REPORT NUMBER 225-GTL-08-006

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

FORD MOTOR CO. 2008 FORD EDGE, MPV NHTSA NO. C80207

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



SEPTEMBER 15, 2008

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION ENFORCEMENT OFFICE OF VEHICLE SAFETY COMPLIANCE 1200 NEW JERSEY AVE., SE WASHINGTON, D.C. 20590 This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared By:	
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Approved By	/:

Approval Date: 09/15/08

## FINAL REPORT ACCEPTANCE BY OVSC:

	Edward E. Chan advised to the second
Accepted By:	ide and be many sup-

Acceptance Date: \_\_\_\_\_

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Final Report of FMV	SS 225 Compliar	nce Testi	ng of	September 15, 2008
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NHTSA No. C80207	,			GŤL
7. Author(s)				8. Performing Organ. Rep#
Grant Farrand, Proje	ect Engineer			GTL-DOT-08-225-006
Debbie Messick, Pro				
9. Performing Organ		d Addres	S	10. Work Unit No. (TRAIS)
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National Highway Ti	affic Safety Admi	in.		Final Test Report
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Washington, DC 20590				
15. Supplementary Notes				
16. Abstract				
Compliance tests were conducted on the subject, 2008 Ford Edge MPV in accordance with				
the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-225-0			Test Procedure No. TP-225-01	
for the determination of FMVSS 225 compliance.				
Test failures identified were as follows:				
None				
17. Key Words		18. Distribution Statement		
Compliance Testing Copies of this report are available		report are available from		
Safety Engineering				
		212 (NPO-411)		
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#### **SECTION 1**

#### PURPOSE OF COMPLIANCE TEST

#### 1.0 PURPOSE OF COMPLIANCE TEST

A 2008 Ford Edge MPV 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 2008 Ford Edge MPV. Nomenclature applicable to the test vehicle are:
  - A. Vehicle Identification Number: 2FMDK36CX8BA43491
  - B. <u>NHTSA No.</u>: C80207
  - C. Manufacturer: FORD MOTOR CO.
  - D. Manufacture Date: 12/07
- 1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 225 testing during the time period August 27-28, 2008.

#### **SECTION 2**

#### COMPLIANCE TEST RESULTS

#### 2.0 TEST RESULTS

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 2008 Ford Edge MPV appears to meet the requirements of FMVSS 225 testing.

# COMPLIANCE TEST DATA

# 3.0 <u>TEST DATA</u>

The following data sheets document the results of testing on the 2008 Ford Edge MPV.

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#### DATA SHEET 1 SUMMARY OF RESULTS

VEH. MOD YR/MAKE/MODEL/BO	ODY: 2008 FORD EDGE MPV
VEH. NHTSA NO: <u>C80207;</u>	VIN: 2FMDK36CX8BA43491
VEH. BUILD DATE: <u>12/07;</u>	TEST DATE: AUGUST 27, 2008
TEST LABORATORY: GENERAL	TESTING LABORATORIES
OBSERVERS: GRANT FARRAN	ID, JIMMY LATANE

### A. VISUAL INSPECTION OF TEST VEHICLE

Upon receipt for completeness, function, and discrepancies or damage which might influence the testing.

**RESULTS: OK FOR TEST** 

C.

D.

## B. REQUIREMENTS FOR CHILD RESTRAINT SYSTEMS AND TETHER ANCHORAGES

	PASS	FAIL
DSP a	<u>    X     </u>	
DSP b	<u>    X     </u>	
DSP c	<u>    X     </u>	
LOCATION OF TETHER ANCHORAGES		
	PASS	FAIL
DSP a	<u>    X     </u>	
DSP b	<u> </u>	
DSP c	<u>    X     </u>	
LOWER ANCHORAGE DIMENSIONS		
	PASS	FAIL
DSP a	<u>    X    </u>	
DSP b	N/A	N/A
DSP c	<u> </u>	

#### DATA SHEET 1 CONTINUED SUMMARY OF RESULTS

#### **CONSPICUITY AND MARKING OF LOWER ANCHORAGES** Ε.

		PASS	FAIL
	DSP a	<u>    X    </u>	
	DSP b	N/A	N/A
	DSP c	<u> </u>	
F.	STRENGTH OF TETHER ANCHORAGES		
		PASS	FAIL
	DSP a	<u>    X     </u>	
	DSP b	X	
	DSP c	N/A	N/A
G.	STRENGTH OF LOWER ANCHORAGES (Forward	Force)	
		PASS	FAIL
	DSP a	<u>N/A</u>	N/A
	DSP b	N/A	N/A
	DSP c	X	
Н.	STRENGTH OF LOWER ANCHORAGE (Lateral Fo	rce)	
		PASS	FAIL
	DSP a	<u>N/A</u>	N/A
	DSP b	N/A	N/A
	DSP c	N/A	<u>N/A</u>
I.	OWNER'S MANUAL	PASS X	FAIL
REM	ARKS:		
NOTE	Ξ:		

RECORDED BY: <u>G. Farrand</u> APPROVED BY: <u>D. Messick</u> DATE: 08/27/08

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

VEH. MOD YR/MAKE/MODEL/BODY: 2008 FORD EDGE MPV VEH. NHTSA NO: C80207; VIN: 2FMDK36CX8BA43491 VEH. BUILD DATE: 12/07; TEST DATE: AUGUST 27, 2008 TEST LABORATORY: GENERAL TESTING LABORATORIES **OBSERVERS: GRANT FARRAND, JIMMY LATANE** Number of rows of seats: 2 Number of rear, forward-facing designated seating positions: 3 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? NO Is the vehicle a school bus? NO Does the vehicle have a CRAS (lower anchorage only, for convertibles/school buses) installed at a front passenger seating position? NO If NO, skip to next question. If YES, does the vehicle have rear designated seating positions? If NO, does the vehicle have an air bag on-off switch or a special exemption for no passenger air bag? If NO = FAILIf YES = PASS If Yes, does the vehicle meet the requirements of S4.5.4.1 (b) of S208 and have and air bag on-off switch or a special exemption for no passenger air bag? Record the distance between the front and rear seat back: If Distance <720 mm and vehicle has an air bag on-off switch or special exemption = PASS If Distance  $\geq$  720 mm or no air bag on-off switch or no special exemption = FAIL 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 If NO, skip to next question. If YES, does the vehicle have a tether anchorage at a front passenger seating position? NO = FAIL (S5(e))YES = PASSNumber of provided CRAS (lower anchorage only, for convertibles/school buses), indicate if a builtin child restraint is counted as a CRAS: 2 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

If the vehicle has 3 or more rows of seats is a CRAS (lower anchorage only for convertibles/school buses) provided in the second row:  $\frac{N/A}{NO = FAIL (S4.4(a)(1))}$ YES = PASS

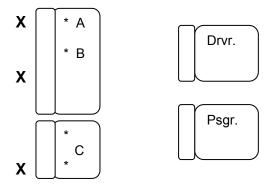
Number of provided tether anchorages (can be additional CRAS) indicate if a built-in child restraint is counted as tether anchorage (NOTE: a built-in child restraint can only be counted toward either the required number of CRAS or tether anchorages, not both): 3

Is the number of provided tether anchorages greater than or equal to the number of required tether anchorages? YES

If the vehicle has 3 or more rear dsps and a non-outboard dsp, is a tether anchorage or CRAS provided at a non-outboard dsp? \_\_\_\_\_YES YES = PASS NO = FAIL (S4.4 (a)(2))

Are all tether and lower anchorages available for use at all times when the seat is configured for passenger use? YES

Provide a diagram showing the location of lower anchorages and/or tether anchorages.



**X** = Top Tether \* = Lower Anchors

RECORDED BY:	G. Farrand	DATE:	08/27/08	
APPROVED BY:	D. Messick			

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#### DATA SHEET 3 LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2008 FORD EDGE MPV VEH. NHTSA NO: C80207; VIN: 2FMDK36CX8BA43491 VEH. BUILD DATE: 12/07; TEST DATE: AUGUST 27, 2008 TEST LABORATORY:GENERAL TESTING LABORATORIES OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT, RIGHT AND CENTER POSITIONS

Detailed description of the location of the tether anchorage: ON SEAT BACK DIRECTLY BEHIND SEAT POSITION

Based on visual inspection, is the tether anchorage within the shaded zone? <u>YES</u> 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? <u>YES</u> If NO, skip to next question If YES, is it outside of the tether strap wraparound area? <u>YES</u> YES = PASS NO = FAIL (S6.2.1)

Does the tether anchorage permit attachment of a tether hook? <u>YES</u> YES = PASS NO = FAIL (S6.1(a))

Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin? <u>YES</u>

YES = PASS NO = FAIL (S6.1(b))

After the tether anchorage is accessed, is it ready for use without the need for tools? <u>YES</u> YES = PASS NO = FAIL (S6.1(c)

Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? <u>YES</u> YES = PASS NO = FAIL (S6.1(d))

If the DSP has a tether routing device, is it flexible or rigid? <u>N/A</u>

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#### DATA SHEET 3 CONTINUED

#### DESIGNATED SEATING POSITION: ROW 2 LEFT, RIGHT AND CENTER POSITIONS

If the DSP has a flexible tether routing device, after installing SFAD2 record the tether strap tension: <u>N/A</u> (Must be 60 N  $\pm$  5 N)

If the DSP has a flexible tether routing device, record the horizontal distance between the torso reference plane and the routing device: N/AGreater than or equal to 65mm = PASS Less than 65mm = FAIL

If the DSP has a rigid tether routing device, record the horizontal distance between the torso reference plane and the routing device: N/AGreater than or equal to 100mm = PASS Less than 100mm = FAIL

COMMENTS:

RECORDED BY: G. Farrand

DATE:	08/27/08	
	00/21/00	

APPROVED BY: D. Messick

#### DATA SHEET 4 LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: <u>2008 FORD EDGE MPV</u> VEH. NHTSA NO: <u>C80207</u> ; VIN: <u>2FMDK36CX8BA43491</u> VEH. BUILD DATE: <u>12/07</u> ; TEST DATE: <u>AUGUST 27, 2008</u> TEST LABORATORY: <u>GENERAL TESTING LABORATORIES</u> OBSERVERS: <u>GRANT FARRAND, JIMMY LATANE</u>
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
Outboard Lower Anchorage bar diameter: <u>5.94 mm</u> 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))
Inboard Lower Anchorage bar diameter: <u>5.94 mm</u> 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): 28 mm Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length of the straight portion of the bar (inboard lower anchorage): 28 mm Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length between the anchor bar supports (outboard lower anchorage): <u>37 mm</u> Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
Length between the anchor bar supports (inboard lower anchorage): <u>37 mm</u> Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
CRF Pitch angle: <u>17.9°</u> Angle = 15⁰±10º = PASS Angle≠15º±10º = FAIL (S9.2.1)
CRF Roll angle: $0.4^{\circ}$ Angle = $0^{\circ}\pm5^{\circ}$ = PASS Angle $\neq 0^{\circ}\pm5^{\circ}$ = FAIL (S9.2.1)
CRF Yaw angle: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: <u>54 mm</u> Distance ≤70mm = PASS Distance > 70mm = FAIL
Distance between point Z on the CRF and the front surface of inboard anchor bar: <u>59 mm</u>

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 surface of outboard anchor bar: <u>154 mm</u> Distance ≥ 120mm = PASS Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: <u>154 mm</u> Distance ≥ 120mm = PASS Distance < 120mm = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm?

If NO = PASS If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY: <u>G. Farrand</u>

DATE: 08/27/08

APPROVED BY: D. Messick

#### DATA SHEET 4A LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: <u>2008 FORD EDGE MPV</u> VEH. NHTSA NO: <u>C80207;</u> VIN: <u>2FMDK36CX8BA43491</u> VEH. BUILD DATE: <u>12/07</u> ; TEST DATE: <u>AUGUST 27, 2008</u> TEST LABORATORY: <u>GENERAL TESTING LABORATORIES</u> OBSERVERS: <u>GRANT FARRAND, JIMMY LATANE</u>
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)
Outboard Lower Anchorage bar diameter: <u>5.94 mm</u> 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))
Inboard Lower Anchorage bar diameter: <u>5.94 mm</u> 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): 28 mm Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length of the straight portion of the bar (inboard lower anchorage): <u>37 mm</u> Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length between the anchor bar supports (outboard lower anchorage): 28 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
Length between the anchor bar supports (inboard lower anchorage): <u>37 mm</u> Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
CRF Pitch angle: <u>18.3°</u> Angle = 15⁰±10º = PASS Angle≠15º±10º = FAIL (S9.2.1)
CRF Roll angle: $0.1^{\circ}$ Angle = $0^{\circ}\pm 5^{\circ}$ = PASS Angle $\neq 0^{\circ}\pm 5^{\circ}$ = FAIL (S9.2.1)
CRF Yaw angle: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: <u>50 mm</u> Distance ≤70mm = PASS Distance > 70mm = FAIL
Distance between point Z on the CRF and the front surface of inboard anchor bar: <u>51 mm</u> 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 surface of outboard anchor bar: <u>152 mm</u> Distance ≥ 120mm = PASS Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: <u>152 mm</u> Distance ≥ 120mm = PASS Distance < 120mm = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm?

If NO = PASS If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY: G. Farrand

DATE:	08/27/08
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APPROVED BY: D. Messick

#### DATA SHEET 5 CONSPICUITY AND MARKING OF LOWER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: <u>2008 FORD EDGE MPV</u> VEH. NHTSA NO: <u>C80207;</u> VIN: <u>2FMDK36CX8BA43491</u> VEH. BUILD DATE: <u>12/07;</u> TEST DATE: <u>AUGUST 27, 2008</u> TEST LABORATORY: <u>GENERAL TESTING LABORATORIES</u> OBSERVERS: <u>GRANT FARRAND, JIMMY LATANE</u>
DESIGNATED SEATING POSITION: ROW 2 LEFT AND RIGHT SIDE (DSP A AND C)
MARKING (Circles)
Diameter of the circle: <u>15.0 mm</u> Diameter ≥13mm = PASS Diameter <13mm = FAIL (S9.5(a)(1))
Does the circle have words, symbols or pictograms? <u>PICTOGRAM</u> NO skip to next question YES, are the meaning of the words, symbols or pictograms explained in the owner's manual? <u>YES</u> YES = PASS 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: <u>65 mm</u> 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 bar: 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: <u>20 mm</u> 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° above the horizontal in a vertical longitudinal plane bisecting the anchor bar or guide? <u>N/A</u> YES = PASS NO = FAIL (S9.5(b))
If there is a guide, is it permanently attached? <u>N/A</u> YES = PASS NO = FAIL (S9.5(b))

#### DATA SHEET 5 CONTINUED

#### DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE AND RIGHT SIDE (DSP A & C)

Is there a cap or cover over the anchor bar? N/A

If YES, Is the cap or cover marked with words, symbols or pictograms?\_\_\_\_\_

If NO = FAIL (S9.5(b))

If YES, is the meaning of the words, symbols or pictograms explained in the owner's manual?

YES = PASS NO = FAIL (S9.5(b))

If NO, there are no requirements for having a cover.

RECORDED BY: G. Farrand

APPROVED BY: D. Messick

#### DATA SHEET 6 STRENGTH OF TETHER ANCHORAGES

APPROVED BY: D. MESSICK

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

VEH. MOD YR/MAKE/MODEL/BODY: 2008 FORD EDGE MPV
VEH. NHTSA NO: <u>C80207;</u> VIN: <u>2FMDK36CX8BA43491</u>
VEH. BUILD DATE: 12/07; TEST DATE: AUGUST 28, 2008
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 6063
DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)
SFAD:1
Seat Back Angle: 25°
Location of seat back angle measurement: 2D Template
Head Restraint Position: FIXED
D-ring Position: N/A
Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: N/A
Lap belt tension: <u>60 N</u> (SFAD 1 only)
Tether strap tension: 60 N
Angle (measured above the horizontal at 500 N): <u>10°</u>
Separation of tether anchorage at 500 N: <u>NO</u> NO = PASS YES = FAIL (S6.3.1)
Force application rate: 577 N/S
Time to reach maximum force (24-30 s): <u>26 sec.</u>
Maximum force (14,950 N ± 50 N): 14,968 N
Tested simultaneously with another DSP? NO
COMMENTS:
RECORDED BY: <u>G. FARRAND</u> DATE: <u>08/28/08</u>
NO = PASSYES = FAIL (S6.3.1)Force application rate: $577 \text{ N/S}$ Time to reach maximum force (24-30 s): $26 \text{ sec.}$ Maximum force (14,950 N ± 50 N): $14,968 \text{ N}$ Tested simultaneously with another DSP?NOCOMMENTS:

APPROVED BY: D. MESSICK

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

VEH. MOD YR/MAKE/MODEL/BODY: 2008 FORD EDGE MPV VEH. NHTSA NO: C80207; VIN: 2FMDK36CX8BA43491 VEH. BUILD DATE: 12/07; TEST DATE: AUGUST 28, 2008 TEST LABORATORY:GENERAL TESTING LABORATORIES OBSERVERS: GRANT FARRAND, JIMMY LATANE TEST NO: 6062
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)
Seat Back Angle: 25°
Location of seat back angle measurement: 2D Template
Head Restraint Position: N/A
Force at lower front crossmember for SFAD2 while tightening rearward extensions: <u>135 N</u>
Angle (measured above the horizontal at 500 N): <u>10°</u>
Force application rate: 423 N/S
Time to reach maximum force (24-30 s): <u>26 sec.</u>
Maximum force (14,950 N ± 50 N): 10,947 N
Displacement, H1 (at 500N): 0
Displacement, H2 (at maximum load): <u>118.2 mm</u>
Displacement of Point X: <u>118.2 mm</u> (H2-H1) Displacement > 175 mm = FAIL (S9.4.1(a))
Tested simultaneously with another DSP? NO
Distance between adjacent DSP's: <u>335 mm</u>

COMMENTS:

RECORDED BY: G. FARRAND DATE: 08/28/08

APPROVED BY: D. MESSICK

#### DATA SHEET 8 OWNER'S MANUAL

VEH. MOD YR/MAKE/MODEL/BO	DDY: 2008 FORD EDGE MPV
VEH. NHTSA NO: <u>C80207;</u>	VIN: 2FMDK36CX8BA43491
VEH. BUILD DATE: <u>12/07</u> ;	TEST DATE: AUGUST 27, 2008
TEST LABORATORY: GENERAL	TESTING LABORATORIES
OBSERVERS: GRANT FARRAN	ID, JIMMY LATANE

Description of which DSP's are equipped with tether anchorages and child restraint anchorage systems: <u>YES</u>

PASS<u>X</u> FAIL\_\_\_\_\_

Step-by-step instructions for properly attaching a child restraint system's tether strap to the tether anchorage. Diagrams are required. <u>YES</u>

PASS<u>X</u> FAIL\_\_\_\_\_

Description of how to properly use the tether anchorage and lower anchor bars: <u>YES</u>

PASS<u>X</u> FAIL\_\_\_\_\_

If the lower anchor bars are marked with a circle, an explanation of what the circle indicates as well as any words or pictograms: <u>YES</u>

PASS<u>X</u> FAIL\_\_\_\_\_

COMMENTS:

RECORDED BY:	G. Farrand	DATE:	08/27/08	
APPROVED BY:	D Messick			

# SECTION 4 INSTRUMENTATION AND EQUIPMENT LIST

	TABLE 1 - INSTRUME	NTATION & EQUI		
EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO.	CAL. DATE	NEXT CAL. DATE
COMPUTER	AT&T	486DX266	BEFORE USE	BEFORE USE
LOAD CELL	INTERFACE	215709	01/08	01/09
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	BEFORE USE	BEFORE USE
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	GLT SFAD 2	BEFORE USE	BEFORE USE

# TABLE 1 - INSTRUMENTATION & EQUIPMENT LIST

# **SECTION 5**

# PHOTOGRAPHS



FIGURE 5.1 LEFT SIDE VIEW OF VEHICLE



FIGURE 5.2 RIGHT SIDE VIEW OF VEHICLE



FIGURE 5.3 ¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



FIGURE 5.4 ¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE

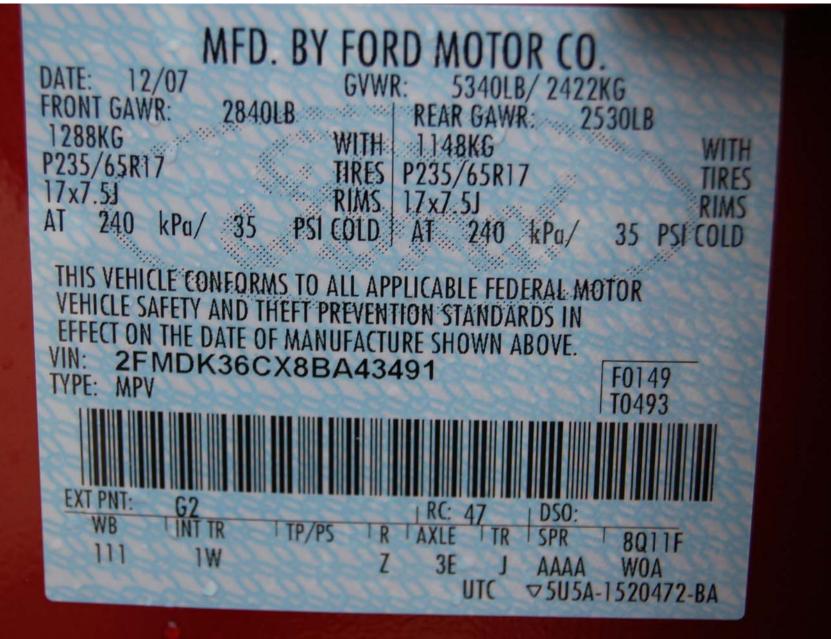


FIGURE 5. 5 VEHICLE CERTIFICATION LABEL

- BUIL		SEATING CAPACITY	TOTAL : 5 FRON	T: 2 REAR: 3
	and ca	ined weight of oc argo should never	exceed: 412 kg	g or 909 lbs. $_{\sim}$
-	TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNERS
	FRONT	P235/65R17	240 KPA, 35 PSI	MANUAL FOR
	REAR	P235/65R17	240 KPA, 35 PSI	ADDITIONAL
	SPARE	T165/80D17	415 KPA, 60 PSI	INFORMATION 4349

FIGURE 5.6 TIRE INFORMATION LABEL



FIGURE 5.7 ROW 2, LEFT SIDE, OUTBOARD LOWER ANCHOR, PRE-TEST



FIGURE 5.8 ROW 2, LEFT SIDE, INBOARD LOWER ANCHOR, PRE-TEST



FIGURE 5.9 ROW 2, LEFT SIDE, TOP TETHER ANCHOR, PRE-TEST



FIGURE 5.10 ROW 2, CENTER, TOP TETHER ANCHOR, PRE-TEST



FIGURE 5.11 ROW 2, RIGHT SIDE, INBOARD LOWER ANCHOR, PRE-TEST



FIGURE 5.12 ROW 2, RIGHT SIDE, OUTBOARD LOWER ANCHOR, PRE-TEST



FIGURE 5.13 ROW 2, RIGHT SIDE, TOP TETHER ANCHOR, PRE-TEST



FIGURE 5.14 OVERALL VIEW OF ROW 2 SEATING POSITIONS



FIGURE 5.15 ROW 2, LEFT SIDE WITH CRF



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



FIGURE 5.17 ROW 2, LEFT SIDE TOP TETHER ROUTING



FIGURE 5.18 ROW 2, LEFT SIDE TOP TETHER ROUTING



FIGURE 5.19 ROW 2, RIGHT SIDE WITH CRF

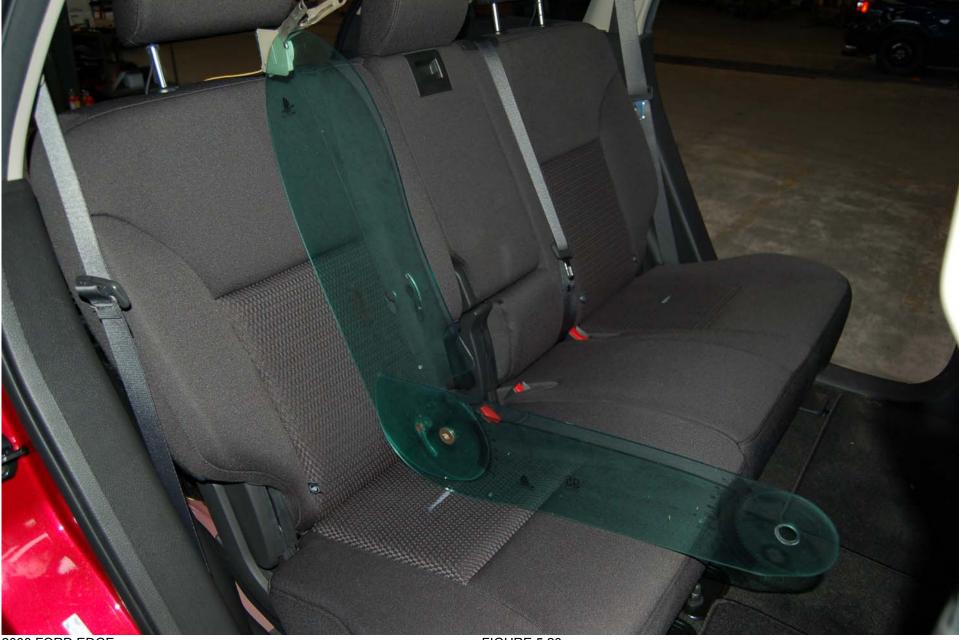


FIGURE 5.20 ROW 2, RIGHT SIDE WITH 2-D TEMPLATE

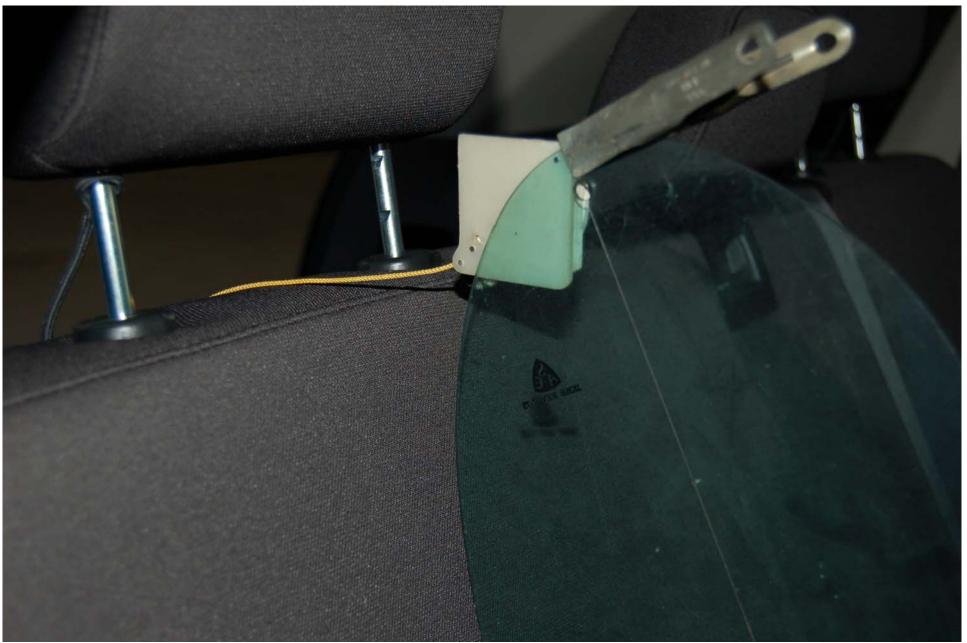


FIGURE 5.21 ROW 2, RIGHT SIDE TOP TETHER ROUTING



FIGURE 5.22 ROW 2, RIGHT SIDE TOP TETHER ROUTING



FIGURE 5.23 ROW 2, CENTER WITH 2-D TEMPLATE



FIGURE 5.24 ROW 2, CENTER, TOP TETHER ROUTING



FIGURE 5.25 ROW 2, CENTER, TOP TETHER ROUTING



FIGURE 5.26 ROW 2, RIGHT SIDE, INBOARD CRF MEASUREMENT

FIGURE 5.27 ROW 2, RIGHT SIDE, OUTBOARD CRF MEASUREMENT



FIGURE 5.28 ROW 2, LEFT SIDE, INBOARD CRF MEASUREMENT



FIGURE 5.29 ROW 2, LEFT SIDE, OUTBOARD CRF MEASUREMENT



FIGURE 5.30 MEASUREMENT OF SYMBOL

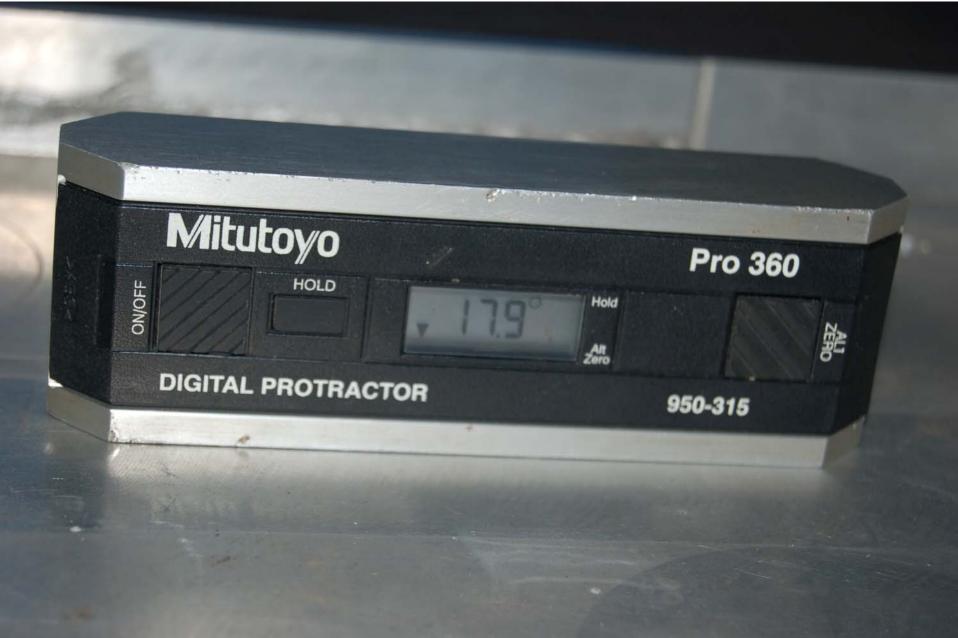


FIGURE 5.31 ROW 2, LEFT SIDE, PITCH MEASUREMENT



FIGURE 5.32 ROW 2, LEFT SIDE, OUTBOARD SRP MEASUREMENT



FIGURE 5.33 ROW 2, LEFT SIDE INBOARD SRP MEASUREMENT



FIGURE 5.34 ROW 2, RIGHT SIDE, OUTBOARD SRP MEASUREMENT



FIGURE 5.35 ROW 2, RIGHT SIDE, INBOARD SRP MEASUREMENT



FIGURE 5.36 ¾ LEFT FRONT VIEW OF VEHICLE IN TEST RIG



FIGURE 5.37 ¾ RIGHT FRONT VIEW OF VEHICLE IN TEST RIG



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



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



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

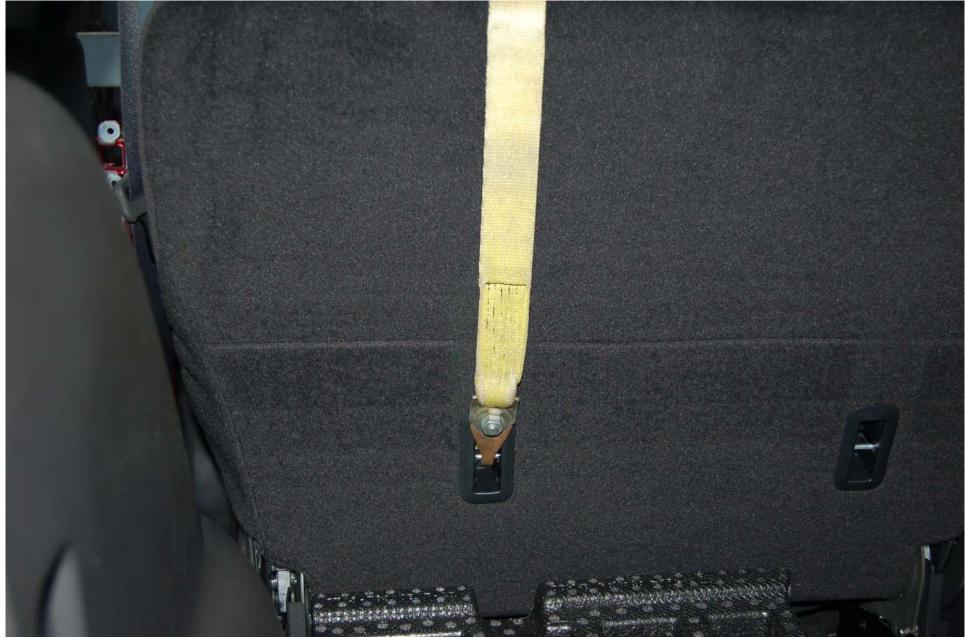


FIGURE 5.41 POST TEST ROW 2, LEFT SIDE WITH SFAD 2



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



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



FIGURE 5.44 PRE-TEST ROW 2, CENTER WITH SFAD 1



FIGURE 5.45 PRE-TEST ROW 2, CENTER WITH SFAD 1



FIGURE 5.46 PRE-TEST ROW 2, CENTER WITH SFAD 1



2008 FORD EDGE NHTSA NO. C80207 FMVSS NO. 225

FIGURE 5.47 POST TEST ROW 2, CENTER WITH SFAD 1



2008 FORD EDGE NHTSA NO. C80207 FMVSS NO. 225 FIGURE 5.48 POST TEST ROW 2, CENTER WITH SFAD 1



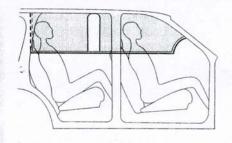
2008 FORD EDGE NHTSA NO. C80207 FMVSS NO. 225 FIGURE 5.49 POST TEST ROW 2, CENTER WITH SFAD 1

# APPENDIX A OWNER'S MANUAL RESTRAINT INFORMATION

The Safety Canopy<sup>TM</sup> is mounted to roof side-rail sheet metal, behind the headliner, along the entire side of the vehicle. In certain lateral collisions or rollover events, the Safety Canopy<sup>TM</sup> system will be activated, regardless of which seats are occupied. The Safety Canopy<sup>TM</sup> is designed to inflate between the side window area and occupants to further enhance protection provided in side impact collisions and rollover events.

The fact that the Safety Canopy<sup>TM</sup> did not activate in a collision does not mean that something is wrong with the system. Rather, it means the forces were not of the type sufficient to cause activation. The Safety Canopy<sup>TM</sup> is designed to inflate in certain side impact collisions or rollover events, not in rear impact, frontal or near-frontal collisions, unless the collision causes sufficient lateral deceleration or rollover.

If the Safety Canopy<sup>™</sup> system has deployed, the Safety Canopy<sup>™</sup> will not function again unless replaced. The Safety Canopy<sup>™</sup> system (including the A, B, C, and D pillar trim and headliner) must be inspected and serviced by an authorized dealer. If the Safety Canopy<sup>™</sup> is not replaced, the unrepaired area will increase the risk of injury in a collision.



#### Determining if the system is operational

The SRS uses a readiness light in the instrument cluster or a tone to indicate the condition of the system. Refer to the *Airbag readiness* section in the *Instrument Cluster* chapter. Routine maintenance of the airbag is not required.

Any difficulty with the system is indicated by one or more of the following:

- The readiness airbag light (same light as for front airbag system) will either flash or stay lit.
- The readiness light will not illuminate immediately after ignition is turned on.
- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem and light are repaired.

If any of these things happen, even intermittently, have the SRS serviced at your an authorized dealer immediately. Unless serviced, the system may not function properly in the event of a collision or rollover event.

# Disposal of airbags and airbag equipped vehicles (including pretensioners)

See your authorized dealer. Airbags MUST BE disposed of by qualified personnel.

#### SAFETY RESTRAINTS FOR CHILDREN

See the following sections for directions on how to properly use safety restraints for children. Also see *Airbag supplemental restraint system (SRS)* in this chapter for special instructions about using airbags.

#### Important child restraint precautions

You are required by law to use safety restraints for children in the U.S. and Canada. If small children (generally children who are four years old or younger and who weigh 40 lb. [18 kg] or less) ride in your vehicle, you must put them in safety seats made especially for children. Many states require that children use approved booster seats until they are eight years old. Check your local and state or provincial laws for specific requirements regarding the safety of children in your vehicle. When possible, always place children under age 12 in the rear seat of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating position.

Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.

Always follow the instructions and warnings that come with any infant or child restraint you might use.

#### Children and safety belts

If the child is the proper size, restrain the child in a safety seat. Children who are too large for child safety seats (as specified by your child safety seat manufacturer) should always wear safety belts.

Follow all the important safety restraint and airbag precautions that apply to adult passengers in your vehicle.

If the shoulder belt portion of a combination lap and shoulder belt can be positioned so it does not cross or rest in front of the child's face or neck, the child should wear the lap and shoulder belt. Moving the child closer to the center of the vehicle may help provide a good shoulder belt fit.

Do not leave children, unreliable adults, or pets unattended in your vehicle.

#### Child booster seats

Children outgrow a typical convertible or toddler seat when they weigh 40 lb. (18 kg) and are around 4 years of age. Although the lap/shoulder belt will provide some protection, these children are still too small for lap/shoulder belts to fit properly, which could increase the risk of serious injury in a crash.

To improve the fit of both the lap and shoulder belt on children who have outgrown child safety seats, Ford Motor Company recommends use of a belt-positioning booster.

Booster seats position a child so that safety belts fit better. They lift the child up so that the lap belt rests low across the hips and the knees bend comfortably. Booster seats may also make the shoulder belt fit better and more comfortably. Try to keep the belt near the middle of the shoulder.

#### When children should use booster seats

Children need to use booster seats from the time they outgrow the toddler seat until they are big enough for the vehicle seat and lap/shoulder belt to fit properly. Generally this is when they weigh about 80 lb. (36 kg) (about 8 to 12 years old).

Booster seats should be used until you can answer YES to ALL of these questions:

• Can the child sit all the way back against the vehicle seat back with knees bent comfortably at the edge of the seat without slouching?



- Does the lap belt rest low across the hips?
- Is the shoulder belt centered on the shoulder and chest?
- Can the child stay seated like this for the whole trip?

#### Types of booster seats

There are two types of belt-positioning booster seats:

• Those that are backless.

If your backless booster seat has a removable shield, remove the shield and use the lap/shoulder belt. If a seating position has a low seat back and no head restraint, a backless booster seat may place your child's head (top of ear level) above the top of the seat. In this case, move the backless booster to another seating position with a higher seat



seating position with a higher seat back and lap/shoulder belts.

• Those with a high back.

If, with a backless booster seat, you cannot find a seating position that adequately supports your child's head, a high back booster seat would be a better choice.



Either type can be used at any seating position equipped with lap/shoulder belts if your child is over 40 lb. (18 kg).

Children and booster seats vary widely in size and shape. Choose a booster that keeps the lap belt low and snug across the hips, never up across the stomach, and lets you adjust the shoulder belt to cross the chest and rest snugly near the center of the shoulder. The drawings below compare the ideal fit (center) to a shoulder belt unconfortably close to the neck and a shoulder belt that could slip off the shoulder.



If the booster seat slides on the vehicle seat, placing a rubberized mesh sold as shelf or carpet liner under the booster seat may improve this condition.

#### The importance of shoulder belts

Using a booster without a shoulder belt increases the risk of a child's head hitting a hard surface in a collision. For this reason, you should never use a booster seat with a lap belt only. It is best to use a booster seat with lap/shoulder belts in the back seat- the safest place for children to ride.

Move a child to a different seating location if the shoulder belt does not stay positioned on the shoulder during use.

Follow all instructions provided by the manufacturer of the booster seat.

Never put the shoulder belt under a child's arm or behind the back because it eliminates the protection for the upper part of the body and may increase the risk of injury or death in a collision.

Never use pillows, books, or towels to boost a child. They can slide around and increase the likelihood of injury or death in a collision.

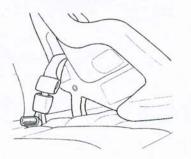
#### SAFETY SEATS FOR CHILDREN

#### Child and infant or child safety seats

Use a safety seat that is recommended for the size and weight of the child. Carefully follow all of the manufacturer's instructions with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

When installing a child safety seat:

- Review and follow the information presented in the *Airbag Supplemental Restraint System* section in this chapter.
- Use the correct safety belt buckle for that seating position.
- Insert the belt tongue into the proper buckle until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.



- Keep the buckle release button pointing up and away from the safety seat, with the tongue between the child seat and the release button, to prevent accidental unbuckling.
- Place seat back in upright position.
- Put the safety belt in the automatic locking mode. Refer to *Automatic locking mode.*
- LATCH lower anchors are recommended for use by children up to 48 lb (22 kg) in a child restraint. Top tether anchors can be used for children up to 60 lb (27 kg) in a child restraint, and to provide upper torso restraint for children up to 80 lb (36 kg) using an upper torso harness and a belt-positioning booster.

Ford Motor Company recommends the use of a child safety seat having a top tether strap. Install the child safety seat in a seating position with LATCH and tether anchors. For more information on top tether straps and anchors, refer to *Attaching safety seats with tether straps* in this chapter. For more information of LATCH anchors refer to *Attaching safety seats with LATCH (Lower Anchors and Tethers for Children) attachments* in this chapter.

Carefully follow all of the manufacturer's instructions included with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

Rear-facing child seats or infant carriers should never be placed in front of an active passenger airbag.

Installing child safety seats with combination lap and shoulder belts

Airbags can kill or injure a child in a child seat. **NEVER** place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the seat all the way back.

Children 12 and under should be properly restrained in the rear seat whenever possible.

1. Position the child safety seat in a seat with a combination lap and shoulder belt.



2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.



3. While holding the shoulder and lap belt portions together, route the tongue through the child seat according to the child seat manufacturer's instructions. Be sure the belt webbing is not twisted.



4. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) for that seating position until you hear a snap and feel the latch engage. Make sure the tongue is latched securely by pulling on it.

5. To put the retractor in the automatic locking mode, grasp the shoulder portion of the belt and pull downward until all of the belt is pulled out and a click is heard.



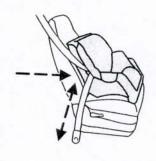
6. Allow the belt to retract. The belt will click as it retracts to indicate it is in the automatic locking mode.

7. Pull the lap belt portion across the child seat toward the buckle and pull up on the shoulder belt while pushing down with your knee on the child seat.



8. Allow the safety belt to retract to remove any slack in the belt.

9. Before placing the child in the seat, forcibly move the seat forward and back to make sure the seat is securely held in place. To check this, grab the seat at the belt path and attempt to move it side to side and forward. There should be no more than one inch of movement for proper installation.



10. Try to pull the belt out of the retractor to make sure the retractor is in the automatic locking mode (you should not be able to pull more belt out). If the retractor is not locked, unbuckle the belt and repeat Steps 2 through 9.

Check to make sure the child seat is properly secured before each use.

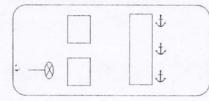
#### Attaching child safety seats with tether straps

Most new forward-facing child safety seats include a tether strap which goes over the back of the seat and hooks to an anchoring point. Tether straps are available as an accessory for many older safety seats. Contact the manufacturer of your child seat for information about ordering a tether strap.

The rear seats of your vehicle are equipped with built-in tether strap anchors located behind the seats as described below.

The tether anchors in your vehicle are located under the second row seat gap cover marked with tether anchor symbols (shown with title).

The tether strap anchors in your vehicle are in the following positions (shown from top view):



Attach the tether strap only to the appropriate tether anchor as shown. The tether strap may not work properly if attached somewhere other than the correct tether anchor.

Do not use seat anchors as cargo tie downs.

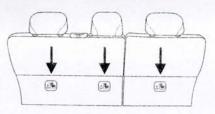
1. Position the child safety seat on the seat cushion.

2. Route the child safety seat tether strap over the back of the seat.

For vehicles with adjustable head restraints, route the tether strap under the head restraint and between the head restraint posts. For seating positions with non-adjustable (fixed) head restraints, route the tether strap over the top of the head restraint.

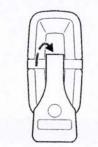
/!

3. Locate the correct anchor behind the gap cover for the selected seating position.



4. Clip the tether strap to the anchor as shown.

If the tether strap is clipped incorrectly, the child safety seat may not be retained properly in the event of a collision.



5. Install the child safety seat tightly

using the LATCH anchors or safety belts. Follow the instructions in this chapter.

6. Tighten the child safety seat tether strap according to the manufacturer's instructions.



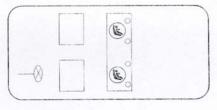
If the safety seat is not anchored properly, the risk of a child being injured in a collision greatly increases.

# Attaching safety seats with LATCH (Lower Anchors and Tethers for Children) attachments for child seat anchors

Some child safety seats have two rigid or webbing mounted attachments that connect to two anchors at certain seating positions in your vehicle. This type of child seat eliminates the need to use safety belts to attach the child seat. For forward-facing child seats, the tether strap must also be attached to the proper tether anchor. See *Attaching safety seats with tether straps* in this chapter.

Your vehicle has LATCH anchors for child seat installation at the seating positions marked with the child seat symbol.

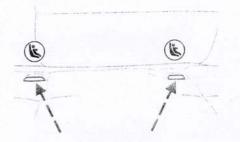
The anchors at the center of the rear seat are further apart than the sets of lower anchors for child seat installation at other seating positions. A child seat with rigid LATCH attachments cannot be installed at this seating position. LATCH compatible child seats (with attachments on belt webbing) can



be used at this seating position only if the child seat instructions state that the child seat can be installed to anchors that are spaced up to 20 inches (500 mm) apart. Do not attach a child seat to any lower anchor if an adjacent child seat is attached to that anchor.

Never attach two LATCH child safety seats to the same anchor. In a crash, one anchor may not be strong enough to hold two child safety seat attachments and may break, causing serious injury or death.

The lower anchors for child seat installation are located at the rear section of the rear seat between the cushion and seat back. The LATCH anchors are below the locator symbols on the seat back.



Follow the child seat manufacturer's instructions to properly install a child seat with LATCH attachments.

Attach LATCH lower attachments of the child seat only to the anchors shown.

If you install a child seat with rigid LATCH attachments, do not tighten the tether strap enough to lift the child seat off the vehicle seat cushion when the child is seated in it. Keep the tether strap just snug without lifting the front of the child seat. Keeping the child seat just touching the vehicle seat gives the best protection in a severe crash.

Each time you use the safety seat, check that the seat is properly attached to the lower anchors and tether anchor. Try to tilt the child seat from side to side. Also try to tug the seat forward. Check to see if the anchors hold the seat in place.

If the safety seat is not anchored properly, the risk of a child being injured in a crash greatly increases.

# APPENDIX B

# MANUFACTURER'S DATA

ANGLE DATA	Torso Angle	Use Center of Adjuster Anchorage oorpan
SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA FMVSS No. 225 (All dimensions in mm <sup>1</sup> ) AR: 2008 MAKE: Ford MODEL: Edge BODY STYLE: MPV	SEAT STYLE: FRONT ROW: Bucket SECOND ROW: Bench THIRD ROW: N/A SEAT STYLE: FRONT ROW: Bucket SECOND ROW: Bench THIRD ROW: N/A Torso Angle Torso Angle Line A1 A2 A2 A3 A3	D D LEFT SIDE VIEW OF TEST VEHICLE
SEAT REFERENCE POINT (SRP) AN FMVSS No. 225 (All dimensions in mm MODEL YEAR: 2008 MAKE: Ford MODEL: Edge BODY STYLE: MPV	FRONT ROW: Bucket SECOND	C C C Driver's Seat Front Outboard LEFT SI

100 NAG C Table 1. Seating Positions<sup>1</sup> and Torso Angles

l

	Left (Driver Side)	Center (if any)	Right
	(Driver) 358		(Front Passenger) 358 power track; 337 manual track
	386	N/A	386
	N/A	N/A	N/A
	341.8	N/A	341.8
	1267.8	1267.8	1267.8
	N/A	N/A	N/A
Front Row	21	N/A	21
Second Row	24	N/A	24
Third Row	N/A	N/A	N/A

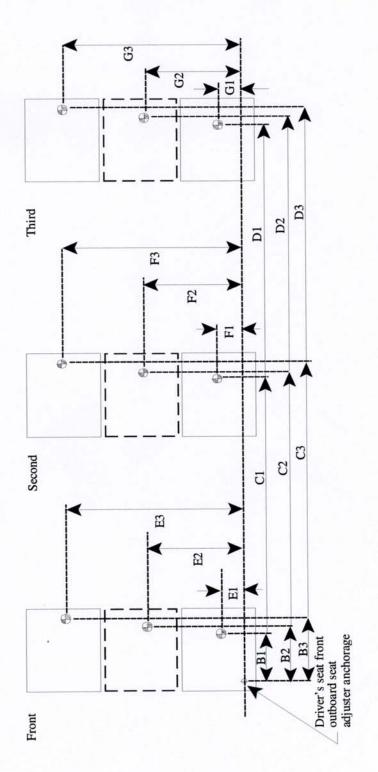
Note: All dimensions are in mm. If not, provide the unit used.

SEATING REFERENCE POINT EMVSS No. 225

3

FMVSS No. 225 (All dimensions in mm) MODEL YEAR: 2008 MAKE: Ford MODEL: Edge BODY STYLE: MPV

SEAT STYLE: FRONT ROW: Bucket SECOND ROW: Bench THIRD ROW: N/A



FORM - 225

Seating Refere Point (SRP		Distance from Driver's front outboard seat adjuster anchorage <sup>1</sup>
Front Row	B1	341.8
	E1	222
	B2	N/A
	E2	N/A
	B3	341.8
	E3	982
Second Row	C1	1267.8
	F1	220
	C2	1267.8
	F2	602
	C3	1267.8
	F3	N/A
Third Row	D1	N/A
	G1	N/A
	D2	N/A
	G2	N/A
	D3	N/A
	G3	N/A

Table 2. Seating Reference Point and Tether Anchorage Locations

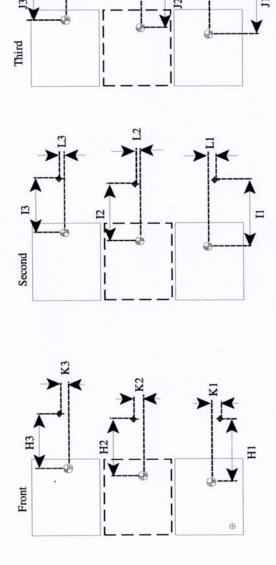
Note: Use the center of anchorage.

TETHER ANCHORAGE LOCATIONS

5

FMVSS No. 225 (All dimensions in mm) MODEL YEAR: 2008 MAKE: Ford MODEL: Edge BODY STYLE: MPV

SEAT STYLE: FRONT ROW: Bucket SECOND ROW: Bench THIRD ROW: N/A



M2

Ξ

M3

SRPTether anchorage

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

Seating Reference Point (SRP)		Distance from SRP
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	НЗ	N/A
	КЗ	N/A
Second Row	11	279.95
	L1	0
	12	312.95
	L2	22
	13	279.95
	L3	0
Third Row	J1	N/A
	M1	N/A
	J2	N/A
	M2	N/A
	J3	N/A
	M3	N/A

# Table 3. Seating Reference Point and Tether Anchorage Locations

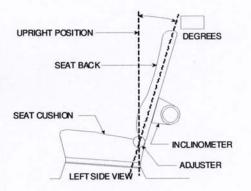
6

Note: Use the center of anchorage.

FORM - 225

#### NOMINAL DESIGN RIDING POSITION

For adjustable driver, passenger, 2<sup>nd</sup> row and 3<sup>rd</sup> 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 = 21 degrees.

Measurement Instructions:

# Seatback angle is measured on seatback frame, 330mm radially from seatback pivot.

Seat back angle for passenger's seat = 21 degrees.

Measurement Instructions:

Seatback angle is measured on seatback frame, 330mm radially from seatback pivot.

Seat back angle for  $2^{nd}$  row seat = 24 degrees.

Measurement Instructions:

Seatback angle is measured on seatback frame, 330mm radially from seatback pivot.

Seat back angle for 3<sup>rd</sup> row seat = N/A degrees.

Measurement Instructions:

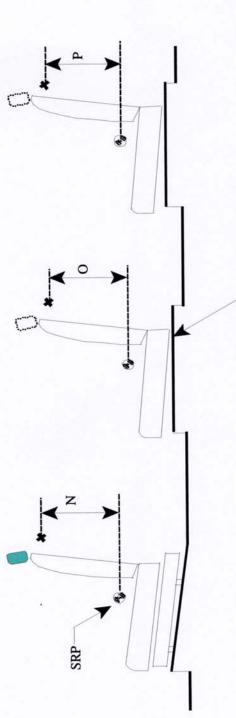
FORM - 225

TETHER ANCHORAGE LOCATIONS FMVSS No. 225 (All dimensions in mm)

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MODEL YEAR: 2008 MAKE: Ford MODEL: Edge BODY STYLE: MPV

SEAT STYLE: FRONT ROW: Bucket SECOND ROW: Bench THIRD ROW: N/A



LEFT SIDE VIEW OF TEST VEHICLE

Vehicle Hoorpan

Table 4. Vertical Dimension For The Tether Anchorage

6

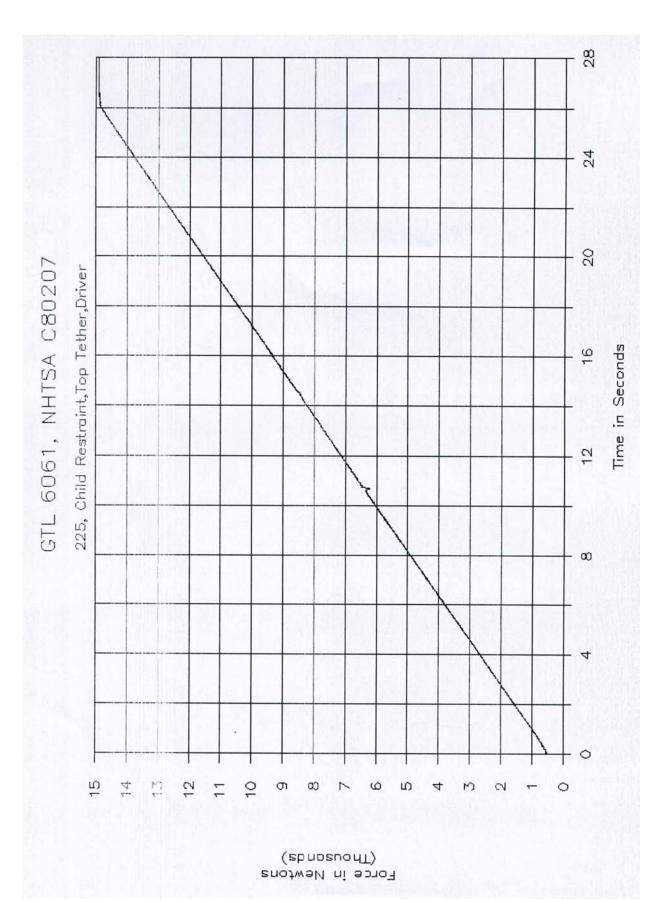
Seating Row	Vertical Distance	Vertical Distance from Seating Reference Point
Front Row	N1 (Driver)	N/A
	N2 (Center)	N/A
	N3 (Right)	N/A
Second Row	O1 (Left)	-67.59
	O2 (Center)	-59.95
	O3 (Right)	-67.95
Third Row	P1 (Left)	N/A
	P2 (Center)	N/A
	P3 (Right)	N/A

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

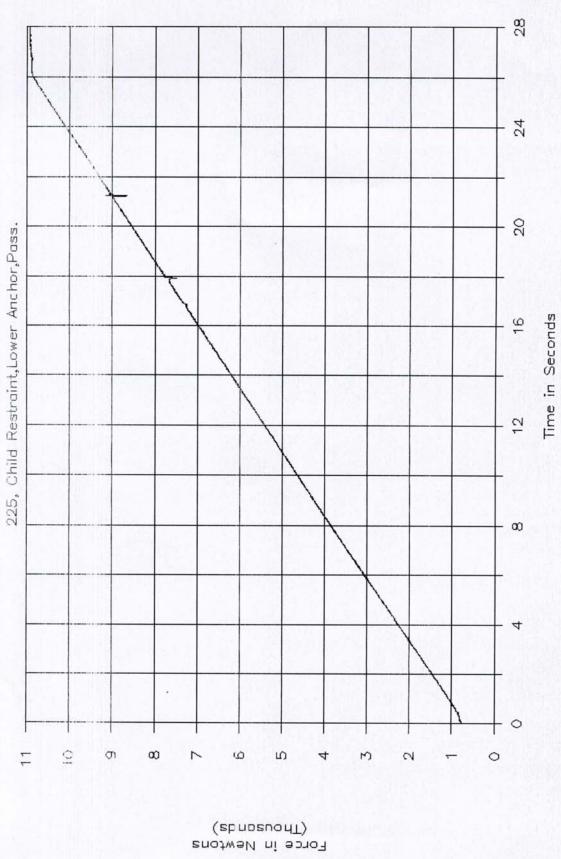
For each vehicle, provide the following information:

- 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, outboard rear seating positions
- How many designated seating positions are equipped with tether anchorages? Specify which positions(s). 3, all rear seating positions ė.
- Lower Anchorages Marking and Conspicuity: Whether the anchorages are certified to S9.5(a) or S9.5(b) of FMVSS No. 225. S9.5(a) 4.

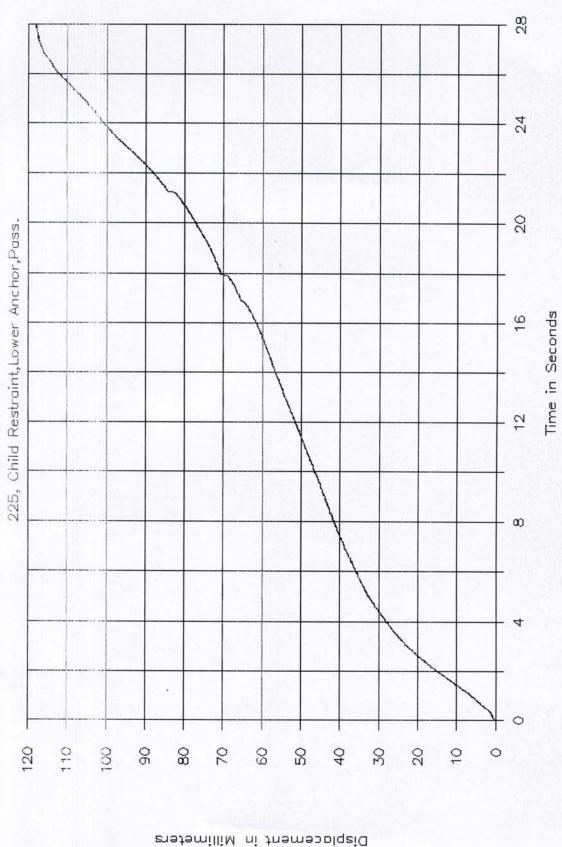
APPENDIX C PLOTS

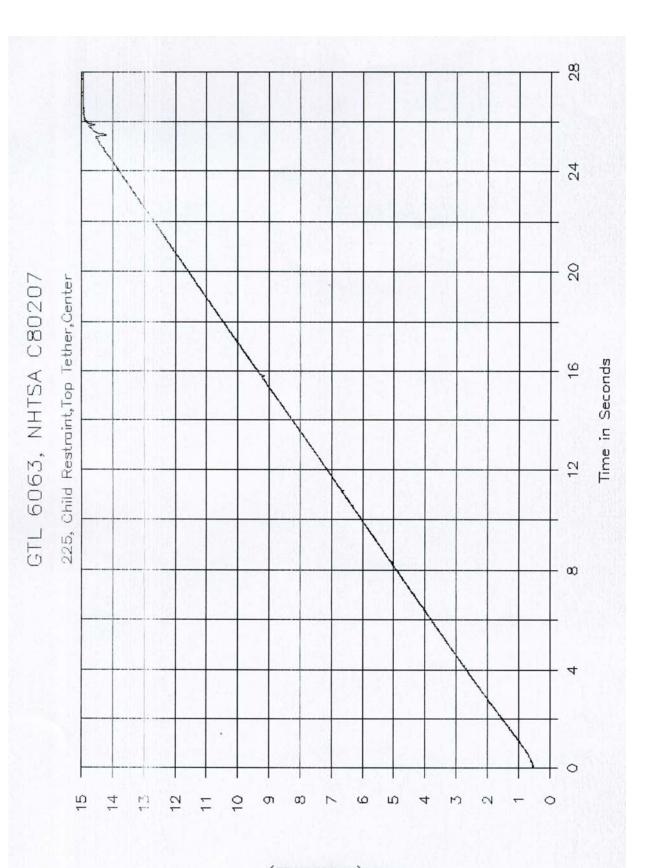


GTL 6062, NHTSA C80207



GTL 6062, NHTSA C80207





Force in Newtona (Thousands)