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

HONDA OF CANADA MFG.
A DIVISION OF HONDA CANADA INC.
2006 HONDA RIDGELINE, TRUCK
NHTSA NO. C65300

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
400 SEVENTH STREET, SW
ROOM 6111 (NVS-220)
WASHINGTON, D.C. 20590

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Prepared By:

Approved By:

Approval Date:

FINAL REPORT ACCEPTANCE BY OVSC:

Accepted By:

Acceptance Date:

			Techn	ical Report Documentation Page
1. Report No.	2. Government	Accessio	n No.	3. Recipient's Catalog No.
225-GTL-06-009	N/A	4		N/A
4. Title and Subtitle	4. Title and Subtitle			5. Report Date
Final Report of FMVSS 225 Compliance Testing			ng of	October 27, 2006
2006 HONDA RIDG	ELINE, TRUCK			6. Performing Organ. Code
NHTSA No. C65300	1			GTL
7. Author(s)				8. Performing Organ. Rep#
Grant Farrand, Proje	ect Engineer			GTL-DOT-06-225-009
Debbie Messick, Pro	oject Manager			
9. Performing Organ		d Addres	S	10. Work Unit No. (TRAIS)
General Testing L	aboratories, Inc.			N/A
1623 Leedstown I	Road			11. Contract or Grant No.
Colonial Beach, V	'a 22443			DTNH22-02-D-01043
12. Sponsoring Age	ncy Name and Ad	ddress		13. Type of Report and Period
U.S. Department of	Transportation			Covered
National Highway Tr	affic Safety Admi	in.		Final Test Report
Safety Enforcement				July 24– September 29,2006
Office of Vehicle Sat	fety Compliance	(NVS-22	0)	14. Sponsoring Agency Code
400 7 <sup>th</sup> Street, S.W., Room 6111			NVS-220	
Washington, DC 20590				
15. Supplementary I	Votes			
16. Abstract				
•		-		da Ridgeline Truck in
accordance with the specifications of the Office of Vehicle Safety Compliance Test				
Procedure No. TP-2			n of FMVSS 2	25 compliance.
Test failures identifie	ed were as follow	S:		
NONE				
17. Key Words			18. Distribution	
Compliance Testing		Copies of this report are available from		
Safety Engineering		NHTSA Technical Reference Div.,		
FMVSS 225			Rm. PL-403 (	
				W. Washington, DC 20590
10.0				o. (202) 366-4946
19. Security Classif.		21. No.	of Pages	22. Price
UNCLASSIFIED			123	
20. Security Classif.				
LINICI AGGIETE	1			

UNCLASSIFIED
Form DOT F 1700.7 (8-72)

#### TABLE OF CONTENTS

SECTION	17.522 6. 66.11.211.6	PAGE
1 2 3 4 5	Purpose of Compliance Test Compliance Test Results Compliance Test Data Test Equipment List Photographs	1 2 3 26 27
	5.1 Left Side View of Vehicle 5.2 Right Side View of Vehicle 5.3 % Frontal Left Side View of Vehicle 5.4 % Rearward Right Side View of Vehicle 5.5 Close-up View of Vehicle Certification Label 5.6 Close-up View of Vehicle Tire Information Label 5.7 Row 2, Left Side, Lower Anchors Pre-Test 5.8 Row 2, Left Side, Eower Anchors Pre-Test 5.9 Row 2, Left Side Routing Device, Pre-Test 5.10 Row 2, Center, Lower Anchors and Top Tether Anchor, Pre- 5.11 Row 2, Center, Lower Anchors and Top Tether Anchor, Pre- 5.12 Row 2, Right Side, Lower Anchors Pre-Test 5.13 Row 2, Right Side Routing Device Pre-Test 5.14 Row 2, Right Side Routing Device Pre-Test 5.15 Overall View of Row 2 Seating Positions Pre-Test 5.16 Row 2, Left Side with CRF 5.17 Row 2, Left Side with 2-D Template 5.18 Row 2, Left Side Top Tether Routing 5.19 Row 2, Left Side Tether Routing 5.20 Row 2, Right Side with 2-D Template 5.21 Row 2, Right Side with 2-D Template 5.22 Row 2, Right Side With 2-D Template 5.23 Row 2, Right Side Top Tether Routing 5.24 Row 2, Center with CRF 5.25 Row 2, Center with CRF 5.25 Row 2, Center with CRF 5.26 Row 2, Center With 2-D Template 5.27 Row 2, Center Father Routing 5.28 Row 2, Right Side Tether Routing 5.29 Row 2, Left Side Inboard CRF Measurement 5.30 Row 2, Left Side Outboard CRF Measurement 5.31 Row 2, Left Side Outboard CRF Measurement 5.32 Row 2, Center Left Side CRF Measurement 5.33 Row 2, Left Side Outboard CRF Measurement 5.34 Symbol Measurement 5.35 Row 2, Center Fight Side CRF Measurement 5.36 Row 2, Left Side CRF Pitch Measurement 5.37 Row 2, Center Fitch Measurement 5.38 Row 2, Left Side Outboard SRP Measurement 5.39 Row 2, Left Side Outboard SRP Measurement 5.39 Row 2, Left Side Outboard SRP Measurement 5.39 Row 2, Left Side Outboard SRP Measurement	Test

#### TABLE OF CONTENTS (continued)

5.40 Row 2, Right Side Outboard SRP Measurement 5.41 Row 2, Right Side Inboard SRP Measurement 5.42 Row 2, Center Left Side SRP Measurement 5.43 Row 2, Center Right Side SRP Measurement 5.44 ¾ Left Rear View of Vehicle in Test Rig 5.45 ¾ Right Front View of Vehicle in Test Rig 5.46 Pre-Test Row 2, Left Side with SFAD 2 5.47 Post Test Row 2, Left Side with SFAD 2 5.48 Post Test Row 2, Left Side with SFAD 2 5.49 Post Test Row 2, Left Side with SFAD 2 5.50 Pre-Test Row 2, Right Side with SFAD 2 5.51 Post Test Row 2, Right Side with SFAD 2 5.52 Pre-Test Row 2, Center Position with SFAD 1 5.53 Post Test Row 2, Center Position with SFAD 1 5.54 Post Test Row 2, Center Position with SFAD 1

6 Plots 82

- 6.1 2<sup>nd</sup> Row Left Side Top Tether, GTL 5657
- 6.2 2<sup>nd</sup> Row Left Side Top Tether, GTL 5657
- 6.3 2<sup>nd</sup> Row Center Position Top Tether, GTL 5658
- 6.4 2<sup>nd</sup> Row Center Position Top Tether, GTL 5658
- 6.5 2<sup>nd</sup> Row Right Side Lower Anchor, GTL 5659
- 6.6 2<sup>nd</sup> Row Right Side Lower Anchor, GTL 5659

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 Honda Ridgeline Truck 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 Honda Ridgeline Truck. Nomenclature applicable to the test vehicle are:
  - A. Vehicle Identification Number: 2HJYK16206H531467
  - B. NHTSA No.: C65300
  - C. Manufacturer: HONDA OF CANADA MFG. A DIVISION OF HONDA CANADA INC.
  - D. Manufacture Date: 07/05

#### 1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 225 testing during the time period July 24 through September 29, 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 Honda Ridgeline Truck 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 Honda Ridgeline Truck.

## DATA SHEET 1 SUMMARY OF RESULTS

VEH.	MOD YR/MAKE/MODEL/E	BODY: <u>2006 HONDA R</u>	<u>IDGELINE TRU</u>	<u>CK</u>	
VEH.	NHTSA NO: <u>C65300</u> ;	VIN: 2HJYK16206H5	31467		
	BUILD DATE: <u>07/05</u> ;			ER 29, 2006	
	TLABORATORY: <u>GENERA</u> ERVERS: <u>GRANT FARRA</u>		ORIES		
OBSI	ERVERS. <u>GRANT FARRA</u>	IND, JIMINIT LATAINE			
A.	VISUAL INSPECTION O	F TEST VEHICLE			
	Upon receipt for complete influence the testing.	eness, function, and dis	crepancies or da	amage which might	
	RESULTS: OK FOR TES	Т			
В.	REQUIREMENTS FOR C	HILD RESTRAINT SY	STEMS AND TE	THER ANCHORAG	ES
			PASS	FAIL	
	DSP a		<u>X</u>		
	DSP b		X		
	DSP c		X		
C.	LOCATION OF TETHER	ANCHORAGES			
			PASS	FAIL	
	DSP a		<u>X</u>		
	DSP b		X		
	DSP c		X		
D.	LOWER ANCHORAGE	DIMENSIONS			
			PASS	FAIL	
	DSP a		<u>X</u>		
	DSP b		X		
	DSP c		X		

# DATA SHEET 1 CONTINUED SUMMARY OF RESULTS

E.	CONSPICUITY AND MARKING OF LOWER ANCHORAGES		
	DSP a	PASS X	FAIL
	DSP b	X	
	DSP c	X	
F.	STRENGTH OF TETHER ANCHORAGES		
	DSP a	PASS X	FAIL
	DSP b	X	
	DSP c	N/A_	N/A
G.	STRENGTH OF LOWER ANCHORAGES (Forward	Force)	
	DSP a	PASS N/A	FAIL <u>N/A</u>
	DSP b	N/A	N/A
	DSP c	X	
Н.	STRENGTH OF LOWER ANCHORAGE (Lateral Fo	rce)	
	DSP a	PASS N/A	FAIL <u>N/A</u>
	DSP b	N/A_	N/A
	DSP c	<u>N/A</u>	N/A
I.	OWNER'S MANUAL	PASS X	FAIL
REMA	ARKS: DSP a = Left Rear Outboard, DSP b = Center, I	DSP c = Right	Rear Outboard
REC	DRDED BY: G. Farrand DATE	E: <u>09/29</u>	/06
APPF	ROVED BY: D. Messick		

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

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: 07/05; TEST DATE: JULY 24, 2006
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?
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 = FAIL If 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 ≥ 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?
$YES = PASS \qquad NO = FAIL (S5(e))$
Number of provided CRAS (lower anchorage only, for convertibles/school buses), indicate if a built-in child restraint is counted as a CRAS:3
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: \_\_\_\_\_N/A\_\_

YES = PASS  $\overline{NO} = FAIL (S4.4(a)(1))$ 

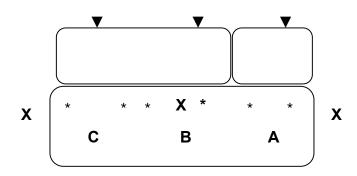
Is the number of provided tether anchorages greater than or equal to the number of required tether anchorages? YES = PASS NO = FAIL (S4.4 (a) or (b) or (c))

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 = 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
YES = PASS
NO = FAIL (S4.6 (b))

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



**X** = Top Tether

\* = Lower Anchors

▼ = Tether Routing Device

RECORDED BY: G. FARRAND DATE: 07/24/06

APPROVED BY: D. MESSICK

#### DATA SHEET 3 LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: 07/05; TEST DATE: JULY 24, 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:  Top Tether is routed through a rigid loop at the top of the seat back and then down to the anchorage at the outboard left side of the seat bottom.
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?RIGID

# 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 = PAS	cord the horizontal distance between the torso  190 mm  S Less than 100mm = FAIL
COMMENTS:	
COMMENTS.	
RECORDED BY: G. FARRAND	DATE: <u>07/24/06</u>
APPROVED BY: D. MESSICK	<u> </u>

## DATA SHEET 3A LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: 07/05; TEST DATE: JULY 24, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)
Detailed description of the location of the tether anchorage: Top Tether is routed through a rigid loop at the top of the seat back and then down to the anchorage at the outboard right side of the seat bottom.
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? 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?RIGID

# DATA SHEET 3A CONTINUED

DESIGNATED SEA	ATING POSITION:_	ROW 2 RIG	HT SIDE (DSI	<u>PC)</u>
	exible tether routing on the contract of the c		stalling 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 65	I distance between the torso
reference plane an	gid tether routing devident the routing device: n or equal to 100mm	190 m	<u>ım</u>	istance between the torso _ than 100mm = FAIL
COMMENTS:				
COMMENTS.				
RECORDED BY:_	G. FARRAND		DATE:	07/24/06
APPROVED BY:	D. MESSICK			

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

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: 07/05; TEST DATE: JULY 24, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)
Detailed description of the location of the tether anchorage:  Top Tether is routed through a rigid loop at the top of the seat back and then down to the anchorage at the junction of the seat back and seat bottom cushion.
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?RIGID

# DATA SHEET 3B CONTINUED

DESIGNATED SEATING POSITION: ROL	W 2 CENTER (DSP B)
If the DSP has a flexible tether routing device N/A (Must be 60 N ± 5 N)	e, 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 = PAS	e, record the horizontal distance between the torso  N/A  SS Less than 65mm = FAIL
If the DSP has a rigid tether routing device, reference plane and the routing device:  Greater than or equal to 100mm = PA	
COMMENTS:	
RECORDED BY: G. FARRAND	DATE: 07/24/06
APPROVED BY: D. MESSICK	

#### DATA SHEET 4 LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: <u>2006 HONDA RIDGELINE TRUCK</u>
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: <u>07/05</u> ; TEST DATE: <u>JULY 24, 2006</u>
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
Outboard Lower Anchorage bar diameter: 6.05 mm 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))
Inboard Lower Anchorage bar diameter: 6.05 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):30 mm Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length of the straight portion of the bar (inboard lower anchorage): 30 mm  Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length between the anchor bar supports (outboard lower anchorage):38 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
Length between the anchor bar supports (inboard lower anchorage): 38 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
CRF Pitch angle: 13.5° Angle = 15°±10° = PASS Angle≠15°±10° = FAIL (S9.2.1)
CRF Roll angle: 0.0 Angle = 0°±5° = PASS Angle≠0°±5° = 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: 55 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL
Distance between point Z on the CRF and the front surface of inboard anchor bar: 55 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL

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

DESIGNATED SEA	ATING POSITION:	ROW 2 LEFT	SIDE (DSP /	<u>4)</u>		
	SgRP and the front s I20mm = PASS	surface of outbo Distance < 12		ar: <u>161</u>	<u>mm</u>	
	SgRP and the front s I 20mm = PASS	surface of inboa Distance < 12		r: <u>161</u>	<u>mm</u>	
Based on visual ob NO	eservation, would a 10	00 N load caus	e the anchor	bar to defor	m more thar	n 5 mm?
If NO = PAS If YES = FA	SS IL (S9.1.1(g)), Provid	le further descr	iption of the a	attachment (	of the ancho	r bar:
COMMENTS:						
RECORDED BY:_	G. FARRAND		DATE:	07/24/06		
APPROVED BY:	D. MESSICK					

#### DATA SHEET 4A LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK				
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>				
VEH. BUILD DATE:07/05; TEST DATE: JULY 24, 2006				
TEST LABORATORY: GENERAL TESTING LABORATORIES				
OBSERVERS: GRANT FARRAND, JIMMY LATANE				
DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)				
Outboard Lower Anchorage bar diameter: 6.07 mm 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))				
Inboard Lower Anchorage bar diameter: 6.07 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): 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): 35 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))				
Length between the anchor bar supports (inboard lower anchorage): 37 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))				
CRF Pitch angle: 11.7° 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: 50 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL				
Distance between point Z on the CRF and the front surface of inboard anchor bar: 50 mm  Distance ≤70mm = PASS Distance > 70mm = FAIL				

#### DATA SHEET 4A CONTINUED

DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)

Distance between SgRP and the front surface of outboard anchor bar: 170 mm  Distance ≥ 120mm = PASS Distance < 120mm = FAIL
Distance between SgRP and the front surface of inboard anchor bar: 172 mm  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 NO
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: 07/24/06
APPROVED BY: D. MESSICK

#### DATA SHEET 4B LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: 07/05; TEST DATE: JULY 24, 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: 6.07 mm 6mm ± 0.1 mm = PASS Other size = FAIL (S9.1.1(a))
Inboard Lower Anchorage bar diameter: 6.07 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): <u>30 mm</u> Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length of the straight portion of the bar (inboard lower anchorage): <u>30 mm</u> Length ≥25mm = PASS Length <25mm = FAIL(S9.1.1(c) (i))
Length between the anchor bar supports (outboard lower anchorage): <u>36 mm</u> Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
Length between the anchor bar supports (inboard lower anchorage):38 mm Length ≤60mm = PASS Length >60mm = FAIL(S9.1.1(c) (ii))
CRF Pitch angle: 13.5° Angle = 15°±10° = PASS Angle≠15°±10° = FAIL (S9.2.1)
CRF Roll angle: 0.0 Angle = 0°±5° = PASS Angle≠0°±5° = 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: <u>57 mn</u> Distance ≤70mm = PASS Distance > 70mm = FAIL
Distance between point Z on the CRF and the front surface of inboard anchor bar: <u>57 mm</u> Distance ≤70mm = PASS Distance > 70mm = FAIL

#### DATA SHEET 4B CONTINUED

DESIGNATED SEATING POSITION:_	ROW 2 RIGHT SIDE (DSP C)	
Distance between SgRP and the front sometimes Distance ≥ 120mm = PASS	surface of outboard anchor bar: 170 mm Distance < 120mm = FAIL	
Distance between SgRP and the front some Distance ≥ 120mm = PASS	surface of inboard anchor bar: 170 mm Distance < 120mm = FAIL	
Based on visual observation, would a 1NO	100 N load cause the anchor bar to deform mo	re than 5 mm?
If NO = PASS If YES = FAIL (S9.1.1(g)), Provid	de further description of the attachment of the	anchor bar:
COMMENTS:		
RECORDED BY: G. FARRAND	DATE:07/24/06	
APPROVED BY: D. MESSICK		

# DATA SHEET 5 CONSPICUITY AND MARKING OF LOWER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u>
VEH. BUILD DATE: 07/05; TEST DATE: JULY 24, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A), ROW 2 CENTER (DSP B) AND ROW 2 RIGHT SIDE (DSP C)
MARKING (Circles)
Diameter of the circle: 15 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
$\frac{\text{YES}}{\text{YES} = \text{PASS}} \qquad \text{NO = FAIL } (\text{S9.5(a)(2)})$
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: 68
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 bank. 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
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**

	2 LEFT SIDE (DSP A), ROW 2 CENTER (DSP B)
AND ROW 2 RIGHT SIDE (DSP C)	
If NO = $FAIL$ (S9.5(b))	N/A words, symbols or pictograms? ds, symbols or pictograms explained in the owner's
YES = PASS NO =	FAIL (S9.5(b))
If NO, there are no requirements for hav	
·	
RECORDED BY: G. FARRAND	DATE: 07/24/06
NECONDED DT. G. FARRAND	DAIL. 07/24/00
APPROVED BY: D. MESSICK	_

#### DATA SHEET 6 STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK  VEH. NHTSA NO: C65300; VIN: 2HJYK16206H531467  VEH. BUILD DATE:07/05; TEST DATE: SEPTEMBER 29, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE TEST NO: 5657
DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)
SFAD: 2
Seat Back Angle: 23° FIXED
Location of seat back angle measurement: 2D Template
Head Restraint Position: UP
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: 58 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 65 mm.
RECORDED BY: G. FARRAND DATE: 09/29/06
APPROVED BY: D. MESSICK

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

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: C65300;       VIN: 2HJYK16206H531467         VEH. BUILD DATE:07/05;       TEST DATE: SEPTEMBER 29, 2006
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5658
DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)
SFAD:1
Seat Back Angle: 21° 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: N/A
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: 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 94.5 mm.
RECORDED BY: G. FARRAND DATE: 09/29/06
APPROVED BY: D. MESSICK

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

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK
VEH. NHTSA NO: <u>C65300</u> ; VIN: <u>2HJYK16206H531467</u> VEH. BUILD DATE: <u>07/05</u> ; TEST DATE: <u>SEPTEMBER 29, 2006</u>
TEST LABORATORY:GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE
TEST NO: 5659
DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)
Seat Back Angle: 23° FIXED
Location of seat back angle measurement: 2D Template
Head Restraint Position: UP
Force at lower front crossmember for SFAD2 while tightening rearward extensions: 135 N
Angle (measured above the horizontal at 500 N):10°
Force application rate: 421 N/S
Time to reach maximum force (24-30 s): 26 sec.
Maximum force (10,950 N ± 50 N): 10,969 N
Displacement, H1 (at 500 N): 0.0
Displacement, H2 (at maximum load): 34.5 mm
Displacement of Point X: 34.5 mm (H2-H1) Displacement > 175 mm = FAIL (S9.4.1(a))
Tested simultaneously with another DSP?NO
Distance between adjacent DSP's: 365 mm
COMMENTS:
RECORDED BY: G. FARRAND DATE: 09/29/06
ADDDOVED BY: D. MESSICK

#### DATA SHEET 8 OWNER'S MANUAL

VEH. MOD YR/MAKE/MODEL/BODY: 2006 HONDA RIDGELINE TRUCK VEH. NHTSA NO: C65300; VIN: 2HJYK16206H531467	
VEH. BUILD DATE: 07/05; TEST DATE: SEPTEMBER 29, 2006	
TEST LABORATORY: GENERAL TESTING LABORATORIES	
OBSERVERS: GRANT FARRAND, JIMMY LATANE	
Description of which DSP's are equipped with tether anchorages and child r systems: YES	estraint anchorage
PASS <u>X</u> FAIL	
Step-by-step instructions for properly attaching a child restraint system's tet anchorage. Diagrams are required. YES	her strap to the tether
PASS_X FAIL	
Description of how to properly use the tether anchorage and lower anchor b	pars: <u>YES</u>
PASS <u>X</u> FAIL	
If the lower anchor bars are marked with a circle, an explanation of what the as any words or pictograms: YES	e circle indicates as well
PASS <u>X</u> FAIL	
COMMENTS:	
RECORDED BY: G. FARRAND DATE: 09/29/0	6
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 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.1 LEFT SIDE VIEW OF VEHICLE



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.2 RIGHT SIDE VIEW OF VEHICLE



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.3 % FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

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

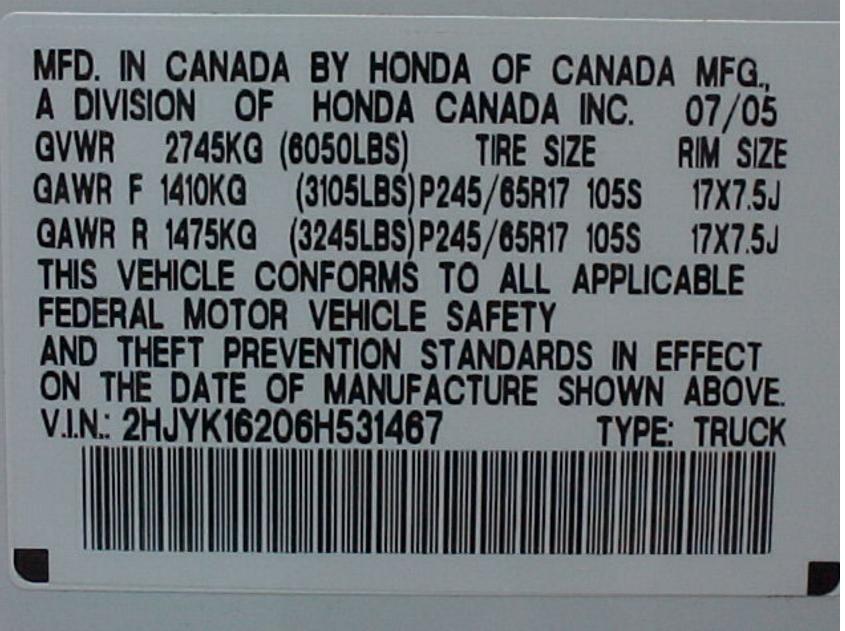


FIGURE 5.5 CLOSE-UP VIEW OF VEHICLE CERTIFICAITON LABEL

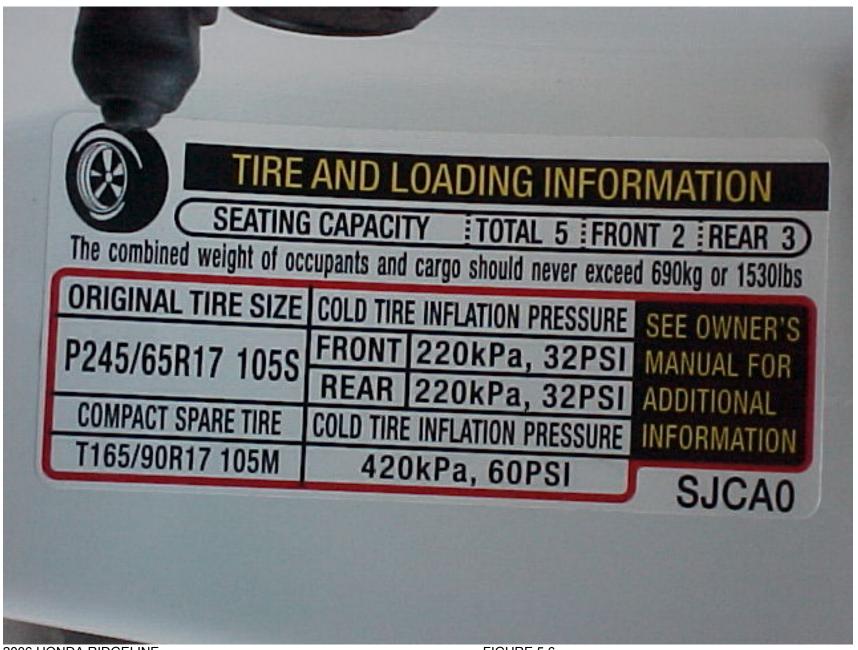


FIGURE 5.6 CLOSE-UP VIEW OF TIRE INFORMATION LABEL



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

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



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.8 ROW 2,LEFT SIDE ROUTING DEVICE, PRE-TEST



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



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

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



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.11 ROW 2 CENTER, ROUTING DEVICE, PRE-TEST



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.12 ROW 2, RIGHT SIDE, LOWER ANCHORS, PRE-TEST



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.13 ROW 2, RIGHT SIDE ROUTING DEVICE, PRE-TEST



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.14 ROW 2, RIGHT SIDE, TOP TETHER ANCHOR, PRE-TEST



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.15 OVERALL VIEW OF ROW 2 SEATING POSITIONS, PRE-TEST



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.16 ROW 2, LEFT SIDE WITH CRF



FIGURE 5.17 ROW 2, LEFT SIDE WITH 2-D TEMPLATE



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.18 ROW 2, LEFT SIDE TOP TETHER ROUTING



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.19 ROW 2, LEFT SIDE TETHER ROUTING



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.20 ROW 2, RIGHT SIDE WITH CRF

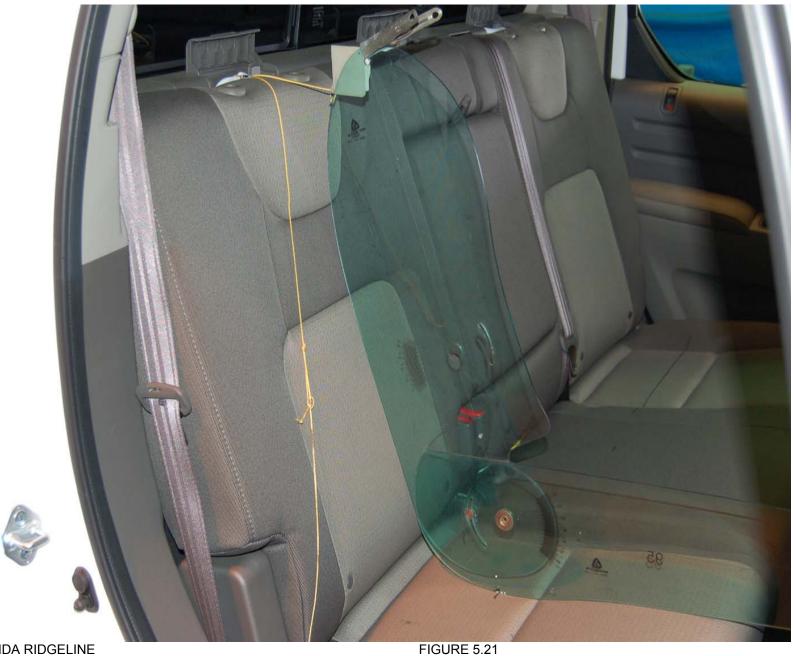


FIGURE 5.21 ROW 2, RIGHT SIDE WITH 2-D TEMPLATE



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.22 ROW 2, RIGHT SIDE TOP TETHER ROUTING



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.23 ROW 2, RIGHT SIDE TETHER ROUTING



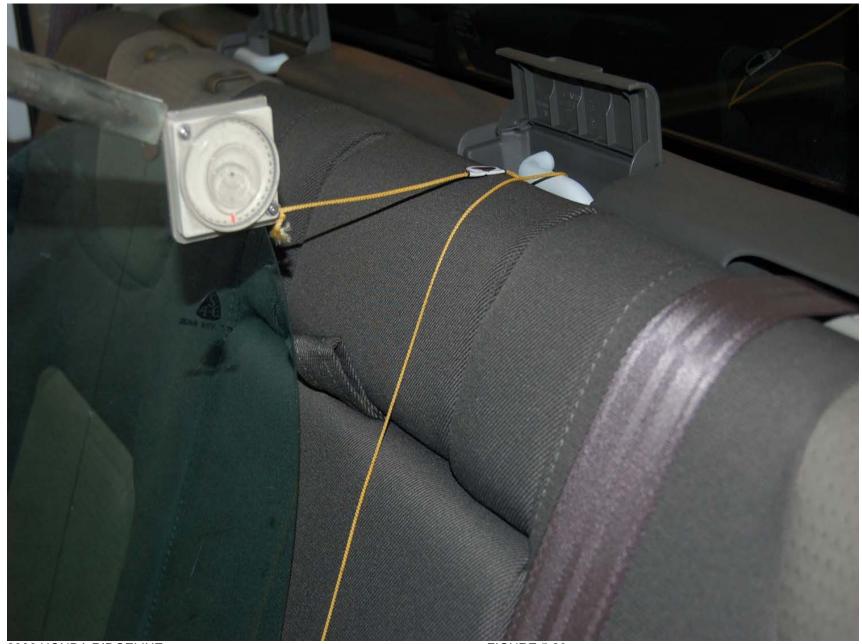
2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.24 ROW 2, CENTER WITH CRF



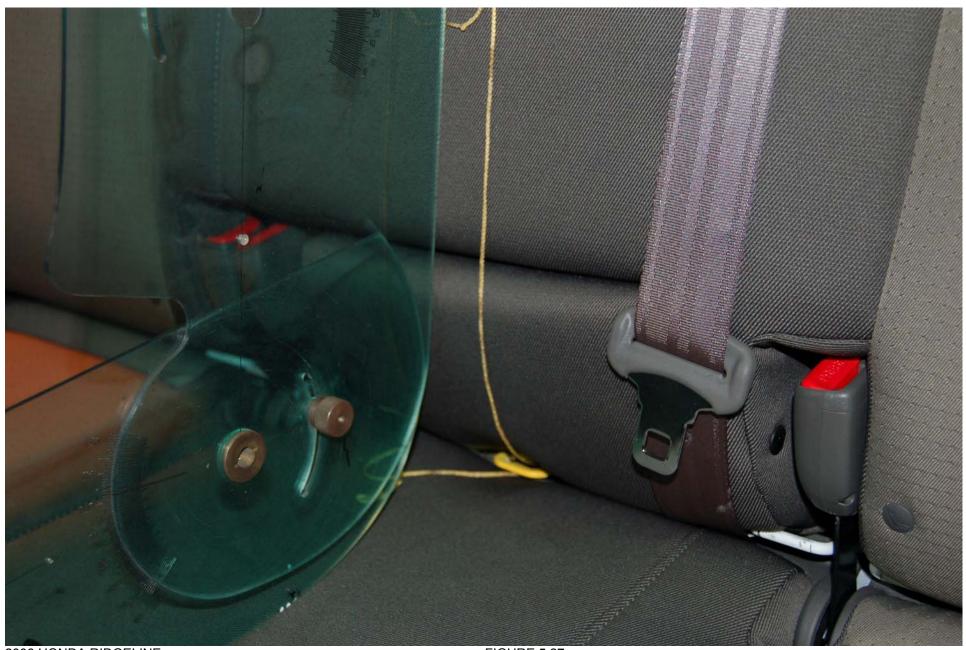
2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.25 ROW 2, CENTER WITH 2-D TEMPLATE



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.26 ROW 2, CENTER TETHER ROUTING



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.27 ROW 2, CENTER TETHER ROUTING



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.28 ROW 2, RIGHT SIDE INBOARD CRF MEASUREMENT

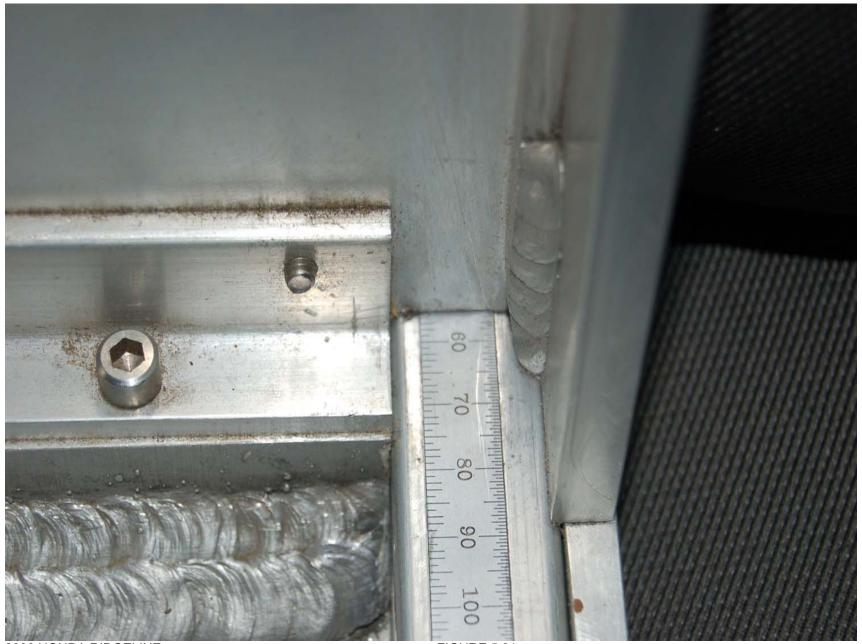


2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.29 ROW 2, RIGHT SIDE OUTBOARD CRF MEASUREMENT

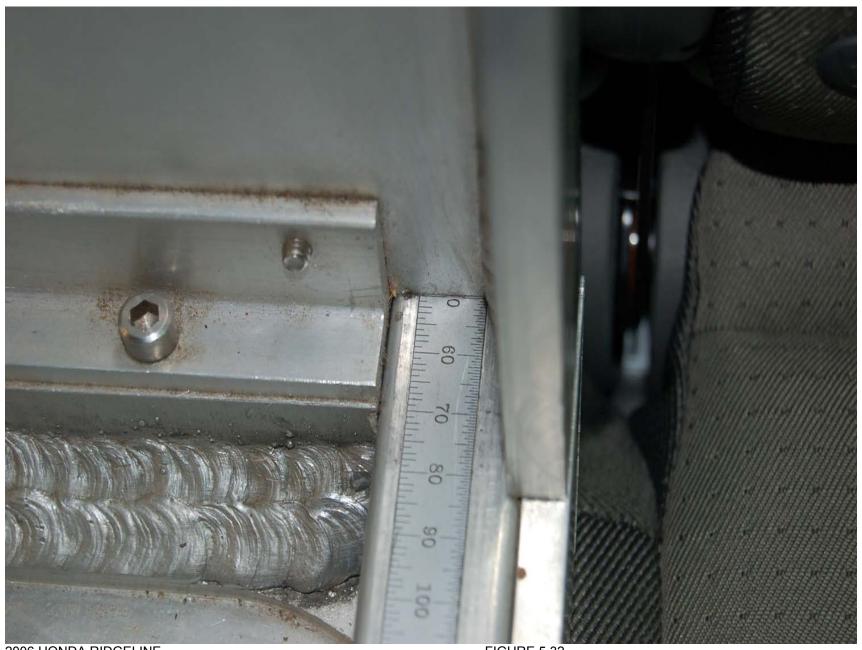


FIGURE 5.30 ROW 2, LEFT SIDE, INBOARD CRF MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.31 ROW 2, LEFT SIDE, OUTBOARD CRF MEASUREMENT



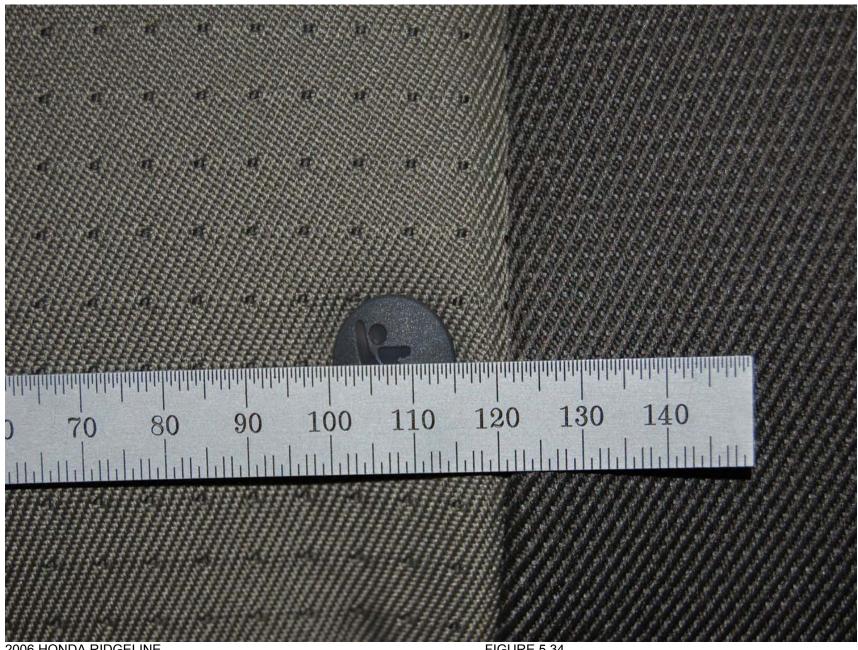
2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.32 ROW 2, CENTER, LEFT SIDE CRF MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.33 ROW 2, CENTER, RIGHT SIDE CRF MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.34 SYMBOL MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.35 ROW 2, LEFT SIDE CRF PITCH MEASUREMENT

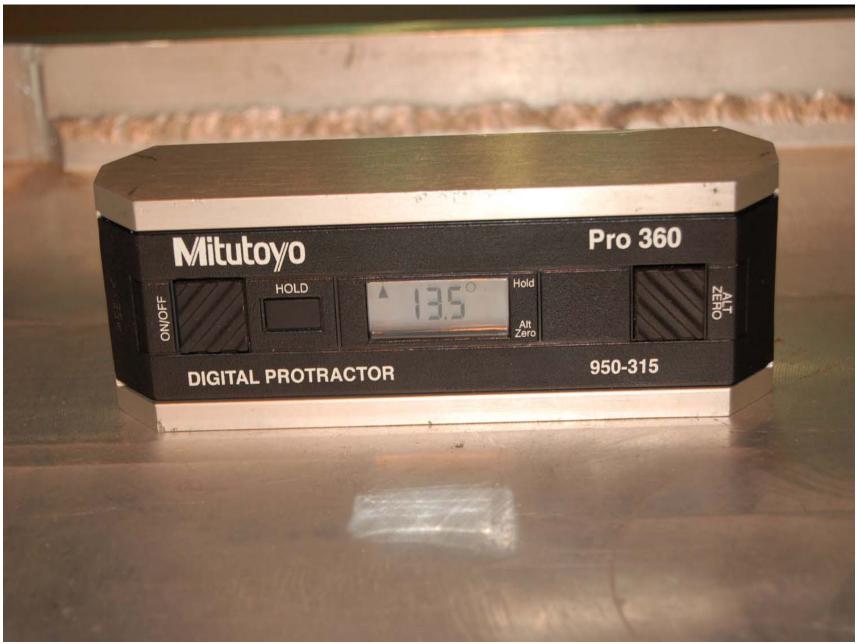


FIGURE 5.36 ROW 2, RIGHT SIDE CRF PITCH MEASUREMENT

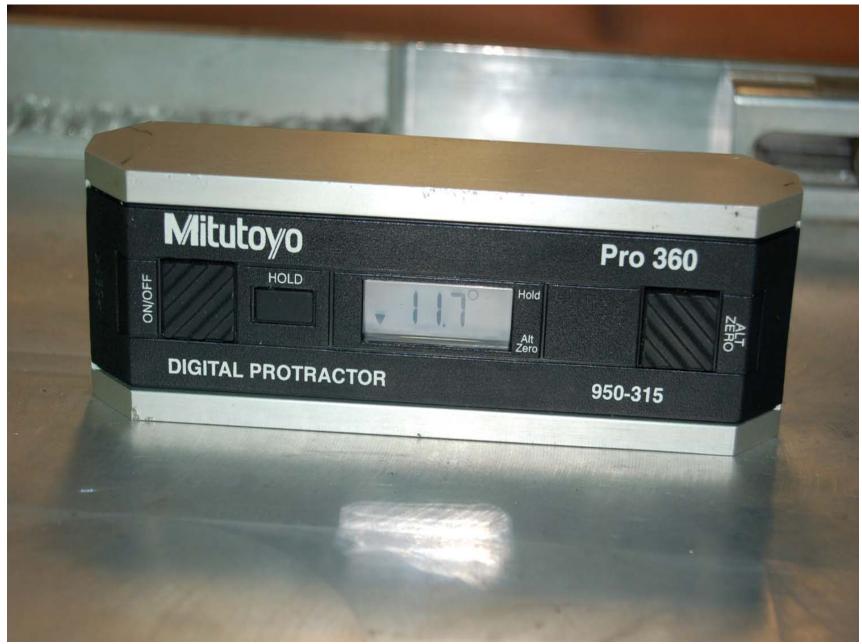


FIGURE 5.37 ROW 2, CENTER PITCH MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.38 ROW 2, LEFT SIDE OUTBOARD SRP MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.39 ROW 2, LEFT SIDE INBOARD SRP MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.40 ROW 2, RIGHT SIDE OUTBOARD SRP MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.41 ROW 2, RIGHT SIDE INBOARD SRP MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.42 ROW 2. CENTER LEFT SRP MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.43 ROW 2, CENTER RIGHT SRP MEASUREMENT



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.44 3/4 LEFT REAR VIEW OF VEHICLE IN TEST RIG



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.45 % RIGHT FRONT VIEW OF VEHICLE IN TEST RIG



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.46 PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2



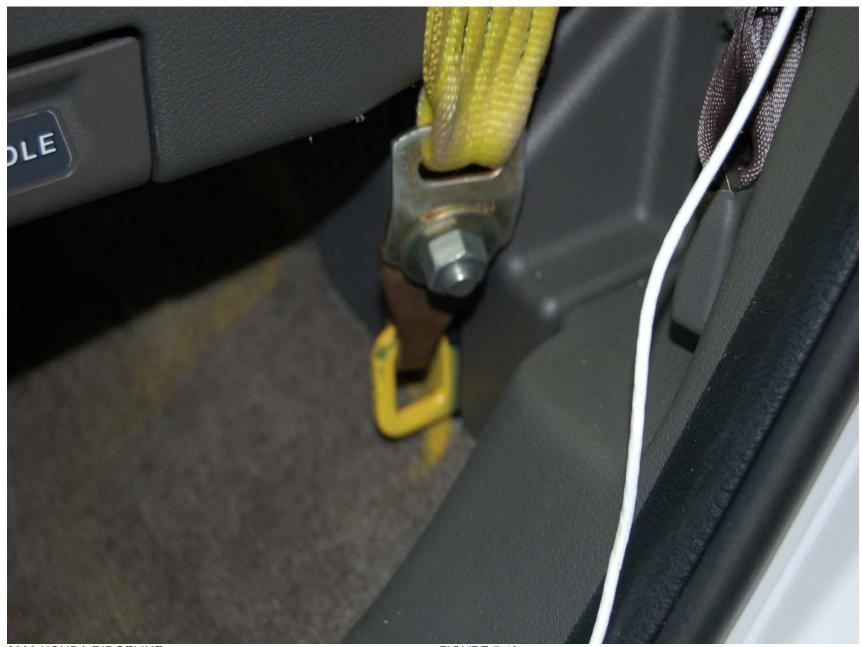
2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.47 POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.48 POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.49 POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.50 PRE-TEST ROW 2, RIGHT SIDE WITH SFAD 2



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.51 POST TEST ROW 2, RIGHT SIDE WITH SFAD 2



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

FIGURE 5.52 PRE-TEST ROW 2, CENTER POSITION WITH SFAD 1



2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

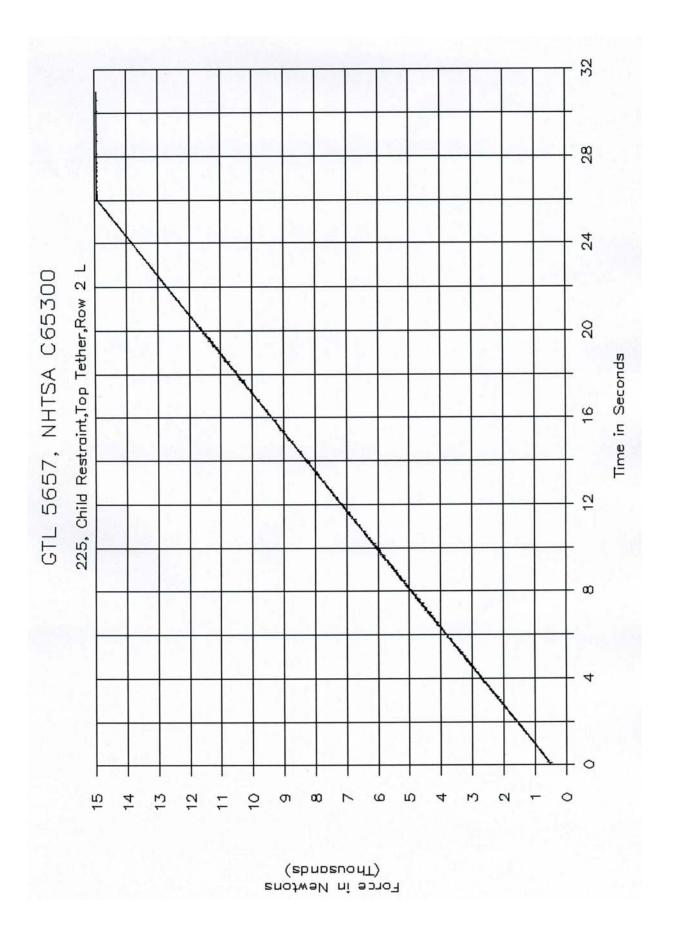
FIGURE 5.53 POST TEST ROW 2, CENTER POSITION WITH SFAD 1

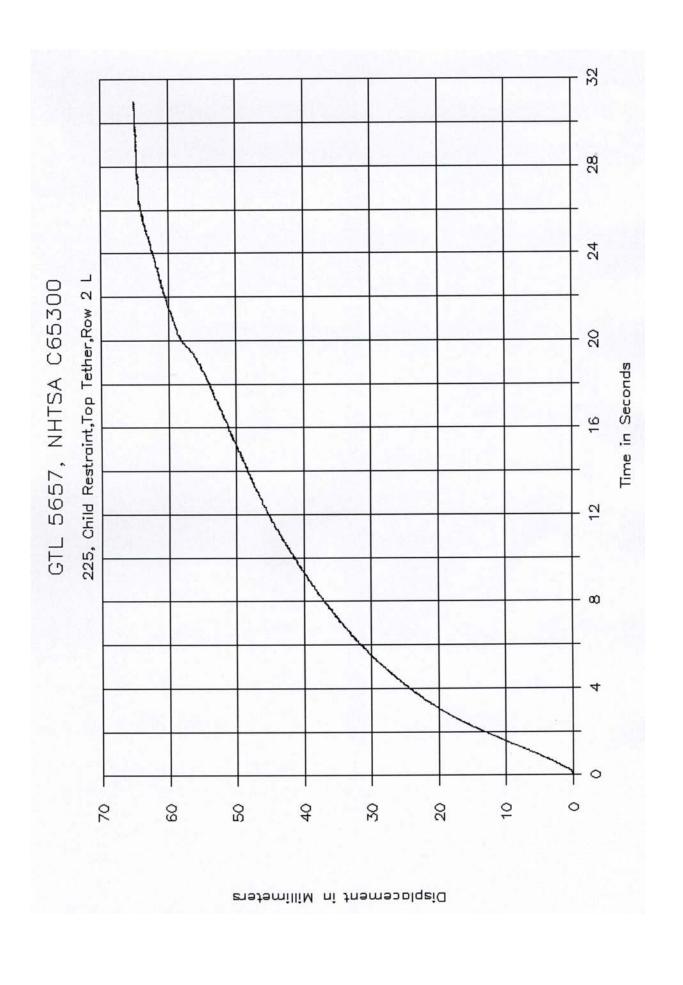


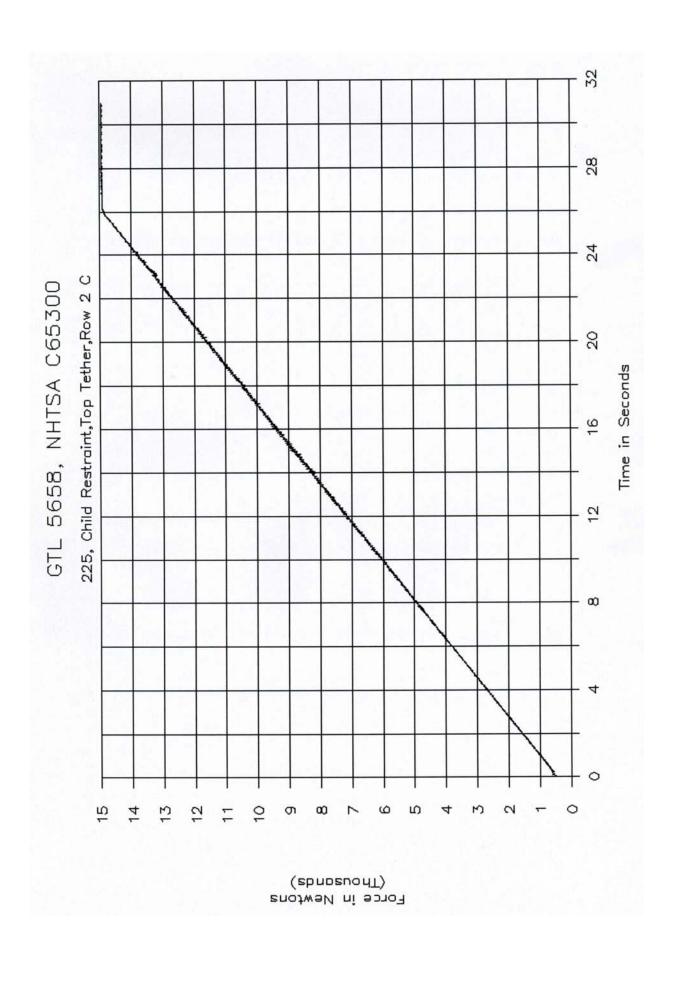
2006 HONDA RIDGELINE NHTSA NO. C65300 FMVSS NO. 225

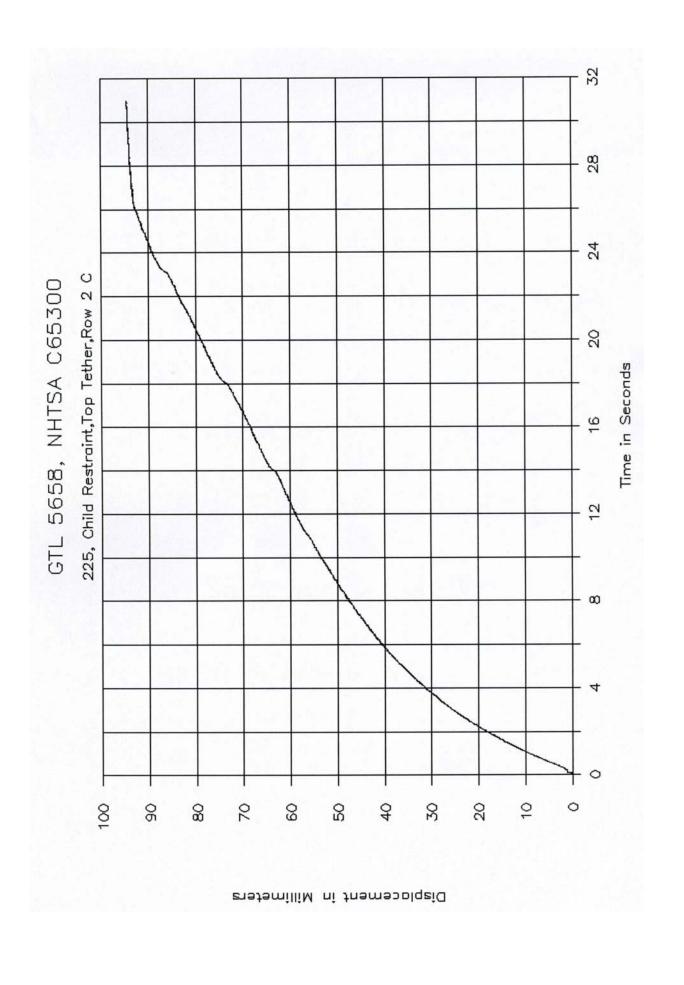
FIGURE 5.54 POST TEST ROW 2, CENTER POSITION SFAD 1

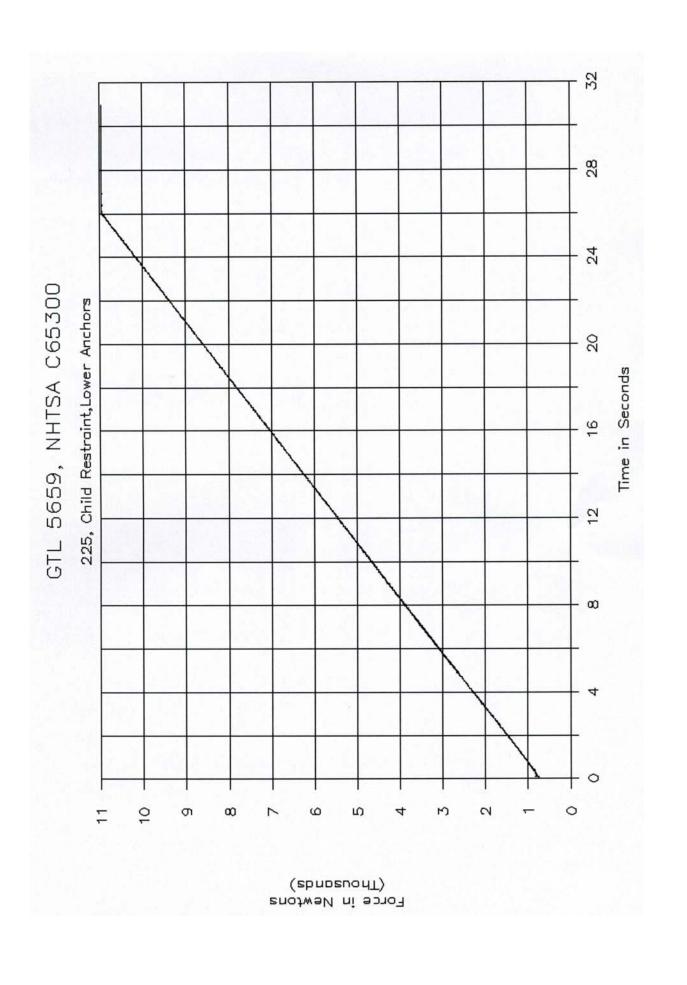
#### SECTION 6 PLOTS

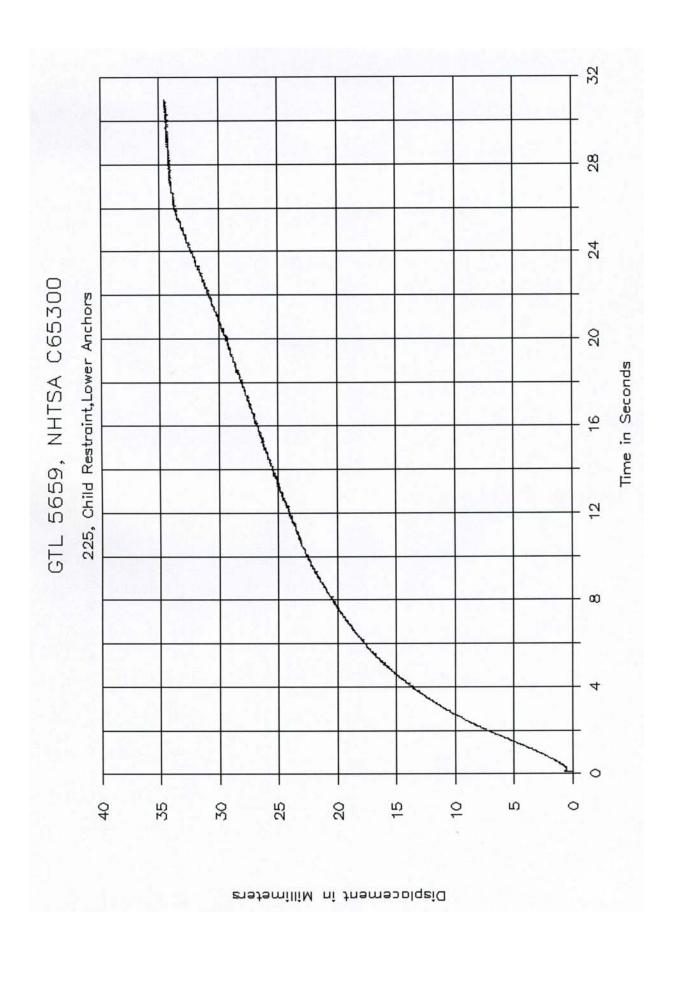








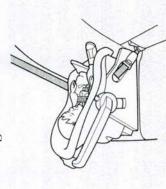




#### APPENDIX A OWNER'S MANUAL CHILD RESTRAINT INFORMATION

CONTINUED

### Protecting Infants



Child Seat Type
An infant must be properly restrained in a rear-facing, reclining child seat until the child reaches the seat maker's weight or height limit for the seat and the child is at least

Only a rear-facing child seat provides proper support for a baby's head, neck, and back.

one year old.

Two types of seats may be used: a seat designed exclusively for infants, or a convertible seat used in the rearfacing, reclining mode.

facing, reclining mode.

Do not put a rear-facing child seat in a forward-facing position. If placed facing forward, an infant could be very seriously injured during a frontal collision.

**Driver and Passenger Safety** 

child seat with enough force to kill or

seriously injure an infant.

inflates, it can hit the back of the

If the passenger's front airbag

Rear-facing Child Seat Placement
A rear-facing child seat can be placed in any seating position in the back seat, but not in the front. Never put a rear-facing child seat in the front seat.

When properly installed, a rearfacing child seat may prevent the driver or a front passenger from moving the seat as far back as recommended, or from locking the seat-back in the desired position.

# Protecting Infants and Small Children

In either situation, we strongly recommend that you install the child seat directly behind the front passenger seat, move the seat as far forward as needed, and leave it unoccupied. Or you may wish to get a smaller rear-facing child seat.

### **AWARNING**

Placing a rear-facing child seat in the front seat can result in serious injury or death if the passenger's front airbag inflates.

Protecting Small Children



Child Seat Type

Always place a rear-facing child

seat in the back seat, not the

front.

A child who is at least 1 year old, and who fits within the child seat maker's weight and height limits, should be restrained in a forward-facing, upright child seat.

Of the different seats available, we recommend those that have a five-point harness system as shown.

Child Seat Placement

We strongly recommend placing a forward-facing child seat in a back seat, not the front.

Placing a forward-facing child seat in the front seat of a vehicle equipped with a passenger's airbag can be hazardous. If the vehicle seat is too far forward, or the child's head is thrown forward during a collision, an inflating airbag can strike the child with enough force to cause very serious or fatal injuries.

### 4 WARNING

Placing a forward-facing child seat in the front seat can result in serious injury or death if the front airbag inflates.

If you must place a forwardfacing child seat in front, move the vehicle seat as far back as possible, and properly restrain the child.

## Selecting a Child Seat

When buying a child seat, you need to choose either a conventional child seat, or one designed for use with the Lower Anchors and Tethers for Children (LATCH) system.

Conventional child seats must be secured to a vehicle with a seat belt, whereas LATCH-compatible seats are secured by attaching the seat to hardware built into each rear seating position in the back seat.

Since LATCH-compatible child seats are easier to install and reduce the possibility of improper installation, we recommend selecting this style.

We also recommend selecting a LATCH-compatible seat with a rigid, rather than a flexible, anchor (see page 39).

In seating positions and vehicles not equipped with LATCH, a LATCH-compatible child seat can be installed using a seat belt.

Whatever type of seat you choose, to provide proper protection, a child seat should meet three requirements:

**Driver and Passenger Safety** 

1. The child seat should meet U.S. or Canadian Motor Vehicle Safety Standard 213. Look for FMVSS 213 or CMVSS 213 on the box.

2. The child seat should be of the proper type and size to fit the child. Rear-facing for infants, forwardfacing for small children.

CONTINUED

# Selecting a Child Seat, Installing a Child Seat

## 3. The child seat should fit the vehicle seating position (or positions) where it will be used.

Before purchasing a conventional child seat, or using a previously purchased one, we recommend that you test the seat in the specific vehicle seating position, or positions, where the seat will be used.

## Installing a Child Seat After selecting a proper child seat, and a good place to install the seat, there are three main steps in installing the seat:

1. Properly secure the child seat to the vehicle. All child seats must be secured to the vehicle with the lap part of a lap/shoulder belt or with the LATCH (Lower Anchors and Tethers for Children) system. A child whose seat is not properly secured to the vehicle can be endangered in a crash.

 Make sure the child seat is firmly secured. After installing a child seat, push and pull the seat forward and from side to side to verify that it is secure. A child seat secured with a seat belt should be installed as firmly as possible. However, it does not need to be "rock solid." Some side-to-side

movement can be expected and should not reduce the child seat's effectiveness.

If the child seat is not secure, try installing it in a different seating position, or use a different style of child seat that can be firmly secured.

3. Secure the child in the child seat. Make sure the child is properly strapped in the child seat according to the child seat maker's instructions. A child who is not properly secured in a child seat can be seriously injured in a crash.

The following pages provide guidelines on how to properly install a child seat. A forward-facing child seat is used in all examples, but the instructions are the same for rearfacing child seats.

## Installing a Child Seat with

Your vehicle is equipped with LATCH (Lower Anchors and Tethers for Children) at each rear seating position.

The lower anchors are located between the seat-back and seat bottom, and are to be used only with a child seat designed for use with LATCH.

The location of each lower anchor is indicated by a small button above the anchor point.

Whenever using the center tether anchor point, make sure to push down the head restraint to the lowest position, route the strap over the seat-back, then around the upper guide before attaching the tether strap hook to the center tether anchor (see page 44).



To install a LATCH-compatible child seat:

- If needed, move the seat belt buckle or tongue away from the lower anchors.
- 2. Make sure there are no objects near the anchors that could prevent a secure connection between the child seat and the anchors.

center tether anchor is positioned

behind the child seat.

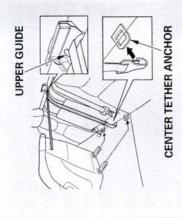
LATCH system, because the

anchor before installing the child seat to the lower anchors for the

When using the tether strap on the child seat, attach the tether

3. On the center seating position

strap hook to the center tether

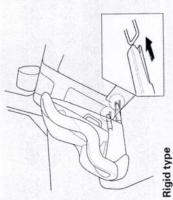


**Driver and Passenger Safety** 

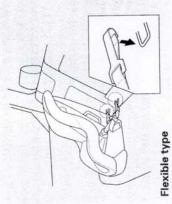
CONTINUED

## Installing a Child Seat

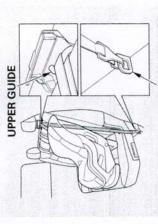
the lowest position. Lift the cover, then route the tether strap around the upper guide. Route the tether strap downward properly, making sure the strap is not twisted, then attach the strap hook to the center Make sure the head restraint is in tether anchor.



- 4. Place the child seat on the vehicle seat, then attach the seat to the lower anchors according to the child seat maker's instructions.
- Some LATCH-compatible seats have a rigid-type connector as shown above.



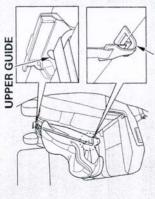
- have a flexible-type connector as shown above. Other LATCH-compatible seats
- 5. Whatever type you have, follow the child seat maker's instructions for adjusting or tightening the fit.



### **Outer Position**

### **TETHER ANCHOR**

the strap is not twisted, then attach the strap hook to the tether guide. Route the tether strap downward properly, making sure anchor on the outside of the seat Lift the head restraint (see page 99), then route the tether strap over the seat-back and through Lift the cover, then route the tether strap around the upper 6. On the outer seating position the head restraint legs. bottom (see page 44).



#### Center Position

### TETHER ANCHOR

### 7. Tighten the strap according to the seat maker's instructions.

8. Push and pull the child seat forward and from side to side to verify that it is secure.

## Installing a Child Seat

### Installing a Child Seat with a Lap/ Shoulder Belt

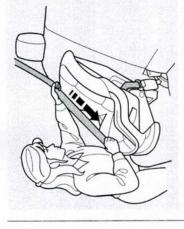
When not using the LATCH system, all child seats must be secured to the vehicle with the lap part of a lap/shoulder belt.

In addition, the lap/shoulder belts in all seating positions except the driver's have a locking mechanism that must be activated to secure a child seat.

If you place the child seat in the rear center seating position and use the tether strap for additional security, make sure to push down the head restraint to the lowest position and hook the tether strap hook to the anchor before securing the child seat with the lap/shoulder belt. Refer to page 44 for how to route the tether strap properly.



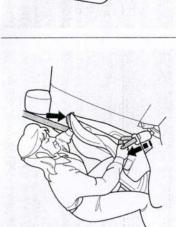
1. With the child seat in the desired seating position, route the belt through the child seat according to the seat maker's instructions, then insert the latch plate into the buckle.



- 2. To activate the lockable retractor, slowly pull the shoulder part of the belt all the way out until it stops, then let the belt feed back into the retractor.
- 3. After the belt has retracted, tug on it. If the belt is locked, you will not be able to pull it out. If you can pull the belt out, it is not locked, and you will need to repeat these steps.

mechanism and remove a child seat, unlatch the buckle, unroute the seat belt, and let the belt fully retract.

To deactivate the locking



the lap part of the belt is not tight, the child seat will not be secure. up to remove any slack from the lap part of the belt. Remember, if locked, grab the shoulder part of the belt near the buckle, and pull 4. After confirming that the belt is

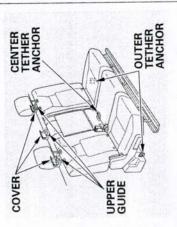
push on the back of the seat while pulling up on the belt. To remove slack, it may help to put weight on the child seat, or



maneuvers. If the child seat is not secure, unlatch the belt, allow it to retract fully, then repeat these steps. stay upright during normal driving verify that it is secure enough to forward and from side to side to 5. Push and pull the child seat

## Installing a Child Seat

#### Installing a Child Seat with a Tether



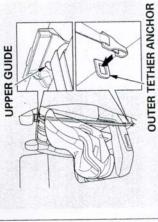
A child seat with a tether can be installed in any seating position in the rear seat.

Each outer seating position has the tether anchor at the outside of the seat bottom. The center seating position has the tether anchor between the lower anchors for the LATCH-compatible child seat. Each anchor point is shown above.

When using the tether anchor, always hook the tether strap through the upper guide to route it properly.

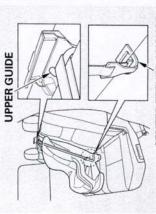
Since a tether can provide additional security to the lap/shoulder belt installation, we recommend using a tether whenever one is required or available.

## Using an Outer Tether Anchor



- 1. After properly securing the child seat (see page 42), lift the head restraint, then route the tether strap over the seat-back and through the head restraint legs.
- 2. Lift the cover, then hook the tether strap through the upper guide as shown.

Installing a Child Seat	CENTER TETHER ANCHOR  3. Route the tether strap over the seat-back, lift the cover, then hook the tether strap through the upper guide as shown.  4. Route the tether strap downward properly along the seat-back, making sure the strap is not twisted.	CONTINUED	45
	Using the Center Tether Anchor Make sure to attach the tether strap hook to the anchor before installing the child seat, because the tether anchor is positioned behind the child seat.  1. Place the child seat on the rear seat.  2. Push down the rear center head restraint to the lowest position.  3.		
	3. Route the tether strap downward properly, making sure the strap is not twisted.  4. Attach the tether strap hook to the outer tether anchor on the outside of the seat bottom.  5. Tighten the strap according to the seat maker's instructions.		



5. Attach the tether strap hook to the center tether anchor between the lower anchors for the LATCH-CENTER TETHER ANCHOR compatible child seat.

46

Whenever using the tether strap, make sure to route the strap through the upper guide before attaching the tether strap hook to the tether anchor. If the tether strap is not routed properly and secured, the child seat may not be secured. This could lead to serious injury or death. 6. Properly secure the child seat (see page 42), then tighten the tether strap according to the seat maker s instructions.

#### APPENDIX B MANUFACTURER'S DATA

#### 065300

### 2006 Honda Ridgeline FMVSS 225

NVS-221 HTh OA-VAR-051216L-N American Honda Motor Co., Inc. January 30, 2006

#### Use Center of Adjuster Anchorage ; Make: HONDA ; Model: RIDGELINE ; Body Style: 4Door Truck Torso Angle Torso Angle SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA See the attachment 1 for the size details of A2 -Vehicle Floorpan Bucket ; Second row: Contoured ; Third row: N/A LEFT SIDE VIEW OF TEST VEHICLE (All dimensions in mm¹) FOR FMVSS 225 (ZA Torso Angle Torso Driver's Seat Front Outboard Seat Adjuster Anchorage C Front row: 2006 Model Year: SRP Seat Style:

Table1. Seating Reference Point and Seat Adjuster Anchorage Locations

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

\*1: See the attachment I for the size details of A2

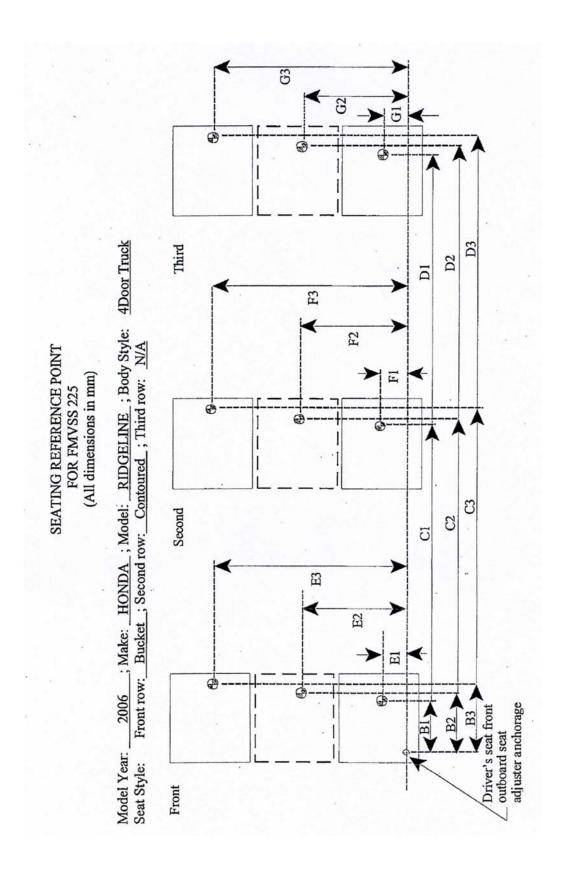


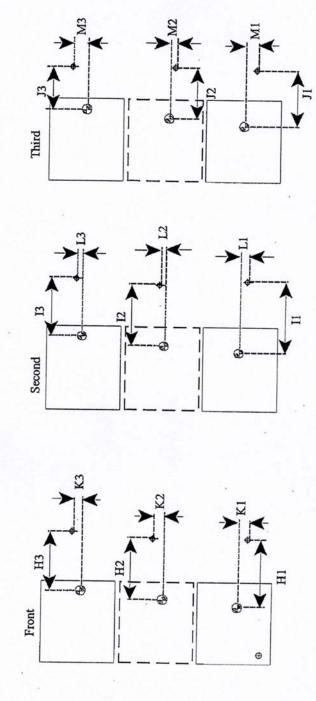
Table 2. Seating Reference Point and Seat Adjuster Anchorage Locations

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage <sup>1</sup>
Front Row	B1	345
	E1	215
	B2	N/A
	E2	N/A
	B3	339
	E3	1035
Second Row	C1	1153
	F1	210
	C2	1122
	F2	605
	C3	1153
	F3	1040
Third Row	D1	N/A
	G1	N/A
	D2	N/A
	G2	N/A
	D3	N/A
	G3	N/A

Note: 1. Use the center of anchorage.

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

Model Year: 2006; Make: HONDA; Model: RIDGELINE; Body Style: 4Door Truck Seat Style: Front row: Bucket; Second row: Contoured; Third row: N/A



D: SRP

Ф: Tether anchorage

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

Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	H3	N/A
	K3	N/A
Second Row	I1	72
	L1	226
	12	182
	L2	0
	13	72
	L3	226
Third Row	J1	N/A
	M1	N/A
	J2	N/A
	M2	N/A
	J3	N/A
	M3	N/A

Note: 1. Use the center of anchorage.

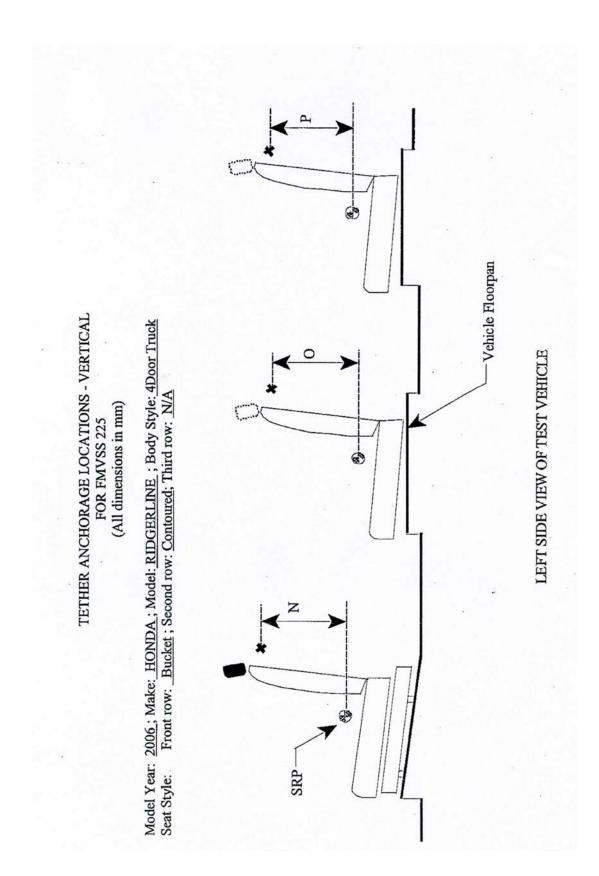


Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distance from Seating Reference P	
Front Row	N1 (Driver)	N/A
	N2 (Center)	· N/A
	N3 (Right)	N/A
Second Row	O1 (Left)	-271
	O2 (Center)	-99
	O3 (Right)	-271
Third Row	P1 (Left)	N/A
	P2 (Center)	N/A
	P3 (Right)	N/A

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

# CHILD TETHER ROUTING DEVICE LOCATIONS FOR FMVSS 225 (All dimensions in mm)

Model Year: 2006; Make: HONDA; Model: RIDGELINE; Body Style: 4Door Truck Seat Style: Front row: Bucket; Second row: Contoured; Third row: N/A

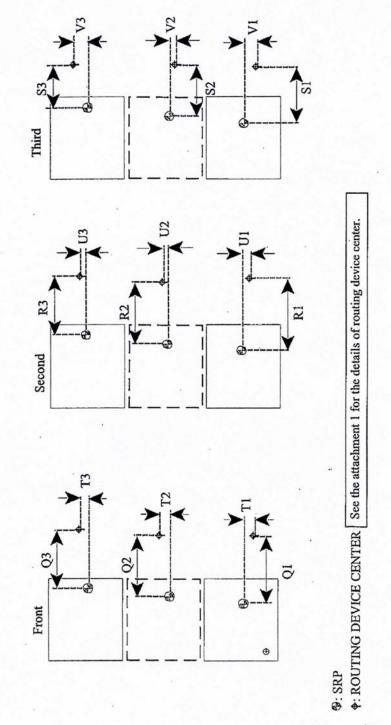


Table 5. Seating Reference Point and Routing Device Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	Q1	N/A
	T1	N/A
	Q2	N/A
	T2	N/A
	Q3	N/A
	T3	N/A
Second Row	R1	390
	U1	0
	R2	421
	U2	0
	R3	390
	U3	0
Third Row	S1	N/A
	V1	N/A
	S2	N/A
	V2	N/A
	S3	N/A
	V3	N/A

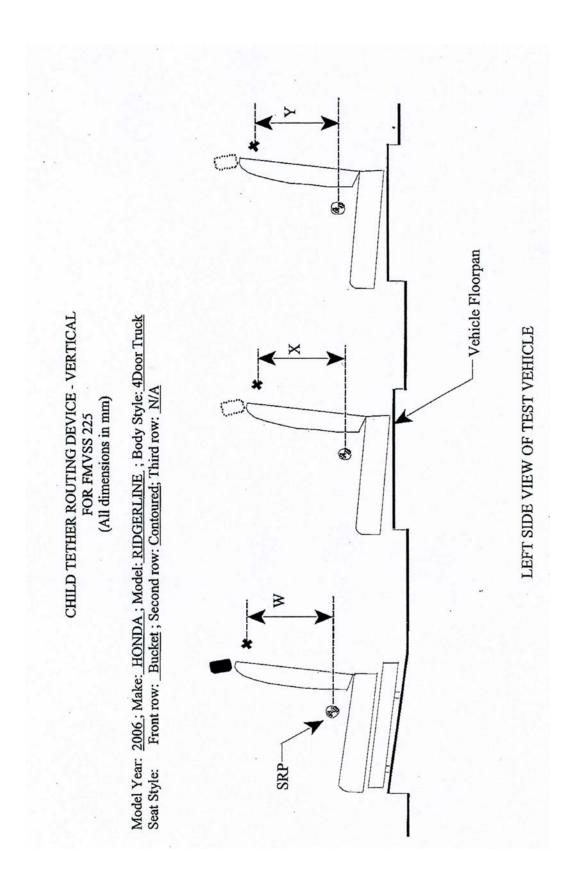


Table 6. Vertical Dimension For The Routing Device Locations

Seating Row	Vertical Distance from Seating Reference	
Front Row	W1 (Driver)	N/A
	W2 (Center)	N/A
	W3 (Right)	N/A
Second Row	X1 (Left)	499
	X2 (Center)	487
	X3 (Right)	499
Third Row	Y1 (Left)	N/A
	Y2 (Center)	N/A
	Y3 (Right)	N/A

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

For each vehicle, provide the following information:

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

Front 2 positions, Rear 3 positions, Total 5 positions

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

There are three designated seating positions equipped with lower anchorages and tether anchorages in rear seats.

Both anchorages are located in right, left and center seats. And they are fitted out a body.

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

There is no designated seating position equipped with only tether anchorages.

(Designated seating positions equipped with both anchorages are as above facts (2)).

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

Lower anchorage marking and visibility are certified to S9.5(a)

