REPORT NUMBER: SideNCAPPole-MGA-24-025

NEW CAR ASSESSMENT PROGRAM (NCAP)
Side Impact Pole Test

GENERAL MOTORS DE MEXICO, S. DE R.L. DE C.V.
2024 Honda Prologue EX 5-Door SUV
NHTSA No.: O20245304

MGA RESEARCH CORPORATION
5000 Warren Road
Burlington, WI 53105

Test Date: August 13, 2024

Final Report Date: December 31, 2024

FINAL REPORT

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Office of Crashworthiness Standards
Mail Code: NRM-100
1200 New Jersey Ave, SE
Washington, DC 20590

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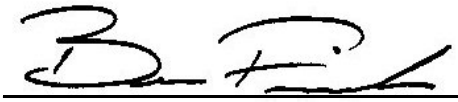
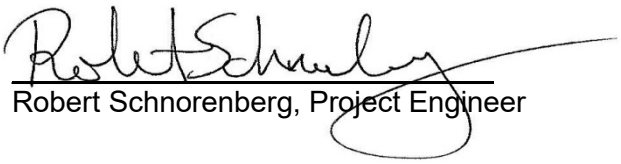
Prepared by: 
Ben Fischer, Program Manager

Approved by: 
Robert Schnorenberg, Project Engineer

Approval Date: December 31, 2024

FINAL REPORT ACCEPTANCE BY OCWS:

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

_____
COR, New Car Assessment Program
NHTSA, Office of Crashworthiness Standards

TECHNICAL REPORT DOCUMENTATION PAGE

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	6. Performing Organization Code MGA
7. Author(s) Ben Fischer, Program Manager	**8. Performing Organization Report No.** SideNCAPPole-MGA-24-025
9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105	**10. Work Unit No.**
	11. Contract or Grant No. 693JJ920D000017
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15. Supplementary Notes

16. Abstract

A 32.20 km/h, 75° oblique impact Side NCAP Test was conducted on the subject 2024 Honda Prologue EX 5-Door SUV in accordance with the specifications of the Office of Crashworthiness Standards Side NCAP Pole Laboratory Test Procedure for the generation of consumer information on vehicle side pole crash protection. The test was conducted at the MGA Research Corporation facility in Burlington, Wisconsin on August 13, 2024.

The impact velocity was 32.12 km/h, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 22.1°C. The test vehicle post-test maximum crush was 223 mm at level 3. The test vehicle's performance was as follows:

Measurement Description	Units	Driver ATD (SID-IIs)	
		Threshold	Result
Head Injury Criteria (HIC_{36})		1000	388.282
Resultant Lower Spine Acceleration	g	82	38.304
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	3316.735
Maximum Thoracic Rib Deflection	mm	38*	26.839
Maximum Abdomen Rib Deflection	mm	45*	23.574

*Proposed IARV

The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite door(s) did not open during the side impact event.

17. Key Words	18. Distribution Statement
New Car Assessment Program (NCAP) Side Impact Pole Part 572V SID-IIs	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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TABLE OF CONTENTS

Section		Page No.
1	Purpose and Summary of Test	1
2	Occupant and Vehicle Information / Data Sheets	3

Data Sheet No.		Page No.
1	General Test and Vehicle Parameter Data	4
2	Seat, Seat Belt, Steering Wheel Adjustment and Fuel System Data	8
3	Dummy Longitudinal Clearance Dimensions	11
4	Dummy Lateral Clearance Dimensions	12
5	Camera and Instrumentation Data	13
6	Test Vehicle Accelerometer Locations	14
7	Rigid Pole Load Cell Data	15
8	Post-Test Observations	16
9	Test Vehicle Profile Measurements	18
10	Test Vehicle Exterior Crush Measurements	19
11	FMVSS No. 301 Static Rollover Results	23
12	Dummy/Vehicle Temperature and Humidity Stabilization Data	24
305-1	General Test and Vehicle Parameter Data for Indicant FMVSS No. 305 Testing	25
305-2	Pre-Impact Data for Indicant FMVSS No. 305 Testing	26
305-3	Pre-Impact Electrical Isolation Measurements and Calculations for Indicant FMVSS No. 305 Testing	27
305-4	Post-Impact Data for Indicant FMVSS No. 305 Testing	29
305-5	Static Rollover Test Data for Indicant FMVSS No. 305 Testing	32

Appendix		
A	Photographs	A
B	Dummy Response Data Plots	B
C	Dummy Qualification and Performance Verification	C
D	Test Equipment and Instrumentation Calibration	D

SECTION 1
PURPOSE AND SUMMARY OF TEST

PURPOSE

This side pole impact test is part of the MY 2024 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. 693JJ920D000017. The purpose of this test is to generate comparative side impact performance in a 2024 Honda Prologue EX 5-Door SUV. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Side NCAP Pole Laboratory Test Procedure, dated March 2020.

SUMMARY

A rigid pole side impact test was conducted on a 2024 Honda Prologue EX 5-Door SUV. The subject vehicle was towed into the rigid pole at an angle of 75° and a velocity of 32.12 km/h. The test was conducted by MGA Research Corporation in Burlington, Wisconsin on August 13, 2024. Pre-test and post-test photographs of the test vehicle and side impact dummy (SID-IIs) are included in this report.

One Part 572V (SID-IIs) dummy was placed in the driver designated seating position according to instructions specified in the OCWS Side NCAP Pole Laboratory Test Procedure dated March 2020. Camera locations and other pertinent camera information are included in this report.

The Part 572V (SID-IIs) dummy was instrumented accordingly:

Primary and Redundant Head CG Triaxial Accelerometers
Head Triaxial Angular Rate Sensors
Thorax Upper, Middle, and Lower Rib Displacement Potentiometers
Abdomen Upper Rib and Lower Rib Displacement Potentiometers
Lower Spine (T12) Triaxial Accelerometers
Iliac Load Cell
Acetabulum Load Cell

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

Injury readings for the SID-IIs dummy were recorded as follows:

Measurement Description	Units	Driver ATD (SID-IIs)	
		Threshold	Result
Head Injury Criteria (HIC_{36})		1000	388.282
Resultant Lower Spine Acceleration	g	82	38.304
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	3316.735
Maximum Thoracic Rib Deflection	mm	38*	26.839
Maximum Abdomen Rib Deflection	mm	45*	23.574

*Proposed IARV

Supplemental restraint information is given below:

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

The test data can be found on the NHTSA website at www.nhtsa.gov

GENERAL COMMENTS

None.

SECTION 2
OCCUPANT AND VEHICLE INFORMATION / DATA SHEETS

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	O20245304	Traction Control System (TCS)	Yes
Model Year	2024	Auto-Leveling System	No
Make	Honda	Automatic Door Locks (ADL)	Yes
Model	Prologue EX	Power Window Auto-Reverse	Yes
Body Style	5-Door SUV	Other Optional Feature	No
VIN	3GPKHURM8RS501947	Driver Front Airbag	Yes
Body Color	Scarlet Red Metallic	Driver Curtain Airbag	Yes
Odometer Reading (km/mi)	39 km / 24 mi	Driver Head/Torso Airbag	No
Engine Displacement (L)		Driver Torso Airbag	No
Type/No. Cylinders	Electric	Driver Torso/Pelvis Airbag	Yes
Engine Placement	Lateral	Driver Pelvis Airbag	No
Transmission Type	Automatic	Driver Knee Airbag	Yes
Transmission Speeds	1	Rear Pass. Curtain Airbag	Yes
Overdrive	No	Rear Pass. Head/Torso Airbag	No
Final Drive	FWD	Rear Pass. Torso Airbag	No
Roof Rack	No	Rear Pass. Torso/Pelvis Airbag	No
Sunroof/T-Top	No	Rear Pass. Pelvis Airbag	No
Running Boards	No	Driver Seat Belt Pretensioner	Yes
Tilt Steering Wheel	Yes	Rear Pass. Seat Belt Pretensioner	Yes
Power Seats	Driver	Driver Load Limiter	Yes
Anti-Lock Brakes (ABS)	Yes	Rear Pass. Load Limiter	Yes
		Other Safety Restraint	N/A

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

DATA FROM CERTIFICATION LABEL

Manufactured By	GENERAL MOTORS DE MEXICO, S. DE R.L. DE C.V.
Date of Manufacture	02/24
Vehicle Type	MPV

GVWR (kg)	2900
GAWR Front (kg)	1500
GAWR Rear (kg)	1500

VEHICLE SEATING AND WEIGHT CAPACITY DATA

Measured Parameter	Front	Rear	Third	Total	
Designated Seating Capacity (DSC)	2	3		5	
Capacity Weight (VCW) (kg)				640	(A)
DSC x 68 kg				340	(B)
Rated Cargo and Luggage Weight (RCLW) (kg)				136	(A-B)

* Rated Cargo and Luggage Weight (RCLW) limited to maximum of 300 lbs (136 kg).

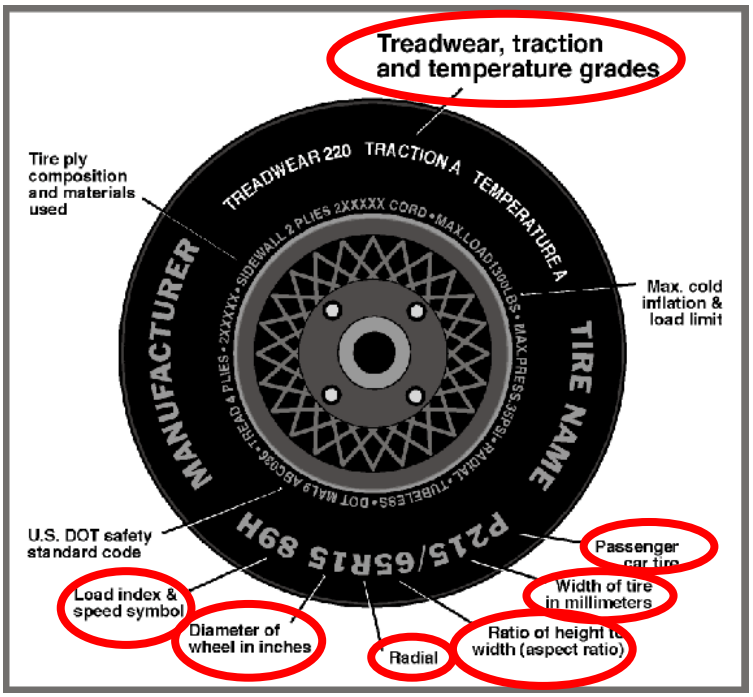
VEHICLE SEAT TYPE

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

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

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024

VEHICLE TIRE INFORMATION



Measured Parameter	Front	Rear
Max. Tire Pressure (kPa)	300	300
Cold Pressure (kPa)	300	300
Recommended Tire Size	255/60R19	255/60R19
Tire Size on Vehicle	255/60R19	255/60R19
Tire Manufacturer	Bridgestone	Bridgestone
Tire Model	Alenza	Alenza
Treadwear	700	700
Traction	A	A
Temperature Grade	A	A
Tire Plies Sidewall	2 Polyester	2 Polyester
Tire Plies Body	1 Polyester, 2 Steel, 1 Nylon	1 Polyester, 2 Steel, 1 Nylon
Load Index/Speed Symbol	109H	109H
Tire Material	Rubber	Rubber
DOT Safety Code Left	1W2K0 9C43 0224	1W2K0 9C43 0224
DOT Safety Code Right	1W2K0 9C43 0224	1W2K0 9C43 0224

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

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

TEST PRESSURES

	Units	LF	RF	LR	RR
As Delivered	kPa	275	270	275	275
Tire Placard	kPa	300	300	300	300
Owner's Manual	kPa	300	300	300	300
As Tested	kPa	300	300	300	300

TEST AXLE VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	624.0	503.5		640.5	585.0		643.5	589.5	
Right	kg	635.0	485.5		645.0	558.0		637.0	565.0	
Ratio	%	56.0%	44.0%		52.9%	47.1%		52.6%	47.4%	
Totals	kg	1259.0	989.0	2248.0	1285.5	1143.0	2428.5	1280.5	1154.5	2435.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value	
Total Delivered Weight (UVW)	kg	2248.0	(A)
Actual Weight of 1 P572 ATD (SID-IIs) Used	kg	52	(B)
Rated Cargo/Luggage Weight (RCLW)	kg	136	(C)
Calculated Test Vehicle Target Weight (TVTW)	kg	2436.0	(A+B+C)

Does the measured As Tested Vehicle Weight lie within the required weight range (i.e. Calculated Test Vehicle Target Weight – 4.5 kg to 9 kg)? **YES**

TEST VEHICLE ATTITUDES AND CG

	Units	As Delivered	As Tested	Fully Loaded	Meets Requirement
Driver Door Sill Angle (front-to-back)*	deg	-0.7	0.0	0.1	Yes
Front Pass. Door Sill Angle (front-to-back)*	deg	-0.9	-0.3	-0.1	Yes
Front Bumper Angle (left-to-right)**	deg	0.6	0.5	0.5	Yes
Rear Bumper Angle (left-to-right)**	deg	0.3	0.5	0.5	Yes
Vehicle CG (Aft of Front Axle)	mm	1363	1458	1469	
Vehicle CG (Left (+) / Right (-) from Longitudinal Centerline)	mm	3	8	11	

* ND=Nose Down (-), NU=Nose Up (+) ** LD=Left Down (-), LU=Left Up (+)
*** The "As Tested" vehicle attitude measurements must be equal to or between the "As Delivered" and "Fully Loaded" vehicle attitude measurements.

WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW

Component Description	Units	Weight
Weight of Ballast Added	kg	84
Components Removed: none	kg	

Test height adjustable suspension setting, if applicable:	Not Applicable

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

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

TEST SURFACE MARKINGS

	Distance from 75° Impact Location Line (mm)
Fore 25 mm Target	990
Aft 25 mm Target	990

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

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

SEAT POSITIONING

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

SCRL ANGLE RANGE

Seat	SCRL (°)		
	Max	Min	Mid
Driver Seat	18.9	9.5	14.2
Front Passenger Seat	16.4	12.3	14.4
Front Center Seat			
Struck Side Rear Seat	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Fixed

SEAT HEIGHT AND ANGLE

Seat	As-Tested SCRL Angle (Mid) (°)	As-Tested SCRP Height (mm)	SCRP Height Position	SCRP Height (mm)		
				Rear-Most	Mid	Forward-Most
Driver Seat	14.2	32	Max	64	64	64
			Mid	32	32	32
			Min	0	0	0
Front Passenger Seat	14.4	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Front Center Seat			Max			
			Mid			
			Min			
Struck Side Rear Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Max	Fixed	Fixed	Fixed
			Mid	Fixed	Fixed	Fixed
			Min	Fixed	Fixed	Fixed

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

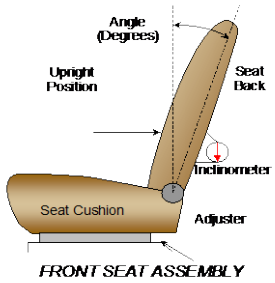
Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

SEAT FORE/AFT POSITIONS

Seat	Total Fore/Aft Travel		Test Position from Forward-Most Position	
	mm	Detents (1st as 1)	mm	Detent (1st as 0)
Driver Seat	260		0	
Front Passenger Seat	260	27	0	0
Front Center Seat				
Struck Side Rear Seat	Fixed		Fixed	
Non-Struck Side Rear Seat	Fixed		Fixed	
Rear Center Seat	Fixed		Fixed	

SEAT BACK ANGLE ADJUSTMENT

The driver's seat back is positioned such that the dummy's head is level. The front center and front passenger's seat backs are positioned in a similar manner as the driver's seat back. The struck-side rear passenger seat back is positioned in accordance with the information provided by the manufacturer on S1 – Vehicle Setup Information for the 5th percentile female dummy in a Side NCAP MDB test. The rear center and non-struck side rear passenger's seat back is set to match the struck-side rear seat back.



Seat	Total Seat Back Angle Range		Test Position from Vertical	
	Degrees	Detents (1st as 1)	Degrees	Detent (1st as 0)
Driver Seat	55.0		-18.0	
Front Passenger Seat	66.6	35	-18.4	5
Front Center Seat				
Struck Side Rear Seat	4.4	2	23.4	0
Non-Struck Side Rear Seat	4.4	2	23.4	0
Rear Center Seat	4.4	2	23.4	0

All seat back angles measured on outboard headrest post.

SEAT BELT ANCHORAGE ADJUSTMENT

Seat belt anchorages are adjusted in accordance with the information provided by the manufacturer on S1 – Vehicle Setup Information.

	Total # of Positions	Placed in Position #
Driver Seat	4	0 (Uppermost as 0)

HEAD RESTRAINT ADJUSTMENT

Head restraints are adjusted to the lowest and most full forward in-use position.

	Total # of Positions	Placed in Position #
Driver Seat	9	0 (Lowest as 0) / Fixed Fore-Aft

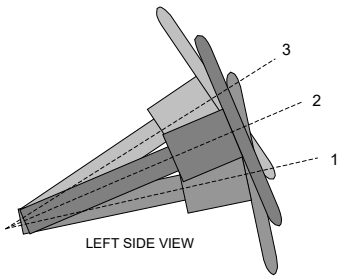
DATA SHEET NO. 2 (CONTINUED)
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT AND FUEL SYSTEM DATA

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

STEERING COLUMN ADJUSTMENT

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

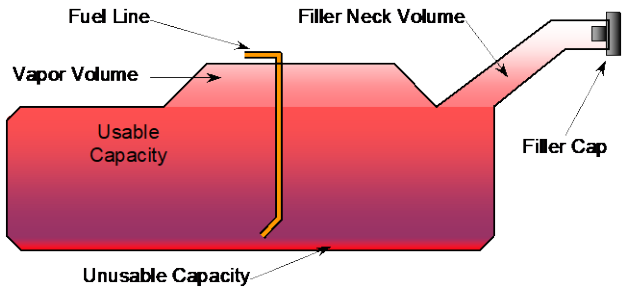
	Wheel Angle (°)	Fore/Aft Position (mm)
Lowermost, Position 1	72.5	
Geometric Center, Position 2	70.5	
Uppermost, Position 3	68.5	
Telescoping Steering Wheel Travel		44
Test Position	70.5	22



STEERING COLUMN ASSEMBLY

FUEL PUMP

Electric vehicle.



VEHICLE FUEL TANK ASSEMBLY

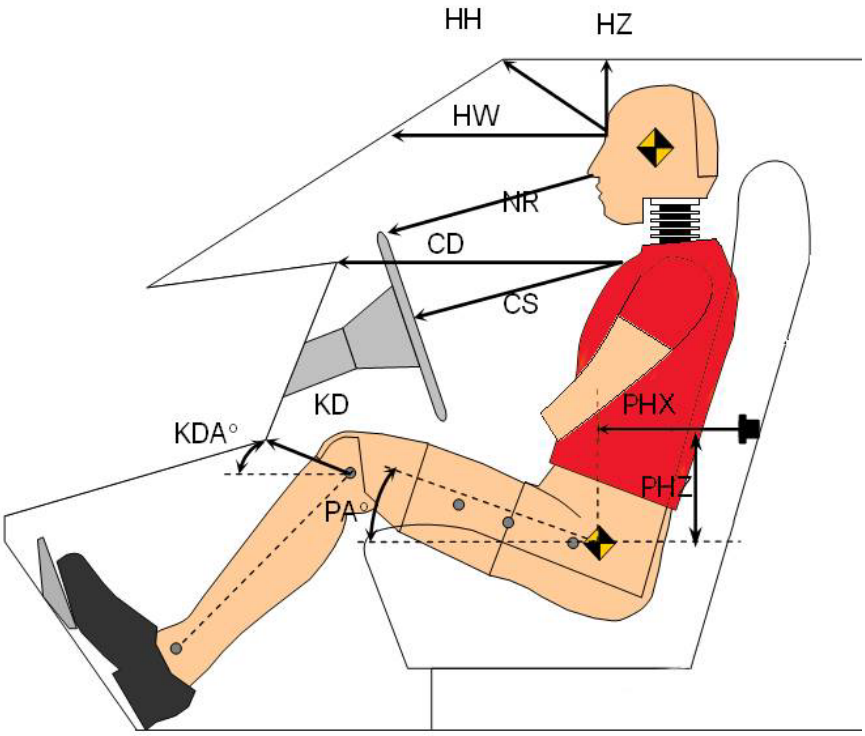
FUEL TANK CAPACITY DATA

	Liters
Usable Capacity of Standard Tank (see S1 – Vehicle Setup Information)	
Usable Capacity of Optional Tank (see S1 – Vehicle Setup Information)	
Usable Capacity of Standard Tank as Specified in Owner's Manual	
Usable Capacity of Optional Tank as Specified in Owner's Manual	
93% of Usable Capacity	
Actual Amount of Solvent Used	
1/3 of Usable Capacity	

Is the actual amount of solvent used in the test equal to 93% ± 1%
of the Usable Capacity stated in S1 – Vehicle Setup Information? **N/A**

DATA SHEET NO. 3
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024

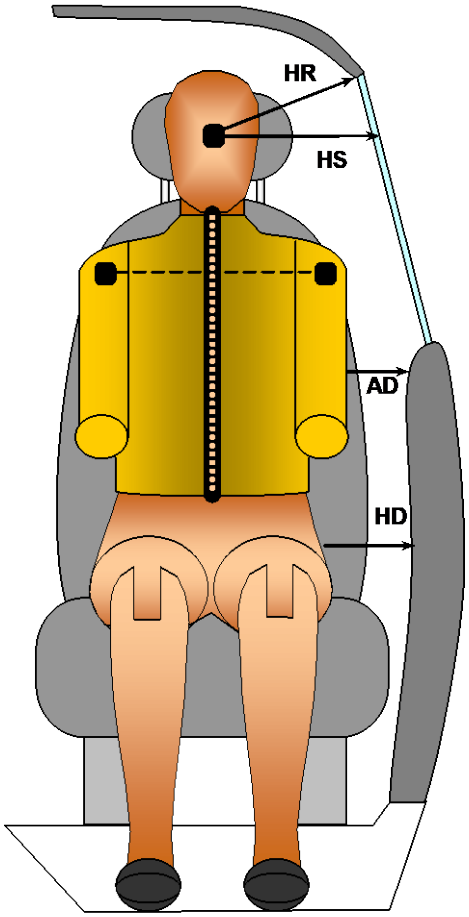


LEFT SIDE VIEW

Code	Measurement Description	Driver	
		Length (mm)	Angle (°)
HH	Head to Header	321	
HW	Head to Windshield	729	
HZ	Head to Roof Liner	214	
NR	Nose to Rim/Seat Back	209	
CD	Chest to Dashboard/Seat Back	458	
CS	Chest to Steering Wheel	173	
KDL / KDAL	Left Knee to Dash/Seat Back	166	37.7
KDR / KDAL	Right Knee to Dash/Seat Back	164	22.1
PAX	Pelvic Tilt Angle X		-0.3
PAY	Pelvic Tilt Angle Y		20.0
PHX	Hip Point to Striker (X-Axis)	349	
PHZ	Hip Point to Striker (Z-Axis)	105	

DATA SHEET NO. 4
DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024

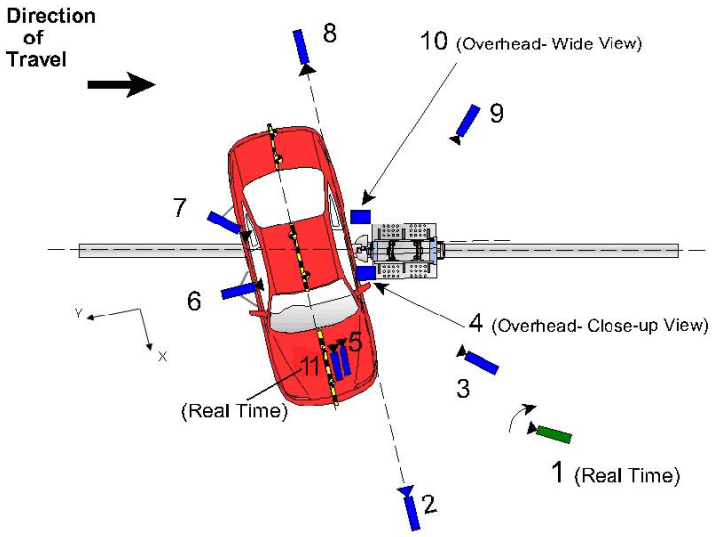


FRONT VIEW OF DUMMY

Code	Measurement Description	Driver
		Length (mm)
HR	Head to Side Header	263
HS	Head to Side Window	366
AD	Arm to Door	191
HD	Hip Point to Door	183

DATA SHEET NO. 5
CAMERA AND INSTRUMENTATION DATA

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024



Reference: (from Point of Impact for X and Y; from Ground for Z):
+X = Forward of Impact, + Y = Right of Impact, +Z = Down

No.	Camera View	Coordinates* (mm)			Lens (mm)	Frame Rate (fps)
		X	Y	Z		
1	Real-Time Pan View					30
2	Front Ground Level	7595	-100	-1525	35	1000
3	Impact Side 45° Forward	4515	-1980	-1540	12	1000
4	Overhead Closeup	0	0	-6700	85	1000
5	Onboard – Driver Front				16	1000
6	Onboard – Driver Side				8.5	1000
7	Onboard – Driver Rear				8.5	1000
8	Rear Ground Level	-6505	-250	-1600	24	1000
9	Impact Side 45° Rearward	-3010	-3320	-1575	12	1000
10	Overhead Wide View	115	855	-6540	12	1000
11	Real-Time Dummy Front View					30

*All measurements accurate to ±6 mm
Note: Vehicle was positioned at a 75° angle to the rigid pole.

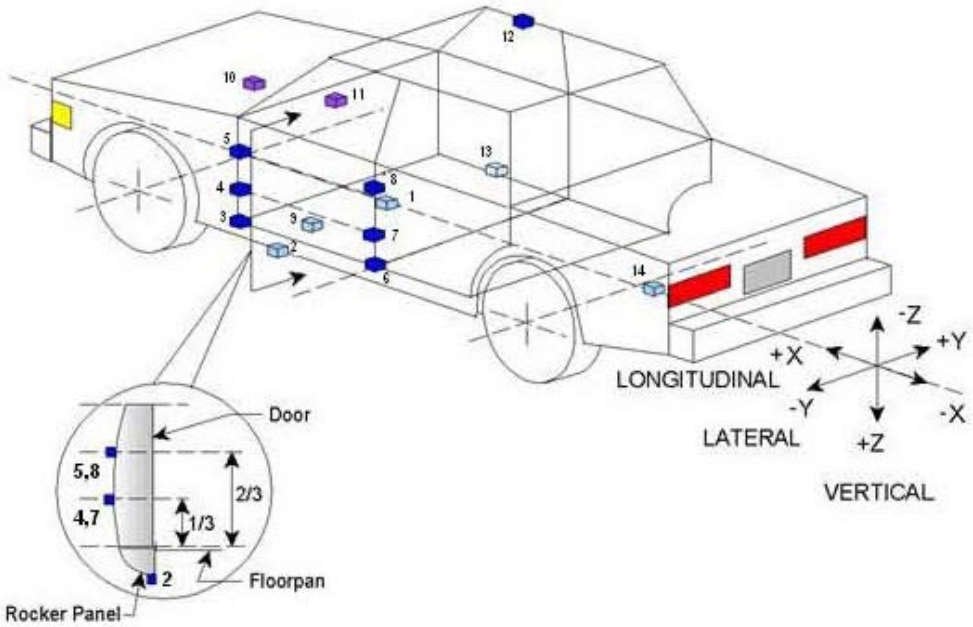
Explain why camera(s) did not operate as intended: None

INSTRUMENTATION

	Number of Channels
Driver Dummy	19
Vehicle Structure	16
Pole Load Cells	8
Total	43

DATA SHEET NO. 6
TEST VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



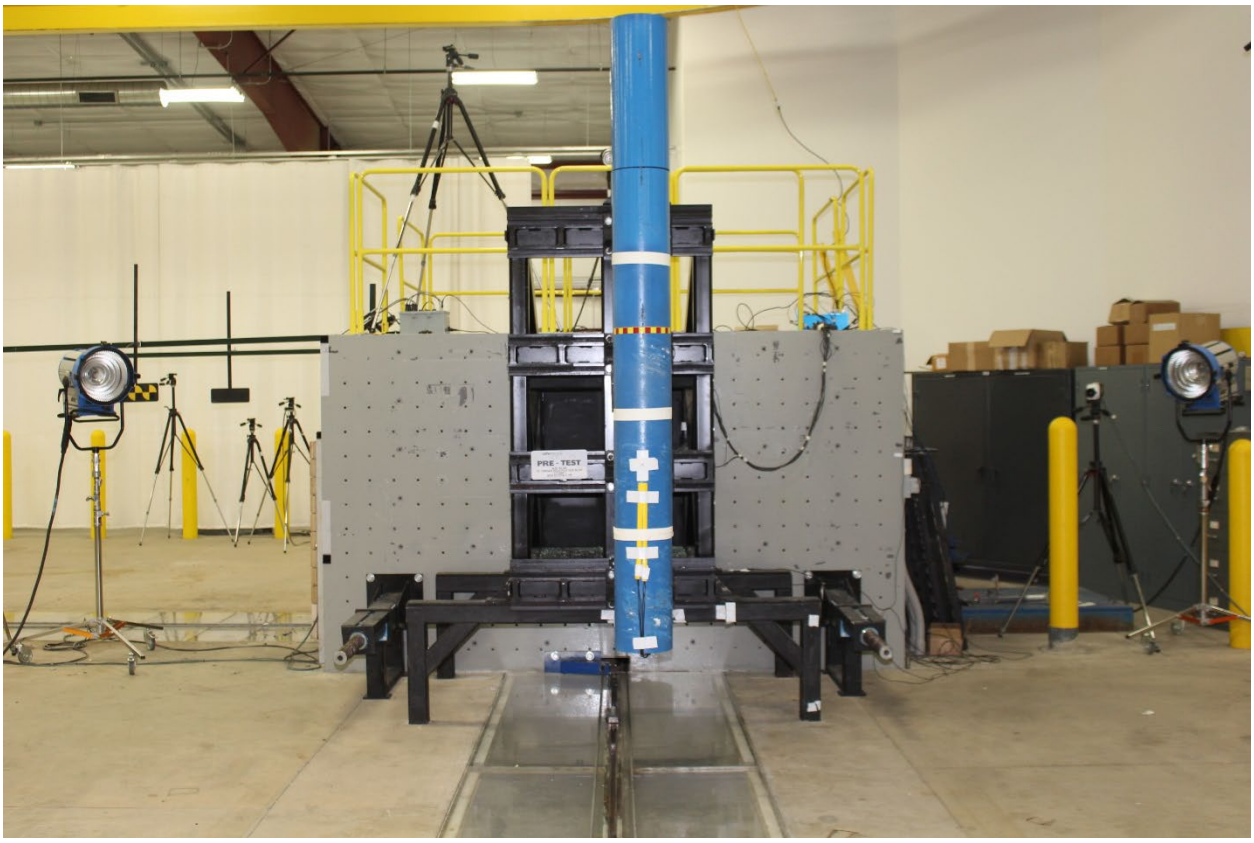
TEST VEHICLE ACCELEROMETER LOCATIONS

No.	ID	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	2511	-7	-191
2	Left Floor Sill	3134	-768	-241
3	A Pillar Sill	3399	-767	-237
4	A Pillar Low	3295	-881	-625
5	A Pillar Mid	3303	-868	-906
6	B Pillar Sill	2195	-798	-247
7	B Pillar Low			
8	B Pillar Mid			
9	Driver Seat Track	2325	-392	-408
10	Engine Top	4232	-20	-831
11	Firewall	3961	12	-971
12	Right Roof	2166	514	-1618
13	Right Sill	3131	758	-238
14	Rear Floorpan	1014	-3	-664

Reference: X – Test Vehicle Rear Bumper (+forward)
Y – Test Vehicle Centerline (+ to right)
Z – Ground Plane (+ down)

DATA SHEET NO. 7
RIGID POLE LOAD CELL DATA

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



254 mm Diameter Rigid Pole

Load Cell Locations	
ID	**Height from Test Surface (mm)**
1	182
2	470
3	698
4	986
5	1212
6	1641
7	1854
8	2053

DATA SHEET NO. 8
POST-TEST OBSERVATIONS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Driver Dummy (SID-IIs)
Face	Curtain Airbag, Headrest
Top of Head	Curtain Airbag, Headrest
Left Side of Head	Curtain Airbag
Back of Head	Curtain Airbag, Headrest
Left Shoulder	Side Torso/Pelvis Airbag, Seatback
Upper Torso	Side Torso/Pelvis Airbag, Seatback
Lower Torso	Side Torso/Pelvis Airbag, Seatback
Left Hip	Side Torso/Pelvis Airbag, Seat Cushion
Left Knee	Door Panel

POST-TEST DOOR PERFORMANCE

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

POST-TEST SEAT PERFORMANCE

Description	Struck Side		Non-Struck Side	
	Front	Rear	Front	Rear
Seat Movement Along Seat Track	No	No	No	No
Seat Disengagement from Floor Pan	No	No	No	No
Seat Back Movement from Initial Position	No	No	No	No
Seat Back Collapse	No	No	No	No

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	No Separation
Windshield Damage	Cracked
Side Window Damage	LF window broken
Other Notable Effects	None

DATA SHEET NO. 8 (CONTINUED)
POST-TEST OBSERVATIONS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

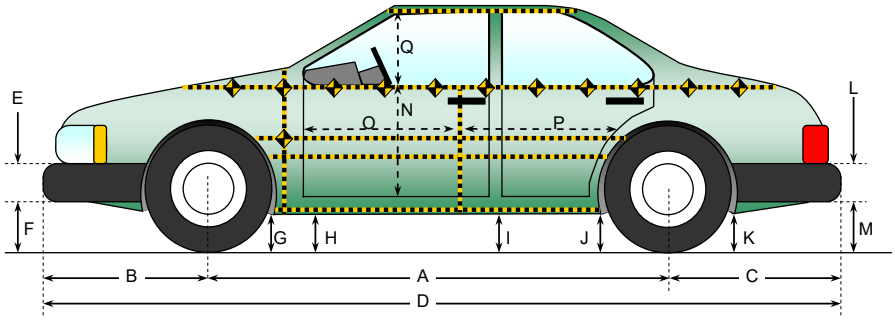
Restraint Type	Left Front (Driver) Occupant Location 1		Left Rear (Passenger) Occupant Location 4	
	Mounted	Deployed	Mounted	Deployed
Frontal Airbag	Yes	No		
Knee Airbag	Yes	No		
Side Curtain Airbag	Yes	Yes	Yes	Yes
Side Torso/Pelvis Airbag	Yes	Yes	No	
Side Airbag (Other)				
Seat Belt Pretensioner	Yes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

SPEED, ANGLE AT IMPACT, AND IMPACT POINT LOCATION DATA

Measured Parameter	Units	Tolerance	Value
Vertical Impact Reference Line (Aft of Front Axle) (Intended Impact Point)	mm		1317
Actual Impact Point (Aft of Front Axle)	mm		1321
Horizontal Offset (+forward / -rearward)	mm	+/- 38 of Intended Impact Point	-4
Angle Between Vehicle's Longitudinal Centerline and Line of Forward Motion	degrees	75 +/- 3	77.2
Trap No. 1 Velocity (Primary)	km/h	31.4 to 33.0	32.12
Trap No. 2 Velocity (Redundant)	km/h	31.4 to 33.0	32.12

DATA SHEET NO. 9
TEST VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



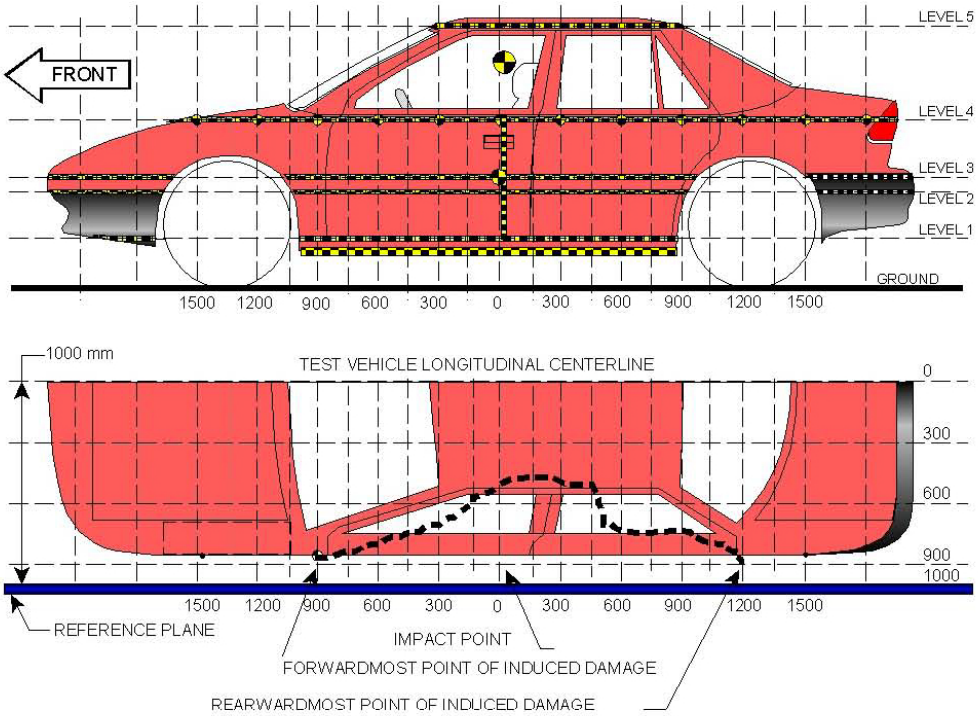
All measurements in (mm) with tolerance of ± 3 mm
LEFT SIDE VIEW

VEHICLE PRE- AND POST-TEST MEASUREMENT INFORMATION

Code	Measurement Description	Pre-Test	Post-Test	Change
A	Wheelbase	3098	3057	-41
B	Front Axle to FSOV	891	912	21
C	Rear Axle to RSOV	901	912	11
D	Total Vehicle Length at Centerline	4891	4880	-11
E	Front Bumper Thickness	134	132	-2
F	Front Bumper Bottom to Ground	473	478	5
G	Sill Height at Front Wheel Well	230	223	-7
H	Sill Height at Front Door Leading Edge	235	223	-12
I	Sill Height at B-Pillar	239	225	-14
J1	Sill Height at Rear Wheel Well	225	221	-4
J2	Pinch Weld Height at Rear Wheel Well	238	236	-2
K	Sill Height Aft of Rear Wheel Well	249	244	-5
L	Rear Bumper Thickness	90	87	-3
M	Rear Bumper Bottom to Ground	473	468	-5
N	Sill Height to Bottom of Front Window Sill	686	711	25
O	Front Door Leading Edge to Impact CL	693	662	-31
P	Rear Door Trailing Edge to Impact CL	1316	1277	-39
Q	Front Window Opening	388	362	-26
R	Right Side Length	4417	4416	-1
S	Left Side Length	4418	4398	-20
T	Vehicle Width at B-Pillars	1938	1832	-106
U	Front Wheel Track Width	1664		
V	Rear Wheel Track Width	1668		

DATA SHEET NO. 10
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



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

MAXIMUM EXTERIOR CRUSH MEAUREMENTS

Level	Measurement Description	Height Above Ground	Maximum Exterior Static Crush	Distance from Impact
1	Sill Top	471	192	75
2	Mid Door	671	221	0
3	Occupant H-Point	696	223	0
4	Window Sill	1095	171	0
5	Window Top	1575	29	900

DATA SHEET NO. 10 (CONTINUED)
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

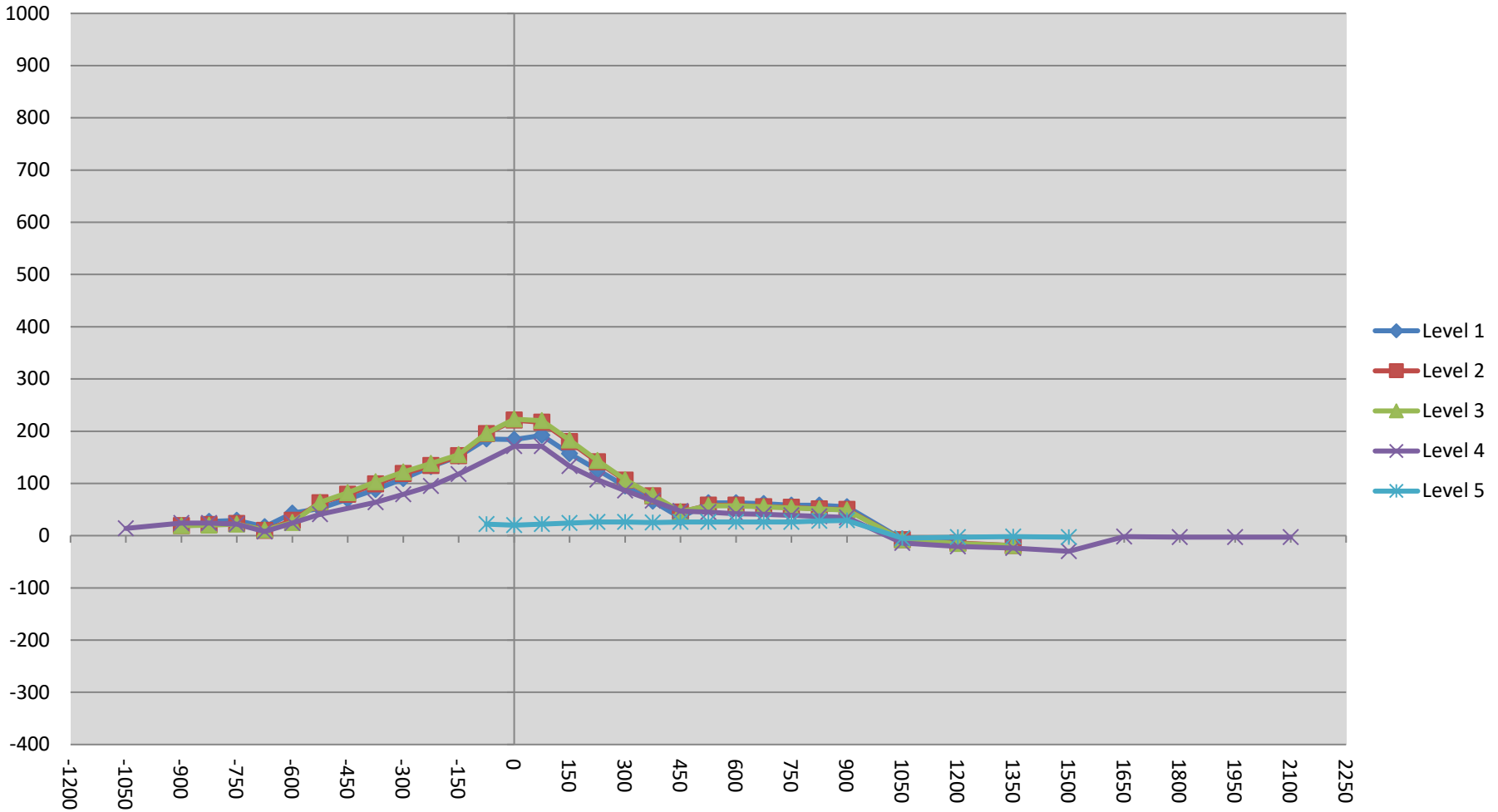
Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

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

	Pre-Test					Post-Test					Exterior Crush				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-2700															
-2550															
-2400															
-2250															
-2100															
-1950															
-1800															
-1650															
-1500															
-1350															
-1200															
-1050				868					854					14	
-900		984	984	874			965	965	850			19	19	24	
-825	972	981	980	873		945	960	960	849		27	21	20	24	
-750	968	977	977	875		939	954	955	853		29	23	22	22	
-675	963	973	974	874		946	963	963	866		17	10	11	8	
-600	960	972	972	879		917	943	947	855		43	29	25	24	
-525	959	971	972	880		907	908	908	839		52	63	64	41	
-450	956	971	972			886	892	890			70	79	82		
-375	952	971	972	886		864	872	869	822		88	99	103	64	
-300	951	972	973	892		842	853	851	813		109	119	122	79	
-225	950	972	973	893		818	838	835	798		132	134	138	95	
-150	949	971	972	896		797	818	817	778		152	153	155	118	
-75	948	971	972	901	624	763	776	776		602	185	195	196		22
0	947	971	972	904	657	763	750	749	733	637	184	221	223	171	20
75	946	970	972	908	665	754	753	752	737	643	192	217	220	171	22
150	944	970	971	909	668	787	790	788	776	644	157	180	183	133	24
225	944	970	971	913	671	818	829	827	806	645	126	141	144	107	26
300	944	969	970	914	669	849	863	863	828	643	95	106	107	86	26
375	945	969	970	919	669	879	893	893	852	644	66	76	77	67	25
450	944	968	969	920	668	910	923	923	873	642	34	45	46	47	26
525	941	966	967	921	667	878	908	910	876	641	63	58	57	45	26
600	940	965	966	920	662	877	907	909	878	636	63	58	57	42	26
675	938	963	965	922	659	877	908	910	881	633	61	55	55	41	26
750	936	962	964	923	655	878	908	911	884	629	58	54	53	39	26
825	937	960	962	924	653	879	909	911	887	625	58	51	51	37	28
900	939	960	961	927	648	884	910	912	892	619	55	50	49	35	29
1050	946	958	960	926	637	953	966	968	940	642	-7	-8	-8	-14	-5
1200	963	969	968	926	622	976	983	983	947	625	-13	-14	-15	-21	-3
1350		981	981	925	597		1000	1000	949	599		-19	-19	-24	-2
1500				924	567				954	570				-30	-3
1650				919					921					-2	
1800				914					917					-3	
1950				906					909					-3	
2100				896					899					-3	
2250															
2400															
2550															
2700															

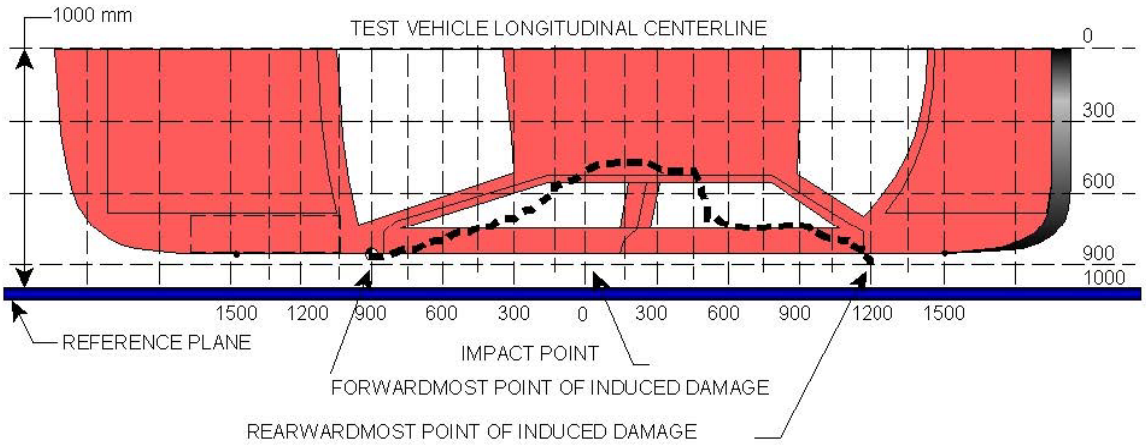
DATA SHEET NO. 10 (CONTINUED)
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



DATA SHEET NO. 10 (CONTINUED)
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



VEHICLE DAMAGE PROFILE DISTANCES

DPD	Distance from Impact Point (mm)	Level	Pre-Test (mm)	Post-Test (mm)	Max. Static Crush (mm)
1	525	3	90	33	57
2	-410	3	121	28	93
3	-176	3	174	28	146
4	82	3	245	28	217
5	309	3	134	30	104
6	-750	3	45	23	22

DATA SHEET NO. 11
FMVSS NO. 301 STATIC ROLLOVER RESULTS

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024

Test Time: 11:16 am
Temperature: 22.1°C

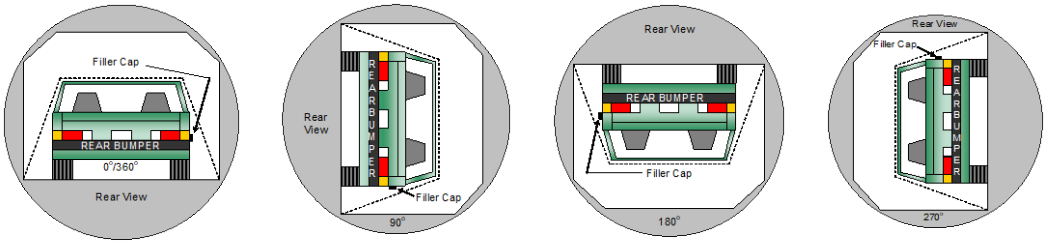
A. From impact until vehicle motion ceases: (Maximum Allowable = 1 ounce) N/A oz.

B. For the 5 minute period after motion ceases: (Maximum Allowable = 5 ounces) N/A oz.

C. For the following 25 minutes: (Maximum Allowable = 1 ounce / minute) N/A

D. Spillage Details: N/A

FMVSS 301 STATIC ROLLOVER DATA



0°/360° 90° 180° 270°

ROLLOVER SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°			
90° to 180°			
180° to 270°			
270° to 360°			

FMVSS 301 ROLLOVER SPILLAGE TABLE (UNITS IN OUNCES)

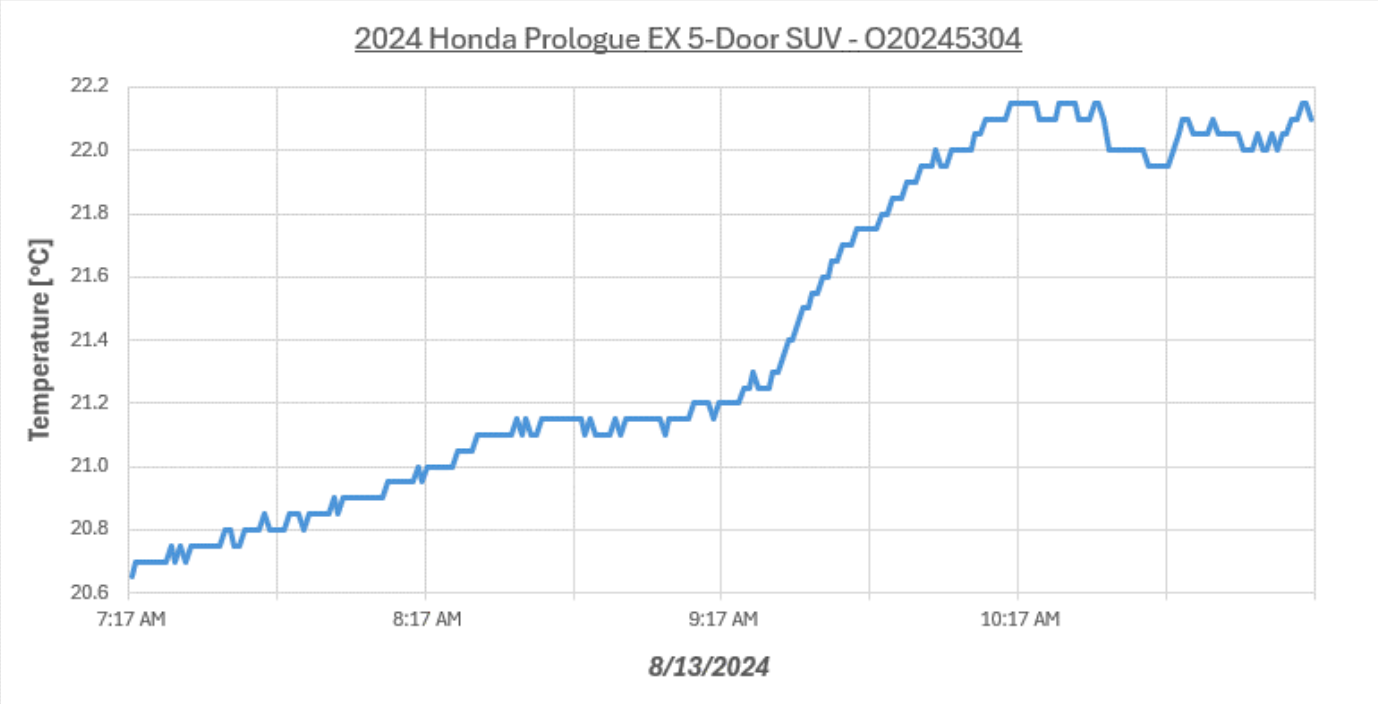
Test Phase	First 5 Minutes	Sixth Minute	Seventh Minute	Eighth Minute
0° to 90°				
90° to 180°				
180° to 270°				
270° to 360°				

ROLLOVER SOLVENT SPILLAGE LOCATION TABLE

Test Phase	Spillage Location
0° to 90°	
90° to 180°	
180° to 270°	
270° to 360°	

DATA SHEET NO. 12
DUMMY/VEHICLE TEMPERATURE AND HUMIDITY STABILIZATION DATA

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024



Serial #	Description	Maximum	Average	Minimum	Units
W2922089	VSC South Hall - Temp (3018)	22.15	21.42	20.65	°C

DATA SHEET NO. 305-1
GENERAL TEST AND VEHICLE PARAMETER DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

ELECTRIC VEHICLE PROPULSION SYSTEM

	Units	Observations and Conclusions
Type of Electric Vehicle		Electric
Propulsion Battery Type		High Voltage Li-Ion Battery
Nominal Voltage	V	290
Physical Location of Automatic Propulsion Battery Disconnect		The high voltage switches (i.e. contactors) are located in the RESS BDU.
Auxiliary Battery Type		AGM – Absorbent Glass Material (12V Battery)

PROPULSION BATTERY SYSTEM DATA

	Units		Observations and Conclusions
Electrolyte Fluid Type			Liquid
Electrolyte Fluid Specific Gravity	g/cm^3		1.2
Electrolyte Fluid Kinematic Viscosity	cP		4
Electrolyte Fluid Color			Colorless/very light yellow
Propulsion Battery Coolant Type, Color, Specific Gravity (if applicable)			50/50 Deionized water, Dexcool mix, Orange
Location of Battery Modules			Inside Passenger Compartment
		X	Outside Passenger Compartment
			The high-voltage battery is located on the underside of the vehicle.

PROPULSION BATTERY STATE OF CHARGE

For all battery types:	
Voltage range corresponding to **useable energy** of the battery:	
Minimum State of Charge	240V
Maximum State of Charge	332V
95% of Maximum State of Charge	315V
Test Voltage - No less than 95% of maximum State of Charge	329.9V
For batteries that are rechargeable ONLY by an energy source on the vehicle:	
Voltage range corresponding to **useable energy** of the battery:	
Minimum State of Charge	
Maximum State of Charge	
Test Voltage – Maximum practicable State of Charge within Normal Operating Range	

DATA SHEET NO. 305-2
PRE-IMPACT DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle:	2024 Honda Prologue EX 5-Door SUV	NHTSA No.:	O20245304
Test Program:	NCAP Side Pole Impact Test	Test Date:	8/13/2024

VEHICLE CHASSIS GROUND POINT(S) LOCATION(S)

Details of Vehicle Chassis Ground Point(s) & Location(s)	Bracket above battery

PROPULSION BATTERY SYSTEM

Details of Electric Energy Storage/Conversion System Test Points	Connected at + and – terminal ends of propulsion system
Additional Comments	None

DATA SHEET NO. 305-3
PRE-IMPACT ELECTRICAL ISOLATION MEASUREMENTS AND CALCULATIONS
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

VOLTMETER INFORMATION

	Units	Observations and Conclusions
Make		Fluke
Model		177
Serial Number		61660495
Internal Impedance Value	MΩ	> 10 MΩ < 100 pF
Resolution	V	0.001
Last Calibration Date		2/14/2024

PROPULSION BATTERY VOLTAGE

Measurement shall be made with Energy Storage/Conversion System connected to the vehicle propulsion system, and the vehicle in the "ready-to-drive" (propulsion system energized) position.

NOTE: If voltage measurement is not at the voltage or within the normal operating voltage range specified by the manufacturer, the battery must be charged.

Vb	V	329.9

ELECTRIC ISOLATION MEASUREMENTS
PROPULSION BATTERY TO VEHICLE CHASSIS

Vehicle chassis point(s) determined and supplied to contractor by COR.

V1	V	210.1
V2	V	104.2

PROPULSION BATTERY TO VEHICLE CHASSIS ACROSS RESISTOR

The known resistance Ro (in ohms) should be approximately 500 times the normal operating voltage of the vehicle (in volts) per SAE J1766.

Ro	Ω	226,100

V1' Pre-Impact	V	49.7
V2' Pre-Impact	V	24.0

DATA SHEET NO. 305-3 (CONTINUED)
PRE-IMPACT ELECTRICAL ISOLATION MEASUREMENTS AND CALCULATIONS
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle:	2024 Honda Prologue EX 5-Door SUV	NHTSA No.:	O20245304
Test Program:	NCAP Side Pole Impact Test	Test Date:	8/13/2024

ELECTRICAL ISOLATION CALCULATIONS

NOTE: If measured voltage is zero and results in a division by zero, record “Zero Volts”.
This “zero voltage” condition is considered as being compliant.

Ri1 = Ro (1 + V2/V1) [(V1-V1’)/V1’]		
Ri1 Pre-Impact	Ω	1,091,608
Ri2 = Ro (1 + V1/V2) [(V2-V2’)/V2’]		
Ri2 Pre-Impact	Ω	2,278,979
Ri = The lesser of Ri1 and Ri2		
Ri Pre-Impact	Ω	1,091,608
Ri / Vb = Electrical Isolation Value / Nominal Battery Voltage		
Ri / Vb Pre-Impact	Ω/V	3,309

NOTE: The minimum Electrical Isolation Value is 500 Ω/V.

	Yes	No (Fail)
Is the measured Electrical Isolation Value ≥ 500 Ω/V?	X	
Additional Comments	None	

DATA SHEET NO. 305-4
POST-IMPACT DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

VOLTMETER INFORMATION

	Units	Observations and Conclusions
Make		Fluke
Model		177
Serial Number		61660495
Internal Impedance Value	MΩ	> 10 MΩ < 100 pF
Resolution	V	0.001
Last Calibration Date		2/14/2024

ELECTRICAL ISOLATION MEASUREMENTS

Vb Post-Impact	V	4.1

V1 Post-Impact	V	4.2	Impact Time	1	Minutes	36	Seconds
V2 Post-Impact	V	0.3		1	Minutes	40	Seconds
V1' Post-Impact	V	0.7		1	Minutes	50	Seconds
V2' Post-Impact	V	0.0		1	Minutes	44	Seconds

DATA SHEET NO. 305-4 (CONTINUED)
POST-IMPACT DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

ELECTRICAL ISOLATION CALCULATIONS

NOTE: If measured voltage is zero and results in a division by zero, record "Zero Volts". This "zero voltage" condition is considered as being compliant.

Ri1 = Ro (1 + V2/V1) [(V1-V1')/V1']							
Ri1 Post-Impact	Ω	1,211,250	Impact Time	1	Minutes	50	Seconds
Ri2 = Ro (1 + V1/V2) [(V2-V2')/V2']							
Ri2 Post-Impact	Ω	Zero Volts	Impact Time	1	Minutes	44	Seconds
Ri = The lesser of Ri1 and Ri2							
Ri Post-Impact	Ω	1,211,250	Impact Time	1	Minutes	50	Seconds
Ri / Vb = Electrical Isolation Value / Nominal Battery Voltage							
Ri / Vb Post-Impact	Ω/V	295,427	Impact Time	1	Minutes	50	Seconds

NOTE: The minimum Electrical Isolation Value is 500 Ω/V.

	Yes	No (Fail)
Is the measured Electrical Isolation Value ≥ 500 Ω/V?	X	
Additional Comments	None	

DATA SHEET NO. 305-4 (CONTINUED)
POST-IMPACT DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

PROPULSION BATTERY SYSTEM COMPONENTS

Describe any Propulsion Battery Module movement within the passenger compartment [Supply photographs as appropriate]:
Not Applicable

	Yes (Fail)	No
Has the Propulsion Battery Module moved within the passenger compartment?		X

Describe intrusion of an outside Propulsion Battery Component into the passenger compartment [Supply photographs as appropriate]:
No Intrusion

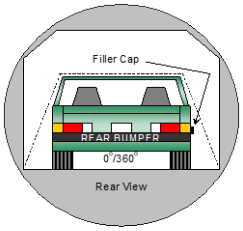
	Yes (Fail)	No
Has an outside Propulsion Battery Component intruded into the passenger compartment?		X

	Yes (Fail)	No
Is the Propulsion Battery Electrolyte Spillage visible in the passenger compartment?		X

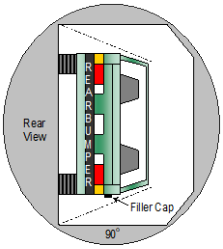
DATA SHEET NO. 305-5
STATIC ROLLOVER TEST DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV
Test Program: NCAP Side Pole Impact Test
NHTSA No.: O20245304
Test Date: 8/13/2024

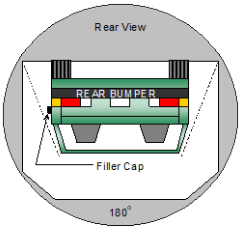
PROPULSION BATTERY SYSTEM COMPONENTS



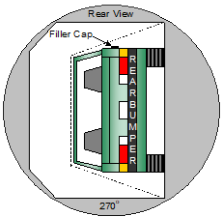
0°/360°



90°



180°



270°

PROPULSION BATTERY ELECTROLYTE COLLECTION TIME PERIOD

Test Phase	Rotation Time (spec. 1-3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	min	52	sec	5	min	6	min	52	sec	7	min
90° - 180°	1	min	51	sec	5	min	6	min	51	sec	7	min
180° - 270°	1	min	46	sec	5	min	6	min	46	sec	7	min
270° - 360°	1	min	50	sec	5	min	6	min	50	sec	7	min

TEST VEHICLE PROPULSION BATTERY ELECTROLYTE SPILLAGE

NOTE: The maximum allowable Propulsion Battery Electrolyte Spillage is 5.0 Liters.

Test Phase	Propulsion Battery Electrolyte Spillage (L)	Spillage Location
0° to 90°	0	Not Applicable
90° to 180°	0	Not Applicable
180° to 270°	0	Not Applicable
270° to 360°	0	Not Applicable
Total Spillage	0	

	Yes (Fail)	No
Is the total Propulsion Battery Electrolyte Spillage greater than 5.0 Liters?		X
Is the Propulsion Battery Electrolyte Spillage visible in the passenger compartment?		X

DATA SHEET NO. 305-5 (CONTINUED)
STATIC ROLLOVER TEST DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

VOLTMETER INFORMATION

	Units	Observations and Conclusions
Make		Fluke
Model		177
Serial Number		61660495
Internal Impedance Value	MΩ	> 10 MΩ < 100 pF
Resolution	V	0.001
Last Calibration Date		2/14/2024

ELECTRICAL ISOLATION MEASUREMENTS

Vb Post-Impact	V	4.0

Record V1, V2, V1', V2' voltage measurements at the start of each successive increment of 90°, 180°, 270°, and 360° of the static rollover test.

	Voltage	Units	Test Phase	Time			
V1	0.0	V	0°		min		sec
	2.3		90°	2		48	
	4.2		180°	2		40	
	4.2		270°	2		16	
	4.3		360°	2		48	
V2	4.0	V	0°		min		sec
	1.9		90°	2		52	
	0.3		180°	2		44	
	0.3		270°	2		20	
	0.3		360°	2		52	
V1'	0.0	V	0°		min		sec
	0.6		90°	3		2	
	0.7		180°	2		53	
	0.7		270°	2		35	
	0.7		360°	2		59	
V2'	4.0	V	0°		min		sec
	0.1		90°	2		56	
	0.1		180°	2		48	
	0.1		270°	2		29	
	0.1		360°	2		55	

DATA SHEET NO. 305-5 (CONTINUED)
STATIC ROLLOVER TEST DATA
FOR INDICANT FMVSS NO. 305 TESTING

Test Vehicle: 2024 Honda Prologue EX 5-Door SUV NHTSA No.: O20245304
Test Program: NCAP Side Pole Impact Test Test Date: 8/13/2024

ELECTRICAL ISOLATION CALCULATIONS

NOTE: If measured voltage is zero and results in a division by zero, record "Zero Volts". This "zero voltage" condition is considered as being compliant.

	Voltage	Units	Test Phase	Time			
Ri1 = Ro (1 + V2/V1) [(V1-V1')/V1']							
Ri1	Zero Volts	Ω	0°		min		sec
	1,169,822		90°	3		2	
	1,211,250		180°	2		53	
	1,211,250		270°	2		35	
	1,243,926		360°	2		59	
Ri2 = Ro (1 + V1/V2) [(V2-V2')/V2']							
Ri2	0	Ω	0°		min		sec
	8,996,400		90°	2		56	
	6,783,000		180°	2		48	
	6,783,000		270°	2		29	
	6,933,733		360°	2		55	
Ri = The lesser of Ri1 and Ri2							
Ri	0	Ω	0°		min		sec
	1,169,822		90°	3		2	
	1,211,250		180°	2		53	
	1,211,250		270°	2		35	
	1,243,926		360°	2		59	
Ri / Vb = Electrical Isolation Value / Nominal Battery Voltage							
Ri / Vb	0	Ω/V	0°		min		sec
	292,455		90°	3		2	
	302,813		180°	2		53	
	302,813		270°	2		35	
	310,981		360°	2		59	

NOTE: The minimum Electrical Isolation Value is 500 Ω/V.

	Yes	No (Fail)
Is the measured Electrical Isolation Value ≥ 500 Ω/V?	X	
Additional Comments	The voltages of V1, V2 and Vb are less than 60 VDC.	

APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

		Page No.
Photo No. 001	As Delivered Right Front ¾ View of Test Vehicle	A-1
Photo No. 002	As Delivered Left Rear ¾ View of Test Vehicle	A-1
Photo No. 003	Pre-Test Frontal View of Test Vehicle	A-2
Photo No. 004	Post-Test Frontal View of Test Vehicle	A-2
Photo No. 005	Pre-Test Left Front ¾ View of Test Vehicle	A-3
Photo No. 006	Post-Test Left Front ¾ View of Test Vehicle	A-3
Photo No. 007	Pre-Test Left Side View of Test Vehicle	A-4
Photo No. 008	Post-Test Left Side View of Test Vehicle	A-4
Photo No. 009	Pre-Test Left Rear ¾ View of Test Vehicle	A-5
Photo No. 010	Post-Test Left Rear ¾ View of Test Vehicle	A-5
Photo No. 011	Pre-Test Rear View of Test Vehicle	A-6
Photo No. 012	Post-Test Rear View of Test Vehicle	A-6
Photo No. 013	Pre-Test Right Side View of Test Vehicle	A-7
Photo No. 014	Post-Test Right Side View of Test Vehicle	A-7
Photo No. 015	Pre-Test Overhead View of Test Area	A-8
Photo No. 016	Post-Test Overhead View of Test Area	A-8
Photo No. 017	Pre-Test Left Side View of Pole Positioned Against Side of Vehicle	A-9
Photo No. 018	Pre-Test Right Side View of Pole Positioned Against Side of Vehicle	A-9
Photo No. 019	Pre-Test Close-Up View of Impact Point Target	A-10
Photo No. 020	Post-Test Close-Up View of Impact Point Target Showing Impact Location	A-10
Photo No. 021	Pre-Test Front Close-Up View of Dummy Head and Chest	A-11
Photo No. 022	Post-Test Front Close-Up View of Dummy	A-11
Photo No. 023	Pre-Test Left Side View of Dummy Showing Belt and Chalking	A-12
Photo No. 024	Pre-Test Left Side View of Dummy Shoulder and Door Top View	A-12
Photo No. 025	Post-Test Left Side View of Dummy Shoulder and Door Top View	A-13
Photo No. 026	Pre-Test Front View of Seat Back Prior to Dummy Positioning	A-13
Photo No. 027	Pre-Test Front Close-Up View of Dummy Head and Shoulders in Relation to Head Restraint	A-14
Photo No. 028	Pre-Test Front View of Seat Pan Prior to Dummy Positioning	A-14
Photo No. 029	Pre-Test Overhead View of Dummy Thighs on Seat Pan	A-15

		Page No.
Photo No. 030	Pre-Test Left Side View of Dummy's Neck Showing Position of Adjustable Neck Bracket	A-15
Photo No. 031	Pre-Test Left Side View of Dummy's Head Showing Dummy's Head is Level	A-16
Photo No. 032	Pre-Test Placement of Dummy's Feet	A-16
Photo No. 033	Pre-Test View of Belt Anchorage for Dummy	A-17
Photo No. 034	Pre-Test Left Side View of Steering Wheel	A-17
Photo No. 035	Pre-Test View of Disengaged Parking Brake	A-18
Photo No. 036	Pre-Test View of Parking Brake	A-18
Photo No. 037	Pre-Test Close-Up Left Side View of Driver Seat Track	A-19
Photo No. 038	Pre-Test Close-Up Left Side View of Driver Seat Back	A-19
Photo No. 039	Pre-Test Close-Up View of Driver Seat Back or Head Restraint	A-20
Photo No. 040	Pre-Test Dummy and Door Clearance View	A-20
Photo No. 041	Post-Test Dummy and Door Clearance View	A-21
Photo No. 042	Pre-Test Right Side View of Dummy and Front Seat of Occupant Compartment	A-21
Photo No. 043	Post-Test Right Side View of Dummy and Front Seat of Occupant Compartment	A-22
Photo No. 044	Pre-Test Inner Door Panel View	A-22
Photo No. 045	Post-Test Inner Door Panel View Showing Dummy Contact Location	A-23
Photo No. 046	Post-Test Dummy Close-Up Head Contact with Vehicle Interior View	A-23
Photo No. 047	Post-Test Dummy Close-Up Head Contact with Side Air Bag View	A-24
Photo No. 048	Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View	A-24
Photo No. 049	Post-Test Dummy Close-Up Torso Contact with Side Air Bag View	A-25
Photo No. 050	Post-Test Dummy Close-Up Pelvis Contact with Vehicle Interior View	A-25
Photo No. 051	Post-Test Dummy Close-Up Pelvis Contact with Side Air Bag View	A-26
Photo No. 052	Post-Test Dummy Close-Up Knee Contact with Vehicle Interior View	A-26
Photo No. 053	Post-Test Right Side View of Dummy and Rear Seat of Occupant Compartment	A-27
Photo No. 054	Post-Test Inner Rear Passenger Torso Air Bag Deployment View	A-27
Photo No. 055	Pre-Test View of Fuel Filler Cap or Fuel Filler Neck	A-28
Photo No. 056	Post-Test View of Fuel Filler Cap or Fuel Filler Neck	A-28
Photo No. 057	Close-Up View of Vehicle's Certification Label	A-29

		Page No.
Photo No. 058	Close-Up View of Vehicle's Tire Information Placard or Label	A-29
Photo No. 059	Pre-Test Pole Barrier Front View	A-30
Photo No. 060	Post-Test Pole Barrier Front View	A-30
Photo No. 061	Pre-Test Pole Barrier Side View	A-31
Photo No. 062	Post-Test Pole Barrier Side View	A-31
Photo No. 063	Pre-Test Ballast View	A-32
Photo No. 064	Post-Test Primary and Redundant Speed Trap Read-Out	A-32
Photo No. 065	FMVSS No. 301 Static Rollover 0 Degrees	A-33
Photo No. 066	FMVSS No. 301 Static Rollover 90 Degrees	A-33
Photo No. 067	FMVSS No. 301 Static Rollover 180 Degrees	A-34
Photo No. 068	FMVSS No. 301 Static Rollover 270 Degrees	A-34
Photo No. 069	FMVSS No. 301 Static Rollover 360 Degrees	A-35
Photo No. 070	Impact Event	A-35
Photo No. 071	Monroney Label	A-36
Photo No. 072	Head Restraint Use and Adjustment Information from Vehicle Owner's Manual	A-36
Photo No. 073	Post-Test View of Shattered Vehicle Inner Door Panel	A-37
Photo No. 305-01	Auxiliary Power Module Warning Label	A-37
Photo No. 305-02	Power Inverter Warning Label	A-38
Photo No. 305-03	First Responder Warning Label	A-38
Photo No. 305-04	First Responder Warning Location	A-39
Photo No. 305-05	Other Vehicle Label(s) Related to Electrical Propulsion System	A-39
Photo No. 305-06	Manual High Voltage Service Disconnect in Place	A-40
Photo No. 305-07	Manual High Voltage Service Disconnect Removed	A-40
Photo No. 305-08	Manual High Voltage Service Disconnect Removed	A-41
Photo No. 305-09	Pre-Impact View of Propulsion Battery	A-41
Photo No. 305-10	Post-Impact Front View of Propulsion Battery	A-42
Photo No. 305-11	Post-Impact Rear View of Propulsion Battery	A-42
Photo No. 305-12	Pre-Impact View of Battery Box(s) or Container(s) Which Holds Individual Battery Modules	A-43
Photo No. 305-13	Post-Impact View of Battery Box(s) or Container(s) Which Holds Individual Battery Modules	A-43

		Page No.
Photo No. 305-14	Pre-Impact View of Propulsion Battery Module(s)	A-44
Photo No. 305-15	Post-Impact View of Propulsion Battery Module(s)	A-44
Photo No. 305-16	Pre-Impact View of Electric Propulsion Drive	A-45
Photo No. 305-17	Post-Impact View of Electric Propulsion Drive	A-45
Photo No. 305-18	Pre-Impact View of High Voltage Interconnect(s)	A-46
Photo No. 305-19	Pre-Impact View Propulsion Battery Venting System(s)	A-46
Photo No. 305-20	Pre-Impact View of Other Visible Electric Propulsion Components	A-47
Photo No. 305-21	Pre-Impact View of Ground Lead Attached	A-47
Photo No. 305-22	Pre-Impact View of High Voltage Leads Attached	A-48
Photo No. 305-23	Pre-Impact Close-Up View of High Voltage Leads Attached	A-48
Photo No. 305-24	Pre-Impact View of Installed Test Interface Port	A-49
Photo No. 305-25	Post-Impact View of Installed Test Interface Port	A-49
Photo No. 305-26	Pre-Impact View of Other Test Devices	A-50
Photo No. 305-27	Post-Impact View of Other Test Devices	A-50
Photo No. 305-28	FMVSS No. 305 Static Rollover at 90 Degrees	A-51
Photo No. 305-29	FMVSS No. 305 Static Rollover at 180 Degrees	A-51
Photo No. 305-30	FMVSS No. 305 Static Rollover at 270 Degrees	A-52
Photo No. 305-31	FMVSS No. 305 Static Rollover at 360 Degrees	A-52
Photo No. 305-32	Pre-Impact View of the Vehicle Passenger Compartment Adjacent to Propulsion Battery	A-53
Photo No. 305-33	Post-Impact View of the Vehicle Passenger Compartment Adjacent to Propulsion Battery	A-53
Photo No. 305-34	Post-Impact Propulsion Battery System Mounting and/or Intrusion Failure(s)	A-54
Photo No. 305-35	Post-Impact View of Battery Component Intrusion	A-54
Photo No. 305-36	Post-Impact View of Battery Module Movement or Retention Loss	A-55
Photo No. 305-37	Post-Impact View of Propulsion Battery Electrolyte Spillage Location	A-55
Photo No. 305-38	Post-Test View of Propulsion Battery Electrolyte Spillage Location	A-56

Photo No. 001 - As Delivered Right Front Three-Quarter View of Test Vehicle

Photo No. 002 - As Delivered Left Rear Three-Quarter View of Test Vehicle

Photo No. 003 - Pre-Test Frontal View of Test Vehicle

Photo No. 004 - Post-Test Frontal View of Test Vehicle

Photo No. 005 - Pre-Test Left Front Three-Quarter View of Test Vehicle

Photo No. 006 - Post-Test Left Front Three-Quarter View of Test Vehicle

Photo No. 007 - Pre-Test Left Side View of Test Vehicle

Photo No. 008 - Post-Test Left Side View of Test Vehicle

Photo No. 009 - Pre-Test Left Rear Three-Quarter View of Test Vehicle

Photo No. 010 - Post-Test Left Rear Three-Quarter View of Test Vehicle

Photo No. 011 - Pre-Test Rear View of Test Vehicle

Photo No. 012 - Post-Test Rear View of Test Vehicle

Photo No. 013 - Pre-Test Right Side View of Test Vehicle

Photo No. 014 - Post-Test Right Side View of Test Vehicle

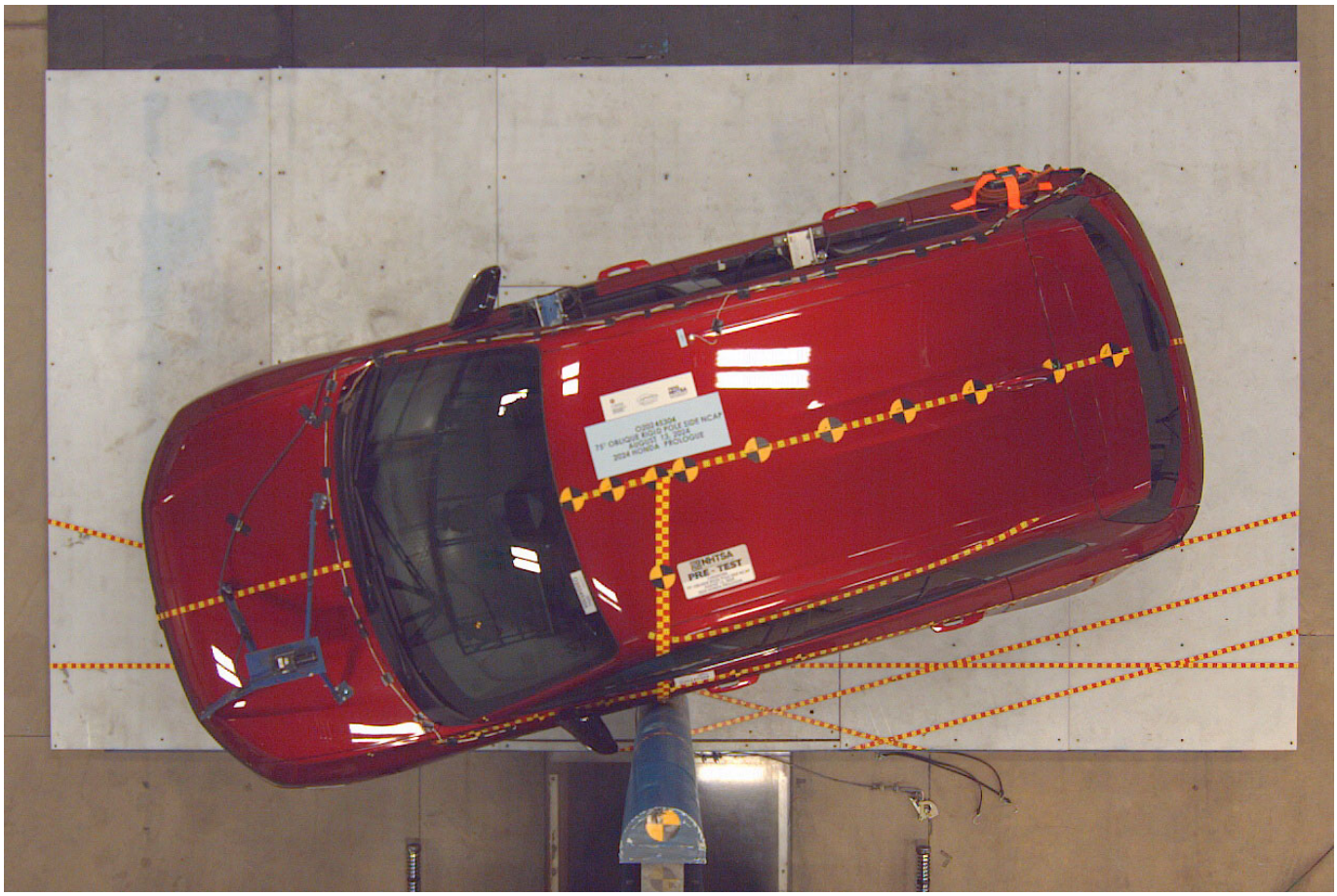


Photo No. 015 - Pre-Test Overhead View of Test Area

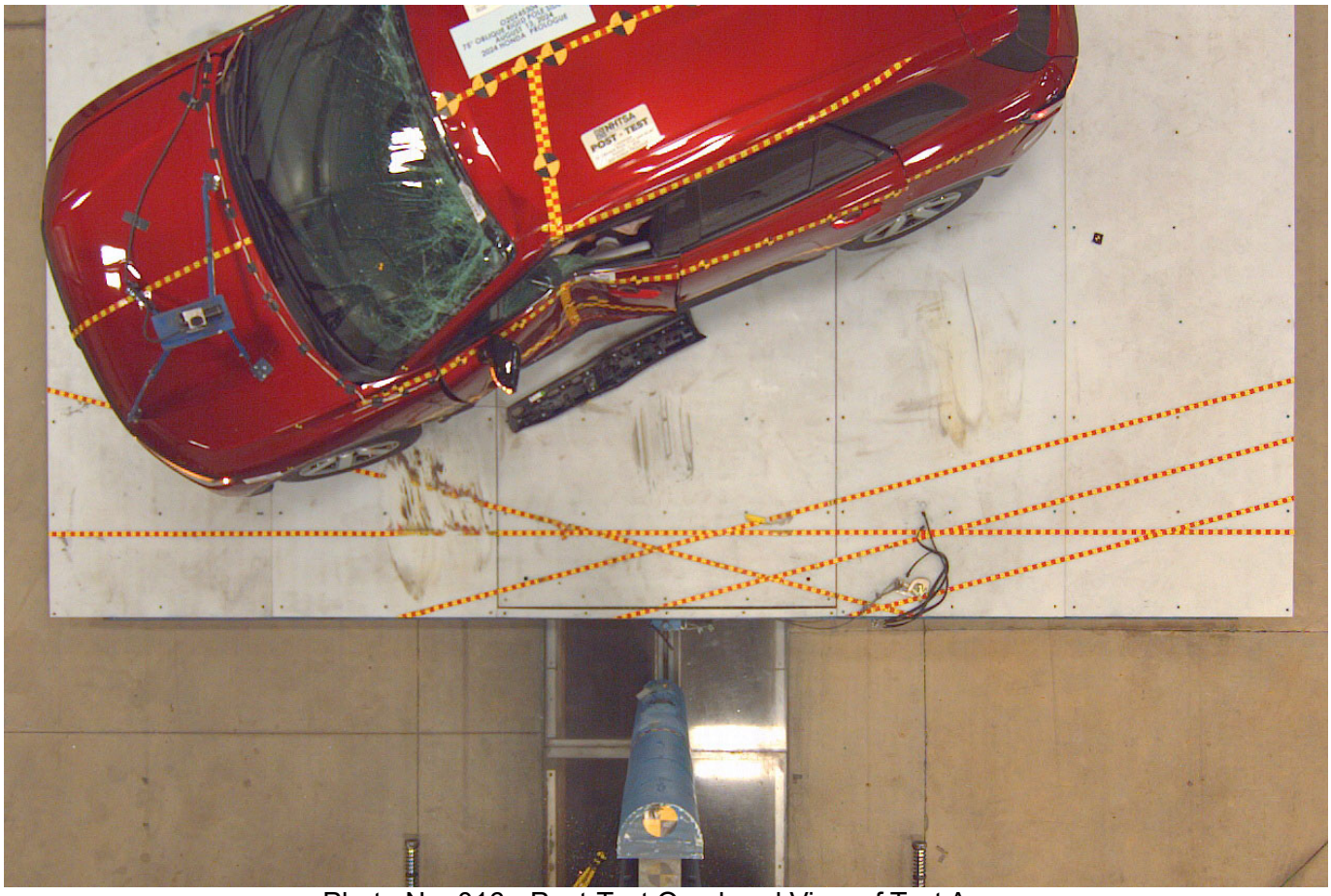


Photo No. 016 - Post-Test Overhead View of Test Area

Photo No. 017 - Pre-Test Left Side View of Pole Positioned Against Side of Vehicle

Photo No. 018 - Pre-Test Right Side View of Pole Positioned Against Side of Vehicle

Photo No. 019 - Pre-Test Close-Up View of Impact Point Target

Photo No. 020 - Post-Test Close-Up View of Impact Point Target Showing Impact Location

Photo No. 021 - Pre-Test Front Close-Up View of Dummy Head and Chest

Photo No. 022 - Post-Test Front Close-Up View of Dummy

Photo No. 023 - Pre-Test Left Side View of Dummy Showing Belt and Chalking

Photo No. 024 - Pre-Test Left Side View of Dummy Shoulder and Door Top View

Photo No. 025 - Post-Test Left Side View of Dummy Shoulder and Door Top View

Photo No. 026 - Pre-Test Front View of Seat Back Prior to Dummy Positioning

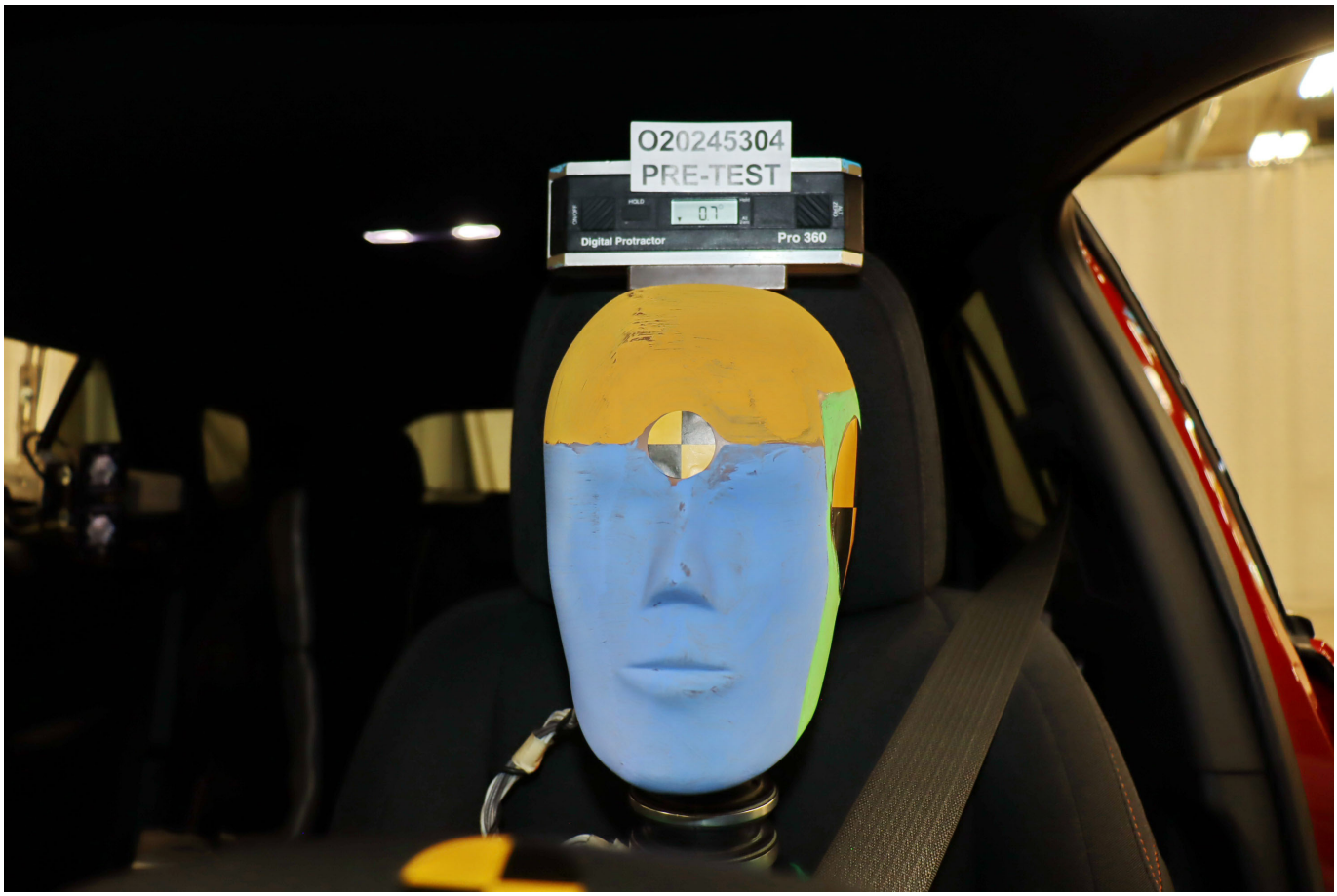


Photo No. 027 - Pre-Test Front Close-Up View of Dummy Head and Shoulders in Relation to Head Restraint

Photo No. 028 - Pre-Test Front View of Seat Pan Prior to Dummy Positioning

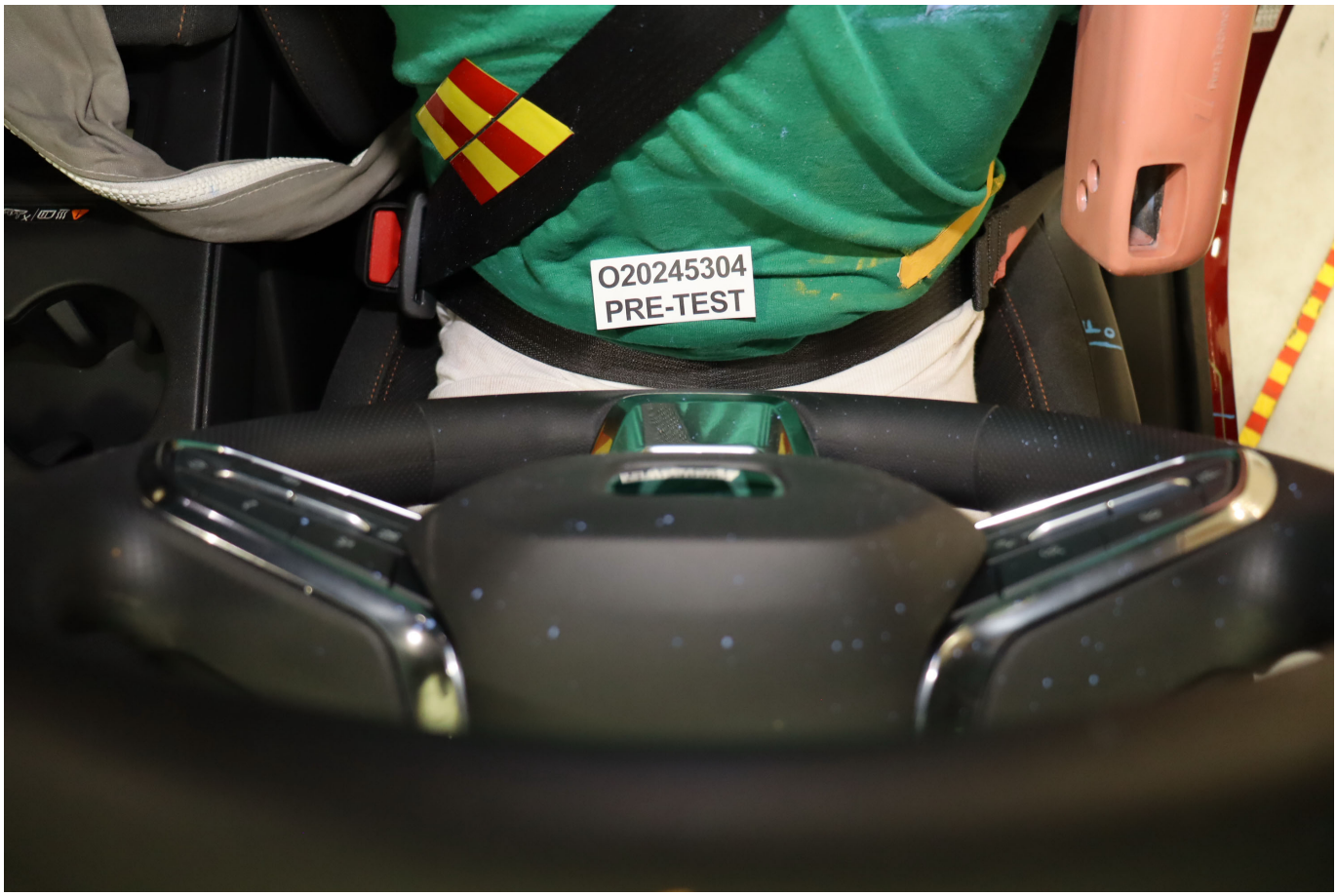


Photo No. 029 - Pre-Test Overhead View of Dummy Thighs on Seat Pan

Photo No. 030 - Pre-Test Left Side View of Dummy's Neck Showing Position of Adjustable Neck Bracket

Photo No. 031 - Pre-Test Left Side View of Dummy's Head Showing Dummy's Head is Level

Photo No. 032 - Pre-Test Placement of Dummy's Feet

Photo No. 033 - Pre-Test View of Belt Anchorage for Dummy

Photo No. 034 - Pre-Test Left Side View of Steering Wheel

Photo No. 035 - Pre-Test View of Disengaged Parking Brake

Photo No. 036 - Pre-Test View of Parking Brake

Photo No. 037 - Pre-Test Close-Up Left Side View of Driver Seat Track

Photo No. 038 - Pre-Test Close-Up Left Side View of Driver Seat Back

Photo No. 039 - Pre-Test Close-Up View of Driver Seat Back or Head Restraint

Photo No. 040 - Pre-Test Dummy and Door Clearance View

Photo No. 041 - Post-Test Dummy and Door Clearance View

Photo No. 042 - Pre-Test Right Side View of Dummy and Front Seat of Occupant Compartment

Photo No. 043 - Post-Test Right Side View of Dummy and Front Seat of Occupant Compartment

Photo No. 044 - Pre-Test Inner Door Panel View

Photo No. 045 - Post-Test Inner Door Panel View Showing Dummy Contact Location

Photo No. 046 - Post-Test Dummy Close-Up Head Contact with Vehicle Interior View

Photo No. 047 - Post-Test Dummy Close-Up Head Contact with Side Air Bag View

Photo No. 048 - Post-Test Dummy Close-Up Torso Contact with Vehicle Interior View

Photo No. 049 - Post-Test Dummy Close-Up Torso Contact with Side Air Bag View

Photo No. 050 - Post-Test Dummy Close-Up Pelvis Contact with Vehicle Interior View

Photo No. 051 - Post-Test Dummy Close-Up Pelvis Contact with Side Air Bag View

Photo No. 052 - Post-Test Dummy Close-Up Knee Contact with Vehicle Interior View

Photo No. 053 - Post-Test Right Side View of Dummy and Rear Seat of Occupant Compartment

PHOTOGRAPH NOT APPLICABLE

Photo No. 054 - Post-Test Inner Rear Passenger Torso Air Bag Deployment View

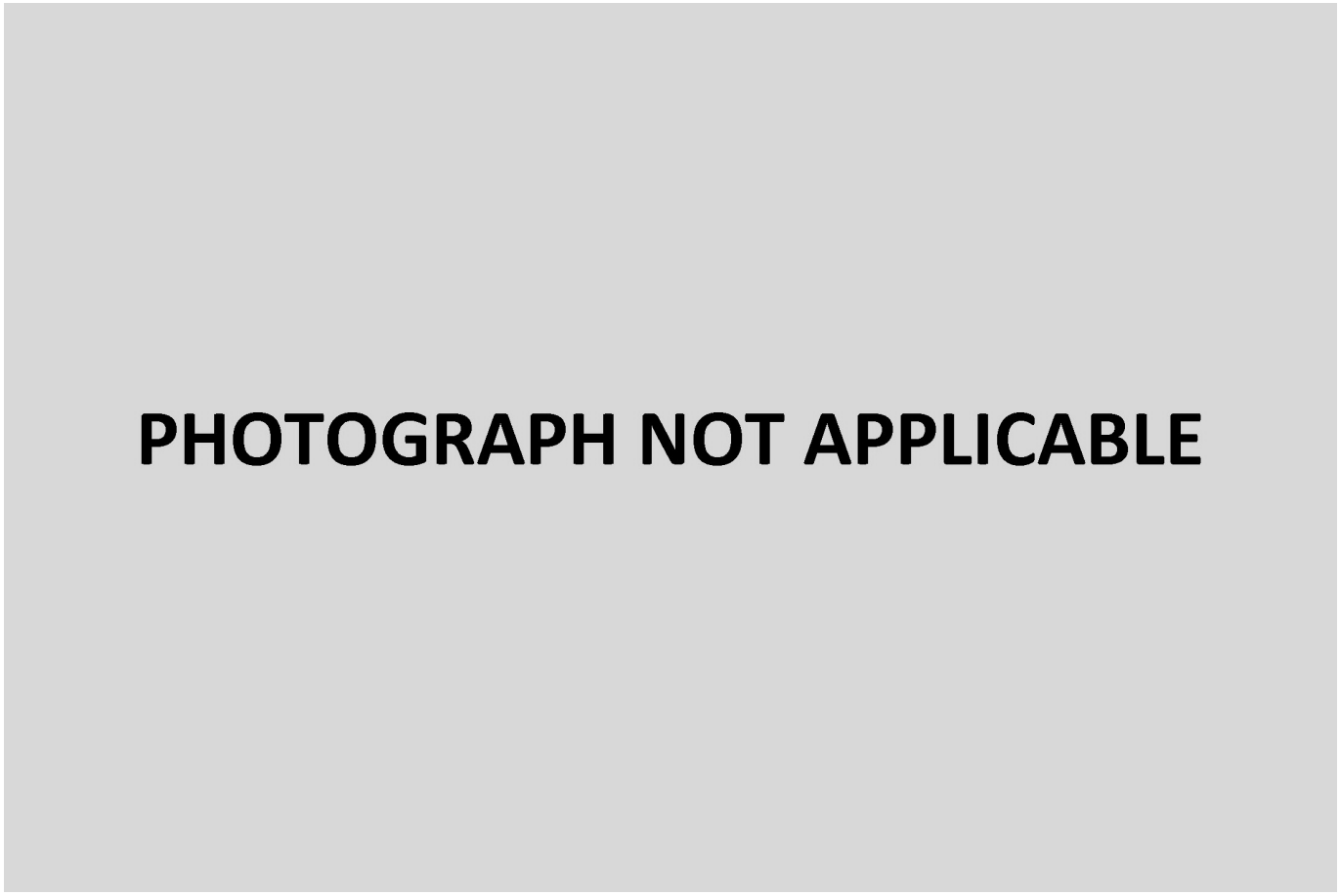


Photo No. 055 - Pre-Test View of Fuel Filler Cap or Fuel Filler Neck

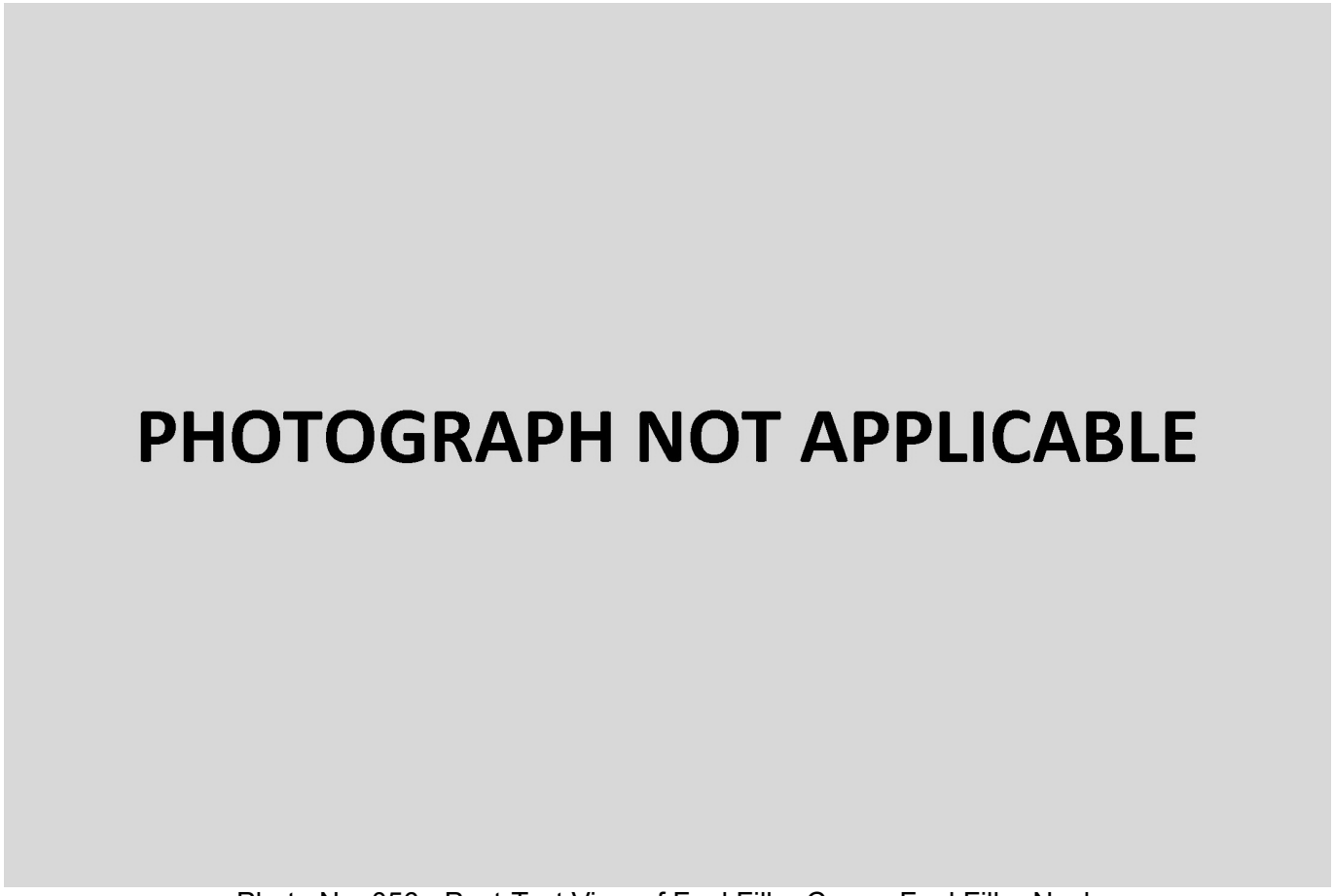


Photo No. 056 - Post-Test View of Fuel Filler Cap or Fuel Filler Neck

Photo No. 057 - Close-Up View of Vehicle's Certification Label

Photo No. 058 - Close-Up View of Vehicle's Tire Information Placard or Label

Photo No. 059 - Pre-Test Pole Barrier Front View

Photo No. 060 - Post-Test Pole Barrier Front View

Photo No. 061 - Pre-Test Pole Barrier Side View

Photo No. 062 - Post-Test Pole Barrier Side View

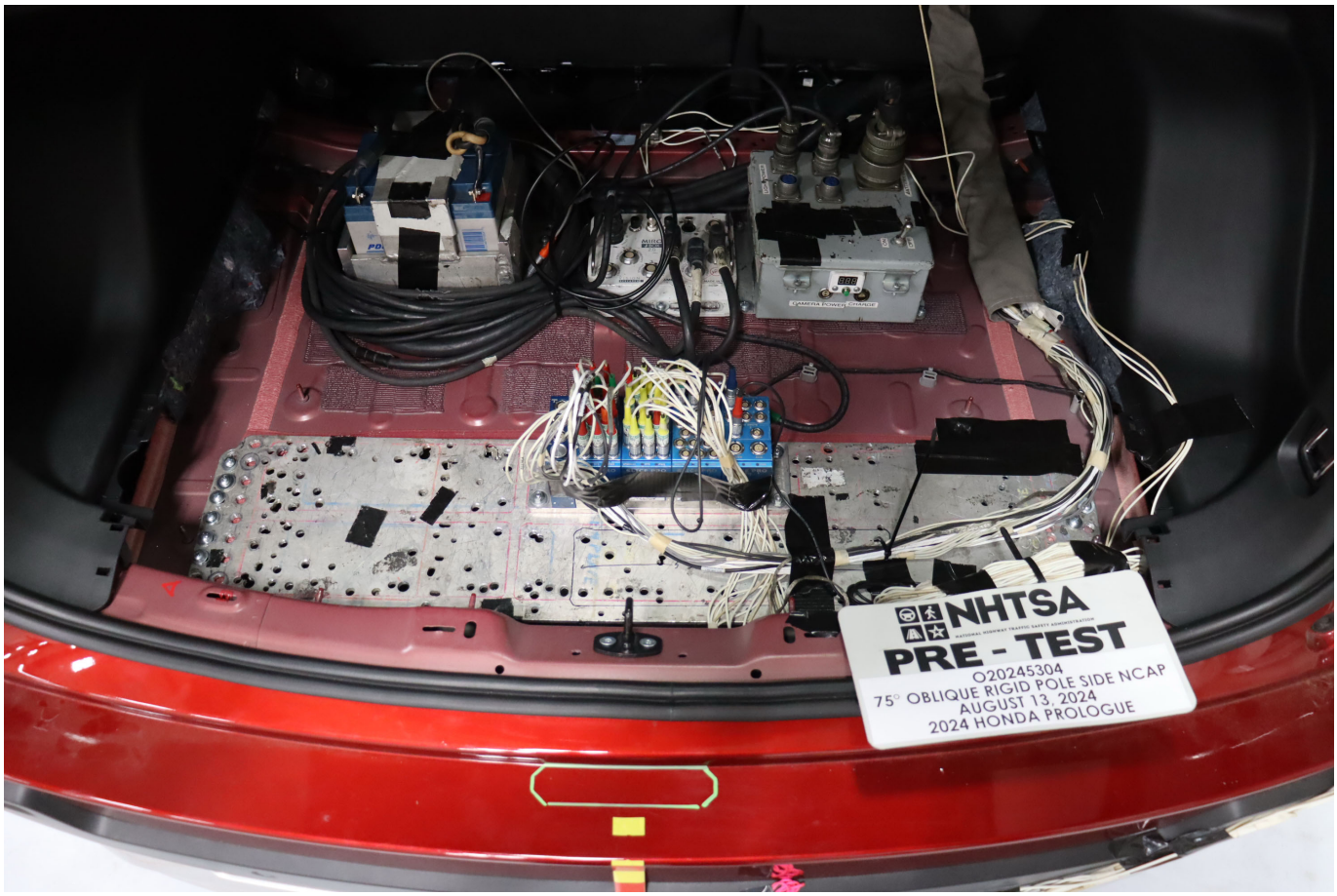


Photo No. 063 - Pre-Test Ballast View

Photo No. 064 - Post-Test Primary and Redundant Speed Trap Read-Out

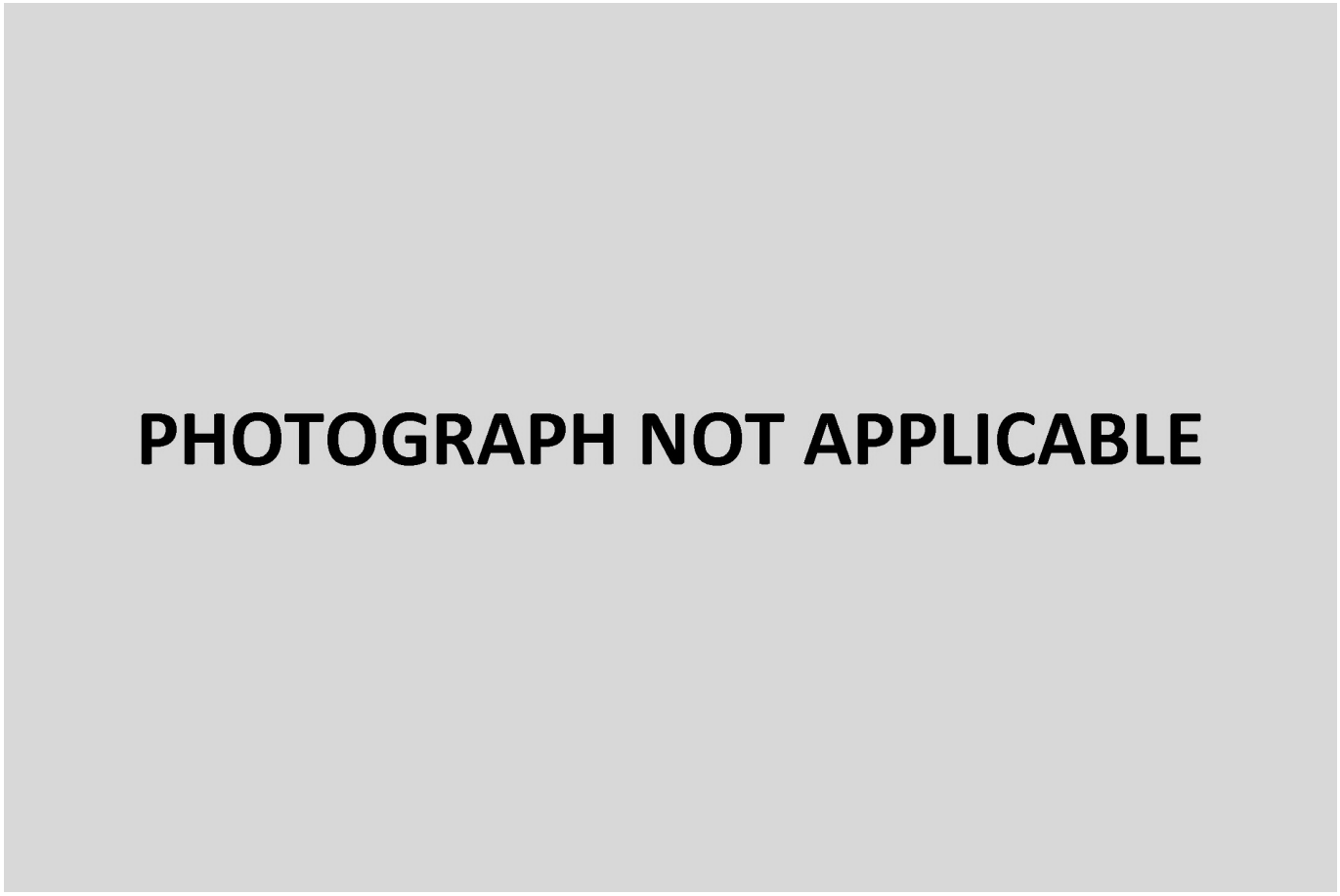


Photo No. 065 - FMVSS Photo No. 301 Static Rollover 0 Degrees

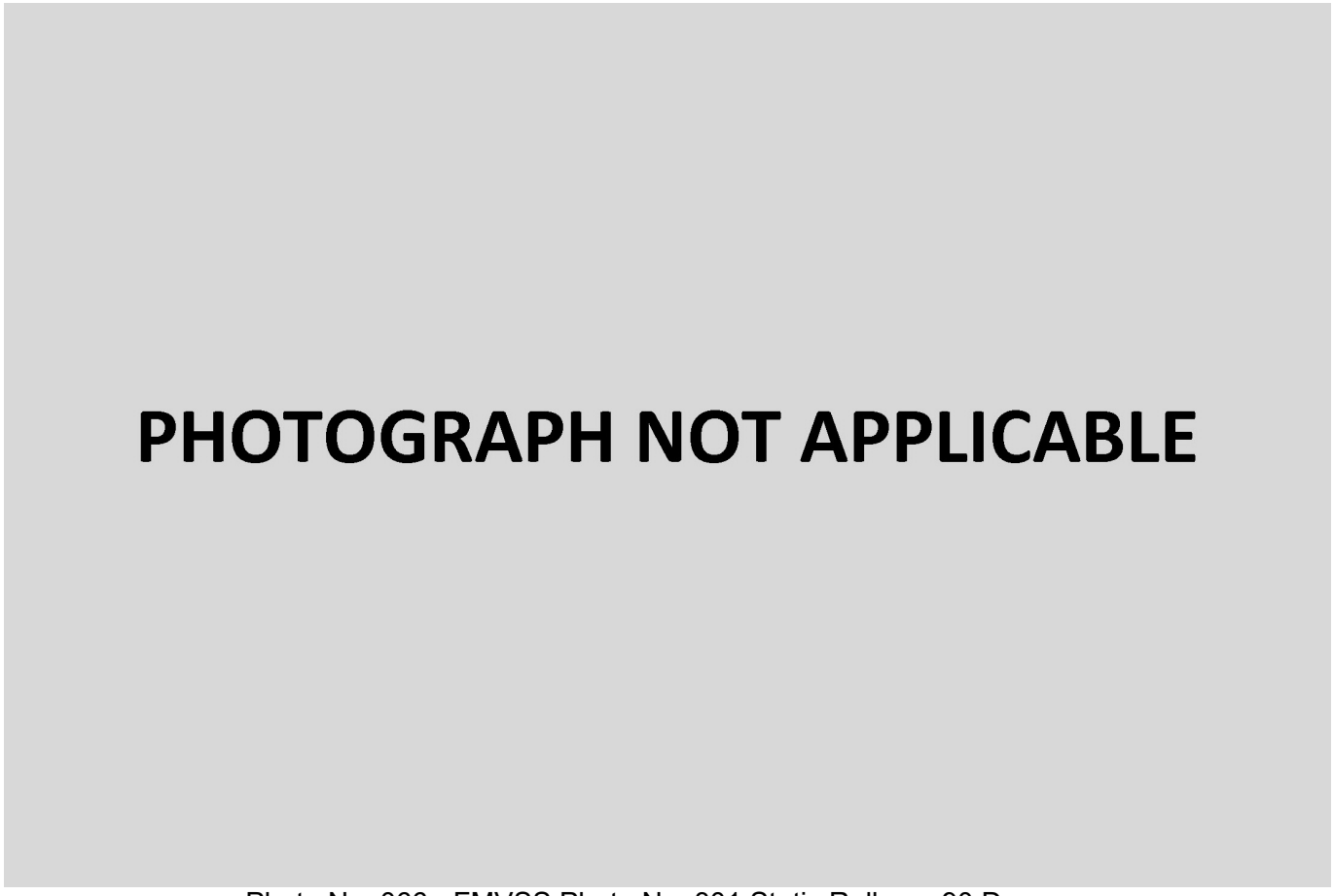


Photo No. 066 - FMVSS Photo No. 301 Static Rollover 90 Degrees

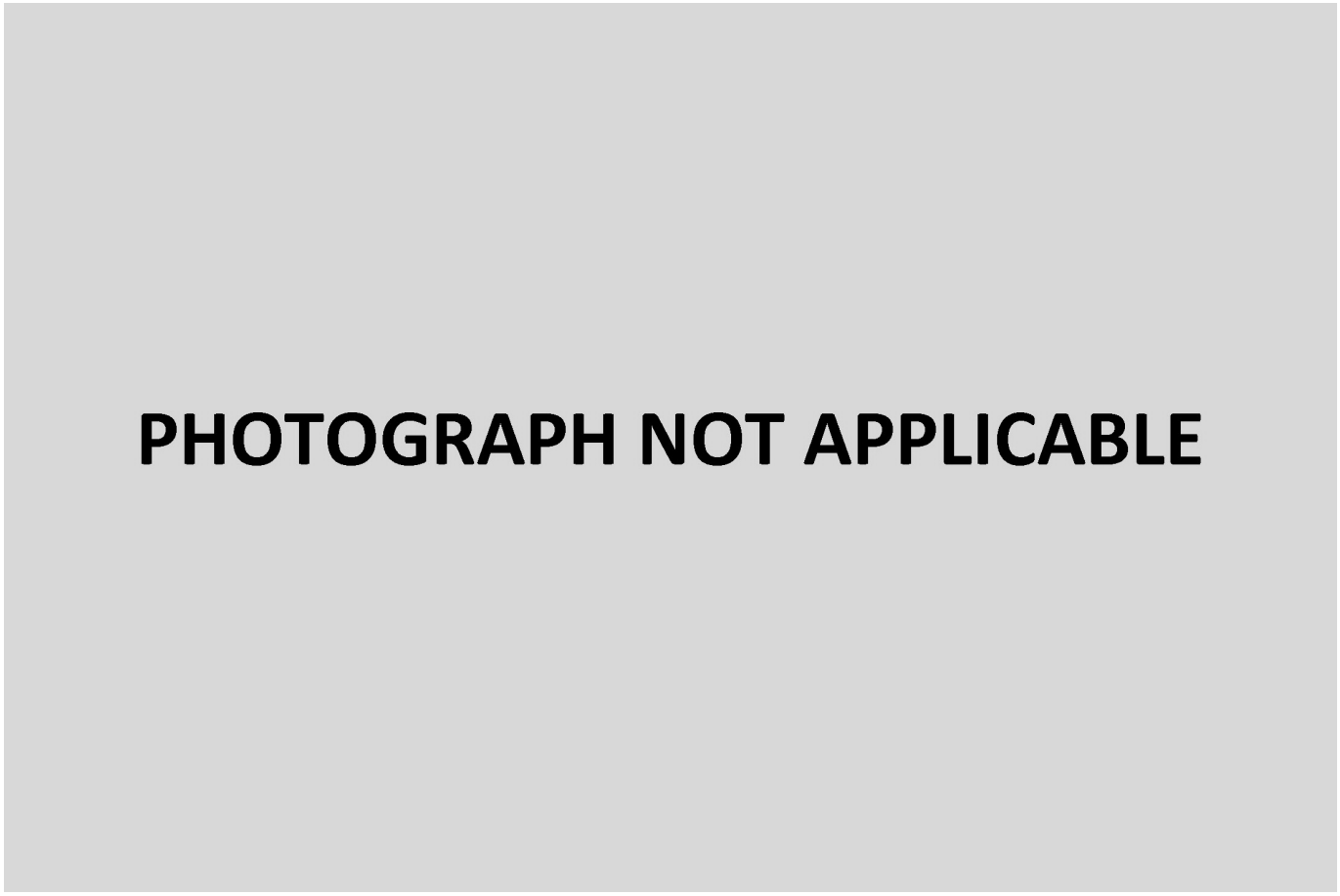


Photo No. 067 - FMVSS Photo No. 301 Static Rollover 180 Degrees

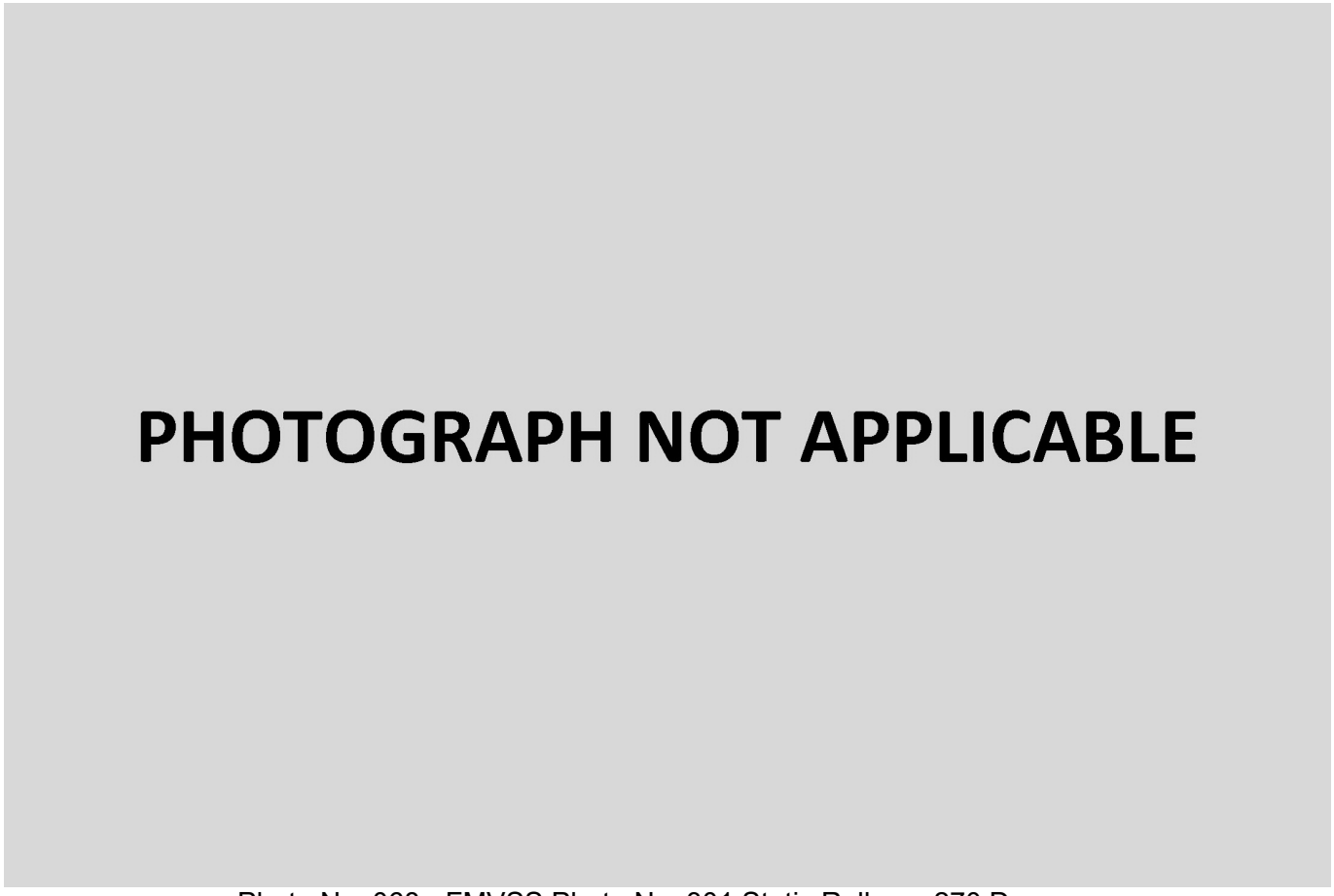


Photo No. 068 - FMVSS Photo No. 301 Static Rollover 270 Degrees

PHOTOGRAPH NOT APPLICABLE

Photo No. 069 - FMVSS Photo No. 301 Static Rollover 360 Degrees

Photo No. 070 - Impact Event

HONDA

2024 PROLOGUE 2WD EX

EXT: SCARLET RED M MOTOR NUMBER : X0B-0000000
INT: BLACK

STANDARD EQUIPMENT AT NO EXTRA COST

*** TECHNICAL FEATURES ***
- Single Electric Motor Front Wheel Drive
- 85 kWh Battery Rated Energy
- 150 kW DC Fast Charging Capability (requires compatible charging station)
- 11.5 kW AC Onboard Charger
- Regenerative Braking & One Pedal Driving
- Multi-Link Front and Rear Suspension

*** SAFETY & ASSIST FEATURES ***
- Driver's and Front Passenger's Airbags
- Side Curtain Airbags
- Driver's and Front Passenger's Side Airbags
- Driver's and Front Passenger's Knee Airbags
- Anti-Lock Braking System (ABS)
- Electronic Brake Distribution (EBD)
- Electronic Stability Control (ESC)
- Tire Pressure Monitoring System
- LED Daytime Running Lights
- LATCH System for Child Seats
- Rear Seat Reminder (RSR)
- Automatic Emergency Braking
- Forward Collision Alert
- Front Pedestrian Braking
- Adaptive Cruise Control (ACC)
- Lane Keep Assist
- Side Blind Zone Alert
- Blind Zone Steering Assist
- Lane Change Alert
- Rear Cross Traffic Alert
- Rear Cross Traffic Braking
- Reverse Automatic Braking

*** INTERIOR FEATURES ***
- 11.3-Inch Color Touchscreen Display
- 11-inch Digital Instrument Cluster
- Google built-in with 36 Months of Connectivity to support Services
- HondaLink connected by OnStar
- 36 Months of Remote Services; 96 Months of EV and Connected Access; see onstar.com/prologue
- Universal Home Remote System
- Audio System with 6 Speakers
- SiriusXM Satellite Radio
- Wireless Apple CarPlay/Android Auto Compatibility
- Wireless Phone Charger

*** EXTERIOR FEATURES ***
- USB-C Charging Ports
- Dual-Zone Automatic Climate Control with Air Filtration System
- Driver's 10-Way Power Seat
- Heated Front Seats
- 60/40 Split Fold-Down Rear Seatback
- Rear Parking Sensors
- 19" Alloy Wheels
- 255/60 R19 All-Season Tires
- Tire Repair Kit (TRK)
- Heated Power Door Mirrors with Turn Indicators
- Rain Sensing Wipers
- LED Headlights & Taillights
- Auto-On/Off Headlights
- Rear Privacy Glass
- Remote Start Key Fob

Manufacturer's Suggested Retail Price	$47,400.00

MSRP Includes:
-Choice of Complimentary Charging Pkg. See website and dealer for details.

-Honda Roadside Assistance 3YR/36K Mile Warranty Term

-SiriusXM: 3 Months Trial Subscription included (excl. AK & HI)

SCARLET RED M	455.00
Destination and Handling	1,395.00
TOTAL VEHICLE PRICE (includes Pre-Delivery Service)	**$49,250.00**

License and title fees, state and local taxes and dealer options and accessories are not included in the manufacturer's suggested retail price.

VANDERGRIFF HONDA
1104 W. INTERSTATE 20
ARLINGTON,, TX 76096

VIN: 3GPKHURM8RS501947

PORT OF ENTRY: RAMOS
DELIVERY POINT: HOUSTON
SHIP#:
ROW/SPACE:
TRANS.METHOD: J10 ALLIANCE

ORIG. DLR: 206662
REF.NO: 41545
HN CODE: HN-7563
EMISSION: 50 STATE
CONTROL NO: 558808
DEALER: 206662

EPA DOT Fuel Economy and Environment

Electric Vehicle

Fuel Economy: **99** MPGe (combined city/hwy) — 107 city, 91 highway
Standard SUVs range from 11 to 100 MPGe. The best vehicle rates 140 MPGe.

Driving Range
When fully charged, vehicle can travel about...
0 60 120 180 240 **296** miles
Charge Time: 9.5 hours (240V)

34 kW-hrs per 100 miles

You save **$6,000** in fuel costs over 5 years compared to the average new vehicle.

Annual fuel cost $750

Fuel Economy & Greenhouse Gas Rating (tailpipe only): 1 — 10 — 10 Best
Smog Rating (tailpipe only): 1 — 10 — 10 Best

This vehicle emits 0 grams CO_2 per mile. The best emits 0 grams per mile (tailpipe only). Does not include emissions from generating electricity; learn more at fueleconomy.gov.

Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 28 MPG and costs $9,750 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at $0.15 per kW-hr. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.

fueleconomy.gov
Calculate personalized estimates and compare vehicles

Smartphone QR Code™

PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE
U.S./Canadian Parts Content: **38 %**

Major Sources of Foreign Parts Content:
KOREA 22 %
MEXICO 16 %

NOTE: Parts content does not include final assembly, distribution or other non-parts costs.

FOR THIS VEHICLE
Final Assembly Point:
RAMOS ARIZPE, CZ MEXICO
Country of Origin: Motor:
KOREA
Transmission:
CHINA

GOVERNMENT 5-STAR SAFETY RATING

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	**Not Rated**
	Passenger	**Not Rated**

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

Side Crash	Front seat	**Not Rated**
	Rear seat	**Not Rated**

Based on the risk of injury in a side impact.

Rollover — **Not Rated**
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

Photo No. 071 - Monroney Label

Head Restraints

⚠ Warning

With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

Front Seats

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

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

The height of the head restraint can be adjusted.

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

The front seat outboard head restraints are not removable.

Rear Seats

The vehicle's rear second row outer seats have adjustable head restraints.

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

When you use the head restraint in the rear center seating position, pull up the head restraint to its highest position. Do not use it in any lower position.

Outboard Head Restraint Shown, Center Head Restraint Similar

To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down.

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

Rear outboard head restraints are not removable.

Front Seats

Seat Adjustment

⚠ Warning

Do not adjust driver seat while the vehicle is moving. Doing so could result in a crash causing death or serious injury. Only adjust driver seat when vehicle is not moving.

You can lose control of the vehicle and be seriously hurt or killed if you try to adjust the driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.

To adjust a manual seat:

1. Lift the handle at the front of the seat cushion.
2. Move the seat forward or rearward to adjust the seat position.
3. Release the handle to stop the seat from moving.
4. Try to move the seat back and forth to be sure it is locked in place.

Seat Height Adjuster

If equipped, move the lever up or down to manually raise or lower the seat.

Photo No. 072 - Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

Photo No. 073 - Post-Test View of Shattered Vehicle Inner Door Panel

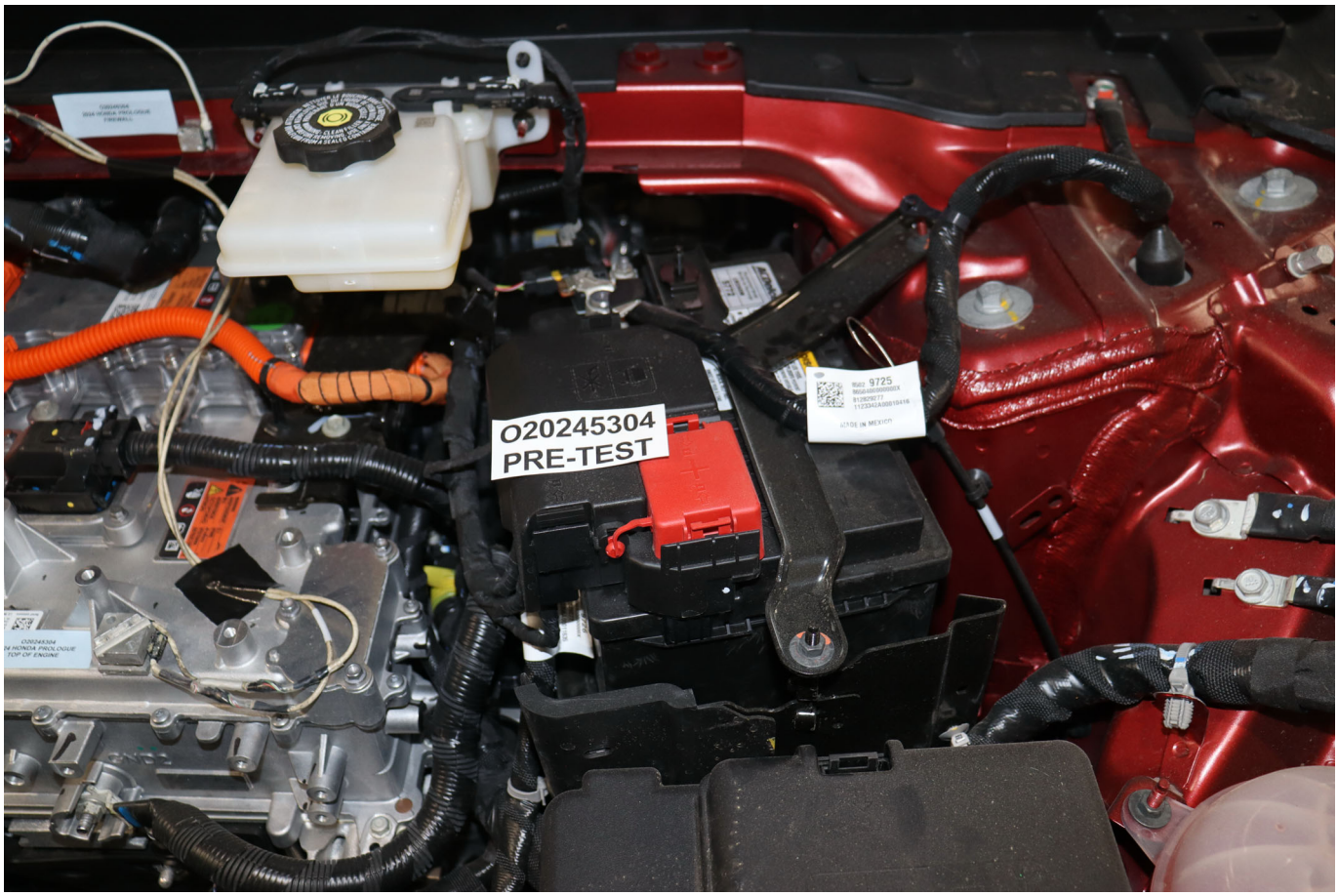


Photo No. 305-01 - Auxiliary Power Module Warning Label

Photo No. 305-02 - Power Inverter Warning Label

Photo No. 305-03 - First Responder Warning Label

Photo No. 305-04 - First Responder Warning Location

PHOTOGRAPH NOT APPLICABLE

Photo No. 305-05 - Other Vehicle Label(s) Related to Electrical Propulsion System

Photo No. 305-06 - Manual High Voltage Service Disconnect in Place

Photo No. 305-07 - Manual High Voltage Service Disconnect Removed

Photo No. 305-08 - Manual High Voltage Service Disconnect Removed

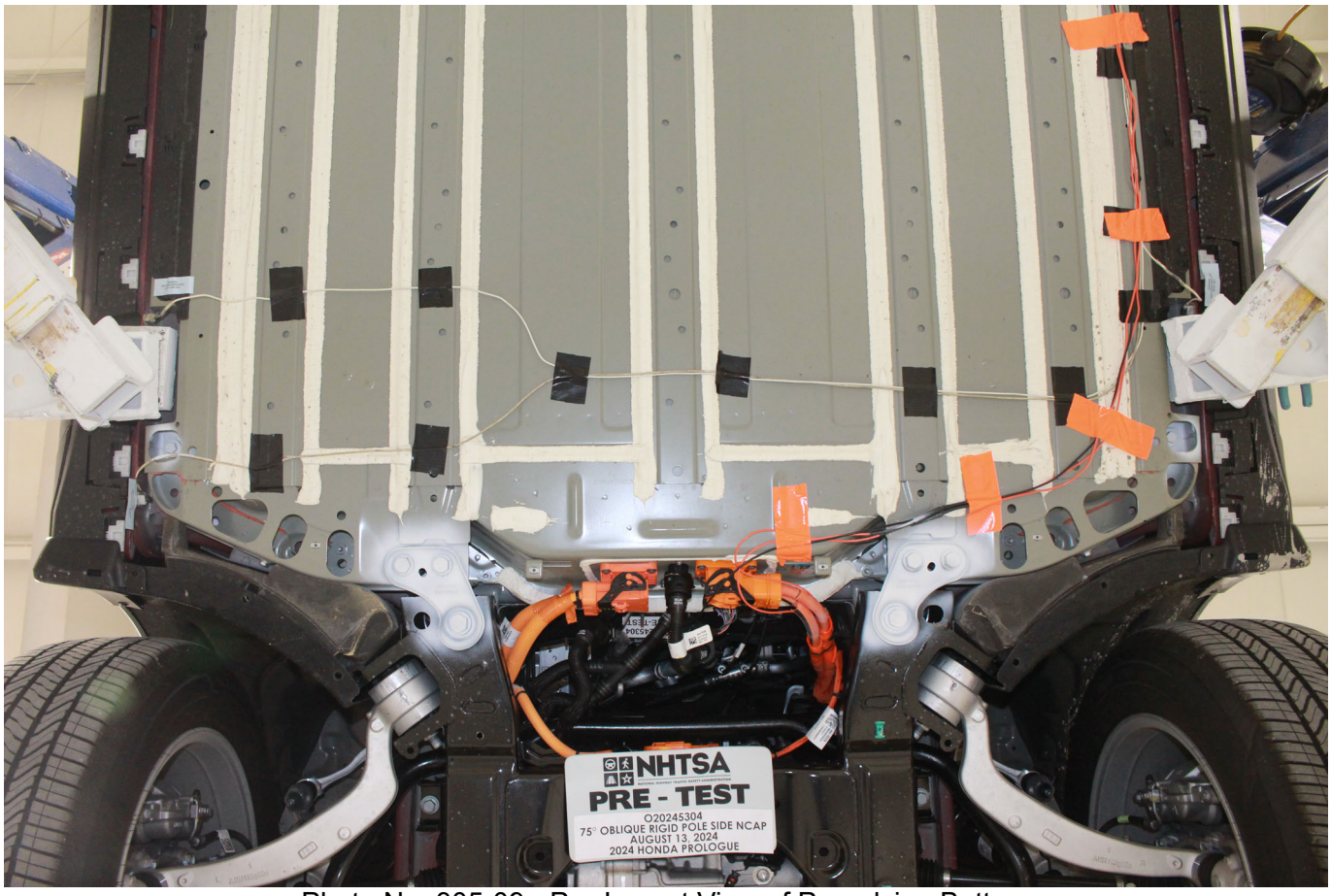


Photo No. 305-09 - Pre-Impact View of Propulsion Battery

Photo No. 305-10 - Post-Impact Front View of Propulsion Battery

Photo No. 305-11 - Post-Impact Rear View of Propulsion Battery

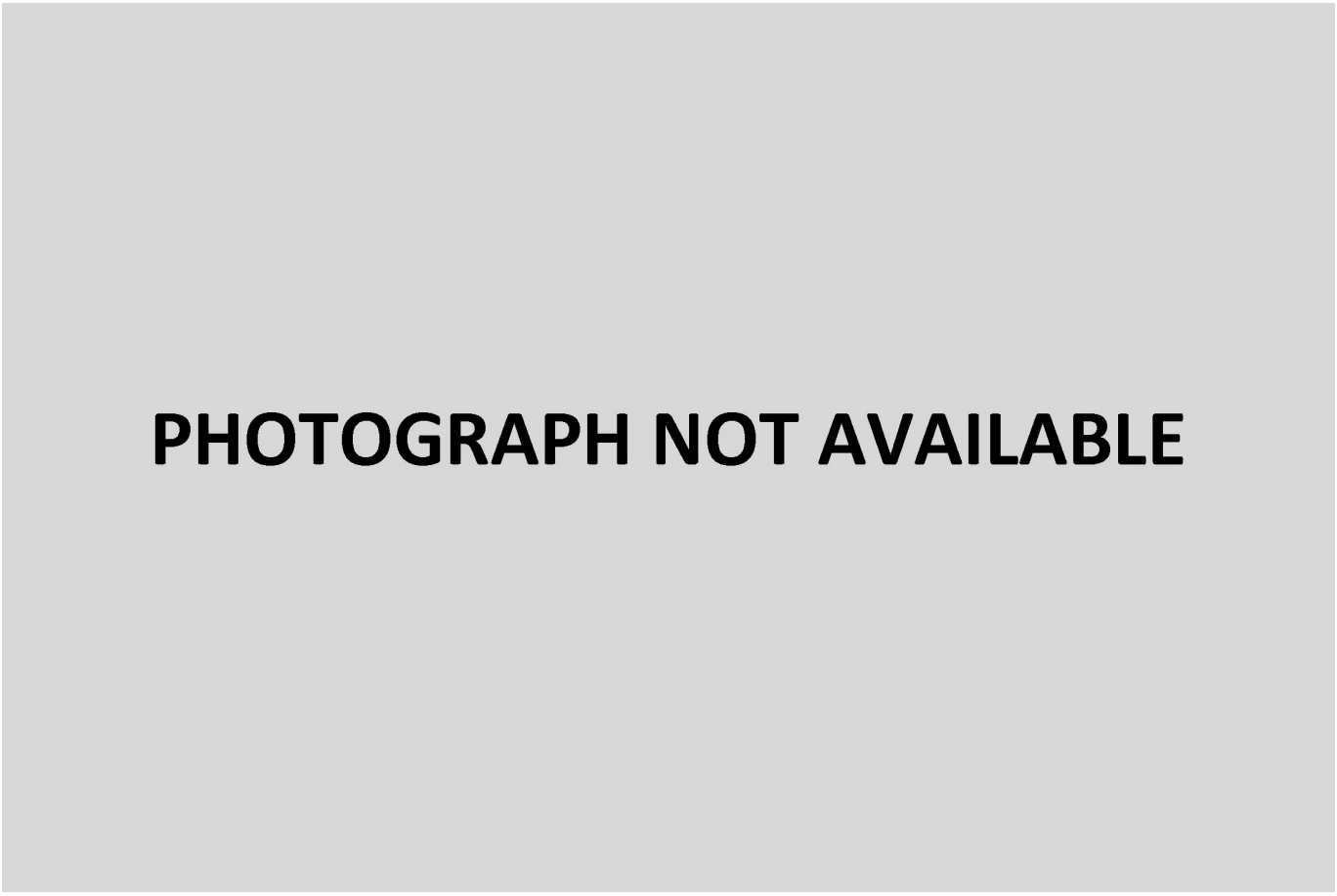


Photo No. 305-12 - Pre-Impact View of Battery Box(s) or Container(s) Which Holds Individual Battery Modules

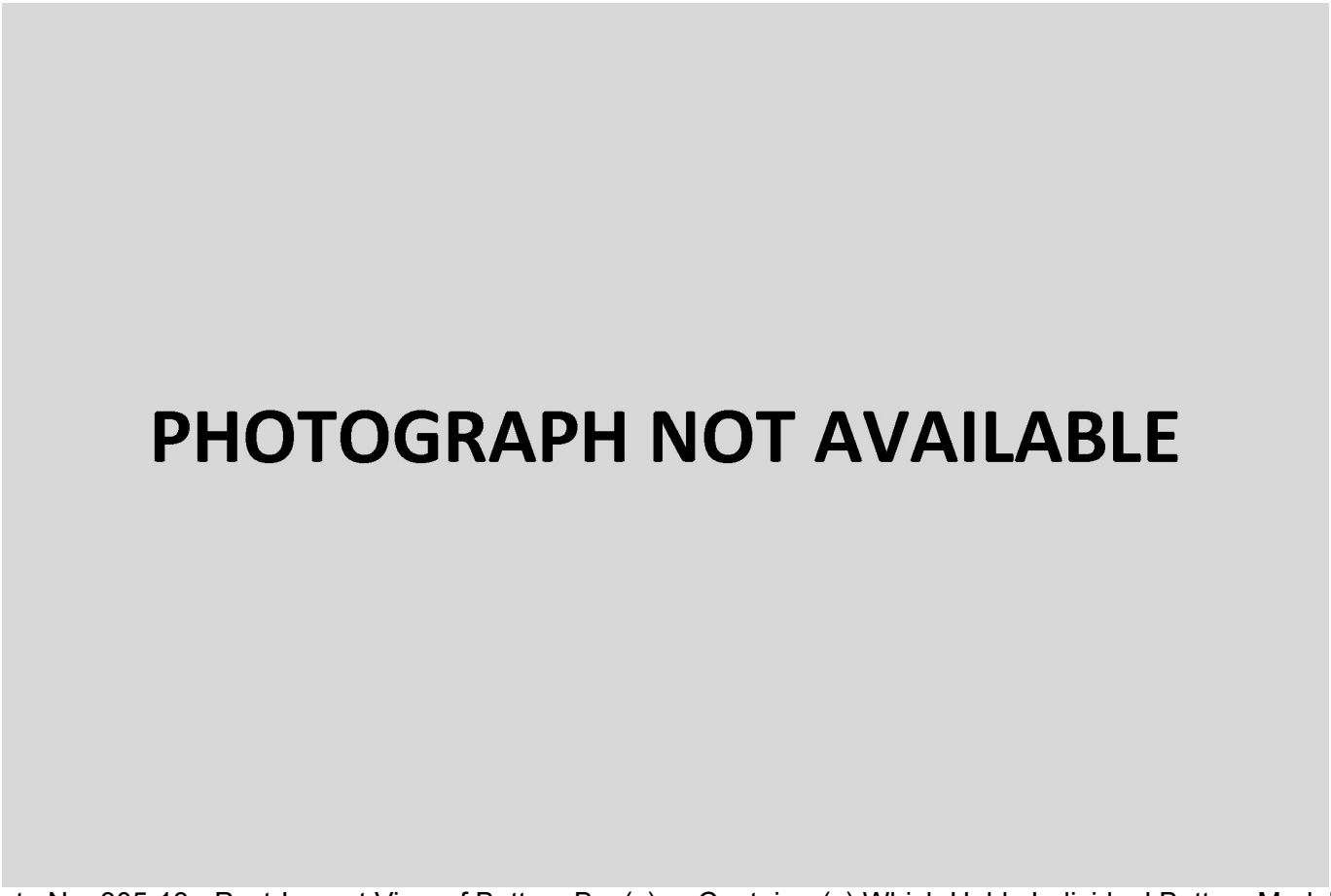


Photo No. 305-13 - Post-Impact View of Battery Box(s) or Container(s) Which Holds Individual Battery Modules

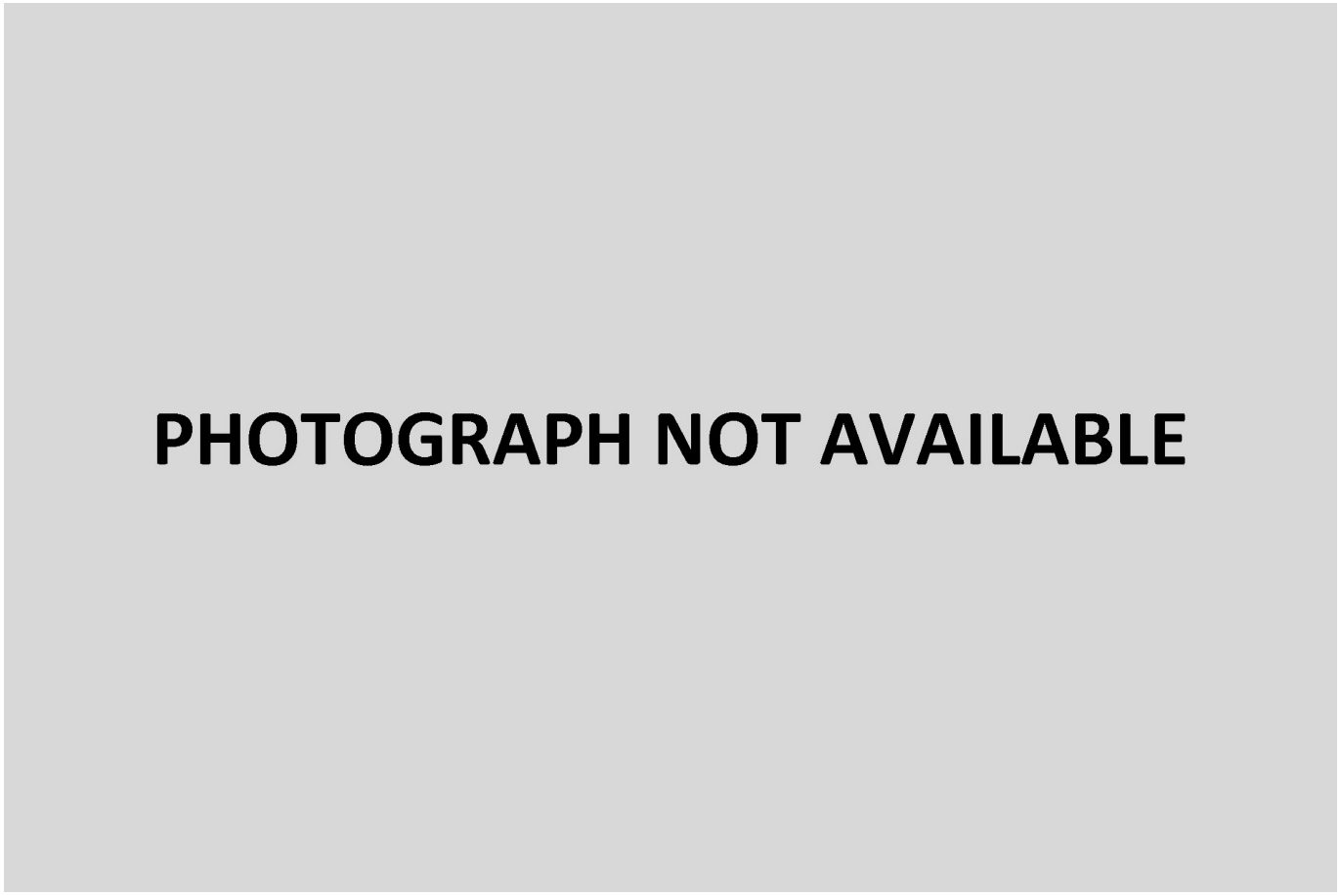


Photo No. 305-14 - Pre-Impact View of Propulsion Battery Module(s)

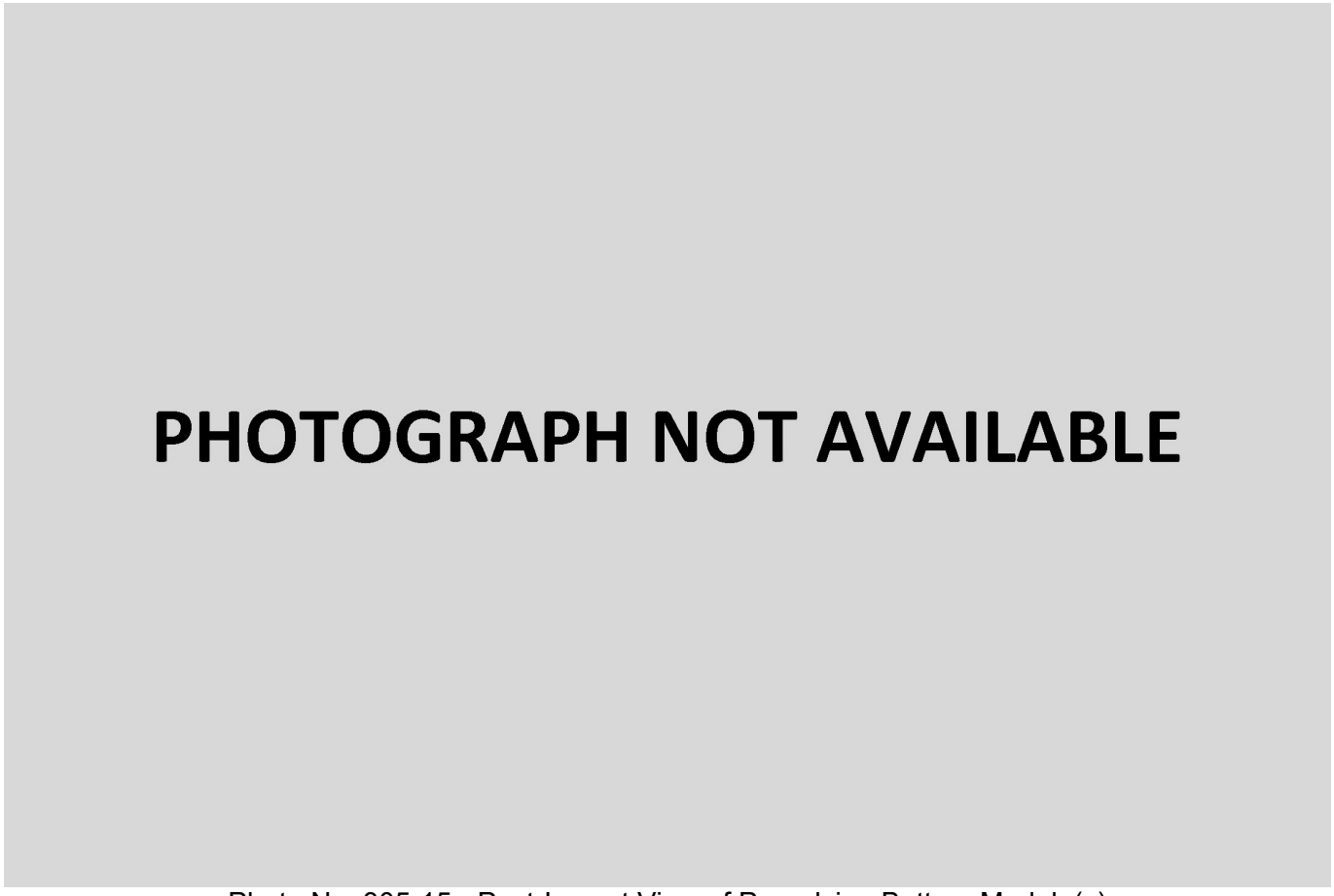


Photo No. 305-15 - Post-Impact View of Propulsion Battery Module(s)

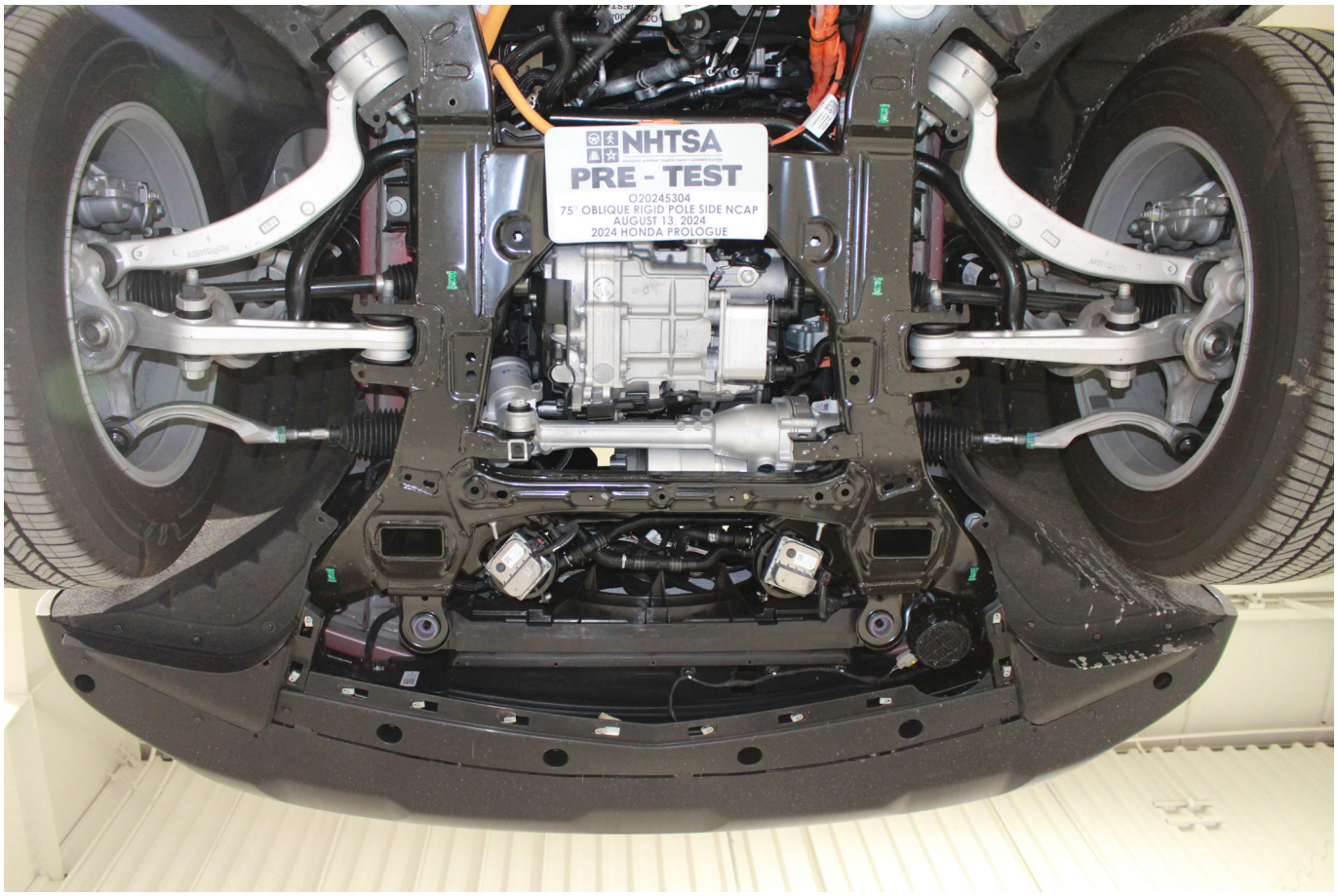


Photo No. 305-16 - Pre-Impact View of Electric Propulsion Drive

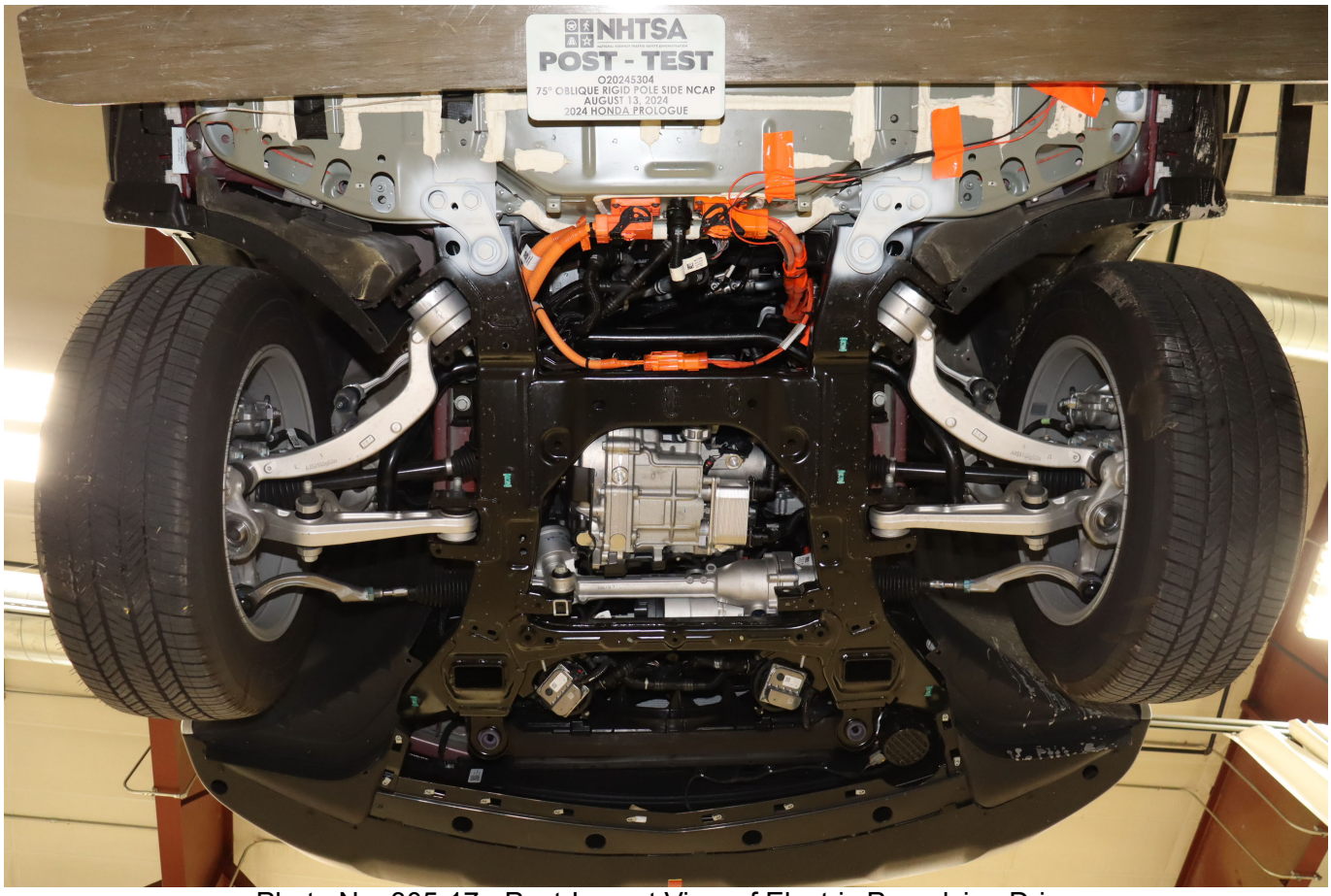


Photo No. 305-17 - Post-Impact View of Electric Propulsion Drive

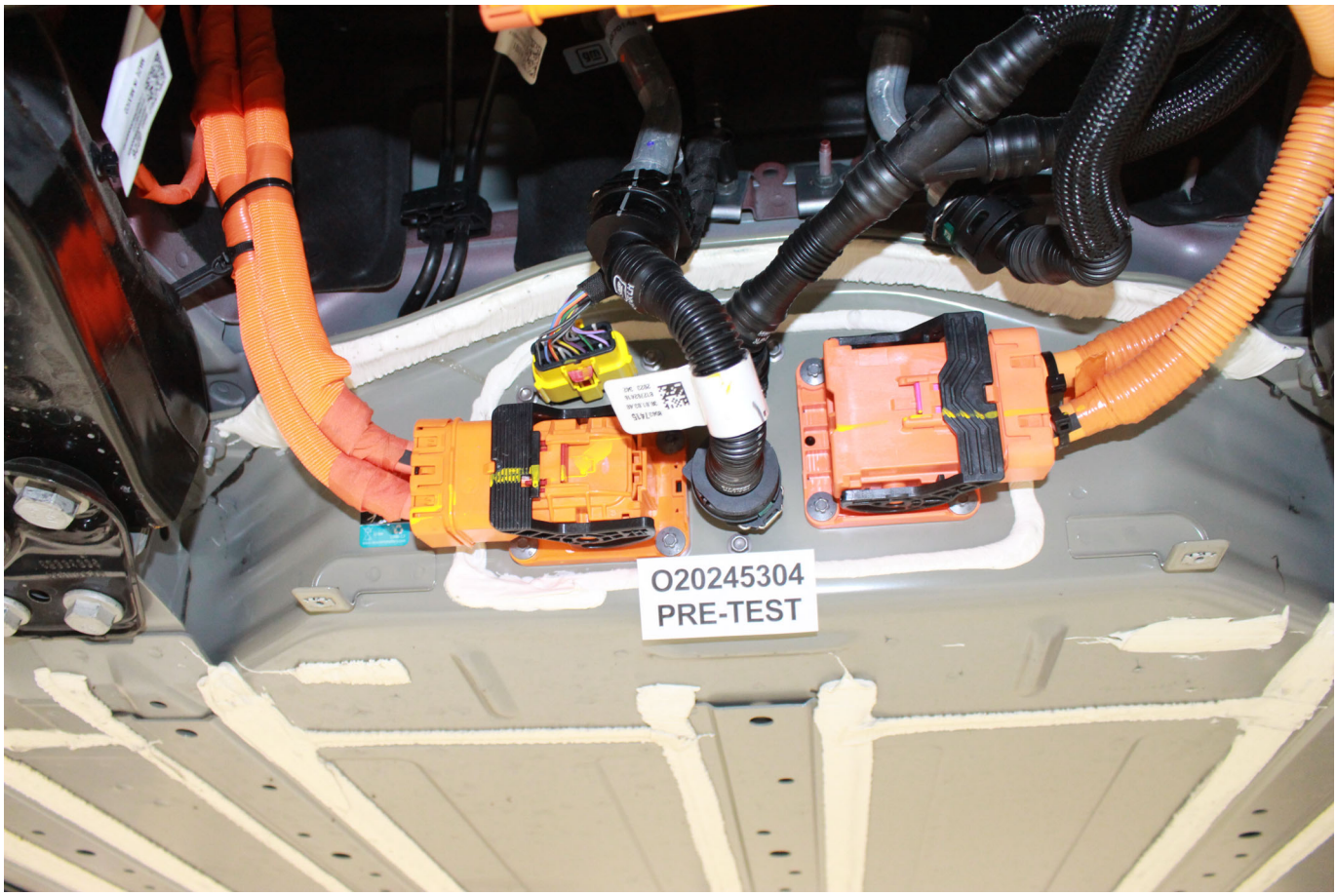


Photo No. 305-18 - Pre-Impact View of High Voltage Interconnect(s)

PHOTOGRAPH NOT APPLICABLE

Photo No. 305-19 - Pre-Impact View Propulsion Battery Venting System(s)

PHOTOGRAPH NOT APPLICABLE

Photo No. 305-20 - Pre-Impact View of Other Visible Electric Propulsion Components

Photo No. 305-21 - Pre-Impact View of Ground Lead Attached

Photo No. 305-22 - Pre-Impact View of High Voltage Leads Attached

Photo No. 305-23 - Pre-Impact Close-Up View of High Voltage Leads Attached

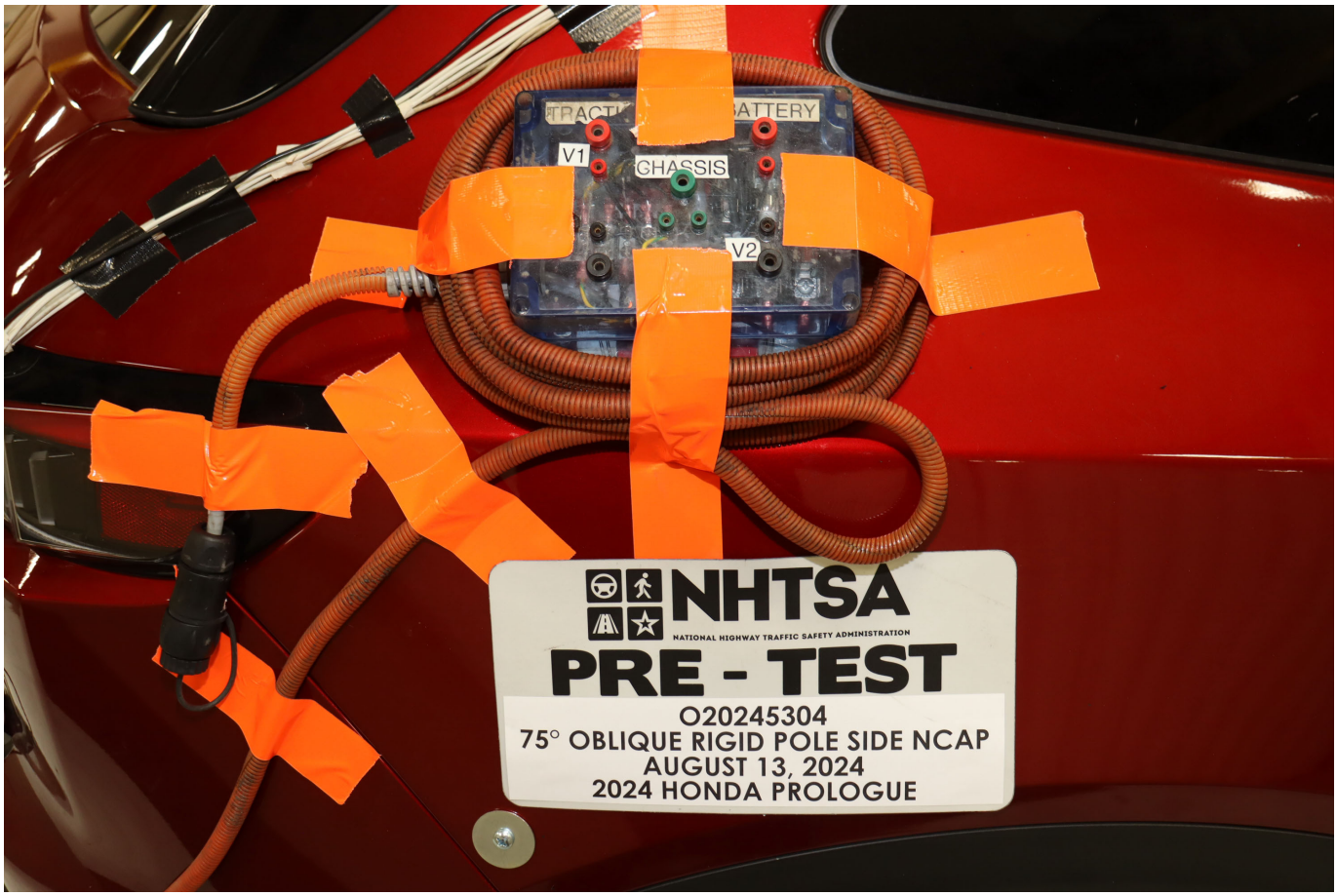


Photo No. 305-24 - Pre-Impact View of Installed Test Interface Port

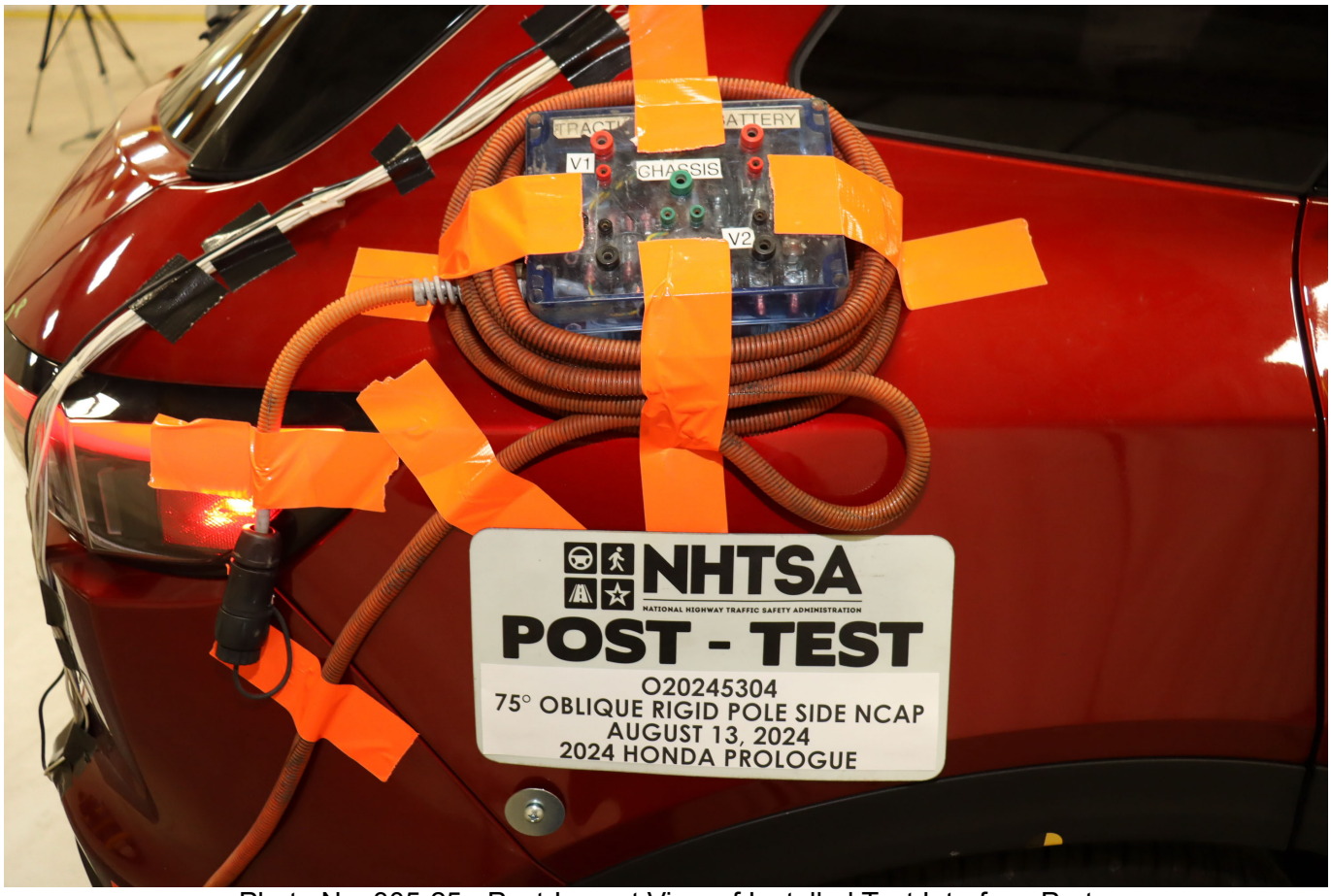


Photo No. 305-25 - Post-Impact View of Installed Test Interface Port

Photo No. 305-26 - Pre-Impact View of Other Test Devices

PHOTOGRAPH NOT AVAILABLE

Photo No. 305-27 - Post-Impact View of Other Test Devices

Photo No. 305-28 - FMVSS No. 305 Static Rollover at 90 Degrees

Photo No. 305-29 - FMVSS No. 305 Static Rollover at 180 Degrees

Photo No. 305-30 - FMVSS No. 305 Static Rollover at 270 Degrees

Photo No. 305-31 - FMVSS No. 305 Static Rollover at 360 Degrees

Photo No. 305-32 - Pre-Impact View of the Vehicle Passenger Compartment Adjacent to Propulsion Battery

Photo No. 305-33 - Post-Impact View of the Vehicle Passenger Compartment Adjacent to Propulsion Battery

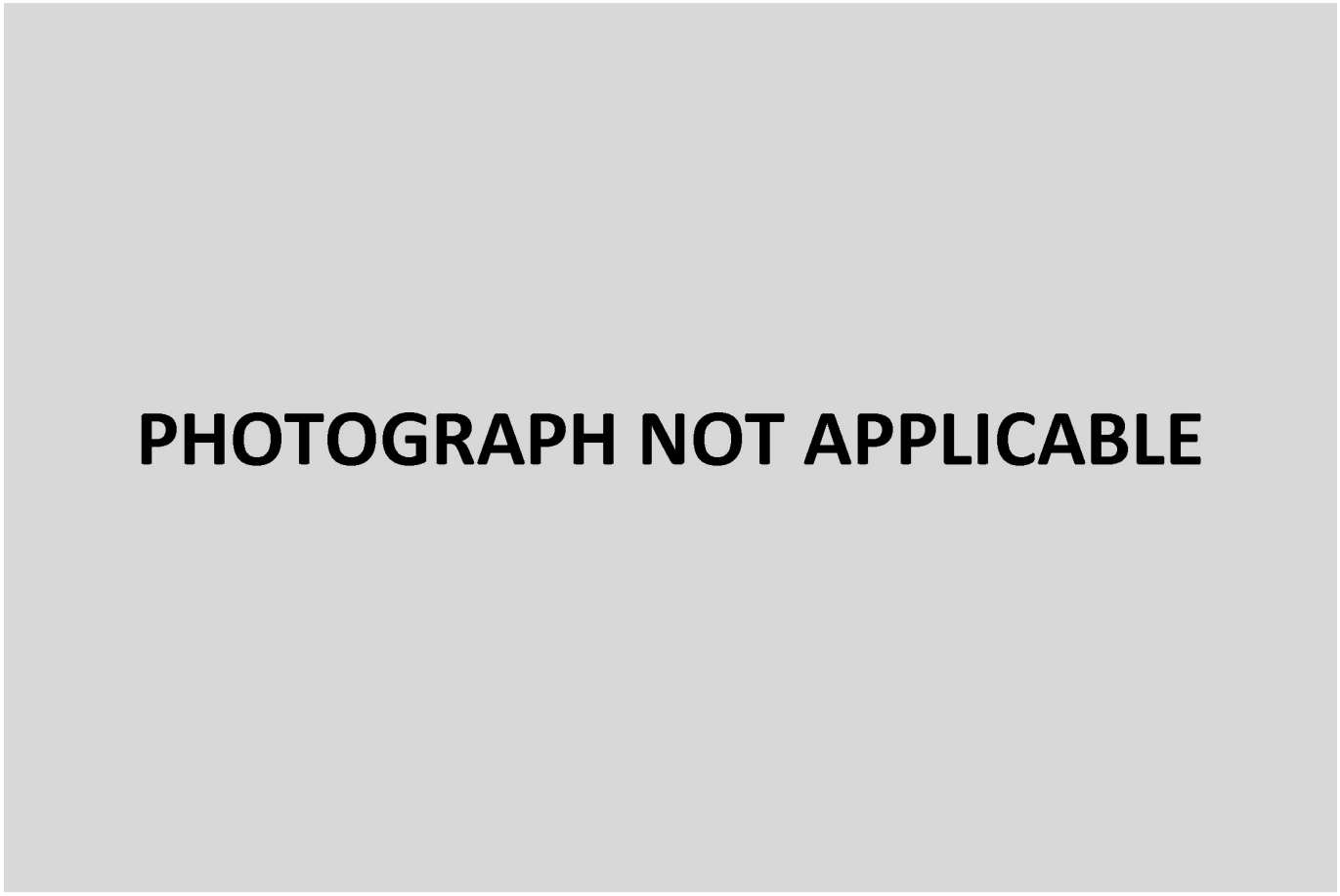


Photo No. 305-34 - Post-Impact Propulsion Battery System Mounting and-or Intrusion Failure(s)

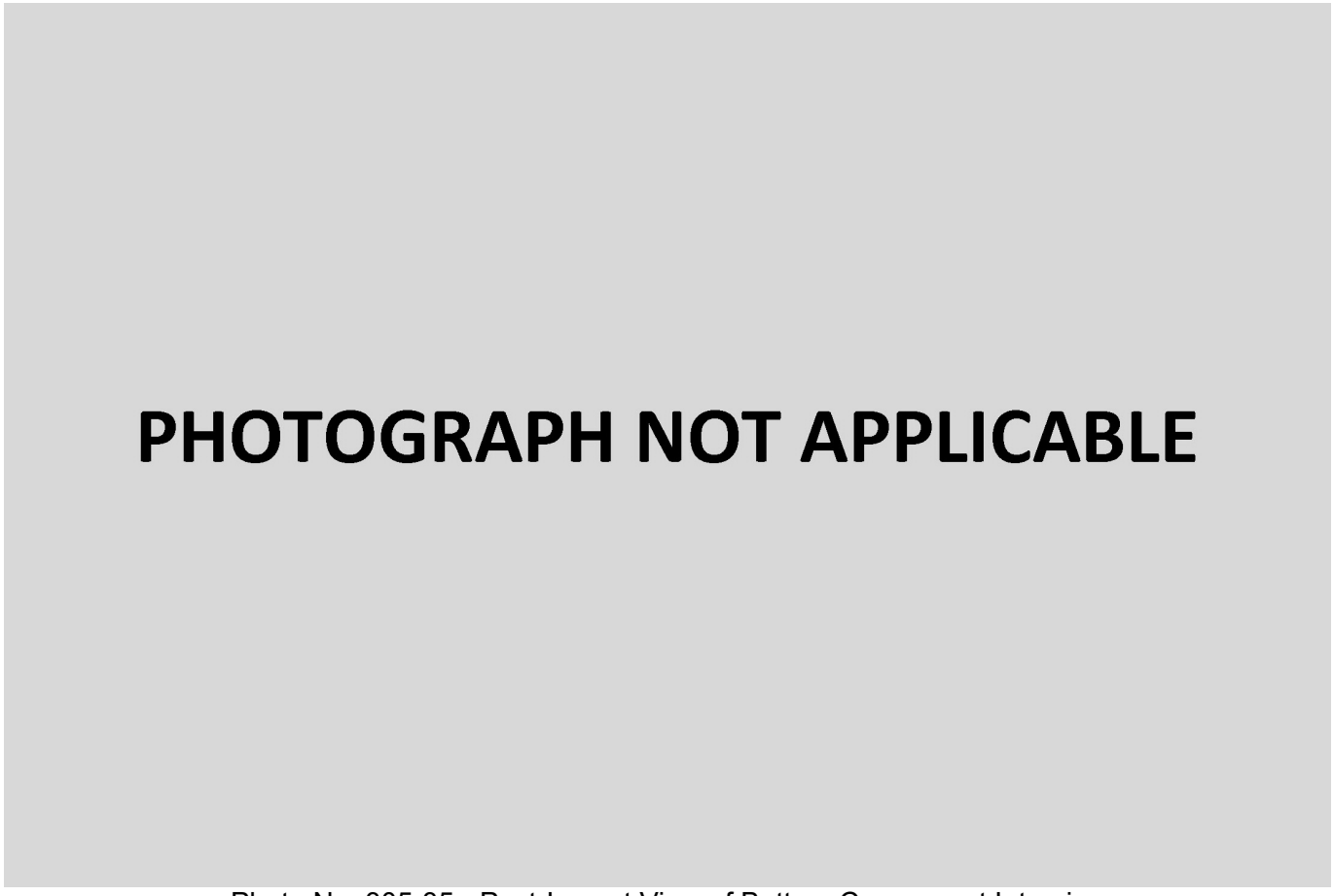


Photo No. 305-35 - Post-Impact View of Battery Component Intrusion

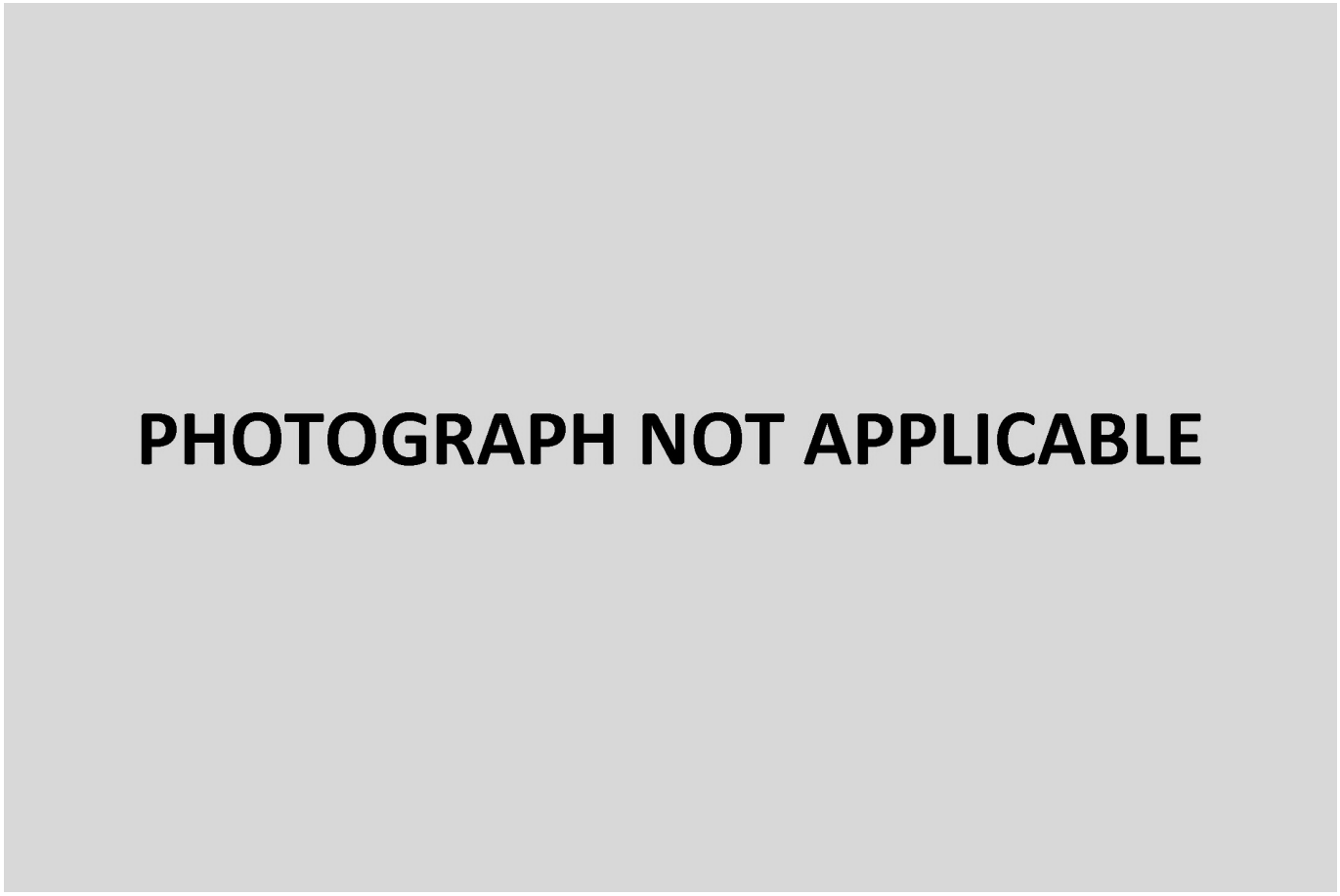


Photo No. 305-36 - Post-Impact View of Battery Module Movement or Retention Loss

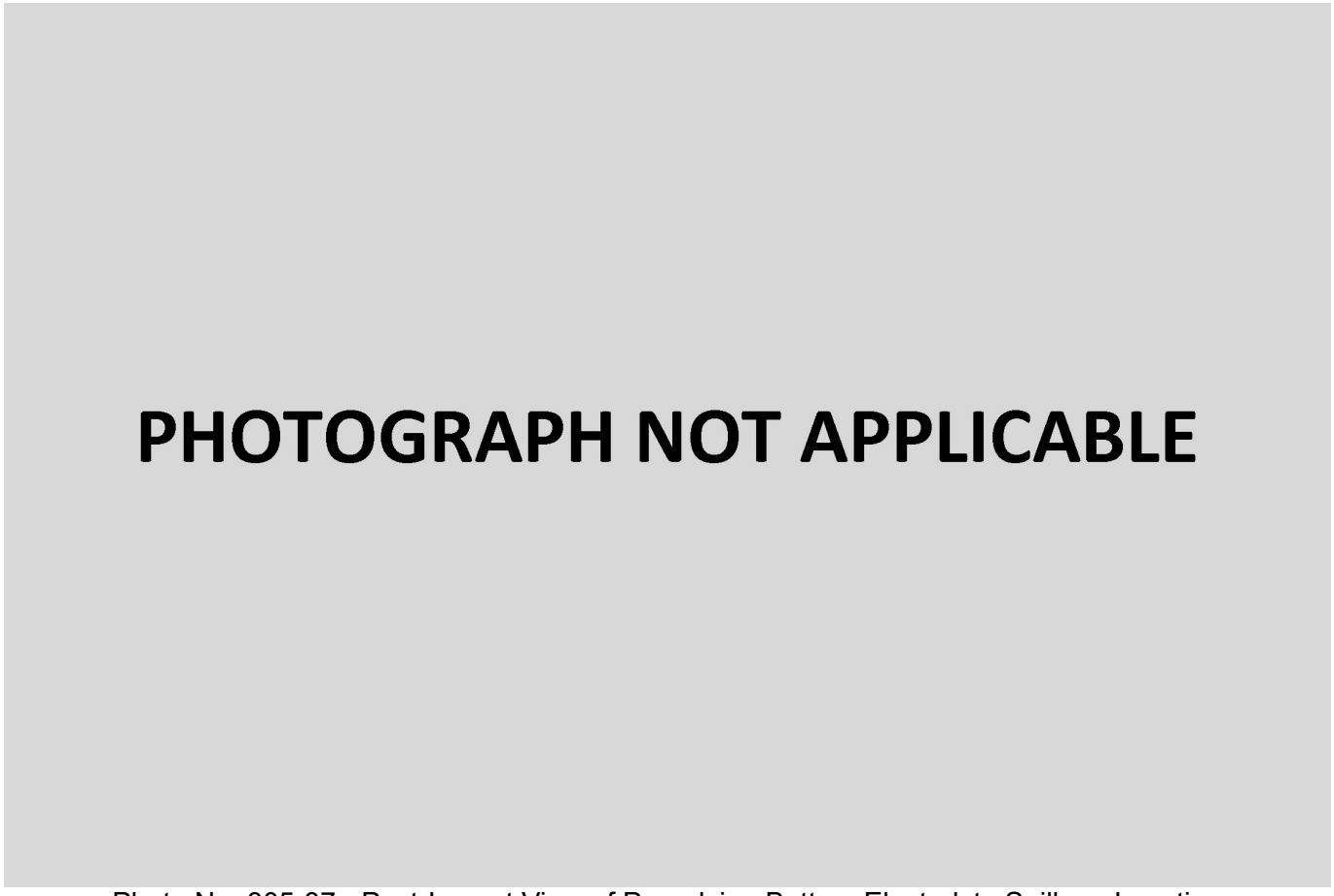


Photo No. 305-37 - Post-Impact View of Propulsion Battery Electrolyte Spillage Location

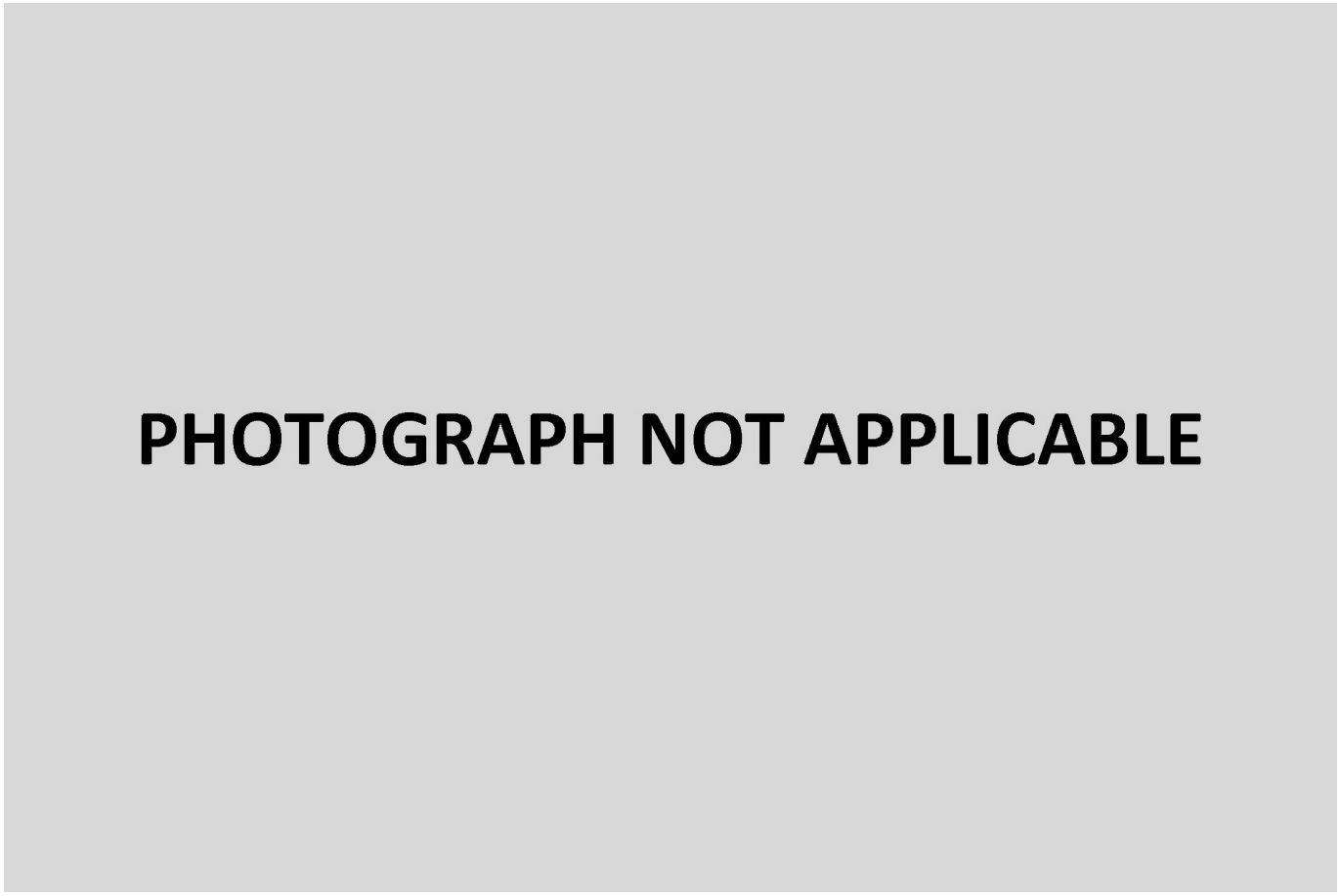


Photo No. 305-38 - Post-Test View of Propulsion Battery Electrolyte Spillage Location

APPENDIX B
DUMMY RESPONSE DATA PLOTS

TABLE OF DATA PLOTS
Driver Dummy Instrumentation Plots

		Page No.
Figure No. 1.	Driver Head CG Acceleration (X) vs. Time	B-1
Figure No. 2.	Driver Head CG Acceleration (Y) vs. Time	B-1
Figure No. 3.	Driver Head CG Acceleration (Z) vs. Time	B-1
Figure No. 4.	Driver Head CG Resultant Acceleration (X) vs. Time	B-1
Figure No. 5.	Driver Lower Spine T12 Acceleration (X) vs. Time	B-2
Figure No. 6.	Driver Lower Spine T12 Acceleration (Y) vs. Time	B-2
Figure No. 7.	Driver Lower Spine T12 Acceleration (Z) vs. Time	B-2
Figure No. 8.	Driver Lower Spine T12 Resultant Acceleration vs. Time	B-2
Figure No. 9.	Driver Iliac Wing Force on Impact Side (Y) vs. Time	B-3
Figure No. 10.	Driver Acetabulum Force on Impact Side (Y) vs. Time	B-3
Figure No. 11.	Driver Total Pelvis Force on Impact Side (Y) vs. Time	B-3

The following additional data for this test can be obtained from the Research and Development section of the NHTSA website. The website can be found at www.nhtsa.gov

Additional Driver Dummy Instrumentation Data

Driver Head CG Redundant Acceleration (X) vs. Time

Driver Head CG Redundant Acceleration (Y) vs. Time

Driver Head CG Redundant Acceleration (Z) vs. Time

Driver Head Angular Velocity X (Deg/Sec) vs. Time

Driver Head Angular Velocity Y (Deg/Sec) vs. Time

Driver Head Angular Velocity Z (Deg/Sec) vs. Time

Driver Upper Thorax Rib Deflection (Y)

Driver Middle Thorax Rib Deflection (Y)

Driver Lower Thorax Rib Deflection (Y)

Driver Upper Abdomen Rib Deflection (Y)

Driver Lower Abdomen Rib Deflection (Y)

Vehicle Instrumentation Data

Vehicle Center of Gravity Acceleration (X)

Vehicle Center of Gravity Acceleration (Y)

Vehicle Center of Gravity Acceleration (Z)

Left Floor Sill Acceleration (Y)

Left A-Pillar Sill Acceleration (Y)

Left Lower A-Pillar Acceleration (Y)

Left Mid A-Pillar Acceleration (Y)

Left B-Pillar Sill Acceleration (Y)

Left Lower B-Pillar Acceleration (Y)

Left Mid B-Pillar Acceleration (Y)

Driver Seat Track at Dummy Hip Point Acceleration (Y)

Engine Top Acceleration (X)

Engine Top Acceleration (Y)

Firewall Center Acceleration (Y)

Right Roof at Vertical Impact Reference Line Acceleration (Y)

Right Sill at Vertical Impact Reference Line Acceleration (Y)

Rear Floorpan Behind Rear Axle at Centerline Acceleration (X)

Rear Floorpan Behind Rear Axle at Centerline Acceleration (Y)

Pole Instrumentation Data

Load Cell Pole Barrier #1 Force (Y)

Load Cell Pole Barrier #2 Force (Y)

Load Cell Pole Barrier #3 Force (Y)

Load Cell Pole Barrier #4 Force (Y)

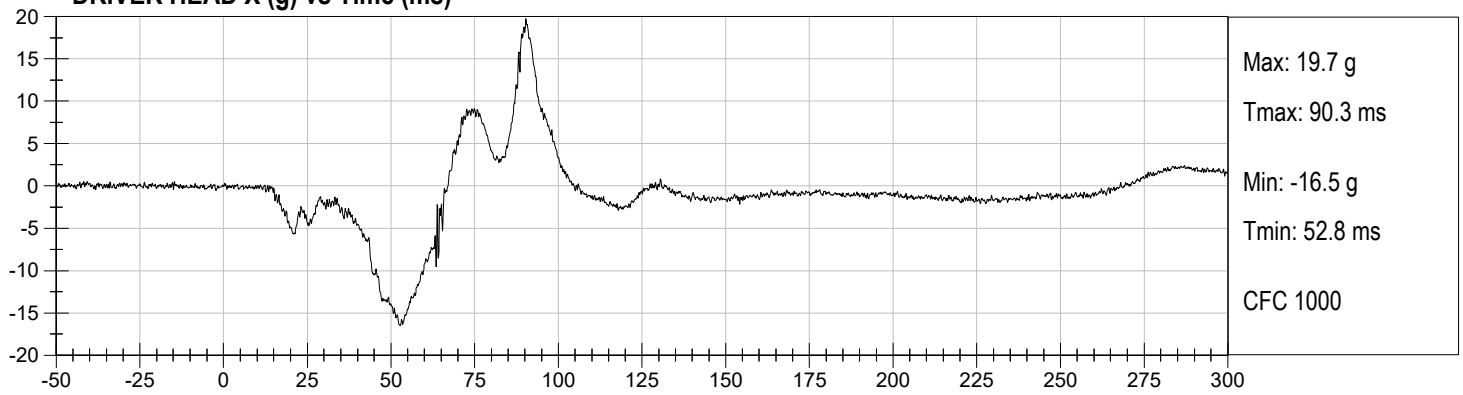
Load Cell Pole Barrier #5 Force (Y)

Load Cell Pole Barrier #6 Force (Y)

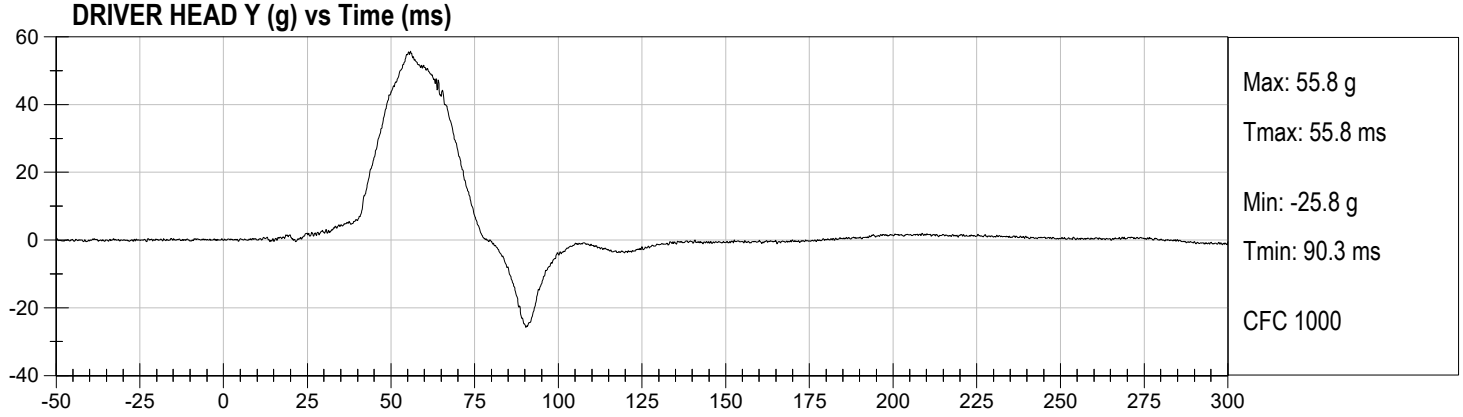
Load Cell Pole Barrier #7 Force (Y)

Load Cell Pole Barrier #8 Force (Y)

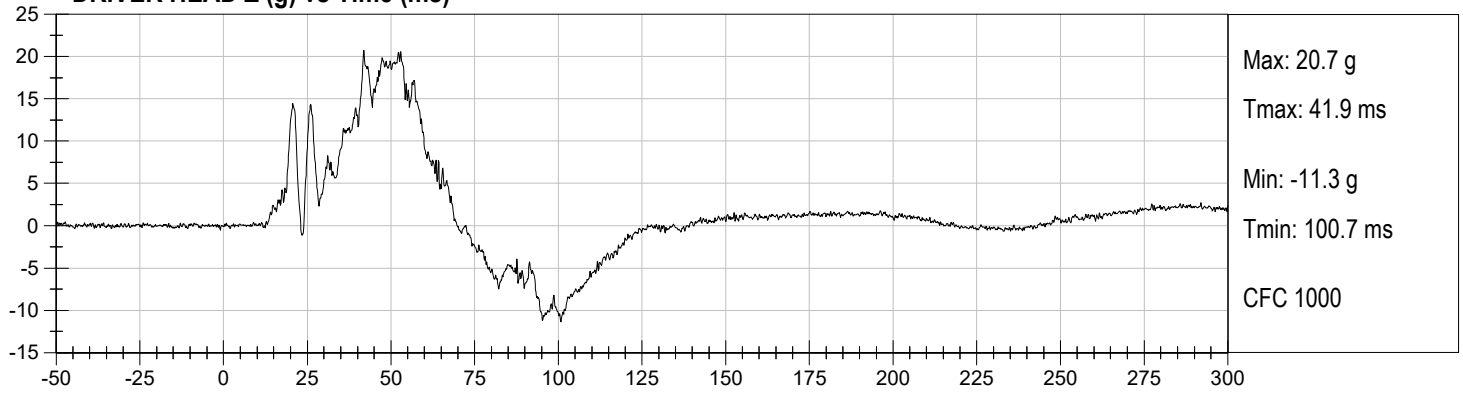
DRIVER HEAD X (g) vs Time (ms)



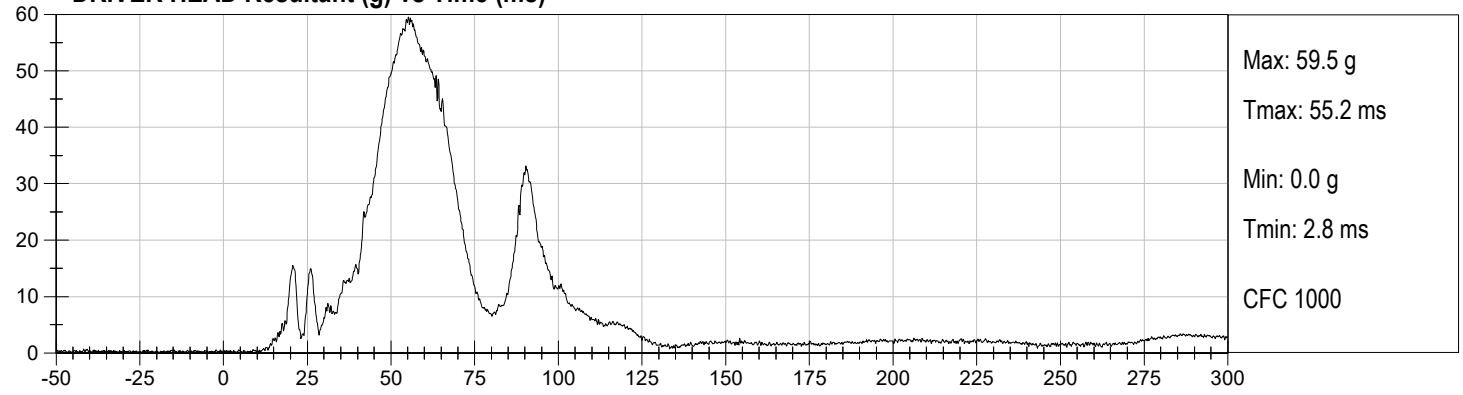
DRIVER HEAD Y (g) vs Time (ms)



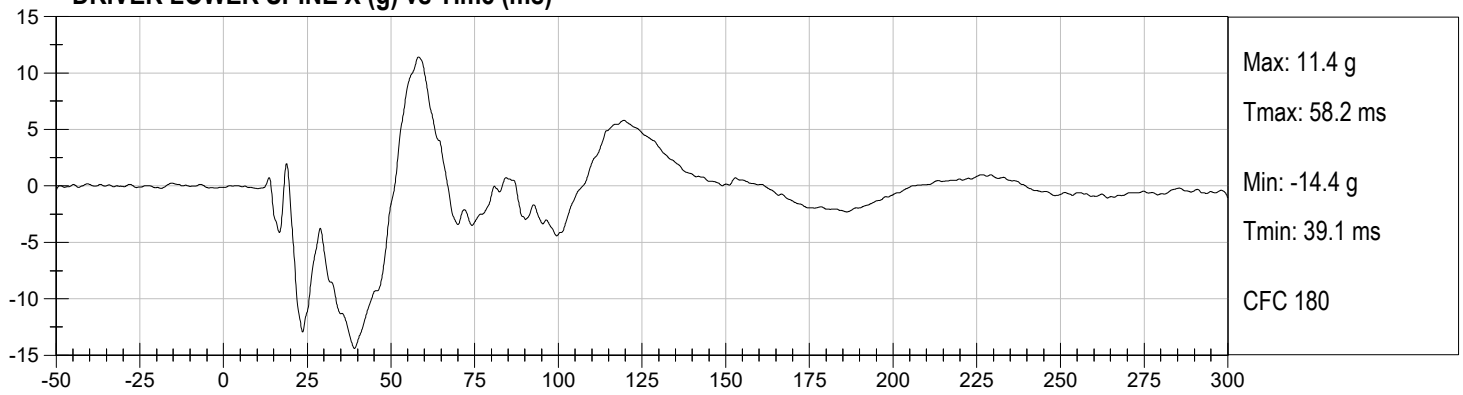
DRIVER HEAD Z (g) vs Time (ms)



DRIVER HEAD Resultant (g) vs Time (ms)

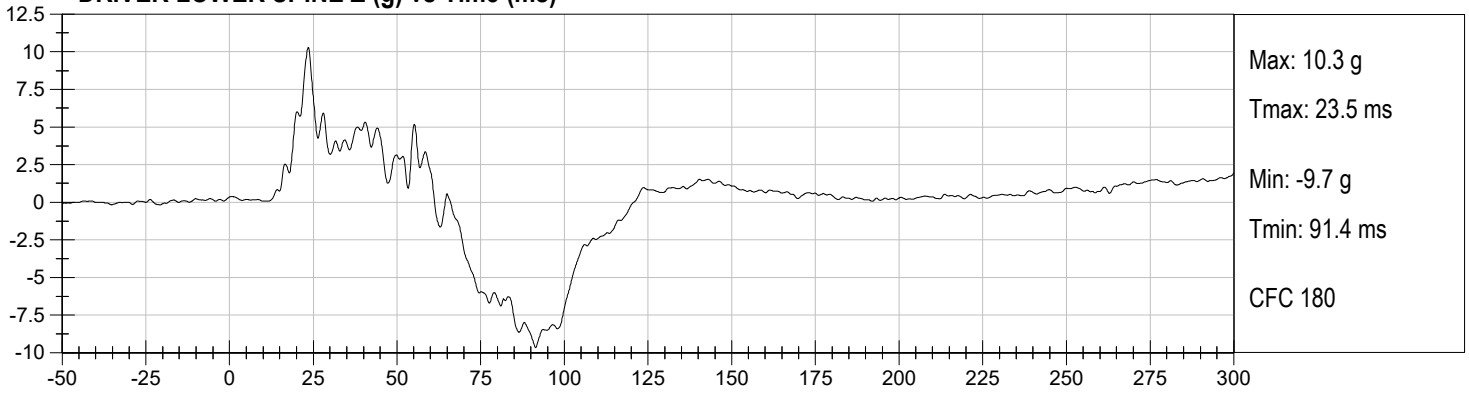


DRIVER LOWER SPINE X (g) vs Time (ms)

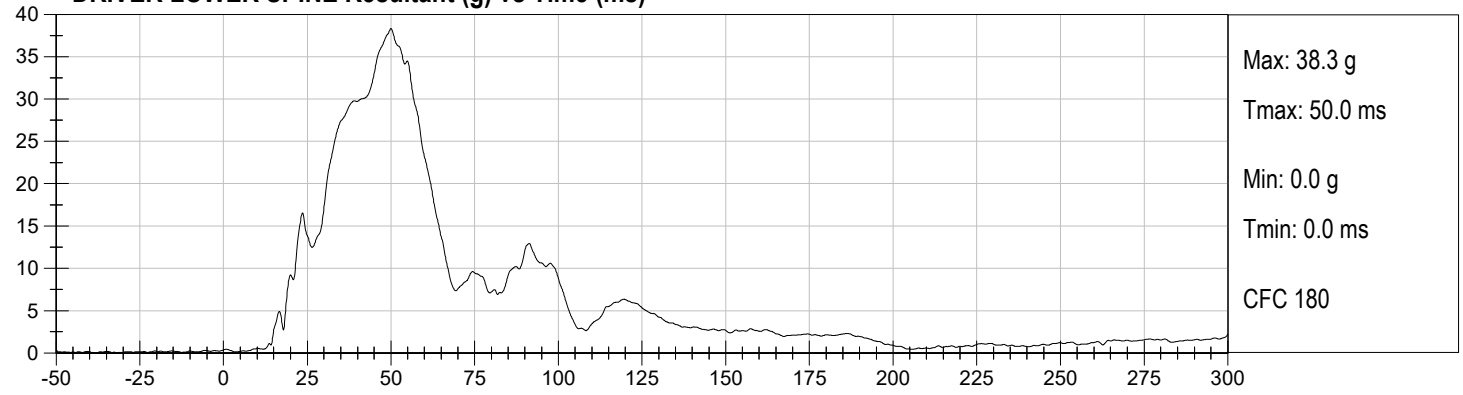


DRIVER LOWER SPINE Y (g) vs Time (ms)

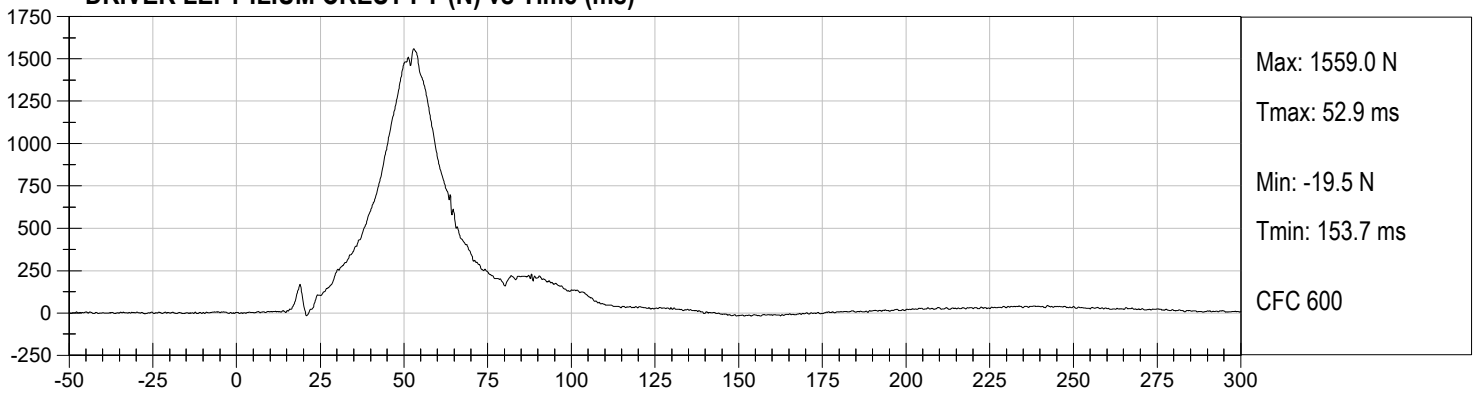
DRIVER LOWER SPINE Z (g) vs Time (ms)



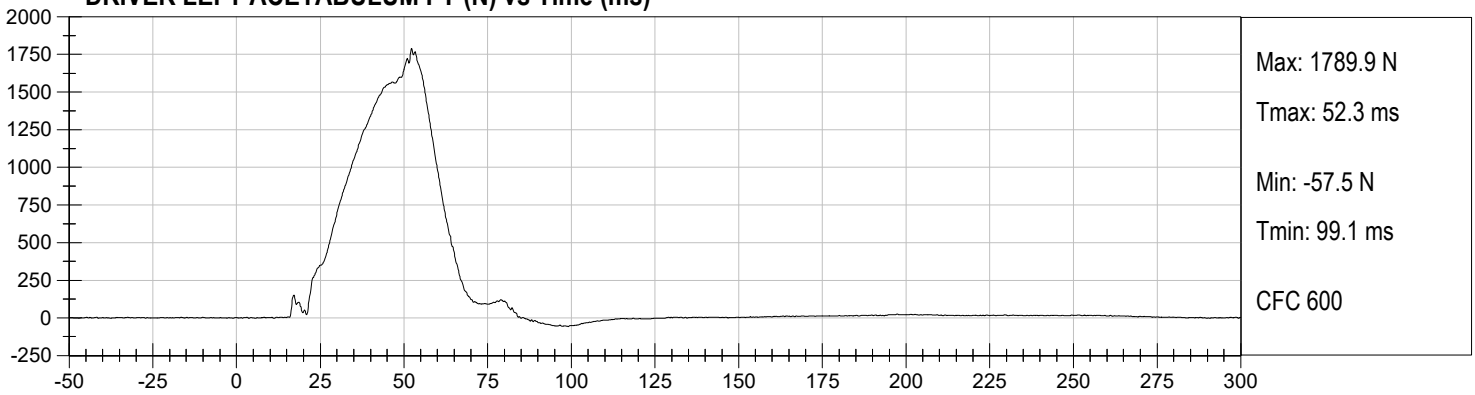
DRIVER LOWER SPINE Resultant (g) vs Time (ms)



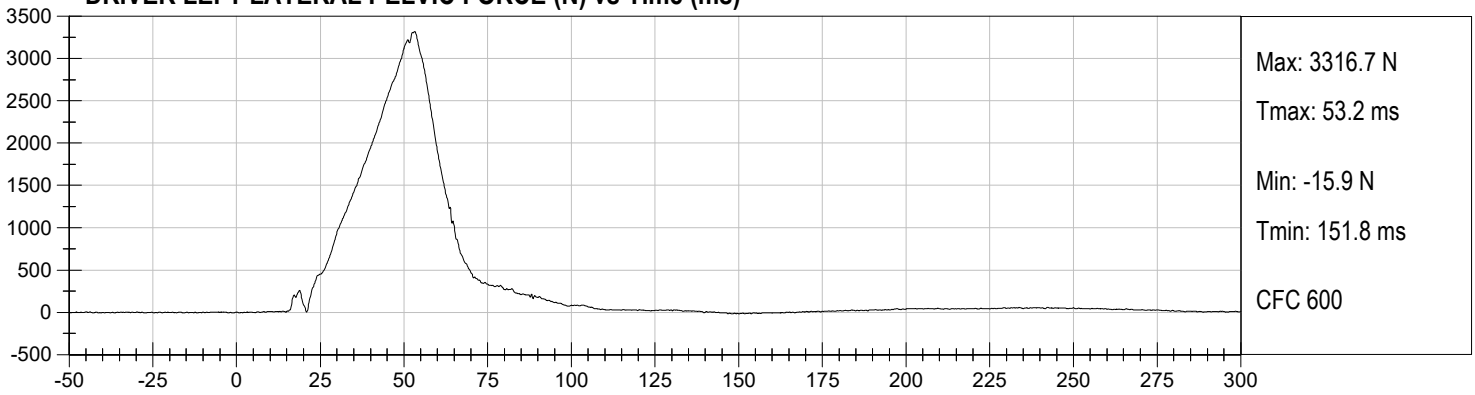
DRIVER LEFT ILIUM CREST FY (N) vs Time (ms)



DRIVER LEFT ACETABULUM FY (N) vs Time (ms)



DRIVER LEFT LATERAL PELVIC FORCE (N) vs Time (ms)



APPENDIX C
DUMMY QUALIFICATION AND PERFORMANCE VERIFICATION

QUALIFICATION TEST RESULTS

PRE-TEST

SID-IIS 5TH PERCENTILE FEMALE - DRIVER ATD

SID-IIsD External Measurements
SN: 306

No.	Name	Spec. (mm)	Result	Pass/Fail
A	Sitting Height	772 - 788	785	Pass
B	Shoulder Pivot Height	437 - 453	449	Pass
C	H-point Height	79 - 89	86	Pass
D	H-point from Seatback	141 - 151	147	Pass
E	Shoulder Pivot from Backline	97 - 107	99	Pass
F	Thigh Clearance	119 -135	120	Pass
G	Head Breadth	140 - 148	141	Pass
H	Head Back from Backline	40 - 46	45	Pass
I	Head Depth	178 - 188	182	Pass
J	Head Circumference	541 - 551	550	Pass
K	Buttock to Knee Length	514 - 540	538	Pass
L	Popliteal Height	343 - 369	349	Pass
M	Knee Pivot to Floor Height	392 - 409	394	Pass
N	Buttock Popliteal Length	416 - 442	435	Pass
O	Chest Depth w/o Jacket	195 - 211	198	Pass
P	Foot Length	216 - 232	222	Pass
Q	Hip Breadth (w/ pelvic plugs)	313 - 323	317	Pass
R	Arm Length	249 - 259	250	Pass
S	Knee Joint to Seatback	477 - 493	483	Pass
V	Shoulder Width	341 - 357	351	Pass
W	Foot Width	78 - 94	82	Pass
Y	Chest Circumference w/ jacket	851 - 881	863	Pass
Z	Waist Circumference	761 - 791	782	Pass

MGA RESEARCH CORPORATION

HEAD DROP TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test ID:** D241971

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	20.6 to 22.2	21.4	Pass
Laboratory Relative Humidity	%	10 to 70	45	Pass
Peak Resultant Acceleration	G's	115 to 137	131	Pass
Peak Longitudinal Acceleration	G's	+/- 15	2.8	Pass
Unimodal	N/A	Yes	Yes	Pass
Oscillations	N/A	<15%	Yes	Pass
		Overall Test Results		Pass

Laboratory Technician

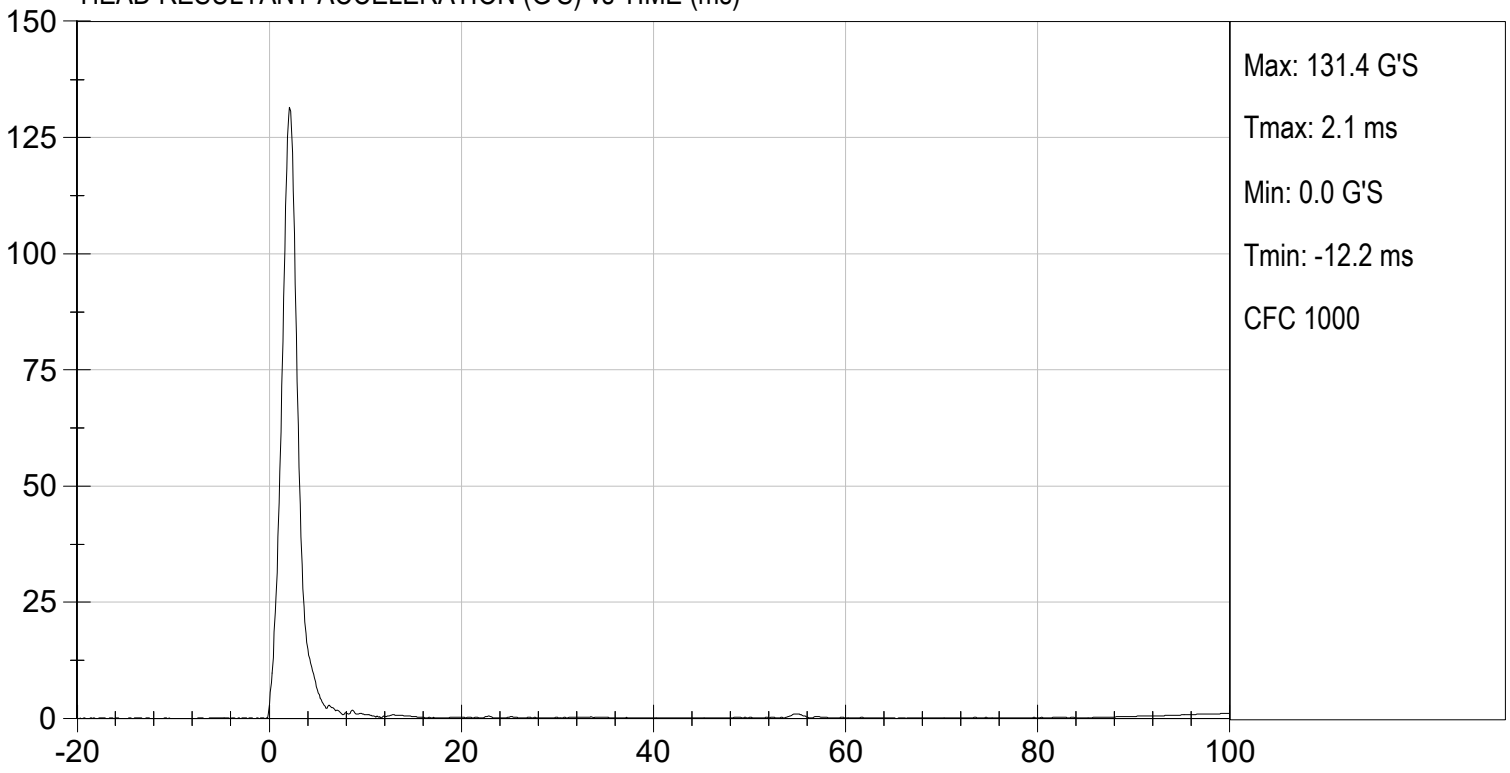
08/02/2024
Test Date

Approved By

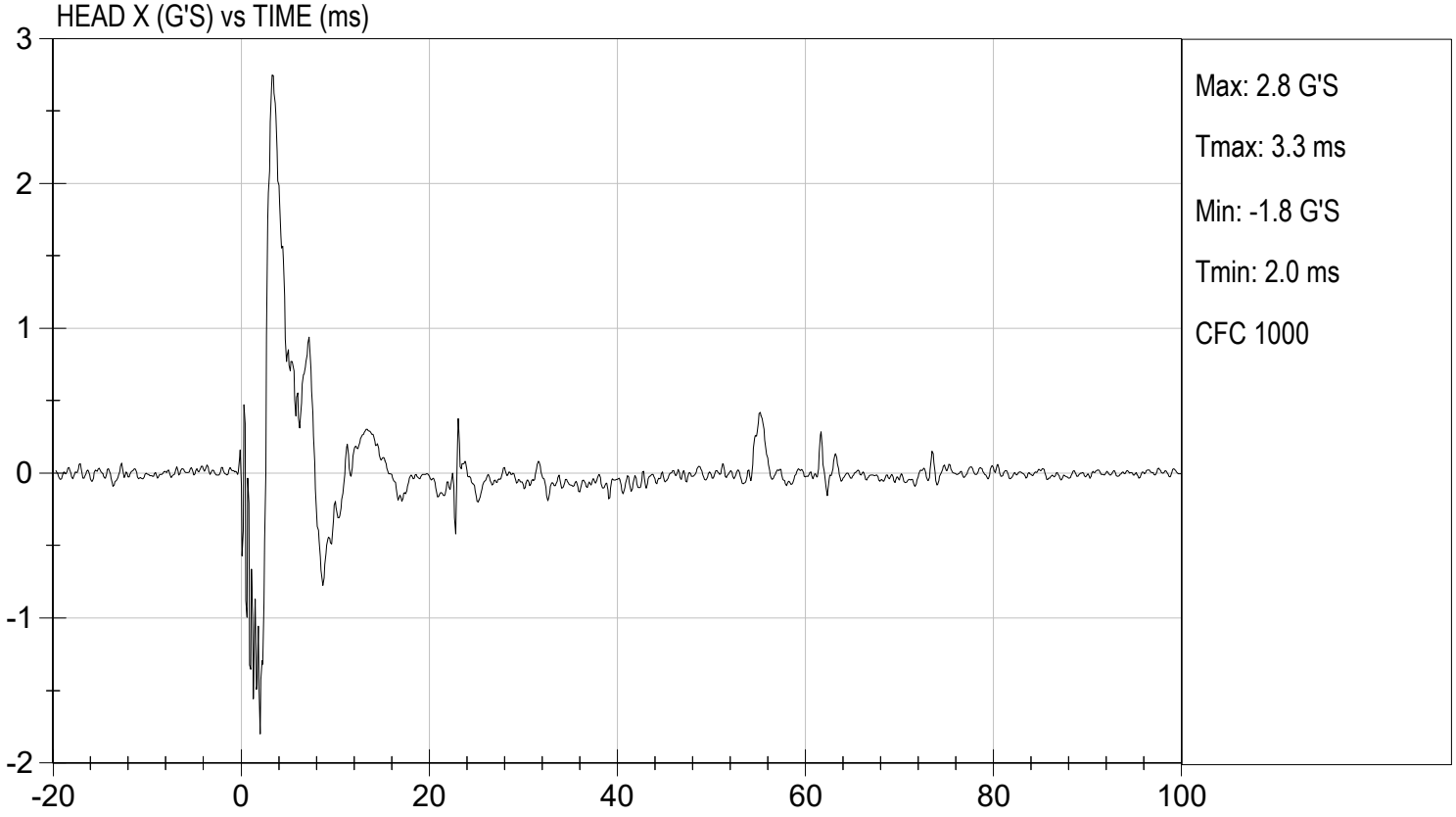
TEST DESC: HEAD DROP

TEST DATE: 08/02/2024
TEST #: D241971

HEAD RESULTANT ACCELERATION (G'S) vs TIME (ms)



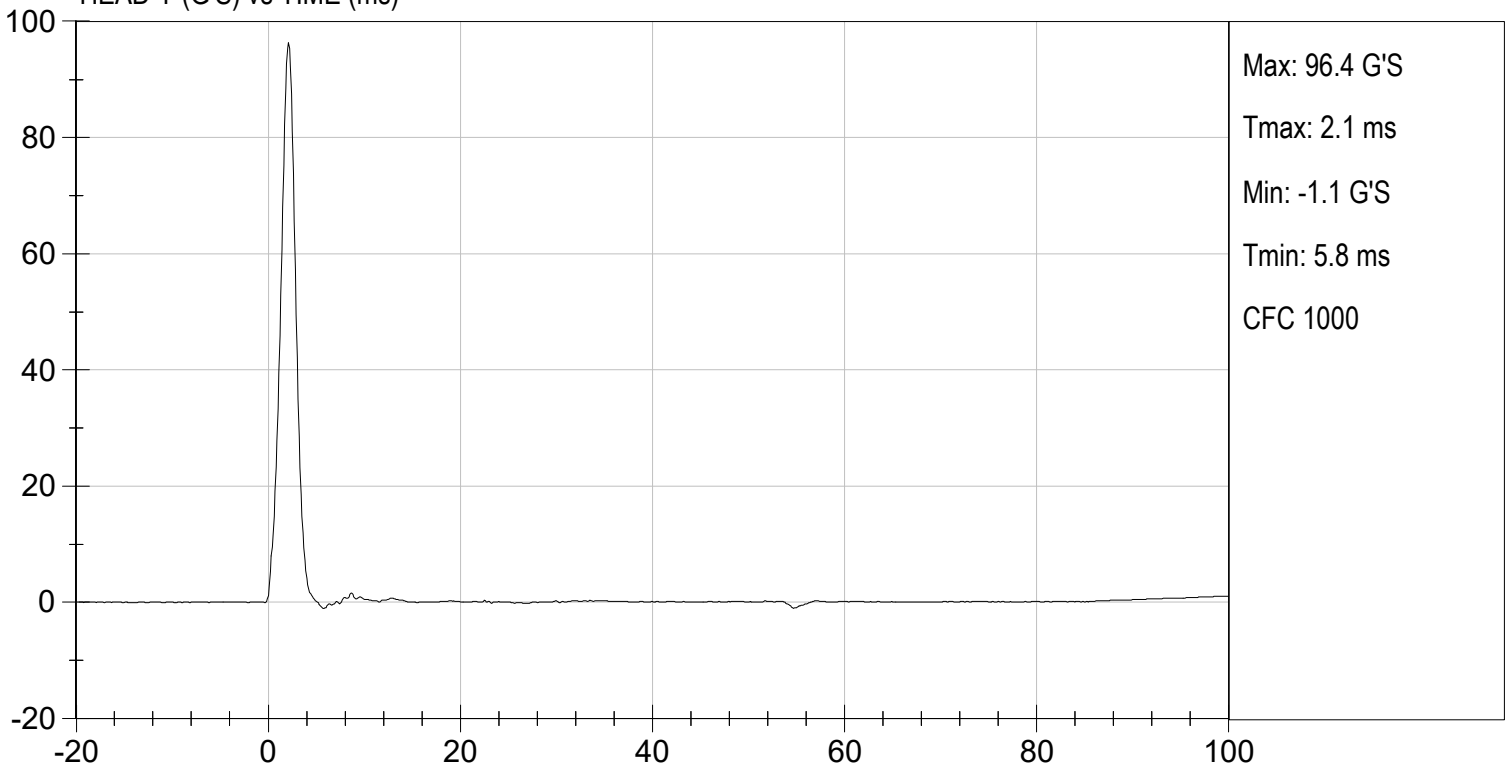
HEAD X (G'S) vs TIME (ms)



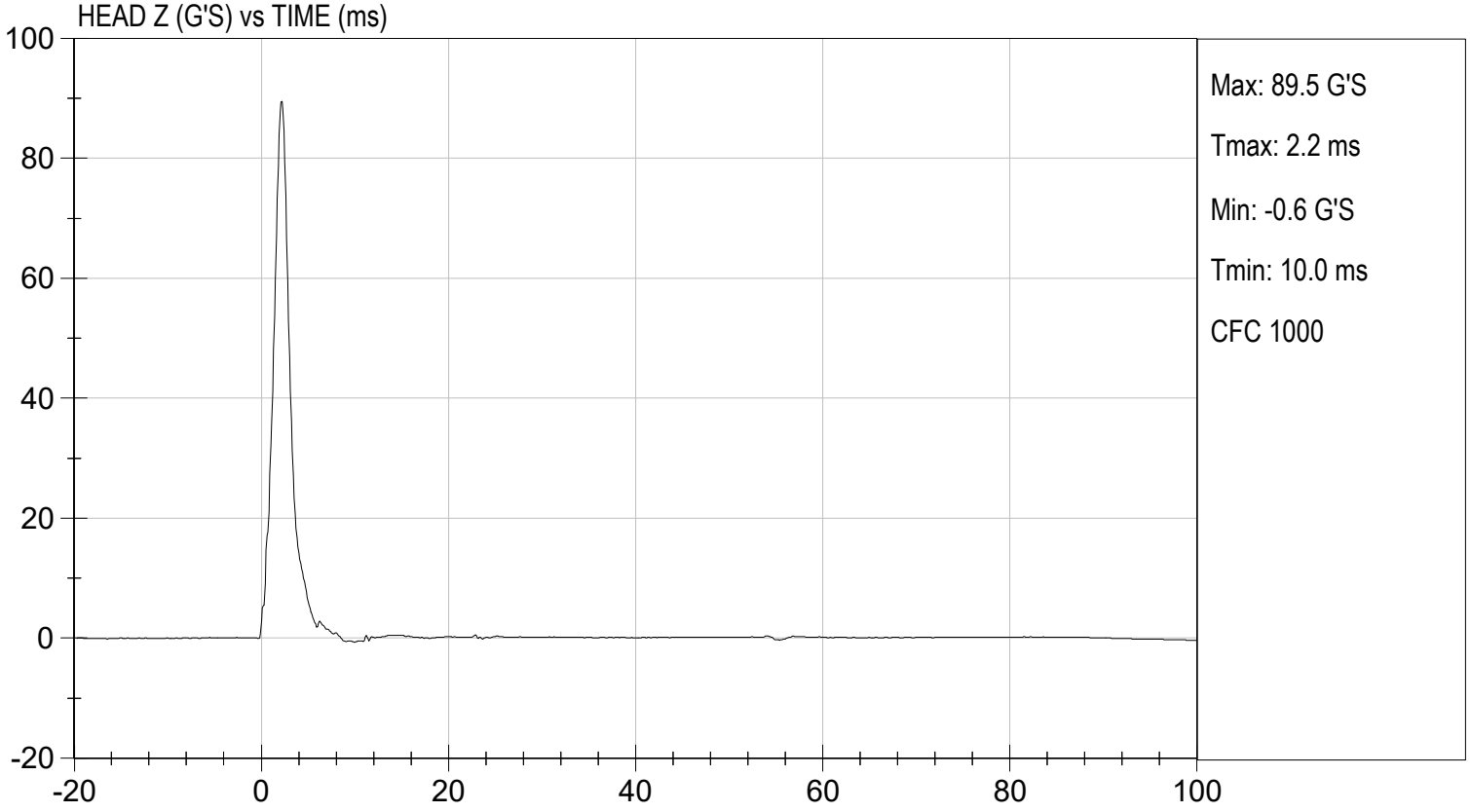
TEST DESC: HEAD DROP

TEST DATE: 08/02/2024
TEST #: D241971

HEAD Y (G'S) vs TIME (ms)



HEAD Z (G'S) vs TIME (ms)



MGA RESEARCH CORPORATION

LATERAL NECK PENDULUM TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D241972

Tested Parameter		Units	Specification	Result	Pass/Fail
Temperature		deg C	20.6 to 22.2	21.2	Pass
Humidity		%	10 to 70	45	Pass
Impact Velocity		m/s	5.51 to 5.63	5.58	Pass
Pendulum Velocity	10 ms	m/s	2.20 to 2.80	2.39	Pass
	15 ms	m/s	3.30 to 4.10	3.65	Pass
	20 ms	m/s	4.40 to 5.40	5.17	Pass
	25 ms	m/s	5.40 to 6.10	5.73	Pass
	25-100 ms	m/s	5.50 to 6.20	5.76	Pass
Maximum D-Plane Rotation		deg	71 to 81	74	Pass
Time of Maximum D-Plane Rotation		ms	50 to 70	64	Pass
Maximum Occipital Condyle Moment		Nm	-44 to -36	-39	Pass
Time of Moment Decay to 0 Nm		ms	102 to 126	112	Pass
			Overall Test Results		Pass

Laboratory Technician

08/02/2024

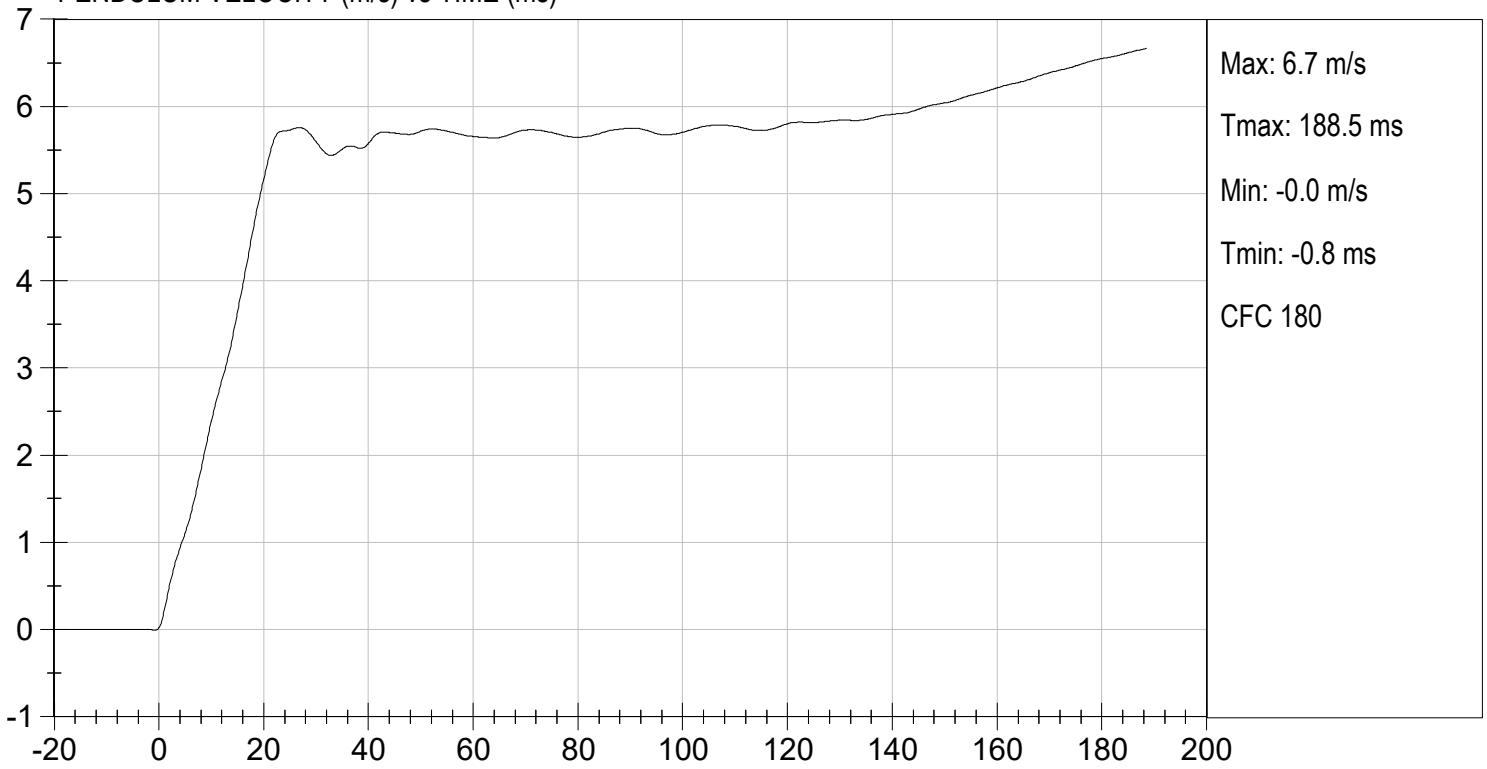
Test Date

Approved By

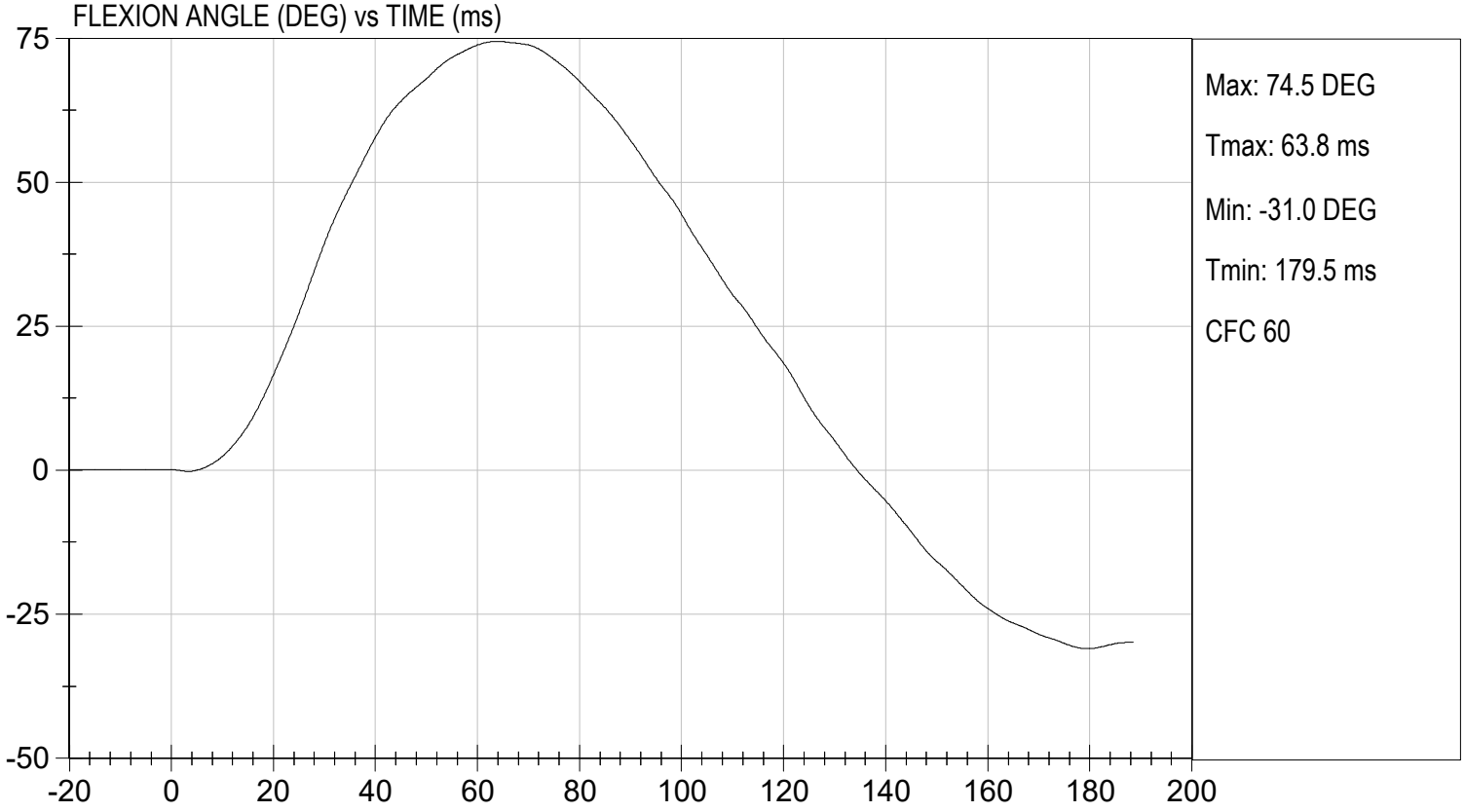
TEST DESC: NECK BENDING
VELOCITY: 18.32 ft/s, 5.58 m/s

TEST DATE: 08/02/2024
TEST #: D241972

PENDULUM VELOCITY (m/s) vs TIME (ms)

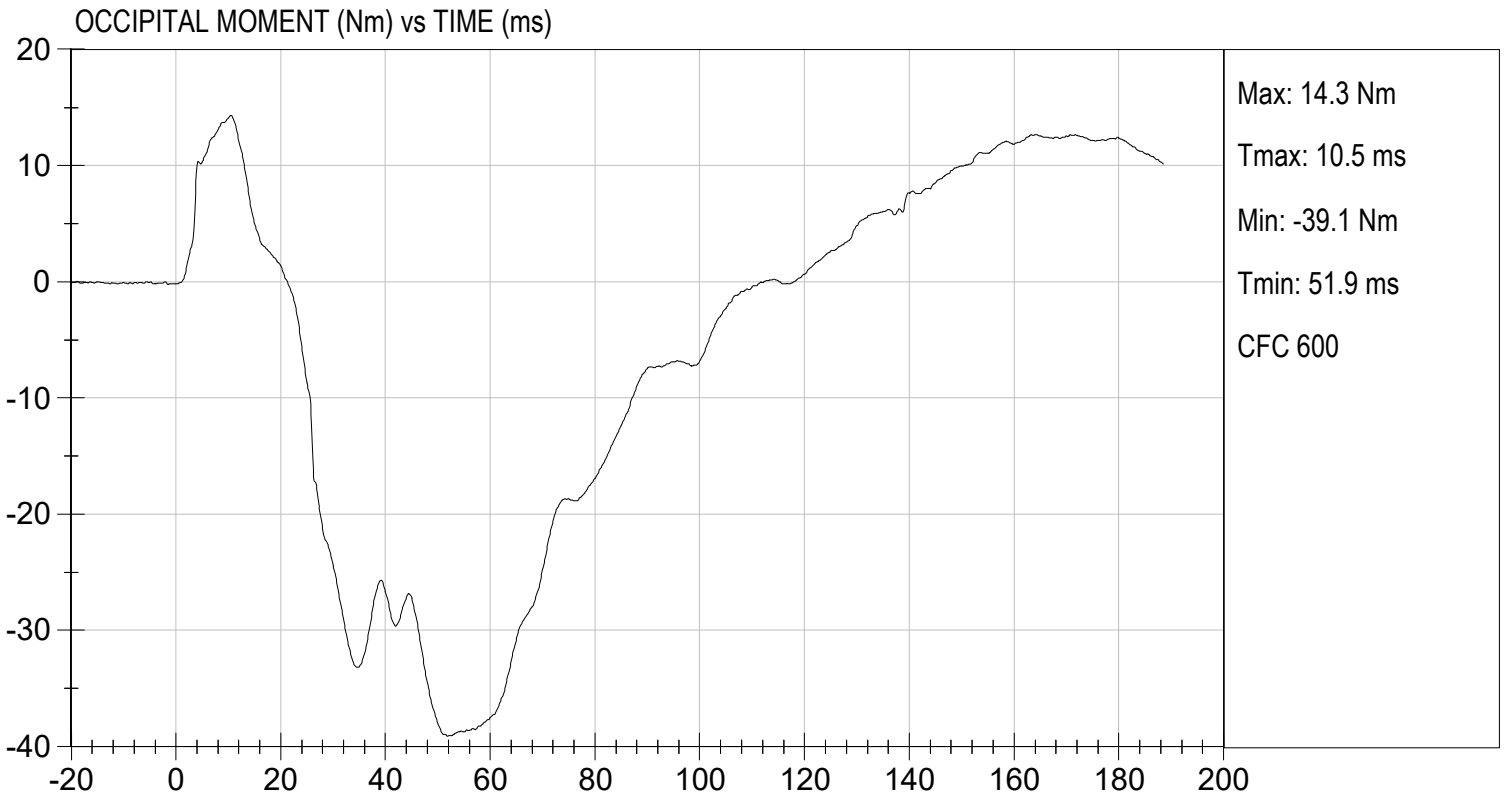


FLEXION ANGLE (DEG) vs TIME (ms)



TEST DESC: NECK BENDING
VELOCITY: 18.32 ft/s, 5.58 m/s

TEST DATE: 08/02/2024
TEST #: D241972



MGA RESEARCH CORPORATION

SHOULDER IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test ID:** D241973

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	20.6 to 22.2	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	49	Pass
Impact Velocity	m/s	4.20 to 4.40	4.20	Pass
Maximum Probe Acceleration	G's	13 to 18	14	Pass
Shoulder Displacement	mm	28 to 37	31	Pass
Upper Spine (T1) Y Acceleration	G's	17 to 22	18	Pass
		Overall Test Results		Pass

Laboratory Technician

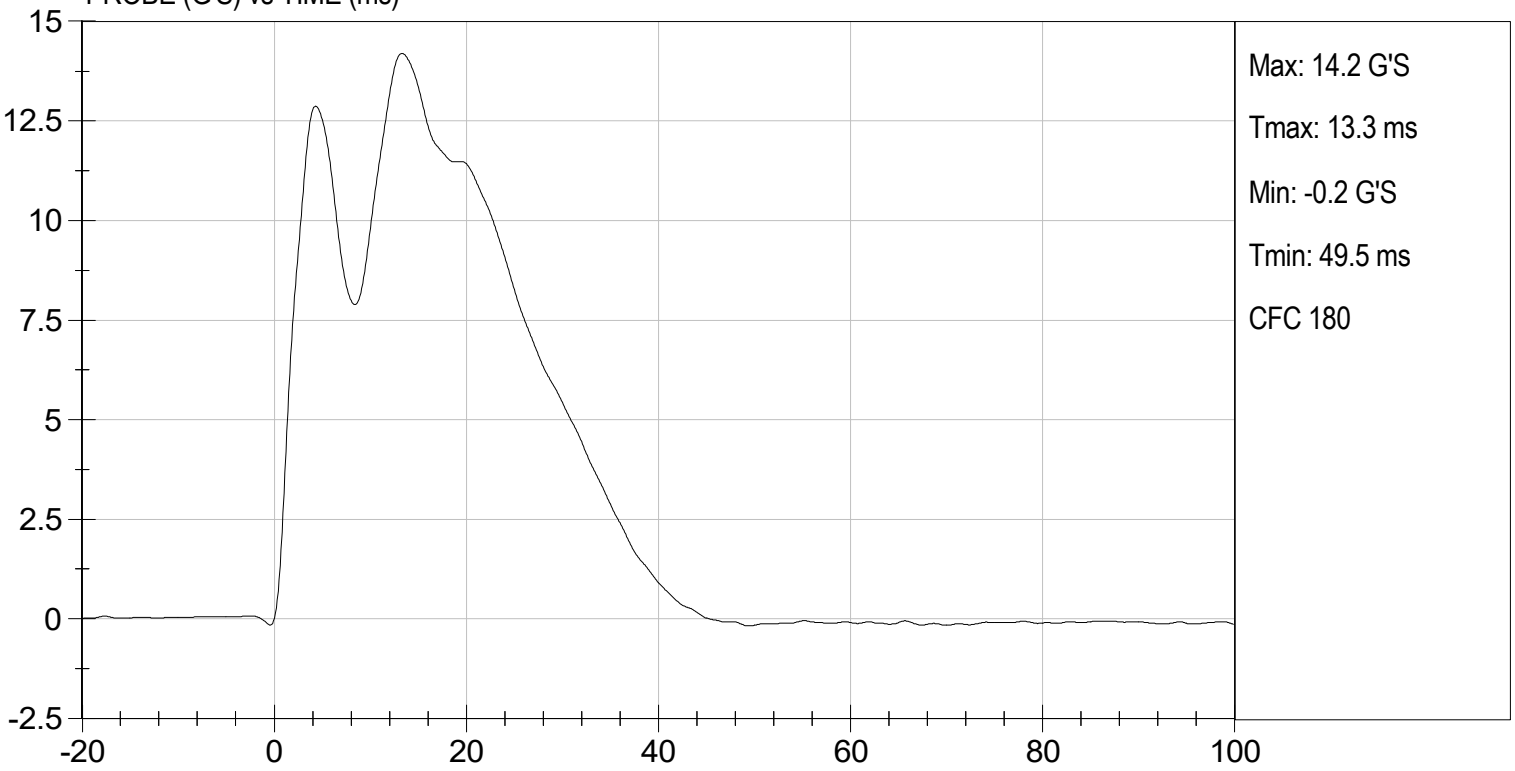
08/02/2024
Test Date

Approved By

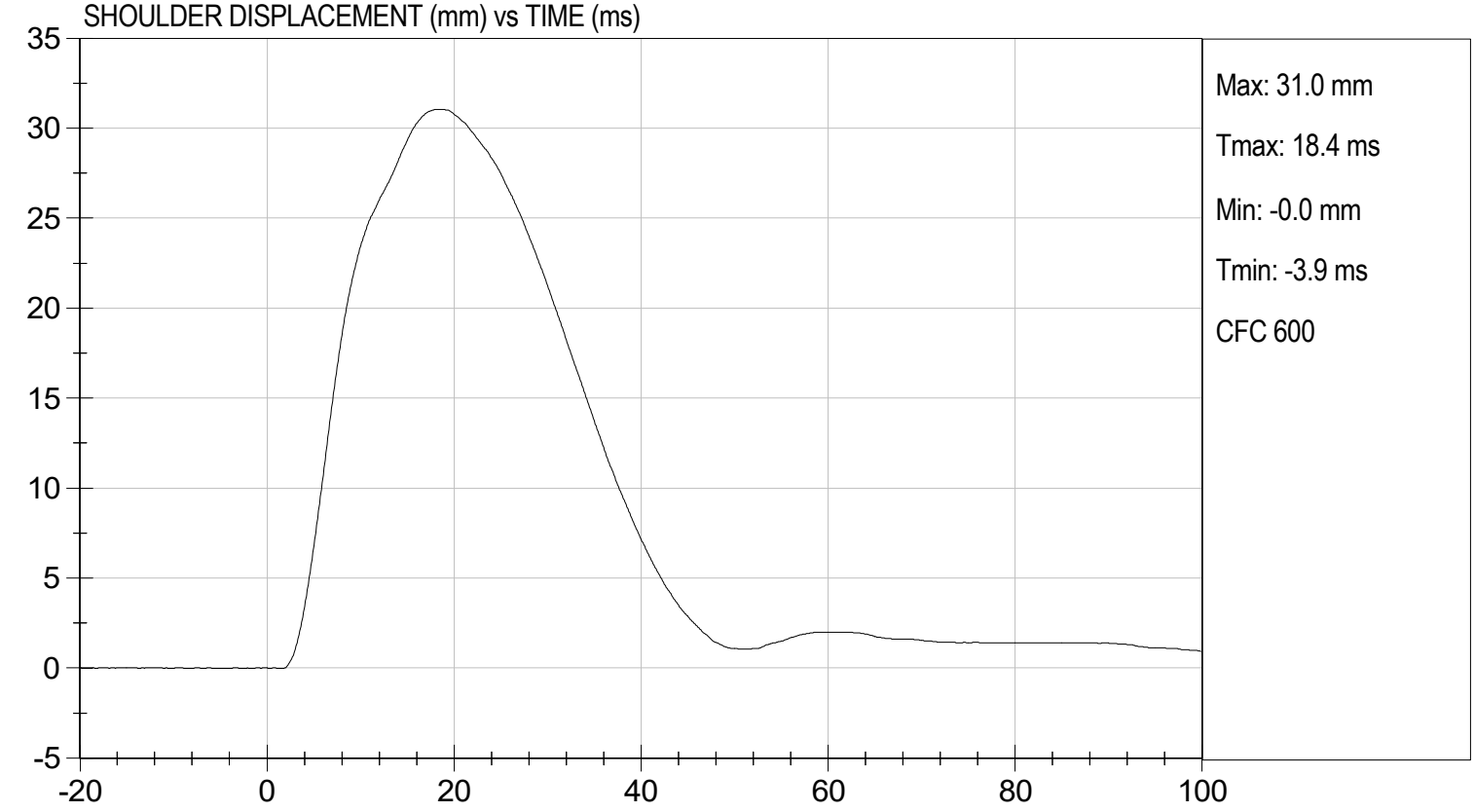
TEST DESC: SHOULDER IMPACT
VELOCITY: 13.78 ft/s, 4.20 m/s

TEST DATE: 08/02/2024
TEST #: D241973

PROBE (G'S) vs TIME (ms)

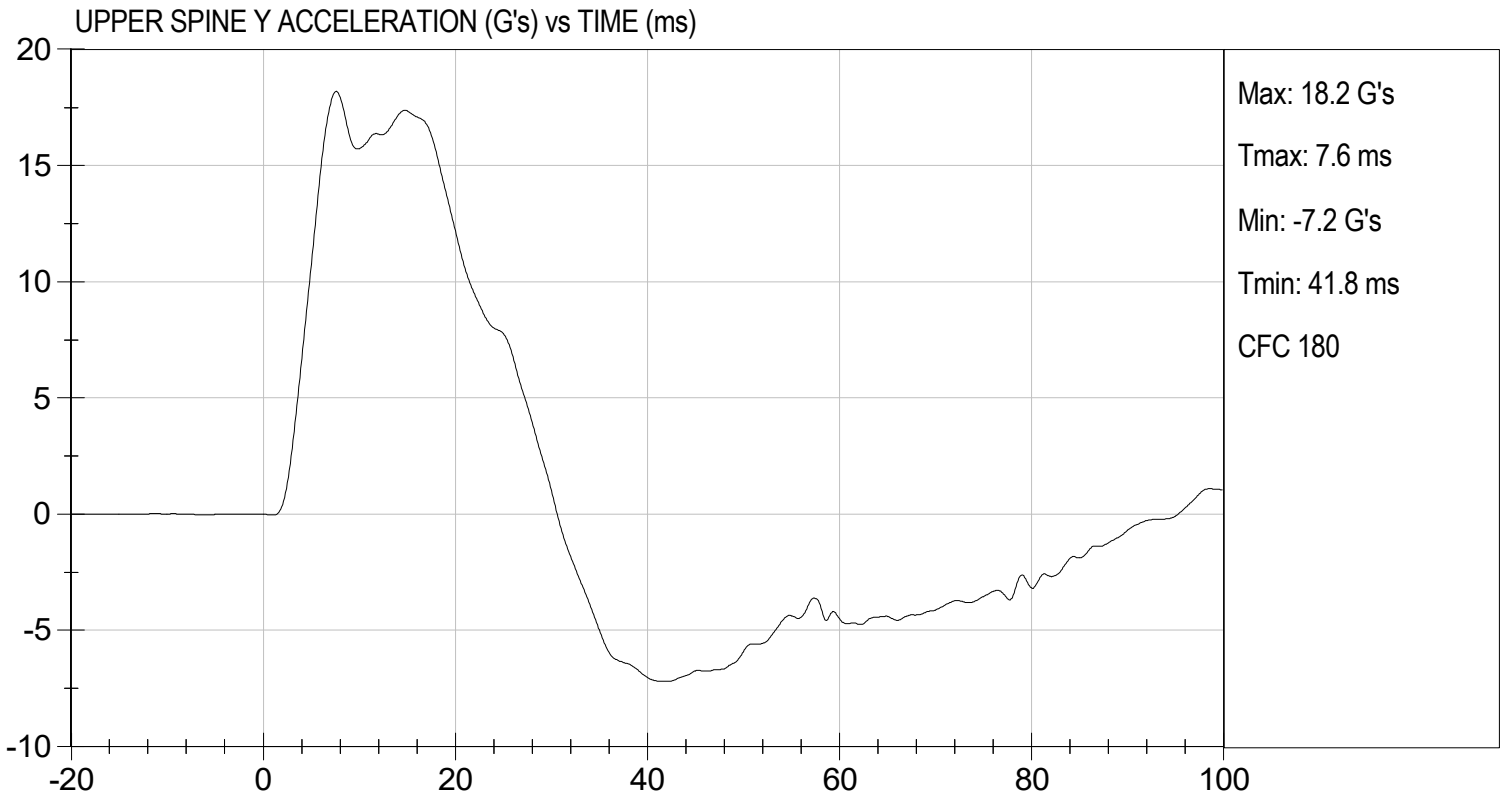


SHOULDER DISPLACEMENT (mm) vs TIME (ms)



TEST DESC: SHOULDER IMPACT
VELOCITY: 13.78 ft/s, 4.20 m/s

TEST DATE: 08/02/2024
TEST #: D241973



MGA RESEARCH CORPORATION

THORAX (WITH ARM) IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D241974

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.4	Pass
Humidity	%	10 to 70	50	Pass
Impact Velocity	m/s	6.60 to 6.80	6.77	Pass
Maximum Probe Acceleration	G's	30 to 36	32	Pass
Shoulder Displacement	mm	31 to 40	38	Pass
Upper Rib Displacement	mm	25 to 32	30	Pass
Middle Rib Displacement	mm	30 to 36	33	Pass
Lower Rib Displacement	mm	32 to 38	33	Pass
Upper Spine (T1) Y Acceleration	G's	34 to 43	35	Pass
Lower Spine (T12) Y Acceleration	G's	29 to 37	32	Pass
		Overall Test Results		Pass

Laboratory Technician

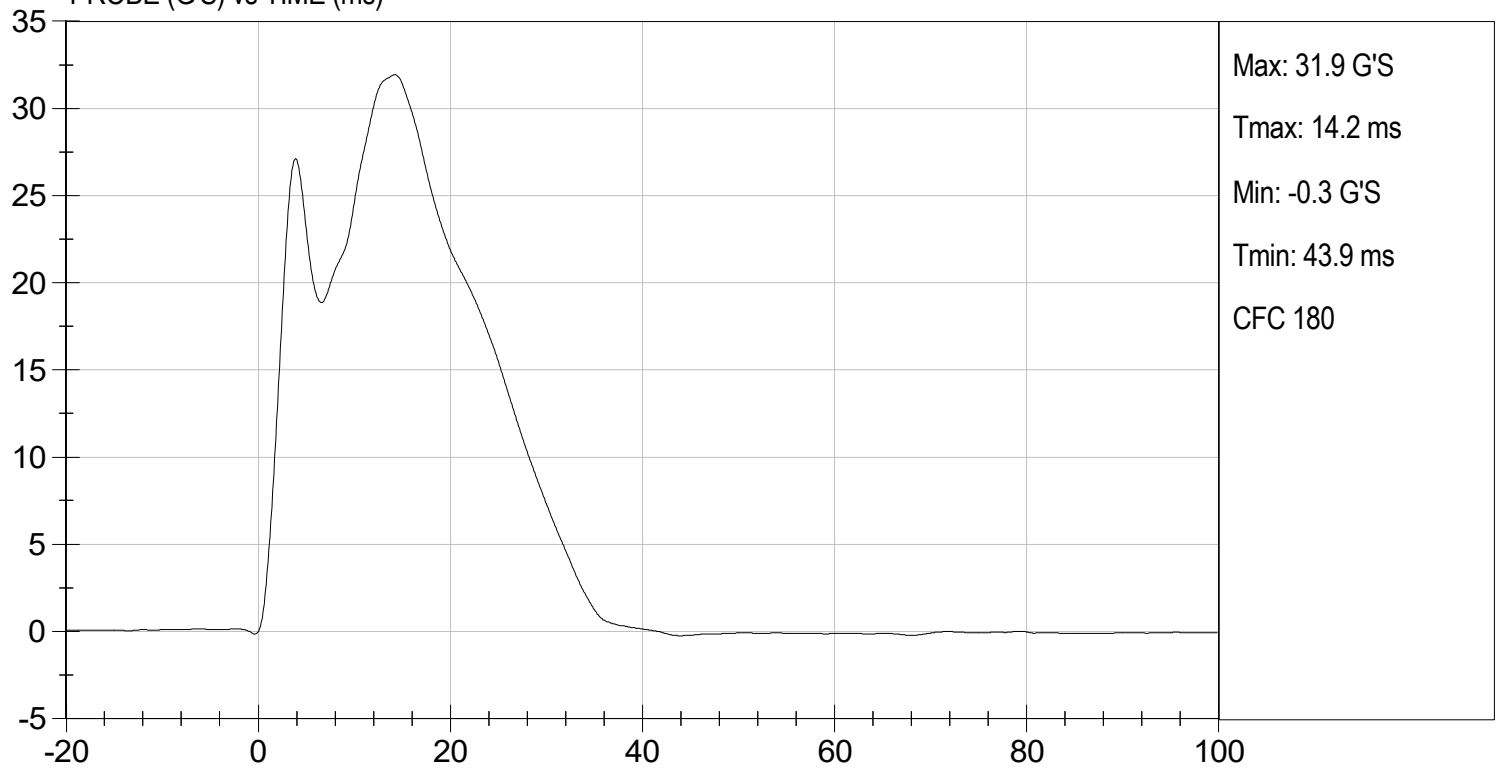
08/02/2024
Test Date

Approved By

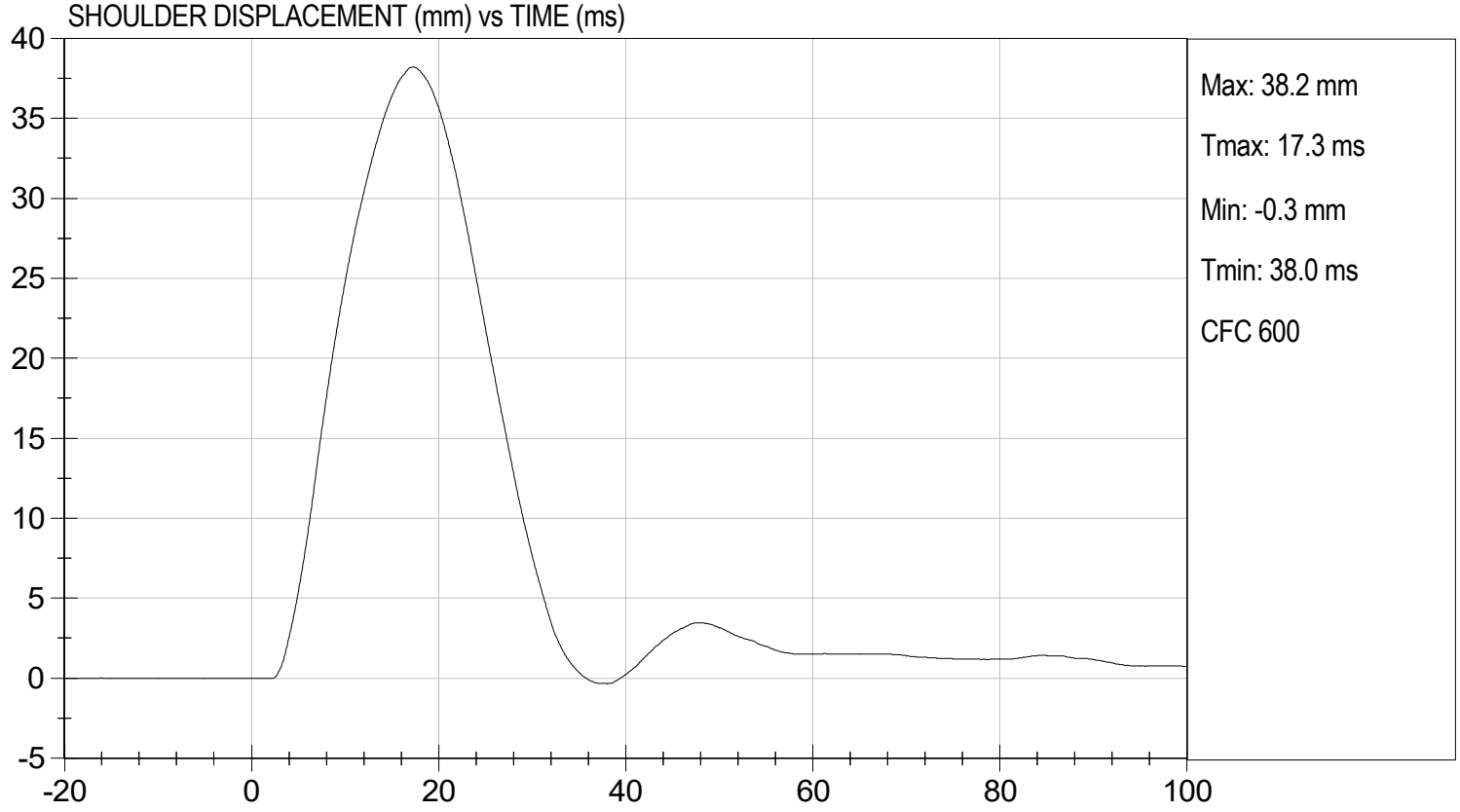
TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/02/2024
TEST #: D241974

PROBE (G'S) vs TIME (ms)



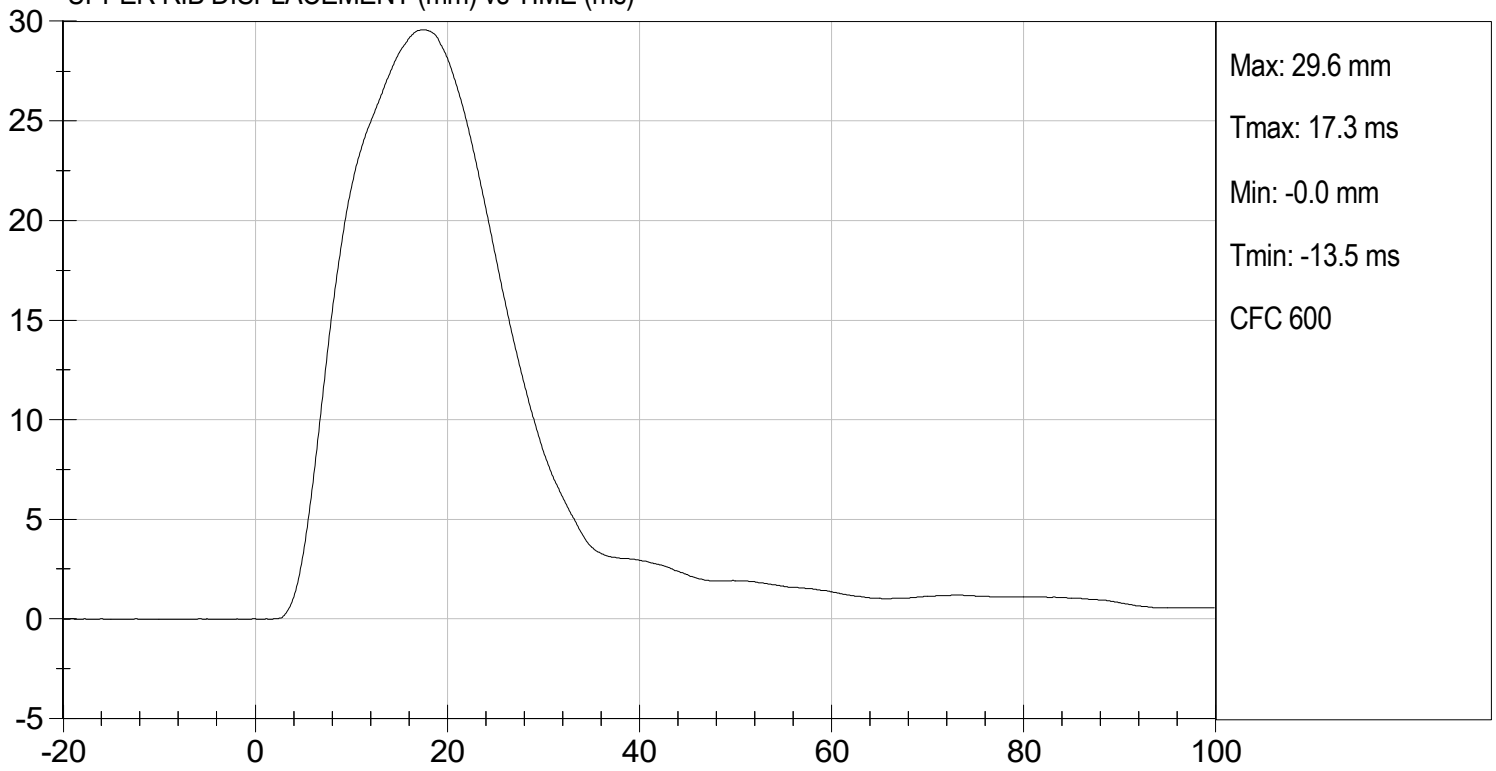
SHOULDER DISPLACEMENT (mm) vs TIME (ms)



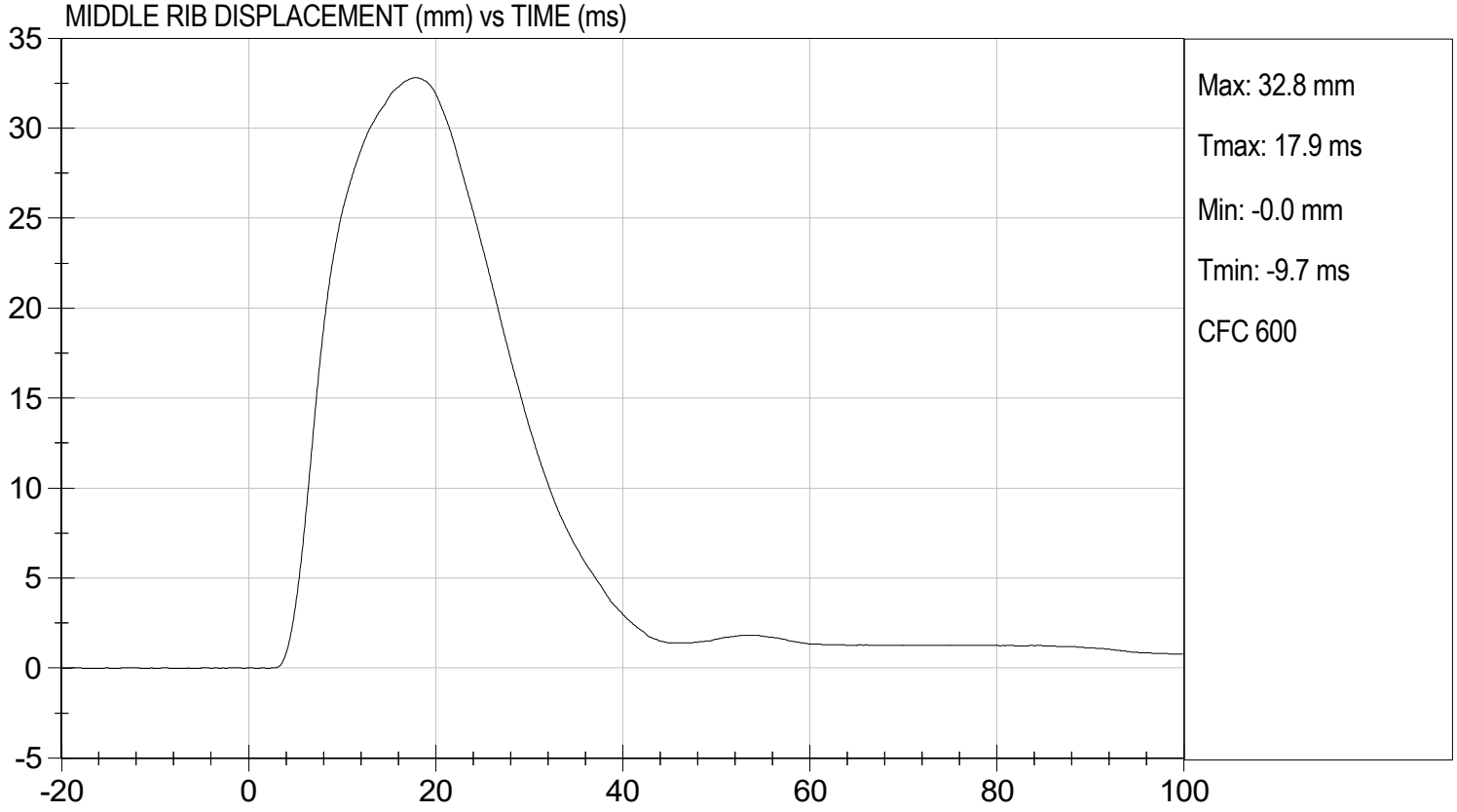
TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/02/2024
TEST #: D241974

UPPER RIB DISPLACEMENT (mm) vs TIME (ms)



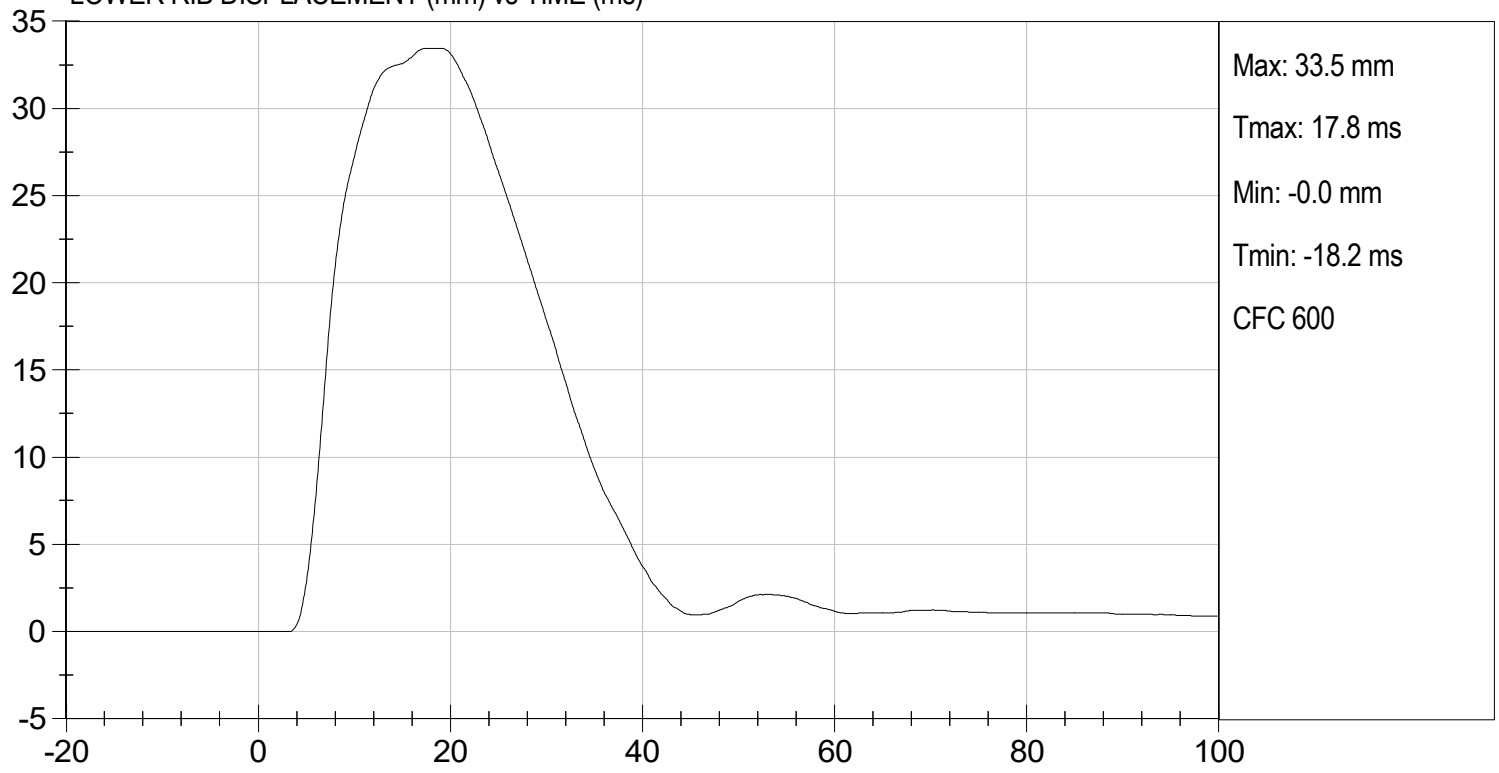
MIDDLE RIB DISPLACEMENT (mm) vs TIME (ms)



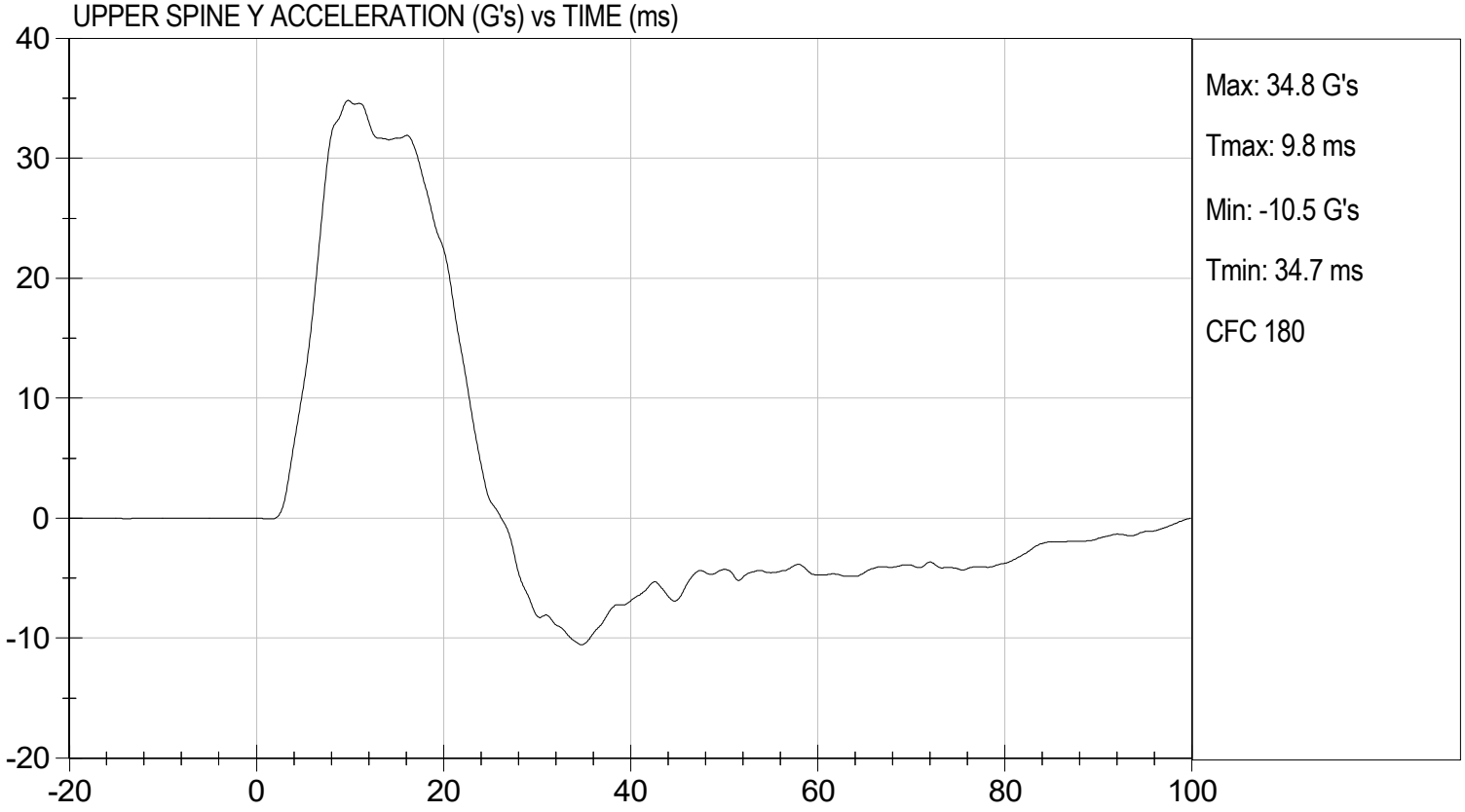
TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/02/2024
TEST #: D241974

LOWER RIB DISPLACEMENT (mm) vs TIME (ms)

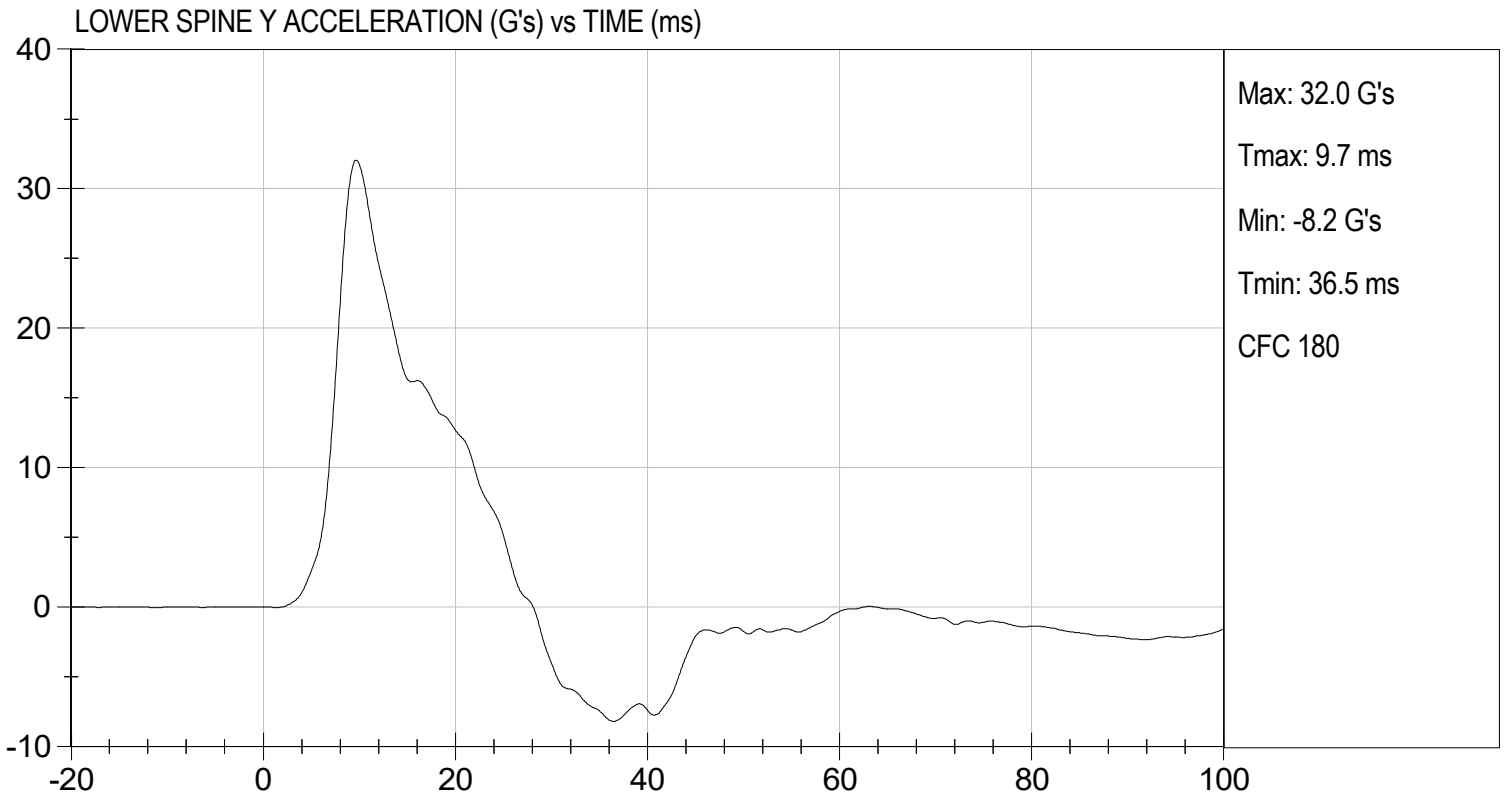


UPPER SPINE Y ACCELERATION (G's) vs TIME (ms)



TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/02/2024
TEST #: D241974



MGA RESEARCH CORPORATION

THORAX (WITHOUT ARM) IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D241975

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.2	Pass
Humidity	%	10 to 70	49	Pass
Impact Velocity	m/s	4.20 to 4.40	4.20	Pass
Maximum Probe Acceleration	G's	14 to 18	15	Pass
Upper Rib Displacement	mm	32 to 40	38	Pass
Middle Rib Displacement	mm	39 to 45	43	Pass
Lower Rib Displacement	mm	35 to 43	39	Pass
Upper Spine (T1) Y Acceleration	G's	13 to 17	14	Pass
Lower Spine (T12) Y Acceleration	G's	7 to 11	9	Pass
		Overall Test Results		Pass

Laboratory Technician

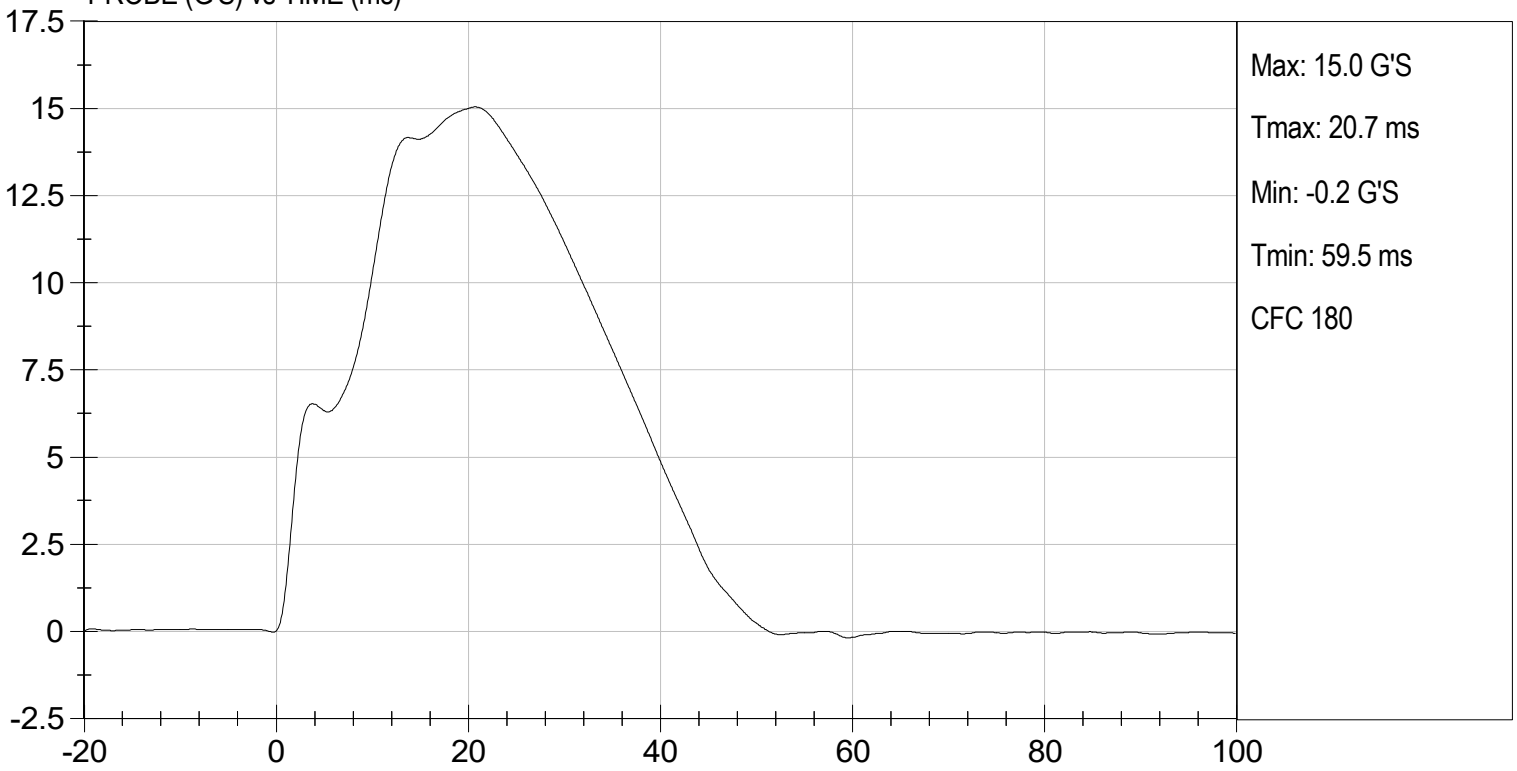
08/02/2024
Test Date

Approved By

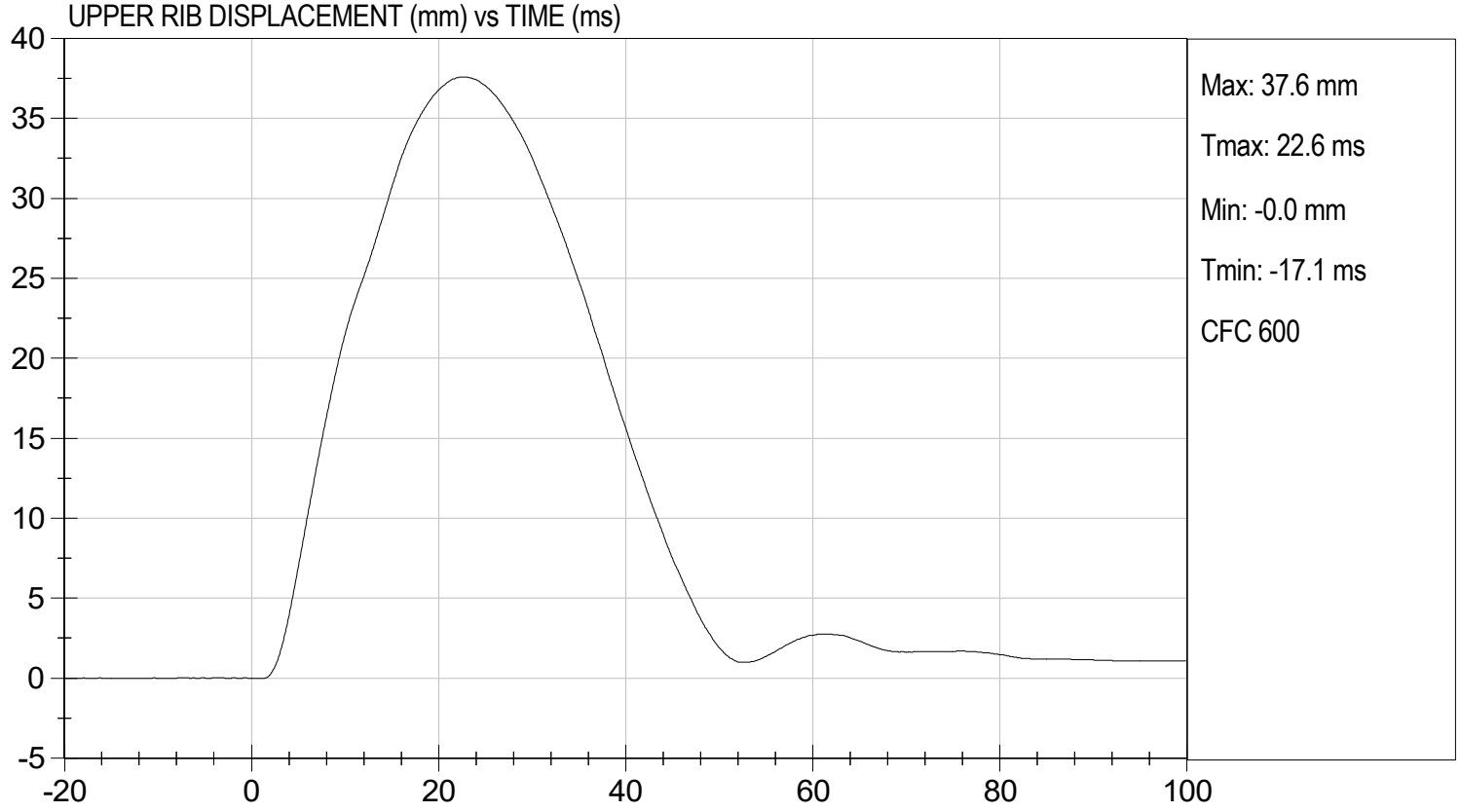
TEST DESC: THORAX IMPACT WITHOUT ARM
VELOCITY: 13.78 ft/s, 4.20 m/s

TEST DATE: 08/02/2024
TEST #: D241975

PROBE (G'S) vs TIME (ms)



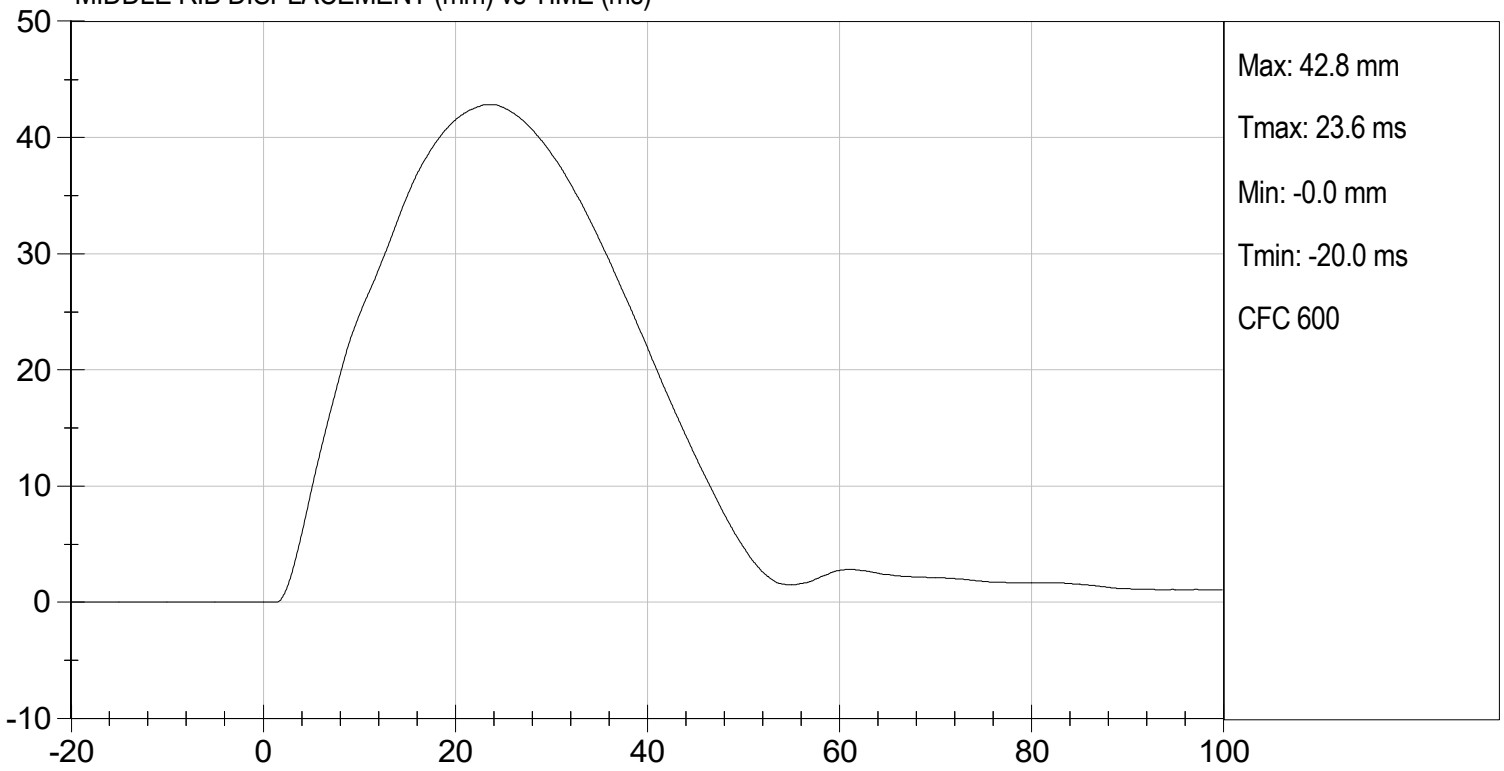
UPPER RIB DISPLACEMENT (mm) vs TIME (ms)



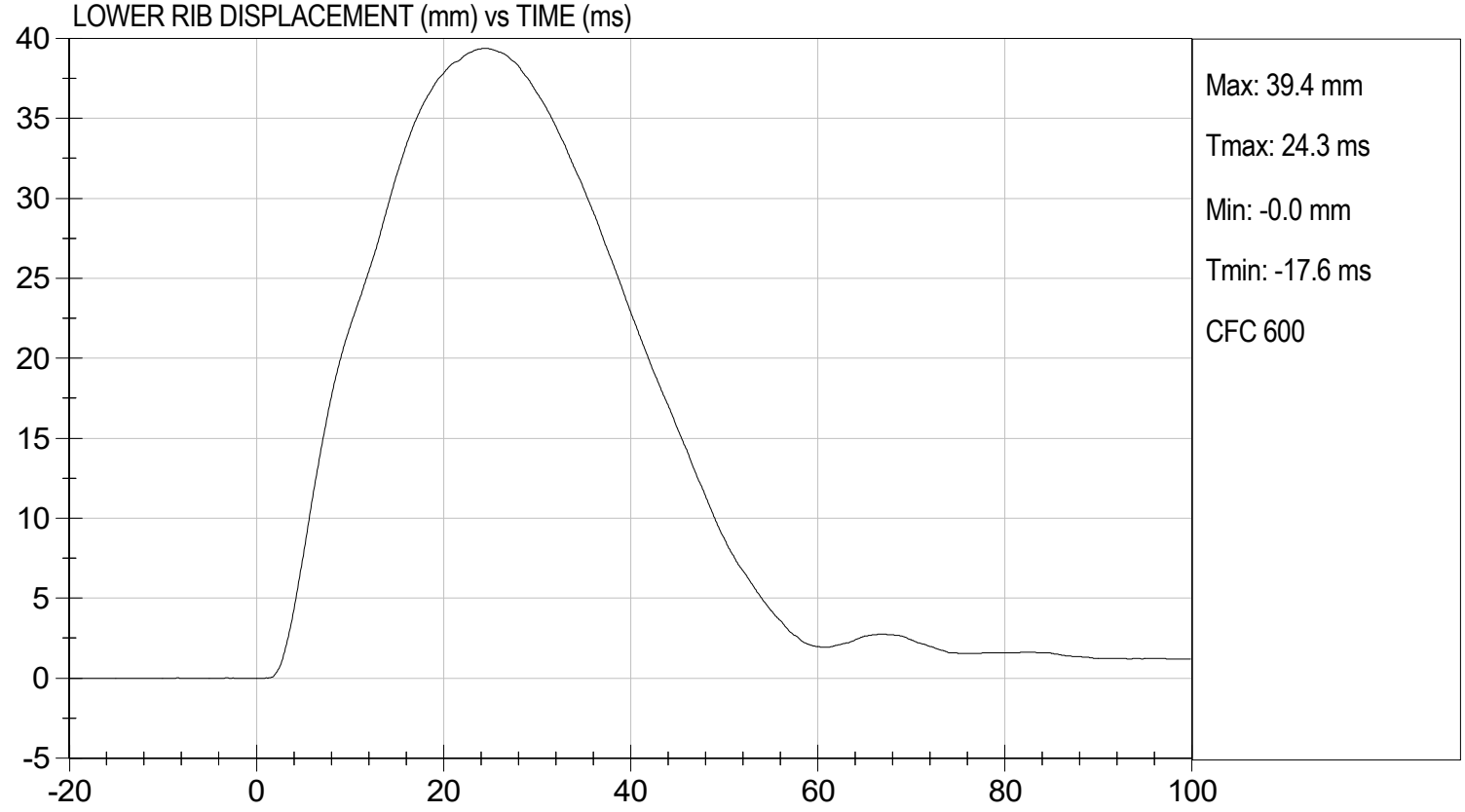
TEST DESC: THORAX IMPACT WITHOUT ARM
VELOCITY: 13.78 ft/s, 4.20 m/s

TEST DATE: 08/02/2024
TEST #: D241975

MIDDLE RIB DISPLACEMENT (mm) vs TIME (ms)



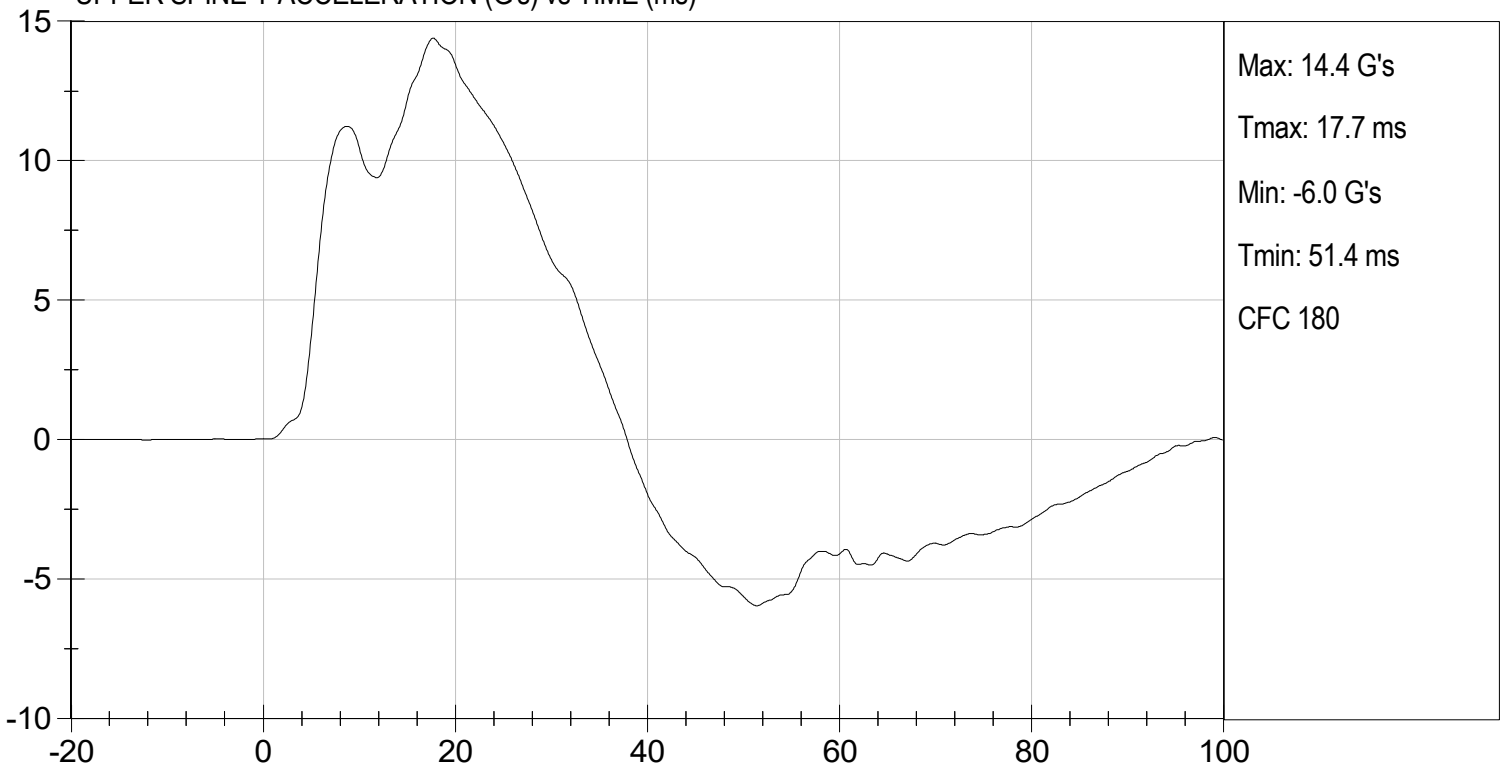
LOWER RIB DISPLACEMENT (mm) vs TIME (ms)



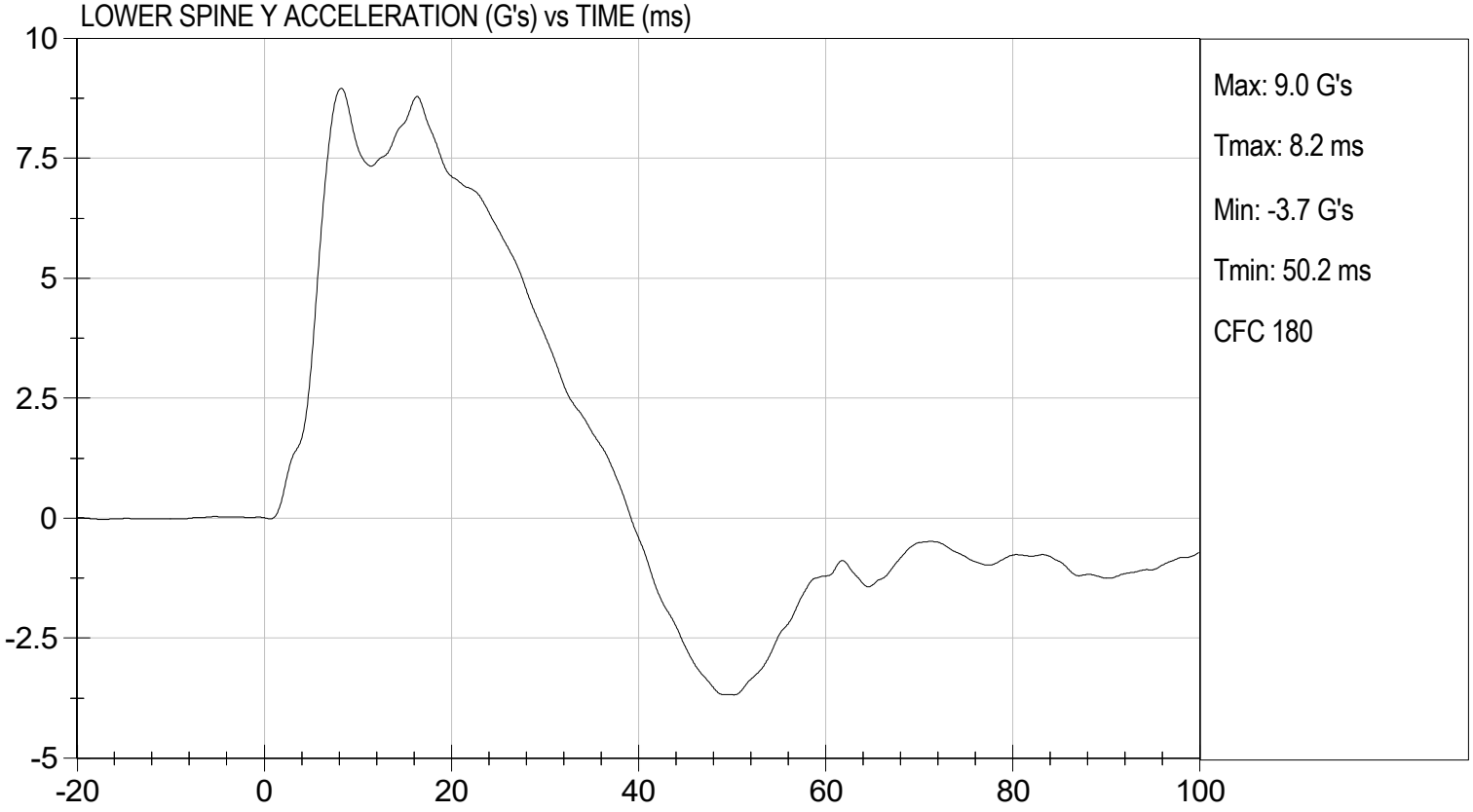
TEST DESC: THORAX IMPACT WITHOUT ARM
VELOCITY: 13.78 ft/s, 4.20 m/s

TEST DATE: 08/02/2024
TEST #: D241975

UPPER SPINE Y ACCELERATION (G's) vs TIME (ms)



LOWER SPINE Y ACCELERATION (G's) vs TIME (ms)



MGA RESEARCH CORPORATION

ABDOMINAL IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D241976

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.4	Pass
Humidity	%	10 to 70	50	Pass
Impact Velocity	m/s	4.20 to 4.40	4.34	Pass
Maximum Probe Acceleration	G's	12 to 16	14	Pass
Upper Abdomen Rib Displacement	mm	36 to 47	44	Pass
Lower Abdomen Rib Displacement	mm	33 to 44	38	Pass
Lower Spine (T12) Y Acceleration	G's	9 to 14	11	Pass
		Overall Test Results		Pass

Laboratory Technician

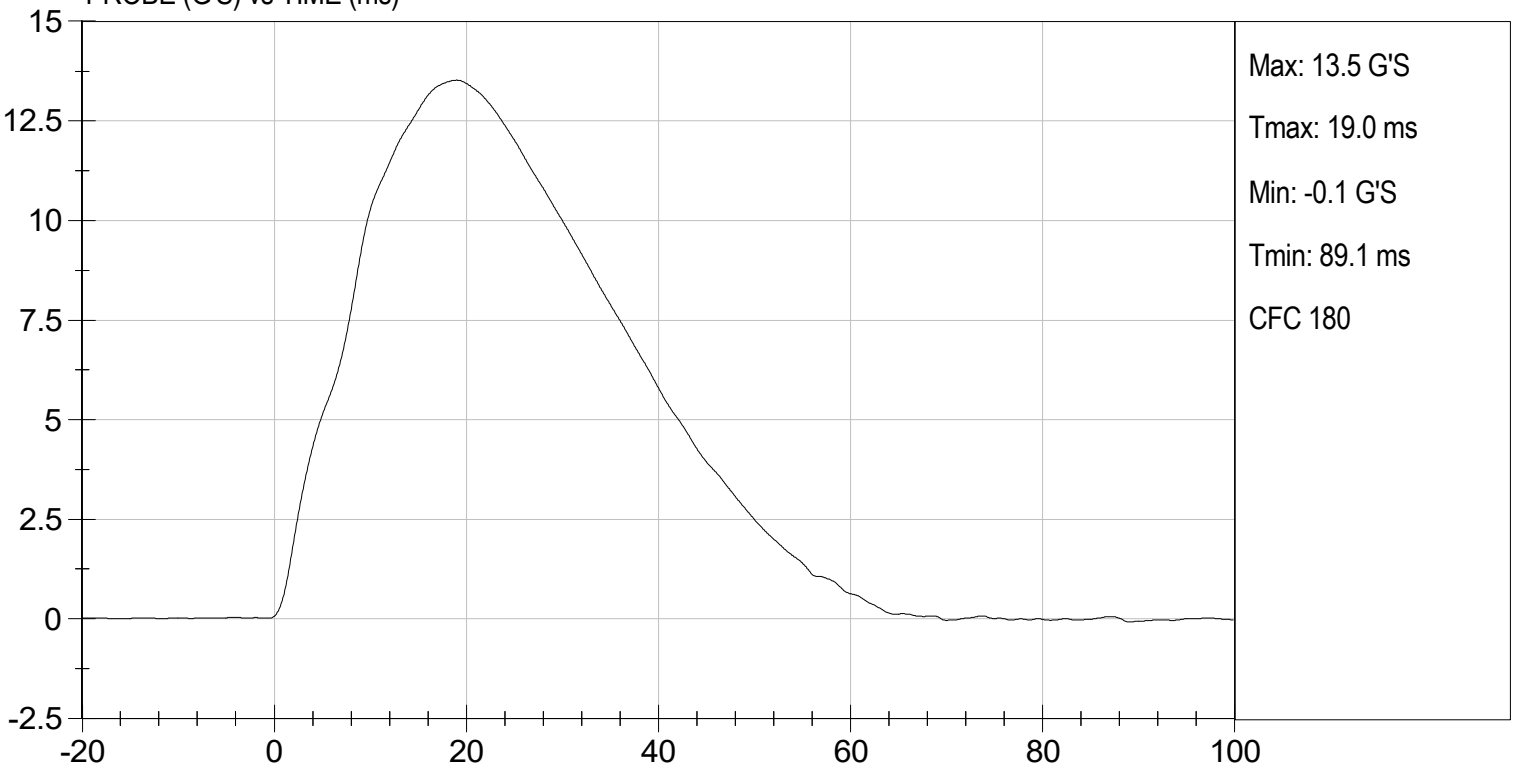
08/02/2024
Test Date

Approved By

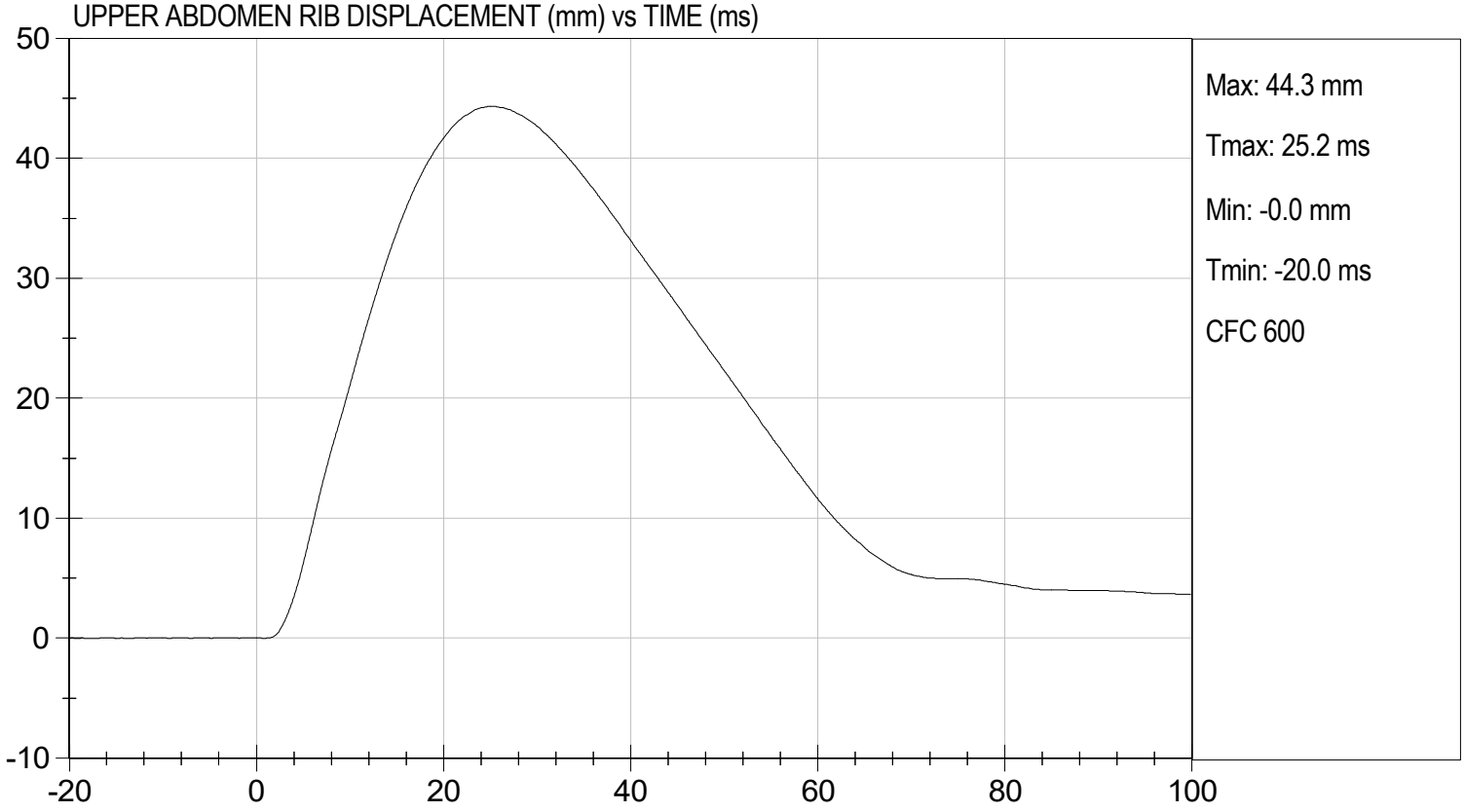
TEST DESC: ABDOMEN IMPACT
VELOCITY: 14.24 ft/s, 4.34 m/s

TEST DATE: 08/02/2024
TEST #: D241976

PROBE (G'S) vs TIME (ms)



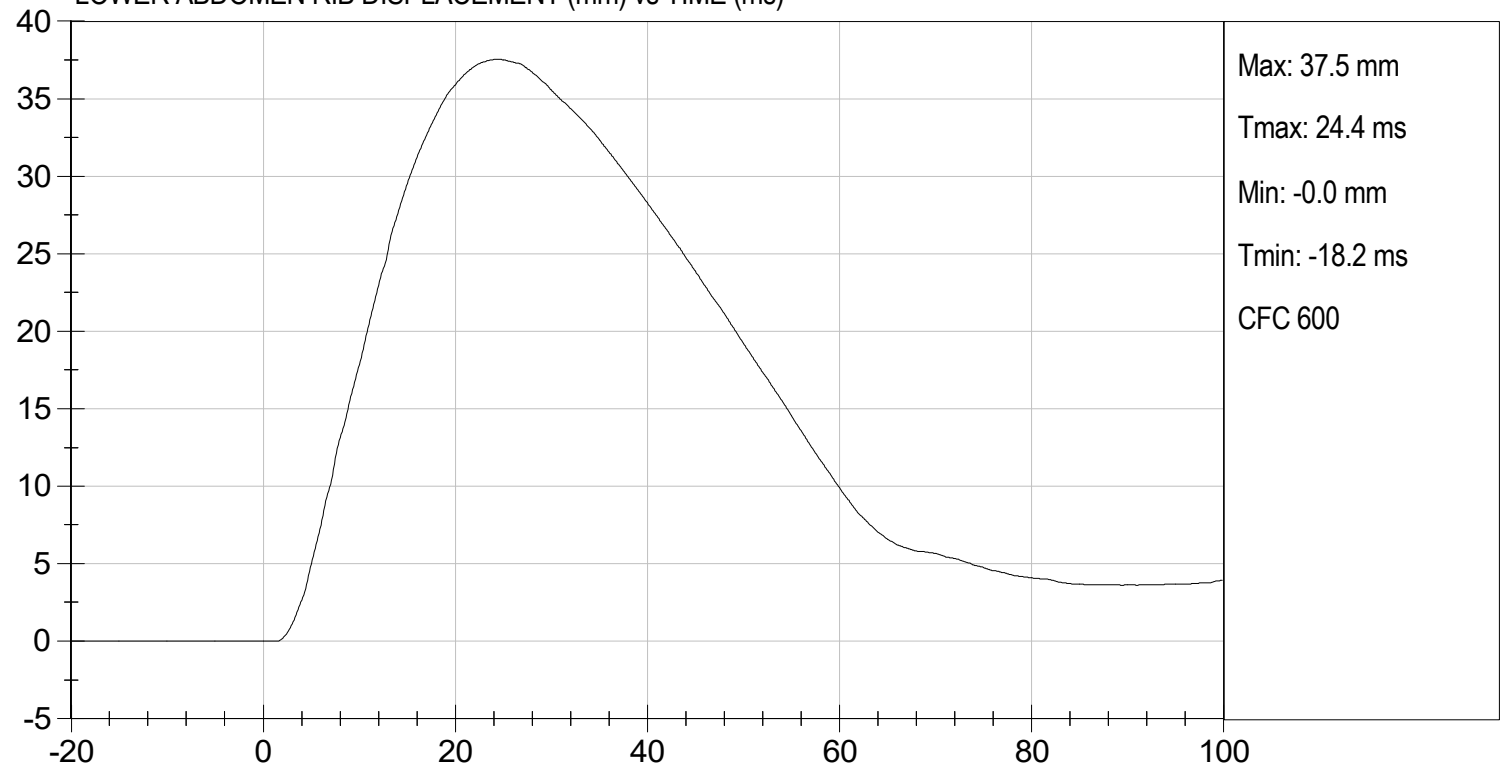
UPPER ABDOMEN RIB DISPLACEMENT (mm) vs TIME (ms)



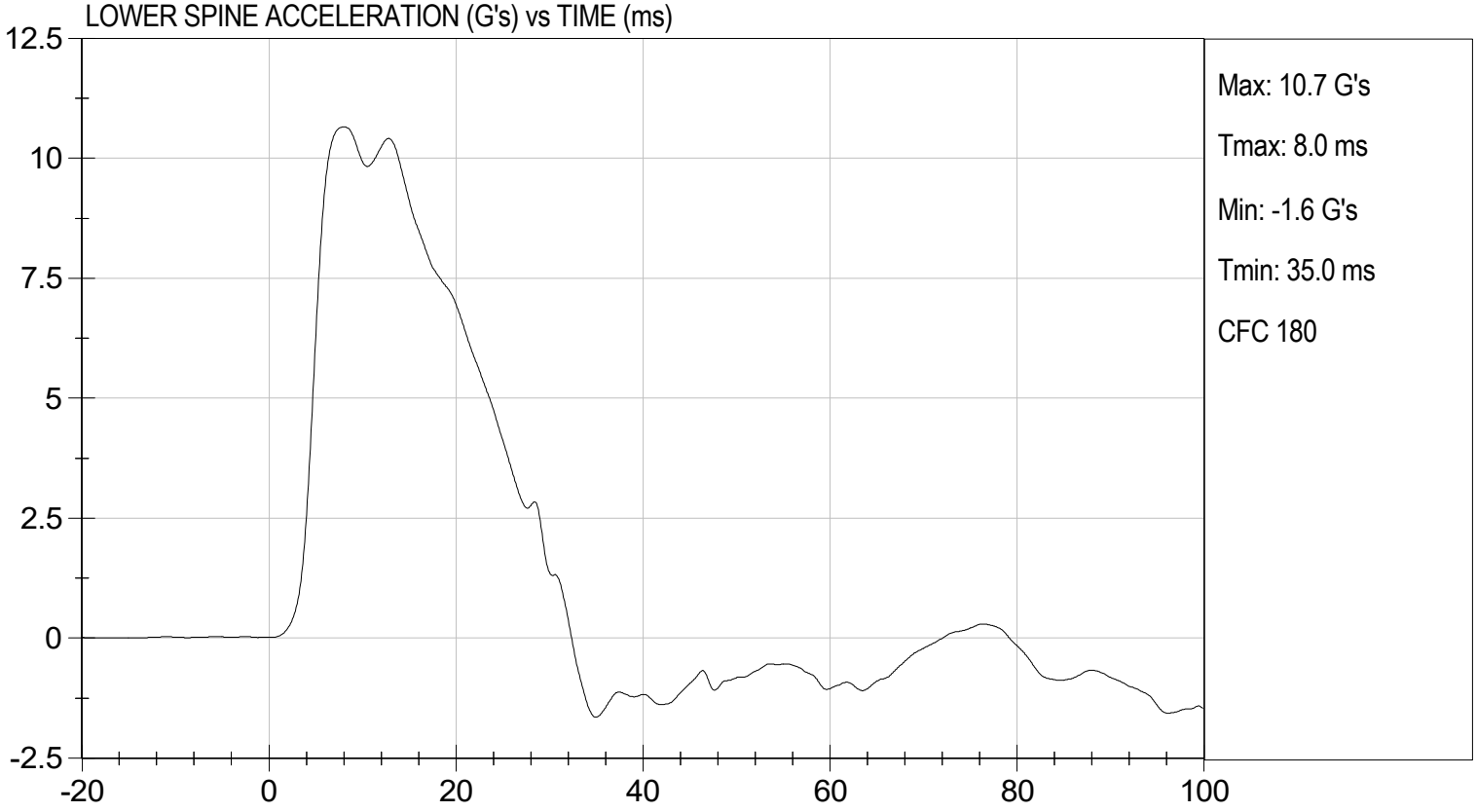
TEST DESC: ABDOMEN IMPACT
VELOCITY: 14.24 ft/s, 4.34 m/s

TEST DATE: 08/02/2024
TEST #: D241976

LOWER ABDOMEN RIB DISPLACEMENT (mm) vs TIME (ms)



LOWER SPINE ACCELERATION (G's) vs TIME (ms)



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D241977

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.3	Pass
Humidity	%	10 to 70	47	Pass
Impact Velocity	m/s	6.60 to 6.80	6.68	Pass
Maximum Probe Acceleration	G's	38 to 47	42	Pass
Pelvis Y Acceleration After 6 ms	G's	34 to 42	40.5	Pass
Peak Acetabulum Force	N	3600 to 4300	3,981	Pass
		Overall Test Results		Pass

Laboratory Technician

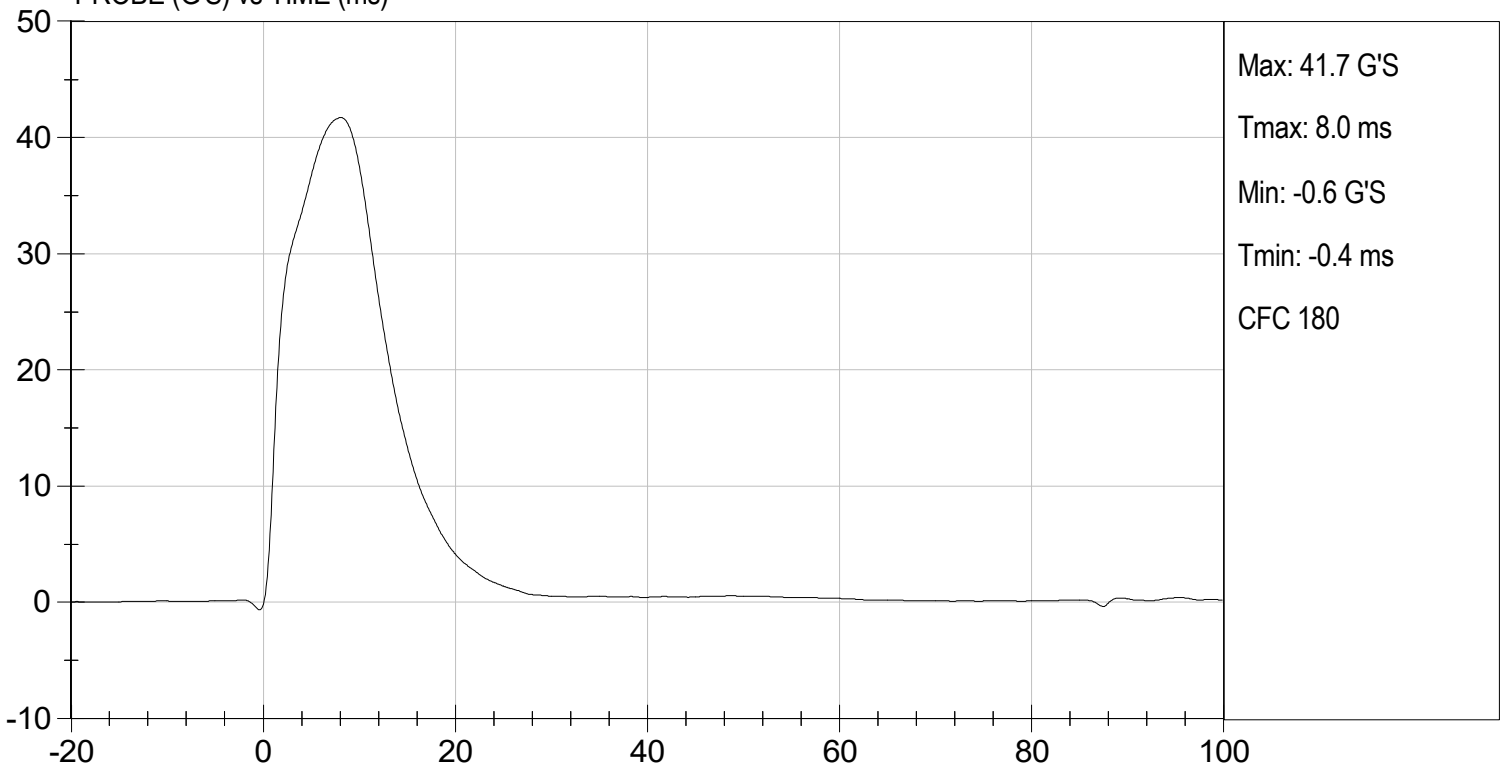
08/02/2024
Test Date

Approved By

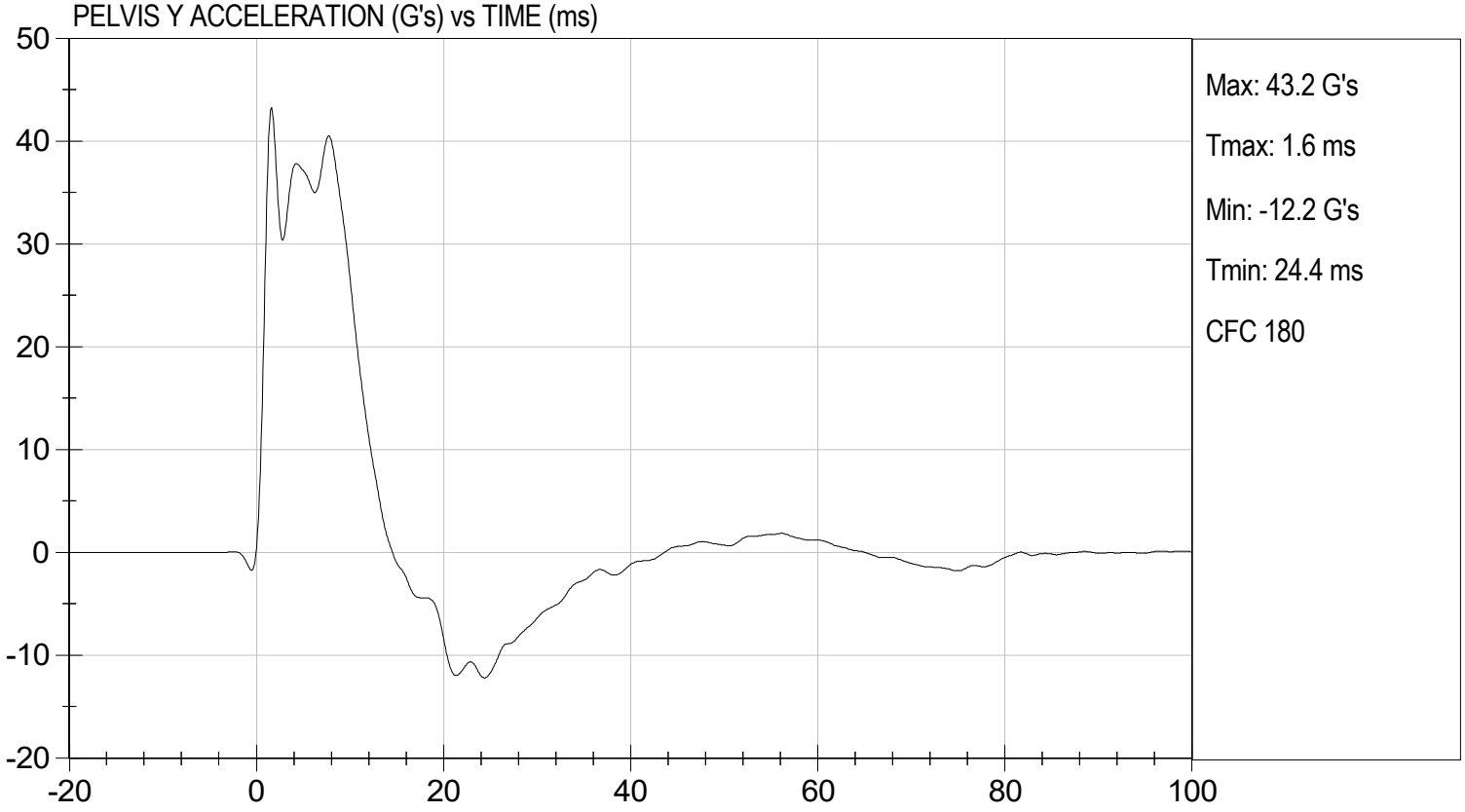
TEST DESC: PELVIS IMPACT
VELOCITY: 21.93 ft/s, 6.68 m/s

TEST DATE: 08/02/2024
TEST #: D241977

PROBE (G'S) vs TIME (ms)

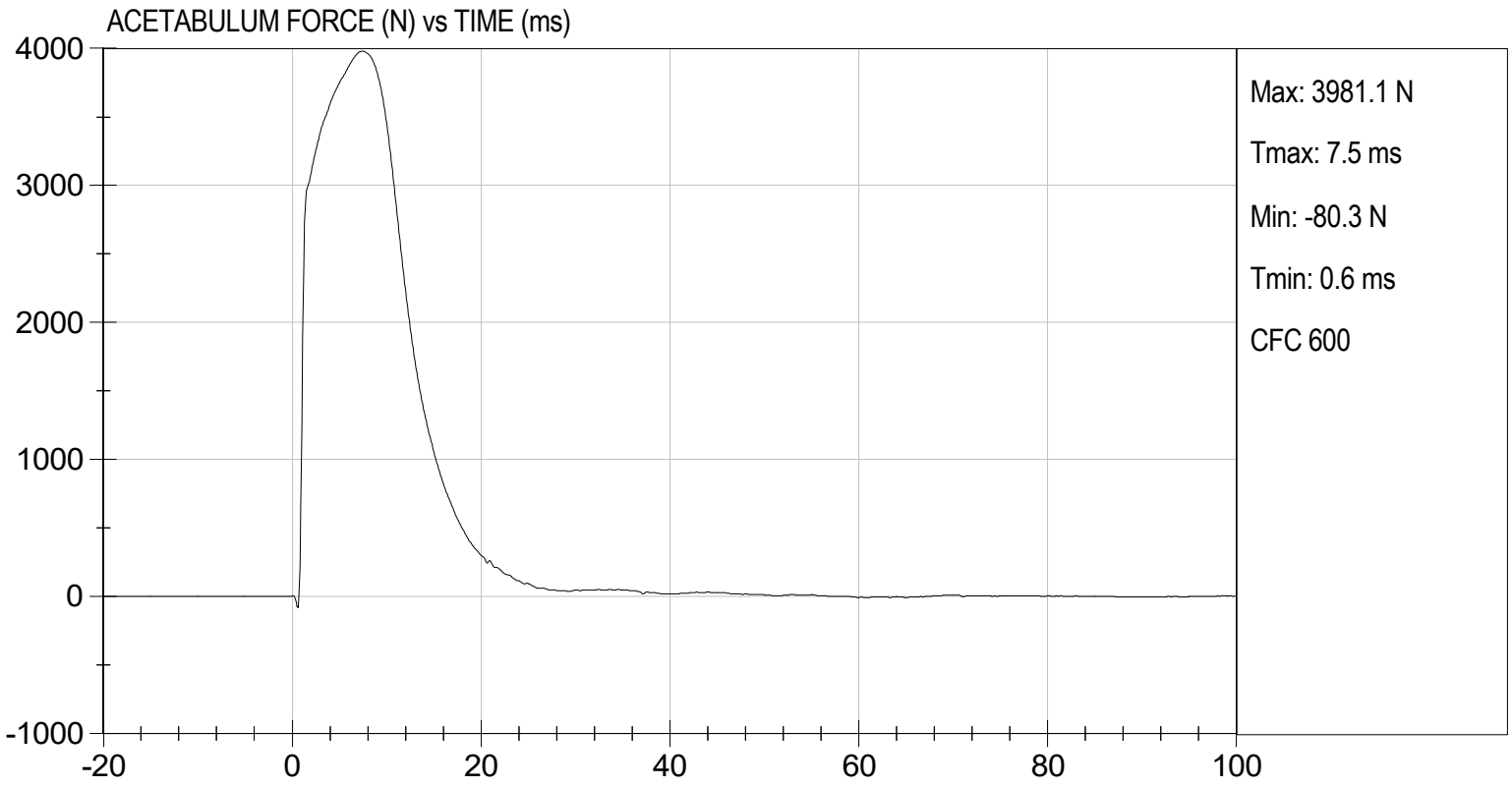


PELVIS Y ACCELERATION (G's) vs TIME (ms)



TEST DESC: PELVIS IMPACT
VELOCITY: 21.93 ft/s, 6.68 m/s

TEST DATE: 08/02/2024
TEST #: D241977



MGA RESEARCH CORPORATION

ILIAC IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D241978

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.2	Pass
Humidity	%	10 to 70	49	Pass
Impact Velocity	m/s	4.20 to 4.40	4.23	Pass
Maximum Probe Acceleration	G's	36 to 45	42	Pass
Pelvis Y Acceleration	G's	28 to 39	33	Pass
Peak Pelvis Iliac Force	N	4100 to 5100	4,927	Pass
		Overall Test Results		Pass

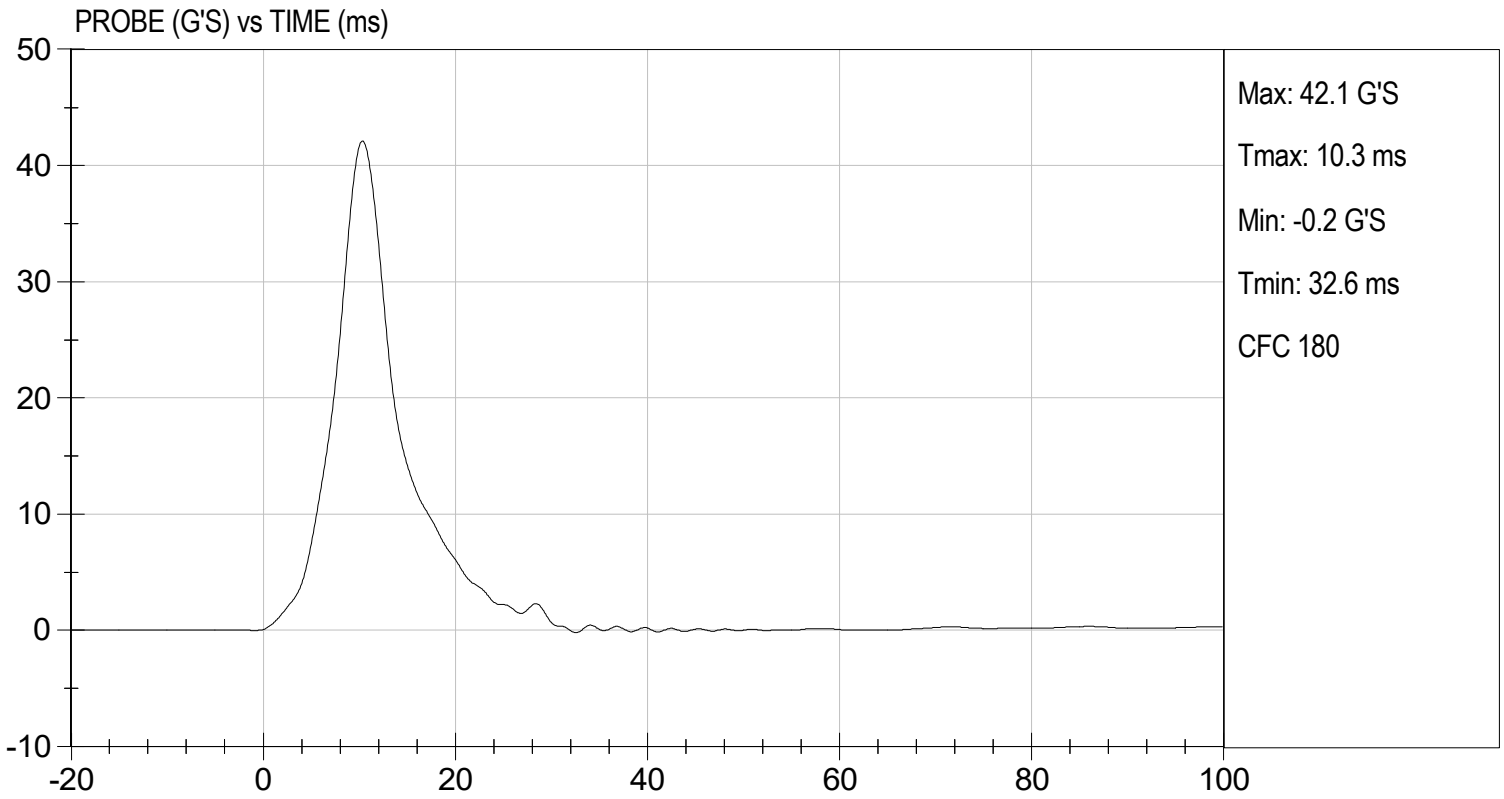
Laboratory Technician

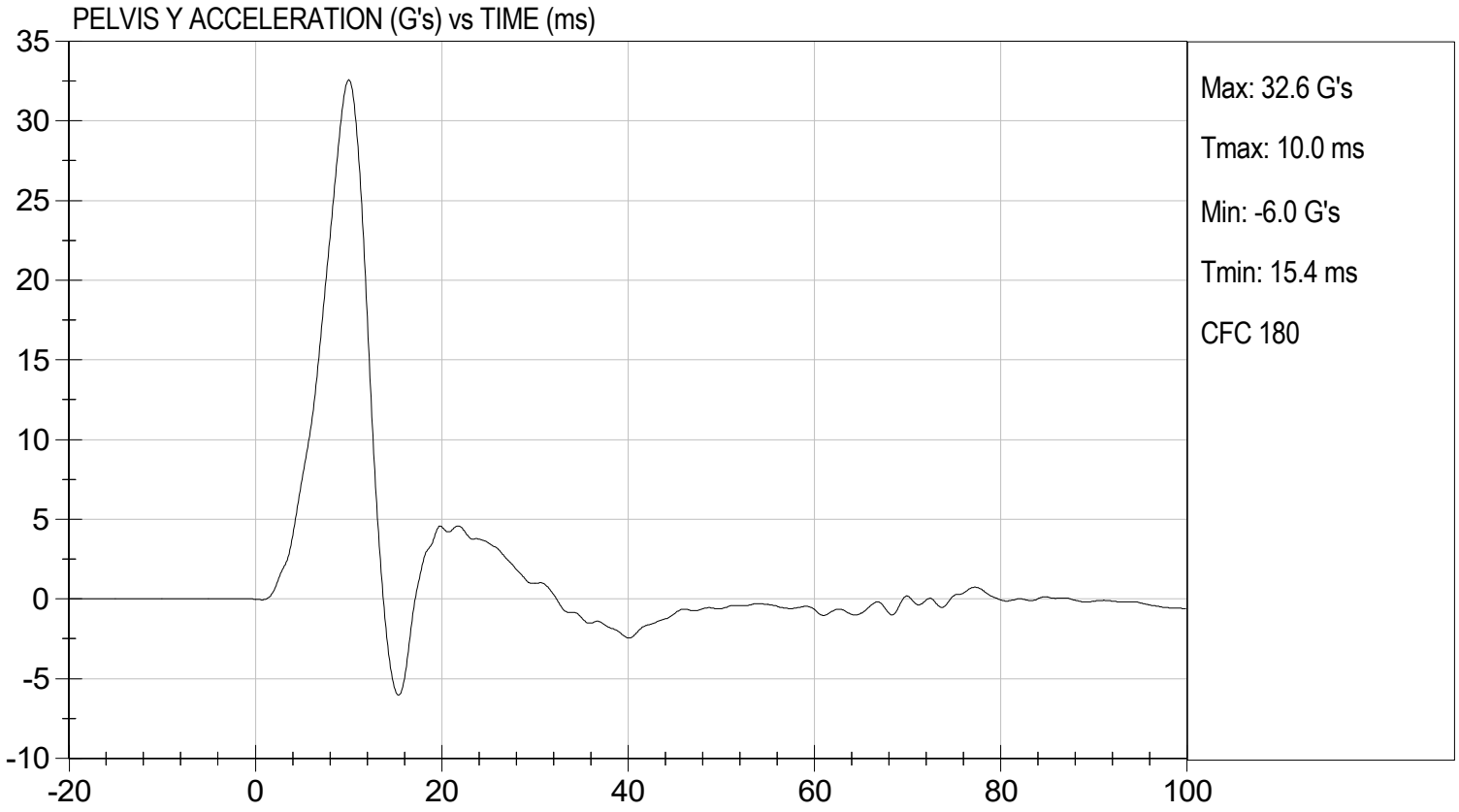
08/02/2024
Test Date

Approved By

TEST DESC: ILLIAC
VELOCITY: 13.89 ft/s, 4.23 m/s

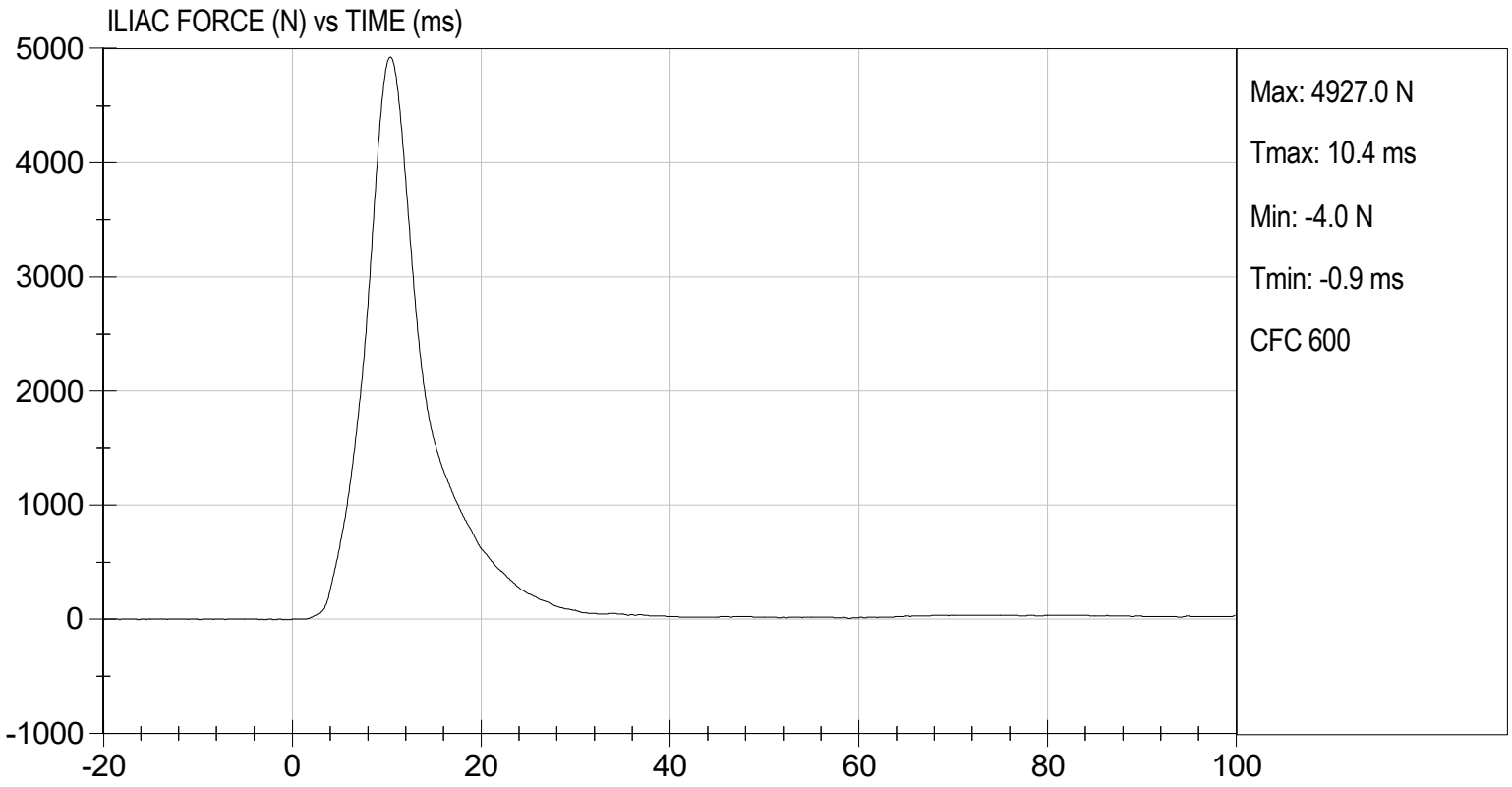
TEST DATE: 08/02/2024
TEST #: D241978





TEST DESC: ILLIAC
VELOCITY: 13.89 ft/s, 4.23 m/s

TEST DATE: 08/02/2024
TEST #: D241978



QUALIFICATION TEST RESULTS

POST-TEST

SID-IIS 5TH PERCENTILE FEMALE - DRIVER ATD

SID-IIsD External Measurements
SN: 306

No.	Name	Spec. (mm)	Result	Pass/Fail
A	Sitting Height	772 - 788	785	Pass
B	Shoulder Pivot Height	437 - 453	449	Pass
C	H-point Height	79 - 89	86	Pass
D	H-point from Seatback	141 - 151	147	Pass
E	Shoulder Pivot from Backline	97 - 107	99	Pass
F	Thigh Clearance	119 -135	120	Pass
G	Head Breadth	140 - 148	141	Pass
H	Head Back from Backline	40 - 46	45	Pass
I	Head Depth	178 - 188	182	Pass
J	Head Circumference	541 - 551	550	Pass
K	Buttock to Knee Length	514 - 540	538	Pass
L	Popliteal Height	343 - 369	349	Pass
M	Knee Pivot to Floor Height	392 - 409	394	Pass
N	Buttock Popliteal Length	416 - 442	435	Pass
O	Chest Depth w/o Jacket	195 - 211	198	Pass
P	Foot Length	216 - 232	222	Pass
Q	Hip Breadth (w/ pelvic plugs)	313 - 323	317	Pass
R	Arm Length	249 - 259	250	Pass
S	Knee Joint to Seatback	477 - 493	483	Pass
V	Shoulder Width	341 - 357	351	Pass
W	Foot Width	78 - 94	82	Pass
Y	Chest Circumference w/ jacket	851 - 881	863	Pass
Z	Waist Circumference	761 - 791	782	Pass

MGA RESEARCH CORPORATION

HEAD DROP TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test ID:** D242071

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	20.6 to 22.2	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	43	Pass
Peak Resultant Acceleration	G's	115 to 137	137	Pass
Peak Longitudinal Acceleration	G's	+/- 15	-6.9	Pass
Unimodal	N/A	Yes	Yes	Pass
Oscillations	N/A	<15%	Yes	Pass
		Overall Test Results		Pass

Laboratory Technician

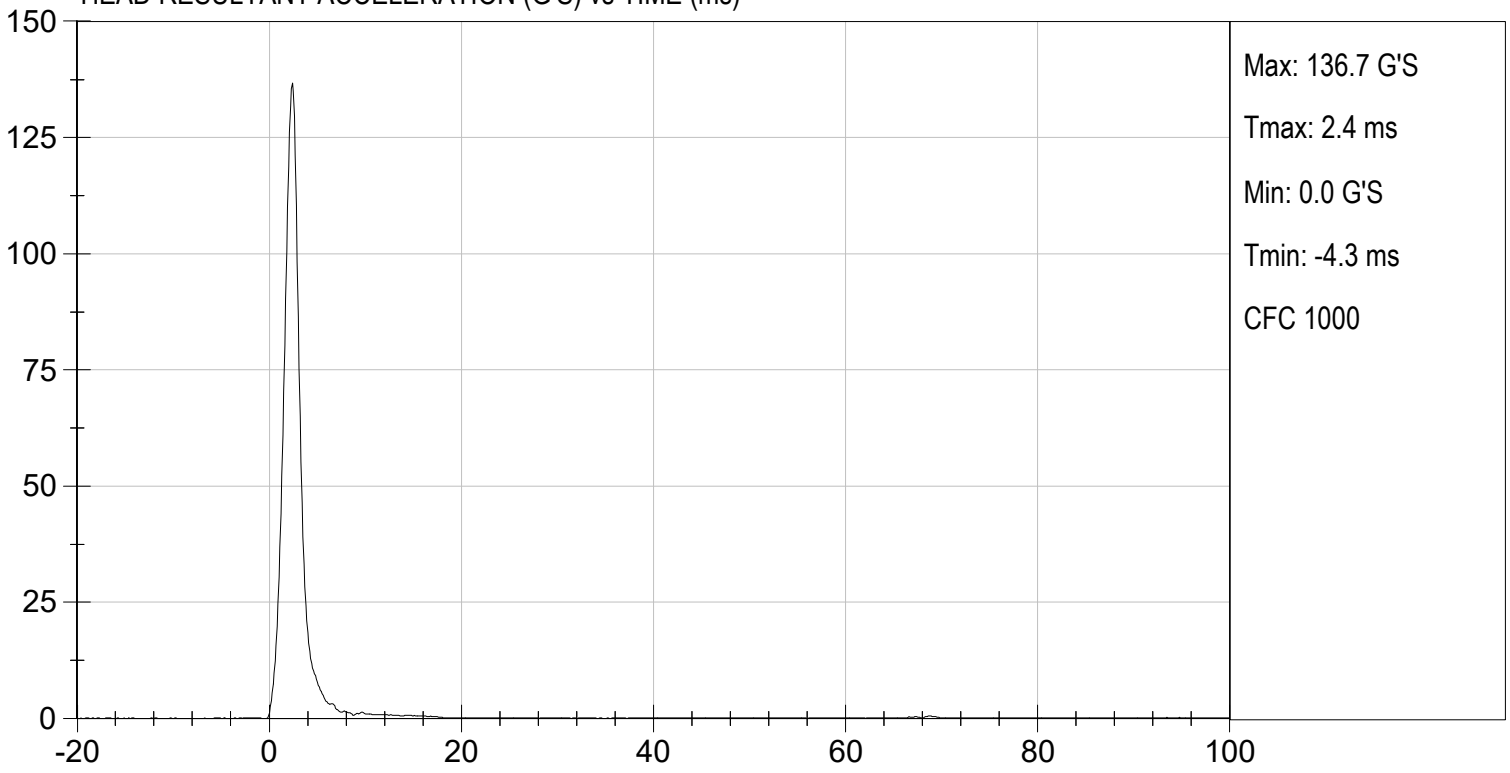
08/14/2024
Test Date

Approved By

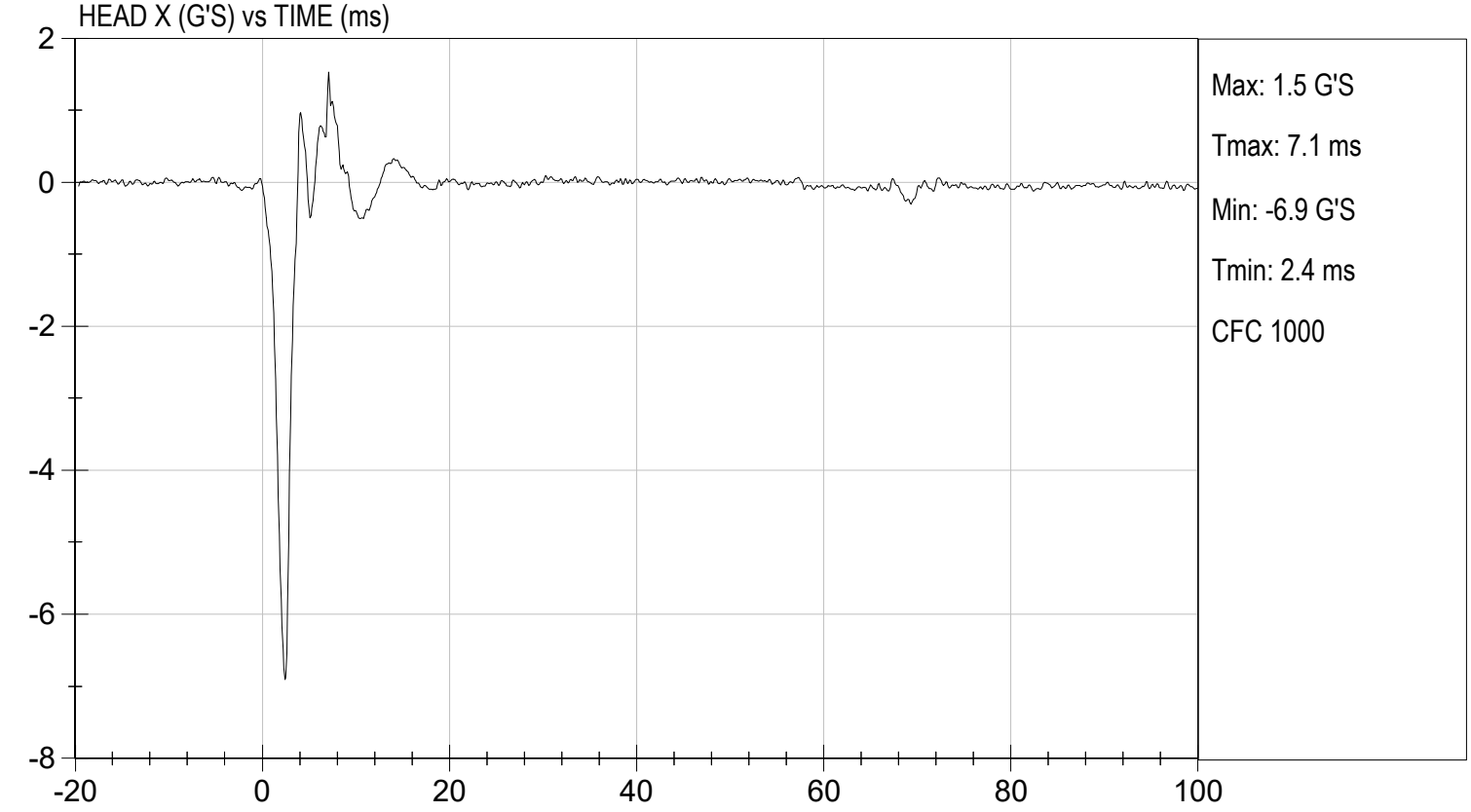
TEST DESC: HEAD DROP

TEST DATE: 08/14/2024
TEST #: D242071

HEAD RESULTANT ACCELERATION (G'S) vs TIME (ms)

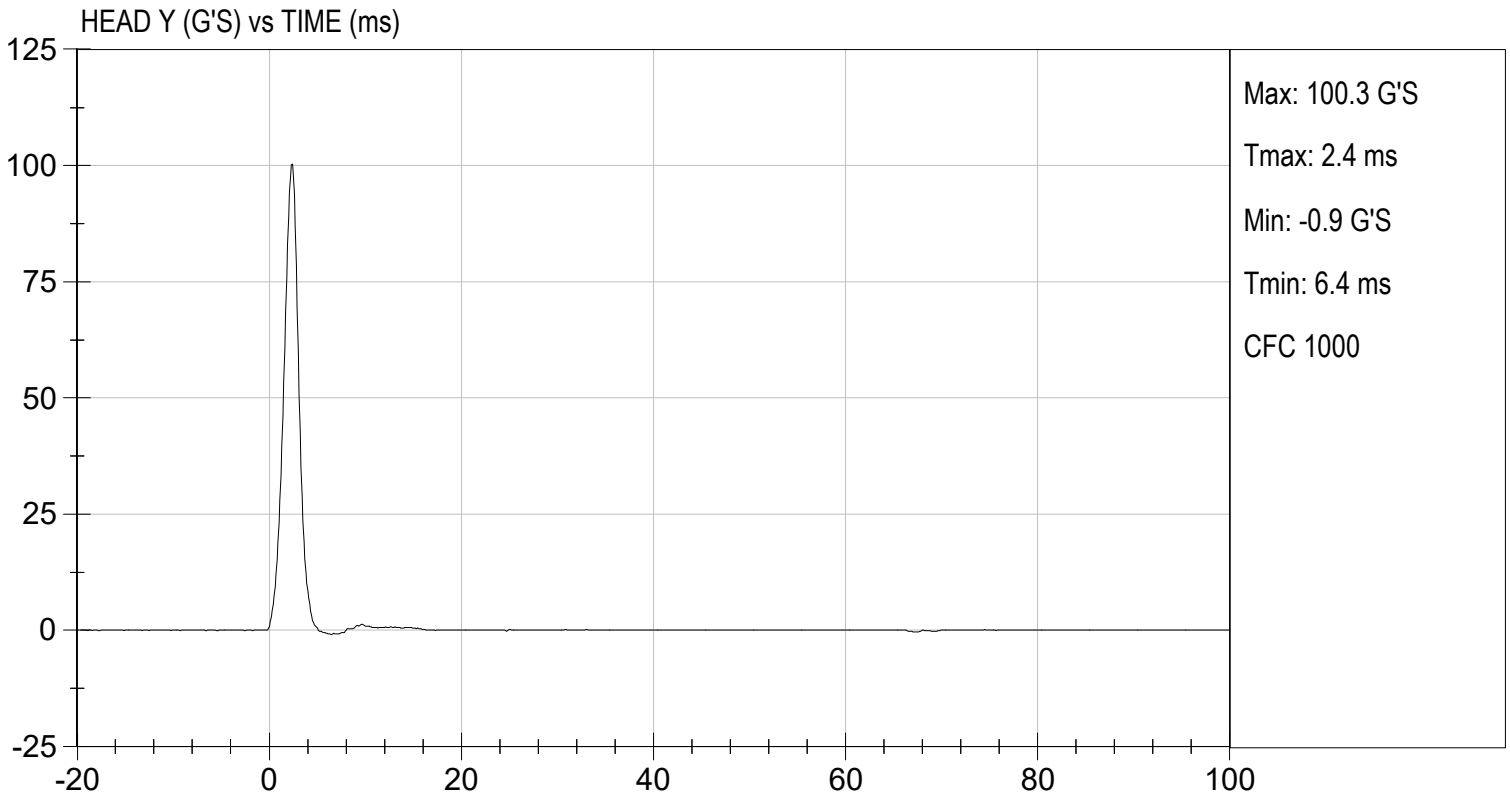


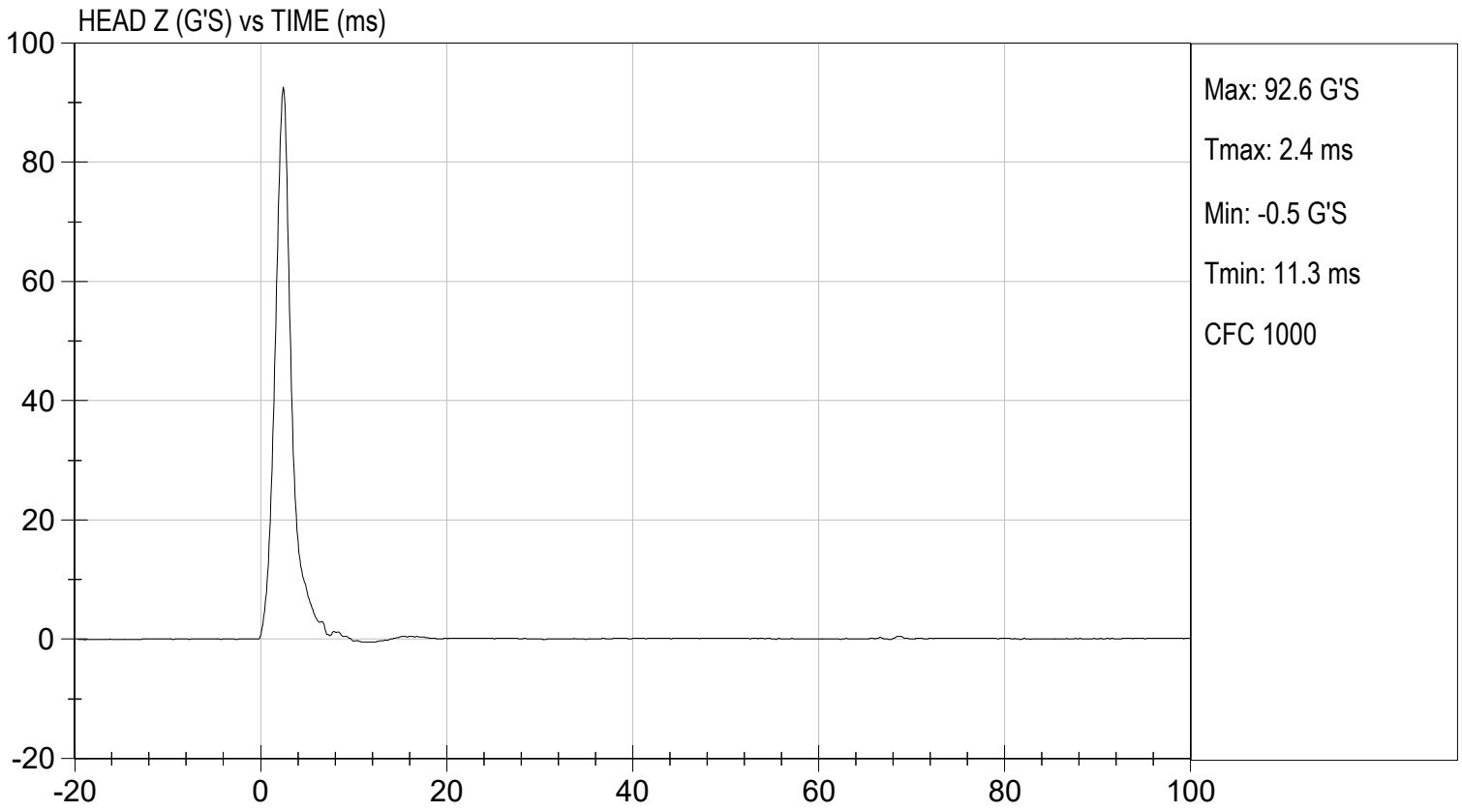
HEAD X (G'S) vs TIME (ms)



TEST DESC: HEAD DROP

TEST DATE: 08/14/2024
TEST #: D242071





MGA RESEARCH CORPORATION

LATERAL NECK PENDULUM TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D242072

Tested Parameter		Units	Specification	Result	Pass/Fail
Temperature		deg C	20.6 to 22.2	21.3	Pass
Humidity		%	10 to 70	43	Pass
Impact Velocity		m/s	5.51 to 5.63	5.53	Pass
Pendulum Velocity	10 ms	m/s	2.20 to 2.80	2.51	Pass
	15 ms	m/s	3.30 to 4.10	3.83	Pass
	20 ms	m/s	4.40 to 5.40	5.40	Pass
	25 ms	m/s	5.40 to 6.10	5.75	Pass
	25-100 ms	m/s	5.50 to 6.20	5.81	Pass
Maximum D-Plane Rotation		deg	71 to 81	75	Pass
Time of Maximum D-Plane Rotation		ms	50 to 70	64	Pass
Maximum Occipital Condyle Moment		Nm	-44 to -36	-40	Pass
Time of Moment Decay to 0 Nm		ms	102 to 126	117	Pass
			Overall Test Results		Pass

Laboratory Technician

08/14/2024

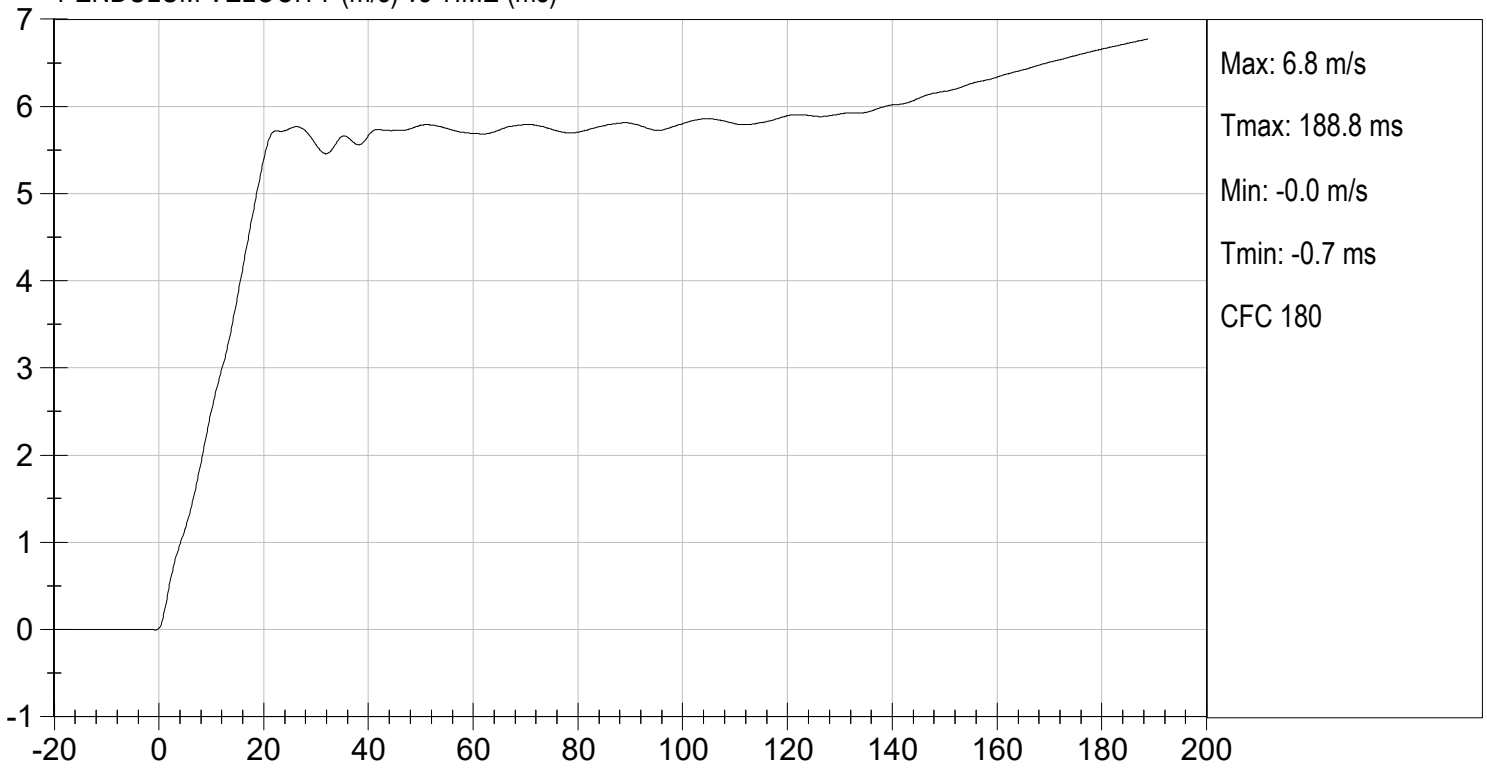
Test Date

Approved By

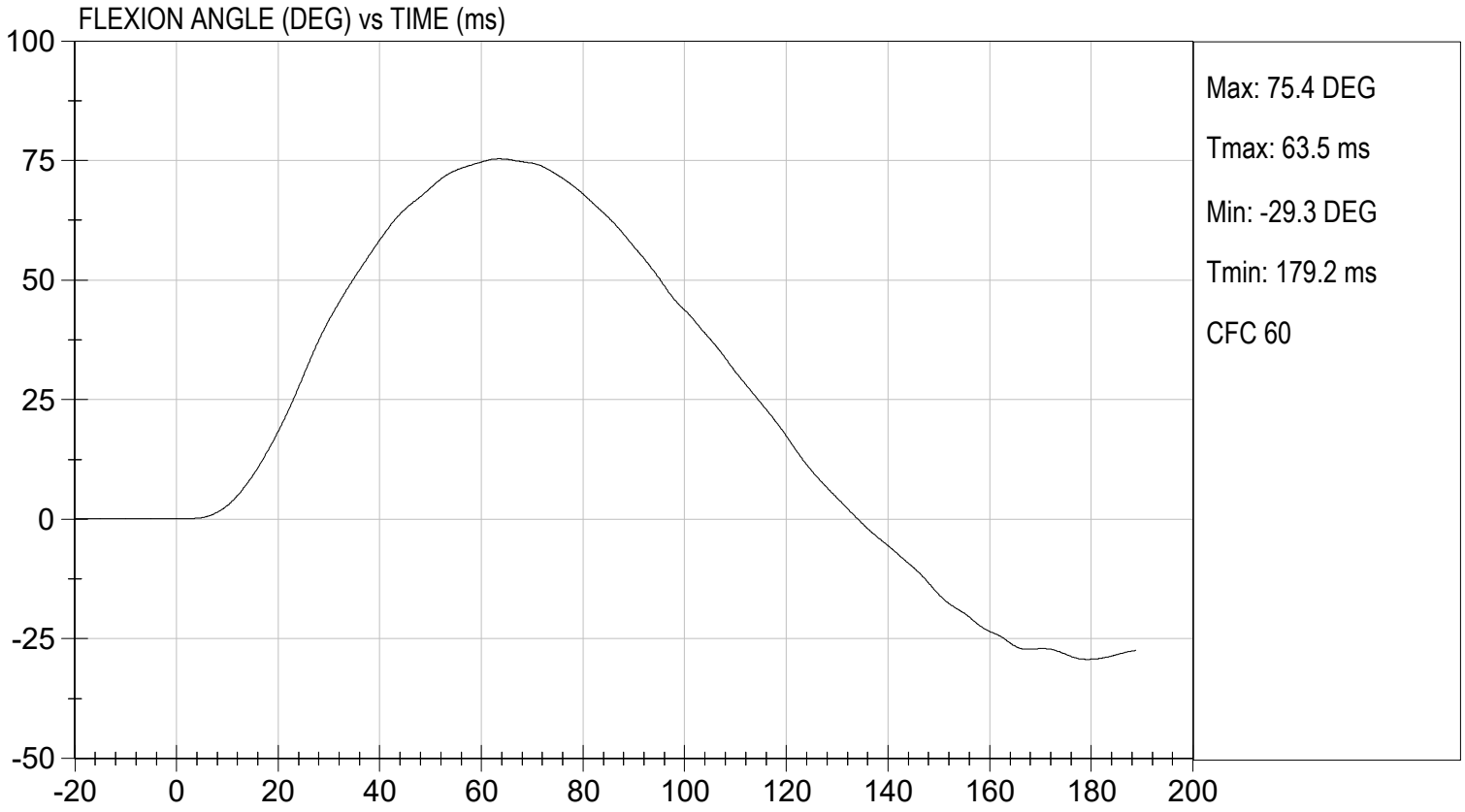
TEST DESC: NECK BENDING
VELOCITY: 18.15 ft/s, 5.53 m/s

TEST DATE: 08/14/2024
TEST #: D242072

PENDULUM VELOCITY (m/s) vs TIME (ms)

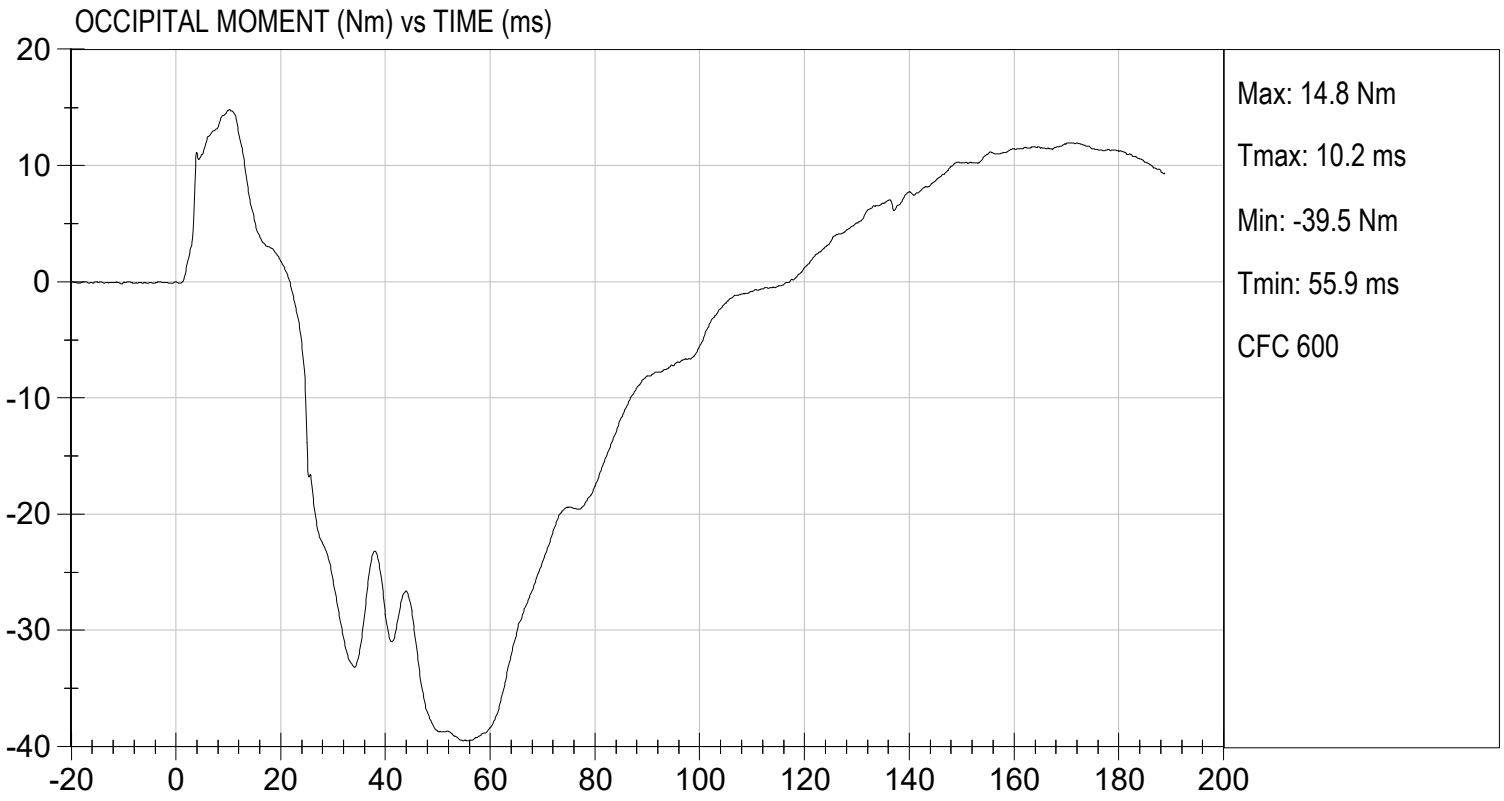


FLEXION ANGLE (DEG) vs TIME (ms)



TEST DESC: NECK BENDING
VELOCITY: 18.15 ft/s, 5.53 m/s

TEST DATE: 08/14/2024
TEST #: D242072



MGA RESEARCH CORPORATION

SHOULDER IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test ID:** D242073

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	deg C	20.6 to 22.2	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	43	Pass
Impact Velocity	m/s	4.20 to 4.40	4.34	Pass
Maximum Probe Acceleration	G's	13 to 18	14	Pass
Shoulder Displacement	mm	28 to 37	31	Pass
Upper Spine (T1) Y Acceleration	G's	17 to 22	19	Pass
		Overall Test Results		Pass

Laboratory Technician

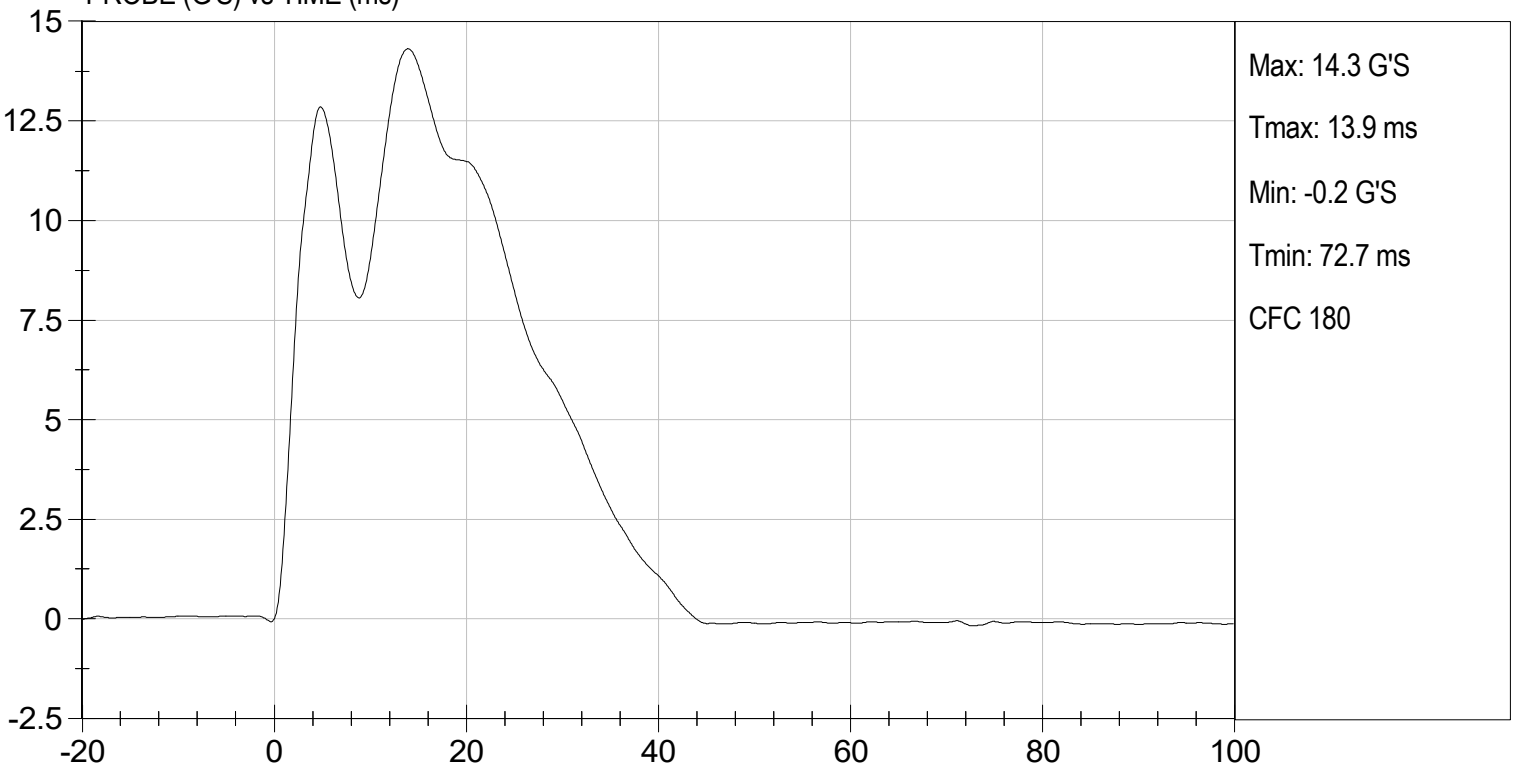
08/14/2024
Test Date

Approved By

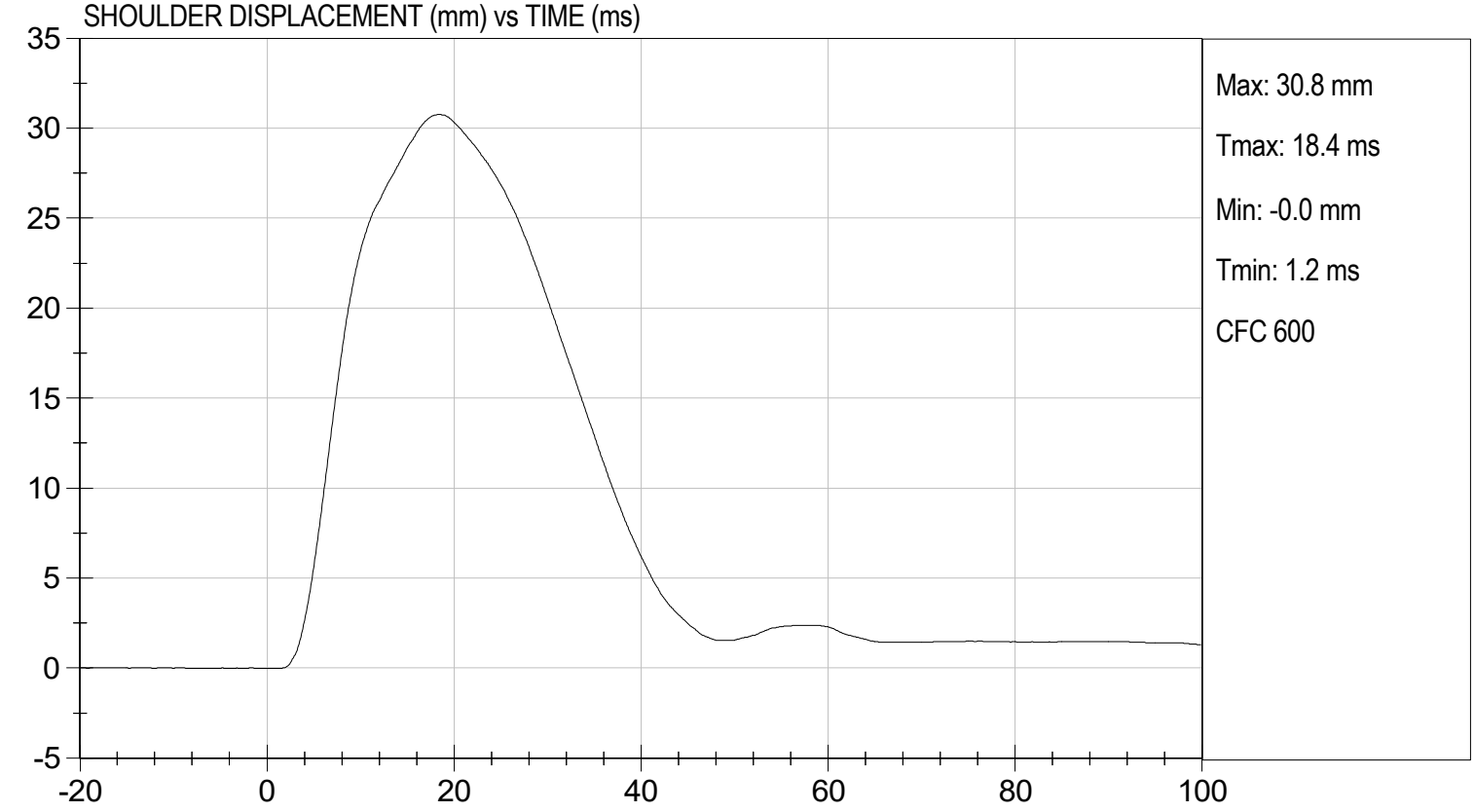
TEST DESC: SHOULDER IMPACT
VELOCITY: 14.25 ft/s, 4.34 m/s

TEST DATE: 08/14/2024
TEST #: D242073

PROBE (G'S) vs TIME (ms)

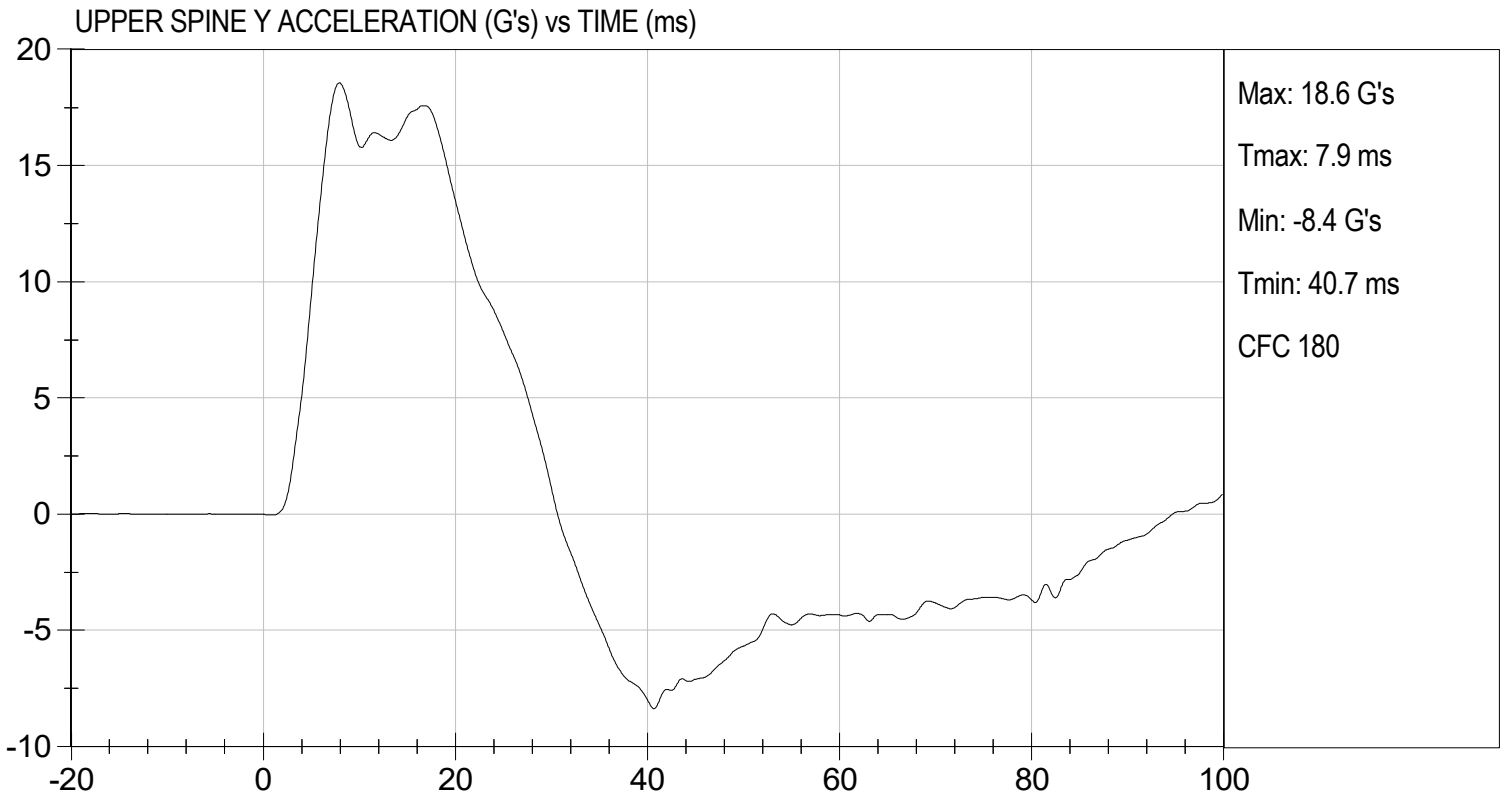


SHOULDER DISPLACEMENT (mm) vs TIME (ms)



TEST DESC: SHOULDER IMPACT
VELOCITY: 14.25 ft/s, 4.34 m/s

TEST DATE: 08/14/2024
TEST #: D242073



MGA RESEARCH CORPORATION

THORAX (WITH ARM) IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D242074

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.3	Pass
Humidity	%	10 to 70	43	Pass
Impact Velocity	m/s	6.60 to 6.80	6.77	Pass
Maximum Probe Acceleration	G's	30 to 36	33	Pass
Shoulder Displacement	mm	31 to 40	38	Pass
Upper Rib Displacement	mm	25 to 32	30	Pass
Middle Rib Displacement	mm	30 to 36	33	Pass
Lower Rib Displacement	mm	32 to 38	34	Pass
Upper Spine (T1) Y Acceleration	G's	34 to 43	35	Pass
Lower Spine (T12) Y Acceleration	G's	29 to 37	33	Pass
		Overall Test Results		Pass

Laboratory Technician

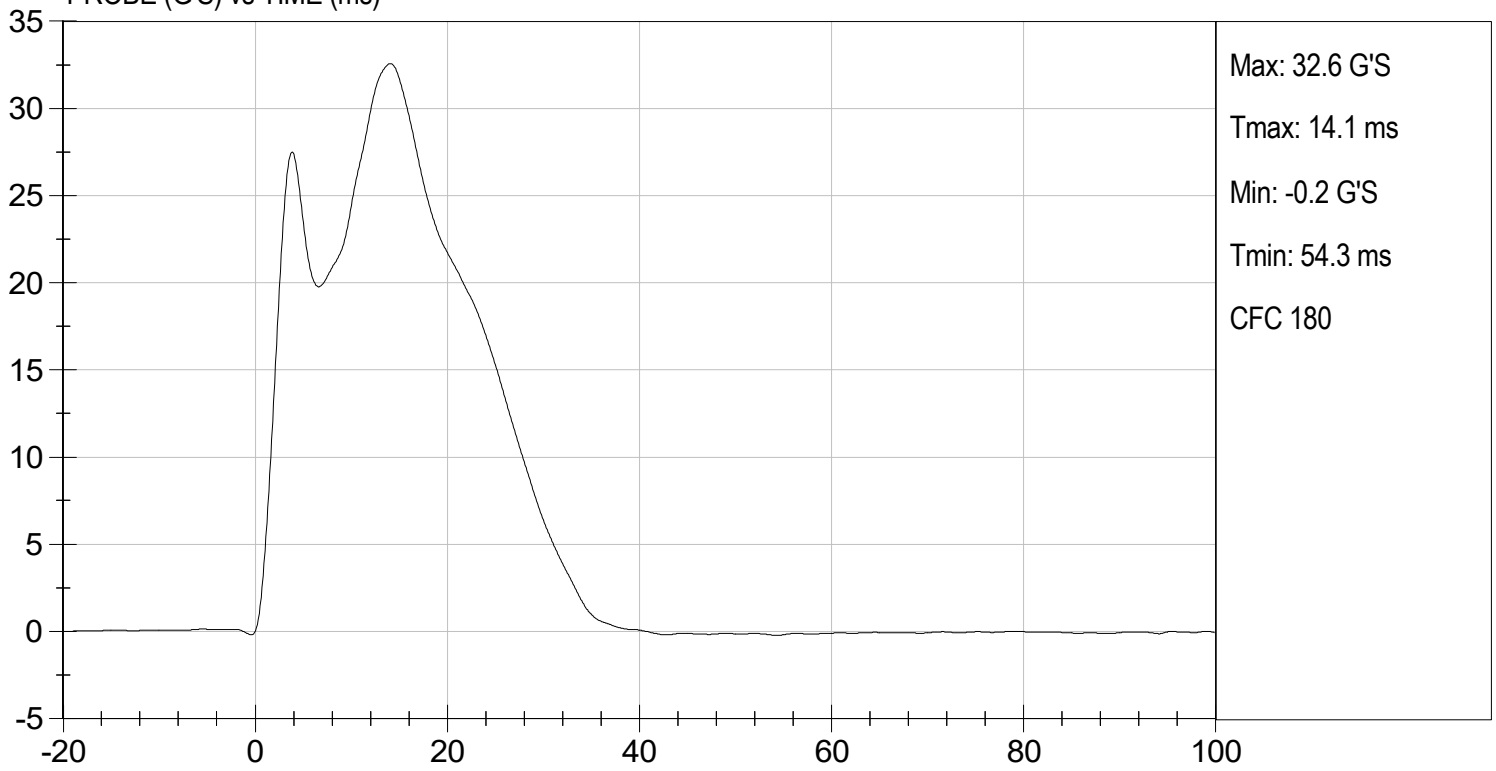
08/14/2024
Test Date

Approved By

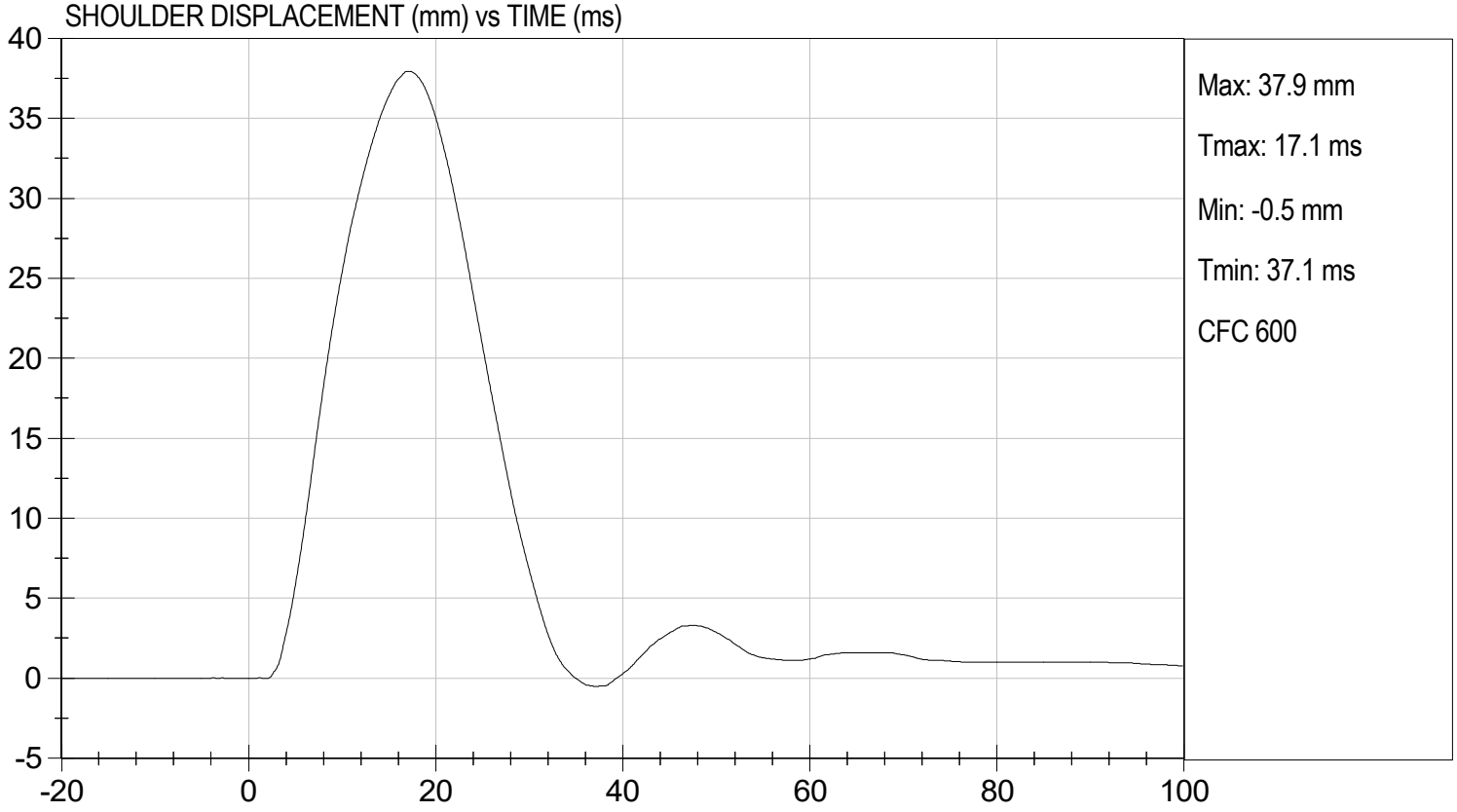
TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/14/2024
TEST #: D242074

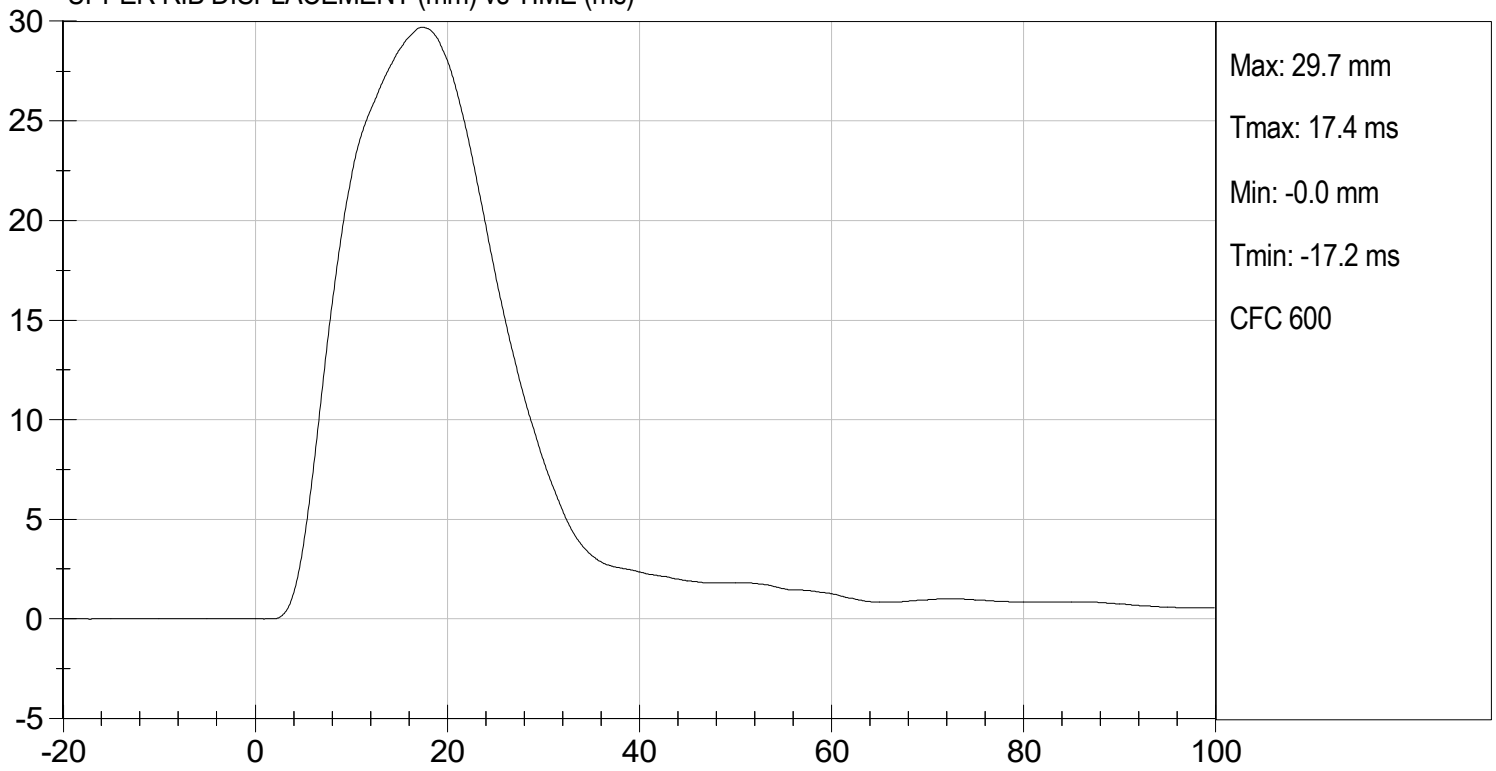
PROBE (G'S) vs TIME (ms)



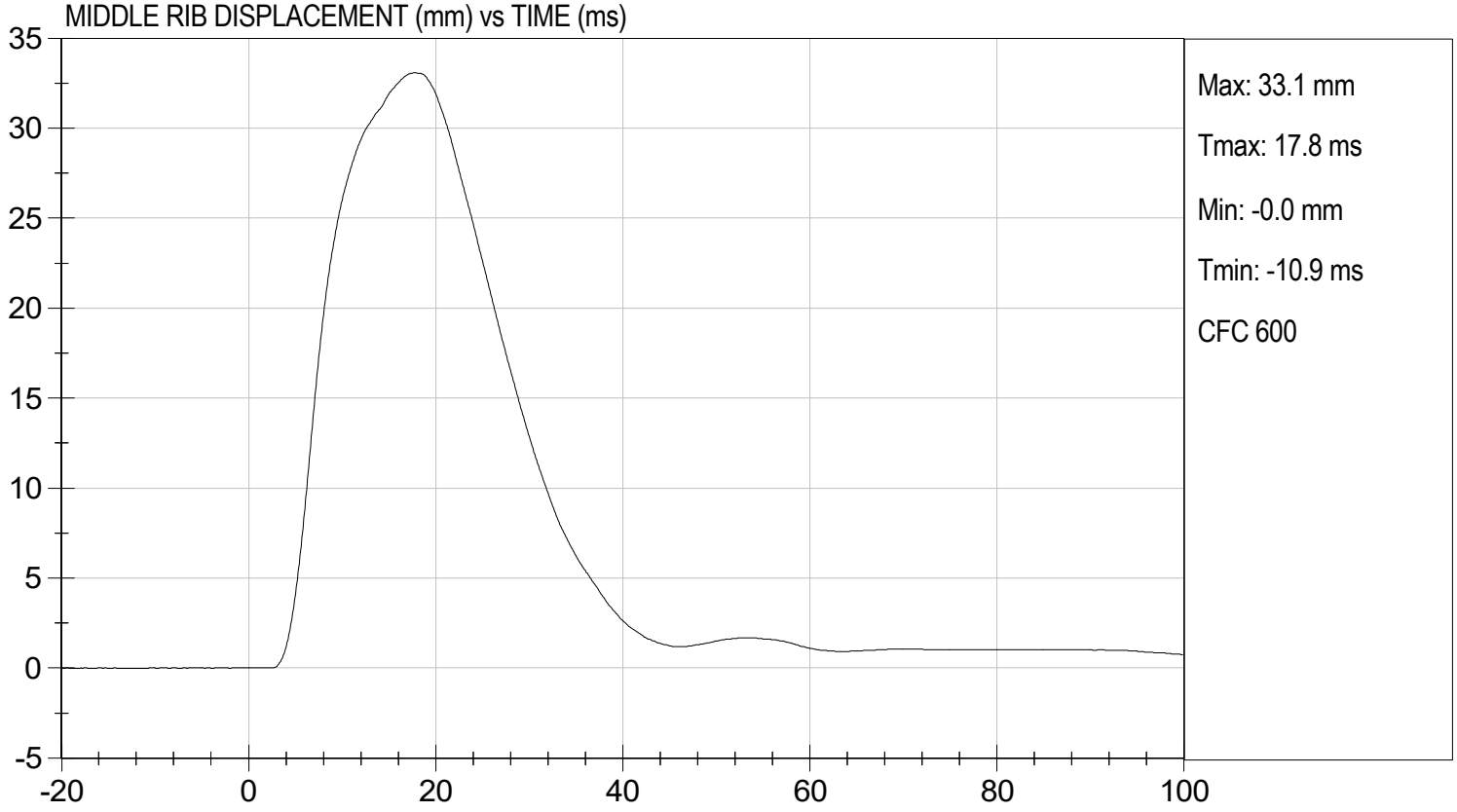
SHOULDER DISPLACEMENT (mm) vs TIME (ms)



UPPER RIB DISPLACEMENT (mm) vs TIME (ms)



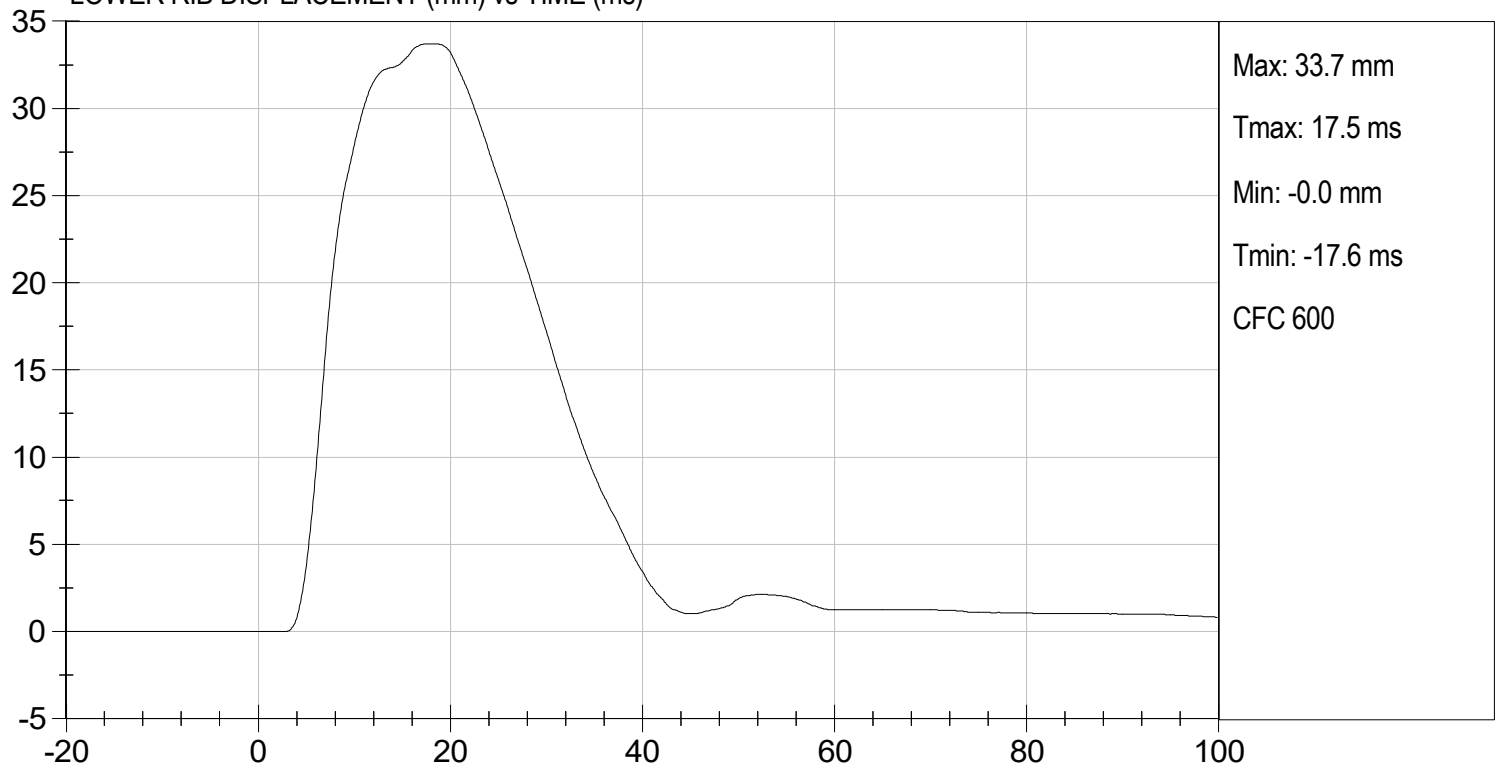
MIDDLE RIB DISPLACEMENT (mm) vs TIME (ms)



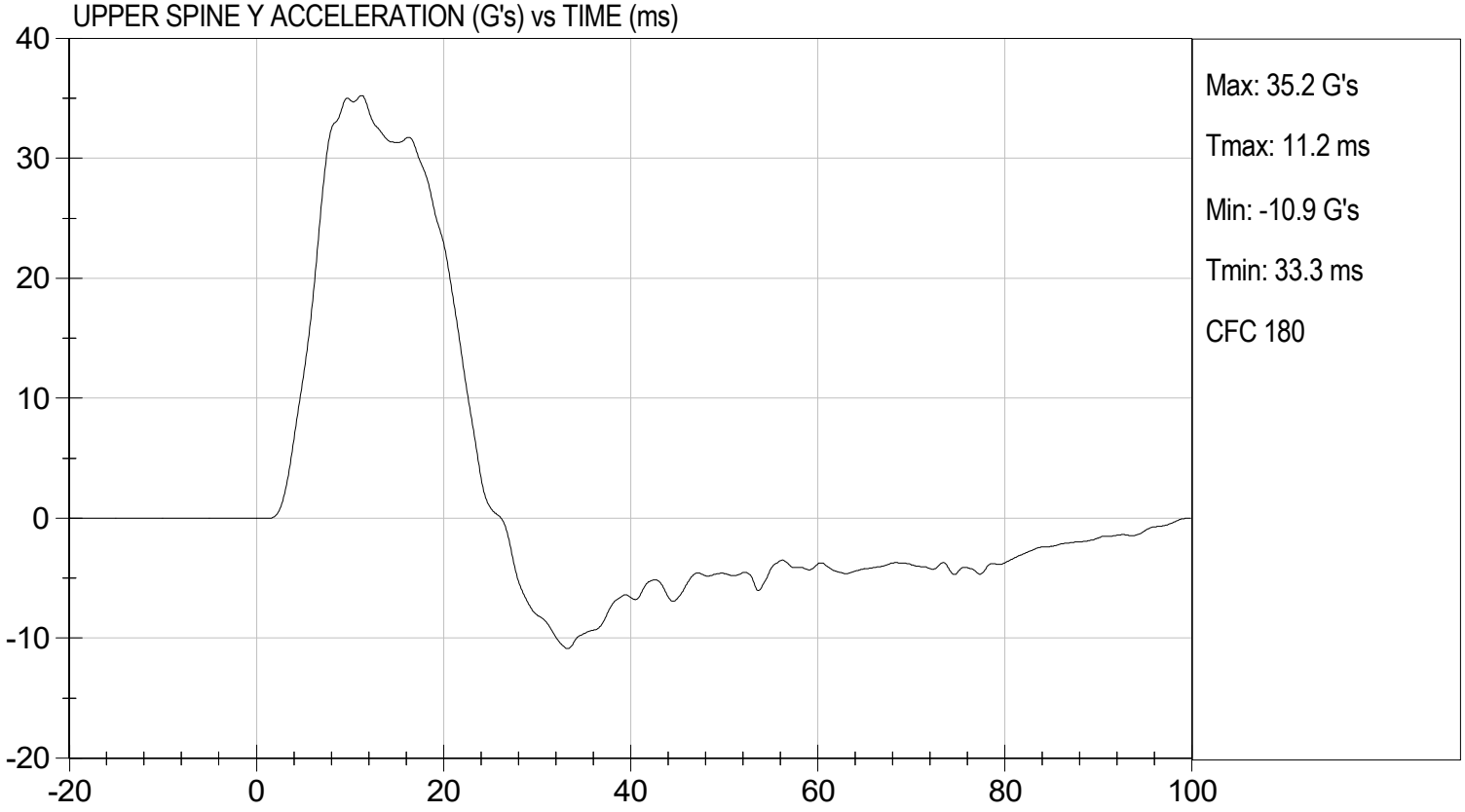
TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/14/2024
TEST #: D242074

LOWER RIB DISPLACEMENT (mm) vs TIME (ms)

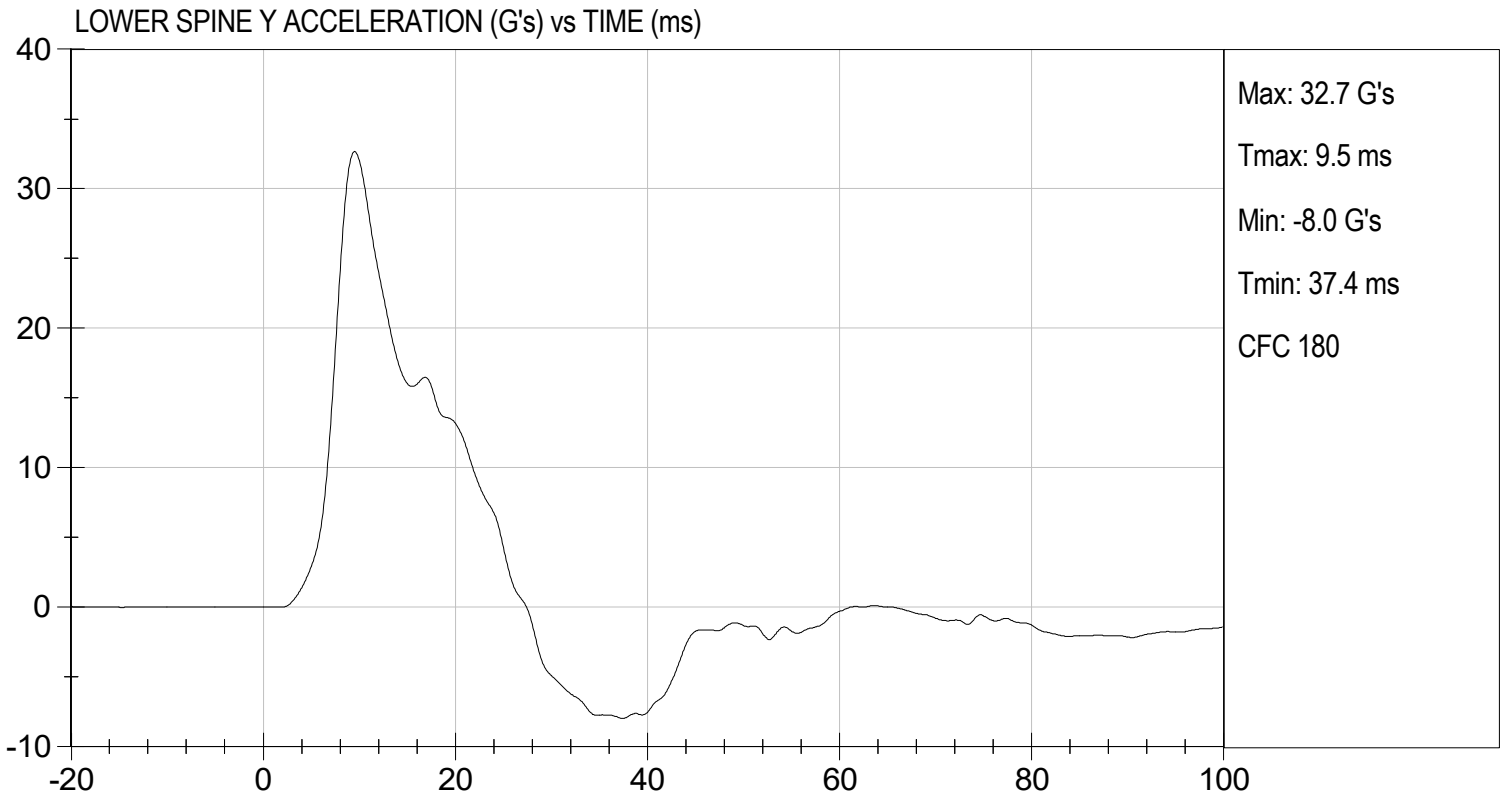


UPPER SPINE Y ACCELERATION (G's) vs TIME (ms)



TEST DESC: THORAX IMPACT WITH ARM
VELOCITY: 22.22 ft/s, 6.77 m/s

TEST DATE: 08/14/2024
TEST #: D242074



MGA RESEARCH CORPORATION

THORAX (WITHOUT ARM) IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D242075

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.3	Pass
Humidity	%	10 to 70	43	Pass
Impact Velocity	m/s	4.20 to 4.40	4.20	Pass
Maximum Probe Acceleration	G's	14 to 18	15	Pass
Upper Rib Displacement	mm	32 to 40	36	Pass
Middle Rib Displacement	mm	39 to 45	42	Pass
Lower Rib Displacement	mm	35 to 43	39	Pass
Upper Spine (T1) Y Acceleration	G's	13 to 17	14	Pass
Lower Spine (T12) Y Acceleration	G's	7 to 11	9	Pass
		Overall Test Results		Pass

Laboratory Technician

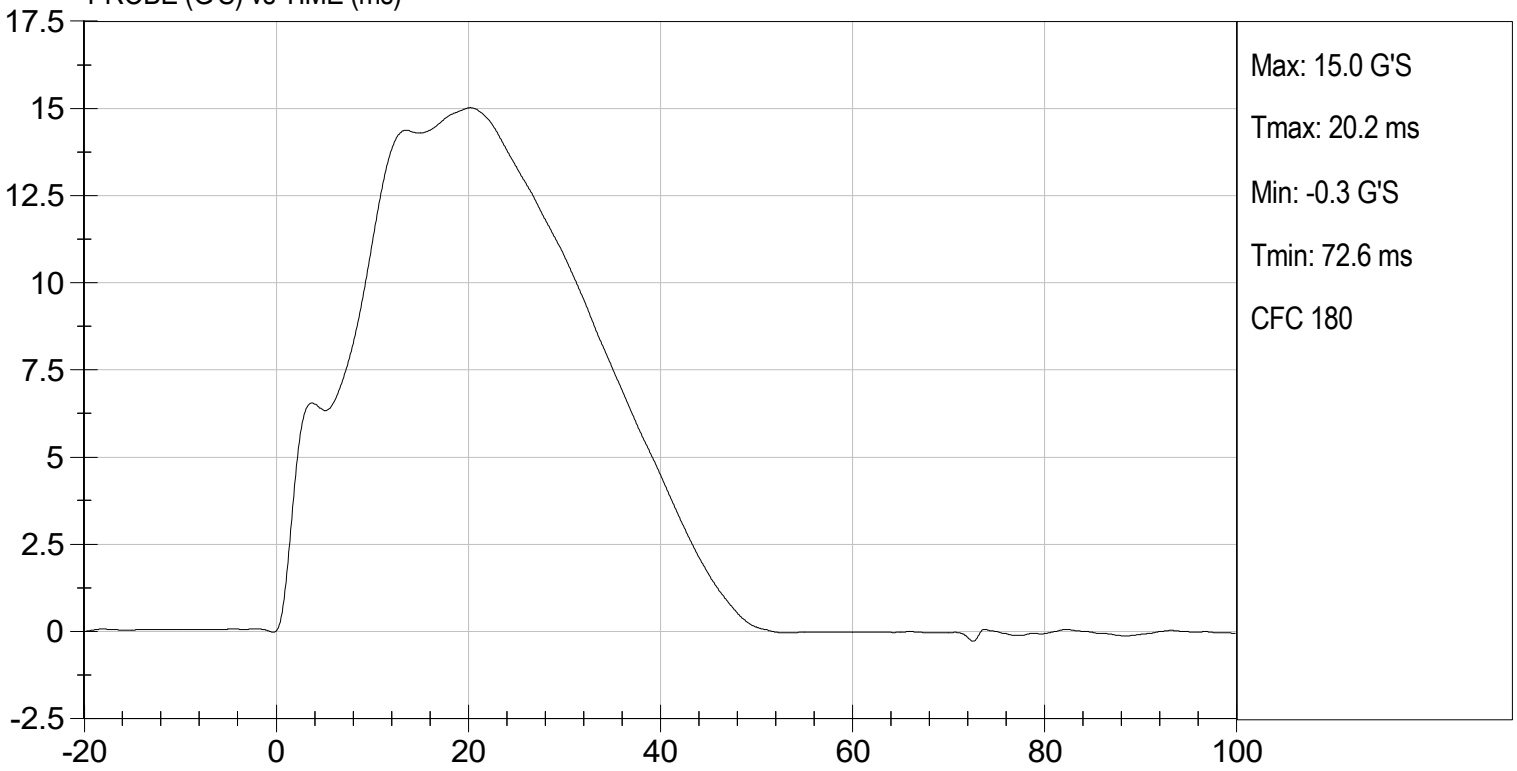
08/14/2024
Test Date

Approved By

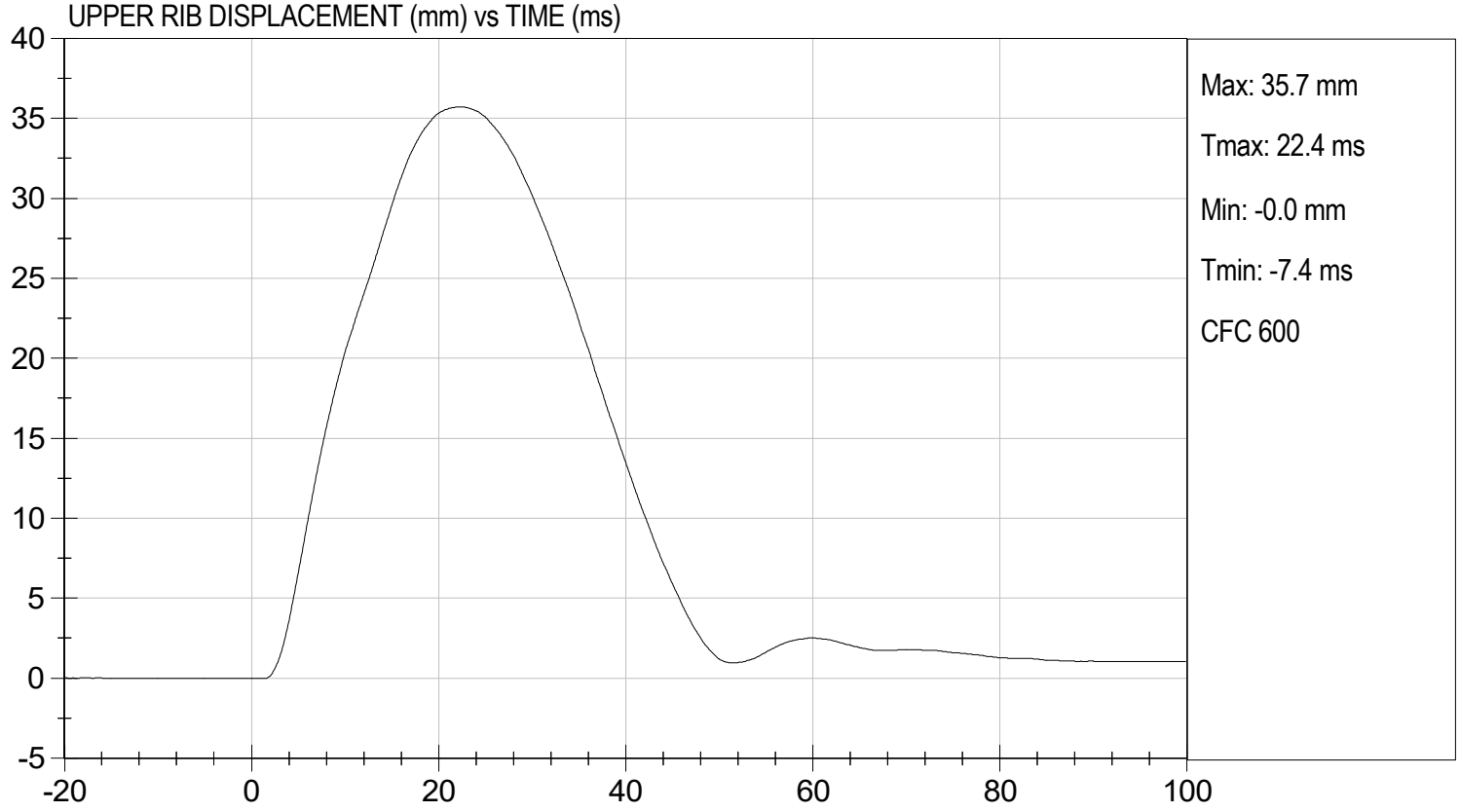
TEST DESC: THORAX IMPACT WITHOUT ARM
VELOCITY: 13.77 ft/s, 4.20 m/s

TEST DATE: 08/14/2024
TEST #: D242075

PROBE (G'S) vs TIME (ms)



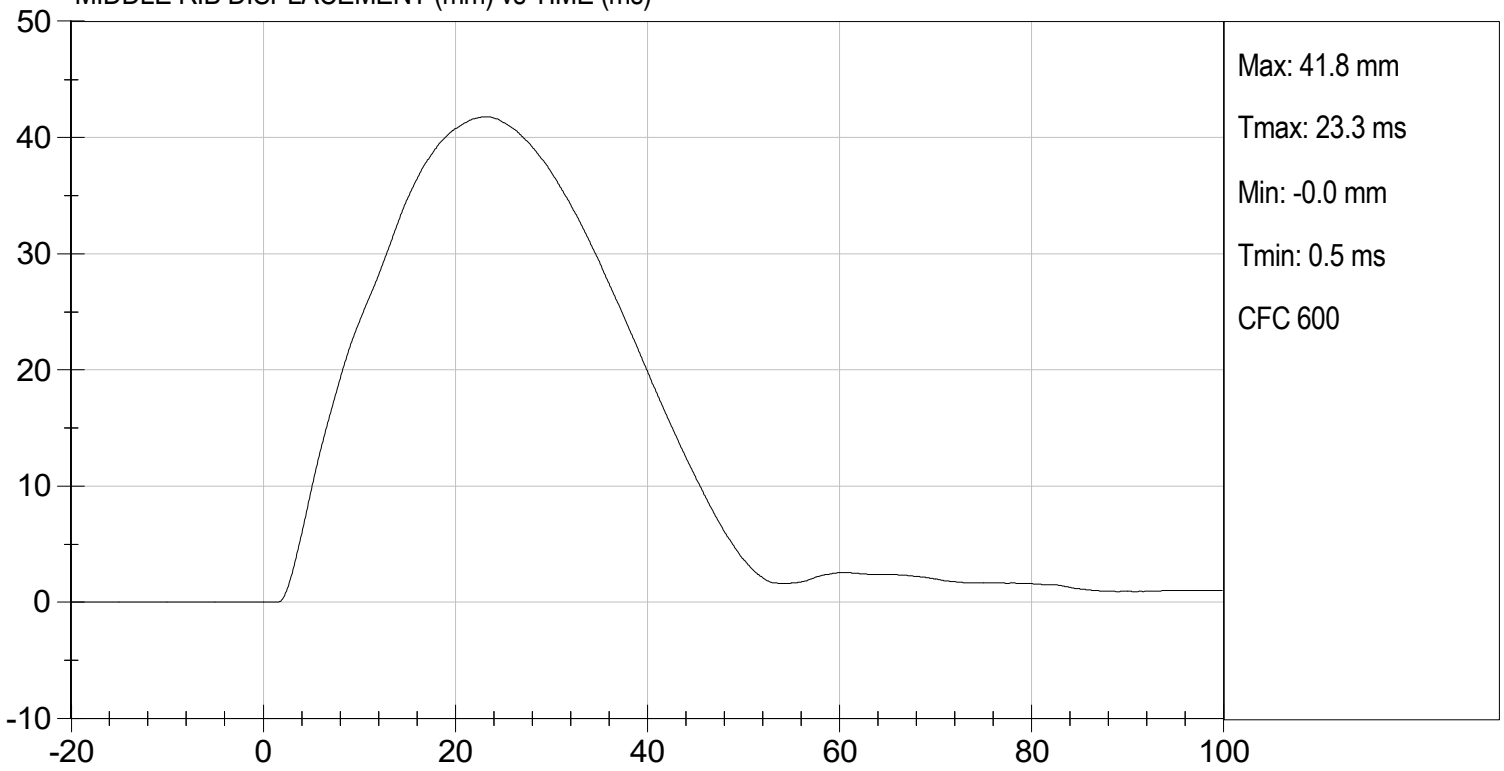
UPPER RIB DISPLACEMENT (mm) vs TIME (ms)



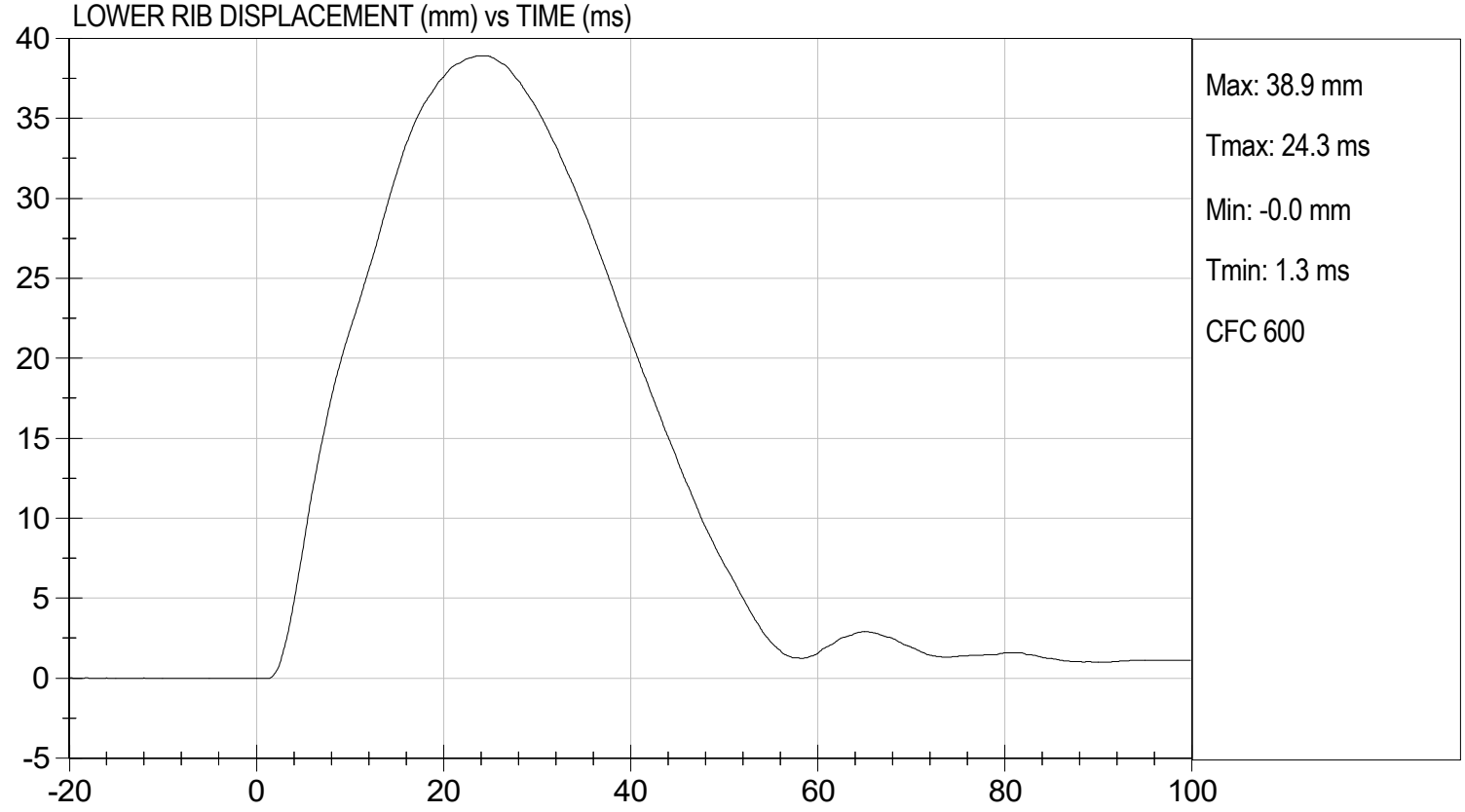
TEST DESC: THORAX IMPACT WITHOUT ARM
VELOCITY: 13.77 ft/s, 4.20 m/s

TEST DATE: 08/14/2024
TEST #: D242075

MIDDLE RIB DISPLACEMENT (mm) vs TIME (ms)



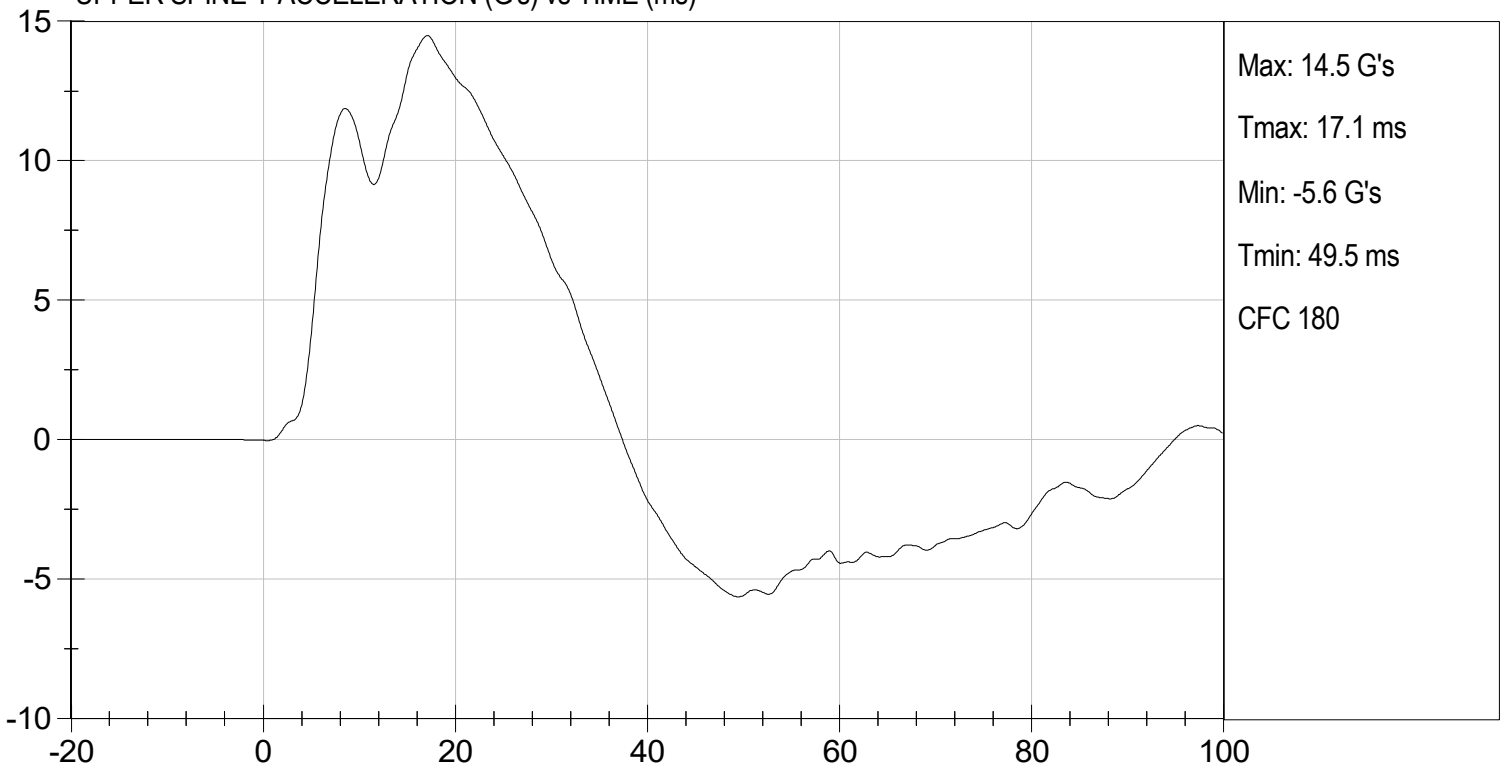
LOWER RIB DISPLACEMENT (mm) vs TIME (ms)



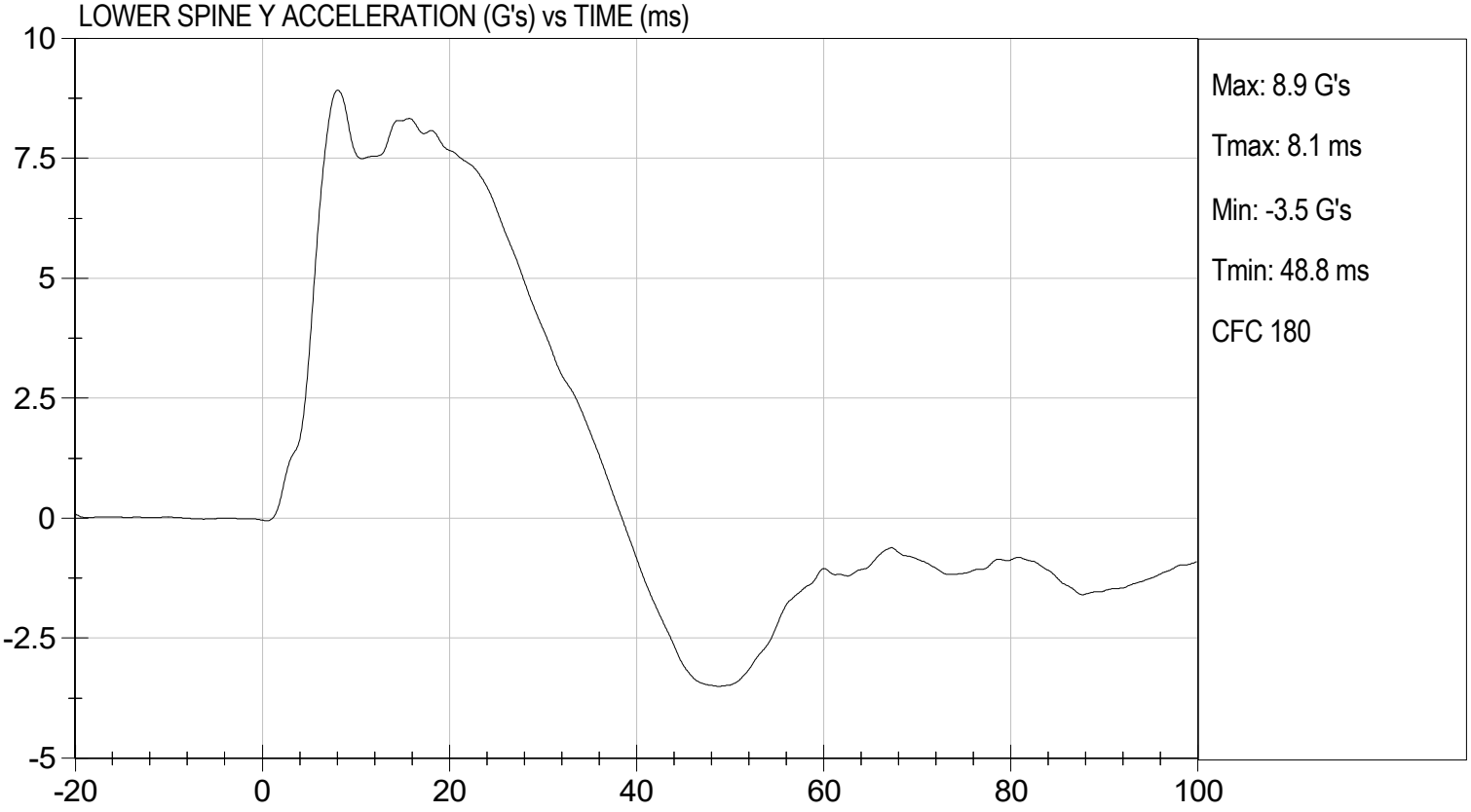
TEST DESC: THORAX IMPACT WITHOUT ARM
VELOCITY: 13.77 ft/s, 4.20 m/s

TEST DATE: 08/14/2024
TEST #: D242075

UPPER SPINE Y ACCELERATION (G's) vs TIME (ms)



LOWER SPINE Y ACCELERATION (G's) vs TIME (ms)



MGA RESEARCH CORPORATION

ABDOMINAL IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D242076

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.3	Pass
Humidity	%	10 to 70	43	Pass
Impact Velocity	m/s	4.20 to 4.40	4.34	Pass
Maximum Probe Acceleration	G's	12 to 16	14	Pass
Upper Abdomen Rib Displacement	mm	36 to 47	44	Pass
Lower Abdomen Rib Displacement	mm	33 to 44	38	Pass
Lower Spine (T12) Y Acceleration	G's	9 to 14	11	Pass
		Overall Test Results		Pass

Laboratory Technician

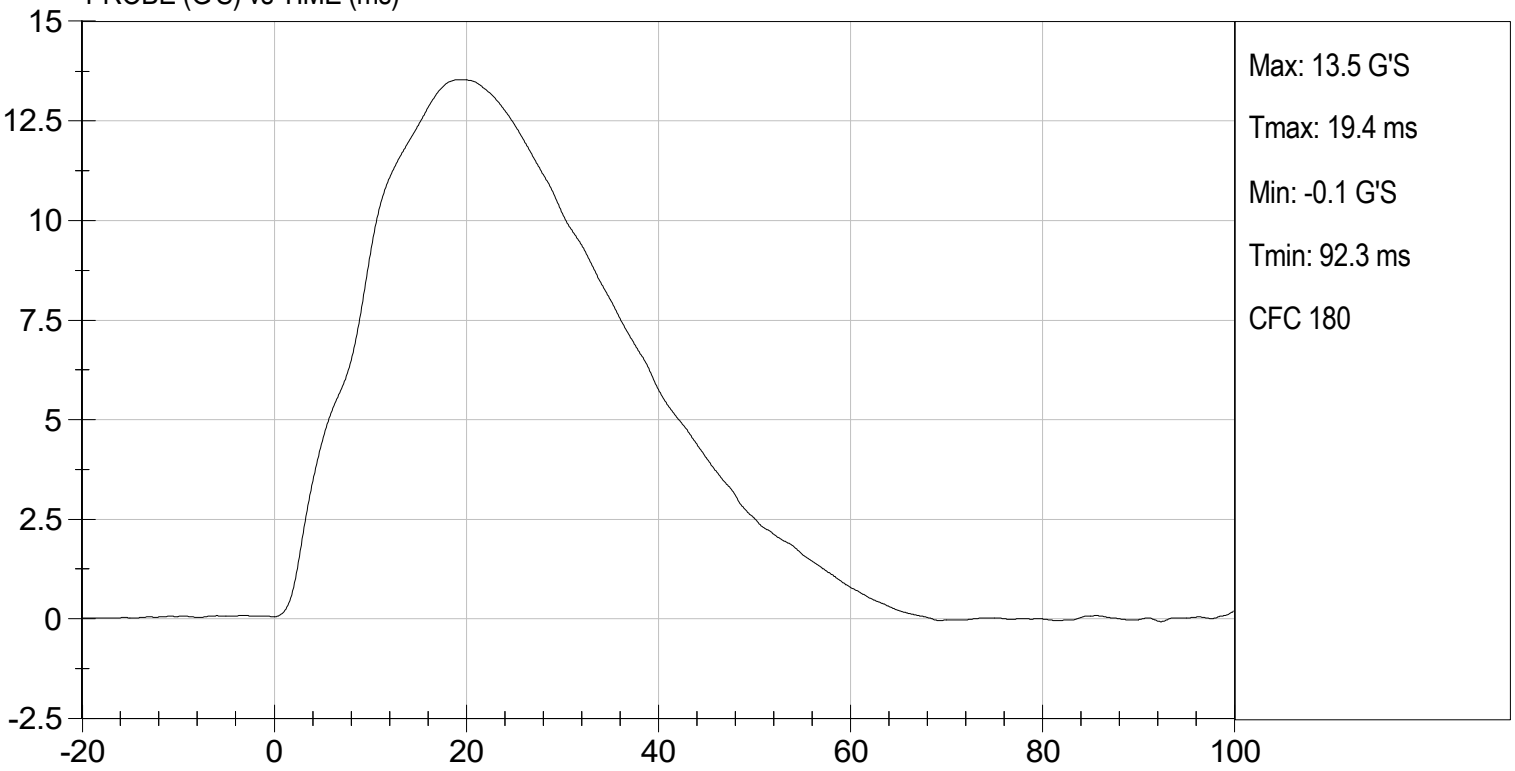
08/14/2024
Test Date

Approved By

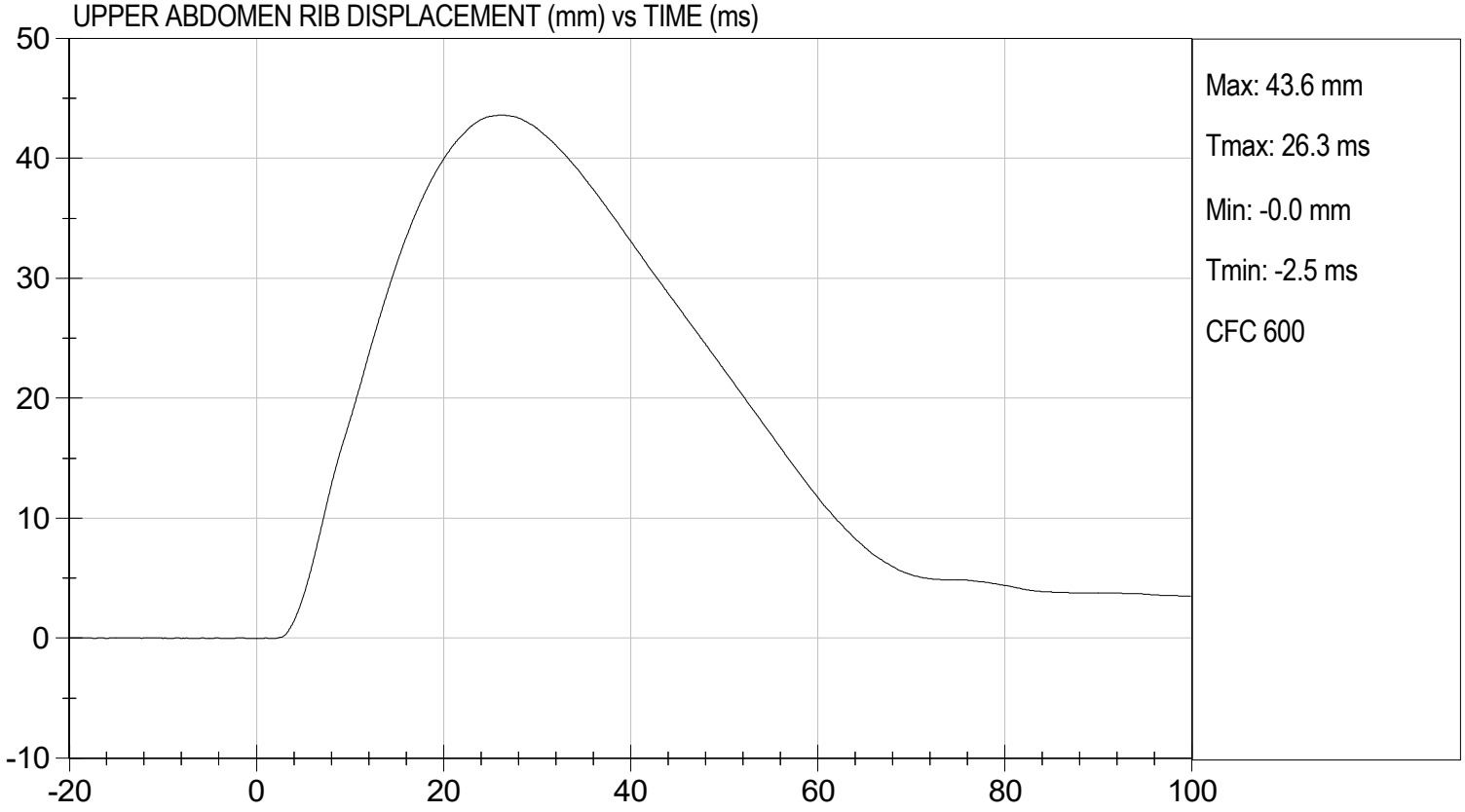
TEST DESC: ABDOMEN IMPACT
VELOCITY: 14.25 ft/s, 4.34 m/s

TEST DATE: 08/14/2024
TEST #: D242076

PROBE (G'S) vs TIME (ms)



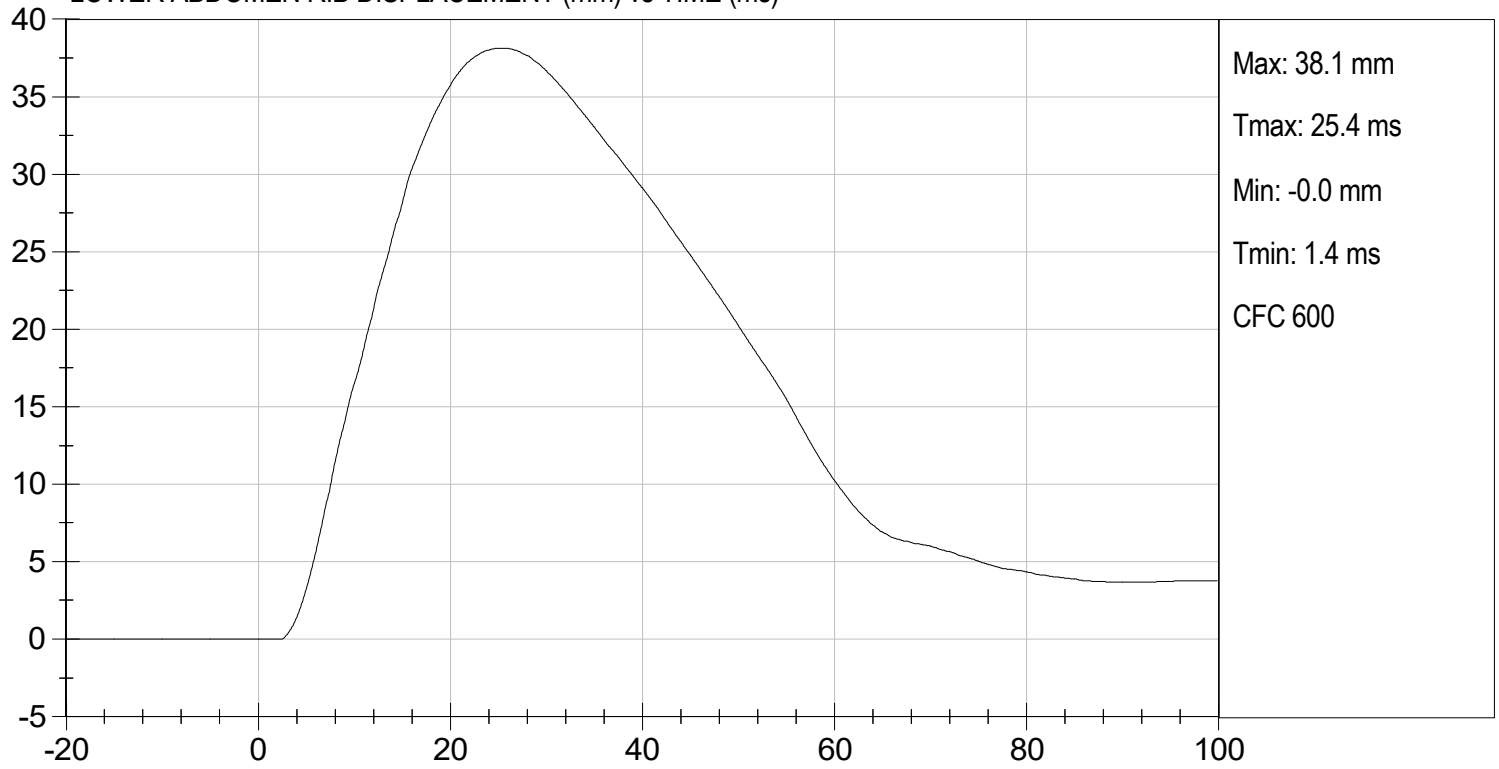
UPPER ABDOMEN RIB DISPLACEMENT (mm) vs TIME (ms)



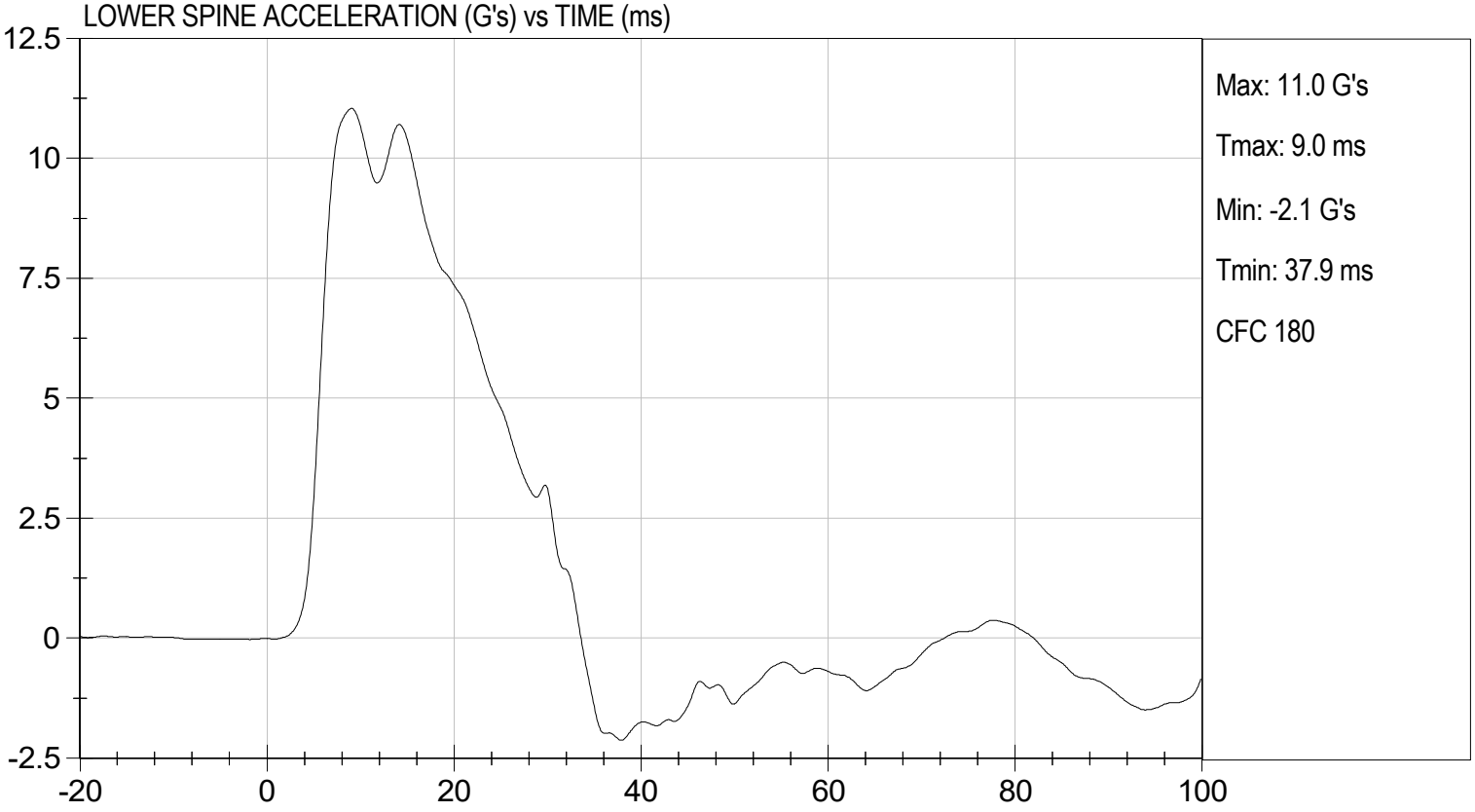
TEST DESC: ABDOMEN IMPACT
VELOCITY: 14.25 ft/s, 4.34 m/s

TEST DATE: 08/14/2024
TEST #: D242076

LOWER ABDOMEN RIB DISPLACEMENT (mm) vs TIME (ms)



LOWER SPINE ACCELERATION (G's) vs TIME (ms)



MGA RESEARCH CORPORATION

PELVIS IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D242077

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.3	Pass
Humidity	%	10 to 70	43	Pass
Impact Velocity	m/s	6.60 to 6.80	6.68	Pass
Maximum Probe Acceleration	G's	38 to 47	43	Pass
Pelvis Y Acceleration After 6 ms	G's	34 to 42	40.1	Pass
Peak Acetabulum Force	N	3600 to 4300	4,104	Pass
		Overall Test Results		Pass

Laboratory Technician

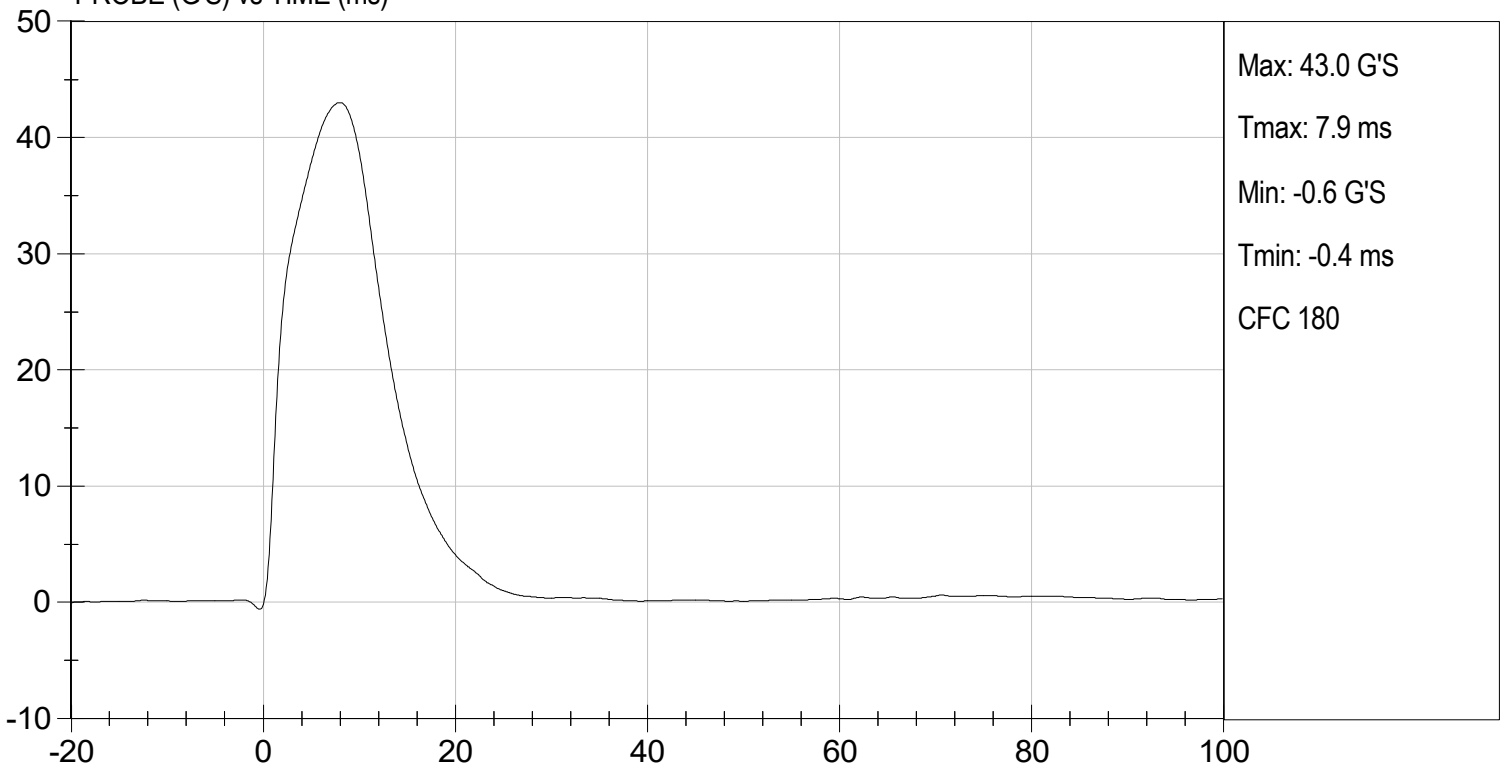
08/14/2024
Test Date

Approved By

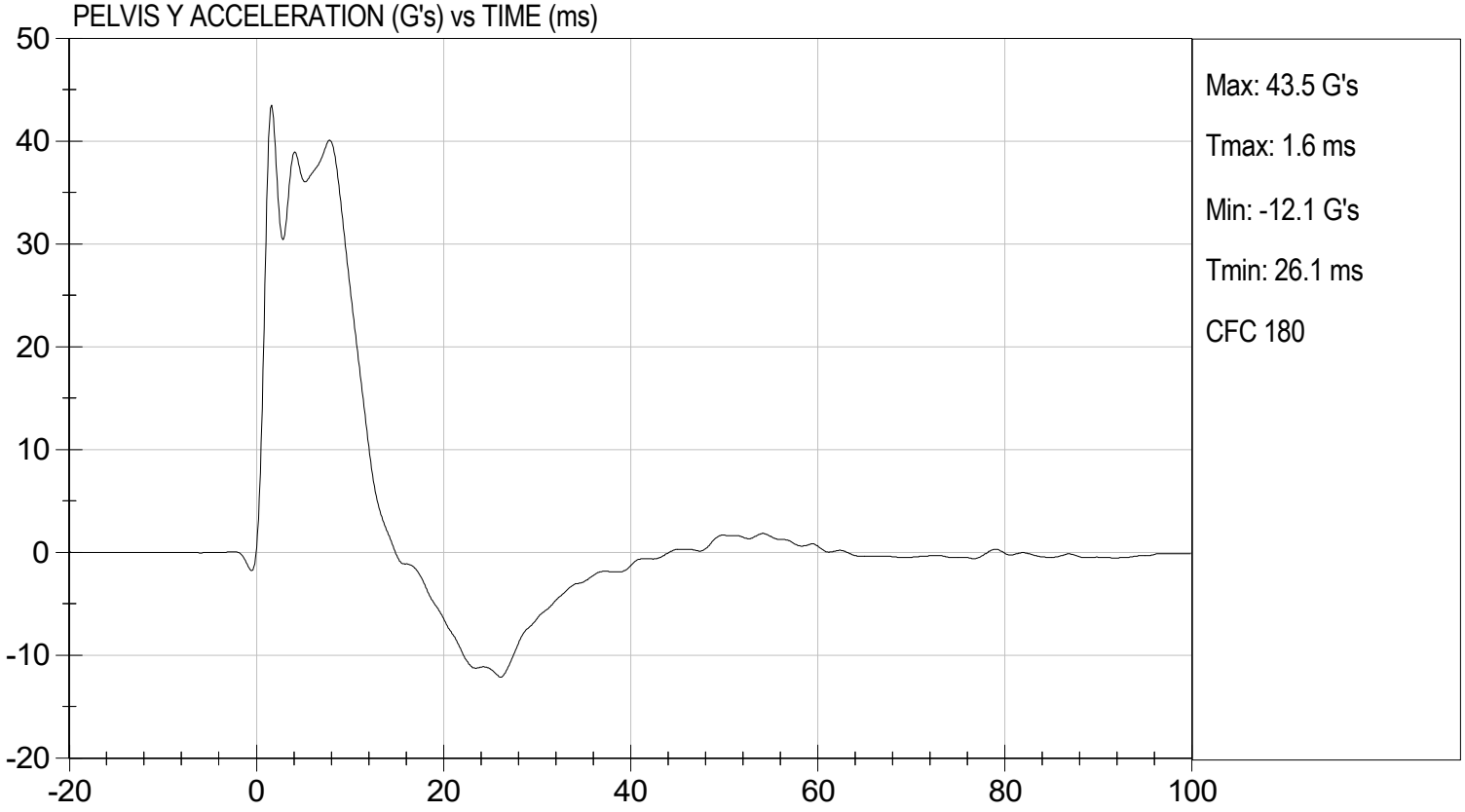
TEST DESC: PELVIS IMPACT
VELOCITY: 21.93 ft/s, 6.68 m/s

TEST DATE: 08/14/2024
TEST #: D242077

PROBE (G'S) vs TIME (ms)

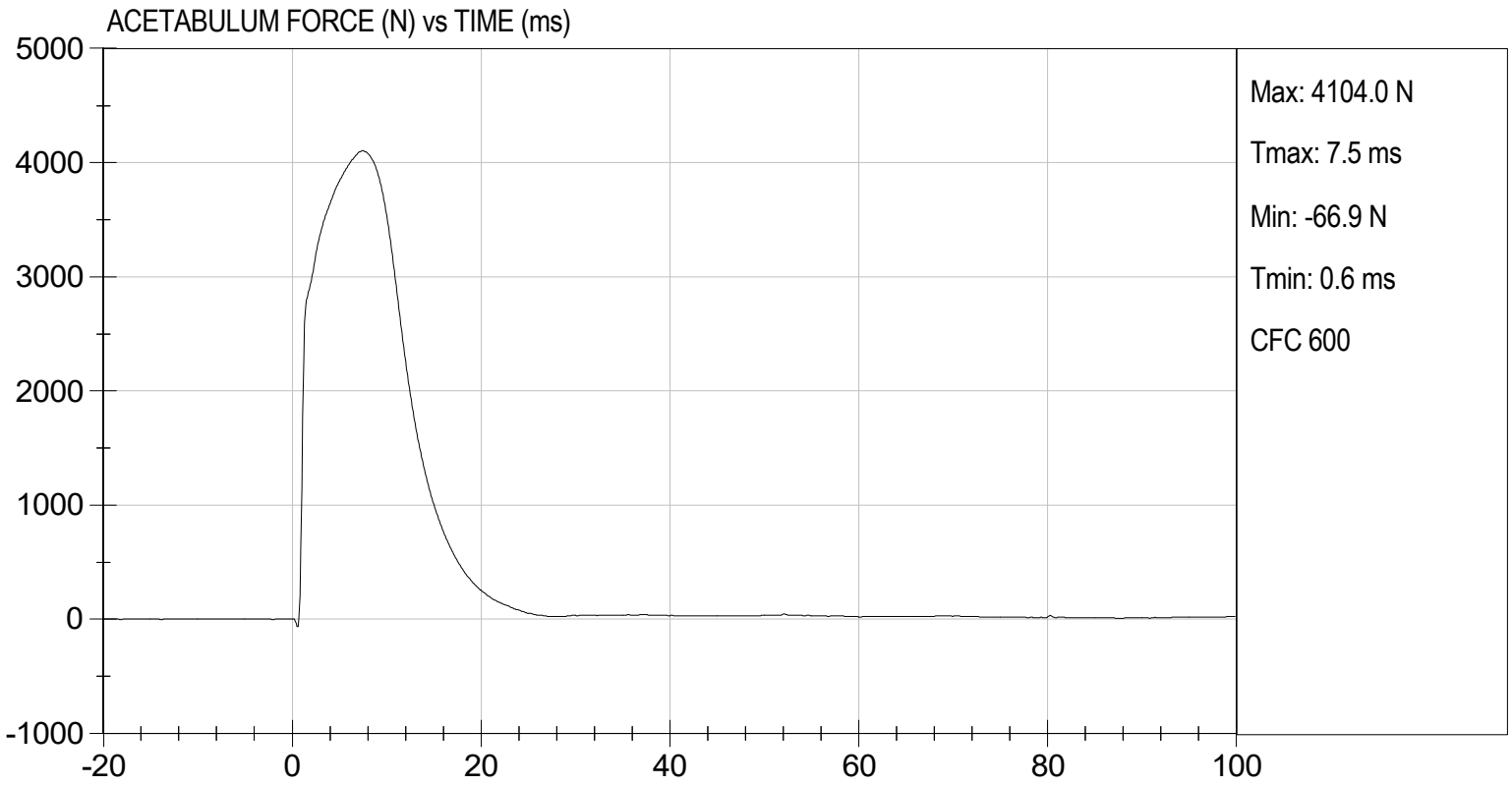


PELVIS Y ACCELERATION (G's) vs TIME (ms)



TEST DESC: PELVIS IMPACT
VELOCITY: 21.93 ft/s, 6.68 m/s

TEST DATE: 08/14/2024
TEST #: D242077



MGA RESEARCH CORPORATION

ILIAC IMPACT TEST

SID-IIs BUILD LEVEL D DUMMY

ATD Serial No: 306 **Test I.D:** D242078

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	deg C	20.6 to 22.2	21.3	Pass
Humidity	%	10 to 70	43	Pass
Impact Velocity	m/s	4.20 to 4.40	4.23	Pass
Maximum Probe Acceleration	G's	36 to 45	39	Pass
Pelvis Y Acceleration	G's	28 to 39	30	Pass
Peak Pelvis Iliac Force	N	4100 to 5100	4,428	Pass
		Overall Test Results		Pass

Laboratory Technician

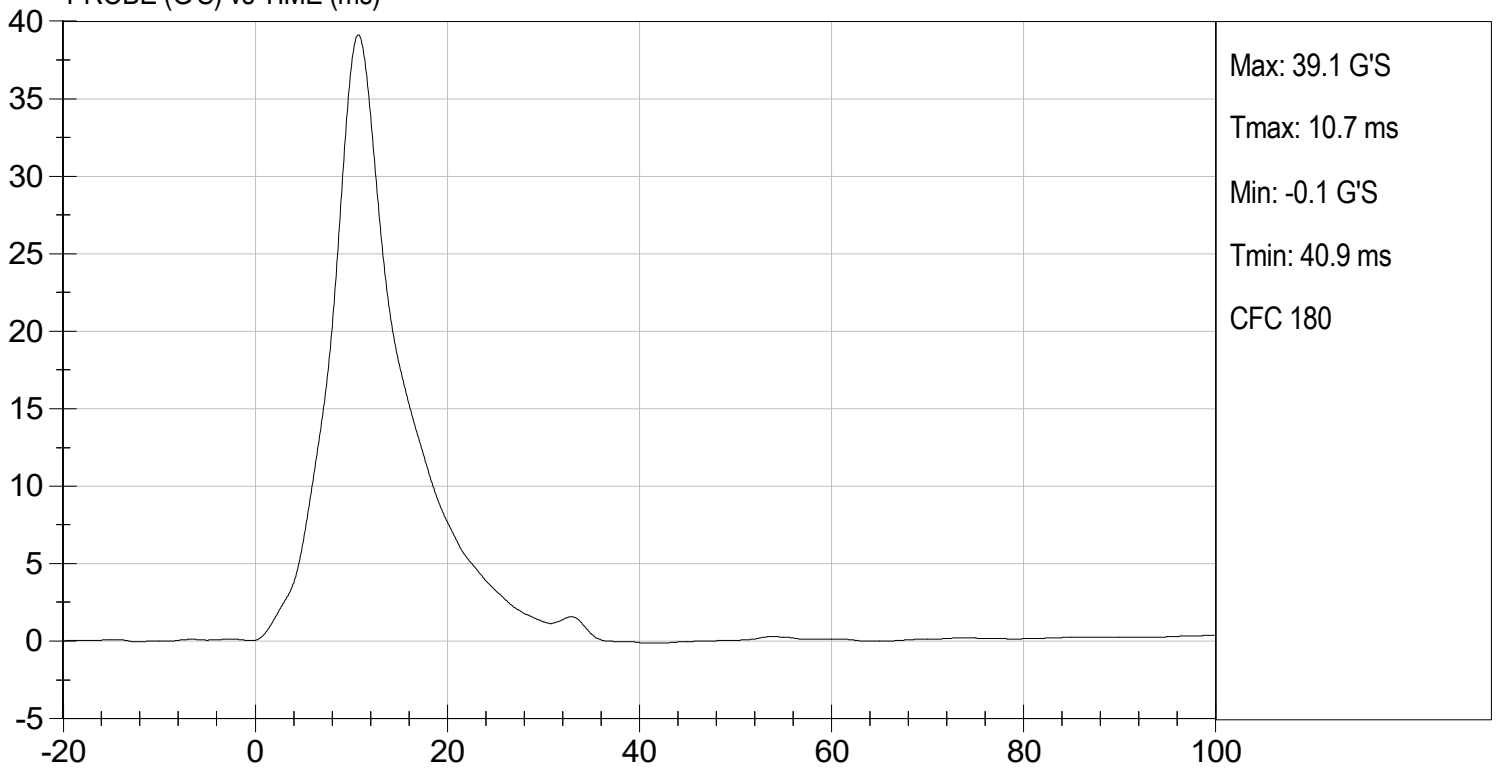
08/14/2024
Test Date

Approved By

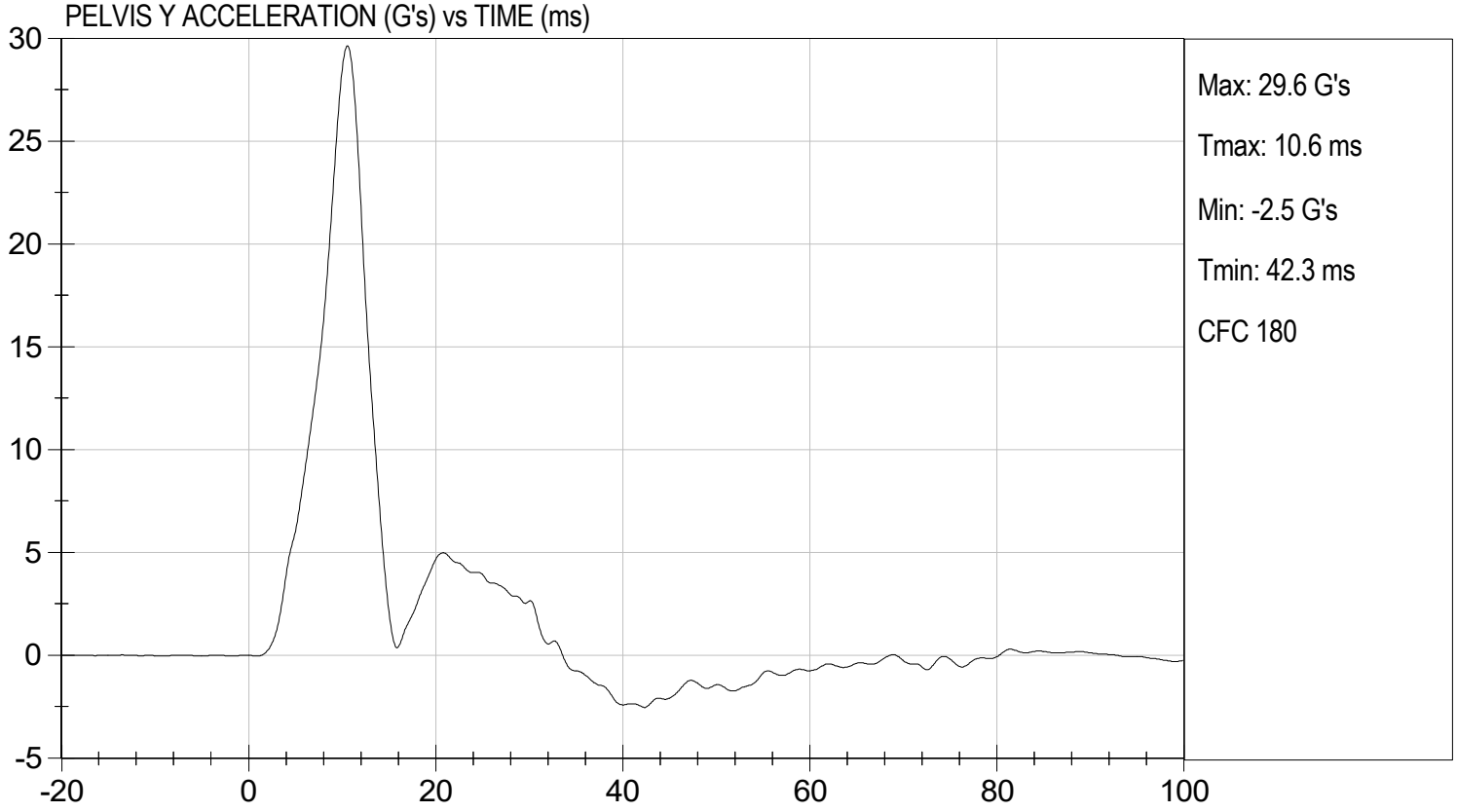
TEST DESC: ILLIAC
VELOCITY: 13.89 ft/s, 4.23 m/s

TEST DATE: 08/14/2024
TEST #: D242078

PROBE (G'S) vs TIME (ms)

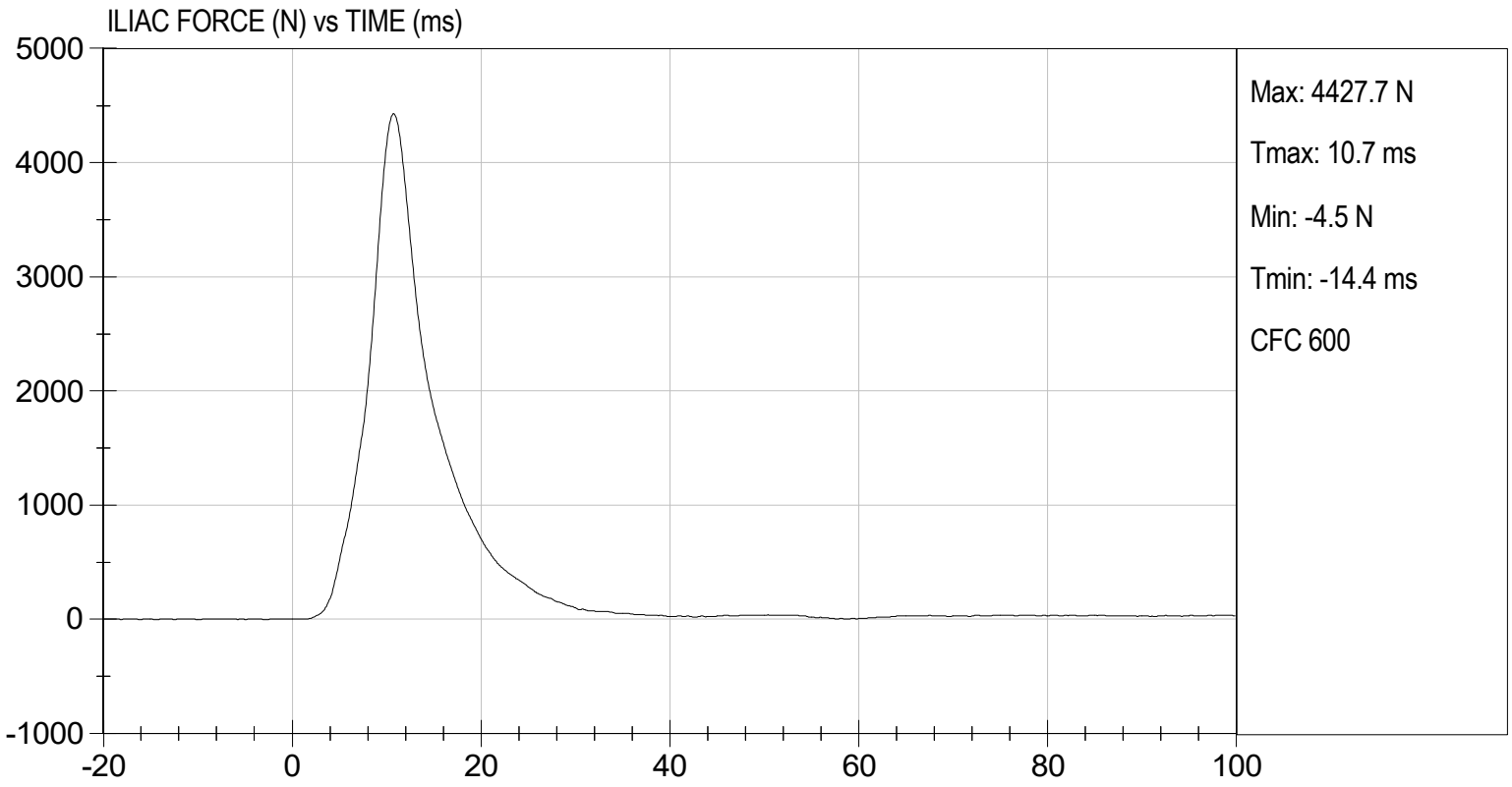


PELVIS Y ACCELERATION (G's) vs TIME (ms)



TEST DESC: ILLIAC
VELOCITY: 13.89 ft/s, 4.23 m/s

TEST DATE: 08/14/2024
TEST #: D242078

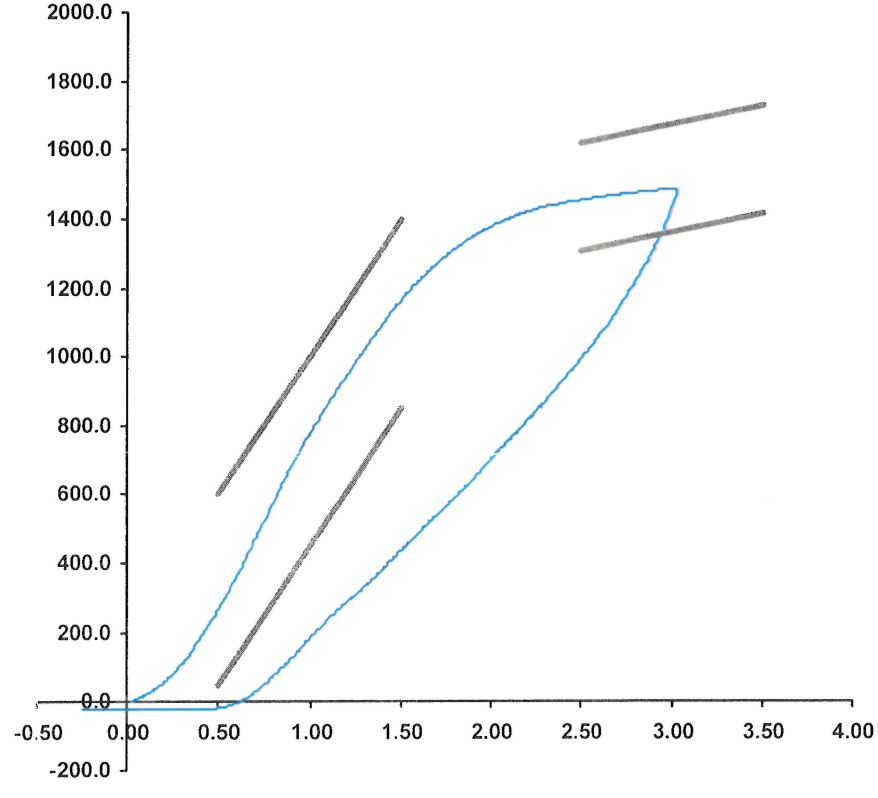


SID-IIs Pelvis Plug Certification Test

Plug S/N 17045
Test Number 23943
Report Number 24000
Test Date 8/21/2022 9:28:16 AM

	Test Results	Spec Min	Spec Max
Force @ 0.5 mm (N)	274	50	600
Force @ 1.5 mm (N)	1,168	850	1,400
Force @ 2.5 mm (N)	1,457	1,306	1,618
Force @ 3.0 mm (N)	1,486	1,361	1,673

Force (-N) vs Extension (-mm)



Testing Machine STM-20 5965542
Load Cell S/N (FI360947), Units (LBS) 1000

Crosshead Speed (mm / min) or Rate 12.7
Extension or Position Measured by XHD_100 (XHD100)

Notes:

Operator

Part Number 180-4450

Template No 107 21-Aug-22
SACO Research

By : DC Date : 8/21/22

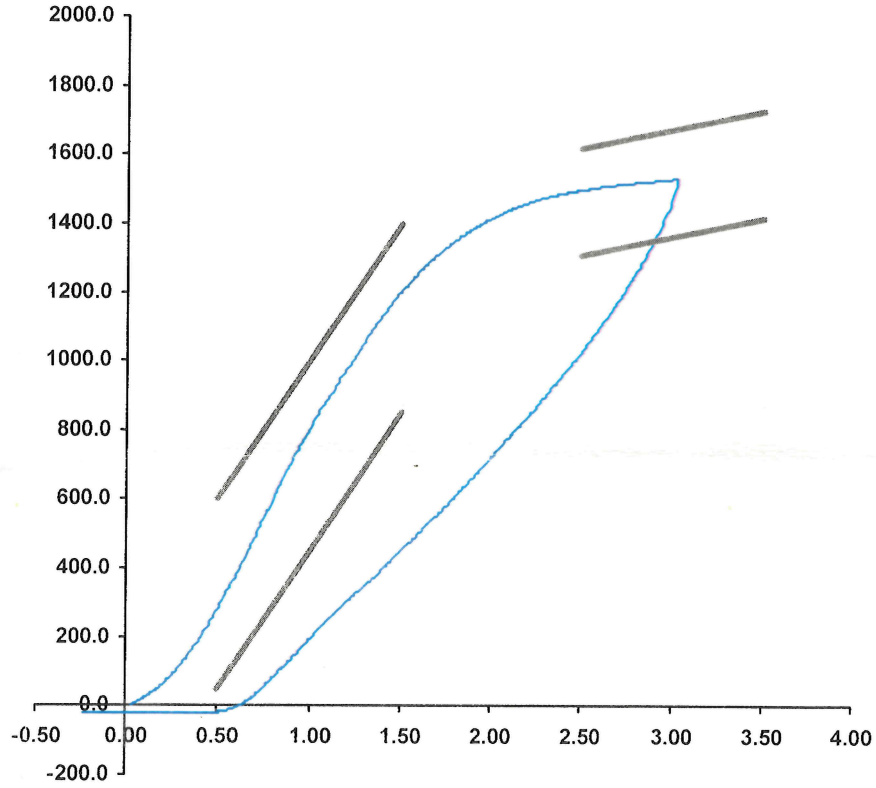
SACO RESEARCH

SID-IIs Pelvis Plug Certification Test

Plug S/N 17009
Test Number 23907
Report Number 23964
Test Date 8/18/2022 1:06:54 PM

	Test Results	Spec Min	Spec Max
Force @ 0.5 mm (N)	288	50	600
Force @ 1.5 mm (N)	1,204	850	1,400
Force @ 2.5 mm (N)	1,497	1,306	1,618
Force @ 3.0 mm (N)	1,529	1,361	1,673

Force (-N) vs Extension (-mm)



Testing Machine STM-20 5965542
Load Cell S/N (FI360947), Units (LBS) 1000

Crosshead Speed (mm / min) or Rate 12.7
Extension or Position Measured by XHD_100 (XHD100)

Notes:

Operator

Part Number 180-4450

Template No 107 18-Aug-22
SACO Research

By : DC Date : 8/18/22

APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION

Table 1 – Dummy Instrumentation

				SID-IIs S/N 306		
				Serial Number	Manufacturer	Calibration Date
Head CG Accelerometers			X	P79003	Endevco	06/10/2024
			Y	P79445	Endevco	06/10/2024
			Z	P79724	Endevco	06/10/2024
			Xr	P84999	Endevco	06/10/2024
			Yr	P85000	Endevco	06/10/2024
			Zr	P85001	Endevco	06/10/2024
Head Angular Rate Sensors			X	ARS7442	DTS	11/17/2023
			Y	ARS7475	DTS	11/17/2023
			Z	ARS7516	DTS	11/17/2023
Displacement Potentiometers	Thoracic Rib	Upper	Y	G033	FTSS	06/10/2024
		Middle	Y	G2403	Servo	06/10/2024
		Lower	Y	G1270	FTSS	06/10/2024
	Abdominal Rib	Upper	Y	G032	FTSS	06/10/2024
		Lower	Y	MJ5171	Medius	06/10/2024
Lower Spine Accelerometers (T12)			X	P96332	Endevco	06/10/2024
			Y	P96335	Endevco	06/10/2024
			Z	P96341	Endevco	06/10/2024
Acetabulum Load Cell			Y	ACG4285	FTSS	05/24/2024
Iliac Wing Load Cell			Y	IWG3023	FTSS	05/24/2024
Pelvis Plug (struck side)				17045	SACO	08/21/2022
Pelvis Plug (non-struck side)				17009	SACO	08/18/2022

Table 2 – Vehicle Instrumentation

		Serial Number	Manufacturer	Calibration Date
Vehicle Center of Gravity	X	T39758	Endevco	07/30/2024
Vehicle Center of Gravity	Y	T39756	Endevco	07/30/2024
Vehicle Center of Gravity	Z	T39759	Endevco	07/30/2024
Left Floor Sill	Y	T39068	Endevco	07/01/2024
A-Pillar Sill	Y	A383144	MSI	05/30/2024
A-Pillar Low	Y	T39330	Endevco	07/30/2024
A-Pillar Mid	Y	T39917	Endevco	07/30/2024
B-Pillar Sill	Y	A361014	MSI	07/10/2024
B-Pillar Low	Y			
B-Pillar Mid	Y			
Driver Seat	Y	A295232	MSI	07/10/2024
Engine Top	X	A337168	MSI	07/01/2024
Engine Top	Y	A393851	MSI	07/01/2024
Firewall	Y	P79004	Endevco	07/15/2024
Right Roof	Y	T37923	Endevco	07/03/2024
Right Floor Sill	Y	T32716	Endevco	06/03/2024
Rear Floorpan	X	T29896	Endevco	07/30/2024
Rear Floorpan	Y	T39748	Endevco	07/30/2024

Table 3 – Pole Instrumentation

	Serial Number	Manufacturer	Calibration Date
Load Cell 1	DG6277	FTSS	07/30/2018
Load Cell 2	DG6278	FTSS	07/30/2018
Load Cell 3	DG6279	FTSS	07/30/2018
Load Cell 4	DG6280	FTSS	07/30/2018
Load Cell 5	DG6281	FTSS	07/30/2018
Load Cell 6	DG6283	FTSS	07/30/2018
Load Cell 7	DG6284	FTSS	07/30/2018
Load Cell 8	DG6582	FTSS	07/30/2018