

REPORT NUMBER TR-P26019-01-NC

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**FORD MOTOR COMPANY
2006 FORD FUSION
4-DOOR SEDAN**

NHTSA NUMBER: F60201

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FINAL REPORT

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16. Abstract A 55/28 km/h 90 deg. Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2006 Ford Fusion 4-Door Sedan in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedures for the generation of consumer information on vehicle side crash protection. The test was conducted at KARCO Engineering, LLC laboratories in Adelanto, California, on January 12, 2005. The impact velocity of the Moving Deformable Barrier was 62.55 km/h, and the outside ambient temperature at the struck (driver's) side of the vehicle was 15.0 deg. C. The target vehicle's maximum post-test static crush was 322 mm located at level 3. The test vehicle's occupant performance data is as follows:																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Measurement Description</th> <th style="width: 15%;">Driver SID/HIII</th> <th style="width: 15%;">Pass. SID/HIII</th> <th style="width: 35%;"></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td style="text-align: center;">48.4</td> <td style="text-align: center;">59.4</td> <td rowspan="5"></td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">50.9</td> <td style="text-align: center;">59.2</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">51.3</td> <td style="text-align: center;">57.5</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">51.0</td> <td style="text-align: center;">58.0</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">78.0</td> <td style="text-align: center;">76.9</td> </tr> </tbody> </table>				Measurement Description	Driver SID/HIII	Pass. SID/HIII		Left Upper Rib (LUR) G's	48.4	59.4		Left Lower Rib (LLR) G's	50.9	59.2	Lower Spine (T ₁₂) G's	51.3	57.5	Thoracic Trauma Index (TTI) G's	51.0	58.0	Pelvis (PEV) G's	78.0	76.9
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SECTION 1
PURPOSE AND TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2006 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-03-D-32005. The purpose of this test is to generate comparative side impact data on a 2006 Ford Fusion 4-Door Sedan manufactured by Ford Motor Company.

1.2 TEST PROCEDURE

The side impact test was conducted in accordance with the current National Highway Traffic Safety Administration (NHTSA), Office of Crashworthiness Standards (OCS), laboratory test procedure NCAP Side Impact Testing, dated November 2002. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2
SUMMARY OF SIDE IMPACT TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2006 Ford Fusion 4-Door Sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.55 km/h. The specified impact velocity range is from 61.14 to 62.75 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 1714 kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on January 12, 2006.

Three (3) real-time cameras and eleven (11) high-speed video cameras were used to document the impact event. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID/HIIs can be found in Appendix A. Two 50th percentile adult male Side Impact Dummies, Hybrid III (SID/HIIIs) were placed in the driver's and left rear passenger designated seating positions according to the test procedure. Each SID/HIII is instrumented with contact switches on the pelvis, thorax and six-axis neck load cells, and fourteen accelerometers in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y, and Z axes primary and redundant)

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front Driver		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	No	
Side Torso Airbag	Yes	Yes	No	
Head Airbag	No		No	
Curtain Airbag	Yes	Yes	Yes	Yes

SECTION 2...(CONTINUED)

The test vehicle was instrumented with twenty-one (21) structural accelerometers and the MDB was instrumented with five (5) accelerometers and one (1) contact switch on the right bumper to compare left side to right side bumper impact timing. All data channels were recorded with the fully self contained on-board Data Acquisition System (DAS). The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The driver and passenger doors remained closed during impact. The test vehicle sustained a maximum static crush of 322 mm at level 3, 750 mm rearward of the left vertical impact point. The driver SID/Hybrid III, Serial No. 275 and the passenger SID/Hybrid III, Serial No. 274 were calibrated prior to this test. The SID/Hybrid III injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	51.0	58.0
Peak Pelvic G's (PEV)	G's	78.0	76.9

Tests summaries and post-test observations are presented in Section 3. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID/HIIIs, vehicle, and MDB response data traces. Appendix C contains the SID Configuration and performance verification data.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION SHEETS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	$=(t_f - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	F60201
Make	Ford
Model	Fusion
Body Style	4-Door Sedan
Vin No.	3FAHP08Z36R114543
Color	White
Delivery Date	1/5/2006
Odometer	137.7
Dealer	Sunrise Ford
Transmission	5-Speed Automatic
Final Drive	Front
Type/No. Cyl.	Inline 4 Cyl.
Engine Disp. (L)	2.3
Engine Placement	Transverse
Roof Rack	No
Sunroof/T-Top	No
Tinted Glass	Yes
Traction Control	No
Power Brakes	Yes
Front Disc	Yes
Rear Disc	Yes

Anti-Lock Brakes	Yes
All Wheel Drive	No
Power Steering	Yes
Driver Front Airbag	Yes
Driver Side Airbag	Yes
Driver Head Airbag	No
Driver Curtain Airbag	Yes
Pass. Airbag	Yes
Pass. Side Airbag	Yes
Pass. Head Airbag	No
Pass. Curtain Airbag	Yes
Pre-Tensioners	Yes
Load Limiters	Yes
Bucket Seats	Yes
Air. Cond.	Yes
AM/FM Cassette	Yes
Tilt Steering	Yes
Automatic Door Locks	Yes
Power Windows	Yes
Power Seats	Yes
Other	None

Does Owners Manual provide instructions to turn off automatic door locks.

Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Company
Date of Manufacture	Oct-05

GVWR (kg)	1923
GAWR Front (kg)	1030
GAWR Rear (kg)	916

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bucket		
Number of Occupants	2	3		5
Capacity Weight (VCW) (kg)				385
Cargo Weight (RCLW) (kg)				45

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

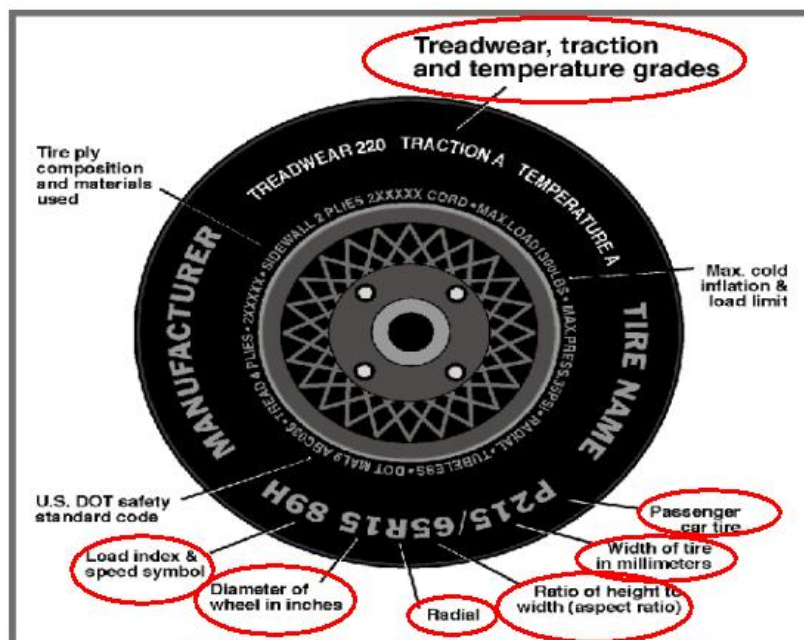
Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

Collect year, make, model, VIN, items circled in red, and tire manufacturer and tire name.



TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kpa)	300	300
Cold Pressure (kpa)	230	230
Recommended Tire Size	P225/50R17	P225/50R17
Tire Size on Vehicle	P225/50R17	P225/50R17
Tire Manufacturer	Michelin	Michelin
Treadwear	300	300
Traction	A	A
Temperature Grades	A	A
Tire Plies Sidewall	2 Polyester	2 Polyester
Tire Plies Body	2 Polyester + 1 Polyamide + 2 Steel	2 Polyester + 1 Polyamide + 2 Steel
Load Index/Speed Symbol	93V	93V
Tire Material	Polyester + Polyamide + Steel	Polyester + Polyamide + Steel
DOT Safety Code Right	B90A-DECX-3605	B90A-DECX-3605
DOT Safety Code Left	B90A-DECX-3605	B90A-DECX-3605

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	461	311		509	386	
Right	kg	445	298		462	357	
Ratio	%	59.8	40.2		56.6	43.4	
Totals	kg	906	609	1515	971	743	1714

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1515
Weight of 2 P572 ATD's	kg	162
Rated Cargo/Luggage Wt. (RCLW)	kg	45
Calculated Vehicle Target Wt. (TVTW)	kg	1722

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	712	719	716	724	1097
As Tested	mm	698	715	681	700	1185
Fully Loaded	mm	696	717	679	691	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2730
Total Vehicle Length at Left Side	mm	3125
Total Vehicle Length at Centerline	mm	4835
Total Vehicle Length at Right Side	mm	3125
Weight of Ballast In Cargo Area	kg	45
Amount of Stoddard Solvent in Fuel Tank	liters	61.7

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2730
Target Impact Point Aft of Front Axle	mm	425
Actual Impact Point Aft of Front Axle	mm	527

DATA SHEET NO. 1...(CONTINUED)

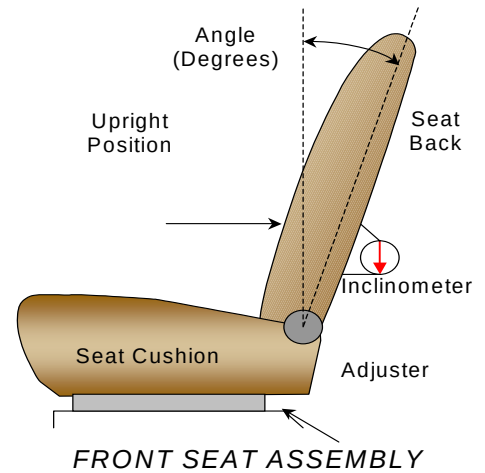
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2006 Ford Fusion 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: F60201
 Test Date: 1/12/06

NOMINAL DESIGN RIDING POSITION

The driver and passenger seat backs are positioned to the manufacturer's designated angle. The procedure is as follows: Seat back angle was measured at the headrest using a digital inclinometer.



SEAT BACK ANGLES

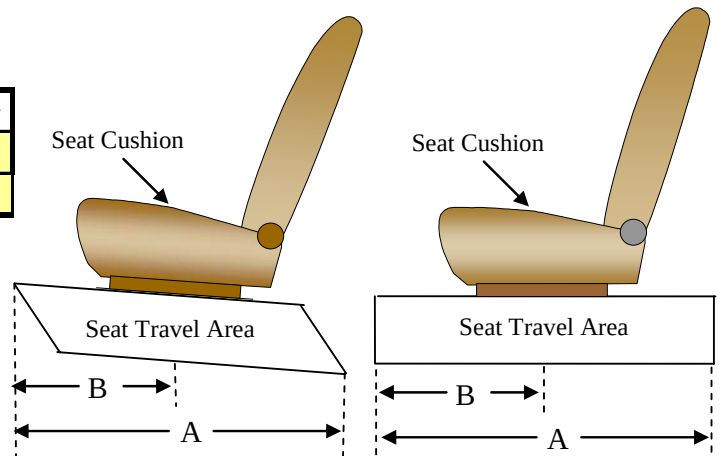
	Deg.
Driver Seat Back Angle	24.0
Rear Seat Back Angle	

SEAT FORE/AFT POSITIONS

The total seat travel was measured from forward most position to rearmost position, irrespective of vertical seat height in those positions. The seat was set at the longitudinal mid position with vertical adjustment at the lowest position obtainable for both the driver and passenger.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position #
Driver Seat	245 mm	122.5 mm
Rear Seat	Fixed	Fixed



SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position

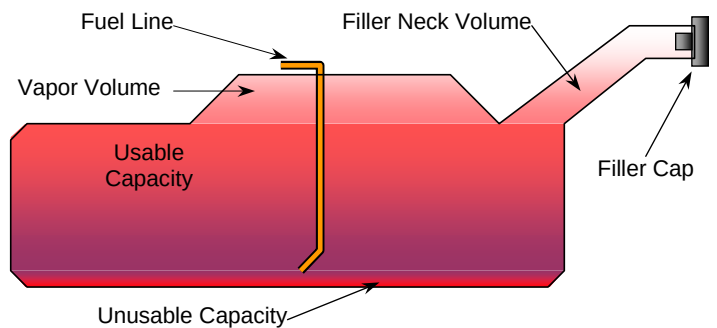
SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	4	2
Rear Seat	Fixed	Fixed

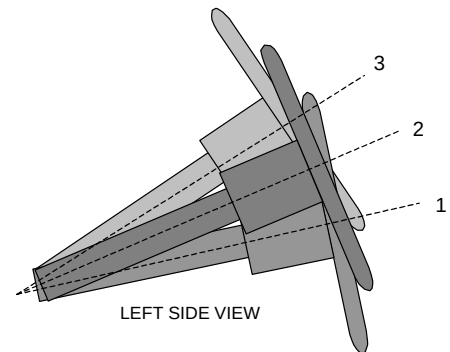
DATA SHEET NO. 1...(CONTINUED)**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2006 Ford Fusion 4-Door SedanNHTSA No.: F60201Test Program: 55/28 km/h Side Impact NCAPTest Date: 1/12/06**FUEL TANK CAPACITY**

	Liters
Usable Capacity of "Standard Tank"	66.2
Usable Capacity of "Optional" Tank	
Usable Capacity used for FMVSS 301	60.9 to 62.3
Actual Amount of Solvent used	61.7

The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.

**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. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed on the plate and the angle is measured.

**STEERING COLUMN ASSEMBLY****STEERING COLUMN POSITIONS**

	Degrees	Fore/Aft Position (mm)
Lowermost position No. 1	21.2	0
Geometric center position No. 2	23.4	25
Uppermost position No. 3	25.6	50

DATA SHEET NO. 2**TEST VEHICLE SUMMARY OF RESULTS**Test Vehicle: 2006 Ford Fusion 4-Door SedanNHTSA No.: F60201Test Program: 55/28 km/h Side Impact NCAPTest Date: 1/12/06**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UWW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	461	311		509	386	
Right	kg	445	298		462	357	
Ratio	%	59.8	40.2		56.6	43.4	
Totals	kg	906	609	1515	971	743	1714

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	122	232
Level 2	Occupant H-Point	mm	311	504
Level 3	Mid Door	mm	322	595
Level 4	Window Sill	mm	278	894
Level 5	Window top	mm	94	1259
N/A	Maximum Penetration	mm	322	

INSTRUMENTATION

Driver SID/Hybrid III Accelerometers	20
Passenger SID/Hybrid III Accelerometers	20
Vehicle Structure Accelerometers	21
MDB Accelerometers	5
Total No. of Contact Switches	5
Total	71

CAMERA COVERAGE

High Speed, Vehicle On-Board	3
High Speed, Off-Board	5
High Speed, MDB On-Board	3
Real Time, Panning	3
Total	14

DATA SHEET NO. 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**Test Vehicle: 2006 Ford Fusion 4-Door SedanNHTSA No.: F60201Test Program: 55/28 km/h Side Impact NCAPTest Date: 1/12/06**MDB SPECIFICATIONS (mm)**

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length including Honeycomb Face	4115
Wheel Base of Framework Carriage	2590
C.G. location aft of Front Axle	1127

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	384	308	
Right	kg	385	284	
Ratio	%	56.5	43.5	
Totals	kg	769	592	1361

SPEED AND IMPACT DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.55
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.63
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max. Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	left	732
B	Top of Bumper	533	800	left	716
C	Mid Level	686	700	left	705
D	Top of Stack	813	800	left	726

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	1
High Speed Cameras	2

DATA SHEET NO. 4

POST-TEST OBSERVATIONS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/Hybrid III	Rear Seat SID/Hybrid III
Dummy Type / Serial No.	P572F, SID / No. 275	P572F, SID / No. 274
Head Contact	Curtain Airbag	Side Header
Upper Torso Contact	Side Airbag, Door Panel	Door Panel
Lower Torso Contact	Door Panel	Door Panel
Left Knee Contact	Door Panel	Door Panel
Right Knee Contact	Left Knee	Left Knee

POST-TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Door remained closed and latched, jammed	Door remained closed and latched, jammed
Right Side Door Opening	Remained closed and latched, operational	Remained closed and latched, operational
Seat Movement	None	None
Seat Back Failure	None	None

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No separation
Sill Separation	None
Windshield Damage	Windshield cracked
Window Damage	Front and rear passenger side windows broke
Other Notable Effects	None

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01		Left Rear (Passenger) Occupant Location 04	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	No	No	
Side Torso Airbag	Yes	Yes	No	
Head Airbag	No		No	
Curtain Airbag	Yes	Yes	Yes	Yes
Seat Belt Pretensioner	Yes			
Seat Belt Load Limiter	Yes			

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	-40 (left)
Vertical Offset	mm	+/- 20	0

DATA SHEET NO. 5

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

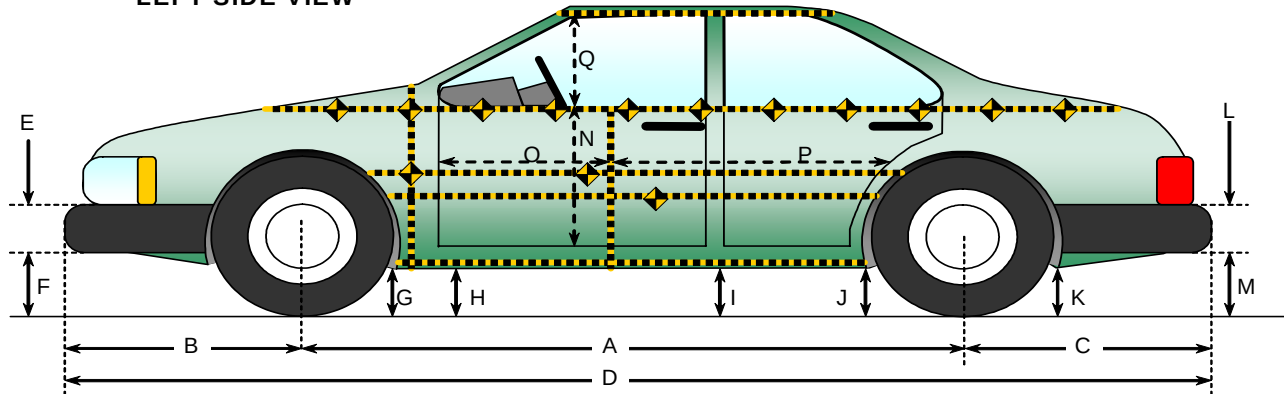
Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

LEFT SIDE VIEW



VEHICLE PRE AND POST TEST MEASUREMENT INFORMATION

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2730	2710	-20
B	Front Axle to FSOV	993	987	-6
C	Rear Axle to RSOV	1115	1115	0
D	Total Length at Centerline	4835	4810	-25
E	Front Bumper Thickness	325	346	21
F	Front Bumper Bottom to Ground	191	221	30
G	Sill Height at Front Wheel Well	186	178	-8
H	Sill Height at Front Door Leading Edge	187	223	36
I	Sill Height at "B" Pillar	185	246	61
J1	Sill Height at Rear Wheel Well	158	202	44
J2	Pinch Weld Height at Rear Wheel Well	181	241	60
K	Sill Height aft of Rear Wheel Well	231	303	72
L	Rear Bumper Thickness	327	327	0
M	Rear Bumper Bottom to Ground	291	379	88
N	Sill Height to Window Bottom Sill	685	615	-70
O	Front Door Leading Edge to Impact CL	840	800	-40
P	Rear Door Trailing Edge to Impact CL	1311	925	-386
Q	Front Window Opening	391	365	-26
R	Right Side Length	3124	3140	16
S	Left Side Length	3125	3072	-53
T	Vehicle Width at "B" Post	1814	1580	-234

DATA SHEET NO. 6

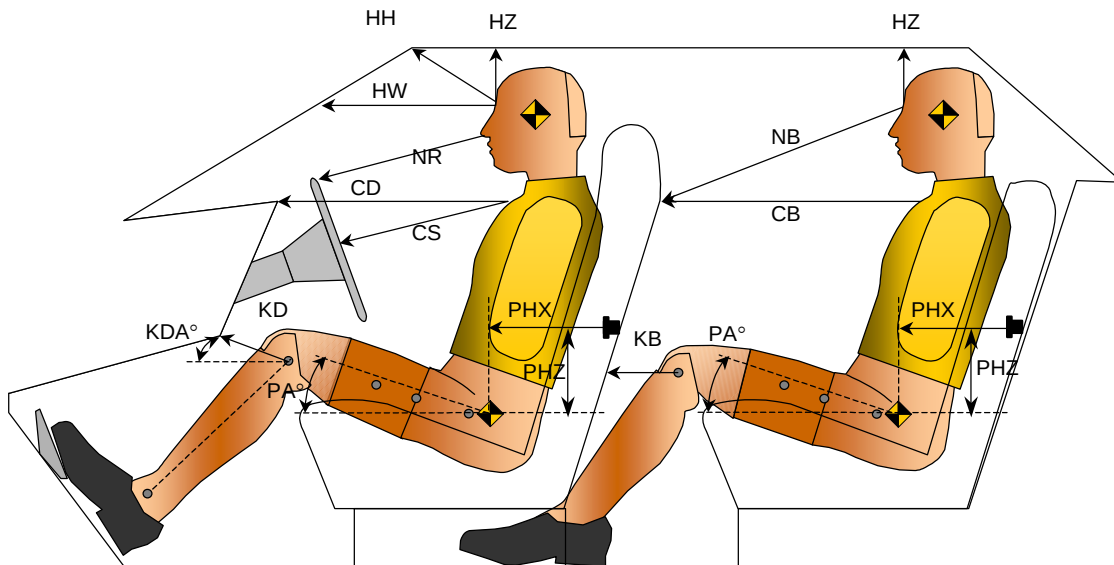
SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06



LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle	Length(mm)	Angle
HH		Head to Header	380	18.9		
HW		Head to Windshield	663			
HZ	HZ	Head to Roof	170	90.0	155	90.0
NR	NB	Nose to Rim/Nose to Seat Back	452	13.2	640	20.8
CD	CB	Chest to Dash or Seat Back	582	1.0	560	0.6
CS		Chest to Steering Wheel	295	3.4		
KDL	KBL	Left Knee to Dash or Seat Back	180	8.9	225	3.7
KDR	KBR	Right Knee to Dash or Seat Back	180		235	
PA	PA	Pelvic Angle		23.0		23.0
PHX	PHX	H-Point to Striker (X-Axis)	192		200	
PHZ	PHZ	H-Point to Striker (Z-Axis)	131		244	

DATA SHEET NO. 7

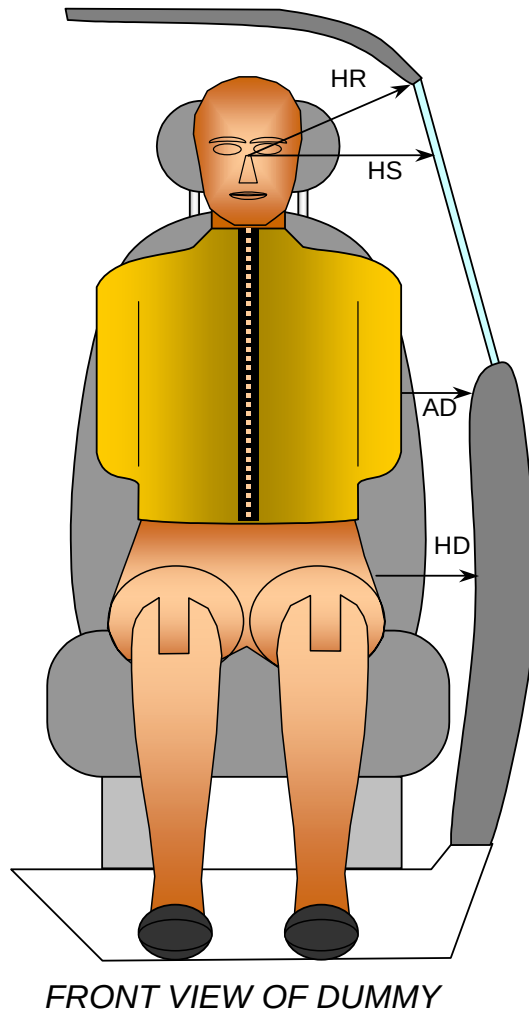
SID/IIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06



LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	275	256
HS	Head to Side Window	mm	348	355
AD	Arm to Door	mm	125	120
HD	H-Point to Door	mm	122	150

DATA SHEET NO. 8

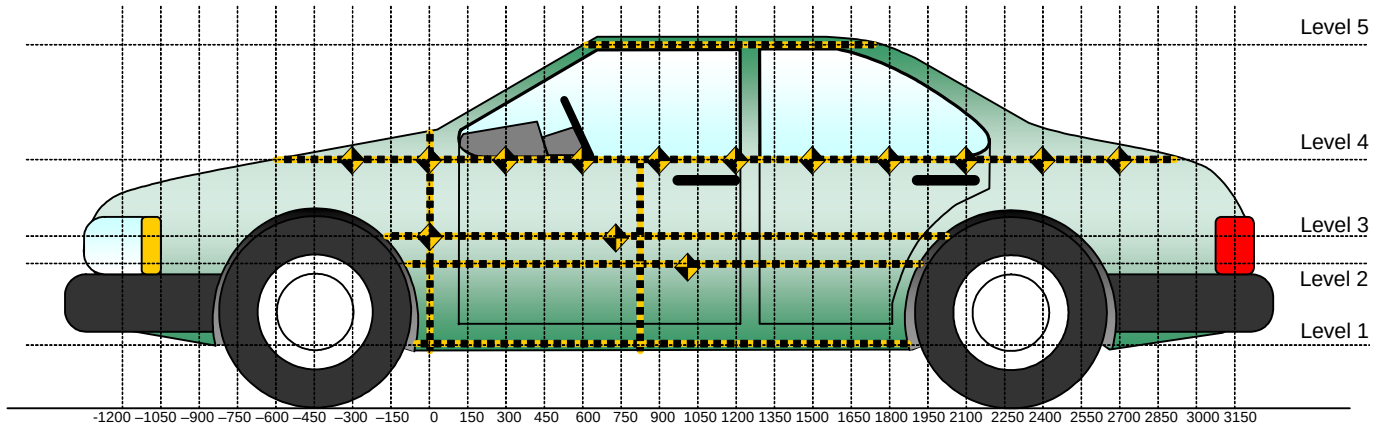
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.

Measurements taken 900 mm right of impact reference.

All measurements below in mm.

Level	Measurement Description	Height Above Ground
1	Sill Top	232
2	Occupant H-Point	504
3	Mid Door	595
4	Window Sill	894
5	Window Top	1259

DATA SHEET NO. 9

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

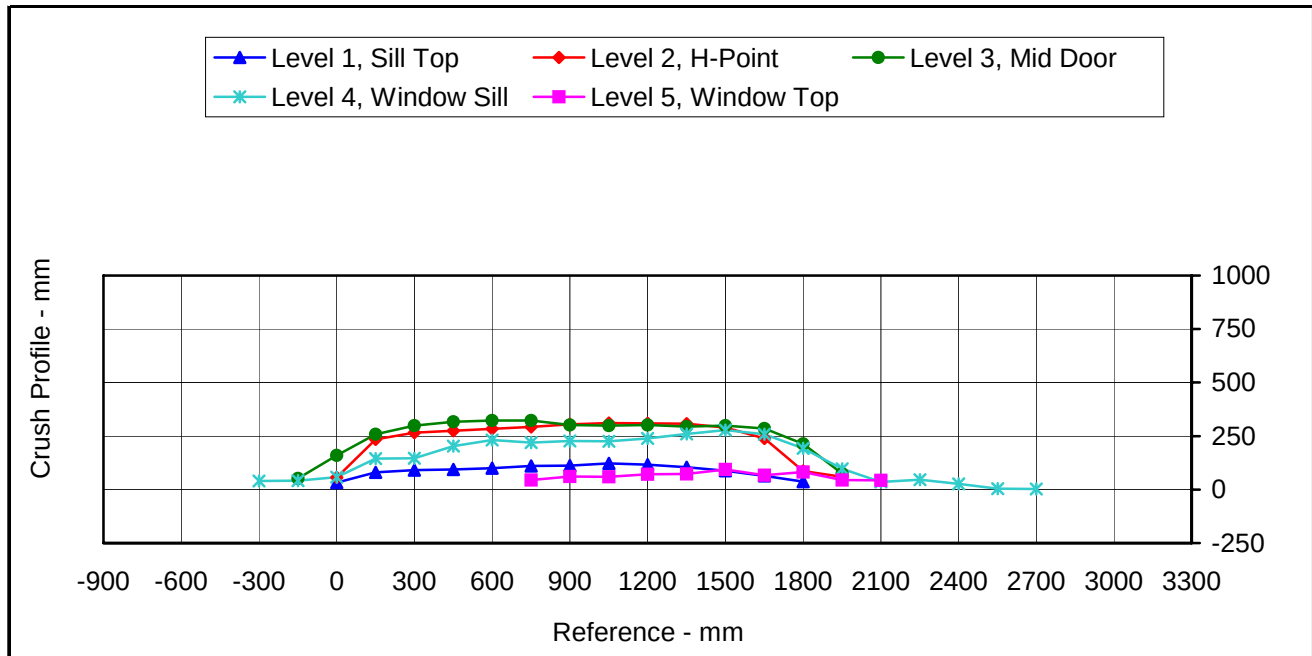
Test Date: 1/12/06

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600				725					727					2	
-450				725					732					7	
-300				697					737					40	
-150			599	685				651	726				52	41	
0	646	610	611	662		679	666	771	720		33	56	160	58	
150	652	616	609	656		733	851	868	801		81	235	259	145	
300	650	615	607	652		741	881	906	798		91	266	299	146	
450	652	615	606	646		746	890	923	849		94	275	317	203	
600	651	612	605	646		751	896	927	878		100	284	322	232	
750	651	613	604	652	909	761	906	926	872	954	110	293	322	220	45
900	654	612	604	642	885	766	916	906	869	946	112	304	302	227	61
1050	651	612	602	641	891	773	923	901	866	951	122	311	299	225	60
1200	654	614	605	646	895	771	923	907	885	966	117	309	302	239	71
1350	653	616	606	650	883	758	924	900	910	956	105	308	294	260	73
1500	655	621	608	648	882	743	911	907	926	976	88	290	299	278	94
1650	657	623	610	652	884	721	862	896	911	951	64	239	286	259	67
1800	662	621	612	654	885	699	708	826	847	967	37	87	214	193	82
1950		622	611	662	899		681	686	759	943		59	75	97	44
2100			611	662	909			670	698	952			59	36	43
2250				675					721					46	
2400				696					723					27	
2550				612					616					4	
2700				736					738					2	
2850				761					757					-4	
3000															

DATA SHEET NO. 9...(CONTINUED)
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2006 Ford Fusion 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: F60201
 Test Date: 1/12/06



	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	122	311	322	278	94
Distance from Impact	mm	1050	1050	750	1500	1500

DATA SHEET NO. 10

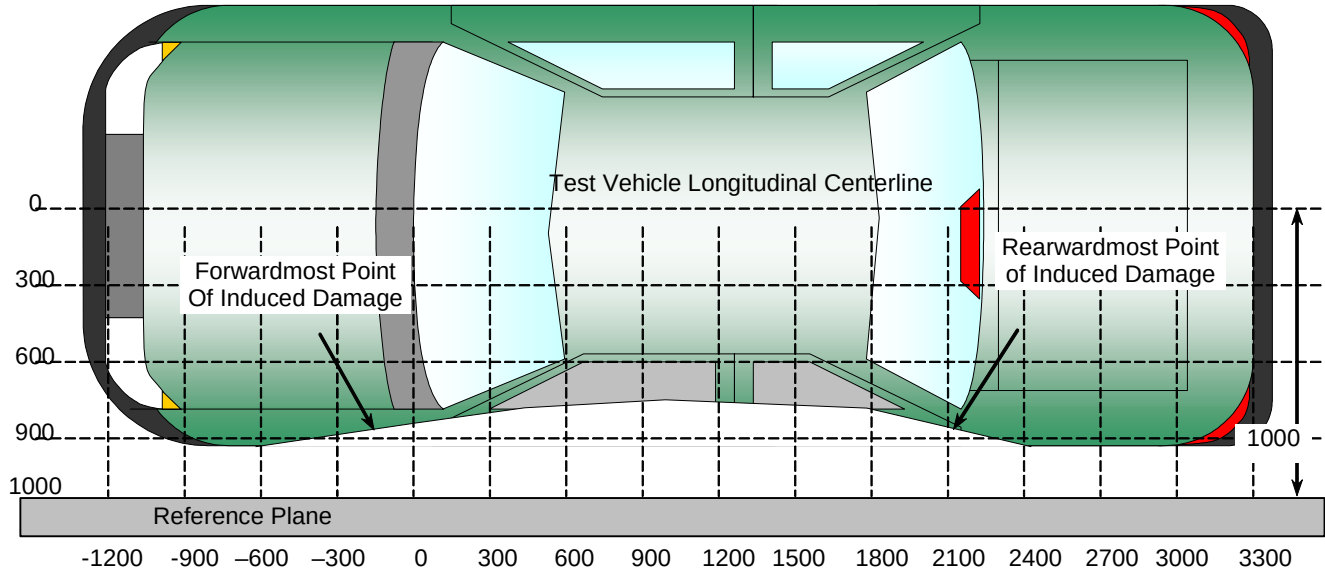
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06



All Dimensions Shown in millimeters

TOP VIEW

DAMAGE PROFILE DISTANCES

DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max. Static Crush (mm)
1	-450	4	725	732	7
2	150	3	609	868	259
3	750	3	604	926	322
4	1350	2	616	924	308
5	1950	4	662	759	97
6	2550	4	612	616	4

DATA SHEET NO. 11

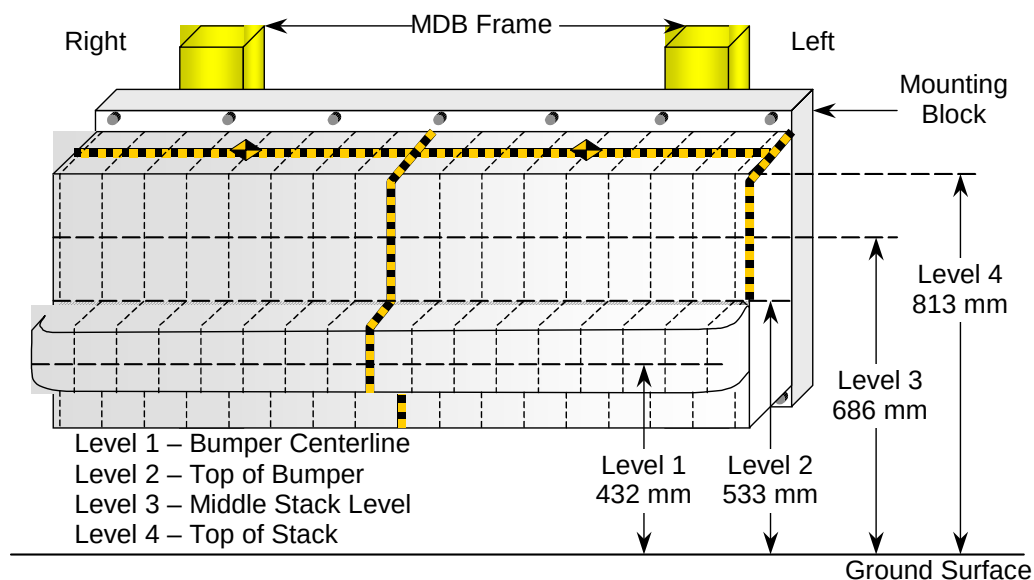
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06



DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								C/L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	662	627	616	619	635	670	679	666	649	639	630	626	630	646	671	696	732
2	653	629	629	631	640	667	671	656	643	639	636	634	634	637	644	666	716
3	702	691	689	686	681	676	669	676	663	662	666	674	682	688	696	705	700
4	726	676	668	666	658	659	653	648	650	640	639	640	642	644	646	668	696

All Dimensions in mm

DATA SHEET NO. 12

VEHICLE ACCELEROMETER LOCATIONS

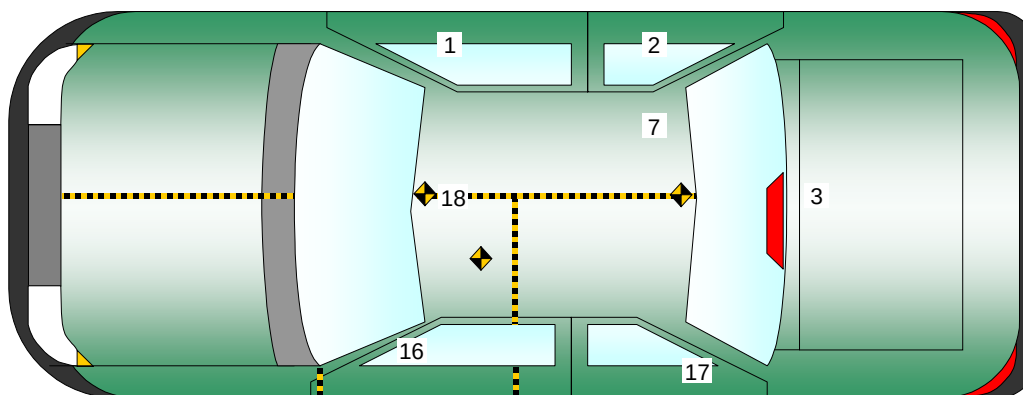
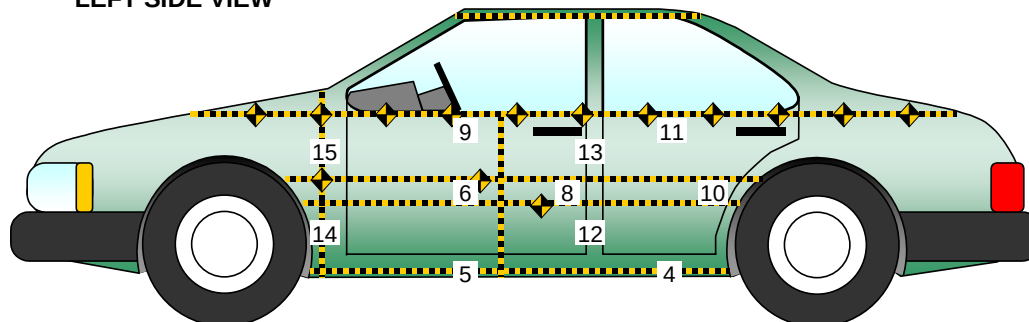
Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

LEFT SIDE VIEW



No.	Location
1	Right Sill at Front Seat
2	Right Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Sill at Rear Door
5	Left Sill at Front Door
6	Left Front Door Centerline
7	Right Rear Occupant Compartment
8	Left Front Door Mid-Rear
9	Left Front Door Upper Centerline

No.	Location
10	Left Rear Door Mid-Rear
11	Left Rear Door Upper Centerline
12	Left Lower B-Post
13	Left Middle B-Post
14	Left Lower A-Post
15	Left Middle A-Post
16	Front Seat Track
17	Rear Seat Track or Structure
18	Vehicle CG

DATA SHEET NO. 12...(CONTINUED)
VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2920	725	340
2	Right Sill at Rear Seat	1900	725	384
3	Rear Floorpan Above Axle	1110	0	630
4	Left Sill at Rear Door	1720	-875	180
5	Left Sill at Front Door	2580	-880	213
6	Front Door Centerline			
7	Rt. Rear Occ. Compartment	2103	355	533
8	Front Door Mid-Rear			
9	Front Door Upper Centerline			
10	Rear Door Mid-Rear			
11	Rear Door Upper Centerline			
12	B-Post Lower	2240	-732	670
13	B-Post Middle	2240	-732	824
14	A-Post Lower	3291	-780	535
15	A-Post Middle	3291	-780	680
16	Front Seat Track	2770	-625	350
17	Rear Seat Structure			
18	Vehicle CG	2985	250	250

Reference Planes: X=From Rear Surface of Vehicle, Y=Vehicle Centerline, Z=Ground Plane

1.) Not installed

DATA SHEET NO. 13
MDB ACCELEROMETER LOCATIONS

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

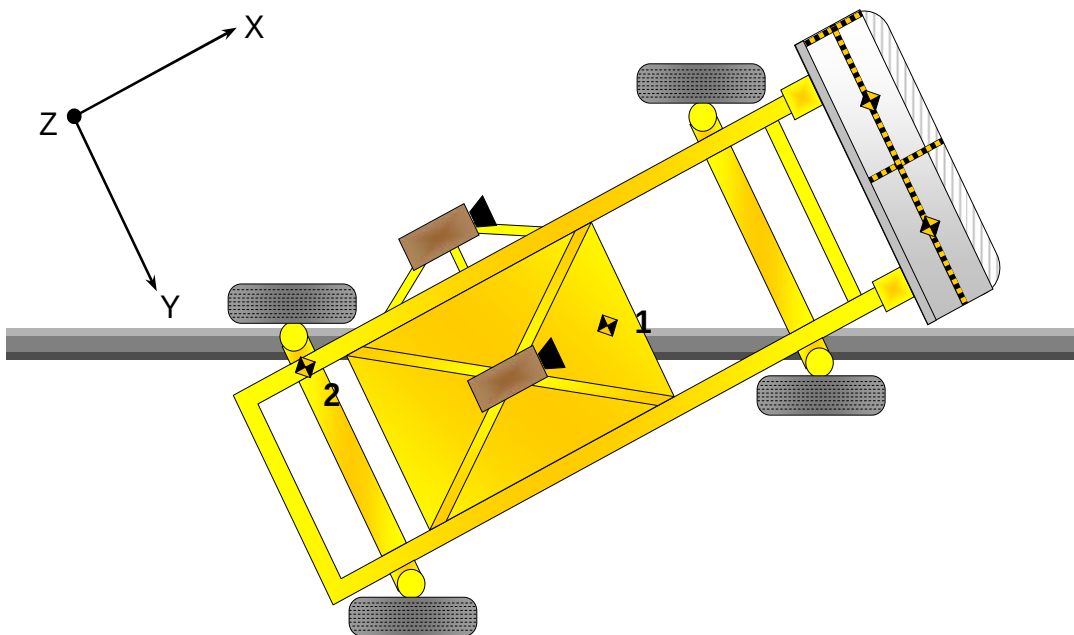
Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06

MDB ACCELEROMETER LOCATIONS

Loc. No.	Accelerometer Locations	Measurements (mm)		
		X	Y	Z
1	MDB CG	-1195	0	430
2	MDB Rear	-2642	-593	608

Reference Points: X - MDB Front Axle
Y - MDB Centerline
Z - Ground Plane



DATA SHEET NO. 14

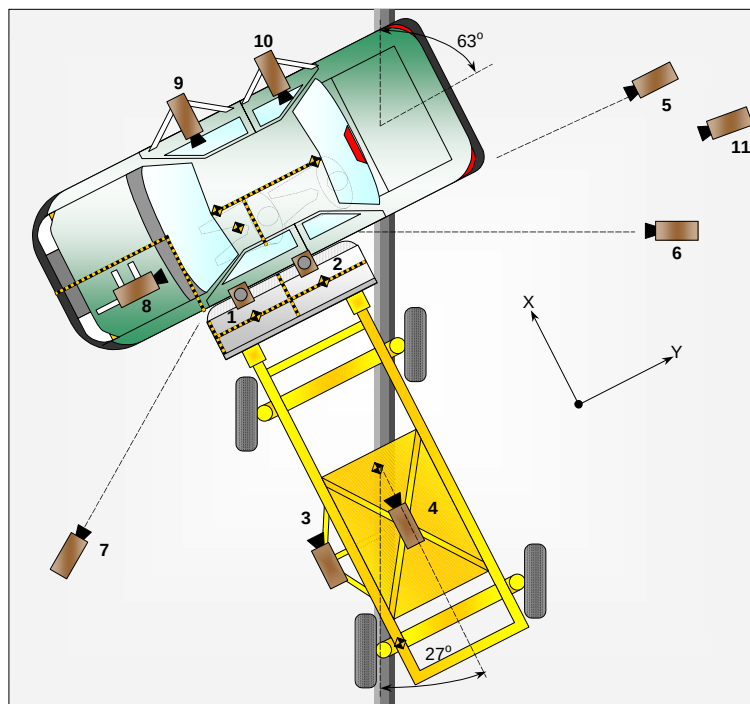
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2006 Ford Fusion 4-Door Sedan

NHTSA No.: F60201

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 1/12/06



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
Doc	Real Time Digital	3658	21530	-1727	-2		30
1	Overhead Overall	1220	2287	-5486	-90	14	1000
2	Overhead Close Up	609	2287	-5486	-90	22	1000
3	Left Impact Point (MDB)	-2134	0	-1143	-7	25	1000
4	Side Overall (MDB)	-3912	838	-1829	-11	12	1000
5	Rear	236	15545	-1371	-1	25	1000
6	Left Rear (MDB)	-2137	1302	-939	-4	24	1000
7	Left Front	-2666	3549	-1473	-4	24	1000
8	Driver Front (O.B.)	533	-275	-1237	-15	35	1000
9	Driver Side (O.B.)	1910	336	-1225	-2	20	1000
10	Passenger Side (O.B.)	1910	945	-1225	-2	20	1000
Doc	Real Time Digital	257	15563	-1371	0		30
Doc	Real Time Digital	-2685	3539	-1473	-2		30
11	Left Rear	-7100	16459	-839	0	40	1000

X = Barrier Face Y = Monorail Centerline Z = Ground DNR = Did Not Run NTM = No Timing Marks

DATA SHEET NO. 15

FMVSS 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2006 Ford Fusion 4-Door Sedan NHTSA No.: F60201
Test Program: 55/28 km/h Side Impact NCAP Test Date: 1/12/06

Test Time: 12:38 PM Temperature: 19.0 Deg. C.

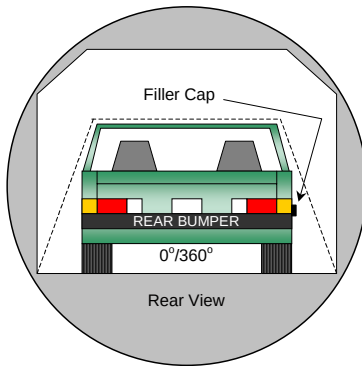
Stoddard Solvent Spillage Measurements

- A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)
- D. Spillage Details: No leakage occurred

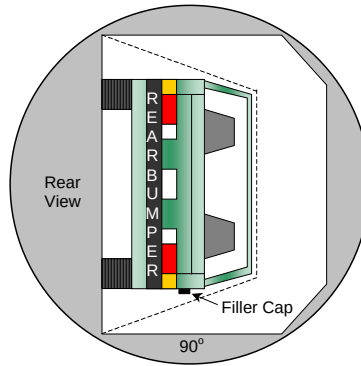
DATA SHEET NO. 16
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2006 Ford Fusion 4-Door Sedan
Test Program: 55/28 km/h Side Impact NCAP

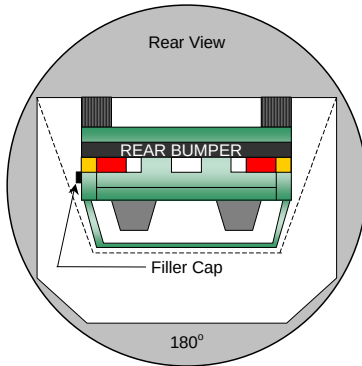
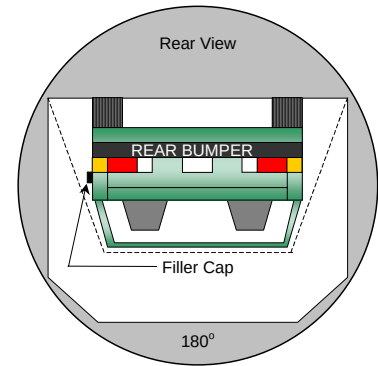
NHTSA No.: F60201
Test Date: 1/12/06



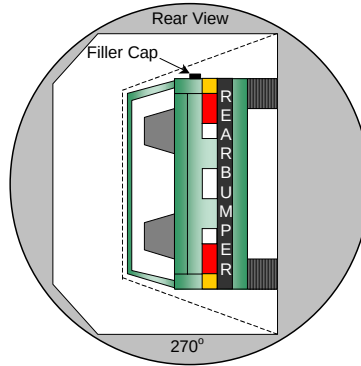
0° to 90°



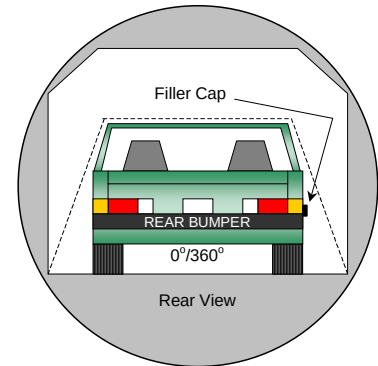
90° to 180°



180° to 270°



270° to 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
 2. The position hold time at each position is 300 seconds (minimum).
 3. Details of Stoddard Solvent spillage locations.
- No solvent leakage occurred during static rollover testing.

FMVSS 301 STATIC ROLLOVER DATA SHEETTest Vehicle: 2006 Ford Fusion 4-Door SedanNHTSA No.: F60201Test Program: 55/28 km/h Side Impact NCAPTest Date: 1/12/06**SOLVENT COLLECTION TIME TABLE IN SECONDS**

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	68	300	368
90° to 180°	78	300	378
180° to 270°	79	300	379
270° to 360°	68	300	368

FMVSS 301 SPILLAGE TABLE REQUIREMENT (oz.)

First 5 Minutes	5.0
Sixth Minute	1.0
Seventh Minute	1.0
Eighth Minute	1.0

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

SOLVENT SPILLAGE LOCATION TABLE

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

**APPENDIX A
PHOTOGRAPHS**

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Figure A-1: Left Front $\frac{3}{4}$ View, as Received



Figure A-2: Right Rear $\frac{3}{4}$ View, as Received

MFD. BY FORD MOTOR CO.

DATE: 10/05

GVWR: 1923KG/4240LB

FRONT GAWR: 1030KG/2270LB

REAR GAWR: 916KG/2020LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS
IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 3FAHP08Z36R114543

TYPE: Passenger Car

MAXIMUM LOAD = OCCUPANTS + LUGGAGE = 385KG/ 850LB

OCCUPANTS = 5 TOTAL; 2 FRONT, 3 REAR

TIRE (FR): P225/50R17

RIMS (FR): 17X7.0J

(RR): P225/50R17

(RR): 17X7.0J

PRESSURE (FR): 230 kPa/ 33 PSI COLD (RR): 230 kPa/ 33 PSI COLD



3FAHP08Z36R114543

TRAILER TOWING - SEE OWNER GUIDE

EXT PNT: YZ

RC: 71

DSO:

F0040

INT TR

TP/PS

R

AXLE

TR

SPR

6DE1F

R0043

BL

B

38

C

AA11

40B

CMC

▽5U5A-5420472-AA

Figure A-3: Manufacturer's Label



TIRE AND LOADING INFORMATION

SEATING CAPACITY

TOTAL : 5

FRONT: 2

REAR: 3

The combined weight of occupants
and cargo should never exceed : **385 kg or 850 lbs.**

▽ 5U5A-1532-AA (TLU)

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION
FRONT	P225/50R17	230 KPA, 33 PSI	
REAR	P225/50R17	230 KPA, 33 PSI	
SPARE	T145/80D16	415 KPA, 60 PSI	

3FAHP08Z36R114543



Figure A-4: Tire Placard



Figure A-5: Pre-Test Front View



Figure A-6: Post-Test Front View



Figure A-7: Pre-Test Left Front ¾ View



Figure A-8: Post-Test Left Front $\frac{3}{4}$ View



Figure A-9: Pre-Test Left Side View



Figure A-10: Post-Test Left Side View



Figure A-11: Pre-Test Left Rear $\frac{3}{4}$ View



Figure A-12: Post-Test Left Rear $\frac{3}{4}$ View



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



Figure A-15: Pre-Test Right Rear $\frac{3}{4}$ View



Figure A-16: Post-Test Right Rear $\frac{3}{4}$ View



Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



Figure A-19: Pre-Test Right Front $\frac{3}{4}$ View



Figure A-20: Post-Test Right Front $\frac{3}{4}$ View



Figure A-21: Pre-Test Overhead View

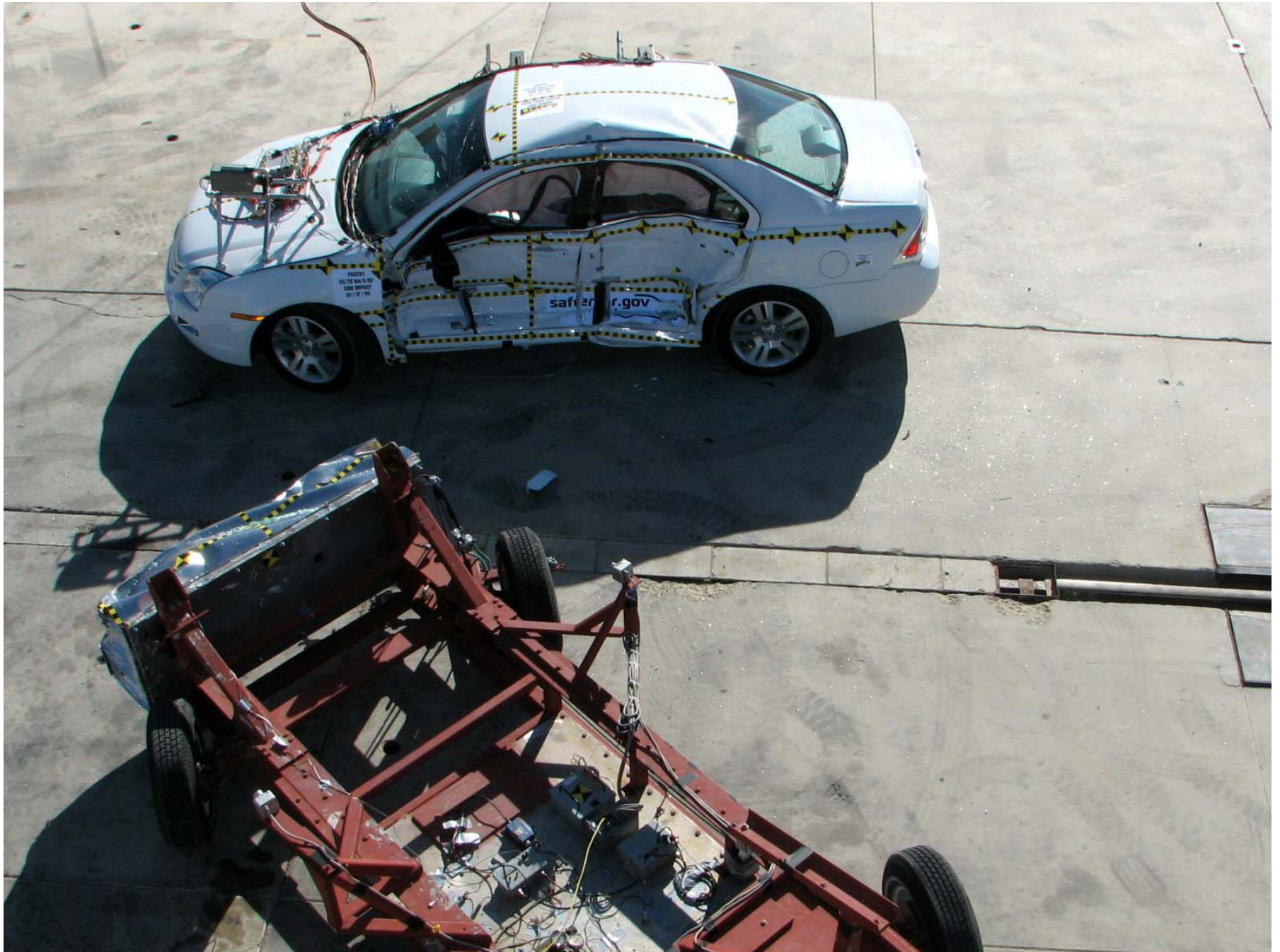


Figure A-22: Post-Test Overhead View



Figure A-23: Pre-Test Overhead Close-up View

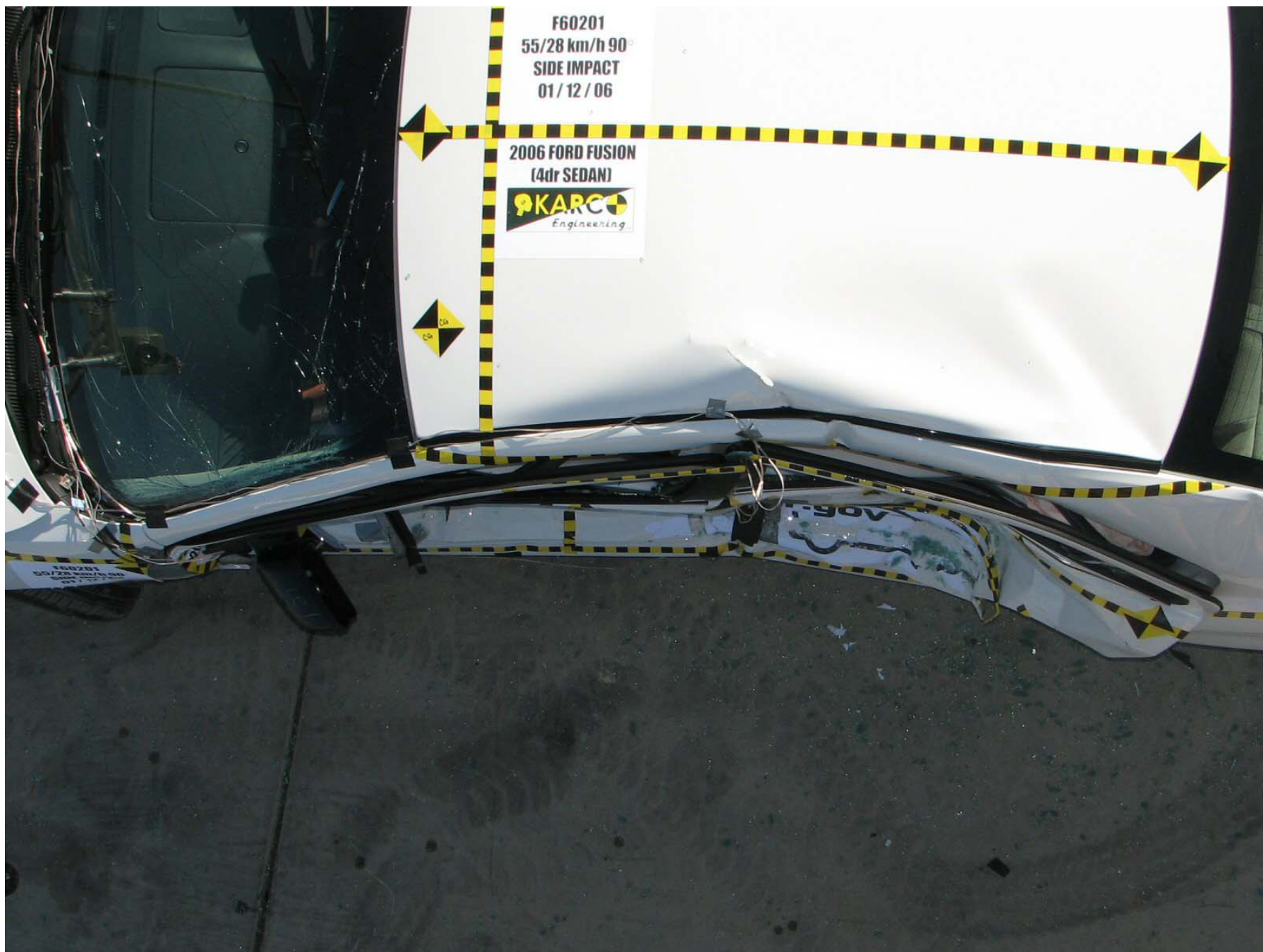


Figure A-24: Post-Test Overhead Close-up View



Figure A-25: Pre-Test Left Impact Point



Figure A-26: Post-Test Left Impact Point



Figure A-27: Pre-Test Front $\frac{3}{4}$ View of Left Side Doors



Figure A-28: Post-Test Front $\frac{3}{4}$ View of Left Side Doors



Figure A-29: Pre-Test Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-30: Post-Test Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-31: Pre-Test Left Front Door



Figure A-32: Post-Test Left Front Door



Figure A-33: Pre-Test Left Rear Door



Figure A-34: Post-Test Left Rear Door



Figure A-35: Pre-Test Driver Dummy (Door Open)

This Space Left Blank Intentionally



Figure A-36: Pre-Test Driver Dummy (Through Window)



Figure A-37: Post-Test Driver Dummy (Through Window)



Figure A-38: Pre-Test Driver Dummy Clearance From Door



Figure A-39: Post-Test Driver Dummy Clearance From Door



Figure A-40: Pre-Test Driver Dummy Right Side View

**Photograph Not
Available**

Figure A-41: Post-Test Driver Dummy Right Side View



Figure A-42: Pre-Test Front Door Panel (Interior)



Figure A-43: Post-Test Front Door Panel (Interior)



Figure A-44: Pre-Test Passenger Dummy Left Side (Door Open)

This Space Left Blank Intentionally



Figure A-45: Pre-Test Passenger Dummy Left Side (Through Window)



Figure A-46: Post-Test Passenger Dummy Left Side (Through Window)



Figure A-47: Pre-Test Passenger Dummy Clearance From Door



Figure A-48: Post-Test Passenger Dummy Clearance From Door



Figure A-49: Pre-Test Passenger Dummy Right Side View

**Photograph Not
Available**

Figure A-50: Post-Test Passenger Dummy Right Side View



Figure A-51: Pre-Test Rear Door Panel (Interior)



Figure A-52: Post-Test Rear Door Panel (Interior)



Figure A-53: Pre-Test Front View of Deformable Barrier



Figure A-54: Post-Test Front View of Deformable Barrier

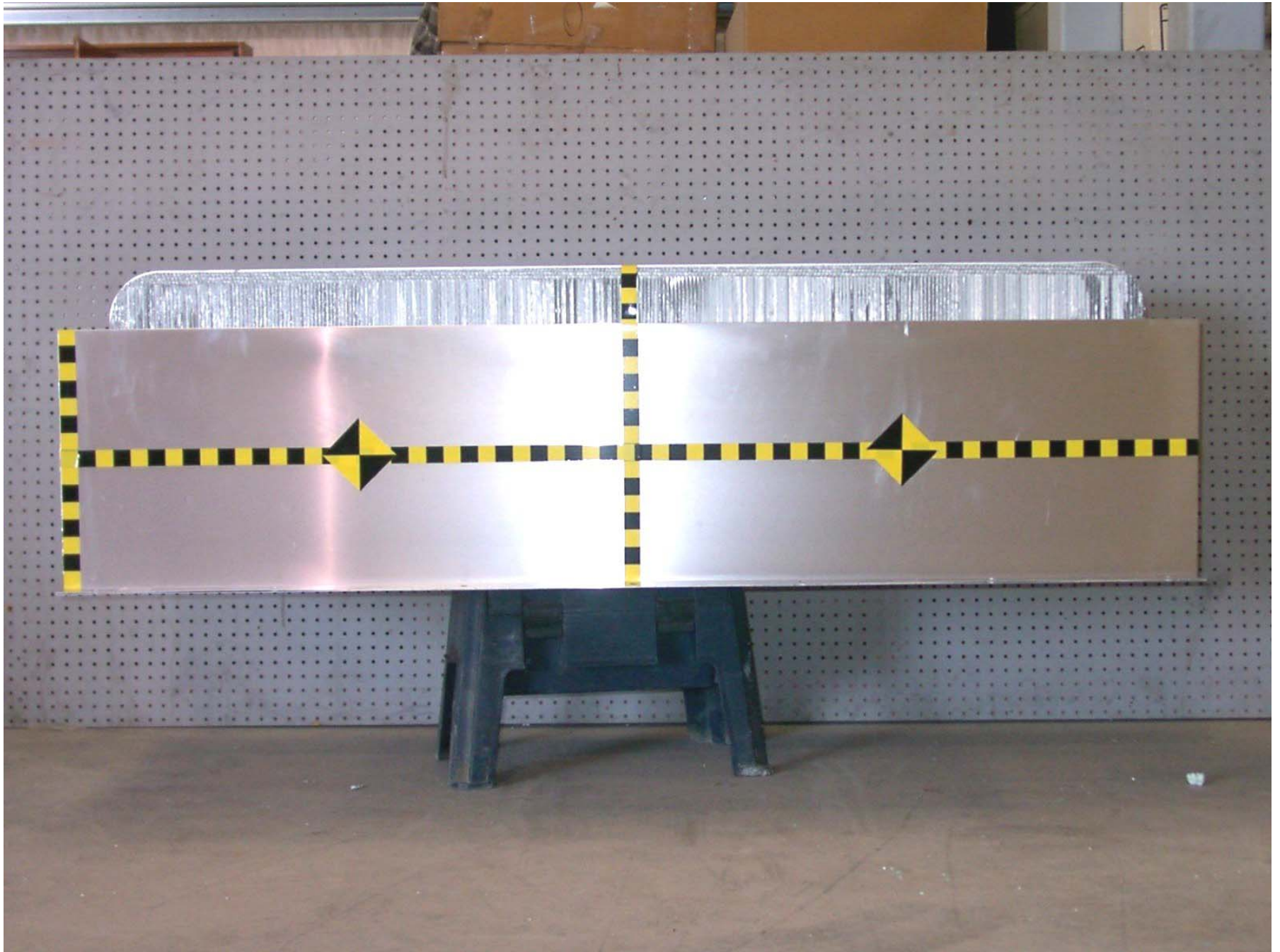


Figure A-55: Pre-Test Top View of Deformable Barrier

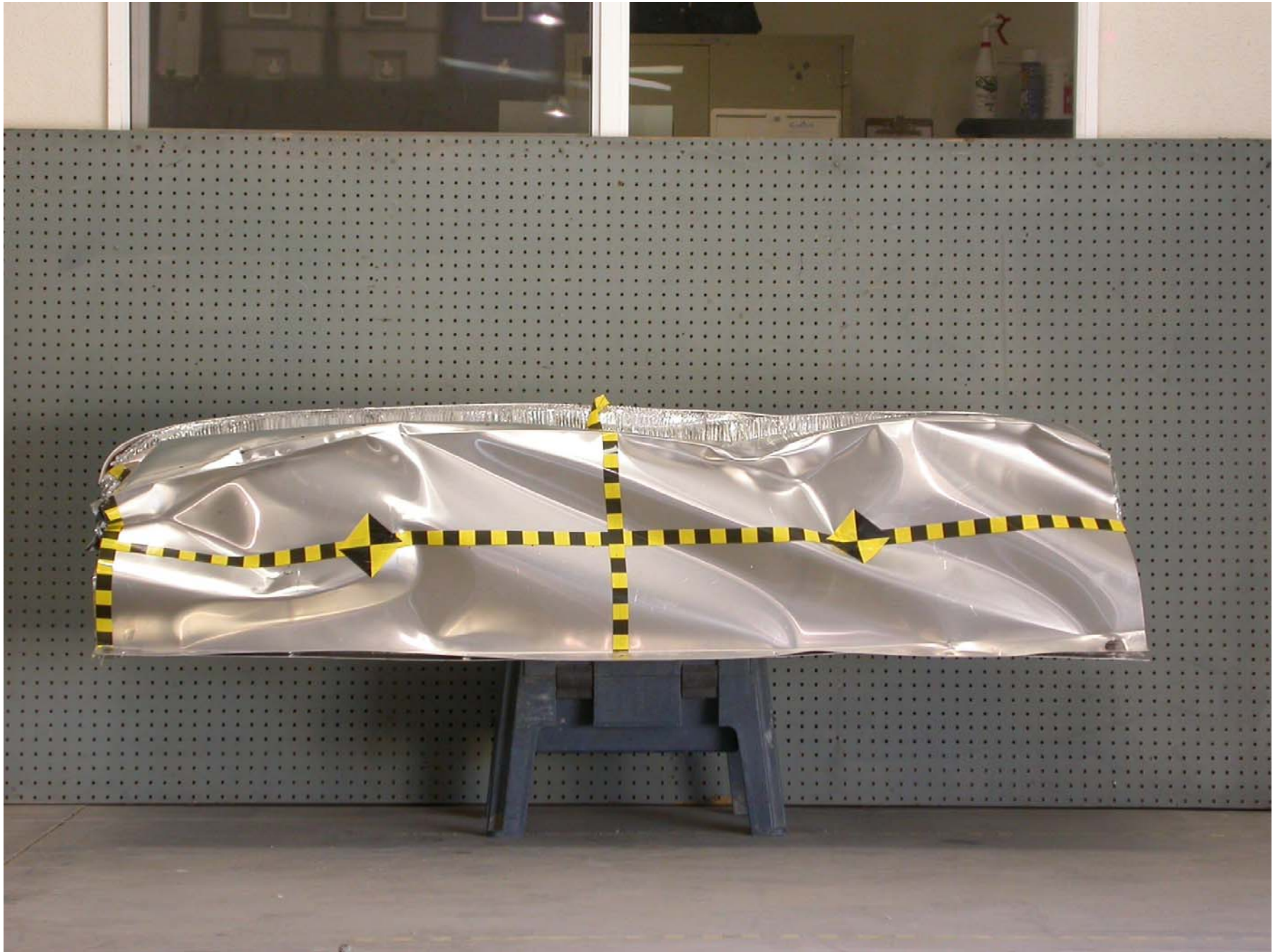


Figure A-56: Post-Test Top View of Deformable Barrier



Figure A-57: Pre-Test Right Side View of Deformable Barrier



Figure A-58: Post-Test Right Side View of Deformable Barrier



Figure A-59: Pre-Test Left Side View of Deformable Barrier



Figure A-60: Post-Test Left Side View of Deformable Barrier



Figure A-61: Vehicle on Rollover Device (0°)



Figure A-62: Vehicle on Rollover Device (90°)



Figure A-63: Vehicle on Rollover Device (180°)

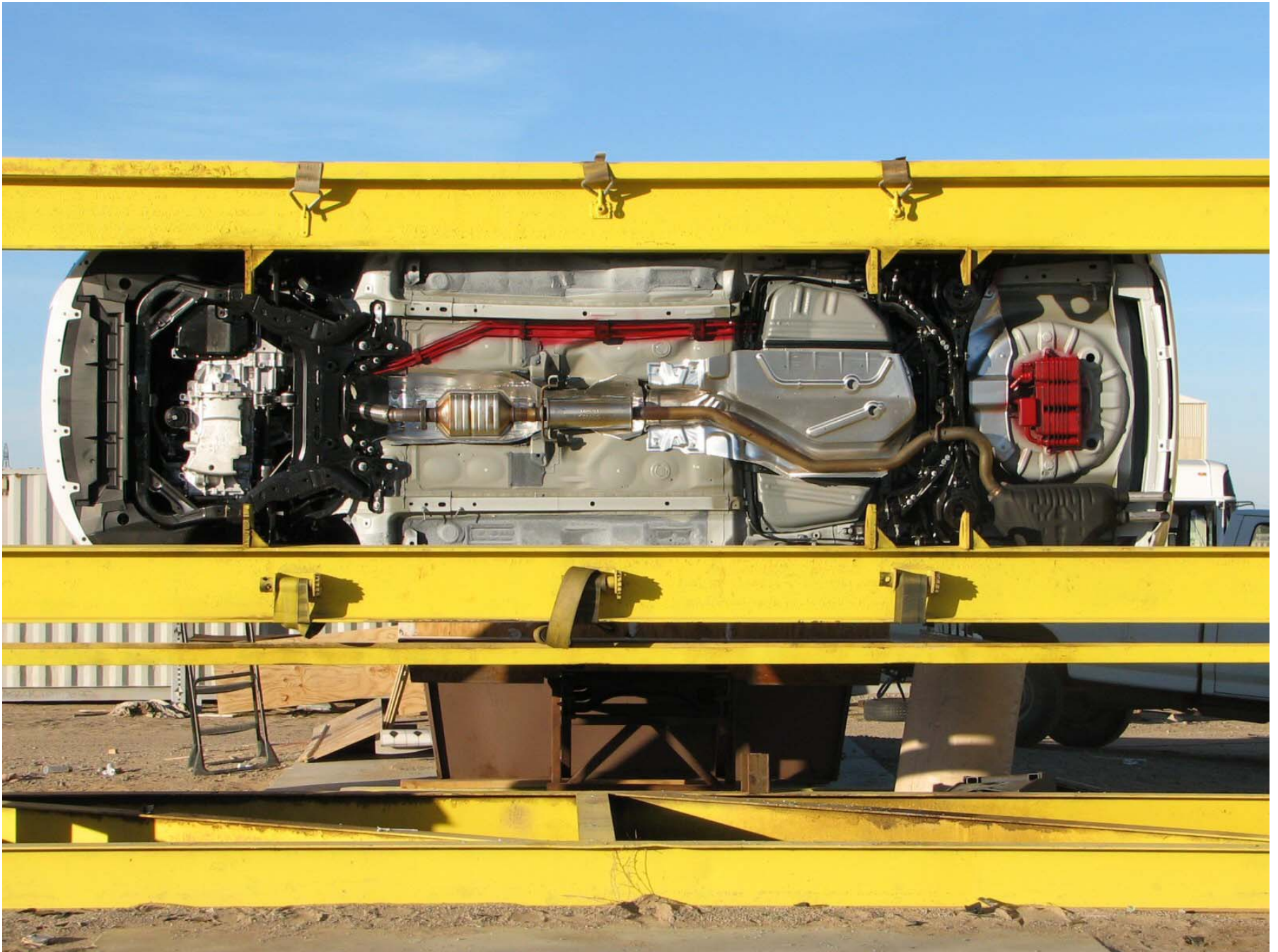


Figure A-64: Vehicle on Rollover Device (270°)



Figure A-65: Vehicle Impact

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

LIST OF DATA PLOTS

<u>Data Plot</u>	<u>Page</u>
B-1	Driver Upper Rib Primary Y
	Driver Lower Rib Primary Y
	Driver Lower Spine Primary Y
	Driver Pelvis Primary Y
B-2	Passenger Upper Rib Primary Y
	Passenger Lower Rib Primary Y
	Passenger Lower Spine Primary Y
	Passenger Pelvis Primary Y

The following additional data plots for this test can be obtained from the research and development section of the NHTSA website. The website can be found at www.NHTSA.dot.gov

LIST OF DATA PLOTS...(CONTINUED)

Driver Head X Primary
Driver Head Y Primary
Driver Head Z Primary
Driver Head Resultant Primary
Driver Head Primary X Velocity
Driver Head Primary Y Velocity
Driver Head Primary Z Velocity
Driver Head X Redundant
Driver Head Y Redundant
Driver Head Z Redundant
Driver Head Resultant Redundant
Driver Head Redundant X Velocity
Driver Head Redundant Y Velocity
Driver Head Redundant Z Velocity
Driver Upper Neck Force X
Driver Upper Neck Force Y
Driver Upper Neck Force Z
Driver Upper Neck Force Resultant
Driver Upper Neck Moment X
Driver Upper Neck Moment Y
Driver Upper Neck Moment Z
Driver Upper Neck Moment Resultant
Driver Upper Rib Primary Y Velocity
Driver Lower Rib Primary Y Velocity
Driver Lower Spine Primary Y Velocity
Driver Pelvis Primary Y Velocity
Driver Upper Rib Redundant Y
Driver Lower Rib Redundant Y
Driver Lower Spine Redundant Y
Driver Pelvis Redundant Y

LIST OF DATA PLOTS...(CONTINUED)

Driver Upper Rib Redundant Y Velocity
Driver Lower Rib Redundant Y Velocity
Driver Lower Spine Redundant Y Velocity
Driver Pelvis Redundant Y Velocity
Driver Thorax Contact
Driver Pelvis Contact
Passenger Head X Primary
Passenger Head Y Primary
Passenger Head Z Primary
Passenger Head Resultant Primary
Passenger Head Primary X Velocity
Passenger Head Primary Y Velocity
Passenger Head Primary Z Velocity
Passenger Head X Redundant
Passenger Head Y Redundant
Passenger Head Z Redundant
Passenger Head Resultant Redundant
Passenger Head Redundant X Velocity
Passenger Head Redundant Y Velocity
Passenger Head Redundant Z Velocity
Passenger Upper Neck Force X
Passenger Upper Neck Force Y
Passenger Upper Neck Force Z
Passenger Upper Neck Force Resultant
Passenger Upper Neck Moment X
Passenger Upper Neck Moment Y
Passenger Upper Neck Moment Z
Passenger Upper Neck Moment Resultant

LIST OF DATA PLOTS...(CONTINUED)

Passenger Upper Rib Primary Y Velocity
Passenger Lower Rib Primary Y Velocity
Passenger Lower Spine Primary Y Velocity
Passenger Pelvis Primary Y Velocity
Passenger Upper Rib Redundant Y
Passenger Lower Rib Redundant Y
Passenger Lower Spine Redundant Y
Passenger Pelvis Redundant Y
Passenger Upper Rib Redundant Y Velocity
Passenger Lower Rib Redundant Y Velocity
Passenger Lower Spine Redundant Y Velocity
Passenger Pelvis Redundant Y Velocity
Passenger Thorax Contact
Passenger Pelvis Contact
Vehicle Right Sill at Front Seat X
Vehicle Right Sill at Front Seat Y
Vehicle Right Sill at Front Seat Z
Vehicle Right Sill Front Seat Resultant
Vehicle Right Sill at Front Seat X Velocity
Vehicle Right Sill at Front Seat Y Velocity
Vehicle Right Sill at Front Seat Z Velocity
Vehicle Right Sill at Rear Seat X
Vehicle Right Sill at Rear Seat Y
Vehicle Right Sill at Rear Seat Z
Vehicle Right Sill Rear Seat Resultant
Vehicle Right Sill at Rear Seat X Velocity
Vehicle Right Sill at Rear Seat Y Velocity
Vehicle Right Sill at Rear Seat Z Velocity
Vehicle Rear Floor Above Axle X
Vehicle Rear Floor Above Axle Y
Vehicle Rear Floor Above Axle Z
Vehicle Rear Floor Above Axle Resultant
Vehicle Rear Floor Above Axle X Velocity
Vehicle Rear Floor Above Axle Y Velocity
Vehicle Rear Floor Above Axle Z Velocity

LIST OF DATA PLOTS...(CONTINUED)

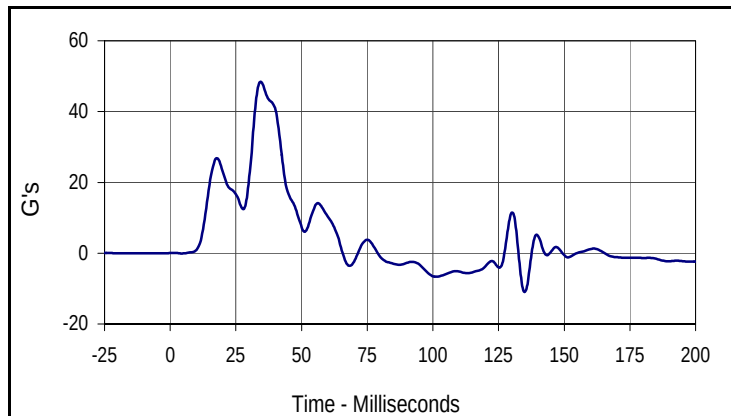
Vehicle Left Sill at Rear Door Y
Vehicle Left Sill at Front Door Y
Vehicle Left Sill at Rear Door Y Velocity
Vehicle Left Sill at Front Door Y Velocity
Vehicle Left Front Door C/L Y
Vehicle Right Rear Occupant Compartment
Vehicle Left Front Door Mid Rear Y
Vehicle Left Front Door Upper CL Y
Vehicle Left Front Door CL Y Velocity
Vehicle Right Rear Occupant Compartment Y Velocity
Vehicle Left Front Door Mid Rear Y Velocity
Vehicle Left Rear Door Upper CL Y Velocity
Vehicle Left Rear Door Mid Rear Y
Vehicle Left Rear Door Upper C/L Y
Vehicle Left Rear Door Mid Rear Y Velocity
Vehicle Left Rear Door Upper CL Y Velocity
Vehicle B-Post Lower Y
Vehicle B-Post Middle Y
Vehicle B-Post Lower Y Velocity
Vehicle B-Post Middle Y Velocity
Vehicle A-Post Lower Y
Vehicle A-Post Middle Y
Vehicle A-Post Lower Y Velocity
Vehicle A-Post Middle Y Velocity
Vehicle Left Front Seat Track
Vehicle Rear Seat Structure
Vehicle Left Front Seat Track Y Velocity
Vehicle Rear Seat Structure Y Velocity
Vehicle CG X
Vehicle CG Y
Vehicle CG Z
Vehicle CG Resultant
Vehicle CG X Velocity
Vehicle CG Y Velocity
Vehicle CG Z Velocity

LIST OF DATA PLOTS...(CONTINUED)

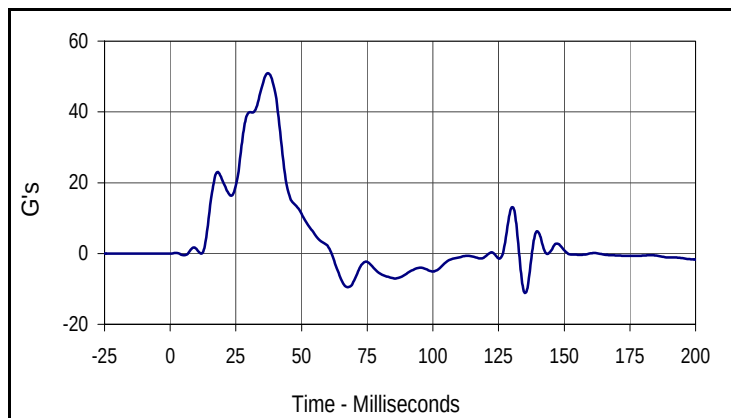
Driver Upper Rib Primary Y
Driver Lower Rib Primary Y
Driver Lower Spine Primary Y
Driver Pelvis Primary Y
Driver Upper Rib Redundant Y
Driver Lower Rib Redundant Y
Driver Lower Spine Redundant Y
Driver Pelvis Redundant Y
Passenger Upper Rib Primary Y
Passenger Lower Rib Primary Y
Passenger Lower Spine Primary Y
Passenger Pelvis Primary Y
Passenger Upper Rib Redundant Y
Passenger Lower Rib Redundant Y
Passenger Lower Spine Redundant Y
Passenger Pelvis Redundant Y
MDB CG X
MDB CG Y
MDB CG Z
MDB CG Resultant
MDB CG X Velocity
MDB CG Y Velocity
MDB CG Z Velocity
MDB Rear X
MDB Rear Y
MDB Rear X Velocity
MDB Rear Y Velocity
MDB Right Bumper Contact

Test Vehicle: 2006 Ford Fusion 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

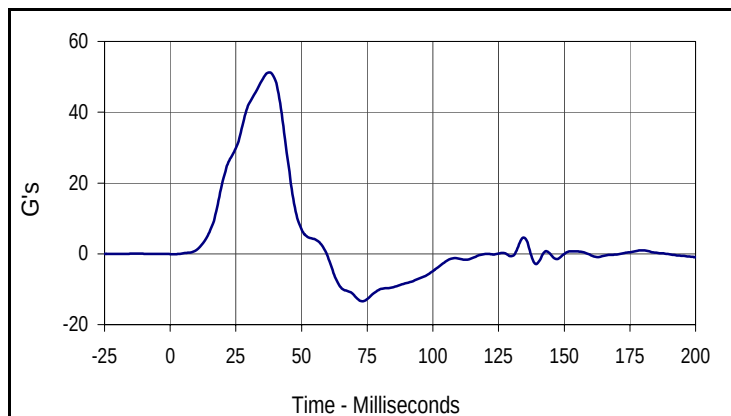
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 NHTSA No.: F60201



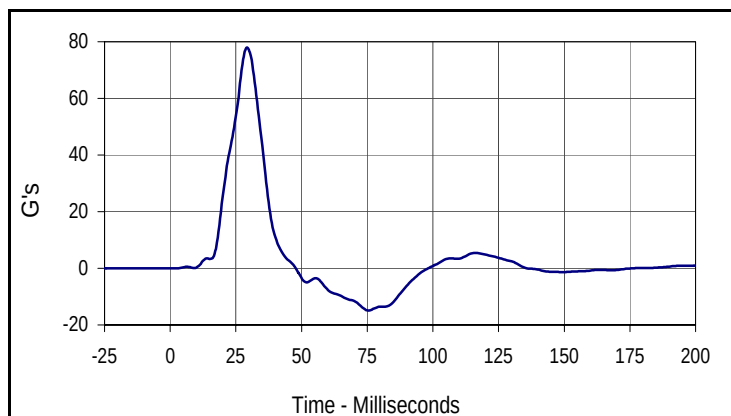
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
001	FIR	FIR100	G's
Max	Time	Min	Time
48.4	34.4	-11.0	135.0



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
002	FIR	FIR100	G's
Max	Time	Min	Time
50.9	37.5	-11.2	135.0



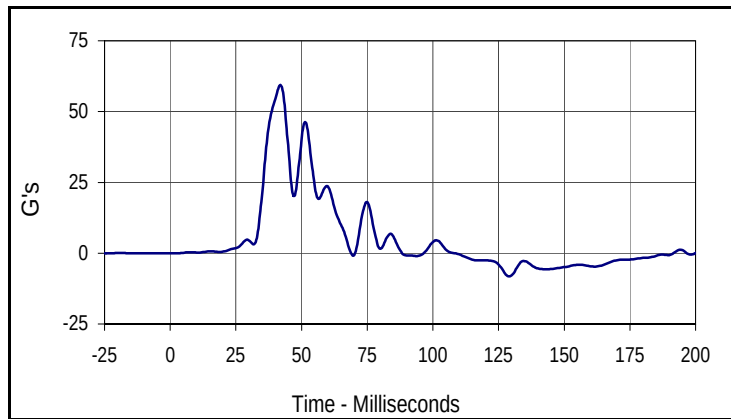
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
003	FIR	FIR100	G's
Max	Time	Min	Time
51.3	37.5	-13.4	73.1



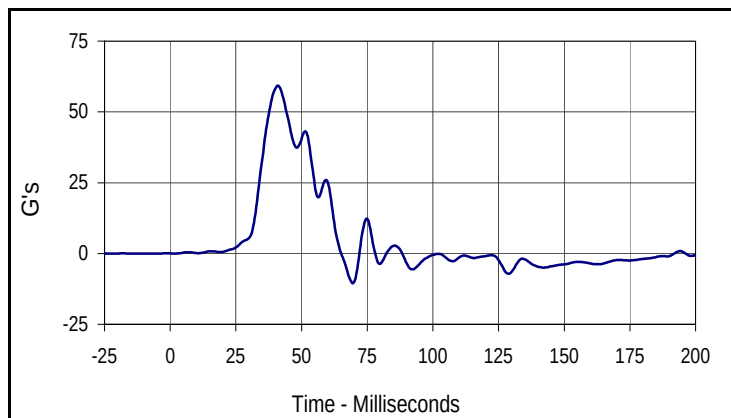
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
004	FIR	FIR100	G's
Max	Time	Min	Time
78.0	29.4	-14.9	75.6

Test Vehicle: 2006 Ford Fusion 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

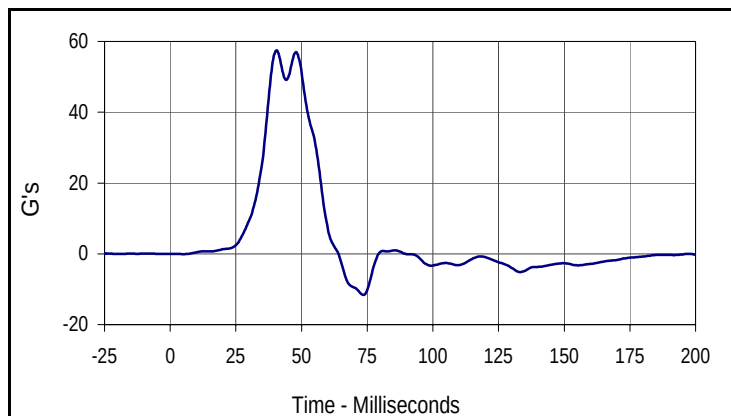
Test Date: 1/12/06
 NHTSA No.: F60201



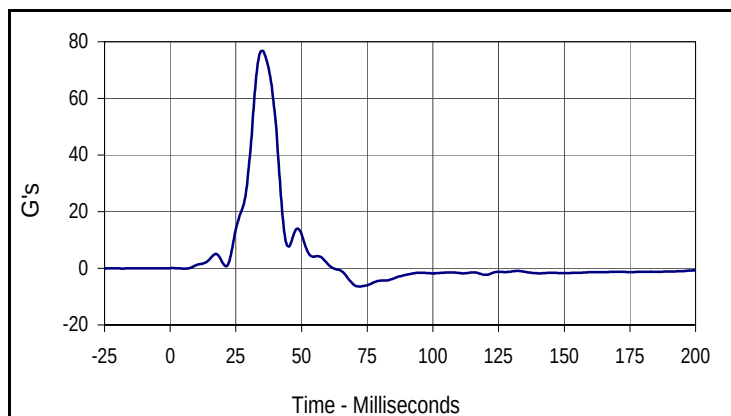
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
005	FIR	FIR100	G's
Max	Time	Min	Time
59.4	41.9	-8.2	128.8



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
006	FIR	FIR100	G's
Max	Time	Min	Time
59.2	41.3	-10.5	69.4



Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
007	FIR	FIR100	G's
Max	Time	Min	Time
57.5	40.6	-11.5	73.8



Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
008	FIR	FIR100	G's
Max	Time	Min	Time
76.9	35.0	-6.4	71.9

APPENDIX C
SID/HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID / HIII External Measurements
ATD Serial No.: 274

Test Date: 1/11/06
Test I.D.: N/A



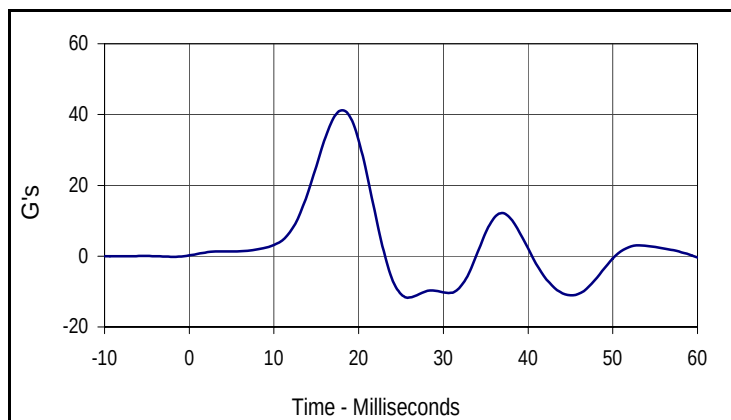
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	385	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 274

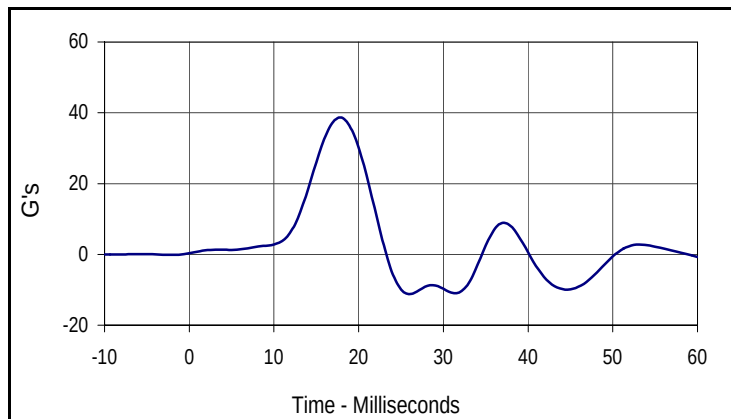
Test Date: 1/11/06
 Test I.D.: TH01A



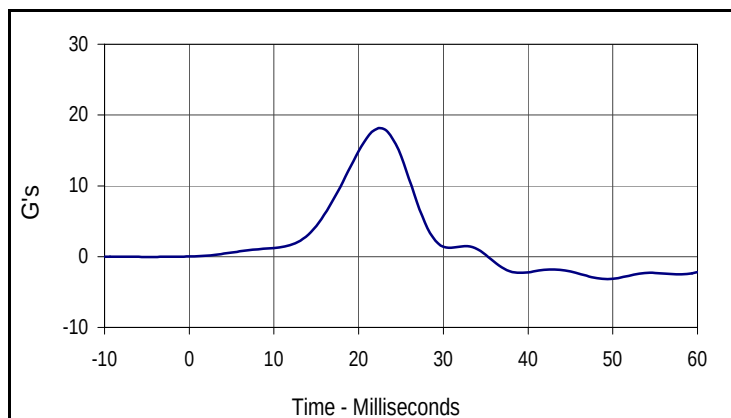
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.25	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	41.2	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	38.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.2	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
41.2	18.1	-11.7	25.6



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
38.5	17.5	-11.1	26.3



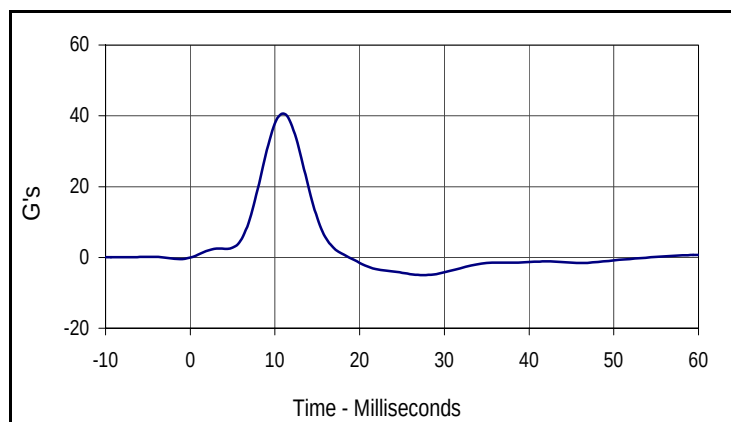
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
18.2	22.5	-3.2	49.4

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 274

Test Date: 1/11/06
 Test I.D.: PL01A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	40.4	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



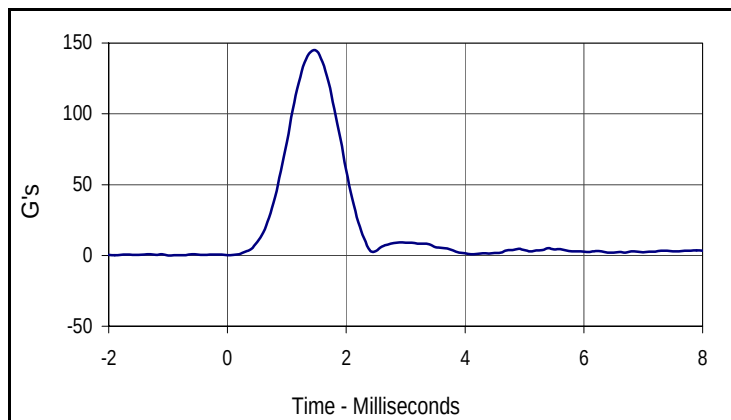
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
40.4	11.3	-5.0	27.5

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 274

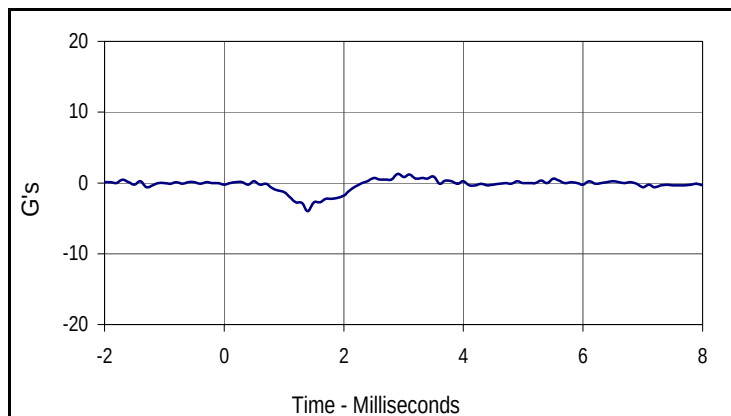
Test Date: 1/11/06
 Test I.D.: HD01A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	144.3	Pass
Peak Longitudinal Acceleration	G's	≤15.0	4.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	3.5	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
144.3	1.5	0.0	-1.0



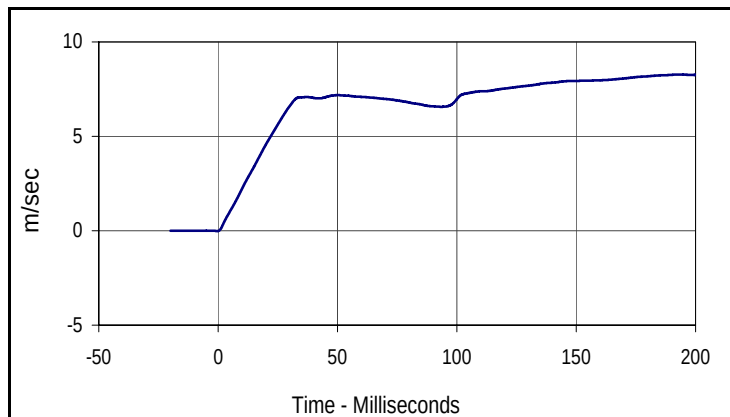
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
1.3	2.9	-4.0	1.4

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 274

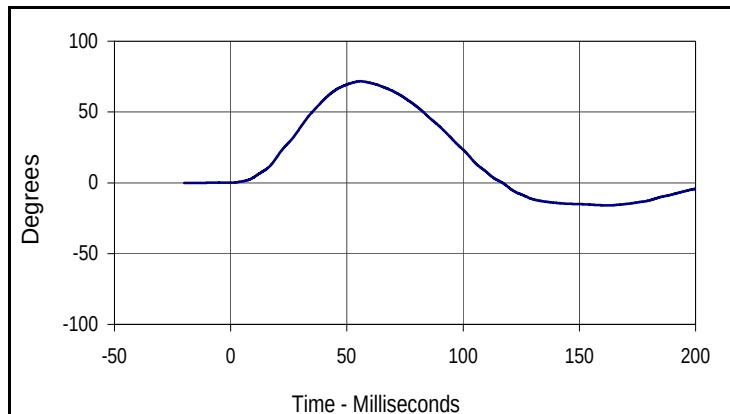
Test Date: 1/11/06
 Test I.D.: NB01A



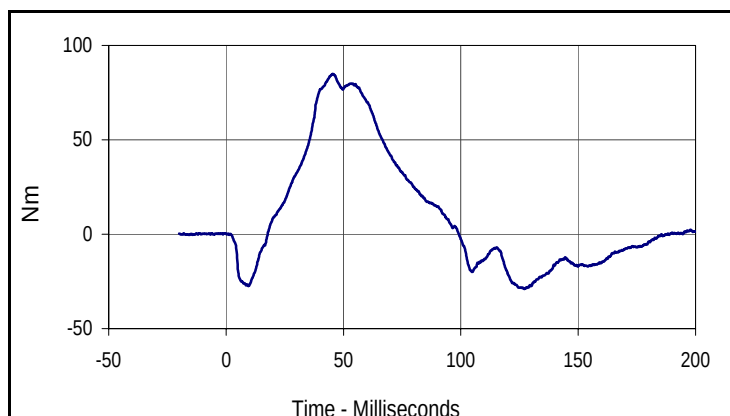
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	6.98	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.23	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.57	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.61	Pass
	40 to 70	m/sec	6.27 to 7.64	7.18	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	71.7	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	10.4	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	61.2	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	84.8	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	53.8	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.3	192.4	0.0	-0.3



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
71.7	55.8	-16.0	162.6



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
84.8	45.4	-29.0	127.0

Test Program: SID / HIII External Measurements
 ATD Serial No.: 275

Test Date: 1/11/06
 Test I.D.: N/A



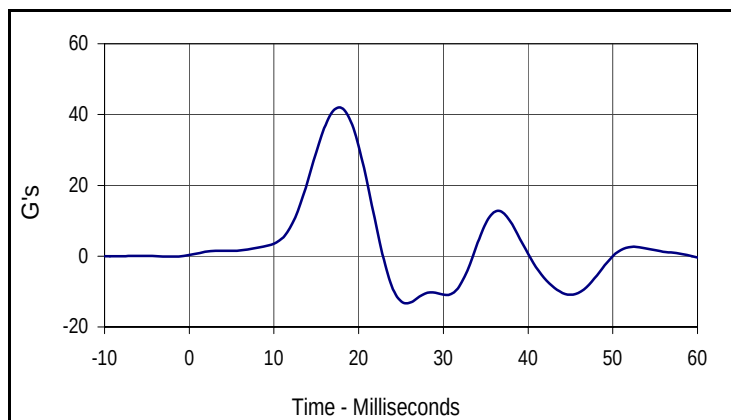
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	896	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	512	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	498	Pass
HW- Hip Width	mm	356 to 391	375	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 275

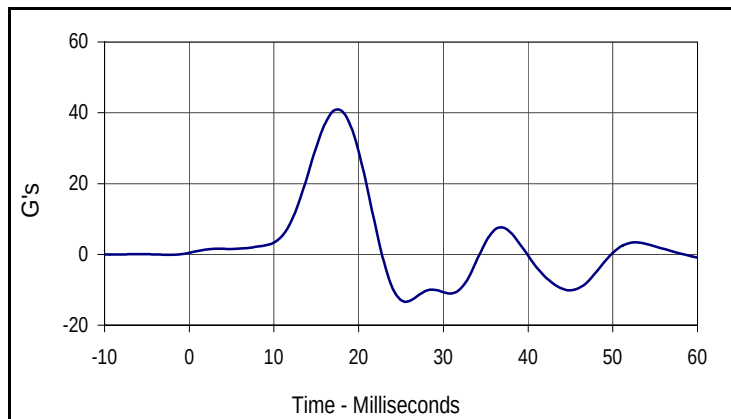
Test Date: 1/11/06
 Test I.D.: TH01B



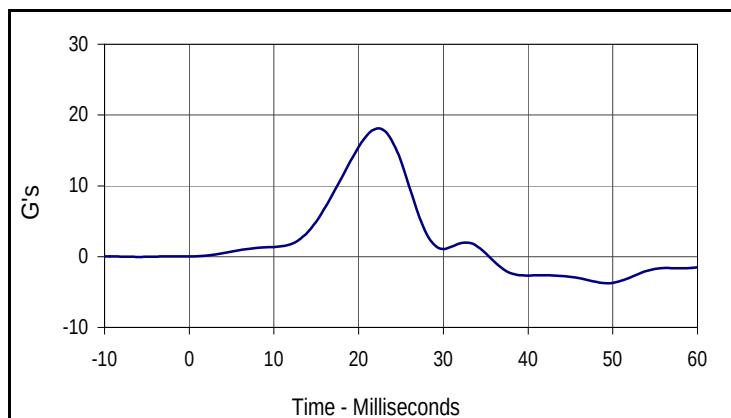
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.0	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	41.0	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.1	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
42.0	17.5	-13.4	25.6



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
41.0	17.5	-13.4	25.6



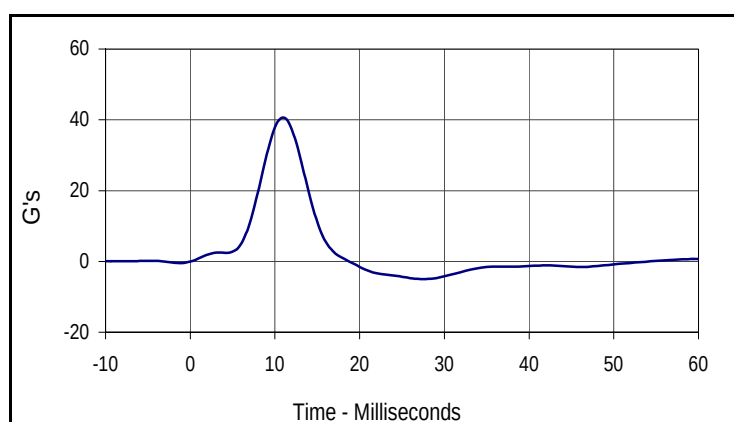
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
18.1	22.5	-3.7	49.4

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 275

Test Date: 1/11/06
 Test I.D.: PL01B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.29	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	40.4	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



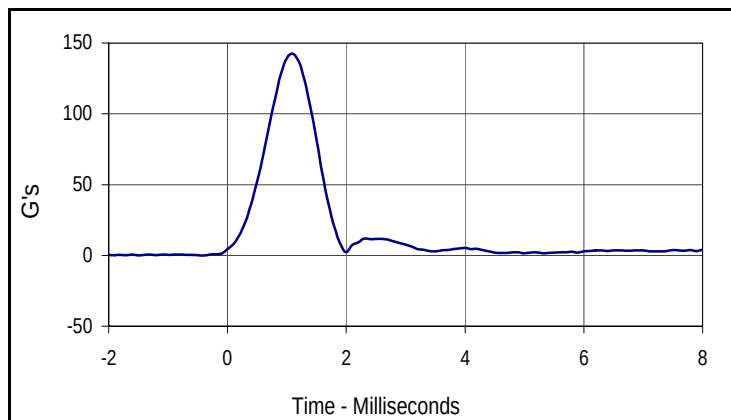
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
40.4	11.3	-5.0	27.5

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 275

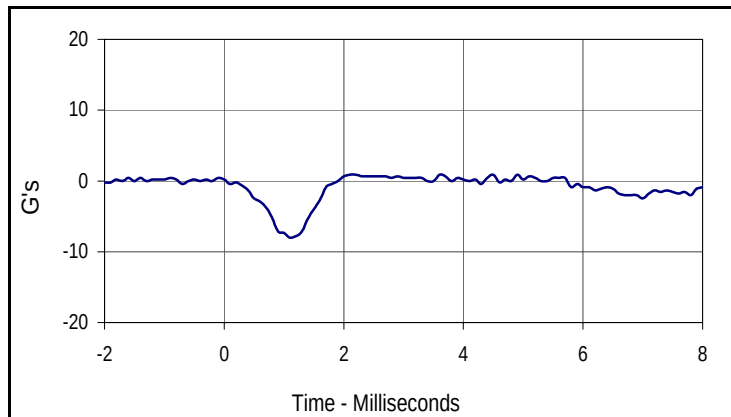
Test Date: 1/11/06
 Test I.D.: HD01B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	142.6	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.5	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
142.6	1.1	0.0	-1.5



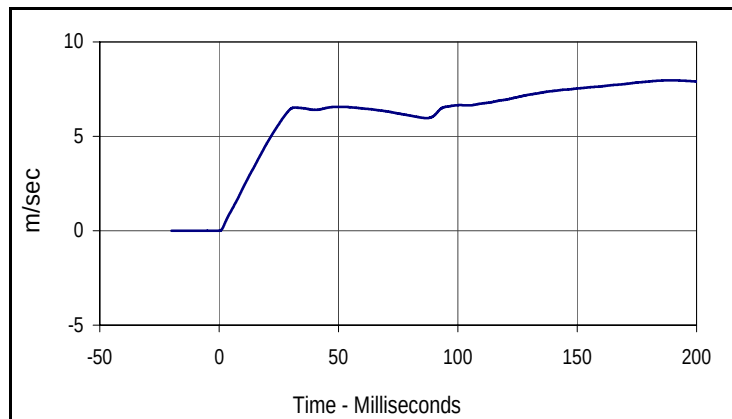
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.9	2.1	-8.0	1.1

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 275

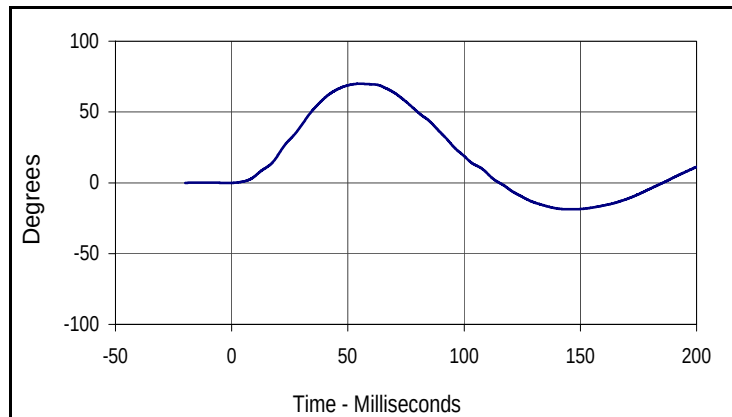
Test Date: 1/11/06
 Test I.D.: NB01B



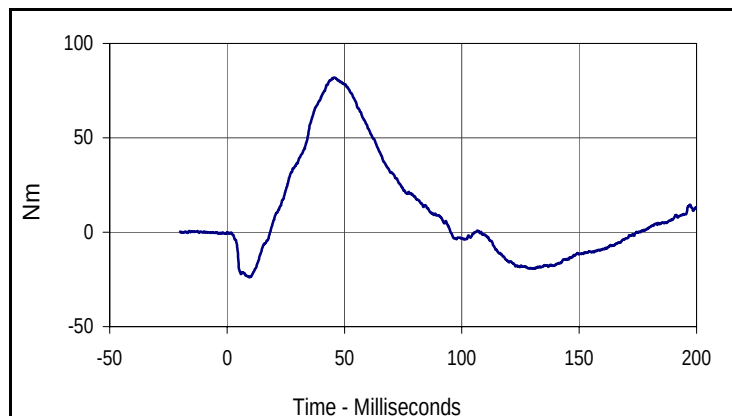
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.11	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.27	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.63	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.46	Pass
	40 to 70	m/sec	6.27 to 7.64	6.57	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	69.9	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	9.1	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	60.2	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	81.9	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	49.4	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.0	189.5	0.0	-0.1



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
69.9	55.0	-18.7	146.6



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
81.9	45.9	-23.8	9.6

APPENDIX C
POST-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID / HIII External Measurements
 ATD Serial No.: 274

Test Date: 1/15/06
 Test I.D.: N/A



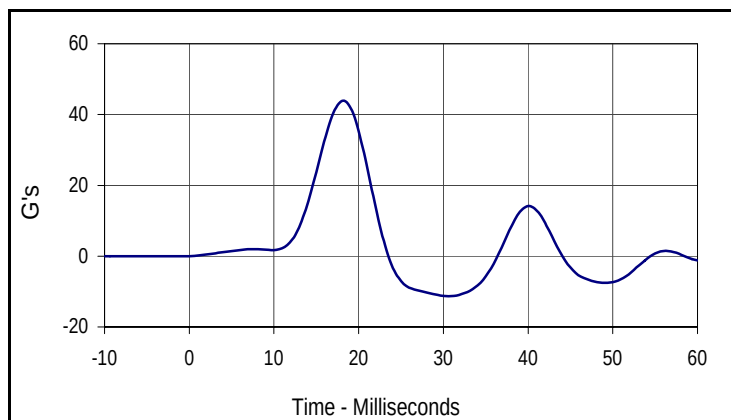
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	905	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	370	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 274

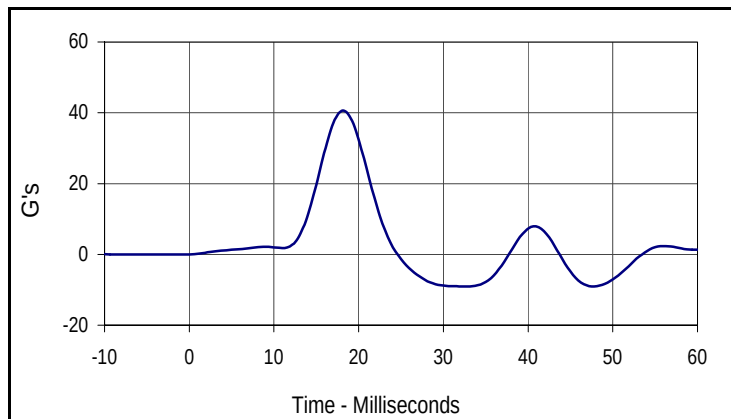
Test Date: 1/13/06
 Test I.D.: TH01G



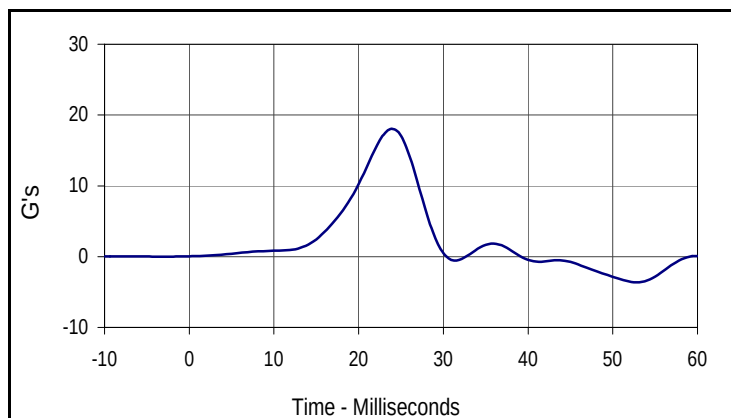
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	43.9	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	40.6	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.0	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
43.9	18.1	-11.3	30.6



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
40.6	18.1	-9.1	32.5



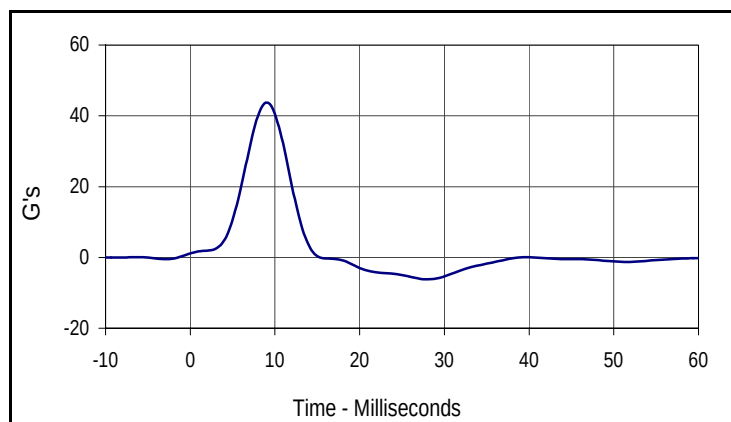
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
18.0	23.8	-3.6	53.1

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 274

Test Date: 1/13/06
 Test I.D.: PI01J



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	43.4	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



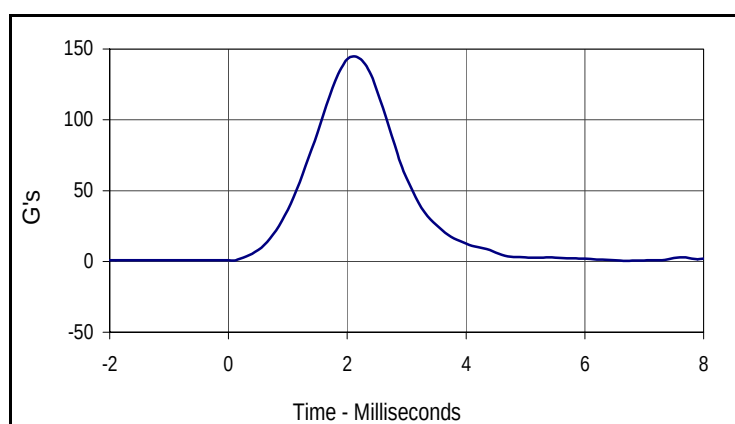
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
43.4	8.8	-6.2	28.1

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 274

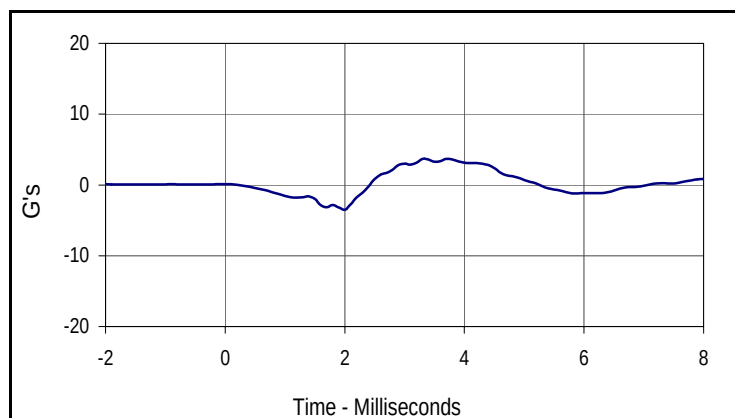
Test Date: 1/15/06
 Test I.D.: HD01J



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	144.9	Pass
Peak Longitudinal Acceleration	G's	≤15.0	3.7	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	1.9	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
144.9	2.1	0.6	0.1



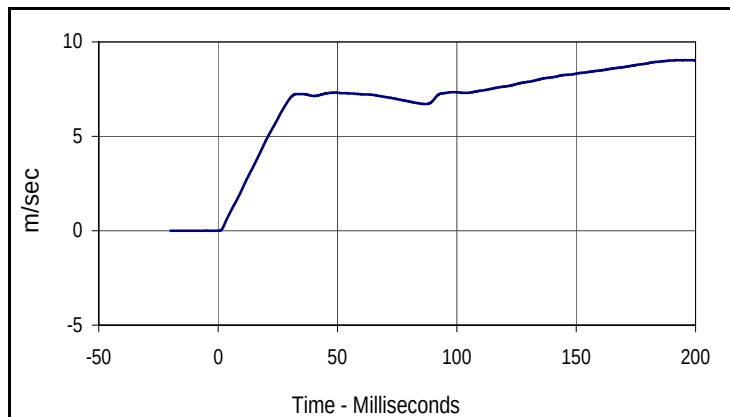
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
3.7	3.3	-3.5	2.0

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 274

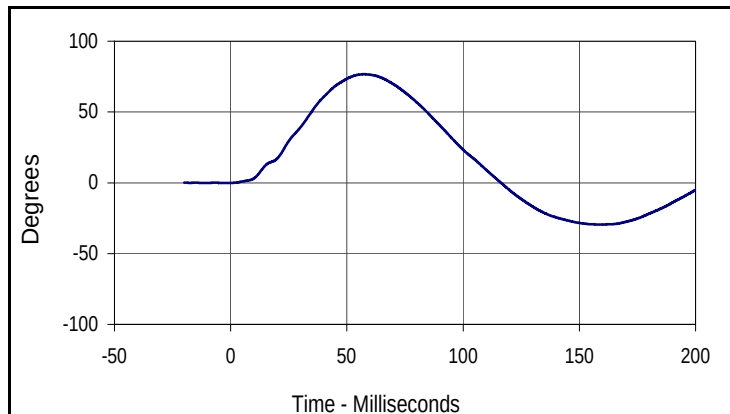
Test Date: 1/13/06
 Test I.D.: NB01U



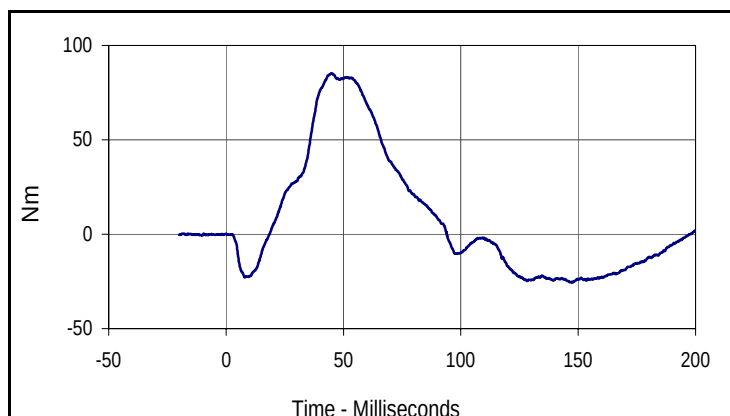
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	6.98	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.20	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.77	Pass
	30 Msec.	m/sec	5.73 to 7.01	7.00	Pass
	40 to 70	m/sec	6.27 to 7.64	7.32	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	76.6	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	12.1	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	59.1	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	85.3	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	49.0	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.0	196.7	0.0	0.2



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
76.6	57.2	-29.4	160.4



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
85.3	45.1	-25.6	147.5

Test Program: SID / HIII External Measurements
 ATD Serial No.: 275

Test Date: 1/15/06
 Test I.D.: N/A



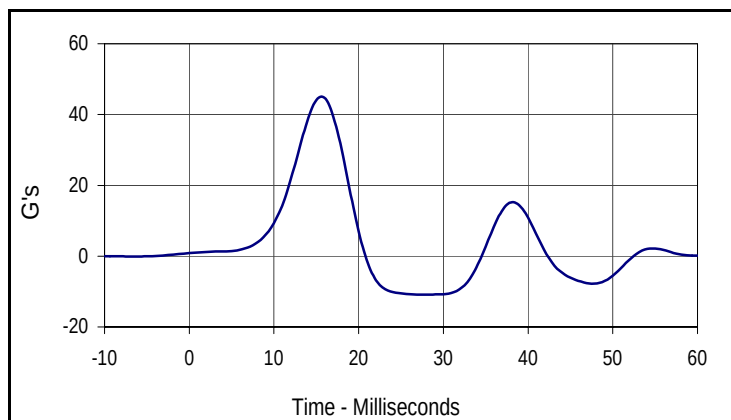
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	903	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	507	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 275

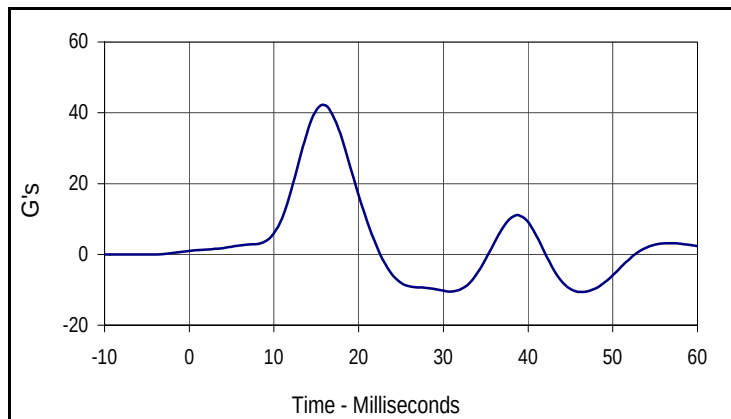
Test Date: 1/13/06
 Test I.D.: TH01H



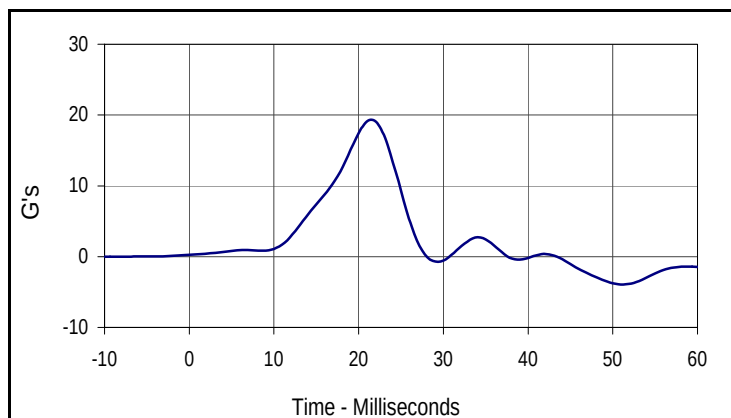
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.29	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	45.1	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	42.2	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.3	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
45.1	15.6	-10.9	27.5



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
42.2	15.6	-10.6	46.3



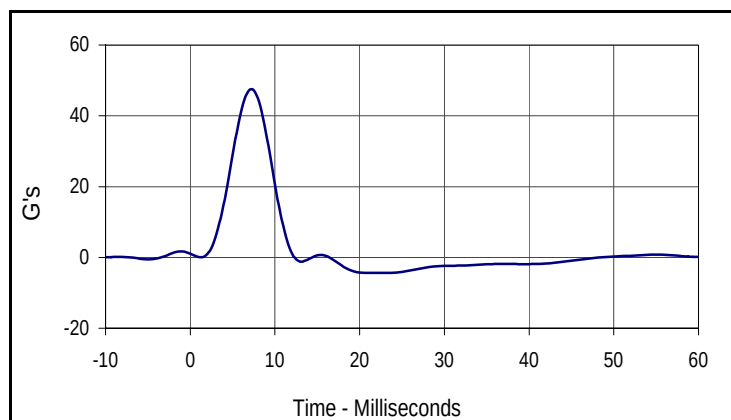
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
19.3	21.3	-3.9	51.3

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 275

Test Date: 1/13/06
 Test I.D.: PI01K



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	47.2	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.25	Pass
Overall Test Results				Pass



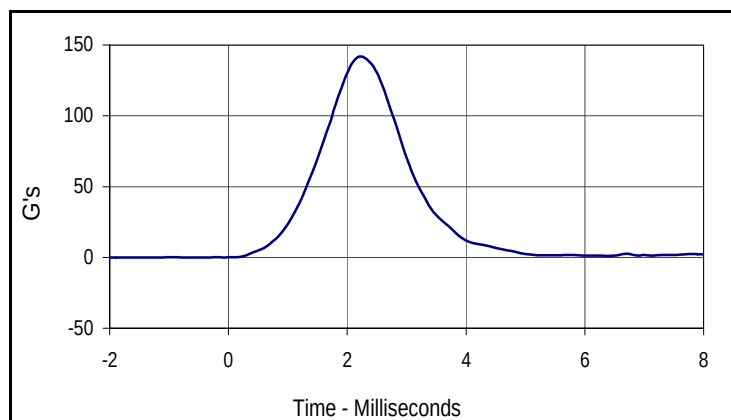
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
47.2	7.5	-4.4	23.1

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 275

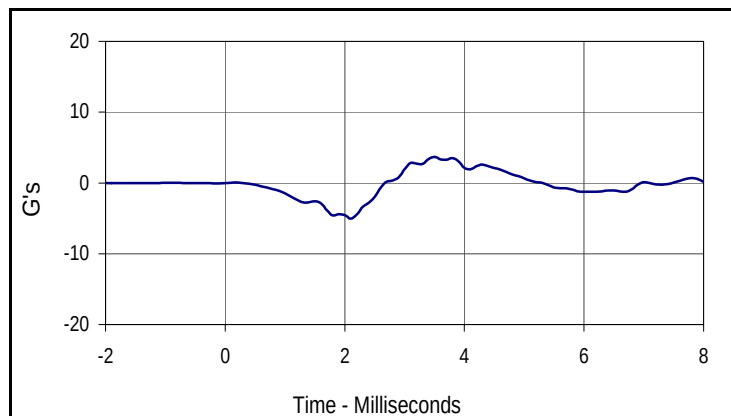
Test Date: 1/15/06
 Test I.D.: HD01K



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	141.9	Pass
Peak Longitudinal Acceleration	G's	≤15.0	5.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	1.8	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
141.9	2.2	0.0	-1.5



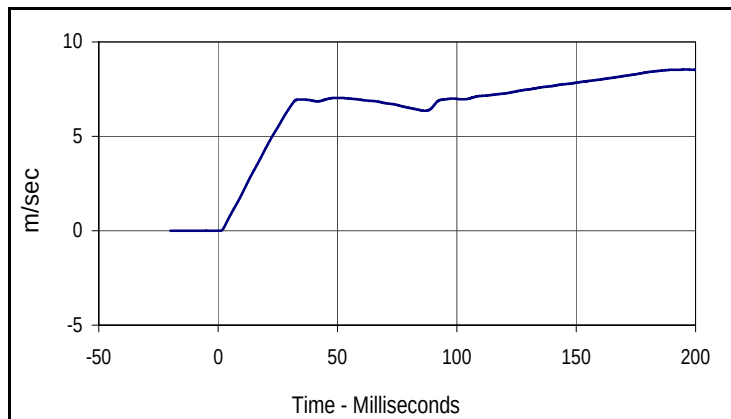
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
3.7	3.5	-5.0	2.1

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 275

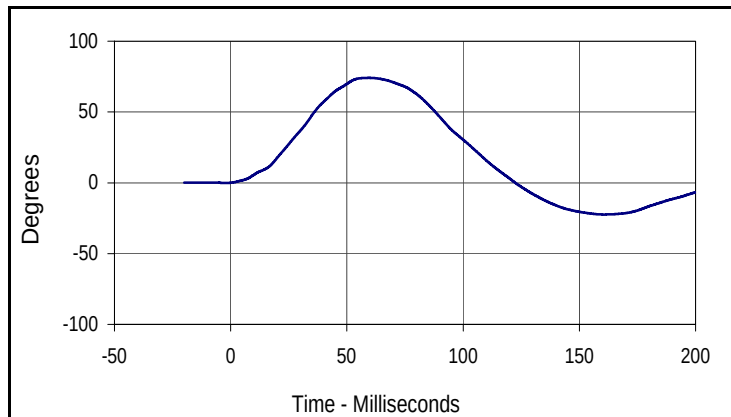
Test Date: 1/13/06
 Test I.D.: NB010



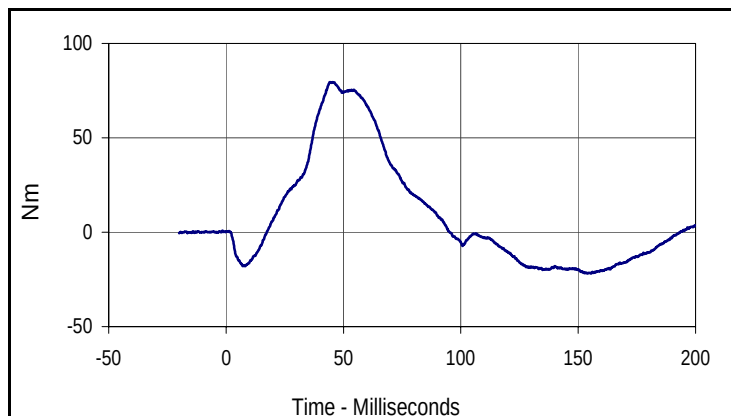
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.05	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	1.96	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.39	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.53	Pass
	40 to 70	m/sec	6.27 to 7.64	7.04	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	74.1	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	15.2	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	63.0	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	79.5	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	51.0	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.5	195.7	0.0	0.6



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
74.1	59.5	-22.4	160.6



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
79.5	44.3	-21.8	155.5