

V1720

REPORT NOS. 208-TRC-92-019
212-TRC-92-019
301-TRC-92-019

VEHICLE SAFETY COMPLIANCE TESTING
FOR OCCUPANT CRASH PROTECTION,
WINDSHIELD MOUNTING, WINDSHIELD ZONE
INTRUSION, AND FUEL SYSTEM INTEGRITY

ISUZU MOTORS, LTD.
1992 ISUZU PICKUP
NHTSA NO. CN5701
TRC TEST NO. 920520

TRANSPORTATION RESEARCH CENTER INC.
10820 STATE ROUTE 347
EAST LIBERTY, OHIO 43319



JUNE 5, 1992
FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF VEHICLE SAFETY COMPLIANCE (NEF-31)
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16. Abstract <p>A 30 mph flat frontal barrier impact test was conducted on a 1992 Isuzu pickup, NHTSA No. CN5701, at the Transportation Research Center Inc. on May 20, 1992. This test was conducted to determine compliance with Federal Motor Vehicle Safety Standards: FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219 (partial), "Windshield Zone Intrusion"; FMVSS 301, "Fuel System Integrity." The barrier impact velocity was 29.5 mph. The vehicle's maximum static crush was 13.6 inches. The ambient temperature was 78° F.</p> <p>The driver's head injury criteria (HIC) was 714. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 53.3 g. The driver's chest maximum deflection was 2.1 inches. The driver's left and right femur maximum axial forces were 366 pounds and 430 pounds, respectively.</p> <p>The passenger's head injury criteria (HIC) was 719. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 54.6 g. The passenger's chest maximum deflection was 1.6 inches. The passenger's left and right femur maximum axial forces were 160 pounds and 575 pounds, respectively.</p> <p>The vehicle appears to comply with the applicable requirements of FMVSS 208, 212, 219 (partial), and 301.</p>				13. Type of Report and Period Covered FINAL REPORT MAY - JUNE 1992	
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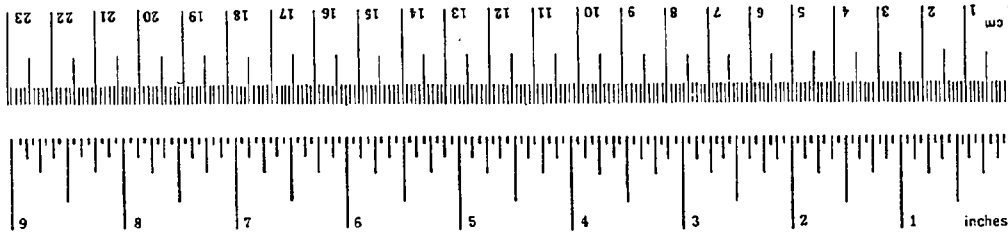
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	6	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



* 1 in = 2.54 (exact). For other exact conversions and more derived tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10286.

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SECTION 1.0

PURPOSE & 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 Transportation Research Center of Ohio (TRC) under Contract No. DTNH22-90-C-21003. The purpose of this test was to determine if the subject vehicle, a 1992 Isuzu pickup, NHTSA No. CN5701, 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-208-08. 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. The vehicle's specified impact velocity range was 28.9 to 29.9 mph. The vehicle impacted a flat frontal barrier.

The test vehicle contained two (2) Part 572 E 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard designated seating positions according to the dummy placement procedure specified in Appendix B and Optional Appendix C 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. Each Part 572 E dummy's instrumentation also included a chest potentiometer to measure longitudinal deflection.

The twenty-five (25) data channels were multiplexed and recorded on a 14-track tape drive. The data was digitally sampled at 8000 samples per second and processed per sections 12.8 and 12.9 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 one (1) real-time motion picture camera.

The vehicle and occupant data are summarized in Section 2.0. The FMVSS 208, 212, 219 (partial) and 301 data are presented in Section 3.0. The vehicle, occupant, and camera measurements are presented in Section 4.0. Appendix A contains the still photographic prints. Appendix B contains the dummy and vehicle data plots.

SECTION 2.0

FRONTAL BARRIER IMPACT TEST SUMMARY

TEST RESULTS SUMMARY

This flat frontal barrier test was conducted at TRC on May 20, 1992.

The test vehicle, a 1992 Isuzu pickup, NHTSA No. CNS701, 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 axial forces transmitted through the upper legs did not exceed 2,250 pounds as measured by Part 572 E dummies seated in the front outboard designated seating positions. For each Part 572 E dummy, the chest deflection did not exceed 3.0 inches. The vehicle's restraint system met the applicable comfort and convenience requirements. The windshield periphery retention was 100 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 a 2.3 liter, inline engine, manual transmission, power steering, and power brakes. The vehicle's test weight was 3421 pounds. The vehicle's impact speed was 29.5 mph. The vehicle's maximum static crush was 13.6 inches.

The driver's head injury criteria (HIC) was 714. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 53.3 g. The driver's chest maximum deflection was 2.1 inches. The driver's left and right femur maximum axial forces were 366 pounds and 430 pounds, respectively.

The right front passenger's HIC was 719. The right front passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 54.6 g. The right front passenger's chest maximum deflection was 1.6 inches. The right front passenger's left and right femur maximum axial forces were 160 pounds and 575 pounds, respectively.

There was no loss of windshield periphery retention.

There was no intrusion through the windshield.

No fluid spilled from the vehicle's fuel system following the crash test event or during the static rollover test.

TABLE 1 CRASH TEST SUMMARY

NHTSA NO.: CN5701 TEST TYPE: Frontal Barrier Impact
TEST DATE: 05/20/92 TEST TIME: 1504 AMBIENT TEMP. (°F): 78
VEHICLE YEAR/MAKE/MODEL/BODY STYLE: 1992/Isuzu/pickup
VEHICLE TEST WEIGHT (LBS): 3421
IMPACT ANGLE (DEG)*: 0
IMPACT VELOCITY (MPH)**: PRIMARY = 29.5 SECONDARY = 29.5
MAXIMUM STATIC CRUSH (IN): 13.6
AVERAGE REBOUND (IN): 16.3
DUMMIES: Driver #314 Passenger #229
TYPE: Part 572 E Part 572 E
LOCATION: Left front Right front
RESTRAINT: 3-point unbelt 3-point unbelt
NUMBER OF DATA CHANNELS: 25
NUMBER OF CAMERAS: HIGH-SPEED 14 REAL-TIME 2

*With respect to tow track centerline.
**Speed trap measurement (\pm .05 mph accuracy)

TABLE 2 TEST VEHICLE INFORMATION

VEHICLE MANUFACTURER: Isuzu Motors, Ltd.

MAKE/MODEL: Isuzu

VIN: 4S1CL11L8N4206274

BODY STYLE: pickup

MODEL YEAR: 1992

NHTSA NO.: CN5701

COLOR: White

ENGINE DATA: TYPE: inline CYLINDERS: 4 DISPLACEMENT: 2.3 liter

TRANSMISSION DATA: 5 SPEED, X MANUAL, AUTOMATIC, FWD, X RWD, 4WD

DATE VEHICLE RECEIVED: 05/04/92

ODOMETER READING: 21.0

DEALER'S NAME AND ADDRESS: Delia Isuzu
1500 Niagra Falls Blvd.
Tonawanda, NY 14150

ACCESSORIES:

POWER STEERING	Yes	AUTOMATIC TRANSMISSION	No
POWER BRAKES	Yes	AUTOMATIC SPEED CONTROL	No
POWER SEATS	No	TILTING STEERING WHEEL	No
POWER WINDOWS	No	TELESCOPING STEERING WHEEL	No
TINTED GLASS	Yes	AIR CONDITIONING	Yes
RADIO	No	ANTI-SKID BRAKE	Yes
CLOCK	No	REAR WINDOW DEFROSTER	No
OTHER	None		

REMARKS:

1. IS THE VEHICLE STOCK THROUGHOUT? Yes
2. DOES VEHICLE SHOW EVIDENCE OF PRIOR ACCIDENT HISTORY? No
3. DOES VEHICLE SHOW ANY SIGNIFICANT CORROSION? No
4. CONDITION OF THE FRONT/REAR BUMPER AND FRAME: Good

CERTIFICATION DATA FROM VEHICLE'S LABEL:

VEHICLE MANUFACTURED BY: Isuzu Motors, Ltd.

DATE OF MANUFACTURE: 11/91

VIN: 4S1CL11L8N4206274

GVWR: 4300 LBS

GAWR: FRONT: 1900 LBS., REAR: 2545 LBS.

TABLE 2 TEST VEHICLE INFORMATION CONT'D

TIRES ON VEHICLE (MFR., LINE, SIZE): Uniroyal, Tiger Paw A/S, P195/75R14

TIRE PRESSURE WITH MAXIMUM CAPACITY VEHICLE LOAD: FRONT: 35 PSI
REAR: 35 PSI

SPARE TIRE (MFR., LINE, SIZE): Uniroyal, Hideaway, T135/70D16

TYPE OF SEATS: FRONT: Bench
REAR: NA

TYPE OF FRONT SEAT BACKS: Non-adjustable

MAXIMUM WIDTH: 66.0 INCHES

WHEELBASE: 105.5 INCHES

LOCATION OF LABEL STATING TIRE & CAPACITY DATA: THE LABEL WAS LOCATED ON
THE DRIVER'S SIDE LOWER B-PILLAR.

TIRE & CAPACITY DATA FROM VEHICLE'S LABEL:

RECOMMENDED TIRE SIZE: 195/70R14

RECOMMENDED COLD TIRE PRESSURE: FRONT: 29 PSI; REAR: 35 PSI

DESIGNATED SEATING CAPACITY: NA FRONT NA REAR NA TOTAL

VEHICLE CAPACITY WEIGHT: NA LBS.

TEST VEHICLE ATTITUDE (ALL MEASUREMENTS ARE IN INCHES):

DELIVERED ATTITUDE: LF 29.8; RF 30.0; LR 29.9; RR 29.9

FULLY LOADED ATTITUDE: LF 29.1; RF 29.2; LR 30.4; RR 30.5

PRE-TEST ATTITUDE: LF 29.0; RF 29.0; LR 30.0; RR 30.1

POST-TEST ATTITUDE: LF 26.9; RF 30.9; LR 31.9; RR 33.2

TABLE 2 TEST VEHICLE INFORMATION CONT'D

WEIGHT OF TEST VEHICLE AS RECEIVED (WITH MAXIMUM FLUIDS):

RIGHT FRONT	790 LBS.	RIGHT REAR	621 LBS.
LEFT FRONT	792 LBS.	LEFT REAR	596 LBS.
TOTAL FRONT WEIGHT	1582 LBS.	(56.5% OF TOTAL VEHICLE WEIGHT)	
TOTAL REAR WEIGHT	1217 LBS.	(43.5% OF TOTAL VEHICLE WEIGHT)	
TOTAL DELIVERED WEIGHT 2799 LBS.			

CALCULATION OF TEST VEHICLE'S TARGET TEST WEIGHT:

RCLW = RATED CARGO AND LUGGAGE WEIGHT*

GVWR = GROSS VEHICLE WEIGHT RATING (4300 LBS)

UDW = UNLOADED DELIVERED WEIGHT (2799 LBS)

VCW = VEHICLE CAPACITY WEIGHT = GVWR - UDW = 4300 - 2799 = 1501

DSC = DESIGNATED SEATING CAPACITY (3) **

RCLW* = GVWR - UDW - 150 (DSC) = 4300 - 2799 - 150(3) = 1051 LBS.

TARGET TEST WEIGHT = UDW + RCLW* + (NO. OF HYBRID III DUMMIES X 167 LBS/DUMMY)

TARGET TEST WEIGHT = 2799 + 300 + 334

TARGET TEST WEIGHT = 3433 LBS

WEIGHT OF TEST VEHICLE WITH REQUIRED DUMMIES AND 288 LBS. OF CARGO WEIGHT:

RIGHT FRONT	888 LBS.	RIGHT REAR	834 LBS.
LEFT FRONT	869 LBS.	LEFT REAR	830 LBS.
TOTAL FRONT WEIGHT	1757 LBS.	(51.4% OF TOTAL VEHICLE WEIGHT)	
TOTAL REAR WEIGHT	1664 LBS.	(48.6% OF TOTAL VEHICLE WEIGHT)	
TOTAL TEST WEIGHT	3421 LBS.	(0.3% UNDER TARGET TEST WEIGHT)	

WEIGHT OF BALLAST SECURED IN VEHICLE CARGO AREA: 160 LBS.

COMPONENTS REMOVED TO MEET TARGET TEST WEIGHT: None

CG = 51.3 INCHES REARWARD OF FRONT WHEEL CENTERLINE

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

**The designated seating capacity is determined by counting the number of seat belts installed in the vehicle.

TABLE 3 POST-IMPACT DATA

TEST NUMBER: 920520 NHTSA NO.: CN5701
TEST DATE: 05/20/92 TEST TIME: 1504
TEST TYPE: Frontal Barrier Impact IMPACT ANGLE: 0
AMBIENT TEMPERATURE AT IMPACT AREA: 78° F
TEMPERATURE IN OCCUPANT COMPARTMENT: 71° F
IMPACT VELOCITY: PRIMARY = 29.5 MPH SECONDARY = 29.5 MPH
(SPECIFIED RANGE = 28.9 TO 29.9 MPH)

DISTANCE FROM VEHICLE TO BARRIER: ENTERING VELOCITY TRAP = 26.0 IN.
EXITING VELOCITY TRAP = 2.0 IN.

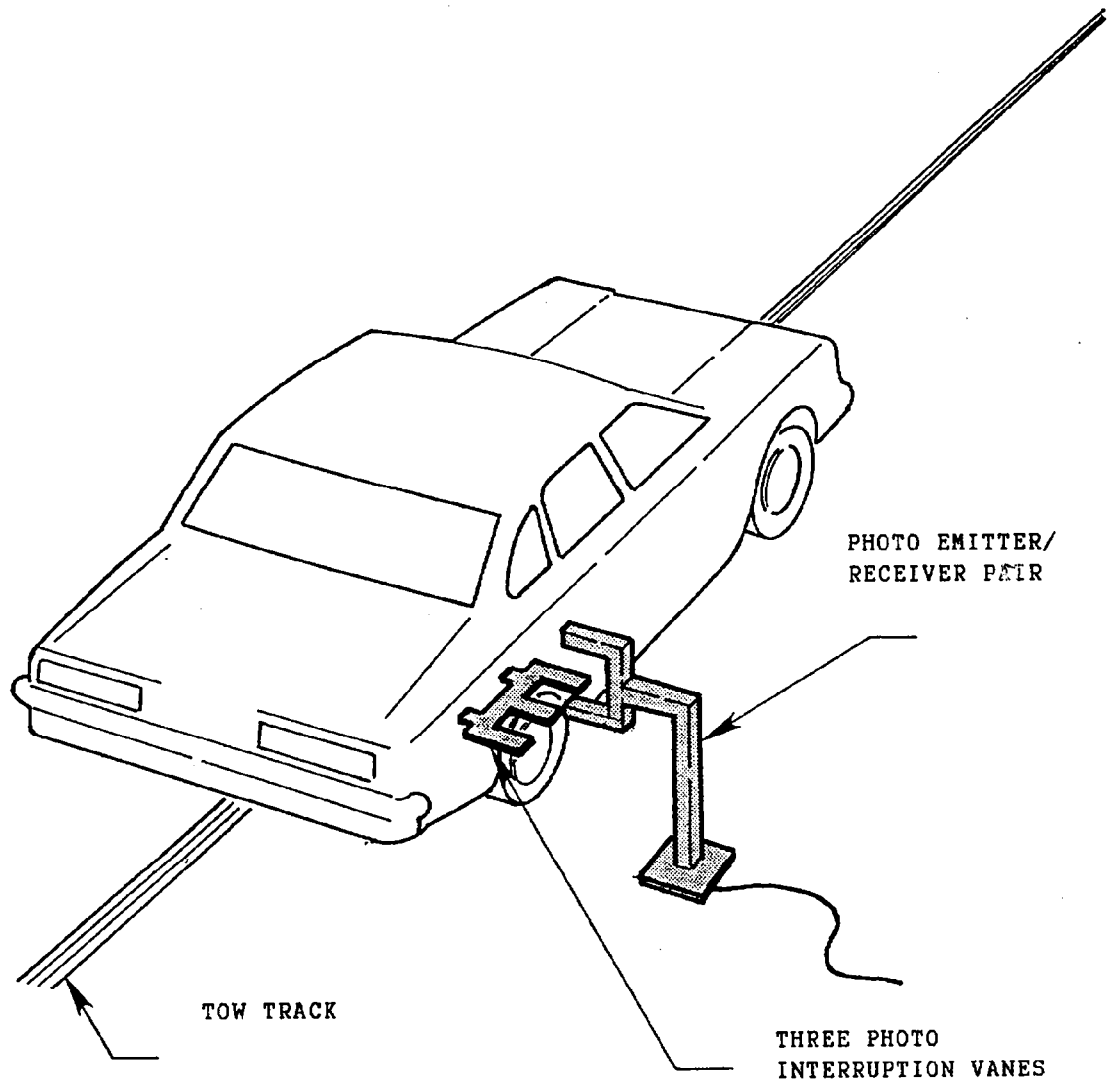
TEST VEHICLE STATIC CRUSH (ALL MEASUREMENTS ARE IN INCHES):

OVERALL LENGTH OF TEST VEHICLE: PRE-TEST: L 180.8; C 182.8; R 180.5
POST-TEST: L 169.2; C 169.6; R 169.5
TOTAL CRUSH: L 11.6; C 13.2; R 11.0
AVERAGE CRUSH: 12.6

TEST VEHICLE REBOUND FROM FLAT BARRIER (ALL MEASUREMENTS ARE IN INCHES):

DISTANCE FROM TEST VEHICLE TO BARRIER: L 16.1; C 15.8; R 16.9; AVG. 16.3

FIGURE 1 IMPACT VELOCITY MEASUREMENT SYSTEM



The final vane clears emitter/receiver two inches before impact.

The vanes have one foot spacing.

FIGURE 2 ACCIDENT INVESTIGATION DIVISION DATA
FOR 30 MPH FRONTAL BARRIER IMPACT

VEHICLE MAKE/MODEL/BODY STYLE: Isuzu/pickup

VEHICLE NHTSA NO.: CN5701; VIN: 4S1CL11L8N4206274

MODEL YEAR: 1992; BUILD DATE: 11/91; TEST DATE: 05/20/92

VEHICLE SIZE CATEGORY: Small pickup; TEST WEIGHT: 3421 LBS.

VEHICLE WHEELBASE: 105.5 INCHES

MAXIMUM WIDTH: 66.0 INCHES

FRONT OVERHANG: 28.8 INCHES

COLLISION DEFORMATION
CLASSIFICATION (CDC) CODE: 12FDEW2

CRUSH DEPTH
MEASUREMENTS:

C1 =	<u>11.6</u>	INCHES
C2 =	<u>11.7</u>	INCHES
C3 =	<u>13.4</u>	INCHES
C4 =	<u>13.6</u>	INCHES
C5 =	<u>11.8</u>	INCHES
C6 =	<u>11.0</u>	INCHES

MIDPOINT OF DAMAGE: D = VEHICLE CENTERLINE (LONGITUDINAL)

LENGTH OF DAMAGED
REGION: L = 54.0 INCHES

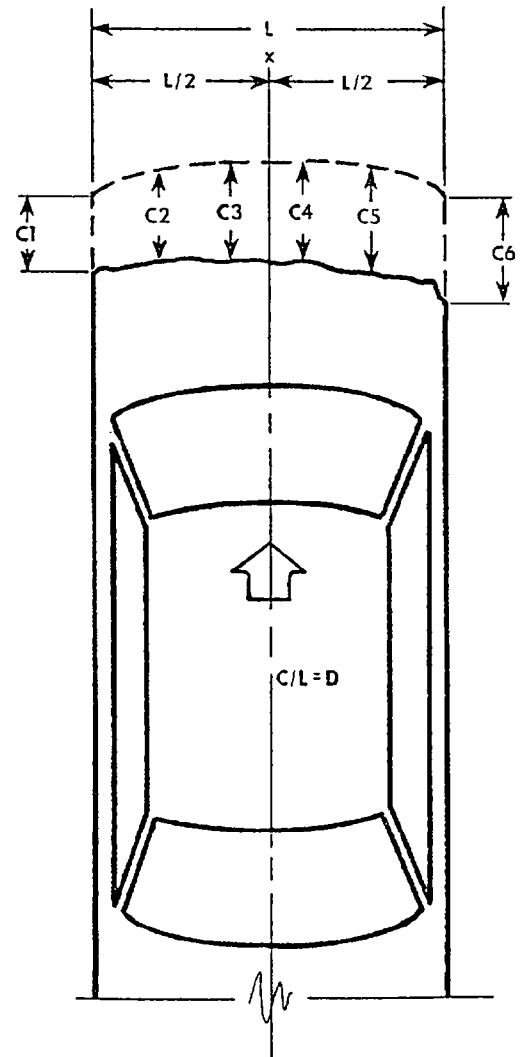
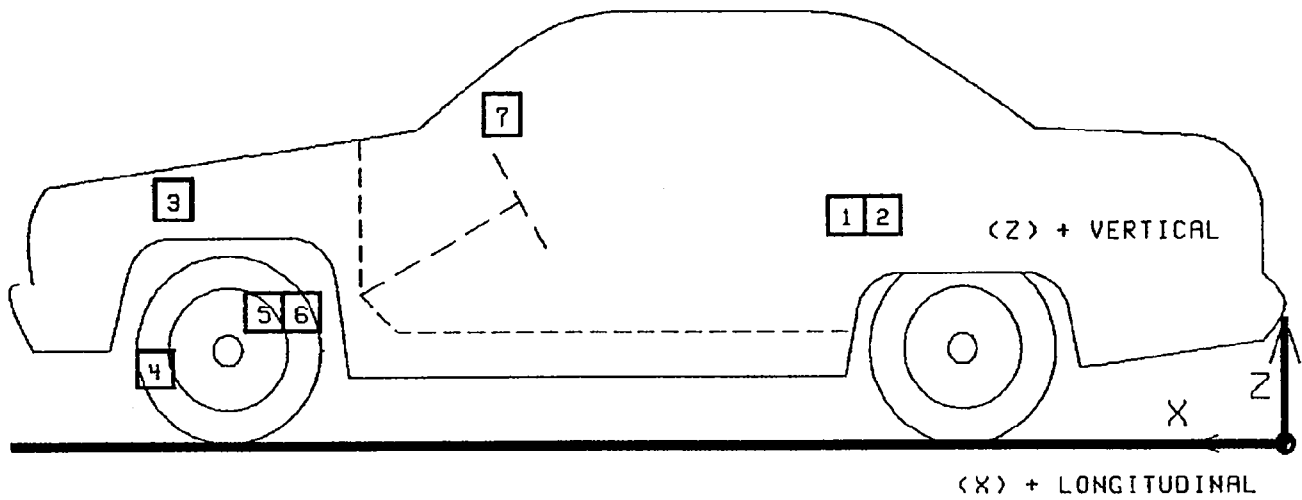
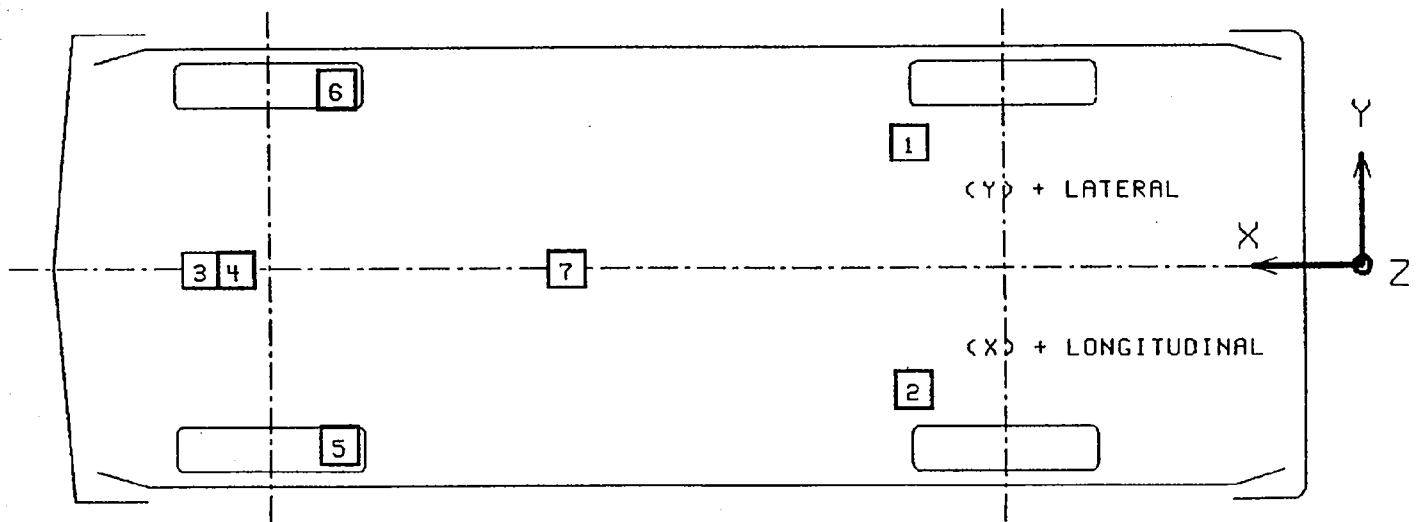


FIGURE 3
VEHICLE ACCELEROMETER PLACEMENT



SIDE VIEW



BOTTOM VIEW

TABLE 4

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

TEST NUMBER 920520

No.	LOCATION		X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
						MAX G	MSEC	MAX G	MSEC
1	LEFT REAR SEAT CROSSMEMBER LONGITUDINAL	PRE	86.5	20.5	15.3				
		POST	86.5	20.5	16.2	2.1	158.4	45.2	17.5
2	RIGHT REAR SEAT CROSSMEMBER LONGITUDINAL	PRE	87.0	-20.5	15.3				
		POST	87.0	-20.5	16.8	2.2	100.1	51.9	19.6
3	ENGINE TOP LONGITUDINAL	PRE	158.8	2.2	32.2				
		POST	165.6	2.2	29.8	41.0	47.0	107.9	32.5
4	ENGINE BOTTOM LONGITUDINAL	PRE	150.5	-4.5	12.4				
		POST	150.2	-5.2	11.6	31.0	46.4	93.9	35.6
5	RIGHT BRAKE CALIPER LONGITUDINAL	PRE	149.2	-23.5	11.6				
		POST	146.1	-24.0	11.8	71.9	37.3	82.2	31.6
6	LEFT BRAKE CALIPER LONGITUDINAL	PRE	149.0	23.5	11.6				
		POST	148.2	24.0	13.0	45.8	60.0	107.7	18.0
7	INSTRUMENT PANEL CENTER LONGITUDINAL	PRE	129.4	3.2	39.2				
		POST	129.4	3.2	33.9	39.4	61.0	52.6	65.0

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

REFERENCE: X: + FORWARD FROM REAR BUMPER
 Y: + LEFTWARD FROM VEHICLE CENTERLINE
 Z: + UPWARD FROM GROUND LEVEL

REPORT OF VEHICLE CONDITION AT THE
COMPLETION OF TESTING

CONTRACT NO.: DTNH22-90-C-21003
FROM: Transportation Research Center Inc.
10820 State Route 347
East Liberty, OH 43319

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 to the responsible testing office. The vehicle is again inspected, after the above test has been conducted, and all changes are noted below. The final condition of the vehicle is also noted in detail.

NHTSA NO.: CN5701
MAKE/MODEL/BODY STYLE: Isuzu/pickup
MODEL YEAR: 1992 BODY COLOR: White
VIN: 4S1CL11L8N4206274
ODOMETER (ARRIVAL): 21 DATE: 05/04/92
ODOMETER (COMPLETION): 27 DATE: 05/20/92
COST: \$8,520.00

<input checked="" type="checkbox"/> AIR CONDITIONER	<input type="checkbox"/> CONSOLE	BRAKES: <input checked="" type="checkbox"/> POWER
<input checked="" type="checkbox"/> TINTED GLASS	<input type="checkbox"/> TACHOMETER	FRONT: Disc
<input checked="" type="checkbox"/> POWER STEERING	<input type="checkbox"/> SPEED CONTROL	REAR: Drum
<input type="checkbox"/> POWER WINDOWS	<input type="checkbox"/> REAR WINDOW DEF.	
<input type="checkbox"/> POWER DOOR LOCKS	<input type="checkbox"/> SUN/MOON ROOF	FRONT SEATS: <input type="checkbox"/> POWER
<input type="checkbox"/> RADIO	<input type="checkbox"/> T-TOP	SEAT TYPE: Bench
<input type="checkbox"/> CLOCK	<input type="checkbox"/> TILT STEERING WHEEL	NO. OF SEATS: 3
<input type="checkbox"/> ROOF RACK	<input type="checkbox"/> OTHER OPTIONS: _____	

ENGINE: 4 CYLINDERS; 2.3 LITERS
TRANSMISSION: 5-speed; DRIVE TYPE: Rear wheel
TIRE SIZE: P195/75R14
GASOLINE TYPE: Unleaded

EQUIPMENT THAT IS NO LONGER ON THE VEHICLE AS NOTED ABOVE: None

EXPLANATION: NA

VEHICLE CONDITION: Vehicle has been subjected to a 30 mph frontal
barrier crash test.

SECTION 3.0

FMVSS 208, 212, 219 (partial), & 301 DATA

TABLE 5 DUMMY INJURY CRITERIA

	MAXIMUM ACCELERATION (G)							
	HEAD				CHEST			
	X	Y	Z	R	X	Y	Z	R*
DRIVER	-93.7	14.9	-48.6	96.6	-55.9	9.2	12.6	53.3
PASSENGER	-67.8	-12.7	-50.7	70.6	-56.0	12.6	21.2	54.6

MAXIMUM FEMUR COMPRESSIVE FORCE (LBS)

	LEFT FEMUR	RIGHT FEMUR
DRIVER	366	430
PASSENGER	160	575

HEAD INJURY CRITERIA**

	HIC	TIME t_1 (MSEC) ¹	TIME t_2 (MSEC) ²
DRIVER	714	55.6	91.6
PASSENGER	719	62.8	98.8

MAXIMUM CHEST DEFLECTION

DRIVER	2.1
PASSENGER	1.6

*Defined as exceeding 0.003 sec. duration

**As defined in FMVSS No. 208

TABLE 6 POST-IMPACT DUMMY/VEHICLE DATA

VISIBLE DUMMY CONTACT POINTS:

	DRIVER #314	PASSENGER #229
HEAD	<u>Upper steering wheel rim & hub</u>	<u>Dummy's chest</u>
CHEST	<u>Lower steering wheel rim</u>	<u>None</u>
ABDOMEN	<u>None</u>	<u>None</u>
LEFT KNEE	<u>Instrument panel</u>	<u>Instrument panel</u>
RIGHT KNEE	<u>Instrument panel</u>	<u>Instrument panel</u>

DOOR OPENING:

	LEFT	RIGHT
FRONT	<u>Easy</u>	<u>Easy</u>
REAR	<u>NA</u>	<u>NA</u>

SEAT MOVEMENT:

	SEAT BACK FAILURE	SEAT SHIFT
FRONT	<u>None</u>	<u>None</u>
REAR	<u>NA</u>	<u>NA</u>

GLAZING DAMAGE:

None

OTHER NOTABLE IMPACT EFFECTS:

None

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 chest then contacted the steering wheel lower rim as the dummy's head rotated downward contacting the steering wheel upper rim and hub. The driver dummy was restrained by the three-point unbelt. Next, the dummy rebounded rearward and slightly to the left into the seat back as the dummy's head rotated rearward into the head restraint. The driver dummy came to rest in the driver's seat, leaning slightly to the left, restrained by the three-point unbelt.

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 then rotated downward contacting the dummy's chest. The right front passenger dummy was restrained by the three-point unbelt. The dummy rebounded rearward and slightly to the right into the seat back as the dummy's head rotated rearward into the head restraint. The right front passenger dummy came to rest in the right front passenger's seat leaning slightly to the right restrained by the three-point unbelt.

TABLE 7 FMVSS 208 COMFORT & CONVENIENCE DATA FOR MANUAL SEAT BELTS

MAKE/MODEL: Isuzu/pickup

VIN: 4S1CL11L8N4206274

BODY STYLE: pickup

NHTSA NO.: CNS701

DATE OF MANUFACTURE: 11/91

WEBBING TENSION - RELIEVING DEVICE:

DO OUTBOARD SEATING POSITION SEAT BELTS HAVE WEBBING TENSION - RELIEVING DEVICES?(check one): NO

BELT CONTACT FORCE:

BELT CONTACT FORCE ON CHEST OF TEST DUMMY: 0.1 POUNDS

LATCHPLATE ACCESS:

ARE THE SEAT BELT LATCHPLATES, IN THEIR NORMAL STOWED POSITION, WITHIN THE REACH ENVELOPE? YES

DOES THE CLEARANCE TEST BLOCK MOVE UNHINDERED TO THE LATCHPLATE OR BUCKLE? YES

RETRACTION:

SEAT BELT AUTOMATICALLY RETRACTS WHEN

(check one): The adjacent vehicle door is open and the seat belt latchplate is released.

 X The seat belt latchplate is released.

ARE THE STOWED SEAT BELT WEBBING AND HARDWARE PINCHED WHEN THE DOOR IS CLOSED? NO

ACCESSIBILITY:

IS THE SEAT CUSHION REMOVABLE SO THE SEAT BACK SERVES A FUNCTION OTHER THAN SEATING? NO

IS THE SEAT REMOVABLE? NO

TABLE 7 FMVSS 208 COMFORT & CONVENIENCE DATA FOR MANUAL SEAT BELTS, CONT'D

MAKE/MODEL: Isuzu/pickup

VIN: 4S1CL11L8N4206274

BODY STYLE: pickup

NHTSA NO.: CN5701

DATE OF MANUFACTURE: 11/91

ACCESSIBILITY, CONT'D:

IS THE SEAT MOVABLE SO THE SPACE FORMERLY OCCUPIED BY THE SEAT CAN BE USED FOR A SECONDARY FUNCTION? NO

NOTE: IF ANY OF THE ABOVE ANSWERS ARE "YES", THE ACCESSIBILITY REQUIREMENTS DO NOT APPLY.

IF WEBBING IS DESIGNED TO PASS THROUGH THE SEAT CUSHION OR BETWEEN THE CUSHION AND SEAT BACK ARE ONE OF THE FOLLOWING PARTS NORMALLY ON TOP OF OR ABOVE THE SEAT CUSHION: LATCHPLATE, BUCKLE, WEBBING? YES

ARE THE REMAINING TWO PARTS ACCESSIBLE UNDER NORMAL CONDITIONS?
YES

DO THE LATCHPLATE AND BUCKLE PASS THROUGH THE GUIDES PROVIDED AND FALL BEHIND THE SEAT WHEN THE BELT IS COMPLETELY RETRACTED (OR DETACHED IF NOT RETRACTABLE); THE SEAT IS MOVED TO ANY POSITION; AND THE SEAT BACK, IF FOLDABLE, IS FOLDED FORWARD AS FAR AS POSSIBLE AND THEN MOVED BACKWARD INTO POSITION? NO

IS THE INBOARD RECEPTACLE END OF THE OUTBOARD SEATING POSITION'S SEAT BELT ACCESSIBLE WITH THE CENTER ARM REST IN ANY POSITION TO WHICH IT CAN BE ADJUSTED WITHOUT MOVING THE ARM REST FOR ACCESS? YES

TABLE 8 FMVSS 208 SEAT BELT WARNING SYSTEM DATA

WITH OCCUPANT IN DRIVER'S POSITION AND UNIBELT IN STOWED POSITION AND
IGNITION SWITCH PLACED IN "START/ON" POSITION:

Duration of audible warning signal = 6 sec.

Duration of reminder light operation = 6 sec.

WITH OCCUPANT IN DRIVER'S POSITION AND UNIBELT IN USE AND THE IGNITION
SWITCH PLACED IN "START/ON" POSITION:

Duration of audible warning signal = 0 sec.

(NOTE: audible warning should not operate)

Duration of reminder light operation = 6 sec.

WORDING OF VISUAL WARNING:

 Fasten Seat Belt

 Fasten Belt

 X Symbol 101-80

 Other: _____

TABLE 9 FMVSS 208 LABELING AND DRIVER'S MANUAL DATA

DESCRIBE LOCATION OF LABEL WHICH DESCRIBES MANUFACTURER'S MAINTENANCE OR
REPLACEMENT SCHEDULE FOR CRASH-DEPLOYED OCCUPANT PROTECTION SYSTEM:

Not applicable, vehicle did not contain a crash-deployed occupant protection
system.

TABLE 10 FMVSS 208 READINESS INDICATOR DATA

AN OCCUPANT RESTRAINT SYSTEM THAT DEPLOYS IN THE EVENT OF A CRASH SHALL HAVE A MONITORING SYSTEM WITH A READINESS INDICATOR. A TOTALLY MECHANICAL SYSTEM IS EXEMPT FROM THIS REQUIREMENT.

Not applicable, vehicle did not contain a crash-deployed occupant protection system.

FIGURE 4 FMVSS 212 TEST DATA

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

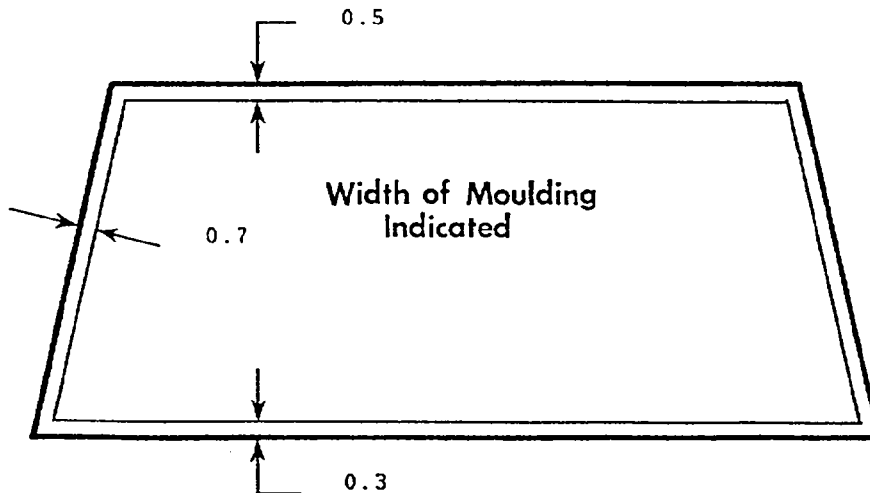
Plastic trim around outer perimeter, adhesive around inner perimeter.

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.

WINDSHIELD PERIPHERY MEASUREMENTS:

	PRE-TEST	POST-TEST	PERCENT RETENTION
RIGHT SIDE	79.5	79.5	100
LEFT SIDE	79.5	79.5	100
TOTAL	159.0	159.0	100

PRE-TEST WINDSHIELD MOUNTING MATERIAL TEMPERATURE: 71° F



FRONT VIEW OF WINDSHIELD*

LOSS OF WINDSHIELD RETENTION LENGTHS: None

ALL DISTANCE MEASUREMENTS ARE IN INCHES.

*INDICATE AREAS OF LOSS OF RETENTION, IF ANY, ON WINDSHIELD DIAGRAM.

FIGURE 5 FMVSS 219 TEST DATA

PROTECTED ZONE LOWER EDGE REQUIREMENT:

The lower edge of the protected zone is determined by placing a 6.5 inch diameter 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 contactable by the sphere across the width of the instrument panel. From the outermost contactable 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 0.5 inch 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 = 48.0

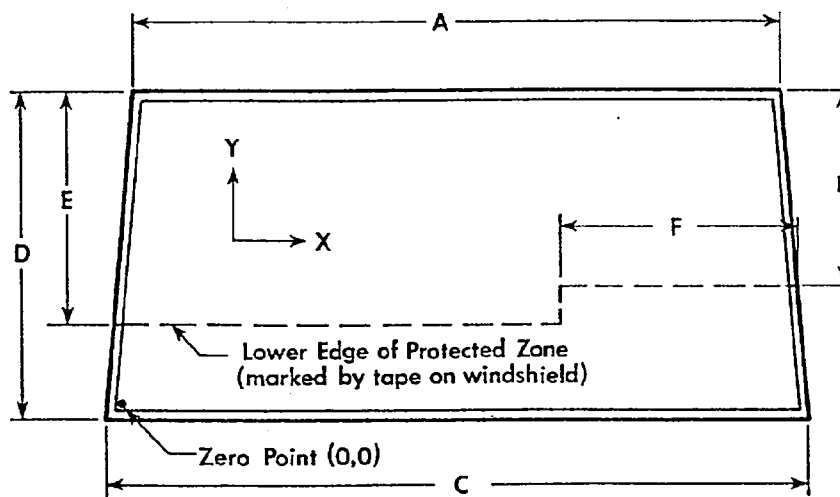
B = 12.8

C = 57.5

D = 28.0

E = 21.1

F = 23.8



FRONT VIEW

METHOD OF ADHERING PROTECTED ZONE TEMPLATE TO WINDSHIELD: NA

AREAS OF WINDSHIELD TEMPLATE PENETRATION
GREATER THAN 0.25 IN.: NA

	COORDINATES	
	X	Y
1.		
2.		
3.		

AREAS OF WINDSHIELD PENETRATION, BELOW THE PROTECTED ZONE,
THROUGH THE INNER SURFACE OF THE WINDSHIELD: None

1.
2.
3.

ALL MEASUREMENTS ARE IN INCHES.

TABLE 11 FUEL SYSTEM DATA

MAKE/MODEL: Isuzu/pickup

NHTSA NO.: CN5701

FUEL SYSTEM CAPACITY: 14.0 GALLONS (FROM OWNER'S MANUAL)

USABLE CAPACITY: 14.0 GALLONS (FURNISHED BY COTR)

TEST VOLUME RANGE: 12.9 GALLONS TO 13.1 GALLONS (92-94% OF USABLE)

ACTUAL TEST VOLUME: 13.0 GALLONS (WITH ENTIRE FUEL SYSTEM FILLED)

TEST FLUID TYPE: STODDARD SOLVENT

SPECIFIC GRAVITY: 0.764

KINEMATIC VISCOSITY: 0.99 CENTISTOKES

TEST FLUID COLOR: PURPLE

DETAILS OF FUEL SYSTEM: The fuel tank is located in front of the rear
axle. The fuel lines run along the right frame rail to the front. The
fuel filler neck is located on the right side.

ELECTRIC FUEL PUMP: Yes FUEL INJECTION: Yes

DOES ELECTRIC FUEL PUMP OPERATE WITH IGNITION SWITCH "ON" AND THE ENGINE NOT OPERATING? No

TABLE 12 FMVSS 301 POST-IMPACT TEST DATA

TEST VEHICLE NHTSA NO.: CN5701; TEST DATE: 05/20/92
VEHICLE MAKE/MODEL/BODY STYLE: Isuzu/pickup

TEST REQUIREMENTS:

Test vehicle 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/PASS.) SIDE.
 REAR MOVING BARRIER (30 MPH)
 LATERAL MOVING BARRIER (20 MPH)

FUEL SYSTEM FLUID SPILLAGE MEASUREMENTS:

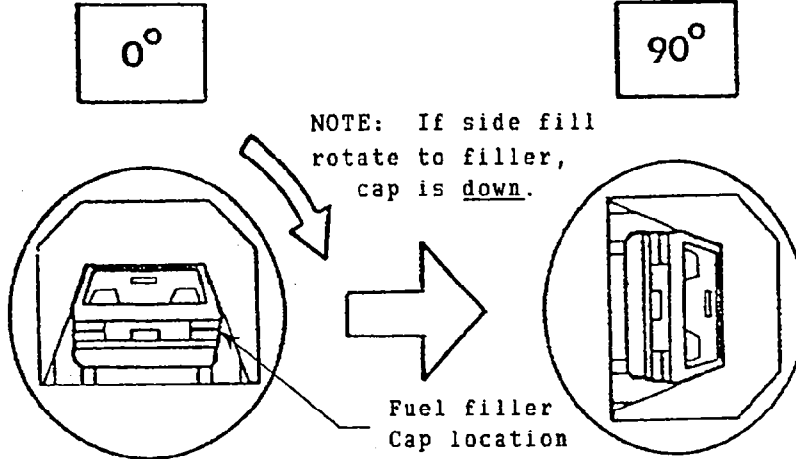
	<u>TEST RESULTS</u>	<u>MAXIMUM ALLOWABLE</u>
1. FROM IMPACT UNTIL VEHICLE MOTION CEASES - - -	0 OZ.	1 OZ.
2. 5 MINUTE PERIOD AFTER VEHICLE MOTION CEASES -	0 OZ.	5 OZ.
3. NEXT 25 MINUTES AFTER 5 MINUTE PERIOD - - - -	0 OZ.	1 OZ./1 MIN.

FUEL SYSTEM FLUID SPILLAGE LOCATION(S):

None

FIGURE 6 FMVSS 301 STATIC ROLLOVER TEST DATA

NHTSA NO.: CN5701
 TEST PHASE



STATIC ROLLOVER MACHINE ROTATION TIME INFORMATION: (Spec. Range = 1-3 min.)

TIME REQ. FOR MACHINE TO ROTATE 90° = 2 minutes, 00 seconds
 FMVSS 301 POSITION HOLD TIME = 5 minutes, 00 seconds
 TOTAL - - - - - = 7 minutes, 00 seconds
 NEXT WHOLE MINUTE INTERVAL - - - - = 7 minutes

FUEL SYSTEM FLUID SPILLAGE MEASUREMENTS:

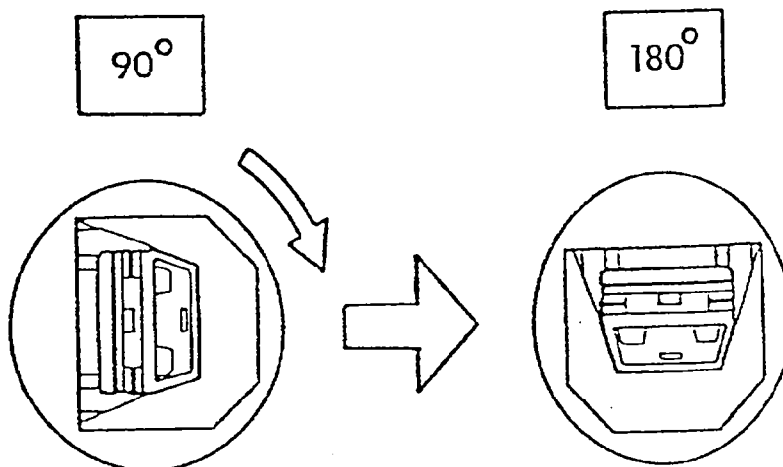
<u>0° TO 90° ROTATION (FUEL FILLER CAP DOWN)</u>	<u>TEST RESULTS</u>	<u>MAXIMUM ALLOWABLE</u>
1. FIRST 5 MINUTES FROM ONSET OF ROTATION - - - - -	0 oz.	5 oz.
2. 6TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.
3. 7TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.

FUEL SYSTEM FLUID SPILLAGE LOCATION(S):

None

FIGURE 6 FMVSS 301 STATIC ROLLOVER TEST DATA, CONT'D.

NHTSA NO.: CN5701
TEST PHASE



STATIC ROLLOVER MACHINE ROTATION TIME INFORMATION: (Spec. Range = 1-3 min.)

TIME REQ. FOR MACHINE TO ROTATE 90° = 2 minutes, 00 seconds
 FMVSS 301 POSITION HOLD TIME = 5 minutes, 00 seconds
 TOTAL - - - - - = 7 minutes, 00 seconds
 NEXT WHOLE MINUTE INTERVAL - - - - - = 14 minutes

FUEL SYSTEM FLUID SPILLAGE MEASUREMENTS:

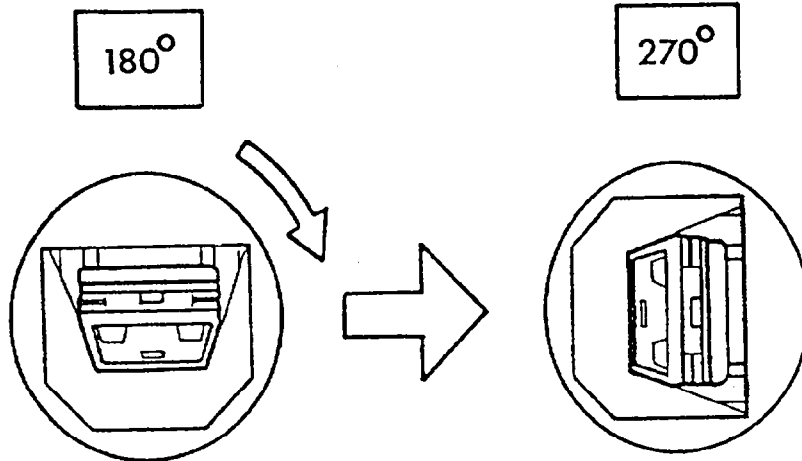
<u>90° TO 180° ROTATION</u>	<u>TEST RESULTS</u>	<u>MAXIMUM ALLOWABLE</u>
1. FIRST 5 MINUTES FROM ONSET OF ROTATION - - - - -	0 oz.	5 oz.
2. 6TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.
3. 7TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.

FUEL SYSTEM FLUID SPILLAGE LOCATION(S):

None

FIGURE 6 FMVSS 301 STATIC ROLLOVER TEST DATA, CONT'D.

NHTSA NO.: CN5701
TEST PHASE



STATIC ROLLOVER MACHINE ROTATION TIME INFORMATION: (Spec. Range = 1-3 min.)

TIME REQ. FOR MACHINE TO ROTATE 90° = 2 minutes, 00 seconds
 FMVSS 301 POSITION HOLD TIME = 5 minutes, 00 seconds
 TOTAL - - - - - = 7 minutes, 00 seconds
 NEXT WHOLE MINUTE INTERVAL - - - - = 21 minutes

FUEL SYSTEM FLUID SPILLAGE MEASUREMENTS:

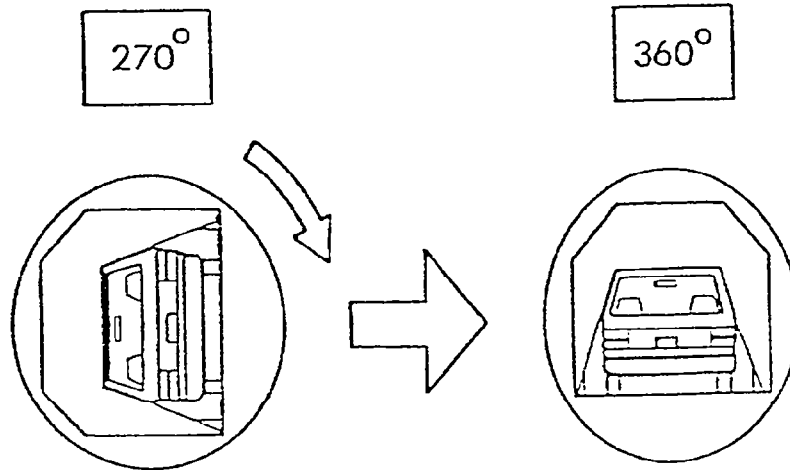
<u>180° TO 270° ROTATION</u>	<u>TEST RESULTS</u>	<u>MAXIMUM ALLOWABLE</u>
1. FIRST 5 MINUTES FROM ONSET OF ROTATION - - - - -	0 oz.	5 oz.
2. 6TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.
3. 7TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.

FUEL SYSTEM FLUID SPILLAGE LOCATION(S):

None

FIGURE 6 FMVSS 301 STATIC ROLLOVER TEST DATA, CONT'D.

NHTSA NO.: CN5701
TEST PHASE



STATIC ROLLOVER MACHINE ROTATION TIME INFORMATION: (Spec. Range = 1-3 min.)

TIME REQ. FOR MACHINE TO ROTATE 90° = 2 minutes, 00 seconds
 FMVSS 301 POSITION HOLD TIME = 5 minutes, 00 seconds
 TOTAL - - - - - = 7 minutes, 00 seconds
 NEXT WHOLE MINUTE INTERVAL - - - - - = 28 minutes

FUEL SYSTEM FLUID SPILLAGE MEASUREMENTS:

<u>270° TO 360° ROTATION</u>	<u>TEST RESULTS</u>	<u>MAXIMUM ALLOWABLE</u>
1. FIRST 5 MINUTES FROM ONSET OF ROTATION - - - - -	0 oz.	5 oz.
2. 6TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.
3. 7TH MINUTE FROM ONSET OF ROTATION - - - - -	0 oz.	1 oz.

FUEL SYSTEM FLUID SPILLAGE LOCATION(S):

None

SECTION 4.0

VEHICLE, OCCUPANT, AND CAMERA MEASUREMENTS

FIGURE 7

PRE-TEST AND POST-TEST MEASUREMENT POINTS

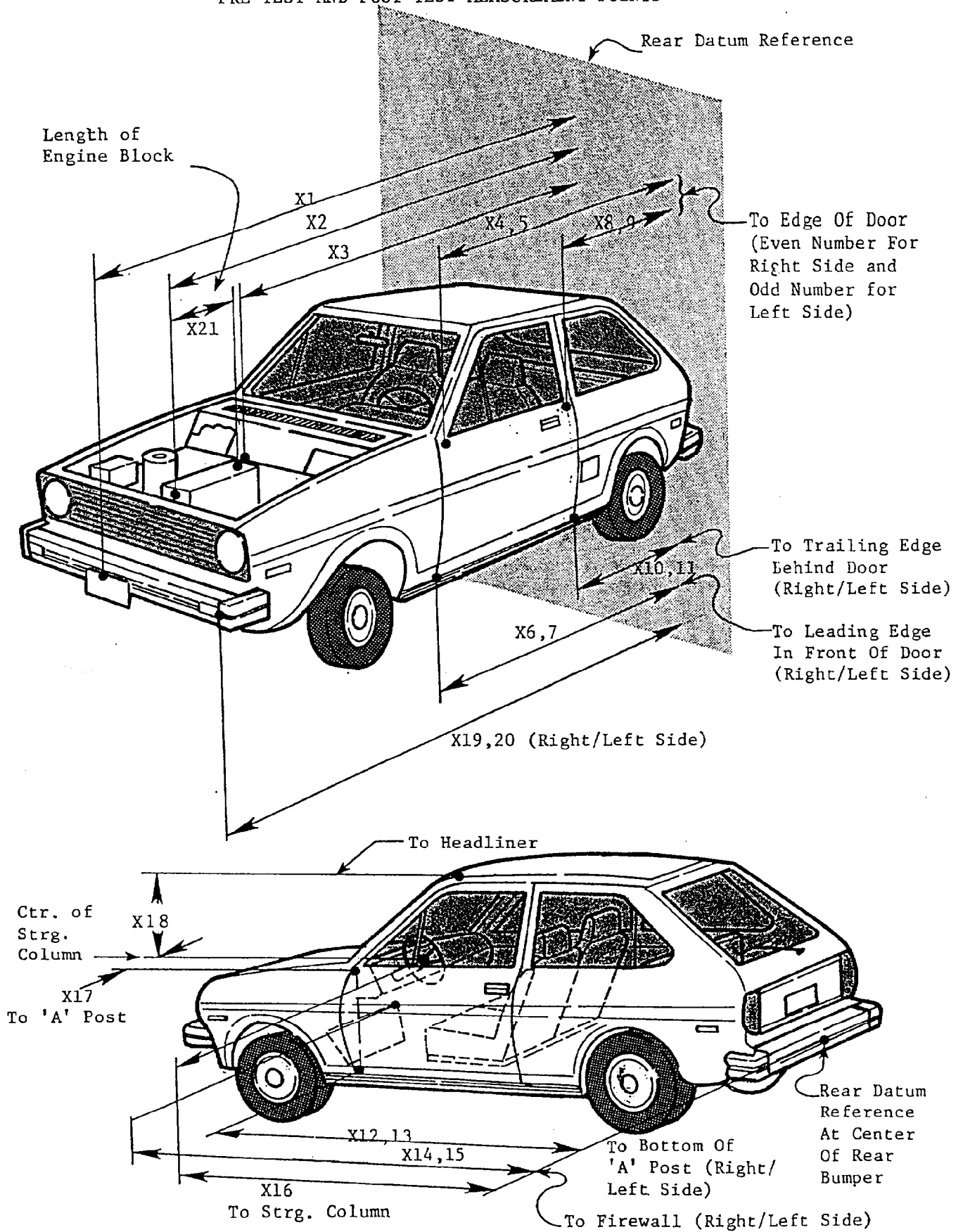
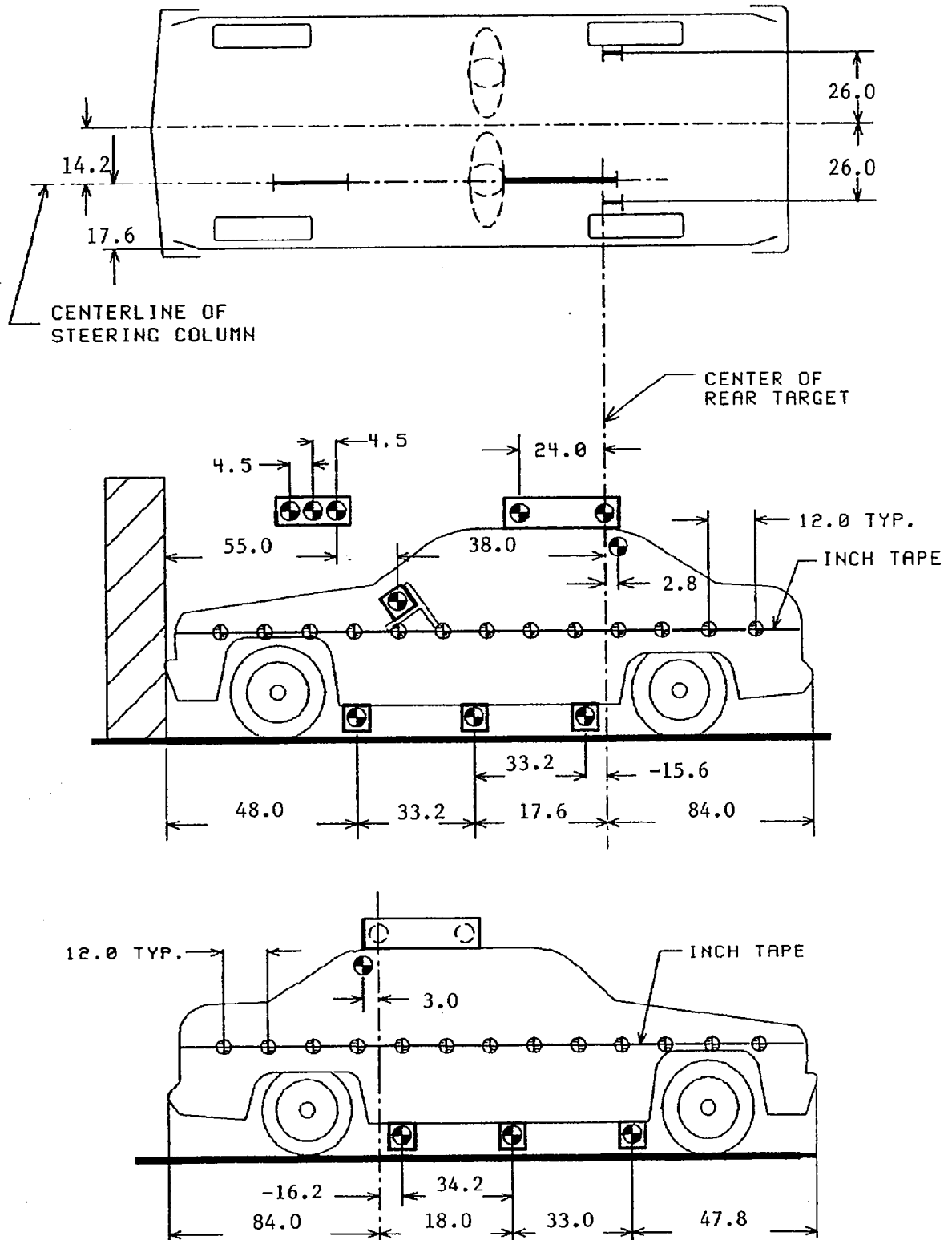


TABLE 13 IMPACTED VEHICLE MEASUREMENTS

VEHICLE MAKE/MODEL: Isuzu/pickup		TEST NUMBER: 920520		ALL MEASUREMENTS ARE IN INCHES	
NO.	TYPE OF MEASUREMENT	PRE-TEST	POST-TEST	DIFF.	
X1	TOTAL LENGTH OF VEHICLE AT CENTERLINE	182.8	169.6	13.2	
X2	REAR SURFACE OF VEHICLE TO FRONT OF ENGINE BLOCK	162.8	163.3	-0.5	
X3	REAR SURFACE OF VEHICLE TO FIREWALL	143.2	145.3	-2.1	
X4	REAR SURFACE OF VEHICLE TO UPPER LEADING EDGE OF RIGHT DOOR	134.2	135.6	-1.4	
X5	REAR SURFACE OF VEHICLE TO UPPER LEADING EDGE OF LEFT DOOR	134.1	135.5	-1.4	
X6	REAR SURFACE OF VEHICLE TO LOWER LEADING EDGE OF RIGHT DOOR	133.8	134.0	-0.2	
X7	REAR SURFACE OF VEHICLE TO LOWER LEADING EDGE OF LEFT DOOR	133.9	134.6	-0.7	
X8	REAR SURFACE OF VEHICLE TO UPPER TRAILING EDGE OF RIGHT DOOR	88.9	90.5	-1.6	
X9	REAR SURFACE OF VEHICLE TO UPPER TRAILING EDGE OF LEFT DOOR	88.9	90.6	-1.7	
X10	REAR SURFACE OF VEHICLE TO LOWER TRAILING EDGE OF RIGHT DOOR	88.5	88.9	-0.4	
X11	REAR SURFACE OF VEHICLE TO LOWER TRAILING EDGE OF LEFT DOOR	88.8	89.0	-0.2	
X12	REAR SURFACE OF VEHICLE TO BOTTOM OF "A" POST ON RIGHT SIDE	133.4	134.0	-0.6	
X13	REAR SURFACE OF VEHICLE TO BOTTOM OF "A" POST ON LEFT SIDE	133.1	134.3	-1.2	
X14	REAR SURFACE OF VEHICLE TO FIREWALL - RIGHT SIDE	143.0	144.8	-1.8	
X15	REAR SURFACE OF VEHICLE TO FIREWALL - LEFT SIDE	143.2	144.5	-1.3	
X16	REAR SURFACE OF VEHICLE TO STEERING WHEEL CENTER	116.5	121.4	-4.9	
X17	CENTER OF STEERING COLUMN TO "A" POST	10.8	11.5	-0.7	
X18	CENTER OF STEERING COLUMN TO HEADLINER	17.5	17.7	-0.2	
X19	REAR SURFACE OF VEHICLE TO RIGHT SIDE OF FRONT BUMPER	180.5	169.5	11.0	
X20	REAR SURFACE OF VEHICLE TO LEFT SIDE OF FRONT BUMPER	180.8	169.2	11.6	
X21	LENGTH OF ENGINE BLOCK	19.0	19.0	0.0	

FIGURE 8

VEHICLE TARGET LOCATIONS



ALL DISTANCE MEASUREMENTS ARE IN INCHES.

FIGURE 9 DUMMY AND SEAT POSITIONING DATA

PRE-IMPACT DATA:

MAKE/MODEL: Isuzu/pickup
 BODY STYLE: 2-door pickup MODEL YEAR: 1992
 NHTSA NO.: CNS701 COLOR: White

DATA FROM CERTIFICATION LABEL:

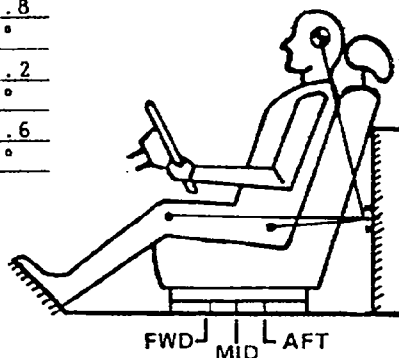
VEHICLE MANUFACTURER: Isuzu Motors, Ltd.
 DATE OF MANUFACTURE: 11/91 VIN: 4S1CL11L8N4206274
 GVWR: 4300 LBS.; GAWR: FRONT = 1900 LBS.; REAR = 2545 LBS.

POST-IMPACT DATA:

DATE OF TEST: 05/20/92 TIME: 1504 TEMPERATURE: 78° F
 IMPACT VELOCITY: PRIMARY = 29.5 MPH SECONDARY = 29.5 MPH
 REQUIRED IMPACT VELOCITY RANGE: 28.9 TO 29.9 MPH
 SEAT TYPE: Bench ADJUSTER TYPE: Manual
 FRONT SEAT BACK TYPE: Non-adjustable
 TECHNICIANS: P. Cummins, B. Fishbaugh, R. Branham

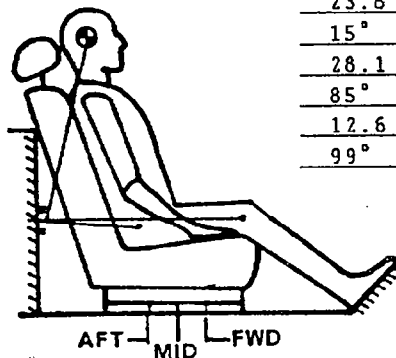
DRIVER DUMMY # 314 TYPE: HIII

HEAD 23.8
 TARGET 14°
 KNEE 26.2
 JOINT 85°
 APPROX-
 IMATE 11.6
99°
 "H"
 POINT

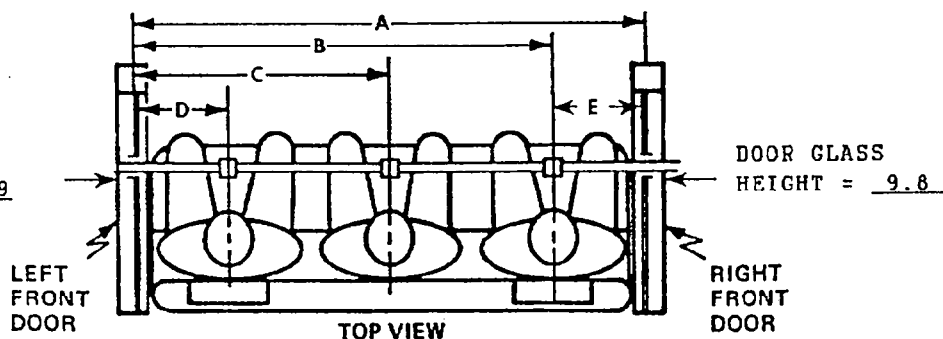


PASSENGER DUMMY # 229 TYPE: HIII

HEAD 23.8
 TARGET 15°
 KNEE 28.1
 JOINT 85°
 APPROX-
 IMATE 12.6
99°
 "H"
 POINT



A = 53.5
 B = 41.0
 C = NA
 D = 12.8
 E = 12.5
 DOOR GLASS
 HEIGHT = 10.9



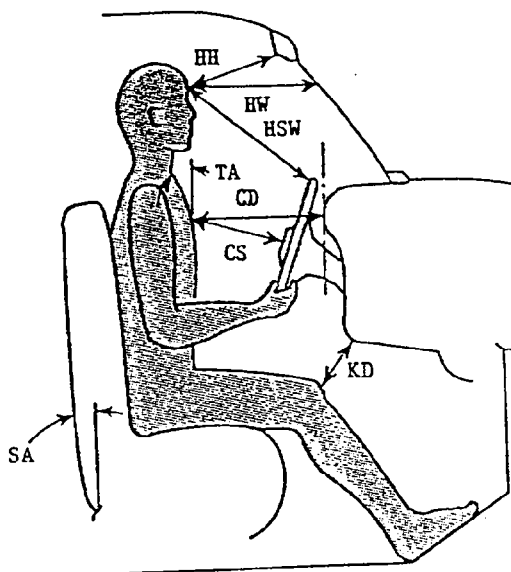
DRIVER
 DUMMY

PASSENGER
 DUMMY

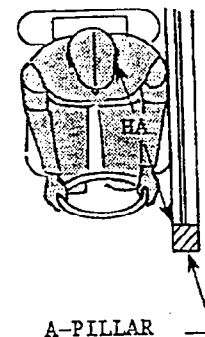
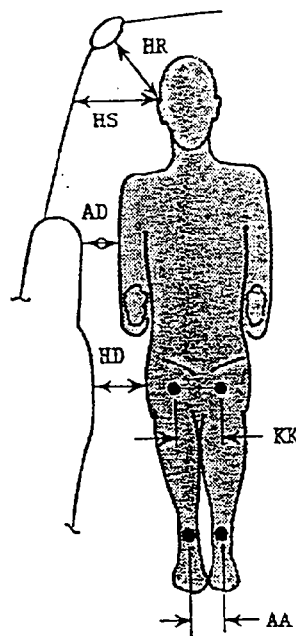
ALL ANGLES ARE RELATIVE TO VERTICAL PLANE THROUGH DOOR STRIKER.
 ALL DISTANCE MEASUREMENTS ARE IN INCHES.

FIGURE 10 DUMMY IN VEHICLE POSITIONING DATA

	DRIVER	PASSENGER
HH	15.9	15.5
HW	21.8	21.8
CD	20.4	21.0
CS	13.0	NA
KDL	4.4	4.2
KDR	4.3	4.1
TA	17°	22°
SA	20°	20°
HSW	18.1	NA



	DRIVER	PASSENGER
HR	9.1	8.5
HS	9.8	9.2
AD	4.5	3.9
HD	6.4	4.8
KK	9.0	8.0
AA	10.5	6.8
HA	23.9	22.4



KNEE OUTER CLEVIS TO OUTER CLEVIS SPACING:

DRIVER = 10.6
PASSENGER = 10.6

PELVIS ANGLE:

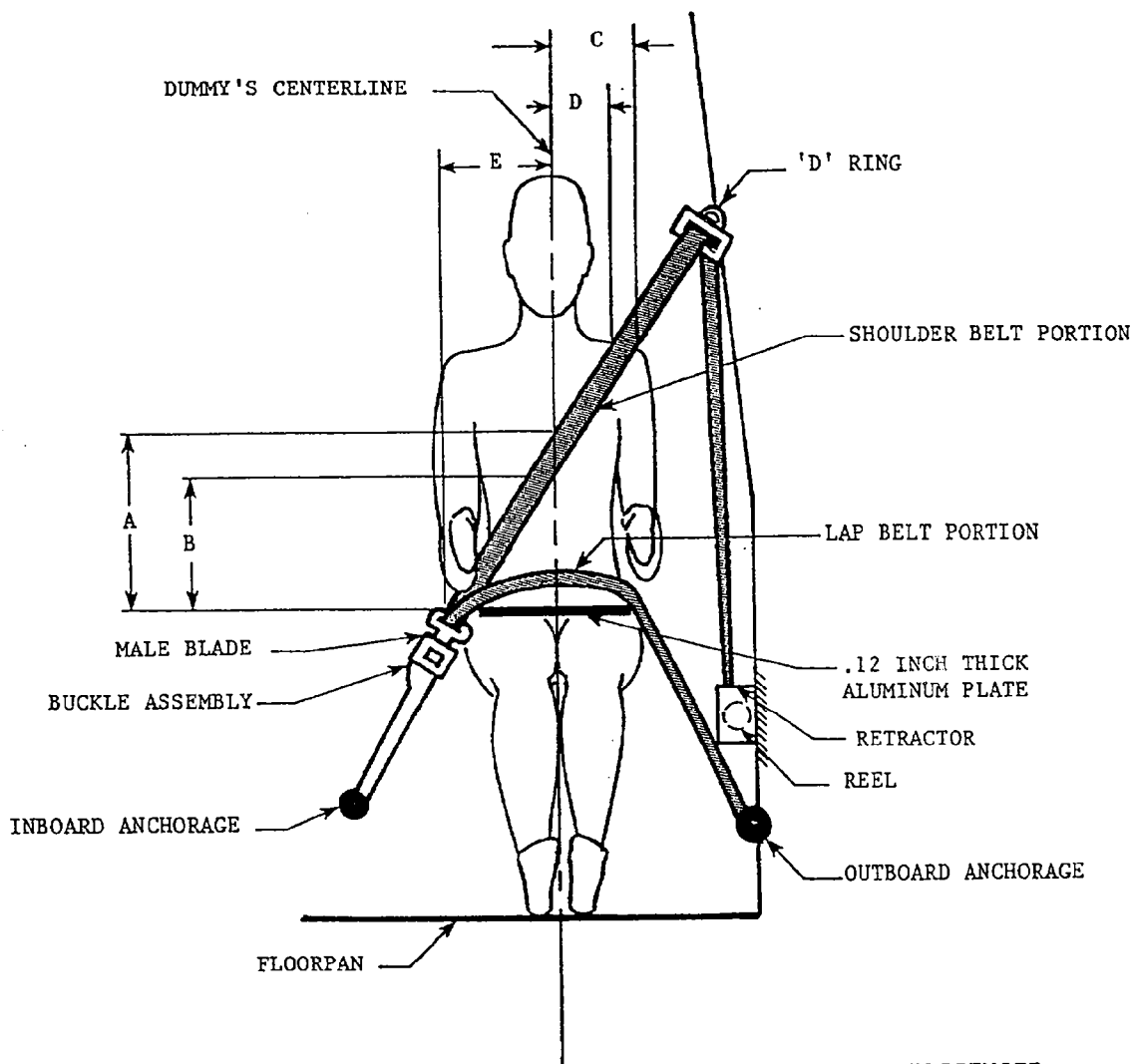
DRIVER = 22.5°
PASSENGER = 23°

HH = HEAD TO WINDSHIELD HEADER
HW = HEAD TO WINDSHIELD
CD = CHEST TO DASH
CS = CHEST TO STEERING WHEEL
KD = KNEE TO DASH
TA = TORSO ANGLE
SA = SEAT BACK ANGLE
HSW = HEAD TO STEERING WHEEL

HR = HEAD C.G. TARGET TO SIDE ROOF HEADER
HS = HEAD C.G. TARGET TO SIDE WINDOW
AD = ARM TO DOOR
HD = HIP TO DOOR
KK = KNEE TO KNEE
AA = ANKLE TO ANKLE
HA = HEAD C.G. TARGET TO A-PILLAR

TORSO AND SEAT BACK ANGLES ARE RELATIVE TO VERTICAL.
ALL DISTANCE MEASUREMENTS ARE IN INCHES.

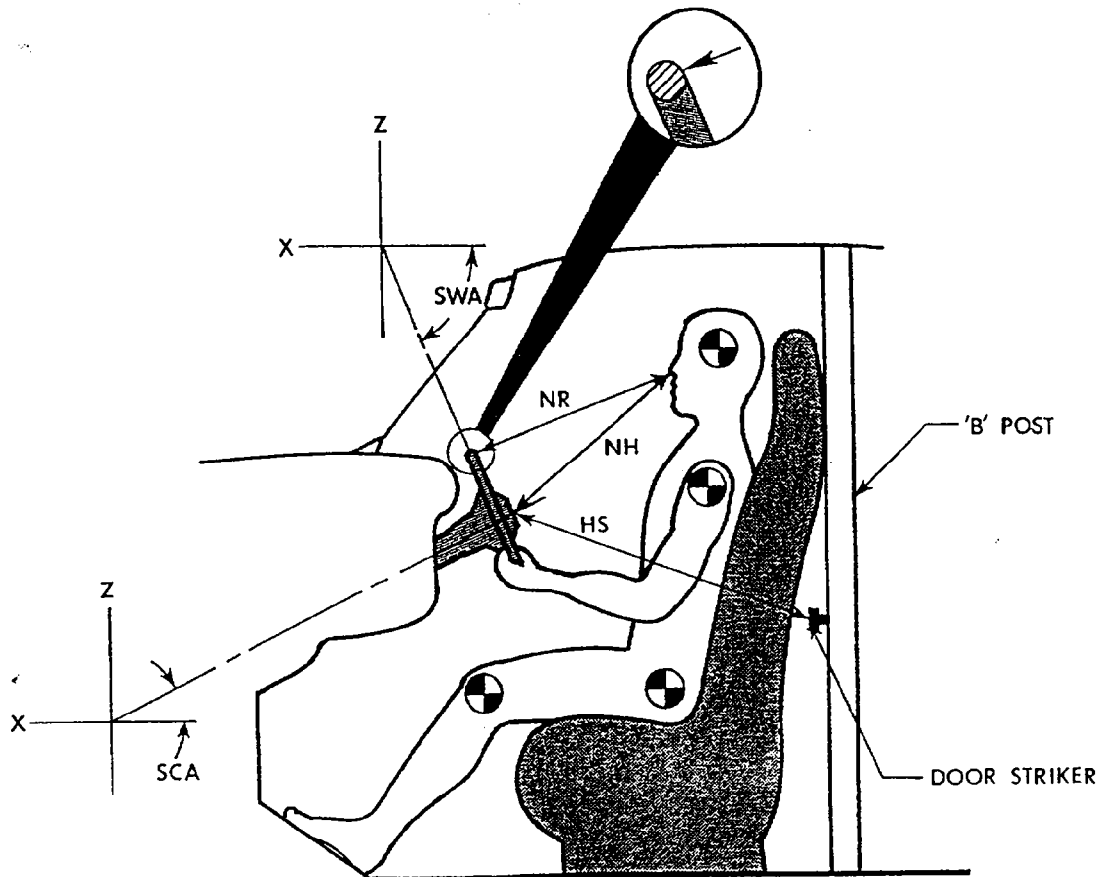
FIGURE 11 SEAT BELT POSITIONING DATA



	DRIVER DUMMY	PASSENGER DUMMY
A - TOP SURFACE OF ALUM. PLATE TO BELT UPPER EDGE	14.6	15.6
B - TOP SURFACE OF ALUM. PLATE TO BELT LOWER EDGE	11.4	12.1
C - DUMMY CENTERLINE TO OUTER EDGE OF BELT AT CHEST FLESH TOP	4.3	3.2
D - DUMMY CENTERLINE TO INNER EDGE OF BELT AT CHEST FLESH TOP	1.8	0.9
E - DUMMY CENTERLINE TO INTERSECTION OF UPPER TORSO BELT AND LAP BELT	8.8	8.5

ALL DISTANCE MEASUREMENTS ARE IN INCHES.

FIGURE 12 DRIVER DUMMY TO STEERING COLUMN/WHEEL ASSEMBLY DATA



POSITION OF STEERING COLUMN TILTING AND TELESCOPING ADJUSTMENTS, IF ANY:
The steering column was not adjustable.

MEASUREMENTS

NR	- DISTANCE FROM TIP OF DUMMY'S NOSE TO TOP REAR SURFACE OF STEERING WHEEL RIM.	16.5
NH	- DISTANCE FROM TIP OF DUMMY'S NOSE TO CENTER OF STEERING COLUMN HUB.	17.1
HS	- DISTANCE FROM CENTER OF STEERING COLUMN HUB TO THE FORWARD SURFACE OF THE DOOR LOCK STRIKER PIN.	26.8
SCA	- ANGLE OF STEERING COLUMN RELATIVE TO THE HORIZONTAL X AXIS	25°
SWA	- ANGLE OF STEERING WHEEL RELATIVE TO THE HORIZONTAL X AXIS	65°

ALL DISTANCE MEASUREMENTS ARE IN INCHES.

FIGURE 13
CAMERA POSITIONS

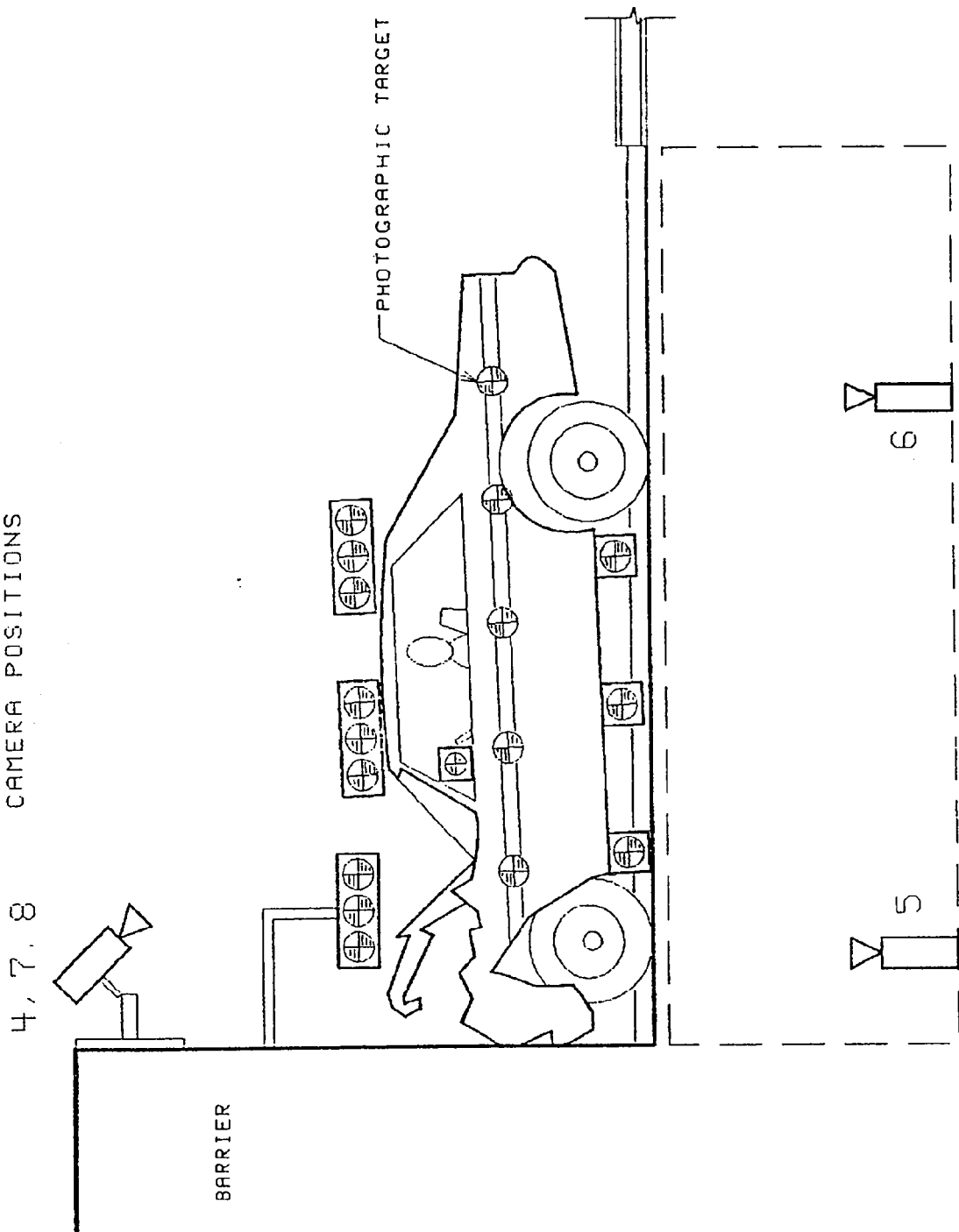


FIGURE 13

CAMERA POSITIONS, CONTINUED

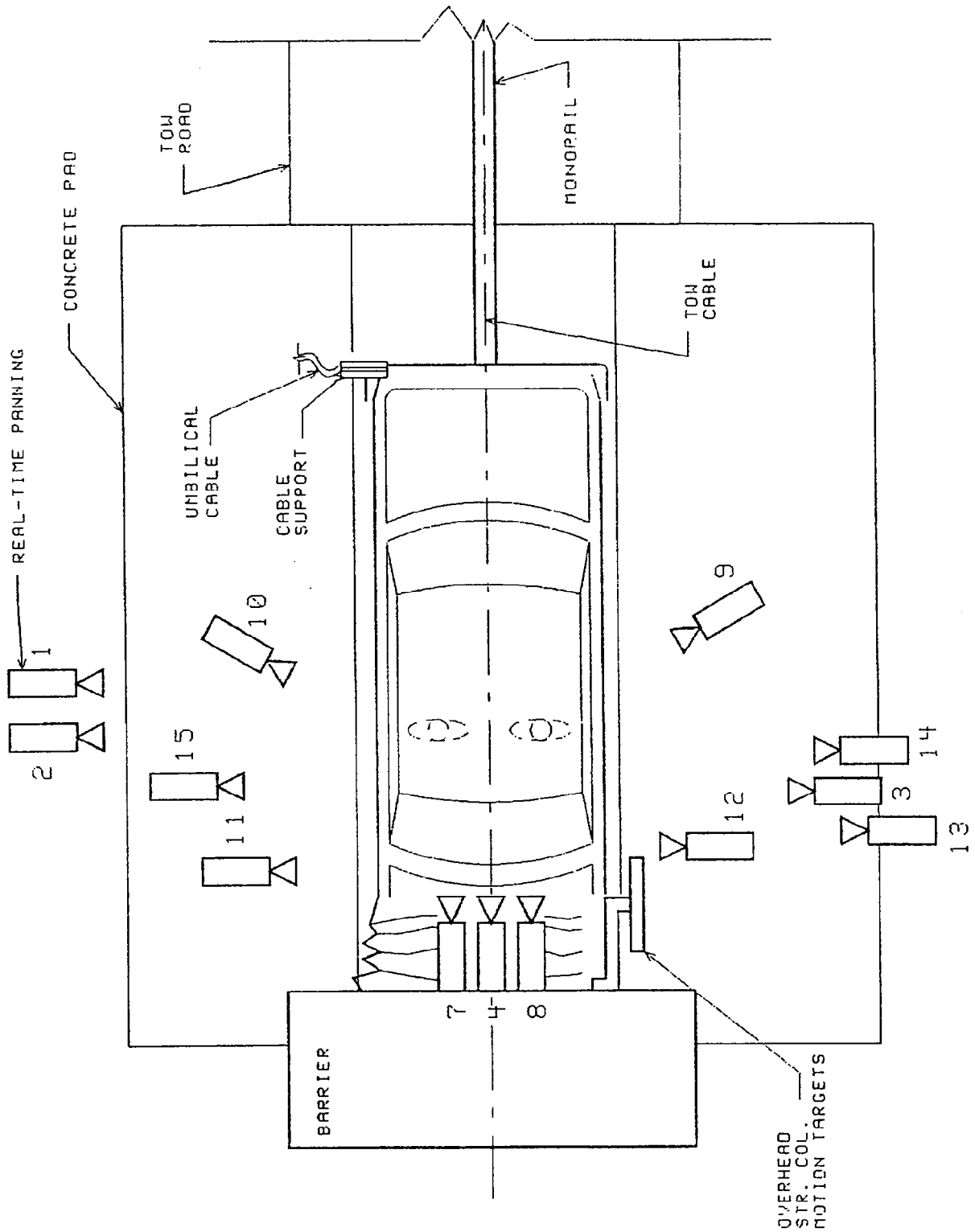


TABLE 14 MOTION PICTURE CAMERA LOCATIONS

CAMERA NO.	VIEW	CAMERA POSITIONS (IN)*			ANGLE** (DEG)	FILM PLANE TO HEAD TARGET (IN)		FILM SPEED (FPS)
		X	Y	Z		TO HEAD TARGET (IN)	LENSE (MM)	
1	Real-time panning	-142.0	-504.0	61.0	NA	NA	16	24
2	Right overall	-81.3	-266.4	37.1	-2	NA	13	500
3	Left vehicle crush	-41.5	295.0	44.0	-4	201.0	25	1030
4	Windshield front view	-6.0	0.0	84.0	-40	NA	13	1010
5	Pit-left subframe sidemember	-8.0	29.0	-16.0	90	NA	13	1000
6	Pit-right subframe sidemember	-7.0	30.0	-12.0	90	NA	13	998
7	Passenger front view	-4.5	-13.8	93.0	-50	NA	17	500
8	Driver front view	-6.8	14.5	93.0	-50	NA	17	502
9	Driver kinematics	-157.3	116.0	87.0	-27	83.0	25	---
10	Passenger kinematics	-152.1	-116.0	87.0	-26	86.0	25	508
11	Right windshield intrusion	-38.1	-306.1	44.0	0	NA	50	492
12	Left windshield intrusion	-53.0	309.4	42.3	0	NA	50	490
13	Steering column motion	-90.0	285.0	103.0	-14	NA	25	498
14	Steering column motion	-90.0	285.0	75.1	-9	NA	25	498
15	Passenger kinematics	-38.8	-293.0	45.3	-4	206.0	25	1040
16	Real-time documentation	NA	NA	NA	NA	NA	12-120	24

* +X = Film plane forward of barrier face

+Y = Film plane to left of monorail centerline

+Z = Film plane above ground level

** +Angle = Film plane angled upward from horizontal plane

*** The film was destroyed due to a camera malfunction.

APPENDIX A

PHOTOGRAPHS



FIGURE A-1. PRE-TEST FRONT VIEW

A-2

920520

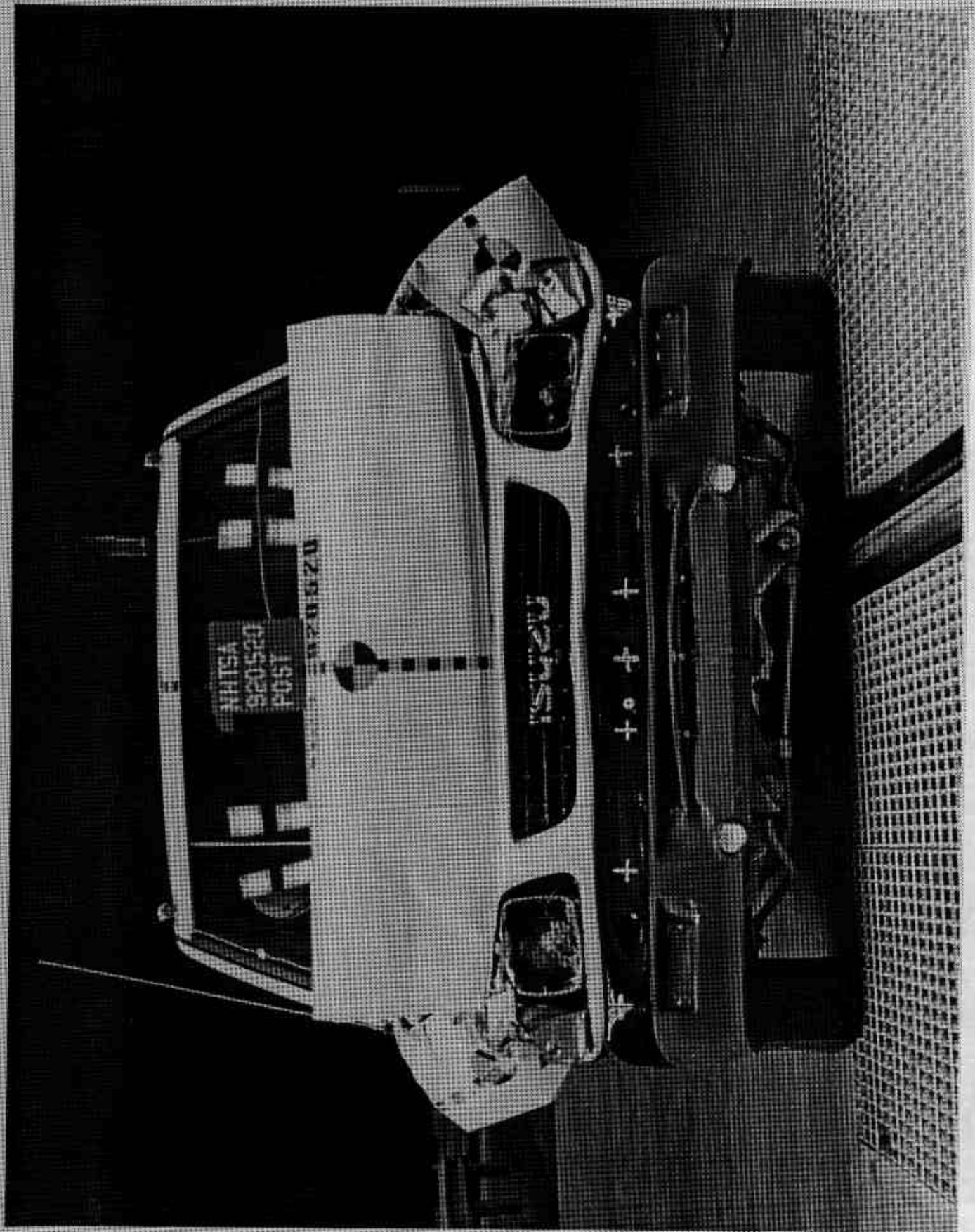


FIGURE A-2, POST-TEST FRONT VIEW

A-3

920520

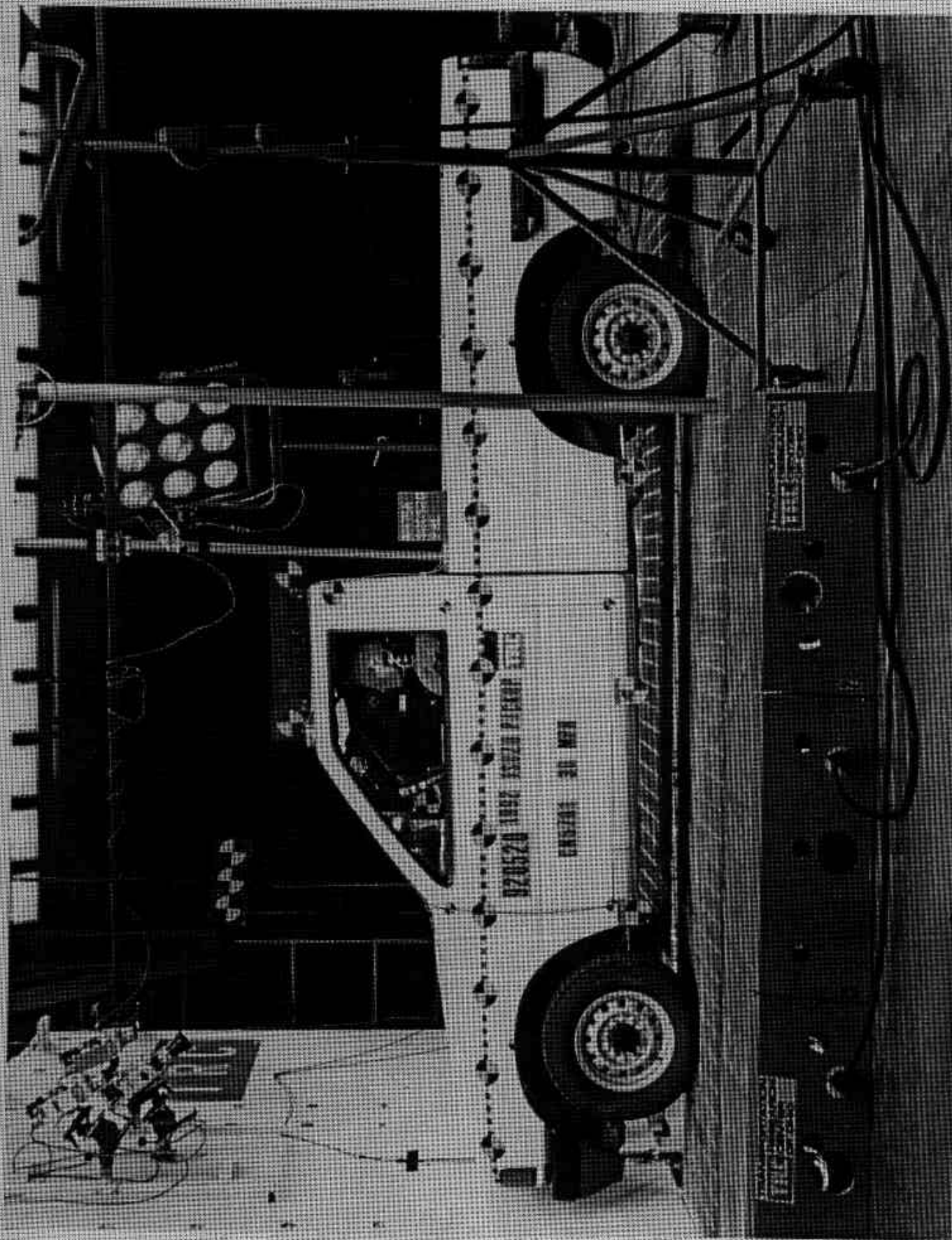


FIGURE A-3. PRE-TEST LEFT SIDE VIEW

A-4

920520

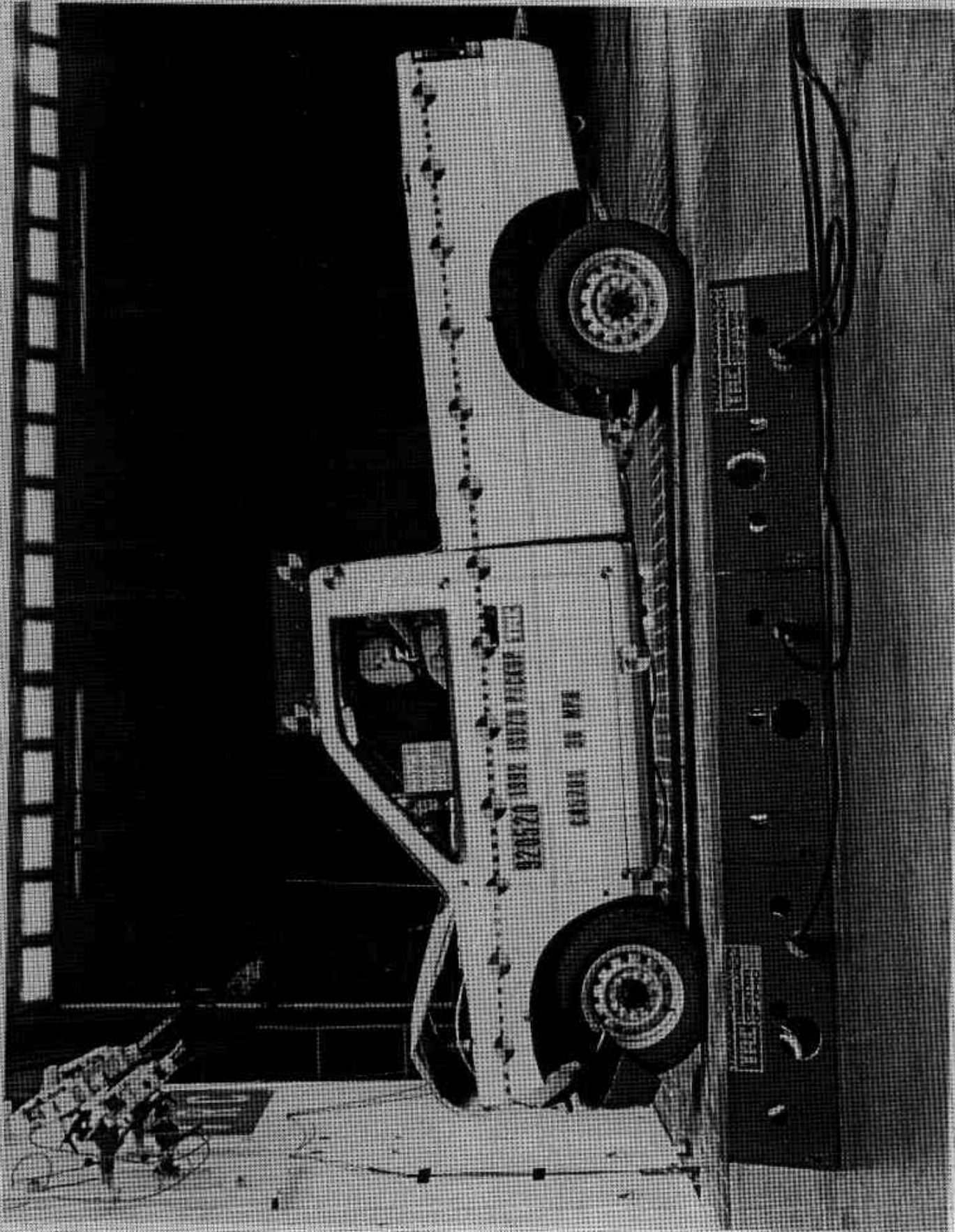


FIGURE A-4. POST-TEST LEFT SIDE VIEW
A-5

920520

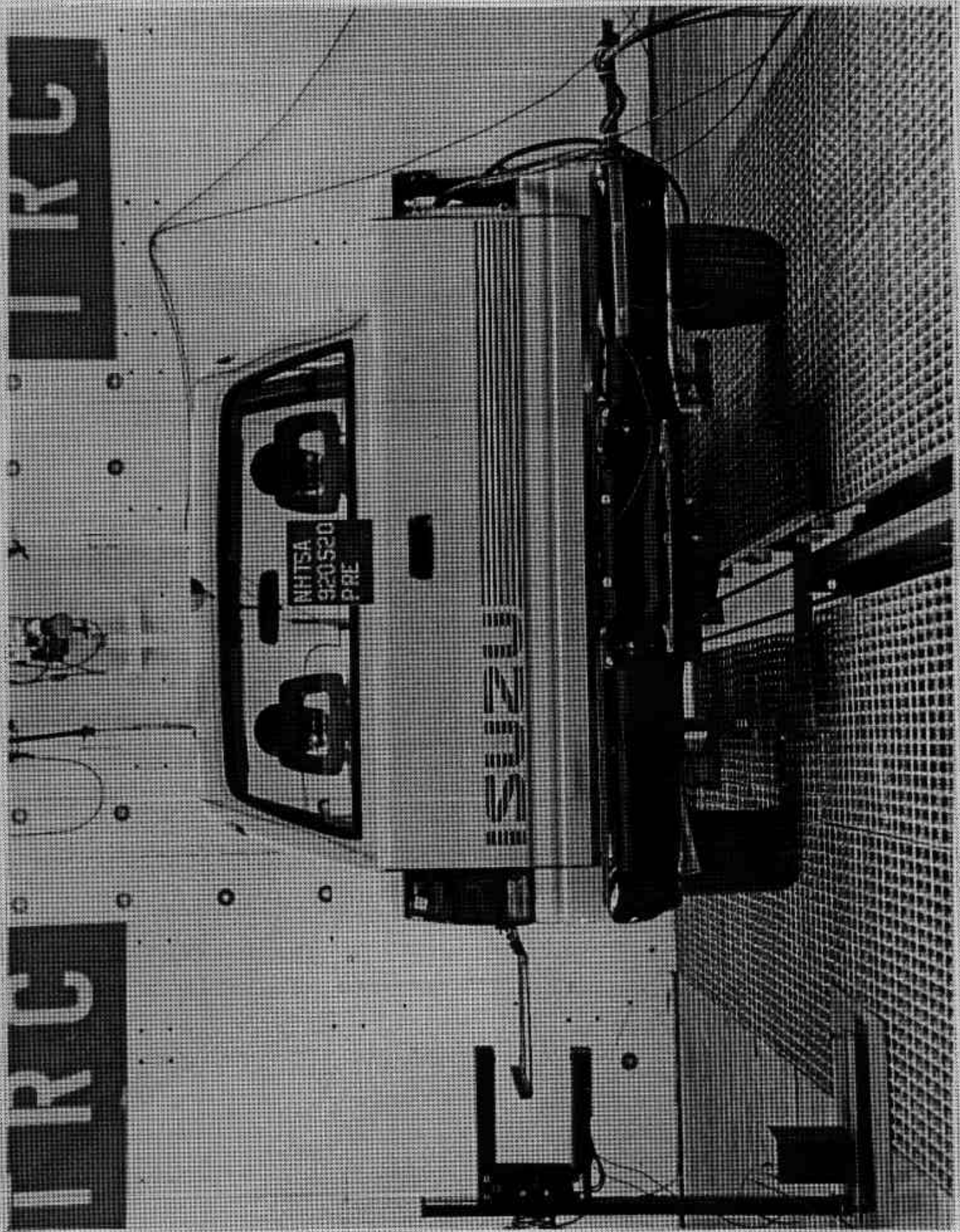


FIGURE A-5. PRE-TEST REAR VIEW

TRC

TRC

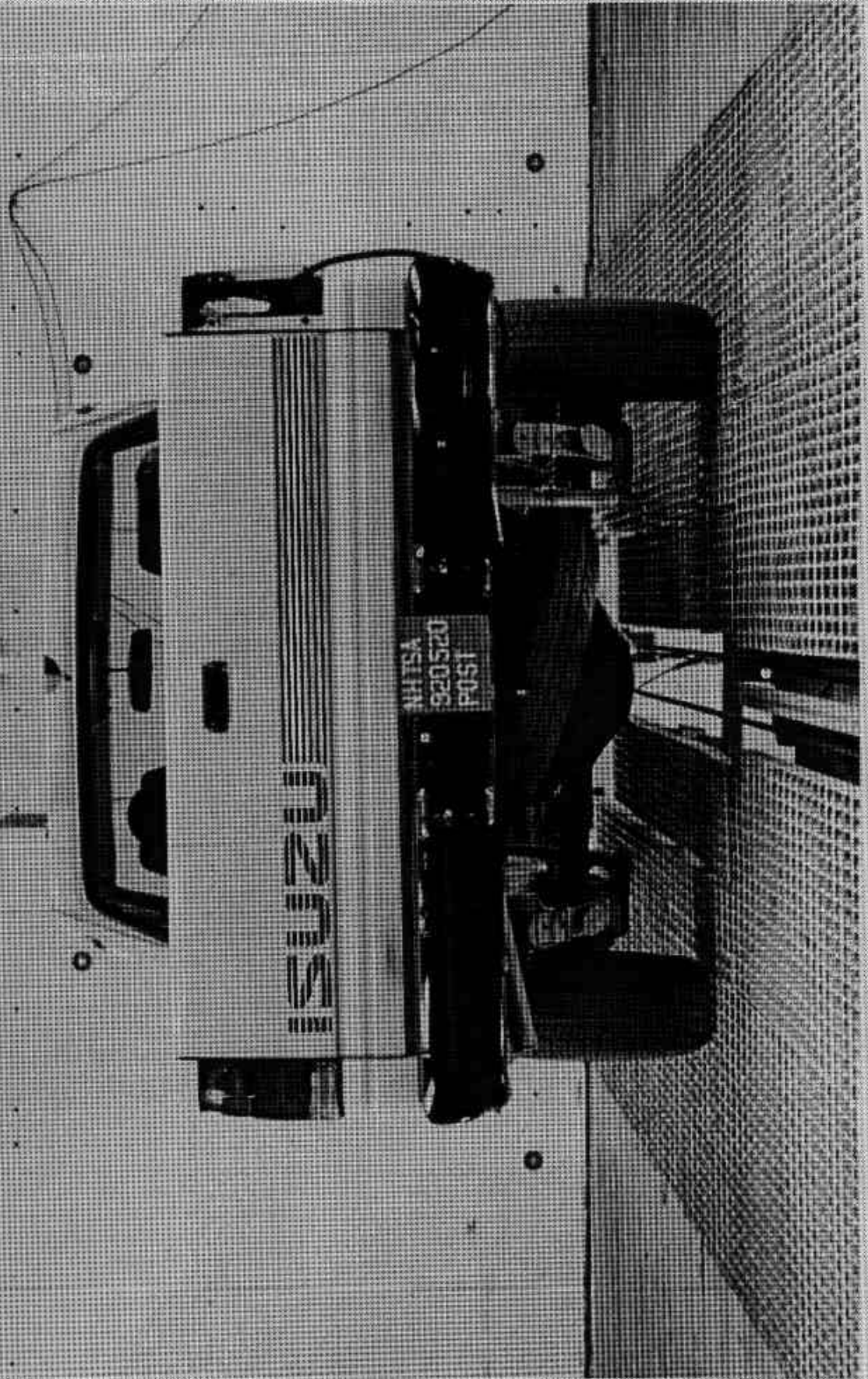


FIGURE A-6. POST-TEST REAR VIEW

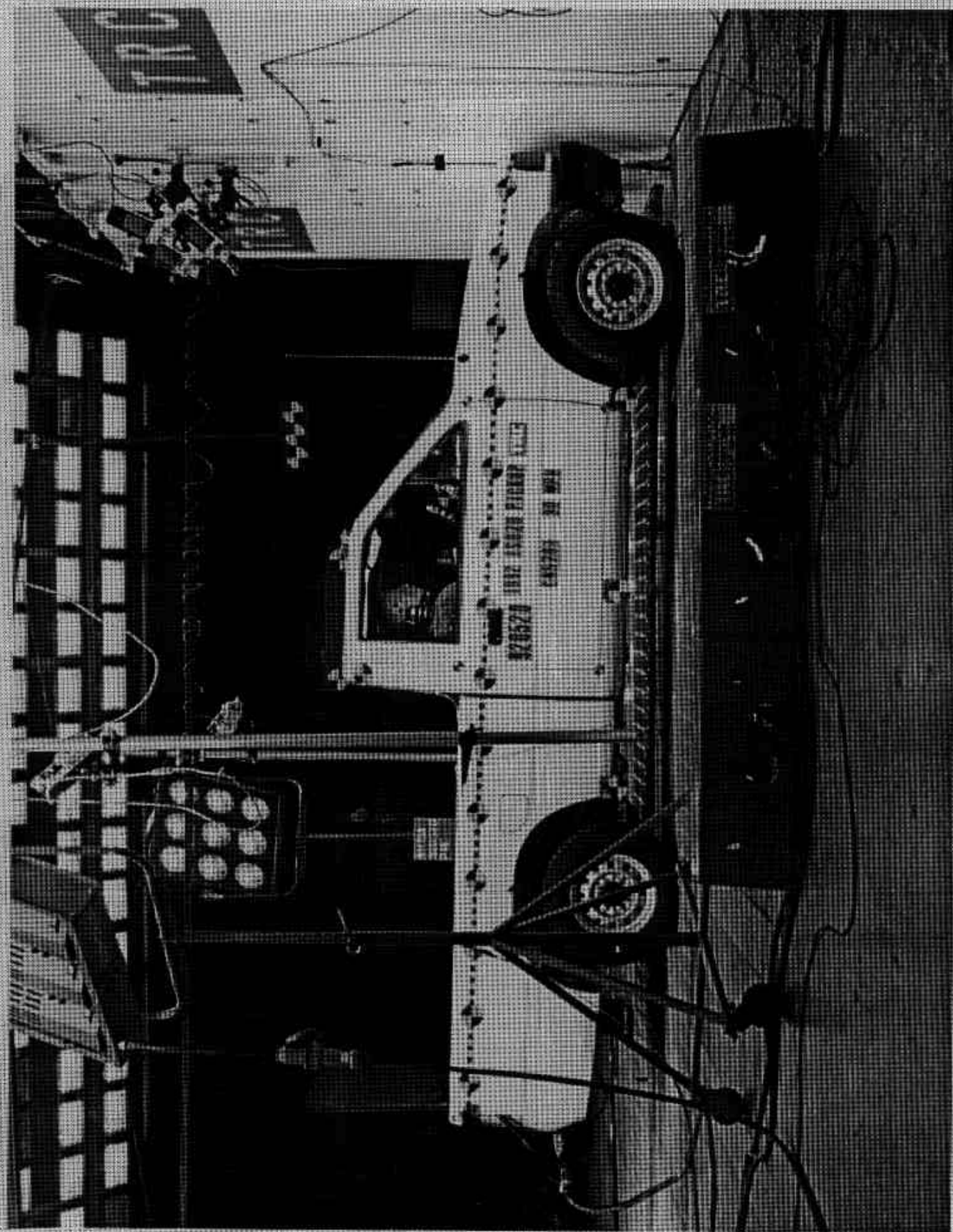


FIGURE A-7. PRE-TEST RIGHT SIDE VIEW
A-8

920520

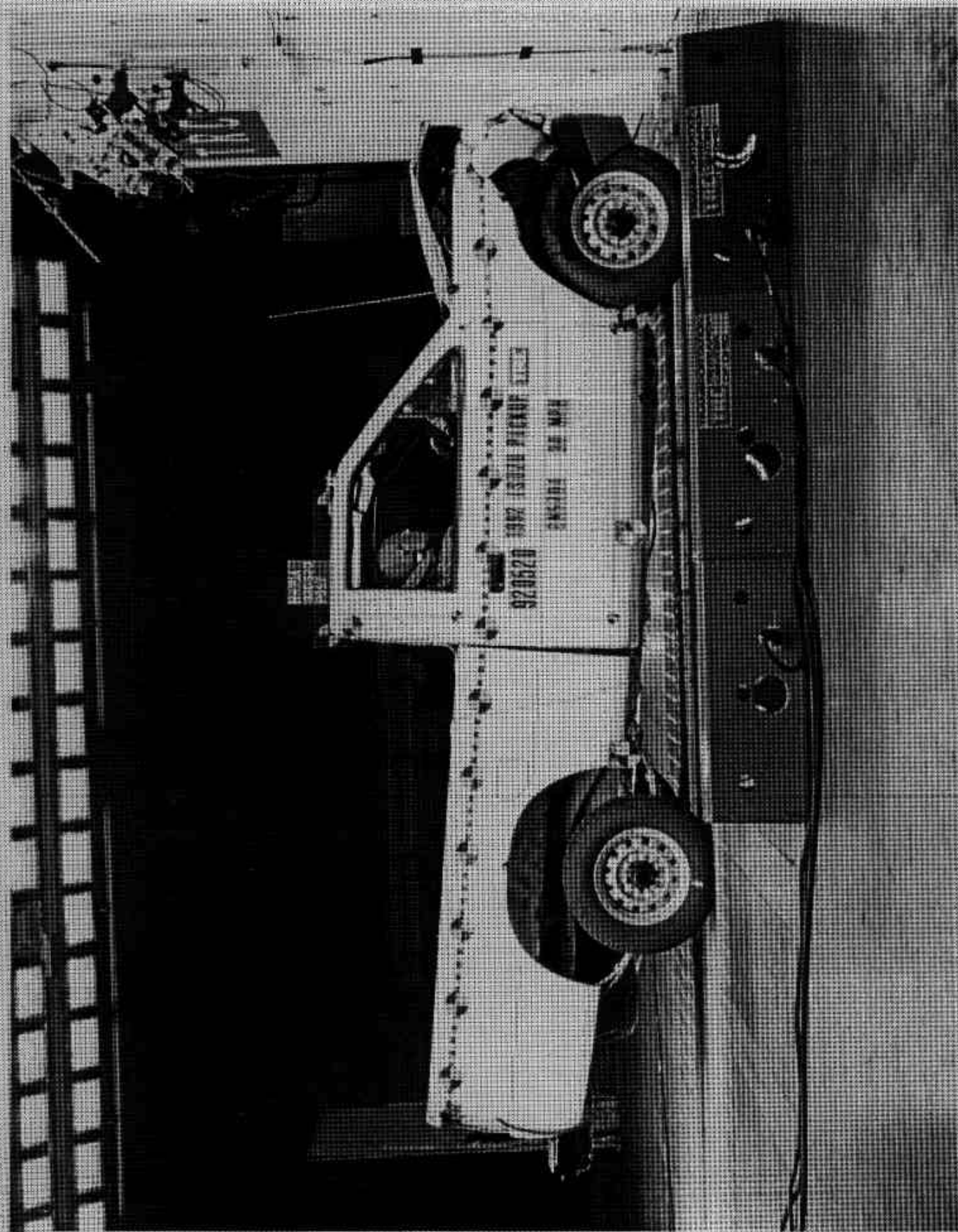


FIGURE A-8. POST-TEST RIGHT SIDE VIEW

A-9

920520

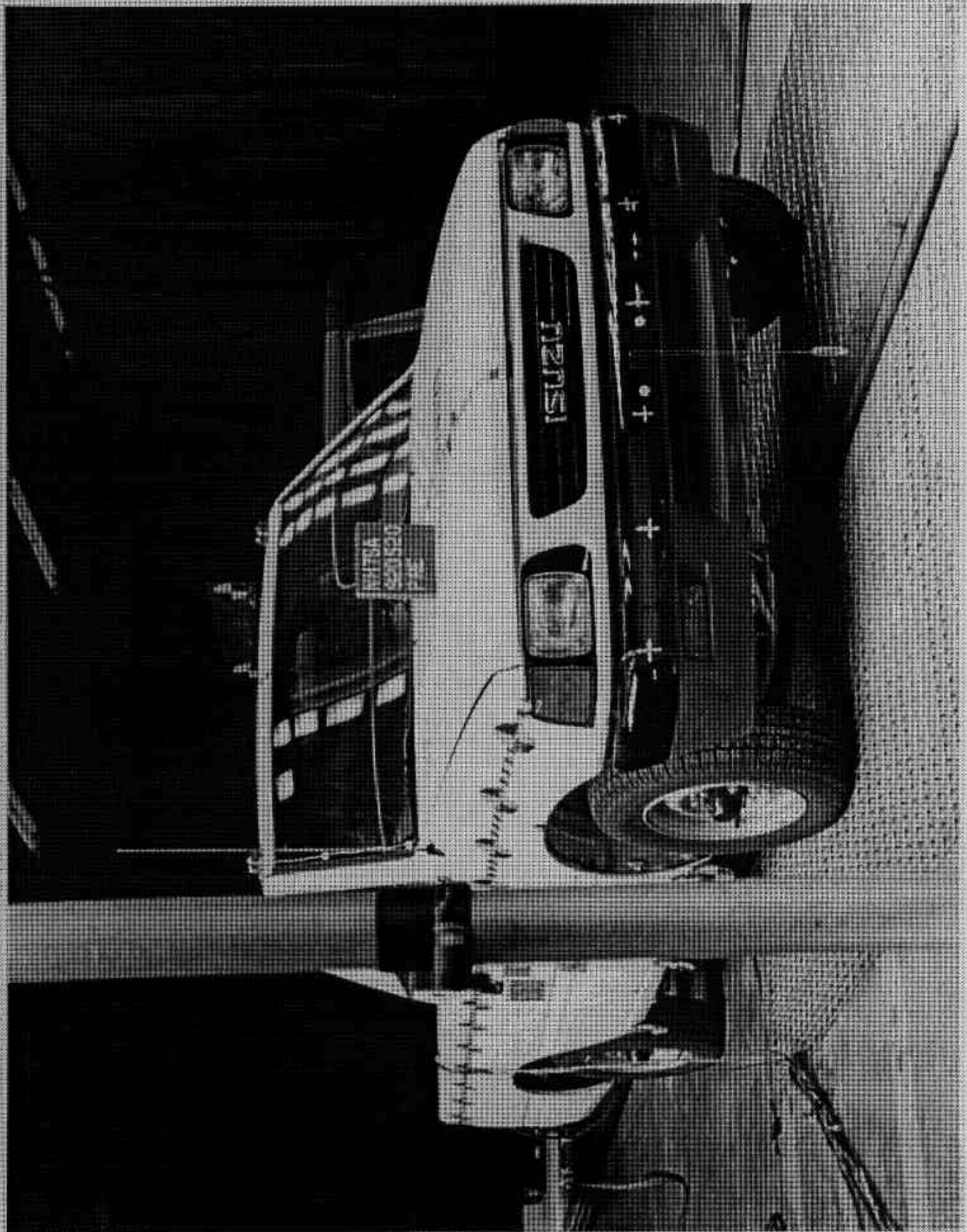


FIGURE A-9. PRE-TEST RIGHT FRONT THREE-QUARTER VIEW

A-10

920520

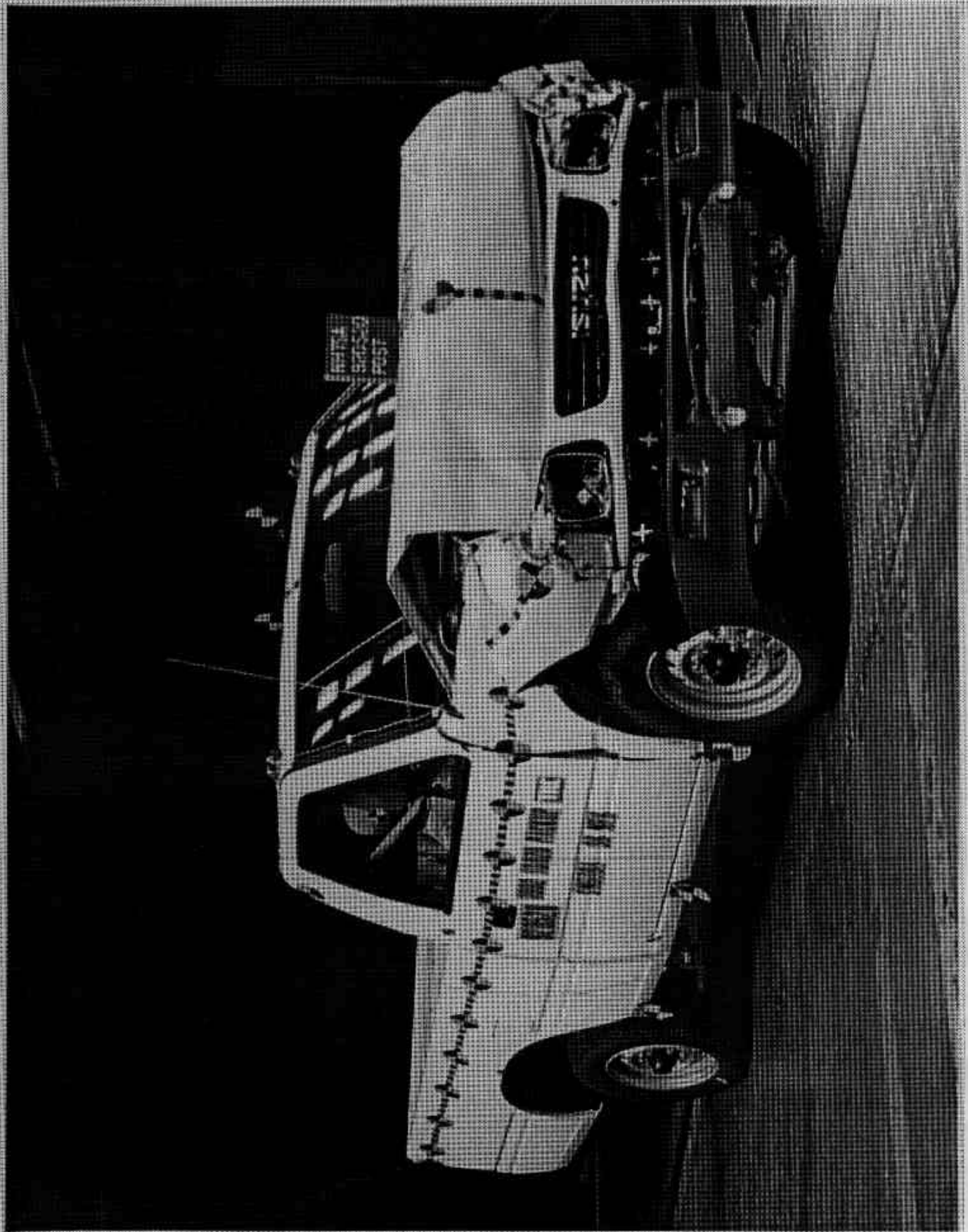


FIGURE A-10. POST-TEST RIGHT FRONT THREE-QUARTER VIEW

A-11

920520

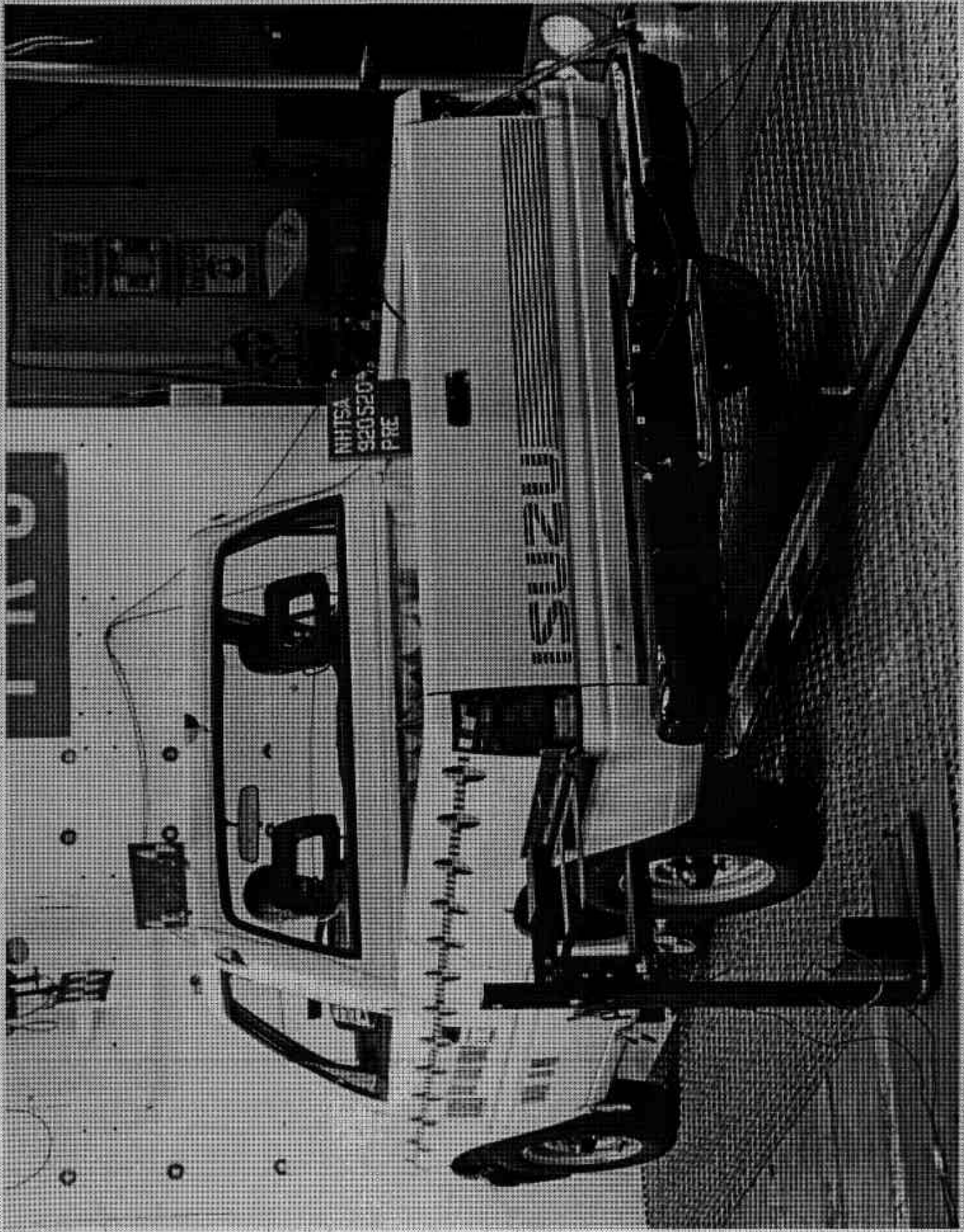


FIGURE A-11. PRE-TEST LEFT REAR THREE-QUARTER VIEW

A-12

920520



FIGURE A-12. POST-TEST LEFT REAR THREE-QUARTER VIEW

A-13

920520

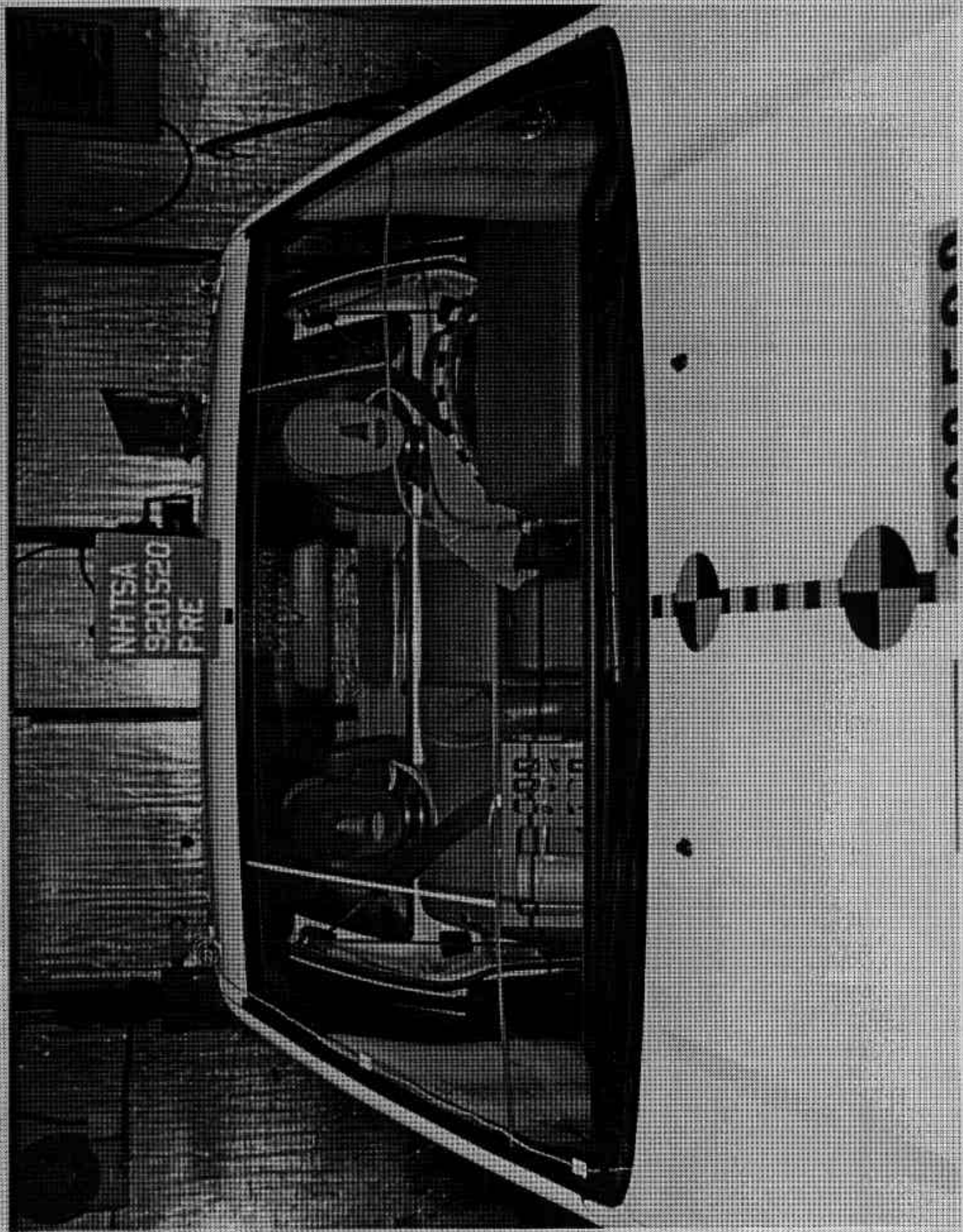


FIGURE A-13. PRE-TEST WINDSHIELD VIEW
A-14

920520

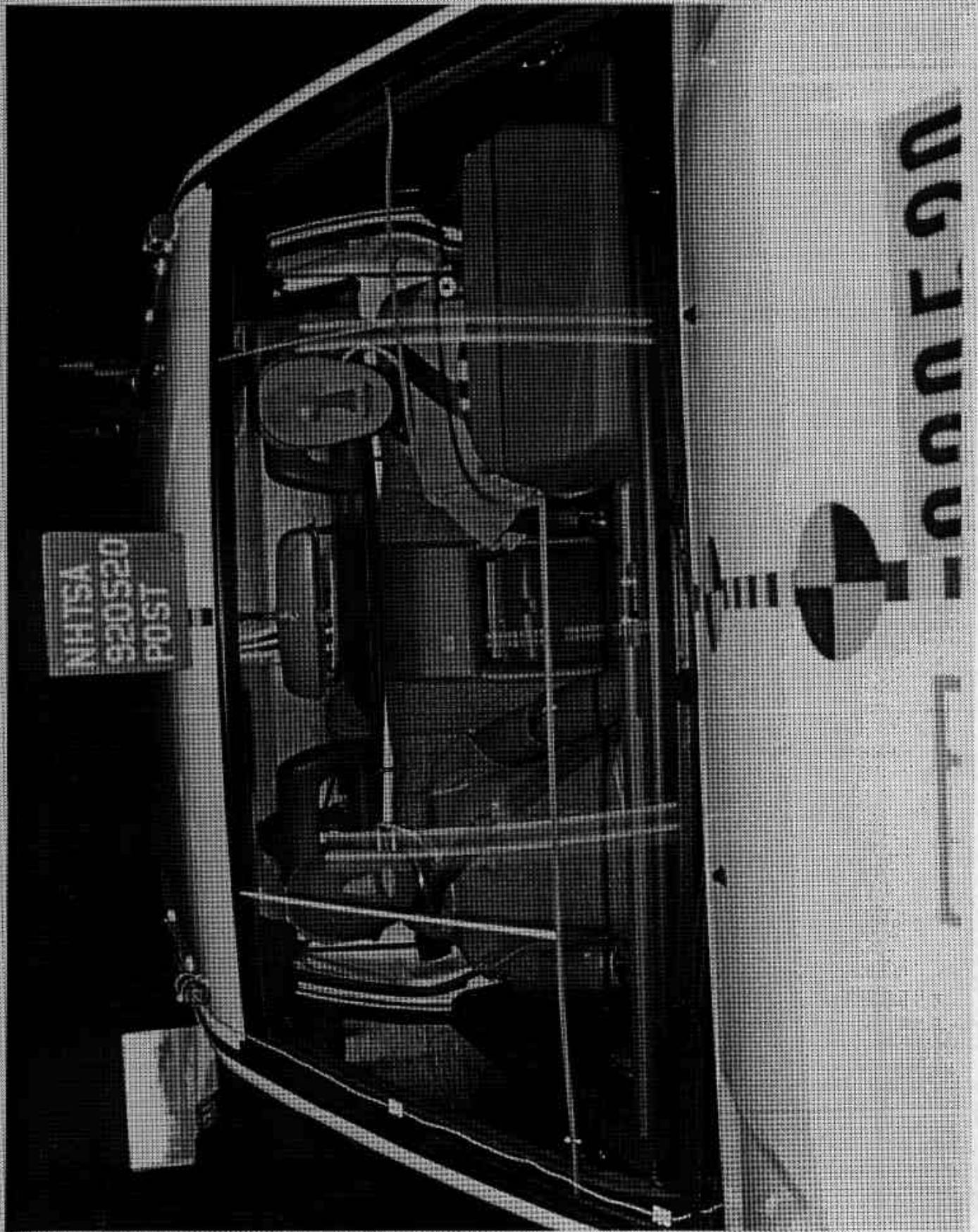


FIGURE A-14. POST-TEST WINDSHIELD VIEW
A-15

920520

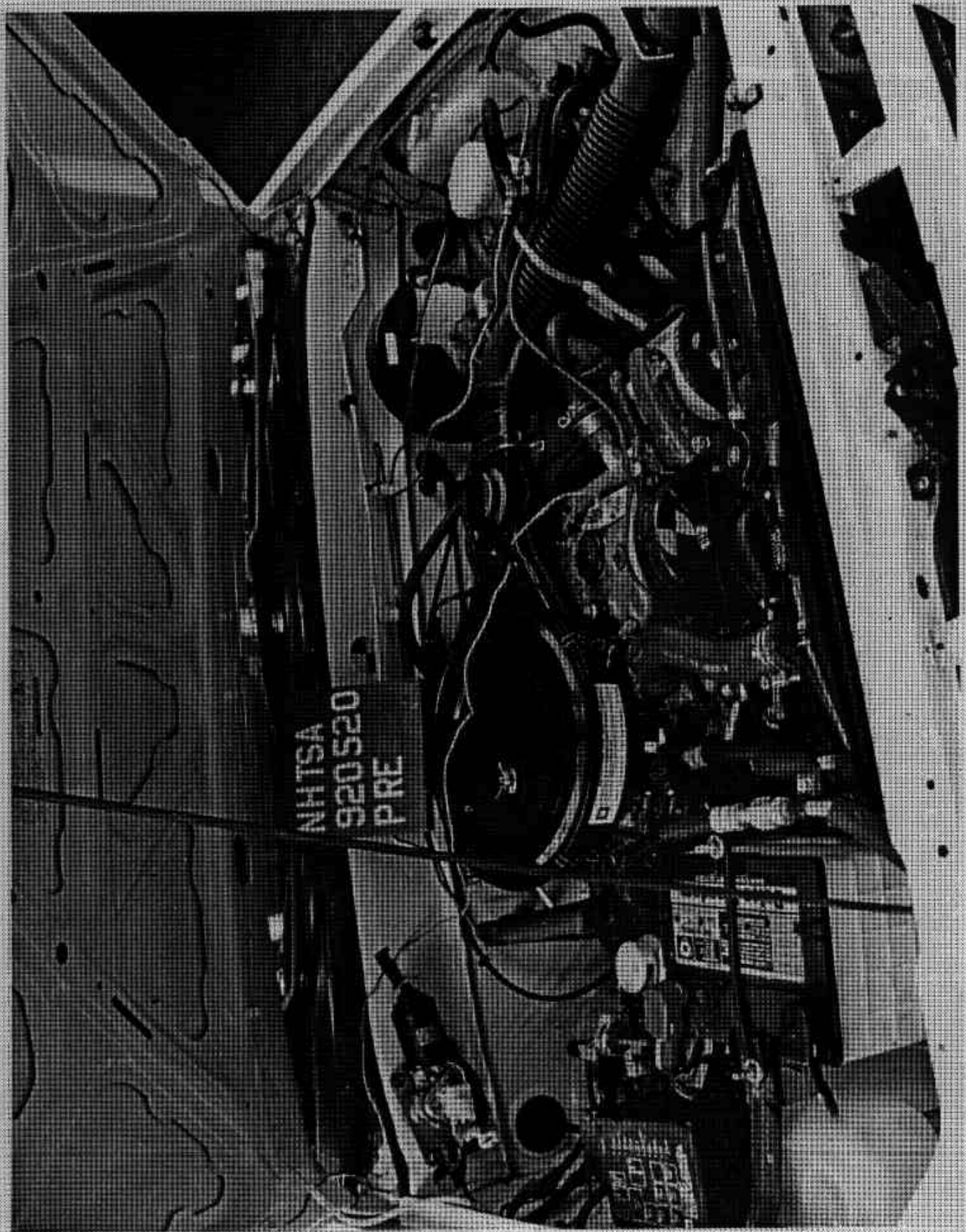


FIGURE A-15. PRE-TEST ENGINE COMPARTMENT VIEW

A-16

920520

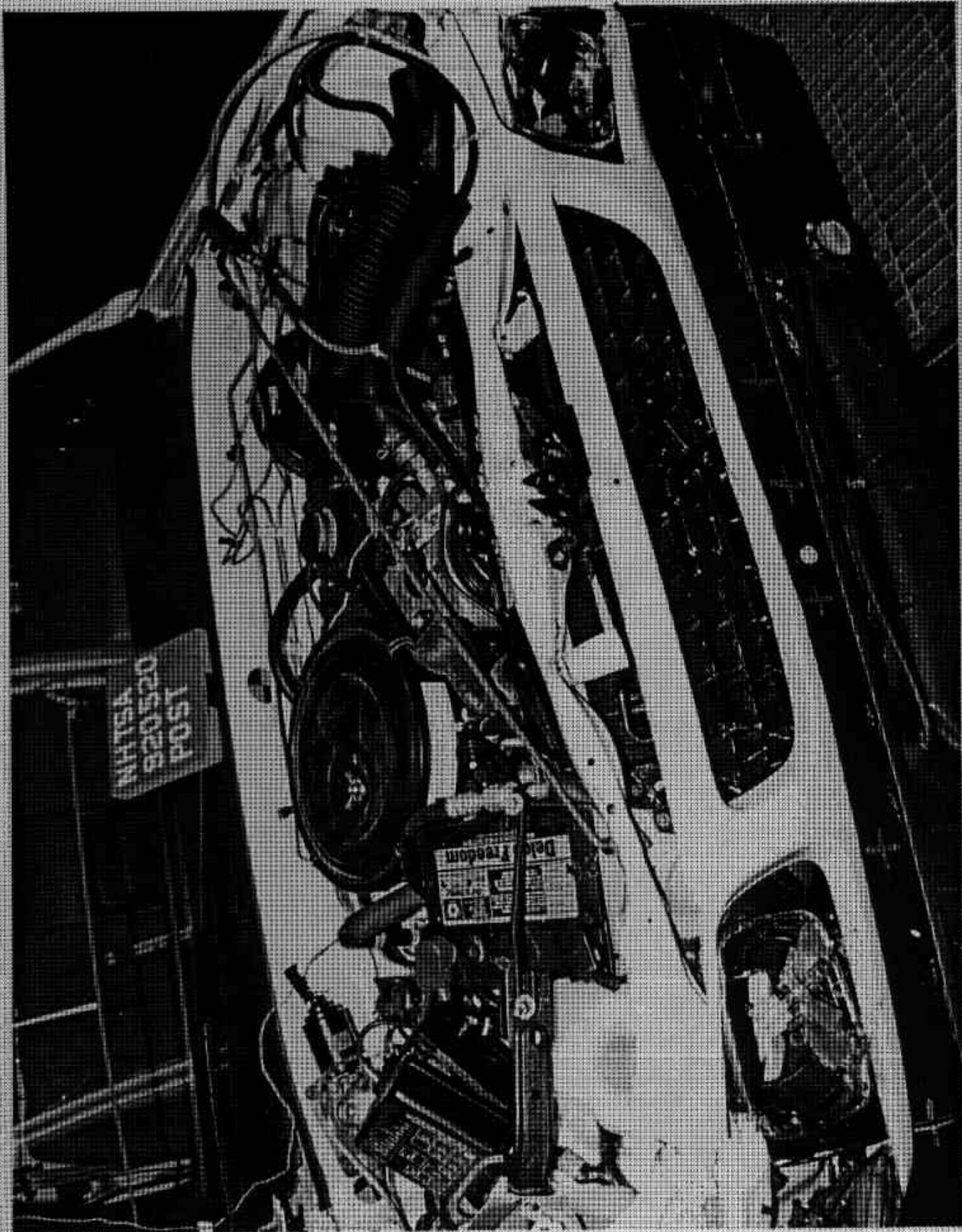


FIGURE A-16. POST-TEST ENGINE COMPARTMENT VIEW

A-17

920520

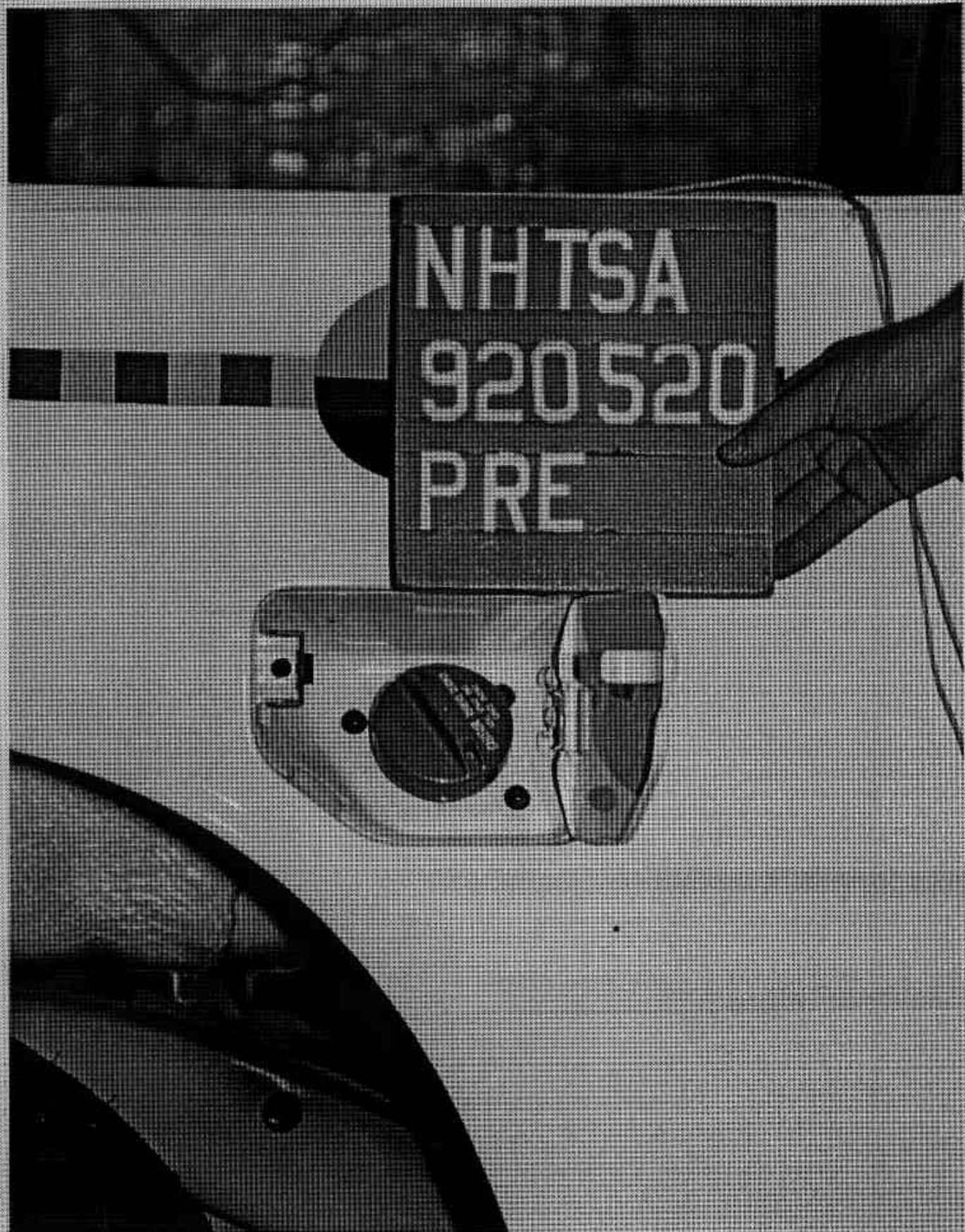


FIGURE A-17. PRE-TEST FUEL FILLER CAP VIEW

A-18

920520

WHITSA
920520
POST



FIGURE A-18. POST-TEST FUEL FILLER CAP VIEW
A-19

920520



FIGURE A-19. PRE-TEST FUEL FILLER NECK VIEW

A-20

920520



FIGURE A-20. POST-TEST FUEL FILLER NECK VIEW

A-21

920520

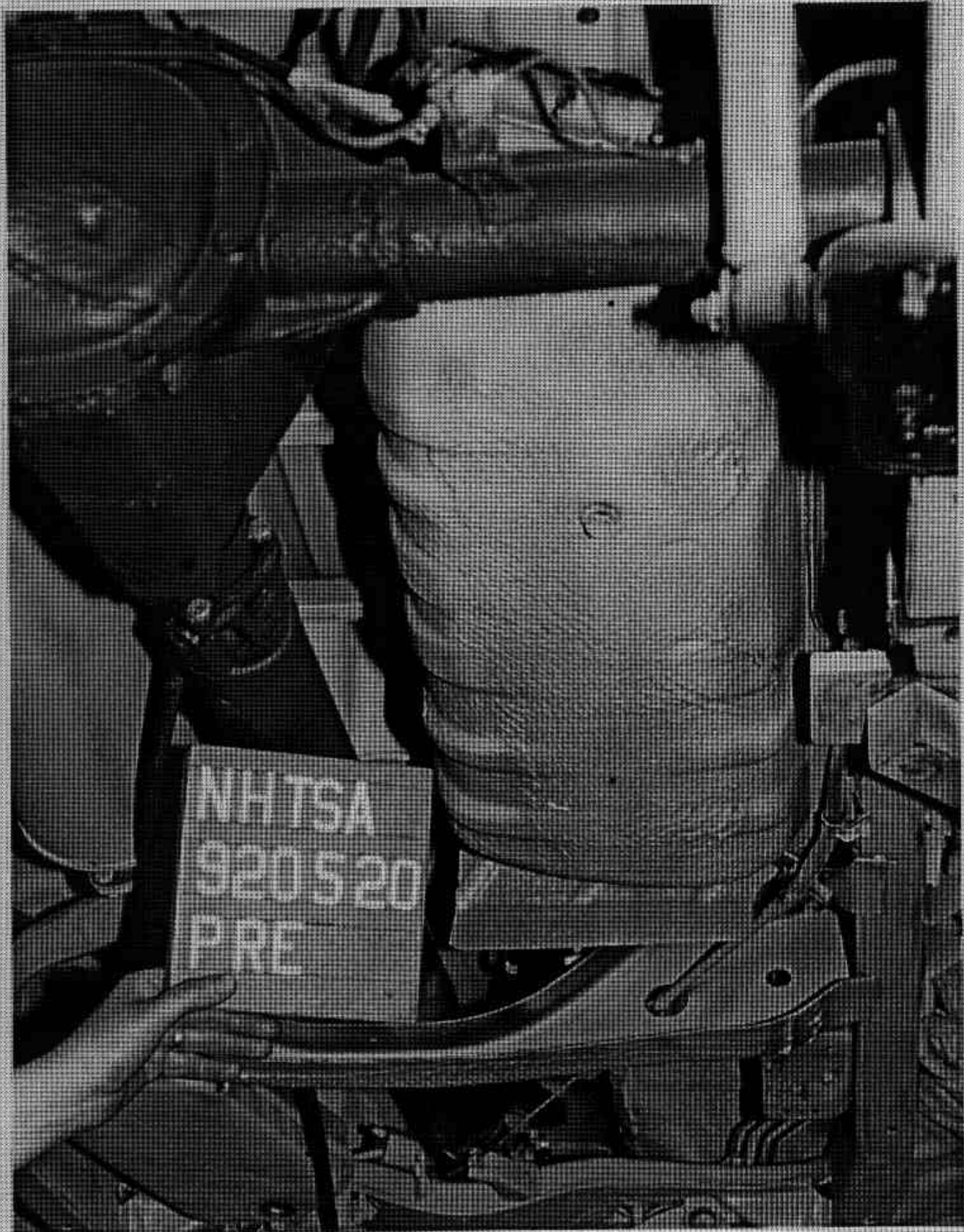


FIGURE A-21. PRE-TEST FUEL TANK VIEW
A-22

920520



FIGURE A-22. POST-TEST FUEL TANK VIEW

A-23

920520

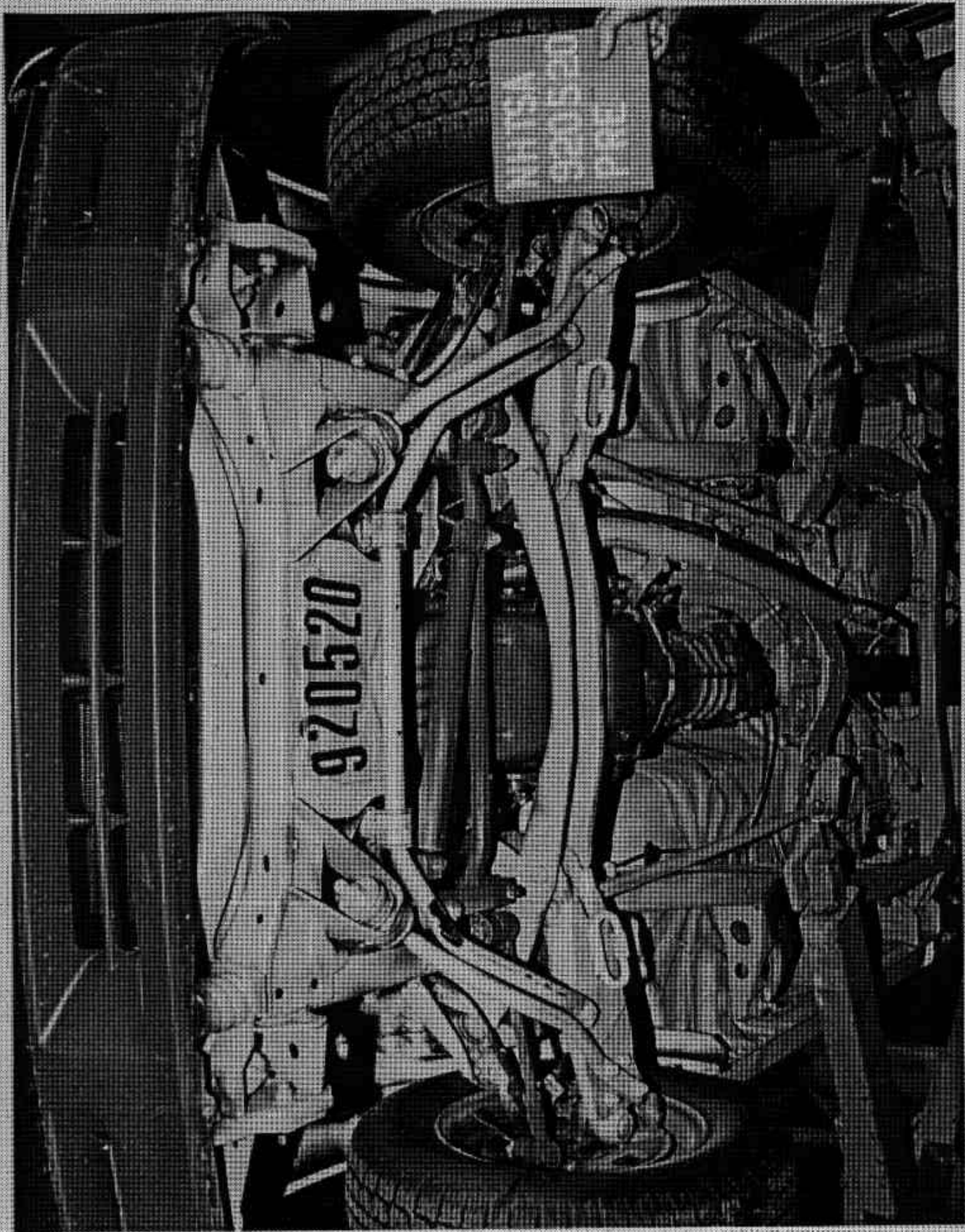


FIGURE A-23. PRE-TEST FRONT UNDERBODY VIEW

A-24

920520



FIGURE A-24. POST-TEST FRONT UNDERBODY VIEW

A-25

920520

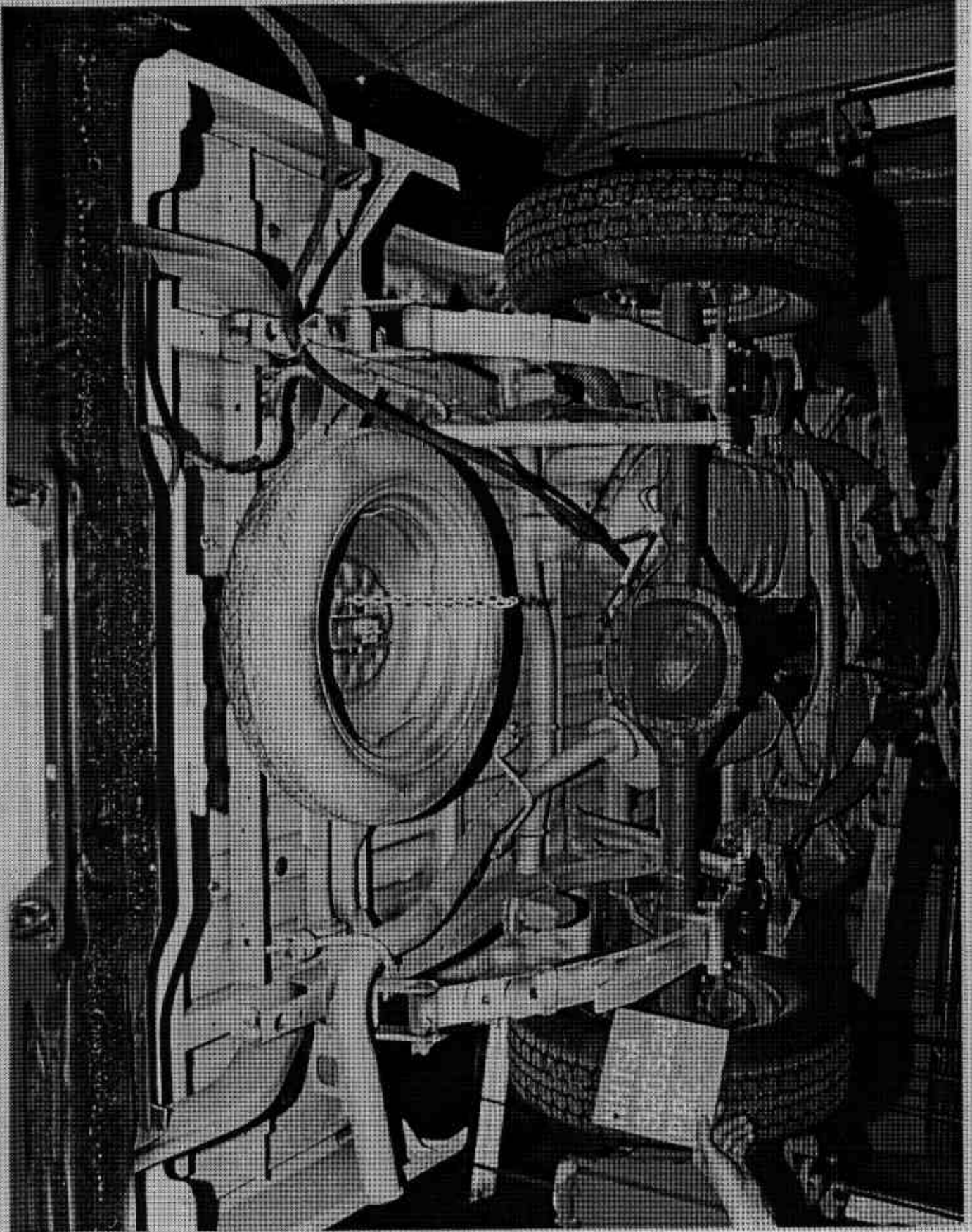


FIGURE A-25. PRE-TEST REAR UNDERBODY VIEW
A-26

920520

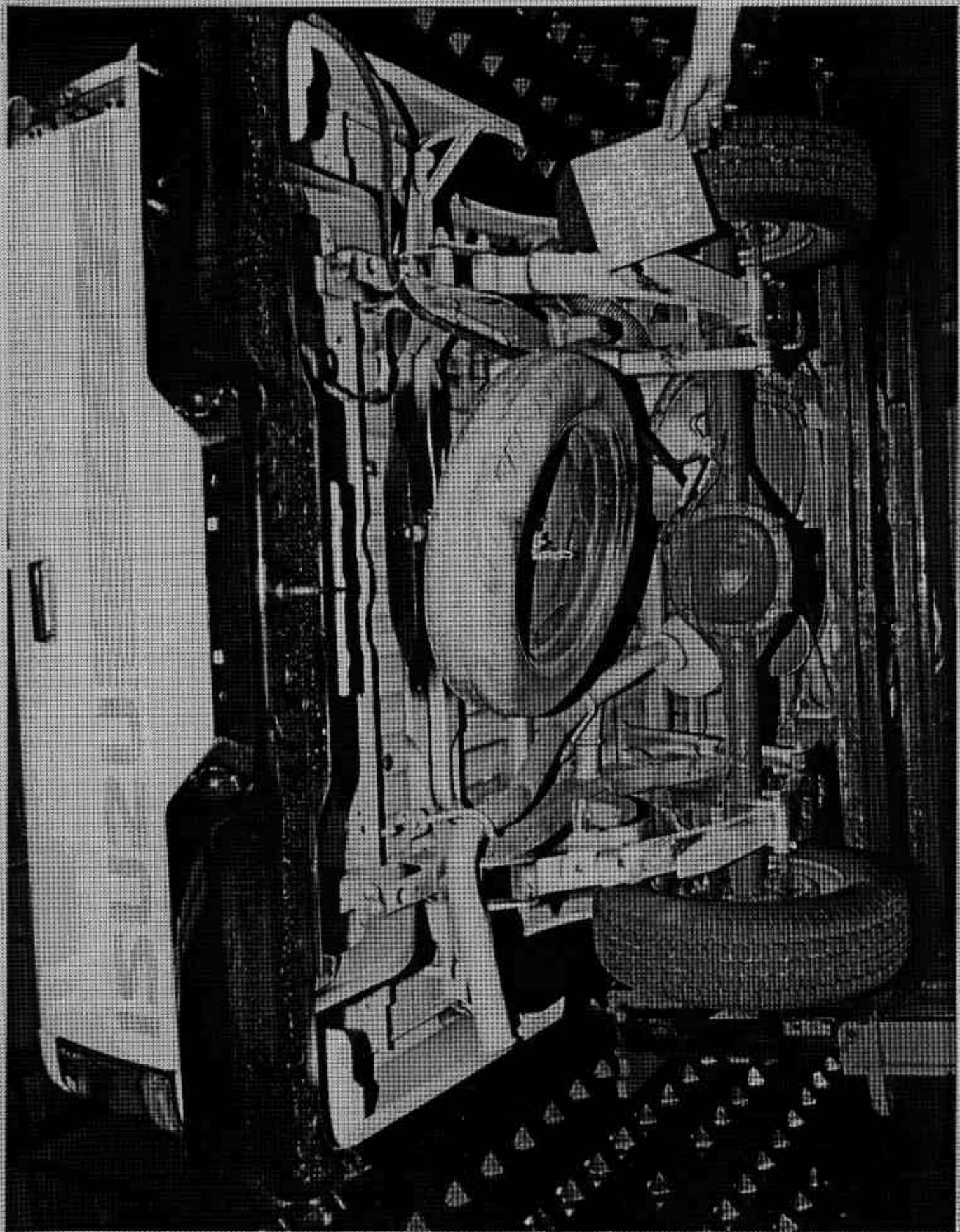


FIGURE A-26. POST-TEST REAR UNDERBODY VIEW

A-27

920520

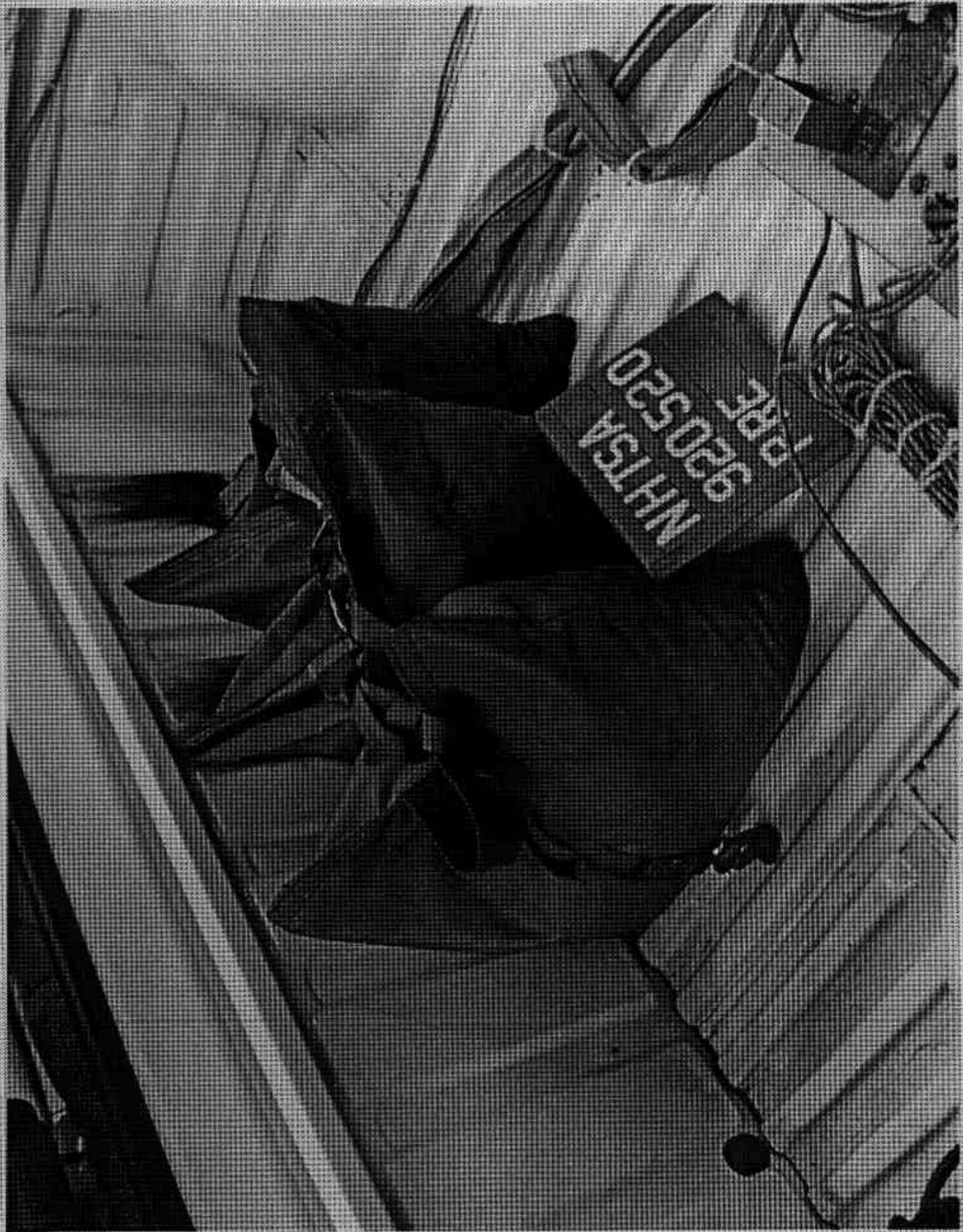


FIGURE A-27. PRE-TEST BALLAST LOCATION VIEW

A-28

920520

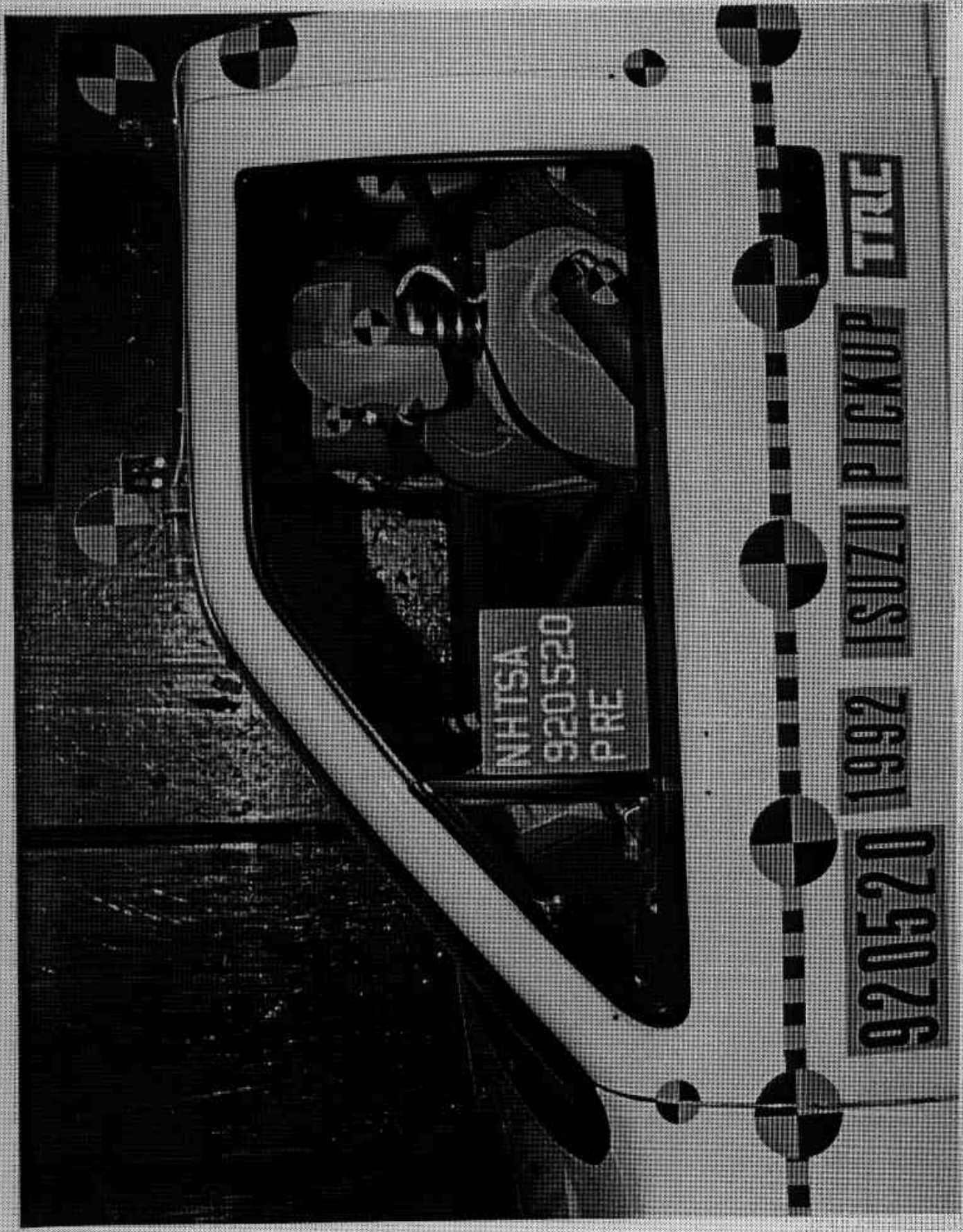


FIGURE A-28. PRE-TEST DRIVER DUMMY POSITION VIEW

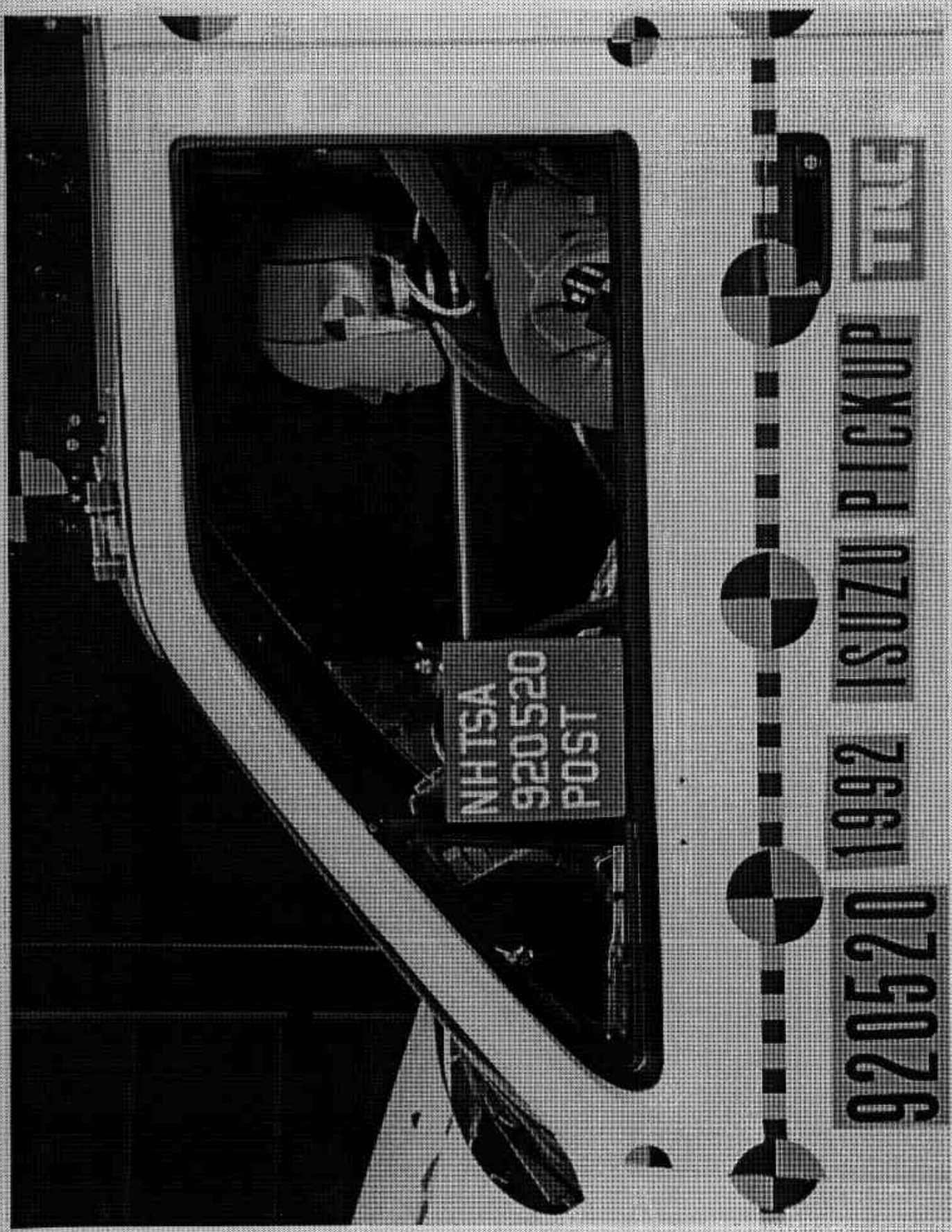


FIGURE A-29. POST-TEST DRIVER DUMMY POSITION VIEW

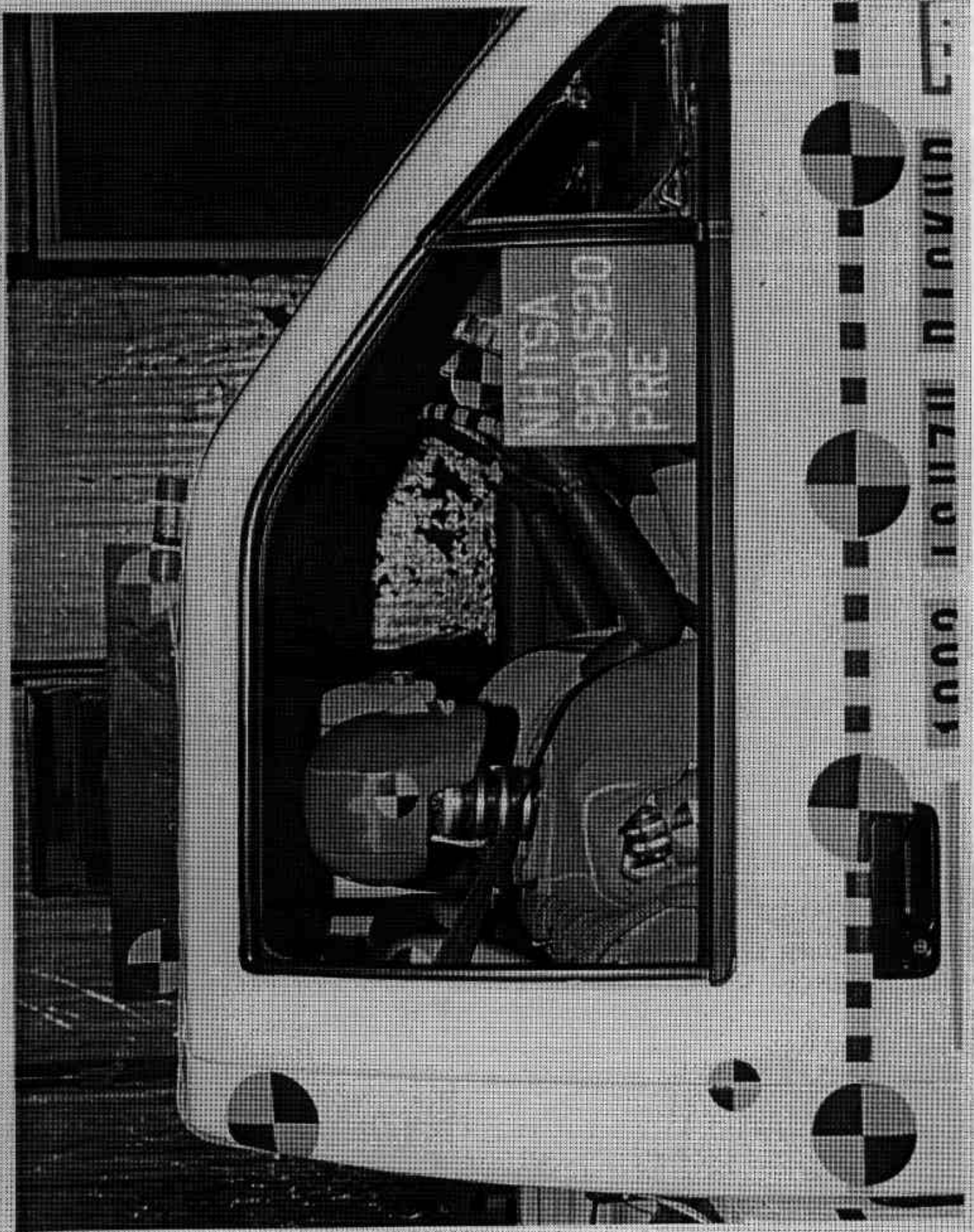


FIGURE A-30. PRE-TEST PASSENGER DUMMY POSITION VIEW
A-31

920520



FIGURE A-31. POST-TEST PASSENGER DUMMY POSITION VIEW



FIGURE A-32. PRE-TEST DRIVER DUMMY & VEHICLE INTERIOR - VIEW 1

A-33

920520



FIGURE A-33. POST-TEST DRIVER DUMMY & VEHICLE INTERIOR - VIEW 1

A-34

920520

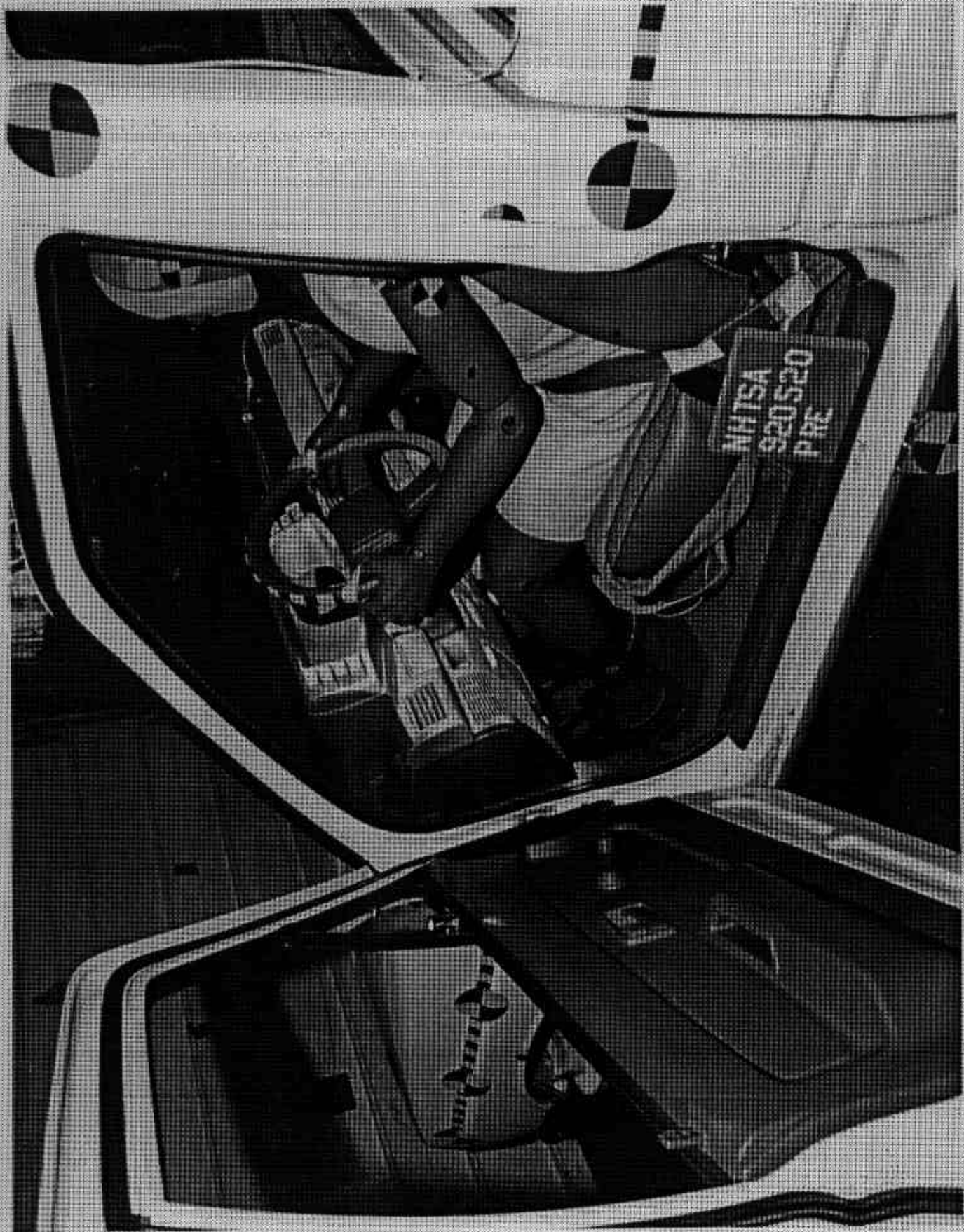


FIGURE A-34. PRE-TEST DRIVER DUMMY & VEHICLE INTERIOR - VIEW 2

A-35

920520

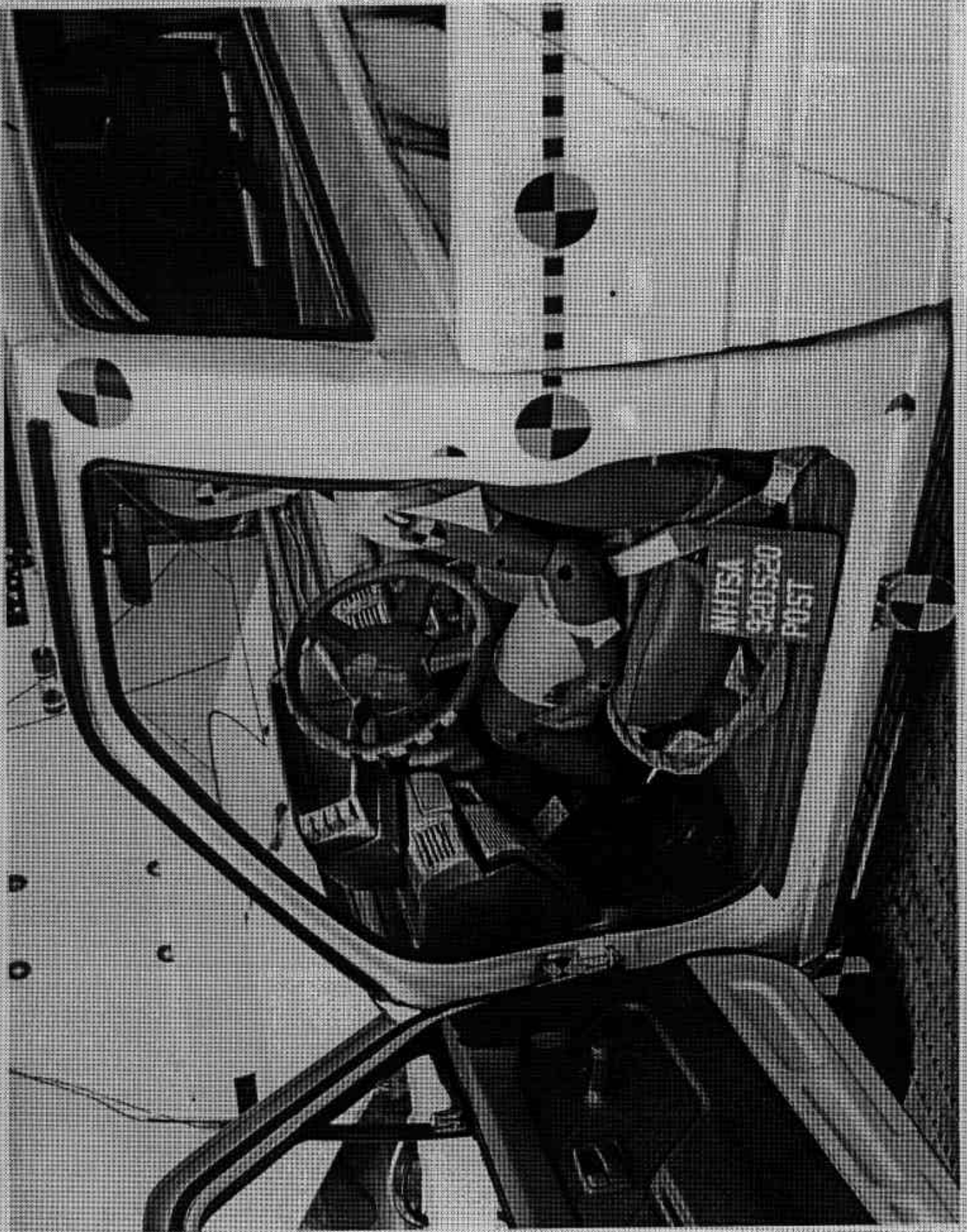


FIGURE A-35. POST-TEST DRIVER DUMMY & VEHICLE INTERIOR - VIEW 2

A-36

920520

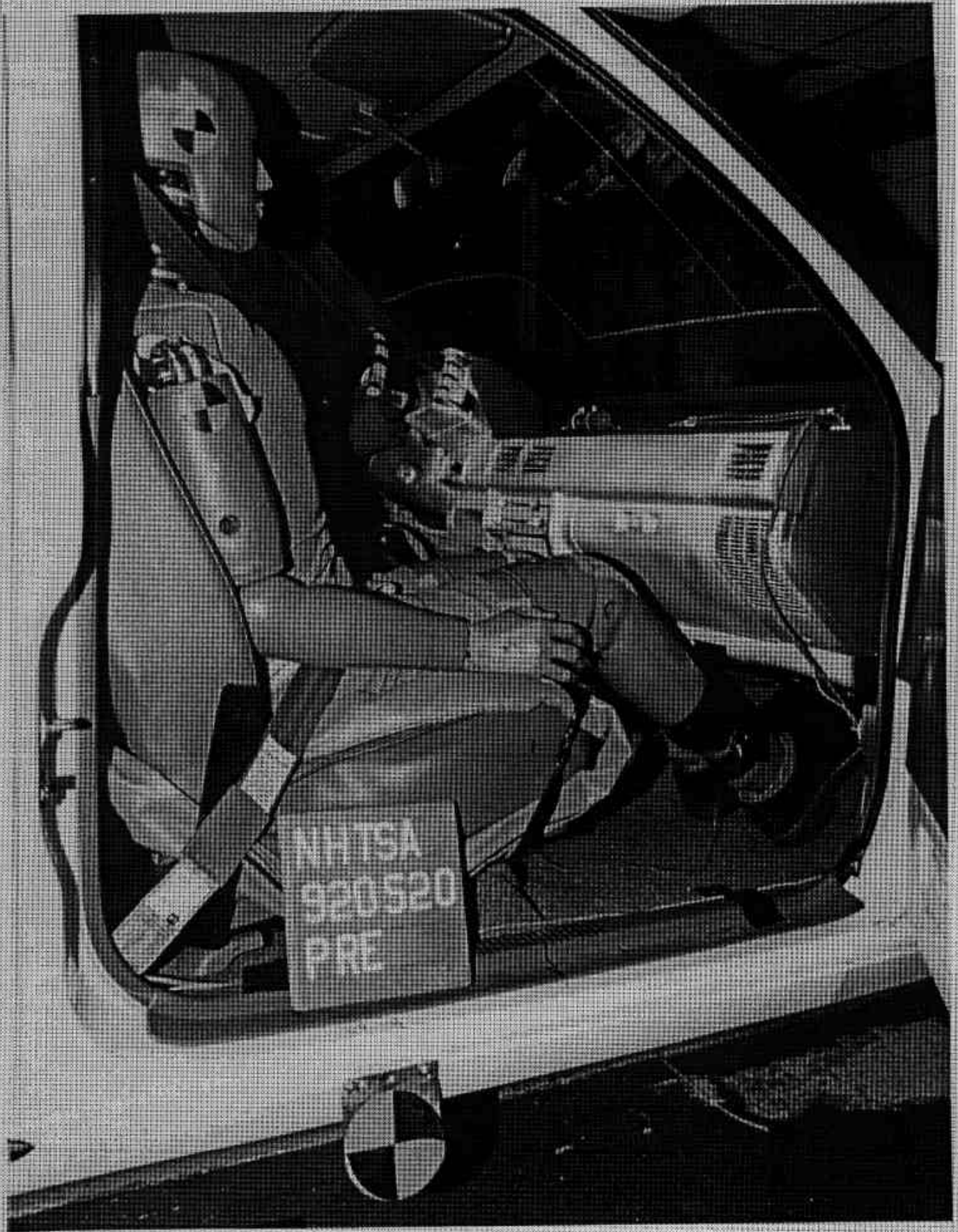


FIGURE A-36. PRE-TEST PASSENGER DUMMY & VEHICLE INTERIOR - VIEW 1

A-37

920520



FIGURE A-37. POST-TEST PASSENGER DUMMY & VEHICLE INTERIOR - VIEW 1
A-38 920520

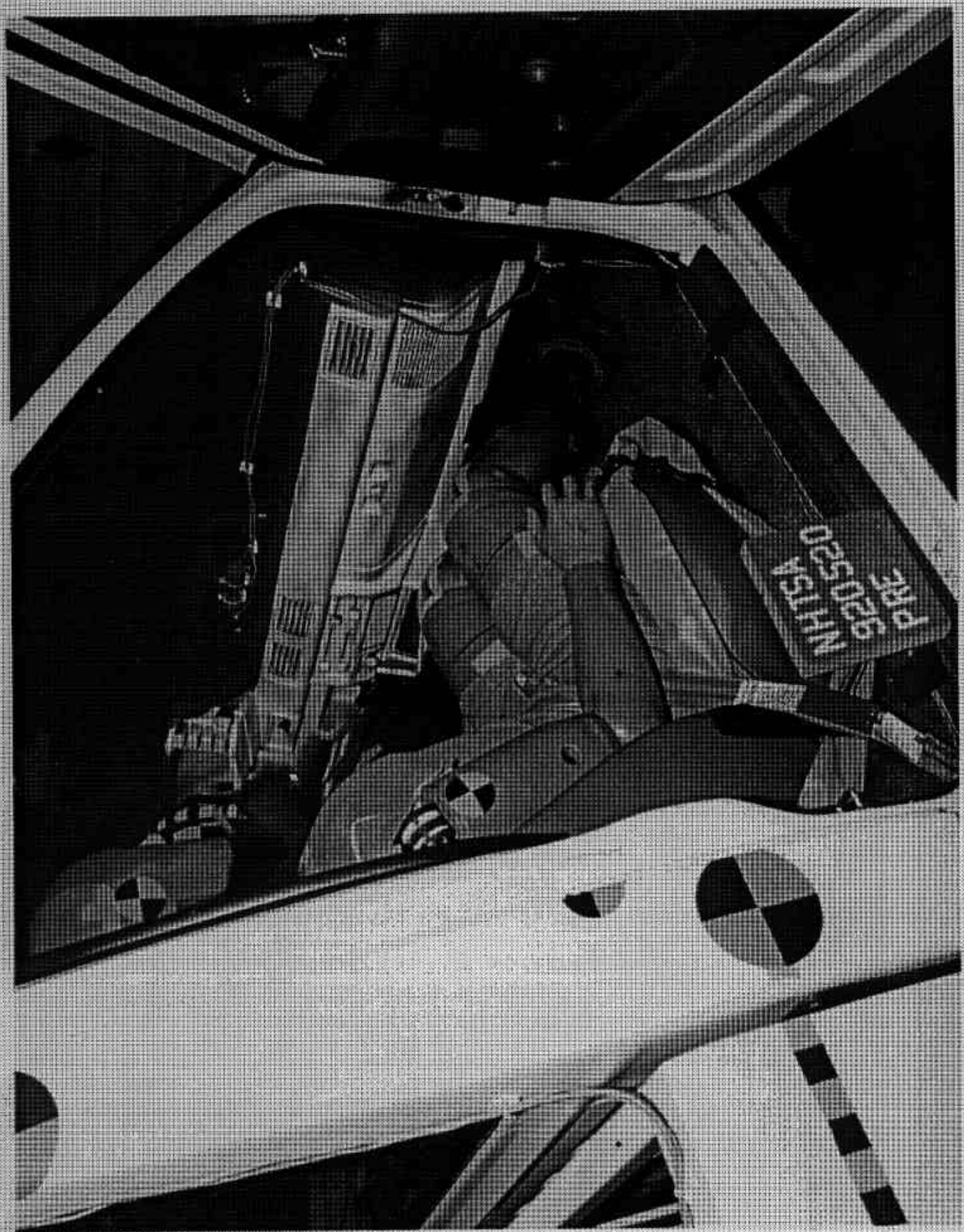


FIGURE A-38. PRE-TEST PASSENGER DUMMY & VEHICLE INTERIOR - VIEW 2
A-39 920520

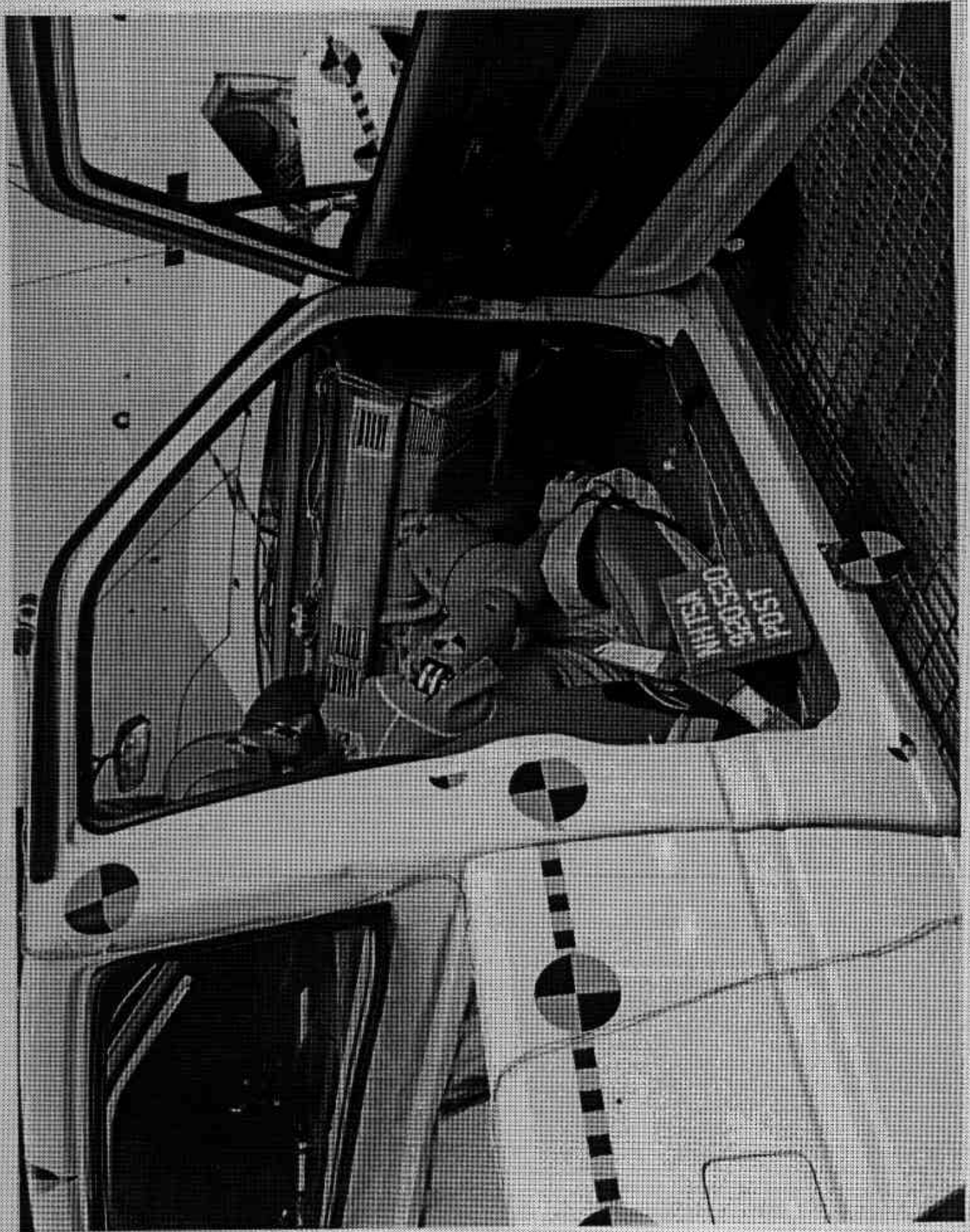


FIGURE A-39. POST-TEST PASSENGER DUMMY & VEHICLE INTERIOR - VIEW 2
A-40 920520

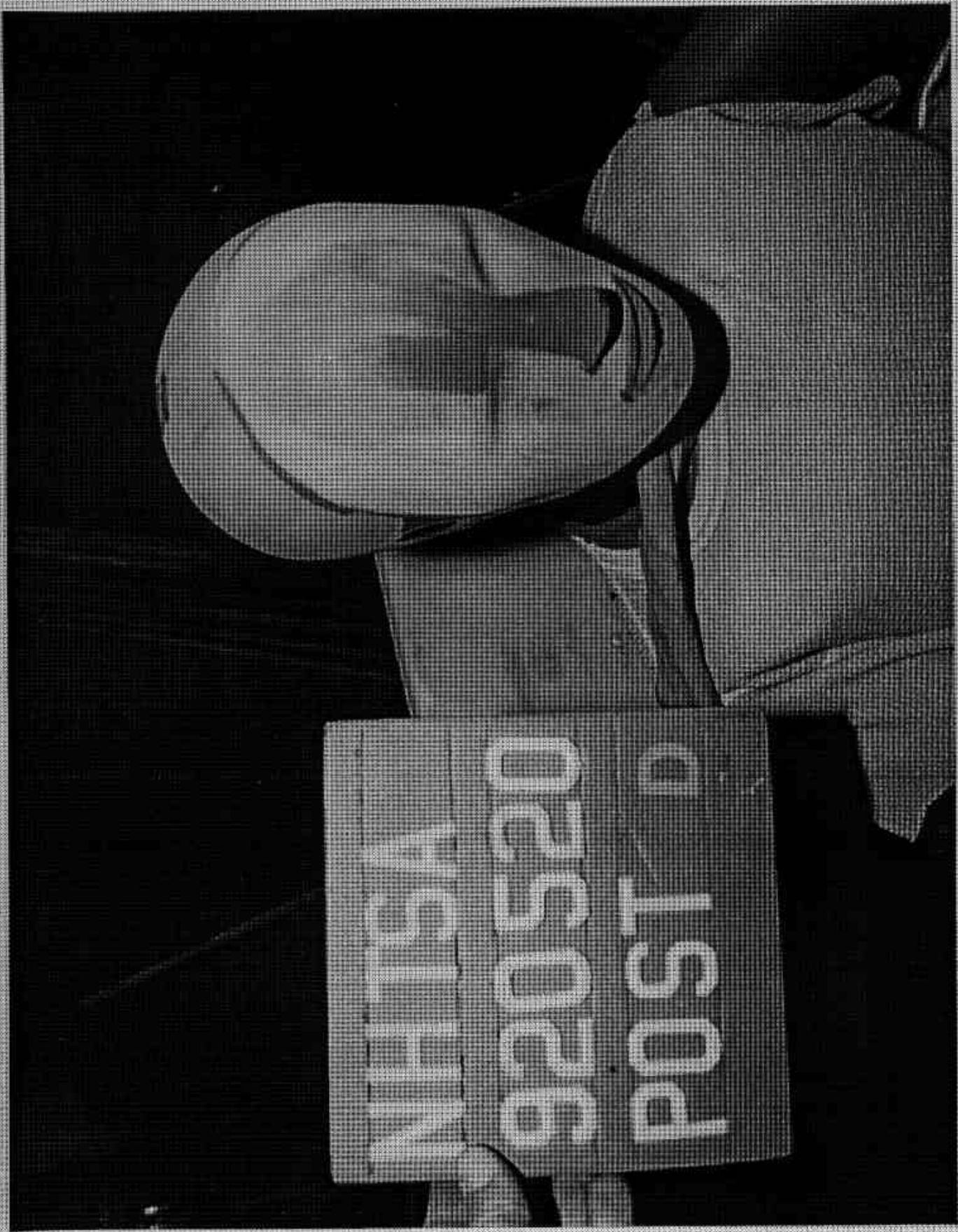


FIGURE A-40. POST-TEST DRIVER DUMMY HEAD CONTACT VIEW

A-41

920520

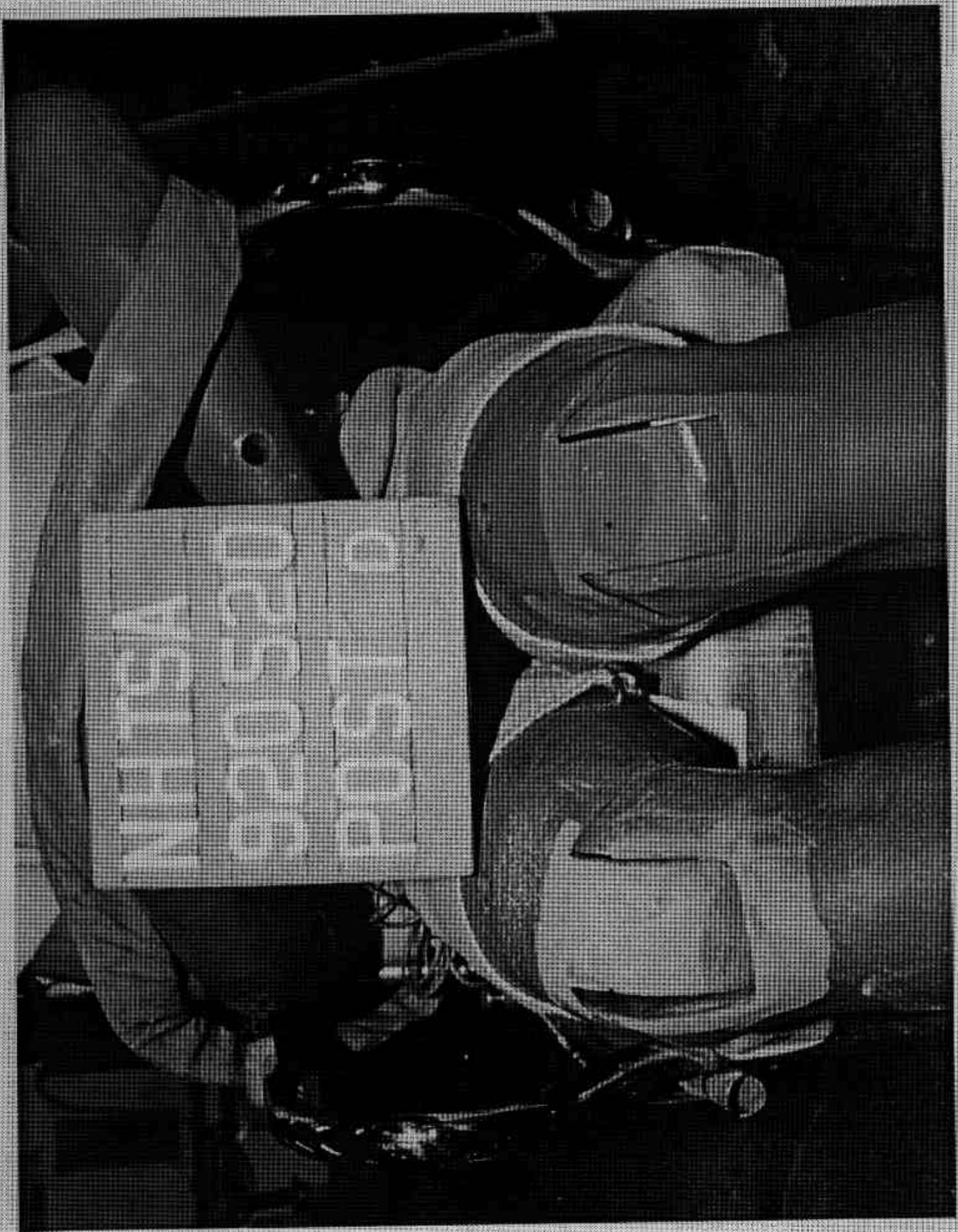


FIGURE A-42. POST-TEST DRIVER DUMMY KNEE CONTACT - VIEW 1

A-43

920520

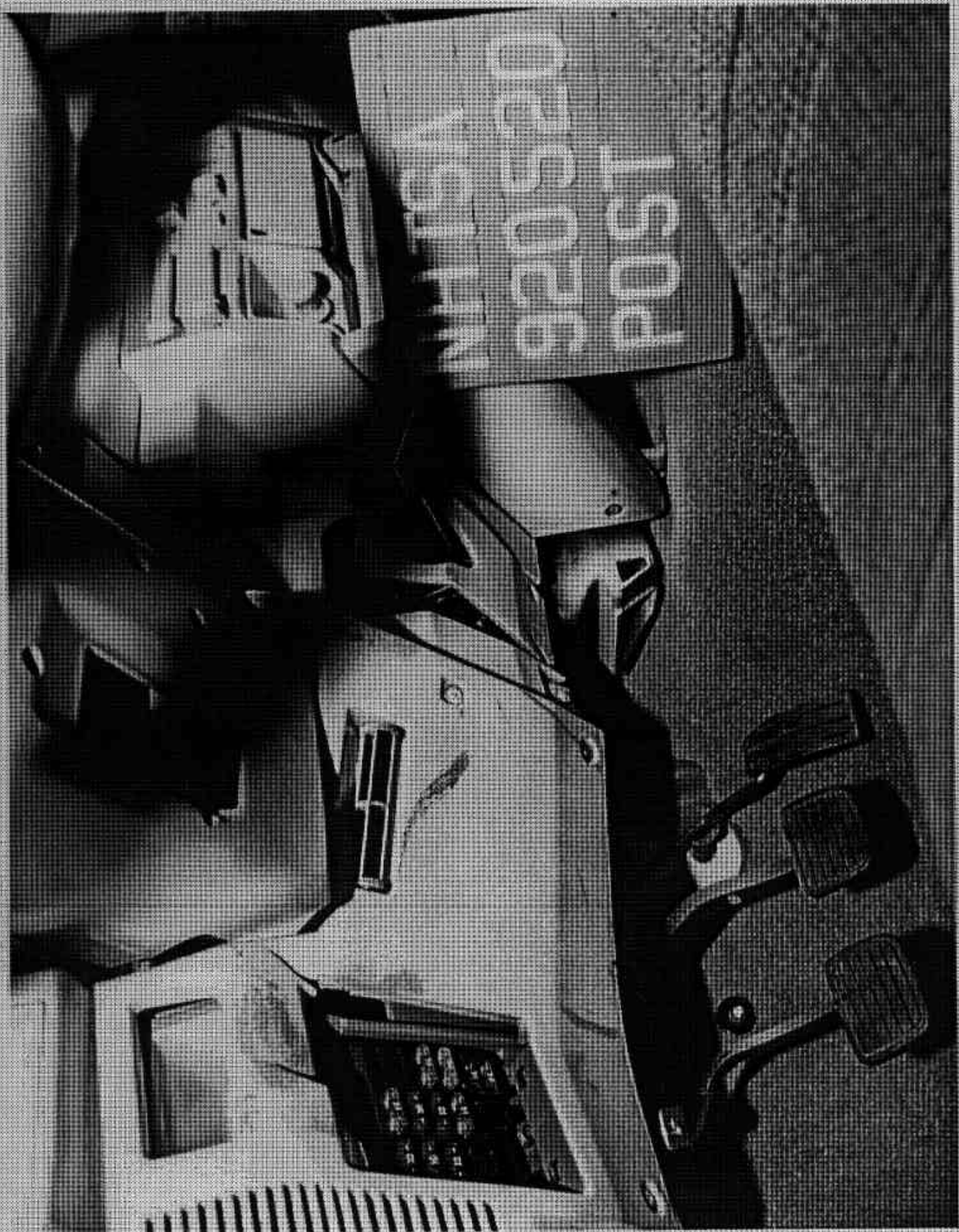


FIGURE A-43. POST-TEST DRIVER DUMMY KNEE CONTACT - VIEW 2

A-44

920520

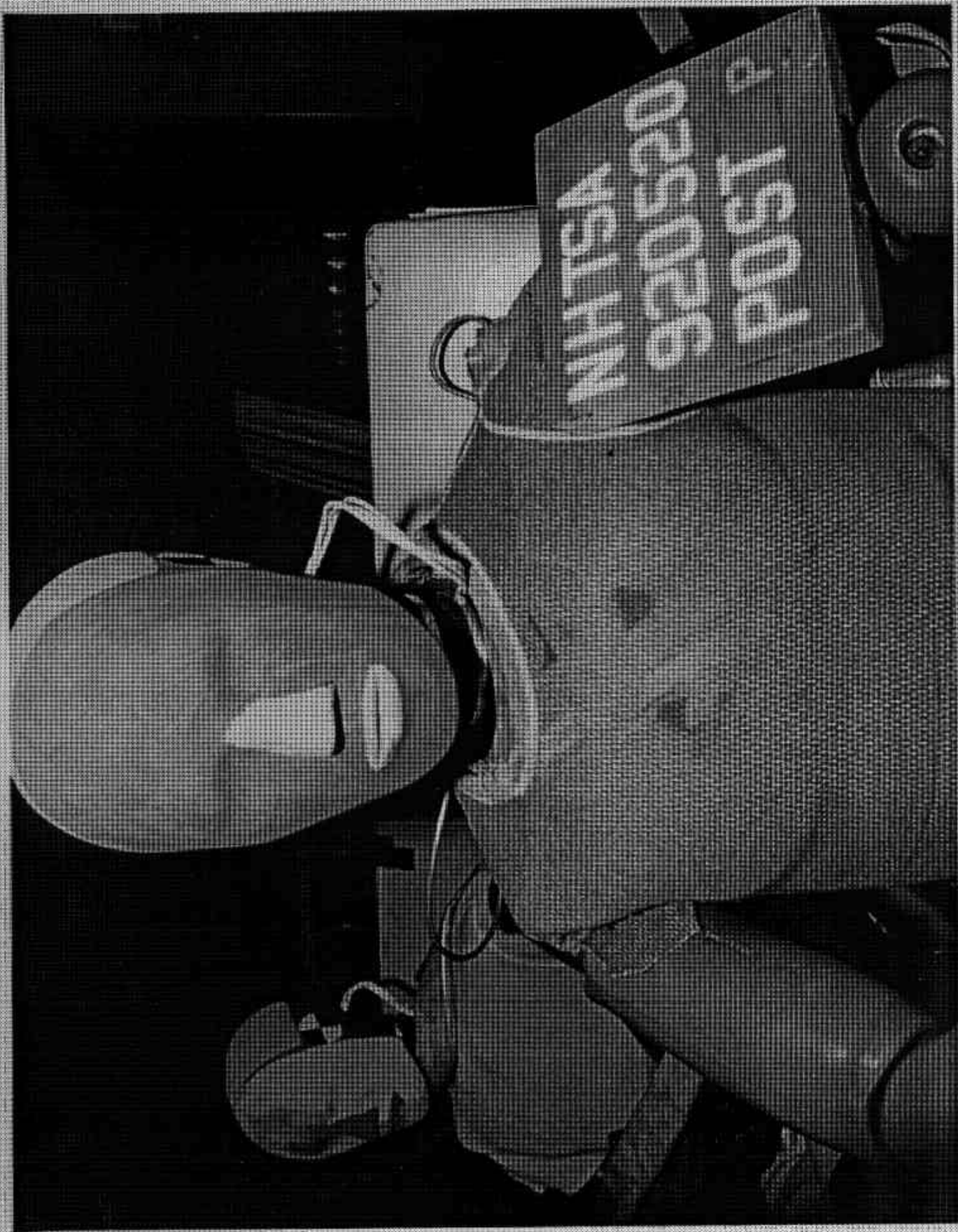


FIGURE A-44. POST-TEST PASSENGER DUMMY HEAD CONTACT VIEW

A-45

920520

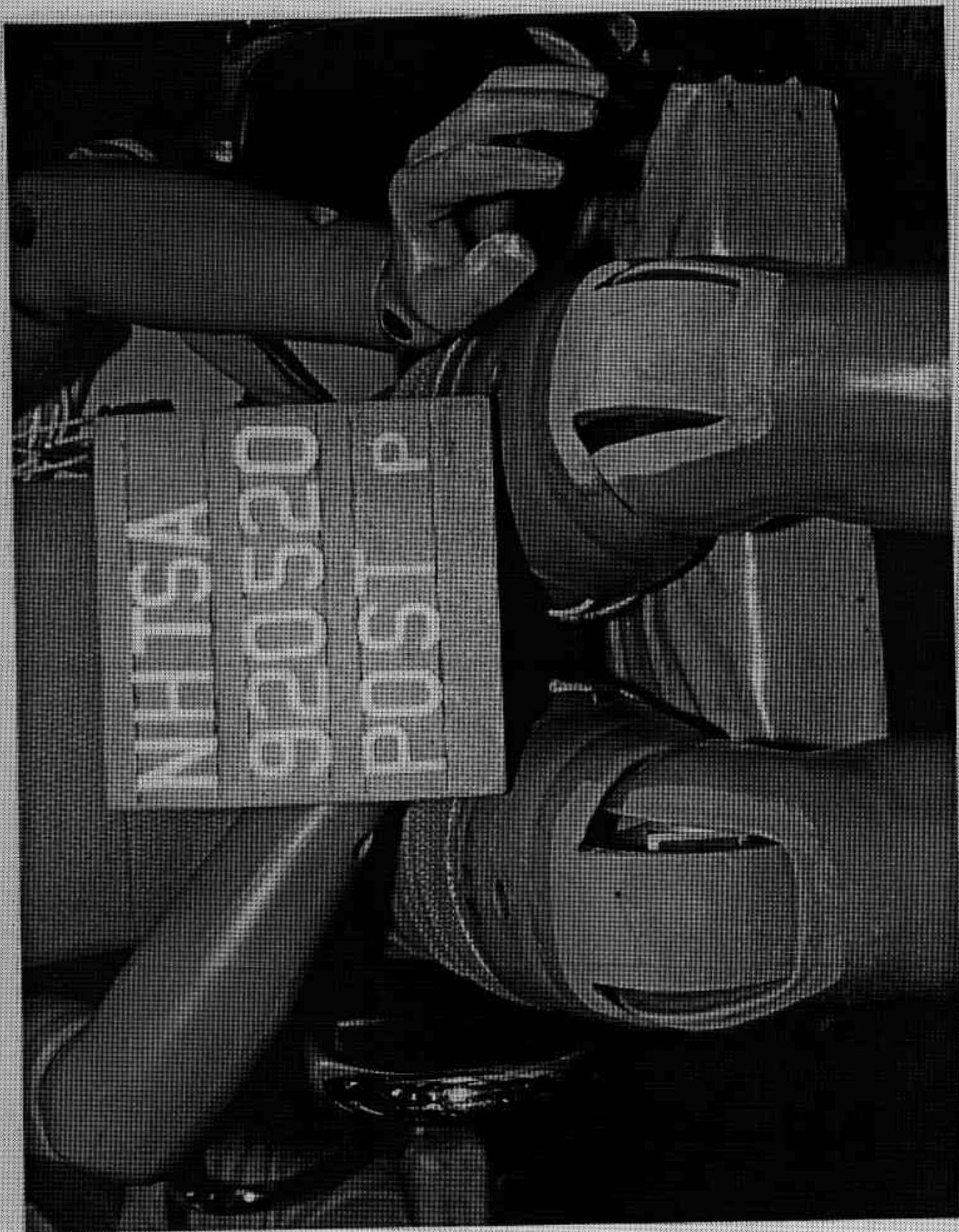


FIGURE A-45. POST-TEST PASSENGER DUMMY KNEE CONTACT - VIEW 1

A-46

920520

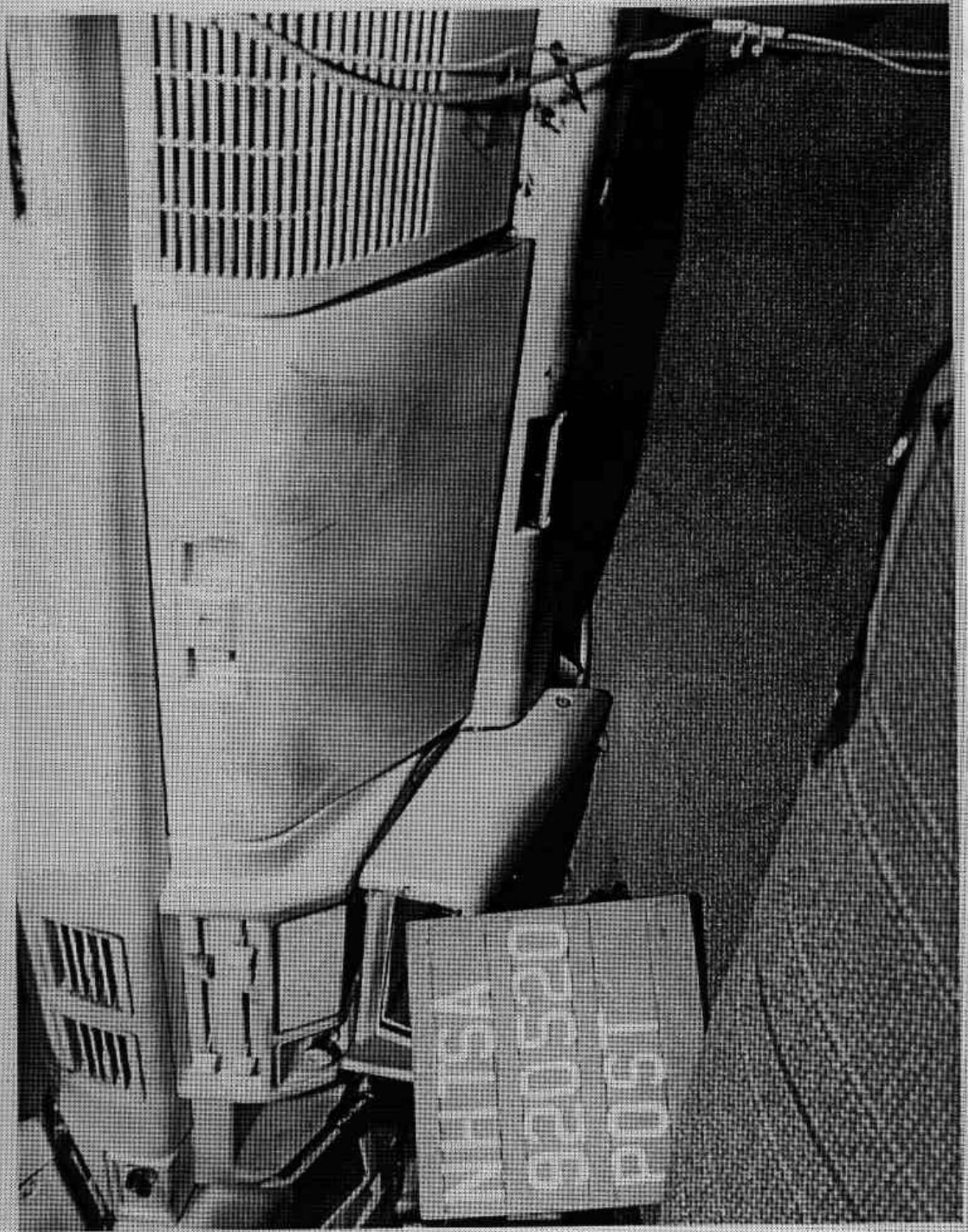


FIGURE A-46. POST-TEST PASSENGER DUMMY KNEE CONTACT - VIEW 2

A-47

920520

MANUFACTURED BY
ISUZU MOTORS LIMITED

NOV. 91

GVWR: 4300

GAWR: FRONT-1900 WITH
P195/75R14 TIRES &
14X5 RIMS OR P205/75R14
TIRES & 14X5.5 RIMS
AT 29PSI COLD.

REAR-2545 WITH
P195/75R14 TIRES &
14X5 RIMS OR P205/75R14
TIRES & 14X5.5 RIMS.
AT 35PSI COLD.

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

4S1CL11L8N4206274

TRUCK

ASSEMBLED BY SUBARU-ISUZU
AUTOMOTIVE INC.

FIGURE A-47, PRE-TEST VEHICLE CERT. & RECOMMENDED TIRE PRES. LABELS



FIGURE A-48. POST-TEST VEHICLE ON STATIC ROLLOVER MACHINE VIEW

A-49

920520

APPENDIX B

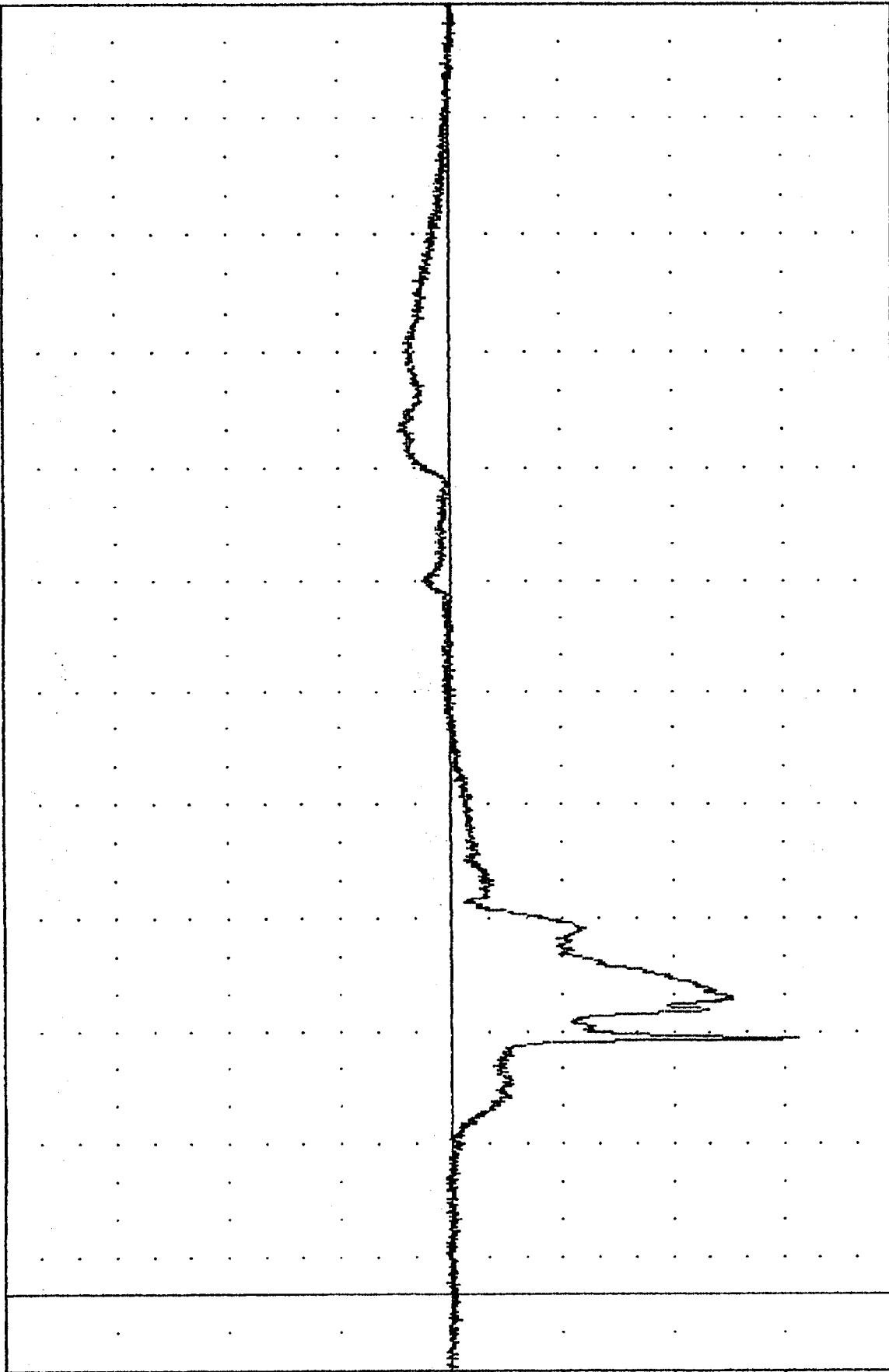
DATA PLOTS

TRC 920520

208 COMPLIANCE TESTING
92141
HEDXG1

FILTER = ALPF 1650/ 5214/ -40
MIN, MAX VALUES = -93.73e 68.13, 13.84 e 229.75

120.00
90.00
60.00
30.00
0.00
-30.00
-60.00
-90.00
-120.00

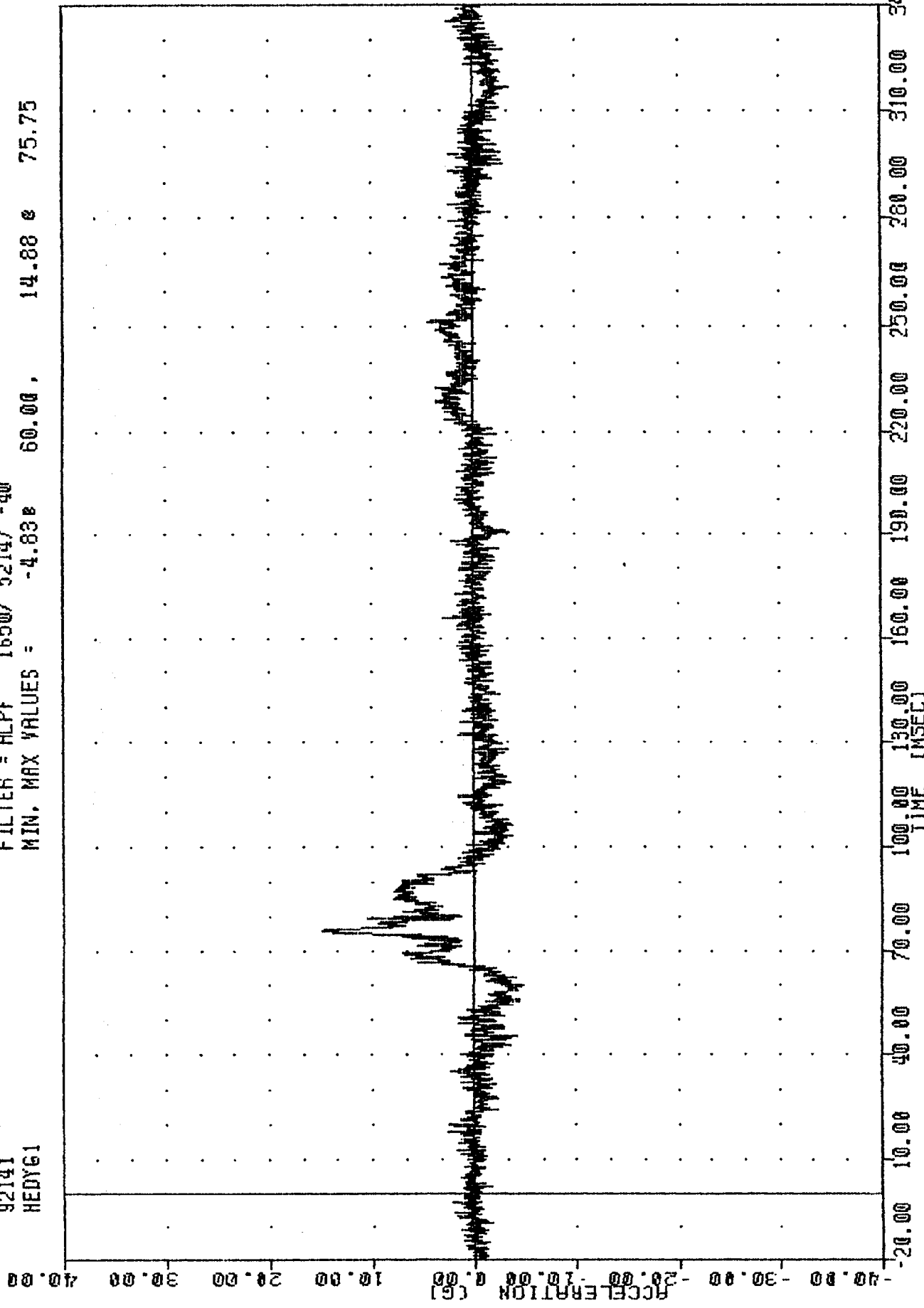


-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00
TIME (MSEC)

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER HEAD X-AXIS ACCELERATION

TRC 920520
208 COMPLIANCE TESTING
92141
HEDY61

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -4.83E 60.00 14.88 E 75.75



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER HEAD Y-AXIS ACCELERATION

TRC 920520

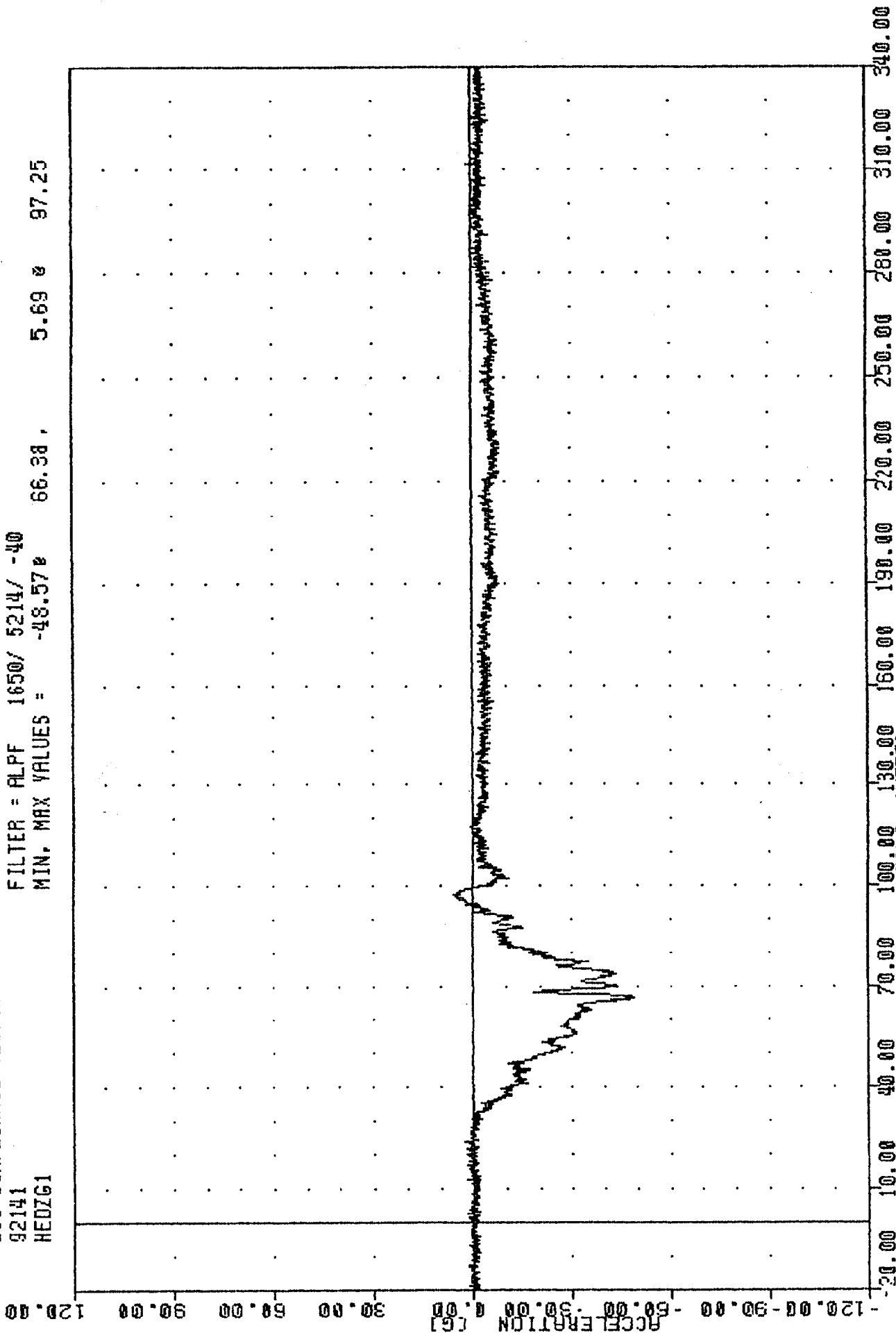
206 COMPLIANCE TESTING

92141

HEDZG1

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -48.57g 66.38g 5.69g 97.25g



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER HEAD Z-AXIS ACCELERATION

THC 920520

208 COMPLIANCE TESTING

92141

HEDRG1

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = 0.05B 7.75, 96.57 & 68.00

105.00

90.00

75.00

60.00

45.00

30.00

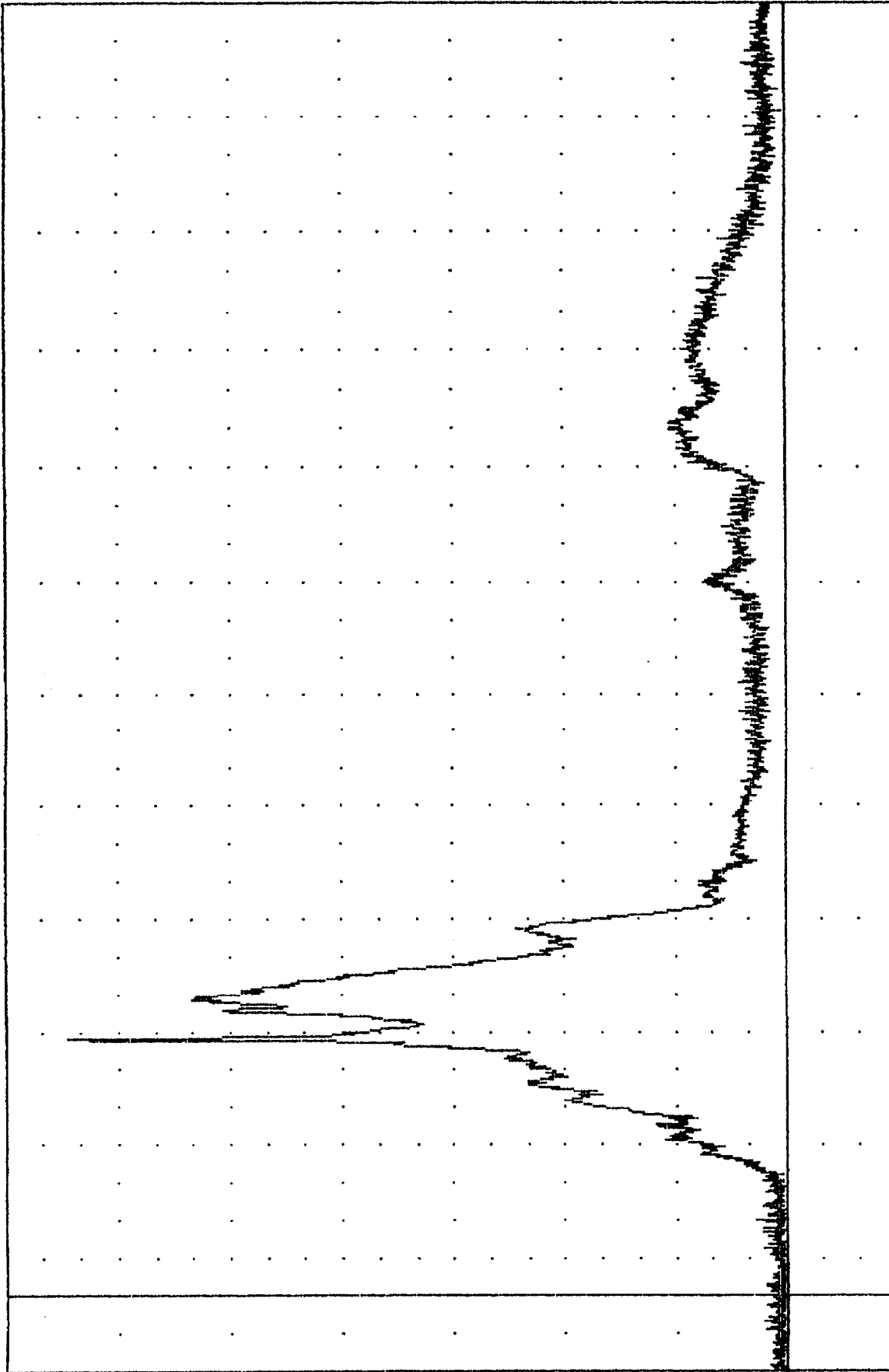
15.00

0.00

-15.00

B-5

920526



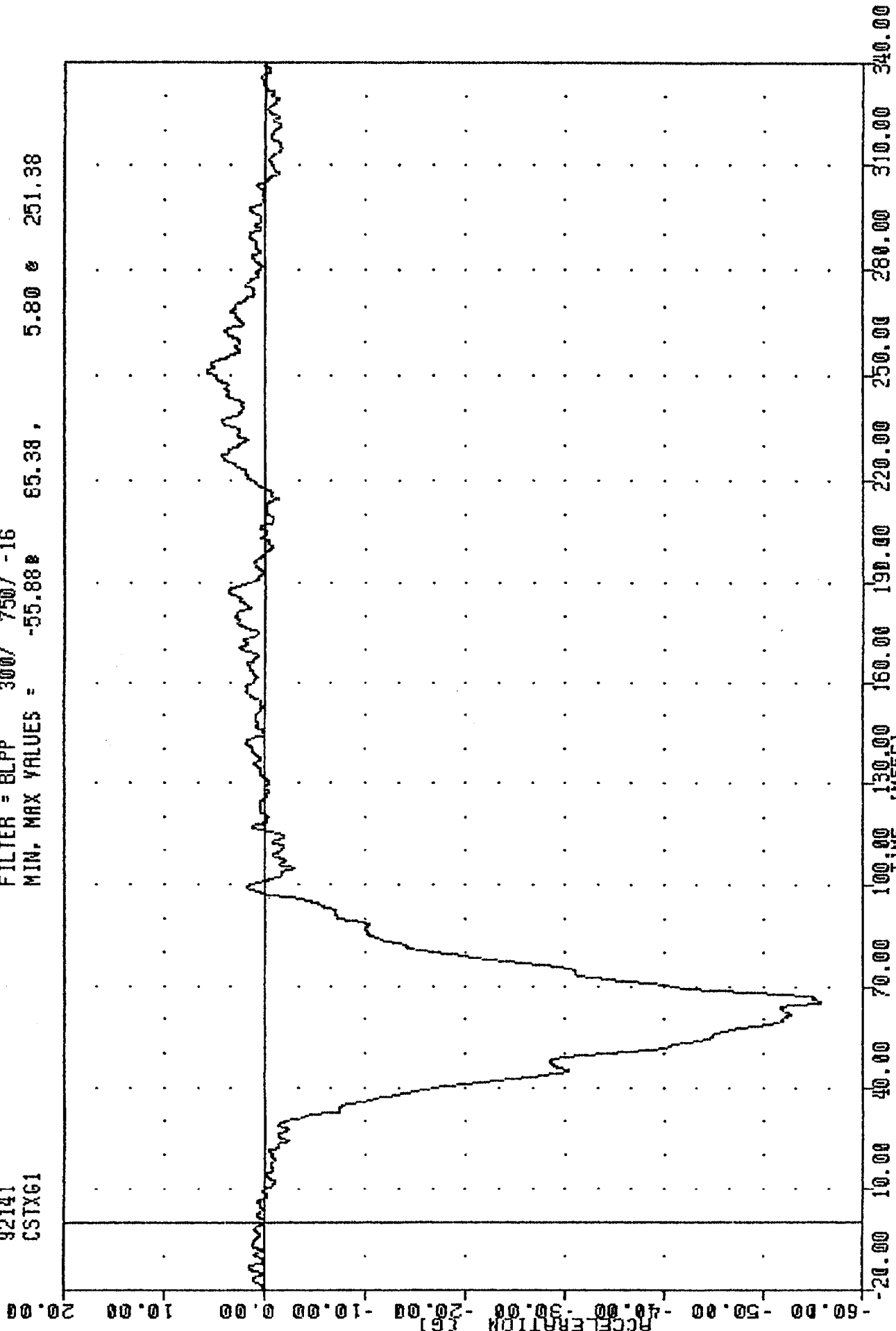
-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER HEAD RESULTANT ACCELERATION

RC 920520
206 COMPLIANCE TESTING

92141
CSTXG1

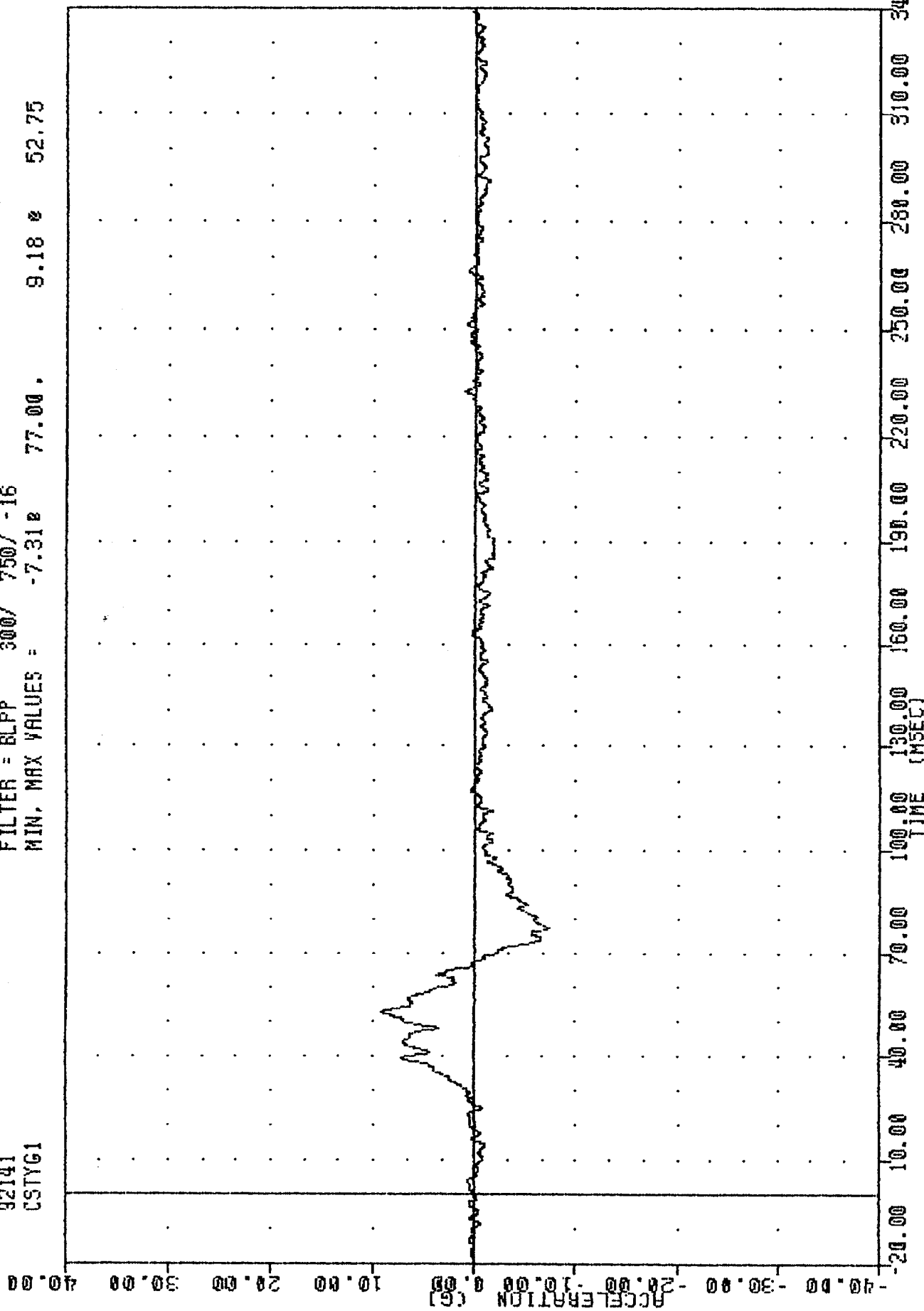
FILTER = BLPP 300/ 750/ -16
MIN. MAX VALUES = -55.88 65.38, 5.80 @ 251.38



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER CHEST X-AXIS ACCELERATION

TRC
920520
200 COMPLIANCE TESTING
92141
CSTYG1

FILTER = BLPP 300/ 750/ -16
MIN, MAX VALUES = -7.31e 77.00. 9.18 e 52.75



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER CHEST Y-AXIS ACCELERATION

TRC

920520

208 COMPLIANCE TESTING

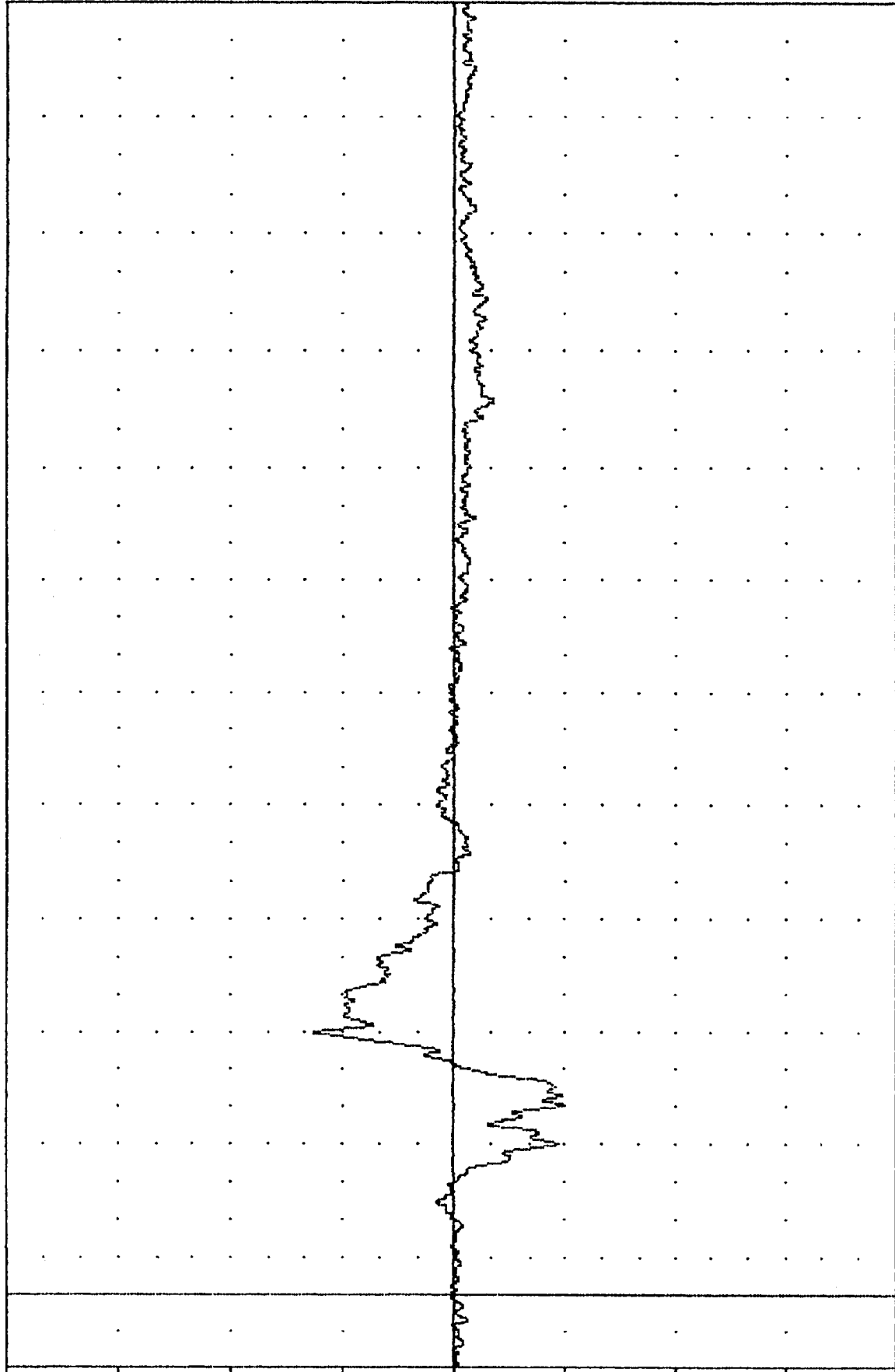
92141

CSTIG1

FILTER = BLPP 300/ 750/ -16

MIN. MAX VALUES = -9.75e 50.38, 12.55 e 69.63

ACCELERATION (G)



Time (msec) 0.00 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00 160.00 170.00 180.00 190.00 200.00 210.00 220.00 230.00 240.00 250.00 260.00 270.00 280.00 290.00 300.00 310.00 320.00 330.00 340.00

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER CHEST Z-AXIS ACCELERATION

TRC

920520

208 COMPLIANCE TESTING

92141

CSTRG1

FILTER = BLPP 300/ 750/ -16

MIN, MAX VALUES = 0.068

-20.00,

55.94 e

65.38

105.00

90.00

75.00

60.00

45.00

30.00

15.00

0.00

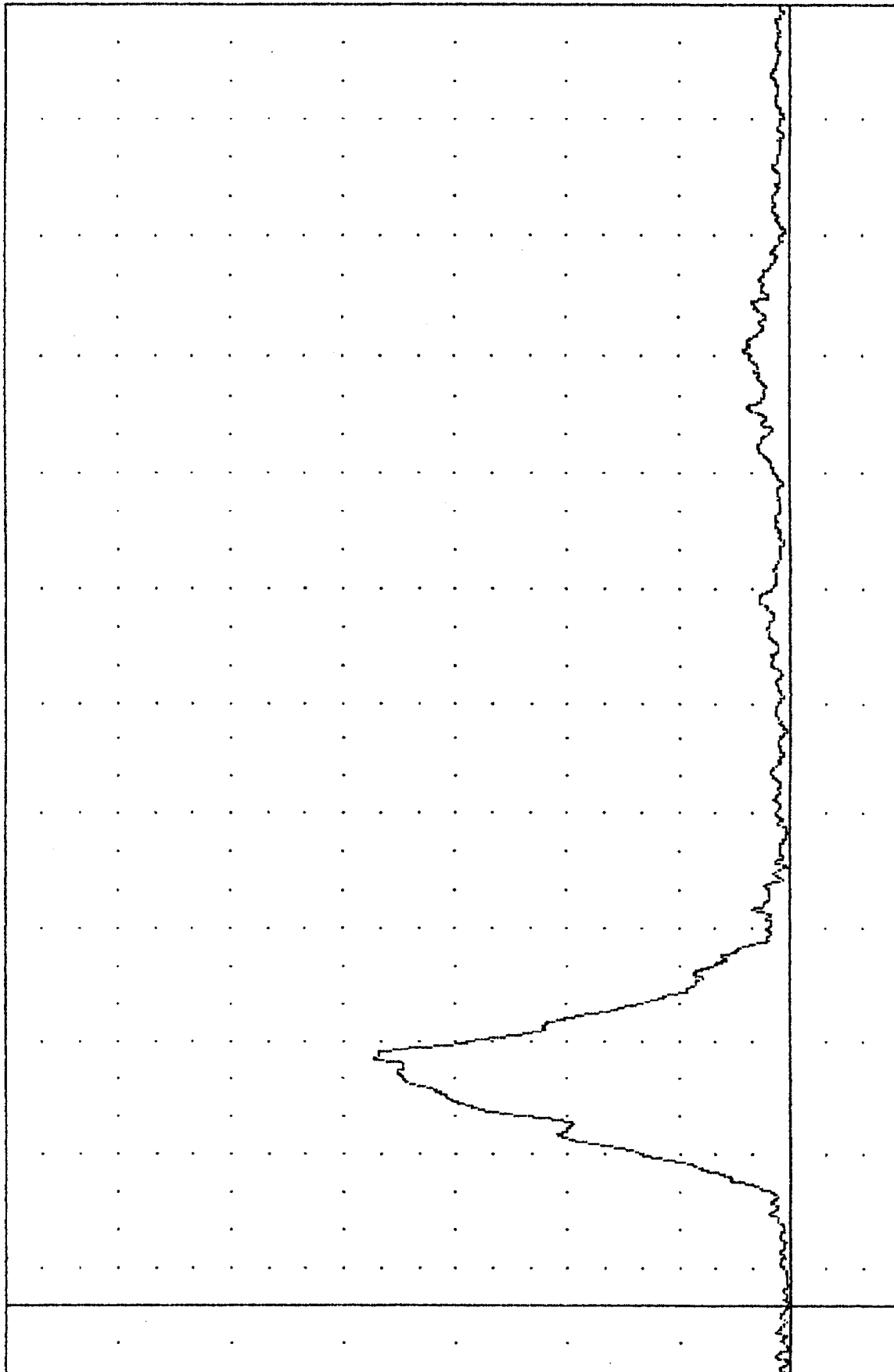
-15.00

-20.00

ACCELERATION (G)

6-8

920520



-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00
TIME (MSEC)

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER CHEST RESULTANT ACCELERATION

920520

200 COMPLIANCE TESTING

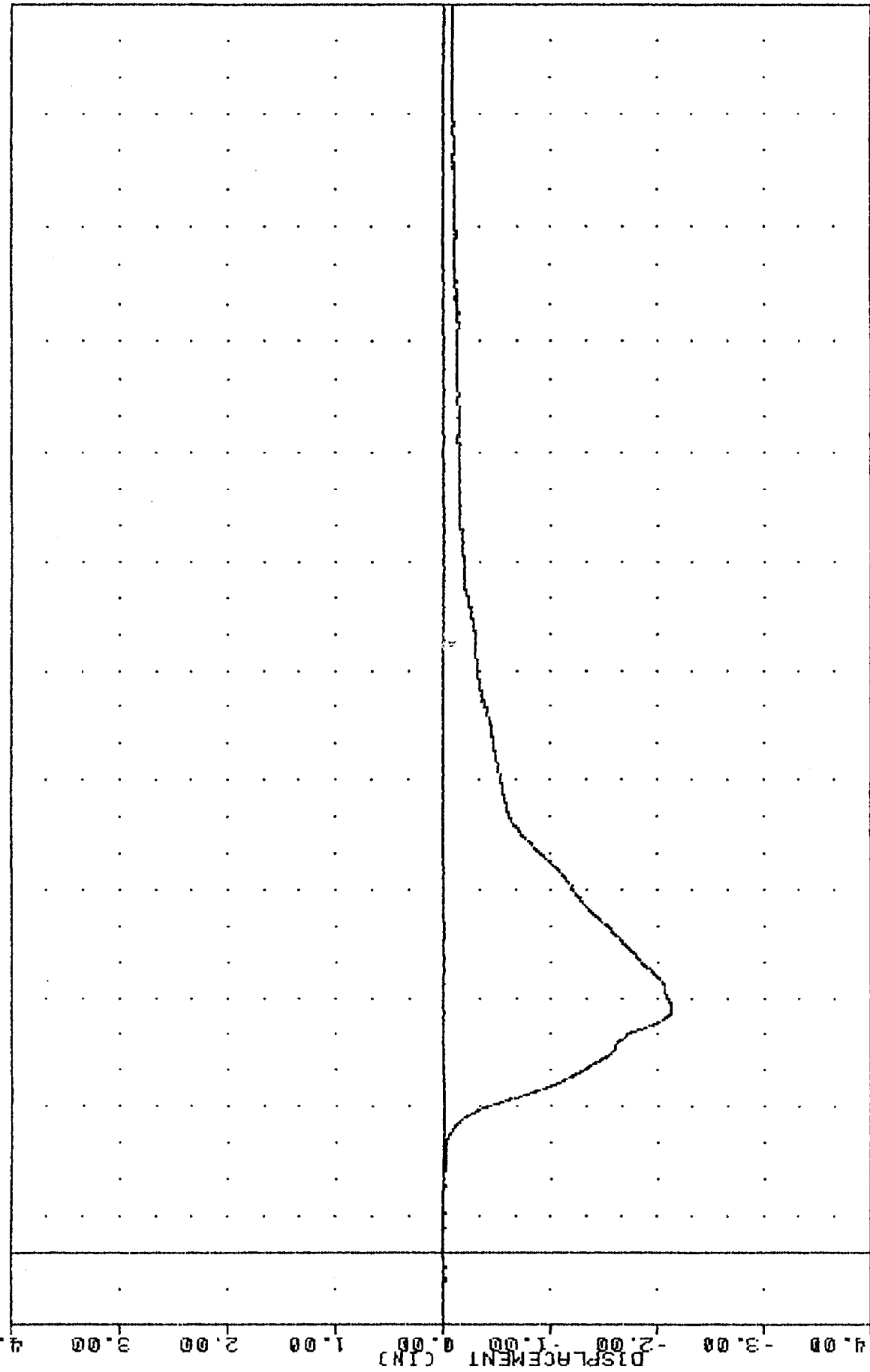
32141

CSTXD1

FILTER = BLPP 300/ 750/ -16

MIN, MAX VALUES = -2.14e 67.13, 0.01 e -2.00

4.00



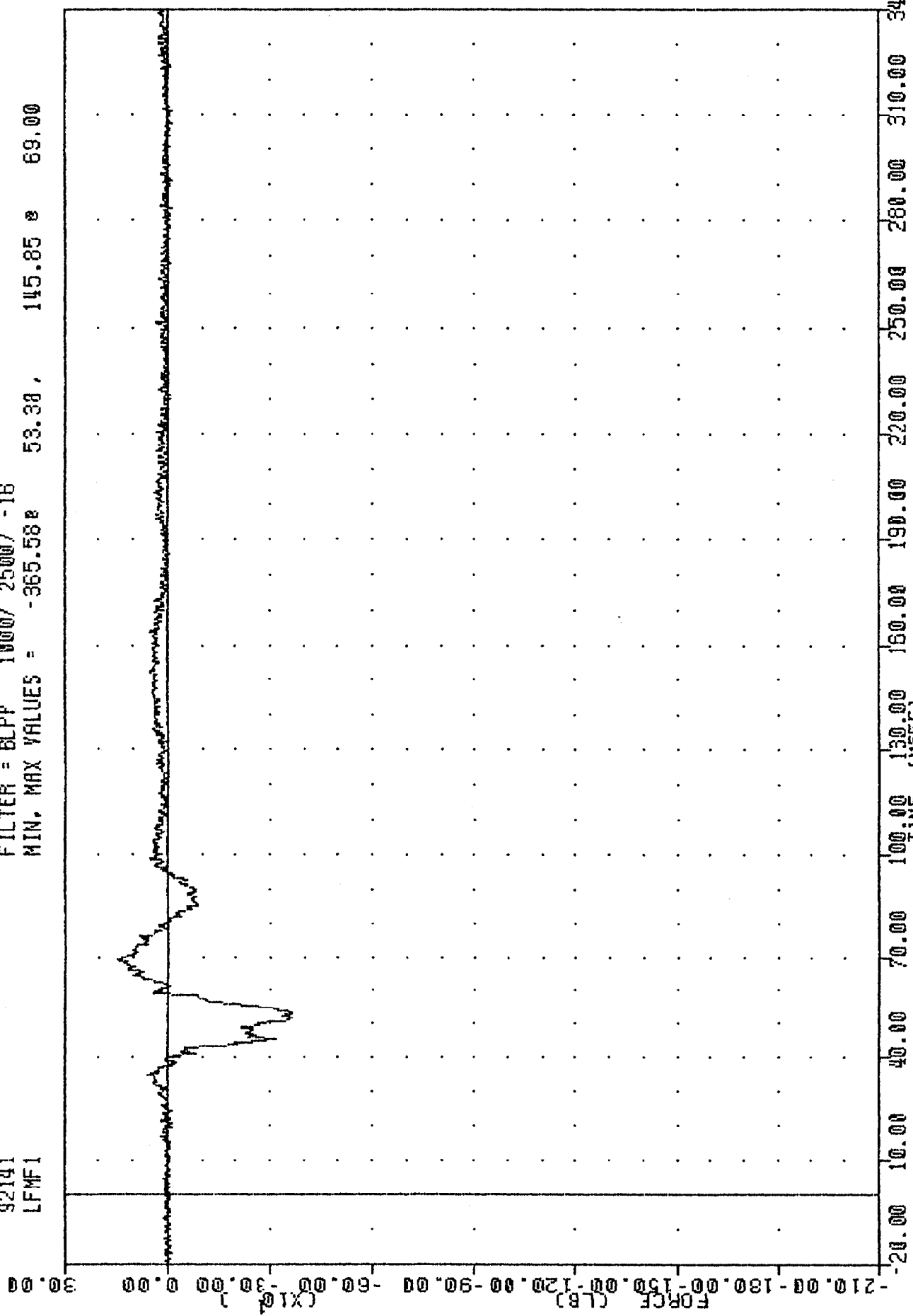
B-10

920520

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER CHEST DEFLECTION

TRC
920520
208 COMPLIANCE TESTING
92141
LFMF1

FILTER = BLPP 1000/ 2500/ -18
MIN. MAX VALUES = -365.58e 53.38 , 145.85 e 69.00



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
DRIVER LEFT FEMUR FORCE

THC 920520

208 COMPLIANCE TESTING

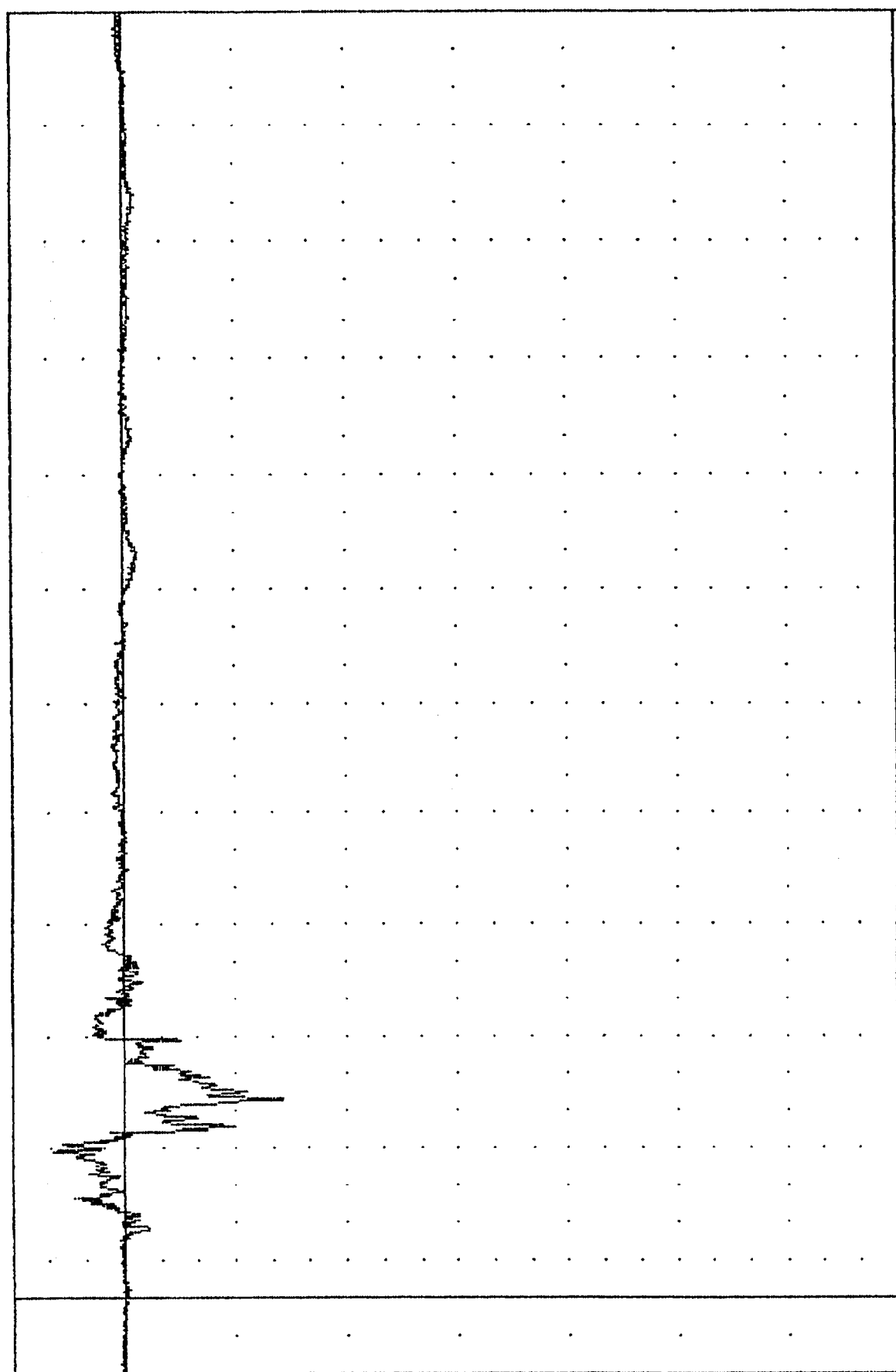
92141

RFMF1

FILTER = BLPP 1000/ 2500/ -16

MIN. MAX VALUES = -430.24 e 53.00 , 186.60 e 39.25

30.00
0.00
-30.00
-60.00
-90.00
-120.00
-150.00
-180.00
-210.00



-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00

1992 ISUZU PICKUP PICKUP INTO FLAT FRONTAL BARRIER
DRIVER RIGHT FEMUR FORCE

TRC 920520

208 COMPLIANCE TESTING

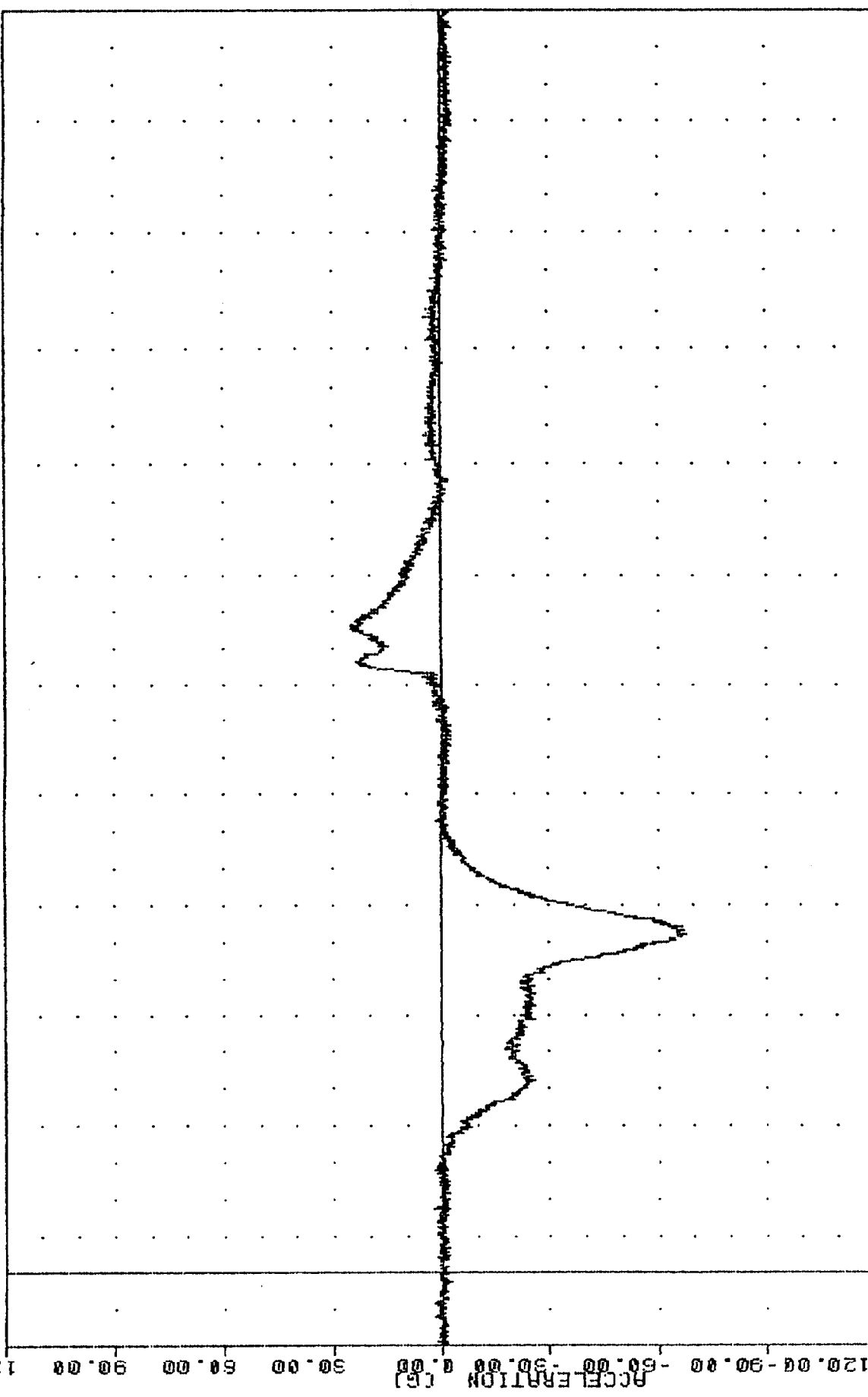
92141

HEDXG2

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -67.76e 91.75, 25.07 e 175.13

120.00

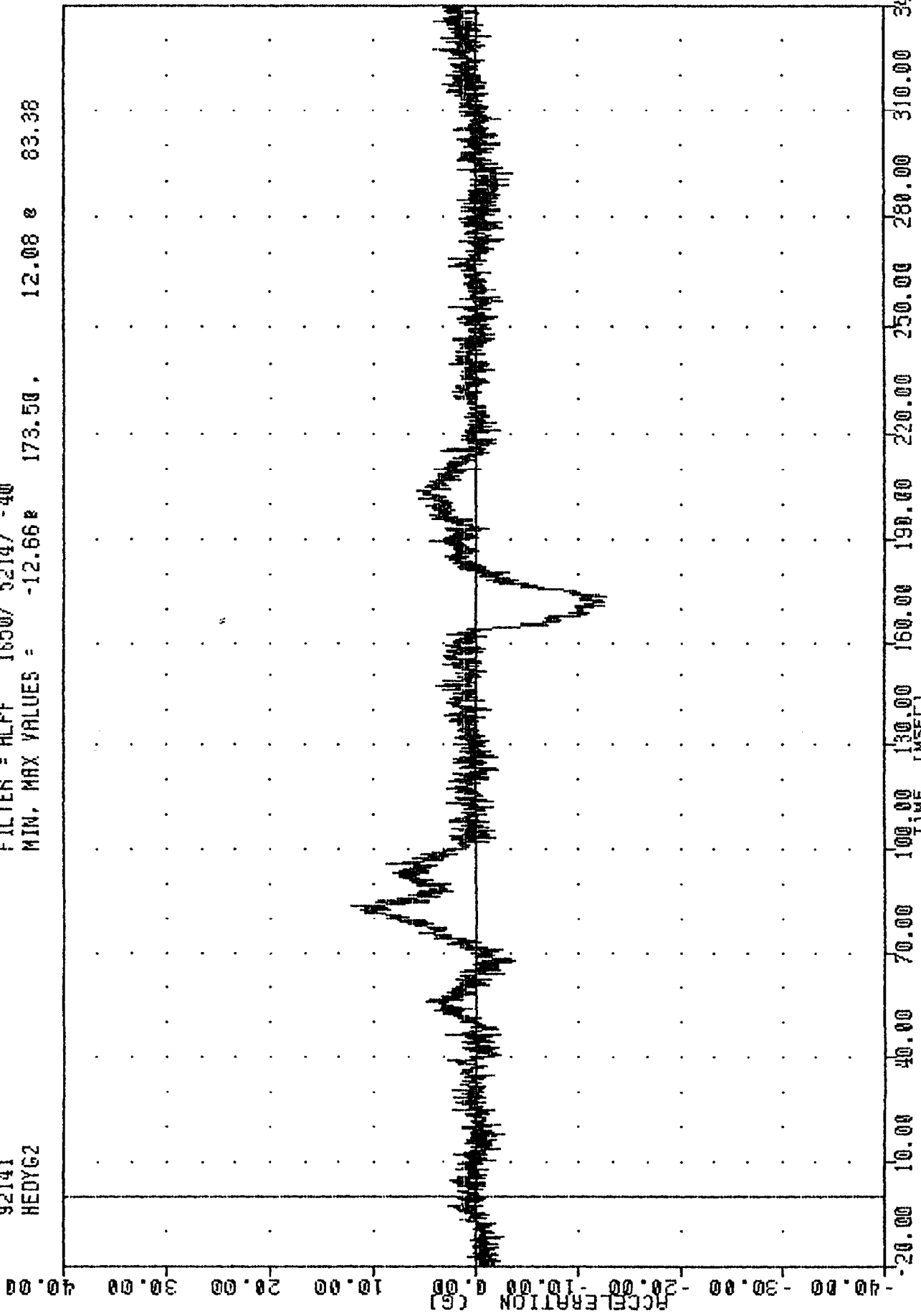


-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER HEAD X-AXIS ACCELERATION

TRC
920520
208 COMPLIANCE TESTING
92141
HEDYG2

FILTER = ALFF 1650/ 5214/ -40
MIN, MAX VALUES = -12.66R 173.50. 12.08 e 83.38



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER HEAD Y-AXIS ACCELERATION

TRC

920520

208 COMPLIANCE TESTING

92141

HEZG2

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -50.69g 69.50g

2.79g 24.88g

120.00

90.00

60.00

30.00

0.00

-30.00

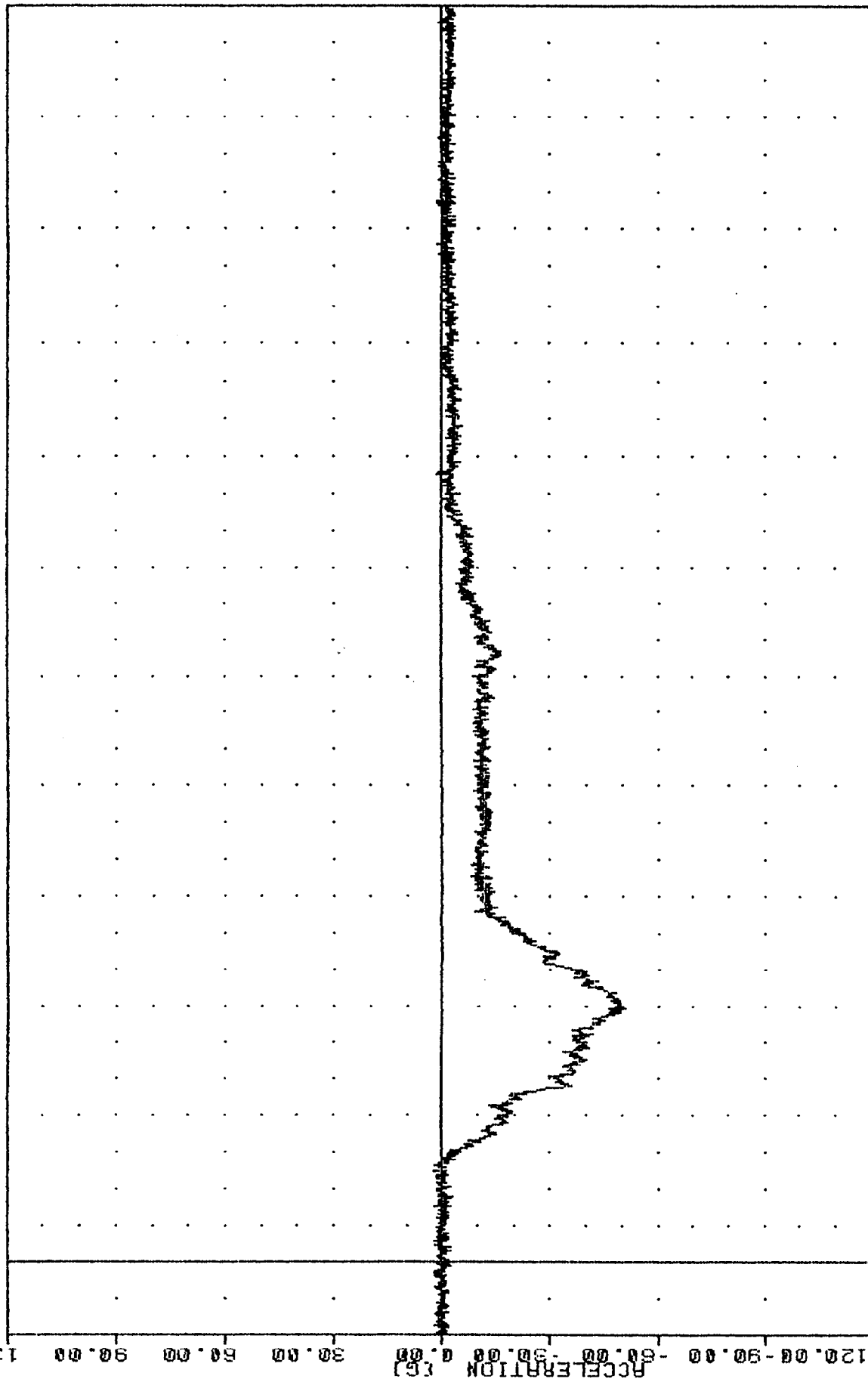
-60.00

-90.00

-120.00

B-15

920520



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER HEAD Z-AXIS ACCELERATION

TFC 920520

208 COMPLIANCE TESTING

92141

HEADG2

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = 0.14e

24.38,

70.55 e

91.75

105.00

90.00

75.00

60.00

45.00

30.00

15.00

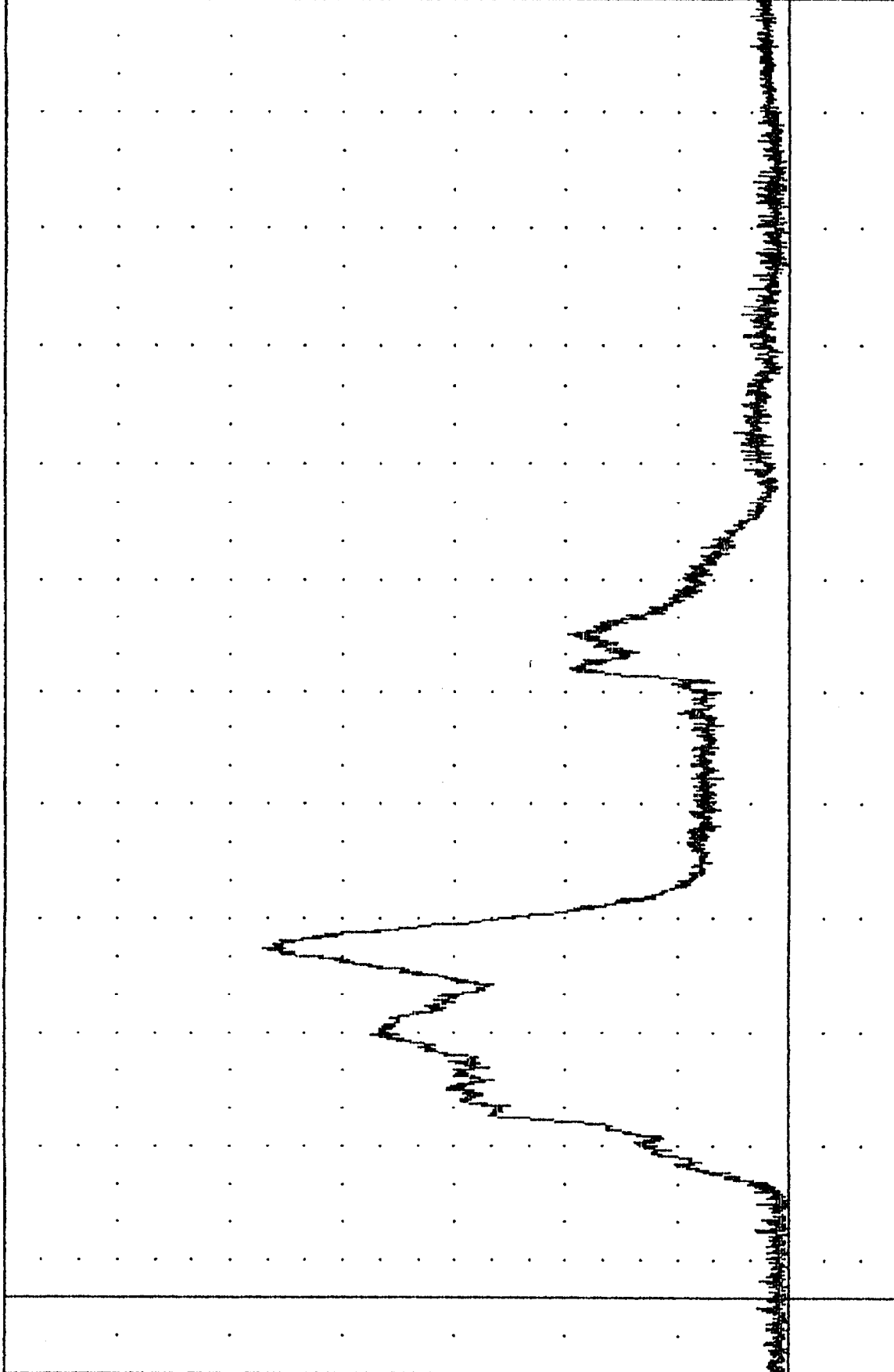
0.00

-15.00

ACCELERATION (G)

B-16

920520

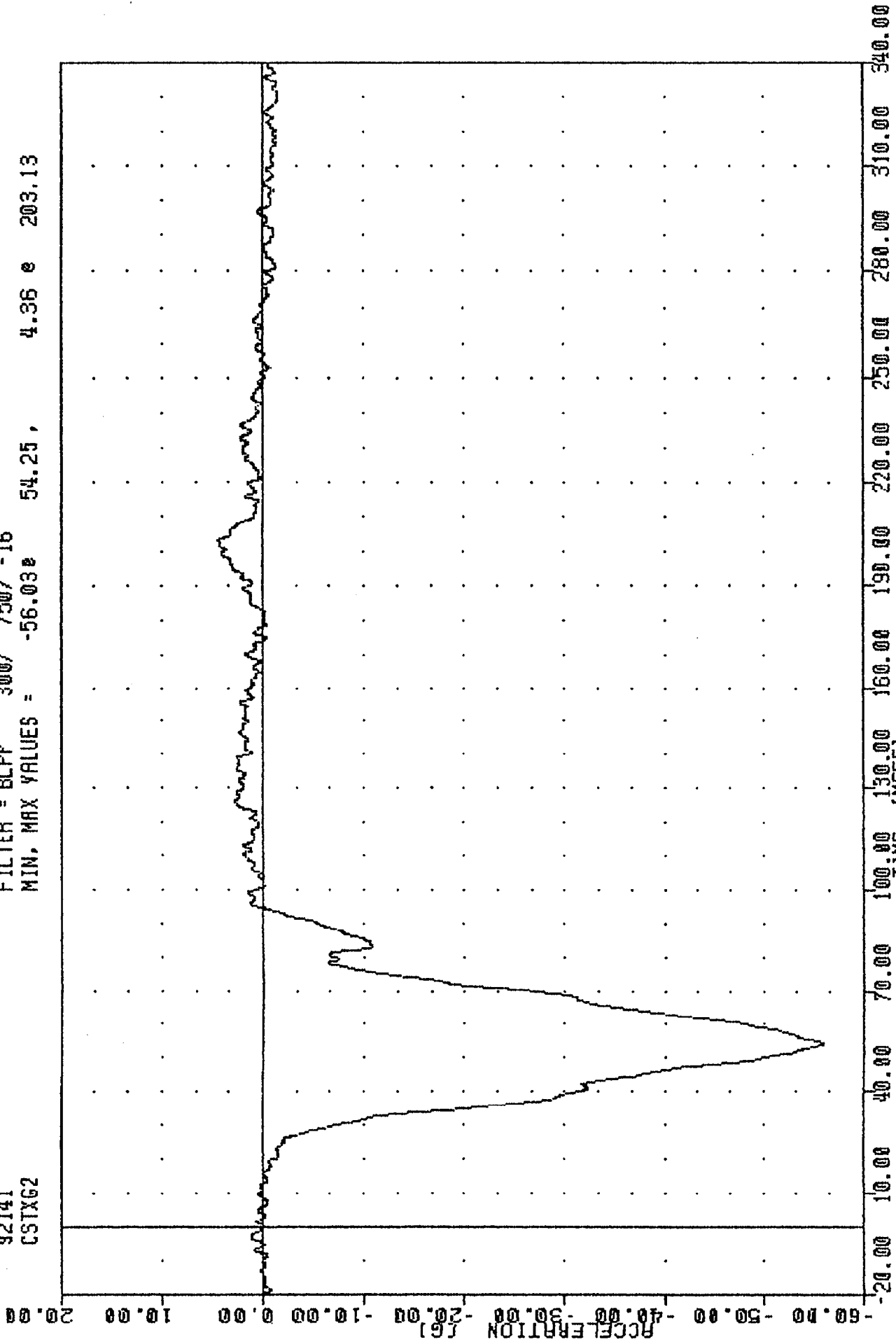


-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER HEAD RESULTANT ACCELERATION

RC 92020
200 COMPLIANCE TESTING
92141
CSTXG2

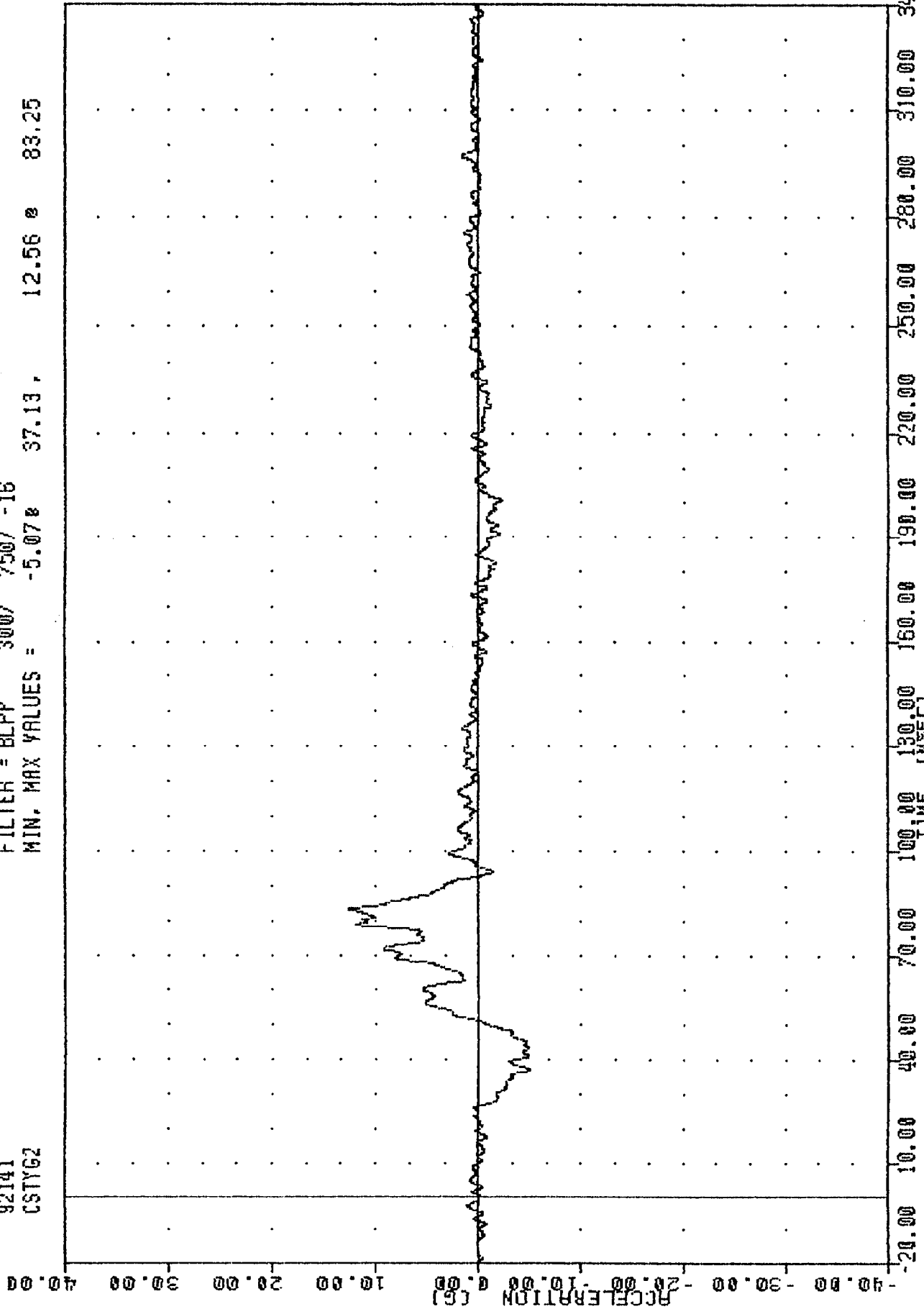
FILTER = BLPP 300/ 750/ -16
MIN. MAX VALUES = -56.03e 54.25, 4.36 e 203.13



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER CHEST X-AXIS ACCELERATION

TRC , 920520
208 COMPLIANCE TESTING
92141
CSTYG2

FILTER = BLPP 300/ 750/ -16
MIN. MAX VALUES = -5.07g 12.56g 83.25



B-18

920520

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER CHEST Y-AXIS ACCELERATION

TAC

920520

208 COMPLIANCE TESTING

92141

CSTZG2

FILTER = BLPP 300/ 750/ -16

MIN. MAX VALUES = -11.57 39.25, 21.15 80.75

40.00

30.00

20.00

10.00

0.00

-10.00

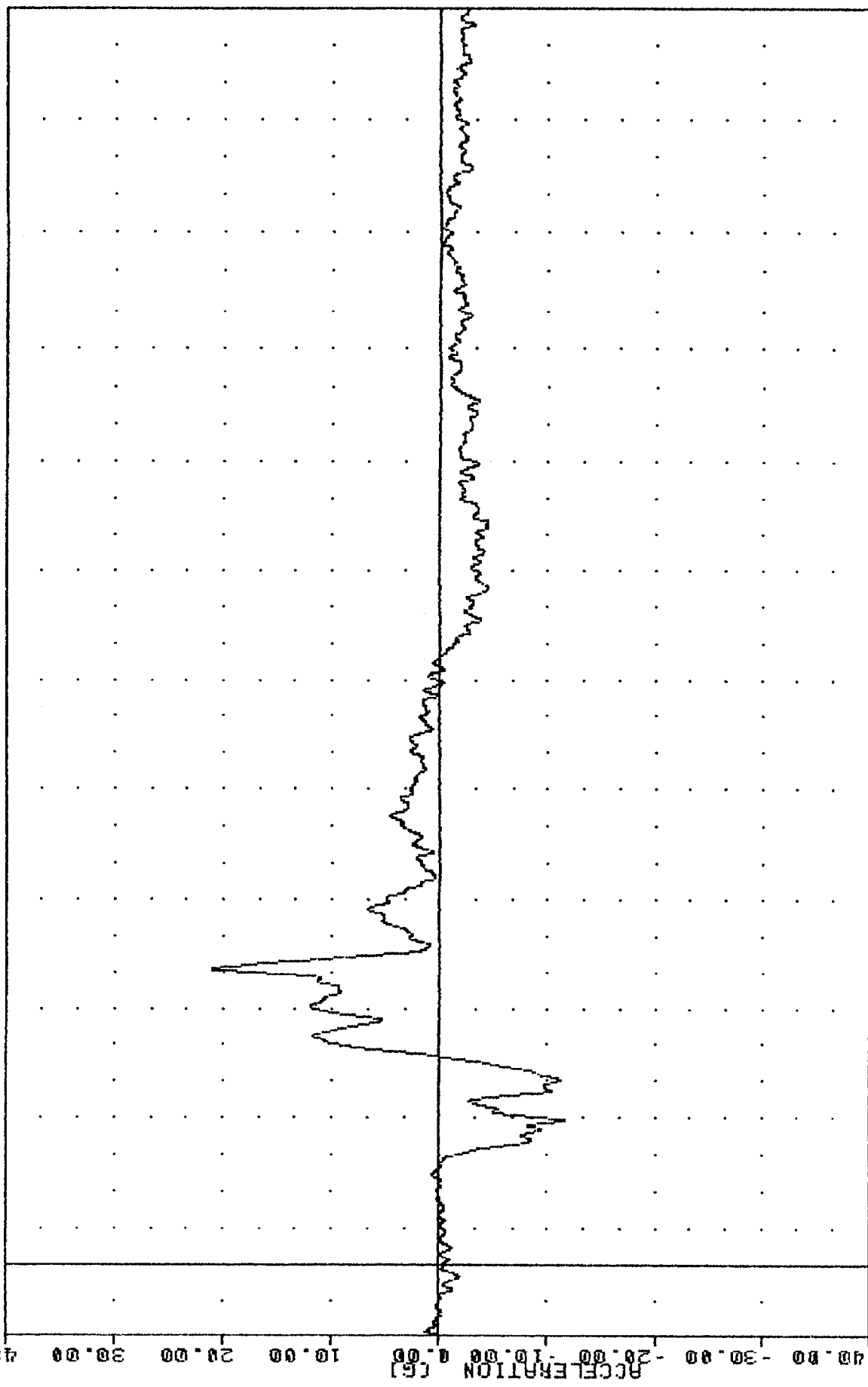
-20.00

-30.00

-40.00

B-19

920520



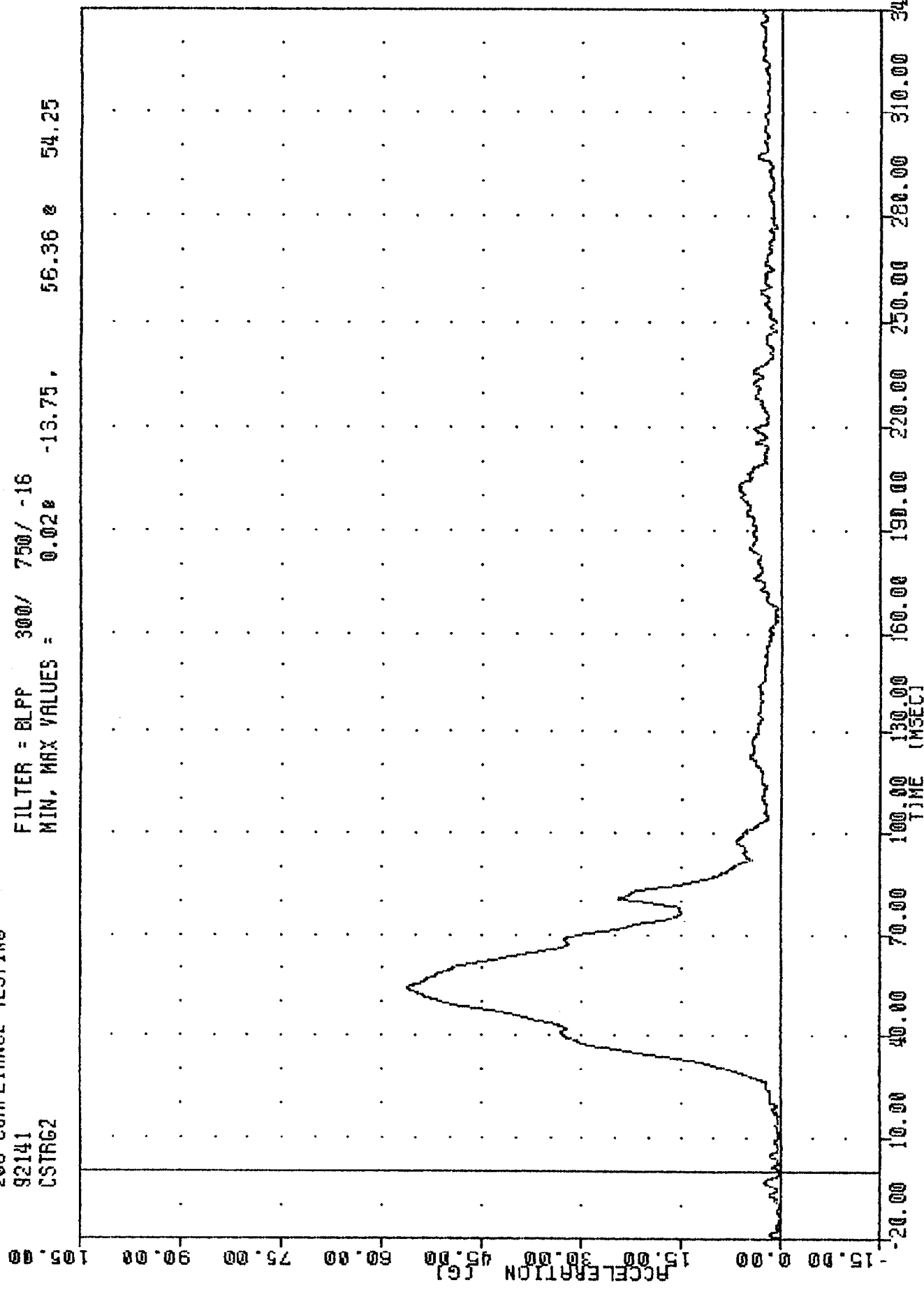
Time (msec) 0.00 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00 160.00 170.00 180.00 190.00 200.00 210.00 220.00 230.00 240.00 250.00 260.00 270.00 280.00 290.00 300.00 310.00 320.00 330.00 340.00

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER CHEST Z-AXIS ACCELERATION

TRC
920520

208 COMPLIANCE TESTING
92141
CSTRG2

FILTER = BLPF 300/ 750/ -16
MIN, MAX VALUES = 0.02 @ -13.75, 56.36 @ 54.25



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER CHEST RESULTANT ACCELERATION

TRC

920520

208 COMPLIANCE TESTING

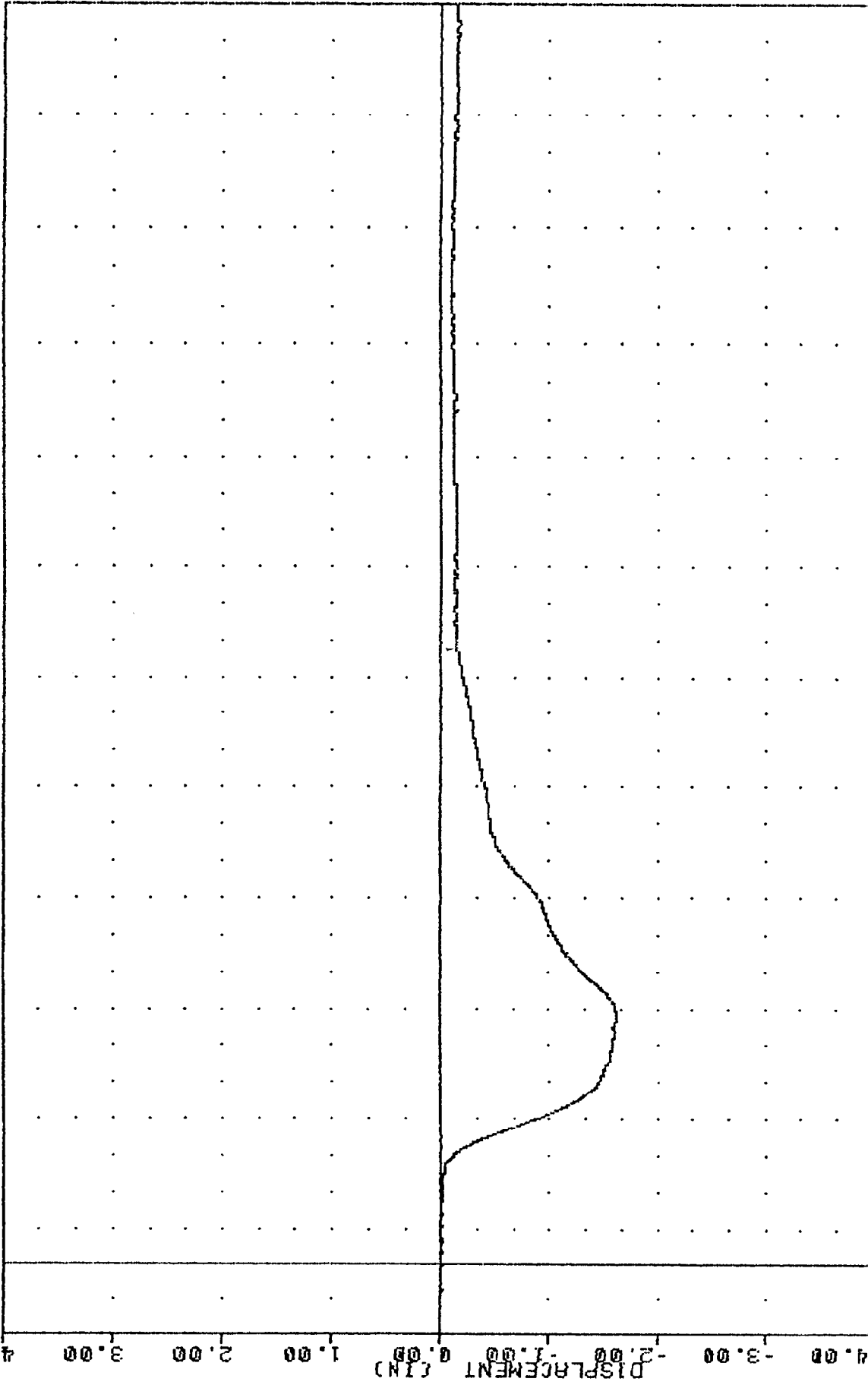
92141

CSTXD2

FILTER = BLPP 300/ 750/ -16

MIN. MAX VALUES = -1.63e 67.75, 0.01e -2.13

4.00



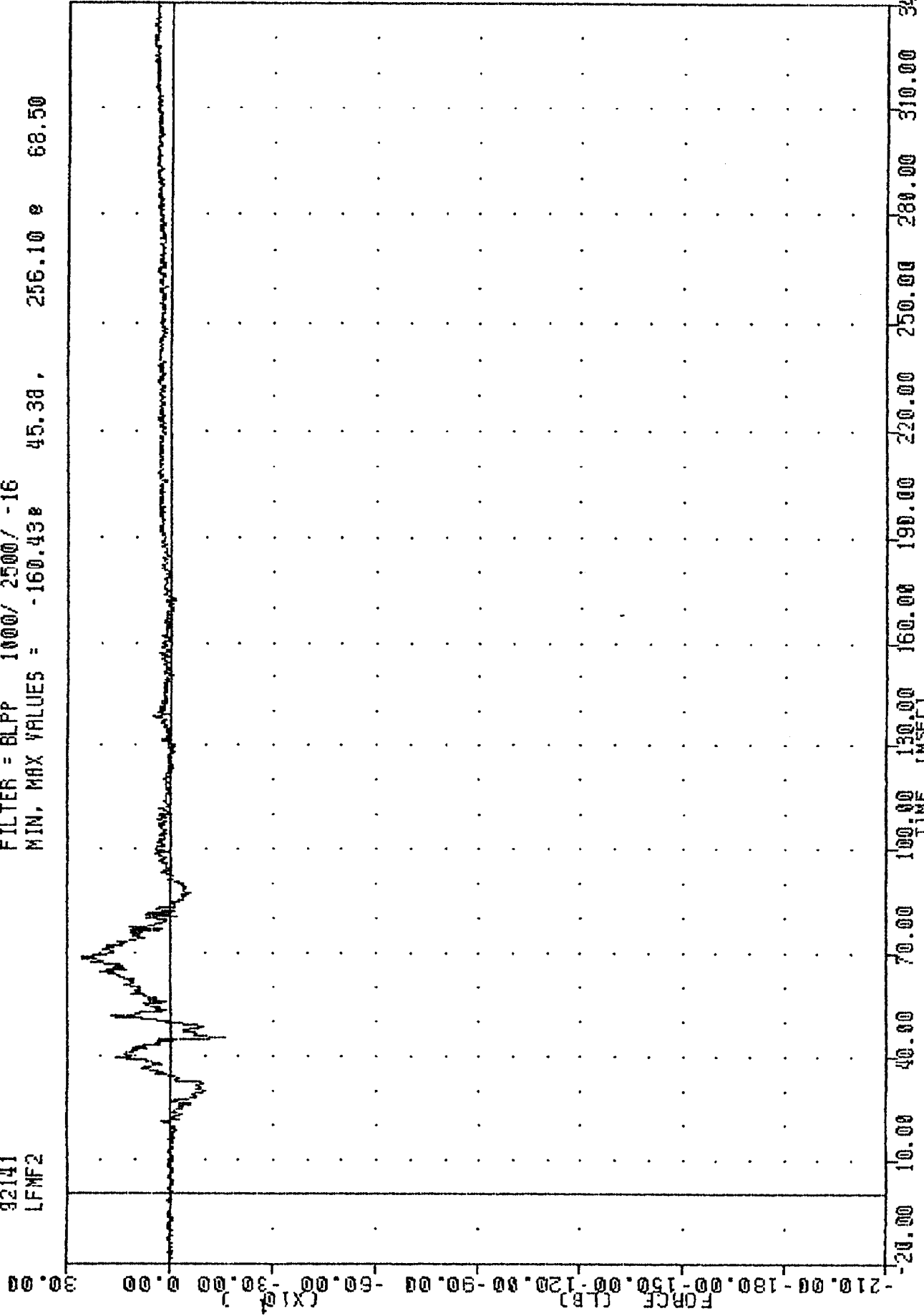
-4.00 -3.00 -2.00 -1.00 0.00 1.00 2.00 3.00 4.00

20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER CHEST DEFLECTION

TRC 920520
 208 COMPLIANCE TESTING
 92141
 LFMF2

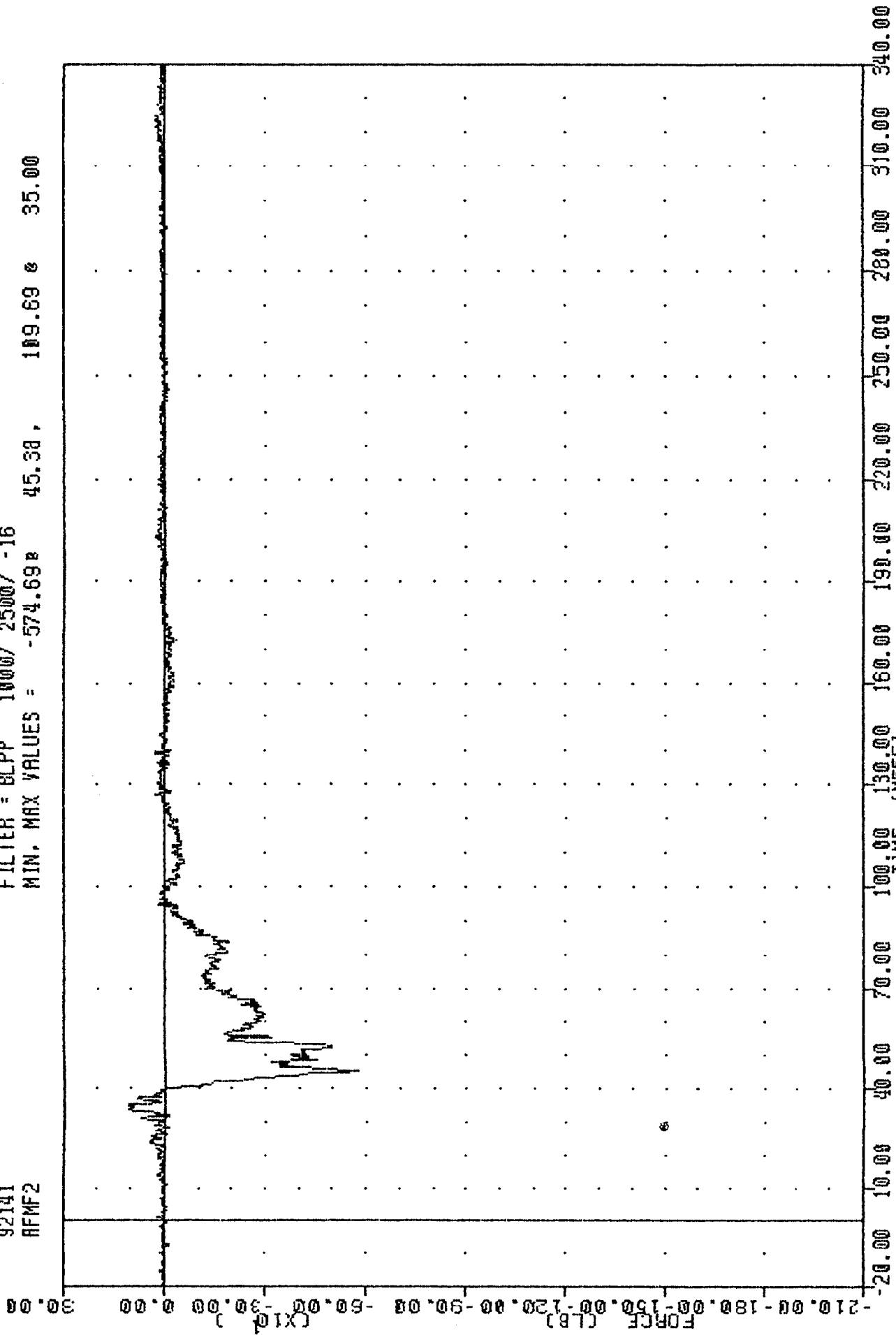
FILTER = BLPP 1000/ 2500/ -16
 MIN, MAX VALUES = -160.43e 45.38, 256.10 e 68.50



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
 RIGHT FRONT PASSENGER LEFT FEMUR FORCE

THC
920520
208 COMPLIANCE TESTING
92141
AFMF2

FILTER = BLPP 1000/ 2500/ -16
MIN. MAX VALUES = -574.69B 45.38 , 109.69 e 35.00



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT FRONT PASSENGER RIGHT FEMUR FORCE

TRC

920520

208 COMPLIANCE TESTING

92141

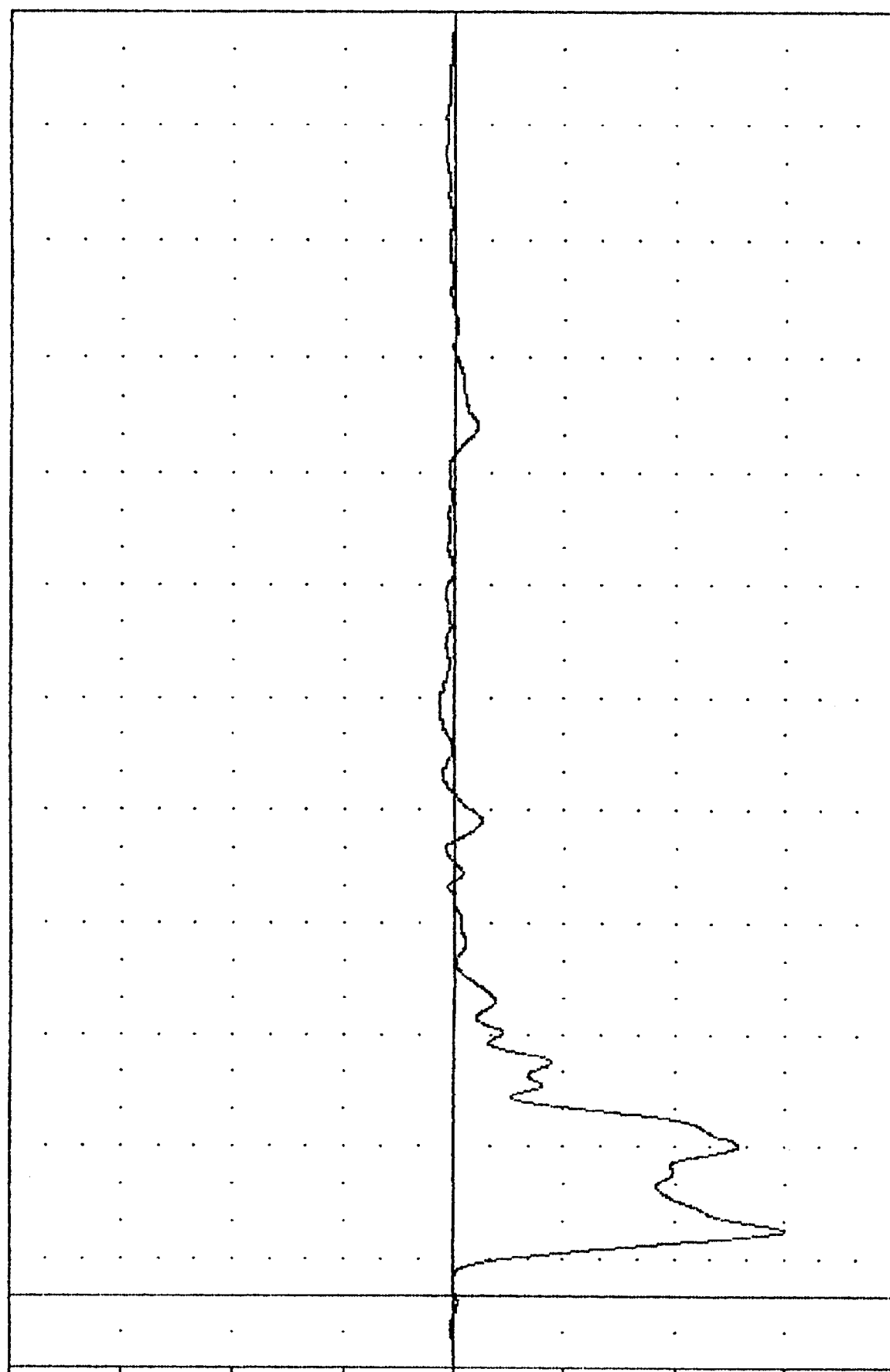
TLRXG1

FILTER = BLPP 100/ 250/ -16

MIN. MAX VALUES = -45.22e 17.50.

2.08 e 158.38

50.00
45.00
30.00
15.00
0.00
-15.00
-30.00
-45.00
-60.00



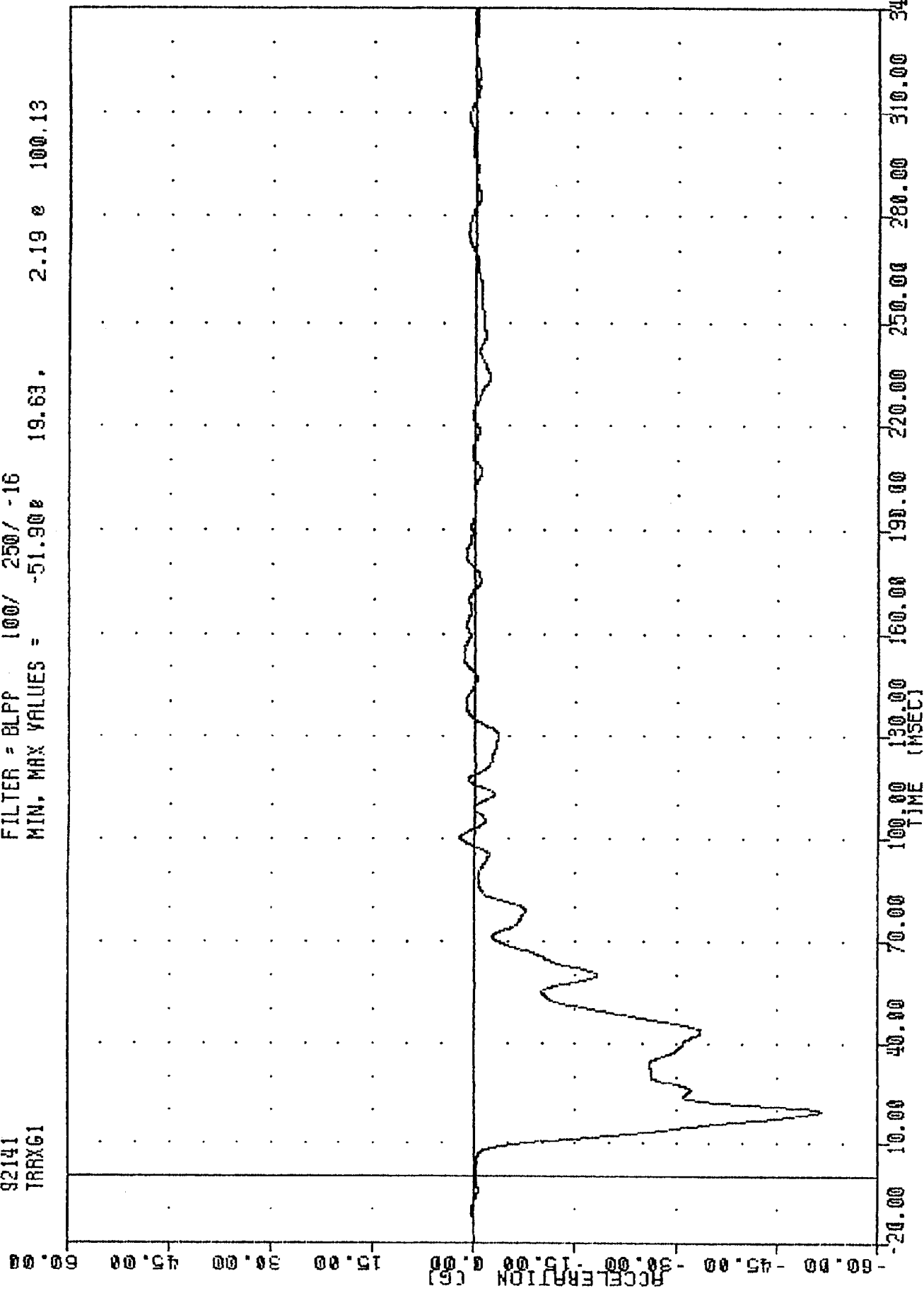
-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00
TIME (MSEC)

1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
LEFT REAR SEAT X-AXIS ACCELERATION

TRC
920520

208 COMPLIANCE TESTING
92141
TRRX61

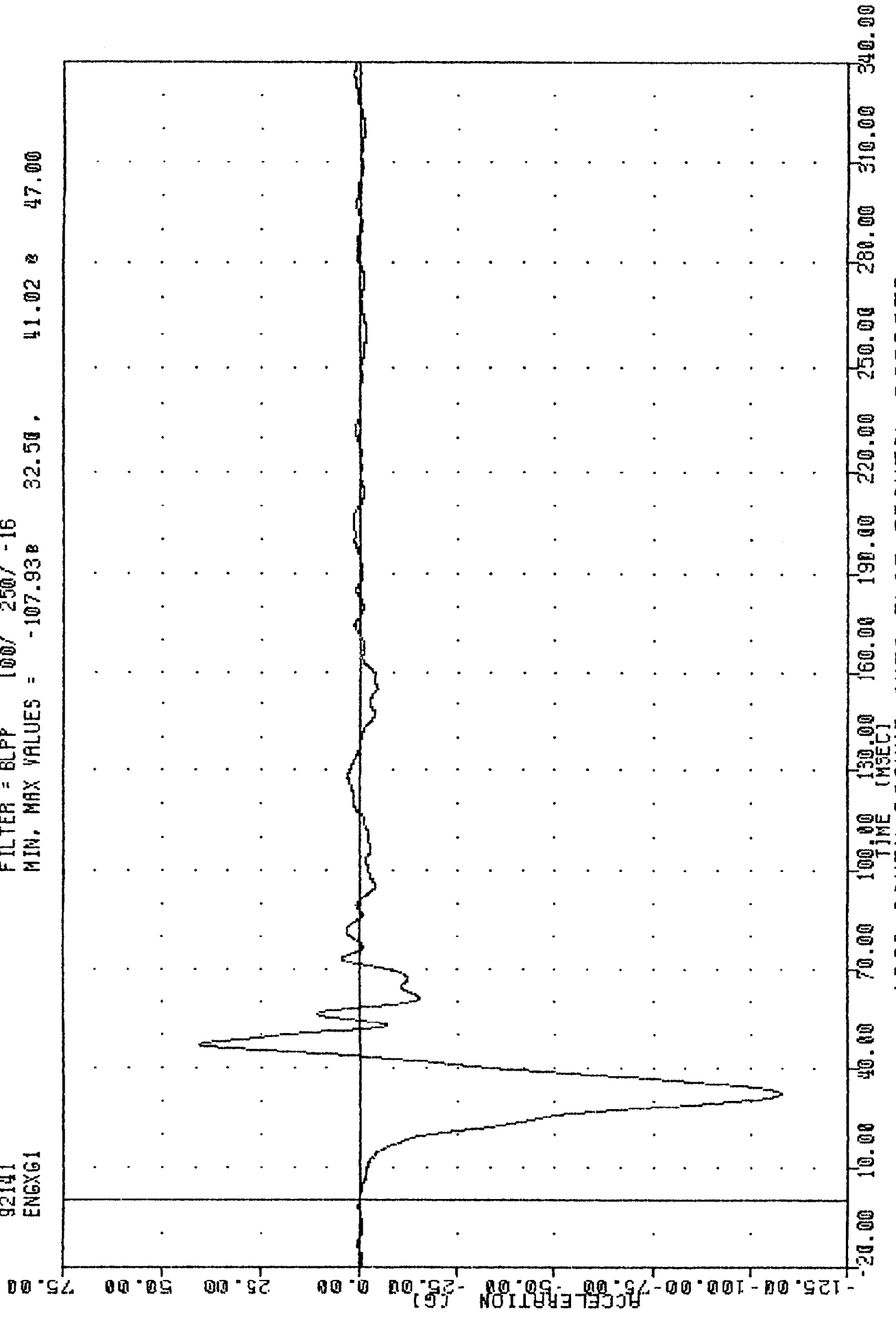
FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -51.90e 19.63, 2.19 e 100.13



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT REAR SEAT X-AXIS ACCELERATION

TRC 920520
208 COMPLIANCE TESTING
92141
ENGXG1

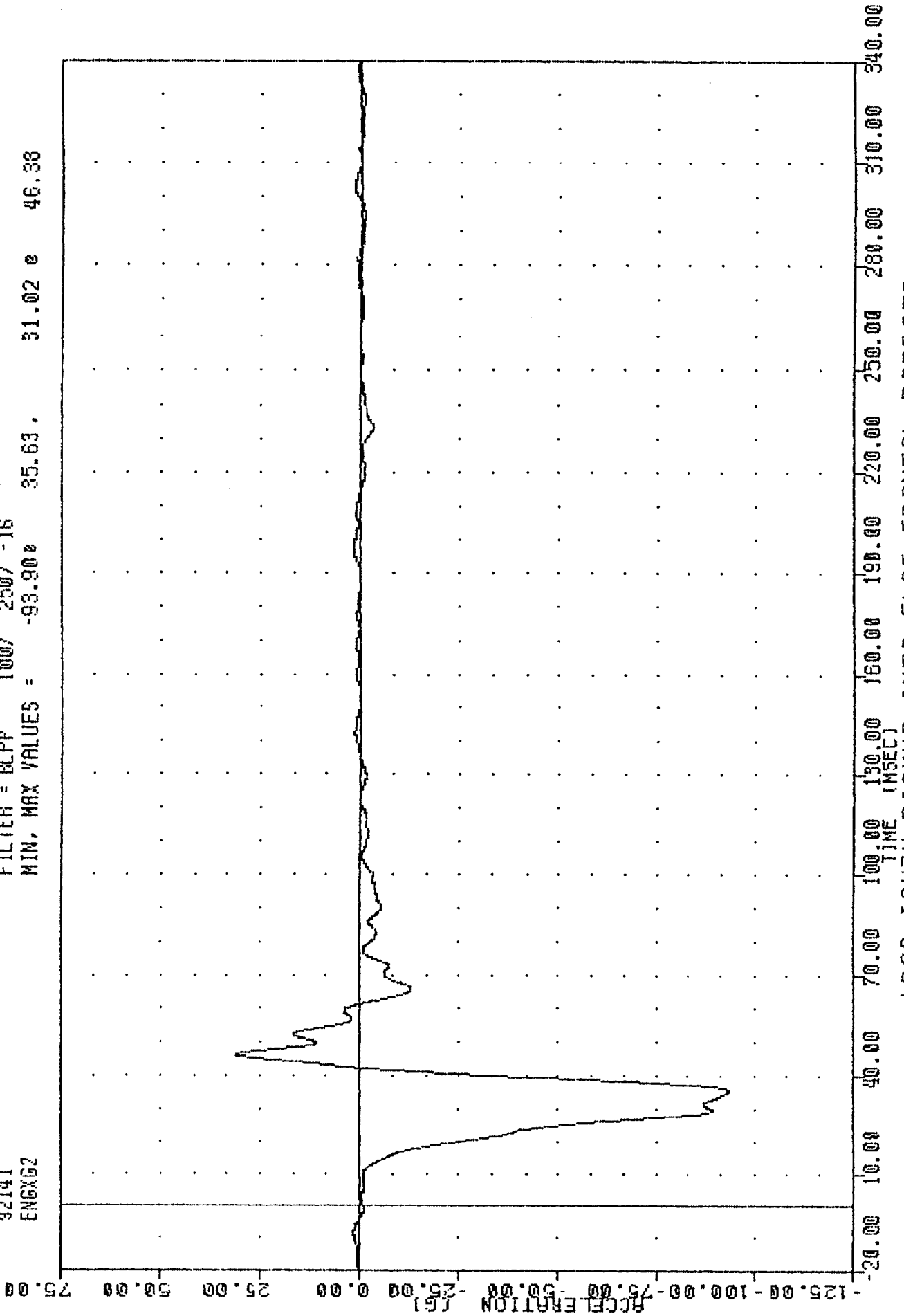
FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -107.93B 32.50, 41.02 & 47.00



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
ENGINE TOP X-AXIS ACCELERATION

TRC 920520
206 COMPLIANCE TESTING
92141
ENXG62

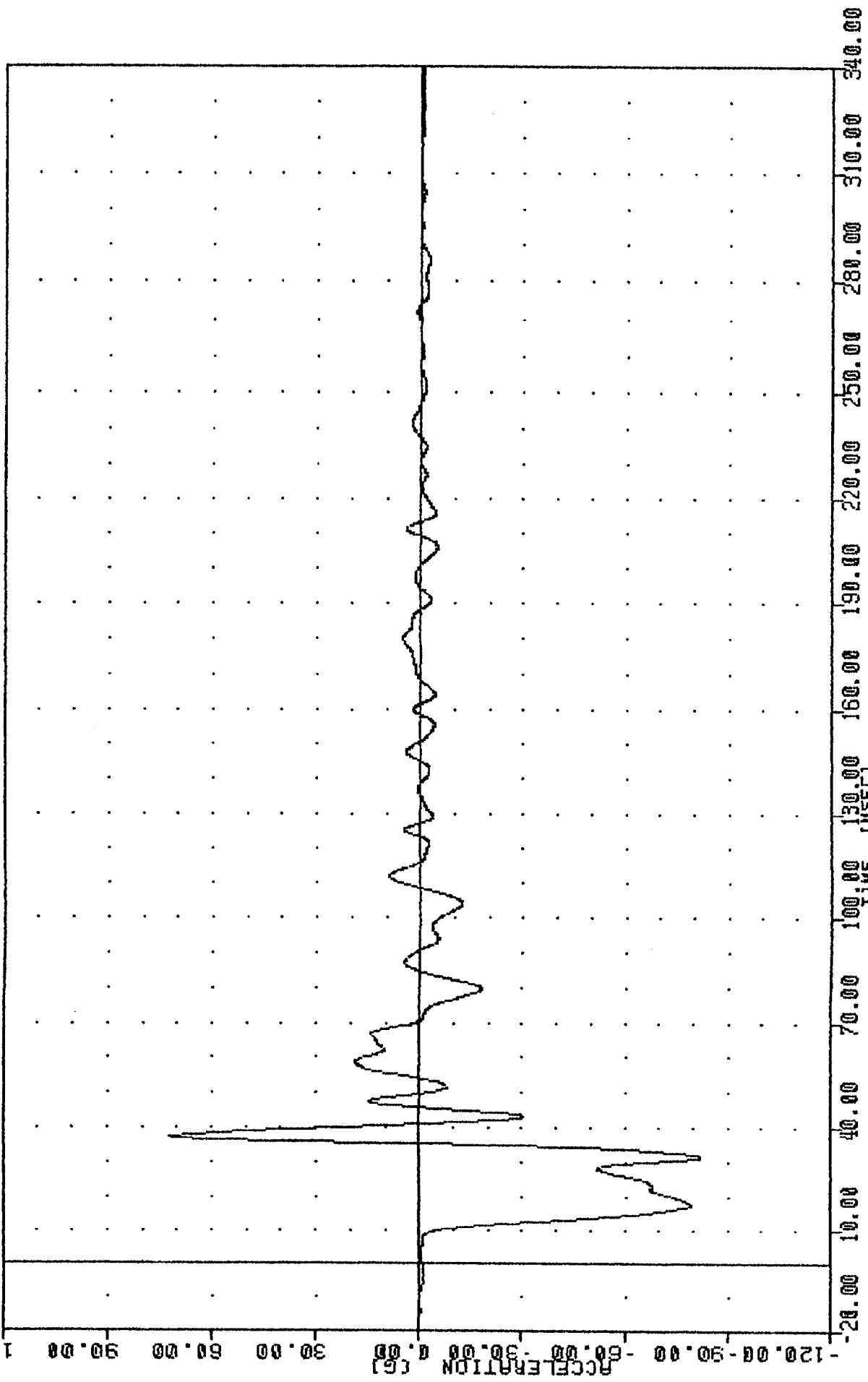
FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -93.90% 31.02 e 46.38



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
ENGINE BOTTOM X-AXIS ACCELERATION

RC, 9
208 COMPLIANCE TESTING
92141
BCRXG1

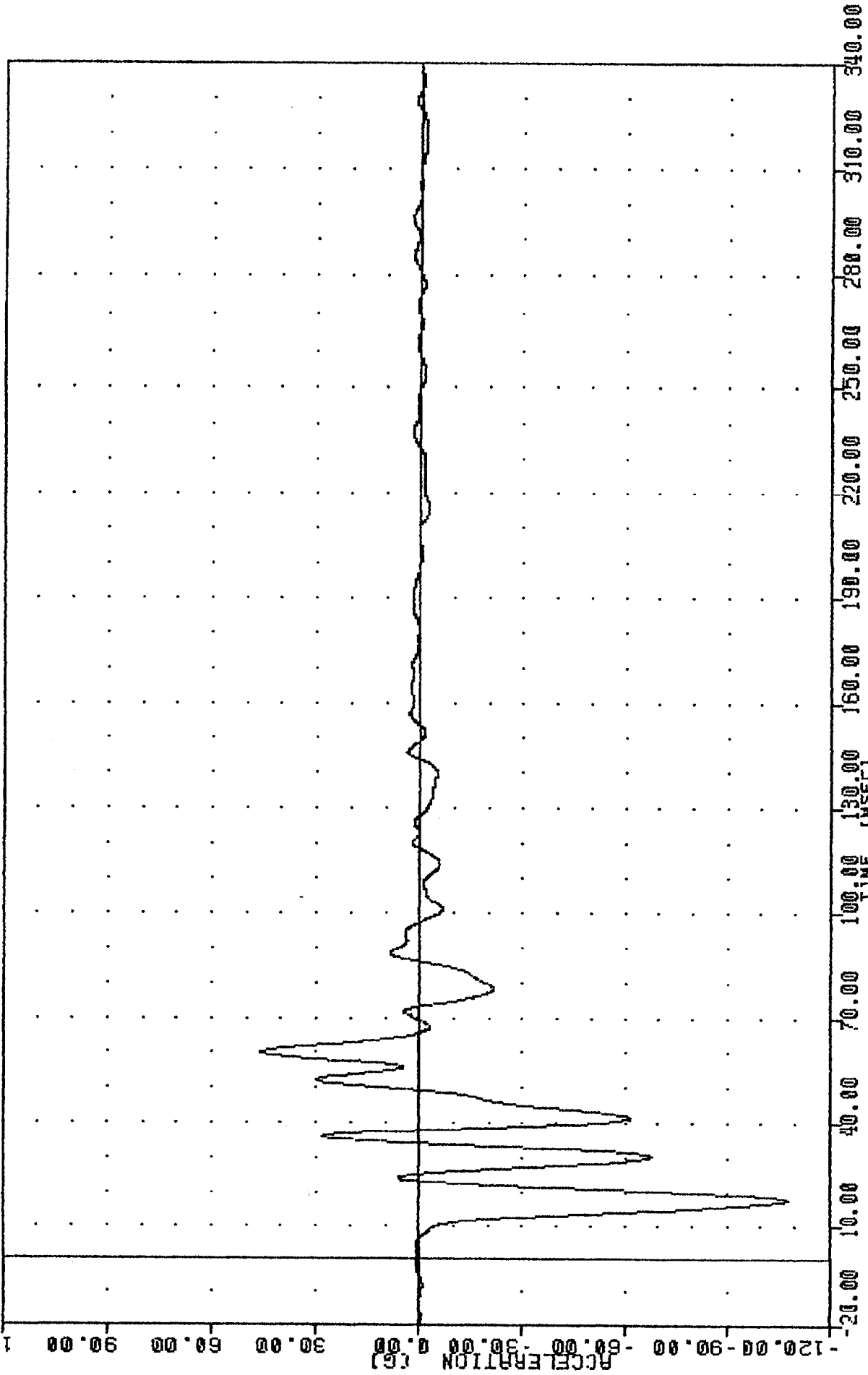
FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -82.22% 31.63, 71.91 e 37.25



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
RIGHT BRAKE CALIPER X-AXIS ACCELERATION

ARC, 920520
208 COMPLIANCE TESTING
92141
8CLX61

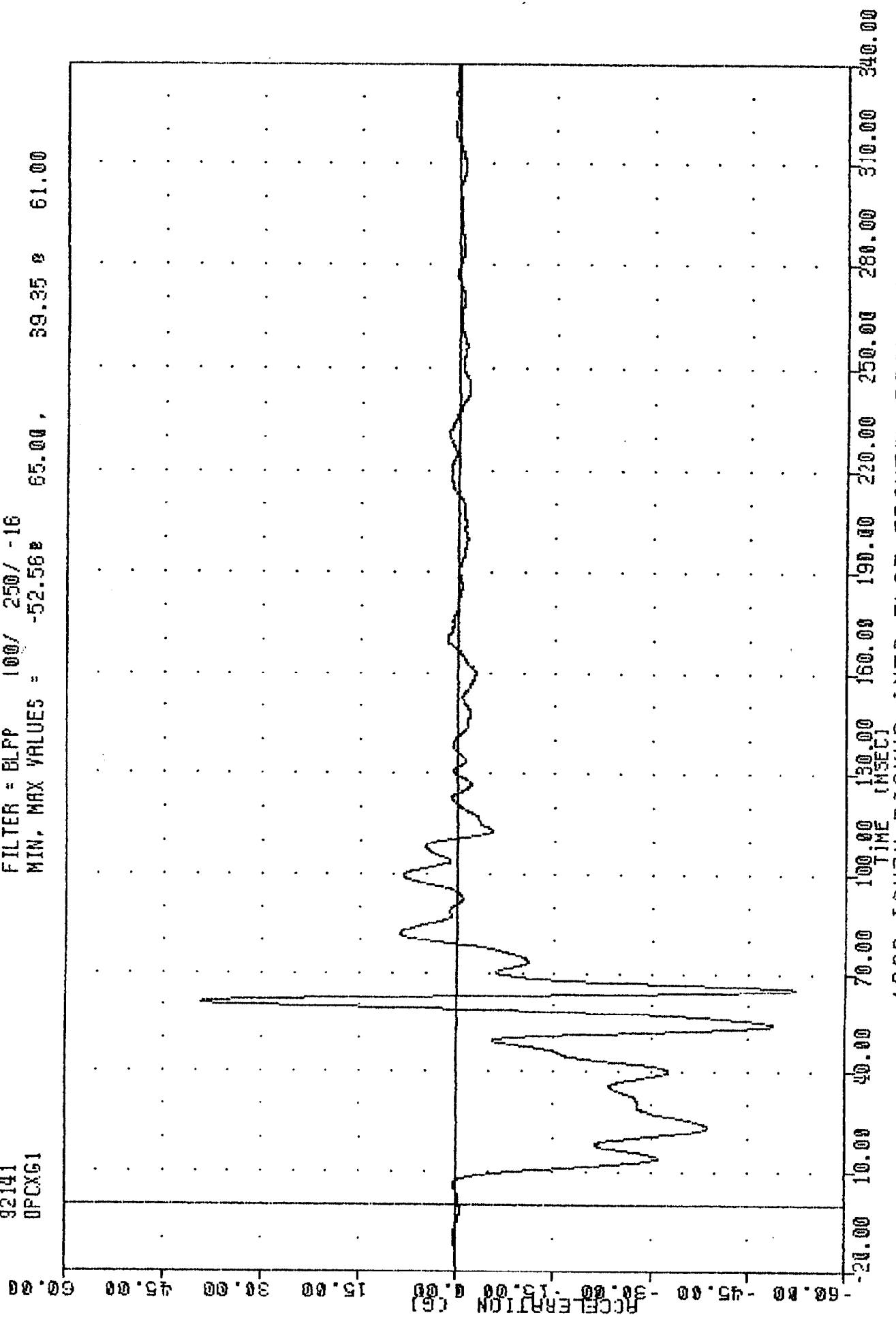
FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -107.728 18.00, 45.77 e 60.00



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
LEFT BRAKE CALIPER X-AXIS ACCELERATION

TRC 920520
208 COMPLIANCE TESTING
92141
DPCXG1

FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -52.56e 65.00, 39.35 e 61.00



1992 ISUZU PICKUP INTO FLAT FRONTAL BARRIER
INSTRUMENT PANEL CENTER X-AXIS ACCELERATION