FINAL REPORT NUMBER 225-MGA-03-002

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

DAIMLERCHRYSLER CORPORATION
2003 DODGE DURANGO
NHTSA No. C30305

MGA RESEARCH CORPORATION
446 Executive Drive
Troy, Michigan 48083

Test Date: September 13, 2003
Report Date: October 30, 2003

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-221)
WASHINGTON, D.C. 20590

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Prepared By: _____
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_____
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Approved By: _____

Approval Date: 3/17/04

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: _____

Acceptance Date: 6/29/04

TECHNICAL REPORT STANDARD TITLE PAGE

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9. Performing Organization Name and Address MGA Research Corporation 446 Executive Drive Troy, Michigan 48083		10. Work Unit No.	
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12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-221) 400 Seventh Street, SW Room 6111 Washington, DC 20590		13. Type of Report and Period Covered Final Test Report	
		14. Sponsoring Agency Code NSA-31	
15. Supplementary Notes			
16. Abstract A compliance testing was conducted on the subject 2003 Dodge Durango, NHTSA No. C30305, 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 September 13, 2003. Test failures identified were as follows: NONE The data recorded indicates that the 2003 Dodge Durango tested appears to comply with the requirements for FMVSS 225, set forth by the National Highway Traffic Safety Administration.			
17. Key Words Compliance Testing Safety Engineering FMVSS 225 2003 Dodge Durango		18. Distribution Statement Copies of this report are available From: NHTSA Technical Reference Division, Mail Code: NAD-52 400 Seventh Street, SW, Room 5108 Washington, D.C. 20590 Telephone No. (202) 366-4946	
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Form DOT F 1700.7 (8-70)

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1.0 PURPOSE AND PROCEDURE

PURPOSE

The child restraint anchorage test 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 2003 Dodge Durango, NHTSA No. C30305 meets the performance requirements of FMVSS No. 225, "Child Restraint Anchorage Systems."

PROCEDURE

These tests were 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 three-passenger 40/20/40 bench seat. Each rear outboard seating position was equipped with a child restraint anchorage system (one tether and two lower anchors). The center-to-center spacing between the rear outboard lower anchorage systems was approximately 800 mm. The lower anchorages for both rear outboard seating positions were tested with SFAD 2 fixtures.

2.0 COMPLIANCE TEST AND DATA SUMMARY

TEST SUMMARY

The test was conducted at MGA, Troy, Michigan on September 13, 2003.

Based on the test results, the 2003 Dodge Durango, appeared to meet the performance requirements of FMVSS No. 225 for this test.

The SFAD 2 at the rear left outboard seating position sustained a maximum force of 8,171 N and held the required load for 3 seconds with a total displacement of 91 mm, measured at Point "x". The SFAD2 at the rear right outboard seating position sustained a maximum force of 9,080 N and held the required load for 3 seconds with a total displacement of 92 mm, measured at Point "x". The applied maximum forces and the measured displacements are provided in Table 1.

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	Seating Position	Max. Load (N)	Displacement (mm)
SE3549	SFAD II	Rear Left	8,171	91
		Rear Right	9,080	98

3.0 TEST VEHICLE INFORMATION

Table 2. General Test and Vehicle Parameter Data

VEH. MOD YR/MAKE/MODEL/BODY	2003 Dodge Durango
VEH. NHTSA NO.	C30305
VIN	1D4HR38N33[redacted]
COLOR	Graphite Metallic
VEH. BUILD DATE	10/02
TEST DATE	September 13, 2003
TEST LABORATORY	MGA Research Corporation
OBSERVERS	Brad Reaume

GENERAL INFORMATION:

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: DaimlerChrysler Corporation

Date of Manufacture: 10/02; VIN: 1D4HR38N33[redacted]

GVWR: 2745kg; GAWR FRONT: 1361kg

GAWR REAR: 1727kg

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 241kpa REAR: 241kpa

Recommended Tire Size: P245/70R16

Recommended Cold Tire Pressure:

FRONT: 241kpa REAR: 241kpa

Size of Tire on Test Vehicle: P245/70R16

VEHICLE CAPACITY DATA:

Type of Front Seats:	Bench ___;	Bucket X;	Split Bench ____
Number of Occupants:	Front 2;	Rear 3;	TOTAL 5

4.0 TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

MGA Research Corporation 446 Executive Drive Troy, Michigan 48083	
Test Equipment Used for Testing	**Calibration Due Date**
MGA Hydraulic Test Frame	N/A
Two (2) Load Cells 3,000 lb Capability	S/N 112 11/29/03 (RH) & S/N 153 11/30/2003 (LH)
Two (2) String Potentiometers (S/N 20775 & 20419)	Calibrated at each use
Hydraulic Pump	N/A
MGA CRF Fixture	N/A
MGA SFAD2	N/A
MGA H-point Machine	N/A
MGA 2-Dimensional Template	N/A
Linear Scale	10/4/03 (S/N 109154)
MGA Data Acquisition System	N/A
Three (3) Hydraulic Cylinders	N/A
Calipers	2/14/04 (S/N DCL002)
Force Gauge	10/11/03 (S/N FRG001)
Inclinometer (Digital)	7/03/04 (S/N DGP005)

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.	N/A	N/A	N/A	N/A
	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 75 mm above the bar, and in the vertical longitudinal plane that passes through the center of the bar.	LH	N/A	N/A		N/A
	Ctr				
	RH				
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	6.0	6.0	N/A
	Ctr		N/A		
	RH		6.0	6.0	
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	19	16	N/A
	Ctr		N/A		
	RH		16	16	
Measure the distance between the SRP to the center of the anchorage bar (mm)	LH	N/A	127		N/A
	Ctr		N/A		
	RH		132		

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

OBSERVED LOWER ANCHORAGE CONFIGURATION		SEAT POSITION			
		FRONT ROW	SECOND ROW		THIRD ROW
			I/B	O/B	
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	30	30	N/A
	Ctr		N/A		
	RH		30	30	
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)
LH	7	No Data	0
Ctr.	N/A		N/A
RH	7		0

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	LH	N/A
	Ctr.	
	RH	
Second Row	LH	Yes
	Ctr.	N/A
	RH	Yes
Third Row	LH	N/A
	Ctr.	
	RH	

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

REMARKS: NONE

Table 7. Lower Anchorage Static Loading and Displacement (Data Sheet 6) With SFAD 2

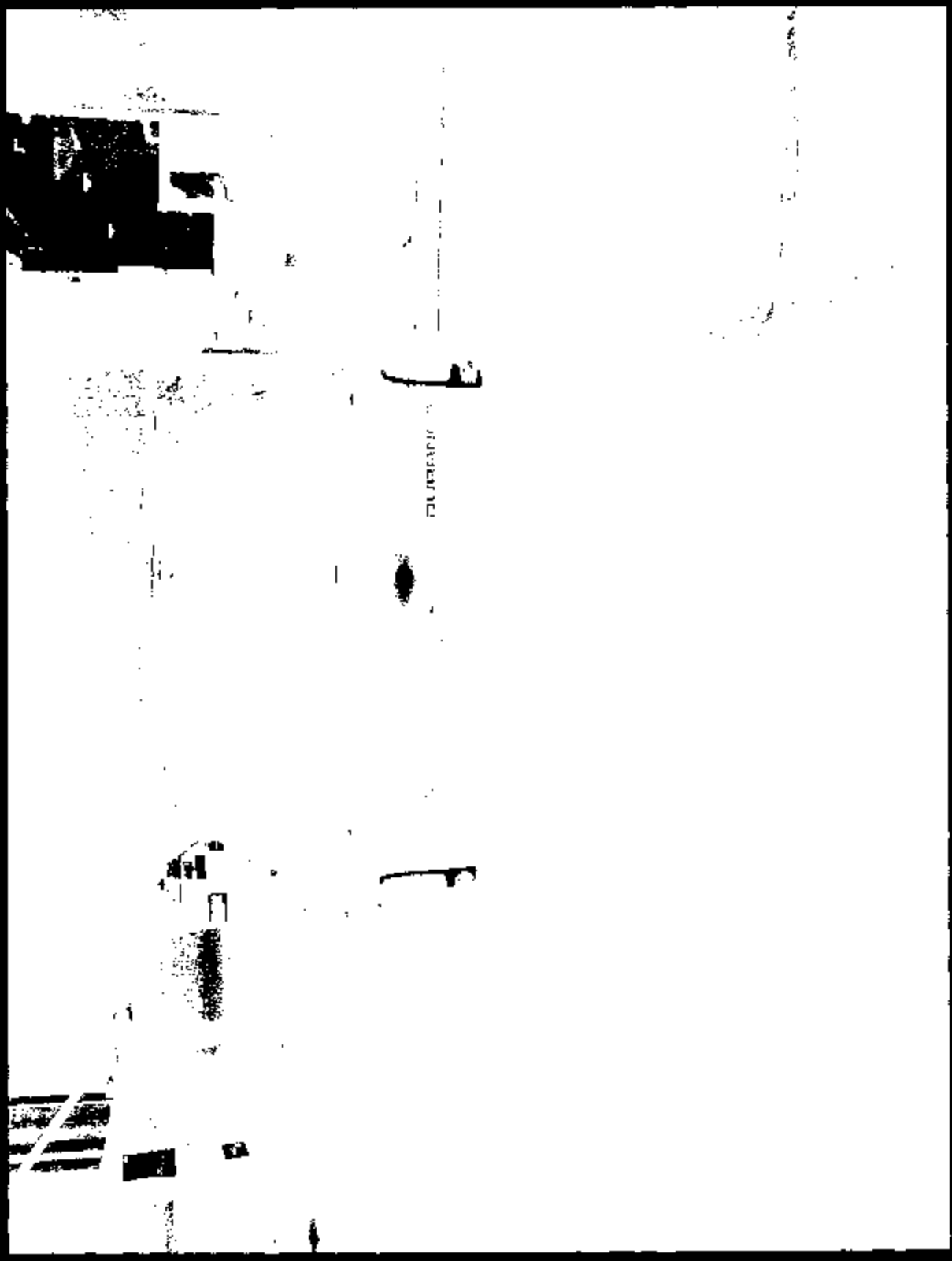
SEAT POSITION		Seat, Seat Back, & Head Restraint Positions			Measured Angles		Initial Location (mm)	Onset Rate (N/sec.)	Force Applied (N)	Max. Load (N)	Final Location (mm)	Displ. (mm)
		Seat	Seat Back	Is There a Head Restraint ?	Vertical (deg.)	Horizontal (deg.)						
Front Row	LH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Ctr.											
	RH											
Second Row	LH	Fixed	Fixed	Yes	N/A	10	35	3750	8,000	8,171*	126	91
	Ctr.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RH	Fixed	Fixed	Yes	N/A	10	40	3750	8,000	9,080*	138	98
Third Row	LH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Ctr.											
	RH											

Note: (1) AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225L.
(2) FORWARD FORCE APPLICATION

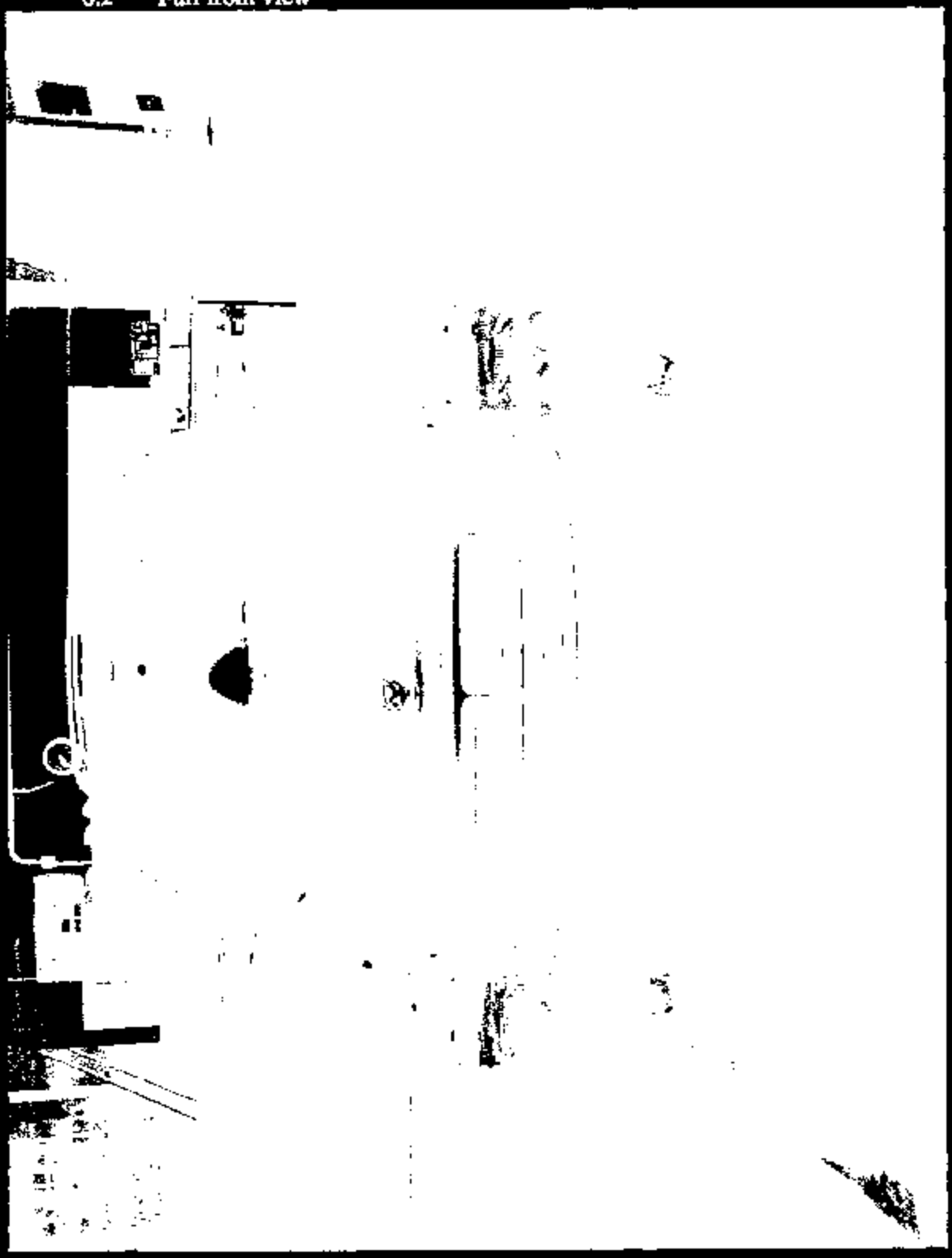
REMARKS: *Applied force exceeded force specified in the test procedure.

6.0 PHOTOGRAPHS

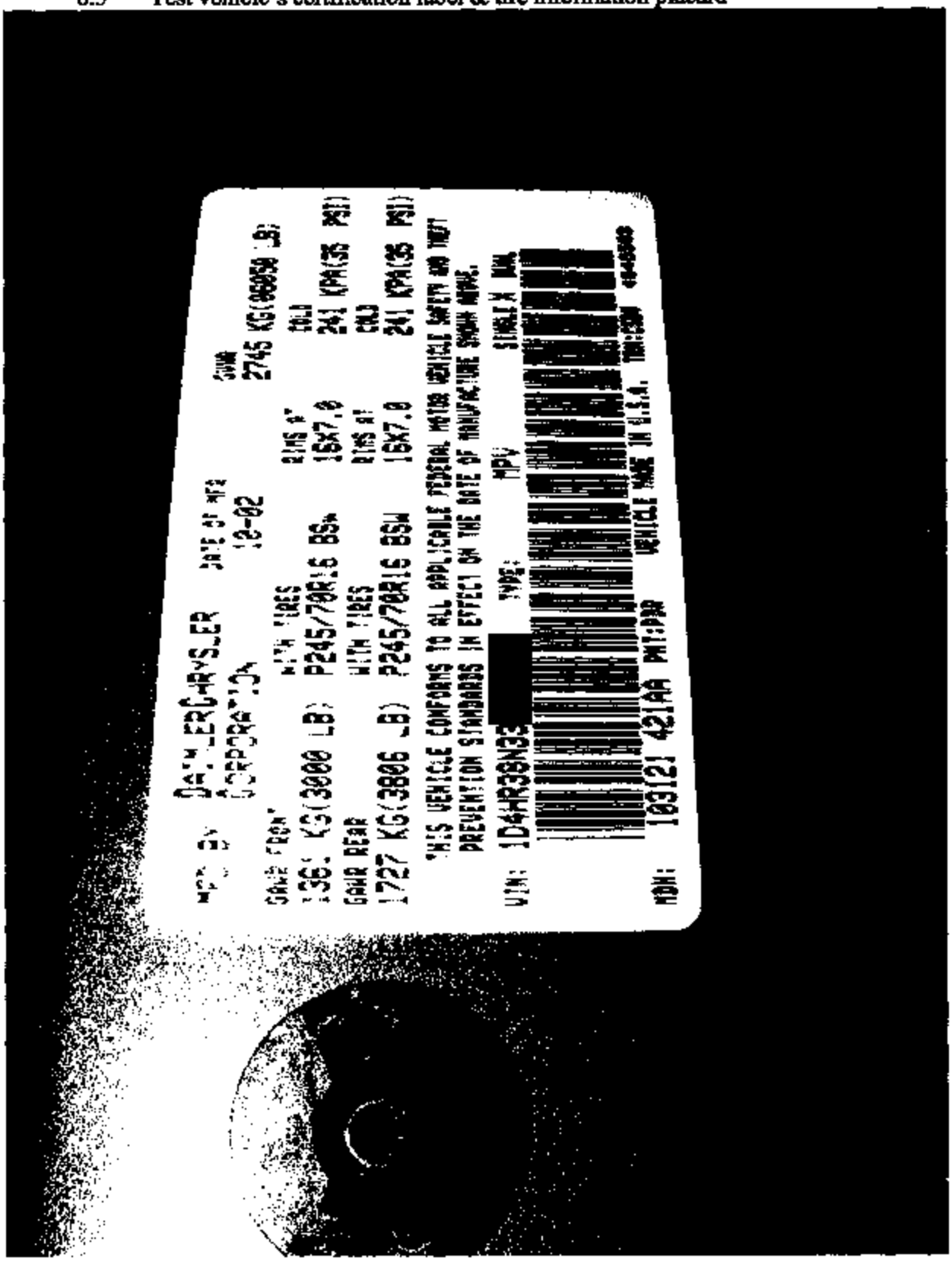
6.1 Full rear view



6.2 Full front view



6.3 Test vehicle's certification label & tire information placard

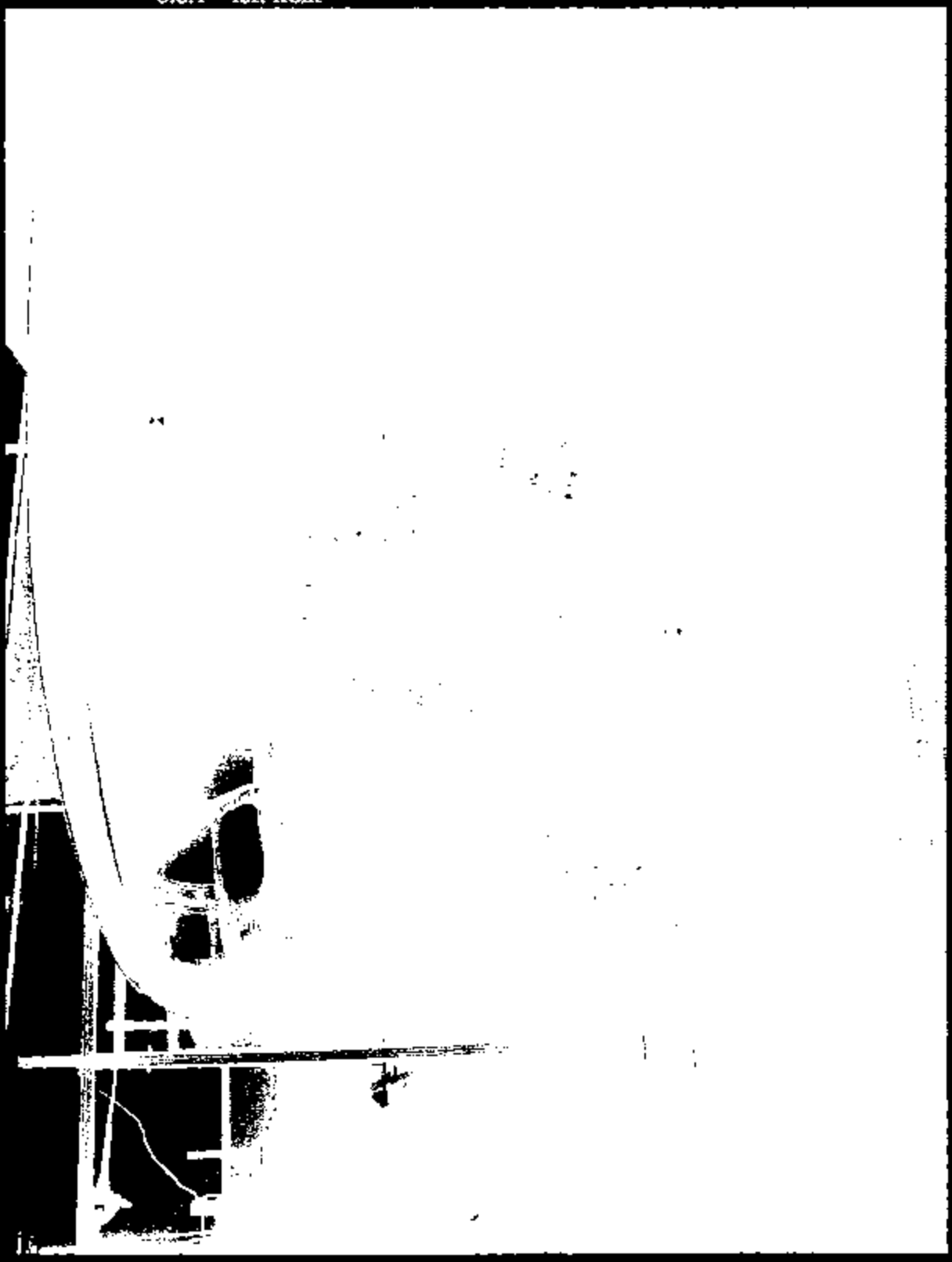


6.4 ¾ Frontal left side view of test vehicle

6.5 ¾ Frontal right side view of test vehicle

6.6 Vehicle tie down at each tie down location

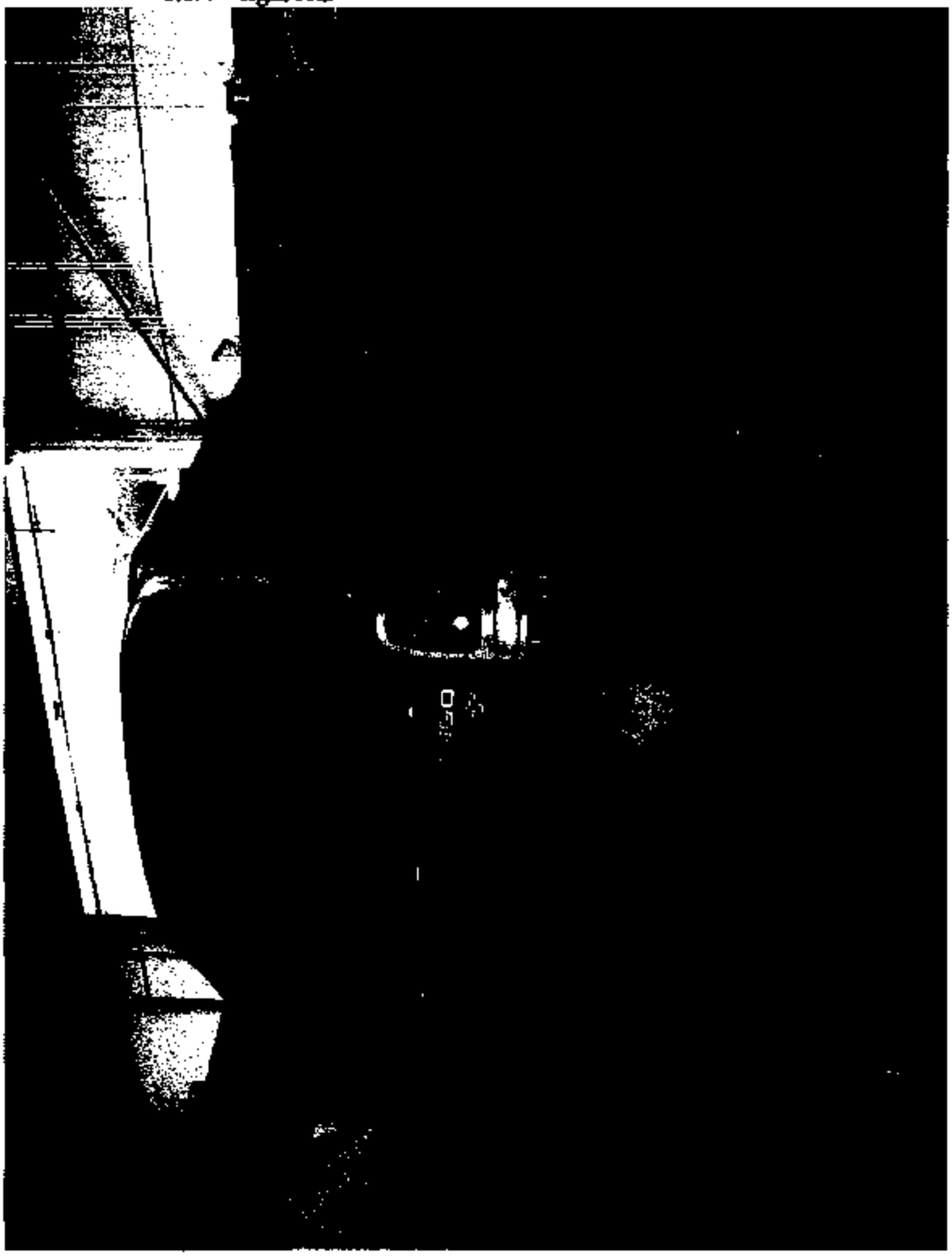
6.6.1 left front



6.6.2 left rear

6.6.3 right front

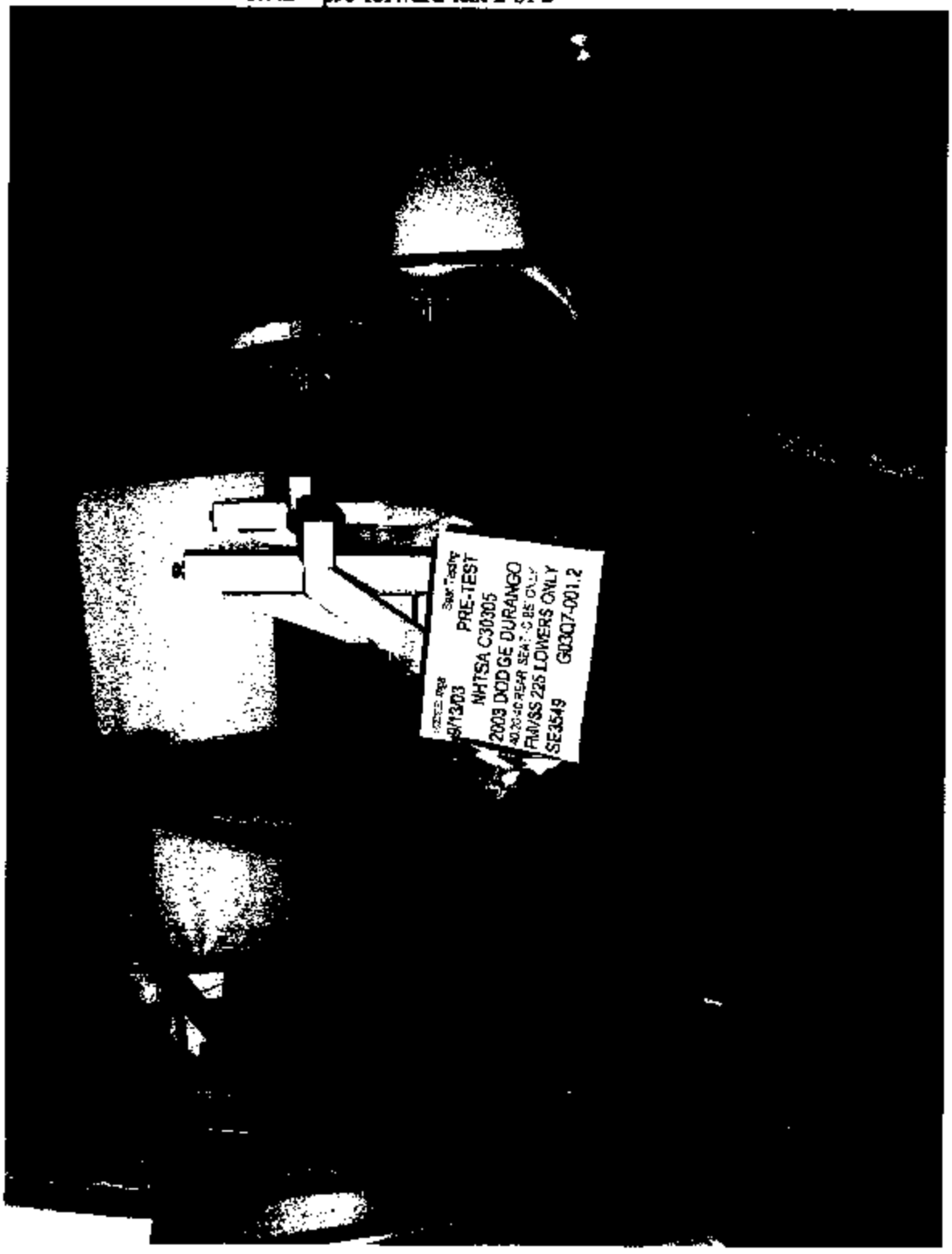
6.6.4 right rear



6.7 Pre-test full front and side views of each child restraint anchorage system installed in the vehicle & pre-test condition of each lower anchorage

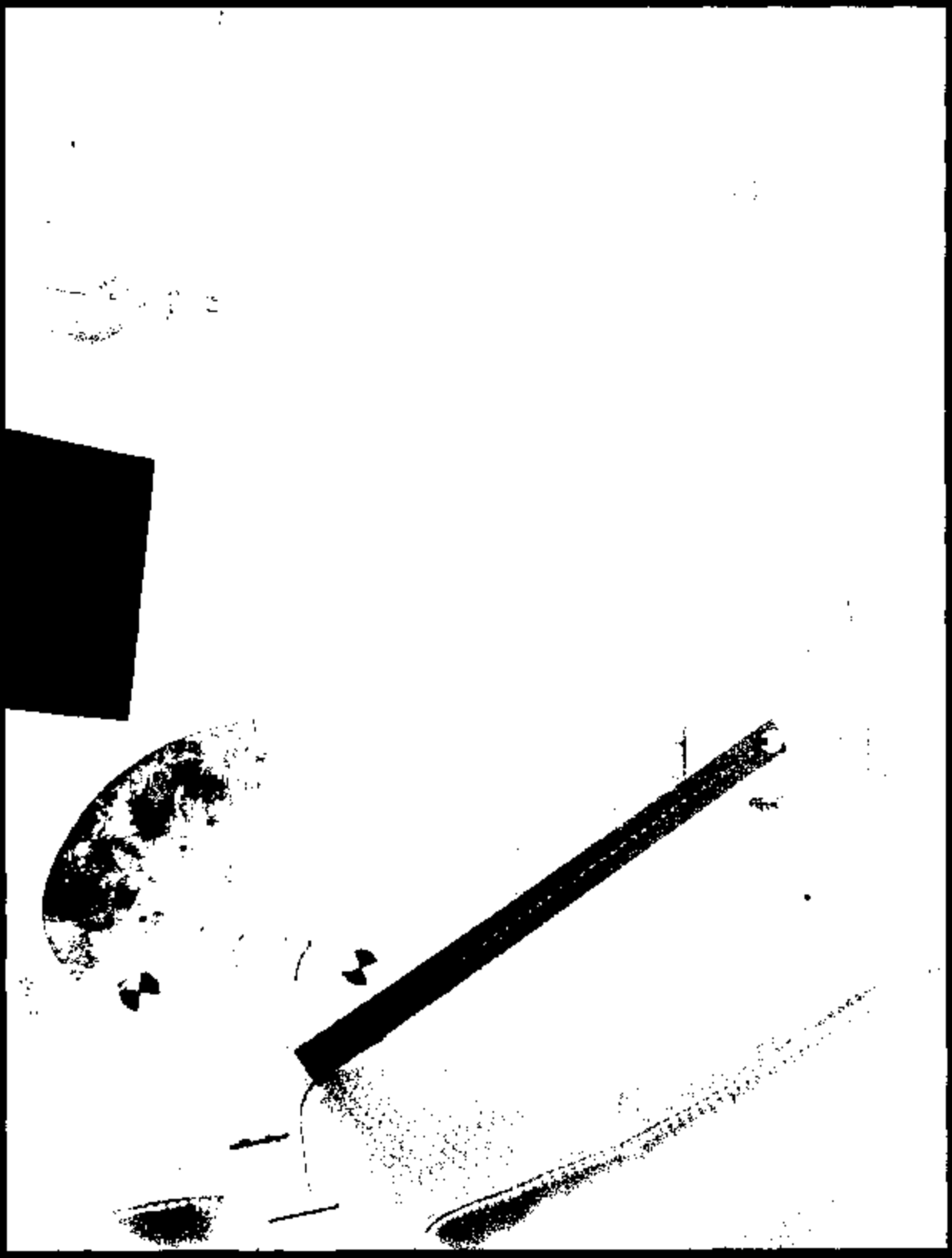
6.7.1 pre-forward test 1 of 2

6.7.2 pre-forward test 2 of 2

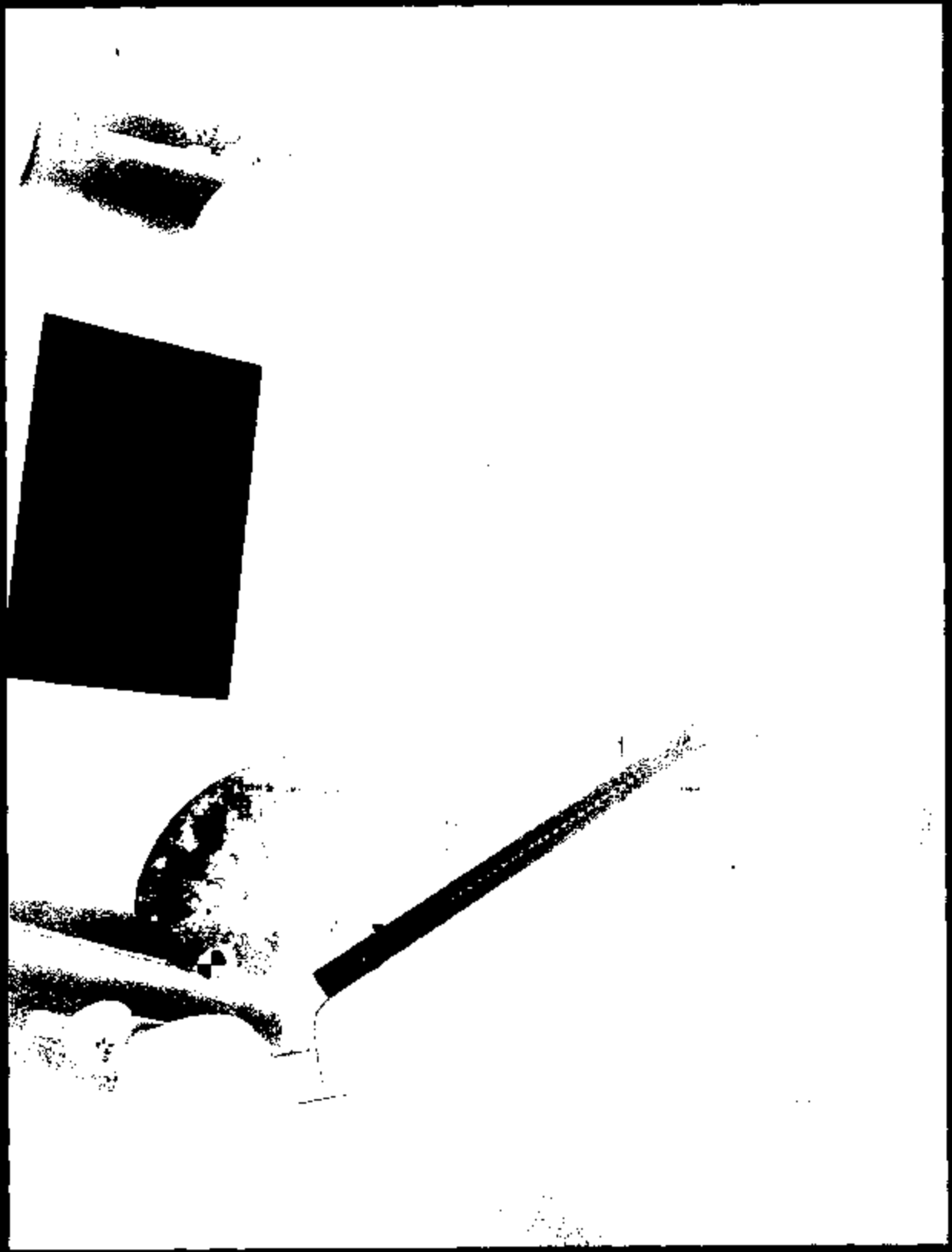


6.8 Pre-test equipment set up at each outboard designated seating position

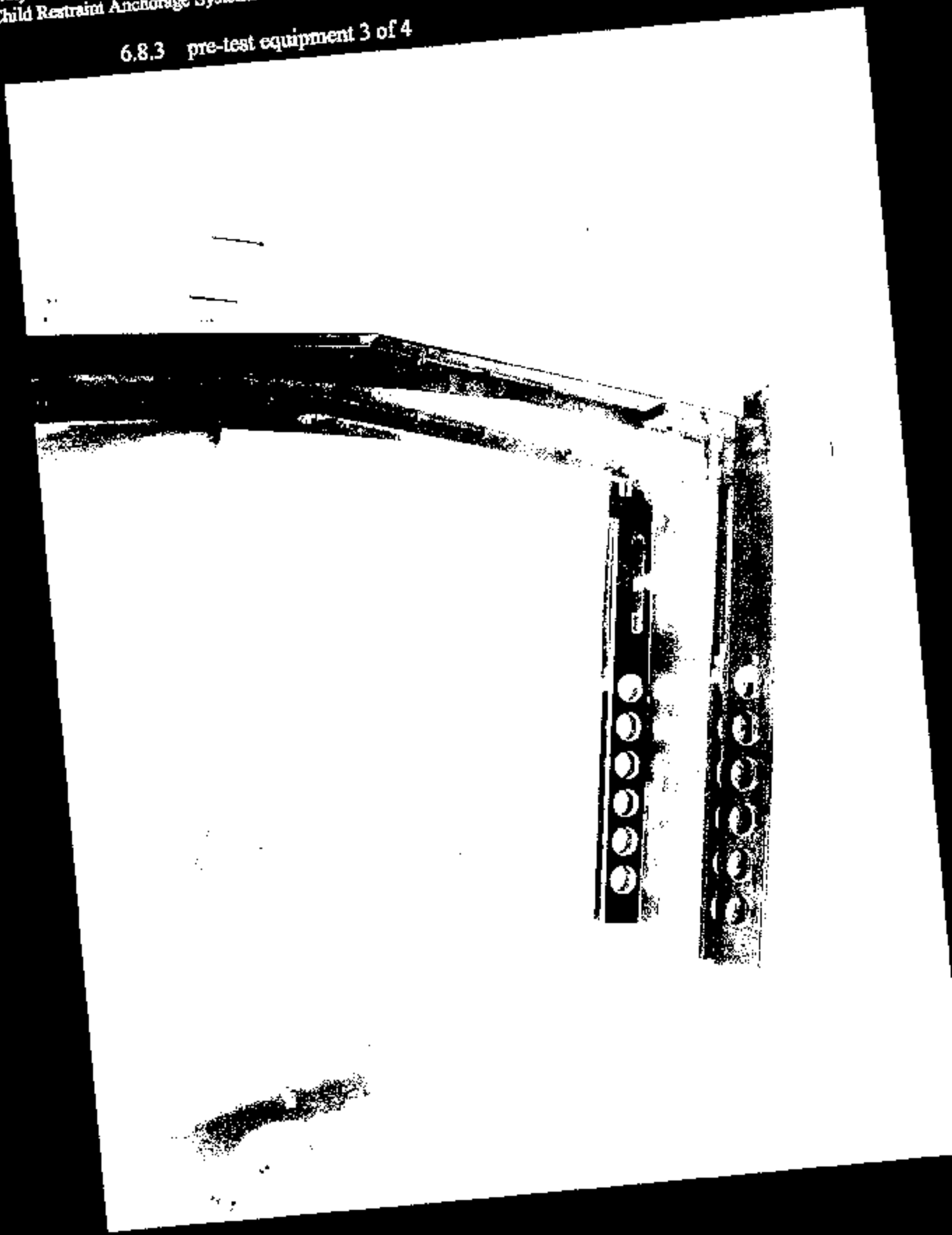
6.8.1 pre-test equipment 1 of 4



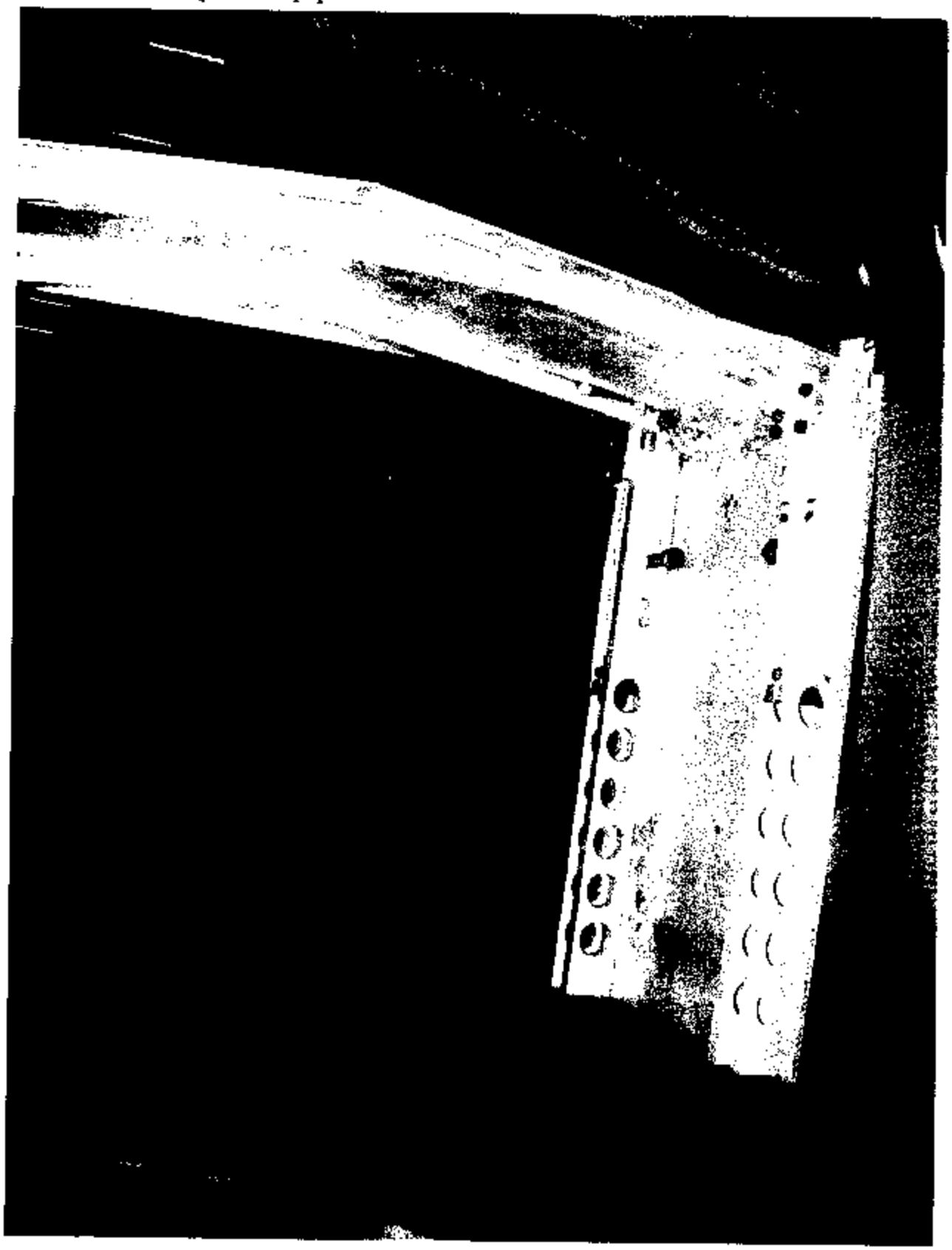
6.8.2 pre-test equipment 2 of 4



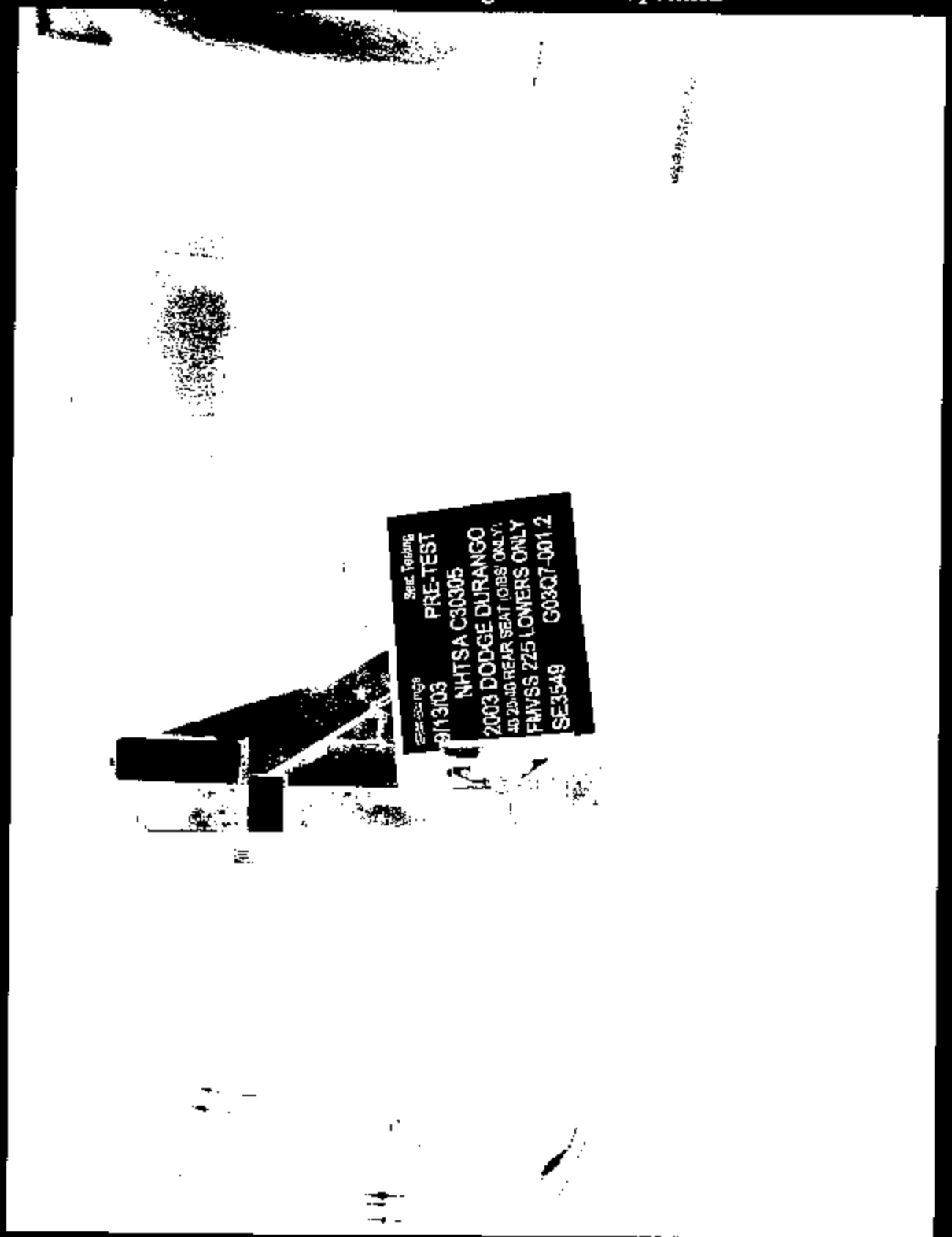
6.8.3 pre-test equipment 3 of 4



6.8.4 pre-test equipment 4 of 4

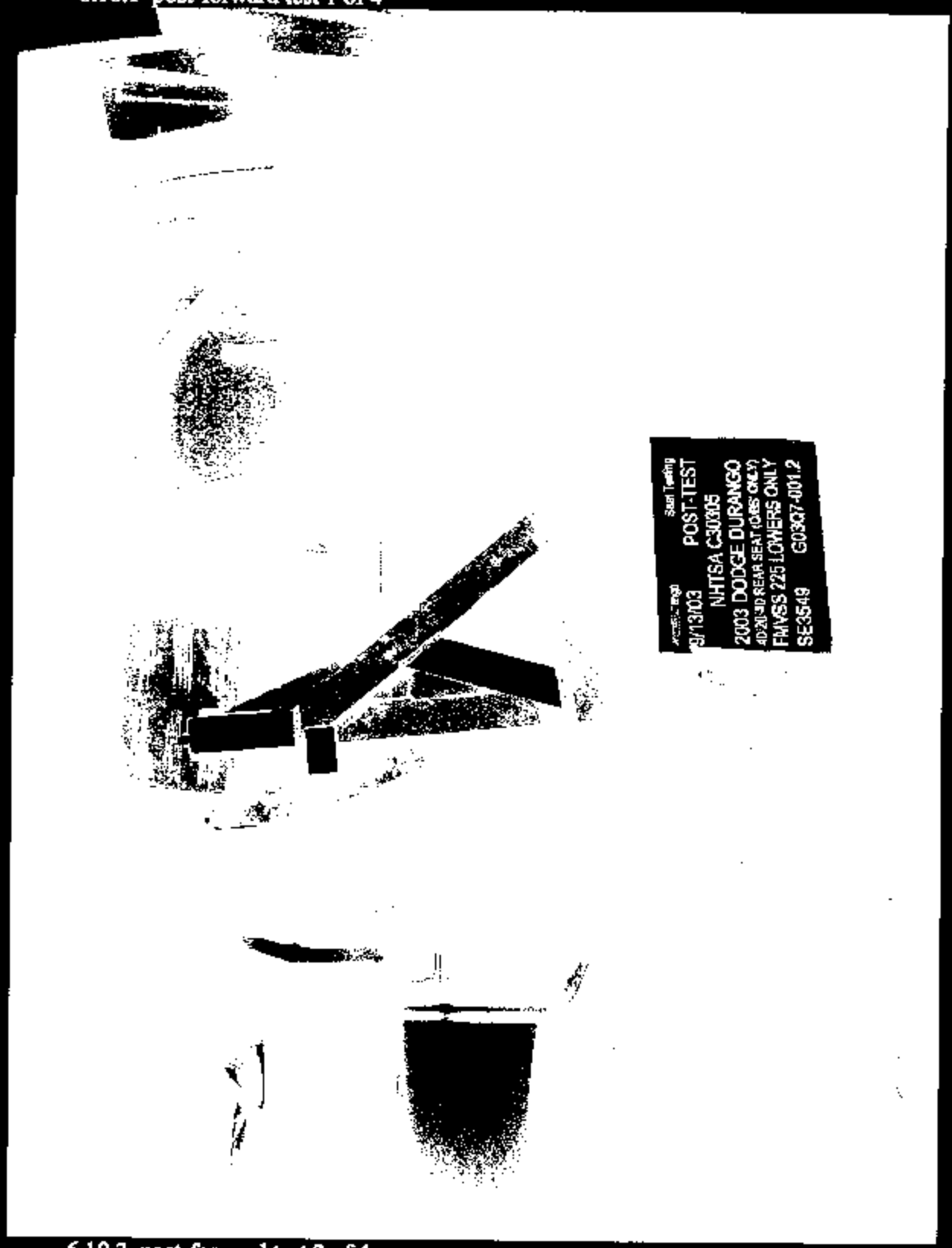


6.9 Load system control and data recording device in test position

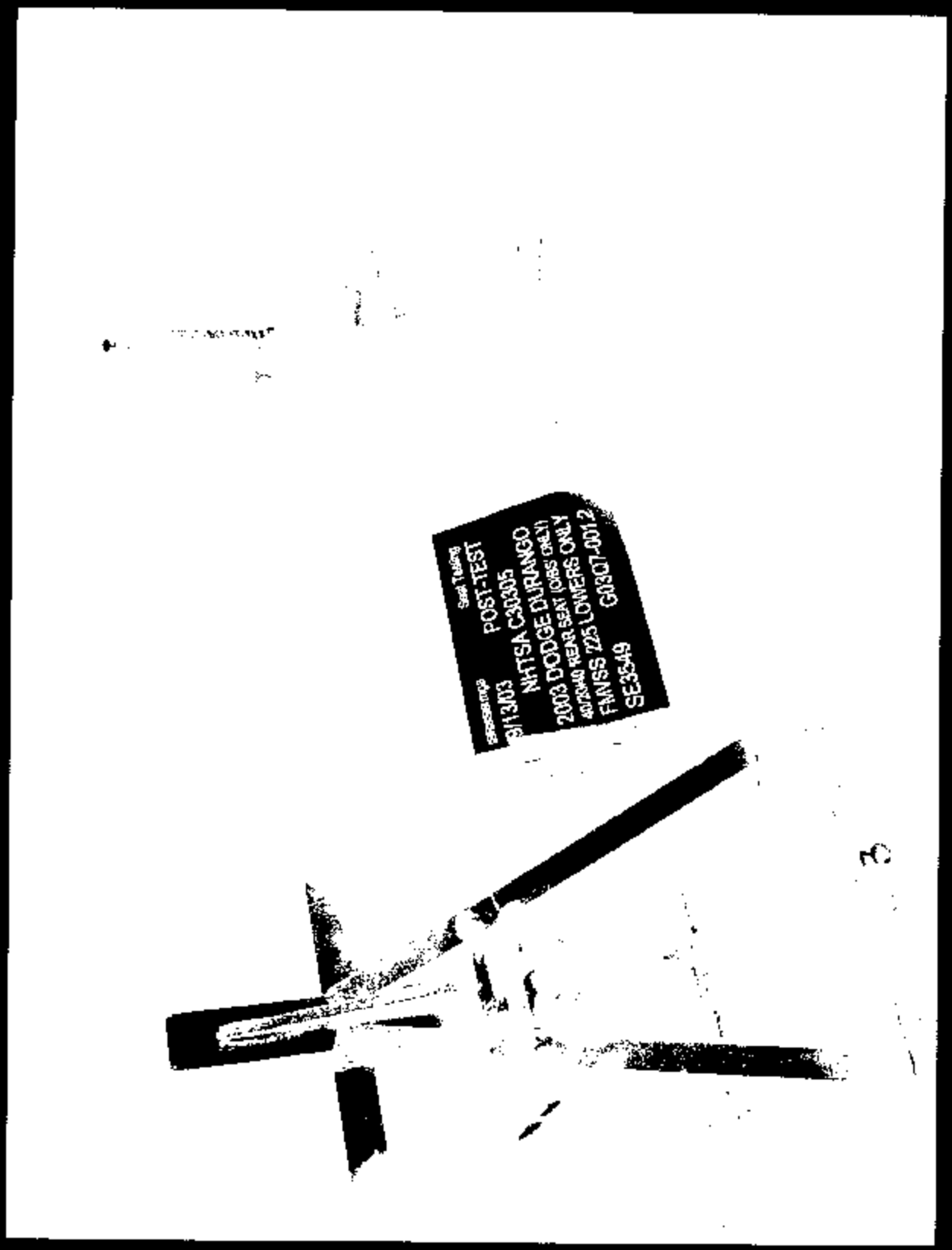


6.10 Post-test condition of each child restraint anchorage system

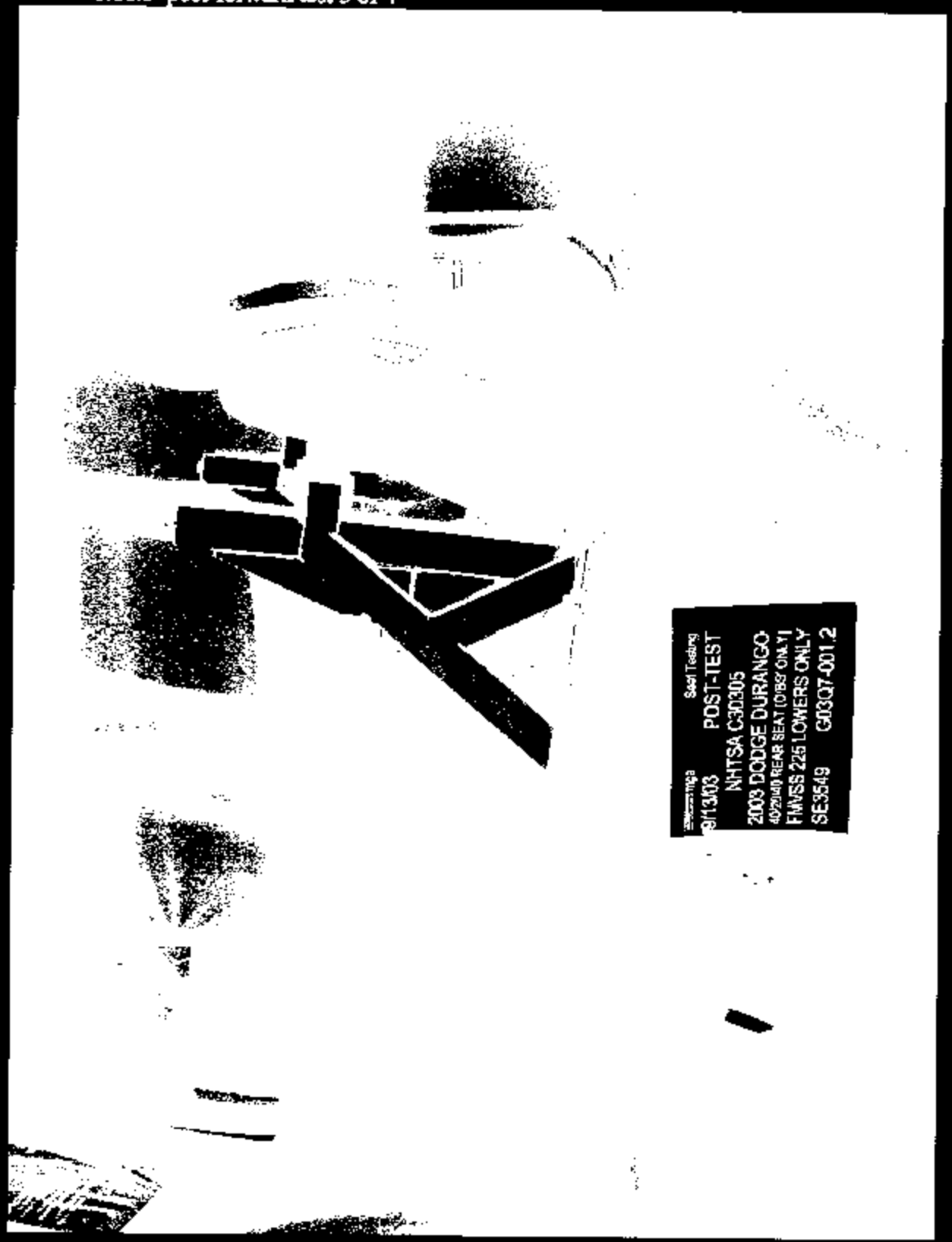
6.10.1 post-forward test 1 of 4



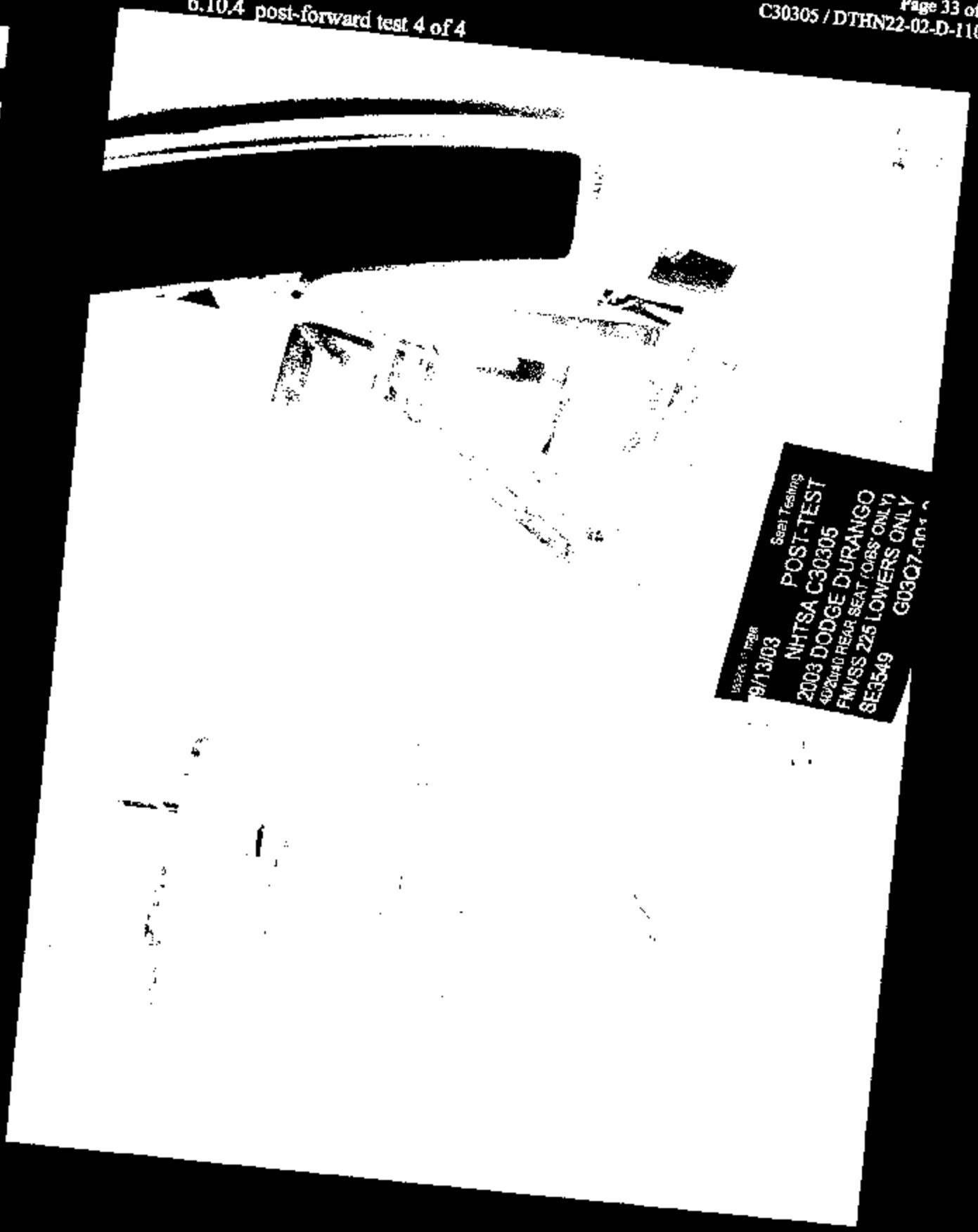
6.10.2 post-forward test 2 of 4


Seat Testing
POST-TEST
8/13/03
NHTSA C30305
2003 DODGE DURANGO
40/20/40 REAR SEAT (OBS ONLY)
FMVSS 225 LOWERS ONLY
G03Q7-001.2
SE3549

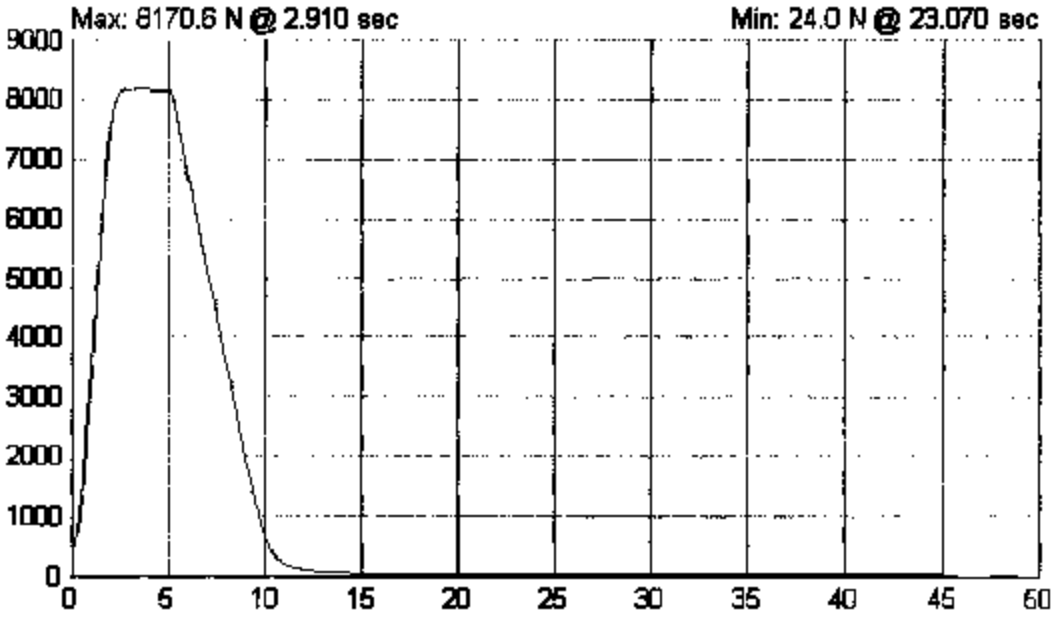
6.10.3 post-forward test 3 of 4



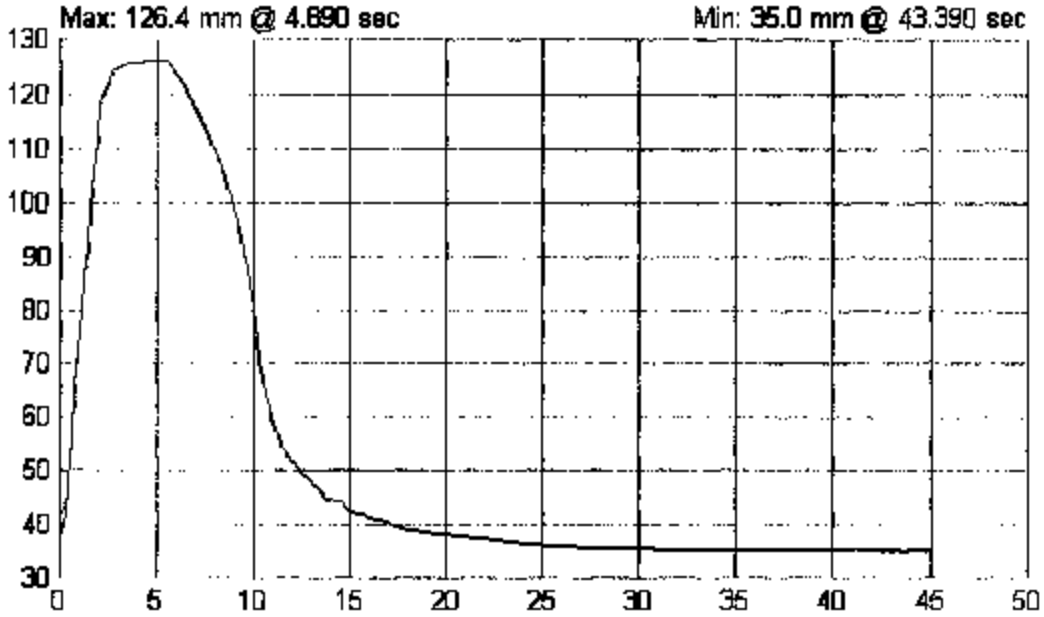
6.10.4 post-forward test 4 of 4



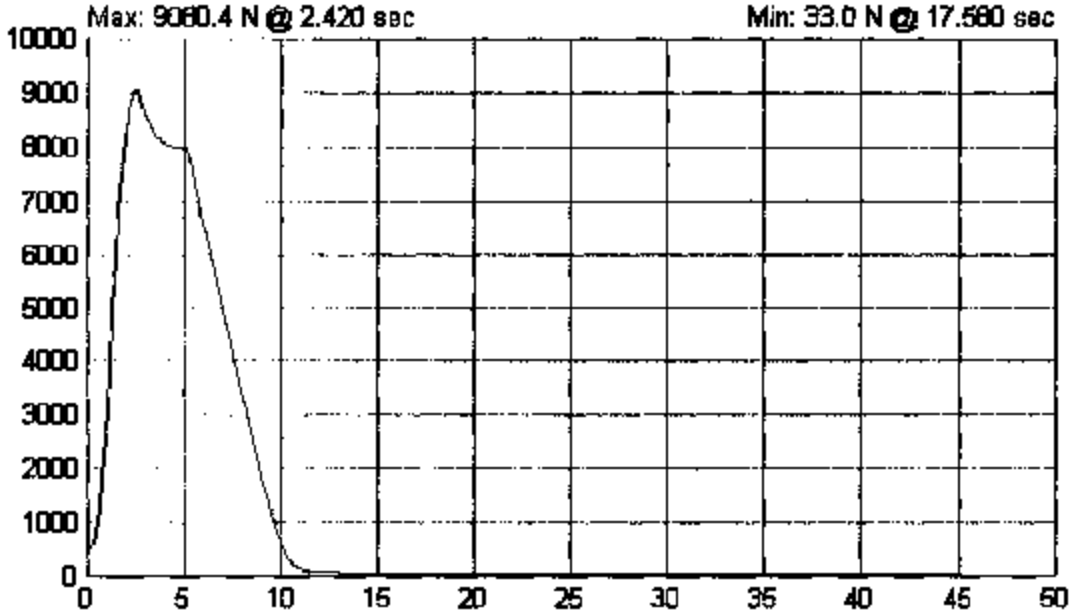
7.0 PLOTS



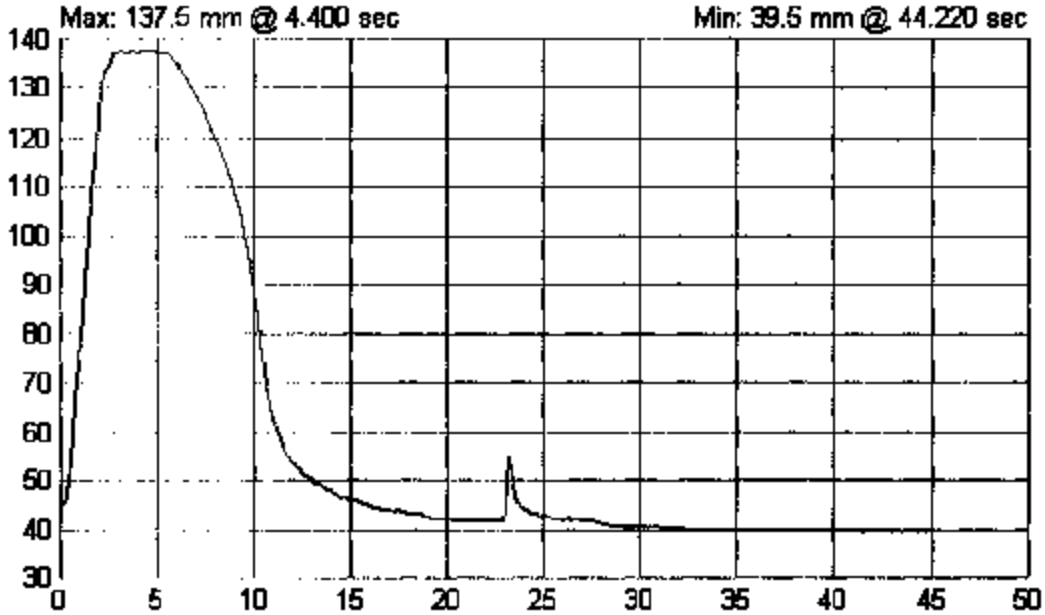
Run# SE3549: Lower Anchor Forward Test (S15.3)-Rear Left Load (N) vs. Time (sec)



Run# SE3549: Lower Anchor Test(S15.3)-Rear Left SFAD2 X Disp. (mm) vs. Time (sec)



Run# SE3549: Lower Anchor Forward Test (S15.3)-Rear Right Load (N) vs. Time (sec)



Run# SE3549: Lower Anchor Test(S15.3)-Rear Right SFAD2 X Disp. (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: September 13, 2003

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 Nos. 201U 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: 2003 Dodge Durango

VEH. NHTSA NO.: C30305 VIN: 1D4HR38N33[redacted] COLOR: Dark Gray

ODOMETER READINGS: ARRIVAL 12 miles Date: 1/14/03

COMPLETION 12 miles Date: 9/15/03

PURCHASE PRICE: $ 28,210 DEALER'S NAME: Galean's VanDyke Dodge

ENGINE DATA: Magnum V8 4.7 Liters 289 Cubic Inches

TRANSMISSION DATA: X Automatic __Manual No. of Speeds __

FINAL DRIVE DATA: X Rear Drive __ Front Drive ___4 Wheel Drive

TIRE DATA: Size P245/70R16 Mfr. Goodyear

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT:

TEST LABORATORY: MGA Research Corporation

OBSERVERS: Brad Reaume

X	Air Conditioning		Traction Control	X	Clock
X	Tinted Glass		All Wheel Drive	X	Roof Rack
X	Power Steering	X	Speed Control	X	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)	X	Tachometer	X	Front Disc Brakes
X	Power Brakes	X	Tilt Steering Wheel	X	Rear Disc Brakes
X	Antilock Brake System	X	AM/FM/Cassette Radio		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 for the test. All removed parts were placed in the trunk.

Test Vehicle Condition:

Salvage only.

RECORDED BY: Kenney Godfrey DATE: September 13, 2003

APPROVED BY: Brad Reaume

APPENDIX A
OWNERS MANUAL CHILD RESTRAINT SYSTEMS

Airbag Light

You will want to have the airbags ready to inflate for your protection in an impact. While the airbag system is designed to be maintenance free, if any of the following occurs, have an authorized dealer service the system promptly:

- The airbag light does not come on or flickers during the 6 to 8 seconds when the ignition switch is first turned on.
- The light remains on or flickers after the 6 to 8 second interval.
- The light flickers or comes on and remains on while driving.

NOTE: If the speedometer, tachometer or any engine related gauges are not working, the airbag control module may also be disabled. The airbags may not be ready to inflate for your protection. Promptly check fuse block for blown fuses. Refer to the label located on the inside of the fuse block cover for the proper airbag fuses. See your dealer if the fuse is good.

Child Restraint

Everyone in your vehicle needs to be buckled up all the time — babies and children, too. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

2

Children 12 years and under should ride properly buckled up in a rear seat, if available. According to crash statistics, children are safer when properly restrained in the rear seats rather than in the front.

In a collision, an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold even an infant on your lap can become so great that you could not hold the child, no matter how strong you are. The child and others could be badly injured. Any child riding in your vehicle should be in a proper restraint for the child's size.

Infants and Small Children

There are different sizes and types of restraints for children from newborn size to the child almost large enough for the adult seat belt. Use the restraint that is correct for your child:

- Safety experts recommend that children ride rearward-facing in the vehicle until they are at least one year old and weigh at least 20 lbs (9 kg). Two types of child restraints can be used rearward-facing: infant carriers and "convertible" child seats. Both types of child restraints are held in the vehicle by the lap/shoulder belt.
- The infant carrier is only used rearward-facing in the vehicle. It is recommended for children who weigh up to about 20 lbs (9 kg). "Convertible" child seats can be used either rearward-facing or forward-facing in the vehicle. Convertible child seats often have a higher weight limit in the rearward-facing direction than infant carriers do, so they can be used rearward-facing by children who weigh more than 20 lbs (9 kg) but are less than one year old.
- Rearward-facing child seats must NEVER be used in the front seat of a vehicle with a front passenger airbag unless the airbag is turned off. An airbag deployment could cause severe injury or death to infants in this position.
- Children who weigh more than 20 lbs. (9 kg) and who are older than one year can ride forward-facing in the vehicle. Forward-facing child seats and convertible child seats used in the forward-facing direction are for children who weigh 20 to 40 lbs. (9 to 18 kg) and who are older than one year. These child seats are also held in the vehicle by the lap/shoulder belt.
- The belt-positioning booster seat is for children weighing more than 40 lbs. (18 kg), but who are still too small to fit the vehicle's seat belts properly. The child and booster seat are held in the vehicle by the lap/shoulder belt. (Some booster seats are equipped with a front shield and are held in the vehicle by the lap portion.)

- Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.
- A rearward facing child restraint should only be used in a rear seat. A rearward facing child restraint in the front seat may be struck by a deploying passenger airbag which may cause severe or fatal injury to the infant.

Here are some tips for getting the most out of your child restraint:

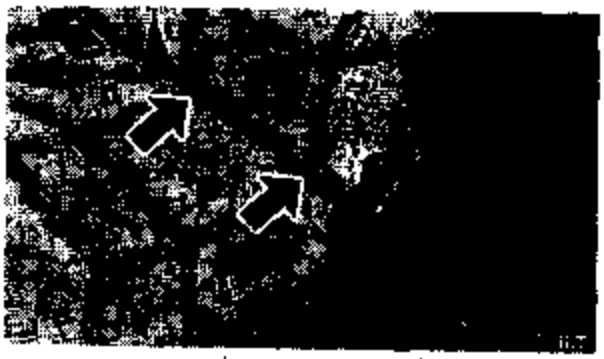
- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. We also recommend that you make sure that you can install the child restraint in the vehicle where you will use it before you buy it.
- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.
- Carefully follow the instructions that come with the restraint. If you install the restraint improperly, it may not work when you need it.
- The passenger seat belts are equipped with cinching latch plates, which are designed to keep the lap portion tight around the child restraint so that it is not necessary to use a locking clip. Pulling up on the shoulder portion of the lap/shoulder belt will tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary.
- In the rear seat, you may have trouble tightening the lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path opening on the restraint. Disconnect the latch plate from the buckle and twist the short buckle-end belt several times to shorten it. Insert the latch plate into the buckle with the release button facing out.

- If the belt still can't be tightened, or if pulling and pushing on the restraint loosens the belt, disconnect the latch plate from the buckle, turn the buckle around, and insert the latch plate into the buckle again. If you still can't make the child restraint secure, try a different seating position.
- Buckle the child into the seat according to the child restraint manufacturer's directions.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle. Do not leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seat backs and cause serious personal injury.

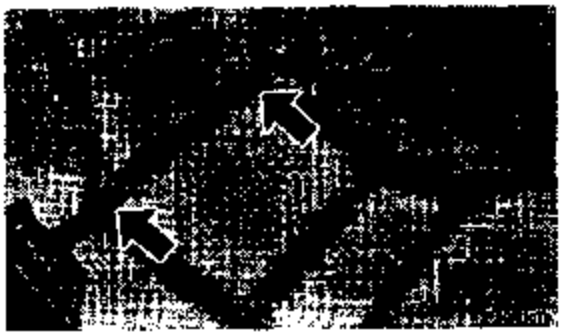
Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.

Lower Anchors and Tether for CHildren (LATCH)

Each vehicle is equipped with the child restraint anchorage system called LATCH, which stands for Lower Anchors and Tether for CHildren. LATCH child restraint anchorage systems are installed in the second row outboard seating positions and also feature tether strap anchorages, which must be used, located behind the seatback (refer to Child Restraint Tether Anchor later in this section).



Second Row Left Side



Second Row Right Side

Child restraint systems having attachments designed to connect to the lower anchorages are now available. Child restraints having tether straps and hooks for connection to the seatback tether anchorage have been available for some time. In fact, many child restraint manufacturers will provide add-on tether strap kits for some of their older products.

Because the lower anchorages are to be introduced to passenger carrying vehicles over a period of years, child restraint systems having attachments for those anchorages will continue to have features for installation in vehicles using the lap or lap/shoulder belt. They will also have tether straps, and you are urged to take advantage of all of the available attachments provided with your child restraint in any vehicle.

2

Installing the Child Restraint System

We urge that you carefully follow the directions of the manufacturer when installing your child restraint. Many, but not all, restraint systems will be equipped with separate straps on each side, with each having a hook or connector and a means for adjusting the tension in the strap. Forward-facing toddler restraints and some rearward-facing infant restraints will also be equipped with a tether strap, a hook and means for adjusting the tension in the strap.

In general, you will first loosen the adjusters on the lower straps and tether straps so that you can more easily attach the hook or connector to the lower anchorages and tether anchorages. Then tighten all three straps as you push the child restraint rearward and downward into the seat.

Not all child restraint systems will be installed as we have described here. Again, carefully follow the instructions that come with the child restraint system.

Improper installation of a child restraint to the LATCH anchorages can lead to failure of an infant or child restraint. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.

Child Restraint Tether Anchor

There are tether *strap* anchorages behind most rear seating positions. A 5 or 6 passenger vehicle has 2 Child Tether Anchorages located on the floor behind the second row outboard seats. A 7 or 8 passenger vehicle has 4 Child Tether Anchorage positions, 2 each in the 2nd and 3rd rows and located on the floor. There is no Child Tether Anchorage provided for the center seating position of 40/20/40 2nd row seat.

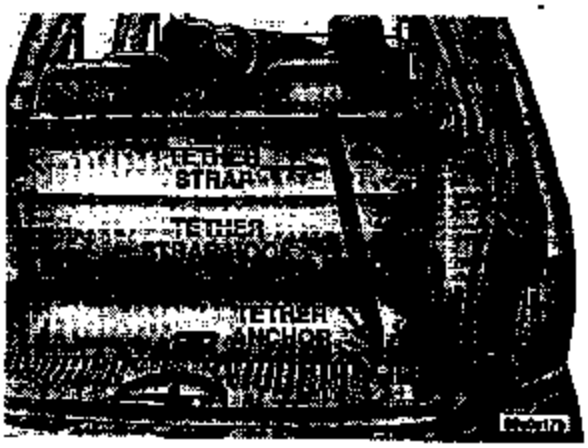
1. Place the child restraint in one of the appropriate seats described above.

2. Route the tether strap under the head restraint and between the two posts.

3. Attach the tether strap hook of the child restraint to the tether anchor and remove the slack in the tether strap according to the manufacturer's instructions.

Second Row Left Side

Second Row Right Side



Vehicle Third Row Seat

An incorrectly anchored tether strap could lead to seat failure and injury to the child. In a collision, the seat could come loose and allow the child to crash into the inside of the vehicle or other passengers, or even be thrown from the vehicle. Use only the anchor positions directly behind the child seat to secure a child restraint top tether strap. Follow the instructions below. See your dealer for help if necessary.

Children Too Large for Booster Seats

Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend over the front of the seat when their back is against the seat back should use the lap/shoulder belt in a rear seat.

- Make sure that the child is upright in the seat.
- The lap portion should be low on the hips and as snug as possible.

- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.

If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. If this doesn't help, move the child to the center rear seating position and use the lap belt. Never allow a child to put the shoulder belt under an arm or behind their back.

ENGINE BREAK-IN RECOMMENDATIONS

A long break-in period is not required for the engine in your new vehicle. Drive moderately during the first 500 km (300 miles). After the initial 100 km (60 miles), speeds up to 80 or 90 km/h (50 or 55 mph) are desirable. While cruising, brief full-throttle acceleration, within the limits of local traffic laws, contributes to a good break-in.

Avoid wide open throttle acceleration in low gear.

The engine oil installed in the engine at the factory is a high-quality, energy-conserving type lubricant. Oil changes should be consistent with anticipated climate conditions under which vehicle operations will occur. The recommended viscosity and quality grades are shown in Section 7.

NON-DETERGENT OR STRAIGHT MINERAL OILS MUST NEVER BE USED.

A new engine may consume some oil during its first few thousand miles of operation. This is a normal part of the break-in and is not an indication of difficulty.

2

SAFETY TIPS

Exhaust System

Exhaust gases contain carbon monoxide, an extremely toxic gas that by itself is colorless and odorless. To avoid inhaling these gases, the following precautions should be observed:

- Do not run the engine in a closed garage or in confined areas any longer than needed to move your vehicle in or out of the area.
- It may be necessary to sit in a parked vehicle with the engine running for more than a short period. If so,

APPENDIX B
MANUFACTURER'S DATA (OVSC FORM 14)

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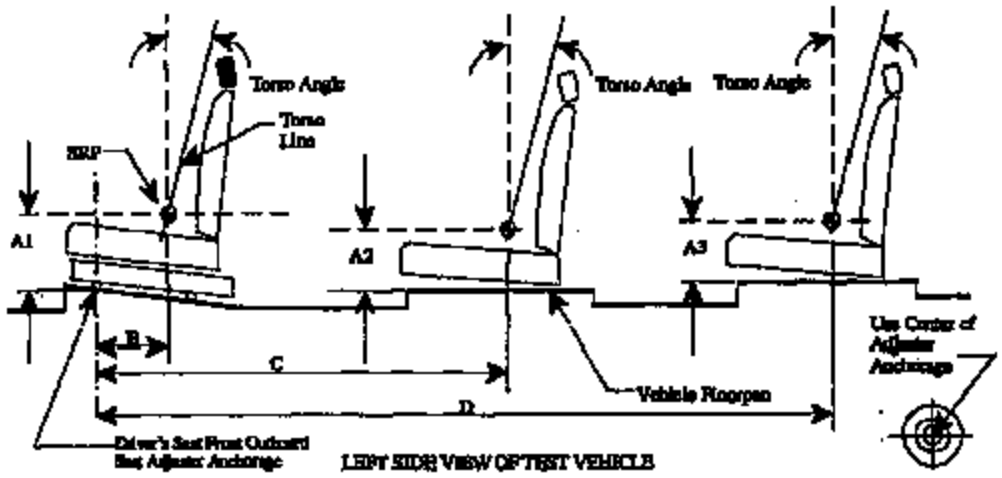
Page 1 of 11

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

Model Year: 2003 ; Make: Dodge ; Model: Durango ; Body Style: 4 dr
Seat Style: Front row: Bucket & Bench ; Second row: 40/20/40 ; Third row: Bench



C30305

Table 1. Seating Positions[1] and Torso Angles

		Left (Driver Side)	Center (if any)	Right
A1		(Driver) 221	221	(Front Passenger) 221
A2		258	258	258
A3		328	NA	328
B		329.8	329.8	329.8
C		1145.3	1145.3	1145.3
D		1942.8	NA	1942.8
Torso Angle (degree)	Front Row	22 deg	22 deg	22 deg
	Second Row	24 deg	24 deg	24 deg
	Third Row	19 deg	NA	19 deg

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

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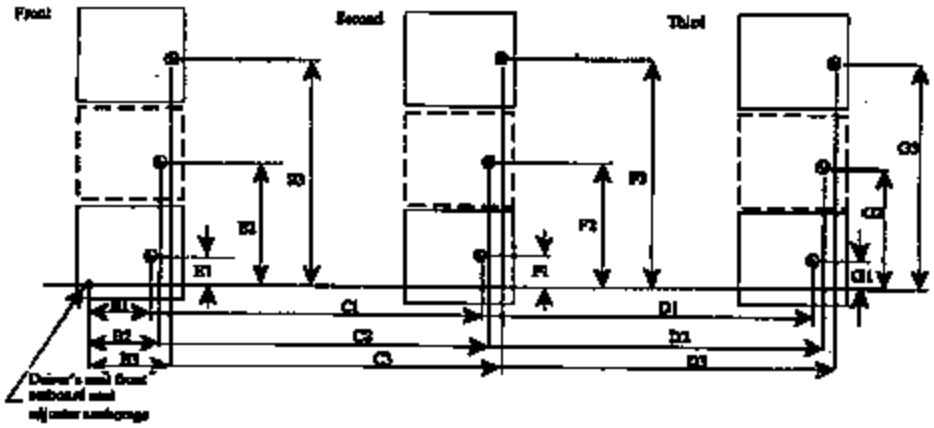
Page 3 of 11

SEATING REFERENCE POINT
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2003 ; Make: Dodge; Model: Durango; Body Style: 4 dr
Seat Style: Front row: Bucket & Bench; Second row: 40/20/40 ; Third row: Bench



MGA File #: G03Q7-001.2

Table 2. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage[1]
Front Row	B1	329.8
	E1	168
	B2	329.8
	E2	538
	B3	329.8
	E3	908
Second Row	C1	1145.3
	F1	168
	C2	1145.3
	F2	538
	C3	1145.3
	F3	908
Third Row	D1	1942.8
	G1	263
	D2	N/A
	G2	N/A
	D3	1942.8
	G3	813

Note: 1. Use the center of anchorage.

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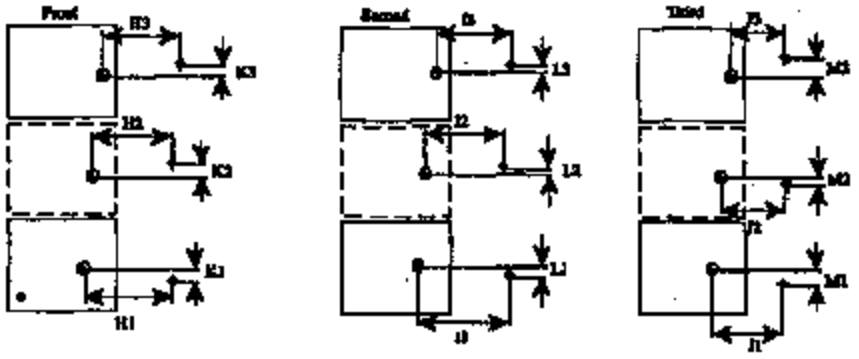
TETHER ANCHORAGE LOCATIONS
FOR FMVSS 225
(All dimensions in mm)

Model Year: 2003 ; Make: Dodge ; Model: Durango ; Body Style: 4 dr
Seat Style; Front row: Bucket & Bench ; Second row: 40/20/40 ; Third row: Bench



●: SRP
▼: Tether anchorage

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

Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	H3	N/A
	K3	N/A
Second Row	I1	206.0
	L1	97.19
	I2	N/A
	L2	N/A
	I3	206.0
	L3	97.19
Third Row	J1	707.8
	M1	162
	J2	N/A
	M2	N/A
	J3	707.8
	M3	162

Note: 1. Use the center of anchorage.

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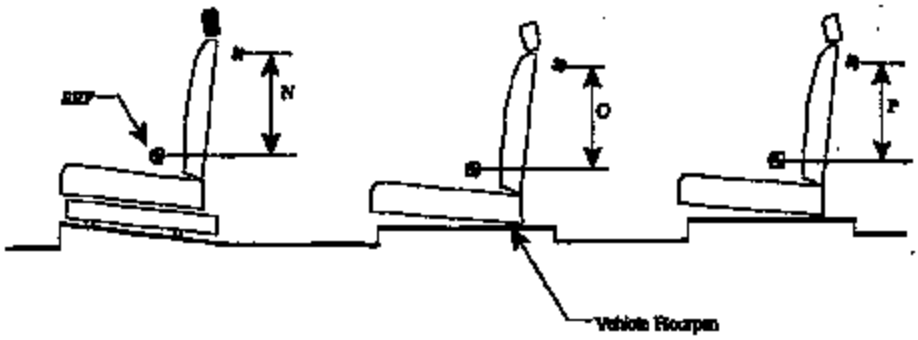
Page 7 of 11

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

Model Year: 2003 ; Make: Dodge ; Model: Durango ; Body Style: 4 dr
Seat Style: Front row: Bucket & Bench ; Second row: 40/20/40 ; Third row: Bench



LEFT SIDE VIEW OF TEST VEHICLE

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)	
	O2 (Center)	N/A
	O3 (Right)	
Third Row	P1 (Left)	-110.7
	P2 (Center)	N/A
	P3 (Right)	-110.7

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

Test Procedures Used for Compliance Tests

Tether Anchorages

Seating Location		FMVSS Section(s) - Req.
Front	Driver	N/A
	Center (if any)	N/A
	Right (if any)	N/A
Second	Left	S6.3.4 (10KN)
	Center	N/A
	Right (if any)	S6.3.4 (10KN)
Third	Left	S6.3.4 (10KN)
	Center	N/A
	Right	S6.3.4 (10KN)
Fourth	Left	N/A
	Center	N/A
	Right	N/A

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Lower Anchorages

Seating Location		FMVSS Section(s) - Req.
Front	Driver	N/A
	Center (if any)	N/A
	Right (if any)	N/A
Second	Left	S15.3 (8KN)
	Center	N/A
	Right	S15.3 (8KN)
Third	Left	N/A
	Center	N/A
	Right	N/A
Fourth	Left	N/A
	Center	N/A
	Right	N/A

For each anchorage system, provide the following information:

1. **Lower Anchorage Dimensions:** Whether the anchorages are certified with S15.1.2.1 of FMVSS No. 225.

   The lower anchorages are certified to S15.1.2.1.

2. **Lower Anchorage Location:** Whether the anchorages are certified with S15.1.2.2 of FMVSS No. 225. If the anchorages are certified with S15.1.2.2, provide the pitch, roll and yaw angles.

   The lower anchorages are certified to S15.1.2.2. Pitch, roll and yaw angle measurements are not available.

3. **Lower Anchorage Marking and Conspicuity:** Whether the anchorages are certified with S15.4 of FMVSS No. 225. If guidance fixtures are used, provide the location of the seating systems that are equipped with the guidance fixture.

   The lower anchorages are certified to S15.4. Guidance fixtures are not used.

4. **Location of Tether Anchorages:** Applicable section of FMVSS No. 225 for the option used for its certification.

   Tether anchorages are located following S6.2.1.

5. **Number of Tether Anchorage:** Applicable section of FMVSS No. 225 for the option used for its certification

   Number of tether anchorages is determined following S4.5.