

Final Report Number: NCAP-TRC-25-005

New Car Assessment Program (NCAP)

Frontal Barrier Impact Test

GENERAL MOTORS LLC

2025 Cadillac Escalade

NHTSA Number: M20250100

PREPARED BY:

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Report Date: May 29, 2026

FINAL REPORT

Prepared For:

U. S. DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

Office of Crashworthiness Standards

1200 New Jersey Ave, SE

Washington, DC 20590

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Prepared By: ILO Project Operations Group

Approved By: John Shultz

Approval Date: May 29, 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 _____

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16. Abstract A 56.3 km/h NCAP Frontal Impact Test was conducted on a 2025 Cadillac Escalade, in accordance with the specifications of the Office of Crashworthiness Standards Laboratory Procedure for NCAP Full Frontal Rigid Barrier Impact Testing. The test was conducted at the Transportation Research Center Inc. in East Liberty, Ohio on September 23, 2025. The impact velocity was 56.58 km/h, and the ambient temperature at the barrier face at the time of impact was 20.9° C. The target vehicle post-test maximum crush was 643 millimeters at vehicle C3 & C4. The test vehicle's performance is as follows:																																																																												
<table border="1"> <thead> <tr> <th></th><th colspan="3">Driver ATD</th><th colspan="3">Passenger ATD</th></tr> <tr> <th>Measurement Description</th><th>Units</th><th>Threshold</th><th>Result</th><th>Units</th><th>Threshold</th><th>Result</th></tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₁₅)</td><td>NA</td><td>700</td><td>240.707</td><td>NA</td><td>700</td><td>301.690</td></tr> <tr> <td>Maximum Chest Compression</td><td>mm</td><td>63</td><td>-20.458</td><td>mm</td><td>52</td><td>-15.902</td></tr> <tr> <td>3ms Chest Clip</td><td>Gs</td><td>60</td><td>39.288</td><td>Gs</td><td>60</td><td>35.045</td></tr> <tr> <td>Nij</td><td>NA</td><td>1</td><td>0.246</td><td>NA</td><td>1</td><td>0.336</td></tr> <tr> <td>Neck Tension</td><td>Newtons</td><td>4170</td><td>1267.700</td><td>Newtons</td><td>2620</td><td>861.323</td></tr> <tr> <td>Neck Compression</td><td>Newtons</td><td>4000</td><td>-254.694</td><td>Newtons</td><td>2520</td><td>-132.232</td></tr> <tr> <td>Left Femur Force</td><td>Newtons</td><td>10008</td><td>-979.756</td><td>Newtons</td><td>6805</td><td>-1909.755</td></tr> <tr> <td>Right Femur Force</td><td>Newtons</td><td>10008</td><td>-1497.529</td><td>Newtons</td><td>6805</td><td>-1606.623</td></tr> </tbody> </table>								Driver ATD			Passenger ATD			Measurement Description	Units	Threshold	Result	Units	Threshold	Result	Head Injury Criteria (HIC ₁₅)	NA	700	240.707	NA	700	301.690	Maximum Chest Compression	mm	63	-20.458	mm	52	-15.902	3ms Chest Clip	Gs	60	39.288	Gs	60	35.045	Nij	NA	1	0.246	NA	1	0.336	Neck Tension	Newtons	4170	1267.700	Newtons	2620	861.323	Neck Compression	Newtons	4000	-254.694	Newtons	2520	-132.232	Left Femur Force	Newtons	10008	-979.756	Newtons	6805	-1909.755	Right Femur Force	Newtons	10008	-1497.529	Newtons	6805	-1606.623
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17. Key Words 56.3 km/h (35 mph) Full Frontal Rigid Barrier Impact Test New Car Assessment Program (NCAP)			18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Administration Technical Information Services Division 1200 New Jersey Ave, SE Washington, DC 20590																																																																									
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SECTION 1: PURPOSE AND SUMMARY OF THE TEST

PURPOSE

This 56.3 km/h frontal barrier impact test is part of the Vehicle Barrier Impact Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. 693JJ919D000007. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for consumer information purposes.

This 56.3 km/h frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Test Procedure or NCAP Full Frontal Rigid Barrier Impact Testing dated May 2018.

SUMMARY

A load cell barrier consisting of 176 load cells was impacted by a 2025 Cadillac Escalade at a velocity of 56.58 km/h. The test was performed at Transportation Research Center, Inc. on September 23, 2025. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

One real-time camera and 16 high-speed cameras were used to document the frontal barrier impact event. Camera locations and other pertinent camera information can be found in this report.

One Part 572E 50th percentile male anthropomorphic test device (ATD) was placed in the driver seating position and one Part 572O 5th percentile female ATD was placed in the right-front passenger position according to dummy placement instructions specified in the Laboratory Procedure for NCAP Full Frontal Rigid Barrier Impact Testing.

Both ATDs were fully instrumented with head, chest and pelvis tri-axial accelerometers, chest displacement potentiometers, upper neck transducers, femur load cells, and lower leg instrumentation.

The driver (position 1) ATD (Serial No. 037), and the right-front passenger (position 2) ATD (Serial No. DH1659) were qualified prior to this test. Certification details, along with instrumentation calibration data, are found in Appendix C of this report.

The 102 channels of data were recorded on an on-board data acquisition system. Appendix B contains the vehicle, load cell barrier and dummy response data traces.

There was 100.0 percent windshield retention and no intrusion into the protected zone of the windshield during the event. There was no Stoddard solvent leakage (or electrolyte spillage) after the event or during any phase of the static rollover.

The maximum static crush of the vehicle was 643 mm and both the driver and passenger side doors remained closed during the impact event and were operable after the impact.

The driver's visible contact points were as follows: front airbag, headrest. The passenger's visible contact points were as follows: front airbag, headrest, and glove box.

The occupant data is summarized below:

ATD Position	HIC ₁₅	Nij	Neck Tension (N)	Neck Compression (N)	3 ms Chest Clip (Gs)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (50 th Male)	240.707	0.246	1267.700	-254.694	39.288	-20.458	-979.756	-1497.529
Passenger (5 th Female)	301.690	0.336	861.323	-132.232	35.045	-15.902	-1909.755	-1606.623

TEST COMMENTS:

Passenger Right Ankle X CF 100 ms
Top of Engine X CF 64 ms
Bottom of Engine X CF 64 ms

SECTION 2: DATA SHEETS

DATA SHEET NO. 1 - GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025

TEST VEHICLE INFORMATION

NHTSA No.	M20250100
Model Year	2025
Make	Cadillac
Model	Escalade
Body Style	MPV
VIN	1GYS9ARL6SR185326
Body Color	Radiant Red Tintcoat
Odometer Reading (km/mi)	71 mi.
Engine Displacement (L)	6.2
Type/No. Cylinders	V/8
Engine Placement	Front
Transmission Type	Automatic
Transmission Speeds	10
Overdrive	Yes
Final Drive	4WD
Roof Rack	No
Sunroof/T-Top	No
Running Boards	Yes
Tilt Steering Wheel	Yes
Power Seats	Yes
Anti-Lock Brakes (ABS)	Yes
Automatic Door Locks (ADLs)	Yes

TEST VEHICLE OPTIONS

Traction Control System (TCS)	Yes
Power Steering	Yes
Power Window Auto-Reverse	No
Driver Frontal 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
Front Pass. Frontal Airbag	Yes
Front Pass. Curtain Airbag	Yes
Front Pass. Head/Torso Airbag	No
Front Pass. Torso Airbag	No
Front Pass. Torso/Pelvis Airbag	Yes
Front Pass. Pelvis Airbag	No
Front Pass. Knee Airbag	No
Driver Pretensioner	Yes
Driver Load Limiter	Yes
Front Pass. Pretensioner	Yes
Front Pass. Load Limiter	Yes
Other: Front Center Airbag	Yes

Does owner's manual provide instructions to turn off automatic door locks? No

DATA FROM CERTIFICATION LABEL

Manufactured by	GENERAL MOTORS LLC	GVWR (kg)	3447 (7600 LB)
Date of Manufacture		GAWR Front (kg)	1678 (3700 LB)
		GAWR Rear (kg)	1950 (4300 LB)

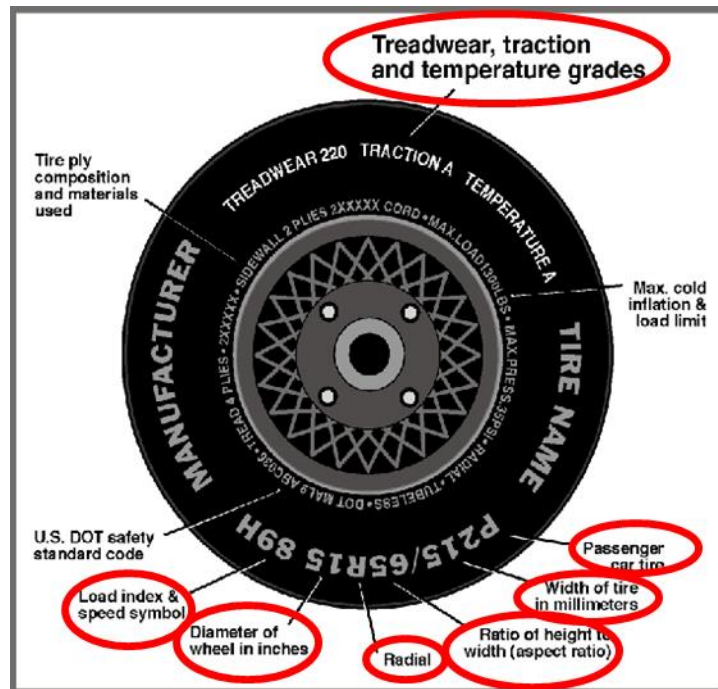
VEHICLE SEATING AND WEIGHT CAPACITY

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bucket	Split Bench	
Number of Occupants	2	2	3	7
Capacity Wt. (VCW) (kg)				756.0
Cargo Wt. (RCLW) (kg)				280.0

DATA SHEET NO. 1 - GENERAL TEST AND VEHICLE PARAMETER DATA (CONT'D)

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold Test Pressure (kPa)	250	250
Recommended Tire Size	275/50R22	275/50R22
Tire Size on Vehicle	275/50R22	275/50R22
Tire Manufacturer	Bridgestone	Bridgestone
Tire Model	Alenza	Alenza
Treadwear	700	700
Traction Grade	A	A
Temperature Grade	A	A
Tire Plies Sidewall	2	2
Tire Plies Body	5	5
Load Index/Speed Symbol	111H	111H
Tire Material	Polyester/Steel/Nylon	Polyester/Steel/Nylon
DOT Safety Code Right	1W2RHAA21 4624	1W2RHAA21 4624
DOT Safety Code Left	1W2RHAA21 4924	1W2RHAA21 4624

DATA SHEET NO. 1 - GENERAL TEST AND VEHICLE PARAMETER DATA (CONT'D)

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	678.8	660.8		708.4	776.8	
Right	kg	671.2	658.0		666.2	786.0	
Ratio	%	50.6	49.4		46.8	53.2	
Totals	kg	1350.0	1318.8	2668.8	1374.6	1562.8	2937.4

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	2668.8
Weight of 1 P572E ATD & 1 P572O ATD	kg	139.3
Rated Cargo/Luggage Weight (RCLW) ¹	kg	136.0
Vehicle Target Weight (TVTW)	kg	2944.1

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG (aft of front)
As Delivered	mm	942	942	969	974	1517
As Tested	mm	939	944	944	943	1633
Post Test	mm	885	934	987	1000	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheelbase	mm	3070
Total Vehicle Length at Left Side	mm	5255
Total Vehicle Length at Centerline	mm	5328
Total Vehicle Length at Right Side	mm	5250
Weight of Ballast in Cargo Area	kg	113.4
Weight of Vehicle Components Removed	kg	0
Amount of Stoddard Solvent in Fuel Tank	liters	84.4

LIST OF COMPONENTS REMOVED TO MEET TEST WEIGHT: None

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

**DATA SHEET NO. 1 - GENERAL TEST AND VEHICLE PARAMETER DATA
(CONT'D)**

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

TARGET VEHICLE STRUCTURAL MEASUREMENT

	Elements	Pre-Test (mm)
1	Total Length	5328
2	Total Width	2043
3	Bumper Top Height	740
4	Bumper Bottom Height	590
5	Longitudinal Member Top Height	620
6	Distance Between Longitudinal Members	1135
7	Longitudinal Member Width	85
8	Engine Top Height	1163
9	Engine Bottom Height	280
10	Engine and Gearbox Width	617
11	Front Bumper-Engine Distance	780
12	Front Shock Absorber Fixing Height	820
13	Bonnet Leading Edge Height	1130
14	Front Shock Absorber Fixing Width	1150
15	Front Bumper – Front Axle Distance	938
16	Front Axle – A-Pillar Distance	600
17	A-Pillar – B-Pillar Distance	1200
18	B-Pillar – Rear Axle Distance	1267
19	B-Pillar – C-Pillar Distance	1010
20	Roof Sill Bottom Height	1850
21	Roof Sill Top Height	1889
22	Floor Sill Bottom Height	554
23	Floor Sill Top Height	610

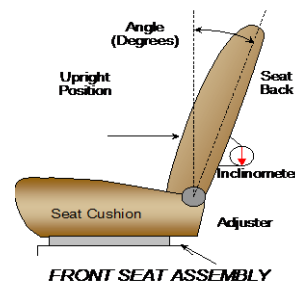
DATA SHEET NO. 2 - SEAT ADJUSTMENT, FUEL SYSTEM AND STEERING WHEEL DATA

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

NORMAL DESIGN RIDING POSITION

For adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable



	Degree
Driver Seat back angle:	15.4
Passenger Seat back angle:	31.4 deg forward

SEAT FORE/AFT POSITIONS

Describe the method of determining seat fore/aft positions.

Driver: Mid position, Positioned according to Form 1

Passenger: Full forward, Positioned according to Form 1

	Total Fore/Aft Travel	Placed in Position No.
Driver Seat	260	MID
Passenger Seat	312	Full Forward

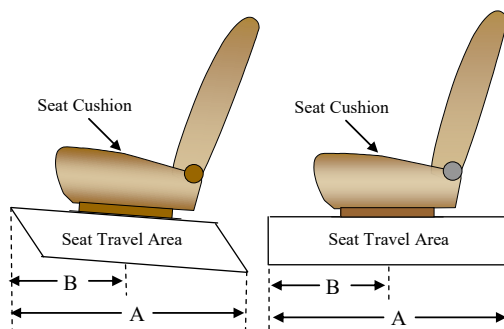
SEAT BELT UPPER ANCHORAGE

Describe the method of positioning seat belt upper anchorages.

Driver: One below uppermost, Positioned according to Form 1

Passenger: One below uppermost, Positioned according to Form 1

	Total No. of Positions	Placed in Position No.
Driver Seat	4	0
Passenger Seat	4	4



DATA SHEET NO. 2 - SEAT ADJUSTMENT, FUEL SYSTEM AND STEERING WHEEL DATA (CONT'D)

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

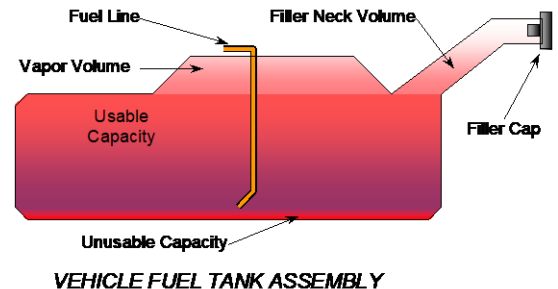
NHTSA No.: M20250100
Test Date: 9/23/2025

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	90.8
Usable Capacity of "Optional Tank"	N/A
92%-94% of Usable Capacity	84.4
Actual Amount of Solvent Used	84.4
1/3 of Usable Capacity	30.3

Describe the fuel system - what type of fuel pump, details about how it operates, etc.

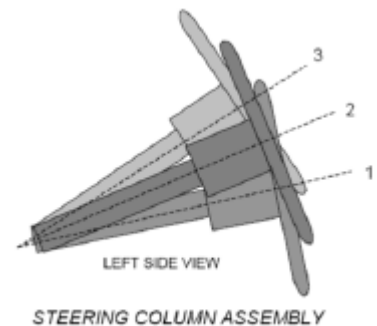
Fuel pump will run for approximately 3 seconds when the key or push start button is switched to "On" position, then, it will stop and will not resume operation unless the engine is cranking or running



STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. Describe how this measurement was taken.

Steel square was placed across the rim of the steering wheel, an inclinometer was placed on plate and the angle was measured. Telescope travel was measured full in and full out and set at the midpoint.



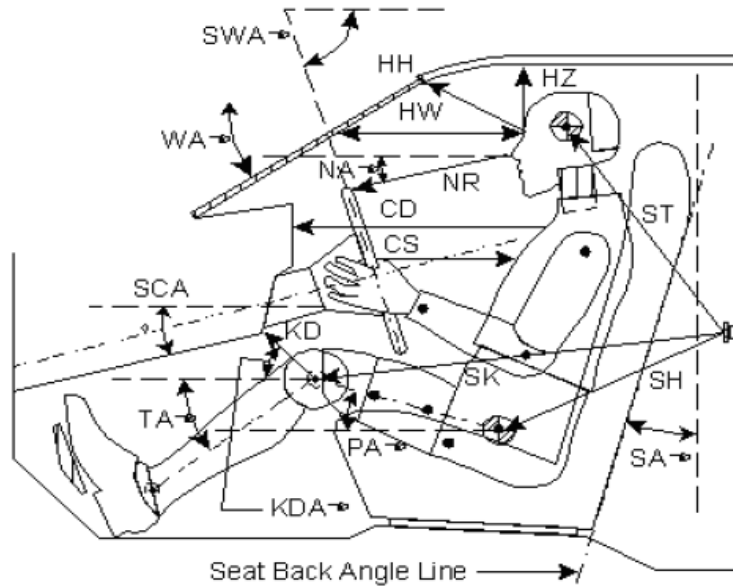
STEERING COLUMN POSITIONS

	Degrees	Fore/Aft Position (mm)
Lowermost Position No. 1	21.3	
Geometric Center Position No. 2	23.0	
Uppermost Position No. 3	24.8	
Telescoping Steering Wheel Travel		58
Test Position	23.0	29

DATA SHEET NO. 3 - DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025

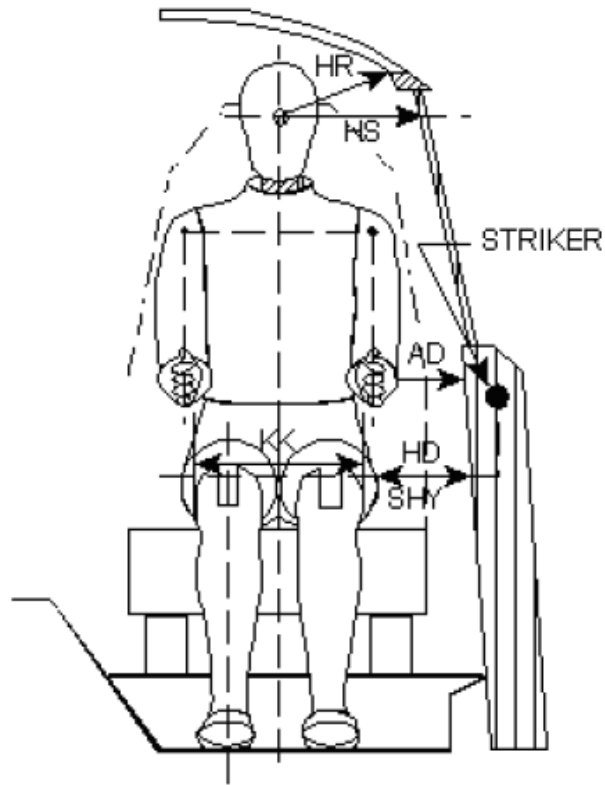


Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA°	Windshield Angle		31.8		
SWA°	Steering Wheel Angle		23.0		
SCA°	Steering Column Angle		23.0		
SA°	Seat Back Angle (on head rest post)		15.2		15.9
HZ	Head to Roof (Z)	275		282	
HH	Head to Header	501		385	
HW	Head to Windshield	834		712	
NR	Nose to Rim	413	6.7		
CD	Chest to Dash	640		366	
CS	Chest to Steering Hub	353			
RA	Rim to Abdomen	238			
KDL	Left Knee to Dash	180	0.0	70	0.0
KDR	Right Knee to Dash	173	0.0	75	0.0
PA°	Pelvic Angle		21.8		21.1
TA°	Tibia Angle		48.7		67.0
SK	Striker to Knee	678	0.0	785	4.0
ST	Striker to Head	673	78.0	685	59.6
SH	Striker to H-Point	352	22.3	515	7.2

DATA SHEET NO. 4 - DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

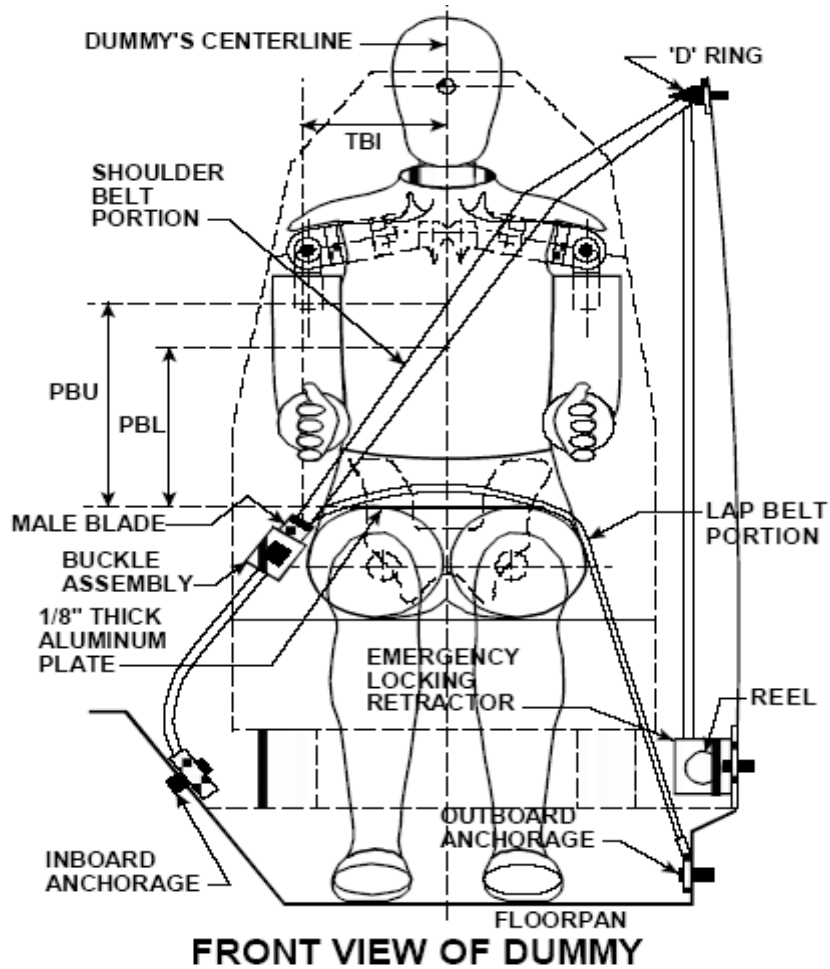


Code	Measurement Description	Driver	Passenger
AD	Arm to Door	141	96
HD	H-Point to Door	145	185
HR	Head to Side Header	294	296
HS	Head to Side Window	372	412
KK	Knee to Knee	285	172
SHY	Striker to H-Point (Y Direction)	267	310
AA	Ankle to Ankle	310	189

DATA SHEET NO. 5 - SEAT BELT POSITIONING DATA

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025



SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
PBU – Top surface of reference to belt upper edge	mm	320	285
PBL – Top surface of reference to belt lower edge	mm	240	200

BELT LENGTH DATA

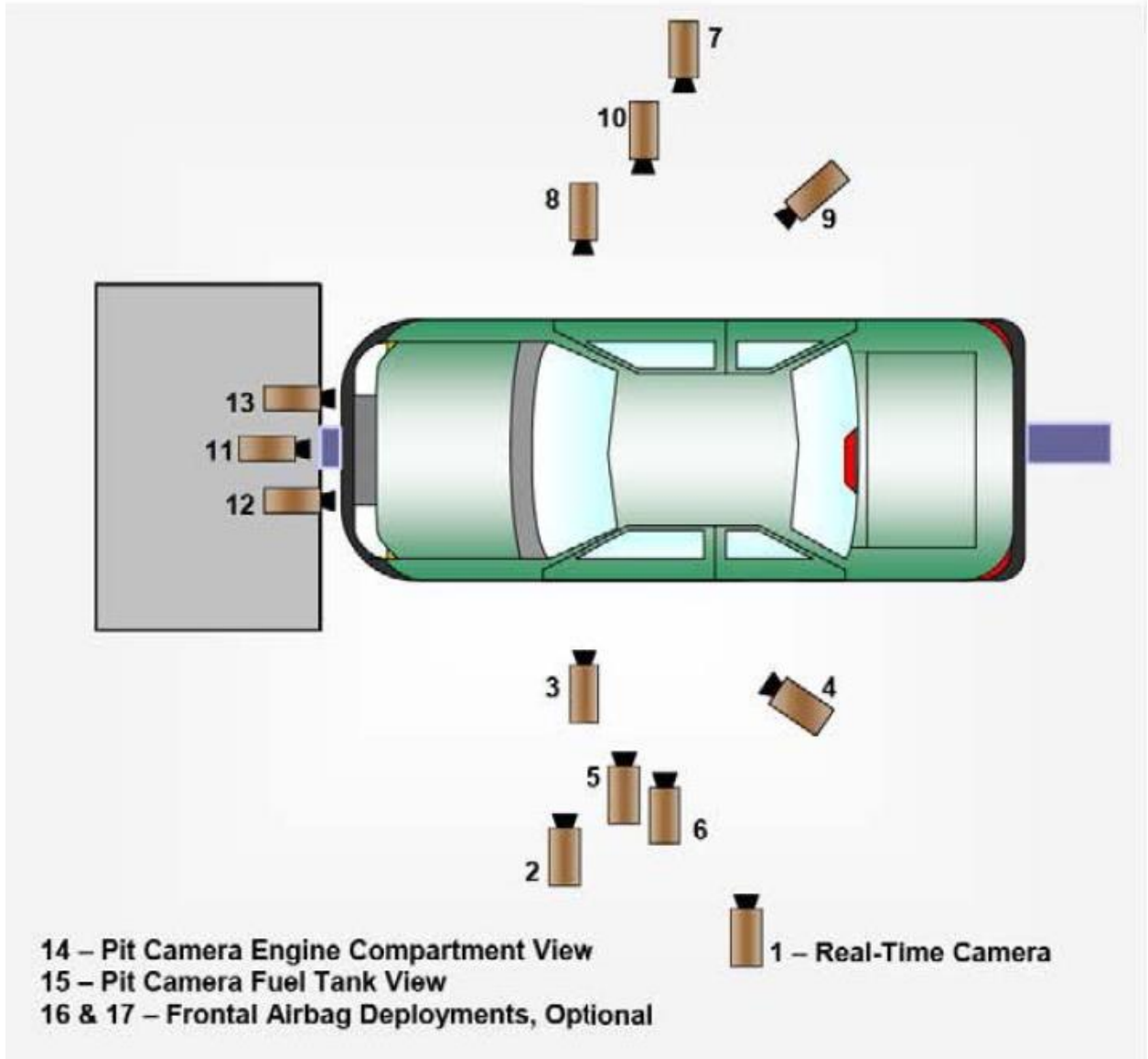
Measurement Description	Units	Driver	Passenger
Shoulder belt length as measured on ATD	mm	860	940
Lap belt length as measured on ATD	mm	580	770
Remainder of belt on reel	mm	1210	920
Total belt length for continuous webbing systems	mm	2650	2630

DATA SHEET NO. 6 - HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

CAMERA POSITIONS FOR FRONTAL IMPACTS



**DATA SHEET NO. 6 - HIGH SPEED CAMERA LOCATIONS AND DATA
(CONT'D)**

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

CAMERA LOCATIONS

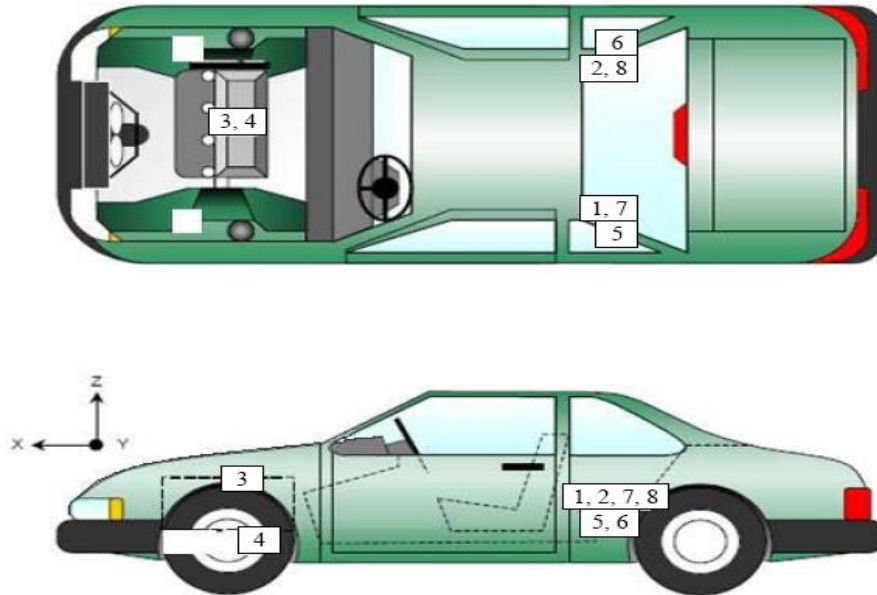
No.	Camera View	Location (mm)			Lens (mm)	Frame Speed (fps)
		X	Y	Z		
1	REAL-TIME LEFT OVERALL	-685	-5551	-1475	Zoom	30
2	LEFT OVERALL	-2791	5090	-1163	8.5	1000
3	DRIVER CLOSE-UP	-2423	4145	-1606	50	1000
4	LEFT FRONT HALF	-1113	5495	-991	25	1000
5	LEFT ANGLE	-3124	-1793	-1613	20	1000
6	STEERING COLUMN	-2257	4043	-1591	50	1000
7	RIGHT OVERALL	-2624	4647	-1173	8.5	1000
8	PASSENGER CLOSE-UP	-2344	4924	-1540	50	1000
9	RIGHT FRONT HALF	-1035	5909	984	25	1000
10	RIGHT ANGLE	-3063	1816	-1724	20	1000
11	WINDSHIELD	0	0	-2725	20	1000
12	DRIVER WINDSHIELD	0	-474	-2725	20	1000
13	PASSENGER WINDSHIELD	0	447	-2725	20	1000
14	PIT FRONT	758	0	3044	20	1000
15	PIT REAR	2498	0	3044	8.5	1000
16	DRIVER ONBOARD				8.5	1000
17	PASSENGER ONBOARD				8.5	1000

Reference Points: +X – forward of impact plane
+Y – right of monorail center
+Z – into ground

DATA SHEET NO. 7 - VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025



VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Left Rear Accelerometer – X Direction	2125	-380	-676
2	Right Rear Accelerometer – X Direction	2110	360	-676
3	Engine Top X	4348	-6	-1215
4	Engine Bottom X	3903	-8	-418
5	Left Rear Accelerometer – Z Direction	2080	-380	-681
6	Right Rear Accelerometer – Z Direction	2140	360	-680
7	Left Rear Accelerometer – X Direction Redundant	2115	-408	-676
8	Right Rear Accelerometer- X Direction Redundant	2110	380	-685

Reference Points: X – Rear Surface of Vehicle (+ forward)
 Y – Vehicle Centerline (+ to right)
 Z – Ground Plane (+ down)

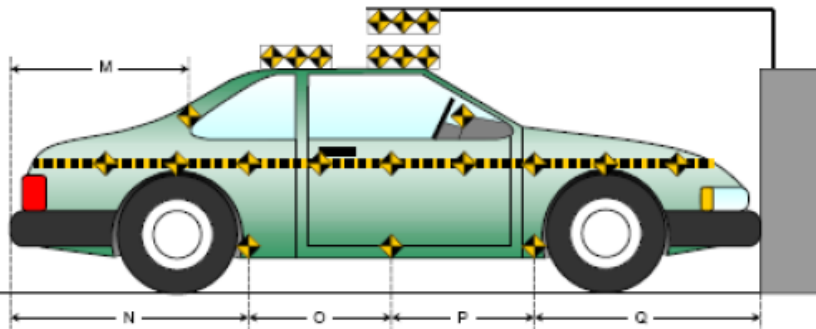
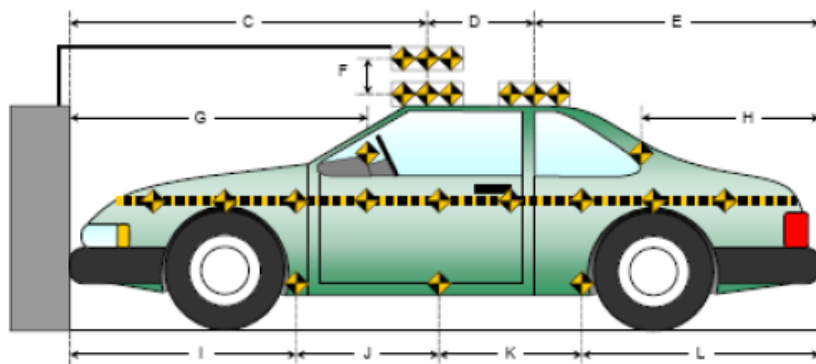
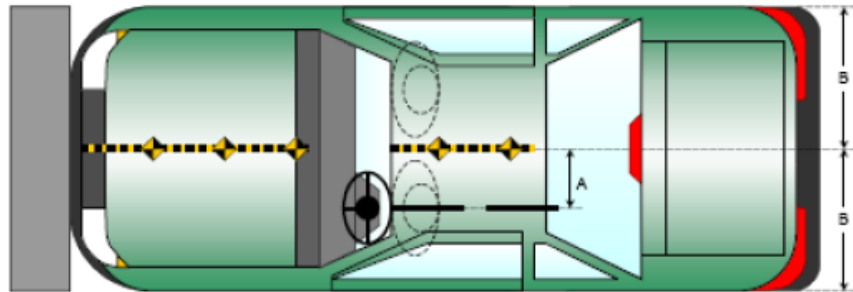
DATA SHEET NO. 8 - PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025

Item	Value
A	455
B	1021
C	2827
D	600
E	1910
F	153
G	1843
H	1589
I	1445
J	1013
K	1018
L	1852
M	1587
N	1851
O	1015
P	1011
Q	1451

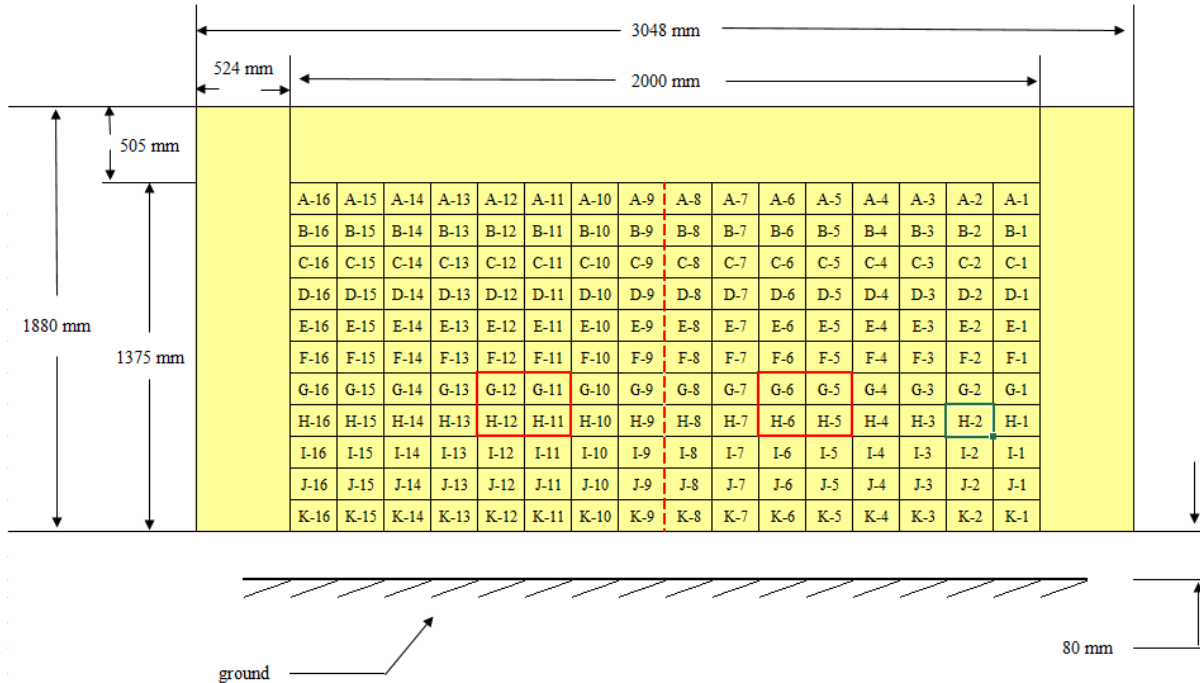
All units in millimeters



DATA SHEET NO. 9 - LOAD CELL LOCATIONS ON FIXED BARRIER

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025



NOT TO SCALE

*G5, 6 & H5, 6 as well as G11, 12 & H11, 12 were combined with one large block

DATA SHEET NO. 10 - TEST VEHICLE SUMMARY OF RESULTS

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

INSTRUMENTATION

Instrumentation	Number of Channels Collected
Driver Dummy Accelerometers	47
Passenger Dummy Accelerometers	47
Vehicle Structure Accelerometers	8
Total	102

CAMERA COVERAGE

Type of Camera	Number Used in this Test
High-Speed Vehicle Onboard	2
High-Speed Offboard	14
Real-Time Panning	2
Total	18

DATA SHEET NO. 11 - POST-TEST OBSERVATIONSTest Vehicle: 2025 Cadillac EscaladeNHTSA No.: M20250100Test Program: NCAP Frontal ImpactTest Date: 9/23/2025**TEST DUMMY INFORMATION AND CONTACT LOCATIONS**

Description	Driver	Passenger
Dummy Type / Serial No.	Hybrid III 50th / 037	Hybrid III 5th / DH1659
Head Contact	Frontal Airbag, Head Rest	Frontal Airbag, Head Rest
Upper Torso Contact	Frontal Airbag	Frontal Airbag
Lower Torso Contact	None	None
Left Knee Contact	None	Glove Box
Right Knee Contact	None	Glove Box

DOOR OPENING, TRUNK OPENING, AND SEAT TRACK INFORMATION

Description	Driver	Passenger	Other
Locked/Unlocked Doors	Locked	Locked	
Front Door Opening	No	No	
Rear Door Opening	No	No	
Trunk/Hatch/Tailgate Opening			No
Seat Track Shift (mm)	None	None	
Seat Back Movement from Initial Position	None	None	

POST- OTHER VEHICLE POST-TEST OBSERVATIONS

Critical Areas of Performance	Observations
Windshield Damage	Cracked
Window Damage	None
Other Notable Effects	None

VEHICLE REBOUND FROM BARRIER

Measured Parameter	Units	Value
Left Side	mm	583
Center	mm	591
Right Side	mm	621
Average	mm	598

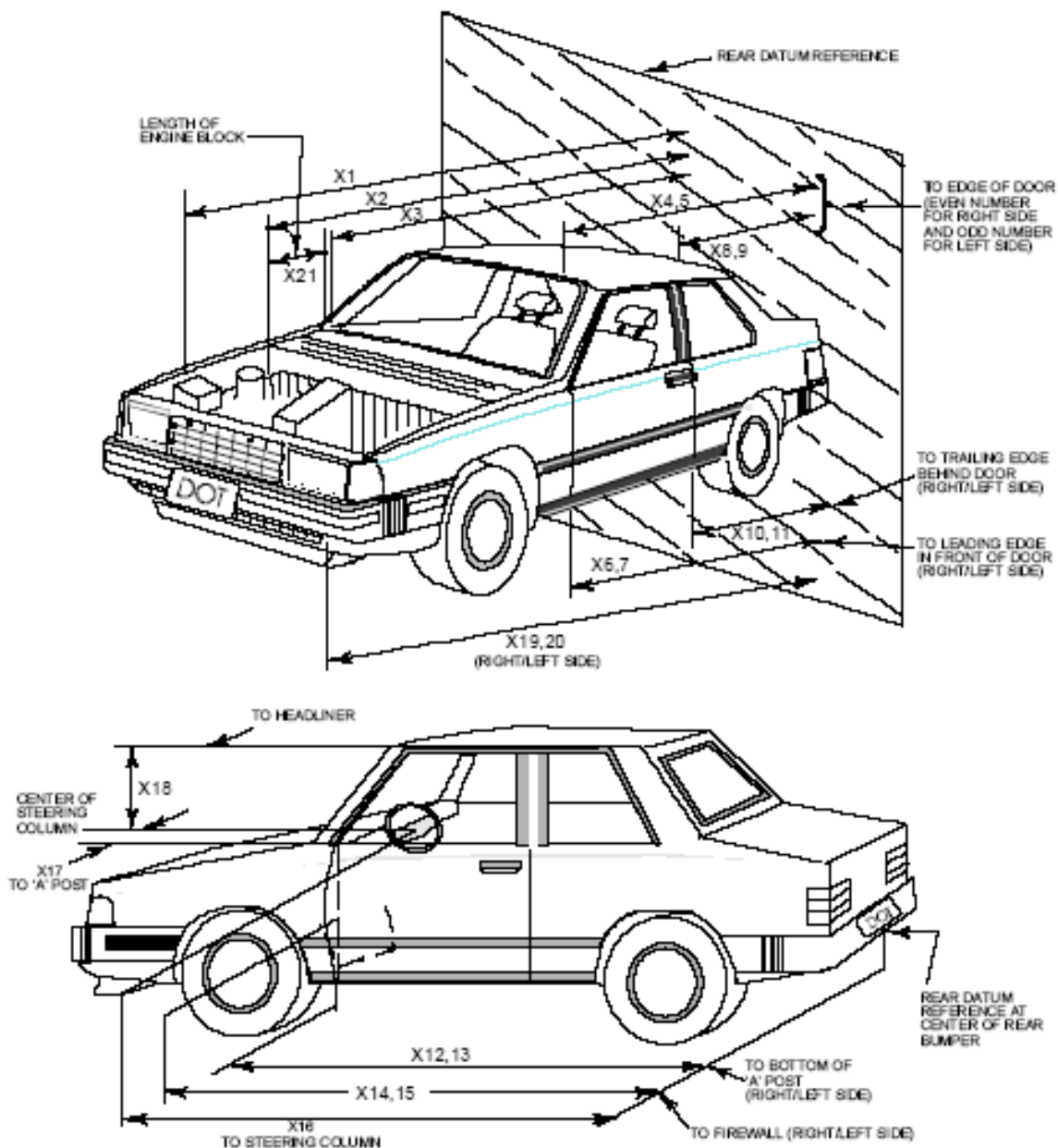
SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Driver (Occupant 1)		Passenger (Occupant 2)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	Yes	Yes	Yes
Torso/Pelvis Side Airbag	Yes	No	Yes	No
Curtain Side Airbag	Yes	Yes	Yes	Yes
Knee Airbag	No	N/A	No	N/A
Seat Belt Pretensioner	Yes	Yes	Yes	Yes
Seat Belt Load Limiter	Yes	Yes	Yes	Yes
Seat Belt Buckle Pretensioner	No	No	No	No
Other: Front Center Airbag	Yes	No	Yes	No

DATA SHEET NO. 12 - VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025



DATA SHEET NO. 12 - VEHICLE PROFILE MEASUREMENTS (CONT'D)Test Vehicle: 2025 Cadillac EscaladeNHTSA No.: M20250100Test Program: NCAP Frontal ImpactTest Date: 9/23/2025

No.	Measurement Description	Pre-Test	Post-Test	Change
1	Total Length of Vehicle at Centerline	5328	4700	-628
2	Rear Surface of Vehicle (RSOV) to Front of Engine	4548	4393	-155
3	RSOV to Firewall	4180	4200	20
4	RSOV to Upper Leading Edge of Right Door	3831	3876	45
5	RSOV to Upper Leading Edge of Left Door	3838	3872	34
6	RSOV to Lower Leading Edge of Right Door	3778	3773	-5
7	RSOV to Lower Leading Edge of Left Door	3770	3772	2
8	RSOV to Upper Trailing Edge of Right Door	2690	2736	46
9	RSOV to Upper Trailing Edge of Left Door	2690	2730	40
10	RSOV to Lower Trailing Edge of Right Door	2690	2700	10
11	RSOV to Lower Trailing Edge of Left Door	2692	2696	4
12	RSOV to Bottom of "A" Post-of Right Side	3781	3823	42
13	RSOV to Bottom of "A" Post-of Left Side	3780	3822	42
14	RSOV to Firewall, Right Side	4190	4177	-13
15	RSOV to Firewall, Left Side	4222	4230	8
16	RSOV to Steering Column	3485	3408	-77
17	Center of Steering Column to "A" Post	308	304	-4
18	Center of Steering Column to Headliner	461	500	39
19	RSOV to Right Side of Front Bumper	5250	4737	-513
20	RSOV to Left Side of Front Bumper	5255	4740	-515
21	Length of Engine Block	650	650	0
RD	RSOV to Right Side of Dash Panel	3480	3489	9
CD	RSOV to Center of Dash Panel	3615	3624	9
LD	RSOV to Left Side of Dash Panel	3470	3479	9

All Dimensions in mm

DATA SHEET NO. 13 - ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

VEHICLE INFORMATION

VIN: 1GYS9ARL6SR185326
Vehicle Size Category: MPV

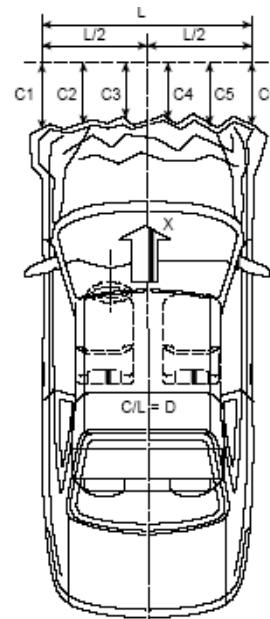
Wheelbase: 3070.0
Test Weight (kg): 2937.4

ACCELEROMETER DATA

Accelerometer Locations: As listed on Page 15 of this report.
Cal. Procedure/Interval: TRC procedure / 6 month interval
Integration Algorithm: Trapezoidal
Linearity: > 99%
Impact Velocity (km/h): 56.58
Velocity Change (km/h): 62.02
Time of Separation (ms): 193

CRUSH PROFILE

Collision Deformation Classification: 12FDEW2
Midpoint of Damage: Centerline
Damage Region Length (mm): 1371
Impact Mode: Frontal



No.	Measurement Description	Units	Pre-Test	Post-Test	Crush
C1	Crush zone 1 at left side	mm	108	623	515
C2	Crush zone 2 at left side	mm	46	622	576
C3	Crush zone 3 at left side	mm	2	645	643
C4	Crush zone 4 at right side	mm	0	643	643
C5	Crush zone 5 at right side	mm	41	628	587
C6	Crush zone 6 at right side	mm	113	626	513
L	C1 to C6	mm	1371	1371	0

DATA SHEET NO. 14 - VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

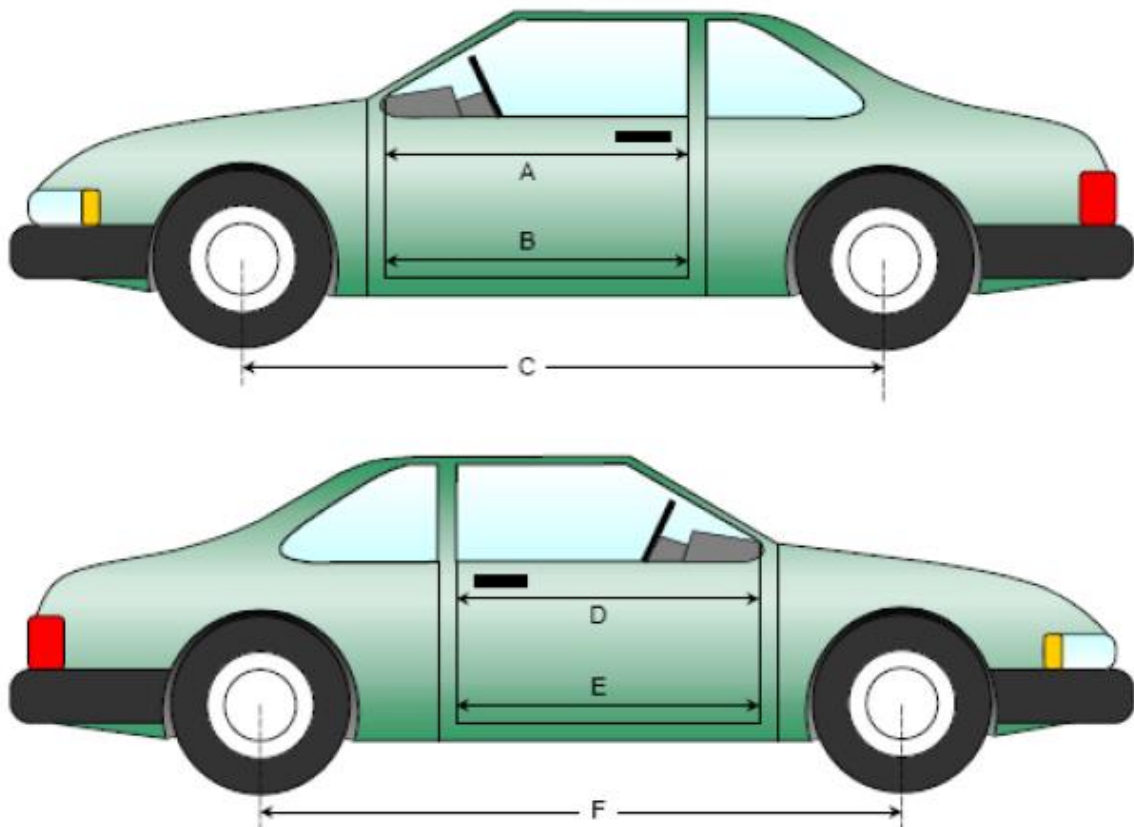
NHTSA No.: M20250100
Test Date: 9/23/2025

DOOR OPENING WIDTH

No.	Description	Units	Pre-Test	Post-Test	Change
A	Left Side Upper	mm	1070	1071	1
B	Left Side Lower	mm	980	982	2
D	Right Side Upper	mm	1071	1072	1
E	Right Side Lower	mm	980	980	0

WHEELBASE MEASUREMENTS

No.	Description	Units	Pre-Test	Post-Test	Change
C	Left Side Wheelbase	mm	3070	3025	-45
F	Right Side Wheelbase	mm	3070	3025	-45



¹ Front suspension damaged and wheels fell off measurements not available

DATA SHEET NO. 14 - VEHICLE INTRUSION MEASUREMENTS (CONT'D)

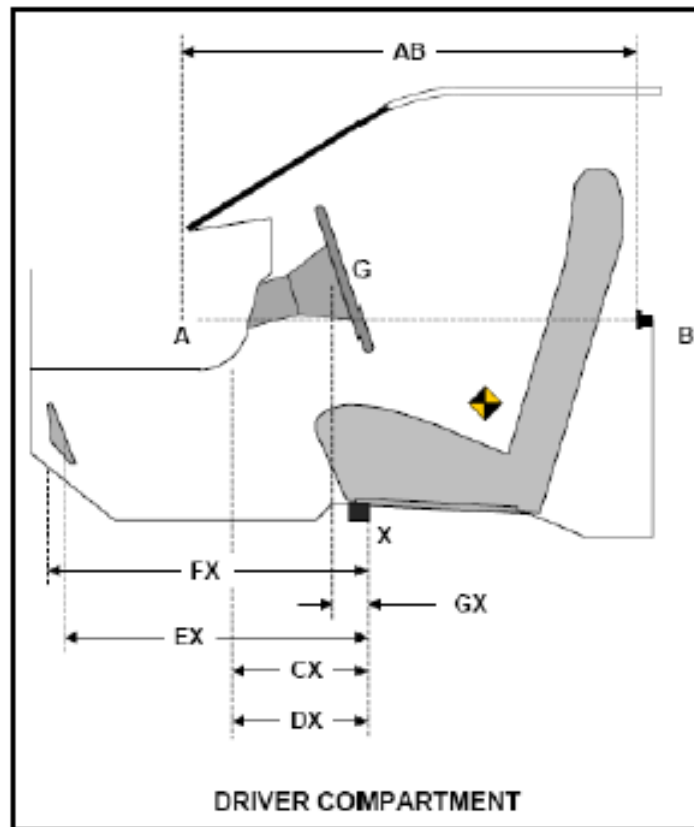
Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025

DRIVER COMPARTMENT INTRUSION

Item	Description	Units	Pre-Test	Post-Test	Change
AB	Door Opening (Inside Window Jam)	mm	928	930	2
CX	Left Knee Bolster to X	mm	313	345	32
DX	Right Knee Bolster to X	mm	321	336	15
EX	Brake Pedal to X	mm	548	550	2
FX	Foot Rest to X	mm	598	600	2
GX	Center of Steering Column Wheel Hub to X	mm	112	220	108

X = Front of Seat Track (Stationary)



DATA SHEET NO. 15 - SUMMARY OF INDICANT FMVSS 212 AND FMVSS 219 (PARTIAL) DATA

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

Please provide windshield mounting details.

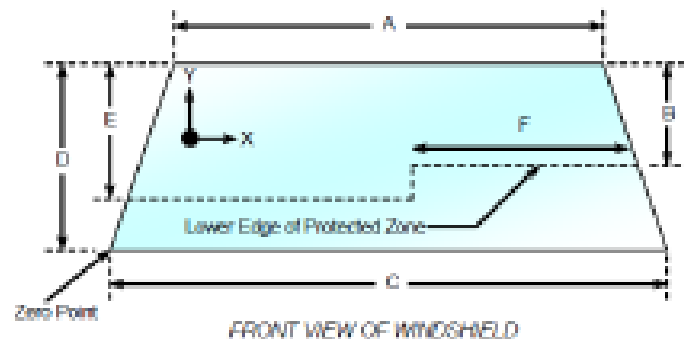
The standard requires that the post-test retention measurement be a minimum of 75% of the pre-test total periphery measurement for vehicle not equipped with occupant passive restraint and 50% for each side of the windshield for vehicle which are equipped with occupant passive restraints.

Temperature of windshield molding during test: 21.0°C

WINDSHIELD PERIPHERY MEASUREMENTS

Measurement	Pre-Test (mm)	Post-Test (mm)	% Retention
Left Side	2342	2342	100.0
Right Side	2342	2342	100.0
Total	4684	4684	100.0

Item	Units	Value
A	mm	1412
B	mm	525
C	mm	1620
D	mm	826
E	mm	482
F	mm	1050



AREAS OF PROTECTED ZONE FAILURES

A. Provide coordinates of the area that the protected zone was penetrated more than .25 inches by a vehicle component other than one that is normally in contact with the windshield.

X	Y
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

B. The inner surface of the windshield was penetrated by the hood support beneath the protected zone.

X	Y
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

**DATA SHEET NO. 16 - FMVSS 301 BARRIER IMPACT AND STATIC ROLLOVER
RESULTS**

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 20.9°C

Test Time: 15:35

Stoddard Solvent Spillage Measurements

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

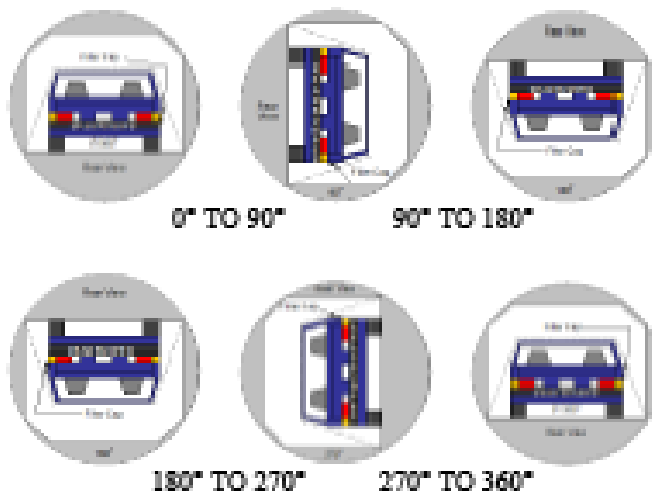
DATA SHEET NO. 16 - FMVSS 301 BARRIER IMPACT AND STATIC ROLLOVER RESULTS (CONT'D)

Test Vehicle: 2025 Cadillac Escalade
 Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
 Test Date: 9/23/2025

1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage:

None



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	1480

FMVSS 301 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

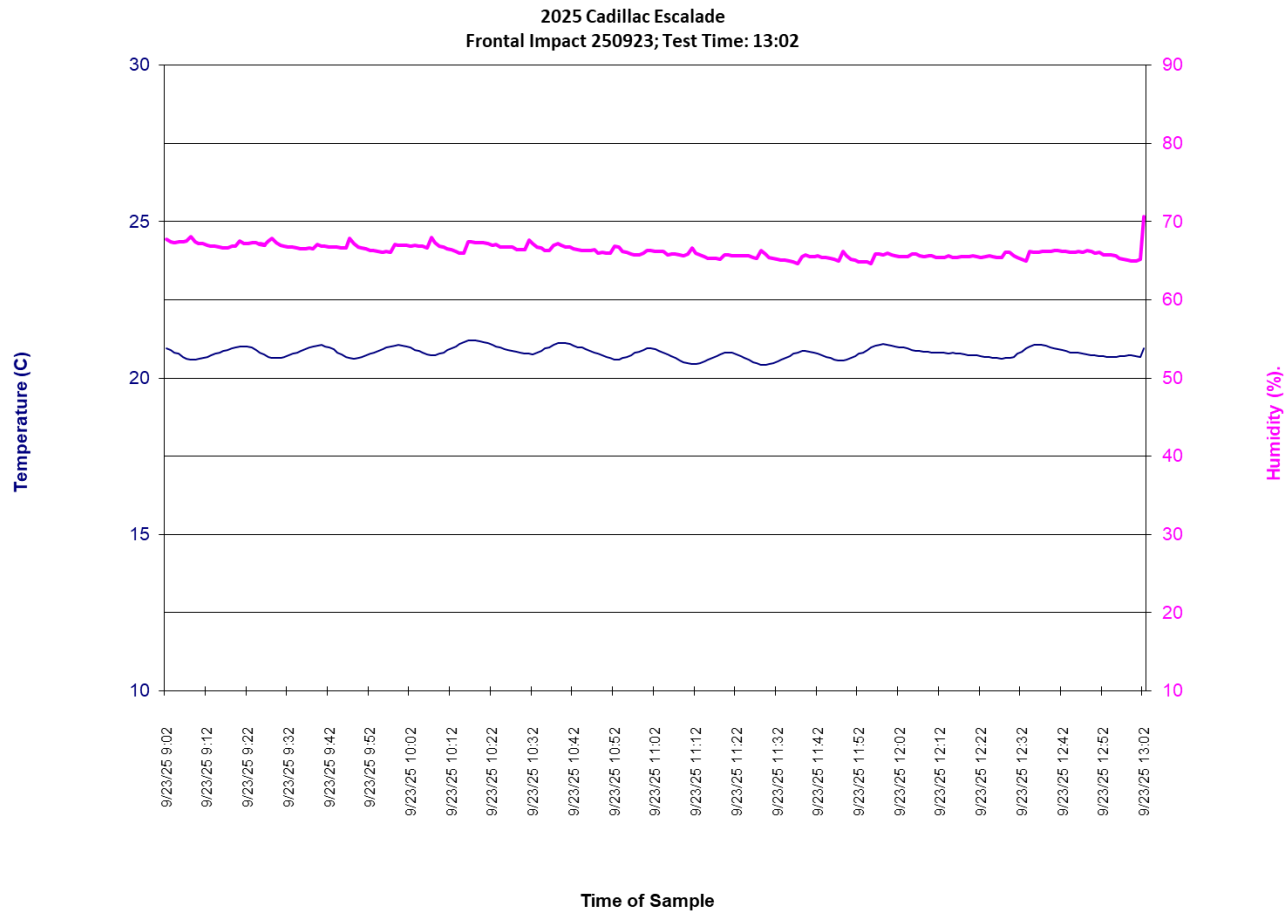
SOLVENT SPILLAGE LOCATION TABLE

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

DATA SHEET NO. 17 - DUMMY/VEHICLE TEMPERATURE STABILIZATION

Test Vehicle: 2025 Cadillac Escalade
Test Program: NCAP Frontal Impact

NHTSA No.: M20250100
Test Date: 9/23/2025



APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

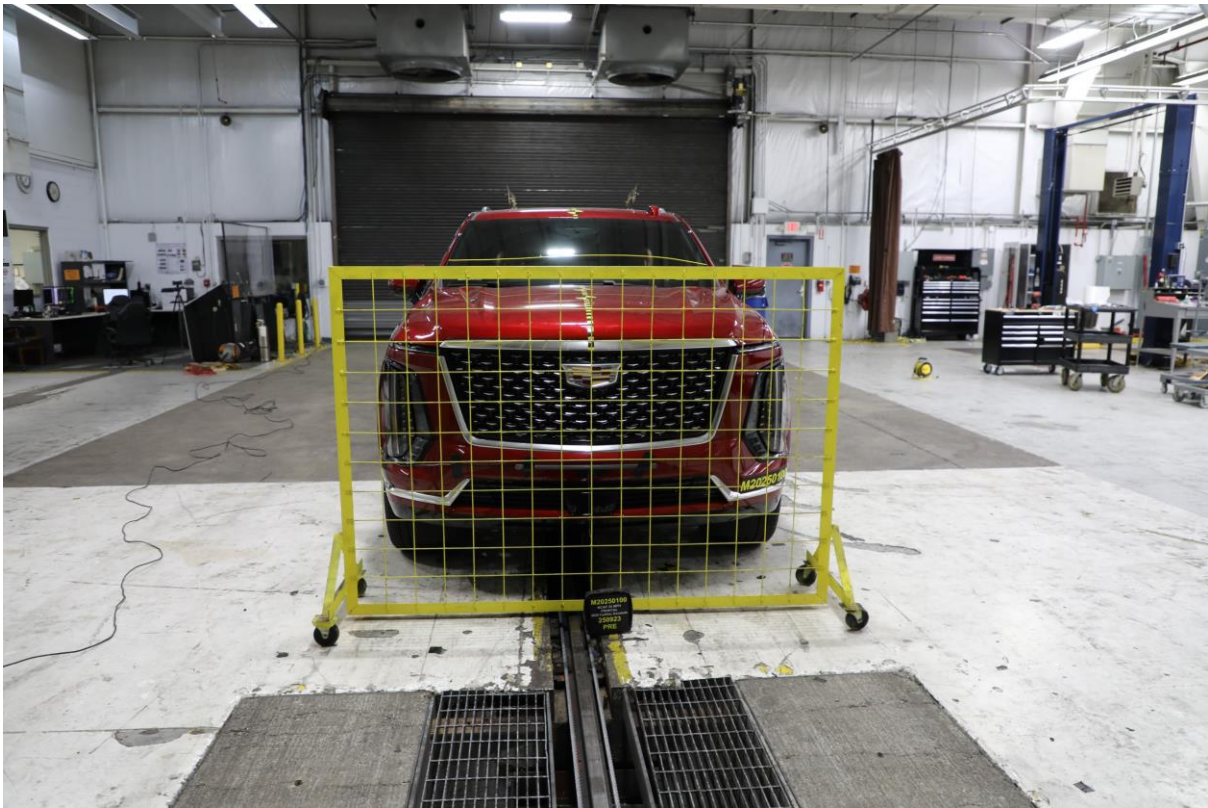
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4	Manufacturer's Label	A-6
5	Tire Placard	A-7
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9	Post-Test Front View of Test Vehicle	A-9
10	Pre-Test Left View of Test Vehicle	A-10
11	Post-Test Left View of Test Vehicle	A-10
12	Pre-Test Right View of Test Vehicle	A-11
13	Post-Test Right View of Test Vehicle	A-11
14	Pre-Test Right Front 3-4 View	A-12
15	Post-Test Right Front 3-4 View	A-12
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42	Pre-Test Driver Dummy Feet	A-28
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001 Load Cell Location



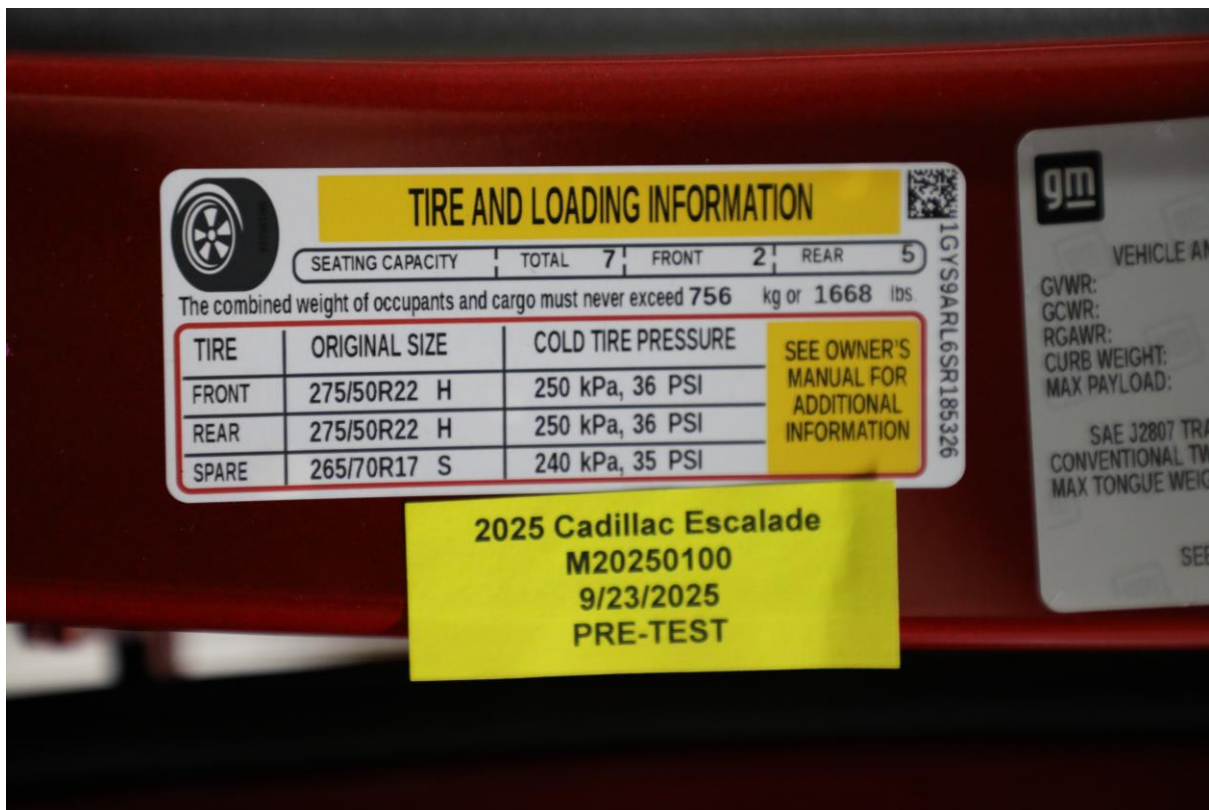
002 Pre-Test Load Cell Wall



003 Post-Test Load Cell Wall



004 Manufacturer's Label



005 Tire Placard

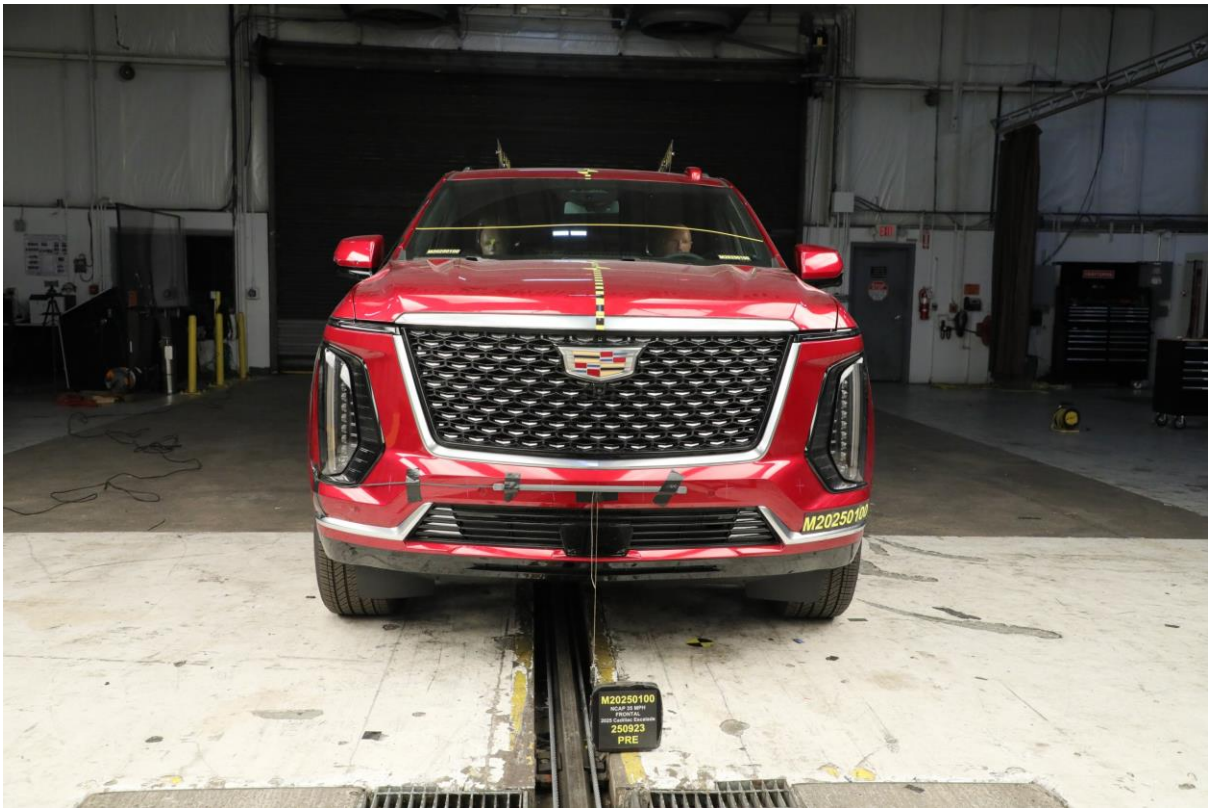
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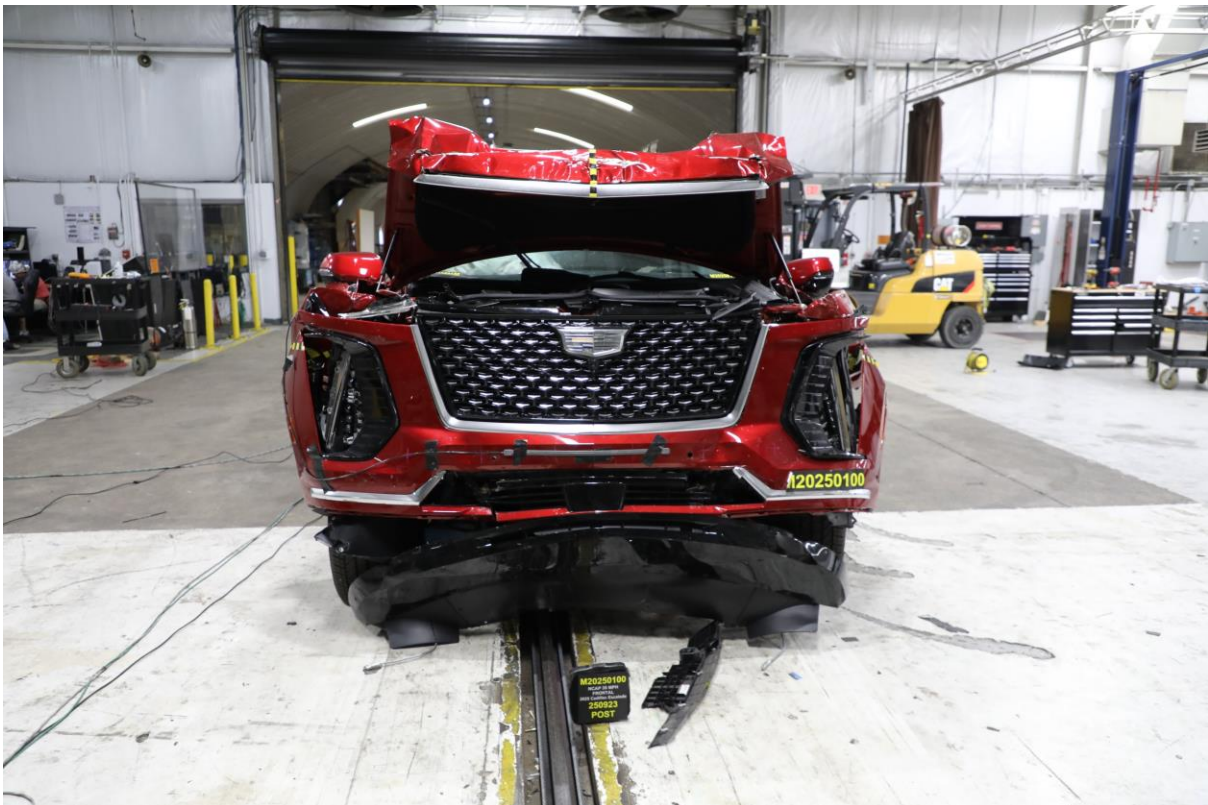
006 2025 Cadillac Escalade Frontal As Delivered



007 Left Rear 3-4 View, as Received



008 Pre-Test Front View of Test Vehicle



009 Post-Test Front View of Test Vehicle



010 Pre-Test Left View of Test Vehicle



011 Post-Test Left View of Test Vehicle



012 Pre-Test Right View of Test Vehicle



013 Post-Test Right View of Test Vehicle



014 Pre-Test Right Front 3-4 View



015 Post-Test Right Front 3-4 View



016 Pre-Test Left Rear 3-4 View



017 Post-Test Left Rear 3-4 View



018 Pre-Test Windshield View



019 Post-Test Windshield View



020 Pre-Test Engine Compartment View



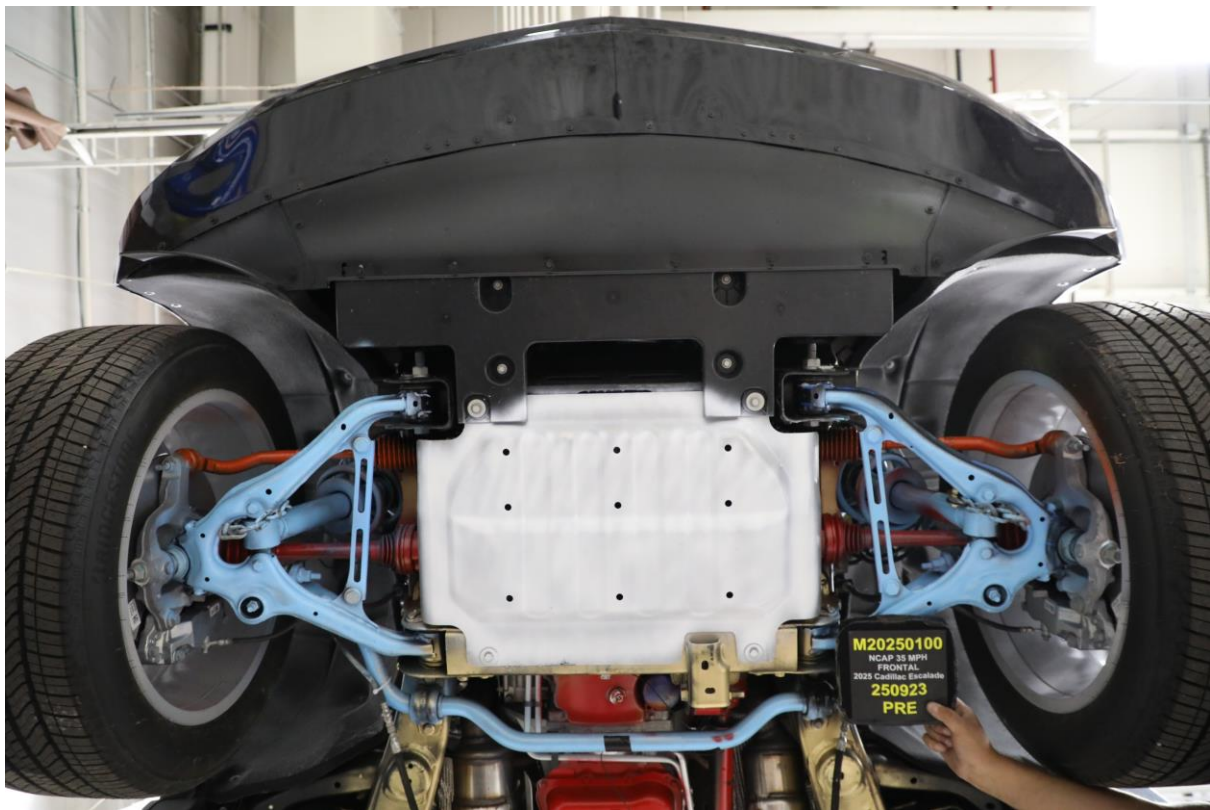
021 Post-Test Engine Compartment View



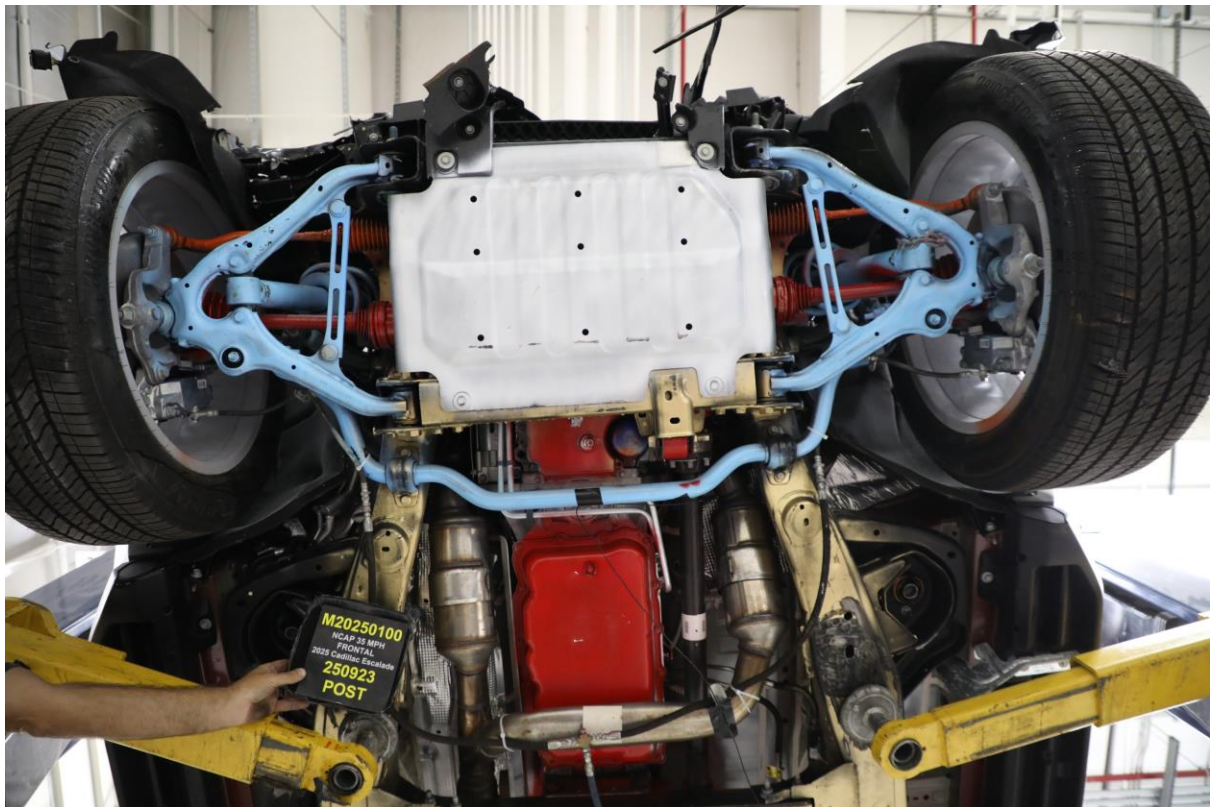
022 Pre-Test Fuel Filler Cap View



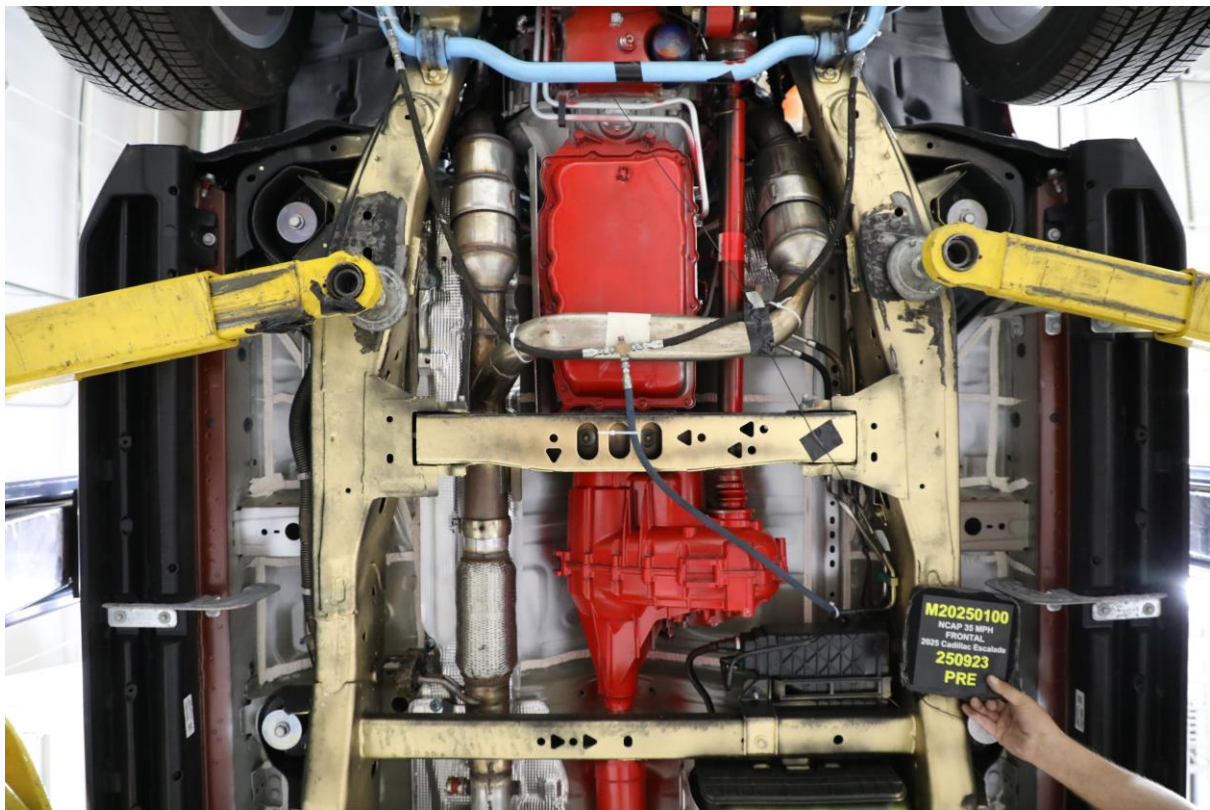
023 Post-Test Fuel Filler Cap View



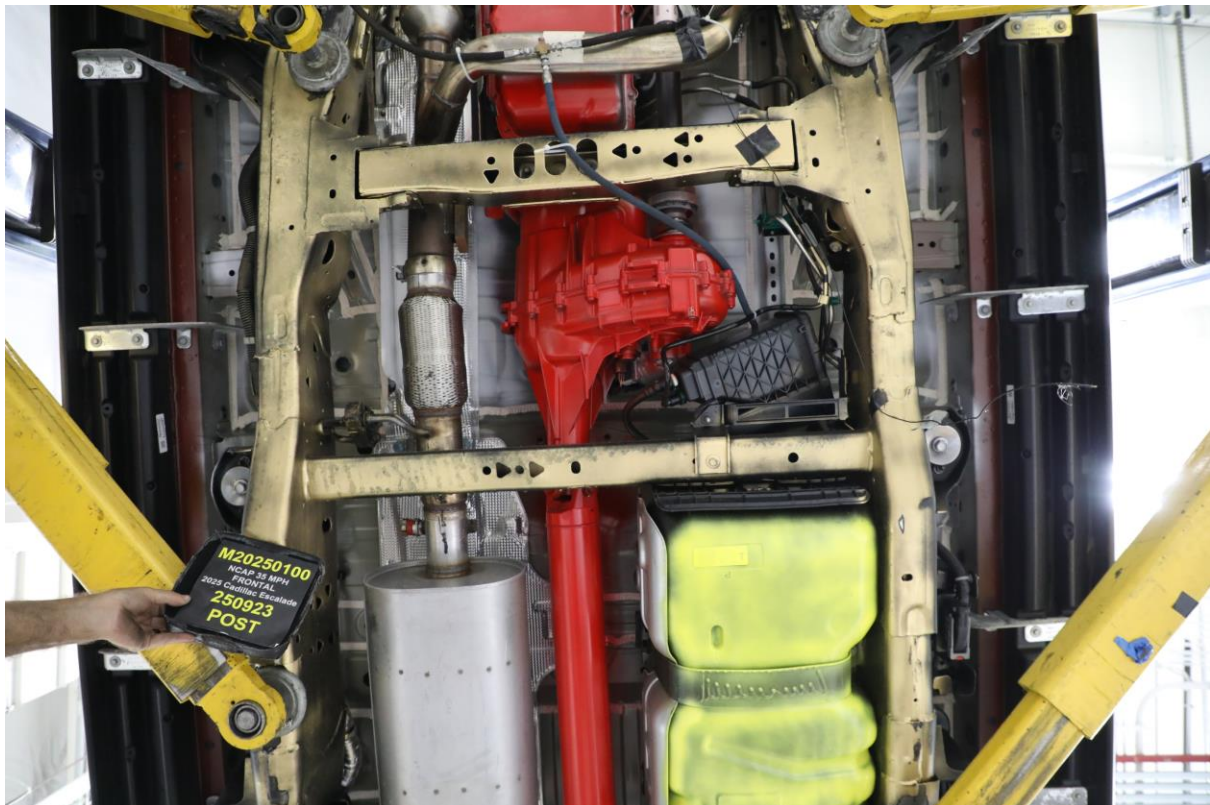
024 Pre-Test Front Underbody View



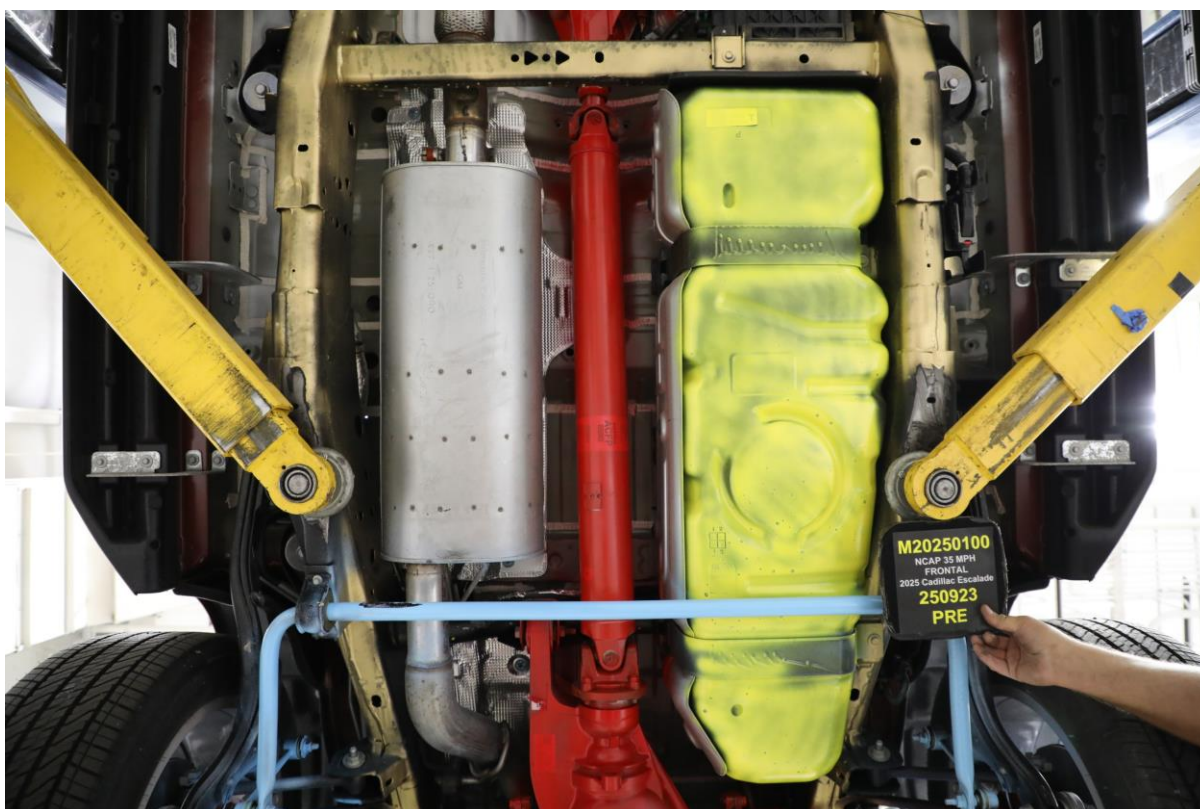
025 Post-Test Front Underbody View



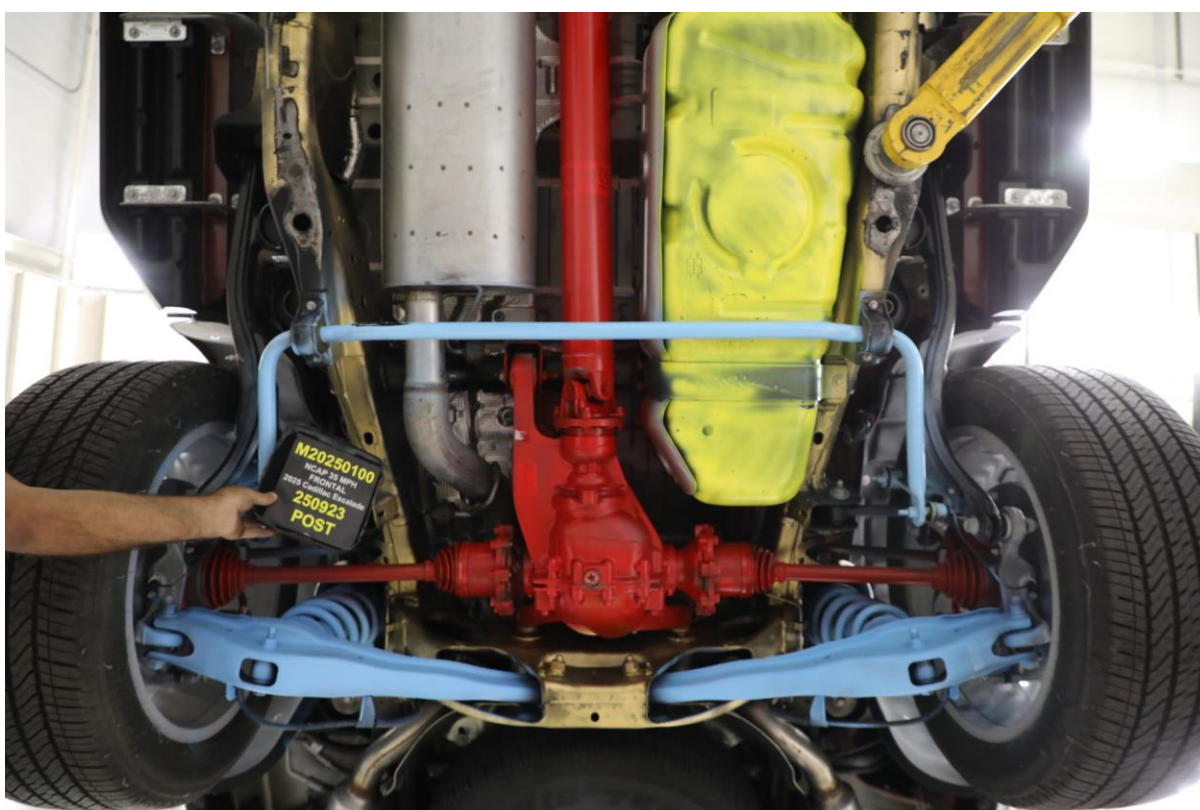
025a Pre-Test Mid Front Underbody View



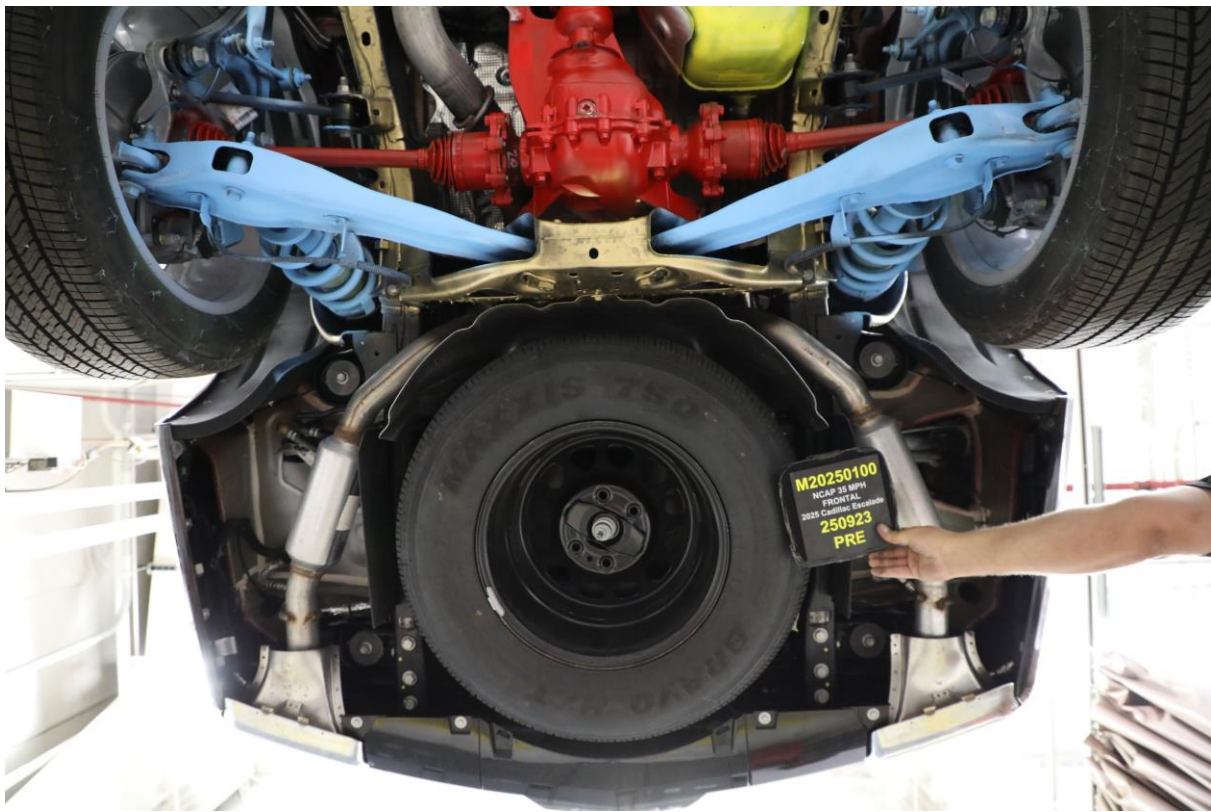
025b Post-Test Mid Front Underbody View



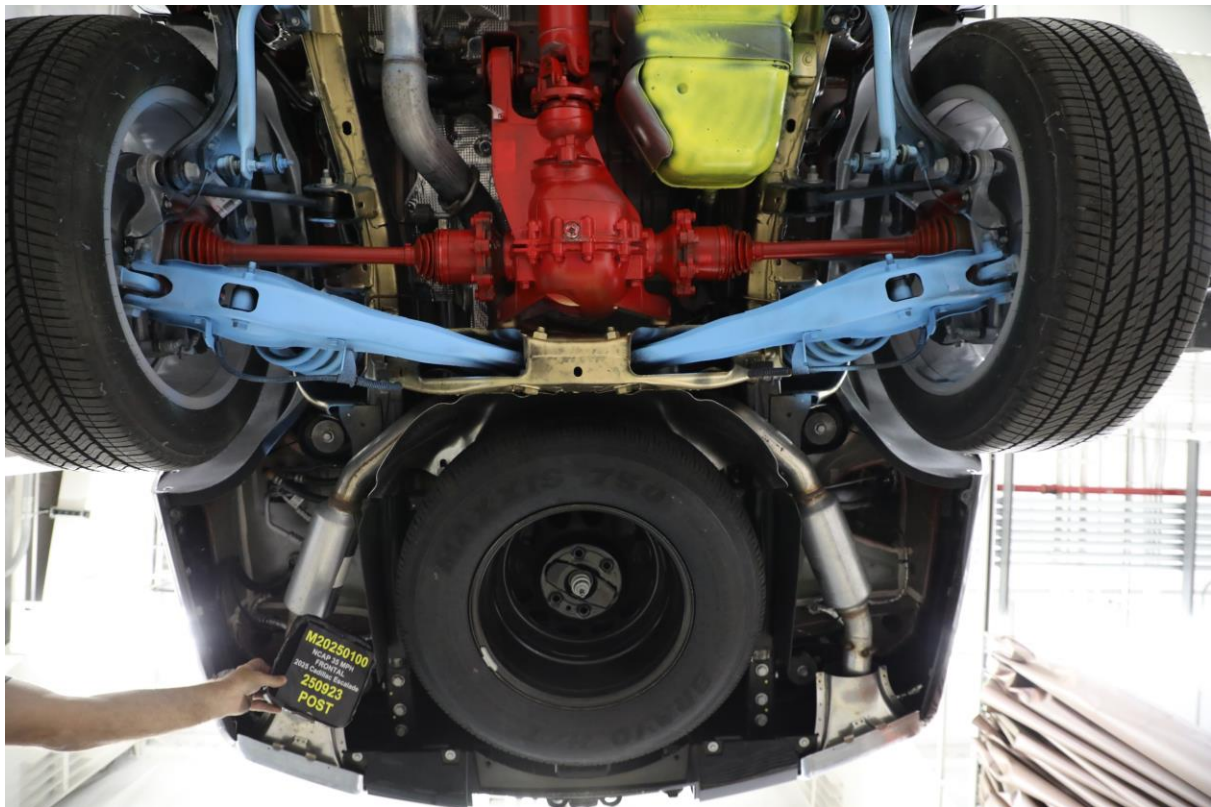
025c Pre-Test Mid Rear Underbody View



025d Post-Test Mid Rear Underbody View



026 Pre-Test Rear Underbody View



027 Post-Test Rear Underbody View



028 Pre-Test Dummy Cable Routing



029 Post-Test Dummy Cable Routing



030 Pre-Test Driver Dummy Front View



031 Post-Test Driver Dummy Front View



032 Pre-Test Driver Dummy Window View



033 Post-Test Driver Dummy Window View



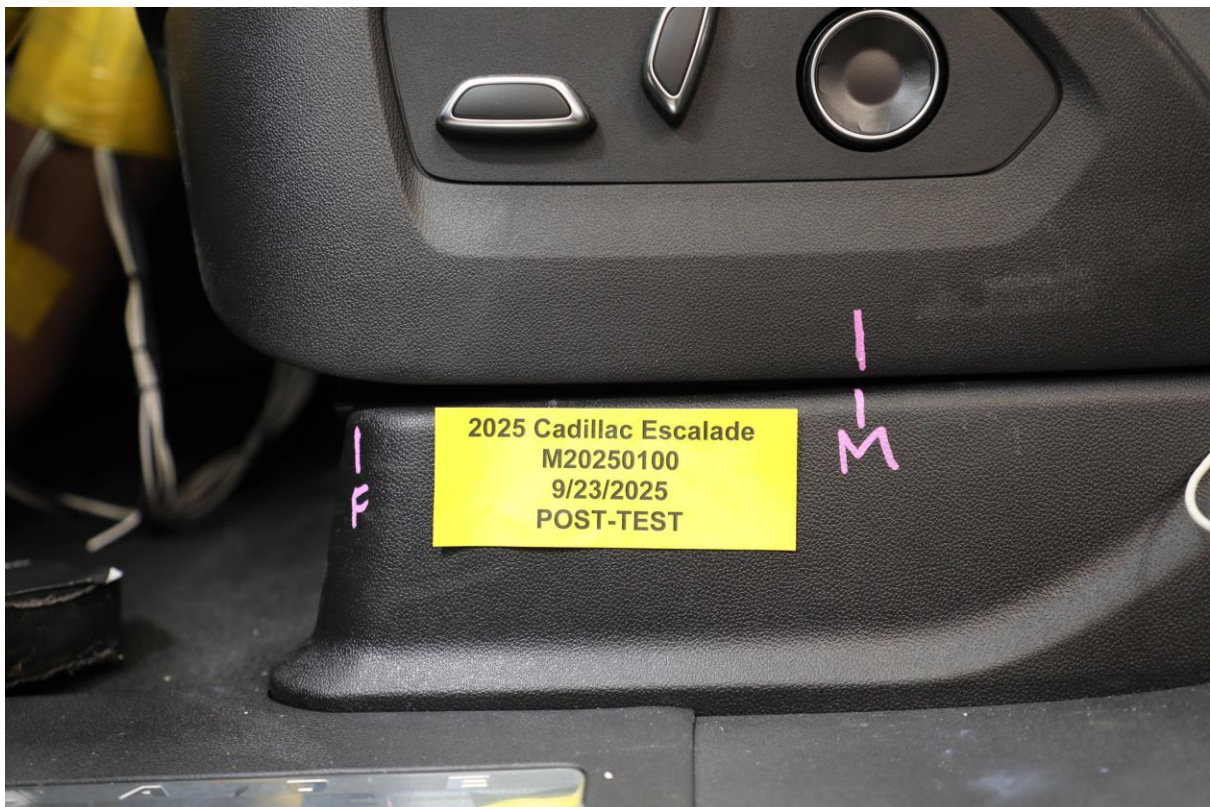
034 Pre-Test Driver Dummy and Vehicle Interior View



035 Post-Test Driver Dummy and Vehicle Interior View



036 Pre-Test Driver's Seat Fore-Aft Markings



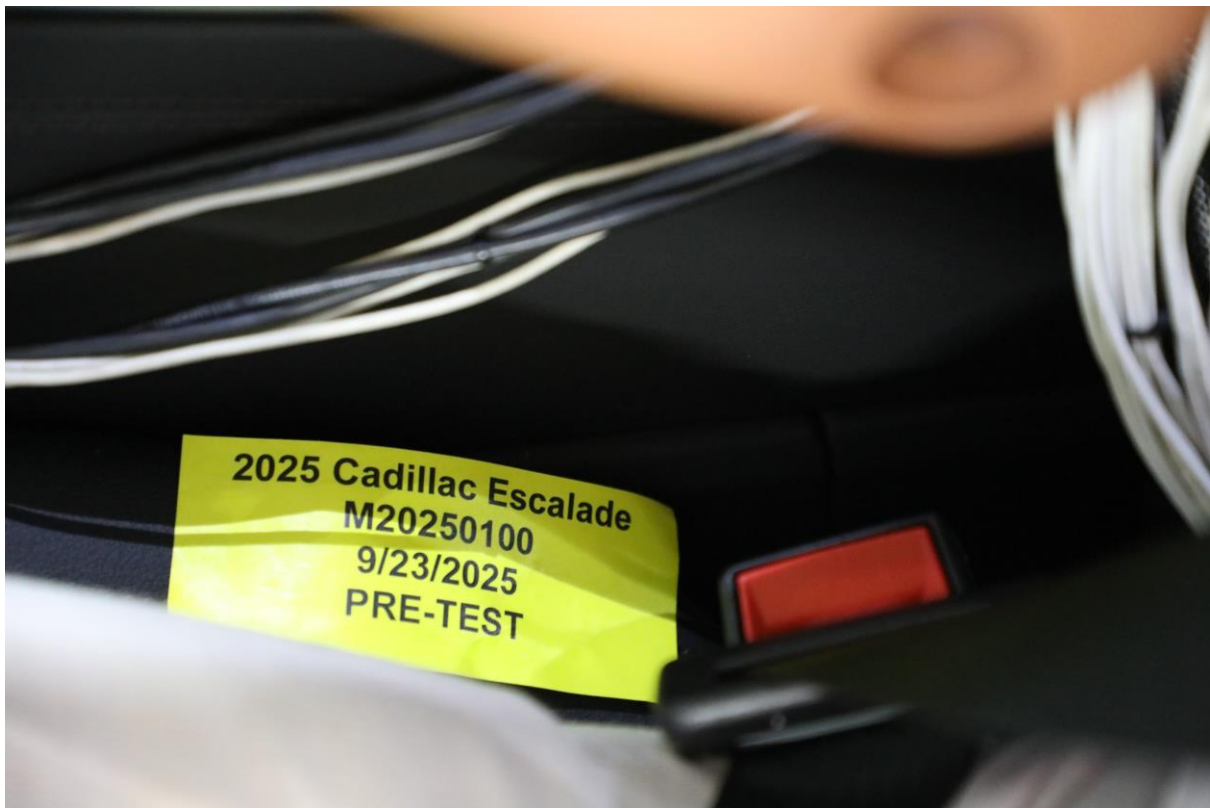
037 Post-Test Driver's Seat Fore-Aft Markings



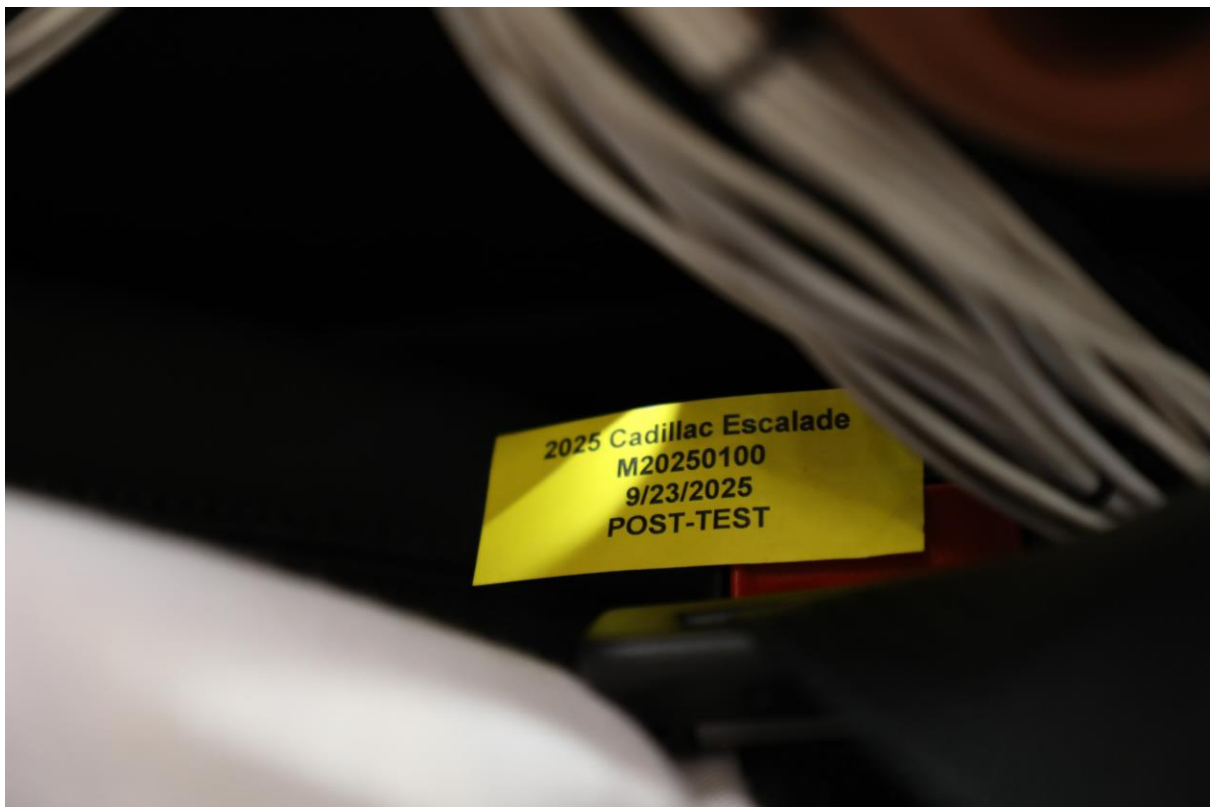
038 Pre-Test View of Belt Anchorage for Driver Dummy



039 Post-Test View of Belt Anchorage for Driver Dummy



040 Pre-Test View of Belt Buckle and Latch Plate for Driver Dummy



041 Post-Test View of Belt Buckle and Latch Plate for Driver Dummy



042 Pre-Test Driver Dummy Feet



043 Post-Test Driver Dummy Feet



044 Pre-Test Driver's Side Knee Bolster



045 Post-Test Driver's Side Knee Bolster



046 Pre-Test Driver's Side Floorpan



047 Post-Test Driver's Side Floorpan



048 Post-Test Driver Dummy Face



049 Post-Test Driver Dummy Contact with Airbag

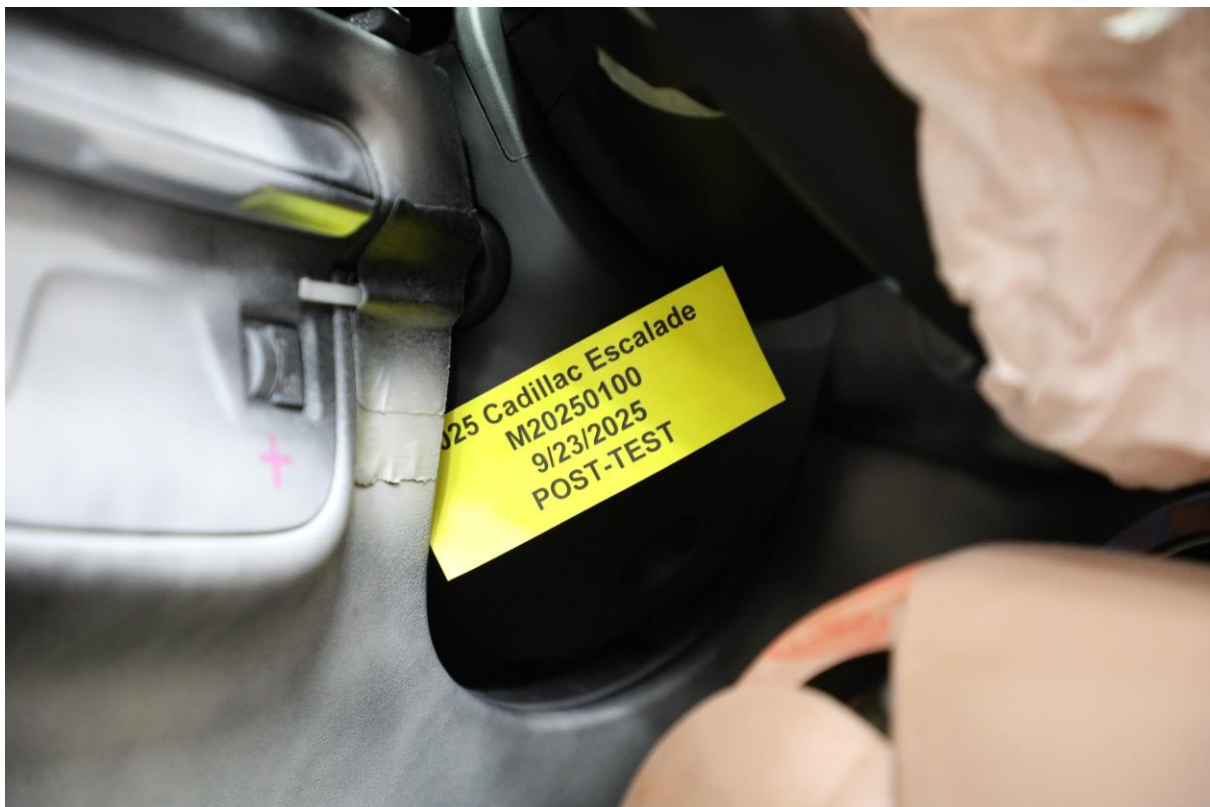


050 Post-Test Driver Dummy Contact with Headrest

Intentionally Left Blank



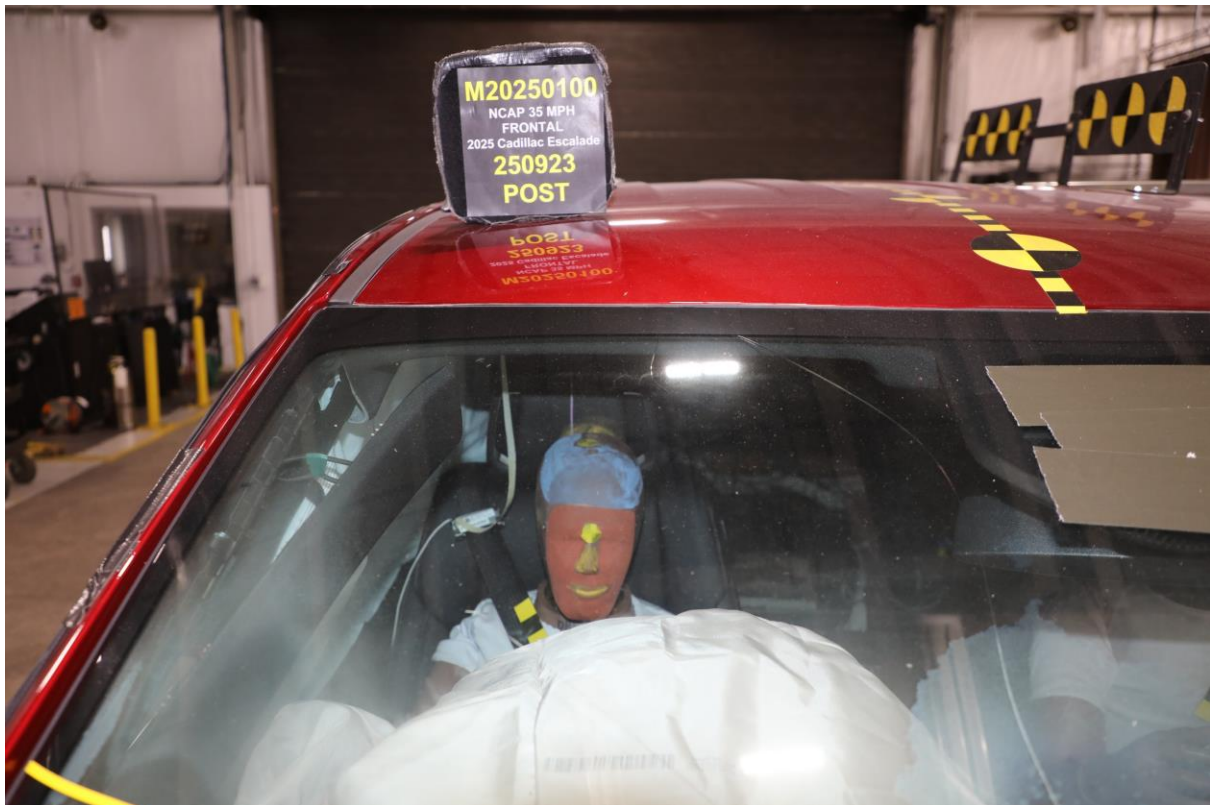
051 Pre-Test View of the Steering Wheel



052 Post-Test View of the Steering Wheel



53 Pre-Test Passenger Dummy Front View



054 Post-Test Passenger Dummy Front View



055 Pre-Test Passenger Dummy Window View



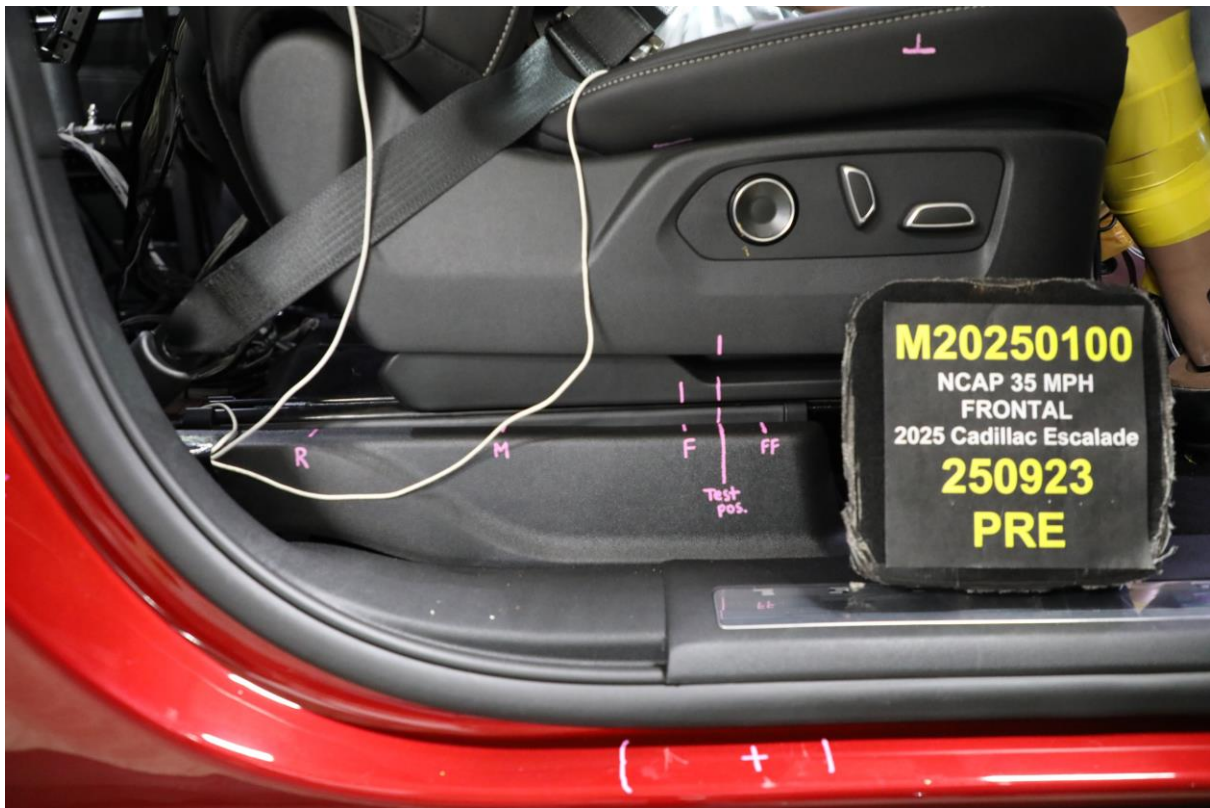
056 Post-Test Passenger Dummy Window View



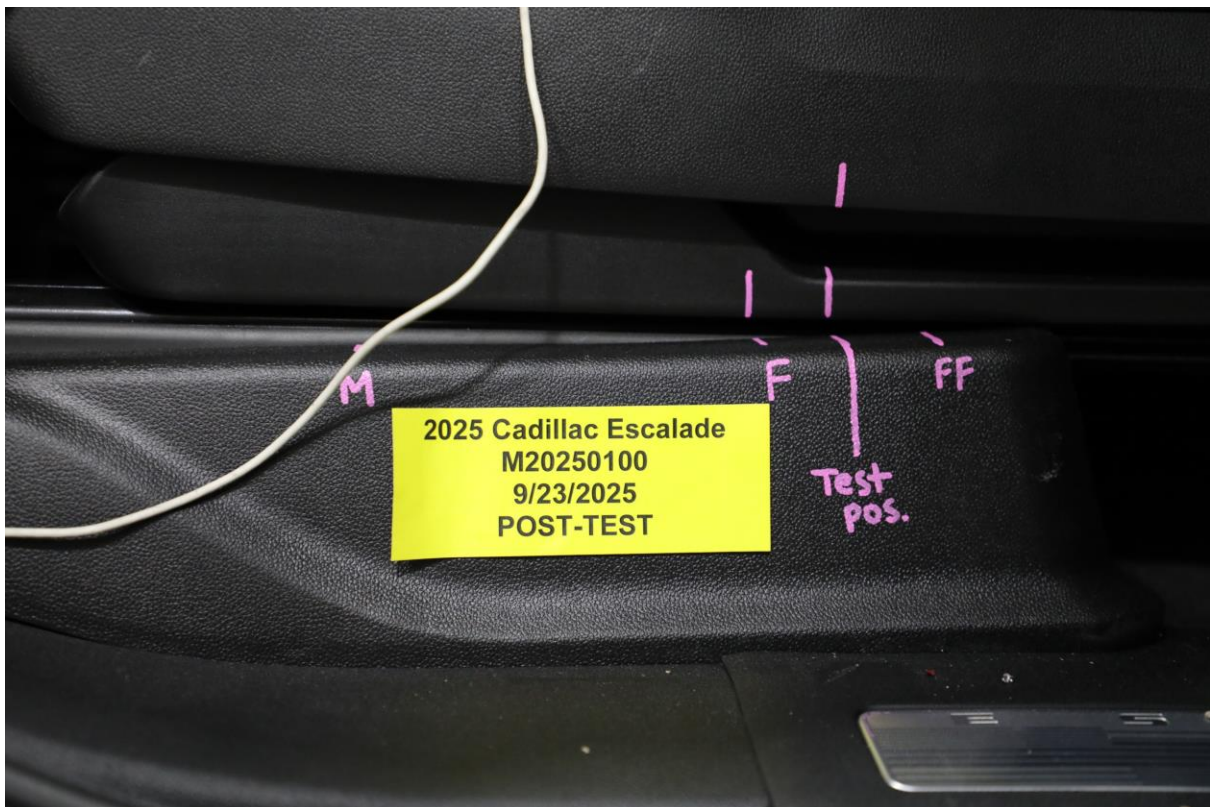
057 Pre-Test Passenger Dummy and Vehicle Interior View



058 Post-Test Passenger Dummy and Vehicle Interior View



059 Pre-Test Passenger's Seat Fore-Aft Markings



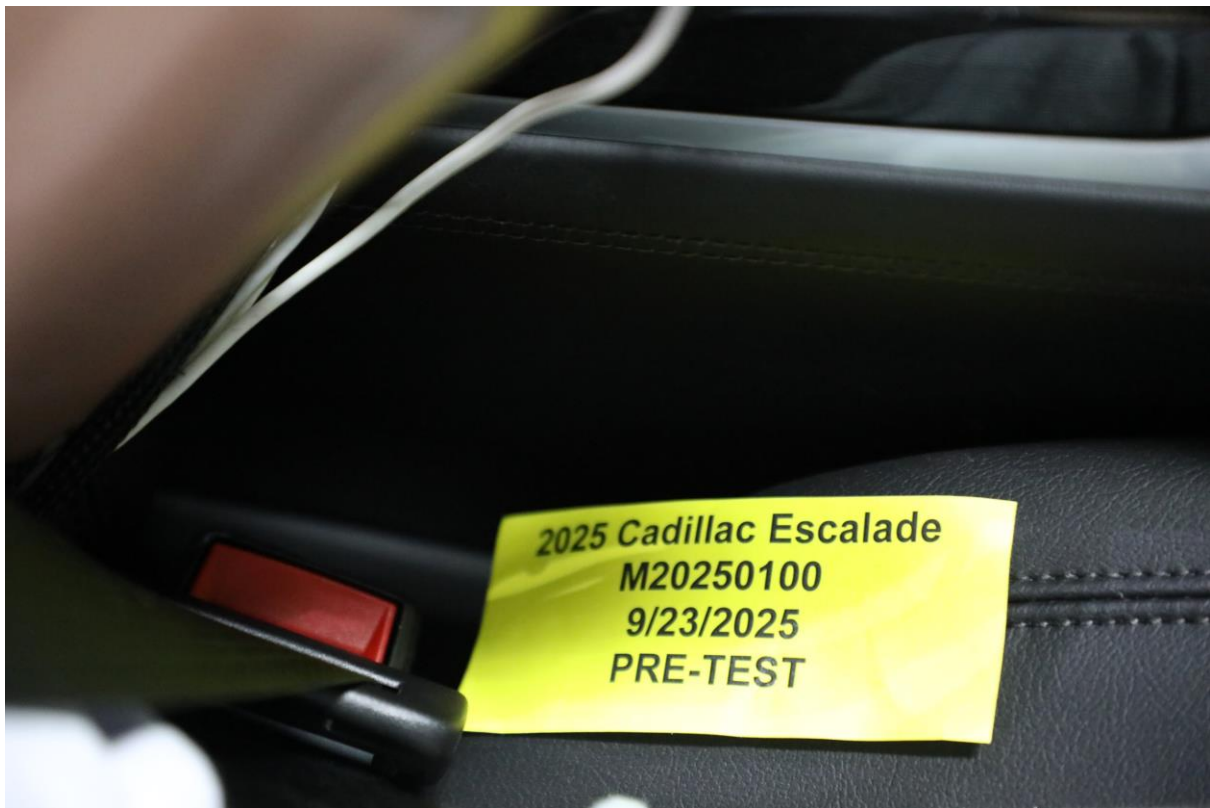
060 Post-Test Passenger's Seat Fore-Aft Markings



061 Pre-Test View of Belt Anchorage for Passenger Dummy



062 Post-Test View of Belt Anchorage for Passenger Dummy



063 Pre-Test View of Belt Buckle and Latch Plate for Passenger Dummy



064 Post-Test View of Belt Buckle and Latch Plate for Passenger Dummy



065 Pre-Test Passenger Dummy Feet



066 Post-Test Passenger Dummy Feet



067 Pre-Test Passenger's Side Knee Bolster



068 Post-Test Passenger's Side Knee Bolster



069 Pre-Test Passenger's Side Floorpan



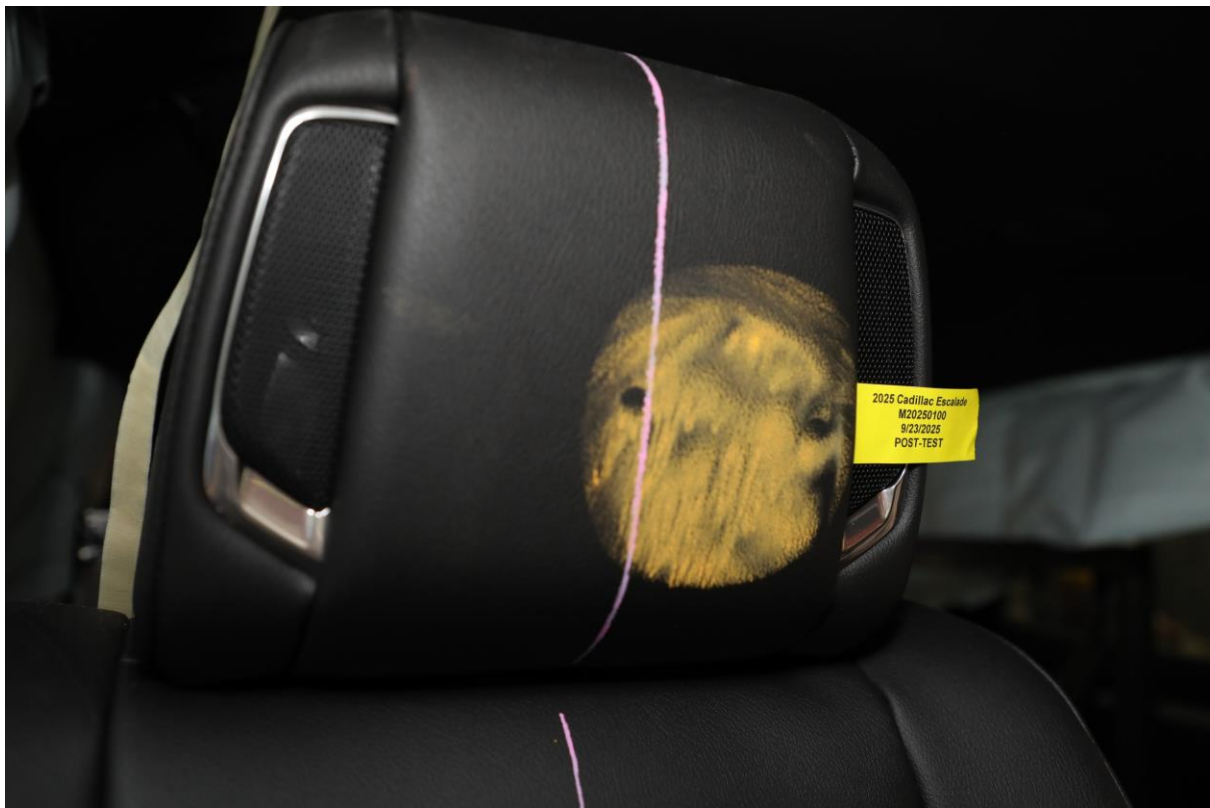
070 Post-Test Passenger's Side Floorpan



071 Post-Test Passenger Dummy Face



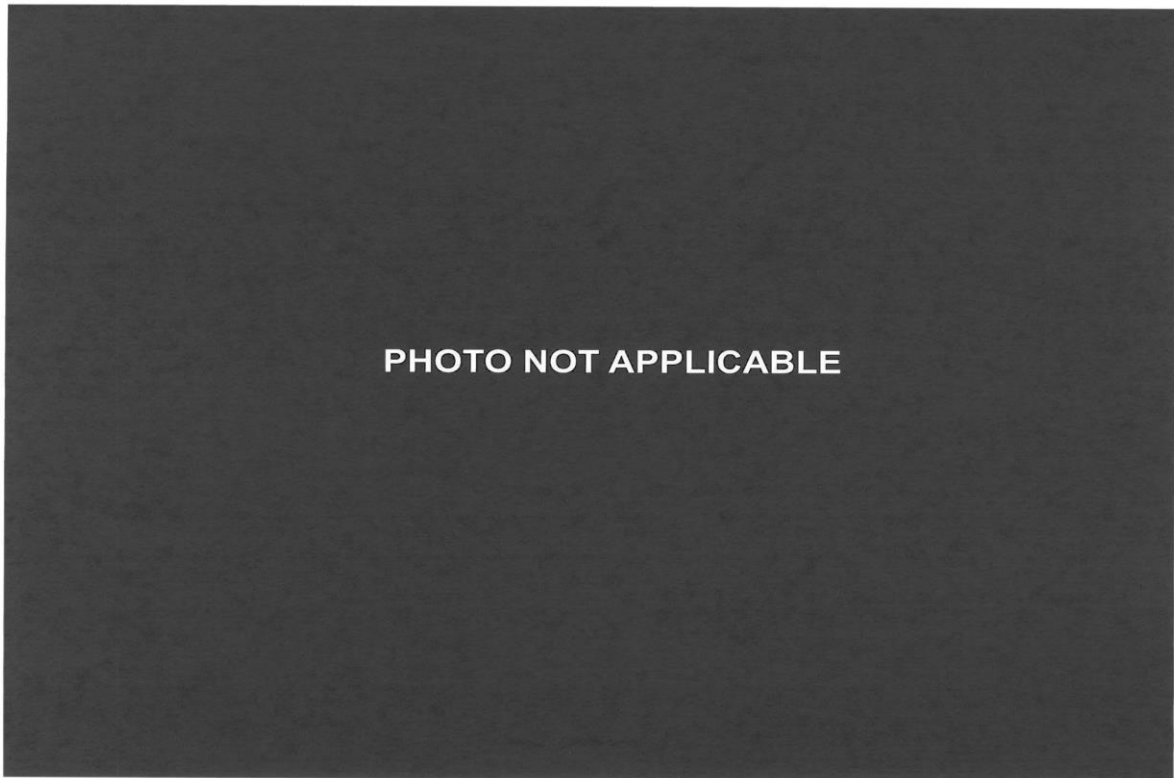
072 Post-Test Passenger Dummy Contact with Airbag



073 Post-Test Passenger Dummy Contact with Headrest



074 Photograph of Ballast Installed in Vehicle



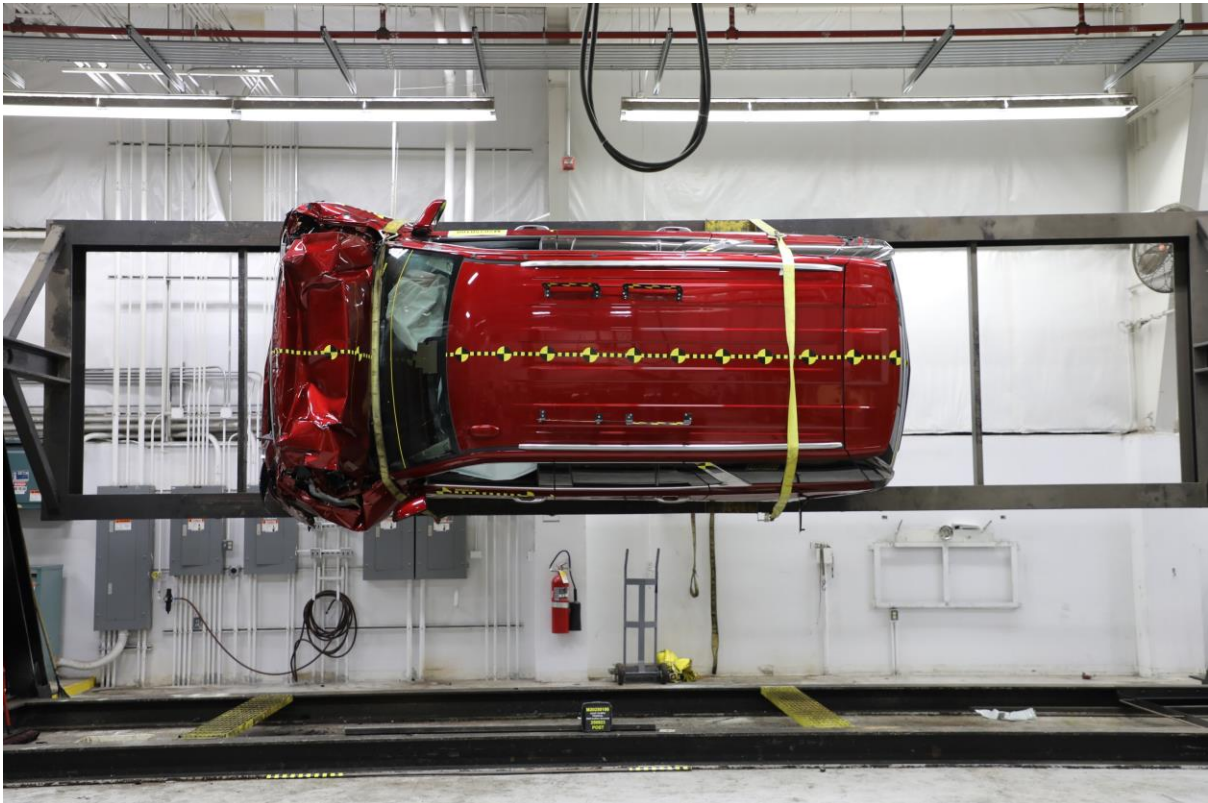
075 Post-Test Stoddard Spillage Location View



076 Post-Test Speed Trap Read out



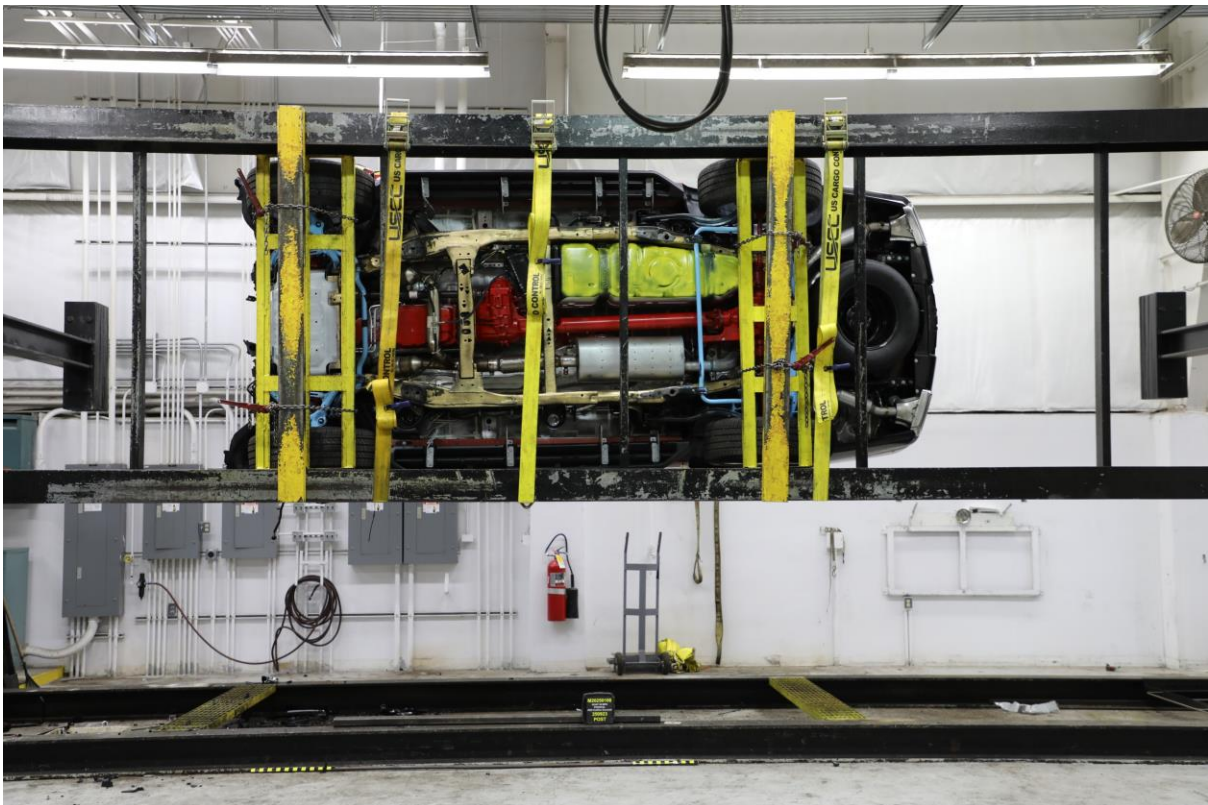
077 Vehicle at 0° on Static Rollover Device



078 Vehicle at 90° on Static Rollover Device



079 Vehicle at 180° on Static Rollover Device



080 Vehicle at 270° on Static Rollover Device



081 Vehicle at 360° on Static Rollover Device



082 2025 Cadillac Escalade Frontal Impact Event



2025 ESCALADE 4WD LUXURY

EXTERIOR: RADIANT RED TINTCOAT
INTERIOR: JET BLACK

ENGINE: 6.2L V8
TRANSMISSION: 10-SPEED AUTO

STANDARD EQUIPMENT

ITEMS LISTED BELOW ARE INCLUDED AT NO EXTRA CHARGE IN THE STANDARD VEHICLE PRICE SHOWN

OWNER BENEFITS

- 4 YEAR / 50,000 MILE* BUMPER-TO-BUMPER LIMITED WARRANTY
- 6 YEAR / 70,000 MILE* POWERTRAIN LIMITED WARRANTY, ROADSIDE ASSISTANCE & COURTESY TRANSPORTATION
- FIRST MAINTENANCE VISIT
- *WHICHEVER COMES FIRST

SEE CADILLAC.COM OR DEALER FOR TERMS, DETAILS & LIMITS

- 8 YEARS ONSTAR BASICS
- SEE ONSTAR.COM FOR TERMS
- 3 YEARS SAFETY SERVICES, Wi-Fi, IN-VEHICLE APPS, CONNECTED BY ONSTAR
- INFO AT ONSTAR.COM/PLANS

PERFORMANCE

- DIFFERENTIAL, MECH LIMITED SLIP
- WHEELS, 22" 14-SPOKE ALLOY

LUXURY & CONVENIENCE

- SUPER CRUISE (TM) EQUIPPED, 3 YEAR SUBSCRIPTION INCLUDED; INFO AT ONSTAR.COM/SUPERCRISE
- 55" TOTAL DIAGONAL CURVED SCREEN
- AVX STUDIO 19-SPEAKER AUDIO SYSTEM
- WIRELESS APPLE CARPLAY & WIRELESS ANDROID AUTO CAPABLE
- PASSIVE ENTRY & KEYLESS START
- ADAPTIVE REMOTE START
- HEATED STEERING WHEEL
- HEATED FRONT SEATS
- 2ND ROW BUCKET, POWER RELEASE, HEATED SEATS
- SEATS, 3RD ROW 60/40 SPLIT-BENCH, POWER FOLD

- MEMORY SETTINGS DRIVER SEAT, OUTSIDE MIRRORS, TILT/TELESCOPIC STEERING COLUMN
- POWER OUTLET, 110-VOLT
- TRI ZONE AUTO CLIMATE CONTROL
- SELECTABLE INTERIOR AMBIENT LIGHTING
- CONVERSATION ENHANCEMENT, FRONT TO REAR
- SIRIUSXM AUDIO w/ TRIAL SEE SIRIUSXM.COM/TERMS
- RAISENSE FRONT WIPERS
- DOOR HANDLES, ILLUMINATED
- ASSIST STEPS
- HANDS FREE POWER LIFTGATE
- HEADLAMPS / TAIL LAMPS, LED
- AUTOMATIC VEHICLE HOLD
- CONNECTED CAMERAS, NON-FUNCTIONAL, REQUIRES FUTURE SOFTWARE UPDATE

SAFETY & SECURITY

- ENHANCED AUTOMATIC EMERGENCY

BRAKING

- REVERSE AUTOMATIC BRAKING
- HD SURROUND VISION
- SAFETY ALERT SEAT
- FORWARD COLLISION ALERT
- REAR PEDESTRIAN ALERT
- ENHANCED AUTO PARKING ASSIST
- TEEN DRIVER
- INTELLIBEAM-AUTO HIGH BEAM

MANUFACTURER'S SUGGESTED RETAIL PRICE

STANDARD VEHICLE PRICE \$90,595.00

OPTIONS & PRICING

OPTIONS INSTALLED BY THE MANUFACTURER MAY REPLACE STANDARD EQUIPMENT LISTING

RADIANT RED TINTCOAT	1,225.00
TOTAL OPTIONS	\$1,225.00
TOTAL VEHICLE & OPTIONS	\$91,820.00
DESTINATION CHARGE	1,995.00

Visit us at www.cadillac.com

TOTAL VEHICLE PRICE*	\$93,815.00
-----------------------------	--------------------

EPA DOT Fuel Economy and Environment

ESCALADE 4WD

Fuel Economy

16 MPG combined city/hwy

14 city 18 highway

6.2 gallons per 100 miles

You spend \$10,500 more in fuel costs over 5 years compared to the average new vehicle.

Annual fuel cost \$4,000

Fuel Economy & Greenhouse Gas Rating (tailpipe only)

Smog Rating (tailpipe only)

Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 26 MPG and costs \$8,560 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at \$4.25 per gallon. MPGe is miles per gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.

fuel economy.gov

Calculate personalized estimates and compare vehicles

Gasoline Vehicle

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score Not Rated

Based on the combined ratings of frontal, side and rollover. Should ONLY be compared to other vehicles of similar size and weight.

Frontal Crash	Driver Passenger	Not Rated
Side Crash	Front seat Rear seat	Not Rated
Rollover		★★★

Based on the risk of injury in a frontal impact. Should ONLY be compared to other vehicles of similar size and weight.

Based on the risk of injury in a side impact.

Based on the risk of rollover in a single-vehicle crash.

Star ratings range from 1 to 5 stars (★★★★★) with 5 being the highest. Source: National Highway Traffic Safety Administration (NHTSA) www.safercar.gov or 1-888-327-4236

PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE: U.S./CANADIAN PARTS CONTENT: 37% MAJOR SOURCES OF FOREIGN PARTS CONTENT: MEXICO 37%

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

FOR THIS VEHICLE: FINAL ASSEMBLY POINT: ARLINGTON, TX U.S.A. COUNTRY OF ORIGIN: ENGINE: UNITED STATES TRANSMISSION: UNITED STATES

ORDER NO 01H000 SALES CODE E
SALES MODEL CODE 61070E
DEALER NO 01007
FINANCIAL INSTITUTION U.S.A.
VIN 1GY58ARL6SR185326
DEALER TO WHOM DELIVERED
FITZGERALD CADILLAC OF HAGERSTOWN
101 S EDGEWOOD DR
HAGERSTOWN, MD 21740-6687

RR 1A21530178

083 Monroney Label Photograph

APPENDIX B
VEHICLE AND DUMMY RESPONSE DATA PLOTS

TABLE OF DATA PLOTS

No.	List of Data Plots Provided in the Test Report	Page
1	Driver Head X Acceleration vs. Time Primary	B-6
2	Driver Head Y Acceleration vs. Time Primary	B-6
3	Driver Head Z Acceleration vs. Time Primary	B-6
4	Driver Head Resultant Acceleration vs. Time Primary	B-6
5	Driver Chest X Deflection vs. Time	B-7
6	Driver Chest X Acceleration vs. Time Primary	B-8
7	Driver Chest Y Acceleration vs. Time Primary	B-8
8	Driver Chest Z Acceleration vs. Time Primary	B-8
9	Driver Chest Resultant Acceleration vs. Time Primary	B-8
10	Driver Upper Neck Force X vs. Time	B-9
11	Driver Upper Neck Force Z vs. Time	B-9
12	Driver Upper Neck Moment Y vs. Time	B-9
13	Driver Nij vs. Time	B-10
14	Driver Left Femur Force vs. Time	B-11
15	Driver Right Femur Force vs. Time	B-11
16	Passenger Head X Acceleration vs. Time Primary	B-12
17	Passenger Head Y Acceleration vs. Time Primary	B-12
18	Passenger Head Z Acceleration vs. Time Primary	B-12
19	Passenger Head Resultant Acceleration vs. Time Primary	B-12
20	Passenger Chest X Deflection vs. Time	B-13
21	Passenger Chest X Acceleration vs. Time Primary	B-14
22	Passenger Chest Y Acceleration vs. Time Primary	B-14
23	Passenger Chest Z Acceleration vs. Time Primary	B-14
24	Passenger Chest Resultant Acceleration vs. Time Primary	B-14
25	Passenger Upper Neck Force X vs. Time	B-15
26	Passenger Upper Neck Force Z vs. Time	B-15
27	Passenger Upper Neck Moment Y vs. Time	B-15
28	Passenger Nij vs. Time	B-16
29	Passenger Left Femur Force vs. Time	B-17
30	Passenger Right Femur Force vs. Time	B-17

The following additional dummy and vehicle response data can be found in the R & D section of the NHTSA website at: www.nhtsa.gov.

Driver Head Acceleration X Redundant
Driver Head Acceleration Y Redundant
Driver Head Acceleration Z Redundant
Driver Upper Neck Force Y
Driver Upper Neck Moment X
Driver Upper Neck Moment Z
Driver Chest X Acceleration Redundant
Driver Chest Y Acceleration Redundant
Driver Chest Z Acceleration Redundant
Driver Pelvis X
Driver Pelvis Y
Driver Pelvis Z
Driver Left Femur Redundant
Driver Right Femur Redundant
Driver Left Upper Tibia Moment X
Driver Left Upper Tibia Moment Y
Driver Left Upper Tibia Force Z
Driver Left Lower Tibia Moment X
Driver Left Lower Tibia Moment Y
Driver Left Lower Tibia Force Z
Driver Right Upper Tibia Moment X
Driver Right Upper Tibia Moment Y
Driver Right Upper Tibia Force Z
Driver Right Lower Tibia Moment X
Driver Right Lower Tibia Moment Y
Driver Right Lower Tibia Force Z
Driver Left Foot Fore Z
Driver Left Foot Aft X
Driver Left Foot Aft Z
Driver Right Foot Fore Z
Driver Right Foot Aft X
Driver Right Foot Aft Z

Driver Head Angular Velocity X
Driver Head Angular Velocity Y
Driver Head Angular Velocity Z
Driver Shoulder Belt
Driver Lap Belt
Passenger Head Acceleration X Redundant
Passenger Head Acceleration Y Redundant
Passenger Head Acceleration Z Redundant
Passenger Upper Neck Force Y
Passenger Upper Neck Moment X
Passenger Upper Neck Moment Z
Passenger Chest X Acceleration Redundant
Passenger Chest Y Acceleration Redundant
Passenger Chest Z Acceleration Redundant
Passenger Pelvis X
Passenger Pelvis Y
Passenger Pelvis Z
Passenger Left Femur Redundant
Passenger Right Femur Redundant
Passenger Left Upper Tibia Moment X
Passenger Left Upper Tibia Moment Y
Passenger Left Upper Tibia Force Z
Passenger Left Lower Tibia Moment X
Passenger Left Lower Tibia Moment Y
Passenger Left Lower Tibia Force Z
Passenger Right Upper Tibia Moment X
Passenger Right Upper Tibia Moment Y
Passenger Right Upper Tibia Force Z
Passenger Right Lower Tibia Moment X
Passenger Right Lower Tibia Moment Y
Passenger Right Lower Tibia Force Z
Passenger Left Foot Fore Z
Passenger Left Foot Aft X
Passenger Left Foot Aft Z
Passenger Right Foot Fore Z
Passenger Right Foot Aft X
Passenger Right Foot Aft Z

Passenger Head Angular Velocity X
Passenger Head Angular Velocity Y
Passenger Head Angular Velocity Z
Left Rear Seat Crossmember X
Left Rear Seat Crossmember Z
Passenger Shoulder Belt
Passenger Lap Belt
Right Rear Seat Crossmember X
Right Rear Seat Crossmember Z
Left Rear Seat Crossmember X Redundant
Right Rear Seat Crossmember X Redundant
Vehicle Engine Top X
Vehicle Engine Bottom X
Load Cell Barrier Forces

NHTSA

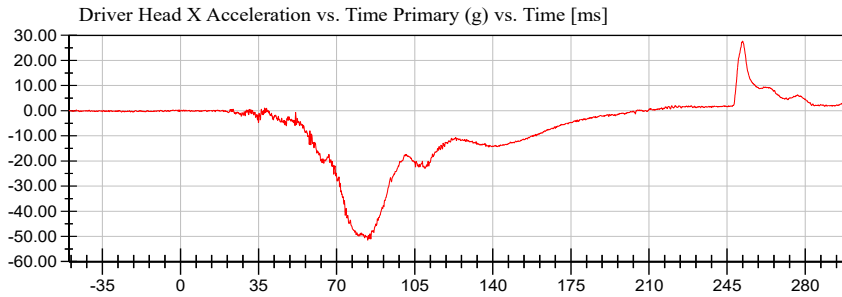
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



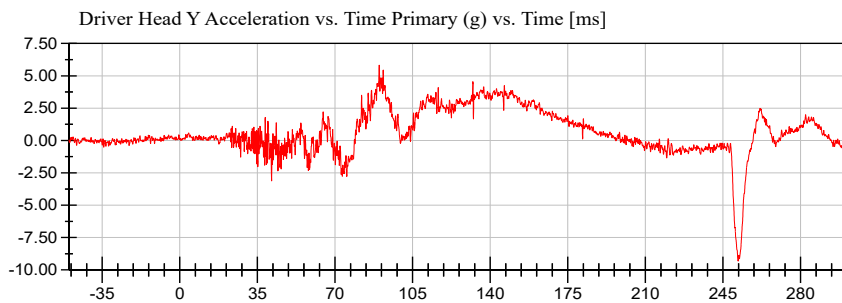
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27.64 g at 251.95 ms

<Min>

-51.54 g at 83.90 ms

CFC_1000



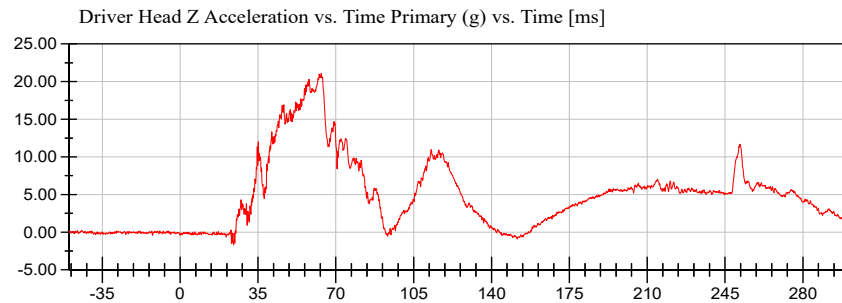
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-9.31 g at 251.90 ms

CFC_1000



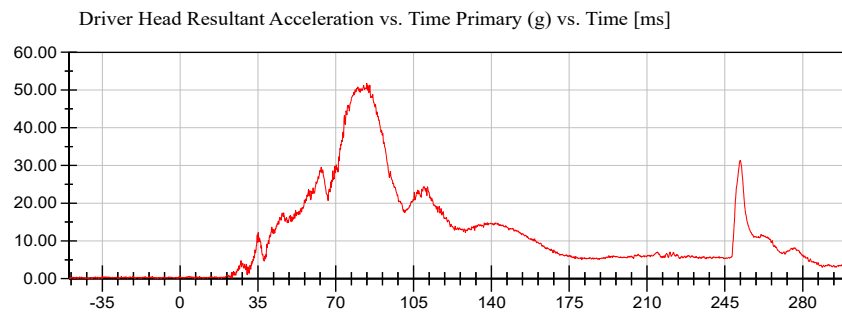
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21.07 g at 63.40 ms

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-1.71 g at 24.00 ms

CFC_1000



<Max>

51.75 g at 83.90 ms

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0.03 g at 6.70 ms

CFC_1000



NHTSA

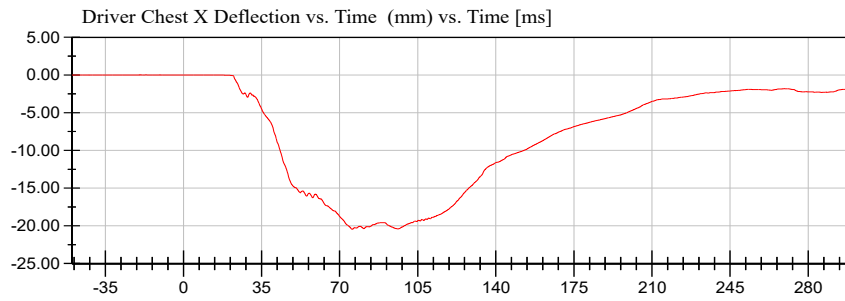
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



<Max>

0.01 mm at -16.75 ms

<Min>

-20.46 mm at 75.60 ms

CFC_600



NHTSA

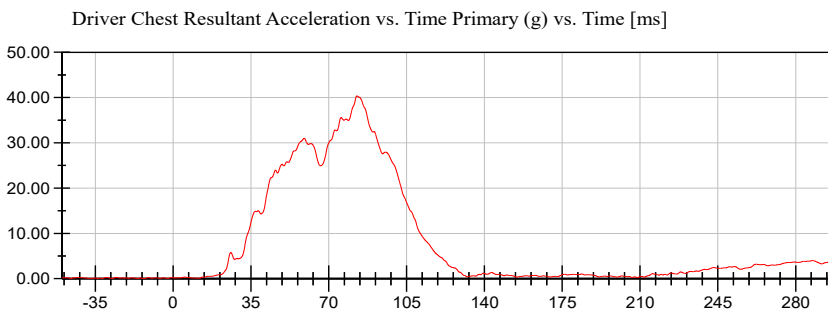
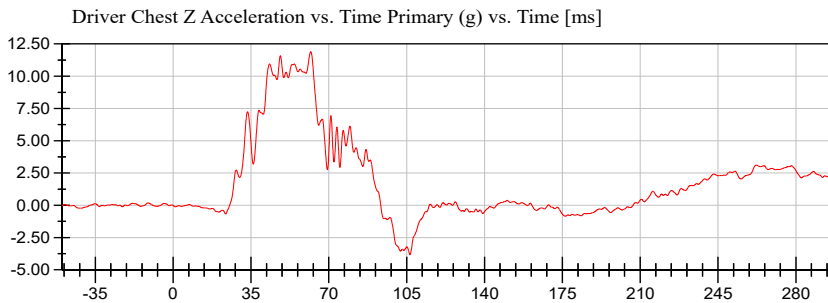
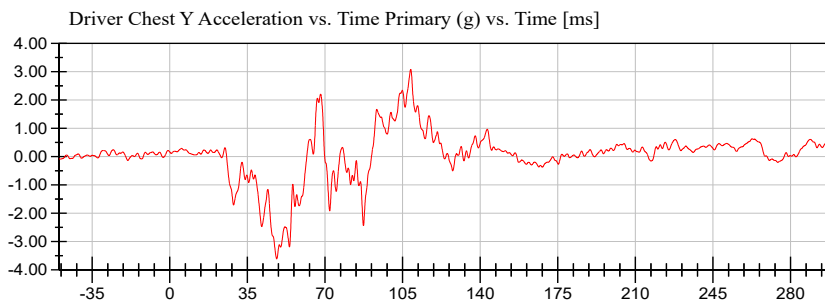
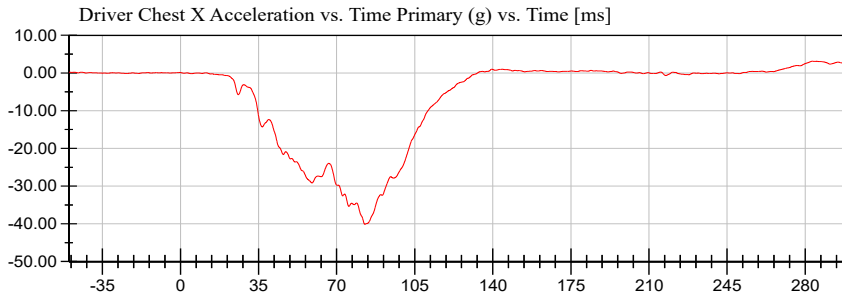
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



NHTSA

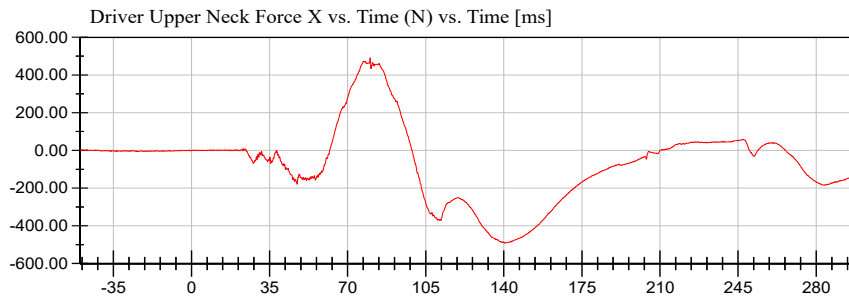
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Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



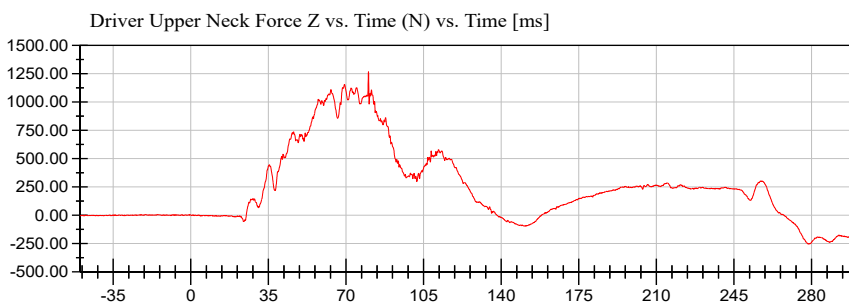
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492.04 N at 80.10 ms

<Min>

-491.99 N at 140.40 ms

CFC_1000



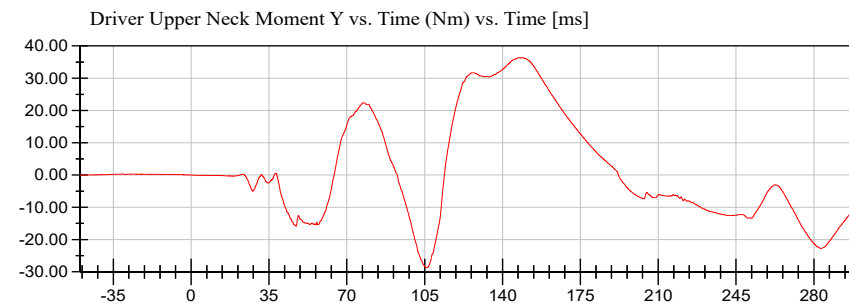
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1,267.70 N at 80.15 ms

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-254.69 N at 278.60 ms

CFC_1000



<Max>

36.36 Nm at 149.25 ms

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-28.72 Nm at 105.50 ms

CFC_600



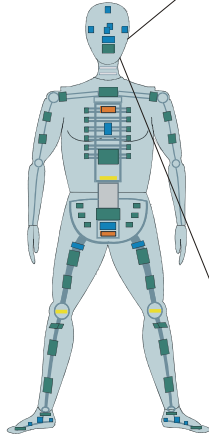


2025 Cadillac Escalade NCAP 35 mph Frontal Impact Neck Injury Predictor (NIJ)

Date: 09/23/2025
Time: 13:02

Customer: NHTSA
Test Number: M20250100

Test Orientation = Frontal
Fzc(Tension) = 6806
Fzc(Compression) = 6160
Myc(Extension) = 135
Myc(Flexion) = 310

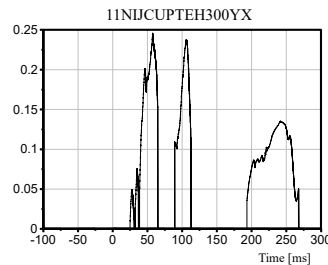


Dummy: HIII 50th Male
Seating Position:
Driver

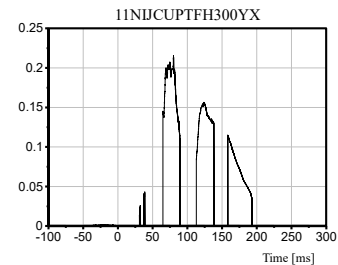
NIJ Source Code: (Fz/Fzc)*(Myc/Myc)



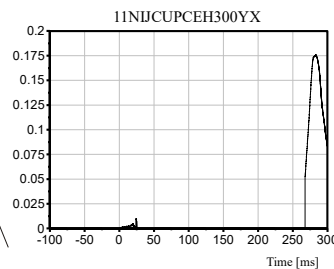
TRC Inc. Test Lab: CTF
Test Number: 250923



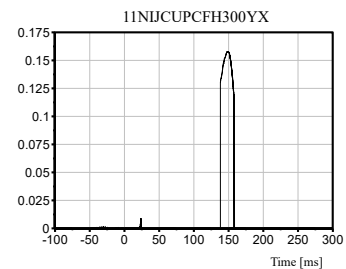
Max [NTE] 0.2458 at 57.55 ms



Max [NTF] 0.2157 at 80.10 ms



Max [NCE] 0.1759 at 283.25 ms



Max [NCF] 0.1579 at 148.25 ms

NHTSA

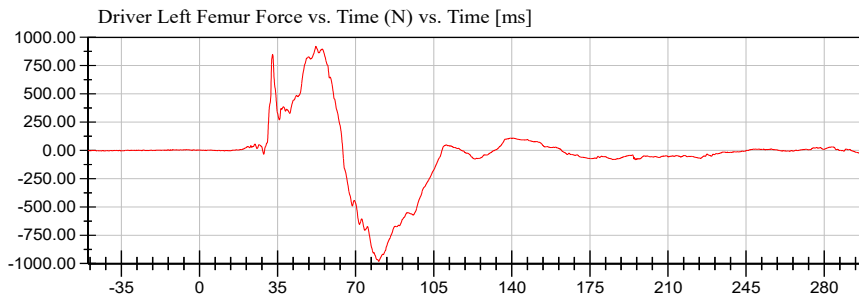
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



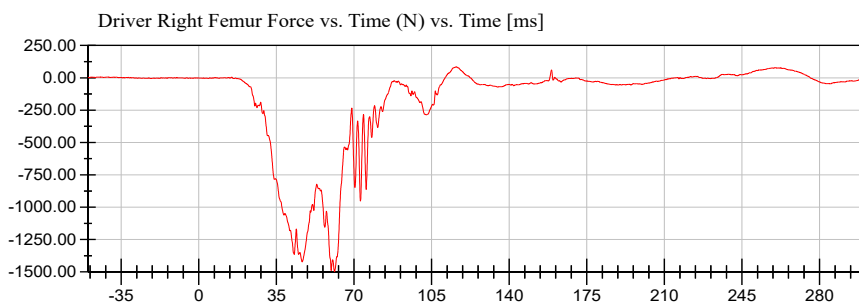
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919.44 N at 52.20 ms

<Min>

-979.76 N at 80.35 ms

CFC_600



<Max>

84.77 N at 116.15 ms

<Min>

-1,497.53 N at 61.25 ms

CFC_600



NHTSA

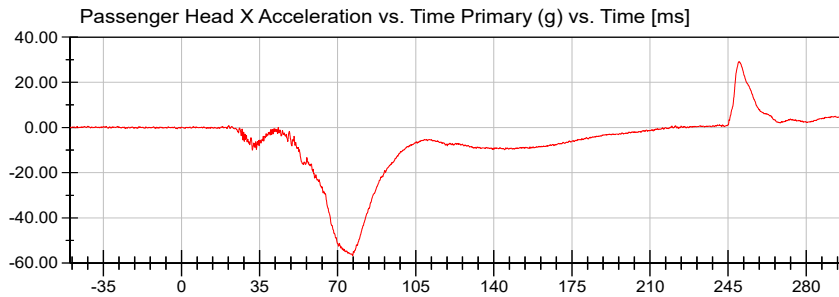
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



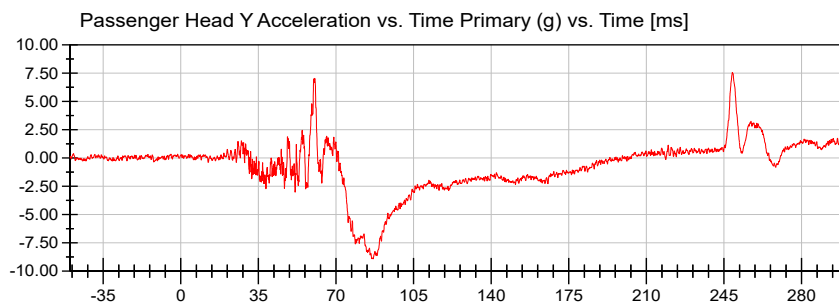
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29.12 g at 249.90 ms

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-56.73 g at 76.75 ms

CFC_1000



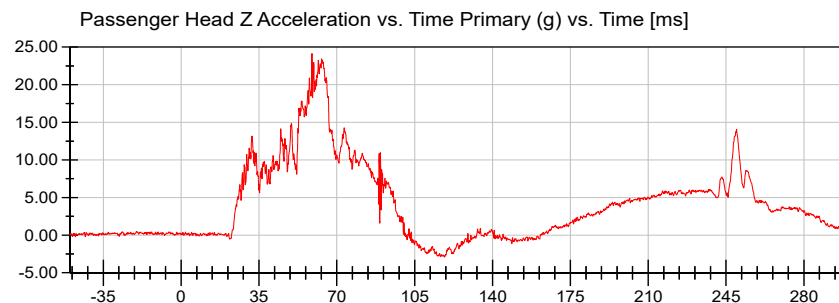
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7.55 g at 248.75 ms

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-8.92 g at 86.70 ms

CFC_1000



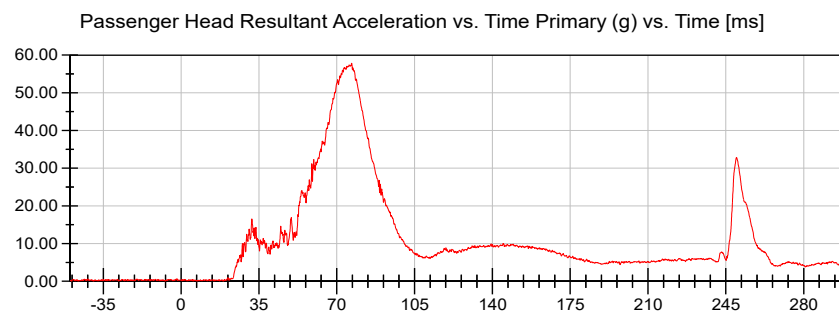
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24.16 g at 58.80 ms

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-2.90 g at 118.30 ms

CFC_1000



<Max>

57.83 g at 76.70 ms

<Min>

0.04 g at -49.25 ms

CFC_1000



NHTSA

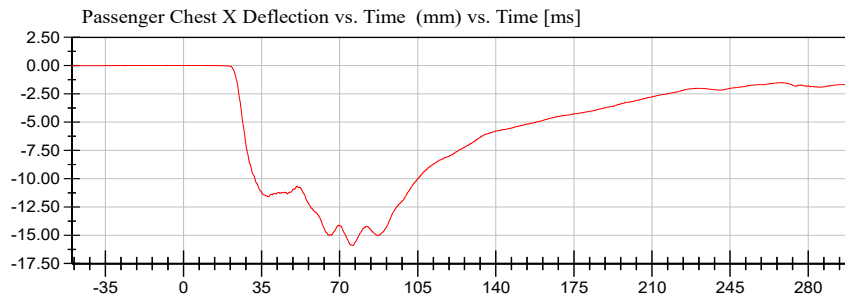
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



<Max>

0.01 mm at -21.40 ms

<Min>

-15.90 mm at 75.95 ms

CFC_600



NHTSA

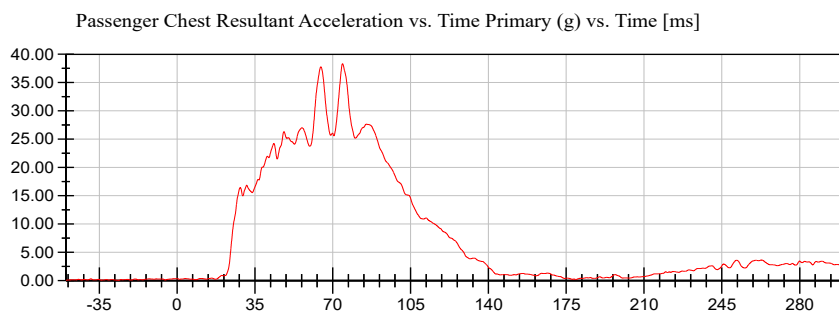
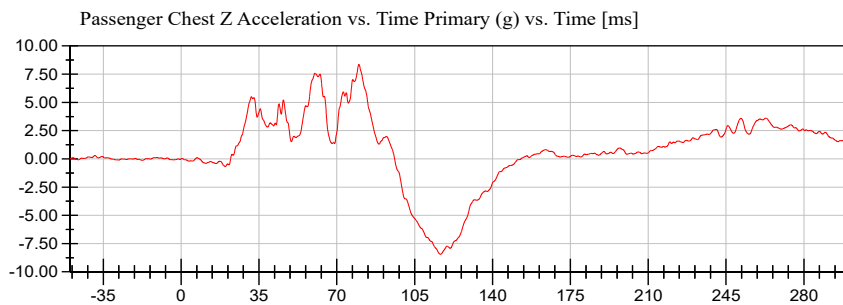
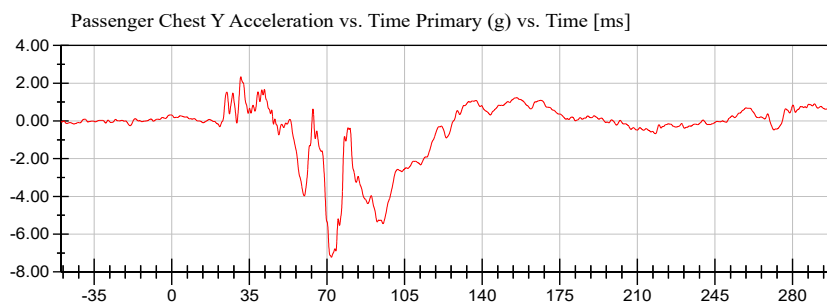
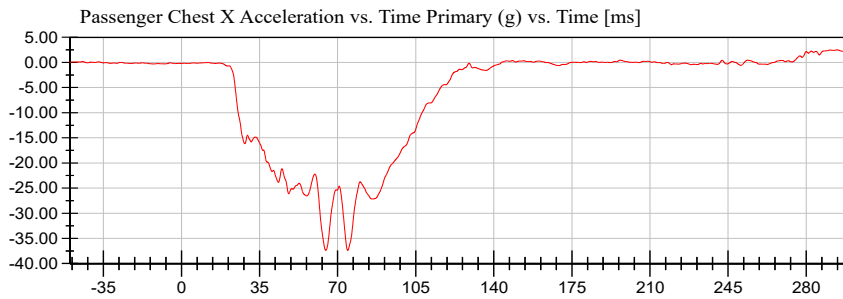
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



NHTSA

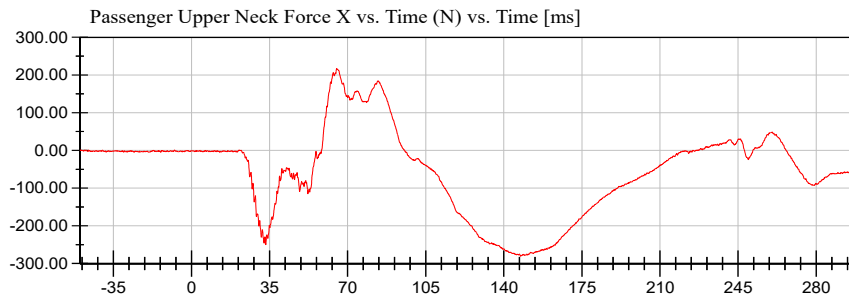
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



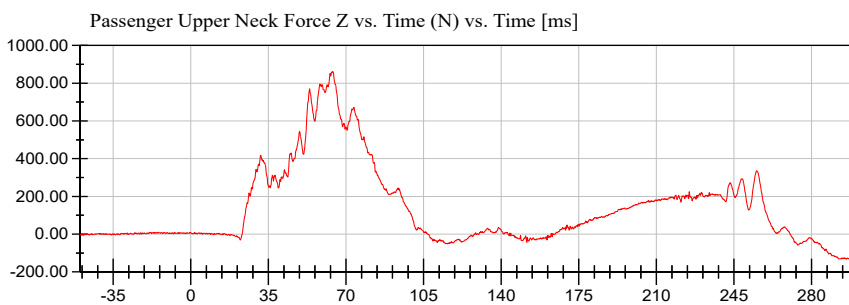
<Max>

217.24 N at 65.05 ms

<Min>

-281.09 N at 147.50 ms

CFC_1000



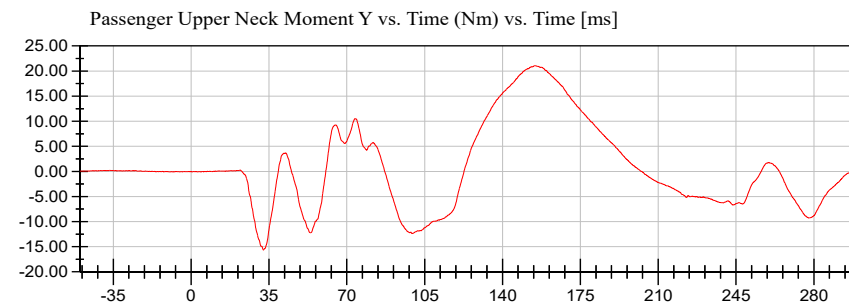
<Max>

861.32 N at 63.80 ms

<Min>

-132.23 N at 295.65 ms

CFC_1000



<Max>

21.06 Nm at 154.45 ms

<Min>

-15.66 Nm at 32.50 ms

CFC_600



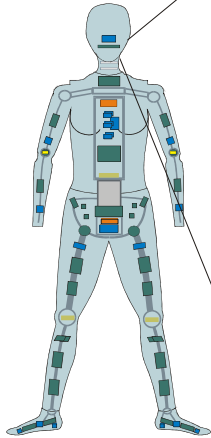


2025 Cadillac Escalade NCAP 35 mph Frontal Impact Neck Injury Predictor (NIJ)

Date: 09/23/2025
Time: 13:02

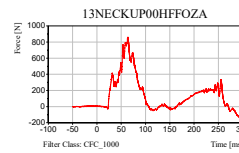
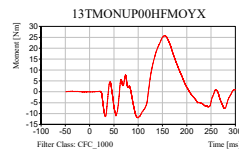
Customer: NHTSA
Test Number: M20250100

Test Orientation = Frontal
Fzc(Tension) = 4287
Fzc(Compression) = 3880
Myc(Extension) = 67
Myc(Flexion) = 155

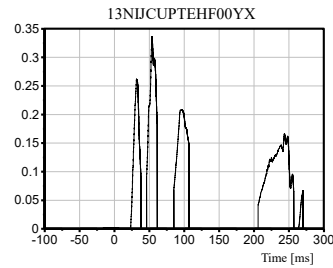


Dummy: HIII 5th Female
Seating Position:
Right Front Passenger

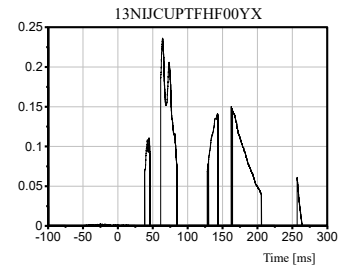
NIJ Source Code: (Fz/Fzc)+(Myc/Myc)



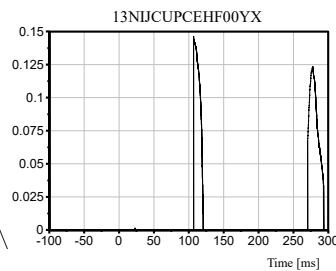
TRC Inc. Test Lab: CTF
Test Number: 250923



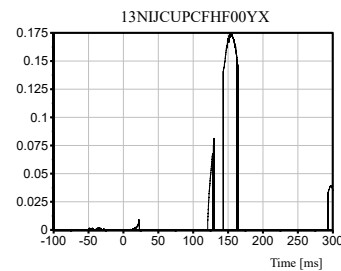
Max [NTE] 0.3359 at 53.80 ms



Max [NTF] 0.2362 at 64.10 ms



Max [NCE] 0.1464 at 106.95 ms



Max [NCF] 0.1743 at 152.45 ms

NHTSA

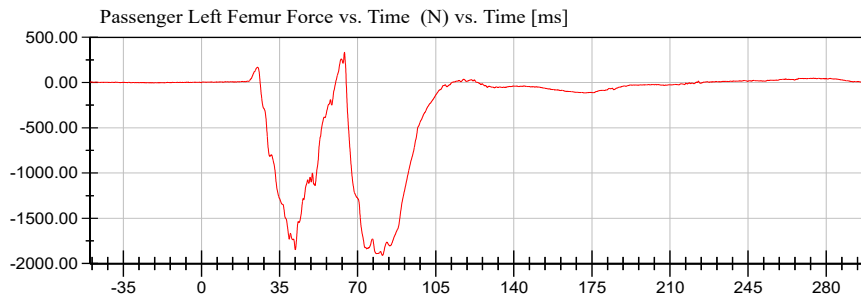
Test Lab: CTF

Test Number: 250923 (M20250100)

Test Date: 09/23/2025

Position #1 Hybrid III Mid-Sized Adult Male Dummy (037)

Position #2 Hybrid III Small Adult Female (DH1659)



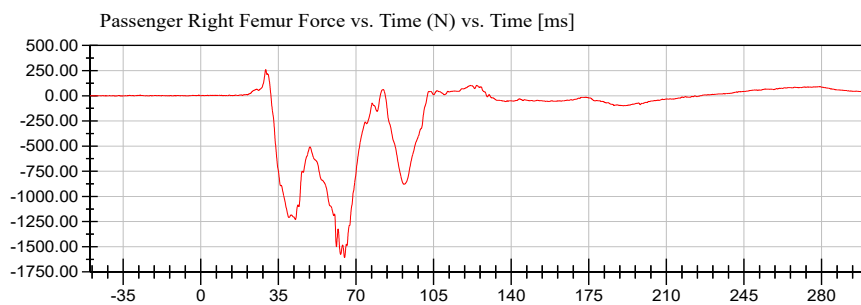
<Max>

334.68 N at 64.05 ms

<Min>

-1,909.76 N at 81.10 ms

CFC_600



<Max>

260.53 N at 29.30 ms

<Min>

-1,606.62 N at 64.85 ms

CFC_600



APPENDIX C
DUMMY CALIBRATION AND PERFORMANCE VERIFICATION

Pre-Test Calibration Sheets

Driver S/N 037

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 037
Calibration No. 104

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	881	Yes
B	Shoulder Pivot Height	505.5 - 520.7	510	Yes
C	H-Point Height	83.8 - 88.9	86	Yes
D	H-Point From Seatback	134.6 - 139.7	137	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	90	Yes
F	Thigh Clearance	139.7 - 154.9	150	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	295	Yes
H	Skull Cap To Backline	40.6 - 45.7	45	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	337	Yes
J	Elbow Rest Height	190.5 - 210.8	198	Yes
K	Buttock Knee Length	579.1 - 604.5	601	Yes
L	Popliteal Height	429.3 - 454.7	440	Yes
M	Knee Pivot Height	485.1 - 500.4	494	Yes
N	Buttock Popliteal Length	452.1 - 477.5	470	Yes
O	Chest Depth	213.4 - 228.6	226	Yes
P	Foot Length	251.5 - 266.7	264	Yes
V	Shoulder Breadth	421.6 - 436.9	425	Yes
W	Foot Breadth	91.4 - 106.7	96	Yes
Y	Chest Circumference	970.3 - 1000.8	990	Yes
Z	Waist Circumference	835.7 - 866.1	865	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	229	Yes



Revised 8/10/12

Report Number: 037_H3F104

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Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 037 Certification No. 104-1

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	44 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	227.3 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	4.1 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	< 10 %	0.76 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: N/A

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

09.05.2025 09:21:07 613

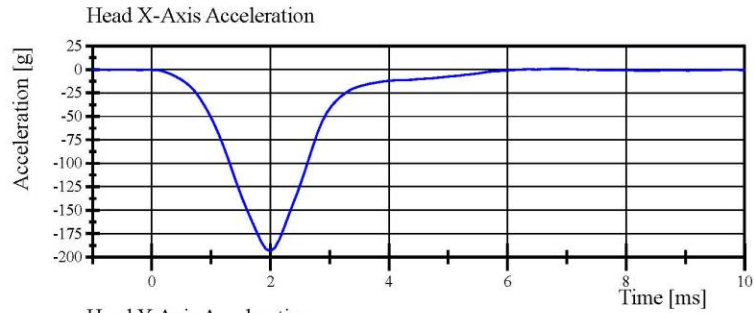


Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 037 Certification No. 104-1

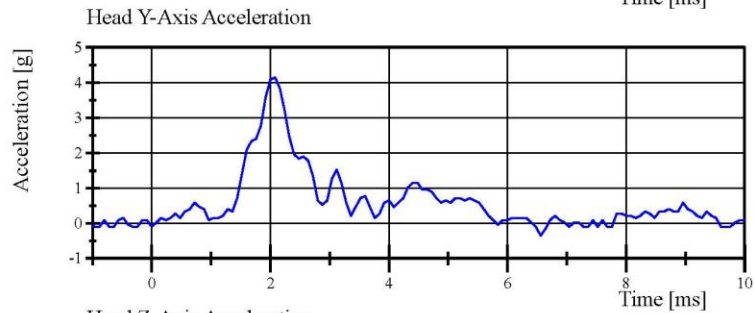
Test Date: 9/5/2025



Filter Class: CFC_1000

Max: 0.9 g at 6.9 ms

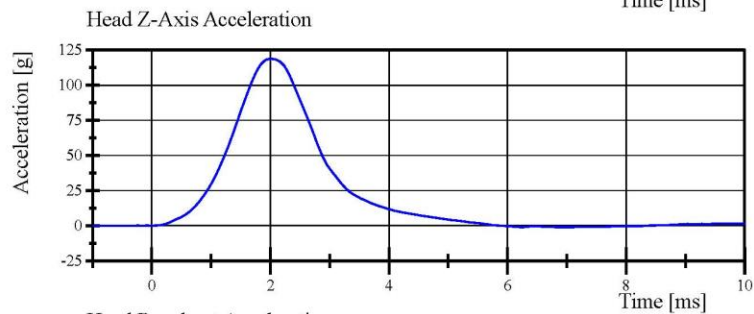
Min: -193.8 g at 2.0 ms



Filter Class: CFC_1000

Max: 4.1 g at 2.1 ms

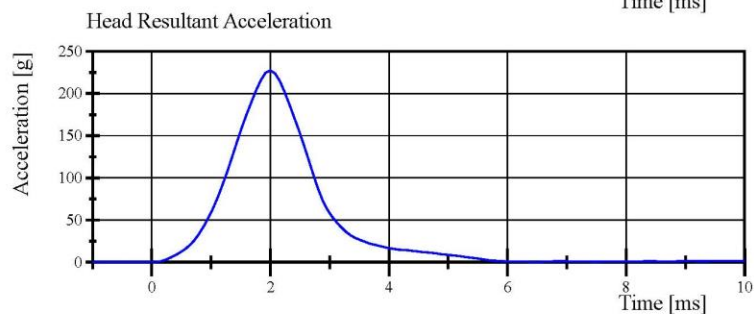
Min: -0.3 g at 6.6 ms



Filter Class: CFC_1000

Max: 118.8 g at 2.0 ms

Min: -1.0 g at 6.2 ms



Filter Class: CFC_1000

Max: 227.3 g at 2.0 ms

Min: 0.2 g at -1.0 ms

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

09.05.2025 09:21:33 613



Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 037 Certification No. 104-1

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.8 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.966 m/s	Yes
Pendulum Acceleration Decay			
Crossing -5g	34 - 42 ms	35.9 ms	Yes
Pendulum Acceleration			
at 10ms	(-22.5) - (-27.5) g	-25.13 g	Yes
at 20ms	(-17.6) - (-22.6) g	-22.45 g	Yes
at 30ms	(-12.5) - (-18.5) g	-17.05 g	Yes
> 30ms	>= (-29.0) g	-17.05 g	Yes
Total Head D-Plane Rotation			
Peak	(-64) - (-78) °	-66.7 °	Yes
Time of Peak	57 - 64 ms	59.9 ms	Yes
Decay to 0°	113 - 128 ms	118.5 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	88.1 - 108.4 N·m	100.86 N·m	Yes
Time of Peak	47 - 58 ms	49.7 ms	Yes
Decay to 0 N·m	97 - 107 ms	98.7 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 4728

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

09.05.2025 10:52:58 1863

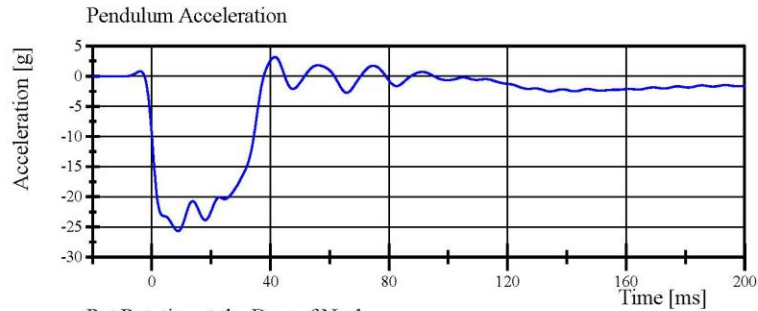


Transportation Research Center Inc.

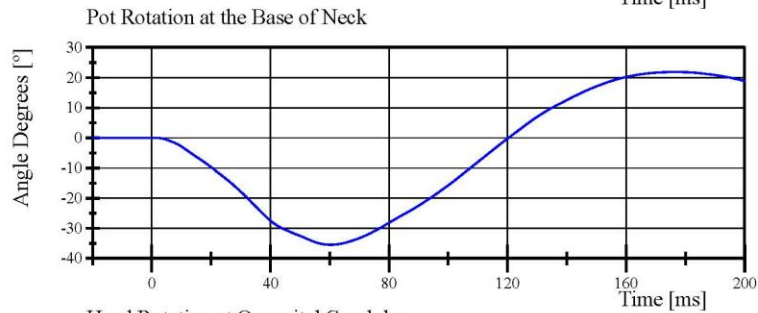
Neck Flexion

HIII 50th Serial No. 037 Certification No. 104-1

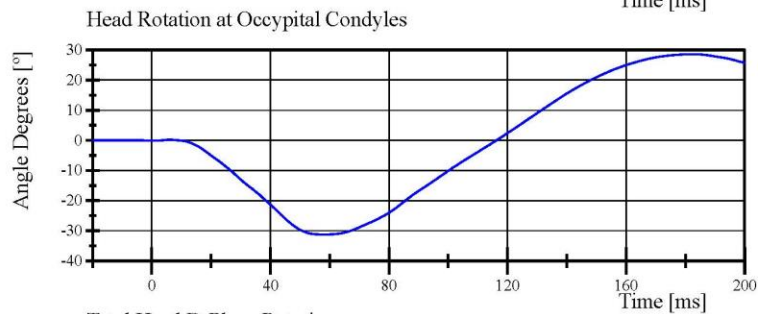
Test Date: 9/5/2025



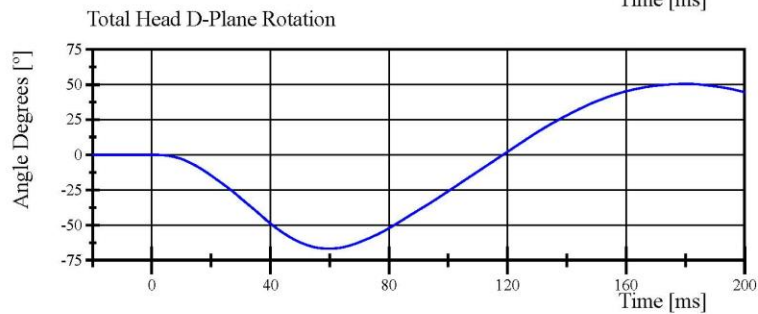
Filter Class: CFC_60
Max: 3.2 g at 41.6 ms
Min: -25.7 g at 8.9 ms



Filter Class: CFC_60
Max: 21.9 ° at 176.2 ms
Min: -35.5 ° at 60.4 ms



Filter Class: CFC_60
Max: 28.6 ° at 182.4 ms
Min: -31.2 ° at 58.0 ms



Filter Class: CFC_60
Max: 50.4 ° at 180.5 ms
Min: -66.7 ° at 59.9 ms

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

09.05.2025 10:53:35 1863

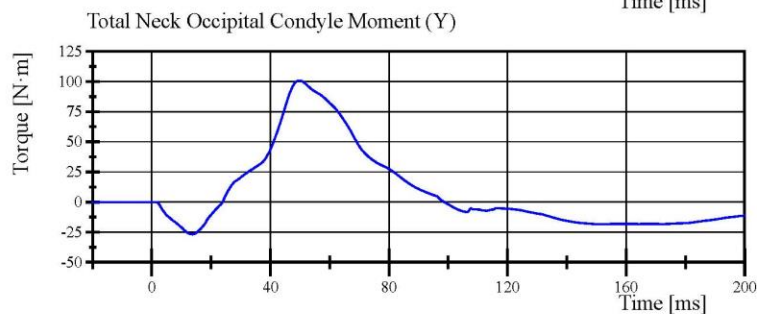
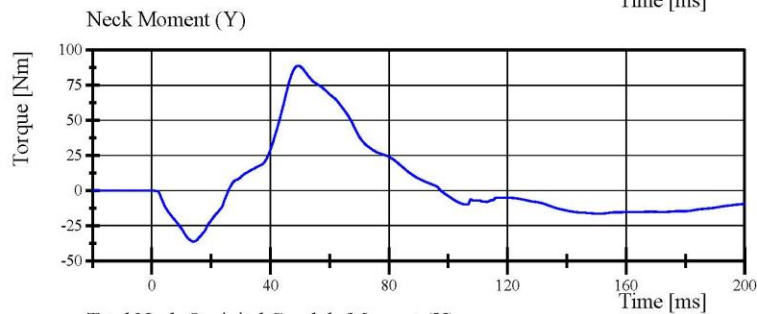
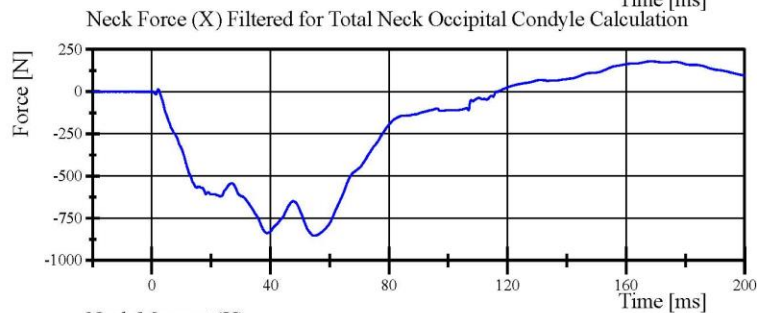
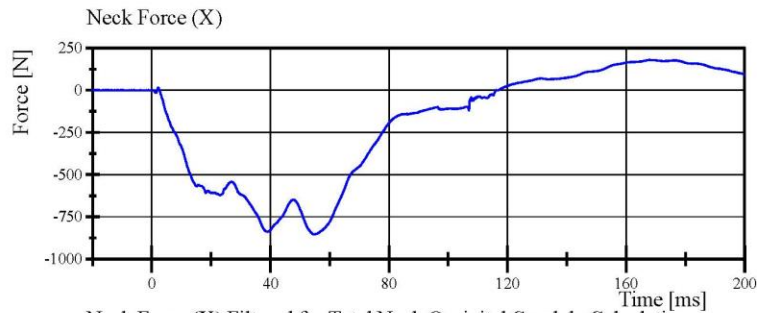


Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 037 Certification No. 104-1

Test Date: 9/5/2025



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

09.05.2025 10:53:35 1863



Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 037 Certification No. 104-2

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-5.976 m/s	Yes
Pendulum Acceleration Decay			
Crossing 5g	38 - 46 ms	40.3 ms	Yes
Pendulum Acceleration			
at 10ms	17.2 - 21.2 g	17.94 g	Yes
at 20ms	14.0 - 19.0 g	17.75 g	Yes
at 30ms	11.0 - 16.0 g	14.85 g	Yes
> 30ms	<= 22.0 g	14.85 g	Yes
Total Head D-Plane Rotation			
Peak	81 - 106 °	93.9 °	Yes
Time of Peak	72 - 82 ms	78.4 ms	Yes
Decay to 0°	147 - 174 ms	160.1 ms	Yes
Total Neck Occipital Condyles Moment			
Peak	(-52.9) - (-80) N·m	-68.64 N·m	Yes
Time of Peak	65 - 79 ms	71.8 ms	Yes
Decay to 0 N·m	120 - 148 ms	144.2 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 4728

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

09.05.2025 12:56:30 2013

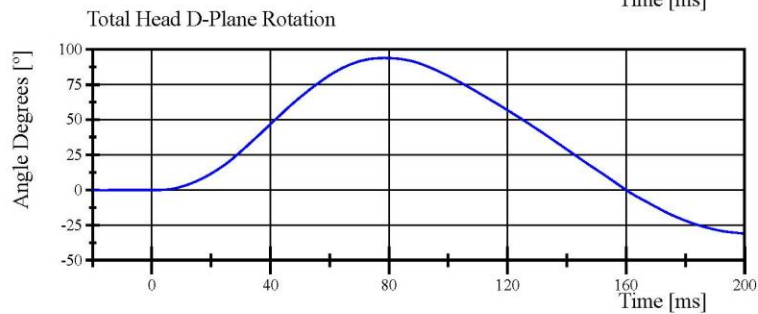
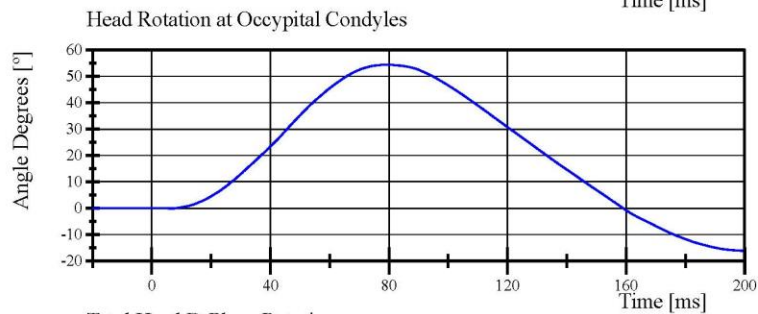
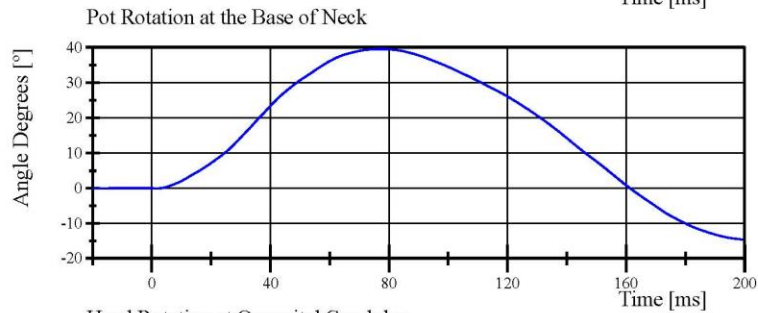
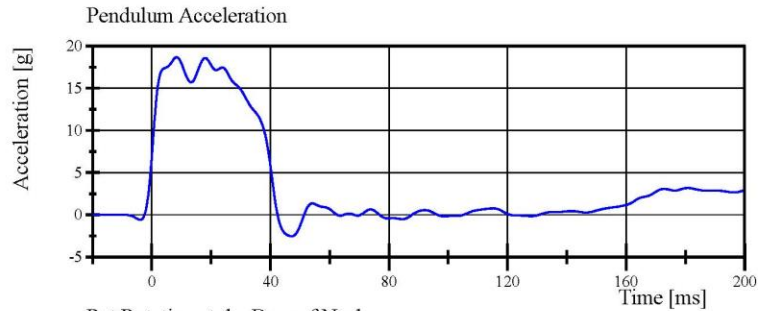


Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 037 Certification No. 104-2

Test Date: 9/5/2025



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

09.05.2025 12:56:54 2013

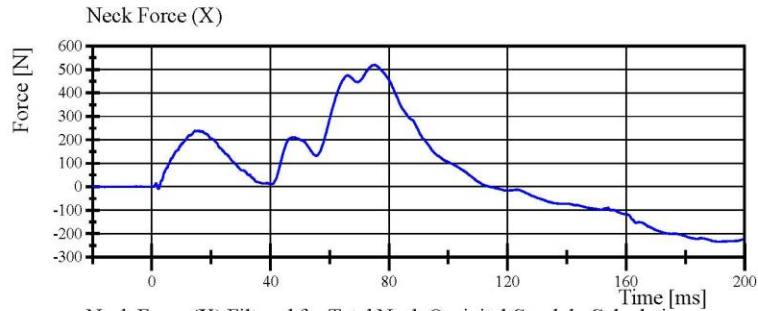


Transportation Research Center Inc.

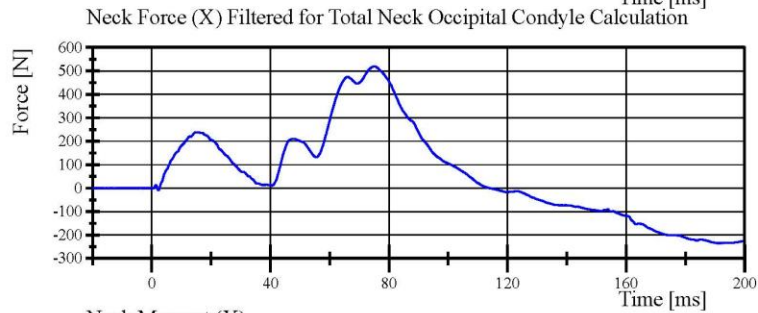
Neck Extension

HIII 50th Serial No. 037 Certification No. 104-2

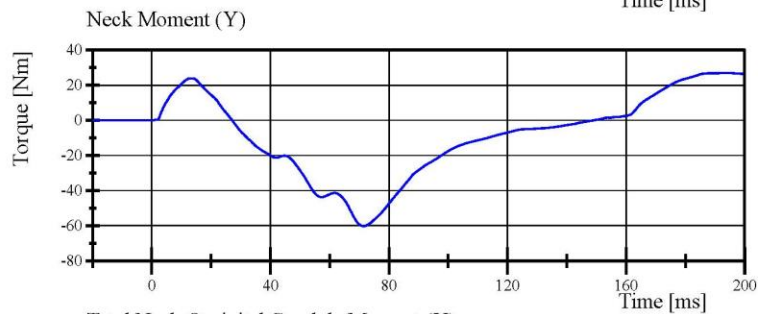
Test Date: 9/5/2025



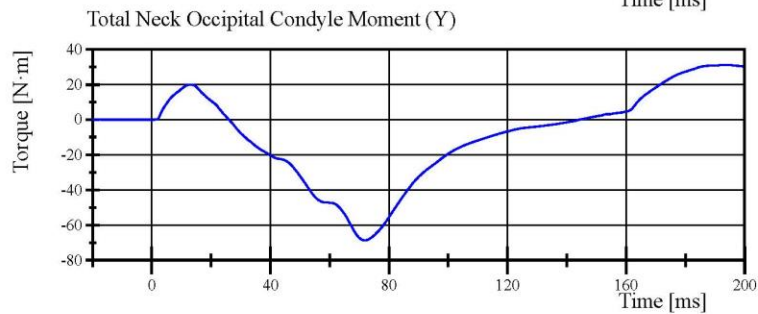
Filter Class: CFC_1000
Max: 519.9 N at 75.1 ms
Min: -235.3 N at 191.0 ms



Filter Class: CFC_600
Max: 519.6 N at 75.1 ms
Min: -234.8 N at 191.0 ms



Filter Class: CFC_600
Max: 27.0 Nm at 194.2 ms
Min: -60.2 Nm at 71.5 ms



Filter Class: Without_(Constar
Max: 31.1 N·m at 194.0 ms
Min: -68.6 N·m at 71.8 ms

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

09.05.2025 12:56:54 2013



Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 037 Certification No. 104-17

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
Probe Velocity	6.59 - 6.83 m/s	6.761 m/s	Yes
Probe Force Peak	(-5,160) - (-5,894) N	-5,884.1 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-71.02 mm	Yes
Internal Hysteresis	69 - 85 %	70.7 %	Yes

Test meets specifications.

Condition: Used

Comments:

Jacket S/N: EX0700

Rib Set S/N: 10362

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

09.15.2025 10:08:30 417

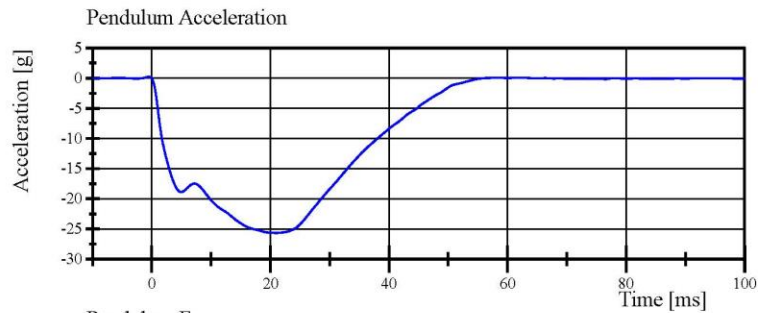


Transportation Research Center Inc.

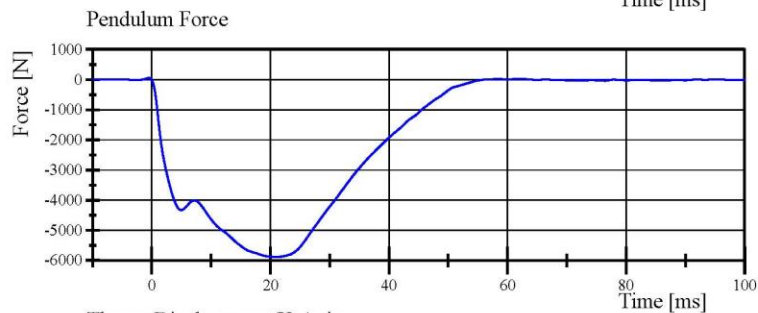
Front Thorax

HIII 50th Serial No. 037 Certification No. 104-17

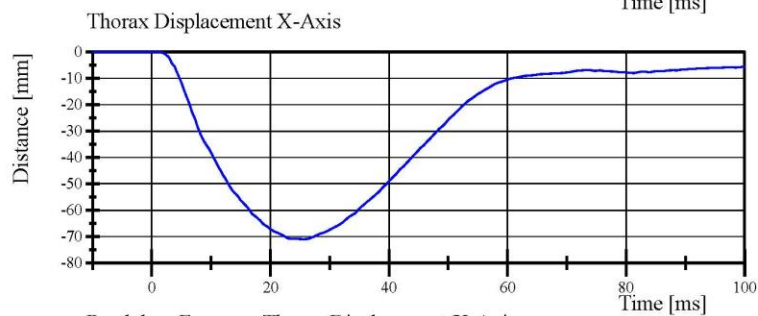
Test Date: 9/15/2025



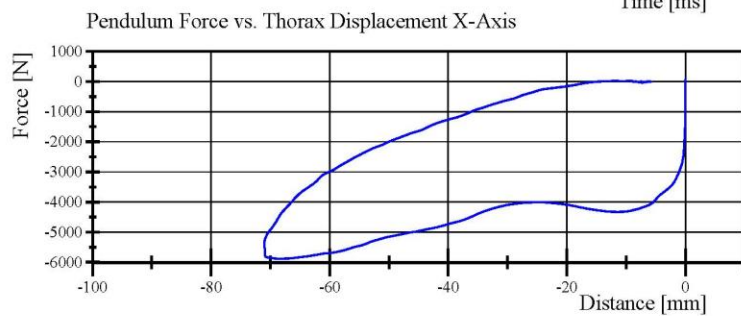
Filter Class: CFC_180
Max: 0.2 g at -0.5 ms
Min: -25.7 g at 21.0 ms



Filter Class: CFC_180
Max: 54.0 N at -0.5 ms
Min: -5,884.1 N at 21.0 ms



Filter Class: CFC_600
Max: 0.0 mm at -4.0 ms
Min: -71.0 mm at 25.7 ms



Filter Class: CFC_180
Max: 54.0 N at -0.0 mm
Min: -5,884.1 N at -68.5 mm

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

09.15.2025 10:12:10 417



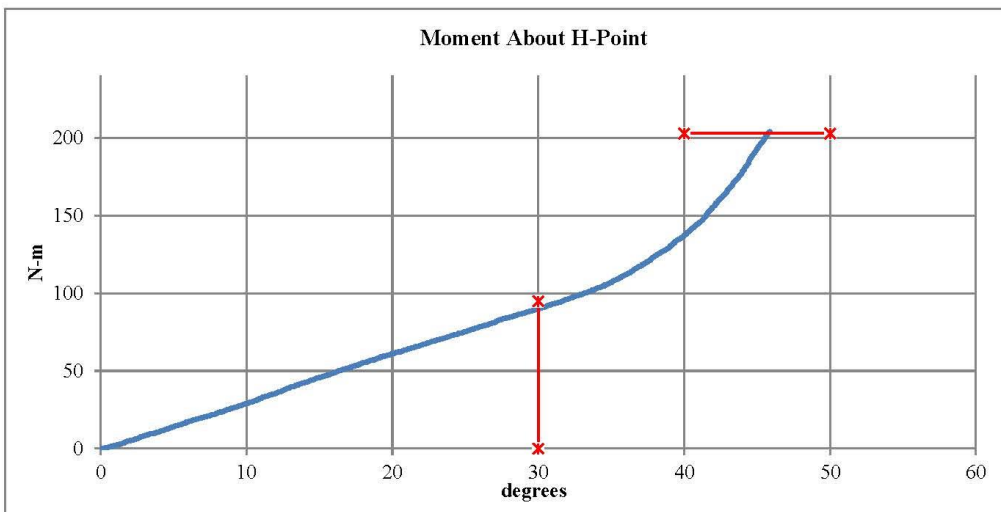
Transportation Research Center Inc.

Hybrid III 50th Male Hip Range of Motion

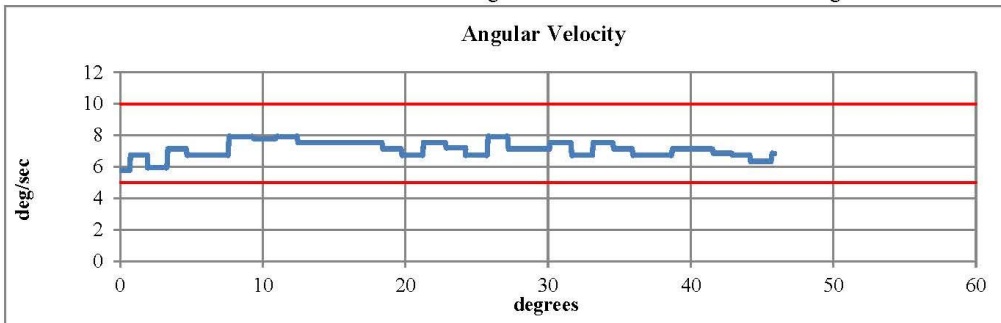


Serial Number: 037 Date: 05-Sep-2025
Side Tested: Left Hip Time: 8:38
Test Number: 1

TEST PARAMETER	SPECIFICATION		TEST RESULTS		
Temperature	18.9	- 25.6	21.1	°C	Pass
Humidity	10	- 70	46	%	Pass
Moment at 30°	0	≤ 94.9	89.89	N-m	Pass
Angle at 203 Nm	40	- 50	45.87	deg	Pass
Average Velocity	5	- 10	7.12	deg/sec	Pass



Max: 7.93 deg/sec Min: 5.77 deg/sec



Comments: Pelvis S/N: EU6859

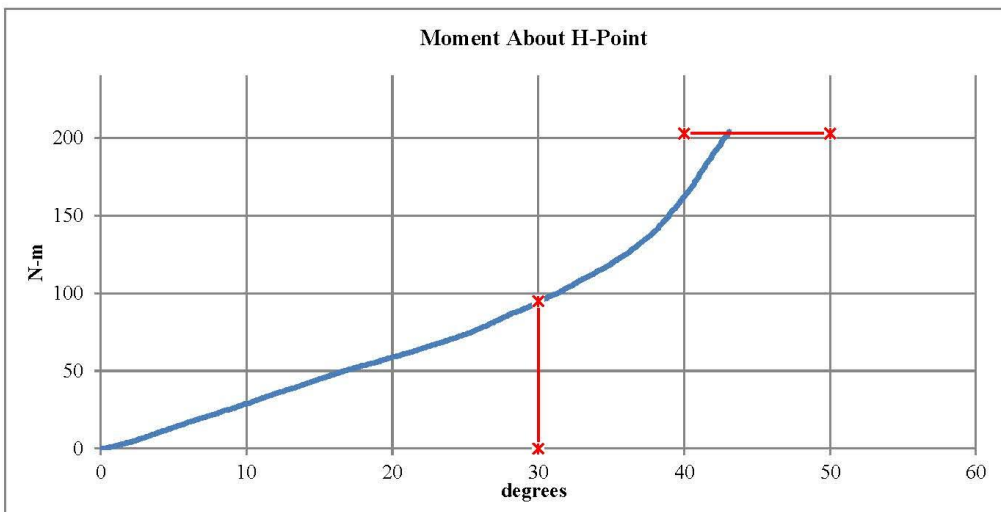
Transportation Research Center Inc.

Hybrid III 50th Male Hip Range of Motion

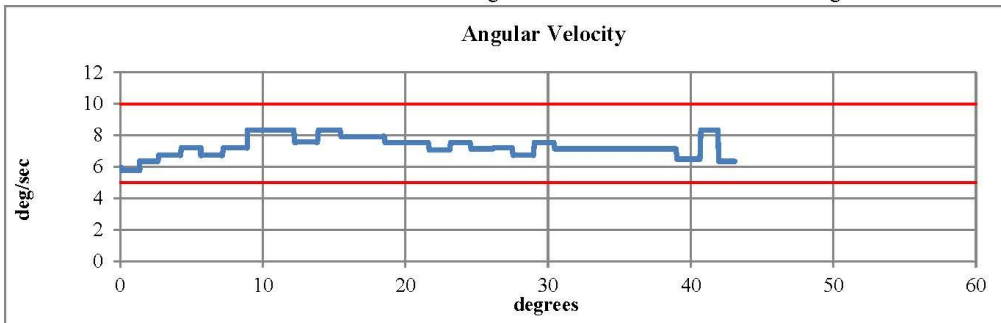


Serial Number: 037 Date: 05-Sep-2025
Side Tested: Right Hip Time: 9:21
Test Number: 1

TEST PARAMETER	SPECIFICATION		TEST RESULTS		
Temperature	18.9	- 25.6	21.1	°C	Pass
Humidity	10	- 70	44	%	Pass
Moment at 30°	0	≤ 94.9	94	N-m	Pass
Angle at 203 Nm	40	- 50	43.09	deg	Pass
Average Velocity	5	- 10	7.27	deg/sec	Pass



Max: 8.33 deg/sec Min: 5.77 deg/sec



Comments: Pelvis S/N: EU6859

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 104-2
Test Date: 9/10/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.128 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,518.79 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: 2672

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

09.10.2025 10:38:38 1725

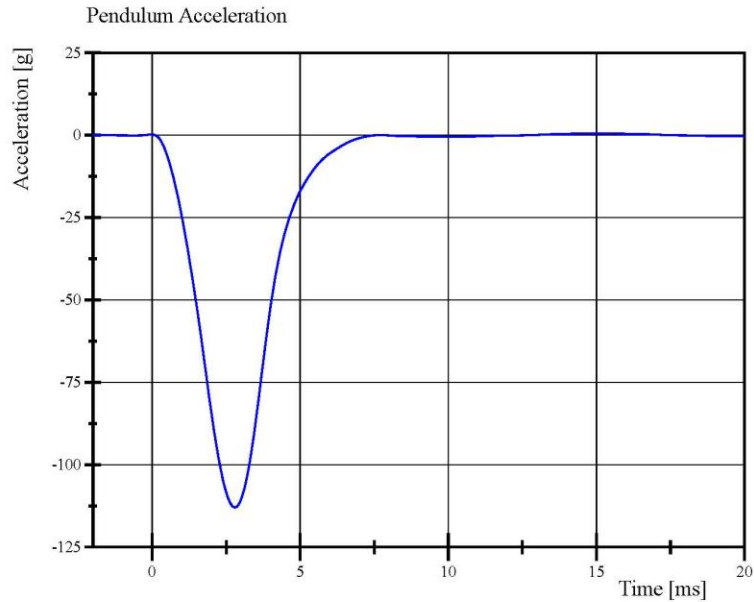


Report Number: 037_H3F104

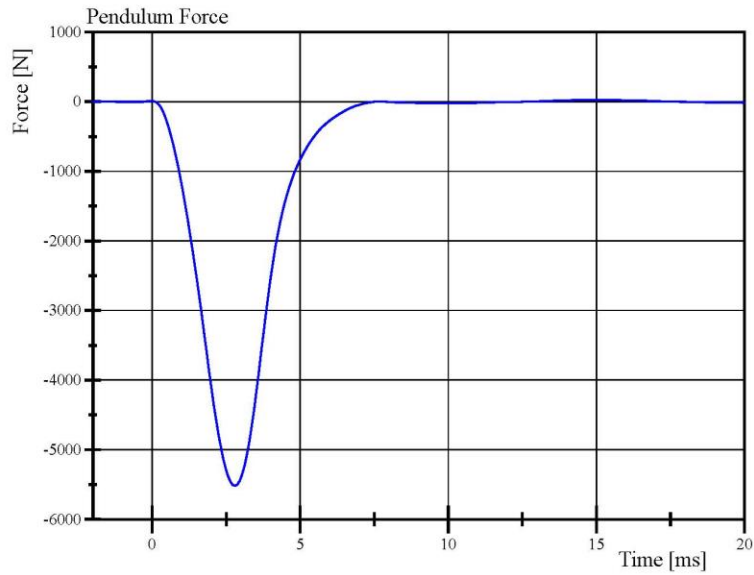
Page 21 of 27

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 104-2
Test Date: 9/10/2025



Filter Class: CFC_600
Max: 0.6 g at 14.6 ms
Min: -113.0 g at 2.8 ms



Filter Class: CFC_600
Max: 27.2 N at 14.6 ms
Min: -5,518.8 N at 2.8 ms

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

09.10.2025 10:39:22 1725



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 104-1
Test Date: 9/10/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	45 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.130 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,213.16 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: 1248

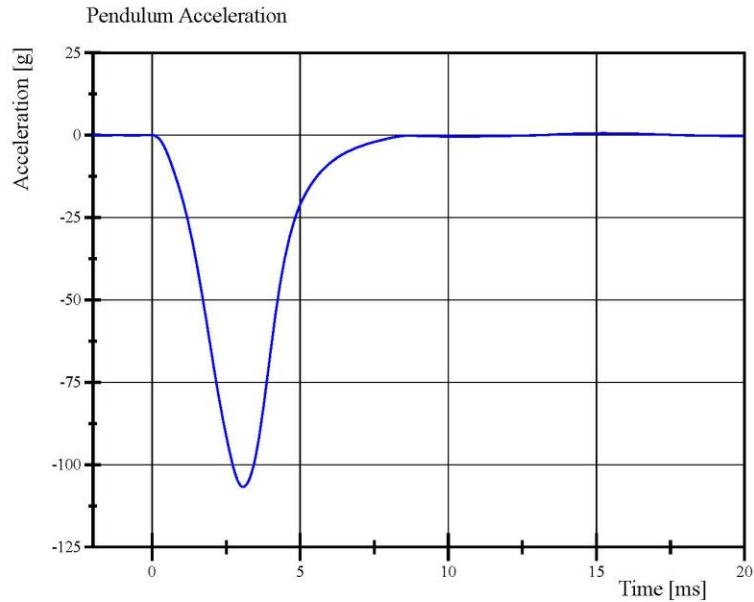
Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

09.10.2025 10:10:07 1731

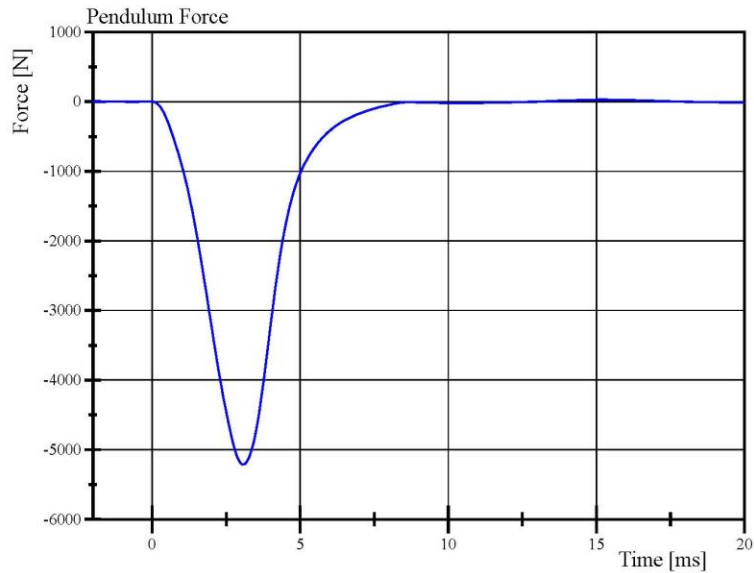


Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 104-1
Test Date: 9/10/2025



Filter Class: CFC_600
Max: 0.6 g at 15.3 ms
Min: -106.7 g at 3.0 ms



Filter Class: CFC_600
Max: 28.7 N at 15.3 ms
Min: -5,213.2 N at 3.0 ms

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

09.10.2025 10:11:04 1731



Post-Test Calibration Sheets

Driver S/N 037

Transportation Research Center Inc.
572E HIII 50th Male Dummy
External Dimensions
Serial No. 037
Calibration No. 105

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	878.8 - 889.0	880	Yes
B	Shoulder Pivot Height	505.5 - 520.7	510	Yes
C	H-Point Height	83.8 - 88.9	86	Yes
D	H-Point From Seatback	134.6 - 139.7	137	Yes
E	Shoulder Pivot From Backline	83.8 - 94.0	90	Yes
F	Thigh Clearance	139.7 - 154.9	150	Yes
G	Back Of Elbow To Wrist Pivot	289.6 - 304.8	295	Yes
H	Skull Cap To Backline	40.6 - 45.7	45	Yes
I	Shoulder-Elbow Length	330.2 - 345.4	337	Yes
J	Elbow Rest Height	190.5 - 210.8	198	Yes
K	Buttock Knee Length	579.1 - 604.5	601	Yes
L	Popliteal Height	429.3 - 454.7	440	Yes
M	Knee Pivot Height	485.1 - 500.4	494	Yes
N	Buttock Popliteal Length	452.1 - 477.5	470	Yes
O	Chest Depth	213.4 - 228.6	226	Yes
P	Foot Length	251.5 - 266.7	264	Yes
V	Shoulder Breadth	421.6 - 436.9	425	Yes
W	Foot Breadth	91.4 - 106.7	96	Yes
Y	Chest Circumference	970.3 - 1000.8	990	Yes
Z	Waist Circumference	835.7 - 866.1	865	Yes
AA	Location For Chest Circumference	429.3 - 434.3	432	Yes
BB	Location For Waist Circumference	226.1 - 231.1	229	Yes



Revised 8/10/12

Report Number: 037_H3F105

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Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 037 Certification No. 105-1

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Peak Head Resultant Acceleration	225 - 275 g	237.9 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	11.1 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	< 10 %	1.14 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: N/A

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

09.24.2025 09:12:58 612

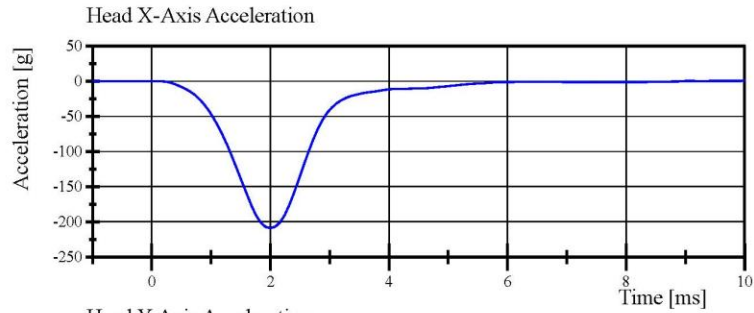


Transportation Research Center Inc.

Front Head Drop

HIII 50th Serial No. 037 Certification No. 105-1

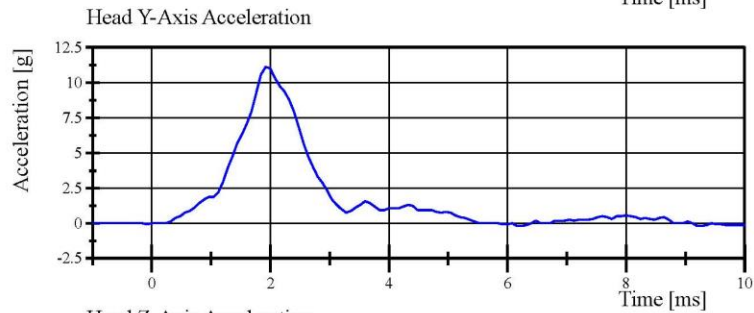
Test Date: 9/24/2025



Filter Class: CFC_1000

Max: 0.6 g at 10.0 ms

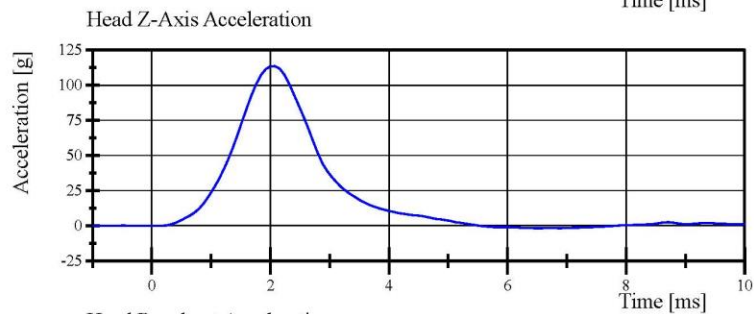
Min: -208.9 g at 2.0 ms



Filter Class: CFC_1000

Max: 11.1 g at 1.9 ms

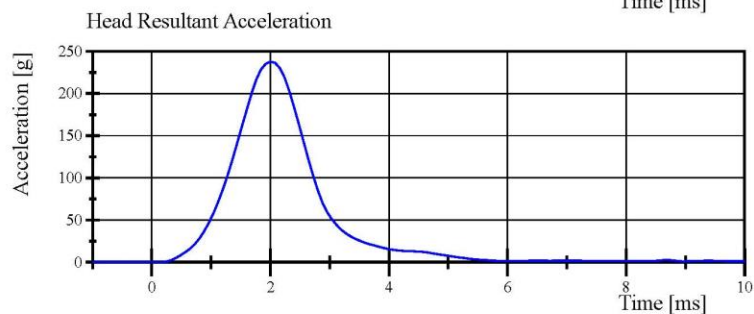
Min: -0.2 g at 6.2 ms



Filter Class: CFC_1000

Max: 113.5 g at 2.1 ms

Min: -1.7 g at 6.5 ms



Filter Class: CFC_1000

Max: 237.9 g at 2.0 ms

Min: 0.0 g at -0.6 ms

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

09.24.2025 09:13:31 612



Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 037 Certification No. 105-1

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	68 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	6.955 m/s	Yes
Pendulum Acceleration Decay Crossing -5g	34 - 42 ms	35.9 ms	Yes
Pendulum Acceleration at 10ms	(-22.5) - (-27.5) g	-24.28 g	Yes
at 20ms	(-17.6) - (-22.6) g	-22.48 g	Yes
at 30ms	(-12.5) - (-18.5) g	-18.11 g	Yes
> 30ms	>= (-29.0) g	-18.11 g	Yes
Total Head D-Plane Rotation Peak	(-64) - (-78) °	-72.4 °	Yes
Time of Peak	57 - 64 ms	60.1 ms	Yes
Decay to 0°	113 - 128 ms	118.0 ms	Yes
Total Neck Occipital Condyles Moment Peak	88.1 - 108.4 N·m	99.53 N·m	Yes
Time of Peak	47 - 58 ms	49.5 ms	Yes
Decay to 0 N·m	97 - 107 ms	98.3 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 4728

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

09.24.2025 10:15:59 1866

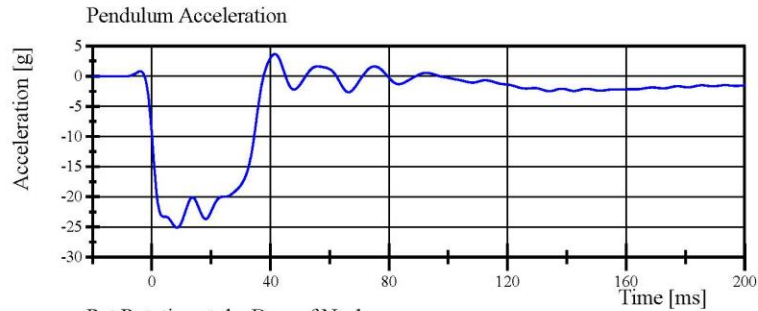


Transportation Research Center Inc.

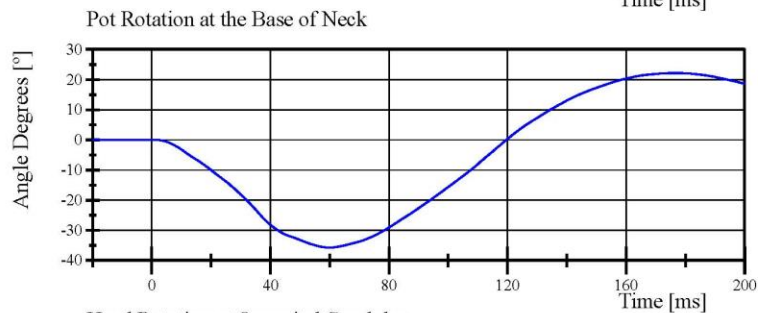
Neck Flexion

HIII 50th Serial No. 037 Certification No. 105-1

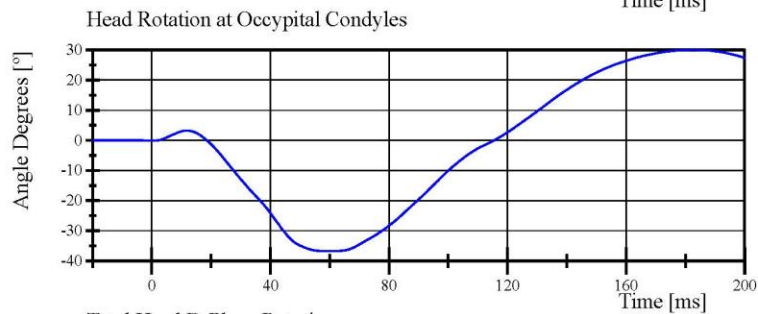
Test Date: 9/24/2025



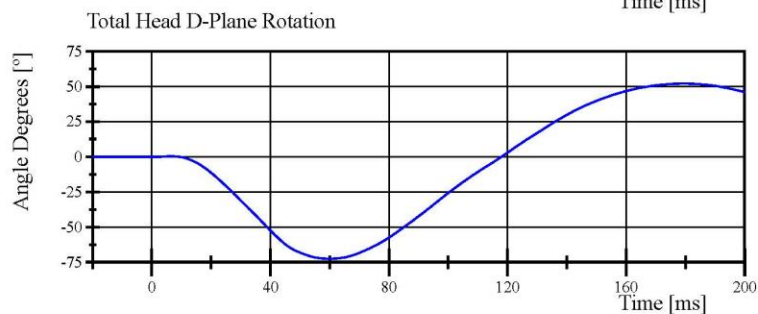
Filter Class: CFC_60
Max: 3.7 g at 41.5 ms
Min: -25.1 g at 8.5 ms



Filter Class: CFC_60
Max: 22.1 ° at 176.6 ms
Min: -35.7 ° at 59.9 ms



Filter Class: CFC_60
Max: 29.9 ° at 182.5 ms
Min: -36.7 ° at 61.8 ms



Filter Class: CFC_60
Max: 52.0 ° at 179.6 ms
Min: -72.4 ° at 60.1 ms

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

09.24.2025 10:16:38 1866

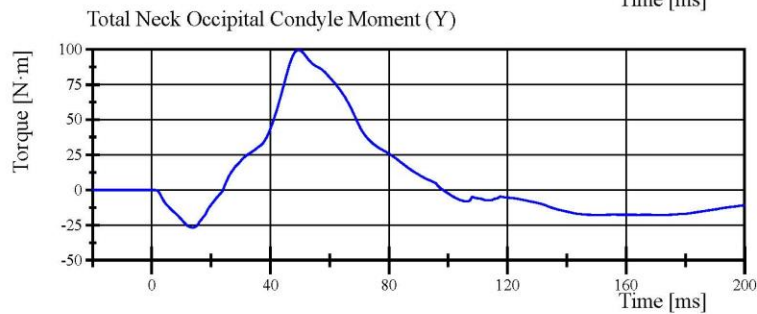
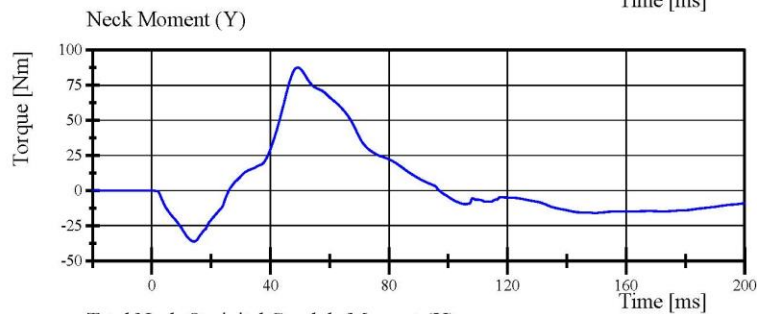
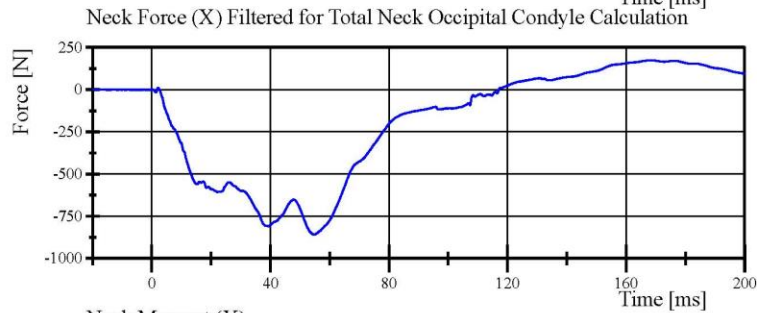
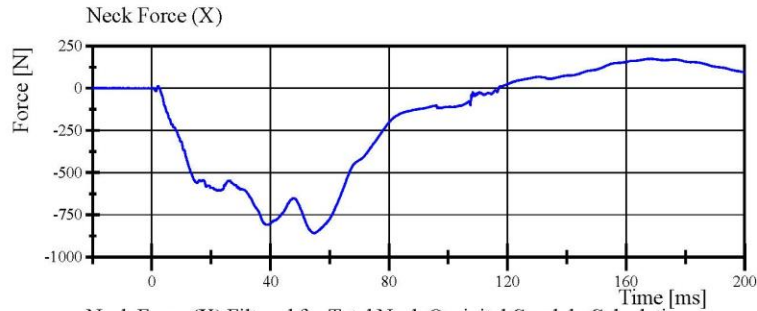


Transportation Research Center Inc.

Neck Flexion

HIII 50th Serial No. 037 Certification No. 105-1

Test Date: 9/24/2025



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

09.24.2025 10:16:38 1866



Transportation Research Center Inc.

Neck Extension

HIII 50th Serial No. 037 Certification No. 105-1

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Pendulum Velocity	(-5.95) - (-6.18) m/s	-6.003 m/s	Yes
Pendulum Acceleration Decay Crossing 5g	38 - 46 ms	38.5 ms	Yes
Pendulum Acceleration at 10ms	17.2 - 21.2 g	18.82 g	Yes
at 20ms	14.0 - 19.0 g	18.08 g	Yes
at 30ms	11.0 - 16.0 g	15.93 g	Yes
> 30ms	<= 22.0 g	15.93 g	Yes
Total Head D-Plane Rotation Peak	81 - 106 °	100.6 °	Yes
Time of Peak	72 - 82 ms	77.6 ms	Yes
Decay to 0°	147 - 174 ms	159.7 ms	Yes
Total Neck Occipital Condyles Moment Peak	(-52.9) - (-80) N·m	-67.74 N·m	Yes
Time of Peak	65 - 79 ms	70.9 ms	Yes
Decay to 0 N·m	120 - 148 ms	143.5 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: 4728

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

09.24.2025 10:51:29 2008

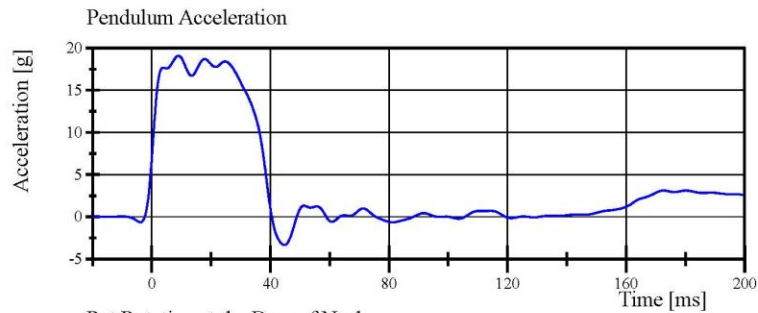


Transportation Research Center Inc.

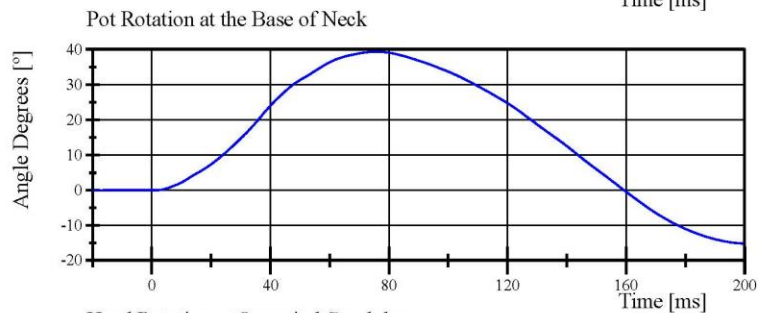
Neck Extension

HIII 50th Serial No. 037 Certification No. 105-1

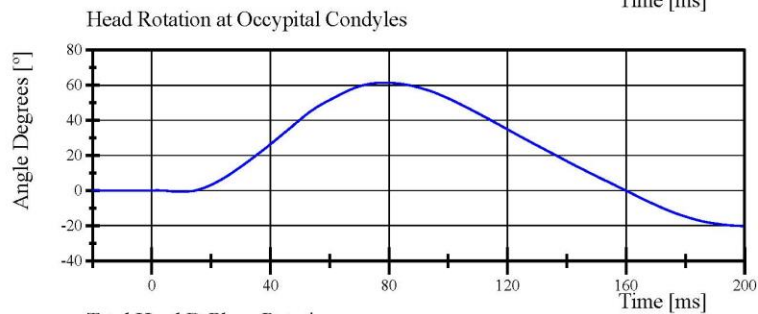
Test Date: 9/24/2025



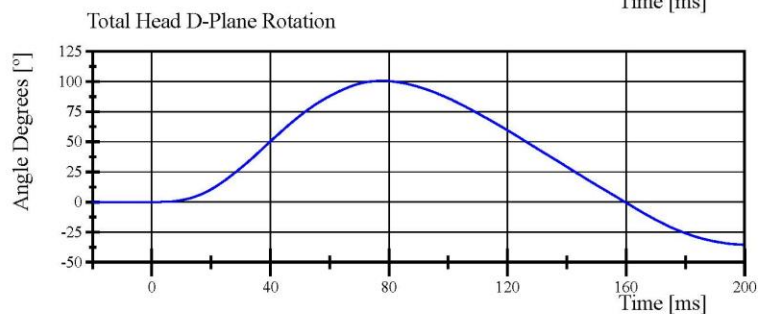
Filter Class: CFC_60
Max: 19.1 g at 9.0 ms
Min: -3.3 g at 44.8 ms



Filter Class: CFC_60
Max: 39.3 ° at 75.7 ms
Min: -15.2 ° at 199.6 ms



Filter Class: CFC_60
Max: 61.3 ° at 78.5 ms
Min: -20.2 ° at 199.6 ms



Filter Class: CFC_60
Max: 100.6 ° at 77.6 ms
Min: -35.5 ° at 199.6 ms

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

09.24.2025 10:52:11 2008

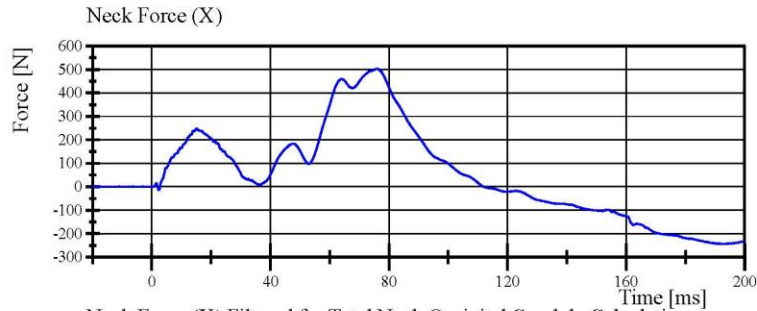


Transportation Research Center Inc.

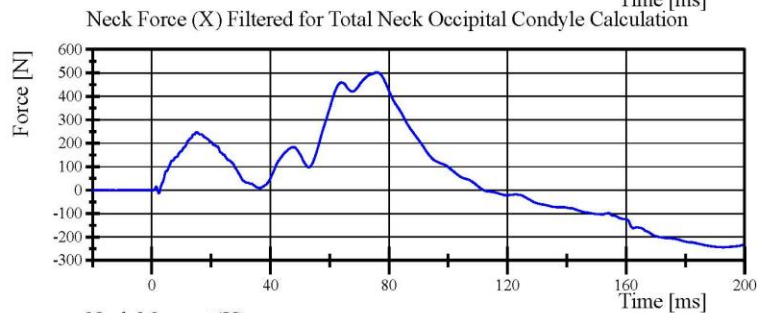
Neck Extension

HIII 50th Serial No. 037 Certification No. 105-1

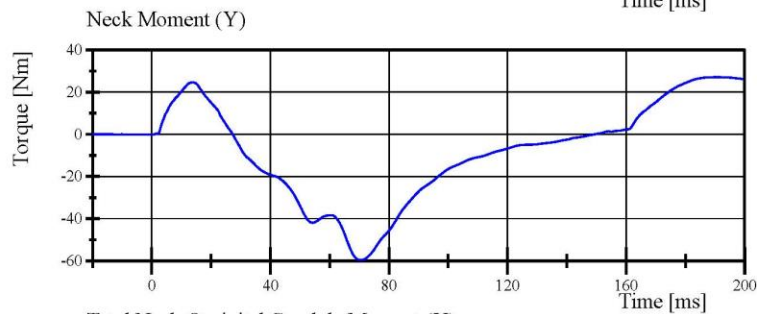
Test Date: 9/24/2025



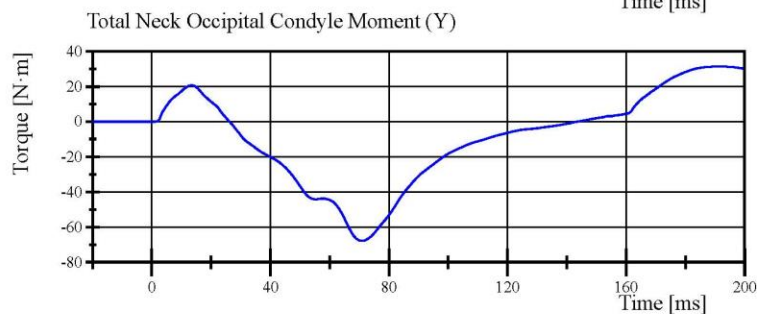
Filter Class: CFC_1000
Max: 502.9 N at 76.2 ms
Min: -244.7 N at 193.0 ms



Filter Class: CFC_600
Max: 502.4 N at 76.1 ms
Min: -244.1 N at 192.9 ms



Filter Class: CFC_600
Max: 27.1 Nm at 190.4 ms
Min: -59.6 Nm at 70.4 ms



Filter Class: Without_(Constar
Max: 31.4 N·m at 190.5 ms
Min: -67.7 N·m at 70.9 ms

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

09.24.2025 10:52:12 2008



Transportation Research Center Inc.

Front Thorax

HIII 50th Serial No. 037 Certification No. 105-1

Test Date: 9/23/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.764 m/s	Yes
Probe Force Peak	(-5,160) - (-5,894) N	-5,838.5 N	Yes
Maximum Chest Compression	(-63.5) - (-72.6) mm	-68.64 mm	Yes
Internal Hysteresis	69 - 85 %	72.6 %	Yes

Test meets specifications.

Condition: Used

Comments:

Jacket S/N: EX0700

Rib Set S/N: 10362

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

09.23.2025 15:16:20 428

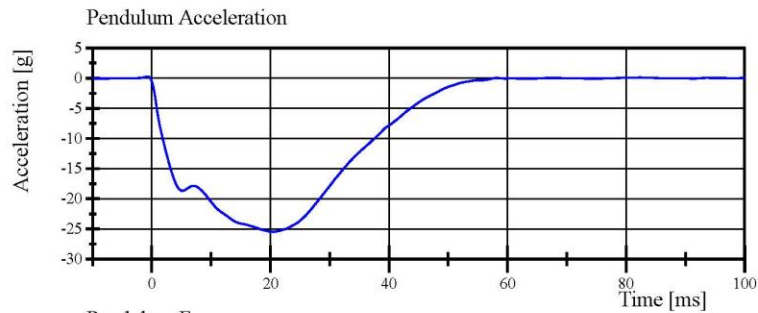


Transportation Research Center Inc.

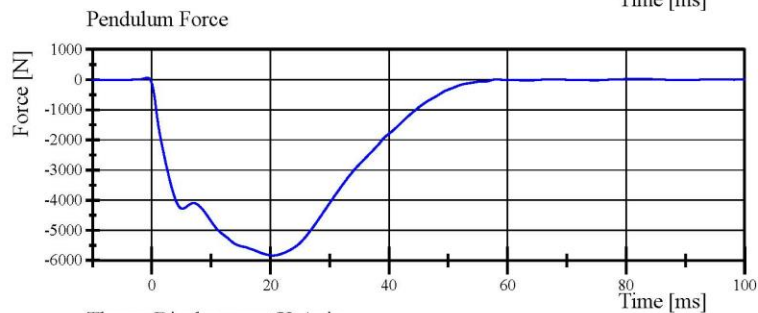
Front Thorax

HIII 50th Serial No. 037 Certification No. 105-1

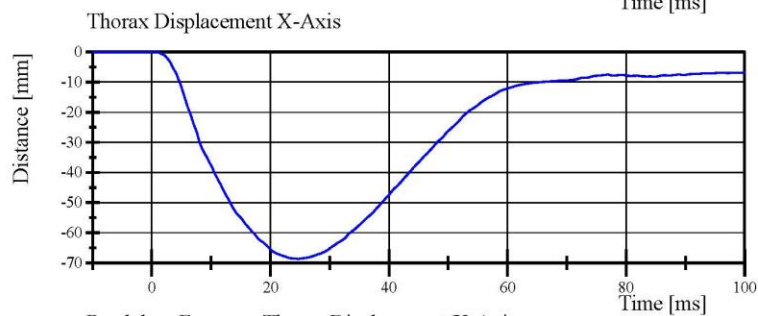
Test Date: 9/23/2025



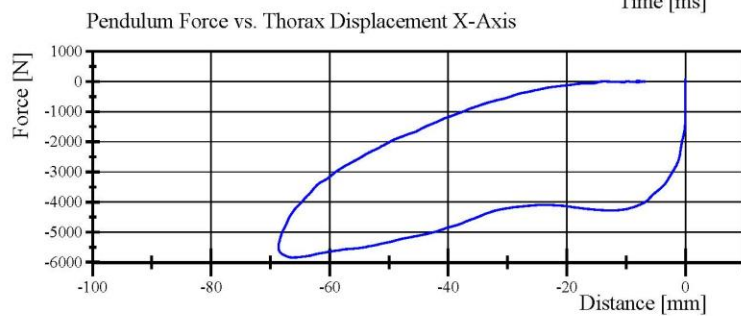
Filter Class: CFC_180
Max: 0.3 g at -0.7 ms
Min: -25.5 g at 20.5 ms



Filter Class: CFC_180
Max: 57.9 N at -0.7 ms
Min: -5,838.5 N at 20.5 ms



Filter Class: CFC_600
Max: 0.0 mm at -8.4 ms
Min: -68.6 mm at 24.6 ms



Filter Class: CFC_180
Max: 57.9 N at -0.0 mm
Min: -5,838.5 N at -66.3 mm

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

09.23.2025 15:16:49 428



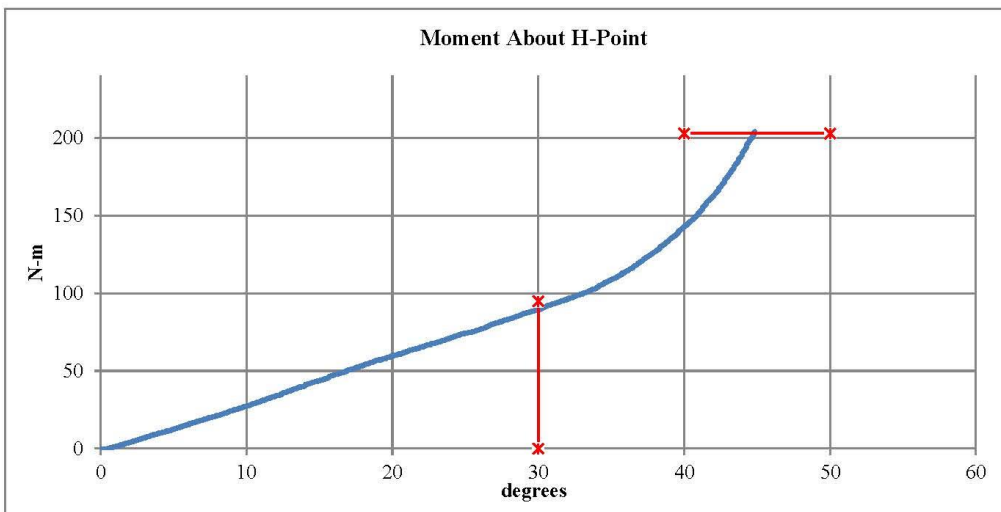
Transportation Research Center Inc.

Hybrid III 50th Male Hip Range of Motion

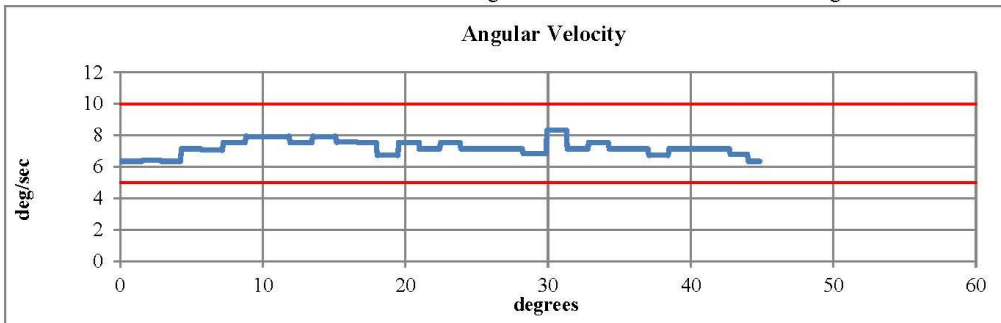


Serial Number: 037 Date: 24-Sep-2025
Side Tested: Left Hip Time: 8:02
Test Number: 1

TEST PARAMETER	SPECIFICATION		TEST RESULTS		
Temperature	18.9	- 25.6	20.8	°C	Pass
Humidity	10	- 70	64	%	Pass
Moment at 30°	0	≤ 94.9	89.55	N-m	Pass
Angle at 203 Nm	40	- 50	44.84	deg	Pass
Average Velocity	5	- 10	7.2	deg/sec	Pass



Max: 8.33 deg/sec Min: 6.35 deg/sec



Comments: Pelvis S/N: EU6859

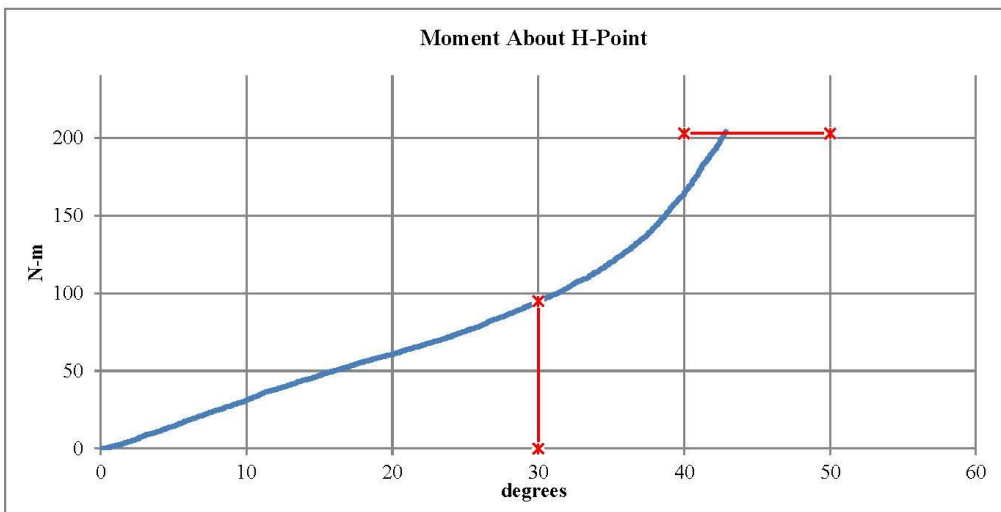
Transportation Research Center Inc.

Hybrid III 50th Male Hip Range of Motion

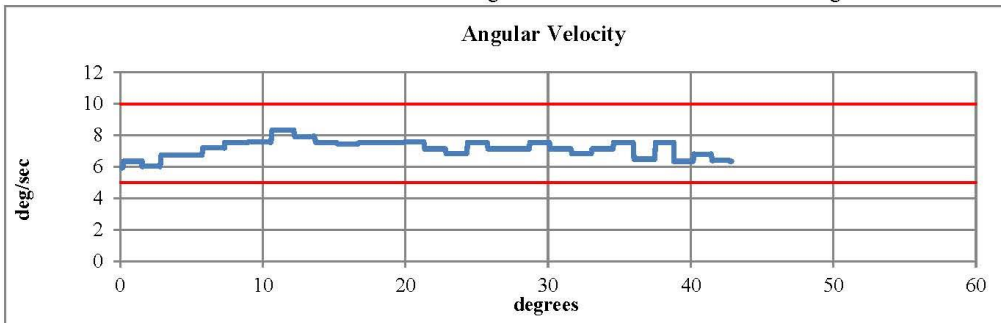


Serial Number: 037 Date: 24-Sep-2025
Side Tested: Right Hip Time: 8:40
Test Number: 1

TEST PARAMETER	SPECIFICATION		TEST RESULTS		
Temperature	18.9	- 25.6	21.4	°C	Pass
Humidity	10	- 70	67	%	Pass
Moment at 30°	0	≤ 94.9	94.68	N-m	Pass
Angle at 203 Nm	40	- 50	42.86	deg	Pass
Average Velocity	5	- 10	7.15	deg/sec	Pass



Max: 8.33 deg/sec Min: 5.95 deg/sec



Comments: Pelvis S/N: EU6859

Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 50th Serial No. 037 Certification No. 105-1

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	66 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.128 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,480.15 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: 2672

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

09.24.2025 07:56:40 1753

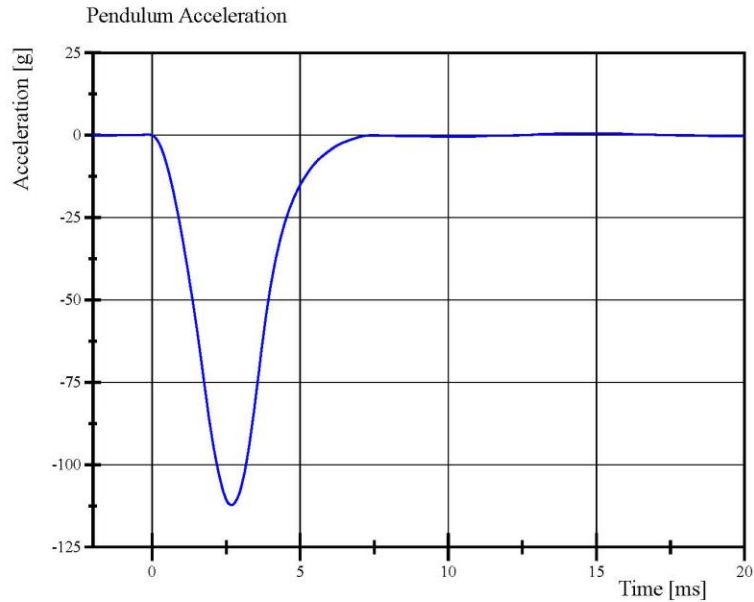


Report Number: 037_H3F105

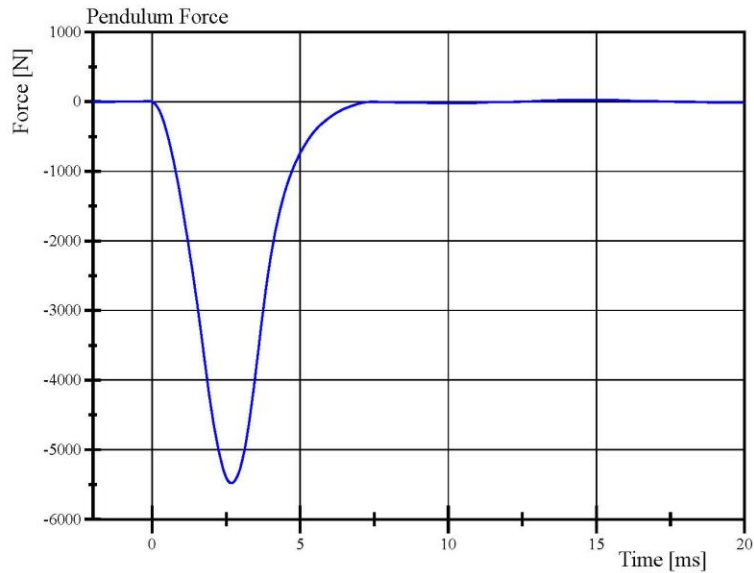
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Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 105-1
Test Date: 9/24/2025



Filter Class: CFC_600
Max: 0.5 g at 14.3 ms
Min: -112.2 g at 2.6 ms



Filter Class: CFC_600
Max: 25.8 N at 14.3 ms
Min: -5,480.1 N at 2.6 ms

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

09.24.2025 07:57:22 1753



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 105-2
Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	67 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.115 m/s	Yes
Peak Femur Force	(-4,715.2) - (-5,782.6) N	-5,372.10 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: 1248

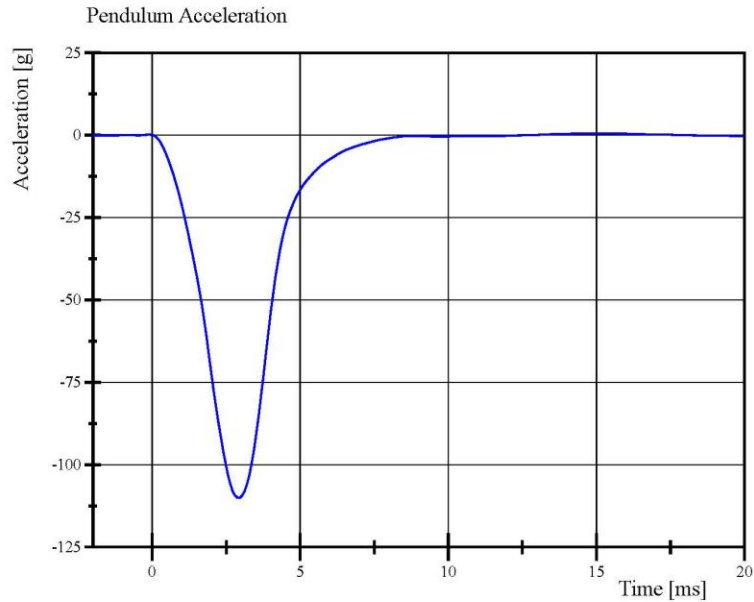
Specification Source: CFR49 Part 572 Subpart E
with Polarity in accordance with J211

09.24.2025 08:36:35 1772

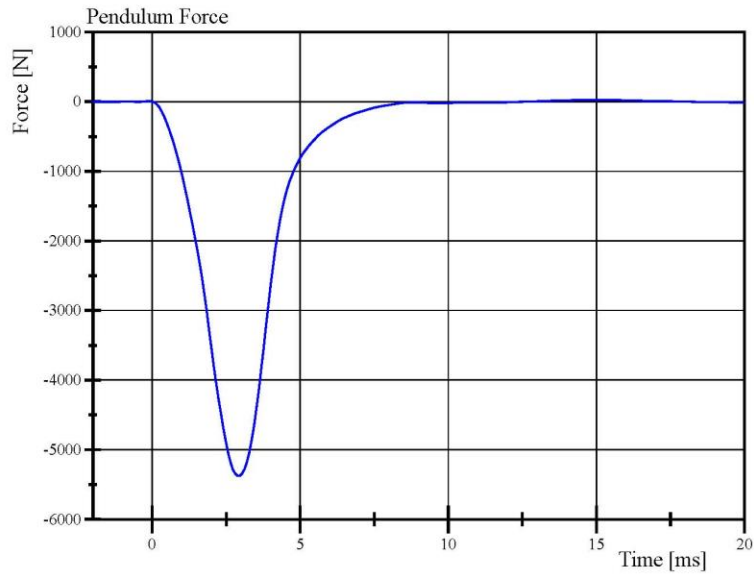


Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 50th Serial No. 037 Certification No. 105-2
Test Date: 9/24/2025



Filter Class: CFC_600
Max: 0.5 g at 14.6 ms
Min: -110.0 g at 2.9 ms



Filter Class: CFC_600
Max: 26.8 N at 14.6 ms
Min: -5,372.1 N at 2.9 ms

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

09.24.2025 08:37:39 1772



Pre-Test Calibration Sheets

Passenger S/N DH1659

Transportation Research Center Inc.
5720 HIII 5th Dummy
External Dimensions
Serial No. DH1659 Calibration No. 30

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	780	Yes
B	Shoulder Pivot Height	431.8 - 457.2	445	Yes
C	Hip Pivot Height	81.3 - 86.3	86	Yes
D	Hip Pivot from Backline	144.8 - 149.8	148	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	80	Yes
F	Thigh Clearance	119.4 - 134.6	131	Yes
G	Back of Elbow to Wrist Pivot	243.9 - 259.1	249	Yes
H	Head Back to Backline	43.2 - 48.2	45	Yes
I	Shoulder to Elbow Length	276.8 - 297.2	286	Yes
J	Elbow Rest Height	182.8 - 203.2	196	Yes
K	Buttock Knee Length	520.7 - 546.1	533	Yes
L	Popliteal Height	355.6 - 376.0	360	Yes
M	Knee Pivot Height	393.7 - 419.1	409	Yes
N	Buttock Popliteal Length	414.0 - 439.4	430	Yes
O	Chest Depth without Jacket	175.3 - 190.5	185	Yes
P	Foot Length	218.5 - 233.7	225	Yes
R	Buttock to Knee Pivot Length	457.2 - 482.6	473	Yes
S	Head Breadth	137.1 - 147.3	141	Yes
T	Head Depth	177.8 - 188.0	180	Yes
U	Hip Breadth	299.7 - 314.9	305	Yes
V	Shoulder Breadth	350.5 - 365.7	356	Yes
W	Foot Breadth	78.8 - 94.0	85	Yes
X	Head Circumference	528.3 - 548.7	539	Yes
Y	Chest Circumference with Jacket	850.9 - 881.3	869	Yes
Z	Waist Circumference	759.5 - 789.9	776	Yes
AA	Reference Location for Chest Circumference	332.7 - 358.1	345	Yes
BB	Reference Location for Waist Circumference	160.0 - 170.2	165	Yes

Revised 8/10/12



Report Number: DH1659_HFH30

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Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. DH1659 Certification No. 30-1

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	273.0 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-2.9 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	< 10 %	1.60 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: 2864

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

09.05.2025 08:44:57 613

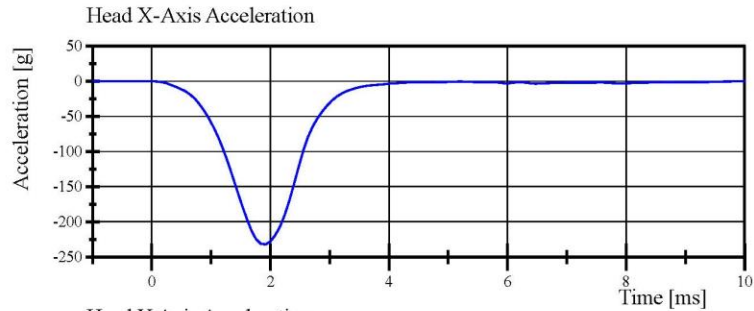


Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. DH1659 Certification No. 30-1

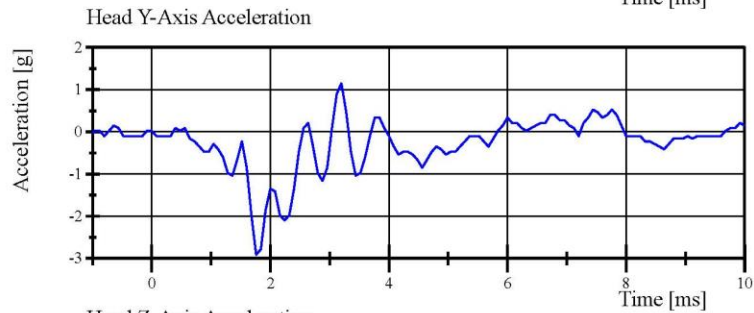
Test Date: 9/5/2025



Filter Class: CFC_1000

Max: 0.1 g at 10.0 ms

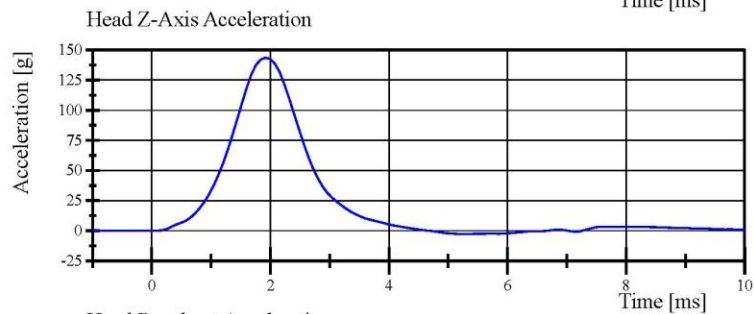
Min: -232.1 g at 1.9 ms



Filter Class: CFC_1000

Max: 1.2 g at 3.2 ms

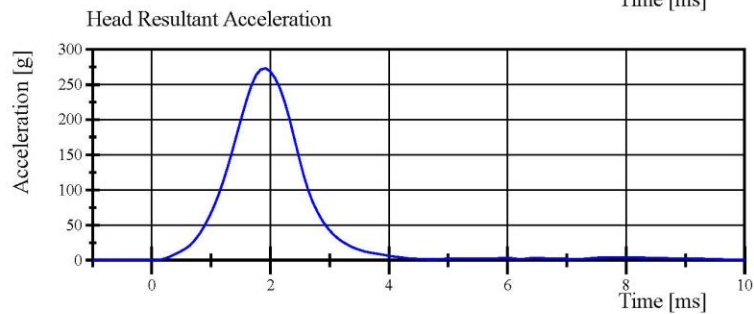
Min: -2.9 g at 1.8 ms



Filter Class: CFC_1000

Max: 143.6 g at 1.9 ms

Min: -2.8 g at 5.3 ms



Filter Class: CFC_1000

Max: 273.0 g at 1.9 ms

Min: 0.1 g at -1.0 ms

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

09.05.2025 08:45:48 613



Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 30-1

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	44 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	7.073 m/s	Yes
Pendulum Integrated Velocity			
Change at 10ms	(-2.1) - (-2.5) m/s	-2.15 m/s	Yes
Change at 20ms	(-4.0) - (-5.0) m/s	-4.30 m/s	Yes
Change at 30ms	(-5.8) - (-7.0) m/s	-6.43 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-78.7 °	Yes
Total Neck Occipital Condyles Moment			
Between -77° and -91° Rotation	69 - 83 N·m	69.1 N·m	Yes
Decay to 10 N·m	80 - 100 ms	88.4 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: DM3051

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

09.05.2025 09:14:14 1848

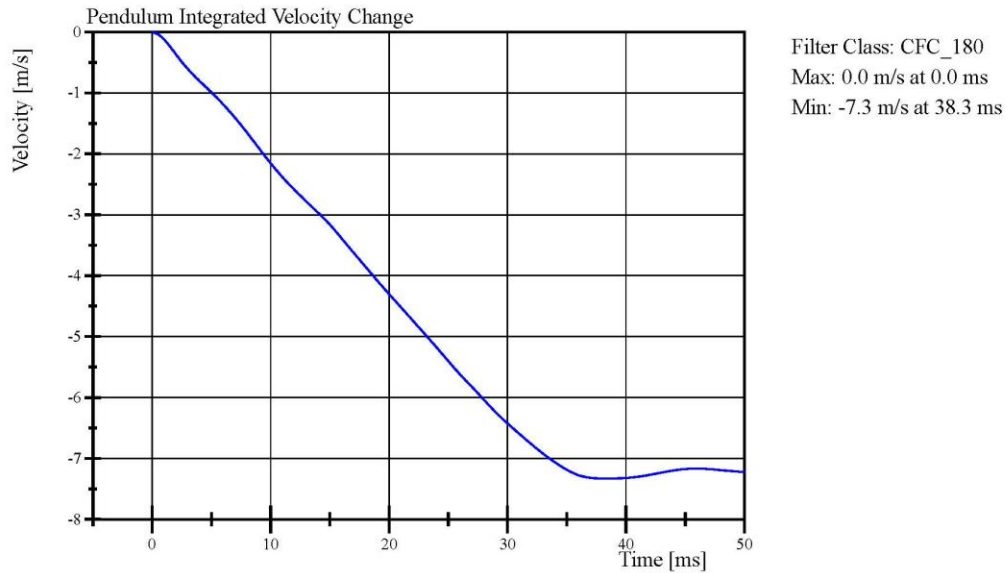
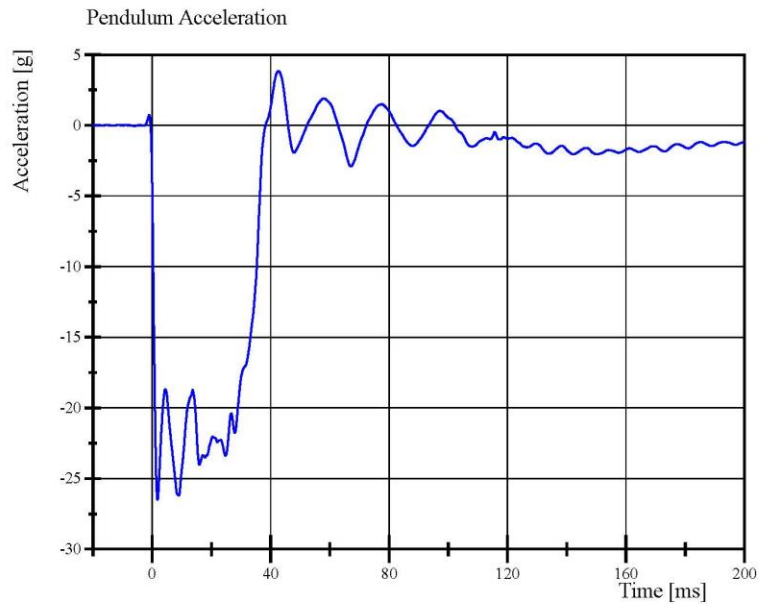


Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 30-1

Test Date: 9/5/2025



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

09.05.2025 09:15:13 1848



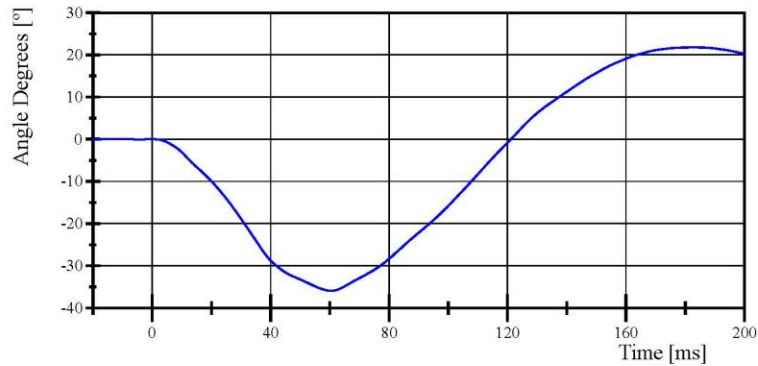
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 30-1

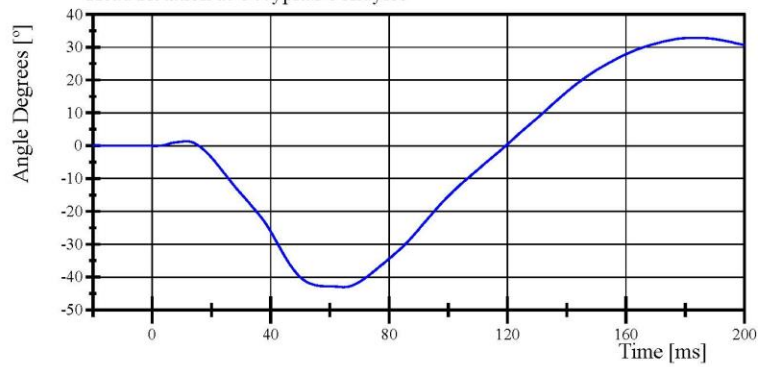
Test Date: 9/5/2025

Pot Rotation at the Base of Neck



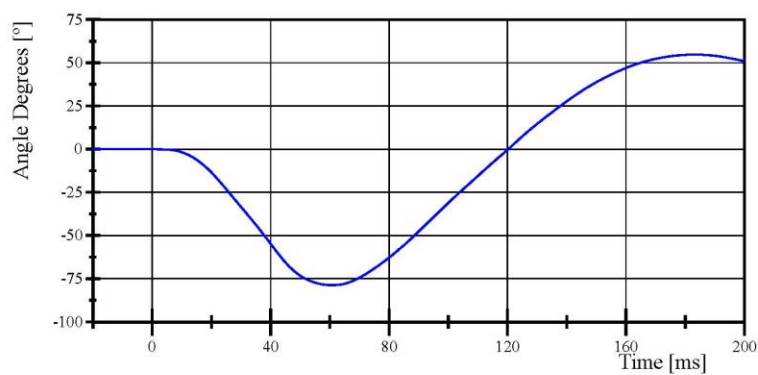
Filter Class: CFC_60
Max: 21.8 ° at 182.8 ms
Min: -35.9 ° at 60.4 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 32.9 ° at 183.6 ms
Min: -43.1 ° at 64.7 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 54.6 ° at 183.4 ms
Min: -78.7 ° at 60.6 ms

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

09.05.2025 09:15:14 1848

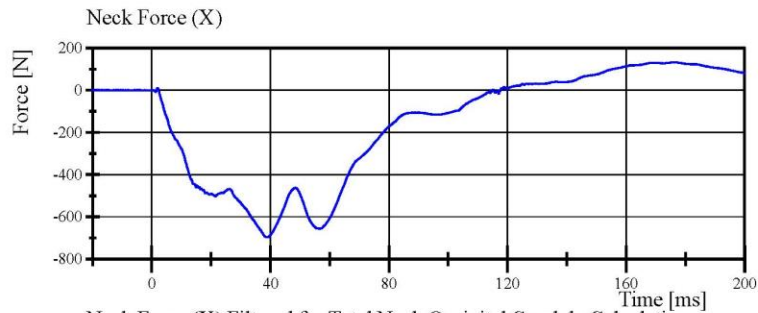


Transportation Research Center Inc.

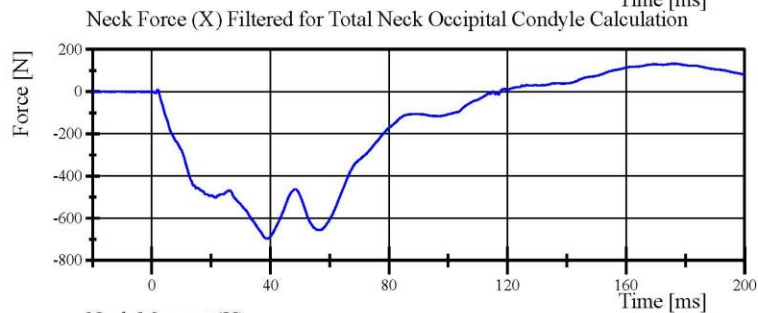
Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 30-1

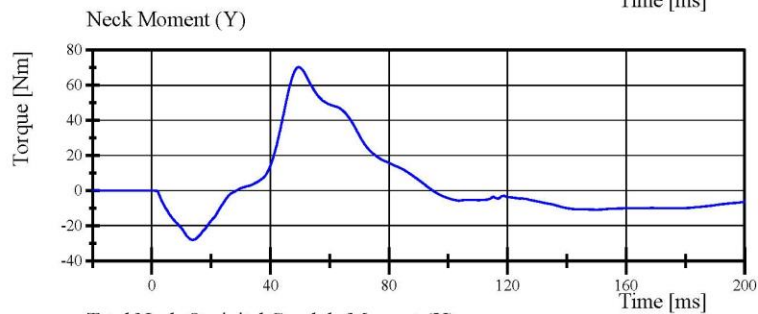
Test Date: 9/5/2025



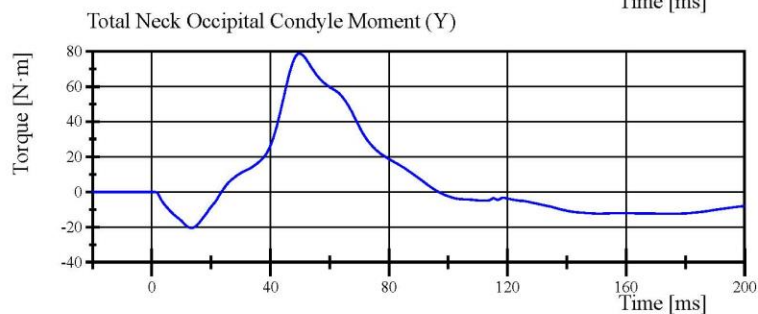
Filter Class: CFC_1000
Max: 132.8 N at 176.2 ms
Min: -696.1 N at 39.2 ms



Filter Class: CFC_600
Max: 132.4 N at 176.3 ms
Min: -695.9 N at 39.1 ms



Filter Class: CFC_600
Max: 70.2 Nm at 49.6 ms
Min: -28.2 Nm at 13.9 ms



Filter Class: Without_(Constar
Max: 78.8 N·m at 49.9 ms
Min: -20.4 N·m at 13.5 ms

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

09.05.2025 09:15:14 1848



Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. DH1659 Certification No. 30-1

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Pendulum Velocity	(-5.95) - (-6.19) m/s	-6.073 m/s	Yes
Pendulum Integrated Velocity			
Change at 10ms	1.5 - 1.9 m/s	1.75 m/s	Yes
Change at 20ms	3.1 - 3.9 m/s	3.62 m/s	Yes
Change at 30ms	4.6 - 5.6 m/s	5.40 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	108.5 °	Yes
Total Neck Occipital Condyles Moment			
Between 99° and 114° Rotation	(-53) - (-65) N·m	-57.8 N·m	Yes
Decay to -10 N·m	94 - 114 ms	103.4 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: DM3051

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

09.05.2025 09:54:26 1993

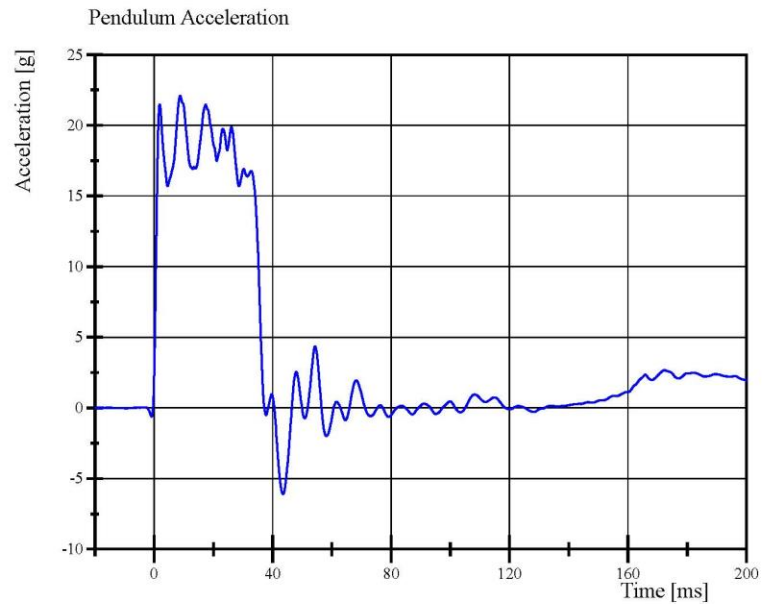


Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. DH1659 Certification No. 30-1

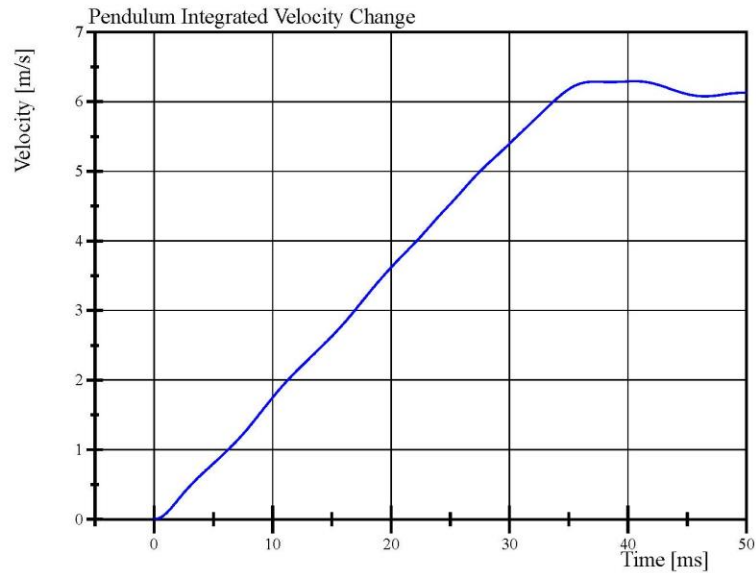
Test Date: 9/5/2025



Filter Class: CFC_180

Max: 22.1 g at 8.8 ms

Min: -6.1 g at 43.6 ms



Filter Class: CFC_180

Max: 6.3 m/s at 40.6 ms

Min: 0.0 m/s at 0.0 ms

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

09.05.2025 09:54:59 1993



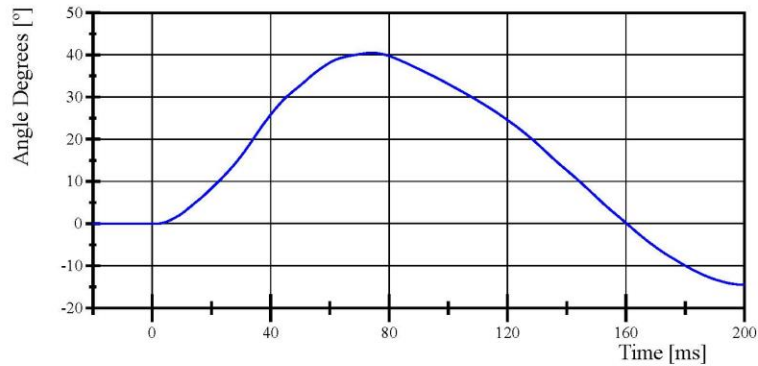
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. DH1659 Certification No. 30-1

Test Date: 9/5/2025

Pot Rotation at the Base of Neck

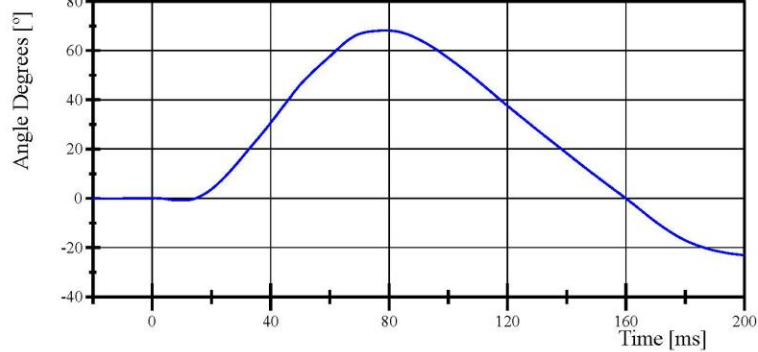


Filter Class: CFC_60

Max: 40.5 ° at 74.2 ms

Min: -14.5 ° at 200.0 ms

Head Rotation at Occypital Condyles

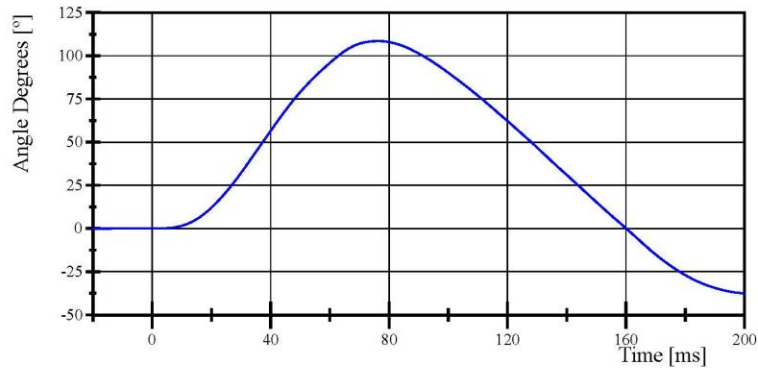


Filter Class: CFC_60

Max: 68.2 ° at 78.6 ms

Min: -23.1 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 108.5 ° at 76.4 ms

Min: -37.6 ° at 200.0 ms

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

09.05.2025 09:54:59 1993

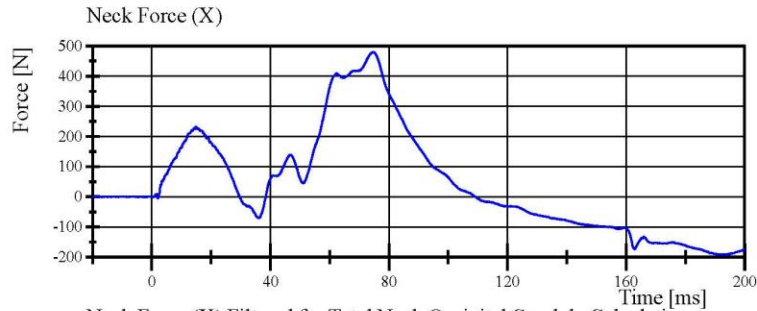


Transportation Research Center Inc.

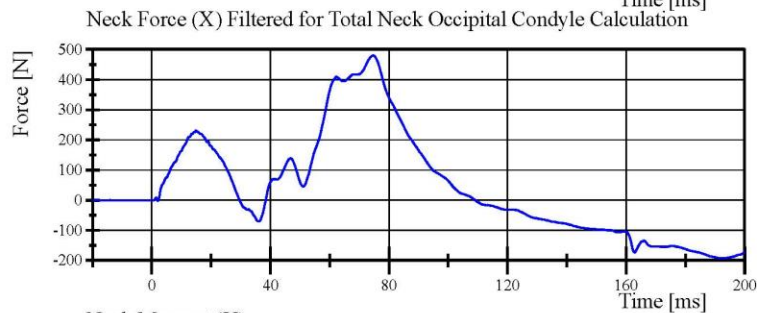
Neck Extension

HIII 5th Serial No. DH1659 Certification No. 30-1

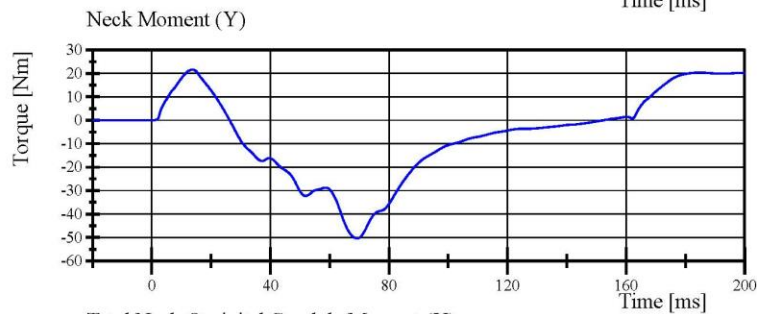
Test Date: 9/5/2025



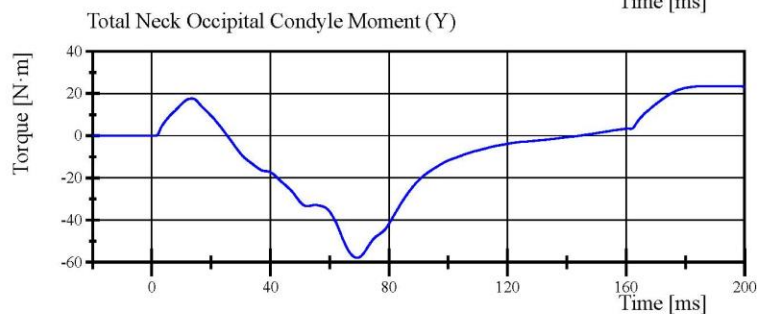
Filter Class: CFC_1000
Max: 480.0 N at 74.5 ms
Min: -192.0 N at 192.5 ms



Filter Class: CFC_600
Max: 479.9 N at 74.7 ms
Min: -191.6 N at 192.5 ms



Filter Class: CFC_600
Max: 21.6 Nm at 13.6 ms
Min: -50.4 Nm at 69.3 ms



Filter Class: Without_(Constar
Max: 23.5 N·m at 186.1 ms
Min: -57.8 N·m at 69.3 ms

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

09.05.2025 09:55:00 1993



Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. DH1659 Certification No. 30-4

Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.658 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,380.7 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	>= (-4,600) N	-4,499.4 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-51.0 mm	Yes
Internal Hysteresis	69 - 85 %	73.3 %	Yes

Test meets specifications.

Condition: Used

Comments:

Jacket S/N: EE8365

Rib Set S/N: DI5873

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

09.05.2025 15:03:19 461

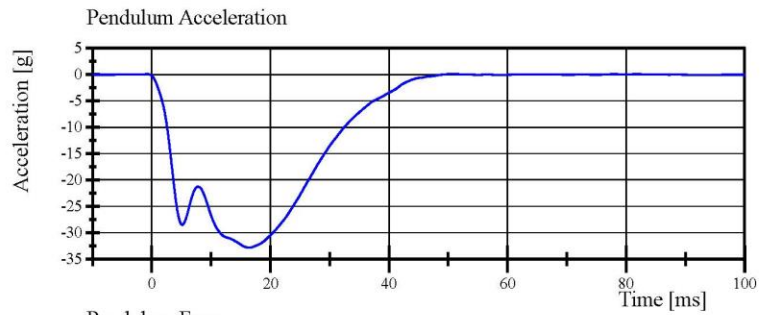


Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. DH1659 Certification No. 30-4

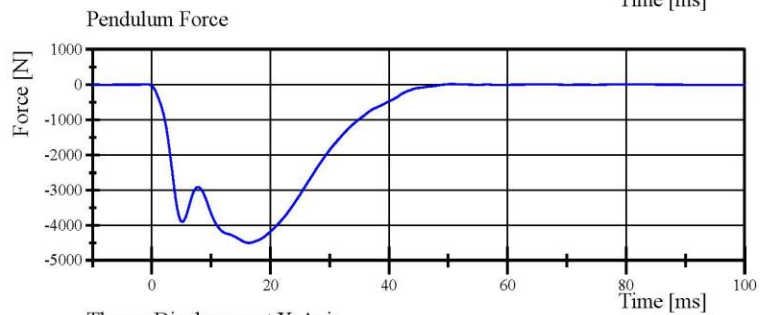
Test Date: 9/5/2025



Filter Class: CFC_180

Max: 0.1 g at 50.6 ms

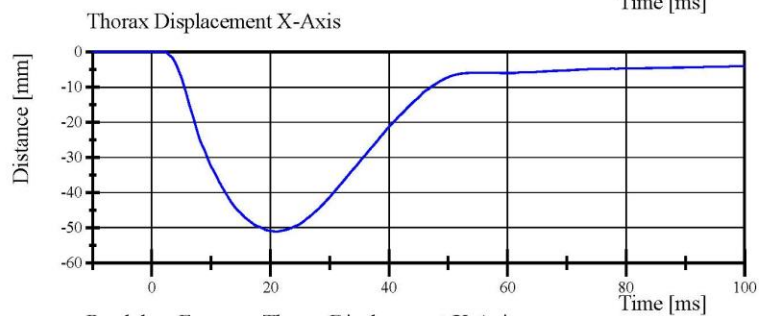
Min: -32.8 g at 16.4 ms



Filter Class: CFC_180

Max: 15.1 N at 50.6 ms

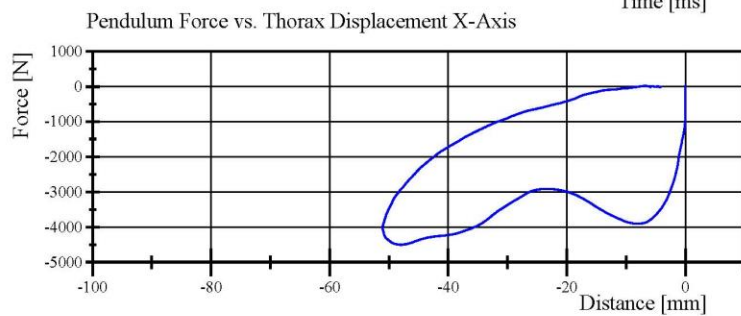
Min: -4,499.4 N at 16.4 ms



Filter Class: CFC_600

Max: 0.0 mm at -8.6 ms

Min: -51.0 mm at 21.0 ms



Filter Class: CFC_180

Max: 15.1 N at -6.8 mm

Min: -4,499.4 N at -48.0 mm

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

09.05.2025 15:03:56 461

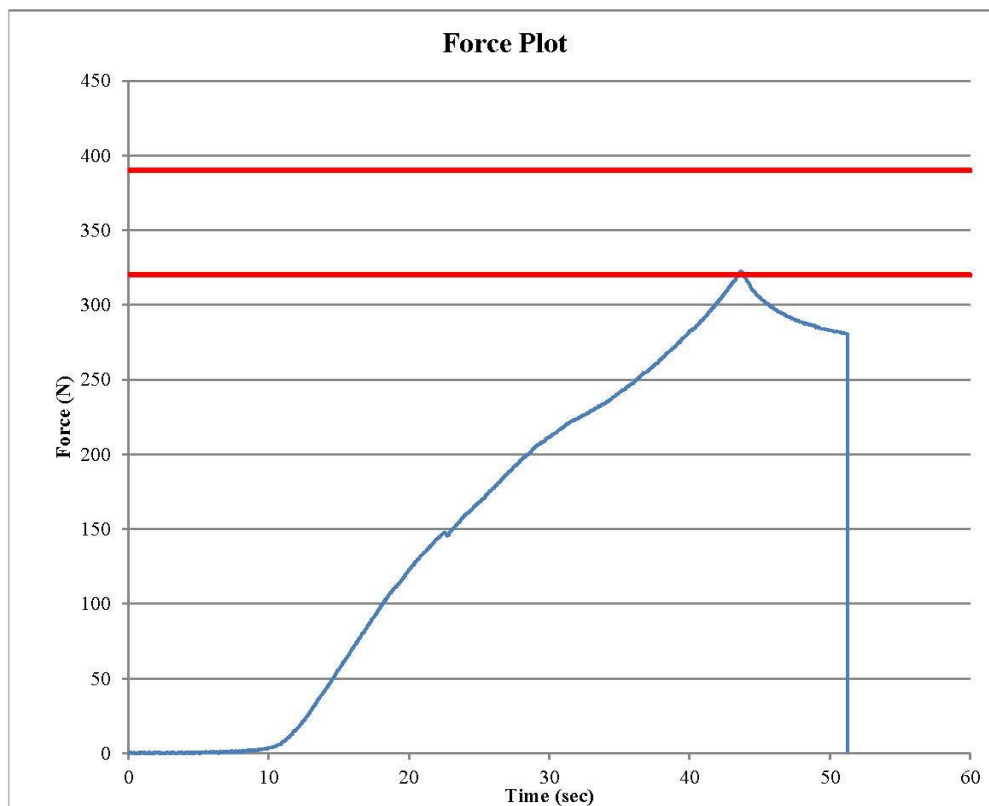


Transportation Research Center Inc.
Hybrid III Small Female Torso Flexion



Customer: NHTSA
Serial Number: DH1659 Date: 9/8/2025
Test Number: 1 Time: 9:55

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.6 °C Pass
Humidity	10 - 70	48 % Pass
Average Angular Rate	0.5 - 1.5	0.96 deg/sec Pass
Initial Angle	0 - 20	14.63 deg Pass
Peak Force at 45.63°	320 - 390	322.34 N Pass
Final Angle	-8 - 8	-4.43 deg Pass



Components: Comments:
Jacket S/N: EE8385
Abdomen S/N: EE8393
Lumbar S/N: EW9168

Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 30-1
Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.115 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-4,020.7 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: ED6729

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

09.05.2025 10:11:53 1559

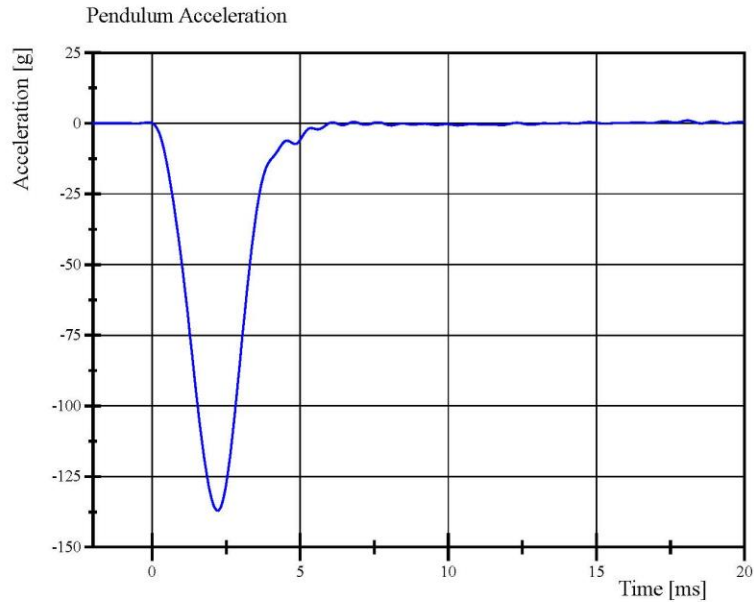


Report Number: DH1659_HFH30

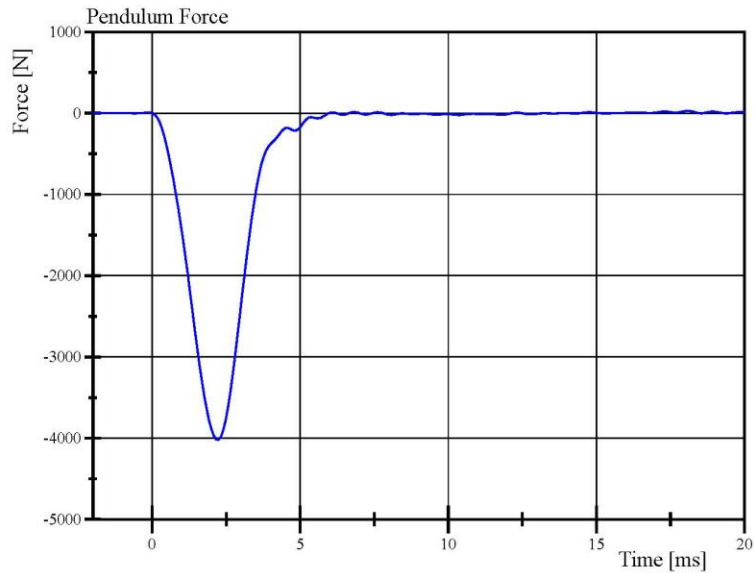
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Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 30-1
Test Date: 9/5/2025



Filter Class: CFC_600
Max: 1.0 g at 18.1 ms
Min: -137.1 g at 2.2 ms



Filter Class: CFC_600
Max: 30.3 N at 18.1 ms
Min: -4,020.7 N at 2.2 ms

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

09.05.2025 10:12:38 1559



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 30-1
Test Date: 9/5/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	45 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.111 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,907.7 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: EC5852

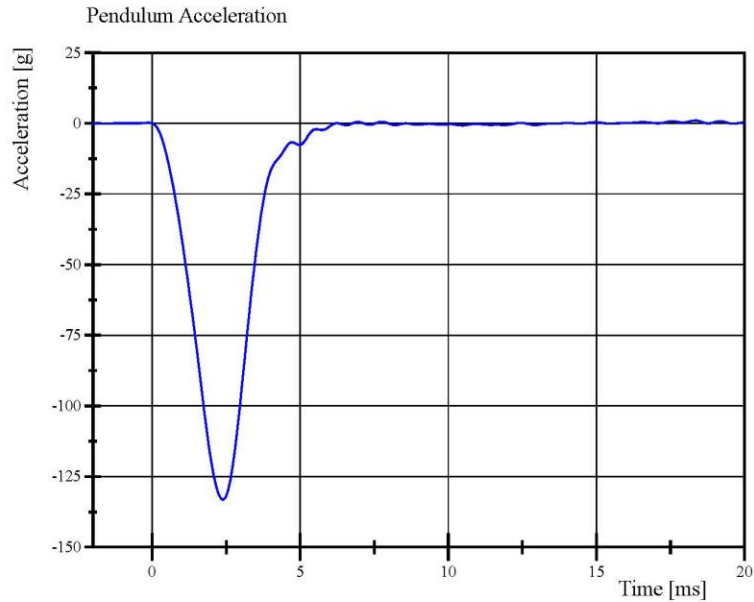
Specification Source: CFR49 Part 572 Subpart O
with Polarity in accordance with J211

09.05.2025 10:20:28 1559

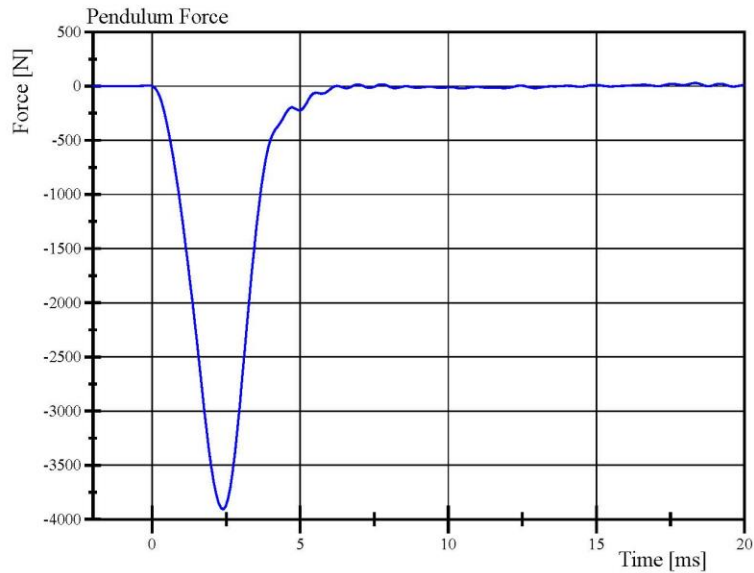


Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 30-1
Test Date: 9/5/2025



Filter Class: CFC_600
Max: 1.0 g at 18.3 ms
Min: -133.3 g at 2.4 ms



Filter Class: CFC_600
Max: 29.8 N at 18.3 ms
Min: -3,907.7 N at 2.4 ms

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

09.05.2025 10:21:04 1559



Post-Test Calibration Sheets

Passenger S/N DH1659

Transportation Research Center Inc.
5720 HIII 5th Dummy
External Dimensions
Serial No. DH1659 Calibration No. 31

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Total Sitting Height	774.7 - 800.1	780	Yes
B	Shoulder Pivot Height	431.8 - 457.2	445	Yes
C	Hip Pivot Height	81.3 - 86.3	86	Yes
D	Hip Pivot from Backline	144.8 - 149.8	148	Yes
E	Shoulder Pivot from Backline	68.6 - 83.8	80	Yes
F	Thigh Clearance	119.4 - 134.6	131	Yes
G	Back of Elbow to Wrist Pivot	243.9 - 259.1	249	Yes
H	Head Back to Backline	43.2 - 48.2	45	Yes
I	Shoulder to Elbow Length	276.8 - 297.2	286	Yes
J	Elbow Rest Height	182.8 - 203.2	196	Yes
K	Buttock Knee Length	520.7 - 546.1	533	Yes
L	Popliteal Height	355.6 - 376.0	360	Yes
M	Knee Pivot Height	393.7 - 419.1	409	Yes
N	Buttock Popliteal Length	414.0 - 439.4	430	Yes
O	Chest Depth without Jacket	175.3 - 190.5	185	Yes
P	Foot Length	218.5 - 233.7	225	Yes
R	Buttock to Knee Pivot Length	457.2 - 482.6	473	Yes
S	Head Breadth	137.1 - 147.3	141	Yes
T	Head Depth	177.8 - 188.0	180	Yes
U	Hip Breadth	299.7 - 314.9	305	Yes
V	Shoulder Breadth	350.5 - 365.7	356	Yes
W	Foot Breadth	78.8 - 94.0	85	Yes
X	Head Circumference	528.3 - 548.7	539	Yes
Y	Chest Circumference with Jacket	850.9 - 881.3	869	Yes
Z	Waist Circumference	759.5 - 789.9	776	Yes
AA	Reference Location for Chest Circumference	332.7 - 358.1	345	Yes
BB	Reference Location for Waist Circumference	160.0 - 170.2	165	Yes

Revised 8/10/12



Report Number: DH1659_HFH31

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Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. DH1659 Certification No. 31-2

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	275.8 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-5.2 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	< 10 %	1.28 %	Yes

Test meets specifications.

Condition: Used

Comments:

Head Skin S/N: 2864

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

09.24.2025 11:02:40 610

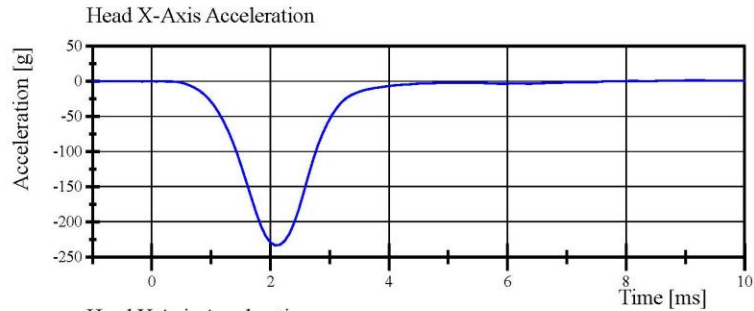


Transportation Research Center Inc.

Front Head Drop

HIII 5th Serial No. DH1659 Certification No. 31-2

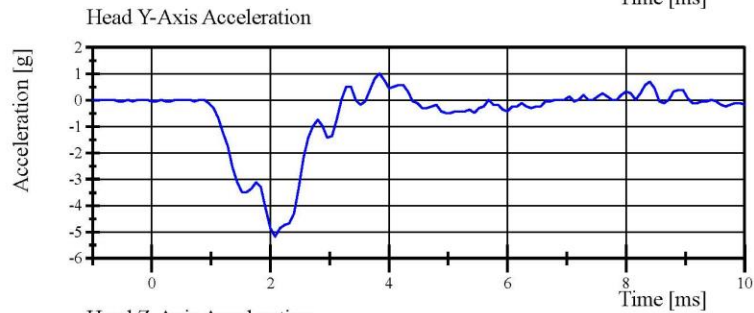
Test Date: 9/24/2025



Filter Class: CFC_1000

Max: 1.4 g at 9.1 ms

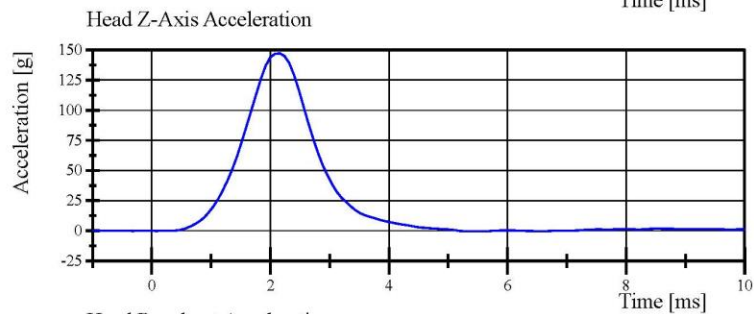
Min: -233.3 g at 2.1 ms



Filter Class: CFC_1000

Max: 1.0 g at 3.8 ms

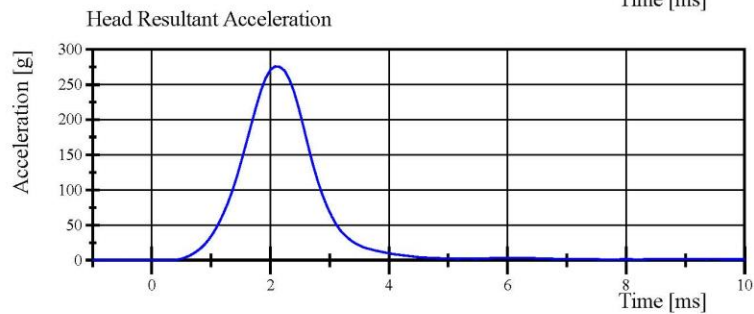
Min: -5.2 g at 2.1 ms



Filter Class: CFC_1000

Max: 147.1 g at 2.2 ms

Min: -0.5 g at 5.6 ms



Filter Class: CFC_1000

Max: 275.8 g at 2.1 ms

Min: 0.0 g at -1.0 ms

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

09.24.2025 11:03:25 610



Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	69 %	Yes
Pendulum Velocity	6.89 - 7.13 m/s	7.052 m/s	Yes
Pendulum Integrated Velocity			
Change at 10ms	(-2.1) - (-2.5) m/s	-2.11 m/s	Yes
Change at 20ms	(-4.0) - (-5.0) m/s	-4.28 m/s	Yes
Change at 30ms	(-5.8) - (-7.0) m/s	-6.28 m/s	Yes
Total Head D-Plane Rotation	(-77) - (-91) °	-79.9 °	Yes
Total Neck Occipital Condyles Moment			
Between -77° and -91° Rotation	69 - 83 N·m	75.1 N·m	Yes
Decay to 10 N·m	80 - 100 ms	89.6 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: DM3051

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

09.24.2025 09:24:50 1849

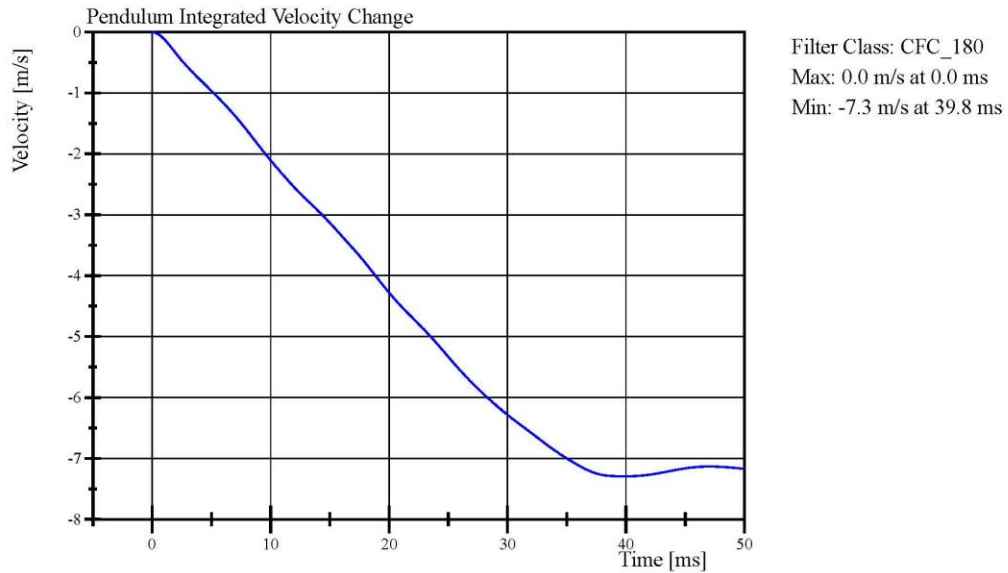
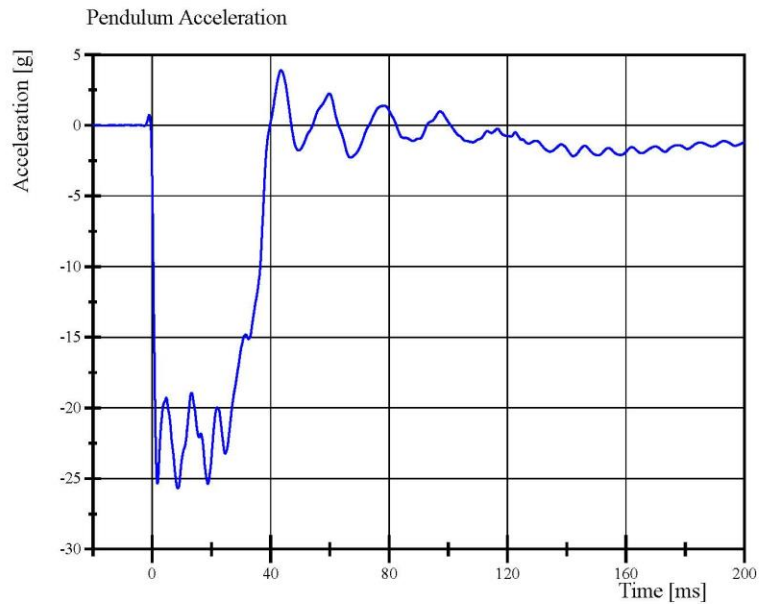


Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/24/2025



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

09.24.2025 09:25:17 1849



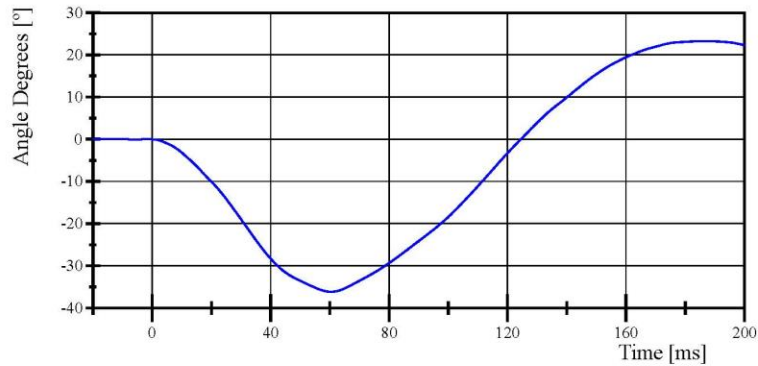
Transportation Research Center Inc.

Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 31-1

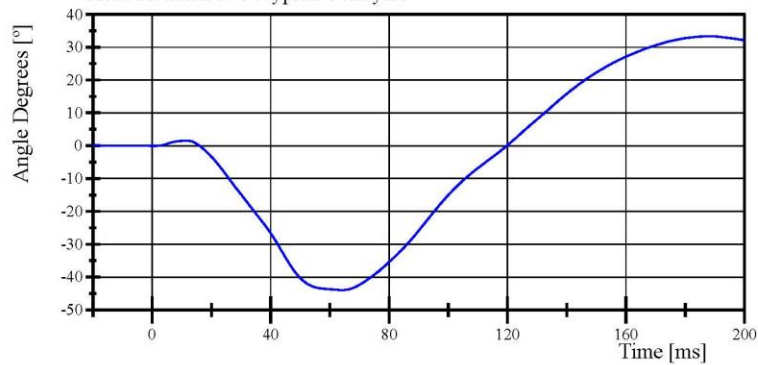
Test Date: 9/24/2025

Pot Rotation at the Base of Neck



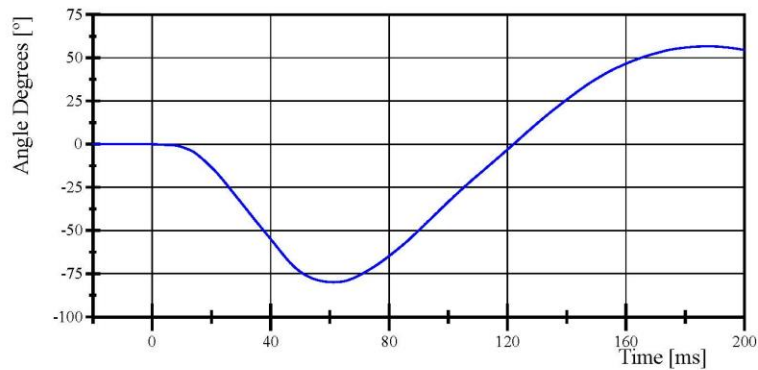
Filter Class: CFC_60
Max: 23.3 ° at 186.4 ms
Min: -36.1 ° at 60.4 ms

Head Rotation at Occypital Condyles



Filter Class: CFC_60
Max: 33.3 ° at 188.1 ms
Min: -43.9 ° at 64.2 ms

Total Head D-Plane Rotation



Filter Class: CFC_60
Max: 56.6 ° at 187.7 ms
Min: -79.9 ° at 61.3 ms

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

09.24.2025 09:25:18 1849

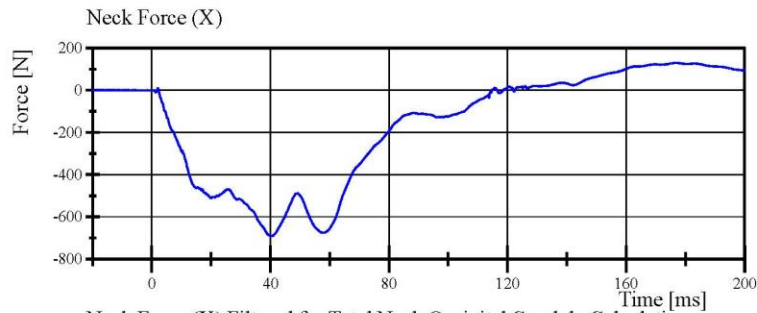


Transportation Research Center Inc.

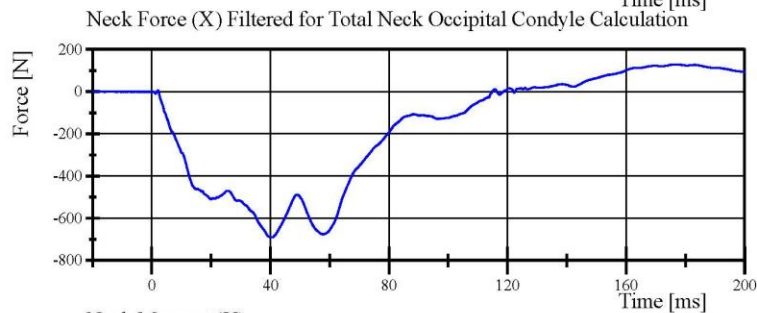
Neck Flexion

HIII 5th Serial No. DH1659 Certification No. 31-1

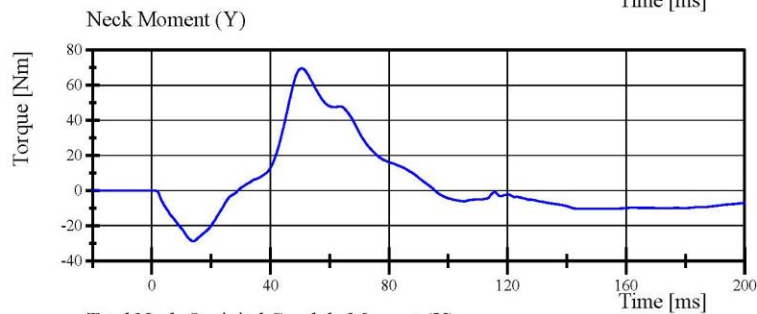
Test Date: 9/24/2025



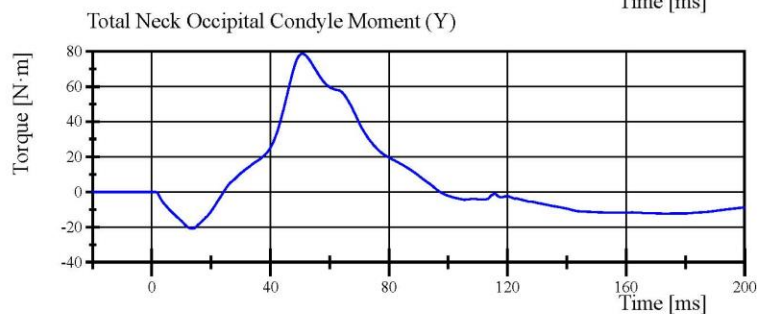
Filter Class: CFC_1000
Max: 129.8 N at 176.2 ms
Min: -690.7 N at 40.4 ms



Filter Class: CFC_600
Max: 129.3 N at 176.2 ms
Min: -689.9 N at 40.4 ms



Filter Class: CFC_600
Max: 69.5 Nm at 50.6 ms
Min: -28.7 Nm at 14.0 ms



Filter Class: Without_(Constar
Max: 78.6 N·m at 50.8 ms
Min: -20.8 N·m at 13.7 ms

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

09.24.2025 09:25:18 1849



Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/24/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	62 %	Yes
Pendulum Velocity	(-5.95) - (-6.19) m/s	-6.068 m/s	Yes
Pendulum Integrated Velocity			
Change at 10ms	1.5 - 1.9 m/s	1.73 m/s	Yes
Change at 20ms	3.1 - 3.9 m/s	3.47 m/s	Yes
Change at 30ms	4.6 - 5.6 m/s	5.15 m/s	Yes
Total Head D-Plane Rotation	99 - 114 °	105.5 °	Yes
Total Neck Occipital Condyles Moment			
Between 99° and 114° Rotation	(-53) - (-65) N·m	-53.8 N·m	Yes
Decay to -10 N·m	94 - 114 ms	105.8 ms	Yes

Test meets specifications.

Condition: Used

Comments:

Neck S/N: DM3051

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

09.24.2025 09:54:50 1997

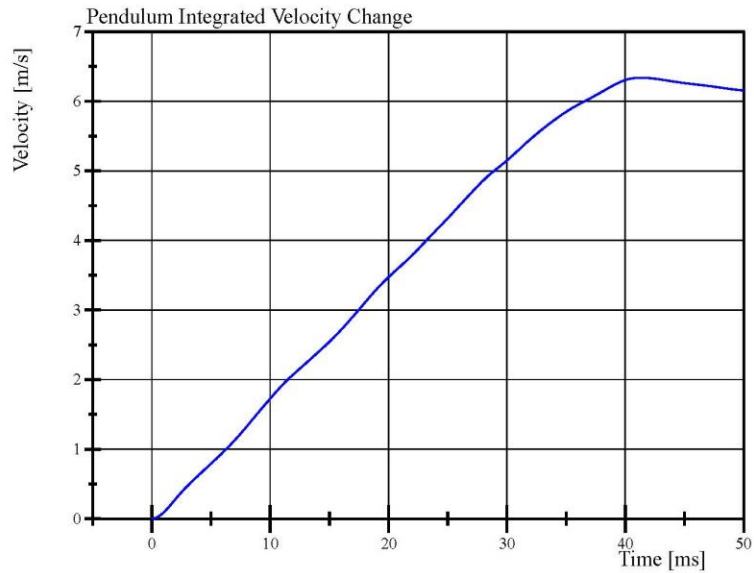
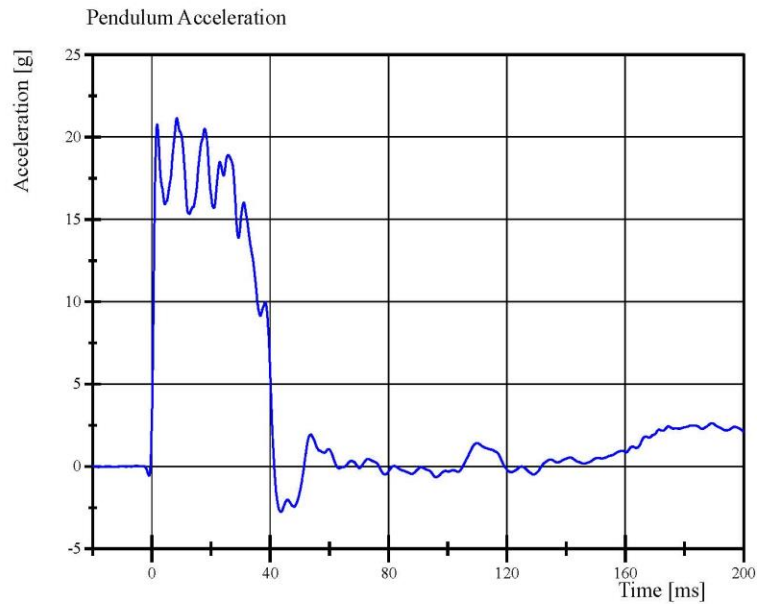


Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/24/2025



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

09.24.2025 09:55:21 1997



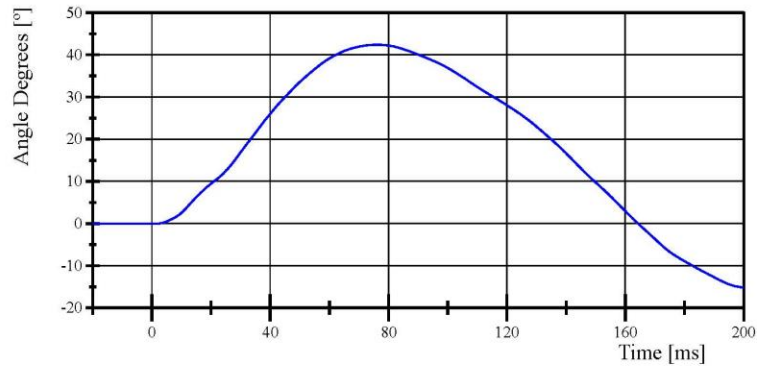
Transportation Research Center Inc.

Neck Extension

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/24/2025

Pot Rotation at the Base of Neck

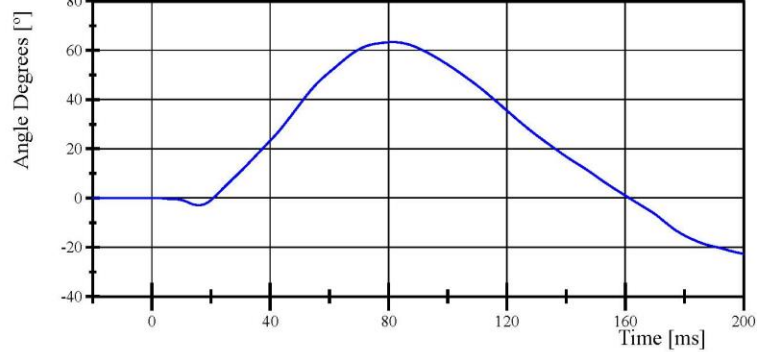


Filter Class: CFC_60

Max: 42.4 ° at 76.3 ms

Min: -15.2 ° at 200.0 ms

Head Rotation at Occypital Condyles

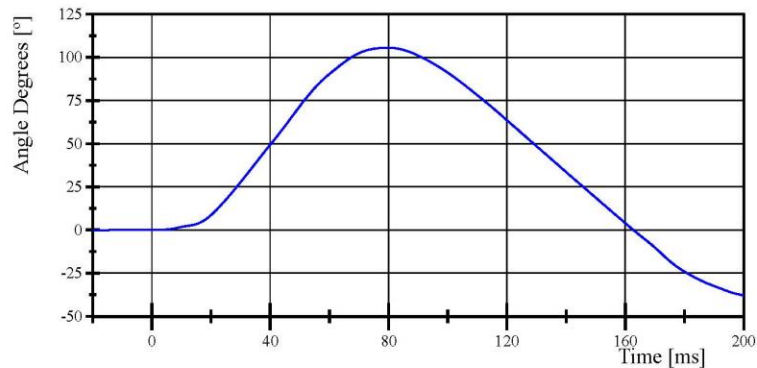


Filter Class: CFC_60

Max: 63.3 ° at 81.6 ms

Min: -22.7 ° at 200.0 ms

Total Head D-Plane Rotation



Filter Class: CFC_60

Max: 105.5 ° at 79.6 ms

Min: -37.9 ° at 200.0 ms

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

09.24.2025 09:55:21 1997

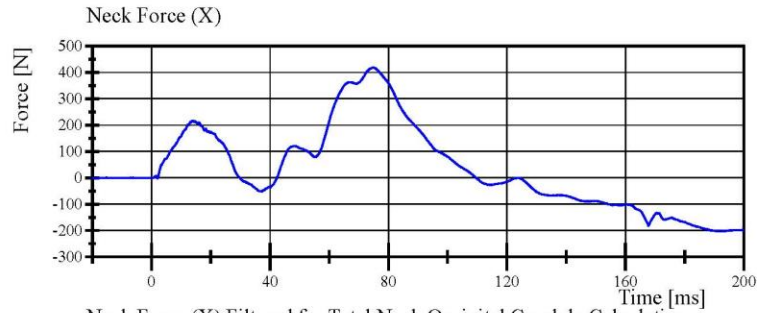


Transportation Research Center Inc.

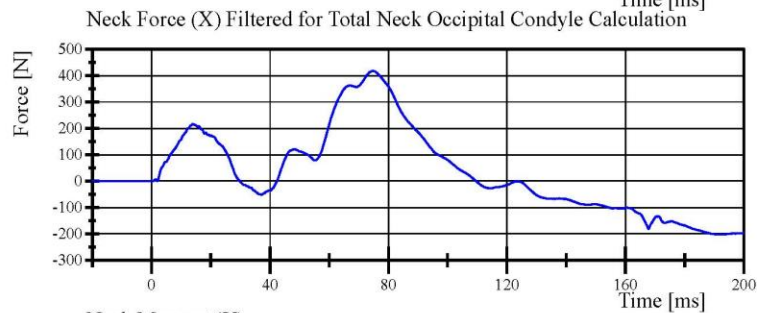
Neck Extension

HIII 5th Serial No. DH1659 Certification No. 31-1

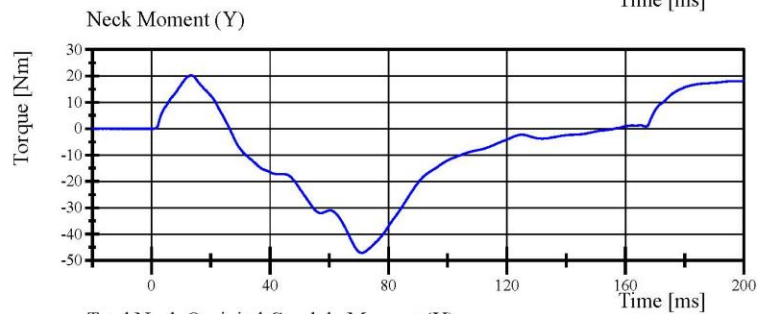
Test Date: 9/24/2025



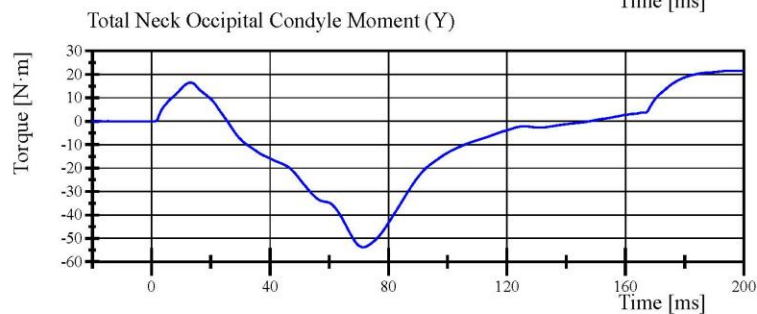
Filter Class: CFC_1000
Max: 418.6 N at 74.9 ms
Min: -203.1 N at 191.5 ms



Filter Class: CFC_600
Max: 418.1 N at 74.8 ms
Min: -202.7 N at 191.5 ms



Filter Class: CFC_600
Max: 20.2 Nm at 13.5 ms
Min: -47.1 Nm at 71.1 ms



Filter Class: Without_(Constar
Max: 21.6 N·m at 200.0 ms
Min: -53.8 N·m at 71.4 ms

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

09.24.2025 09:55:22 1997



Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/23/2025

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Probe Velocity	6.59 - 6.83 m/s	6.657 m/s	Yes
Probe Force Peak Between 50.0 mm and 58.0 mm Chest Deflection	(-3,900) - (-4,400) N	-4,346.6 N	Yes
Probe Force Peak Between 18.0 mm and 50.0 mm Chest Deflection	>= (-4,600) N	-4,391.8 N	Yes
Maximum Chest Compression	(-50) - (-58) mm	-51.3 mm	Yes
Internal Hysteresis	69 - 85 %	73.7 %	Yes

Test meets specifications.

Condition: Used

Comments:

Jacket S/N: EE8365

Rib Set S/N: DI5873

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

09.23.2025 14:34:59.405

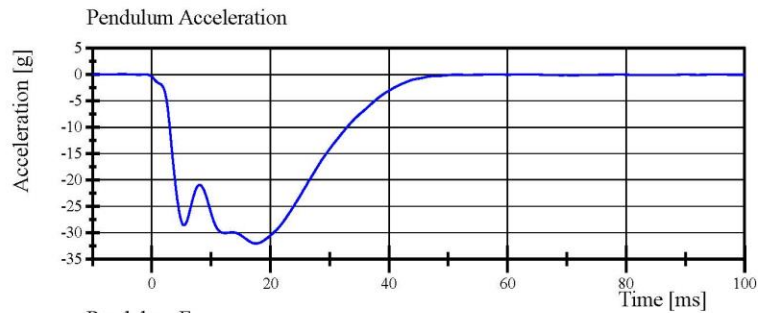


Transportation Research Center Inc.

Front Thorax

HIII 5th Serial No. DH1659 Certification No. 31-1

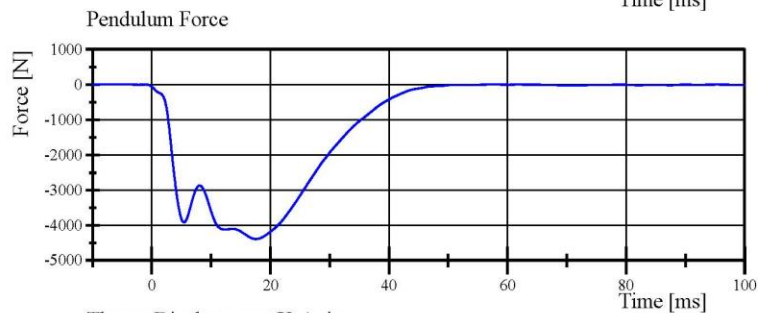
Test Date: 9/23/2025



Filter Class: CFC_180

Max: 0.1 g at -5.1 ms

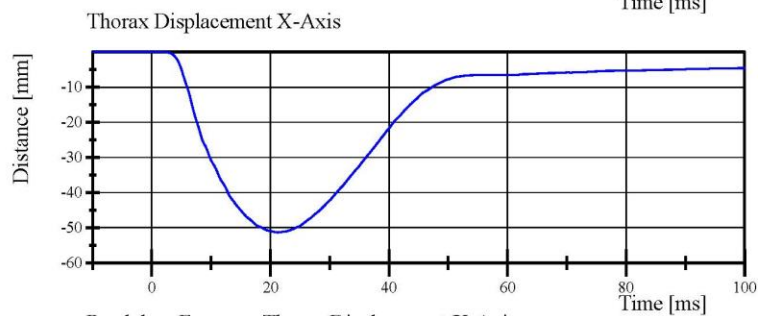
Min: -32.1 g at 17.6 ms



Filter Class: CFC_180

Max: 8.4 N at -5.1 ms

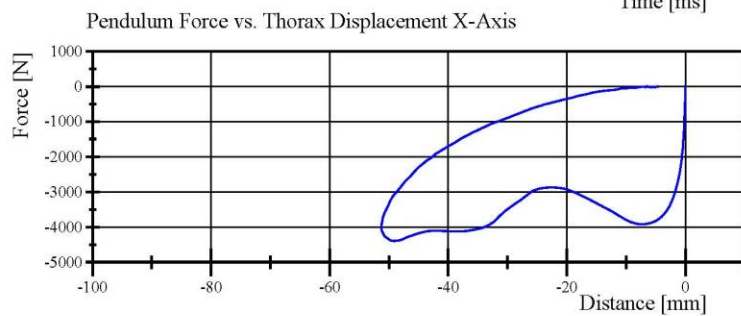
Min: -4,391.8 N at 17.6 ms



Filter Class: CFC_600

Max: -0.0 mm at -8.2 ms

Min: -51.3 mm at 21.3 ms



Filter Class: CFC_180

Max: 8.4 N at -0.0 mm

Min: -4,391.8 N at -49.2 mm

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

09.23.2025 14:35:49 405



Transportation Research Center Inc.

Hybrid III Small Female Torso Flexion



Customer: NHTSA

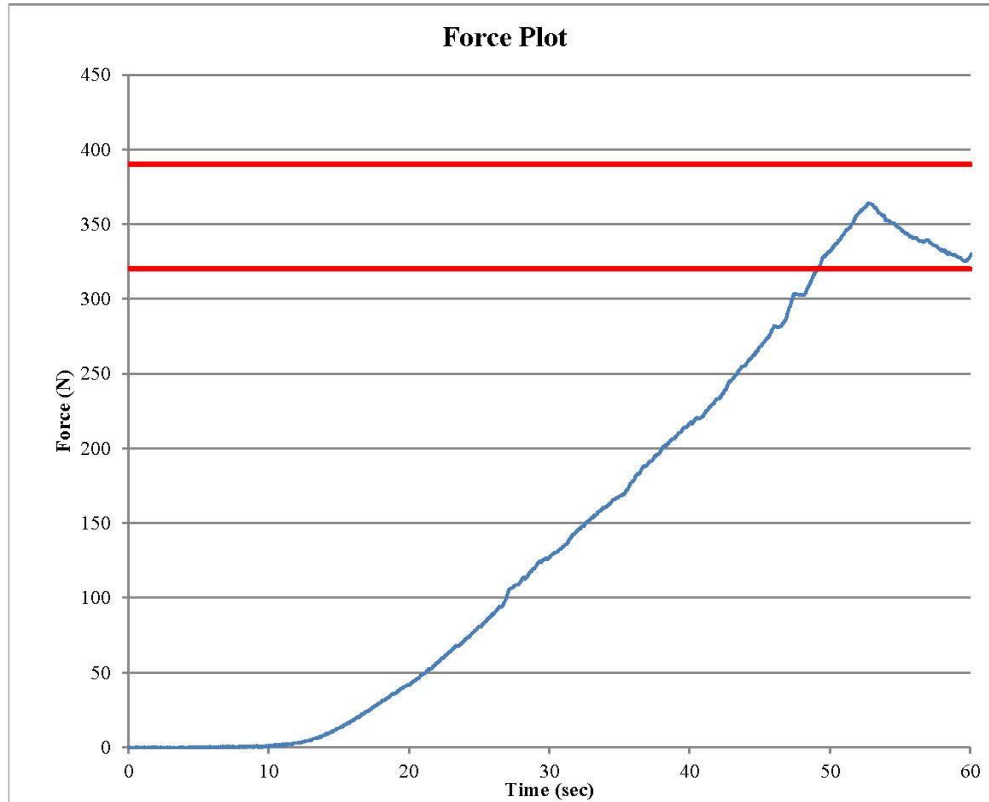
Serial Number: DH1659

Date: 9/23/2025

Test Number: 1

Time: 14:10

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	20.9 °C Pass
Humidity	10 - 70	61 % Pass
Average Angular Rate	0.5 - 1.5	0.81 deg/sec Pass
Initial Angle	0 - 20	13.18 deg Pass
Peak Force at 45.63°	320 - 390	364.31 N Pass
Final Angle	-8 - 8	1.55 deg Pass



Components:

Comments:

Jacket S/N: EE8385

Abdomen S/N: EE8393

Lumbar S/N: EW9168

Transportation Research Center Inc.

Left Knee Femur Response Test

HIII 5th Serial No. DH1659 Certification No. 31-1

Test Date: 9/23/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.093 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-3,970.9 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: ED6729

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

09.23.2025 15:07:21 1925

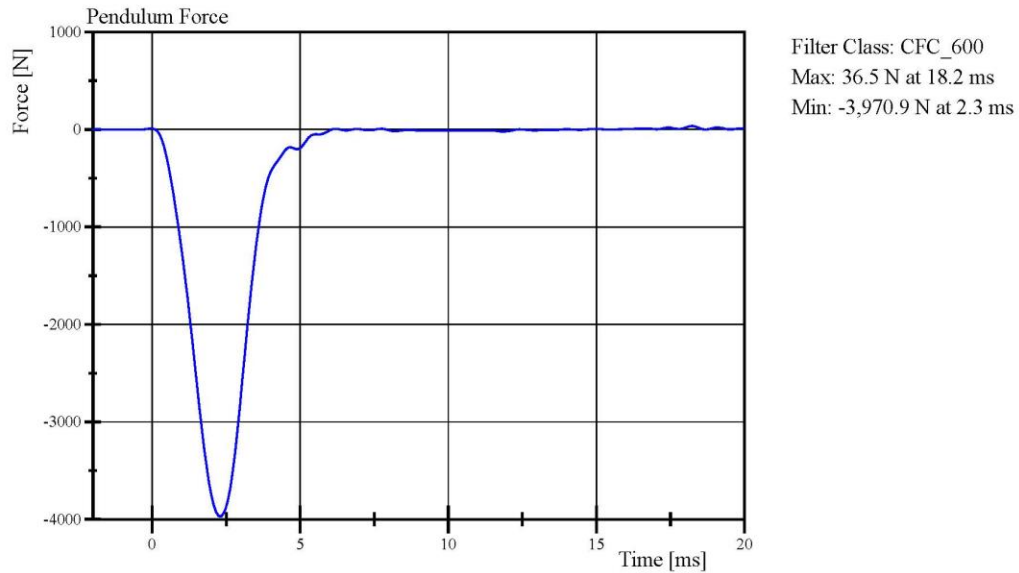
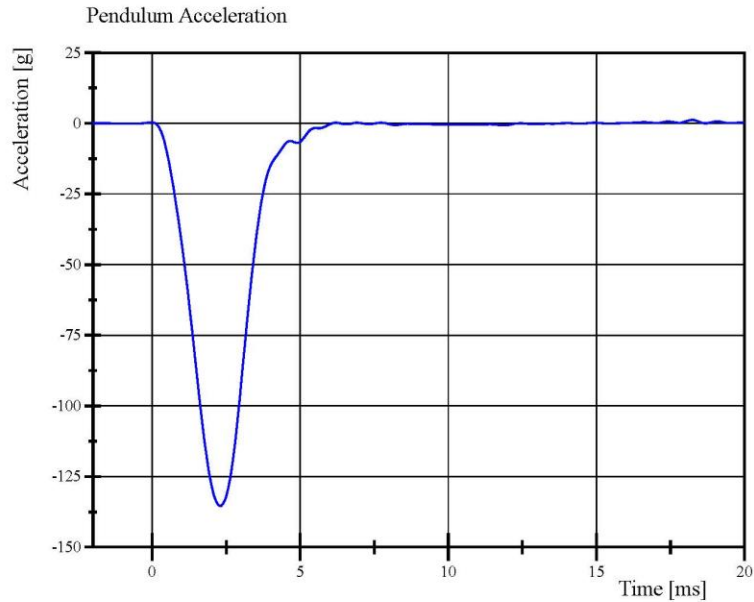


Report Number: DH1659_HFH31

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Transportation Research Center Inc.

Left Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 31-1
Test Date: 9/23/2025



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

09.23.2025 15:07:58 1925



Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 31-1
Test Date: 9/23/2025

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	67 %	Yes
Probe Velocity	2.07 - 2.13 m/s	2.094 m/s	Yes
Peak Femur Force	(-3,450) - (-4,060) N	-4,044.4 N	Yes

Test meets specifications.

Condition: Used

Comments:

Knee Skin S/N: EC5852

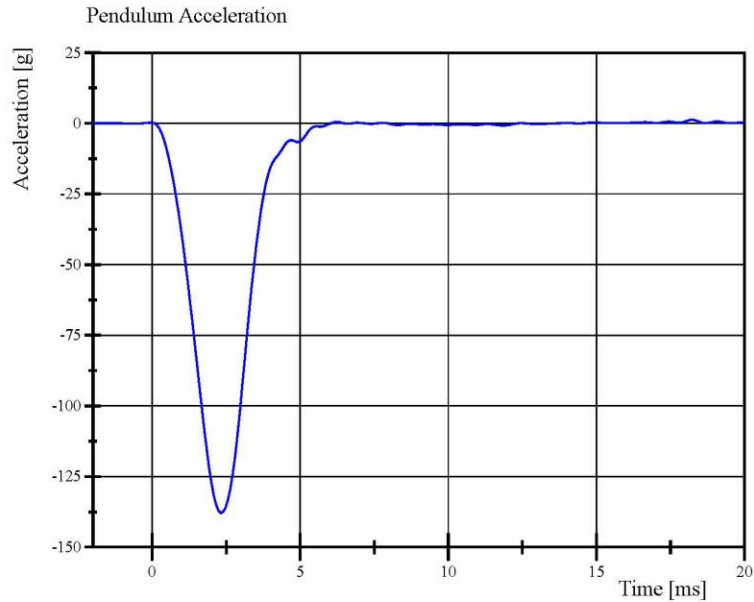
Specification Source: CFR49 Part 572 Subpart O
with Polarity in accordance with J211

09.23.2025 15:11:58 1924

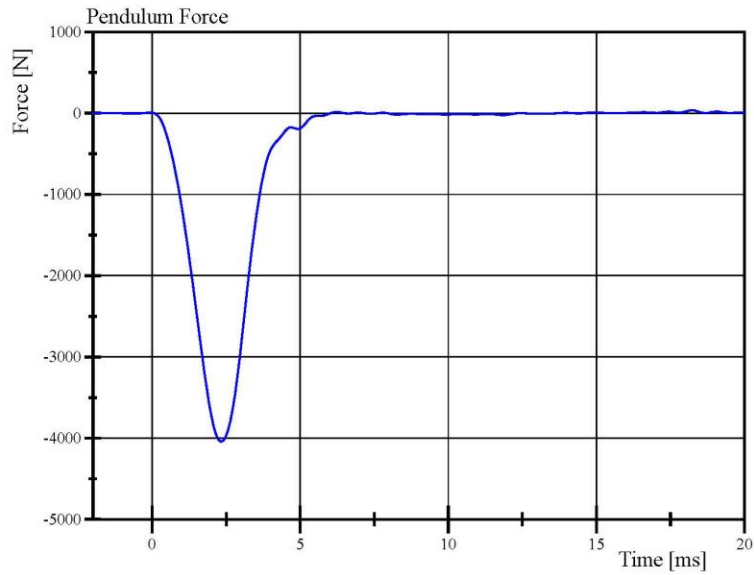


Transportation Research Center Inc.

Right Knee Femur Response Test
HIII 5th Serial No. DH1659 Certification No. 31-1
Test Date: 9/23/2025



Filter Class: CFC_600
Max: 1.2 g at 18.2 ms
Min: -137.9 g at 2.3 ms



Filter Class: CFC_600
Max: 36.6 N at 18.2 ms
Min: -4,044.4 N at 2.3 ms

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

09.23.2025 15:12:28 1924



APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION

TABLE 1 – Driver Dummy Instrumentation

Instrumentation			Axis/Location	Hybrid III 50th S/N 037		
				Serial Number	Manufacturer	Calibration Date
Head Accelerometers	Primary		X	T10650	Endevco	5-Sep-2025
			Y	T43255	Endevco	5-Sep-2025
			Z	P91969	Endevco	5-Sep-2025
	Redundant		X	P94431	Endevco	5-Sep-2025
			Y	P94487	Endevco	5-Sep-2025
			Z	P94645	Endevco	5-Sep-2025
Head Angular Rate Sensors			X	ARS13120	DTS	3-Mar-2025
			Y	ARS14300	DTS	3-Mar-2025
			Z	ARS15227	DTS	3-Mar-2025
Upper Neck Load Cell		FX, FY, FZ, MX, MY, MZ	2021	Humanetics	17-Mar-2025	
Chest Accelerometers	Primary		X	P97714	Endevco	5-Sep-2025
			Y	P61255	Endevco	5-Sep-2025
			Z	P45008	Endevco	5-Sep-2025
	Redundant		X	P91177	Endevco	5-Sep-2025
			Y	P94570	Endevco	5-Sep-2025
			Z	P91172	Endevco	5-Sep-2025
Chest Potentiometer			X	CST037	Servo	17-Mar-2025
Pelvis Accelerometers			X	T11801	Endevco	5-Sep-2025
			Y	P91876	Endevco	5-Sep-2025
			Z	P93543	Endevco	5-Sep-2025
Femur Load Cells	Left	Primary	Z	DI4215-FZ1	Humanetics	18-Mar-2025
		Redundant	Z	DI4215-FZ2	Humanetics	18-Mar-2025
	Right	Primary	Z	DI4216-FZ1	Humanetics	18-Mar-2025
		Redundant	Z	DI4216-FZ2	Humanetics	18-Mar-2025
Tibia Load Cells	Left	Upper	MX, MY, FZ	3643-94	Denton	18-Mar-2025
		Lower	MX, MY, FZ	3644-370	Denton	18-Mar-2025
	Right	Upper	MX, MY, FZ	3643-413	Denton	18-Mar-2025
		Lower	MX, MY, FZ	3644-401	Denton	18-Mar-2025
Foot Accelerometers	Left	Rear	X	P90848	Endevco	5-Sep-2025
			Z	T17602	Endevco	5-Sep-2025
		Front	Z	P90841	Endevco	5-Sep-2025
	Right	Rear	X	P93467	Endevco	5-Sep-2025
			Z	P97619	Endevco	5-Sep-2025
		Front	Z	P94523	Endevco	5-Sep-2025
Seat Belt Load Cells		Lap	N/A	R141C6	Measurement Specialties	17-Apr-2025
		Shoulder	N/A	X08013	Measurement Specialties	13-Jan-2025

TABLE 2 – Front Passenger Dummy Instrumentation

Instrumentation			Axis/Location	Hybrid III 5th S/N DH1659		
				Serial Number	Manufacturer	Calibration Date
Head Accelerometers	Primary		X	T10336	Endevco	21-Aug-2025
			Y	P87134	Endevco	21-Aug-2025
			Z	P69062	Endevco	21-Aug-2025
	Redundant		X	T11046	Endevco	21-Aug-2025
			Y	P97525	Endevco	21-Aug-2025
			Z	P73228	Endevco	21-Aug-2025
Head Angular Rate Sensors			X	ARS10776	DTS	3-Mar-2025
			Y	ARS15685	DTS	3-Mar-2025
			Z	ARS13597	DTS	3-Mar-2025
Upper Neck Load Cell			FX, FY, FZ, MX, MY, MZ	1874	Humanetics	6-Mar-2025
Chest Accelerometers	Primary		X	P80855	Endevco	21-Aug-2025
			Y	P93546	Endevco	21-Aug-2025
			Z	P57791	Endevco	21-Aug-2025
	Redundant		X	P73221	Endevco	21-Aug-2025
			Y	T11872	Endevco	21-Aug-2025
			Z	T16784	Endevco	21-Aug-2025
Chest Potentiometer			X	CST3410	Servo	7-Mar-2025
Pelvis Accelerometers			X	P94498	Endevco	21-Aug-2025
			Y	P91958	Endevco	21-Aug-2025
			Z	P80721	Endevco	21-Aug-2025
Femur Load Cells	Left	Primary	Z	DT0997-FZ1	Humanetics	7-Mar-2025
		Redundant	Z	DT0997-FZ2	Humanetics	7-Mar-2025
	Right	Primary	Z	DS4140-FZ1	Humanetics	7-Mar-2025
		Redundant	Z	DS4140-FZ2	Humanetics	7-Mar-2025
Tibia Load Cells	Left	Upper	MX, MY, FZ	3643-92	Humanetics	6-Mar-2025
		Lower	MX, MY, FZ	3644-92	Humanetics	6-Mar-2025
	Right	Upper	MX, MY, FZ	3643-484	Humanetics	6-Mar-2025
		Lower	MX, MY, FZ	3644-369	Humanetics	6-Mar-2025
Foot Accelerometers	Left	Rear	X	P90866	Endevco	22-Aug-2025
			Z	P93533	Endevco	22-Aug-2025
		Front	Z	P97890	Endevco	22-Aug-2025
	Right	Rear	X	P97640	Endevco	22-Aug-2025
			Z	P91471	Endevco	22-Aug-2025
		Front	Z	P91907	Endevco	22-Aug-2025
Seat Belt Load Cells		Lap	N/A	T1210A	Measurement Specialties	10-Apr-2025
		Shoulder	N/A	R141CA	Measurement Specialties	13-Jan-2025

TABLE 3 – Vehicle Instrumentation

Instrumentation			Axis	Serial Number	Manufacturer	Calibration Date
Crossmember/Rear Seat Accelerometers	Left	Primary	X	A386332	Measurement Specialties	11-Aug-2025
			Z	A386331	Measurement Specialties	11-Aug-2025
		Redundant	X	A377449	Measurement Specialties	4-Aug-2025
	Right	Primary	X	A386328	Measurement Specialties	11-Aug-2025
			Z	A386341	Measurement Specialties	11-Aug-2025
		Redundant	X	A386334	Measurement Specialties	11-Aug-2025
Engine Accelerometers	Top		X	A386336	Measurement Specialties	11-Aug-2025
	Bottom		X	A386344	Measurement Specialties	11-Aug-2025