#3 #637630

FINAL REPORT NUMBER 225-MGA-05-003

# SAFETY COMPLIANCE TESTING FOR FMVSS 225
## *"Child Restraint Anchorage Systems"*

## TOYOTA MOTOR CORPORATION
## 2004 TOYOTA CAMRY
## NHTSA No. C45108

## MGA RESEARCH CORPORATION
## 446 Executive Drive
## Troy, Michigan 48083

**Test Date: January 7, 2005**
**Report Date: February 28, 2005**

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 SEVENTH STREET, SW
ROOM 6111 (NVS-220)
WASHINGTON, D.C. 20590

Prepared By: _____
Melanie Schick, Project Engineer

_____
Brad Reaume, Test Personnel

_____
Helen A. Kaleto, Laboratory Manager

Approved By: _____

Approval Date: 2/28/05

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: Amanda Prescott [redacted]

Acceptance Date: 2/28/05

## TECHNICAL REPORT STANDARD TITLE PAGE

| | | | |
|---|---|---|---|
| 1. Report No.<br>225-MGA-05-003 | 2. Government Accession No. | 3. Recipient's Catalog No. | |
| 4. Title and Subtitle<br>Final Report of FMVSS 225 Compliance Testing of a 2004 Toyota Camry, NHTSA No. C45108 | | 5. Report Date February 28, 2005<br>6. Performing Organization Code<br>MGA | |
| 7. Author(s)<br>Helen A. Kaleto, Laboratory Manager<br>Melanie Schick, Project Engineer<br>Brad Reaume, Test Personnel | | 8. Performing Organization Report No.<br>225-MGA-05-003 | |
| 9. Performing Organization Name and Address<br>MGA Research Corporation<br>446 Executive Drive<br>Troy, Michigan 48083 | | 10. Work Unit No.<br>11. Contract or Grant No.<br>DTNH22-02-D-11043 | |
| 12. Sponsoring Agency Name and Address<br>U.S. Department of Transportation<br>National Highway Traffic Safety Administration Enforcement<br>Office of Vehicle Safety Compliance (NVS-220)<br>400 Seventh Street, SW<br>Room 6111<br>Washington, DC 20590 | | 13. Type of Report and Period Covered<br>Final Test Report<br>14. Sponsoring Agency Code<br>NVS-220 | |
| 15. Supplementary Notes | | | |
| 16. Abstract<br>A compliance test was conducted on the subject 2004 Toyota Camry, NHTSA No. C45108, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-225T & 225L for the determination of FMVSS 225 compliance. The tests were conducted at MGA Research Corporation in Troy, Michigan on January 7, 2005. Test failures identified were as follows:<br><br>NONE<br><br>The data recorded indicates that the 2004 Toyota Camry tested appears to comply with the requirements of FMVSS 225. | | | |
| 17. Key Words<br>Compliance Testing<br>Safety Engineering<br>FMVSS 225<br>2004 Toyota Camry | | 18. Distribution Statement<br>Copies of this report are available From: NHTSA Technical Reference Division, Mail Code: NPO-230<br>400 Seventh Street, SW, Room PL-403<br>Washington, D.C. 20590<br>Telephone No. (202) 366-4946 | |
| 19. Security Classif. (of this report) Unclassified | 20. Security Classif. (of this page) Unclassified | 21. No. of Pages 86 | 22. Price |

Form DOT F 1700.7 (8-70)

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)



LIST OF TABLES

## 1.0 PURPOSE AND PROCEDURE

### PURPOSE

The child restraint anchorage testing results presented in this report are part of the Federal Motor Vehicle Safety Standard (FMVSS) No. 225 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-02-D-11043. The purpose of the testing was to determine if the subject vehicle, a 2004 Toyota Camry, NHTSA No. C45108 meets the performance requirements of FMVSS No. 225, "Child Restraint Anchorage Systems."

### PROCEDURE

This testing was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedures, TP-225T (5/3/01) and TP-225L (6/11/01), and MGA's Laboratory Test Procedure, MGATP225GOV (3/20/03).

The front occupant compartment consisted of two (2) adjustable outboard bucket seats and the rear occupant compartment consisted of a 2nd row three-passenger 60/40 seat. Each 2nd row outboard seating position was equipped with a child restraint anchorage system (one tether and two lower anchors). The 2nd row center occupant position was equipped with a tether anchorage. The center-to-center spacing between the 2nd row outboard lower anchorages was approximately 750 mm. Each 2nd row outboard seating position was tested with the SFADII fixture, and the 2nd row center seating position was tested with the SFADI fixture.

## 2.0 COMPLIANCE TEST AND DATA SUMMARY

### TEST SUMMARY

The testing was conducted at MGA in Troy, Michigan on January 7, 2005.

Based on the test results, the 2004 Toyota Camry appears to comply with the performance requirements of FMVSS No. 225 for these tests.

The SFADII at the 2nd row left occupant seating position sustained a maximum force of 9,580 N and held the required load for 0.8 seconds. The total displacement from point "X" on the SFADII for the 2nd row left occupant seating position was 84 mm. The SFADII at the 2nd row right occupant seating position sustained a maximum force of 8,716 N and held the required load for 1 second. The total displacement from point "X" on the SFADII for the 2nd row right occupant seating position was 70 mm. The SFADI at the 2nd row center occupant seating position sustained a maximum force of 15,252 N and held the required load for 3 seconds.

DATA SUMMARY

Strength and displacement summary data are provided below, and data for the configuration and the location of each child restraint anchorage system are provided in Section 5.0. Photographs are found in Section 6.0 and test plots are found in Section 7.0.

Table 1. Summary Data for Strength and Displacement

| MGA Test # | Fixture Type | Test Configuration | Seating Position | Max. Load (N) | Displacement (mm) |
|---|---|---|---|---|---|
| SC5003 | SFAD II | Lower Anchors Only | 2nd Row Left | 9,580 | 84 |
| | | | 2nd Row Right | 8,716 | 70 |
| SC5004 | SFAD I | Top Tether Only | 2nd Row Center | 15,252 | N/A |

N/A indicates that the displacement criteria does not apply to this test.

## 3.0 TEST VEHICLE INFORMATION

Table 2. General Test and Vehicle Parameter Data

| | |
|---|---|
| VEH. MOD YR/MAKE/MODEL/BODY | 2004 Toyota Camry |
| VEH. NHTSA NO. | C45108 |
| VIN | 4T1BE32K04U274609 |
| COLOR | White |
| VEH. BUILD DATE | 10/03 |
| TEST DATE | January 7, 2005 |
| TEST LABORATORY | MGA Research Corporation |
| OBSERVERS | Melanie Schick, Brad Reaume, Kenney Godfrey |

GENERAL INFORMATION:

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: Toyota Motor Manufacturing, Kentucky, Inc.

Date of Manufacture: 10/03; VIN: 4T1BE32K04U274609

GVWR: 1,920 kg; GAWR FRONT: 1,210 kg

GAWR REAR: 1,210 kg

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 200 kPa REAR: 200 kPa

Recommended Tire Size: P215/60R16

Recommended Cold Tire Pressure:

FRONT: 200 kPa REAR: 200 kPa

Size of Tire on Test Vehicle: P215/60R16

Type of Spare Tire: Full Size: P215/60R16

VEHICLE CAPACITY DATA:

Type of Front Seats: Bench ___; Bucket _X_; Split Bench ___;

Number of Occupants: Front _2_; Middle N/A; Rear _3_; TOTAL: _5_

## 4.0 TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

| **MGA Research Corporation<br>446 Executive Drive<br>Troy, Michigan 48083** | |
|---|---|
| **Test Equipment Used for Testing** | **Calibration Due Date** |
| MGA Hydraulic Test Frame | N/A |
| Three (3) Load Cell 3,000 lb Capability | S/N 600 (01/12/05), S/N 152 (6/08/05), &<br>S/N 258 (01/12/05) |
| Two (2) String Potentiometer | Calibrated at each use (S/N 20760 & S/N 20765) |
| Hydraulic Pump | N/A |
| MGA CRF Fixture | N/A |
| MGA SFADI | N/A |
| MGA SFADII | N/A |
| MGA 2-Dimensional Template | N/A |
| Linear Scale | S/N TPM 319 (03/08/05) |
| MGA Data Acquisition System | N/A |
| Digital Calipers | S/N MGA00053 (09/20/05) |
| Force Gauge | S/N MGA00015 (06/23/05) |
| Inclinometer (Digital) | S/N MGA00049 (08/23/05) |

5.0 DATA

Table 3. Child Restraint Tether Anchorage Configuration (Data Sheet 1)

| Seating Position | | Permit the attachment of a tether hook | Accessible without the need for any tool other than a screwdriver or coin | Ready for use without the need for any tools | Sealed to prevent the entry of exhaust fumes |
|---|---|---|---|---|---|
| Front Row | | N/A | N/A | N/A | N/A |
| Second Row | LH | Yes | Yes | Yes | Yes |
| | Ctr. | Yes | Yes | Yes | Yes |
| | RH | Yes | Yes | Yes | Yes |
| Third Row | | N/A | N/A | N/A | N/A |

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

REMARKS: NONE.

Table 4. Child Restraint Lower Anchorage Configuration (Data Sheet 2)

| OBSERVED LOWER ANCHORAGE CONFIGURATION | SEAT POSITION | | | | |
|---|---|---|---|---|---|
| | | FRONT ROW | SECOND ROW | | THIRD ROW |
| | | | I/B | O/B | |
| Above anchorage, permanently marked with a circle not less than 13 mm in Dia.; and whose color contrasts with its background; and its center is not less than 50 mm and not more than 100 mm above the bar, and in the vertical longitudinal plane that passes through the center of the bar. | LH | N/A | No | | N/A |
| | Ctr | | N/A | | |
| | RH | | No | | |
| Each of the bars is visible, without the compression of the seat cushion or seat back, when the bar is viewed, in a vertical longitudinal plane passing through the center of the bar, along a line marking an upward 30 degree angle with a horizontal plane. | LH | N/A | Yes | | N/A |
| | Ctr | | N/A | | |
| | RH | | Yes | | |
| Diameter of the bar (mm) | LH | N/A | 5.94 | 5.97 | N/A |
| | Ctr | | N/A | | |
| | RH | | 5.96 | 5.98 | |
| Inspect if the bars are straight, horizontal and transverse | LH | N/A | Yes | | N/A |
| | Ctr | | N/A | | |
| | RH | | Yes | | |
| Optional Marking: At least one anchorage bar (when deployed for use, if storable anchorages), one guidance fixture, or one seat marking is visible. | LH | N/A | N/A | | N/A |
| | Ctr | | | | |
| | RH | | | | |
| Optional Marking: If guidance fixtures are used, the fixture(s) must be installed. | LH | N/A | N/A | | N/A |
| | Ctr | | | | |
| | RH | | | | |
| Measure the distance between Point "Z" of the CRF and the center of the anchorage bar (mm) | LH | N/A | 62 | | N/A |
| | Ctr | | N/A | | |
| | RH | | 58 | | |
| Measure the distance between the SRP to the center of the anchorage bar (mm) | LH | N/A | 165 | | N/A |
| | Ctr | | N/A | | |
| | RH | | 154 | | |

Table 4. Child Restraint Lower Anchorage Configuration (Data Sheet 2) (continued)

| OBSERVED LOWER ANCHORAGE CONFIGURATION | | SEAT POSITION | | | |
|---|---|---|---|---|---|
| | | FRONT ROW | SECOND ROW I/B | SECOND ROW O/B | THIRD ROW |
| Inspect if the centroidal longitudinal axes are collinear within 5 degrees | LH | N/A | Yes | | N/A |
| | Ctr | | N/A | | |
| | RH | | Yes | | |
| Inspect if the inside surface of the bar that is straight and horizontal section of the bars, and determine they are not less than 25 mm, but not more than 40 mm in length (mm). | LH | N/A | 33 | 36 | N/A |
| | Ctr | | N/A | | |
| | RH | | 32 | 35 | |
| Inspect if the bars can be connected to, over their entire inside length by the connectors of child restraint system. | LH | N/A | Yes | | N/A |
| | Ctr | | N/A | | |
| | RH | | Yes | | |
| Measure the distance between the center of the length of one bar to the center of the length of the other bar. The requirement is 280 mm ± 1 mm (mm). | LH | N/A | 280 | | N/A |
| | Ctr | | N/A | | |
| | RH | | 280 | | |
| Inspect if the bars are an integral and permanent part of the vehicle. | LH | N/A | Yes | | N/A |
| | Ctr | | N/A | | |
| | RH | | Yes | | |
| Inspect if the bars are rigidly attached to the vehicle. If feasible, hold the bar firmly with two fingers and gently pull. | LH | N/A | Yes | | N/A |
| | Ctr | | N/A | | |
| | RH | | Yes | | |

## PITCH, YAW, & ROLL INFORMATION

| SEAT POSITION | PITCH (deg) | YAW (deg) | ROLL (deg) |
|---|---|---|---|
| 2nd Row Left | 14 | No Data | 1 |
| 2nd Row Center | N/A | N/A | N/A |
| 2nd Row Right | 15 | No Data | 1 |

N/A indicates that there were no lower anchors in the center seating position.

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

REMARKS: NONE

Table 5. Tether Location and Dimensional Measurements (Data Sheet 3)

| SEAT POSITION FOR TETHER | | TETHER ANCHORAGE LOCATION Located in the required zone? |
|---|---|---|
| Front Row | | N/A |
| Second Row | LH | Yes |
| | Ctr. | Yes |
| | RH | Yes |
| Third Row | | N/A |

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

REMARKS: NONE

Table 6. Tether Anchorage Static Loading and Displacement (Data Sheet 5)

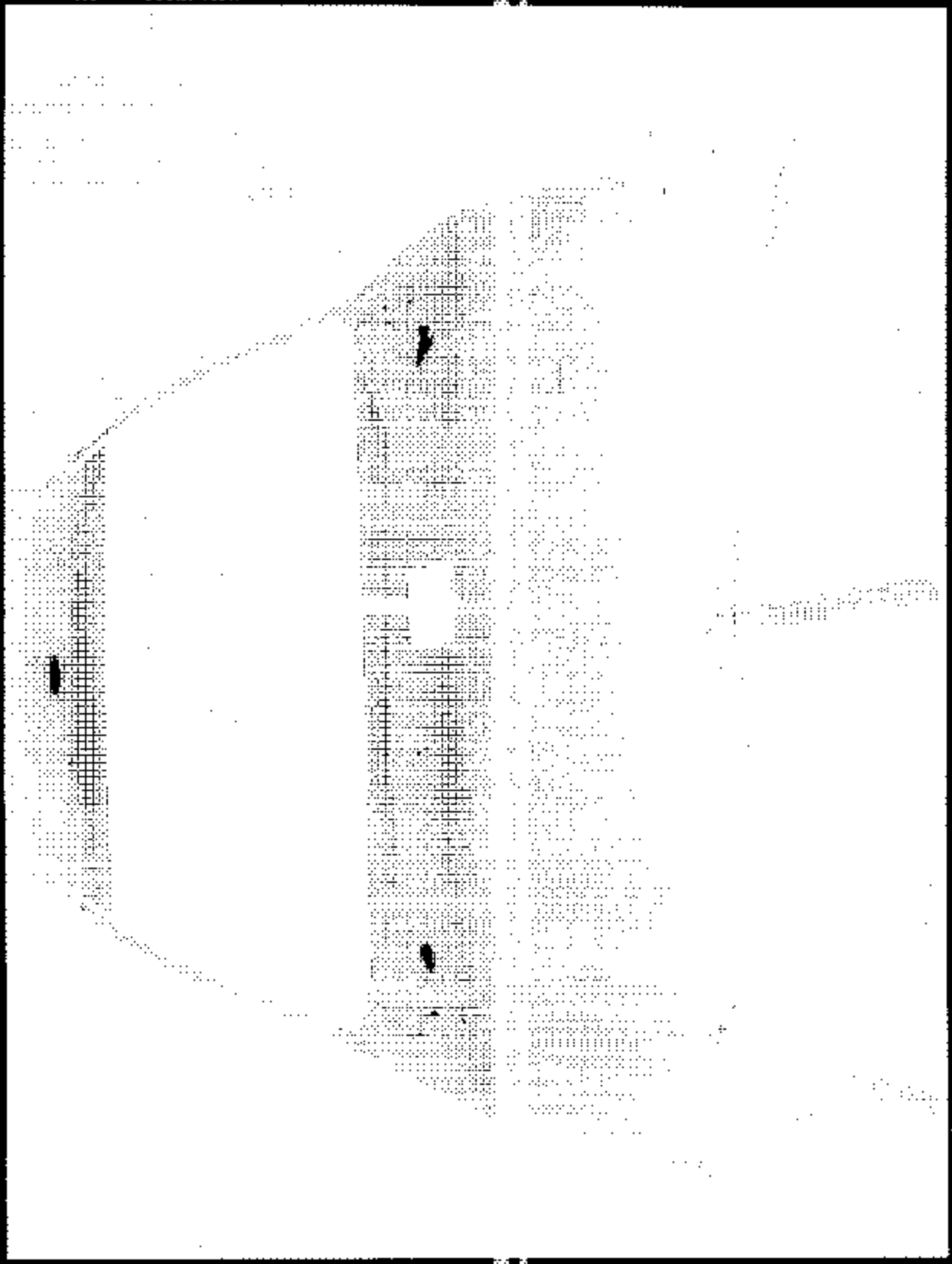
| SEAT POSITION | | Seat, Seat Back, & Head Restraint Positions | | | Type of SFAD Used | Angle (deg) | Initial Location (mm) | Onset Rate (N/sec.) | Force Applied (N) | Max. Load (N) | Final Location (mm) | Horiz. Displ. (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Seat | Seat Back | Is There a H/R? | | | | | | | | |
| Front Row | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Second Row | LH | Fixed | Fixed | No** | II | 10 | 23 | 4,167 | 7,950 | 9,580* | 107 | 84 |
| | Ctr | | | No | I | 8 | N/A | 539 | 15,000 | 15,252* | N/A | N/A |
| | RH | | | Yes | II | 10 | 26 | 4,167 | 7,950 | 8,716* | 96 | 70 |
| Third Row | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Note: (1) AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L & 225T.

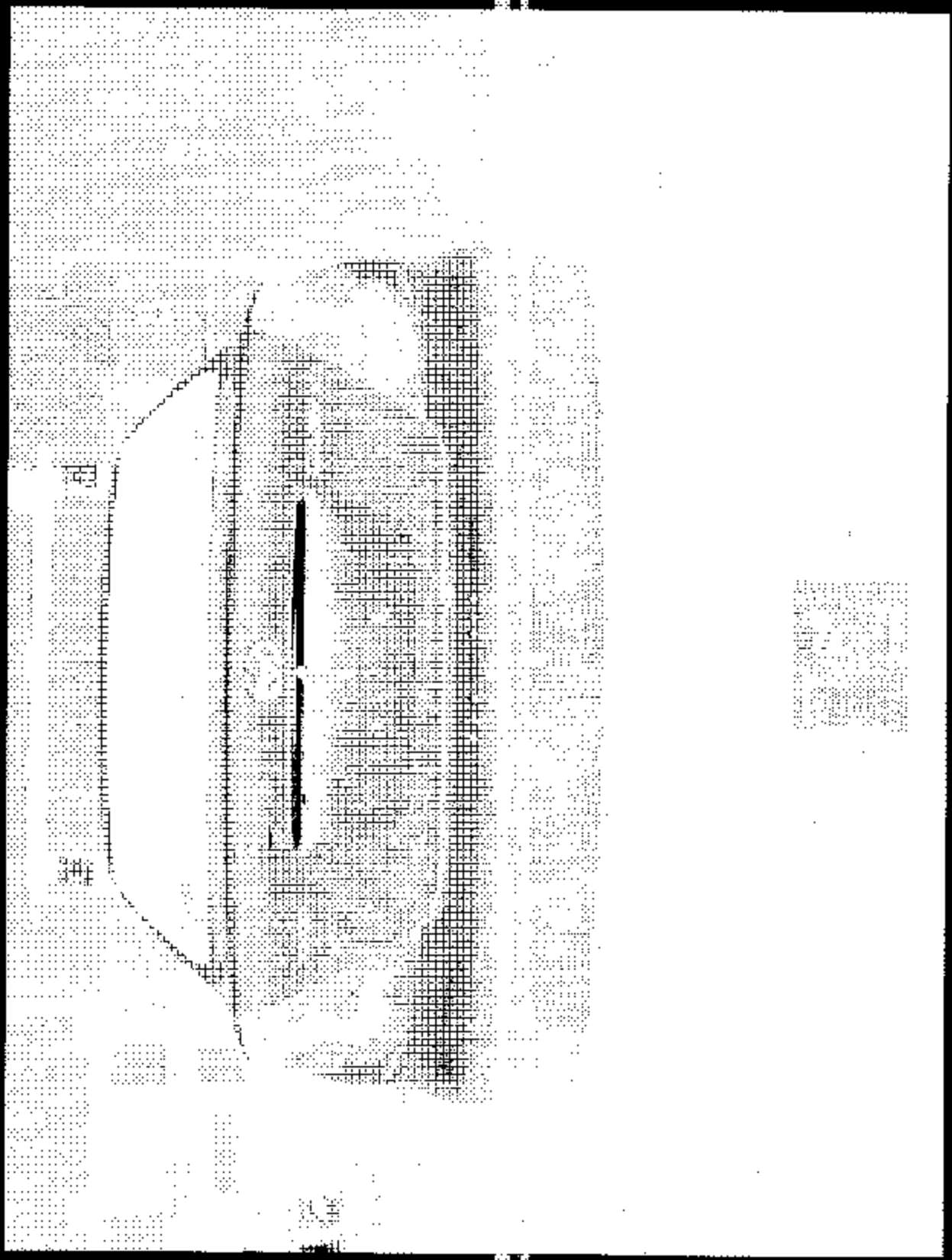
REMARKS: * Applied force exceeded the force specified in the test procedure.
** The LH seating position head restraint was not present at the time of testing.

## 6.0 PHOTOGRAPHS

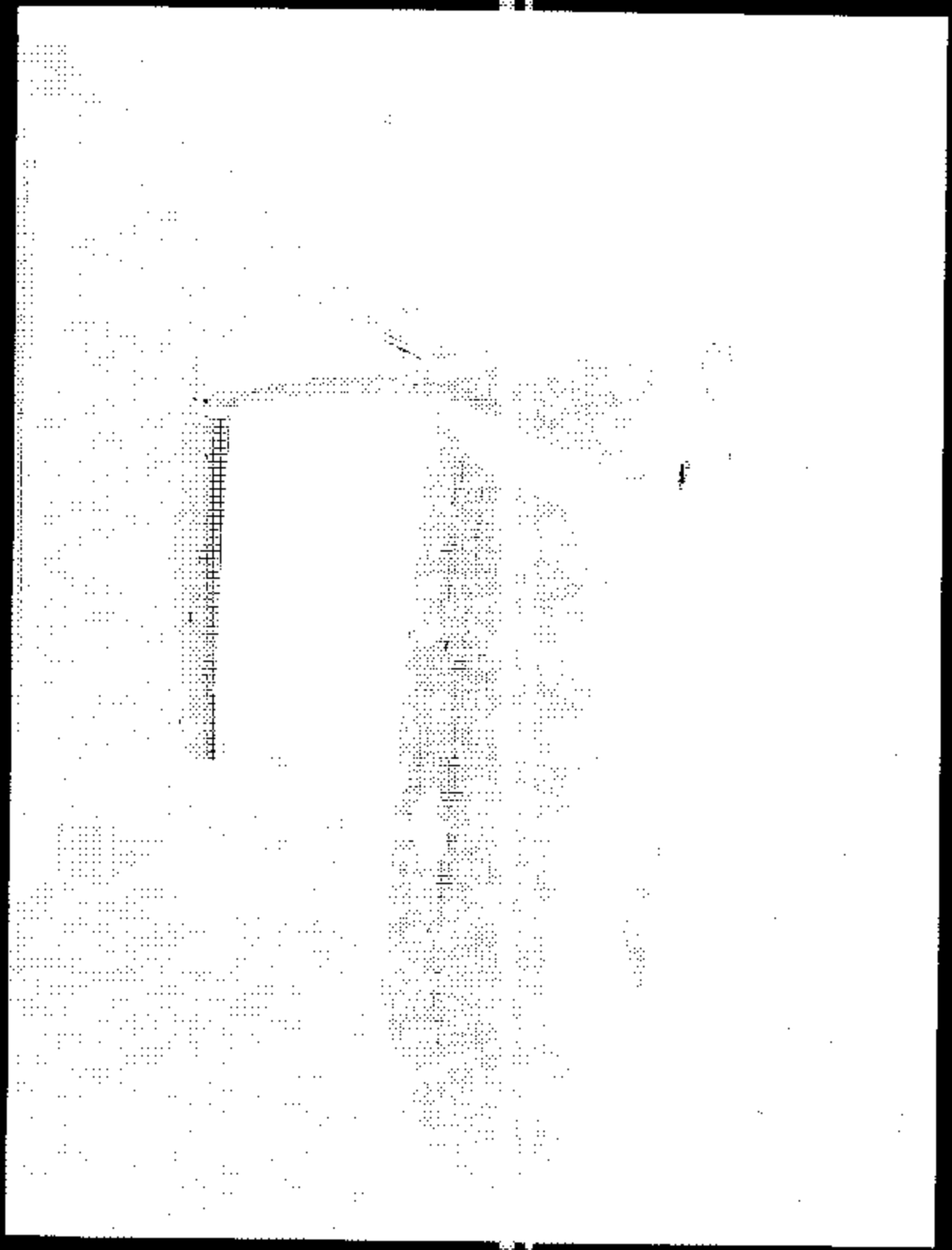
### 6.1 Front view



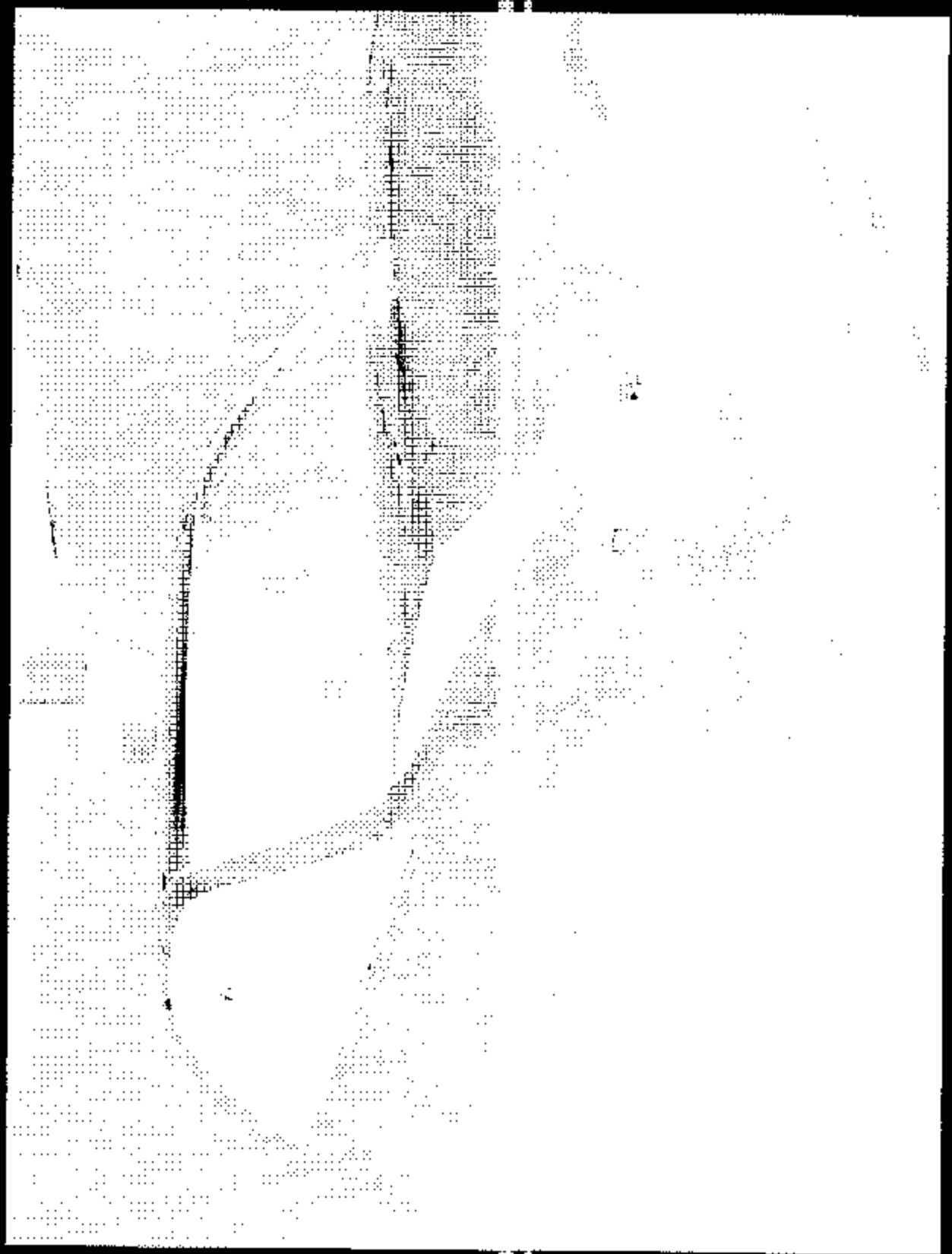
6.2 Rear view



6.3 ¾ Front left view

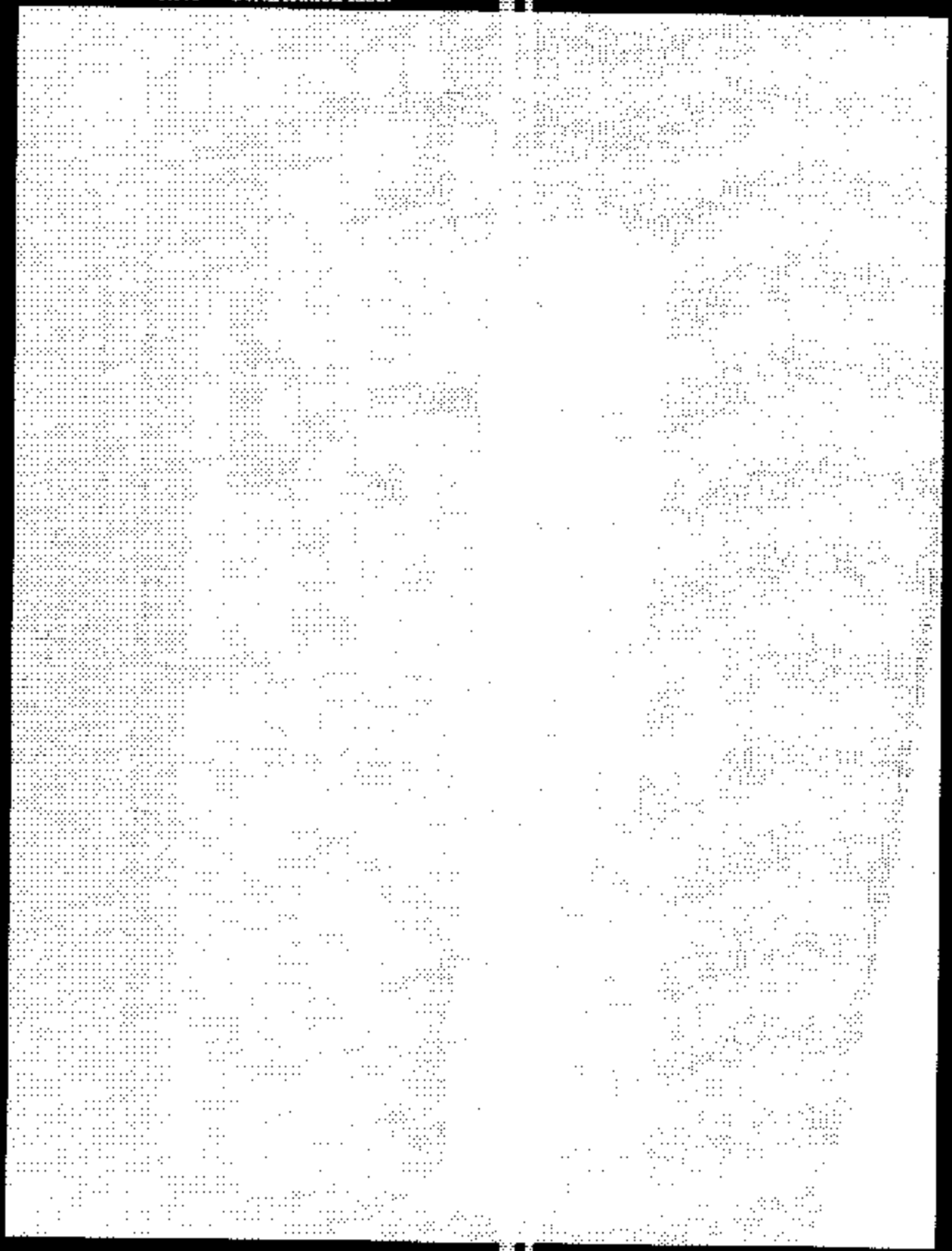


6.4 ¾ Front right view

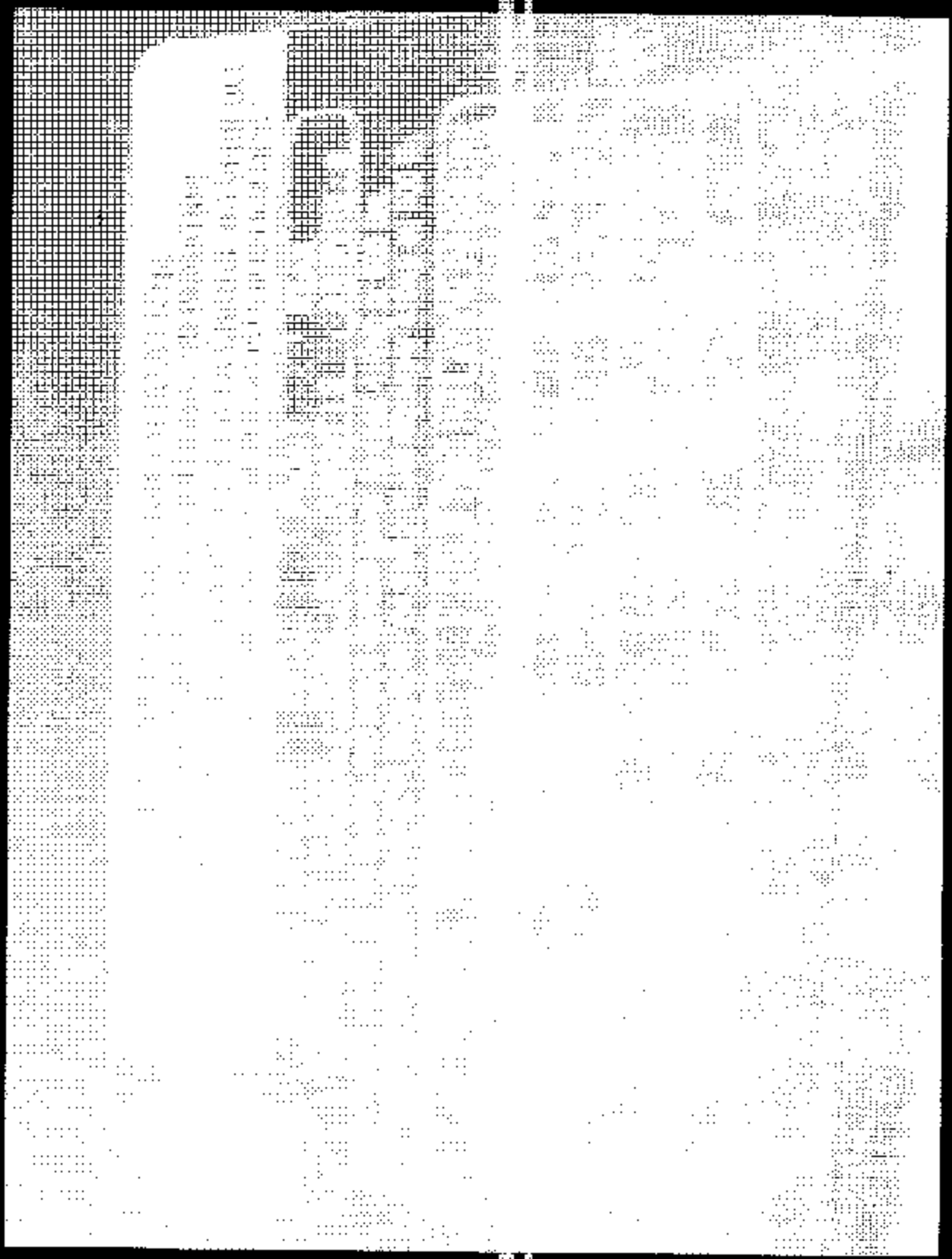


6.5 Test vehicle's certification label

6.5.1 Certification label

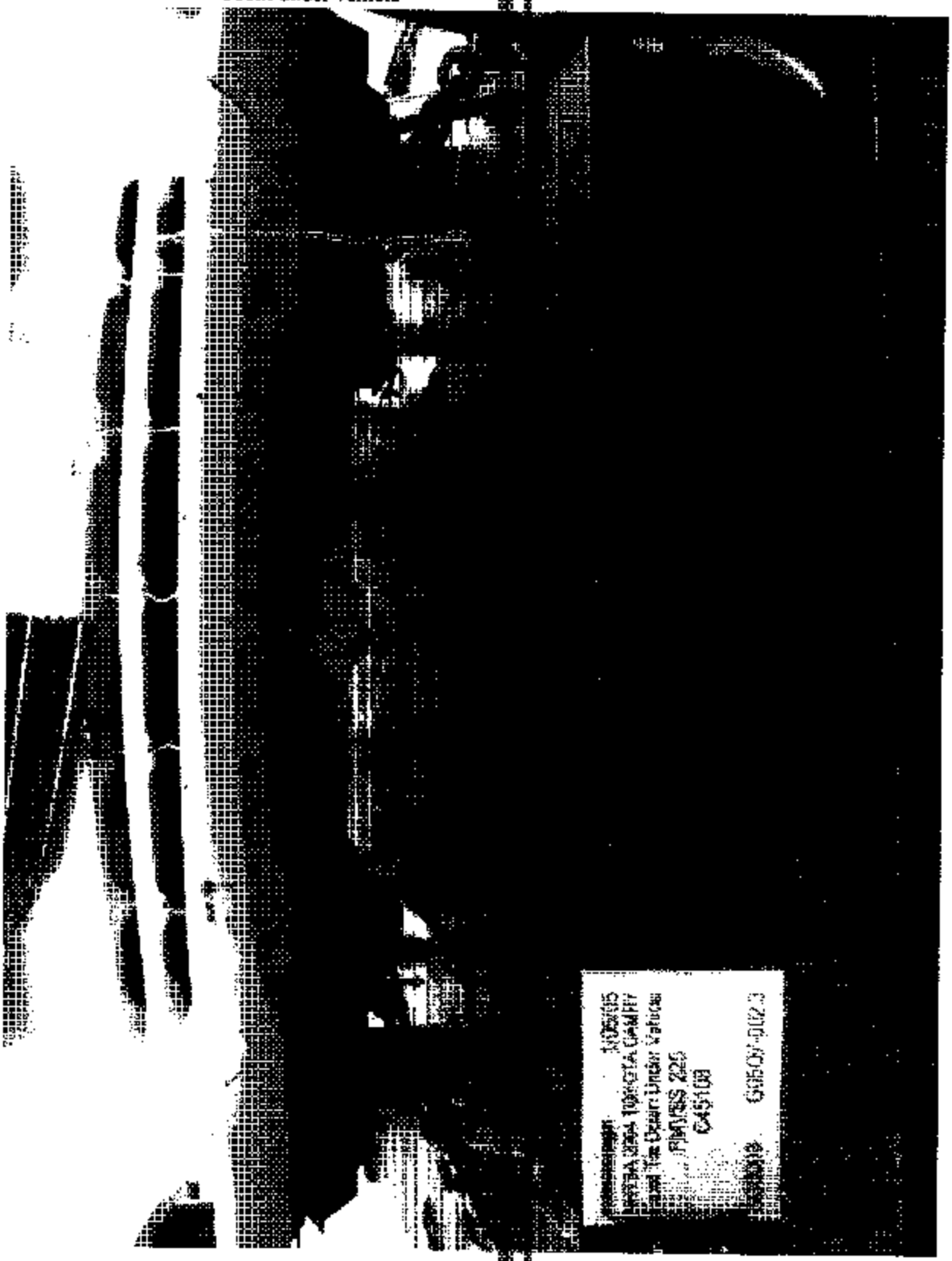


6.5.2 Tire information label

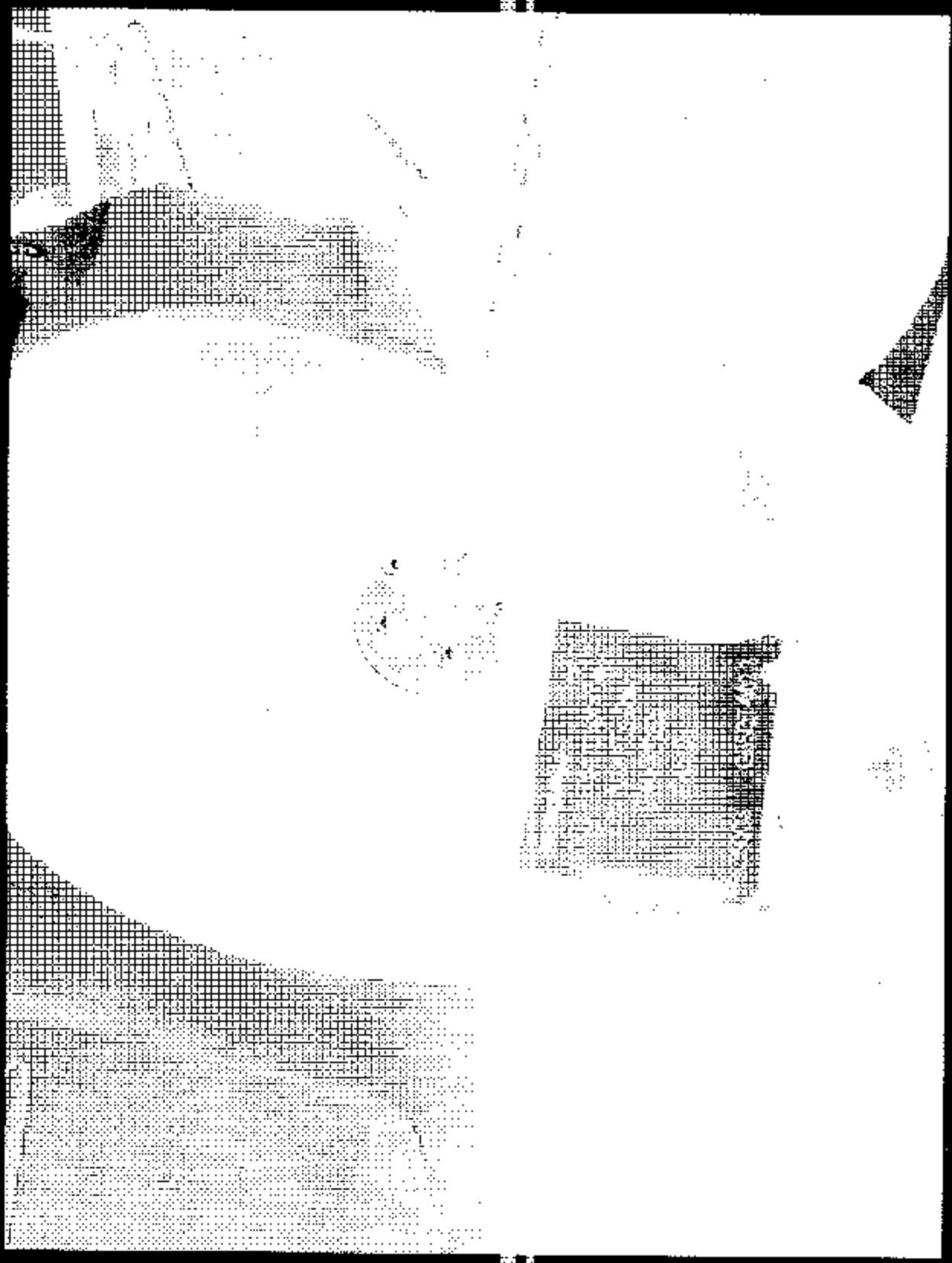


6.6 Vehicle tie down at each tie down locati

6.6.1 Front under vehicle

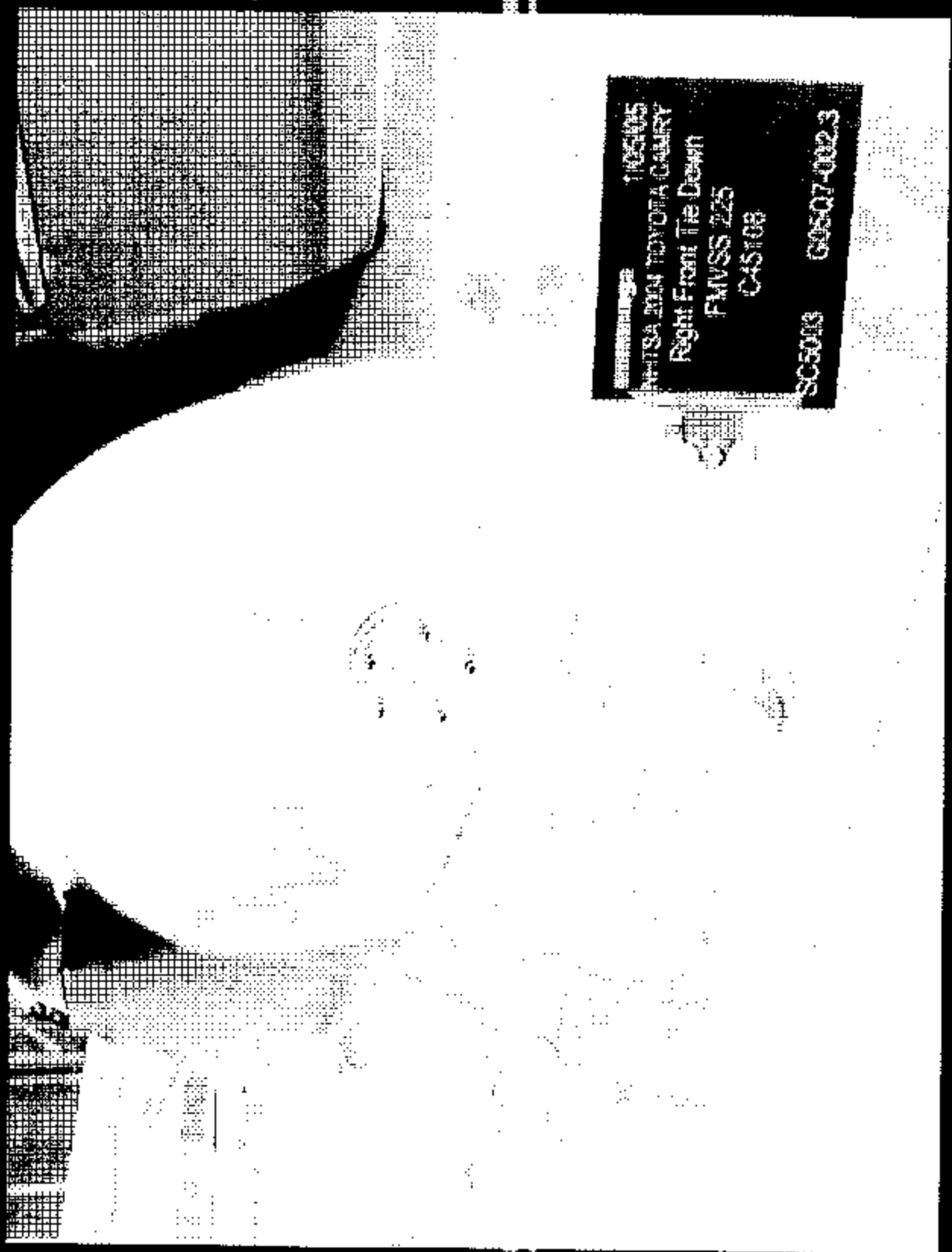


6.6.2 Left front

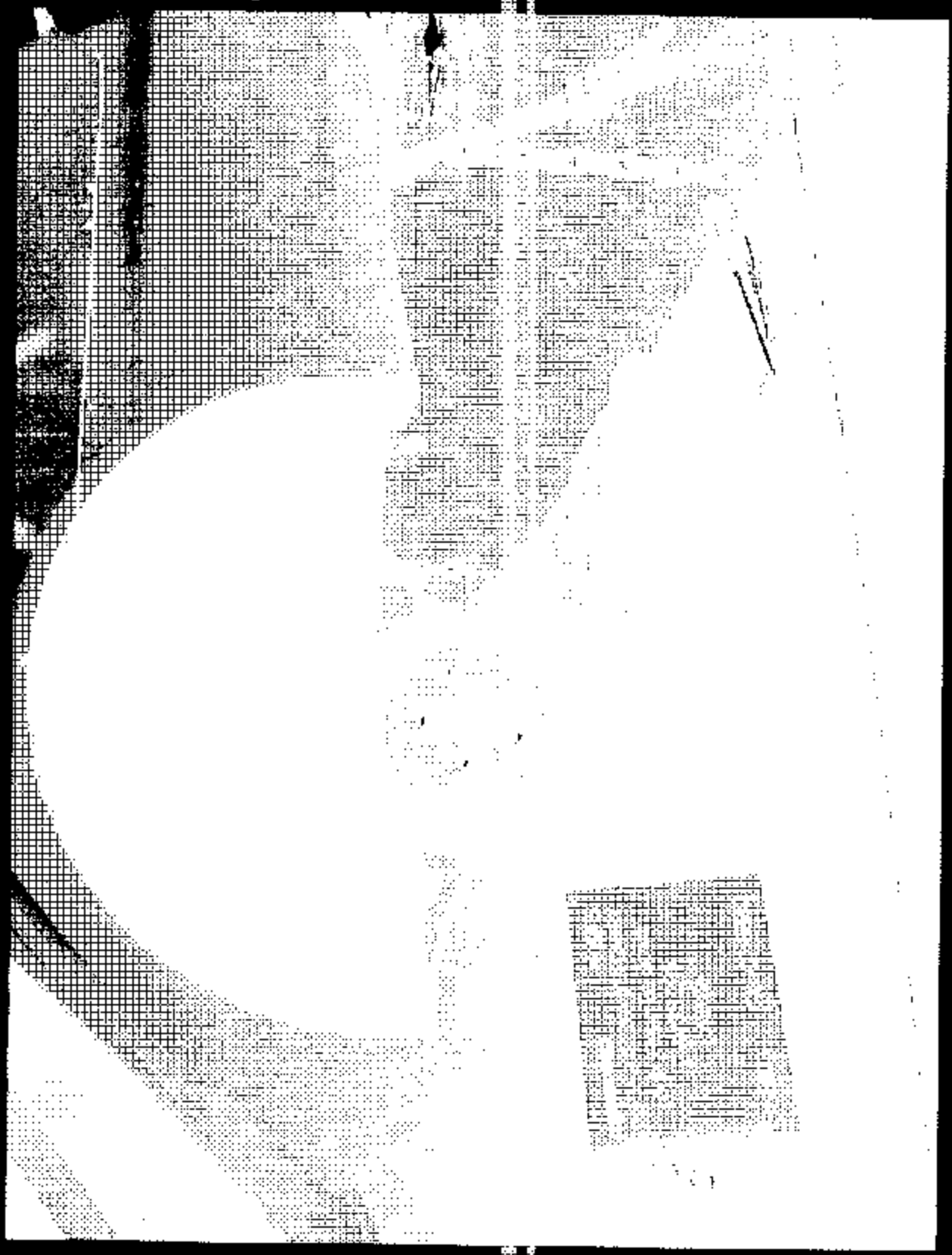


6.6.3 Left rear

6.6.4 Right front



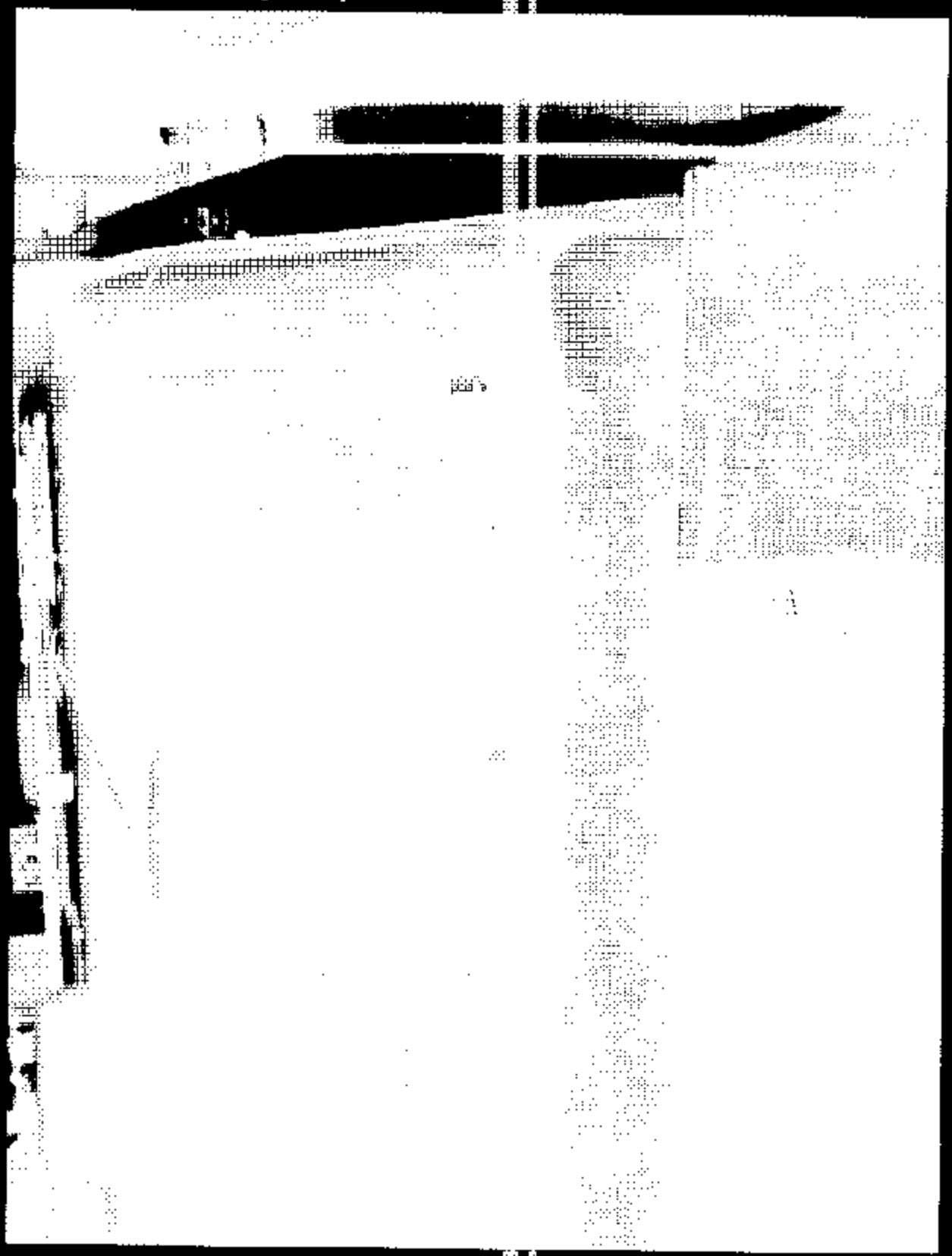
6.6.5 Right rear



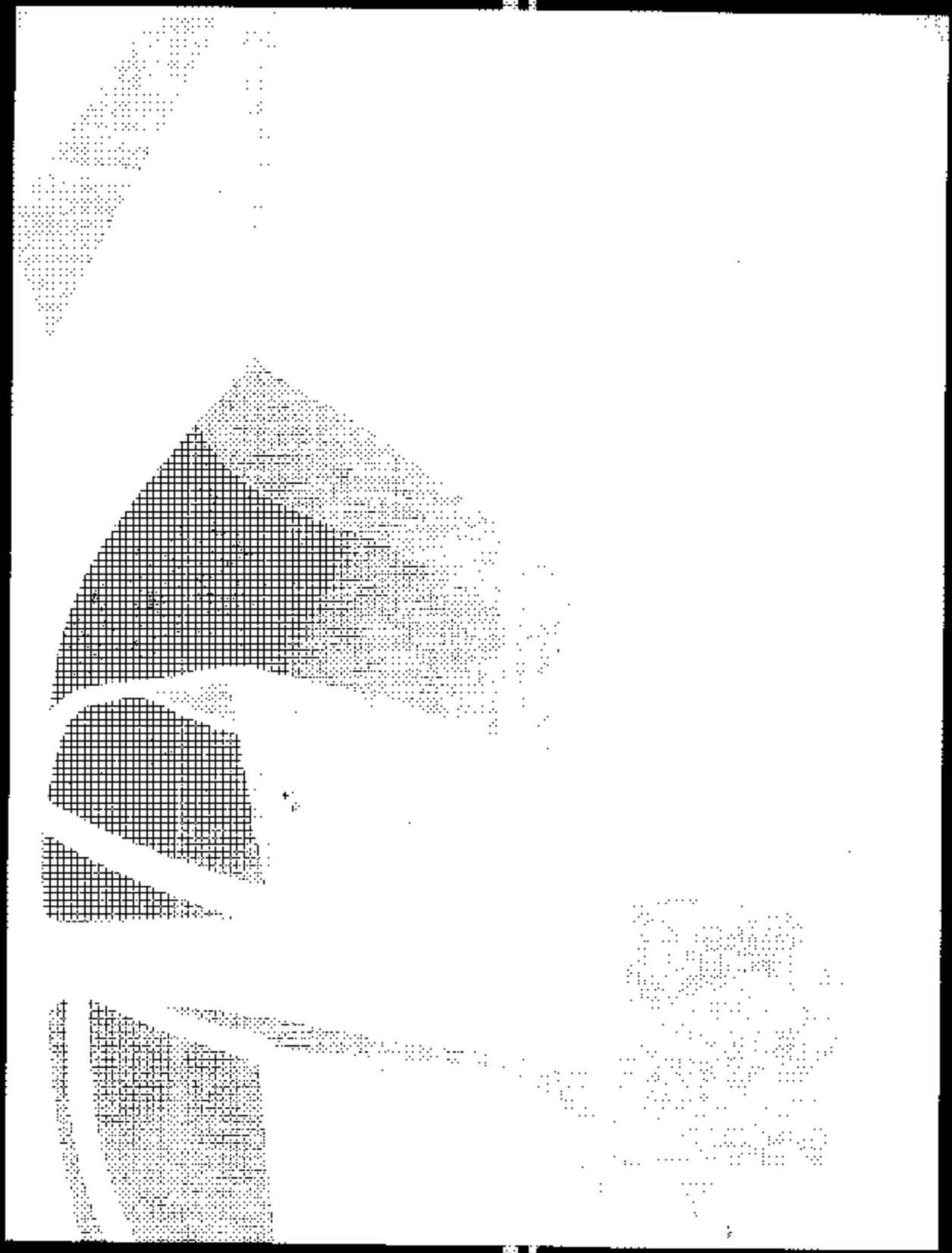
6.7 2-dimensional template

6.7.1 LH position photo #1

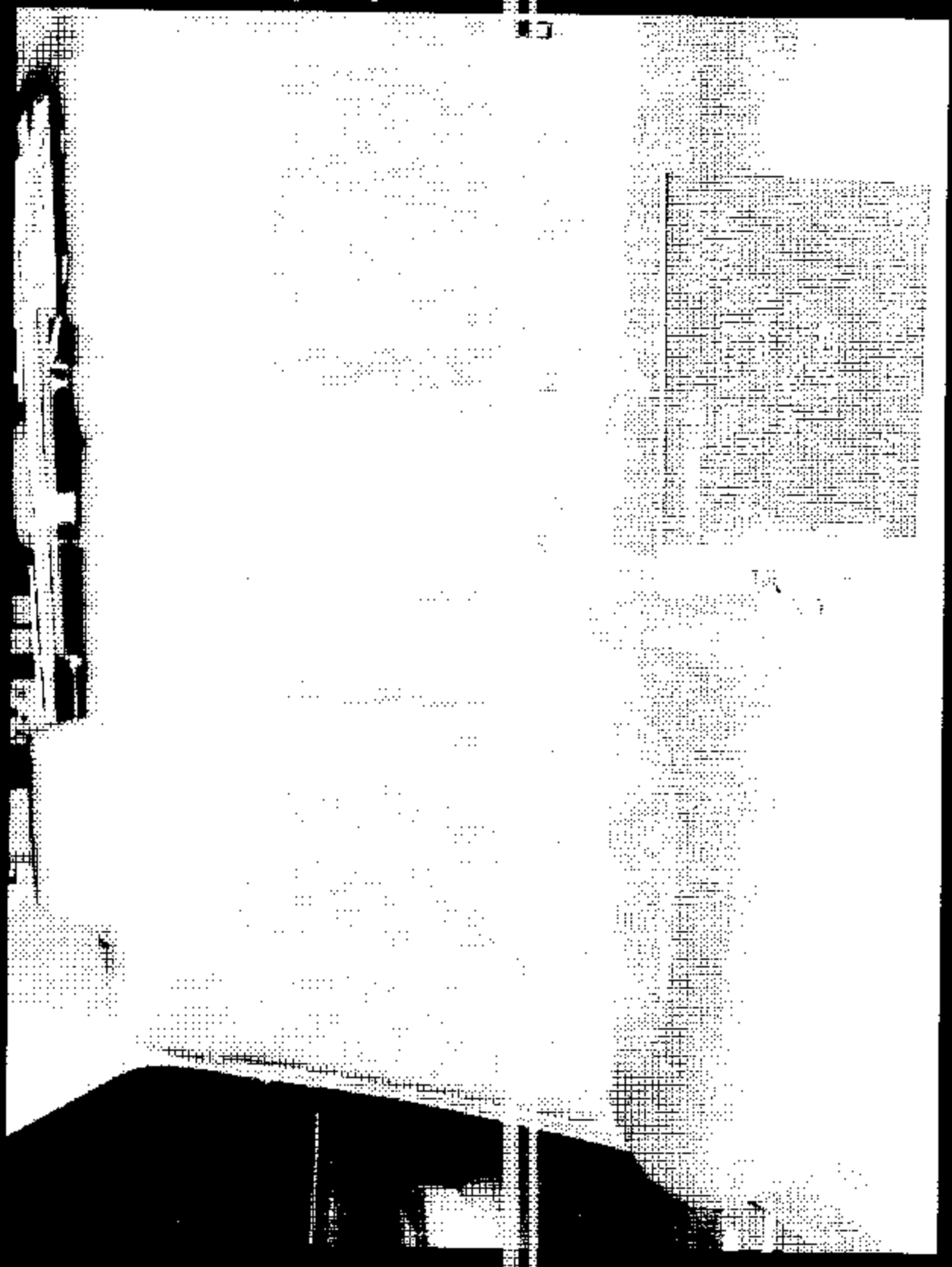
6.7.2 LH position photo #2



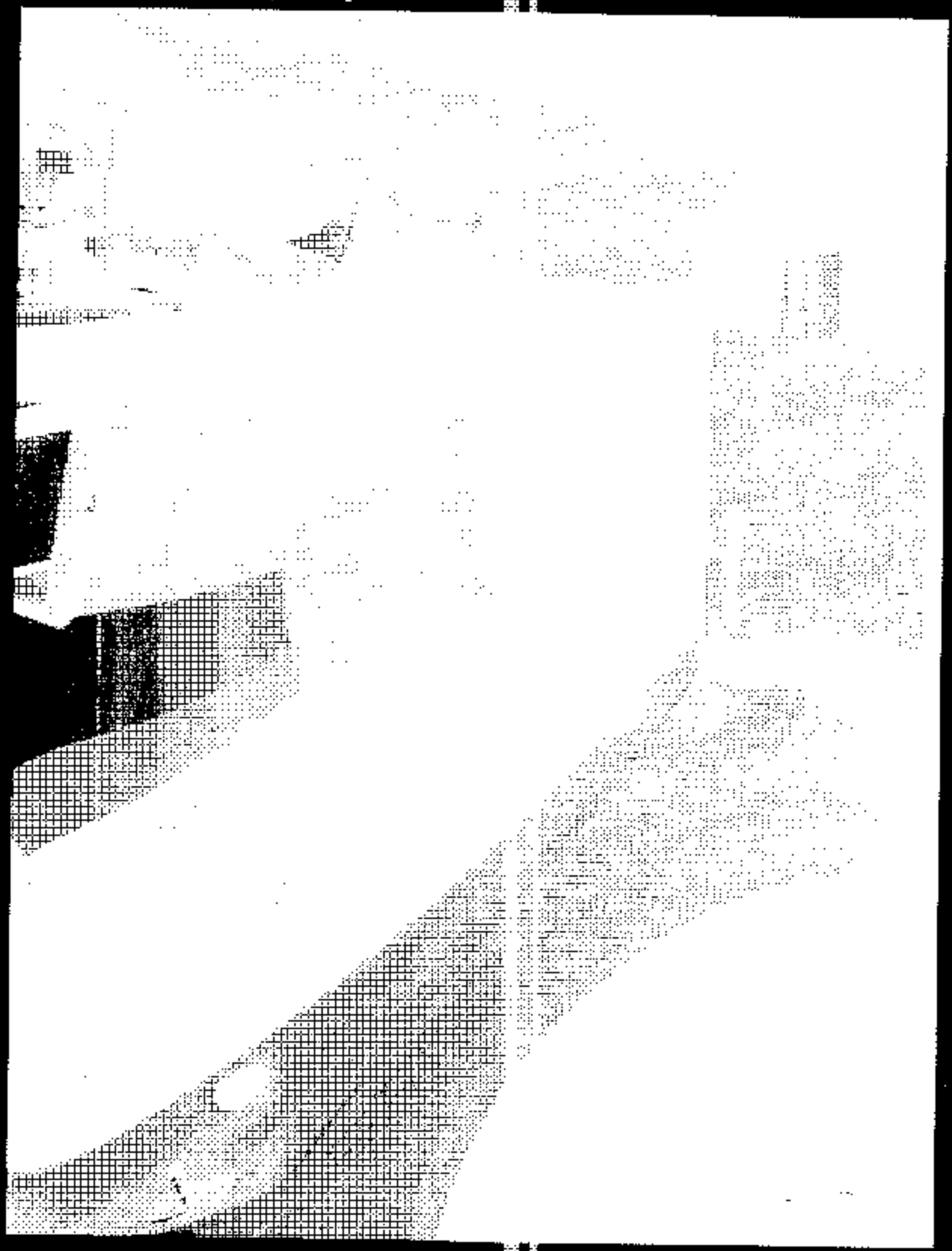
6.7.3 Center position photo #1



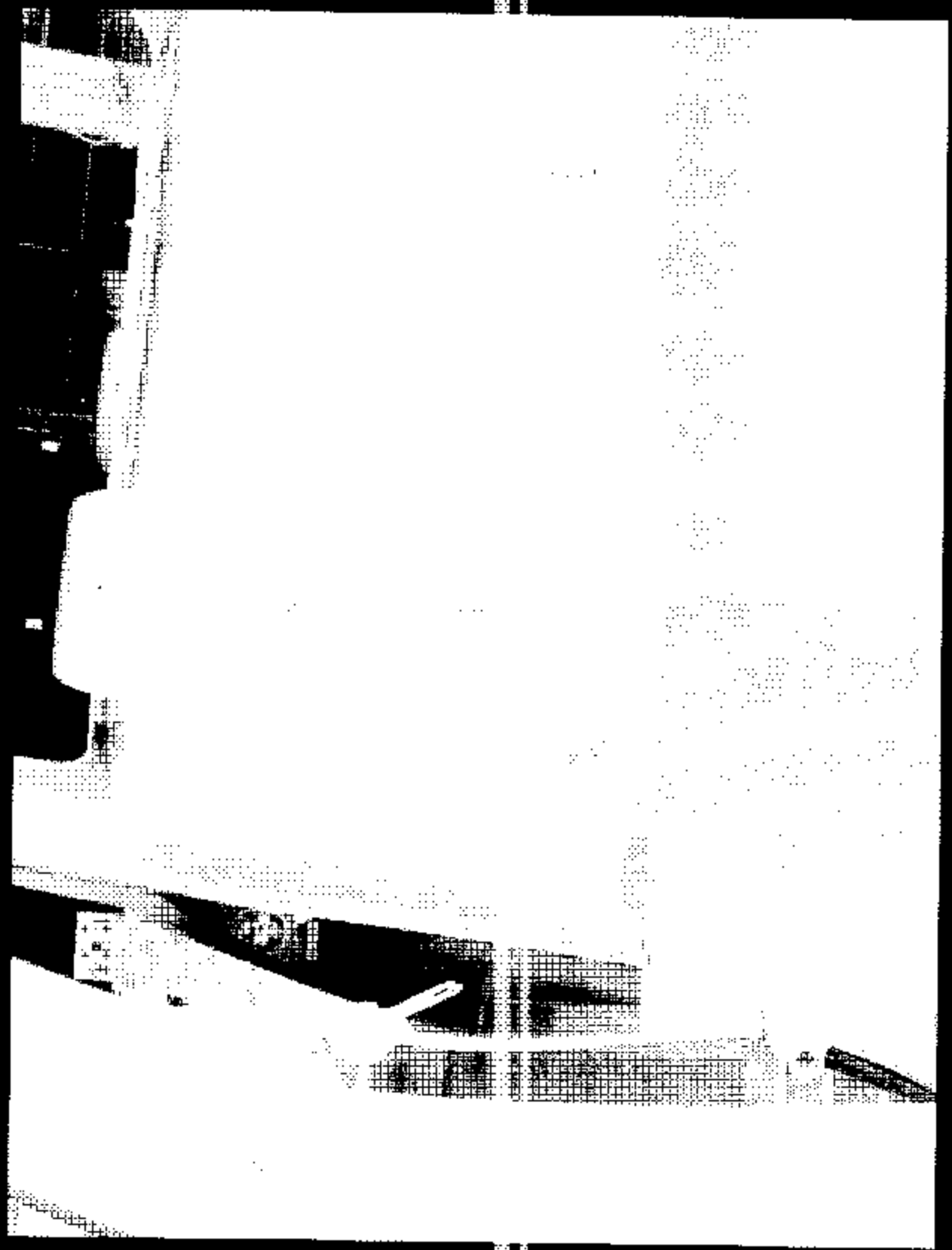
6.7.4 Center position photo #2



6.7.5 RH position photo #1

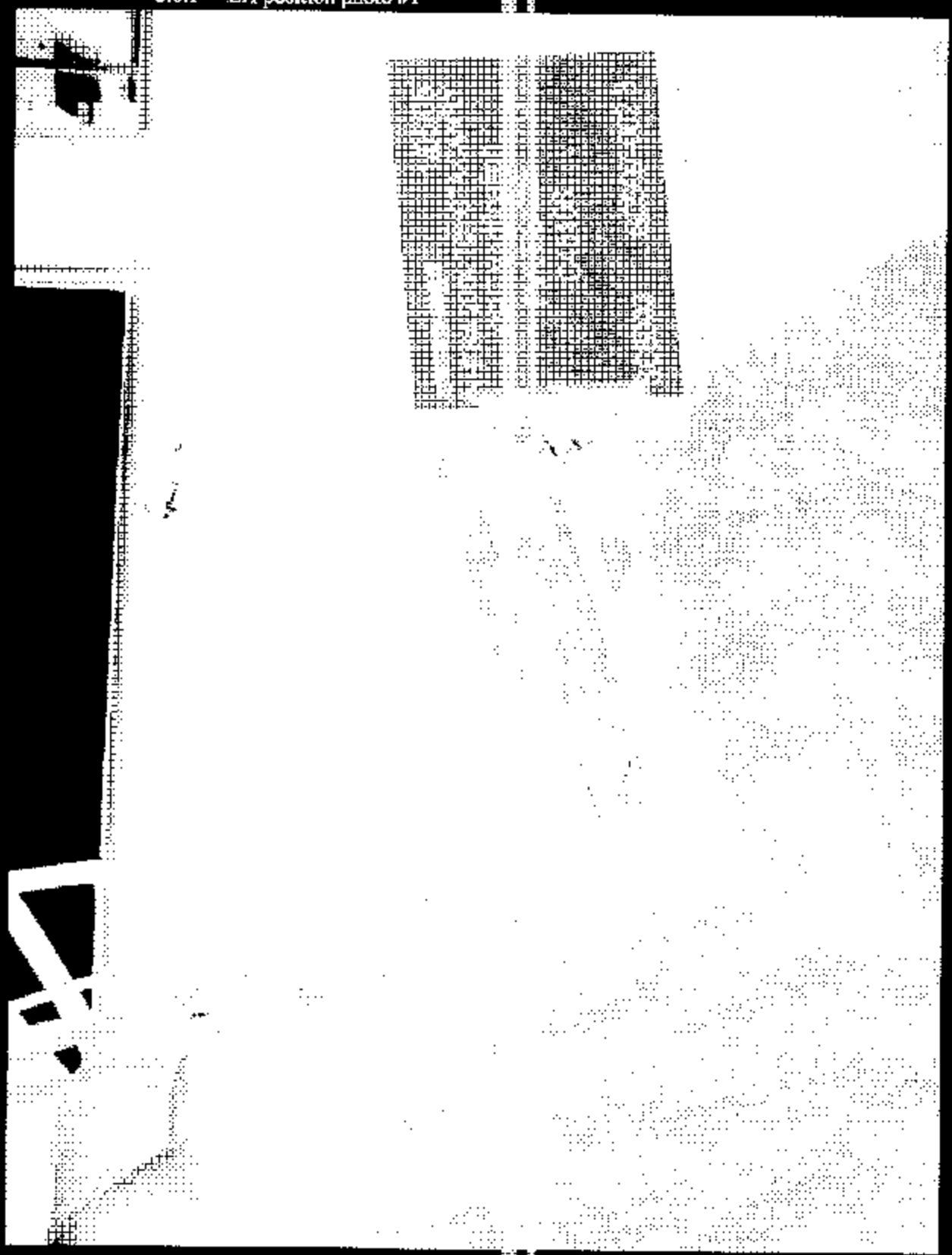


6.7.6 RH position photo #2

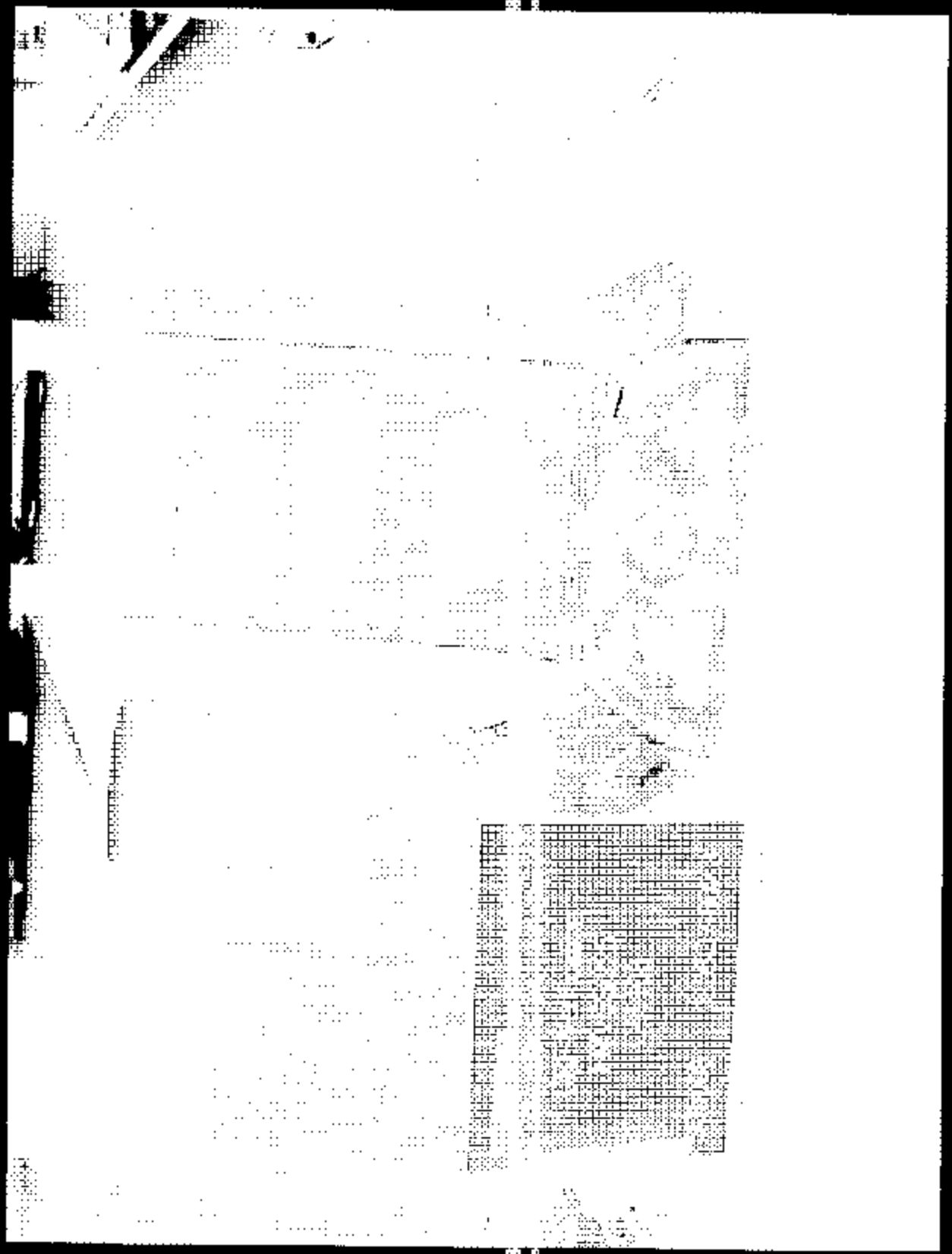


6.8 CRF verification

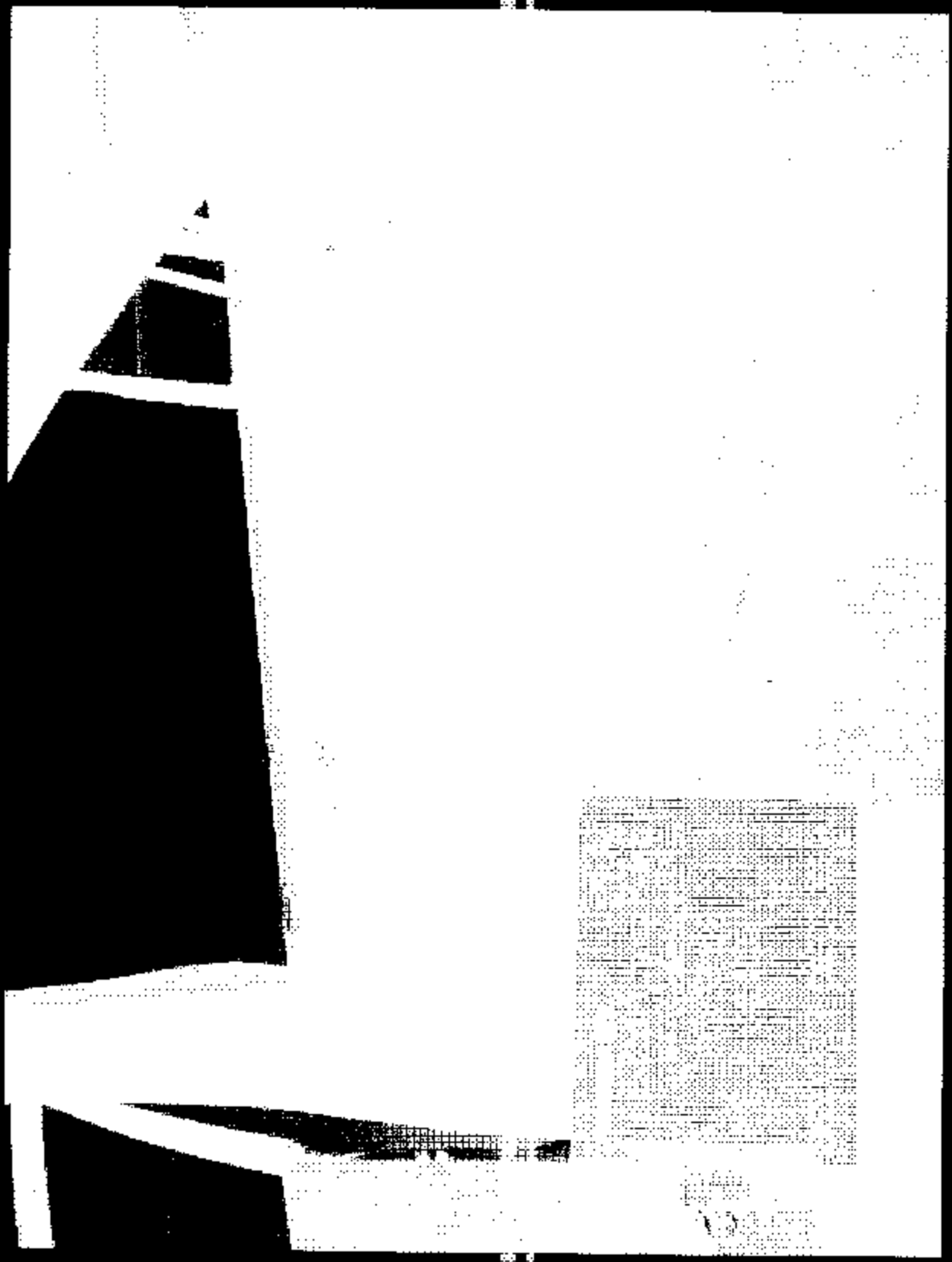
6.8.1 LH position photo #1



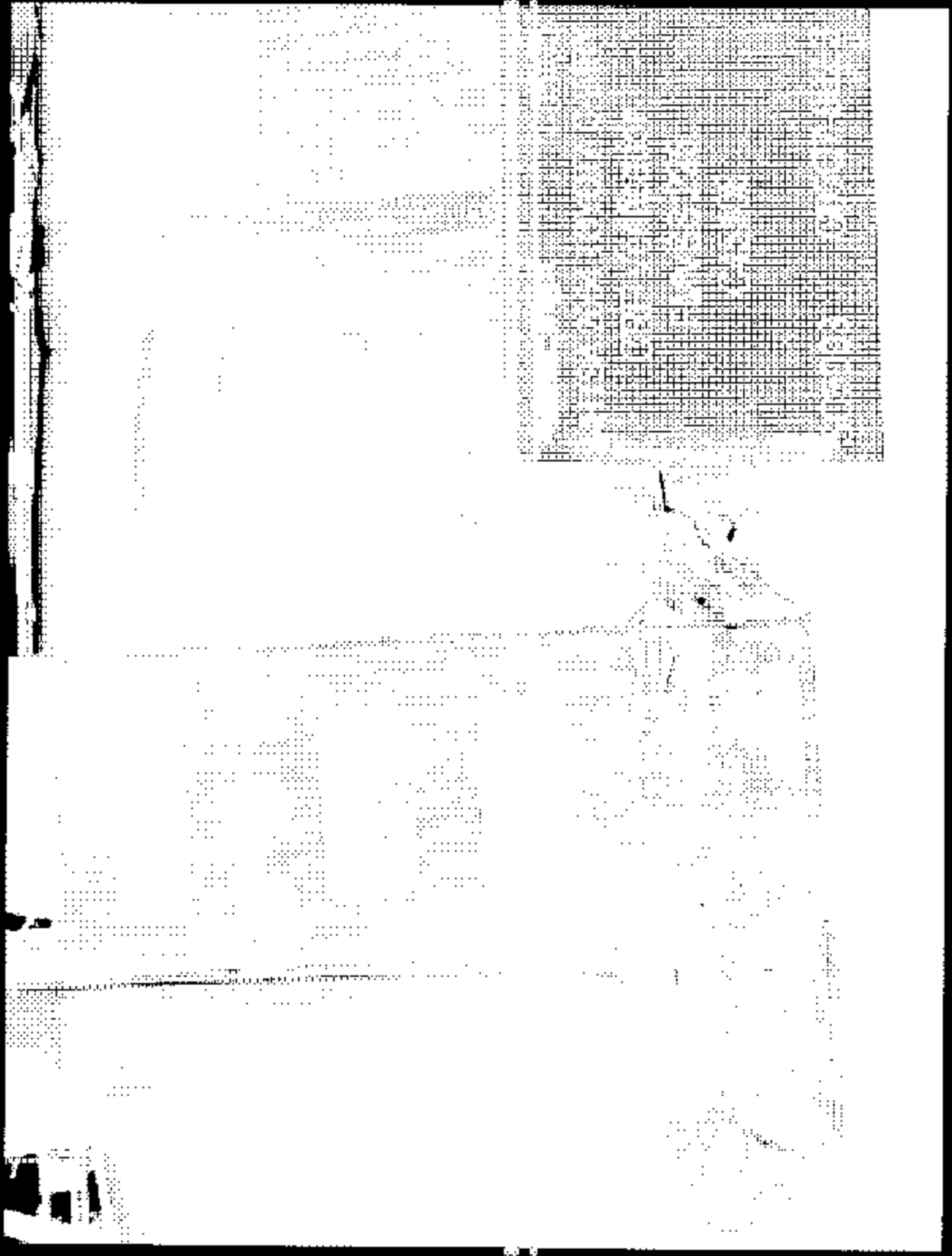
6.8.2 LH position photo #2



6.8.3 RH position photo #1

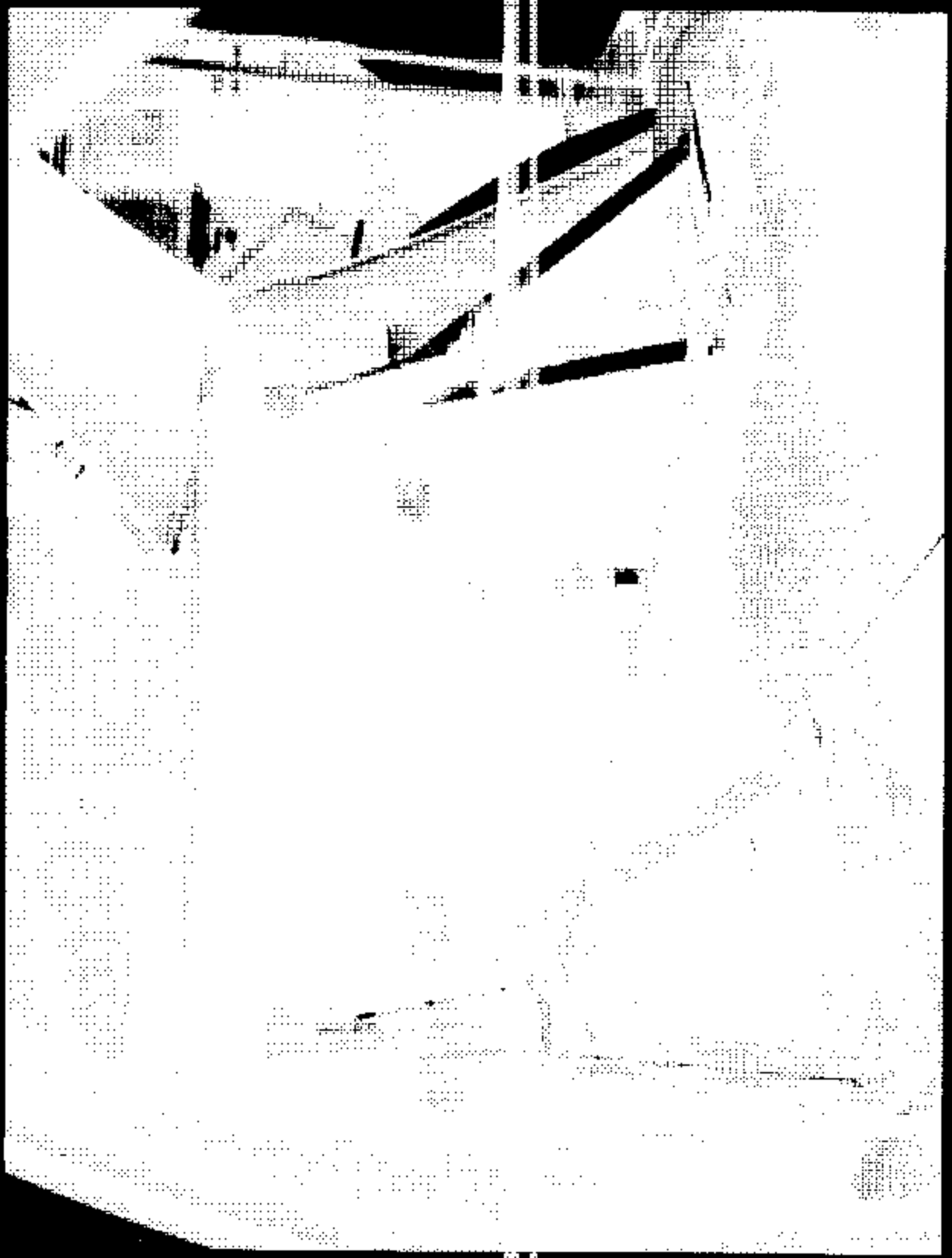


6.8.4 RH position photo #2



6.9 ¾ Front view of test vehicle with test apparatus in place
6.9.1 ¾ Front left view of SFADII test 2 of 2

6.9.2 ¾ Front right view of SFADII test 1 of

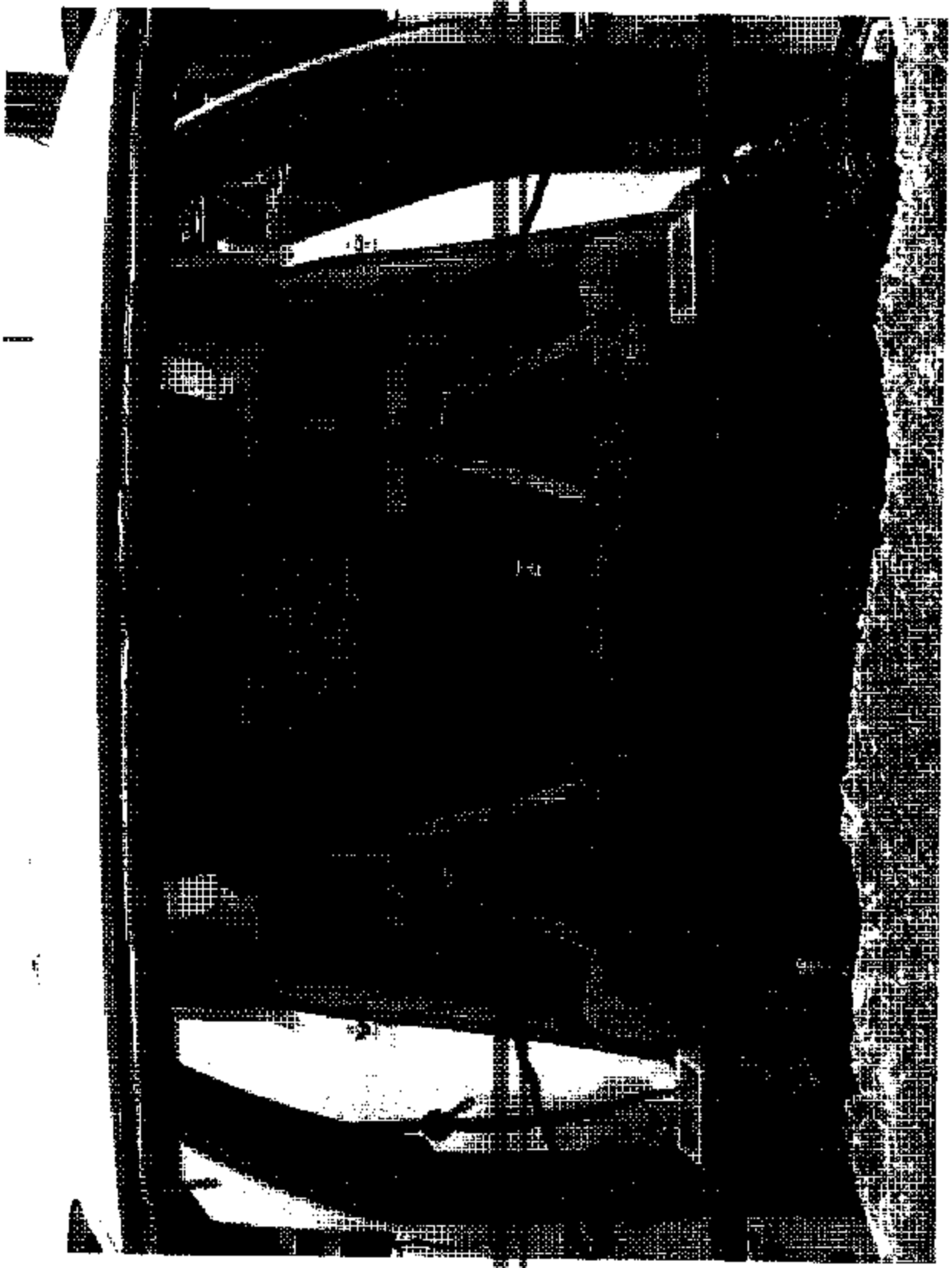


6.9.3 ¾ Front left view of SFADI test 2 of 2

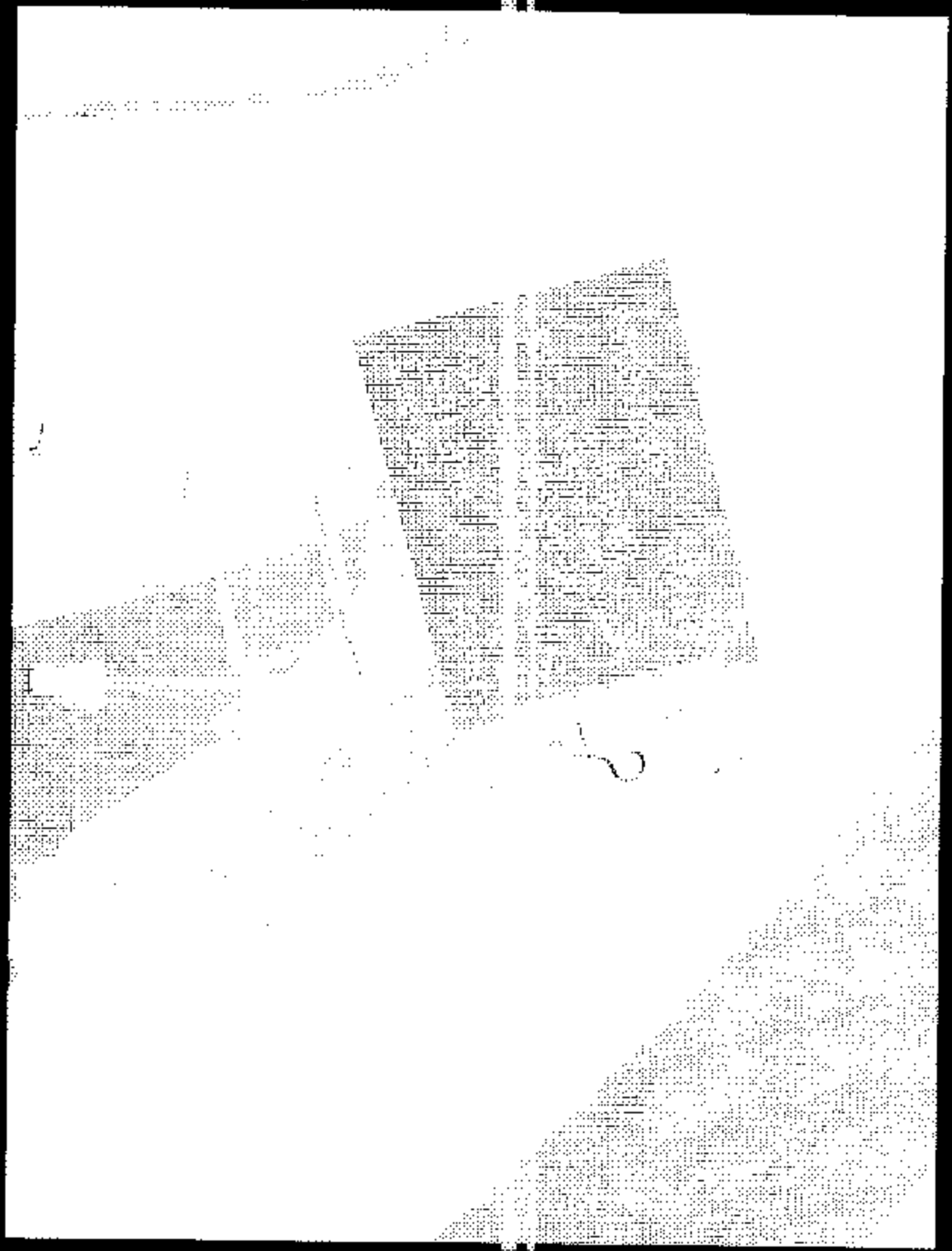
6.9.4 ¾ Front right view of SFADI test 2 of 2

6.10 Pre-test views of each child restraint anchorage system installed in the vehicle

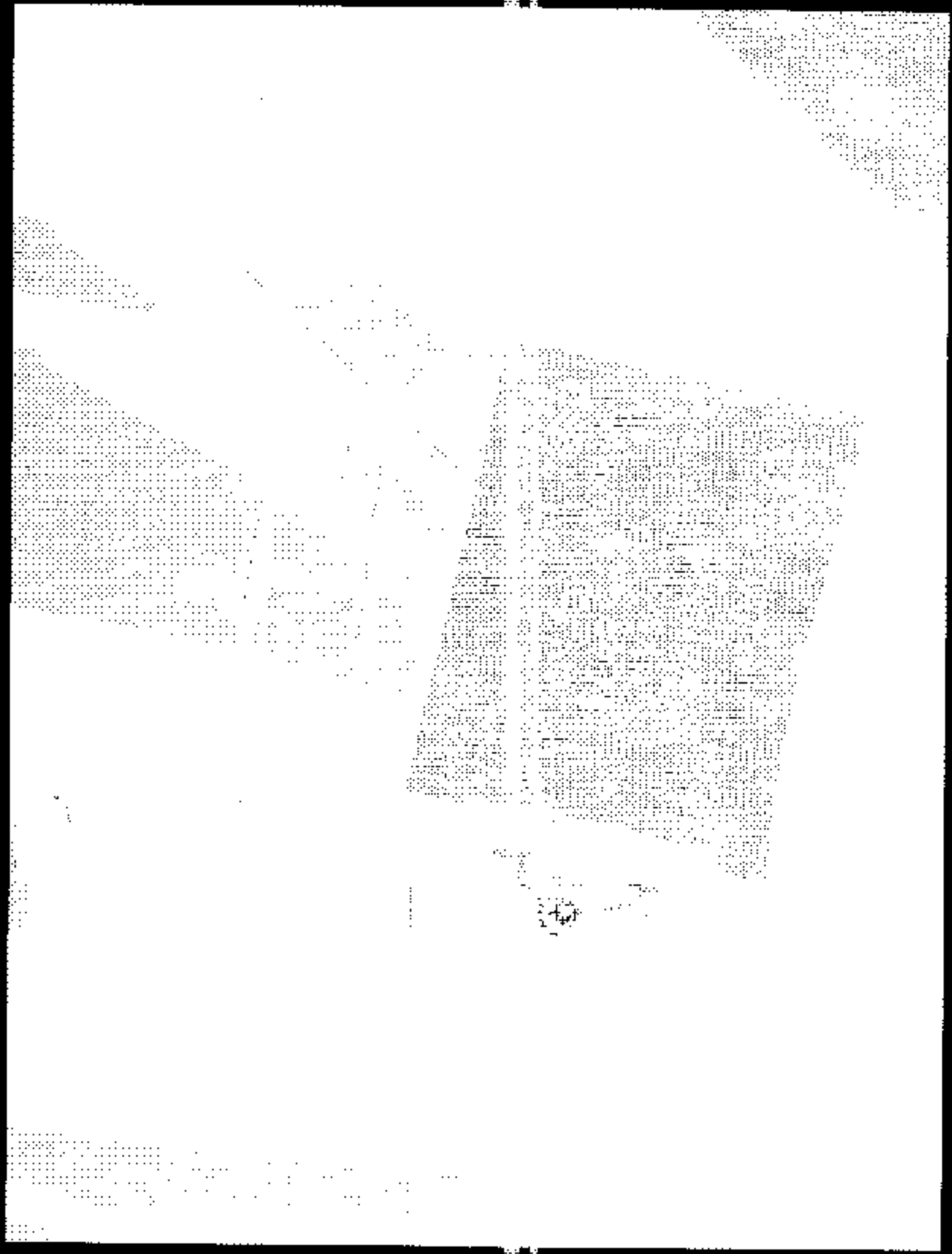
6.10.1 Pre-test photo #1 of SFADII test 1 of 2



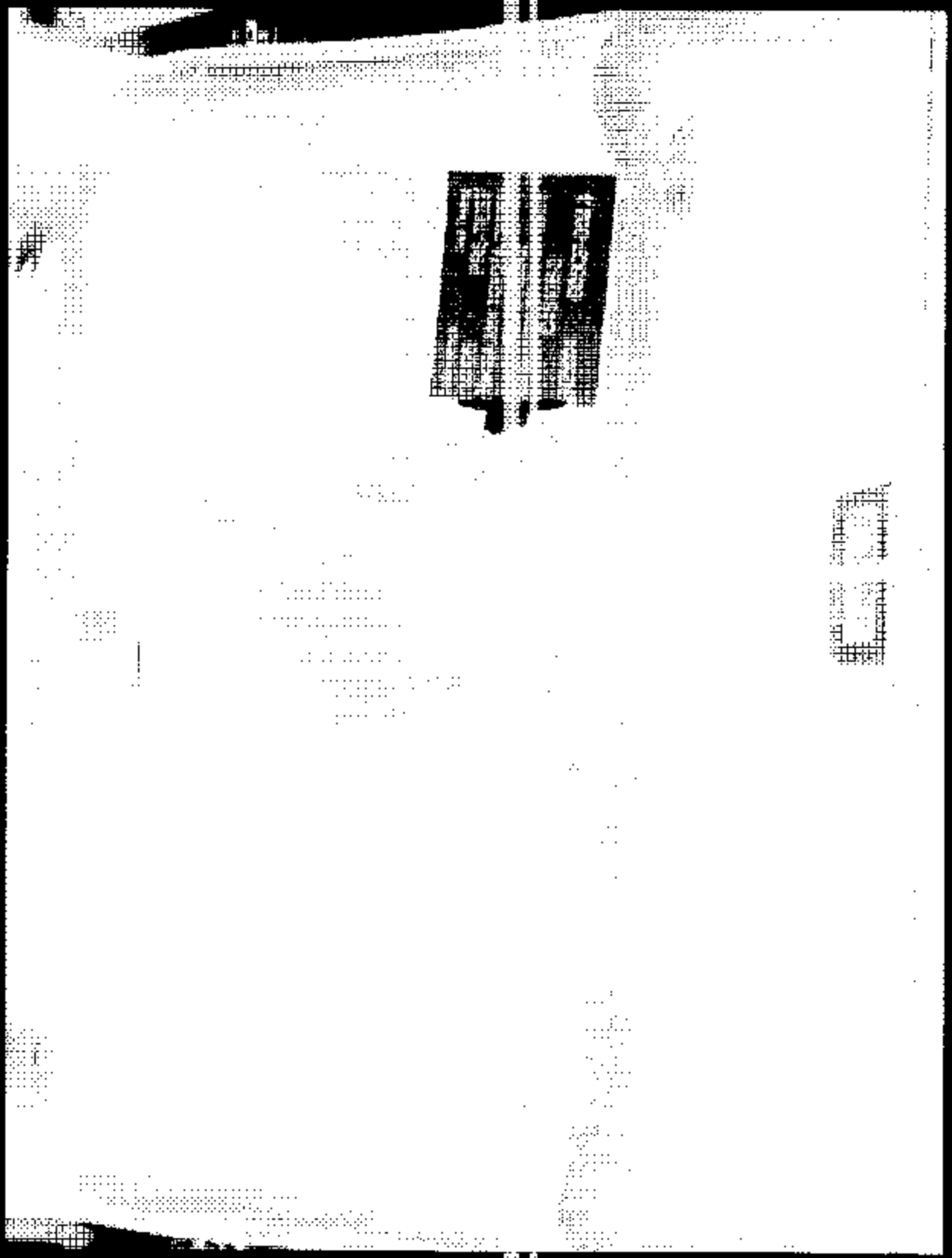
6.10.2 Pre-test photo #2 of SFADII test 1 of 2



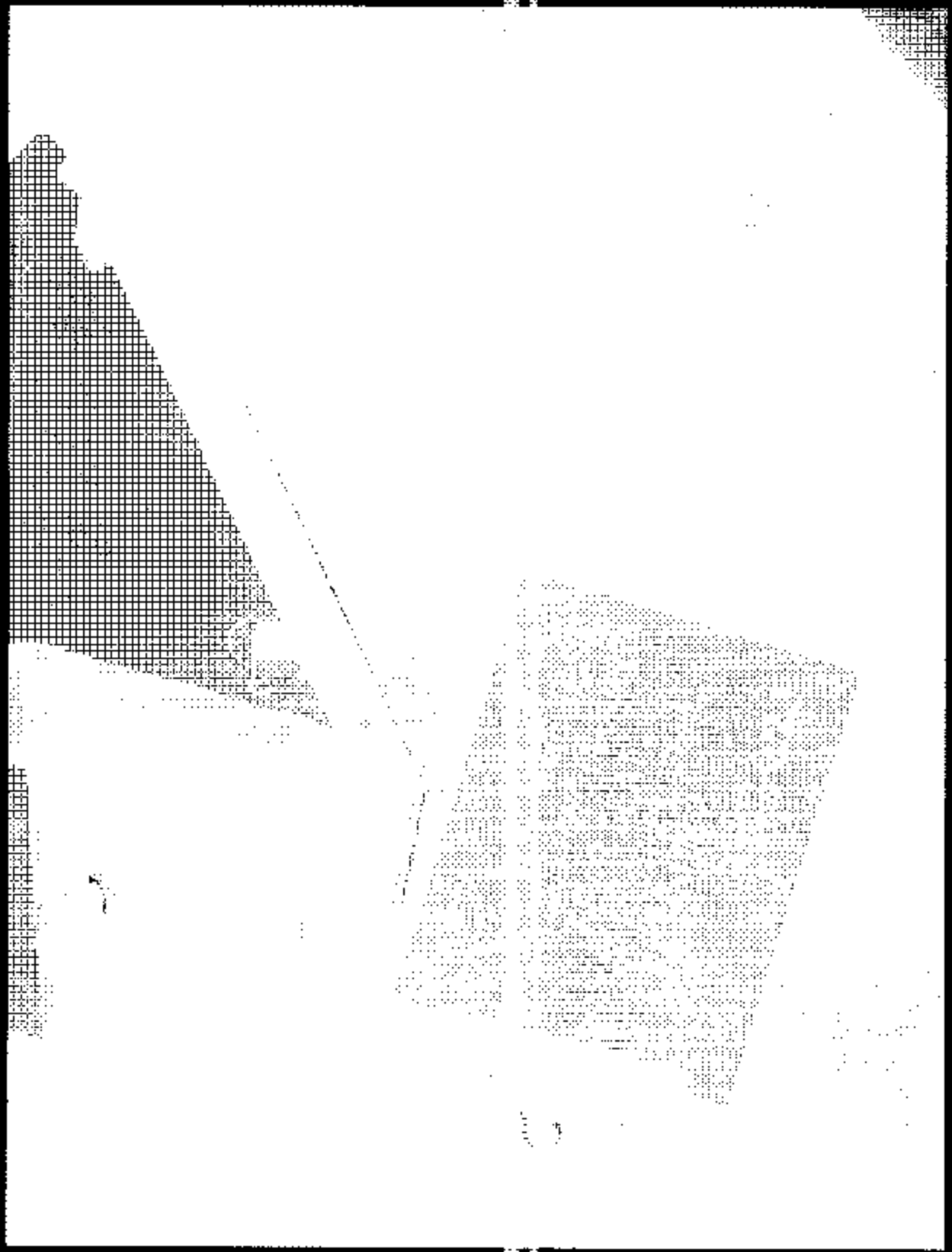
6.10.3 Pre-test photo #3 of SFADII test 1 of 2



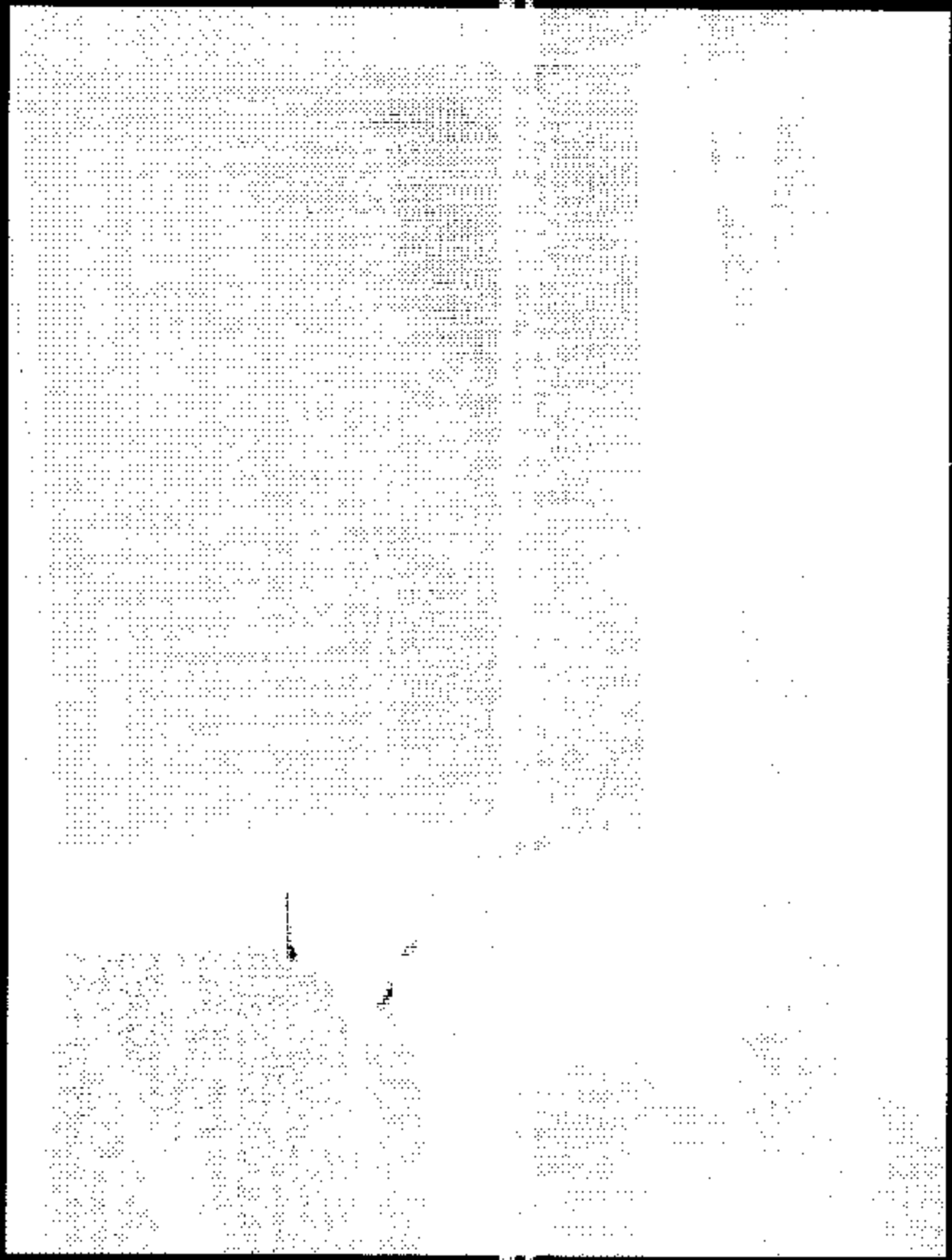
6.10.4 Pre-test photo #1 of SFADI test 2 of 2



6.10.5 Pre-test photo #2 of SFADI test 2 of 2

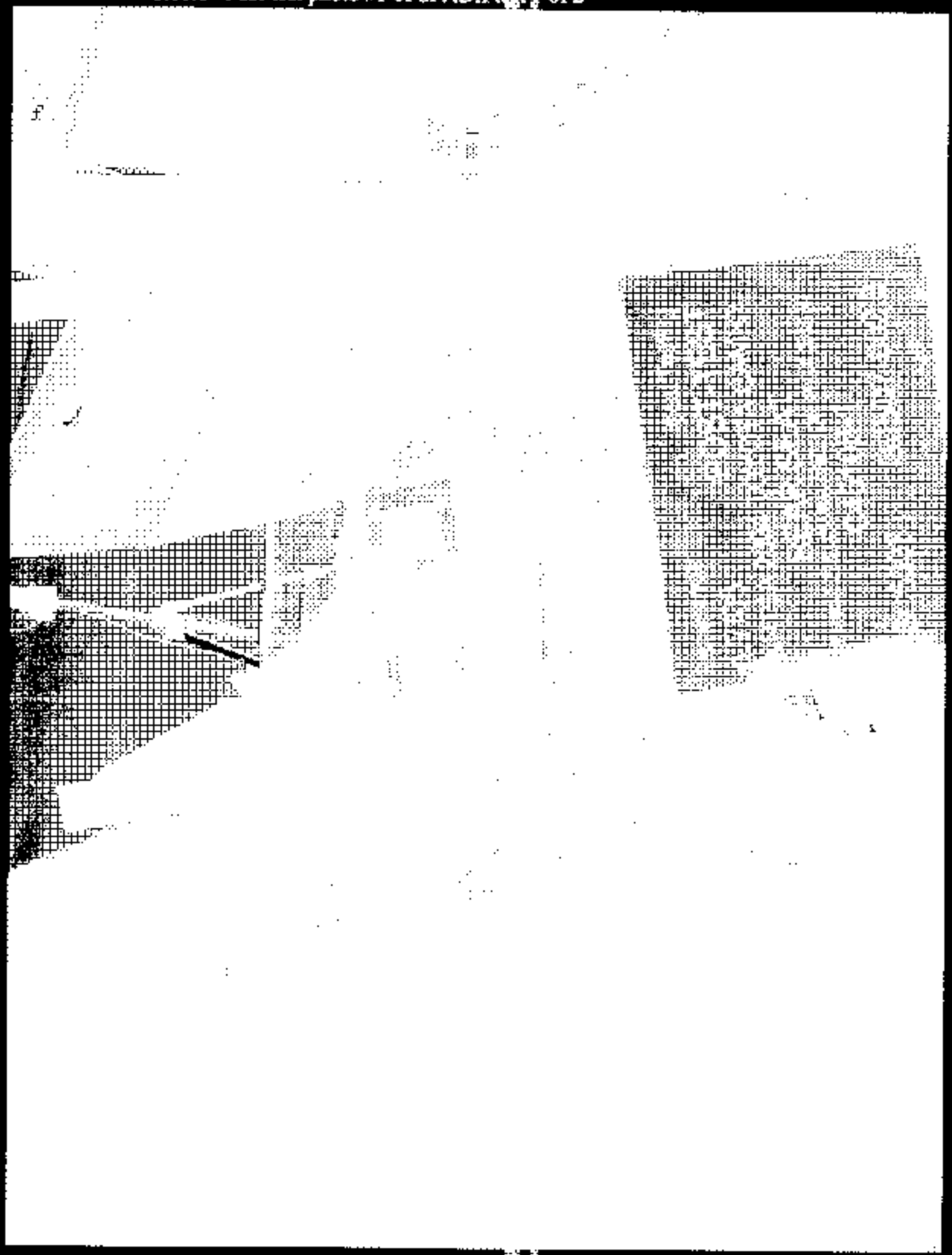


6.10.6 Pre-test photo #3 of SFADI test 2 of 2

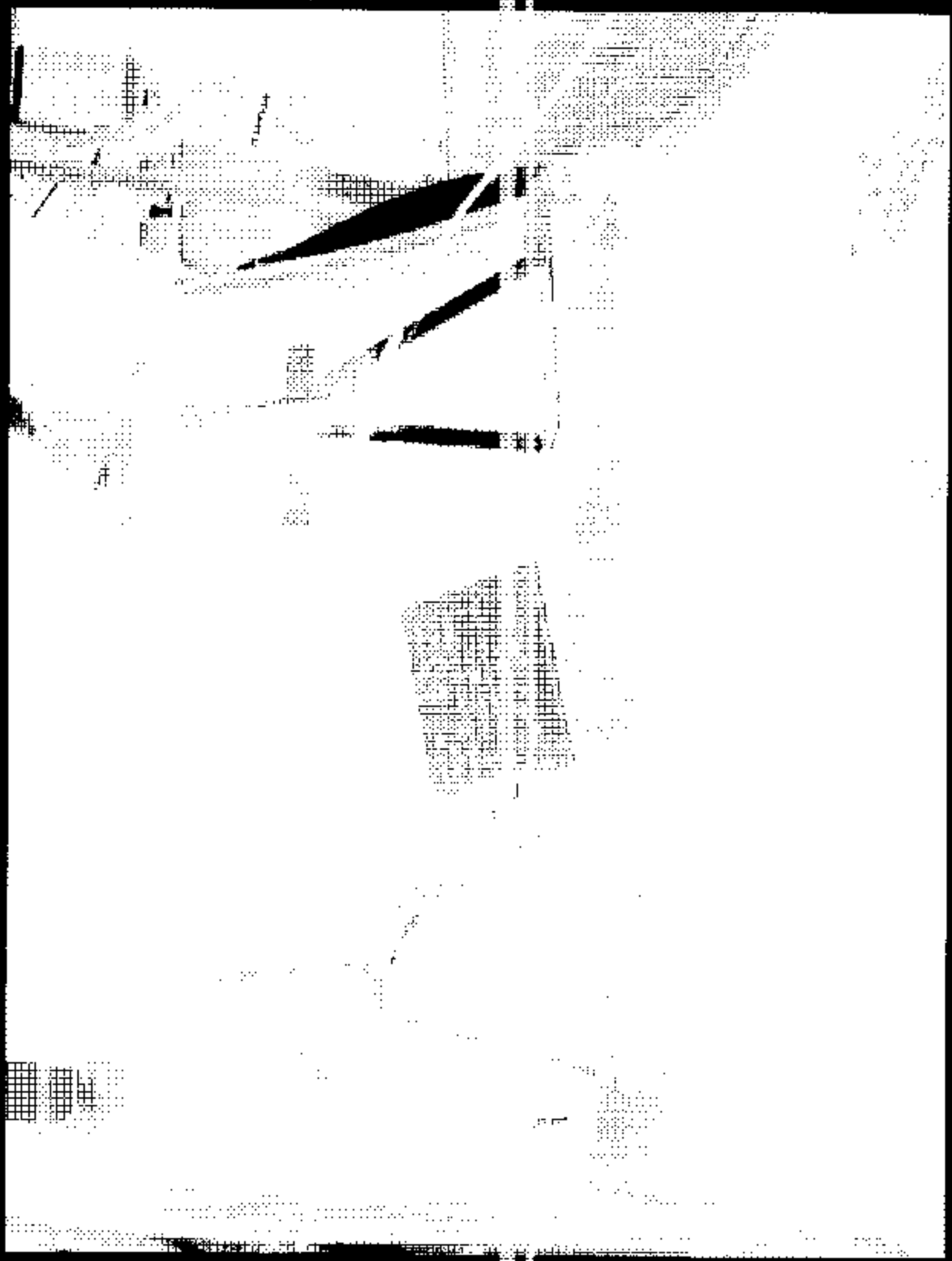


6.11 Post-test condition of each child restraint anchorage system

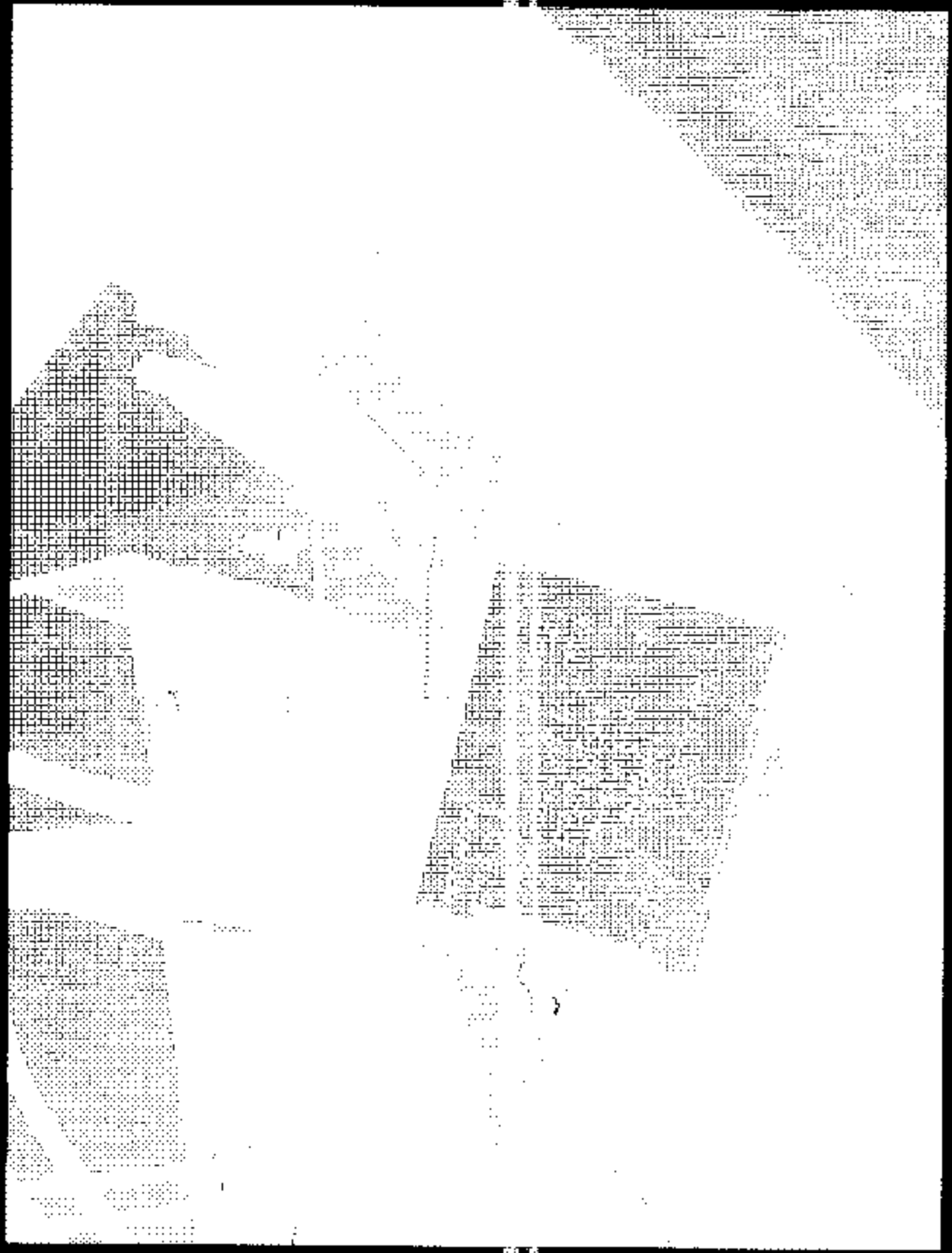
6.11.1 Post-test photo #1 of SFADII test 2 of 2



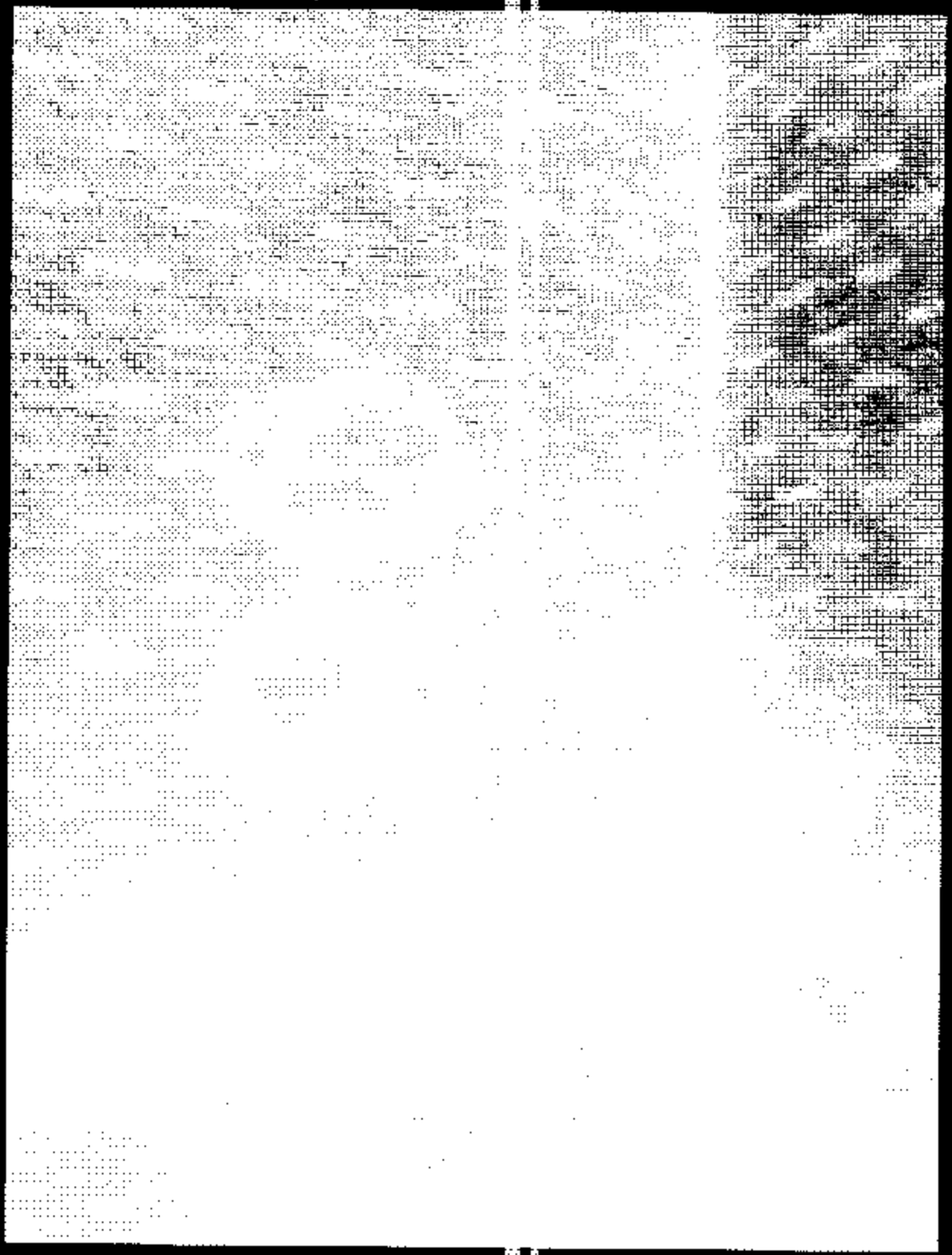
6.11.2 Post-test photo #2 of SFADII test 1 of 2



6.11.3 Post-test photo #3 of SFADII test 1 of 2

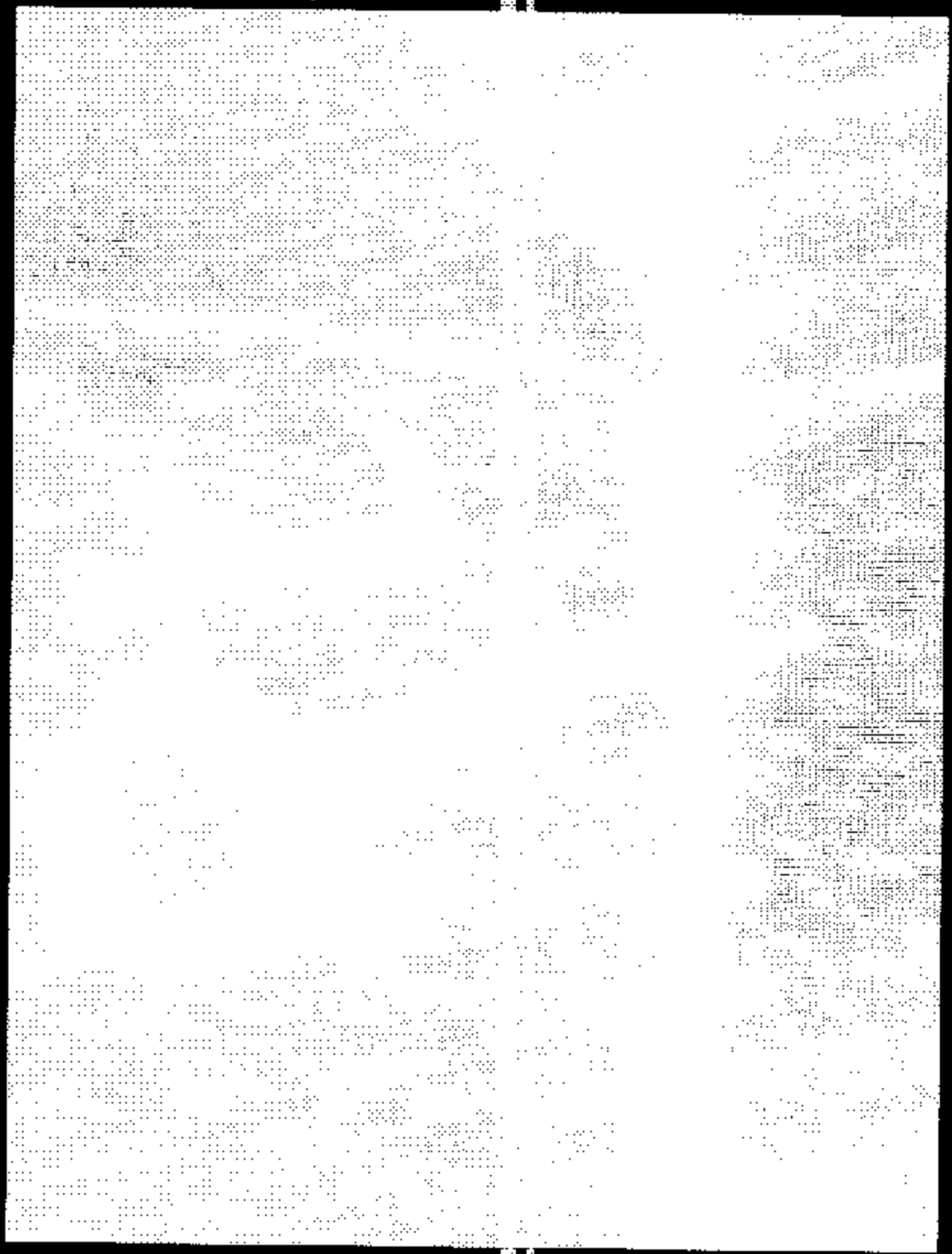


6.11.4 Post-test photo #4 of SFADII test 1 of 2

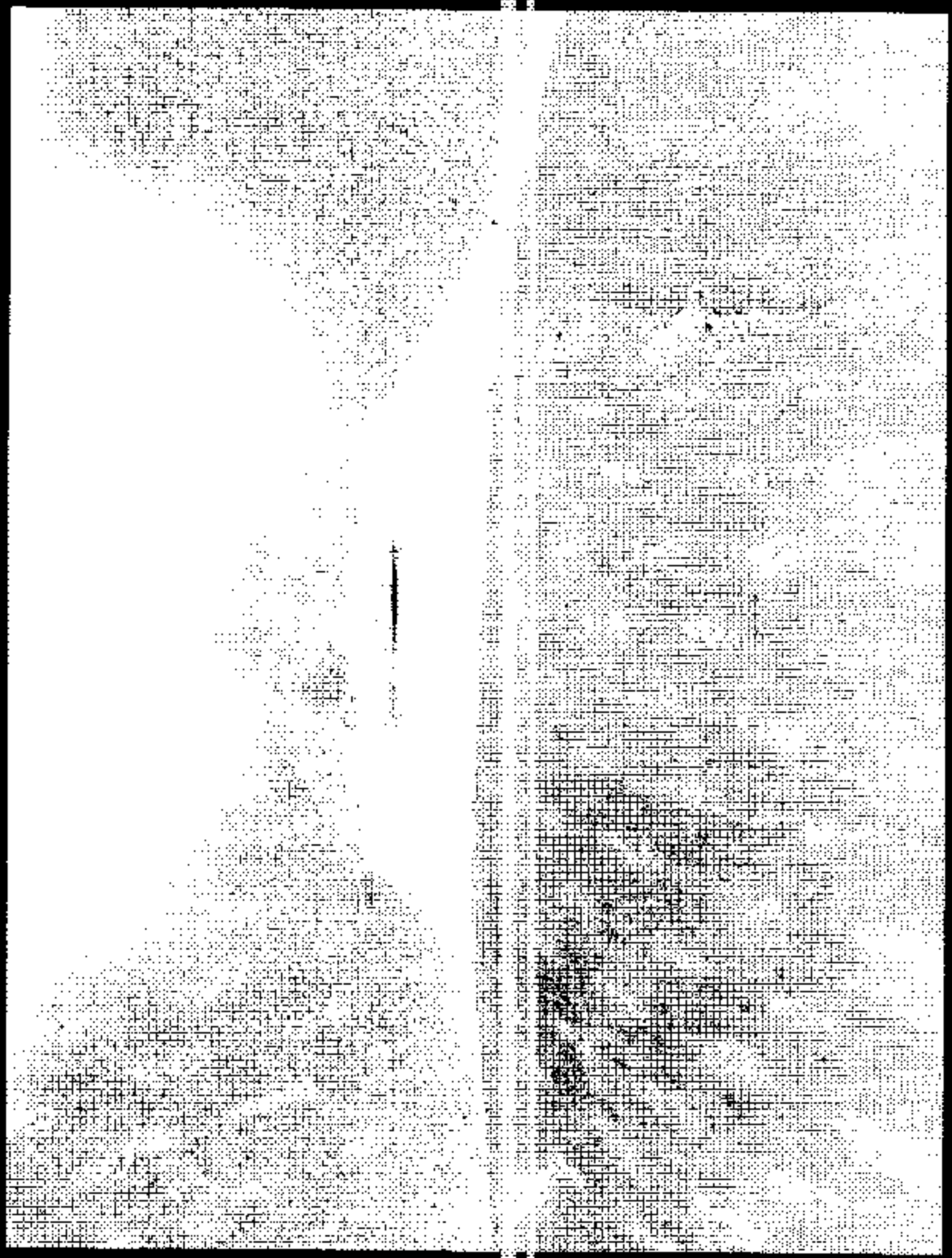


6.11.5 Post-test photo #5 of SFADII test 1 of 2

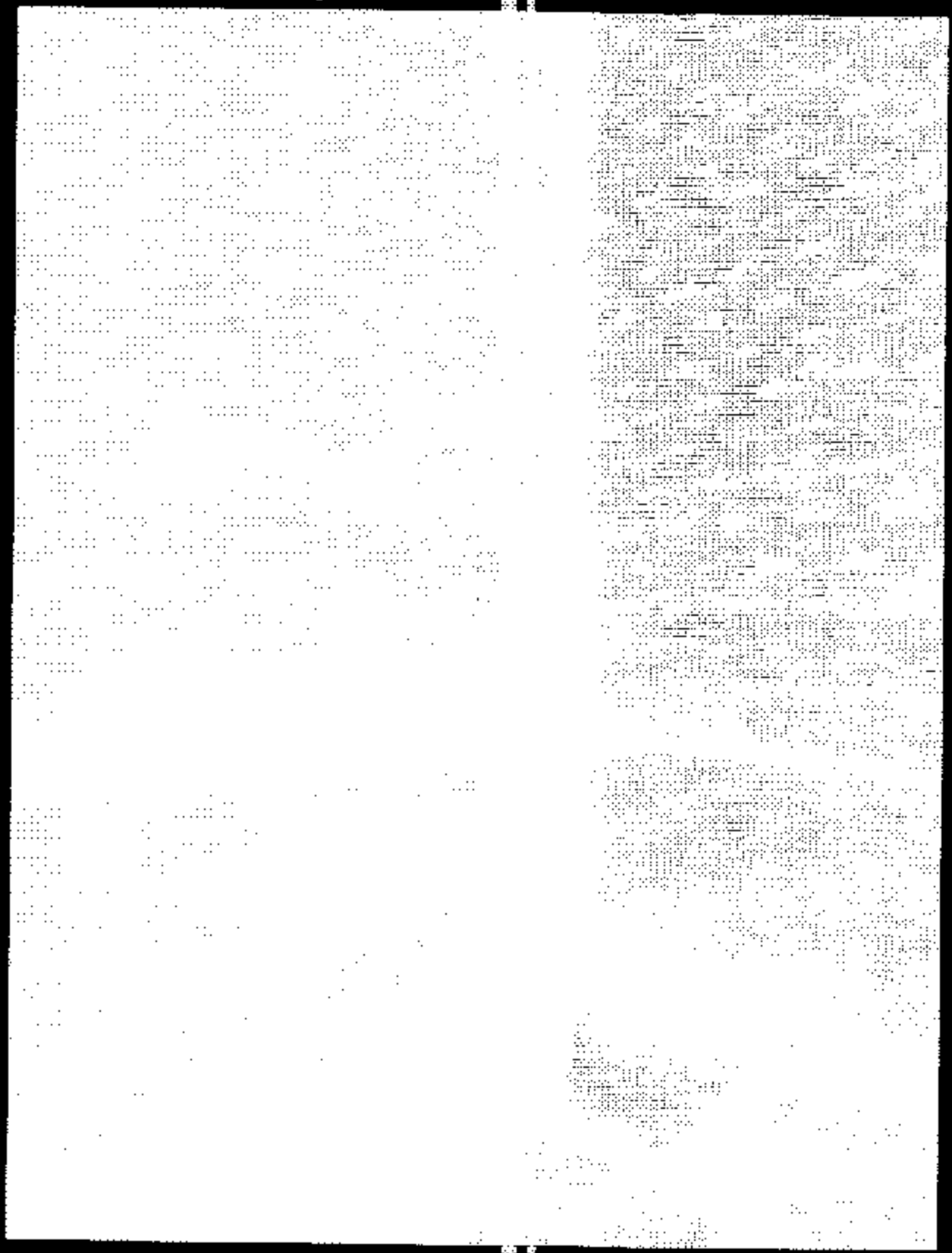
6.11.6 Post-test photo #6 of SFADII test 1 of 2



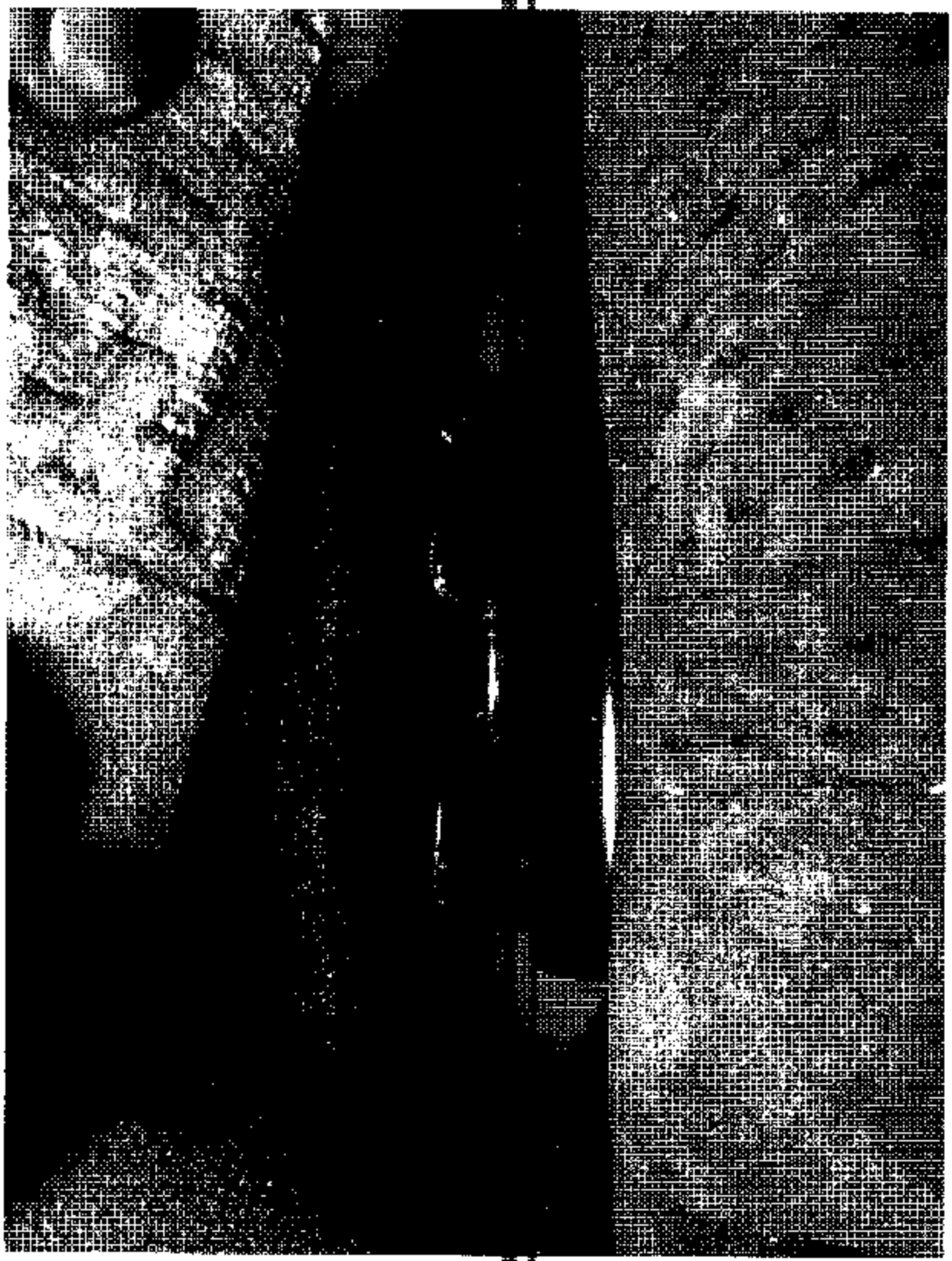
6.11.7 Post-test photo #7 of SFADII test 1 of 2



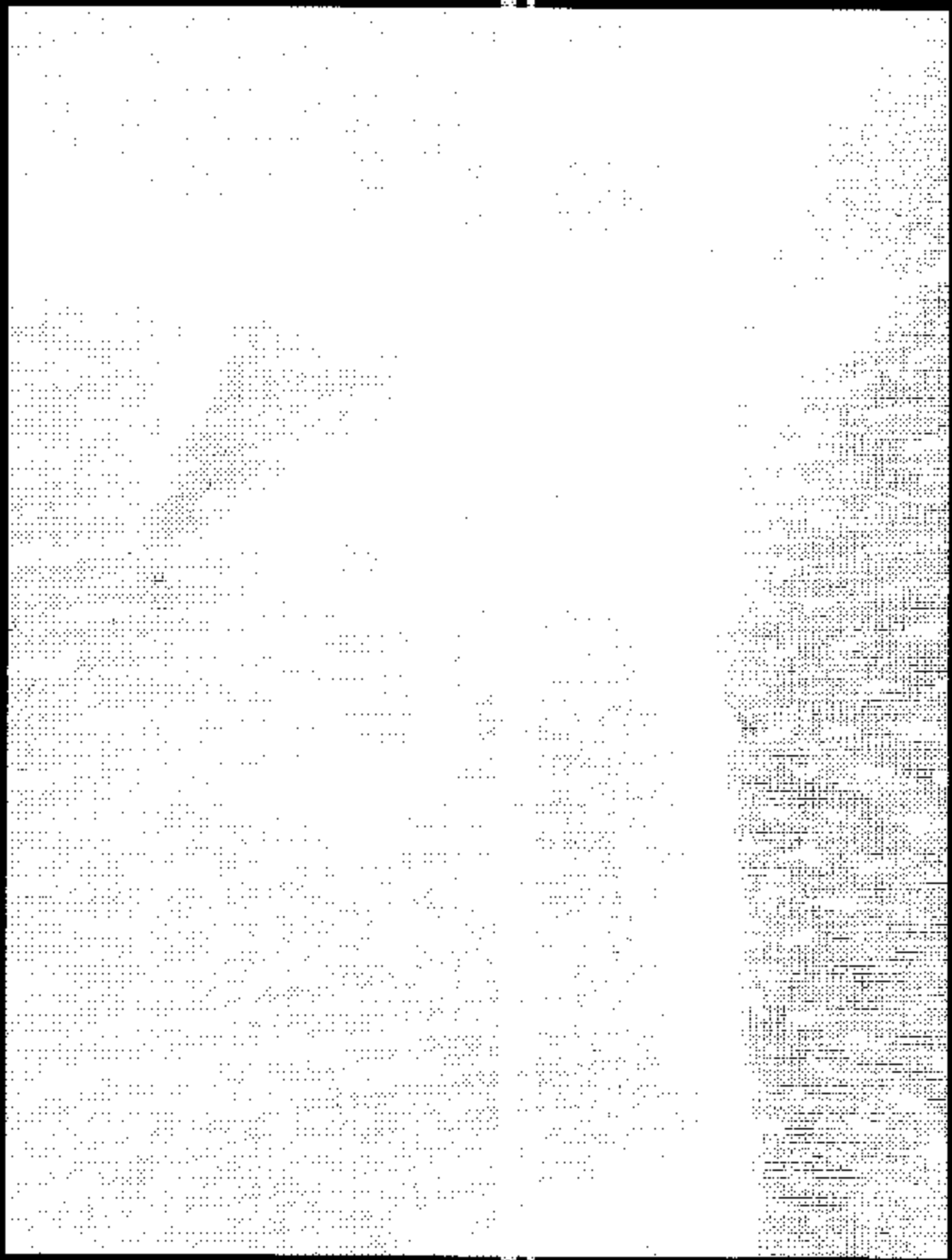
6.11.8 Post-test photo #8 of SFADII ss 1 of 2



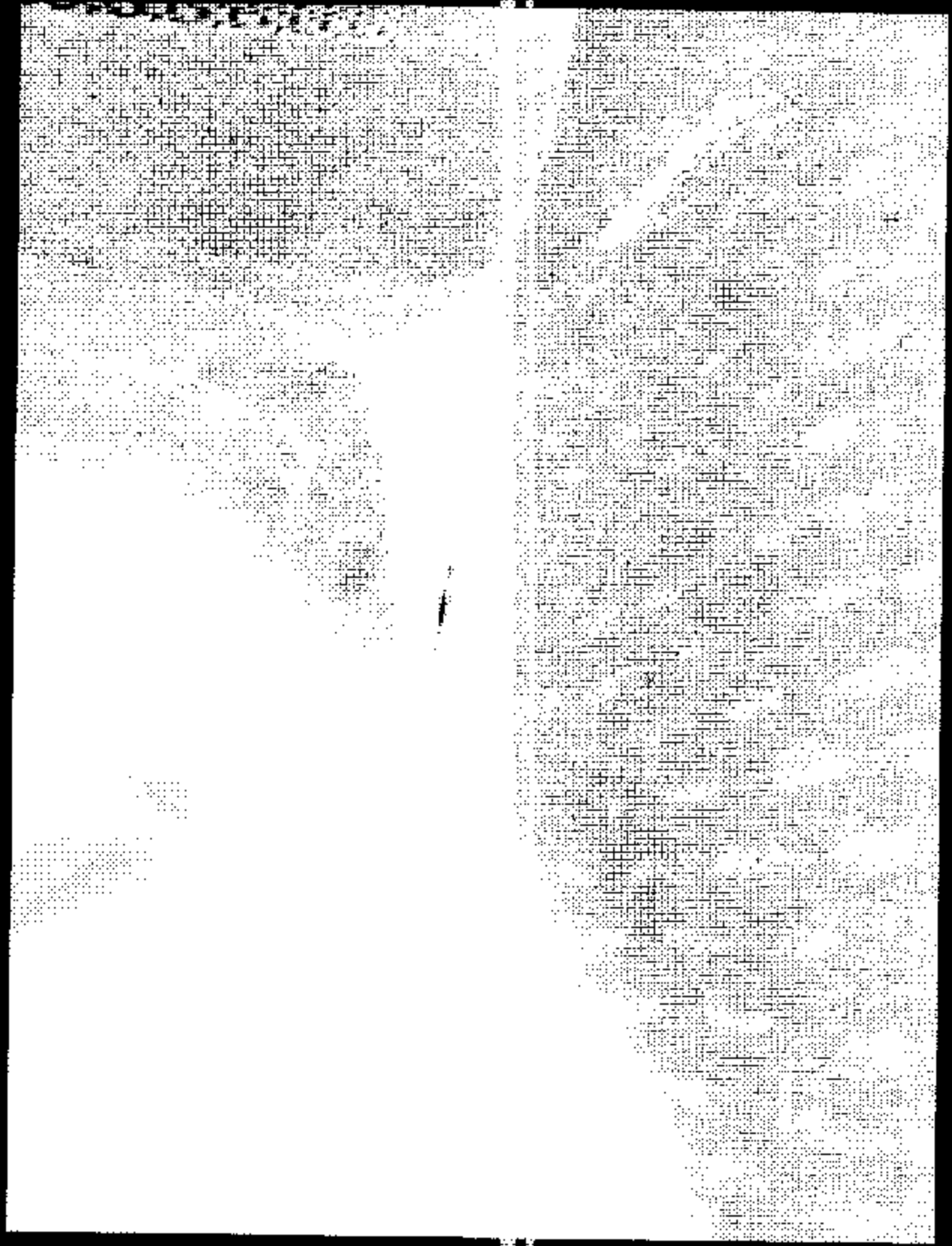
6.11.9 Post-test photo #9 of SFADII test 3 of 2



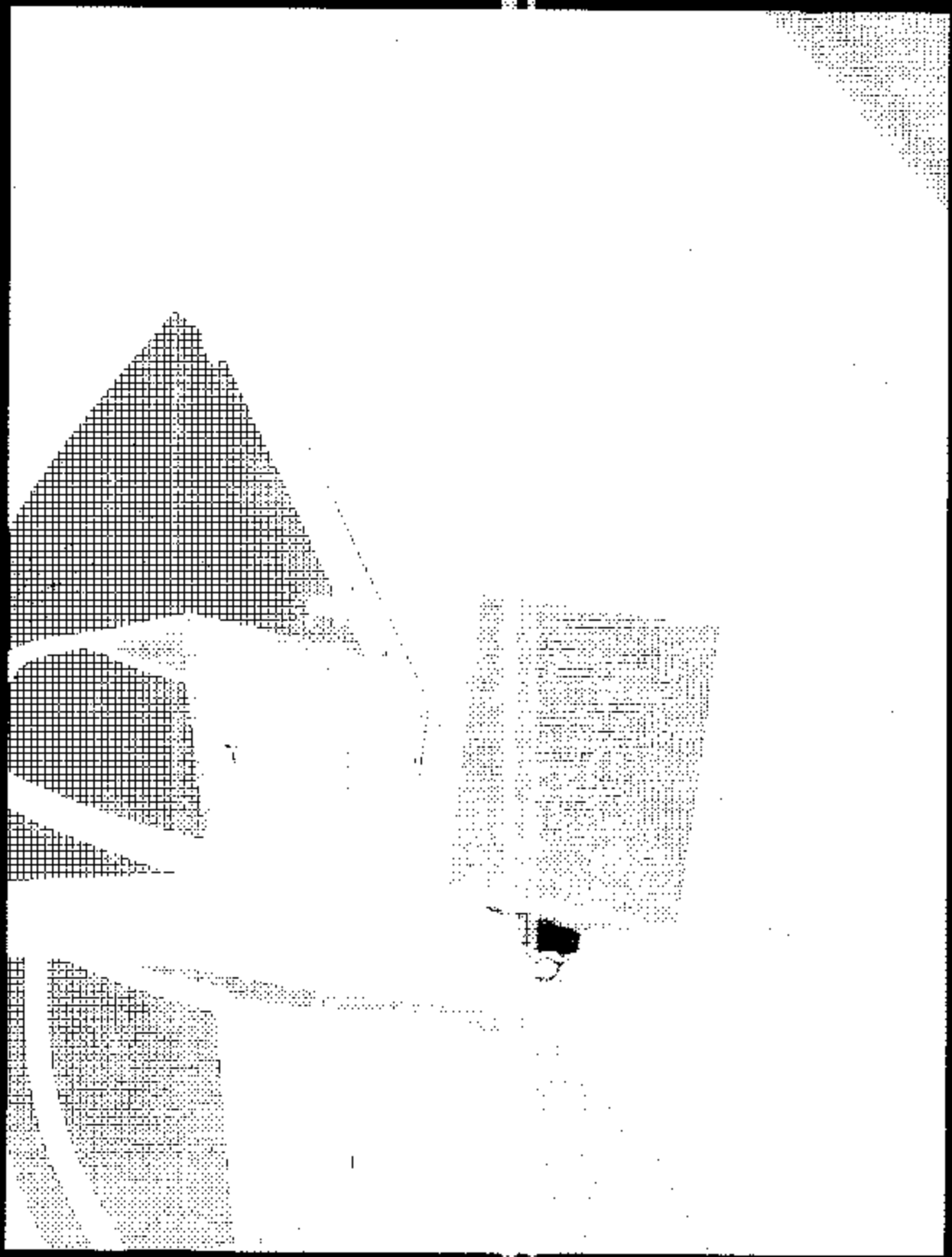
6.11.10 Post-test photo #10 of SFADI, part 1 of 2



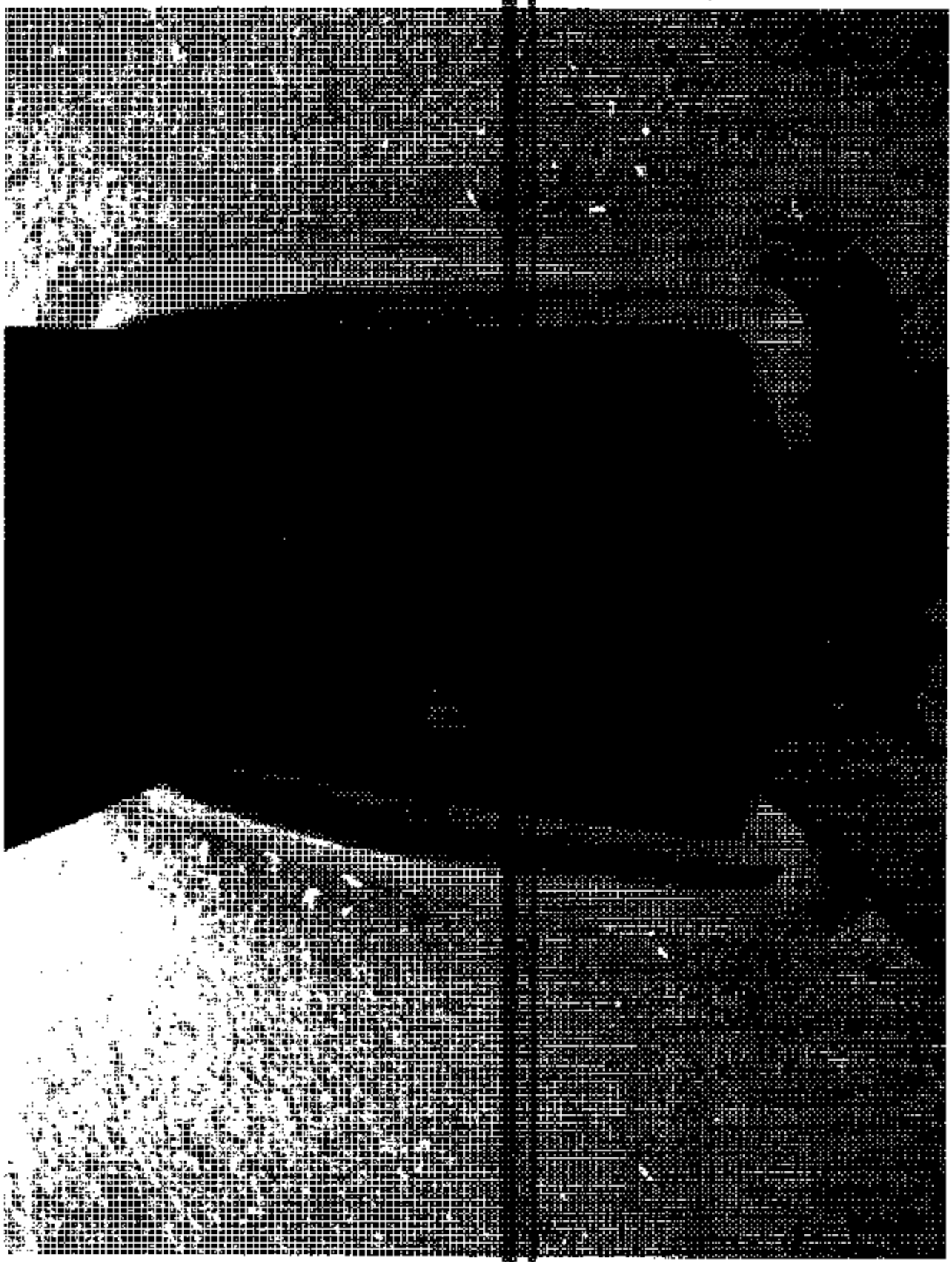
6.11.11 Post-test photo #11 of SFADII test 1



6.11.12 Post-test photo #1 of SFADI test 2 of 2

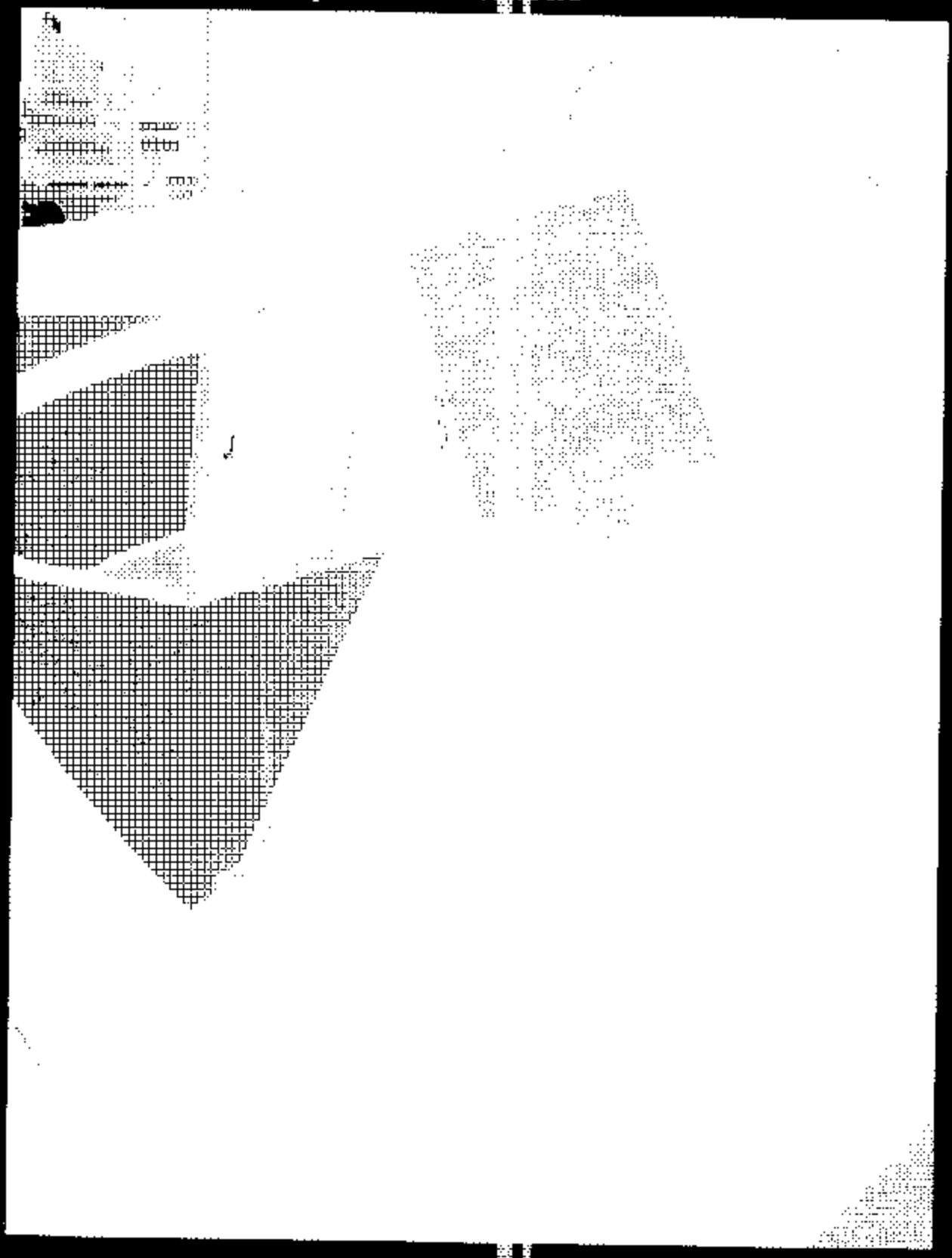


6.11.13 Post-test photo #2 of SFADI test 3 of 2

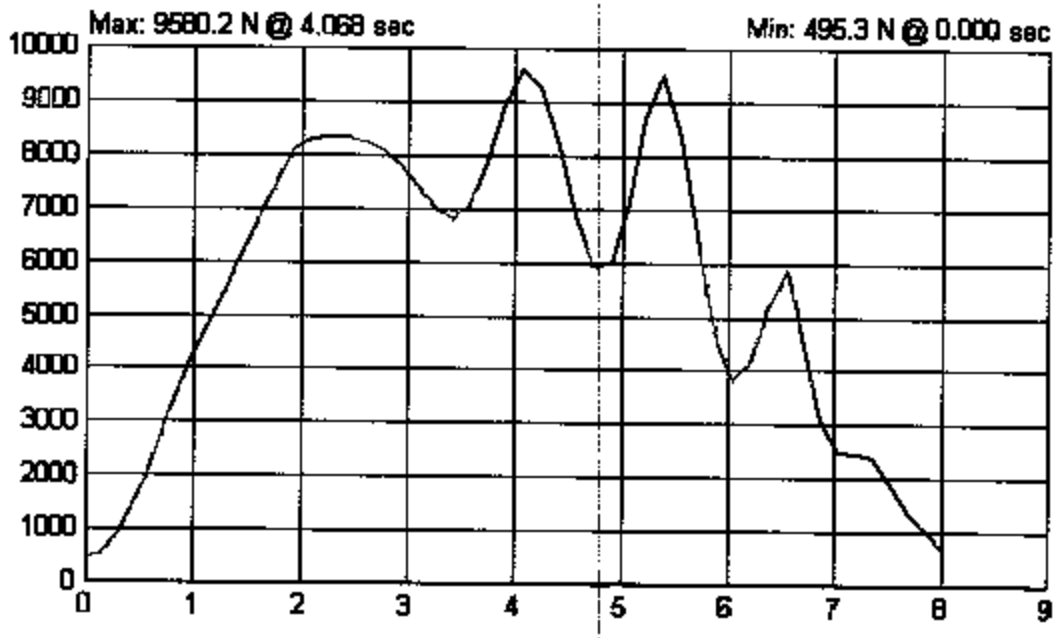


6.11.14 Post-test photo #3 of SFADI test 2 of 2

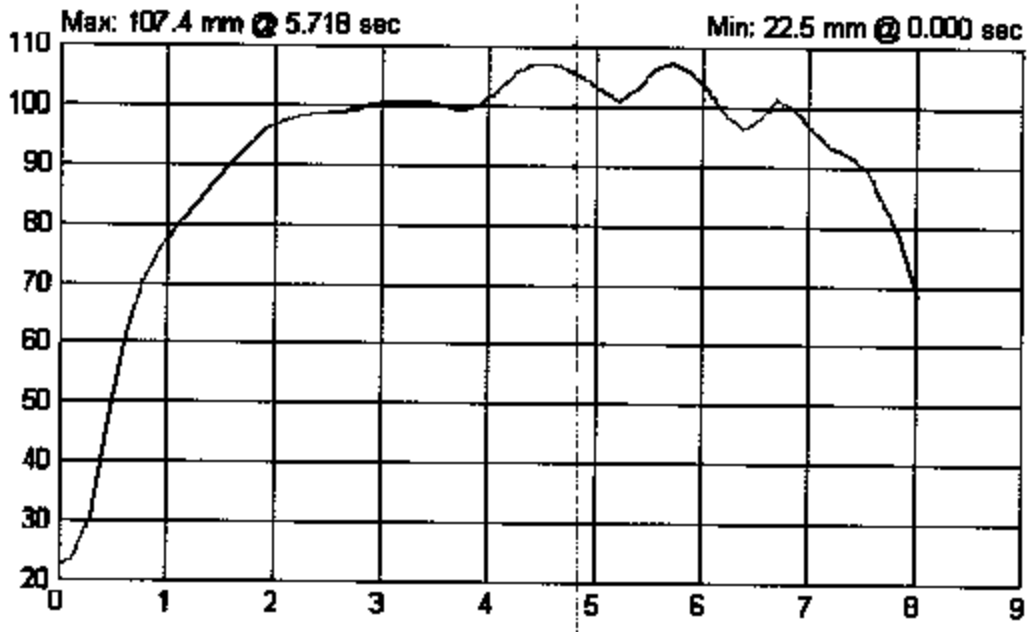
6.11.15 Post-test photo #4 of SFADI test 2 of 2



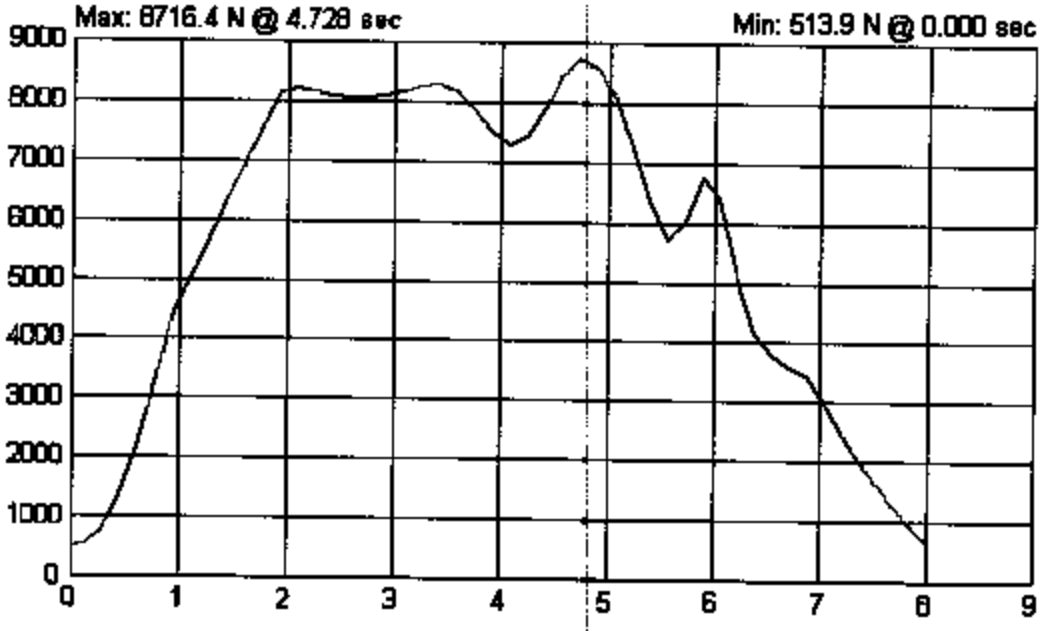
7.0 PLOTS



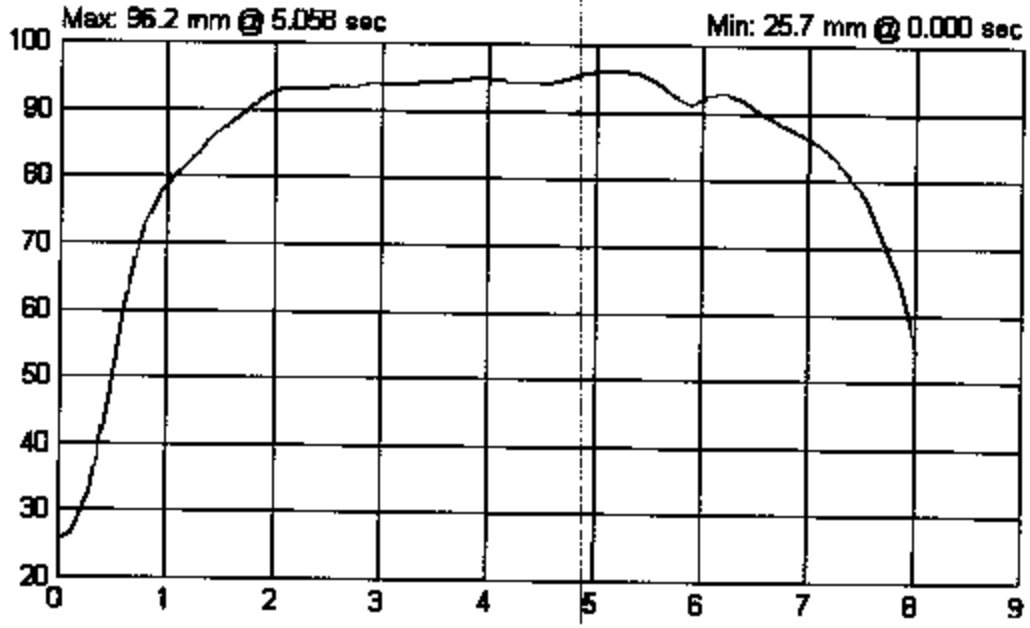

**Run# SC5003: Lower Anchor Test (S15.2)-RS LH Load (N) vs. Time (sec)**



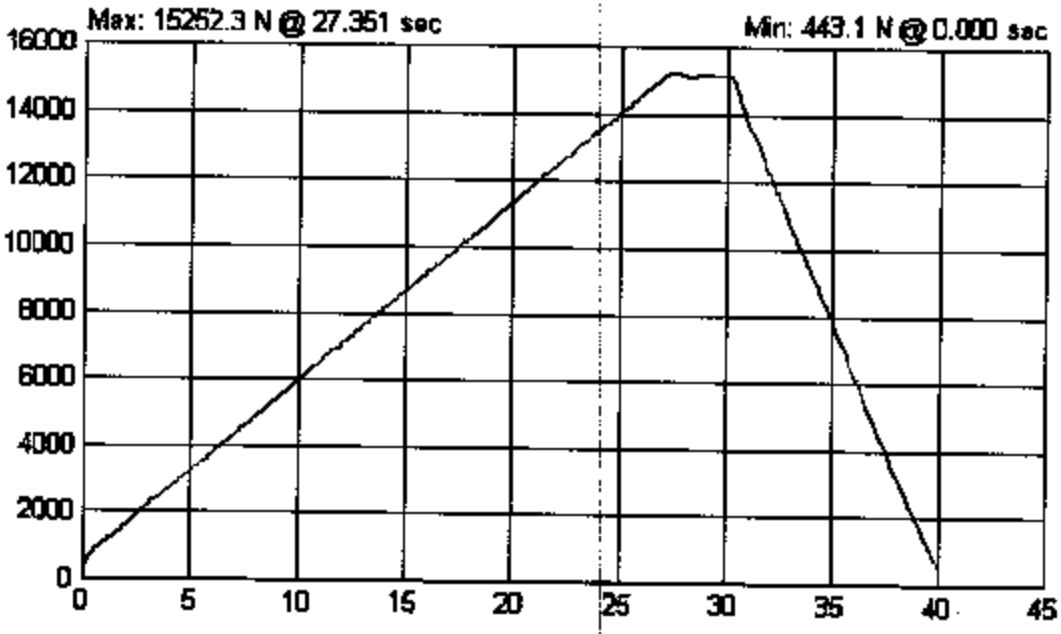

**Run# SC5003: LH X Displacement (S15.2) (mm) vs. Time (sec)**



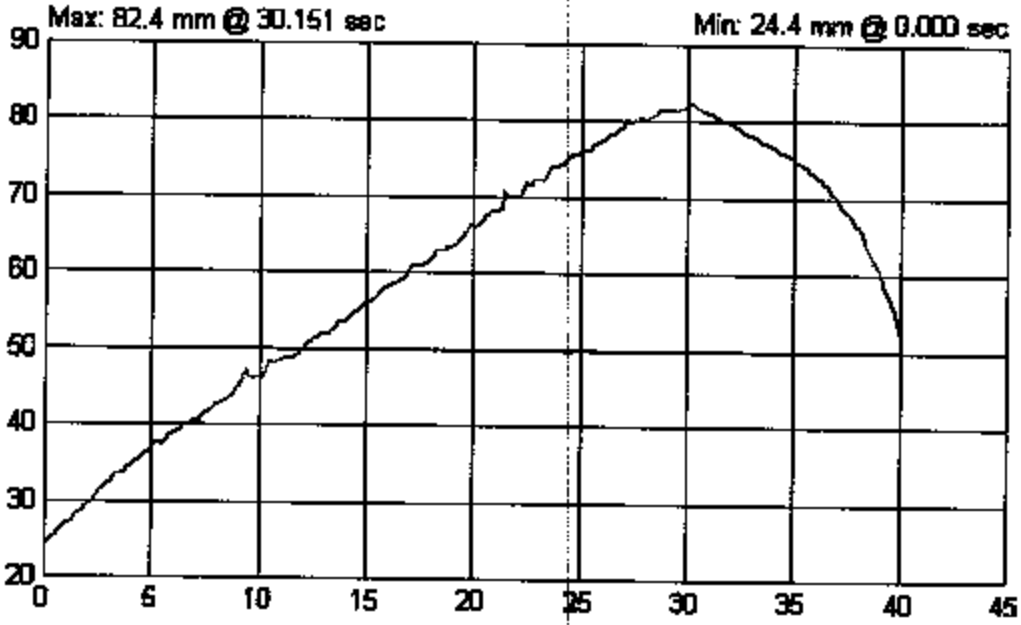

**Run# SC5003: Lower Anchor Test (S15.2)-RS RH Load (N) vs. Time (sec)**




**Run# SC5003: RH X Displacement (S15.2) (mm) vs. Time (sec)**




**Run# SC5004: Top Tether Test (S6.3.1)-RS Center Load (N) vs. Time (sec)**




**Run# SC5004: Center X Displacement (S6.3.1) (mm) vs. Time (sec)**

8.0 REPORT of VEHICLE CONDITION

**REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING**

CONTRACT No.: DTNH22-02-D-11043 DATE: January 7, 2005

From: MGA Research Corporation, 446 Executive Drive, Troy, MI 48083

To: NHTSA, OVSC, NVS-221

The following vehicle has been subjected to compliance testing for FMVSS No. 208 and 225

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 (NAD0-30), with a copy to the OVSC COTR. 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.

VEH. MOD YR/MAKE/MODEL/BODY: 2004 Toyota Camry

VEH. NHTSA NO.: C45108 VIN: 4T1BE32K04U274609

COLOR: White

ODOMETER READINGS: ARRIVAL 215 miles Date: 2/23/04

COMPLETION N/A miles Date: 1/07/05

PURCHASE PRICE: $22,994 DEALER'S NAME: Jack Safro of Brookfield, LLC

ENGINE DATA: 4 Cylinders 2.4 Liters ____ Cubic Inches

TRANSMISSION DATA: X Automatic ____ Manual No. of Speeds 4

FINAL DRIVE DATA: ___Rear Drive X Front Drive 4 Wheel Drive

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT:

TEST LABORATORY: MGA Research Corporation

OBSERVERS: Melanie Schick, Brad Reaume, Kenney Godfrey

| | | | | | |
|---|---|---|---|---|---|
| X | Air Conditioning | | Traction Control | X | Clock |
| | Tinted Glass | | All Wheel Drive | | Roof Rack |
| X | Power Steering | X | Speed Control | | Console |
| X | Power Windows | X | Rear Window Defroster | X | Driver Air Bag |
| X | Power Door Locks | | Sun Roof or T-Top | X | Passenger Air Bag |
| | Power Seat(s) | | Tachometer | X | Front Disc Brakes |
| | Power Brakes | X | Tilt Steering Wheel | X | Rear Disc Brakes |
| | Antilock Brake System | X | AM/FM/Compact Disc | | Other |

**REMARKS:**

Salvage only.

**Equipment that is no longer on the test vehicle as noted on previous pages:**

All equipment inventoried and placed in vehicle.

**Explanation for equipment removal:**

Windshield and front seats were removed before conducting the testing.

**Test Vehicle Condition:**

Salvage only.

RECORDED BY: Melanie Schick, Kenney Godfrey DATE: January 7, 2005

APPROVED BY: Brad Reaume

# APPENDIX A
# OWNERS MANUAL CHILD RESTRAINT SYSTEMS

- Do not put objects under the front passenger seat.
- Child restraint systems installed on the rear seat should not contact the front seatbacks.

The "AIRBAG ON" indicator light may be illuminated (the front passenger airbag and side airbag on the front passenger seat may deploy) even if observing the above cautions, when a child sits in, or a forward-facing child restraint system is installed on the front passenger seat. Refer to all the cautions in "SRS airbags" on page 65 and "Child restraint" on page 74 in this Section.

## Child restraint—
## —Child restraint precautions

Toyota strongly urges the use of appropriate child restraint systems for children.

The laws of all 50 states in the U.S.A. and Canada now require the use of a child restraint system.

Your vehicle conforms to SAEJ1819.

If a child is too large for a child restraint system, the child should sit in the rear seat and must be restrained using the vehicle's seat belt. See "Seat belts" on page 45 in this Section for details.

**⚠ CAUTION**

- For effective protection in automobile accidents and sudden stops, a child must be properly restrained, using a seat belt or child restraint system depending on the age and size of the child. Holding a child in your arms is not a substitute for a child restraint system. In an accident, the child can be crushed against the windshield, or between you and the vehicle's interior.

- Toyota strongly urges use of a proper child restraint system which conforms to the size of the child, installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.
- Never install a rear-facing child restraint system on the front passenger seat even if the "AIRBAG OFF" indicator light is illuminated. In the event of an accident, the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child if the rear-facing child restraint system is installed on the front passenger seat.



- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible even if the "AIRBAG OFF" indicator light is illuminated, because the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.
- On vehicles with side airbags and curtain shield airbags, do not allow the child to lean his/her head or any part of his/her body against the door or the area of the seat, front or rear pillar or roof side rail from which the side airbags or curtain shield airbags deploy even if the child is seated in the child restraint system. It is dangerous if the side airbag and curtain shield airbag inflate, and the impact could cause death or serious injury to the child.

- Do not use the seat belt extender when installing a child restraint system on the front or rear passenger seat. If installing a child restraint system with the seat belt extender connected to the seat belt, the seat belt will not securely hold the child restraint system, which could cause death or serious injury to the child or other passengers in the event of collision.
- Make sure you have complied with all installation instructions provided by the child restraint manufacturer and that the system is properly secured. If it is not secured properly, it may cause death or serious injury to the child in the event of a sudden stop or accident.

## —Child restraint system

A child restraint system for a small child or baby must itself be properly restrained on the seat with the lap portion of the lap/shoulder belt. You must carefully consult the manufacturer's instructions which accompany the child restraint system.

To provide proper restraint, use a child restraint system following the manufacturer's instructions about the appropriate age and size of the child for the child restraint system.

Install the child restraint system correctly following the instructions provided by its manufacturer. General directions are also provided under the following illustrations.

The child restraint system should be installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

When not using the child restraint system, keep it secured with the seat belt or place it in the trunk or somewhere other than the passenger compartment. This will prevent it from injuring passengers in the event of a sudden stop or accident.

### —Types of child restraint system

Child restraint systems are classified into the following 3 types depending on the child's age and size.

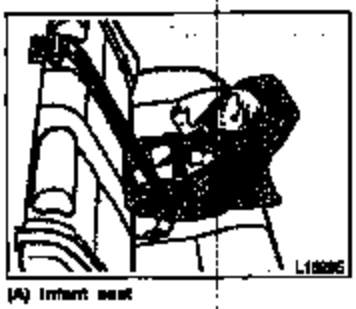
(A) Infant seat
(B) Convertible seat
(C) Booster seat

Install the child restraint system following the instructions provided by its manufacturer.

Your vehicle has anchor brackets for securing the top strap of a child restraint system.

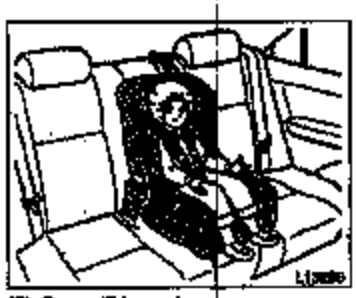
For instructions about how to use the anchor bracket, see "—Using a top strap" on page 67 in this Section.

The child restraint lower anchorages approved for your vehicle may also be used. See "—Installation with child restraint lower anchorages" on page 69 in this Section.




(A) Infant seat

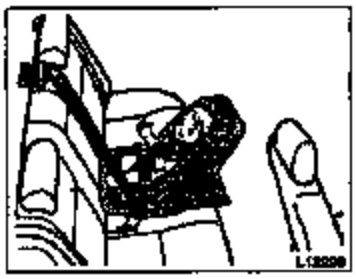

(C) Booster seat




(B) Convertible seat

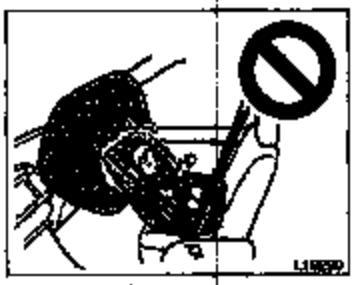


### —Installation with seat belt



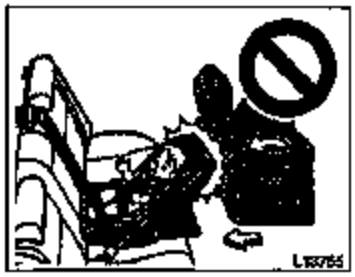

(A) INFANT SEAT INSTALLATION

An infant seat must be used in rear-facing position only.

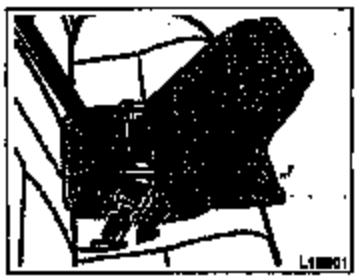



**⚠ CAUTION**

- Never install a rear-facing child restraint system on the front passenger seat even if the "AIRBAG OFF" indicator light is illuminated. In the event of an accident, the impact of the rapid inflation of the front passenger airbag could cause death or serious injury to the child if the rear-facing child restraint system is installed on the front passenger seat.



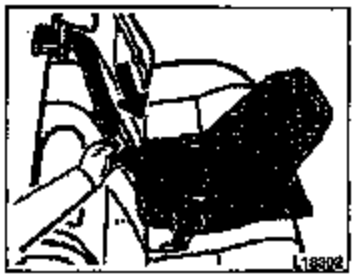

- Do not install a child restraint system on the rear seat if it interferes with the lock mechanism of the front seats. Otherwise, the child or front seat occupant(s) may be killed or seriously injured in case of sudden braking or a collision.
- If the driver's seat position does not allow sufficient space for safe installation, install the child restraint system on the rear right seat.




1. Run the lap and shoulder belt through or around the infant seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

**⚠ CAUTION**

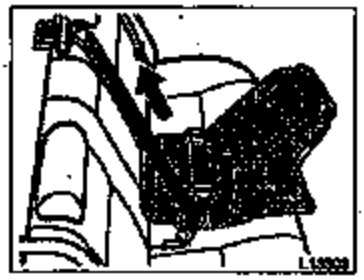
- After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.
- If the seat belt does not function normally, it cannot protect your child from death or serious injury. Contact your Toyota dealer immediately. Do not install the child restraint system on the seat until the seat belt is fixed.



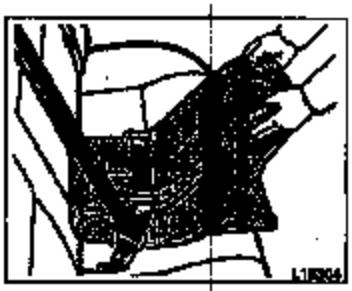

2. Fully extend the shoulder belt to put it in the lock mode. When the belt is then retracted even slightly, it cannot be extended.

To hold the infant seat securely, make sure the belt is in the lock mode before letting the belt retract.

79

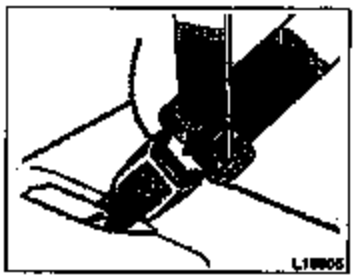



3. While pressing the infant seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the infant seat securely.



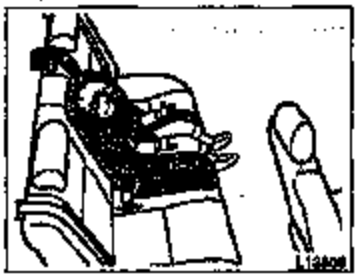

**⚠ CAUTION**

Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.




4. To remove the infant seat, press the buckle release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or older child passenger.

79



**(B) CONVERTIBLE SEAT INSTALLATION**

**A convertible seat must be used in forward–facing or rear–facing position depending on the age and size of the child. When installing, follow the manufacturer's instructions about the applicable age and size of the child as well as directions for installing the child restraint system.**

Install the child restraint system on the front passenger seat only when it is unavoidable. Your vehicle is equipped with a front passenger occupant classification system. In order to activate the occupant classification system correctly, install the forward–facing child restraint system on the front passenger seat in the following order:

1. Turn the ignition key to the "ON" position.
2. Move the front passenger seat to the rearward position.
3. Put the child restraint system on the front passenger seat without putting your weight on the front passenger seat.
4. Insert the seat belt tab into the seat belt buckle.
5. Fully extend the shoulder belt to put it in the lock mode. When the belt is then retracted even slightly, it cannot be extended. To hold the seat securely, make sure the belt is in the lock mode before letting the belt retract.
6. While pressing the convertible seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the convertible seat securely.

**⚠ CAUTION**

**Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.**

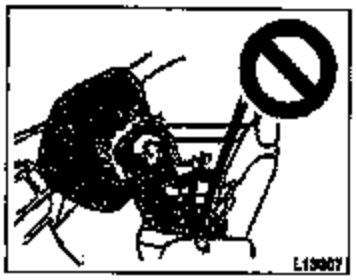
7. Put a child on the child restraint system and secure the child, complying with the instructions provided by the child restraint system manufacturer.

80

The "AIRBAG OFF" indicator light should be illuminated when the ignition key is "ON" and the child is in the child restraint system after following these procedures. The "AIRBAG OFF" indicator light indicates the SRS front passenger airbag and side airbag on the passenger side will not deploy. If the "AIRBAG ON" indicator light is illuminated, remove the child restraint system and reinstall it with the ignition key in the "ACC" or "LOCK" position. If the "AIRBAG ON" indicator light is illuminated when the ignition key is turned to the "ON" position, then the SRS front passenger airbag and side airbag on the passenger side may deploy in an accident. Do not drive the vehicle in this condition. Remove the child restraint system and contact your Toyota dealer.

**⚠ CAUTION**

- **Never install a rear–facing child restraint system on the front passenger seat. A forward–facing child restraint system should only be installed on the front passenger seat when unavoidable. If you must install the child restraint system on the front passenger seat, put the seat in its most rearward position, and install the forward–facing child restraint system in the proper order. Otherwise, the front passenger occupant classification system can not detect the presence of the child restraint system and the front passenger airbag and side airbag on the front passenger seat could deploy.**

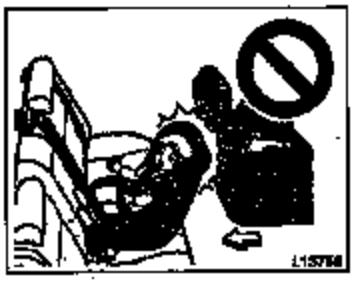


- **Never install a rear–facing child restraint system on the front passenger seat even if the "AIRBAG OFF" indicator light is illuminated. In the event of an accident, the impact of the rapid inflation of the front passenger airbag could cause death or serious injury to the child if the rear–facing child restraint system is installed on the front passenger seat.**

81

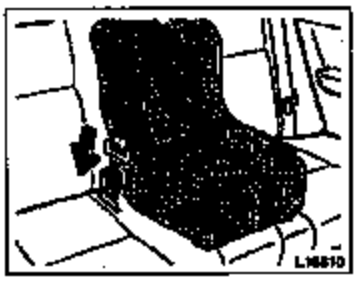

- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible even if the "AIRBAG OFF" indicator light is illuminated, because the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.

- On vehicles with side airbags and curtain shield airbags, do not allow the child to lean his/her head or any part of his/her body against the door or the area of the seat, front or rear pillar or roof side rail from which the side airbags or curtain shield airbags deploy even if the child is seated in the child restraint system. It is dangerous if the side airbag and curtain shield airbag inflate, and the impact could cause death or serious injury to the child.




- Do not install a child restraint system on the rear seat if it interferes with the lock mechanism of the front seats. Otherwise, the child or front seat occupant(s) may be killed or seriously injured in case of sudden braking or a collision.
- If the driver's seat position does not allow sufficient space for safe installation, install the child restraint system on the rear right seat.

82




1. Run the lap and shoulder belt through or around the convertible seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

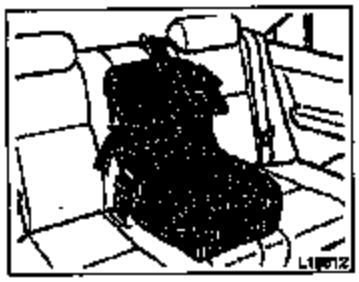
**⚠ CAUTION**

- After inserting the tab, make sure the tab and buckle are locked and test the lap and shoulder portions of the belt are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.
- If the seat belt does not function normally, it cannot protect your child from death or serious injury. Contact your Toyota dealer immediately. Do not install the child restraint system on the seat until the seat belt is fixed.


2. Fully extend the shoulder belt to put it in the lock mode. When the belt is then retracted even slightly, it cannot be extended.

To hold the convertible seat securely, make sure the belt is in the lock mode before letting the belt retract.

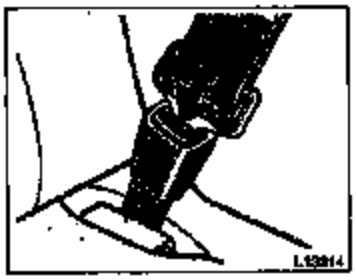
83



5. While pressing the convertible seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the convertible seat securely.

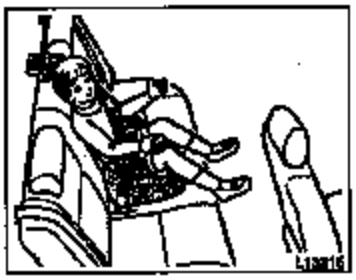
**⚠ CAUTION**

Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.



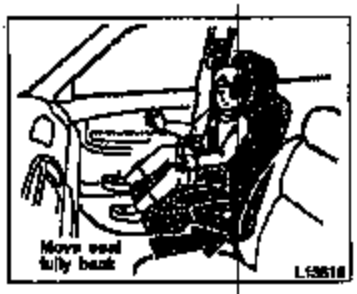
4. To remove the convertible seat, press the buckle release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or older child passenger.

84



(C) BOOSTER SEAT INSTALLATION

A booster seat must be used in forward–facing position only.




**⚠ CAUTION**

- A forward–facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible even if the "AIRBAG OFF" indicator light is illuminated, because the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.

- Do not allow the child to lean his/her head or any part of his/her body against the door or the area of the seat, front or rear pillar or roof side rail from which the side airbags or curtain shield airbags deploy even if the child is seated in the child restraint system. It is dangerous if the side airbag and curtain shield airbag inflate, and the impact could cause death or serious injury to the child.

85


1. Sit the child on a booster seat. Run the lap and shoulder belt through or around the booster seat and across the child following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt.

Make sure the shoulder belt is correctly across the child's shoulder and that the lap belt is positioned as low as possible on child's hips. See "Seat belts" on page 46 in this Section for details.

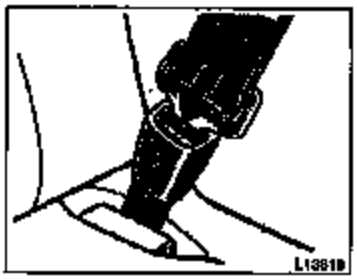
**⚠ CAUTION**

- Always make sure the shoulder belt is positioned across the center of child's shoulder. The belt should be kept away from child's neck, but not falling off child's shoulder. Otherwise, the child may be killed or seriously injured in case of sudden braking or a collision.
- Both high-positioned lap belts and loose-fitting belts could cause death or serious injuries due to sliding under the lap belt during a collision or other unintended event. Keep the lap belt positioned as low on a child's hips as possible.
- For child's safety, do not place the shoulder belt under child's arm.
- After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.

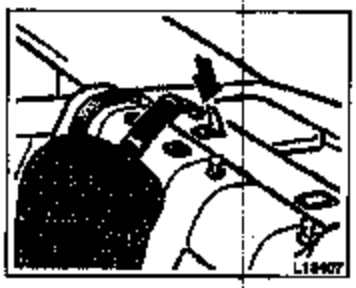
- If the seat belt does not function normally, it cannot protect your child from death or serious injury. Contact your Toyota dealer immediately. Do not install the child restraint system on the seat until the seat belt is fixed.



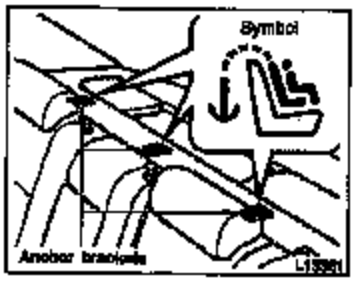
### —Using a top strap




2. To remove the child restraint system, press the buckle release button and allow the belt to retract.



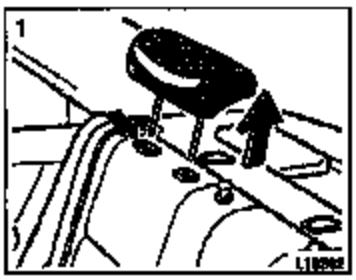

Follow the procedure below for a child restraint system that requires the use of a top strap.




Use the anchor bracket on the package tray behind the rear seat to attach the top strap.

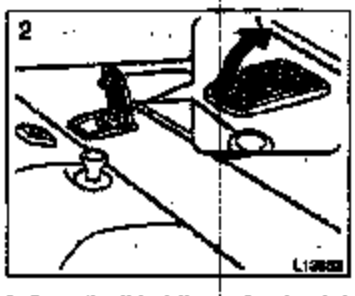
Anchor brackets are installed for each rear seating position.

This symbol indicates the location of the anchor brackets.

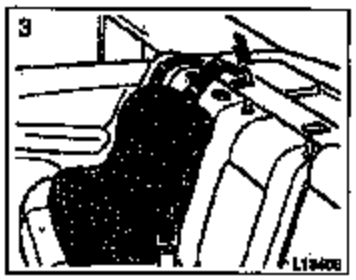



**TO USE THE ANCHOR BRACKET:**

1. Outside anchor brackets only—Remove the head restraint.




2. Open the lid of the anchor bracket.




3. Securely fasten the child restraint system with the seat belt.

   Latch the hook onto the anchor bracket and tighten the top strap.

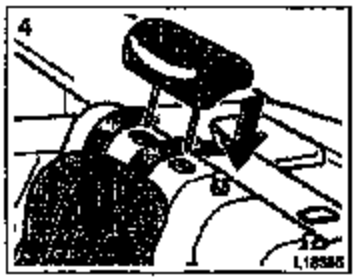
For instructions to install the child restraint system, see "Child restraint" on page 74 in this Section.

**⚠ CAUTION**

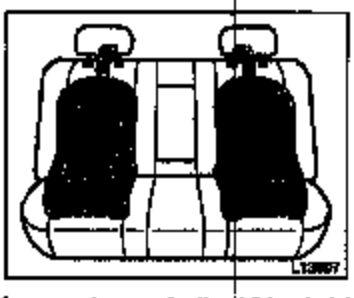
**Make sure the top strap is securely latched, and check that the child restraint system is secure by pushing and pulling it in different directions. Follow all the installation instructions provided by its manufacturer.**

88

**—Installation with child restraint lower anchorages**



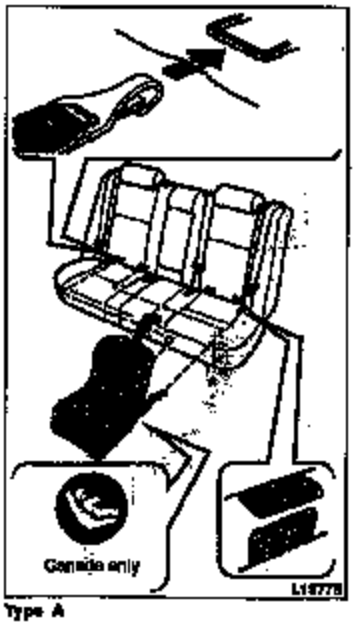

4. Replace the head restraint and lift it up to the uppermost lock position.



**Lower anchorages for the child restraint systems complying with the FMVSS225 or CMVSS210.2 specifications are installed in the rear seat.**

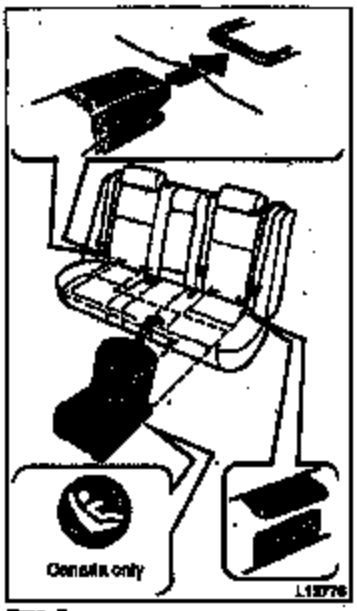
The anchorages are installed in the clearance between the seat cushion and seatback of both outside rear seats.

Child restraint systems complying with the FMVSS225 or CMVSS210.2 specification can be fixed to these anchorages. In this case, it is not necessary to fix the child restraint system with a seat belt on the vehicle.




Type A

89




Type B

90

**For owners in Canada**

The symbol on a child restraint system indicates the presence of a lower connector system.

**CHILD RESTRAINT SYSTEM INSTALLATION**

Type A—

1. Widen the clearance between the seat cushion and seatback a little and confirm the position of the lower anchorages near the button on the seatback.
2. Latch the buckle of lower strape onto the anchorages and tighten the lower straps.

Type B—

1. Widen the clearance between the seat cushion and seatback a little and confirm the position of the lower anchorages near the button on the seatback.
2. Latch the buckles onto the anchorages.

If your child restraint system has a top strap, it should be anchored. (For the installation of the top strap, see "—Using a top strap" on page 87 in this Section.)

For the installation details, refer to the instruction manual equipped with each product.

**⚠ CAUTION**

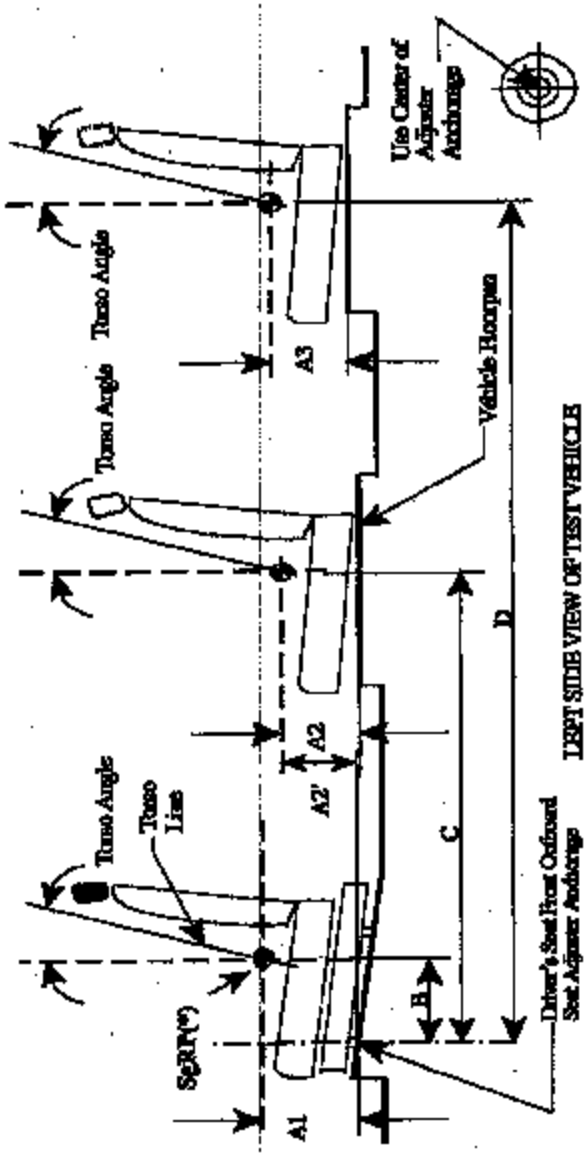
- When using the lower anchorages for the child restraint system, be sure that there are no irregular objects around the anchorages or that the seat belt is not caught.
- Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.
- Do not install a child restraint system on the rear seat if it interferes with the lock mechanism of the front seats. Otherwise, the child or front seat occupant(s) may be killed or seriously injured in case of sudden braking or a collision.

# APPENDIX B
# MANUFACTURER'S DATA (OVSC FORM 1)

Attachment 3-1

SEAT REFERENCE POINT (SgRP) AND TORSO ANGLE DATA
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2004 ; Make: TOYOTA ; Model: CAMRY ; Body Style: 4Door Sedan
Seat Style: Front row: Separate ; Second row: 6:4 Split Bench ; Third row: N/A




(*): In case of manual seat, front seat position is 3notches forward from the rear most.
In case of power seat, front seat position is 45mm forward along seat rail from the rear most.

R .14
Page 1 of 11

Table L Seating Positions[1] and Torso Angles

| | | Left (Driver Side) | Center (if any) | Right |
|---|---|---|---|---|
| A1 | | (Driver) 250.9 | N/A | (Front Passenger) 250.9 |
| A2' (*) | | 258 | 283 | 258 |
| A3 | | N/A | N/A | N/A |
| B | | 325.3 | N/A | 325.3 |
| C | | 1184.1 | 1154.1 | 1184.1 |
| D | | N/A | N/A | N/A |
| Torso Angle (degree) | Front Row | 19 | N/A | 19 |
| | Second Row | 25 | 22 | 25 |
| | Third Row | N/A | N/A | N/A |

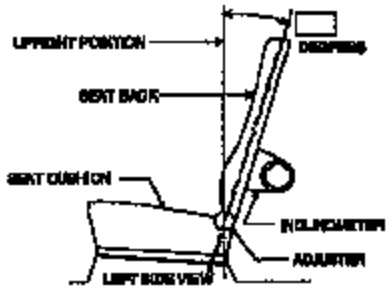
Note: L All dimensions are in mm. If not, provide the unit used.

(*) 'A2' are the dimensions from the driver's seat front outboard seat adjuster anchorage.

FL .414
Page 2 of 11

FORM 14
Page 3 of 11

NOMINAL DESIGN RIDING POSITION – For adjustable driver, passenger, 2nd row and 3rd row seat backs, 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"?). Indicate if the seat back angle is measured with the dummy in the seat.




Seat back angle for driver's seat = ___degrees
Measurement Instructions:

See Attachment 3-2

Seat back angle for passenger's seat = ___ degrees
Measurement Instructions:

See Attachment 3-2

Seat back angle for 2nd row seat = ___degrees
Measurement Instructions:

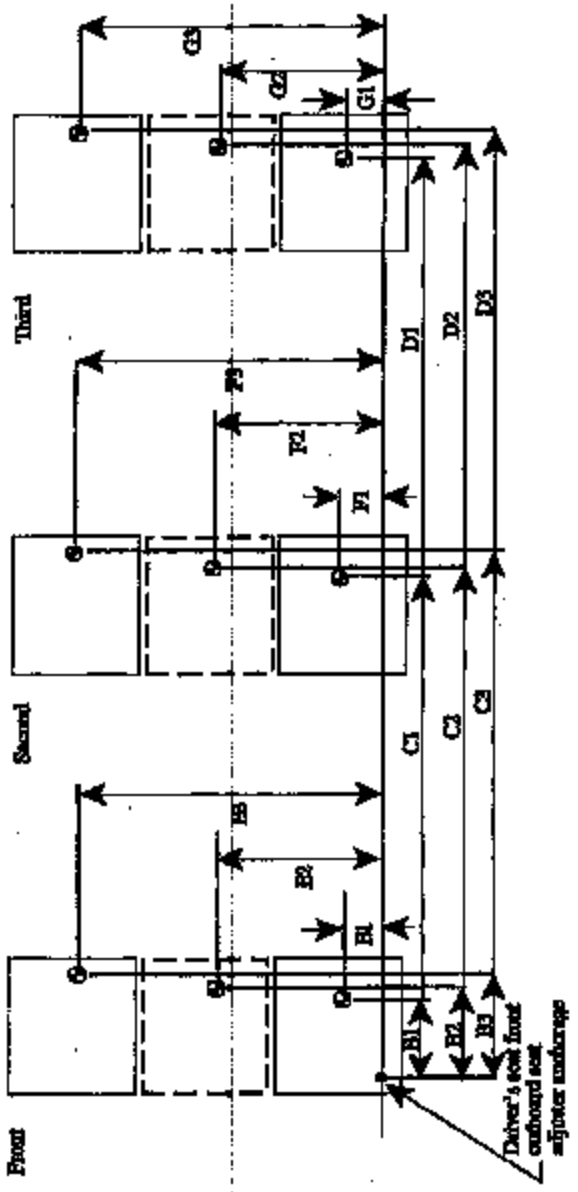
2nd row seat has no seat back adjustment.

Seat back angle for 3rd row seat = ___ degrees
Measurement Instructions:

N/A

SEATING REFERENCE POINT
FOR FMVSS 225
(All dimensions in mm)
(Note: The Child Restraint Anchorage Location determines the 225 SgRP location)

Model Year: 2004 ; Make: TOYOTA ; Model: CAMRY ; Body Style: 4Door Sedan
Seat Style: Front row: Separate ; Second row: 60/40 Split Bench ; Third row: N/A




FL ...14
Page 4 of 11

FORM 14
Page 5 of 11

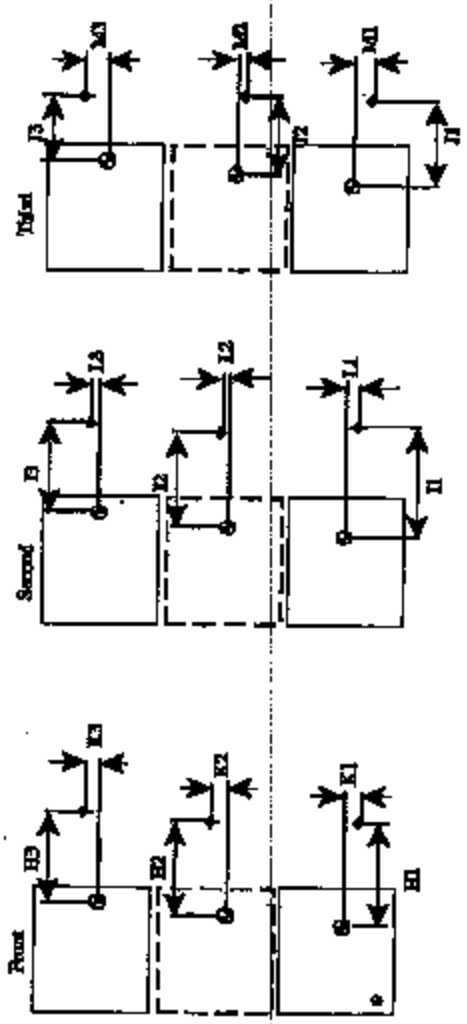
Table 2. Seating Reference Point and Tether Anchorage Locations

| Seating Reference Point (SgRP) | | Distance from Driver's front outboard seat adjuster anchorage[1] |
|---|---|---|
| Front Row | B1 | 325.3 |
| | B1 | 217 |
| | B2 | N/A |
| | K2 | N/A |
| | B3 | 325.3 |
| | K3 | 967 |
| Second Row | C1 | 1184.1 |
| | F1 | 217 |
| | C2 | 1154.1 |
| | F2 | 592 |
| | C3 | 1184.1 |
| | F3 | 967 |
| Third Row | D1 | N/A |
| | G1 | N/A |
| | D2 | N/A |
| | G2 | N/A |
| | D3 | N/A |
| | G3 | N/A |

Note: 1. Use the center of anchorage.

TETHER ANCHORAGE LOCATIONS
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2004 ; Make: TOYOTA ; Model: CAMRY ; Body Style: 4Door Sedan
Seat Style: Front row: Separate ; Second row: 6/4 Split Bench ; Third row: N/A




●: SgRP
+: Tether anchorage

Note: 1. The location shall be measured at the center of anchorage.

R....14
Page 6 of 11

FORM 14
Page 7 of 11

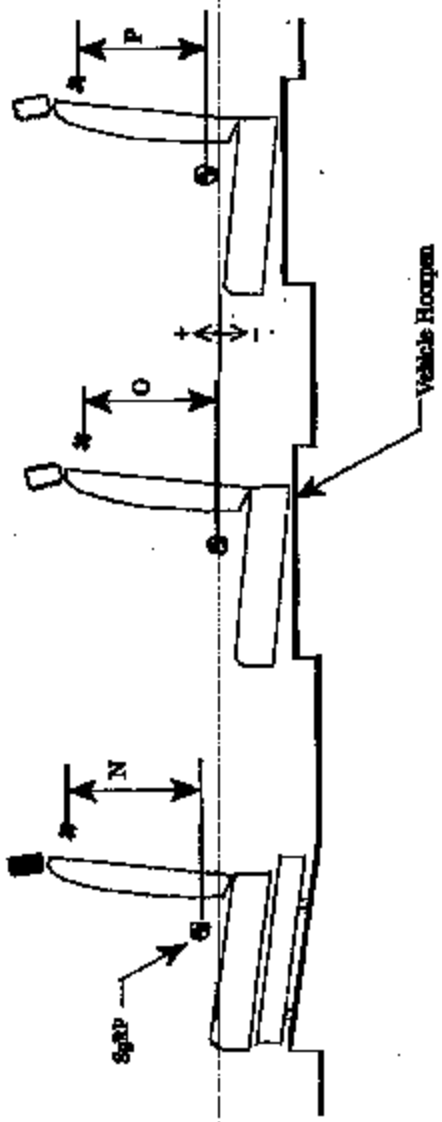
Table 3. Seating Reference Point and Tether Anchorage Locations

| Seating Reference Point (SgRP) | Distance from SgRP | |
|---|---|---|
| Front Row | H1 | N/A |
| | K1 | N/A |
| | H2 | N/A |
| | K2 | N/A |
| | H3 | N/A |
| | K3 | N/A |
| Second Row | I1 | 595.7 |
| | L1 | 0 |
| | I2 | 625.7 |
| | L2 | 0 |
| | I3 | 595.7 |
| | L3 | 0 |
| Third Row | J1 | N/A |
| | M1 | N/A |
| | J2 | N/A |
| | M2 | N/A |
| | J3 | N/A |
| | M3 | N/A |

Note: 1. Use the center of anchorage.

TETHER ANCHORAGE LOCATIONS - VERTICAL
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2004 ; Make: TOYOTA ; Model: CAMRY ; Body Style: 4Door Sedan
Seat Style: Front row: Separate ; Second row: 60/40 Split Bench ; Third row: N/A




LEFT SIDE VIEW OF TEST VEHICLE

R .14
Page 8 of 21

Table 4. Vertical Dimension For The Tether Anchorage

| Seating Row | Vertical Distance from Seating Reference Point | |
|---|---|---|
| Front Row | N1 (Driver) | N/A |
| | N2 (Center) | N/A |
| | N3 (Right) | N/A |
| Second Row | O1 (Left) | 479.6 |
| | O2 (Center) | 454.6 |
| | O3 (Right) | 479.6 |
| Third Row | P1 (Left) | N/A |
| | P2 (Center) | N/A |
| | P3 (Right) | N/A |

Note 1. All dimensions are in mm. If not, provide the unit mchange.

R. .14
Page 9 of 11

FORM 14
Page 10 of 11

## Test Procedures Used for Compliance Tests

### Lower Anchorages

| For each seating location in each row record applicable FMVSS Section | | FMVSS 225 Section(s) | | | |
|---|---|---|---|---|---|
| Block 1 | | Lower anchorage dimension certification method used (Enter applicable section used in block 1 of each position by circling A or B)<br>A) 9.1.1 or (B) 15.1.1.1 | | | |
| Block 2 | | Lower anchorage location (Enter applicable section used in block 2 by circling A or B)<br>A) 9.2.1 or (B) 15.1.2.2 (also provide roll and yaw angles)<br>pitch 45°<br>roll 0°<br>yaw 0° | | | |
| Block 3 | | Lower anchorage marking (Enter applicable section used in block 3 by circling A or B)<br>A) 9.5 or (B) 15.4 | | | |
| Block 4 | | Strength requirement (Enter applicable section used in block 4 by circling A or B)<br>A) Section 9 or (B) Section 15 | | | |
| Front | Driver | N/A | | | |
| | Center (if any) | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| | Right (if any) | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| Second | Left | Block 1 A (B) | Block 2 A (B)<br>Pitch 45°, Roll 0°, Yaw 0° | Block 3 A (B) | Block 4 A (B) |
| | Center | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| | Right (if any) | Block 1 A (B) | Block 2 A (B)<br>Pitch 45°, Roll 0°, Yaw 0° | Block 3 A (B) | Block 4 A (B) |
| Third | Left | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| | Center | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| | Right | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| Fourth | Left | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| | Center | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |
| | Right | Block 1 A B | Block 2 A B<br>Pitch °, Roll °, Yaw ° | Block 3 A B | Block 4 A B |

FORM 14
Page 11 of 11

## Test Procedures Used for Compliance Tests

### Tether Anchorages

| For each seating location in each row record applicable FMVSS Section | | FMVSS Section(s) - Req. | | |
|---|---|---|---|---|
| Block 1 | | Tether anchorage location certification method used (Enter applicable section used in block 1 by circling A, B, C, D, E or F)<br>(A) 6.2.1 B) 6.2.1.1 C) 6.2.1.2 D) 6.2.2 E) 6.2.2.1 F) 6.2.2.2 | | |
| Block 2 | | Number of tether anchorages based upon the applicable section (Enter applicable section used in block 2 by circling A or B)<br>A) 4.4 (B) 4.3 | | |
| Block 3 | | Tether anchorage strength requirement (Enter applicable section used in block 3 by circling A, B, or C)<br>(A) 6.3.1 B) 6.3.2 C) 6.3.4 | | |
| Front | Driver | N/A | | |
| | Center (if any) | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| | Right (if any) | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| Second | Left | Block 1 (A) B C D E F | Block 2 A (B) | Block 3 (A) B C |
| | Center | Block 1 (A) B C D E F | Block 2 A (B) | Block 3 (A) B C |
| | Right | Block 1 (A) B C D E F | Block 2 A (B) | Block 3 (A) B C |
| Third | Left | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| | Center | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| | Right | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| Fourth | Left | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| | Center | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |
| | Right | Block 1 A B C D E F | Block 2 A B | Block 3 A B C |