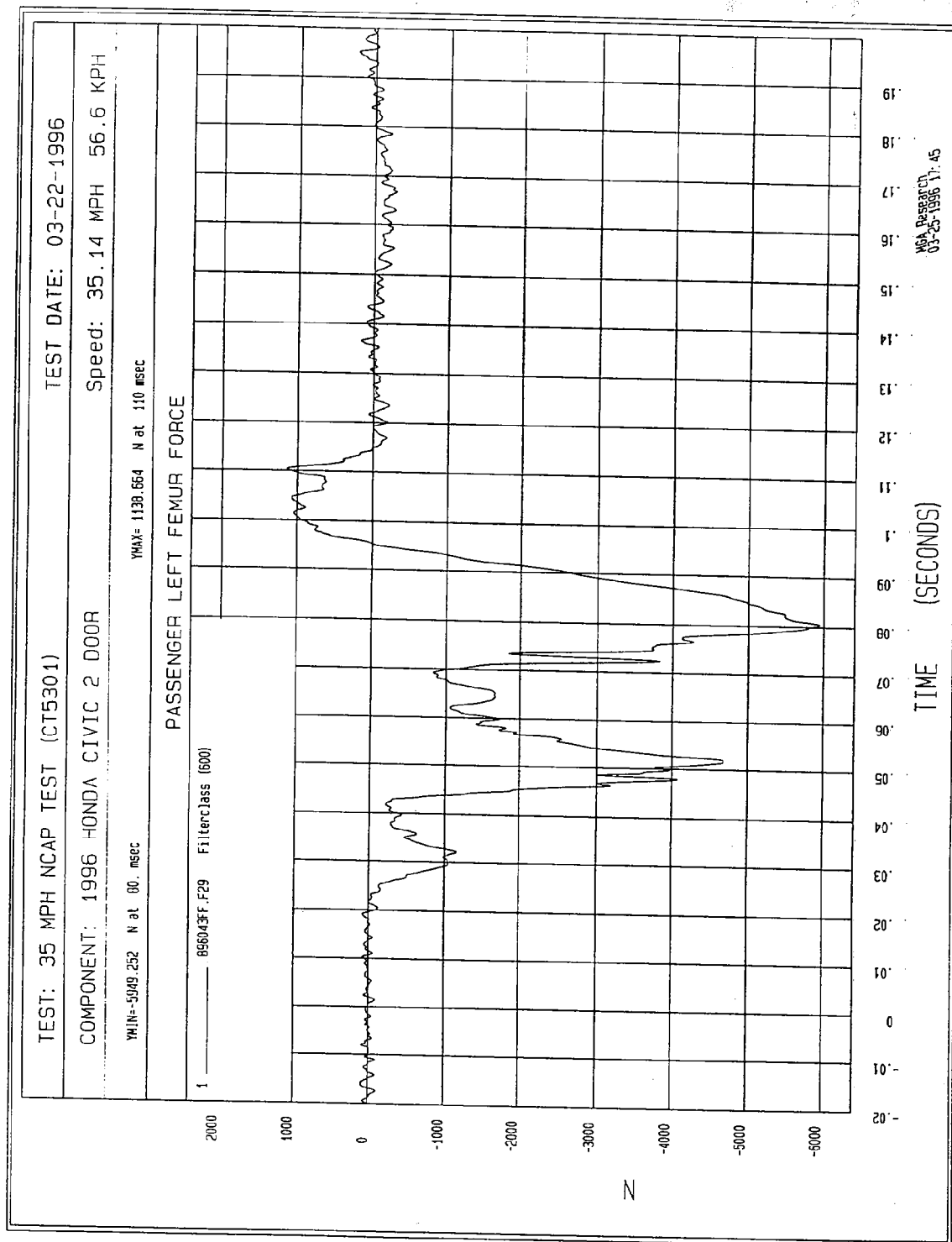


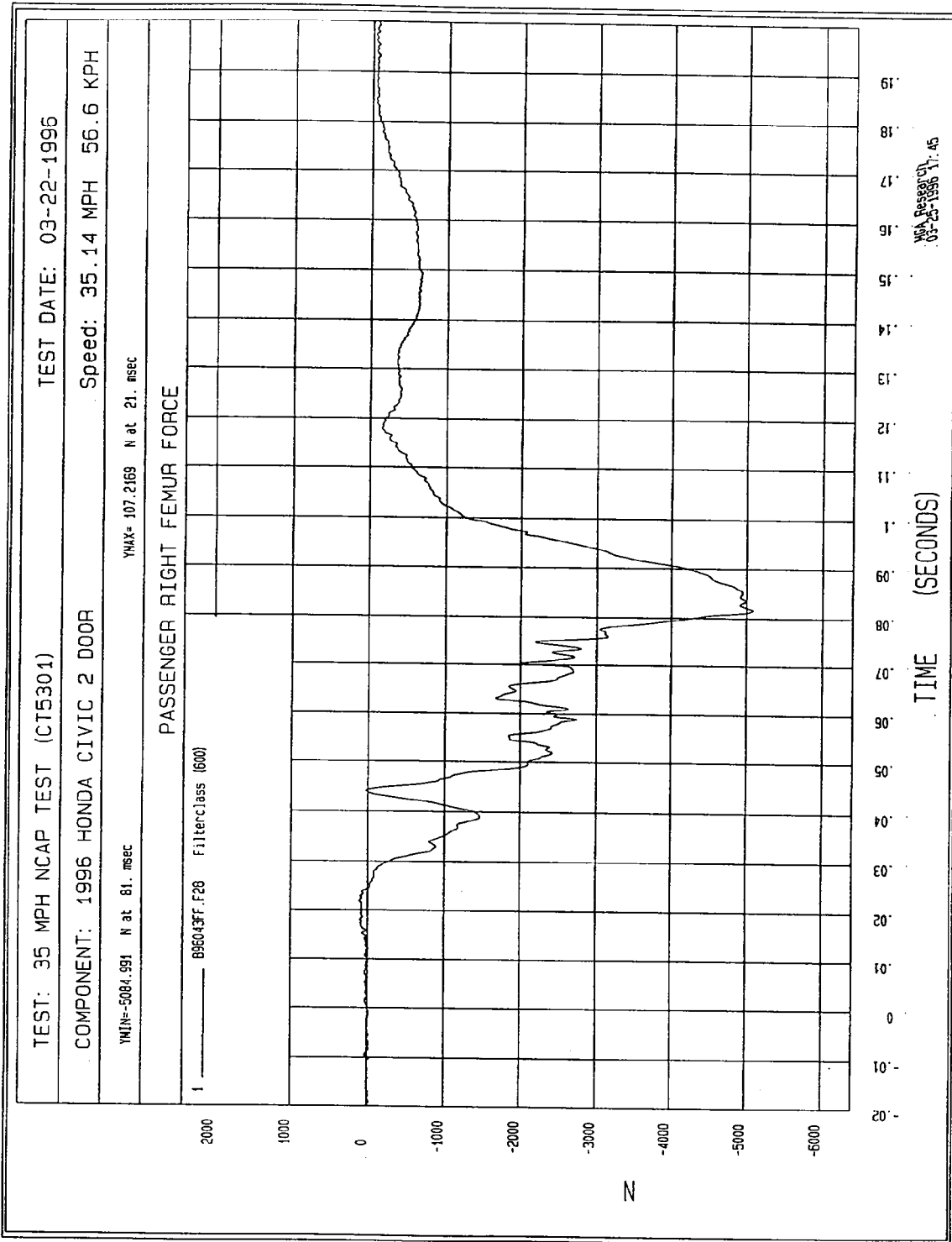


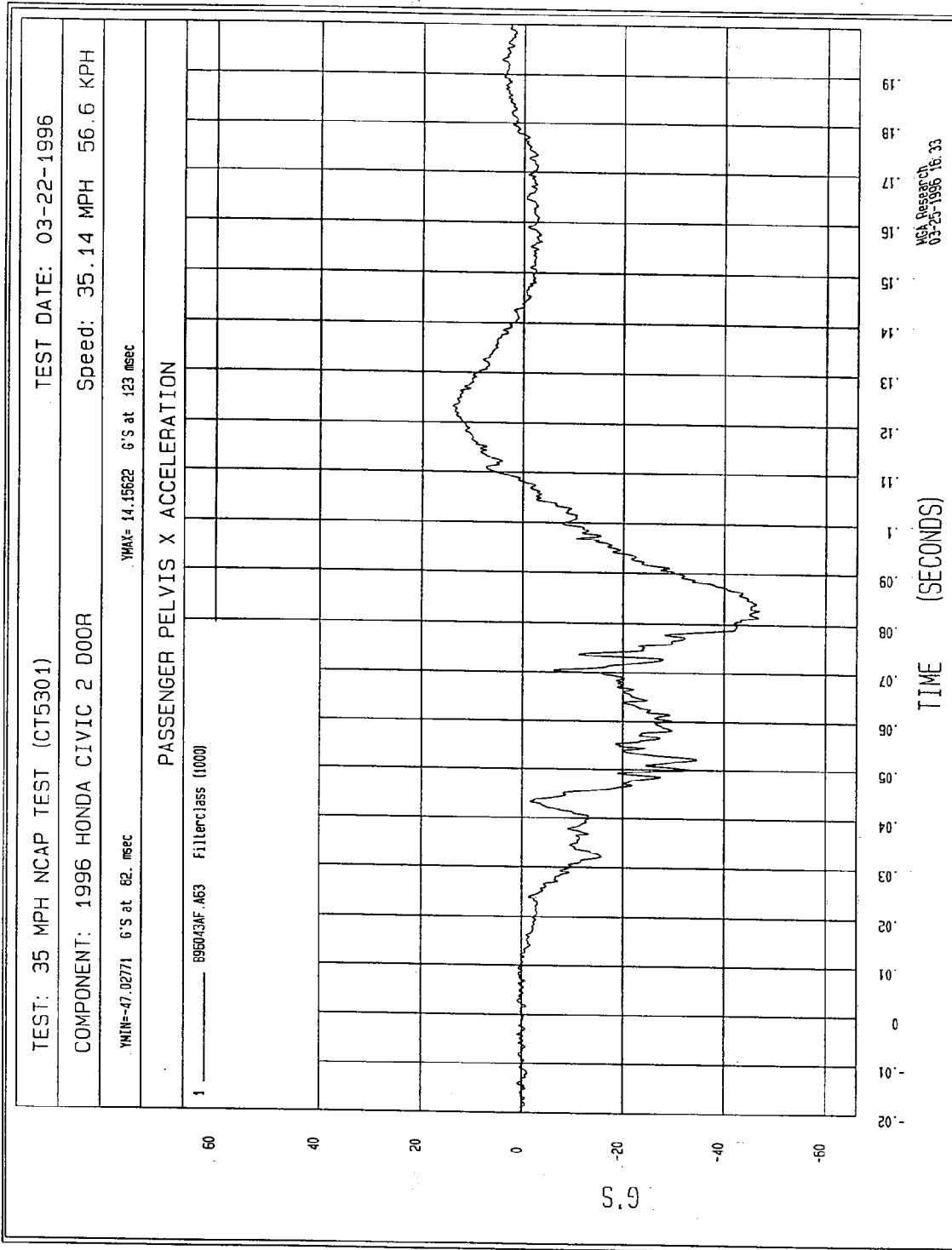


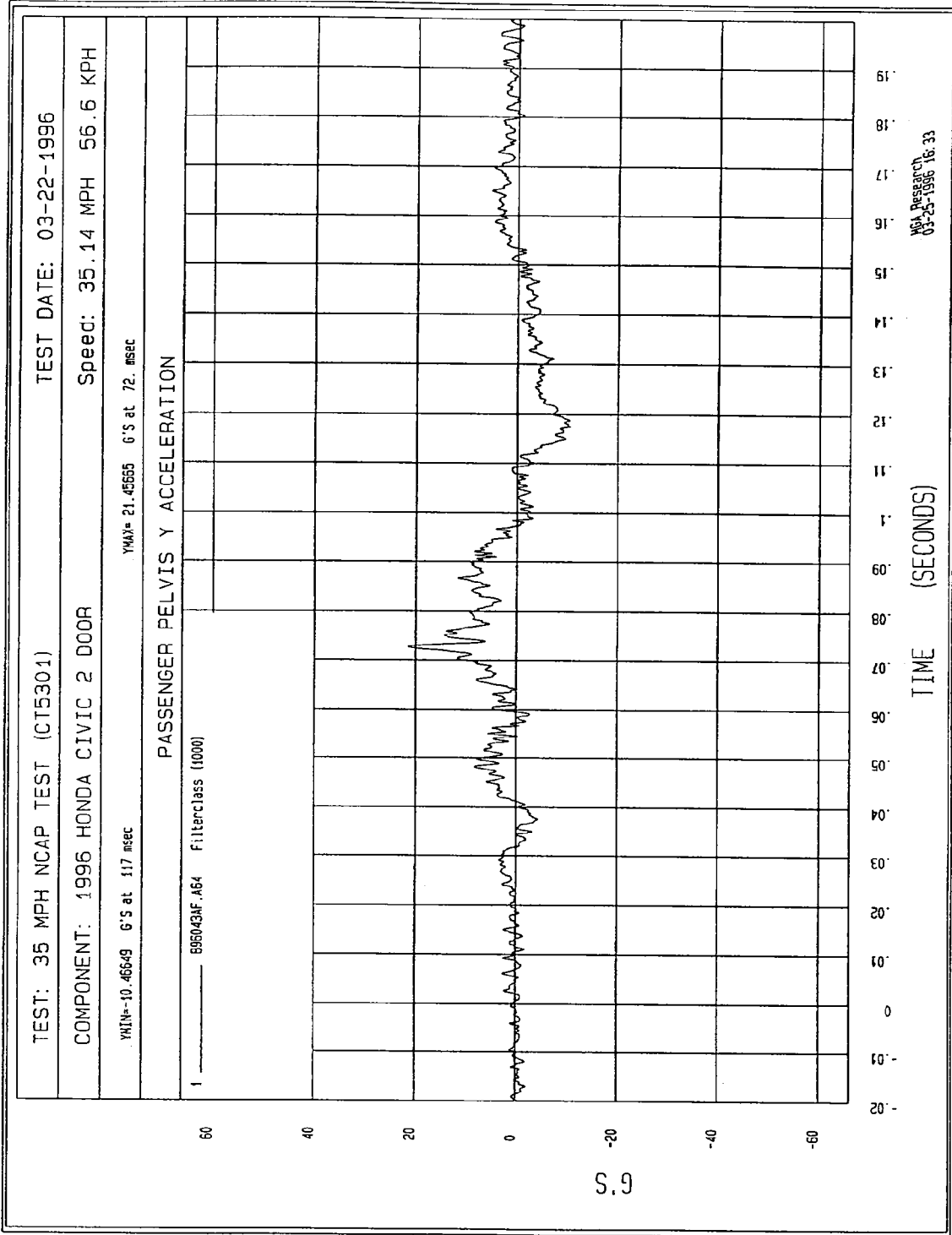


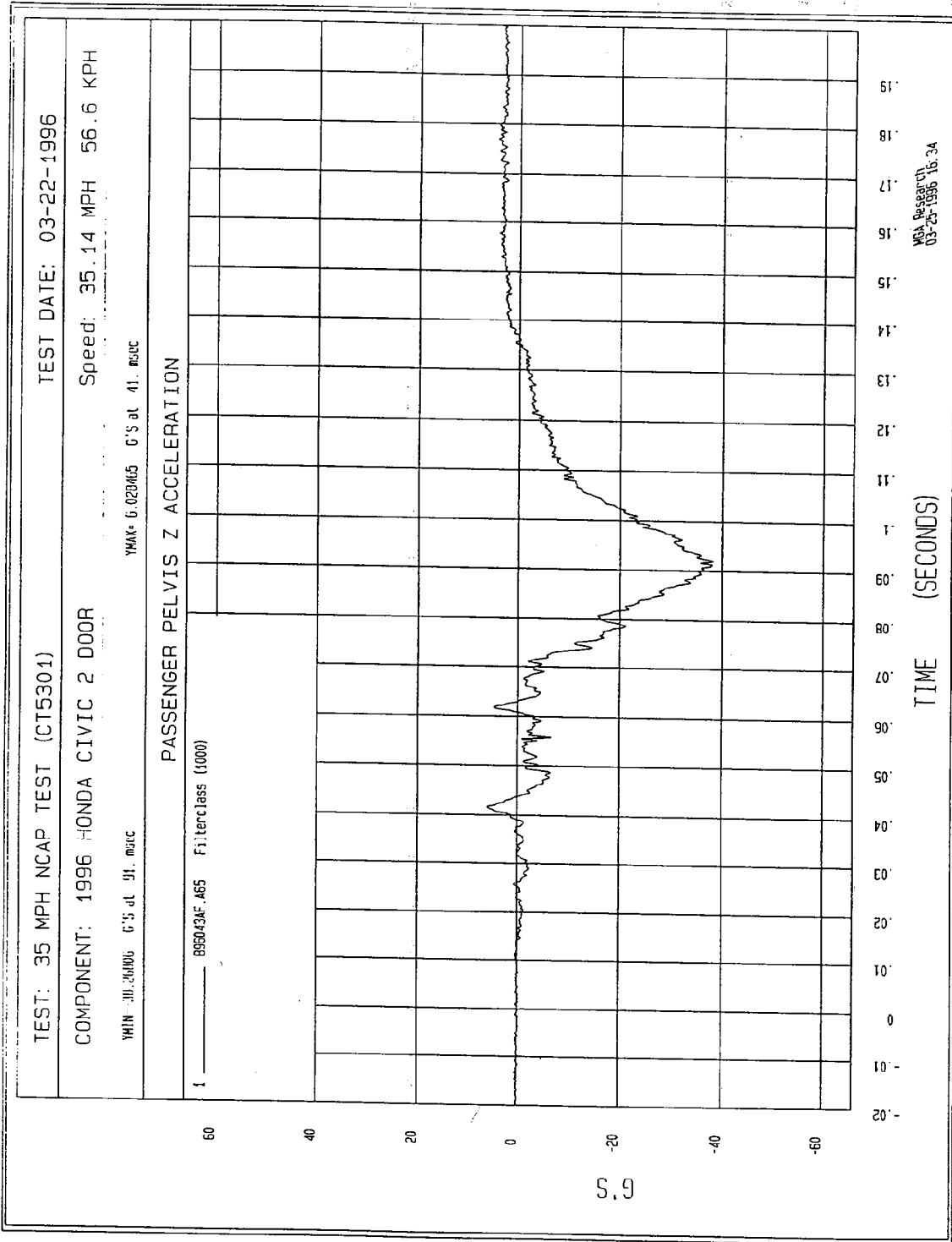


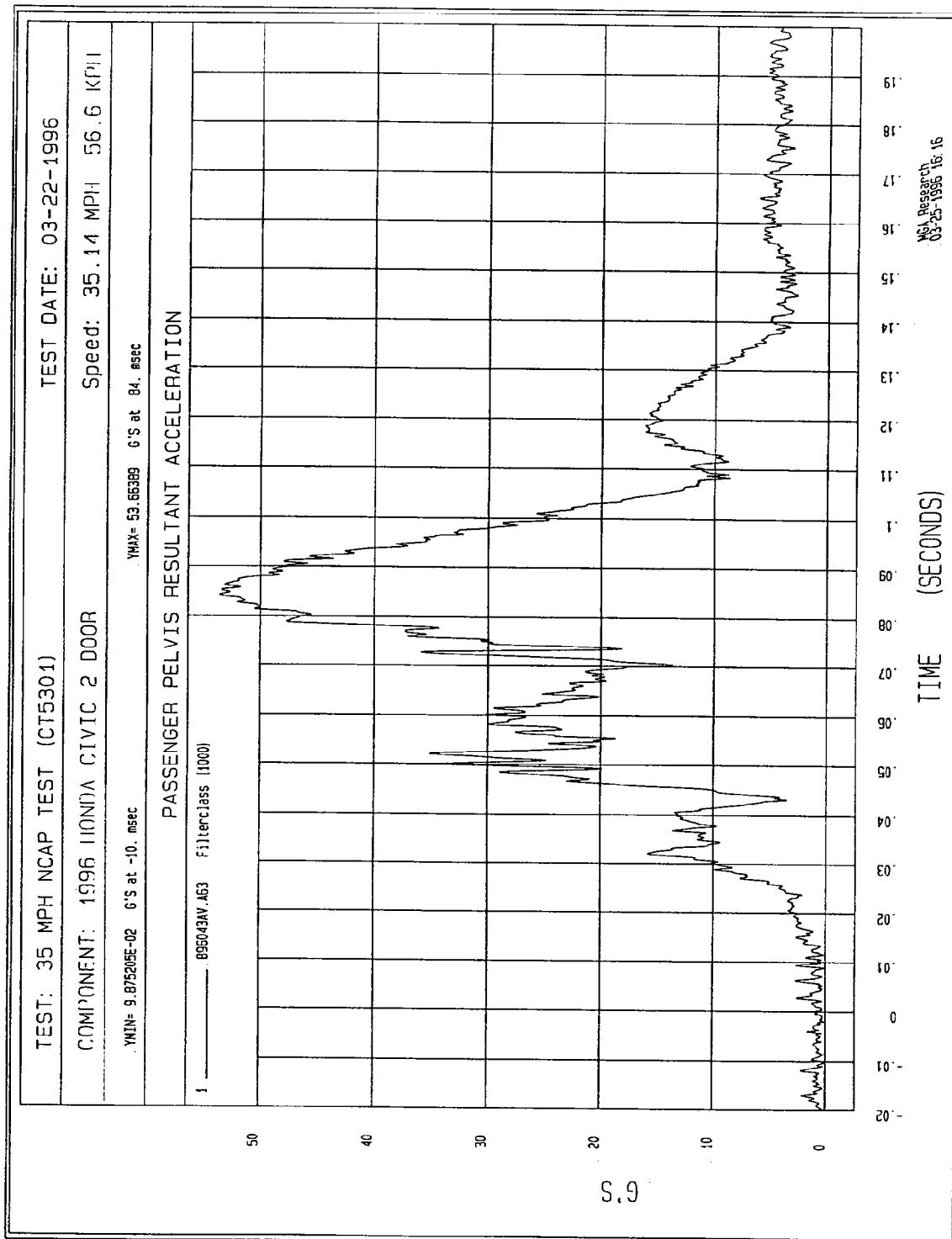


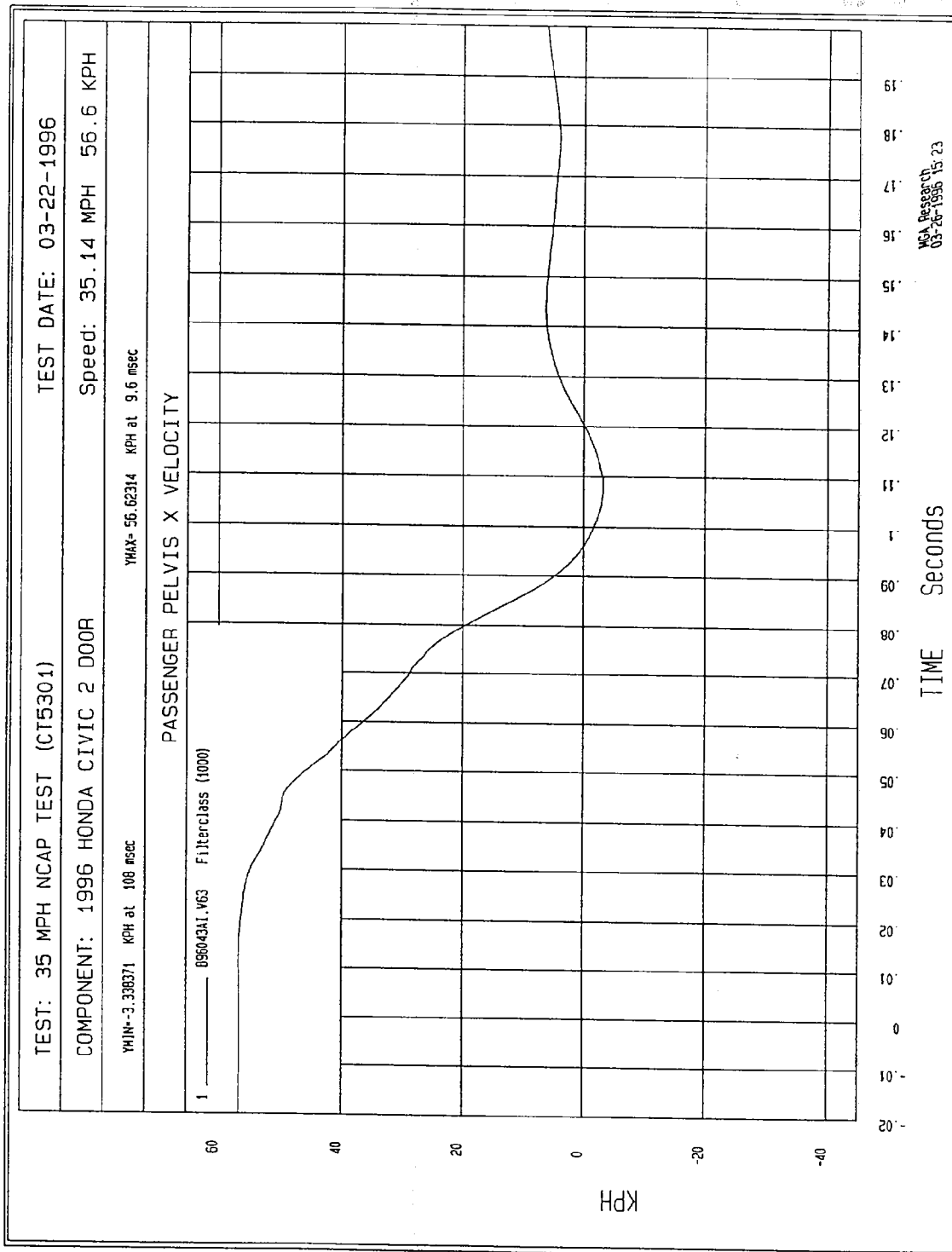


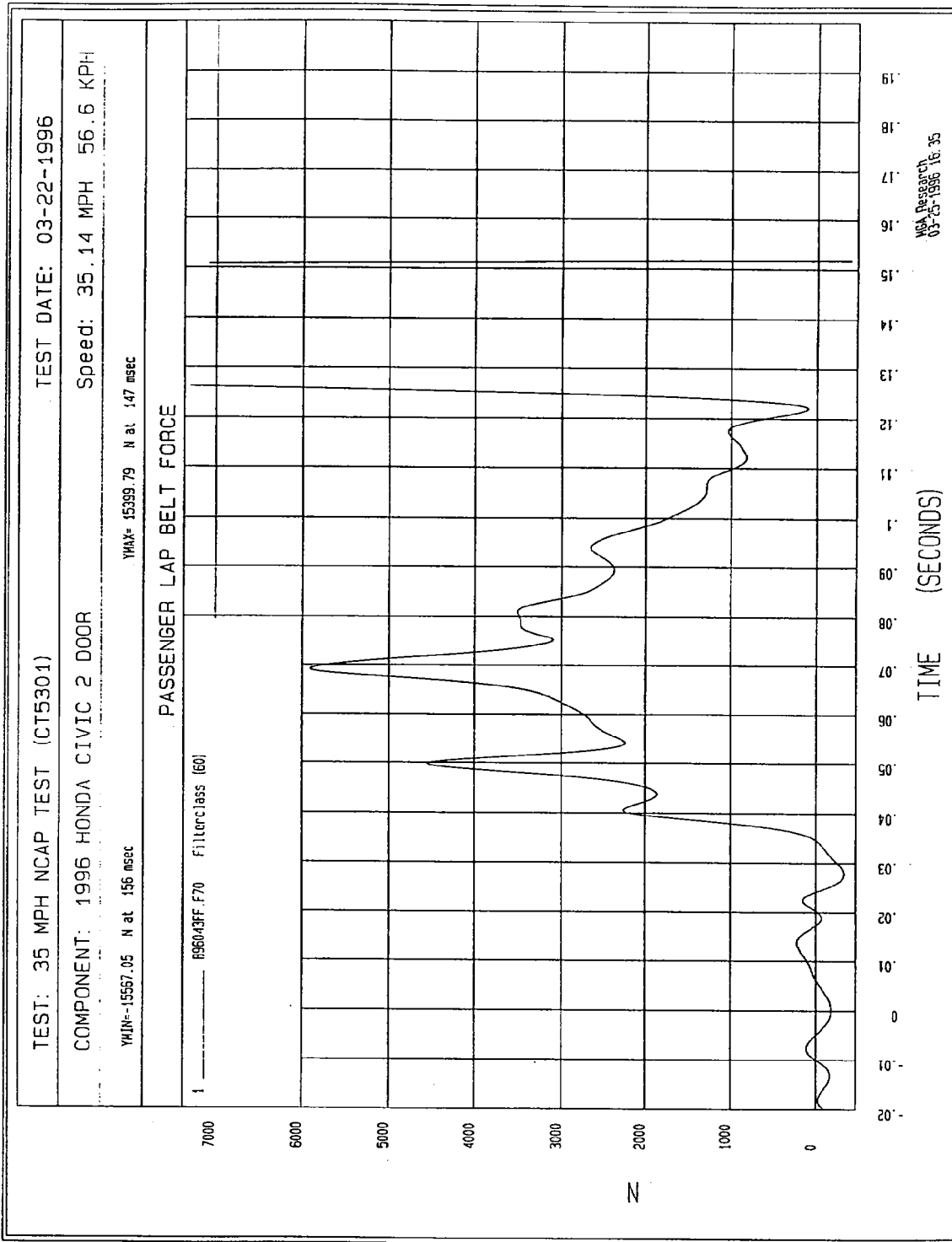


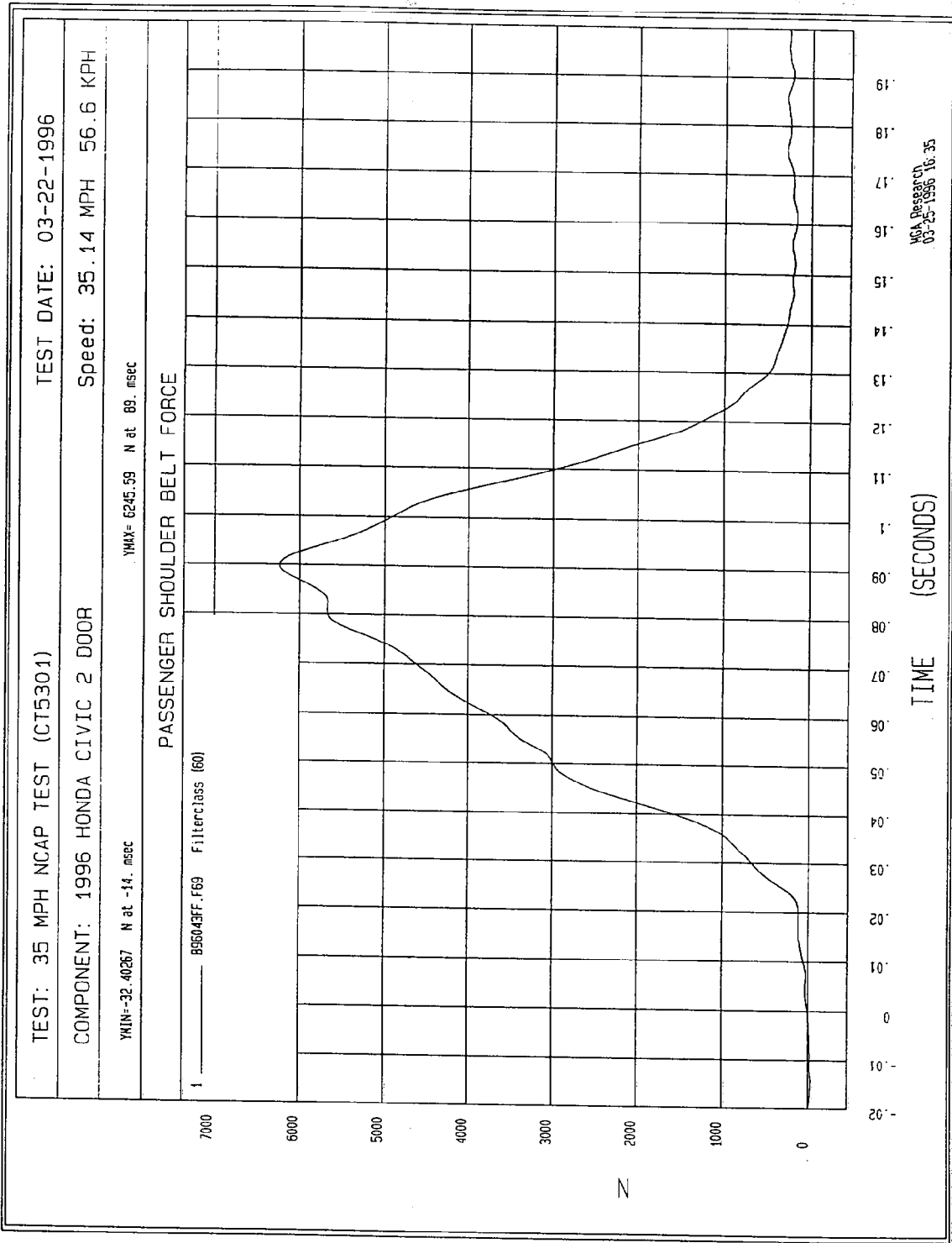












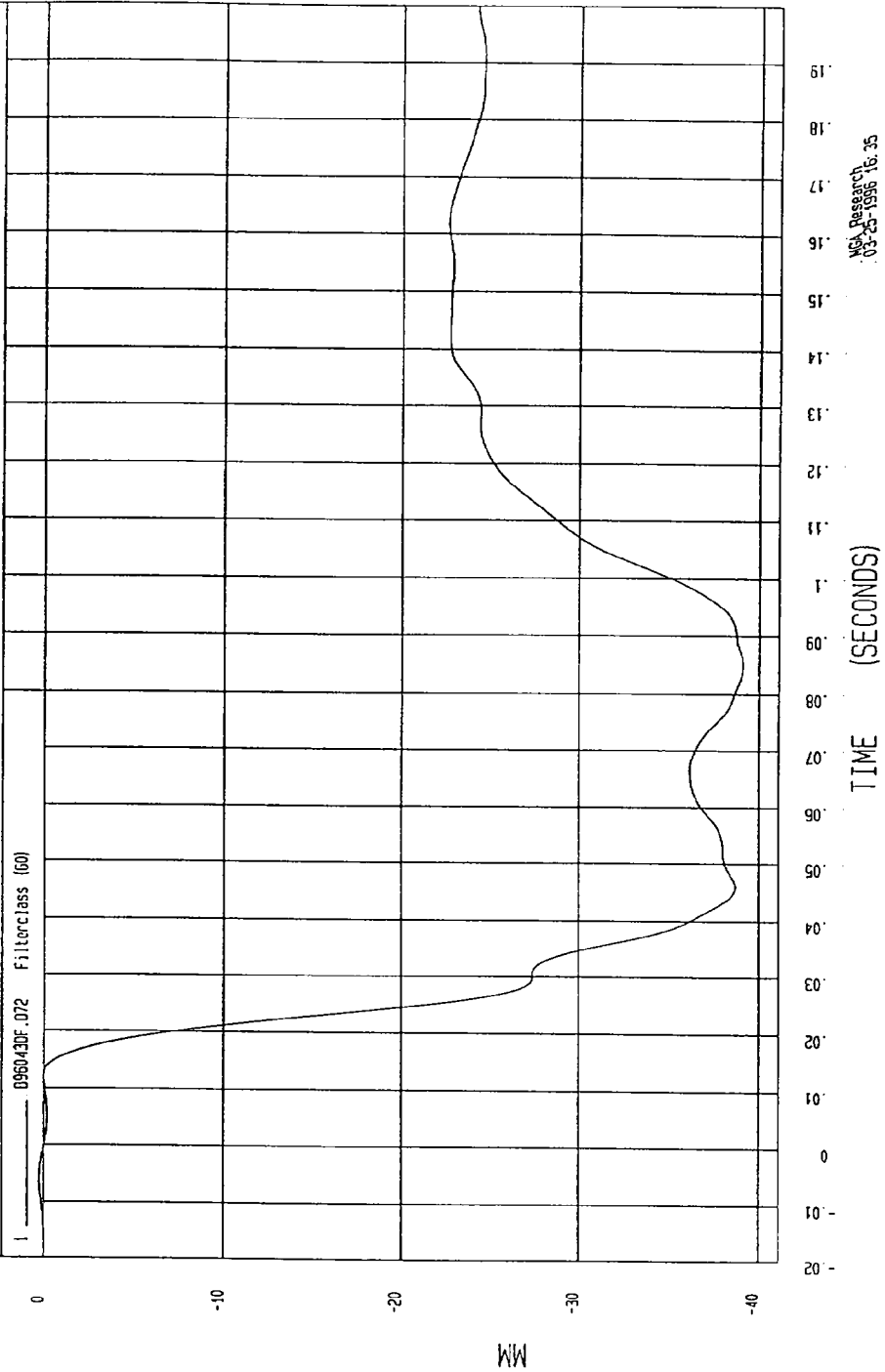
TEST: 35 MPH NCAP TEST (CT5301)

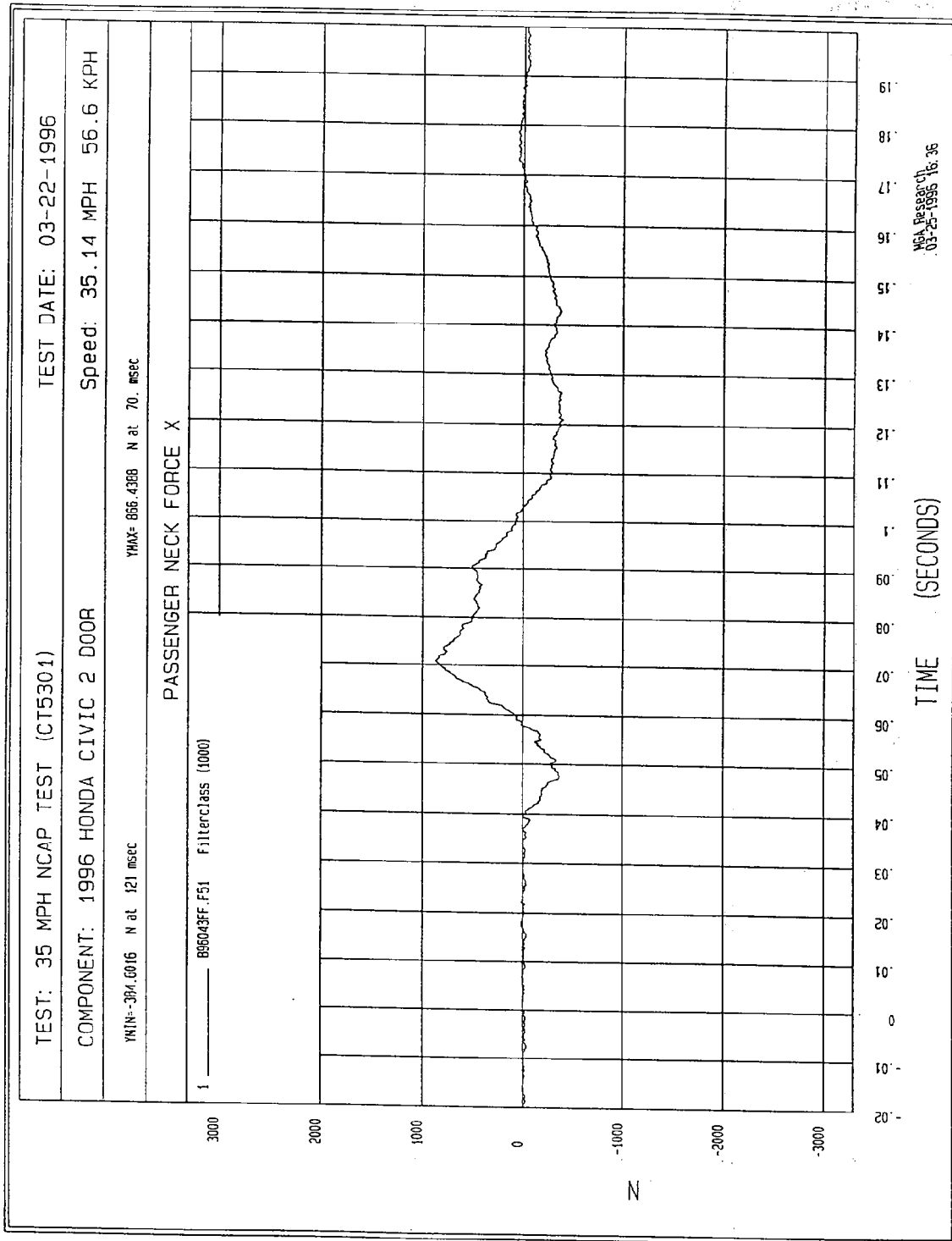
COMPONENT: 1996 HONDA CIVIC 2 DOOR

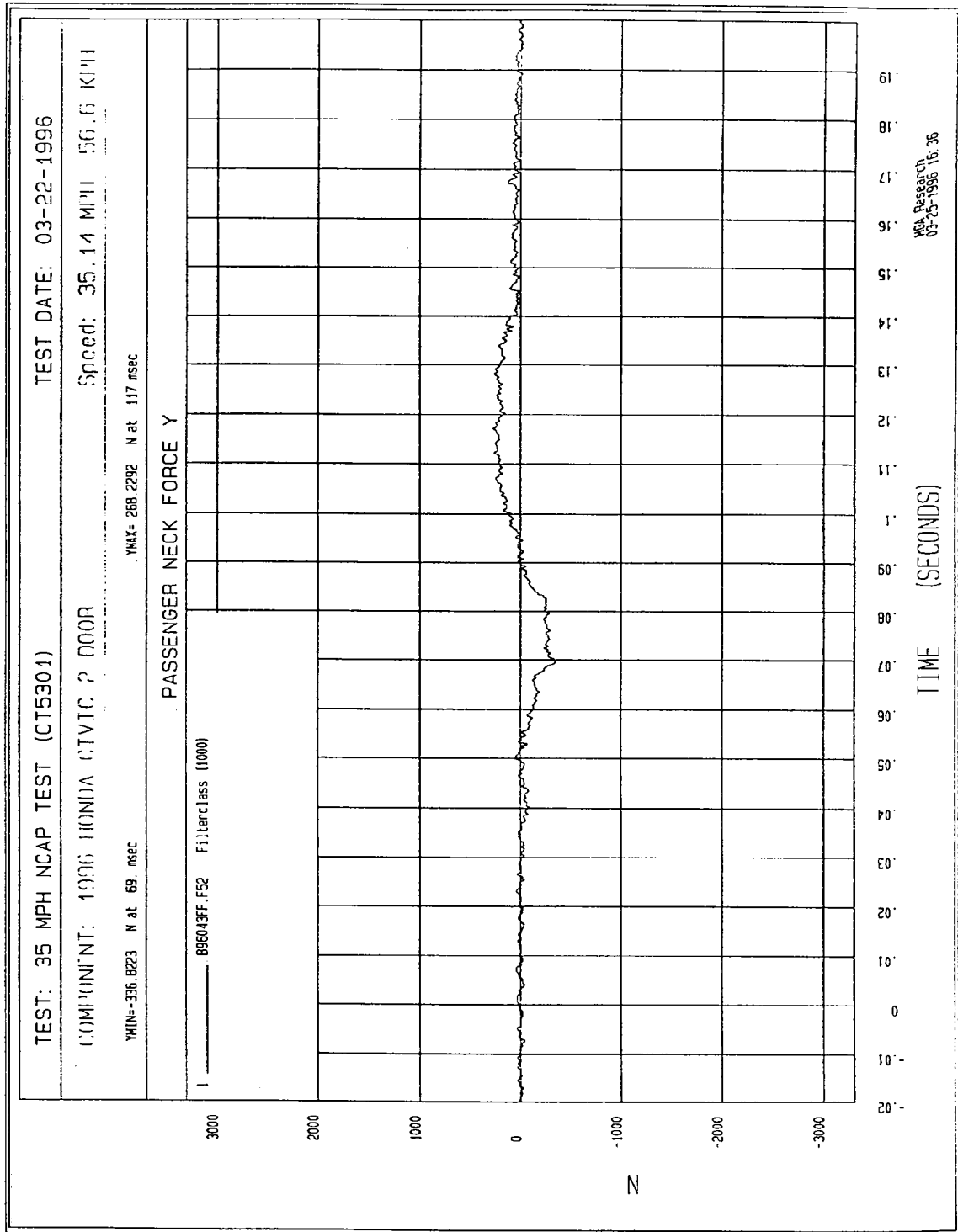
YMAX= .2553483 MH at -6.1 msec

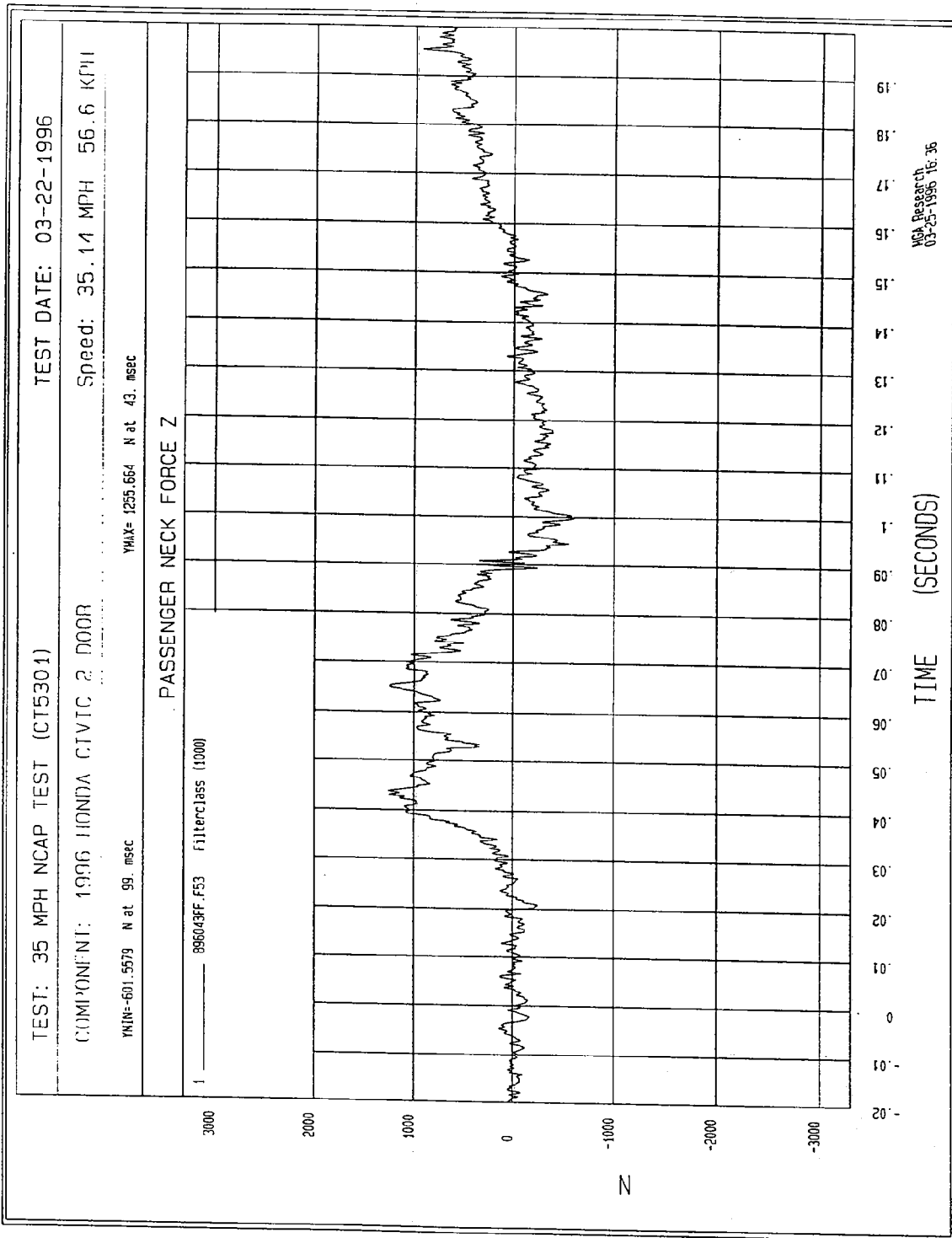
YMIN=-39.11591 MM at 85 msec

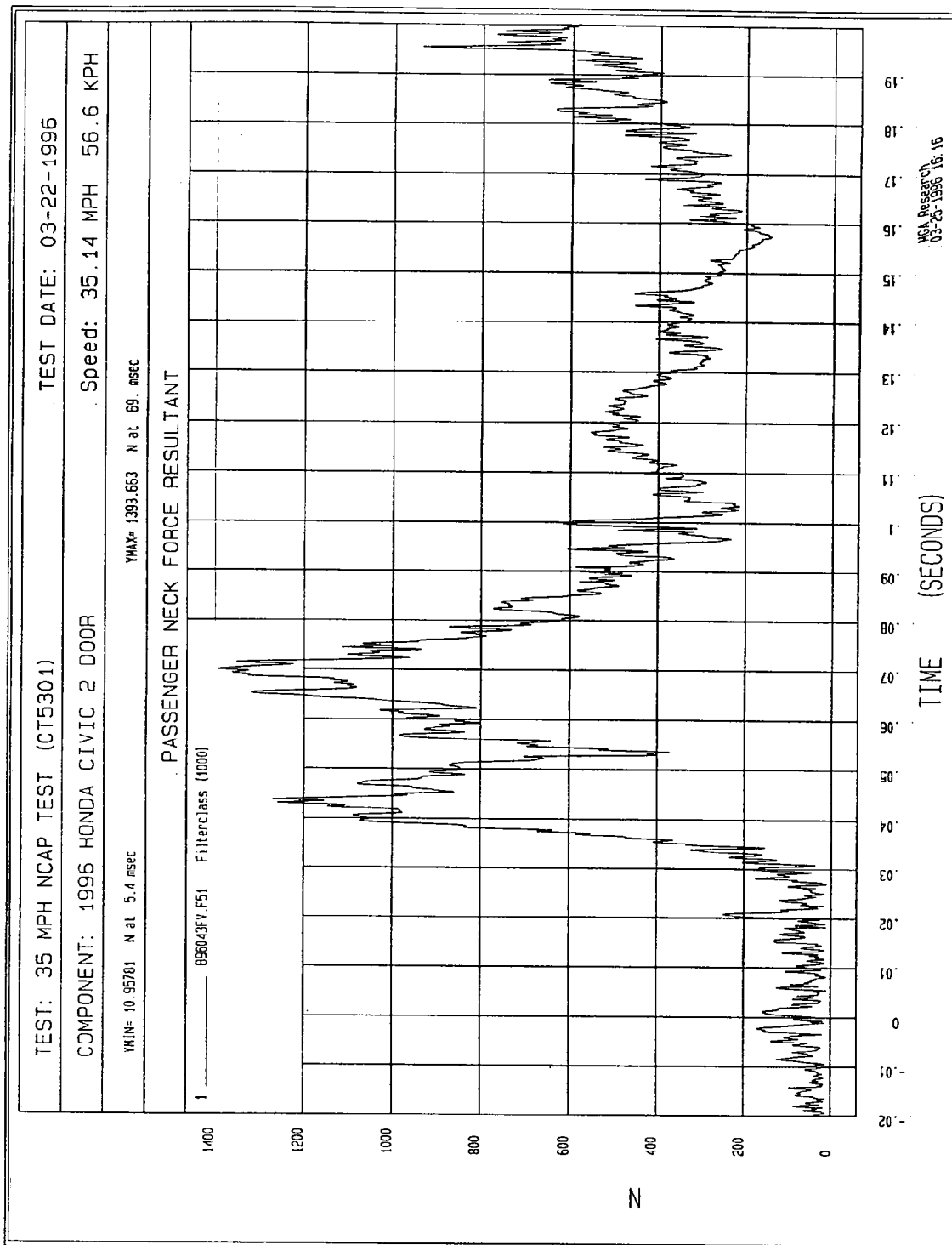
PASSENGER BELT SPOOLOUT

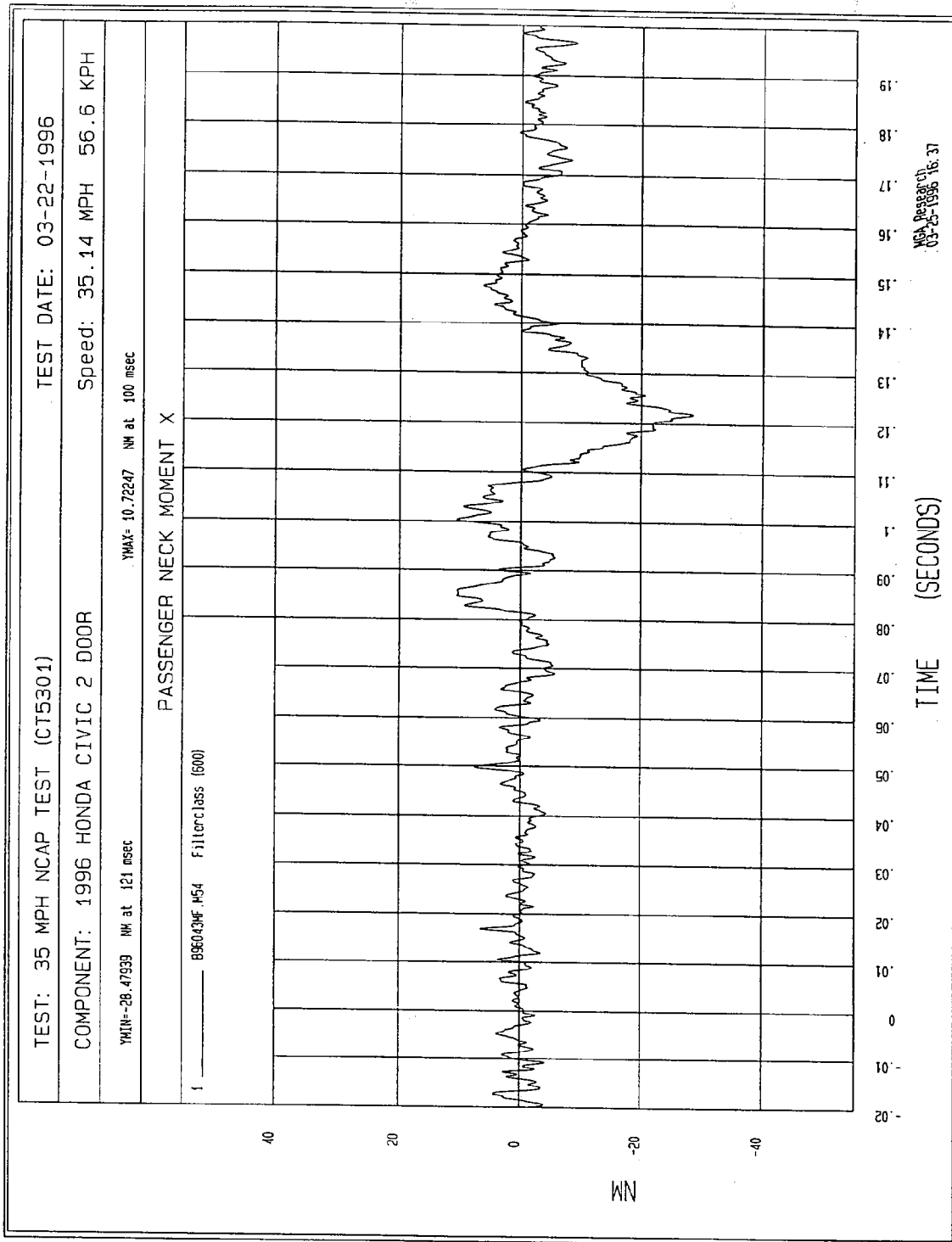


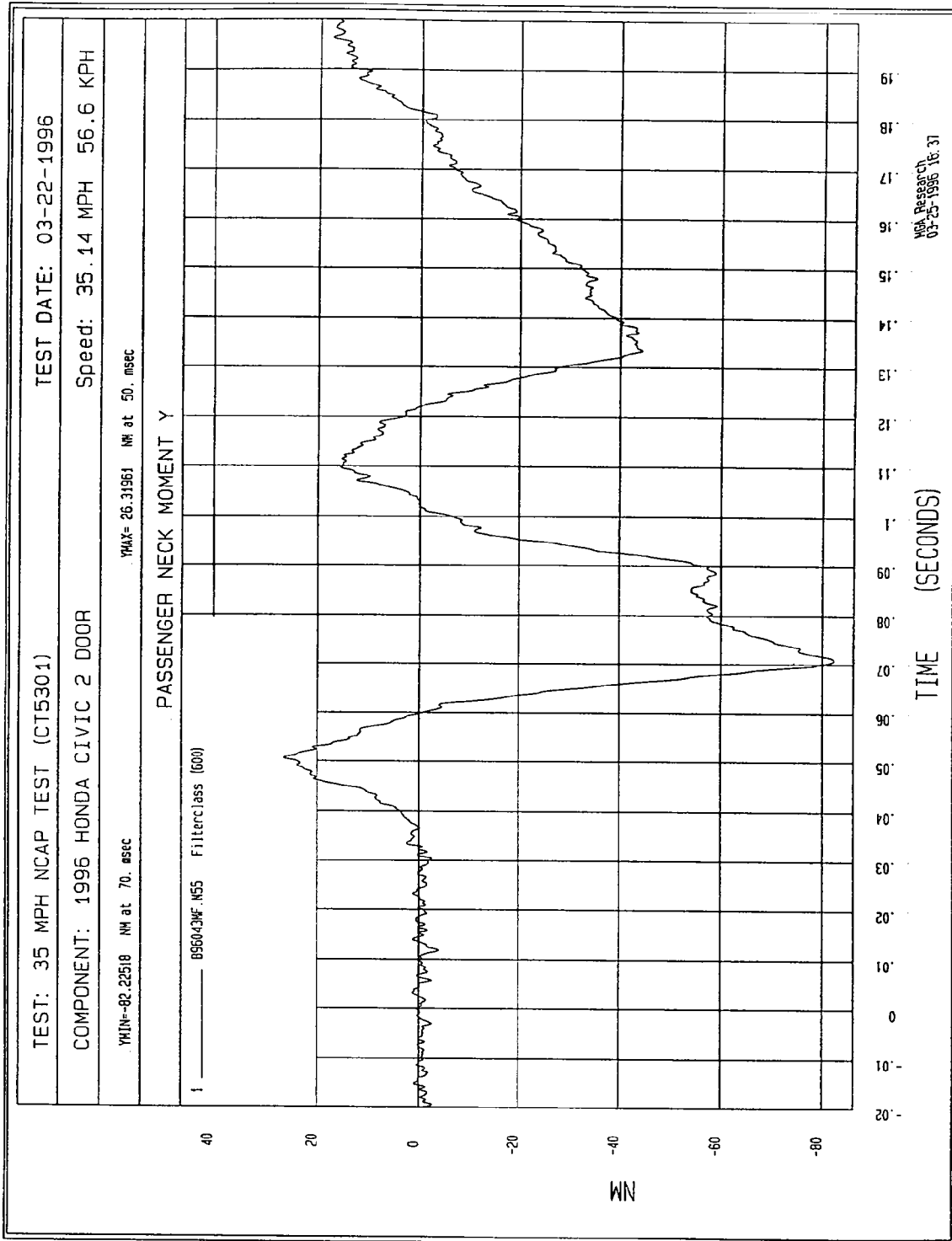


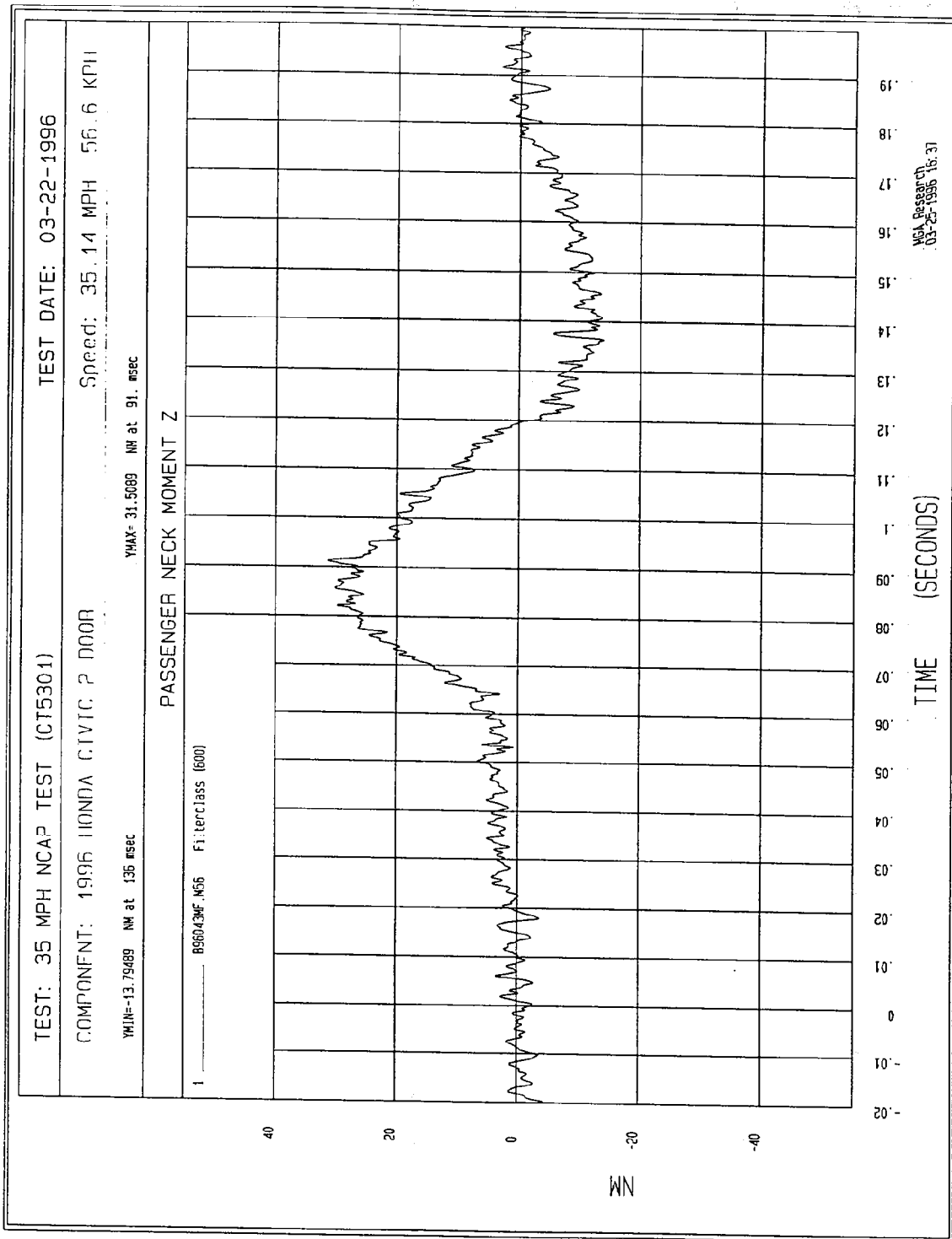


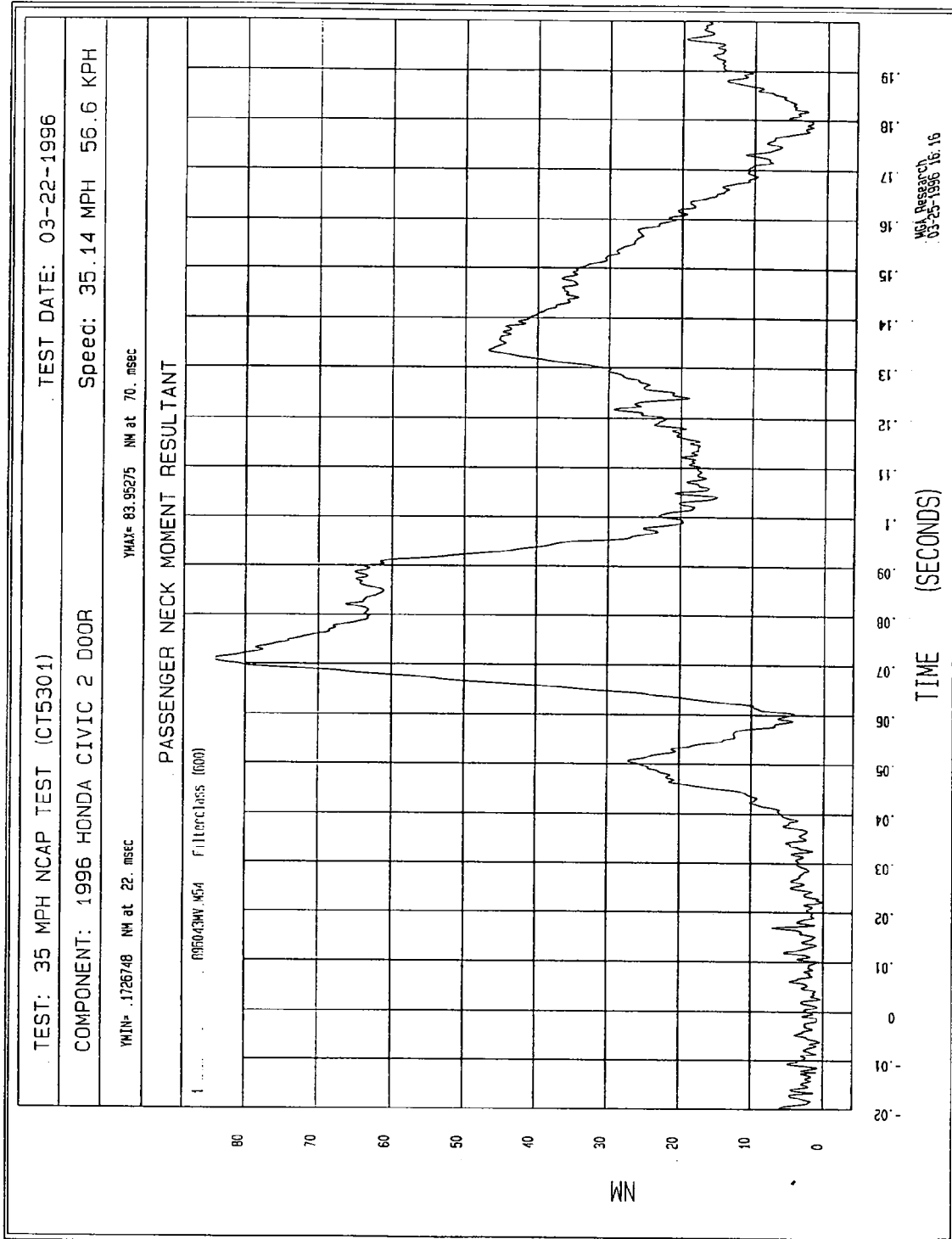


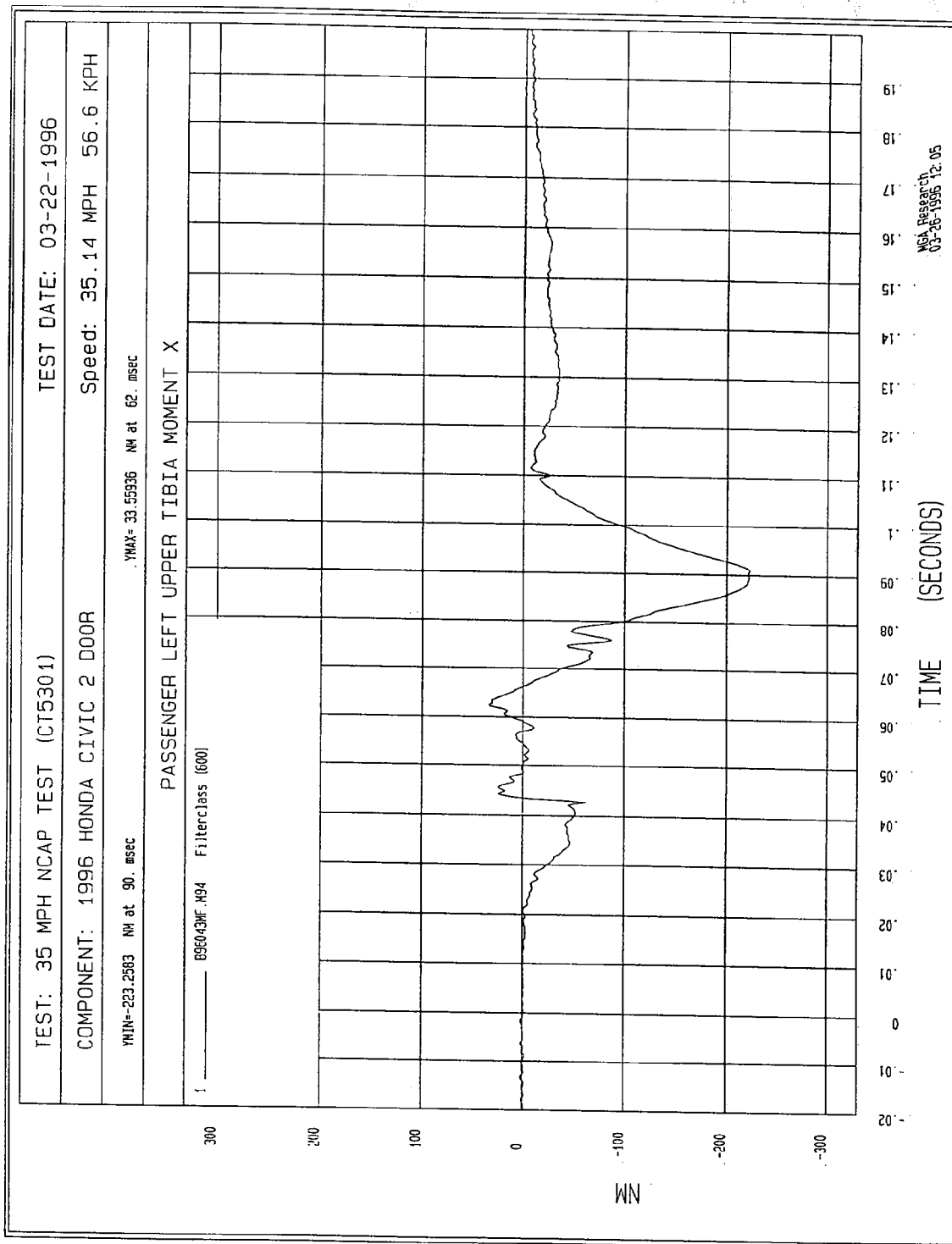


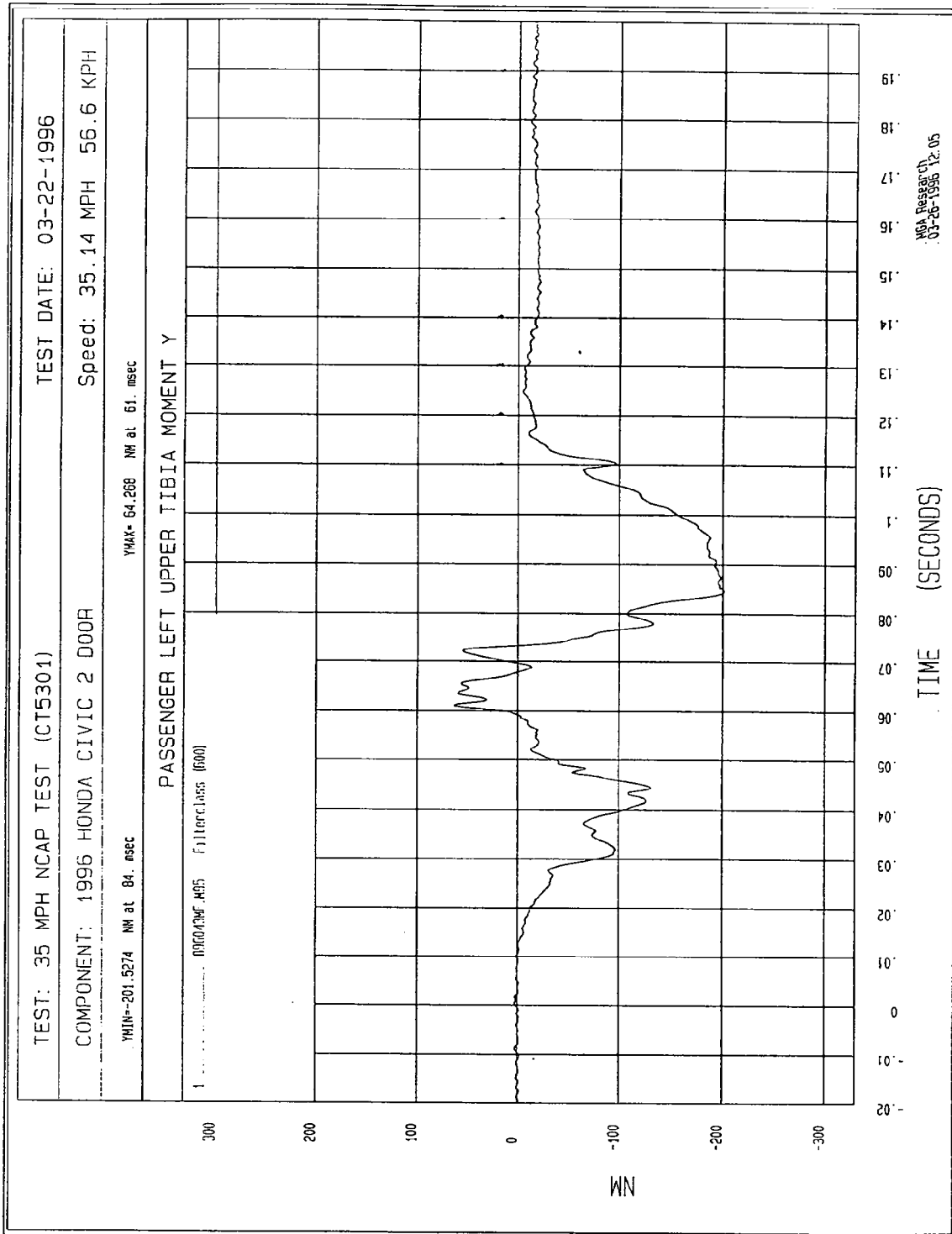


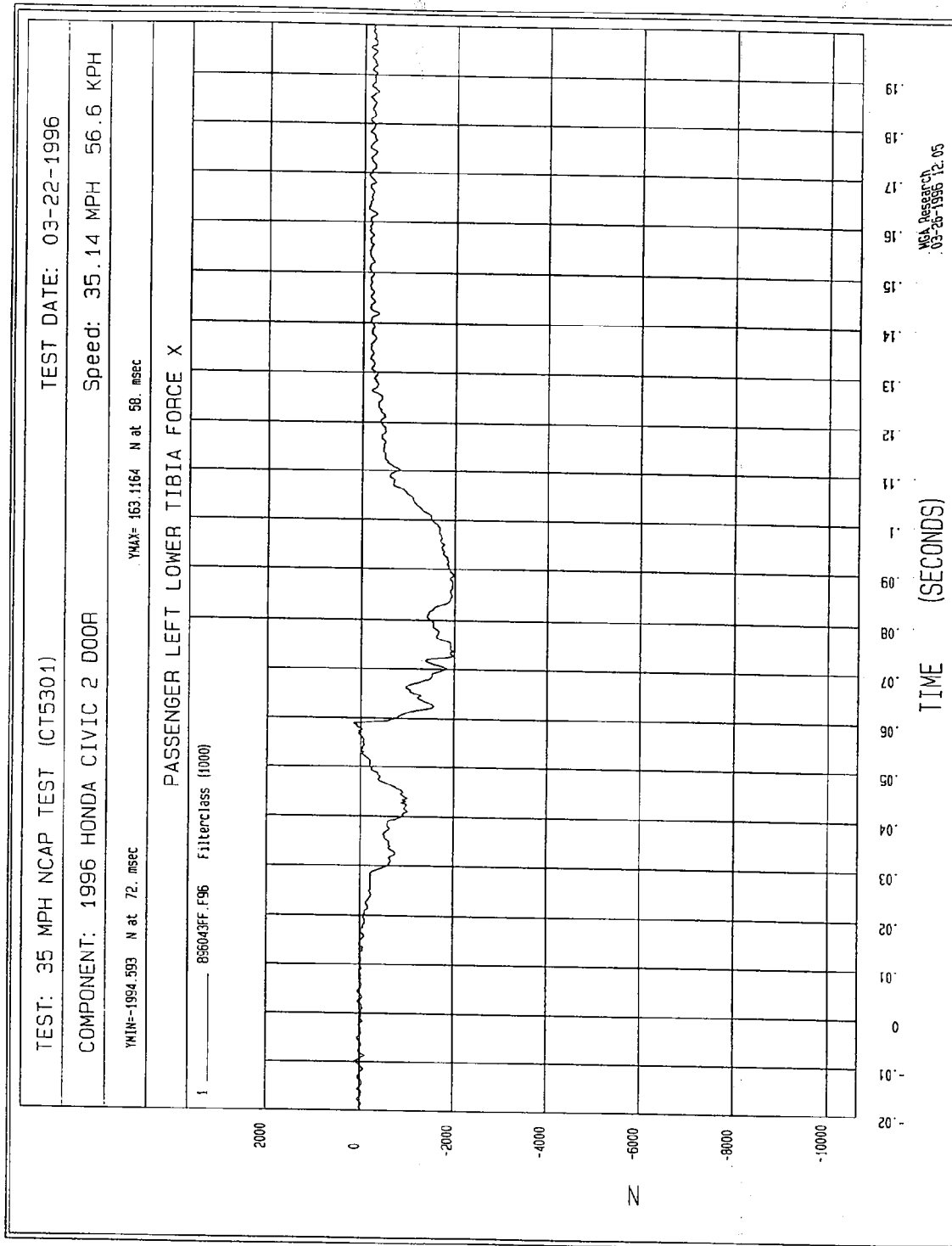


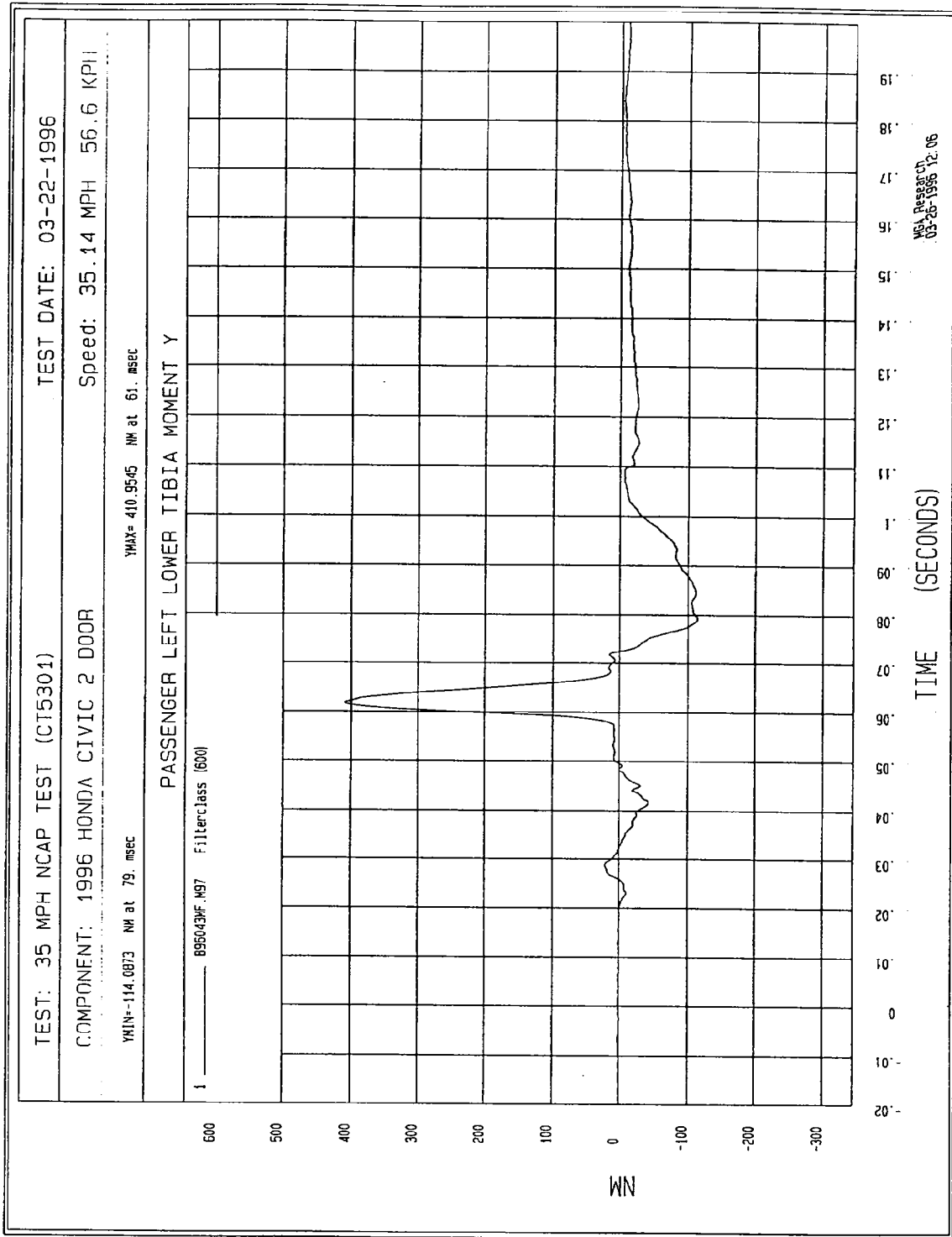


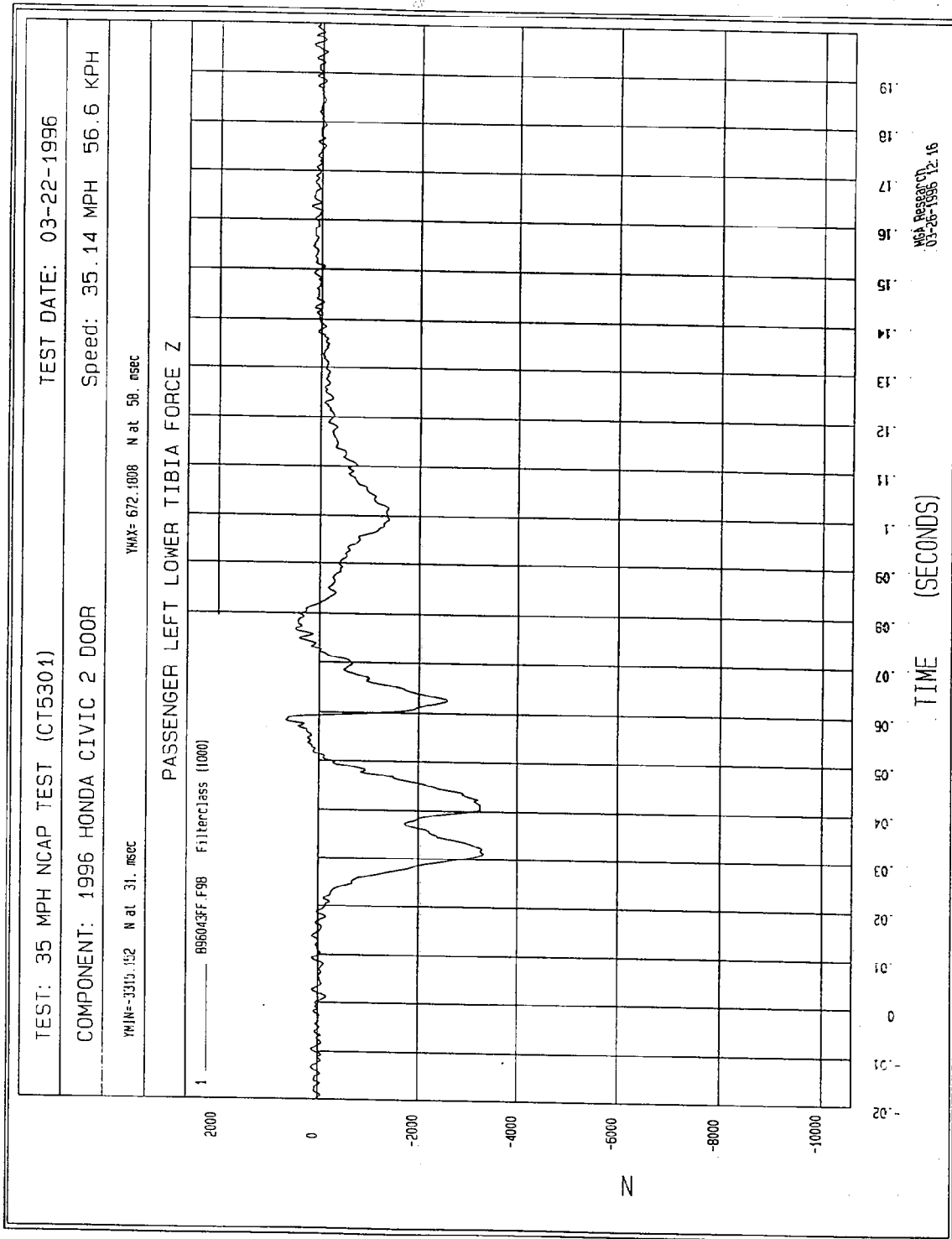


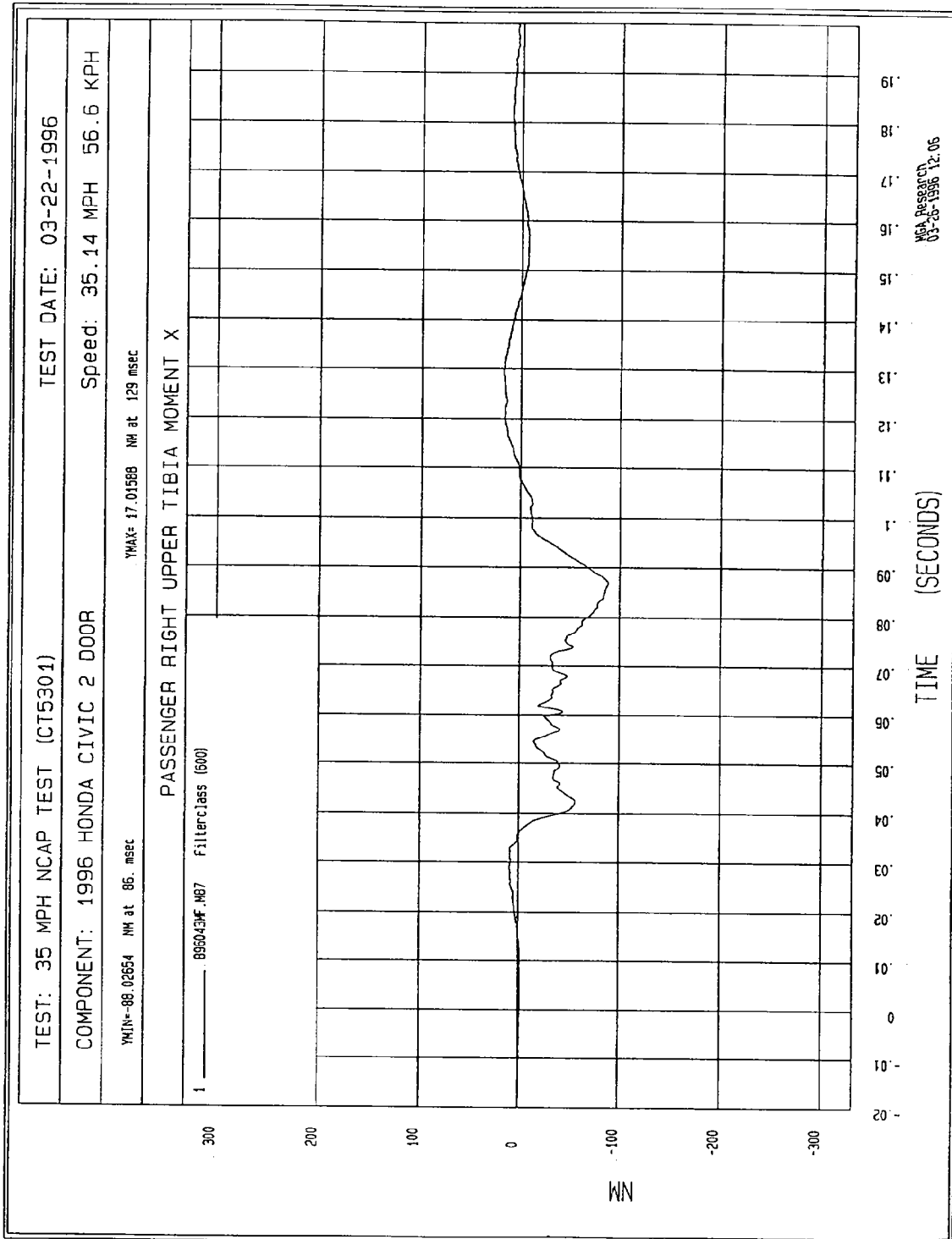


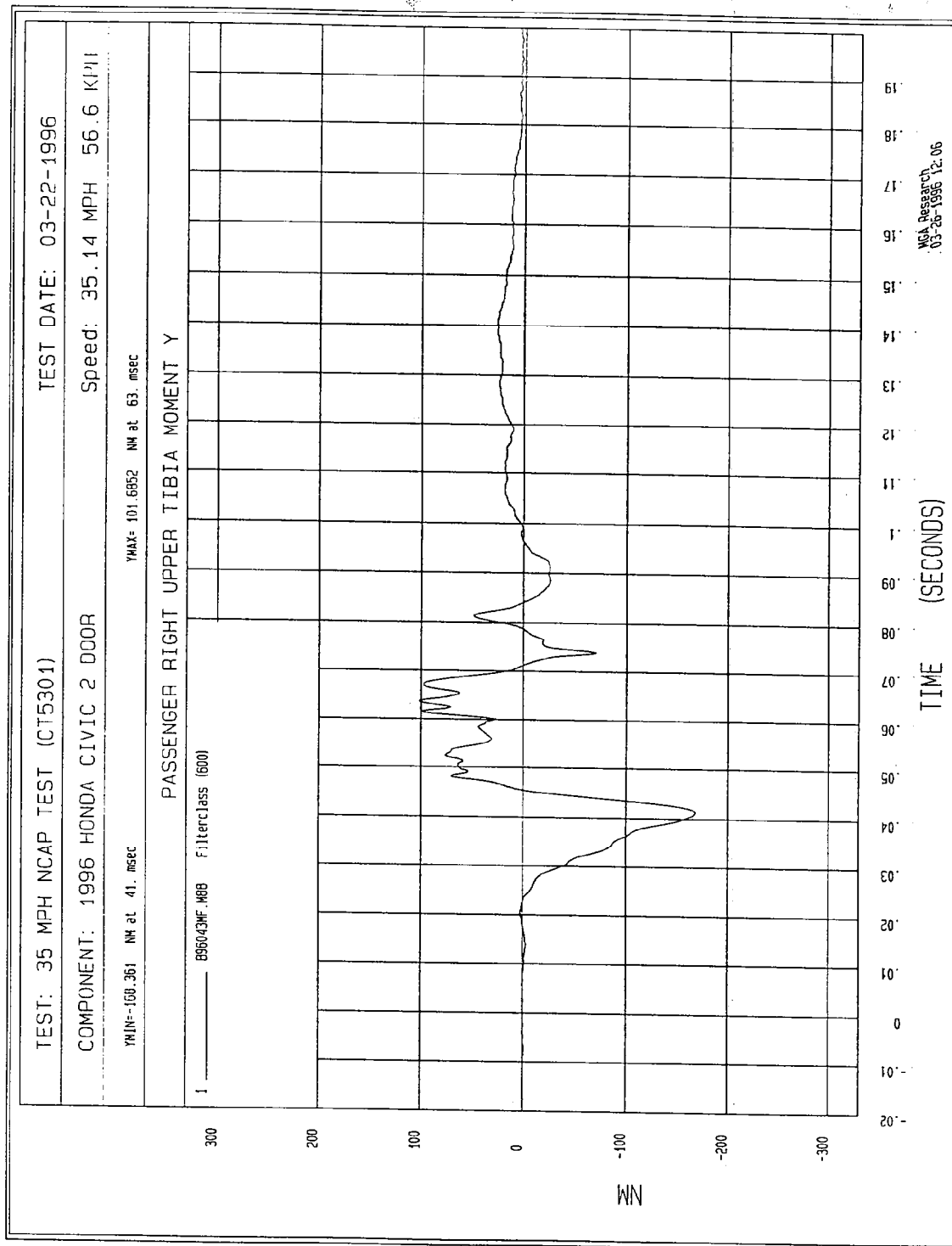


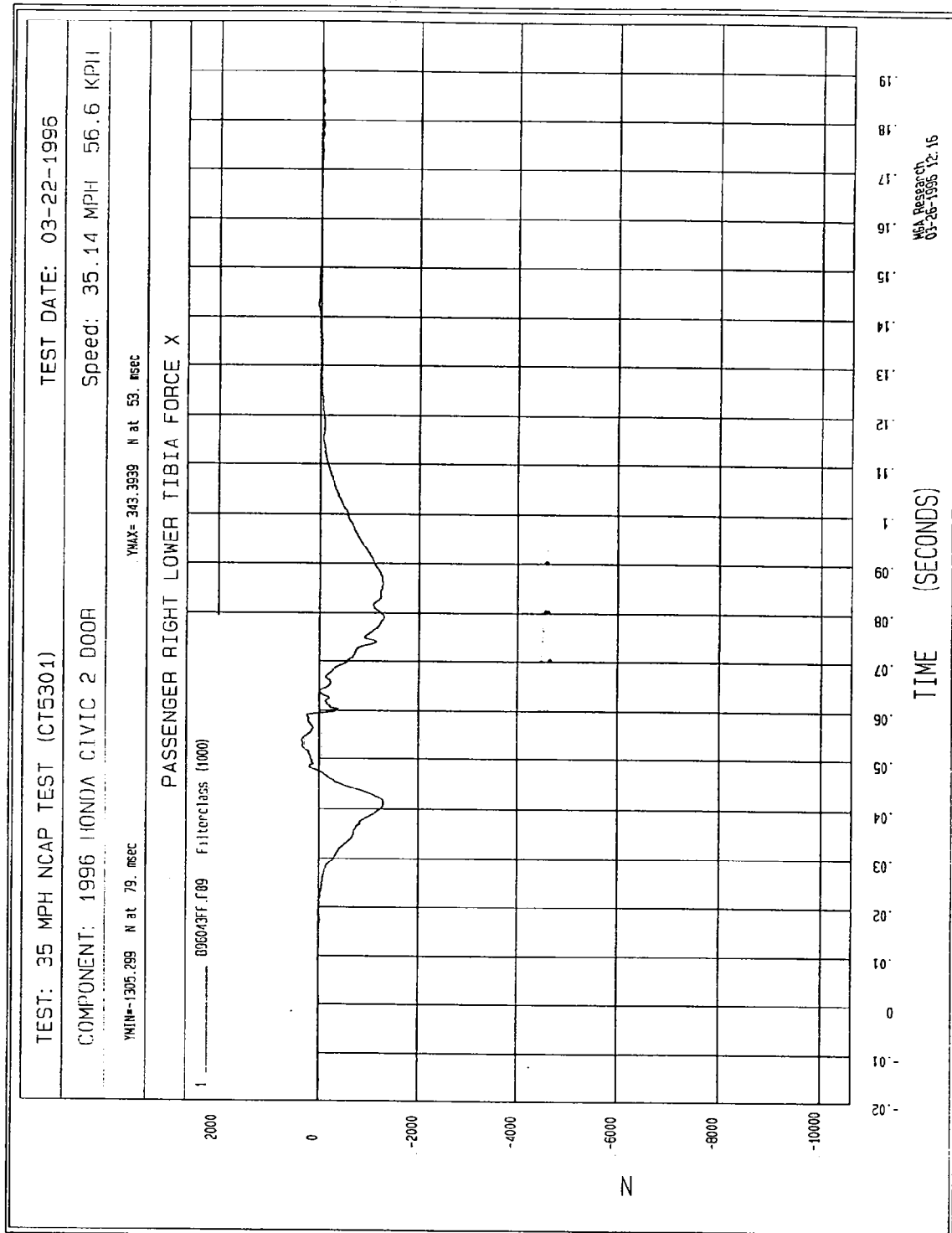


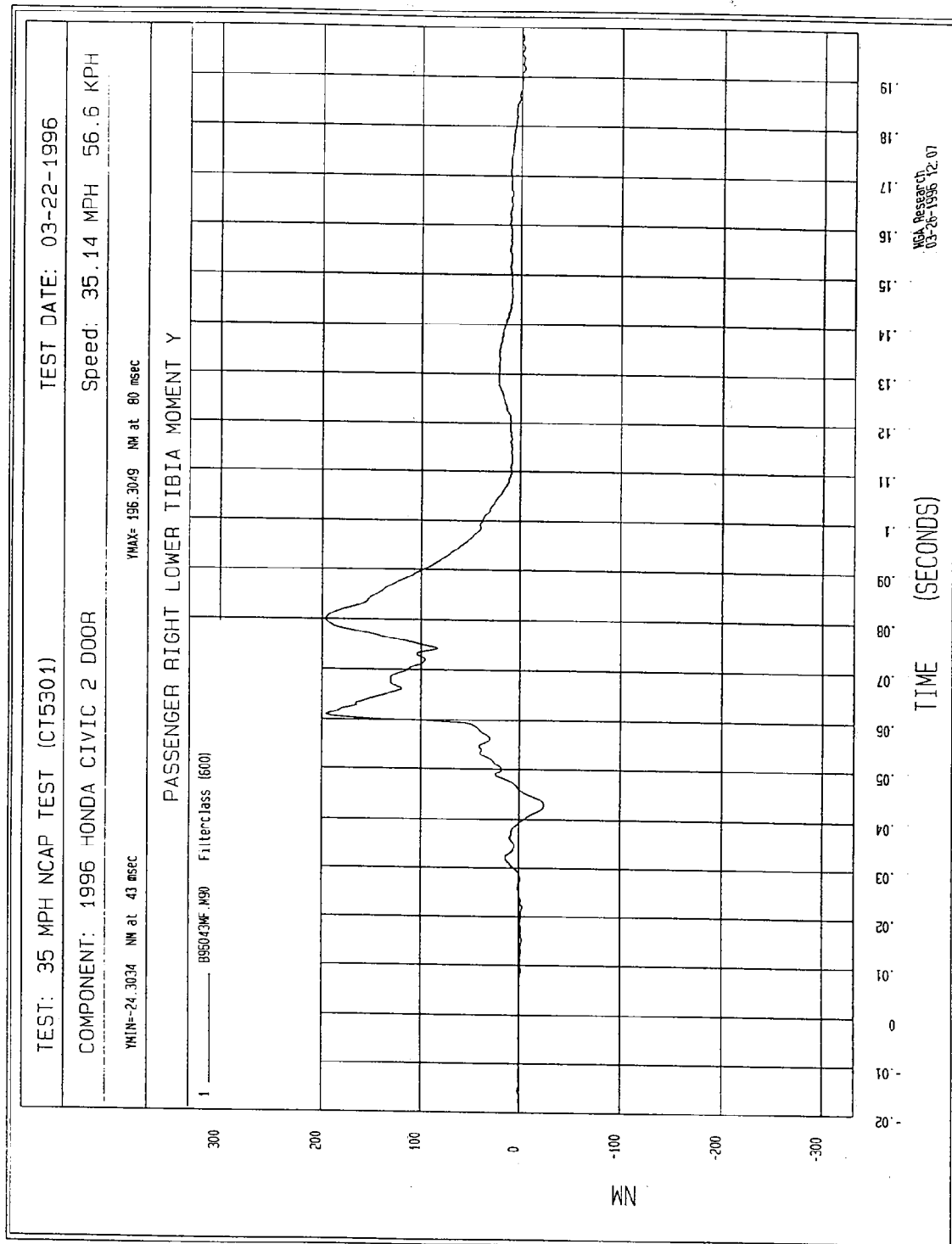


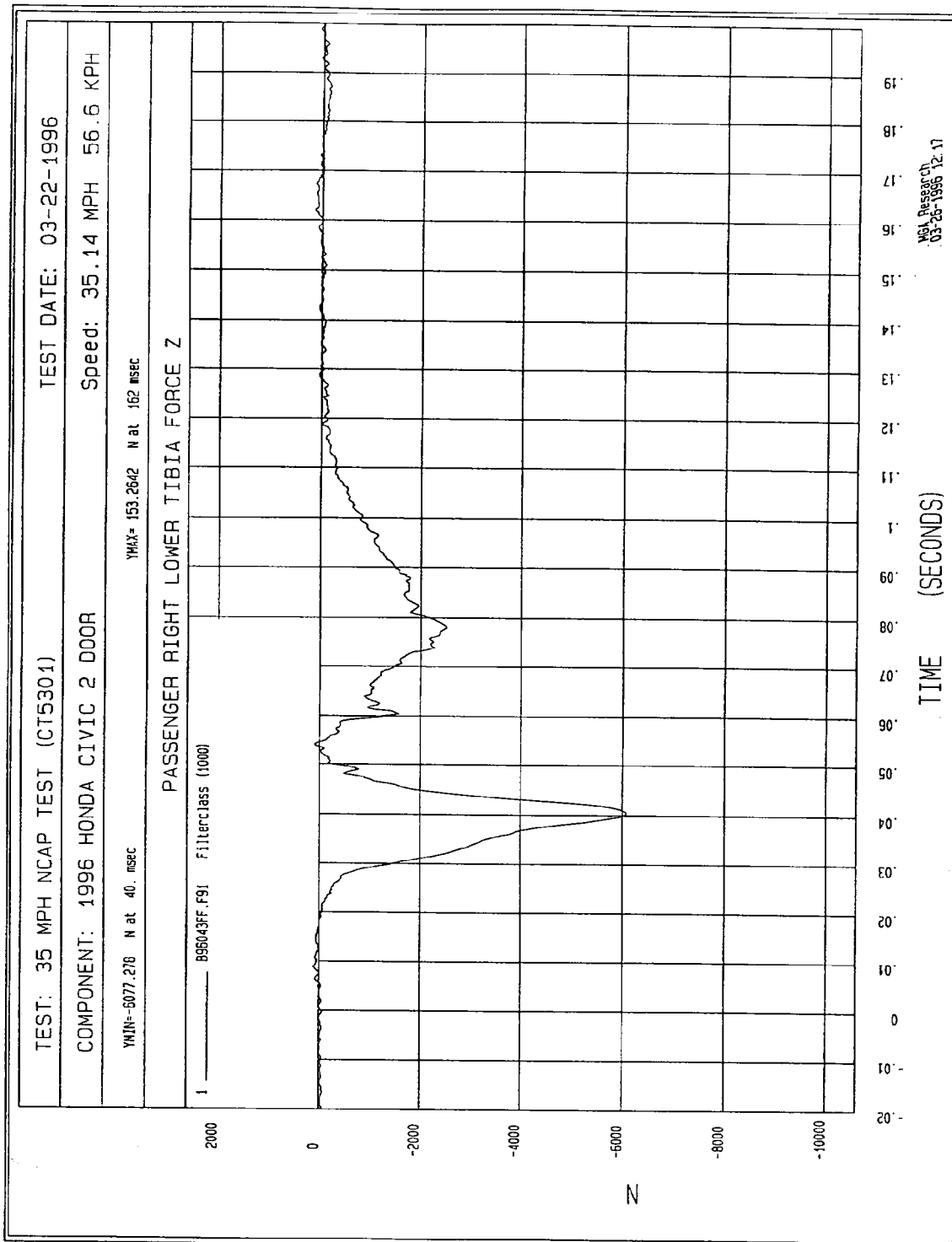


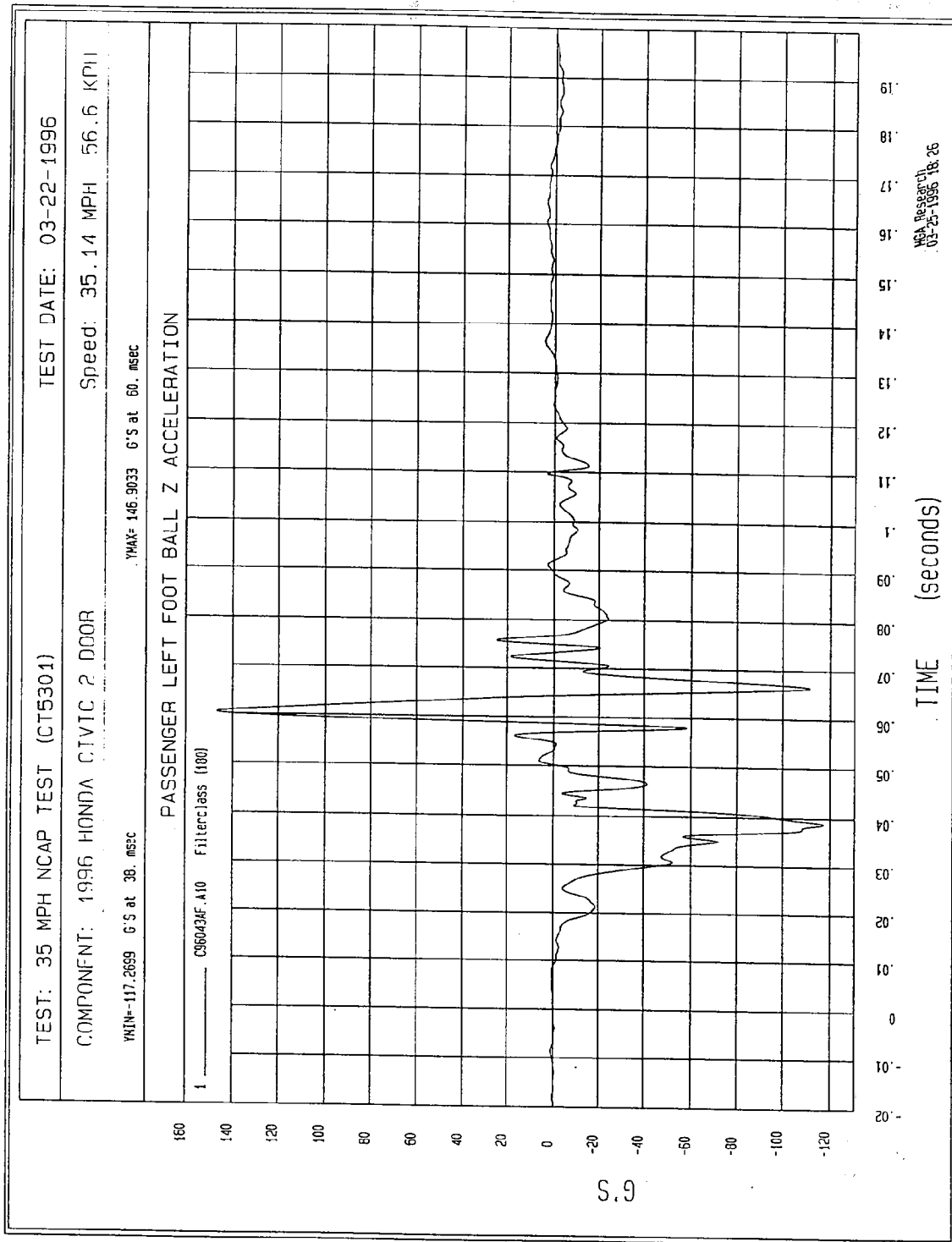


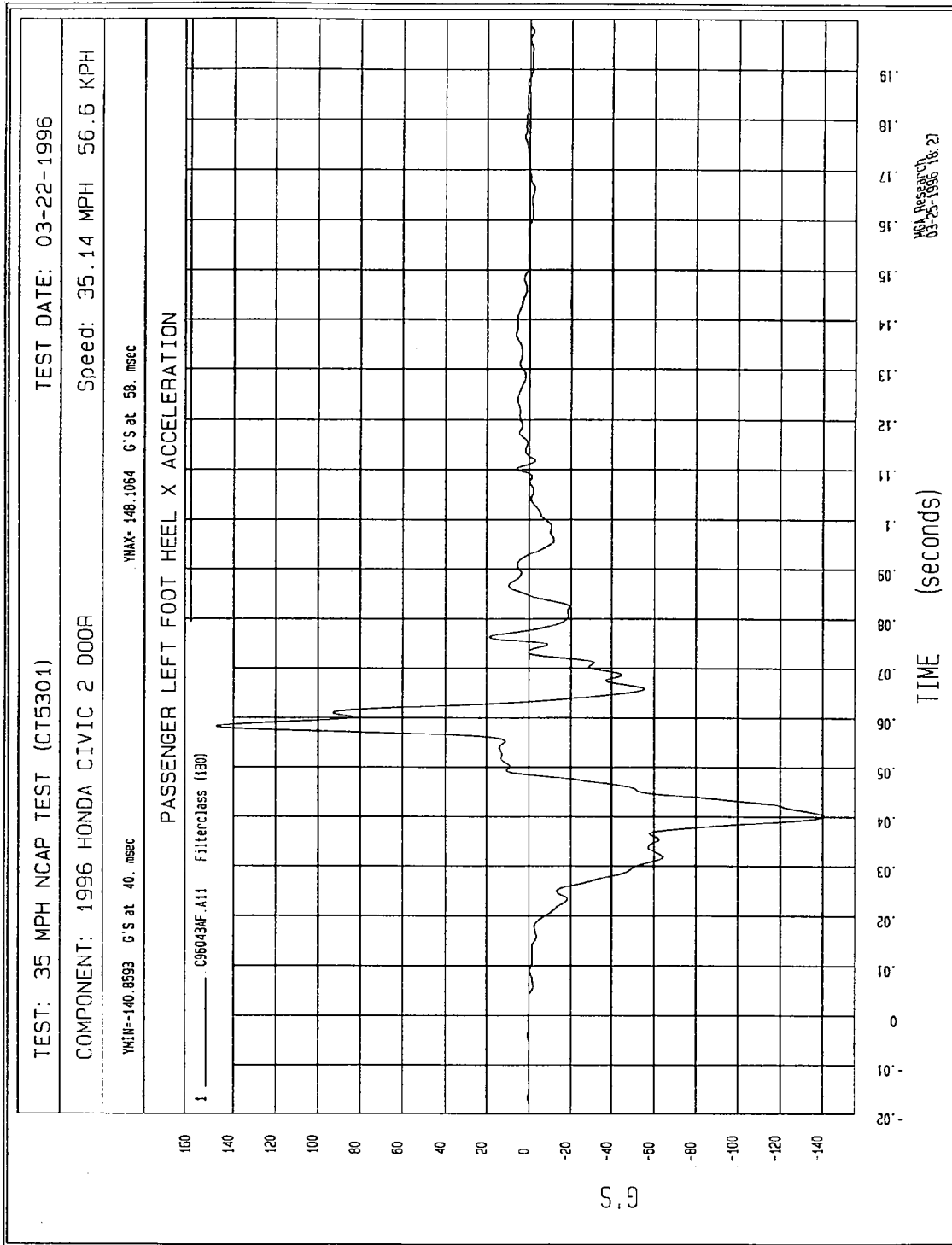


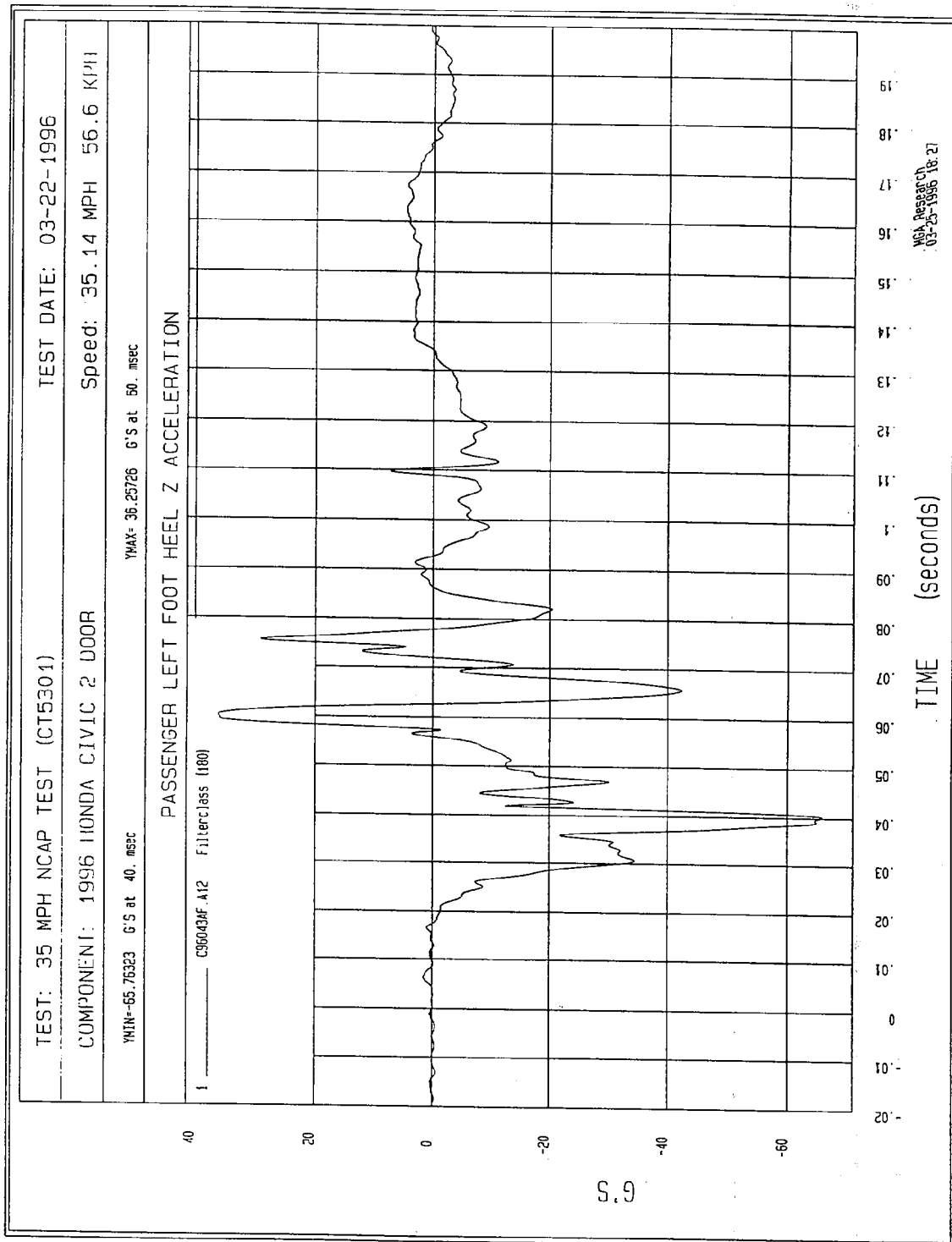










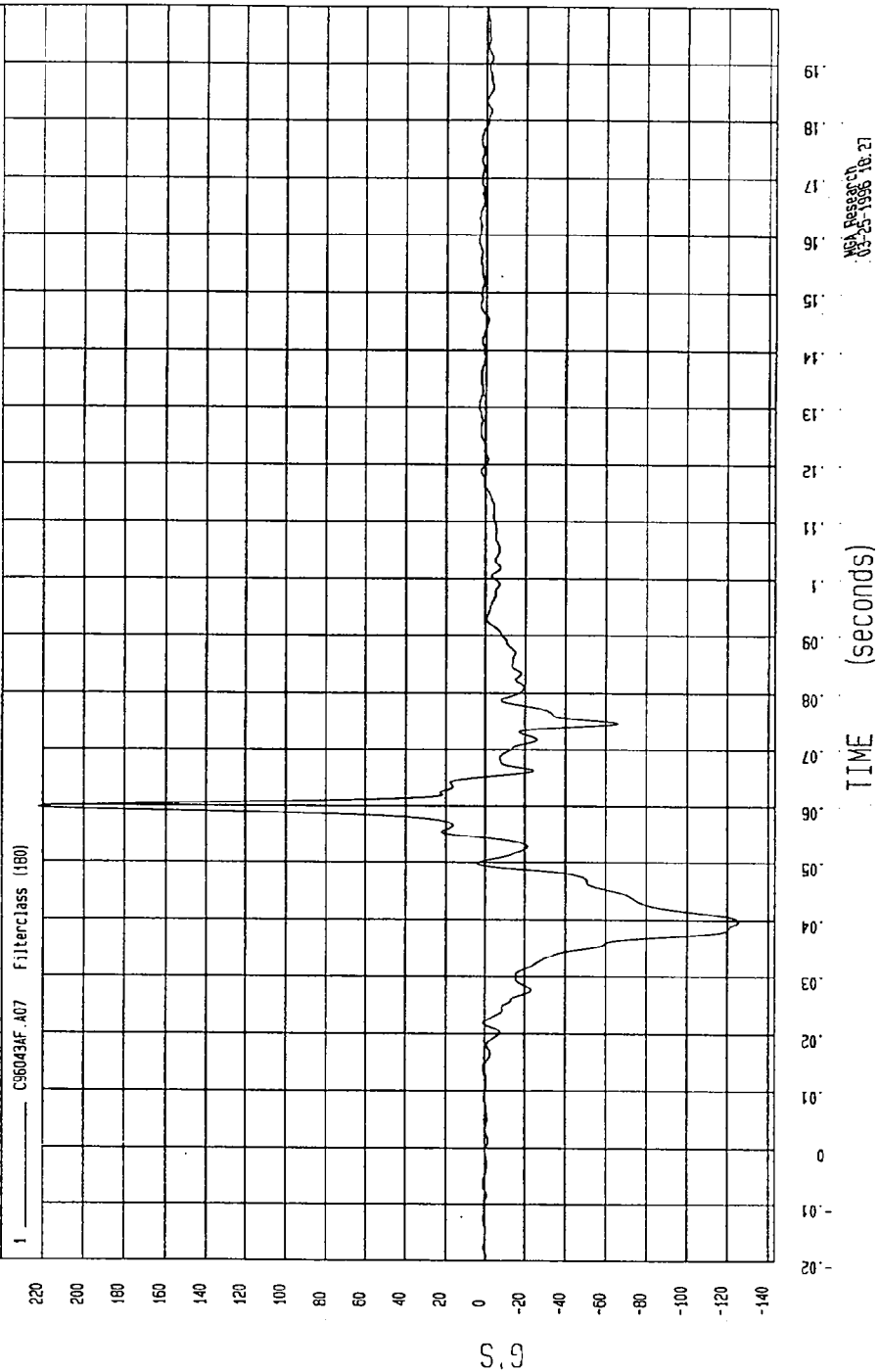


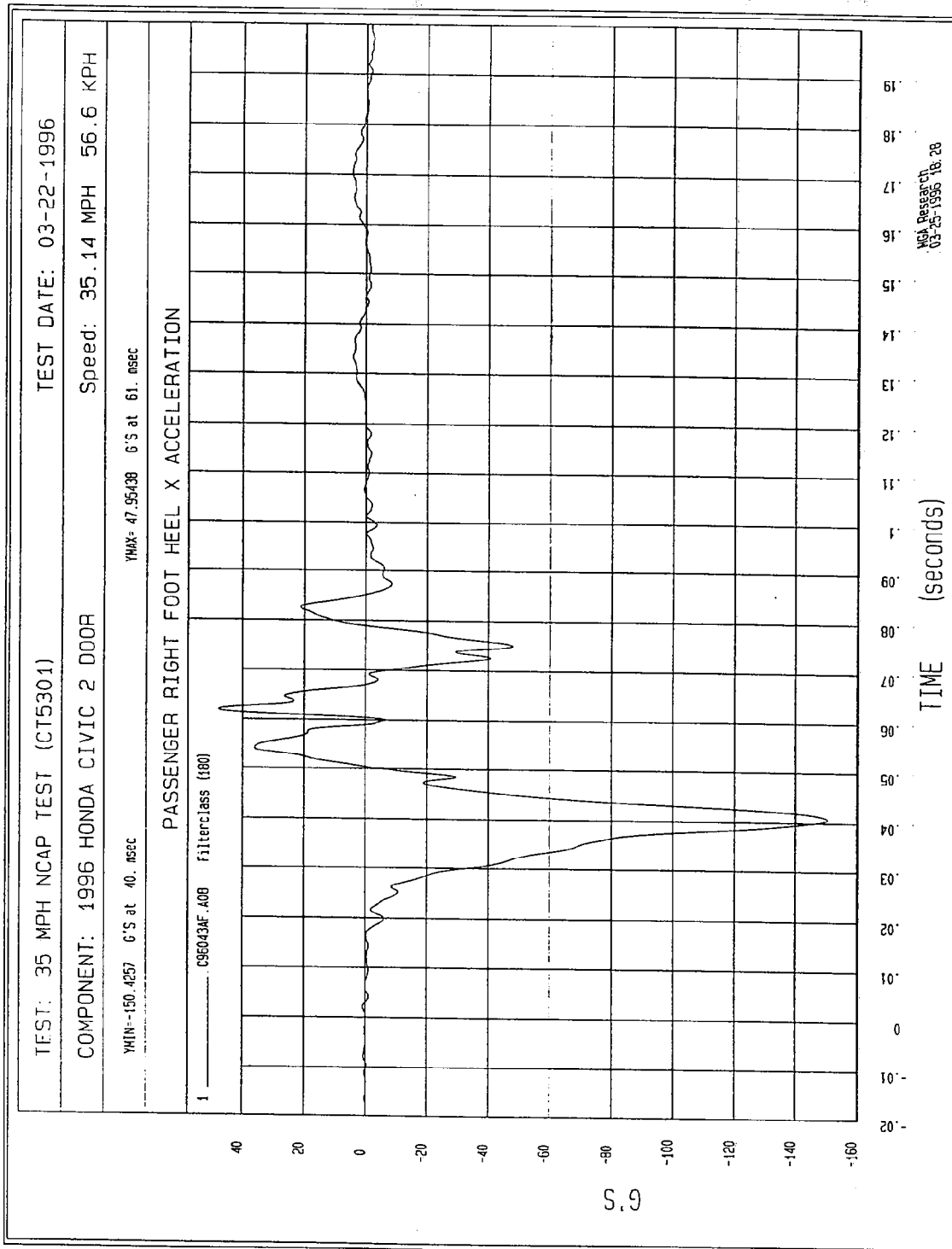
TEST: 35 MPH NCAP TEST (CT5301) TEST DATE: 03-22-1996

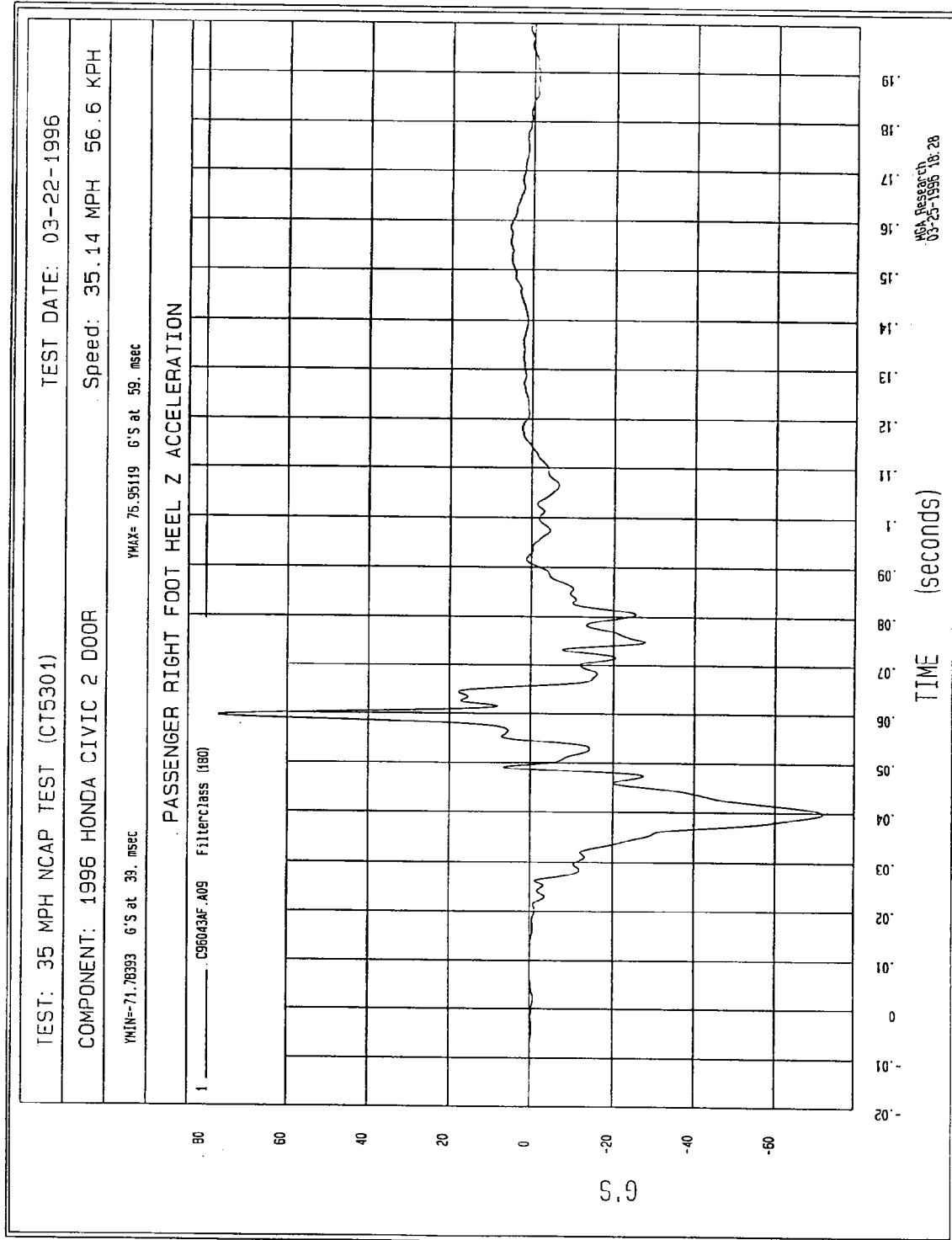
COMPONENT: 1996 HONDA CIVIC 2 DOOR Speed: 35.14 MPH 56.6 KPH

YMIN=-125.6238 G'S at 39. msec YMAX= 222.1909 G'S at 59. msec

PASSENGER RIGHT FOOT BALL Z ACCELERATION







APPENDIX C

Dummy Configuration & Performance Verification Data

HYBRID III DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 065 DUMMY CALIBRATION BY: Al Chalmers

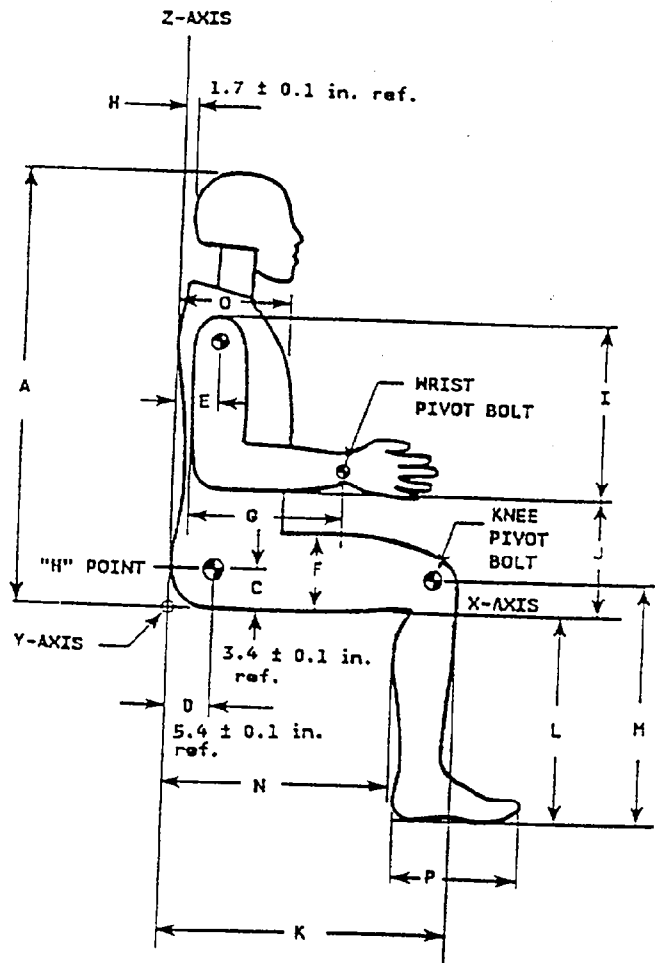
I. CONFIGURATION VERIFICATION DATA

DATE OF VERIFICATION: 2-7-96

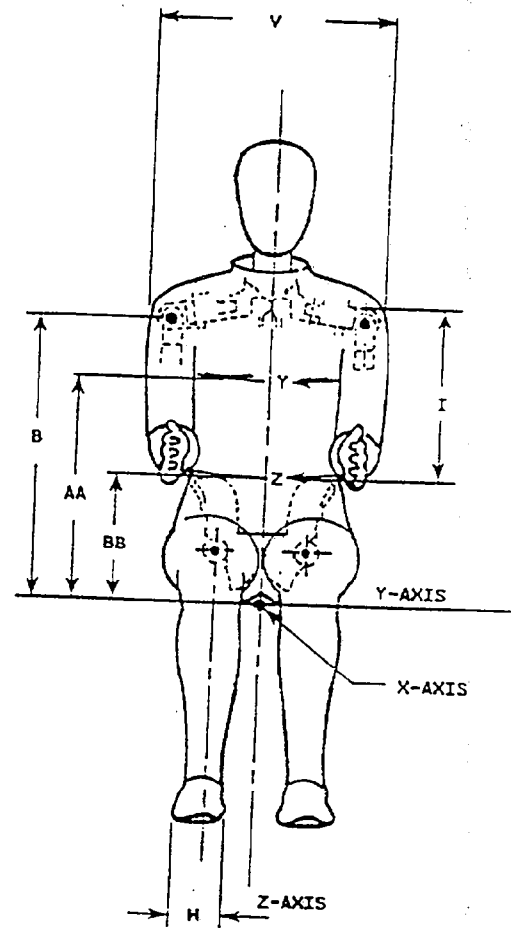
DESCRIPTION	SPECIFICATION (inches)	ACTUAL MEASUREMENT (inches)
A - Total Sitting Height	34.6 - 35.0	34.9
B - Shoulder Pivot Height	19.9 - 20.5	20.5
C - "H" Point Height	3.3 - 3.5	3.5
D - "H" Point from Seat Back	5.3 - 5.5	5.5
E - Shoulder Pivot From Backline	3.3 - 3.7	3.5
F - Thigh Clearance	5.5 - 6.1	6.1
G - Back of Elbow to Wrist Pivot	11.4 - 12.0	11.5
H - Skull Cap Skin to Backline	1.6 - 1.8	1.7
I - Shoulder - Elbow Length	13.0 - 13.6	13.0
J - Elbow Rest Height	7.5 - 8.3	8.0
K - Buttock to Knee Length	22.8 - 23.8	23.5
L - Popliteal Height	16.9 - 17.9	17.0
M - Knee Pivot Height	19.1 - 19.9	19.5
N - Buttock Popliteal Length	17.8 - 18.8	18.5
O - Chest Depth at 3rd Rib	8.4 - 9.0	8.8
P - Foot Length	9.9 - 10.5	10.3
V - Shoulder Breadth	16.6 - 17.2	16.8
W - Foot Breadth	3.6 - 4.2	4.0
Y - Chest Circumference	38.2 - 39.4	39.0
Z - Waist Circumference	32.9 - 34.1	33.5

Note: (See next page for external dimensions)

HYBRID III EXTERNAL DIMENSIONS



SIDE VIEW



FRONT VIEW

Note: Figure is referenced to the erect seated position. The curved lumbar does not allow the hybrid III to be positioned in a perfect erect attitude.

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET

DUMMY NO.: 065 DUMMY CALIBRATION BY: Al Chalmers

VERIFICATION DATE: 2-7-96

VERIFICATION LABORATORY TEMPERATURE (66° - 78°): 70°

1.0 HEAD DROP TEST

	SPECIFICATION	MEASUREMENT
Peak Resultant Acceleration	225 - 275 G	273
Peak Lateral Acceleration	15 G. MAX	9
Is Acceleration Curve Unimodal	within 10% of peak	Yes

2.0 NECK FLEXION TEST

		SPECIFICATION	MEASUREMENT
Pendulum Speed		22.6 - 23.4 FT/SEC	23.0
Pendulum Deceleration	10 MS	22.50 - 27.50 G	25.31
	20 MS	17.60 - 22.60 G	21.48
	30 MS	12.50 - 18.50 G	13.58
Max. Pendulum G Above 30 MS		29.0 G MAX	13.5
Deceleration - Time Curve Decay Time to 5 G		34 - 42 MS	40
D Plane Rotation	MAX	64 - 78 DEG.	74
	TIME	57 - 64 MS	60
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 MS	115
Moment About Occipital Condyle	MIN.	65 - 80 FT.LBS	71
	TIME	47 - 58 MS	52
Positive Moment - Time Curve Decay Time to Zero		97 - 107 MS	104

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

3.0 NECK EXTENSION TEST

		SPECIFICATION	MEASUREMENT
Pendulum Speed		19.50 - 20.30 F/S	20.05
Pendulum Deceleration	10 MS	17.20 - 21.20 G	20.02
	20 MS	14.00 - 19.00 G	18.35
	30 MS	11.00 - 16.00 G	13.39
Max. Pendulum G Above 30 MS		22 G Max	14
Deceleration - Time Curve Decay Time to 5 G		38 - 46 MS	40
D Plane Rotation	MAX	81 - 106 DEG.	103
	TIME	72 - 82 MS	75
Rotation Angle - Time Curve Decay Time to Zero		147 - 174 MS	155
Moment About Occipital Condyle	MIN.	-59.0/-39.0 FT LBS	-52.0
	TIME	65 - 79 MS	71
Positive Moment - Time Curve Decay Time to Zero		120 - 148 MS	142

4.0 CHEST IMPACT TESTS

	SPECIFICATION	MEASUREMENT
Probe Speed	21.6 to 22.4 F/S	22.1
Peak Deflection	2.50 to 2.86 IN.	2.72
Peak Resistive Force	1160 to 1325 LBS.	1218
Internal Hysteresis	69 to 85%	74

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

5.0 KNEE IMPACT TESTS

LEFT KNEE	SPECIFICATION	MEASUREMENT
Probe Speed	6.8 to 7.0 F/S	6.8
Maximum Force	1060 - 1300 LBS.	1139

RIGHT KNEE	SPECIFICATION	MEASUREMENT
Probe Speed	6.8 to 7.0 F/S	7.0
Maximum Force	1060 - 1300 LBS.	1181

HYBRID III DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 066 DUMMY CALIBRATION BY: Al Chalmers

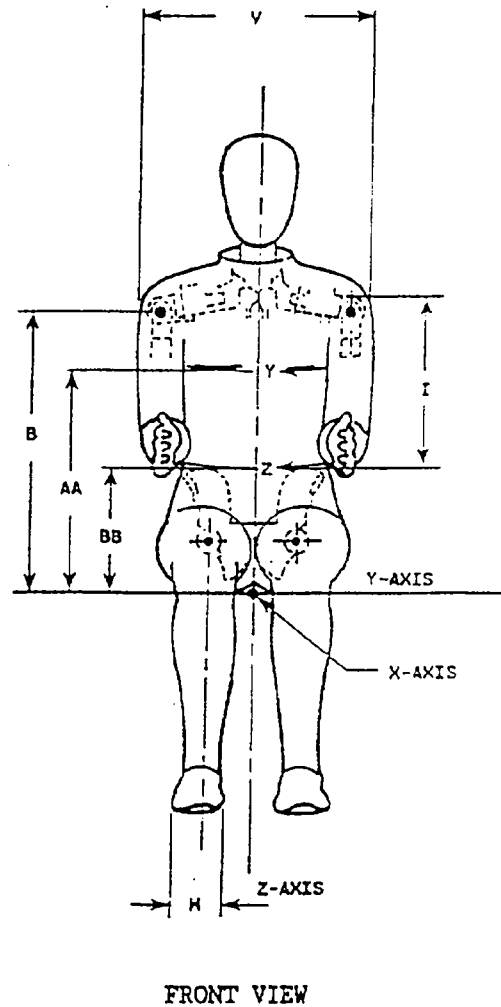
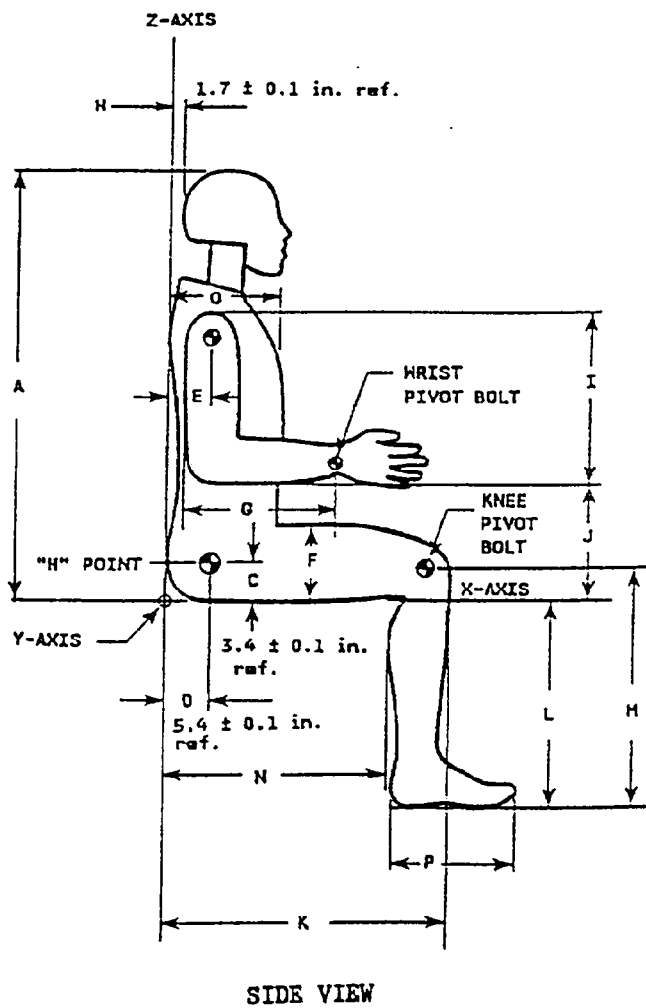
I. CONFIGURATION VERIFICATION DATA

DATE OF VERIFICATION: 2-7-96

DESCRIPTION	SPECIFICATION (Inches)	ACTUAL MEASUREMENT (inches)
A - Total Sitting Height	34.6 - 35.0	34.8
B - Shoulder Pivot Height	19.9 - 20.5	20.5
C - "H" Point Height	3.3 - 3.5	3.5
D - "H" Point from Seat Back	5.3 - 5.5	5.5
E - Shoulder Pivot From Backline	3.3 - 3.7	3.5
F - Thigh Clearance	5.5 - 6.1	6.1
G - Back of Elbow to Wrist Pivot	11.4 - 12.0	11.5
H - Skull Cap Skin to Backline	1.6 - 1.8	1.7
I - Shoulder Elbow Length	13.0 - 13.6	13.0
J - Elbow Rest Height	7.5 - 8.3	8.0
K - Buttock Knee Length	22.8 - 23.8	23.5
L - Popliteal Height	16.9 - 17.9	17.0
M - Knee Pivot Height	19.1 - 19.9	19.5
N - Buttock Popliteal Length	17.8 - 18.8	18.5
O - Chest Depth at 3rd Rib	8.4 - 9.0	8.8
P - Foot Length	9.9 - 10.5	10.3
V - Shoulder Breadth	16.6 - 17.2	16.8
W - Foot Breadth	3.5 - 4.2	4.0
Y - Chest Circumference	38.2 - 39.4	39.0
Z - Waist Circumference	32.9 - 34.1	33.5

Note: (See next page for external dimensions)

HYBRID III EXTERNAL DIMENSIONS



Note: Figure is referenced to the erect seated position. The curved lumbar does not allow the hybrid III to be positioned in a perfect erect attitude.

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

DUMMY NO.: 066 DUMMY CALIBRATION BY: Al Chalmers

VERIFICATION DATE: 2-7-96

VERIFICATION LABORATORY TEMPERATURE (66° - 78°): 70°

1.0 HEAD DROP TEST

	SPECIFICATION	MEASUREMENT
Peak Resultant Acceleration	225 - 275 G	274
Peak Lateral Acceleration	15 G. MAX	11
Is Acceleration Curve Unimodal	within 10% of peak	Yes

2.0 NECK FLEXION TEST

		SPECIFICATION	MEASUREMENT
Pendulum Speed		22.6 - 23.4 FT/SEC	23.0
Pendulum Deceleration	10 MS	22.50 - 27.50 G	25.31
	20 MS	17.60 - 22.60 G	12.32
	30 MS	12.50 - 18.50 G	14.52
Max. Pendulum G Above 30 MS		29.0 G MAX	14.5
Deceleration - Time Curve Decay Time to 5 G		34 - 42 MS	39
D Plane Rotation	MAX	64 - 78 DEG.	76
	TIME	57 - 64 MS	59
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 MS	115
Moment About Occipital Condyle	MIN.	65 - 80 FT.LBS	72
	TIME	47 - 58 MS	52
Positive Moment - Time Curve Decay Time to Zero		97 - 107 MS	104

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

3.0 NECK EXTENSION TEST

		SPECIFICATION	MEASUREMENT
Pendulum Speed		19.50 - 20.30 F/S	20.00
Pendulum Deceleration	10 MS	17.20 - 21.20 G	19.99
	20 MS	14.00 - 19.00 G	17.52
	30 MS	11.00 - 16.00 G	13.42
Max. Pendulum G Above 30 MS		22 G Max	14
Deceleration - Time Curve Decay Time to 5 G		38 - 46 MS	41
D Plane Rotation	MAX	81 - 106 DEG.	102
	TIME	72 - 82 MS	76
Rotation Angle - Time Curve Decay Time to Zero		147 - 174 MS	154
Moment About Occipital Condyle	MIN.	-59.0/-39.0 FT LBS	-51.9
	TIME	65 - 79 MS	71
Positive Moment - Time Curve Decay Time to Zero		120 - 148 MS	143

4.0 CHEST IMPACT TESTS

	SPECIFICATION	MEASUREMENT
Probe Speed	21.6 to 22.4 F/S	22.1
Peak Deflection	2.50 to 2.86 IN.	2.70
Peak Resistive Force	1160 to 1325 LBS.	1242
Internal Hysteresis	69 to 85%	71

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

5.0 KNEE IMPACT TESTS

LEFT KNEE	SPECIFICATION	MEASUREMENT
Probe Speed	6.8 to 7.0 F/S	6.9
Maximum Force	1060 - 1300 LBS.	1148

RIGHT KNEE	SPECIFICATION	MEASUREMENT
Probe Speed	6.8 to 7.0 F/S	6.9
Maximum Force	1060 - 1300 LBS.	1158

APPENDIX D

Dummy, Vehicle and Laboratory Calibration Data

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 065

	DRIVER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AAMN8	Endevco	1/03/96
Head Y	ACC61	Endevco	1/03/96
Head Z	ACCW9	Endevco	1/03/96
Head X Redundant	AJ621	Endevco	1/03/96
Head Y Redundant	AJ619	Endevco	1/03/96
Head Z Redundant	AH454	Endevco	1/03/96
Chest X	ACC78	Endevco	12/21/95
Chest Y	ACCE6	Endevco	12/21/95
Chest Z	ACC43	Endevco	12/21/95
Chest X Redundant	AJ9J7	Endevco	12/21/95
Chest Y Redundant	AJ7A2	Endevco	12/21/95
Chest Z Redundant	AJ819	Endevco	12/21/95
Right Femur Load Cell	259	Denton	1/03/96
Left Femur Load Cell	260	Denton	1/03/96
Pelvis X	ALB87	Endevco	12/21/95
Pelvis Y	AGNB3	Endevco	12/21/95
Pelvis Z	AL834	Endevco	12/21/95

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 065

	DRIVER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Neck Load Cell X	442	Denton	12/18/95
Neck Load Cell Y	442	Denton	12/18/95
Neck Load Cell Z	442	Denton	12/18/95
Neck Moment X	442	Denton	12/18/95
Neck Moment Y	442	Denton	12/18/95
Neck Moment Z	442	Denton	12/18/95
Chest Deflection Gauge	065	Servo	1/04/96
Lap Belt Load Cell	661	Lebow	10/17/95
Torso Belt Load Cell	212	Lebow	10/17/95

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 065

	DRIVER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Right Tibia Moment X	040	Denton	9/26/95
Upper Right Tibia Moment Y	040	Denton	9/26/95
Lower Right Tibia Moment Y	034	Denton	9/26/95
Lower Right Tibia Force X	034	Denton	9/26/95
Lower Right Tibia Force Z	034	Denton	9/26/95
Upper Left Tibia Moment X	023	Denton	9/26/95
Upper Left Tibia Moment Y	023	Denton	9/26/95
Lower Left Tibia Moment Y	019	Denton	9/26/95
Lower Left Tibia Force X	019	Denton	9/26/95
Lower Left Tibia Force Z	019	Denton	9/26/95
Right Foot Ball Z	AP0P6	Endevco	9/26/95
Right Foot Heel X	AP0T3	Endevco	9/26/95
Right Foot Heel Z	AP122	Endevco	9/26/95
Left Foot Ball Z	ACC81	Endevco	9/26/95
Left Foot Heel X	AP1Y1	Endevco	9/26/95
Left Foot Heel Z	AMTB8	Endevco	9/26/95

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 066

	PASSENGER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	ACC46	Endevco	12/22/95
Head Y	ACCH1	Endevco	12/22/95
Head Z	AAMW5	Endevco	12/22/95
Head X Redundant	AJ9D7	Endevco	12/21/95
Head Y Redundant	AH1E2	Endevco	12/21/95
Head Z Redundant	AJ7K3	Endevco	12/21/95
Chest X	ACCY1	Endevco	12/21/95
Chest Y	ACCC8	Endevco	12/21/95
Chest Z	ACCT7	Endevco	12/21/95
Chest X Redundant	AJ9D4	Endevco	12/21/95
Chest Y Redundant	AJ9F3	Endevco	12/21/95
Chest Z Redundant	AJ9D9	Endevco	12/21/95
Right Femur Load Cell	261	Denton	1/03/96
Left Femur Load Cell	262	Denton	1/03/96
Pelvis X	ALKY8	Endevco	12/21/95
Pelvis Y	ALEK9	Endevco	12/21/95
Pelvis Z	ALE80	Endevco	12/21/95

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 066

	PASSENGER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Neck Load Cell X	443	Denton	12/18/95
Neck Load Cell Y	443	Denton	12/18/95
Neck Load Cell Z	443	Denton	12/18/95
Neck Moment X	443	Denton	12/18/95
Neck Moment Y	443	Denton	12/18/95
Neck Moment Z	443	Denton	12/18/95
Chest Deflection Gauge	066	Servo	1/04/96
Lap Belt Load Cell	312	Lebow	10/17/95
Torso Belt Load Cell	313	Lebow	10/17/95

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 066

	PASSENGER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Right Tibia Moment X	036	Denton	12/20/95
Upper Right Tibia Moment Y	036	Denton	12/20/95
Lower Right Tibia Moment Y	040	Denton	12/22/95
Lower Right Tibia Force X	040	Denton	12/22/95
Lower Right Tibia Force Z	040	Denton	12/22/95
Upper Left Tibia Moment X	039	Denton	12/20/95
Upper Left Tibia Moment Y	039	Denton	12/20/95
Lower Left Tibia Moment Y	033	Denton	12/22/95
Lower Left Tibia Force X	033	Denton	12/22/95
Lower Left Tibia Force Z	033	Denton	12/22/95
Right Foot Ball Z	AP120	Endevco	12/22/95
Right Foot Heel X	AP2C4	Endevco	12/22/95
Right Foot Heel Z	AP0Y2	Endevco	12/22/95
Left Foot Ball Z	AN8M6	Endevco	12/22/95
Left Foot Heel X	AHY99	Endevco	12/22/95
Left Foot Heel Z	AP0E1	Endevco	12/22/95

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

	VEHICLE ACCELEROMETERS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Left Rear Seat Crossmember X	J23-E02	Entran	1/22/96
Right Rear Seat Crossmember X	J10-E16	Entran	1/22/96
Top of Engine Block X	L14-D10	Entran	10/23/95
Bottom of Engine X	J10-E04	Entran	1/22/96
Left Brake Caliper X	H16-X15	Entran	1/23/96
Right Brake Caliper X	AH0L7	Entran	02/02/96
Instrument Panel X	E13-D01	Entran	9/28/95
Redundant Left Rear Seat Crossmember X	J06-D20	Entran	1/22/96
Redundant Right Rear Seat Crossmember X	L15-G03	Entran	2/02/96

	LABORATORY INSTRUMENTS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Neck Bending Pendulum Accelerometer	AH5N9	Endevco	5/08/95
Neck Bending Head Rotary Potentiometer	018	Spectrol	3/13/95
Neck Bending Pendulum Rotary Potentiometer	019	Spectrol	3/13/95
Chest Probe Accelerometer	AN8A4	Endevco	6/12/95
Knee Impact Accelerometer	MGA001	Entran	4/21/95

APPENDIX E

Vehicle Owner's Occupant Restraint System Instructions

Your Honda is equipped with seat belts and other features that work together to protect you and your passengers during a crash.

Seat belts are the most important part of your occupant protection system. When worn properly, seat belts can reduce the chance of serious injury or death in a crash.

For added protection during a severe frontal collision, your Honda has a Supplemental Restraint System (SRS) with airbags for the driver and a front seat passenger.

Two indicator lights are also part of your safety system. One reminds you to make sure you and your passengers wear seat belts. The other alerts you to a possible problem with your supplemental restraint system (see page 16).

The seats, head restraints, and door locks also play a role in occupant safety. For example, reclining the seat-back can decrease the effectiveness of your seat belt. Head restraints can help protect your neck and head, especially during rear-end impacts. Door locks help keep your doors from being accidentally opened during a crash.

To get the maximum protection from your occupant protection system, check the following before you drive away:

- Everyone in the car is wearing a seat belt properly (see page 7).
- Infants and small children are properly secured in child safety seats (see page 20).
- All doors are closed and locked (see page 19).
- Seat-backs are upright and head restraints are properly adjusted (see pages 18 and 57).
- There are no loose items that could be thrown around and hurt someone during a crash or sudden stop (see page 19).

By following these guidelines, you can reduce injuries to yourself and your passengers in many crash situations. Remember, however, that no safety system can prevent all injuries or deaths that can occur in severe crashes.

Why Wear Seat Belts

Wearing seat belts, and wearing them properly, is fundamental to your safety and the safety of your passengers.

During a crash or emergency stop, seat belts can help keep you from being thrown against the inside of the car, against other occupants, or out of the car.

Of course, seat belts cannot completely protect you in every crash. But, in most cases, seat belts reduce your chance of serious injury. They can even save your life. That is why many states and all Canadian provinces require you to wear seat belts.

WARNING

Not wearing a seat belt increases the chance of being killed or seriously hurt in a crash.

Be sure you and your passengers always wear seat belts and wear them properly.

Important Safety Reminders

Seat belts are designed for adults and larger children. All infants and small children must be properly restrained in child safety seats (see page 20).

A pregnant woman needs to wear a seat belt to protect herself and her unborn child (see page 11).

Two people should never use the same seat belt. If they do, they could be very seriously injured in a crash.

Do not place the shoulder portion of a lap/shoulder belt under your arm or behind your back. This could increase the chance of serious injuries in a crash.

Do not put shoulder belt pads or other accessories on seat belts. They can reduce the effectiveness of the belts and increase the chance of injury.

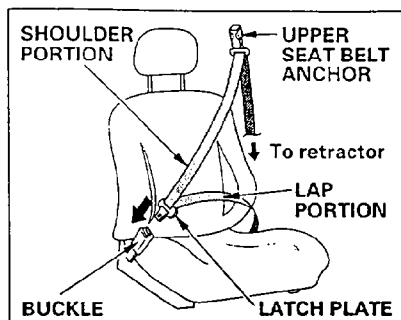
Seat Belt System Components

Your Honda has seat belts in all five seating positions. The front seats and the outside positions of the rear seat have lap/shoulder belts. The center position of the rear seat has a lap belt.

Your seat belt system also includes a light on the instrument panel to remind you to fasten your seat belt, and to make sure your passengers fasten theirs. This light comes on when you turn on the ignition if you have not fastened your seat belt. A beeper also sounds for several seconds (see page 34).

The following pages cover more about the seat belt components and how they work.

Lap/Shoulder Belt

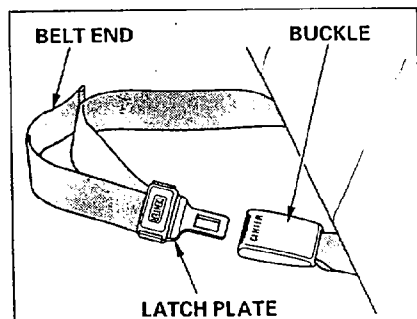


This style of seat belt has a single belt that goes over your shoulder, across your chest, and across your hips.

Each lap/shoulder belt has an emergency locking retractor. In normal driving, the retractor lets you move freely in your seat while it keeps some tension on the belt. During a collision or sudden stop, the retractor automatically locks the belt to help restrain your body.

The lap/shoulder belt retractor in each passenger seating position has an additional locking mechanism that is intended to secure a child seat (see page 24). If the shoulder part of the belt is pulled all the way out, this mechanism will engage. The belt will retract, but it will not allow the passenger to move freely. If the belt feels too tight, unlatch it, let it retract fully, then pull it out as far as needed.

Lap Belt



The lap belt has one manually-adjusted belt that fits across the hips. It is similar to safety belts used in airplanes.

Wearing Seat Belts Properly

You can increase the effectiveness of your seat belts if you take a little time to read the following pages and make sure you know how to wear seat belts properly.

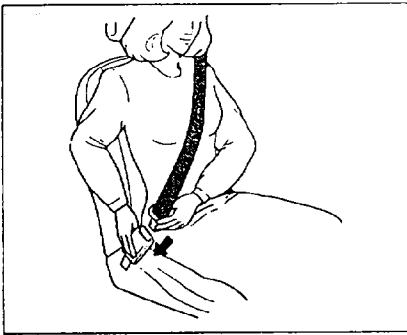
WARNING

Not wearing seat belts properly increases the chance of serious injury or death in a crash.

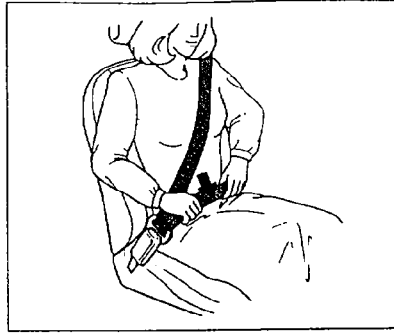
Be sure you and your passengers always wear seat belts and wear them properly.

Wearing a Lap/Shoulder Belt

Before putting on the seat belt, move the driver's seat as far back as is practical while still allowing you to maintain full control of the vehicle. Make sure the seat-back is upright (see page 18). The front seat passenger should move the seat as far back as possible.

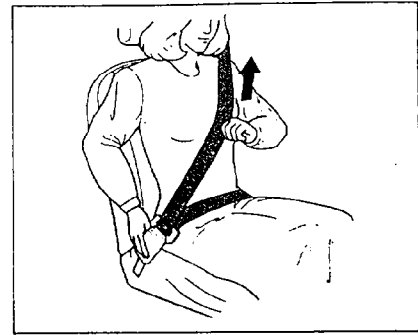


1. Pull the latch plate across your body and insert it into the buckle. Tug on the belt to make sure the latch is securely locked.

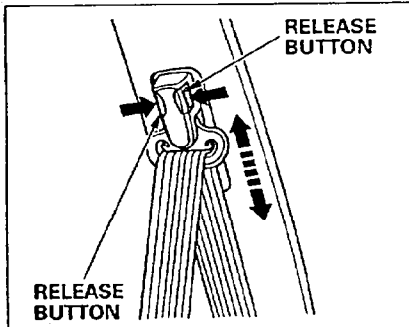


2. Check that the belt is not twisted.

3. Position the lap portion of the belt as low as possible across your hips, not across your stomach. This lets your strong pelvic bones take the force of a crash.



4. Pull up on the shoulder part of the belt to remove any slack. Make sure the belt goes over your collarbone and across your chest.



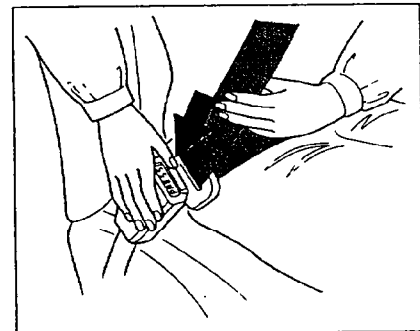
5. If the belt crosses your neck, you need to adjust the belt anchor height or your seating position.

Front seats:

Adjust the belt anchor by squeezing the two buttons and sliding the anchor downward (it has four positions).

Rear seat:

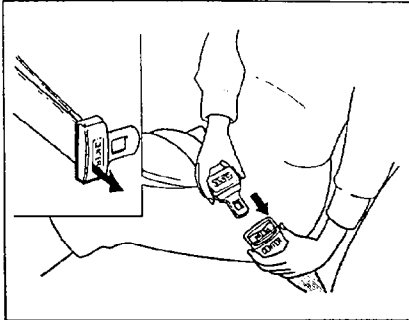
Move toward the center of the seat until the belt fits over your collarbone.



To unlatch the seat belt, push the red PRESS button on the buckle. Guide the belt across your body to the door pillar.

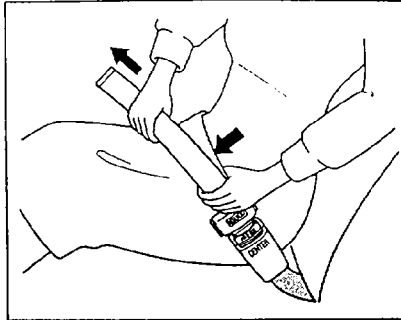
After you exit the vehicle, make sure the seat belt is out of the way and will not get closed in the door.

Wearing the Lap Belt

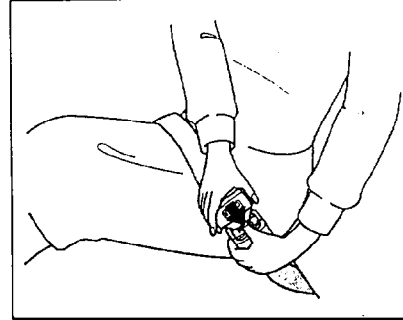


1. Pull the latch plate across your hips and insert it into the buckle marked **CENTER**.

If the belt is too short, hold the latch plate at a right angle and pull to extend the belt. Insert the latch plate into the buckle.

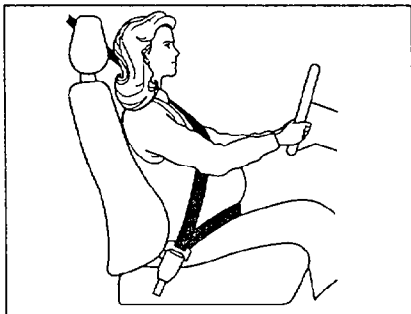


2. Position the belt as low as possible across your hips and pelvic bones, not across your stomach. Pull the loose end of the belt to adjust for a snug but comfortable fit.



To unlatch the belt, push the red **PRESS** button on the buckle.

Advice for Pregnant Women



Protecting the mother is the best way to protect her unborn child. Therefore, a pregnant woman should wear a properly-positioned seat belt whenever she drives or rides in a car.

If possible, use the lap/shoulder seat belt, remembering to keep the lap portion as low as possible (see page 7).

Each time you have a check-up, ask your doctor if it's okay for you to drive and how you should position a lap/shoulder seat belt.

Seat Belt Maintenance

For safety, you should check the condition of your seat belts regularly.

Pull out each belt fully and look for frays, cuts, burns, and wear. Check that the latches work smoothly and the lap/shoulder belts retract easily. Any belt not in good condition or not working properly should be replaced.

If a seat belt is worn during a crash, have your dealer replace the belt and inspect the anchors for damage.

For information on how to clean your seat belts, see page 172.

Your car is equipped with a Supplemental Restraint System (SRS) to help protect the head and chest of the driver and front seat passenger during a severe frontal collision.

This system does not replace your seat belts. It supplements, or adds to, the protection offered by seat belts and other occupant protection features.

WARNING

Not wearing seat belts increases the chance of serious injury or death in a crash, even if you have airbags.

Be sure you and your passengers always wear seat belts and wear them properly.

SRS Components

Your supplemental restraint system includes:

- One airbag in the steering wheel for the driver and another in the dashboard for the front passenger.
- Sensors that can detect a severe frontal collision.
- A sophisticated electronic system that continually monitors the sensors, control unit, airbag activators, and all related wiring when the ignition is ON (II).
- An indicator light on the instrument panel to alert you to a possible problem with the system.
- Emergency backup power in case your car's electrical system is disconnected in a crash.

What Happens In a Crash

If you ever have a severe frontal collision, the sensors will detect rapid deceleration and signal the control unit to instantly inflate the airbags.

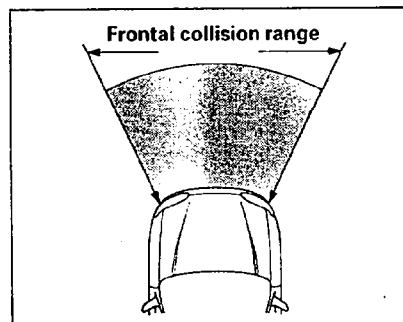
During a crash, your seat belts will help to restrain your lower body and torso. The airbags will provide a cushion to absorb crash energy and help keep the head and chest of the driver and front passenger from striking the interior of the car.

After inflating, the airbags will immediately deflate. The entire process, from detection to deflation, takes a fraction of a second. This process occurs so quickly that you may not hear the loud noise created by the airbag inflators, or realize what has happened.

After the crash, you may see what looks like smoke. This is actually powder from the airbag's surface. People with respiratory problems may experience some temporary discomfort from the chemicals used by the airbag's activators.

Important Facts About Airbags

Airbags inflate only when needed; in a severe frontal collision. A severe collision would be similar to a crash into a parked vehicle of similar size at 25 mph (40 km/h). Airbags will not inflate in a moderate frontal collision, or during a rear impact, side impact, or rollover — even if the impact is severe.



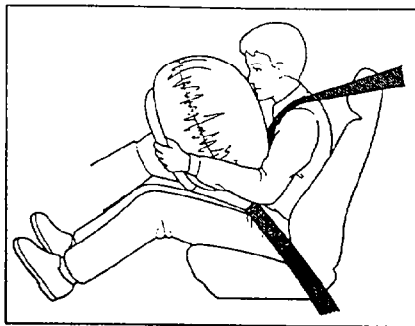
Airbags inflate and deflate only once. They cannot protect you during any additional impacts that can occur

during a crash sequence.

Injuries, including fatal injuries, can occur in a severe collision, even if seat belts are worn properly and the airbags inflate. No safety system can provide complete protection in a severe crash.

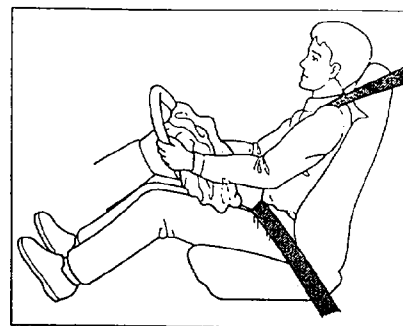
Just from viewing the vehicle damage after a crash, it is very difficult to accurately determine if the airbags should or should not have inflated. In some cases where the airbag did not inflate, extensive visible damage indicated that the car absorbed much of the crash energy, and the airbags were not needed. In other cases, a severe jolt, such as an impact to the undercarriage, may not cause extensive body damage but cause the airbags to inflate.

How the Driver's Airbag Works



If you ever have a severe frontal collision, your airbag will instantly inflate to help protect your head and chest.

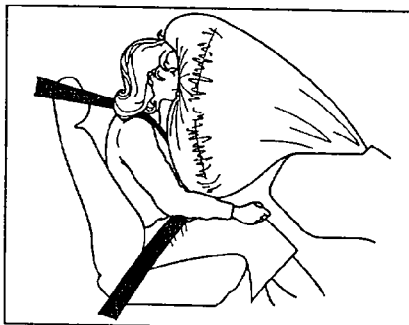
To do its job, the airbag inflates with considerable force. So, while it can reduce serious injuries and even save your life, the airbag might cause some facial abrasions or other injuries. To reduce the possibility of injury, you should always sit back as far from the steering wheel as is practical while still maintaining full vehicle control.



After the bag completely inflates, it immediately starts deflating so it won't interfere with your visibility, ability to steer, or ability to operate other controls. The total time for inflation and deflation takes a fraction of a second. You may not even be aware that the airbag has been fully inflated.

The driver's airbag is stored in the center of the steering wheel. For your safety, do not attach any items to the steering wheel. They could interfere with the proper operation of the airbag. Or, if the airbag inflates, they could be propelled inside the car and hurt someone.

How the Passenger's Airbag Works



If you ever have a severe frontal collision, the passenger's airbag will inflate at the same time as the driver's airbag.

This airbag is quite large and inflates with considerable force. It can seriously hurt a front seat passenger who is not in the proper position and wearing the seat belt properly. Front seat passengers should move the

seat as far back as practical and sit well back in the seat.

We strongly recommend that you do not put an infant seat in the front passenger's seat. If the airbag inflates, it can hit the infant seat with great force. The infant seat can be dislodged or struck with enough force to cause very serious injury to the infant.

If a toddler seat is used in the front passenger's seat, the vehicle seat should be moved as far back as possible. If the passenger's bag inflates, it could seriously hurt a toddler who is not in the proper position or properly restrained.

The passenger's airbag is stored near the top of the dashboard, under a lid marked SRS. Do not place any objects on top of this lid. If the airbag inflates, those objects can be propelled inside the car and possibly hurt someone.

SRS

How the SRS Indicator Light Works

The purpose of the SRS light on your instrument panel is to alert you of a potential problem with your supplemental restraint system.

Have the system checked if:

- The light does not come on when you turn the ignition ON (II).
- The light stays on after the engine starts.
- The light comes on or flashes while you are driving.

If you see any of these indications, the airbag may not work when needed in an accident. Take the car to your dealer promptly for diagnosis and service.

System Service

Your supplemental restraint system is virtually maintenance-free. There are no parts you can safely service. You must have the system serviced by an authorized Honda dealer:

- If your airbags ever inflate, the airbags and control unit must be replaced. Do not try to remove or discard the airbags by yourself. This must be done by a Honda dealer.
- If the SRS indicator light alerts you of a problem. Have the supplemental restraint system checked as soon as possible. Otherwise, your airbags might not inflate when you need them.
- When the car is ten years old. Have the dealer inspect the system. The production date is on the driver's doorjamb for your convenience.

System Service Precautions

Do not modify your steering wheel or any other part of the supplemental restraint system. Modifications could make the system ineffective.

Do not tamper with the system's components or wiring. This could cause the airbags to inflate inadvertently, possibly injuring someone very seriously.

Tell anyone who works on your car that you have a supplemental restraint system. Failure to follow the procedures and precautions in the official Honda service manual could result in personal injury or damage to the system.

Scrapping an entire car that has uninflated airbags can be dangerous. Get assistance from a Honda dealer if your car must be scrapped.

If you sell your car, please be sure to tell the new owner that the car has a supplemental restraint system. Alert them to the information and precautions in this part of the owner's manual.