

REPORT NUMBER: SideNCAPPole-KAR-24-010
NEW CAR ASSESSMENT PROGRAM (NCAP)
SIDE IMPACT POLE TEST

FORD MOTORS CO.
2024 FORD RANGER 4-DOOR SUPERCREW TRUCK

NHTSA No: Q20240203

PREPARED BY:
APPLUS IDIADA KARCO ENGINEERING, LLC.
9270 HOLLY ROAD
ADELANTO, CA 92301



SEPTEMBER 20, 2024

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF CRASHWORTHINESS STANDARDS
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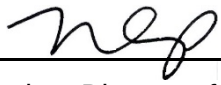
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FINAL REPORT ACCEPTANCE BY OCWS:

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

Date: _____

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

Date: _____

TECHNICAL REPORT DOCUMENTATION PAGE

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15. Supplementary Notes																														
16. Abstract A 32.2 km/h 75° rigid pole side NCAP impact test was conducted on the subject 2024 Ford Ranger 4-Door Supercrew Truck 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 Applus IDIADA KARCO Engineering, LLC. facility in Adelanto, California on September 6, 2024. The impact velocity was 32.10 km/h and the outside ambient temperature at the struck (driver's) side of the vehicle was 37.2°C. The target vehicle's maximum post-test static crush was 387 mm located at level 3. The test vehicle's occupant performance data is as follows: <table border="1"> <thead> <tr> <th rowspan="2">Measurement Description</th> <th colspan="3">Driver ATD (SID-IIs)</th> </tr> <tr> <th>Units</th> <th>Threshold</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₃₆)</td> <td></td> <td>1000</td> <td>301.675</td> </tr> <tr> <td>Resultant Lower Spine Acceleration</td> <td>g</td> <td>82</td> <td>31.851</td> </tr> <tr> <td>Total Pelvic Force (Sum of Acetabular and Iliac Forces)</td> <td>N</td> <td>5525</td> <td>2102.709</td> </tr> <tr> <td>Maximum Thoracic Rib Deflection</td> <td>mm</td> <td>38</td> <td>23.036</td> </tr> <tr> <td>Maximum Abdominal Rib Deflection</td> <td>mm</td> <td>45</td> <td>18.110</td> </tr> </tbody> </table>				Measurement Description	Driver ATD (SID-IIs)			Units	Threshold	Result	Head Injury Criteria (HIC ₃₆)		1000	301.675	Resultant Lower Spine Acceleration	g	82	31.851	Total Pelvic Force (Sum of Acetabular and Iliac Forces)	N	5525	2102.709	Maximum Thoracic Rib Deflection	mm	38	23.036	Maximum Abdominal Rib Deflection	mm	45	18.110
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SECTION 1

TEST PURPOSE AND SUMMARY OF TEST

PURPOSE

This side impact test is part of the 2024 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract number 693JJ920D000015. The purpose of this test is to generate comparative side impact performance in a 2024 Ford Ranger 4-Door Supercrew Truck. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Laboratory Test Procedure date March 2020.

SUMMARY

A rigid pole side impact test was conducted on a 2024 Ford Ranger 4-Door Supercrew Truck. The subject vehicle was towed into the rigid pole at an angle of 74.8° and a velocity of 32.10 km/h. The test was conducted by Applus IDIADA KARCO Engineering, LLC. in Adelanto, California on September 6, 2024. Pre- and post-test photographs of the test vehicle and side impact dummy (SID-IIs) are included in Appendix A of this report.

One 308 (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 308 (SID-IIs) was instrumented accordingly:

- Primary and Redundant Head CG tri-axial accelerometers
- Thorax upper, middle and lower rib displacement potentiometers
- Abdomen upper and lower rib displacement potentiometers
- Lower spine (12) tri-axial 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.

SECTION 1 ...(CONTINUED)
TEST PURPOSE AND SUMMARY OF TEST

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

Measurement Description	Units	Driver ATD (SID-IIs)	
		IARV	Result
Head Injury Criteria (HIC ₃₆)		1000	301.675
Lower Spine (T12) Resultant Acceleration	g	82	31.851
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	2102.709
Maximum Thoracic Rib Deflection	mm	38*	23.036
Maximum Abdominal Rib Deflection	mm	45*	18.110

**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 Air Bag	Yes	No		
Knee Air Bag	Yes	No		
Side Air Bag 1 (Curtain)	Yes	Yes	Yes	Yes
Side Air Bag 2 (Torso/Pelvis)	Yes	Yes		
Seat Belt Pretensioner	Yes	Yes	Yes	Yes
Seat Belt Load Limiter	Yes	Yes	Yes	Yes

GENERAL COMMENTS: NONE

SECTION 2

OCCUPANT AND VEHICLE INFORMATION/DATA SHEETS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

CONVERSION FACTORS

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	miles/hr	km/hr	1.609344
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.574
Pressure	Tire Pressures	lbf/in ²	kPa	6.895
Temperature	General Use	°F	°C	$=(T_f - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf-ft	N•m	1.355

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA Number	Q20240203
Model Year	2024
Make	Ford
Model	Ranger
Body Style	4-Door Supercrew Truck
VIN	1FTER4BH4RLE23813
Body Color	Iconic Silver Metallic
Odometer Reading (km / mi)	109/68
Engine Displacement (L)	2.3
Type / No. of Cylinders	4 Cylinder
Engine Placement	Longitudinal
Transmission Type	Automatic
Transmission Speeds	10
Overdrive	Yes
Final Drive	RWD
Roof Rack	No
Sunroof / T-Top	No
Running Boards	No
Tilt Steering Wheel	Yes
Power Seats	No
Anti-Lock Brakes (ABS)	Yes

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

Does Owner's Manual provide instructions to turn off automatic door locks?

No

DATA FROM CERTIFICATION LABEL

Manufactured By	FORD MOTORS CO.
Date of Manufacture	Jun-24
Vehicle Type	Truck

GVWR (kg)	2744
GAWR Front (kg)	1329
GAWR Rear (kg)	1621

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Designated Seating Capacity	2	3		5
Capacity Weight (VCW) (kg)				822.0
DSC x 68 (kg)				340.0
Cargo Weight (RCLW) (kg)				136.0

*For trucks or MPVs, if A-B>136, RCLW=136 kg

VEHICLE SEAT TYPE

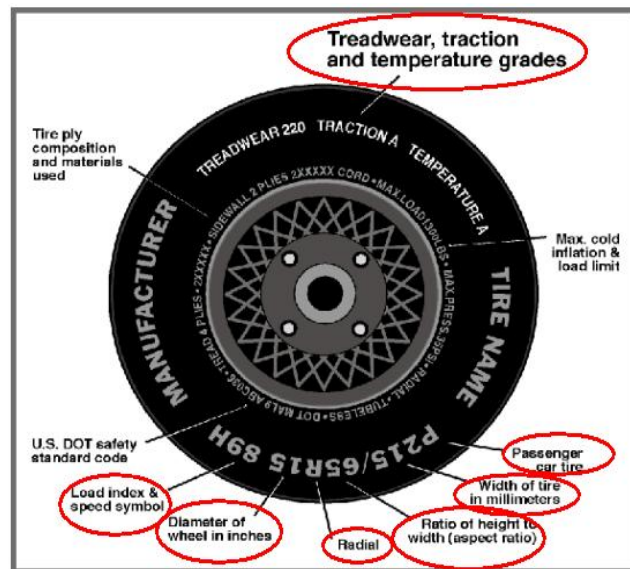
Seating Location	Type of Seat Pan				Type of Seat Back		
	Bucket	Bench	Split Bench	Contoured	Fixed	Adjustable w/ Lever	w/ Knob
Front Seat	Yes					Yes	
Rear or Second Row Seat		Yes				Yes	
Third Row Seat							

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



Measured Parameter	Front	Rear
Max. Tire Pressure (kPa)	351	351
Cold Pressure (kPa)	260	260
Recommended Tire Size	255/70R17	255/70R17
Tire Size on Vehicle	255/70R17	255/70R17
Tire Manufacturer	Goodyear	Goodyear
Tire Model	Wrangler	Wrangler
Treadware	580	580
Traction Grade	B	B
Temperature Grade	B	B
Tire Plies Sidewall	2 Polyester	Polyester
Tire Plies Body	2 Polyester, 2 Steel	2 Polyester, 2 Steel
Load Index/Speed Symbol	112T	112T
Tire Material	Rubber	Rubber
DOT Safety Code Left	IPLE8 JJIR1824	IPLE8 JJIR1324
DOT Safety Code Right	IPLE8 JJIR1324	IPLE8 JJIR1224

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

TIRE PRESSURES

	Units	LF	RF	LR	RR
As Delivered	kPa	260	260	260	260
Tire Placard	kPa	260	260	260	260
Owner's Manual	kPa	260	260	260	260
As Tested	kPa	260	260	260	260

TEST VEHICLE AXLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	543.0	428.5		551.5	510.5		543.0	527.5	
Right	kg	503.0	412.5		502.5	500.0		492.0	510.0	
Ratio	%	55.4%	44.6%	100.0%	51.1%	48.9%	100.0%	49.9%	50.1%	100.0%
Total	kg	1046.0	841.0	1887.0	1054.0	1010.5	2064.5	1035.0	1037.5	2072.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1887.0
Actual Weight of 1 SID II-s ATD Used	kg	49.0
Rated Cargo/Luggage Wt (RCLW)	kg	136.0
Calculated Vehicle Target Wt (TVTW)	kg	2072.0

A
B
C
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 -9.0 kg)? ☒ Yes ☐ No

TEST VEHICLE ATTITUDE AND CG

Measurement Description	Units	As Delivered	As Tested	Fully Loaded	Meets Requirement***
Driver Door Sill Angle (front-to-rear)*	°	3.1	2.7	2.6	Yes
Front Passenger Sill Angle (front-to-rear)*	°	0.9	1.0	1.2	Yes
Front Bumper-Line Angle (left-to-right)**	°	1.7	1.7	1.8	Yes
Rear Bumper-Line Angle (left-to-right)**	°	2.3	2.3	2.4	Yes
Vehicle CG (Aft of Front Axle)	mm	1459	1602	1638	
Vehicle CG (Left (+)/Right (-) from Longitudinal Centerline)	mm	24	23	27	

*ND=Nose Down (-), NU=Nose Up (+) **LD=Left Down (-), LU=Left Up (+)

***The "As Tested" vehicle attitude angle measurements must be within "As Delivered" and the "Fully Loaded" vehicle attitude measurements at each location. Indicate "Yes" or "No" for "Meets Requirement"

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW

Component Description	Weight (kg)
None	0.0

TEST SURFACE MARKINGS

	Distance from 75° Impact Location Line (mm)
Fore 25 mm target	0
Aft 25 mm target	0

DATA SHEET NO. 2**SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT, AND FUEL SYSTEM DATA**Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24**SEAT POSITIONING**

The driver's seat, front center seat (if applicable), and 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 seat should be set to the rear most, lowest, mid-angle position.

SCRL ANGLE RANGE

Seat	SCRL (°)		
	Max	Min	Mid
Driver Seat	16.7	11.5	14.1
Front Passenger Seat			18.7
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)		
				Rearmost	Mid Fore/Aft	Forwardmost
Driver Seat	14.1	816	Max			
			Mid	802	809	816
			Min			
Front Passenger Seat	18.7	892	Max	905	905	914
			Mid	881	883	892
			Min	857	861	869
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 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

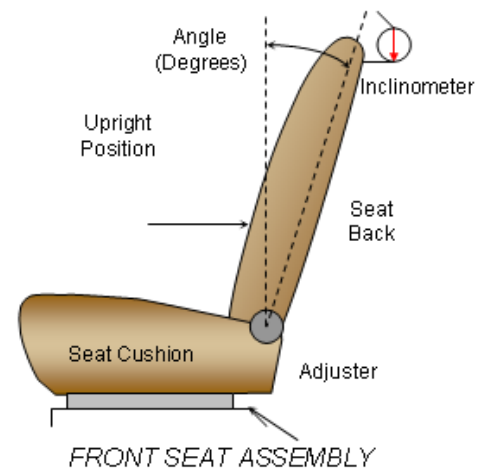
SEAT FORE/AFT POSITION

Seat	Total Fore/Aft Travel		Test Position From Forwardmost Position	
	mm	Detents*	mm	Detent*
Driver Seat	250	26	0	0
Front Passenger Seat	250	26	0	0
Front Center Seat				
Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Fixed	Fixed

*Detent zero (0) is the forward most detent

SEAT BACK ADJUSTMENT

The driver's seat back is positioned such that the dummy's head is level. The front passenger's seat back is positioned in a similar manner to the driver's seat. The struck side rear passenger seat back is positioned in accordance with the information provided by the manufacturer in Form 1 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 back angle is measured using an inclinometer along the bottom of the headrest post.



Seat	Total Seat Back Angle Range		Test Position from Most Upright	
	Degrees	Detents*	Degree	Detent*
Driver Seat w/Seated Dummy	51.5	26	12.8	
Front Passenger Seat	50.3	26	9.7	
Front Center Seat				
Struck Side Rear Seat w/Seated Dummy	Fixed	Fixed	Fixed	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	Fixed	Fixed
Rear Center Seat	Fixed	Fixed	Fixed	Fixed

*Detent zero (0) is the forward most detent

DATA SHEET NO. 2 ... (CONTINUED)

SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT, AND FUEL SYSTEM DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

SEAT BELT ANCHORAGE ADJUSTMENT

Seat belt anchorages are adjusted in accordance with the information provided by the manufacturer on Form No. 1. The positions are marked H, M2, M1, L from top to bottom.

	Total No. of Positions	Placed in Position
Driver Seat	4	H

HEAD RESTRAINT ADJUSTMENT

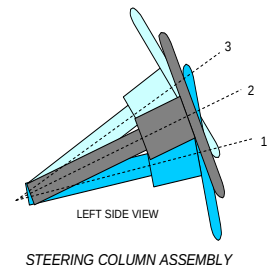
The driver's head restraint is adjusted to the lowest and most full forward in-use position.

	Total No. of Positions	Placed in Position
Driver Seat	4	L

STEERING COLUMN ADJUSTMENT

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

	Degrees	Fore-Aft Position (mm)
Lowermost - Position 1	65.6	110
Geometric Center - Position 2	68.4	141
Uppermost - Position 3	71.2	172
Telescoping Steering Wheel Travel		62
Test Position	68.4	141



DATA SHEET NO. 2 ... (CONTINUED)

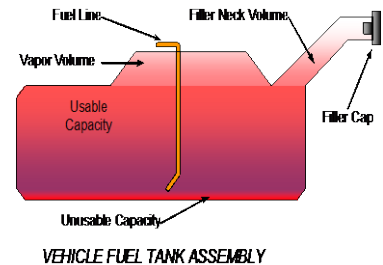
SEAT, SEAT BELT, STEERING WHEEL ADJUSTMENT, AND FUEL SYSTEM DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

FUEL PUMP

The vehicle is equipped with an electric fuel pump. The pump will work at "ignition on" until pressure in the system has reached working pressure in the system; then it will stop pumping fuel until the engine has been started.



FUEL TANK CAPACITY

Description	Liters
Usable Capacity of "Standard Tank" (see Form No. 1)	76.47
Usable Capacity of "Optional Tank" (see Form No. 1)	
Usable Capacity of "Standard Tank" (see Owner's Manual)*	
Usable Capacity of "Optional Tank" (see Owner's Manual)*	
93% of Usable Capacity	71.12
Actual amount of Solvent Used in Test	71.12
1/3 of Usable Capacity	25.49

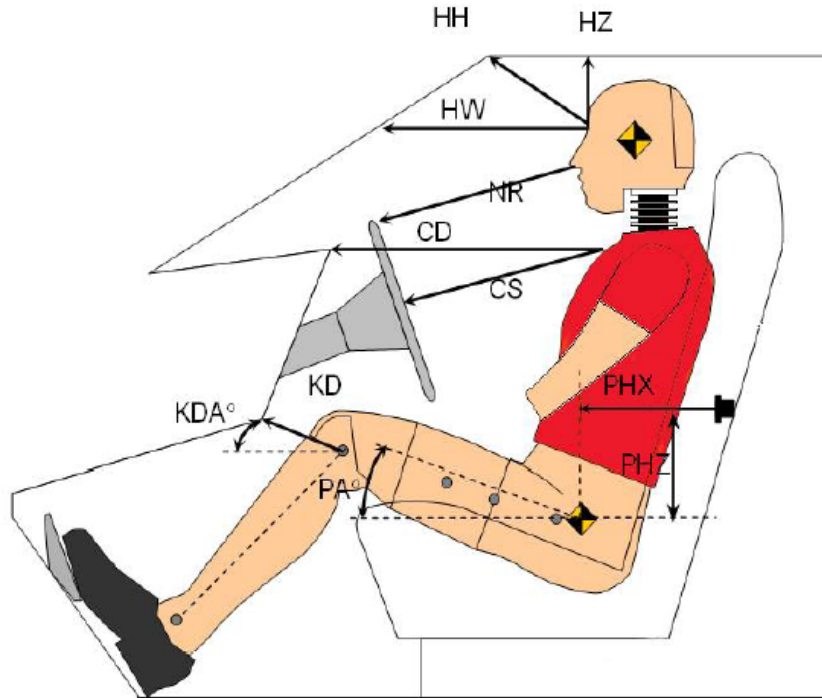
Is the Actual Amount of Solvent Used in the test equal to 93% $\pm$ 1% of the Usable Capacity stated in the Form No. 1? ☒ Yes ☐ No

DATA SHEET NO. 3

DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



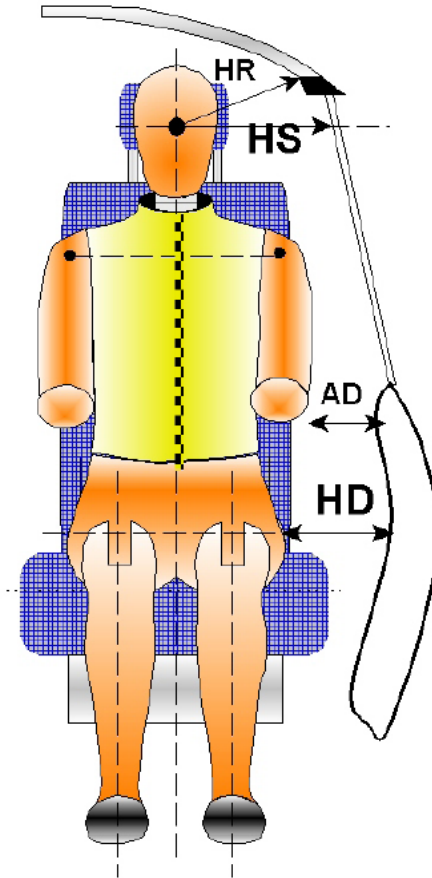
Description	Driver	
	Length (mm)	Angle (°)
Head to Header	309	
Head to Windshield	634	
Head to Roof	239	
Nose to Rim	253	
Chest to Dash	415	
Chest to Steering Wheel	116	
Left Knee to Dash	157	23.3
Right Knee to Dash	154	27.8
Pelvic Tilt Angle (x-axis)		20.5
Pelvic Tilt Angle (y-axis)		0.0
Hip Point to Striker (x-axis)	342	
Hip Point to Striker (z-axis)	152	

DATA SHEET NO. 4

DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

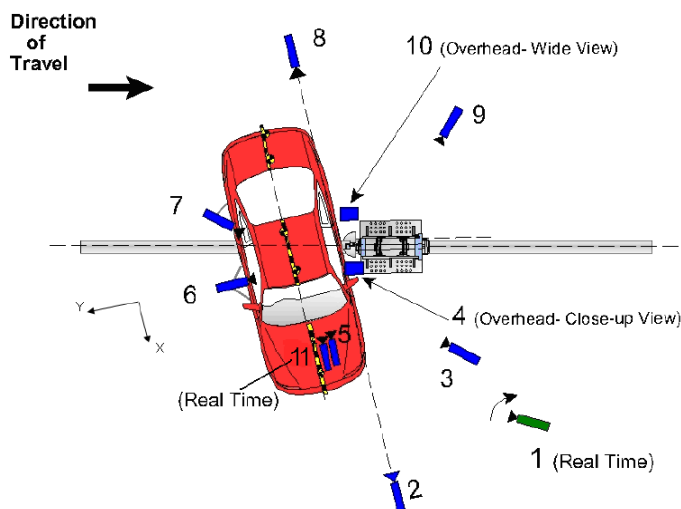


Code	Measurement Description	Units	Driver
HR	Head to Side Header	mm	289
HS	Head to Side Window	mm	355
AD	Arm to Door	mm	104
HD	Hip Point to Door	mm	205

DATA SHEET NO. 5

CAMERA AND INSTRUMENTATION DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203
 Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



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

Camera No.	View	Coordinates (m)			Lens (mm)	Film Speed (fps)
		X*	Y*	Z*		
1	Real Time Pan View of Impact	8.89	46.57	-3.04		30
2	Front Ground Level - Impact View	8.34	-0.05	-0.93	35	1000
3	Impact Side 45° - Forward Pole View	4.10	-2.15	-1.15	25	1000
4	Overhead Close-Up View of Impact	0.00	0.00	-5.79	35	1000
5	On-Board - Dummy Front View	-1.18	-0.84	-0.83	8	1000
6	On-Board - Dummy Side View	-1.19	-0.84	-0.82	6	1000
7	On-Board - Dummy Rear Oblique View	0.90	-0.92	-0.55	6	1000
8	Rear Ground Level - Impact View	-1.30	1.68	-1.26	35	1000
9	Impact Side 45° - Rearward Pole View	-8.02	0.04	-1.01	25	1000
10	Overhead Wide View of Impact	-0.06	0.22	-5.79	15	1000
11	Real Time Dummy Front View	0.88	-0.96	-0.54		30

*All measurements accurate to ± 6 mm

NOTE: Vehicle is at a 75 angle to the rigid pole.

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

INSTRUMENTATION

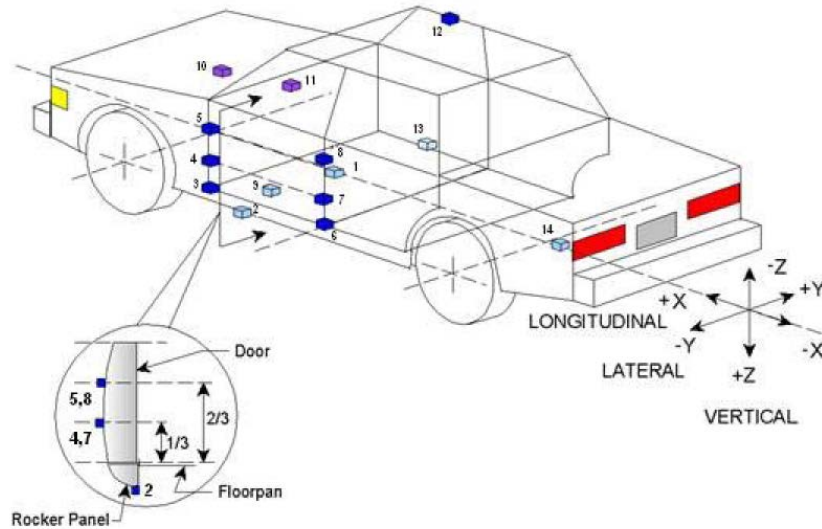
Driver Dummy Channels	19
Vehicle Structure Accelerometers	18
Pole Load Cells	8
Total	45

DATA SHEET NO. 6

TEST VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



Loc. No.	Sensor Description	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	2620	0	-710
2	Left Floor Sill	3480	-715	-318
3	A-Pillar Sill	3720	-805	-665
4	A-Pillar Low	3720	-805	-945
5	A-Pillar Mid	3720	-805	-1190
6	B-Pillar Sill	2850	-715	-705
7	B-Pillar Low	2850	-715	-955
8	B-Pillar Mid	2850	-715	-1185
9	Driver Seat Track	3080	-600	-670
10	Engine Top	4670	-50	-985
11	Firewall	4110	0	-1200
12	Right Roof	2630	540	-1790
13	Right Floor Sill	3480	715	-318
14	Rear Floorpan	1200	0	-845

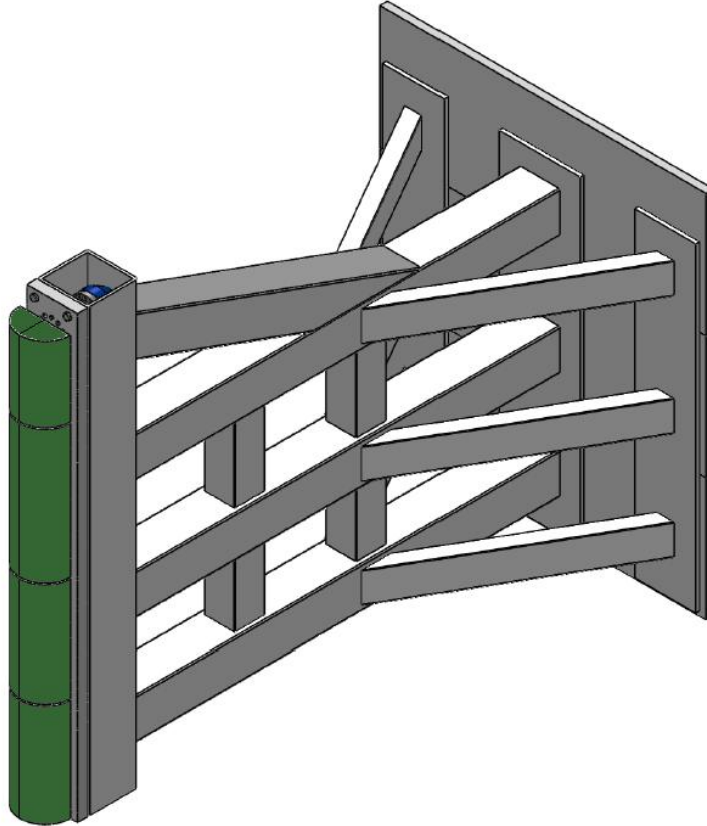
Reference: X – Rear surface of vehicle (+ forward)
Y – Vehicle centerline (+ to right)
Z – Ground plane (+ down)

DATA SHEET NO. 7

RIGID POLE LOAD CELL DATA

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



ID	Units	Height From Ground
1	mm	87
2	mm	468
3	mm	648
4	mm	978
5	mm	1168
6	mm	1651
7	mm	1816
8	mm	2057

DATA SHEET NO. 8**POST-TEST OBSERVATIONS**Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24**TEST DUMMY INFORMATION AND CONTACT POINTS**

Dummy Body Part	Driver SID-IIs Dummy
Face	Curtain Air Bag
Top of Head	Curtain Air Bag
Left Side of Head	Curtain Air Bag
Back of Head	Headrest, Curtain Air Bag
Left Shoulder	Torso/Pelvis Air Bag, Seat Bolster
Upper Torso	Torso/Pelvis Air Bag, Seat Bolster
Lower Torso	Torso/Pelvis Air Bag, Seat Bolster
Left Hip	Torso/Pelvis Air Bag, Seat Bolster
Left Knee	None

POST-TEST DOOR PERFORMANCE

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

POST-TEST SEAT PERFORMANCE

Description	Struck Side		Non-Struck Side	
	Front	Rear	Front	Rear
Seat Movement Along Seat Track	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

DATA SHEET NO. 8 ... (CONTINUED)**POST-TEST OBSERVATIONS**Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24**POST-TEST STRUCTURAL OBSERVATIONS**

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

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Struck Side Driver		Struck Side Rear Passenger	
	Mounted	Deployed	Mounted	Deployed
Frontal Air Bag	Yes	No		
Knee Air Bag	Yes	No		
Side Air Bag 1 (Curtain)	Yes	Yes	Yes	Yes
Side Air Bag 2 (Torso/Pelvis)	Yes	Yes		
Seat Belt Pretensioner	Yes	Yes	Yes	Yes
Seat Belt Load Limiter	Yes	Yes	Yes	Yes

IMPACT POINT LOCATION DATA

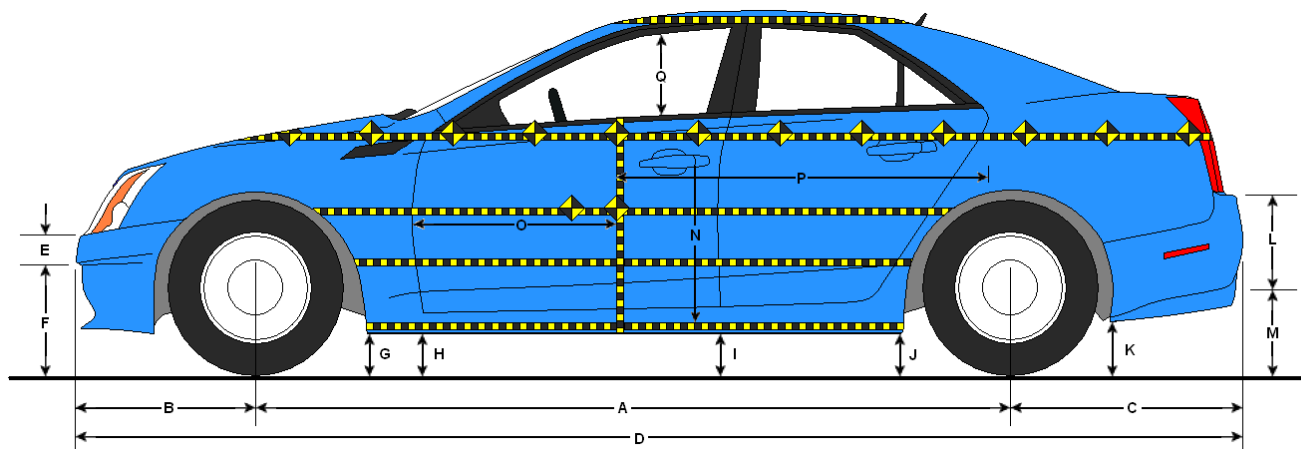
Measured Parameter	Units	Tolerance	Value
Vertical Impact Reference Line (Aft of Front Axle)(Intended Impact Point)	mm		1254
Actual Impact Point (Aft of Front Axle)	mm		1240
Horizontal Offset (+ forward / - rearward)	mm	± 38 of Intended Impact Point	14
Angle Between Vehicle's Longitudinal Centerline and Line of Forward Motion	°	75 ± 3	74.8
Trap No. 1 Velocity (Primary)	km/h	31.4 to 33.0	32.10
Trap No. 2 Velocity (Redundant)	km/h	31.4 to 33.0	32.08

DATA SHEET NO. 9

TEST VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



LEFT SIDE VIEW

All measurements in mm with tolerance of $\pm 3\text{mm}$

VEHICLE PRE- AND POST-TEST MEASUREMENT INFORMATION

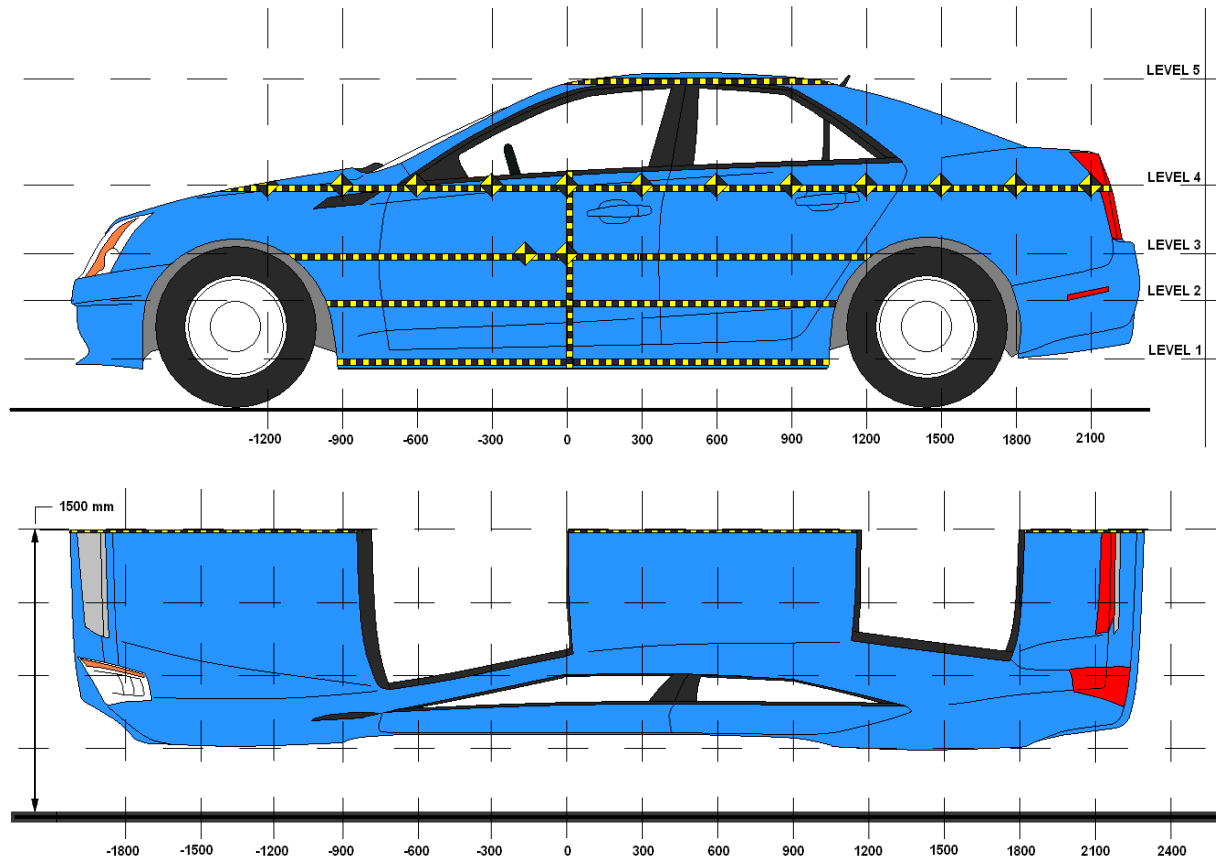
Code	Description	Pre-Test	Post-Test	Change
A	Wheelbase	3273	3229	-44
B	Front Axle to FSOV	868	885	17
C	Rear Axle to RSOV	1216	1196	-20
D	Total Length at Centerline	5357	5310	-47
E	Front Bumper Thickness	100	104	4
F	Front Bumper Bottom to Ground	789	881	92
G	Sill Height at Front Wheel Well	618	640	22
H	Sill Height at Front Door Leading Edge	638	671	33
I	Sill Height at B-Pillar	626	637	11
J1	Sill Height at Rear Wheel Well	635	637	2
J2	Pinch Weld Height at Rear Wheel Well	570	580	10
K	Sill Height Aft of Rear Wheel Well	668	667	-1
L	Rear Bumper Thickness	187	187	0
M	Rear Bumper Bottom to Ground	650	649	-1
N	Sill Height to Bottom of Front Window Sill	738	743	5
O	Front Door Leading Edge to Impact CL	595	466	-129
P	Rear Door Trailing Edge to Impact CL	1370	1294	-76
Q	Front Window Opening	432	443	11
R	Right Side Length	4102	4102	0
S	Left Side Length	4109	3990	-119
T	Vehicle Width at B-Pillar	1723	1605	-118

DATA SHEET NO. 10

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



NOTE: All measurements in mm with tolerance of $\pm 3\text{mm}$

MAXIMUM EXTERIOR CRUSH MEASUREMENTS

Level	Description	Height Above Ground (mm)	Maximum Exterior Static Crush	Distance from Impact
1	Sill Top	621	353	0
2	Occupant H-Point	986	379	0
3	Mid-Door	1035	387	0
4	Window Sill	1372	332	0
5	Window Top	1849	135	0

DATA SHEET NO. 10 ... (CONTINUED)

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

EXTERIOR CRUSH MEASUREMENTS AT EACH LEVEL

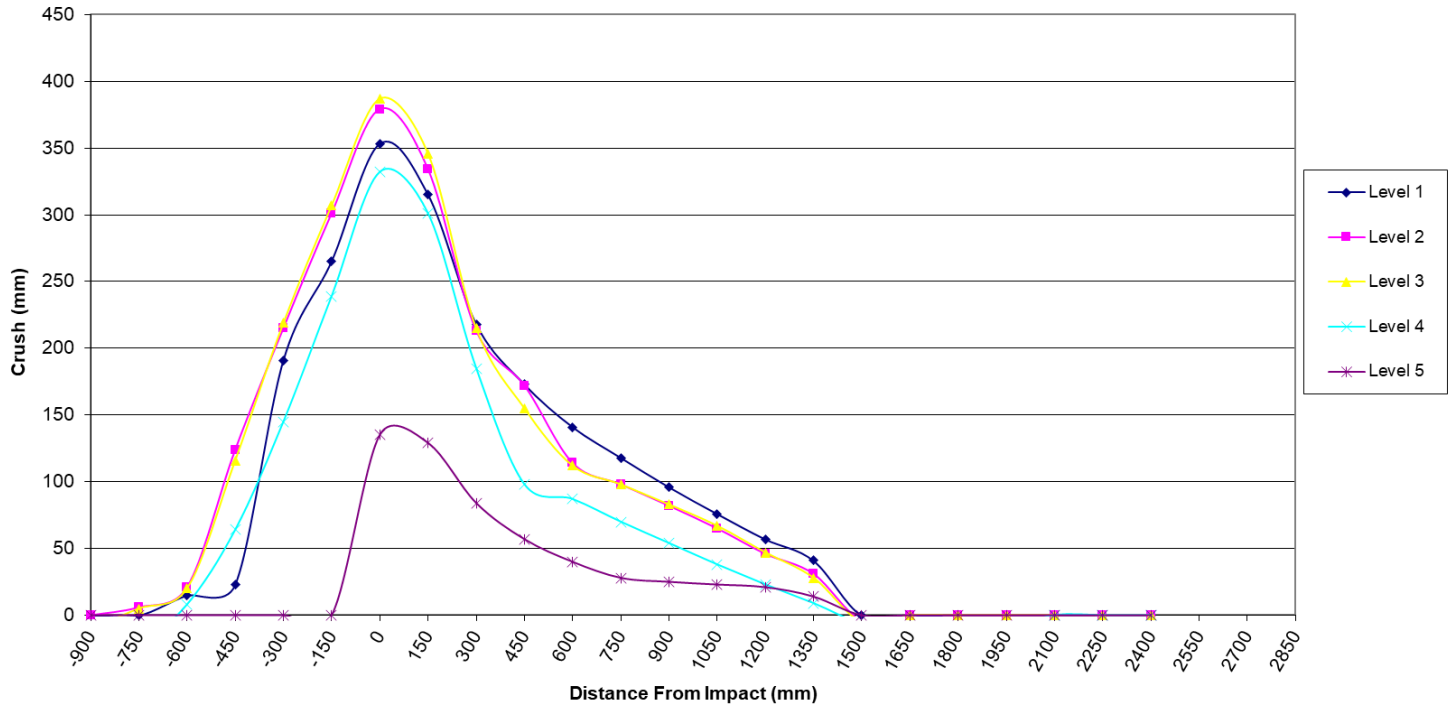
	Pre-Test (mm)					Post-Test (mm)					Crush (mm)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900			554	675				544	642				-10	-33	
-750		568	570	672			574	575	650			6	5	-22	
-600	619	590	590	668		634	611	610	676		15	21	20	8	
-450	640	602	601	664		663	726	717	728		23	124	116	64	
-300	642	607	605	661		833	822	824	806		191	215	219	145	
-150	645	613	606	657		910	914	913	896		265	301	307	239	
0	647	615	606	652	856	1000	994	993	984	991	353	379	387	332	135
150	644	616	606	647	859	959	950	952	948	988	315	334	346	301	129
300	645	617	606	645	865	863	830	821	830	949	218	213	215	185	84
450	645	618	608	642	868	818	790	763	740	925	173	172	155	98	57
600	646	620	612	639	869	787	734	724	726	909	141	114	112	87	40
750	644	620	612	638	870	762	718	710	708	898	118	98	98	70	28
900	645	616	611	636	868	741	698	694	690	893	96	82	83	54	25
1050	645	611	608	635	865	721	676	675	673	888	76	65	67	38	23
1200	646	606	604	633	864	703	652	651	656	885	57	46	47	23	21
1350	647	604	602	631	862	688	635	630	640	876	41	31	28	9	14
1500		594	595	633			590	590	627			-4	-5	-6	
1650				617					609					-8	
1800				604					596					-8	
1950				601					591					-10	
2100															
2250															
2400															
2550															
2700															
2850															

DATA SHEET NO. 10 ... (CONTINUED)

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

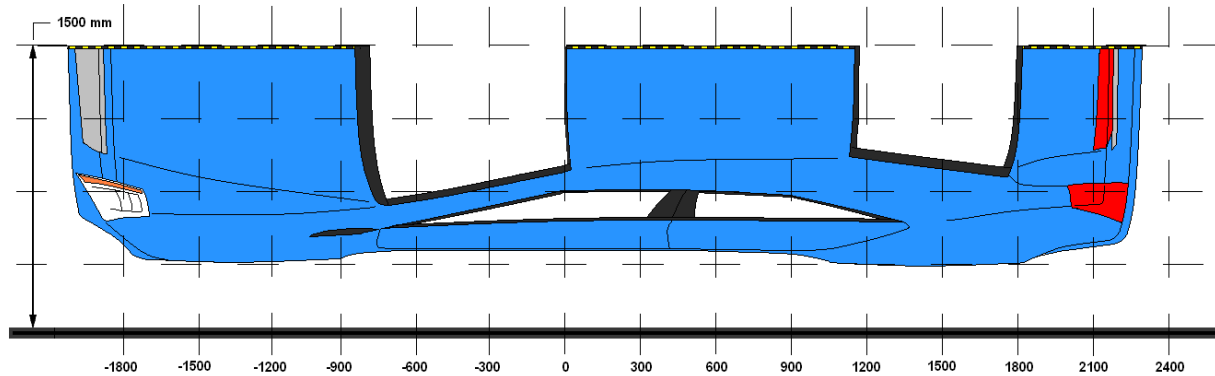


DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



DPD	Distance From Impact Point (mm)	Level	Pre-Test (mm)	Post-Test (mm)	Crush (mm)
1	1950	4	601	591	-10
2	1350	1	647	688	41
3	750	1	644	762	118
4	300	1	645	863	218
5	-300	3	605	824	219
6	-900	4	675	642	-33

DATA SHEET NO. 12

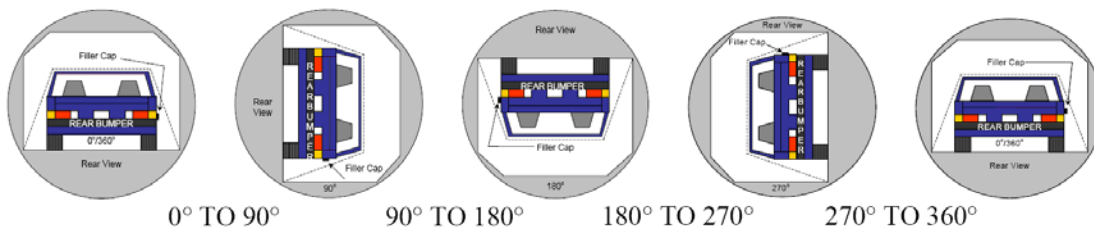
FMVSS NO. 301 STATIC ROLLOVER RESULTS

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24

Temperature at Time of Impact: 37.2° C Test Time: 11:47 AM

- A. From impact until vehicle motion ceases: 0 oz.
(Maximum allowable = 1 oz.)
- B. For the 5 minute period after motion ceases: 0 oz.
(Maximum allowable = 5 oz.)
- C. For the following 25 minutes: 0 oz.
(Maximum allowable = 1 oz./minute)
- D. Spillage Details: There was no Stoddard solvent spillage.



SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° To 90°	80	300	380
90° To 180°	81	300	381
180° To 270°	83	300	383
270° To 360°	80	300	380

FMVSS 301 SPILLAGE TABLE

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

SOLVENT SPILLAGE LOCATION TABLE

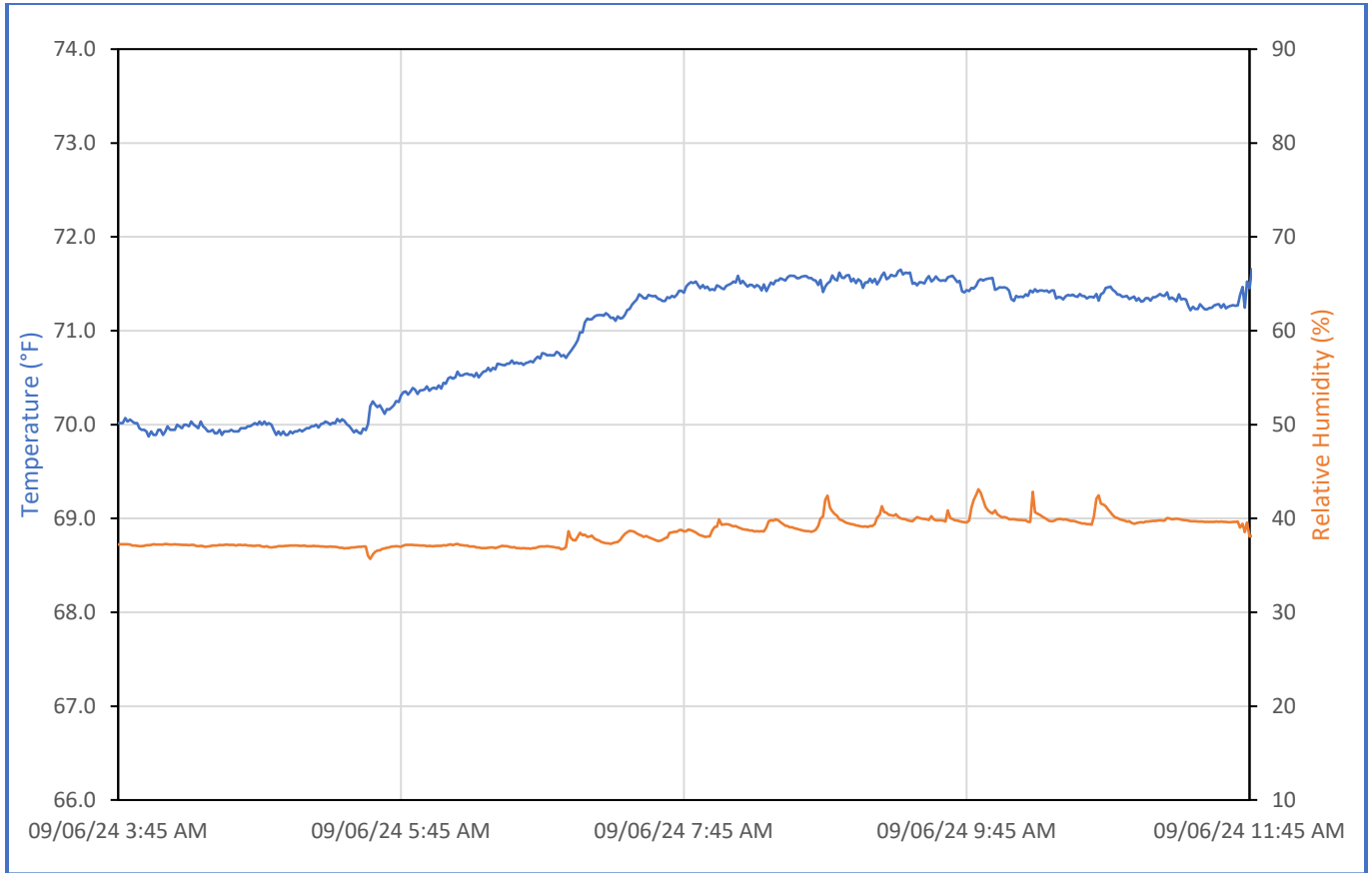
Test Phase	Spillage Location
0° To 90°	
90° To 180°	
180° To 270°	
270° To 360°	

DATA SHEET NO. 13

DUMMY/VEHICLE TEMPERATURE AND HUMIDITY STABILIZATION

Test Vehicle: 2024 Ford Ranger 4-Door Supercrew Truck NHTSA No. Q20240203

Test Program: NCAP Side Pole Impact Test Test Date: 09/06/24



APPENDIX A
PHOTOGRAPHS

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FIGURE 1. As-Delivered Right Front 3/4 View of Test Vehicle



FIGURE 2. As-Delivered Left Rear 3/4 View of Test Vehicle



FIGURE 3. Pre-Test Frontal View of Test Vehicle



FIGURE 4. Post-Test Frontal View of Test Vehicle



FIGURE 5. Pre-Test Left Front 3/4 View of Test Vehicle



FIGURE 6. Post-Test Left Front 3/4 View of Test Vehicle



FIGURE 7. Pre-Test Left Side View of Test Vehicle



FIGURE 8. Post-Test Left Side View of Test Vehicle



FIGURE 9. Pre-Test Left Rear 3/4 View of Test Vehicle



FIGURE 10. Post-Test Left Rear 3/4 View of Test Vehicle



FIGURE 11. Pre-Test Rear View of Test Vehicle



FIGURE 12. Post-Test Rear View of Test Vehicle



FIGURE 13. Pre-Test Right Side View of Test Vehicle



FIGURE 14. Post-Test Right Side View of Test Vehicle



FIGURE 15. Pre-Test Overhead View of Test Area

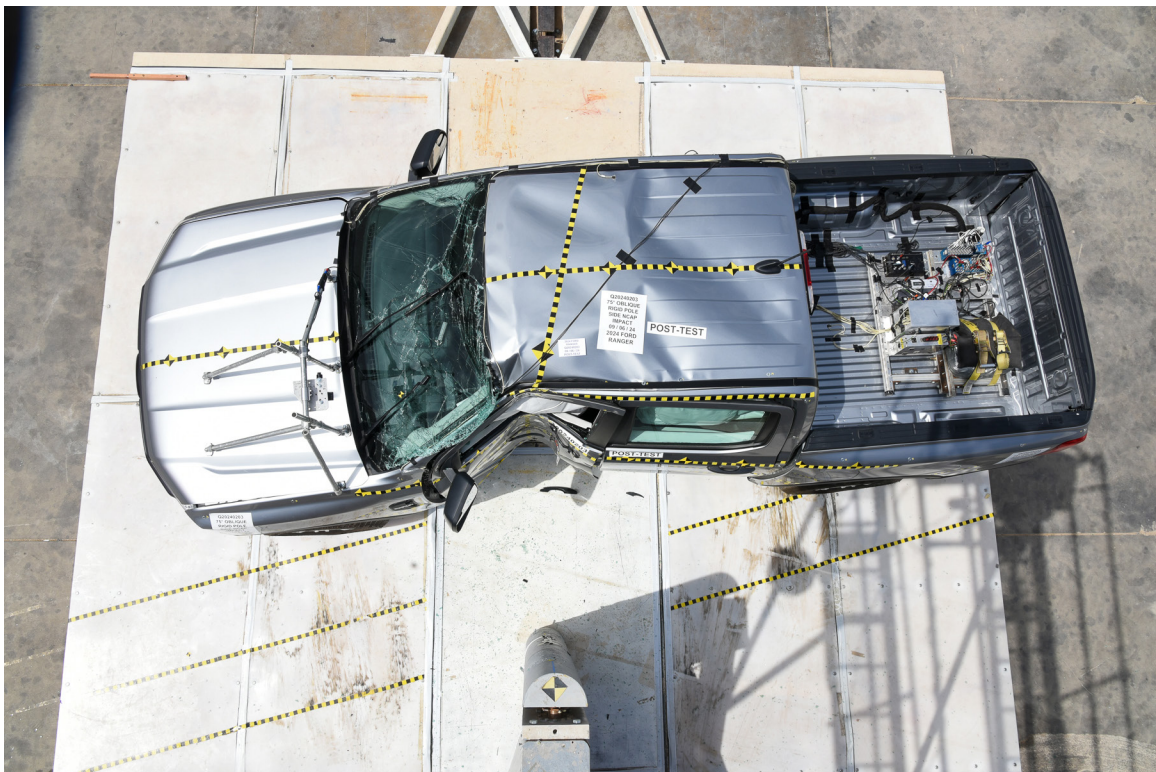


FIGURE 16. Post-Test Overhead View of Test Area



FIGURE 17. Pre-Test Left Side View of Pole Positioned Against Side of Vehicle



FIGURE 18. Pre-Test Right Side View of Pole Positioned Against Side of Vehicle



FIGURE 19. Pre-Test Close-Up View of Impact Point Target



FIGURE 20. Post-Test Close-Up View of Impact Point Target Showing Impact Location



FIGURE 21. Pre-Test Front Close-Up View of Dummy Head and Chest

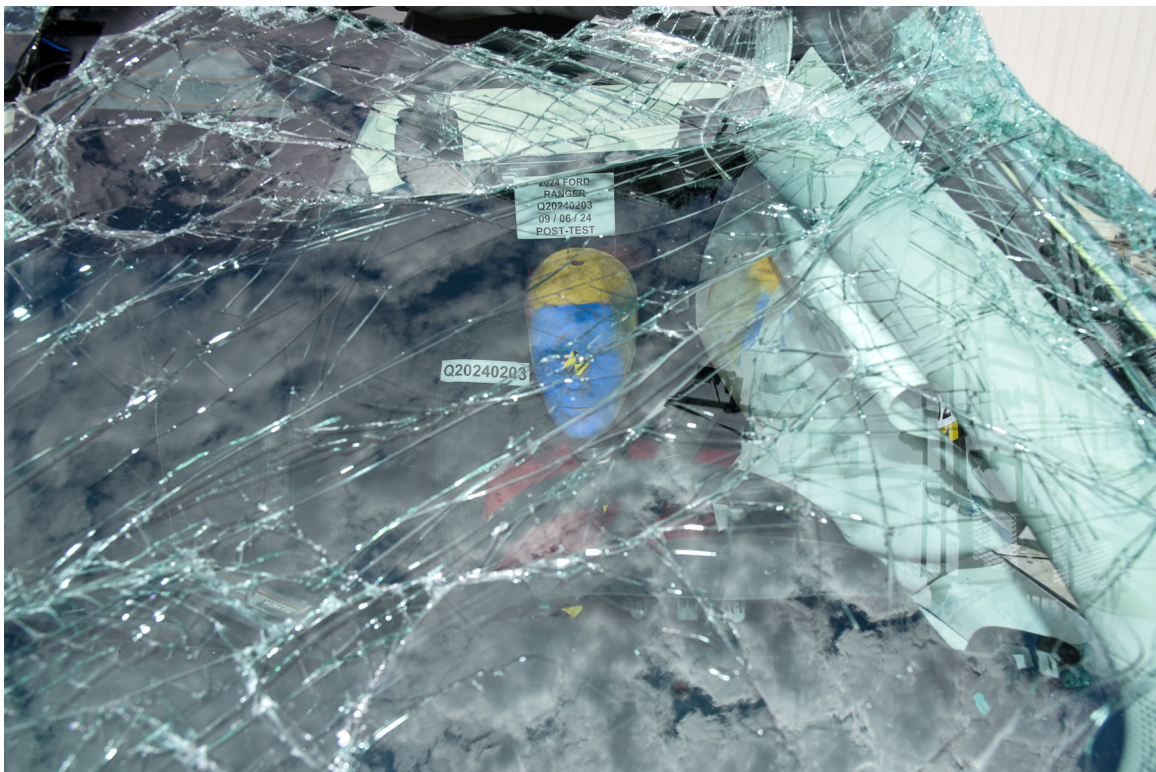


FIGURE 22. Post-Test Front Close-Up View of Dummy



FIGURE 23. Pre-Test Left Side View of Dummy Showing Belt and Chalking



FIGURE 24. Pre-Test Left Side View of Dummy Shoulder and Door Top View



FIGURE 25. Post-Test Left Side View of Dummy Shoulder and Door Top View



FIGURE 26. Pre-Test Frontal View of Seat Back Prior to Dummy Positioning



FIGURE 27. Pre-Test Frontal View of Dummy Head and Shoulders in Relation to Head Restraint



FIGURE 28. Pre-Test Frontal View of Seat Pan Prior to Dummy Positioning



FIGURE 29. Pre-Test Overhead View of Dummy Thighs on Seat Pan



FIGURE 30. Pre-Test Left Side View of Dummy's Neck Showing Position of Adjustable Neck Bracket



FIGURE 31. Pre-Test Left Side View of Dummy's Head Showing Head is Level



FIGURE 32. Pre-Test Placement of Dummy's Feet



FIGURE 33. Pre-Test View of Belt Anchorage for Dummy



FIGURE 34. Pre-Test Left Side View of Steering Wheel



FIGURE 35. View of Disengaged Parking Brake



FIGURE 36. Pre-Test View of Parking Brake



FIGURE 37. Pre-Test Close-Up Left Side View of Driver Seat Track



FIGURE 38. Pre-Test Close-Up Left Side View of Driver Seat Back



FIGURE 39. Pre-Test Close-Up View of Driver Seat Back or Head Restraint



FIGURE 40. Pre-Test Dummy and Door Clearance View



FIGURE 41. Post-Test Dummy and Door Clearance View



FIGURE 42. Pre-Test Right Side View of Dummy and Front Seat of Occupant Compartment



FIGURE 43. Post-Test Right Side View of Dummy and Front Seat of Occupant Compartment



FIGURE 44. Pre-Test Inner Door Panel View



FIGURE 45. Post-Test Inner Door Panel View Showing Dummy Contact Locations



FIGURE 46. Post-Test Dummy Close-Up Head Contact With Vehicle Interior View



FIGURE 47. Post-Test Dummy Close-Up Head Contact With Side Air Bag View



FIGURE 48. Post-Test Dummy Close-Up Torso Contact With Vehicle Interior View



FIGURE 49. Post-Test Dummy Close-Up Torso Contact With Side Air Bag View



FIGURE 50. Post-Test Dummy Close-Up Pelvis Contact With Vehicle Interior View



FIGURE 51. Post-Test Dummy Close-Up Pelvis Contact With Side Air Bag View

Photograph Not Applicable
No Driver Dummy Close-Up Knee Contact

FIGURE 52. Post-Test Dummy Close-Up Knee Contact with Vehicle Interior View



FIGURE 53. Post-Test Right Side View of Dummy and Rear Seat of Occupant Compartment

Photograph Not Applicable

Vehicle Not Equipped With Rear Passenger Side Air Bag

FIGURE 54. Pre-Test Inner Rear Passenger Torso Air Bag Deployment View



FIGURE 55. Pre-Test View of Fuel Filler Cap or Fuel Filler Neck



FIGURE 56. Post-Test View of Fuel Filler Cap or Fuel Filler Neck



FIGURE 57. Close-Up View of Vehicle's Certification Label

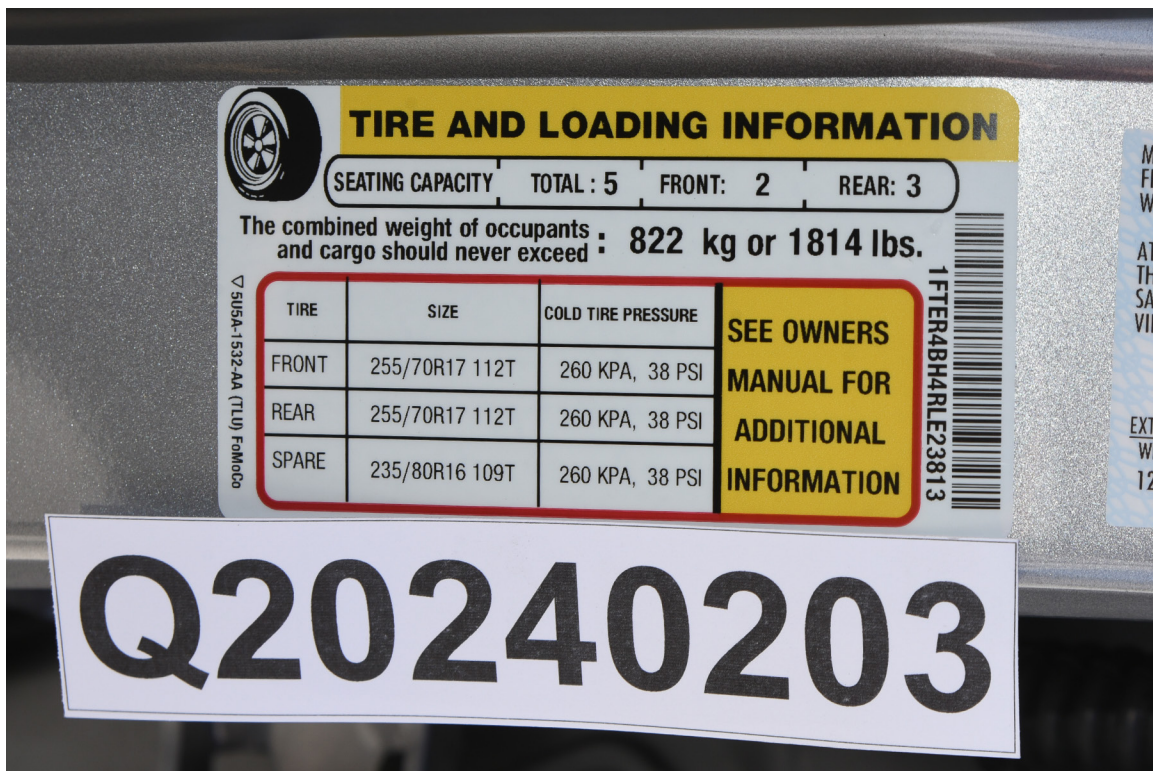


FIGURE 58. Close-Up View of Vehicle's Tire Information Placard or Label



FIGURE 59. Pre-Test Pole Barrier Front View



FIGURE 60. Post-Test Pole Barrier Front View



FIGURE 61. Pre-Test Pole Barrier Side View



FIGURE 62. Post-Test Pole Barrier Side View



FIGURE 63. Pre-Test Ballast View



FIGURE 64. Post-Test Primary and Redundant Speed Trap Read-Out



FIGURE 65. FMVSS No. 301 Static Rollover 0 Degrees



FIGURE 66. FMVSS No. 301 Static Rollover 90 Degrees



FIGURE 67. FMVSS No. 301 Static Rollover 180 Degrees

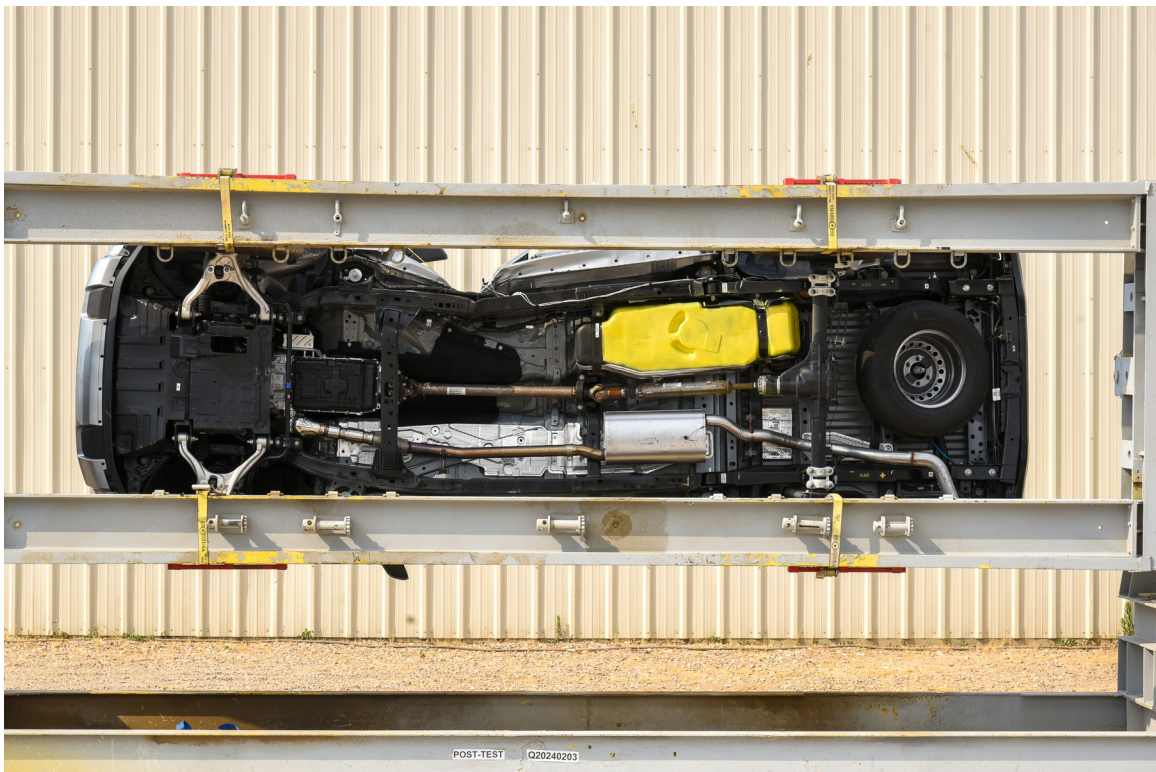


FIGURE 68. FMVSS No. 301 Static Rollover 270 Degrees



FIGURE 69. FMVSS No. 301 Static Rollover 360 Degrees



FIGURE 70. Impact Event

RANGER

2024 SUPERCREW 4X2 XL
120" WHEELBASE
2.3L ECOBOOST ENGINE
10-SPEED AUTO TRANSMISSION

EXTERIOR
ICONS SILVER METALLIC
INTERIOR
EBONY PREMIUM CLOTH SEATS

RL E23813

Fuel Economy and Environment

22 MPG
combined city/hwy

21 MPG
city

25 MPG
highway

4.5 gallons per 100 miles

You spend \$2,500
more in fuel costs over 5 years compared to the average new vehicle.

Annual fuel cost \$2,450

Fuel Economy & Greenhouse Gas Rating (tailpipe only) **5**

Smog Rating (tailpipe only) **6**

Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 24 MPG and emits 385 grams CO₂ per mile. The best emits 0 grams per mile (tailpipe only). Producing and distributing fuel also creates emissions; learn more at fuelconomy.gov.

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score Not Rated

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

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

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

FordPass Connect™

Download the FordPass™ app and you can:

- Access Vehicle Control Features
- Remotely start, lock and unlock your vehicle
- Locate your vehicle and check approximate fuel range
- Receive vehicle health alerts
- Activate 4G LTE Wi-Fi Hotspot
- New vehicles include a 3-month or 3GB data (whichever comes first) Wi-Fi trial.
- Connect up to ten Wi-Fi-equipped devices.

The FordPass Connect™ system is active and sending vehicle data (e.g., diagnostics) to Ford. See in-vehicle Settings for connectivity options.

Ford PROTECT™

Insist on Ford Protect™. The only extended service plan fully backed by Ford and honored at every Ford dealership in the U.S., Canada and Mexico. See your Ford dealer or visit www.FordOwner.com.

INCLUDED ON THIS VEHICLE EQUIPMENT GROUP 100A XL SERIES OPTIONAL EQUIPMENT/OTHER 255/70 R17 AT TIRE STX APPEARANCE PACKAGE FOG LAMPS 17" SILVER PAINTED ALUM WHL FRONT LICENSE PLATE BRACKET	(MSRP) NO CHARGE NO CHARGE	PRICE INFORMATION BASE PRICE \$32,720.00 TOTAL OPTIONS/OTHER DESTINATION & DELIVERY 1,595.00 TOTAL MSRP \$34,315.00	(MSRP) \$32,720.00 1,595.00
--	---	---	--

SALES TO: Stevens Point Auto Center LLC
2783 Stanley Street
Stevens Point WI 54481

SHIP TO (IF OTHER THAN SALES TO):

SHIP THROUGH:

41A 369

RAIP ONE

CR4G

RAIP TWO

FRONT ASSEMBLY PLANT

MICHIGAN

METHOD OF TRANSIT:

CONVOY

FEES:

41-2700 OPT 2

Whether you decide to lease or finance your vehicle, you'll find the choices that are right for you. See your dealer for details or visit www.ford.com/finance.

RF061 N RB 2X 430 004850 06 06 24

FIGURE 71. Monroney Label

SITTING IN THE CORRECT POSITION

When you use them properly, the seat, head restraint, seatbelt and airbags will provide optimum protection in the event of a crash.

We recommend that you follow these guidelines:

- Sit in an upright position with the base of your spine as far back as possible.
- Do not recline the seat backrest so that your torso is more than 30 degrees from the upright position.
- Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable.
- Keep sufficient distance between yourself and the steering wheel. We recommend a minimum of 10 in (25 cm) between your breastbone and the airbag cover.
- Hold the steering wheel with your arms slightly bent.

HEADRESTRAINT COMPONENTS

The head restraints consist of:

- A An energy absorbing head restraint.
- B Guide sleeve lock and release button.
- C Guide sleeve.
- D Two steel stems.

ADJUSTING THE HEAD RESTRAINT

WARNING: Fully adjust the head restraint before you sit in or operate your vehicle. This will help minimize the risk of neck injury in the event of a crash. Do not adjust the head restraint when your vehicle is moving.

WARNING: The head restraint is a safety device. Whenever possible it should be installed and properly adjusted when the seat is occupied. Failure to adjust the head restraint properly could reduce its effectiveness during certain impacts.

WARNING: Adjust the head restraints for all passengers before you drive your vehicle. This will help minimize the risk of neck injury in the event of a crash. Do not adjust the head restraints when your vehicle is moving.

Note: Adjust the seat backrest to an upright driving position before adjusting the head restraint. Adjust the head restraint so that the top of it is level with the top of your head. Make sure that you remain comfortable. If you are tall, adjust the head restraint to its highest position.

Pull the head restraint up to raise it.

To lower the head restraint:

- Press and hold the adjust and release button.
- Push the head restraint down.

REMOVING THE HEAD RESTRAINT

- Pull up the head restraint until it reaches its highest position.
- Press and hold the adjust and release button and the unlock and remove button.
- Pull up the head restraint.

INSTALLING THE HEAD RESTRAINT

Align the steel stems into the guide sleeves and push the head restraint down until it locks.

POWER SEATS (IF EQUIPPED)

HEADRESTRAINT COMPONENTS

The head restraints consist of:

- A An energy absorbing head restraint.
- B Guide sleeve lock and release button.
- C Guide sleeve.
- D Two steel stems.

FIGURE 72. Head Restraint Use and Adjustment Information from Vehicle Owner's Manual



FIGURE 73. Post-Test View of Shattered Vehicle Inner Door Panel

APPENDIX B
VEHICLE AND DUMMY RESPONSE DATA PLOTS

TABLE OF DATA PLOTS

Plot		Page
1	Driver Head Acceleration (X) Primary	B-1
2	Driver Head Acceleration (Y) Primary	B-1
3	Driver Head Acceleration (Z) Primary	B-1
4	Driver Head Acceleration Primary Resultant	B-1
5	Driver Lower Spine T12 Acceleration (X)	B-2
6	Driver Lower Spine T12 Acceleration (Y)	B-2
7	Driver Lower Spine T12 Acceleration (Z)	B-2
8	Driver Lower Spine T12 Acceleration Resultant	B-2
9	Driver Acetabulum Force on Impact Side (Y)	B-3
10	Driver Iliac Wing Force on Impact Side (Y)	B-3
11	Driver Total Pelvis Force on Impact Side (Y)	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 Acceleration Redundant (X)

Driver Head Acceleration Redundant (Y)

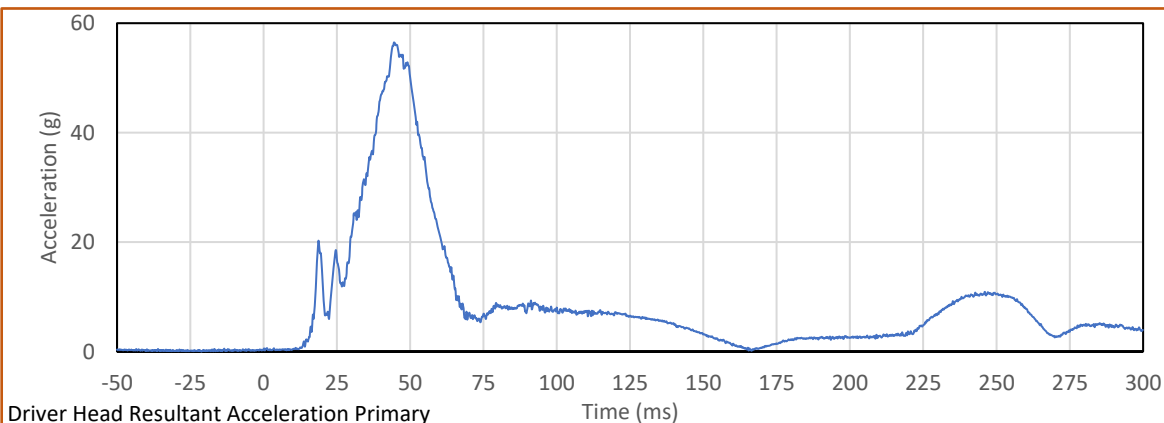
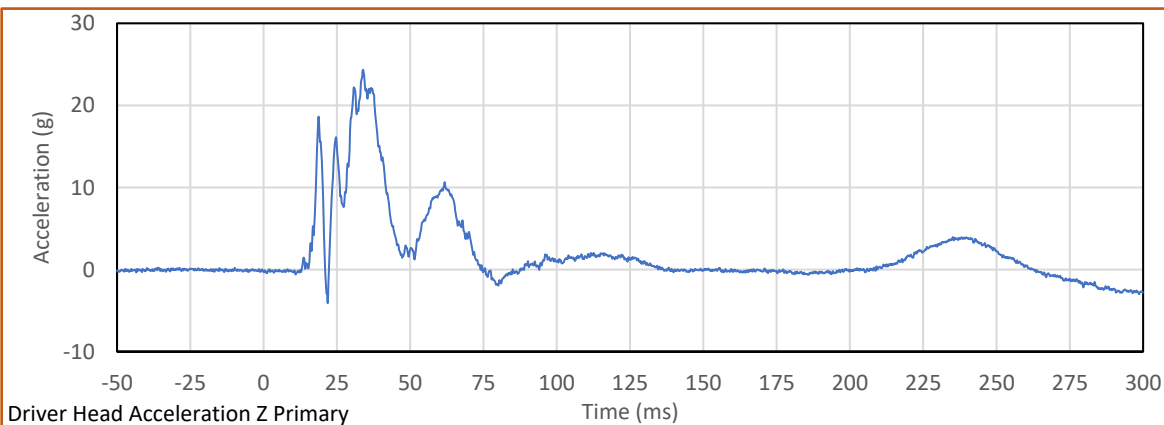
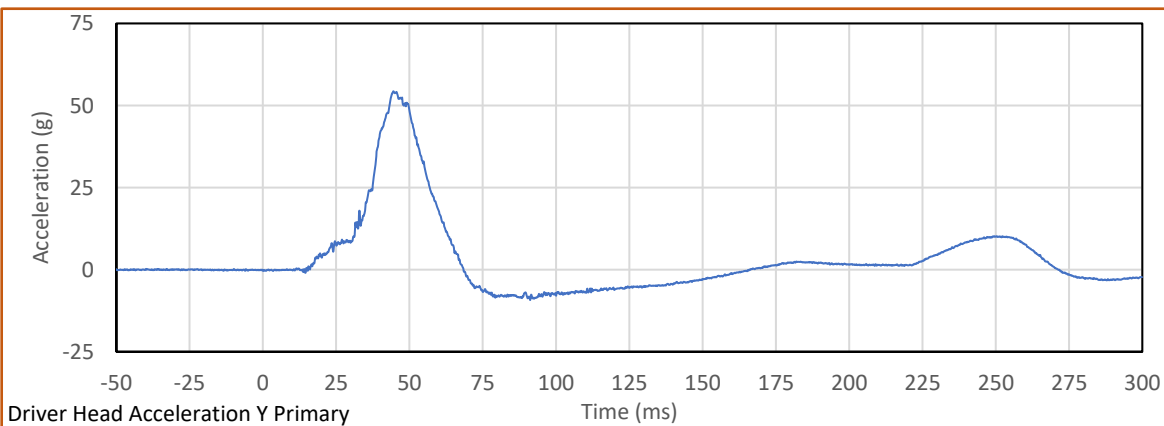
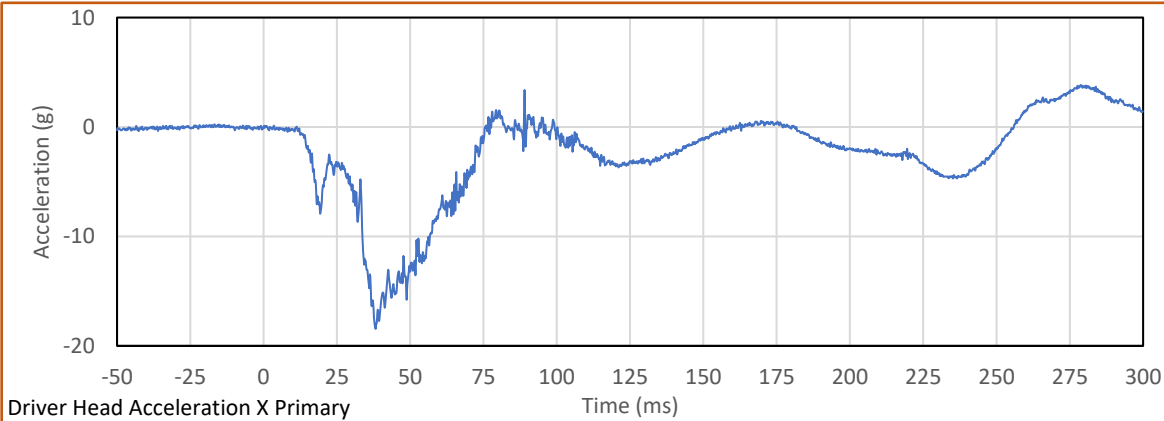
Driver Head Acceleration Redundant (Z)

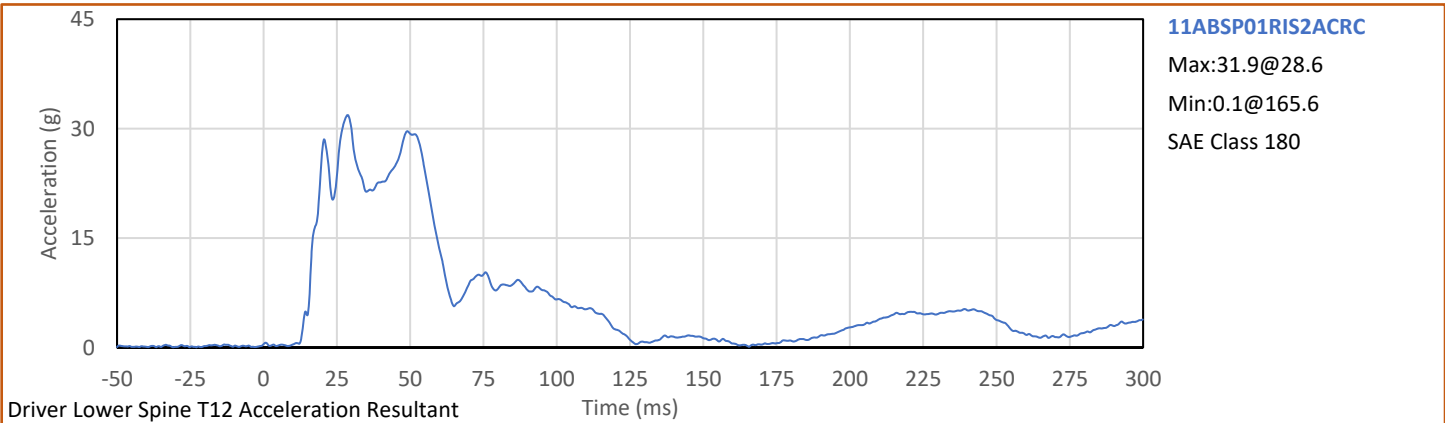
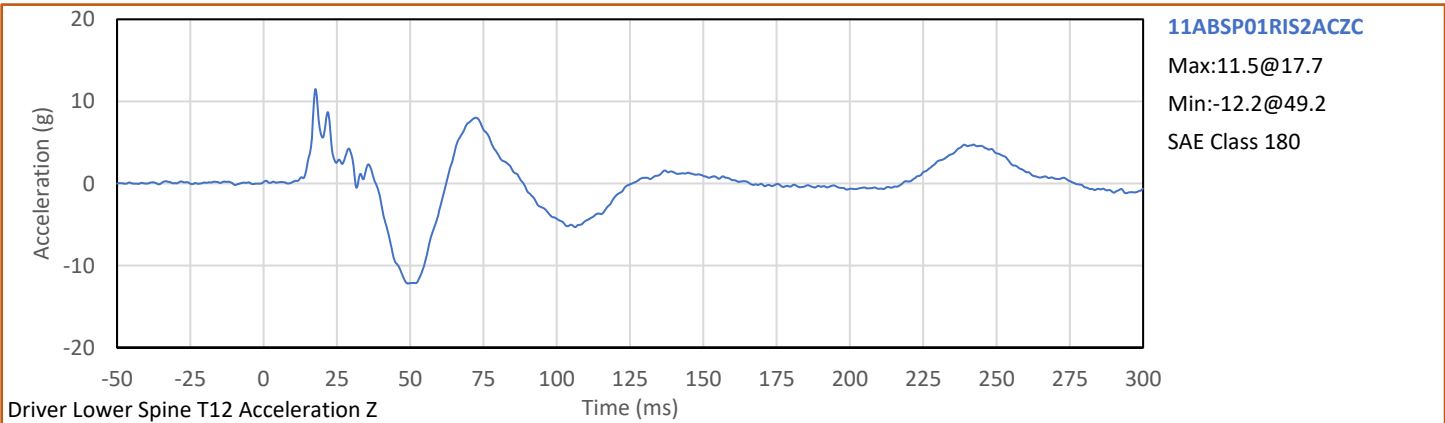
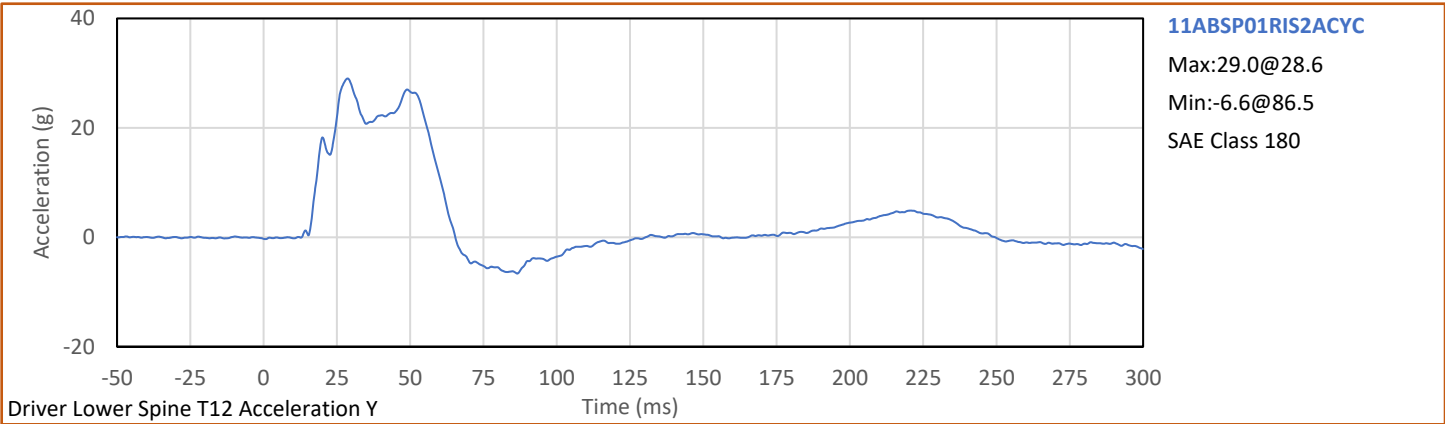
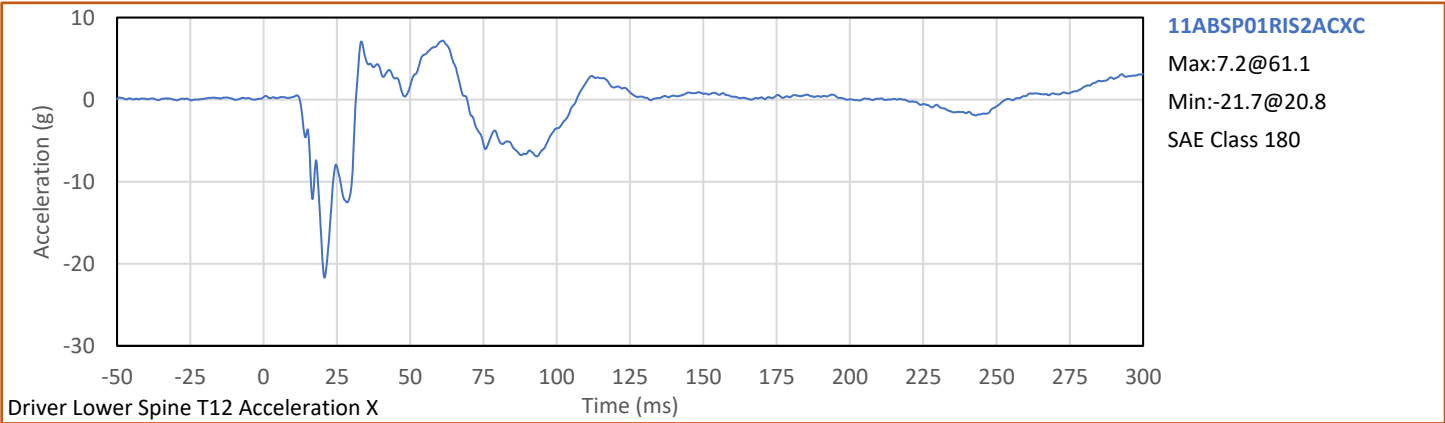
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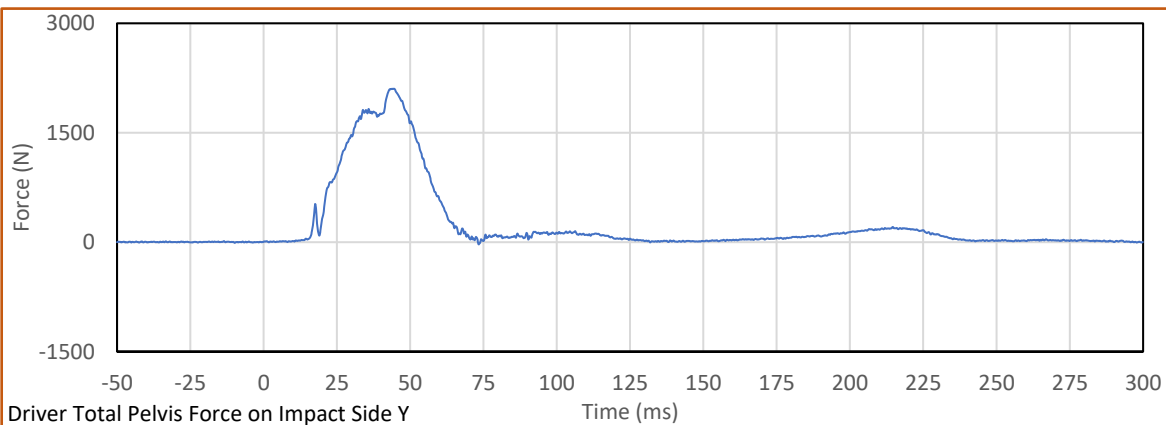
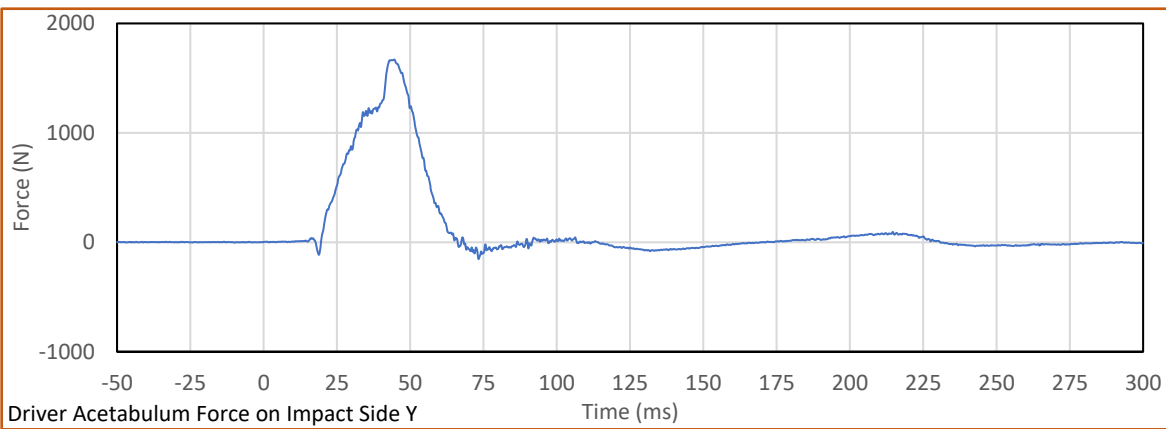
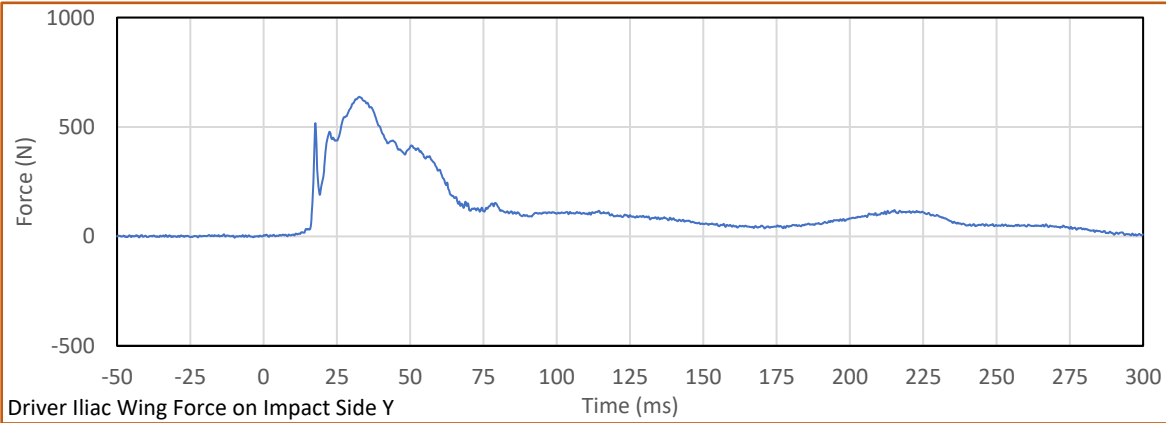
Vehicle Center of Gravity Acceleration (X)
Vehicle Center of Gravity Acceleration (Y)
Vehicle Center of Gravity Acceleration (Z)
Left Floor Sill Acceleration (Y)
Left A-Pillar Sill Acceleration (Y)
Left Lower A-Pillar Acceleration (Y)
Left Mid A-Pillar Acceleration (Y)
Left B-Pillar Sill Acceleration
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)







APPENDIX C
ATD CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C

Pre-Test ATD Qualification and Performance Verification

SID-IIs Small Side Impact ATD, Left Side Configuration

S/N: 308

ATD Serial No.: 308

Test Date: 2024-08-06

Tested Parameter	Units	Spec Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Relative Humidity	%	10	70	50	Pass
A - Sitting Height	mm	772	788	778	Pass
B - Shoulder Pivot Height	mm	437	453	450	Pass
C - Hpoint Height	mm	79	89	84	Pass
D - H Point From Seatback	mm	141	151	145	Pass
E - Shoulder Pivot From Backline	mm	97	107	102	Pass
F - Thigh Clearance	mm	119	135	125	Pass
G - Head Breadth	mm	140	148	145	Pass
H - Head Back From Backline	mm	40	46	41	Pass
I - Head Depth	mm	178	188	183	Pass
J - Head Circumference	mm	541	551	546	Pass
K - Buttock To Knee Length	mm	514	540	531	Pass
L - Popliteal Height	mm	343	369	356	Pass
K - Knee Pivot To Floor Height	mm	392	409	400	Pass
N - Buttock Popliteal Length	mm	416	442	427	Pass
O - Chest Depth W/O Jacket	mm	195	211	202	Pass
P - Foot Length	mm	216	232	221	Pass
Q - Hip Breadth (W/Pelvic Plugs)	mm	313	323	319	Pass
R - Arm Length	mm	249	259	257	Pass
S - Knee Joint To Seatback	mm	477	493	485	Pass
V - Shoulder Width	mm	341	357	346	Pass
W - Foot Width	mm	78	94	91	Pass
Y - Chest Circumference W/Jacket	mm	851	881	871	Pass
Z - Waist Circumference	mm	761	791	775	Pass
				Overall Test Results	Pass

Technician:



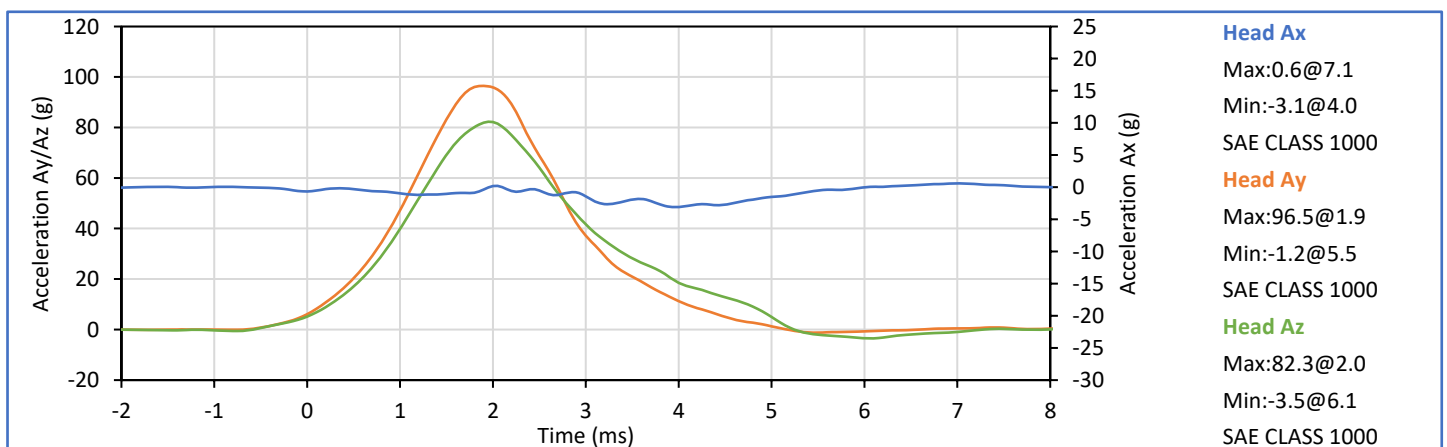
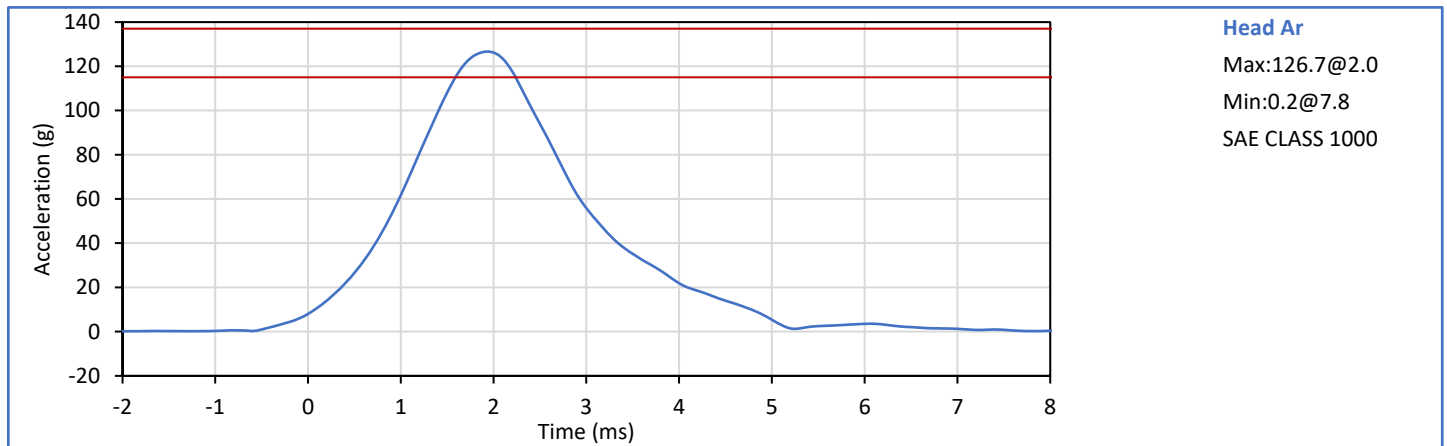
G. Fuentes

Approved By:



J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	18.9	25.6	21.6	Pass
Laboratory Relative Humidity	%	10	70	41	Pass
Peak Resultant Acceleration	g	115.0	137.0	126.7	Pass
Peak Head Ax	g	-15.0	15.0	-3.1	Pass
Oscillations After Main Pulse	%	0.0	15.0	2.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes		Yes	Pass
			Overall Test Results	Pass	



Technician:

G. Fuentes

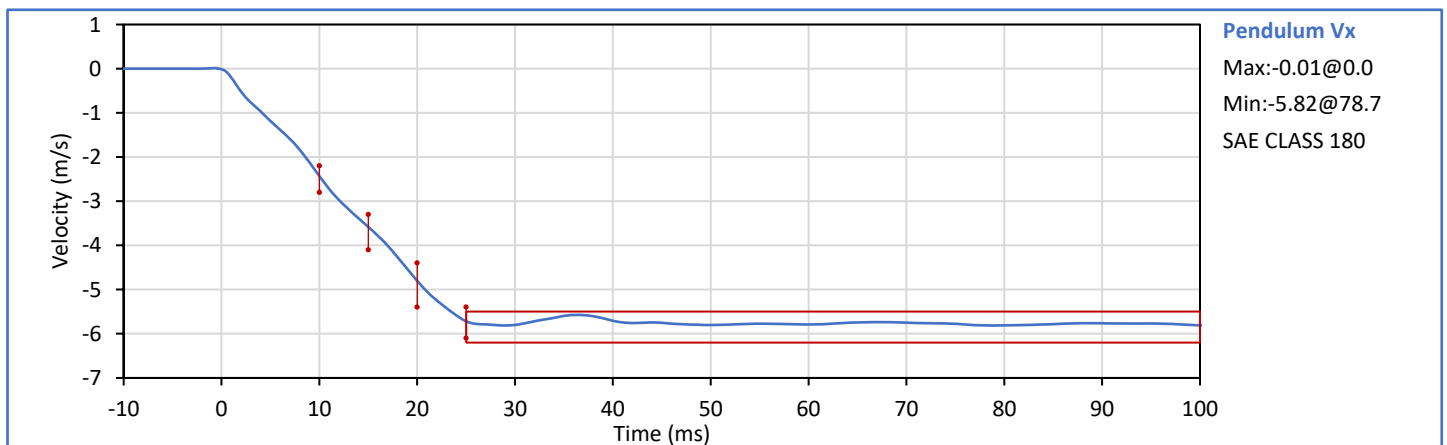
G. Fuentes

Approved By:

J. Hernandez

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.3	Pass
Laboratory Relative Humidity	%	10	70	41	Pass
Pendulum Velocity	m/s	5.51	5.63	5.60	Pass
Pendulum Decel at 10 ms	m/s	-2.80	-2.20	-2.43	Pass
Pendulum Decel at 15 ms	m/s	-4.10	-3.30	-3.58	Pass
Pendulum Decel at 20 ms	m/s	-5.40	-4.40	-4.80	Pass
Pendulum Decel at 25 ms	m/s	-6.10	-5.40	-5.72	Pass
Pendulum Decel from 25-100 ms	m/s	-6.20	-5.50	-5.82/-5.57	Pass
Peak "D" Plane Rotation	deg	-81.0	-71.0	-74.9	Pass
Time of Peak "D" Plane Rotation	ms	50.0	70.0	58.1	Pass
Peak Occ. Condyle Moment	Nm	36.0	44.0	39.1	Pass
Time of Moment Decay to 0 Nm	ms	102.0	126.0	110.0	Pass
				Overall Test Results	Pass



Technician:

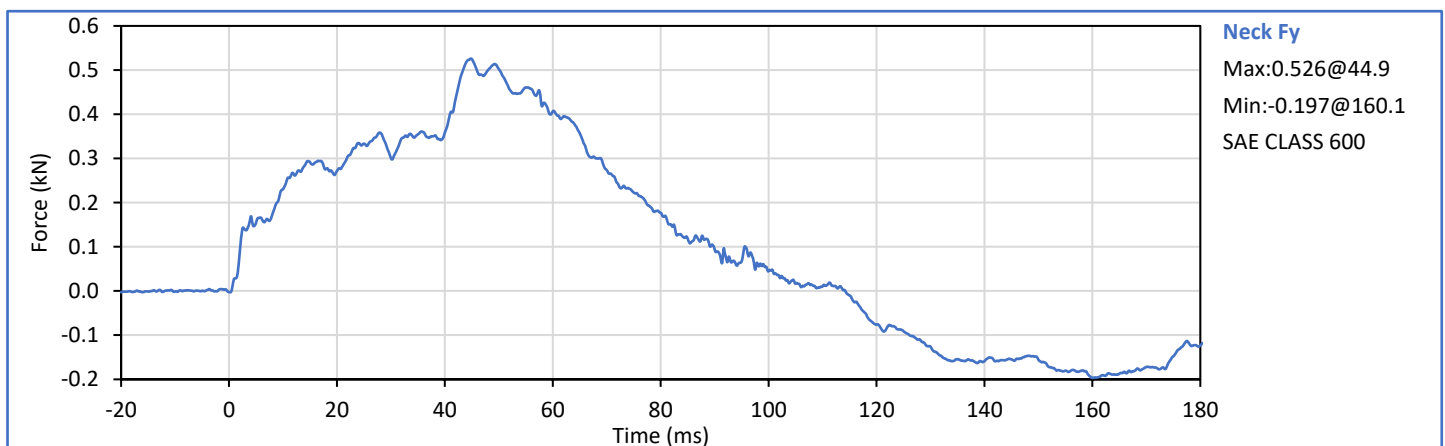
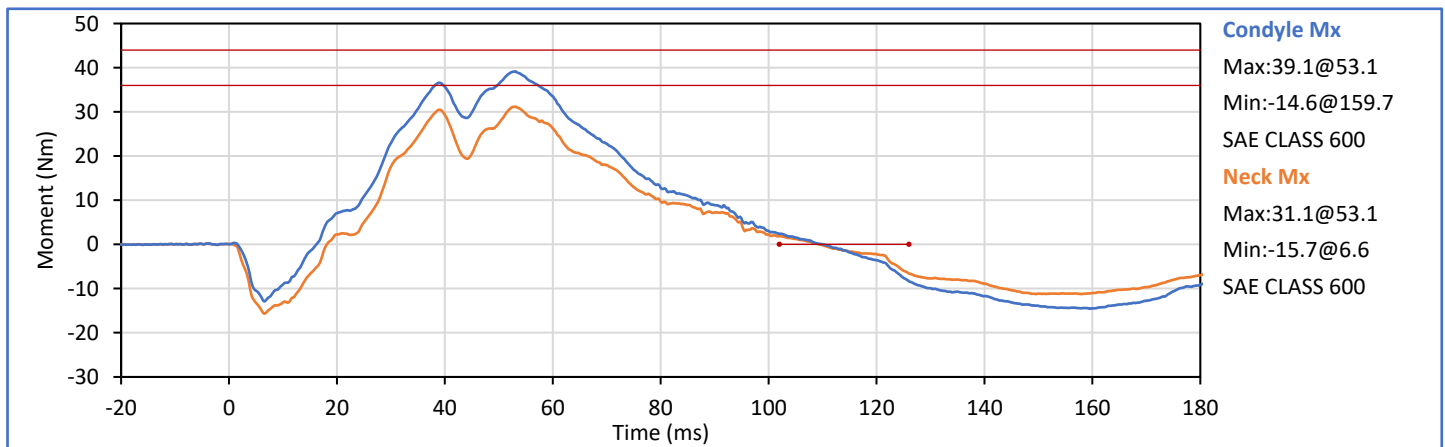
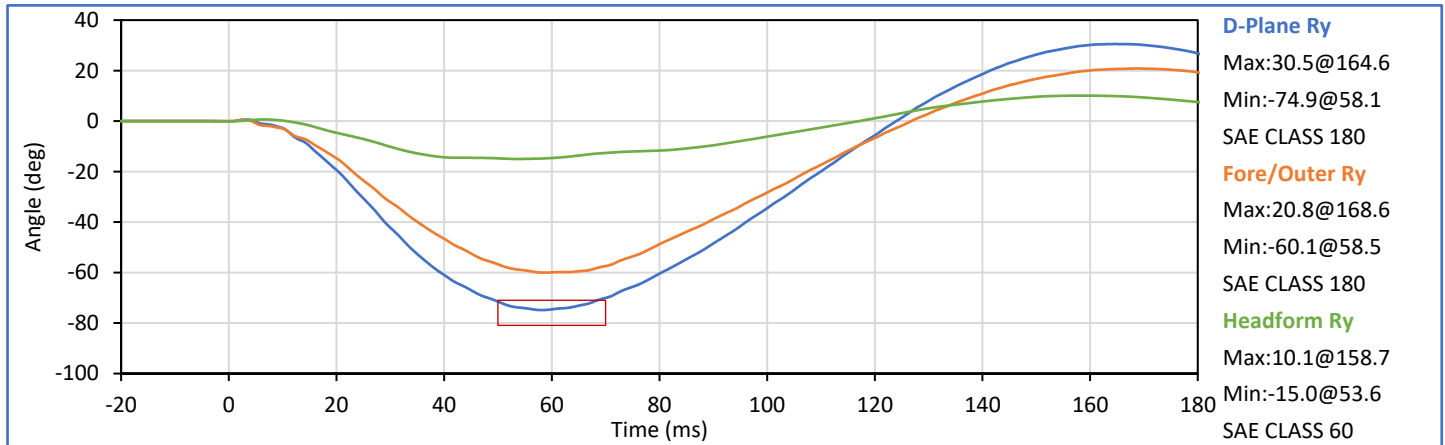
G. Fuentes

G. Fuentes

Approved By:

J. Hernandez

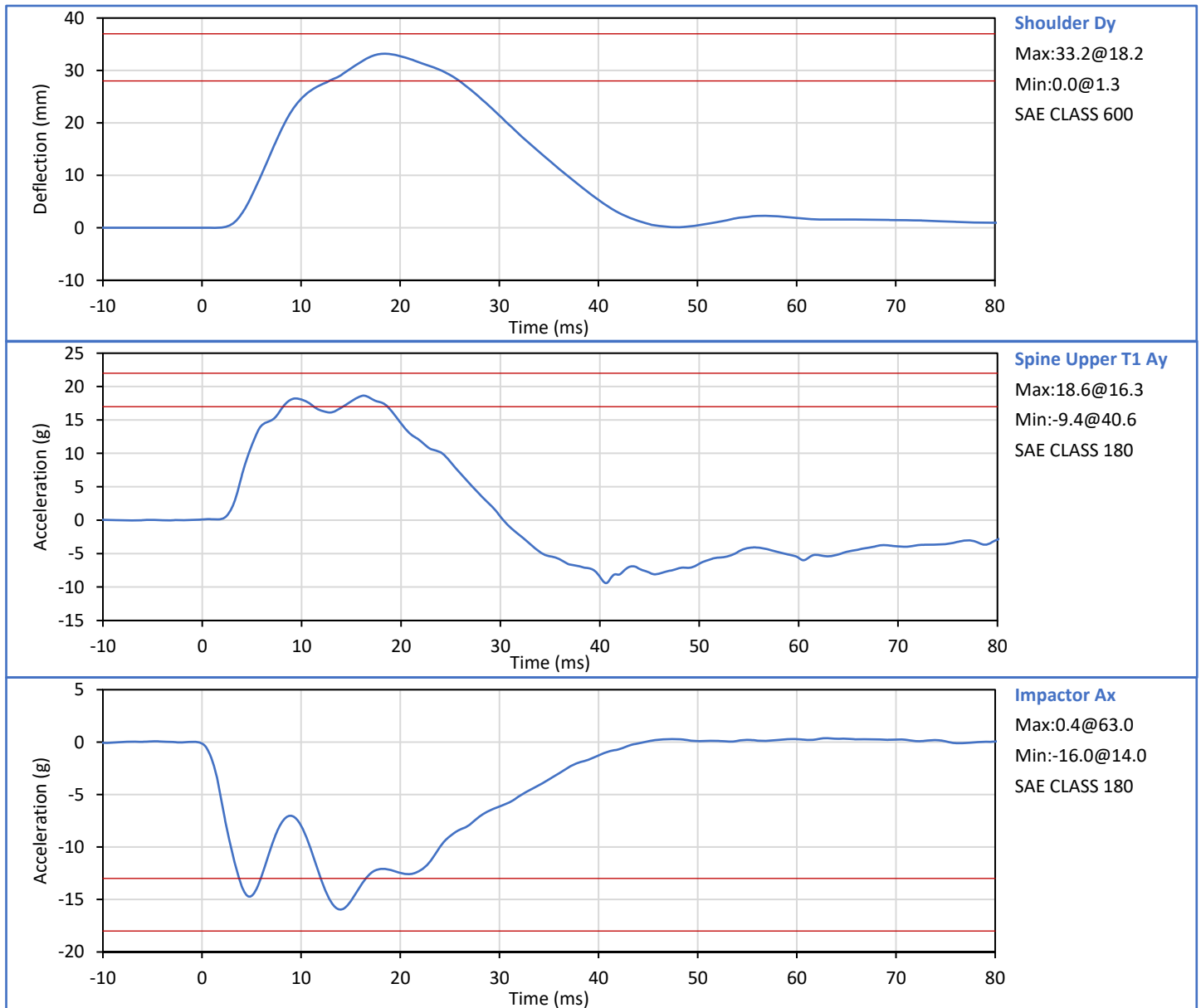
J. Hernandez



ATD Serial No.: 308

Test Date: 2024-08-06

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.7	Pass
Laboratory Relative Humidity	%	10	70	44	Pass
Impactor Velocity	m/s	4.20	4.40	4.34	Pass
Peak Shoulder Dy	mm	28.0	37.0	33.2	Pass
Peak Upper Spine (T1) Ay	g	17.0	22.0	18.6	Pass
Peak Impactor Ax	g	-18.0	-13.0	-16.0	Pass
Overall Test Results					Pass



Technician:

G. Fuentes

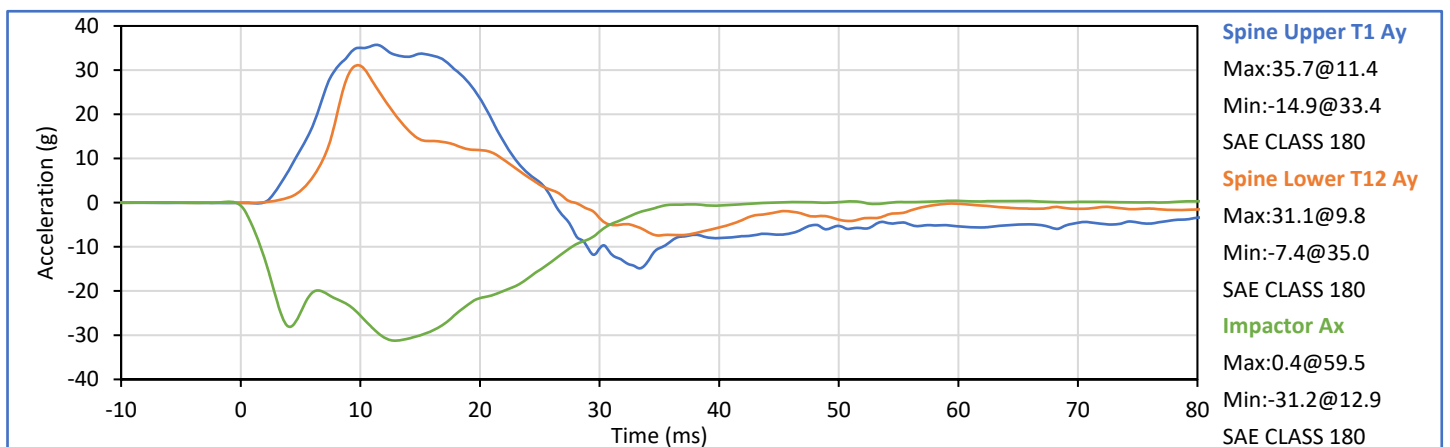
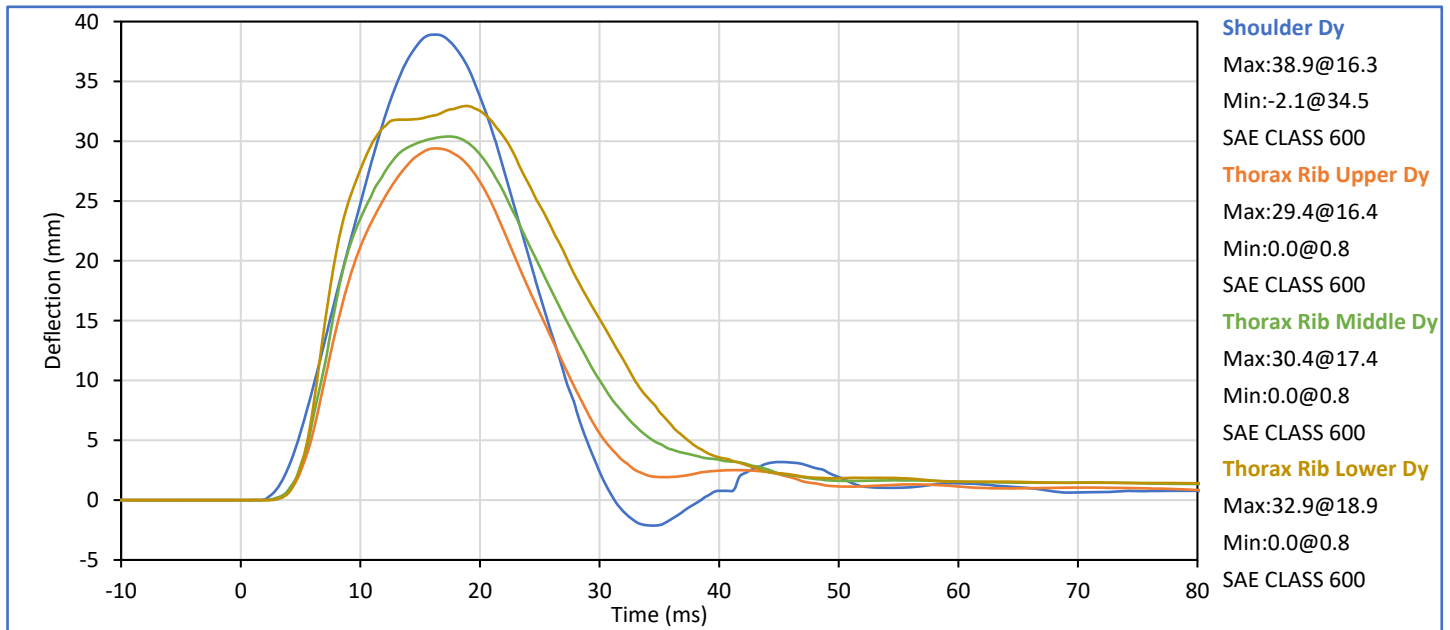
G. Fuentes

Approved By:

J. Hernandez

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Relative Humidity	%	10	70	46	Pass
Impactor Velocity	m/s	6.60	6.80	6.79	Pass
Peak Shoulder Dy	mm	31.0	40.0	38.9	Pass
Peak Upper Rib Dy	mm	25.0	32.0	29.4	Pass
Peak Middle Rib Dy	mm	30.0	36.0	30.4	Pass
Peak Lower Rib Dy	mm	32.0	38.0	32.9	Pass
Peak Upper Spine (T1) Ay	g	34.0	43.0	35.7	Pass
Peak Lower Spine (T12) Ay	g	29.0	37.0	31.1	Pass
Peak Impactor Ax	g	-36.0	-30.0	-31.2	Pass
Overall Test Results				Pass	



Technician:

G. Fuentes

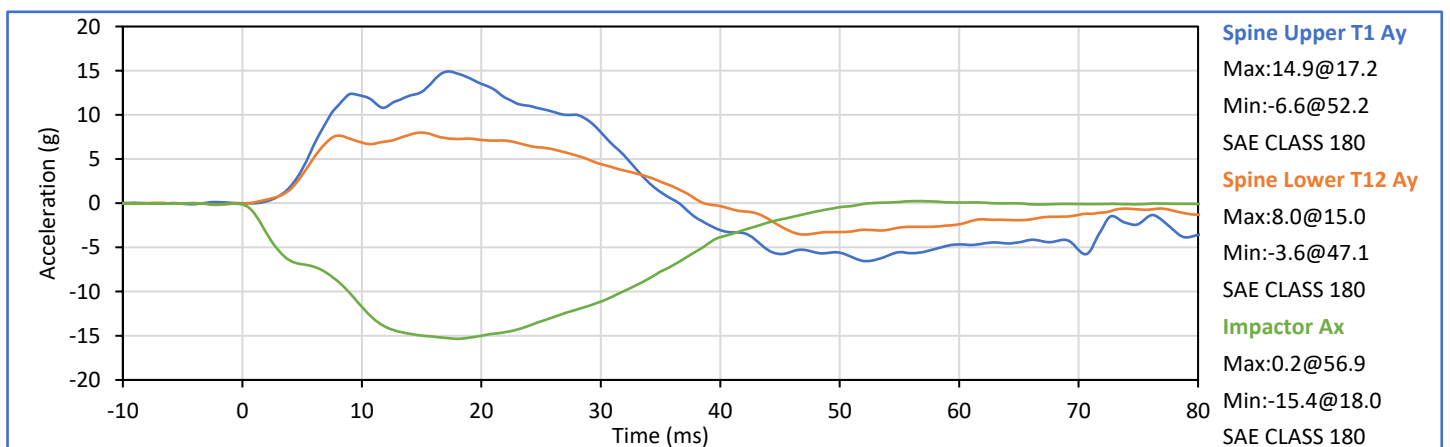
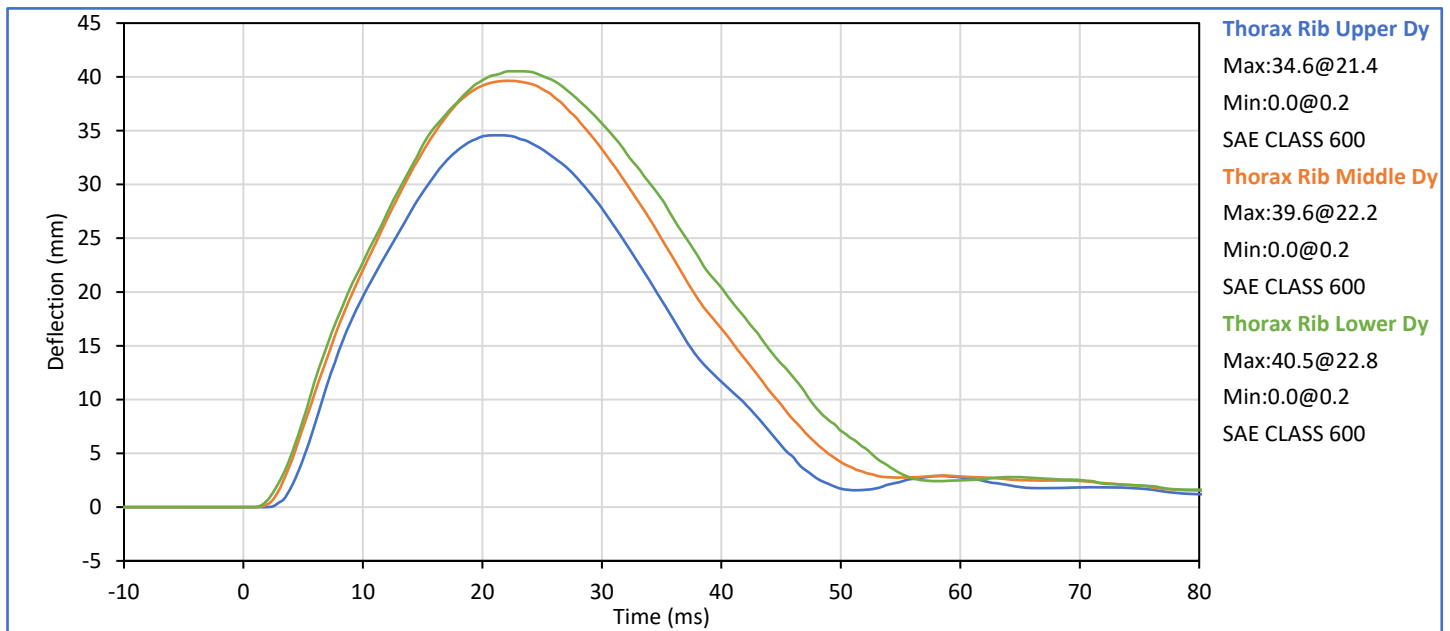
G. Fuentes

Approved By:

J. Hernandez

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Relative Humidity	%	10	70	47	Pass
Impactor Velocity	m/s	4.20	4.40	4.31	Pass
Peak Thorax Rib Upper Dy	mm	32.0	40.0	34.6	Pass
Peak Thorax Rib Middle Dy	mm	39.0	45.0	39.6	Pass
Peak Thorax Rib Lower Dy	mm	35.0	43.0	40.5	Pass
Peak Spine Upper T1 Ay	g	13.0	17.0	14.9	Pass
Peak Spine Lower T12 Ay	g	7.0	11.0	8.0	Pass
Peak Impactor Ax	g	-18.0	-14.0	-15.4	Pass
Overall Test Results				Pass	Pass



Technician:

G. Fuentes

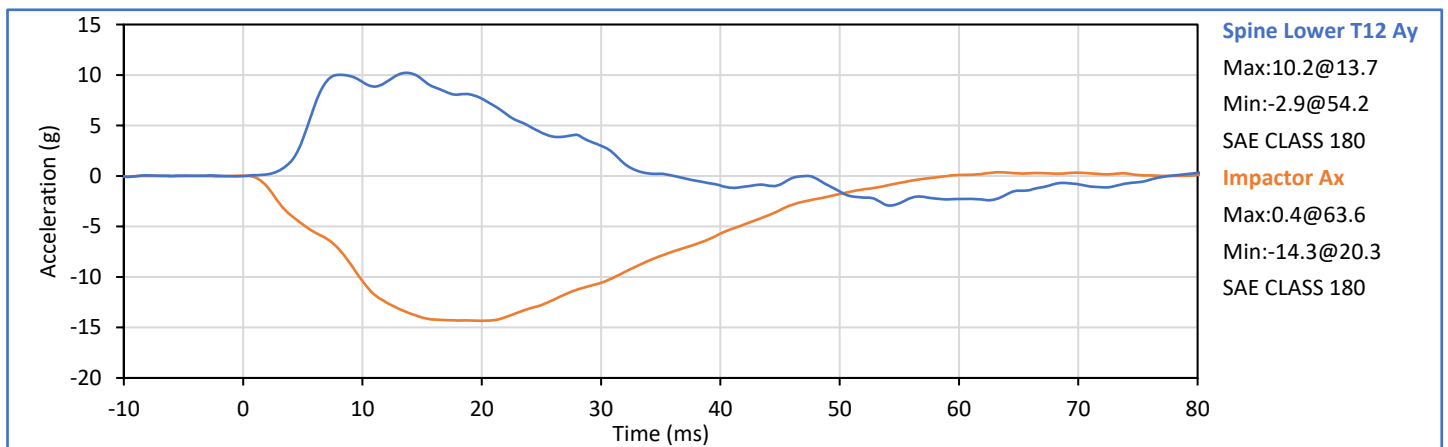
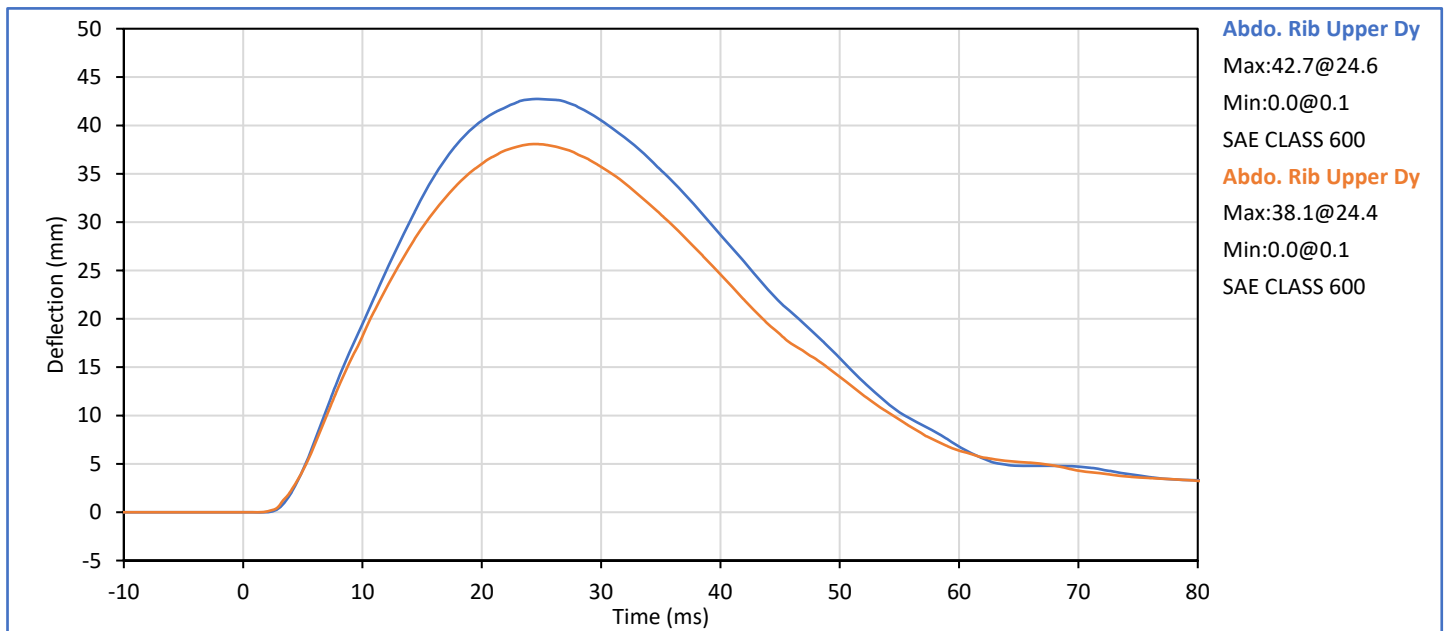
G. Fuentes

Approved By:

J. Hernandez

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Relative Humidity	%	10	70	47	Pass
Impactor Velocity	m/s	4.20	4.40	4.33	Pass
Peak Upper Abdomen Rib Dy	mm	36.0	47.0	42.7	Pass
Peak Lower Abdomen Rib Dy	mm	33.0	44.0	38.1	Pass
Peak Lower Spine T12 Ay	mm	9.0	14.0	10.2	Pass
Peak Impactor Ax	g	-16.0	-12.0	-14.3	Pass
Overall Test Results					Pass



Technician:

G. Fuentes

G. Fuentes

Approved By:

J. Hernandez

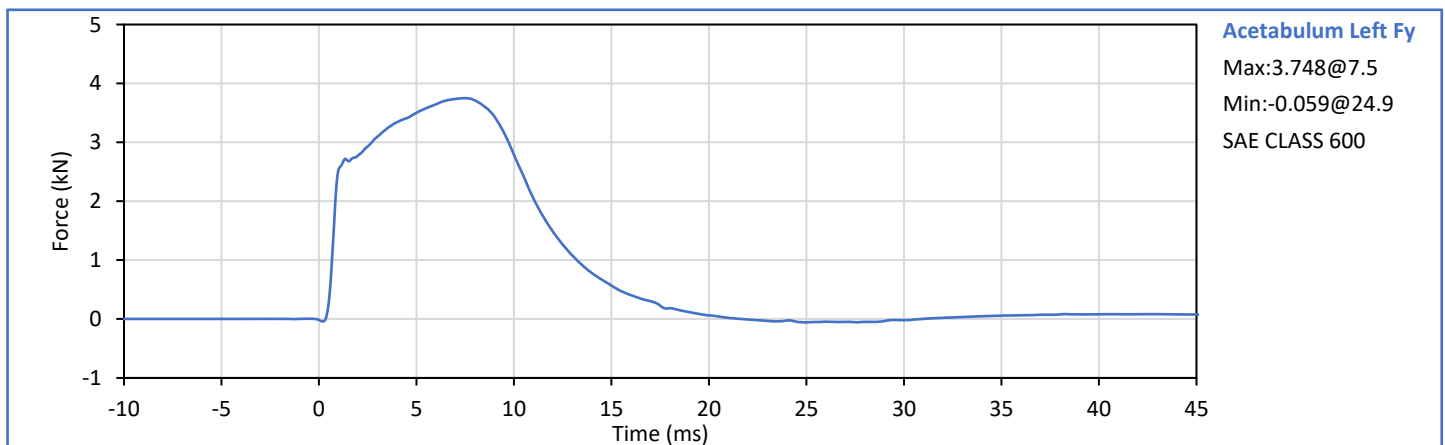
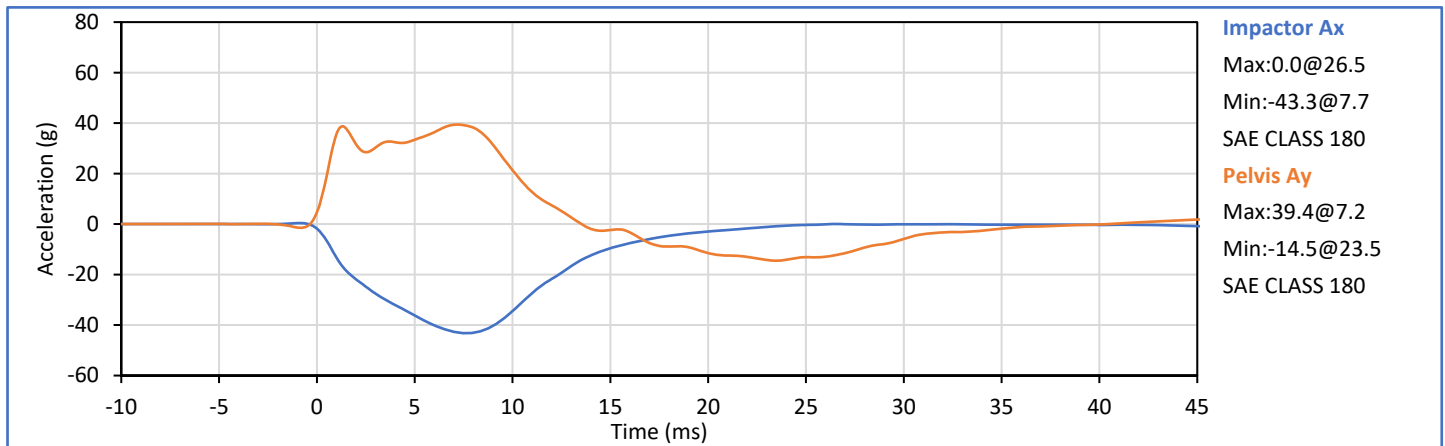
J. Hernandez

ATD Serial No.: 308

Test Date: 2024-08-06

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.6	Pass
Laboratory Relative Humidity	%	10	70	47	Pass
Impactor Velocity	m/s	6.60	6.80	6.76	Pass
Peak Acetabulum Fy	kN	3.60	4.30	3.75	Pass
Pelvis Ay after 6ms	g	34.0	42.0	39.4	Pass
Peak Impactor Ax	g	-47.0	-38.0	-43.3	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 14832



Technician:

G. Fuentes

G. Fuentes

Approved By:

J. Hernandez

J. Hernandez

ATD Serial No.: 308

**SID-IIs Small Side Impact ATD
Pelvis Acetabulum Impact**

Test Date: 2024-08-06

Pelvis Plug S/N: 14832



SID-IIs Pelvis Plug Certification Test

Plug S/N 14832

Test Number 16805

Report Number 16851

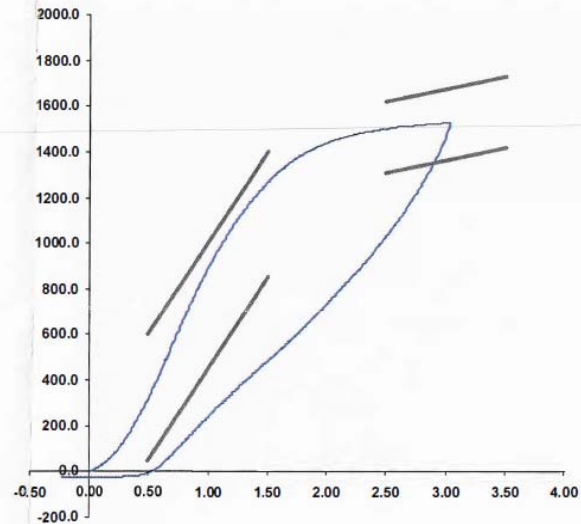
Test Date 12/29/2020 1:55:40 PM

	Test Results	Spec. Min	Spec. Max
Force @ 0.5 mm (N)	318.69	50.00	600.00
Force @ 1.5 mm (N)	1,269.55	850.00	1,400.00
Force @ 2.5 mm (N)	1,499.09	1,306.00	1,618.00
Force @ 3.0 mm (N)	1,526.83	1,361.00	1,673.00

Testing Machine STM-20 5965542
Load Cell S/N (FI360947), Units (LBS) 1000
Preload Value (-N) 22.24
Crosshead Speed (mm / min) or Rate 12.7
Extension or Position Measured by XHD_100 (XHD100)

Notes:

Force (-N) vs Extension (-mm)



Operator

Part Number 180-4450

Template No 107 29-Dec-20
SACO Research

By: [Signature] Date: 12/29/2020

SACO Research 41735 Elm St, #401 Murrieta, CA 92562 Tel 310-694-2082 FAX

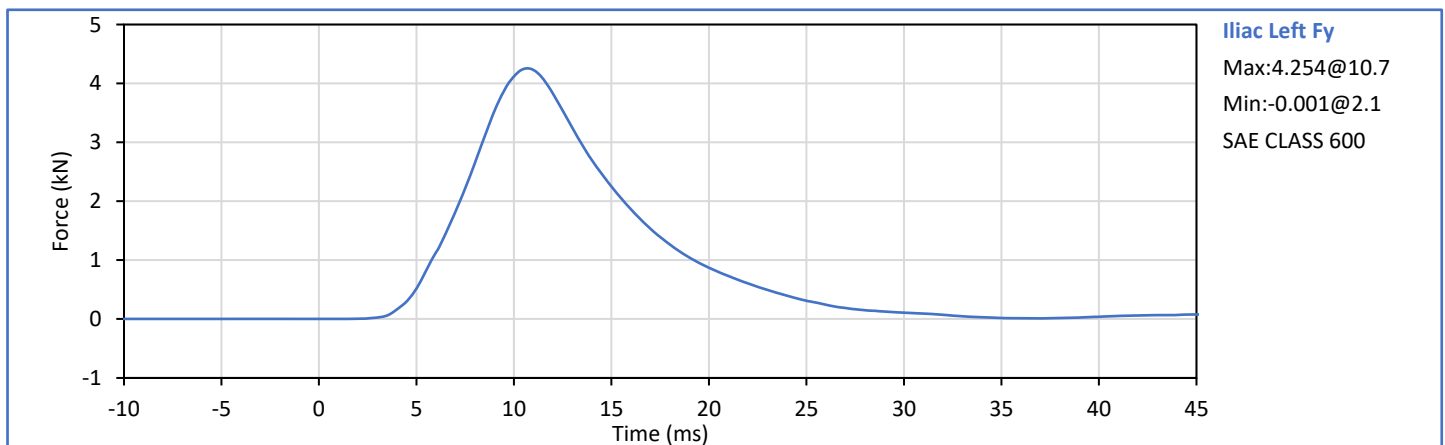
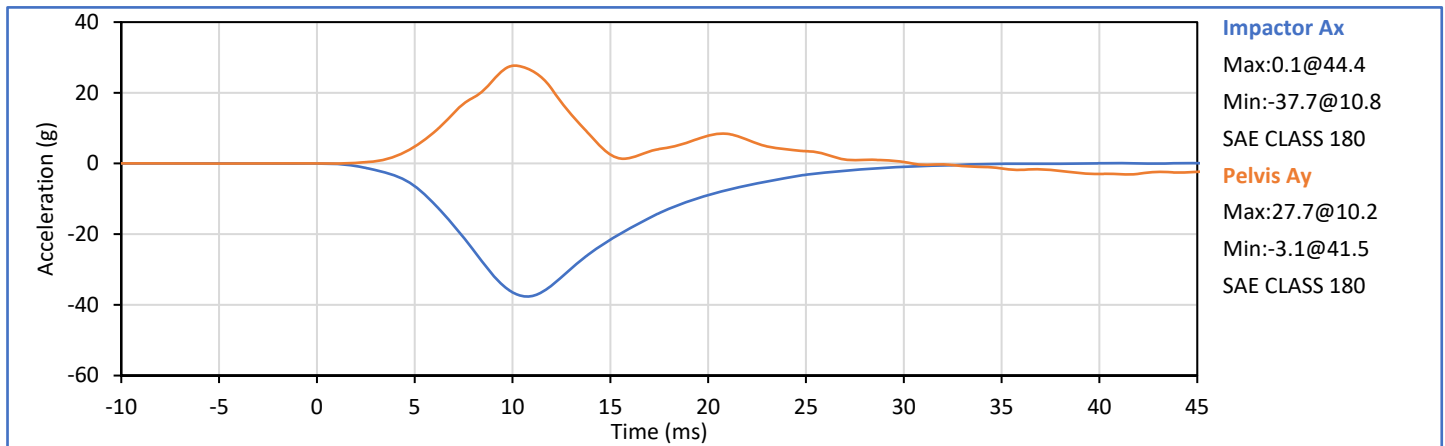
ATD Serial No.: 308

Test Date: 2024-08-06

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Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Relative Humidity	%	10	70	51	Pass
Impactor Velocity	m/s	4.20	4.40	4.32	Pass
Peak Iliac Fy	kN	4.10	5.10	4.25	Pass
Peak Pelvis Ay	g	28.0	39.0	34.7	Pass
Peak Impactor Ax	g	-45.0	-36.0	-37.7	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 12228 *

* Plug is not impacted and remains certified



Technician:

G. Fuentes

G. Fuentes

Approved By:

J. Hernandez

J. Hernandez

APPENDIX C
Post-Test ATD Qualification and Performance Verification
SID-IIs Small Side Impact ATD, Left Side Configuration
S/N: 308

ATD Serial No.: 308

Test Date: 2024-09-12

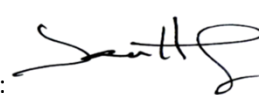
Tested Parameter	Units	Spec Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Relative Humidity	%	10	70	50	Pass
A - Sitting Height	mm	772	788	779	Pass
B - Shoulder Pivot Height	mm	437	453	450	Pass
C - Hpoint Height	mm	79	89	85	Pass
D - H Point From Seatback	mm	141	151	146	Pass
E - Shoulder Pivot From Backline	mm	97	107	104	Pass
F - Thigh Clearance	mm	119	135	123	Pass
G - Head Breadth	mm	140	148	143	Pass
H - Head Back From Backline	mm	40	46	42	Pass
I - Head Depth	mm	178	188	185	Pass
J - Head Circumference	mm	541	551	549	Pass
K - Buttock To Knee Length	mm	514	540	531	Pass
L - Popliteal Height	mm	343	369	353	Pass
K - Knee Pivot To Floor Height	mm	392	409	401	Pass
N - Buttock Popliteal Length	mm	416	442	423	Pass
O - Chest Depth W/O Jacket	mm	195	211	206	Pass
P - Foot Length	mm	216	232	227	Pass
Q - Hip Breadth (W/Pelvic Plugs)	mm	313	323	316	Pass
R - Arm Length	mm	249	259	256	Pass
S - Knee Joint To Seatback	mm	477	493	489	Pass
V - Shoulder Width	mm	341	357	351	Pass
W - Foot Width	mm	78	94	86	Pass
Y - Chest Circumference W/Jacket	mm	851	881	867	Pass
Z - Waist Circumference	mm	761	791	777	Pass
				Overall Test Results	Pass

Technician



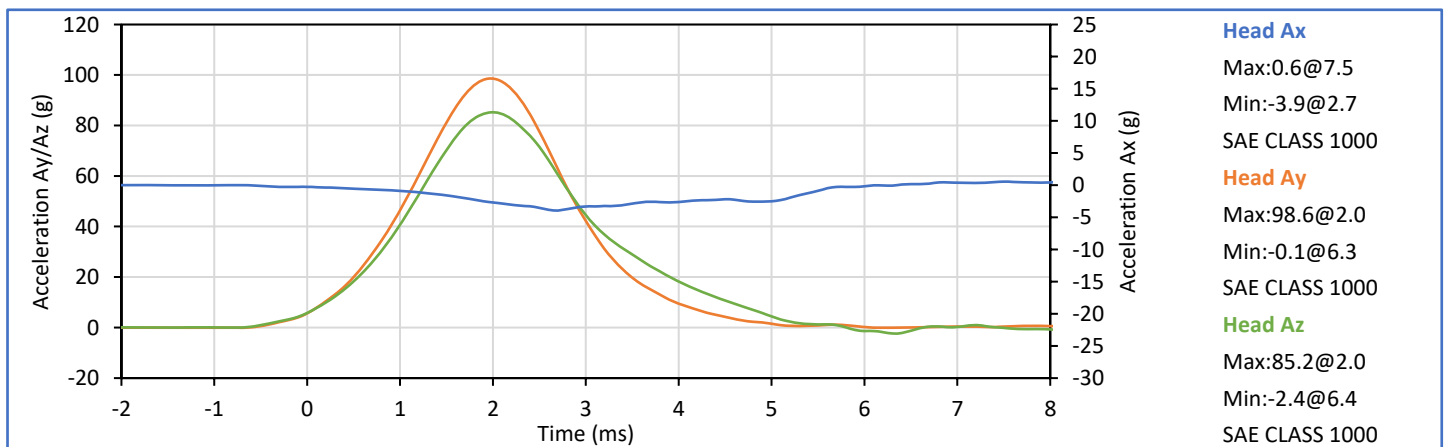
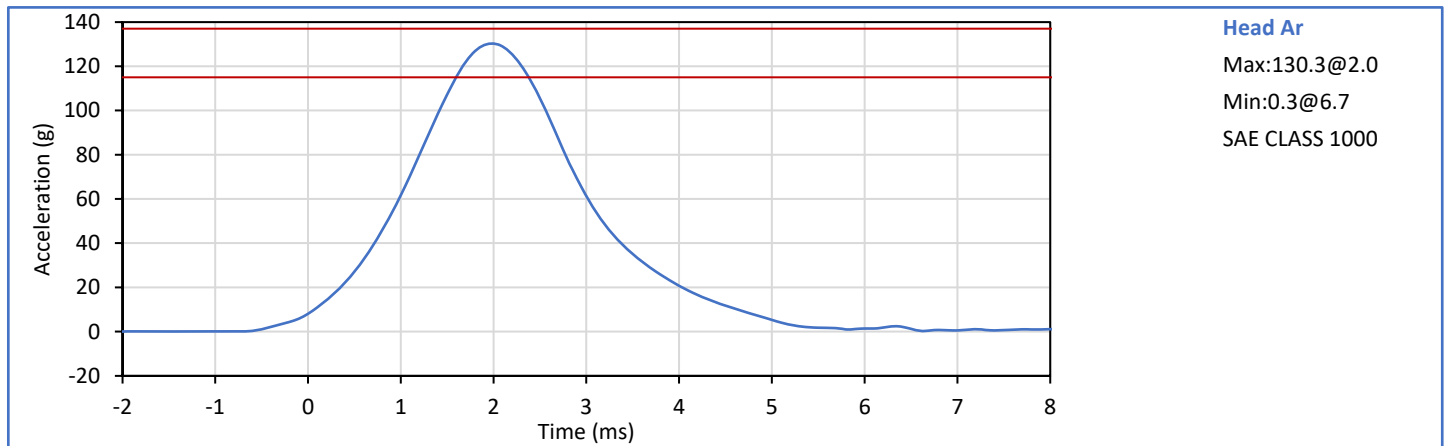
S. Chand

Approved By:



J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	18.9	25.6	21.2	Pass
Laboratory Relative Humidity	%	10	70	40	Pass
Peak Resultant Acceleration	g	115.0	137.0	130.3	Pass
Peak Head Ax	g	-15.0	15.0	-3.9	Pass
Oscillations After Main Pulse	%	0.0	15.0	1.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes		Yes	Pass
			Overall Test Results	Pass	



Technician:

S. Chand

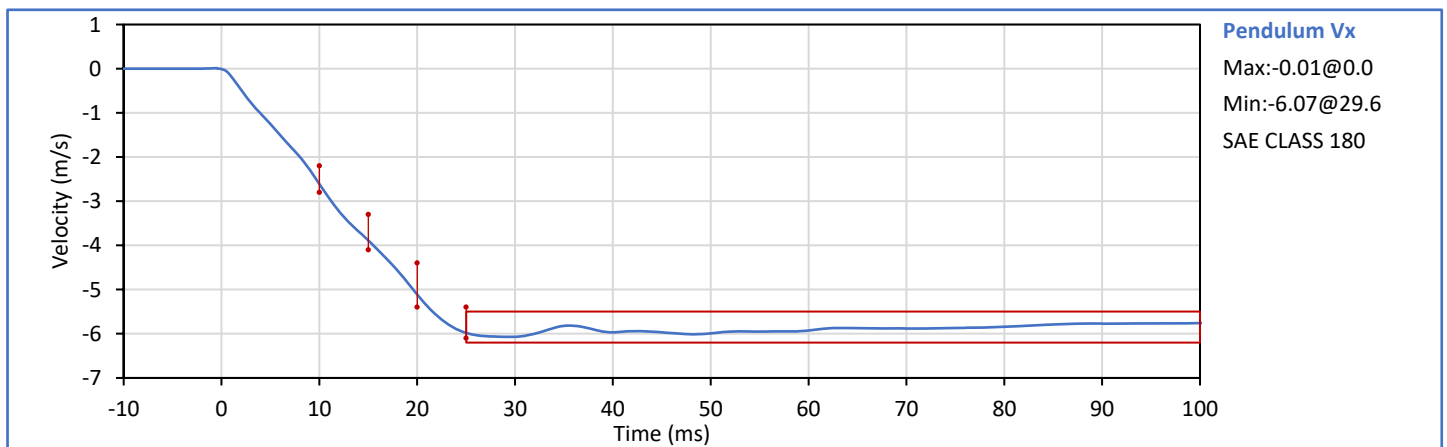
S. Chand

Approved By:

J. Hernandez

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.3	Pass
Laboratory Relative Humidity	%	10	70	41	Pass
Pendulum Velocity	m/s	5.51	5.63	5.61	Pass
Pendulum Decel at 10 ms	m/s	-2.80	-2.20	-2.61	Pass
Pendulum Decel at 15 ms	m/s	-4.10	-3.30	-3.89	Pass
Pendulum Decel at 20 ms	m/s	-5.40	-4.40	-5.11	Pass
Pendulum Decel at 25 ms	m/s	-6.10	-5.40	-5.98	Pass
Pendulum Decel from 25-100 ms	m/s	-6.20	-5.50	-6.07/-5.76	Pass
Peak "D" Plane Rotation	deg	-81.0	-71.0	-79.8	Pass
Time of Peak "D" Plane Rotation	ms	50.0	70.0	59.3	Pass
Peak Occ. Condyle Moment	Nm	36.0	44.0	39.4	Pass
Time of Moment Decay to 0 Nm	ms	102.0	126.0	112.4	Pass
				Overall Test Results	Pass

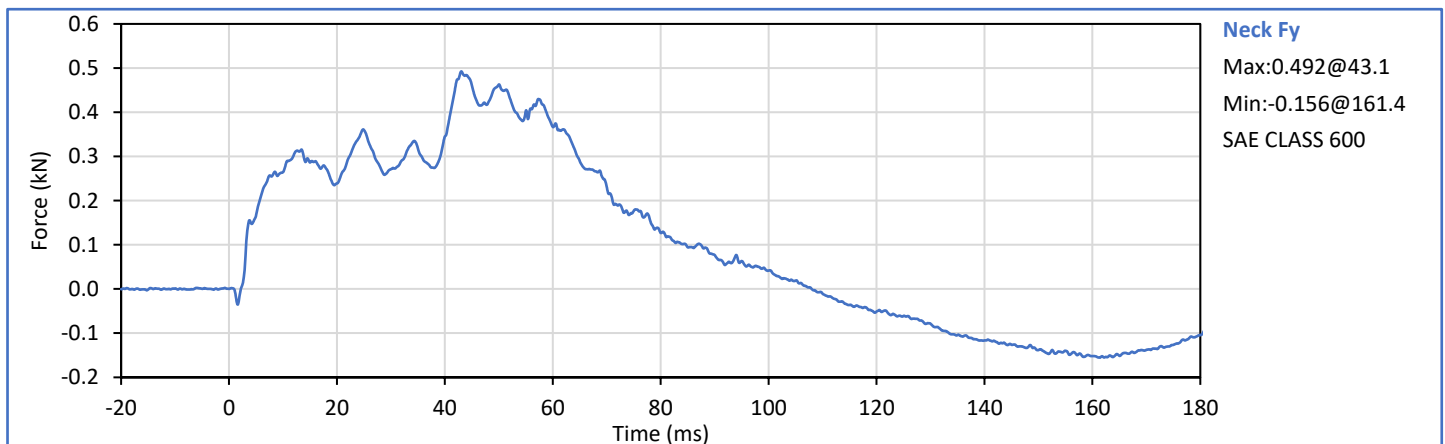
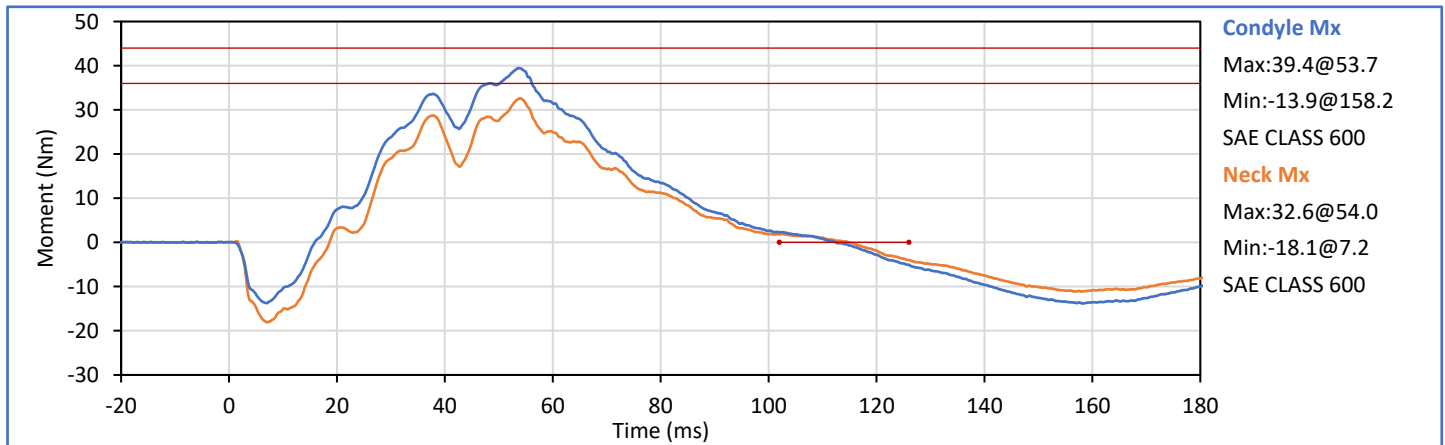
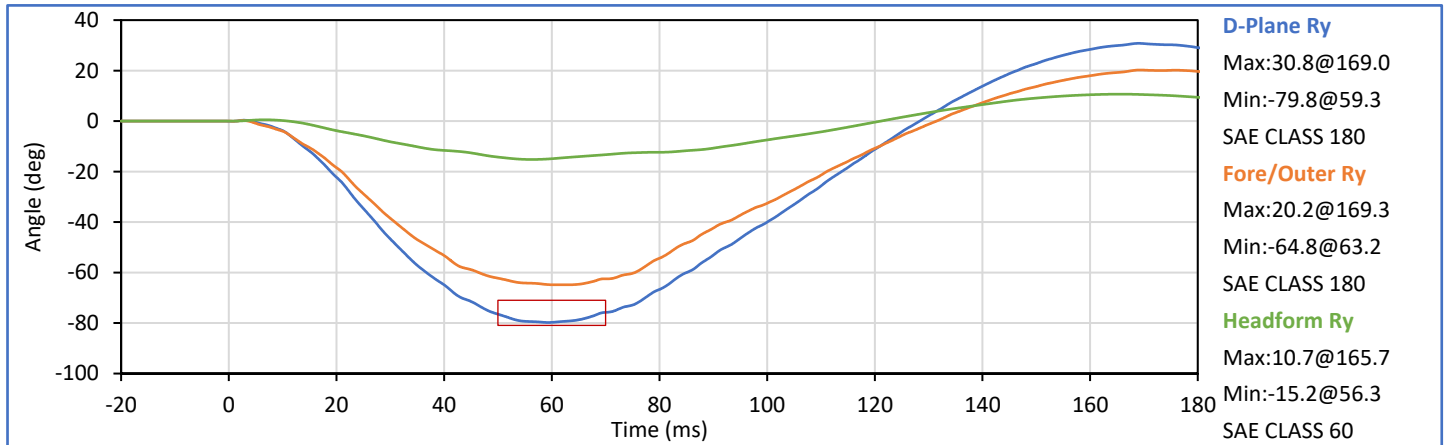


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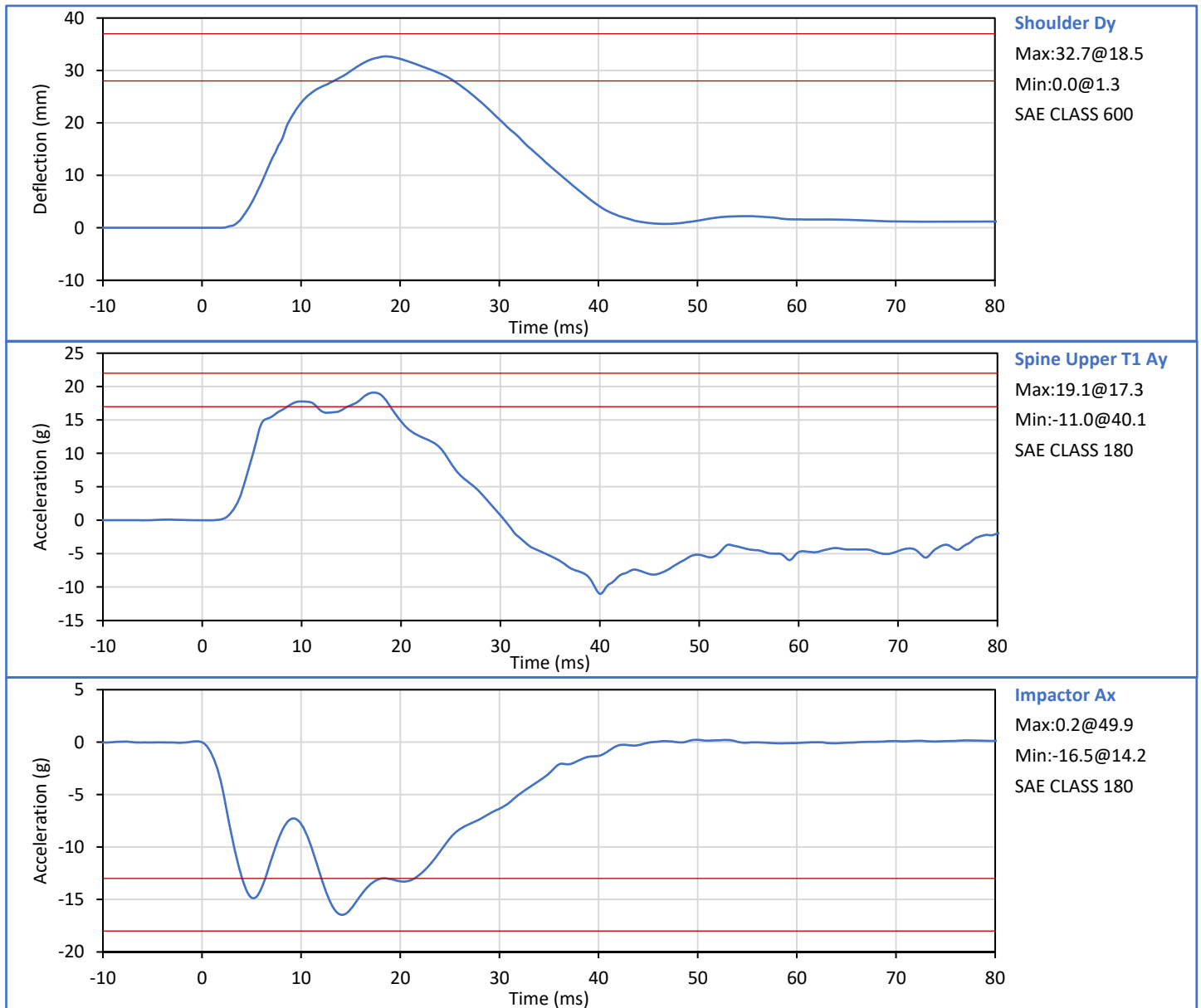
S. Chand

Approved By:

J. Hernandez



Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.7	Pass
Laboratory Relative Humidity	%	10	70	44	Pass
Impactor Velocity	m/s	4.20	4.40	4.32	Pass
Peak Shoulder Dy	mm	28.0	37.0	32.7	Pass
Peak Upper Spine (T1) Ay	g	17.0	22.0	19.1	Pass
Peak Impactor Ax	g	-18.0	-13.0	-16.5	Pass
Overall Test Results					Pass



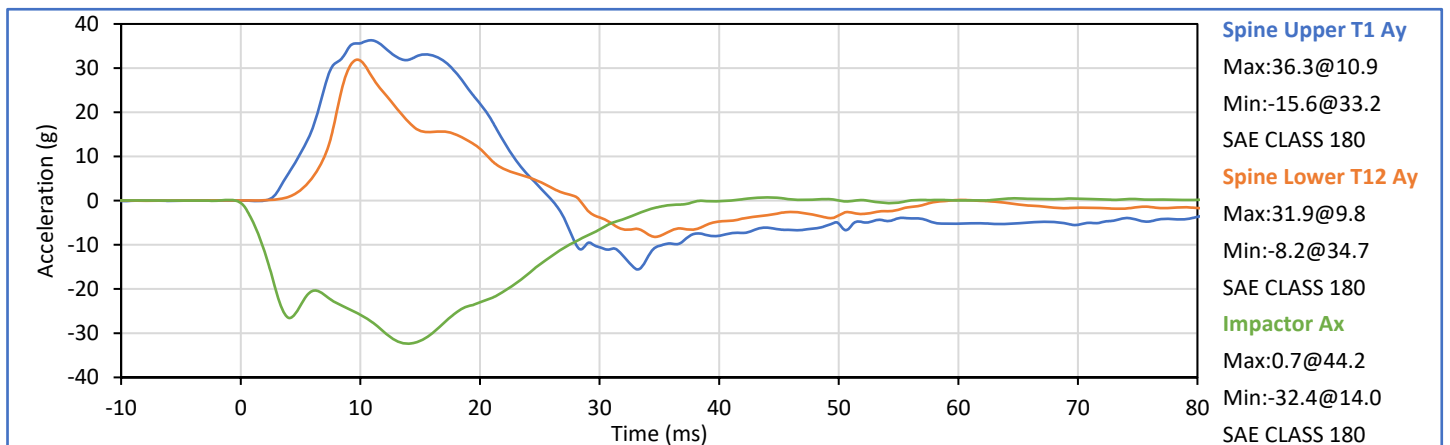
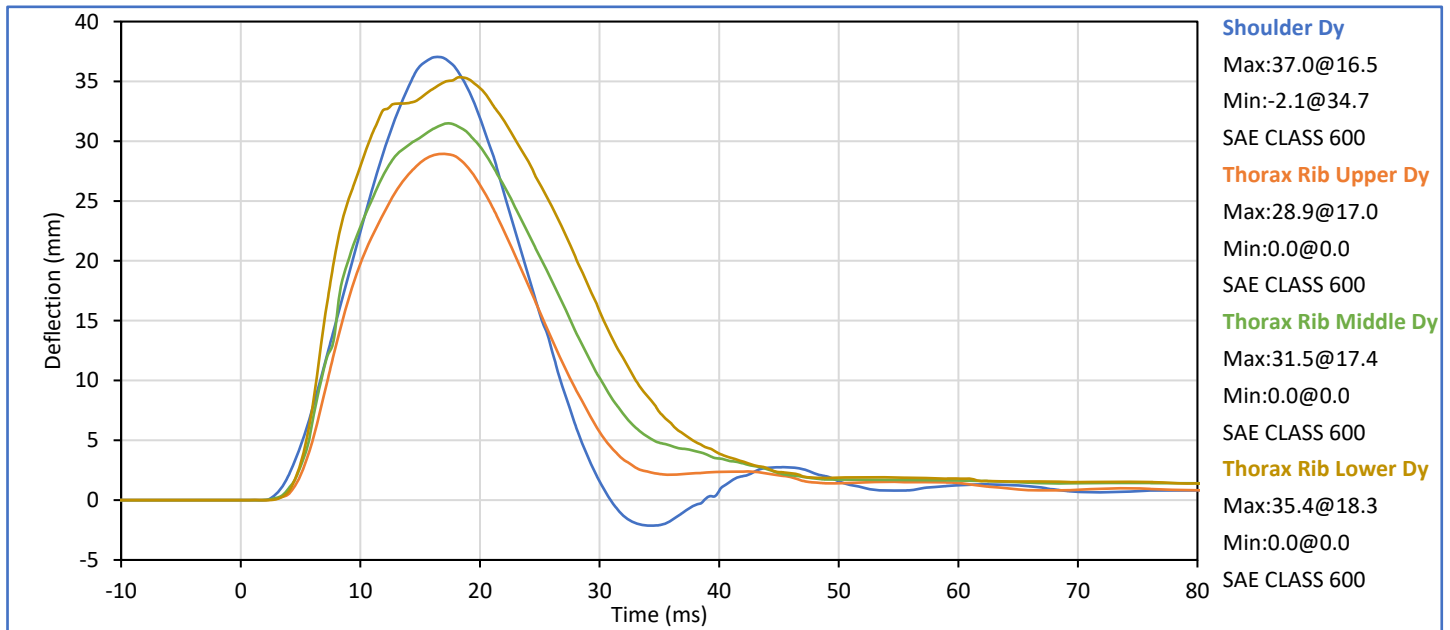
Technician:

S. Chand

Approved By:

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Relative Humidity	%	10	70	46	Pass
Impactor Velocity	m/s	6.60	6.80	6.77	Pass
Peak Shoulder Dy	mm	31.0	40.0	37.0	Pass
Peak Upper Rib Dy	mm	25.0	32.0	28.9	Pass
Peak Middle Rib Dy	mm	30.0	36.0	31.5	Pass
Peak Lower Rib Dy	mm	32.0	38.0	35.4	Pass
Peak Upper Spine (T1) Ay	g	34.0	43.0	36.3	Pass
Peak Lower Spine (T12) Ay	g	29.0	37.0	31.9	Pass
Peak Impactor Ax	g	-36.0	-30.0	-32.4	Pass
Overall Test Results				Pass	



Technician:

S. Chand

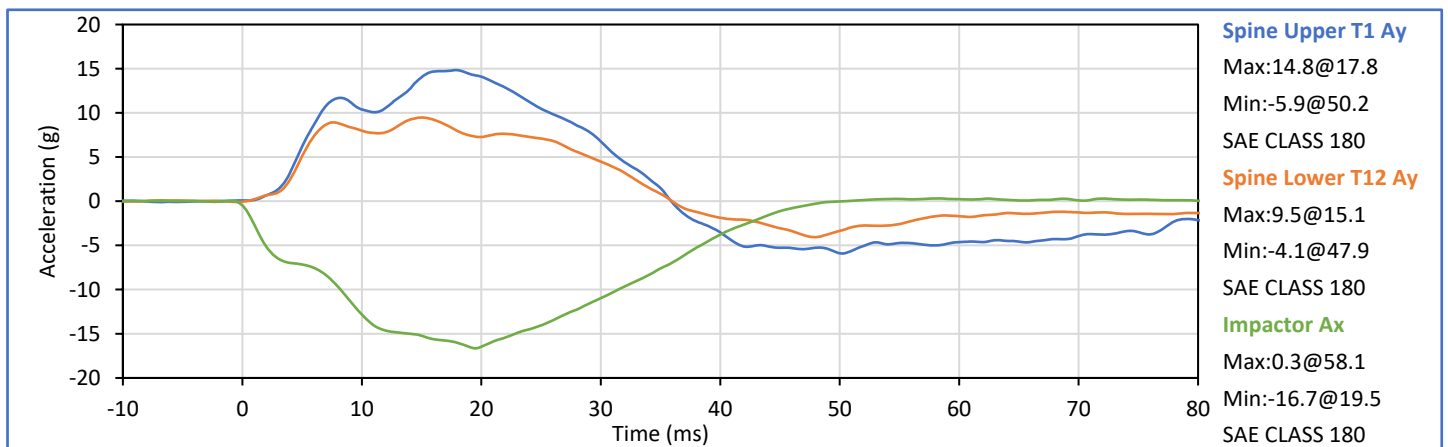
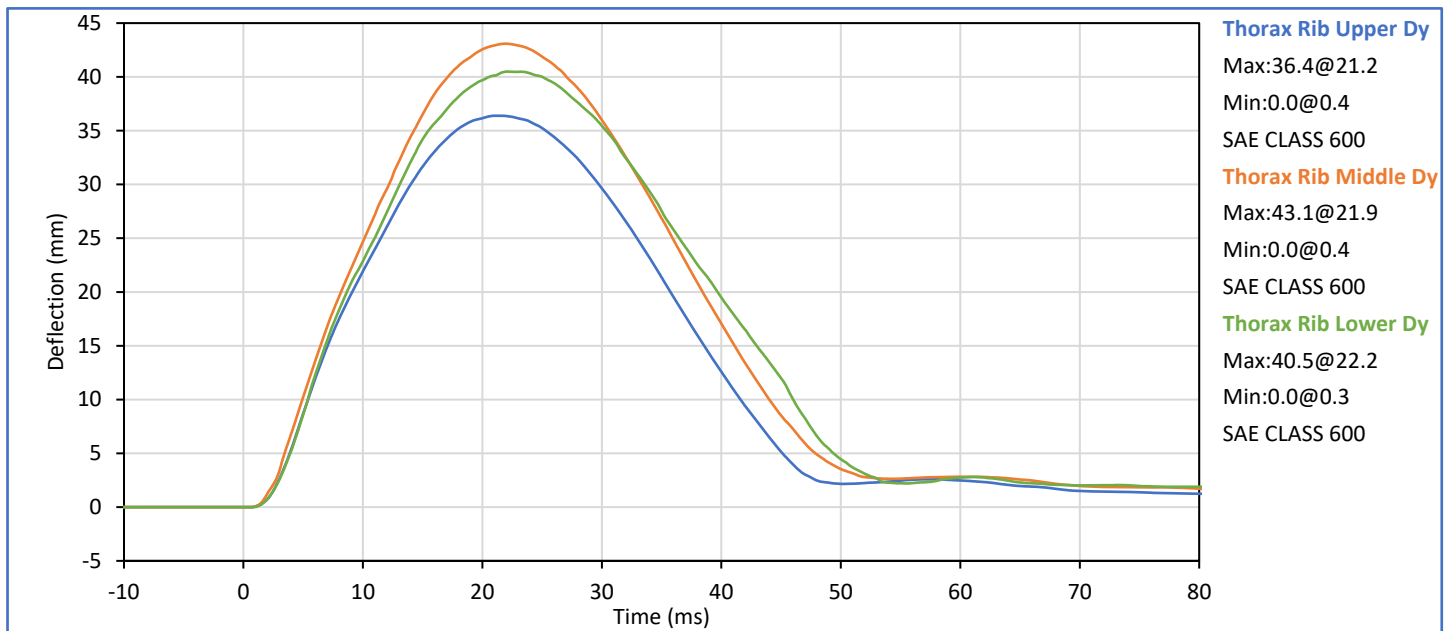
S. Chand

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J. Hernandez

J. Hernandez

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Relative Humidity	%	10	70	42	Pass
Impactor Velocity	m/s	4.20	4.40	4.32	Pass
Peak Thorax Rib Upper Dy	mm	32.0	40.0	36.4	Pass
Peak Thorax Rib Middle Dy	mm	39.0	45.0	43.1	Pass
Peak Thorax Rib Lower Dy	mm	35.0	43.0	40.5	Pass
Peak Spine Upper T1 Ay	g	13.0	17.0	14.8	Pass
Peak Spine Lower T12 Ay	g	7.0	11.0	9.5	Pass
Peak Impactor Ax	g	-18.0	-14.0	-16.7	Pass
Overall Test Results					Pass



Technician:

S. Chand

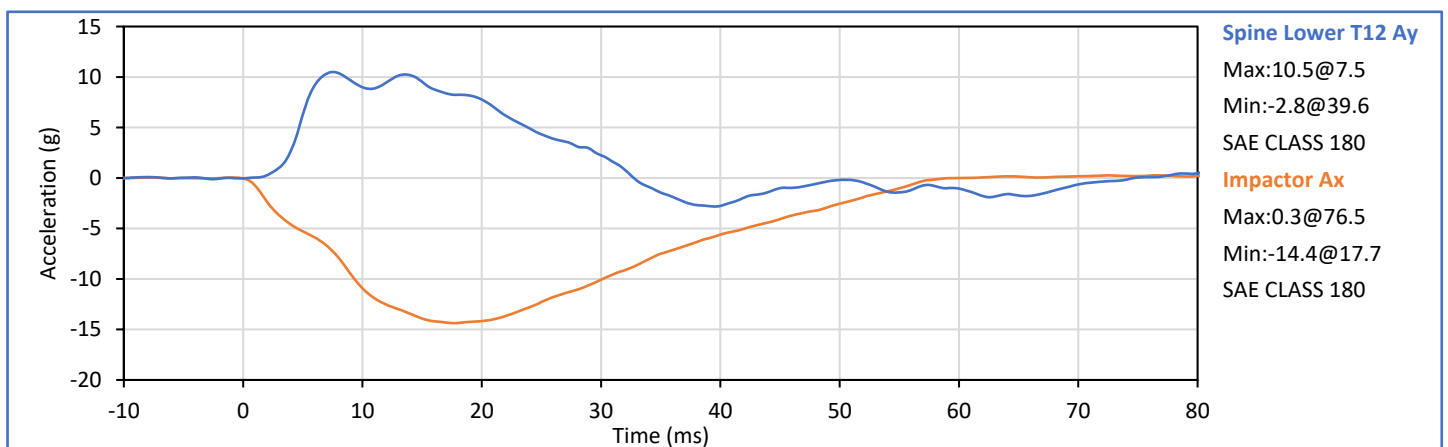
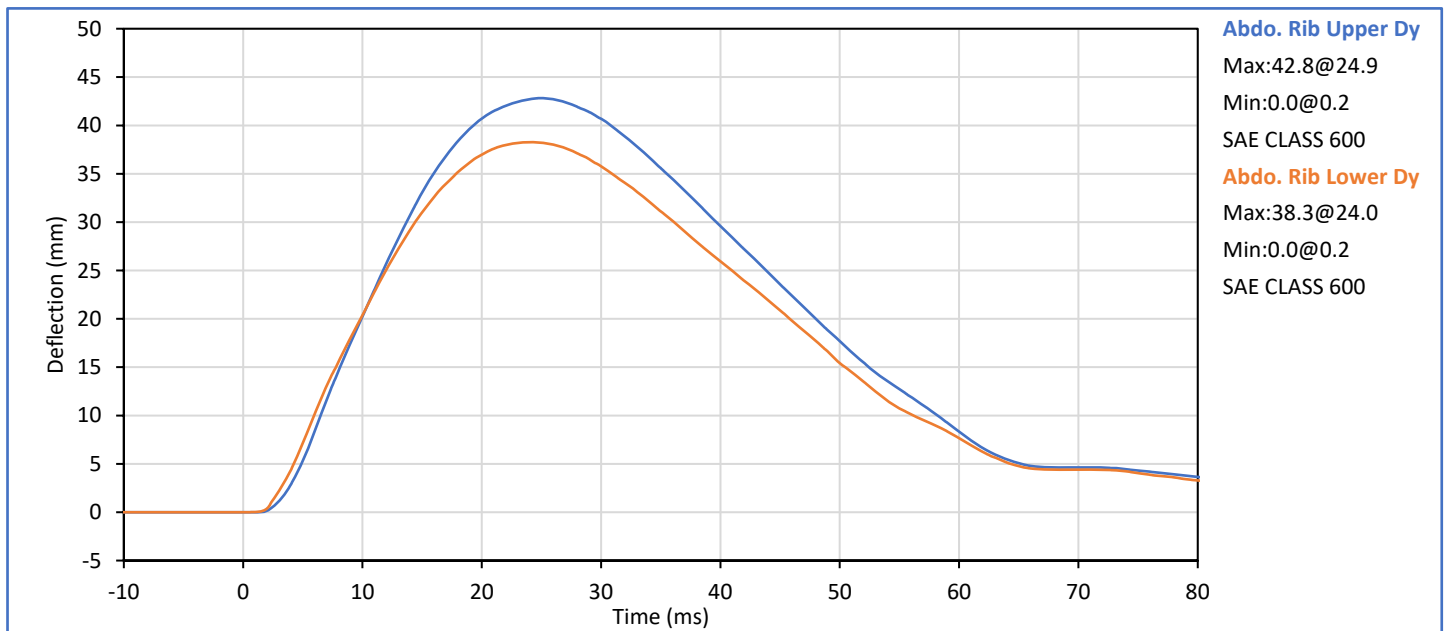
S. Chand

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J. Hernandez

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Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Relative Humidity	%	10	70	47	Pass
Impactor Velocity	m/s	4.20	4.40	4.33	Pass
Peak Upper Abdomen Rib Dy	mm	36.0	47.0	42.8	Pass
Peak Lower Abdomen Rib Dy	mm	33.0	44.0	38.3	Pass
Peak Lower Spine T12 Ay	mm	9.0	14.0	10.5	Pass
Peak Impactor Ax	g	-16.0	-12.0	-14.4	Pass
Overall Test Results					Pass



Technician:

S. Chand

S. Chand

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J. Hernandez

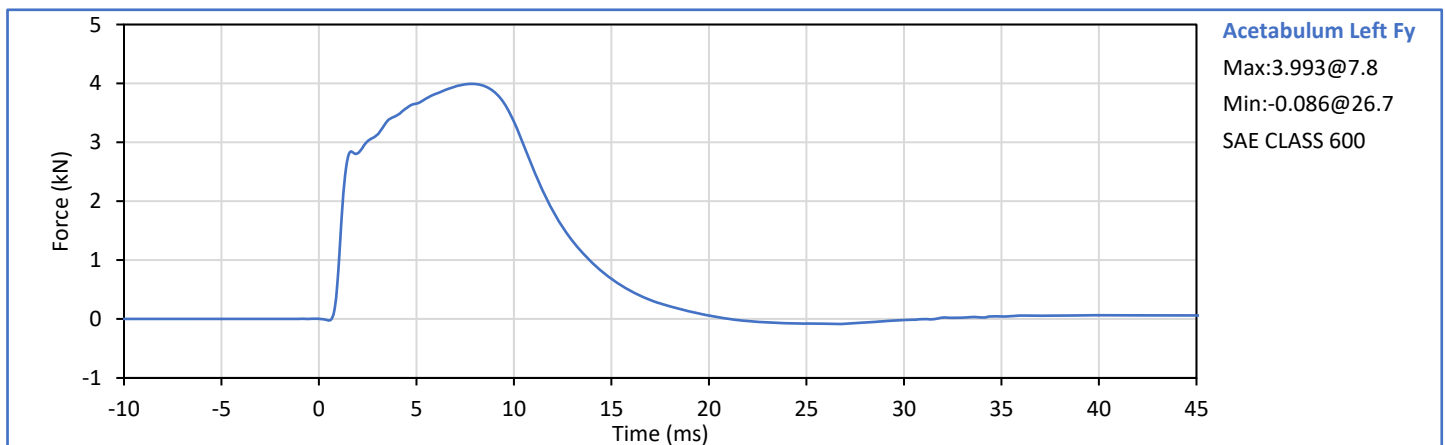
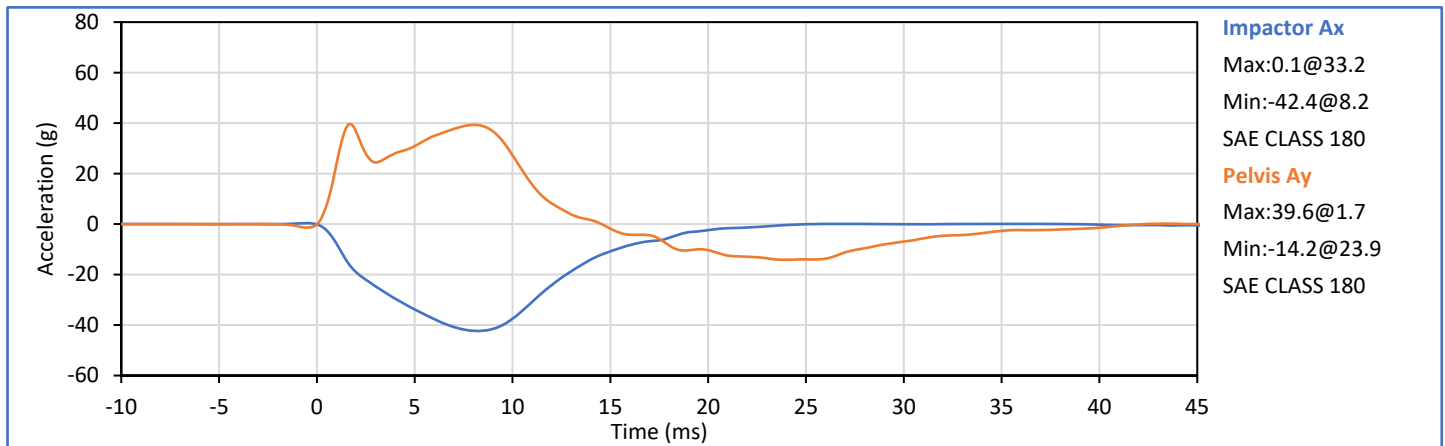
J. Hernandez

ATD Serial No.: 308

Test Date: 2024-09-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.6	Pass
Laboratory Relative Humidity	%	10	70	47	Pass
Impactor Velocity	m/s	6.60	6.80	6.72	Pass
Peak Acetabulum Fy	kN	3.60	4.30	3.99	Pass
Pelvis Ay after 6ms	g	34.0	42.0	39.3	Pass
Peak Impactor Ax	g	-47.0	-38.0	-42.4	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 14816



Technician:

S. Chand

S. Chand

Approved By:

J. Hernandez

J. Hernandez

ATD Serial No.: 308

Test Date: 2024-09-13

Pelvis Plug S/N: 14816



SID-IIs Pelvis Plug Certification Test

Plug S/N 14816

Test Number 16789

Report Number 16835

Test Date 12/29/2020 1:11:33 PM

	Test Results	Spec Min	Spec Max
Force @ 0.5 mm (N)	273.36	50.00	600.00
Force @ 1.5 mm (N)	1,229.84	850.00	1,400.00
Force @ 2.5 mm (N)	1,471.66	1,306.00	1,618.00
Force @ 3.0 mm (N)	1,508.97	1,361.00	1,673.00

Testing Machine STM-20 5965542

Load Cell S/N (F1360947), Units (LBS) 1000

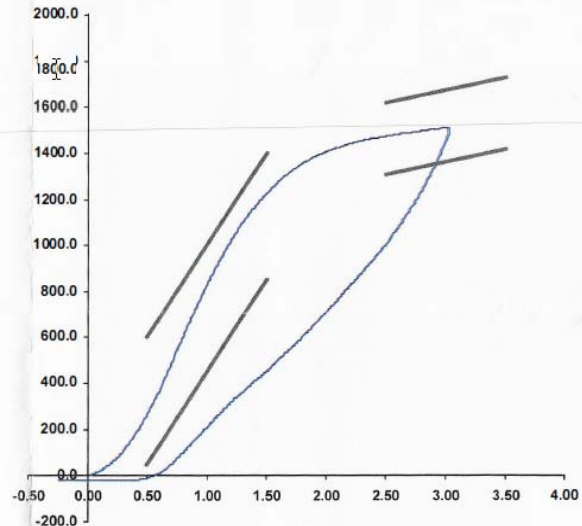
Preload Value (-N) 22.24

Crosshead Speed (mm / min) or Rate 12.7

Extension or Position Measured by XHD_100 (XHD100)

Notes:

Force (-N) vs Extension (-mm)



Operator

Part Number 180-4450

Template No 107 29-Dec-20

SACO Research

By: DC Date: 12/29/20

SACO Research 41735 Elm St, #401 Murrieta, CA 92562 Tel 310-694-2082 FAX

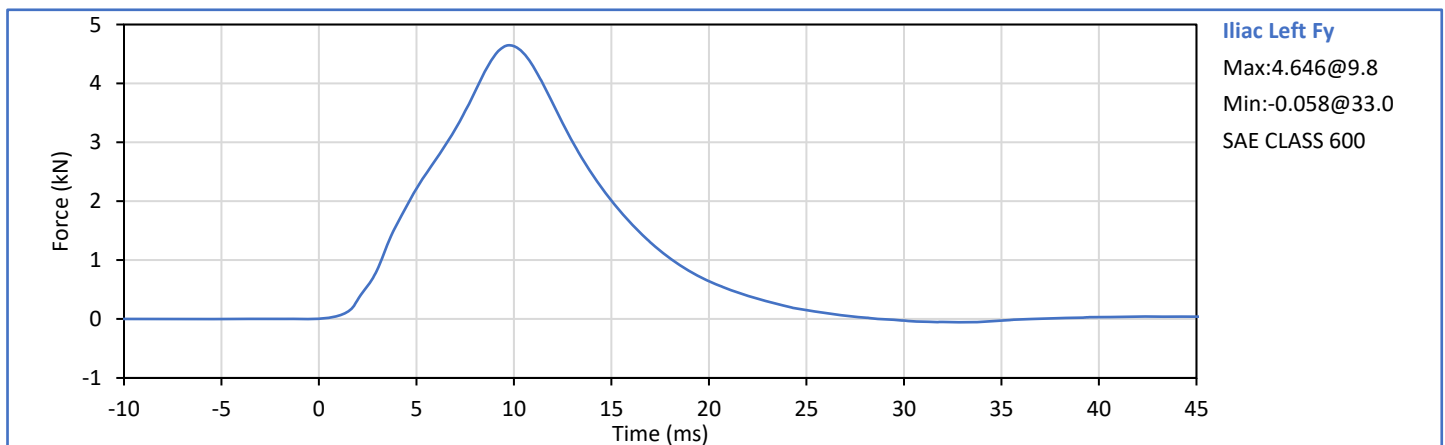
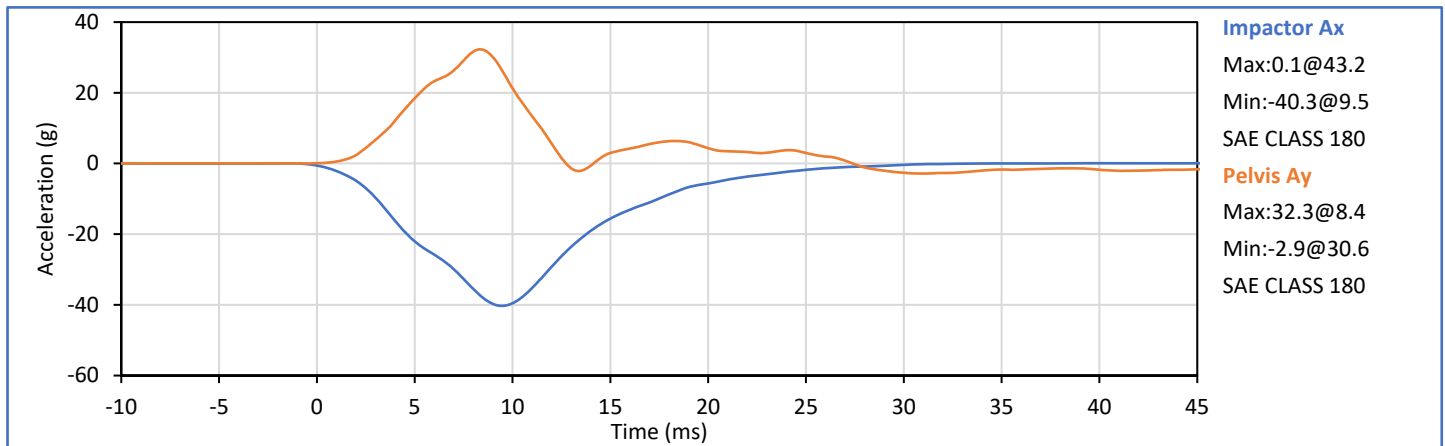
ATD Serial No.: 308

Test Date: 2024-09-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Relative Humidity	%	10	70	40	Pass
Impactor Velocity	m/s	4.20	4.40	4.34	Pass
Peak Iliac Fy	kN	4.10	5.10	4.65	Pass
Peak Pelvis Ay	g	28.0	39.0	34.7	Pass
Peak Impactor Ax	g	-45.0	-36.0	-40.3	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 12228 *

* Plug is not impacted and remains certified



Technician:

S. Chand

S. Chand

Approved By:

J. Hernandez

J. Hernandez

APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA

Table 1 - Driver ATD Instrumentation

Sensor Location	Sensor S\N	Mfr	Model	Cal Date
Head Acceleration X Primary	P63980	Endevco	7264C-2k	2024-06-04
Head Acceleration Y Primary	P58861	Endevco	7264C-2k	2024-06-04
Head Acceleration Z Primary	P51261	Endevco	7264C-2k	2024-06-04
Head Acceleration X Redundant	P58808	Endevco	7264C-2k	2024-06-04
Head Acceleration Y Redundant	P63310	Endevco	7264C-2k	2024-06-04
Head Acceleration Z Redundant	P49189	Endevco	7264C-2k	2024-06-04
Head Rotation Rate X	ARS14907	DTS	ARS PRO-18k (2kHz)	2023-11-15
Head Rotation Rate Y	ARS14936	DTS	ARS PRO-18k (2kHz)	2023-11-15
Head Rotation Rate Z	ARS5968	DTS	ARS PRO-18k (2kHz)	2023-11-15
Upper Thorax Rib Deflection Y	1249	Servo	08TCI-3725	2024-06-04
Middle Thorax Rib Deflection Y	1219	Servo	08TCI-3725	2024-06-04
Lower Thorax Rib Deflection Y	1221	Servo	08TCI-3725	2024-06-04
Upper Abdomen Rib Deflection Y	1252	Servo	08TCI-3725	2024-06-04
Lower Abdomen Rib Deflection Y	1233	Servo	08TCI-3725	2024-06-04
Lower Spine T12 Acceleration X	P52108	Endevco	7264C-2k	2024-06-04
Lower Spine T12 Acceleration Y	P63970	Endevco	7264C-2k	2024-06-04
Lower Spine T12 Acceleration Z	P51712	Endevco	7264C-2k	2024-06-04
Iliac Wing Impact Side Force Y	289 (Iliac)	R.A. Denton	3228J	2024-05-24
Acetabulum Impact Side Force Y	277 (Acetabulum)	R.A. Denton	3249J	2024-05-24

Table 2 - Vehicle Instrumentation

Sensor Location	Sensor S\N	Mfr	Model	Cal Date
Vehicle CG Ax	M14386	Endevco	7264HM6-2k-360	2024-07-24
Vehicle CG Ay	M14383	Endevco	758H-2k	2024-07-24
Vehicle CG Az	M14384	Endevco	7264HM6-2k-360	2024-07-24
Left Floor Sill Ay	223208	BST	11CF-2k	2024-05-23
A-Pillar Sill Ay	223122	BST	11CF-2k	2024-05-23
A-Pillar Low Ay	220165	BST	11CF-2k	2024-07-26
A-Pillar Mid Ay	M14014	Endevco	7264HM6-2k-360	2024-05-29
B-Pillar Sill Ay	M11117	Endevco	758H-2k	2024-07-27
B-Pillar Low Ay	M11076	Endevco	758H-2k	2024-07-27
B-Pillar Mid Ay	M14379	Endevco	758H-2k	2024-07-24
Driver Seat Track at H-Point Ay	220340	BST	11CF-2k	2024-07-13
Engine Top Ax	M11273	Endevco	758H-2k	2024-07-27
Engine Top Ay	M13704	Endevco	758H-2k	2024-07-29
Firewall Ay	M13961	Endevco	758H-2k	2024-05-29
Right Roof Ay	M11208	Endevco	758H-2k	2024-07-12
Right Floor Sill Ay	M14385	Endevco	7264HM6-2k-360	2024-07-24
Rear Floorpan Ax	M14382	Endevco	758H-2k	2024-07-24
Rear Floorpan Ay	M14389	Endevco	7264HM6-2k-360	2024-07-24

Table 3 - Barrier Pole Instrumentation

Sensor Location	Sensor S\N	Mfr	Model	Cal Date
Barrier Pole 01 Fx	46760	Interface	1220FS-50k	2023-11-15
Barrier Pole 02 Fx	132304A	Interface	1220-FS	2023-11-15
Barrier Pole 03 Fx	131211A	Interface	1220-FS	2023-11-15
Barrier Pole 04 Fx	19346	Interface	1220FS-50k	2023-11-15
Barrier Pole 05 Fx	131827A	Interface	1220AF-50k	2023-11-15
Barrier Pole 06 Fx	19322	Interface	1220FS-50k	2023-11-15
Barrier Pole 07 Fx	132302A	Interface	1220-FS	2023-11-15
Barrier Pole 08 Fx	19345	Interface	1220FS-50k	2023-11-15