

V2205

REPORT NO.: 208-MGA-95-003
212-MGA-95-003
301-MGA-95-003

VEHICLE SAFETY COMPLIANCE TESTING
FOR
FMVSS 208, OCCUPANT CRASH PROTECTION
FMVSS 212, WINDSHIELD MOUNTING
FMVSS 219, WINDSHIELD INTRUSION (PARTIAL)
FMVSS 301, FUEL SYSTEM INTEGRITY

HONDA MOTOR CO., LTD.
1995 Acura Integra 3 Door
NHTSA NO. CS5301

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: November 15, 1994

Report Date: November 29, 1994

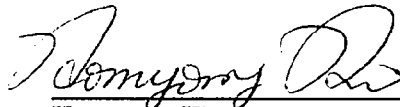
FINAL REPORT

Prepared For:

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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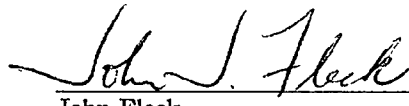
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MGA Research Corporation

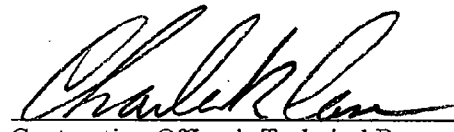
DATE: 12/06/94

APPROVED BY:


John Fleck
MGA Research Corporation

DATE: 9/29/95

FINAL REPORT ACCEPTED BY:


DATE: 10/25/95
Contracting Officer's Technical Representative (COTR)
NHTSA, Office of Vehicle Safety Compliance

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SECTION 1
PURPOSE AND TEST PROCEDURE

PURPOSE

This 30 mph flat frontal barrier impact test is part of the Federal Motor Vehicle Safety Standard (FMVSS) 208, 212, 219 (partial), and 301 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by the MGA Research Corporation (MGA) under Contract No. DTNH22-93-D-21089. The purpose of this test was to determine whether the subject vehicle, a 1995 Acura Integra 3 Door, NHTSA No. CS5301, meets the performance requirements of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219 (partial), "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity," in the flat frontal barrier impact mode.

TEST PROCEDURE

This test was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure No. TP-208-09 dated March 15, 1993. Data was obtained relative to FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219 (partial), "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity," performance.

The test vehicle was instrumented with seven (7) accelerometers to measure longitudinal axis accelerations and one (1) accelerometer to measure vertical axis acceleration. The vehicle's specified impact velocity range was 28.9 to 29.9 mph. The vehicle impacted a fixed flat barrier of which face was covered with a sheet of 3/4 inch thick plywood.

The test vehicle contained two (2) Part 572 B 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard designated seating positions according to the dummy placement procedures specified in Appendix B of the Laboratory Test Procedure.

Both dummies were instrumented with head and chest accelerometers to measure longitudinal, lateral, and vertical accelerations, and with left and right femur load cells to measure axial forces.

The twenty-four (24) data channels were multiplexed and recorded on three IBM PC compatible computers with Metrobyte DAS-16F A/D converter boards. The data was digitally sampled at 8170 samples per second and processed per Section 11.13 through 11.15 of the Laboratory Test Procedure.

The crash event was recorded by one (1) real-time panning motion picture camera and fourteen (14) high-speed motion picture cameras. The pre-test and post-test conditions were recorded by the real-time motion picture camera.

The vehicle and occupant data are summarized in Section 2. The FMVSS 208, 212, 219 (partial) and 301 data are presented in Section 3. The vehicle, occupant, and camera measurements are presented in Section 4. Appendix A contains the still photographic prints. Appendix B contains the dummy and vehicle data plots. Appendix C contains the manufacturer's vehicle information.

SECTION 2
SUMMARY OF FRONTAL BARRIER IMPACT TEST

TEST RESULTS SUMMARY

This flat frontal barrier test was conducted at MGA Research Corporation on November 15, 1994.

The test vehicle, a 1995 Acura Integra 3 Door, NHTSA No. CS5301, appeared to comply with the performance requirements of FMVSS 208, 212, 219 (partial), and 301 in the flat frontal barrier impact mode. The Head Injury Criteria (HIC) calculations were less than 1000, the chest resultant accelerations did not exceed 60 g's, and the compressive forces transmitted through the upper legs did not exceed 2,250 pounds as measured by Part 572 B dummies seated in the front outboard designated seating positions. The vehicle's restraint system met the applicable comfort and convenience requirements. The windshield periphery retention on each side of the vehicle centerline was greater than 50 percent. There was no penetration into any portion of the windshield. No fluid spilled from the vehicle's fuel system following the impact or during the static rollover test.

The test vehicle was equipped with an airbag and a Type 2 seat belt in the front outboard designated seating positions. Both dummies were restrained only by the airbag during the test. The vehicle's test weight was 2884 pounds. The vehicle's impact speed was 29.2 mph. The vehicle's maximum static crush was 15.1 inches.

The driver's HIC was 534. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 45.4 g's. The driver's left and right femur maximum compressive forces were 1607 pounds and 1652 pounds, respectively.

The right front passenger's HIC was 572. The right front passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 42.3 g's. The right front passenger's left and right femur maximum compressive forces were 1624 pounds and 1369 pounds, respectively.

There was no loss of windshield periphery retention and no penetration through the windshield.

Following the impact, no fluid spilled from the vehicle's fuel system prior to the static rollover test or during any portion of the static rollover test.

TABLE 1 CRASH TEST SUMMARY

Vehicle Yr/Make/Model/Body Style: 1995/Acura/Integra/3 Door
 Vehicle NHTSA No.: CS5301 Test Type: Frontal Barrier Impact
 Test Date: 11/15/94 Time: 23:59 Temp: 70°F
 Vehicle Test Weight: 2884 lbs. Vehicle/Barrier Impact Angle: 0°
 Impact Velocity: 29.2 mph Maximum Static Crush: 15.1 inches
 Vehicle Rebound: 19.2 inches

Dummies:	Driver	Passenger
Dummy Type	<u>Part 572B</u>	<u>Part 572B</u>
Serial Number	<u>465</u>	<u>466</u>
Restraint System	<u>Airbag</u>	<u>Airbag</u>
No. of Data Channels	<u>8</u>	<u>8</u>

Number of Cameras: 1 Real Time
 14 High Speed

Door Opening Data: Left Front: Easy
 Right Front: Easy

Front Seat(s) Data:	Driver	Passenger
Seat Track Failure	<u>None</u>	<u>None</u>
Seat Back Failure	<u>None</u>	<u>None</u>

Visible Dummy Contact Points:	Driver	Passenger
Head	<u>Airbag and Windshield</u>	<u>Airbag and Windshield</u>
Chest	<u>Airbag</u>	<u>Airbag</u>
Left Knee	<u>Instrument Panel</u>	<u>Instrument Panel</u>
Right Knee	<u>Instrument Panel</u>	<u>Instrument Panel</u>

TABLE 2 GENERAL TEST AND VEHICLE PARAMETER DATA

Vehicle Yr/Make/Model/Body Style: 1995/Acura/Integra/3 Door

NHTSA No: CS5301 VIN: JH4DC4346SS004705 Body Color: Red

Engine: 4 Cylinders; C.I.D.; 1.8 liters; CC

X Gas; Diesel; Turbocharged

 Longitudinal X Transverse

Transmission: 5 Speed; X Manual; Automatic; Overdrive

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

Major Option: A/C; X P/S; X P/B; X P/wdo; P/door locks;

 P/seats; X Tilt Wheel; Anti-skid Brakes; Cruise Control; Other

Date Received: 09/30/94; Odometer Reading: 58 miles

Dealer's Name/Address: Wilde Acura
8920 West Brown Deer Road
Milwaukee, WI 53224

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: Honda Motor Co., Ltd.

Date of Manufacture: 06/94; VIN: JH4DC4346SS004705

GVWR: 3680 lbs; GAWR Front: 1985 lbs. GAWR Rear: 1740 lbs.

DATA FROM TIRE PLACARD:

Tire Pressure with maximum capacity vehicle load: Front 29 Psi; Rear 29 Psi

Recommended Tire Size: P195/60R14

Recommended Cold Tire Pressure: Front 29 Psi; Rear 29 Psi

Tires on Vehicle: P195/60R14; Manufacturer: Bridgestone

Type of Spare Tire: Space Saver

Number of Occupants: 2 Front; 2 Rear; 3rd Seat; 4 TOTAL

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

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

TABLE 2 GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

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

Right Front = 743 lbs Right Rear = 477 lbs
Left Front = 792 lbs Left Rear = 457 lbs
TOTAL FRONT WEIGHT = 1535 lbs (62.2% of Total Vehicle Weight)
TOTAL REAR WEIGHT = 934 lbs (37.8% of Total Vehicle Weight)
TOTAL UNLOADED DELIVERED WEIGHT (UDW) = 2469 lbs

CALCULATION FOR TARGET TEST WEIGHT:

UDW (Unloaded Delivered Weight) = 2469 lbs
VCW (Vehicle Capacity Weight) = 700 lbs
DSC (Designated Seating Capacity) = 4
RCLW*(Rated Cargo/Luggage Weight) = VCW - 150 (DSC) = 700 - 150 (4) = 100 lbs
Target Test Weight = UDW + RCLW + (2 Dummies x Dummy Weight)
Target Test Weight = 2469 + 100 + 328 = 2897 lbs

WEIGHT OF TEST VEHICLE WITH REQUIRED DUMMIES AND CARGO WEIGHT:

Right Front = 855 lbs Right Rear = 581 lbs
Left Front = 872 lbs Left Rear = 576 lbs
TOTAL FRONT WEIGHT = 1727 lbs (59.9% of Total Vehicle Weight)
TOTAL REAR WEIGHT = 1157 lbs (40.1% of Total Vehicle Weight)
TOTAL TEST WEIGHT = 2884 lbs
Weight of ballast secured in vehicle = 0 lbs
Vehicle components removed to meet target weight:
Spare Tire, Jack, Tool Kit, Rear Bumper, Rear Seat Back and Cushion, Tail Lamps.

VEHICLE ATTITUDE (all dimensions in inches):

Delivered Attitude: RF 26.2 LF 26.2 RR 26.3 LR 26.1
Fully Loaded Attitude: RF 25.4 LF 25.3 RR 25.0 LR 24.6
Test Attitude: RF 25.0 LF 25.3 RR 25.6 LR 24.7

Wheel Base: 101.4 in; C.G. = 40.7 in rearward of front wheel centerline

* Cargo weight for multi-purpose passenger vehicles, truck, and buses is the vehicle's rated cargo and luggage weight from the vehicle's label or 300 pounds, whichever is less.

TABLE 3 POST-IMPACT DATA

Type of Test: Frontal Barrier Impact Impact Angle: 0°

Test Date: 11/15/94 Time: 23:59 Temperature: 70° F

Vehicle NHTSA No.: CS5301 VIN: JH4DC4346SS004705

BARRIER IMPACT VELOCITY

Required Impact Velocity Range: 28.9 to 29.9 mph

Impact Velocity: Primary = 29.2 mph; Secondary = 29.1 mph

Distance From Front Bumper to Barrier Face When

Entering Speed Trap: 47.2 inches

Exiting Speed Trap: 7.9 inches

VEHICLE STATIC CRUSH AND REBOUND (inches):

Vehicle Length:	Pre-test	= R <u>163.1</u>	C _L <u>168.9</u>	L <u>163.3</u>
	Post-test	= R <u>150.6</u>	C _L <u>155.9</u>	L <u>151.4</u>
	Crush	= R <u>12.5</u>	C _L <u>13.0</u>	L <u>11.9</u>
	Average	= <u>12.5</u>		

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

R 17.7 in C_L 19.2 in L 15.9 in

TABLE 4 ACCIDENT INVESTIGATION DIVISION DATA

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Veh. NHTSA No.: CS5301;

VIN: JH4DC4346SS004705

Build Date: 06/94;

Test Date: 11/15/94

Veh. Size Category: Compact;

Test Weight: 2884 lbs

Veh. Wheelbase: 101.4 in;

Front Overhang: 36.2 in;

Overall Width: 67.3 in

ACCELEROMETER DATA:

Location: As per measurements on pages 2-10

Calibration Procedure: As per MGA Calibration Procedure

Linearity: > 99.9%; Integration Algorithm: Trapezoidal

COLLISION DEFORMATION CLASSIFICATION (CDC) CODE:

Impact Mode: Frontal Barrier

Crush Depth C1 = 12.5 inches

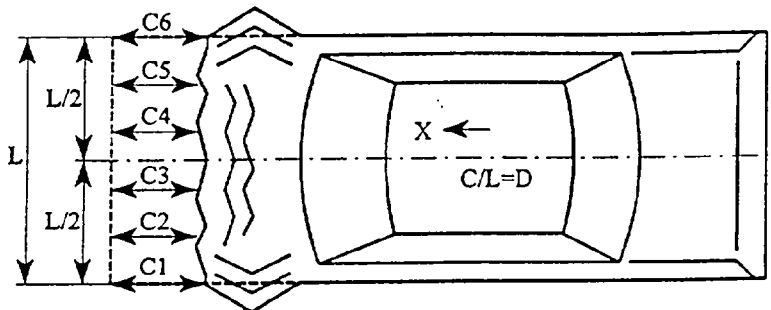
Dimensions: C2 = 14.8 inches

C3 = 13.2 inches

C4 = 15.1 inches

C5 = 10.1 inches

C6 = 11.9 inches



Midpoint of Damage: D = Vehicle Longitudinal Centerline

Length of Damaged Region: L = 52.8 inches

TABLE 5 POST TEST AIRBAG DATA

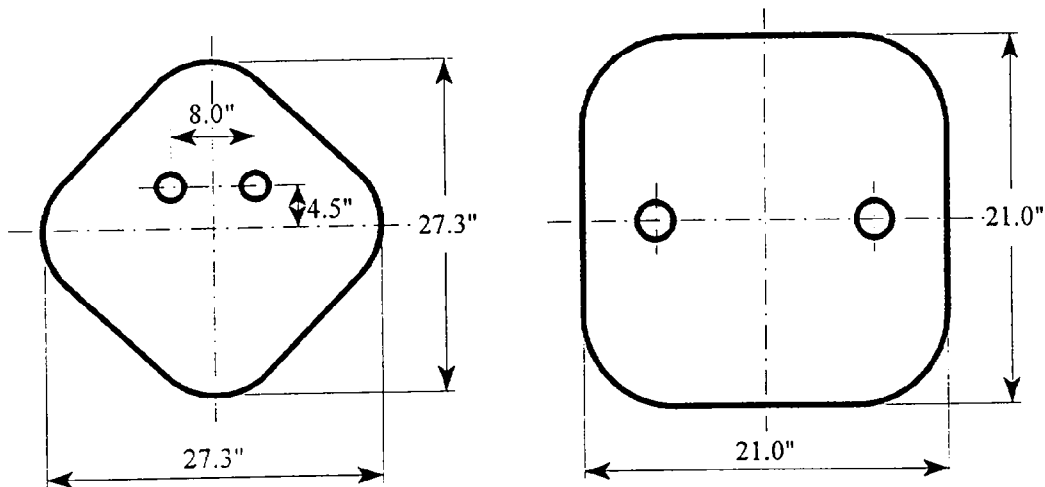
Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

NHTSA No: CS5301; Test Date: 11/15/94; Technician: Homyoung Kim

- A. No of Vent Holes: Driver 2; Passenger 2
- B. Size of Vent Holes: Driver 1.5 in. dia.; Passenger 3.0 in. dia.
- C. Total Vent Area: Driver 3.5 in²; Passenger 14.1 in²
- D. Deflated Airbag Length and Width Dimensions or, if Round, Diameter
 Driver; Length 27.3 in; Width 27.3 in; Diameter ____
 Passenger; Length 21.0; Width 21.0; Diameter ____
- E. Is the Airbag Tethered?
 Driver; X Yes; __ No; If yes, record length of tether 8.5 in
 Passenger; __ Yes; X No; If yes, record length of tether ____ in

Driver Airbag

Passenger Airbag



There were two (2) tethers in driver airbag. One end of each tether was attached to the front face center of the airbag and the other end to the rear face center.

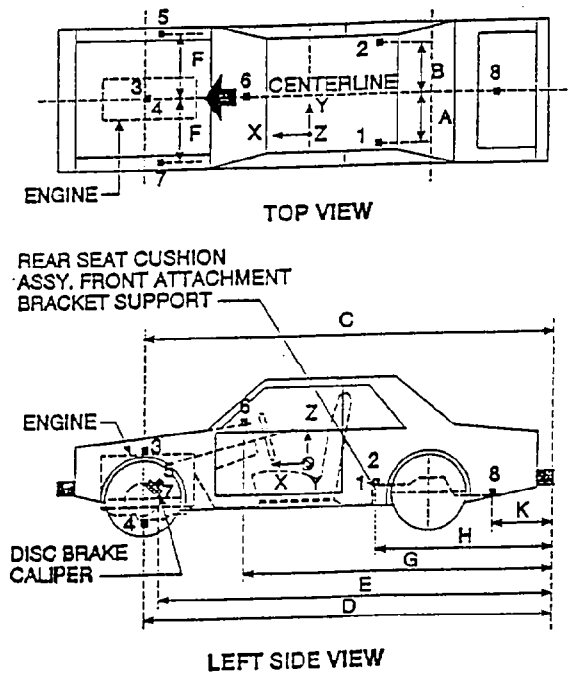
- F. Part Numbers and Manufacture Name of Airbag and Gas Generator

Driver; Mfr N/A; Airbag 4LEQ51987; Gen N/A
 Passenger; Mfr N/A; Airbag 7LEQ40198; Gen N/A

TABLE 6 VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301; Test Date: 11/15/94



ACCELEROMETER LOCATION (inches)		
	PRE-TEST	POST-TEST
A	16.9	16.9
B	16.9	16.9
C	138.5	136.5
D	137.3	135.5
E	134.1	134.0
F	25.3	25.0
G	106.3	106.0
H	55.3	55.3
K	3.5	3.5

ACCELEROMETER DATA SUMMARY					
No.	DESCRIPTION	MAXIMUM (g's)	TIME (msec)	MINIMUM (g's)	TIME (msec)
1	Left Rear Seat Crossmember	4.2	97	-38.6	55
2	Right Rear Seat Crossmember	4.9	95	-35.6	67
3	Top of Engine Block	6.3	51	-59.6	39
4	Bottom of Engine	37.3	55	-72.2	47
5	Right Disc Brake Caliper	11.7	61	-65.3	48
6	Instrument Panel	22.6	31	-43.9	71
7	Left Disc Brake Caliper	14.9	88	-56.0	33
8	Trunk	12.1	21	-8.7	58

TABLE 7 REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

Contract Number: DTNH22-93-D-21089
From: MGA Research Corporation
5000 Warren Road
Burlington, WI 53105
To: Mr. Charles Case
COTR
Office of Vehicle Safety Compliance

The following vehicle has been subjected to testing for FMVSS 208. The vehicle was inspected upon arrival at the laboratory for the test and found to contain all of the equipment listed below. All variances have been reported within 2 working days of vehicle arrival, by letter, to the NHTSA Industrial Property Manager/NAD-30, with a carbon copy of the responsible testing office. The vehicle is again inspected and all changes are noted below. The final condition of the vehicle is also noted in detail.

Vehicle Year/Make/Model/Body Style: 1995/Acura Integra/3 Door
Vehicle NHTSA No.: CS5301 Body Color: Red
VIN: JH4DC4346SS004705 Cost: \$15,850.00
Odometer: Arrival Date: 09/30/94 Reading: 58 miles
 Completion Date: 11/15/94 Reading: 59 miles
Engine: 4 Cylinders; 1.8 Liters; X Gas; ___ Diesel
Transmission: 5 Speed; X Manual; ___ Automatic
Final Drive: X Front Wheel; ___ Rear Wheel; ___ Four Wheel
Tire Size: P195/60R14; Manufacturer: Bridgestone

Air Conditioner	<u>No</u>	Console	<u>Yes</u>	Brakes	<u>Power</u>
Tinted Glass	<u>Yes</u>	Tachometer	<u>Yes</u>	Front	<u>Disc</u>
Power Steering	<u>Yes</u>	Cruise Control	<u>No</u>	Rear	<u>Disc</u>
Power Windows	<u>Yes</u>	Rear Window Def.	<u>Yes</u>	Front Seats	<u>Manual</u>
Power Door Locks	<u>No</u>	Sun/Moon Roof	<u>No</u>	Seat Type	Front <u>Bucket</u>
Radio:AM/FM Tape	<u>Yes</u>	T-Top	<u>No</u>		Rear <u>Bench</u>
Clock	<u>Yes</u>	Tilt Steering Wheel	<u>Yes</u>		
Roof Rack	<u>No</u>	Other Options:	<u>No</u>	No. of Seats	<u>Three</u>

Equipment that is no longer on the vehicle as noted above:

Rear Seat

Explanation:

Items removed to allow installation of data acquisition system and to reduce test weight.

Vehicle Condition:

The vehicle was subjected to a 30 mph frontal crash test. There is severe structural damage on the front body. Various interior and exterior portions of the vehicle have been painted and have had holes drilled to facilitate attachment of instrumentation. Various body parts have been removed. Stoddard solvent replaced the fuel in the fuel system and engine. THE VEHICLE IS FOR SALVAGE ONLY AND IS NOT TO BE REPAIRED FOR HIGHWAY USE.

SECTION 3
SUMMARY OF RESULTS FOR FMVSS 208
212, 219 (PARTIAL), AND 301

TABLE 8 FMVSS 208 OCCUPANT INJURY CRITERIA

Veh. Yr./Make/Model/Body Style: 1995/Acura/Integra/3 Door

Veh. NHTSA No.: CS5301 Test Date: 11/15/94

MAXIMUM ACCELERATION VALUES: (g's)	DRIVER DUMMY #465	PASSENGER DUMMY #466
Head Channel X	-54.1	-99.1
Head Channel Y	27.0	-24.7
Head Channel Z	103.4	135.5
HEAD RESULTANT	118.9	169.4
Chest Channel X	-49.2	-38.5
Chest Channel Y	7.3	3.1
Chest Channel Z	14.7	31.2
CHEST RESULTANT	49.5	48.4

HEAD INJURY CRITERIA (HIC) VALUES:

HIC	533.7	572.4
$t_1 =$ (msec)	74.3	82.6
$t_2 =$ (msec)	107.3	85.6

[The maximum time interval from t_1 to t_2 is 36 milliseconds.]

CHEST INJURY CRITERIA (CLIP) VALUES: (g's)

CLIP	45.4	42.3
$t^1 =$ (msec)	82.7	84.8
$t^2 =$ (msec)	85.8	87.9

MAX. COMPRESSIVE FEMUR FORCES: (lbs)

Left Side	1607	1624
Right Side	1652	1369

TABLE 9 DUMMY KINEMATIC SUMMARY

DRIVER DUMMY

Upon impact, the driver dummy translated forward on the seat impacting both knees into the instrument panel. The dummy's head and chest impacted the airbag with the dummy's head rotating rearward. The driver dummy was restrained by the airbag. The dummy rebounded rearward into the seat back with the dummy's head contacting the head restraint. The driver dummy came to rest in the seat.

RIGHT FRONT PASSENGER DUMMY

Upon impact, the right front passenger dummy translated forward on the seat impacting both knees into the instrument panel. The dummy's head and chest impacted the airbag with the dummy's head rotating rearward. The right front passenger dummy was restrained by the airbag. The dummy's head contacted the windshield and remained in the forward position.

TABLE 10 FMVSS 208 SEAT BELT COMFORT AND CONVENIENCE TEST SUMMARY
FRONT OUTBOARD DESIGNATED SEATING POSITIONS

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

NHTSA No.: CS5301; Date of Comfort/Convenience Check: 11/14/94

Technician Performing Check: Homyoung Kim

GVWR: 3680 lbs

Automatic seat belts installed in any vehicle, other than a walk-in van-type vehicle which has a gross vehicle weight rating of 10,000 pounds or less, and is manufactured on or after September 1, 1986, shall meet the requirements for convenience hooks, webbing tension relieving devices, and belt contact force.

Manual seat belts installed for compliance with this standard in front outboard designated seating positions of any vehicle, other than a walk-in van-type vehicle which has a gross vehicle rating of 10,000 pounds or less, and is manufactured on or after September 1, 1989, shall meet the requirements for belt contact force, plate access, retraction and seat belt guides, and hardware.

VEHICLE EQUIPMENT:

The vehicle's front outboard seating positions were equipped with manual Type 2 seat belts which must comply with the dynamic test requirements of S5.1; requirements for webbing tension-relieving devices (S7.4.2), belt contact force (S7.4.3), latchplate access (S7.4.4), retraction (S7.4.5), and seat belt guides and hardware (S7.4.6) apply.

CONVENIENCE HOOKS (S7.4.1):

Not applicable, the vehicle was not equipped with automatic seat belts.

WEBBING TENSION-RELIEVING DEVICE (S7.4.2)

The seat belt assembly in the front outboard seating positions did not have webbing tension-relieving devices.

TABLE 10 FMVSS 208 SEAT BELT COMFORT AND CONVENIENCE TEST SUMMARY
FRONT OUTBOARD DESIGNATED SEATING POSITIONS, (Cont'd)

BELT CONTACT FORCE (S7.4.3)

The belt contact force on the chest of the test dummy was 0.3 pounds.

LATCHPLATE ACCESS (S7.4.4)

The seat belt latchplates, in their normal stowed position, were within the reach envelope.

The clearance test block moved unhindered to the latchplate or buckle.

RETRACTION (S7.4.5):

The seat belt automatically retracted when the seat belt latchplate was released.

The stowed seat belt webbing and hardware were not pinched when the door was closed.

SEAT BELT GUIDES AND HARDWARE (S7.4.6)

The seat cushion was movable, but the seat back did not serve a function other than seating.

The seat was not removable.

The seat was not movable so that the space formerly occupied by the seat could be used for a secondary function.

Note: If the seat or seat cushion is removable or if the seat is movable so that the space formerly occupied by the seat can be used for a secondary function, the seat belt guides and hardware requirements do not apply.

TABLE 10 FMVSS 208 SEAT BELT COMFORT AND CONVENIENCE TEST SUMMARY
FRONT OUTBOARD DESIGNATED SEATING POSITIONS. (Cont'd)

SEAT BELT GUIDES AND HARDWARE (S7.4.6)(Cont'd)

The webbing was designed to pass through the seat cushion or between the cushion and seat back.

The remaining two parts (the seat belt latchplate and the buckle) were accessible under normal conditions.

The latchplate and buckle did not pass through the guides provided and fall behind the seat when the belt was completely retracted (or detached if not retractable) and the seat was moved to any position.

TABLE 11 FMVSS 208 EQUIPMENT DATA

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Date of Check: 11/14/94

Technician Performing Check: Homyoung Kim

GVWR: 3680 lbs

FMVSS 208 SEAT BELT WARNING SYSTEM DATA

With an occupant in the driver's position and the lap belt/unibelt in stowed position and the ignition switch placed in the "start/on" position, the duration of audible warning signal was 6.0 seconds and the reminder light stayed on.

With an occupant in the driver's position and the lap belt/unibelt in use and the ignition switch placed in the "start/on" position, the duration of audible warning signal and the reminder light were 0 second.

Note: The audible warning should not operate.

The wording of the visual seat belt warning was the symbol from Table 2 of FMVSS 101.

FMVSS 208 LABELING AND DRIVER'S MANUAL DATA

The labels which describe manufacturer's maintenance or replacement schedule for the crash-deployed occupant protection system were located on the driver and passenger sunvisors.

The airbag system is required to be inspected ten (10) years after the date of manufacture shown on the certification label.

Appropriate instructions concerning maintenance and/or replacement of this system were provided in the owner's manual on page 15.

A description of the functional operation of the system was provided in the owner's manual on pages 13-14.

A reference to the instructions and description of the system was included on the label.

TABLE 11 FMVSS 208 EQUIPMENT DATA, (Cont'd)

FMVSS 208 LABELING AND DRIVER'S MANUAL DATA (Cont'd)

An owner's manual was provided.

The owner's manual contained appropriate information concerning maintenance and/or replacement and a description of the functional operation of the systems on pages 10-15.

FMVSS 208 READINESS INDICATOR DATA

The vehicle contained a crash-deployed occupant protection system which was not totally mechanical. The readiness indicator was located on the right upper corner of the instrument cluster.

The readiness indicator was clearly visible to the driver.

A list of the elements in the occupant restraint system, being monitored by the readiness indicator, was provided in the owner's manual on page 11.

TABLE 12 FMVSS 212, "WINDSHIELD MOUNTING", DATA SUMMARY

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC.:

Rubber molding with glue retention

CLIPS OR BRACKETS USED TO RETAIN WINDSHIELD: None

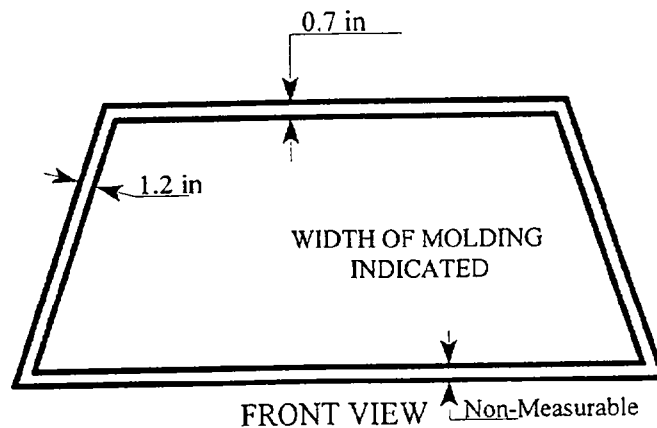
FMVSS 212 REQUIREMENTS:

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 (inches)		PERCENT RETENTION
	PRE-TEST	POST-TEST	
RIGHT SIDE	78.9	78.9	100%
LEFT SIDE	78.9	78.9	100%
TOTAL	157.8	157.8	100%

Pre-Test Windshield Mounting Material Temperature: 70° F



FAILURE DETAILS: None

TABLE 13 FMVSS 219, "WINDSHIELD ZONE INTRUSION", DATA SUMMARY

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

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 top surface of the instrument panel including padding. Draw the locus of points on the inner surface of the windshield contacted 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 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.

WINDSHIELD MEASUREMENTS:

A = 39.3 in

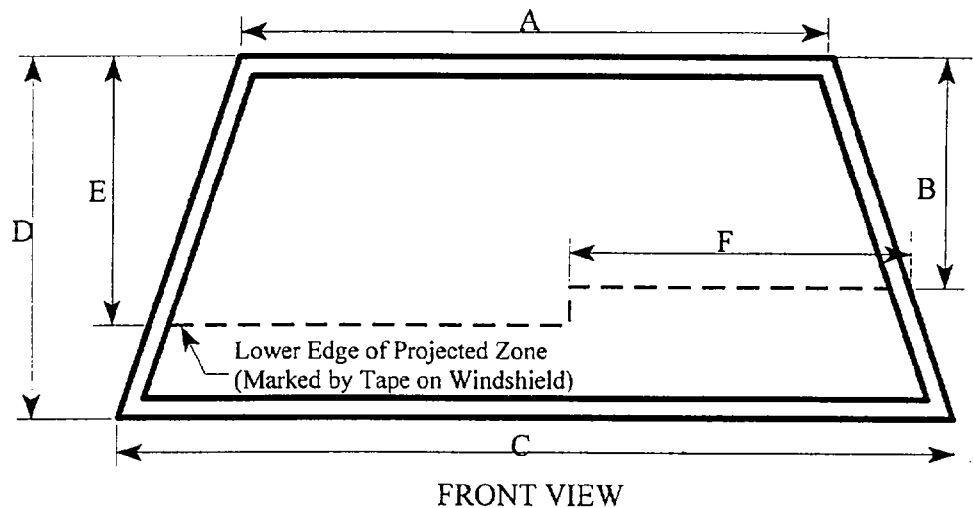
B = 19.5 in

C = 55.9 in

D = 31.3 in

E = 21.7 in

F = 23.2 in



AREAS OF WINDSHIELD TEMPLATE PENETRATION GREATER THAN 1/4 IN:

None

AREAS OF WINDSHIELD PENETRATION, BELOW THE PROTECTED ZONE, THROUGH THE INNER SURFACE OF THE WINDSHIELD:

None

TABLE 14 FUEL SYSTEM DATA

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

Fuel System Capacity from Owner's Manual = 13.2 gallons

Usable Capacity Figure Furnished by COTR = 13.2 gallons

Test Volume Range (92 to 94% of Usable Capacity)

= 12.1 to 12.4 gallons

Actual Test Volume = 12.2 gallons

Test Fluid Type: Stoddard Solvent; Spec. Grav. = 0.77

Kinematic Viscosity = 1.788 centistokes; Color = Purple

Type of Fuel Pump: X Electric; Mechanical

Does electric pump operate with ignition switch "On" and engine "Off"?

X Yes; No

Details of Fuel System:

The fuel tank was located in front of the rear axle. The fuel filler pipe
was located on the left side. The fuel lines ran along the left side to
the front.

TABLE 15 FMVSS 301 POST IMPACT TEST DATA

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

TEST REQUIREMENTS:

Test vehicle's fuel tank filled to 92 to 94% of manufacturer's usable capacity and with electric fuel pump operating (if it will operate without engine operation). Part 572 test dummies located at each front designated seating position.

TEST VEHICLE IMPACT TYPE:

- ☒ Frontal (30 mph)
☐ Oblique (30 mph) with ☐° barrier face first
contacting (driver/passenger) side
☐ Rear Moving Barrier (30 mph)
☐ Lateral Moving Barrier (20 mph)

FUEL SPILLAGE MEASUREMENT:

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

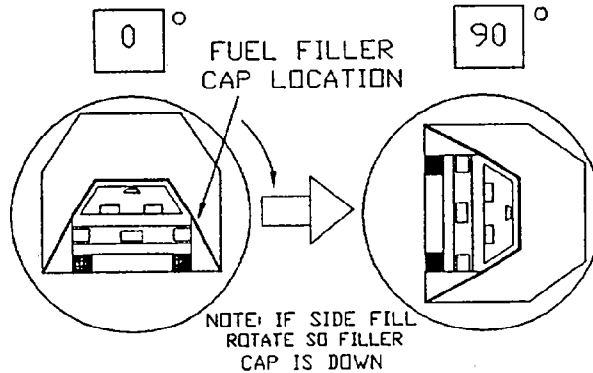
FUEL SPILLAGE LOCATION(S): None

TABLE 16 FMVSS 301 STATIC ROLLOVER TEST DATA

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

TEST PHASE: 0° - 90°



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 TIME = 7 minutes 41 seconds

Next Whole Minute Interval = 8 minutes

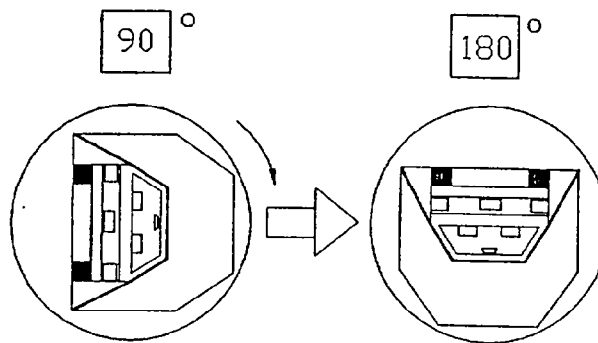
FUEL SPILLAGE MEASUREMENT:

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

FUEL SPILLAGE LOCATIONS(S): None

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

TEST PHASE: 90° - 180°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 26 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 26 seconds

Next Whole Minute Interval = 8 minutes

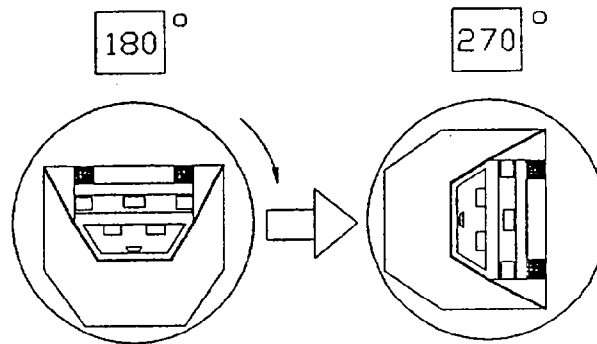
FUEL SPILLAGE MEASUREMENT:

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

FUEL SPILLAGE LOCATIONS(S): None

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

TEST PHASE: 180° - 270°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 29 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 29 seconds

Next Whole Minute Interval = 8 minutes

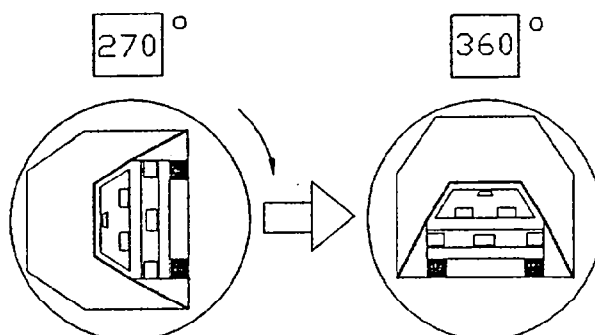
FUEL SPILLAGE MEASUREMENT:

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

FUEL SPILLAGE LOCATIONS(S): None

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

TEST PHASE: 270° - 360°



DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time = 2 minutes 52 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time = 5 minutes 0 seconds

TOTAL TIME = 7 minutes 52 seconds

Next Whole Minute Interval = 8 minutes

FUEL SPILLAGE MEASUREMENT:

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

FUEL SPILLAGE LOCATIONS(S): None

SECTION 4
OCCUPANT, VEHICLE, AND CAMERA INFORMATION

TABLE 17 SEAT AND STEERING COLUMN POSITIONING DATA

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

NOMINAL DESIGN RIDING POSITION:

Driver Seat: Seat Back Angle = 26°

The seat back angle was adjustable and was positioned at the 5th notch in accordance with the seat back set procedure in the manufacturer's information. The seat back angle was measured on the seat back frame with the inclinometer.

Passenger Seat: Same as driver's seat.

SEAT FORE AND AFT POSITIONS:

Driver Seat: The seat track had 25 detents and was positioned at the 13th notch rearward from the foremost position which was counted as the first notch.

Passenger Seat: The seat track has 20 detents and was positioned at the 11th notch rearward from the foremost position which was counted as the first notch.

STEERING COLUMN ADJUSTMENTS:

The steering column was adjustable and was positioned at the mid point of its swing. The steering column angle was 23°.

FIGURE 1 DUMMY MEASUREMENT LOCATIONS FOR FRONT SEAT OCCUPANTS

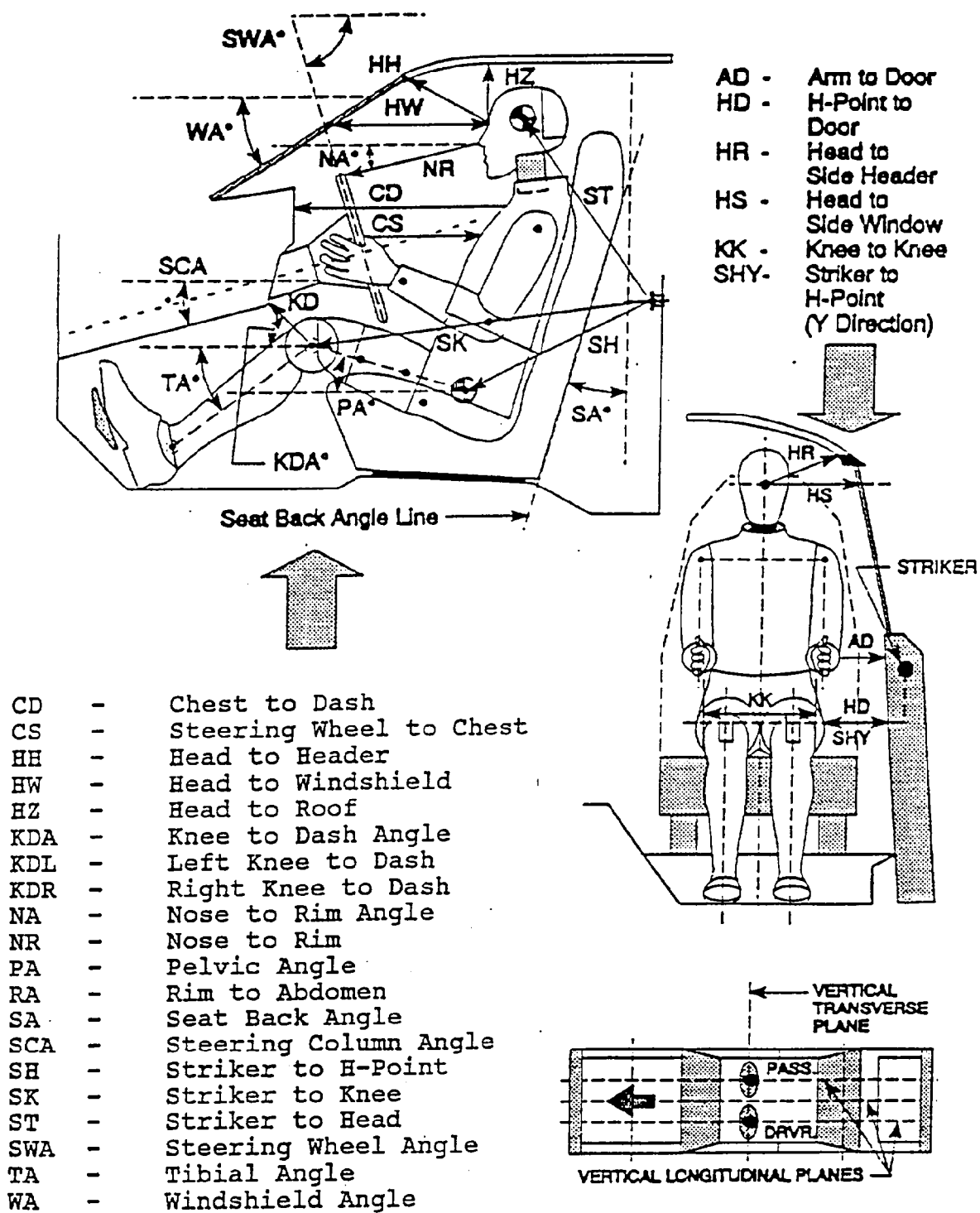


TABLE 18 DUMMY MEASUREMENT DATA FOR FRONT SEAT OCCUPANTS

Vehicle Year/Make/Model/Body Style: 1995/Acura/Integra/3 Door

Vehicle NHTSA No.: CS5301 Test Date: 11/15/94

	DRIVER (Serial #465)	PASSENGER (Serial #466)
WA °	26.8°	
SWA °	66.9°	N/A
SCA °	23.3°	N/A
SA °	5th Notch (25.8°)	5th Notch (25.8°)
HZ	5.6 in	5.2 in
HH	13.7 in	14.9 in
HW	20.9 in	21.4 in
HR	7.8 in	6.8 in
NR	19.9 in	N/A
CD	25.7 in	26.1 in
CS	14.7 in	N/A
RA	8.2 in	N/A
KDL	7.8 in Angle (KDA) 39.5°	8.2 in
KDR	8.0 in	10.8 in Angle (KDA) 6.7°
PA °	N/A	N/A
TA °	31.1°	30.0°
KK	14.5 in	11.7 in
ST	19.3 in Angle 70.2°	18.9 in Angle 73.8°
SK	30.7 in Angle -7.0°	29.4 in Angle -10.5°
SH	17.2 in Angle -26.4°	15.6 in Angle -29.5°
SHY	10.4 in	10.0 in
HS	10.0 in	10.6 in
HD	4.5 in	4.6 in
AD	2.9 in	3.5 in

N/A = Not Applicable

FIGURE 2 VEHICLE TARGET LOCATIONS

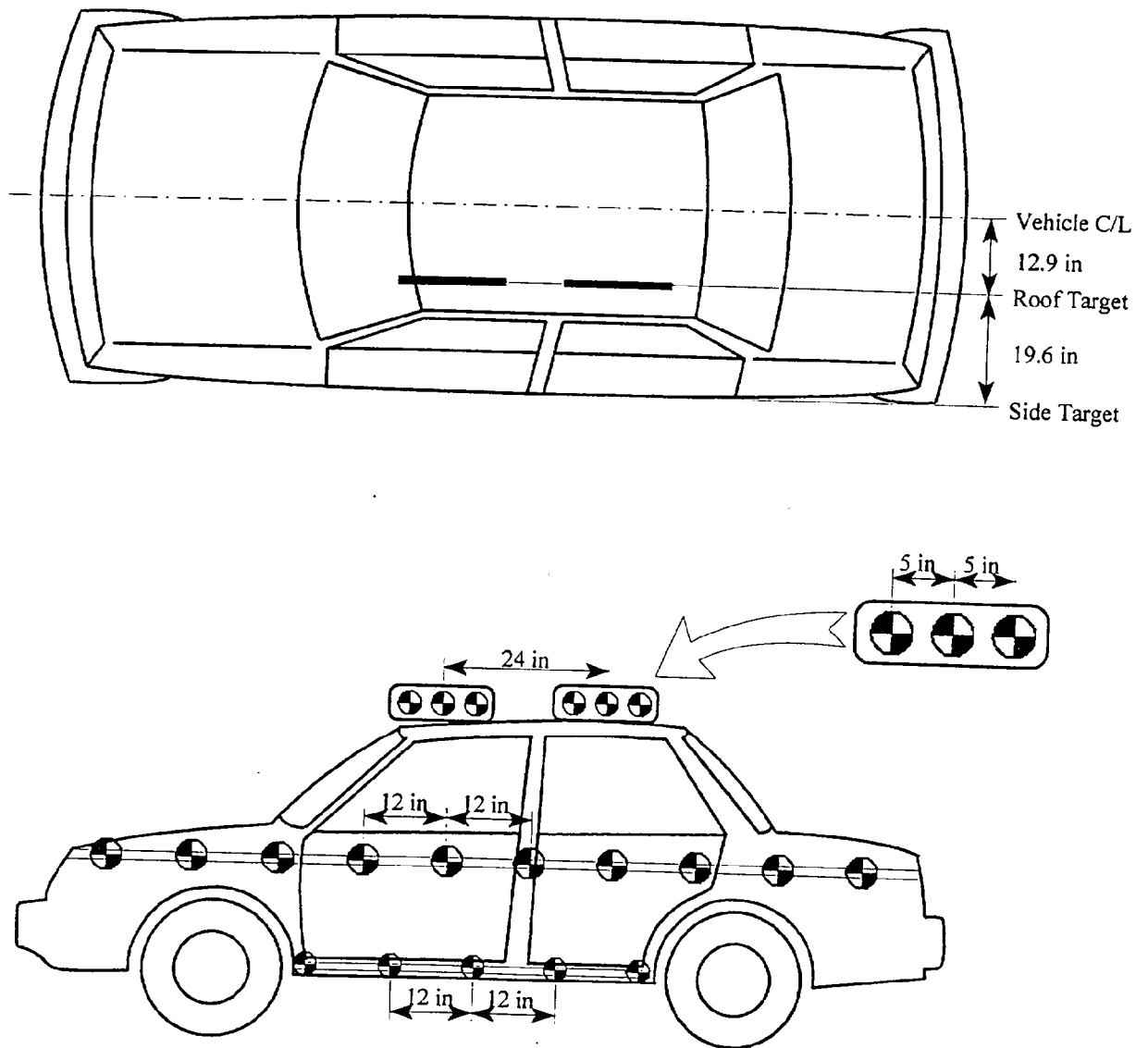


FIGURE 3 CAMERA POSITIONS

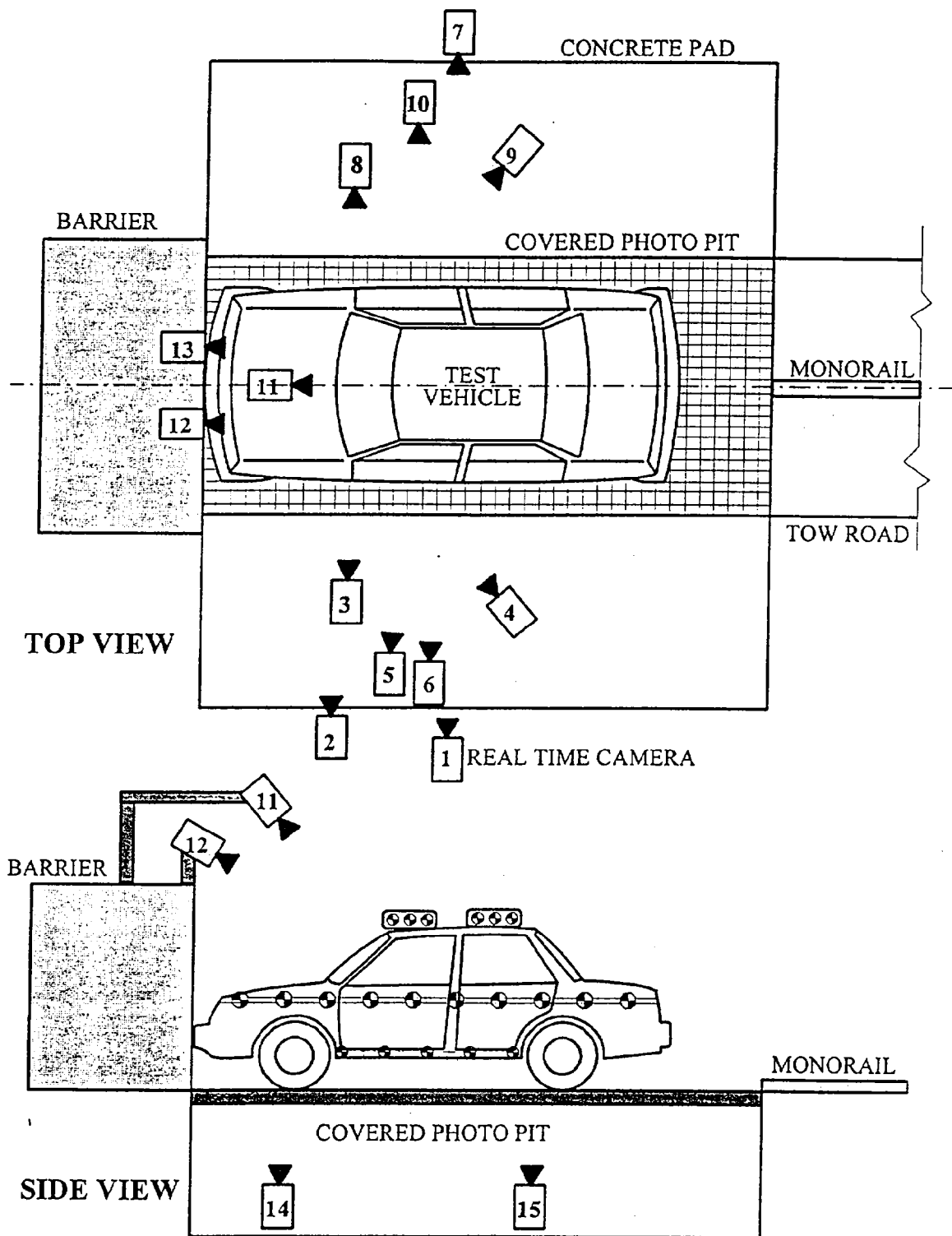


TABLE 19 CAMERA LOCATIONS

Veh. Year/Make/Model/Body Style: 1995/Acrua/Integra/3 Door

Vehicle NHTSA No.: CS5301 ; Test Date: 11/15/94

	VIEW	CAMERA POSITIONS (inches)*			ANGLE (deg)	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Left Side View				90°		10	24
2	Left Vehicle Crush	33.9	324.0	46.3	90°	308.3	25	893
3	Left Windshield Intrusion	54.3	243.3	39.0	90°	227.6	50	917
4	Left Driver Kinematics	169.7	196.9	72.0	50°		35	1015
5	Left Steering Column Motion	42.1	298.0	61.4	90°	282.3	25	926
6	Left Steering Column Motion	42.9	297.2	40.8	90°	281.5	25	1000
7	Right Overall View	89.8	286.2	39.4	90°	270.5	13	1105
8	Right Vehicle Crush	52.0	259.8	39.2	90°	244.1	50	1005
9	Right Passenger Kinematic	159.4	206.7	85.0	50°		35	1316
10	Right Windshield Intrusion	31.9	306.3	39.6	90°	290.6	25	930
11	Front View Windshield	13.8	39.4	147.6			13	1000
12	Front View Driver	-13.0	15.0	94.9			13	1000
13	Front View Passenger	-12.2	-16.1	95.7			13	917
14	Pit Camera Engine View	44.5	3.1	-125.4			13	1005
15	Pit Camera Fuel Tank View	84.6	3.5	-125.4			13	1250

- *
 +X = Film plane rearward of barrier
 +Y = Film plane to left of monorail centerline
 +Z = Film plane to above ground level

APPENDIX A
PHOTOGRAPHS

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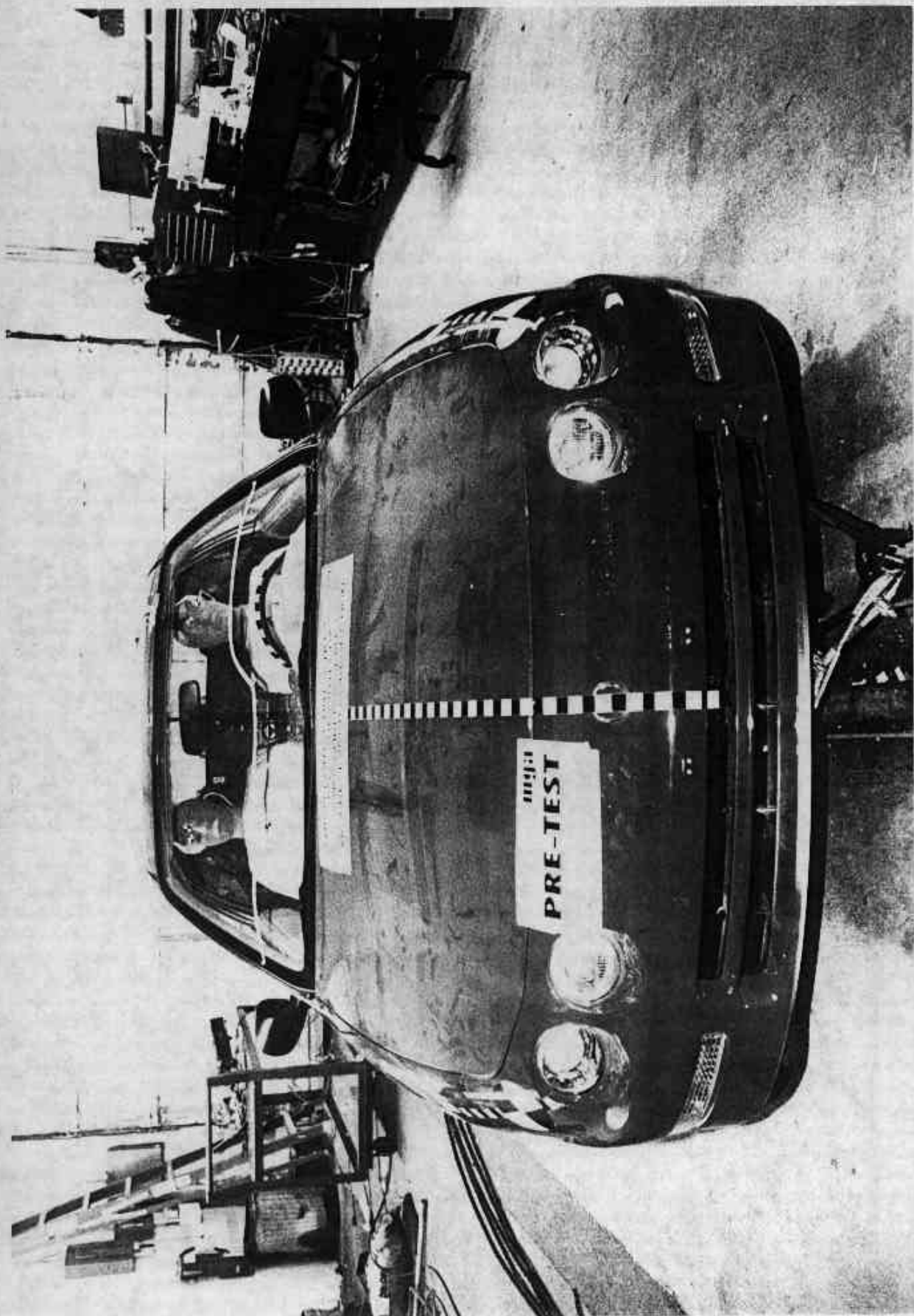


Photo No. A-1 - Pre-Test Front View

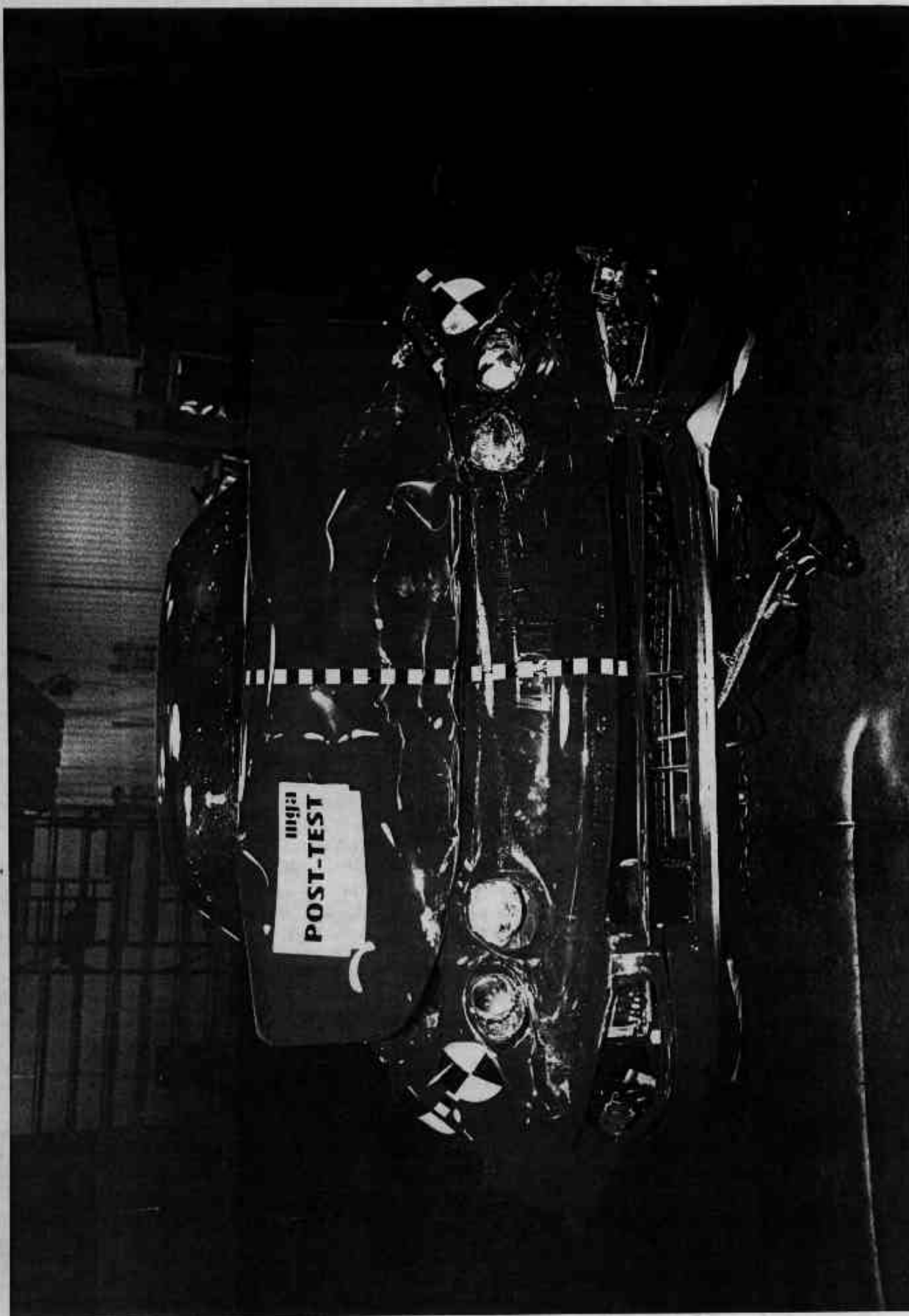


Photo No. A-2 - Post-Test Front View

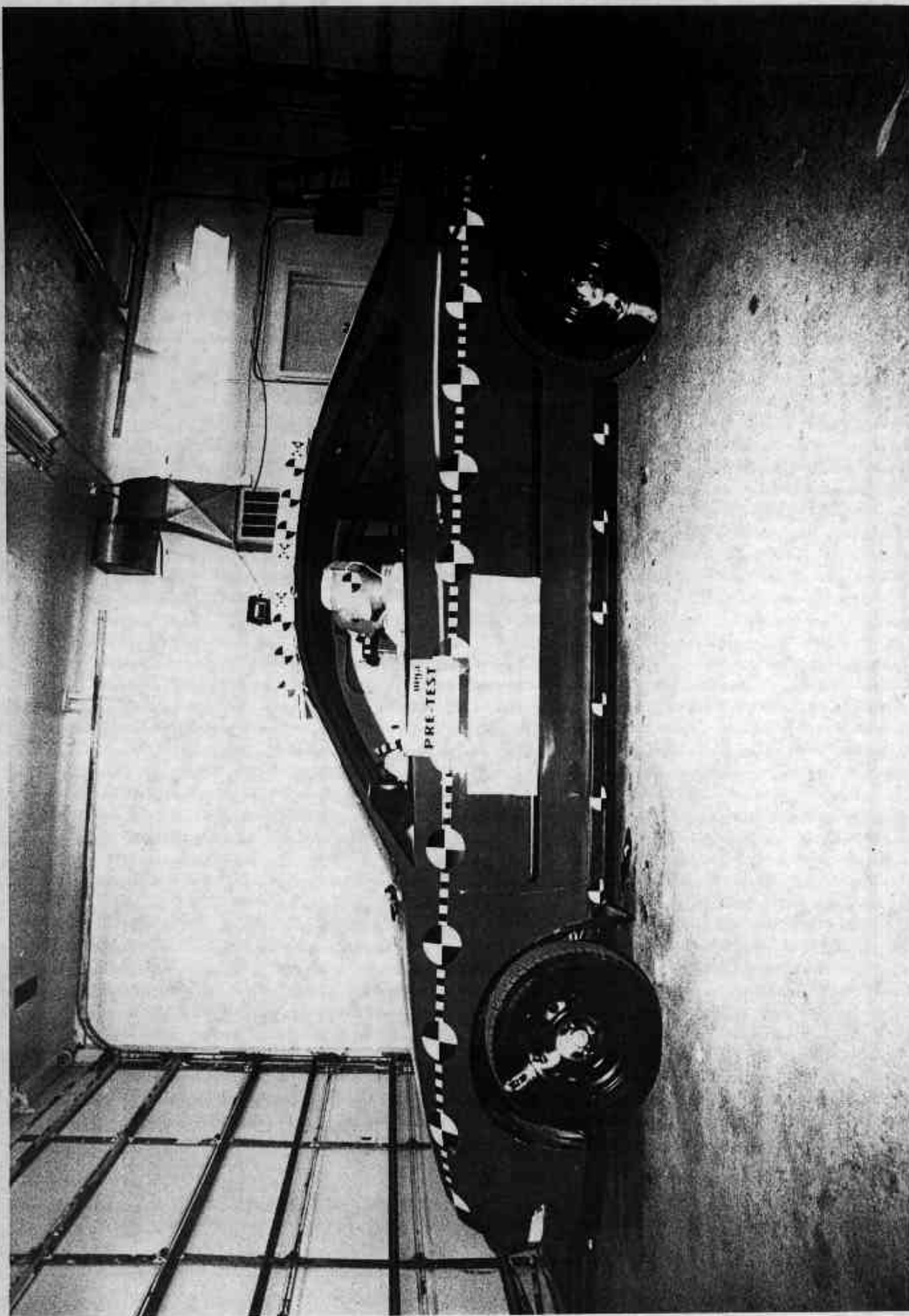
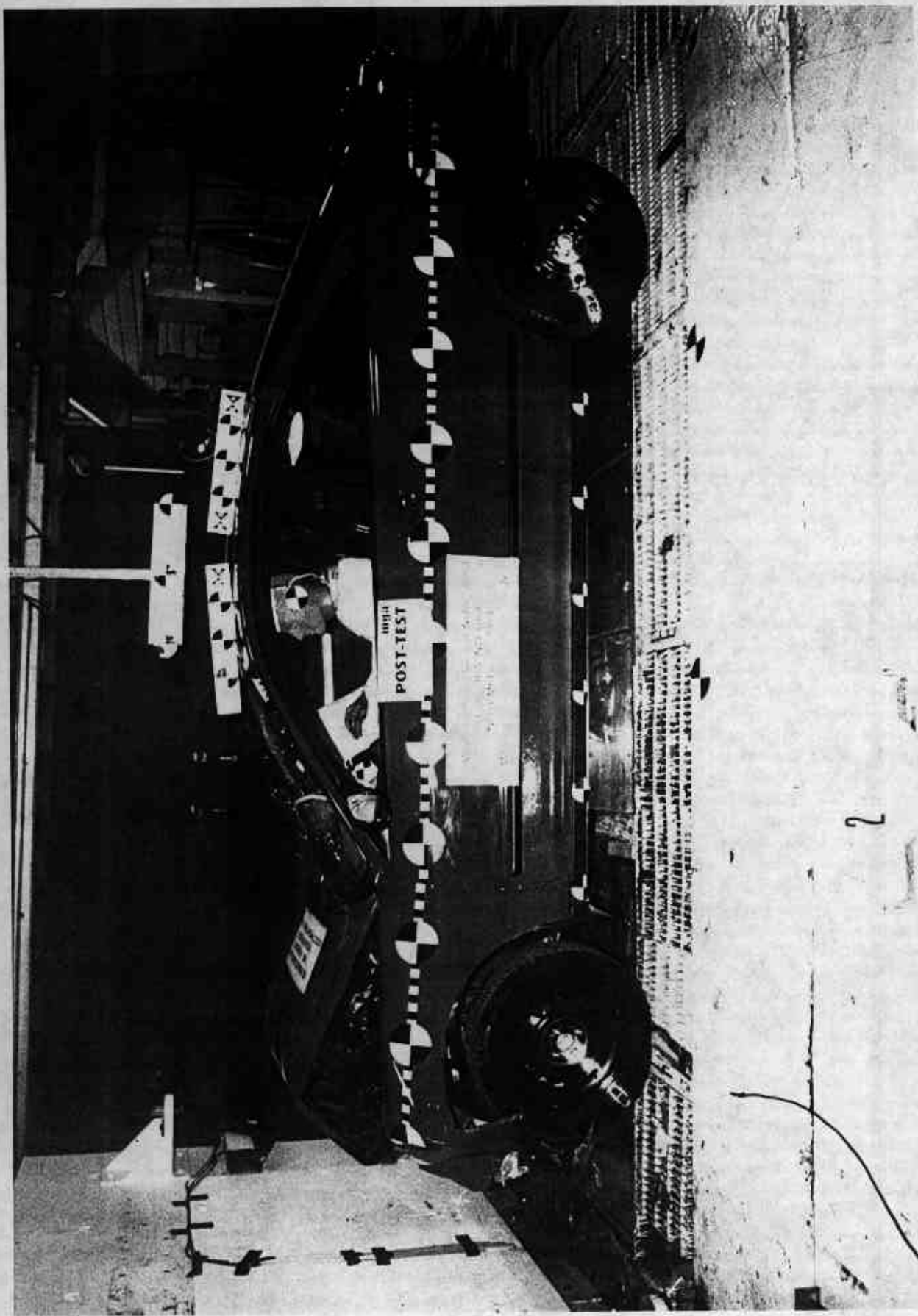


Photo No. A-3 - Pre-Test Left Side View



A-4

2
Photo No. A-4 - Post-Test Left Side View

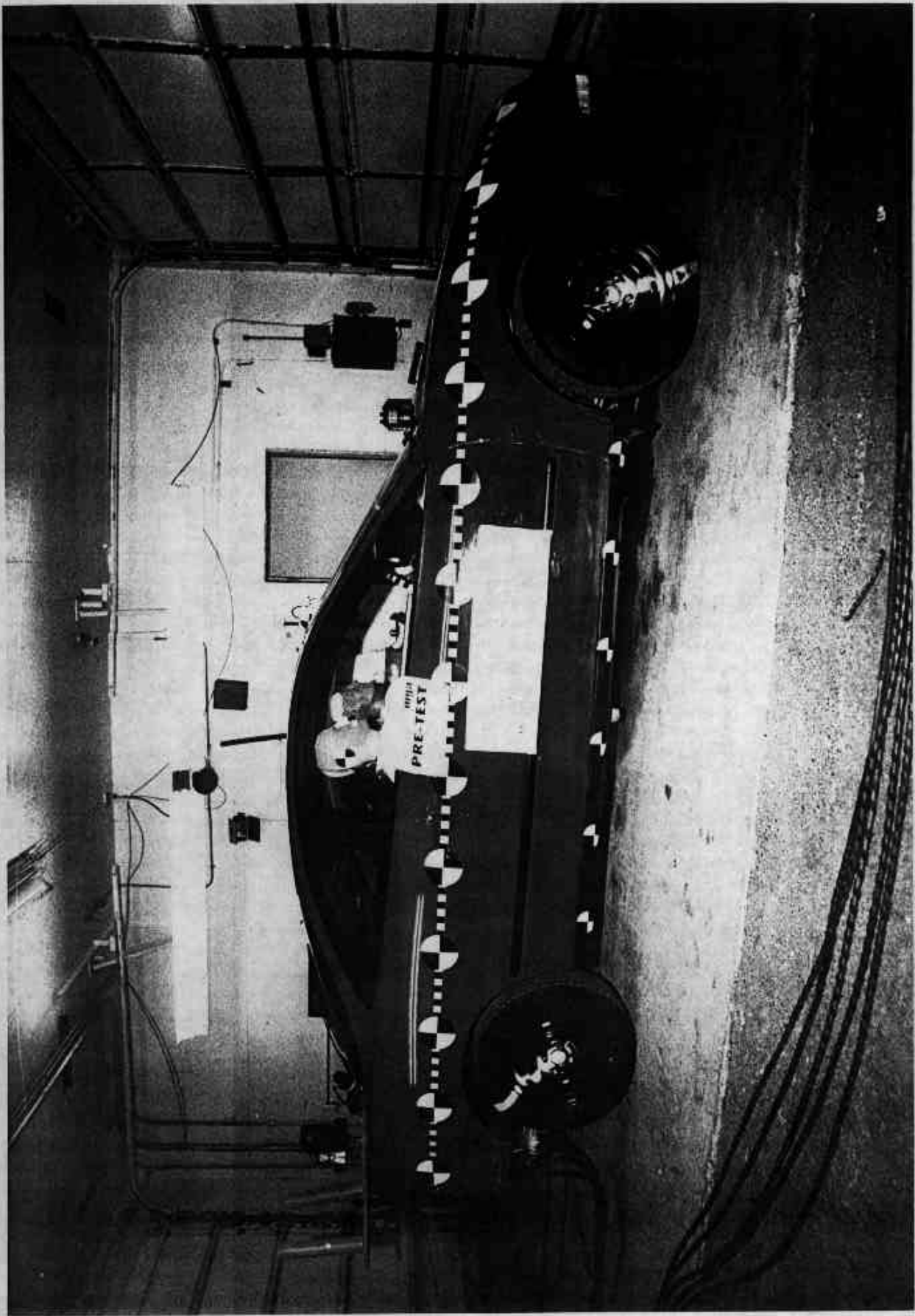


Photo No. A-5 - Pre-Test Right Side View

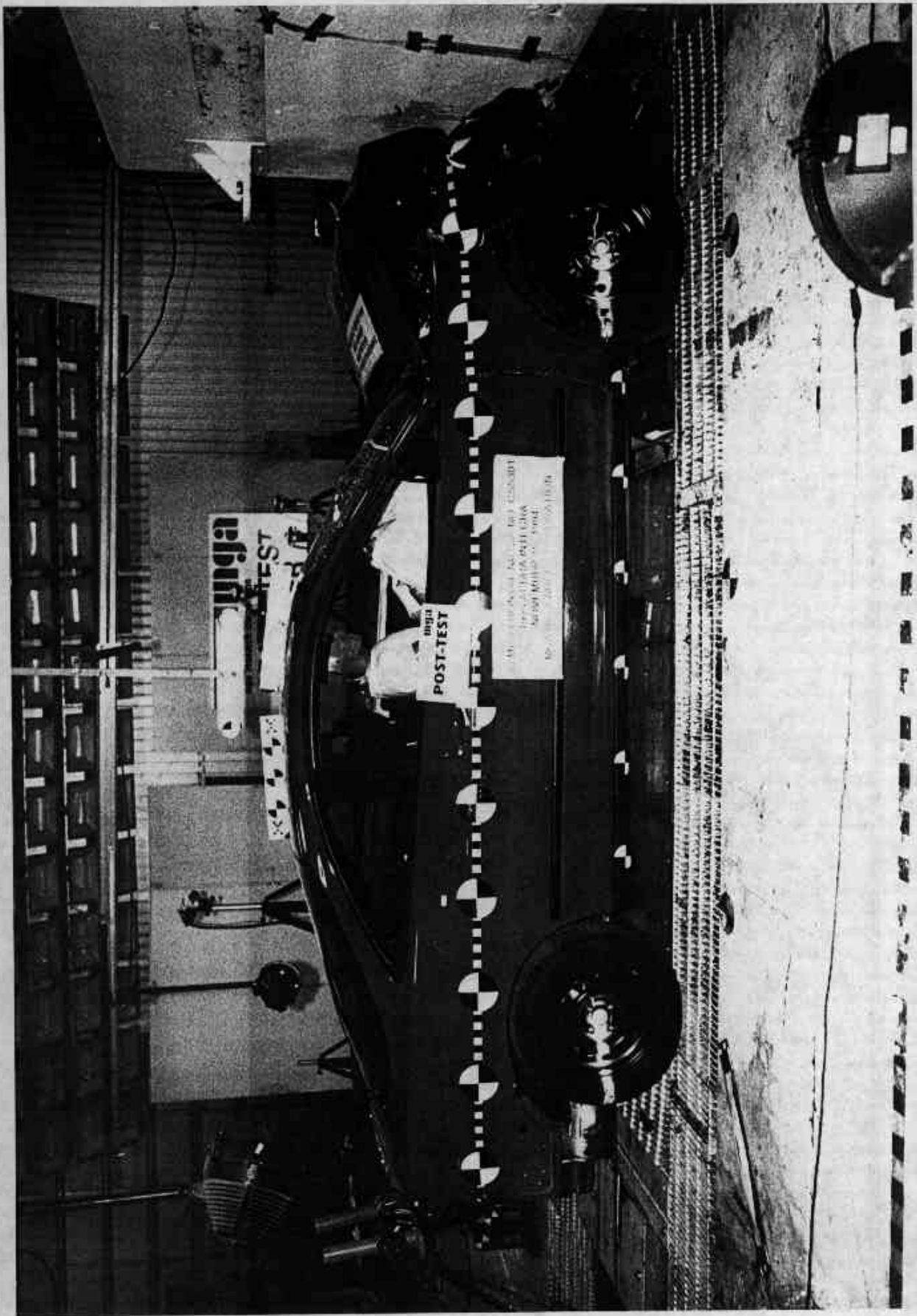


Photo No. A-6 - Post-Test Right Side View



Photo No. A-7 - Pre-Test Front Underbody View

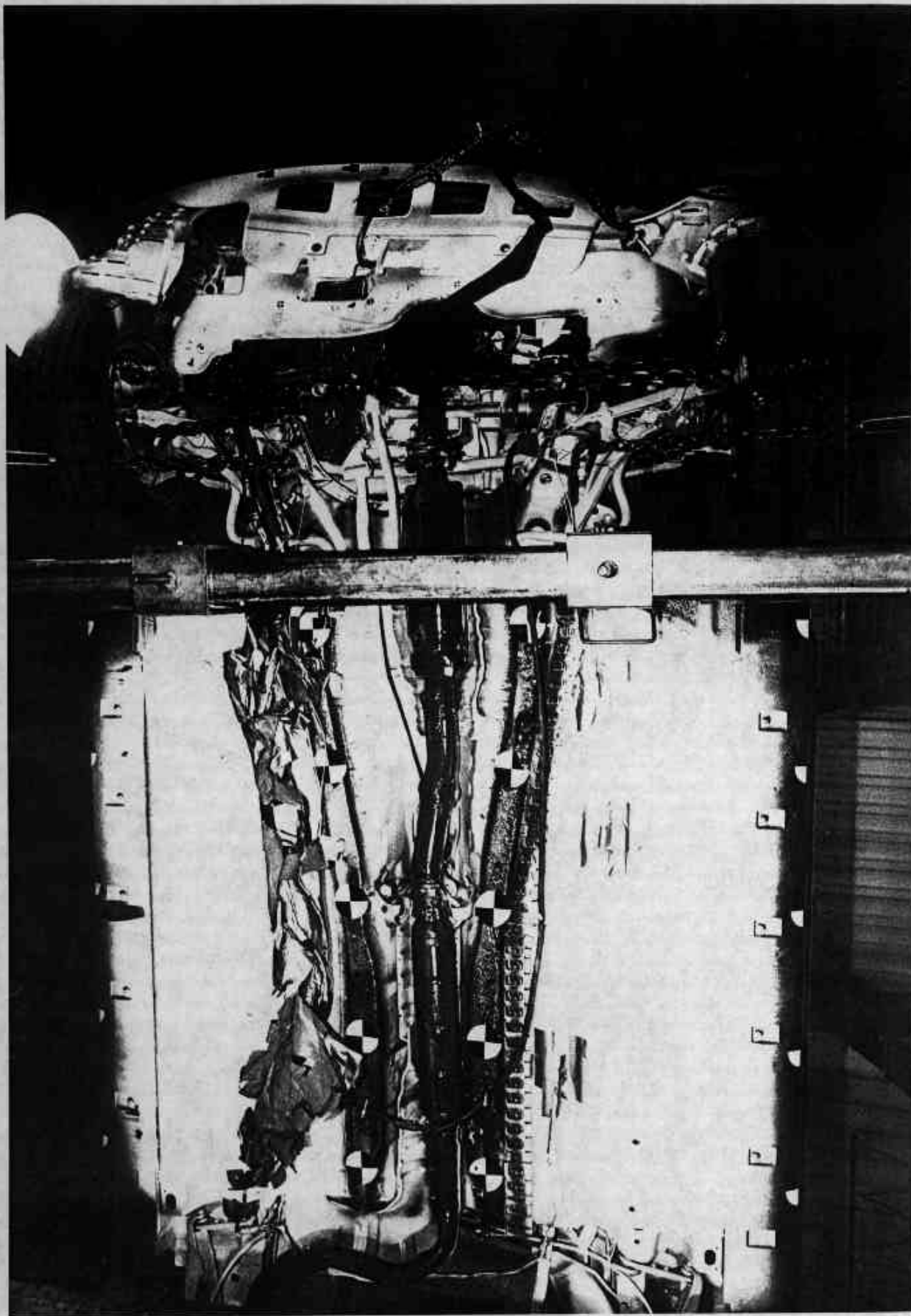


Photo No. A-8 - Post-Test Front Underbody View

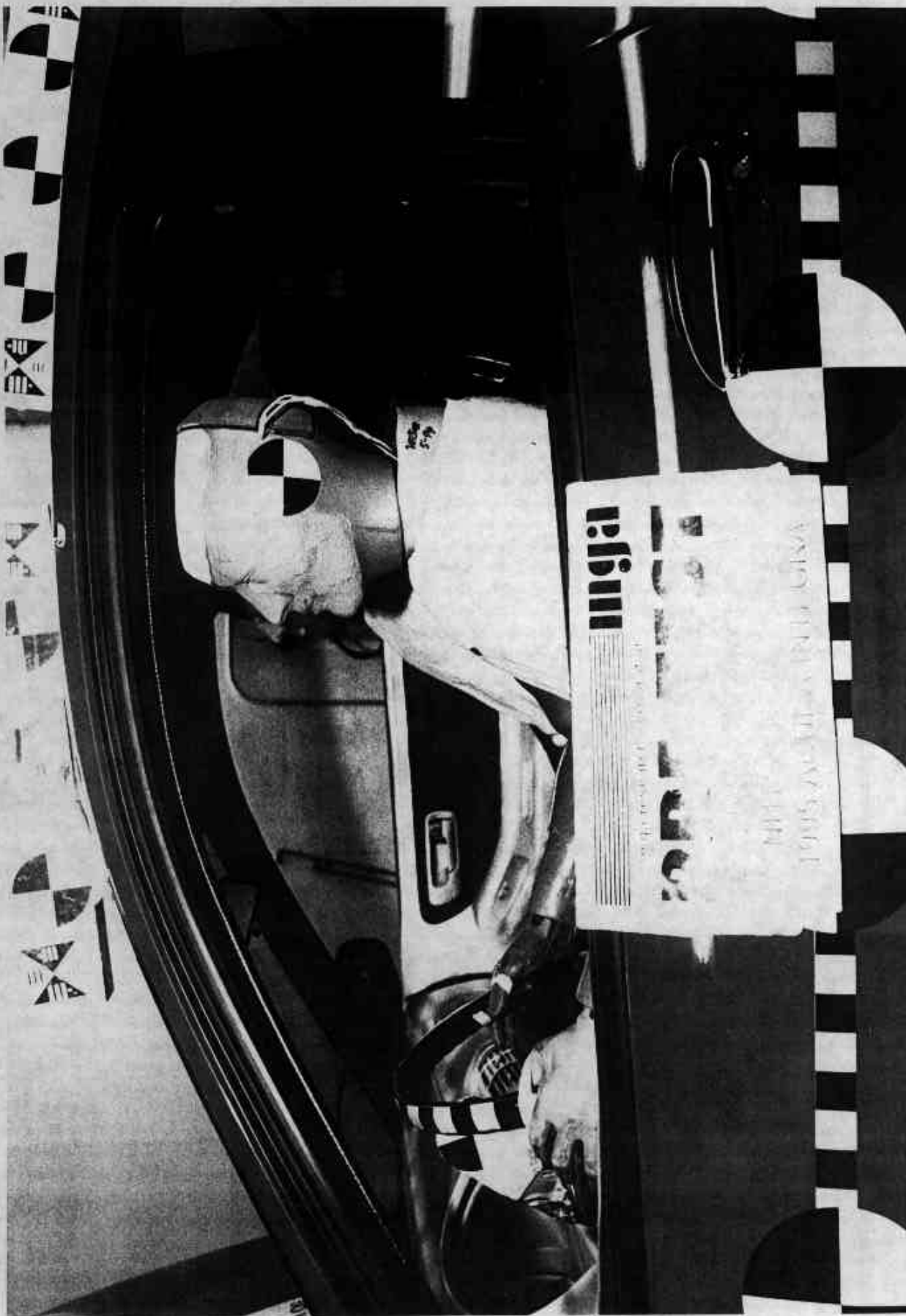


Photo No. A-9 - Pre-Test Driver Dummy Position View

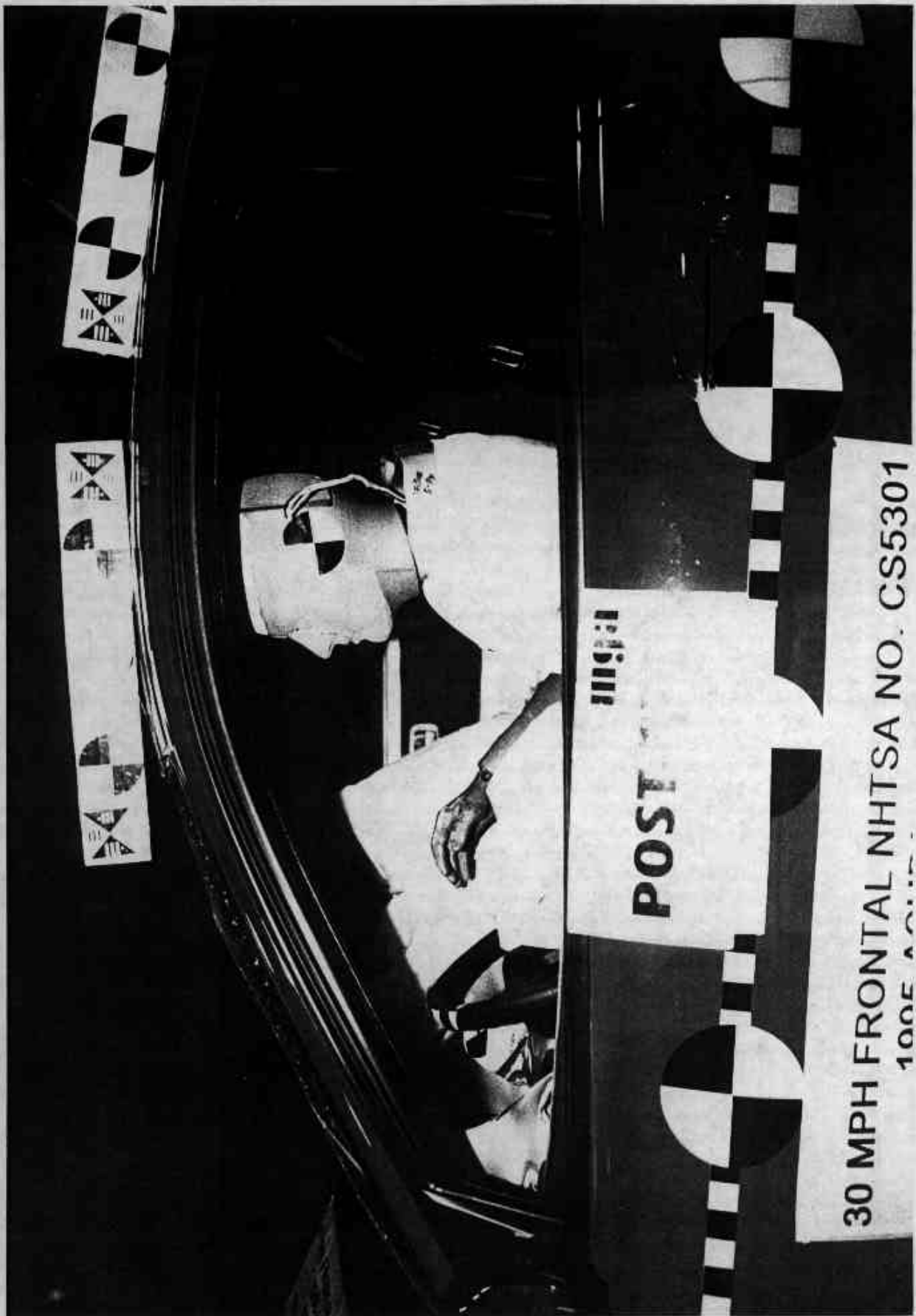


Photo No. A-10 - Post-Test Driver Dummy Position View

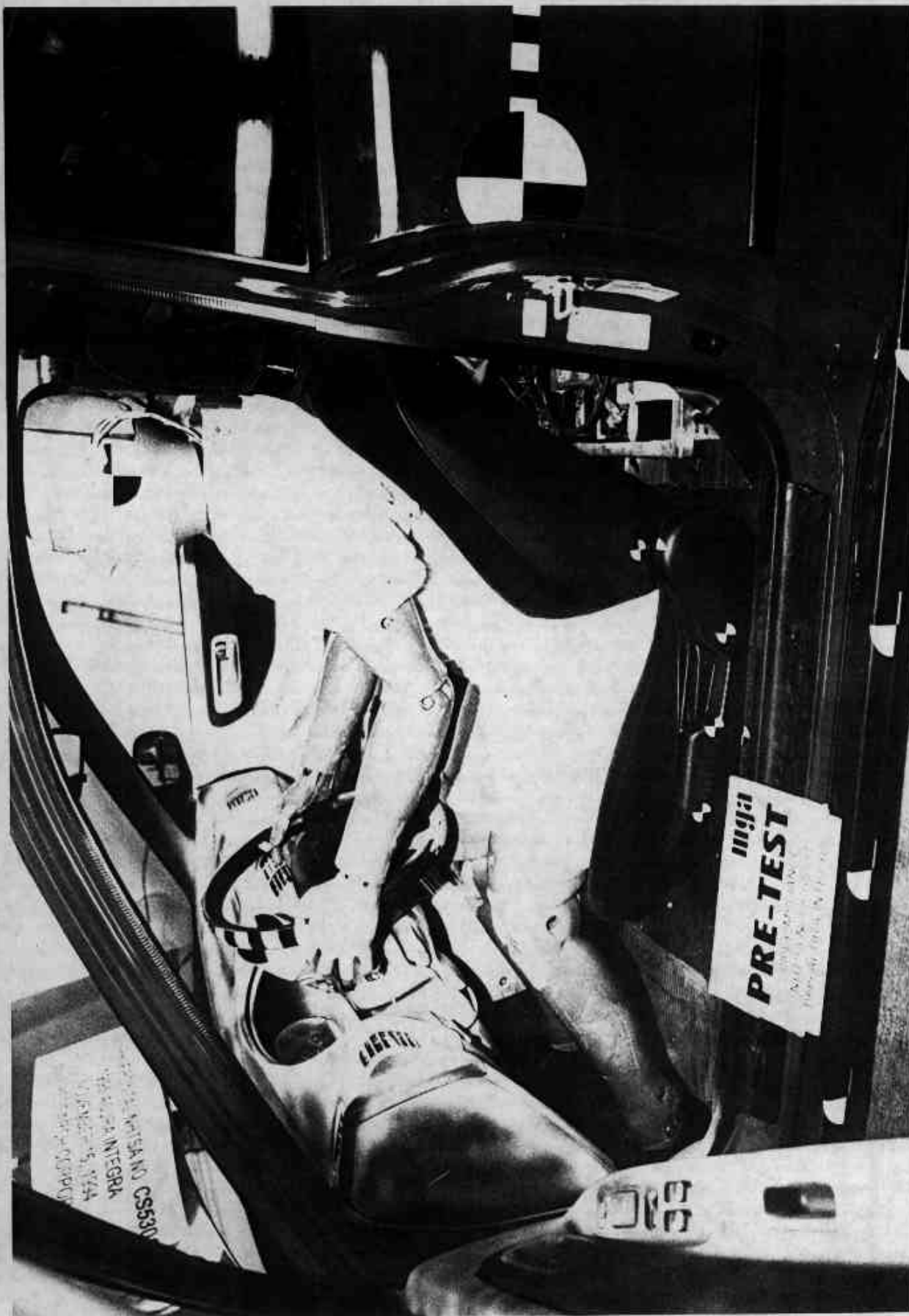
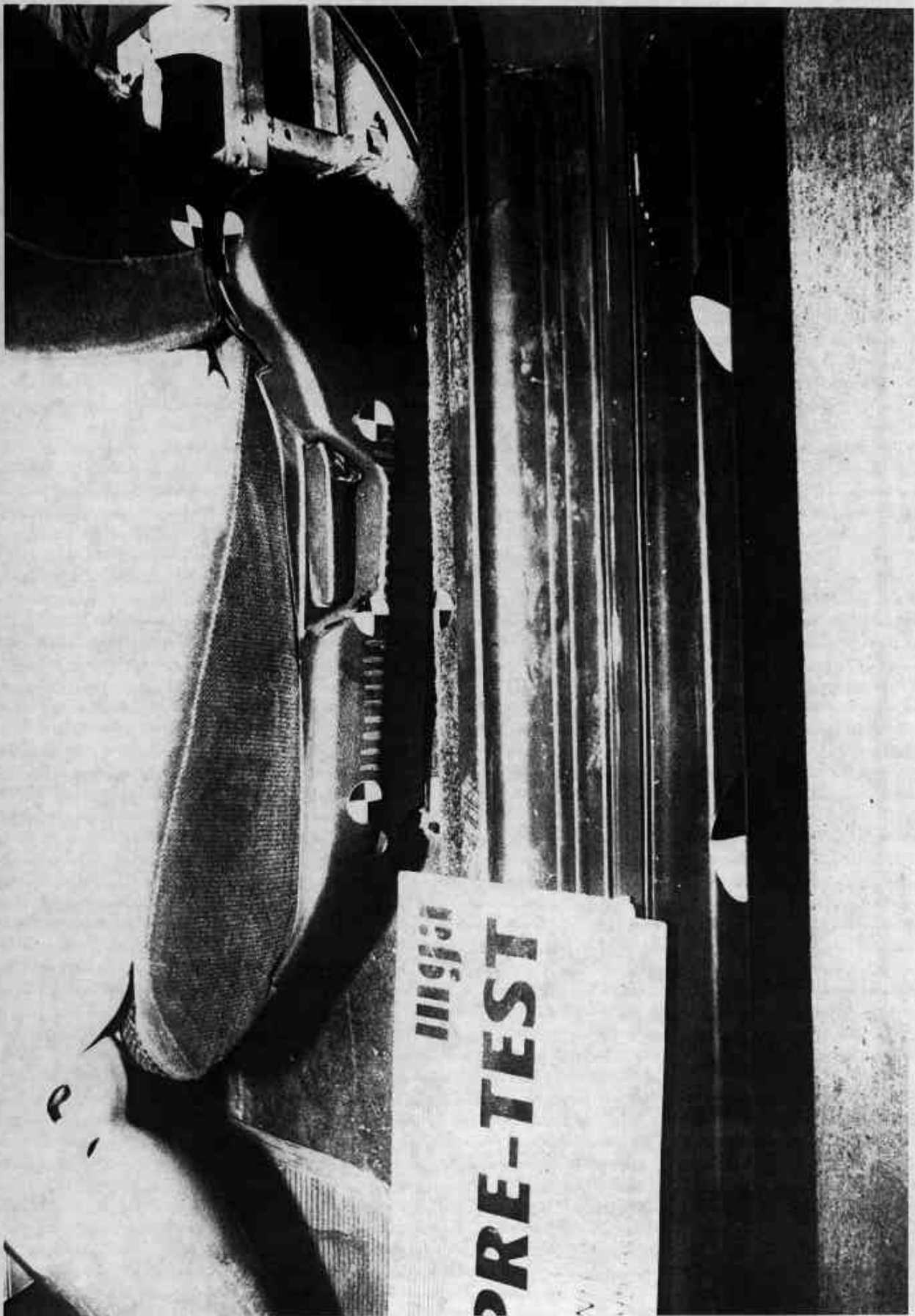


Photo No. A-11 - Pre-Test Driver Dummy Position View (Door Open)

A-11



Photo No. A-12 - Post-Test Driver Dummy Position View (Door Open)

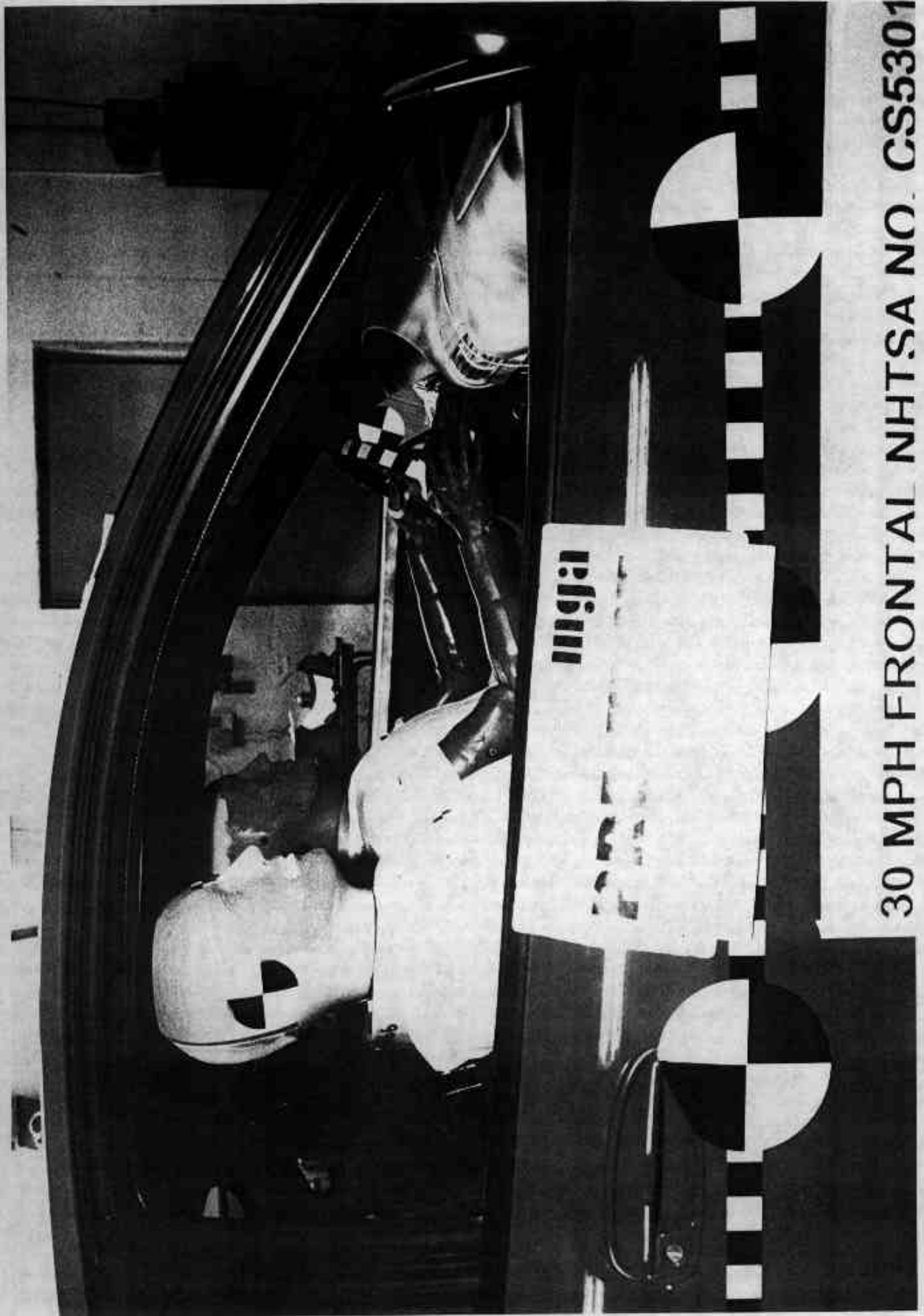


A-13

Photo No. A-13 - Pre-Test Driver Seat Position View



Photo No. A-14 - Post-Test Driver Seat Position View



30 MPH FRONTAL NHTSA NO. CS5301

Photo No. A-15 - Pre-Test Passenger Dummy Position View



Photo No. A-16 - Post-Test Passenger Dummy Position View



Photo No. A-17 - Pre-Test Passenger Dummy Position View (Door Open)



Photo No. A-18 - Post-Test Passenger Dummy Position View (Door Open)



Photo No. A-19 - Pre-Test Passenger Seat Position View



A-20

Photo No. A-20 - Post-Test Passenger Seat Position View



Photo No. A-21 - Pre-Test Driver Dummy Knee Bolster View

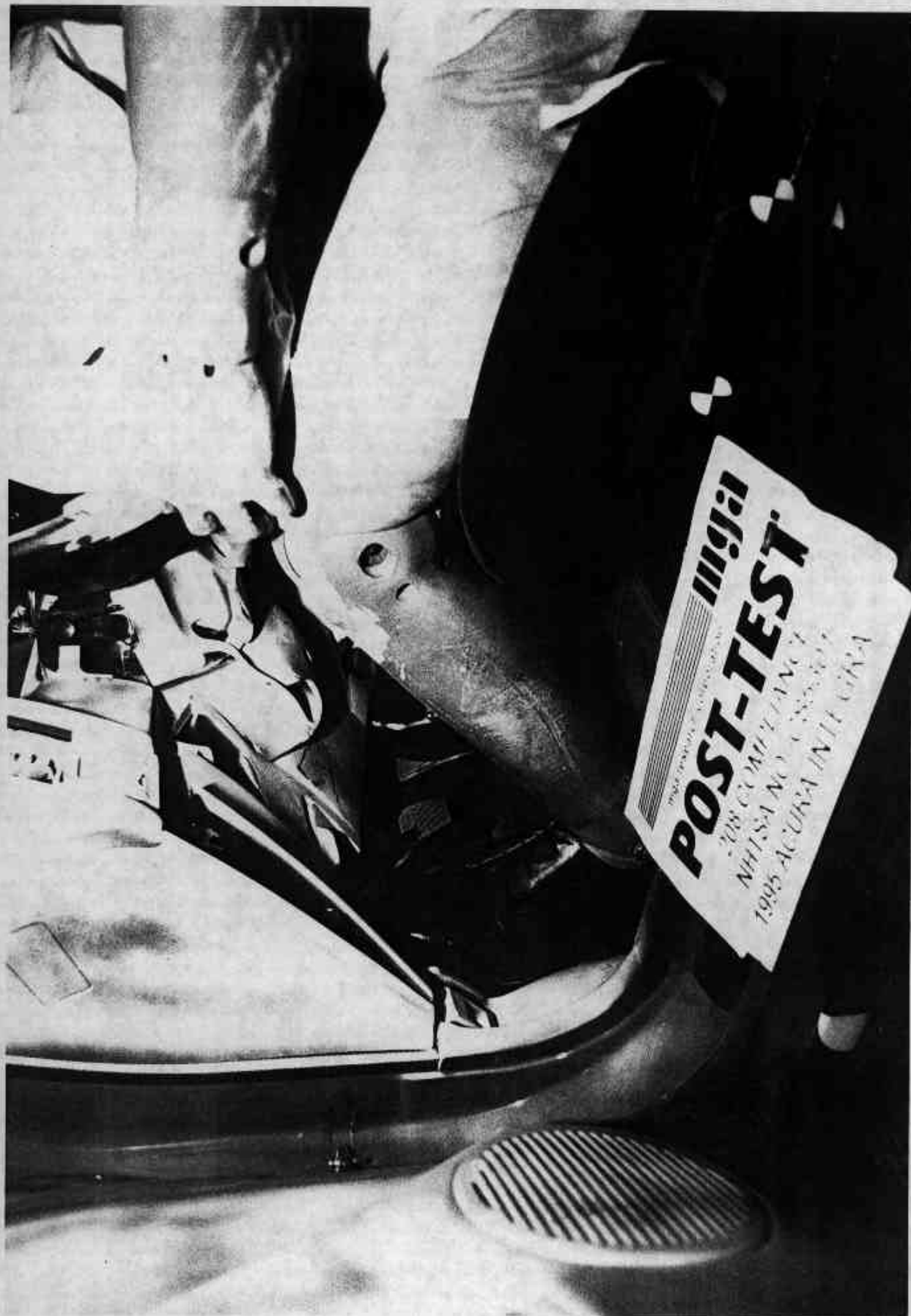


Photo No. A-22 - Post-Test Driver Dummy Knee Bolster View



Photo No. A-23 - Pre-Test Passenger Dummy Knee Bolster View



Photo No. A-24 - Post-Test Passenger Dummy Knee Bolster View



Photo No. A-25 - Post-Test Driver Head Contact View (Airbag)



Photo No. A-26 - Post-Test Driver Head Contact View (Windshield)

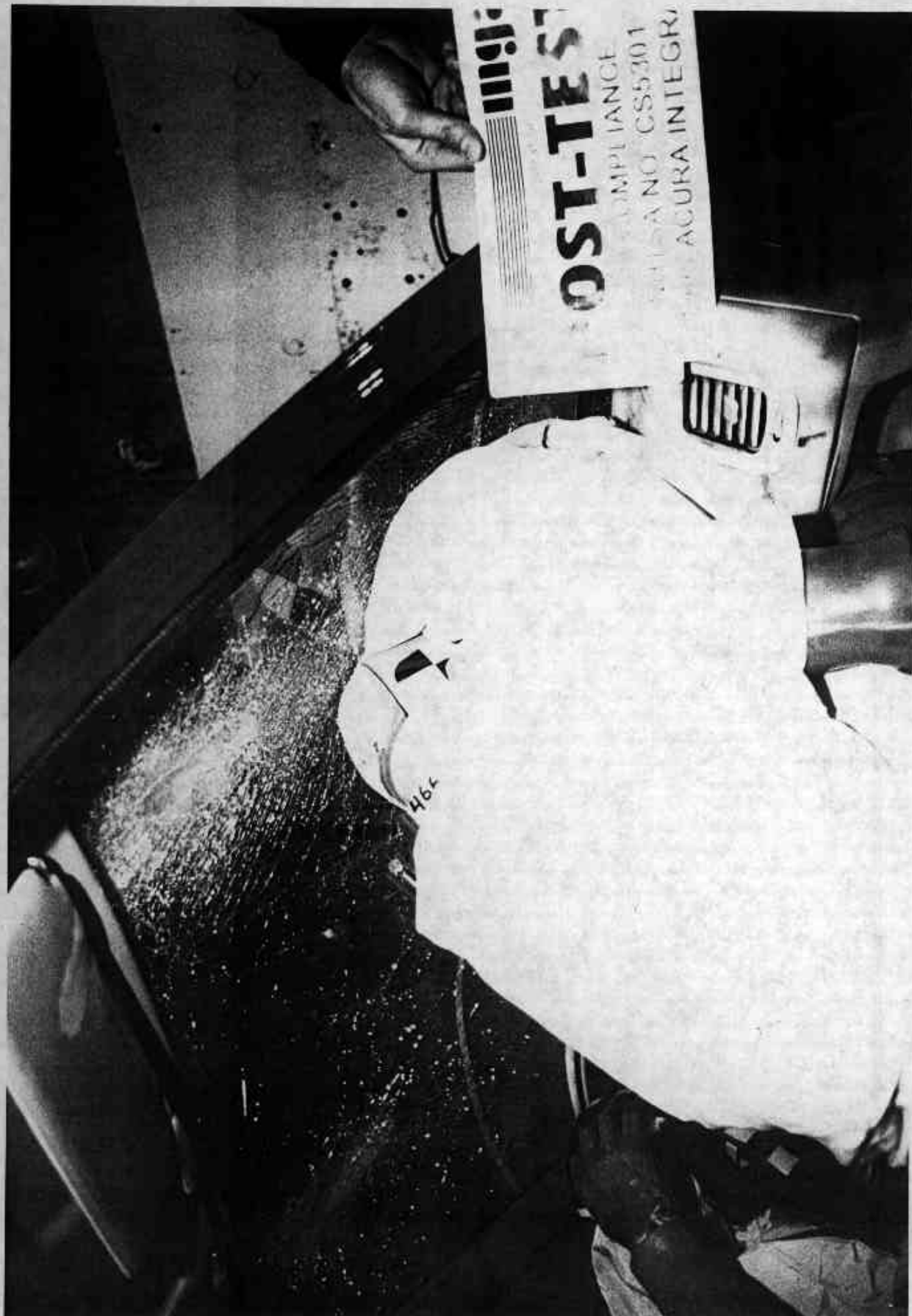


Photo No. A-27 - Post-Test Passenger Head Contact View

MED. IN JAPAN BY HONDA MOTOR CO., LTD. 6/94
GWR 3680LBS GAWR F 1985LBS R 1740LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY, BUMPER,
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE

V.I.N. JH4DC4346SS004705



PASSENGER CAR

Photo No. A-28 - Vehicle Certification Label

INT. COLOR
TYPE

ACK

TIRE INFORMATION					TR	
SEATING CAPACITY	TOTAL	4	FRONT	2	REAR	2
VEHICLE CAPACITY WEIGHT	700lbs					
RECOMMENDED TIRE SIZE	COLD TIRE INFLATION PRESSURE					
	FRONT		200kPa, 29psi			
P195/60R14 85H	REAR		200kPa, 29psi			
COMPACT SPARE TIRE	UP TO VEHICLE CAPACITY WEIGHT					
T115/70D14			415kPa, 60psi			
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION						INTEGRA RS

Photo No. A-29 - Vehicle Tire Placard

APPENDIX B
DATA PLOTS

TABLE OF DATA PLOTS

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Figure B-1 - Driver Head X Acceleration vs. Time	1000	B-1
Figure B-2 - Driver Head Y Acceleration vs. Time	1000	B-2
Figure B-3 - Driver Head Z Acceleration vs. Time	1000	B-3
Figure B-4 - Driver Head Resultant Acceleration vs. Time	1000	B-4
Figure B-5 - Driver Chest X Acceleration vs. Time	180	B-5
Figure B-6 - Driver Chest Y Acceleration vs. Time	180	B-6
Figure B-7 - Driver Chest Z Acceleration vs. Time	180	B-7
Figure B-8 - Driver Chest Resultant Acceleration vs. Time	180	B-8
Figure B-9 - Driver Left Femur Force vs. Time	600	B-9
Figure B-10 - Driver Right Femur Force vs. Time	600	B-10
Figure B-11 - Passenger Head X Acceleration vs. Time	1000	B-11
Figure B-12 - Passenger Head Y Acceleration vs. Time	1000	B-12
Figure B-13 - Passenger Head Z Acceleration vs. Time	1000	B-13
Figure B-14 - Passenger Head Resultant Acceleration vs. Time	1000	B-14
Figure B-15 - Passenger Chest X Acceleration vs. Time	180	B-15
Figure B-16 - Passenger Chest Y Acceleration vs. Time	180	B-16
Figure B-17 - Passenger Chest Z Acceleration vs. Time	180	B-17
Figure B-18 - Passenger Chest Resultant Acceleration vs. Time	180	B-18
Figure B-19 - Passenger Left Femur Force vs. Time	600	B-19
Figure B-20 - Passenger Right Femur Force vs. Time	600	B-20
Figure B-21 - Top of Engine Block X Acceleration vs. Time	60	B-21
Figure B-22 - Bottom of Engine X Acceleration vs. Time	60	B-22
Figure B-23 - Instrument Panel X Acceleration vs. Time	60	B-23
Figure B-24 - Left Rear Seat Crossmember X Accel. vs. Time	60	B-24
Figure B-25 - Right Rear Seat Crossmember X Accel. vs. Time	60	B-25
Figure B-26 - Left Brake Caliper X Acceleration vs. Time	60	B-26
Figure B-27 - Right Brake Caliper X Acceleration vs. Time	60	B-27
Figure B-28 - Trunk Floor Z Acceleration vs. Time	60	B-28

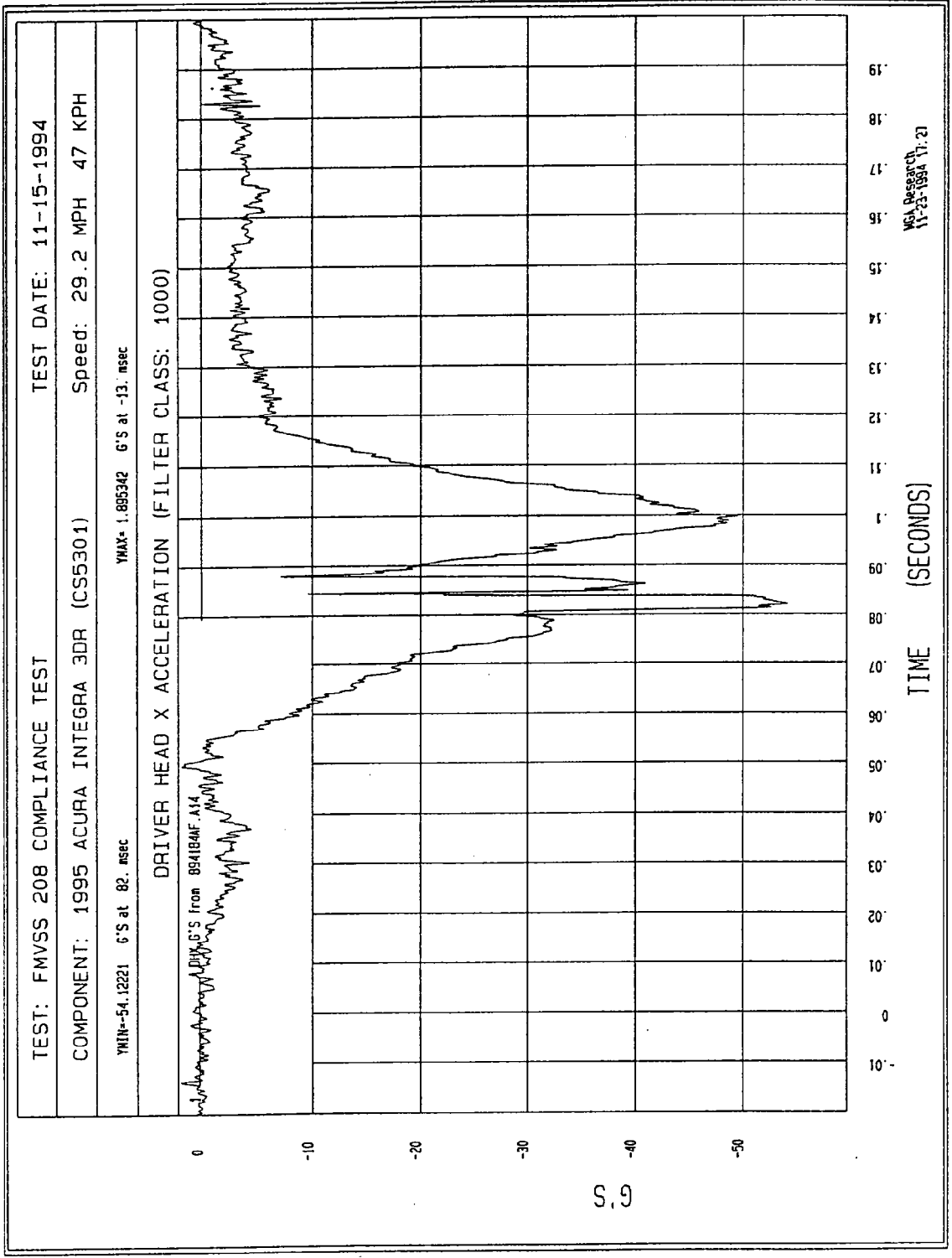


Figure B-1 - Driver Head X Acceleration vs. Time

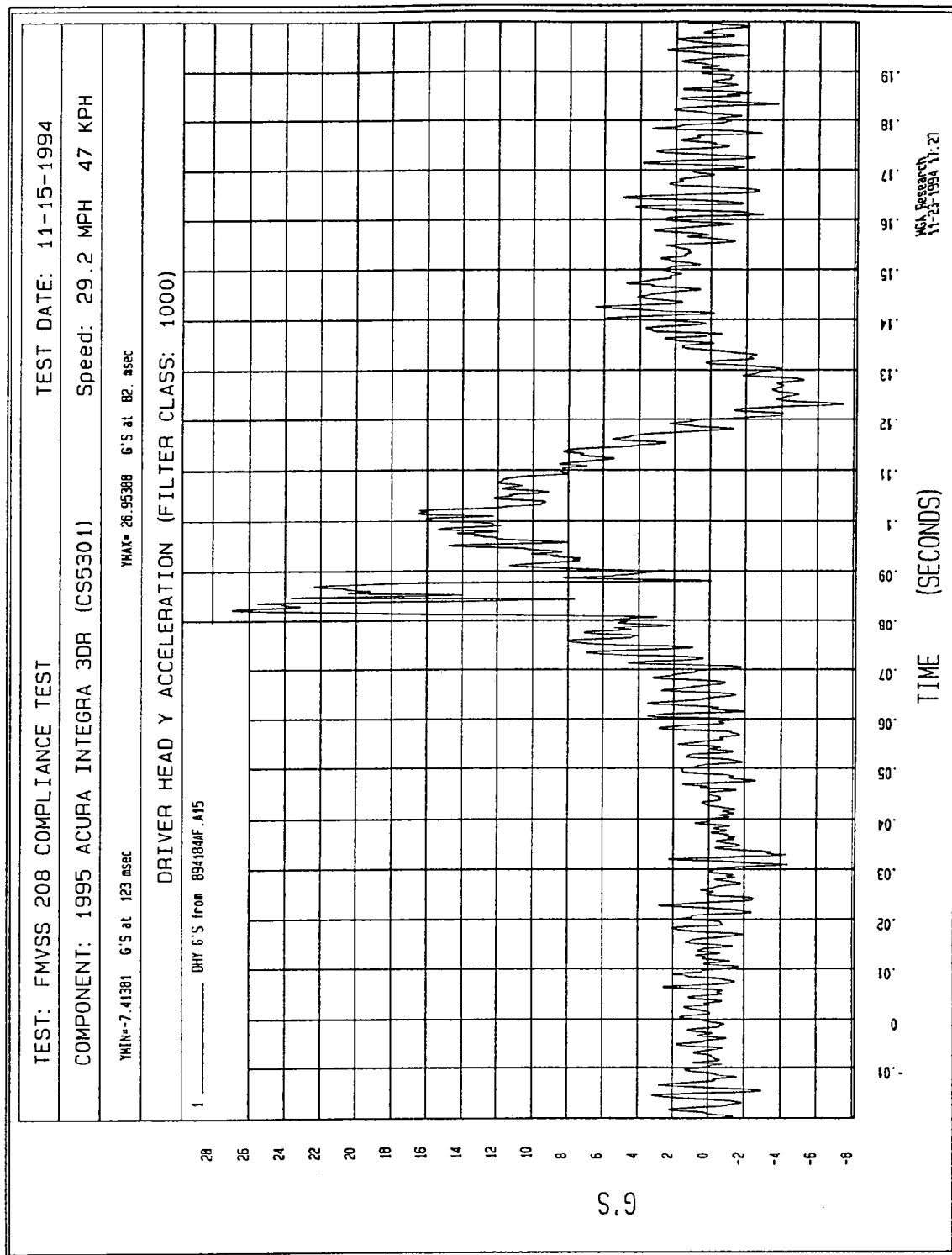


Figure B-2 - Driver Head Y Acceleration vs. Time

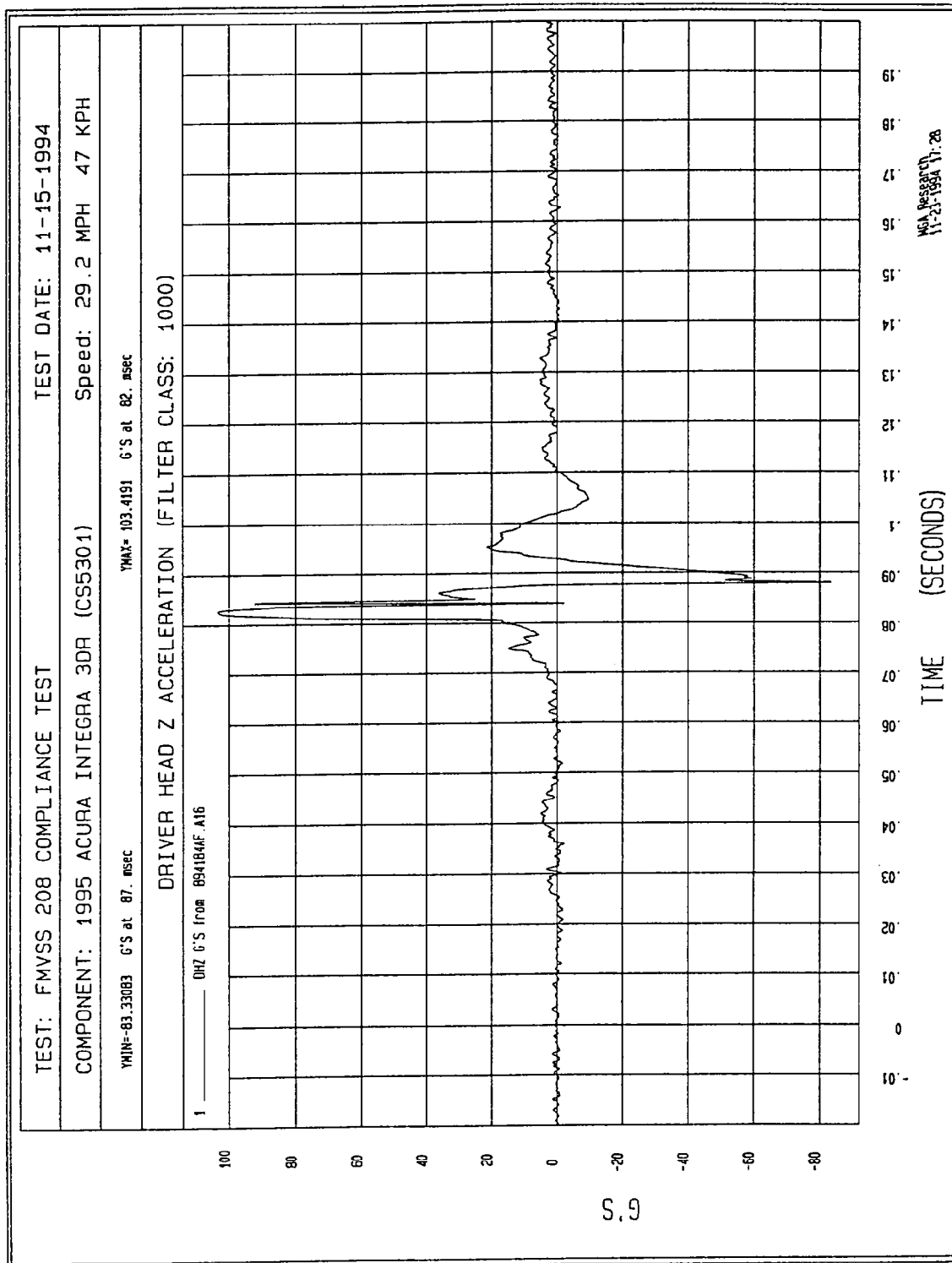


Figure B-3 - Driver Head Z Acceleration vs. Time

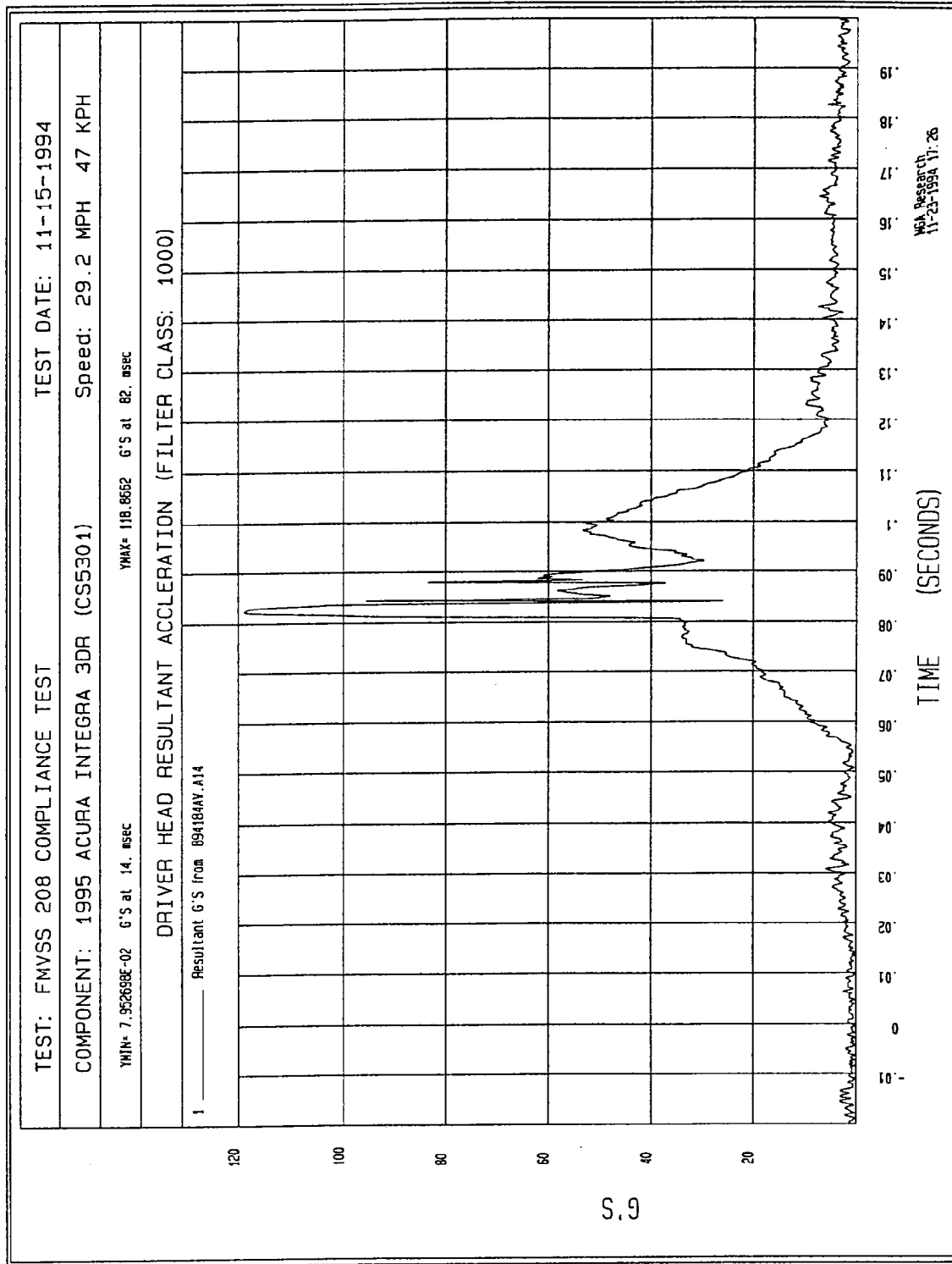


Figure B-4 - Driver Head Resultant Acceleration vs. Time

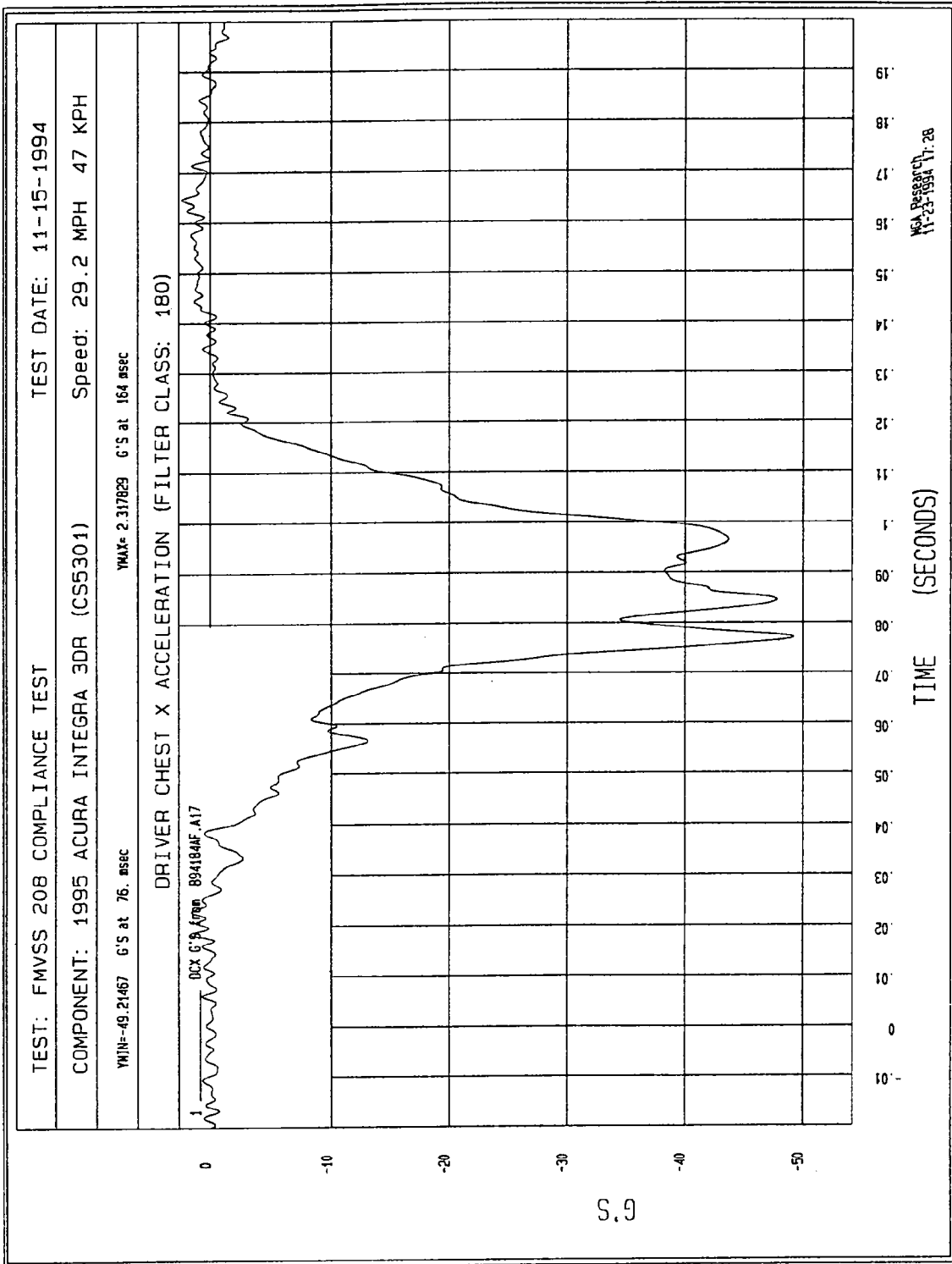


Figure B-5 - Driver Chest X Acceleration vs. Time

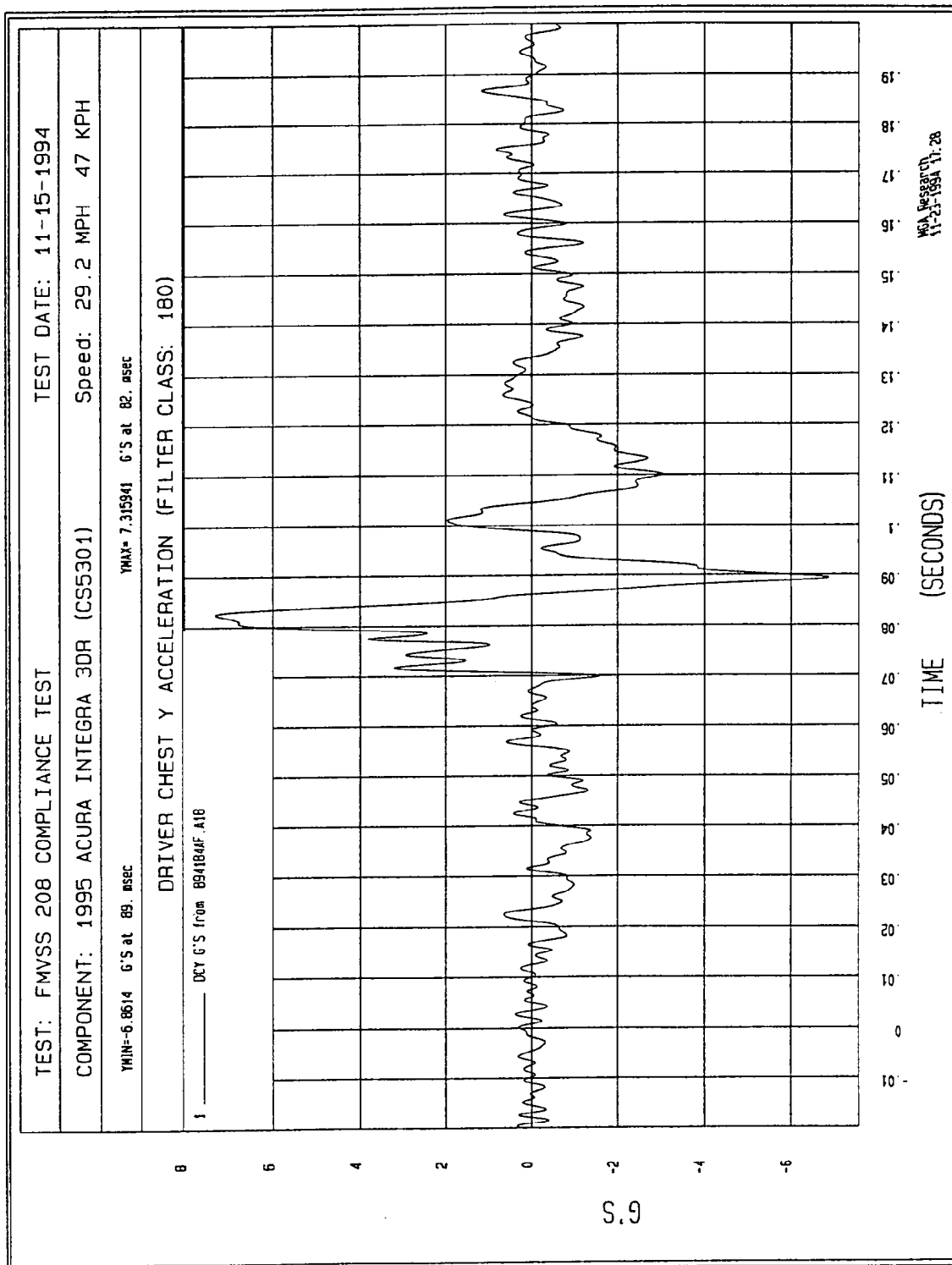


Figure B-6 - Driver Chest Y Acceleration vs. Time

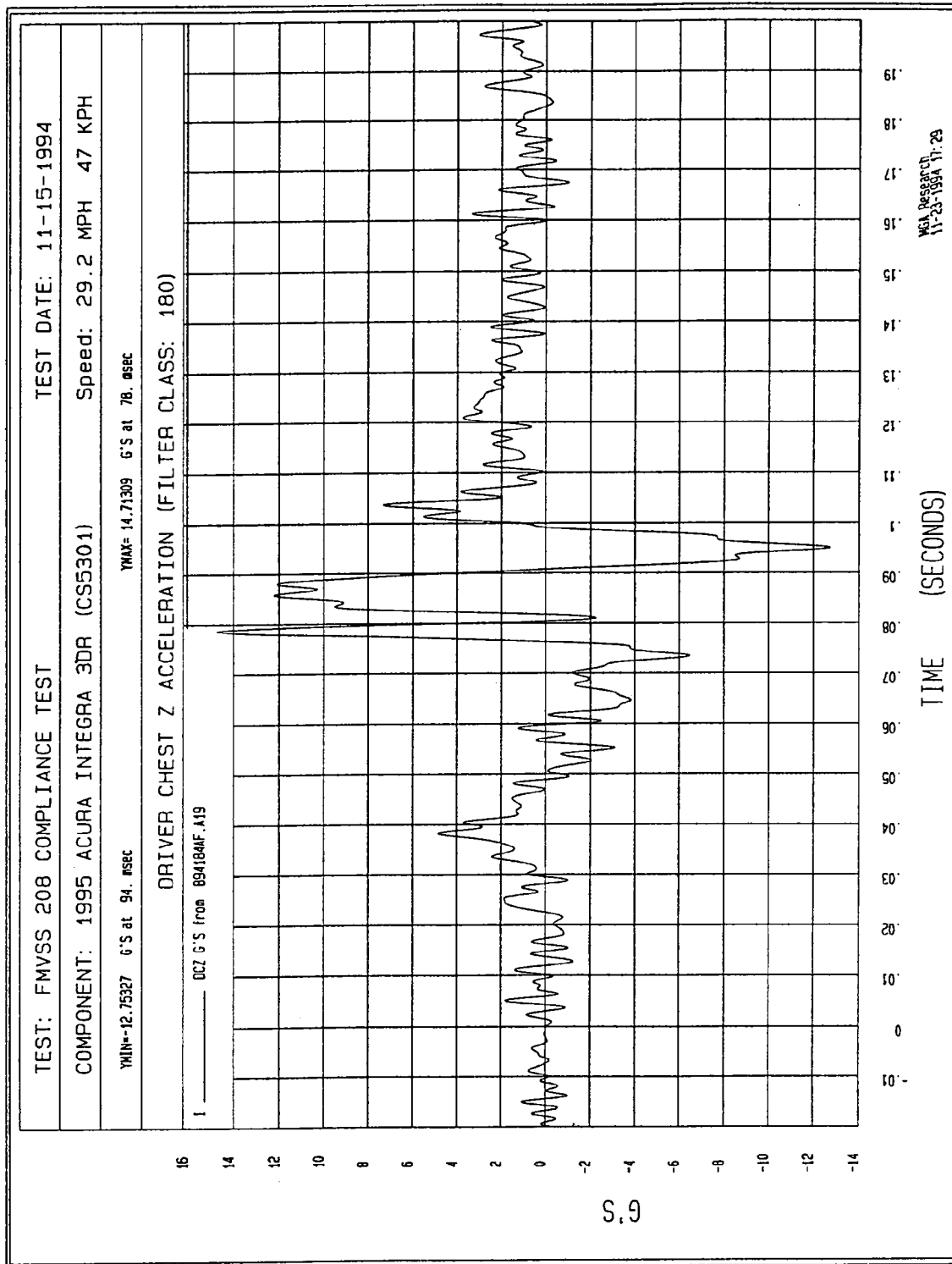


Figure B-7 - Driver Chest Z Acceleration vs. Time

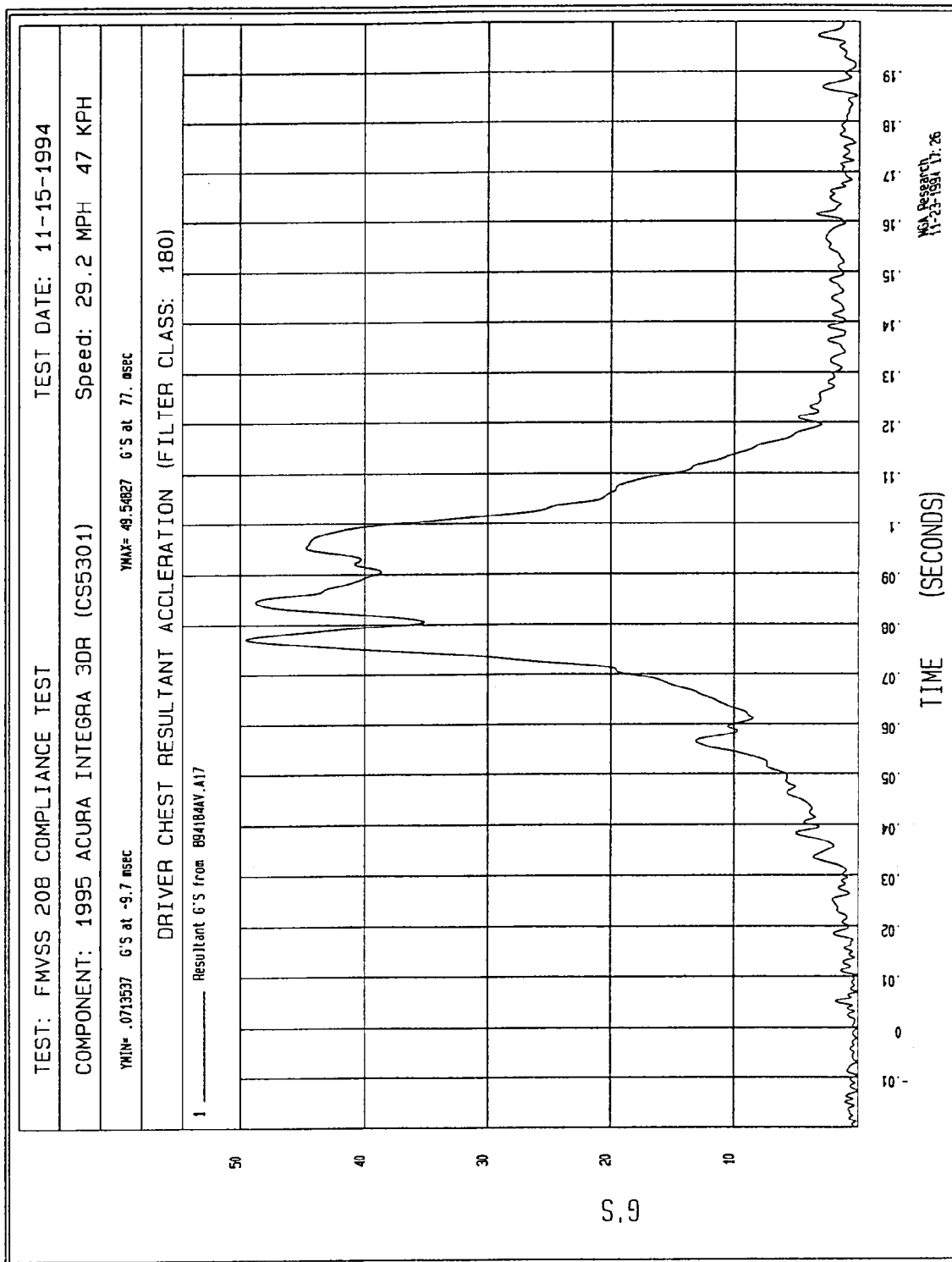


Figure B-8 - Driver Chest Resultant Acceleration vs. Time

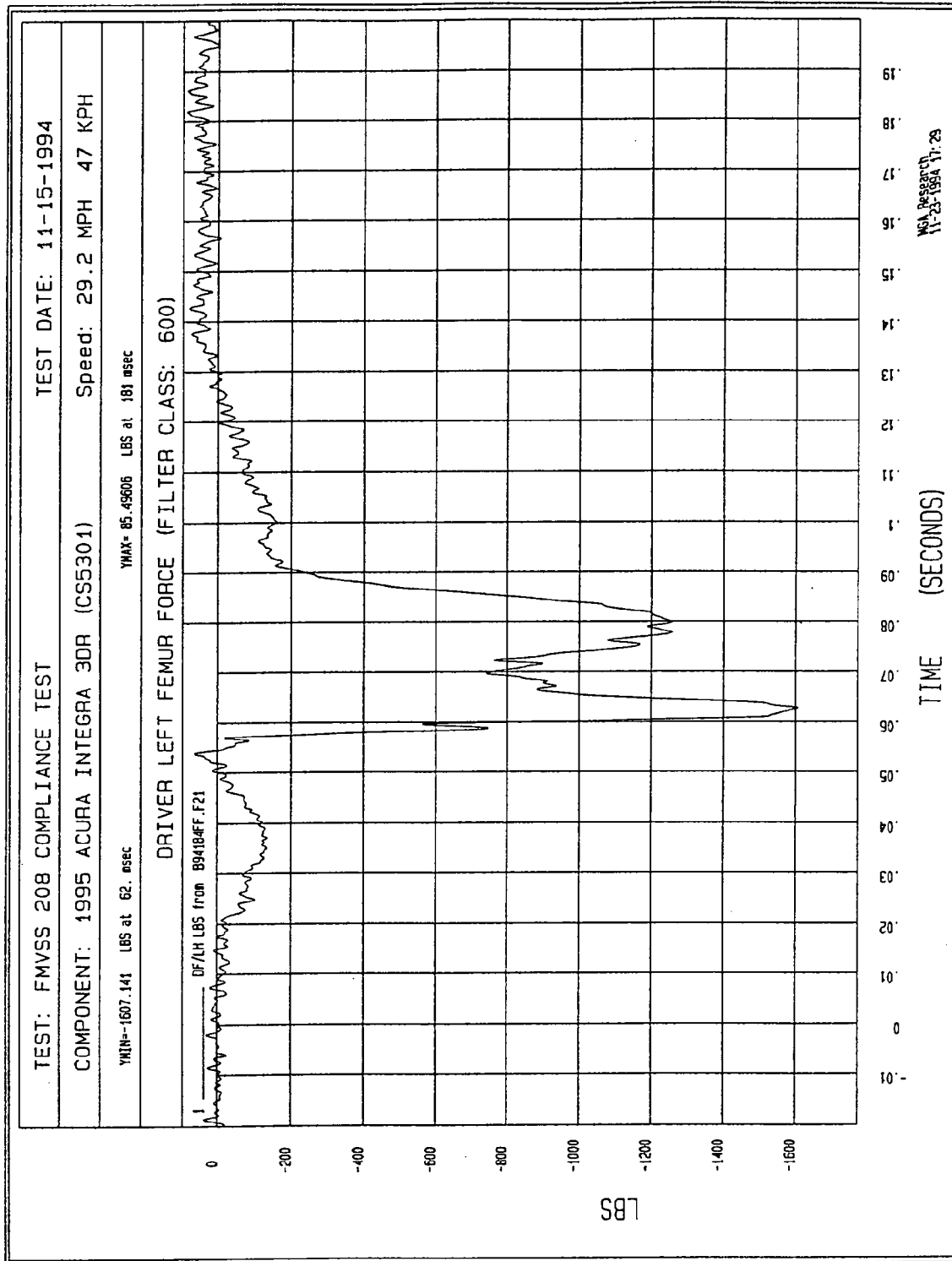


Figure B-9 - Driver Left Femur Force vs. Time

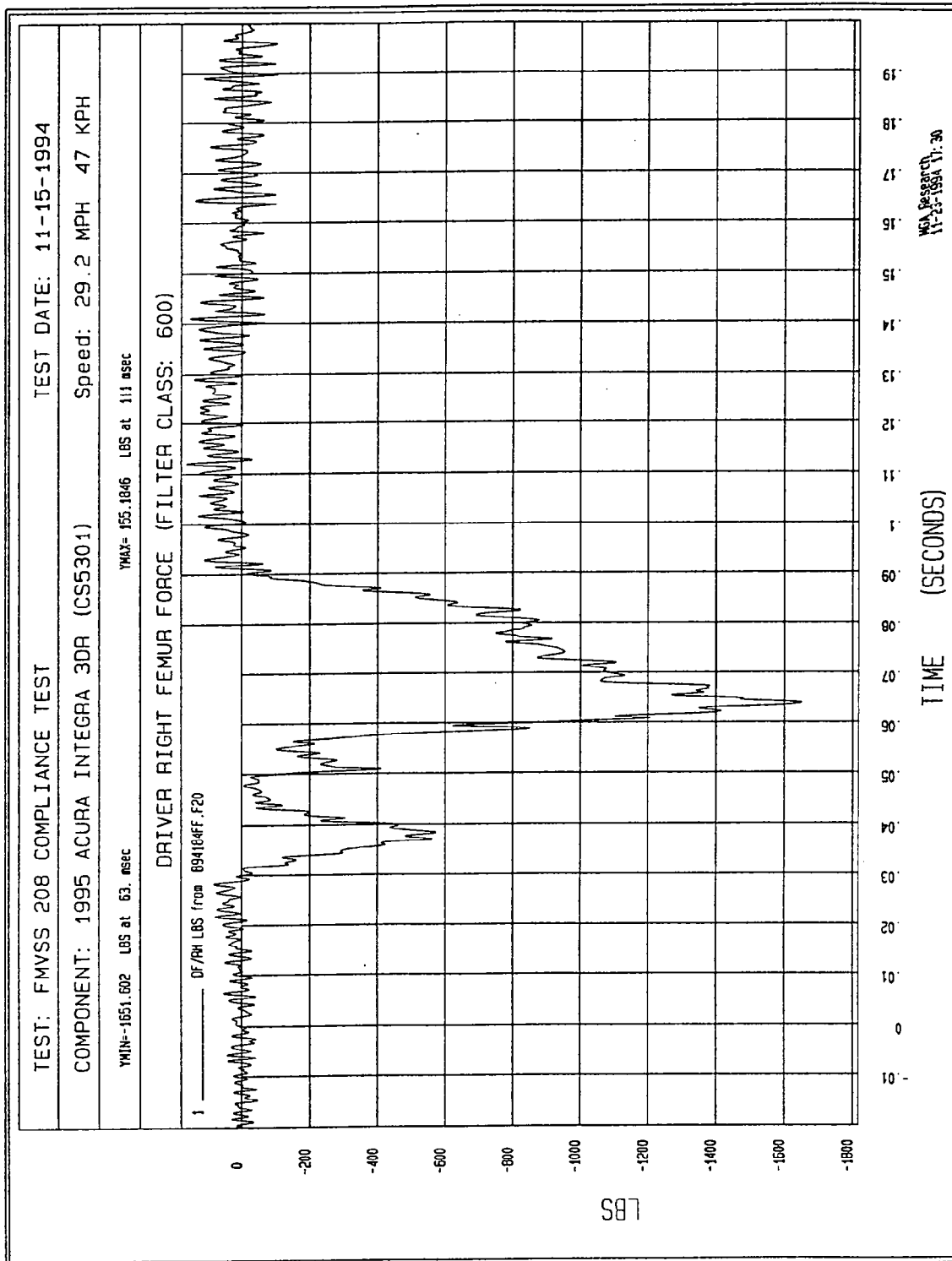


Figure B-10 - Driver Right Femur Force vs. Time

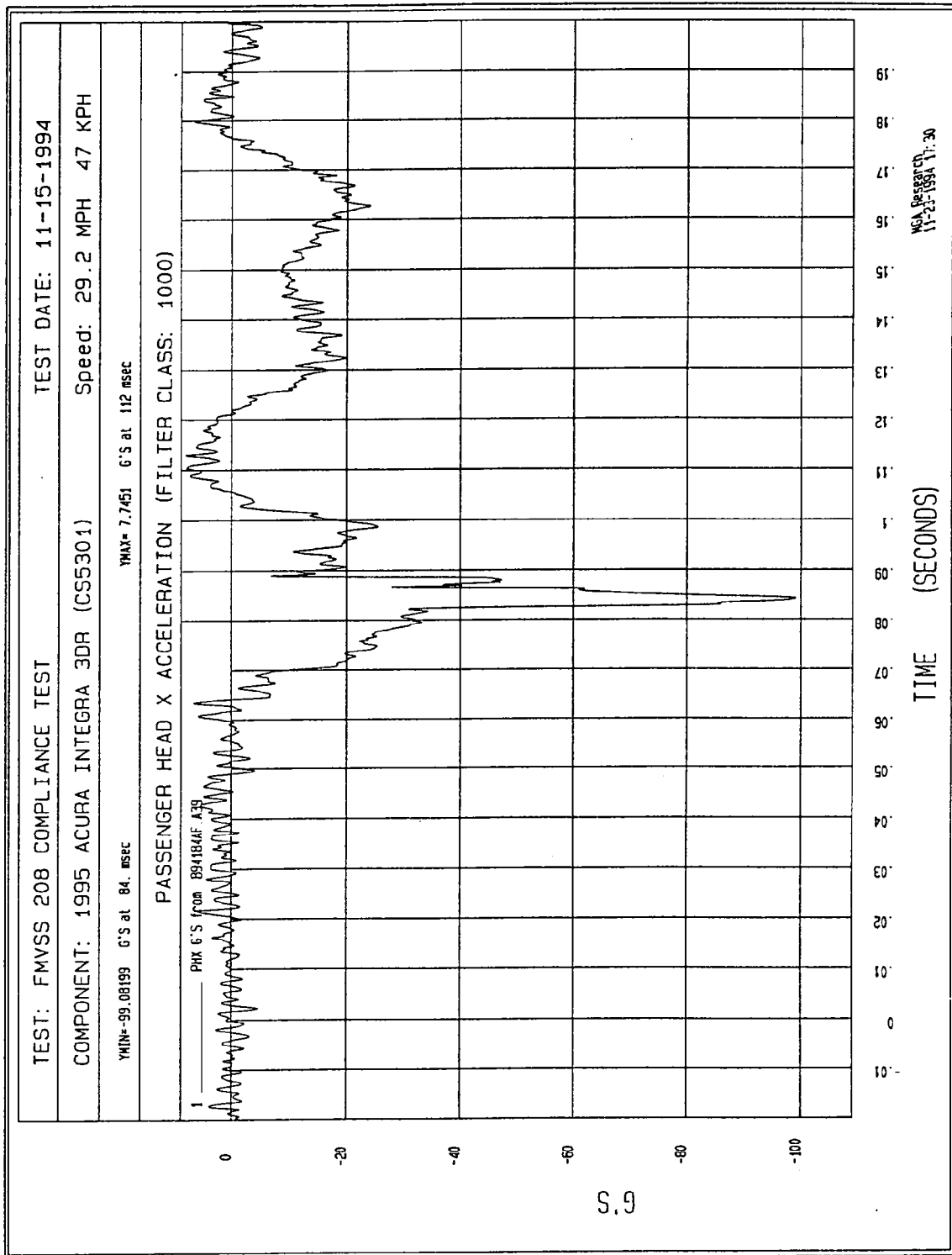


Figure B-11 - Passenger Head X Acceleration vs. Time

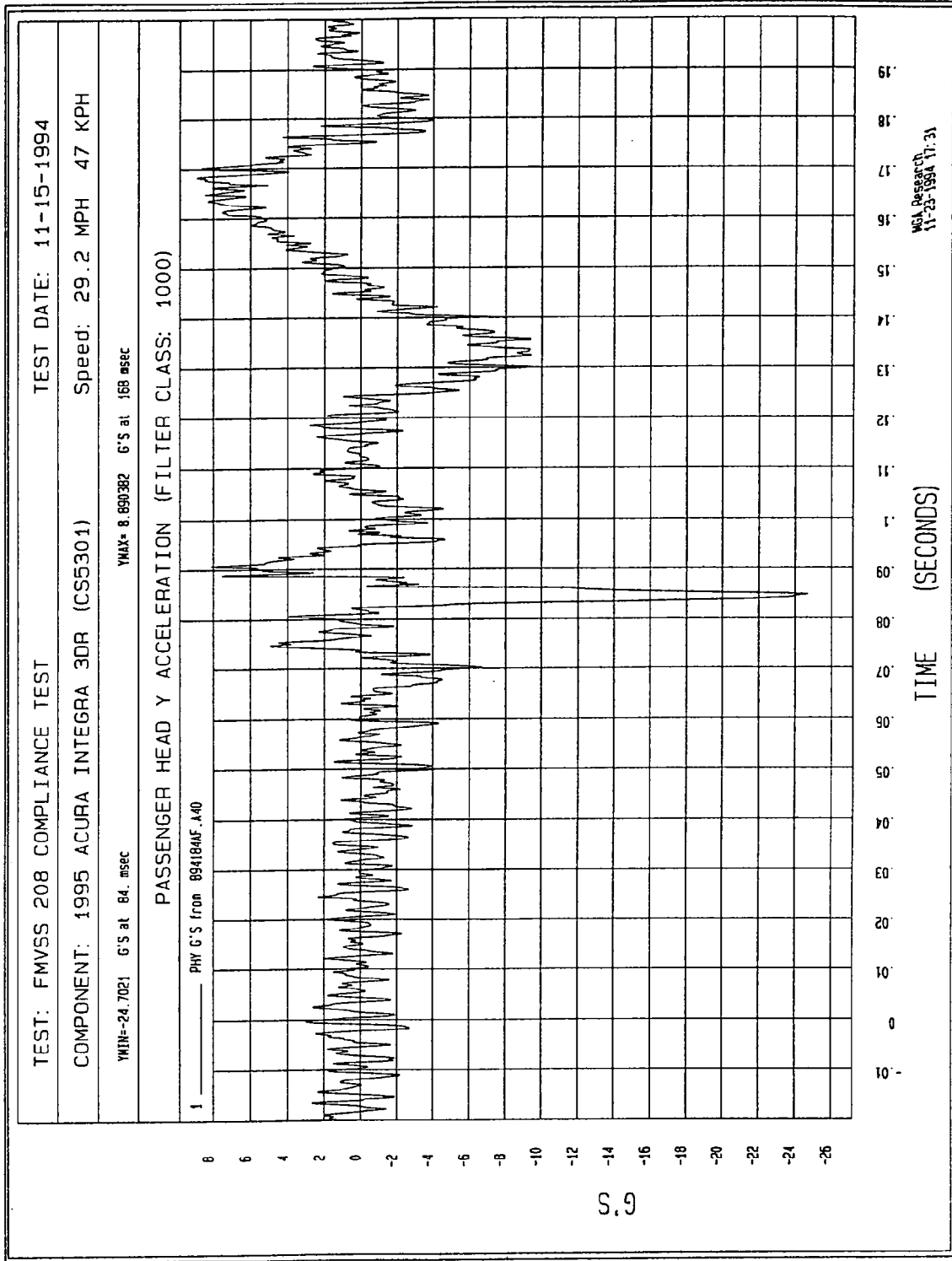


Figure B-12 - Passenger Head Y Acceleration vs. Time

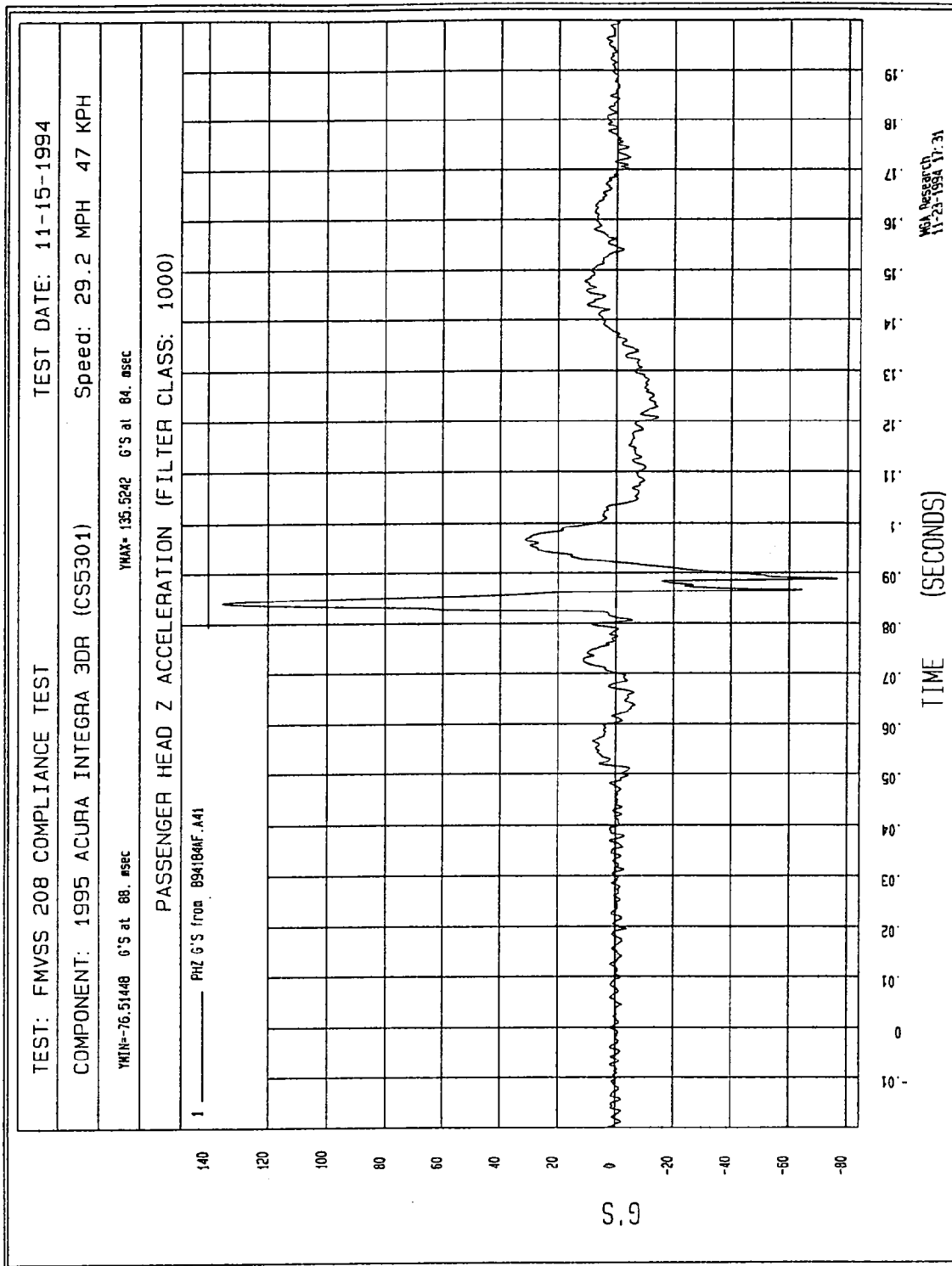


Figure B-13 - Passenger Head Z Acceleration vs. Time

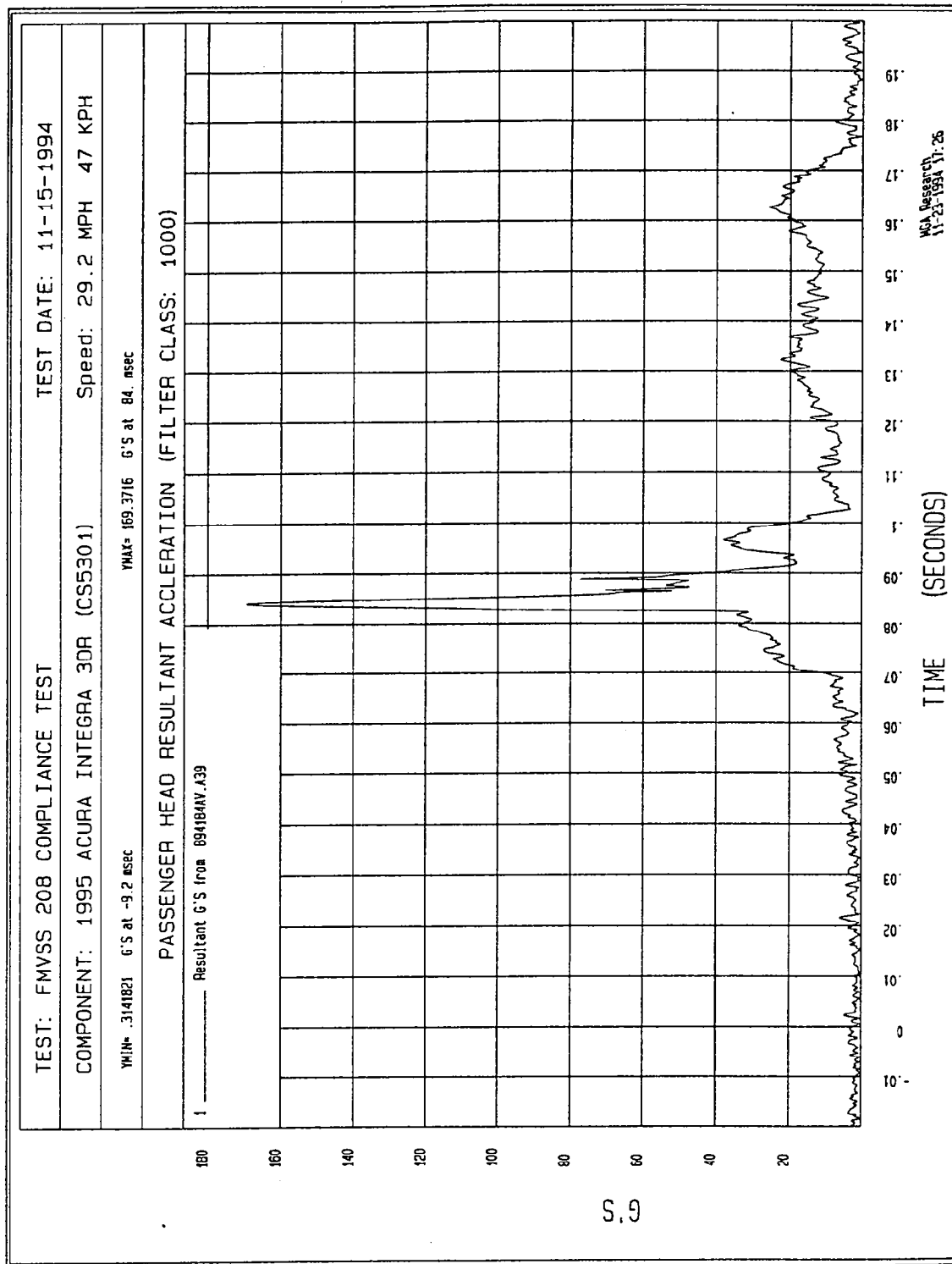


Figure B-14 - Passenger Head Resultant Acceleration vs. Time

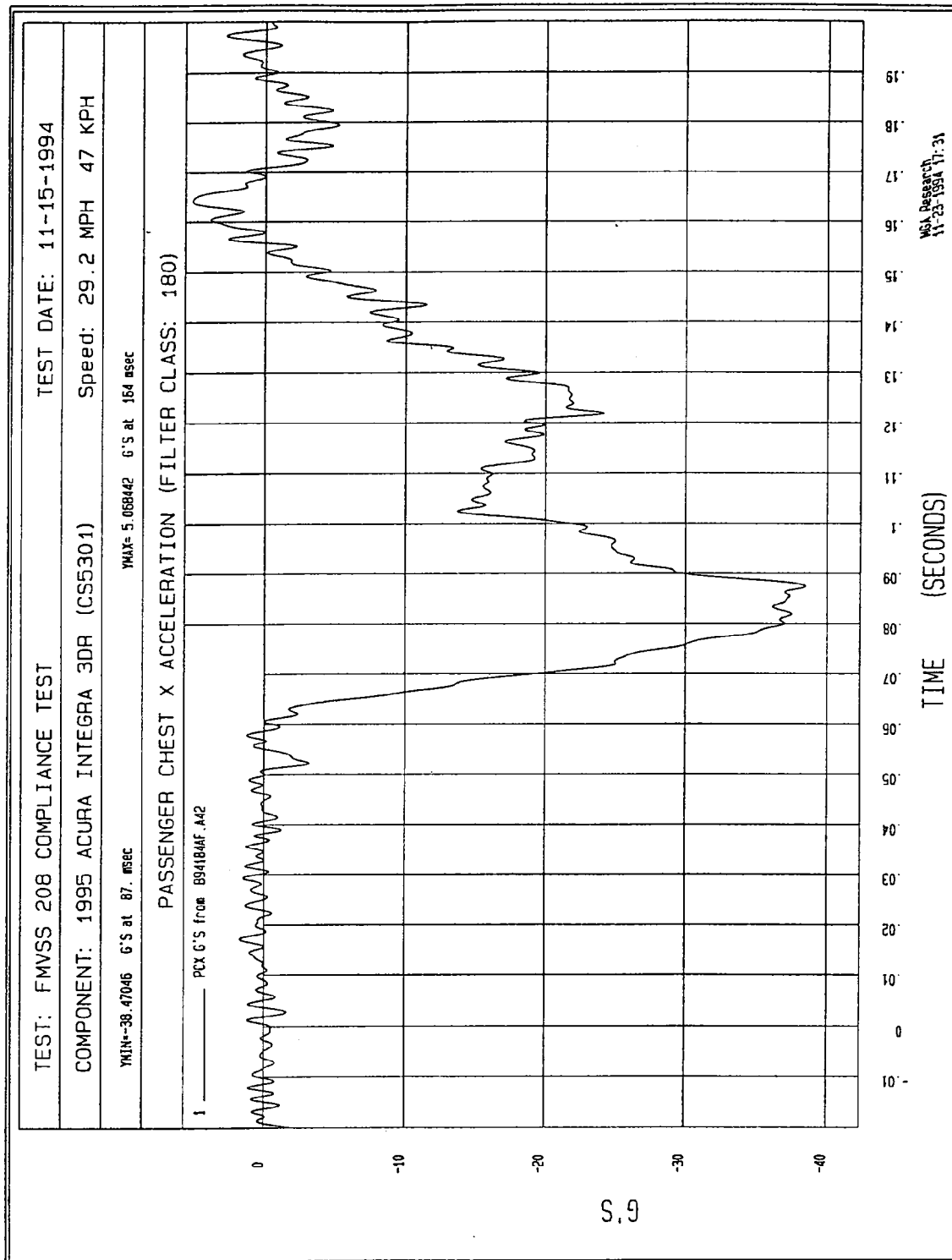


Figure B-15 - Passenger Chest X Acceleration vs. Time

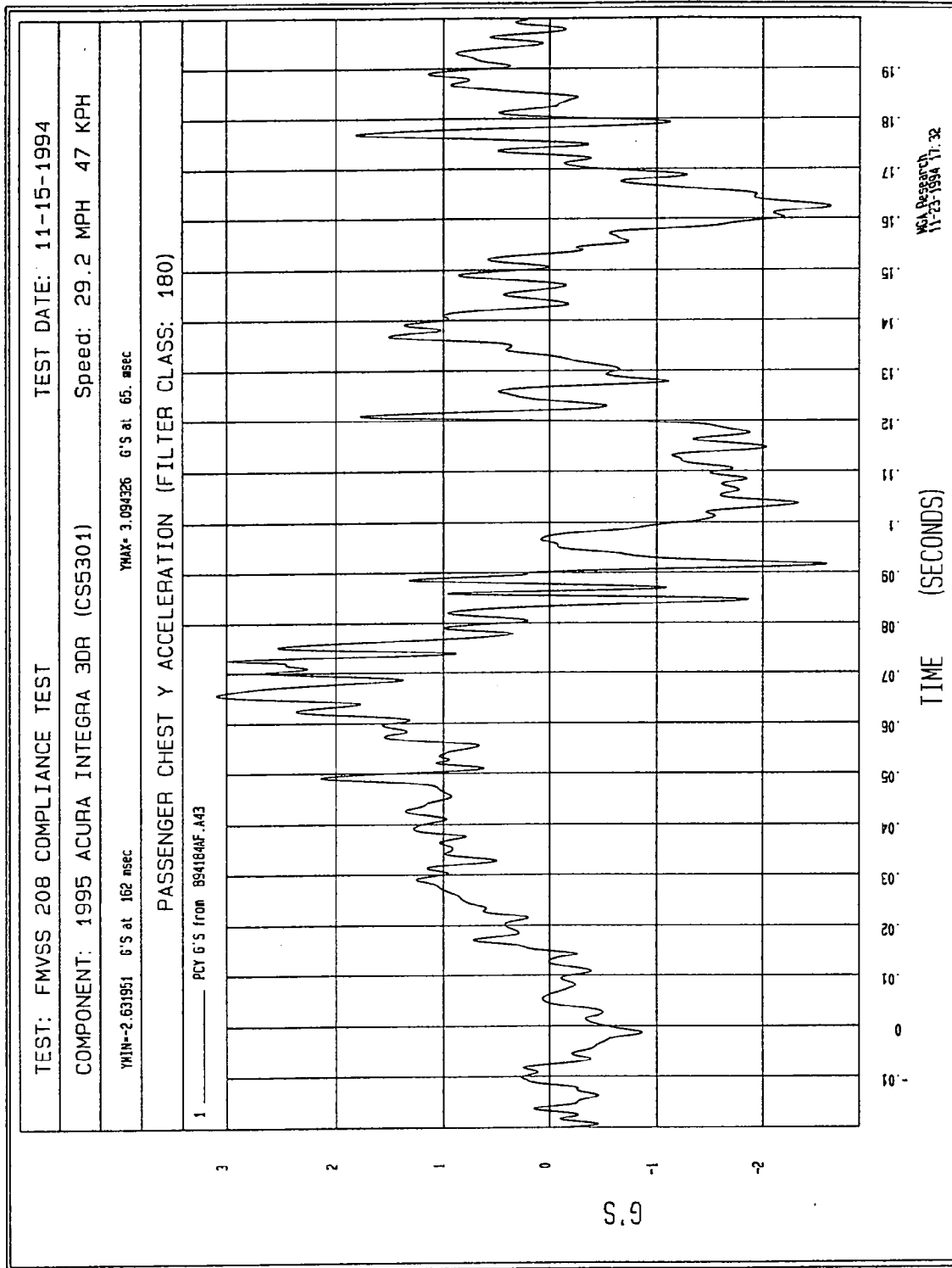


Figure B-16 - Passenger Chest Y Acceleration vs. Time

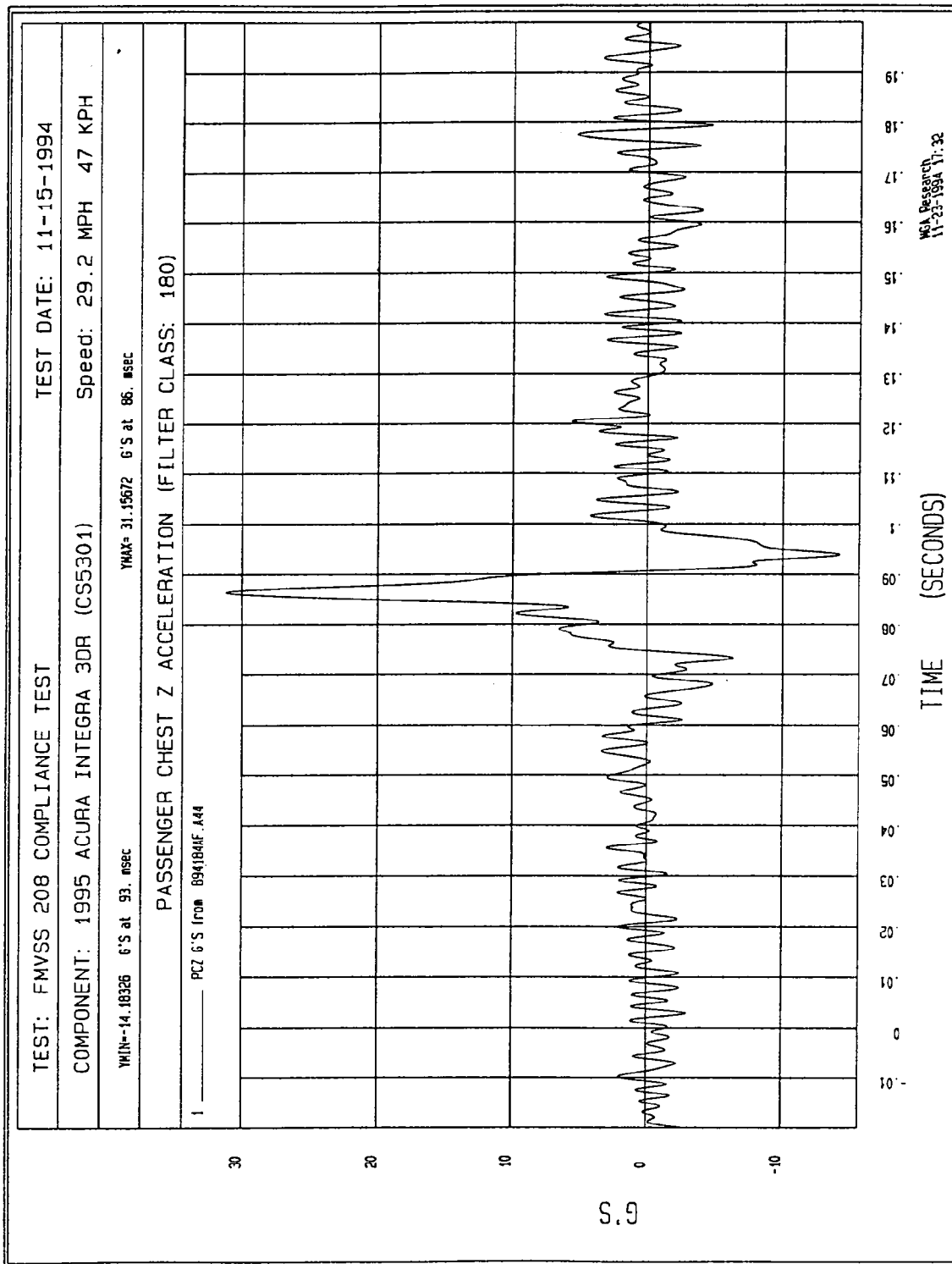


Figure B-17 - Passenger Chest Z Acceleration vs. Time

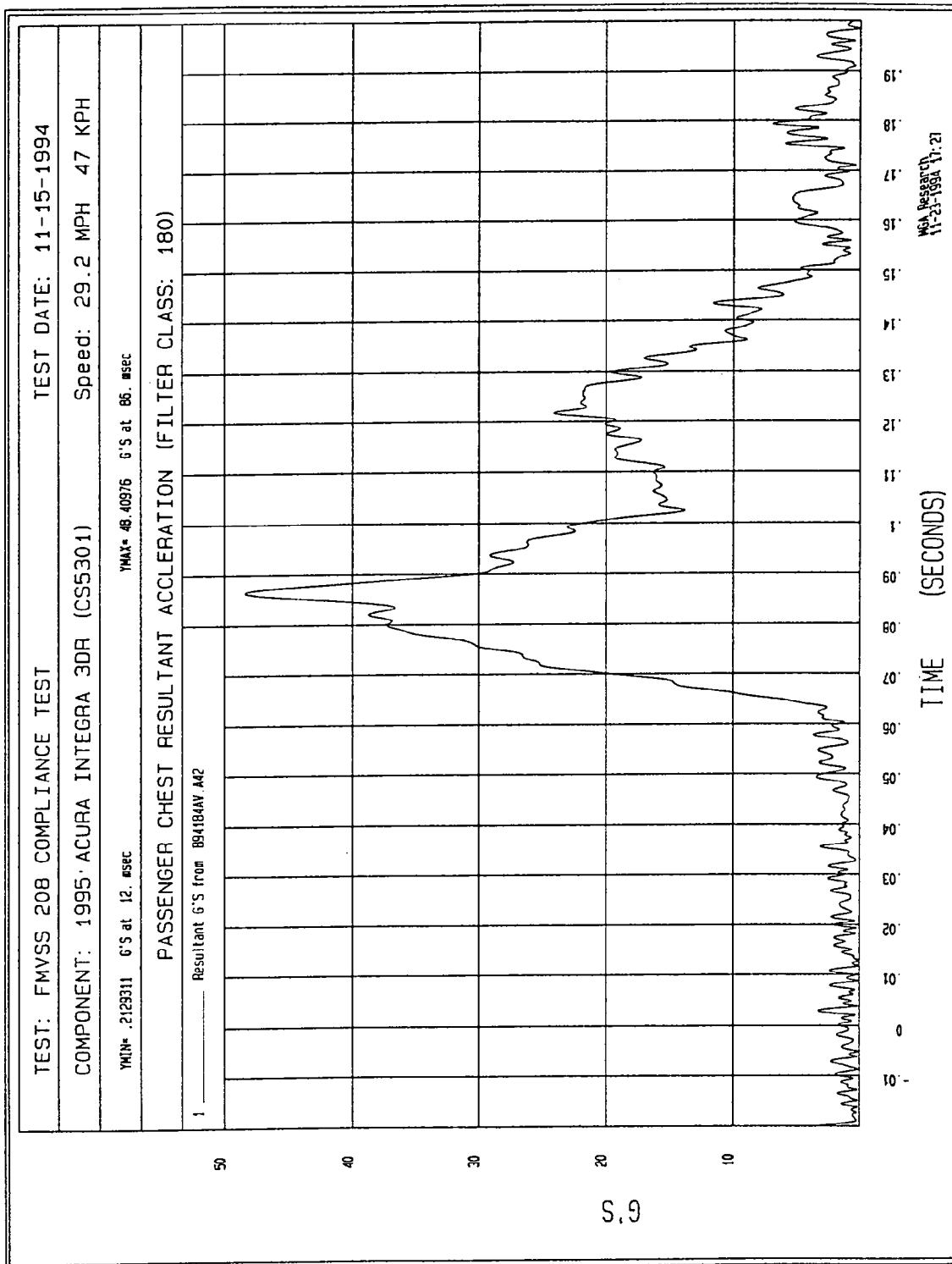


Figure B-18 - Passenger Chest Resultant Acceleration vs. Time

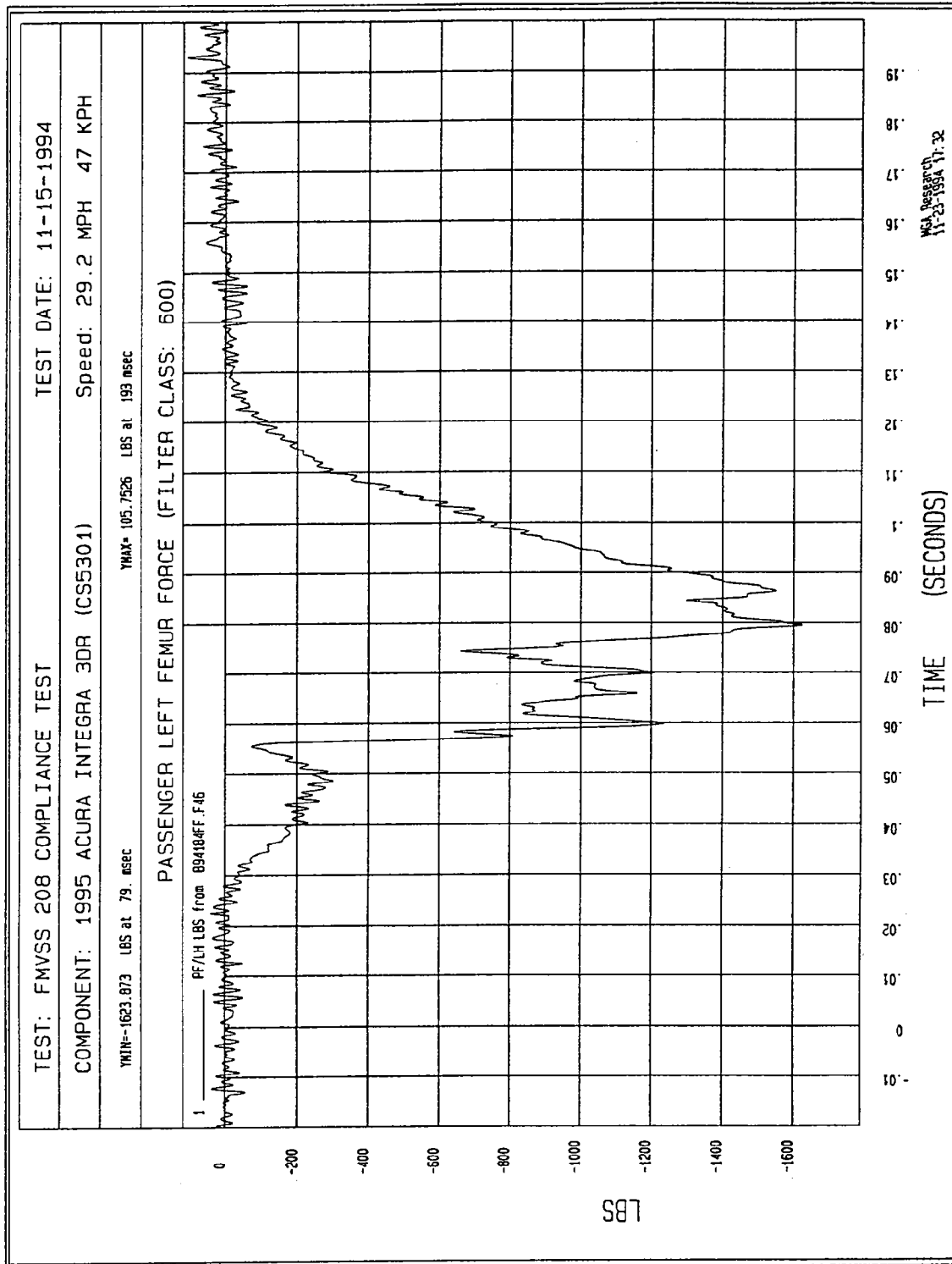


Figure B-19 - Passenger Left Femur Force vs. Time

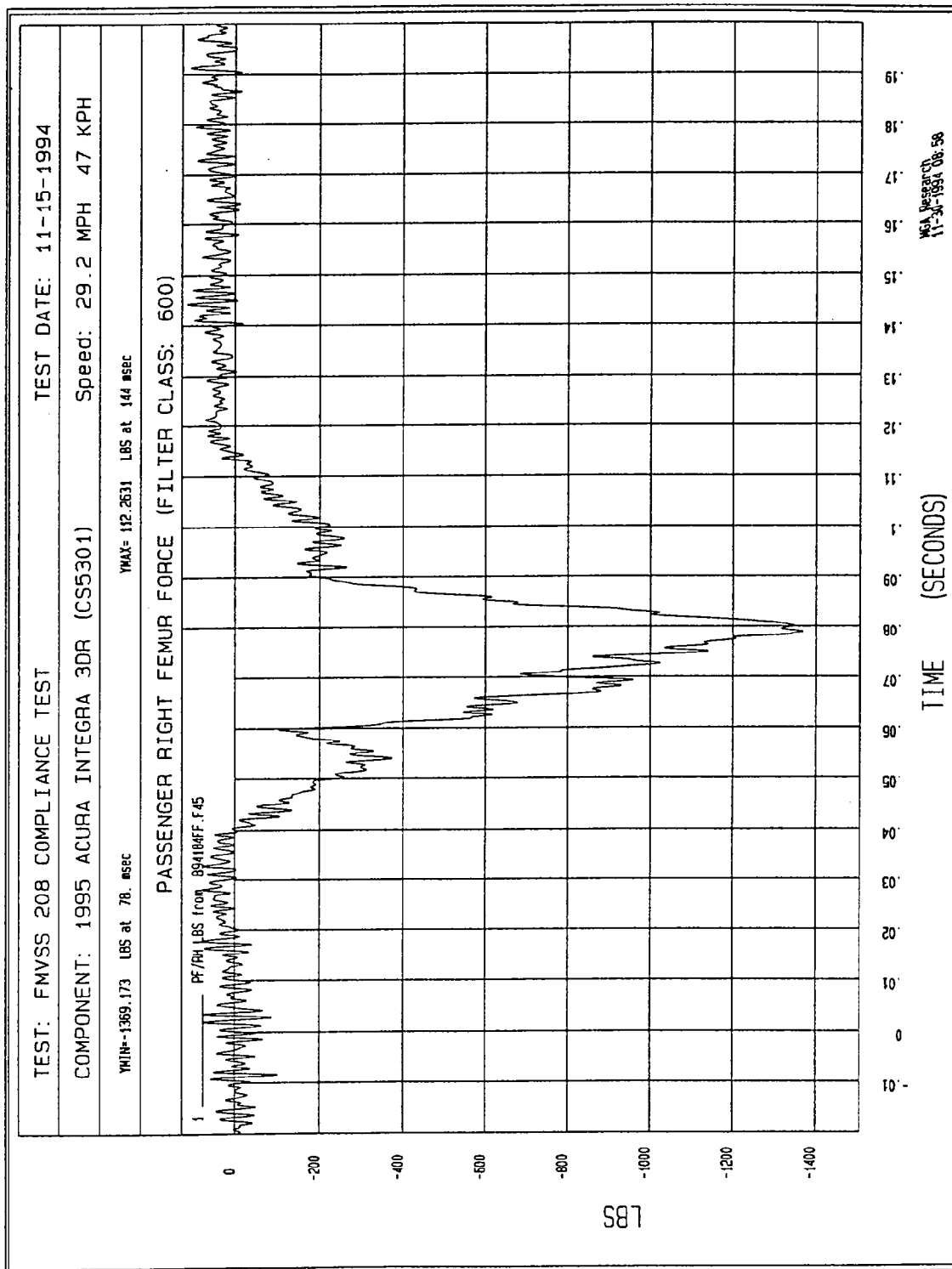


Figure B-20 - Passenger Right Femur Force vs. Time

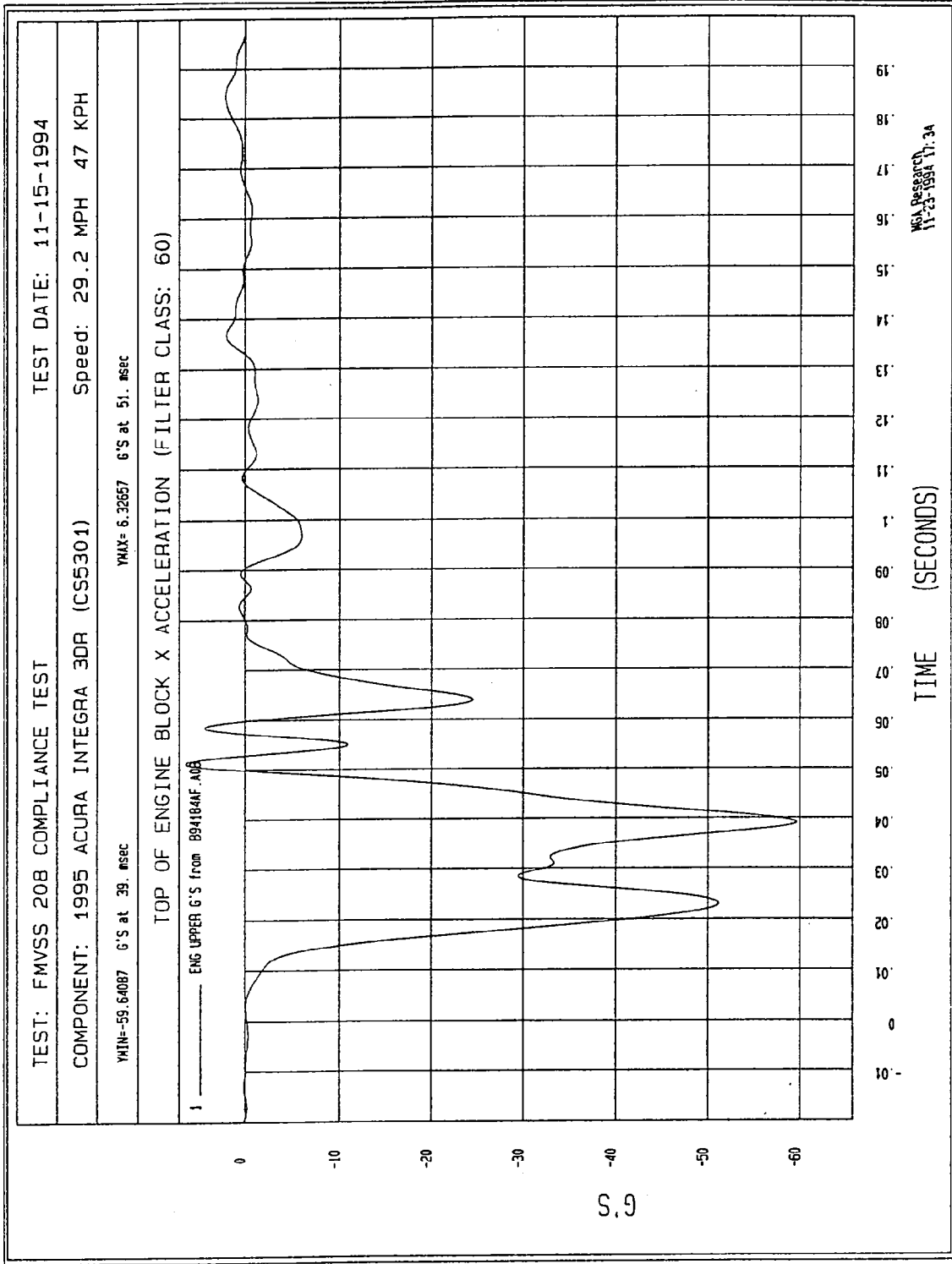


Figure B-21 - Top of Engine Block X Acceleration vs. Time

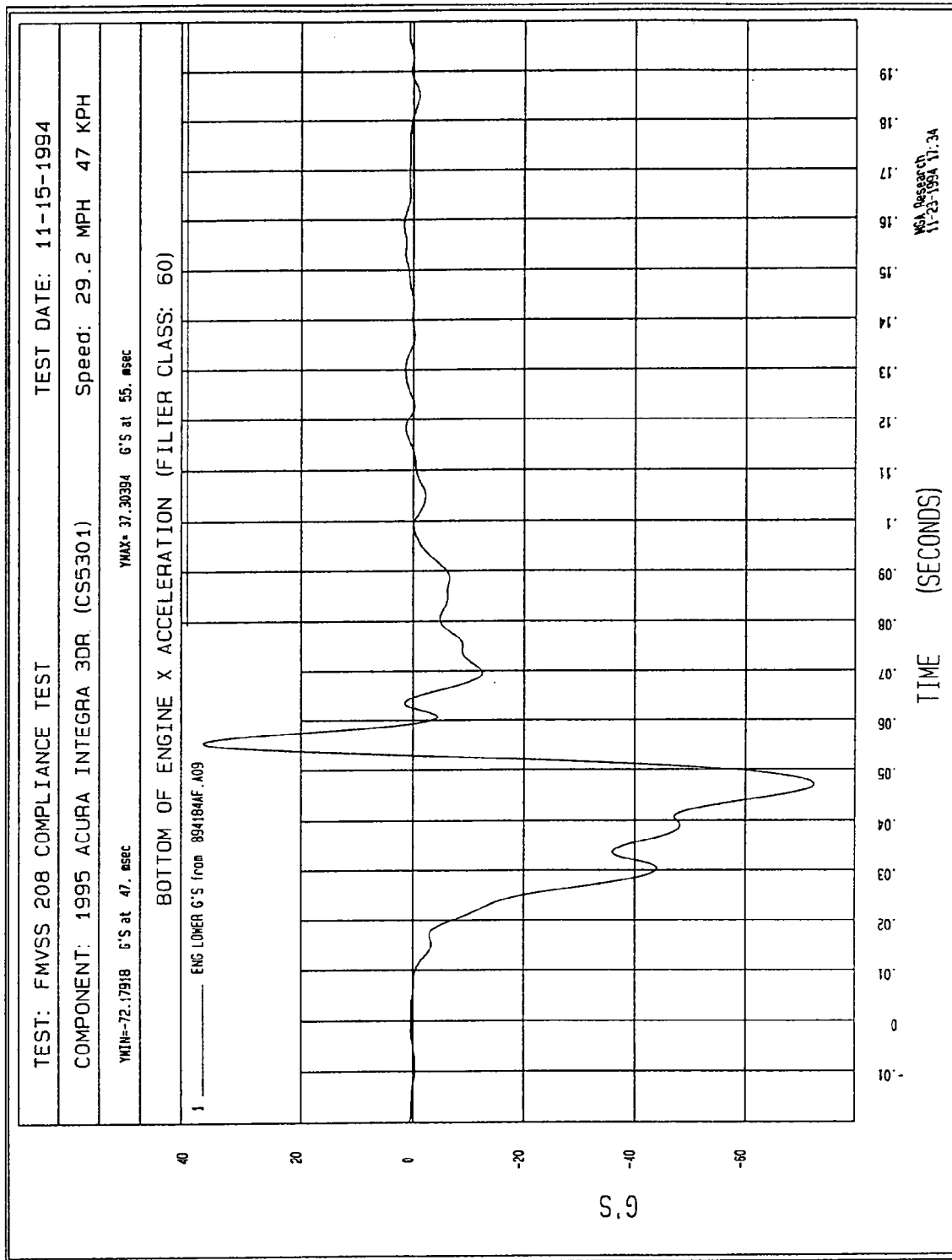


Figure B-22 - Bottom of Engine X Acceleration vs. Time

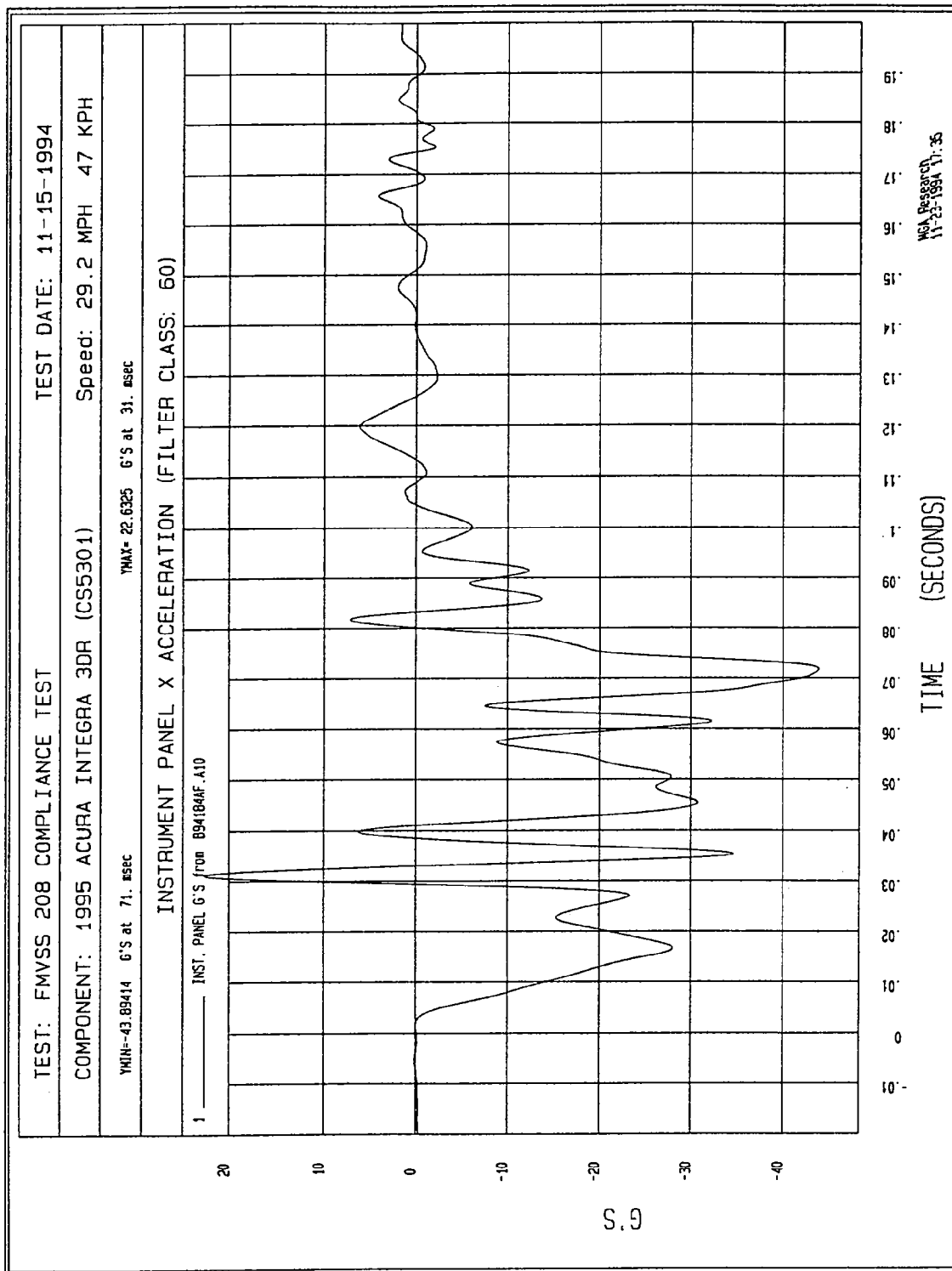


Figure B-23 - Instrument Panel X Acceleration vs. Time

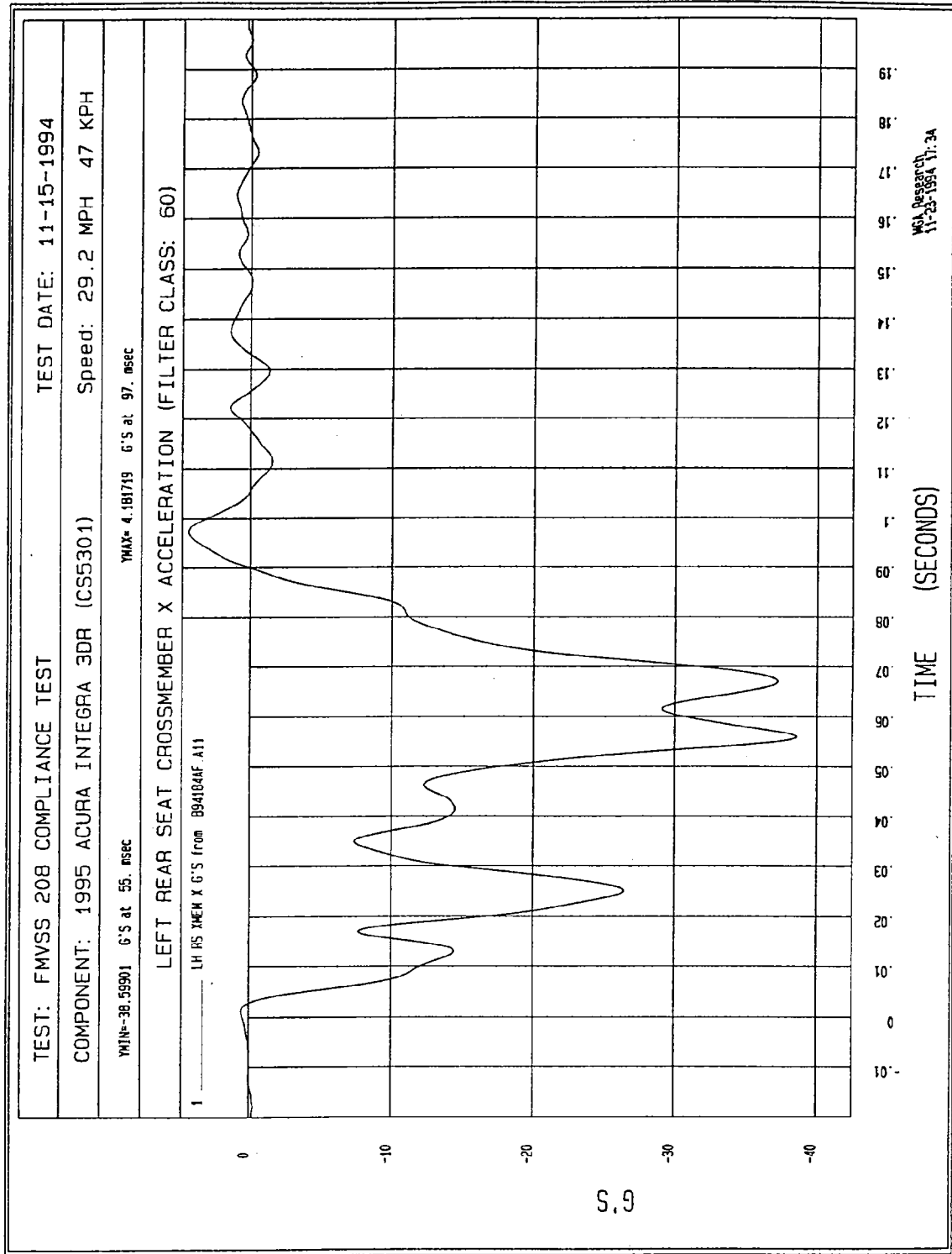


Figure B-24 - Left Rear Seat Crossmember X Acceleration vs. Time

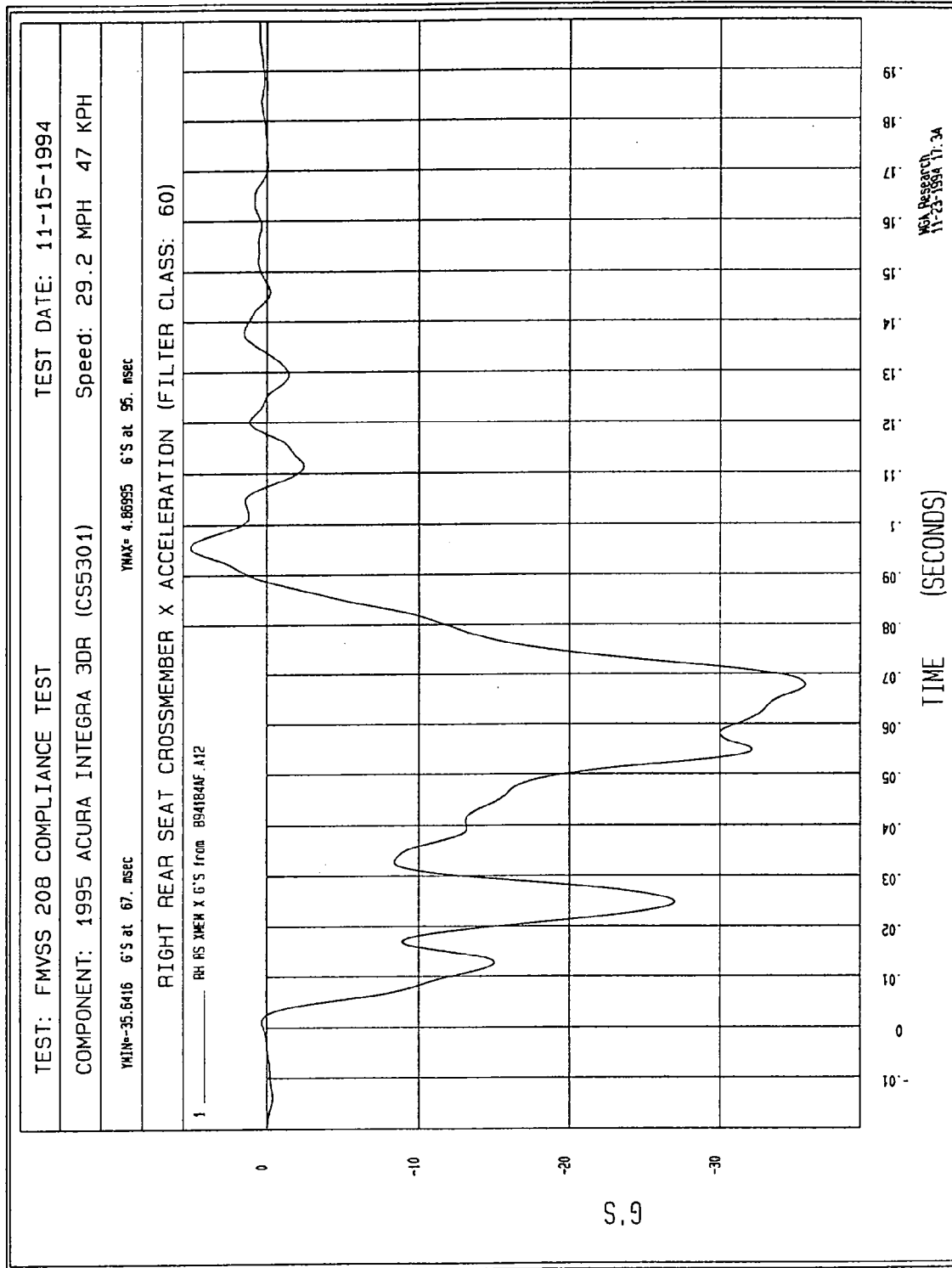


Figure B-25 - Right Rear Seat Crossmember X Acceleration vs. Time

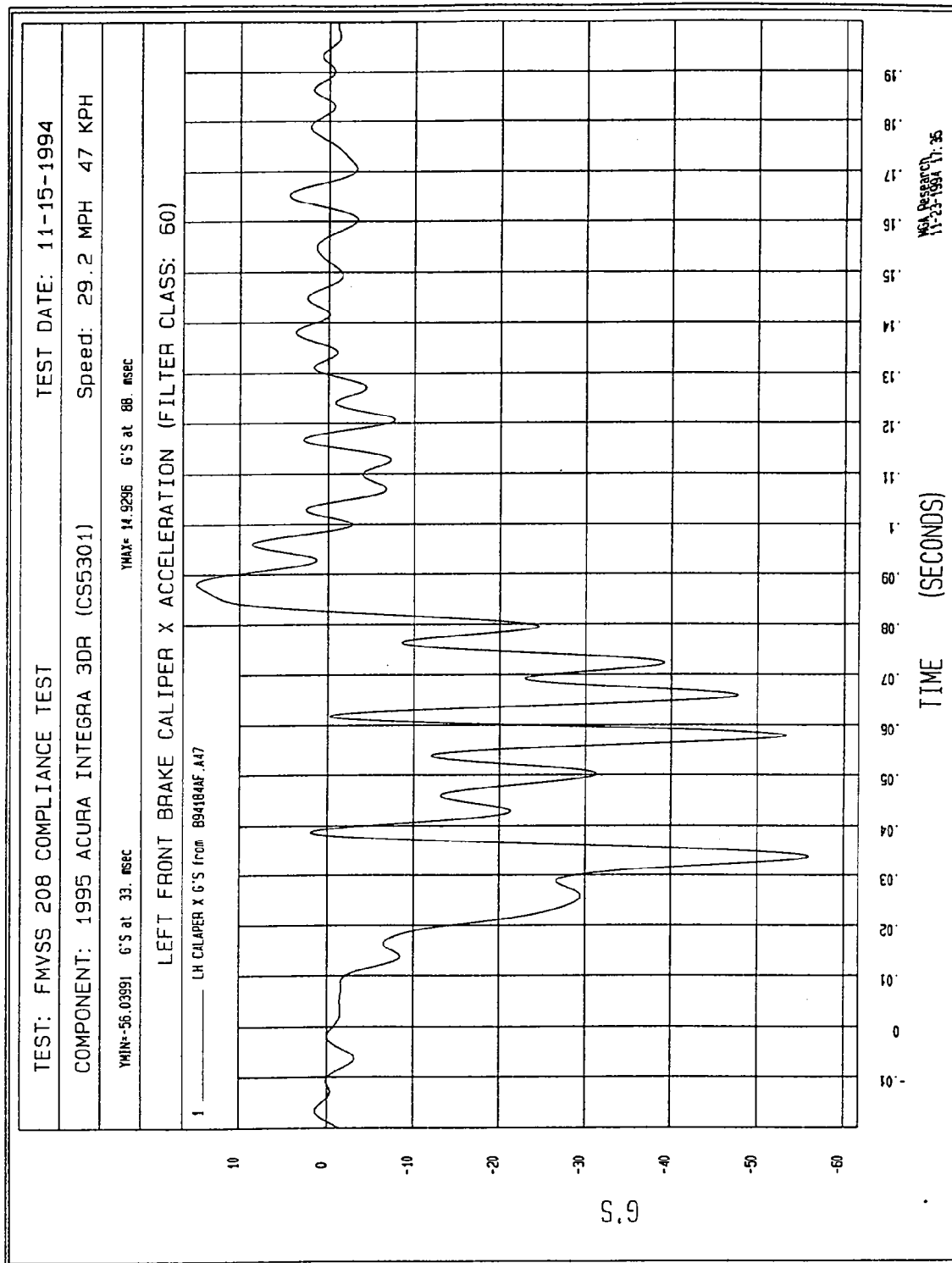


Figure B-26 - Left Brake Caliper X Acceleration vs. Time

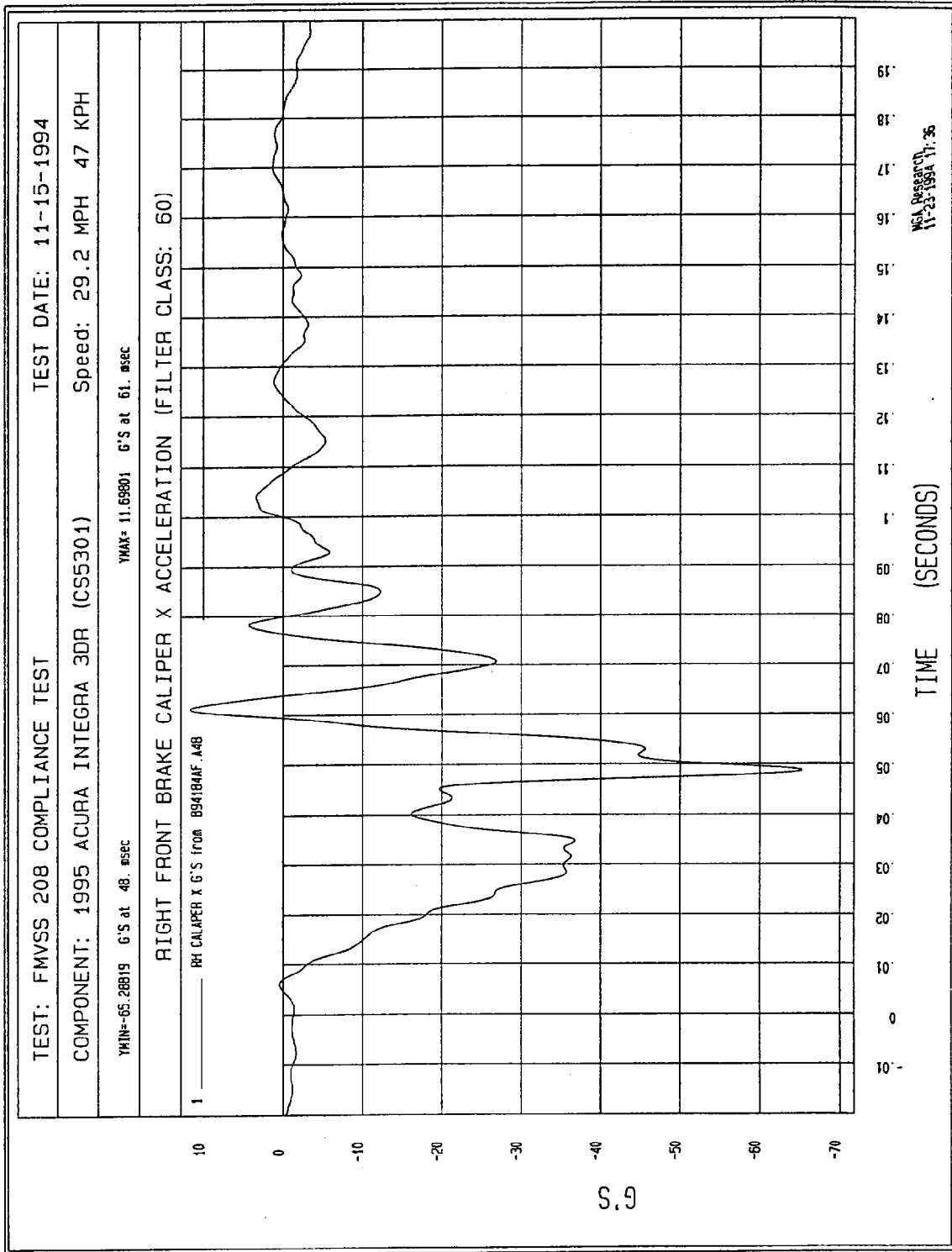


Figure B-27 - Right Brake Caliper X Acceleration vs. Time

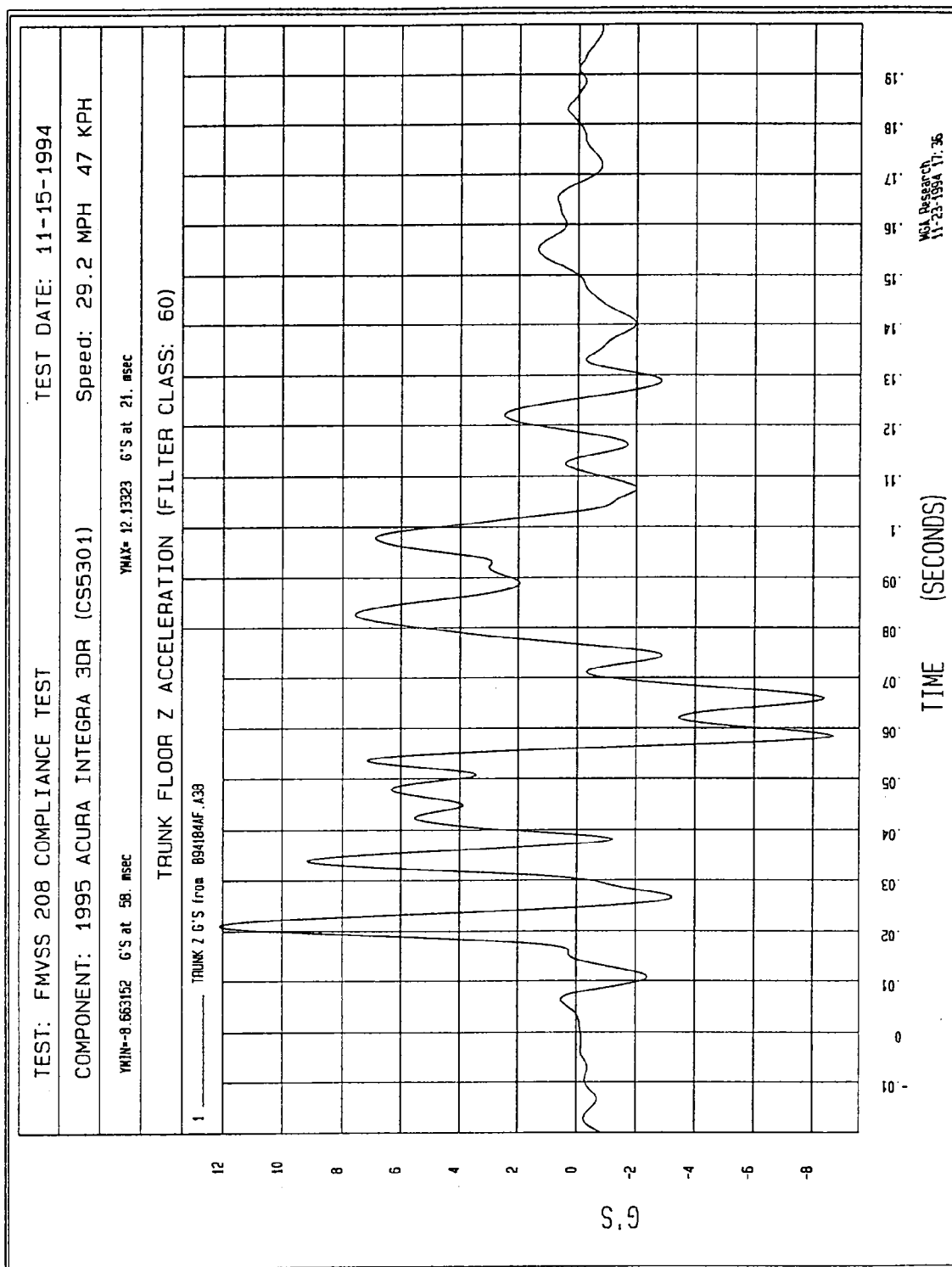


Figure B-28 - Trunk Floor Z Acceleration vs. Time

APPENDIX C
MANUFACTURER'S VEHICLE INFORMATION

8. FMVSS 208, S8.1.5 allows the manufacture the option of having movable vehicle windows and vents placed in the closed position. State whether the vehicle's movable windows and vents were opened or closed for the certification tests.

Response : Frontal barrier test : Opened

Angular barrier test : Closed

9. FMVSS No. 208, S5.1 provides a manufacturer with the option of using either a Part 572 (B) or Part 572 (E) test dummy. Please inform OVSC which test dummy was used in each seat for each certification tests. Submit dummy placement measurements including diagrams or photographs which show exactly where measurements were taken. Enclosed is a diagram of some of OVSC's dummy measurements. Where possible, use the dimension shown in the diagram to provide the individual dummy placement measurements.

Response : Part 572 (B) test dummy was used , 3 DOOR : Refer to Attachment 1

4 DOOR : Refer to Attachment 2

State whether the vehicle has a foot rest for the driver.

Response : The vehicle has a foot rest for the driver.

10. Provide the seat positioning, steering column positioning, and fuel tank data on the enclosed form.

Response : Refer to Attachment 3

11. If the vehicle is equipped with adjustable seat belt anchorages, provide the manufacturer's nominal design position for a 50th percentile adult male occupant.

Response : 3 DOOR : Not Applicable

4 DOOR : Highest position

13. When vehicle components must be removed to obtain the proper test weight, what components do you recommend for removal and in what priority order do you recommend removal?

Response :

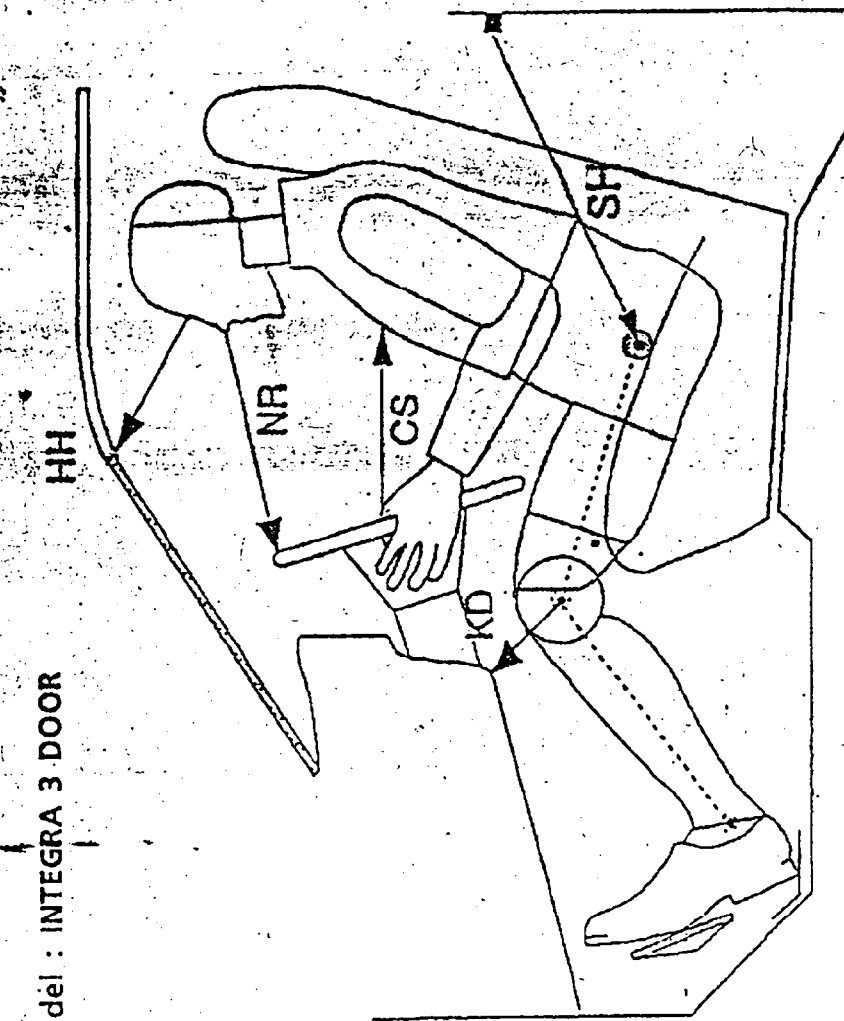
To obtain the proper test weight, components be removed and recommended is as follows.
Components may be decided due to the difference between the rated cargo / luggage weight (100 lbs) and that of on board instrumentation.

There's no priority order.

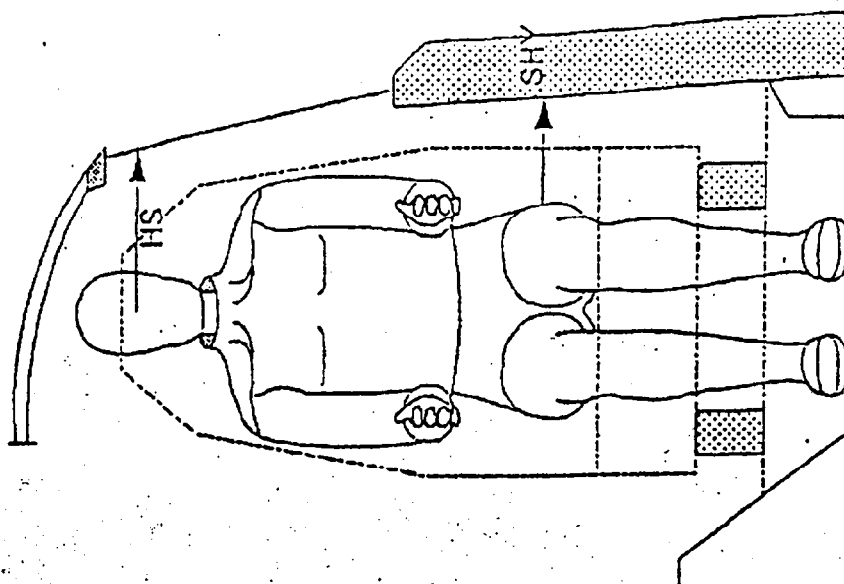
1. Compact spare tire
2. Jack & tool kit
3. Rear bumper system (face, beam, absorber)
4. Taillight R/L
5. Rear seat back / cushion
6. All kinds of trims, garnishes and linings

DUMMY MEASUREMENTS FOR FRONT SEAT PASSENGERS

Model : INTEGRA 3 DOOR



	Dr.	Pa.
HH - Head to Header	13.4	14.6
NR - Nose to Rim	19.2	-
CS - Steering Wheel to Chest	14.4	-
KDL - Knee to Dash	7.5	9.1
KDR - Knee to Dash	8.2	9.1
SH - Striker to H-Point	16.7	16.4



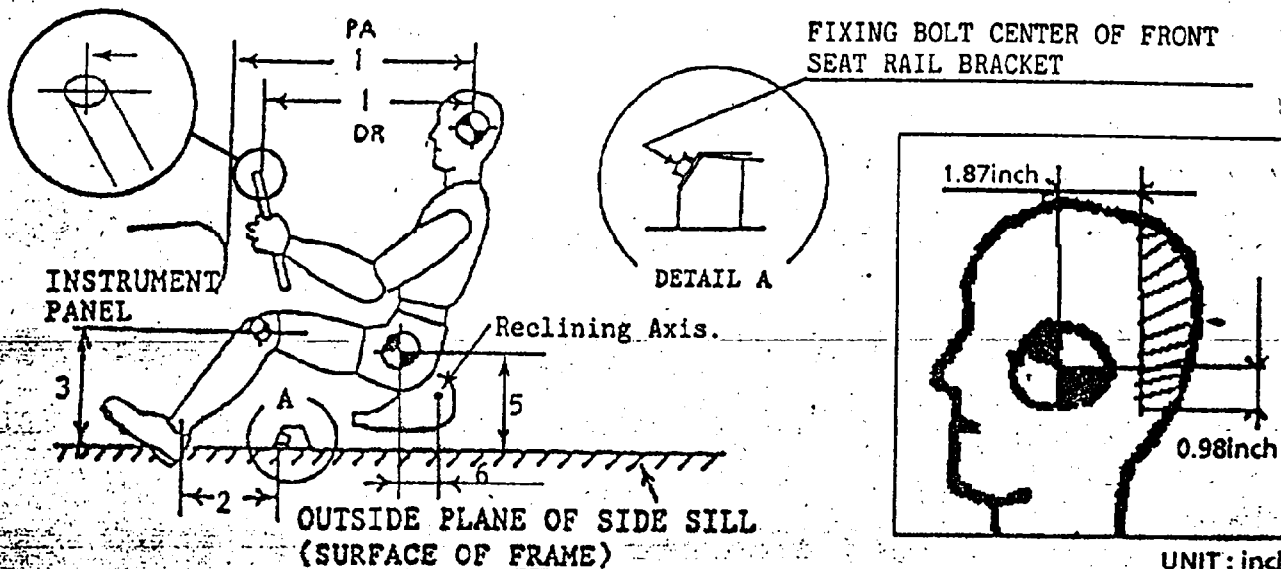
	Dr.	Pa.
SHY - Striker to H-Point	8.3	8.3
HS - Head to Side Window	10.9	10.9

(Unit : i

HONDA RECOMMENDED DUMMY POSITIONING INFORMATION

Vehicle Mode Year & Make : '94 Model Year & ACURA
 Vehicle Model & Body style : INTEGRA 3DOOR , HATCHBACK

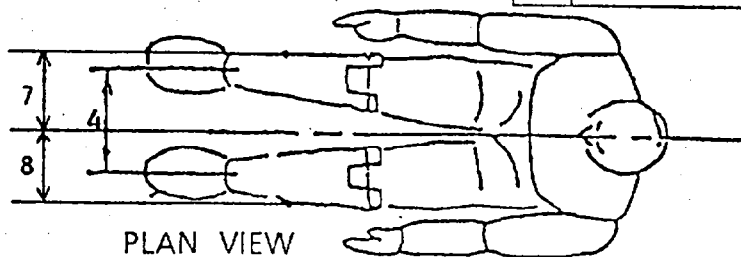
(1) DUMMY POSITIONING DATA



SIDE VIEW

UNIT: inch

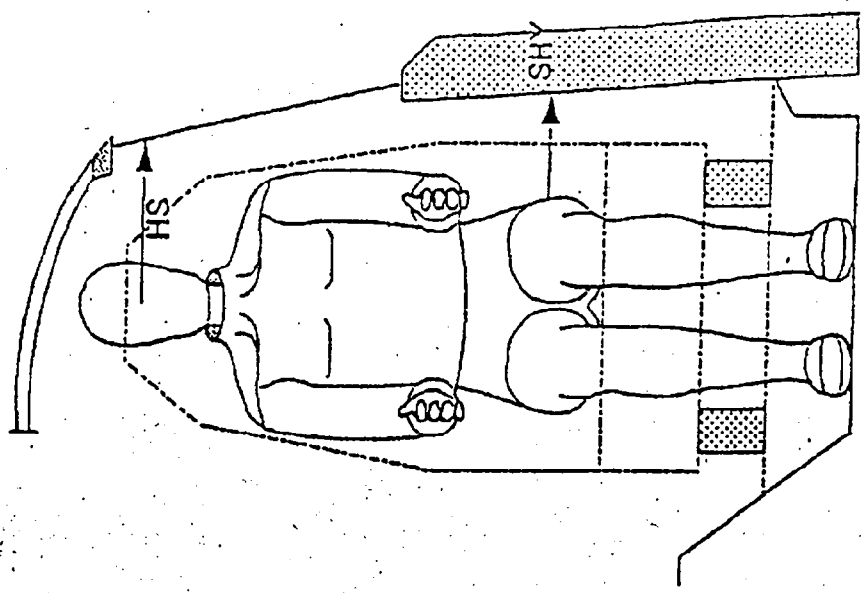
No.	ITEMS	DRIVER		PASS.	
1	HEAD TO STEERING WHEEL (DR) OR INSTRUMENT PANEL (PA)	24.5		29.4	
2	ANKLE TO SEAT BRACKET	RH	18.3	19.5	
		LH	20.1		
3	KNEE TO SIDE SILL (VERTICAL)	LH	9.1	RH	9.1
	KNEE TO FLOOR	RH	13.0	LH	12.6
4	ANKLE TO ANKLE	13.0		7.9	
5	HEIGHT OF HIPPOINT TO SIDE SILL	5.9		5.9	
6	FORWARD OF HIPPOINT TO RECLINING AXIS.	5.0		5.0	
7	KNEE (RH) TO SEAT CTR	6.9		5.9	
8	KNEE (LH) TO SEAT CTR	7.6		5.9	



PLAN VIEW

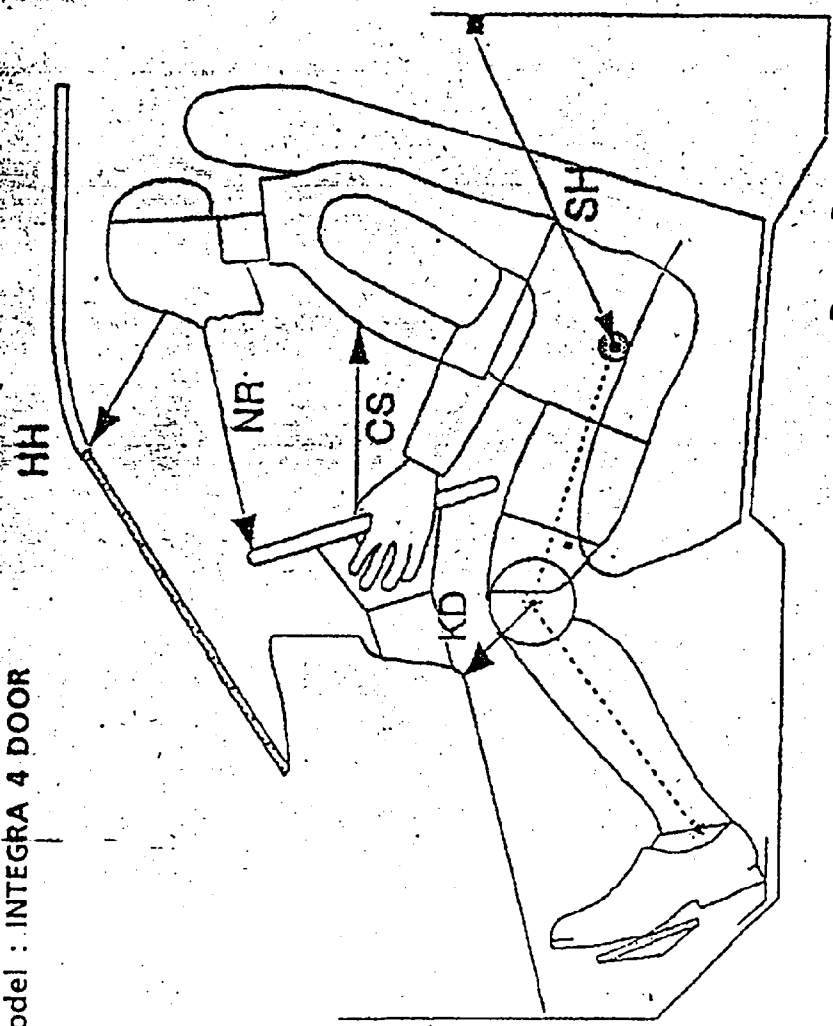
DUMMY MEASUREMENTS FOR FRONT SEAT PASSENGERS

Model : INTEGRA 4 DOOR



	Dr.	Pa.
SHY - Striker to H-Point	8.3	8.3
HS - Head to Side Window	10.3	10.3

(Unit : in)

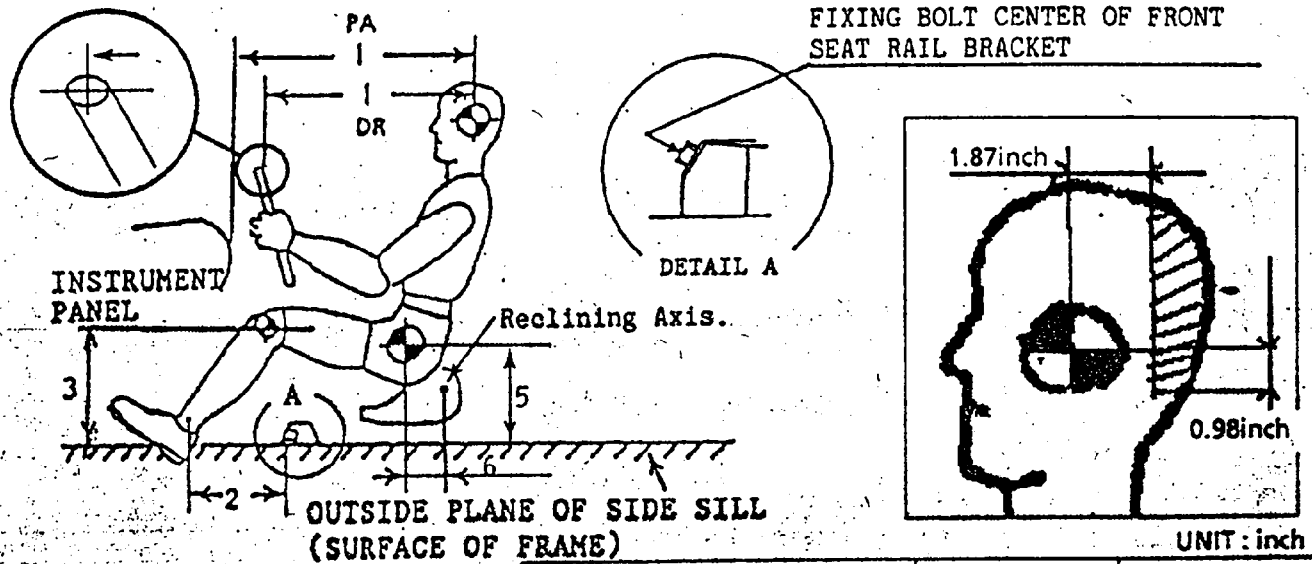


	Dr.	Pa.
HH - Head to Header	14.7	15.4
NR - Nose to Rim	19.6	-
CS - Steering Wheel to Chest	13.7	-
KDL - Knee to Dash	7.4	8.8
KDR - Knee to Dash	7.9	8.8
SH - Striker to H-Point	8.8	8.2

HONDA RECOMMENDED DUMMY POSITIONING INFORMATION

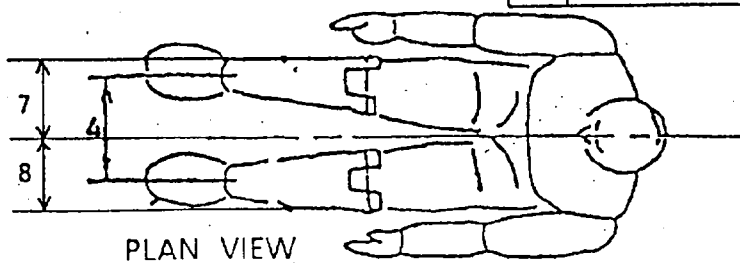
Vehicle Mode Year & Make : '94 Model Year & ACURA
 Vehicle Model & Body style : INTEGRA 4DOOR, SEDAN

(1) DUMMY POSITIONING DATA



SIDE VIEW

No.	ITEMS	DRIVER		PASS.	
1	HEAD TO STEERING WHEEL (DR) OR INSTRUMENT PANEL (PA)	24.5		29.4	
2	ANKLE TO SEAT BRACKET	RH	18.1	19.1	
		LH	19.9		
3	KNEE TO SIDE SILL (VERTICAL)	LH	9.4	RH	9.6
	KNEE TO FLOOR	RH	13.4	LH	13.2
4	ANKLE TO ANKLE	13.0		7.9	
5	HEIGHT OF HIPPOINT TO SIDE SILL	6.3		6.3	
6	FORWARD OF HIPPOINT TO RECLINING AXIS.	5.0		5.0	
7	KNEE (RH) TO SEAT CTR	6.9		5.9	
8	KNEE (LH) TO SEAT CTR	7.6		5.9	



TEST VEHICLE INFORMATION

Vehicle Model Year & Make : 1994, ACURA

Vehicle Model & Body Style : INTEGRA 3 DOOR, HATCHBACK

INTEGRA 4 DOOR, SEDAN

1. NOMINAL DESIGN RIDING POSITION - -

For adjustable driver and passenger seat backs.
Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent if applicable.

Indicate, if applicable, how the detents are numbered (Is the first detent "0" or "1"?).

Seat back angle for driver's seat = degrees.

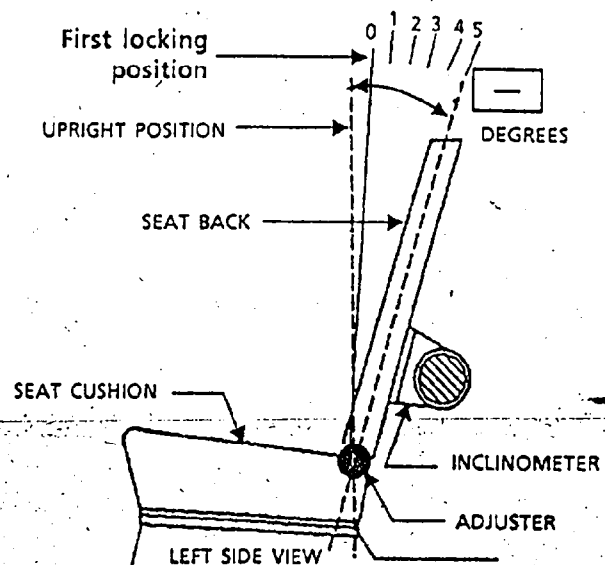
Measurement Instructions:

Nominal design riding position is located with seat back adjusted to the 5th latch position from the first locking position.

Seat back angle for passenger's seat = degrees.

Measurement Instructions:

Same as the driver's seat data.

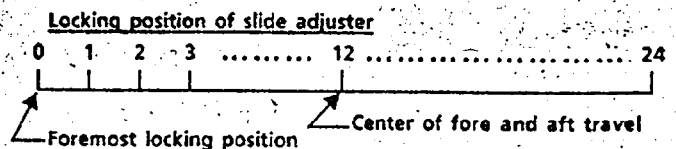


2. SEAT FORE & AFT POSITIONS - -

Provide instructions for positioning the driver and front outboard passenger seat(s) in the center of fore and aft travel. For example, indicate how the detents are numbered (is the first detent "0" or "1"?). Provide information to locate the detent in which the seat track is to be locked.

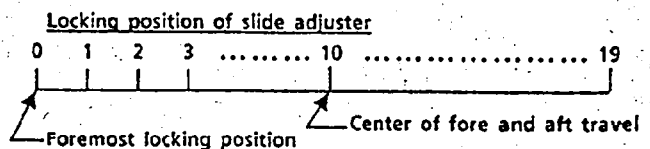
Positioning of the driver's seat:

12th steps from the Foremost locking position.



Positioning of the passenger's seat (if applicable):

10th steps from the Foremost locking position.



3. FUEL TANK CAPACITY DATA - -

- ### Operational Instructions:



- ### Operational Instructions :

B = 0.67 inch (Mid position)

