

REPORT NUMBER: NCAP-KAR-17-001

**NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST**

**FCA US LLC
2017 CHRYSLER 200C AWD 4-DOOR SEDAN**

NHTSA NUMBER: M20170300

**PREPARED BY:
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9270 HOLLY ROAD
ADELANTO, CA 92301**



DECEMBER 19, 2016

FINAL REPORT

**U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF CRASHWORTHINESS STANDARDS
1200 NEW JERSEY AVE, SE
ROOM W43-410
WASHINGTON, DC 20590**

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Approval Date: December 19, 2016

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Date: _____

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16. Abstract A 56.3 km/h NCAP Frontal Impact Test was conducted on a 2017 Chrysler 200C AWD 4-door sedan in accordance with the specifications of the Office of Crashworthiness Standards Frontal NCAP Laboratory Test Procedure. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301, and footwell intrusion performance. The test was conducted at the KARCO Engineering, LLC. facility in Adelanto, California on December 5, 2016. The impact velocity of the vehicle was 56.87 km/h and the ambient temperature at the barrier face at the time of impact was 17°C. The target vehicle's post-test maximum crush was 423 mm at DPD 4 to the right of the vehicle centerline. The test vehicle's performance is as follows: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Measurement Description</th> <th rowspan="2">Units</th> <th colspan="2">Driver ATD</th> <th colspan="2">Passenger ATD</th> </tr> <tr> <th>Threshold</th> <th>Result</th> <th>Threshold</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC₁₅)</td> <td>N/A</td> <td>700</td> <td>105.3</td> <td>700</td> <td>138.2</td> </tr> <tr> <td>Maximum Chest Compression</td> <td>mm</td> <td>63</td> <td>-24</td> <td>52</td> <td>-19</td> </tr> <tr> <td>Nij</td> <td>N/A</td> <td>1</td> <td>0.37</td> <td>1</td> <td>0.40</td> </tr> <tr> <td>Neck Tension</td> <td>N</td> <td>4170</td> <td>1535.3</td> <td>2620</td> <td>856.2</td> </tr> <tr> <td>Neck Compression</td> <td>N</td> <td>4000</td> <td>-58.5</td> <td>2520</td> <td>-465.8</td> </tr> <tr> <td>Left Femur Force</td> <td>N</td> <td>10000</td> <td>-1462.8</td> <td>6800</td> <td>-2622.0</td> </tr> <tr> <td>Right Femur Force</td> <td>N</td> <td>10000</td> <td>-1854.0</td> <td>6800</td> <td>-2131.2</td> </tr> </tbody> </table>				Measurement Description	Units	Driver ATD		Passenger ATD		Threshold	Result	Threshold	Result	Head Injury Criteria (HIC ₁₅)	N/A	700	105.3	700	138.2	Maximum Chest Compression	mm	63	-24	52	-19	Nij	N/A	1	0.37	1	0.40	Neck Tension	N	4170	1535.3	2620	856.2	Neck Compression	N	4000	-58.5	2520	-465.8	Left Femur Force	N	10000	-1462.8	6800	-2622.0	Right Femur Force	N	10000	-1854.0	6800	-2131.2
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SECTION 1

PURPOSE AND SUMMARY OF TEST

PURPOSE

This 56.3 km/h frontal barrier impact test is part of the Vehicle Barrier Impact Testing Program, sponsored by the National Highway Traffic Safety Administration (NHTSA) under contract number DTNH22-12-D-00259. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for consumer information purposes.

The 56.3 km/h frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Frontal NCAP Laboratory Test Procedure, dated October 2015.

SUMMARY

A load cell barrier consisting of 176 load cells was impacted by a 2017 Chrysler 200C AWD 4-door sedan at a velocity of 56.87 km/h. The test was performed at KARCO Engineering, LLC, on December 5, 2016. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A of this report.

Three (3) real-time cameras and sixteen (16) high-speed cameras were used to document the frontal barrier impact event. Camera locations and other pertinent camera information can be found in Data Sheet 6 of this report.

Photographs and videos are labeled with the title “2017 Chrysler 200” or “2017 Chrysler 200C” on the placards. All of the photographs and videos should be titled as “2017 Chrysler 200C AWD.”

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

Both ATDs were fully instrumented with head, chest and pelvis tri-axial accelerometers, chest displacement potentiometers, upper neck force transducers, right / left femur load cells, and lower leg instrumentation. Seat belt load cells were placed on the driver's and passenger's shoulder belt and lap belt to measure the dummy torso and pelvic section loading. The driver (position 1) ATD (Serial No. 360) and the right-front passenger (position 2) ATD (Serial No. 635)

were calibrated prior to this test. Certification details, along with instrumentation calibration data, are found in Appendix C of this report.

The 106 channels of dummy and vehicle response data were recorded on an on-board data acquisition system. Appendix B contains the dummy response data traces.

There was 91.0% windshield retention with 412 mm of separation on the lower, right side of the windshield. There was no intrusion into the protected zone of the windshield during the event.

The maximum static crush of the test vehicle was 423 mm located at DPD 4 to the right of the vehicle's centerline. Both the driver and passenger side doors remained closed during the impact event and were operable after the impact.

The driver's visible contact points were as follows: The driver ATD's head contacted the frontal airbag, sun visor, and headrest. The upper and lower torso contacted the frontal airbag. Both the left and right knees contacted the knee airbag and the steering wheel rim.

The passenger's visible contact points were as follows: The passenger ATD's head contacted the frontal airbag and headrest. The upper and lower torso contacted the frontal airbag. Both the left and right knees contacted the knee airbag.

The occupant data is summarized below:

ATD Position	HIC ₁₅	T ¹ (ms)	T ² (ms)	Chest Disp. (mm)	Nij	Neck Tension (N)	Neck Comp. (N)	Left Femur (N)	Right Femur (N)
Driver (50th)	105.3	58.3	73.3	-24	0.37	1535.3	-58.5	-1462.8	-1854.0
Passenger (5th)	138.2	52.6	67.6	-19	0.40	856.2	-465.8	-2622.0	-2131.2

SECTION 2

OCCUPANT AND VEHICLE INFORMATION / DATA SHEETS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

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: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
 Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA Number	M20170300
Model Year	2017
Make	Chrysler
Model	200C AWD
Body Style	4-Door Sedan
VIN	1C3CCCEG8HN500809
Body Color	Vivid Blue Pearl
Odometer Reading (km / mi)	27 / 17
Engine Displacement (L)	3.6
Type / No. of Cylinders	V6
Engine Placement	Transverse
Transmission Type	Automatic
Transmission Speeds	9
Overdrive	Yes
Final Drive	AWD
Roof Rack	No
Sunroof / T-Top	No
Running Boards	No
Tilt Steering Wheel	Yes
Power Seats	Yes
Anti-Lock Brakes (ABS)	Yes
Automatic Door Locks (ADLs)	Yes

Traction Control System	Yes
Power Steering	Yes
Power Window Auto-Reverse	Yes
Driver Frontal Airbag	Yes
Driver Curtain Airbag	Yes
Driver Head/Torso Airbag	No
Driver Torso Airbag	No
Driver Torso/Pelvis Airbag	Yes
Driver Pelvis Airbag	No
Driver Knee Airbag	Yes
Front Pass. Frontal Airbag	Yes
Front Pass. Curtain Airbag	Yes
Front Pass. Head/Torso Airbag	No
Front Pass. Torso Airbag	No
Front Pass. Torso/Pelvis Airbag	Yes
Front Pass. Pelvis Airbag	No
Front Pass. Knee Airbag	Yes
Driver Seat Belt Pretensioner	Yes
Driver Load Limiter	Yes
Front Pass. Seat Belt Pretensioner	Yes
Front Pass. Load Limiter	Yes
Other Safety Restraint	No

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

No

DATA FROM CERTIFICATION LABEL

Manufactured By	FCA US LLC
Date of Manufacture	Sep-16

GVWR (kg)	2241
GAWR Front (kg)	1185
GAWR Rear (kg)	1185

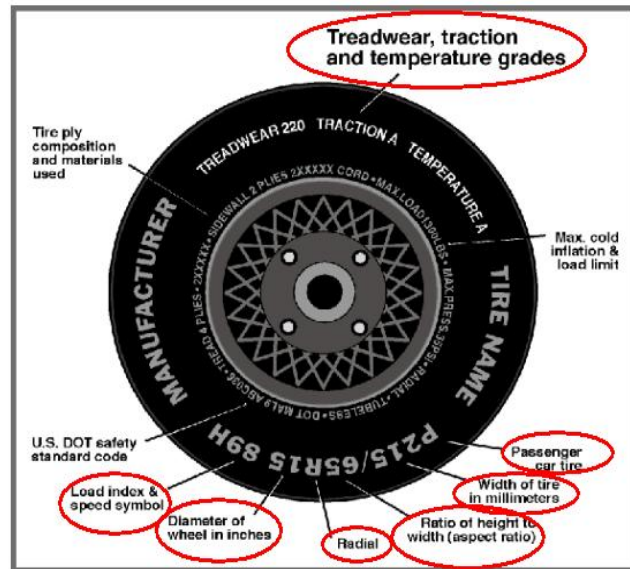
VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total	
Type of Seats	Bucket	Bench			
Designated Seating Capacity	2	3		5	
Capacity Weight (VCW) (kg)				408.0	A
DSC x 68.04 (kg)				340.2	B
Cargo Weight (RCLW) (kg)				67.8	A-B

DATA SHEET NO. 1 ... (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2017 Chrysler 200C AWD 4-Door Sedan	NHTSA No.:	M20170300
Test Program:	56.3 km/h Frontal Impact NCAP Test	Test Date:	12/05/16



VEHICLE TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kPa)	340	340
Cold Pressure (kPa)	260	260
Recommended Tire Size	235/40R19	235/40R19
Tire Size on Vehicle	235/40R19	235/40R19
Tire Manufacturer	Nexen	Nexen
Tire Model	Classe Premiere CP671	Classe Premiere CP671
Treadwear	400	400
Traction	A	A
Temperature Grades	A	A
Tire Plies Sidewall	2 Polyester	2 Polyester
Tire Plies Body	2 Polyester, 2 Steel, 2 Nylon	2 Polyester, 2 Steel, 2 Nylon
Load Index / Speed Symbol	96H	96H
Tire Material	Polyester, Steel, Nylon	Polyester, Steel, Nylon
DOT Safety Code Left	UAM3 CMLL 1716	UAM3 BAFR 0916
DOT Safety Code Right	UAM3 CMLL 1716	UAM3 BAFR 0916

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

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
 Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	516.5	352.5		549.5	445.5	
Right	kg	516.0	348.5		522.0	420.0	
Ratio	%	59.6%	40.4%	100.0%	55.3%	44.7%	100.0%
Total	kg	1032.5	701.0	1733.5	1071.5	865.5	1937.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value	
Total Delivered Weight (UVW)	kg	1733.5	A
Weight of 1 P572E ATD & 1 P572O ATD	kg	141.0	B
Rated Cargo/Luggage Weight (RCLW)	kg	67.8	C
Calculated Vehicle Target Weight (TVTW)	kg	1942.3	A+B+C

TEST VEHICLE ATTITUDES

Condition	Units	LF	RF	LR	RR	CG Aft of Front Axle
As Delivered	mm	726	726	724	726	1109
As Tested	mm	721	719	699	703	1226
Post-Test	mm	737	729	700	694	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Total Vehicle Wheel Base	mm	2743
Total Vehicle Length at Left Side	mm	4060
Total Vehicle Length at Centerline	mm	4885
Total Vehicle Length at Right Side	mm	4057
Weight of Ballast in Cargo Area	kg	147.0
Weight of Vehicle Components Removed	kg	27.5
Amount of Stoddard Solvent in Fuel Tank	L	55.64

VEHICLE COMPONENTS REMOVED TO MEET TEST WEIGHT:

Spare Tire and Tools (19.0 kg) and Trunk Trim (8.5 kg)

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

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

TARGET VEHICLE STRUCTURAL MEASUREMENTS

No.	Description	Pre-Test
1	Total Length	4885
2	Total Width	1845
3	Bumper Top Height	603
4	Bumper Bottom Height	415
5	Longitudinal Member Top Height	570
6	Distance Between Longitudinal Members	860
7	Longitudinal Member Width	80
8	Engine Top Height	910
9	Engine Bottom Height	200
10	Engine and Gearbox Width	600
11	Front Bumper to Engine Distance	542
12	Front Shock Absorber Fixing Height	905
13	Bonnet Leading Edge Height	745
14	Front Shock Absorber Fixing Width	1145
15	Front Bumper to Front Axle Distance	1027
16	Front Axle to A-Pillar Distance	520
17	A-Pillar to B-Pillar Distance	996
18	B-Pillar to Rear Axle Distance	1186
19	B-Pillar to C-Pillar Distance	878
20	Roof Sill Bottom Height	1309
21	Roof Sill Top Height	1432
22	Floor Sill Bottom Height	176
23	Floor Sill Top Height	258

All measurements in millimeters.

DATA SHEET NO. 2

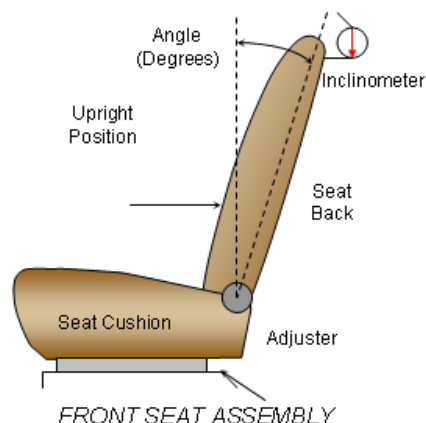
SEAT ADJUSTMENT, FUEL SYSTEM, AND STEERING WHEEL DATA

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56.3 km/h Frontal Impact NCAP Test

NHTSA No.: M20170300
 Test Date: 12/05/16

NOMINAL DESIGN RIDING POSITION

The procedure for the driver is as follows: the seat back is set to the manufacturer's designated angle. The procedure for the passenger is as follows: the seat back is set to position the transverse instrumentation platform of the dummy's head at $0^\circ \pm 0.5^\circ$. Seat back angle is measured at the headrest post.

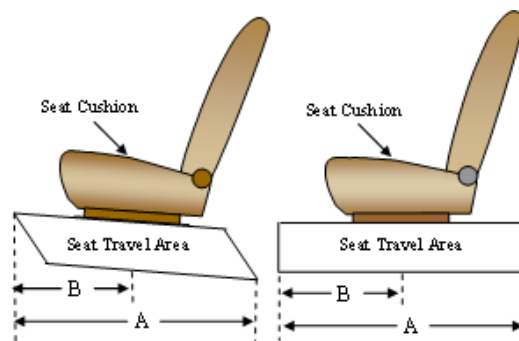


SEAT BACK ANGLE

Seating Position	Degrees
Driver Seat Back Angle	2.0
Passenger Seat Back Angle	-2.9

SEAT FORE / AFT POSITIONING

The total seat travel is measured from the forward most possible position to the rear most possible position. The driver's seat is set to the middle of the fore-aft travel. The passenger's seat is set to the forward most position where the ATD will not contact any interior panels.



SEAT FORE/AFT POSITIONS

Seating Position	Total Fore-Aft Travel	Placed in Position
Driver Seat	280 mm	140 mm
Passenger Seat	213 mm	0 mm

SEAT BELT UPPER ANCHORAGE

The seat belt upper anchorage is positioned to the manufacturer's design position for a 50th percentile adult male ATD for the driver, and a 5th percentile adult female ATD for the passenger. Position "H" is the uppermost position, followed by position "M1". Position "L" is the lowermost position.

SEAT BELT UPPER ANCHORAGES

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

DATA SHEET NO. 2 ... (CONTINUED)

SEAT ADJUSTMENT, FUEL SYSTEM, AND STEERING WHEEL DATA

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

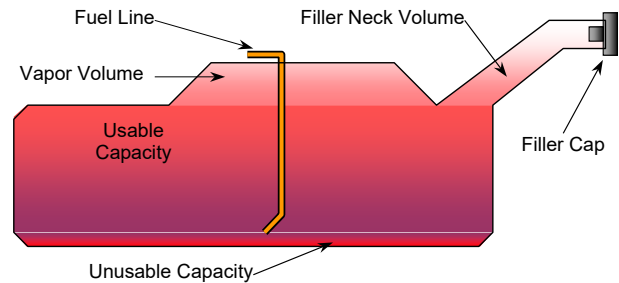
Test Date: 12/05/16

FUEL TANK CAPACITY

Description	Liters
Usable Capacity of "Standard Tank"	59.80
Usable Capacity of "Optional Tank"	59.80
92 - 94% of Usable Capacity	55.02 to 56.21
Actual Amount of Stoddard Solvent Used	55.64
1/3 of Usable Capacity	19.93

FUEL PUMP

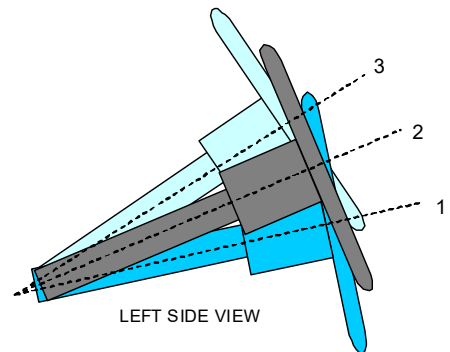
The vehicle is equipped with an electric fuel pump. The fuel pump operates when the vehicle's electrical system is activated. The fuel system is pressurized by turning the key to the start position.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. A digital inclinometer is used to measure a plate which is placed across the rim of the steering wheel for angular measurements. A tape measure is used to measure telescoping steering wheel travel.



STEERING COLUMN ASSEMBLY

STEERING COLUMN POSITIONING

	Degrees	Fore-Aft Position (mm)
Lowermost Position, No. 1	21.6	108
Geometric Center Position, No. 2	23.7	125
Uppermost Position, No. 3	25.8	142
Telescoping Steering Wheel Travel		34
Test Position	23.7	125

DATA SHEET NO. 3

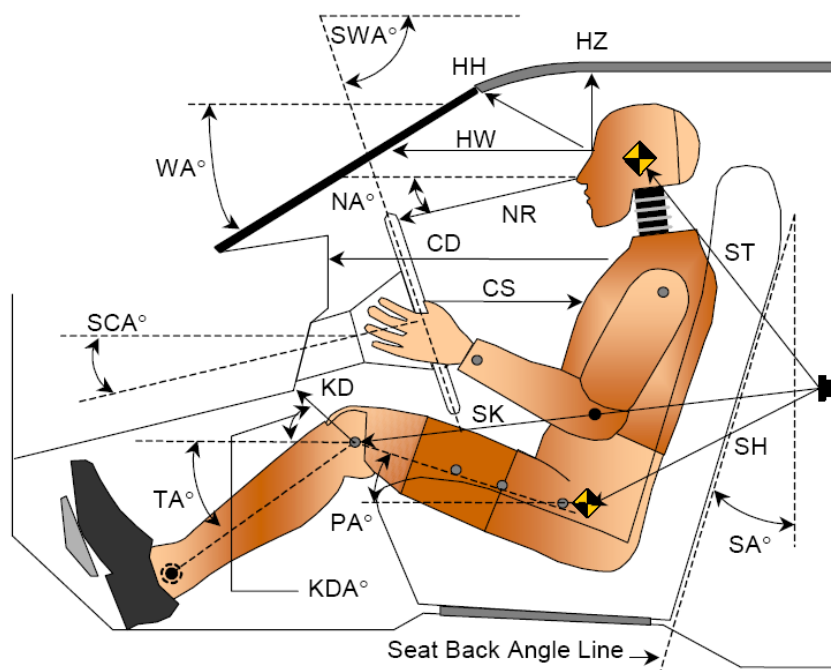
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16



LEFT SIDE VIEW

Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA°	Windshield Angle		21.5		
SWA°	Steering Wheel Angle		66.3		
SCA°	Steering Column Angle		23.7		
SA°	Seat Back Angle (On Headrest Post)		2.0		-2.9
HZ	Head to Roof	194	90.0	202	90.0
HH	Head to Header	237	24.0	288	43.5
HW	Head to Windshield	640	0.0	695	0.0
NR	Nose to Rim	392	8.0	486	34.8
CD	Chest to Dash	562	13.2	421	8.0
CS	Chest to Steering Hub	305	0.0		
RA	Rim to Abdomen	204	0.0		
KDL	Left Knee to Dash	161	29.3	115	39.8
KDR	Right Knee to Dash	166	36.9	122	44.4
PA°	Pelvic Angle		22.5		22.2
TA°	Tibia Angle		43.8		49.7
SK	Striker to Knee	540	0.2	650	2.8
ST	Striker to Head	515	86.6	484	70.1
SH	Striker to H-Point	237	42.1	337	19.2

DATA SHEET NO. 4

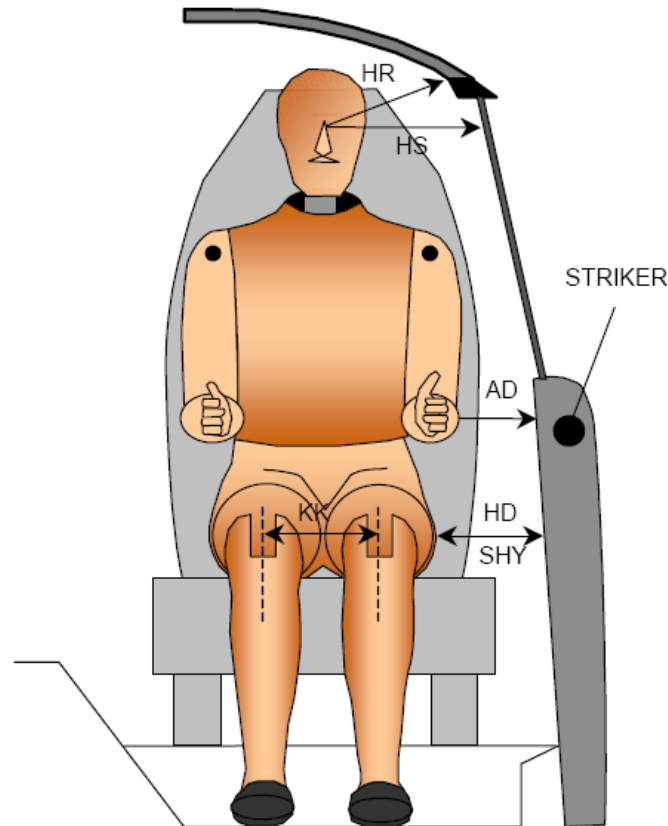
DUMMY LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16

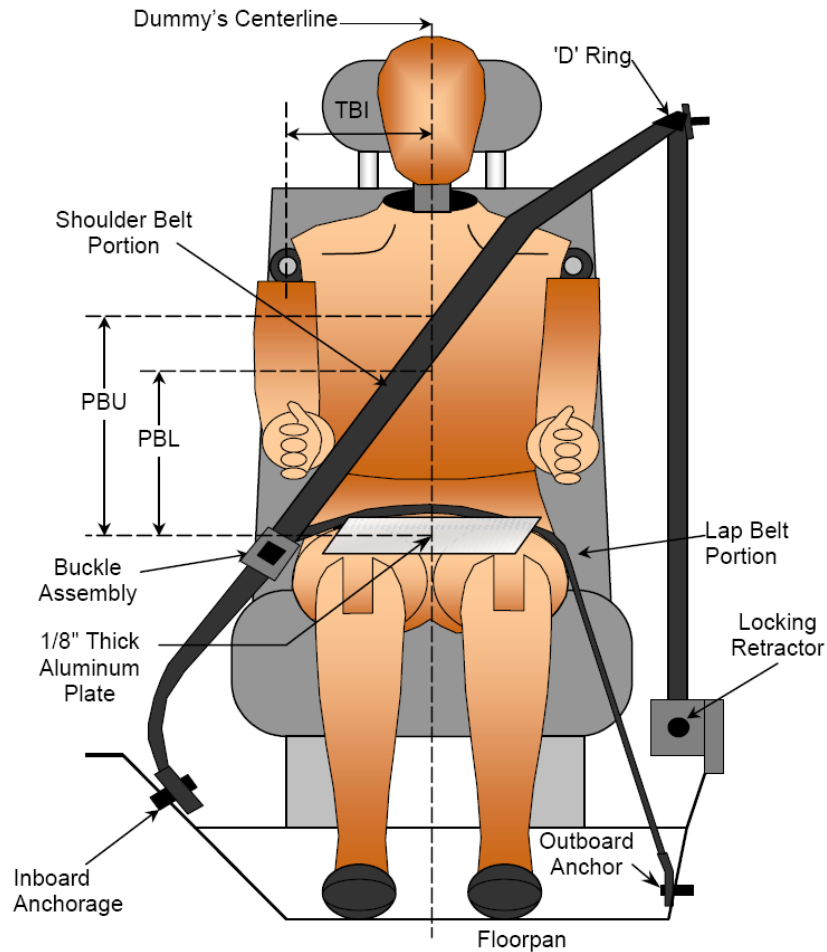


Code	Description	Driver (mm)	Passenger (mm)
AD	Arm to Door	118	90
HD	H-Point to Door	138	180
HR	Head to Side Header	210	235
HS	Head to Side Window	339	363
KK	Knee to Knee	345	222
SHY	Striker to H-Point (Y-Direction)	277	290
AA	Ankle to Ankle	349	160

DATA SHEET NO. 5
SEAT BELT POSITIONING DATA

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56.3 km/h Frontal Impact NCAP Test

NHTSA No.: M20170300
 Test Date: 12/05/16



FRONT VIEW OF DUMMY

SEAT BELT POSITIONING MEASUREMENTS

Code	Measurement Description	Units	Driver	Passenger
PBU	Top Surface of Aluminum Plate to Belt Upper Edge	mm	331	310
PBL	Top Surface of Aluminum Plate to Belt Lower Edge	mm	260	210

BELT LENGTH DATA

Measurement Description	Units	Driver	Passenger
Shoulder Belt Length as Measured on ATD	mm	573	874
Lap Belt Length as Measured on ATD	mm	578	663
Remainder of Belt on Reel	mm	1177	1042
Total Belt Length for Continuous Webbing Systems	mm	2328	2579

DATA SHEET NO. 6

HIGH-SPEED CAMERA LOCATIONS AND DATA

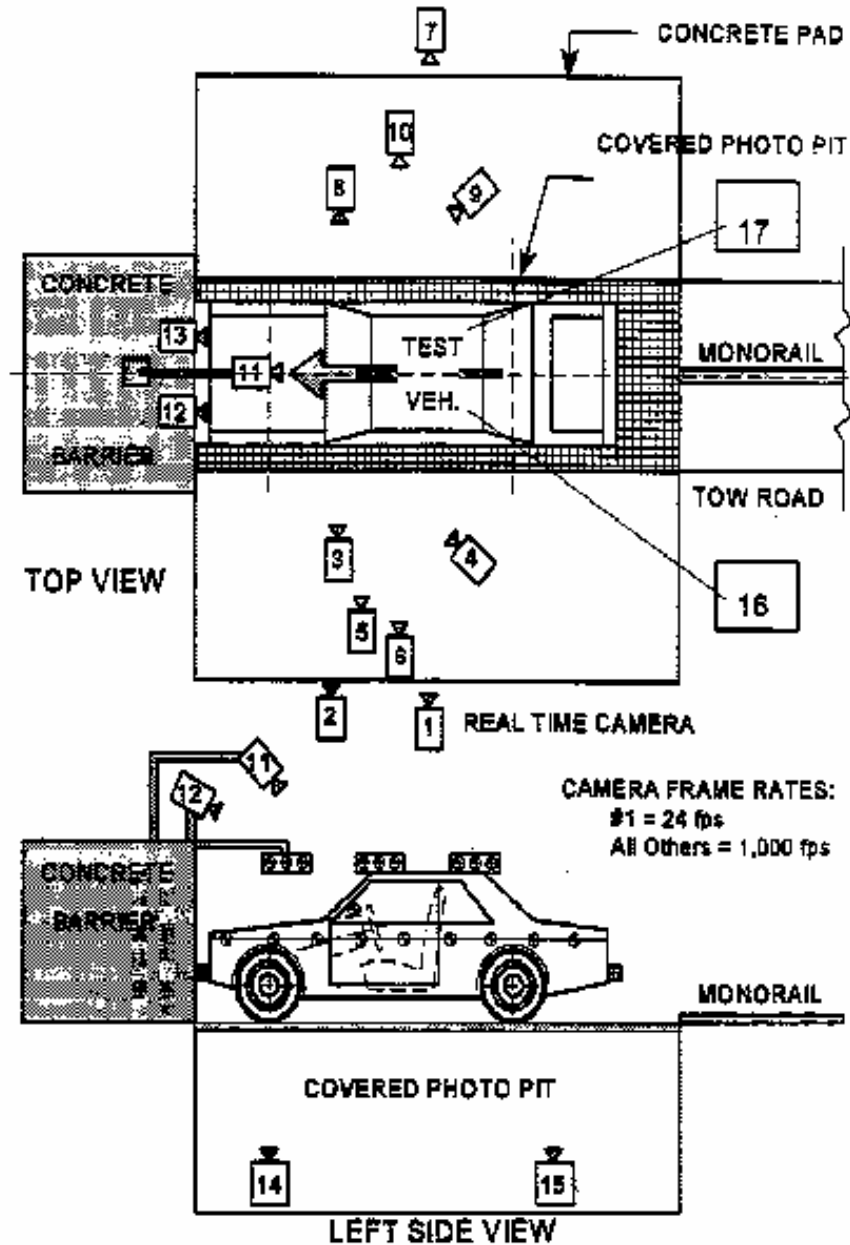
Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16

CAMERA POSITIONS FOR FRONTAL IMPACTS



DATA SHEET NO. 6 ... (CONTINUED)

HIGH-SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
 Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

CAMERA LOCATIONS

No.	Description	Location (mm)			Lens (mm)	Speed (fps)
		X	Y	Z		
1	Real-Time Left Overall	-11412	-8150	-1484		30
2	Driver Close-Up	-2590	-7950	-1371	24	1000
3	Left Front Half	-1701	-6197	-1701	50	1000
4	Left Angle	-6696	-10308	-3211	ZOOM	1000
5	Steering Column - Top	-1966	-10412	-3688	50	1000
6	Steering Column - Bottom	-1972	-10412	-3379	50	1000
7	Right Overall	-2336	7569	-1012	24	1000
8	Passenger Close-Up	-1733	7581	-1408	50	1000
9	Right Front Half	-1600	8214	-1811	ZOOM	1000
10	Right Angle	-6217	9516	-4830	ZOOM	1000
11	Windshield	-354	0	-5749	12	1000
12	Driver Windshield	297	-366	-2460	12	1000
13	Passenger Windshield	297	366	-2460	24	1000
14	Pit Front	-756	0	1495	20	1000
15	Pit Rear	-3398	0	1495	14	1000
16	Onboard Driver Airbag (Optional)	-1615	530	-1200	9	1000
17	Onboard Passenger Airbag (Optional)	-1615	-530	-1200	9	1000
18	Real-Time Left View of Impact					
19	Real-Time Right View of Impact					

Coordinates: +X = forward impact plane
 +Y = right of monorail center
 +Z = into ground

DATA SHEET NO. 7

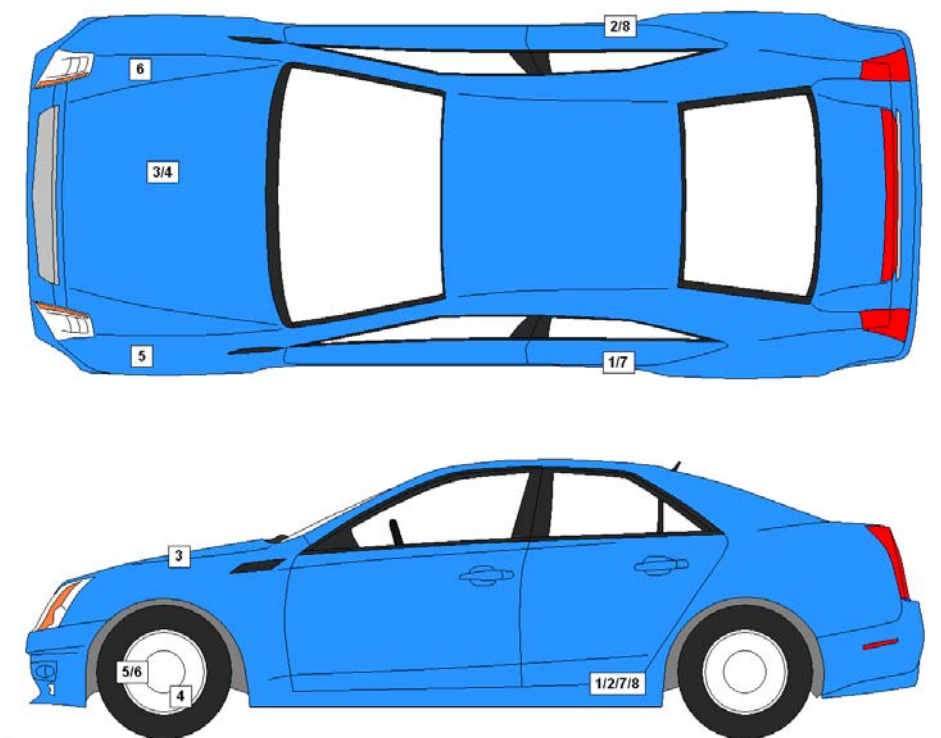
VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16



VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

No.	Description	Location		
		X	Y	Z
1	Left Rear Accelerometer X-Direction	1830	-660	-380
2	Right Rear Accelerometer X-Direction	1830	660	-380
3	Engine Top X	4240	270	-775
4	Engine Bottom X	3920	204	-280
5	Left Rear Accelerometer Z-Direction	1830	-660	-380
6	Right Rear Accelerometer Z-Direction	1830	660	-380
7	Left Rear Accelerometer X-Direction Redundant	1830	-660	-380
8	Right Rear Accelerometer X-Direction Redundant	1830	660	-380

Reference Points:

X – Rear Surface of Vehicle (+ forward)

Y – Vehicle Centerline (+ to right)

Z – Ground Plane (+ down)

DATA SHEET NO. 8

PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

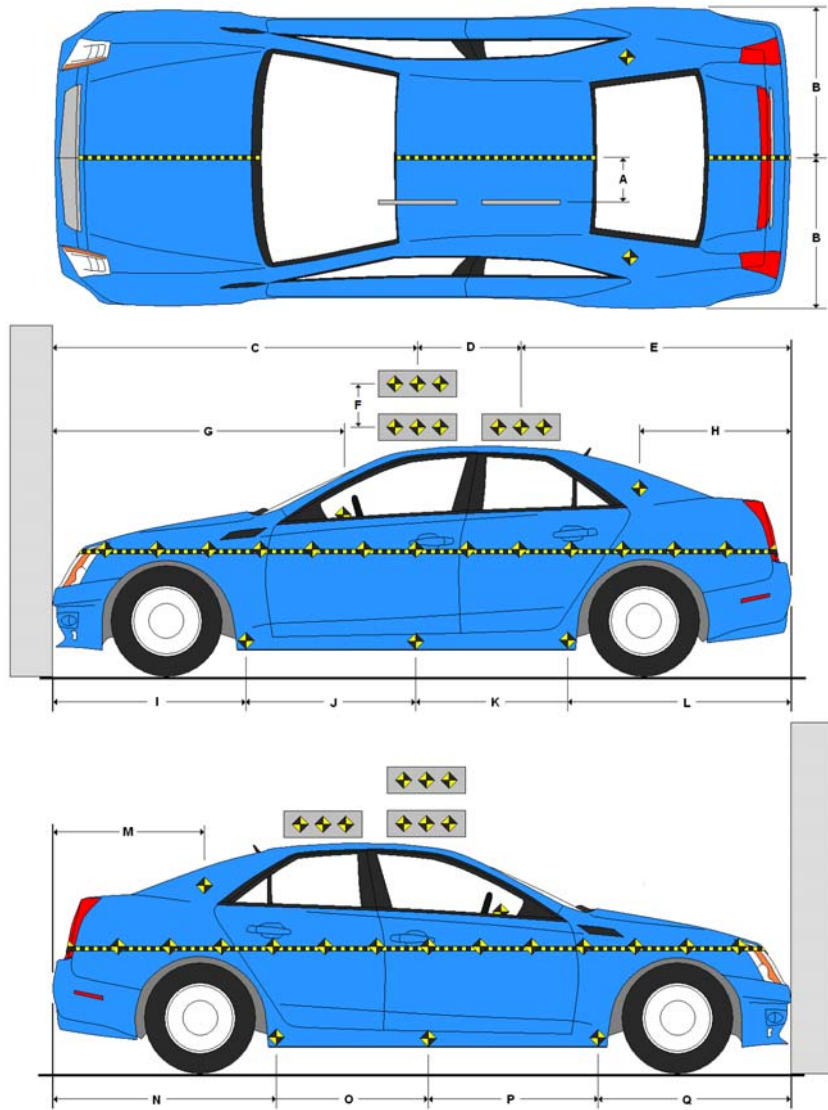
Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16

Item	Value
A	423
B	923
C	2209
D	610
E	2062
F	305
G	1889
H	915
I	1493
J	907
K	907
L	1567
M	892
N	1560
O	911
P	911
Q	1488



All measurements in millimeters.

DATA SHEET NO. 9

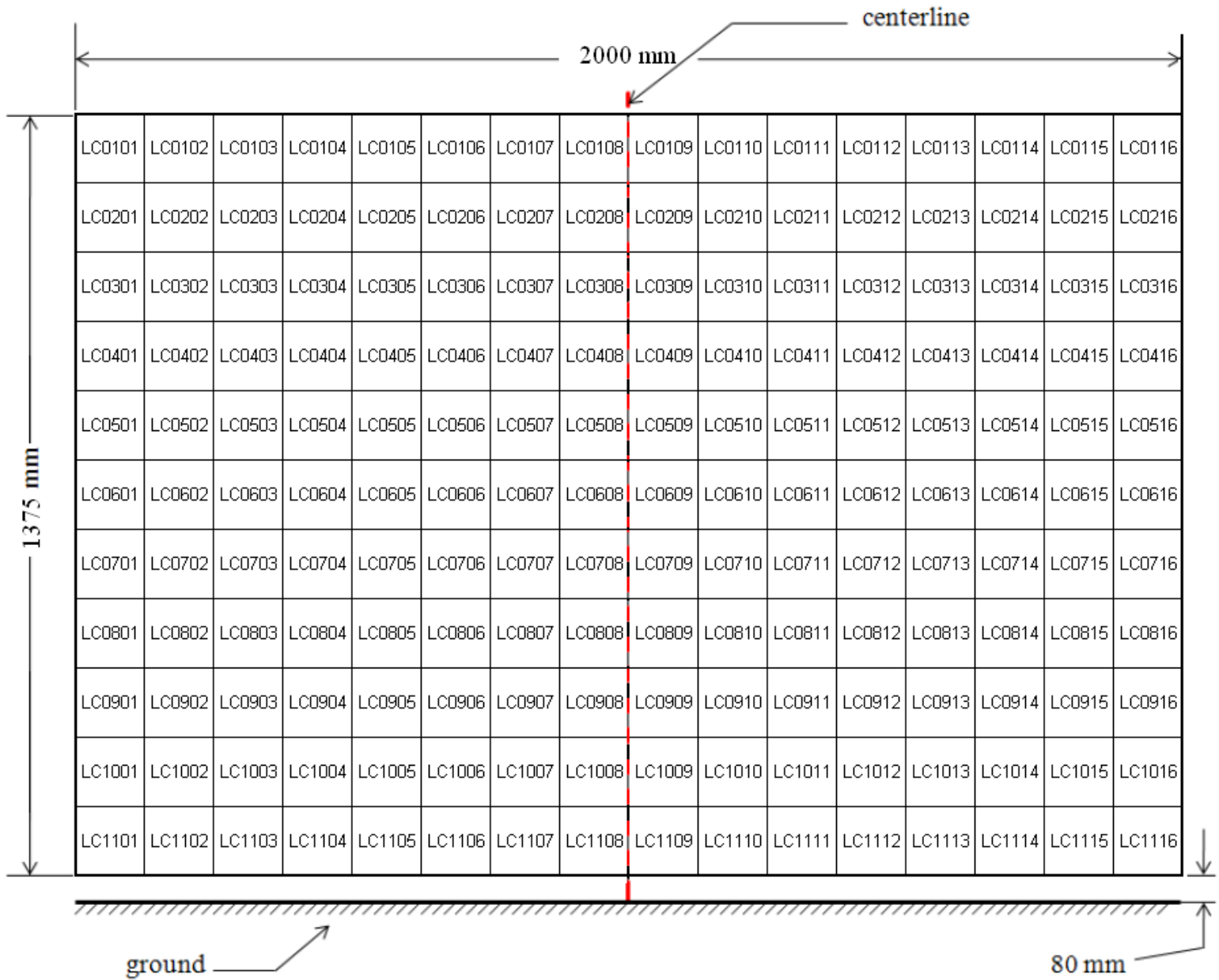
LOAD CELL LOCATIONS ON FIXED BARRIER

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16



DATA SHEET NO. 10

TEST VEHICLE CAMERA AND INSTRUMENTATION SUMMARY

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

INSTRUMENTATION

Driver Dummy Accelerometers	47
Passenger Dummy Accelerometers	47
Vehicle Structure Accelerometers	8
Seat Belt Load Cells	4
Load Cell Barrier	528
Total	634

CAMERA COVERAGE

High-Speed Vehicle On Board	2
High-Speed Off board	14
Real Time	3
Total	19

DATA SHEET NO. 11

POST-TEST OBSERVATIONS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
 Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

TEST DUMMY INFORMATION AND CONTACT

Description	Driver	Passenger
Dummy Type/Serial No.	P572E 50th Percentile Male ATD / 360	P572O 5th Percentile Female ATD / 635
Head Contact	Frontal Airbag, Headrest, Sun Visor	Frontal Airbag, Headrest
Upper Torso Contact	Frontal Airbag	Frontal Airbag
Lower Torso Contact	None	None
Left Knee Contact	Knee Airbag, Steering Wheel Rim	Knee Airbag
Right Knee Contact	Knee Airbag, Steering Wheel Rim	Knee Airbag

DOOR OPENING AND SEAT TRACK INFORMATION

Description	Driver	Passenger
Locked / Unlocked Doors	Unlocked	Unlocked
Front Door Opening	Remained closed and latched, operational	Remained closed and latched, operational
Rear Door Opening	Remained closed and latched, operational	Remained closed and latched, operational
Seat Track Shift (mm)	12	9
Seat Back Failure	None	None
Glazing Damage	Yes	Yes

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Windshield Damage	Broken
Window Damage	None
Other Notable Effects	None

VEHICLE REBOUND FROM BARRIER

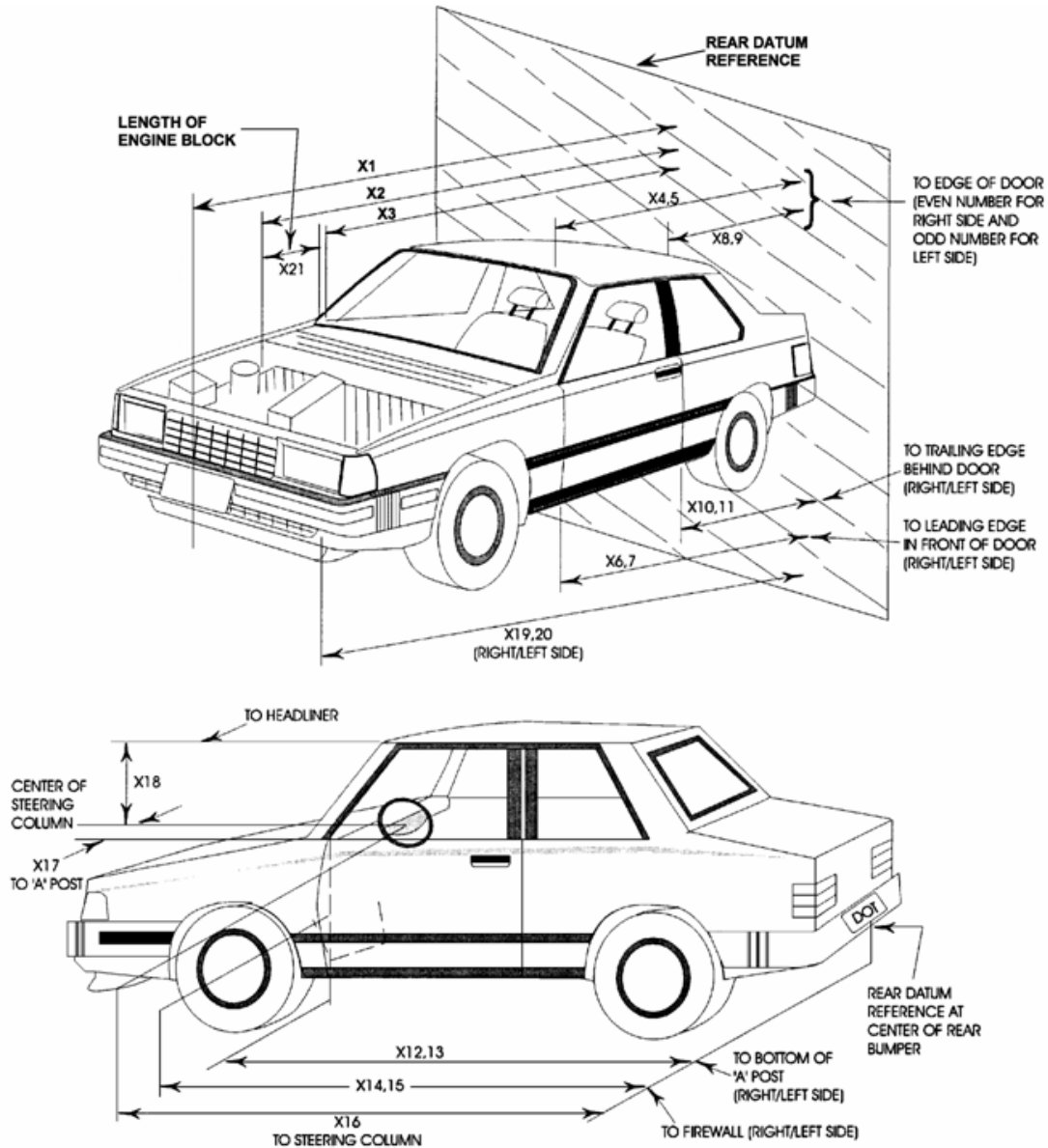
Measured Parameter	Units	Value
Left Side	mm	2972
Center	mm	2978
Right Side	mm	2909
Average	mm	2953

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Driver		Passenger	
	Installed	Operated	Installed	Operated
Front Airbag	Yes	Yes	Yes	Yes
Side Airbag 1 (Curtain)	Yes	No	Yes	No
Side Airbag 2 (Torso/Pelvis)	Yes	No	Yes	No
Knee Airbag	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes	Yes	Yes	Yes
Seat Belt Load Limiter	Yes	Yes	Yes	Yes

DATA SHEET NO. 12
VEHICLE PROFILE MEASUREMENTS

Test Vehicle:	<u>2017 Chrysler 200C AWD 4-Door Sedan</u>	NHTSA No.:	<u>M20170300</u>
Test Program:	<u>56.3 km/h Frontal Impact NCAP Test</u>	Test Date:	<u>12/05/16</u>



DATA SHEET NO. 12 ... (CONTINUED)**VEHICLE PROFILE MEASUREMENTS**Test Vehicle: 2017 Chrysler 200C AWD 4-Door SedanNHTSA No.: M20170300Test Program: 56.3 km/h Frontal Impact NCAP TestTest Date: 12/05/16

No.	Description	Pre-Test	Post-Test	Difference
1	Total Length of Vehicle at Centerline	4885	4500	-385
2	Rear Surface of Vehicle to Front of Engine	4343	4145	-198
3	RSOV to Firewall	3780	3751	-29
4	RSOV to Upper Leading Edge of Right Door	3362	3396	34
5	RSOV to Upper Leading Edge of Left Door	3367	3390	23
6	RSOV to Lower Leading Edge of Right Door	3342	3330	-12
7	RSOV to Lower Leading Edge of Left Door	3347	3325	-22
8	RSOV to Upper Trailing Edge of Right Door	2206	2233	27
9	RSOV to Upper Trailing Edge of Left Door	2212	2230	18
10	RSOV to Lower Trailing Edge of Right Door	2282	2270	-12
11	RSOV to Lower Trailing Edge of Left Door	2286	2270	-16
12	RSOV to Bottom of A-Pillar, Right Side	3296	3314	18
13	RSOV to Bottom of A-Pillar, Left Side	3296	3318	22
14	RSOV to Firewall, Right Side	3725	3735	10
15	RSOV to Firewall, Left Side	3775	3715	-60
16	RSOV to Steering Column	2805	3075	270
17	Center of Steering Column to A-Pillar	460	445	-15
18	Center of Steering Column to Headliner	405	510	105
19	RSOV to Right Side of Front Bumper	4057	3940	-117
20	RSOV to Left Side of Front Bumper	4060	4100	40
21	Length of Engine Block	600	600	0
RD	RSOV to Right Side of Dash Panel	2975	3020	45
CD	RSOV to Center of Dash Panel	2950	2940	-10
LD	RSOV to Left Side of Dash Panel	3040	3050	10

All measurements in millimeters.

DATA SHEET NO. 13**ACCIDENT INVESTIGATION DIVISION DATA**

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

VEHICLE INFORMATION

VIN: 1C3CCCEG8HN500809 Wheelbase (mm): 2743
Vehicle Size Category: Passenger Car Test Weight (kg): 1937.0

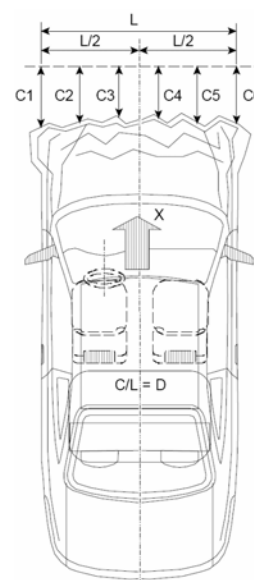
ACCELEROMETER DATA

Accelerometer Locations: Left Rear Crossmember
Cal. Procedure/Interval: Drop Test / 6 months
Integration Algorithm: NHTSA Standard
Impact Velocity (km/h): 56.87
Velocity Change (km/h): 62.6
Time of Separation (msec): 66.1

Linearity: Good

CRUSH PROFILE

Collision Deformation Classification: 12FDEW2
Midpoint of Damage: Vehicle Centerline
Damage Region Length (mm): 1431
Impact Mode: Full Frontal



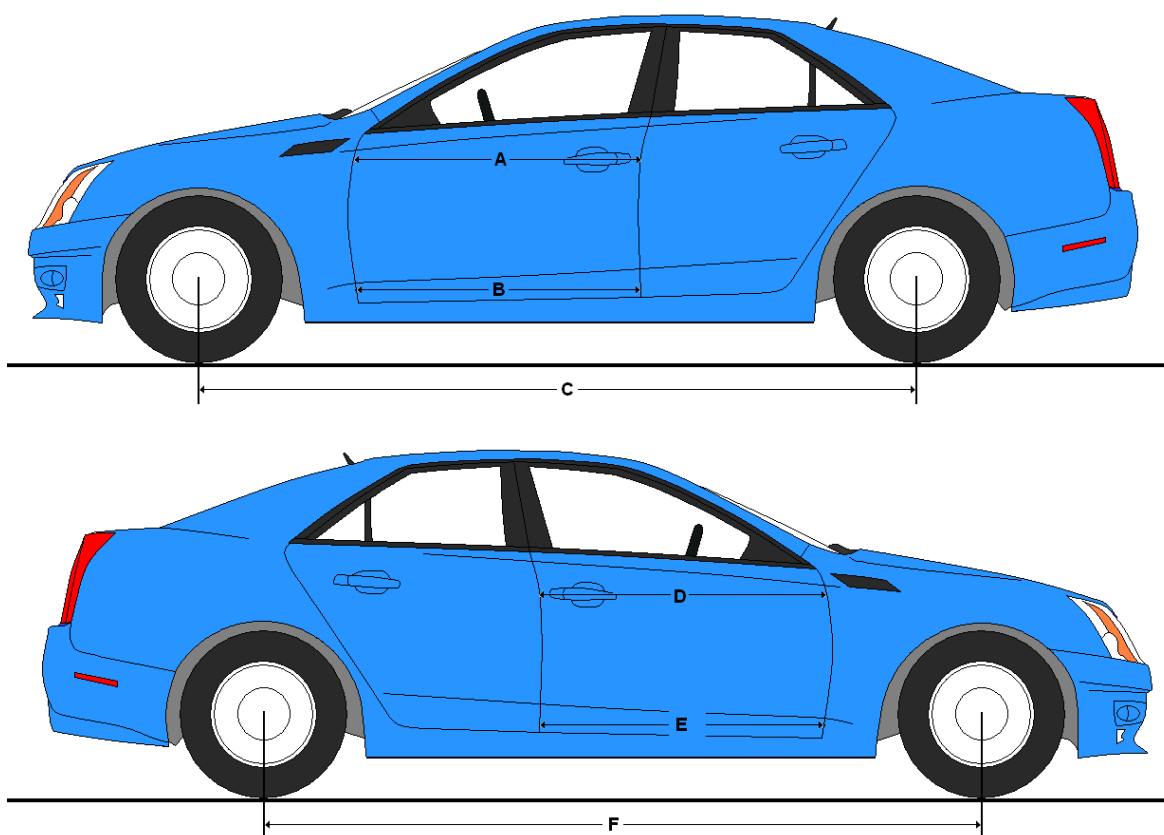
No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush Zone 1 at Left Side	mm	282	420	138
C2	Crush Zone 2 at Left Side	mm	81	420	339
C3	Crush Zone 3 at Left Side	mm	20	417	397
C4	Crush Zone 4 at Right Side	mm	20	443	423
C5	Crush Zone 5 at Right Side	mm	78	455	377
C6	Crush Zone 6 at Right Side	mm	283	495	212
L	C1 to C6	mm	1431		

DATA SHEET NO. 14**VEHICLE INTRUSION MEASUREMENTS**Test Vehicle: 2017 Chrysler 200C AWD 4-Door SedanNHTSA No.: M20170300Test Program: 56.3 km/h Frontal Impact NCAP TestTest Date: 12/05/16**DOOR OPENING WIDTH**

Item	Description	Units	Pre-Test	Post-Test	Difference
A	Left Side Upper	mm	996	993	3
B	Left Side Lower	mm	925	930	-5
D	Right Side Upper	mm	990	983	7
E	Right Side Lower	mm	916	909	7

WHEELBASE MEASUREMENTS

Item	Description	Units	Pre-Test	Post-Test	Difference
C	Left Side Wheelbase	mm	2743	2740	3
F	Right Side Wheelbase	mm	2743	2730	13



DATA SHEET NO. 14 ... (CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

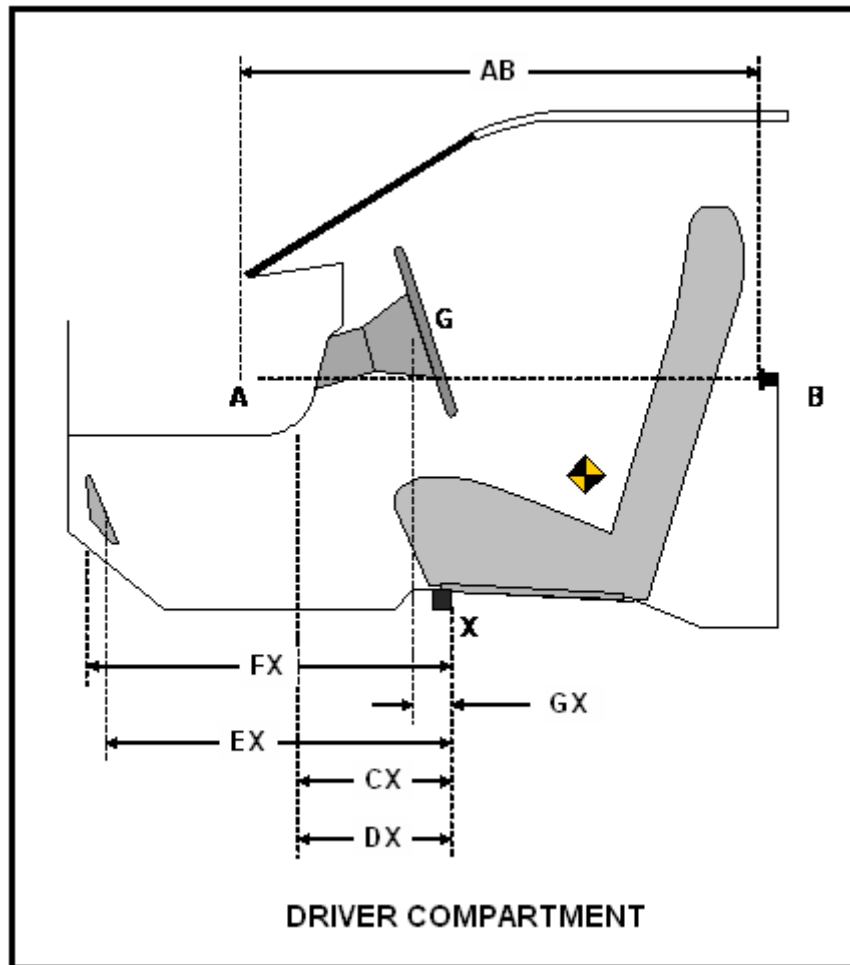
Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16

DRIVER COMPARTMENT INTRUSION

Item	Description	Units	Pre-Test	Post-Test	Difference
AB	Door Opening (Inside Window Jam)	mm	945	948	-3
CX	Left Knee Bolster to X	mm	335	335	0
DX	Right Knee Bolster to X	mm	334	325	9
EX	Brake Pedal to X	mm	600	520	80
FX	Foot Rest to X	mm	600	555	45
GX	Center of Steering Wheel Hub to X	mm	160	150	10

X = Front of Seat Track (Stationary)



DATA SHEET NO. 15

SUMMARY OF FMVSS 212, 219 (PARTIAL), AND 301 DATA

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

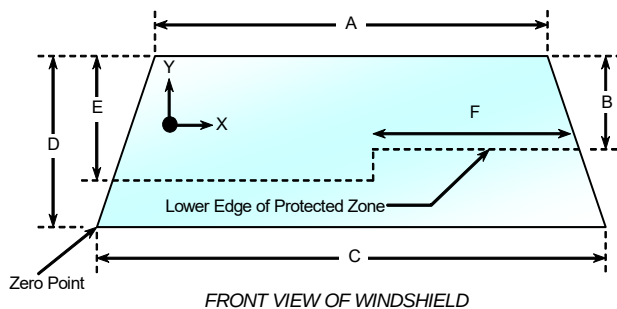
Windshield Mounting Details: Windshield glass is secured to the vehicle frame with plastic molding and rubber cement.

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

Temperature of windshield molding during test: 21.1° C

WINDSHIELD PERIPHERY MEASUREMENTS

Measurement	Pre-Test (mm)	Post-Test (mm)	% Retention
Left Side	2287.5	2287.5	100.0%
Right Side	2287.5	1875.5	82.0%
Total	4575	4163	91.0%



Item	Units	Value
A	mm	1230
B	mm	351
C	mm	1465
D	mm	940
E	mm	534
F	mm	480

AREAS OF PROTECTED ZONE FAILURES

- A. Provide Coordinates of the area that the protected zone was penetrated more than 0.25 inches by a vehicle component other than one that is normally in contact with the windshield.

X	Y

- B. Provide coordinates of the area beneath the protected zone that the inner surface of the windshield was penetrated by a vehicle component.

X	Y

DATA SHEET NO. 15 ... (CONTINUED)

SUMMARY OF FMVSS 212, 219 (PARTIAL), AND 301 DATA

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan NHTSA No.: M20170300
Test Program: 56.3 km/h Frontal Impact NCAP Test Test Date: 12/05/16

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 17° C Test Time: 11:34 AM

Stoddard Solvent Spillage Measurements

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

DATA SHEET NO. 16

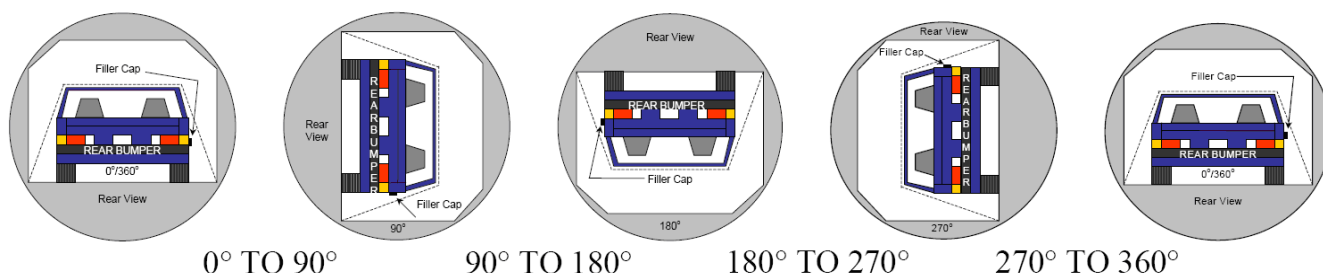
FMVSS 301 STATIC ROLLOVER RESULTS

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16



1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard solvent spillage: There was no Stoddard solvent spillage.

SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° To 90°	78	300	378
90° To 180°	82	300	382
180° To 270°	79	300	379
270° To 360°	81	300	381

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°	
90° To 180°	
180° To 270°	
270° To 360°	

DATA SHEET NO. 17

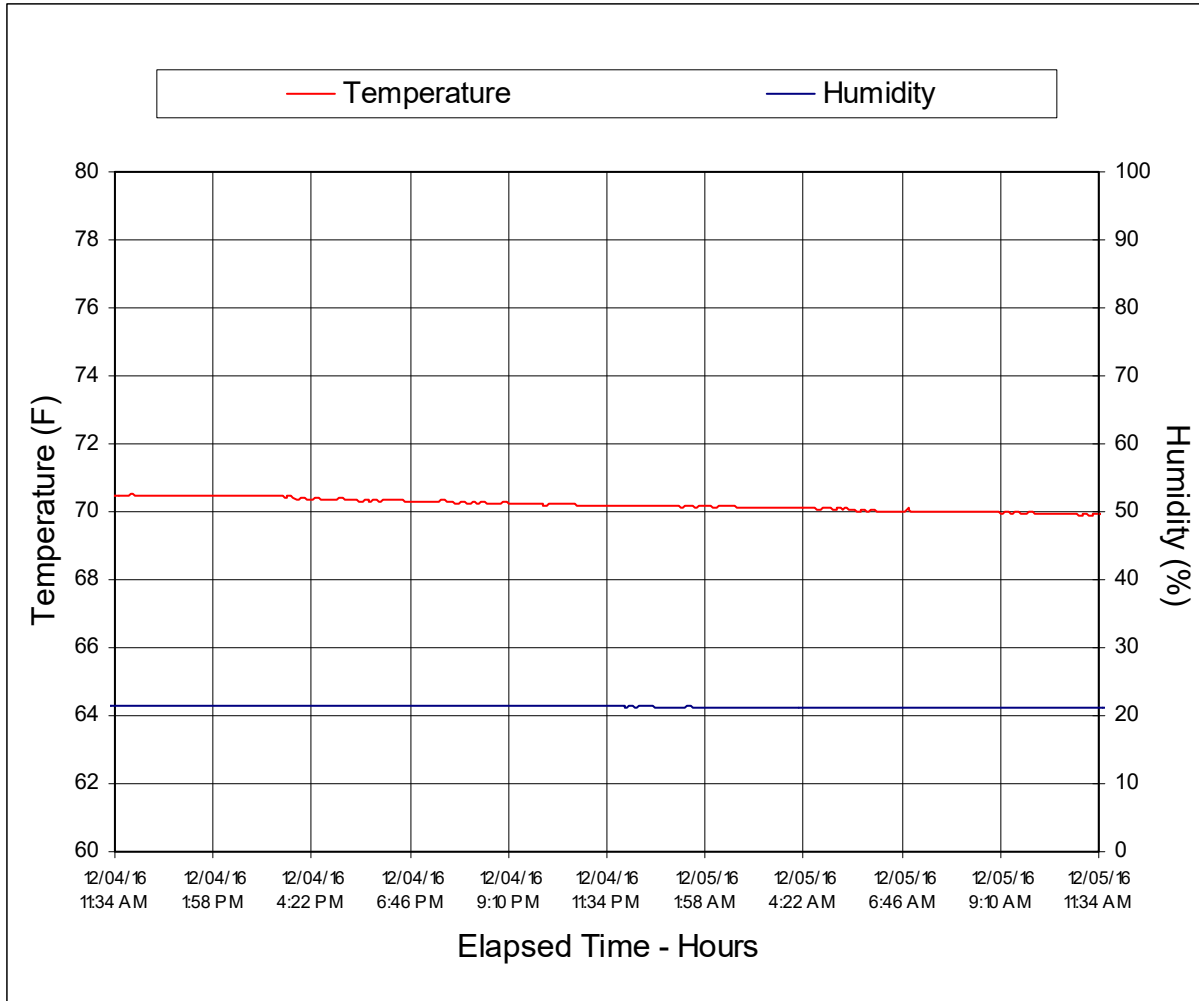
DUMMY / VEHICLE TEMPERATURE STABILIZATION CHART

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan

NHTSA No.: M20170300

Test Program: 56.3 km/h Frontal Impact NCAP Test

Test Date: 12/05/16



APPENDIX A
PHOTOGRAPHS

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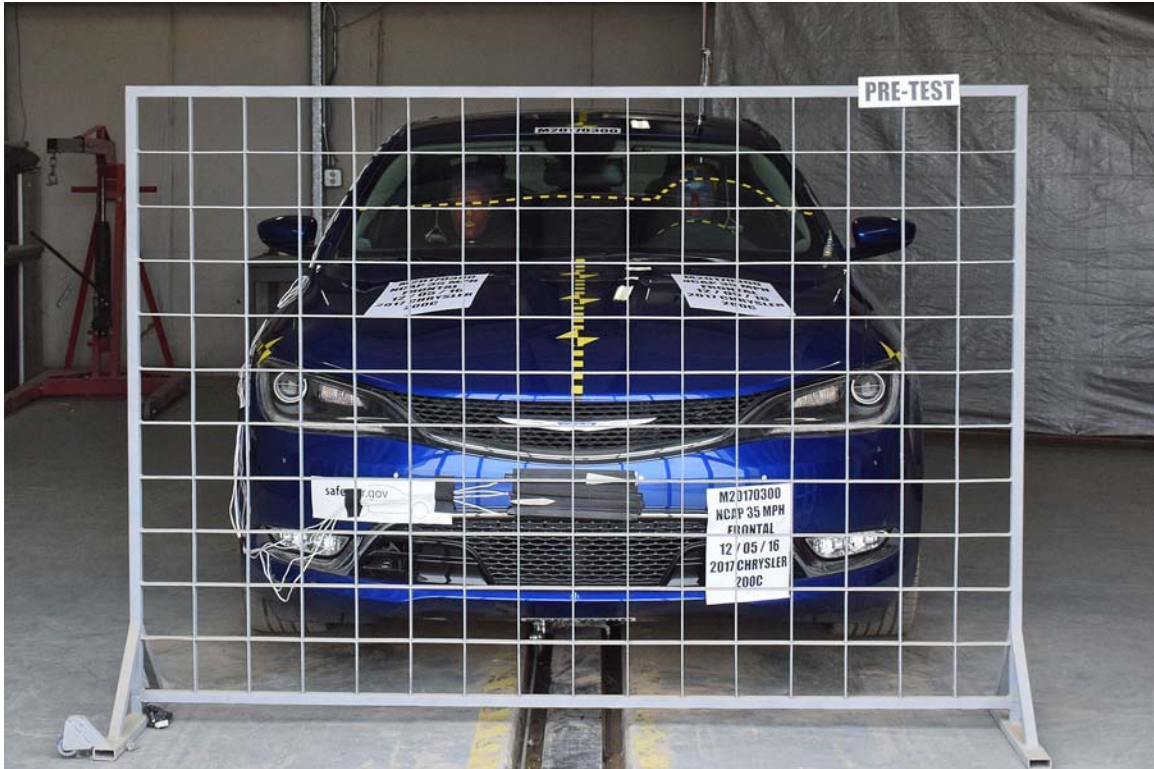


FIGURE 1. Load Cell Location



FIGURE 2. Pre-Test Load Cell Wall



FIGURE 3. Post-Test Load Cell Wall



FIGURE 4. Manufacturer's Label



FIGURE 5. Tire Placard



FIGURE 6. 2017 Chrysler 200C AWD Frontal as Delivered



FIGURE 7. Left Rear $\frac{3}{4}$ View, as Received

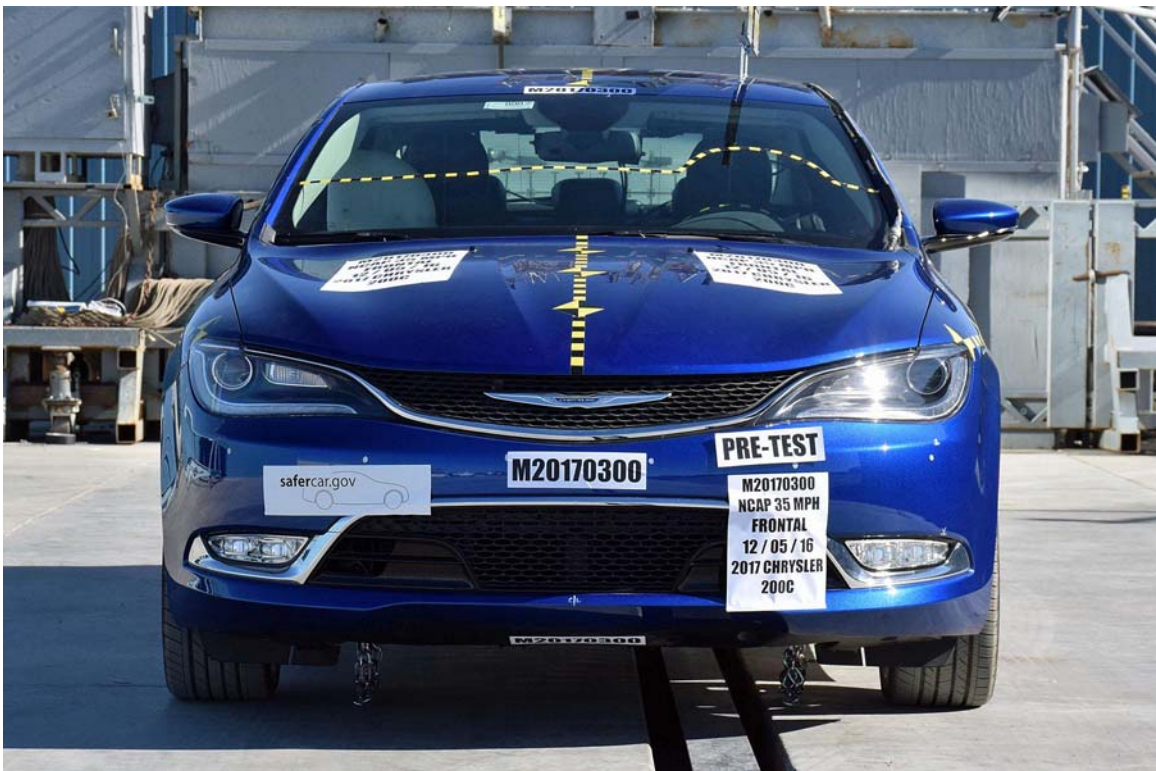


FIGURE 8. Pre-Test Front View of Test Vehicle



FIGURE 9. Post-Test Front View of Test Vehicle



FIGURE 10. Pre-Test Left View of Test Vehicle



FIGURE 11. Post-Test Left View of Test Vehicle



FIGURE 12. Pre-Test Right View of Test Vehicle



FIGURE 13. Post-Test Right View of Test Vehicle



FIGURE 14. Pre-Test Right Front ¾ View



FIGURE 15. Post-Test Right Front $\frac{3}{4}$ View



FIGURE 16. Pre-Test Left Rear $\frac{3}{4}$ View



FIGURE 17. Post-Test Left Rear $\frac{3}{4}$ View

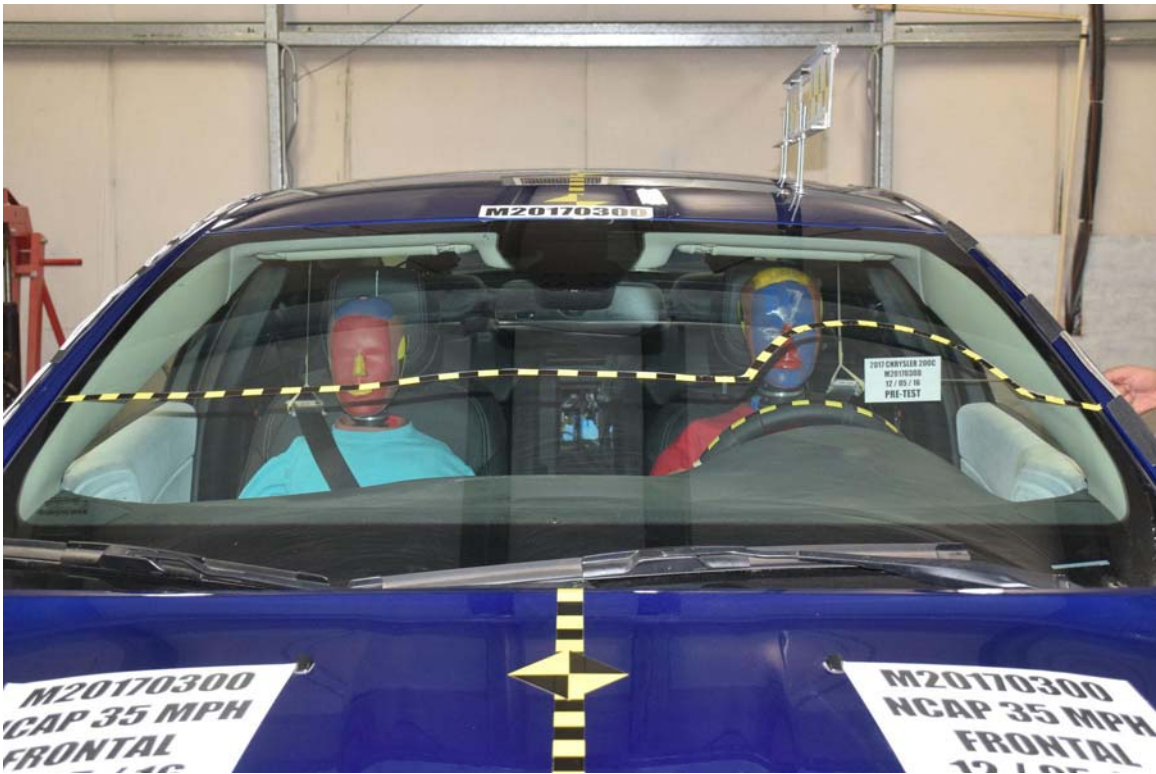


FIGURE 18. Pre-Test Windshield View



FIGURE 19. Post-Test Windshield View

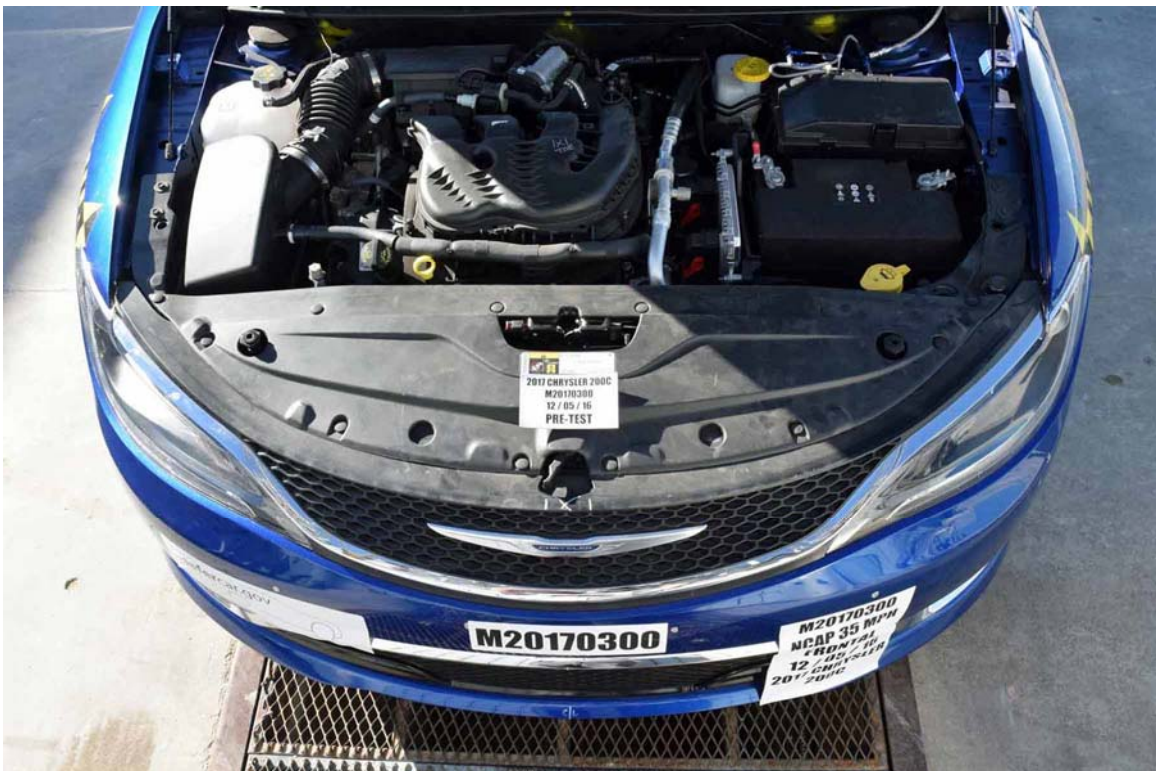


FIGURE 20. Pre-Test Engine Compartment View



FIGURE 21. Post-Test Engine Compartment View



FIGURE 22. Pre-Test Fuel Filler Cap View



FIGURE 23. Post-Test Fuel Filler Cap View



FIGURE 24. Pre-Test Front Underbody View

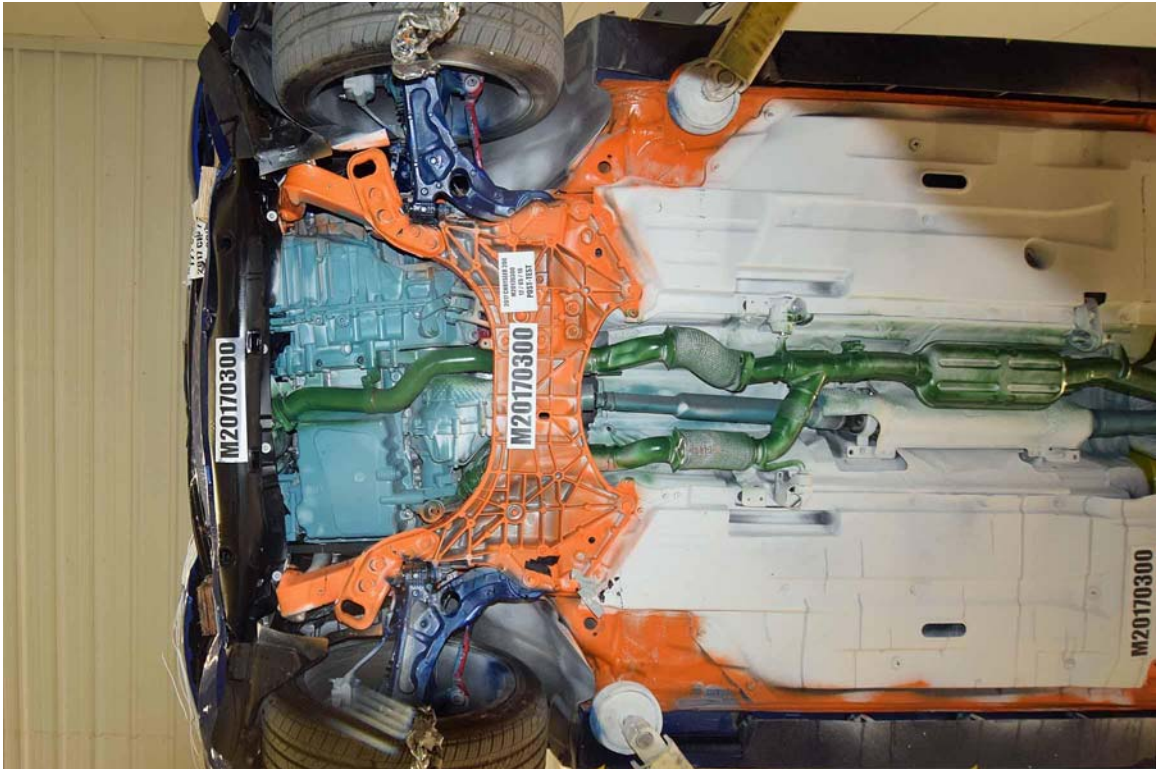


FIGURE 25. Post-Test Front Underbody View

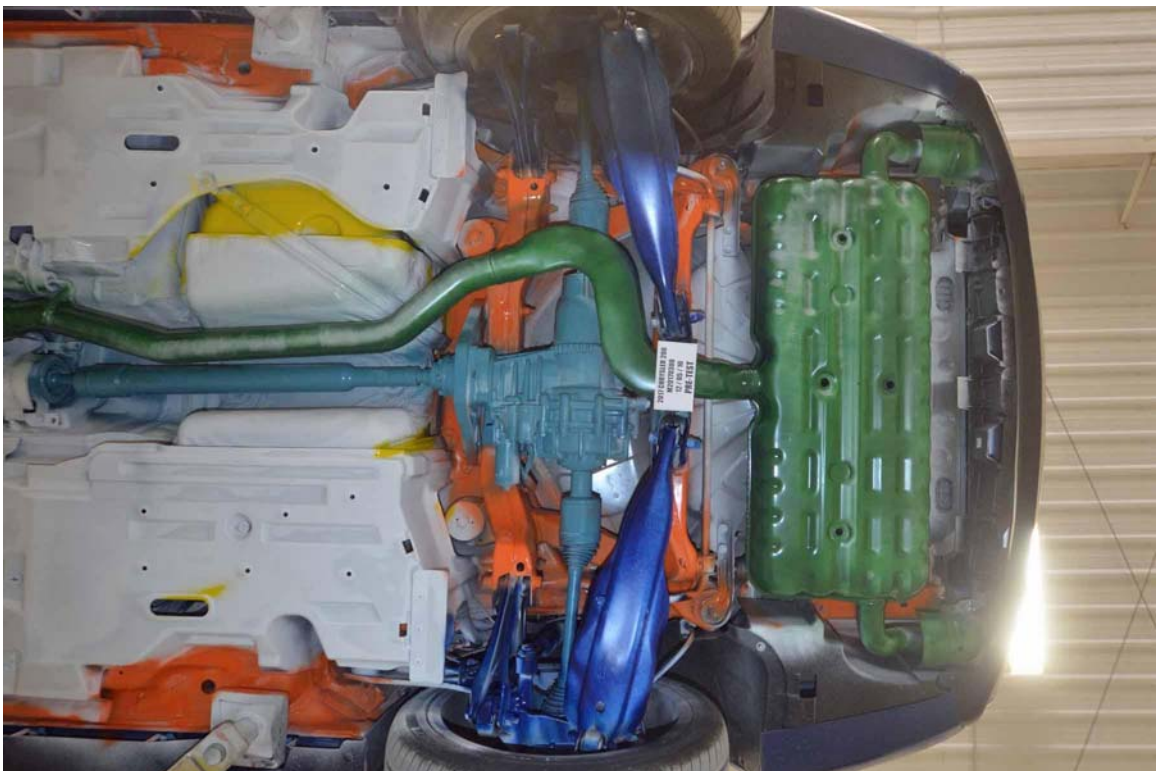


FIGURE 26. Pre-Test Rear Underbody View



FIGURE 27. Post-Test Rear Underbody View



FIGURE 28. Pre-Test Dummy Cable Routing



FIGURE 29. Post-Test Dummy Cable Routing



FIGURE 30. Pre-Test Driver Dummy Front View



FIGURE 31. Post-Test Driver Dummy Front View



FIGURE 32. Pre-Test Driver Dummy Window View



FIGURE 33. Post-Test Driver Dummy Window View



FIGURE 34. Pre-Test Driver Dummy and Vehicle Interior View



FIGURE 35. Post-Test Driver Dummy and Vehicle Interior View



FIGURE 36. Pre-Test Driver's Seat Fore-Aft Markings



FIGURE 37. Post-Test Driver's Seat Fore-Aft Markings



FIGURE 38. Pre-Test View of Belt Anchorage for Driver Dummy



FIGURE 39. Post-Test View of Belt Anchorage for Driver Dummy



FIGURE 40. Pre-Test Driver Dummy Feet



FIGURE 41. Post-Test Driver Dummy Feet



FIGURE 42. Pre-Test Driver's Side Knee Bolster



FIGURE 43. Post-Test Driver's Side Knee Bolster



FIGURE 44. Pre-Test Driver's Side Floorpan



FIGURE 45. Post-Test Driver's Side Floorpan



FIGURE 46. Post-Test Driver Dummy Face



FIGURE 47. Post-Test Driver Dummy Contact with Airbag



FIGURE 48. Post-Test Driver Dummy Contact with Headrest



FIGURE 48a. Post-Test Driver Dummy Contact with Sun Visor



FIGURE 48b. Post-Test Driver Dummy Contact with Knee Airbag



FIGURE 49. Pre-Test View of the Steering Wheel



FIGURE 50. Post-Test View of the Steering Wheel



FIGURE 51. Pre-Test Passenger Dummy Front View



FIGURE 52. Post-Test Passenger Dummy Front View



FIGURE 53. Pre-Test Passenger Dummy Window View



FIGURE 54. Post-Test Passenger Dummy Window View



FIGURE 55. Pre-Test Passenger Dummy and Vehicle Interior View



FIGURE 56. Post-Test Passenger Dummy and Vehicle Interior View



FIGURE 57. Pre-Test Passenger's Seat Fore-Aft Markings



FIGURE 58. Post-Test Passenger's Seat Fore-Aft Markings



FIGURE 59. Pre-Test View of Belt Anchorage for Passenger Dummy



FIGURE 60. Post-Test View of Belt Anchorage for Passenger Dummy



FIGURE 61. Pre-Test Passenger Dummy Feet



FIGURE 62. Post-Test Passenger Dummy Feet



FIGURE 63. Pre-Test Passenger's Side Knee Bolster



FIGURE 64. Post-Test Passenger's Side Knee Bolster



FIGURE 65. Pre-Test Passenger's Side Floorpan



FIGURE 66. Post-Test Passenger's Side Floorpan



FIGURE 67. Post-Test Passenger Dummy Face



FIGURE 68. Post-Test Passenger Dummy Contact with Airbag



FIGURE 69. Post-Test Passenger Dummy Contact with Headrest



FIGURE 69a. Post-Test Passenger Dummy Contact with Knee Airbag



FIGURE 70. Photograph of Ballast Installed in Vehicle

Photograph Not Applicable

No Stoddard
Solvent Spillage

FIGURE 71. Post-Test Stoddard Solvent Spillage Location View



FIGURE 72. Post-Test Speed Trap Read-Out



FIGURE 73. Vehicle at 0° on Static Rollover Device



FIGURE 74. Vehicle at 90° on Static Rollover Device



FIGURE 75. Vehicle at 180° on Static Rollover Device

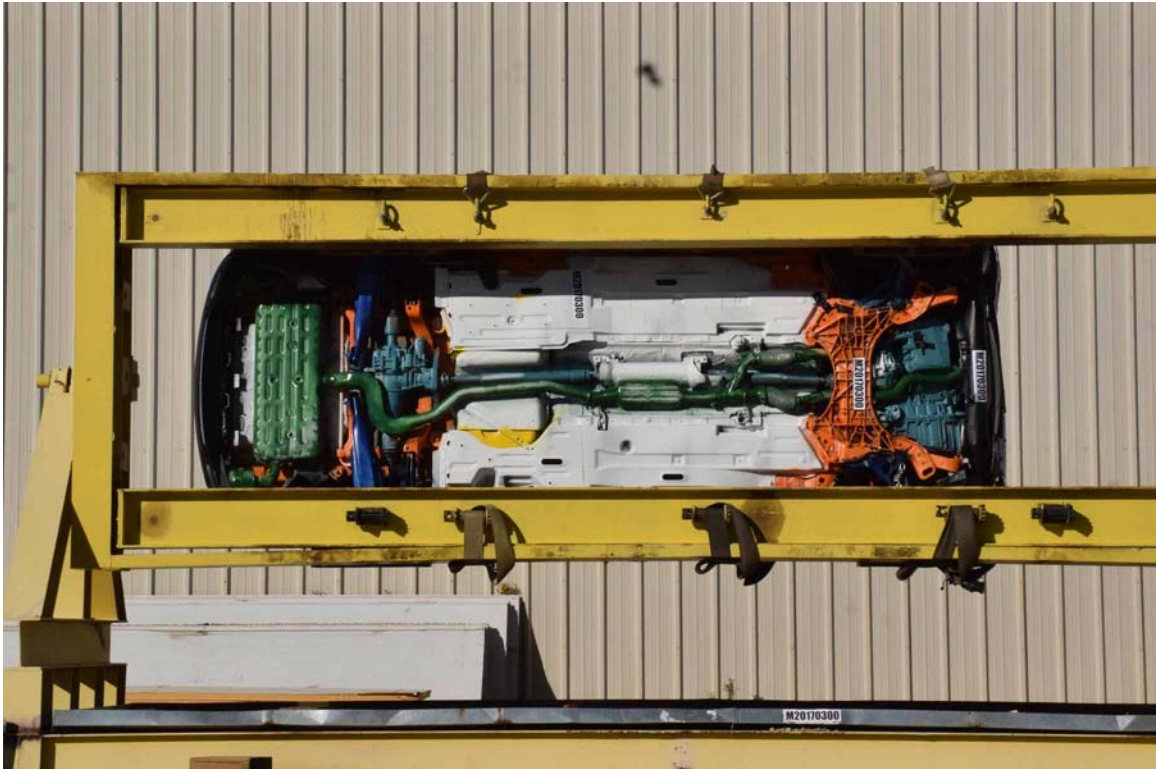


FIGURE 76. Vehicle at 270° on Static Rollover Device



FIGURE 77. Vehicle at 360° on Static Rollover Device



FIGURE 78. 2017 Chrysler 200C AWD Frontal Impact Event

2017

200C PLATINUM AWD

For more information visit: www.chrysler.com or call 1-800-CHRYSLER

FCA US LLC

THIS VEHICLE IS MANUFACTURED TO MEET SPECIFIC UNITED STATES REQUIREMENTS. THIS VEHICLE IS NOT MANUFACTURED FOR SALE OR REGISTRATION OUTSIDE OF THE UNITED STATES.

MANUFACTURER'S SUGGESTED RETAIL PRICE OF THIS MODEL INCLUDING DEALER PREPARATION

Base Price: \$31,785

CHRYSLER 200C AWD
 Exterior Color: Vivid Blue Pearl Coat Exterior Paint
 Interior Color: Black Interior Color
 Engine: Premium Leather-Trimmed Seats
 Engine: 3.6-Liter V6 24-Valve VTI Engine
 Transmission: 9-Speed 8HP48 Auto. Trans for 3.6L Engine

STANDARD EQUIPMENT (UNLESS REPLACED BY OPTIONAL EQUIPMENT)

FUNCTIONAL/SAFETY FEATURES
 Advanced Multistage Front Airbags
 Supplemental Front Seat-Mounted Side Airbags
 Supplemental Side-Curtain Front and Rear Airbags
 Driver Inflatable Knee-Sensor Airbag
 Passenger Inflatable Knee-Booster Airbag
 LATCH Ready Child Seat Anchor System
 ParkView™ Rear Back-Up Camera
 Remote Start System
 Electronic Stability Control
 Traction Control
 AWD Role and Handling Suspension
 Heavy Duty Anti-Lock 4-Wheel Disc Brakes
 Brake Assist
 Electric Park Brake
 Keyless Enter™ to Go™
 Security Alarm

EXTERIOR FEATURES
 A/C Auto Temperature Control with Dual Zone Control
 Unconnected® 8.4
 8.4-inch Touchscreen Display
 Navigation-Capable. See Dealer for Activation
 For Details, Visit www.Uconnectconnect.com
 Uconnect® Access 6-Mo Trial (Registration Req'd)
 6 Speakers
 Integrated Voice Command with Bluetooth®
 SiriusXM Sat Radio w/ 1-Yr Radio Subscription
 For More Information, Call 800-443-2112
 Audio Jack Input for Mobile Devices
 Premium 7-inch Driver Information Display Cluster
 Removable USB Port
 Heated Steering Wheel
 Leather-Wrapped Steering Wheel
 Steering Wheel Mounted Shift Control
 Power Front Windows w/ 1-Touch Up and Down Feature
 Heated Front Seats
 Power 8-Way Driver Seat
 Power 4-Way Driver Lumbar Adjust
 Power 6-Way Passenger Seat
 12-Volt Auxiliary Power Outlet in Console
 Auto-Dimming Rear View Mirror w/Microphone
 Automatic Headlamps

OPTIONAL EQUIPMENT (May Replace Standard Equipment)
 Customer Preferred Package 26P
 9 Alpine® Speakers with Subwoofer
 Alpine® 506-Watt Amplifier
 Premium Lighting Group
 HID Headlamps with LED Daytime Running Headlamps
 LED Fog Lamps
 Premium Group
 Premium Leather-Trimmed Seats
 Ventilated Front Seats
 Luxury Door Trim Panel
 115-Volt Auxiliary Power Outlet
 Exterior Mirrors with Memory
 Radio Presets / Ext Mirrors / Driver's Seat Memory
 Heated 2-Tone Leather Steering Wheel
 Real Wood / Bronze Chrome Interior Accents
 Front Floor Mats
 Rear Floor Mats
 Uconnect® 8.4 NAV
 GPS Navigation
 HD® Radio
 SiriusXM Traffic / 5-Yr Traffic Subscription
 SiriusXM Travel Link 5-Yr Travel Link Subscription
 18" x 8" Polished Face w/Painted Pockets Alum Wheels

DESTINATION CHARGE \$1,095

TOTAL PRICE: * \$35,565

WARRANTY COVERAGE
 5-year or 60,000-mile Powertrain Limited Warranty.
 3-year or 36,000-mile Basic Limited Warranty.
 Ask Dealer for a copy of the limited warranties or see your owner's manual for details.

5 YEAR/60,000 MILE POWERTRAIN WARRANTY

EPA DOT Fuel Economy and Environment

Fuel Economy These estimates reflect new EPA methods beginning with 2017 models. Midsize cars range from 13 to 114 MPG. The best vehicle rates 119 MPG. Gas values are based on gasoline and do not reflect performance and ratings based on E85.

22 **18** **28** **4.5**
 combined city/hwy city highway gallons per 100 miles

Driving Range
 Combined 440 miles
 City 350 miles
 Highway 520 miles

Annual fuel Cost \$1,650

Fuel Economy & Greenhouse Gas Rating (multiple only) Smog Rating (multiple only)

1 **5** **10** **1** **6** **10**

Actual results may vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 26 MPG and costs \$1,000 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at \$2.45 per gallon. This is a fuel-economy estimate. MPGs in miles per gallon (city/combined/hwy). Vehicle emissions are a significant cause of climate change and smog.

fuel economy.gov
 Calculate personalized estimates and compare vehicles

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score Not Rated

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

Frontal Crash	Driver Passenger	Not Rated
★★★★★	★★★★★	★★★★★

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

Side Crash	Front seat	Rear seat
★★★★★	★★★★★	★★★★★

Based on the risk of injury in a side impact.

Rollover ★★★★★

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

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

PARTS CONTENT INFORMATION
 FOR VEHICLES IN THIS CARLINE: U.S./CANADIAN PARTS CONTENT: 66%
 MAJOR SOURCES OF FOREIGN PARTS CONTENT: 17%
 NOTE: PARTS CONTENT DOES NOT INCLUDE FINAL ASSEMBLY, DISTRIBUTION, OR OTHER NON-PARTS COSTS.
 FOR THIS VEHICLE: FINAL ASSEMBLY POINT: STERLING HTS, MICH., U.S.A.
 COUNTRY OF ORIGIN: ENGINE: UNITED STATES TRANSMISSION: UNITED STATES

FIGURE 79. Monroney Label Photograph

APPENDIX B
DUMMY RESPONSE DATA TRACES

TABLE OF DATA PLOTS

Plot		Page
1	Driver Head Acceleration X Primary	B-1
2	Driver Head Acceleration Y Primary	B-1
3	Driver Head Acceleration Z Primary	B-1
4	Driver Head Resultant Acceleration Primary	B-1
5	Driver Chest X Deflection	B-2
6	Driver Chest Acceleration X Primary	B-3
7	Driver Chest Acceleration Y Primary	B-3
8	Driver Chest Acceleration Z Primary	B-3
9	Driver Chest Resultant Acceleration Primary	B-3
10	Driver Upper Neck Force X	B-4
11	Driver Upper Neck Force Z	B-4
12	Driver Upper Neck Moment Y	B-4
13	Driver Nij	B-4
14	Driver Left Femur Force Z	B-5
15	Driver Right Femur Force Z	B-5
16	Passenger Head Acceleration X Primary	B-6
17	Passenger Head Acceleration Y Primary	B-6
18	Passenger Head Acceleration Z Primary	B-6
19	Passenger Head Resultant Acceleration Primary	B-6
20	Passenger Chest X Deflection	B-7
21	Passenger Chest Acceleration X Primary	B-8
22	Passenger Chest Acceleration Y Primary	B-8
23	Passenger Chest Acceleration Z Primary	B-8
24	Passenger Chest Resultant Acceleration Primary	B-8
25	Passenger Upper Neck Force X	B-9
26	Passenger Upper Neck Force Z	B-9
27	Passenger Upper Neck Moment Y	B-9
28	Passenger Nij	B-9
29	Passenger Left Femur Force Z	B-10
30	Passenger Right Femur Force Z	B-10

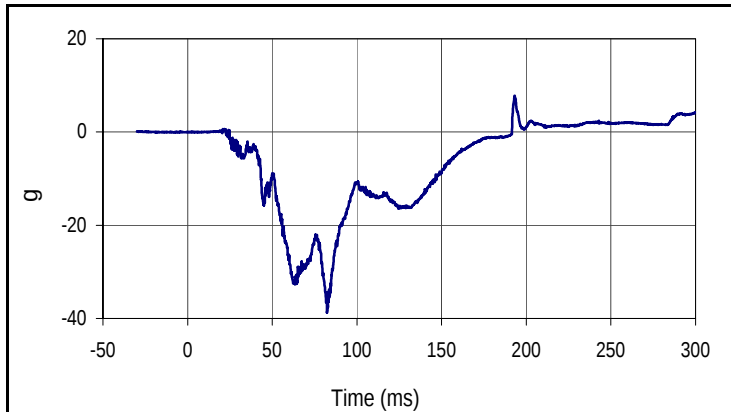
The following additional dummy and vehicle response data can be found in the R&D section of the NHTSA website at www.nhtsa.dot.gov

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

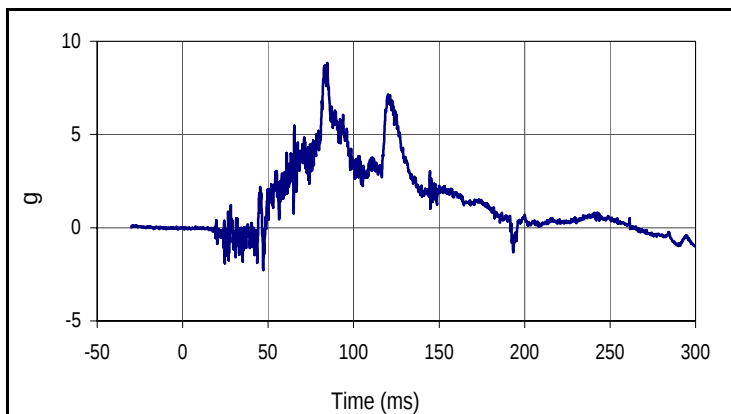
Passenger Pelvis X
Passenger Pelvis Y
Passenger Pelvis Z
Passenger Left Femur Force Redundant
Passenger Right Femur Force Redundant
Passenger Left Upper Tibia Moment X
Passenger Left Upper Tibia Moment Y
Passenger Left Upper Tibia Force Z
Passenger Left Lower Tibia Moment X
Passenger Left Lower Tibia Moment Y
Passenger Left Lower Tibia Force Z
Passenger Right Upper Tibia Moment X
Passenger Right Upper Tibia Moment Y
Passenger Right Upper Tibia Force Z
Passenger Right Lower Tibia Moment X
Passenger Right Lower Tibia Moment Y
Passenger Right Lower Tibia Force Z
Passenger Left Foot Fore Z
Passenger Left Foot Aft X
Passenger Left Foot Aft Z
Passenger Right Foot Fore Z
Passenger Right Foot Aft X
Passenger Right Foot Aft Z
Passenger Shoulder Belt Force
Passenger Lap Belt Force
Left Rear Seat Crossmember X
Left Rear Seat Crossmember Z
Right Rear Seat Crossmember X
Right Rear Seat Crossmember Z
Left Rear Seat Crossmember X Redundant
Right Rear Seat Crossmember X Redundant
Vehicle Engine Top X
Vehicle Engine Bottom X
Load Cell Barrier Forces and Moments

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

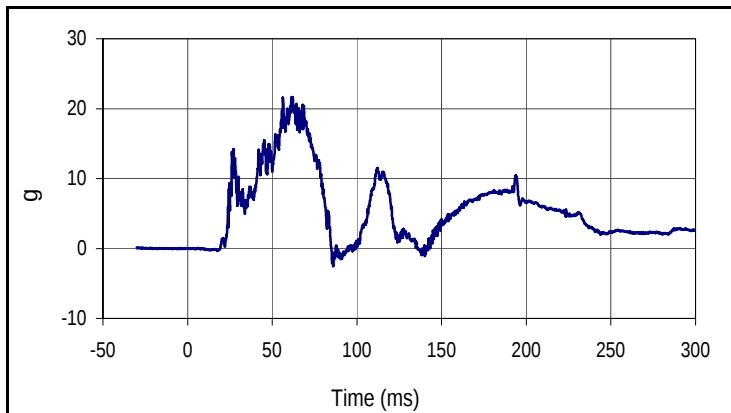
NHTSA No.: M20170300
 Test Date: 12/5/16



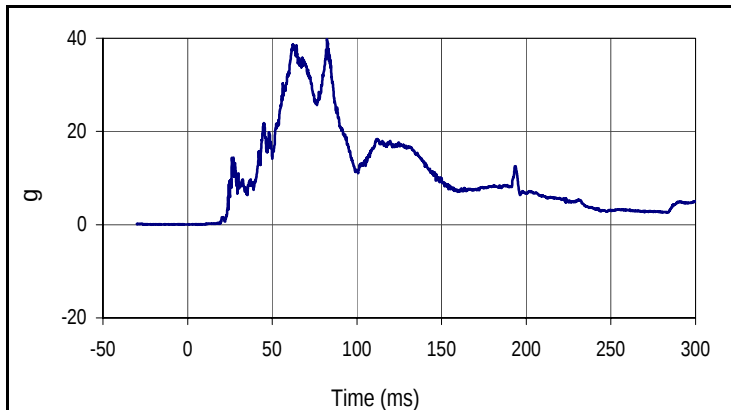
Curve Description			
Driver Head Acceleration X Primary			
Plot No.		SAE Class	Units
001		1000	g
Max	Time	Min	Time
7.8	193.2	-38.8	82.3



Curve Description			
Driver Head Acceleration Y Primary			
Plot No.		SAE Class	Units
002		1000	g
Max	Time	Min	Time
8.8	84.6	-2.3	47.1



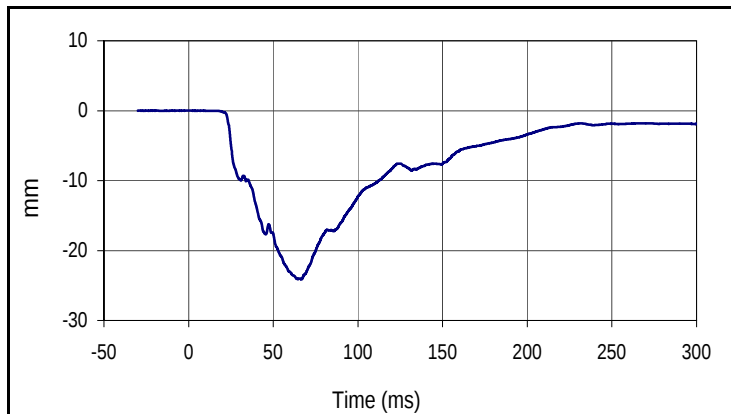
Curve Description			
Driver Head Acceleration Z Primary			
Plot No.		SAE Class	Units
003		1000	g
Max	Time	Min	Time
21.7	61.4	-2.6	86.0



Curve Description			
Driver Head Resultant Acceleration Primary			
Plot No.		SAE Class	Units
004		1000	g
Max	Time	Min	Time
39.7	82.3	0.0	5.9

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

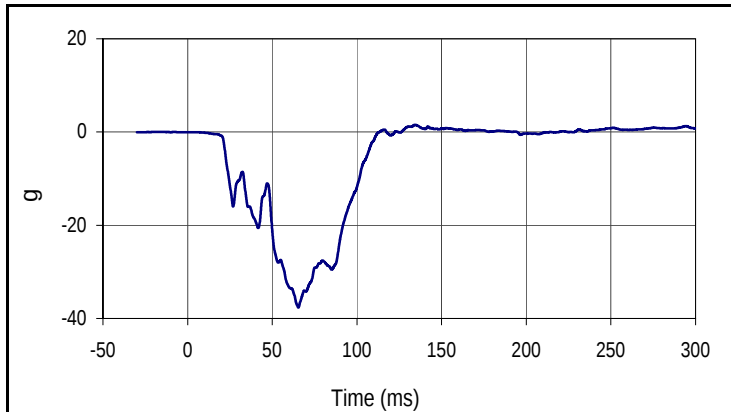
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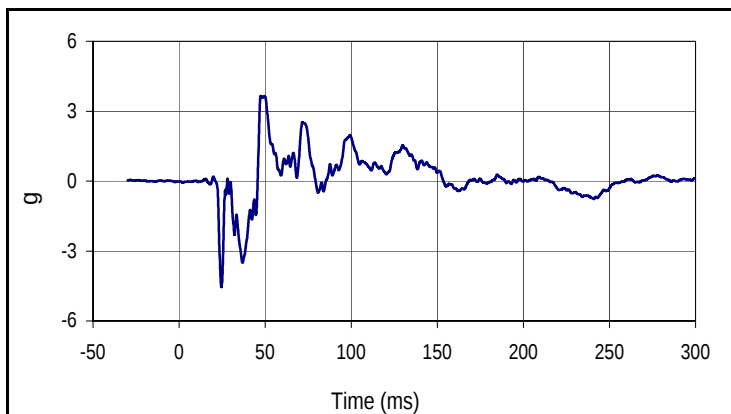
Curve Description			
Driver Chest Deflection			
Plot No.		SAE Class	Units
005		600	mm
Max	Time	Min	Time
0.0	1.5	-24.1	66.6

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

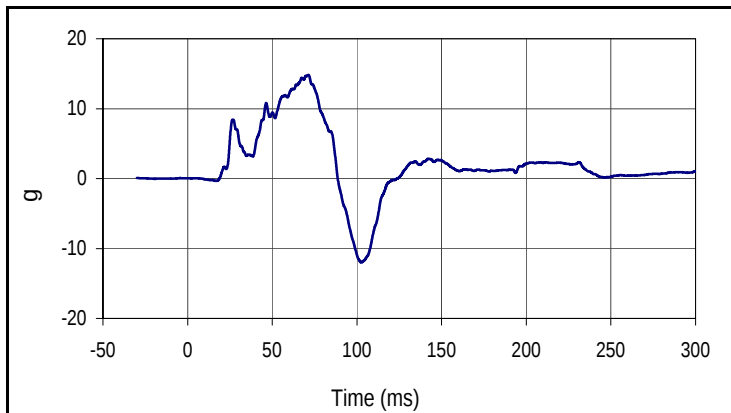
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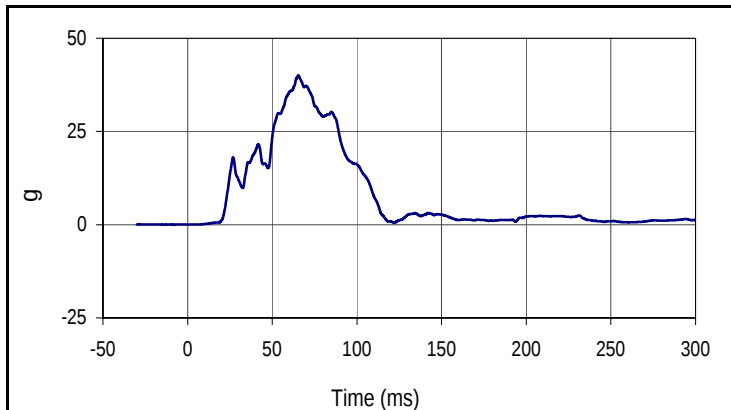
Curve Description			
Driver Chest Acceleration X Primary			
Plot No.		SAE Class	Units
006		180	g
Max	Time	Min	Time
1.6	134.2	-37.6	65.4



Curve Description			
Driver Chest Acceleration Y Primary			
Plot No.		SAE Class	Units
007		180	g
Max	Time	Min	Time
3.7	47.4	-4.5	24.6



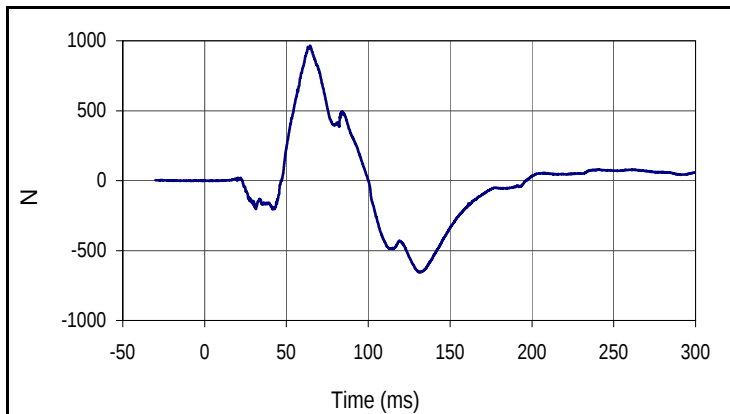
Curve Description			
Driver Chest Acceleration Z Primary			
Plot No.		SAE Class	Units
008		180	g
Max	Time	Min	Time
14.8	71.4	-12.0	102.6



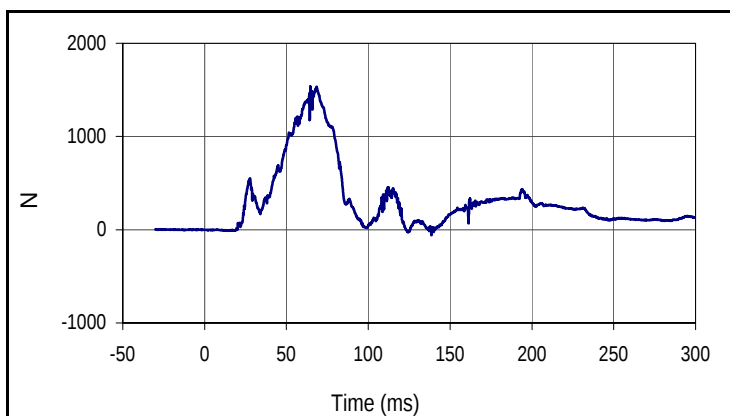
Curve Description			
Driver Chest Resultant Acceleration Primary			
Plot No.		SAE Class	Units
009		180	g
Max	Time	Min	Time
40.0	65.5	0.0	5.2

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

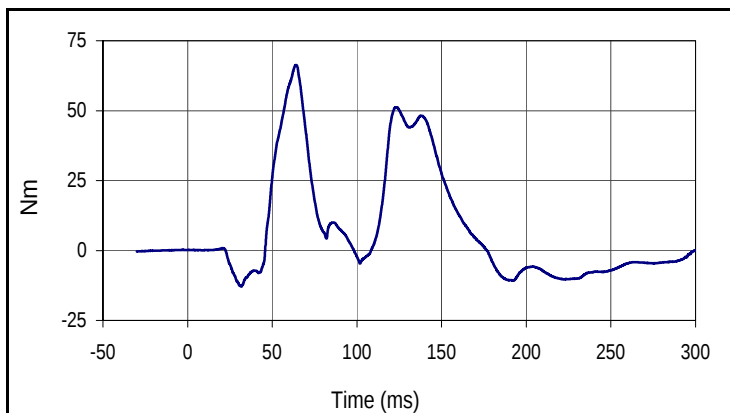
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 Test Date: 12/5/16



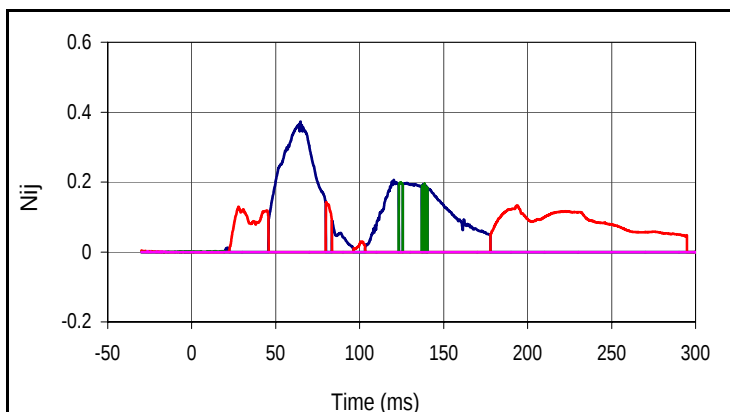
Curve Description			
Driver Upper Neck Force X			
Plot No.		SAE Class	Units
010		1000	N
Max	Time	Min	Time
965.9	64.4	-656.9	131.1



Curve Description			
Driver Upper Neck Force Z			
Plot No.		SAE Class	Units
011		1000	N
Max	Time	Min	Time
1535.3	64.6	-58.5	138.6



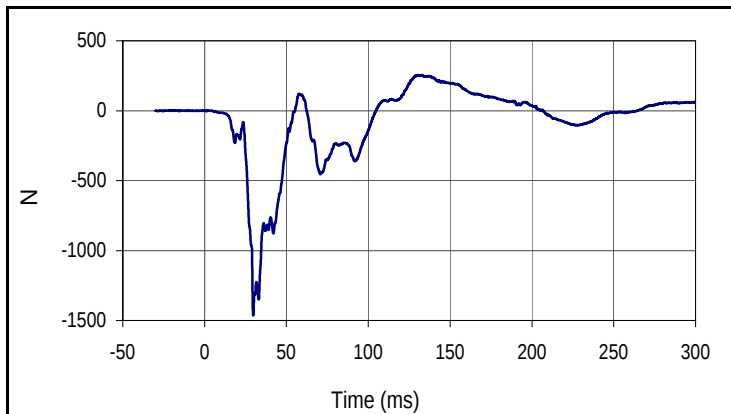
Curve Description			
Driver Upper Neck Moment Y			
Plot No.		SAE Class	Units
012		600	Nm
Max	Time	Min	Time
66.3	63.9	-12.9	31.5



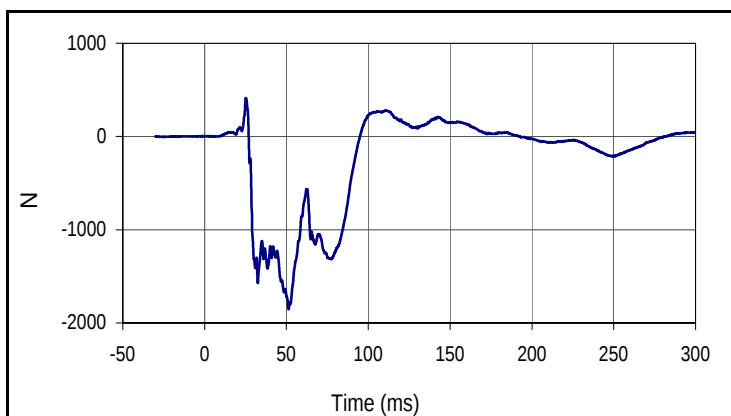
Curve Description		
Driver Nij		
Units	Max	Time
Ntf	0.37	64.7
Units	Max	Time
Nte	0.14	80.0
Units	Max	Time
Ncf	0.20	124.5
Units	Max	Time
Nce	0.00	-26.2

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

NHTSA No.: M20170300
 Test Date: 12/5/16



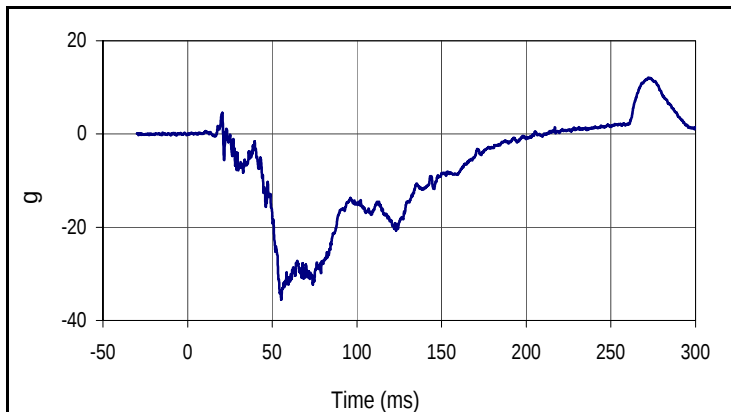
Curve Description			
Driver Left Femur Force Z			
Plot No.		SAE Class	Units
014		600	N
Max	Time	Min	Time
255.4	133.1	-1462.8	29.7



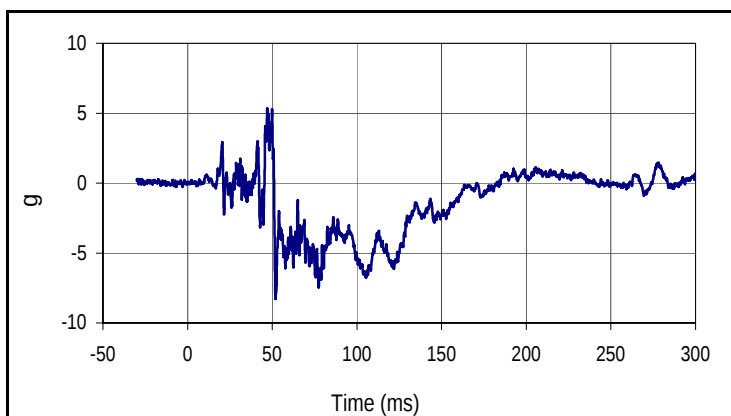
Curve Description			
Driver Right Femur Force Z			
Plot No.		SAE Class	Units
015		600	N
Max	Time	Min	Time
412.4	25.2	-1854.0	51.3

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

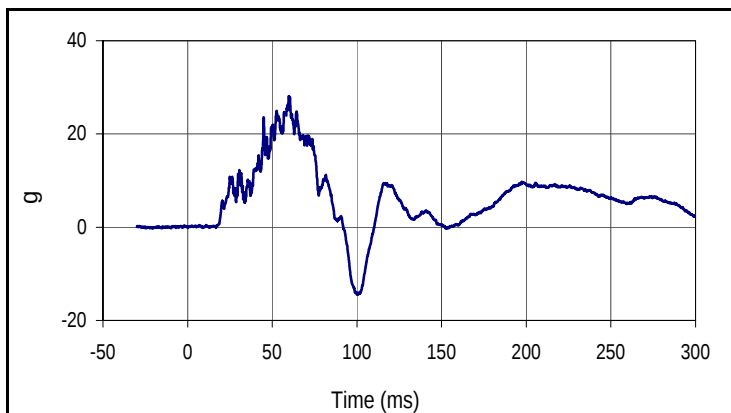
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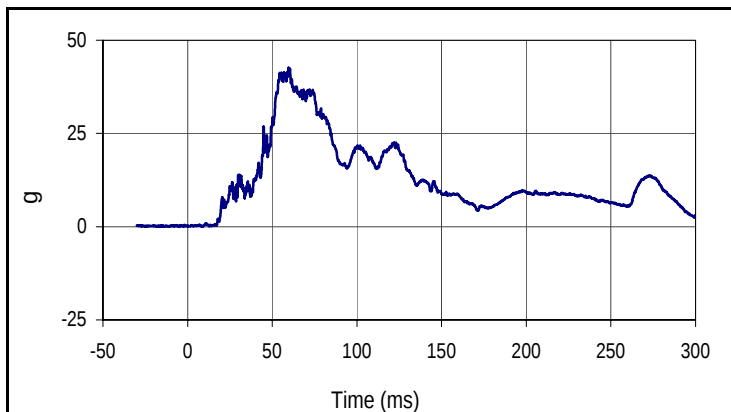
Curve Description			
Passenger Head Acceleration X Primary			
Plot No.		SAE Class	Units
016		1000	g
Max	Time	Min	Time
12.1	272.2	-35.5	55.3



Curve Description			
Passenger Head Acceleration Y Primary			
Plot No.		SAE Class	Units
017		1000	g
Max	Time	Min	Time
5.4	47.1	-8.3	51.9



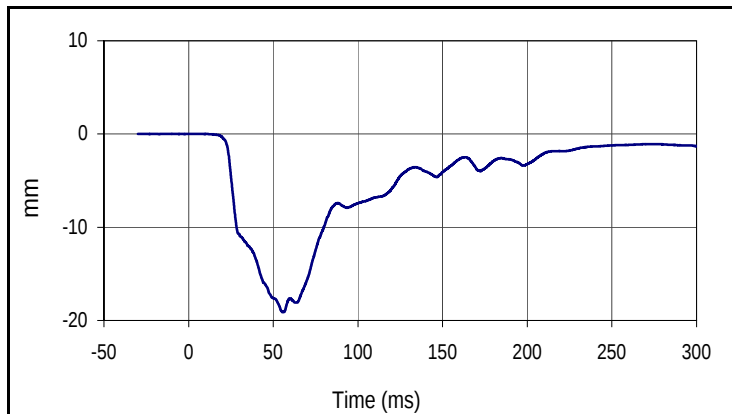
Curve Description			
Passenger Head Acceleration Z Primary			
Plot No.		SAE Class	Units
018		1000	g
Max	Time	Min	Time
28.1	59.8	-14.5	100.2



Curve Description			
Passenger Head Resultant Acceleration Primary			
Plot No.		SAE Class	Units
019		1000	g
Max	Time	Min	Time
42.7	59.7	0.0	8.8

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

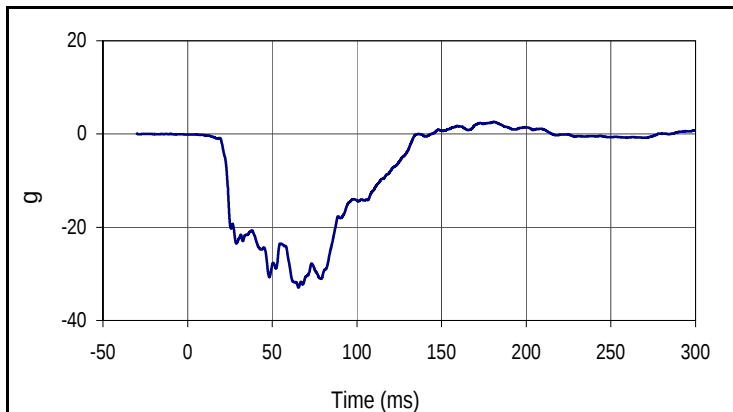
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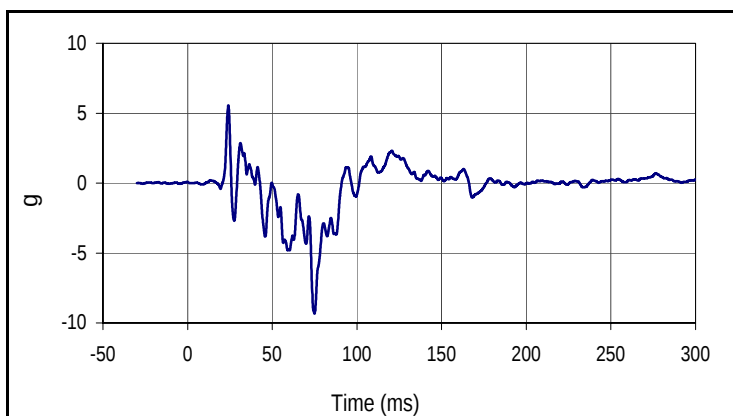
Curve Description			
Passenger Chest Deflection			
Plot No.		SAE Class	Units
020		600	mm
Max	Time	Min	Time
0.0	6.5	-19.1	55.5

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

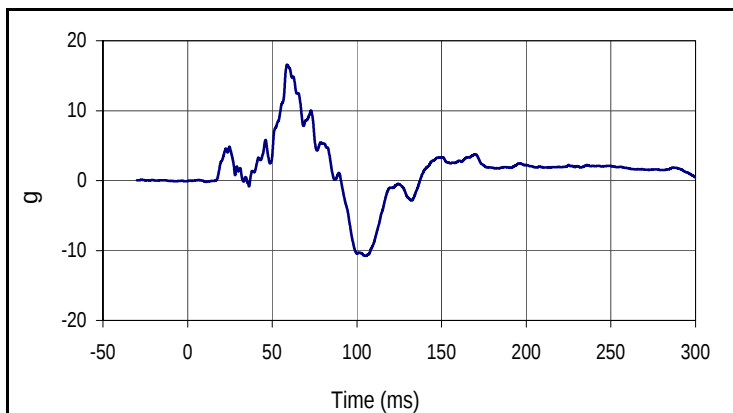
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 Test Date: 12/5/16



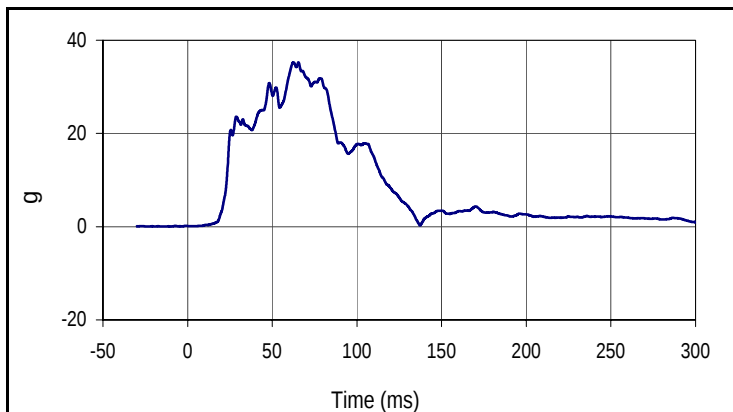
Curve Description			
Passenger Chest Acceleration X Primary			
Plot No.		SAE Class	Units
021		180	g
Max	Time	Min	Time
2.6	180.7	-33.0	65.5



Curve Description			
Passenger Chest Acceleration Y Primary			
Plot No.		SAE Class	Units
022		180	g
Max	Time	Min	Time
5.6	24.1	-9.3	75.0



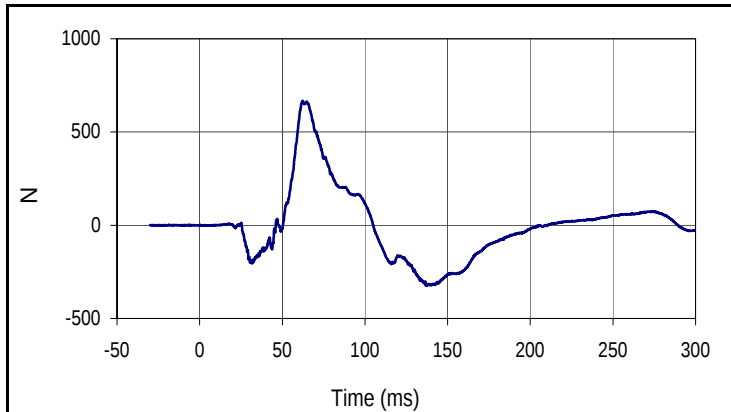
Curve Description			
Passenger Chest Acceleration Z Primary			
Plot No.		SAE Class	Units
023		180	g
Max	Time	Min	Time
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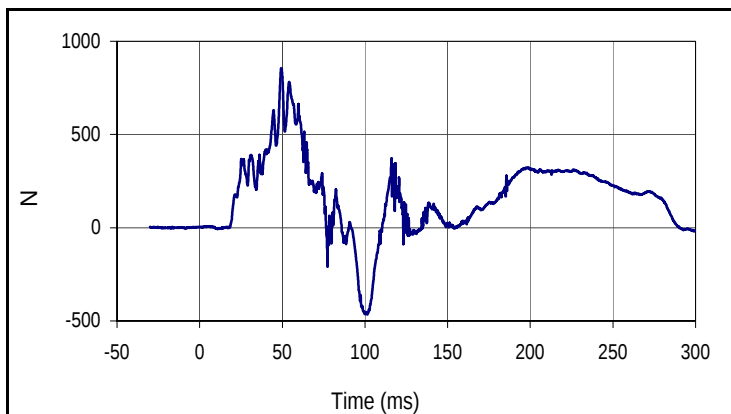
Curve Description			
Passenger Chest Resultant Acceleration Primary			
Plot No.		SAE Class	Units
024		180	g
Max	Time	Min	Time
35.3	62.5	0.1	1.9

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

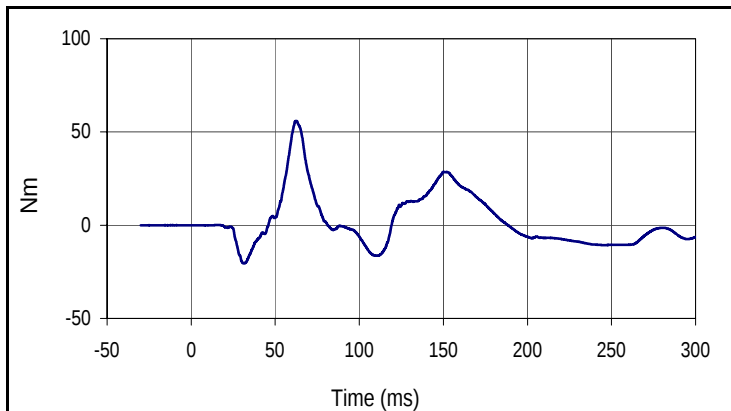
NHTSA No.: M20170300
 Test Date: 12/5/16



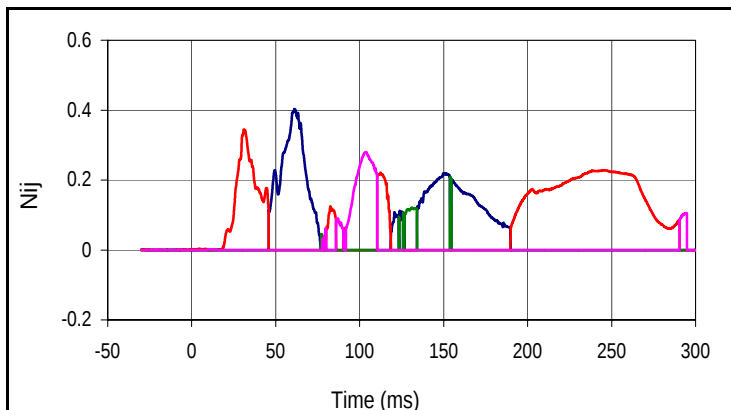
Curve Description			
Passenger Upper Neck Force X			
Plot No.		SAE Class	Units
025		1000	N
Max	Time	Min	Time
667.8	62.3	-325.2	137.5



Curve Description			
Passenger Upper Neck Force Z			
Plot No.		SAE Class	Units
026		1000	N
Max	Time	Min	Time
856.2	49.4	-465.8	101.4



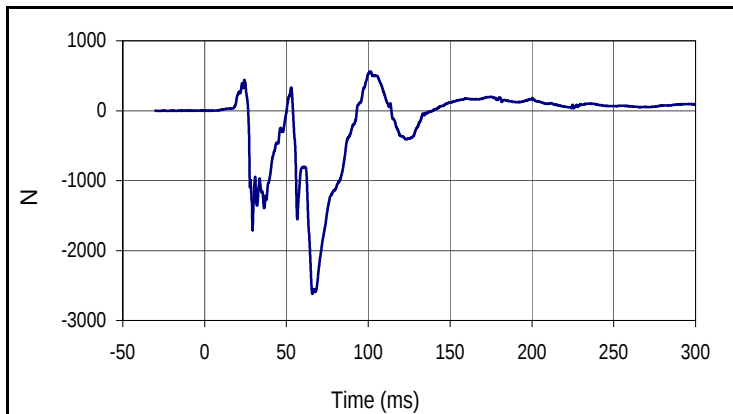
Curve Description			
Passenger Upper Neck Moment Y			
Plot No.		SAE Class	Units
027		600	Nm
Max	Time	Min	Time
55.9	62.3	-20.6	31.6



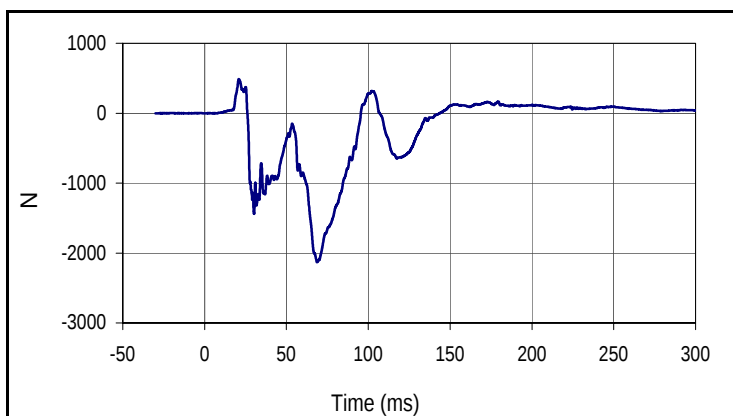
Curve Description		
Passenger Nij		
Units	Max	Time
Ntf	0.40	61.3
Units	Max	Time
Nte	0.34	31.1
Units	Max	Time
Ncf	0.21	153.8
Units	Max	Time
Nce	0.28	103.7

Test Vehicle: 2017 Chrysler 200C AWD 4-Door Sedan
 Test Program: 56 km/h Frontal Impact NCAP Test

NHTSA No.: M20170300
 Test Date: 12/5/16



Curve Description			
Passenger Left Femur Force Z			
Plot No.		SAE Class	Units
029		600	N
Max	Time	Min	Time
562.3	101.5	-2622.0	65.9



Curve Description			
Passenger Right Femur Force Z			
Plot No.		SAE Class	Units
030		600	N
Max	Time	Min	Time
487.2	20.9	-2131.2	68.7

APPENDIX C
ATD CALIBRATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST / ATD CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: Hybrid III 50th Percentile Male Dummy Damage Checklist

Test Date: 11/29/16

ATD Serial No.: 360

Test I.D.: N/A



Dummy Item	Inspect for	Comments	Damaged	OK
Entire Dummy	Perform general cleaning			X
Outer Skin	Gashes, rips, cracks			X
Head	Ballast secure			X
	General appearance			X
Neck	Broken or cracked rubber			X
	Upper neck bracket firmly attached to the lower neck bracket			X
	Looseness at the condyle joint			X
	Nodding blocks cracked or out of position			X
Spine	Broken or cracks in rubber			X
Ribs	Broken or bent ribs			X
	Broken or bent rib supports			X
	Damping material separated or cracked			X
	Rubber bumpers in place			X
Chest Displacement Assembly	Bent shaft			X
	Slider arm riding in track			X
Transducer Leads	Torn cables			X
Accelerometer Mountings	Head mounting secure			X
	Chest mounting secure			X
Knees	Skin condition			X
	Insert (do not remove)			X
	Casting			X
Limbs	Normal movement and adjustment			X
Knee Sliders	Wires intact			X
	Rubber returned to "at rest" position			X
Pelvis	Broken			X
Other				X

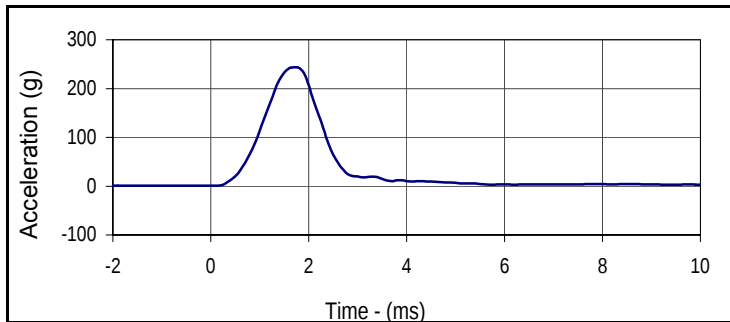
Describe the repair on or replacement of parts:

Test Program: Hybrid III 50th Percentile Male External MeasurementsTest Date: 11/29/16ATD Serial No.: 360Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	29.5	Pass
A - Total sitting height	mm	879 to 889	886	Pass
B - Shoulder pivot height	mm	505 to 521	510	Pass
C - H point height	mm	84 to 89	86	Pass
D - H point location from backline	mm	135 to 140	139	Pass
E - Shoulder pivot from backline	mm	84 to 94	91	Pass
F - Thigh clearance	mm	140 to 155	147	Pass
G - Back of elbow to wrist pivot	mm	290 to 305	298	Pass
H - Head back to backline	mm	41 to 46	44	Pass
I - Shoulder to elbow length	mm	330 to 345	337	Pass
J - Elbow rest height	mm	190 to 211	205	Pass
K - Buttock to knee length	mm	579 to 604	587	Pass
L - Popliteal length	mm	429 to 455	437	Pass
M - Knee pivot height	mm	485 to 500	495	Pass
N - Buttock popliteal length	mm	452 to 477	473	Pass
O - Chest depth without jacket	mm	213 to 229	227	Pass
P - Foot length	mm	251 to 267	263	Pass
V - Shoulder breadth	mm	422 to 437	436	Pass
W - Foot breadth	mm	91 to 107	99	Pass
Y - Chest circumference (with chest jacket)	mm	970 to 1001	982	Pass
Z - Waist circumference	mm	836 to 866	865	Pass
AA - Location for chest circumference	mm	429 to 434	431	Pass
BB - Location for waist circumference	mm	226 to 231	231	Pass
Overall Test Results			Pass	

Test Program: Hybrid III 50th Percentile Male Head Drop TestTest Date: 11/30/16ATD Serial No.: 360Test I.D.: M360HD019

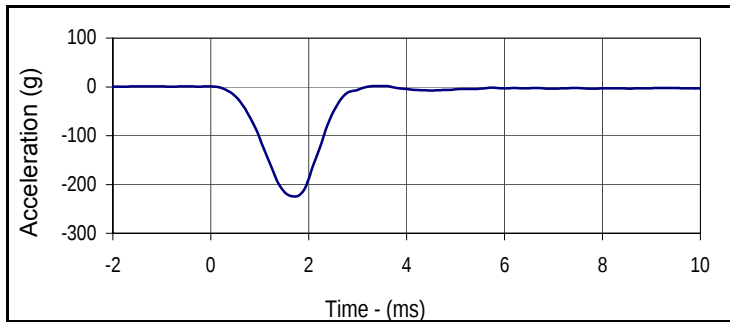
Tested Parameter		Units	Specification	Result	Pass/Fail
Head Assembly Soak Time		Minutes	≥240	309	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.7	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.9	Pass
Peak Resultant Acceleration		g	225.0 to 275.0	243.9	Pass
Peak Lateral Acceleration		g	≤15.0	1.8	Pass
Oscillations After Main Pulse		%	<10% of peak Res. Acceleration	11.7	Pass
Is Acceleration Unimodal?		Yes/No	Yes	Yes	Pass
Overall Test Results				Pass	



Curve Description

Head Resultant

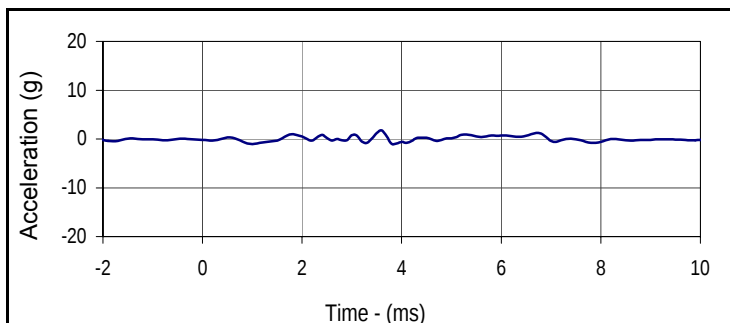
Plot No.	Type	SAE Class	Units
001	RES	1000	g
Max	Time	Min	Time
243.9	1.7	0.1	85.5



Curve Description

Head X

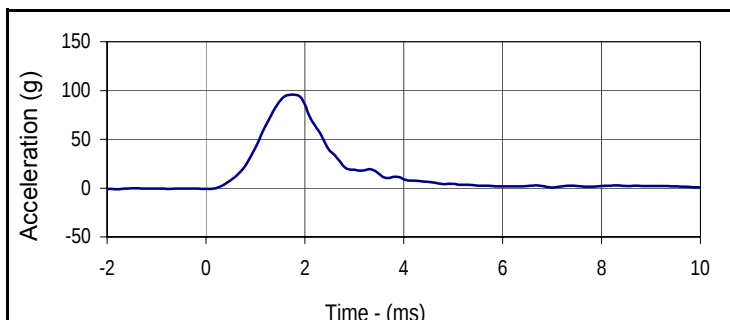
Plot No.	Type	SAE Class	Units
002	FIL	1000	g
Max	Time	Min	Time
2.2	13.3	-224.4	1.7



Curve Description

Head Y

Plot No.	Type	SAE Class	Units
003	FIL	1000	g
Max	Time	Min	Time
1.8	3.6	-1.0	1.0



Curve Description

Head Z

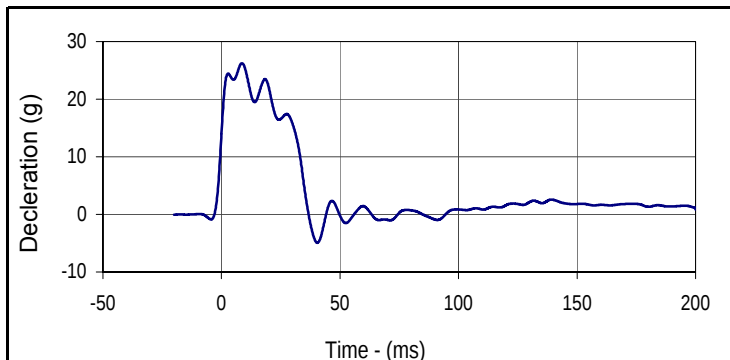
Plot No.	Type	SAE Class	Units
004	FIL	1000	g
Max	Time	Min	Time
95.5	1.7	-2.4	95.5

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 360

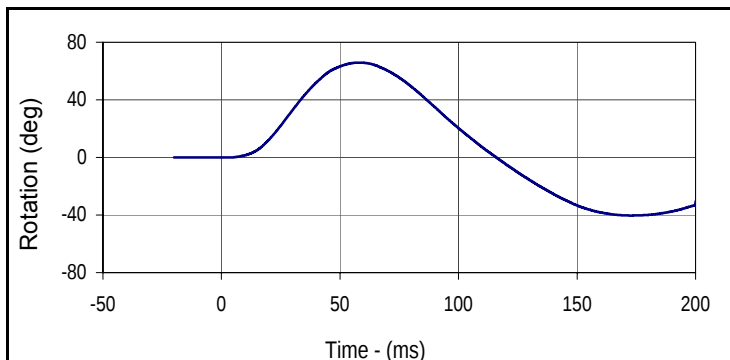
Test Date: 11/29/16
 Test I.D.: M360NF019



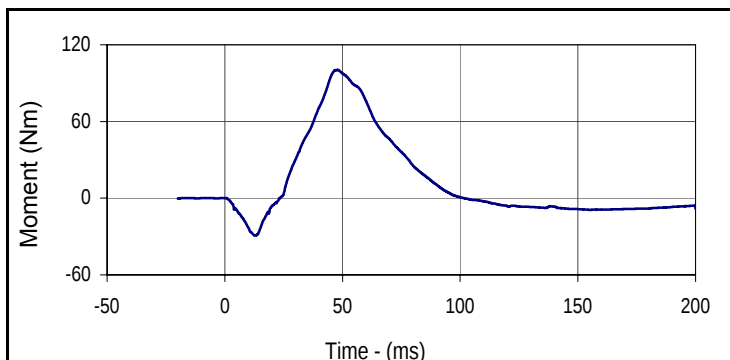
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	374	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.7	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	29.0	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.98	Pass
Pendulum Deceleration	10 Msec.	g	22.5 to 27.5	25.3	Pass
	20 Msec.	g	17.6 to 22.6	21.9	Pass
	30 Msec.	g	12.5 to 18.5	15.7	Pass
Peak Pendulum Decel. after 30 Msec.		g	≤ 29.0	15.7	Pass
Deceleration Decay, Time to Cross 5 G's		ms	34.0 to 42.0	34.9	Pass
Maximum "D" Plane Rotation	Max	deg	64.0 to 78.0	65.9	Pass
	Time	ms	57.0 to 64.0	57.9	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		ms	113.0 to 128.0	116	Pass
Moment About Occ. Condyle	Max	Nm	88.1 to 108.5	100.4	Pass
	Time	ms	47.0 to 58.0	48.0	Pass
Positive Moment Decay, Time To Zero Crossing		ms	97.0 to 107.0	101.6	Pass
Overall Test Results				Pass	



Curve Description			
Pendulum Deceleration			
Plot No.	Type	SAE Class	Units
001	FIL	60	g
Max	Time	Min	Time
26.2	8.6	-4.9	40.4



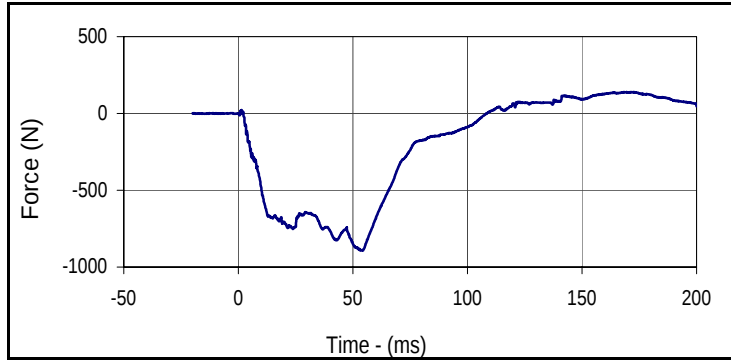
Curve Description			
"D" Plane Rotation			
Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
65.9	57.9	-40.3	172.8



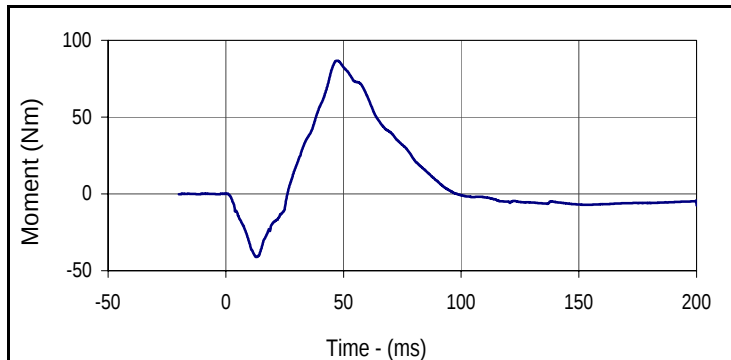
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
100.4	48.0	-29.2	13.0

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 360

Test Date: 11/29/16
 Test I.D.: M360NF019



Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
139.5	168.3	-892.7	53.9



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
86.8	47.2	-41.1	13.0

Test Program: Hybrid III 50th Percentile Male Neck Extension Test

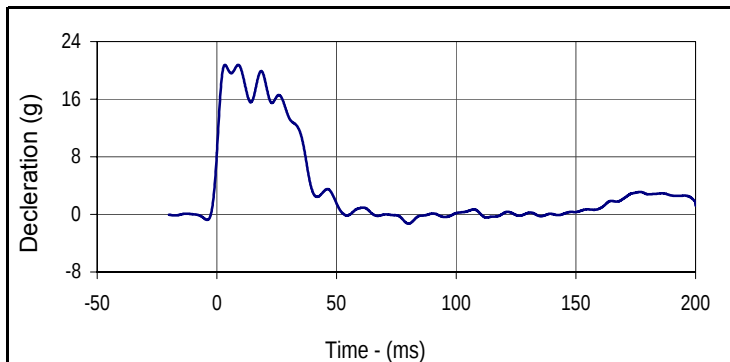
Test Date: 11/29/16



ATD Serial No.: 360

Test I.D.: M360NE019

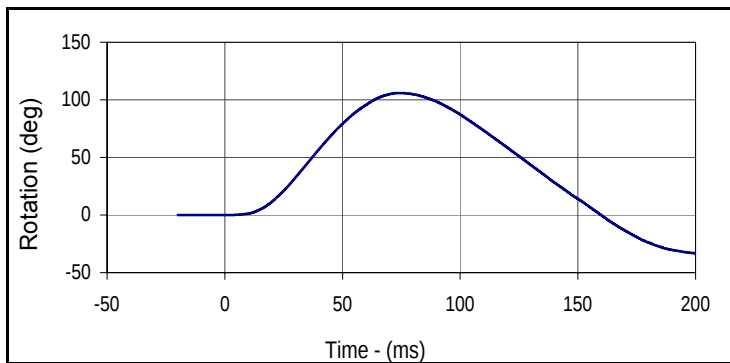
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	419	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.7	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.0	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.03	Pass
Pendulum Deceleration	10 Msec.	g	17.2 to 21.2	20.3	Pass
	20 Msec.	g	14.0 to 19.0	18.8	Pass
	30 Msec.	g	11.0 to 16.0	13.5	Pass
Peak Pendulum Decel. after 30 Msec.		g	≤ 22.0	13.5	Pass
Deceleration Decay, Time to Cross 5 G's		ms	38.0 to 46.0	38.6	Pass
Maximum "D" Plane Rotation	Max	deg	81.0 to 106.0	105.9	Pass
	Time	ms	72.0 to 82.0	74.1	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		ms	147.0 to 174.0	159.9	Pass
Moment About Occ. Condyle	Max	Nm	-52.9 to -79.9	-67.9	Pass
	Time	ms	65.0 to 79.0	68.0	Pass
Positive Moment Decay, Time To Zero Crossing		ms	120.0 to 148.0	143.1	Pass
Overall Test Results				Pass	



Curve Description

Pendulum Deceleration

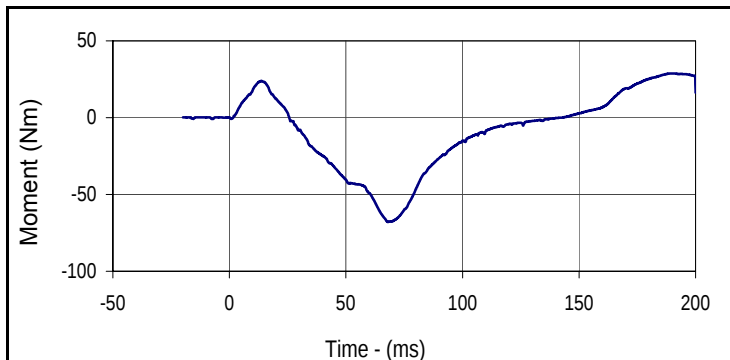
Plot No.	Type	SAE Class	Units
001	FIL	60	g
Max	Time	Min	Time
20.8	8.9	-1.3	80.1



Curve Description

"D" Plane Rotation

Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
105.9	74.1	-34.3	200.0



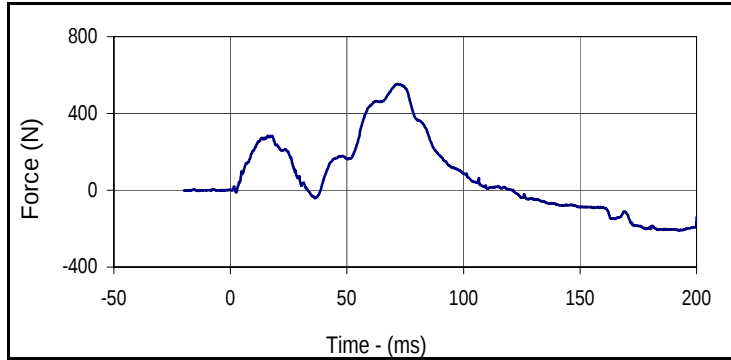
Curve Description

Moment About Occipital Condyle

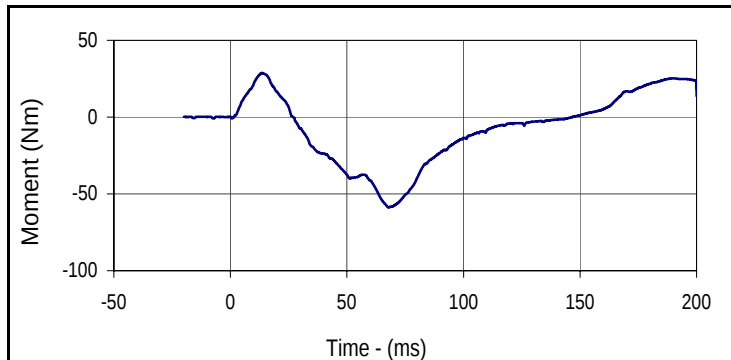
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
28.8	189.5	-67.9	68.0

Test Program: Hybrid III 50th Percentile Male Neck Extension Test
 ATD Serial No.: 360

Test Date: 11/29/16
 Test I.D.: M360NE019



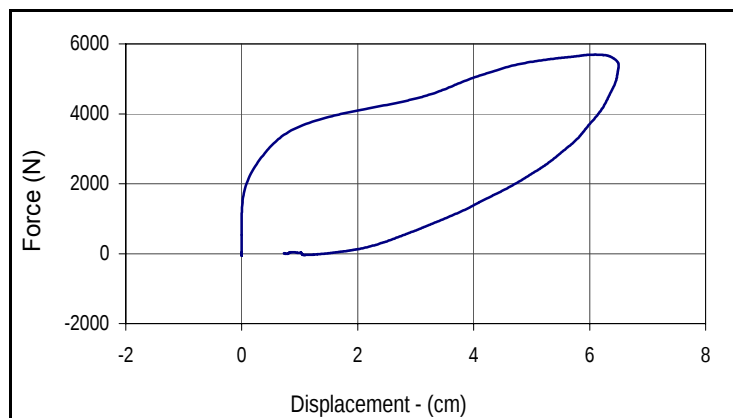
Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
553.5	71.4	-209.2	192.7



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
28.7	13.5	-58.9	67.9

Test Program: Hybrid III 50th Percentile Male Thorax Impact TestTest Date: 11/29/16ATD Serial No.: 360Test I.D.: M360CH019

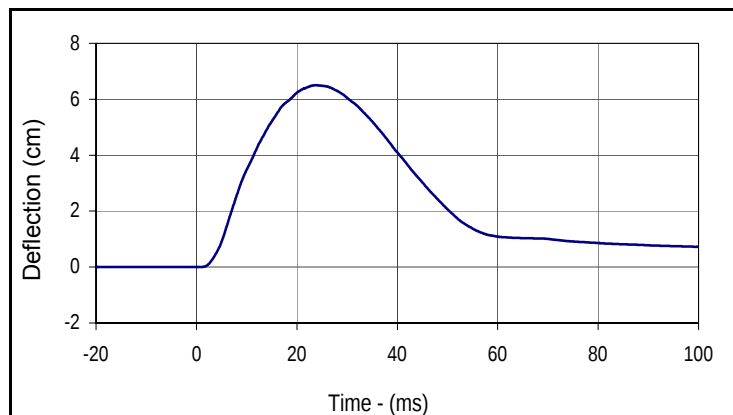
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥240	494	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.7	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Probe Velocity		m/s	6.58 to 6.82	6.61	Pass
Peak Probe Force		N	5159 to 5893	5693	Pass
Peak Sternum Deflection		cm	6.35 to 7.26	6.50	Pass
Internal Hysteresis		%	69 to 85	71.9	Pass
Overall Test Results				Pass	



Curve Description

Probe Force vs. Chest Deflection

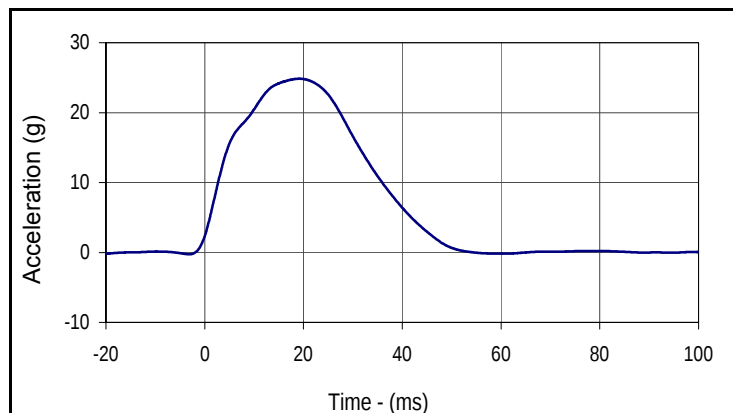
Plot No.	Type	SAE Class	Hysteresis
001	FIL	180	71.9
Peak Probe Force		Peak Chest Deflection	
5693		6.50	



Curve Description

Chest Deflection

Plot No.	Type	SAE Class	Units
002	FIL	180	cm
Max	Time	Min	Time
6.5	23.8	0.0	0.6



Curve Description

Impactor Acceleration

Plot No.	Type	SAE Class	Units
003	FIL	180	g
Max	Time	Min	Time
24.9	19.2	-0.3	-3.2

Test Program: Hybrid III 50th Percentile Male Knee Impact Test

Test Date: 11/30/16

ATD Serial No.: 360

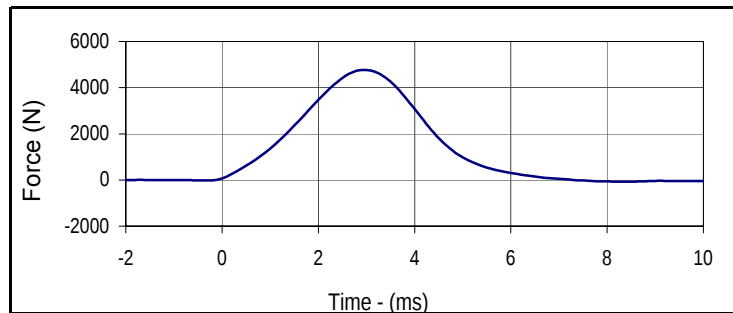
Test I.D.: M360LK019, M360RK019

**Left Knee**

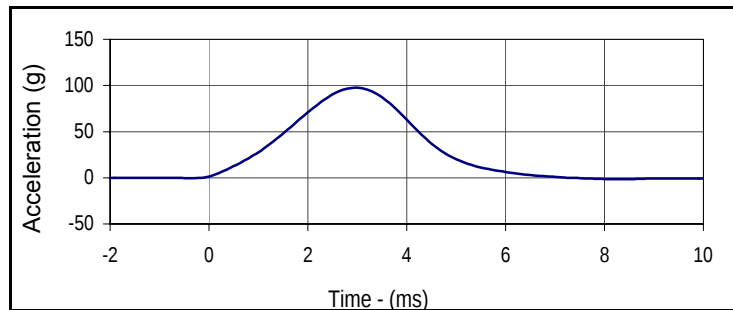
Tested Parameter		Units	Specification	Result	Pass/Fail
Knee Assembly Soak Time		Minutes	≥240	549	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.7	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.07	Pass
Peak Probe Force		N	4715 to 5782	4771	Pass
Overall Test Results					Pass

Right Knee

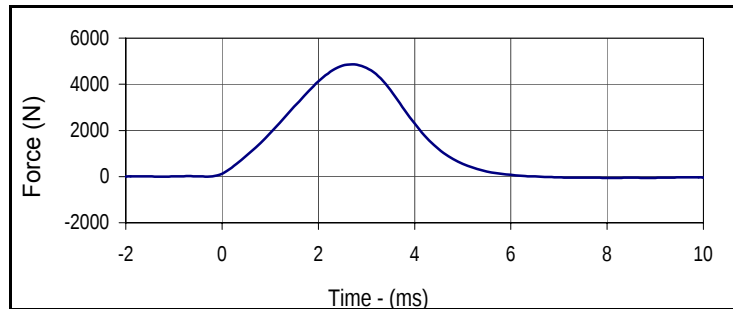
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.08	Pass
Peak Probe Force		N	4715 to 5782	4867	Pass
Overall Test Results					Pass

**Curve Description****Left Knee Probe Force**

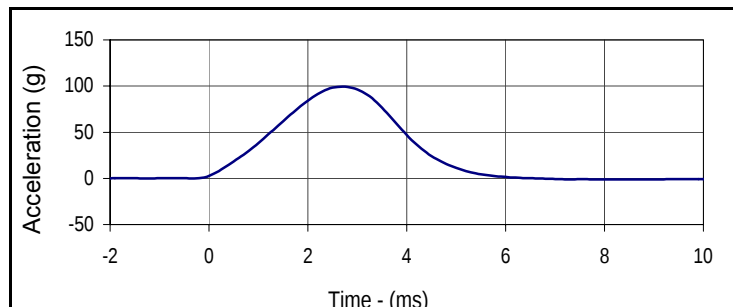
Plot No.	Type	SAE Class	Units
001	FIL	600	N
Max	Time	Min	Time
4771.2	3.0	-71.9	8.3

**Curve Description****Left Knee Acceleration**

Plot No.	Type	SAE Class	Units
002	FIL	600	g
Max	Time	Min	Time
97.5	3.0	-1.5	8.3

**Curve Description****Right Knee Probe Force**

Plot No.	Type	SAE Class	Units
003	FIL	600	N
Max	Time	Min	Time
4867.1	2.7	-56.0	8.9

**Curve Description****Right Knee Acceleration**

Plot No.	Type	SAE Class	Units
004	FIL	600	g
Max	Time	Min	Time
99.5	2.7	-1.1	8.9

Test Program: Hybrid III 50th Percentile Male Hip Joint-Femur Flexion Test
 ATD Serial No.: 360

Test Date: 11/29/16
 Test I.D.: M360LF019, M360RF019

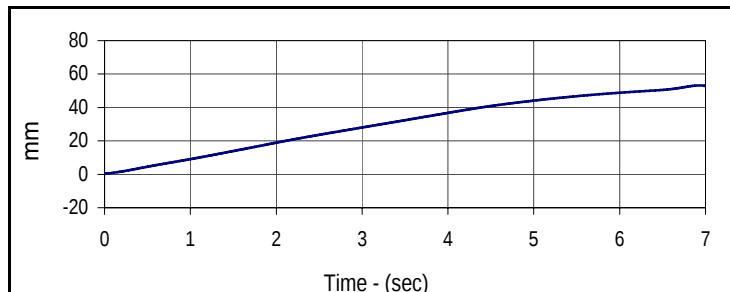


Left Hip Joint-Femur Results

Tested Parameter	Units	Specification	Result	Pass/Fail
Hip Joint-Femur Assembly Soak Time	Minutes	≥240	624	Pass
Temperature During Soak	Max	18.9 to 25.6	21.7	Pass
	Min		21.5	Pass
Humidity During Soak	Max	10.0 to 70.0	29.0	Pass
	Min		28.0	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.5	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	28.1	Pass
Rotation Rate	deg/sec	5 to 10	7.7	Pass
Femur Torque at 30°	Nm	≤ 95	71.4	Pass
Rotation at 203 Nm	Degrees	40.0 to 50.0	41.9	Pass
Overall Test Results				Pass

Right Hip Joint-Femur Results

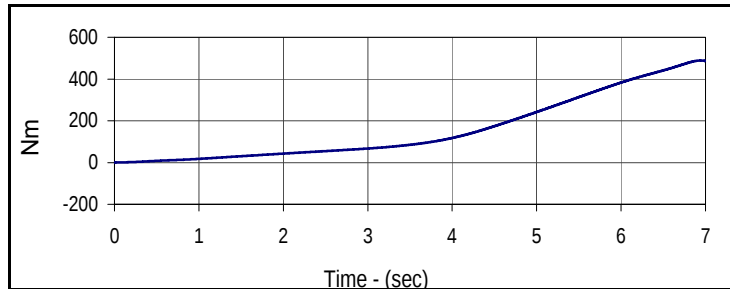
Rotation Rate	deg/sec	5 to 10	7.7	Pass
Femur Torque at 30°	Nm	≤ 95	71.8	Pass
Rotation at 203 Nm	Degrees	40.0 to 50.0	41.9	Pass
Overall Test Results				Pass



Curve Description

Left Hip-Femur Rotation

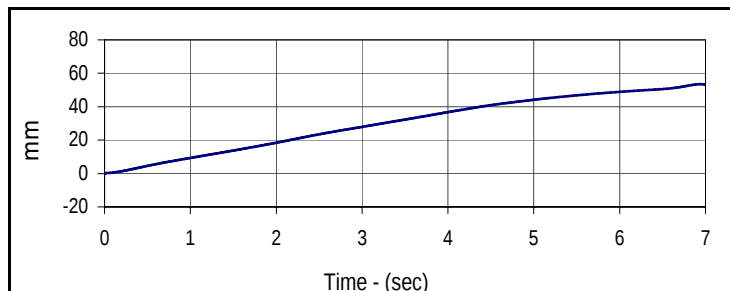
Plot No.	Type	SAE Class	Units
001	FIL	60	mm
Max	Time	Min	Time
53.2	6.9	0.4	0.0



Curve Description

Left Femur Torque

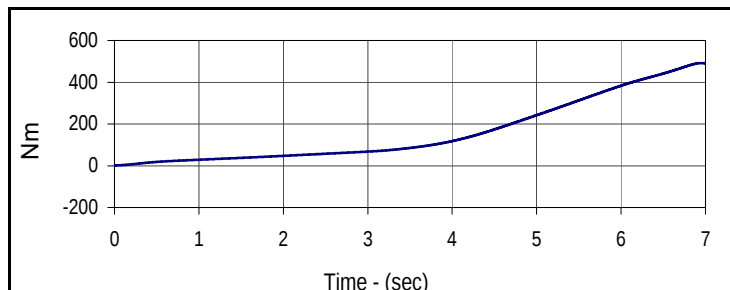
Plot No.	Type	SAE Class	Units
002	FIL	600	Nm
Max	Time	Min	Time
488.9	6.9	0.4	0.0



Curve Description

Right Hip-Femur Rotation

Plot No.	Type	SAE Class	Units
003	FIL	60	mm
Max	Time	Min	Time
53.5	6.9	0.4	0.0



Curve Description

Right Femur Torque

Plot No.	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
491.9	7.0	0.4	0.0

Test Program: Hybrid III 5th Percentile Female Dummy Damage ChecklistTest Date: 11/28/16ATD Serial No.: 635Test I.D.: N/A

Dummy Item	Inspect for	Comments	Damaged	OK
Entire Dummy	Perform general cleaning			X
Outer Skin	Gashes, rips, cracks			X
Head	Ballast secure			X
	General appearance			X
Neck	Broken or cracked rubber			X
	Upper neck bracket firmly attached to the lower neck bracket			X
	Looseness at the condyle joint			X
	Nodding blocks cracked or out of position			X
Spine	Broken or cracks in rubber			X
Ribs	Broken or bent ribs			X
	Broken or bent rib supports			X
	Damping material separated or cracked			X
	Rubber bumpers in place			X
Chest Displacement Assembly	Bent shaft			X
	Slider arm riding in track			X
Transducer Leads	Torn cables			X
Accelerometer Mountings	Head mounting secure			X
	Chest mounting secure			X
Knees	Skin condition			X
	Insert (do not remove)			X
	Casting			X
Limbs	Normal movement and adjustment			X
Knee Sliders	Wires intact			X
	Rubber returned to "at rest" position			X
Pelvis	Broken			X
Other				X

Describe the repair on or replacement of parts:

Test Program: Hybrid III 5th Percentile Female External MeasurementsTest Date: 11/28/16ATD Serial No.: 635Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.41	Pass
Laboratory Relative Humidity	%	10 to 70	28.1	Pass
A - Total sitting height	mm	774.7 to 800.1	786	Pass
B - Shoulder pivot height	mm	431.8 to 457.2	450	Pass
C - H point height	mm	81.3 to 86.3	85	Pass
D - H point location from backline	mm	144.8 to 149.8	146	Pass
E - Shoulder pivot from backline	mm	68.6 to 83.8	77	Pass
F - Thigh clearance	mm	119.4 to 134.6	126	Pass
G - Back of elbow to wrist pivot	mm	243.9 to 259.1	250	Pass
H - Head back to backline	mm	40.7 to 45.7	44	Pass
I - Shoulder to elbow length	mm	276.8 to 297.2	285	Pass
J - Elbow rest height	mm	182.8 to 203.2	198	Pass
K - Buttock to knee length	mm	520.7 to 546.1	531	Pass
L - Popliteal length	mm	355.6 to 376.0	371	Pass
M - Knee pivot height	mm	393.7 to 419.1	402	Pass
N - Buttock popliteal length	mm	414.0 to 439.4	420	Pass
O - Chest depth without jacket	mm	175.3 to 190.5	186	Pass
P - Foot length	mm	218.5 to 233.7	221	Pass
R - Buttock to Knee Pivot Length	mm	457.2 to 482.6	473	Pass
S - Head Breadth	mm	137.1 to 147.3	144	Pass
T - Head Depth	mm	177.8 to 188.0	180	Pass
U - Hip Breadth	mm	299.7 to 314.9	302	Pass
V - Shoulder breadth	mm	350.5 to 365.7	359	Pass
W - Foot breadth	mm	78.8 to 94.0	90	Pass
X - Head circumference	mm	528.3 to 548.7	541	Pass
Y - Chest circumference (with chest jacket)	mm	850.8 to 881.3	864	Pass
Z - Waist circumference	mm	759.5 to 789.9	766	Pass
AA - Location for chest circumference	mm	299.7 to 309.9	300	Pass
BB - Location for waist circumference	mm	160.1 to 170.2	164	Pass
Overall Test Results				Pass

Test Program: Hybrid III 5th Percentile Female Head Drop Test

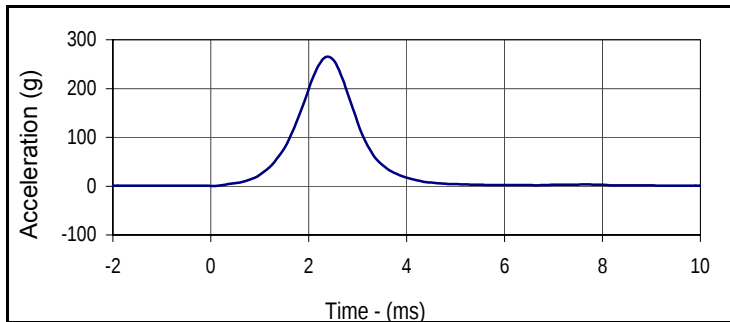
Test Date: 11/30/16

ATD Serial No.: 635

Test I.D.: F635HD055



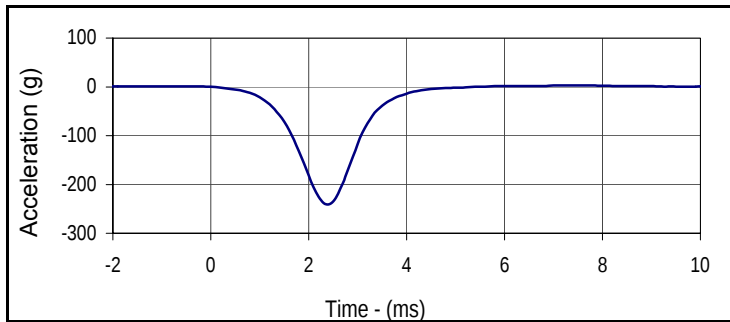
Tested Parameter		Units	Specification	Result	Pass/Fail
Head Assembly Soak Time		Minutes	≥240	316	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.4	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Peak Resultant Acceleration		g	250.0 to 300.0	265.3	Pass
Peak Lateral Acceleration		g	≤15.0	1.9	Pass
Oscillations After Main Pulse		%	<10% of peak Res. Acceleration	8.2	Pass
Is Acceleration Unimodal?		Yes/No	Yes	Yes	Pass
Overall Test Results				Pass	



Curve Description

Head Resultant

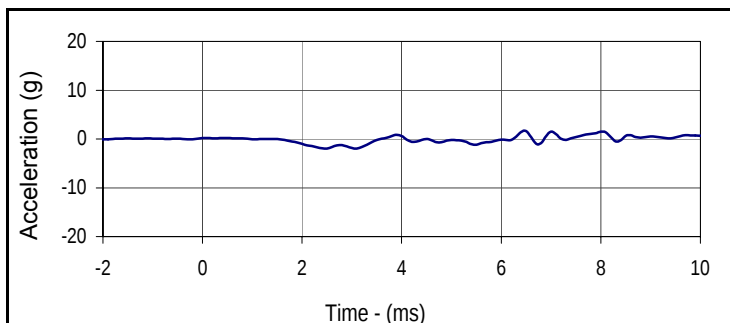
Plot No.	Type	SAE Class	Units
001	RES	1000	g
Max	Time	Min	Time
265.3	2.4	0.1	11.5



Curve Description

Head X

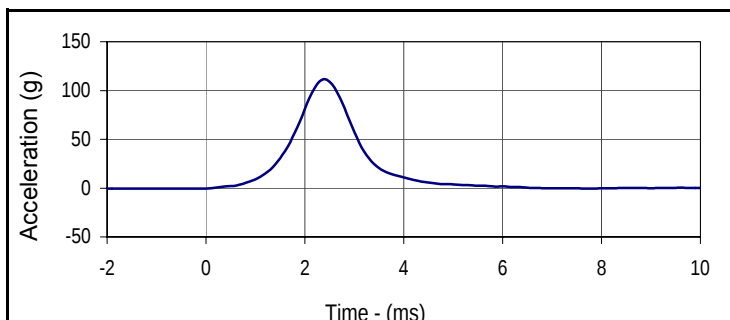
Plot No.	Type	SAE Class	Units
002	FIL	1000	g
Max	Time	Min	Time
3.2	7.7	-240.8	2.4



Curve Description

Head Y

Plot No.	Type	SAE Class	Units
003	FIL	1000	g
Max	Time	Min	Time
1.6	6.5	-1.9	3.1



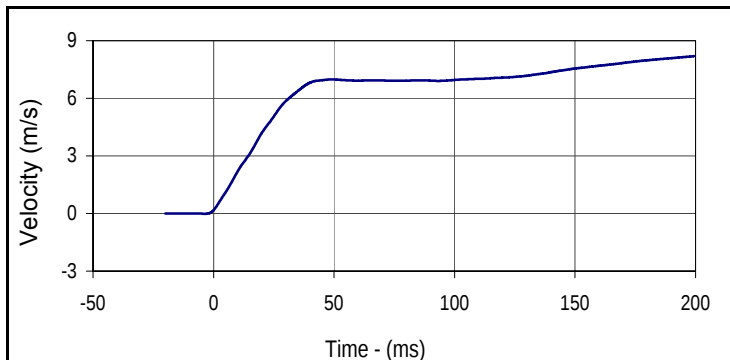
Curve Description

Head Z

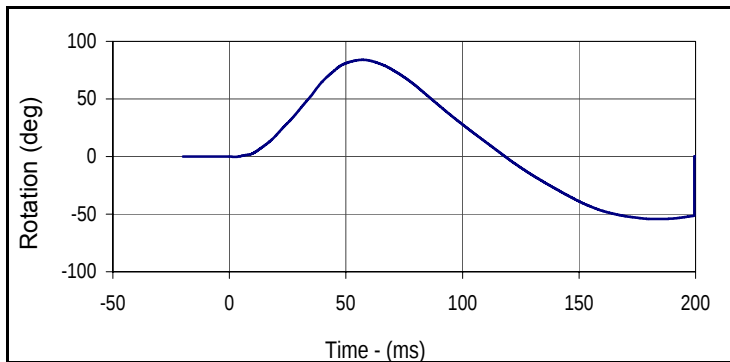
Plot No.	Type	SAE Class	Units
004	FIL	1000	g
Max	Time	Min	Time
111.5	2.4	-0.8	15.5

Test Program: Hybrid III 5th Percentile Female Neck Flexion TestTest Date: 11/29/16ATD Serial No.: 635Test I.D.: F635NF055

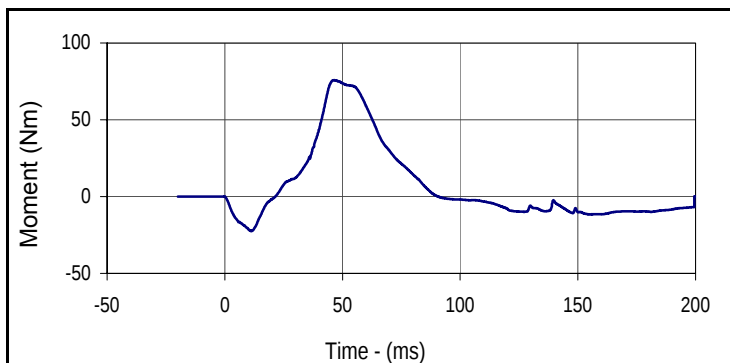
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	381	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.4	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.4	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.91	Pass
Pendulum Deceleration	10 Msec.	m/s	2.1 to 2.5	2.2	Pass
	20 Msec.	m/s	4.0 to 5.0	4.2	Pass
	30 Msec.	m/s	5.8 to 7.0	5.9	Pass
"D" Plane Rotation	Max	deg	77.0 to 91.0	84.0	Pass
Peak Moment in Rotation	Max	Nm	69.0 to 83.0	75.6	Pass
Positive Moment Decay, Time To 10 Nm		ms	80.0 to 100.0	82.1	Pass
Overall Test Results				Pass	



Curve Description			
Pendulum Velocity			
Plot No.	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
8.2	199.9	0.0	-2.9



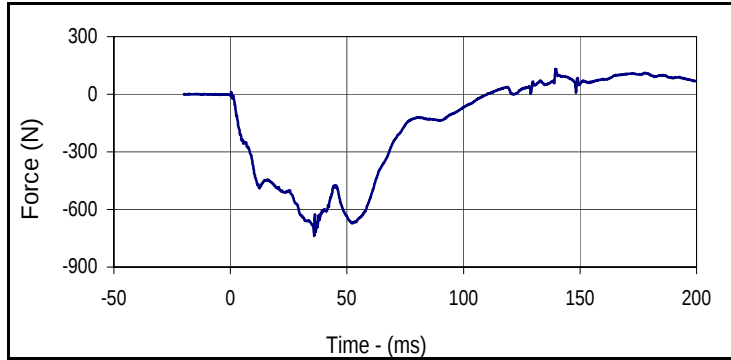
Curve Description			
"D" Plane Rotation			
Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
84.0	57.2	-54.3	183.9



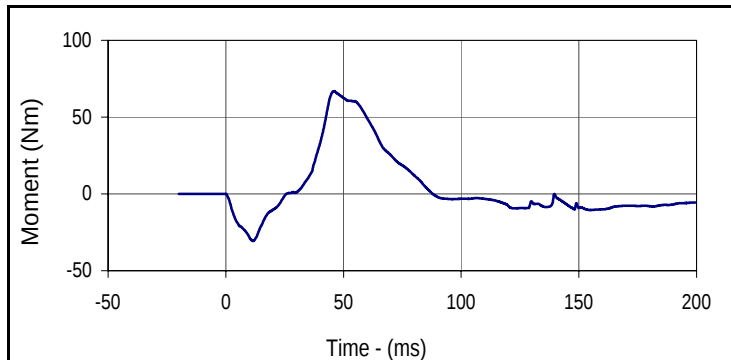
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
75.8	46.6	-22.4	11.2

Test Program: Hybrid III 5th Percentile Female Neck Flexion Test
 ATD Serial No.: 635

Test Date: 11/29/16
 Test I.D.: F635NF055



Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
131.3	140.0	-736.2	36.4



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
67.0	46.3	-30.6	11.9

Test Program: Hybrid III 5th Percentile Female Neck Extension Test

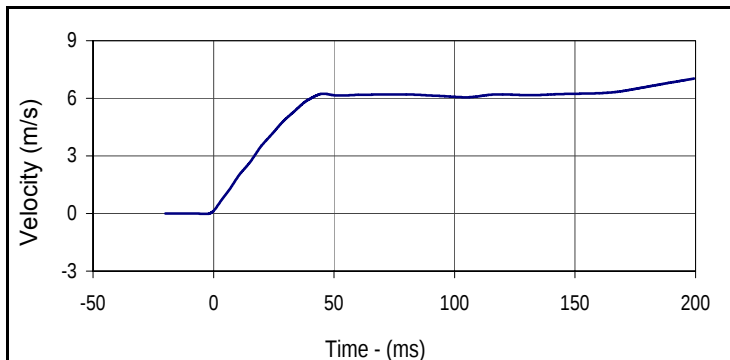
Test Date: 12/1/16

ATD Serial No.: 635

Test I.D.: F635NE055



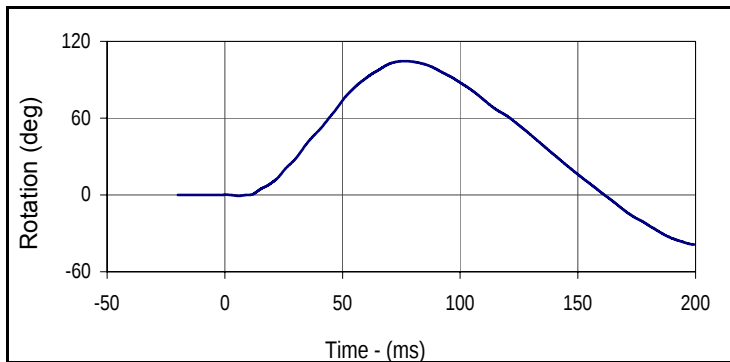
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	446	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.4	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.2	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.03	Pass
Pendulum Deceleration	10 Msec.	m/s	1.5 to 1.9	1.9	Pass
	20 Msec.	m/s	3.1 to 3.9	3.5	Pass
	30 Msec.	m/s	4.6 to 5.6	4.9	Pass
"D" Plane Rotation	Max	deg	99.0 to 114.0	104.6	Pass
Peak Moment in Rotation	Max	Nm	-53.0 to -65.0	-55.2	Pass
Positive Moment Decay, Time To -10 Nm		ms	94.0 to 114.0	101.7	Pass
Overall Test Results				Pass	



Curve Description

Pendulum Velocity

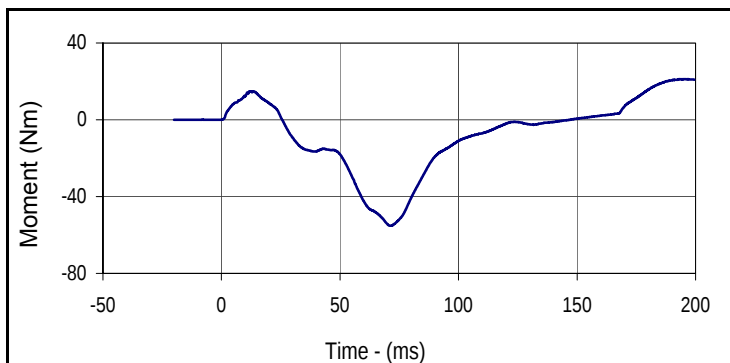
Plot No.	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
7.0	199.4	0.0	-3.2



Curve Description

"D" Plane Rotation

Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
104.6	76.3	-38.8	199.4



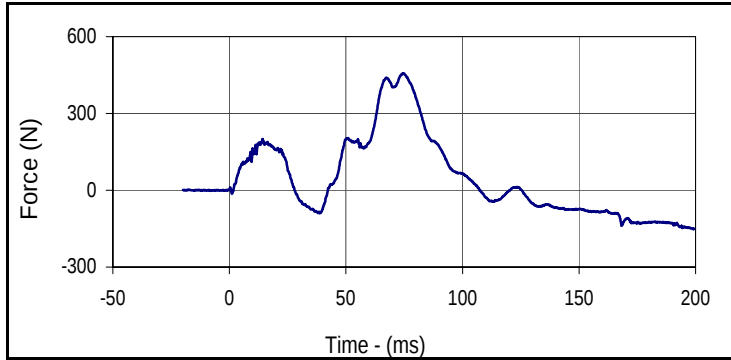
Curve Description

Moment About Occipital Condyle

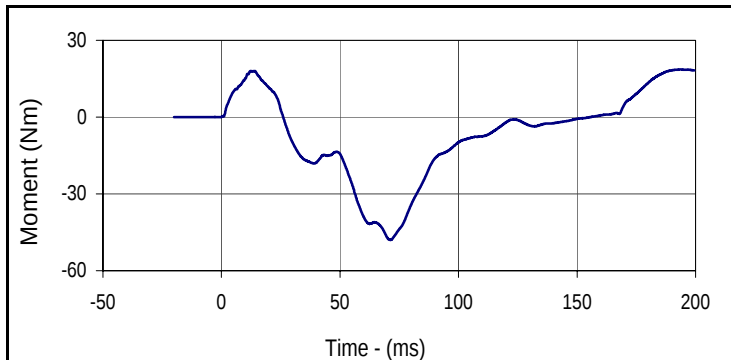
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
21.2	194.3	-55.2	71.4

Test Program: Hybrid III 5th Percentile Female Neck Extension Test
 ATD Serial No.: 635

Test Date: 12/1/16
 Test I.D.: F635NE055



Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
457.0	74.7	-152.0	199.1



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
18.6	194.1	-48.0	71.3

Test Program: Hybrid III 5th Percentile Female Thorax Impact Test

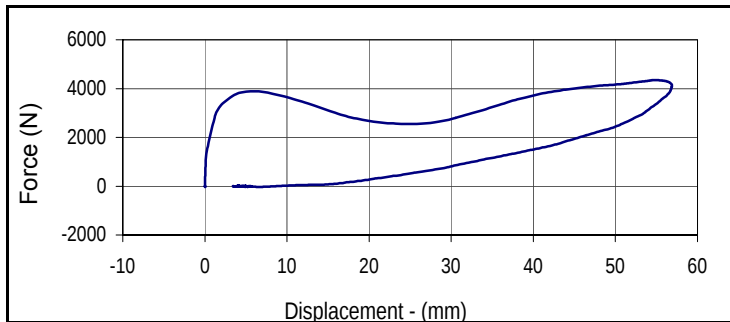
Test Date: 12/2/16

ATD Serial No.: 635

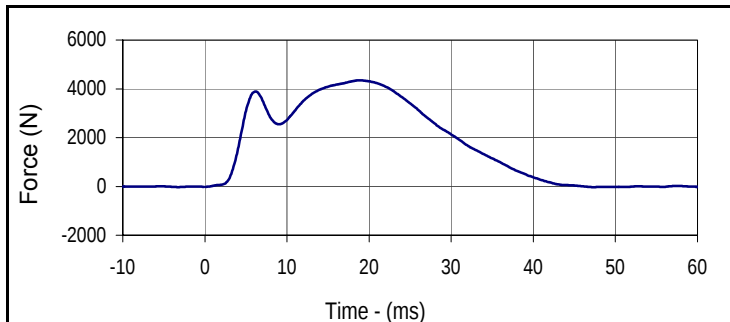
Test I.D.: F635CH055



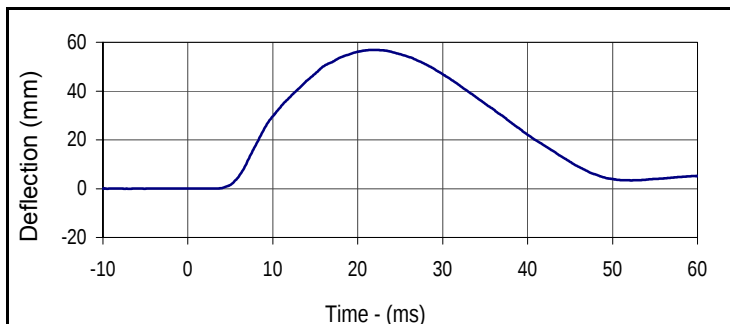
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥240	491	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.4	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.0	Pass
Probe Velocity		m/s	6.59 to 6.83	6.66	Pass
Peak Chest Deflection		mm	50.0 to 58.0	56.9	Pass
Peak Force Between 50 and 58 MM		N	3900 to 4400	4171	Pass
Peak Force Between 18 and 50 MM		N	≤4600	4346	Pass
Internal Hysteresis		%	69 to 85	69.8	Pass
Overall Test Results					Pass



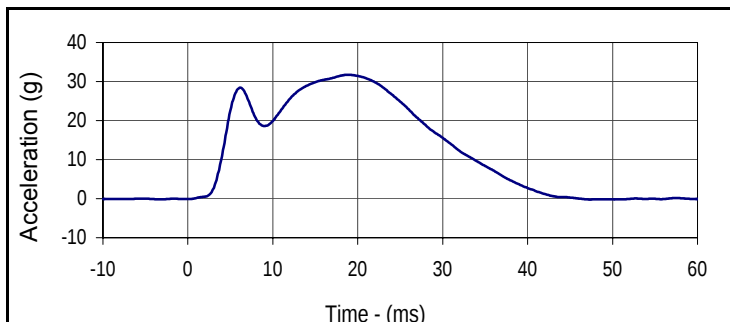
Curve Description			
Probe Force vs. Chest Deflection			
Plot No.	Type	SAE Class	Hysteresis
001	FIL	180	69.8
Peak Probe Force		Peak Chest Deflection	
4345.7		56.9	



Curve Description			
Probe Force			
Plot No.	Type	SAE Class	Units
002	FIL	180	N
Max	Time	Min	Time
4345.7	18.8	-30.1	47.4



Curve Description			
Chest Deflection			
Plot No.	Type	SAE Class	Units
003	FIL	600	mm
Max	Time	Min	Time
56.9	21.8	0.0	-7.5



Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	g
Max	Time	Min	Time
31.7	18.8	-0.2	47.4

Test Program: Hybrid III 5th Percentile Female Knee Impact Test

Test Date: 11/30/16

ATD Serial No.: 635

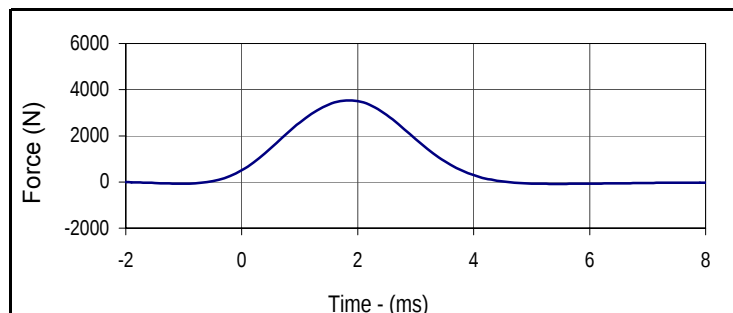
Test I.D.: F635LK055, F635RK055

**Left Knee**

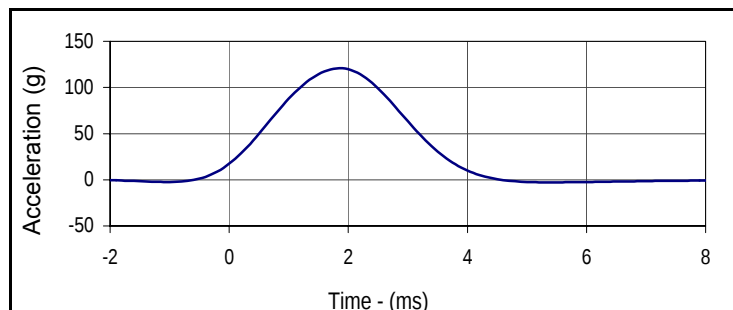
Tested Parameter		Units	Specification	Result	Pass/Fail
Knee Assembly Soak Time		Minutes	≥240	546	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.4	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	29.0	Pass
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.07	Pass
Peak Probe Force		N	3450 to 4060	3539	Pass
Overall Test Results					Pass

Right Knee

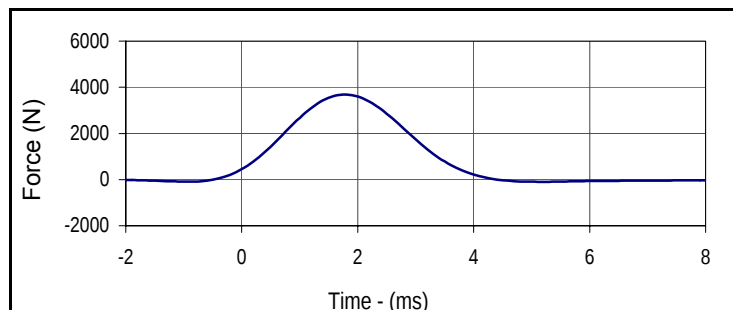
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.07	Pass
Peak Probe Force		N	3450 to 4060	3684	Pass
Overall Test Results					Pass

**Curve Description****Left Knee Probe Force**

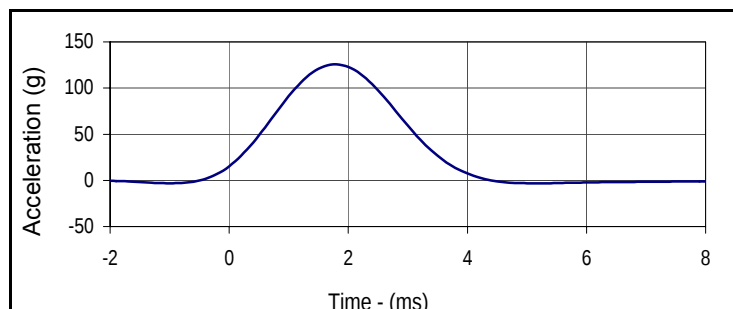
Plot No.	Type	SAE Class	Units
001	FIL	180	N
Max	Time	Min	Time
3538.8	1.9	-82.2	5.4

**Curve Description****Left Knee Acceleration**

Plot No.	Type	SAE Class	Units
002	FIL	180	g
Max	Time	Min	Time
120.7	1.9	-2.8	5.4

**Curve Description****Right Knee Probe Force**

Plot No.	Type	SAE Class	Units
003	FIL	180	N
Max	Time	Min	Time
3684.4	1.8	-95.4	5.1

**Curve Description****Right Knee Acceleration**

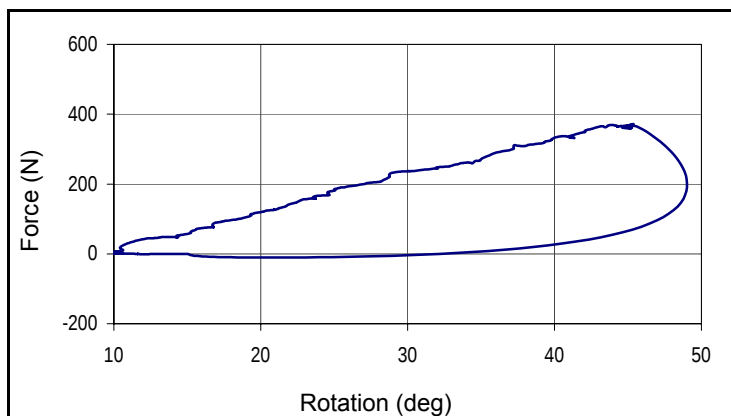
Plot No.	Type	SAE Class	Units
004	FIL	180	g
Max	Time	Min	Time
125.7	1.8	-3.3	5.1

Test Program: Hybrid III 5th Percentile Female Torso Flexion Test
 ATD Serial No.: 635

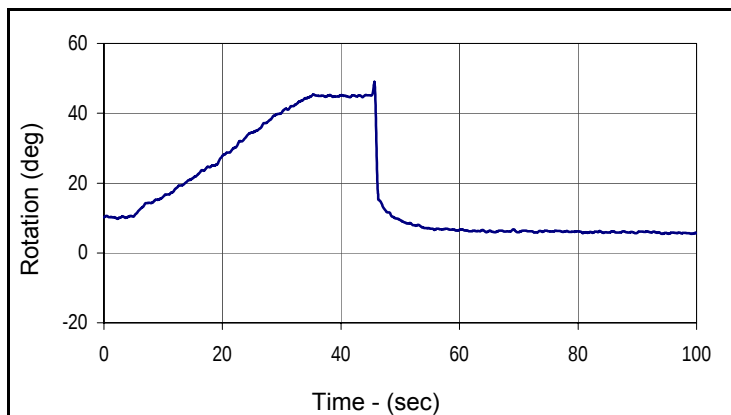
Test Date: 11/29/16
 Test I.D.: TF055



Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥240	611	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.4	Pass
Humidity During Soak	Max	%	10.0 to 70.0	29.0	Pass
	Min	%		28.0	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Initial Reference Plane Angle		deg	≤ 20	10.2	Pass
Peak Force at 45° +/-0.5°		N	320.0 to 390.0	371.7	Pass
Torso Rotation Rate		deg/s	0.5 to 1.5	1.1	Pass
Final Reference Plane Angle		deg	+/-8	5.7	Pass
Overall Test Results				Pass	



Curve Description		
Force vs Torso Rotation		
Plot No.	Type	Filter Freq
001	FIL	1 Hz
Peak Force		Peak Rotation
371.7		49.0



Curve Description			
Torso Rotation			
Plot No.	Type	Filter Freq	Units
002	FIL	1 Hz	deg
Max	Time	Min	Time
49.0	45.7	5.5	94.2

APPENDIX C
POST-TEST / ATD CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: Hybrid III 50th Percentile Male Dummy Damage Checklist

Test Date: 12/5/16

ATD Serial No.: 360

Test I.D.: N/A



Dummy Item	Inspect for	Comments	Damaged	OK
Entire Dummy	Perform general cleaning			X
Outer Skin	Gashes, rips, cracks			X
Head	Ballast secure			X
	General appearance			X
Neck	Broken or cracked rubber			X
	Upper neck bracket firmly attached to the lower neck bracket			X
	Looseness at the condyle joint			X
	Nodding blocks cracked or out of position			X
Spine	Broken or cracks in rubber			X
Ribs	Broken or bent ribs			X
	Broken or bent rib supports			X
	Damping material separated or cracked			X
	Rubber bumpers in place			X
Chest Displacement Assembly	Bent shaft			X
	Slider arm riding in track			X
Transducer Leads	Torn cables			X
Accelerometer Mountings	Head mounting secure			X
	Chest mounting secure			X
Knees	Skin condition			X
	Insert (do not remove)			X
	Casting			X
Limbs	Normal movement and adjustment			X
Knee Sliders	Wires intact			X
	Rubber returned to "at rest" position			X
Pelvis	Broken			X
Other				X

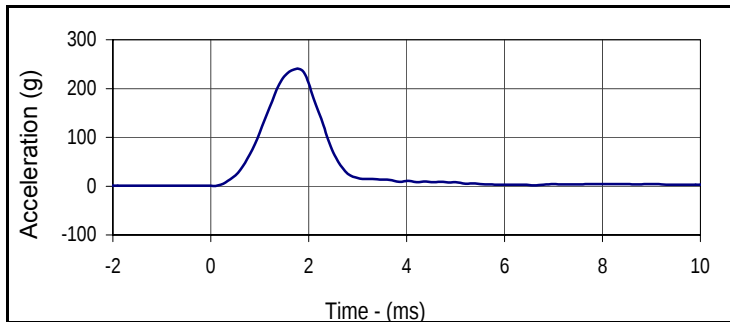
Describe the repair on or replacement of parts:

Test Program: Hybrid III 50th Percentile Male External MeasurementsTest Date: 12/5/16ATD Serial No.: 360Test I.D.: N/A

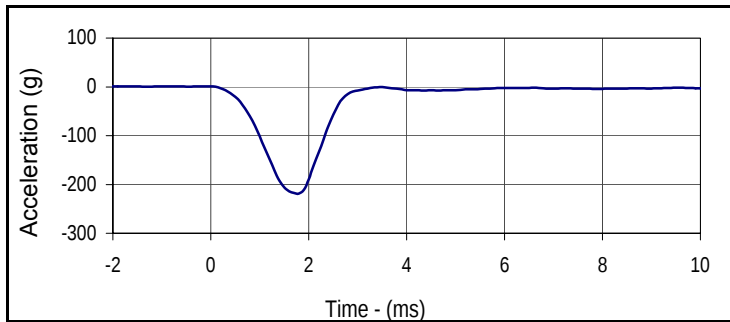
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	29.5	Pass
A - Total sitting height	mm	879 to 889	886	Pass
B - Shoulder pivot height	mm	505 to 521	510	Pass
C - H point height	mm	84 to 89	86	Pass
D - H point location from backline	mm	135 to 140	139	Pass
E - Shoulder pivot from backline	mm	84 to 94	91	Pass
F - Thigh clearance	mm	140 to 155	147	Pass
G - Back of elbow to wrist pivot	mm	290 to 305	298	Pass
H - Head back to backline	mm	41 to 46	44	Pass
I - Shoulder to elbow length	mm	330 to 345	337	Pass
J - Elbow rest height	mm	190 to 211	205	Pass
K - Buttock to knee length	mm	579 to 604	587	Pass
L - Popliteal length	mm	429 to 455	437	Pass
M - Knee pivot height	mm	485 to 500	495	Pass
N - Buttock popliteal length	mm	452 to 477	473	Pass
O - Chest depth without jacket	mm	213 to 229	227	Pass
P - Foot length	mm	251 to 267	263	Pass
V - Shoulder breadth	mm	422 to 437	436	Pass
W - Foot breadth	mm	91 to 107	99	Pass
Y - Chest circumference (with chest jacket)	mm	970 to 1001	982	Pass
Z - Waist circumference	mm	836 to 866	865	Pass
AA - Location for chest circumference	mm	429 to 434	431	Pass
BB - Location for waist circumference	mm	226 to 231	231	Pass
Overall Test Results			Pass	

Test Program: Hybrid III 50th Percentile Male Head Drop TestTest Date: 12/5/16ATD Serial No.: 360Test I.D.: M360HD020

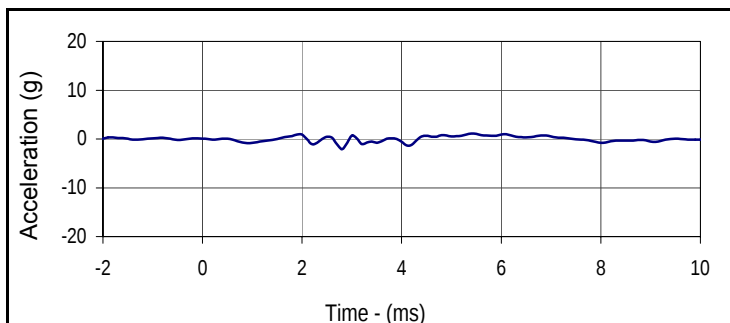
Tested Parameter		Units	Specification	Result	Pass/Fail
Head Assembly Soak Time		Minutes	≥240	265	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.1	Pass
Humidity During Soak	Max	%	10.0 to 70.0	27.9	Pass
	Min	%		27.8	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	27.8	Pass
Peak Resultant Acceleration		g	225.0 to 275.0	240.2	Pass
Peak Lateral Acceleration		g	≤15.0	2.1	Pass
Oscillations After Main Pulse		%	<10% of peak Res. Acceleration	9.6	Pass
Is Acceleration Unimodal?		Yes/No	Yes	Yes	Pass
Overall Test Results				Pass	



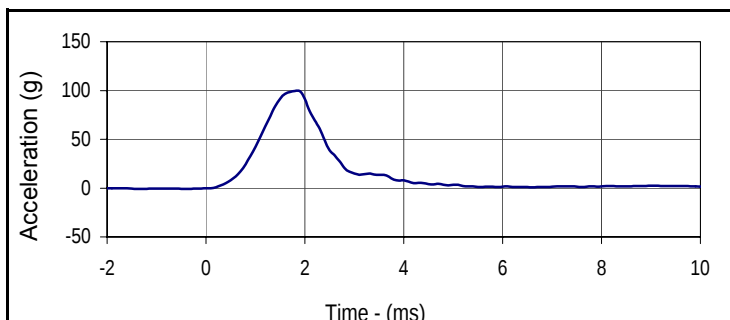
Curve Description			
Head Resultant			
Plot No.	Type	SAE Class	Units
001	RES	1000	g
Max	Time	Min	Time
240.2	1.8	0.0	0.1



Curve Description			
Head X			
Plot No.	Type	SAE Class	Units
002	FIL	1000	g
Max	Time	Min	Time
1.7	13.9	-218.6	1.8



Curve Description			
Head Y			
Plot No.	Type	SAE Class	Units
003	FIL	1000	g
Max	Time	Min	Time
1.1	5.4	-2.1	2.8



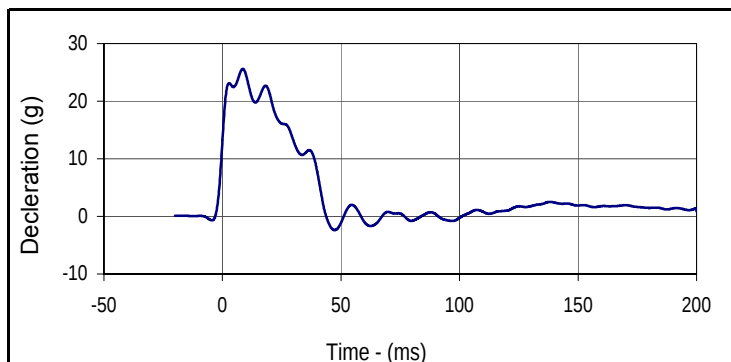
Curve Description			
Head Z			
Plot No.	Type	SAE Class	Units
004	FIL	1000	g
Max	Time	Min	Time
99.7	1.8	-2.4	94.5

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 360

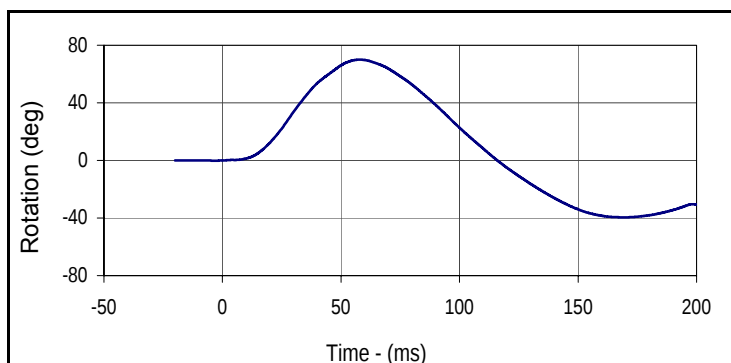
Test Date: 12/5/16
 Test I.D.: M360NF020



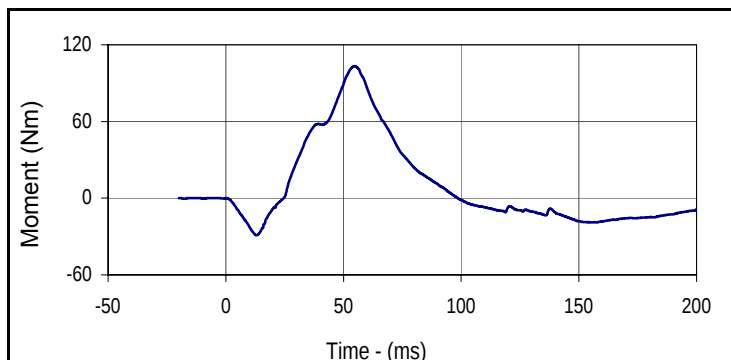
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	330	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.1	Pass
Humidity During Soak	Max	%	10.0 to 70.0	27.9	Pass
	Min	%		27.8	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.1	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	27.8	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.91	Pass
Pendulum Deceleration	10 Msec.	g	22.5 to 27.5	24.5	Pass
	20 Msec.	g	17.6 to 22.6	21.1	Pass
	30 Msec.	g	12.5 to 18.5	13.1	Pass
Peak Pendulum Decel. after 30 Msec.		g	≤ 29.0	13.1	Pass
Deceleration Decay, Time to Cross 5 G's		ms	34.0 to 42.0	41.2	Pass
Maximum "D" Plane Rotation	Max	deg	64.0 to 78.0	70.0	Pass
	Time	ms	57.0 to 64.0	57.9	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		ms	113.0 to 128.0	116	Pass
Moment About Occ. Condyle	Max	Nm	88.1 to 108.5	103.2	Pass
	Time	ms	47.0 to 58.0	54.6	Pass
Positive Moment Decay, Time To Zero Crossing		ms	97.0 to 107.0	98.6	Pass
Overall Test Results				Pass	



Curve Description			
Pendulum Deceleration			
Plot No.	Type	SAE Class	Units
001	FIL	60	g
Max	Time	Min	Time
25.6	8.6	-2.4	47.3



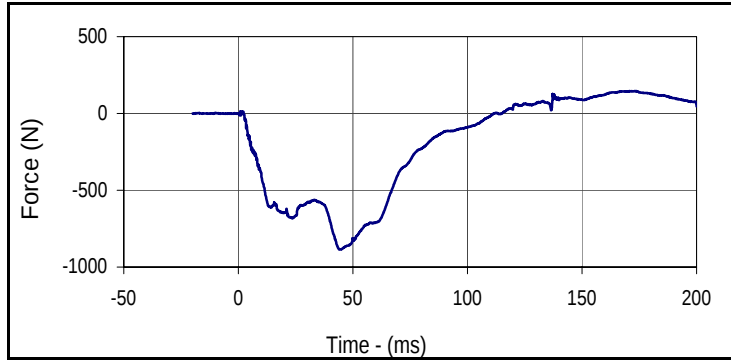
Curve Description			
"D" Plane Rotation			
Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
70.0	57.9	-39.5	169.4



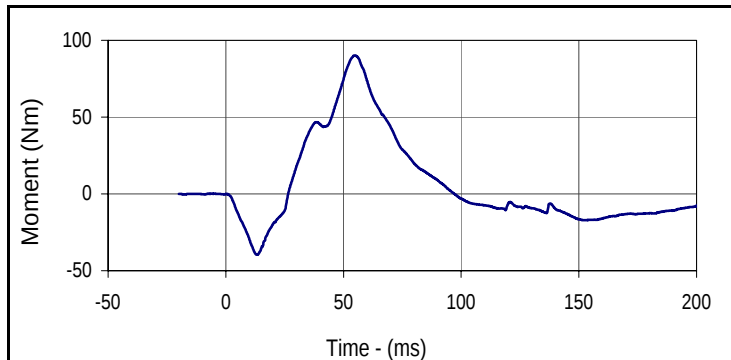
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
103.2	54.6	-28.9	13.2

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 360

Test Date: 12/5/16
 Test I.D.: M360NF020



Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
146.7	173.1	-886.2	44.6



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
90.1	54.9	-39.6	13.3

Test Program: Hybrid III 50th Percentile Male Neck Extension Test

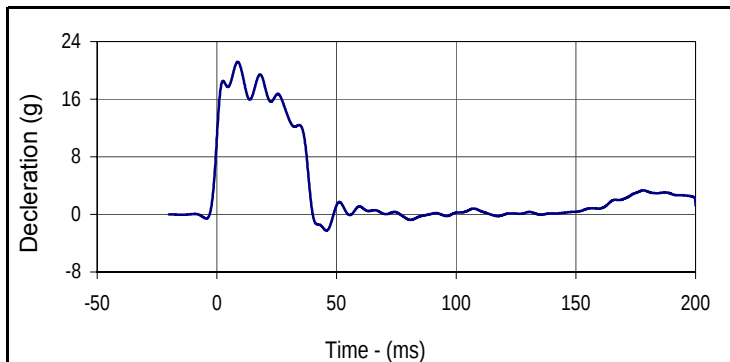
Test Date: 12/5/16

ATD Serial No.: 360

Test I.D.: M360NE020



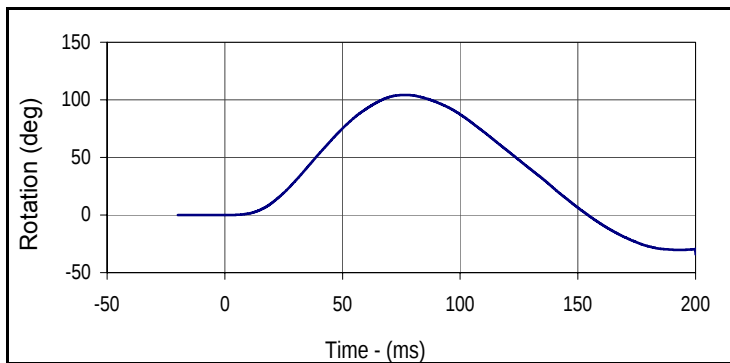
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	375	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.1	Pass
Humidity During Soak	Max	%	10.0 to 70.0	27.9	Pass
	Min	%		27.8	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.1	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	27.8	Pass
Pendulum Velocity		m/s	5.94 to 6.19	5.98	Pass
Pendulum Deceleration	10 Msec.	g	17.2 to 21.2	20.4	Pass
	20 Msec.	g	14.0 to 19.0	17.8	Pass
	30 Msec.	g	11.0 to 16.0	13.3	Pass
Peak Pendulum Decel. after 30 Msec.		g	≤ 22.0	13.3	Pass
Deceleration Decay, Time to Cross 5 G's		ms	38.0 to 46.0	38.4	Pass
Maximum "D" Plane Rotation	Max	deg	81.0 to 106.0	104.2	Pass
	Time	ms	72.0 to 82.0	76.8	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		ms	147.0 to 174.0	154.3	Pass
Moment About Occ. Condyle	Max	Nm	-52.9 to -79.9	-68.3	Pass
	Time	ms	65.0 to 79.0	69.5	Pass
Positive Moment Decay, Time To Zero Crossing		ms	120.0 to 148.0	144.6	Pass
Overall Test Results				Pass	



Curve Description

Pendulum Deceleration

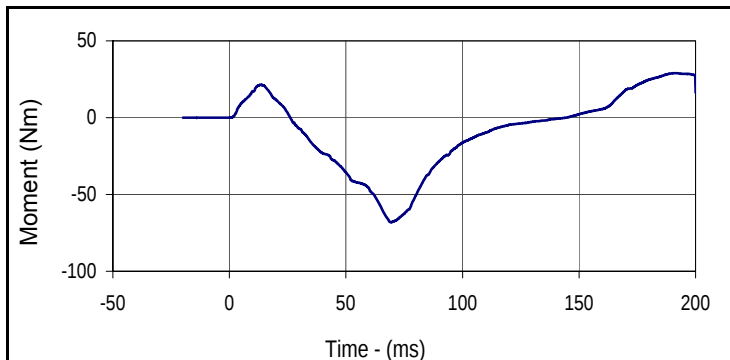
Plot No.	Type	SAE Class	Units
001	FIL	60	g
Max	Time	Min	Time
21.2	8.7	-2.2	45.8



Curve Description

"D" Plane Rotation

Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
104.2	76.8	-34.3	200.0



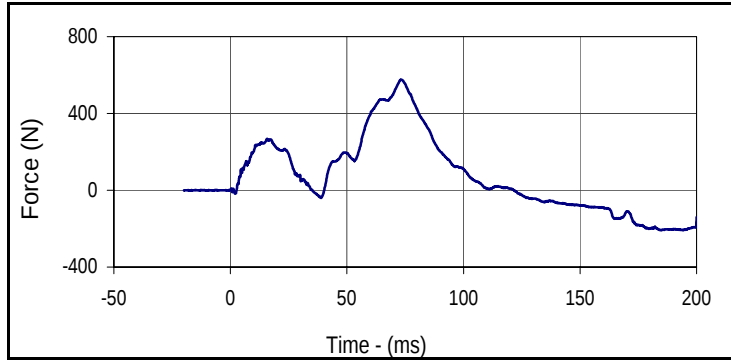
Curve Description

Moment About Occipital Condyle

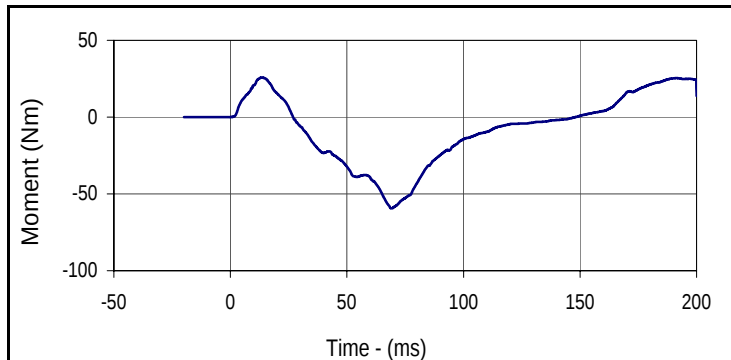
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
29.0	191.7	-68.3	69.5

Test Program: Hybrid III 50th Percentile Male Neck Extension Test
 ATD Serial No.: 360

Test Date: 12/5/16
 Test I.D.: M360NE020



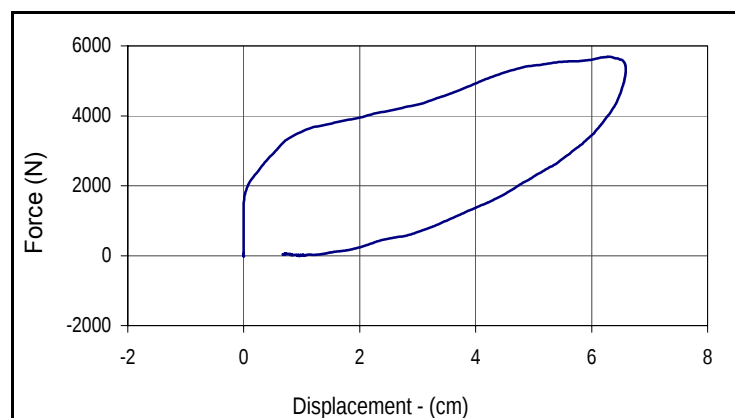
Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
575.9	73.3	-207.9	184.6



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
25.8	13.6	-59.5	69.5

Test Program: Hybrid III 50th Percentile Male Thorax Impact TestTest Date: 12/5/16ATD Serial No.: 360Test I.D.: M360CH020

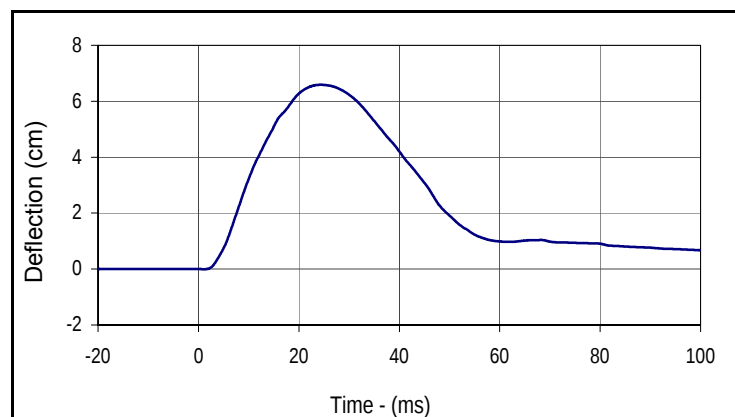
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥240	450	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.1	Pass
Humidity During Soak	Max	%	10.0 to 70.0	27.9	Pass
	Min	%		27.8	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	27.8	Pass
Probe Velocity		m/s	6.58 to 6.82	6.72	Pass
Peak Probe Force		N	5159 to 5893	5688	Pass
Peak Sternum Deflection		cm	6.35 to 7.26	6.59	Pass
Internal Hysteresis		%	69 to 85	70.8	Pass
Overall Test Results				Pass	



Curve Description

Probe Force vs. Chest Deflection

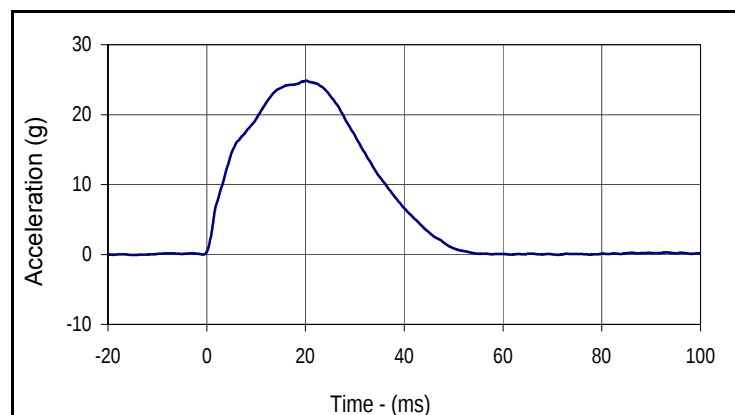
Plot No.	Type	SAE Class	Hysteresis
001	FIL	180	70.8
Peak Probe Force		Peak Chest Deflection	
5688		6.59	



Curve Description

Chest Deflection

Plot No.	Type	SAE Class	Units
002	FIL	180	cm
Max	Time	Min	Time
6.6	24.4	0.0	1.1



Curve Description

Impactor Acceleration

Plot No.	Type	SAE Class	Units
003	FIL	180	g
Max	Time	Min	Time
24.8	20.2	-0.1	-15.0

Test Program: Hybrid III 50th Percentile Male Knee Impact Test

Test Date: 12/5/16

ATD Serial No.: 360

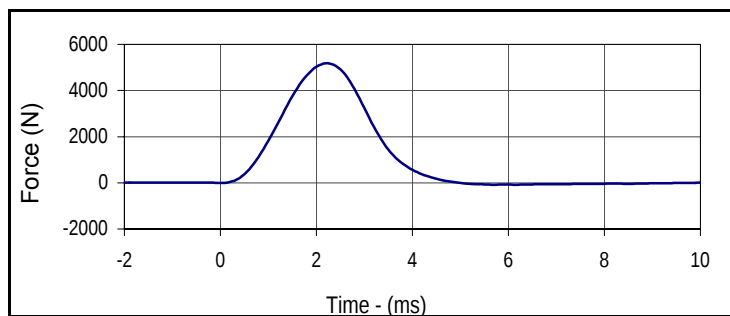
Test I.D.: M360LK020, M360RK020

**Left Knee**

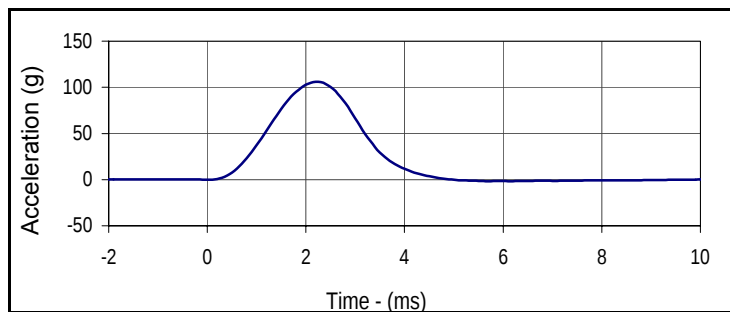
Tested Parameter		Units	Specification	Result	Pass/Fail
Knee Assembly Soak Time		Minutes	≥240	505	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.1	Pass
Humidity During Soak	Max	%	10.0 to 70.0	27.9	Pass
	Min	%		27.8	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	27.9	Pass
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.09	Pass
Peak Probe Force		N	4715 to 5782	5177	Pass
Overall Test Results				Pass	

Right Knee

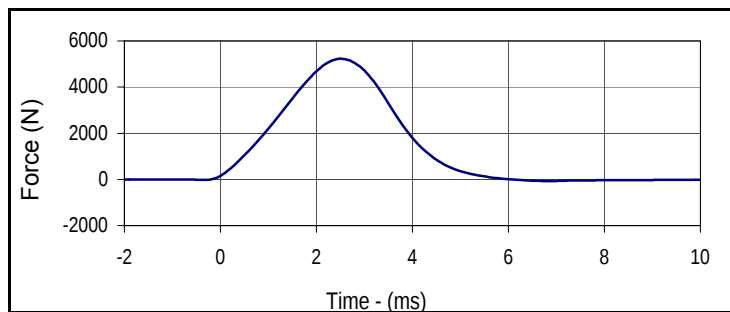
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.09	Pass
Peak Probe Force		N	4715 to 5782	5232	Pass
Overall Test Results				Pass	

**Curve Description****Left Knee Probe Force**

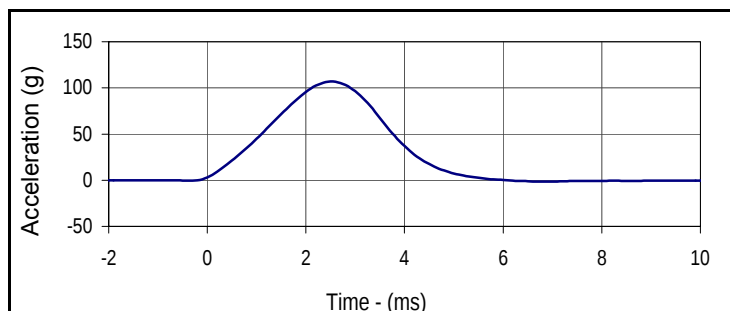
Plot No.	Type	SAE Class	Units
001	FIL	600	N
Max	Time	Min	Time
5177.3	2.2	-82.0	6.1

**Curve Description****Left Knee Acceleration**

Plot No.	Type	SAE Class	Units
002	FIL	600	g
Max	Time	Min	Time
105.8	2.2	-1.7	6.1

**Curve Description****Right Knee Probe Force**

Plot No.	Type	SAE Class	Units
003	FIL	600	N
Max	Time	Min	Time
5232.2	2.5	-73.5	6.9

**Curve Description****Right Knee Acceleration**

Plot No.	Type	SAE Class	Units
004	FIL	600	g
Max	Time	Min	Time
106.9	2.5	-1.5	6.9

Test Program: Hybrid III 50th Percentile Male Hip Joint-Femur Flexion Test
 ATD Serial No.: 360

Test Date: 12/5/16
 Test I.D.: M360LF020, M360RF020

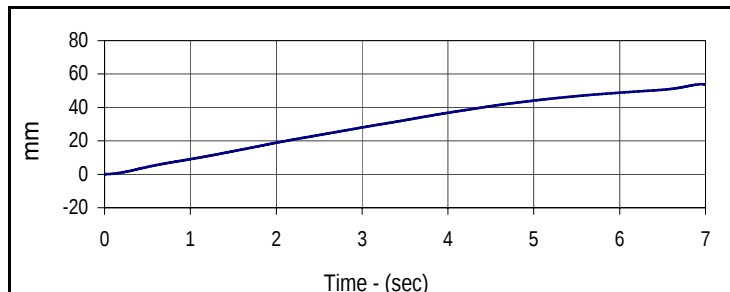


Left Hip Joint-Femur Results

Tested Parameter	Units	Specification	Result	Pass/Fail
Hip Joint-Femur Assembly Soak Time	Minutes	≥240	580	Pass
Temperature During Soak	Max	18.9 to 25.6	21.6	Pass
	Min		21.1	Pass
Humidity During Soak	Max	10.0 to 70.0	27.9	Pass
	Min		27.8	Pass
Laboratory Temperature During Test	°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test	%	10.0 to 70.0	27.9	Pass
Rotation Rate	deg/sec	5 to 10	7.8	Pass
Femur Torque at 30°	Nm	≤ 95	71.3	Pass
Rotation at 203 Nm	Degrees	40.0 to 50.0	41.8	Pass
Overall Test Results				Pass

Right Hip Joint-Femur Results

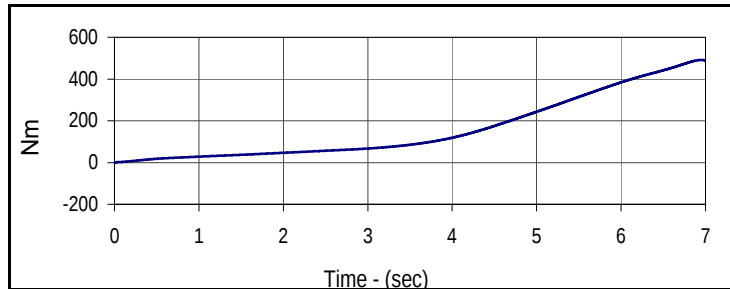
Rotation Rate	deg/sec	5 to 10	7.7	Pass
Femur Torque at 30°	Nm	≤ 95	70.5	Pass
Rotation at 203 Nm	Degrees	40.0 to 50.0	41.9	Pass
Overall Test Results				Pass



Curve Description

Left Hip-Femur Rotation

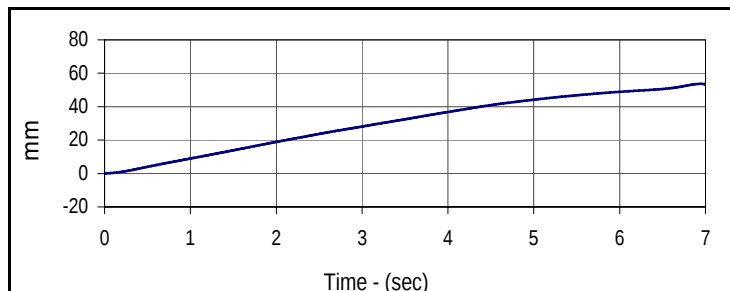
Plot No.	Type	SAE Class	Units
001	FIL	60	mm
Max	Time	Min	Time
53.9	6.9	0.0	0.0



Curve Description

Left Femur Torque

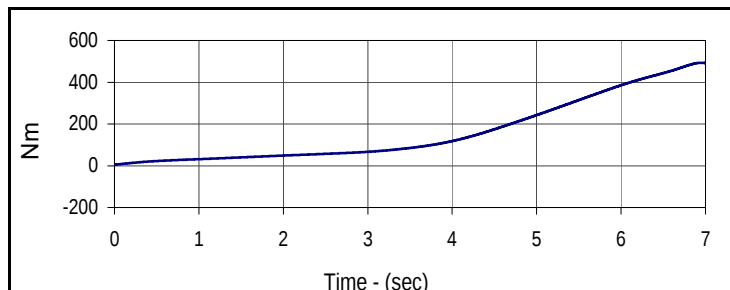
Plot No.	Type	SAE Class	Units
002	FIL	600	Nm
Max	Time	Min	Time
491.3	7.0	0.0	0.0



Curve Description

Right Hip-Femur Rotation

Plot No.	Type	SAE Class	Units
003	FIL	60	mm
Max	Time	Min	Time
53.7	6.9	0.0	0.0



Curve Description

Right Femur Torque

Plot No.	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
493.4	7.0	0.0	0.0

Test Program: Hybrid III 5th Percentile Female Dummy Damage ChecklistTest Date: 12/6/16ATD Serial No.: 635Test I.D.: N/A

Dummy Item	Inspect for	Comments	Damaged	OK
Entire Dummy	Perform general cleaning			X
Outer Skin	Gashes, rips, cracks			X
Head	Ballast secure			X
	General appearance			X
Neck	Broken or cracked rubber			X
	Upper neck bracket firmly attached to the lower neck bracket			X
	Looseness at the condyle joint			X
	Nodding blocks cracked or out of position			X
Spine	Broken or cracks in rubber			X
Ribs	Broken or bent ribs			X
	Broken or bent rib supports			X
	Damping material separated or cracked			X
	Rubber bumpers in place			X
Chest Displacement Assembly	Bent shaft			X
	Slider arm riding in track			X
Transducer Leads	Torn cables			X
Accelerometer Mountings	Head mounting secure			X
	Chest mounting secure			X
Knees	Skin condition			X
	Insert (do not remove)			X
	Casting			X
Limbs	Normal movement and adjustment			X
Knee Sliders	Wires intact			X
	Rubber returned to "at rest" position			X
Pelvis	Broken			X
Other				X

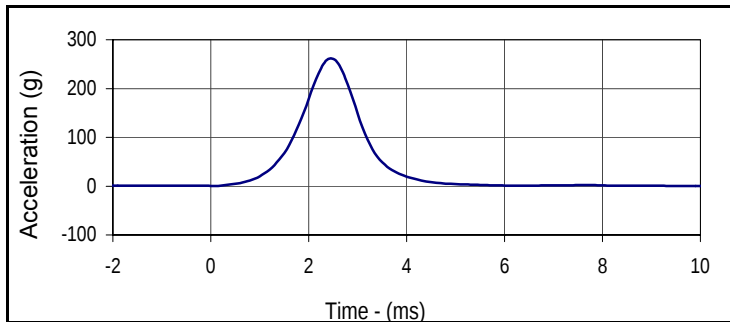
Describe the repair on or replacement of parts:

Test Program: Hybrid III 5th Percentile Female External MeasurementsTest Date: 12/6/16ATD Serial No.: 635Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.63	Pass
Laboratory Relative Humidity	%	10 to 70	27.9	Pass
A - Total sitting height	mm	774.7 to 800.1	786	Pass
B - Shoulder pivot height	mm	431.8 to 457.2	450	Pass
C - H point height	mm	81.3 to 86.3	85	Pass
D - H point location from backline	mm	144.8 to 149.8	146	Pass
E - Shoulder pivot from backline	mm	68.6 to 83.8	77	Pass
F - Thigh clearance	mm	119.4 to 134.6	126	Pass
G - Back of elbow to wrist pivot	mm	243.9 to 259.1	250	Pass
H - Head back to backline	mm	40.7 to 45.7	44	Pass
I - Shoulder to elbow length	mm	276.8 to 297.2	285	Pass
J - Elbow rest height	mm	182.8 to 203.2	198	Pass
K - Buttock to knee length	mm	520.7 to 546.1	531	Pass
L - Popliteal length	mm	355.6 to 376.0	371	Pass
M - Knee pivot height	mm	393.7 to 419.1	402	Pass
N - Buttock popliteal length	mm	414.0 to 439.4	420	Pass
O - Chest depth without jacket	mm	175.3 to 190.5	186	Pass
P - Foot length	mm	218.5 to 233.7	221	Pass
R - Buttock to Knee Pivot Length	mm	457.2 to 482.6	473	Pass
S - Head Breadth	mm	137.1 to 147.3	144	Pass
T - Head Depth	mm	177.8 to 188.0	180	Pass
U - Hip Breadth	mm	299.7 to 314.9	302	Pass
V - Shoulder breadth	mm	350.5 to 365.7	359	Pass
W - Foot breadth	mm	78.8 to 94.0	90	Pass
X - Head circumference	mm	528.3 to 548.7	541	Pass
Y - Chest circumference (with chest jacket)	mm	850.8 to 881.3	864	Pass
Z - Waist circumference	mm	759.5 to 789.9	766	Pass
AA - Location for chest circumference	mm	299.7 to 309.9	300	Pass
BB - Location for waist circumference	mm	160.1 to 170.2	164	Pass
Overall Test Results				Pass

Test Program: Hybrid III 5th Percentile Female Head Drop TestTest Date: 12/6/16ATD Serial No.: 635Test I.D.: F635HD055

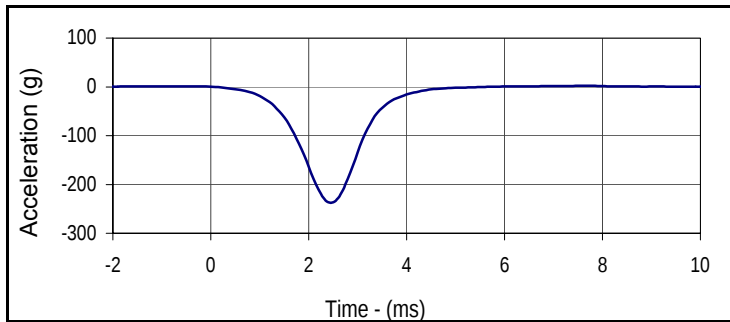
Tested Parameter		Units	Specification	Result	Pass/Fail
Head Assembly Soak Time		Minutes	≥240	465	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	28.1	Pass
	Min	%		27.9	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	27.9	Pass
Peak Resultant Acceleration		g	250.0 to 300.0	260.7	Pass
Peak Lateral Acceleration		g	≤15.0	2.6	Pass
Oscillations After Main Pulse		%	<10% of peak Res. Acceleration	4.9	Pass
Is Acceleration Unimodal?		Yes/No	Yes	Yes	Pass
Overall Test Results				Pass	



Curve Description

Head Resultant

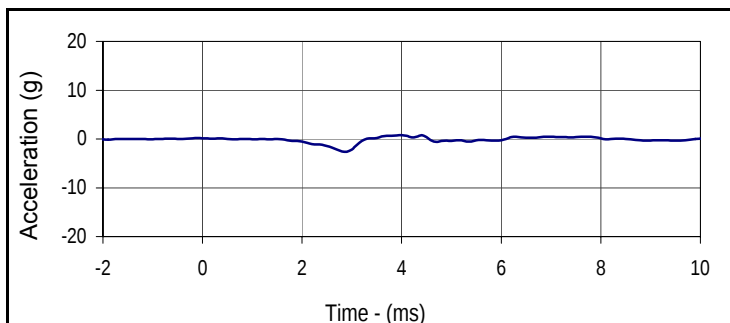
Plot No.	Type	SAE Class	Units
001	RES	1000	g
Max	Time	Min	Time
260.7	2.5	0.1	0.1



Curve Description

Head X

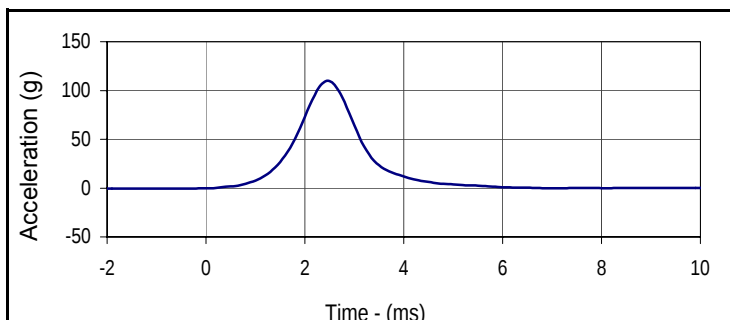
Plot No.	Type	SAE Class	Units
002	FIL	1000	g
Max	Time	Min	Time
2.1	7.7	-236.6	2.5



Curve Description

Head Y

Plot No.	Type	SAE Class	Units
003	FIL	1000	g
Max	Time	Min	Time
0.8	4.0	-2.6	2.9



Curve Description

Head Z

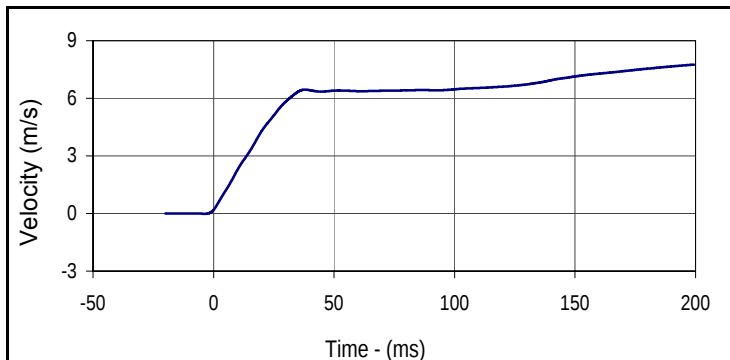
Plot No.	Type	SAE Class	Units
004	FIL	1000	g
Max	Time	Min	Time
109.5	2.5	-0.8	22.5

Test Program: Hybrid III 5th Percentile Female Neck Flexion Test
 ATD Serial No.: 635

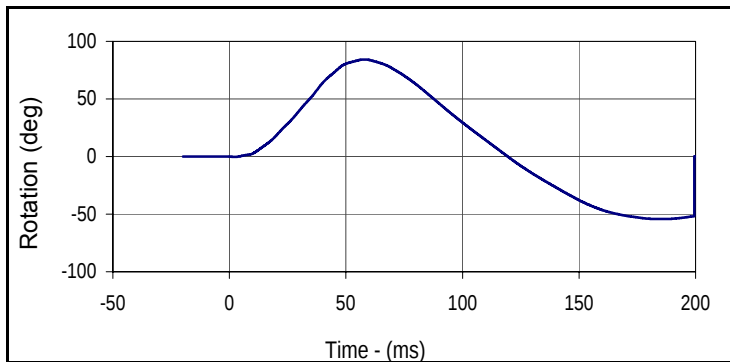
Test Date: 12/6/16
 Test I.D.: F635NF055



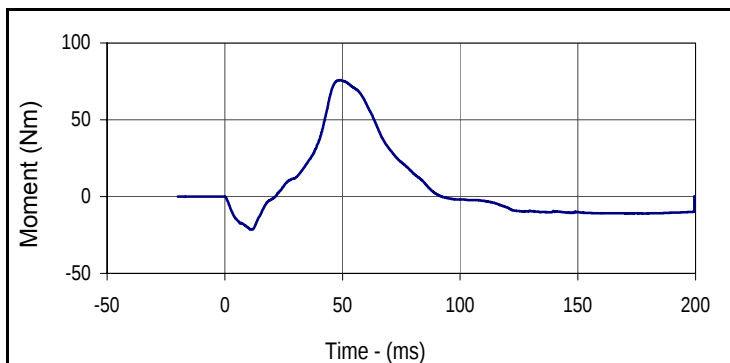
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	530	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	28.1	Pass
	Min	%		27.9	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.6	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.0	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.92	Pass
Pendulum Deceleration	10 Msec.	m/s	2.1 to 2.5	2.3	Pass
	20 Msec.	m/s	4.0 to 5.0	4.3	Pass
	30 Msec.	m/s	5.8 to 7.0	5.8	Pass
"D" Plane Rotation	Max	deg	77.0 to 91.0	84.3	Pass
Peak Moment in Rotation	Max	Nm	69.0 to 83.0	75.8	Pass
Positive Moment Decay, Time To 10 Nm		ms	80.0 to 100.0	83.1	Pass
Overall Test Results					Pass



Curve Description			
Pendulum Velocity			
Plot No.	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
7.8	199.9	0.0	-3.0



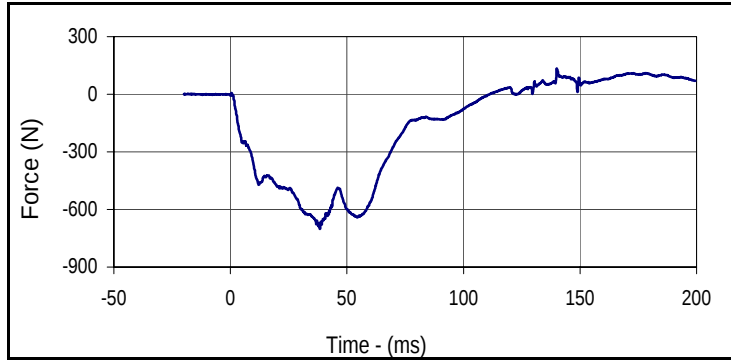
Curve Description			
"D" Plane Rotation			
Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
84.3	57.9	-54.3	185.8



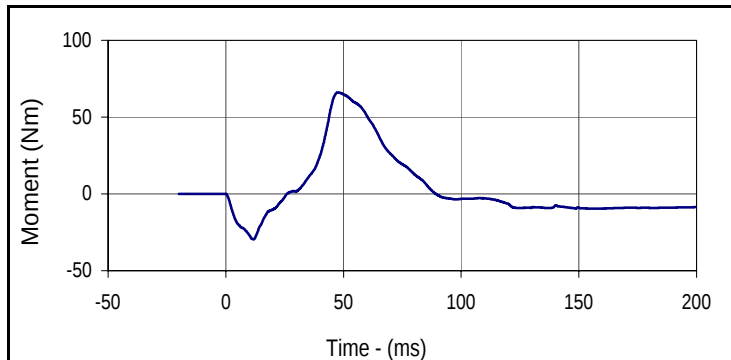
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
75.8	48.8	-21.5	11.0

Test Program: Hybrid III 5th Percentile Female Neck Flexion Test
 ATD Serial No.: 635

Test Date: 12/6/16
 Test I.D.: F635NF055



Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
134.0	140.5	-701.3	38.9



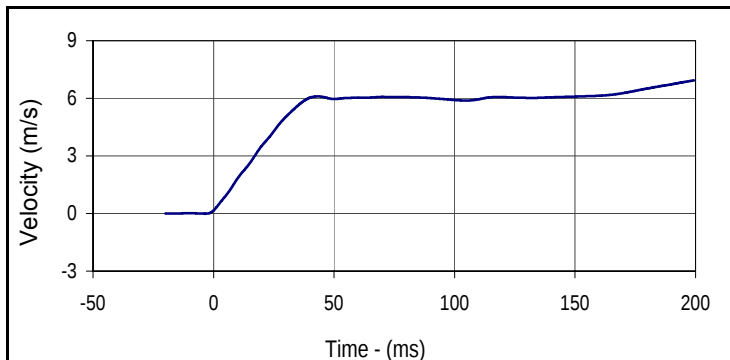
Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
66.1	48.4	-29.5	12.4

Test Program: Hybrid III 5th Percentile Female Neck Extension Test
 ATD Serial No.: 635

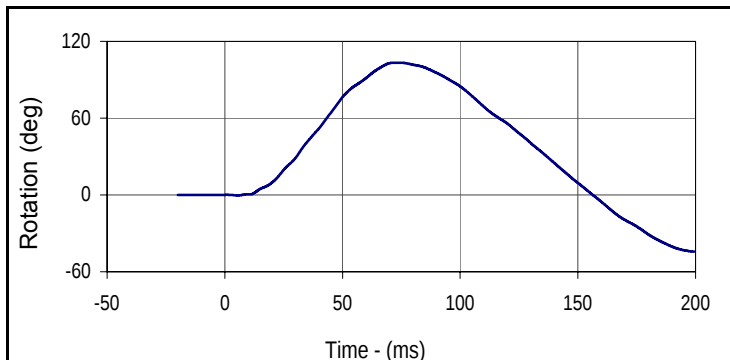
Test Date: 12/6/16
 Test I.D.: F635NE056



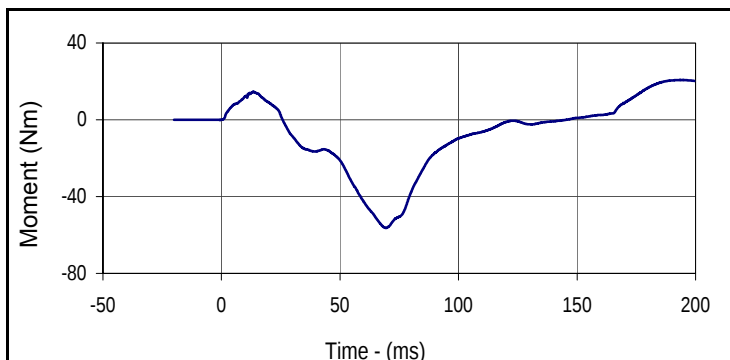
Tested Parameter		Units	Specification	Result	Pass/Fail
Neck Assembly Soak Time		Minutes	≥240	595	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	28.1	Pass
	Min	%		27.9	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.0	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.01	Pass
Pendulum Deceleration	10 Msec.	m/s	1.5 to 1.9	1.8	Pass
	20 Msec.	m/s	3.1 to 3.9	3.5	Pass
	30 Msec.	m/s	4.6 to 5.6	5.0	Pass
"D" Plane Rotation	Max	deg	99.0 to 114.0	103.3	Pass
Peak Moment in Rotation	Max	Nm	-53.0 to -65.0	-56.3	Pass
Positive Moment Decay, Time To -10 Nm		ms	94.0 to 114.0	99.5	Pass
Overall Test Results					Pass



Curve Description			
Pendulum Velocity			
Plot No.	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
6.9	199.4	0.0	-3.4



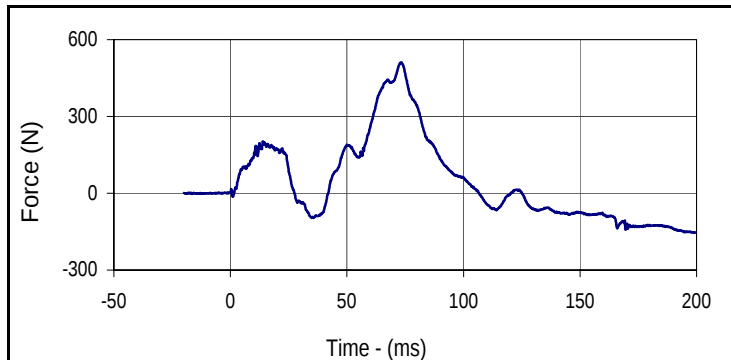
Curve Description			
"D" Plane Rotation			
Plot No.	Type	SAE Class	Units
002	FIL	60	deg
Max	Time	Min	Time
103.3	72.6	-44.3	199.4



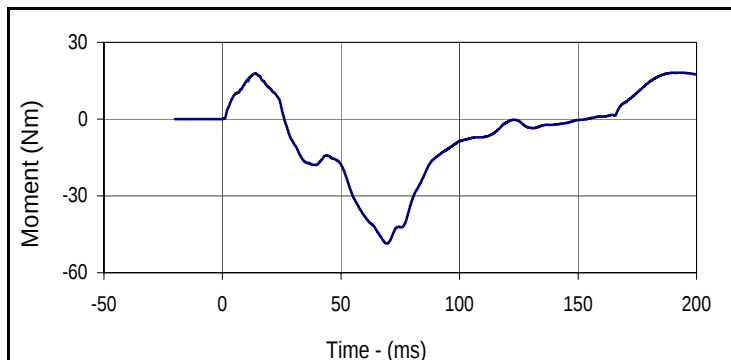
Curve Description			
Moment About Occipital Condyle			
Plot No.	Type	SAE Class	Units
003	FIL	600	Nm
Max	Time	Min	Time
20.8	194.8	-56.3	69.5

Test Program: Hybrid III 5th Percentile Female Neck Extension Test
 ATD Serial No.: 635

Test Date: 12/6/16
 Test I.D.: F635NE056



Curve Description			
Neck Force X			
Plot No.	Type	SAE Class	Units
004	FIL	1000	N
Max	Time	Min	Time
511.8	73.2	-154.2	199.4



Curve Description			
Neck Moment Y			
Plot No.	Type	SAE Class	Units
005	FIL	600	Nm
Max	Time	Min	Time
18.2	193.5	-48.6	69.5

Test Program: Hybrid III 5th Percentile Female Thorax Impact Test

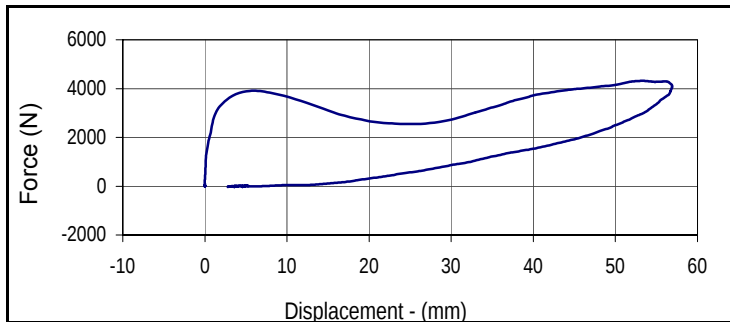
Test Date: 12/6/16



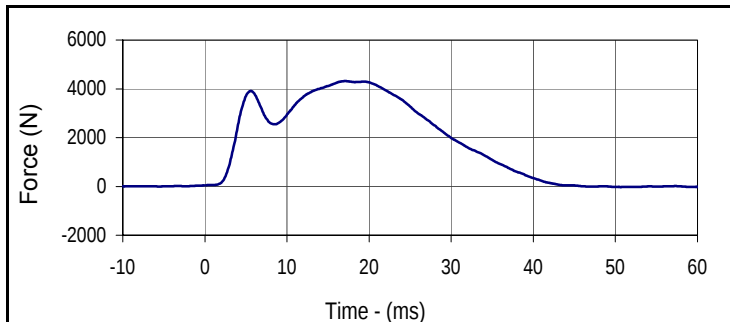
ATD Serial No.: 635

Test I.D.: F635CH056

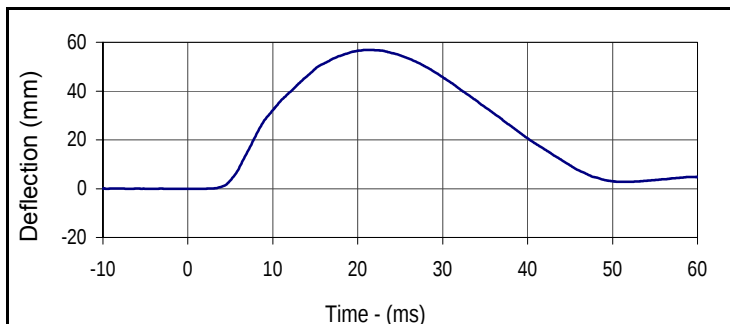
Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥240	640	Pass
Temperature During Soak	Max	°C	20.6 to 22.2	21.6	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	28.1	Pass
	Min	%		27.9	Pass
Laboratory Temperature During Test		°C	20.6 to 22.2	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.0	Pass
Probe Velocity		m/s	6.59 to 6.83	6.71	Pass
Peak Chest Deflection		mm	50.0 to 58.0	56.9	Pass
Peak Force Between 50 and 58 MM		N	3900 to 4400	4168	Pass
Peak Force Between 18 and 50 MM		N	≤4600	4317	Pass
Internal Hysteresis		%	69 to 85	69.0	Pass
Overall Test Results					Pass



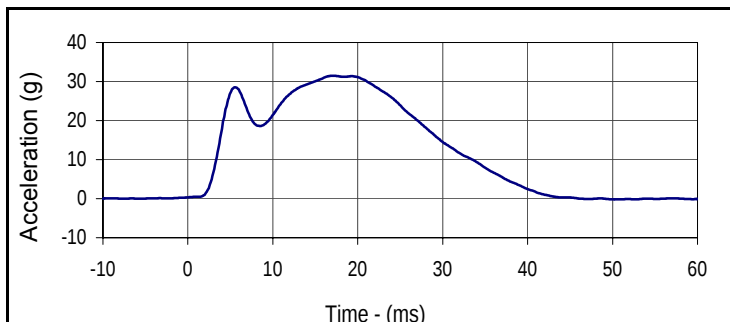
Curve Description			
Probe Force vs. Chest Deflection			
Plot No.	Type	SAE Class	Hysteresis
001	FIL	180	69.0
Peak Probe Force		Peak Chest Deflection	
4317.5		56.9	



Curve Description			
Probe Force			
Plot No.	Type	SAE Class	Units
002	FIL	180	N
Max	Time	Min	Time
4317.5	17.1	-32.1	83.9



Curve Description			
Chest Deflection			
Plot No.	Type	SAE Class	Units
003	FIL	600	mm
Max	Time	Min	Time
56.9	21.2	0.0	-3.9



Curve Description			
Impactor Acceleration			
Plot No.	Type	SAE Class	Units
004	FIL	180	g
Max	Time	Min	Time
31.5	17.1	-0.2	83.9

Test Program: Hybrid III 5th Percentile Female Knee Impact Test
 ATD Serial No.: 635

Test Date: 12/6/16
 Test I.D.: F635LK056 , F635RK056

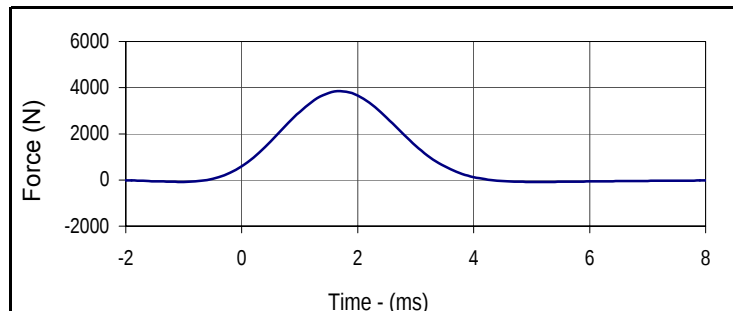


Left Knee

Tested Parameter		Units	Specification	Result	Pass/Fail
Knee Assembly Soak Time		Minutes	≥240	695	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	28.1	Pass
	Min	%		27.9	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.07	Pass
Peak Probe Force		N	3450 to 4060	3852	Pass
Overall Test Results					Pass

Right Knee

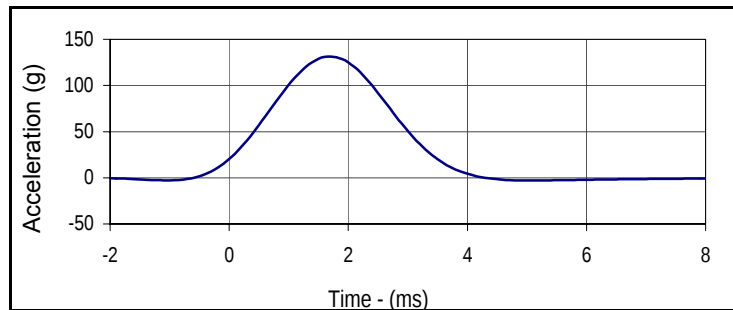
Pendulum Velocity at T=0		m/sec	2.07 to 2.13	2.08	Pass
Peak Probe Force		N	3450 to 4060	4042	Pass
Overall Test Results					Pass



Curve Description

Left Knee Probe Force

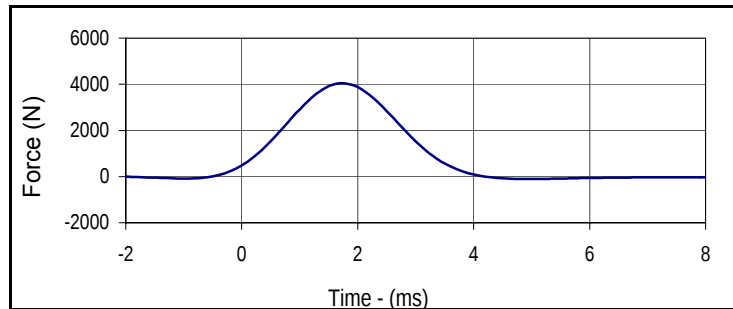
Plot No.	Type	SAE Class	Units
001	FIL	180	N
Max	Time	Min	Time
3851.9	1.7	-85.7	5.1



Curve Description

Left Knee Acceleration

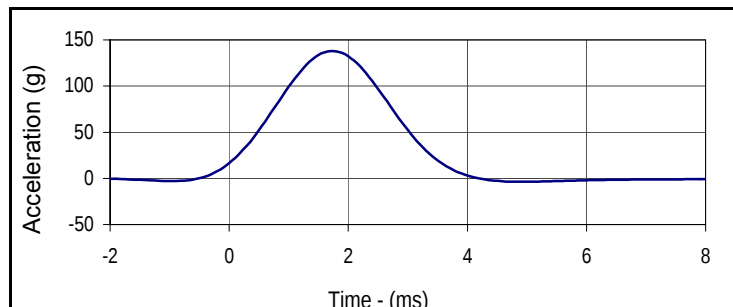
Plot No.	Type	SAE Class	Units
002	FIL	180	g
Max	Time	Min	Time
131.4	1.7	-2.9	5.1



Curve Description

Right Knee Probe Force

Plot No.	Type	SAE Class	Units
003	FIL	180	N
Max	Time	Min	Time
4041.6	1.7	-105.8	4.9



Curve Description

Right Knee Acceleration

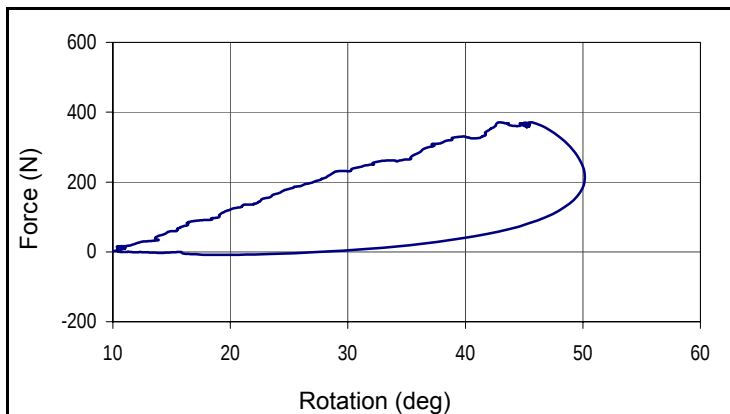
Plot No.	Type	SAE Class	Units
004	FIL	180	g
Max	Time	Min	Time
137.9	1.7	-3.6	4.9

Test Program: Hybrid III 5th Percentile Female Torso Flexion Test
 ATD Serial No.: 635

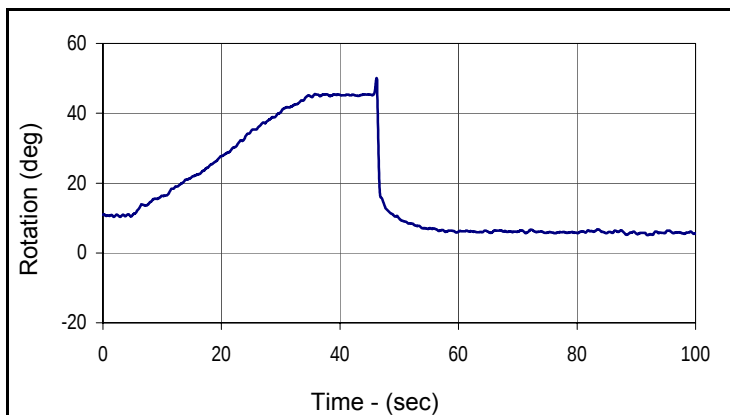
Test Date: 12/6/16
 Test I.D.: TF056



Tested Parameter		Units	Specification	Result	Pass/Fail
Dummy Soak Time		Minutes	≥240	760	Pass
Temperature During Soak	Max	°C	18.9 to 25.6	21.6	Pass
	Min	°C		21.5	Pass
Humidity During Soak	Max	%	10.0 to 70.0	28.1	Pass
	Min	%		27.9	Pass
Laboratory Temperature During Test		°C	18.9 to 25.6	21.5	Pass
Laboratory Humidity During Test		%	10.0 to 70.0	28.1	Pass
Initial Reference Plane Angle		deg	≤ 20	10.9	Pass
Peak Force at 45° +/-0.5°		N	320.0 to 390.0	370.8	Pass
Torso Rotation Rate		deg/s	0.5 to 1.5	1.1	Pass
Final Reference Plane Angle		deg	+/-8	5.6	Pass
Overall Test Results				Pass	



Curve Description		
Force vs Torso Rotation		
Plot No.	Type	Filter Freq
001	FIL	1 Hz
Peak Force		Peak Rotation
371.0		50.1



Curve Description			
Torso Rotation			
Plot No.	Type	Filter Freq	Units
002	FIL	1 Hz	deg
Max	Time	Min	Time
50.1	46.2	5.1	91.9