

REPORT NUMBER: SINCAP-KAR-18-010

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

**DAIMLER AG STUTTGART
2018 MERCEDES-BENZ GLC300 5-DOOR MPV**

NHTSA No: M20184302

**PREPARED BY:
KARCO ENGINEERING, LLC.
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ADELANTO, CA 92301**



DECEMBER 28, 2017

FINAL REPORT

**PREPARED FOR:
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16. Abstract

A 55 / 28 km/h 90° Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2018 Mercedes-Benz GLC300 5-door MPV in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. The test was conducted at the KARCO Engineering, LLC. facility in Adelanto, California on December 13, 2017.

The impact velocity of the Moving Deformable Barrier was 61.54 km/h and the outside ambient temperature at the struck (driver's) side of the vehicle was 21.1° C. The target vehicle's maximum post-test static crush was 135 mm located at level 3. The test vehicle's occupant performance data is as follows:

Measurement Description	Driver ATD (ES-2re)		
	Units	IARV	Result
Head Injury Criteria (HIC ₃₆)		1000	69.2
Maximum Thoracic Rib Deflection	mm	44	24
Total Abdominal Force	N	2500	520
Pubic Symphysis Force	N	6000	1820

Measurement Description	Passenger ATD (SID-IIs)		
	Units	IARV	Result
Head Injury Criteria (HIC ₃₆)		1000	134.4
Resultant Lower Spine Acceleration	g	82	46
Total Pelvic Force (Sum of Acetubular and Iliac Forces)	N	5525	3487
Maximum Thoracic Rib Deflection	mm	38*	15
Maximum Abdominal Rib Deflection	mm	45*	19

The doors on the struck side of the vehicle did not separate from the body at the hinges or latches. The opposite side doors did not open during the side impact event.

* Proposed IARV

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SECTION 1
TEST PURPOSE AND PROCEDURE

This moving deformable barrier side impact test is part of the MY 2018 New Car Assessment Program Side Impact Test Program, sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract number DTNH22-14-D-00355L. The purpose of this test is to generate comparative side impact performance in a 2018 Mercedes-Benz GLC300 5-door MPV. The side impact test was conducted in accordance with the Office of Crashworthiness Standard's Laboratory Test Procedure dated October 2015.

SECTION 2

SUMMARY OF TEST RESULTS

A 2018 Mercedes-Benz GLC300 5-door MPV was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.54 km/h (38.24 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by KARCO Engineering, LLC. in Adelanto, California, on December 13, 2017. Pre- and post-test photographs of the test vehicle, the MDB and the dummy (ES-2re and SID-IIs) are included in Appendix A of this report.

The dummies were placed in the driver and left rear designated seating position according to instructions specified in the OCWS Side Impact Laboratory Test Procedure, dated October 2015. The side impact event was documented by 11 cameras. Camera locations are included in Data Sheet No. 5 of this report.

The dummies were instrumented in the following manner:

DRIVER ATD (ES-2re)

Primary and redundant head CG tri-axial accelerometers

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

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

Lower spine (12) tri-axial accelerometers

Pubic symphysis y-axis load cell

PASSENGER ATD (SID-IIs)

Primary and redundant head CG tri-axial accelerometers

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

Abdomen upper rib and lower rib y-axis displacement potentiometers

Lower spine (12) tri-axial accelerometers

Acetabulum and iliac wing y-axis load cells

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

Dummy injury readings were recorded as follows:

Measurement Description	Units	Driver ATD (ES-2re)	
		Threshold	Result
Head Injury Criteria (HIC ₃₆)		1000	69.2
Maximum Thoracic Rib Deflection	mm	44	24
Combined Abdominal Force	N	2500	520
Pubic Symphysis Force	N	6000	1820

Measurement Description	Units	Passenger ATD (SID-IIs)	
		Threshold	Result
Head Injury Criteria (HIC ₃₆)		1000	134.4
Lower Spine (T12) Resultant Acceleration	g	82	46
Total Pelvic Force (sum of acetabular and iliac forces)	N	5525	3487
Maximum Thoracic Rib Deflection	mm	38*	15
Maximum Abdominal Rib Deflection	mm	45*	19

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

GENERAL COMMENTS

The doors on the struck side of the vehicle remained closed and latched. There was no separation at the hinges or latches. The door on the non-struck side remained closed and latched. There was no ATD value that exceeded its limit.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION/DATA SHEETS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

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: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA Number	M20184302
Model Year	2018
Make	Mercedes-Benz
Model	GLC300
Body Style	5-Door MPV
VIN	WDC0G4JB9JV020233
Body Color	Brilliant Blue Metallic
Odometer Reading (km / mi)	82 / 51
Engine Displacement (L)	2.0
Type / No. of Cylinders	Inline 4
Engine Placement	Longitudinal
Transmission Type	Automatic
Transmission Speeds	9
Overdrive	Yes
Final Drive	RWD
Roof Rack	Yes
Sunroof / T-Top	No
Running Boards	No
Tilt Steering Wheel	Yes
Power Seats	Yes
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 Airbag	Yes
Driver Curtain Airbag	Yes
Driver Head/Torso Airbag	No
Driver Torso Airbag	No
Driver Torso/Pelvis Airbag	Yes
Driver Pelvis Airbag	No
Driver Knee Airbag	Yes
Rear Pass. Curtain Airbag	Yes
Rear Pass. Head/Torso Airbag	No
Rear Pass. Torso Airbag	No
Rear Pass. Torso/Pelvis Airbag	No
Rear Pass. Pelvis Airbag	No
Driver Seat Belt Pretensioner	Yes
Rear Pass. Seat Belt Pretensioner	Yes
Driver Load Limiter	Yes
Rear Pass. Load Limiter	Yes
Other Safety Restraint	No

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

DATA FROM CERTIFICATION LABEL

Manufactured By	Daimler AG Stuttgart
Date of Manufacture	Jul-17
Vehicle Type	MPV

GVWR (kg)	2315
GAWR Front (kg)	1060
GAWR Rear (kg)	1255

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Designated Seating Capacity	2	3		5
Capacity Weight (VCW) (kg)				432.0
DSC x 68.04 (kg)				340.2
Cargo Weight (RCLW) (kg)				91.8

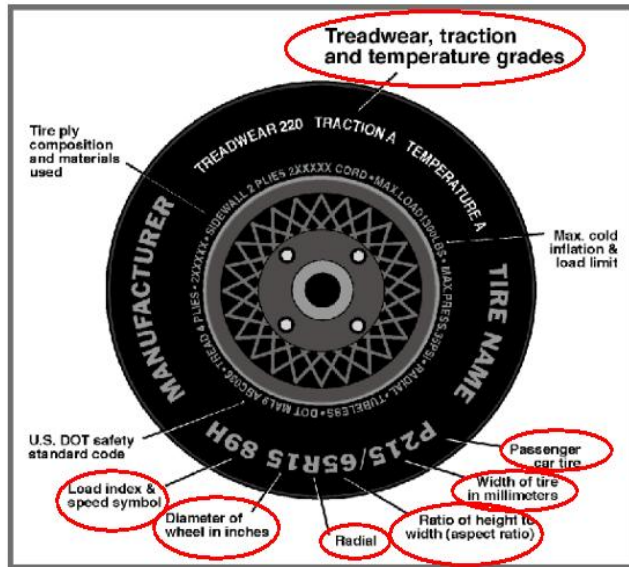
VEHICLE SEAT TYPE

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: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



Measured Parameter	Front	Rear
Max. Tire Pressure (kpa)	350	350
Cold Pressure (kPa)	240	290
Recommended Tire Size	P235/60/R18	P235/60/R18
Tire Size on Vehicle	P235/60/R18	P235/60/R18
Tire Manufacturer	Pirelli	Pirelli
Tire Model	Scorpion Verde	Scorpion Verde
Treadware	600	600
Traction Grade	A	A
Temperature Grade	A	A
Tire Plies Sidewall	1 Rayon	1 Rayon
Tire Plies Body	1 Rayon, 2 Steel, 1 Polyamide	2 Polyester, 2 Steel, 1 Polyamide
Load Index/Speed Symbol	103H	103H
Tire Material	Rayon, Steel, Polyamide	Rayon, Steel, Polyamide
DOT Safety Code Left	93K3 T899 2417	93K3 T899 2417
DOT Safety Code Right	93K3 T899 2417	93K3 T899 2417

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

TIRE PRESSURES

	Units	LF	RF	LR	RR
As Delivered	kPa	240	240	290	290
Tire Placard	kPa	240	240	290	290
Owner's Manual	kPa	240	240	290	290
As Tested	kPa	240	240	290	290

MDB TIRE SPECIFICATIONS

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

TEST VEHICLE AXLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)			Fully Loaded		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	452.5	414.0		483.0	511.0		484.5	520.0	
Right	kg	452.0	426.0		465.5	496.5		447.0	510.0	
Ratio	%	51.8%	48.2%	100.0%	48.5%	51.5%	100.0%	47.5%	52.5%	100.0%
Total	kg	904.5	840.0	1744.5	948.5	1007.5	1956.0	931.5	1030.0	1961.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value	
Total Delivered Weight (UVW)	kg	1744.5	A
Actual Weight of 2 P572 ATD Used	kg	125.0	B
Rated Cargo/Luggage Wt (RCLW)	kg	91.8	C
Calculated Vehicle Target Wt (TVTW)	kg	1961.3	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	Fully Loaded	As Tested	Meets Requirement***
LF	mm	885	878	Yes
RF	mm	886	877	Yes
LR	mm	857	855	Yes
RR	mm	863	857	Yes
Vehicle CG (Aft of Front Axle)	mm	1510	1481	
Vehicle CG (Left (+)/Right (-) from Longitudinal Centerline)	mm	19	13	

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

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

WEIGHT OF BALLAST AND VEHICLE COMPONENTS REMOVED TO MEET TVTW

Component Description	Weight (kg)
Trunk Trim	5.5
Ballast / Equipment Added	88.2

Test Height Adjustable Setting (If Applicable)	N/A
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DATA SHEET NO. 2

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

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

SEAT POSITIONING

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

SCRL ANGLE RANGE

Seat	SCRL (°)		
	Max	Min	Mid
Driver Seat	8.6	0.0	4.3
Front Passenger Seat	8.2	0.0	4.1
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	4.3	658	Max	714	729	740
			Mid	680	694	707
			Min	646	658	673
Front Passenger Seat	4.1	654	Max	705	717	729
			Mid	674	686	698
			Min	642	654	667
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: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

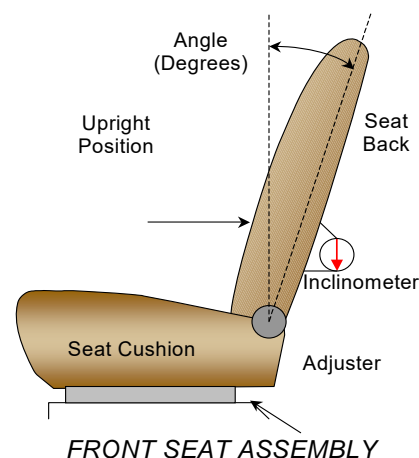
SEAT FORE/AFT POSITION

Seat	Total Fore/Aft Travel		Test Position From Forwardmost Position	
	mm	Detents*	mm	Detent*
Driver Seat	262		131	
Front Passenger Seat	233		117	
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 to the manufacturer's designated design angle. The right front passenger's seat back is positioned in a similar manner as the driver's seat back. The struck side rear seat back is fixed. The rear center and non-struck side rear outboard seat backs are positioned in a similar manner as the struck side rear seat back. Seat back angle is measured with a straight-edge along the rear of the seatback.



SEAT BACK POSITION

Seat	Total Seat Back Angle Range		Test Position from Most Upright	
	Degrees	Detents*	Degree	Detent*
Driver Seat w/ Seated Dummy	55.3		21.0	
Front Passenger Seat	46.8		21.0	
Front Center Seat				
Struck Side Rear Seat w/Seated Dummy	Fixed	Fixed	23.0	Fixed
Non-Struck Side Rear Seat	Fixed	Fixed	23.0	Fixed
Rear Center Seat	Fixed	Fixed	23.0	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: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

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, M1, ..., L from top to bottom.

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

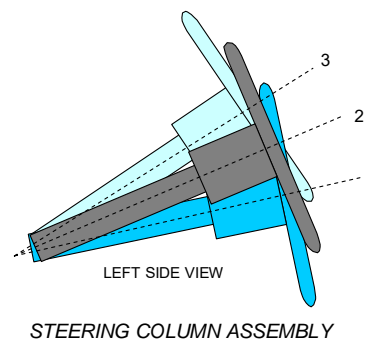
HEAD RESTRAINT ADJUSTMENT

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

	Total No. of Positions	Placed in Position
Driver Seat	Electric	Full Up
Rear Seat	Fixed	Fixed

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	21.7	52
Geometric Center - Position 2	23.9	80
Uppermost - Position 3	26.1	107
Telescoping Steering Wheel Travel		55
Test Position	23.9	80

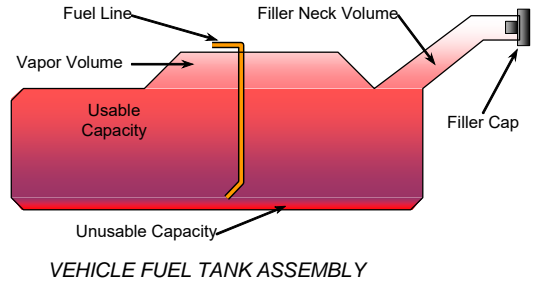
DATA SHEET NO. 2 ... (CONTINUED)

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

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

FUEL PUMP

The vehicle is equipped with an electronic fuel pump. The fuel pump is in operation if the ignition is switched to the "ON" position. If the engine is not started the pump switches back to standby mode after approx. 15 seconds.



FUEL TANK CAPACITY

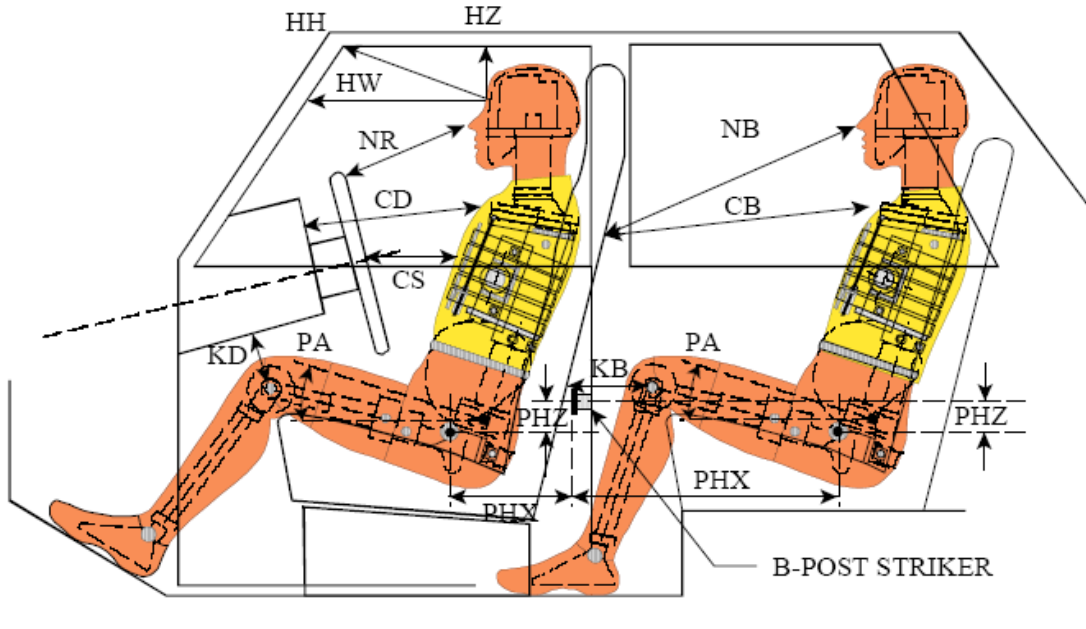
Description	Liters
Usable Capacity of "Standard Tank" (see Form No. 1)	65.86
Usable Capacity of "Optional Tank" (see Form No. 1)	
Usable Capacity of "Standard Tank" (see Owner's Manual)	65.86
Usable Capacity of "Optional Tank" (see Owner's Manual)	
93% of Usable Capacity	61.25
Actual amount of Solvent Used in Test	61.25
1/3 of Usable Capacity	21.95

Is the Actual Amount of Solvent Used in the test equal to 93% ± 1% of the Usable Capacity stated in the Form No. 1? Yes No

DATA SHEET NO. 3

DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



LEFT SIDE VIEW

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

DUMMY LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Description	Driver		Passenger	
			Length (mm)	Angle (°)	Length (mm)	Angle (°)
HH		Head to Header	375			
HW		Head to Windshield	727			
HZ	HZ	Head to Roof	220		301	
NR	NB	Nose to Rim/Seat Back	468		487	
CD	CB	Chest to Dash/Seat Back	595		474	
CS		Chest to Steering Wheel	340			
KD(L)/KDA(L)°	KB(L)/KBA(L)°	Left Knee to Dash/Seat Back	194	33.5	243	14.1
KD(R)/KDA(R)°	KB(R)/KBA(R)°	Right Knee to Dash/Seat Back	203	16.3	240	20.0
PAX°	PAX°	Pelvic Tilt Angle X		15.9		20.7
	PAY°	Pelvic Tilt Angle Y		0.0		0.1
PHX	PHX	Hip Point to Striker (x-axis)	114		119	
PHZ	PHZ	Hip Point to Striker (z-axis)	204		181	

DATA SHEET NO. 4

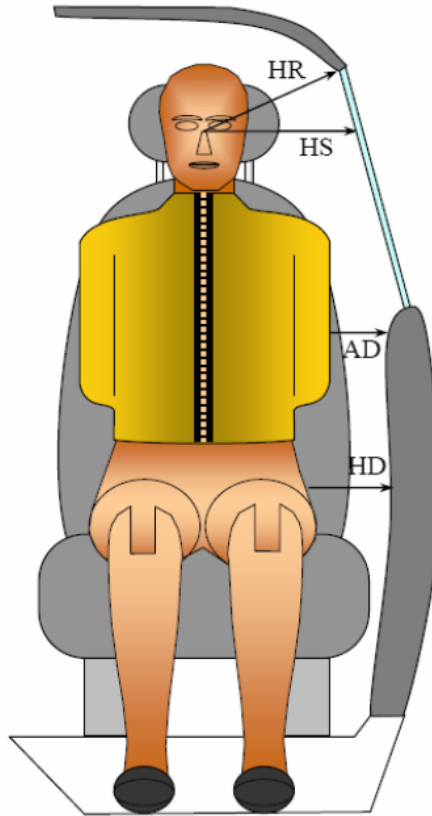
DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV

NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test

Test Date: 12/13/17



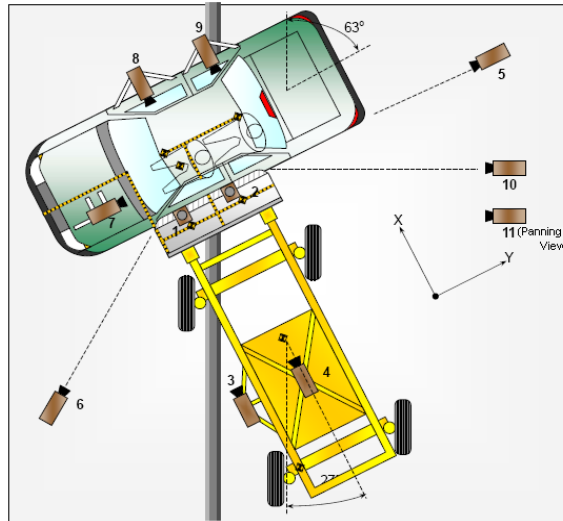
DUMMY LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	210	260
HS	Head to Side Window	mm	320	330
AD	Arm to Door	mm	97	149
HD	H-Point to Door	mm	169	198

DATA SHEET NO. 5

CAMERA AND INSTRUMENTATION DATA

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



CAMERA LOCATIONS AND DATA

No.	View	Coordinates (mm)			Lens Length (mm)	Operating Frame Rate (fps)
		X	Y	Z		
1	Overhead Overall	1220	2287	-5486	14	1000
2	Overhead Close-Up	609	2287	-5102	35	1000
3	Left Impact Point (MDB)	-2134	0	-1143	25	1000
4	Side Overall (MDB)	-3912	838	-1829	12.5	1000
5	Rear	-64	2485	-1348	85	1000
6	Left Front	-2266	-3564	-1475	24	1000
7	Driver Front (On-Board)	513	-488	-596	16	1000
8	Driver Side (On-Board)	1766	906	-431	6.5	1000
9	Passenger Side (On-Board)	1774	1678	-481	8.5	1000
10	Real Time Overall				Zoom	30
11	Real Time Inrun				Zoom	30

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

*All measurements accurate to ±6 mm

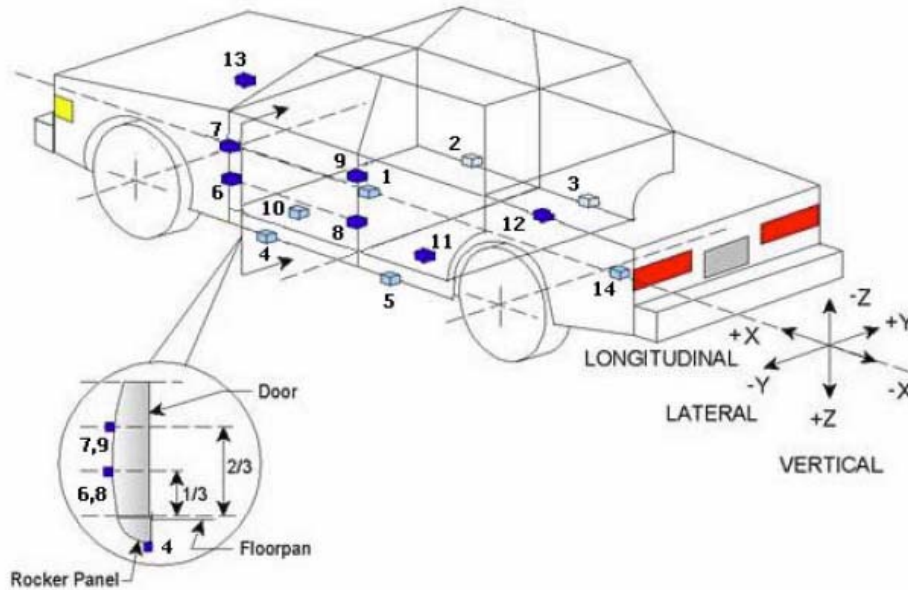
INSTRUMENTATION

Driver Dummy Channels	16
Passenger Dummy Channels	19
Vehicle Structure Accelerometers	23
MDB Accelerometers	5
Total	63

DATA SHEET NO. 6

TEST VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

Loc. No.	Sensor Description	Coordinates (mm)		
		X	Y	Z
1	Vehicle CG	1909	0	-525
2	Right Sill at Front Seat	2546	739	-483
3	Right Sill at Rear Seat	1692	735	-468
4	Left Sill at Front Door	2842	-759	-273
5	Left Sill at Rear Door	1805	-749	-266
6	A-Pillar Lower	3081	-815	-675
7	A-Pillar Middle	3084	-813	-939
8	B-Pillar Lower	2038	-757	-704
9	B-Pillar Middle	2041	-754	-966
10	Front Seat Track	2104	-178	-425
11	Rear Seat Structure	1686	-383	-391
12	Right Rear Occupant Compartment	1689	410	-397
13	Engine Block	3896	229	-904
14	Rear Floorpan Above Axle	907	12	-572

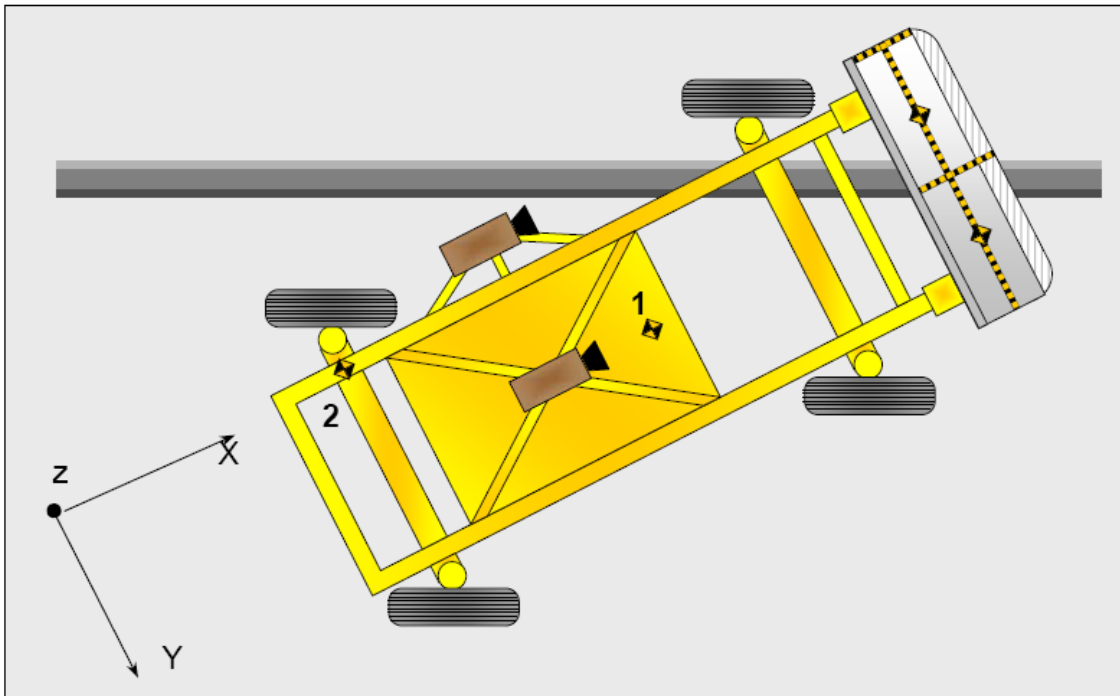
Reference: X – Rear surface of vehicle (+ forward)
 Y – Vehicle centerline (+ to right)
 Z – Ground plane (+ down)

DATA SHEET NO. 7

MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



MDB ACCELEROMETER LOCATIONS

Loc. No.	Accelerometer Location	Measurement		
		X	Y	Z
1	MDB CG	-1195	0	-430
2	MDB Rear	-2642	-593	-608

Reference: X – Face of MDB (+ forward)
 Y – MDB centerline (+ to right)
 Z – Ground plane (+ down)

DATA SHEET NO. 8
POST-TEST OBSERVATIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

TEST DUMMY INFORMATION AND CONTACT POINTS

Dummy Body Part	Front Seat Dummy (ES-2re)	Rear Seat Dummy (SID-IIs)
Face	Curtain Airbag	Curtain Airbag
Top of Head	Side Header	Curtain Airbag
Left Side of Head	Curtain Airbag, Side Header	Curtain Airbag
Back of Head	Curtain Airbag, Headrest	Curtain Airbag, Center Seatback
Left Shoulder	Door Panel	Door Panel
Upper Torso	Seat Back, Side Airbag	C-Pillar Trim
Lower Torso	Seat Back, Side Airbag	C-Pillar Trim, Door Panel
Left Hip	Seat Pan, Side Airbag, Door Panel	Seat Pan, C-Pillar Trim, Door Panel
Left Knee	Door Panel	Door Panel

POST-TEST DOOR PERFORMANCE

Description	Struck Side		Non-Struck Side		Rear Hatch/Other
	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 System 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)	N/A	N/A	N/A	N/A	N/A

DATA SHEET NO. 8 ... (CONTINUED)

POST-TEST OBSERVATIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

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	Good
Sill Separation	No separation
Windshield Damage	None
Side Window Damage	None
Other Notable Effects	None

DATA SHEET NO. 8 ... (CONTINUED)

POST-TEST OBSERVATIONS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

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

IMPACT POINT LOCATION DATA

Measured Parameter	Units	Tolerance	Value
Vehicle Wheel Base	mm		2875
Vertical Impact Reference Line (Aft of Front Axle)(Intended Impact Point)	mm		499
Actual Impact Point (Aft of Front Axle)	mm		500
Horizontal Offset (+ forward / - rearward)	mm	± 50 of Intended Impact Point	-1
Vertical Offset (+ down / - up)	mm	± 20 of Intended Impact Point	6

DATA SHEET NO. 9
MDB SUMMARY OF RESULTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

MDB SPECIFICATIONS

Measurement Description	Length (mm)
Overall Width of Framework Carriage	1251
Overall Length including Honeycomb Face	4023
Wheel Base of Framework Carriage	2595
CG location aft of Front Axle	1118

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	402.0	298.0	700.0
Right	kg	377.0	290.0	667.0
Ratio	%	57.0%	43.0%	100.0%
Totals	kg	779.0	588.0	1367.0

SPEED AND IMPACT DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.54
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.49
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	90.2
MDB Forward Line of Motion to Target Vehicle CL	degrees	62.5 to 63.5	63.0
MDB Crabbed Angle to MDB Forward Line of Motion	degrees	26.0 to 28.0	27.2

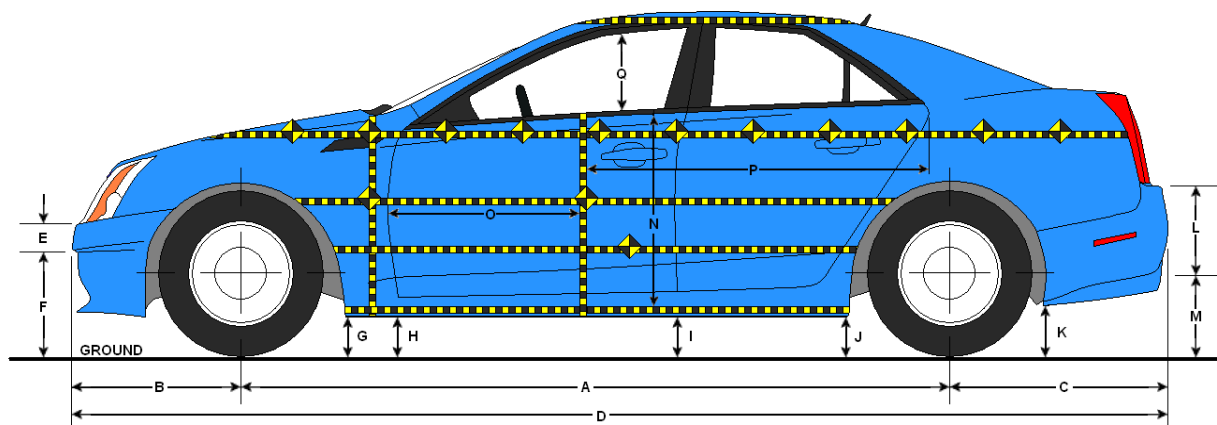
MAXIMUM STATIC CRUSH OF HONEYCOMB FACE

Vertical Location		Height (mm)	From Centerline		Max. Crush (mm)
Row	Description		Distance (mm)	Direction	
A	Center of Bumper	432	800	Right	261
B	Top of Bumper	533	800	Right	206
C	Mid Level	686	800	Left	197
D	Top of Stack	813	800	Left	250

DATA SHEET NO. 10

TEST VEHICLE PROFILE MEASUREMENTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



LEFT SIDE VIEW

VEHICLE PRE- AND POST-TEST MEASUREMENT INFORMATION

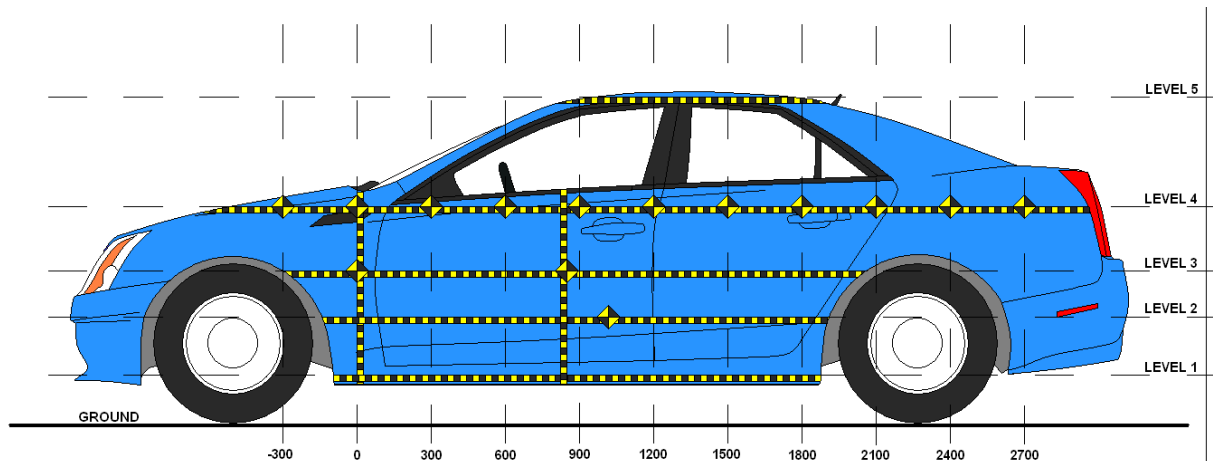
Code	Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2875	2876	1
B	Front Axle to FSOV	811	809	-2
C	Rear Axle to RSOV	950	953	3
D	Total Length at Centerline	4635	4638	3
E	Front Bumper Thickness	154	153	-1
F	Front Bumper Bottom to Ground	537	528	-9
G	Sill Height at Front Wheel Well	314	304	-10
H	Sill Height at Front Door Leading Edge	316	303	-13
I	Sill Height at B-Pillar	379	372	-7
J1	Sill Height at Rear Wheel Well	313	314	1
J2	Pinch Weld Height at Rear Wheel Well	292	288	-4
K	Sill Height Aft of Rear Wheel Well	383	384	1
L	Rear Bumper Thickness	201	202	1
M	Rear Bumper Bottom to Ground	497	492	-5
N	Sill Height to Bottom of Front Window Sill	710	689	-21
O	Front Door Leading Edge to Impact CL	669	669	0
P	Rear Door Trailing Edge to Impact CL	1463	1443	-20
Q	Front Window Opening	448	463	15
R	Right Side Length	3400	3399	-1
S	Left Side Length	3396	3389	-7
T	Vehicle Width at B-Pillar	1841	1812	-29

All measurements in mm with tolerance of ± 3 mm

DATA SHEET NO. 11

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



LEFT SIDE VIEW

MAXIMUM EXTERIOR CRUSH MEASUREMENTS

Level	Description	Height Above Ground (mm)	Maximum Exterior Static Crush	Distance from Impact
1	Sill Top	407	70	1650
2	Occupant H-Point	675	113	1800
3	Mid-Door	800	135	900
4	Window Sill	1061	28	1050
5	Window Top	1603	24	2550

DATA SHEET NO. 11 ... (CONTINUED)

TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

EXTERIOR CRUSH MEASUREMENTS AT EACH LEVEL

	Pre-Test (mm)					Post-Test (mm)					Difference (mm)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600															
-450															
-300															
-150		557	565				571	579				14	14		
0	606	574	576	668		621	603	600	676		15	29	24	8	
150	612	583	579	655		673	642	618	661		61	59	39	6	
300	621	585	578	645		676	660	657	642		55	75	79	-3	
450	625	585	577	636		678	670	684	636		53	85	107	0	
600	629	585	576	629		679	679	697	633		50	94	121	4	
750	631	585	576	623		681	686	703	635		50	101	127	12	
900	633	586	576	617	898	682	685	711	636	908	49	99	135	19	10
1050	632	588	577	626	893	685	694	700	654	913	53	106	123	28	20
1200	634	590	578	613	899	690	669	658	631	917	56	79	80	18	18
1350	634	592	580	616	902	700	668	668	634	920	66	76	88	18	18
1500	635	592	581	616	904	701	696	693	632	921	66	104	112	16	17
1650	632	594	581	616	906	702	705	710	640	923	70	111	129	24	17
1800	623	594	581	618	912	657	707	697	633	925	34	113	116	15	13
1950	612	580	578	621	909	613	603	662	612	927	1	23	84	-9	18
2100			567	630	914			610	611	931			43	-19	17
2250				625	916				606	936				-19	20
2400				631	922				643	944				12	22
2550				640	932				650	956				10	24
2700				652					661					9	
2850				670					678					8	

DATA SHEET NO. 11 ... (CONTINUED)

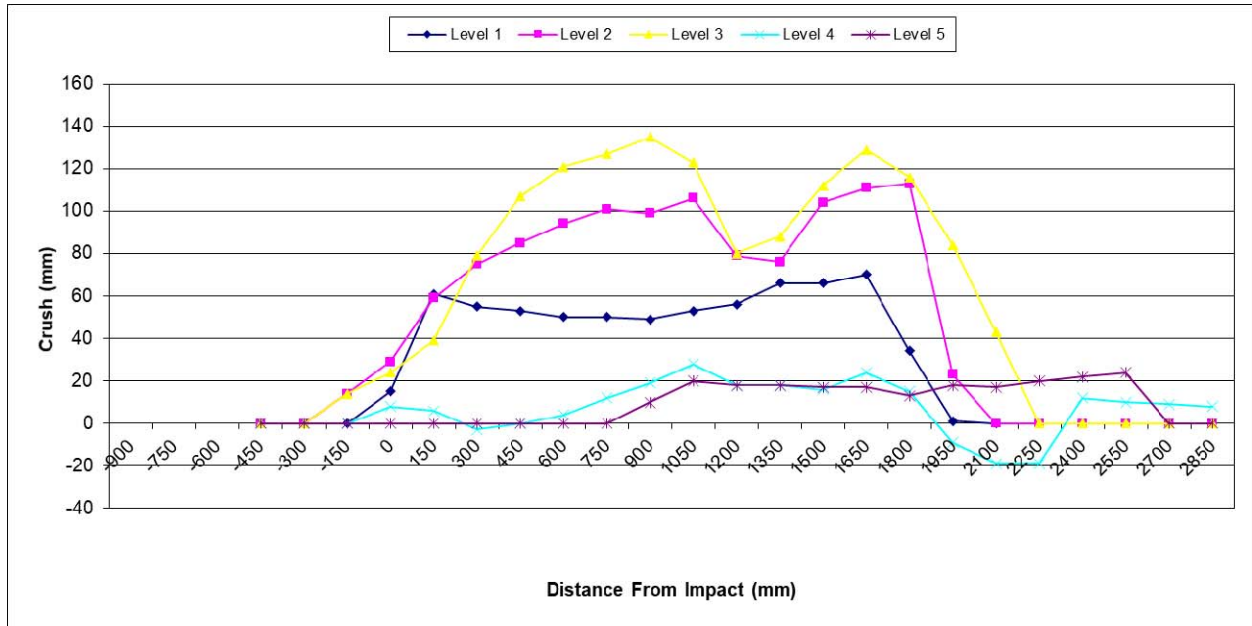
TEST VEHICLE EXTERIOR CRUSH MEASUREMENTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV

NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test

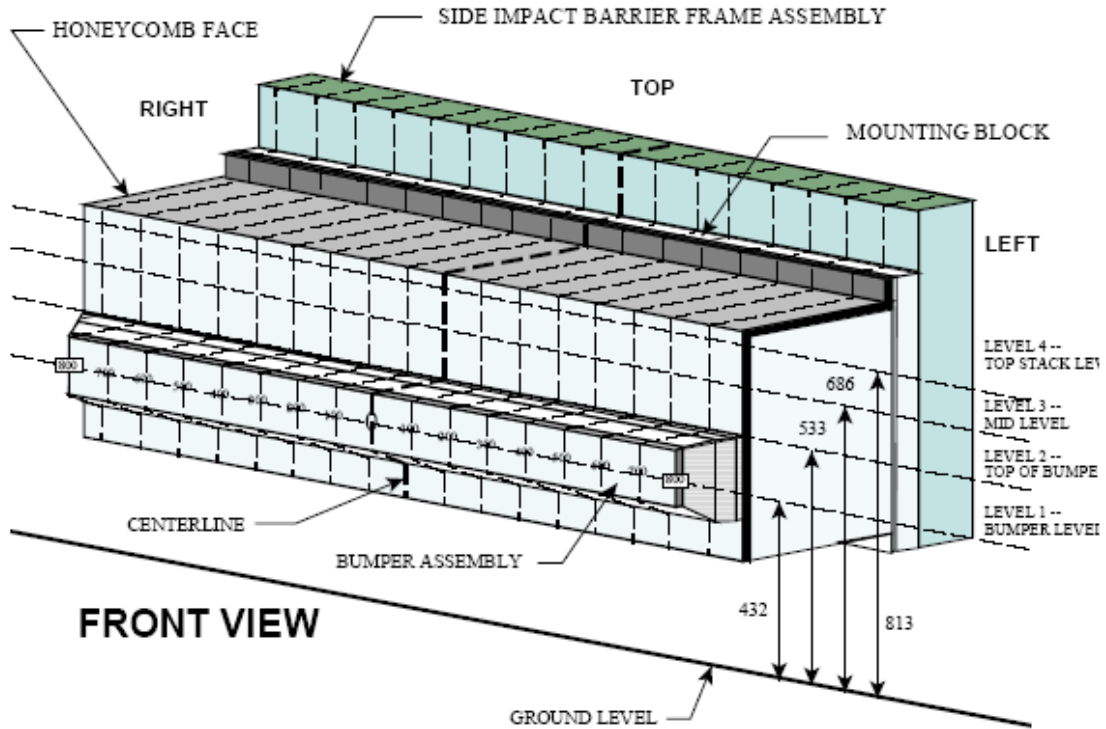
Test Date: 12/13/17



DATA SHEET NO. 12

MDB EXTERIOR STATIC CRUSH MEASUREMENTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



NOTE: Dimensions are shown in millimeters, mm

DEFORMABLE BARRIER STATIC CRUSH

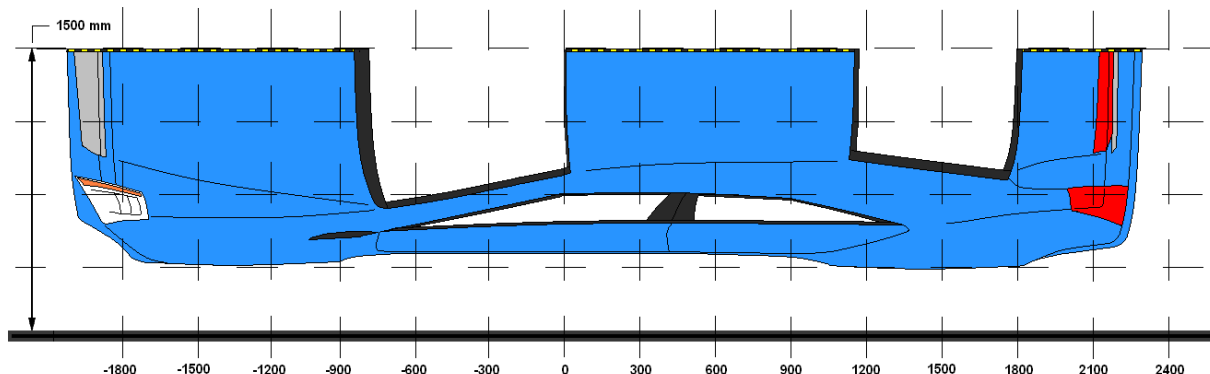
Stack Level	Distance Right of Center								C/L	Distance Left of Center							
	800	700	600	500	400	300	200	100		0	100	200	300	400	500	600	700
1	261	243	238	239	237	237	236	238	238	236	237	235	234	233	238	236	247
2	206	198	199	189	182	183	183	194	189	193	194	192	192	192	193	196	200
3	142	141	145	155	177	175	160	127	120	117	114	117	122	139	159	178	197
4	155	147	153	170	182	192	160	133	119	117	123	130	138	154	190	222	250

All dimensions in millimeters.

DATA SHEET NO. 13

VEHICLE AND MDB DAMAGE PROFILE DISTANCES

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302
 Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



VEHICLE DAMAGE PROFILE DISTANCES

DPD	Distance From Impact Point (mm)	Level	Pre-Test (mm)	Post-Test (mm)	Crush (mm)
1	2850	4	670	678	8
2	2250	5	916	936	20
3	1650	3	581	710	129
4	1050	3	577	700	123
5	450	3	577	684	107
6	-150	2	557	571	14

MDB DAMAGE PROFILE DISTANCES

DPD	From MDB Centerline		Level	Crush (mm)
	Distance (mm)	Direction		
1	800	Left	4	250
2	500	Left	1	233
3	200	Left	1	237
4	200	Right	1	236
5	500	Right	1	239
6	800	Right	1	261

DATA SHEET NO. 14

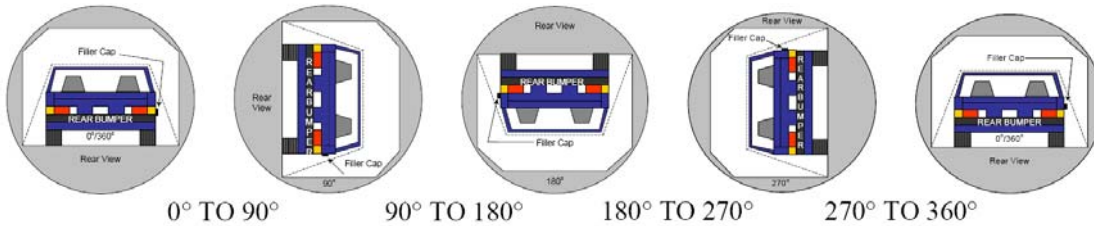
FMVSS NO. 301 STATIC ROLLOVER RESULTS

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17

Temperature at Time of Impact: 21.1 °C Test Time: 1:17 PM

- 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°	79	300	379
90° To 180°	84	300	384
180° To 270°	82	300	382
270° To 360°	79	300	379

FMVSS 301 SPILLAGE TABLE

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

SOLVENT SPILLAGE LOCATION TABLE

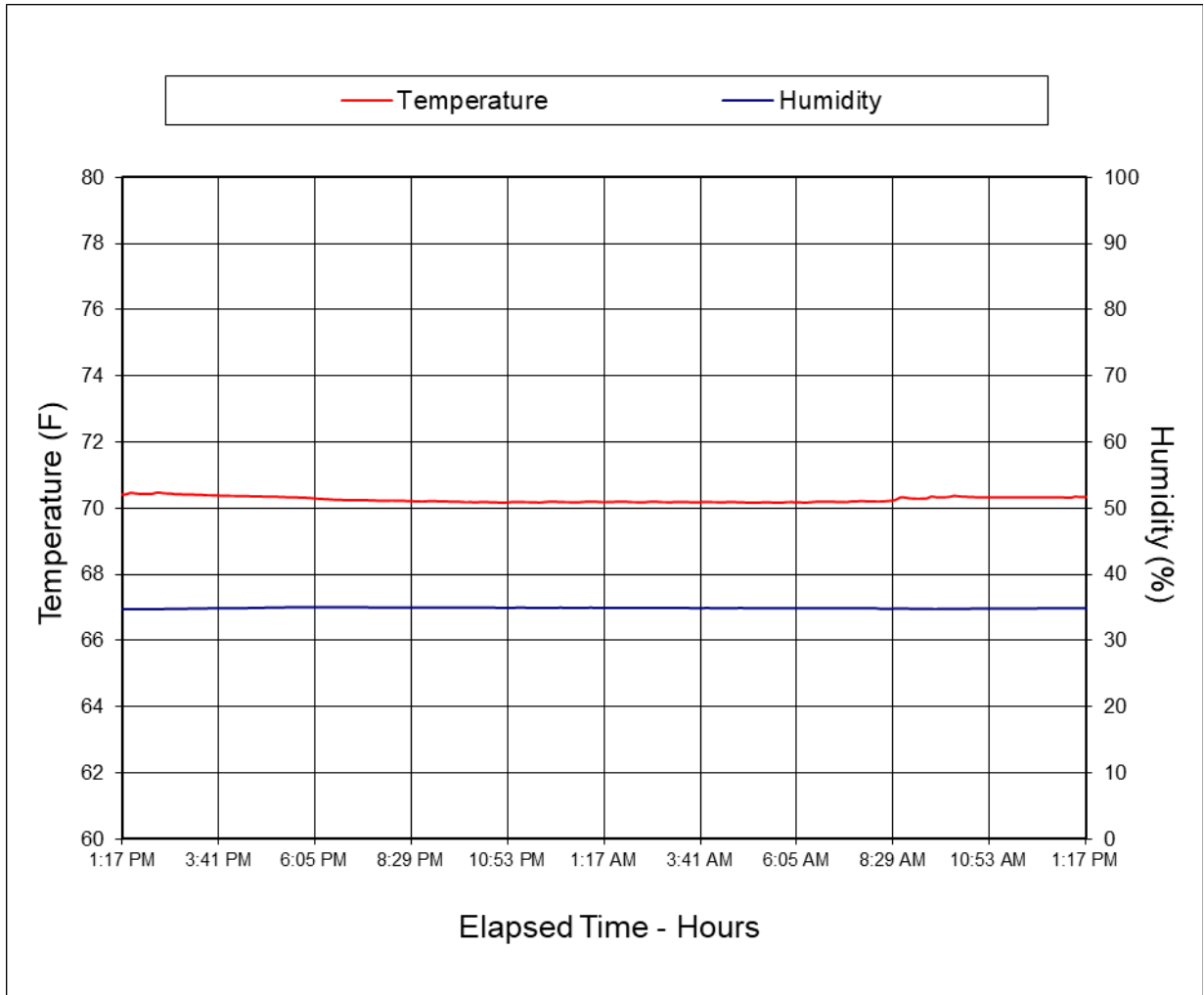
Test Phase	Spillage Location
0° To 90°	N/A
90° To 180°	N/A
180° To 270°	N/A
270° To 360°	N/A

DATA SHEET NO. 15

DUMMY/VEHICLE TEMPERATURE AND HUMIDITY STABILIZATION

Test Vehicle: 2018 Mercedes-Benz GLC300 5-Door MPV NHTSA No. M20184302

Test Program: NCAP MDB Side Impact Test Test Date: 12/13/17



**APPENDIX A
PHOTOGRAPHS**

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FIGURE 1. As-Delivered Right Front $\frac{3}{4}$ View of Test Vehicle



FIGURE 2. As-Delivered Left Rear $\frac{3}{4}$ View of Test Vehicle



FIGURE 3. Pre-Test Frontal View of Test Vehicle

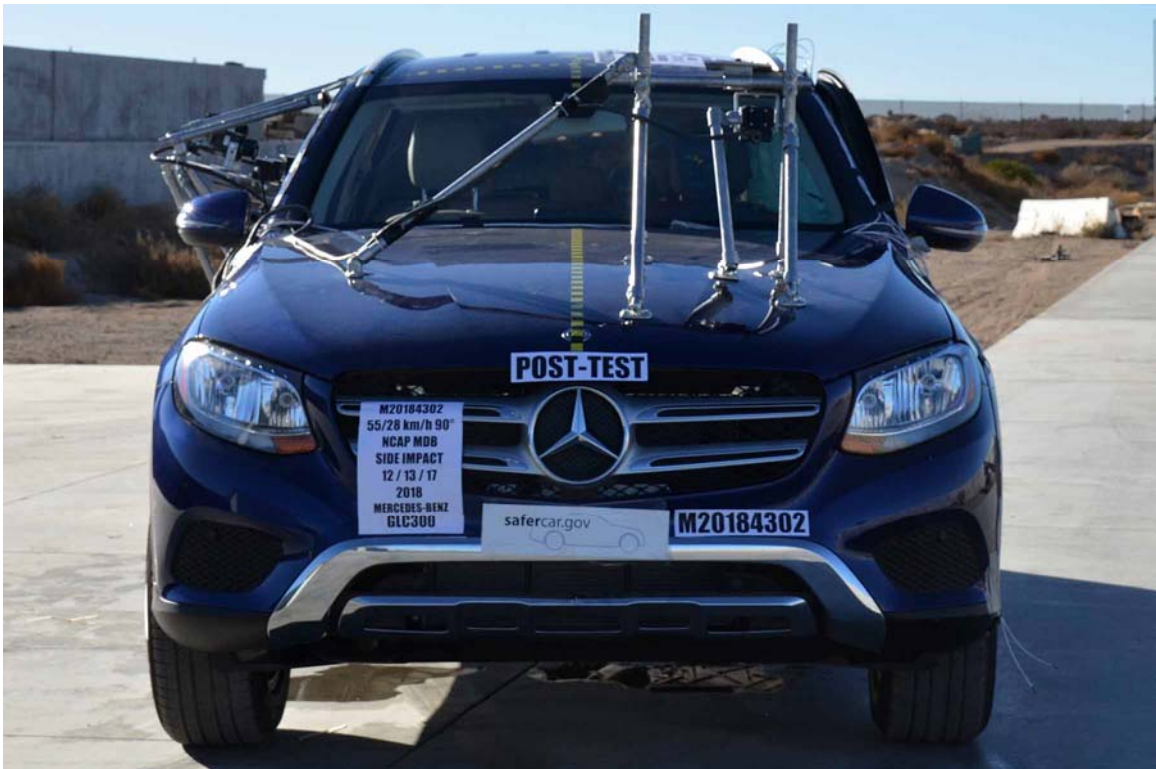


FIGURE 4. Post-Test Frontal View of Test Vehicle



FIGURE 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 $\frac{3}{4}$ View of Test Vehicle



FIGURE 10. Post-Test Left Rear $\frac{3}{4}$ 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

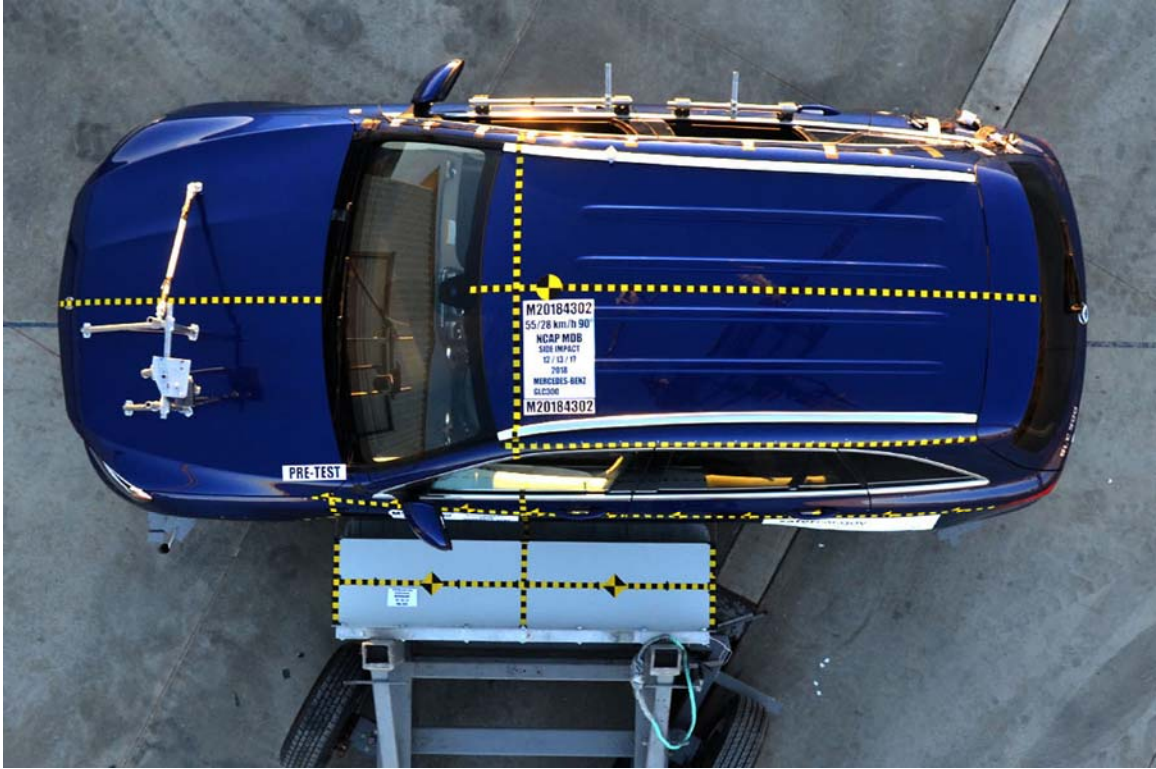


FIGURE 15. Pre-Test Overhead View of Test Area



FIGURE 16. Post-Test Overhead View of Test Area



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



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



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

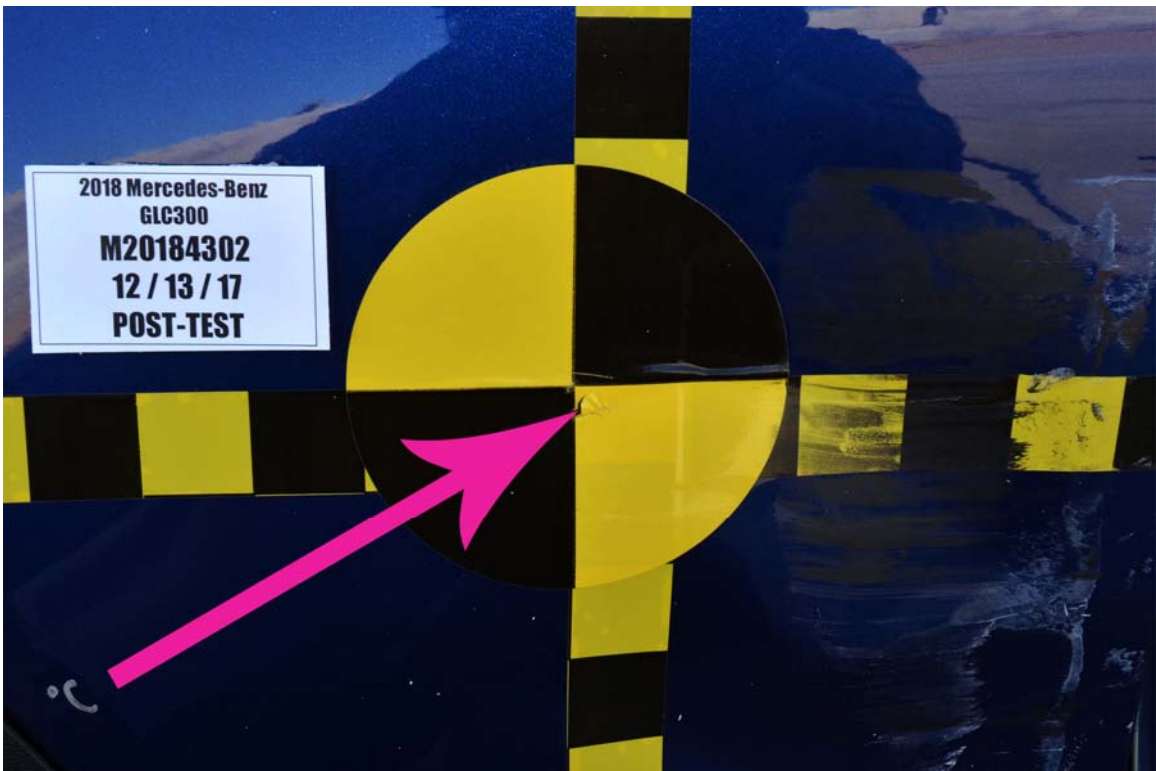


FIGURE 20. Post-Test Close-Up View of Impact Point Target



FIGURE 21. Pre-Test Left Front Door Latch Close-Up



FIGURE 22. Post-Test Left Front Door Latch Close-Up



FIGURE 23. Pre-Test Left Rear Door Latch Close-Up



FIGURE 24. Post-Test Left Rear Door Latch Close-Up



FIGURE 25. Pre-Test Front Close-Up View of Driver Dummy



FIGURE 26. Post-Test Front Close-Up View of Driver Dummy



FIGURE 27. Pre-Test Left Side View of Driver Dummy Showing Belt and Chalking



FIGURE 28. Pre-Test Left Side View of Driver Dummy Shoulder and Door Top View



FIGURE 29. Post-Test Left Side View of Driver Dummy Shoulder and Door Top View



FIGURE 30. Pre-Test Frontal View of Driver Seat Back Prior to Dummy Positioning



FIGURE 31. Pre-Test Frontal View of Driver Dummy Head and Shoulders in Relation to Head Restraint



FIGURE 32. Pre-Test Overhead View of Driver Seat Pan Prior to Dummy Positioning



FIGURE 33. Pre-Test Overhead View of Driver Dummy Thighs on Seat Pan



FIGURE 34. Pre-Test Placement of Driver Dummy's Feet



FIGURE 35. Pre-Test View of Belt Anchorage for Driver Dummy



FIGURE 36. Pre-Test Left Side View of Steering Wheel



FIGURE 37. View of Disengaged Parking Brake



FIGURE 38. Pre-Test View of Parking Brake



FIGURE 39. Pre-Test Close-Up Left Side View of Driver Seat Track



FIGURE 40. Pre-Test Close-Up Left Side View of Driver Seat Back



FIGURE 41. Pre-Test Close-Up View of Driver Seat Back or Head Restraint



FIGURE 42. Pre-Test Driver Dummy and Door Clearance View



FIGURE 43. Post-Test Driver Dummy and Door Clearance View



FIGURE 44. Pre-Test Right Side View of Driver Dummy and Front Seat Occupant Compartment



FIGURE 45. Post-Test Right Side View of Driver Dummy and Front Seat Occupant Compartment



FIGURE 46. Pre-Test Driver Inner Door Panel View



FIGURE 47. Post-Test Driver Inner Door Panel View
Showing Driver Dummy Contact Locations



FIGURE 48. Post-Test Driver Dummy Close-Up Head Contact
with Vehicle Interior View



FIGURE 49. Post-Test Driver Dummy Close-Up Head Contact with Side Airbag View



FIGURE 50. Post-Test Driver Dummy Close-Up Torso Contact with Vehicle Interior View



FIGURE 51. Post-Test Driver Dummy Close-Up Torso Contact with Side Airbag View



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



FIGURE 53. Post-Test Driver Dummy Close-Up Pelvis Contact with Side Airbag View

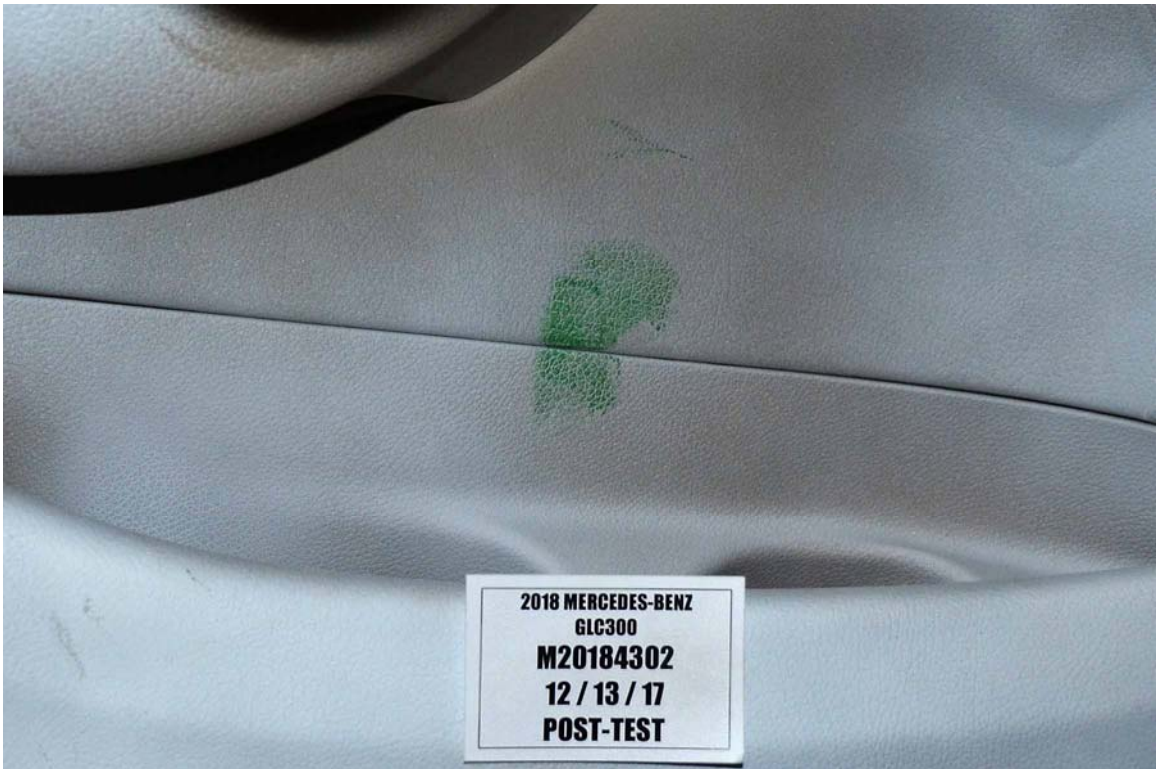


FIGURE 54. Post-Test Driver Dummy Close-Up Knee Contact View



FIGURE 55. Pre-Test Left Side View of Rear Passenger Dummy Showing Belt and Chalking



FIGURE 56. Pre-Test Left Side View of Rear Passenger Dummy Shoulder and Door Top View



FIGURE 57. Post-Test Left Side View of Rear Passenger Dummy Shoulder and Door Top View



FIGURE 58. Pre-Test Frontal View of Rear Passenger Seat Back Prior to Dummy Positioning



FIGURE 59. Pre-Test Frontal View of Rear Passenger Dummy Head and Shoulders in Relation to Head Restraint



FIGURE 60. Pre-Test Overhead View of Rear Passenger Seat Pan Prior to Dummy Positioning



FIGURE 61. Pre-Test Overhead View of Rear Passenger Dummy Thighs on Seat Pan



FIGURE 62. Pre-Test View of Rear Passenger Dummy's Neck
Showing Position of Adjustable Neck Bracket



FIGURE 63. Pre-Test View of Rear Passenger Dummy's Head
Showing Dummy's Head is Level



FIGURE 64. Pre-Test Placement of Rear Passenger Dummy's Feet



FIGURE 65. Pre-Test View of Belt Anchorage for Rear Passenger Dummy



FIGURE 66. Pre-Test Close-Up Left Side View of Rear Passenger Seat Track



FIGURE 67. Pre-Test Close-Up Left Side View of Rear Passenger Seat Back



FIGURE 68. Pre-Test Close-Up View of Rear Passenger Seat Back or Head Restraint



FIGURE 69. Pre-Test Rear Passenger Dummy and Door Clearance View



FIGURE 70. Post-Test Rear Passenger Dummy and Door Clearance View



FIGURE 71. Pre-Test Right Side View of Rear Passenger Dummy and Rear Seat Occupant Compartment



FIGURE 72. Post-Test Right Side View of Rear Passenger Dummy and Rear Seat Occupant Compartment



FIGURE 73. Pre-Test Rear Passenger Inner Door Panel View



FIGURE 74. Post-Test Rear Passenger Inner Door Panel View
Showing Rear Passenger Dummy Contact Locations



FIGURE 75. Post-Test Rear Passenger Dummy Close-Up
Head Contact with Vehicle Interior View



FIGURE 76. Post-Test Rear Passenger Dummy Close-Up
Head Contact with Side Airbag View



FIGURE 77. Post-Test Rear Passenger Dummy Close-Up
Torso Contact with Vehicle Interior View

Photograph Not Applicable

Vehicle Not Equipped with Rear Passenger Side Airbag

FIGURE 78. Post-Test Rear Passenger Dummy Close-Up
Torso Contact with Side Airbag View



FIGURE 79. Post-Test Rear Passenger Dummy Close-Up
Pelvis Contact with Vehicle Interior View

Photograph Not Applicable

Vehicle Not Equipped with Rear Passenger Side Airbag

FIGURE 80. Post-Test Rear Passenger Dummy Close-Up
Pelvis Contact with Side Airbag View



FIGURE 81. Post-Test Rear Passenger Dummy Close-Up Knee Contact View



FIGURE 82. Pre-Test View of Fuel Filler Cap or Fuel Filler Neck



FIGURE 83. Post-Test View of Fuel Filler Cap or Fuel Filler Neck



FIGURE 84. Pre-Test Front View of MDB Impactor Face



FIGURE 85. Post-Test Front View of MDB Impactor Face

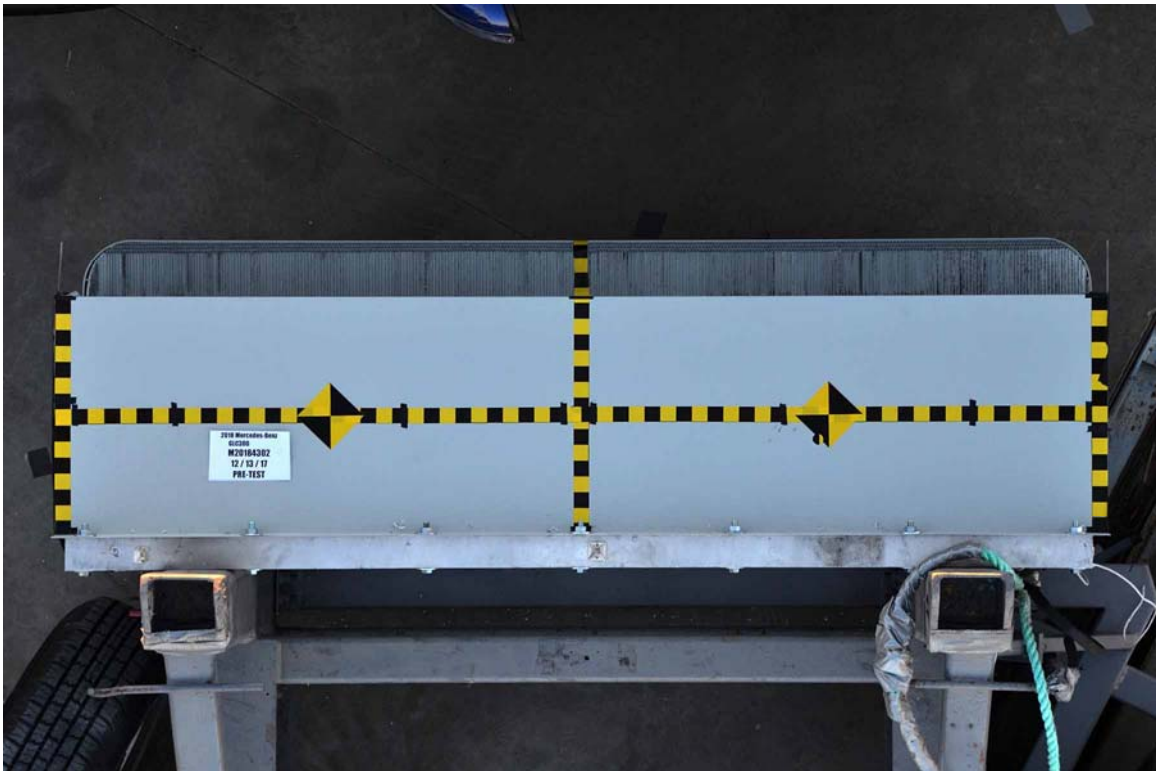


FIGURE 86. Pre-Test Top View of MDB Impactor Face



FIGURE 87. Post-Test Top View of MDB Impactor Face



FIGURE 88. Pre-Test Left Side View of MDB Impactor Face



FIGURE 89. Post-Test Left Side View of MDB Impactor Face



FIGURE 90. Pre-Test Right Side View of MDB Impactor Face



FIGURE 91. Post-Test Right Side View of MDB Impactor Face



FIGURE 92. Close-Up View of Vehicle's Certification Label



FIGURE 93. Close-Up View of Vehicle's Tire Information Placard or Label

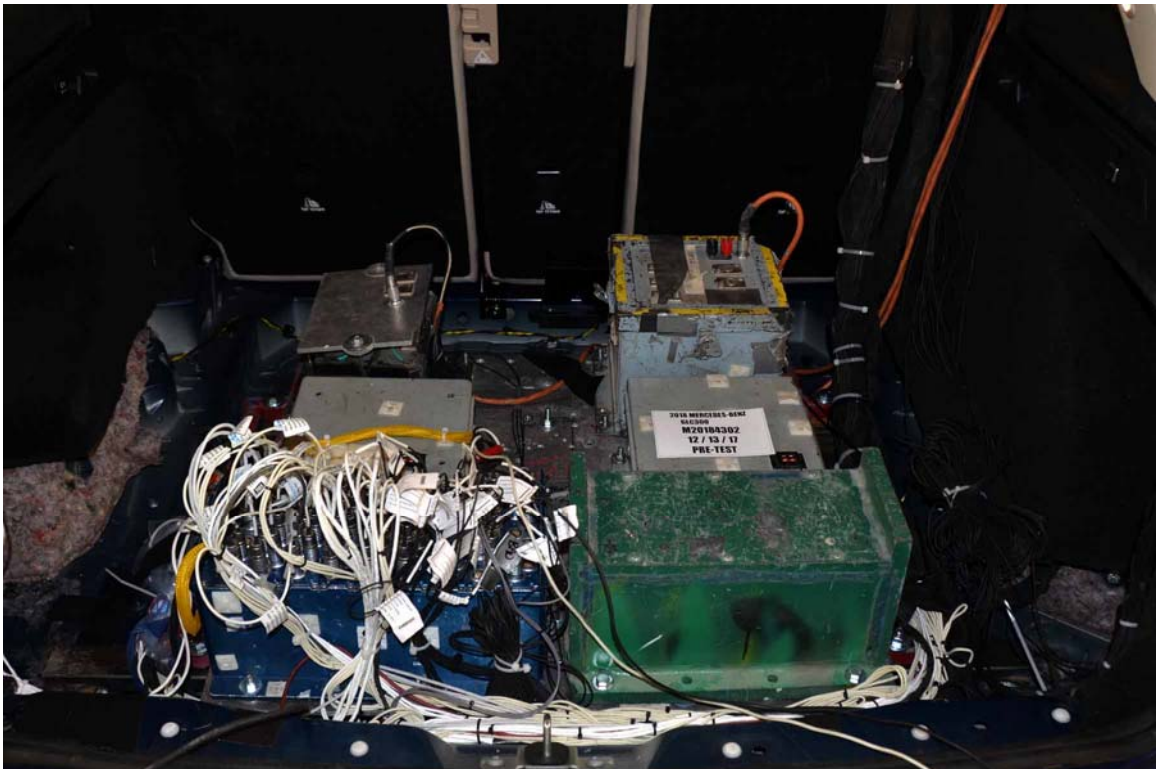


FIGURE 94. Pre-Test Ballast View



FIGURE 95. Post-Test Primary and Redundant Speed Trap Read-Out

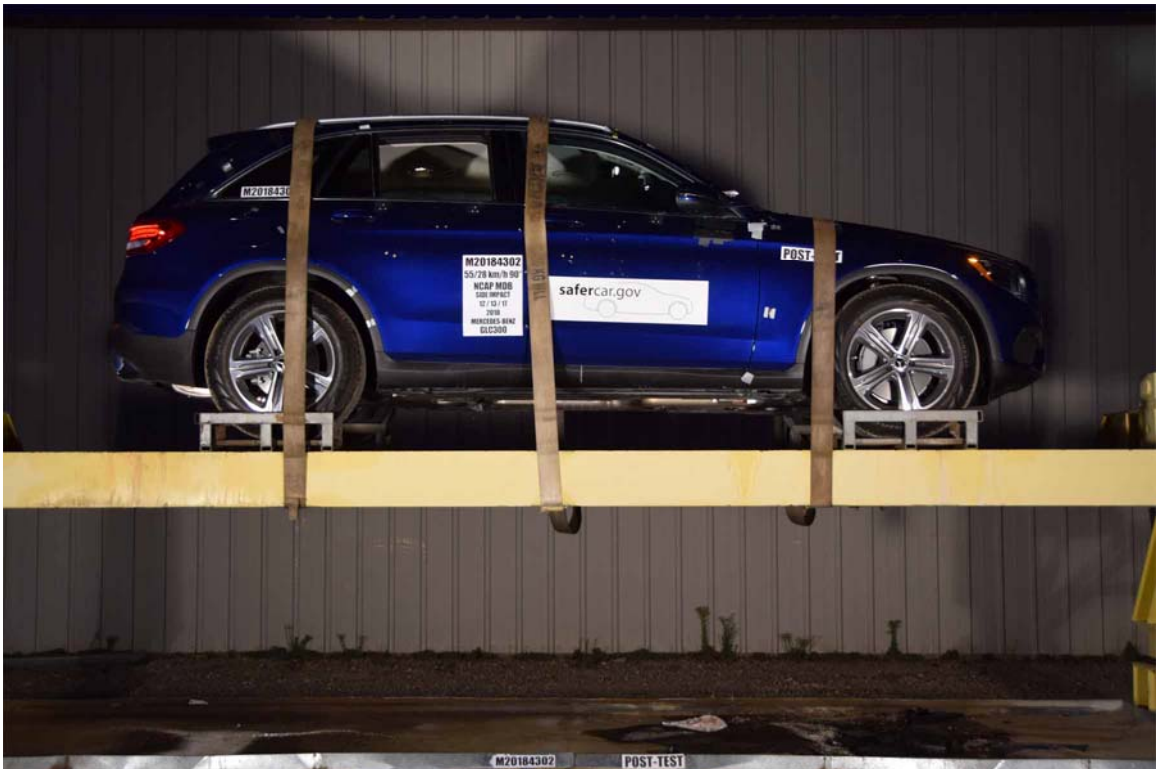


FIGURE 96. FMVSS No. 301 Static Rollover 0 Degrees



FIGURE 97. FMVSS No. 301 Static Rollover 90 Degrees

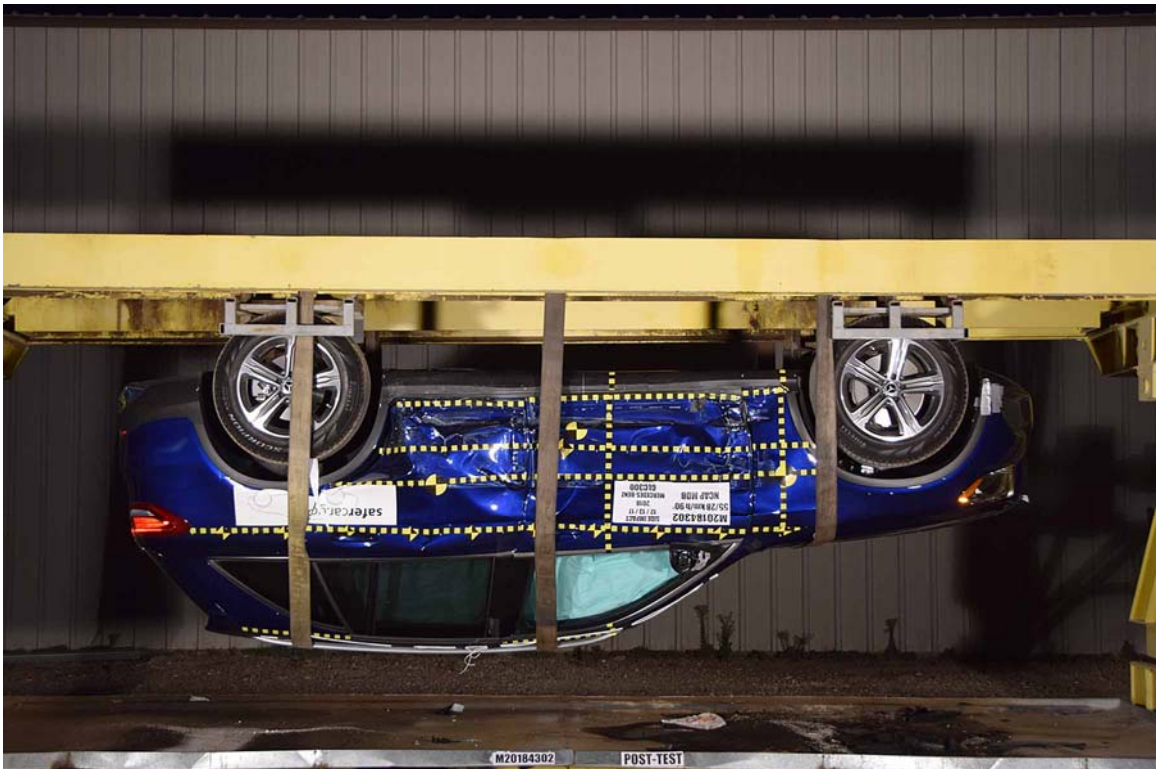


FIGURE 98. FMVSS No. 301 Static Rollover 180 Degrees

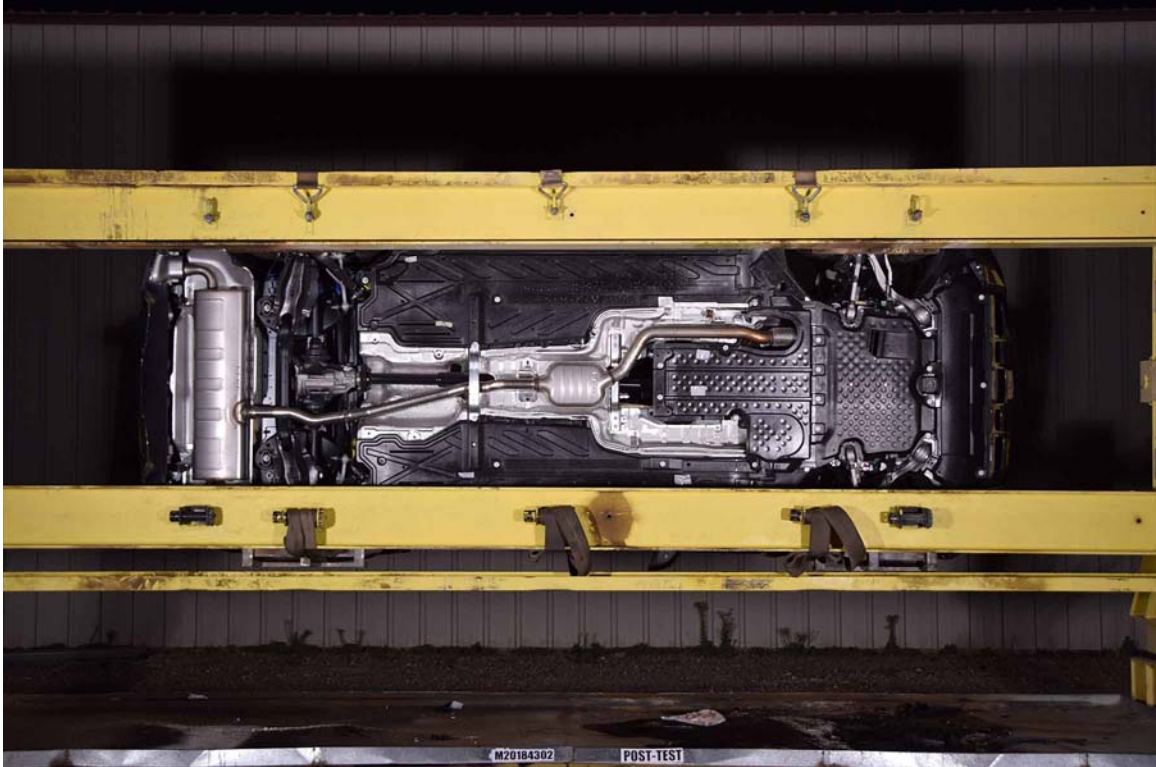


FIGURE 99. FMVSS No. 301 Static Rollover 270 Degrees

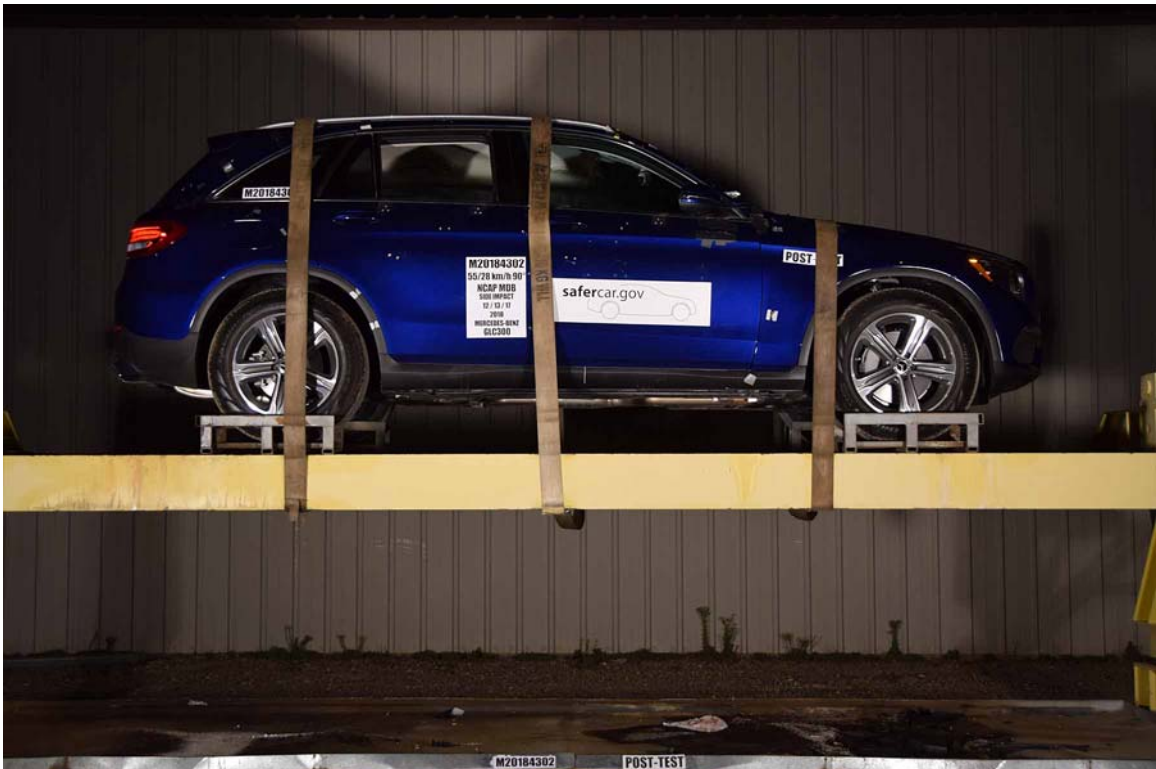


FIGURE 100. FMVSS No. 301 Static Rollover 360 Degrees

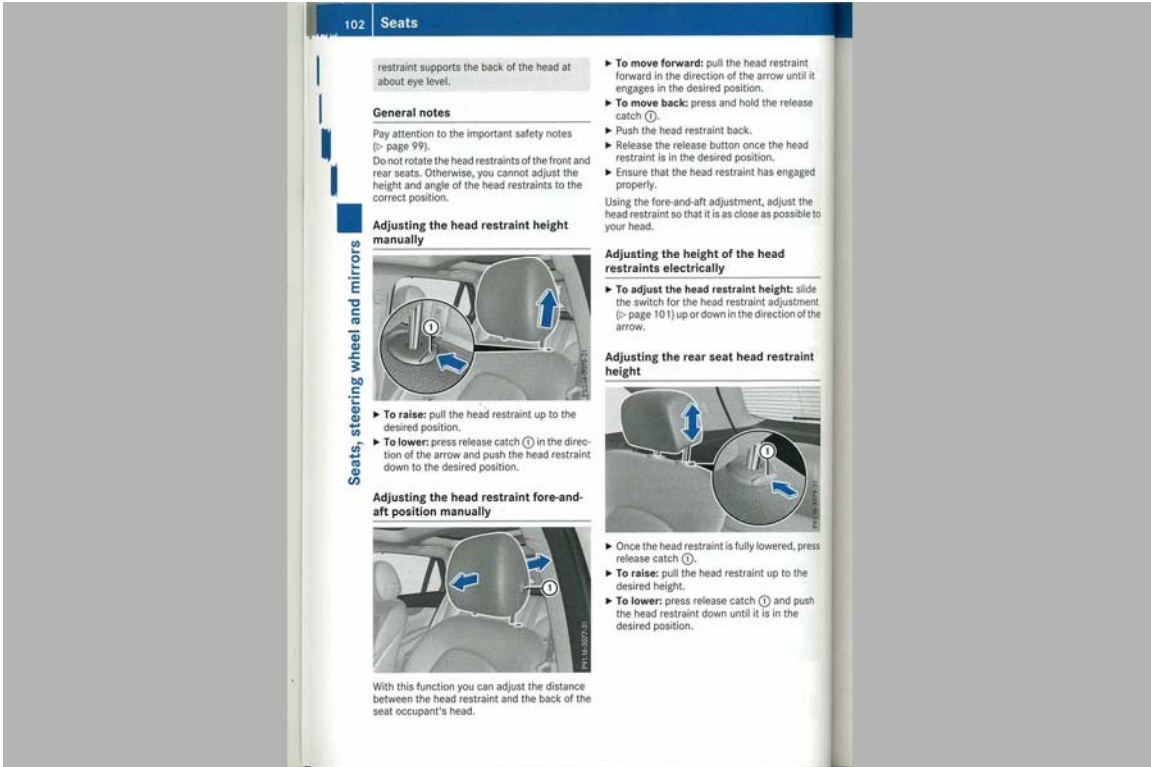


FIGURE 103. Driver Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

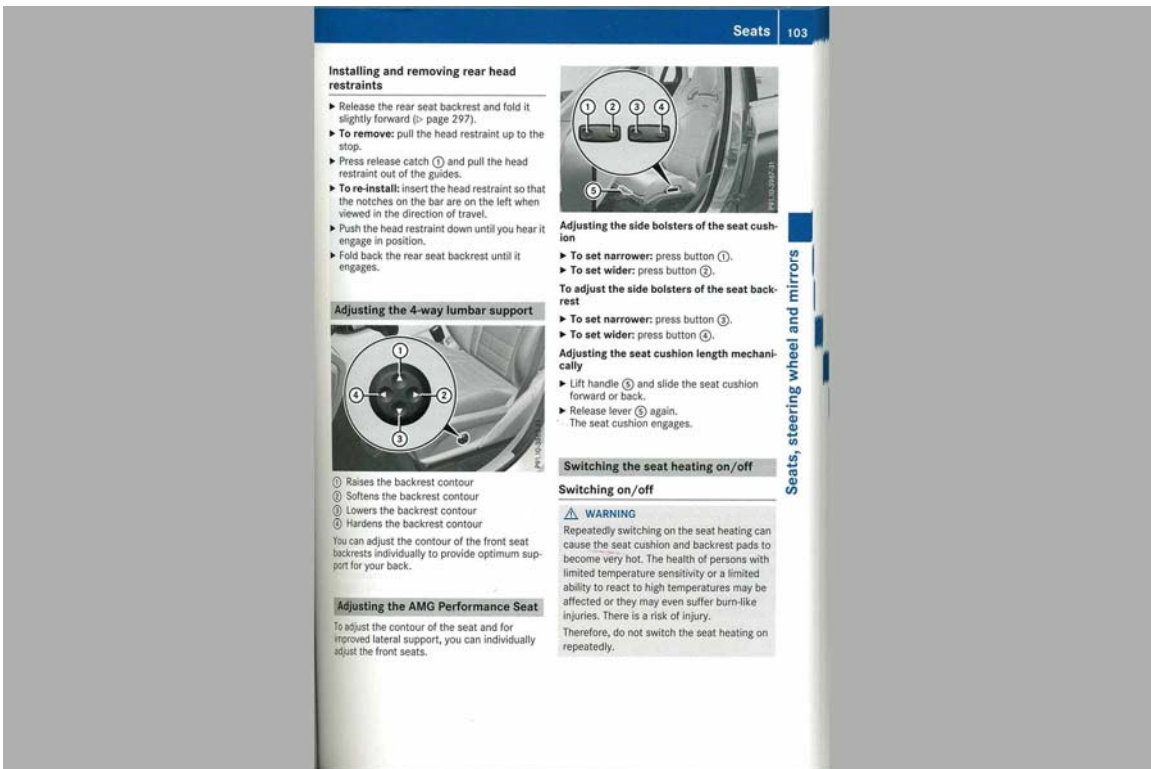


FIGURE 104. Left Rear Passenger Head Restraint Use and Adjustment Information from Vehicle Owner's Manual

APPENDIX B
DUMMY RESPONSE DATA

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1	Driver Head Acceleration (X) Primary vs. Time	B-1
2	Driver Head Acceleration (Y) Primary vs. Time	B-1
3	Driver Head Acceleration (Z) Primary vs. Time	B-1
4	Driver Head Resultant Acceleration Primary vs. Time	B-1
5	Driver Upper Thorax Rib Deflection (Y) vs. Time	B-2
6	Driver Middle Thorax Rib Deflection (Y) vs. Time	B-2
7	Driver Lower Thorax Rib Deflection (Y) vs. Time	B-2
8	Driver Thorax Rib Deflection Maximum vs. Time	B-2
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12	Driver Total Abdominal Force (Y) vs. Time	B-3
13	Driver Pubic Symphysis Force (Y) vs. Time	B-4
14	Passenger Head Acceleration (X) vs. Time Primary	B-5
15	Passenger Head Acceleration (Y) vs. Time Primary	B-5
16	Passenger Head Acceleration (Z) vs. Time Primary	B-5
17	Passenger Head Resultant Acceleration Primary vs. Time	B-5
18	Passenger Lower Spine T12 Acceleration (X) vs. Time	B-6
19	Passenger Lower Spine T12 Acceleration (Y) vs. Time	B-6
20	Passenger Lower Spine T12 Acceleration (Z) vs. Time	B-6
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22	Passenger Iliac Force on Impact Side (Y) vs. Time	B-7
23	Passenger Acetabulum Force on Impact Side (Y) vs. Time	B-7
24	Passenger Total Pelvic Force on Impact Side (Y) vs. Time	B-7

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

Additional Driver & Passenger Dummy Instrumentation Data

Driver Lower Spine T12 Acceleration (X)
Driver Lower Spine T12 Acceleration (Y)
Driver Lower Spine T12 Acceleration (Z)
Passenger Upper Thorax Rib Deflection (Y)
Passenger Middle Thorax Rib Deflection (Y)
Passenger Lower Thorax Rib Deflection (Y)

Passenger Upper Abdomen Rib Deflection (Y)
Passenger Lower Abdomen Rib Deflection (Y)
Driver Head Acceleration Redundant (X)
Driver Head Acceleration Redundant (Y)
Driver Head Acceleration Redundant (Z)
Passenger Head Acceleration Redundant (X)
Passenger Head Acceleration Redundant (Y)
Passenger Head Acceleration Redundant (Z)

Vehicle Instrumentation Data

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

MDB Instrumentation Data

MDB Center of Gravity Acceleration (X)

MDB Center of Gravity Acceleration (Y)

MDB Center of Gravity Acceleration (Z)

MDB Rear Acceleration (X)

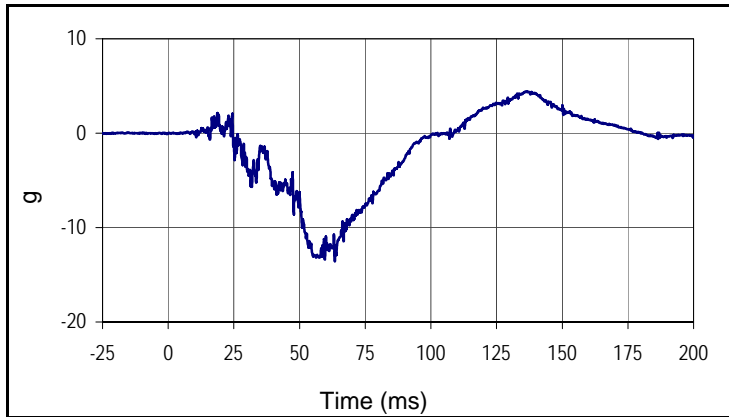
MDB Rear Acceleration (Y)

Left MDB Contact Switch

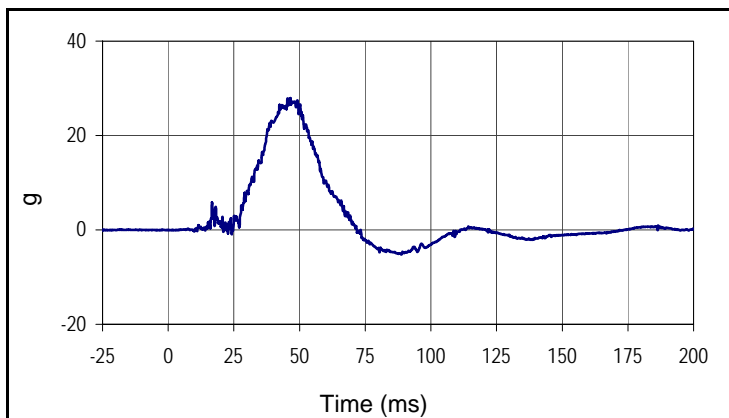
Right MDB Contact Switch

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

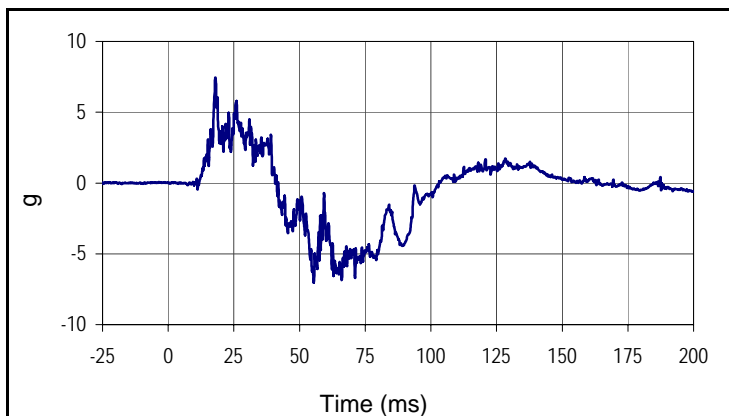
NHTSA No.: M20184302
 Test Date: 12/13/17



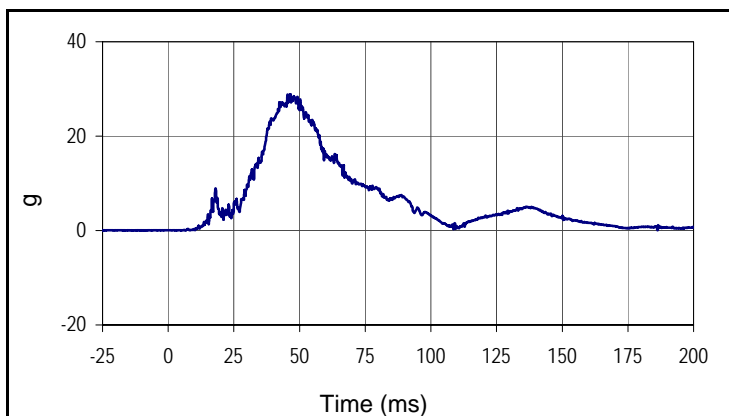
Curve Description			
Driver Head Acceleration X Primary			
Plot No.		SAE Class	Units
001		1000	g
Max	Time	Min	Time
4.4	136.6	-13.6	63.4



Curve Description			
Driver Head Acceleration Y Primary			
Plot No.		SAE Class	Units
002		1000	g
Max	Time	Min	Time
27.9	46.5	-5.3	88.8



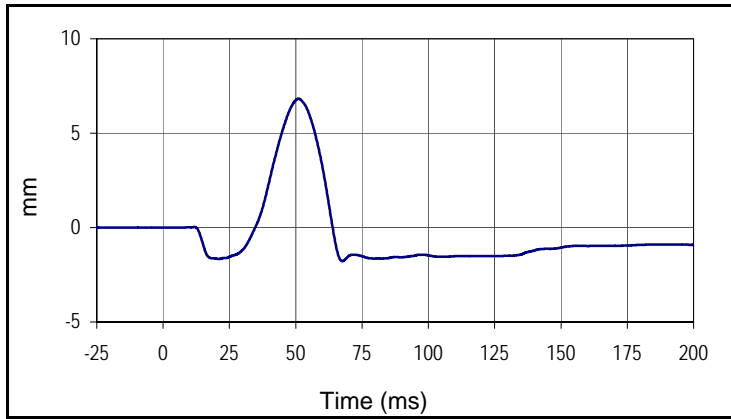
Curve Description			
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Plot No.		SAE Class	Units
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7.4	18.0	-7.0	55.4



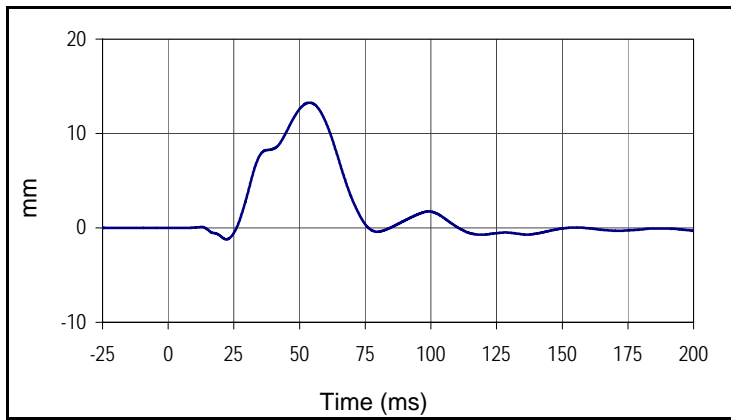
Curve Description			
Driver Head Resultant Acceleration Primary			
Plot No.		SAE Class	Units
004		1000	g
Max	Time	Min	Time
28.9	46.5	0.0	4.9

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

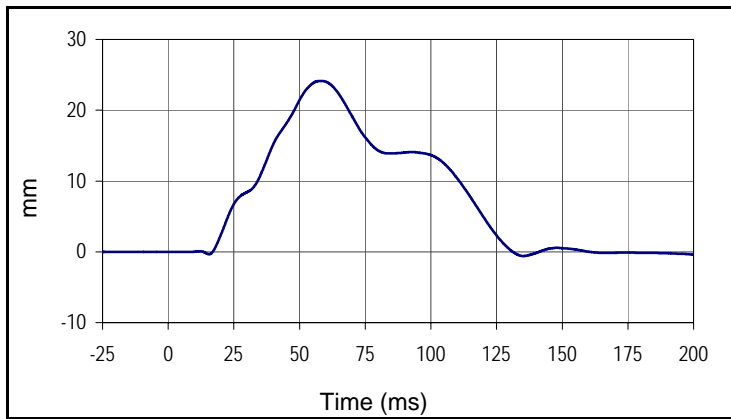
NHTSA No.: M20184302
 Test Date: 12/13/17



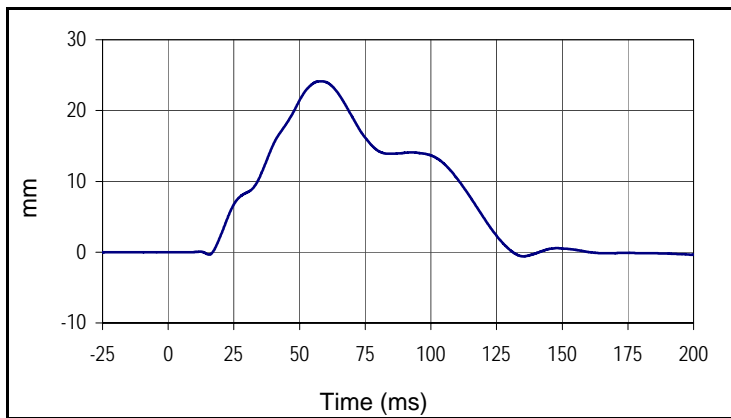
Curve Description			
Driver Upper Thorax Rib Deflection Y			
Plot No.		SAE Class	Units
005		180	mm
Max	Time	Min	Time
6.8	51.0	-1.8	67.6



Curve Description			
Driver Middle Thorax Rib Deflection Y			
Plot No.		SAE Class	Units
006		180	mm
Max	Time	Min	Time
13.3	53.8	-1.2	22.1



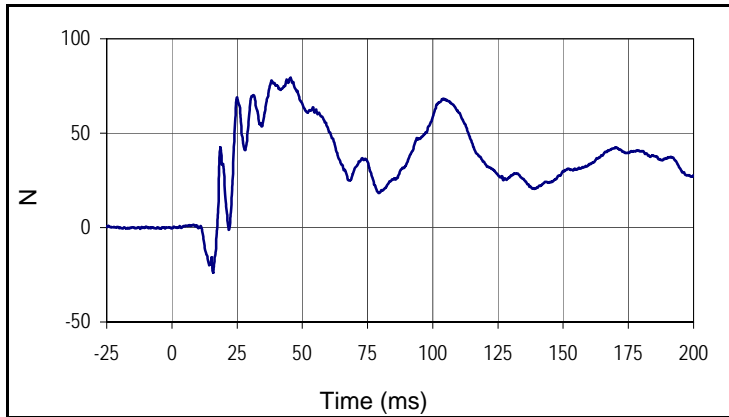
Curve Description			
Driver Lower Thorax Rib Deflection Y			
Plot No.		SAE Class	Units
007		180	mm
Max	Time	Min	Time
24.1	58.1	-0.6	135.2



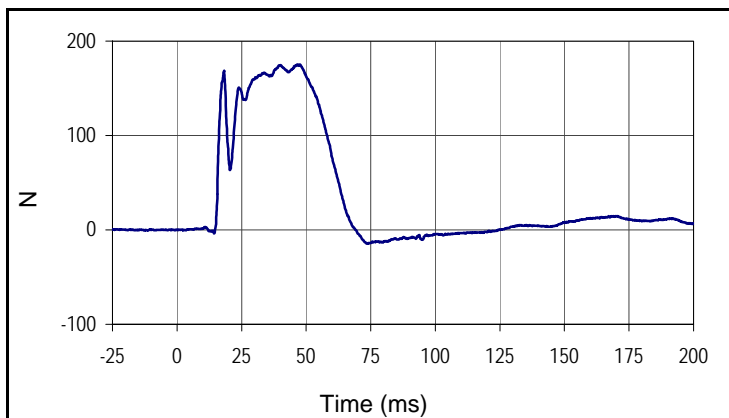
Curve Description			
Driver Thorax Rib Deflection Maximum Y			
Plot No.		SAE Class	Units
008		180	mm
Max	Time	Min	Time
24.1	58.1	-0.6	135.2

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

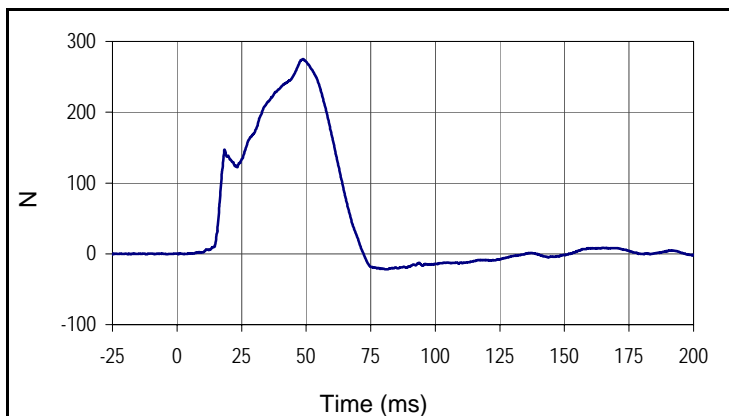
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 Test Date: 12/13/17



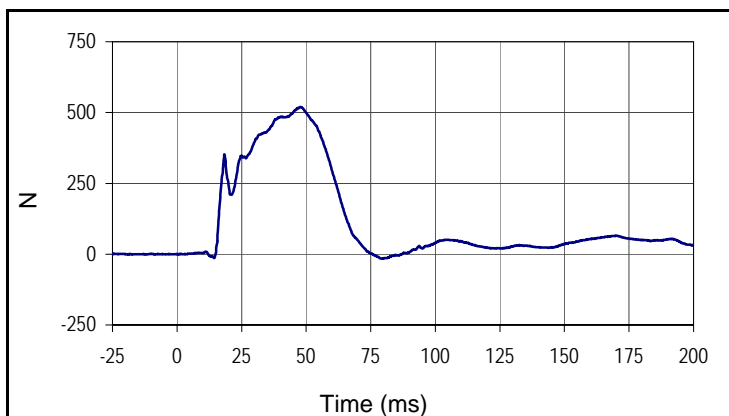
Curve Description			
Driver Anterior Abdominal Force Y			
Plot No.		SAE Class	Units
009		600	N
Max	Time	Min	Time
79.4	45.5	-23.9	15.8



Curve Description			
Driver Middle Abdominal Force Y			
Plot No.		SAE Class	Units
010		600	N
Max	Time	Min	Time
175.4	47.6	-14.7	73.5



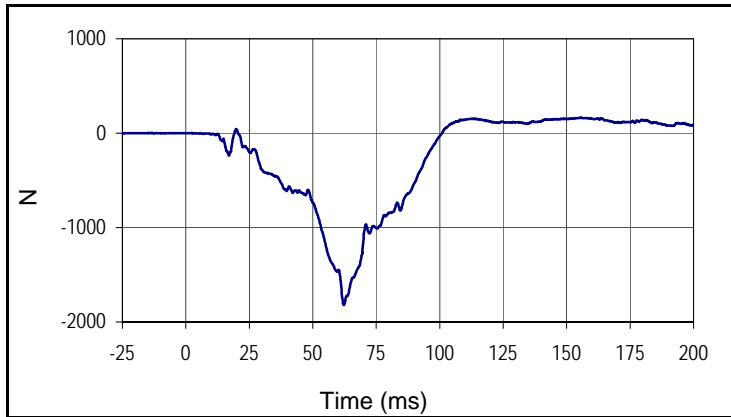
Curve Description			
Driver Posterior Abdominal Force Y			
Plot No.		SAE Class	Units
011		600	N
Max	Time	Min	Time
275.0	48.8	-22.0	81.1



Curve Description			
Driver Total Abdominal Force			
Plot No.		SAE Class	Units
012		600	N
Max	Time	Min	Time
519.7	48.0	-16.0	79.4

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

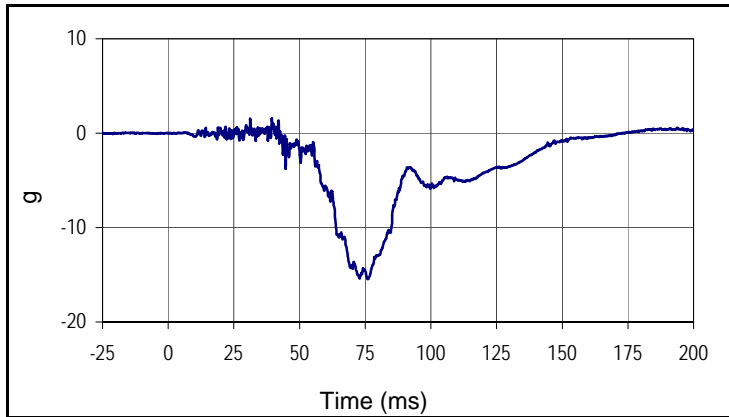
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 Test Date: 12/13/17



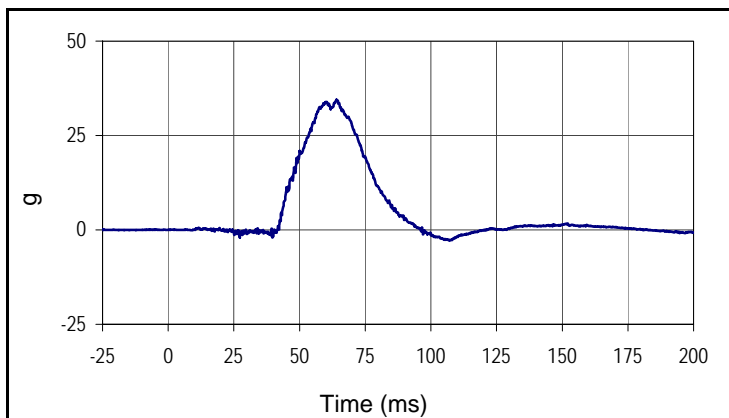
Curve Description			
Driver Pubic Symphysis Force Y			
Plot No.		SAE Class	Units
013		600	N
Max	Time	Min	Time
164.4	155.8	-1819.8	62.2

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

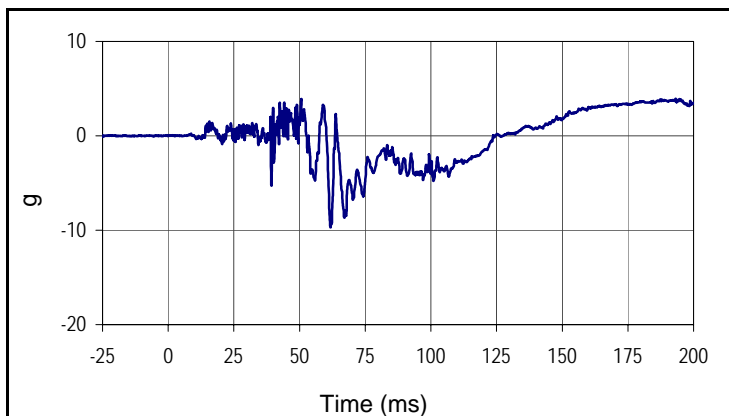
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 Test Date: 12/13/17



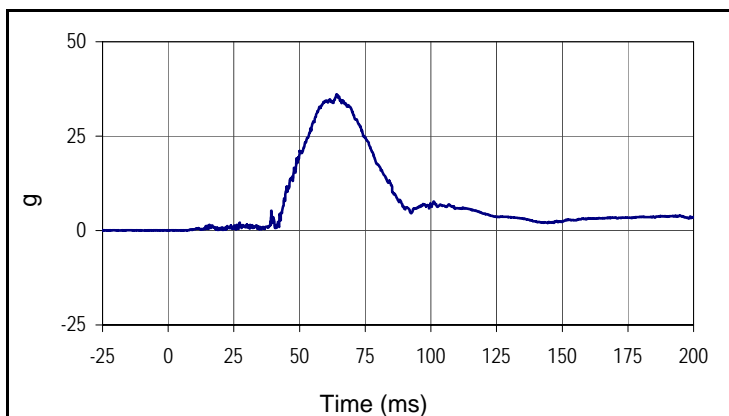
Curve Description			
Passenger Head Acceleration X Primary			
Plot No.		SAE Class	Units
014		1000	g
Max	Time	Min	Time
1.6	39.5	-15.5	76.0



Curve Description			
Passenger Head Acceleration Y Primary			
Plot No.		SAE Class	Units
015		1000	g
Max	Time	Min	Time
34.4	64.0	-2.8	107.0



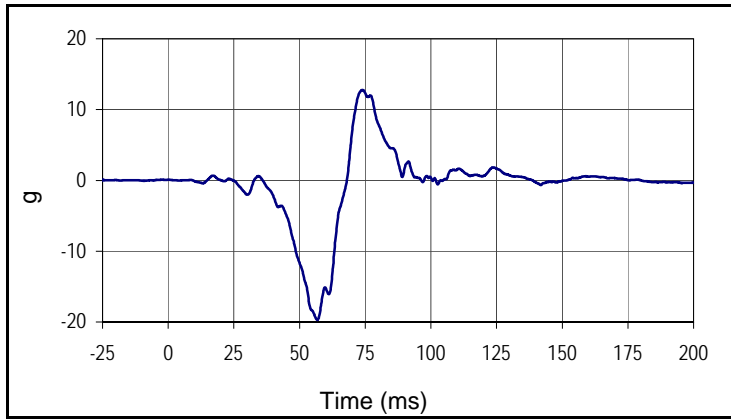
Curve Description			
Passenger Head Acceleration Z Primary			
Plot No.		SAE Class	Units
016		1000	g
Max	Time	Min	Time
3.9	193.2	-9.7	61.7



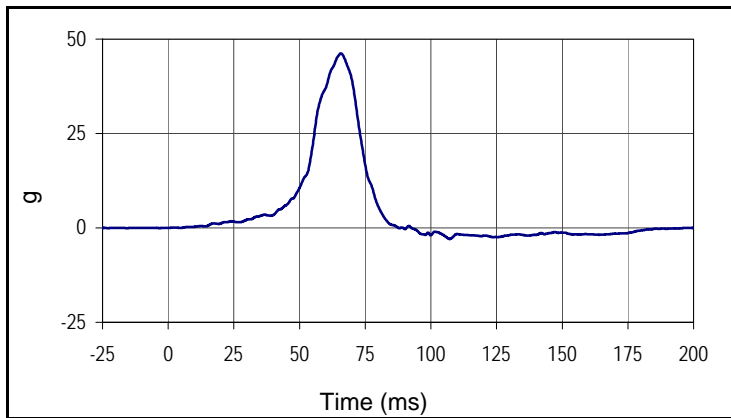
Curve Description			
Passenger Head Acceleration Resultant Primary			
Plot No.		SAE Class	Units
017		1000	g
Max	Time	Min	Time
36.0	64.0	0.0	3.6

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

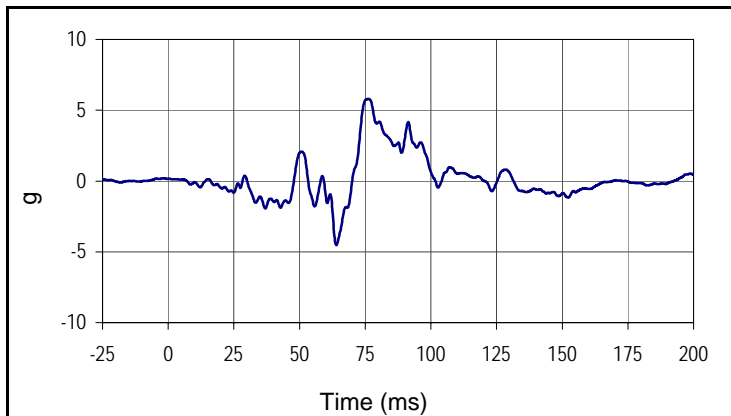
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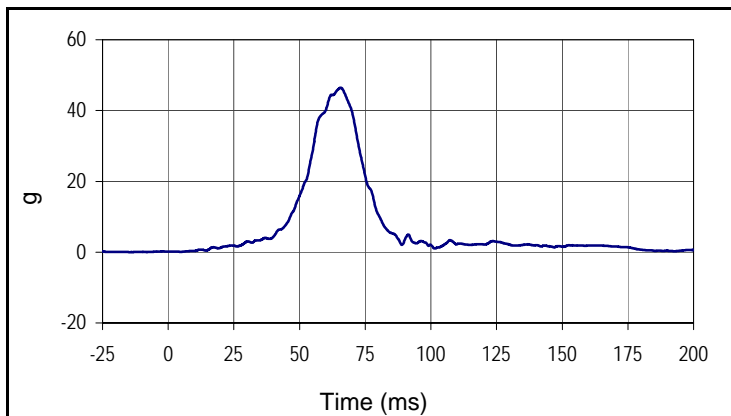
Curve Description			
Passenger Lower Spine T12 Acceleration X			
Plot No.		SAE Class	Units
018		180	g
Max	Time	Min	Time
12.8	74.0	-19.7	56.7



Curve Description			
Passenger Lower Spine T12 Acceleration Y			
Plot No.		SAE Class	Units
019		180	g
Max	Time	Min	Time
46.2	65.8	-2.9	107.2



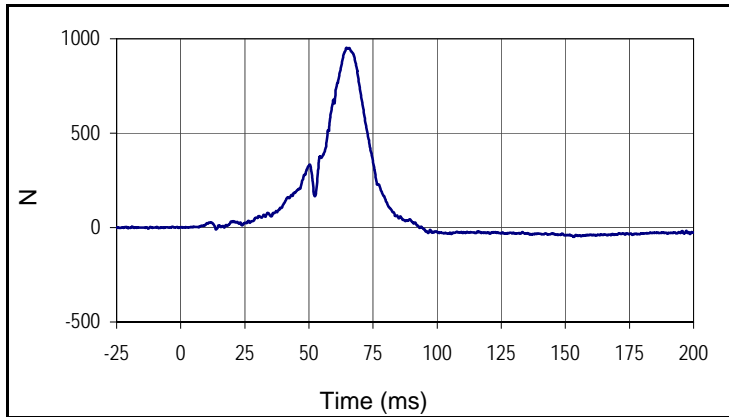
Curve Description			
Passenger Lower Spine T12 Acceleration Z			
Plot No.		SAE Class	Units
020		180	g
Max	Time	Min	Time
5.8	76.3	-4.5	64.0



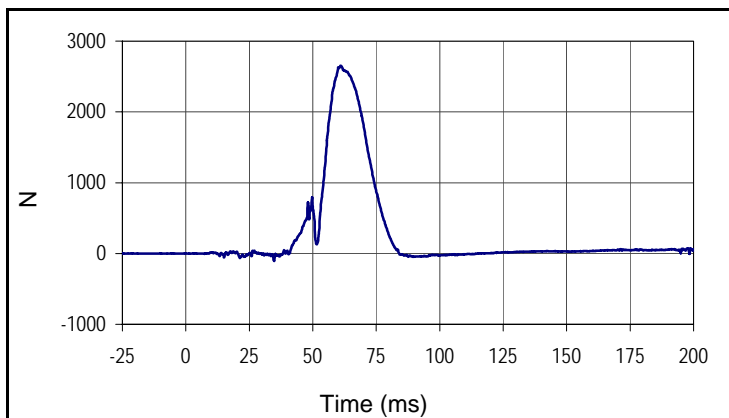
Curve Description			
Passenger Lower Spine T12 Acceleration Res.			
Plot No.		SAE Class	Units
021		180	g
Max	Time	Min	Time
46.4	65.7	0.1	4.8

Test Vehicle: 2018 Mercedes-Benz GLC 300 5-Door MPV
 Test Program: NCAP MDB Side Impact Test

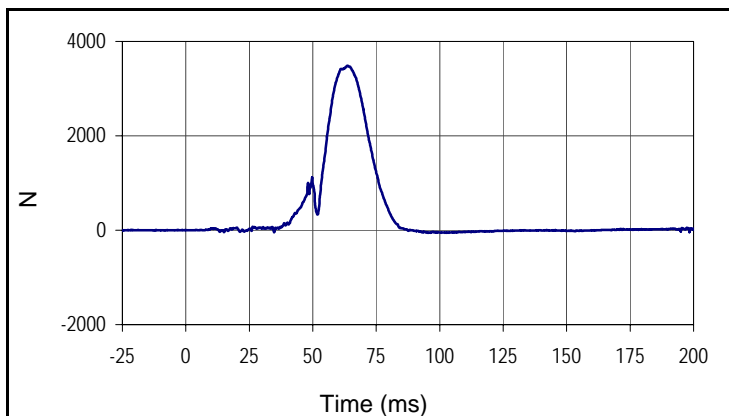
NHTSA No.: M20184302
 Test Date: 12/13/17



Curve Description			
Passenger Iliac Force on Impact Side Y			
Plot No.		SAE Class	Units
022		600	N
Max	Time	Min	Time
952.2	64.6	-48.4	153.3



Curve Description			
Passenger Acetabulum Force on Impact Side Y			
Plot No.		SAE Class	Units
023		600	N
Max	Time	Min	Time
2653.3	61.0	-103.5	34.8



Curve Description			
Passenger Total Pelvic Force			
Plot No.		SAE Class	Units
024		600	N
Max	Time	Min	Time
3487.0	63.7	-55.5	95.5

APPENDIX C
ATD CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST ATD CONFIGURATION AND PERFORMANCE VERIFICATION DATA



ES-2re 50th Male Side Impact ATD
External Measurements

ATD Serial No.: F037

Test Date: 2017-12-05

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	33	Pass
1 - Sitting Height	mm	900	918	906	Pass
2 - Seat to Shoulder Joint	mm	558	572	564	Pass
3 - Seat to Lower Face of Thoracic Spine Box	mm	346	356	352	Pass
4 - Seat to Hip Joint (bolt center)	mm	97	103	102	Pass
5 - Sole to Seat, Sitting	mm	333	451	385	Pass
6 - Head Width	mm	152	158	156	Pass
7 - Shoulder/Arm Width	mm	461	479	472	Pass
8 - Thorax Width	mm	322	332	328	Pass
9 - Abdomen Width	mm	273	287	281	Pass
10 - Pelvis Lap Width	mm	359	373	364	Pass
11 - Head Depth	mm	196	206	205	Pass
12 - Thorax Depth	mm	262	272	267	Pass
13 - Abdomen Depth	mm	194	204	199	Pass
14 - Pelvis Depth	mm	235	245	243	Pass
15 - Back of Buttocks to Hip Joint (bolt Center)	mm	150	160	155	Pass
16 - Back of Buttocks to Front Knee	mm	597	615	601	Pass
				Overall Test Results	Pass

Technician: 

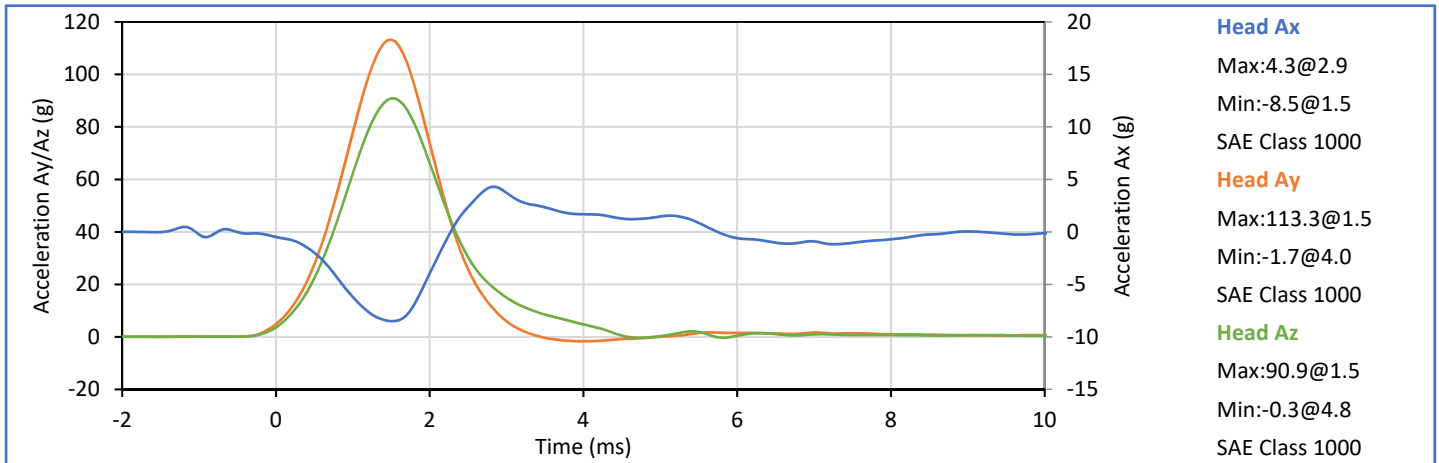
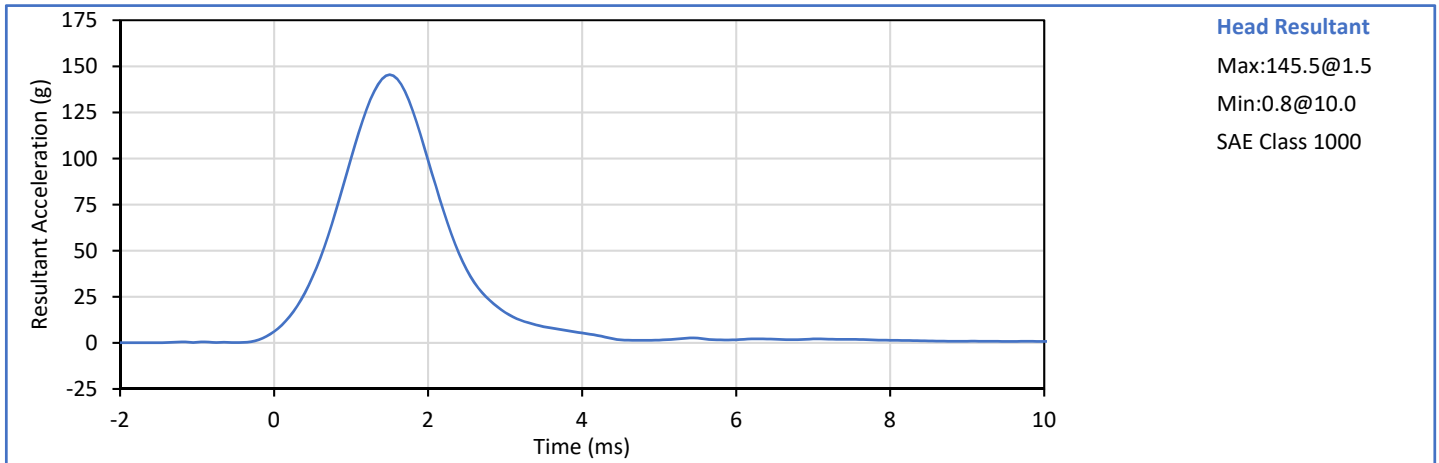
Approved By: 



ATD Serial No.: F037

Test Date: 2017-11-30

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	22	Pass
Peak Resultant Acceleration	g	125.0	155.0	145.5	Pass
Peak Head Ax	g	-15.0	15.0	4.3	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: *Smith*

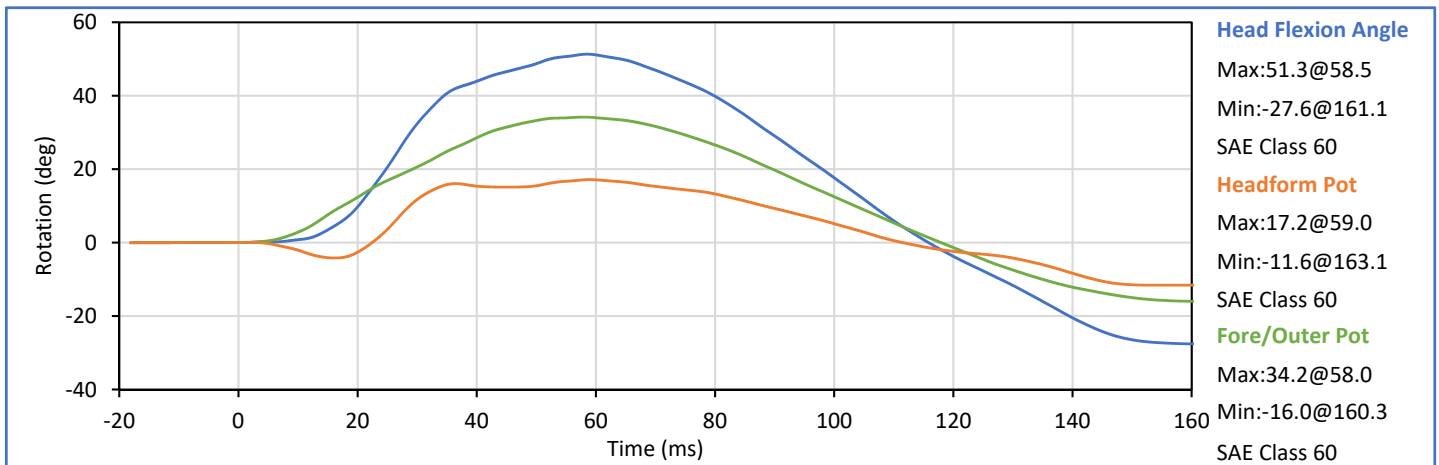
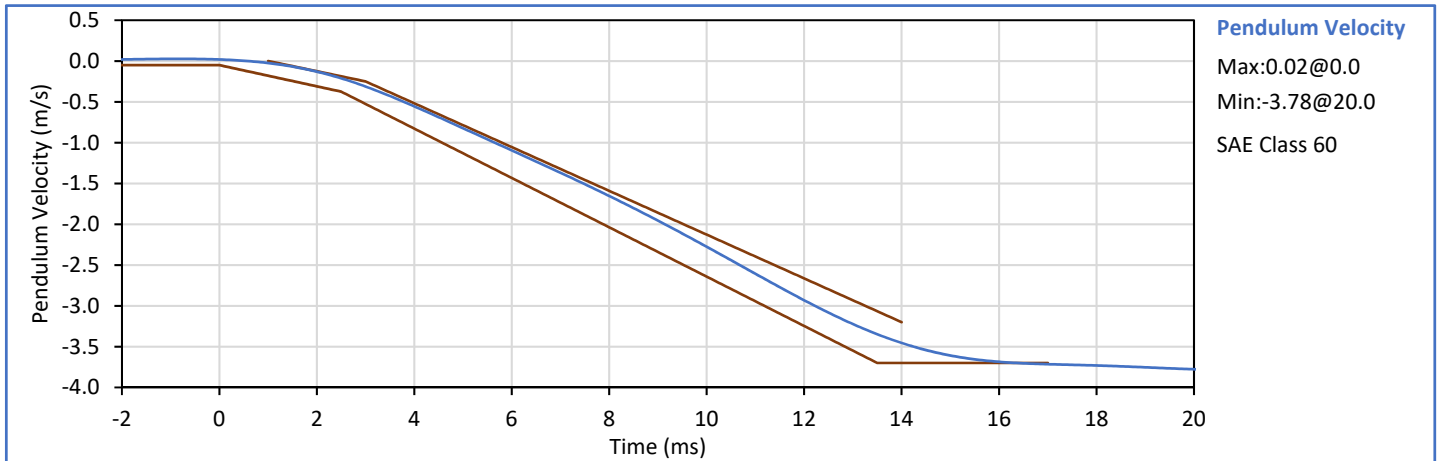
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-04

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	20	Pass
Pendulum Velocity	m/s	3.30	3.50	3.46	Pass
Peak Headform Flexion	deg	49.0	59.0	51.3	Pass
Time of Peak Headform Flexion	ms	54.0	66.0	58.5	Pass
Flexion Decay (Peak to zero)	ms	53.0	88.0	57.4	Pass
Overall Test Results					Pass



Technician: *Scotty*

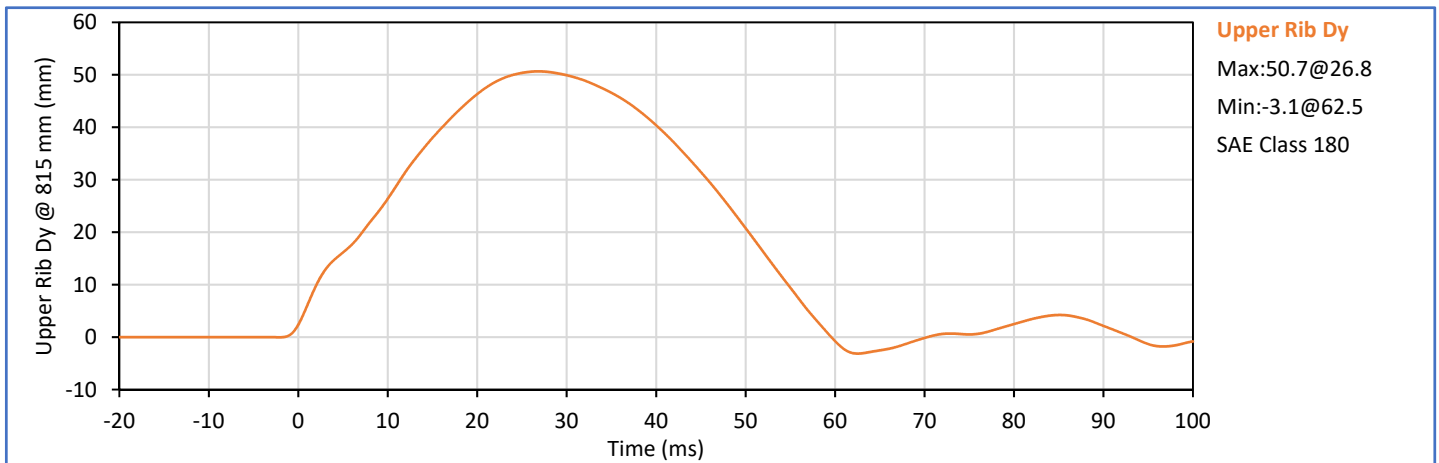
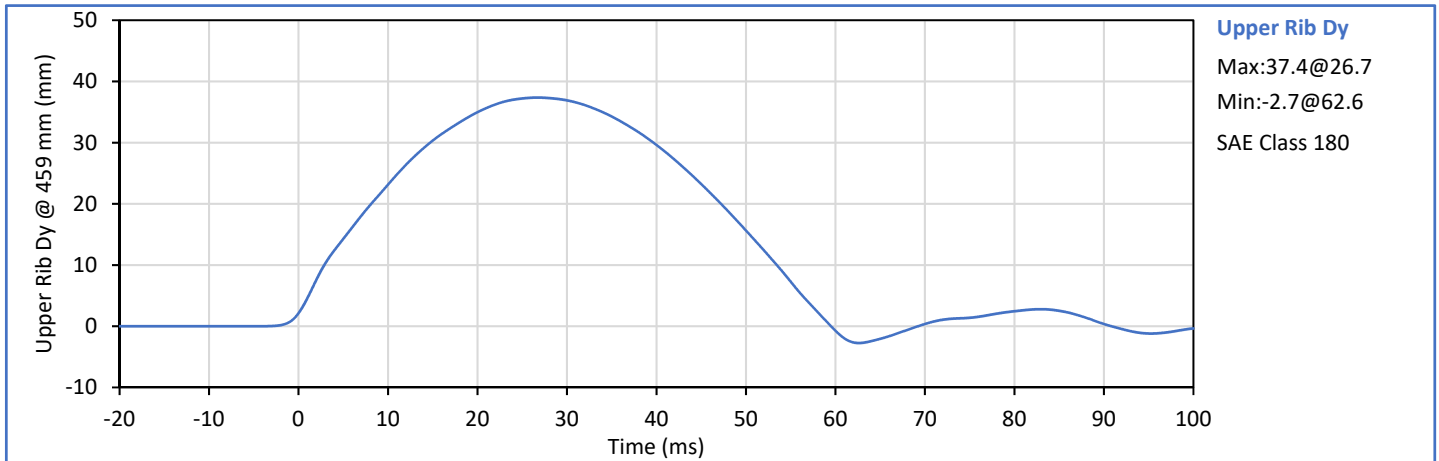
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-04

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	22	Pass
Upper Rib Dy @ (459mm)	mm	36.0	40.0	37.4	Pass
Upper Rib Dy @ (815mm)	mm	46.0	51.0	50.7	Pass
Overall Test Results					Pass



Technician: *Scotty*

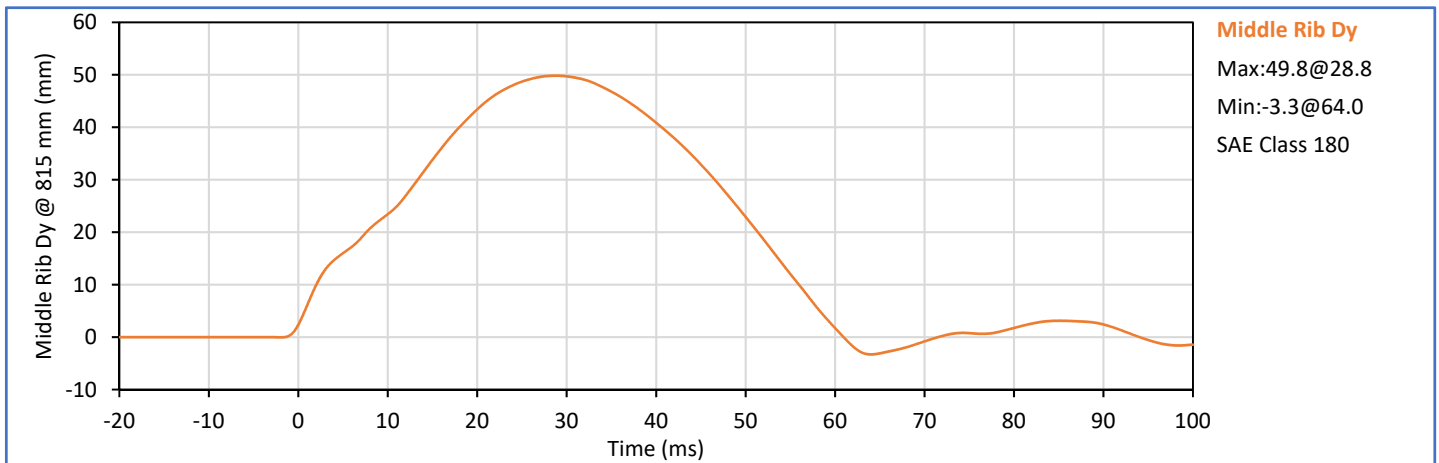
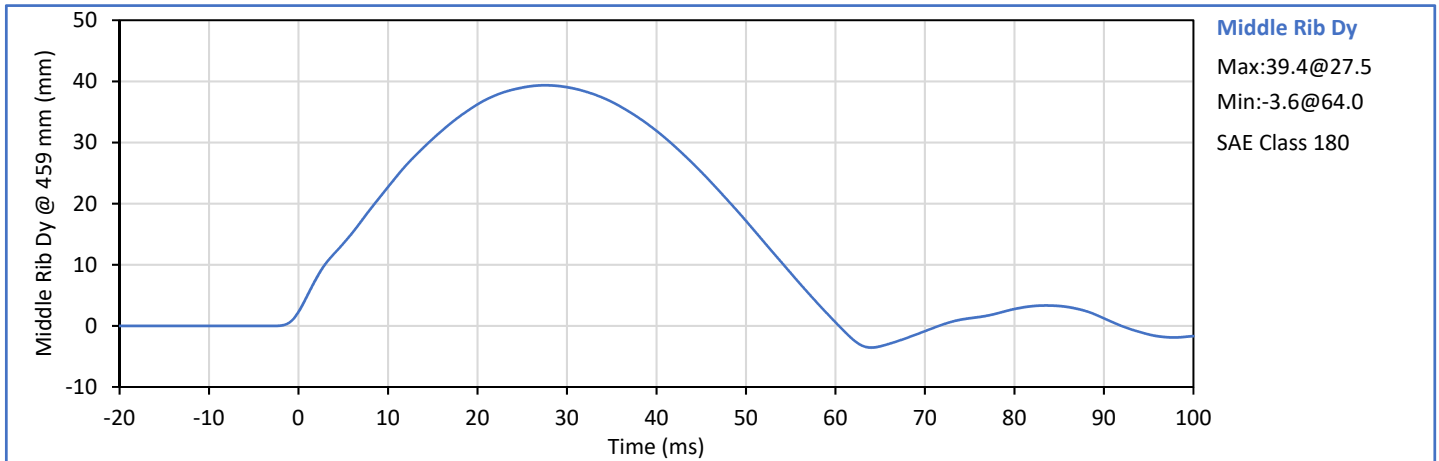
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-04

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	22	Pass
Middle Rib Dy @ (459mm)	mm	36.0	40.0	39.4	Pass
Middle Rib Dy @ (815mm)	mm	46.0	51.0	49.8	Pass
Overall Test Results					Pass



Technician: *Scotty*

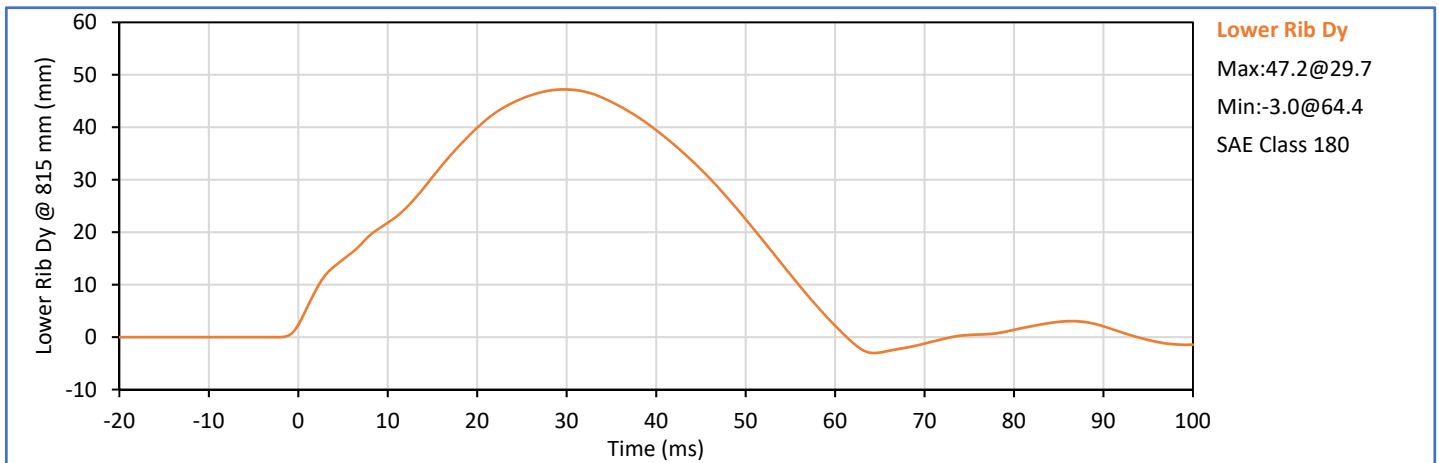
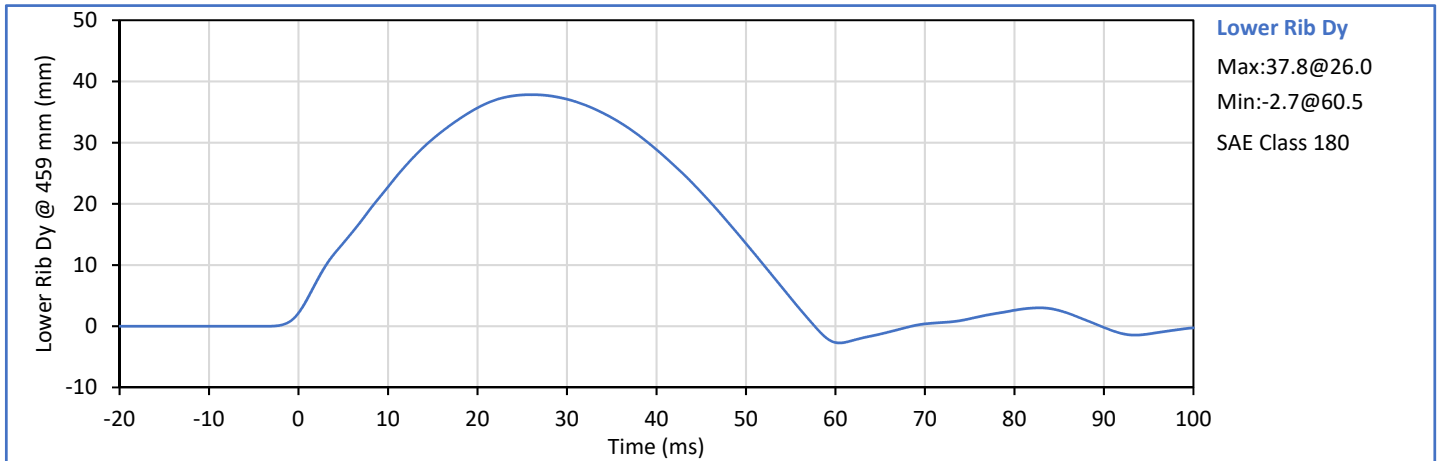
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-04

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	22	Pass
Lower Rib Dy @ (459mm)	mm	36.0	40.0	37.8	Pass
Lower Rib Dy @ (815mm)	mm	46.0	51.0	47.2	Pass
Overall Test Results					Pass



Technician: *Scotty*

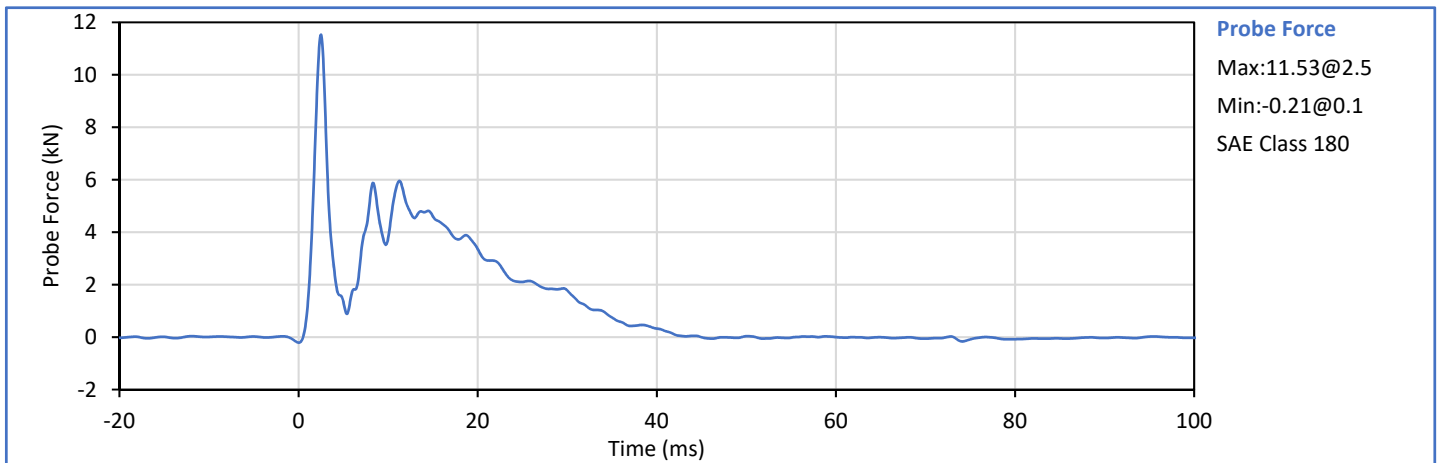
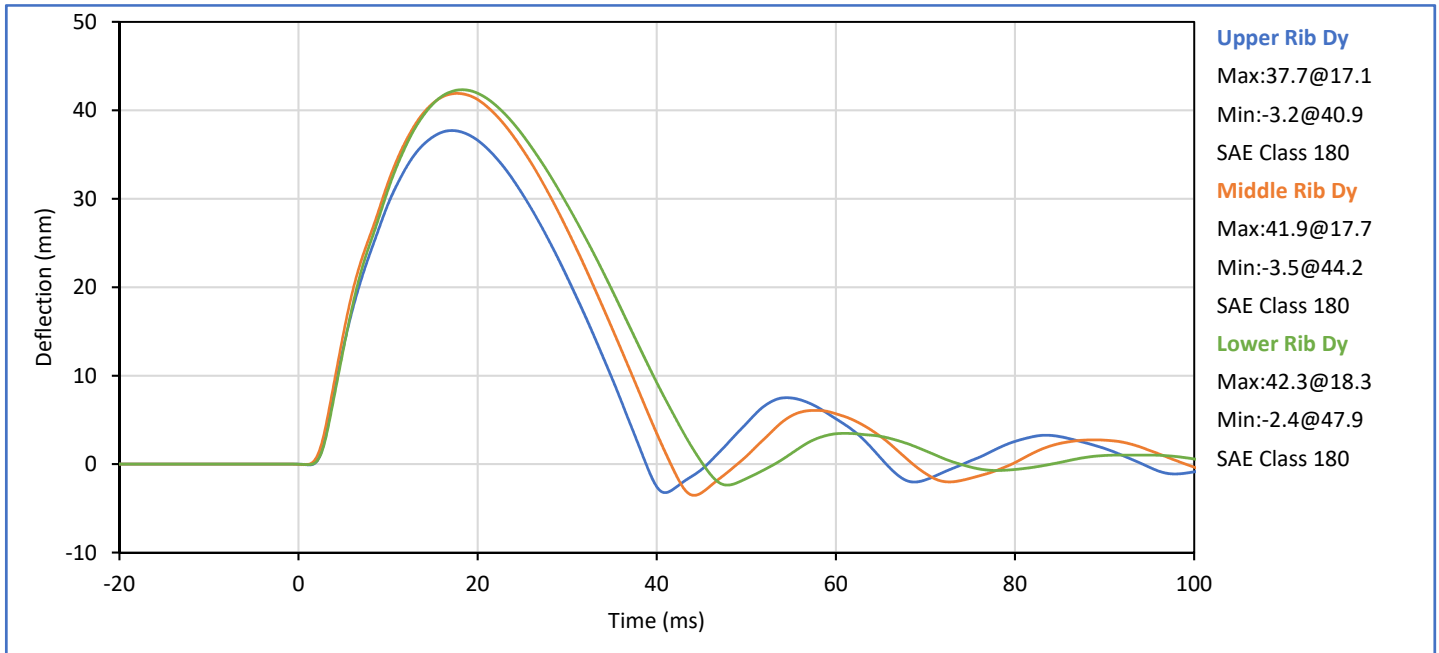
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-05

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.6	Pass
Laboratory Humidity	%	10	70	20	Pass
Impactor Velocity	m/s	5.40	5.60	5.53	Pass
Peak Upper Rib Dy	mm	34.0	41.0	37.7	Pass
Peak Middle Rib Dy	mm	37.0	45.0	41.9	Pass
Peak Lower Rib Dy	mm	37.0	44.0	42.3	Pass
Peak Impactor Force After 6 ms	kN	5.10	6.20	5.96	Pass
Overall Test Results					Pass



Technician: *Scotty*

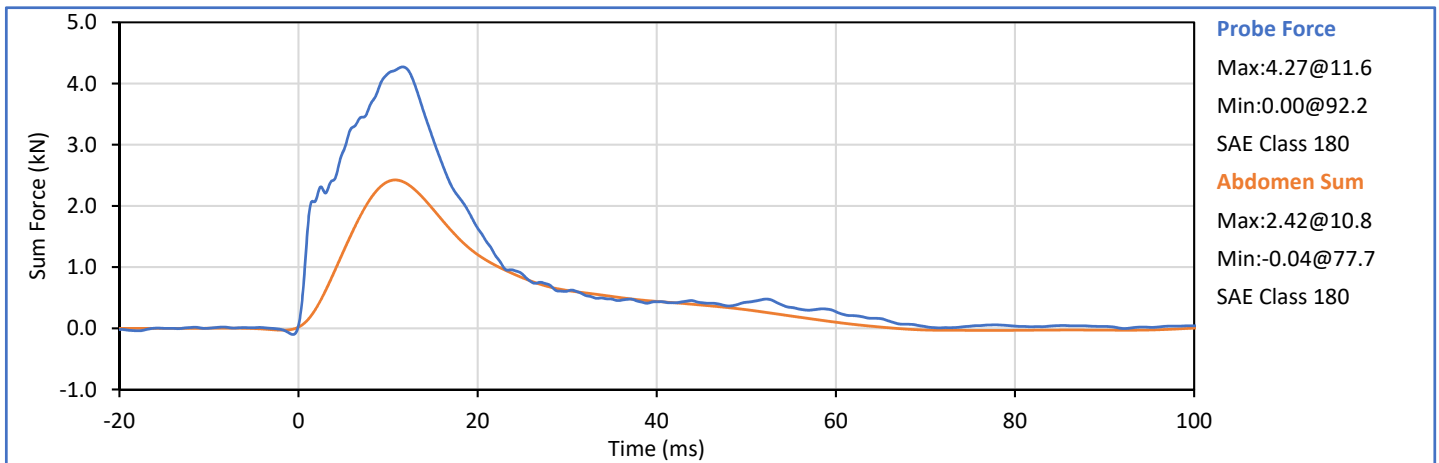
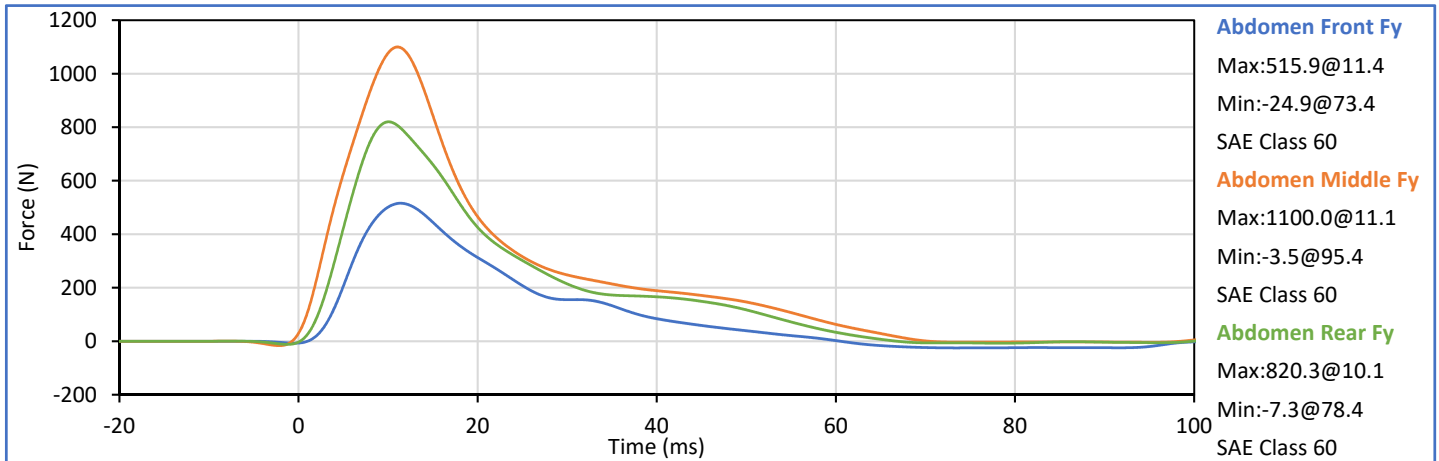
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-05

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.7	Pass
Laboratory Humidity	%	10	70	20	Pass
Impactor Velocity	m/s	3.90	4.10	4.03	Pass
Peak Impactor Force	kN	4.00	4.80	4.27	Pass
Time of Peak Impactor Force	ms	10.6	13.0	11.6	Pass
Sum of Abdomen Forces	kN	2.20	2.70	2.42	Pass
Time of Peak Sum Abdomen Force	ms	10.0	12.3	10.8	Pass
Overall Test Results					Pass



Technician: *Scotty*

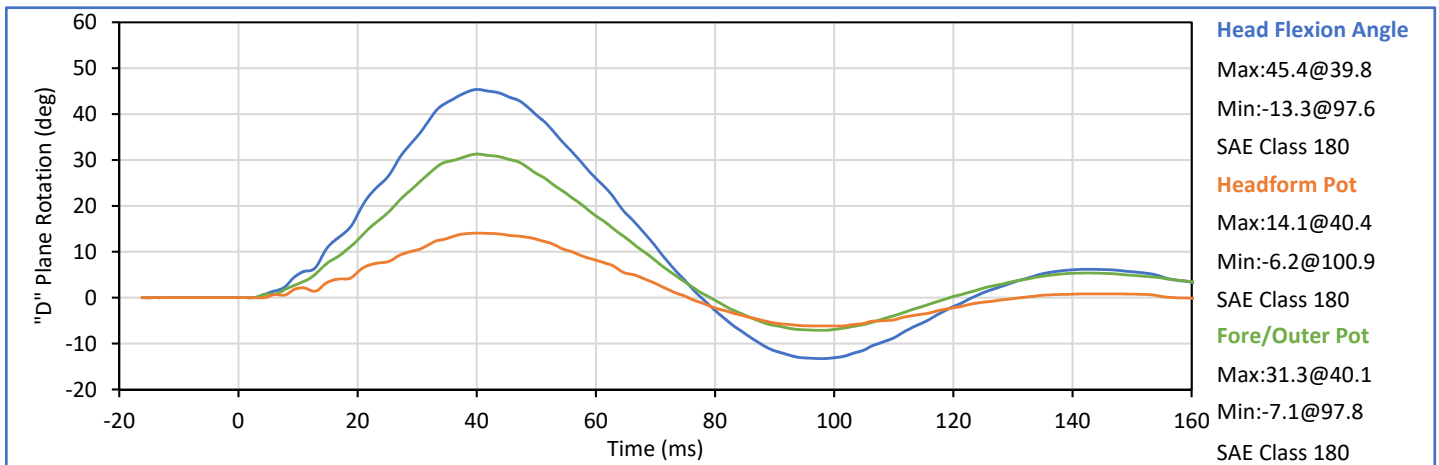
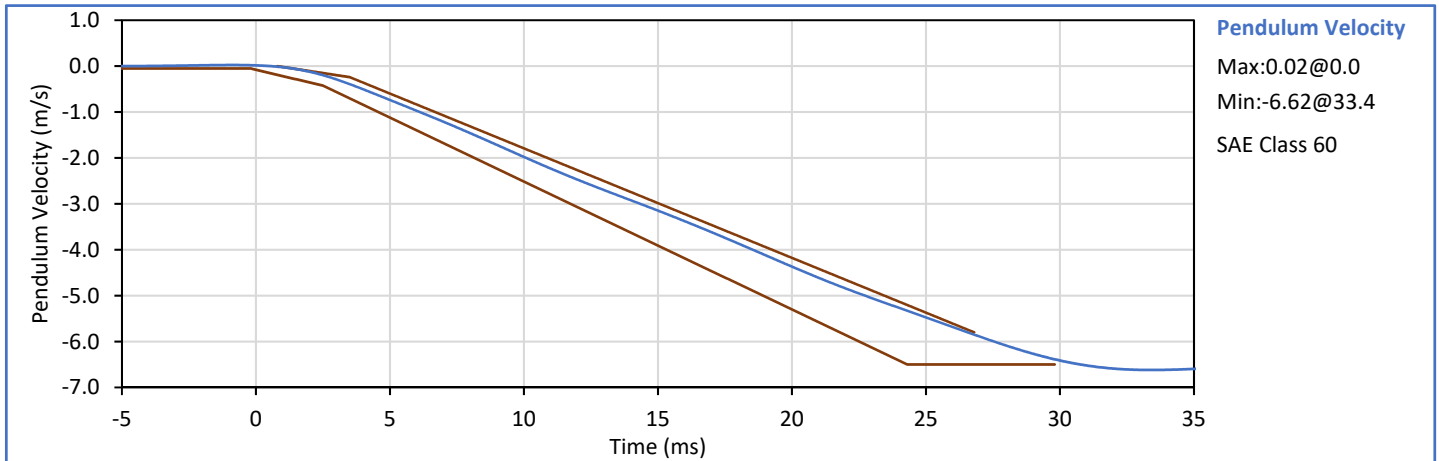
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-04

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	20	Pass
Pendulum Velocity	m/s	5.95	6.15	6.04	Pass
Peak Headform Flexion	deg	45.0	55.0	45.4	Pass
Time of Peak Headform Flexion	ms	39.0	53.0	40.1	Pass
Flexion Decay (Peak to zero)	ms	37.0	57.0	37.6	Pass
Overall Test Results					Pass



Technician: *Scotty*

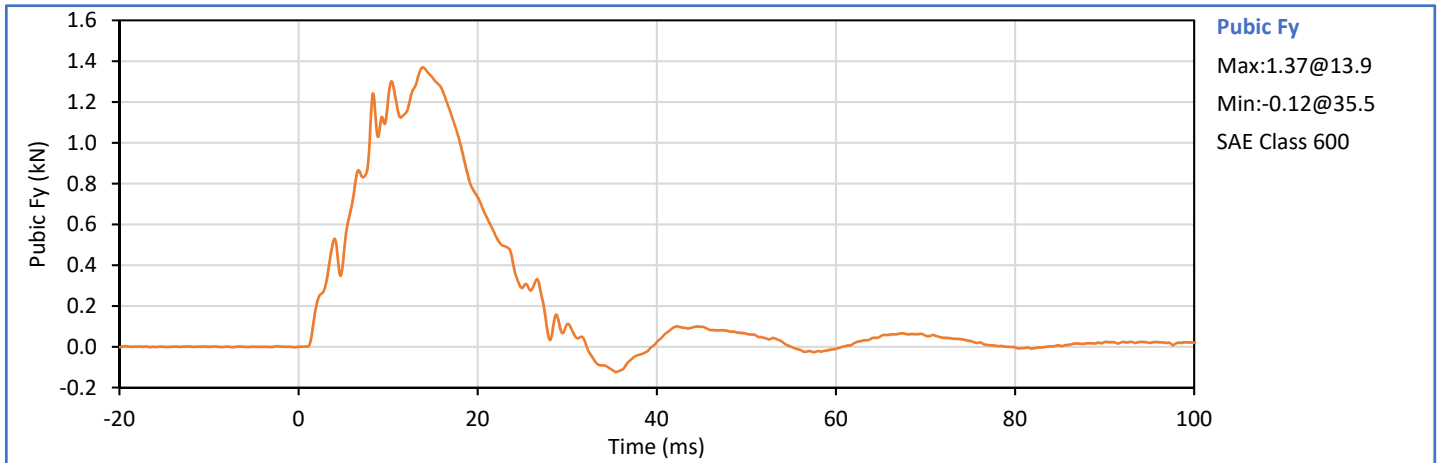
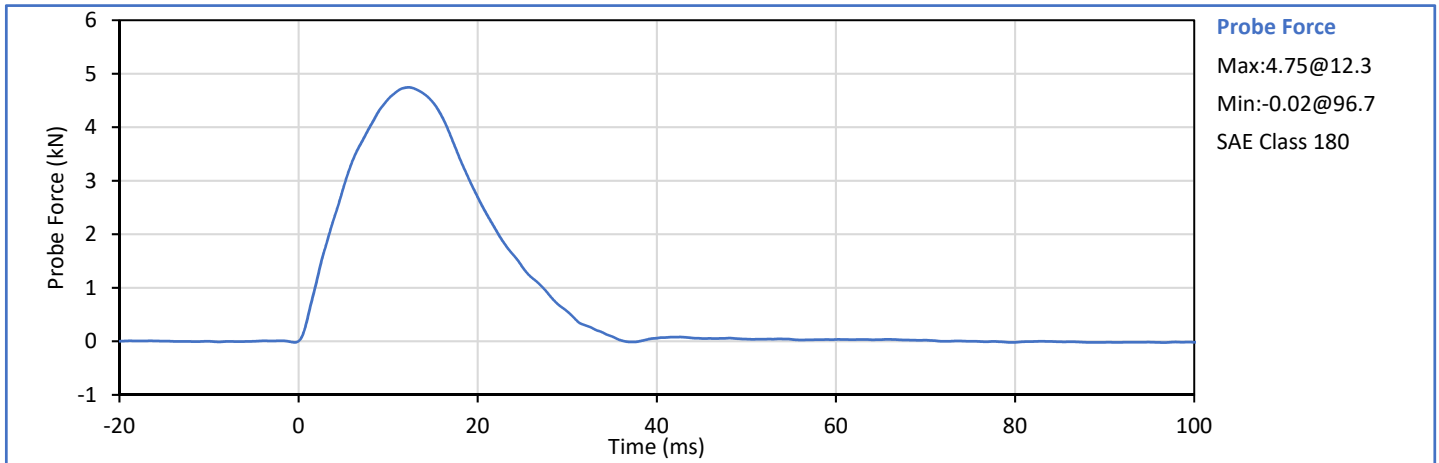
Approved By: *Wep*



ATD Serial No.: F037

Test Date: 2017-12-05

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	20	Pass
Impactor Velocity	m/s	4.20	4.40	4.33	Pass
Peak Impactor Force	kN	4.70	5.40	4.75	Pass
Time of Peak Impactor Force	ms	11.8	16.1	12.3	Pass
Pubic Symphysis Fy	kN	1.23	1.59	1.37	Pass
Time of Peak Pubic Symphysis Fy	ms	12.2	17.0	13.9	Pass
Overall Test Results					Pass



Technician: *Scotty*

Approved By: *Wep*



**SID-IIs Small Side Impact Dummy
 External Measurements**

ATD Serial No.: 299

Test Date: 2017-12-05

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	20	Pass
A - Sitting Height	mm	772	788	782	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	143	Pass
E - Shoulder Pivot From Backline	mm	97	107	103	Pass
F - Thigh Clearance	mm	119	135	127	Pass
G - Head Breadth	mm	140	148	148	Pass
H - Head Back From Backline	mm	40	46	44	Pass
I - Head Depth	mm	178	188	186	Pass
J - Head Circumference	mm	541	551	546	Pass
K - Buttock To Knee Length	mm	514	540	528	Pass
L - Popliteal Height	mm	343	369	352	Pass
K - Knee Pivot To Floor Height	mm	392	409	398	Pass
N - Buttock Popliteal Length	mm	416	442	435	Pass
O - Chest Depth W/O Jacket	mm	195	211	202	Pass
P - Foot Length	mm	216	232	223	Pass
Q - Hip Breadth (W/Pelvic Plugs)	mm	313	323	318	Pass
R - Arm Length	mm	249	259	257	Pass
S - Knee Joint To Seatback	mm	477	493	481	Pass
V - Shoulder Width	mm	341	357	350	Pass
W - Foot Width	mm	78	94	87	Pass
Y - Chest Circumference W/Jacket	mm	851	881	869	Pass
Z - Waist Circumference	mm	761	791	781	Pass
Overall Test Results					Pass

Technician: 

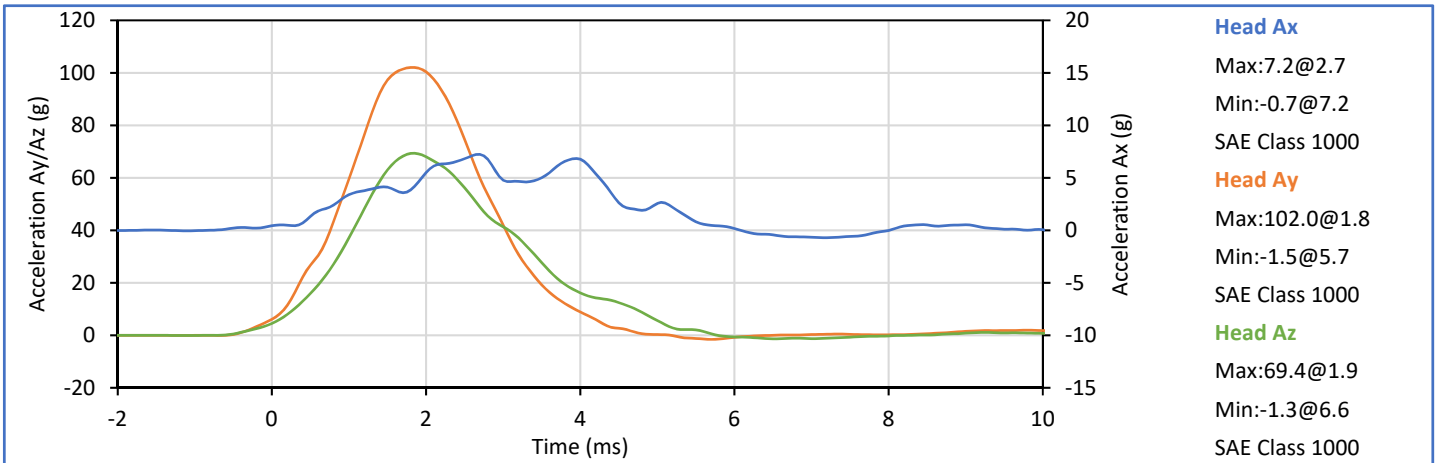
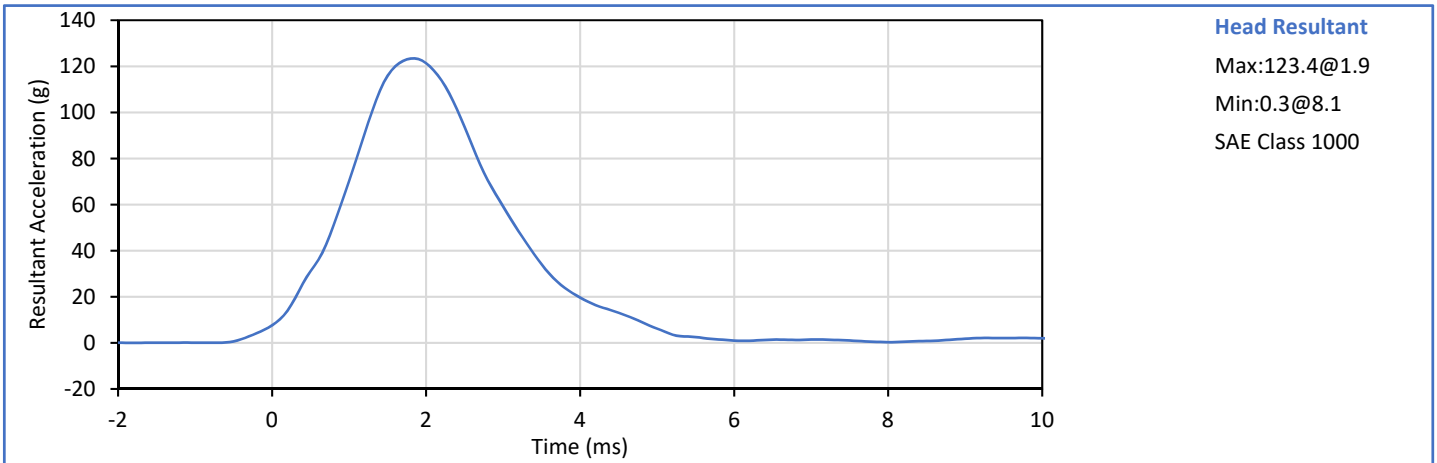
Approved By: 



ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	18.9	25.6	21.1	Pass
Laboratory Humidity	%	10	70	21	Pass
Peak Resultant Acceleration	g	115.0	137.0	123.4	Pass
Peak Head Ax	g	-15.0	15.0	-0.7	Pass
Oscillations After Main Pulse	%	0.0	15.0	1.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes		Yes	Pass
Overall Test Results					Pass



Technician: *Smith*

Approved By: *Wep*

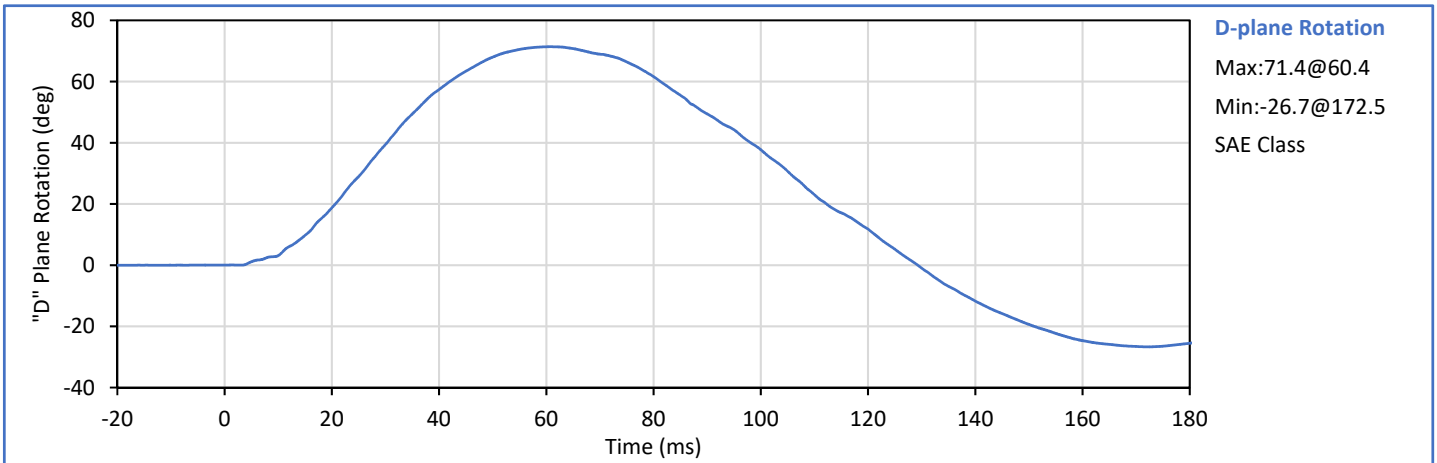
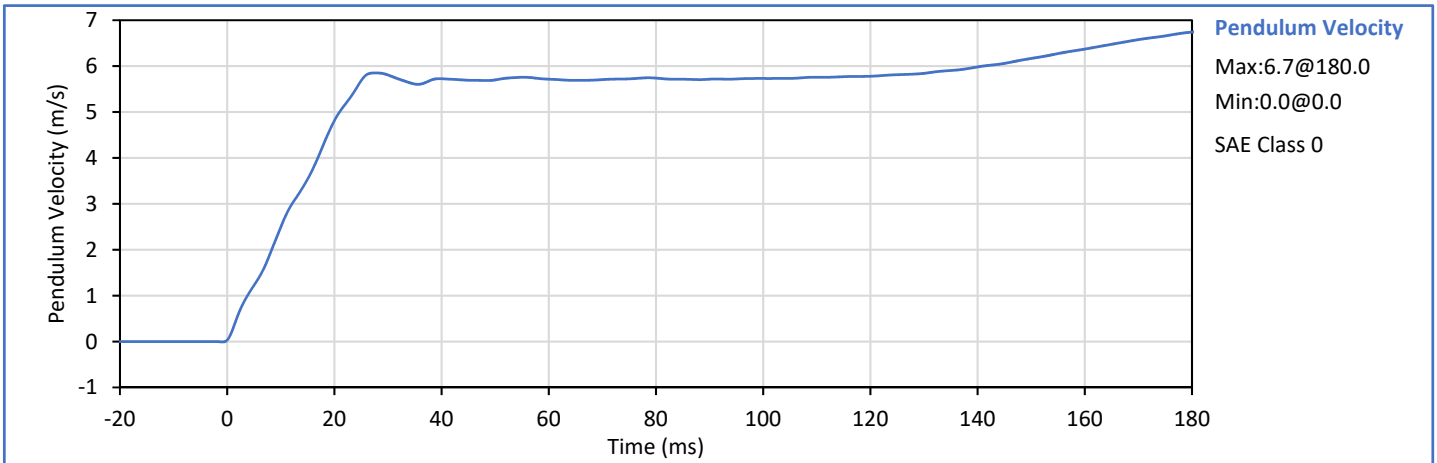


**SID-IIs Small Side Impact Dummy
 Neck Flexion**

ATD Serial No.: 299

Test Date: 2017-12-05

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.0	Pass
Laboratory Humidity	%	10	70	22	Pass
Pendulum Velocity	m/s	5.51	5.63	5.51	Pass
Pendulum Decel at 10 ms	m/s	2.20	2.80	2.49	Pass
Pendulum Decel at 15 ms	m/s	3.30	4.10	3.54	Pass
Pendulum Decel at 20 ms	m/s	4.40	5.40	4.81	Pass
Pendulum Decel at 25 ms	m/s	5.40	6.10	5.68	Pass
Pendulum Decel from 25-100 ms	m/s	5.50	6.20	5.85	Pass
Peak "D" Plane Rotation	deg	71.0	81.0	71.4	Pass
Time of Peak "D" Plane Rotation	ms	50.0	70.0	60.4	Pass
Peak Occ. Condyle Moment	Nm	-44.0	-36.0	-40.9	Pass
Time of Moment Decay to 0 Nm	ms	102.0	126.0	112.7	Pass
Overall Test Results					Pass



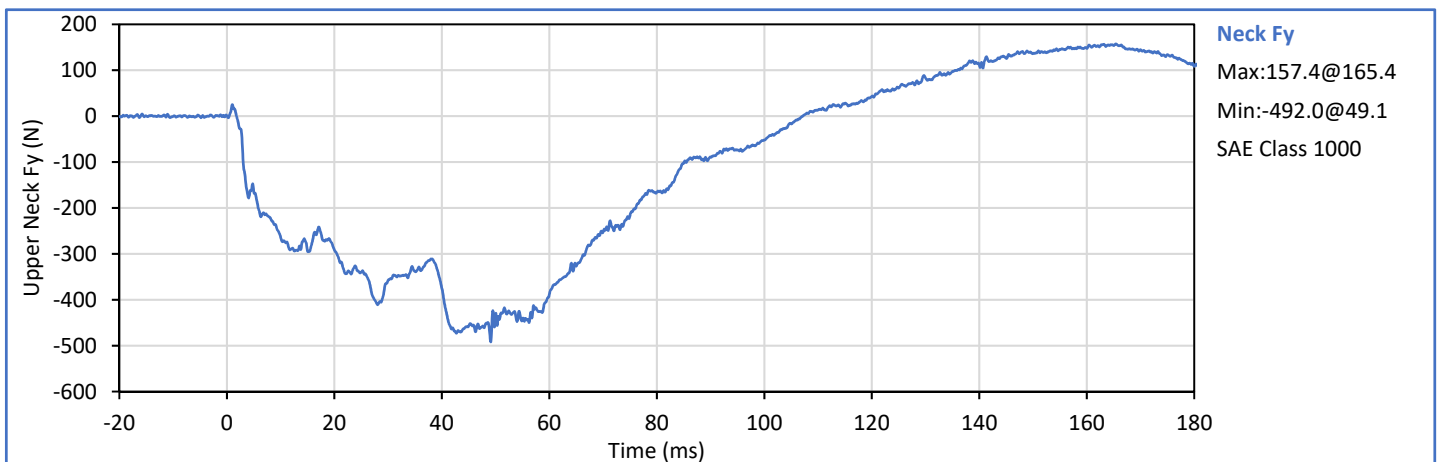
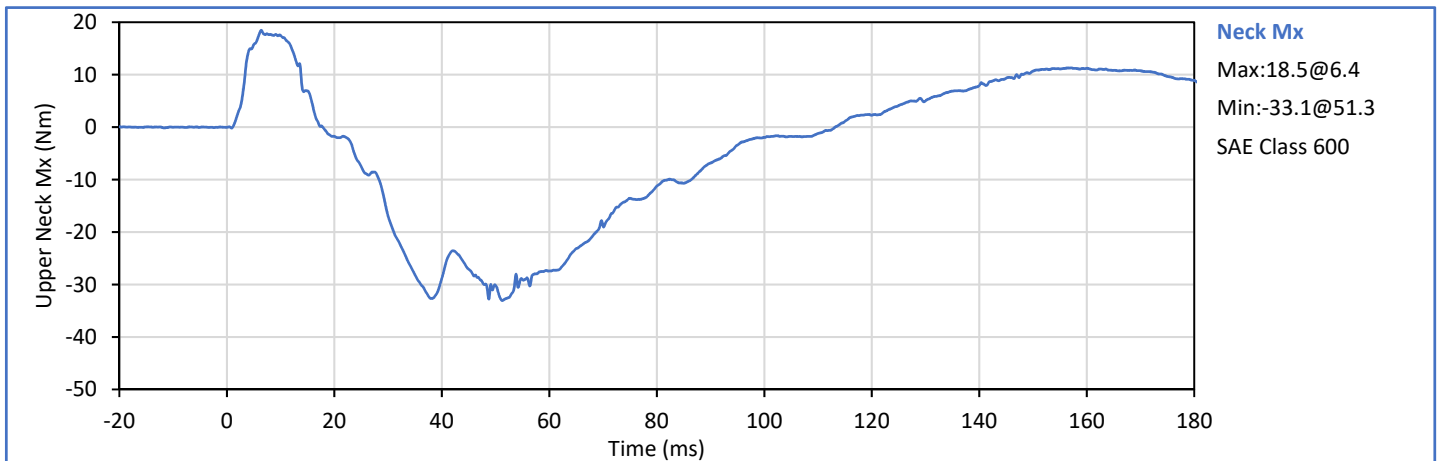
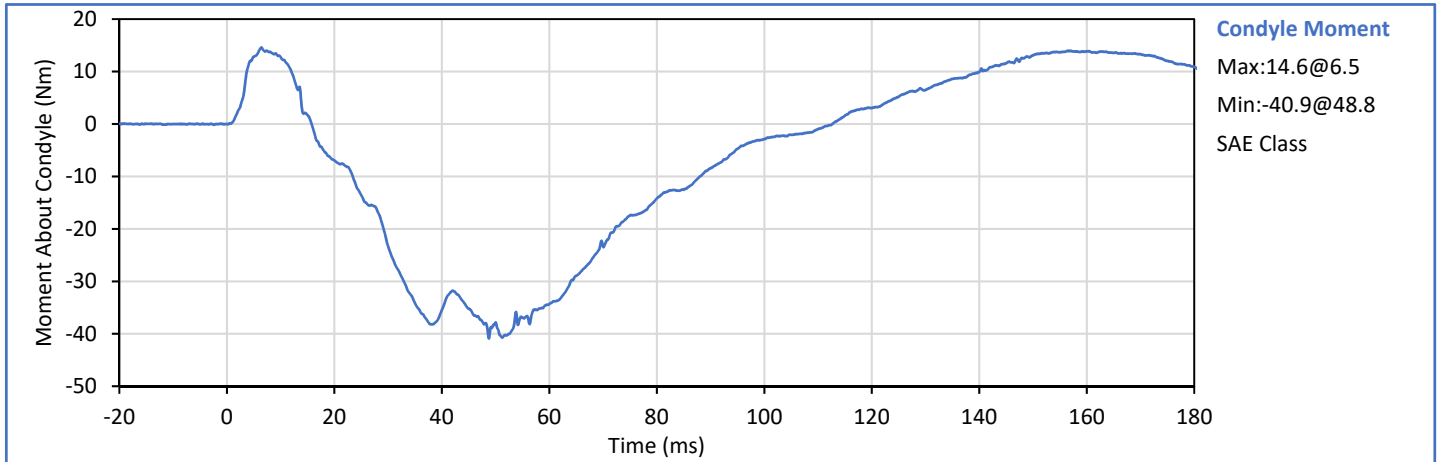
Technician: *Scotty*

Approved By: *Wep*



ATD Serial No.: 299

Test Date: 2017-12-05

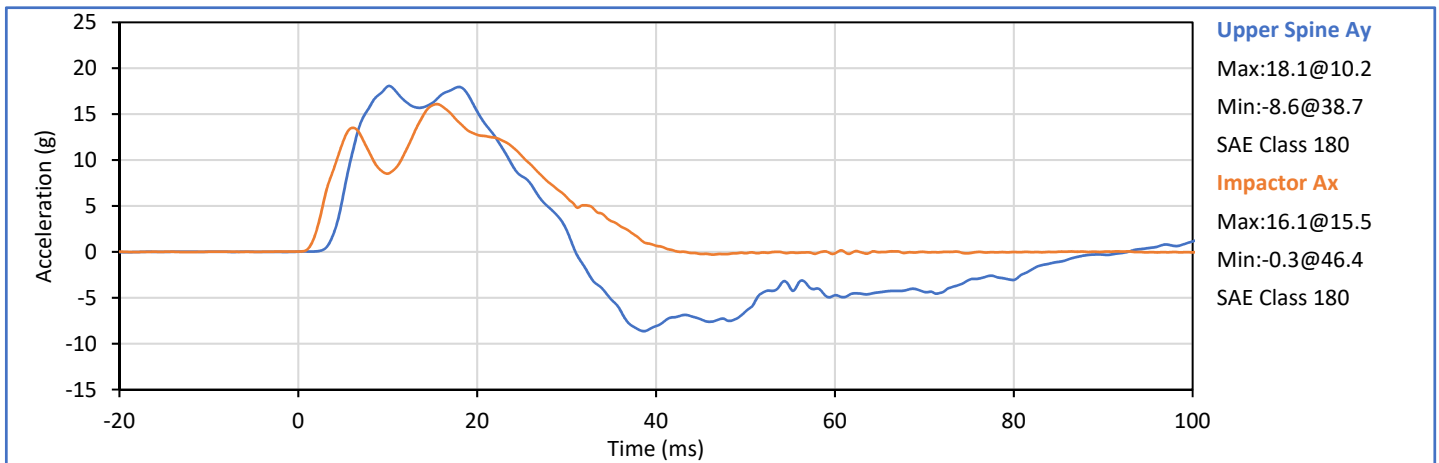
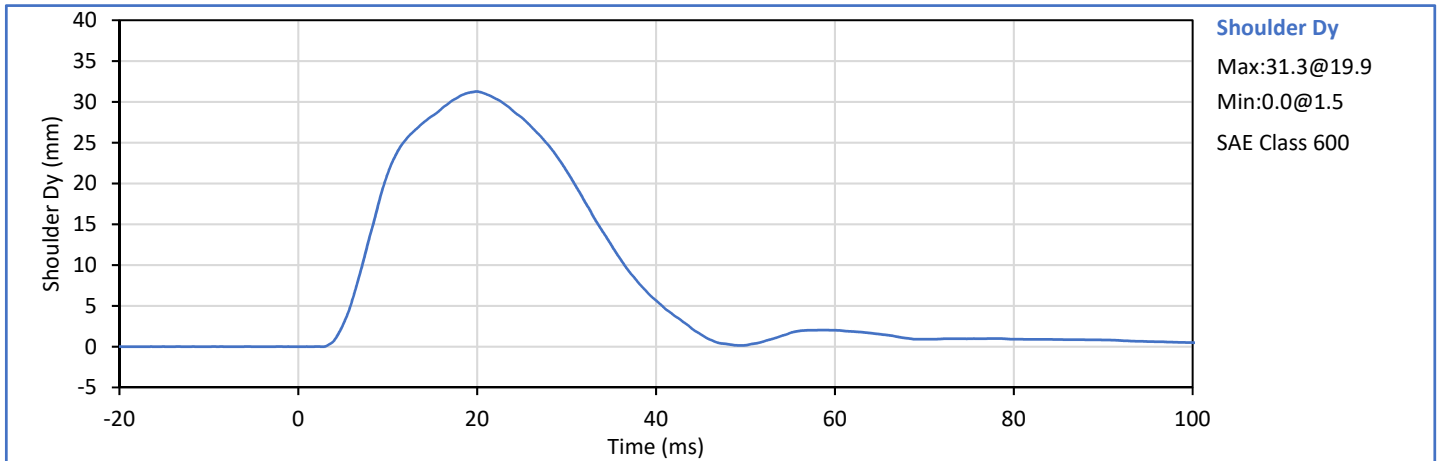




ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.5	Pass
Laboratory Humidity	%	10	70	22	Pass
Impactor Velocity	m/s	4.20	4.40	4.30	Pass
Peak Shoulder Dy	mm	28.0	37.0	31.3	Pass
Peak Upper Spine (T1) Ay	g	17.0	22.0	18.1	Pass
Peak Impactor Ax	g	13.0	18.0	16.1	Pass
Overall Test Results					Pass



Technician: *Scotty*

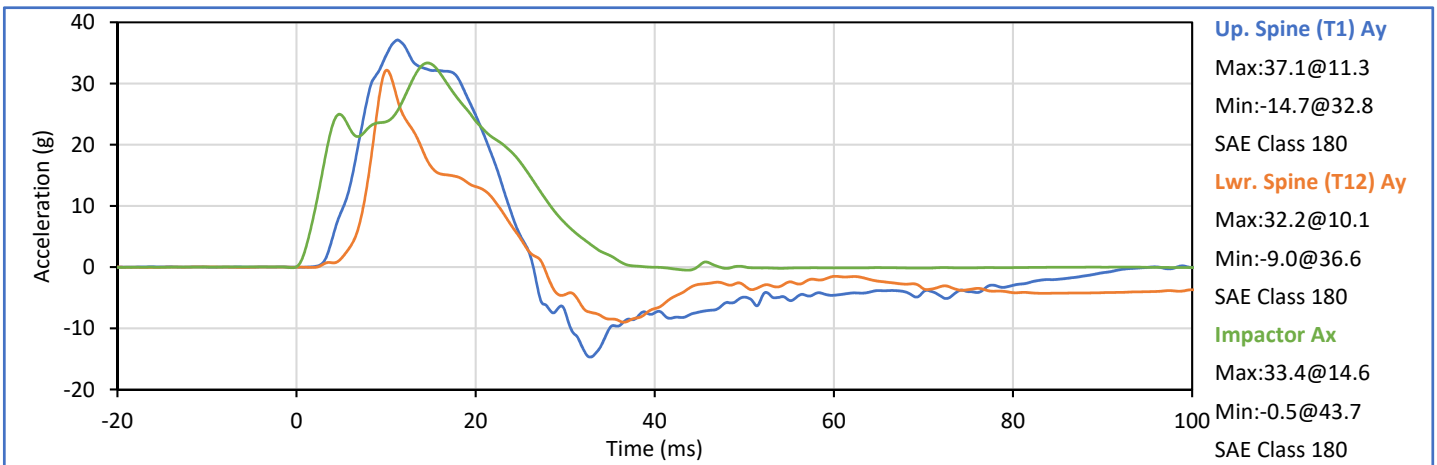
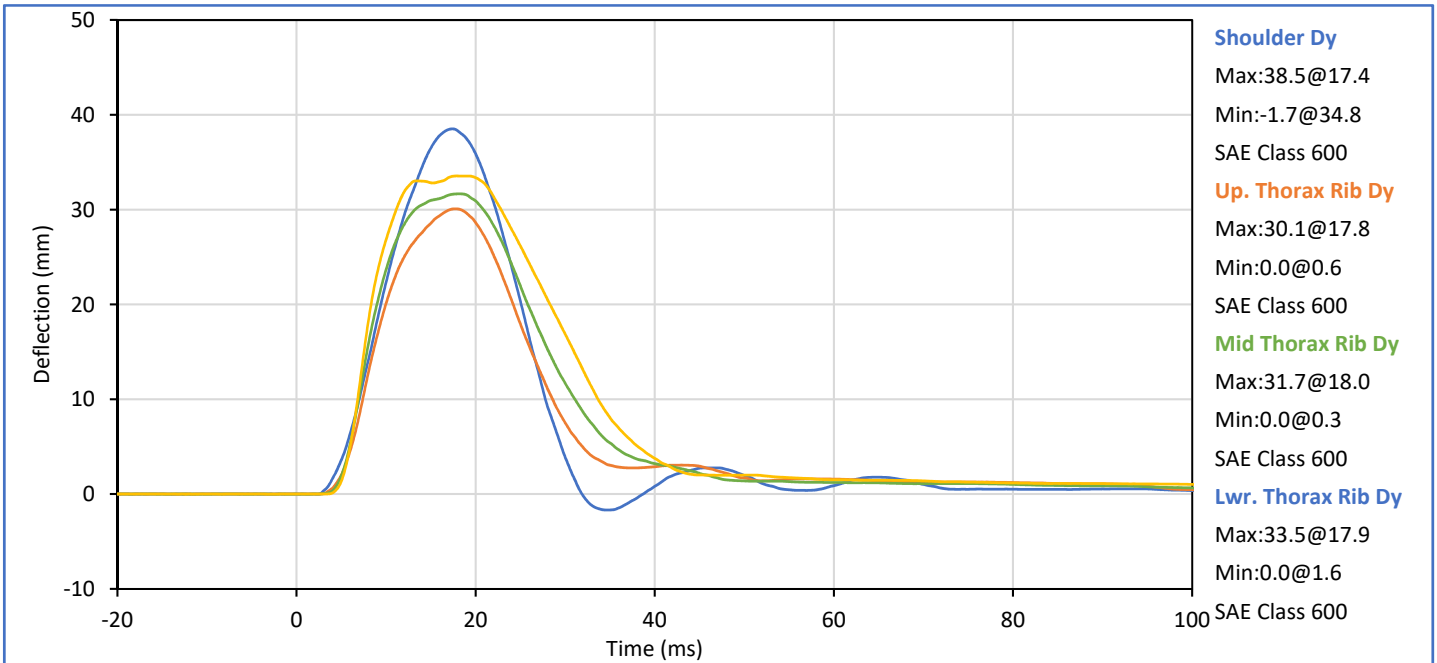
Approved By: *Wep*



ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.3	Pass
Laboratory Humidity	%	10	70	24	Pass
Impactor Velocity	m/s	6.60	6.80	6.78	Pass
Peak Shoulder Dy	mm	31.0	40.0	38.5	Pass
Peak Upper Rib Dy	mm	25.0	32.0	30.1	Pass
Peak Middle Rib Dy	mm	30.0	36.0	31.7	Pass
Peak Lower Rib Dy	mm	32.0	38.0	33.5	Pass
Peak Upper Spine (T1) Ay	g	34.0	43.0	37.1	Pass
Peak Lower Spine (T12) Ay	g	29.0	37.0	32.2	Pass
Peak Impactor Ax	g	30.0	36.0	33.4	Pass
Overall Test Results					Pass



Technician: *Scotty*

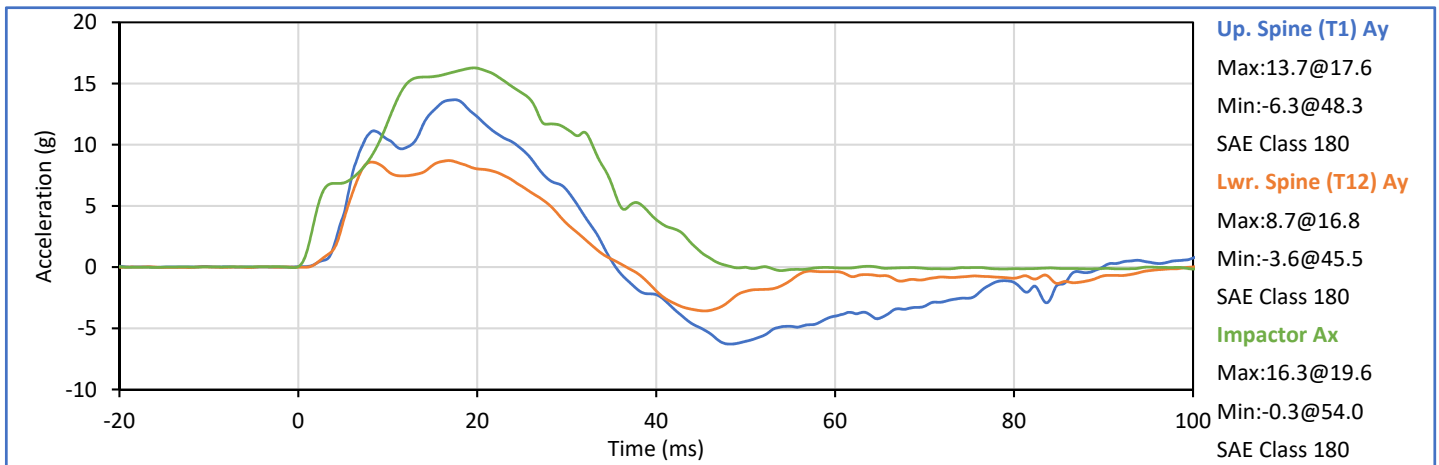
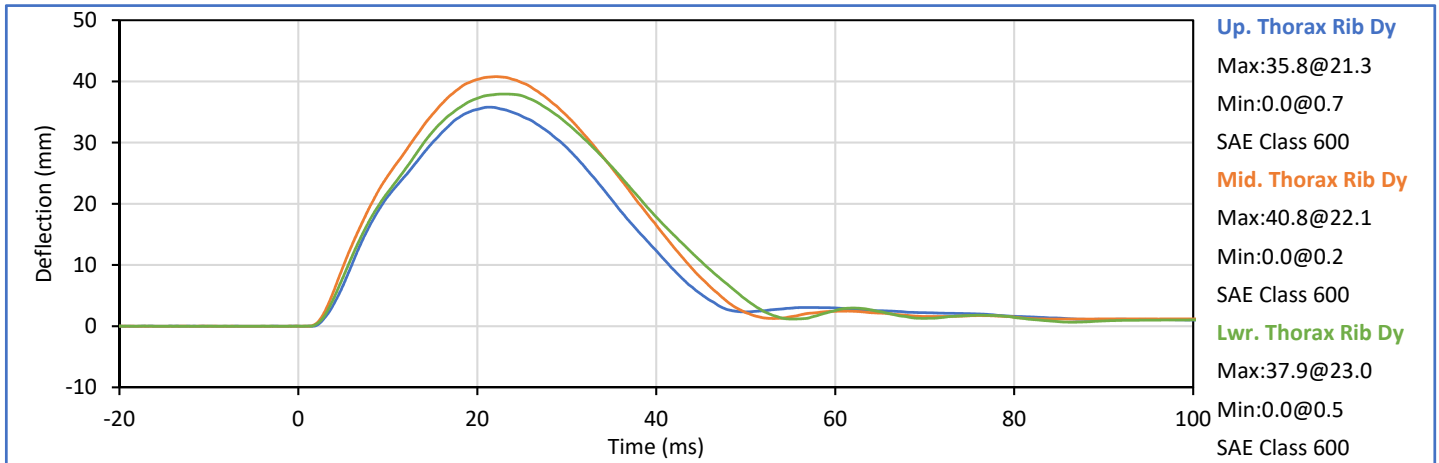
Approved By: *Wep*



ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.3	Pass
Laboratory Humidity	%	10	70	21	Pass
Impactor Velocity	m/s	4.20	4.40	4.35	Pass
Peak Upper Rib Dy	mm	32.0	40.0	35.8	Pass
Peak Middle Rib Dy	mm	39.0	45.0	40.8	Pass
Peak Lower Rib Dy	mm	35.0	43.0	37.9	Pass
Peak Upper Spine (T1) Ay	g	13.0	17.0	13.7	Pass
Peak Lower Spine (T12) Ay	g	7.0	11.0	8.7	Pass
Peak Impactor Ax	g	14.0	18.0	16.3	Pass
Overall Test Results					Pass



Technician: *Scotty*

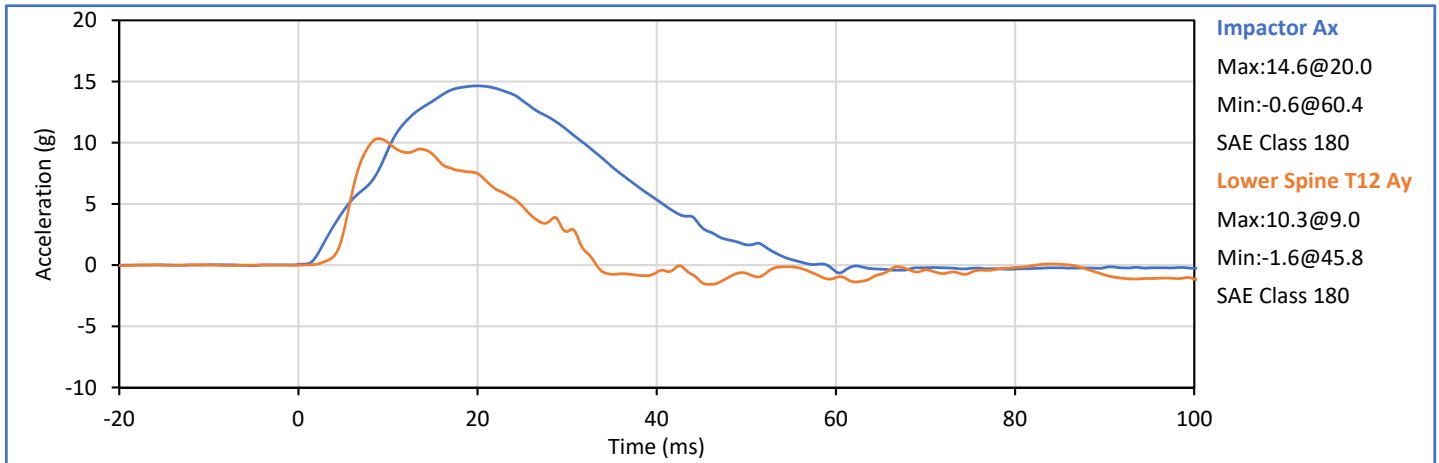
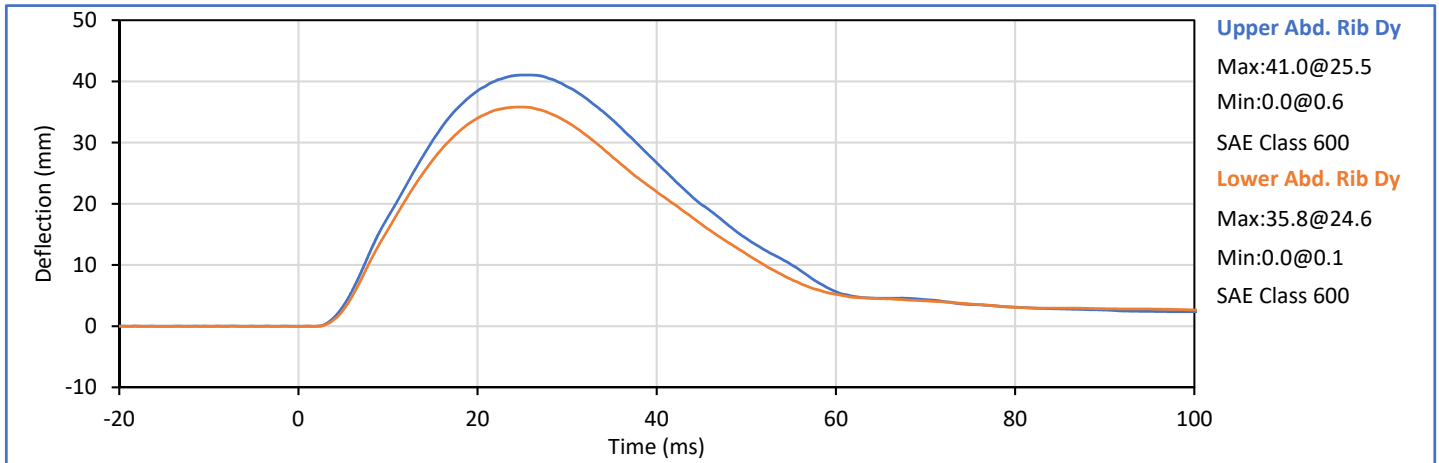
Approved By: *Wep*



ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	22	Pass
Impactor Velocity	m/s	4.20	4.40	4.31	Pass
Peak Upper Abdomen Rib Dy	mm	36.0	47.0	41.0	Pass
Peak Lower Abdomen Rib Dy	mm	33.0	44.0	35.8	Pass
Peak Lower Spine T12 Ay	mm	9.0	14.0	10.3	Pass
Peak Impactor Ax	g	12.0	16.0	14.6	Pass
Overall Test Results					Pass



Technician: *Scotty*

Approved By: *Wep*



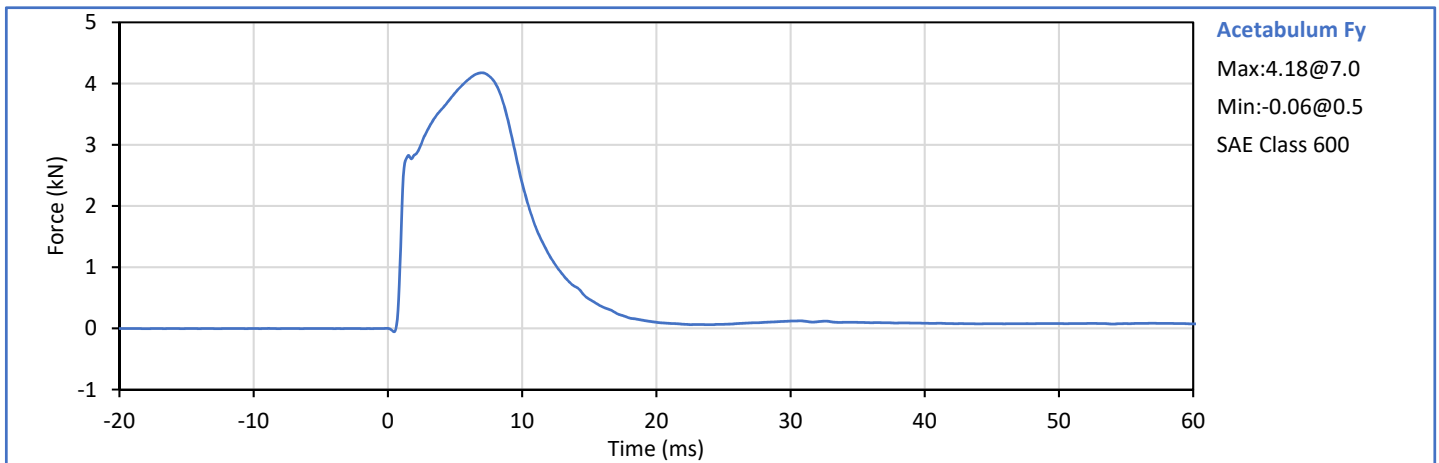
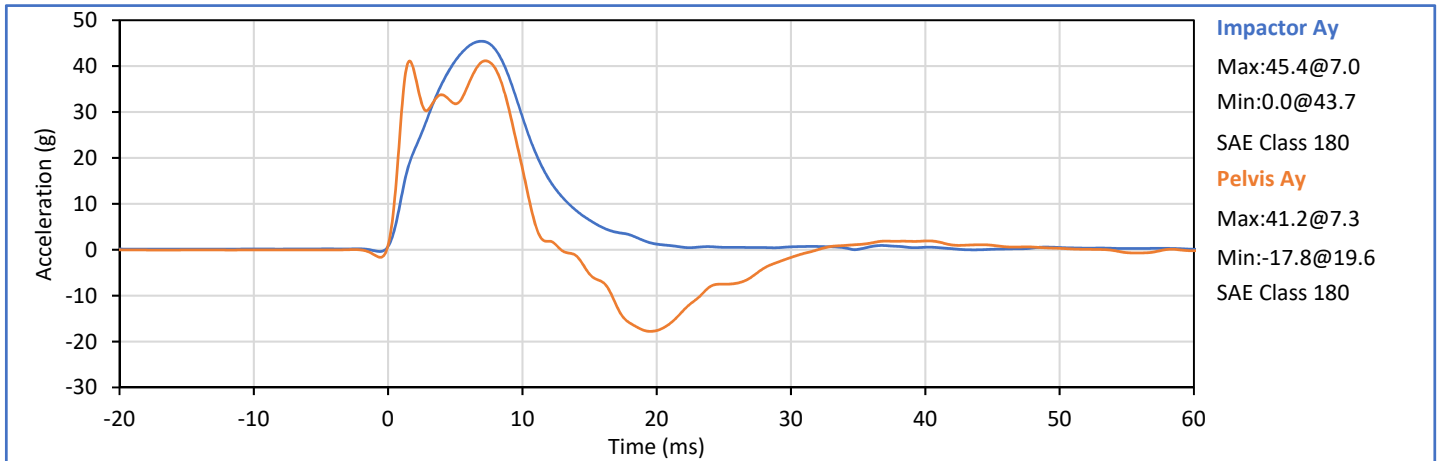
SID-IIs Small Side Impact Dummy
Pelvis Acetabulum Impact

ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	21	Pass
Impactor Velocity	m/s	6.60	6.80	6.71	Pass
Peak Acetabulum Fy	kN	3.600	4.300	4.176	Pass
Pelvis Ay after 6ms	g	34.0	42.0	41.2	Pass
Peak Impactor Ax	g	38.0	47.0	45.4	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 71135 (HIS)



Technician: *Scotty*

Approved By: *Wep*

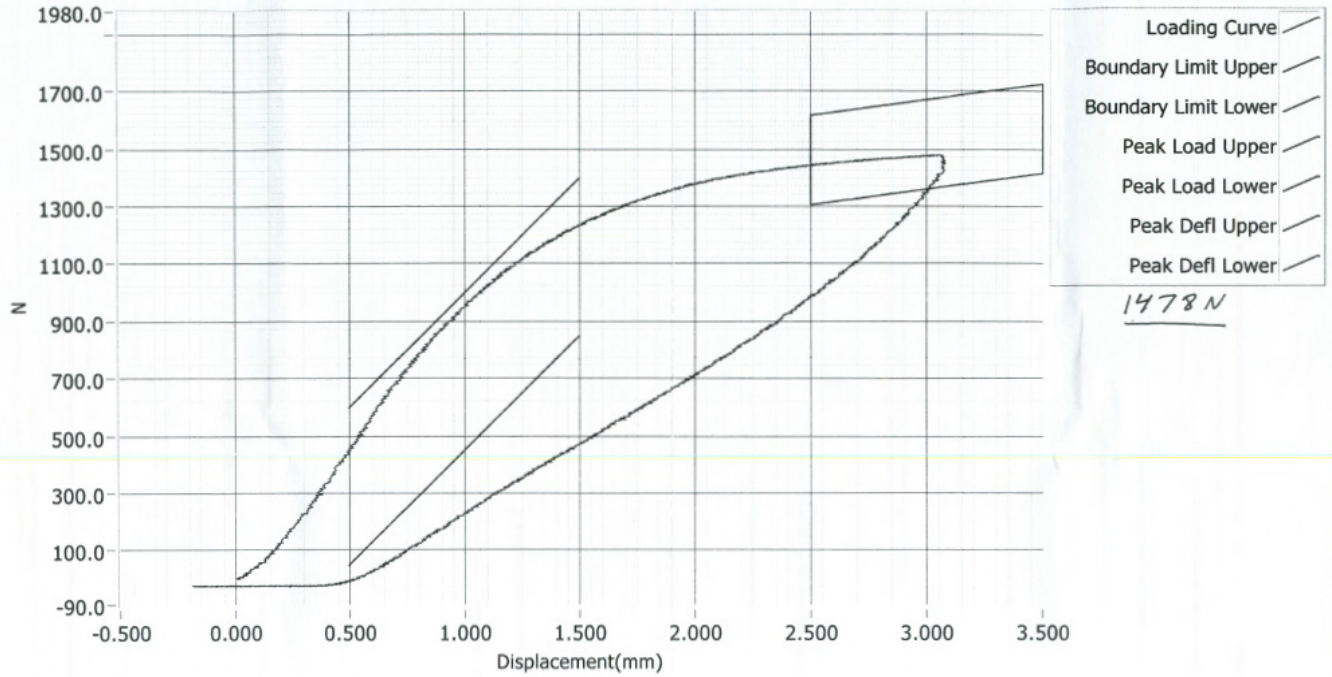


ATD Serial No.: 299

Test Date: 2017-12-02

Pelvis Plug S/N: 71135 (HIS)

Resultant Data - SIDIIs Plug Compression



ATD Calibration Lab

<u>Test ID</u>	<u>Part Serial Number</u>	<u>Test Date</u>	<u>Test Time</u>
	71135	12/18/2013	9:23 PM
<u>Cert ID</u>	<u>ATD Serial Number</u>	<u>ATD Type</u>	
	N/A	SIDIIs	

Current Date : 12/18/2013

Current Time : 21:24:05



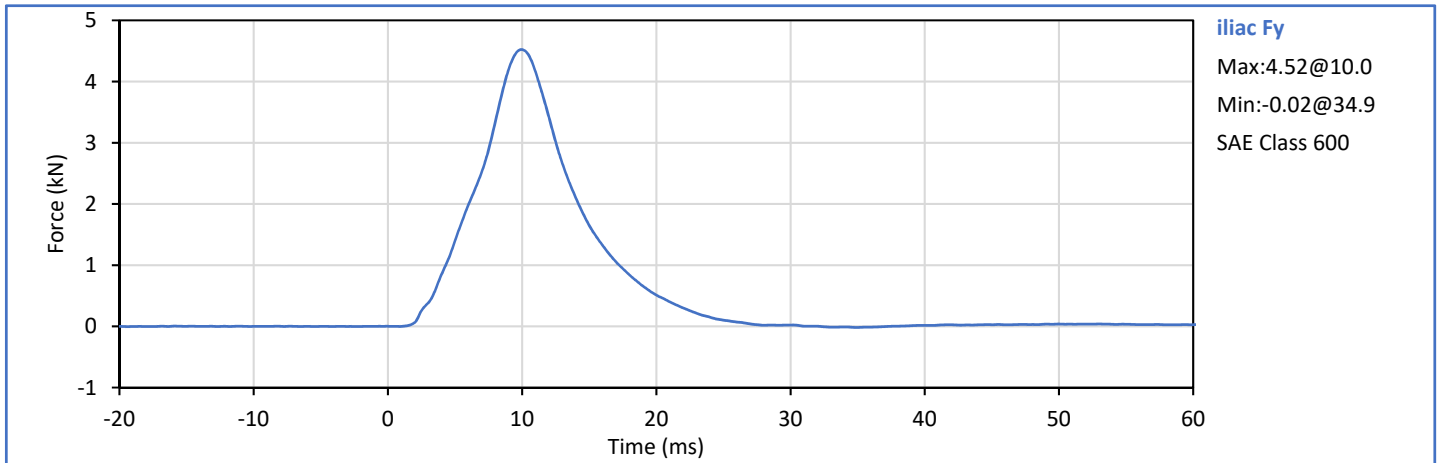
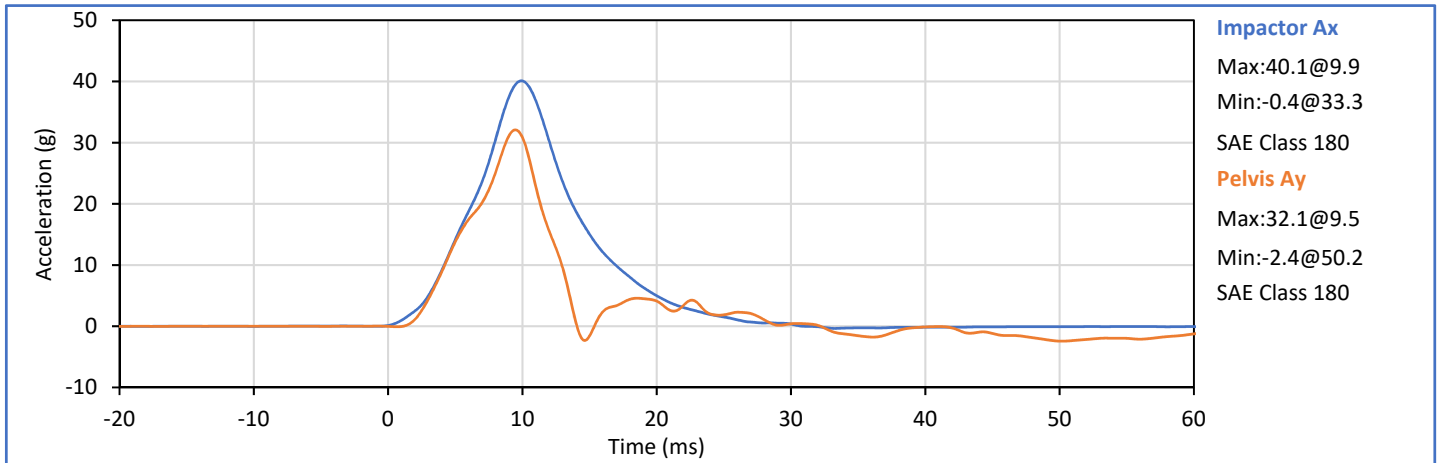
ATD Serial No.: 299

Test Date: 2017-12-02

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	24	Pass
Impactor Velocity	m/s	4.20	4.40	4.31	Pass
Peak Acetabulum Fy	kN	4.100	5.100	4.523	Pass
Pelvis Ay	g	28.0	39.0	32.1	Pass
Peak Impactor Ax	g	36.0	45.0	40.1	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 71052 (HIS) *

* Plug is not impacted and remains certified



Technician:

Approved By:

APPENDIX C
POST-TEST ATD CONFIGURATION AND PERFORMANCE VERIFICATION DATA



ATD Serial No.: F037

Test Date: 2017-12-21

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	33	Pass
1 - Sitting Height	mm	900	918	905	Pass
2 - Seat to Shoulder Joint	mm	558	572	564	Pass
3 - Seat to Lower Face of Thoracic Spine Box	mm	346	356	349	Pass
4 - Seat to Hip Joint (bolt center)	mm	97	103	100	Pass
5 - Sole to Seat, Sitting	mm	333	451	372	Pass
6 - Head Width	mm	152	158	155	Pass
7 - Shoulder/Arm Width	mm	461	479	474	Pass
8 - Thorax Width	mm	322	332	328	Pass
9 - Abdomen Width	mm	273	287	277	Pass
10 - Pelvis Lap Width	mm	359	373	363	Pass
11 - Head Depth	mm	196	206	202	Pass
12 - Thorax Depth	mm	262	272	268	Pass
13 - Abdomen Depth	mm	194	204	199	Pass
14 - Pelvis Depth	mm	235	245	240	Pass
15 - Back of Buttocks to Hip Joint (bolt Center)	mm	150	160	153	Pass
16 - Back of Buttocks to Front Knee	mm	597	615	604	Pass
				Overall Test Results	Pass

Technician: *Scott J*

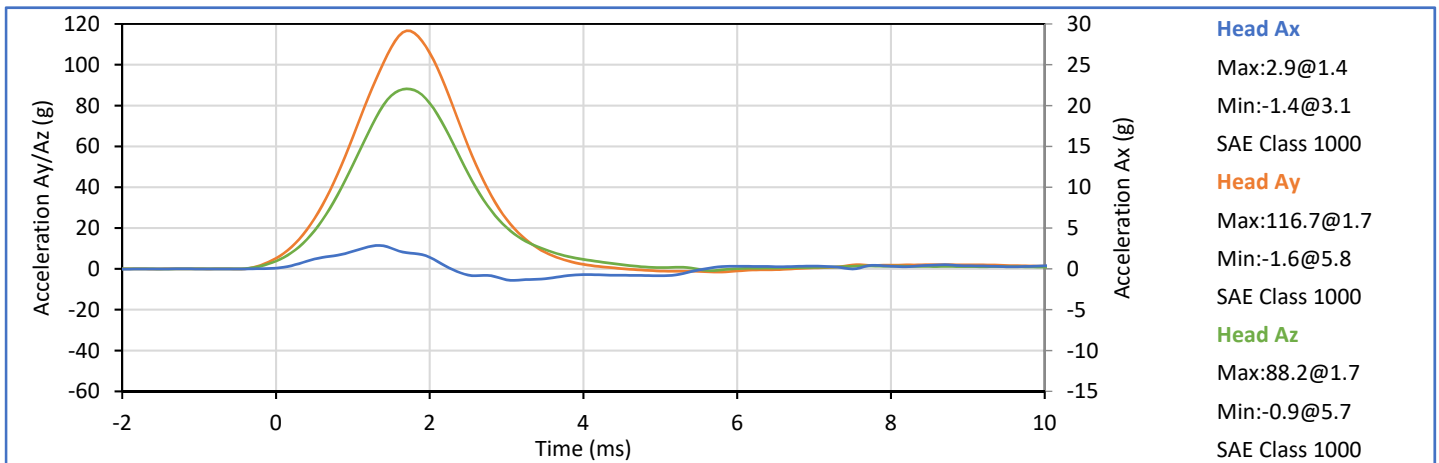
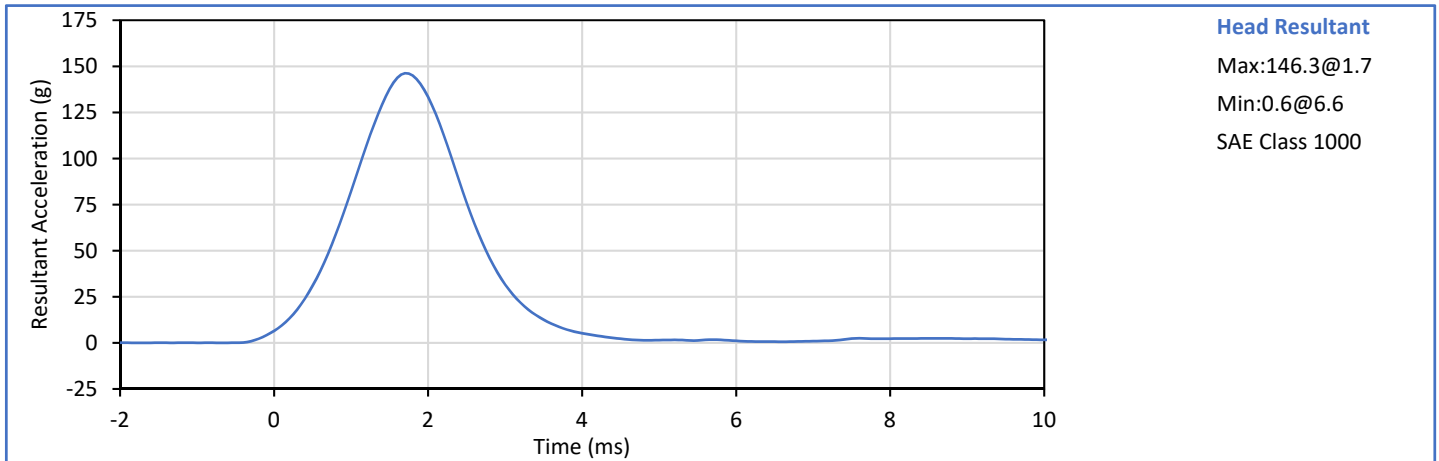
Approved By: *P. Pungit*



ATD Serial No.: F037

Test Date: 2017-12-21

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	16	Pass
Peak Resultant Acceleration	g	125.0	155.0	146.3	Pass
Peak Head Ax	g	-15.0	15.0	2.9	Pass
Oscillations After Main Pulse	%	0.0	15.0	1.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes		Yes	Pass
Overall Test Results					Pass



Technician:

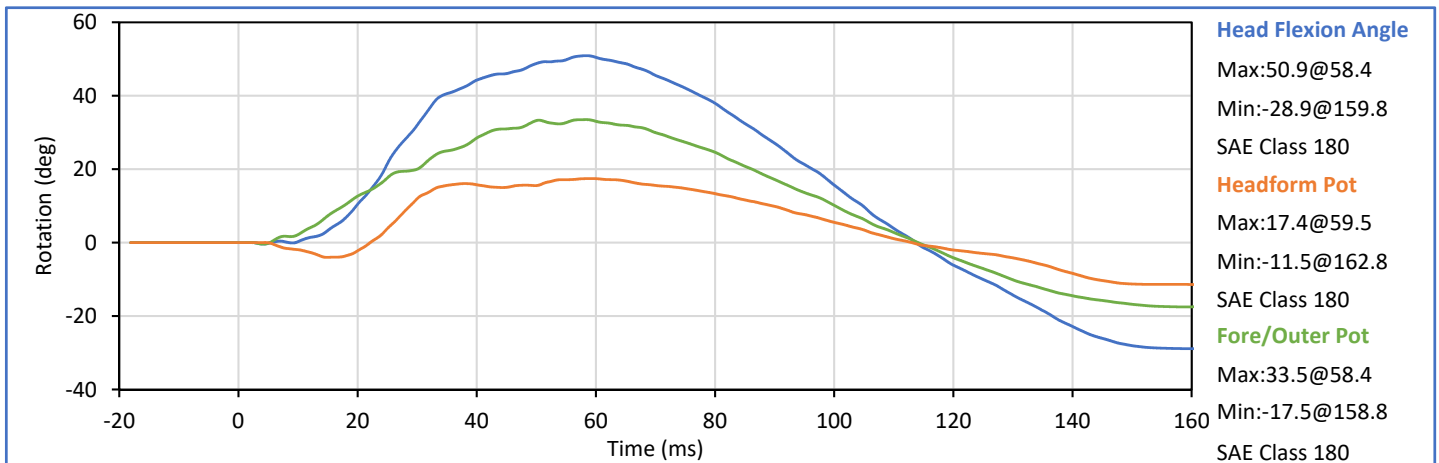
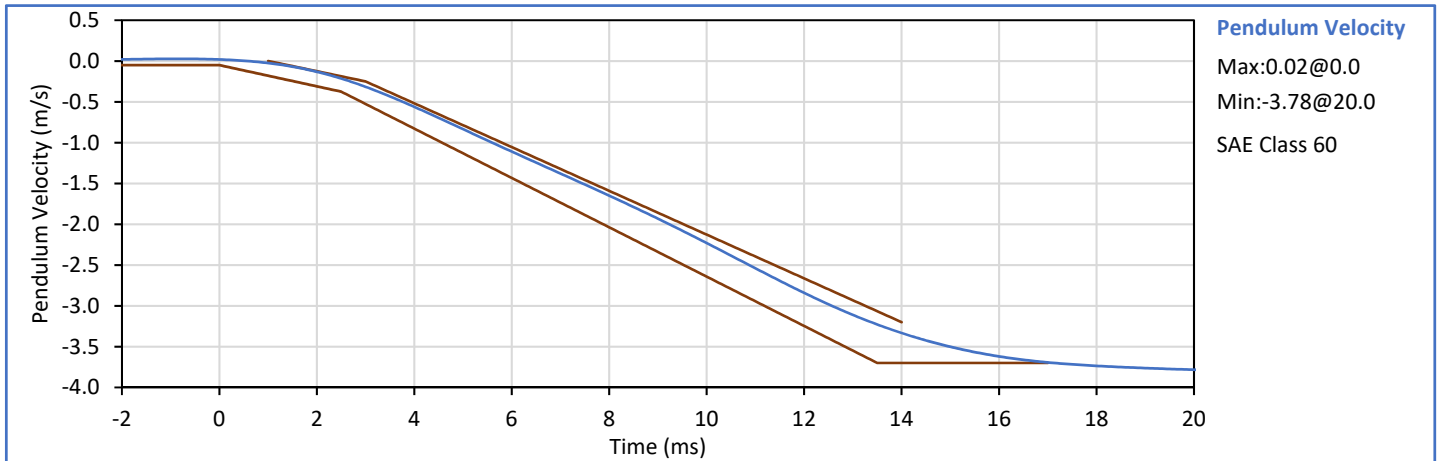
Approved By:



ATD Serial No.: F037

Test Date: 2017-12-20

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.9	Pass
Laboratory Humidity	%	10	70	19	Pass
Pendulum Velocity	m/s	3.30	3.50	3.47	Pass
Peak Headform Flexion	deg	49.0	59.0	50.9	Pass
Time of Peak Headform Flexion	ms	54.0	66.0	58.4	Pass
Flexion Decay (Peak to zero)	ms	53.0	88.0	55.4	Pass
				Overall Test Results	Pass



Technician: *Scotty*

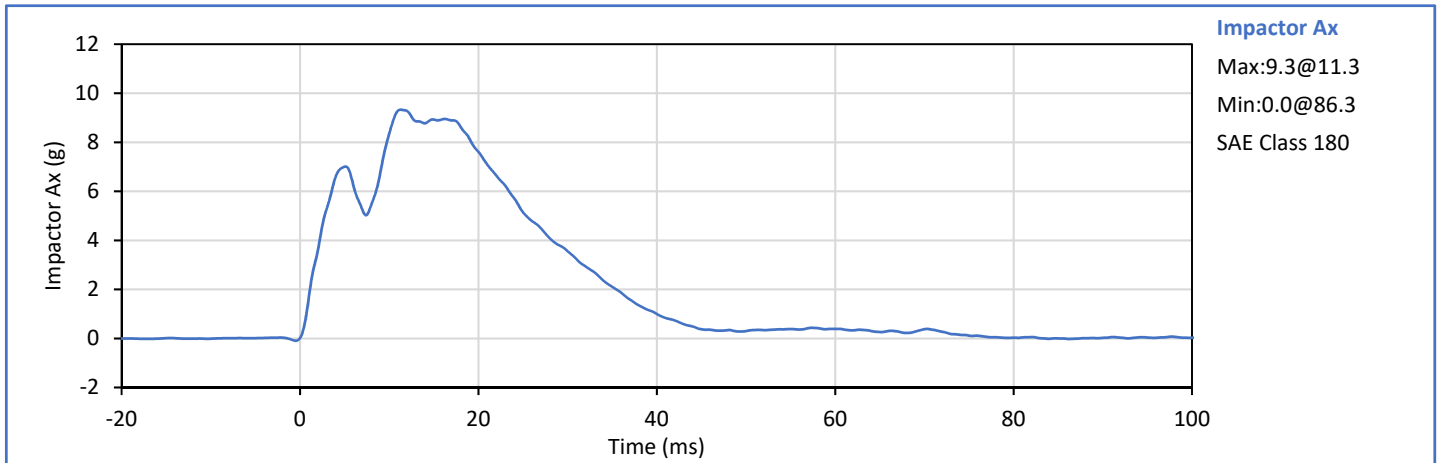
Approved By: *Plungito*



ATD Serial No.: F037

Test Date: 2017-12-18

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.3	Pass
Laboratory Humidity	%	10	70	32	Pass
Impactor Velocity	m/s	4.20	4.40	4.21	Pass
Peak Impactor Ax	g	7.50	10.50	9.33	Pass
Overall Test Results					Pass



Technician: *Scott J*

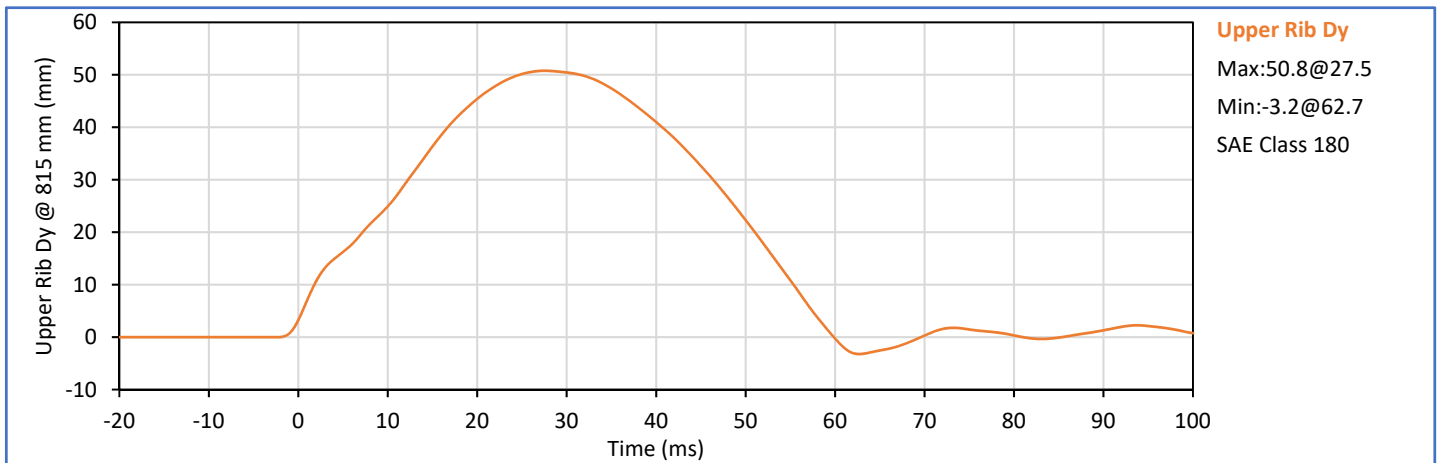
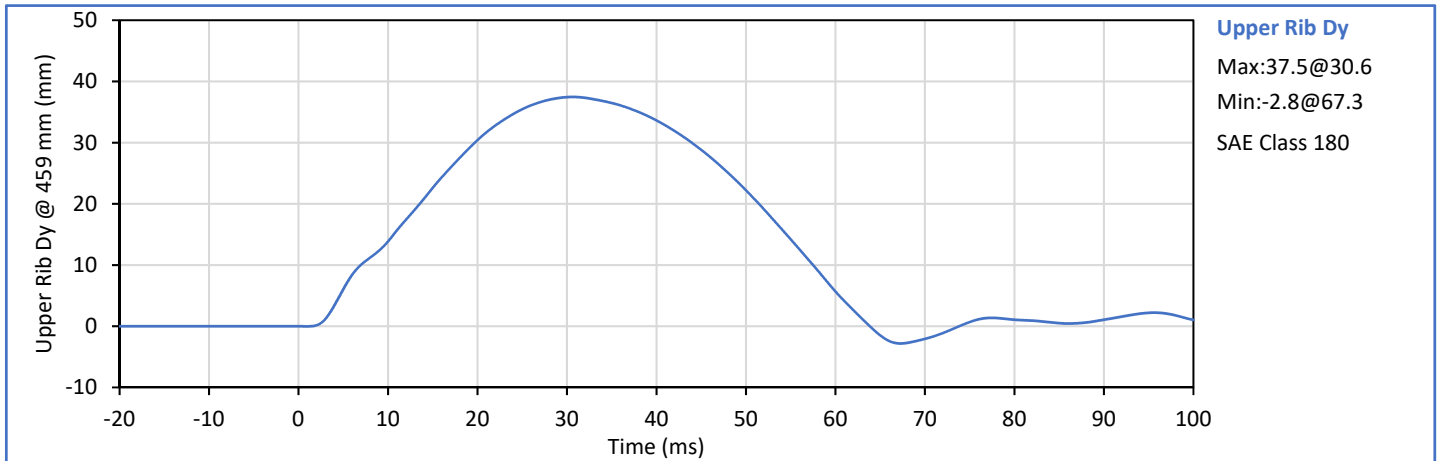
Approved By: *P. Pungit*



ATD Serial No.: F037

Test Date: 2017-12-20

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	16	Pass
Upper Rib Dy @ (459mm)	mm	36.0	40.0	37.5	Pass
Upper Rib Dy @ (815mm)	mm	46.0	51.0	50.8	Pass
Overall Test Results					Pass



Technician:

Approved By:

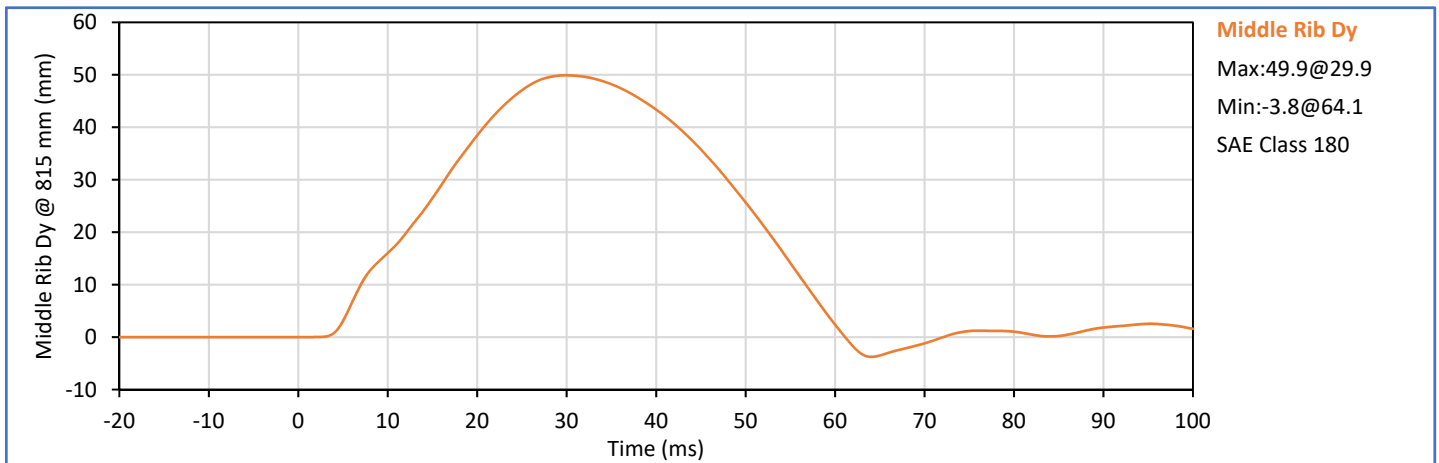
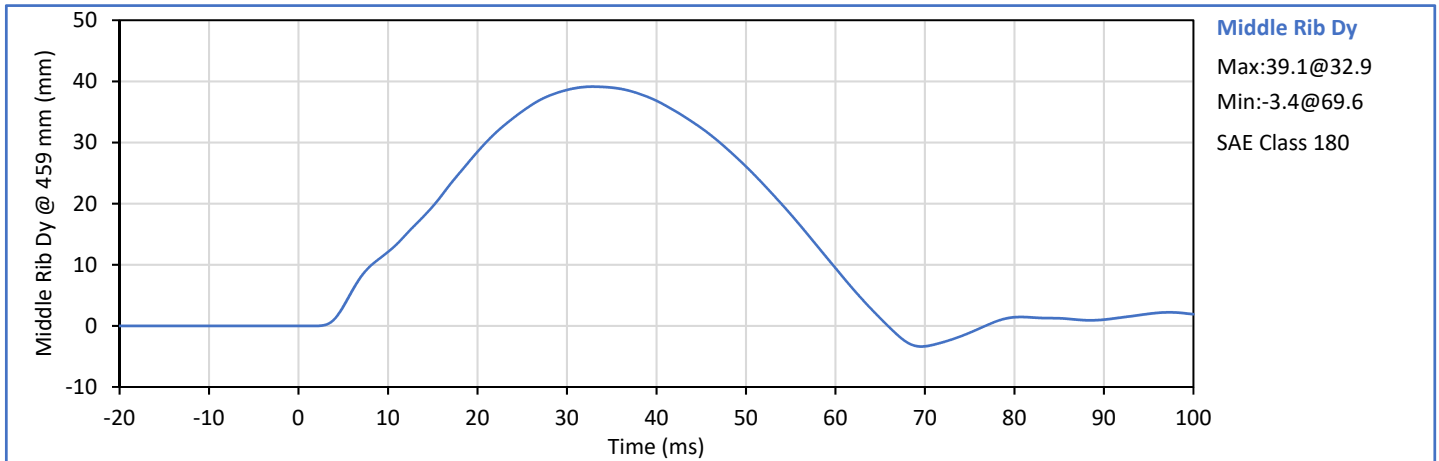


**ES-2re 50th Male Side Impact ATD
 Middle Rib Drop Test**

ATD Serial No.: F037

Test Date: 2017-12-20

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	16	Pass
Middle Rib Dy @ (459mm)	mm	36.0	40.0	39.1	Pass
Middle Rib Dy @ (815mm)	mm	46.0	51.0	49.9	Pass
Overall Test Results					Pass



Technician:

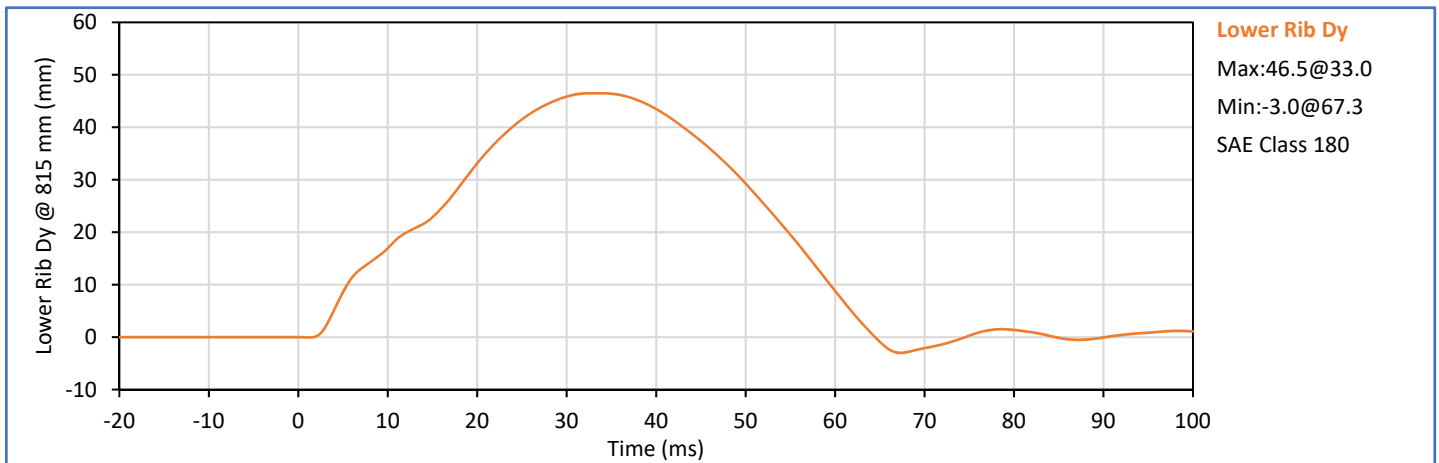
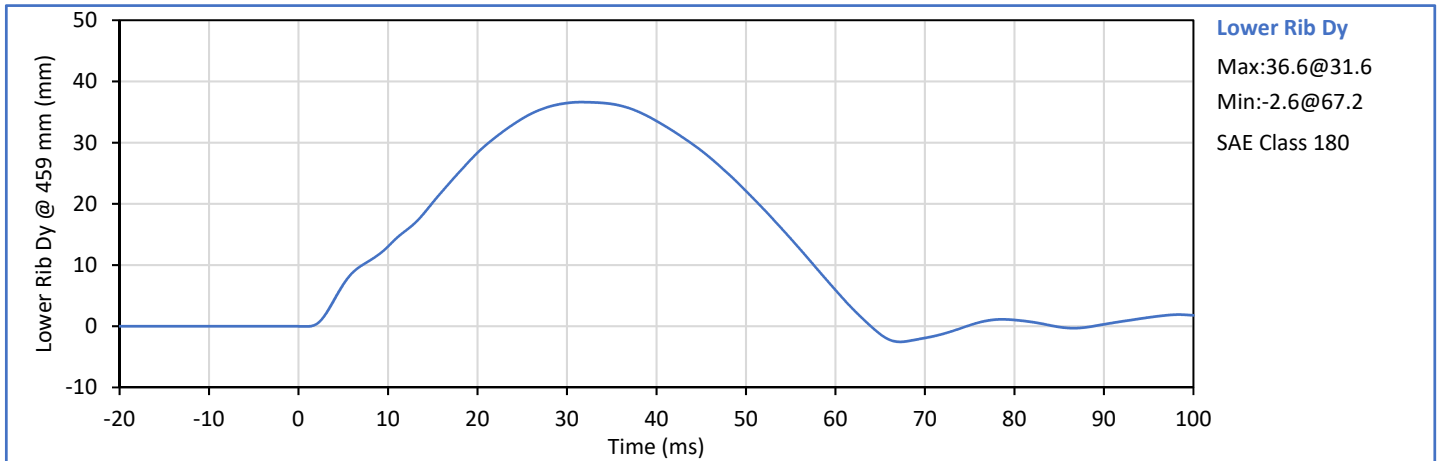
Approved By:



ATD Serial No.: F037

Test Date: 2017-12-20

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.1	Pass
Laboratory Humidity	%	10	70	16	Pass
Lower Rib Dy @ (459mm)	mm	36.0	40.0	36.6	Pass
Lower Rib Dy @ (815mm)	mm	46.0	51.0	46.5	Pass
Overall Test Results					Pass



Technician:

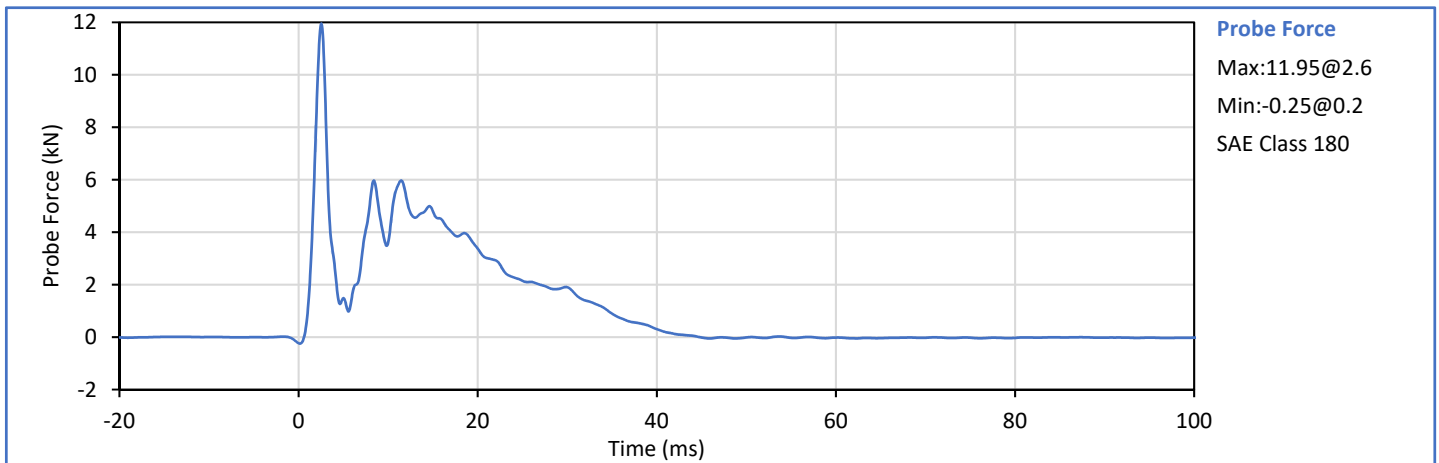
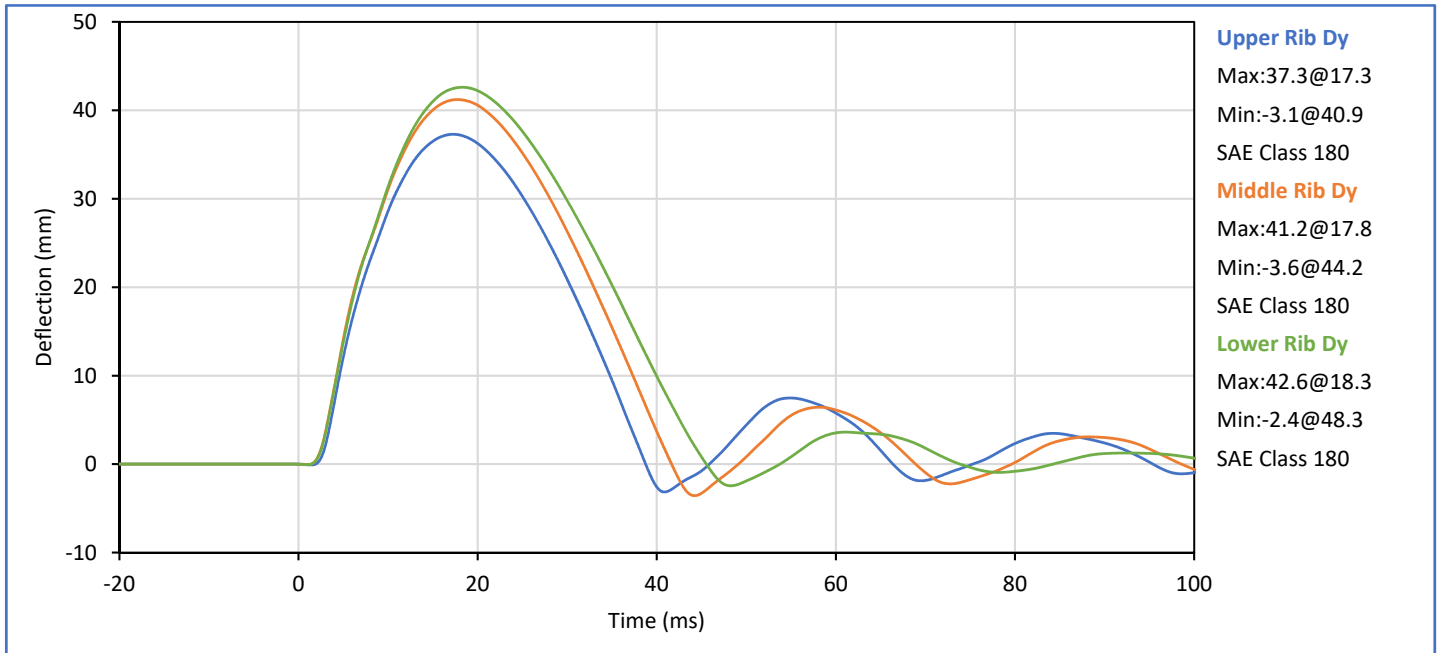
Approved By:



ATD Serial No.: F037

Test Date: 2017-12-18

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	22	Pass
Impactor Velocity	m/s	5.40	5.60	5.51	Pass
Peak Upper Rib Dy	mm	34.0	41.0	37.3	Pass
Peak Middle Rib Dy	mm	37.0	45.0	41.2	Pass
Peak Lower Rib Dy	mm	37.0	44.0	42.6	Pass
Peak Impactor Force After 6 ms	kN	5.10	6.20	5.97	Pass
Overall Test Results					Pass



Technician: *Scotty*

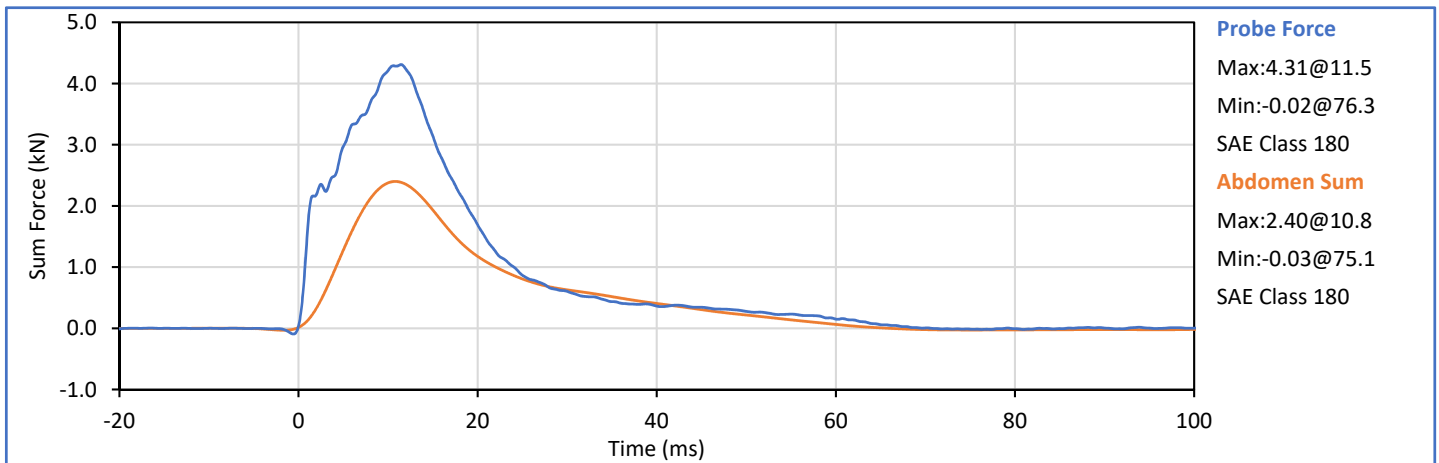
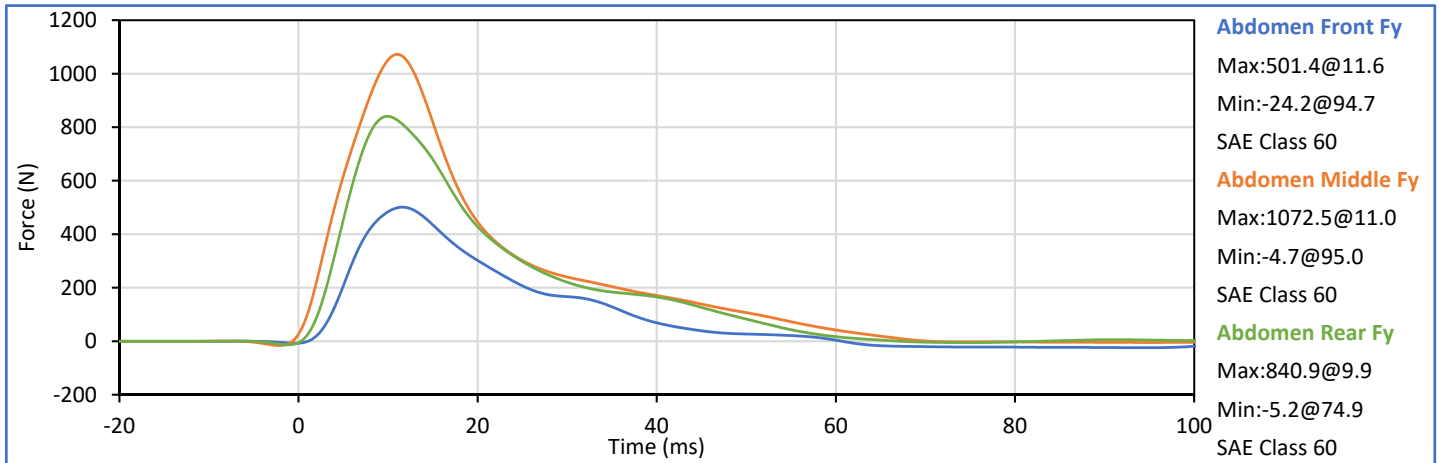
Approved By: *Plungito*



ATD Serial No.: F037

Test Date: 2017-12-18

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	21	Pass
Impactor Velocity	m/s	3.90	4.10	4.03	Pass
Peak Impactor Force	kN	4.00	4.80	4.31	Pass
Time of Peak Impactor Force	ms	10.6	13.0	11.5	Pass
Sum of Abdomen Forces	kN	2.20	2.70	2.40	Pass
Time of Peak Sum Abdomen Force	ms	10.0	12.3	10.8	Pass
Overall Test Results					Pass



Technician: *Scotty*

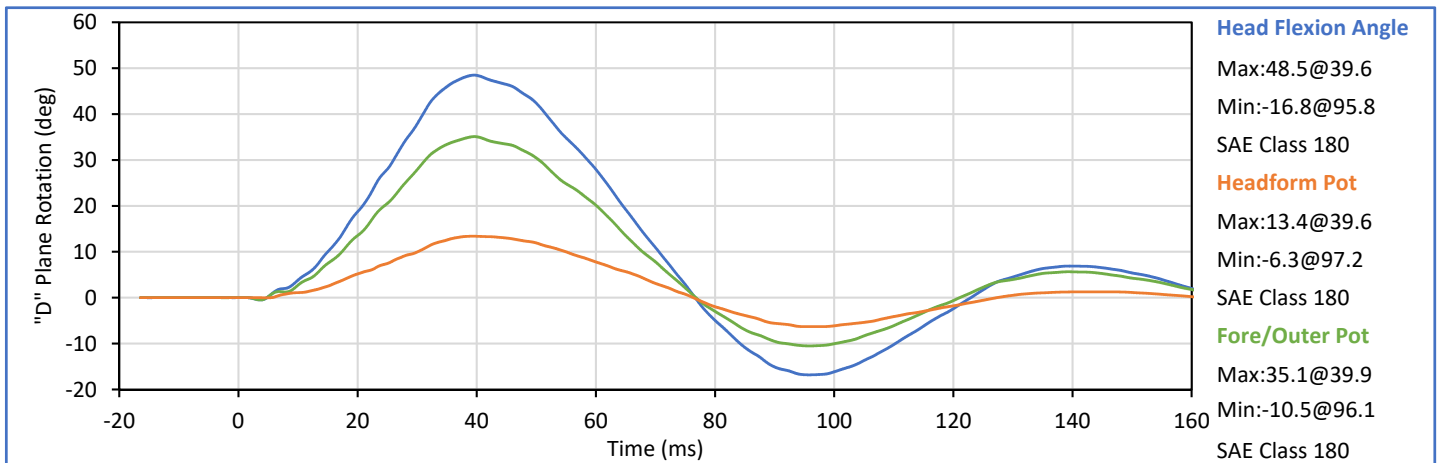
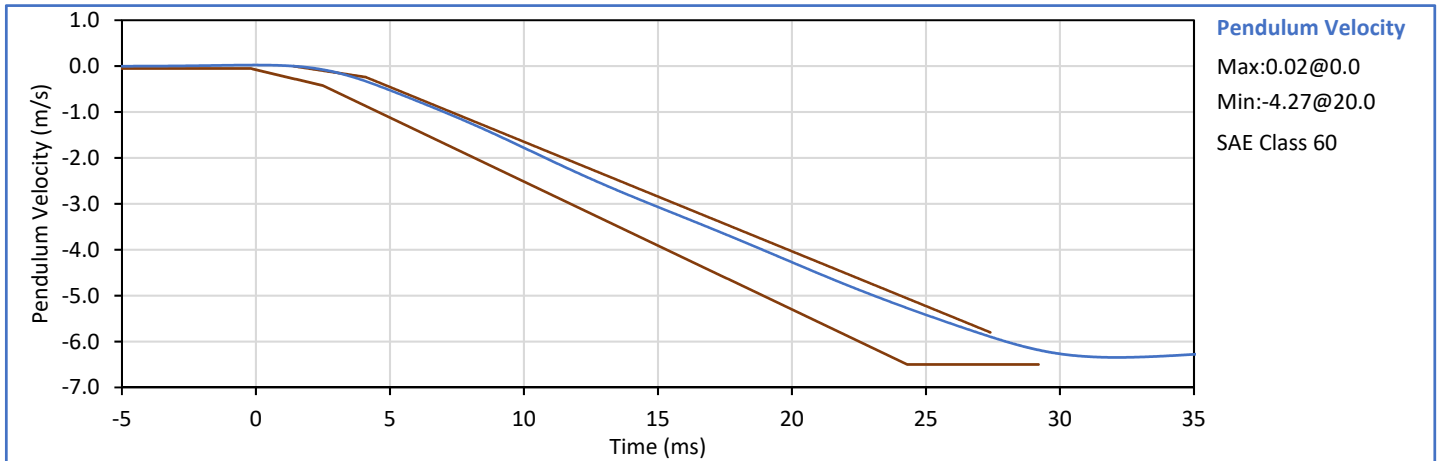
Approved By: *Plungito*



ATD Serial No.: F037

Test Date: 2017-12-20

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.7	Pass
Laboratory Humidity	%	10	70	30	Pass
Pendulum Velocity	m/s	5.95	6.15	6.14	Pass
Peak Headform Flexion	deg	45.0	55.0	48.5	Pass
Time of Peak Headform Flexion	ms	39.0	53.0	39.6	Pass
Flexion Decay (Peak to zero)	ms	37.0	57.0	37.2	Pass
Overall Test Results					Pass



Technician: *Scotty*

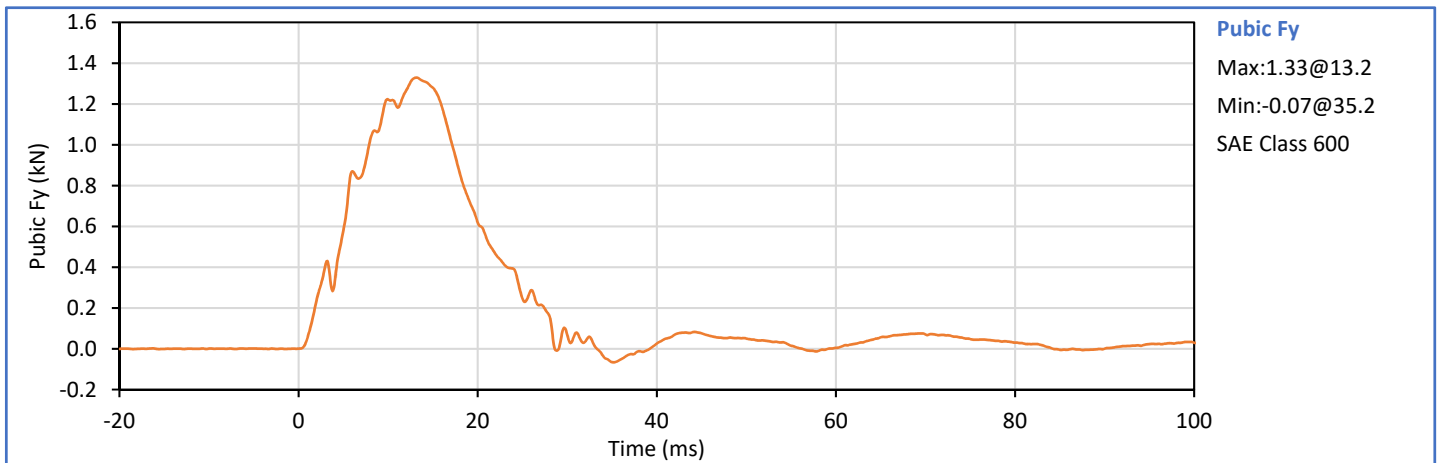
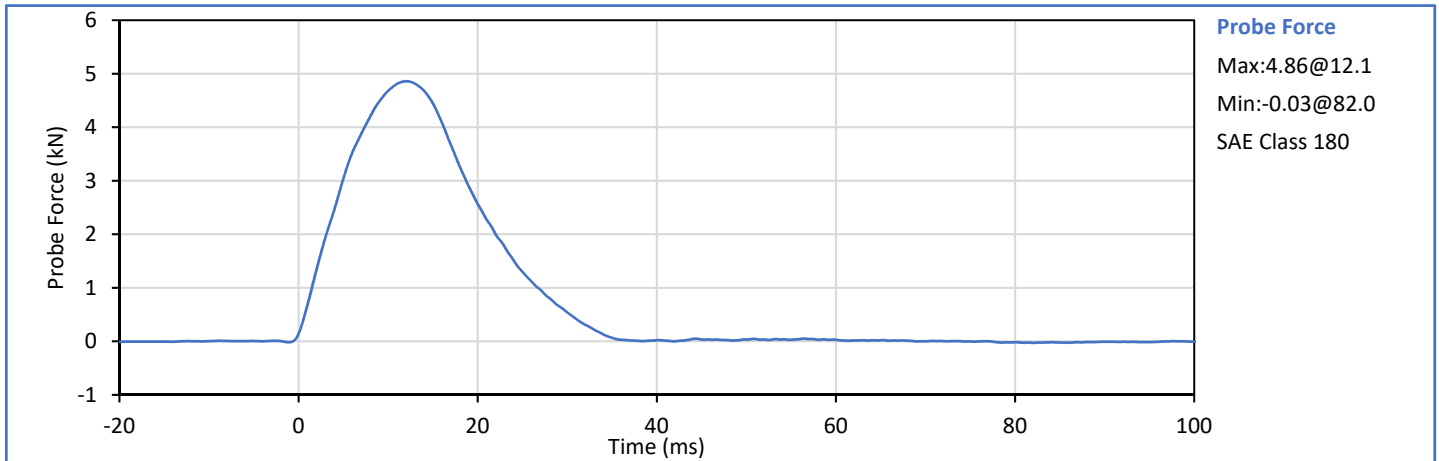
Approved By: *Plungito*



ATD Serial No.: F037

Test Date: 2017-12-18

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.3	Pass
Laboratory Humidity	%	10	70	19	Pass
Impactor Velocity	m/s	4.20	4.40	4.26	Pass
Peak Impactor Force	kN	4.70	5.40	4.86	Pass
Time of Peak Impactor Force	ms	11.8	16.1	12.1	Pass
Pubic Symphysis Fy	kN	1.23	1.59	1.33	Pass
Time of Peak Pubic Symphysis Fy	ms	12.2	17.0	13.2	Pass
Overall Test Results					Pass



Technician:

Approved By:



SID-IIs Small Side Impact Dummy
External Measurements

ATD Serial No.: 299

Test Date: 2017-12-13

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	20	Pass
A - Sitting Height	mm	772	788	785	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	148	Pass
H - Head Back From Backline	mm	40	46	43	Pass
I - Head Depth	mm	178	188	186	Pass
J - Head Circumference	mm	541	551	544	Pass
K - Buttock To Knee Length	mm	514	540	527	Pass
L - Popliteal Height	mm	343	369	356	Pass
K - Knee Pivot To Floor Height	mm	392	409	402	Pass
N - Buttock Popliteal Length	mm	416	442	438	Pass
O - Chest Depth W/O Jacket	mm	195	211	203	Pass
P - Foot Length	mm	216	232	220	Pass
Q - Hip Breadth (W/Pelvic Plugs)	mm	313	323	319	Pass
R - Arm Length	mm	249	259	254	Pass
S - Knee Joint To Seatback	mm	477	493	481	Pass
V - Shoulder Width	mm	341	357	346	Pass
W - Foot Width	mm	78	94	89	Pass
Y - Chest Circumference W/Jacket	mm	851	881	870	Pass
Z - Waist Circumference	mm	761	791	772	Pass
Overall Test Results					Pass

Technician:

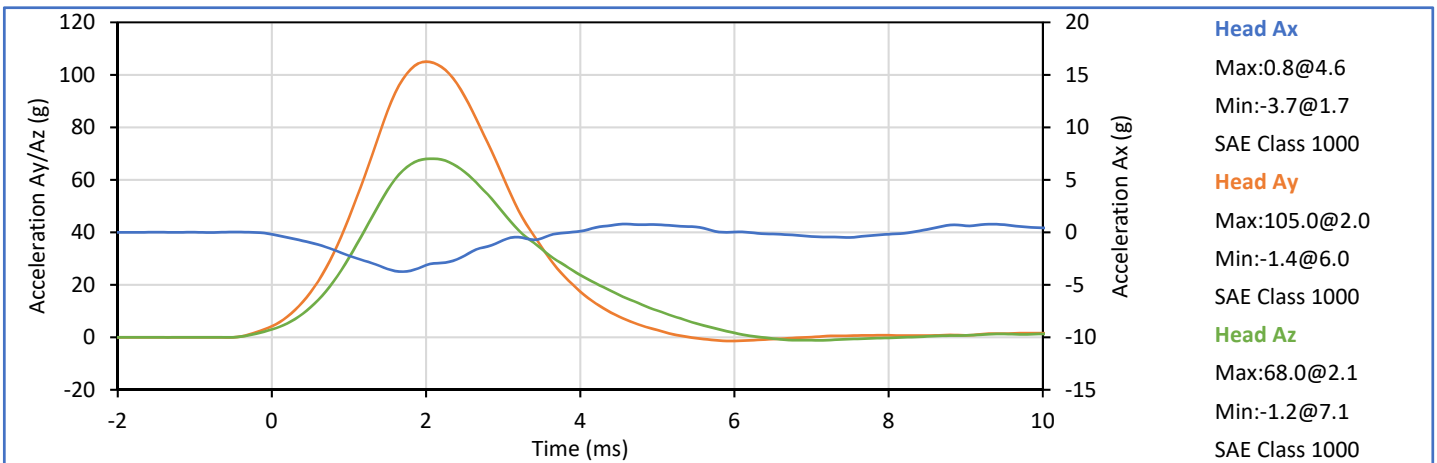
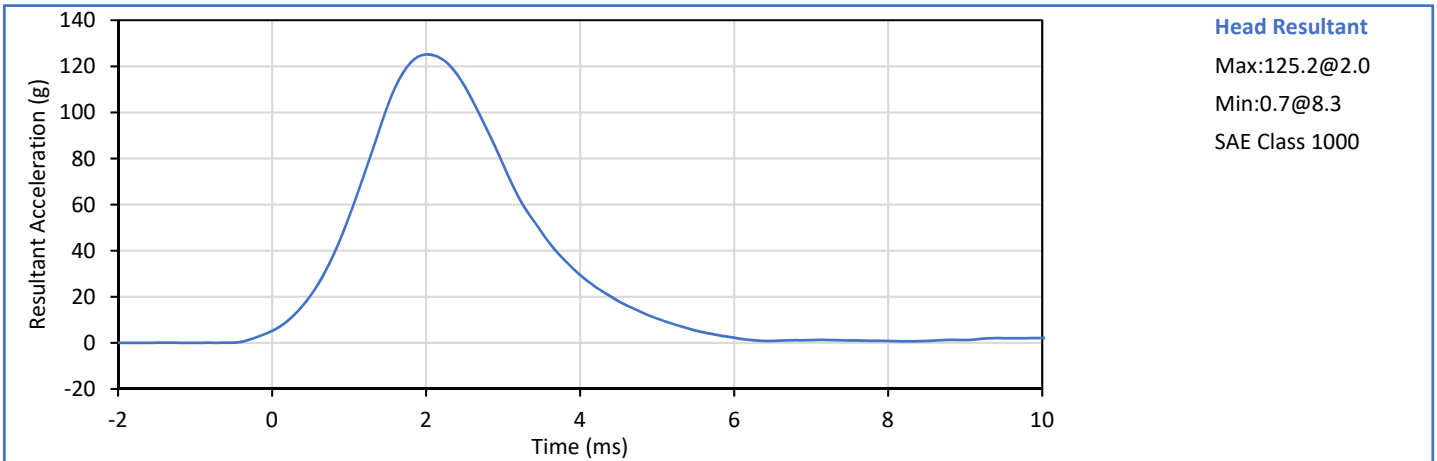
Approved By:



ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	18.9	25.6	21.1	Pass
Laboratory Humidity	%	10	70	21	Pass
Peak Resultant Acceleration	g	115.0	137.0	125.2	Pass
Peak Head Ax	g	-15.0	15.0	-3.7	Pass
Oscillations After Main Pulse	%	0.0	15.0	1.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes		Yes	Pass
Overall Test Results					Pass



Technician: *JL*

Approved By: *Plungito*

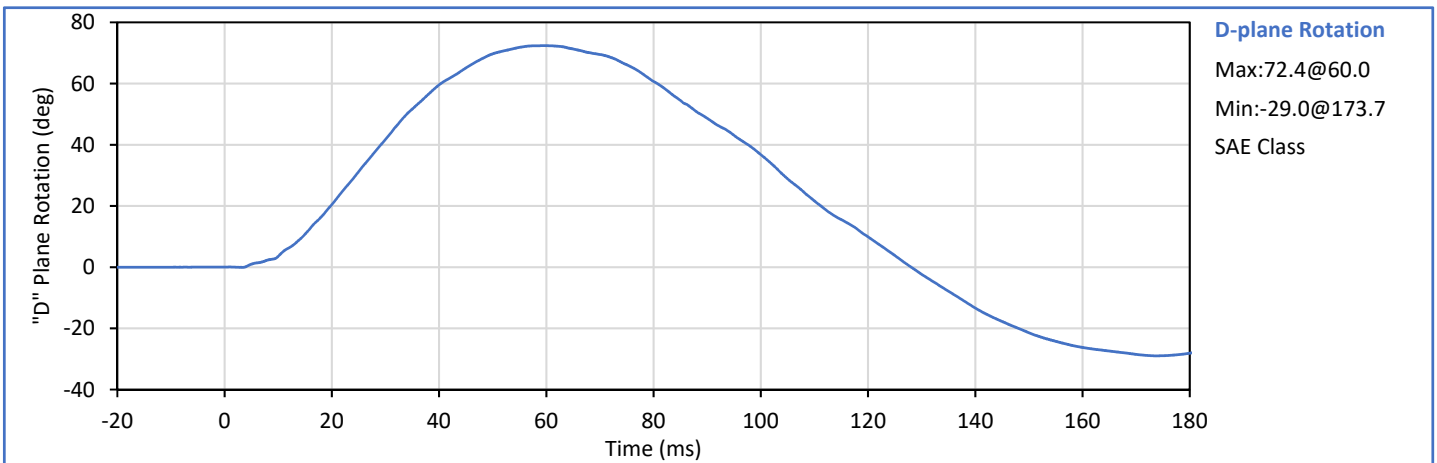
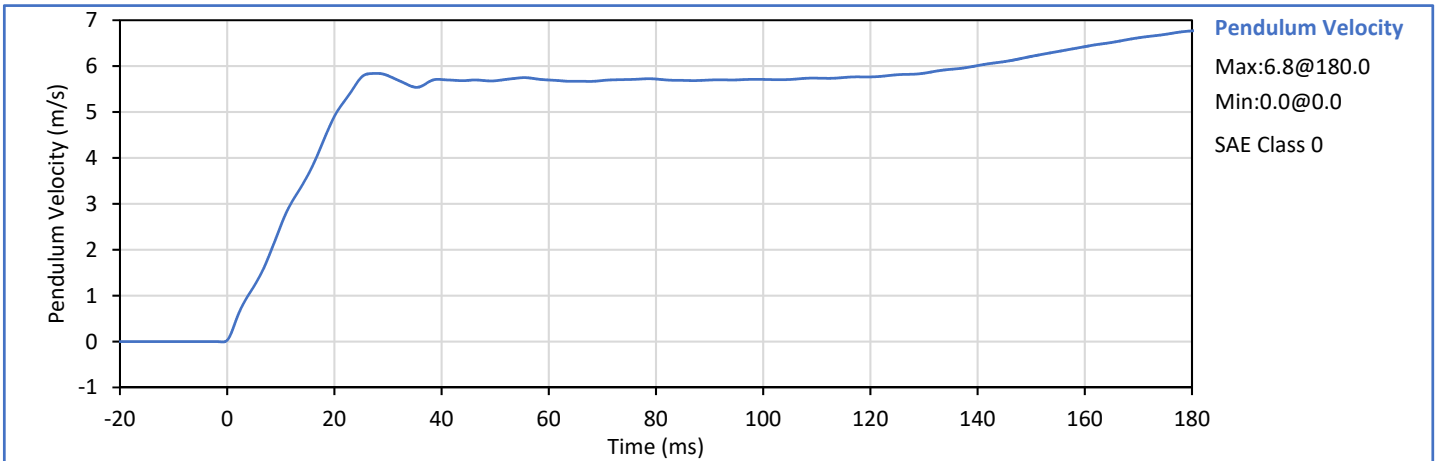


**SID-IIs Small Side Impact Dummy
 Neck Flexion**

ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	20	Pass
Pendulum Velocity	m/s	5.51	5.63	5.52	Pass
Pendulum Decel at 10 ms	m/s	2.20	2.80	2.52	Pass
Pendulum Decel at 15 ms	m/s	3.30	4.10	3.61	Pass
Pendulum Decel at 20 ms	m/s	4.40	5.40	4.90	Pass
Pendulum Decel at 25 ms	m/s	5.40	6.10	5.75	Pass
Pendulum Decel from 25-100 ms	m/s	5.50	6.20	5.84	Pass
Peak "D" Plane Rotation	deg	71.0	81.0	72.4	Pass
Time of Peak "D" Plane Rotation	ms	50.0	70.0	60.0	Pass
Peak Occ. Condyle Moment	Nm	-44.0	-36.0	-41.1	Pass
Time of Moment Decay to 0 Nm	ms	102.0	126.0	110.0	Pass
Overall Test Results					Pass



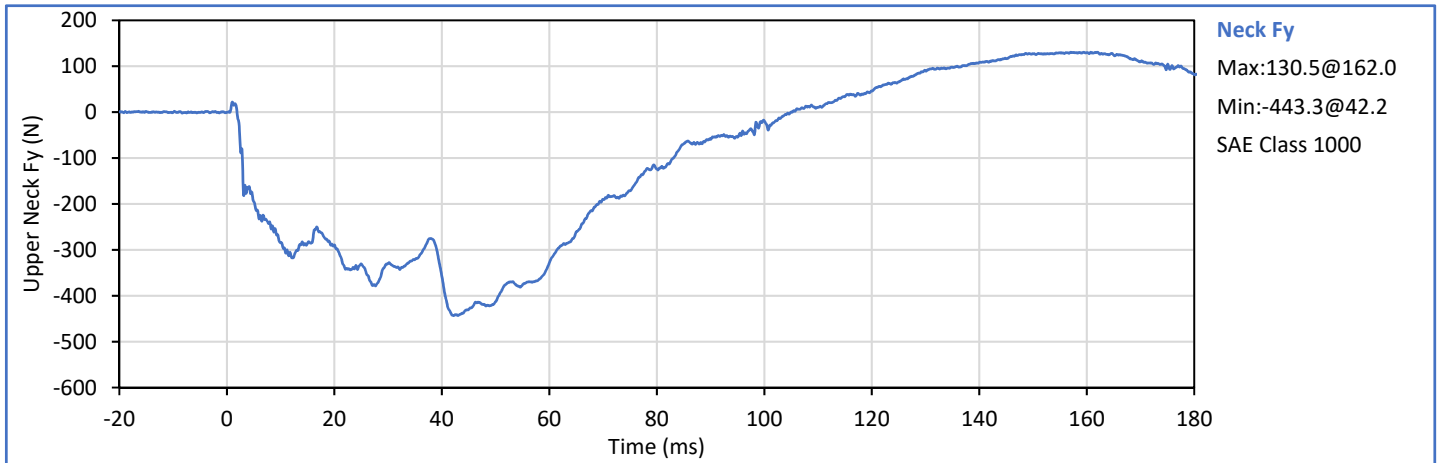
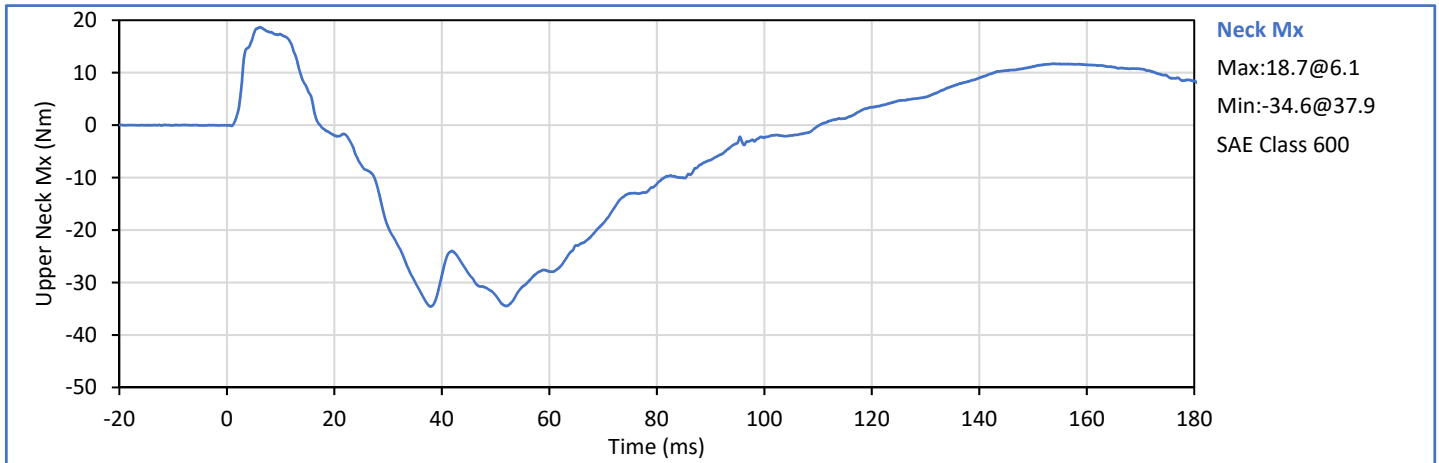
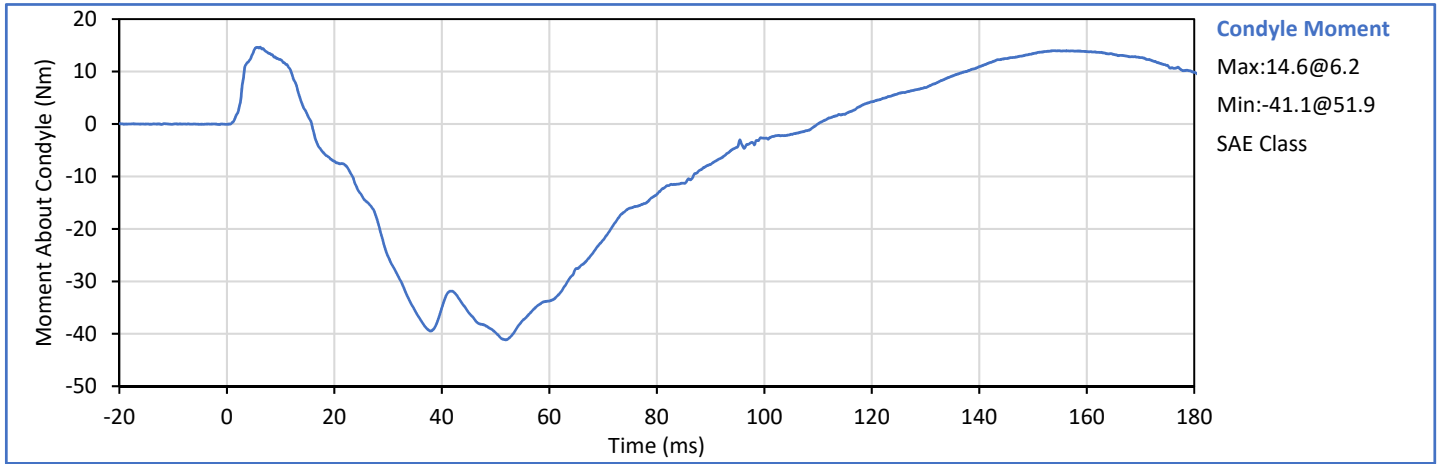
Technician: *Scotty*

Approved By: *Plungito*



ATD Serial No.: 299

Test Date: 2017-12-13

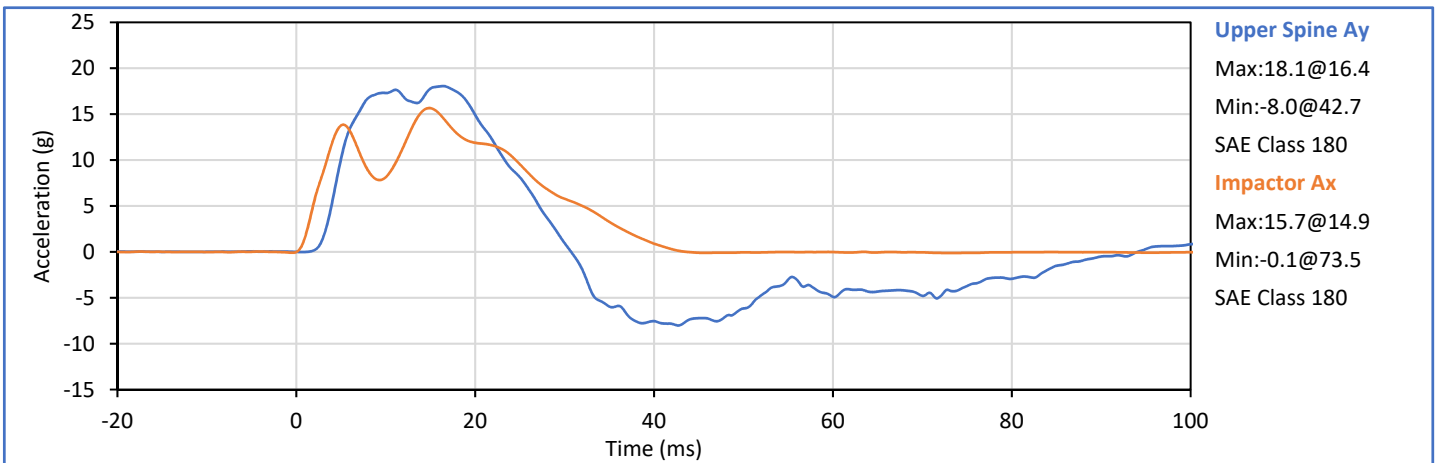
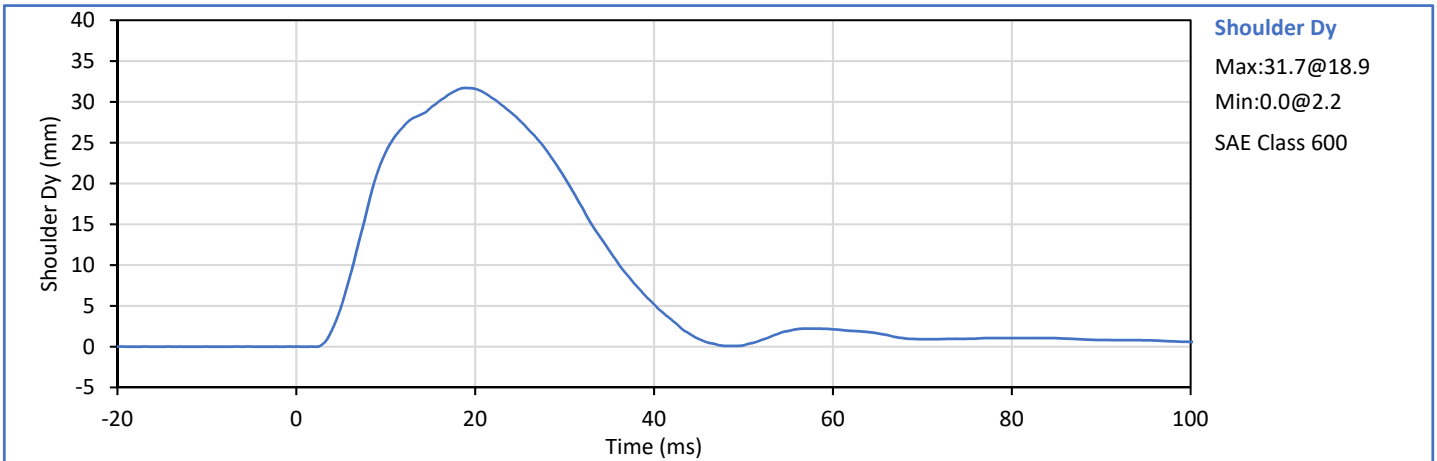




ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	20	Pass
Impactor Velocity	m/s	4.20	4.40	4.32	Pass
Peak Shoulder Dy	mm	28.0	37.0	31.7	Pass
Peak Upper Spine (T1) Ay	g	17.0	22.0	18.1	Pass
Peak Impactor Ax	g	13.0	18.0	15.7	Pass
Overall Test Results					Pass



Technician: *Scotty*

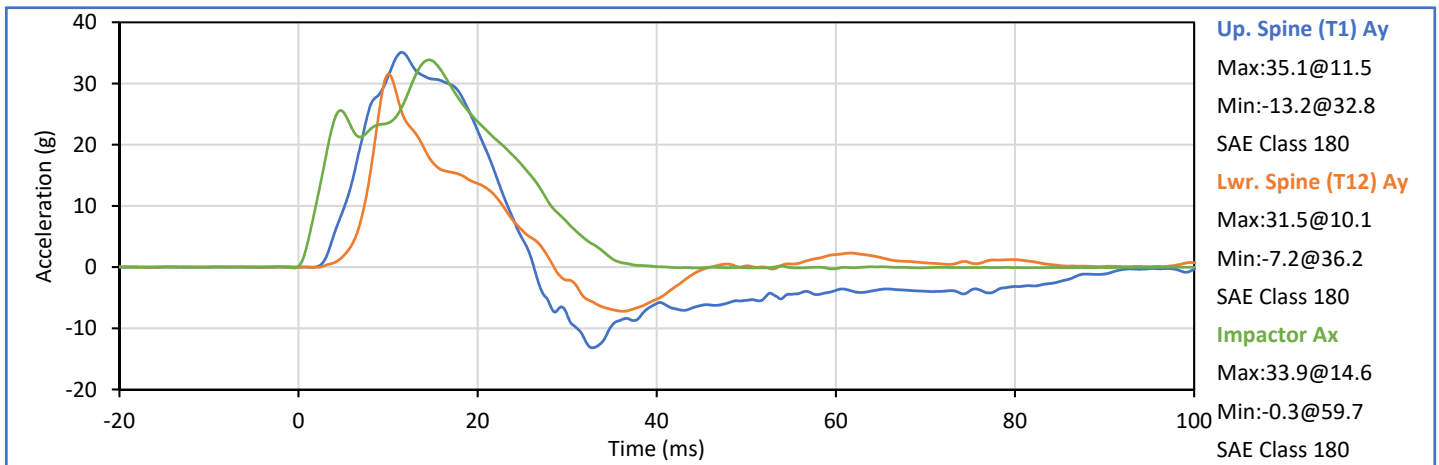
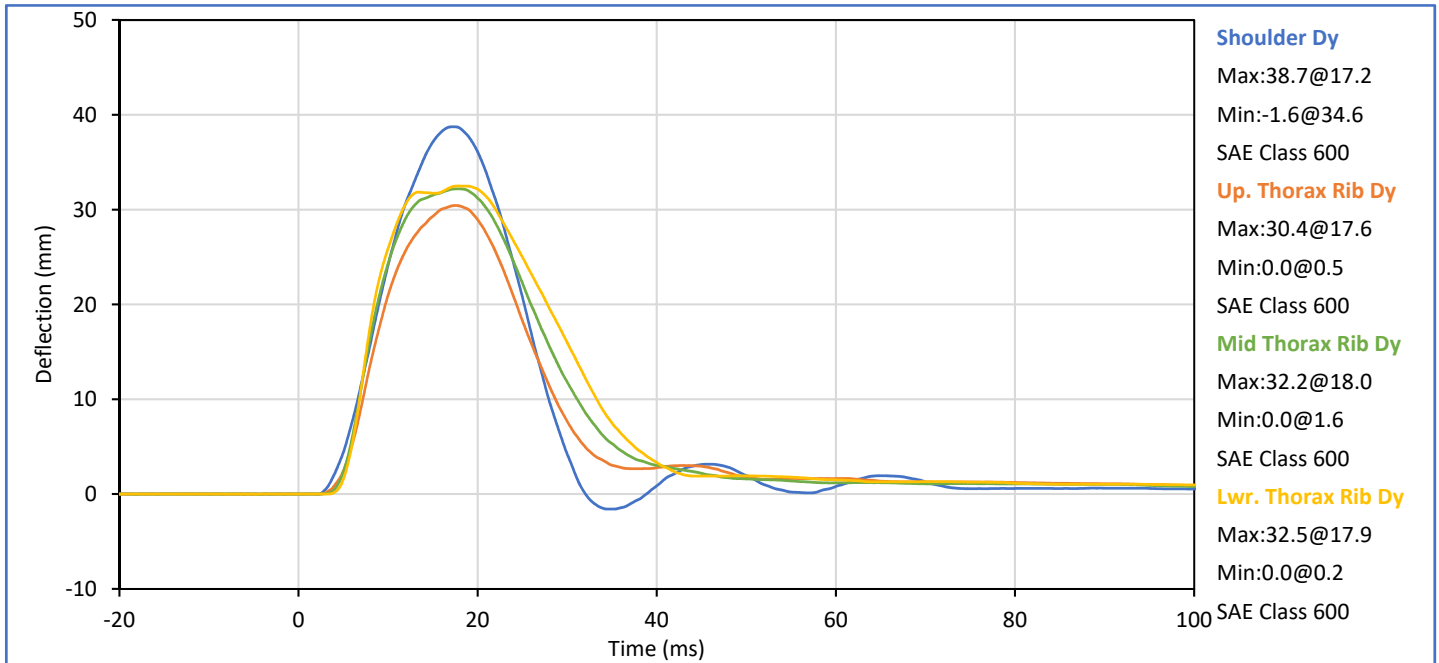
Approved By: *Plungito*



ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.2	Pass
Laboratory Humidity	%	10	70	20	Pass
Impactor Velocity	m/s	6.60	6.80	6.78	Pass
Peak Shoulder Dy	mm	31.0	40.0	38.7	Pass
Peak Upper Rib Dy	mm	25.0	32.0	30.4	Pass
Peak Middle Rib Dy	mm	30.0	36.0	32.2	Pass
Peak Lower Rib Dy	mm	32.0	38.0	32.5	Pass
Peak Upper Spine (T1) Ay	g	34.0	43.0	35.1	Pass
Peak Lower Spine (T12) Ay	g	29.0	37.0	31.5	Pass
Peak Impactor Ax	g	30.0	36.0	33.9	Pass
Overall Test Results					Pass



Technician: *Scotty*

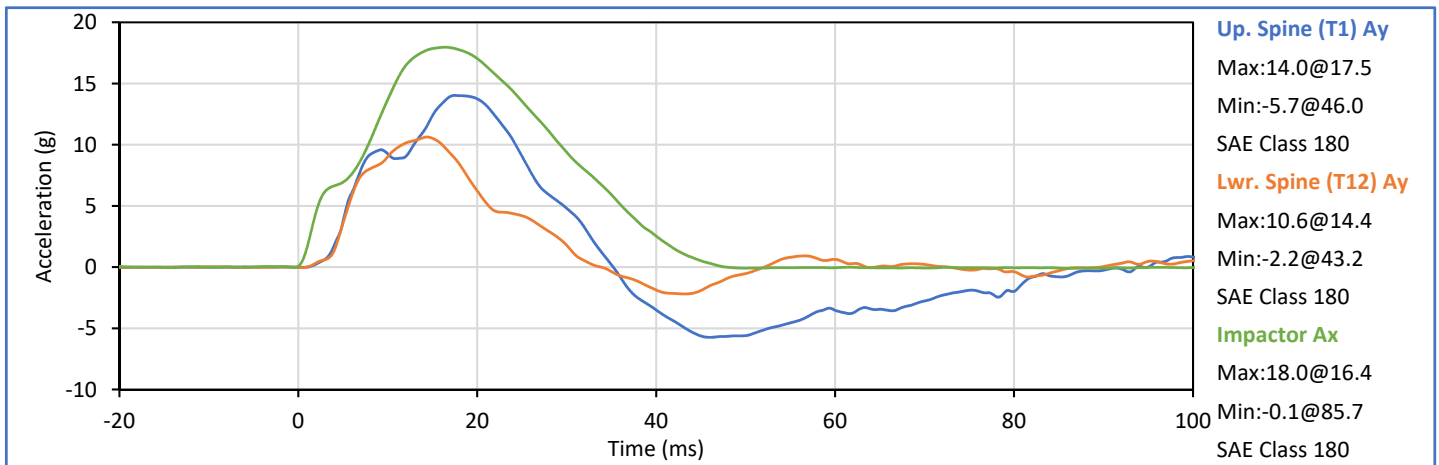
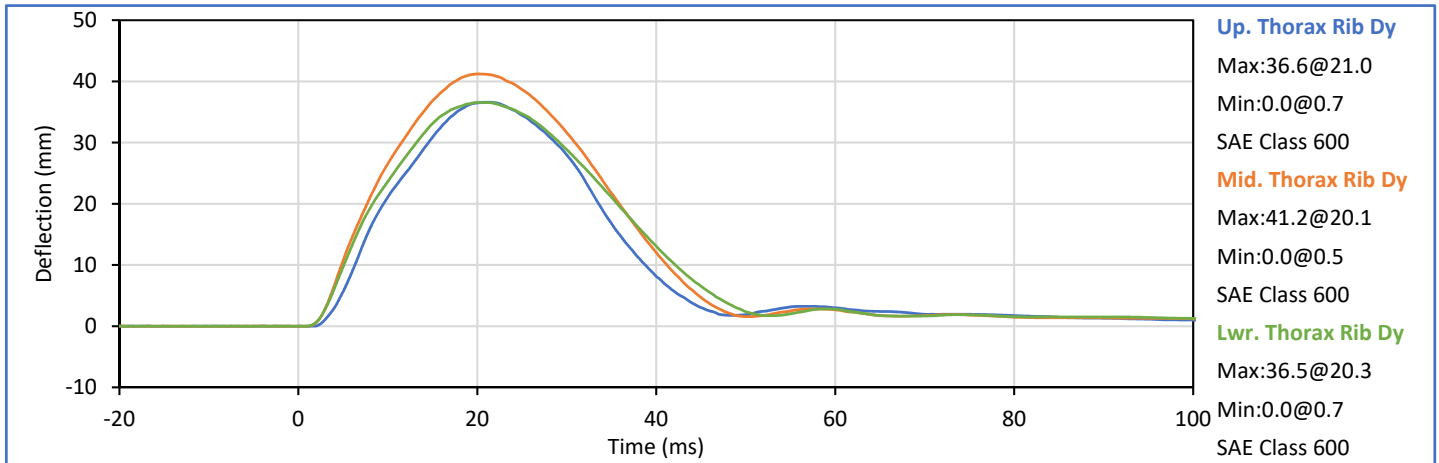
Approved By: *Plungito*



ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	21	Pass
Impactor Velocity	m/s	4.20	4.40	4.32	Pass
Peak Upper Rib Dy	mm	32.0	40.0	36.6	Pass
Peak Middle Rib Dy	mm	39.0	45.0	41.2	Pass
Peak Lower Rib Dy	mm	35.0	43.0	36.5	Pass
Peak Upper Spine (T1) Ay	g	13.0	17.0	14.0	Pass
Peak Lower Spine (T12) Ay	g	7.0	11.0	10.6	Pass
Peak Impactor Ax	g	14.0	18.0	18.0	Pass
Overall Test Results					Pass



Technician: *Scotty*

Approved By: *Plungito*

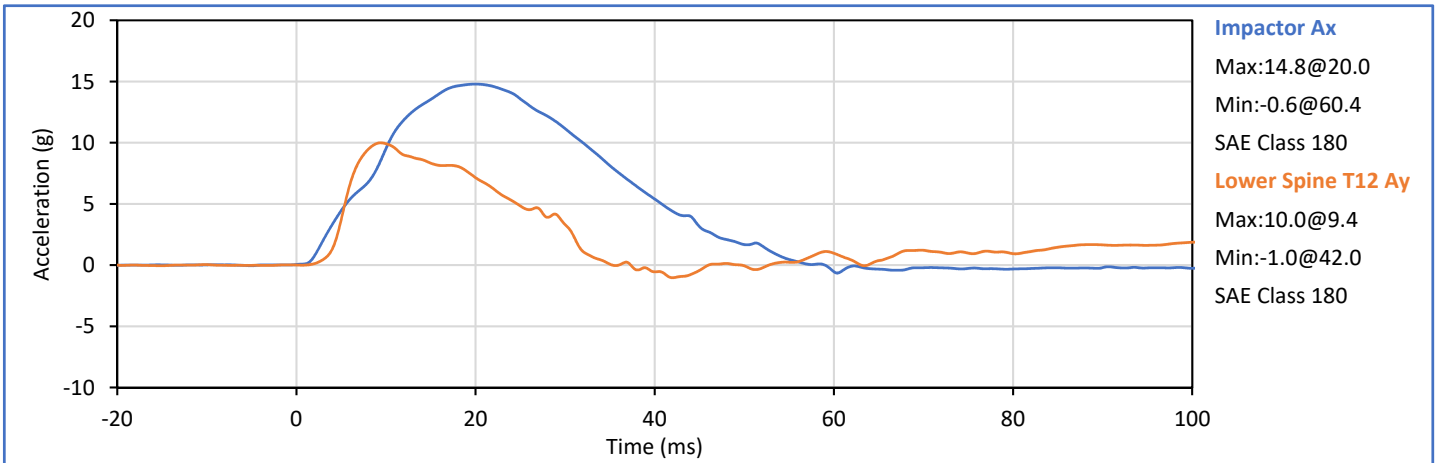
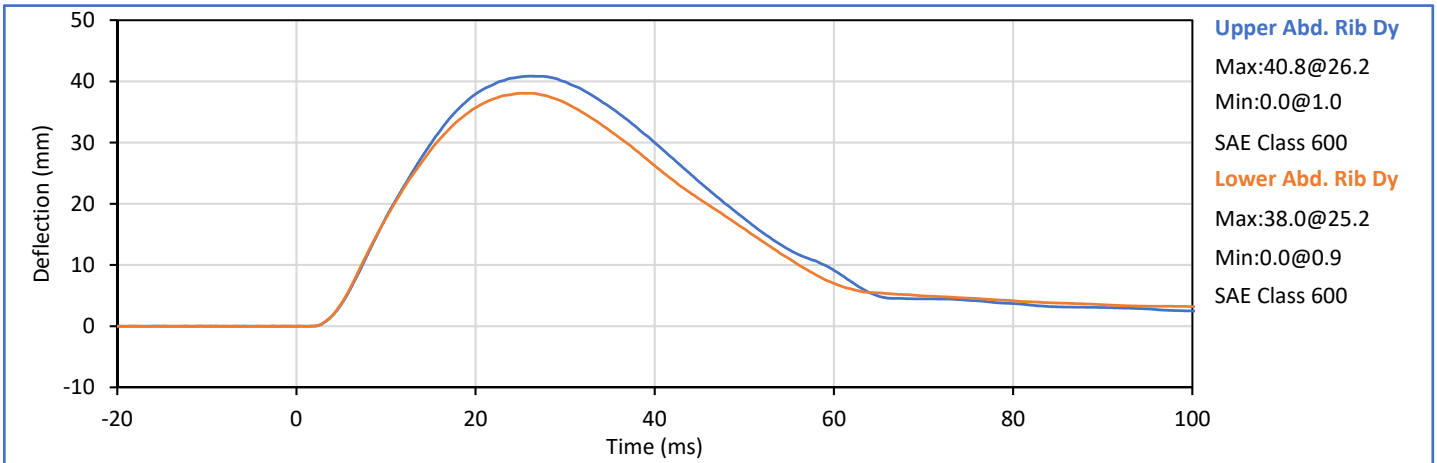


**SID-IIs Small Side Impact Dummy
 Abdomen Impact**

ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	21	Pass
Impactor Velocity	m/s	4.20	4.40	4.37	Pass
Peak Upper Abdomen Rib Dy	mm	36.0	47.0	40.8	Pass
Peak Lower Abdomen Rib Dy	mm	33.0	44.0	38.0	Pass
Peak Lower Spine T12 Ay	mm	9.0	14.0	10.0	Pass
Peak Impactor Ax	g	12.0	16.0	14.8	Pass
Overall Test Results					Pass



Technician: *Scotty*

Approved By: *Plungito*



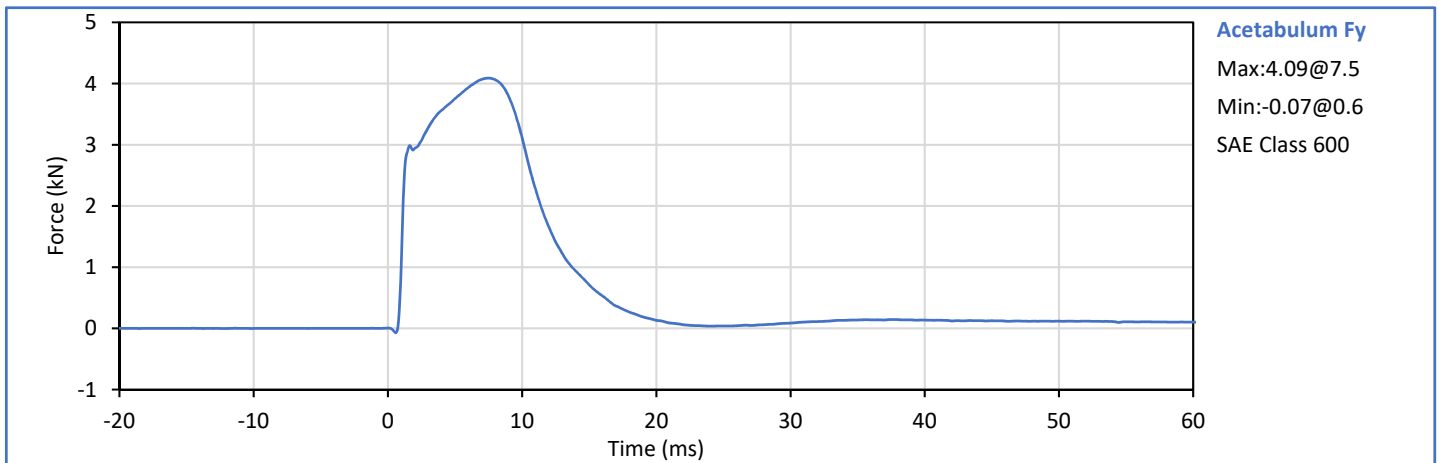
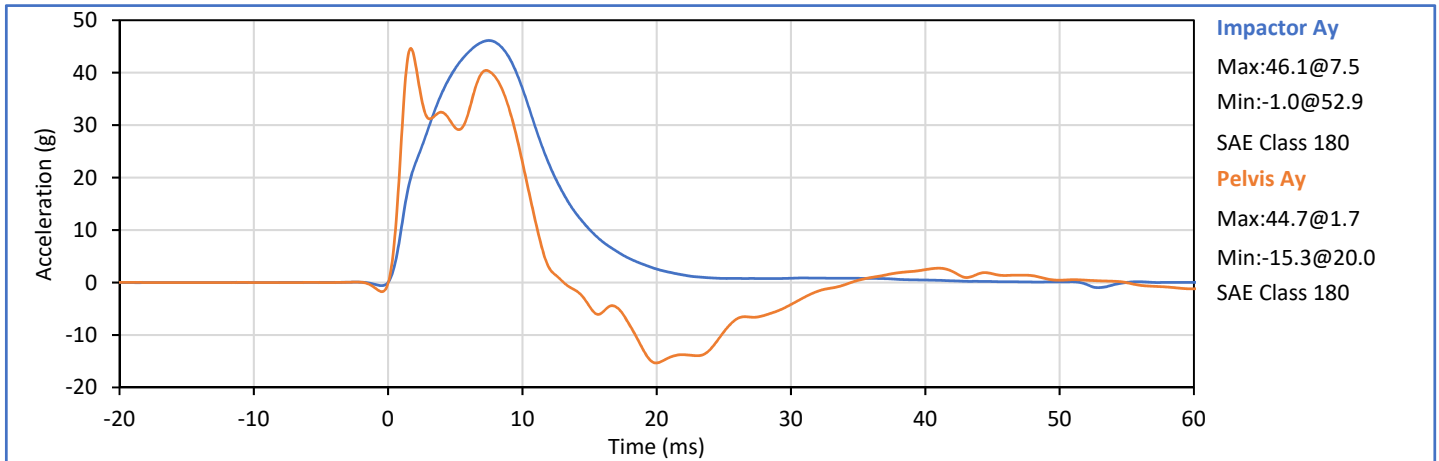
SID-IIs Small Side Impact Dummy
Pelvis Acetabulum Impact

ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.7	Pass
Laboratory Humidity	%	10	70	22	Pass
Impactor Velocity	m/s	6.60	6.80	6.74	Pass
Peak Acetabulum Fy	kN	3.600	4.300	4.089	Pass
Pelvis Ay after 6ms	g	34.0	42.0	40.4	Pass
Peak Impactor Ax	g	38.0	47.0	46.1	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 70814 (HIS)



Technician: *Scotty*

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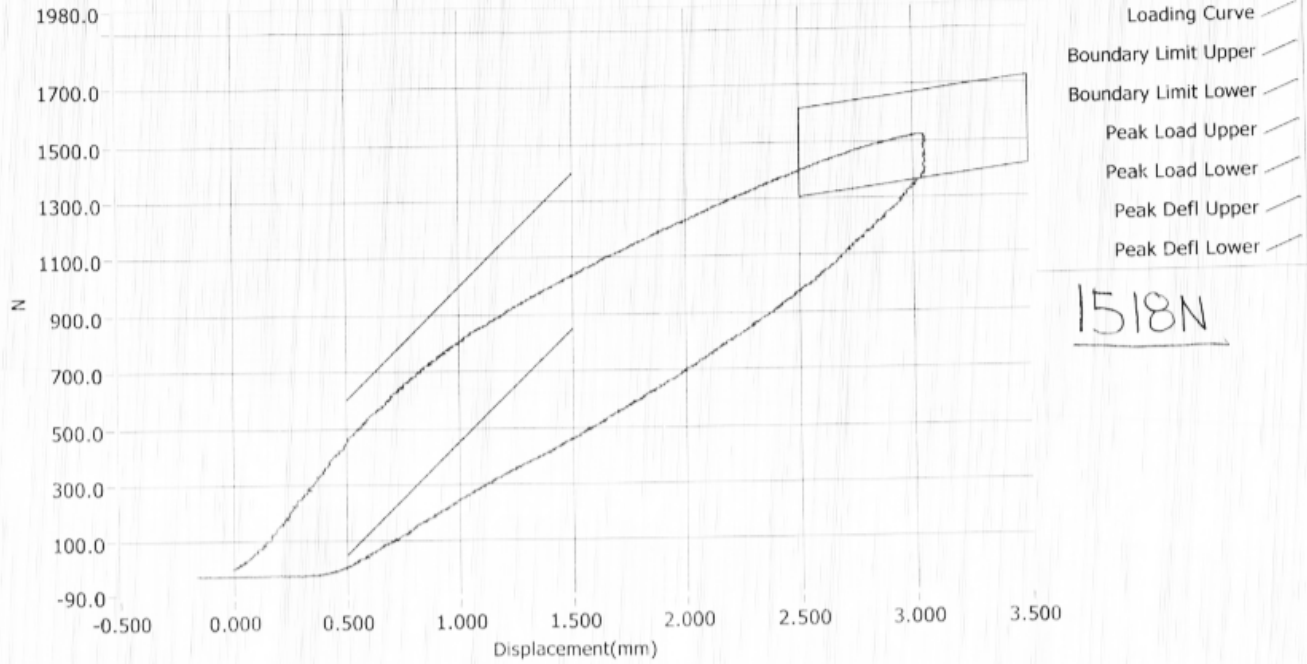
SID-IIs Small Side Impact Dummy
Pelvis Acetabulum Impact

ATD Serial No.: 299

Test Date: 2017-12-13

Pelvis Plug S/N: 70814 (HIS)

Resultant Data - SIDIIs Plug Compression



ATD Calibration Lab

Test ID	Part Serial Number	Test Date	Test Time
	70814	12/13/2013	4:56 PM
Cert ID	ATD Serial Number	ATD Type	
	N/A	SIDIIs	

Current Date : 12/13/2013

Current Time : 16:56:51



SID-IIs Small Side Impact Dummy
Pelvis Iliac Impact

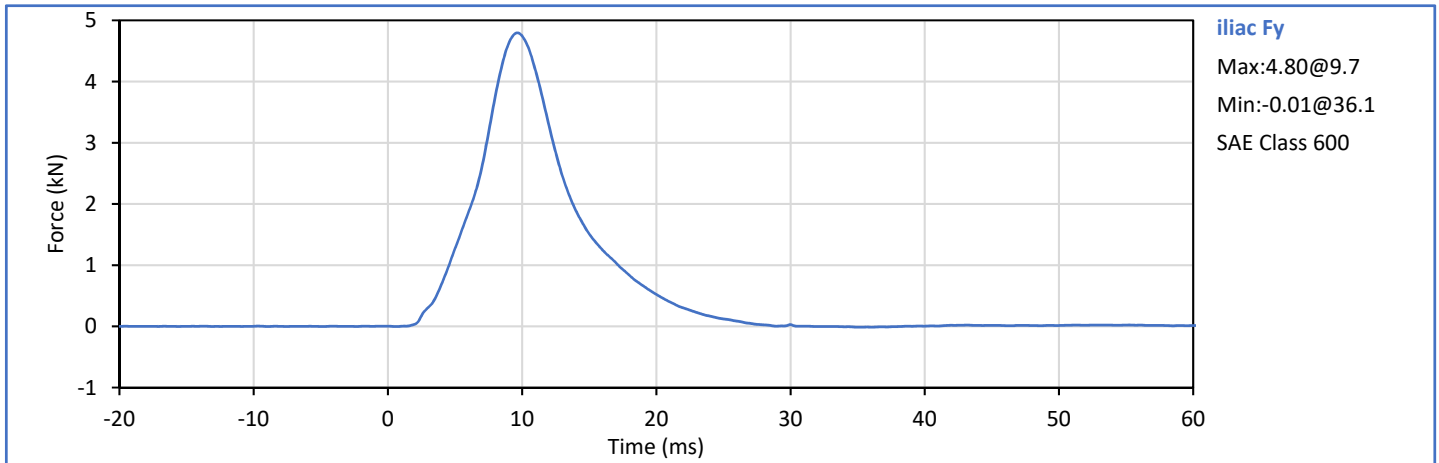
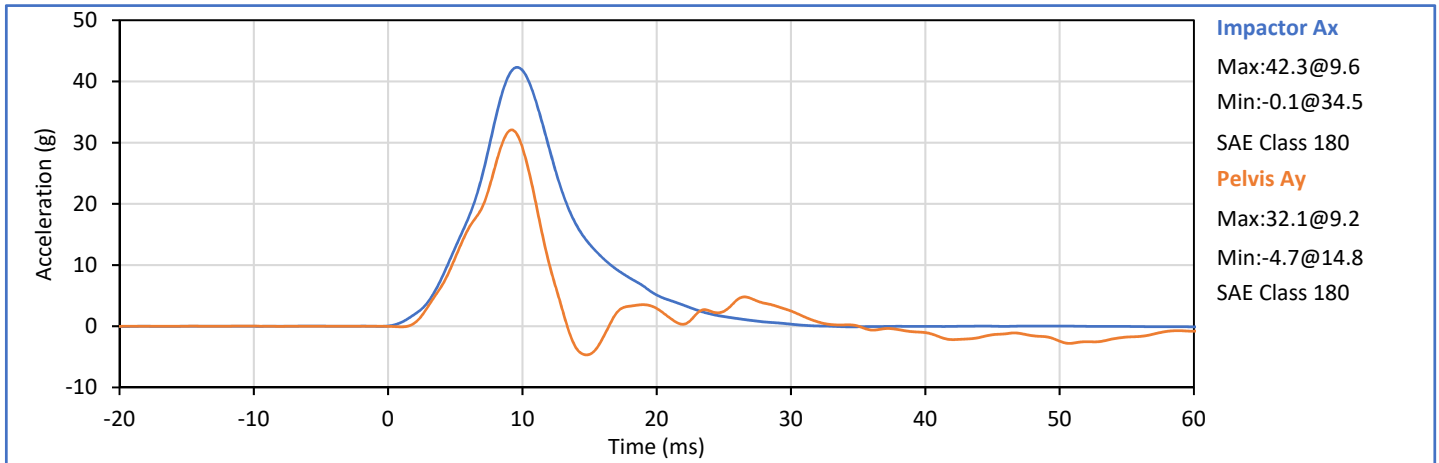
ATD Serial No.: 299

Test Date: 2017-12-13

Tested Parameter	Units	Spec. Low	Spec. High	Result	Pass/Fail
Laboratory Temperature	°C	20.6	22.2	21.4	Pass
Laboratory Humidity	%	10	70	20	Pass
Impactor Velocity	m/s	4.20	4.40	4.26	Pass
Peak Acetabulum Fy	kN	4.100	5.100	4.796	Pass
Pelvis Ay	g	28.0	39.0	32.1	Pass
Peak Impactor Ax	g	36.0	45.0	42.3	Pass
Overall Test Results					Pass

Pelvis Plug S/N: 71052 (HIS) *

* Plug is not impacted and remains certified



Technician:

Approved By:

APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA

APPENDIX D
TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION DATA

Table 1 - Driver ATD Instrumentation

Position: Driver
 ATD Type: ES-2re
 ATD S/N: F037

Sensor Location	Sensor S/N	Mfr	Last Cal
Head Acceleration X Primary	P58858	Endevco	2017-02-21
Head Acceleration Y Primary	P58865	Endevco	2017-02-12
Head Acceleration Z Primary	P58867	Endevco	2017-02-03
Head Acceleration X Redundant	P58859	Endevco	2017-02-10
Head Acceleration Y Redundant	P58866	Endevco	2017-02-08
Head Acceleration Z Redundant	P58873	Endevco	2017-01-15
Upper Thorax Rib Deflection Y	209	Denton	2017-02-10
Middle Thorax Rib Deflection Y	210	Denton	2017-02-10
Lower Thorax Rib Deflection Y	207	Denton	2017-02-10
Anterior Abdominal Force Y	1504 Fy	Denton	2017-07-25
Middle Abdominal Force Y	1505 Fy	Denton	2017-07-25
Posterior Abdominal Force Y	1506 Fy	Denton	2017-07-25
Lower Spine T12 Acceleration X	P63856	Endevco	2017-01-15
Lower Spine T12 Acceleration Y	P50063	Endevco	2017-02-04
Lower Spine T12 Acceleration Z	P51880	Endevco	2017-01-17
Pubic Symphysis Force Y	DG6784 Fy	FTSS	2017-07-25

Table 2 - Passenger ATD Instrumentation

Position: Rear Pass.
 ATD Type: SID-IIs
 ATD S/N: 299

Sensor Location	Sensor S/N	Mfr	Last Cal
Head Acceleration X Primary	P51929	Endevco	2017-06-27
Head Acceleration Y Primary	P50086	Endevco	2017-07-25
Head Acceleration Z Primary	P51931	Endevco	2017-07-28
Head Acceleration X Redundant	P68604	Endevco	2017-07-03
Head Acceleration Y Redundant	P51934	Endevco	2017-06-28
Head Acceleration Z Redundant	P58736	Endevco	2017-07-24
Head Rotation Rate X	ARS7571	DTS	2017-06-11
Head Rotation Rate Y	ARS7316	DTS	2017-06-11
Head Rotation Rate Z	ARS7330	DTS	2017-06-11
Upper Thorax Rib Deflection Y	1143	FTSS	2017-02-08
Middle Thorax Rib Deflection Y	1160	FTSS	2017-02-09
Lower Thorax Rib Deflection Y	1213	FTSS	2017-02-09
Upper Abdomen Rib Deflection Y	1218	FTSS	2017-02-09
Lower Abdomen Rib Deflection Y	1177	FTSS	2017-02-08
Lower Spine T12 Acceleration X	04I20-Z04	Entran	2017-07-22
Lower Spine T12 Acceleration Y	06A07-R08	Entran	2017-07-31
Lower Spine T12 Acceleration Z	P58795	Endevco	2017-07-02
Acetabulum Impact Side Force Y	272 Fy	Denton	2017-07-03
Iliac Wing Impact Side Force Y	284 Fy	Denton	2017-06-27

Table 3 - Vehicle Instrumentation

Sensor Location	Sensor S/N	Mfr	Last Cal
Vehicle CG Ax	A224488	MSI	2017-03-22
Vehicle CG Ay	A224486	MSI	2017-03-22
Vehicle CG Az	A227269	MSI	2017-03-22
Right Side Sill at Front Seat Ax	A224489	MSI	2017-03-22
Right Side Sill at Front Seat Ay	A224575	MSI	2017-03-17
Right Side Sill at Front Seat Az	A224510	MSI	2017-03-22
Right Side Sill at Rear Seat Ax	A224490	MSI	2017-03-22
Right Side Sill at Rear Seat Ay	A226922	MSI	2017-04-20
Right Side Sill at Rear Seat Az	A226926	MSI	2017-04-20
Left Side Sill at Front Seat Ay	A227276	MSI	2017-04-20
Left Side Sill at Rear Seat Ay	A224572	MSI	2017-03-17
Left Lower A-Pillar Ay	A224512	MSI	2017-03-22
Left Middle A-Pillar Ay	A224565	MSI	2017-03-16
Left Lower B-Pillar Ay	A224520	MSI	2017-03-22
Left Middle B-Pillar Ay	A224483	MSI	2017-03-22
Driver Seat Track at H-Point Ay	A224500	MSI	2017-03-22
Rear Seat Structure Ay	A224529	MSI	2017-03-22
Right Rear Occupant Comp. Ay	A224516	MSI	2017-03-22
Engine Block Top Ax	A227260	MSI	2017-04-20
Engine Block Top Ay	A224532	MSI	2017-03-16
Rear Floopan Above Axle Ax	A224493	MSI	2017-03-22
Rear Floopan Above Axle Ay	A224503	MSI	2017-03-22
Rear Floopan Above Axle Az	A224491	MSI	2017-03-22

Table 4 - Moving Deformable Barrier (MDB) Instrumentation

Sensor Location	Sensor S/N	Mfr	Last Cal
MDB CG Ax	A201199	MSI	2017-10-30
MDB CG Ay	A200246	MSI	2017-10-30
MDB CG Az	A199889	MSI	2017-10-30
MDB Left Side at Rear Axle Ax	A203298	MSI	2017-10-30
MDB Left Side at Rear Axle Ay	A200229	MSI	2017-10-30