FINAL REPORT NUMBER 225-MGA-09-008

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

SUZUKI MOTOR CORPORATION
2008 Suzuki SX4 Sedan
NHTSA No. C80500

MGA RESEARCH CORPORATION
446 Executive Drive
Troy, Michigan 48083

Test Date: September 3, 2009
Report Date: September 14, 2009

FINAL REPORT

Prepared For:

U.S DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance (Rm W45-304)
1200 New Jersey Avenue, SE
Washington, DC 20590

Prepared By: Fern Gatilao, Project Engineer

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Approved By: P. Michael Miller II, Vice President

Approval Date: 9/25/09

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By: Edward E. Chan

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Date: 2009.10.01 14:21:13 -04'00'

Acceptance Date:

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1. Report No. 225-MGA-09-008	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of FMVSS 225 Compliance Testing of a 2008 Suzuki SX4 Sedan, NHTSA No. C80500		5. Report Date September 3, 2009 6. Performing Organization Code MGA	
7. Author(s) Helen A. Kaleto, Laboratory Manager Fern Gatilao, Project Engineer Brad Reaume, Test Personnel		8. Performing Organization Report No. 225-MGA-09-008	
9. Performing Organization Name and Address MGA Research Corporation 446 Executive Drive Troy, Michigan 48083		10. Work Unit No. 11. Contract or Grant No. DTNH22-06-C-00030/0007	
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance (NVS-220) 400 Seventh Street, SW Room 6111 Washington, DC 20590		13. Type of Report and Period Covered Final Test Report 14. Sponsoring Agency Code NVS-220	
15. Supplementary Notes			
16. Abstract A compliance test was conducted on the subject 2008 Suzuki SX4 Sedan, NHTSA No. C80500, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-225-01 for the determination of FMVSS 225 compliance. The test was conducted at MGA Research Corporation in Troy, Michigan on September 3, 2009. Test failures identified were as follows: NONE The data recorded indicates that the 2008 Suzuki SX4 Sedan tested appears to meet the requirements of FMVSS 225.			
17. Key Words Compliance Testing Safety Engineering FMVSS 225 2008 Suzuki SX4 Sedan		18. Distribution Statement Copies of this report are available From: NHTSA Technical Reference Technical Information Services Division, NPO-411 1200 New Jersey Avenue, SE (Rm E12-100) Washington, D.C. 20590 Telephone No. (202) 366-4946	
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Form DOT F 1700.7 (8-70)

TABLE OF CONTENTS

6.11.7 Post-test photo
6.11.8 Post-test photo

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. DTNH22-06-C-00030/0007. The purpose of the testing was to determine if the subject vehicle, a 2008 Suzuki SX4 Sedan, NHTSA No. C80500 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 Procedure TP-225-01 (4/11/05) and MGA's Laboratory Test Procedure, MGATP225GOV (6/23/06).

The rear occupant compartment consisted of a 2nd row three-passenger 60/40 split-back-bench seat. The 2nd row outboard left and right seating positions were equipped with a child restraint anchorage system (one tether and two lower anchorages) and the center seating position was equipped with a tether anchorage. The center-to-center spacing between the 2nd row outboard lower anchorages was approximately 620 mm. The 2nd row left and right outboard seating positions were tested with the SFADII.

2.0 COMPLIANCE TEST AND DATA SUMMARY

TEST SUMMARY

The testing was conducted at MGA in Troy, Michigan on September 3, 2009.

Based on the test results, the 2008 Suzuki SX4 Sedan appears to meet the requirements of FMVSS No. 225 for this testing.

The SFADII at the 2nd row left seating position sustained a maximum force of 5,052 N and held the required load for 3 seconds and the total displacement was 28 mm. The SFADII at the 2nd row right seating position sustained a maximum force of 5,120 N and held the required load for 3 seconds and the total displacement was 54 mm.

DATA SUMMARY

Strength and displacement summary data are provided below. 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)
SC9322	SFADII	Lateral Left	2nd Row Left	5,052	28
			2nd Row Right	5,120	54

3.0 TEST VEHICLE INFORMATION

Table 2. General Test and Vehicle Parameter Data

VEH. MOD YR/MAKE/MODEL/BODY	2008 Suzuki SX4 Sedan
VEH. NHTSA NO.	C80500
VIN	JS2YB413485100278
COLOR	Silver
VEH. BUILD DATE	06/07
TEST DATE	September 3, 2009
TEST LABORATORY	MGA Research Corporation
OBSERVERS	Fern Gatilao , Brad Reaume, Kenney Godfrey

GENERAL INFORMATION:

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: SUZUKI MOTOR CORPORATION

Date of Manufacture: 06/07; VIN: JS2YB413485100278

GVWR: 3,805 lbs GAWR FRONT: 2,072 lbs

GAWR REAR: 1,852 lbs

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 33 psi REAR: 33 psi

Recommended Tire Size: P205/60R16

Recommended Cold Tire Pressure:

FRONT: 33 psi REAR: 33 psi

Size of Tire on Test Vehicle: P205/60R16

Size of Spare Tire: T135/90D16

VEHICLE CAPACITY DATA:

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

Number of Occupants: Front __2__; Middle__0___; 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 Cell 10,000 lb Capability	S/N 126 & 307 (11/29/09)
String Potentiometer Calibrated at each use	S/N I1705802A & A1600461A
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	TPM945 (7/21/2010)
MGA Data Acquisition System	N/A
Digital Calipers	MGA00688 (3/16/10)
Force Gauge	MGA00801 (1/20/10)
Inclinometer (Digital)	MGA00726 (7/28/10)

5.0 DATA

Table 3. Child Restraint Tether Anchorage Configuration

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-225-01.

REMARKS: NONE.

Table 4. Child Restraint Lower Anchorage Configuration

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	N/A		N/A
	Ctr		N/A		
	RH		N/A		
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	5.98	5.96	N/A
	Ctr		N/A		
	RH		5.99	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 front surface of the anchorage bar (mm)	LH	N/A	38		N/A
	Ctr		N/A		
	RH		41		
Measure the distance between the SRP to the front of the anchorage bar (mm)	LH	N/A	150	148	N/A
	Ctr		N/A		
	RH		148	147	

Table 4. Child Restraint Lower Anchorage Configuration (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 60 mm in length (mm).	LH	Req't>25	N/A	29	28	N/A
		Req't<60		37	37	
	Ctr	Req't>25		N/A		
		Req't<60		N/A		
	RH	Req't>25		29	27	
		Req't<60		38	36	
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		
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	8.8	N/A	0.2
2nd Row Center	N/A	N/A	N/A
2nd Row Right	8.8	N/A	0.2

N/A indicates that there were no lower anchorages in the 2nd row center seating position.

Note: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225-01.

REMARKS: NONE

Table 5. Tether Location and Dimensional Measurements

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-225-01.

REMARKS: NONE

Table 6. Tether Anchorage Static Loading and Displacement

SEAT POSITION		Seat, Seat Back, & Head Restraint Positions			Type of SFAD Used	Angle (deg)	Initial Location (mm)	Onset Rate (N/sec.)	Force Applied (kN)	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	Yes	II	0.7	7	167	5,000	5,052	35	28
	Ctr.			No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RH			Yes	II	0.7	9	167	5,000	5,120	63	54
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: AS DETERMINED USING THE PROCEDURES SPECIFIED IN TP-225-01.

6.0 PHOTOGRAPHS

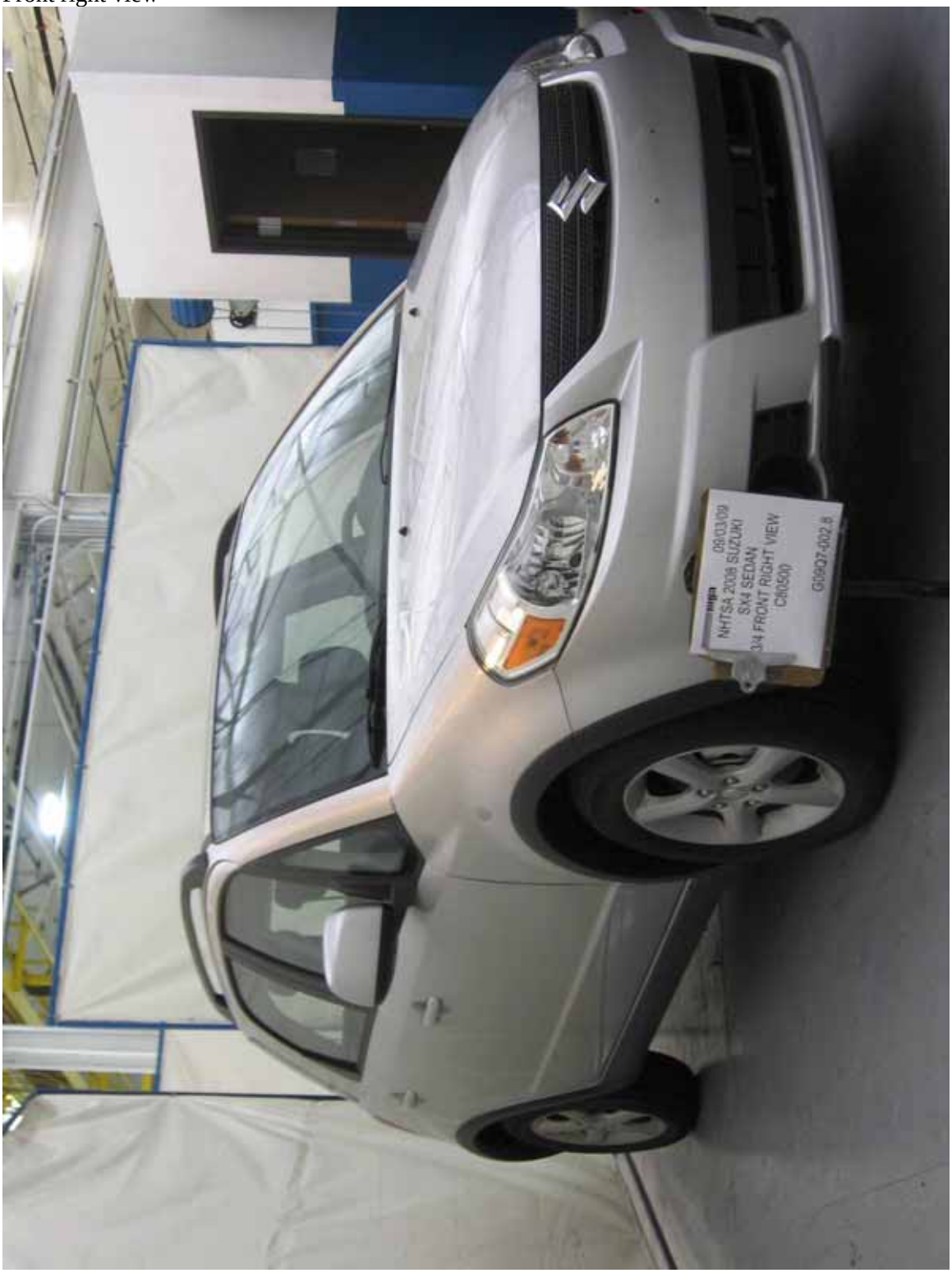
6.1 Front view

6.2 Rear view


mga
08/03/09
NHTSA 2008 SUZUKI
SX4 SEDAN
REAR VIEW
C80500
G09Q7-002.8

6.3 Front left view

6.4 Front right view

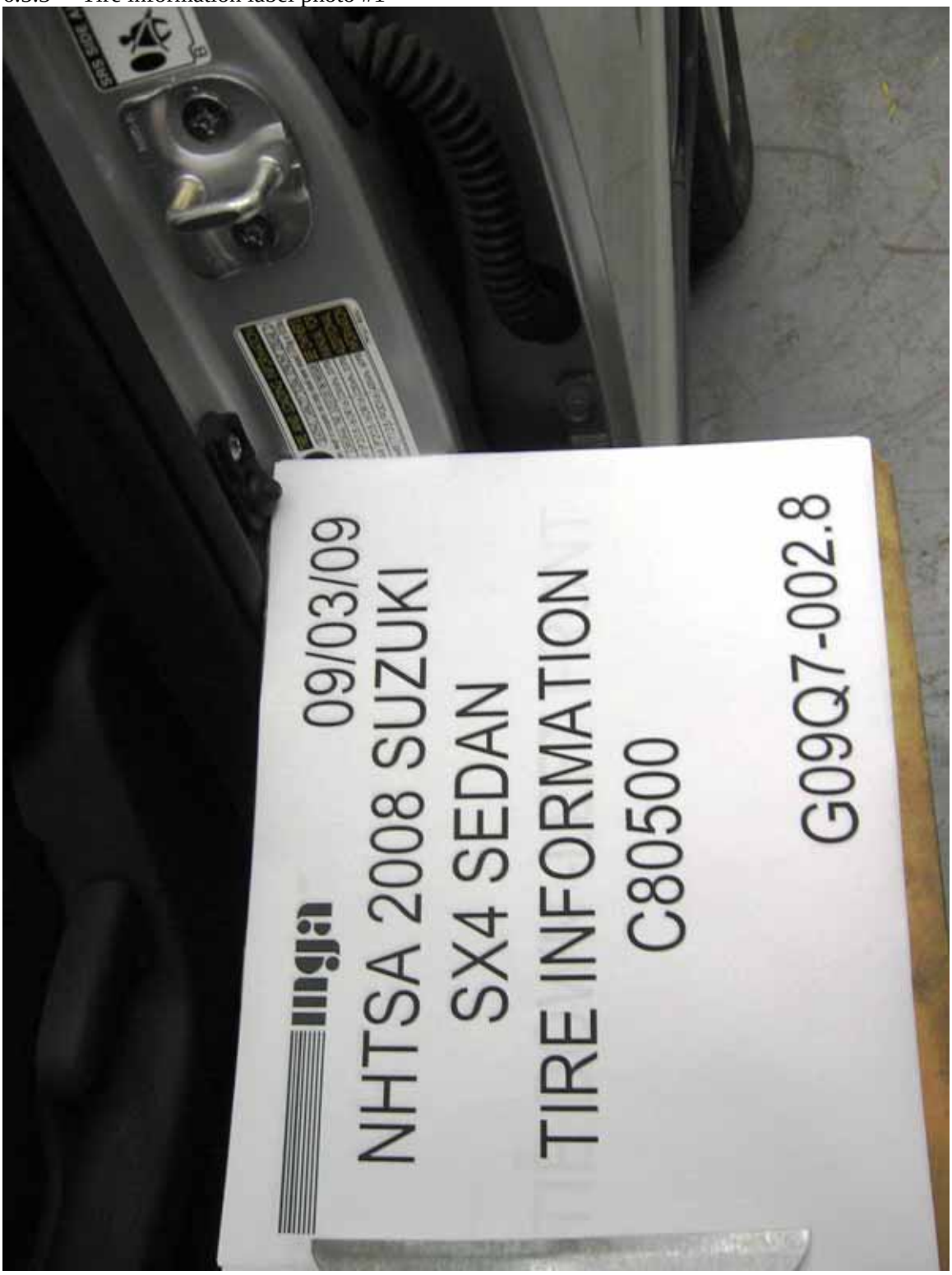


6.5 Test vehicle's certification label

6.5.1 Certification label photo 1

6.5.2 Certification label photo #2

6.5.3 Tire information label photo #1



6.5.4 Tire information label photo #2

6.6 Vehicle tie down at each tie down location

6.6.1 Front under vehicle

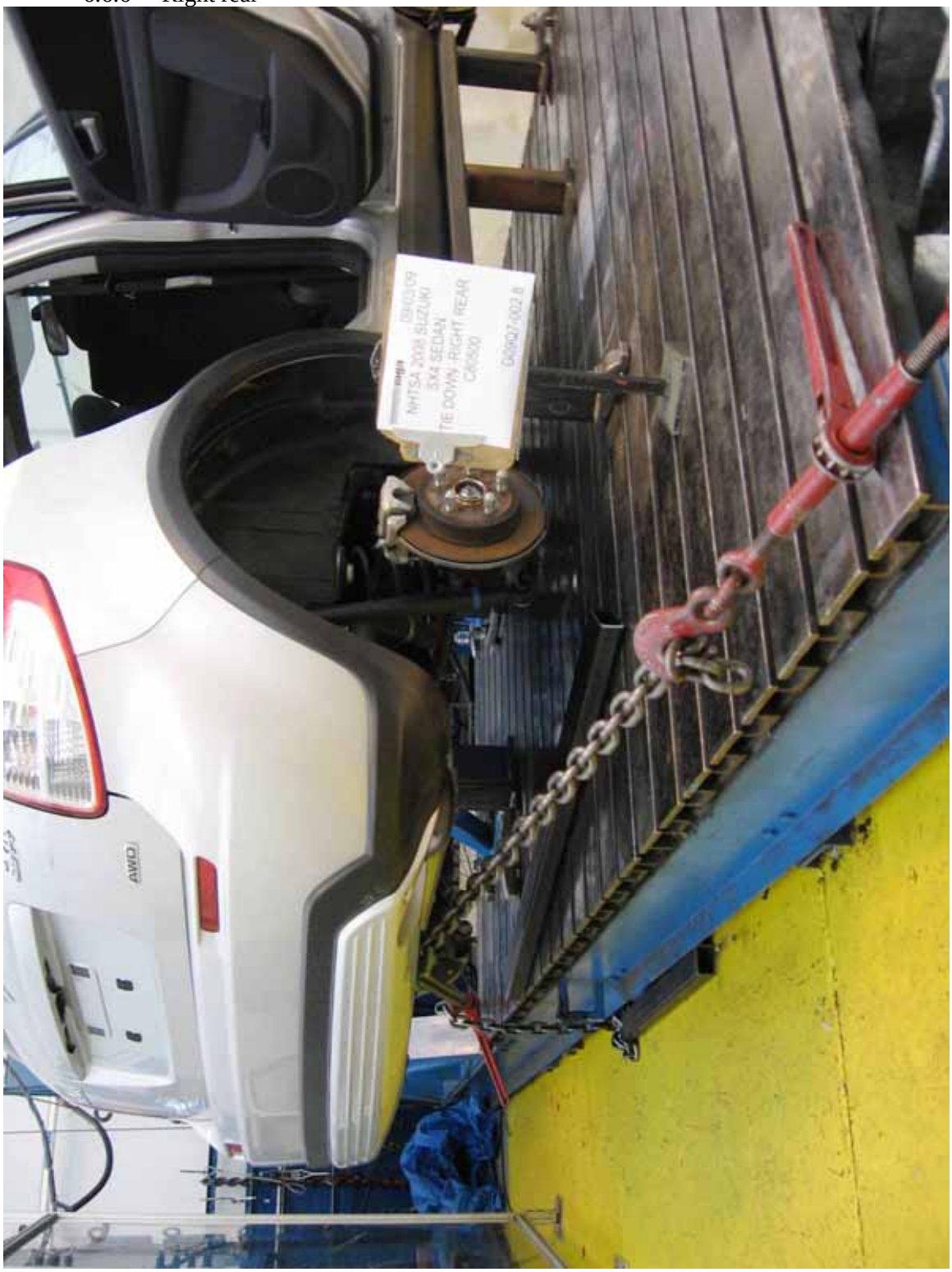
6.6.2 Rear under vehicle

6.6.3 Left front

6.6.4 Left rear

6.6.5 Right front

6.6.6 Right rear



6.7 2-dimensional template

6.7.1 LH position photo #1

6.7.2 LH position photo #2

6.7.3 RH position photo #1

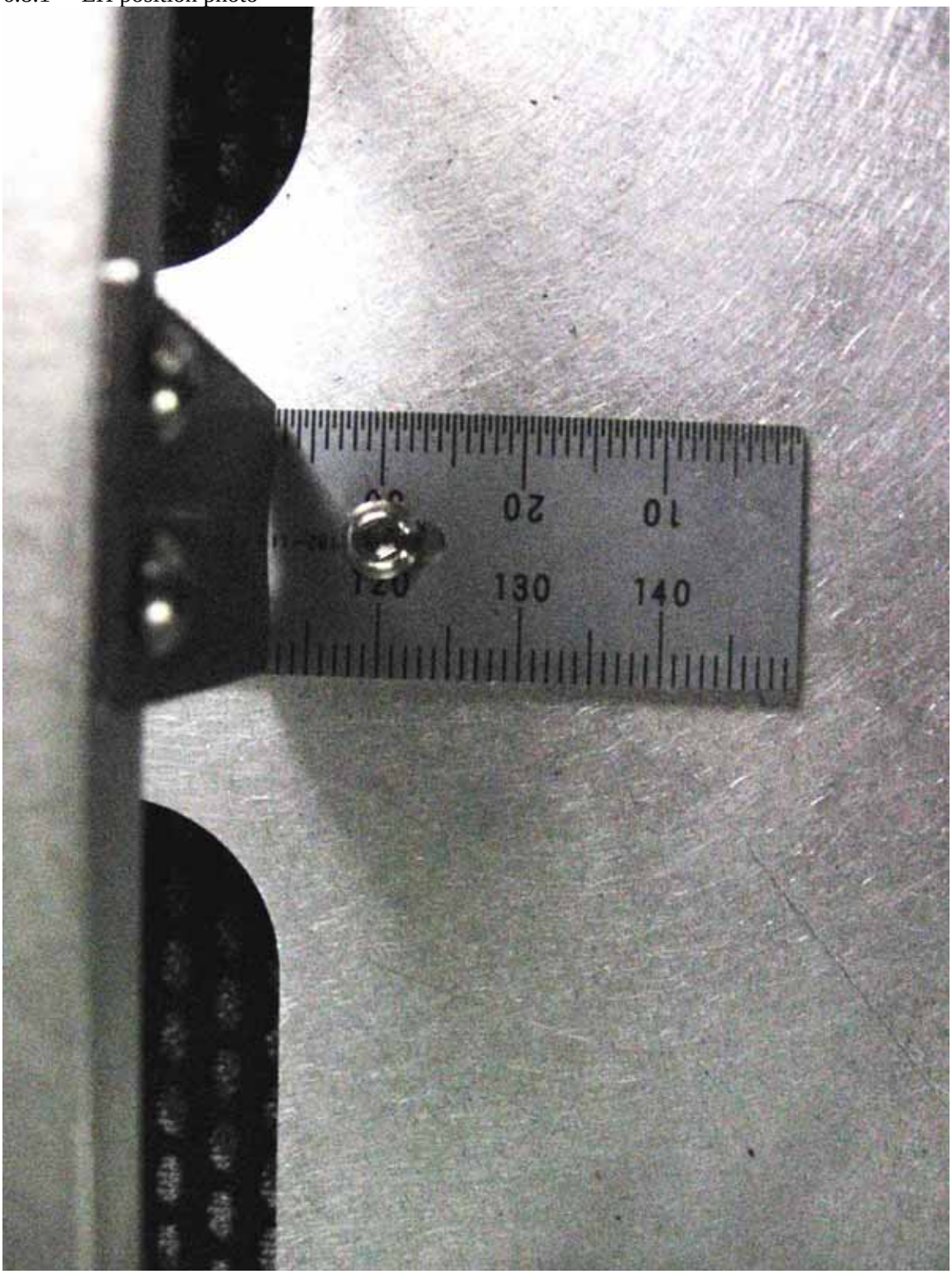
6.7.4 RH position photo #2

6.7.5 Center position photo #1

6.7.6 Center position photo #2

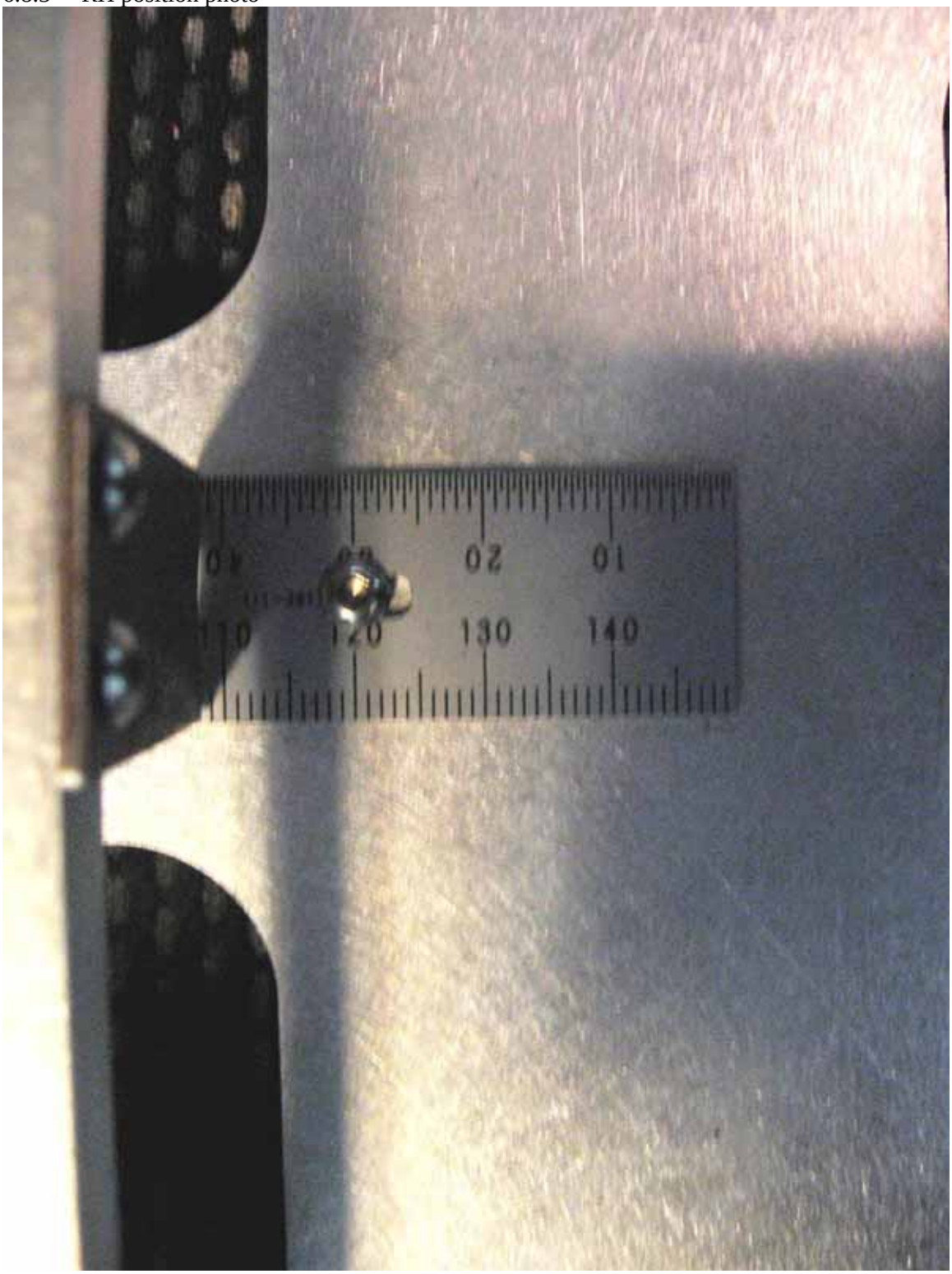
6.8 CRF verification

6.8.1 LH position photo



6.8.2 LH position photo

6.8.3 RH position photo



6.8.4 RH position photo

6.9 Front view of test vehicle with test apparatus in place

6.9.1 SFAD II LH & RH Photo # 1

6.9.2 SFAD II LH & RH Photo #2

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

6.10.1 Pre-test photo

6.10.2 Pre-test photo

6.10.3 Pre-test photo

6.10.4 Pre-test photo

6.11 Post-test condition of each child restraint anchorage system

6.11.1 Post-test photo

6.11.2 Post-test photo

6.11.3 Post-test photo

6.11.4 Post-test photo

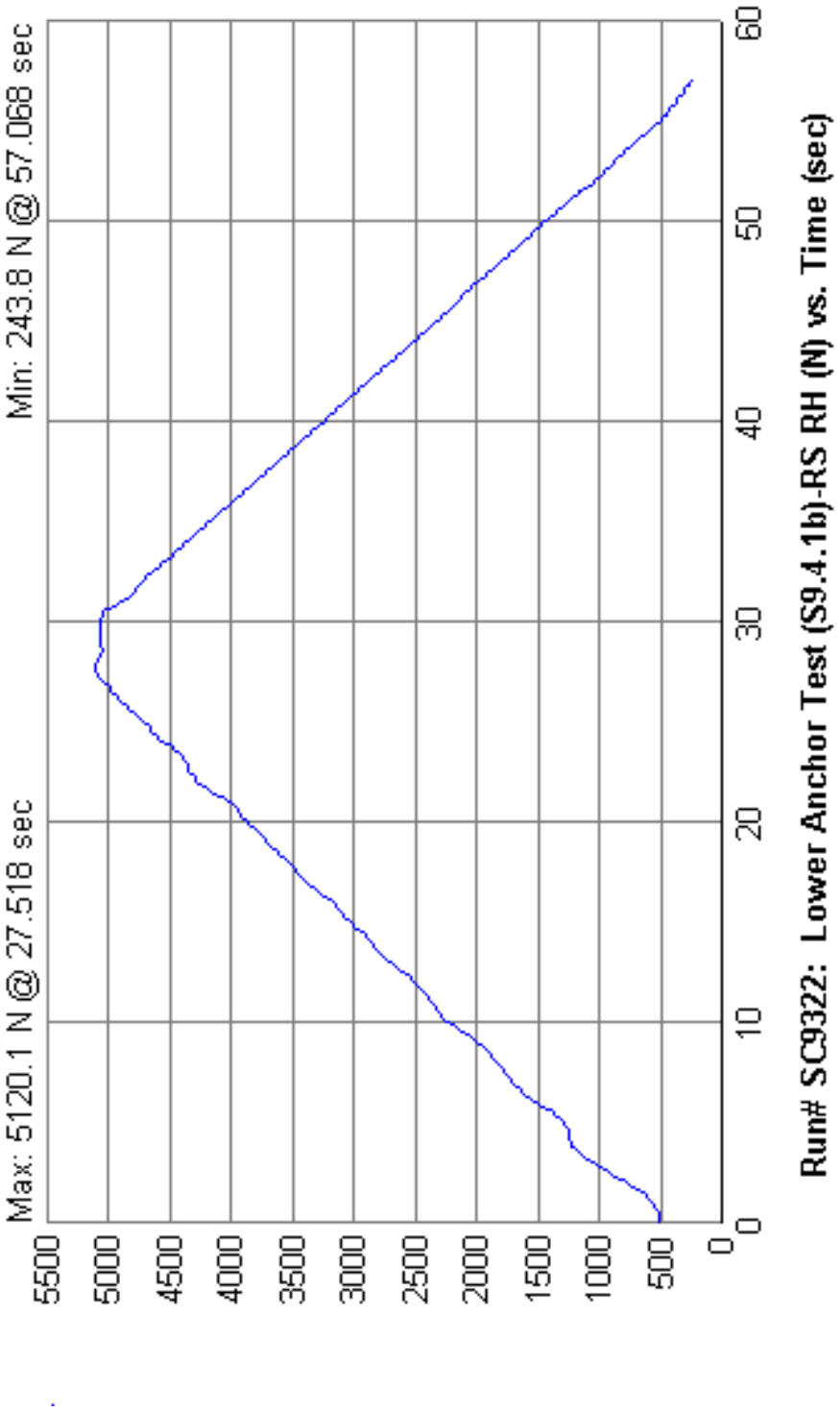
6.11.5 Post-test photo

6.11.6 Post-test photo

6.11.7 Post-test photo

6.11.8 Post-test photo

7.0 PLOTS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Max: 5120.1 N @ 27.518 sec
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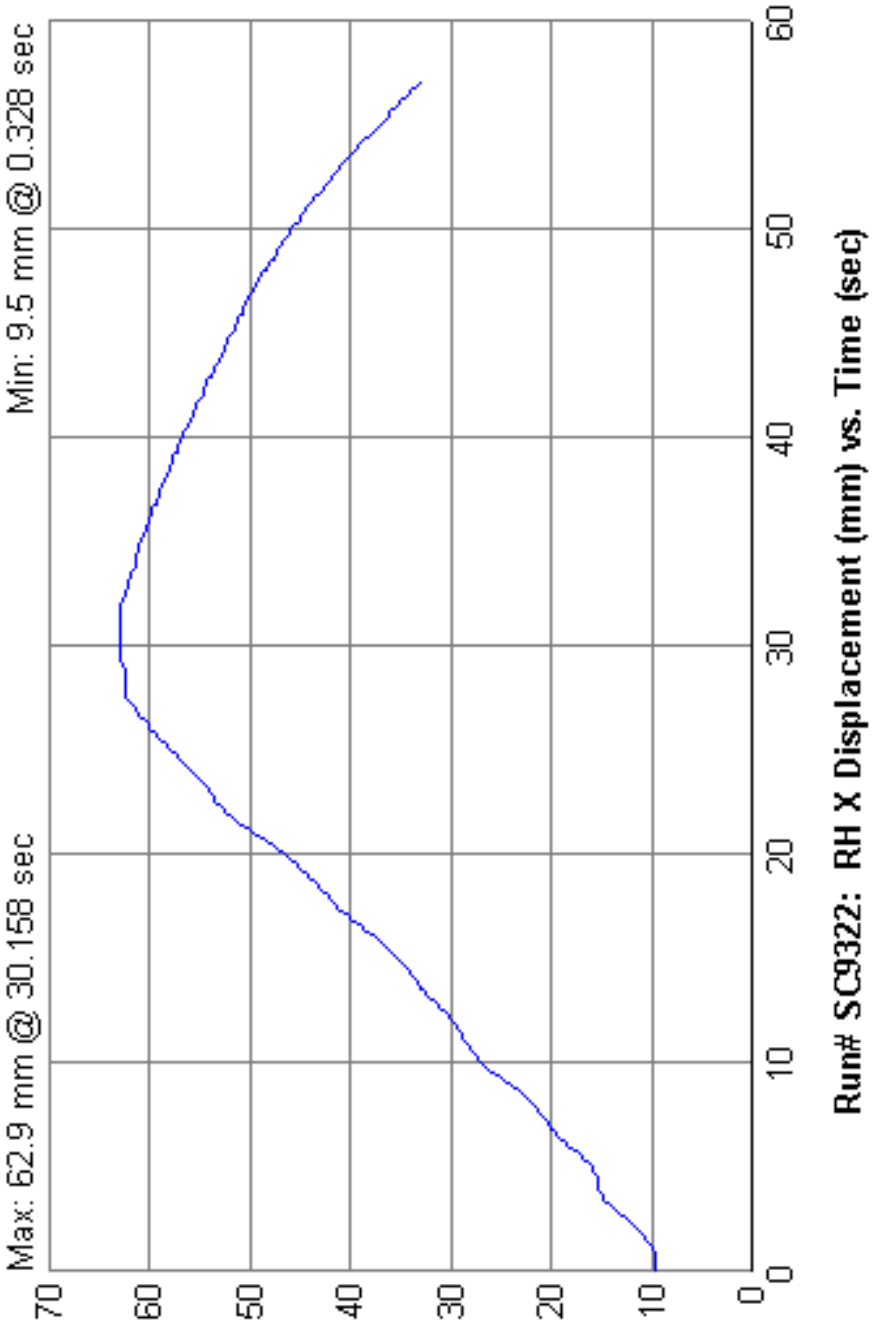
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
10
20
30
40
50
60
Run# SC9322: Lower Anchor Test (S9.4.1b)-RS RH (N) vs. Time (sec)


Min: 9.5 mm @ 0.328 sec
Max: 62.9 mm @ 30.158 sec
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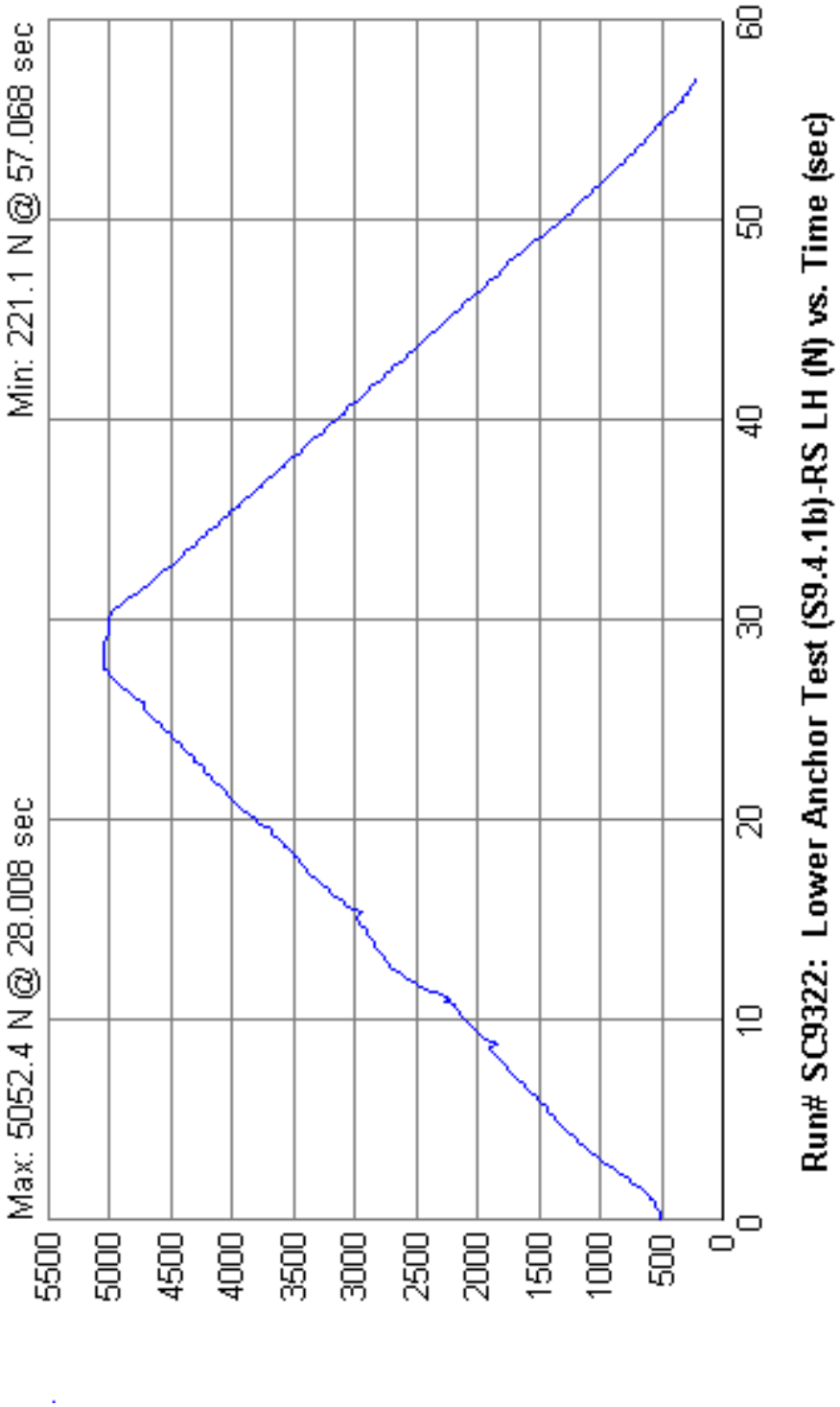
20
10
0
0
10
20
30
40
50
60


Max: 5052.4 N @ 28.008 sec
Min: 221.1 N @ 57.068 sec
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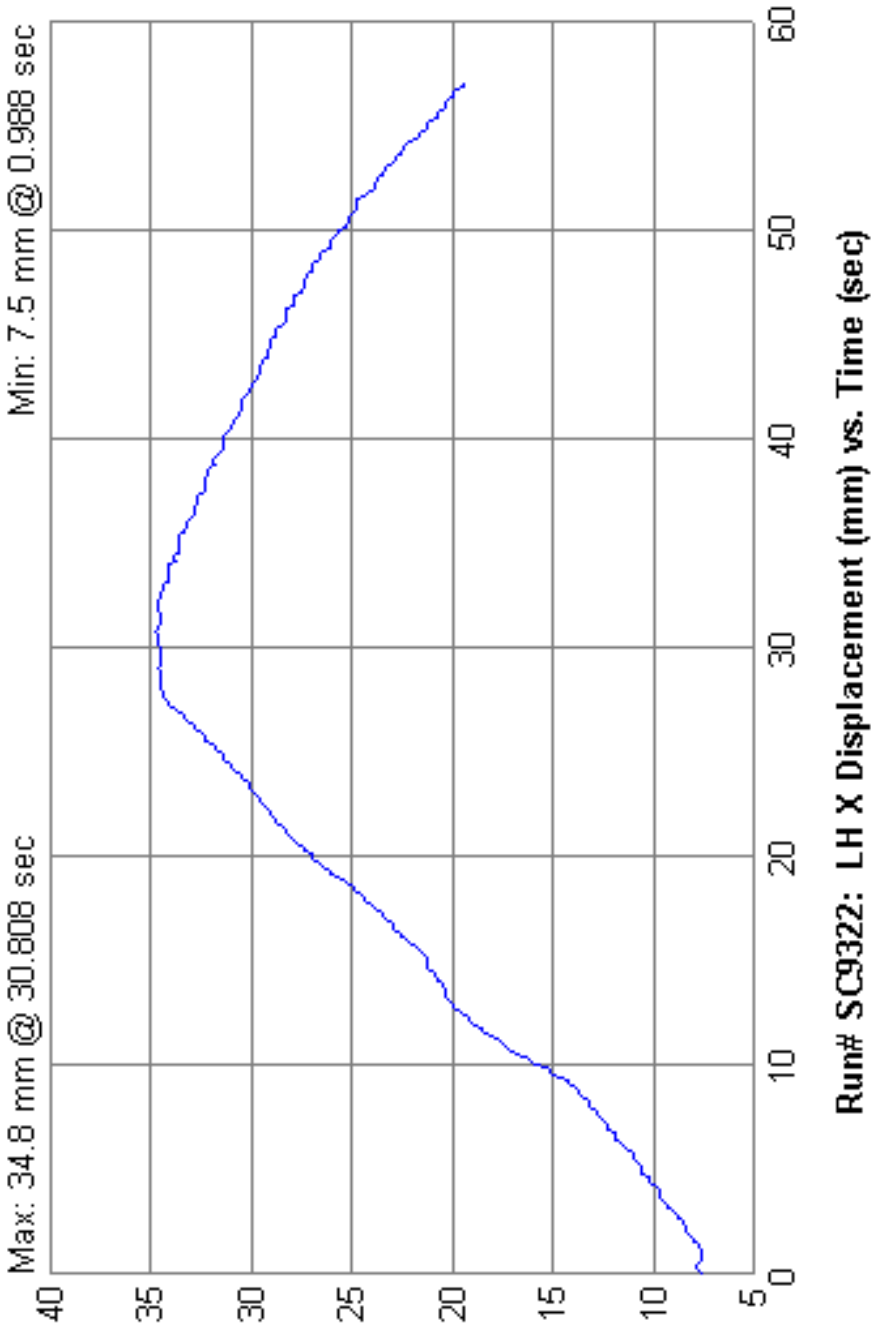
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
10
20
30
40
50
60
Run# SC9322: Lower Anchor Test (S9.4.1b)-RS LH (N) vs. Time (sec)


Max: 34.8 mm @ 30.808 sec
Min: 7.5 mm @ 0.988 sec
Run# SC9322: LH X Displacement (mm) vs. Time (sec)
40
35
30
25
20
15
10
5
0
10
20
30
40
50
60

8.0 REPORT OF VEHICLE CONDITION

REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

CONTRACT No.: DTNH22-06-C-00030/0007 DATE: September 3, 2009

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

To: NHTSA, OVSC, NVS-220

The following vehicle has been subjected to compliance testing for FMVSS No. 225 & 201U

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: 2008 Suzuki SX4 Sedan

VEH. NHTSA NO.: C80500 VIN: JS2YB413485100278

COLOR: Silver

ODOMETER READINGS: ARRIVAL N/A miles Date: N/A

COMPLETION 286 miles Date: 9/3/2009

PURCHASE PRICE: $17,895

ENGINE DATA: ___ Cylinders 2 Liters ___ Cubic Inches

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

FINAL DRIVE DATA: ___ Rear Drive X Front Drive ___ 4 Wheel Drive

CHECK APPROPRIATE BOXES FOR VEHICLE EQUIPMENT:

TEST LABORATORY: MGA Research Corporation

OBSERVERS: Fern Gatilao, Brad Reaume, Kenney Godfrey

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/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:

Test Vehicle Condition:

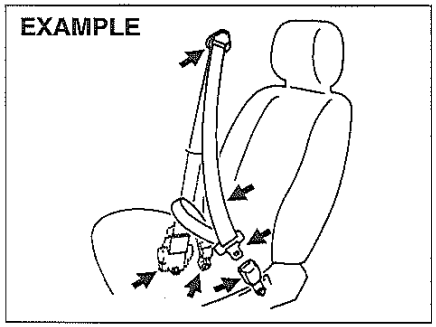
Salvage only.

RECORDED BY: Fern Gatilao, Kenney Godfrey DATE: September 3, 2009

APPROVED BY: Brad Reaume

APPENDIX A
OWNERS MANUAL CHILD RESTRAINT SYSTEMS

Seat Belt Inspection



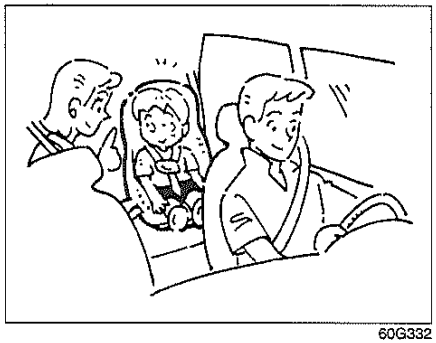
65D209S

Periodically inspect the seat belts to make sure they work properly and are not damaged. Check the webbing, buckles, latch plates, retractors, anchorages and guide loops. Replace any seat belts which do not work properly or are damaged.

⚠ WARNING

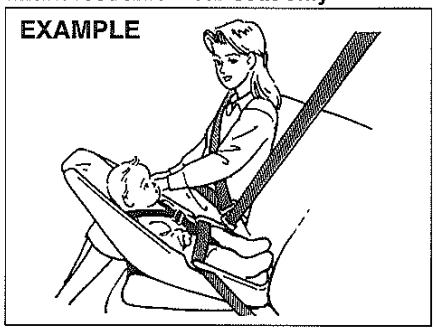
Be sure to inspect all seat belt assemblies after any collision. Any seat belt assembly which was in use during a collision (other than a very minor one) should be replaced, even if damage to the assembly is not obvious. Any seat belt assembly which was not in use during a collision should be replaced if it does not function properly, it is damaged in any way or the seat belt pretensioners were activated.

Child Restraint Systems



60G332

Infant restraint - rear seat only



65D202

BEFORE DRIVING

SUZUKI highly recommends that you use a child restraint system to restrain infants and small children. Many different types of child restraint systems are available; make sure that the restraint system you select meets Federal Motor Vehicle Safety Standards.

All child restraint systems are designed to be secured in vehicle seats by either seat belts (lap belts or the lap portion of lap-shoulder belts) or by special rigid lower anchor bars built into the seats. Whenever possible, SUZUKI recommends that child restraint systems be installed on the rear seat. According to accident statistics, children are safer when properly restrained in rear seating positions than in front seating positions.

If you must use a front-facing child restraint in the front passenger's seat, be sure to move the front passenger's seat as far back as possible.

65D607

⚠ WARNING

Do not install a rear-facing child restraint in the front passenger's seat. If the passenger's air bag inflates, a child in a rear-facing child restraint could be killed or seriously injured. The back of a rear-facing child restraint would be too close to the inflating air bag.

Infant restraint - rear seat only

EXAMPLE

80JC007

Booster seat

EXAMPLE

80JC008

BEFORE DRIVING

65D608

65D609

⚠ WARNING

Children could be endangered in a crash if their child restraints are not properly secured in the vehicle. When installing a child restraint system, be sure to follow the instructions below. Be sure to secure the child in the restraint system according to the manufacturer's instructions.

Installation with Lap-Shoulder Seat Belts (child restraint with no top strap)

EXAMPLE

86E031

Install your child restraint system according to the instructions provided by the child restraint system manufacturer. If you install the child restraint system in the front seat, be sure to slide the seat to the rearmost position. After making sure that the seat belt is securely latched:

2-31

1) Pull all of the remaining webbing out of the retractor. You will hear a click, which means that the emergency locking retractor (ELR) has converted to function as an automatic locking retractor (ALR).

2) Allow the extra webbing to retract, and pull the webbing toward the retractor to take up any slack. Make sure that the lap portion of the belt is tight around the child restraint system and the shoulder portion of the belt is positioned so that it can not interfere with the child's head or neck.

3) Make sure that the retractor has converted to the ALR mode by trying to pull webbing out of the retractor. If the retractor is in the ALR mode, the belt will be locked.

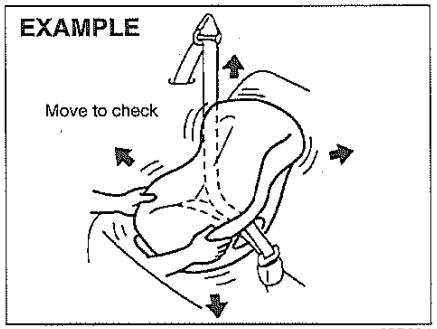
⚠ WARNING

If the retractor is not in the ALR mode, the child restraint system can move or tip over when your vehicle turns or stops abruptly.

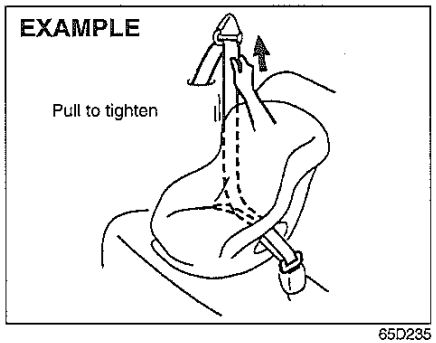
⚠ WARNING

Before installing a child restraint in the rear center seat, follow these steps for secure installation:

- **Make sure the detachable connector is securely latched and the webbing is not twisted.**
- **Make sure the seat belt is passed through the seat belt guide.**



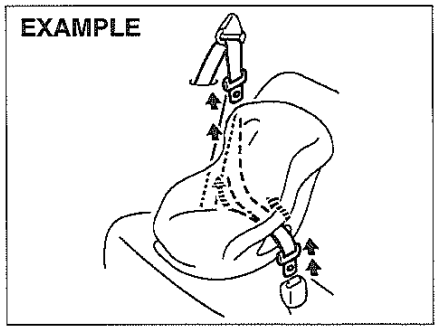
65D234



65D235

4) Try moving the child restraint system in all directions, to make sure it is securely installed. If you need to tighten the belt, pull more webbing toward the retractor.

To revert from ALR to ELR



65D267

When you unbuckle the seat belt and allow it to retract to a certain length, the retractor will automatically revert back to the normal ELR mode.

Installation with the LATCH System

Your vehicle is equipped with lower anchors for securing up to one or two standard LATCH-type child restraint(s) in the second row seats. (LATCH stands for Lower Anchors and Tethers for Children.) The anchors are located where the rear of the seat cushion meets the bottom of the seatback.

SX4 SEDAN

For SX4 SEDAN, the covers marked with the child restraint symbol as shown in the illustration indicate the presence of lower anchors. Remove the covers before installing the child restraint system. Cover the lower anchors when not in use.

Install the LATCH-type child restraint system according to the instructions provided by the child restraint system manufacturer. After installing, try moving the child restraint system in all directions, especially forward, to make sure the flexible straps or rigid connecting bars are securely latched to the anchors.

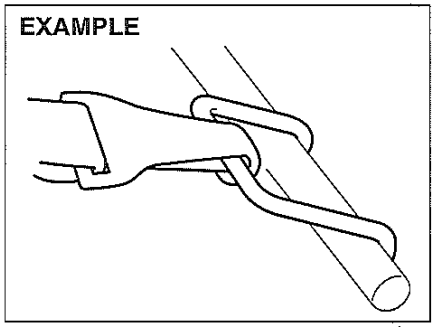
NOTE:
Although there are three second row seating positions, you cannot install three LATCH type child restraints in the second row seats. You can install one or two LATCH restraint(s). Be sure to install the LATCH type child restraint(s) in the outboard seating positions.

If your LATCH restraint has flexible lower connecting straps, these general instructions apply:

1) If possible, fold the seatback rearward for easier installation.

2) Place the child restraint in the second row seat, feeding the strap hooks through the slots in the seat cushion or the slots in the seatback bottom.

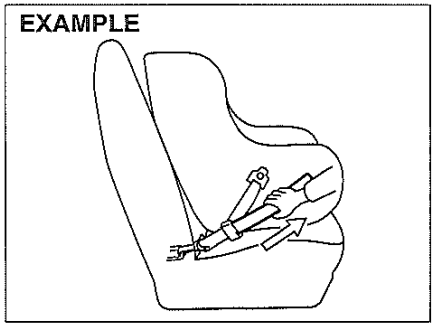
EXAMPLE



65D340

3) Snap the strap hooks to the anchors. Take care not to pinch your fingers.

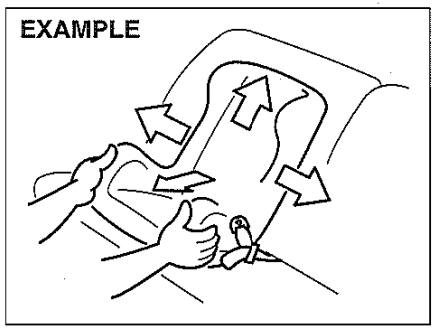
EXAMPLE



65D341

4) Return the seatback to the normal, upright position. Tighten the lower straps as described in the child restraint owner's manual. Attach the top tether strap, if applicable.

EXAMPLE



65D342

5) Make sure the child restraint is securely fastened by trying to move the child restraint system in all directions, especially forward.

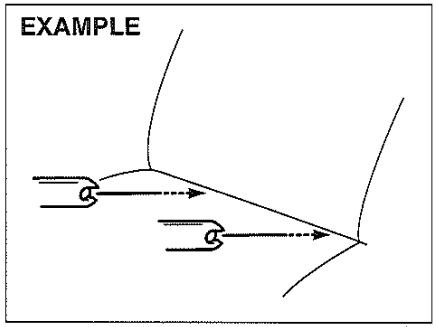
⚠ WARNING

The seatback should always be securely latched in a fairly upright position when any type of child seat is installed. An unlatched or reclined seatback will reduce the intended effectiveness of the child restraint system.

If your LATCH restraint has rigid lower connecting bars, these general instructions apply:

1) If possible, fold the seatback rearward for easier installation.

EXAMPLE



78F114

2) Place the child restraint in the second row seat, inserting the connecting bars through the slots in the seat cushion or the slots in the seatback bottom.

BEFORE DRIVING

EXAMPLE

54G183

3) Use your hands to carefully align the connecting bar tips with the anchors. Take care not to pinch your fingers.

EXAMPLE

54G184

4) Push the child restraint toward the anchors so that the connecting bar tips are partially hooked to the anchors. Use your hands to confirm the position.

EXAMPLE

54G185

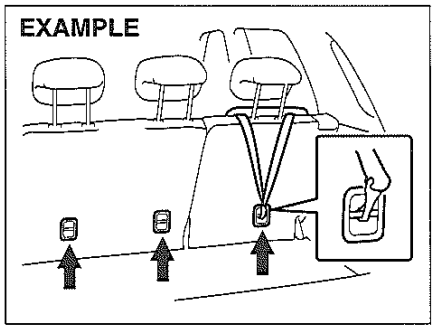
5) Grasp the front of the child restraint and push the child restraint forcefully to latch the connecting bars. Make sure they are securely latched by trying to move the child restraint system in all directions, especially forward.
6) Return the seatback if folded. Attach the top tether strap, if applicable.

⚠ WARNING

The seatback should always be securely latched in a fairly upright position when any type of child seat is installed. An unlatched or reclined seatback will reduce the intended effectiveness of the child restraint system.

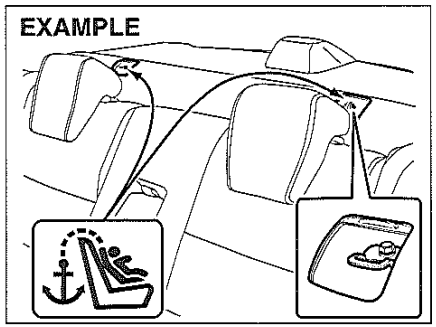
Installation of Child Restraint with Top Strap

SX4



63J021

SX4 SEDAN



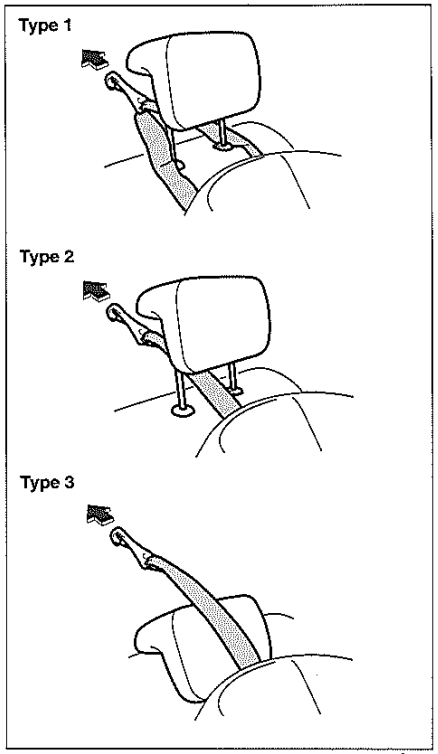
56KN015

Some child restraint systems require the use of a top strap. Top strap anchor brackets are provided in your vehicle at the locations shown in the illustrations. Install the child restraint system as follows:

1) For SX4, remove the luggage compartment cover.
2) Secure the child restraint on rear seat using the procedure described above for securing a restraint system that does not require a top strap.
3) For SX4 SEDAN, open the cover that is marked with the anchor bracket symbol to access the anchor bracket. Close the cover when not using the anchor bracket.
4) Hook the top strap to the anchor bracket and tighten the top strap according to the instructions provided by the child restraint system manufacturer. Be sure to attach the top strap to the corresponding anchor located directly behind the child restraint. Do not attach the top strap to the luggage restraint loops (if equipped).

⚠ WARNING

Do not attach the child restraint top strap to the luggage restraint loops (if equipped). Incorrectly attached top strap will reduce the intended effectiveness of the child restraint system.



80JC029

5) When routing the top strap, be sure to pass the top strap as shown in the illustration. For SX4 SEDAN, if the top strap can not be properly tightened when passed under the head restraint as shown in the Type 1 and Type 2 illustrations, pass the top strap over the top of the head restraint as shown in the Type 3 illustration. (Refer to "Head Restraints" section for details on how to raise or lower the head restraint.)
6) Make sure that cargo does not interfere with routing of the top strap.

Seat Belt Extender

(1) Center of body
(2) Less than 152 mm (6 inches)
(3) Open end of extender buckle

If a seat belt cannot be fastened securely because it is not long enough, see your authorized SUZUKI dealer for a seat belt extender. Seat belt extenders are available for each seating position except for the rear center position. After inspecting the relationship between the seat belt length, the occupant's body size, and the seat adjustment (the driver's seat should always be adjusted as far back as possible while still maintaining control of the vehicle, and other adjustable seats should be adjusted as far back as possible), your dealer can select the appropriate seat belt extender.

- A seat belt extender should only be used for the person, vehicle and seating location it was provided for.
- When using the extender, ensure that both ends are latched securely. Do not use the extender if the open end of the extender's buckle is within 152 mm (6 inches) of the center of the occupant's body (See diagram). Use of the extender when the buckle is too close to the center of the body could increase the risk of abdominal injury in the event of an accident, and could cause the shoulder belt to be positioned incorrectly.
- Make sure to use the correct buckle corresponding to your seating position.
- Seat belt extenders are not intended for use by pregnant women, and should only be used upon approval by their medical advisors.
- Remove and stow the extender when it is not being used.

APPENDIX B
MANUFACTURER'S DATA (OVSC FORM 14)

FORM – 225
Rev. 03/20/07

SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA

FMVSS No. 225
(All dimensions in mm[1])

MODEL YEAR: 08 / MAKE: Suzuki / MODEL: SX-4 / BODY STYLE: sedan

SEAT STYLE: FRONT ROW: split seat / SECOND ROW: bench seat / THIRD ROW: N/A

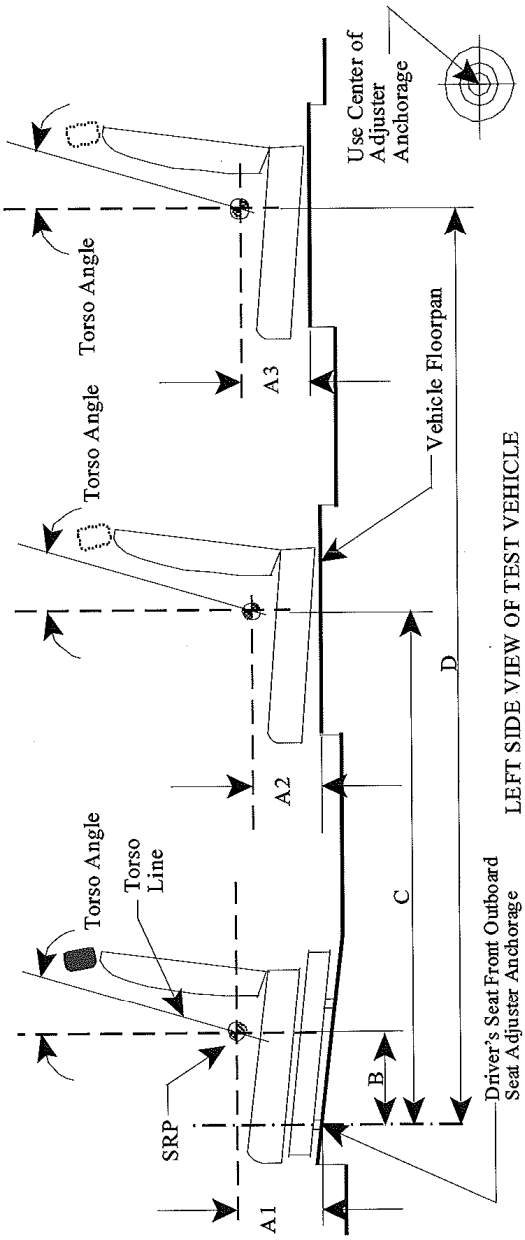


Table 1. Seating Positions[1] and Torso Angles

		Left (Driver Side)	Center (if any)	Right
A1		200.5		200.5
A2		160.0	185.0	160.0
A3				
B		380.4		380.4
C		1150.0	1130.0	1150.0
D				
Torso Angle (degree)	Front Row	21		21
	Second Row	27	25	27
	Third Row			

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

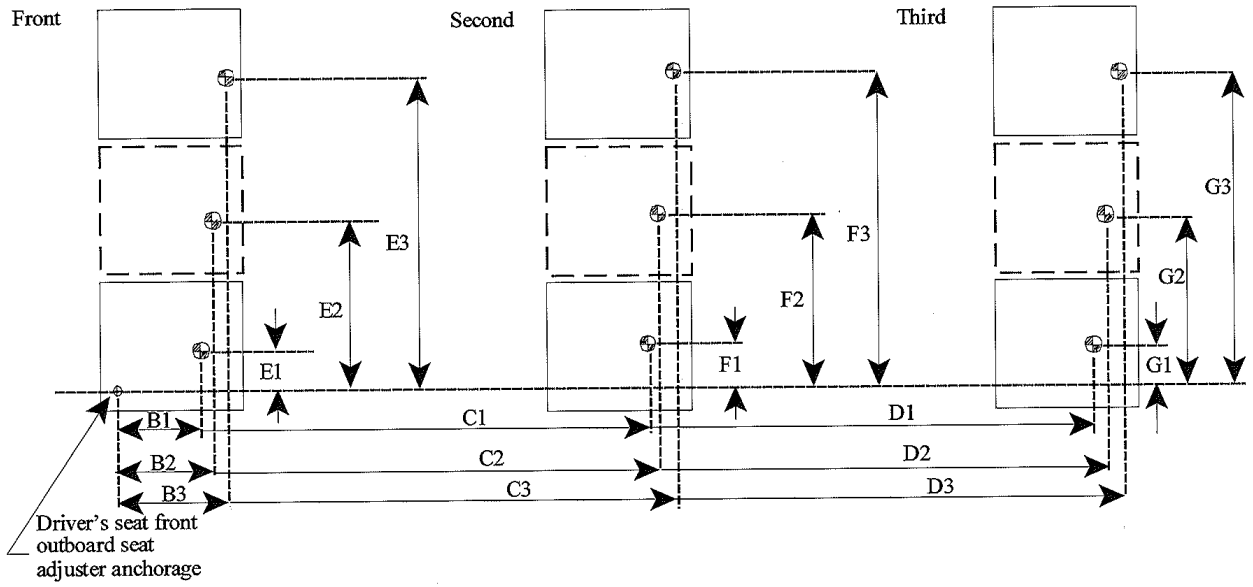
FORM – 225

SEATING REFERENCE POINT

FMVSS No. 225
(All dimensions in mm)

MODEL YEAR: 08 / MAKE: Suzuki / MODEL: SX-4 / BODY STYLE: sedan

SEAT STYLE: FRONT ROW: Split seat / SECOND ROW: Bench seat / THIRD ROW: N/A



4

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	380.4
	E1	216.2
	B2	
	E2	
	B3	380.4
	E3	886.2
Second Row	C1	769.6
	F1	231.2
	C2	749.6
	F2	551.2
	C3	769.6
	F3	871.2
Third Row	D1	
	G1	
	D2	
	G2	
	D3	
	G3	

Note: Use the center of anchorage.

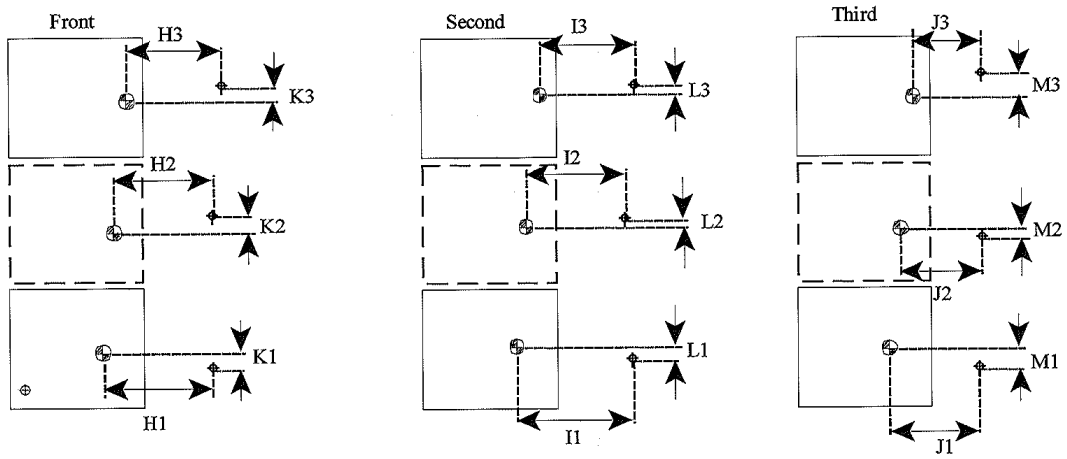
FORM – 225

TETHER ANCHORAGE LOCATIONS

FMVSS No. 225
(All dimensions in mm)

MODEL YEAR: 08 / MAKE: Suzuki / MODEL: SX-4 / BODY STYLE: sedan

SEAT STYLE: FRONT ROW: Split seat / SECOND ROW: Bench seat / THIRD ROW: N/A



⊕: SRP
⊕: Tether anchorage

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

770
330
1150

6

Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	
	K1	
	H2	
	K2	
	H3	
	K3	
Second Row	I1	523.8
	L1	0
	I2	
	L2	
	I3	523.8
	L3	0
Third Row	J1	
	M1	
	J2	
	M2	
	J3	
	M3	

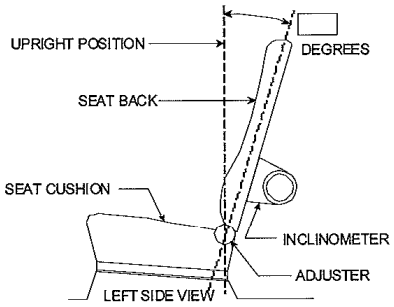
Note: Use the center of anchorage.

FORM – 225

7

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 a description of the location of the seat back 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 = 17.8 degrees.

Measurement Instructions:
Inclinometer position: behind upper area of seat back
4th detents using outside reclining knob.(first detent is "0")

Seat back angle for passenger's seat = 17.8 degrees.

Measurement Instructions:

Inclinometer position: behind upper area of seat back
4th detents using outside reclining knob.(first detent is "0")

Seat back angle for 2nd row seat = 25 degrees.

Measurement Instructions:

Inclinometer position: behind of seat back upper area
Latch detent :Only one lock (Not adjustment.)

Seat back angle for 3rd row seat = _____ degrees.

Measurement Instructions:

8

TETHER ANCHORAGE LOCATIONS - VERTICAL

FMVSS No. 225
(All dimensions in mm)

MODEL YEAR: 08 / MAKE: Suzuki / MODEL: SX-4 / BODY STYLE: sedan

SEAT STYLE: FRONT ROW: Split seat / SECOND ROW: Bench seat / THIRD ROW: N/A

LEFT SIDE VIEW OF TEST VEHICLE

FORM – 225

Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distance from Seating Reference Point	
Front Row	N1 (Driver)	N/A
	N2 (Center)	
	N3 (Right)	N/A
Second Row	O1 (Left)	482.0
	O2 (Center)	457.0
	O3 (Right)	482.0
Third Row	P1 (Left)	
	P2 (Center)	
	P3 (Right)	

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

For each vehicle, provide the following information:

1. How many designated seating positions exist in the vehicle?
   : 5
2. How many designated seating positions are equipped with lower anchorages and tether anchorages? Specify which position(s).
   : 2 R&L Rear outside seat
3. How many designated seating positions are equipped with tether anchorages? Specify which positions(s).
   :3 R/L &Center Rear seat
4. Lower Anchorages Marking and Conspicuity: Whether the anchorages are certified to S9.5(a) or S9.5(b) of FMVSS No. 225.
   :S9.5(b)