

FINAL REPORT NUMBER: SINCAP-TRC-25-001

**NEW CAR ASSESSMENT PROGRAM (NCAP)
MOVING DEFORMABLE BARRIER SIDE IMPACT TEST**

**GENERAL MOTORS DE MEXICO, S. DE R.L. DE C.V.
2025 Chevrolet Equinox
NHTSA NUMBER: Q20250106**

**PREPARED BY:
Transportation Research Center Inc.
10820 State Route 347
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Report Date: June 1, 2026

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Office of Crashworthiness Standards
Mail Code: NRM-110
1200 New Jersey Ave, SE
Washington, D.C. 20590**

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Report Prepared By: ILO Project Operations Group

Report Approved By: 

John Shultz

Approval Date: June 1, 2026

FINAL REPORT ACCEPTANCE BY OCWS:

Division Chief, New Car Assessment Program
NHTSA, Office of Crashworthiness Standards

Date: _____

COTR, New Car Assessment Program
NHTSA, Office of Crashworthiness Standards

Date: _____

Technical Report Documentation Page

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16. Abstract This 55 / 28 km/h 90° Moving Deformable Barrier SINCAP Side Impact Test was conducted on the subject 2025 Chevrolet Equinox, in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. This test was conducted by Transportation Research Center Inc. in East Liberty, Ohio, on September 25, 2025. The impact velocity of the Moving Deformable Barrier (MDB) was 61.98 km/h, and the ambient temperature at the struck (left) side of the target vehicle at the time of impact was 20.8° C. The target vehicle post-test maximum crush was 209 mm at Level 2. The test vehicle's performance was as follows: <table border="1"> <thead> <tr> <th colspan="4">Driver ATD (ES-2re)</th> </tr> <tr> <th>Measurement Description</th><th>Units</th><th>IARV</th><th>Result</th></tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₃₆)</td><td>N/A</td><td>1000</td><td>43.166</td></tr> <tr> <td>Maximum Thoracic Rib Deflection</td><td>mm</td><td>44</td><td>19.468</td></tr> <tr> <td>Total Abdominal Force</td><td>N</td><td>2500</td><td>513.928</td></tr> <tr> <td>Pubic Symphysis Force</td><td>N</td><td>6000</td><td>-1336.406</td></tr> <tr> <td>Lower Spine Acceleration</td><td>G</td><td>82*</td><td>23.770</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4">Passenger ATD (SID-IIs)</th> </tr> <tr> <th>Measurement Description</th><th>Units</th><th>IARV</th><th>Result</th></tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₃₆)</td><td>N/A</td><td>1000</td><td>220.784</td></tr> <tr> <td>Lower Spine Resultant Acceleration</td><td>g's</td><td>82</td><td>65.297</td></tr> <tr> <td>Total Pelvic Force (sum of acetabular and iliac forces)</td><td>N</td><td>5525</td><td>3048.983</td></tr> <tr> <td>Maximum Thoracic Rib Deflection</td><td>mm</td><td>38*</td><td>28.918</td></tr> <tr> <td>Maximum Abdominal Rib Deflection</td><td>mm</td><td>45*</td><td>20.676</td></tr> </tbody> </table> * Proposed IARV The driver door opened during test, rear door on struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.				Driver ATD (ES-2re)				Measurement Description	Units	IARV	Result	Head Injury Criteria (HIC ₃₆)	N/A	1000	43.166	Maximum Thoracic Rib Deflection	mm	44	19.468	Total Abdominal Force	N	2500	513.928	Pubic Symphysis Force	N	6000	-1336.406	Lower Spine Acceleration	G	82*	23.770	Passenger ATD (SID-IIs)				Measurement Description	Units	IARV	Result	Head Injury Criteria (HIC ₃₆)	N/A	1000	220.784	Lower Spine Resultant Acceleration	g's	82	65.297	Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	3048.983	Maximum Thoracic Rib Deflection	mm	38*	28.918	Maximum Abdominal Rib Deflection	mm	45*	20.676
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SECTION 1

TEST PURPOSE AND PROCEDURE

TEST PURPOSE AND PROCEDURE

This moving deformable barrier side impact test was conducted as part of the MY 2025 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. 693JJ920D000018. The purpose of this test is to generate comparative side impact performance in a 2025 Chevrolet Equinox. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Laboratory Test Procedure dated March 2020.

SECTION 2

SUMMARY OF TEST RESULTS

A 2025 Chevrolet Equinox was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.98 km/h (38.51 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by the Transportation Research Center Inc. in East Liberty, Ohio, on September 25, 2025. Pre-test and post-test photographs of the test vehicle and the MDB and the dummies (ES-2-re and SID-IIs) are included in this report.

Dummies were placed in the driver and left rear designated seating positions according to instructions specified in the OCWS Side Impact Laboratory Test Procedure, dated March 2020. The side impact event was documented by 11 cameras. Camera locations are included in this report.

The dummies were instrumented in the following manner:

DRIVER ATD (ES-2re)

Primary and redundant head CG tri-axial accelerometers

Chest upper rib, middle rib, and lower rib y-axis displacement potentiometers

Abdomen forward, middle, and rear y-axis load cells

Lower spine (T12) tri-axial accelerometers

Pubic symphysis y-axis load cell

PASSENGER ATD (SID-IIs)

Primary and redundant head CG triaxial accelerometers

Chest upper rib, middle rib, and lower rib y-axis displacement potentiometers

Abdomen upper rib and lower rib y-axis displacement potentiometers

Lower spine (T12) tri-axial accelerometers

Acetabulum and iliac wing y-axis load cells

APPENDIX B contains the vehicle and dummy response data. Dummy configuration and performance verification data can be found in APPENDIX C of this report. APPENDIX D of this report contains the test equipment and instrumentation calibration data.

Dummy injury readings were recorded as follows:

Measurement Description	Driver ATD (ES-2-re)		
	Units	Threshold	Result
Head Injury Criteria (HIC ₃₆)	N/A	1000	43.166
Maximum Thoracic Rib Deflection	mm	44	19.468
Combined Abdominal Force	N	2500	513.9288
Pubic Symphysis Force	N	6000	-1336.406
Lower Spine (T12) Resultant Acceleration ¹	G	82*	23.770

* Proposed IARV

Measurement Description	Passenger ATD (SID-IIs)		
	Units	Threshold	Result
Head Injury Criteria (HIC ₃₆)	N/A	1000	220.784
Lower Spine (T12) Resultant Acceleration	G	82	65.297
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	3048.983
Maximum Thoracic Rib Deflection	mm	38*	28.918
Maximum Abdominal Rib Deflection	mm	45*	20.676

* Proposed IARV

Supplemental Restraint Information is given below:

Restraint Type	Left Front (Driver) Occupant Location 1		Left Rear (Passenger) Occupant Location 4	
	Mounted	Deployed	Mounted	Deployed
Frontal Airbag	Yes	No		
Side Curtain Airbag	Yes	Yes	Yes	Yes
Side Torso/Pelvis Airbag	Yes	Yes	No	N/A
Side Pelvis Airbag	No	N/A	No	N/A
Knee Airbag	No	N/A	No	N/A
Seat Belt Pretensioner	Yes	Yes	Yes	Yes
Seat Belt Load Limiter	Yes	No	Yes	No
Other	No	N/A	No	N/A

GENERAL COMMENTS

The driver door opened during testing, all other doors remained closed throughout the test. No fuel spillage occurred during the impact or the static rollover test which followed. Injury values for both ATDs were within the established performance thresholds.

LEFT SIDE SILL AT FRONT SEAT AY; channel failed after 8.0 ms

LEFT LOWER A-PILLAR AY; channel failed after 11.0 ms

LEFT LOWER B-PILLAR AY; channel failed after 6.0 ms

Post test photos with small signboard have the wrong test date of 250911.

SECTION 3
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2025 Chevrolet Equinox
Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
Test Date: 9/25/2025

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	Q20250106
Model Year	2025
Make	Chevrolet
Model	Equinox
Body Style	MPV
VIN	3GNAXHEG9SL205964
Body Color	Cacti Green
Odometer Reading (km/mi)	12 mi
Engine Displacement (L)	1.5
Type/No. Cylinders	Inline / 4
Engine Placement	Transverse
Transmission Type	Automatic
Transmission Speeds	CVT
Overdrive	Yes
Final Drive	FWD
Roof Rack	No
Sunroof/T-Top	No
Running Boards	No
Tilt Steering Wheel	Yes
Power Seats	No
Anti-Lock Brakes (ABS)	Yes

Traction Control System (TCS)	Yes
Auto-Leveling System	No
Automatic Door Locks (ADL)	Yes
Power Window Auto-Reverse	Yes
Other Optional Feature	No
Driver Front Airbag	Yes
Driver Curtain Airbag	Yes
Driver Head/Torso Airbag	No
Driver Torso Airbag	No
Driver Torso/Pelvis Airbag	Yes
Driver Pelvis Airbag	No
Driver Knee Airbag	No
Rear Pass. Curtain Airbag	Yes
Rear Pass. Head/Torso Airbag	No
Rear Pass. Torso Airbag	No
Rear Pass. Torso/Pelvis Airbag	No
Rear Passenger Pelvis Airbag	No
Driver Seat Belt Pretensioner	Yes
Rear Pass. Seat Belt Pretensioner	Yes
Driver Load Limiter	Yes
Rear Passenger Load Limiter	Yes
Other: Center Seat Airbag	No

Does owner's manual provide instructions to turn off automatic door locks?

No

DATA FROM CERTIFICATION LABEL

Manufactured By	GENERAL MOTORS DE MEXICO, S. DE R.L. DE C.V.
Date of Manufacture	11/24
Vehicle Type	MPV

GVWR (kg)	2100
GAWR Front (kg)	1175
GAWR Rear (kg)	1200

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Designated Seating Capacity (DSC)	2	3	N/A	5
Capacity Weight (VCW) (kg)				530.0
DSC x 68 (kg)				340.0
Cargo Weight (RCLW) (kg)				190.0

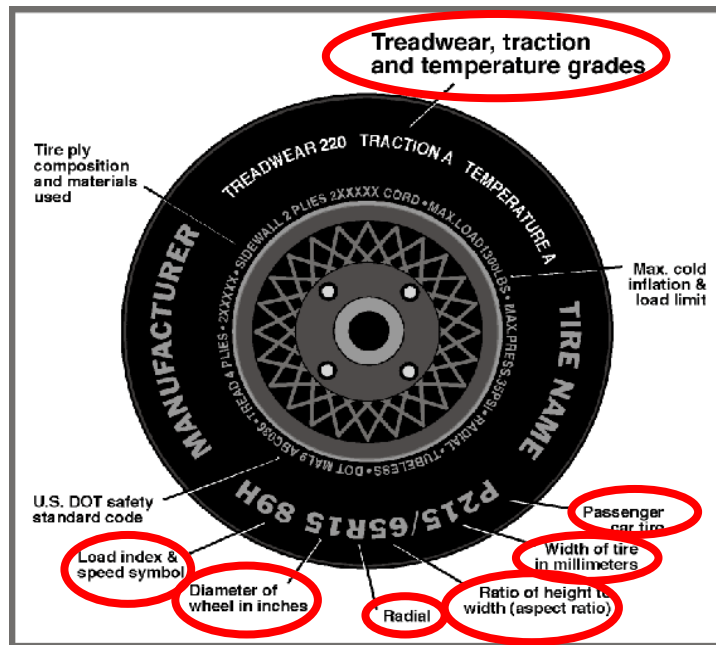
VEHICLE SEAT TYPE

Seating Location	Type of Seat Pan				Type of Seat Back		
	Bucket	Bench	Split Bench	Contoured	Fixed	Adjustable	
						w/ Lever	w/ Knob
Front Seat	Yes	N/A	N/A		N/A	Yes	N/A
Rear or Second Row Seat	N/A	N/A	Yes	N/A	Yes	N/A	N/A
Third Row Seat	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DATA SHEET NO. 1 (CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold Pressure (kPa)	280	280
Recommended Tire Size	235/65R17	235/65R17
Tire Size on Vehicle	235/65R17	235/65R17
Tire Manufacturer	Firestone	Firestone
Tire Model	Destination HLT	Destination HLT
Treadwear	560	560
Traction	A	A
Temperature Grades	B	B
Tire Plies Sidewall	2	2
Tire Plies Body	4	4
Load Index/Speed Symbol	104H	104H
Tire Material	Polyester, Nylon, Steel	Polyester, Nylon, Steel
DOT Safety Code Left	819W32 4224	819W32 4224
DOT Safety Code Right	819W32 4224	819W32 4224

DATA SHEET NO. 1 (CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

TIRE PRESSURES

	Units	LF	RF	LR	RR
As Delivered	kPa	274	270	276	275
Tire Placard	kPa	280	280	280	280
Owner's Manual	kPa	280	280	280	280
As Tested	kPa	280	280	280	280

MDB TIRE SPECIFICATIONS

	Units	Requirement	LF	RF	LR	RR
Tire Size		P205/75R15	P205/75R15	P205/75R15	P205/75R15	P205/75R15
Tire Pressure	kPa	200 ± 21 kPa	207	207	207	207

TEST VEHICLE AXLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	463.0	329.8		516.8	433.8		496.2	453.2	
Right	kg	439.8	311.4		447.8	398.6		438.4	412.6	
Ratio	%	58.5	41.5		53.7	46.3		51.9	48.1	
Totals	kg	902.8	641.2	1544.0	964.6	832.4	1797.0	934.6	865.8	1800.4

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value	
Total As Delivered Weight (UVW)	kg	1544.0	(A)
Actual Weight of 1 P572V ATD (SID-ILs) Dummy Used	kg	125.0	(B)
Rated Cargo/Luggage Weight (RCLW) ¹	kg	136.0	(C)
Calculated Vehicle Target Weight (TVTW)	kg	1805.0	(A+B+C)

Does the measured As Tested Vehicle Weight lie within the required weight range (i.e. Calculated Test Vehicle Target Weight – 4.5 kg to 9 kg)? ☒ YES ☐ NO

TEST VEHICLE ATTITUDES AND CG

Measurement Description	Units	Fully Loaded	As Tested	Meets Requirement
LF	mm	852	843	Yes
RF	mm	852	845	Yes
RR	mm	853	843	Yes
LR	mm	841	841	Yes
Vehicle CG (Aft of Front Axle)	mm	1313	1263	
Vehicle CG (Left(+)/Right(-) from Longitudinal Centerline)	mm	+44	+47	

***The "As Tested" vehicle attitude measurements must be equal to or within ± 10 mm of the "Fully Loaded" vehicle attitude measurements at each wheel well. Indicate "Yes" or "No" for "Meets Requirement".

Test height adjustable suspension setting, if applicable:

N/A

¹ Rated cargo and luggage weight limited to 136.0 kg or 300.0 lbs

DATA SHEET NO. 1 (CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2025 Chevrolet Equinox
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NHTSA No.: Q20250106
 Test Date: 9/25/2025

WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW

Component Description	Weight (kg)
Ballast: Steel plate	90.7
Removed: None	0.0

TEST SURFACE MARKINGS

	Distance from 63° Impact Angle Line (mm)
Fore 25 mm target	970
Aft 25 mm target	936
Pre-Impact Angle Line	320

Parallel Track Target	X Location (mm)	Y Location (mm)
A	0	0
B	1727	3431
C	4446	3431
D	3521	0

DATA SHEET NO. 2
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEM DATA

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

SEAT POSITIONING

The driver seat, front center seat (if applicable), and right front passenger's seat should be set to the mid-track, lowest, mid-angle position. The struck-side rear passenger's seat, rear center seat, and non-struck side rear passenger's seats should be set to the rear-most, lowest, mid-angle position.

SCRL ANGLE RANGE

Seat	SCRL(°)		
	Max.	Min.	Mid
Driver Seat	15.5	11.4	13.5
Front Passenger Seat	15.5	11.4	13.9
Front Center Seat*	N/A	N/A	N/A
Struck Side Rear Seat	N/A	N/A	15.4
Non-Struck Side Rear Seat	N/A	N/A	13.3
Rear Center Seat*	N/A	N/A	14.3

* If applicable.

SEAT HEIGHT AND ANGLE

Seat	As Tested SCRL Angle (Mid) (°)	As Tested SCRP Height (mm)	SCRP Height Position	SCRP Height (mm)		
				Rearmost	Mid-Fore/Aft	Forward-Most
Driver Seat	13.5	256	Max	N/A	N/A	N/A
			Mid	255	256	258
			Min	N/A	N/A	N/A
Front Passenger Seat	13.9	265	Max	N/A	N/A	N/A
			Mid	262	265	268
			Min	N/A	N/A	N/A
Front Center Seat*	N/A	N/A	Max	N/A	N/A	N/A
			Mid	N/A	N/A	N/A
			Min	N/A	N/A	N/A
Struck Side Rear Seat	15.4	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	13.3	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Rear Center Seat*	14.3	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed

* If applicable.

DATA SHEET NO. 2 (CONTINUED)
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEM DATA

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

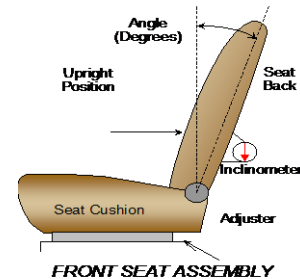
SEAT FORE/AFT POSITION

Seat	Total Fore/Aft Travel		Test Position from Forwardmost Position	
	mm	Detents	mm	Detent
Driver Seat	244	25	122	12
Front Passenger Seat	240	25	120	12
Front Center Seat*	N/A	N/A	N/A	N/A
Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Rear Center Seat*	Fixed	Fixed	Fixed	Fixed

* If applicable

SEAT BACK ANGLE ADJUSTMENT

The driver's seat back is positioned to the manufacturer's designated seat back angle. The front center and front passenger's seat backs are positioned in a similar manner as the driver's seat back. The struck side rear seat back is positioned such that the dummy's head is level. The rear center and non-struck side rear outboard seat backs are positioned in a similar manner as the struck-side rear seat back.



Seat	Total Seat Back Angle Range		Test Position from Most Upright	
	Degrees	Detents	Degrees	Detent
Driver Seat w/ Seated Dummy	66.2	33	19.2	24
Front Passenger Seat	67.2	33	19.4	24
Front Center Seat*	N/A	N/A	N/A	N/A
Struck Side Rear Seat w/ Seated Dummy	Fixed	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Rear Center Seat*	Fixed	Fixed	Fixed	Fixed

* If applicable

SEAT BELT ANCHORAGE ADJUSTMENT

Seat belt anchorages are adjusted in accordance with the information provided by the manufacturer on Form No. 1.

	Total # of Positions	Placed in Position #
Driver Seat	4	0
Rear Seat	Fixed	Fixed

HEAD RESTRAINT ADJUSTMENT

The driver's head restraint is adjusted to the highest and most full forward in-use position. The struck-side rear passenger's head restraint is adjusted to the lowest and most full forward in-use position.

	Total # of Positions	Placed in Position #
Driver Seat	8	0
Rear Seat	3	3

DATA SHEET NO. 2 (CONTINUED)
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEMS DATA

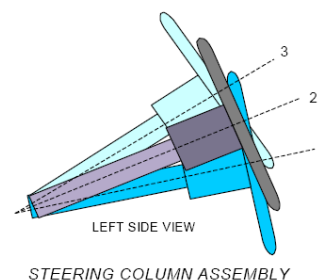
Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the center of its geometric locus it describes when it moves through its full range of motion.

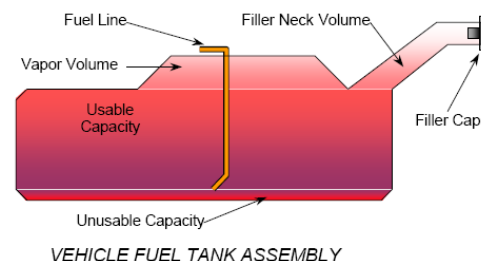
	Degrees	Fore/Aft Position (mm)
Lowermost, Position No. 1	20.5	
Geometric Center, Position No. 2	23.3	
Uppermost, Position No. 3	26.0	
Telescoping Steering Wheel Travel		52
Test Position	23.3	26



FUEL PUMP

Describe the fuel pump type, details about how it operates, and the location of the fuel filler neck.

Pump will run when engine is running. Also, it will run briefly when the push button ignition switch is pressed (brake pedal is not depressed) to put the vehicle in accessory mode – this will pressurize fuel system to tank pressure. To fully pressurize the fuel system, the engine must be cranked (brake pedal depressed and ignition switch pressed)



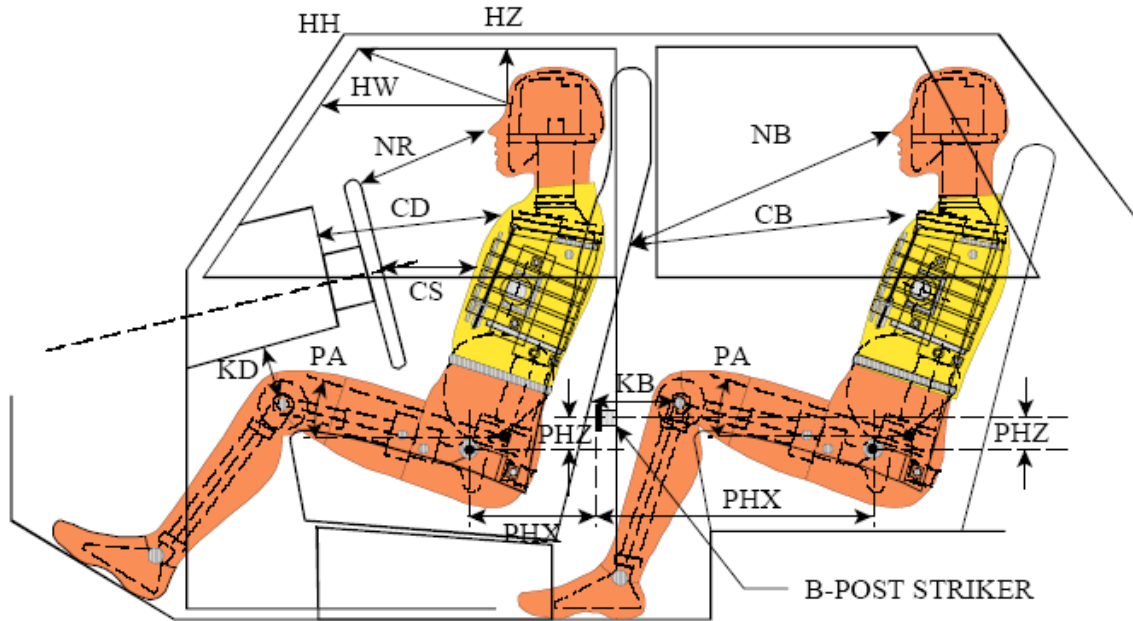
	Liters
Usable Capacity of "Standard Tank" (see Form No. 1)	56.0
Usable Capacity of "Optional Tank" (see Form No. 1)	N/A
Usable Capacity of Standard Tank (see Owner's Manual)	56.0
Usable Capacity of Optional Tank (see Owner's Manual)	N/A
93% of Usable Capacity	52.1
Actual Amount of Solvent Used in Test	52.1
1/3 of Usable Capacity	18.7

Is the Actual Amount of Solvent Used in the test equal to 93% $\pm$ 1% of the Usable Capacity stated in on Form No. 1? ☒ YES ☐ NO

DATA SHEET NO. 3
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



LEFT SIDE VIEW

NOTE: 2-DOOR VEHICLE SHOWN.
 REAR DUMMY PHX & PHZ
 MEASUREMENTS FOR A 4-DOOR
 VEHICLE WOULD USE THE C-POST
 STRIKER AS A REFERENCE POINT

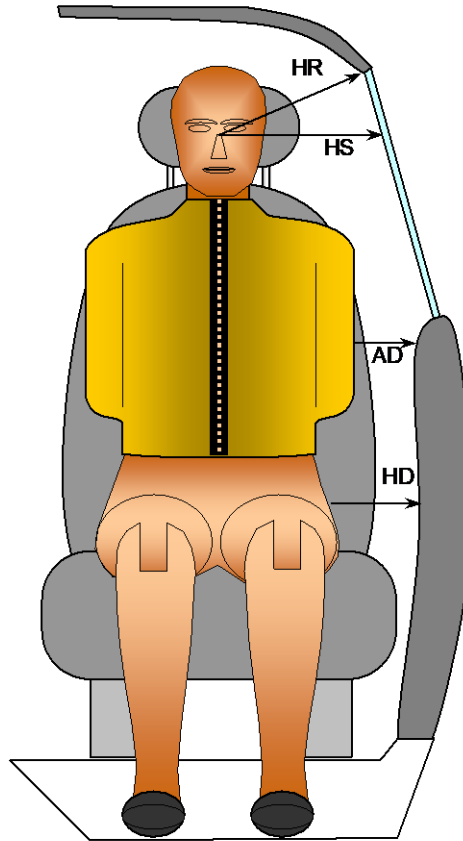
DUMMY LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length (mm)	Angle	Length (mm)	Angle
HH		Header to Header	434			
HW		Header to Windshield	680			
HZ	HZ	Head to Roof Liner	197		307	
NR	NB	Nose to Rim/Seat Back	476		604	
CD	CB	Chest to Dash/Seat Back	645		583	
CS		Chest to Steering Wheel	422			
KD(L)/KDA(L)°	KB(L)/KBA(L)°	Left Knee to Dash/Seat Back	198	0.0	309	0.0
KD(R)/KDA(R)°	KB(R)/KBA(R)°	Right Knee to Dash/Seat Back	176	0.0	314	0.0
PAX°	PAX°	Pelvic Tilt Angle X		0.6		0.4
	PAY°	Pelvic Tilt Angle Y				21.8
PHX	PHX	Hip Point to Striker (X-Axis)	148		213	
PHZ	PHZ	Hip Point to Striker (Z-Axis)	101		255	

DATA SHEET NO. 4
DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



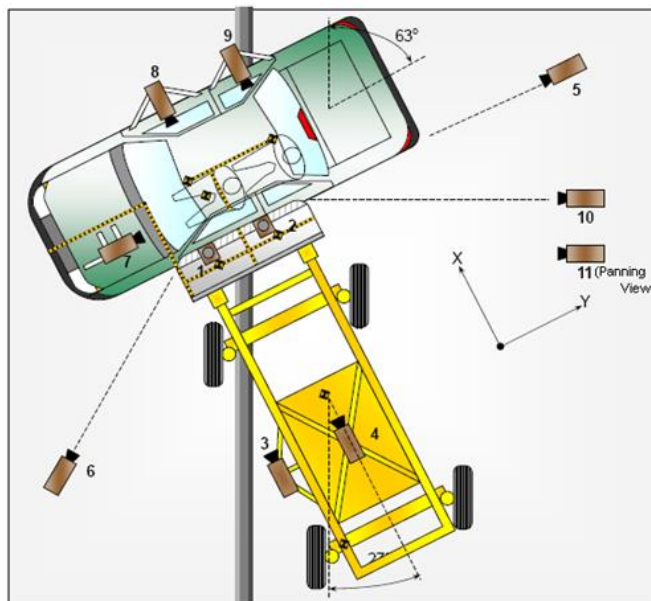
FRONT VIEW OF DUMMY

Code	Description	Units	Driver	Passenger
HR	Head to Side Header	mm	210	292
HS	Head to Side Window	mm	326	369
AD	Arm to Door	mm	100	163
HD	H-Point to Door	mm	168	170

DATA SHEET NO. 5
CAMERA AND INSTRUMENTATION DATA

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



CAMERA LOCATIONS AND DATA

No.	Camera View	Coordinates (mm)			Lens Length (mm)	Operating Frame Rate (fps)
		X	Y	Z		
1	Overhead Overall	-1581	0	-5550	12.55	1000
2	Overhead Close-up	-1501	0	-5906	50	1000
3	Left Impact Point (MDB)	-1612	-920	-911	25	1000
4	Side Overall (MDB)	-2322	0	-1401	8.5	1000
5	Rear	-1179	6508	-1538	20	1000
6	Left Front	-3707	-4150	-1400	20	1000
7	Driver Front (OB)				25	1000
8	Driver Side (OB)				8.5	1000
9	Passenger Side (OB)				8.5	1000
10	Real-time Left Rear				Zoom	30
11	Real-time Inrun				Zoom	30

Reference: Impact Point projected to Ground; +X = To Front of MDB +Y = To Right of MDB; +Z = Down

*All measurements accurate to ± 6 mm.

If applicable, explain why camera(s) did not operate as intended: N/A

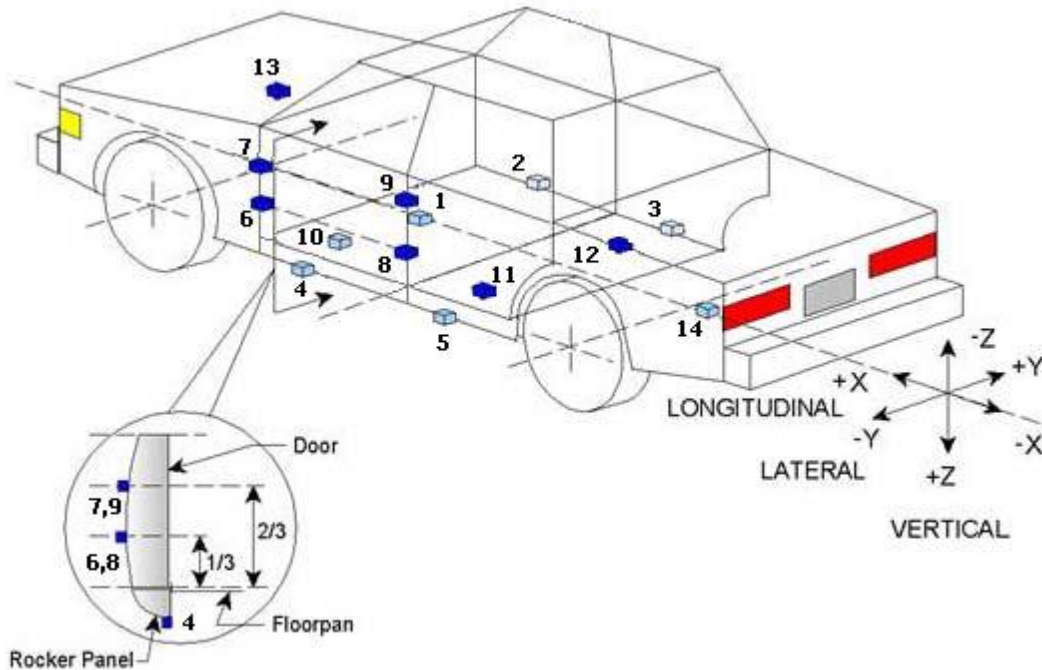
INSTRUMENTATION

Driver Dummy Channels	16
Passenger Dummy Channels	16
Vehicle Structure Accelerometers	23
MBD Accelerometers	5
TOTAL	60

DATA SHEET NO. 6 **TEST VEHICLE ACCELEROMETER LOCATIONS**

Test Vehicle: 2025 Chevrolet Equinox
Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
Test Date: 9/25/2025



TEST VEHICLE ACCELEROMETER LOCATIONS

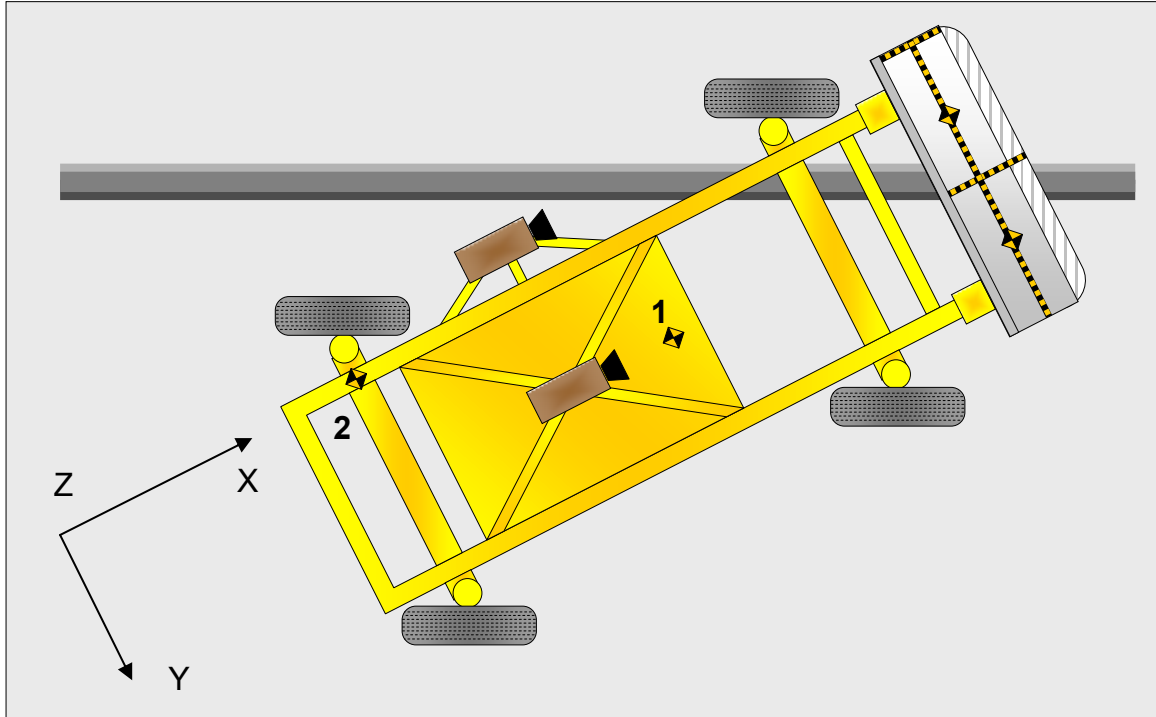
Loc. No.	Accelerometer Location	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	2752	209	-358
2	Right Sill at Front Seat	2538	697	-434
3	Right Sill at Rear Seat	1800	477	-463
4	Left Sill at Front Door	2894	-728	-428
5	Left Sill at Rear Door	1796	-511	-449
6	A-Post Lower	3195	-845	-589
7	A-Post Middle	3201	-806	-1031
8	B-Post Lower	2147	-828	-675
9	B-Post Middle	2137	-806	-1049
10	Front Seat Track	2357	-568	-497
11	Rear Seat Structure	1795	-377	-417
12	Right Rear Occ. Compartment	1796	444	-467
13	Engine Block	3869	302	-882
14	Rear Above Axle	934	5	-587

Reference: X - Rear surface of vehicle (+ forward)
Y - Vehicle Centerline (+ to right)
Z - Ground Plane (+ down)

DATA SHEET NO. 7
MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



MDB ACCELEROMETER LOCATIONS

Loc. No.	Accelerometer Location	Coordinates (mm)		
		X	Y	Z
1	MDB CG	-2196	0	-500
2	MDB Rear	-3585	-645	-620

Reference : X - Face of MDB (+ forward)
 Y - MDB Centerline (+ to right)
 Z - Ground Plane (+ down)

DATA SHEET NO. 8
POST-TEST OBSERVATIONS

Test Vehicle: 2025 Chevrolet Equinox
Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
Test Date: 9/25/2025

TEST DUMMY INFORMATION AND CONTACT POINTS

Dummy Body Part	Front Seat Dummy (ES2-re)	Rear Seat Dummy (SID-IIs)
Face	SCAB, Headliner	SCAB
Top of Head	Side Header	SCAB
Left Side of Head	Side Header, SCAB	SCAB
Back of Head	Headrest, Side Header and SCAB	None
Left Shoulder	SAB	Door Panel
Upper Torso	SAB, Seat Side Bolster	Seat Side Bolster
Lower Torso	SAB, Seat Side Bolster	Seat Side Bolster
Left Hip	SAB, Door Panel	Door Panel, Seat Bottom
Left Knee	Door Panel	Door Panel

POST-TEST DOOR PERFORMANCE

Description	Struck Side		Non-Struck Side		Trunk Lid
	Front	Rear	Front	Rear	
Remained Closed and Operational	No	No	Yes	Yes	Yes
Total Separation from Vehicle at Hinges or Latches	Yes	No	No	No	No
Latch or Hinge Systems Pulled Out of Their Anchorages	No	No	No	No	No
Disengaged from Latched Position	No	No	No	No	No
Latch Separated from Striker	Yes	No	No	No	No
Jammed Shut	No	Yes	No	No	No
If Door Opened at Striker, Record Width of Opening at Striker (mm)	320	N/A	N/A	N/A	N/A

POST-TEST SEAT PERFORMANCE

Description	Struck Side		Non-Struck Side	
	Front	Rear	Front	Rear
Seat Movement Along Seat Track	None	None	None	None
Seat Disengagement from Floor pan	None	None	None	None
Seat Back Movement from Initial Position	None	None	None	None
Seat Back Collapse	None	None	None	None

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Good
Sill Separation	Driver door bottom
Windshield Damage	None
Side Window Damage	None
Other Notable Effects	None

DATA SHEET NO. 8 (CONTINUED)
POST TEST OBSERVATIONS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Struck Side Driver		Struck Side Rear Passenger	
	Mounted	Deployed	Mounted	Deployed
Frontal Airbag	Yes	No		
Knee Airbag	No	N/A		
Side Curtain Airbag	Yes	Yes	Yes	Yes
Side Torso/Pelvis Airbag	Yes	Yes	No	N/A
Side Pelvis Airbag	No	N/A	No	N/A
Seat Belt Pretensioner	Yes	Yes	Yes	Yes
Seat Belt Load Limiter	Yes	No	Yes	No
Other	No	N/A	No	N/A

IMPACT POINT LOCATION DATA

Measured Parameter	Units	Tolerance	Value
Vehicle Wheel Base	mm		2730
Vertical Impact Reference Line (Aft of Front Axle) (Intended Impact Point)	mm		420
Actual Impact Point (Aft of Front Axle)	mm		420
Horizontal Offset (+ forward / - rearward)	mm	+/- 50 of Intended Impact point	0
Vertical Offset (+ down / - up)	mm	+/- 20 of Intended Impact point	- 8

DATA SHEET NO. 9
MDB SUMMARY OF RESULTS

Test Vehicle: 2025 Chevrolet Equinox
Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
Test Date: 9/25/2025

MDB SPECIFICATIONS

Measurement Description	Length (mm)
Overall Width of Framework Carriage	1252
Overall Length Including Honeycomb Face	4115
Wheel Base of Framework Carriage	2591
C.G. Location aft of Front Axle	1117

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	397.8	287.6	685.4
Right	kg	380.4	302.2	682.6
Ratio	%	56.9	43.1	100.0
Totals	kg	778.2	589.8	1368.0

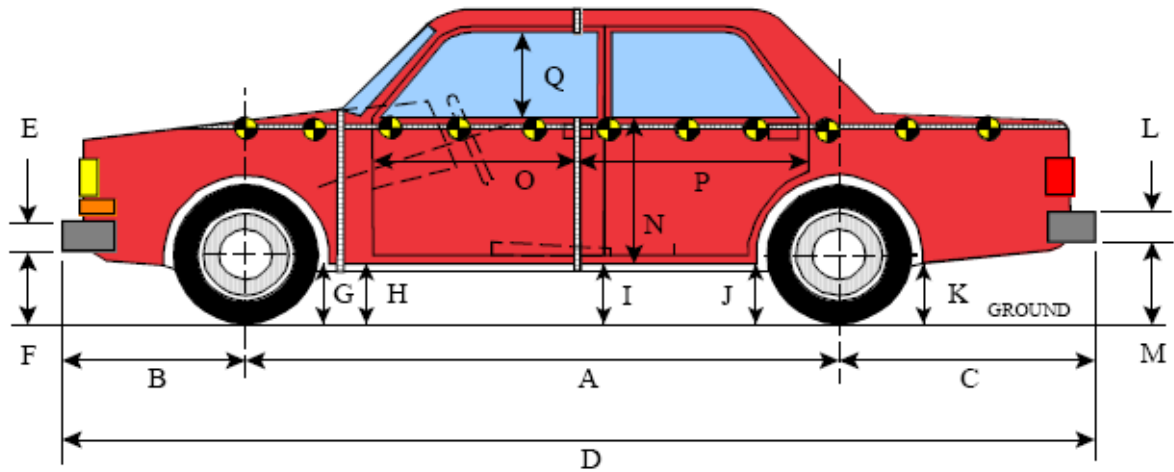
SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.98
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.02
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	90.0
MDB Forward Line of Motion to Target Vehicle CL	degrees	62.5 to 63.5	63.0
MDB Crabbed Angle to MDB Forward Line of Motion	degrees	26 to 28	27.0

DATA SHEET NO. 10
TEST VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



LEFT SIDE VIEW

All MEASUREMENTS IN (mm) WITH TOLERANCE OF $\pm 3\text{mm}$

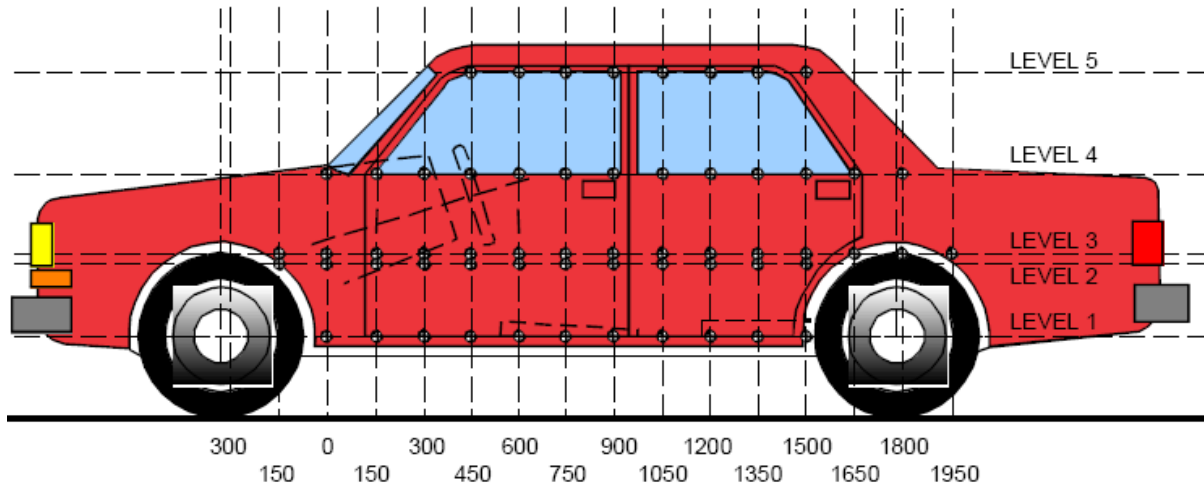
VEHICLE PRE- AND POST-TEST MEASUREMENT INFORMATION

Code	Measurement Description	Pre-Test	Post-Test	Change
A	Wheelbase	2730	2735	5
B	Front Axle to Front Surface of Vehicle	940	943	3
C	Rear Axle to Rear Surface of Vehicle	973	980	7
D	Total Length at Centerline	4654	4658	4
E	Front Bumper Thickness	77	77	0
F	Front Bumper Bottom to Ground	562	537	-25
G	Sill Height at Front Wheel Well	450	461	11
H	Sill Height at Front Door Leading Edge	430	487	57
I	Sill Height at B-Pillar	443	522	79
J1	Sill Height at Rear Wheel Well	479	550	71
J2	Pinch Weld Height at Rear Wheel Well	249	300	51
K	Sill Height Aft of Rear Wheel Well	521	595	74
L	Rear Bumper Thickness	114	114	0
M	Rear Bumper Bottom to Ground	440	513	73
N	Sill Height to Window Bottom Sill	895	818	-77
O	Front Door Leading Edge to Impact CL	778	770	-8
P	Rear Door Trailing Edge to Impact CL	1311	1298	-13
Q	Front Window Opening	450	452	2
R	Right Side Length	4374	4360	-14
S	Left Side Length	4368	4365	-3
T	Vehicle Width	1887	2015	128
U	Front Wheel Track Width	1610	1612	2
V	Rear Wheel Track Width	1630	1634	4

DATA SHEET NO. 11
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



LEFT SIDE VIEW

MAXIMUM EXTERIOR CRUSH MEASUREMENTS

Level	Measurement Description	Height Above Ground	Maximum Exterior Static Crush	Distance From Impact
1	Sill Top	402	92	1200
2	Driver Hip Point	683	209	1650
3	Mid Door	711	204	1650
4	Window Sill	1111	26	1200
5	Window Top	1597	-2	2250

NOTE: The above measurements were taken along the vertical impact reference line.
 Vehicle measurements forward of the vertical impact reference line are negative.

DATA SHEET NO. 11 (CONTINUED)
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

EXTERIOR CRUSH MEASUREMENTS AT EACH LEVEL

	Pre-Test					Post-Test					Crush				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-450	0	0	0	797	0	0	0	0	830	0	0	0	0	-33	0
-300	0	0	0	805	0	0	0	0	836	0	0	0	0	-31	0
-150	0	0	0	809	0	0	0	0	821	0	0	0	0	-12	0
0	906	928	926	812	0	926	943	942	828	0	-20	-15	-16	-16	0
150	907	915	915	816	0	877	830	835	882	0	30	85	80	-66	0
300	907	912	910	821	0	880	827	831	929	0	27	85	79	-108	0
450	907	911	909	825	0	880	846	846	973	0	27	65	63	-148	0
600	908	910	908	828	0	921	873	868	1015	0	-13	37	40	-187	0
750	908	909	907	833	608	974	908	901	1056	623	-66	1	6	-223	-15
900	908	909	907	836	620	1025	946	945	1093	633	-117	-37	-38	-257	-13
1050	908	908	906	838	622	1075	1021	1014	1127	633	-167	-113	-108	-289	-11
1200	906	906	904	838	623	814	770	770	812	631	92	136	134	26	-8
1350	905	905	903	841	623	815	736	744	821	629	90	169	159	20	-6
1500	904	905	902	842	623	813	708	720	825	628	91	197	182	17	-5
1650	903	908	907	843	620	833	699	703	823	624	70	209	204	20	-4
1800	904	920	920	853	616	872	727	732	833	620	32	193	188	20	-4
1950	0	941	0	855	611	0	913	0	838	615	0	28	0	17	-4
2100	0	0	0	856	603	0	0	0	861	606	0	0	0	-5	-3
2250	0	0	0	852	591	0	0	0	845	593	0	0	0	7	-2

NOTE: Pre-test measurements are taken when the vehicle is in the "As Tested" weight condition. Vehicle measurements forward of the vertical impact reference line are negative. The crush profile grid is established prior to the test based on an estimated impact point.

DATA SHEET NO. 11 (CONTINUED)
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2025 Chevrolet Equinox
Test Program: SINCAP Side Impact

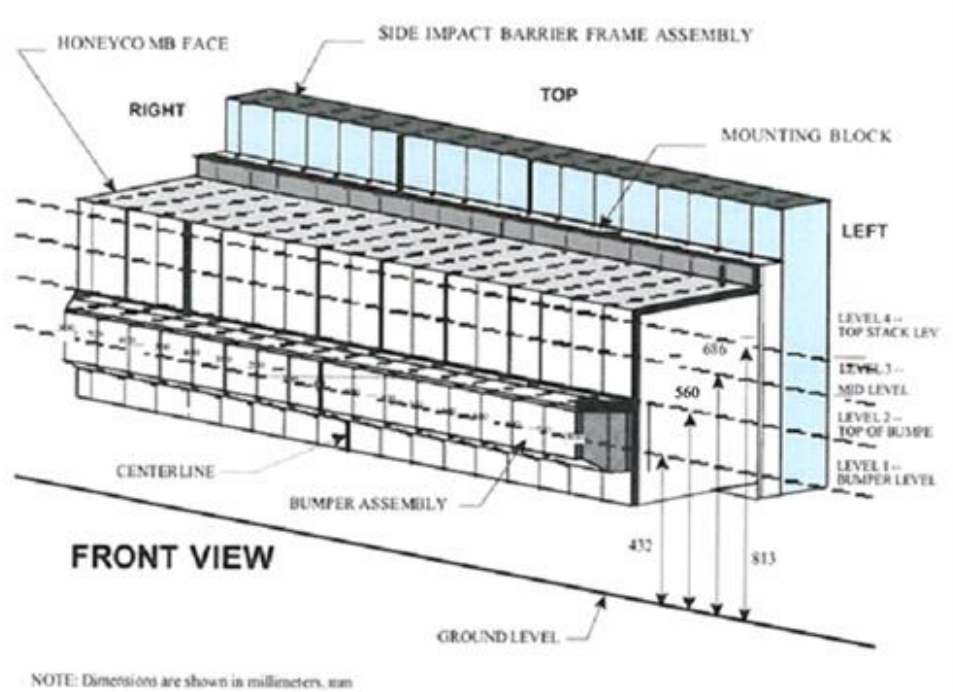
NHTSA No.: Q20250106
Test Date: 9/25/2025



DATA SHEET NO. 12
MDB EXTERIOR STATIC CRUSH MEASUREMENTS

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE

Vertical Location			From Centerline		Maximum Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	700	Right	219
B	Top of Bumper	560	800	Left	129
C	Mid-Level	686	800	Left	96
D	Top of Stack	813	800	Left	145

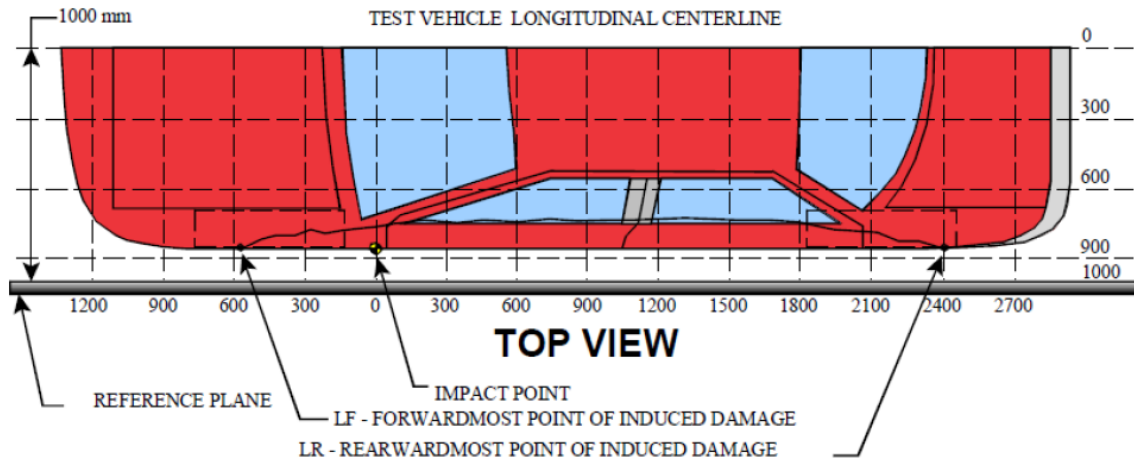
DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								C/L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	215	219	207	202	200	198	197	196	199	193	189	187	185	183	184	190	193
2	121	116	108	105	104	104	107	104	99	96	91	87	87	85	87	95	129
3	60	43	35	39	46	64	90	89	62	39	30	27	31	39	51	70	96
4	45	41	39	38	46	73	107	106	72	63	67	62	62	69	75	86	145

DATA SHEET NO. 13
VEHICLE AND MDB DAMAGE PROFILE DISTANCES

Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025



MEASUREMENT CONVENTIONS:
 Forward of the impact point (towards front of vehicle) is considered negative (—).
 Rearward of the impact point (toward rearend of vehicle) is considered positive (+).

VEHICLE DAMAGE PROFILE DISTANCES

DPD	Distance From Impact Point (mm)	Level	Post-Test (mm)	Pre-Test (mm)	Crush (mm)
1	2250	4	845	852	7
2	1800	2	727	920	193
3	1350	3	744	903	159
4	750	3	901	907	6
5	450	2	846	911	65
6 ¹	150	2	830	915	0

MDB DAMAGE PROFILE DISTANCES

DPD	Distance From Center of MDB	Level	Post-Test (mm)	Pre-Test (mm)	Crush (mm)
1	800	1	275	468	193
2	500	1	302	485	183
3	200	1	296	485	189
4	200	1	289	486	197
5	500	1	284	486	202
6 ¹	800	1	258	473	215

¹ DPD 6 is defined as zero crush since the crush does not extend to the end of the vehicle.

DATA SHEET NO. 14
FMVSS NO. 301 STATIC ROLLOVER RESULTS

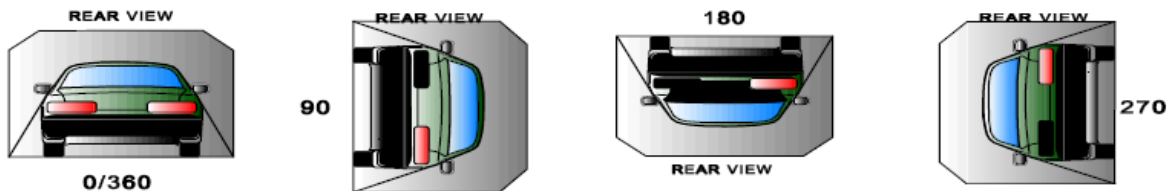
Test Vehicle: 2025 Chevrolet Equinox
 Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
 Test Date: 9/25/2025

Test Time: 16:01 **Temperature:** 20.8°C

- A. From impact until vehicle motion ceases: 0 oz.
 (Maximum allowable is 1 ounce)
- B. For the 5 minute period after motion ceases: 0 oz.
 (Maximum allowable is 5 ounces)
- C. For the following 25 minutes: 0 oz.
 (Maximum allowable is 1 ounce/minute)
- D. Spillage Details: None

FMVSS 301 STATIC ROLLOVER DATA



ROLLOVER SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0 to 90	90	330	420
90 to 180	90	330	840
180 to 270	90	330	1260
270 to 360	90	330	1680

FMVSS NO. 301 ROLLOVER SPILLAGE TABLE

Test Phase	First 5 Minutes	Sixth Minute	Seventh Minute	Eighth Minute
0 to 90	0	0	0	N/A
90 to 180	0	0	0	N/A
180 to 270	0	0	0	N/A
270 to 360	0	0	0	N/A

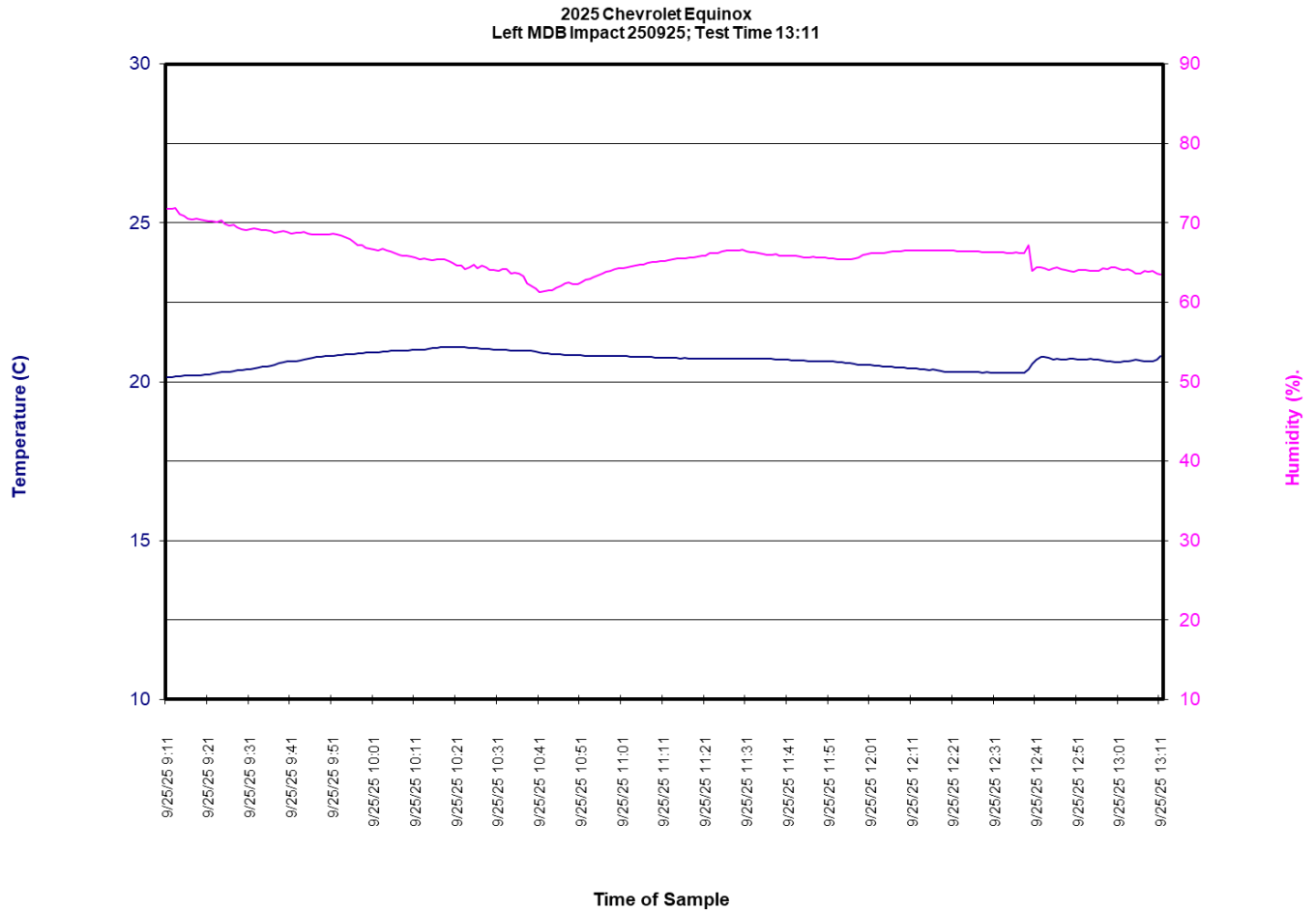
ROLLOVER SOLVENT SPILLAGE LOCATION TABLE

Test Phase	Spillage Location
0 to 90	None
90 to 180	None
180 to 270	None
270 to 360	None

DATA SHEET NO. 15
DUMMY/VEHICLE TEMPERATURE AND HUMIDITY STABILIZATION DATA

Test Vehicle: 2025 Chevrolet Equinox
Test Program: SINCAP Side Impact

NHTSA No.: Q20250106
Test Date: 9/25/2025



APPENDIX A
PHOTOGRAPHS

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102	Monroney Label	A-58
103	Driver Head Restraint Use and Adjustment Information from Vehicle Owner's Manual	A-58
104	Left Rear Passenger Head Restraint Use and Adjustment Information from Vehicle Owner's Manual	A-59

**** NOTE:** Post test photos with small signboard have the wrong test date of 250911.



001 As-Delivered Right Front $\frac{3}{4}$ View of Test Vehicle



002 As-Delivered Left Rear $\frac{3}{4}$ View of Test Vehicle



003 Pre-Test Frontal View of Test Vehicle



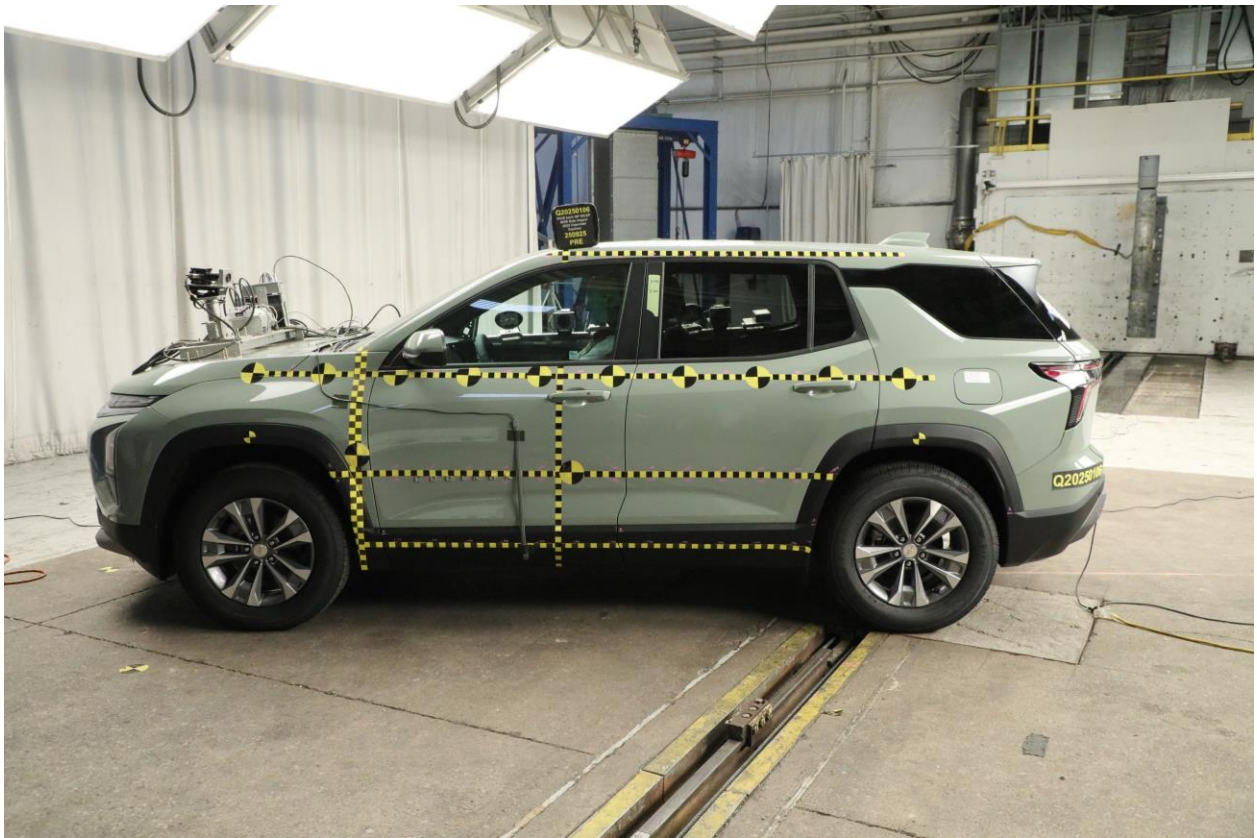
004 Post-Test Frontal View of Test Vehicle



005 Pre-Test Left Front $\frac{3}{4}$ View of Test Vehicle



006 Post-Test Left Front $\frac{3}{4}$ View of Test Vehicle



007 Pre-Test Left Side View of Test Vehicle



008 Post-Test Left Side View of Test Vehicle



009 Pre-Test Left Rear $\frac{3}{4}$ View of Test Vehicle



010 Post-Test Left Rear $\frac{3}{4}$ View of Test Vehicle



011 Pre-Test Rear View of Test Vehicle



012 Post-Test Rear View of Test Vehicle



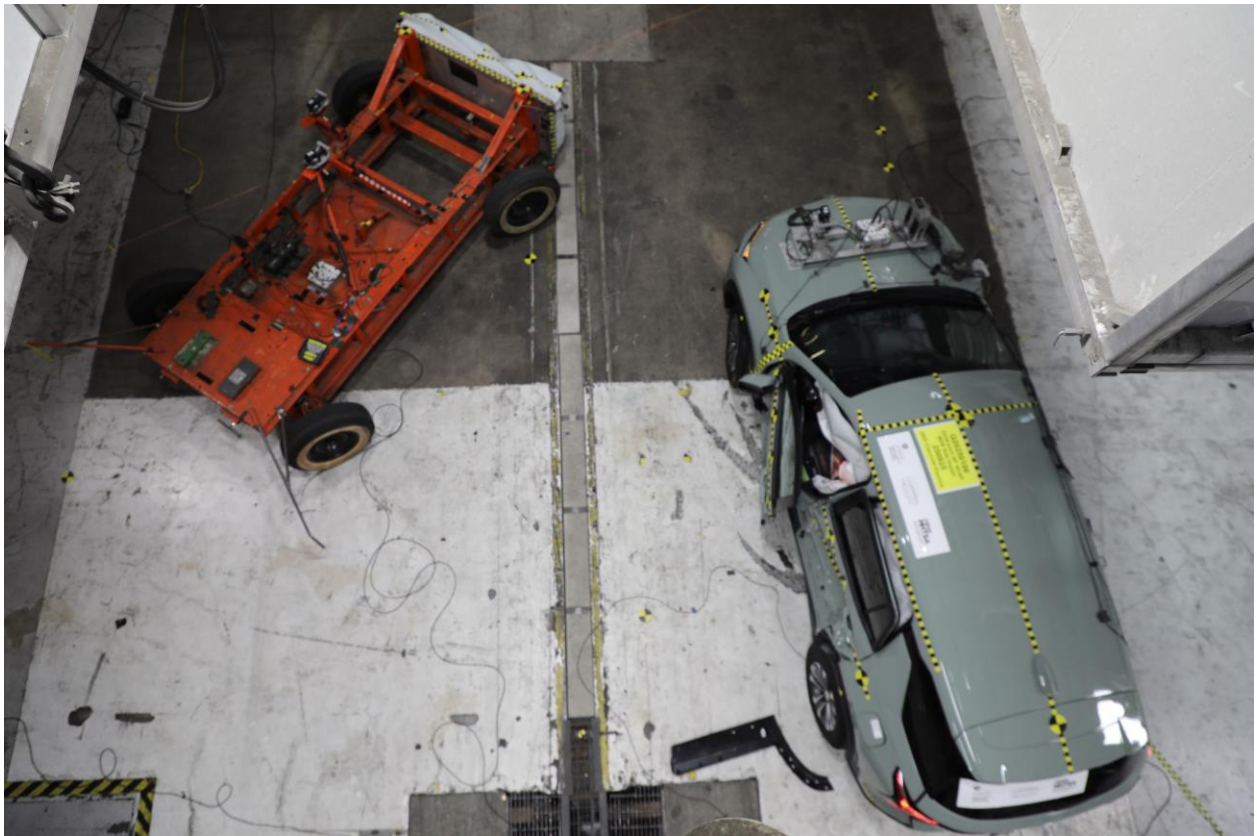
013 Pre-Test Right Side View of Test Vehicle



014 Post-Test Right Side View of Test Vehicle



015 Pre-Test Overhead View of Test Area



016 Post-Test Overhead View of Test Area



017 Pre-Test Left Side View of MDB Positioned Against Side of Test Vehicle



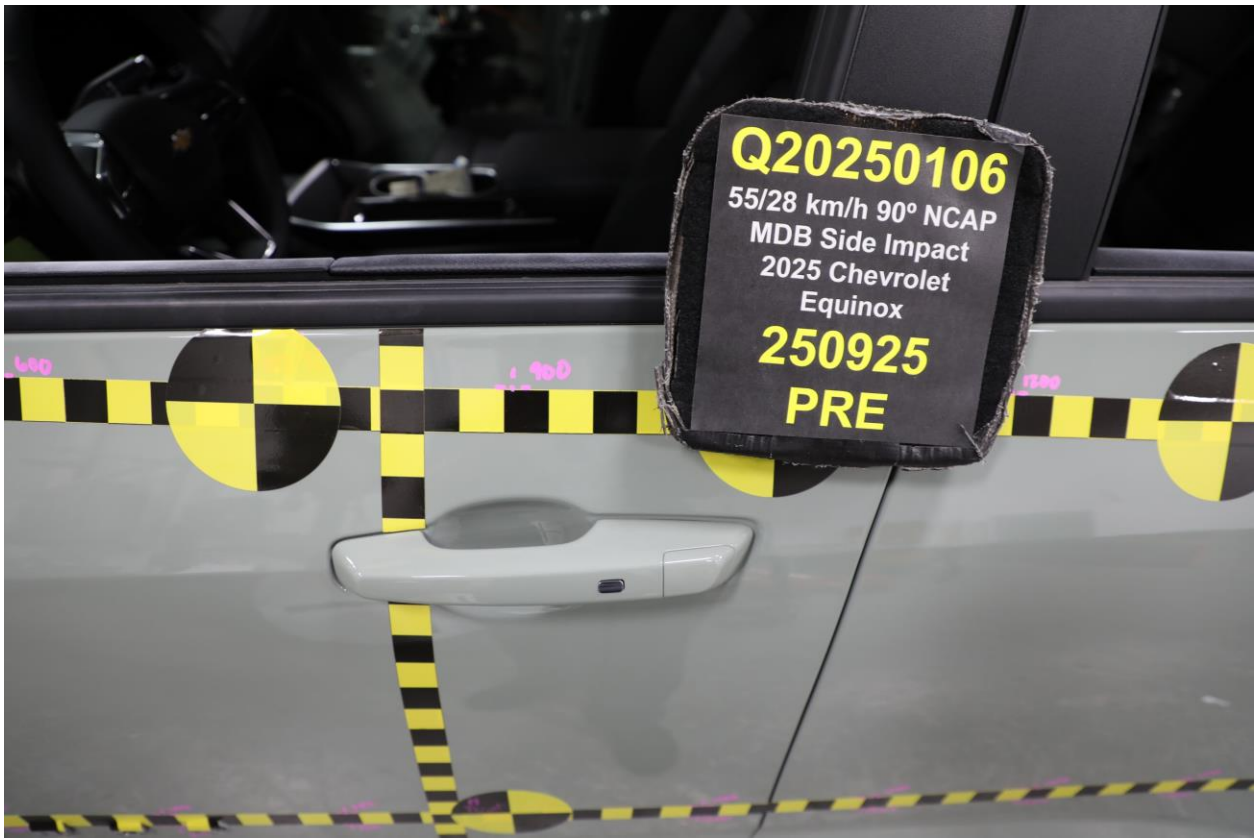
018 Pre-Test Right Side View MDB Positioned Against Side of Test Vehicle



019 Pre-Test Close-Up View of Impact Point Target



020 Post-Test Close-Up View of Impact Point Target



021 Pre-Test Left Front Door Latch Close-Up



022 Post-Test Left Front Door Latch Close-Up



023 Pre-Test Left Rear Door Latch Close-Up



024 Post-Test Left Rear Door Latch Close-Up



025 Pre-Test Front Close-Up View of Driver Dummy



026 Post-Test Front Close-Up View of Driver Dummy



027 Pre-Test Left Side View of Driver Dummy Showing Belt and Chalking

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028 Pre-Test Left Side View of Driver Dummy Shoulder and Door Top



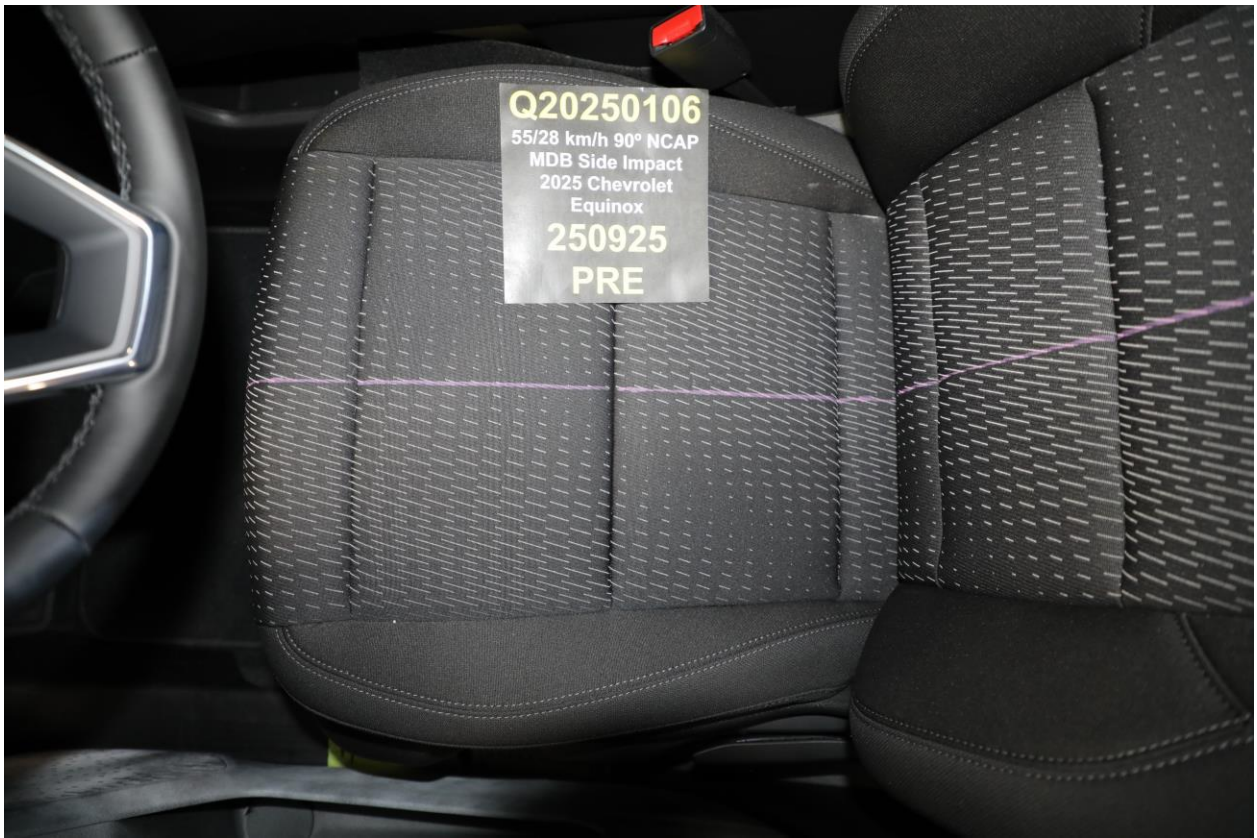
029 Post-Test Left Side View of Driver Dummy Shoulder and Door Top

PHOTO NOT AVAILABLE

030 Pre-Test Frontal View of Driver Seat Back Prior to Dummy Positioning



031 Pre-Test Frontal View of Driver Dummy Head and Shoulders in Relation to Head Restraint



032 Pre-Test Frontal View of Driver Seat Pan Prior to Dummy Positioning



033 Pre-Test Overhead View of Driver Dummy Thighs on Seat Pan



034 Pre-Test Placement of Driver's Dummy Feet



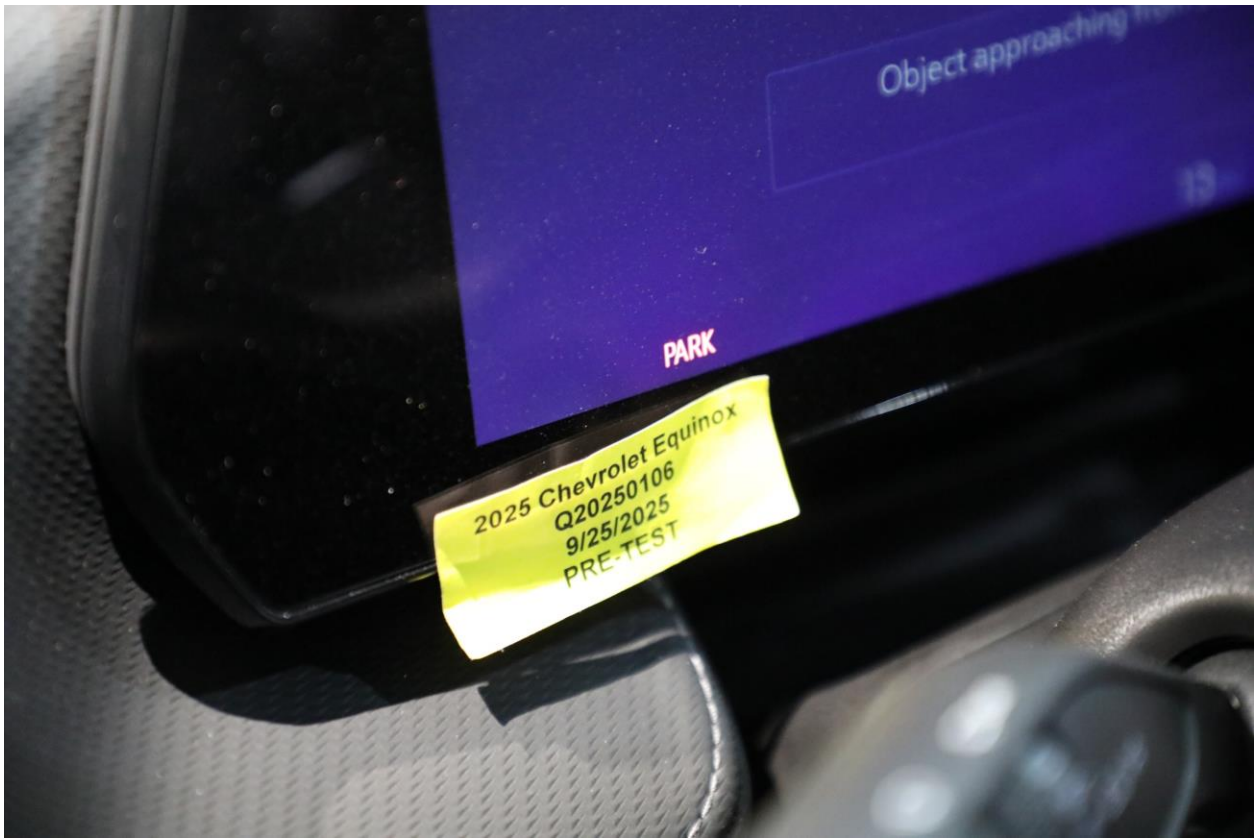
035 Pre-Test View of Belt Anchorage for Driver Dummy



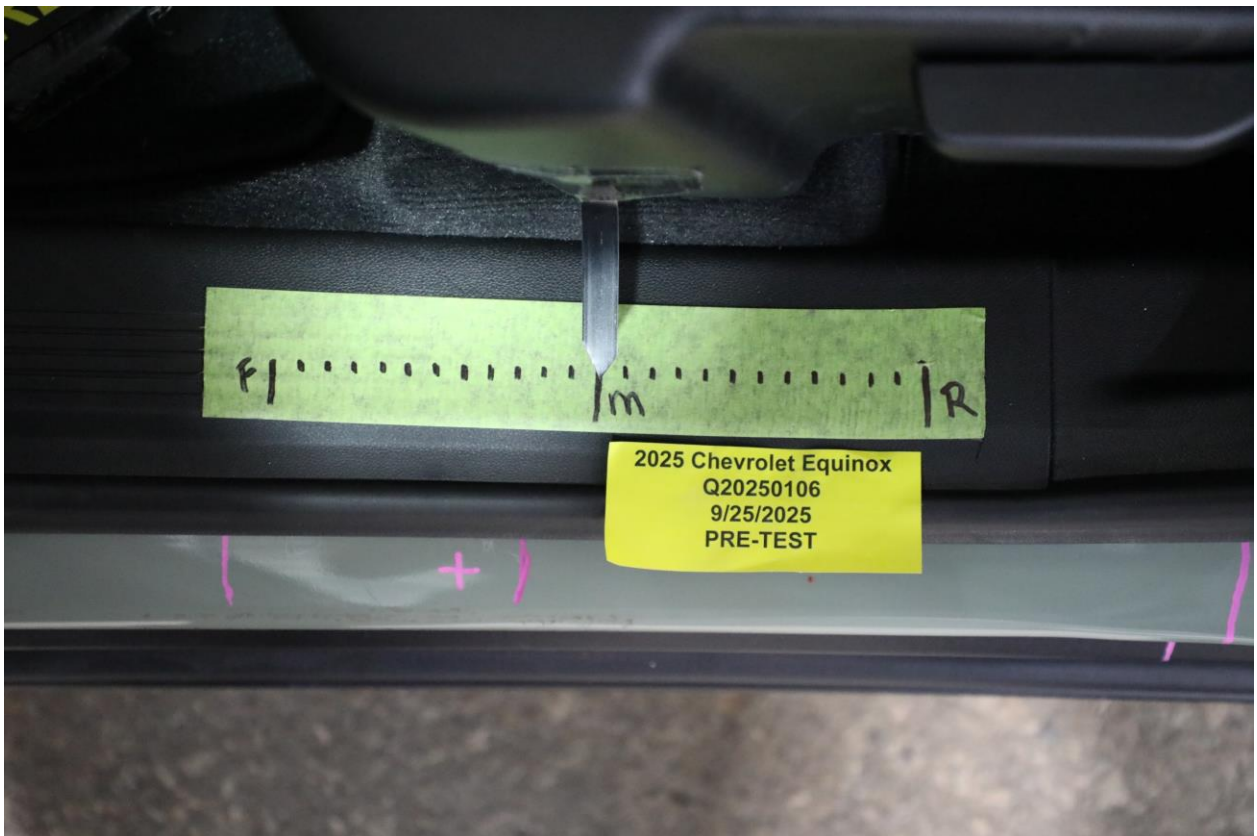
036 Pre-Test Left Side View of Steering Wheel



037 View of Disengaged Parking Brake



038 Pre-Test View of Parking Brake



039 Pre-Test Close-Up Left Side View of Driver Seat Track



040 Pre-Test Close-Up Left Side View of Driver Seat Back



041 Pre-Test Close-Up View of Driver Seat Back or Head Restraint



042 Pre-Test Driver Dummy and Door Clearance View



043 Post-Test Driver Dummy and Door Clearance View



044 Pre-Test Right Side View of Driver Dummy and Front Seat of Occupant Compartment



045 Post-Test Right Side View of Driver Dummy and Front Seat of Occupant Compartment



046 Pre-Test Driver Inner Door Panel View



047 Post-Test Driver Inner Door Panel View Showing Driver Dummy Contact Locations



048 Post-Test Driver Dummy Close-Up Head Contact with Vehicle View



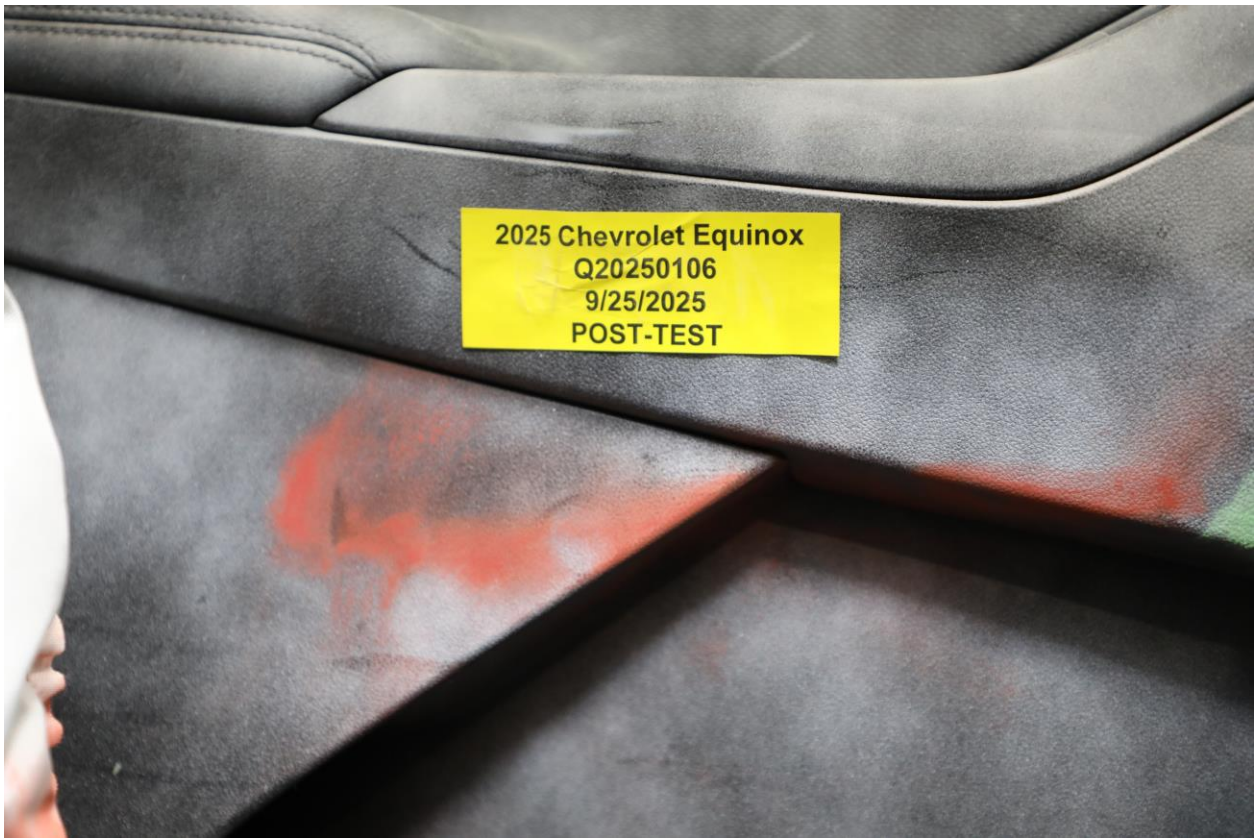
049 Post-Test Driver Dummy Close-Up Head Contact with Side Airbag View



050 Post-Test Driver Dummy Close-Up Torso Contact with Vehicle Interior View



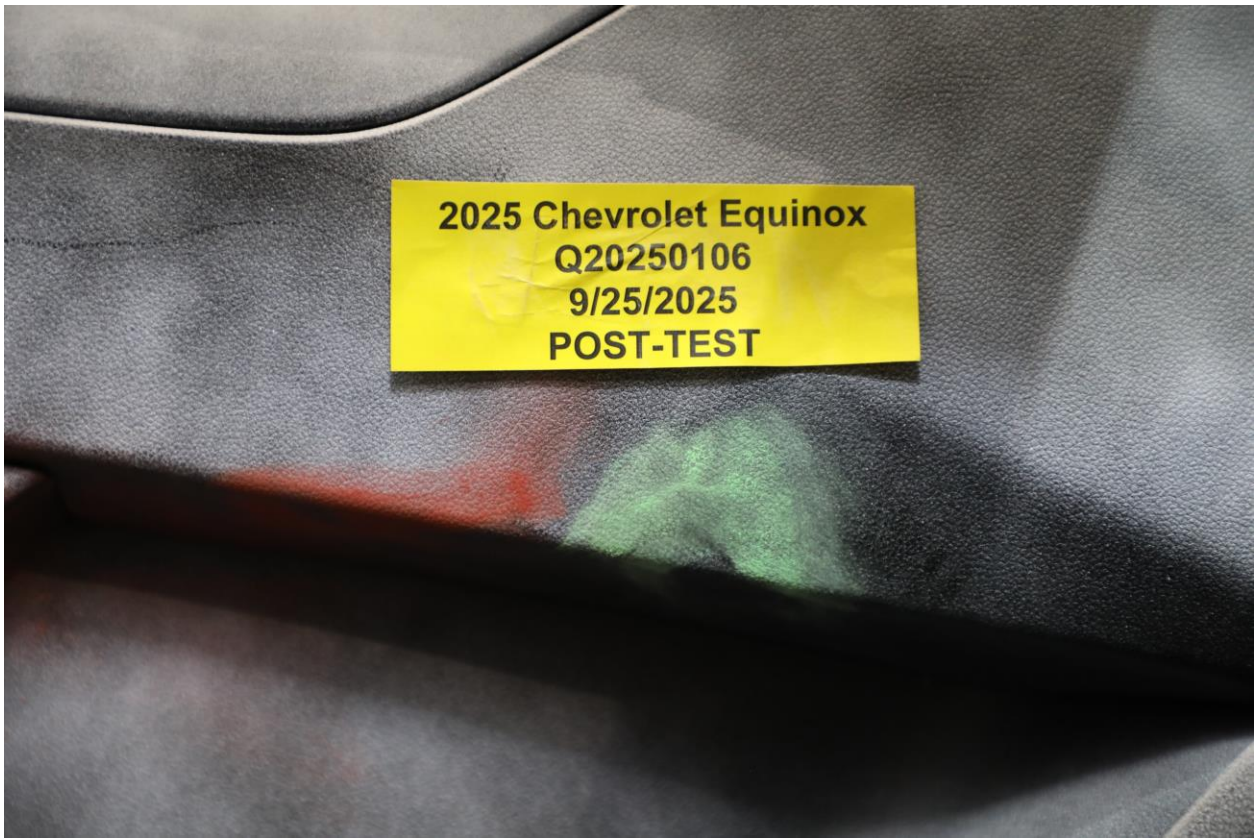
051 Post-Test Driver Dummy Close-Up Torso Contact with Side Airbag View



052 Post-Test Driver Dummy Close-Up Pelvis Contact View



053 Post-Test Driver Dummy Close-Up Pelvis Contact with Side Airbag View



054 Post-Test Driver Dummy Close-Up Knee Contact View



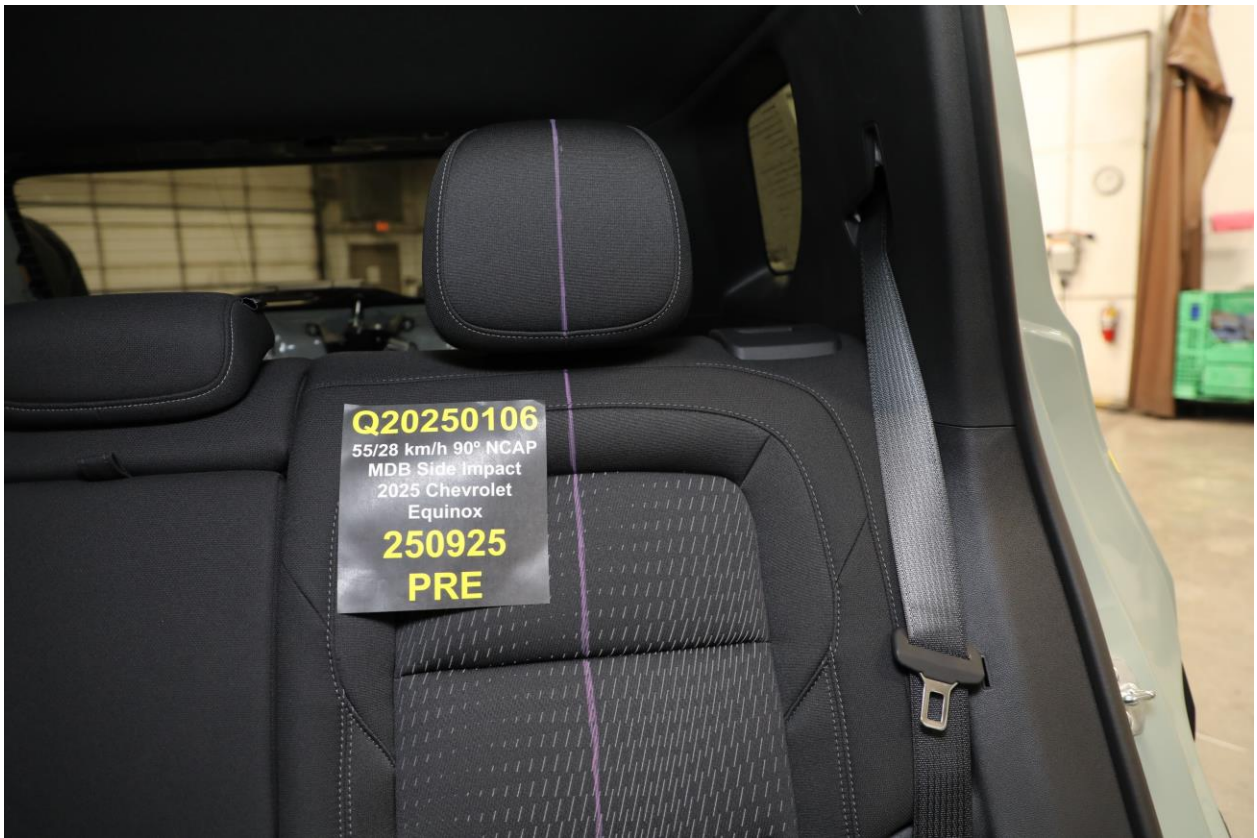
055 Pre-Test Left Side View of Passenger Dummy Showing Belt and Chalking



056 Pre-Test Left Side View of Passenger Dummy Shoulder and Door Top View



057 Post-Test Left Side View of Passenger Dummy Shoulder and Door Top View



058 Pre-Test Frontal View of Rear Passenger Seat Back Prior to Dummy Positioning



059 Pre-Test Frontal View of Rear Passenger Dummy Head and Shoulders in Relation to Head Restraint



060 Pre-Test Overhead View of Rear Passenger Seat Pan Prior to Dummy Positioning



061 Pre-Test Overhead View of Rear Passenger Dummy Thighs on Seat Pan



062 Pre-Test View of Rear Passenger Dummy's Neck Showing Position of Adjustable Neck Bracket



063 Pre-Test View of Rear Passenger Dummy's Head Showing Dummy Head is Level



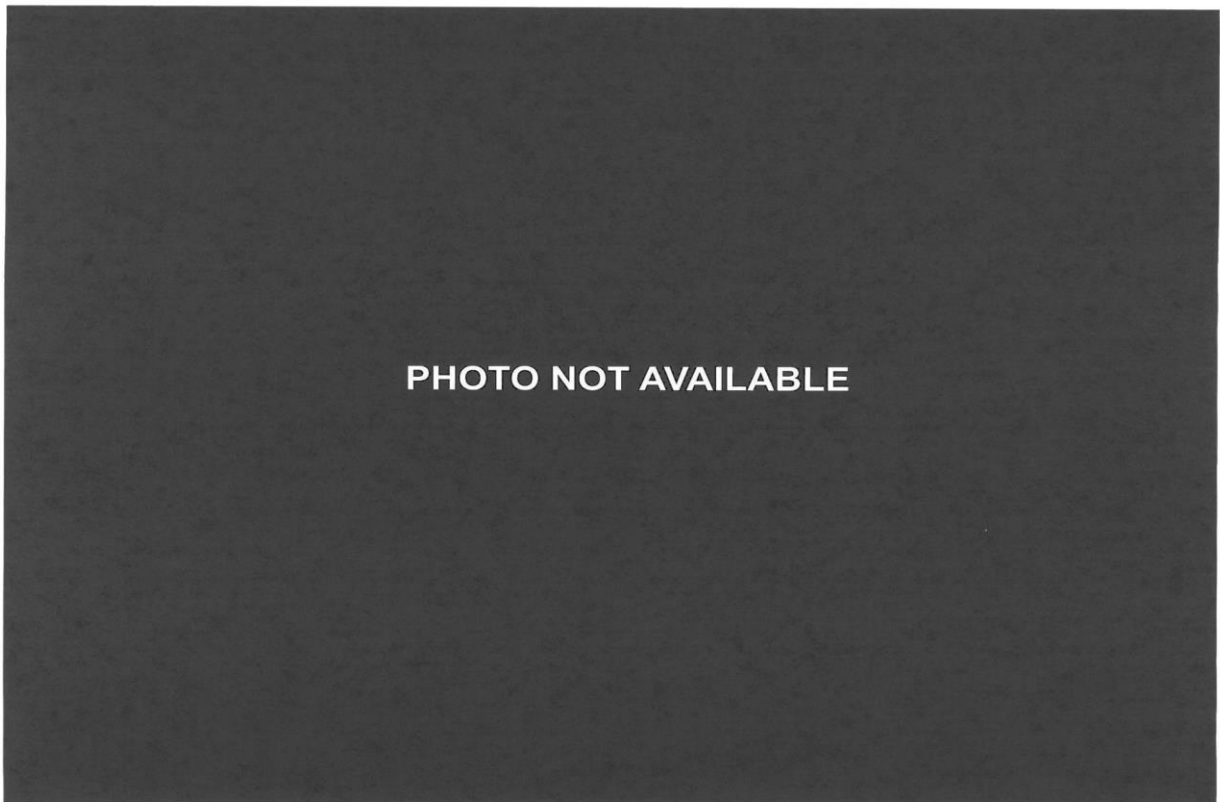
064 Pre-Test Placement of Rear Passenger Dummy's Feet



065 Pre-Test View of Belt Anchorage for Rear Passenger Dummy



066 Pre-Test Close-Up Left Side View of Rear Passenger Seat Track



067 Pre-test Close-Up Left Side View of Rear Passenger Seat Back



068 Pre-Test Close-Up View of Rear Passenger Seat Back or Head Restraint

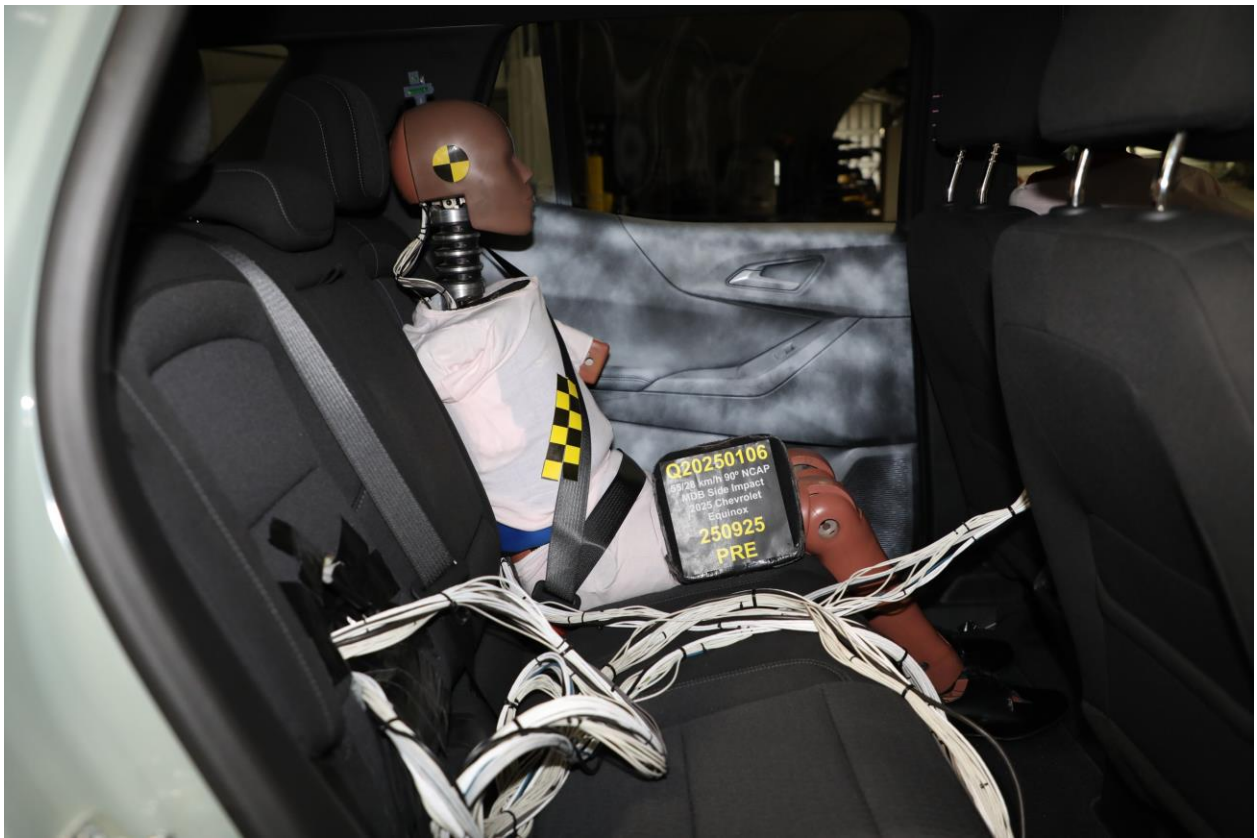
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069 Pre-Test Rear Passenger Dummy and Door Clearance View



070 Post-Test Rear Passenger Dummy and Door Clearance View



071 Pre-Test Right Side View of Rear Passenger Dummy and Rear Seat Occupant Compartment



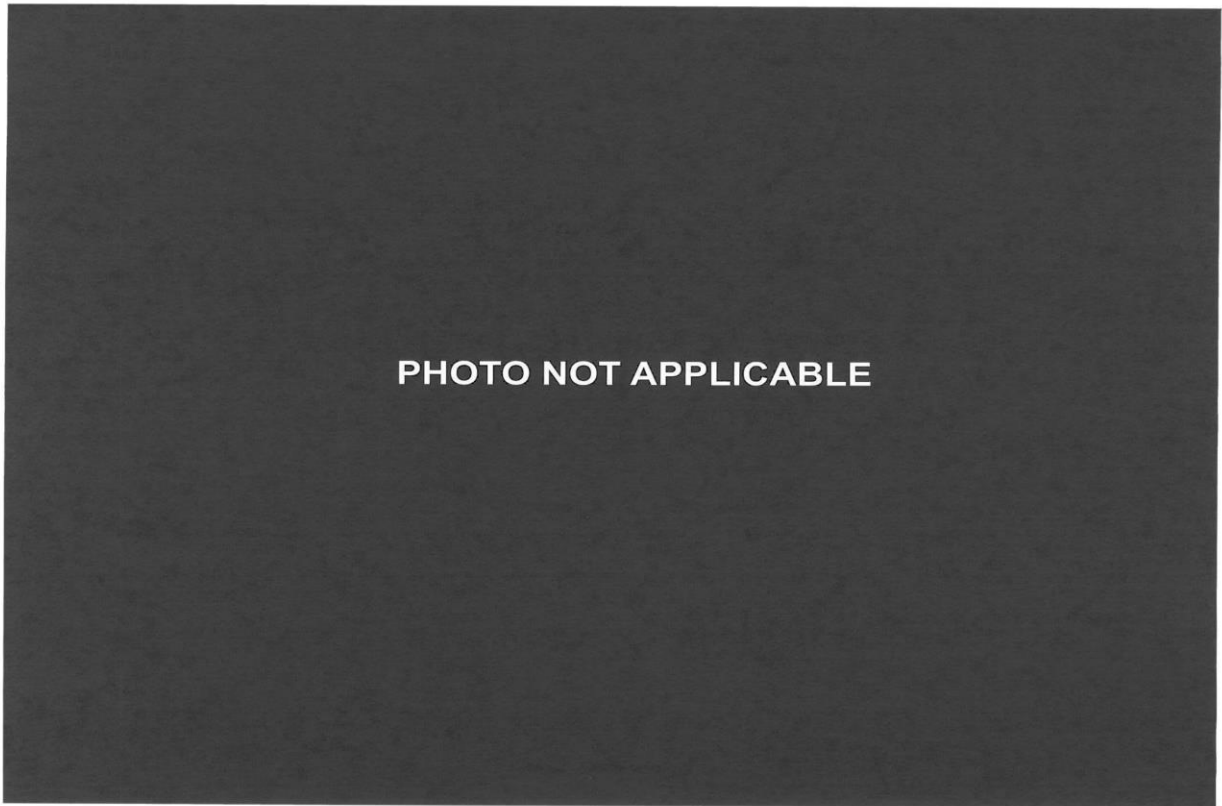
072 Post-Test Right Side View of Rear Passenger Dummy and Rear Seat Occupant Compartment



073 Pre-Test Rear Passenger Inner Door Panel View



074 Post-Test Rear Passenger Inner Door Panel View



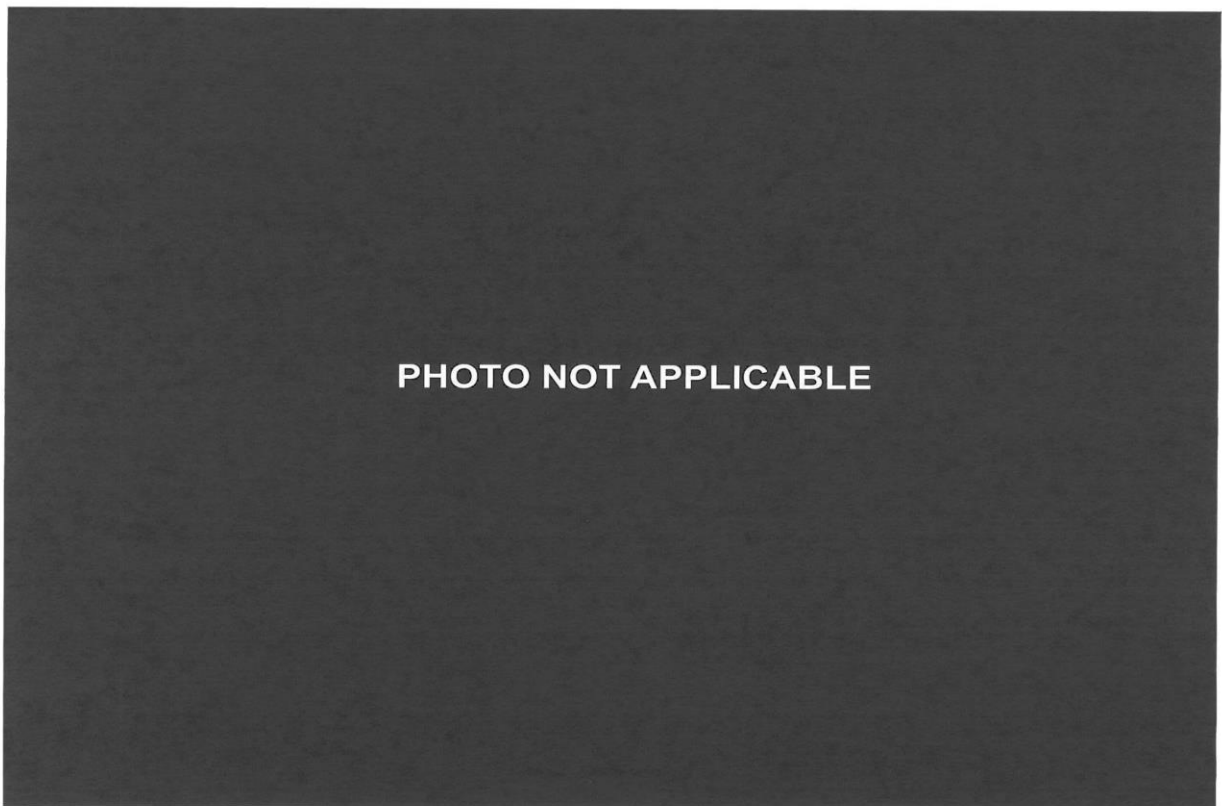
075 Post-Test Rear Passenger Dummy Close-Up Head Contact with Vehicle View



076 Post-Test Rear Passenger Dummy Close-Up Head Contact with Side Airbag View



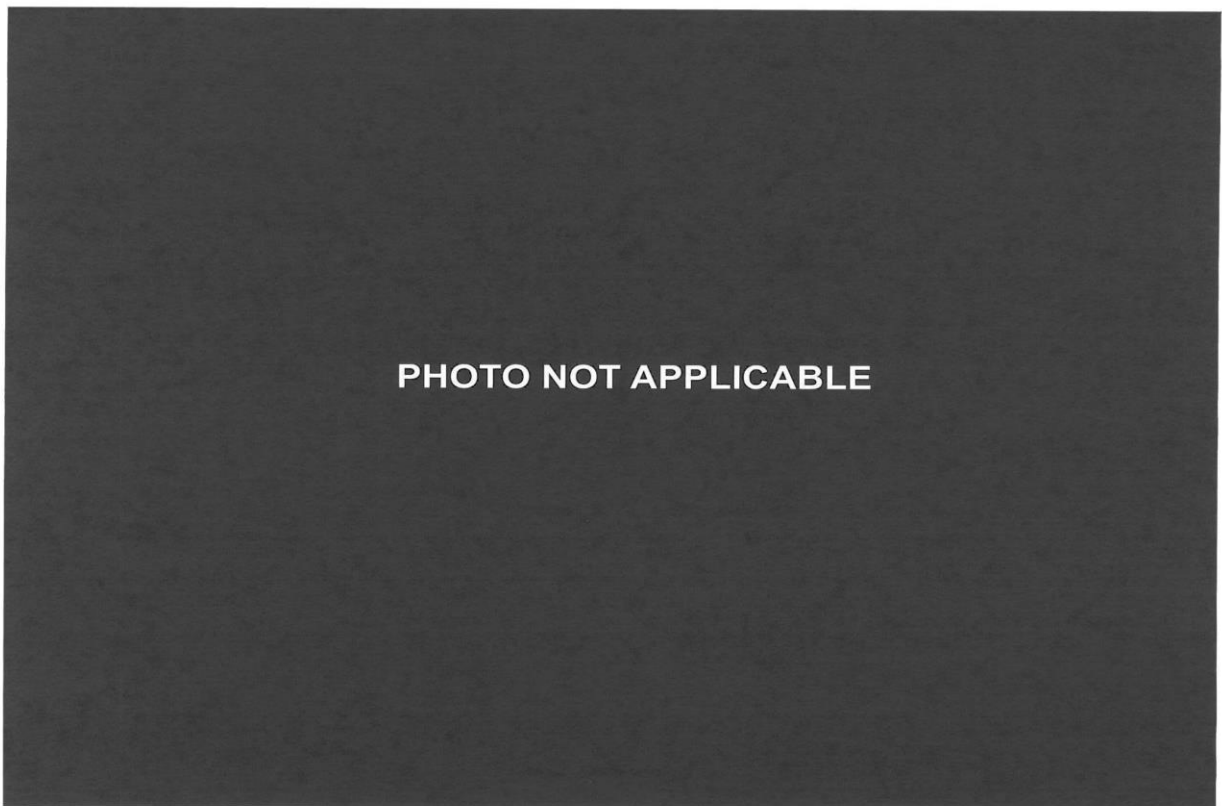
077 Post-Test Rear Passenger Dummy Close-Up Torso Contact with Vehicle Interior View



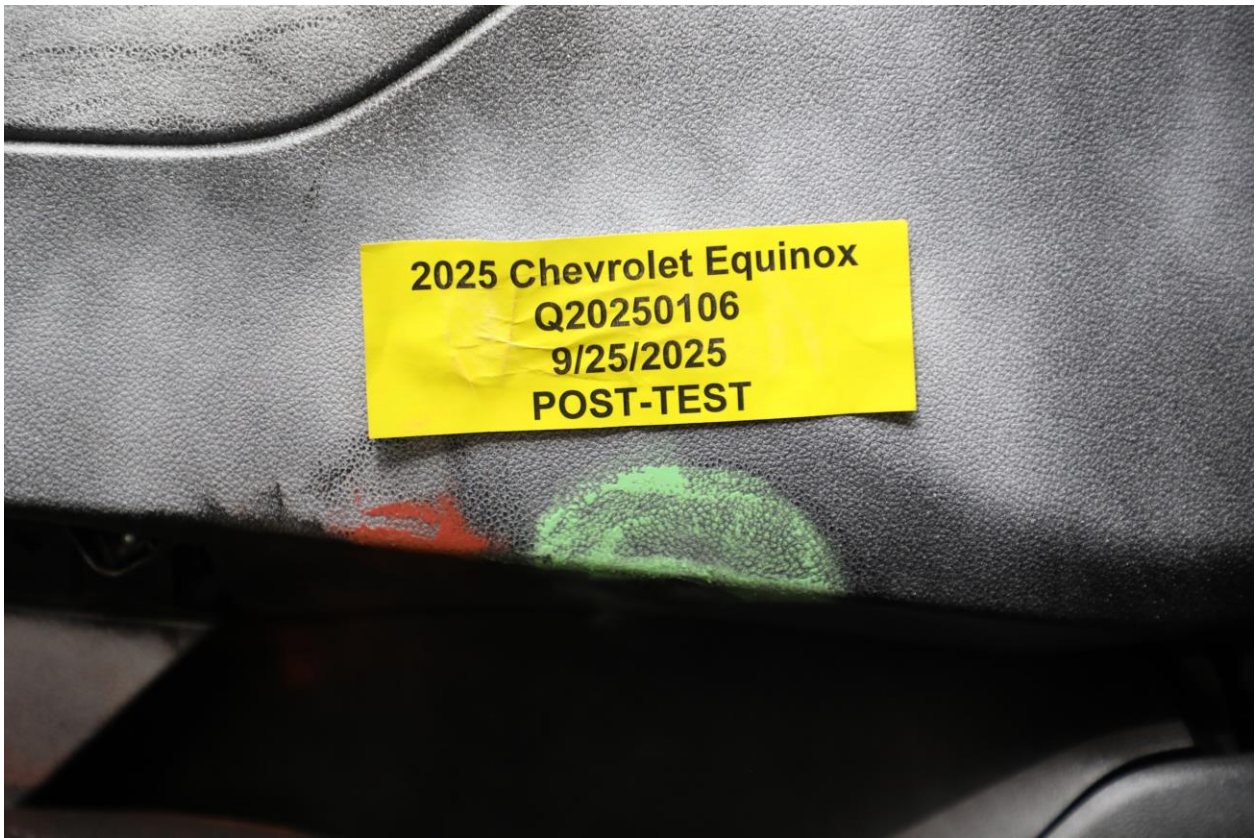
078 Post-Test Rear Passenger Dummy Close-Up Torso Contact with Side Airbag View



079 Post-Test Rear Passenger Dummy Close-Up Pelvis Contact View



080 Post-Test Rear Passenger Dummy Close-Up Pelvis Contact with Side Airbag View



081 Post-Test Rear Passenger Dummy Close-Up Knee Contact View

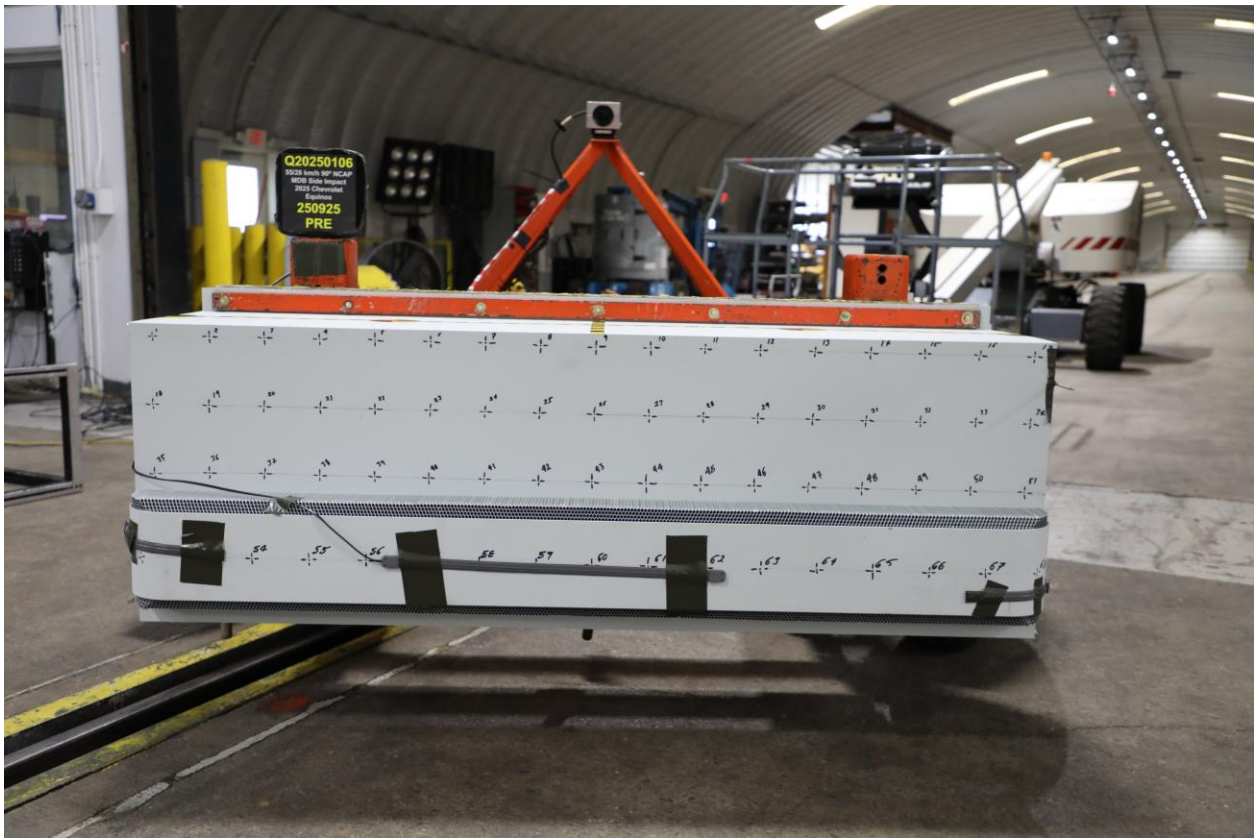
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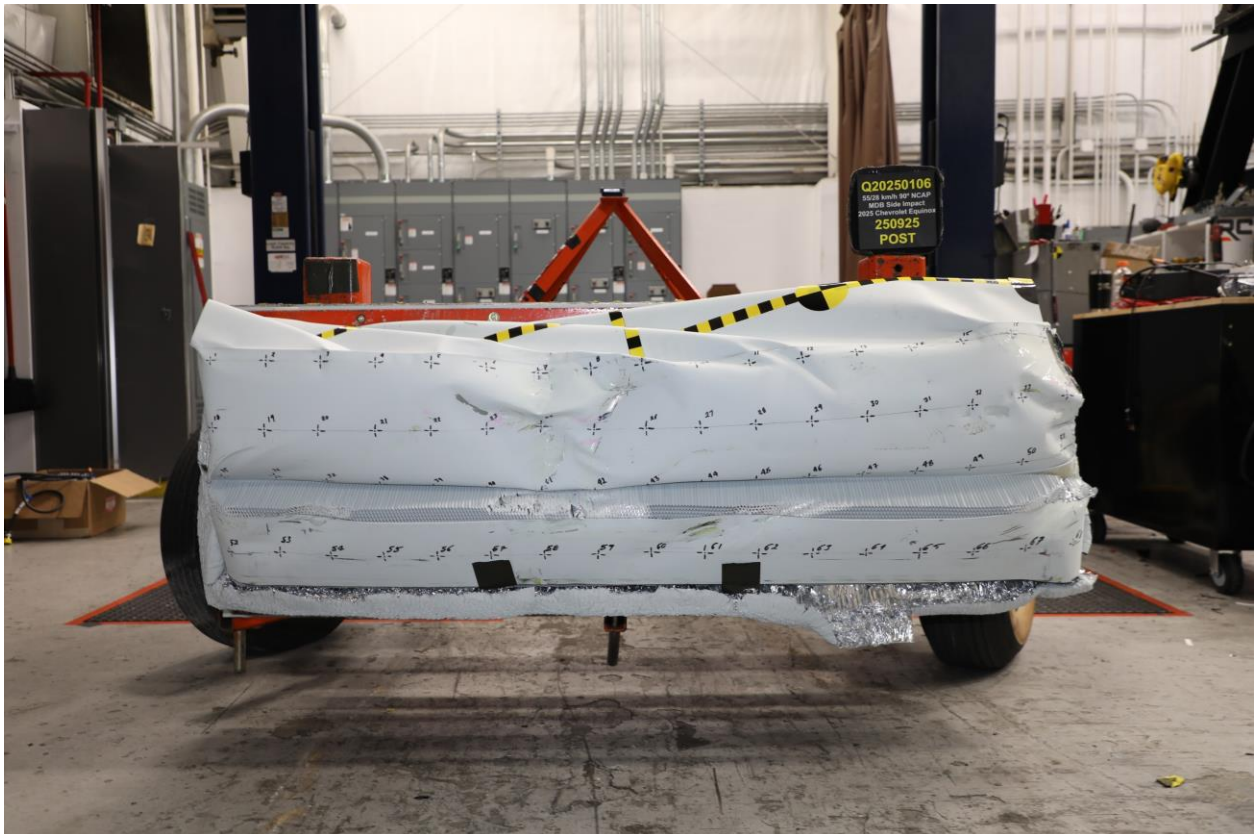
082 Pre-Test View of Fuel Filler Cap or Fuel Filler Neck



083 Post-Test View of Fuel Filler Cap or Fuel Filler Neck



084 Pre-Test Front View of MDB Impactor Face



085 Post-Test Front View of MDB Impactor Face



086 Pre-Test Top View of MDB Impactor Face



087 Post-Test Top View of MDB Impactor Face



088 Pre-Test Left Side View of MDB Impactor Face



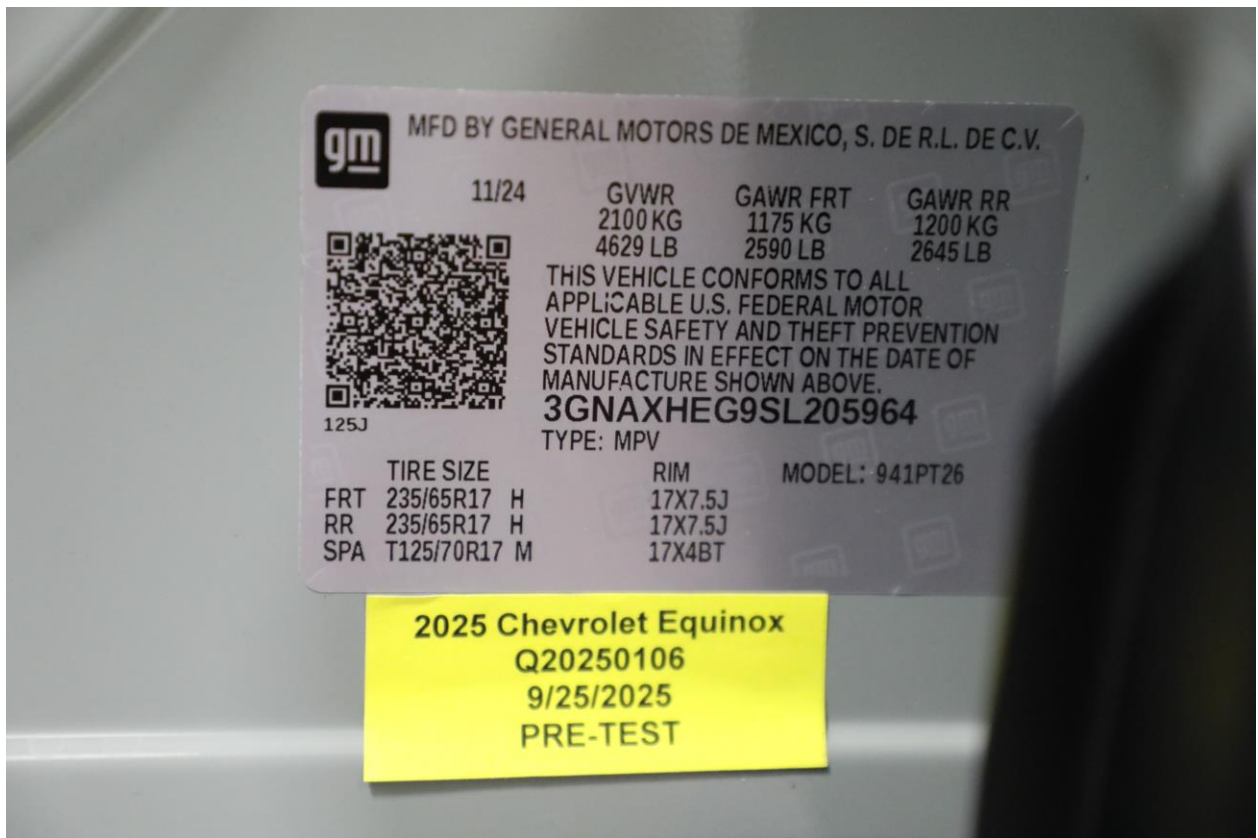
089 Post-Test Left Side View of MDB Impactor Face



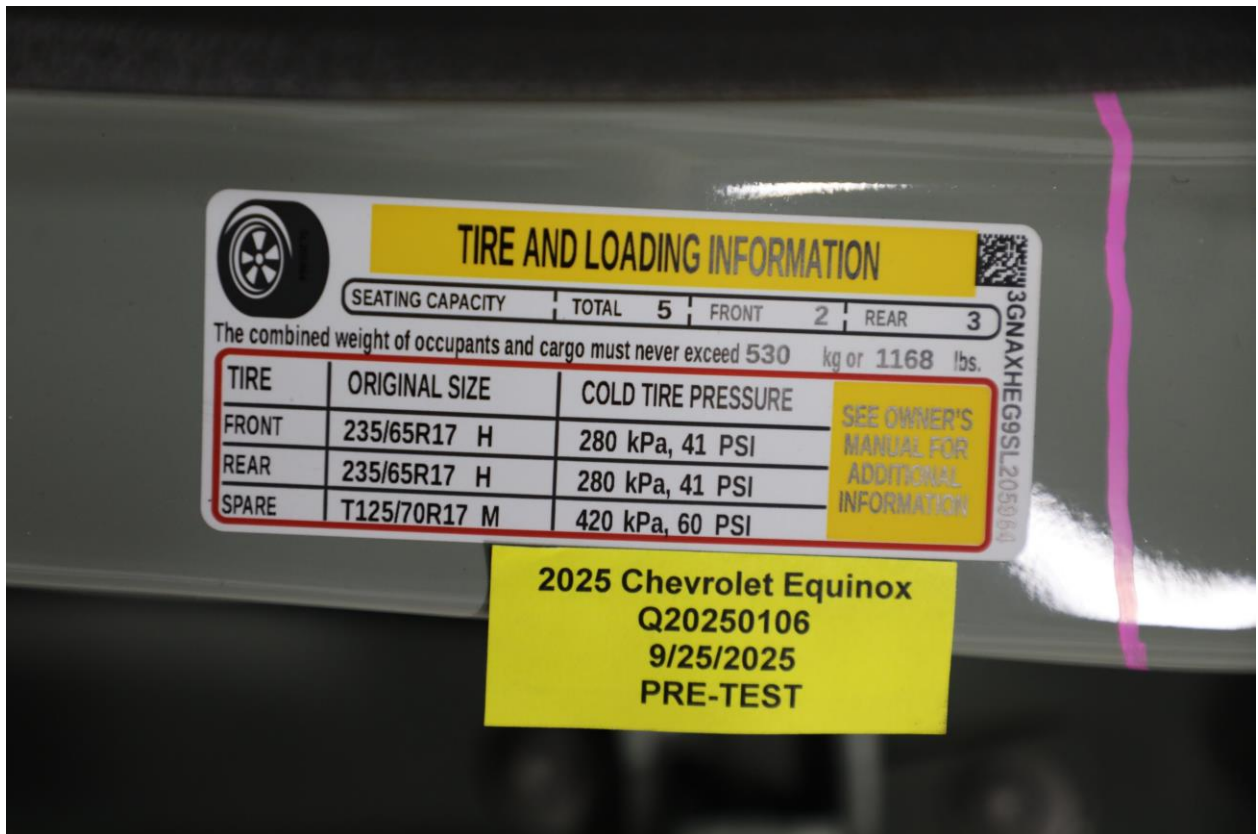
090 Pre-Test Right Side View of MDB Impactor Face



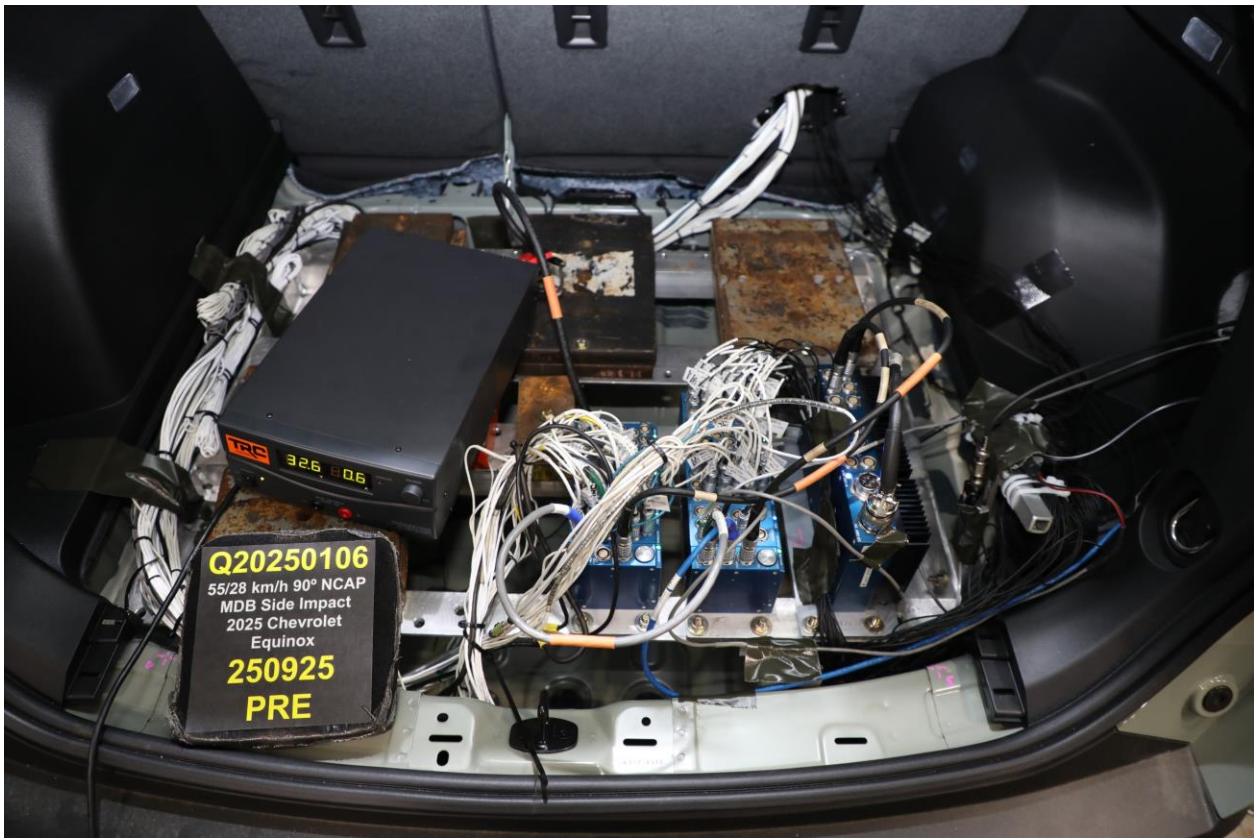
091 Post-Test Right Side View of MDB Impactor Face



092 Close-Up View of Vehicle's Certification Label



093 Close-Up View of Vehicle's Tire Information Placard or Label



094 Pre-Test Ballast View



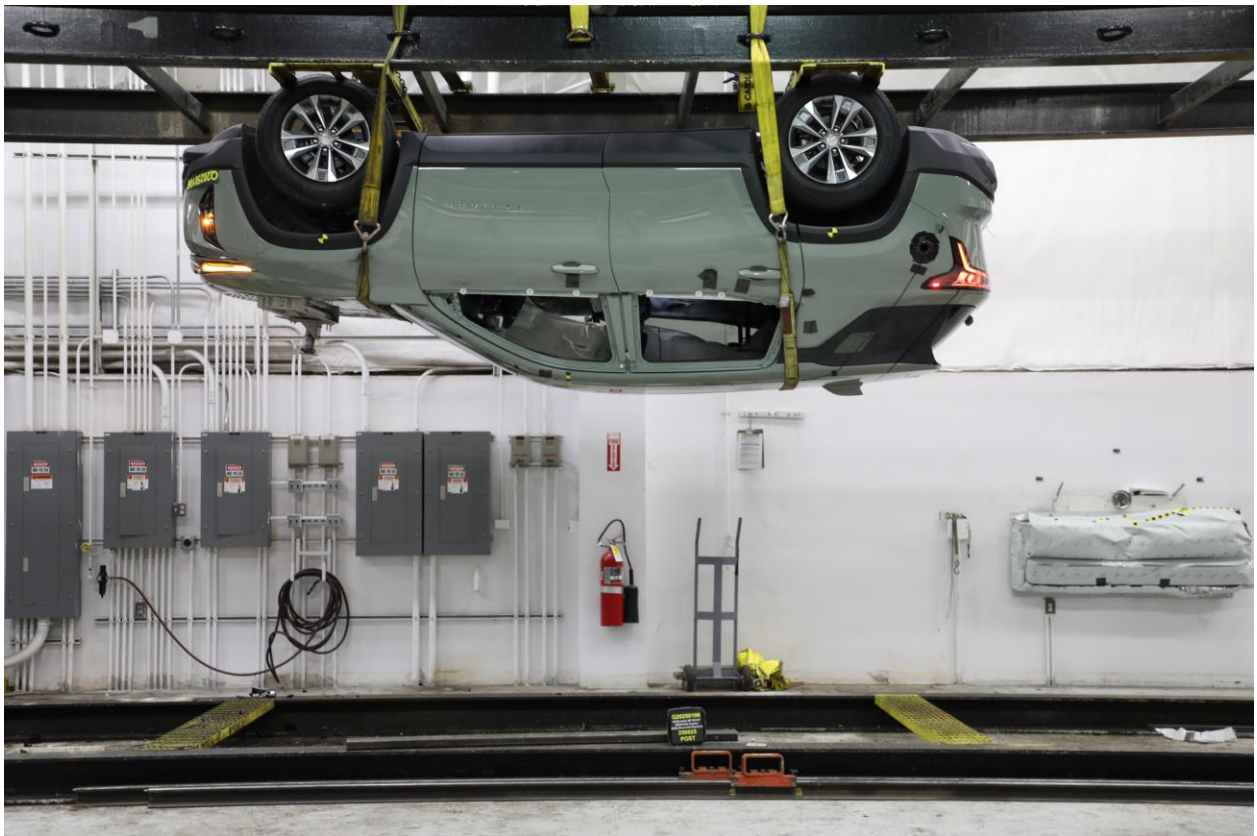
095 No. Post-Test Primary and Redundant Speed Trap Read-Out



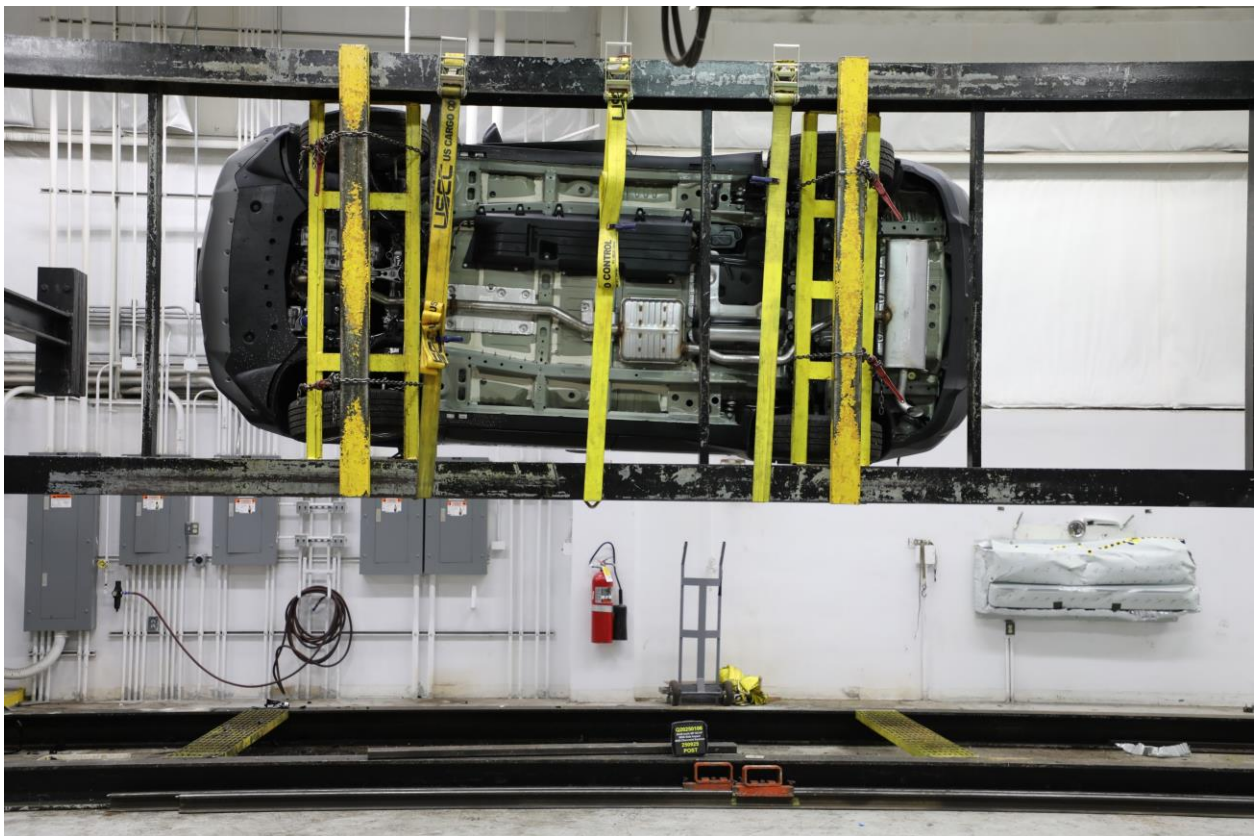
096 FMVSS No. 301 Static Rollover 0 Degrees



097 FMVSS No. 301 Static Rollover 90 Degrees



098 FMVSS No. 301 Static Rollover 180 Degrees



099 FMVSS No. 301 Static Rollover 270 Degrees



100 FMVSS No. 301 Static Rollover 360 Degrees



101 Impact Event



2025 EQUINOX LT FWD

EXTERIOR: CACTI GREEN
INTERIOR: BLACK

1.5L TURBO DMC ENGINE
CONTINUOUSLY VARIABLE TRANS

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STANDARD EQUIPMENT TIME FEATURES BELOW ARE INCLUDED AT NO EXTRA CHARGE IN THE STANDARD VEHICLE PRICE SHOWN. OWNER BENEFITS • 3 YEAR/36,000 MILE* BUMPER-TO-BUMPER LIMITED WARRANTY • 5 YEAR/60,000 MILE* POWERTRAIN LIMITED WARRANTY, ROADSIDE ASSISTANCE & COURTESY TRANSPORTATION • FIRST MAINTENANCE VISIT *WHICHEVER COMES FIRST SEE CHEVROLET.COM OR DEALER FOR TERMS, DETAILS & LIMITS PERFORMANCE & MECHANICAL • 17" GRAZEN METALLIC MACHINED-FACE ALUMINUM WHEELS • 17" STEEL SPARE WHEEL CONNECTIVITY & TECHNOLOGY • 8 YEARS ONSTAR BASICS SEE ONSTAR.COM FOR TERMS	• 11.3" DIAGONAL LCD DISPLAY WITH GOOGLE BUILT-IN WITH WIRELESS APPLE CARPLAY AND ANDROID AUTO FOR COMPATIBLE PHONES • 11" DIAGONAL DRIVER INFORMATION CENTER • SIRIUSXM AUDIO W/TRIAL SEE SIRIUSXM.COM/TERMS • KEYLESS OPEN AND START • REMOTE START • ACTIVE NOISE CANCELLATION INTERIOR • HEATED FRONT BUCKET SEATS • 6-WAY MANUAL DRIVER SEAT ADJUSTER • HEATED STEERING WHEEL • USB PORTS • EXPRESS UP/DOWN DRIVER WINDOW, ALL EXPRESS DOWN • PASS-THROUGH CONSOLE • ILLUMINATED VISOR VANITY	MIRRORS EXTERIOR • OUTSIDE HEATED MIRRORS • LED HEADLAMPS • LED TAIL LAMPS • REAR DEEP-TINTED WINDOWS SAFETY & SECURITY • ENHANCED AUTOMATIC EMERGENCY BRAKING • FRONT PEDESTRIAN AND BICYCLIST BRAKING • ENHANCED LANE KEEP ASSIST WITH LANE DEPARTURE WARNING • FOLLOWING DISTANCE INDICATOR • FORWARD COLLISION ALERT • INTELLIBEAM, AUTO HIGH BEAM • INTERSECTION AUTOMATIC EMERGENCY BRAKING • REAR CROSS TRAFFIC BRAKING • REVERSE AUTOMATIC BRAKING • REAR PARK ASSIST • BLIND ZONE STEERING ASSIST	• SAFETY ALERT SEAT • HD REAR VISION CAMERA • ADAPTIVE CRUISE CONTROL MANUFACTURER'S SUGGESTED RETAIL PRICE <table><tr><td>STANDARD VEHICLE PRICE</td><td>\$28,600.00</td></tr></table> OPTIONS & PRICING OPTIONS INSTALLED BY THE MANUFACTURER (MAY REPLACE STANDARD EQUIPMENT SHOWN) <table><tr><td>TOTAL OPTIONS</td><td>\$0.00</td></tr><tr><td>TOTAL VEHICLE & OPTIONS</td><td>\$28,600.00</td></tr><tr><td>DESTINATION CHARGE</td><td>1,395.00</td></tr><tr><td>TOTAL VEHICLE PRICE*</td><td>\$29,995.00</td></tr></table>	STANDARD VEHICLE PRICE	\$28,600.00	TOTAL OPTIONS	\$0.00	TOTAL VEHICLE & OPTIONS	\$28,600.00	DESTINATION CHARGE	1,395.00	TOTAL VEHICLE PRICE*	\$29,995.00
STANDARD VEHICLE PRICE	\$28,600.00												
TOTAL OPTIONS	\$0.00												
TOTAL VEHICLE & OPTIONS	\$28,600.00												
DESTINATION CHARGE	1,395.00												
TOTAL VEHICLE PRICE*	\$29,995.00												

EPA DOT Fuel Economy and Environment

Fuel Economy

27 MPG combined city/hwy	26 city	28 highway
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3.7 gallons per 100 miles

Annual fuel cost \$1,950

Fuel Economy & Greenhouse Gas Rating (passenger only)

1	5	10
---	---	----

This vehicle emits 322 grams CO₂ per mile. The best emits 0 grams per mile (passenger only). Producing and distributing fuel also creates emissions. Learn more at fuelconomy.gov.

Smog Rating (passenger only)

1	6	10
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Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 28 MPG and costs \$9,500 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at \$3.50 per gallon. MPG is miles per gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.

fuelconomy.gov

Calculate personalized estimates and compare vehicles

GOVERNMENT 5-STAR SAFETY RATINGS

This vehicle has not been rated by the government for overall vehicle score, frontal crash, side crash or rollover risk.

Source: National Highway Traffic Safety Administration (NHTSA) www.safercar.gov or 1-888-327-4236

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onstar.com/chevrolet

PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE: U.S./CANADIAN PARTS CONTENT: 15% MAJOR SOURCES OF FOREIGN PARTS CONTENT: MEXICO 49%

NOTE: PARTS CONTENT DOES NOT INCLUDE FINAL ASSEMBLY, DISTRIBUTION, OR OTHER NON-PARTS COSTS.

FOR THIS VEHICLE: FINAL ASSEMBLY POINT: SAN LUIS POTOSI, MEXICO COUNTRY OF ORIGIN: ENGINE: MEXICO TRANSMISSION: MEXICO

ORDER NO. EXTERNAL SALES CODE E SALES MODEL CODE IPT26 PRODUCTION NO. 10000 VIN: 3GNA3HEG0SL205064 VIN 3GNA3HEG0SL205064

DEALER TO WHOM DELIVERED SPORT CHEVROLET COMPANY, LLC 3101 AUTOMOBILE BLVD SILVER SPRING, MD 20904-4999

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AM 1GA2819928

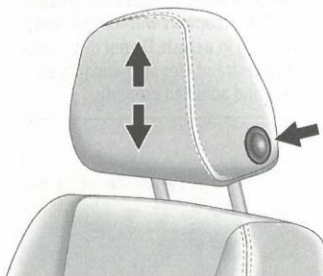
102 Monroney Label

12 Seats and Restraints

Adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head. This position reduces the chance of a neck injury in a crash.

Front Seats

The vehicle's front seats have adjustable head restraints in the outboard seating positions.



The height of the head restraint can be adjusted.

To raise or lower the head restraint, press the button located on the side of the head restraint and pull up or push the head restraint down, and release the button. Pull and push on the head restraint after the button is released to make sure that it is locked in place.

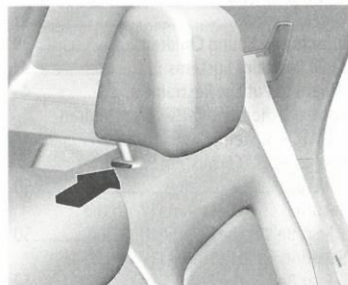
The front seat outboard head restraints are not removable.

Rear Seats

Adjusting the Rear Head Restraint

The vehicle's rear seats have adjustable head restraints in the outboard seating positions.

The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.



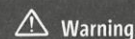
To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

Always adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head.

Rear outboard head restraints are not removable.

Front Seats

Seat Adjustment



Warning

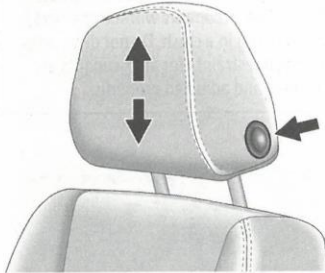
You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.

103 Driver Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

Adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head. This position reduces the chance of a neck injury in a crash.

Front Seats

The vehicle's front seats have adjustable head restraints in the outboard seating positions.



The height of the head restraint can be adjusted.

To raise or lower the head restraint, press the button located on the side of the head restraint and pull up or push the head restraint down, and release the button. Pull and push on the head restraint after the button is released to make sure that it is locked in place.

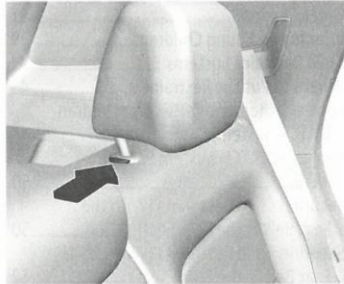
The front seat outboard head restraints are not removable.

Rear Seats

Adjusting the Rear Head Restraint

The vehicle's rear seats have adjustable head restraints in the outboard seating positions.

The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.



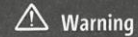
To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

Always adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head.

Rear outboard head restraints are not removable.

Front Seats

Seat Adjustment



Warning

You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.

104 Left Rear Passenger Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

APPENDIX B
VEHICLE AND DUMMY RESPONSE DATA PLOTS

TABLE OF DATA PLOTS

Driver & Passenger Dummy Instrumentation Plots

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2	Driver Head Acceleration (Y) Primary vs. Time	B-5
3	Driver Head Acceleration (Z) Primary vs. Time	B-5
4	Driver Head Resultant Acceleration Primary vs. Time	B-5
5	Driver Upper Thorax Rib Deflection (Y) vs. Time	B-6
6	Driver Middle Thorax Rib Deflection (Y) vs. Time	B-6
7	Driver Lower Thorax Rib Deflection (Y) vs. Time	B-6
8	Driver Thorax Rib Deflection Maximum vs. Time	B-6
9	Driver Anterior Abdominal Force (Y) vs. Time	B-7
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11	Driver Posterior Abdominal Force (Y) vs. Time	B-7
12	Driver Total Abdominal Force (Y) vs. Time	B-7
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14	Passenger Head Acceleration (X) Primary vs. Time	B-9
15	Passenger Head Acceleration (Y) Primary vs. Time	B-9
16	Passenger Head Acceleration (Z) Primary vs. Time	B-9
17	Passenger Head Resultant Acceleration Primary vs. Time	B-9
18	Passenger Lower Spine T12 Acceleration (X) vs. Time	B-10
19	Passenger Lower Spine T12 Acceleration (Y) vs. Time	B-10
20	Passenger Lower Spine T12 Acceleration (Z) vs. Time	B-10
21	Passenger Lower Spine T12 Resultant Acceleration vs. Time	B-10
22	Passenger Iliac Force on Impact Side (Y) vs. Time	B-11
23	Passenger Acetabulum Force on Impact Side (Y) vs. Time	B-11
24	Passenger Total Pelvic Force on Impact Side (Y) vs. Time	B-11

The following additional data can be obtained from the Research and Development section of the NHTSA website (www.nhtsa.gov)

Additional Driver & Passenger Dummy Instrumentation Data

Driver Lower Spine T12 Acceleration (X)
Driver Lower Spine T12 Acceleration (Y)
Driver Lower Spine T12 Acceleration (Z)
Passenger Upper Thorax Rib Deflection (Y)
Passenger Middle Thorax Rib Deflection (Y)
Passenger Lower Thorax Rib Deflection (Y)
Passenger Upper Abdomen Rib Deflection (Y)
Passenger Lower Abdomen Rib Deflection (Y)
Driver Head Acceleration Redundant (X)
Driver Head Acceleration Redundant (Y)
Driver Head Acceleration Redundant (Z)
Passenger Head Acceleration Redundant (X)
Passenger Head Acceleration Redundant (Y)
Passenger Head Acceleration Redundant (Z)
Passenger Head Angular Velocity (X)
Passenger Head Angular Velocity (Y)
Passenger Head Angular Velocity (Z)

Vehicle Instrumentation Data

Vehicle Center of Gravity Acceleration (X)
Vehicle Center of Gravity Acceleration (Y)
Vehicle Center of Gravity Acceleration (Z)
Right Side Sill at Front Seat Acceleration (X)
Right Side Sill at Front Seat Acceleration (Y)
Right Side Sill at Front Seat Acceleration (Z)
Right Side Sill at Rear Seat Acceleration (X)
Right Side Sill at Rear Seat Acceleration (Y)
Right Side Sill at Rear Seat Acceleration (Z)
Left Side Sill at Front Seat Acceleration (Y)
Left Side Sill at Rear Seat Acceleration (Y)
Lower A-Post Acceleration (Y)
Middle A-Post Acceleration (Y)
Lower B-Post Acceleration (Y)
Middle B-Post Acceleration (Y)
Front Seat Track Acceleration (Y)
Rear Seat Structure Acceleration (Y)
Right Rear Occupant Compartment Acceleration (Y)
Engine Block (X)
Engine Block (Y)
Rear Floorpan Above Axle Acceleration (X)
Rear Floorpan Above Axle Acceleration (Y)
Rear Floorpan Above Axle Acceleration (Z)

MDB Instrumentation Data

MDB Center of Gravity Acceleration (X)
MDB Center of Gravity Acceleration (Y)
MDB Center of Gravity Acceleration (Z)
MDB Rear Acceleration (X)
MDB Rear Acceleration (Y)
Left MDB Contact Switch
Right MDB Contact Switch

NHTSA

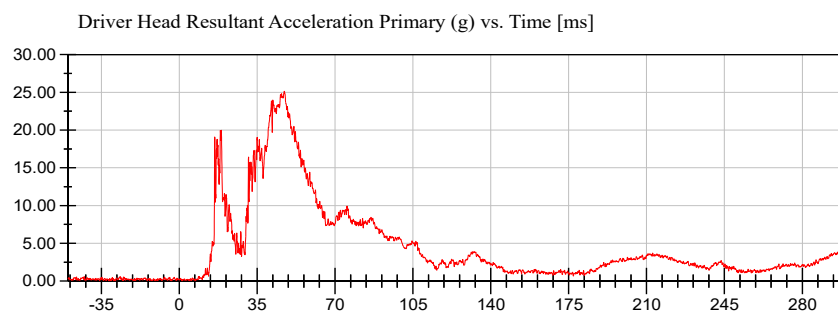
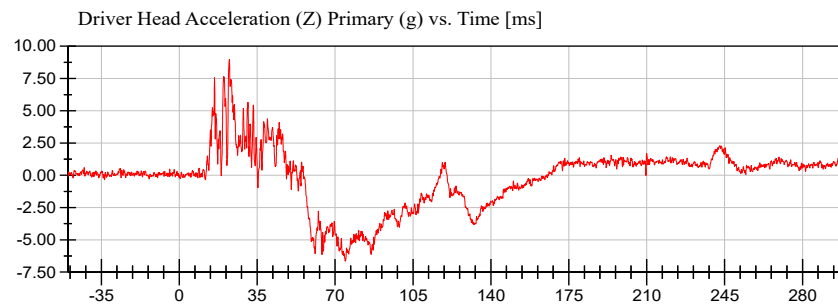
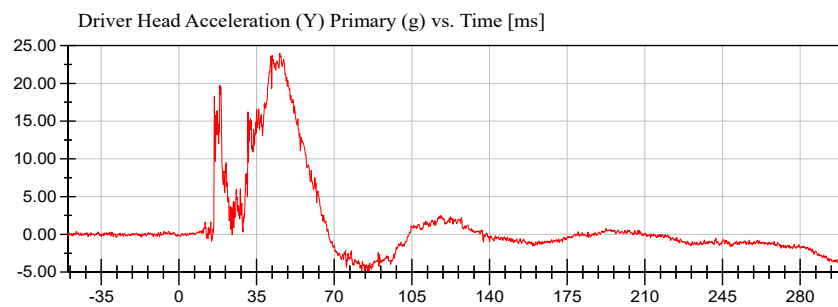
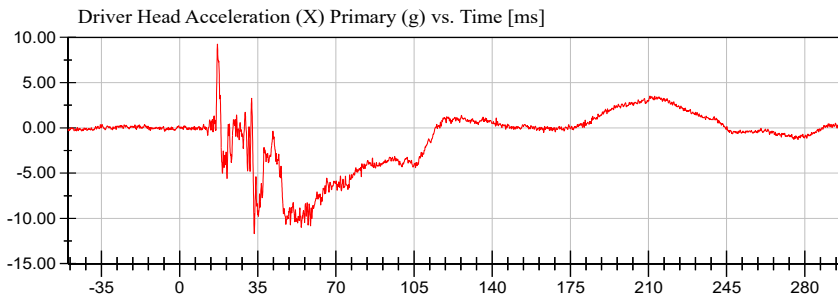
Test Lab: CTF

Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



NHTSA

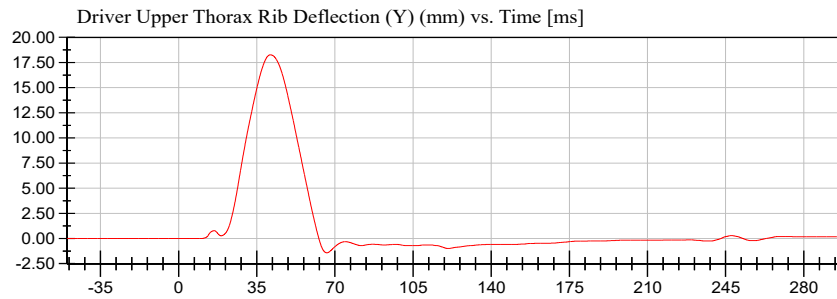
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Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



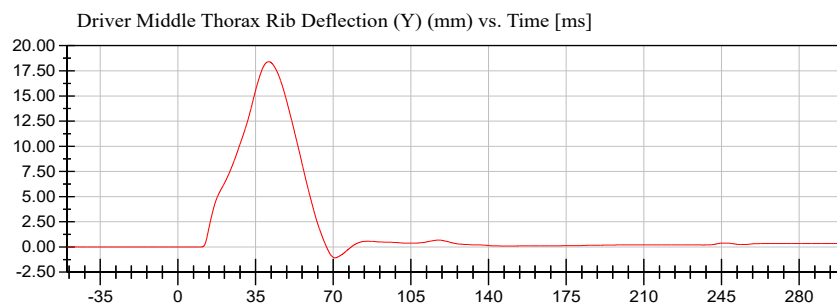
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18.27 mm at 41.15 ms

<Min>

-1.42 mm at 66.40 ms

CFC_180



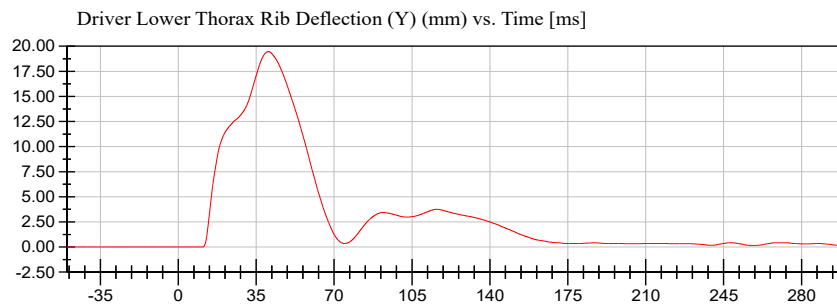
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18.40 mm at 40.95 ms

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-1.09 mm at 70.80 ms

CFC_180



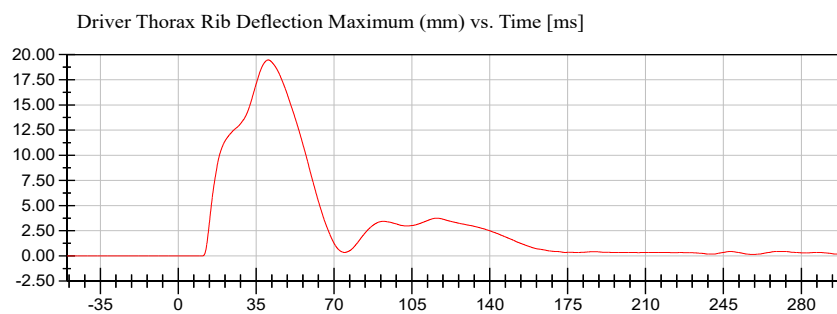
<Max>

19.47 mm at 40.45 ms

<Min>

0.00 mm at 10.70 ms

CFC_180



<Max>

19.47 mm at 40.45 ms

<Min>

0.00 mm at 10.70 ms

CFC_180



NHTSA

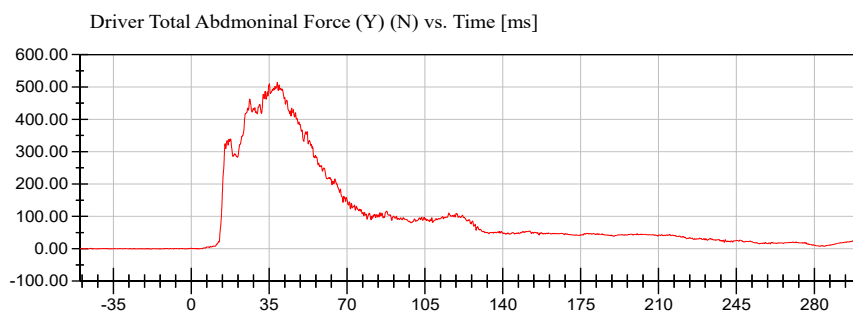
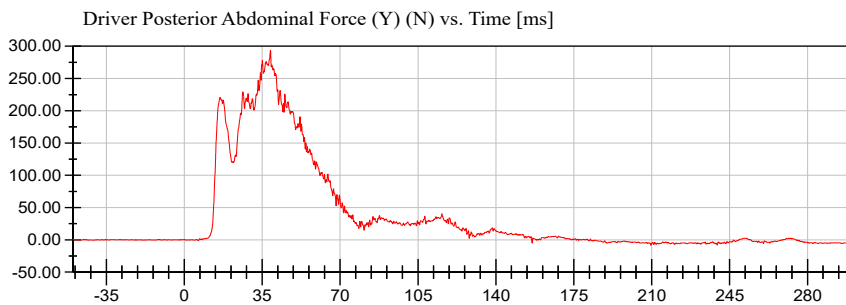
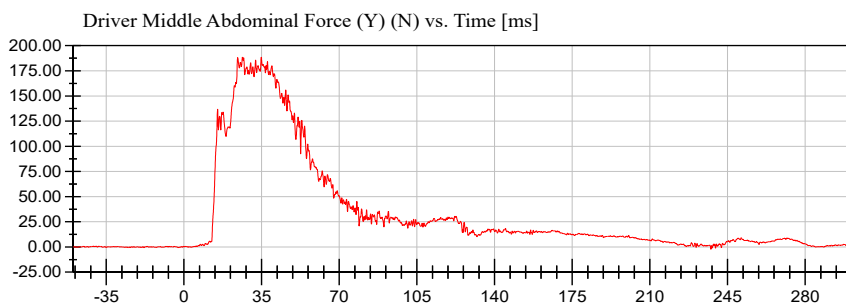
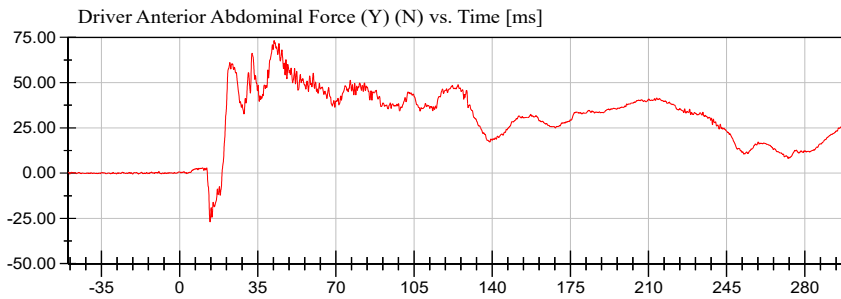
Test Lab: CTF

Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



TRC

NHTSA

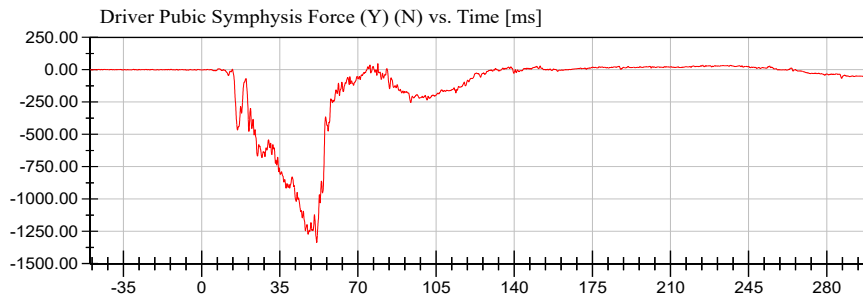
Test Lab: CTF

Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



<Max>

45.91 N at 78.90 ms

<Min>

-1,336.41 N at 51.55 ms

CFC_600

TRC

NHTSA

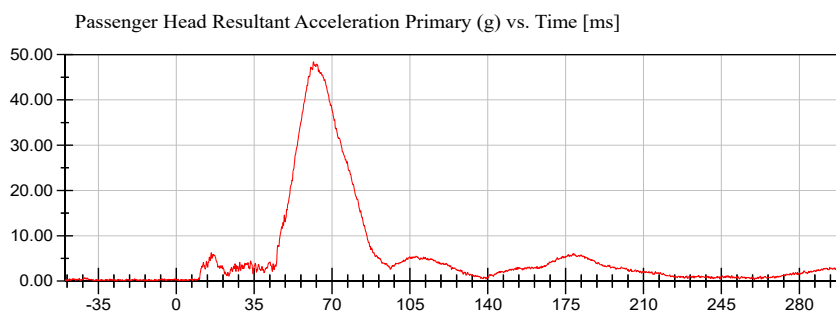
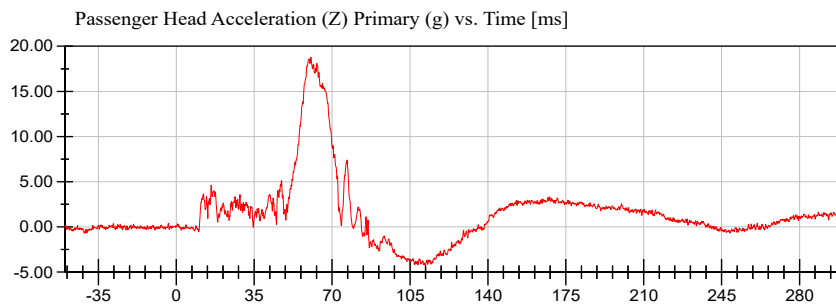
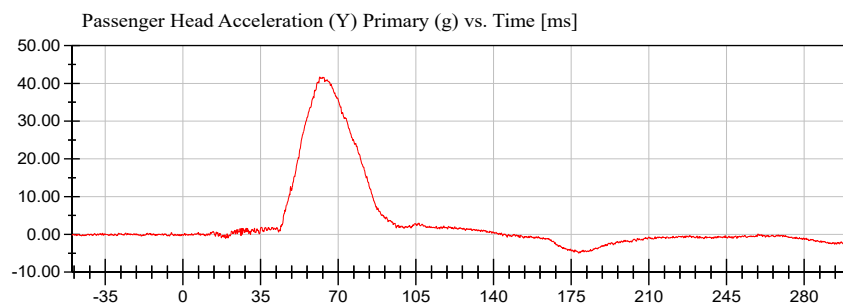
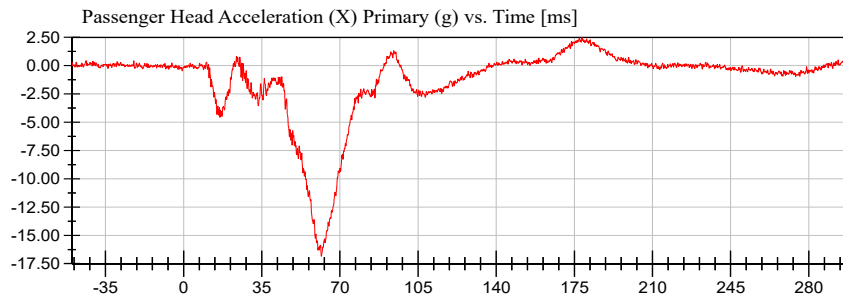
Test Lab: CTF

Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



NHTSA

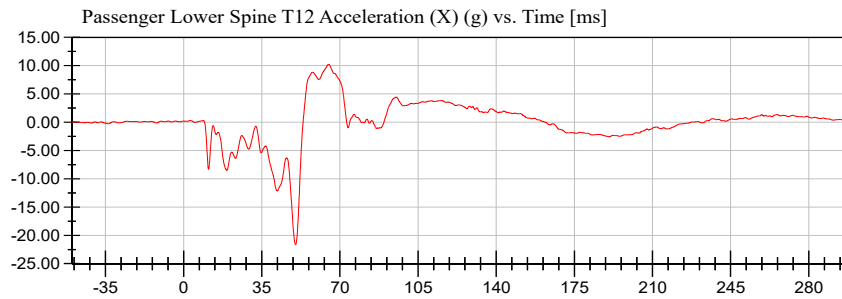
Test Lab: CTF

Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



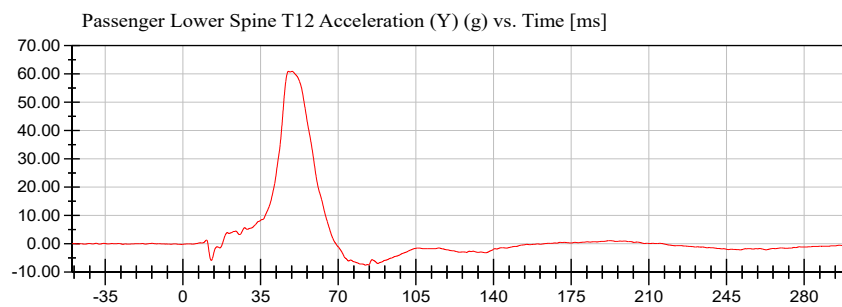
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10.23 g at 64.95 ms

<Min>

-21.64 g at 50.15 ms

CFC_180



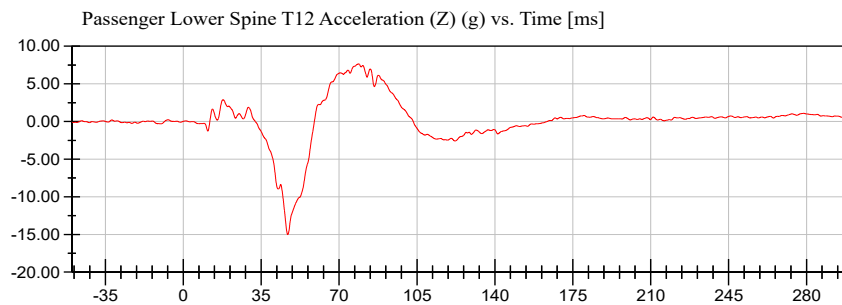
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60.91 g at 49.30 ms

<Min>

-7.55 g at 82.25 ms

CFC_180



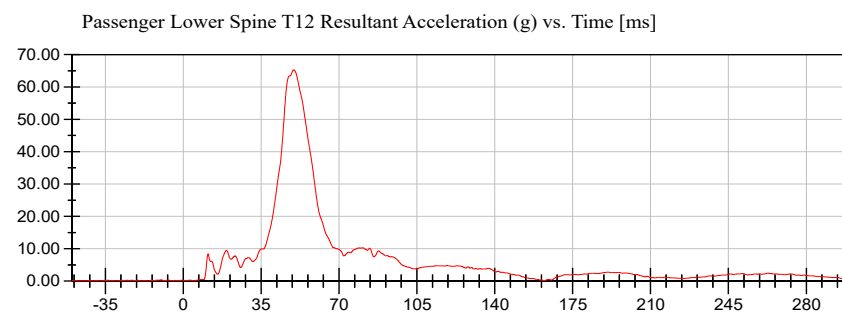
<Max>

7.65 g at 78.85 ms

<Min>

-15.01 g at 46.95 ms

CFC_180



<Max>

65.30 g at 49.65 ms

<Min>

0.03 g at -46.70 ms

CFC_180



NHTSA

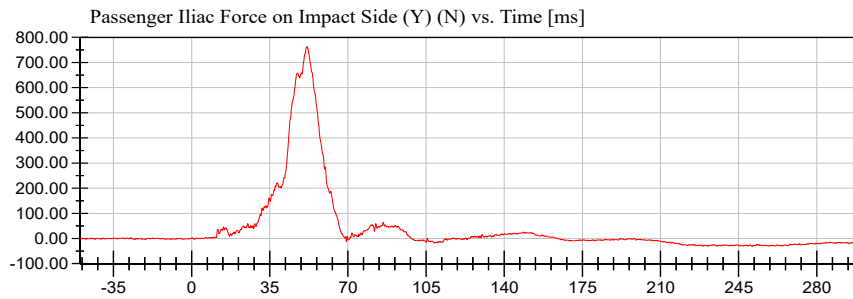
Test Lab: CTF

Test Number: 250925 (Q20250106)

Test Date: 09/25/2025

Position #1 ES-2 Dummy with Rib Extension (F030)

Position #4 SID IIs Dummy (DQ0570)



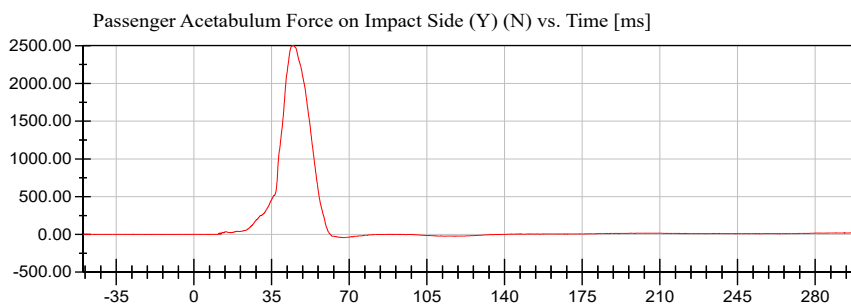
<Max>

763.18 N at 51.65 ms

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-30.83 N at 251.15 ms

CFC_600



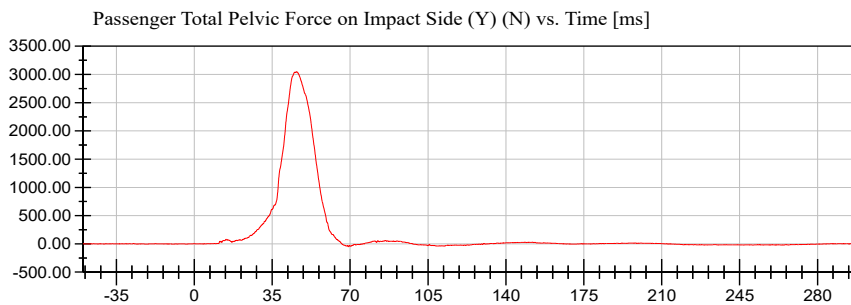
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2,500.03 N at 44.70 ms

<Min>

-42.70 N at 68.20 ms

CFC_600



<Max>

3,048.98 N at 46.00 ms

<Min>

-49.76 N at 69.30 ms

CFC_600

TRC

APPENDIX C
DUMMY PERFORMANCE CALIBRATION TEST DATA

TABLE OF CALIBRATION MEASUREMENTS AND PLOTS

ES-2re (Driver) Dummy

Description

Table 1. External Measurements

Table 2. Head Drop Test

Head (X) Acceleration (G's) vs. Time (ms)
Head (Y) Acceleration (G's) vs. Time (ms)
Head (Z) Acceleration (G's) vs. Time (ms)
Resultant Head Acceleration (G's) vs. Time (ms)

Table 3 Neck Pendulum Test

Pendulum Velocity (m/s) vs. Time (ms)
Flexion Angle (°) vs. Time (ms)
Potentiometer A (°) vs. Time (ms)
Potentiometer B (°) vs. Time (ms)
Potentiometer C (°) vs. Time (ms)

Table 4. Shoulder Impact Test

Impactor Acceleration (G's) vs. Time (ms)

Table 5. Thorax – Upper Rib Drop Test

Upper Rib Displacement @ 459 mm Drop Height (mm) vs. Time (ms)
Upper Rib Displacement @ 815 mm Drop Height (mm) vs. Time (ms)

Table 6. Thorax – Middle Rib Drop Test

Middle Rib Displacement @ 459 mm Drop Height (mm) vs. Time (ms)
Middle Rib Displacement @ 815 mm Drop Height (mm) vs. Time (ms)

Table 7. Thorax – Lower Rib Drop Test

Lower Rib Displacement @ 459 mm Drop Height (mm) vs. Time (ms)
Lower Rib Displacement @ 815 mm Drop Height (mm) vs. Time (ms)

Table 8. Thorax – Full Body Impact Test

Pendulum Acceleration (G's) vs. Time (ms)
Impactor Force (kN) vs. Time (ms)
Upper Rib Displacement (mm) vs. Time (ms)
Middle Rib Displacement (mm) vs. Time (ms)
Lower Rib Displacement (mm) vs. Time (ms)

Table 9. Abdomen Impact Test

Impactor Force (kN) vs. Time (ms)
Front Abdomen Force (kN) vs. Time (ms)
Middle Abdomen Force (kN) vs. Time (ms)
Rear Abdomen Force (kN) vs. Time (ms)
Total Abdomen Force (kN) vs. Time (ms)

Table 10. Lumbar Spine Flexion Test

Pendulum Velocity (m/s) vs. Time (ms)
Spine Flexion Angle (°) vs. Time (ms)
Potentiometer A (°) vs. Time (ms)
Potentiometer B (°) vs. Time (ms)
Potentiometer C (°) vs. Time (ms)

Table 11. Pelvis Impact Test

Pendulum Acceleration (G's) vs. Time (ms)
Impactor Force (kN) vs. Time (ms)
Pubic Symphysis (Y) Force (kN) vs. Time (ms)

TABLE OF CALIBRATION MEASUREMENTS AND PLOTS

SID-IIs (Rear Passenger) Dummy

Description

Table 1. External Measurements

Table 2. Head Drop Test

Head (X) Acceleration (G's) vs. Time (ms)
Head (Y) Acceleration (G's) vs. Time (ms)
Head (Z) Acceleration (G's) vs. Time (ms)
Resultant Head Acceleration (G's) vs. Time (ms)

Table 3. Lateral Neck Pendulum Test

Pendulum Velocity (m/s) vs. Time (ms)
Flexion Angle (°) vs. Time (ms)
Moment About Occipital Condyle (Nm) vs. Time (ms)

Table 4. Shoulder Impact Test

Impactor Acceleration (G's) vs. Time (ms)
Shoulder Displacement (mm) vs. Time (ms)
Upper Spine Acceleration (G's) vs. Time (ms)

Table 5. Thorax (With Arm) Impact Test

Impactor Acceleration (G's) vs. Time (ms)
Shoulder Displacement (mm) vs. Time (ms)
Upper Rib Displacement (mm) vs. Time (ms)
Middle Rib Displacement (mm) vs. Time (ms)
Lower Rib Displacement (mm) vs. Time (ms)
Upper Spine Acceleration (G's) vs. Time (ms)
Lower Spine Acceleration (G's) vs. Time (ms)

Table 6. Thorax (Without Arm) Impact Test

Impactor Acceleration (G's) vs. Time (ms)
Upper Rib Displacement (mm) vs. Time (ms)
Middle Rib Displacement (mm) vs. Time (ms)
Lower Rib Displacement (mm) vs. Time (ms)
Upper Spine Acceleration (G's) vs. Time (ms)
Lower Spine Acceleration (G's) vs. Time (ms)

Table 7. Abdomen Impact Test

Impactor Acceleration (G's) vs. Time (ms)
Upper Abdominal Rib Displacement (mm) vs. Time (ms)
Lower Abdominal Rib Displacement (mm) vs. Time (ms)
Lower Spine Acceleration (G's) vs. Time (ms)

Table 8. Pelvis Plug Quasi-Static Test (Optional*)

Table 9. Pelvis Acetabulum Impact Test

Impactor Acceleration (G's) vs. Time (ms)
Pelvis (Y) Acceleration (G's) vs. Time (ms)
Acetabulum Force (N) vs. Time (ms)

Table 10. Pelvis Iliac Impact Test

Impactor Acceleration (G's) vs. Time (ms)
Pelvis (Y) Acceleration (G's) vs. Time (ms)
Iliac Force (N) vs. Time (ms)

Pre-Test Calibration Sheets
Driver S/N F030

Transportation Research Center Inc.
572U ES-2re Dummy
External Dimensions
Serial No. F030 Calibration No. 108

Symbol	Description	Specification	Results	Pass
		mm	mm	
1	Sitting Height	900.0 - 918.0	909	Yes
2	Seat to Shoulder Joint	558.0 - 572.0	560	Yes
3	Seat to Lower Face of Thoracic Spine Box	346.0 - 356.0	347	Yes
4	Seat to Hip Joint (center of bolt)	97.0 - 103.0	98	Yes
5	Sole to Seat, Sitting	433.0 - 451.0	443	Yes
6	Head Width	152.0 - 158.0	154	Yes
7	Shoulder/Arm Width	461.0 - 479.0	475	Yes
8	Thorax Width	322.0 - 332.0	328	Yes
9	Abdomen Width	273.0 - 287.0	279	Yes
10	Pelvis Lap Width	359.0 - 373.0	366	Yes
11	Head Depth	196.0 - 206.0	201	Yes
12	Thorax Depth	262.0 - 272.0	262	Yes
13	Abdomen Depth	194.0 - 204.0	199	Yes
14	Pelvis Depth	235.0 - 245.0	242	Yes
15	Back of Buttocks to Hip Joint (center of bolt)	150.0 - 160.0	156	Yes
16	Back of Buttocks to Front of Knee	597.0 - 615.0	605	Yes



Baseline 10/07/05

Transportation Research Center Inc.

Left Lateral Head Drop

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Peak Resultant Acceleration	125 - 155 g	137.1 g	Yes
Peak Longitudinal Acceleration	(-15) - 15 g	8.0 g	Yes
Is Resultant Acceleration Curve Unimodal within 15% of Main Pulse?	< 15 %	3.52 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: DP6812

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 08:53:35 362

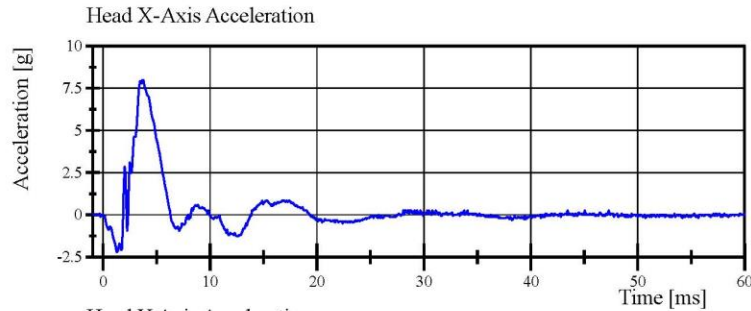


Transportation Research Center Inc.

Left Lateral Head Drop

ES-2re Serial No. F030 Certification No. 108-1

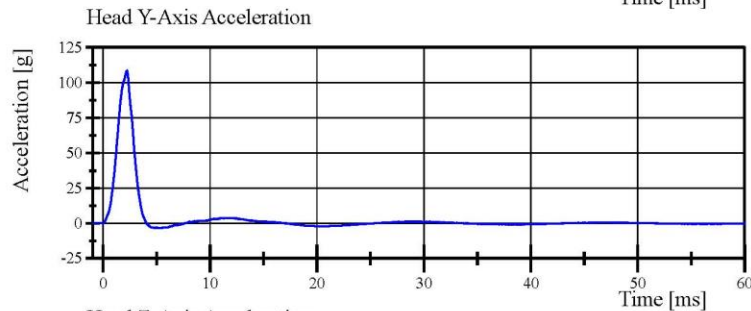
Test Date: 9/9/2025



Filter Class: CFC_1000

Max: 8.0 g at 3.7 ms

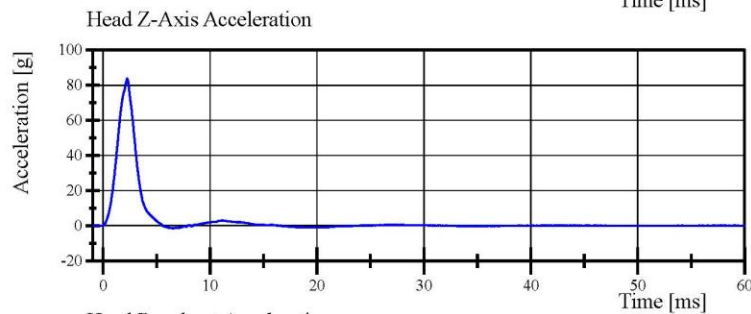
Min: -2.2 g at 1.3 ms



Filter Class: CFC_1000

Max: 108.6 g at 2.2 ms

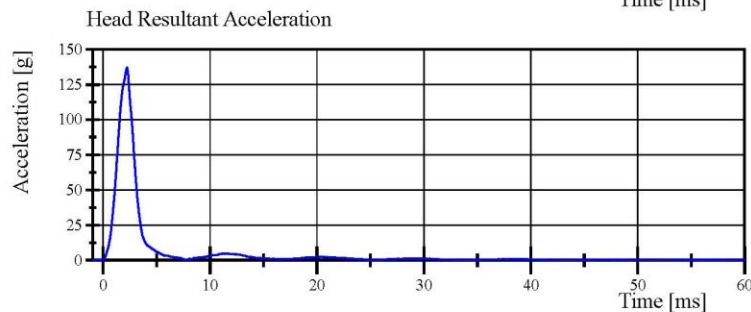
Min: -3.4 g at 5.2 ms



Filter Class: CFC_1000

Max: 83.8 g at 2.2 ms

Min: -1.4 g at 6.5 ms



Filter Class: CFC_1000

Max: 137.1 g at 2.2 ms

Min: 0.0 g at -0.4 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 08:54:23 362



Transportation Research Center Inc.

Left Lateral Neck

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	39 %	Yes
Pendulum Integrated Velocity Change within Corridor	Yes	Yes	Yes
Pendulum Velocity	(-3.3) - (-3.5) m/s	-3.38 m/s	Yes
Maximum Headform Flexion			
Peak	(-49) - (-59) deg	-51.2 deg	Yes
Time of Peak	54 - 66 ms	55.9 ms	Yes
Headform Flexion Decay			
- Peak to Zero	53 - 88 ms	56.5 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 05053

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 09:52:16 1492

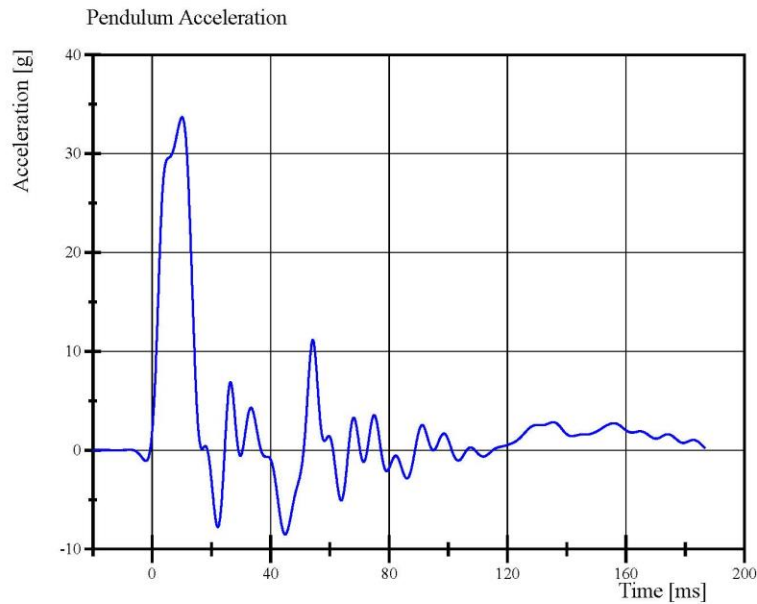


Transportation Research Center Inc.

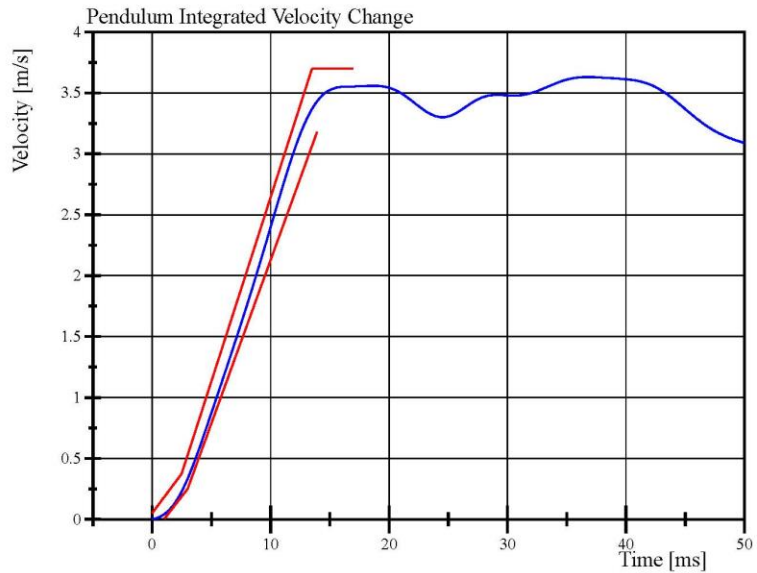
Left Lateral Neck

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025



Filter Class: CFC_60
Max: 33.7 g at 10.1 ms
Min: -8.5 g at 45.0 ms



Filter Class: CFC_60
Max: 3.6 m/s at 36.8 ms
Min: 0.0 m/s at 0.0 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 09:52:56 1492

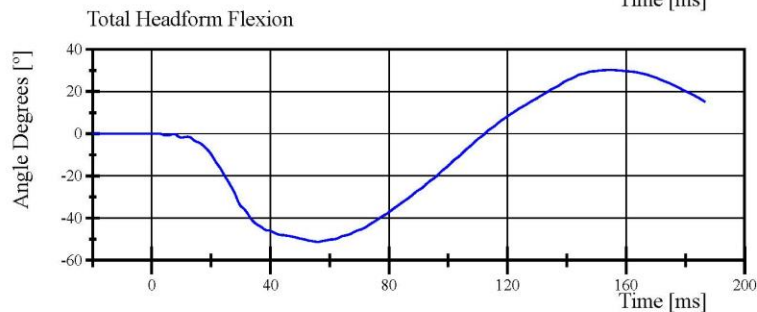
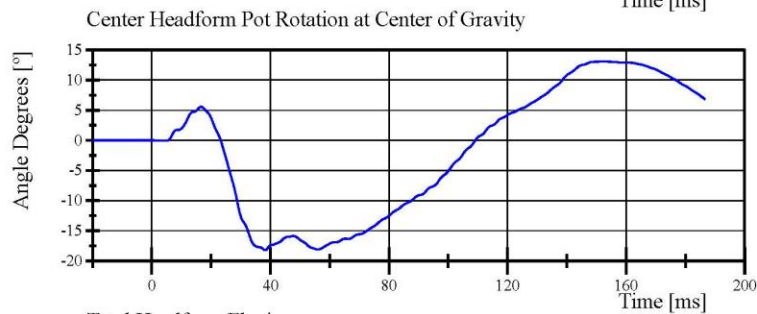
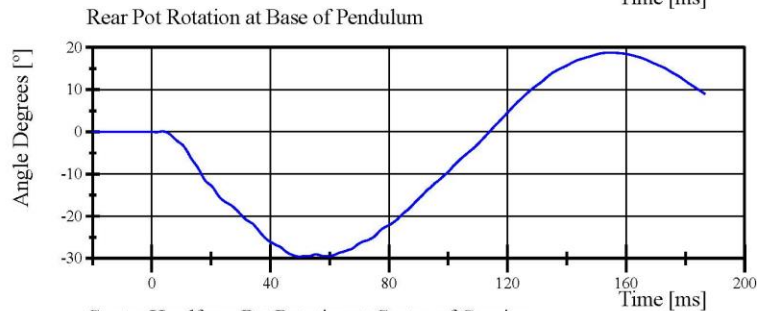
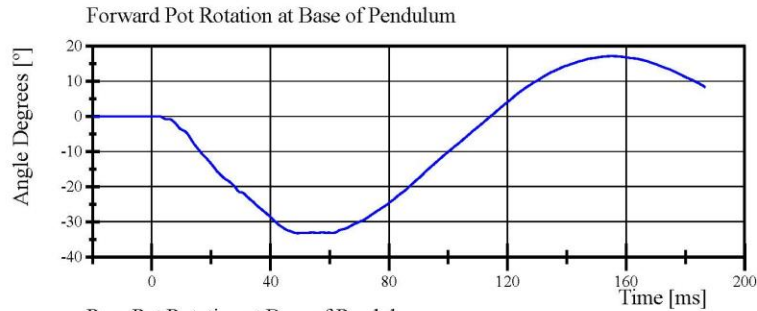


Transportation Research Center Inc.

Left Lateral Neck

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025



Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 09:52:56 1492



Transportation Research Center Inc.

Left Lateral Shoulder

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	43 %	Yes
Test Probe Velocity	4.2 - 4.4 m/s	4.22 m/s	Yes
Test Probe Acceleration	(-7.5) - (-10.5) g	-9.41 g	Yes

Test meets specifications.

Condition: Used

Comments:

Arm S/N: 175-3501-07014

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 09:31:03 582

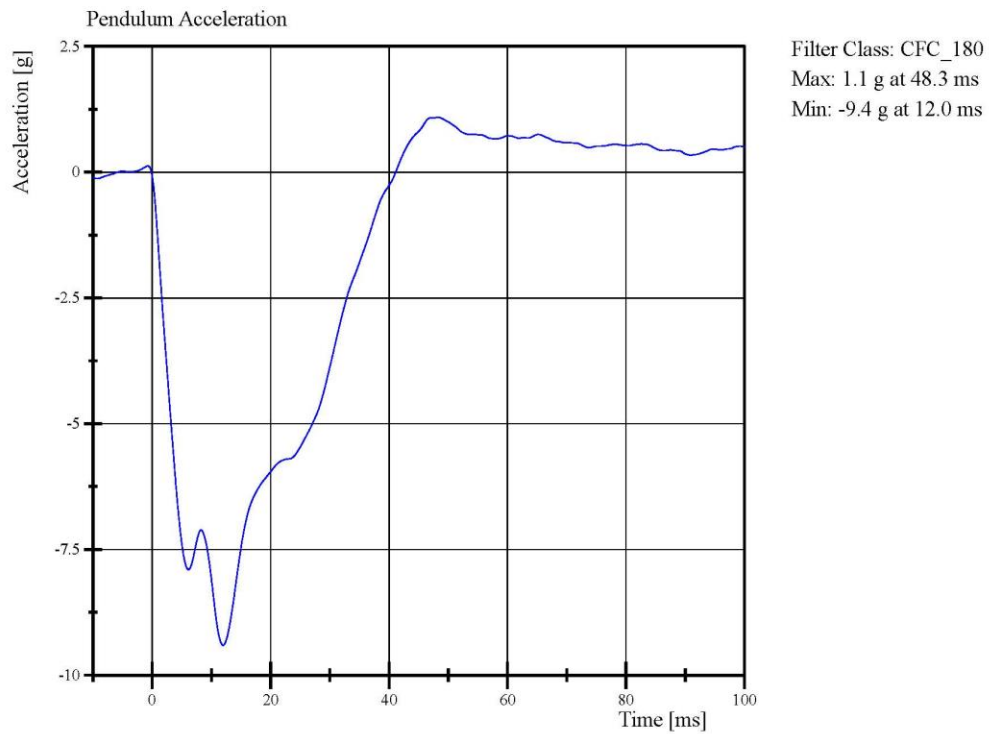


Transportation Research Center Inc.

Left Lateral Shoulder

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025



Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 09:31:48 582



Transportation Research Center Inc.

3.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 108-2
Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
3.0 m/s Test Rib Displacement (454 mm to 464 mm)	36 - 40 mm	39.5 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 462 mm

Rib Foam S/N: EK6973

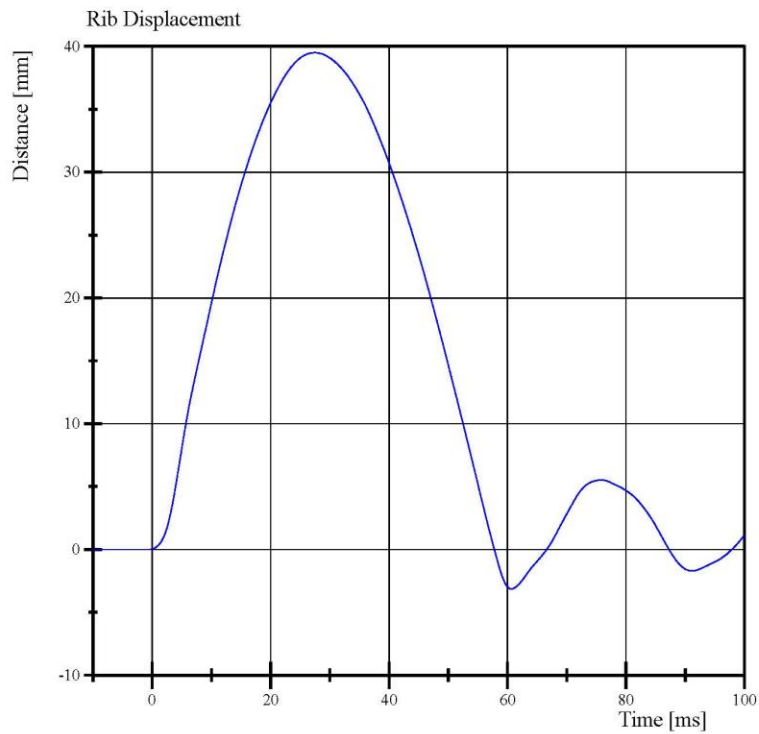
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:48:13 649



Transportation Research Center Inc.

3.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 108-2
Test Date: 9/9/2025



Filter Class: CFC_180
Max: 39.5 mm at 27.5 ms
Min: -3.1 mm at 60.6 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:49:12 649



Transportation Research Center Inc.

4.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
4.0 m/s Test Rib Displacement (807 mm to 823 mm)	46 - 51 mm	49.0 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 816 mm

Rib Foam S/N: EK6973

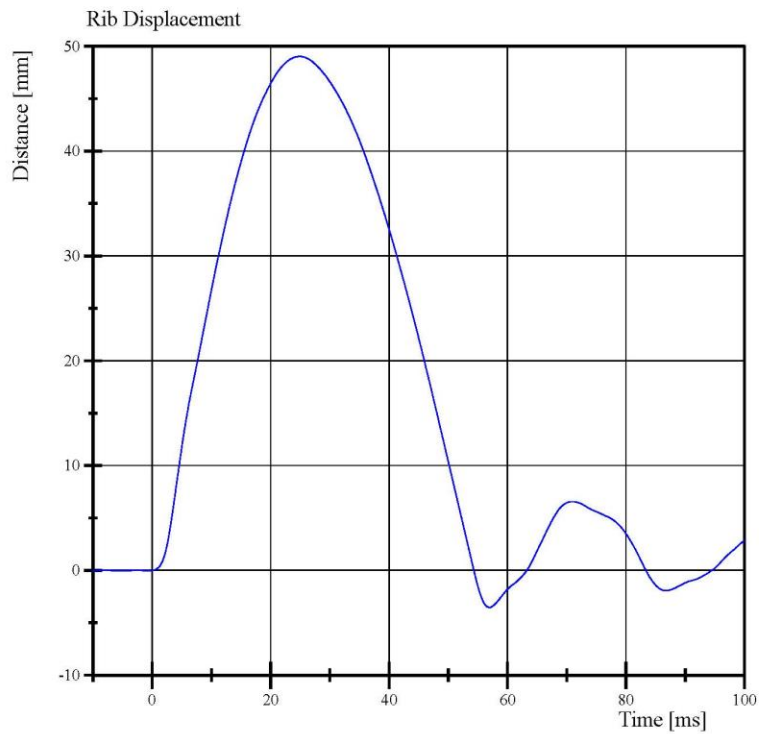
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:02:38 541



Transportation Research Center Inc.

4.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025



Filter Class: CFC_180
Max: 49.0 mm at 24.9 ms
Min: -3.5 mm at 56.9 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:03:12 541



Transportation Research Center Inc.

3.0 m/s Middle Full Rib Module

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	39 %	Yes
3.0 m/s Test Rib Displacement (454 mm to 464 mm)	36 - 40 mm	38.6 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 462 mm

Rib Foam S/N: EK6970

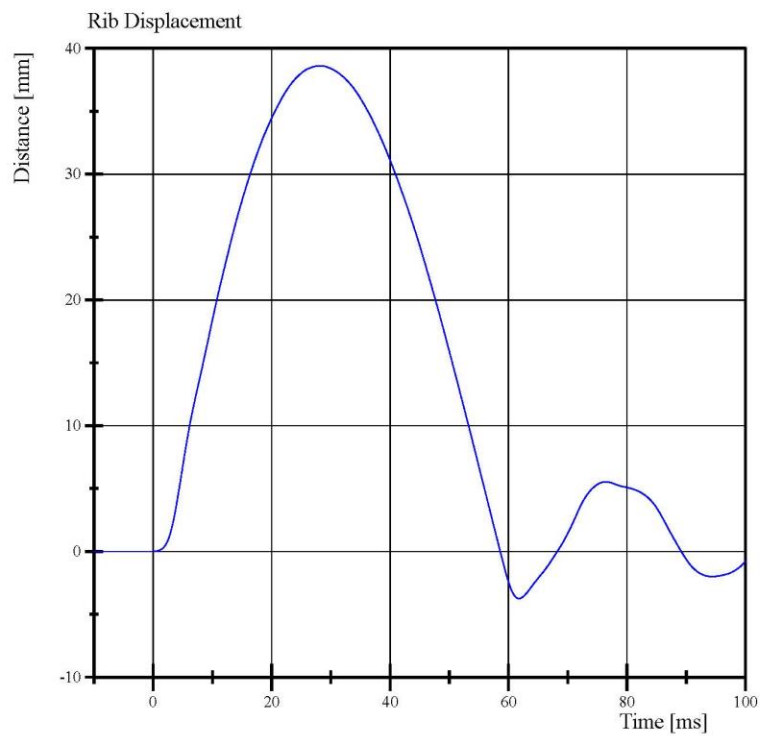
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:17:15 647



Transportation Research Center Inc.

3.0 m/s Middle Full Rib Module
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025



Filter Class: CFC_180
Max: 38.6 mm at 28.2 ms
Min: -3.7 mm at 61.8 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:18:18 647



Transportation Research Center Inc.

4.0 m/s Middle Full Rib Module

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
4.0 m/s Test Rib Displacement (807 mm to 823 mm)	46 - 51 mm	49.7 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 816 mm

Rib Foam S/N: EK6970

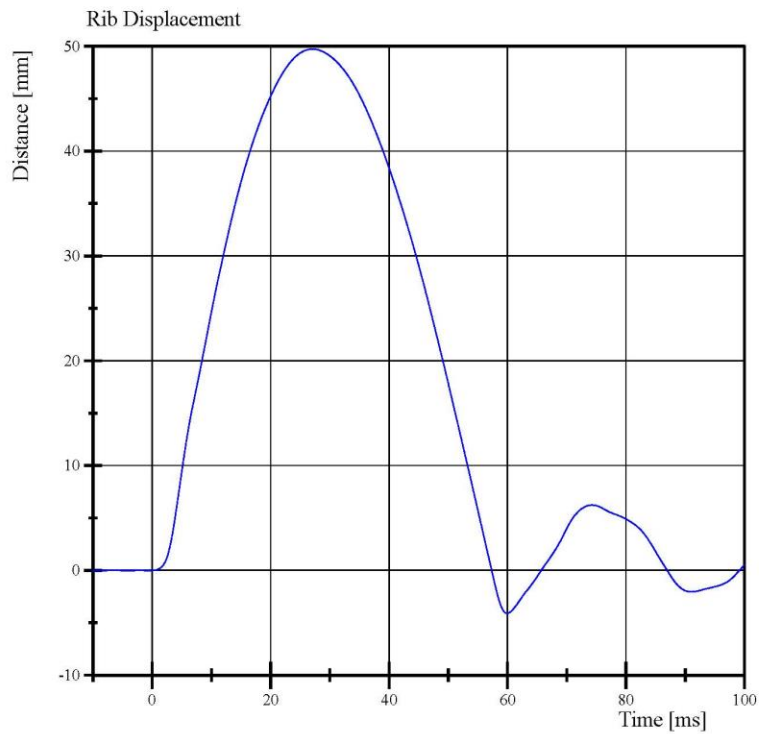
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:11:24 549



Transportation Research Center Inc.

4.0 m/s Middle Full Rib Module
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025



Filter Class: CFC_180
Max: 49.7 mm at 27.1 ms
Min: -4.1 mm at 59.9 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:11:55 549



Transportation Research Center Inc.

3.0 m/s Lower Full Rib Module
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	43 %	Yes
3.0 m/s Test Rib Displacement (454 mm to 464 mm)	36 - 40 mm	37.9 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 462 mm

Rib Foam S/N: EK6970

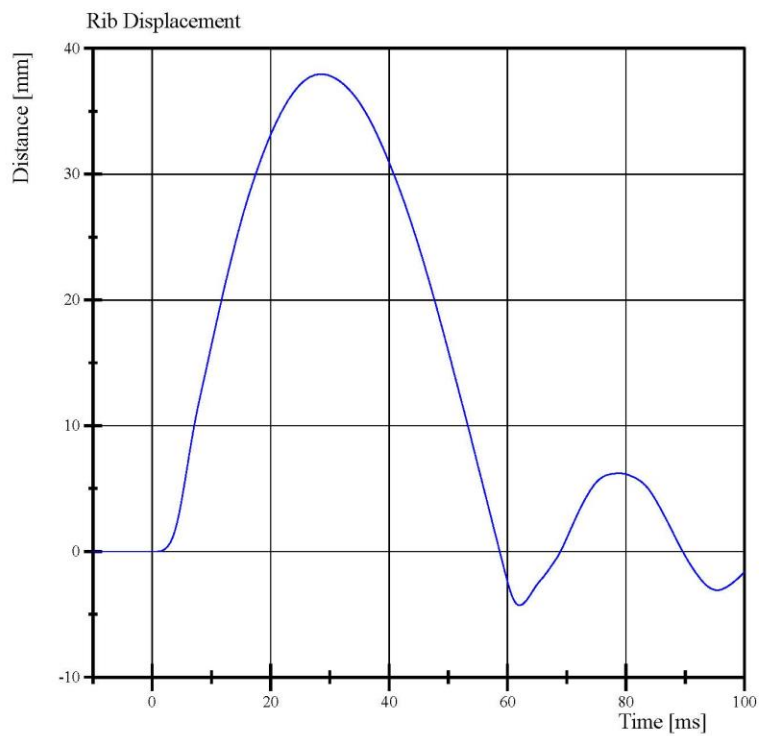
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:26:24 637



Transportation Research Center Inc.

3.0 m/s Lower Full Rib Module
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025



Filter Class: CFC_180
Max: 37.9 mm at 28.6 ms
Min: -4.3 mm at 62.0 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:26:57 637



Transportation Research Center Inc.

4.0 m/s Lower Full Rib Module

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
4.0 m/s Test Rib Displacement (807 mm to 823 mm)	46 - 51 mm	46.6 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 816 mm

Rib Foam S/N: EK6970

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:21:17 546

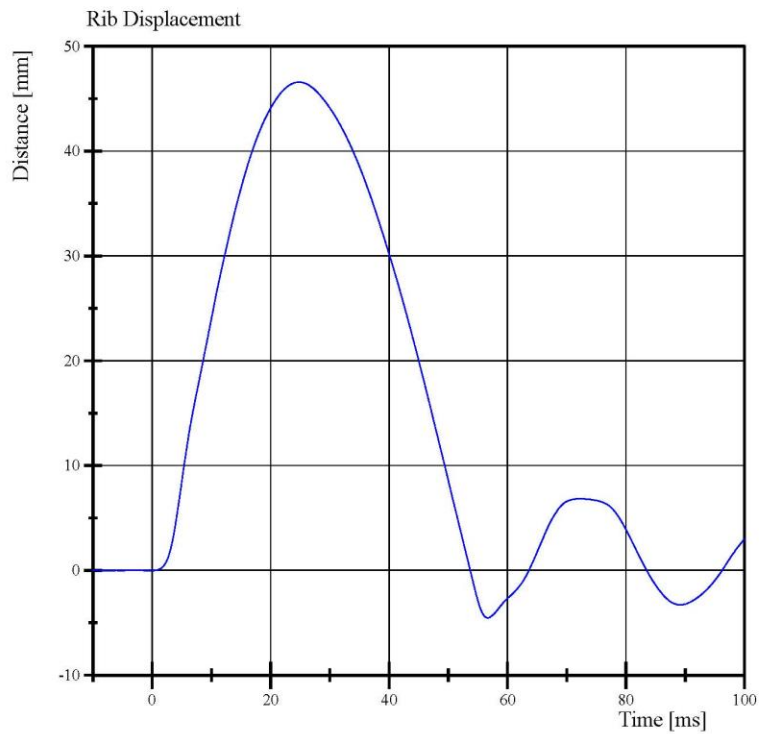


Transportation Research Center Inc.

4.0 m/s Lower Full Rib Module

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025



Filter Class: CFC_180
Max: 46.6 mm at 24.8 ms
Min: -4.5 mm at 56.6 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 10:21:49 546



Report Number: F030_ERF108

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Transportation Research Center Inc.

Left Lateral Thorax

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Impactor Velocity	5.4 - 5.60 m/s	5.425 m/s	Yes
Peak Impactor Force after 6 ms	(-5,100) - (-6,200) N	-6,007.1 N	Yes
Upper Rib Displacement	34 - 41 mm	38.4 mm	Yes
Center Rib Displacement	37 - 45 mm	40.3 mm	Yes
Lower Rib Displacement	37 - 44 mm	39.7 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Upper Rib Module S/N: 175-4008-A

Upper Rib Foam S/N: 175-4003-EK6973

Middle Rib Module S/N: 175-4008-A

Middle Rib Foam S/N: 175-4003-EK6970

Lower Rib Module S/N: 175-4008-A-06-017

Lower Rib Foam S/N: 175-4008-EK6971

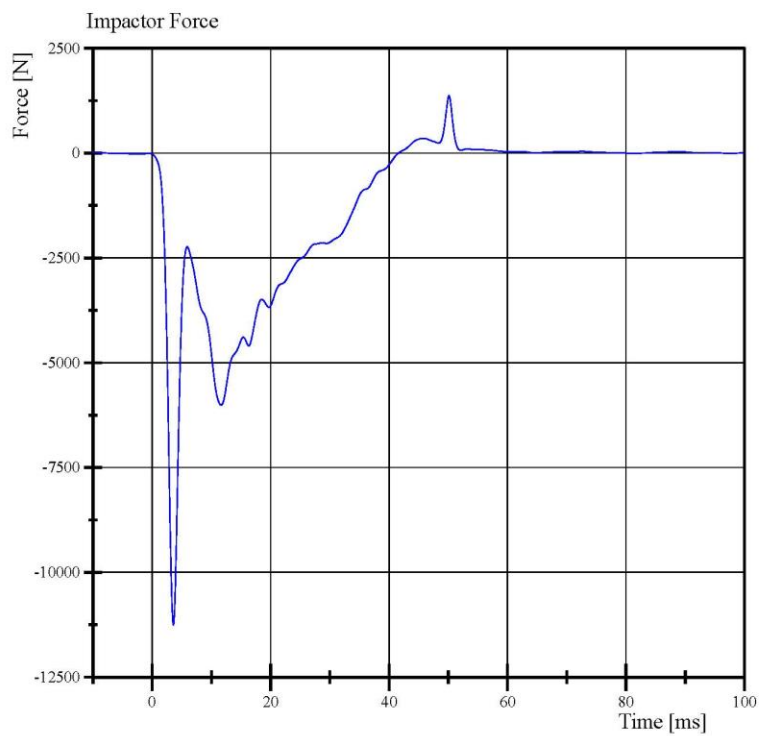
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 09:49:46 469



Transportation Research Center Inc.

Left Lateral Thorax
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/10/2025



Filter Class: CFC_180
Max: 1,371.1 N at 50.2 ms
Min: -11,250.6 N at 3.6 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 09:51:19 469



Report Number: F030_ERF108

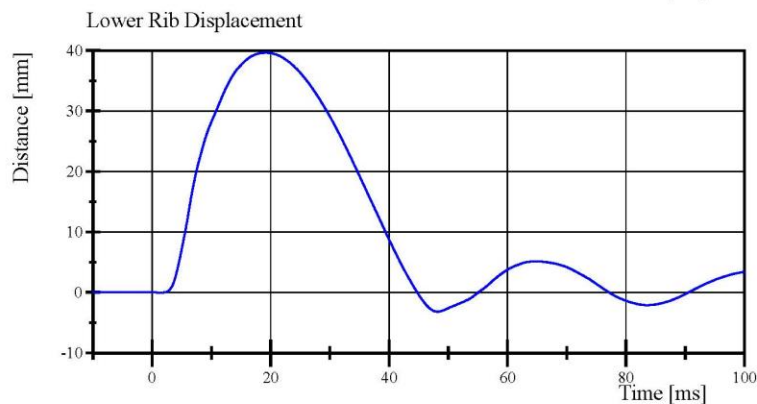
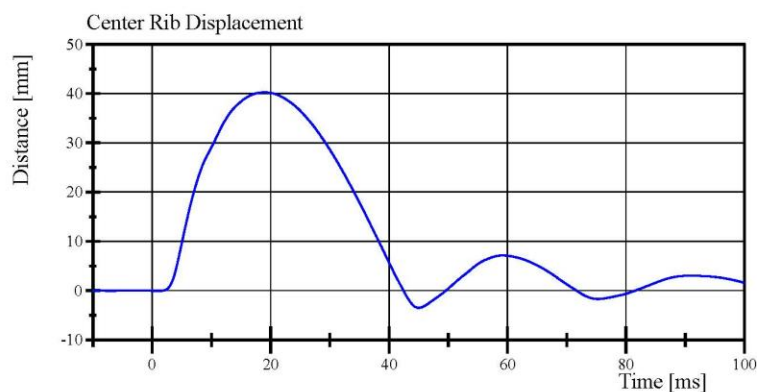
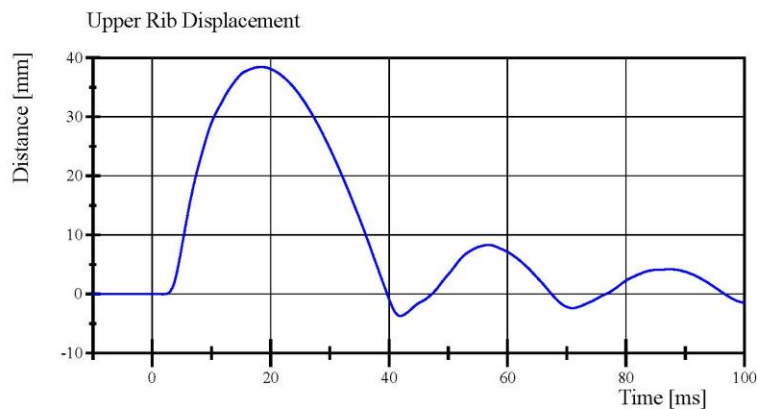
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Transportation Research Center Inc.

Left Lateral Thorax

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025



Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 09:51:19 469



Transportation Research Center Inc.

Left Lateral Lumbar

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/9/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	40 %	Yes
Pendulum Integrated Velocity Change within Corridor	Yes	Yes	Yes
Pendulum Velocity	(-5.95) - (-6.15) m/s	-6.127 m/s	Yes
Maximum Headform Flexion			
Peak	(-45) - (-55) deg	-47.4 deg	Yes
Time of Peak	39 - 53 ms	44.8 ms	Yes
Headform Flexion Decay			
- Peak to Zero	37 - 57 ms	42.5 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Lumbar S/N: FB7553

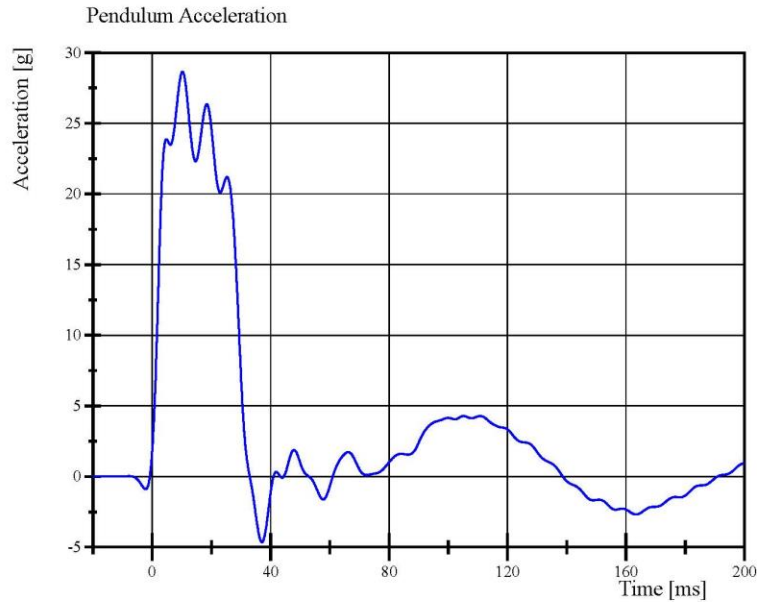
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 14:50:17 671

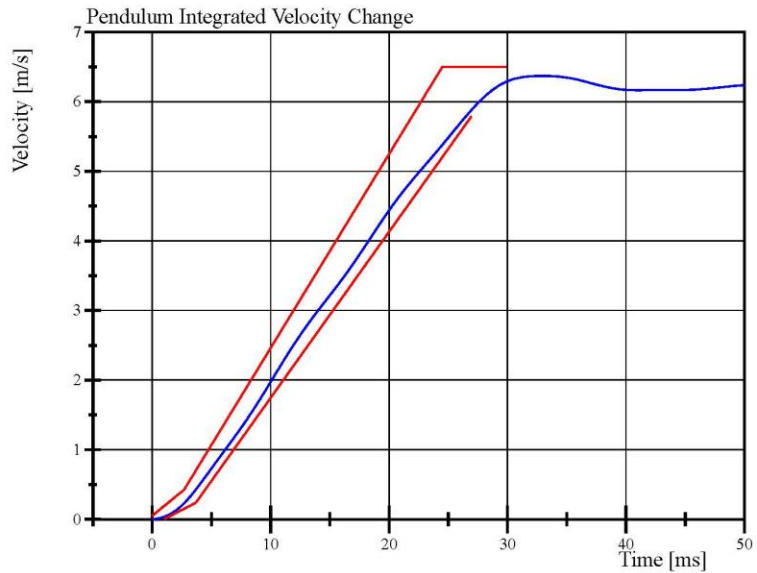


Transportation Research Center Inc.

Left Lateral Lumbar
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025



Filter Class: CFC_60
Max: 28.7 g at 10.2 ms
Min: -4.7 g at 37.0 ms



Filter Class: CFC_60
Max: 6.4 m/s at 33.0 ms
Min: 0.0 m/s at 0.0 ms

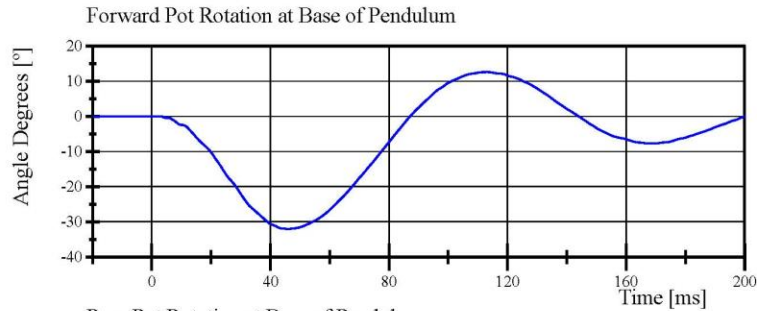
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 14:51:01 671

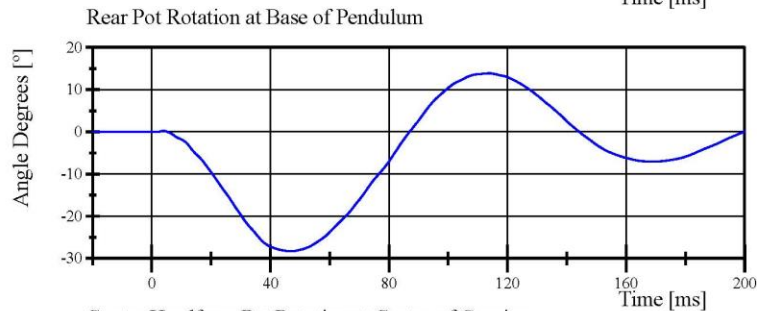


Transportation Research Center Inc.

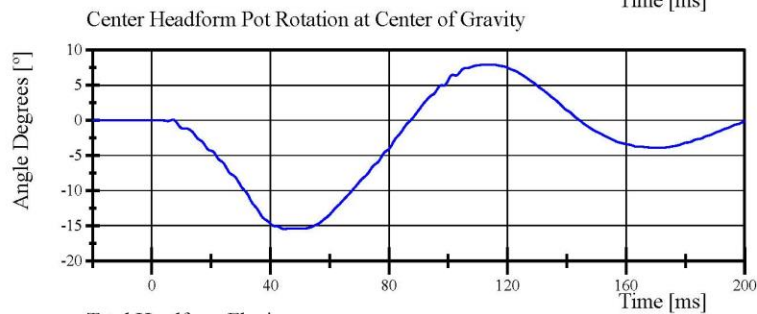
Left Lateral Lumbar
ES-2re Serial No. F030 Certification No. 108-1
Test Date: 9/9/2025



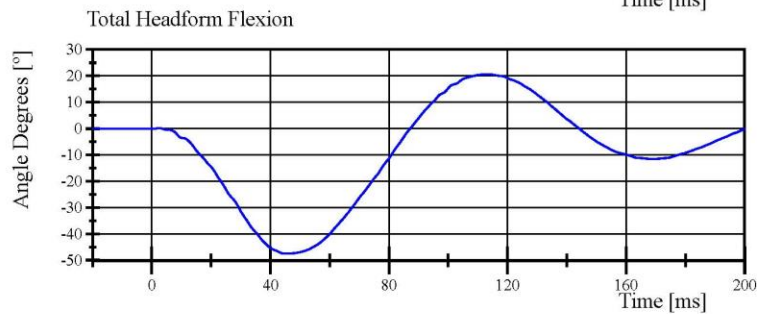
Filter Class: CFC_180
Max: 12.6 ° at 113.0 ms
Min: -32.0 ° at 46.2 ms



Filter Class: CFC_180
Max: 13.9 ° at 113.9 ms
Min: -28.3 ° at 46.7 ms



Filter Class: CFC_180
Max: 7.9 ° at 114.6 ms
Min: -15.5 ° at 44.6 ms



Filter Class: CFC_180
Max: 20.5 ° at 113.4 ms
Min: -47.4 ° at 44.8 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.09.2025 14:51:02 671



Transportation Research Center Inc.

Left Lateral Abdomen

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	44 %	Yes
Test Probe Velocity	3.9 - 4.1 m/s	4.07 m/s	Yes
Test Probe Force			
Peak	4,000 - 4,800 N	4,577.3 N	Yes
Time of Peak	10.6 - 13.0 ms	12.00 ms	Yes
Total Abdominal Force			
Peak	2,200 - 2,700 N	2,477.6 N	Yes
Time of Peak	10.0 - 12.3 ms	10.96 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Abdomen S/N: 1066

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 10:16:53 553

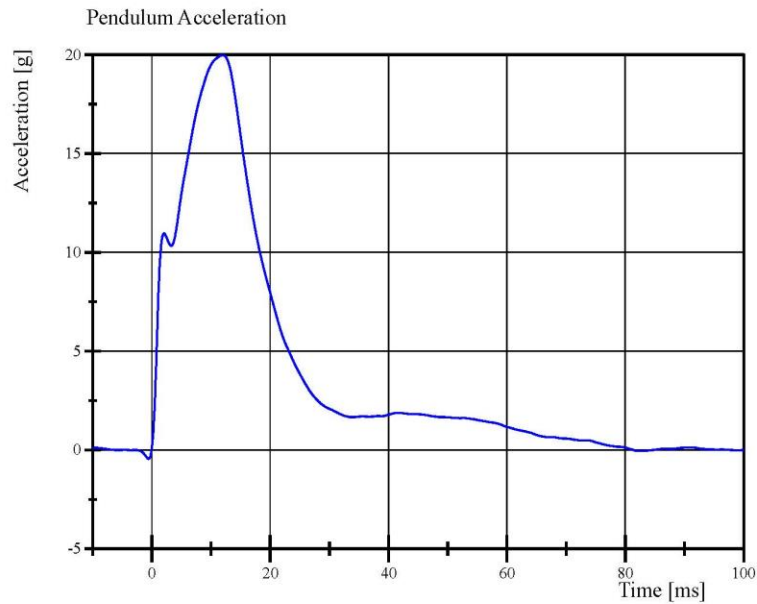


Transportation Research Center Inc.

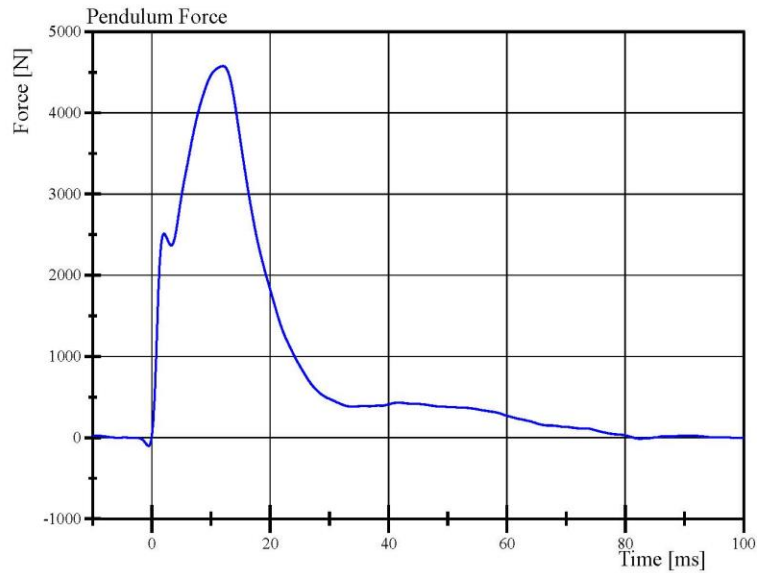
Left Lateral Abdomen

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025



Filter Class: CFC_180
Max: 20.0 g at 12.0 ms
Min: -0.4 g at -0.6 ms



Filter Class: CFC_180
Max: 4,577.3 N at 12.0 ms
Min: -102.3 N at -0.6 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 10:17:25 553

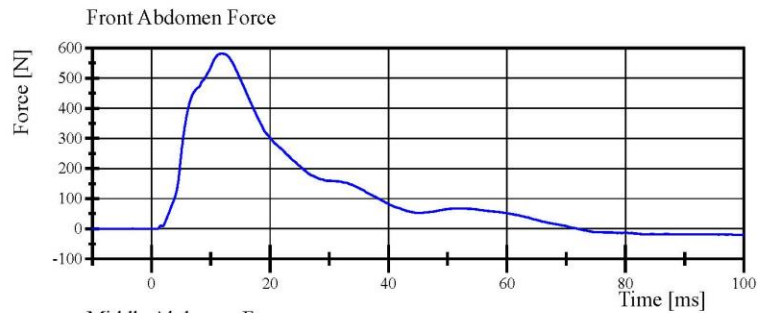


Transportation Research Center Inc.

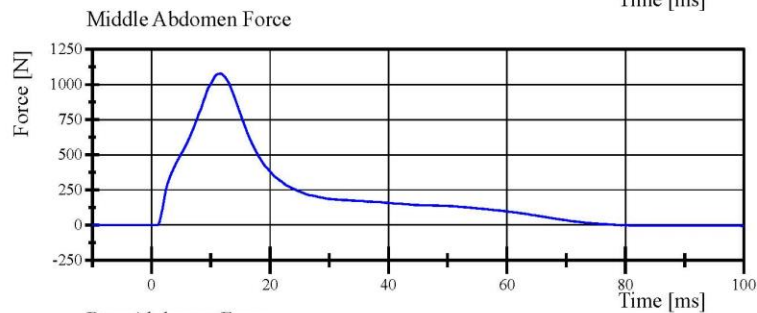
Left Lateral Abdomen

ES-2re Serial No. F030 Certification No. 108-1

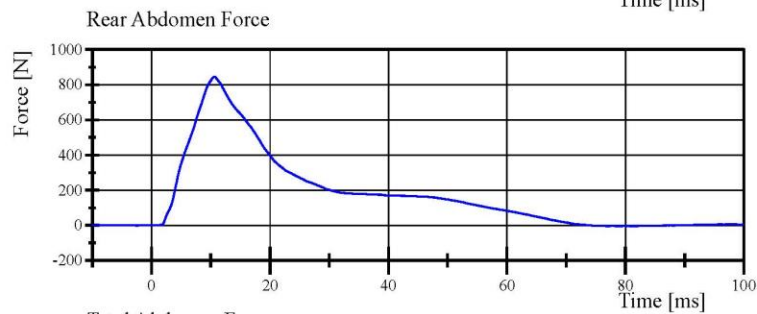
Test Date: 9/10/2025



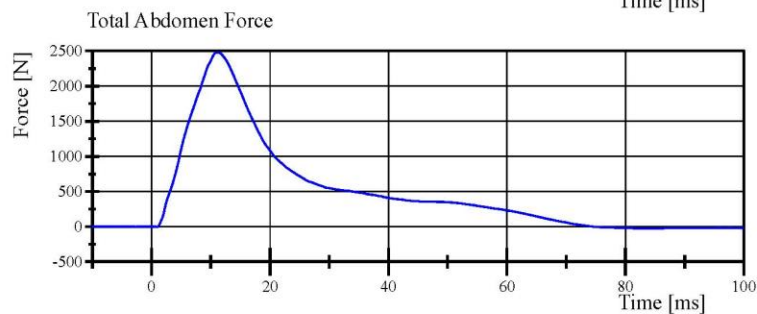
Filter Class: CFC_600
Max: 581.5 N at 11.8 ms
Min: -21.0 N at 100.0 ms



Filter Class: CFC_600
Max: 1,077.4 N at 11.6 ms
Min: -6.1 N at 99.8 ms



Filter Class: CFC_600
Max: 845.6 N at 10.6 ms
Min: -4.7 N at 79.4 ms



Filter Class: CFC_600
Max: 2,477.6 N at 11.0 ms
Min: -25.7 N at 83.7 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 10:17:25 553



Transportation Research Center Inc.

Left Lateral Pelvis

ES-2re Serial No. F030 Certification No. 108-1

Test Date: 9/10/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Test Probe Velocity	4.2 - 4.4 m/s	4.35 m/s	Yes
Test Probe Force			
Peak	4,700 - 5,400 N	5,290.2 N	Yes
Time of Peak	11.8 - 16.1 ms	11.92 ms	Yes
Pubic Symphysis Force			
Peak	(-1,230) - (-1,590) N	-1,330.6 N	Yes
Time of Peak	12.2 - 17.0 ms	13.20 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Pelvis S/N: NA

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 10:30:40 525

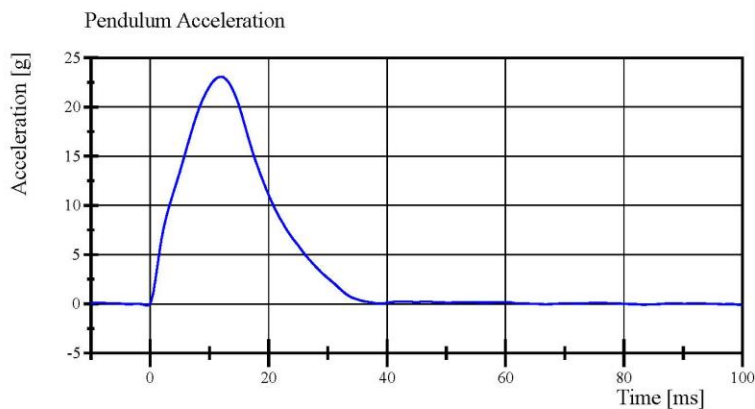


Transportation Research Center Inc.

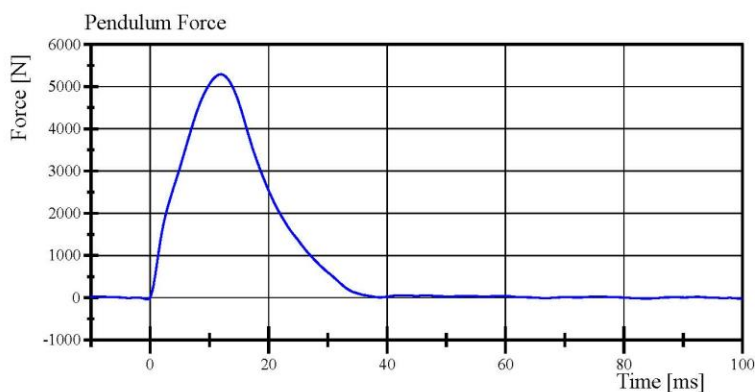
Left Lateral Pelvis

ES-2re Serial No. F030 Certification No. 108-1

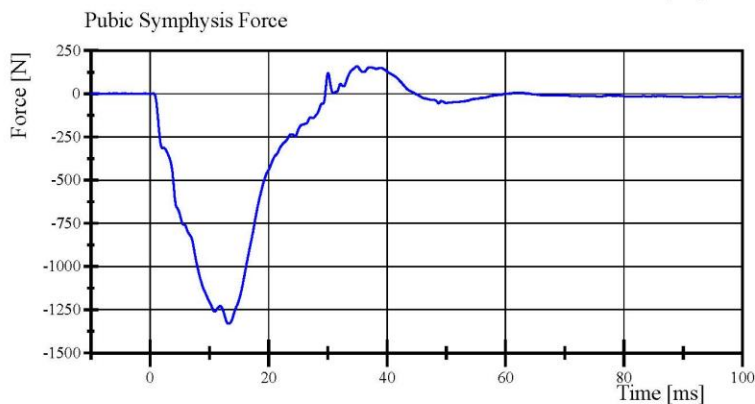
Test Date: 9/10/2025



Filter Class: CFC_180
Max: 23.1 g at 11.9 ms
Min: -0.2 g at -0.6 ms



Filter Class: CFC_180
Max: 5,290.2 N at 11.9 ms
Min: -38.6 N at -0.6 ms



Filter Class: CFC_600
Max: 159.2 N at 35.0 ms
Min: -1,330.6 N at 13.2 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.10.2025 10:31:10 525



Post-Test Calibration Sheets
Driver S/N F030

Transportation Research Center Inc.
572U ES-2re Dummy
External Dimensions
Serial No. F030 Calibration No. 109

Symbol	Description	Specification	Results	Pass
		mm	mm	
1	Sitting Height	900.0 - 918.0	909	Yes
2	Seat to Shoulder Joint	558.0 - 572.0	560	Yes
3	Seat to Lower Face of Thoracic Spine Box	346.0 - 356.0	347	Yes
4	Seat to Hip Joint (center of bolt)	97.0 - 103.0	98	Yes
5	Sole to Seat, Sitting	433.0 - 451.0	443	Yes
6	Head Width	152.0 - 158.0	154	Yes
7	Shoulder/Arm Width	461.0 - 479.0	475	Yes
8	Thorax Width	322.0 - 332.0	328	Yes
9	Abdomen Width	273.0 - 287.0	279	Yes
10	Pelvis Lap Width	359.0 - 373.0	366	Yes
11	Head Depth	196.0 - 206.0	201	Yes
12	Thorax Depth	262.0 - 272.0	262	Yes
13	Abdomen Depth	194.0 - 204.0	199	Yes
14	Pelvis Depth	235.0 - 245.0	242	Yes
15	Back of Buttocks to Hip Joint (center of bolt)	150.0 - 160.0	156	Yes
16	Back of Buttocks to Front of Knee	597.0 - 615.0	605	Yes

Baseline 10/07/05



Report Number: F030_ERF109

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Transportation Research Center Inc.

Left Lateral Head Drop

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/25/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
Peak Resultant Acceleration	125 - 155 g	139.5 g	Yes
Peak Longitudinal Acceleration	(-15) - 15 g	8.0 g	Yes
Is Resultant Acceleration Curve Unimodal within 15% of Main Pulse?	< 15 %	3.84 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: DP6812

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.25.2025 14:58:21 360

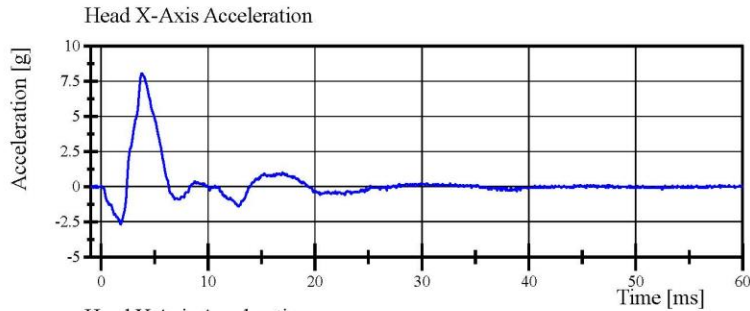


Transportation Research Center Inc.

Left Lateral Head Drop

ES-2re Serial No. F030 Certification No. 109-1

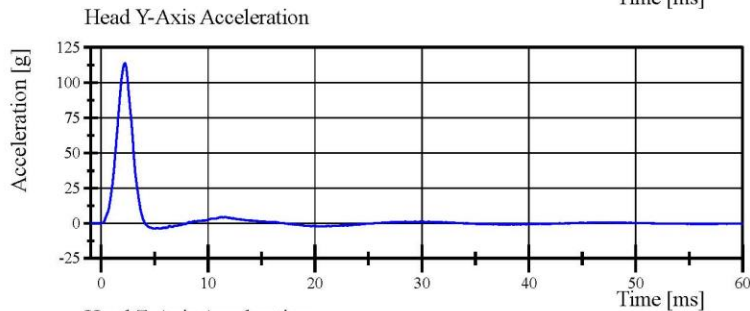
Test Date: 9/25/2025



Filter Class: CFC_1000

Max: 8.0 g at 3.8 ms

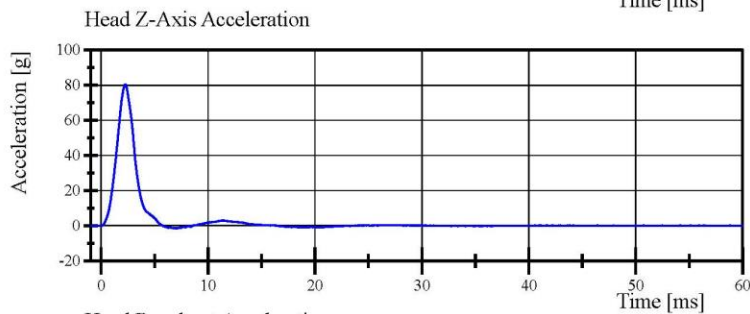
Min: -2.7 g at 1.8 ms



Filter Class: CFC_1000

Max: 113.9 g at 2.2 ms

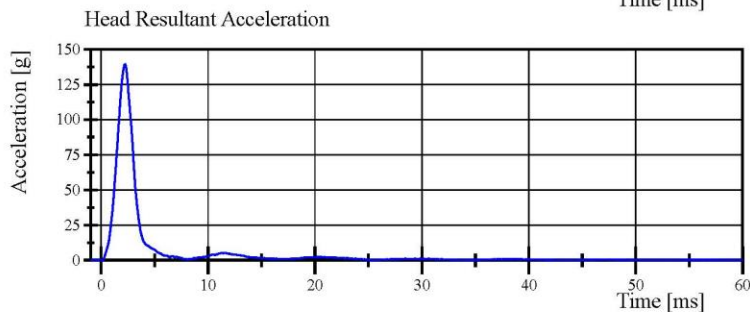
Min: -3.9 g at 5.5 ms



Filter Class: CFC_1000

Max: 80.5 g at 2.2 ms

Min: -1.4 g at 6.8 ms



Filter Class: CFC_1000

Max: 139.5 g at 2.2 ms

Min: 0.0 g at 43.4 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.25.2025 14:58:57 360



Transportation Research Center Inc.

Left Lateral Neck

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/25/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	61 %	Yes
Pendulum Integrated Velocity Change within Corridor	Yes	Yes	Yes
Pendulum Velocity	(-3.3) - (-3.5) m/s	-3.37 m/s	Yes
Maximum Headform Flexion			
Peak	(-49) - (-59) deg	-51.7 deg	Yes
Time of Peak	54 - 66 ms	55.4 ms	Yes
Headform Flexion Decay			
- Peak to Zero	53 - 88 ms	57.2 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 05053

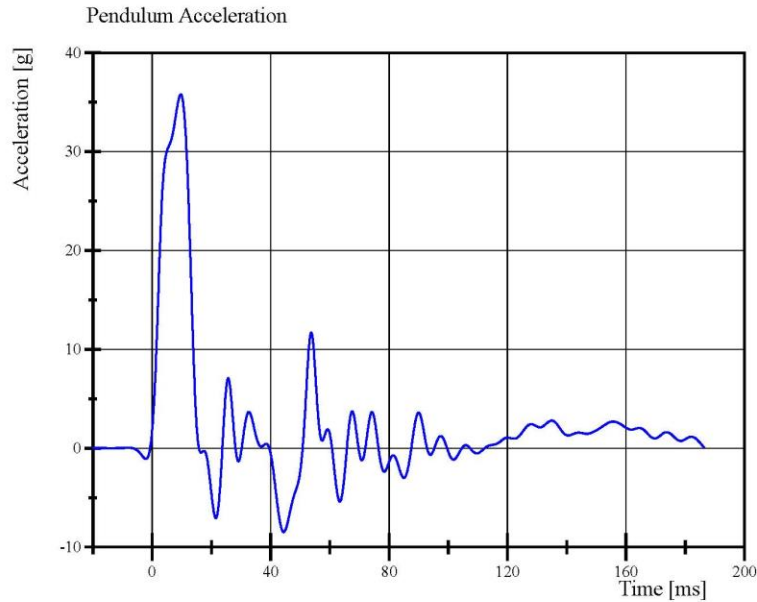
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.25.2025 15:23:50 1495

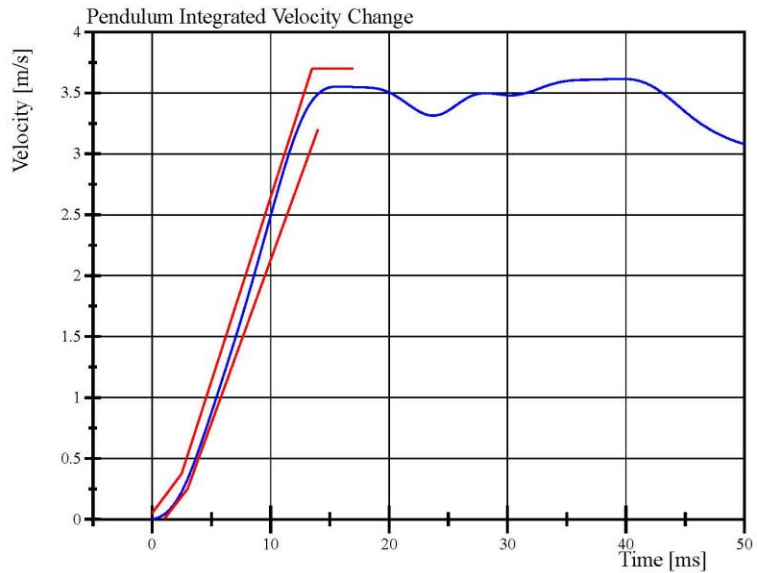


Transportation Research Center Inc.

Left Lateral Neck
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/25/2025



Filter Class: CFC_60
Max: 35.8 g at 9.7 ms
Min: -8.5 g at 44.4 ms



Filter Class: CFC_60
Max: 3.6 m/s at 39.6 ms
Min: 0.0 m/s at 0.0 ms

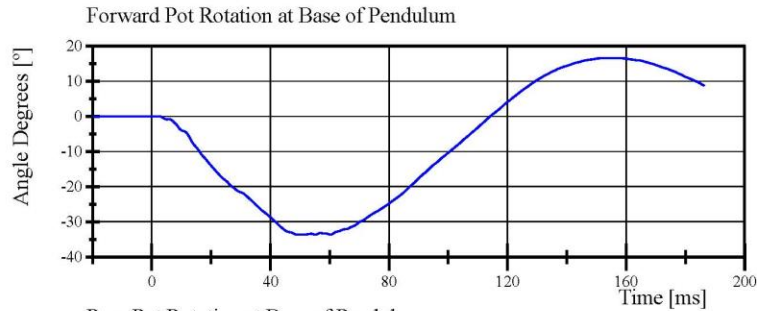
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.25.2025 15:24:22 1495

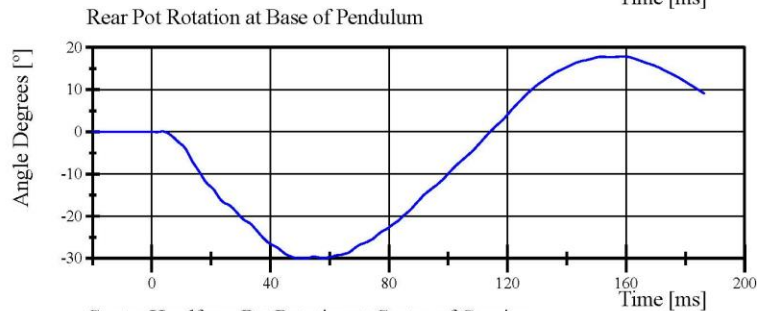


Transportation Research Center Inc.

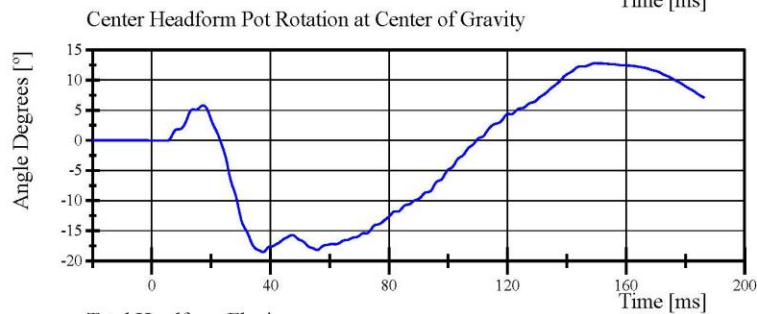
Left Lateral Neck
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/25/2025



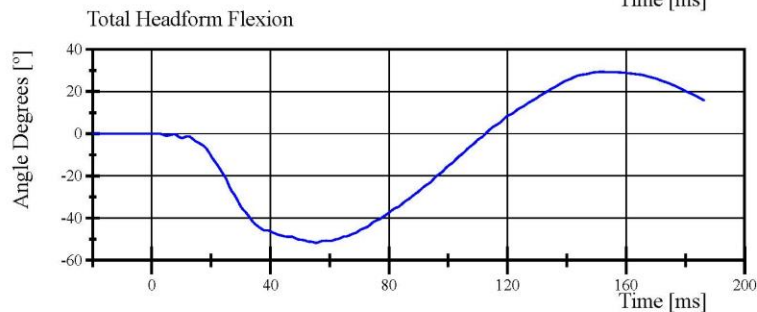
Filter Class: CFC_180
Max: 16.6 ° at 156.0 ms
Min: -33.7 ° at 49.4 ms



Filter Class: CFC_180
Max: 17.9 ° at 159.4 ms
Min: -30.0 ° at 52.2 ms



Filter Class: CFC_180
Max: 12.8 ° at 149.8 ms
Min: -18.5 ° at 37.5 ms



Filter Class: CFC_180
Max: 29.3 ° at 151.6 ms
Min: -51.7 ° at 55.4 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.25.2025 15:24:22 1495



Transportation Research Center Inc.

Left Lateral Shoulder

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	67 %	Yes
Test Probe Velocity	4.2 - 4.4 m/s	4.24 m/s	Yes
Test Probe Acceleration	(-7.5) - (-10.5) g	-9.88 g	Yes

Test meets specifications.

Condition: Used

Comments:

Arm S/N: 175-3501-07014

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 09:45:49 586

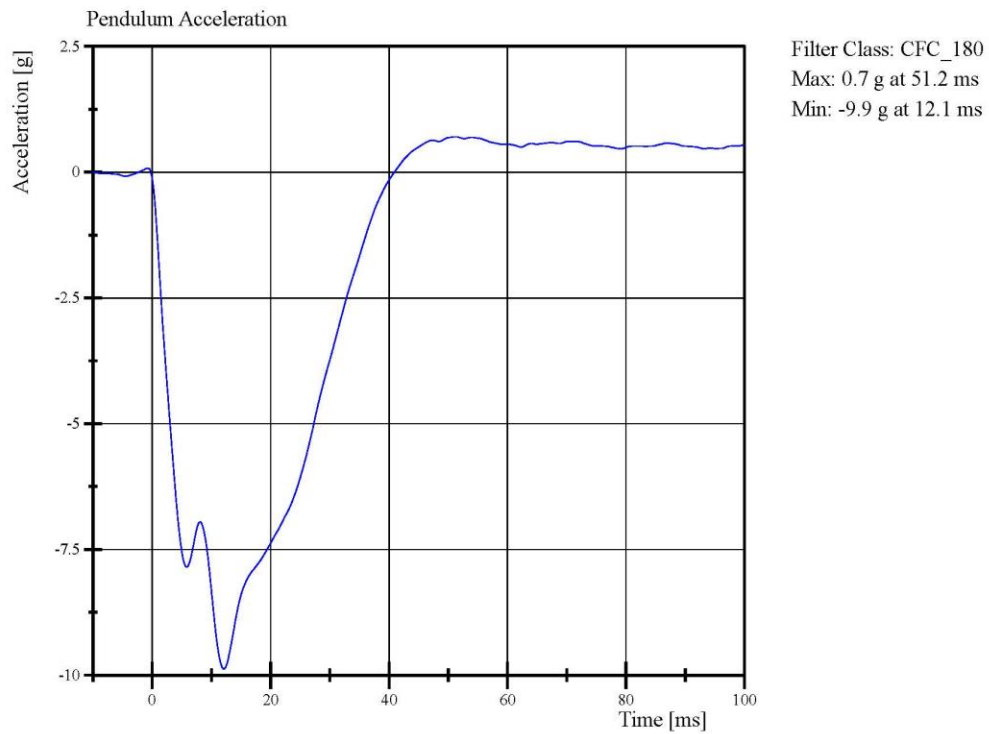


Transportation Research Center Inc.

Left Lateral Shoulder

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025



Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 09:46:15 586



Transportation Research Center Inc.

3.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 109-2
Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
3.0 m/s Test Rib Displacement (454 mm to 464 mm)	36 - 40 mm	39.5 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 462 mm

Rib Foam S/N: EK6973

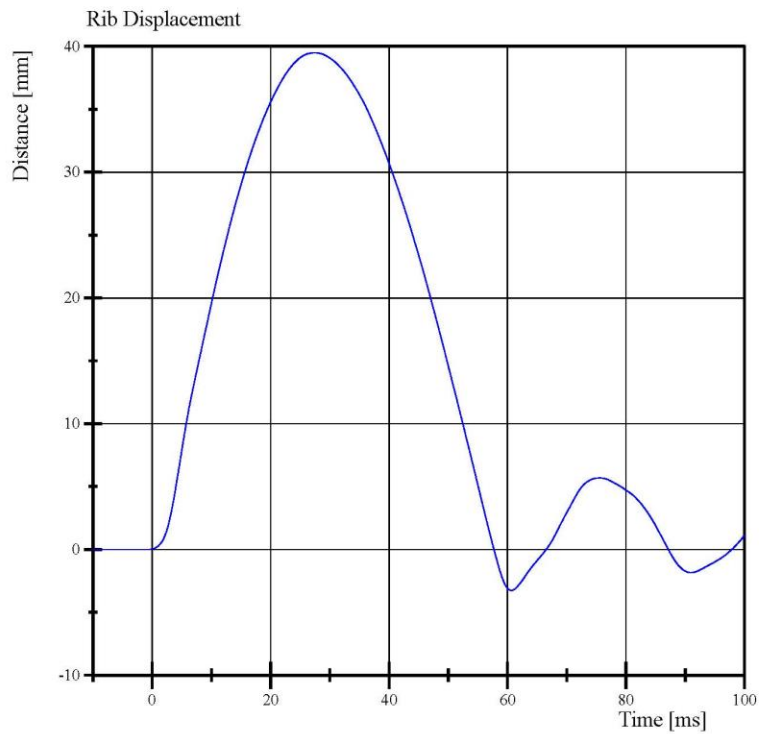
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:40:21 673



Transportation Research Center Inc.

3.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 109-2
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 39.5 mm at 27.4 ms
Min: -3.3 mm at 60.6 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:40:42 673



Transportation Research Center Inc.

4.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
4.0 m/s Test Rib Displacement (807 mm to 823 mm)	46 - 51 mm	48.3 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 816 mm

Rib Foam S/N: EK6973

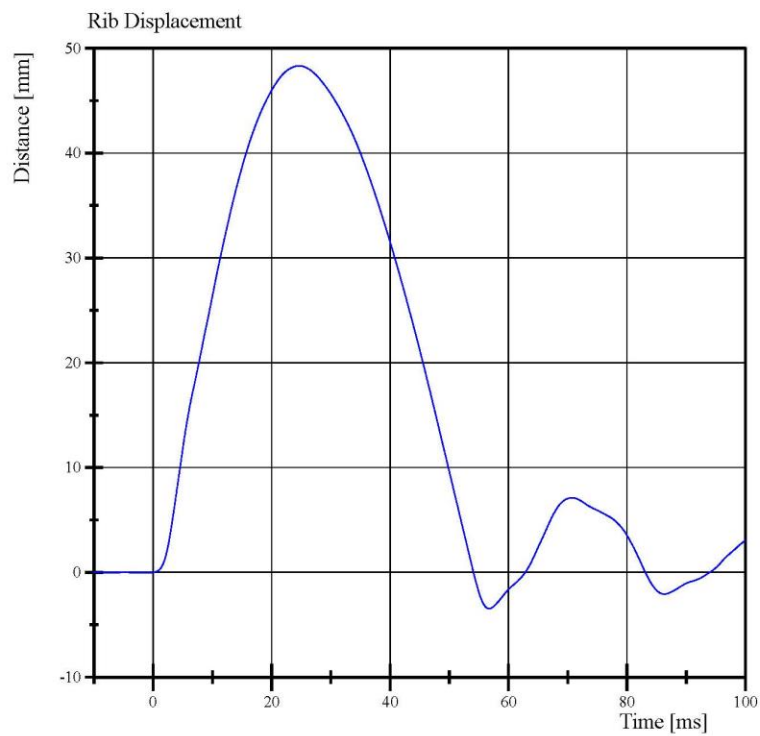
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:03:31 561



Transportation Research Center Inc.

4.0 m/s Upper Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 48.3 mm at 24.6 ms
Min: -3.5 mm at 56.7 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:04:35 561



Transportation Research Center Inc.

3.0 m/s Middle Full Rib Module

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
3.0 m/s Test Rib Displacement (454 mm to 464 mm)	36 - 40 mm	38.6 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 462 mm

Rib Foam S/N: EK6970

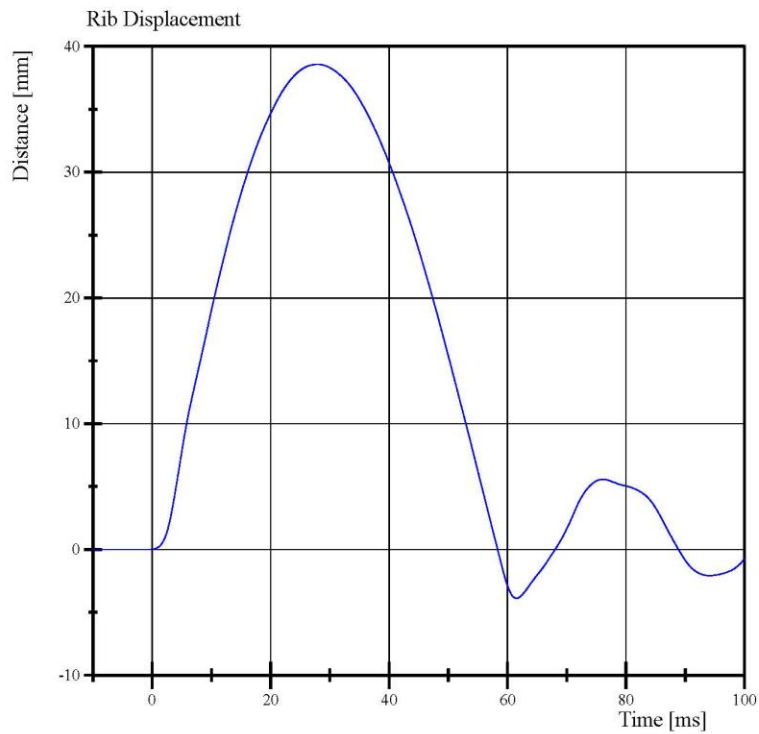
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:20:41 664



Transportation Research Center Inc.

3.0 m/s Middle Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 38.6 mm at 27.9 ms
Min: -3.9 mm at 61.5 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:21:17 664



Transportation Research Center Inc.

4.0 m/s Middle Full Rib Module

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
4.0 m/s Test Rib Displacement (807 mm to 823 mm)	46 - 51 mm	49.7 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 816 mm

Rib Foam S/N: EK6970

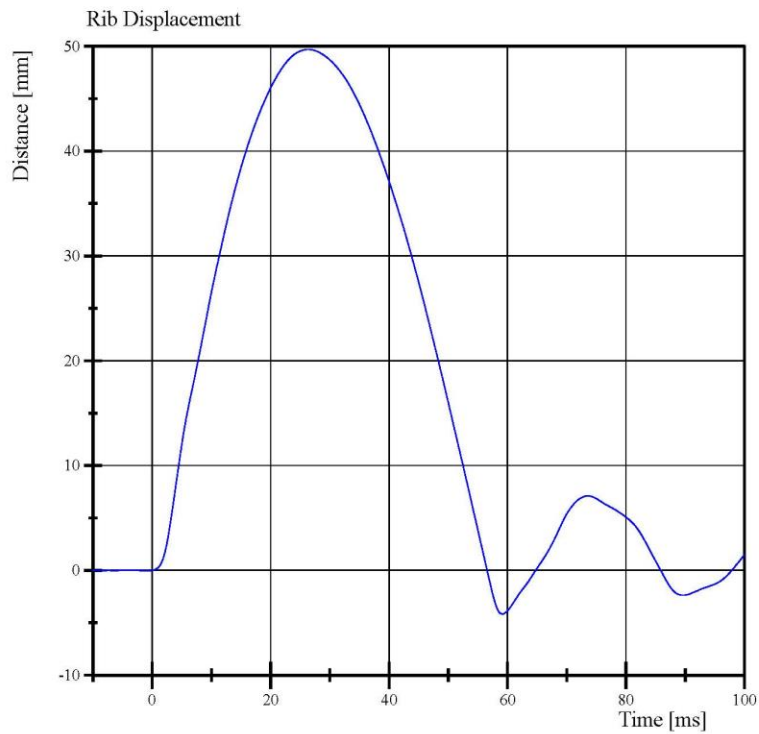
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:14:26 541



Transportation Research Center Inc.

4.0 m/s Middle Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 49.7 mm at 26.3 ms
Min: -4.2 mm at 59.1 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:15:13 541



Transportation Research Center Inc.

3.0 m/s Lower Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
3.0 m/s Test Rib Displacement (454 mm to 464 mm)	36 - 40 mm	38.0 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 462 mm

Rib Foam S/N: EK6970

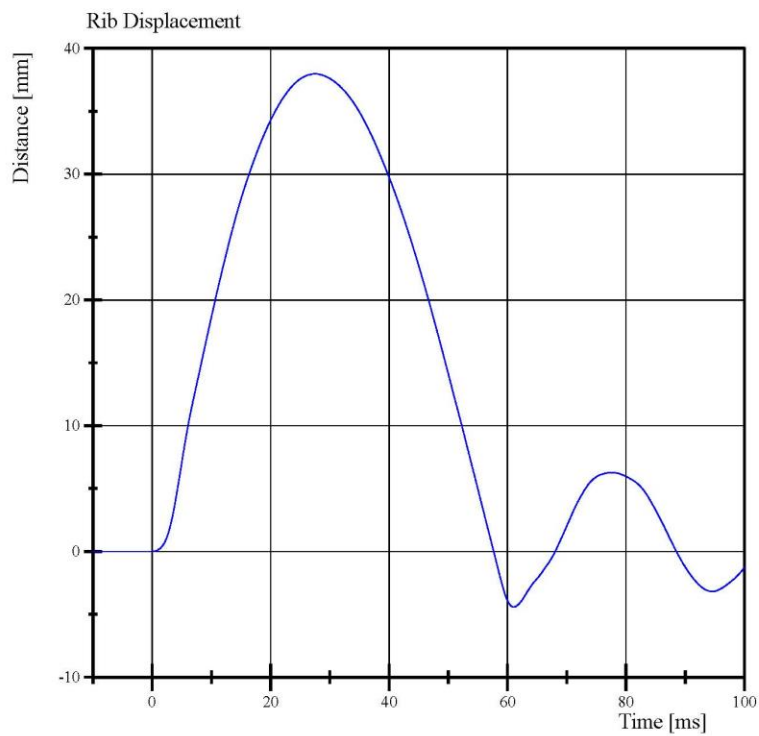
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:36:28 677



Transportation Research Center Inc.

3.0 m/s Lower Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 38.0 mm at 27.5 ms
Min: -4.4 mm at 61.0 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:37:08 677



Transportation Research Center Inc.

4.0 m/s Lower Full Rib Module

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	61 %	Yes
4.0 m/s Test Rib Displacement (807 mm to 823 mm)	46 - 51 mm	46.6 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Drop Height: 816 mm

Rib Foam S/N: EK6970

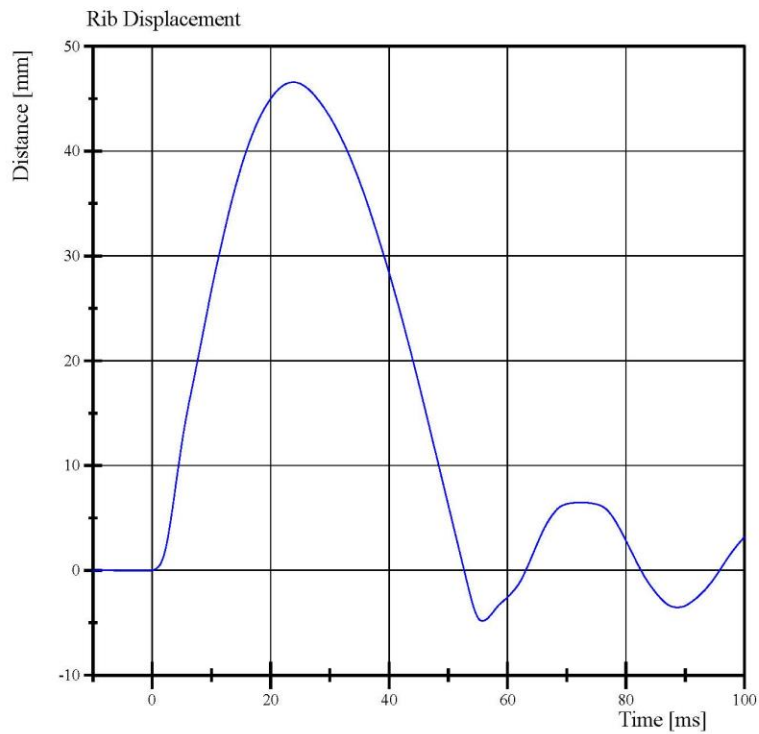
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:26:09 559



Transportation Research Center Inc.

4.0 m/s Lower Full Rib Module
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 46.6 mm at 23.8 ms
Min: -4.8 mm at 55.8 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 08:26:31 559



Report Number: F030_ERF109

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Transportation Research Center Inc.

Left Lateral Thorax

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	66 %	Yes
Impactor Velocity	5.4 - 5.60 m/s	5.433 m/s	Yes
Peak Impactor Force after 6 ms	(-5,100) - (-6,200) N	-6,033.6 N	Yes
Upper Rib Displacement	34 - 41 mm	39.8 mm	Yes
Center Rib Displacement	37 - 45 mm	40.8 mm	Yes
Lower Rib Displacement	37 - 44 mm	40.3 mm	Yes

Test meets specifications.

Condition: Used

Comments:

Upper Rib Module S/N: 175-4008-A

Upper Rib Foam S/N: 175-4003-EK6973

Middle Rib Module S/N: 175-4008-A

Middle Rib Foam S/N: 175-4003-EK6970

Lower Rib Module S/N: 175-4008-A-06-017

Lower Rib Foam S/N: 175-4008-EK6971

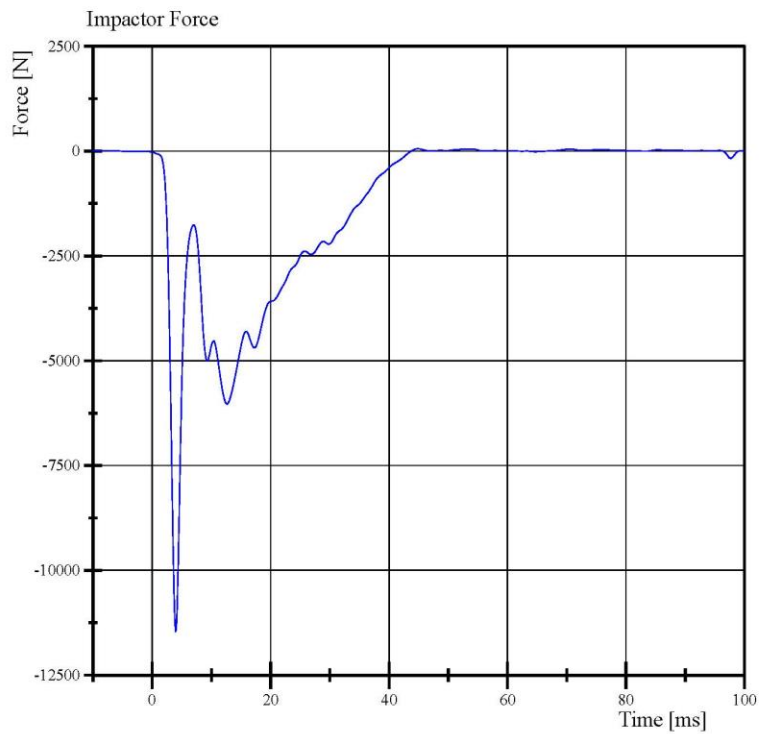
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 10:13:55 429



Transportation Research Center Inc.

Left Lateral Thorax
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 57.2 N at 44.8 ms
Min: -11,460.4 N at 4.0 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 10:15:48 429

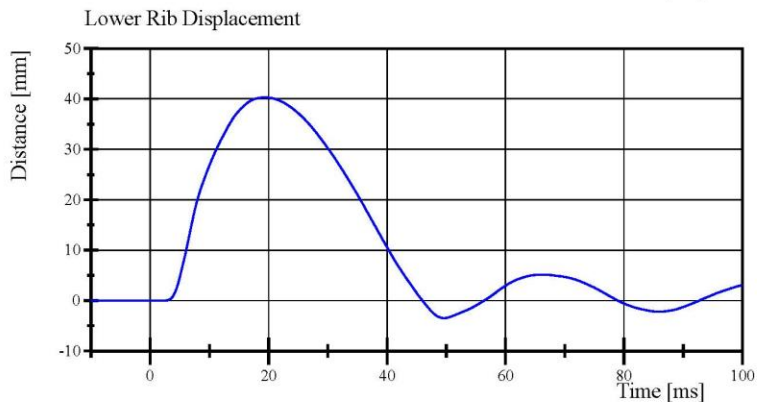
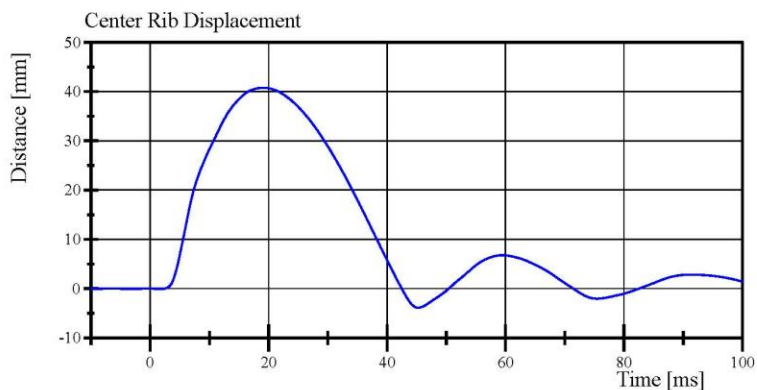
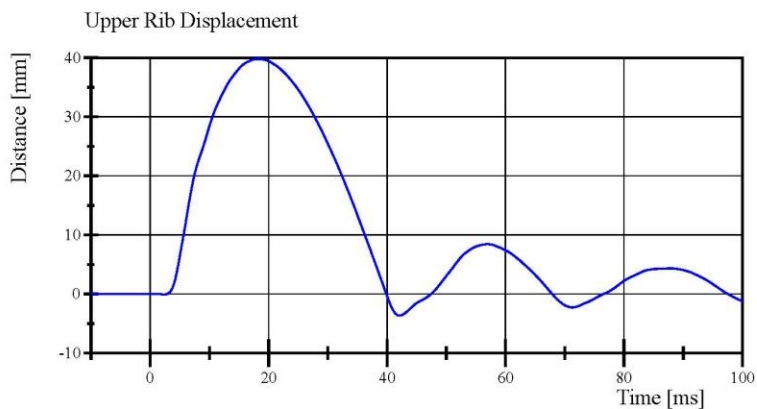


Report Number: F030_ERF109

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Transportation Research Center Inc.

Left Lateral Thorax
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 10:15:48 429



Transportation Research Center Inc.

Left Lateral Lumbar
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	62 %	Yes
Pendulum Integrated Velocity Change within Corridor	Yes	Yes	Yes
Pendulum Velocity	(-5.95) - (-6.15) m/s	-6.125 m/s	Yes
Maximum Headform Flexion			
Peak	(-45) - (-55) deg	-48.1 deg	Yes
Time of Peak	39 - 53 ms	45.1 ms	Yes
Headform Flexion Decay			
- Peak to Zero	37 - 57 ms	41.0 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Lumbar S/N: FB7553

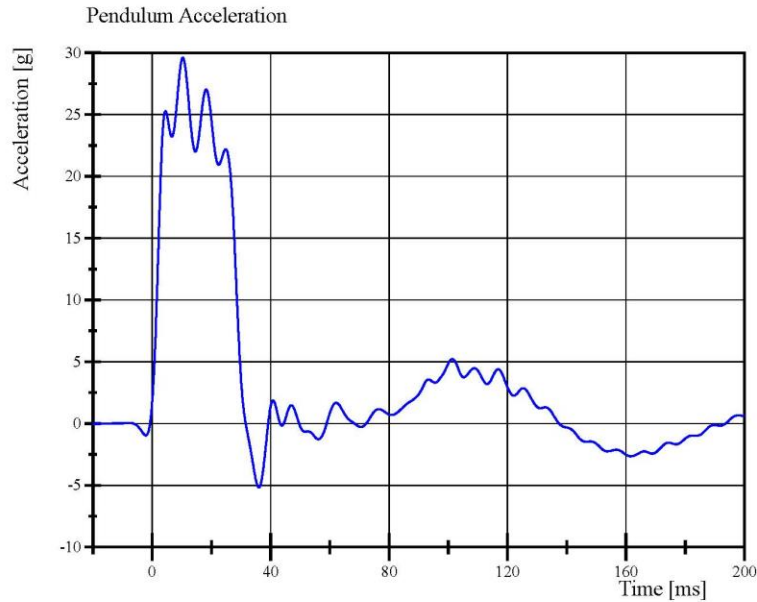
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 07:29:09 670

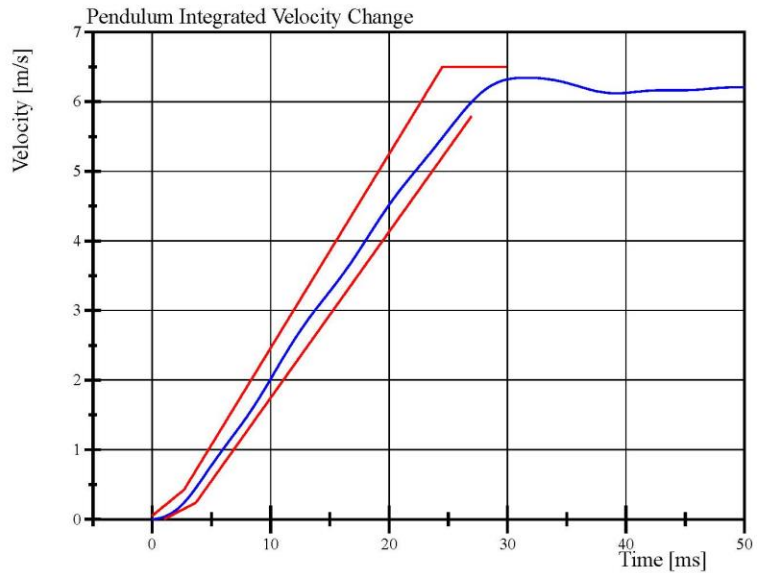


Transportation Research Center Inc.

Left Lateral Lumbar
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



Filter Class: CFC_60
Max: 29.6 g at 10.3 ms
Min: -5.2 g at 36.1 ms



Filter Class: CFC_60
Max: 6.3 m/s at 31.6 ms
Min: 0.0 m/s at 0.0 ms

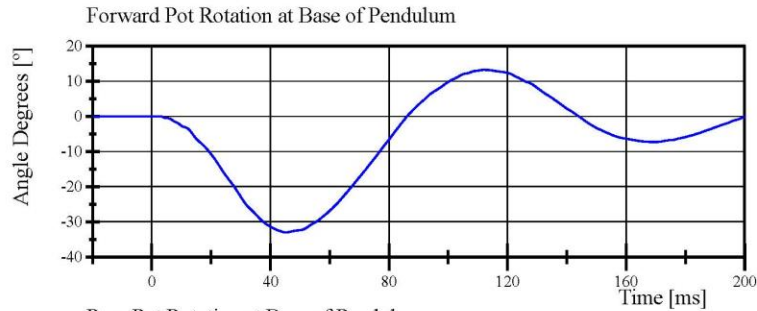
Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 07:29:43 670

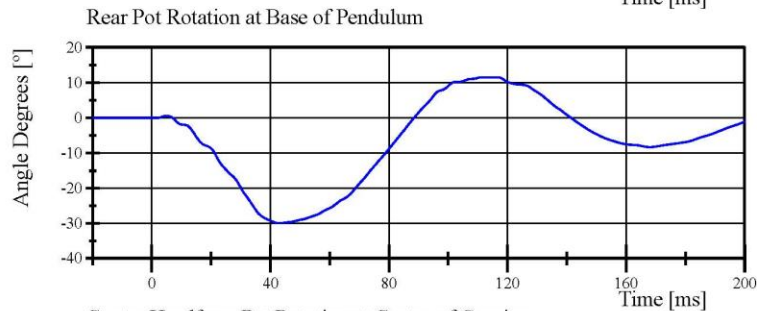


Transportation Research Center Inc.

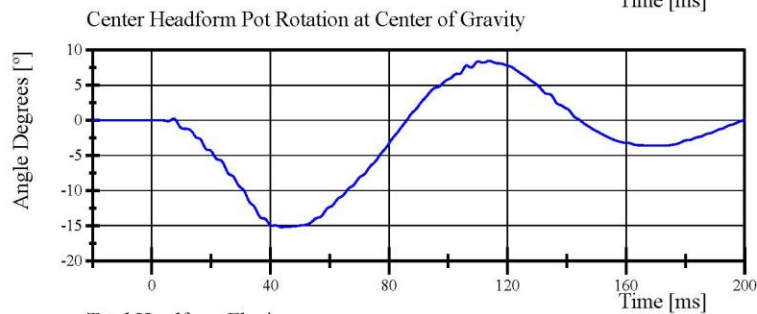
Left Lateral Lumbar
ES-2re Serial No. F030 Certification No. 109-1
Test Date: 9/26/2025



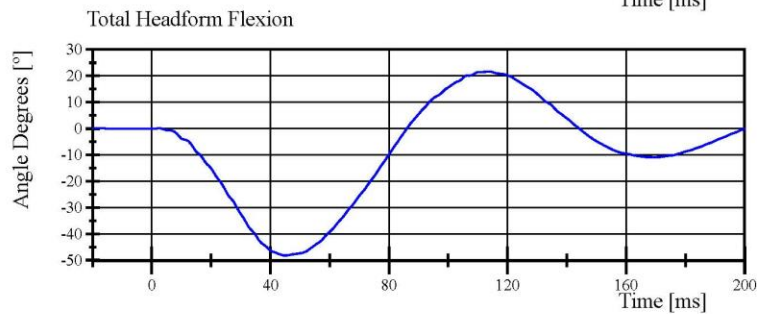
Filter Class: CFC_180
Max: 13.3 ° at 112.1 ms
Min: -33.0 ° at 45.2 ms



Filter Class: CFC_180
Max: 11.5 ° at 114.8 ms
Min: -30.0 ° at 43.1 ms



Filter Class: CFC_180
Max: 8.4 ° at 113.8 ms
Min: -15.2 ° at 43.8 ms



Filter Class: CFC_180
Max: 21.6 ° at 113.7 ms
Min: -48.1 ° at 45.1 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 07:29:43 670



Transportation Research Center Inc.

Left Lateral Abdomen

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
Test Probe Velocity	3.9 - 4.1 m/s	4.07 m/s	Yes
Test Probe Force			
Peak	4,000 - 4,800 N	4,722.6 N	Yes
Time of Peak	10.6 - 13.0 ms	11.20 ms	Yes
Total Abdominal Force			
Peak	2,200 - 2,700 N	2,540.0 N	Yes
Time of Peak	10.0 - 12.3 ms	11.68 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Abdomen S/N: 1066

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 10:26:08 570

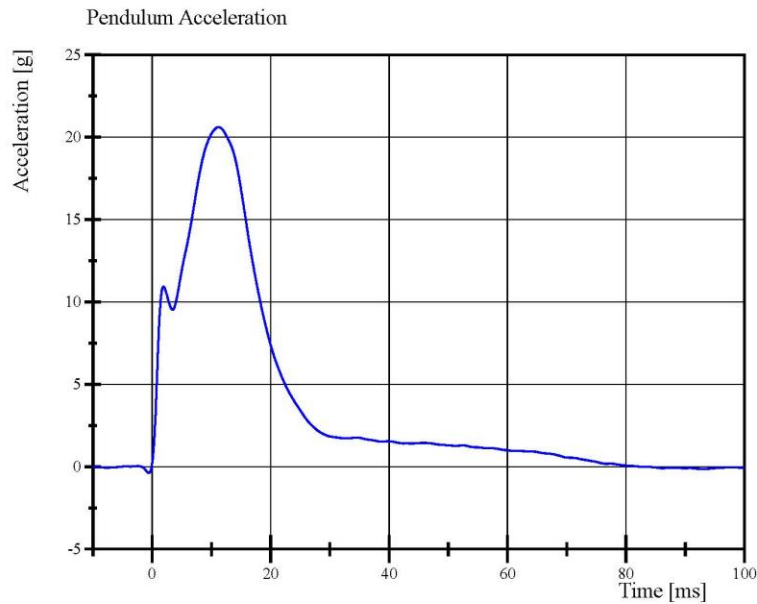


Transportation Research Center Inc.

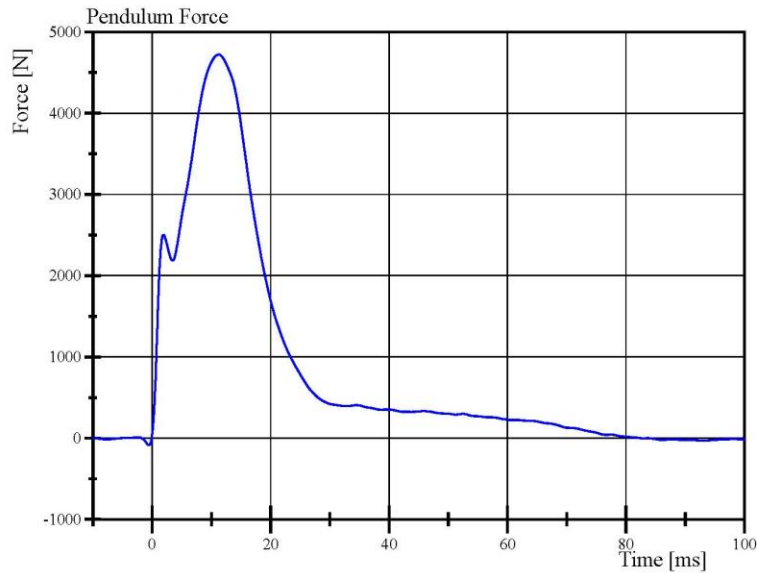
Left Lateral Abdomen

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025



Filter Class: CFC_180
Max: 20.6 g at 11.2 ms
Min: -0.4 g at -0.6 ms



Filter Class: CFC_180
Max: 4,722.6 N at 11.2 ms
Min: -86.9 N at -0.6 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 10:26:51 570

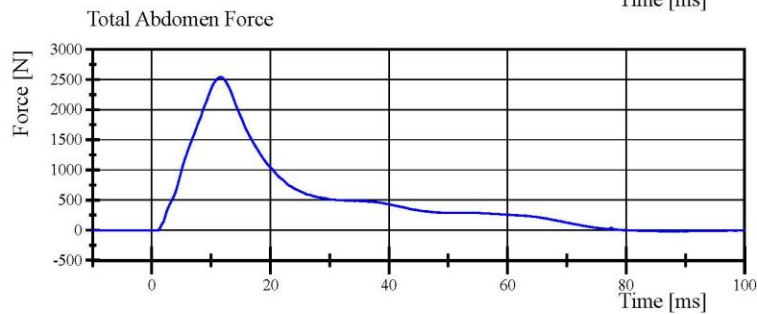
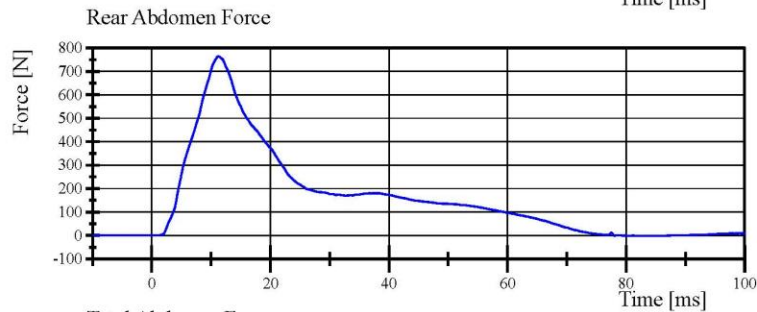
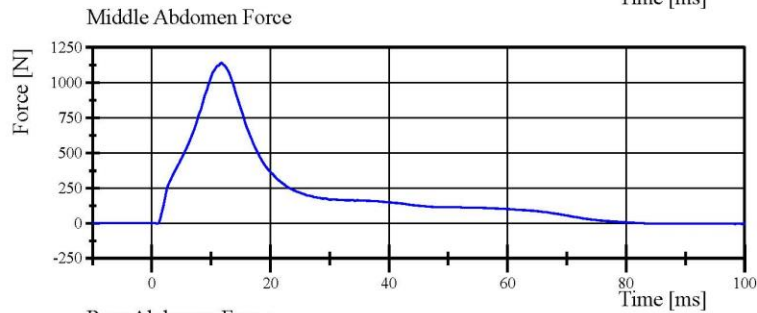
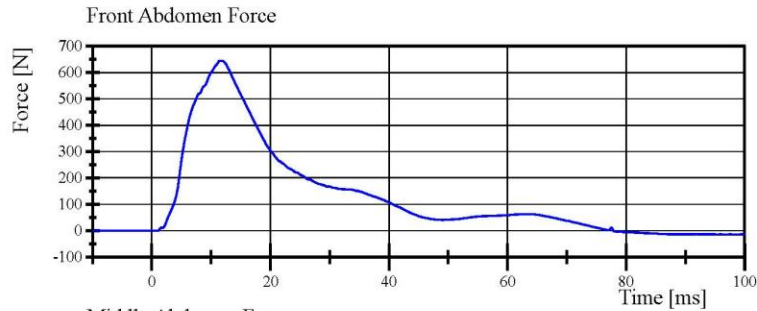


Transportation Research Center Inc.

Left Lateral Abdomen

ES-2re Serial No. F030 Certification No. 109-1

Test Date: 9/26/2025



Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 10:26:51 570



Transportation Research Center Inc.

Left Lateral Pelvis

ES-2re Serial No. F030 Certification No. 109-5

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
Test Probe Velocity	4.2 - 4.4 m/s	4.20 m/s	Yes
Test Probe Force			
Peak	4,700 - 5,400 N	5,361.2 N	Yes
Time of Peak	11.8 - 16.1 ms	13.68 ms	Yes
Pubic Symphysis Force			
Peak	(-1,230) - (-1,590) N	-1,310.4 N	Yes
Time of Peak	12.2 - 17.0 ms	12.88 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Pelvis S/N: NA

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 13:42:57 580

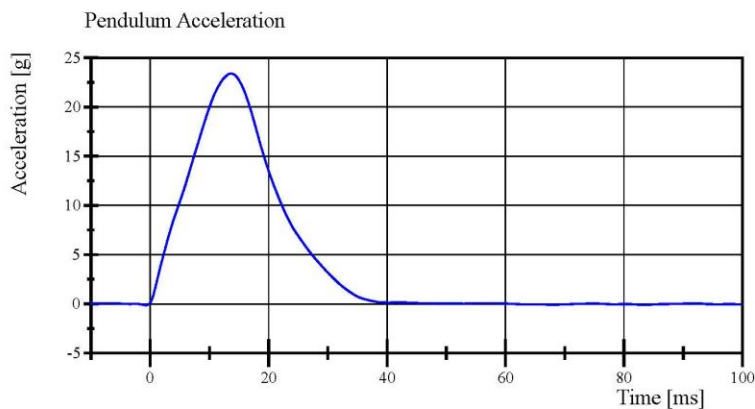


Transportation Research Center Inc.

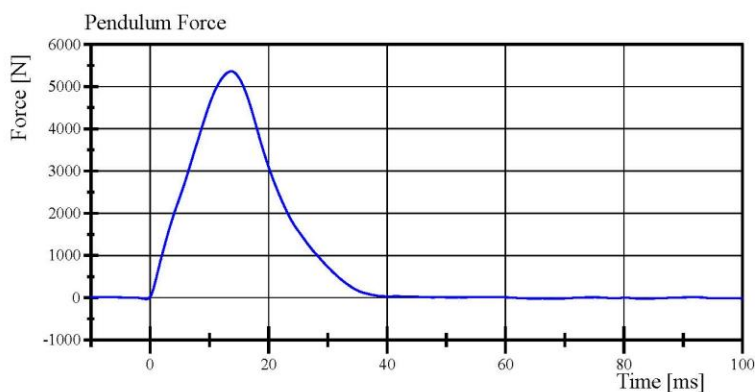
Left Lateral Pelvis

ES-2re Serial No. F030 Certification No. 109-5

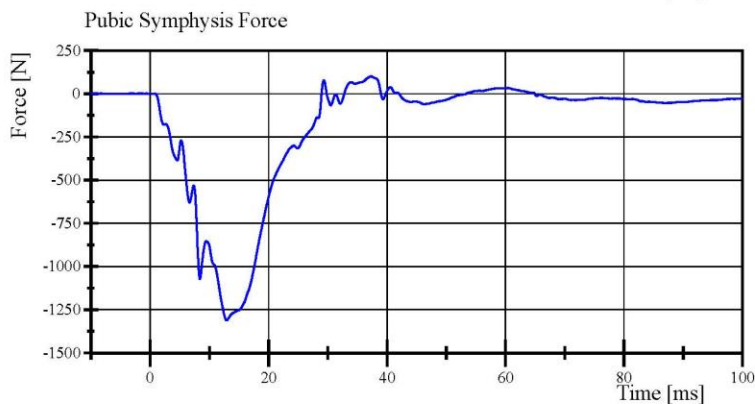
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 23.4 g at 13.7 ms
Min: -0.1 g at -0.7 ms



Filter Class: CFC_180
Max: 5,361.2 N at 13.7 ms
Min: -32.0 N at -0.7 ms



Filter Class: CFC_600
Max: 100.2 N at 37.3 ms
Min: -1,310.4 N at 12.9 ms

Specification Source: CFR49 Part 572 Subpart U
with Polarity in accordance with J211

09.26.2025 13:43:42 580



Pre-Test Calibration Sheets
Passenger S/N DQ0570

Transportation Research Center Inc.
SIDI's Dummy - Level D
External Dimensions
Serial No. DQ0570 Calibration No. 40

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Sitting Height	772.0 - 788.0	785	Yes
B	Shoulder Pivot Height	437.0 - 453.0	445	Yes
C	H-Point Height	79.0 - 89.0	83	Yes
D	H-Point from Seat Back	141.0 - 151.0	147	Yes
E	Shoulder Pivot from Backline	97.0 - 107.0	101	Yes
F	Thigh Clearance	119.0 - 135.0	130	Yes
G	Head Breadth	140.0 - 148.0	145	Yes
H	Head Back from Backline	40.0 - 46.0	45	Yes
I	Head Depth	178.0 - 188.0	184	Yes
J	Head Circumference	541.0 - 551.0	545	Yes
K	Buttock to Knee Length	514.0 - 540.0	533	Yes
L	Popliteal Height	343.0 - 369.0	353	Yes
M	Knee Pivot to Floor Height	393.0 - 409.0	400	Yes
N	Buttock Popliteal Length	416.0 - 442.0	427	Yes
O	Chest Depth without Jacket	195.0 - 211.0	200	Yes
P	Foot Length (right)	216.0 - 232.0	220	Yes
P	Foot Length (left)	216.0 - 232.0	220	Yes
Q	Hip Breadth	313.0 - 323.0	316	Yes
R	Arm Length	249.0 - 259.0	254	Yes
S	Knee Joint to seat Back	478.0 - 493.0	486	Yes
V	Shoulder Width (only one arm installed)	341.0 - 357.0	349	Yes
W	Foot Width (right)	78.0 - 94.0	84	Yes
W	Foot Width (left)	78.0 - 94.0	84	Yes
Y	Chest Circumference with Jacket	851.0 - 881.0	870	Yes
Z	Waist Circumference	761.0 - 791.0	780	Yes

Revised 9/29/2005



Report Number: DQ0570_S2H40

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Transportation Research Center Inc.

Left Lateral Head Drop

SID IIs Serial No. DQ0570 Certification No. 40-4

Test Date: 9/16/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Peak Head Resultant Acceleration	115 - 137 g	129.3 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	5.5 g	Yes
Is Head Resultant Acceleration Curve Unimodal within 15% of Peak?	< 15 %	1.14 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: DP8345

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 08:42:26 235



Report Number: DQ0570_S2H40

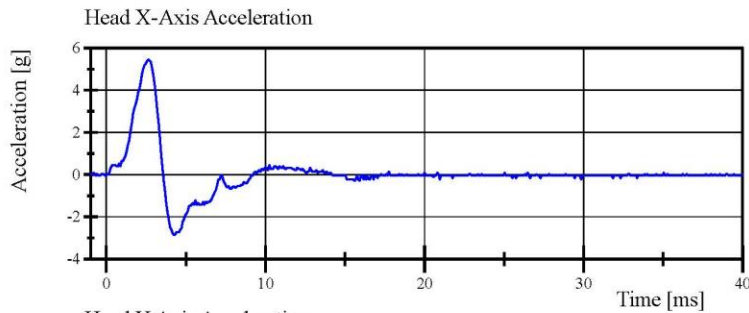
Page 9 of 31

Transportation Research Center Inc.

Left Lateral Head Drop

SID IIs Serial No. DQ0570 Certification No. 40-4

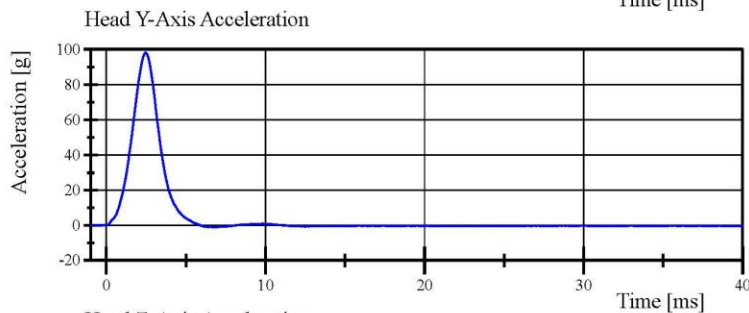
Test Date: 9/16/2025



Filter Class: CFC_1000

Max: 5.5 g at 2.6 ms

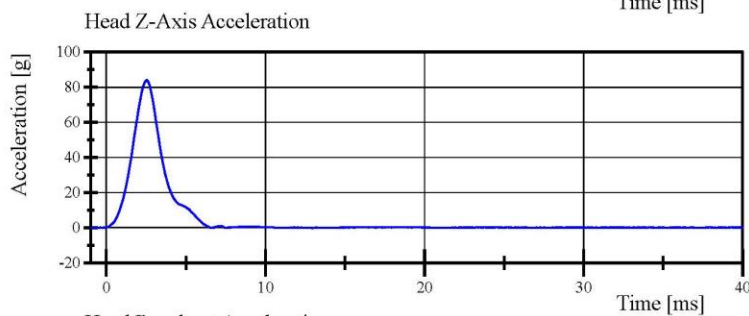
Min: -2.9 g at 4.2 ms



Filter Class: CFC_1000

Max: 98.3 g at 2.5 ms

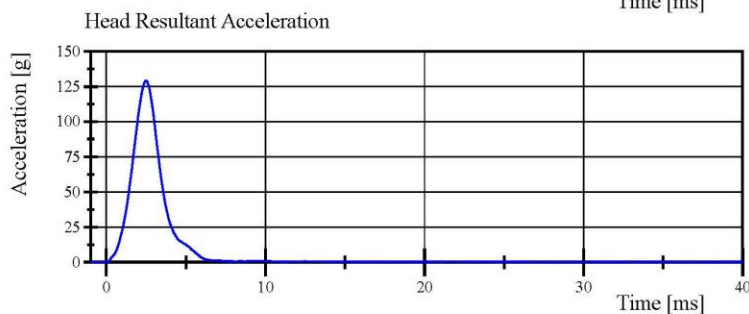
Min: -1.1 g at 6.7 ms



Filter Class: CFC_1000

Max: 84.0 g at 2.6 ms

Min: -0.1 g at 13.0 ms



Filter Class: CFC_1000

Max: 129.3 g at 2.5 ms

Min: 0.0 g at -0.7 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 08:43:03 235



Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 40-1

Test Date: 9/15/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	67 %	Yes
Pendulum Velocity	(-5.51) - (-5.63) m/s	-5.603 m/s	Yes
Pendulum Integrated Velocity			
Change at 10 ms	2.20 - 2.80 m/s	2.408 m/s	Yes
Change at 15 ms	3.30 - 4.10 m/s	3.550 m/s	Yes
Change at 20 ms	4.40 - 5.40 m/s	4.789 m/s	Yes
Change at 25 ms	5.40 - 6.10 m/s	5.738 m/s	Yes
Change at 25 to 100 ms	5.50 - 6.20 m/s	5.835 m/s	Yes
Maximum Headform Flexion			
Peak	(-71) - (-81) deg	-73.6 deg	Yes
Time of Peak	50 - 70 ms	61.6 ms	Yes
Total Neck Occipital Condyles Moment	36 - 44 N·m	40.4 N·m	Yes
Decay to 0 N·m	102 - 126 ms	112.5 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 180-2001717

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 11:17:38 752

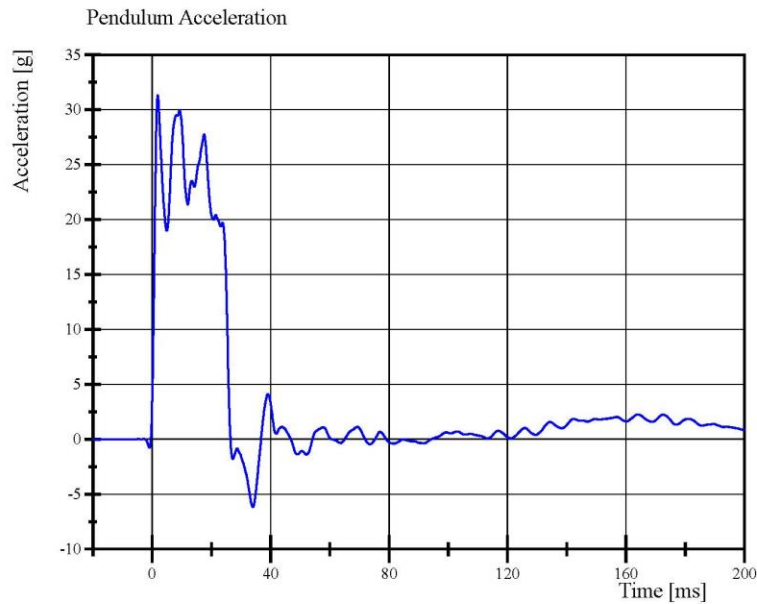


Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 40-1

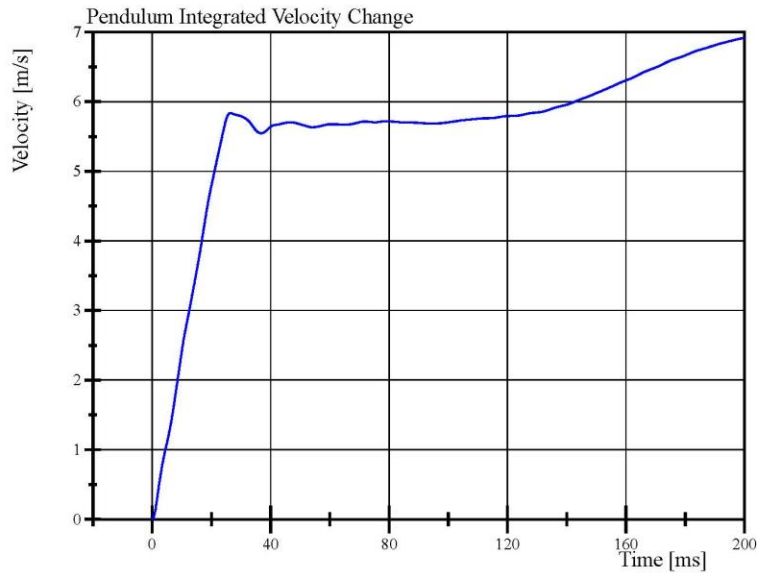
Test Date: 9/15/2025



Filter Class: CFC_180

Max: 31.3 g at 1.9 ms

Min: -6.2 g at 34.1 ms



Filter Class: CFC_180

Max: 6.9 m/s at 200.0 ms

Min: 0.0 m/s at 0.0 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 11:18:05 752

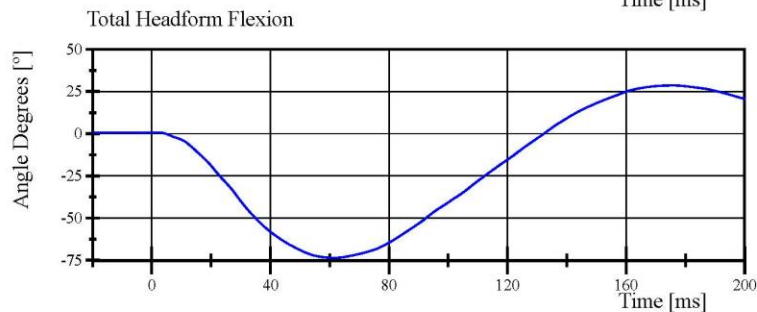
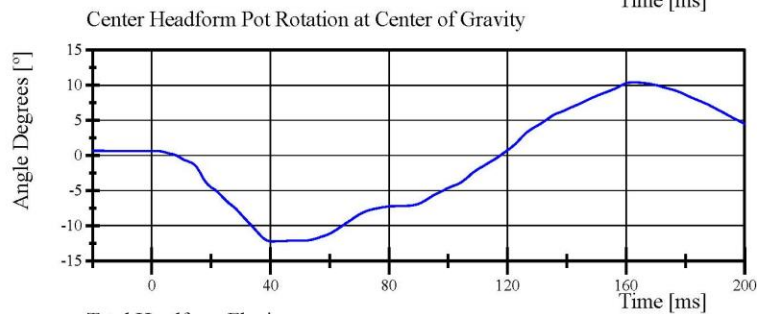
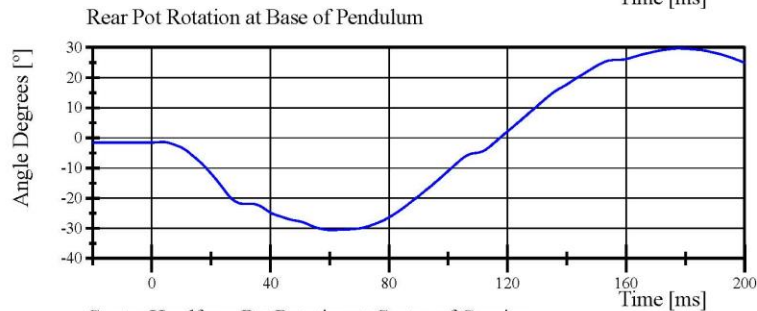
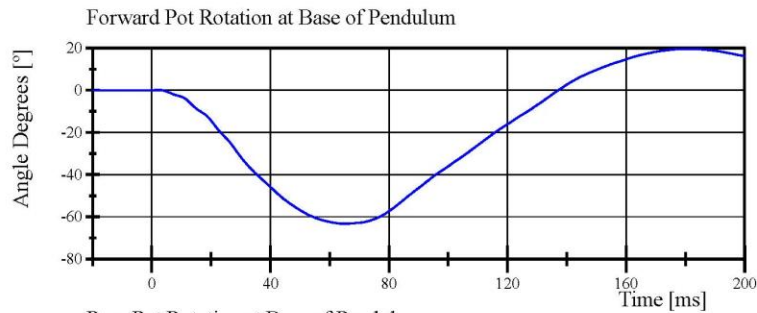


Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 40-1

Test Date: 9/15/2025



Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 11:18:05 752

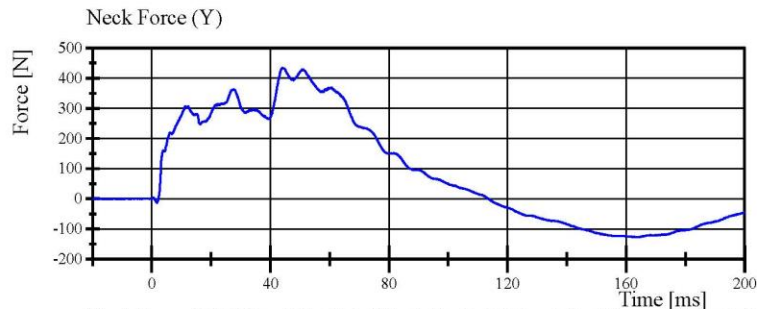


Transportation Research Center Inc.

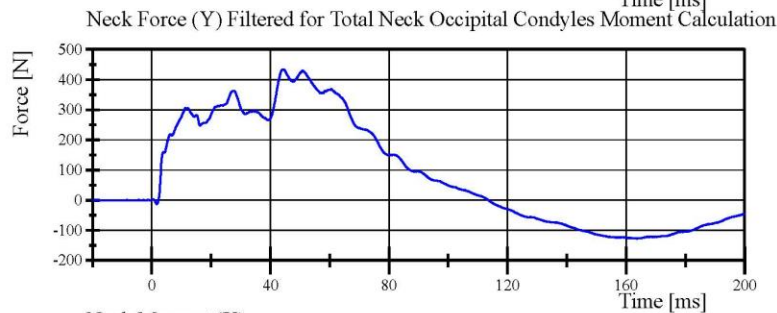
Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 40-1

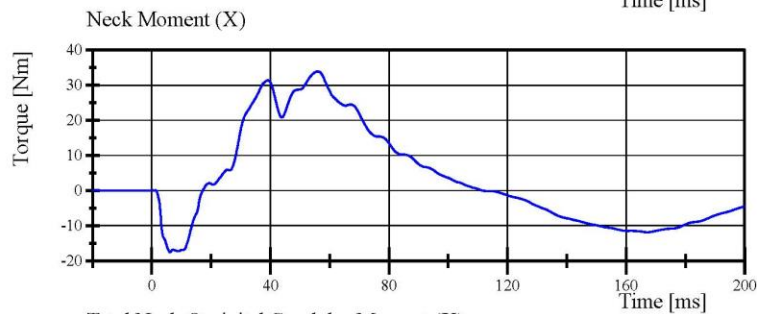
Test Date: 9/15/2025



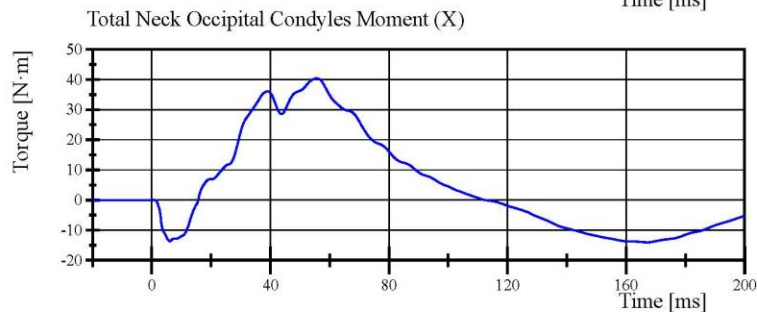
Filter Class: CFC_1000
Max: 434.0 N at 44.0 ms
Min: -127.3 N at 163.0 ms



Filter Class: CFC_600
Max: 433.7 N at 44.2 ms
Min: -127.2 N at 163.7 ms



Filter Class: CFC_600
Max: 33.9 Nm at 55.8 ms
Min: -17.6 Nm at 6.2 ms



Filter Class: Without_(Constar
Max: 40.4 N·m at 55.4 ms
Min: -14.0 N·m at 167.2 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 11:18:06 752



Transportation Research Center Inc.

Left Lateral Shoulder

SID IIs Serial No. DQ0570 Certification No. 40-1

Test Date: 9/15/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.32 m/s	Yes
Impactor Acceleration	(-13) - (-18) g	-15.4 g	Yes
Shoulder Displacement	28 - 37 mm	30.1 mm	Yes
Upper Spine Lateral Acceleration	17 - 22 g	20.7 g	Yes

Test meets specifications.

Condition: Used

Comments:

Left Arm S/N: DP8451

Shoulder Rib S/N: 180-3355 DL9246

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:26:52 843

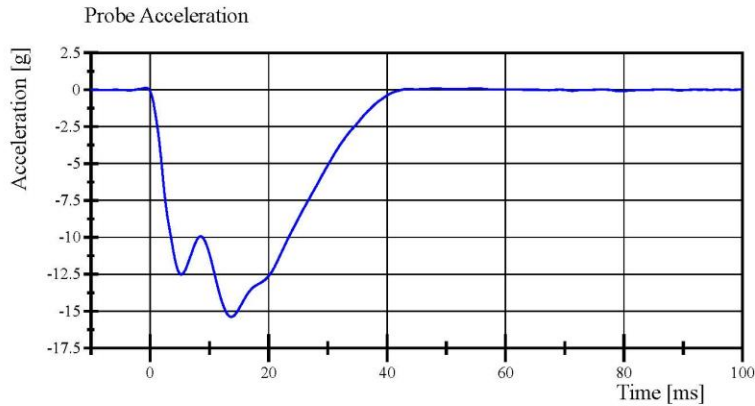


Transportation Research Center Inc.

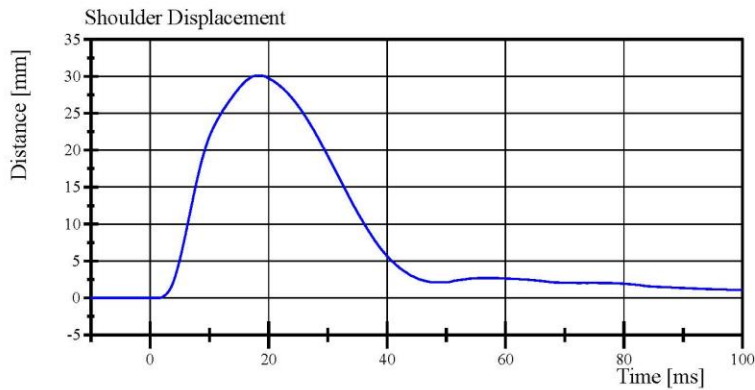
Left Lateral Shoulder

SID IIs Serial No. DQ0570 Certification No. 40-1

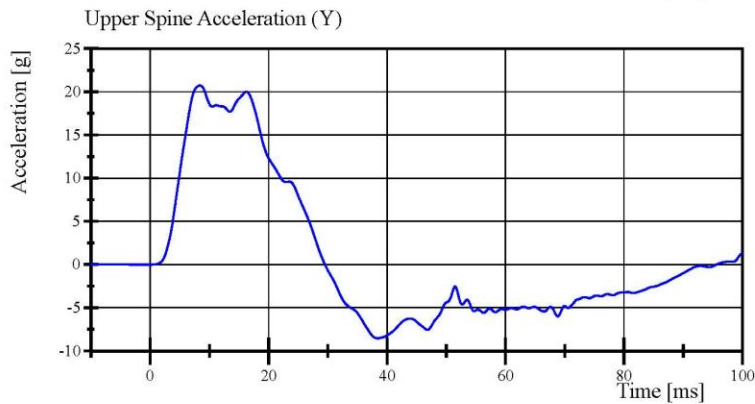
Test Date: 9/15/2025



Filter Class: CFC_180
Max: 0.1 g at -0.7 ms
Min: -15.4 g at 13.7 ms



Filter Class: CFC_600
Max: 30.1 mm at 18.3 ms
Min: -0.0 mm at -7.8 ms



Filter Class: CFC_180
Max: 20.7 g at 8.4 ms
Min: -8.5 g at 38.4 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:27:22 843



Transportation Research Center Inc.

Left Lateral Thorax with Arm
SID IIs Serial No. DQ0570 Certification No. 40-3
Test Date: 9/16/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Impactor Velocity	6.60 - 6.80 m/s	6.690 m/s	Yes
Impactor Acceleration	(-30) - (-36) g	-34.1 g	Yes
Shoulder Displacement	31 - 40 mm	31.5 mm	Yes
Upper Thorax Rib Displacement	25 - 32 mm	26.4 mm	Yes
Center Thorax Rib Displacement	30 - 36 mm	31.4 mm	Yes
Lower Thorax Rib Displacement	32 - 38 mm	35.2 mm	Yes
Upper Spine Lateral Acceleration	34 - 43 g	40.4 g	Yes
Lower Spine Lateral Acceleration	29 - 37 g	36.0 g	Yes

Test meets specifications.

Condition: Used

Comments:

Left Arm S/N: DP8451

Shoulder Rib S/N: 180-3355 DL9246

Upper Thorax Rib S/N: 180-3362 DP6492

Middle Thorax Rib S/N: 180-3362 DP6493

Lower Thorax Rib S/N: 180-3362 DP7664

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 08:46:11 650

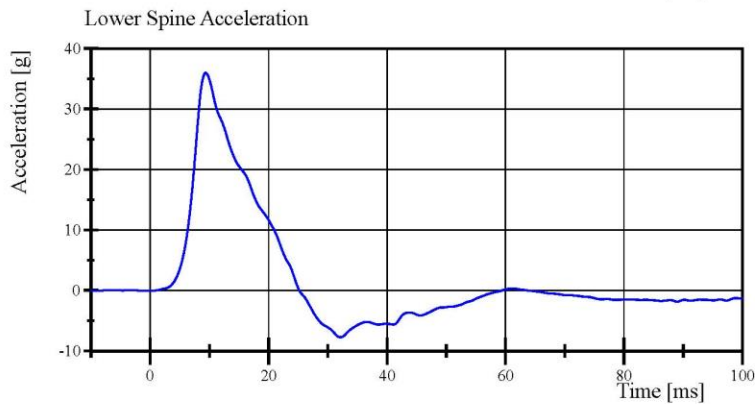
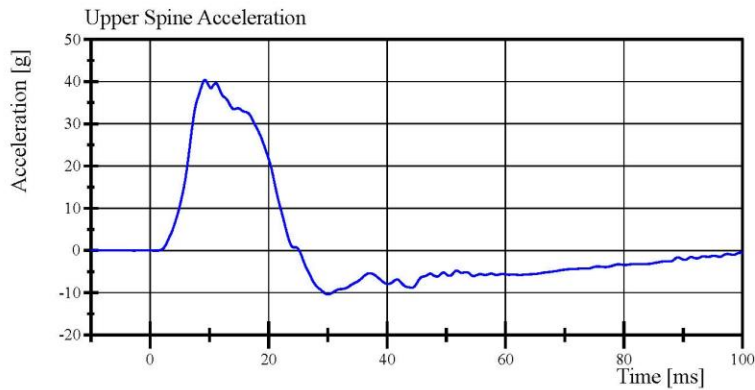
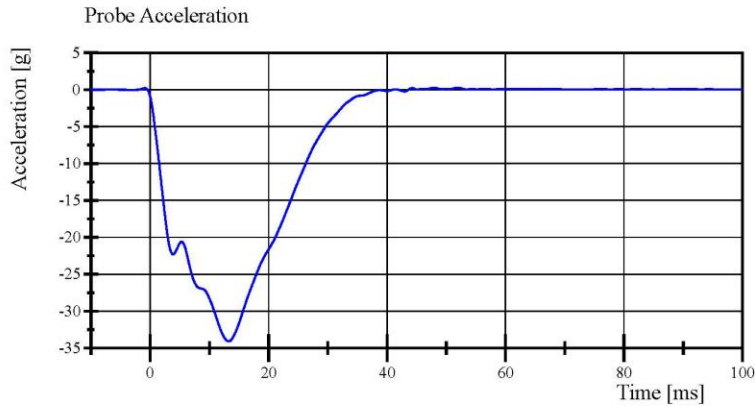


Transportation Research Center Inc.

Left Lateral Thorax with Arm

SID IIs Serial No. DQ0570 Certification No. 40-3

Test Date: 9/16/2025



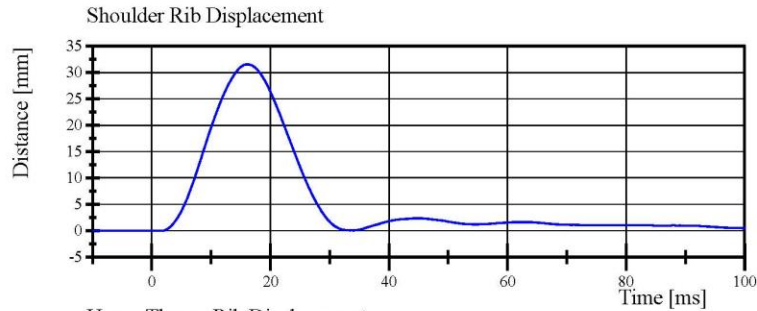
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 08:47:23 650

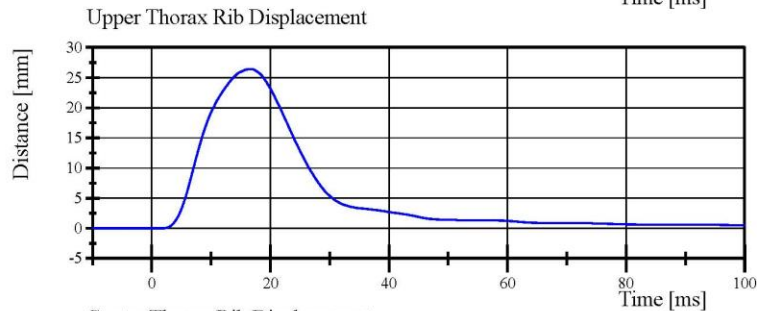


Transportation Research Center Inc.

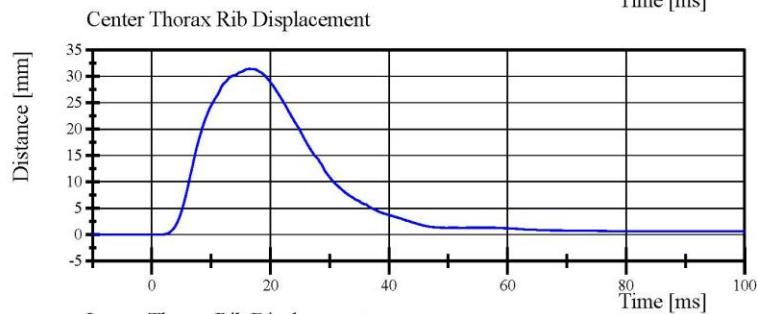
Left Lateral Thorax with Arm
SID IIs Serial No. DQ0570 Certification No. 40-3
Test Date: 9/16/2025



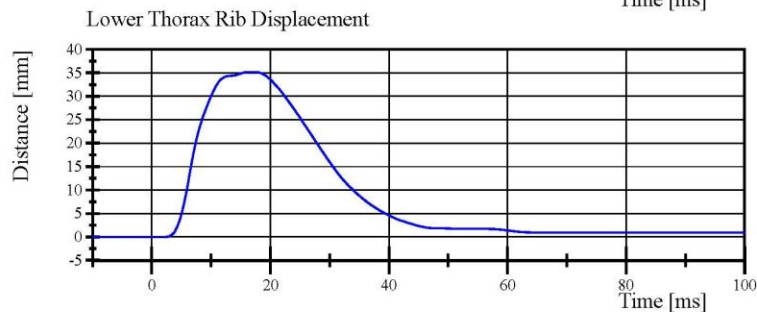
Filter Class: CFC_600
Max: 31.5 mm at 16.2 ms
Min: -0.0 mm at 1.8 ms



Filter Class: CFC_600
Max: 26.4 mm at 16.7 ms
Min: -0.0 mm at 1.7 ms



Filter Class: CFC_600
Max: 31.4 mm at 16.5 ms
Min: -0.0 mm at -8.4 ms



Filter Class: CFC_600
Max: 35.2 mm at 16.6 ms
Min: -0.0 mm at -3.5 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 08:47:23 650



Transportation Research Center Inc.

Left Lateral Thorax without Arm
SID IIs Serial No. DQ0570 Certification No. 40-1
Test Date: 9/15/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.249 m/s	Yes
Impactor Acceleration	(-14) - (-18) g	-15.5 g	Yes
Upper Thorax Rib Displacement	32 - 40 mm	35.9 mm	Yes
Center Thorax Rib Displacement	39 - 45 mm	40.4 mm	Yes
Lower Thorax Rib Displacement	35 - 43 mm	37.1 mm	Yes
Upper Spine Lateral Acceleration	13 - 17 g	14.5 g	Yes
Lower Spine Lateral Acceleration	7 - 11 g	9.9 g	Yes

Test meets specifications.

Condition: Used

Comments:

Upper Thorax Rib S/N: 180-3362 DP6492

Middle Thorax Rib S/N: 180-3362 DP6493

Lower Thorax Rib S/N: 180-3362 DP7664

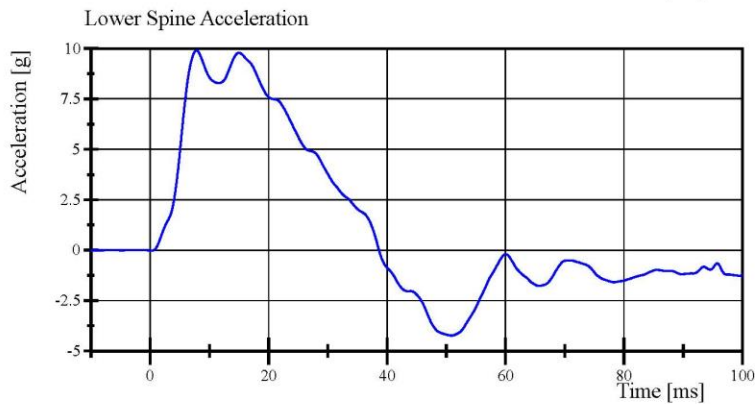
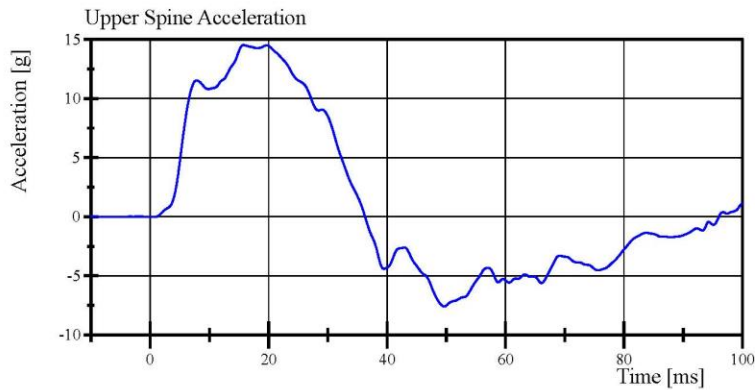
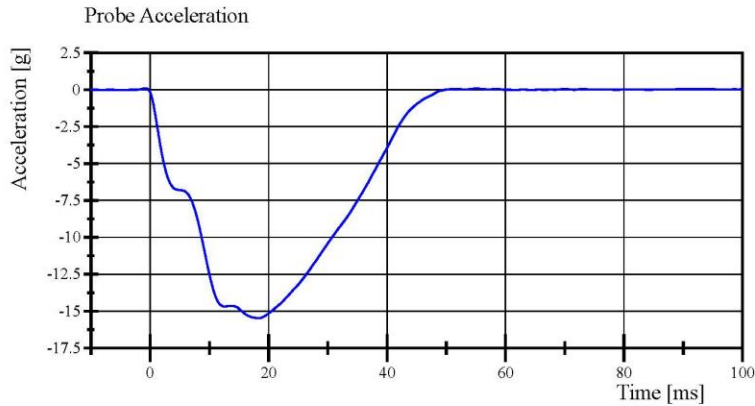
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:49:13 886



Transportation Research Center Inc.

Left Lateral Thorax without Arm
SID IIs Serial No. DQ0570 Certification No. 40-1
Test Date: 9/15/2025



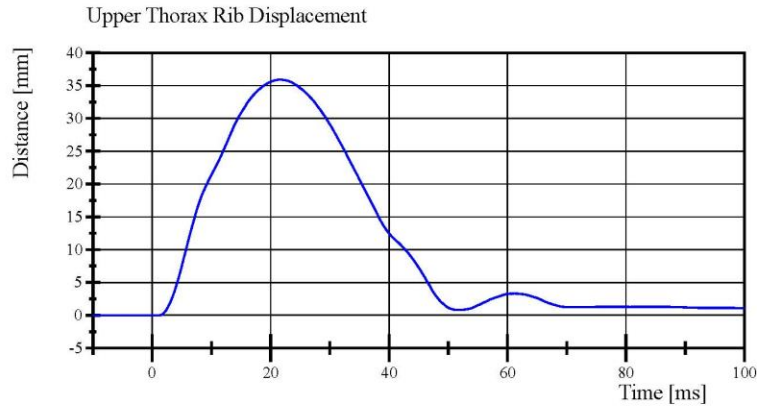
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:49:58 886

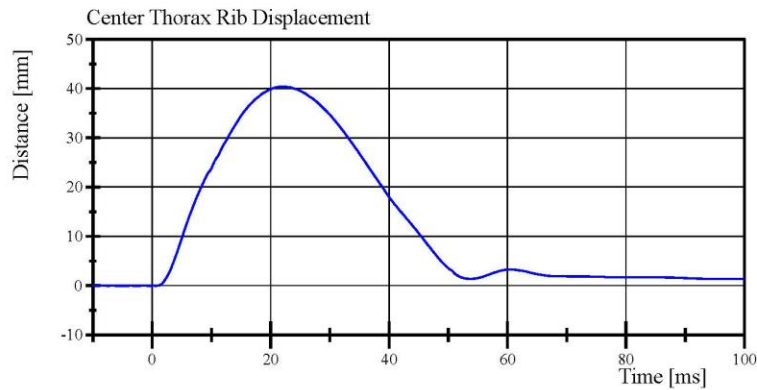


Transportation Research Center Inc.

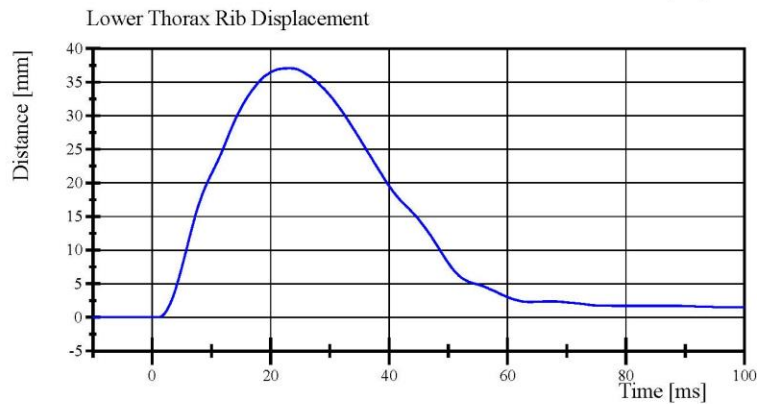
Left Lateral Thorax without Arm
SID IIs Serial No. DQ0570 Certification No. 40-1
Test Date: 9/15/2025



Filter Class: CFC_600
Max: 35.9 mm at 21.6 ms
Min: -0.0 mm at 1.1 ms



Filter Class: CFC_600
Max: 40.4 mm at 22.1 ms
Min: -0.0 mm at -2.3 ms



Filter Class: CFC_600
Max: 37.1 mm at 23.2 ms
Min: -0.0 mm at -4.2 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:49:59 886



Transportation Research Center Inc.

Left Lateral Abdomen

SID IIs Serial No. DQ0570 Certification No. 40-1

Test Date: 9/15/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.38 m/s	Yes
Impactor Acceleration	(-12) - (-16) g	-15.0 g	Yes
Upper Abdominal Rib Displacement	36 - 47 mm	41.3 mm	Yes
Lower Abdominal Rib Displacement	33 - 44 mm	39.3 mm	Yes
Lower Spine Lateral Acceleration	9 - 14.0 g	12.08 g	Yes

Test meets specifications.

Condition: Used

Comments:

Upper Abdominal Rib S/N: 180-3368 DP5142

Lower Abdominal Rib S/N: 180-3368 DP5143

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:36:34 675

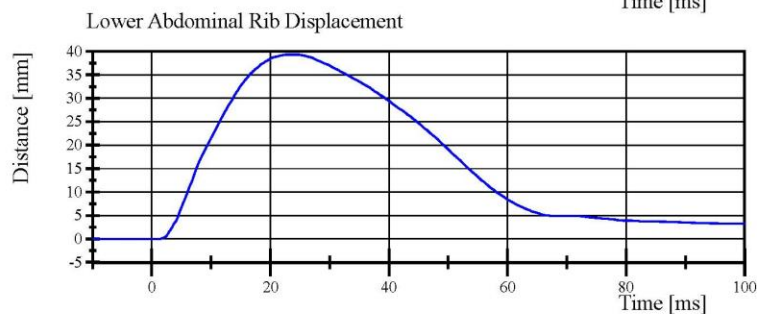
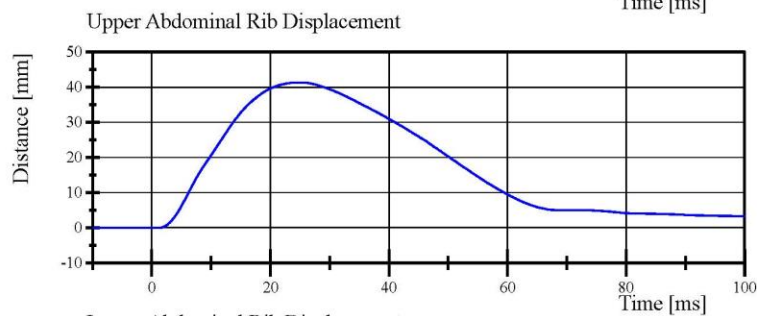
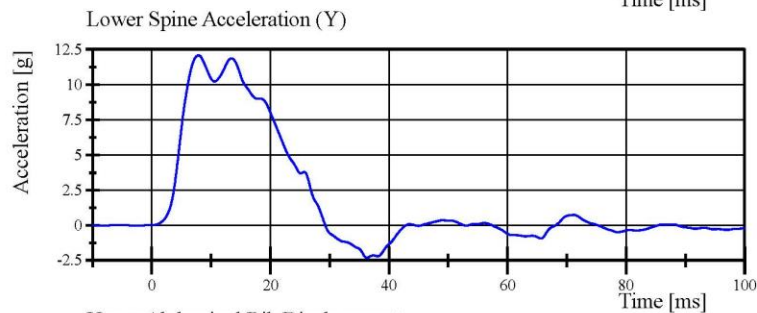
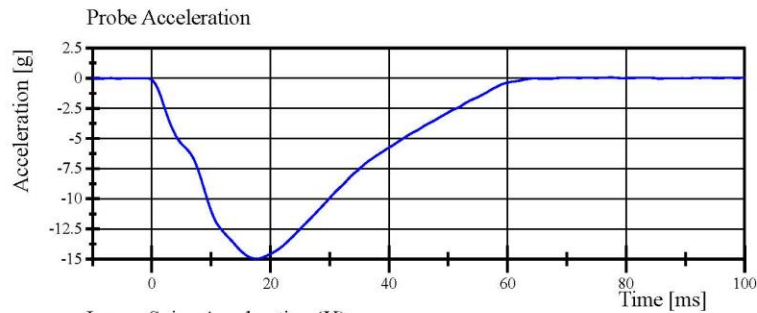


Transportation Research Center Inc.

Left Lateral Abdomen

SID IIs Serial No. DQ0570 Certification No. 40-1

Test Date: 9/15/2025



Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.15.2025 13:37:04 675



Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. DQ0570 Certification No. 40-1

Test Date: 9/16/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Pendulum Velocity	6.6 - 6.8 m/s	6.63 m/s	Yes
Impactor Acceleration	(-38.0) - (-47.0) g	-42.43 g	Yes
Peak Pelvis Lateral Acceleration after 6ms	34 - 42 g	38.4 g	Yes
Acetabulum Force	3,600 - 4,300 N	3,667.4 N	Yes

Test meets specifications.

Condition: Used

Comments:

Pelvis Skin S/N: 1173

Pelvis Plug Info:

Manufacturer: SACO

S/N: 14449

Cal Date: 20201218

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 09:08:25 464

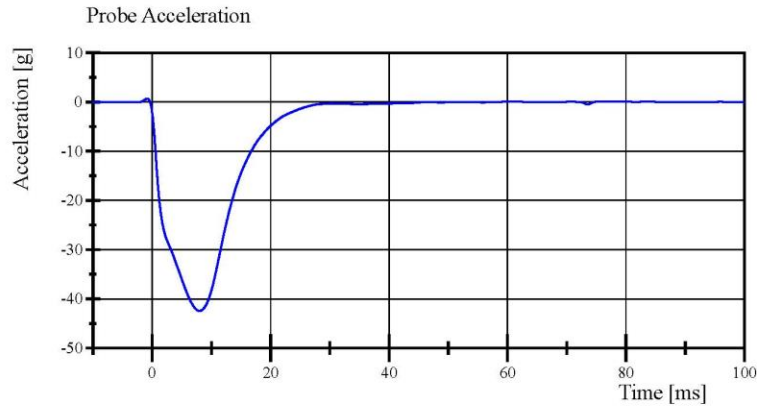


Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. DQ0570 Certification No. 40-1

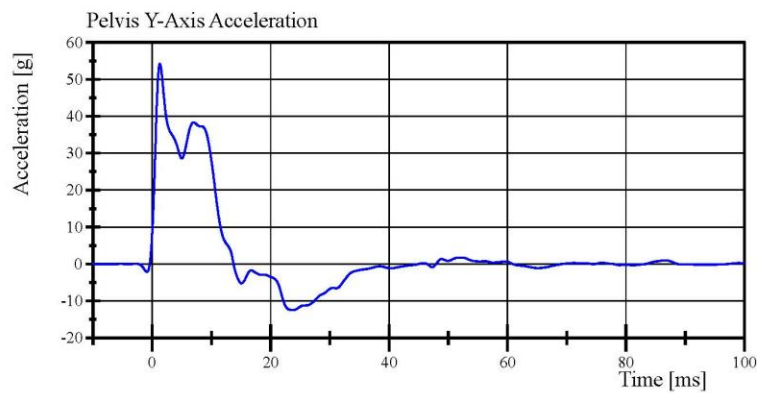
Test Date: 9/16/2025



Filter Class: CFC_180

Max: 0.7 g at -0.8 ms

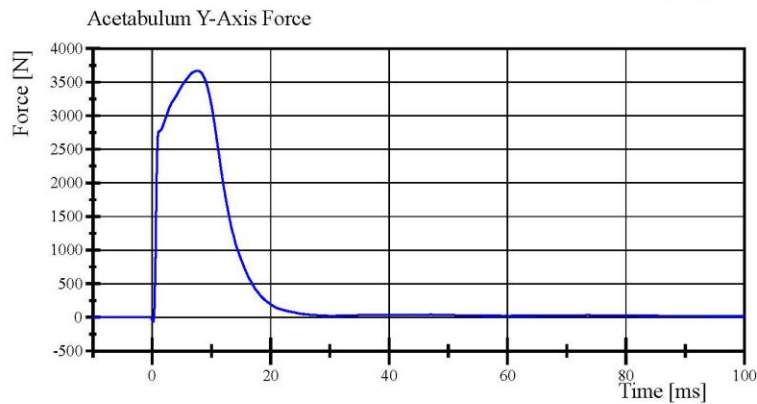
Min: -42.4 g at 8.0 ms



Filter Class: CFC_180

Max: 54.2 g at 1.3 ms

Min: -12.5 g at 23.8 ms



Filter Class: CFC_600

Max: 3,667.4 N at 7.7 ms

Min: -68.3 N at 0.2 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 09:09:27 464



Transportation Research Center Inc.

Left Lateral Iliac

SID IIs Serial No. DQ0570 Certification No. 40-3

Test Date: 9/16/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Pendulum Velocity	4.2 - 4.4 m/s	4.20 m/s	Yes
Impactor Acceleration	(-36) - (-45) g	-42.2 g	Yes
Peak Pelvis Lateral Acceleration	28 - 39 g	37.4 g	Yes
Iliac Force	4,100 - 5,100 N	4,970.4 N	Yes

Test meets specifications.

Condition: Used

Comments:

Pelvis Skin S/N: 1173

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 13:17:42 678

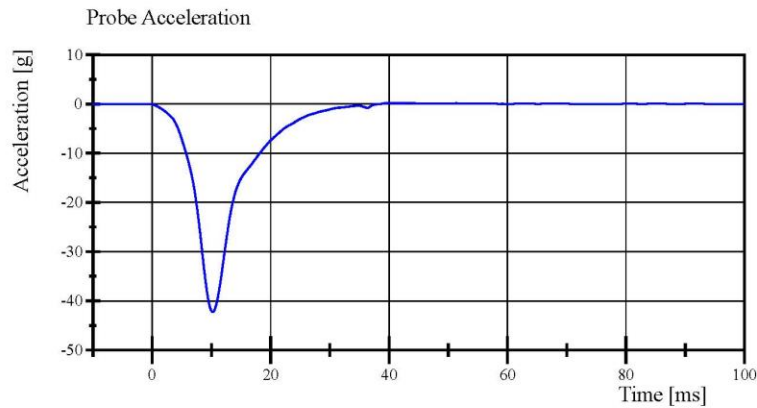


Transportation Research Center Inc.

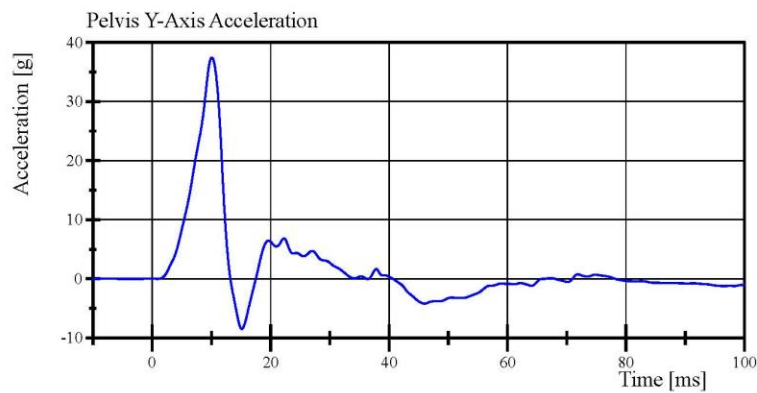
Left Lateral Iliac

SID IIs Serial No. DQ0570 Certification No. 40-3

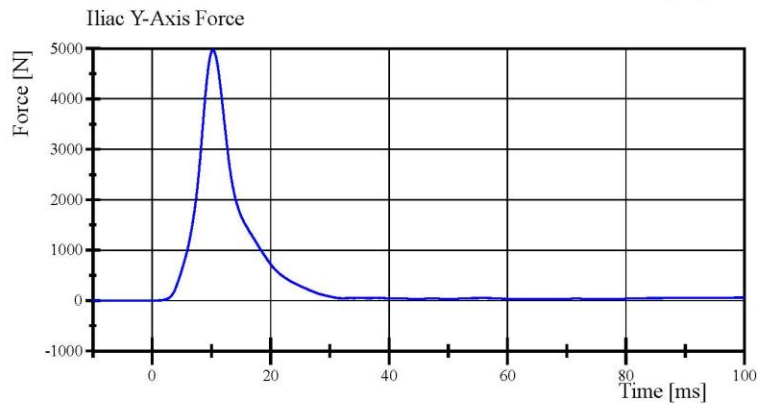
Test Date: 9/16/2025



Filter Class: CFC_180
Max: 0.2 g at 40.6 ms
Min: -42.2 g at 10.2 ms



Filter Class: CFC_180
Max: 37.4 g at 10.1 ms
Min: -8.5 g at 15.1 ms



Filter Class: CFC_600
Max: 4,970.4 N at 10.2 ms
Min: -0.8 N at -2.6 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.16.2025 13:18:45 678



Post-Test Calibration Sheets
Passenger S/N DQ0570

Transportation Research Center Inc.
SIDI's Dummy - Level D
External Dimensions
Serial No. DQ0570 Calibration No. 41

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Sitting Height	772.0 - 788.0	785	Yes
B	Shoulder Pivot Height	437.0 - 453.0	445	Yes
C	H-Point Height	79.0 - 89.0	83	Yes
D	H-Point from Seat Back	141.0 - 151.0	147	Yes
E	Shoulder Pivot from Backline	97.0 - 107.0	101	Yes
F	Thigh Clearance	119.0 - 135.0	130	Yes
G	Head Breadth	140.0 - 148.0	145	Yes
H	Head Back from Backline	40.0 - 46.0	45	Yes
I	Head Depth	178.0 - 188.0	184	Yes
J	Head Circumference	541.0 - 551.0	545	Yes
K	Buttock to Knee Length	514.0 - 540.0	533	Yes
L	Popliteal Height	343.0 - 369.0	353	Yes
M	Knee Pivot to Floor Height	393.0 - 409.0	400	Yes
N	Buttock Popliteal Length	416.0 - 442.0	427	Yes
O	Chest Depth without Jacket	195.0 - 211.0	200	Yes
P	Foot Length (right)	216.0 - 232.0	220	Yes
P	Foot Length (left)	216.0 - 232.0	220	Yes
Q	Hip Breadth	313.0 - 323.0	316	Yes
R	Arm Length	249.0 - 259.0	254	Yes
S	Knee Joint to seat Back	478.0 - 493.0	486	Yes
V	Shoulder Width (only one arm installed)	341.0 - 357.0	349	Yes
W	Foot Width (right)	78.0 - 94.0	84	Yes
W	Foot Width (left)	78.0 - 94.0	84	Yes
Y	Chest Circumference with Jacket	851.0 - 881.0	870	Yes
Z	Waist Circumference	761.0 - 791.0	780	Yes

Revised 9/29/2005



Report Number: DQ0570_S2H41

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Transportation Research Center Inc.

Left Lateral Head Drop

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Peak Head Resultant Acceleration	115 - 137 g	131.1 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	5.0 g	Yes
Is Head Resultant Acceleration Curve Unimodal within 15% of Peak?	< 15 %	1.18 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: DP8345

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 07:40:52.235



Report Number: DQ0570_S2H41

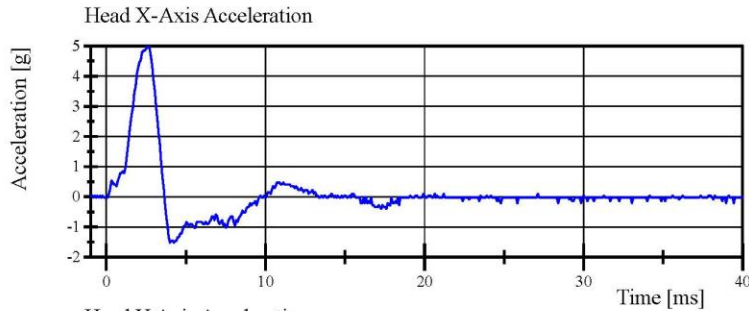
Page 9 of 31

Transportation Research Center Inc.

Left Lateral Head Drop

SID IIs Serial No. DQ0570 Certification No. 41-1

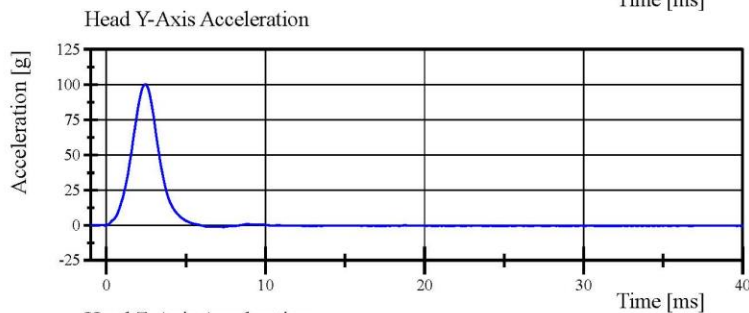
Test Date: 9/26/2025



Filter Class: CFC_1000

Max: 5.0 g at 2.6 ms

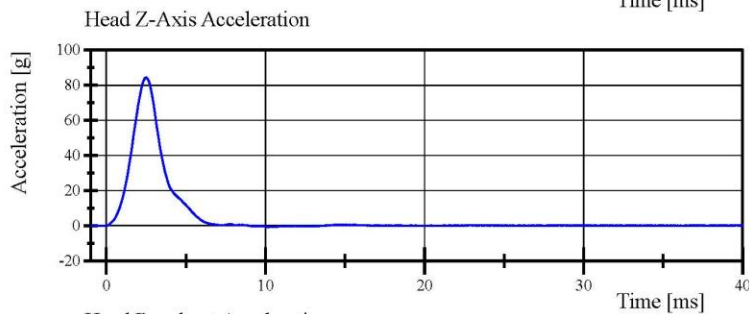
Min: -1.5 g at 4.0 ms



Filter Class: CFC_1000

Max: 100.2 g at 2.5 ms

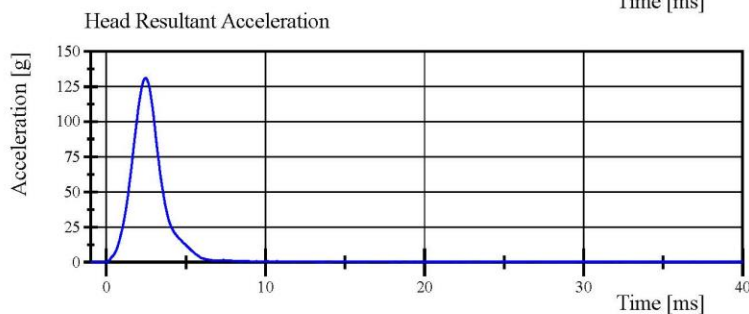
Min: -1.1 g at 7.4 ms



Filter Class: CFC_1000

Max: 84.4 g at 2.5 ms

Min: -0.7 g at 10.2 ms



Filter Class: CFC_1000

Max: 131.1 g at 2.5 ms

Min: 0.0 g at -0.8 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 07:41:29 235



Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Pendulum Velocity	(-5.51) - (-5.63) m/s	-5.603 m/s	Yes
Pendulum Integrated Velocity Change at 10 ms	2.20 - 2.80 m/s	2.458 m/s	Yes
Change at 15 ms	3.30 - 4.10 m/s	3.611 m/s	Yes
Change at 20 ms	4.40 - 5.40 m/s	4.799 m/s	Yes
Change at 25 ms	5.40 - 6.10 m/s	5.706 m/s	Yes
Change at 25 to 100 ms	5.50 - 6.20 m/s	5.829 m/s	Yes
Maximum Headform Flexion			
Peak	(-71) - (-81) deg	-71.7 deg	Yes
Time of Peak	50 - 70 ms	60.1 ms	Yes
Total Neck Occipital Condyles Moment	36 - 44 N·m	40.0 N·m	Yes
Decay to 0 N·m	102 - 126 ms	109.8 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 180-2001717

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 07:59:30 752

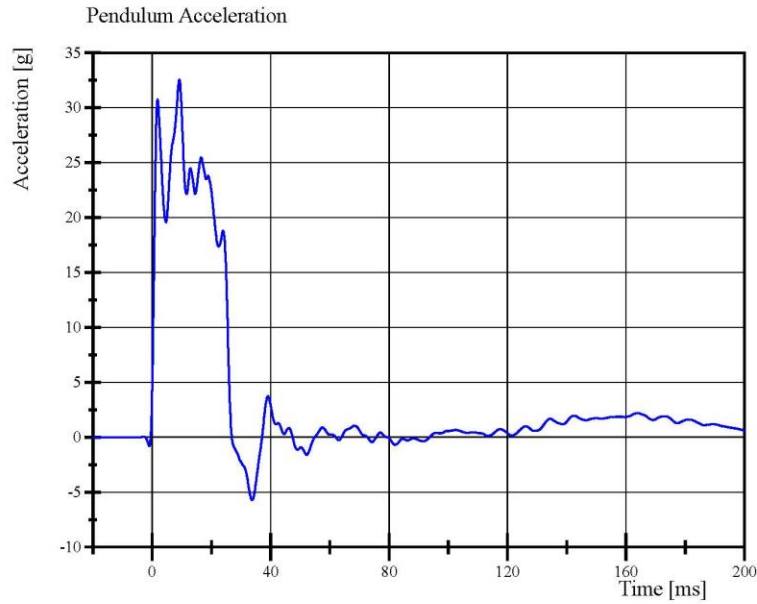


Transportation Research Center Inc.

Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 41-1

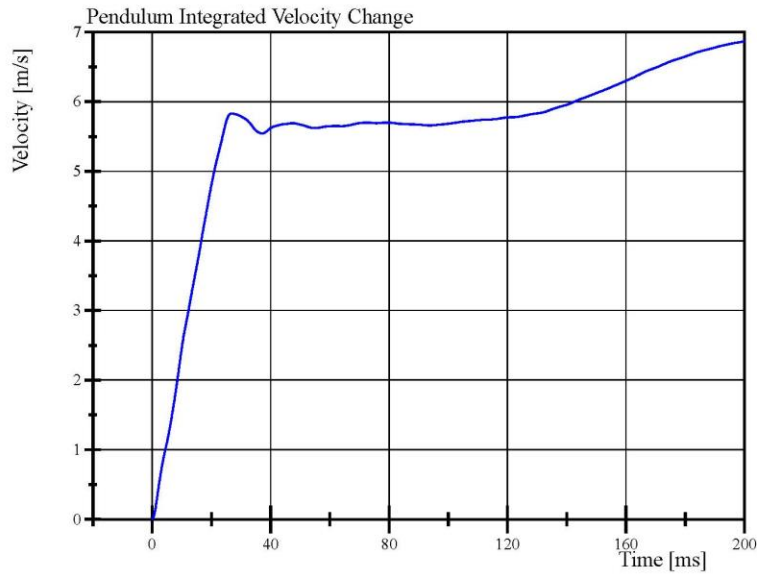
Test Date: 9/26/2025



Filter Class: CFC_180

Max: 32.5 g at 9.2 ms

Min: -5.7 g at 33.8 ms



Filter Class: CFC_180

Max: 6.9 m/s at 200.0 ms

Min: 0.0 m/s at 0.0 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 07:59:56 752

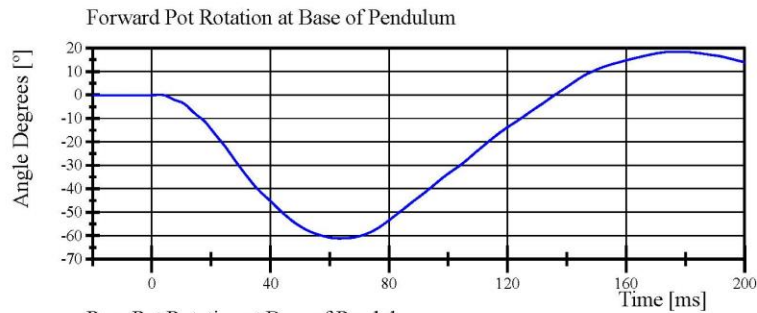


Transportation Research Center Inc.

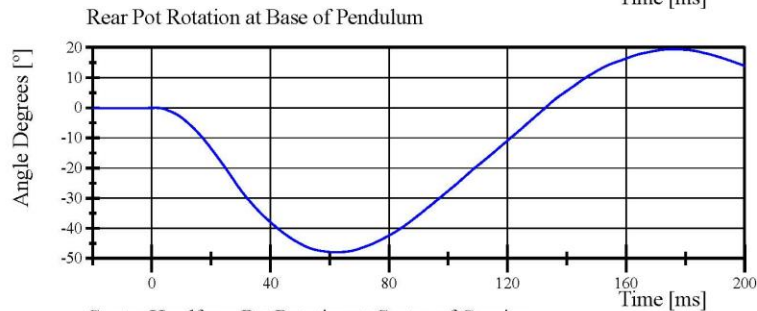
Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 41-1

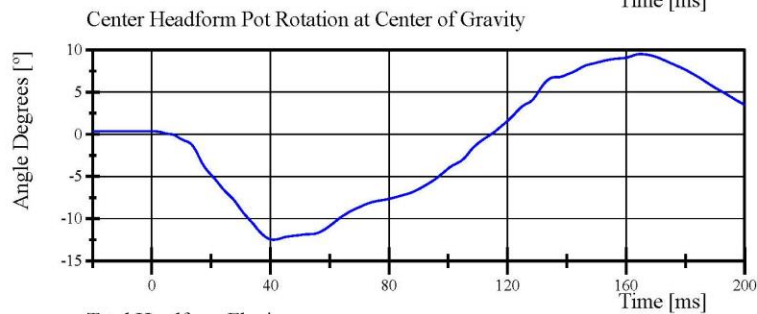
Test Date: 9/26/2025



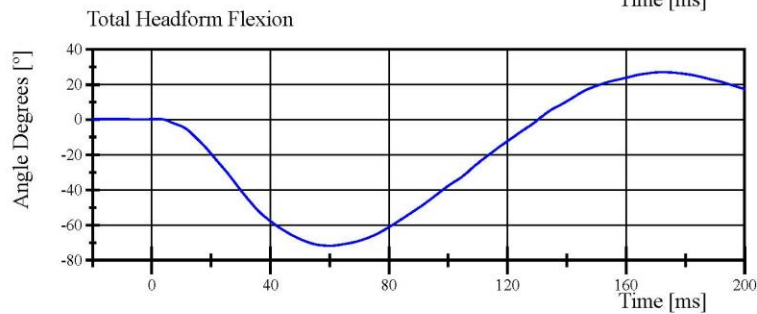
Filter Class: CFC_60
Max: 18.5 ° at 177.1 ms
Min: -61.2 ° at 63.2 ms



Filter Class: CFC_60
Max: 19.4 ° at 175.4 ms
Min: -47.9 ° at 61.8 ms



Filter Class: CFC_60
Max: 9.5 ° at 165.0 ms
Min: -12.5 ° at 41.0 ms



Filter Class: CFC_60
Max: 27.0 ° at 172.2 ms
Min: -71.7 ° at 60.1 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 07:59:57 752

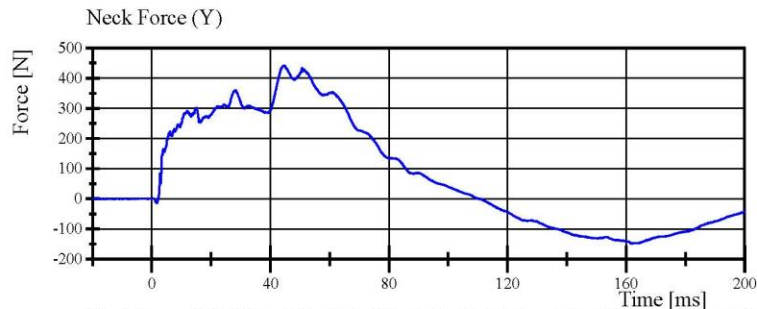


Transportation Research Center Inc.

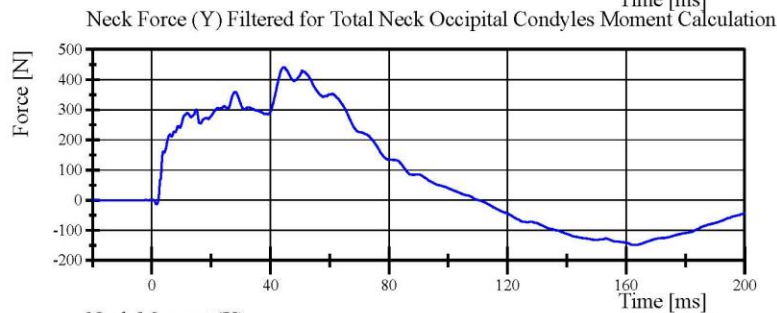
Left Lateral Neck

SID IIs Serial No. DQ0570 Certification No. 41-1

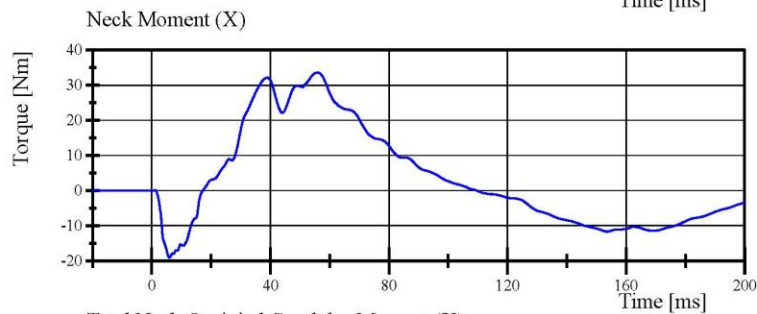
Test Date: 9/26/2025



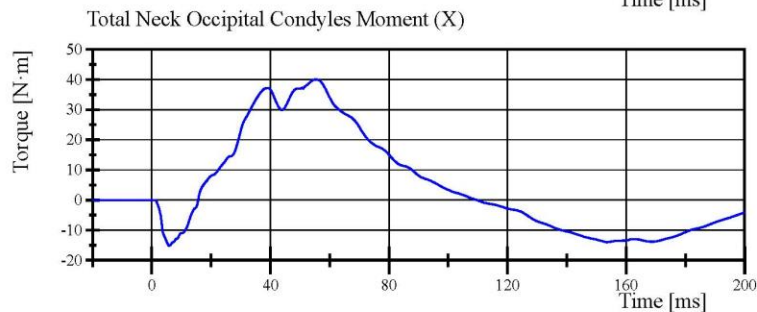
Filter Class: CFC_1000
Max: 441.2 N at 44.4 ms
Min: -149.0 N at 161.9 ms



Filter Class: CFC_600
Max: 441.1 N at 44.6 ms
Min: -148.5 N at 162.0 ms



Filter Class: CFC_600
Max: 33.6 Nm at 56.2 ms
Min: -19.0 Nm at 5.9 ms



Filter Class: Without_(Constar
Max: 40.0 N·m at 55.2 ms
Min: -15.2 N·m at 5.8 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 07:59:57 752



Transportation Research Center Inc.

Left Lateral Shoulder

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.33 m/s	Yes
Impactor Acceleration	(-13) - (-18) g	-15.3 g	Yes
Shoulder Displacement	28 - 37 mm	30.4 mm	Yes
Upper Spine Lateral Acceleration	17 - 22 g	20.5 g	Yes

Test meets specifications.

Condition: Used

Comments:

Left Arm S/N: DP8451

Shoulder Rib S/N: 180-3355 DL9246

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 08:52:05 858

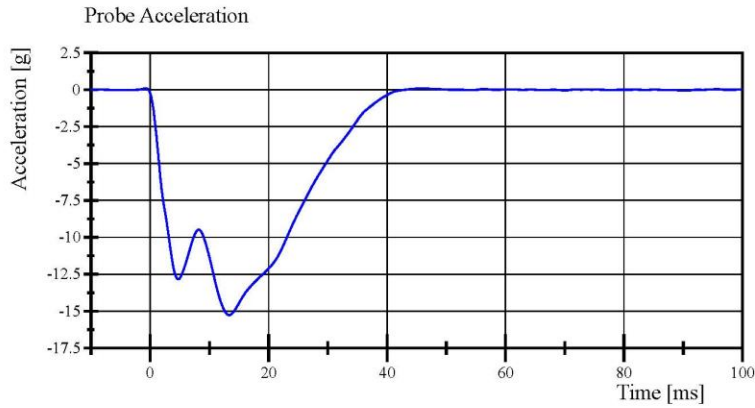


Transportation Research Center Inc.

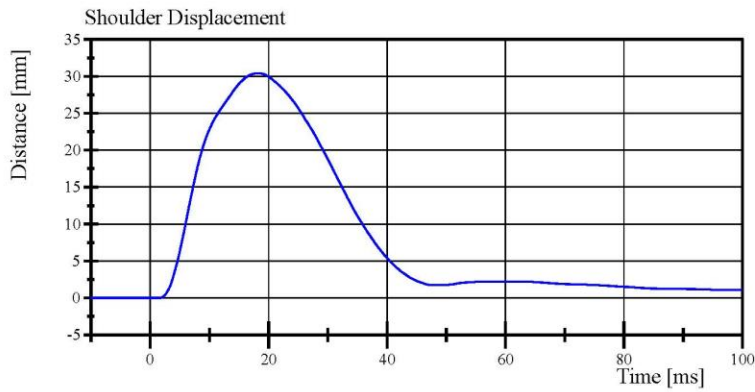
Left Lateral Shoulder

SID IIs Serial No. DQ0570 Certification No. 41-1

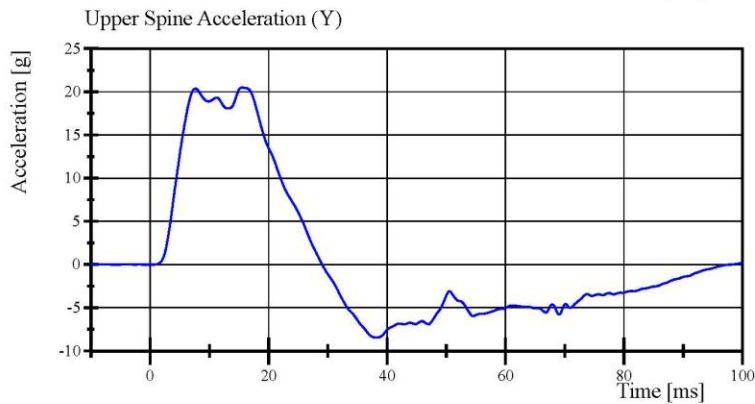
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 0.1 g at 45.8 ms
Min: -15.3 g at 13.4 ms



Filter Class: CFC_600
Max: 30.4 mm at 18.1 ms
Min: -0.0 mm at 1.5 ms



Filter Class: CFC_180
Max: 20.5 g at 15.5 ms
Min: -8.4 g at 38.2 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 08:52:38 858



Transportation Research Center Inc.

Left Lateral Thorax with Arm
SID IIs Serial No. DQ0570 Certification No. 41-1
Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Impactor Velocity	6.60 - 6.80 m/s	6.721 m/s	Yes
Impactor Acceleration	(-30) - (-36) g	-34.7 g	Yes
Shoulder Displacement	31 - 40 mm	32.6 mm	Yes
Upper Thorax Rib Displacement	25 - 32 mm	27.2 mm	Yes
Center Thorax Rib Displacement	30 - 36 mm	32.4 mm	Yes
Lower Thorax Rib Displacement	32 - 38 mm	36.2 mm	Yes
Upper Spine Lateral Acceleration	34 - 43 g	40.6 g	Yes
Lower Spine Lateral Acceleration	29 - 37 g	36.5 g	Yes

Test meets specifications.

Condition: Used

Comments:

Left Arm S/N: DP8451

Shoulder Rib S/N: 180-3355 DL9246

Upper Thorax Rib S/N: 180-3362 DP6492

Middle Thorax Rib S/N: 180-3362 DP6493

Lower Thorax Rib S/N: 180-3362 DP7664

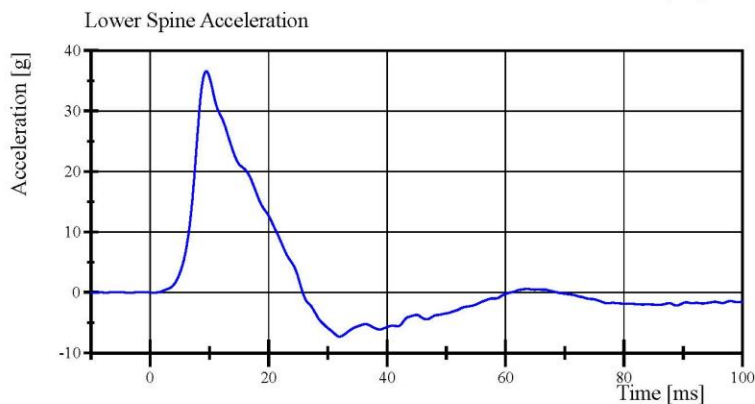
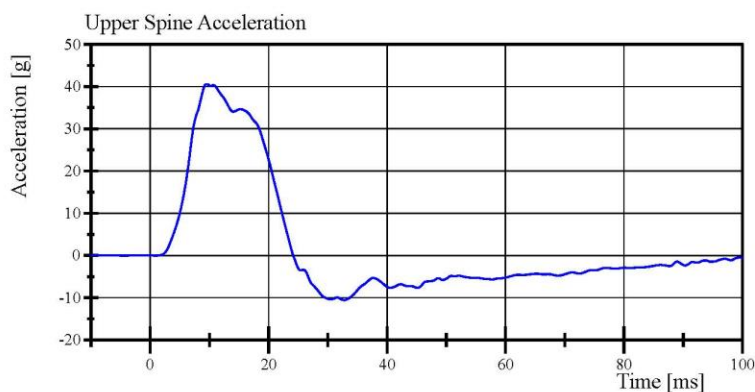
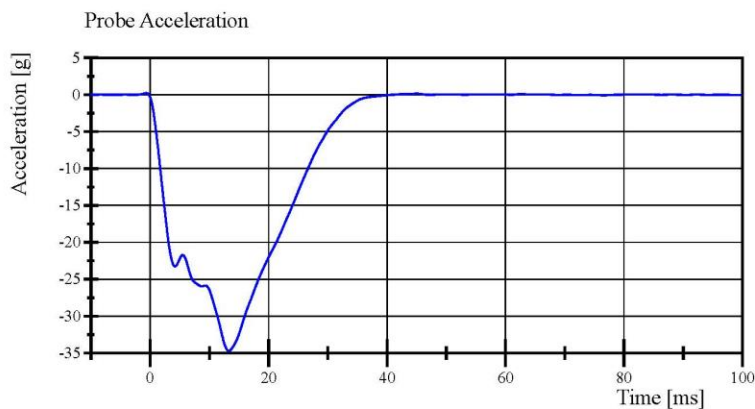
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:39:03 647



Transportation Research Center Inc.

Left Lateral Thorax with Arm
SID IIs Serial No. DQ0570 Certification No. 41-1
Test Date: 9/26/2025



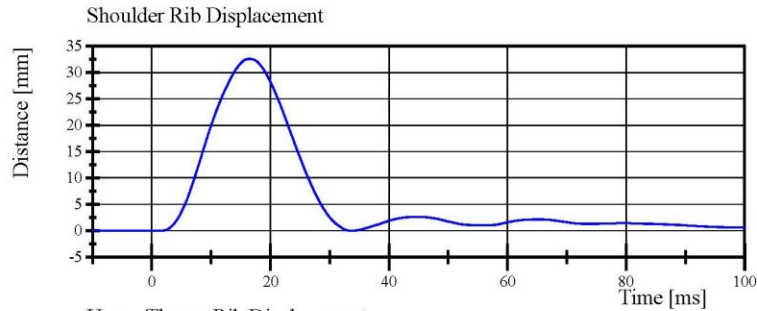
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:40:20 647

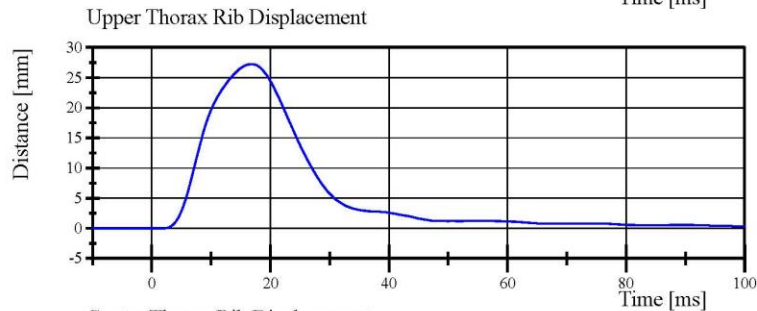


Transportation Research Center Inc.

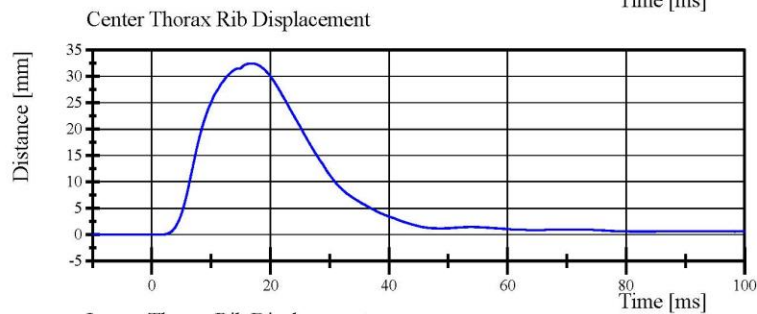
Left Lateral Thorax with Arm
SID IIs Serial No. DQ0570 Certification No. 41-1
Test Date: 9/26/2025



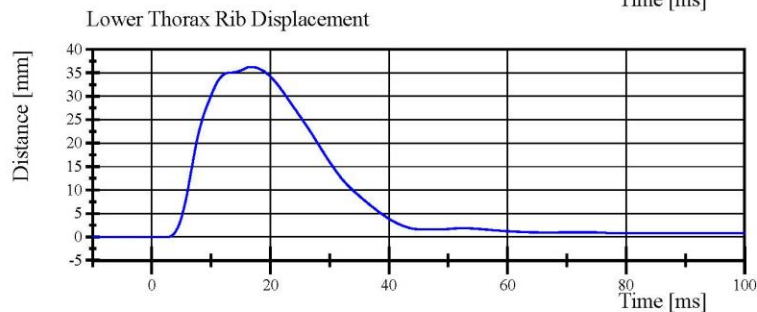
Filter Class: CFC_600
Max: 32.6 mm at 16.6 ms
Min: -0.0 mm at 33.7 ms



Filter Class: CFC_600
Max: 27.2 mm at 17.0 ms
Min: -0.0 mm at -4.7 ms



Filter Class: CFC_600
Max: 32.4 mm at 16.6 ms
Min: -0.0 mm at -4.8 ms



Filter Class: CFC_600
Max: 36.2 mm at 16.5 ms
Min: -0.0 mm at 2.7 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:40:20 647



Transportation Research Center Inc.

Left Lateral Thorax without Arm
SID IIs Serial No. DQ0570 Certification No. 41-1
Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.352 m/s	Yes
Impactor Acceleration	(-14) - (-18) g	-16.2 g	Yes
Upper Thorax Rib Displacement	32 - 40 mm	34.8 mm	Yes
Center Thorax Rib Displacement	39 - 45 mm	42.1 mm	Yes
Lower Thorax Rib Displacement	35 - 43 mm	41.0 mm	Yes
Upper Spine Lateral Acceleration	13 - 17 g	15.4 g	Yes
Lower Spine Lateral Acceleration	7 - 11 g	10.7 g	Yes

Test meets specifications.

Condition: Used

Comments:

Upper Thorax Rib S/N: 180-3362 DP6492

Middle Thorax Rib S/N: 180-3362 DP6493

Lower Thorax Rib S/N: 180-3362 DP7664

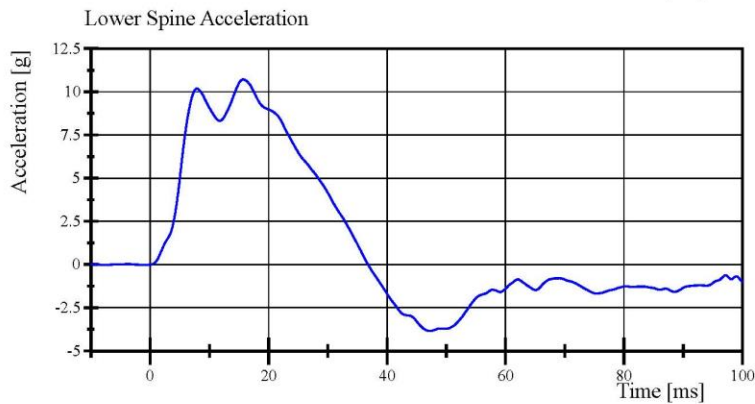
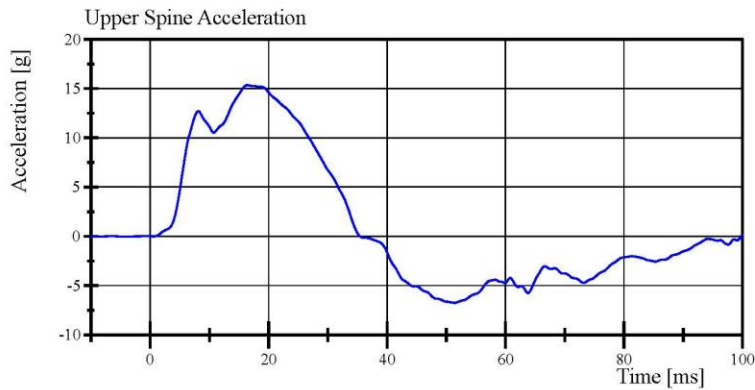
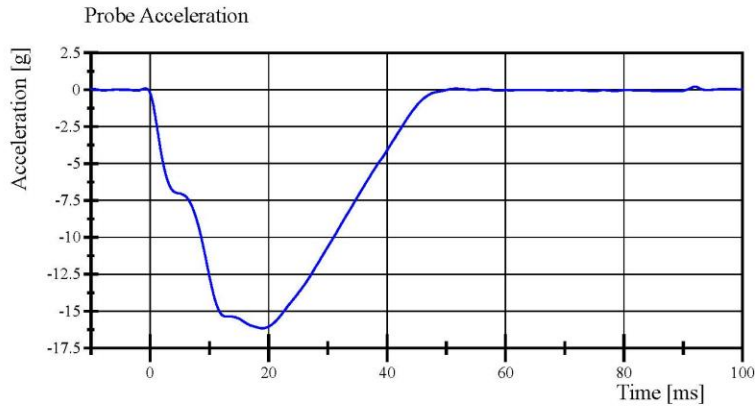
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:07:46 865



Transportation Research Center Inc.

Left Lateral Thorax without Arm
SID IIs Serial No. DQ0570 Certification No. 41-1
Test Date: 9/26/2025



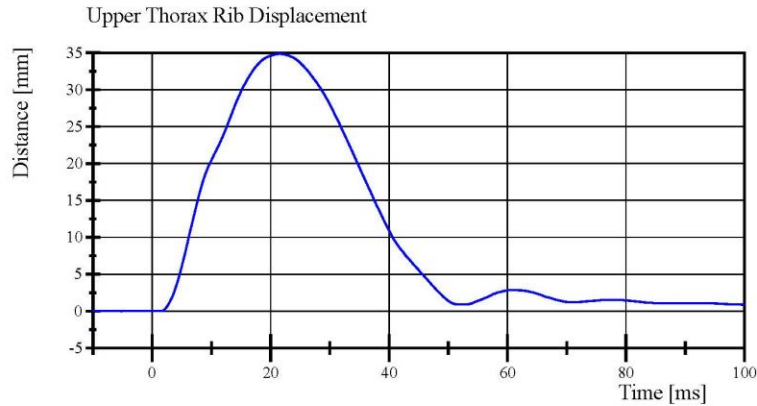
Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:08:28 865

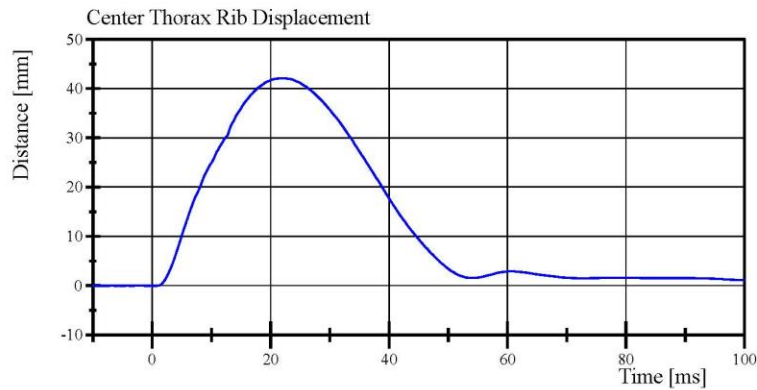


Transportation Research Center Inc.

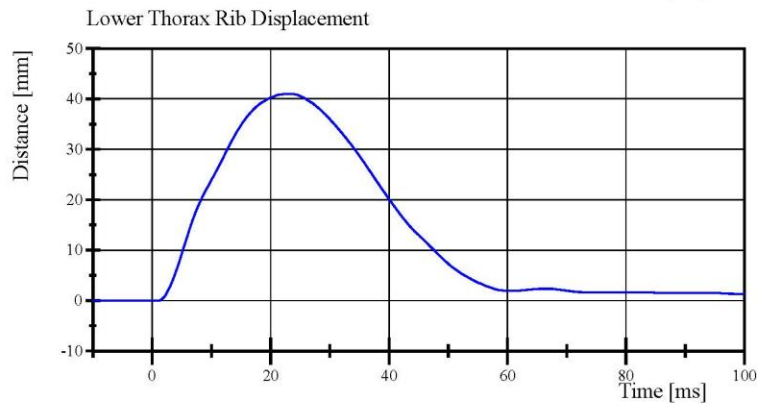
Left Lateral Thorax without Arm
SID IIs Serial No. DQ0570 Certification No. 41-1
Test Date: 9/26/2025



Filter Class: CFC_600
Max: 34.8 mm at 21.5 ms
Min: -0.0 mm at -5.2 ms



Filter Class: CFC_600
Max: 42.1 mm at 22.0 ms
Min: -0.0 mm at 0.8 ms



Filter Class: CFC_600
Max: 41.0 mm at 23.1 ms
Min: -0.0 mm at 1.1 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:08:28 865



Transportation Research Center Inc.

Left Lateral Abdomen

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.35 m/s	Yes
Impactor Acceleration	(-12) - (-16) g	-14.7 g	Yes
Upper Abdominal Rib Displacement	36 - 47 mm	38.0 mm	Yes
Lower Abdominal Rib Displacement	33 - 44 mm	40.5 mm	Yes
Lower Spine Lateral Acceleration	9 - 14.0 g	11.78 g	Yes

Test meets specifications.

Condition: Used

Comments:

Upper Abdominal Rib S/N: 180-3368 DP5142

Lower Abdominal Rib S/N: 180-3368 DP5143

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:01:12 669

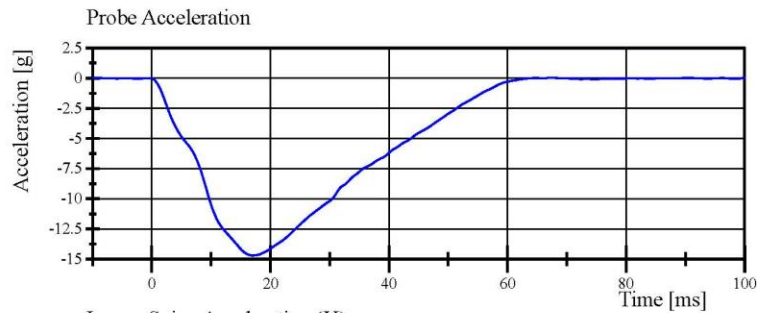


Transportation Research Center Inc.

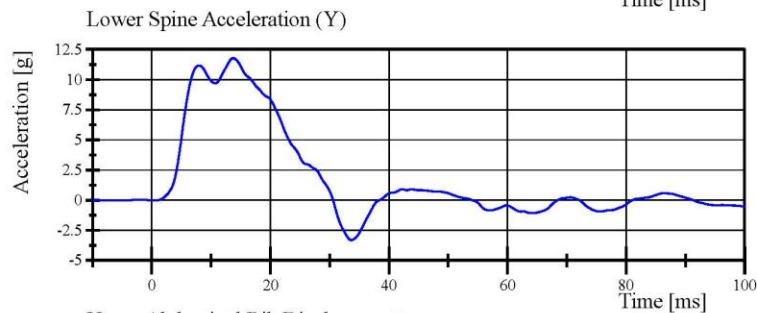
Left Lateral Abdomen

SID IIs Serial No. DQ0570 Certification No. 41-1

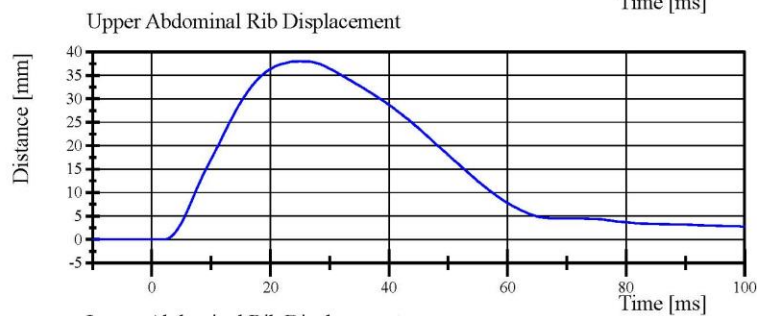
Test Date: 9/26/2025



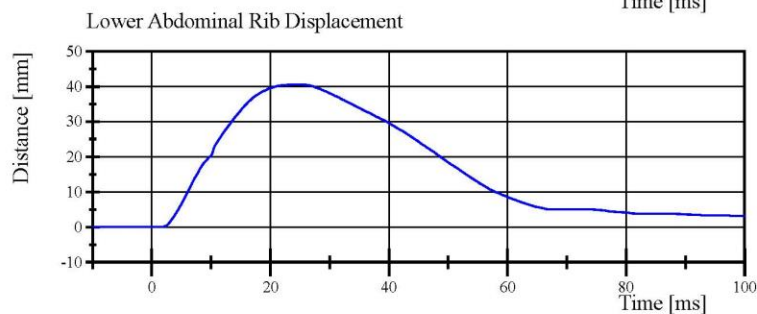
Filter Class: CFC_180
Max: 0.1 g at 67.4 ms
Min: -14.7 g at 17.0 ms



Filter Class: CFC_180
Max: 11.8 g at 13.7 ms
Min: -3.3 g at 33.7 ms



Filter Class: CFC_600
Max: 38.0 mm at 25.0 ms
Min: -0.0 mm at -6.2 ms



Filter Class: CFC_600
Max: 40.5 mm at 25.2 ms
Min: -0.0 mm at 1.4 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 09:01:49 669



Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	67 %	Yes
Pendulum Velocity	6.6 - 6.8 m/s	6.62 m/s	Yes
Impactor Acceleration	(-38.0) - (-47.0) g	-43.04 g	Yes
Peak Pelvis Lateral Acceleration after 6ms	34 - 42 g	35.9 g	Yes
Acetabulum Force	3,600 - 4,300 N	3,954.5 N	Yes

Test meets specifications.

Condition: Used

Comments:

Pelvis Skin S/N: 1173

Pelvis Plug Info:

Manufacturer: SACO

S/N: 17084

Cal Date: 20220821

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 10:51:12 468

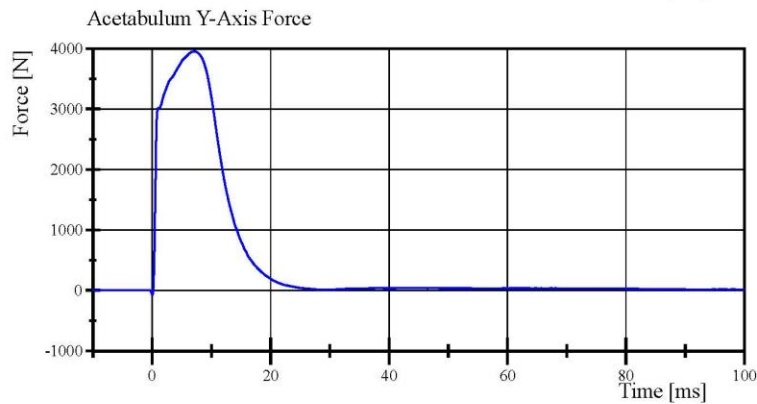
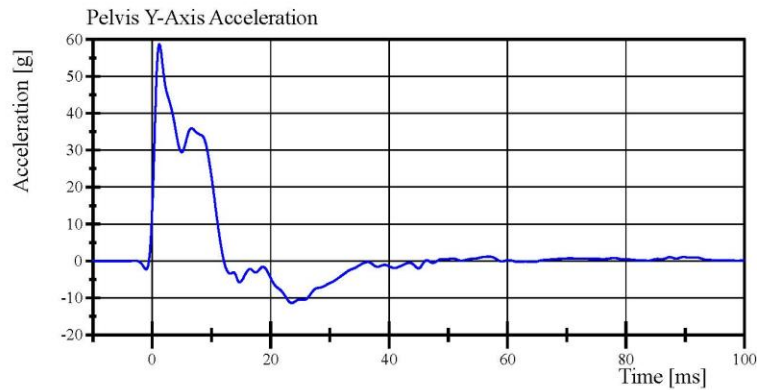
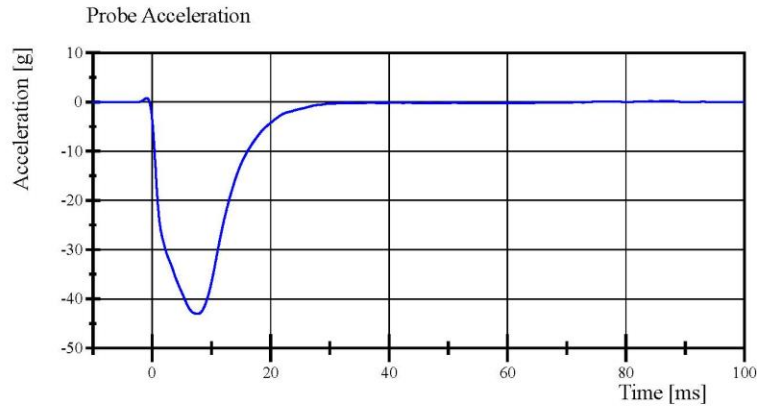


Transportation Research Center Inc.

Left Lateral Pelvis

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025



Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 10:54:01 468



Transportation Research Center Inc.

Left Lateral Iliac

SID IIs Serial No. DQ0570 Certification No. 41-1

Test Date: 9/26/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Pendulum Velocity	4.2 - 4.4 m/s	4.24 m/s	Yes
Impactor Acceleration	(-36) - (-45) g	-41.7 g	Yes
Peak Pelvis Lateral Acceleration	28 - 39 g	42.9 g	No
Iliac Force	4,100 - 5,100 N	4,910.6 N	Yes

Test does not meet specifications.

Condition: Used

Comments:

Pelvis Skin S/N: 1173

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 08:31:36 729

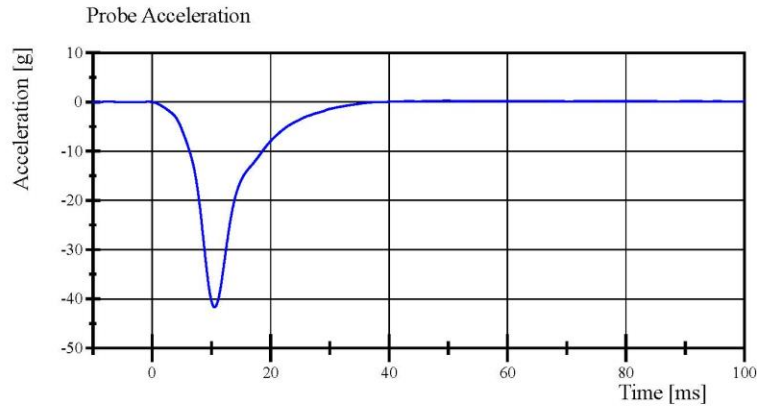


Transportation Research Center Inc.

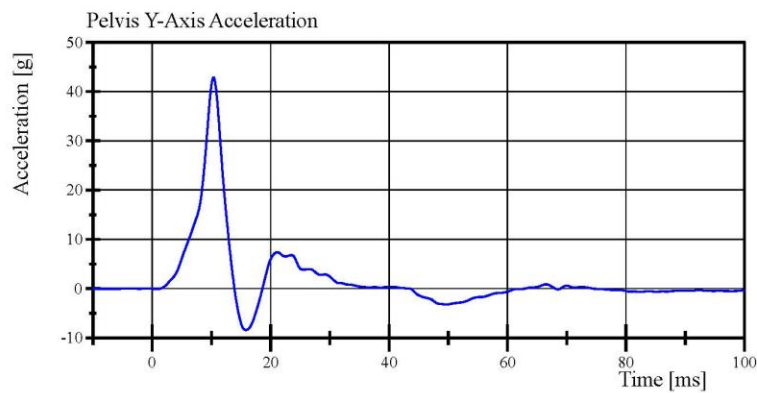
Left Lateral Iliac

SID IIs Serial No. DQ0570 Certification No. 41-1

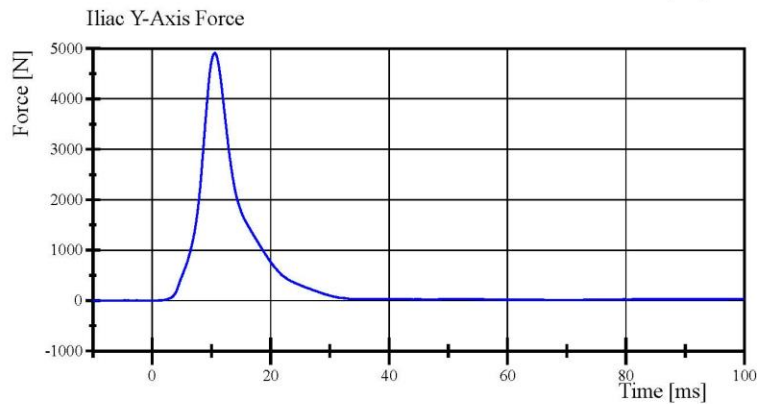
Test Date: 9/26/2025



Filter Class: CFC_180
Max: 0.3 g at 49.8 ms
Min: -41.7 g at 10.6 ms



Filter Class: CFC_180
Max: 42.9 g at 10.3 ms
Min: -8.4 g at 15.8 ms



Filter Class: CFC_600
Max: 4,910.6 N at 10.6 ms
Min: -1.1 N at -2.1 ms

Specification Source: CFR49 Part 572 Subpart V
with Polarity in accordance with J211

09.26.2025 08:32:32 729



APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA

TABLE 1 – Dummy Instrumentation (ES-2re)

			ES-2re S/N F030		
			Serial Number	Manufacturer	Calibration Date
Head Accelerometers	X		T14583	Endevco	26-Aug-2025
	Y		T13068	Endevco	26-Aug-2025
	Z		T14569	Endevco	26-Aug-2025
Redundant Head Accelerometers	X		T17635	Endevco	26-Aug-2025
	Y		T14567	Endevco	26-Aug-2025
	Z		T14586	Endevco	26-Aug-2025
Thoracic Rib Displacement Potentiometers	Upper	Y	111	Honeywell	24-Mar-2025
	Middle	Y	174	Honeywell	24-Mar-2025
	Lower	Y	0913	Honeywell	24-Mar-2025
Abdomen Load Cells	Front	Y	1441	Denton	24-Mar-2025
	Middle	Y	1436	Denton	24-Mar-2025
	Rear	Y	1437	Denton	24-Mar-2025
Lower Spine Accelerometers (T12)	X		P69076	Endevco	26-Aug-2025
	Y		T23855	Endevco	26-Aug-2025
	Z		T11387	Endevco	26-Aug-2025
Acetabulum Load Cell		Y	N/A	N/A	N/A
Pubic Symphysis Load Cell		Y	465-FY	Denton	24-Mar-2025

TABLE 2 – Dummy Instrumentation (SID-IIs)

				SID-IIs S/N DQ0570			
				Serial Number	Manufacturer	Calibration Date	
Head Accelerometers				X	T18335	Endevco	21-Aug-2025
				Y	T24497	Endevco	21-Aug-2025
				Z	T18333	Endevco	21-Aug-2025
Redundant Head Accelerometers				X	T25601	Endevco	21-Aug-2025
				Y	T25566	Endevco	21-Aug-2025
				Z	T20557	Endevco	21-Aug-2025
Displacement Potentiometers	Shoulder			N/A	N/A	N/A	N/A
	Thoracic Rib	Upper	Y	007	Servo	5-Mar-2025	
		Middle	Y	037	Servo	5-Mar-2025	
		Lower	Y	048	Servo	5-Mar-2025	
	Abdominal Rib	Upper	Y	1295	Servo	5-Mar-2025	
		Lower	Y	1136	Servo	5-Mar-2025	
Lower Spine Accelerometers (T12)				X	T14559	Endevco	21-Aug-2025
				Y	T13682	Endevco	21-Aug-2025
				Z	T18476	Endevco	21-Aug-2025
Acetabulum Load Cell				Y	DK7483S-FY	FTSS	5-Mar-2025
Iliac Wing Load Cell				Y	287-FY	Denton	5-Mar-2025
Pelvis Plug (struck side)					14442	SACO	18-Dec-2020
Pelvis Plug (non-struck side)					14444	SACO	18-Dec-2020

TABLE 3 – Vehicle Instrumentation

Vehicle Instrumentation			Serial Number	Manufacturer	Calibration Date
1	Vehicle Center of Gravity	X	A377497	Measurement Specialties	11-Aug-2025
	Vehicle Center of Gravity	Y	A377500	Measurement Specialties	11-Aug-2025
	Vehicle Center of Gravity	Z	A377540	Measurement Specialties	13-Aug-2025
2	Right Sill at Front Seat	X	A386346	Measurement Specialties	11-Aug-2025
	Right Sill at Front Seat	Y	A378367	Measurement Specialties	12-Aug-2025
	Right Sill at Front Seat	Z	A378371	Measurement Specialties	12-Aug-2025
3	Right Sill at Rear Seat	X	A377543	Measurement Specialties	13-Aug-2025
	Right Sill at Rear Seat	Y	A377533	Measurement Specialties	13-Aug-2025
	Right Sill at Rear Seat	Z	A377527	Measurement Specialties	13-Aug-2025
4	Left Sill at Front Door	Y	A378347	Measurement Specialties	13-Aug-2025
5	Left Sill at Rear Door	Y	A378358	Measurement Specialties	12-Aug-2025
6	Left A-Post Lower	Y	A378387	Measurement Specialties	12-Aug-2025
7	Left A-Post Middle	Y	A378354	Measurement Specialties	12-Aug-2025
8	Left B-Post Lower	Y	A378361	Measurement Specialties	12-Aug-2025
9	B-Post Middle	Y	A378362	Measurement Specialties	12-Aug-2025
10	Front Seat Track	Y	A378383	Measurement Specialties	12-Aug-2025
11	Rear Seat Track or Structure	Y	A378334	Measurement Specialties	13-Aug-2025
12	Right Rear Occupant Compartment	Y	A377529	Measurement Specialties	13-Aug-2025
13	Engine Block	X	A377520	Measurement Specialties	13-Aug-2025
	Engine Block	Y	A377537	Measurement Specialties	13-Aug-2025
14	Rear Floorpan Above Axle	X	A377539	Measurement Specialties	13-Aug-2025
	Rear Floorpan Above Axle	Y	A377542	Measurement Specialties	13-Aug-2025
	Rear Floorpan Above Axle	Z	A378356	Measurement Specialties	12-Aug-2025

TABLE 4 – MDB Instrumentation

MDB Instrumentation		Serial Number	Manufacturer	Calibration Date
MDB Center of Gravity	X	A386405	Measurement Specialties	15-Aug-2025
MDB Center of Gravity	Y	A378368	Measurement Specialties	14-Aug-2025
MDB Center of Gravity	Z	A378313	Measurement Specialties	14-Aug-2025
Left Frame Rail at Rear Axle Centerline	X	A378363	Measurement Specialties	14-Aug-2025
Left Frame Rail at Rear Axle Centerline	Y	A378312	Measurement Specialties	17-Aug-2025