# SAFETY COMPLIANCE TESTING FOR FMVSS NO. 225 CHILD RESTRAINT ANCHORAGE SYSTEMS LOWER AND TETHER ANCHORAGES

MAZDA MOTOR CORPORATION 2006 MAZDA 5, PASSENGER CAR NHTSA NO. C65401

GENERAL TESTING LABORATORIES, INC. 1623 LEEDSTOWN ROAD COLONIAL BEACH, VIRGINIA 22443



OCTOBER 27, 2006

**FINAL REPORT** 

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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Appendix A – Owner's Manual Child Restraint Information

Appendix B – Manufacturer's Data

#### **SECTION 1**

#### PURPOSE OF COMPLIANCE TEST

#### 1.0 PURPOSE OF COMPLIANCE TEST

A 2006 Mazda 5 Passenger Car was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 225 testing to determine if the vehicle was in compliance with the requirements of the standard. The purpose of this standard is to establish requirements for child restraint anchorage systems to ensure their proper location and strength for the effective securing of child restraints, to reduce the likelihood of the anchorage systems' failure and to increase the likelihood that child restraints are properly secured and thus more fully achieve their potential effectiveness in motor vehicles.

- 1.1 The test vehicle was a 2006 Mazda 5 Passenger Car. Nomenclature applicable to the test vehicle are:
  - A. Vehicle Identification Number: JM1CR293760102352
  - B. NHTSA No.: C65401
  - C. Manufacturer: MAZDA MOTOR CORPORATION
  - D. Manufacture Date: 05/05

#### 1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 225 testing during the time period July 28 through September 28, 2006.

#### SECTION 2

#### COMPLIANCE TEST RESULTS

### 2.0 <u>TEST RESULTS</u>

All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedures, TP-225-01 dated 11 April 2005.

Based on the test performed, the 2006 Mazda 5 Passenger Car appeared to meet the requirements of FMVSS 225 testing.

## SECTION 3

## COMPLIANCE TEST DATA

# 3.0 <u>TEST DATA</u>

The following data sheets document the results of testing on the 2006 Mazda 5 Passenger Car.

#### DATA SHEET 1 SUMMARY OF RESULTS

	MOD YR/MAKE/MODEL/B NHTSA NO: C65401;			<u>4R</u>
VEH.	BUILD DATE: <u>05/05</u> ;	TEST DATE: JULY 28 –	SEPTEMBE	R 28. 2006
<b>TEST</b>	LABORATORY: GENERAL	TESTING LABORATORI		-,
OBSE	ERVERS: <u>Grant Farran</u>	ND, JIMMY LATANE		
Α.	VISUAL INSPECTION OF	TEST VEHICLE		
	Upon receipt for complete influence the testing.	ness, function, and discreր	oancies or da	mage which might
	RESULTS: OK FOR TEST	Г		
В.	REQUIREMENTS FOR C	HILD RESTRAINT SYSTE	EMS AND TE	THER ANCHORAGES
	DSP a DSP b DSP c DSP d		PASS  X X X X X	FAIL
C.	LOCATION OF TETHER	ANCHORAGES		
	DSP a DSP b DSP c DSP d		PASS  X X X X	FAIL
D.	LOWER ANCHORAGE D	IMENSIONS		
	DSP a DSP b DSP c DSP d		PASS X X N/A N/A	FAIL

# DATA SHEET 1 CONTINUED SUMMARY OF RESULTS

E.	CONSPICUITY AND MARKING OF LOWER ANCHORAGES				
	DSP a DSP b DSP c DSP d	PASS X X N/A N/A	FAIL N/A N/A		
F.	STRENGTH OF TETHER ANCHORAGES				
	DSP a DSP b DSP c DSP d	PASS X N/A X X	FAIL N/A		
G.	STRENGTH OF LOWER ANCHORAGES (Forwar	d Force)			
	DSP a DSP b DSP c DSP d	PASS N/A X N/A N/A	FAIL N/A N/A N/A		
н.	STRENGTH OF LOWER ANCHORAGE (Lateral F	orce)			
	DSP a DSP b DSP c DSP d	PASS N/A N/A N/A N/A	FAIL N/A N/A N/A N/A		
I.	OWNER'S MANUAL	PASS X	FAIL		
REMA DSP o	ARKS: DSP a = 2 <sup>nd</sup> Row Left Rear Outboard, DSP b c = 3 <sup>rd</sup> Row Left Rear Outboard DSP d = 3 <sup>rd</sup> Row Rig	= 2 <sup>nd</sup> Row Righ	——— at Rear Outboard ard		
RECC	DRDED BY: <u>G. Farrand</u> DA	ΓΕ: 09/28	3/06		
APPR	OVED BY: D. Messick				

# DATA SHEET 2 REQUIREMENTS FOR CHILD RESTRAINT ANCHORAGE SYSTEMS AND TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: <u>2006 MAZDA 5 PASSENGER CAR</u>
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u>
VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
Number of rows of seats:3  Number of rear, forward-facing designated seating positions:4
Number of required CRAS (lower anchorages only, for convertibles/school buses):2
Number of required tether anchorages (can be additional CRAS):3
Is the vehicle a convertible?
Is the vehicle a school bus?
Does the vehicle have a CRAS (lower anchorage only, for convertibles/school buses) installed at a front passenger seating position? NO
Does the vehicle have rear designated seating position(s) where the lower bars of a CRAS are prevented from being located because of transmission and/or suspension component interference?  NO  15 NO
If NO, skip to next question.  If YES, does the vehicle have a tether anchorage at a front passenger seating position?  YES = PASS  NO = FAIL (S5(e))
Number of provided CRAS (lower anchorage only, for convertibles/school buses), indicate if a built-in child restraint is counted as a CRAS:
Is the number of provided CRAS (lower anchorages only, for convertible/school buses) greater than or equal to the number of required CRAS (lower anchorages only, for convertibles/school buses)?  YES
YES = PASS NO = FAIL (S4.4(a) or (b) or (c))

#### DATA SHEET 2 CONTINUED

buses) provided in the	he second row:	ts is a CRAS (lower anchorage only for convertibles/schoo YES NO = FAIL (S4.4(a)(1))
is counted a s tether	<sup>r</sup> anchorage (NÖTE:	(can be additional CRAS) indicate if a built-in child restraing a built-in child restraint can only be counted toward either anchorages, not both): 4
Is the number of pro anchorages?		ages greater than or equal to the number of required tethe
<u> </u>	YES = PASS	NO = FAIL (S4.4 (a) or (b) or (c))
provided at a non-ou	utboard dsp?	nd a non-outboard dsp, is a tether anchorage or CRAS  NO = FAIL (S4.4 (a)(2))
	wer anchorages ava YES	ilable for use at all times when the seat is configured for
passenger use?		NO = FAIL (S4.6 (b))
Provide a diagram s	howing the location	of lower anchorages and/or tether anchorages.
	X  * *  D  X  B	X
X = Top Tether * = Lower Anchors		
RECORDED BY:	G. FARRAND	DATE: 07/28/06
APPROVED BY:	D. MESSICK	

#### DATA SHEET 3 LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: <u>2006 MAZDA 5 PASSENGER CAR</u> VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u>
VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
Detailed description of the location of the tether anchorage: Located on lower rear seat frame behind seat .
Based on visual inspection, is the tether anchorage within the shaded zone? YES  If YES = PASS, skip to next section  If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?
If YES = PASS, skip to next section  If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?  If YES = FAIL (S6.2.1)  If NO, Is a tether routing device provided?  If YES = PASS  IF NO = FAIL (S6.2.1.2)
Is the tether anchorage recessed? NO  If NO, skip to next question  If YES, is it outside of the tether strap wraparound area? YES  YES = PASS NO = FAIL (S6.2.1)
Does the tether anchorage permit attachment of a tether hook?  YES = PASS  NO = FAIL (S6.1(a))
Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin? YES
YES = PASS NO = FAIL (S6.1(b))
After the tether anchorage is accessed, is it ready for use without the need for tools? YES = PASS NO = FAIL (S6.1(c)
Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES
YES = $\overline{\text{PASS}}$ NO = $\overline{\text{FAIL}}$ (S6.1(d))
If the DSP has a tether routing device, is it flexible or rigid?N/A

### DATA SHEET 3 CONTINUED

DESIGNATED SEATING POSITION: ROW	2 LEFT SIDE (DSP A)
If the DSP has a flexible tether routing device, $N/A$ (Must be 60 N ± 5 N)	after installing SFAD2 record the tether strap tension
If the DSP has a flexible tether routing device, reference plane and the routing device:  Greater than or equal to 65mm = PASS	
If the DSP has a rigid tether routing device, recreference plane and the routing device:  Greater than or equal to 100mm = PASS	N/A
COMMENTS:	
DECODDED BY: G EADDAND	DATE: 07/28/06
RECORDED BY: G. FARRAND  APPROVED BY: D. MESSICK	DATE
ALL NOVED DI. D. MILGGICK	_

#### DATA SHEET 3A LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u>
VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP B)
Detailed description of the location of the tether anchorage: Located on lower rear seat frame behind seat.
Based on visual inspection, is the tether anchorage within the shaded zone? YES  If YES = PASS, skip to next section  If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?
If YES = PASS, skip to next section  If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?  If YES = FAIL (S6.2.1)  If NO, Is a tether routing device provided?  If YES = PASS  IF NO = FAIL (S6.2.1.2)
Is the tether anchorage recessed? NO  If NO, skip to next question  If YES, is it outside of the tether strap wraparound area? YES  YES = PASS NO = FAIL (S6.2.1)
Does the tether anchorage permit attachment of a tether hook?  YES = PASS  NO = FAIL (S6.1(a))
Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin?  YES
YES = PASS NO = FAIL (S6.1(b))
After the tether anchorage is accessed, is it ready for use without the need for tools? YES = PASS NO = FAIL (S6.1(c)
Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES
YES = PASS NO = $FAIL (S6.1(d))$
If the DSP has a tether routing device, is it flexible or rigid?N/A

### DATA SHEET 3A CONTINUED

DESIGNATED SEA	ATING POSITION:_	ROW 2 RIG	HT SIDE (DS	<u>PB)</u>	
	exible tether routing (Must be 60 N ±		ıstalling SFAD	02 record the tether strap ten	sion
reference plane an	exible tether routing and the routing device on or equal to 65mm =	: <u>N/A</u>	the horizonta Less than 69	I distance between the torso  5mm = FAIL	
reference plane an	gid tether routing device of the routing dev	: <u>N/A</u>		istance between the torso than 100mm = FAIL	
COMMENTS:					
RECORDED BY:_	G. FARRAND		DATE:	07/28/06	
APPROVED BY:	D. MESSICK				

#### DATA SHEET 3B LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR  VEH. NHTSA NO: C65401; VIN: JM1CR293760102352  VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006  TEST LABORATORY: GENERAL TESTING LABORATORIES  OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 3 LEFT SIDE (DSP C)
Detailed description of the location of the tether anchorage: Located behind seat on seat back.
Based on visual inspection, is the tether anchorage within the shaded zone? YES  If YES = PASS, skip to next section  If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?
If YES = PASS, skip to next section  If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?  If YES = FAIL (S6.2.1)  If NO, Is a tether routing device provided?  If YES = PASS  IF NO = FAIL (S6.2.1.2)
Is the tether anchorage recessed? YES  If NO, skip to next question  If YES, is it outside of the tether strap wraparound area? YES  YES = PASS NO = FAIL (S6.2.1)
Does the tether anchorage permit attachment of a tether hook?  YES = PASS  NO = FAIL (S6.1(a))
Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin? YES
YES = PASS NO = FAIL (S6.1(b))
After the tether anchorage is accessed, is it ready for use without the need for tools? YES = PASS NO = FAIL (S6.1(c)
Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES_
YES = $\overline{PASS}$ NO = $\overline{FAIL}$ (S6.1(d))
If the DSP has a tether routing device, is it flexible or rigid?N/A

### DATA SHEET 3B CONTINUED

DESIGNATED SEA	ATING POSITION:_	ROW 3 LEF	T SIDE (DSP	<u>C)</u>
	exible tether routing (Must be 60 N ±		nstalling SFAE	O2 record the tether strap tension
reference plane an	exible tether routing and the routing devices or equal to 65mm =	: <u>N/A</u>	the horizonta _ Less than 69	Il distance between the torso  5mm = FAIL
reference plane an	gid tether routing device:  nd the routing device:  n or equal to 100mm	: <u>N/A</u>		istance between the torso than 100mm = FAIL
COMMENTS:				
RECORDED BY:_	G. FARRAND		DATE:	07/28/06
APPROVED BY:	D. MESSICK			

#### DATA SHEET 3C LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u>
VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 3 RIGHT SIDE (DSP D)
Detailed description of the location of the tether anchorage: Located behind seat on seat back.
Based on visual inspection, is the tether anchorage within the shaded zone? YES  If YES = PASS, skip to next section  If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?
If YES = PASS, skip to next section  If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?  If YES = FAIL (S6.2.1)  If NO, Is a tether routing device provided?  If YES = PASS  IF NO = FAIL (S6.2.1.2)
Is the tether anchorage recessed? YES  If NO, skip to next question  If YES, is it outside of the tether strap wraparound area? YES  YES = PASS NO = FAIL (S6.2.1)
Does the tether anchorage permit attachment of a tether hook?  YES = PASS  NO = FAIL (S6.1(a))
Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin YES
YES = PASS NO = FAIL (S6.1(b))
After the tether anchorage is accessed, is it ready for use without the need for tools? YES = PASS NO = FAIL (S6.1(c)
Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES
YES = PASS NO = FAIL (S6.1(d))
If the DSP has a tether routing device, is it flexible or rigid?N/A

### DATA SHEET 3B CONTINUED

DESIGNATED SEA	ATING POSITION:_	ROW 3 RIG	HT SIDE (DS	<u>P D)</u>
	exible tether routing o		ıstalling SFAD	02 record the tether strap tension
reference plane an	exible tether routing of d the routing device: n or equal to 65mm =	N/A	the horizonta Less than 6	I distance between the torso  5mm = FAIL
reference plane an	gid tether routing devident the routing device: or equal to 100mm	N/A		istance between the torso than 100mm = FAIL
COMMENTS:				
RECORDED BY:_	G. FARRAND		DATE:	07/28/06
APPROVED BY:	D. MESSICK			

#### DATA SHEET 4 LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR  VEH. NHTSA NO: C65401; VIN: JM1CR293760102352  VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006  TEST LABORATORY: GENERAL TESTING LABORATORIES  OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
Outboard Lower Anchorage bar diameter: 6.02 mm 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))
Inboard Lower Anchorage bar diameter: 6.02 mm 6mm ± 0.1mm = PASS Other size = FAIL (S9.1.1(a))
Are the bars straight, horizontal and transverse? YES YES = PASS NO = FAIL
Length of the straight portion of the bar (outboard lower anchorage):34 mm Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length of the straight portion of the bar (inboard lower anchorage): 34 mm  Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length between the anchor bar supports (outboard lower anchorage): 43 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
Length between the anchor bar supports (inboard lower anchorage):43 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
CRF Pitch angle: 16.2° Angle = 15°±10° = PASS Angle≠15°±10° = FAIL (S9.2.1)
CRF Roll angle: 0.0 Angle = $0^{\circ}\pm 5^{\circ}$ = PASS Angle $\neq 0^{\circ}\pm 5^{\circ}$ = FAIL (S9.2.1)
CRF Yaw angle: 0.0 Angle = 0°±10° = PASS Angle≠0°±10° = FAIL (S9.2.1)
Distance between point Z on the CRF and the front surface of outboard anchor bar: 60 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL
Distance between point Z on the CRF and the front surface of inboard anchor bar: 61 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL

#### **DATA SHEET 4 CONTINUED**

DESIGNATED SEATING POSITION:_	ROW 2 LEFT SIDE (DSP A)	
Distance between SgRP and the front s Distance ≥ 120mm = PASS		<u>157 mm</u>
Distance between SgRP and the front s Distance ≥ 120mm = PASS		<u>155 mm</u>
Based on visual observation, would a 1NO	00 N load cause the anchor bar t	to deform more than 5 mm?
If NO = PASS If YES = FAIL (S9.1.1(g)), Provid	de further description of the attac	nment of the anchor bar:
COMMENTS:		
RECORDED BY: G. FARRAND	DATE: <u>07/2</u>	28/06
APPROVED BY: D_MESSICK		

#### DATA SHEET 4A LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR  VEH. NHTSA NO: C65401; VIN: JM1CR293760102352  VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006  TEST LABORATORY: GENERAL TESTING LABORATORIES  OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)
Outboard Lower Anchorage bar diameter: 6.02 mm 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))
Inboard Lower Anchorage bar diameter: 6.02 mm 6mm ± 0.1mm = PASS Other size = FAIL (S9.1.1(a))
Are the bars straight, horizontal and transverse? YES YES = PASS NO = FAIL
Length of the straight portion of the bar (outboard lower anchorage):34 mm Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length of the straight portion of the bar (inboard lower anchorage): 34 mm  Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length between the anchor bar supports (outboard lower anchorage): 43 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
Length between the anchor bar supports (inboard lower anchorage):43 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
CRF Pitch angle: 16.3° Angle = 15°±10° = PASS Angle≠15°±10° = FAIL (S9.2.1)
CRF Roll angle: 0.0 Angle = $0^{\circ}\pm 5^{\circ}$ = PASS Angle $\neq 0^{\circ}\pm 5^{\circ}$ = FAIL (S9.2.1)
CRF Yaw angle: 0.0 Angle = 0°±10° = PASS Angle≠0°±10° = FAIL (S9.2.1)
Distance between point Z on the CRF and the front surface of outboard anchor bar: 61 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL
Distance between point Z on the CRF and the front surface of inboard anchor bar: 61 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL

#### DATA SHEET 4A CONTINUED

DESIGNATED SEATING POSITION:	ROW 2 RIGHT SIDE (DSP C)	_
Distance between SgRP and the front su Distance ≥ 120mm = PASS	urface of outboard anchor bar: Distance < 120mm = FAIL	156 mm
Distance between SgRP and the front su Distance ≥ 120mm = PASS	urface of inboard anchor bar: Distance < 120mm = FAIL	157 mm
Based on visual observation, would a 10 NO	0 N load cause the anchor bar to	o deform more than 5 mm?
If NO = PASS If YES = FAIL (S9.1.1(g)), Provide	e further description of the attach	nment of the anchor bar:
COMMENTS:		
RECORDED BY: G. FARRAND	DATE: <u>07/2</u>	8/06
APPROVED BY: D. MESSICK		

# DATA SHEET 5 CONSPICUITY AND MARKING OF LOWER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u>
VEH. BUILD DATE: 05/05; TEST DATE: JULY 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A), ROW 2 RIGHT SIDE (DSP B)
MARKING (Circles)
Diameter of the circle: 15 mm  Diameter ≥13mm = PASS Diameter <13mm = FAIL (S9.5(a)(1))
Does the circle have words, symbols or pictograms? <u>YES</u> Symbol NO skip to next question YES, are the meaning of the words, symbols or pictograms explained in the owner's manual.
$\frac{\text{YES}}{\text{YES} = \text{PASS}} \qquad \qquad \text{NO = FAIL (S9.5(a)(2))}$
Where is the circle located? Seat back or seat Cushion: Seat Back
For circles on seat backs, vertical distance from the center of the circle to the center of the anchor bar: 70 mm
Distance between 50&100mm = PASS Other Distance=FAIL (S9.5(a)(3))
For circles on seat cushions, horizontal distance from the center of the circle to the center of the ba N/A
Distance between 75&125mm= PASS Other Distance=FAIL (S9.5(a)(3))
Lateral distance from the center of the circle to the center of the anchor bar:0  Distance≤25mm = PASS Distance >25mm = FAIL (S9.5(a)(3))
CONSPICUITY (No Circles)
Is the anchor bar or guide visible when viewed from a point $30^{\circ}$ above the horizontal in a vertical longitudinal plane bisecting the anchor bar or guide? N/A  YES = PASS  NO = FAIL (S9.5(b))
If there is a guide, is it permanently attached? N/A YES = PASS NO = FAIL (S9.5(b))

#### DATA SHEET 5 CONTINUED

## DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE(DSP A), ROW 2 RIGHT SIDE (DSP B)

If YES, Is the If NO If YES manu	= FAIL (S9.5(b)) S, is the meaning of the	d with words, he words, syn NO = FAIL (\$	nbols or picto( 89.5(b))	grams explained in the ov	wner's
RECORDED BY:_	G. FARRAND		DATE:	07/28/06	
APPROVED BY:	D. MESSICK				

#### DATA SHEET 6 STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR
VEH. NHTSA NO: C65401;       VIN: JM1CR293760102352         VEH. BUILD DATE: 05/05;       TEST DATE: SEPTEMBER 28, 2006
VEH. BUILD DATE: 05/05; TEST DATE: SEPTEMBER 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5652
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
SFAD: 2
Seat Back Angle: 24° FIXED
Location of seat back angle measurement: 2D Template
Head Restraint Position: UP
Diring Position: N/A
D-ring Position: N/A
Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135 N
Lap belt tension: N/A (SFAD 1 only)
Tether strap tension: 55 N
Angle (measured above the horizontal at 500 N): 10°
Separation of tether anchorage at 500 N: NO = PASS YES = FAIL (S6.3.1)
Force application rate: 575 N/S
Time to reach maximum force (24-30 s): 26 sec.
Maximum force (14,950 N ± 50 N): 14,950 N
Tested simultaneously with another DSP?NO
COMMENTS: Displacement at maximum load 101 mm.
RECORDED BY: G. FARRAND DATE: 09/28/06
APPROVED BY: D. MESSICK

#### DATA SHEET 6A STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u>
VEH. BUILD DATE: 05/05; TEST DATE: SEPTEMBER 28, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5654
DESIGNATED SEATING POSITION: ROW 3 LEFT SIDE (DSP C)
SFAD:1
Seat Back Angle: 22° FIXED
Location of seat back angle measurement: 2D Template
Head Restraint Position: DOWN
D-ring Position: N/A
Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135 N
Lap belt tension: 55 N (SFAD 1 only)
Tether strap tension: 55 N
Angle (measured above the horizontal at 500 N): 10°
Separation of tether anchorage at 500 N: NO = PASS YES = FAIL (S6.3.1)
Force application rate: 575 N/S
Time to reach maximum force (24-30 s): 26 sec.
Maximum force (14,950 N ± 50 N): 13,344 N
Tested simultaneously with another DSP?NO
COMMENTS: Displacement at maximum load was 153 mm at which time the loading ram ran out of stroke. The loading ram was re-hooked and the test was continued with test #5655.
RECORDED BY: G. FARRAND DATE: 09/28/06
APPROVED BY: D. MESSICK

#### DATA SHEET 6B STRENGTH OF TETHER ANCHORAGES

#### DATA SHEET 6C STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u> VEH. BUILD DATE: <u>05/05</u> ; TEST DATE: <u>SEPTEMBER 28, 2006</u>
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5656
DESIGNATED SEATING POSITION: ROW 3 RIGHT SIDE (DSP D)
SFAD: 1
Seat Back Angle: 22° FIXED
Location of seat back angle measurement: 2D Template
Head Restraint Position: DOWN
D-ring Position: N/A
Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135 N
Lap belt tension: 58 N (SFAD 1 only)
Tether strap tension: 58 N
Angle (measured above the horizontal at 500 N): 10°
Separation of tether anchorage at 500 N:NONO = PASS YES = FAIL (S6.3.1)
Force application rate: 575 N/S
Time to reach maximum force (24-30 s): 26 sec.
Maximum force (14,950 N ± 50 N): 14,923 N
Tested simultaneously with another DSP?NO
COMMENTS: Displacement at maximum load was 169.8 mm.
RECORDED BY: G. FARRAND DATE: 09/28/06
APPROVED BY: D. MESSICK

# DATA SHEET 7 STRENGTH OF LOWER ANCHORAGES (Forward Force)

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR					
VEH. NHTSA NO: C65401;       VIN: JM1CR293760102352         VEH. BUILD DATE:05/05;       TEST DATE: SEPTEMBER 28, 2006					
TEST LABORATORY: GENERAL TESTING LABORATORIES					
OBSERVERS: GRANT FARRAND, JIMMY LATANE					
TEST NO: 5653					
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP B)					
Seat Back Angle: 24° FIXED					
<u> </u>					
Location of seat back angle measurement: 2D Template					
Head Restraint Position: UP					
E					
Force at lower front crossmember for SFAD2 while tightening rearward extensions: 135 N					
Angle (measured above the herizontal at 500 N): 100					
Angle (measured above the horizontal at 500 N).					
Force application rate: 421 N/S					
Time to reach maximum force (24-30 s): 26 sec.					
Maximum force (10,950 N ± 50 N): 10,964 N					
Displacement, H1 (at 500 N): 0.0					
Seat Back Angle:24° FIXED					
Displacement of Point X: 58.6 mm (H2-H1) Displacement > 175 mm = FAIL (S9.4.1(a))					
Tested simultaneously with another DSP? NO					
Distance between adjacent DSP's: 750 mm					
COMMENTS:					
RECORDED BY: G. FARRAND DATE: 09/28/06					
APPROVED BY: D. MESSICK					

#### DATA SHEET 8 OWNER'S MANUAL

VEH. MOD YR/MAKE/MODEL/BODY: 2006 MAZDA 5 PASSENGER CAR					
VEH. NHTSA NO: C65401; VIN: JM1CR293760102352					
VEH. NHTSA NO: <u>C65401</u> ; VIN: <u>JM1CR293760102352</u> VEH. BUILD DATE: <u>05/05</u> ; TEST DATE: <u>SEPTEMBER 28, 2006</u>					
TEST LABORATORY: GENERAL TESTING LABORATORIES					
OBSERVERS: GRANT FARRAND, JIMMY LATANE					
Description of which DSP's are equipped with tether anchorages and child restraint anchorage systems: YES  PASS X FAIL  Step-by-step instructions for properly attaching a child restraint system's tether strap to the tether anchorage. Diagrams are required. YES  PASS X FAIL					
Description of how to properly use the tether anchorage and lower anchor bars: YES					
PASS_X FAIL					
If the lower anchor bars are marked with a circle, an explanation of what the circle indicates as we as any words or pictograms: YES					
PASS_X FAIL					
COMMENTS:					
RECORDED BY: G. FARRAND DATE: 09/28/06					
APPROVED BY: D. MESSICK					

# SECTION 4 INSTRUMENTATION AND EQUIPMENT LIST

## TABLE 1 - INSTRUMENTATION & EQUIPMENT LIST

EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO.	CAL. DATE	NEXT CAL. DATE
COMPUTER	AT&T	486DX266	BEFORE USE	BEFORE USE
LOAD CELL	INTERFACE	215709	09/06	09/07
LINEAR TRANSDUCER	SERVO SYSTEMS	20	BEFORE USE	BEFORE USE
SEAT BELT LOAD CELL	TRANSDUCER	135	BEFORE USE	BEFORE USE
SEAT BELT LOAD CELL	TRANSDUCER	137	BEFORE USE	BEFORE USE
LEVEL	STANLEY	42-449	02/06	02/07
FORCE GAUGE	CHATILLON	8761	BEFORE USE	BEFORE USE
CALIPER	N/A	Q9322365	BEFORE USE	BEFORE USE
CRF	MEASUREMENT FIXTURE	GTL CRF	BEFORE USE	BEFORE USE
SFAD 1	FORCE APPLICATION DEVICE	GTL SFAD 1	BEFORE USE	BEFORE USE
SFAD 2	FORCE APPLICATION DEVICE	GTL SFAD 2	BEFORE USE	BEFORE USE

#### SECTION 5 PHOTOGRAPHS



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.1 LEFT SIDE VIEW OF VEHICLE



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.2 RIGHT SIDE VIEW OF VEHICLE



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.3 3/4 FRONT VIEW FROM LEFT SIDE OF VEHICLE



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.4 3/4 REAR VIEW FROM RIGHT SIDE OF VEHICLE



FIGURE 5.5 VEHICLE CERTIFICATION LABEL

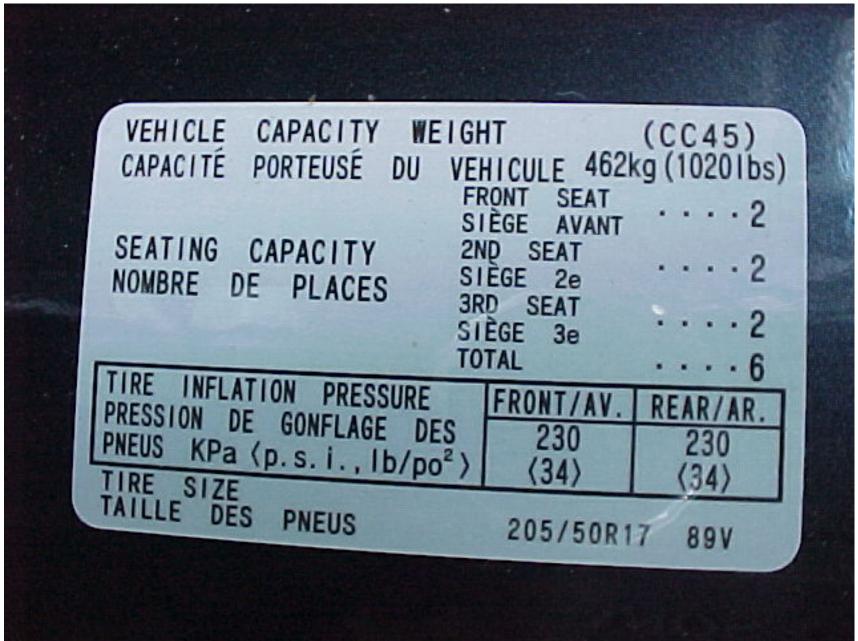


FIGURE 5.6 VEHICLE TIRE INFORMATION LABEL



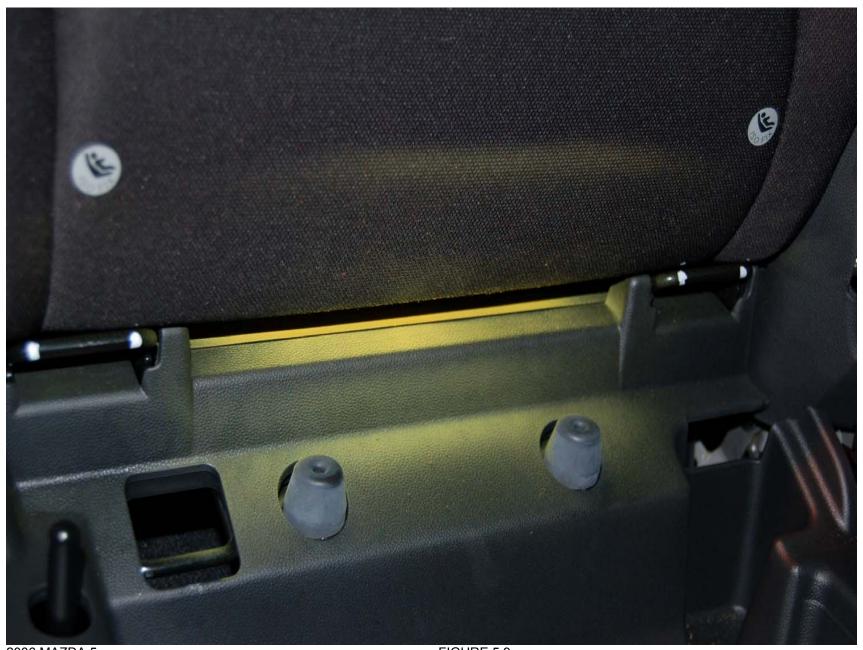
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.7 ROW 2, LEFT SIDE LOWER ANCHORS, PRE-TEST



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.8 ROW 2, LEFT SIDE, TOP TETHER ANCHOR, PRE-TEST



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.9 ROW 2, RIGHT SIDE LOWER ANCHORS, PRE-TEST



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.10 ROW 2, RIGHT SIDE, TOP TETHER ANCHOR, PRE-TEST



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.11 OVERALL VIEW OF ROW 2 SEATING POSITIONS, PRE-TEST

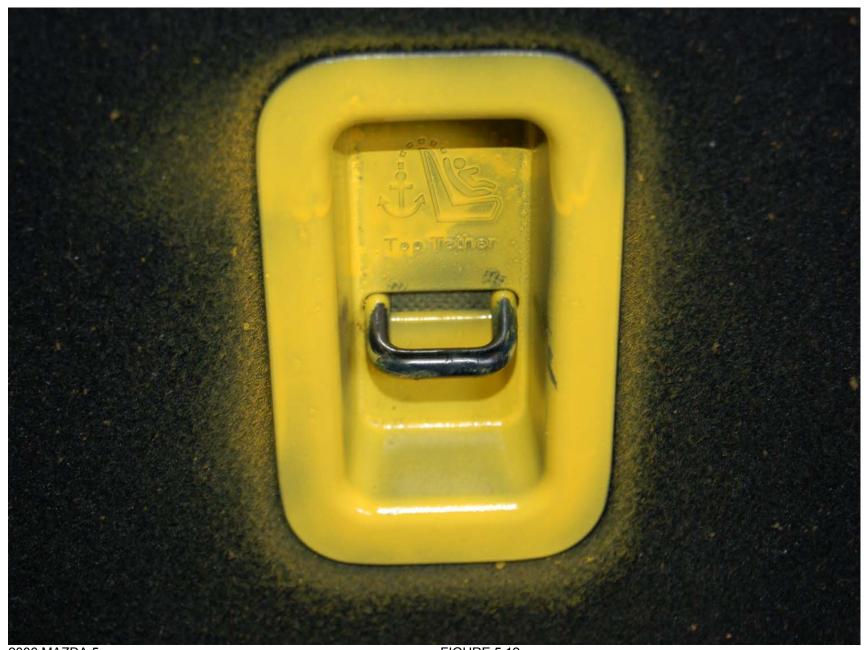
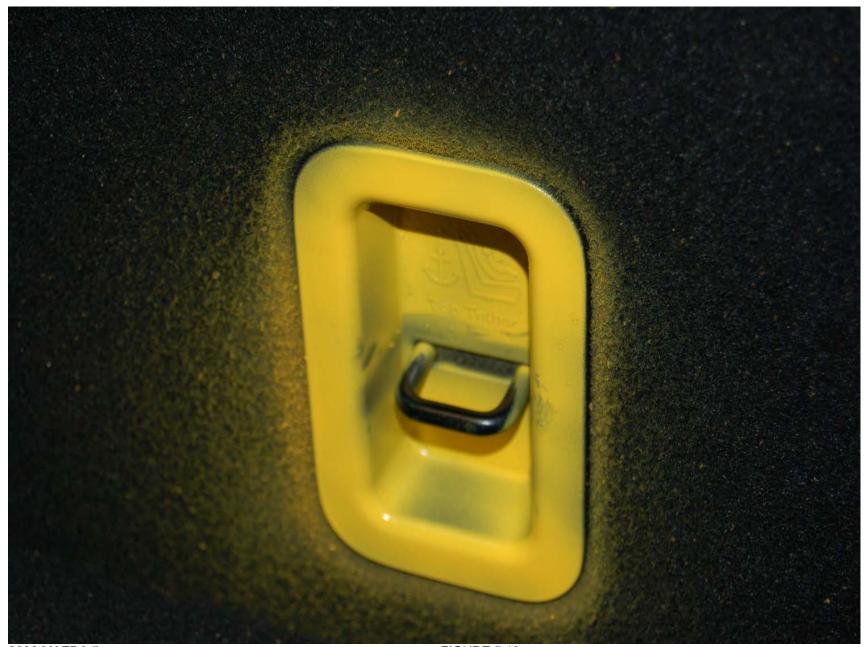


FIGURE 5.12 ROW 3, LEFT SIDE TOP TETHER ANCHOR, PRE-TEST



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.13 ROW 3, RIGHT SIDE, TOP TETHER ANCHOR, PRE-TEST



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.14 OVERALL VIEW OF ROW 3 SEATING POSITIONS



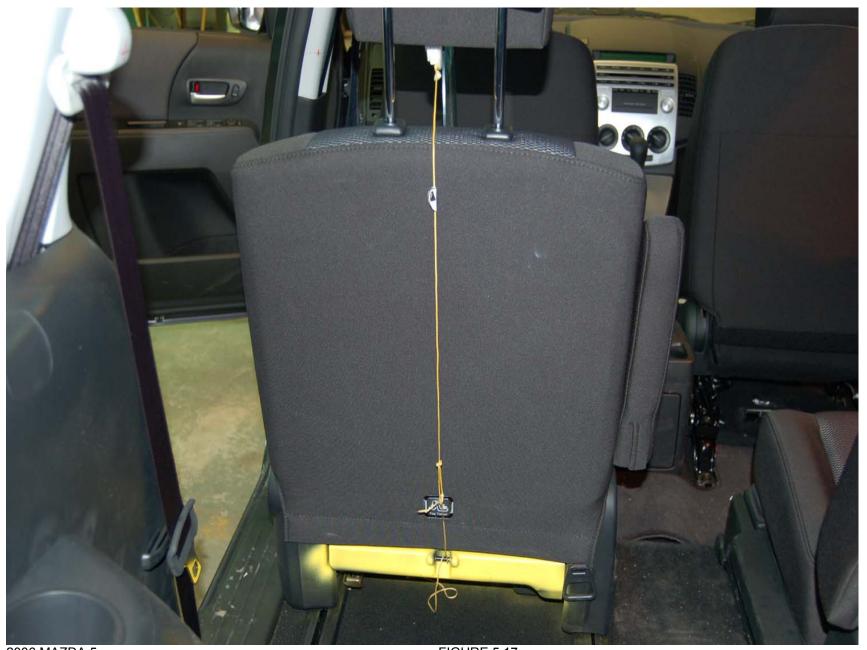
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.15 ROW 2, LEFT SIDE WITH CRF



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.16 ROW 2, LEFT SIDE WITH 2-D TEMPLATE



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.17 ROW 2, LEFT SIDE TOP TETHER ROUTING

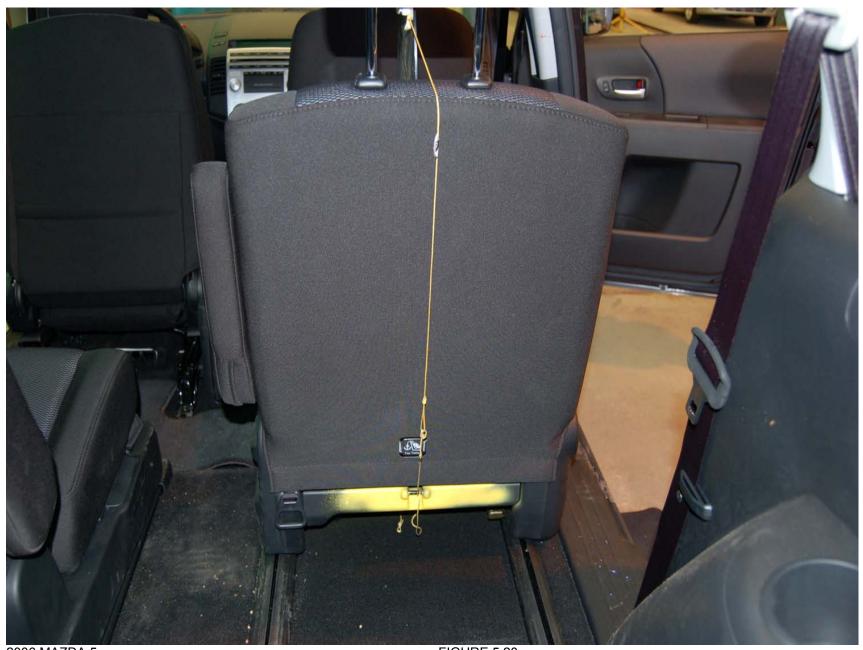


FIGURE 5.18 ROW 2, RIGHT SIDE WITH CRF



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.19 ROW 2, RIGHT SIDE WITH 2-D TEMPLATE



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.20 ROW 2, RIGHT SIDE TOP TETHER ROUTING



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.21 ROW 3, LEFT SIDE WITH 2-D TEMPLATE



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.22 ROW 3, LEFT SIDE TOP TETHER ROUTING



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.23 ROW 3, RIGHT SIDE WITH 2-D TEMPLATE



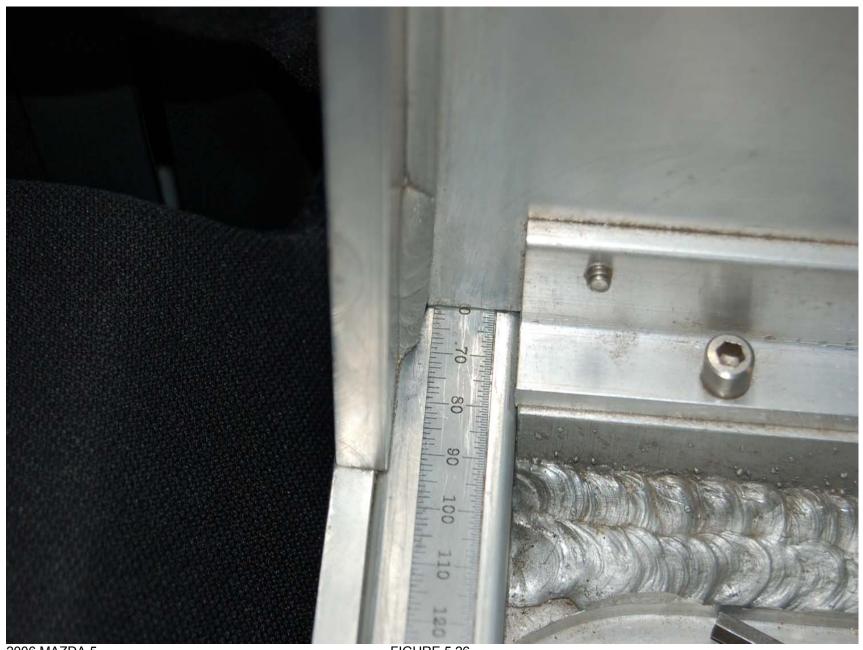
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.24 ROW 3, RIGHT SIDE, TOP TETHER ROUTING



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.25 ROW 2, RIGHT SIDE INBOARD CRF MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.26 ROW 2, RIGHT SIDE OUTBOARD CRF MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.27 ROW 2, LEFT SIDE, INBOARD CRF MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.28 ROW 2, LEFT SIDE, OUTBOARD CRF MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.29 SYMBOL MEASUREMENT

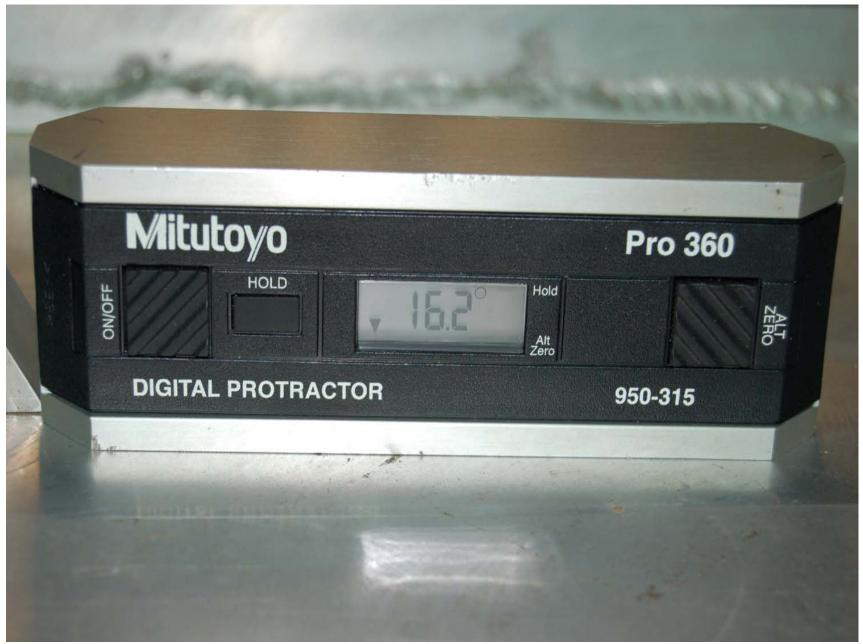


FIGURE 5.30 ROW 2, LEFT SIDE CRF PITCH MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.31 ROW 2, RIGHT SIDE CRF PITCH MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.32 ROW 2, LEFT SIDE OUTBOARD SRP MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.33 ROW 2, LEFT SIDE INBOARD SRP MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.34 ROW 2, RIGHT SIDE OUTBOARD SRP MEASUREMENT



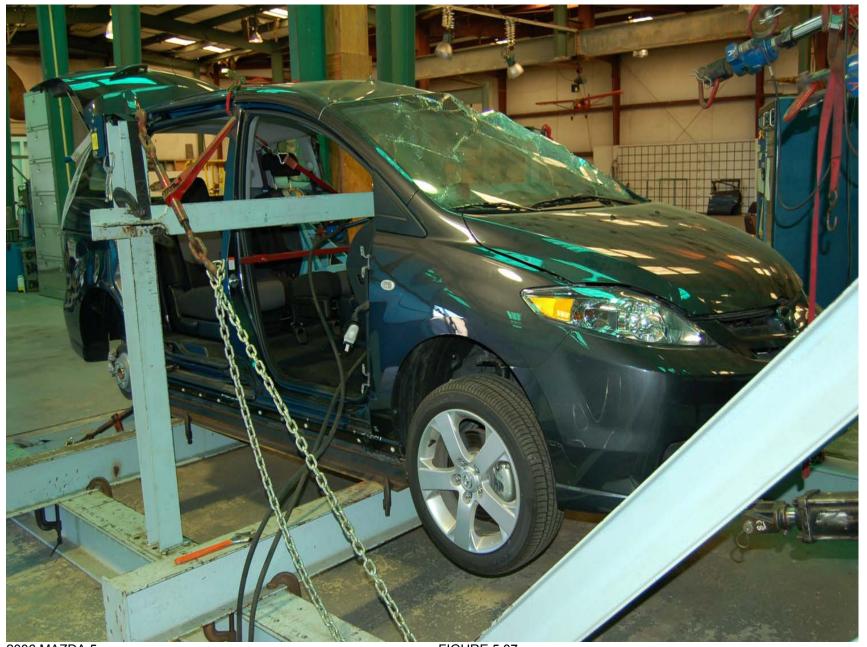
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.35 ROW 2, RIGHT SIDE INBOARD SRP MEASUREMENT



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.36 3/4 LEFT REAR VIEW OF VEHICLE IN TEST RIG



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.37 3/4 RIGHT FRONT VIEW OF VEHICLE IN TEST RIG

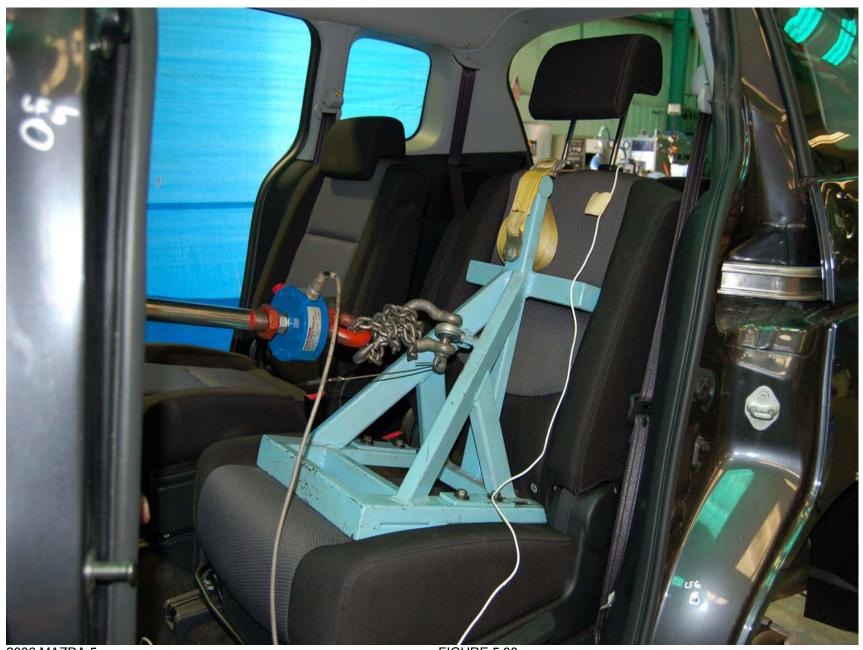
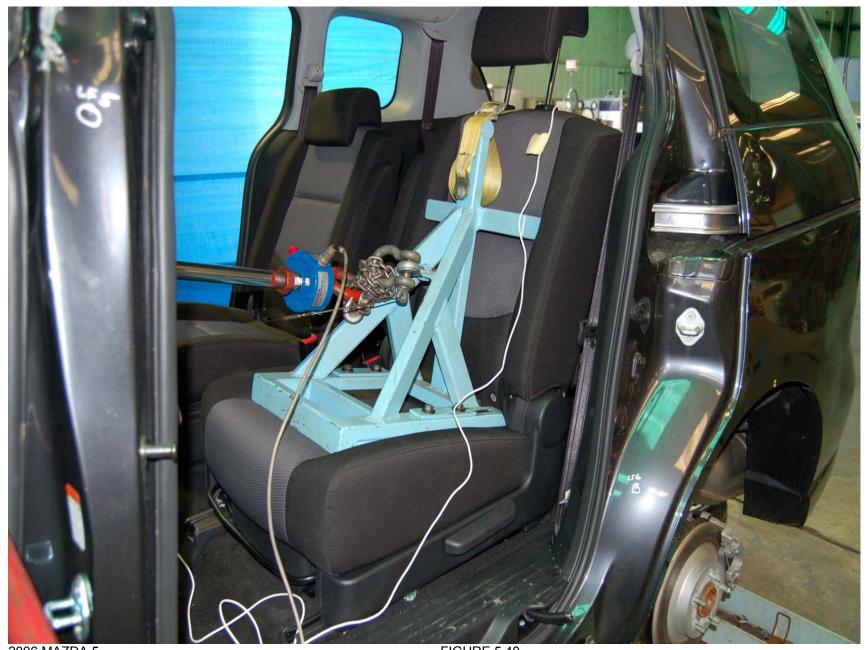


FIGURE 5.38 PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.39 PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2



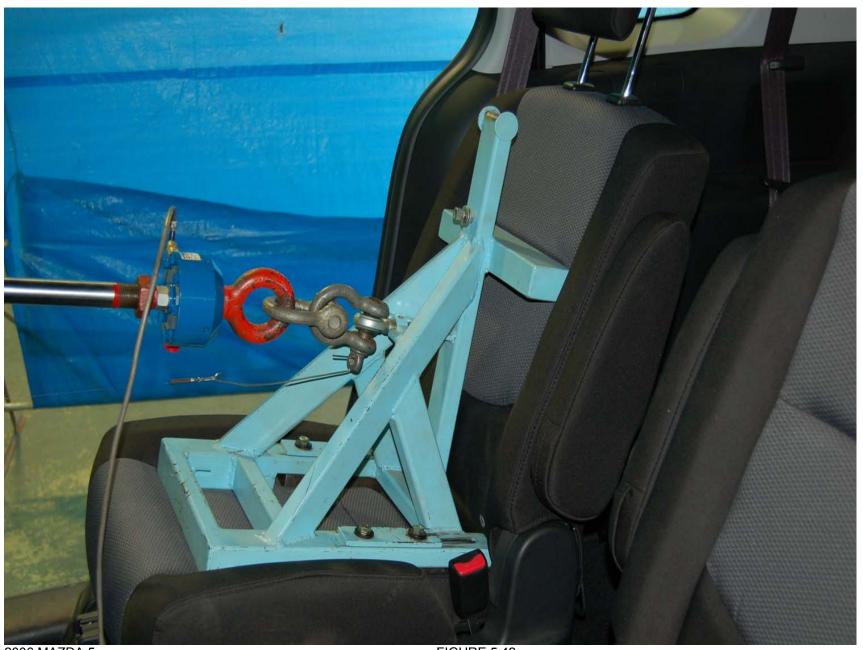
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.40 POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.41 POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.42 PRE-TEST ROW 2, RIGHT SIDE WITH SFAD 2



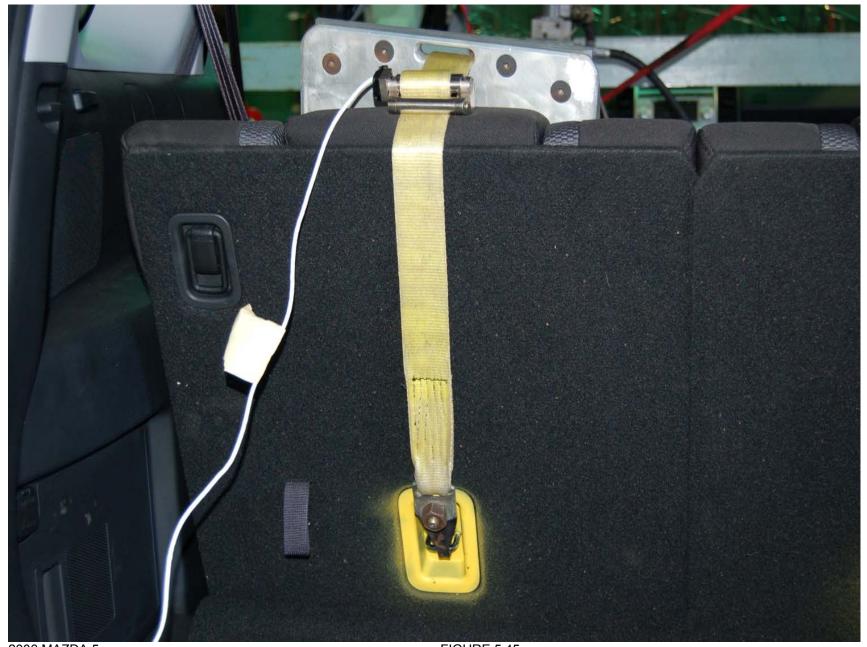
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.43 POST TEST ROW 2, RIGHT SIDE WITH SFAD 2



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.44 PRE-TEST ROW 3, LEFT SIDE WITH SFAD 1



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.45 PRE-TEST ROW 3, LEFT SIDE WITH SFAD 1



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.46 POST TEST ROW 3, LEFT SIDE WITH SFAD 1



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.47 POST TEST ROW 3 LEFT SIDE WITH SFAD 1



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.48 PRE-TEST ROW 3, RIGHT SIDE WITH SFAD 1



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

FIGURE 5.49 PRE-TEST ROW 3, RIGHT SIDE WITH SFAD 1



2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

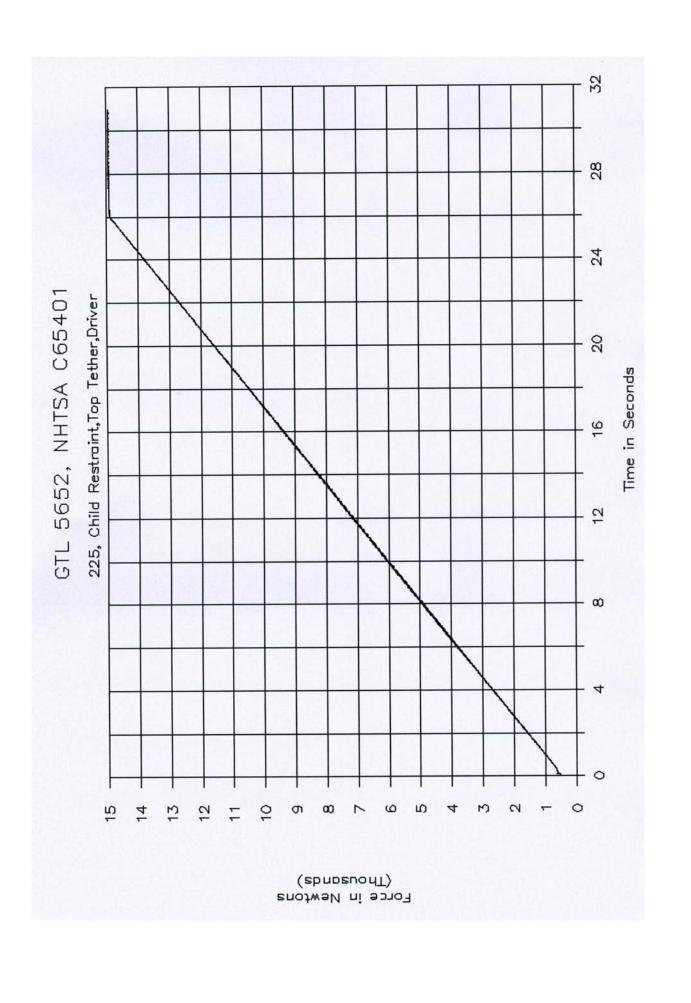
FIGURE 5.50 POST TEST ROW 3, RIGHT SIDE WITH SFAD 1

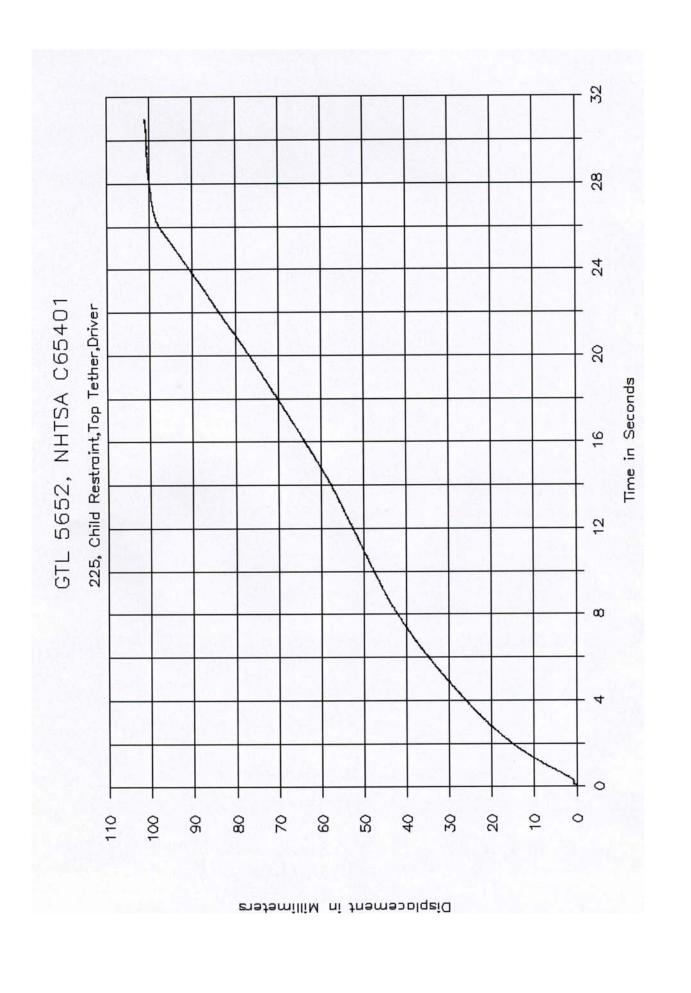


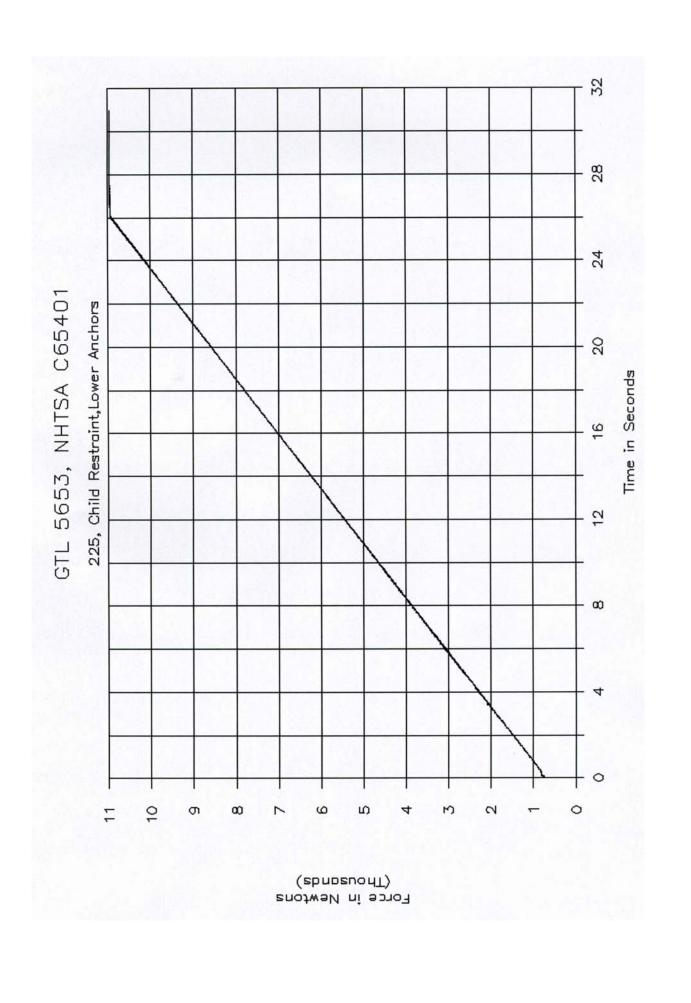
2006 MAZDA 5 NHTSA NO. C65401 FMVSS NO. 225

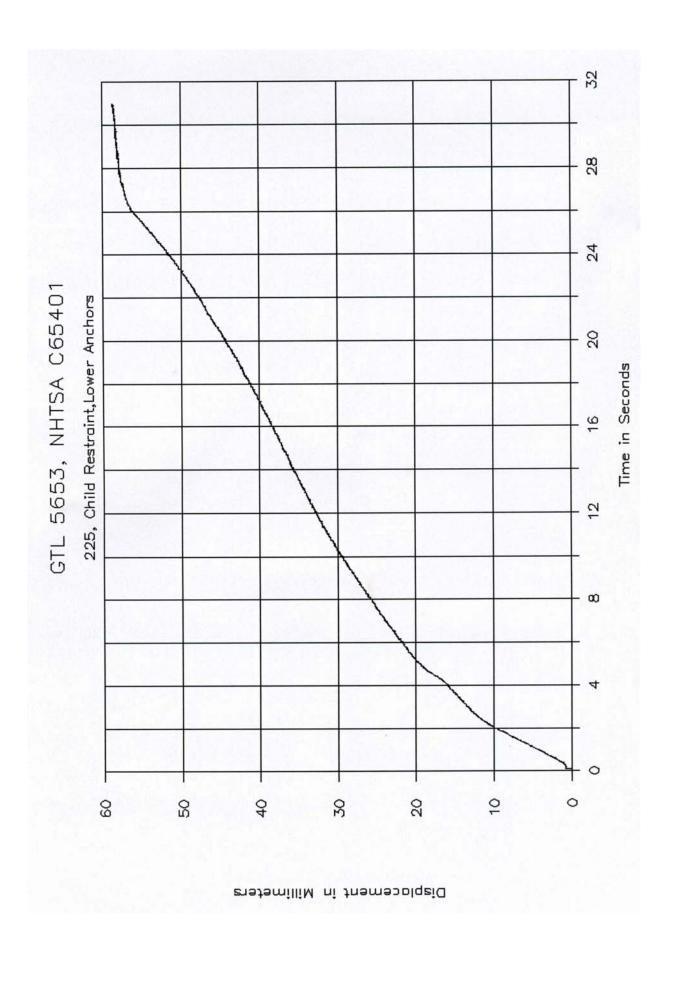
FIGURE 5.51 POST TEST ROW 3, RIGHT SIDE WITH SFAD 1

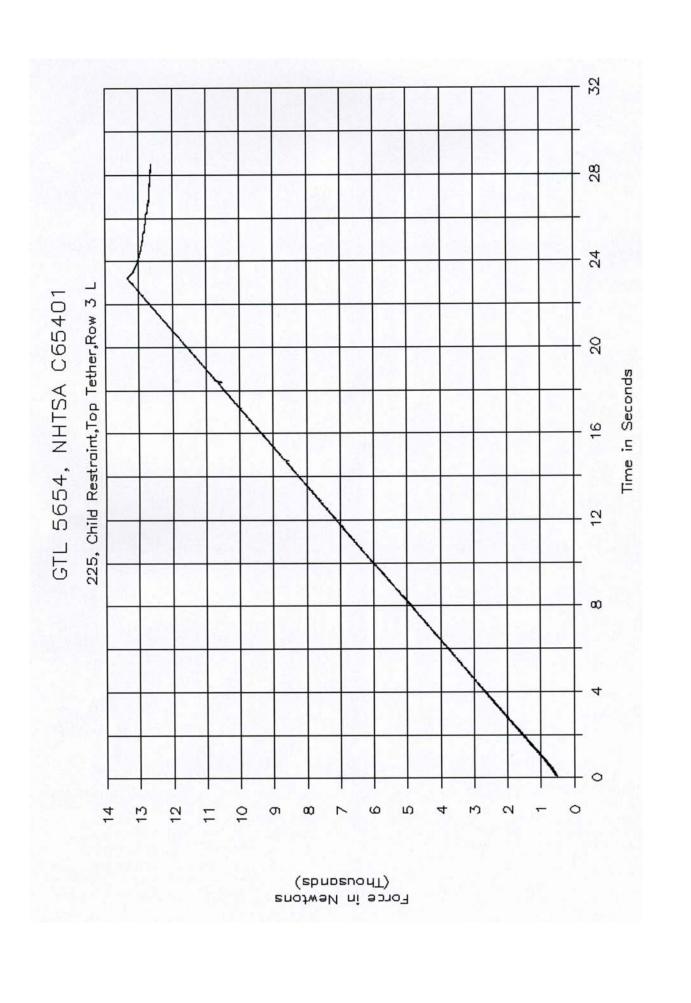
#### SECTION 6 PLOTS

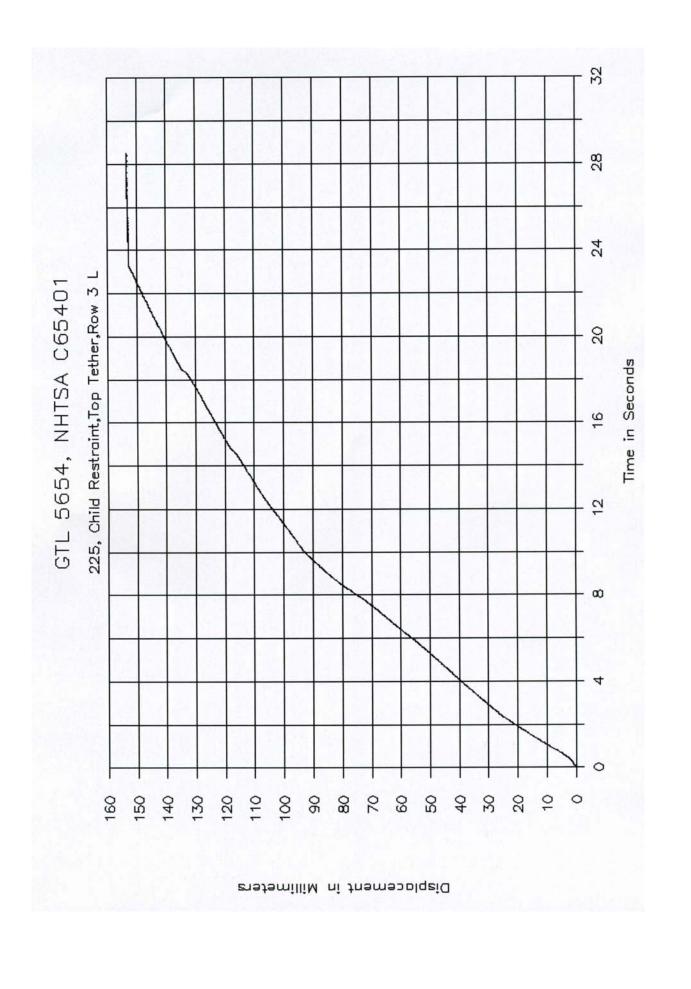


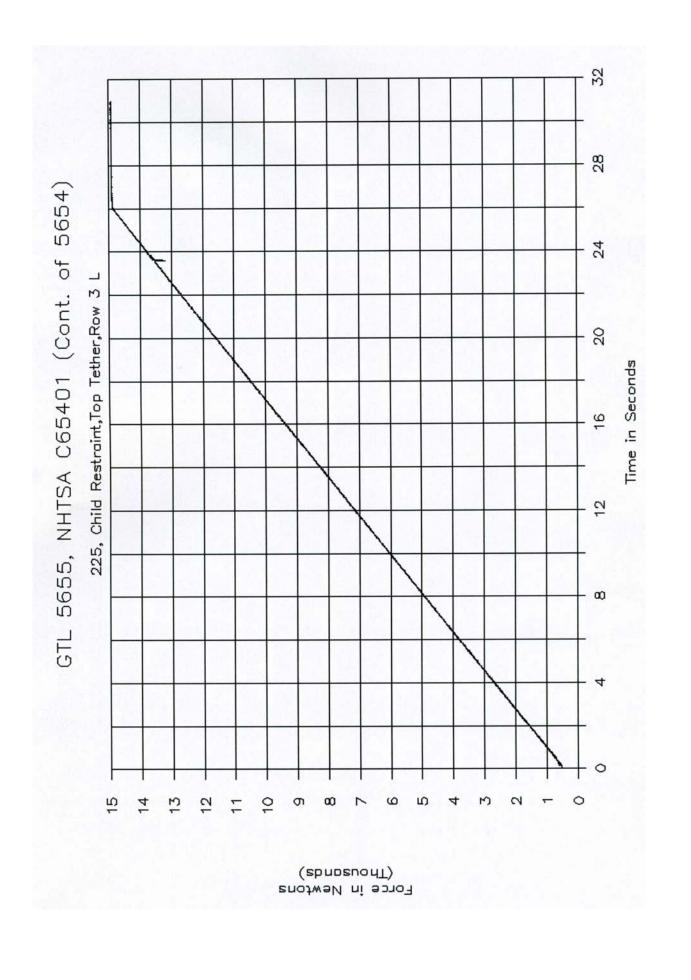


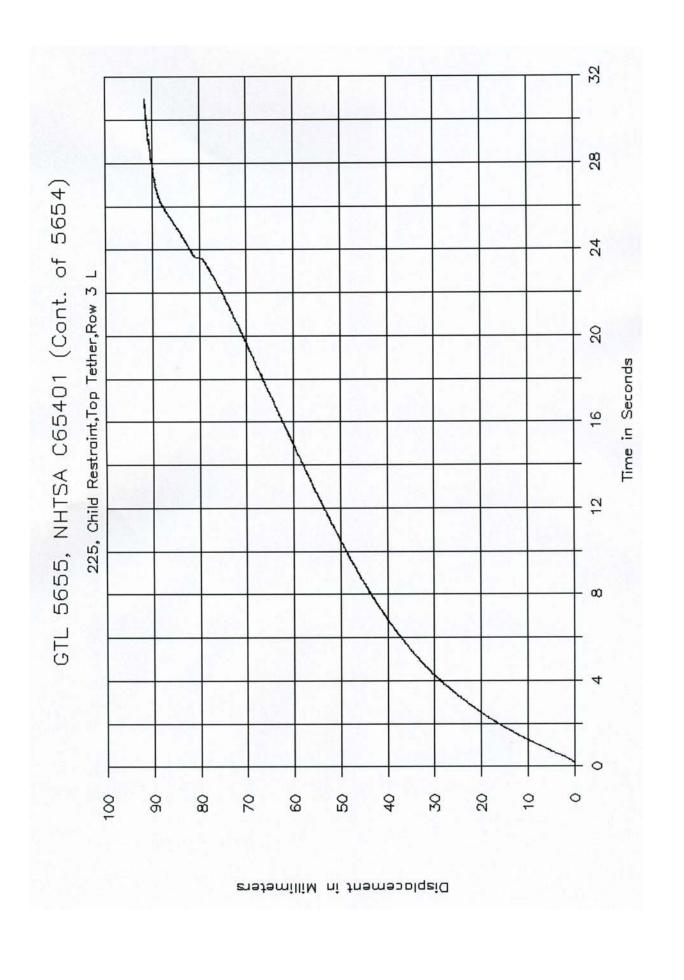












#### APPENDIX A OWNER'S MANUAL CHILD RESTRAINT INFORMATION

#### Child Restraint **Essential Safety Equip**

# Child Restraint Precautions

Mazda strongly urges the use of child-restraint systems for children small enough to use

Check your local and state or provincial laws for specific requirements regarding the safety You are required by law to use a child-restraint system for children in the U.S. and Canada. of children riding in your vehicle. Whatever child-restraint system you consider, please pick the appropriate one for the age and size of the child, obey the law and follow the instructions that come with the individual child-restraint system.

both lap and shoulder. If the shoulder belt crosses the neck or face, move the child closer to A child who has outgrown child-restraint systems should sit in the rear and use seat belts, the center of the vehicle.

Statistics confirm that the rear seats are the best place for all children up to 12 years of age, and more so with a supplemental restraint system (air bags).

A rear-facing child-restraint system should NEVER be used on the front seat with the air bag system activated. The front passenger's seat is also the least preferred seat for other child-restraint systems.

passenger seat belt pretensioner system when the total seated weight on the front passenger To reduce the chance of injuries caused by deployment of the front passenger air bag, the front passenger seat weight sensors work as a part of the supplemental restraint system. This system deactivates the front passenger front and side air bags and also the front seat is less than approximately 30 kg (66 lb). When an infant or small child sits on the front passenger seat, the system shuts off the front passenger front and side air bags and seat belt pretensioner system, so make sure the front passenger air bag deactivation indicator light illuminates. Even if the front passenger air bag is shut off, Mazda strongly recommends that children be properly restrained and child-restraint systems of all kinds are properly secured on the rear seats which are the best place for children.

For more details, refer to "Front passenger seat weight sensors (page 2-46)".

## **△ WARNING**

Proper Size of Child-Restraint System:

properly restrained using a seat belt or child-restraint system depending on age and For effective protection in vehicle accidents and sudden stops, a child must be size. If not, the child could be seriously injured or even killed in an accident. Follow the Manufacturer's Instructions and Always Keep the Child-Restraint System Buckled Down:

could move causing serious injury or death to the child or other occupants. Make sure fasten it with a seat belt, or latch it down to BOTH LATCH lower anchors for LATCH any child-restraint system is properly secured in place according to the child-restraint An unsecured child-restraint system is dangerous. In a sudden stop or a collision it system manufacturer's instructions. When not in use, remove it from the vehicle or child-restraint systems and the corresponding tether anchor.

Holding a Child While the Vehicle is Moving: Holding a child in your arms while the vehicle is moving is extremely dangerous. No matter how strong the person may be, he or she cannot hold onto a child in a sudden that could result in serious injury or death to the child, or the child may be slammed occupants. Even in a moderate accident, the child may be exposed to air bag forces stop or collision and it could result in serious injury or death to the child or other into the adult, injuring the adult. Always secure a child in a proper child-restraint system.

Rear-Facing Child-Restraint System:

assured that a front passenger air bag will not deploy based on the fact that the front passenger air bag deactivation indicator light illuminates, NEVER use a rear-facing backward resulting in serious injury or death to the child. Even though you may feel child-restraint system in the front seat with an air bag that could deploy even in a The child-restraint system can be hit by a deploying air bag and moved violently Rear-facing child-restraint systems on the front seat are particularly dangerous. moderate collision.



Child Restraint

#### Child Restraint Essential Safety Equipment

## **△ WARNING**

Front Passenger Seat Position:

A front-facing child-restraint system should only be put on the front seat when it is unavoidable. Always move the seat as far back as possible, because the force of a deploying air bag could cause serious injury or death to the child.



If your vehicle is equipped with front passenger seat weight sensors, the vehicle is also equipped with an air bag deactivation indicator light (page 2-33). Even with the front passenger seat weight sensors, if you must use the front passenger seat for children, following conditions increases the danger of the front passenger air bag deploying seating a child in a child-restraint system on the front passenger seat under the Seating Children in a Child-Restraint System on the Front Passenger Seat: and could result in serious injury or death to the child.

- · The total seated weight of the child with the child-restraint system on the front passenger seat is approximately 30 kg (66 lb) or more.
- Luggage or other items are placed on the seat with the child in the child-restraint
- A rear passenger or luggage push or pull down on the front passenger seatback.
   A rear passenger puts their feet on the front seat rails.
- Luggage or other items are placed on the seatback or hung on the assist grip, head
  - restraint or armrest.
- The seat is washed.
- The front passenger seat is moved backward, pushing into luggage or other items Liquids are spilled on the seat. placed behind it.
  - The front passenger seatback contacts the second-row seat.
- Luggage or other items are placed between the front passenger seat and driver seat.
- Any accessories which might increase the total seated weight on the front passenger seat are attached to the front passenger seat.

The designated positions with seat belts on the rear seats are the safest places for children. Always use seat belts and child restraints.

## **△** WARNING

children. Do not allow a child to lean over or against the side window, even if the child passenger seat, front and rear window pillars and the roof edge along both sides from advantages of supplemental protection. With the front air bag and the additional side which the side and curtain air bags deploy, even if a child-restraint system is used, is inflation could cause serious injury or death to the child. Furthermore, leaning over or against the front door could block the side and curtain air bags and eliminate the air bag that comes out of the front seat, the rear seat is always a better location for dangerous. If the vehicle is equipped with side and curtain air bags, the impact of Allowing anyone to lean over or against the side window, the area of the front Children and Seating Position with Side and Curtain Air Bags: is seated in a child-restraint system.

## One Belt, One Passenger:

Using one seat belt for more than one person at a time is dangerous. A seat belt used in this way can't spread the impact forces property and the two passengers could be crushed together and seriously injured or even killed. Never use one belt for more than one person at a time.

#### **△** CAUTION

warm weather. To avoid burning yourself or a child, check them before you or your child A seat belt or child-restraint system can become very hot in a closed vehicle during touches them.

#### NOTE

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems in the rear seats. When using these anchors to secure a child-restraint system, refer to "LATCH Child-Restraint Systems" (page 2-35).

#### Child Restraint Essential Safety Equipment

#### nstalling Child-Restraint Systems

passenger's seat is clearly the worst choice facing child-restraint systems it is clearly Accident statistics reveal that a child is for any child under 12, and with rearsafer in the rear seats. The front unsafe due to air bags.

Some child-restraint systems now come installed on the seats that take tethers to accommodated in the four positions on be effective. In your Mazda, tethered child-restraint systems can only be with tethers and therefore must be the rear seats. Even if your vehicle is equipped with the deactivates the front passenger air bag, a rear seat is the safest place for a child of front passenger air bag cut-off system (page 2-46), which automatically any age or size. Some child-restraint systems also employ specially designed LATCH attachments; refer to "LATCH Child-Restraint Systems" (page 2-35).

## N WARNING

Work Only on Tether-Equipped Rear Tethered Child-Restraint Systems

Installation of a tether equipped childdesign of the system and will result in an increased chance of serious injury passenger's seat defeats the safety if the child-restraint system goes forward without benefit of being restraint system in the front tethered.

Place tether equipped child-restraint systems where there are tether anchors.

#### Wear Seats Child-Restraint System Installation

restraint system to the rear LATCH lower Follow these instructions when using a child-restraint system, unless you are attaching a LATCH-equipped childanchors. Refer to "LATCH Child-Restraint Systems" (page 2-35).

#### NOTE

manufacturer's instructions carefully. If accordingly. Depending on the type of LATCH system or tether, check in the child-restraint system manufacturer's you are not sure whether you have a Follow the child-restraint system child-restraint system, it may not employ seat belts which are in instructions and follow them automatic locking mode.

1. If the seat in which you install a childfunction, slide the seat as far back as restraint system has a seat slide possible.

 Make sure the seatback is securely latched by pushing it back until it is fully locked.

the lap portion of the lap/shoulder belt See the manufacturer's instructions on Secure the child-restraint system with the child-restraint system for belt

routing instructions.

length of the belt is out of the retractor To get the retractor into the automatic locking mode, pull the shoulder belt portion of the seat belt until the entire



retracts as snugly as possible. Clicking from the retractor will be heard during Push the child-restraint system firmly into the vehicle seat. Be sure the belt automatic locking mode. If the belt does not lock the seat down tight, retraction if the system is in the repeat this step.



#### NOTE

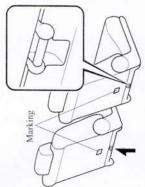
the automatic locking mode. When you Inspect this function before each use of not be able to pull the shoulder belt out sure the belt fully retracts to return the the child-restraint system. You should of the retractor while the system is in remove the child-restraint system, be system to emergency locking mode before occupants use the seat belts.

tighten the tether strap after raising the 6. If your child-restraint system requires head restraint (Second-row seats) by the use of a tether strap, hook and following the manufacturer's instructions.



#### Child Restraint **Essential Safety Equipment**

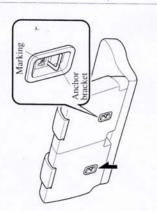
Anchor bracket location (Second-row seats)



Tether strap position (Second-row seats)



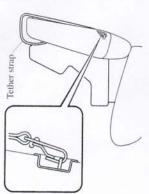
Anchor bracket location (Third-row seat)



2-30

2-31

Tether strap position (Third-row seat)



## **△ WARNING**

weaken or damage the tether or tether secure anything but a child-restraint anchor and result in injury. Use the Using the tether or tether anchor to tether and tether anchor only for a system is dangerous. This could Child-Restraint Tether Usage: child-restraint system.

Strap (Second-row seats); Routing the tether strap on top of the off the head restraint, and loosen the collision, the tether strap could slide Incorrect Attachment of the Tether may result in death or injury to the child. Always route the tether strap restraint system could move which child-restraint system. The childhead restraint is dangerous. In a between the head restraint posts.

## **№ WARNING**

head restraint posts is dangerous as it could damage or weaker the seatback, could shift or loosen which may result in death or injury to the child. Always resulting in the child-restraint system Routing the tether strap between the route the tether strap over the head collision, the child-restraint system Incorrect Attachment of the Tether not being correctly secured. In a Strap (Third-row seat): restraint.

## ▼ If You Must Use the Front Seat for Children

seats, at least put the smallest children in f you cannot put all children in the rear the rear and be sure the largest child up front uses the shoulder belt over the shoulder.

NEVER put a rear-facing child-restraint

child-restraint systems, put them in one of system on the front passenger seat, even the rear seat positions set up with tether This seat is also not set up for tethered with a seat weight sensor equipped anchors. vehicle.

passenger's seat and should be used in the injuries to an out of position occupant. As installing the child-restraint system on the and curtain air bag, it could cause serious side window if you have an optional side Don't allow anyone to sleep against the front seat is unavoidable, follow these children more often sleep in cars, it is instructions when using a front-facing system cannot be secured in the front better to put them in the rear seat. If Likewise the LATCH child-restraint child-restraint system in the front second-row seats. passenger's seat.

## Essential Safety Equipment Child Restraint

#### NOTE

- To check if your front seats have side air bags: Every Mazda side air bag will have a "SRS AIRBAG" tag on the outboard shoulder of the front seats.
- To check if your vehicle has curtain air bags:
  Every Mazda curtain air bag will have an "SRS AIRBAG" marking on the front and rear window pillars along the roof edge.

## **NARNING NARNING**

Front Passenger's Seat Position:
As your vehicle has front air bags and doubly so if your vehicle has side air bags, a front-facing child-restraint system should be put on the front seat only when it is unavoidable.

Even if the front passenger air bag deactivation indicator light illuminates, always move the seat as far back as possible, because the force of a deploying air bag could cause serious injury or death to the child.

## **NARNING**

violently backward resulting in serious front passenger air bag will not deploy system in the front seat with an air bag Rear-facing child-restraint systems on Rear-Facing Child-Restraint System: The child-restraint system can be hit though you may feel assured that the that could deploy even in a moderate indicator light illuminates, NEVER by a deploying air bag and moved injury or death to the child. Even use a rear-facing child-restraint based on the fact that the front passenger air bag deactivation the front seat are particularly dangerous. collision.

## **△ WARNING**

the front door could block the side and impact of inflation could cause serious Furthermore, leaning over or against protection. With the front air bag and the additional side air bag that comes rear window pillars and the roof edge and curtain air bags deploy, even if a along both sides from which the side dangerous. If the vehicle is equipped always a better location for children. out of the front seat, the rear seat is against the side window, the area of Do not allow a child to lean over or against the side window, even if the Children and Seating Position with curtain air bags and eliminate the the front passenger seat, front and with side and curtain air bags, the child is seated in a child-restraint child-restraint system is used, is Allowing anyone to lean over or advantages of supplemental injury or death to the child. Side and Curtain Air Bags:

#### ▼ Front Passenger's Seat Child-Restraint System Installation

1. Slide the seat as far back as possible.



- Secure the child-restraint system with the lap portion of the lap/shoulder belt.
   See the manufacturer's instructions on the child-restraint system for belt routing instructions.
- 3. To get the retractor into the automatic locking mode, pull the shoulder belt portion of the seat belt until the entire length of the belt is out of the retractor.
- 4. Push the child-restraint system firmly into the vehicle seat. Be sure the belt retracts as snugly as possible. Clicking from the retractor will be heard during retraction if the system is in automatic locking mode. If the belt does not lock the seat down tight, repeat the previous step and also this one.

system.

2-32

## Essential Safety Equipment Child Restraint

#### NOTE

- Inspect this function before each use
  of the child-restraint system. You
  should not be able to pull the
  shoulder belt out of the retractor
  while the system is in the automatic
  locking mode. When you remove the
  child-restraint system, be sure the
  belt fully retracts to return the system
  to emergency locking mode before
  occupants use the seat belts.
- Follow the child-restraint system manufacturer's instructions carefully. Depending on the type of child-restraint system, it may not employ seat belts which are in automatic locking mode.
- . Make sure the front passenger air bag deactivation indicator light illuminates after installing a child-restraint system on the front passenger seat.

  Refer to Front passenger air bag deactivation indicator light on page 2-46.



## **№ WARNING**

Seating a Child in a Child-Restraint System on the Front Passenger Seat With the Front Passenger Air Bag Deactivation Indicator Light Not Illuminated:

system installed on the front passenger pretensioner are ready for deployment. injured or killed. If the indicator light as soon as possible. While it is always less than approximately 30 kg (66 lb), to do so if the front passenger air bag consult an Authorized Mazda Dealer seat with the front passenger air bag front and side air bags, and seat belt does not illuminate after installing a system on the rear seat, it is essential restraint system on the rear seat and even when the total seated weight is deactivation indicator light does not If an accident were to deploy an air this means that the front passenger Seating a child in a child-restraint indicator light does not illuminate child-restraint system on the front better to install any child-restraint passenger seat could be seriously illuminated is dangerous. If this passenger seat, install the childdeactivation indicator light not bag, a child sitting in the front illuminate (page 2-46).

# LATCH Child-Restraint Systems

Your Mazda is equipped with LATCH lower anchors for attachment of specially designed LATCH child-restraint systems in the rear seats. Both anchors must be used, otherwise the seat will bounce around and put the child in danger. Most LATCH child-restraint systems must also be used in conjunction with a tether to be effective. If they have a tether you must use it to better assure your child's safety.

#### **↑** WARNING

Manufacturer's Instructions for Child-Restraint System:
An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Make sure the child-restraint system is properly secured in place according to the child-restraint system manufacturer's instructions.

Attaching Two Child-Restraint Systems to the Same LATCH Lower Anchor:
Attaching two child-restraint systems to the same LATCH lower anchor is dangerous.
In a collision, one anchor may not be strong enough to hold two child-restraint system attachments and may break, causing serious injury or death. If you use the seat position for another child-restraint system when an outboard LATCH position is occupied, use the center seat belts instead, and the tether if tether-equipped.

# Unsecured Child-Restraint System:

An unsecured child-restraint system is dangerous. In a sudden stop or a collision it could move causing serious injury or death to the child or other occupants. Follow the child-restraint system manufacturer's instructions on belt routing to secure the seat just as you'would with a child in it so that nobody is tempted to put a child in an improperly secured seat later on. When not in use, remove it from the vehicle or fasten it with a seat belt, or latch it down to BOTH LATCH lower anchors for LATCH child-restraint systems.

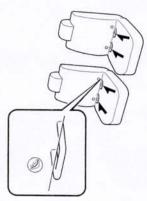
## LATCH Child-Restraint Systems:

Not following the child-restraint system manufacturer's instructions when installing the child-restraint system is dangerous. If seat belts or a foreign object prevent the child-restraint system from being securely attached to the LATCH lower anchors and the child-restraint system is installed improperty, the child-restraint system could move in a sudden stop or collision causing serious injury or death to the child or other occupants. When installing the child-restraint system, make sure there are no seat belts or foreign objects near or around the LATCH lower anchors. Always follow the child-restraint system manufacturer's instructions.

## Essential Safety Equipment Child Restraint

#### ▼LATCH Child-Restraint System Installation Procedure (Second-Row Seats Only)

- Slide the second-row seat as far back as possible.
- Make sure the seatback is securely latched by pushing it back until it is fully locked.
- Expand the area between the seat bottom and the seatback slightly to verify the locations of the LATCH lower anchors.



#### NOTE

The markings above the LATCH lower anchors indicate the locations of LATCH lower anchors for the attachment of a child-restraint system.

4. Secure the child-restraint system using BOTH LATCH lower anchors, following the child-restraint system manufacturer's instruction.

# 5. If your child-restraint system came equipped with a tether, that probably means it is very important to properly

secure the tether for child safety, please

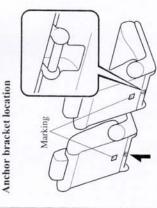
carefully follow the child-restraint system manufacturer's instructions

when installing tethers.

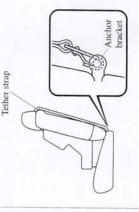
Child-Restraint Tether Usage:
Using the tether or tether anchor to
secure anything but a child-restraint
system is dangerous. This could
weaken or damage the tether or tether
anchor and result in injury. Use the
tether and tether anchor only for a
child-restraint system.

Incorrect Attachment of the Tether Strap:

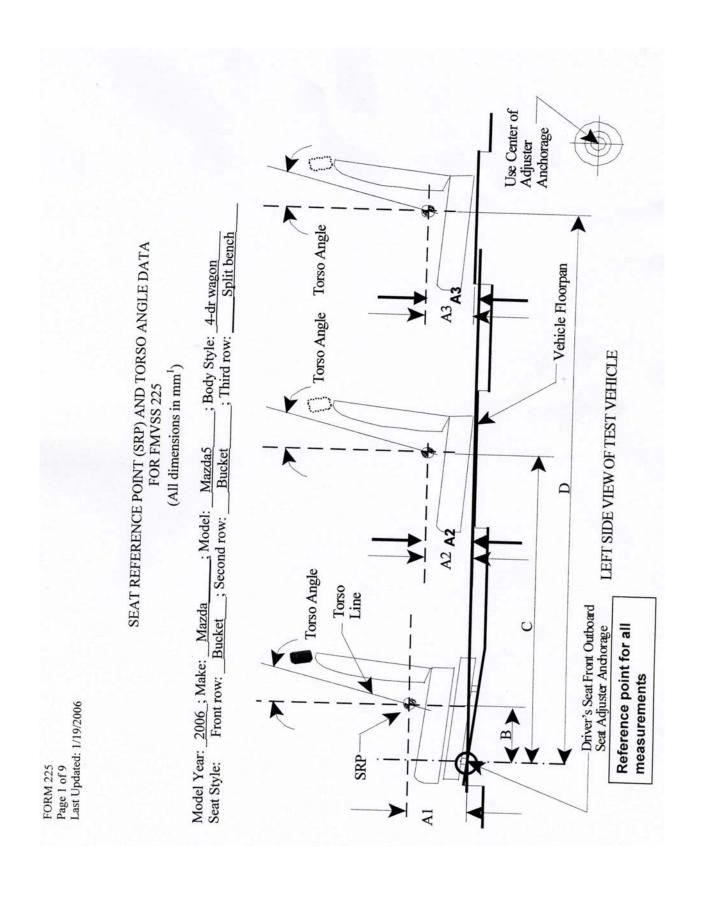
Attaching the tether strap on top of the head restraint is dangerous. In a collision, the tether strap could slide off the head restraint, and loosen the child-restraint system. The child-restraint system could move and injure the child or someone else. Always attach the tether strap between the head restraint and the seatback.



#### Tether strap position



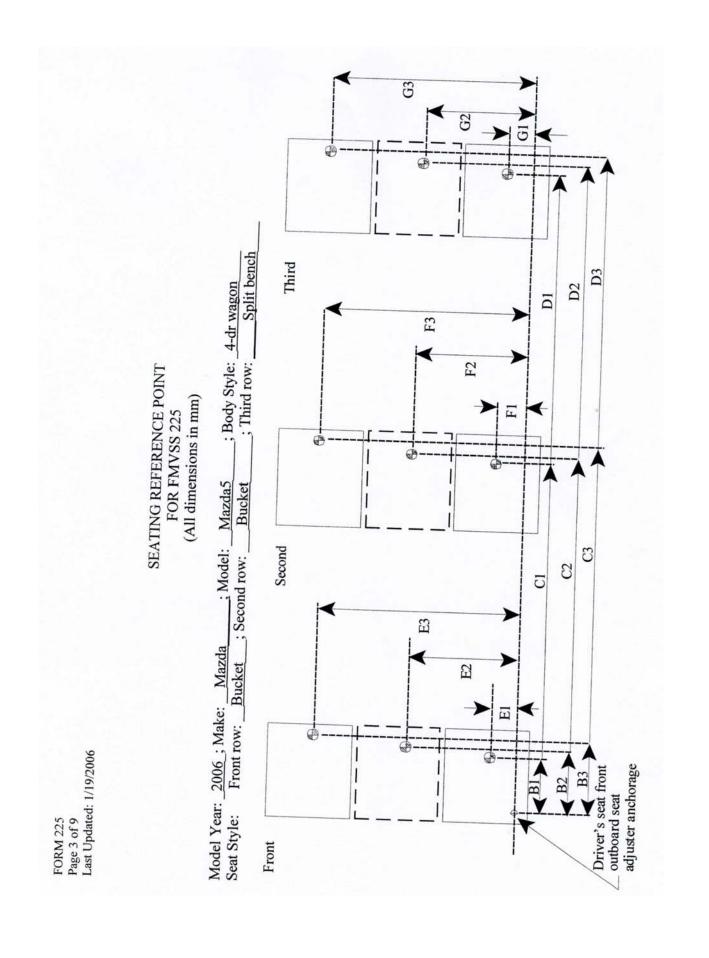
#### APPENDIX B MANUFACTURER'S DATA



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Table 1. Seating Positions1 and Torso Angles

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

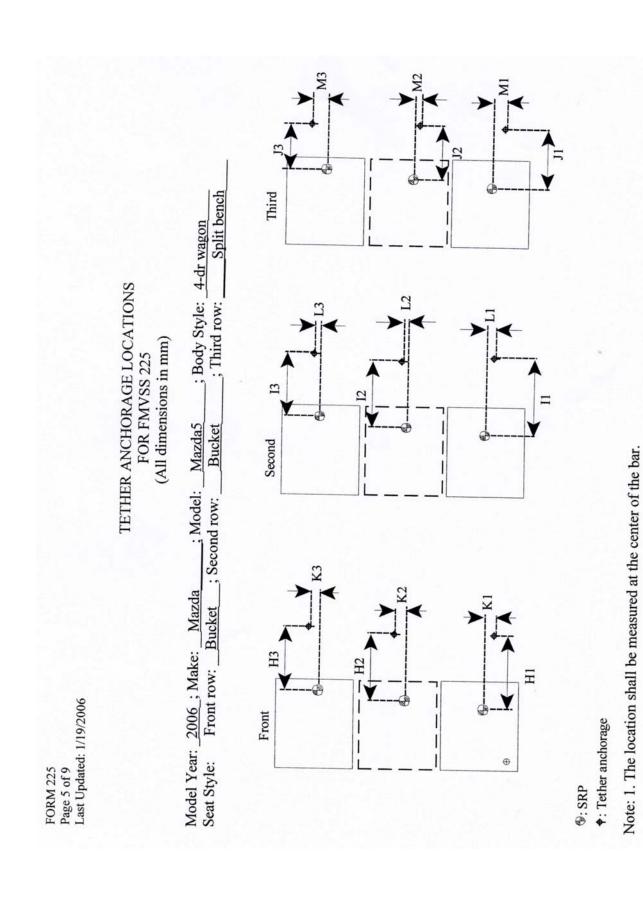


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Table 2. Seating Reference Point and Tether Anchorage Locations

Seating Refer (SRF		Distance from Driver's front outboard seat adjuster anchorage <sup>1</sup>
Front Row	B1	329.7
	E1	212.0
	B2	N/A
	E2	N/A
	В3	329.7
	E3	922.0
Second Row	C1	1104.4
	F1	202.0
	C2	N/A
	F2	N/A
	C3	1104.4
	F3	932.0
Third Row	D1	1900.4
	G1	322.0
	D2	N/A
	G2	N/A
	D3	1900.4
	G3	812.0

Note: 1. Use the center of anchorage.

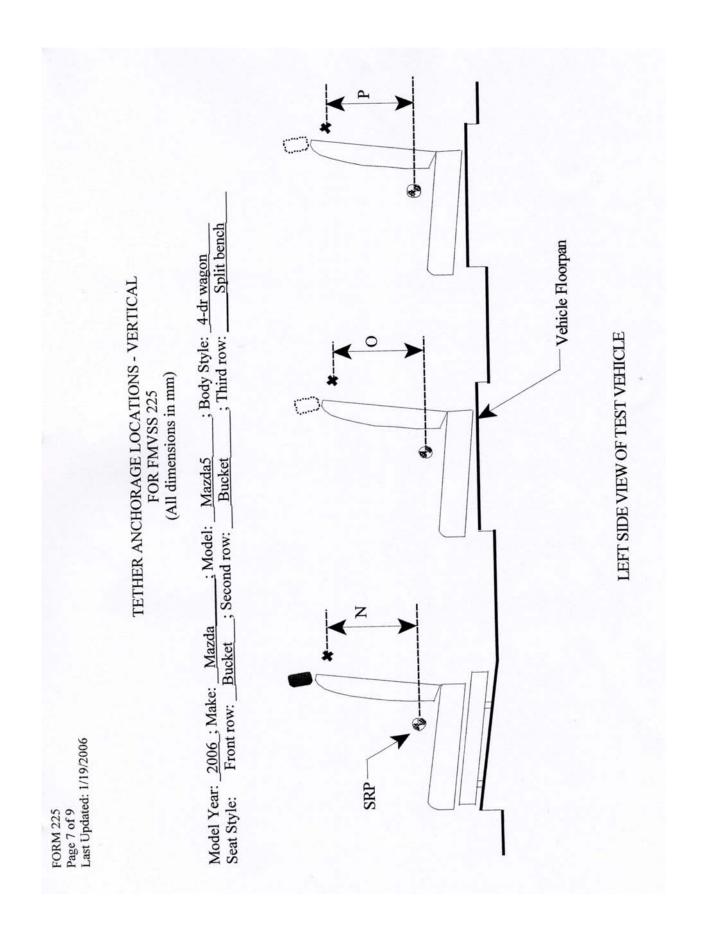


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Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)		Distance from SRP
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	НЗ	N/A
	K3	N/A
Second Row	I1	206.0
	L1	0
	I2	N/A
	L2	N/A
	I3	206.0
	L3	0
Third Row	J1	202.0
	M1	0
	J2	N/A
	M2	N/A
	J3	202.0
	M3	0

Note: 1. Use the center of anchorage.



**FORM 225** 

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Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distan	ce from Seating Reference Point
Front Row	N1 (Driver)	N/A
	N2 (Center)	N/A
	N3 (Right)	N/A
Second Row	O1 (Left)	133.3
	O2 (Center)	N/A
	O3 (Right)	133.3
Third Row	P1 (Left)	6.4
	P2 (Center)	N/A
	P3 (Right)	6.4

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

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For each vehicle, provide the following information:

1. How many designated seating positions exist in the vehicle?

6 persons

2. How many designated seating positions are equipped with lower anchorages and tether anchorages? Specify which position(s).

2 seating positions in the 2nd row

 How many designated seating positions are equipped with tether anchorages? Specify which position(s).

2 seating positions in the 3rd row

4. **Lower Anchorage Marking and Conspicuity:** Whether the anchorages are certified to S9.5(a) or S9.5(b) of FMVSS 225.

S9.5(a)