

REPORT NUMBER: MCW-DOT-08SN02

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

2008 CHRYSLER SEBRING 4-DOOR SEDAN

NHTSA NUMBER: M80300

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TEST DATE: 30 AUGUST 2007

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FINAL REPORT

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OFFICE OF CRASHWORTHINESS STANDARDS
NVS-111
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WASHINGTON, D.C. 20590**

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Date:

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16. Abstract A 55/28 km/h 90° Moving Deformable Barrier (MDB) New Car Assessment Program (NCAP) side impact was conducted on the subject 2008 Chrysler Sebring 4-door sedan to obtain new car assessment and research data indicant of FMVSS No. 214D performance. The test was conducted at the Medical College of Wisconsin (MCW) in Milwaukee, Wisconsin on 30 August 2008. The impact velocity of the Moving Deformable Barrier (MDB) was 62.0 km/h, and the ambient temperature at the struck side of the vehicle was 20 °C. The target vehicle's maximum post test static crush was 253 mm at level .2 The test vehicle's occupant performance is as follows: <table border="1" data-bbox="149 1255 1508 1522"> <thead> <tr> <th></th> <th><u>Units</u></th> <th><u>DRIVER</u></th> <th><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left upper rib (LUR) acceleration</td> <td>G</td> <td>31.4</td> <td>53.6</td> </tr> <tr> <td>Left lower rib (LLR) acceleration</td> <td>G</td> <td>36.1</td> <td>61.3</td> </tr> <tr> <td>Lower spine (T₁₂) acceleration</td> <td>G</td> <td>46.2</td> <td>75.8</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td></td> <td>41</td> <td>68</td> </tr> <tr> <td>Pelvis (PEV) acceleration</td> <td>G</td> <td>56.3</td> <td>69.9</td> </tr> <tr> <td>HIC</td> <td></td> <td>157.8</td> <td>401.1</td> </tr> </tbody> </table> The doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.					<u>Units</u>	<u>DRIVER</u>	<u>PASS.</u>	Left upper rib (LUR) acceleration	G	31.4	53.6	Left lower rib (LLR) acceleration	G	36.1	61.3	Lower spine (T ₁₂) acceleration	G	46.2	75.8	Thoracic Trauma Index (TTI)		41	68	Pelvis (PEV) acceleration	G	56.3	69.9	HIC		157.8	401.1
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17. Key Words New Car Assessment Program (NCAP) Side impact Side Impact Hybrid III Dummy (SID/HIII) Occupant side impact protection		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Adm. Technical Ref. Division, Room 5108 (NPO-230) 400 Seventh Street, S.W. Washington, D.C. 20590																													
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SECTION 1

PURPOSE AND TEST PROCEDURE

PURPOSE

This side impact test was conducted as part of the FY'08 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under Contract No. DTNH22-03-D-42005. The purpose of this test was to evaluate side impact protection of a manufactured by Ford Motor Company.

TEST PROCEDURE

The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program 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 NCAP SIDE IMPACT TEST

A 2008 Chrysler Sebring 4-door sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) modeling a 90° impact as if the test vehicle were moving forward at 28 km/h perpendicular to and across the path of the MDB traveling forward at 55 km/h. Here the test vehicle was stationary and positioned 27° from perpendicular to the MDB tow road guidance system and the MDB was towed 27° ("crabbed") from the guidance system. [See p 26.] The 1747.3 kg test vehicle was impacted by the 1360 kg MDB traveling at a speed of 62.0 km/h (measured inline with the guidance system.) The test was conducted at the Medical College of Wisconsin on 30 August 2007.

Two (2) 50th percentile adult male Hybrid III-Side Impact Dummies (SID/HIIIs) were placed in designated seating positions within the test vehicle: one (1) driver, and one (1) left rear passenger; serial numbers 056 and 137 respectively. Each SID/HIII was instrumented in the following locations:

- Left upper rib uni-axial (Y) accelerometers (primary and redundant)
- Left lower rib uni-axial (Y) accelerometers (primary and redundant)
- Lower thoracic spine uni-axial (Y) accelerometers (primary and redundant)
- Pelvis uni-axial (Y) accelerometers (primary and redundant)
- Head center of gravity tri-axial (X, Y, Z) accelerometers (primary and redundant)
- Upper neck tri-axial (X, Y, Z) force load cells and tri-axial (X, Y, Z) moment load cells

The test vehicle was instrumented with twenty-one (21) structural accelerometers and the MDB was instrumented with six (6) accelerometers. All data channels were recorded with a fully self contained on-board DTS TDAS Pro Data Acquisition System. The data were digitally sampled at 12.5 kHz and processed according to SAEJ211-1 (March 1995).

One (1) real-time video camera and nine (9) high-speed video cameras were used to document the impact event. The pre test and post test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information are documented in the data sheets. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

All of the above was conducted in accordance to the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated November 2002.

2.2 GENERAL COMMENTS

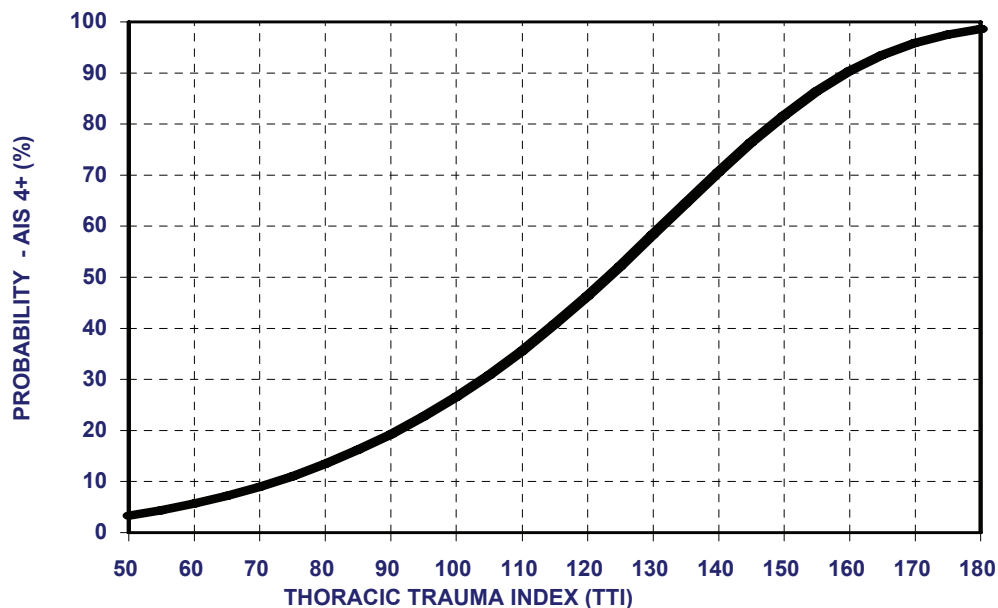
The test vehicle sustained a maximum static crush of 253 mm at level 2, 1350 mm rearward of the vertical impact line.

Test summaries, post test observations, vehicle, MDB, camera, and occupant measurements are presented in datasheets 1-16. Appendix A contains the still photograph prints. Appendix B contains selected driver and passenger SID/HIII's response data traces. Appendix C contains the SID/HIII's configuration and performance verification data.

OCCUPANT SUMMARY		
Injury criteria	Driver (P1)	Left rear passenger (P4)
HIC36	157.8	401.1
T1 (ms)	46.5	46.2
T2 (ms)	69.3	67.5
TTI	41	68
Maximum pelvic acceleration (G)	56.3	69.9

Head Injury Criterion (HIC) is the standardized calculation using resultant head acceleration to assess head injury. Generally, a higher HIC represents an increase in the likelihood of a serious head injury. HIC36 specifies a time 'window' of 36 milliseconds over which the integral is calculated. T1 and T2 represent the time of the lower and upper bounds of the window in which the HIC is calculated.

The Thoracic Trauma Index (TTI) is computed from the crash test dummy's accelerations at the upper rib, lower rib, and lower spine to quantify the risk of a serious thorax injury during a typical near side impact crash. The injury risk curve is shown below. The vertical axis of the curve is the probability of sustaining an Abbreviated Injury Scale (AIS) level 4 or greater injury. AIS is an anatomical scoring system used to assess a 'threat to life' associated with a specific injury; injuries are ranked on a scale of 1 to 6, with 1 being 'minor', 4 'severe' and 6 an 'unsurvivable' injury. A lower TTI corresponds to a decreased probability of a severe thorax injury. (www.trauma.org)



The maximum pelvic acceleration is used to assess the likelihood of injury to the pelvis during a side impact crash. Higher pelvic accelerations correspond to an increase in the likelihood of sustaining a severe pelvis injury.

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 – steering wheel	Did not deploy	No	N/a
Side airbag	Yes - seat back	Deployed	No	N/a
Head airbag	No	N/a	No	N/a
Curtain airbag	Yes	Deployed	Yes	Deployed
Seat belt pretensioner	Yes	Deployed	No	N/a
Seat belt load limiter	Yes	N/a	No	N/a

These test data and report can be found in detail on the NHTSA website at www.nhtsa.dot.gov.

A brief summary of the crash test can be located at www.safercar.gov

TEST NOTES

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

VEHICLE INFORMATION		VEHICLE OPTIONS	
Year	2008	Air conditioning	Yes
Make	Chrysler	Anti-lock brakes	No
Model	Sebring	AM/FM radio	Yes
Body style	4-door Sedan	All wheel drive	No
NHTSA number	M8 0300	Combo Bag	No
MCW test ID	08SN02	Console	Yes
VIN	1C3LC56R48N101858	Cruise/speed control	Yes
Color	Silver	Disc brakes, front	Yes
Build date	July 2007	Disc brakes, rear	Yes
Engine No. of cylinders	6	Head Bag	Yes – Front and rear
Engine Displacement (L)	2.7	Power brakes	Yes
Engine Placement	Lateral	Power door locks	Yes
Transmission	Automatic 4-speed	Power steering	Yes
Final drive	Front wheel drive	Power windows	Yes
Delivery date	August 16, 2007	Tilt steering wheel	Yes
Odometer reading	124 miles	Torso Bag	Yes – Front

CERTIFICATION LABEL INFORMATION			
Manufacturer	Daimler Chrysler	GVWR (kg)	2090.9
		GAWR front (kg)	1181.8
Date of manufacture	July 2007	GAWR rear (kg)	1009.1

SEAT INFORMATION			
	Number of occupants	Seat type	Seat back type
Front	2	Bucket	Adjustable
Back	3	Contoured bench	Fixed
Third	0		
Total	5		

CARGO CAPACITY CALCULATION			
	Units	Value	Reference label
Vehicle maximum capacity	kg	393.2	(A)
Number of occupants (5) X 68.04 kg	kg	340.9	(B)
Cargo capacity (RCLW) †	kg	52.3	(C) = (A)-(B) †

† Note if RCLW is > 136.1 kg (300 lbs), use 136.1 kg

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

TEST VEHICLE MASS INFORMATION				
	Units	As delivered	As tested	Fully loaded
Left front	kg	490.5	524.1	526.8
Right front	kg	453.2	485.5	485.5
Left rear	kg	291.8	390.5	394.1
Right rear	kg	305.5	347.3	348.3
Total front	kg	943.7	1009.6	1012.3
% Total front	%	61.2	57.8	57.7
Total rear	kg	597.3	737.8	742.4
% Total rear	%	38.8	42.2	42.3
Total	kg	1541.0	1747.4	1754.7

As delivered mass is vehicle mass with maximum fluids

Fully loaded mass is the as delivered mass + 1 or 2 ATD's + RCLW

As tested mass is the mass of test vehicle with 1 or 2 ATD's + instrumentation + ballast (if necessary)

CALCULATION OF TEST VEHICLE TARGET MASS			
	Units	Value	Reference label
As delivered test vehicle mass	kg	1541	(D)
Maximum cargo capacity (RCLW)	kg	52.3	(C)
Mass of SID HIII's (1 or 2)	kg	161.4	(E)
Test vehicle target mass (TVTW)	kg	1754.7	(D) + (C) + (E)

As tested mass must be 4.5 kg to 9 kg less than the test vehicle target mass

BALLAST INFORMATION	
Mass of ballast added (kg)	9.1 kg
Location	Air Cleaner
<u>Components removed from test vehicle</u> Non-struck front and rear door glasses	

IMPACT LOCATION ON TEST VEHICLE	
Wheelbase	2768 mm
Nominal impact point	444 mm rearward of front axle
Actual impact point	450 mm rearward of front axle

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

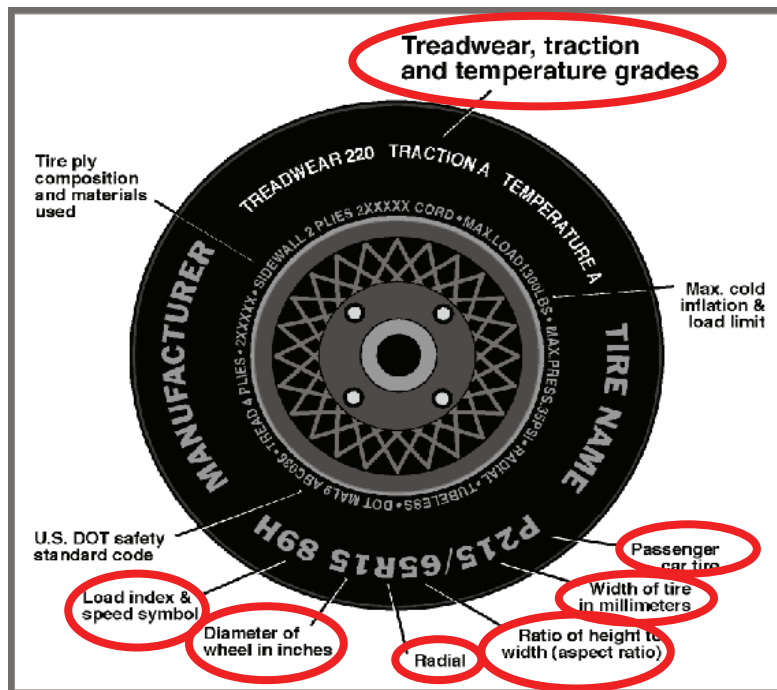
TEST VEHICLE ATTITUDES				
	Units	As delivered	As tested	Fully loaded
Left front	mm	768	750	750
Right front	mm	768	763	762
Left rear	mm	762	732	731
Right rear	mm	773	748	745
CG (X)	mm	1072.9	1168.7	1171.1

As tested attitudes must be between as delivered and fully loaded attitudes

CG (X) measured rearward from front axle centerline

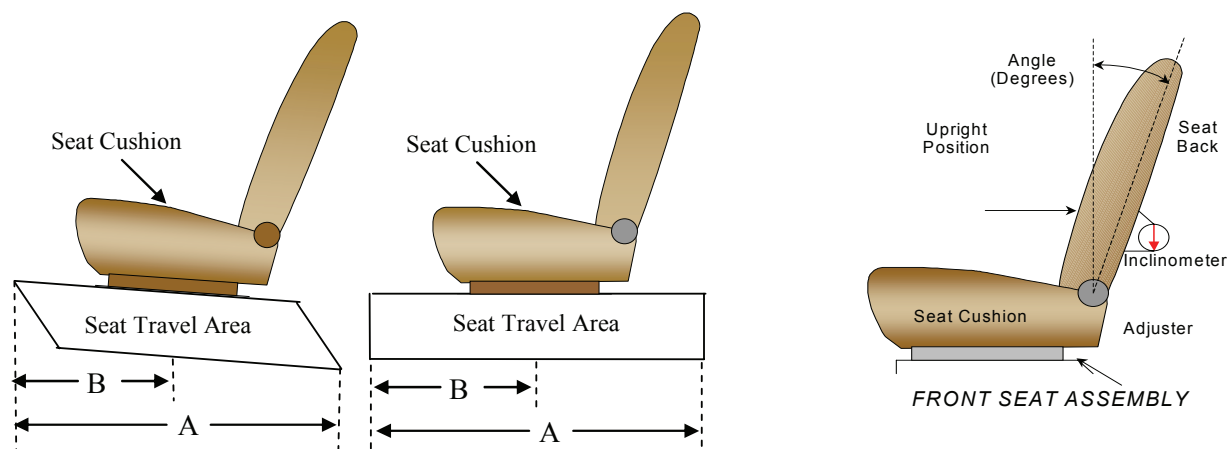
AUTOMATIC DOOR LOCK (ADL) INFORMATION				
	Left front	Left rear	Right front	Right rear
ADL present	Yes	Yes	Yes	Yes
ADL deactivated	No	No	No	No
Deactivation method	N/a			
Door lock status	Locked	Locked	Locked	Locked

DATA SHEET NO. 2
TEST VEHICLE TIRE INFORMATION



TIRE INFORMATION		
Measured Parameter	Front	Rear
Maximum tire pressure (kPa)	303	303
Cold / test pressure (kPa)	221	221
Recommended tire size	P215/60R17	P215/60R17
Tire size on vehicle	P215/60R17	P215/60R17
Tire manufacturer	Bridgestone	Bridgestone
Tire name	Turanza	Turanza
Tire type	EL400	EL400
Tire width (mm)	215	215
Ratio of height to width (aspect ratio)	60	60
Radial	Radial	Radial
Wheel diameter (inches)	17	17
Load index & speed symbol	95T	95T
Tread wear	400	400
Traction grade	B	B
Temperature grade	B	B

DATA SHEET NO. 3 TEST VEHICLE INFORMATION



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 POSITION		
	Left front seat	Left rear seat
Type	Power - bucket	Fixed - contoured
Fore/aft total travel (mm)	270	N/a
Number of detents	N/a	N/a
Test position	Mid position 138 mm from full forward	N/a

‡Full forward = notch 0

Seat back position

The driver and passenger seat back is positioned according to the manufacturers designated angle.

SEAT BACK POSITION		
	Left front seat	Left rear seat
Seat back angle @ head rest post	12.7 from vertical	Fixed
Test position	Check	Fixed

‡Full upright = notch 0

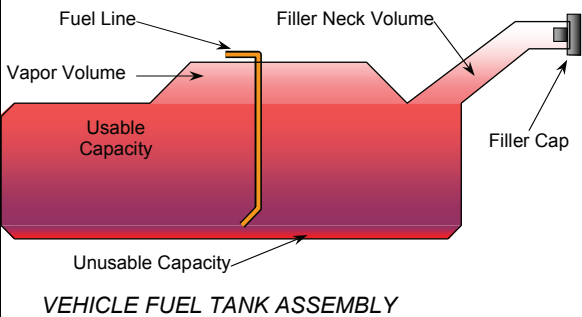
Seat belt position

The adjustable anchorage locations are positioned according to the manufacture's specifications.

SEAT BELT ADJUSTABLE ANCHORAGE (D-RING)		
	Left Front Seat	Left Rear Seat
Adjustable anchor present	Yes	No
Total travel (mm)	72	N/a
Test position	Full down	N/a

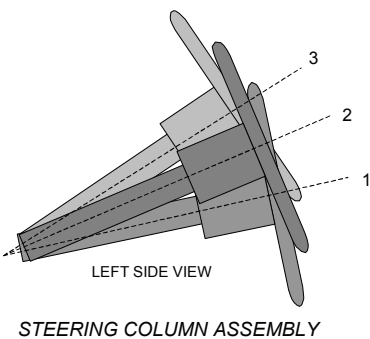
DATA SHEET NO. 3
TEST VEHICLE INFORMATION (continued)

Fuel tank information

STODDARD INFORMATION			
Description	Units	Value	
Usable capacity of standard equipment fuel tank	L	64.0	
Usable capacity of optional equipment fuel tank	L	N/a	
Usable capacity of vehicle used for certification testing to requirements	L	64.0	
Amount of stoddard added for test	L	59.5	
% Usable capacity (92%-94%)	%	93.0	
Operational instructions	None		
Electric fuel pump present	Yes		
Operating condition of test vehicle for fuel pump operation	The fuel pump is activated when the ignition is turned on.		

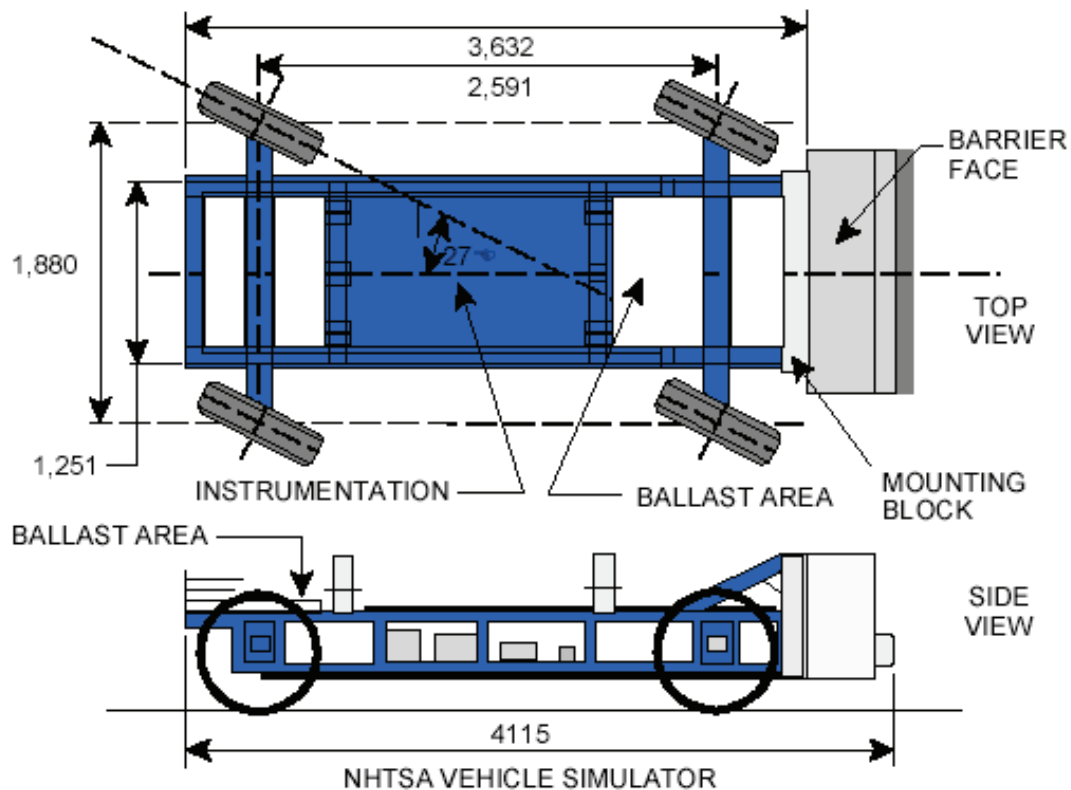
Steering wheel information

Steering wheel and column adjustments are placed according to the manufacturer's specifications.

ADJUSTABLE STEERING COLUMN		
Adjustable column	No	
Steering wheel angle in upper most position	check°	
Steering wheel fore/aft travel	51 mm	
Number of detents	17	
Test position	Steering wheel positioned 19.0 relative to side sill panel. The steering column also had a telescope adjustment and it was set in the mid position	

DATA SHEET NO. 4
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

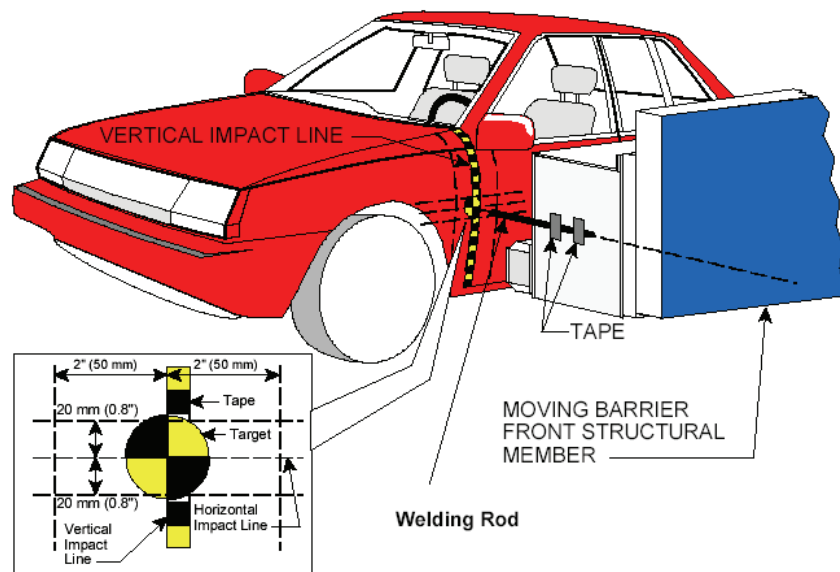
MDB SPECIFICATIONS				
	Units	Specification	Range	Value
Overall Width of Framework Carriage	mm	1251	1226-1276	1245
Overall Length w/Impactor Face	mm	4115	4090-4140	4101
Overall Length w/o Impactor Face	mm	3632	3607-3657	3617
Longitudinal Cg from Front Axle	mm	1123	1098-1148	1135
Track Width	mm	1880	1855-2005	1864
Mass	kg	1361	1356.5-1365.5	1360.4
MOI (X)	kg-m ²	508	483-533	496
MOI (Y)	kg-m ²	2263	2150-2376	2227
MOI (Z)	kg-m ²	2572	2443-2701	2609



DATA SHEET NO. 4
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS (Continued)

MDB MASS INFORMATION		
	Units	As tested
Left front	kg	595.9
Right front	kg	166.8
Left rear	kg	88.6
Right rear	kg	509.1
Total front	kg	762.7
% Total front	%	56.1
Total rear	kg	597.7
%Total rear	%	43.9
Total	kg	1360.4

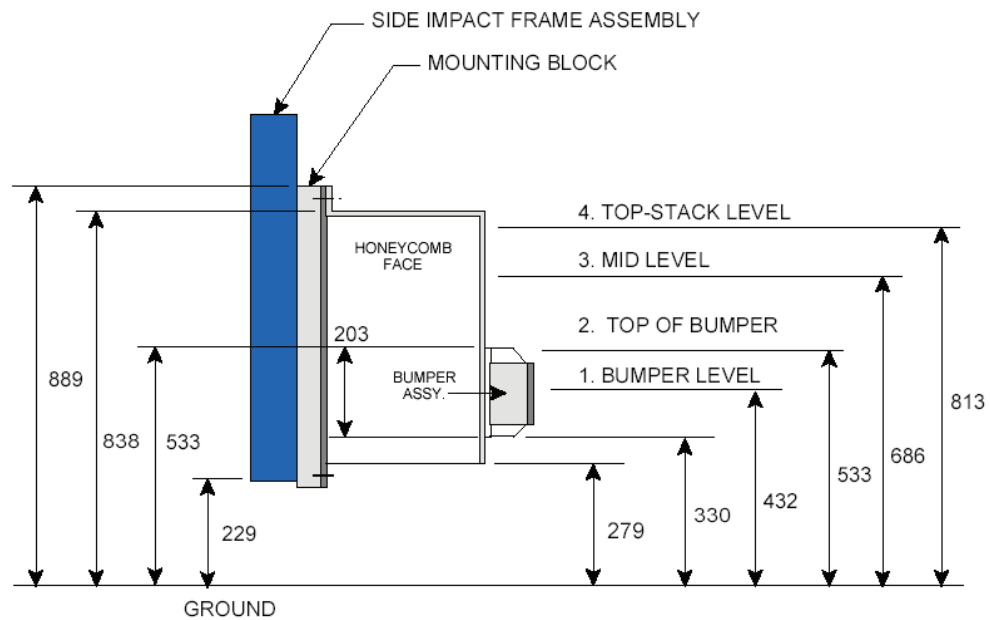
IMPACT SPEED				
	Units	Specification	Range	Value
Primary speed trap	kmh	61.9	61.1-62.7	62.0
Redundant speed trap	kmh	61.9	61.1-62.7	61.7



IMPACT POINT INFORMATION		
Vertical impact line is	444 mm rearward of front axle	
Actual impact is	450 mm rearward of front axle	
Measurement	Value	Tolerance
Impact point distance from vertical impact line	6 mm rearward	+/- 50 mm
Impact point distance from horizontal impact line	4 mm below	+/- 20 mm

DATA SHEET NO. 4
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS (Continued)

HONEYCOMB FACE CLEARANCE					
	Units	Specification	Range	Left	Right
Bottom of barrier	mm	279	276-282	276	278
Bottom of bumper	mm	330	327-333	330	330
Top of bumper	mm	533	530-536	534	536
Top of barrier	mm	838	835-841	836	836



RIGHT SIDE VIEW

**DATA SHEET NUMBER 5
POST TEST OBSERVATIONS**

TEST DUMMY INFORMATION AND CONTACT POINTS		
Description	Left front seat	Left rear seat
Dummy type / serial no.	SID HIII/056	SID HIII/137
Head contact	To side curtain airbag	Bottom to side curtain airbag, top and rear to side header, rear 77 mm forward of c-pillar
Upper torso contact	To seat mounted side airbag	To left rear door panel just below window sill
Lower torso contact	To seat mounted side airbag	To left rear door panel just above armrest
Left leg contact	To left front door panel 260 mm below window sill	To left rear door panel 55 mm below armrest
Left knee contact	To left front door panel 50 mm below arm rest	To left rear door panel 160 mm below arm rest

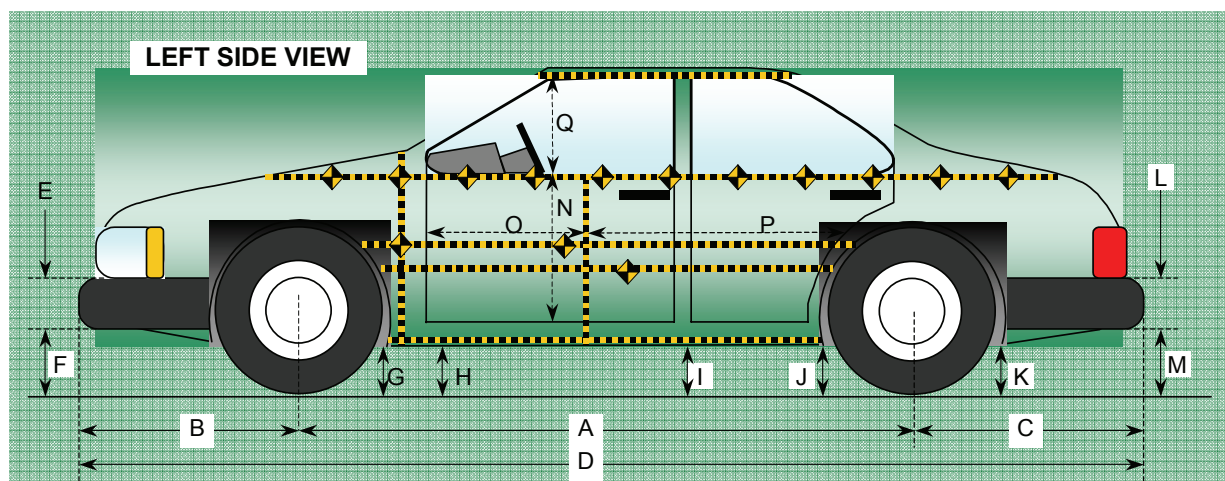
POST TEST DOOR OPENING AND SEAT TRACK INFORMATION		
Description	Front	Rear
Locked/unlocked doors	Locked	Locked
Left side door opening	Closed/latched/inoperable	Closed/latched/inoperable
Right side door opening	Closed/latched/operable	Closed/latched/operable
Seat movement	~26 mm of seat crush	~7 mm of seat crush, seat pan pushed upward
Seat back failure	None	None

POST TEST STRUCTURAL OBSERVATIONS	
Critical areas of performance	Observations/conclusions
Pillar performance	None
Sill separation	None
Windshield damage	None
Window damage	None
Other notable effects	Rear impacted side door separated 160 mm at top of window and 60 mm at window sill

DATA SHEET NUMBER 5
POST TEST OBSERVATIONS (continued)

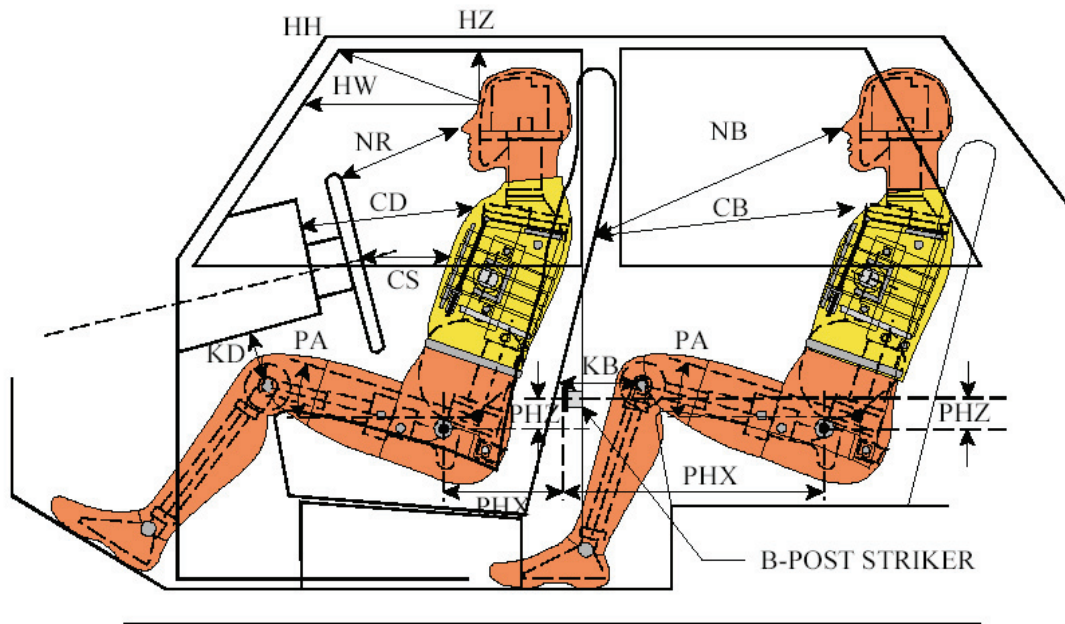
SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION				
Restraint Type	Left front (Driver) occupant Location 01		Left rear (passenger) occupant Location 04	
	Installed	Operation	Installed	Operation
Front airbag	Yes - steering wheel	Did not deploy	No	N/a
Side airbag	Yes - seat back	Deployed	No	N/a
Head airbag	No	N/a	No	N/a
Curtain airbag	Yes - side header	Deployed	Yes - side header	Deployed
Seat belt pretensioner	Yes	Deployed	No	N/a
Seat belt load limiter	No	N/a	No	N/a

DATA SHEET NUMBER 6
VEHICLE PRE AND POST MEASUREMENTS



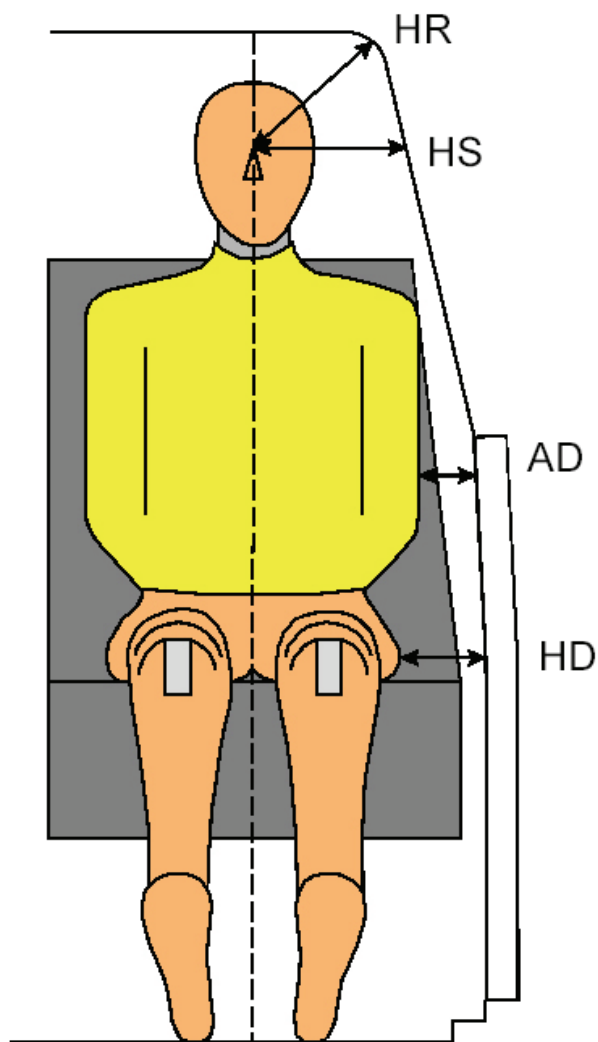
VEHICLE DIMENSIONS				
Code	Description	Pre test	Post test	Change
		mm	mm	mm
A	Wheelbase	2768	2751	-17
B	Front axle to front side of vehicle	778	815	37
C	Rear axle to rear side of vehicle	865	869	4
D	Total length at centerline	4845	4850	5
E	Front bumper thickness	262	262	0
F	Front bumper bottom to ground	283	286	3
G	Sill height at front wheel well	232	225	-7
H	Sill height at front door leading edge	228	251	23
I	Sill height at b-pillar	237	243	6
J1	Sill height at rear wheel well	177	149	-28
J2	Pinch weld height at rear wheel well	241	219	-22
K	Sill height aft of rear wheel well	288	259	-29
L	Rear bumper thickness	240	240	0
M	Rear bumper bottom to ground	443	407	-36
N	Sill height to window bottom sill	723	624	-99
O	Front door leading edge to impact C/L	1118	1017	-101
P	Rear door trailing edge to impact C/L	927	841	-86
Q	Front window opening	465	456	-9
R	Right side length	4411	4422	11
S	Left side length	4411	4435	24
T	Vehicle width at b-pillar	1798	1595	-203

DATA SHEET NUMBER 7
SID HIII LONGITUDINAL CLEARANCES



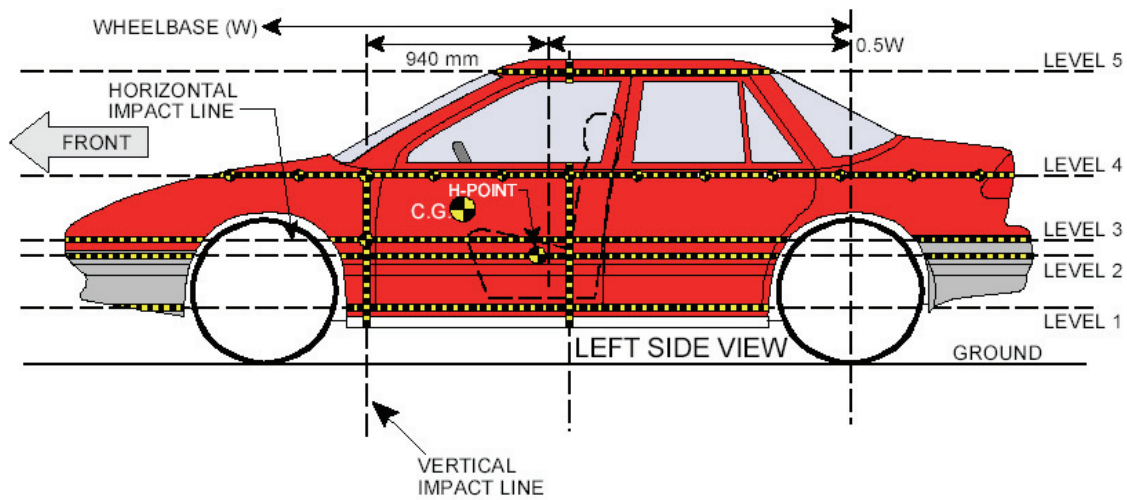
SID HIII LONGITUDINAL CLEARANCE MEASUREMENTS					
Driver code	Pass. code	Measurement description	Units	Left front seat	Left rear seat
		ATD serial number	-	056	137
HH	-	Head to header	mm	514	N/a
HW	-	Head to windshield	mm	818	N/a
HZ	HZ	Head to roof	mm	230	186
NR	NB	Nose to rim/nose to seatback	mm	526	624
CD	CB	Chest to dash or seatback	mm	591	534
CS	-	Chest to steering wheel	mm	410	N/a
KDL	KBL	Left knee to dash or seatback length	mm	162	241
KDA	KBA	Left knee to dash or seatback angle	°	19.7	21.6
KDR	KBR	Right Knee to dash or seatback length	mm	148	224
KDA	KDA	Right knee to dash or seatback angle	°	20.4	23.8
PA	PA	Pelvic angle	°	23.6	23.5
PHX	PHX	H-Point to striker (x-axis)	mm	206	175.6
PHZ	PHZ	H-Point to striker (z-axis)	mm	188	297

DATA SHEET NUMBER 8
SID HIII LATERAL CLEARANCES



SID HIII LATERAL CLEARANCE MEASUREMENTS				
Code	Measurement description	Units	Left front seat	Left rear seat
-	ATD serial number	-	056	137
HR	Head to side header	mm	203	224
HS	Head to side window	mm	343	301
-	Shoulder to door	mm	110	135
HD	H-Point to door	mm	143	195

DATA SHEET 9 VEHICLE SIDE MEASUREMENTS



VEHICLE STATIC CRUSH SUMMARY				
Level	Description	Height above ground (mm)	Maximum static crush (mm)	Longitudinal (X) distance from impact point (mm)
5	Window top	1392	17	1500
4	Window sill	951	110	1200
3	Mid-door	617	239	1500
2	Driver H-point	521	253	1350
1	Axle centerline or sill top	263	118	1350
Maximum static crush		253 mm at level 2 1350 mm rearward from vertical impact line		

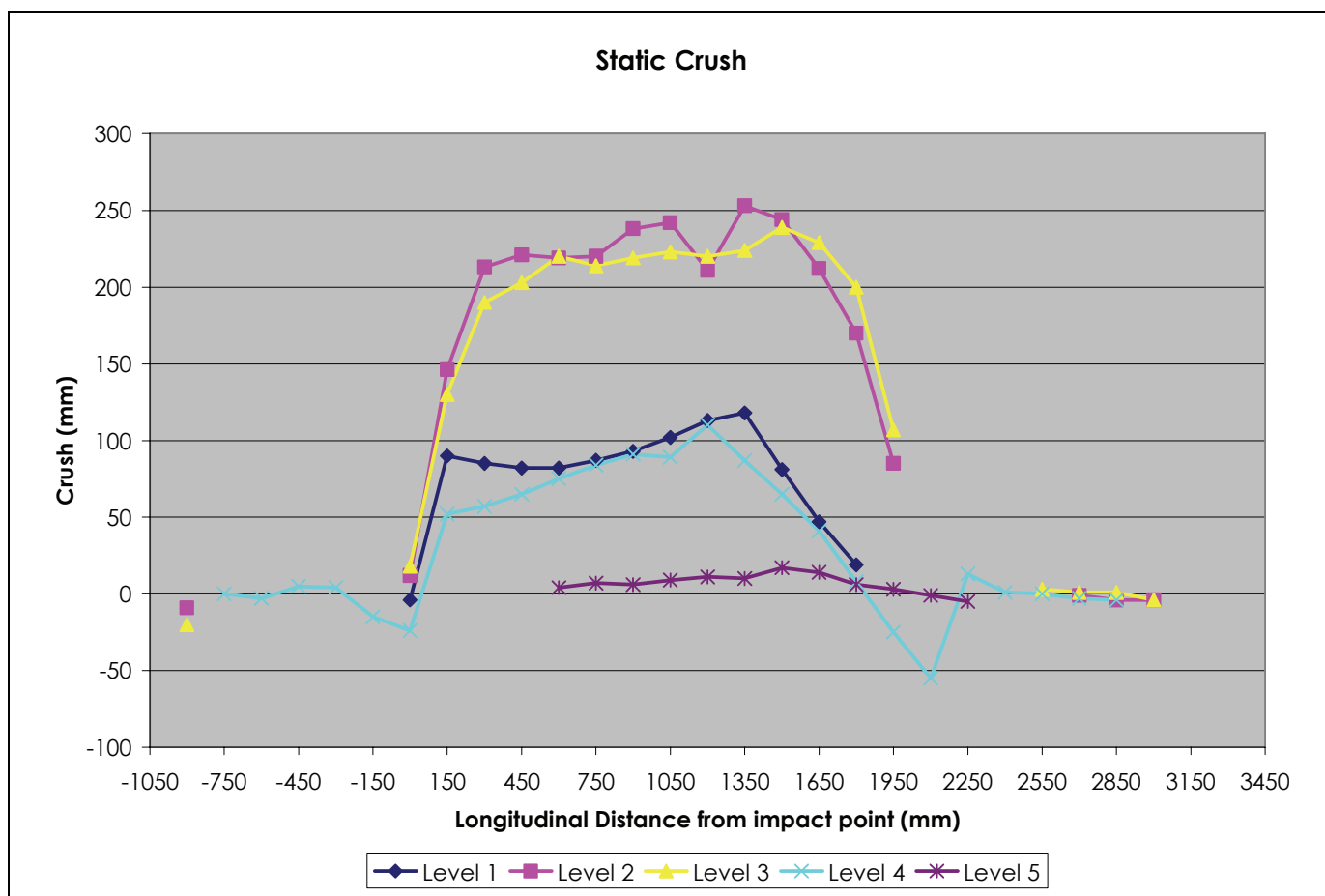
Height measurements taken 750 mm rearward from vertical impact line.

DATA SHEET 10
VEHICLE STATIC CRUSH PROFILE

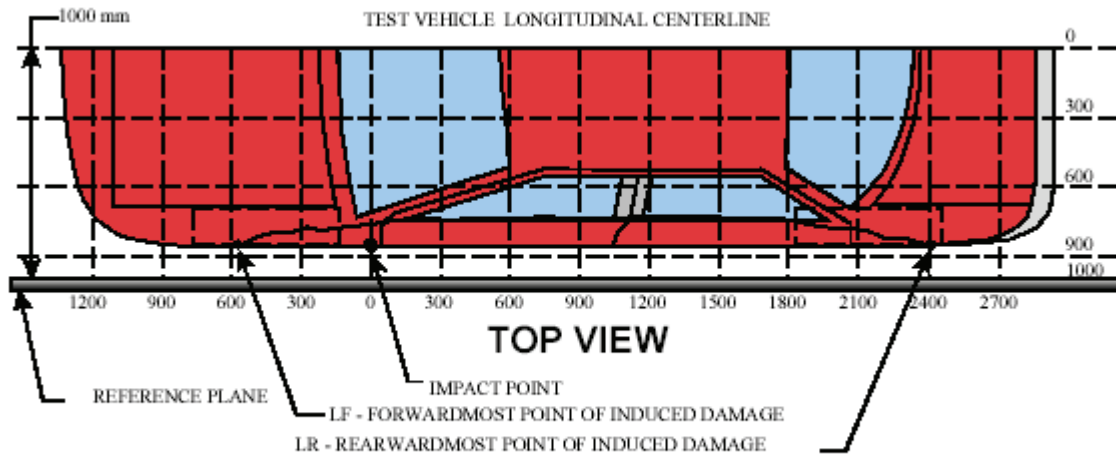
Note: All dimensions are in millimeters with a tolerance of ± 3 mm

TEST VEHICLE STATIC CRUSH																
Level	1			2			3			4			5			
Height	263			521			617			951			1392			
	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	
DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT	-1050															
	-900	2			182	173	-9	183	163	-20						
	-750										235	235	0			
	-600										231	228	-3			
	-450										227	232	5			
	-300										222	226	4			
	-150										219	204	-15			
	0	179	175	-4	149	161	12	150	168	18	216	192	-24			
	150	195	285	90	168	314	146	165	295	130	216	268	52			
	300	194	279	85	170	383	213	164	354	190	217	274	57			
	450	192	274	82	169	390	221	162	365	203	215	280	65			4
	600	192	274	82	167	386	219	162	382	220	213	288	75	431	435	7
	750	191	278	87	167	387	220	161	375	214	212	296	84	450	457	7
	900	192	285	93	167	405	238	161	380	219	213	304	91	462	468	6
	1050	194	296	102	167	409	242	161	384	223	215	304	89	468	477	9
	1200	196	309	113	167	378	211	161	381	220	216	326	110	472	483	11
	1350	200	318	118	169	422	253	163	387	224	220	307	87	475	485	10
	1500	203	284	81	172	416	244	166	405	239	225	290	65	475	492	17
	1650	207	254	47	174	386	212	168	397	229	227	268	41	474	488	14
	1800	197	216	19	171	341	170	168	368	200	233	241	8	472	478	6
	1950				153	238	85	153	260	107	239	214	-25	467	470	3
	2100										248	193	-55	461	460	-1
	2250										252	265	13	454	449	-5
	2400										262	263	1			
	2550							151	154	3	271	271	0			
	2700				165	164	-1	176	177	1	288	285	-3			
	2850				199	195	-4	207	208	1	312	308	-4			
	3000				230	226	-4	248	244	-4						
	3150															
	3330															

DATA SHEET 10 **VEHICLE STATIC CRUSH PROFILE**

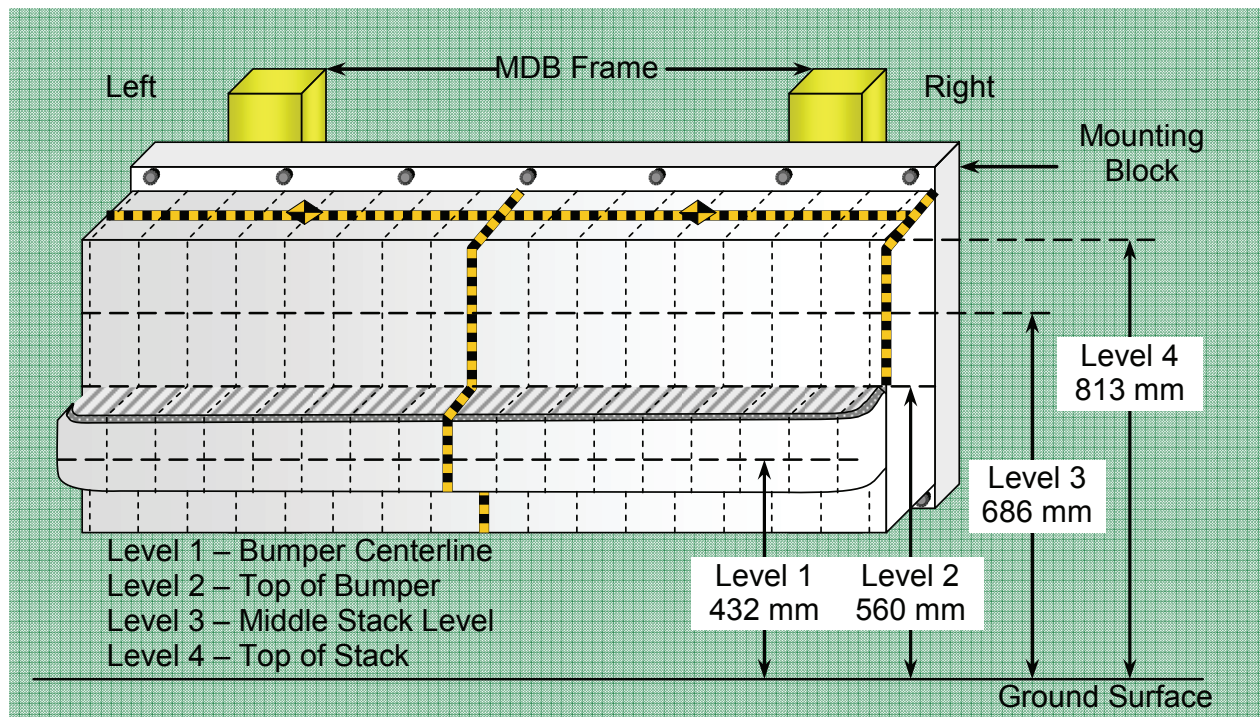


DATA SHEET 11
VEHICLE DAMAGE PROFILE DISTANCES (DPD)



DPD MEASUREMENTS				
	DPD measurement (mm)	Pre test (mm)	Post test (mm)	Crush (mm)
1	-150	137	137	0
2	330	140	359	219
3	810	141	376	235
4	1290	144	391	247
5	1770	147	384	237
6	2250	151	151	0

DATA SHEET 12
DEFORMABLE BARRIER STATIC CRUSH



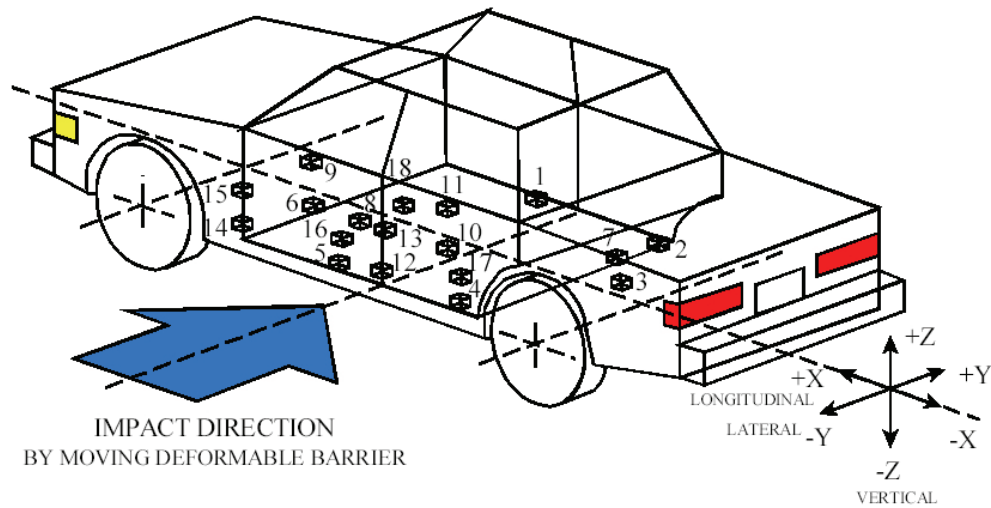
DEFORMABLE BARRIER FACE SUMMARY		
Barrier face manufacturer		Plascore
Serial number		163A0806-3 186B0706
Level	Description	Maximum crush
1	Center of bumper	169
2	Top of bumper	133
3	Middle of stack	126
4	Top of stack	126
Maximum post test intrusion is 169 mm at level 1		

BARRIER STATIC CRUSH																	
	Distance left of center								C _L	Distance right of center							
	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
4	105	81	69	67	59	66	90	69	59	55	49	54	64	72	82	99	126
3	76	47	36	31	31	42	48	45	25	23	22	26	30	37	46	71	126
2	133	113	96	71	55	58	60	53	53	63	79	82	73	73	76	82	97
1	134	133	133	131	127	127	127	128	130	131	136	139	138	144	143	151	169

all values in mm

DATA SHEET 13

VEHICLE ACCELEROMETER LOCATIONS



TEST VEHICLE ACCELEROMETER LOCATIONS				
Loc. no.	Accelerometer location	Measurements (mm)		
		X	Y	Z
1	Right sill at front seat	2754	742	474
2	Right sill at rear seat	1777	749	480
3	Rear floor pan above axle	1111	13	126
4	Left sill at rear door	1783	-731	490
5	Left sill at front door	2741	-736	480
6	Left front door C/L	†	†	†
7	Rear occupant compartment	1960	424	308
8	Left front door mid-rear	†	†	†
9	Left front door upper C/L	†	†	†
10	Left rear door mid-rear	†	†	†
11	Left rear door upper C/L	†	†	†
12	Left lower b-pillar	2240	-732	43
13	Left middle b-pillar	2214	-721	-178
14	Left lower a-pillar	3208	-719	56
15	Left middle a-pillar	3214	-709	-55
16	Front seat track	2506	-589	320
17	Rear seat track or structure	1955	-276	302
18	Vehicle CG	2551	36	51

Origin

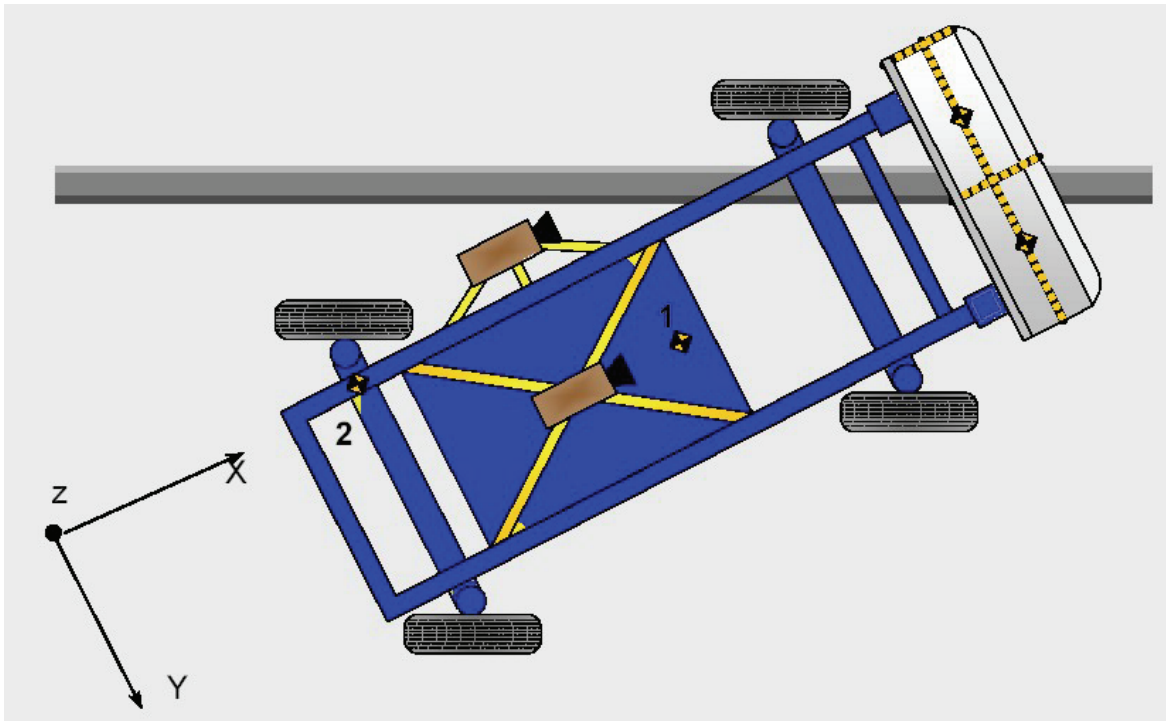
X Rear bumper
Y Midline of vehicle
Z Top of rear bumper

Orientation

X +(X) Forward
Y +(Y) Right
Z +(Z) Down

† Front and rear door accelerometers not installed as per NCAP policy (02Nov05)

DATA SHEET 14
MDB ACCELEROMETER LOCATIONS

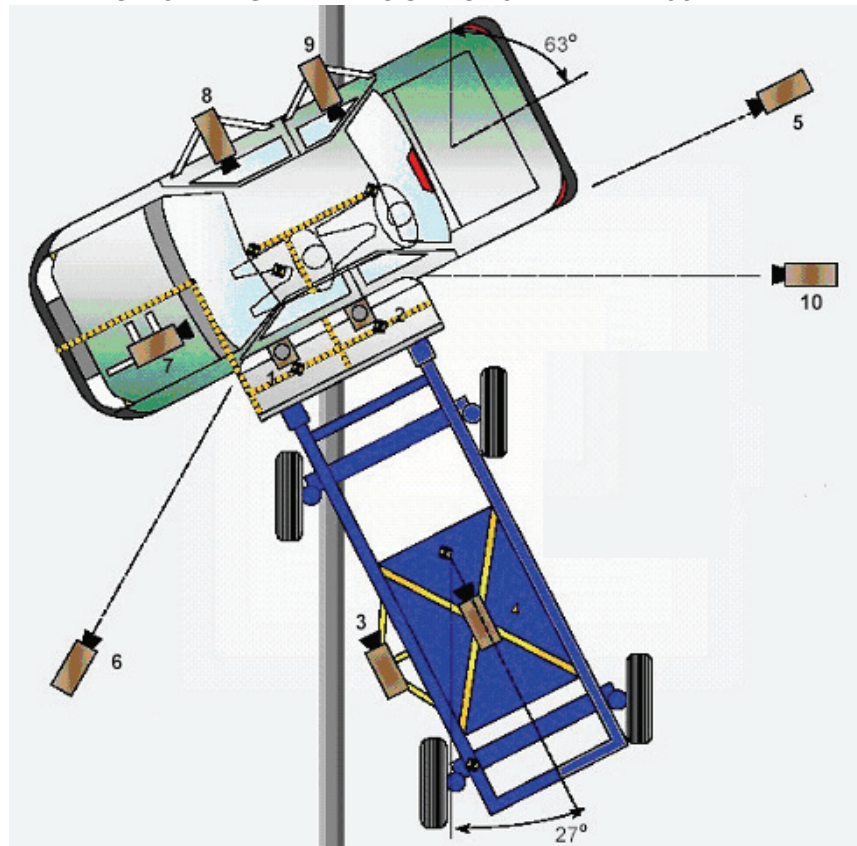


MDB ACCELEROMETER LOCATIONS			
Location	Measurements (mm)		
	X	Y	Z
Center of gravity	1113	-1	311
Right rear	2812	-614	585

Origin
 X Rear structural member
 Y Midline of MDB
 Z Middle of rear structural member

Orientation
 X +(X) Forward
 Y +(Y) Right
 Z +(Z) Down

DATA SHEET 15
HIGH-SPEED CAMERA LOCATIONS AND DATA SUMMARY



	View	Coordinates †			Angle °	Lens mm	Rate fps
		X	Y	Z			
		mm	mm	mm			
1	Overhead view of test vehicle	-249	-640	4812	90	12.5	1000
2	Overhead close-up view of impact plane	-550	-125	4340	90	16	1000
3	MDB onboard close-up view of impact point	-1542	-1026	25	0.9	25.4	1000
4	MDB onboard view of driver dummy	-1415	-1891	780	3.8	13	1000
5	Right side ground level overall view	-555	11505	878	5.3	50	1000
6	Left side ground level overall view	-1710	-3804	847	10	25	1000
7	Test vehicle onboard driver front view				7.5	25	1000
8	Test vehicle onboard driver side view				9.7	12.5	1000
9	Test vehicle onboard passenger side view				10.9	12.5	1000
10	Real-time film coverage of test	-	-	-	-	-	-

Origin

X

Y

Z

Impact Point

Impact Point

Impact Point

Orientation

X

Y

Z

+(X) Forward

+(Y) Right

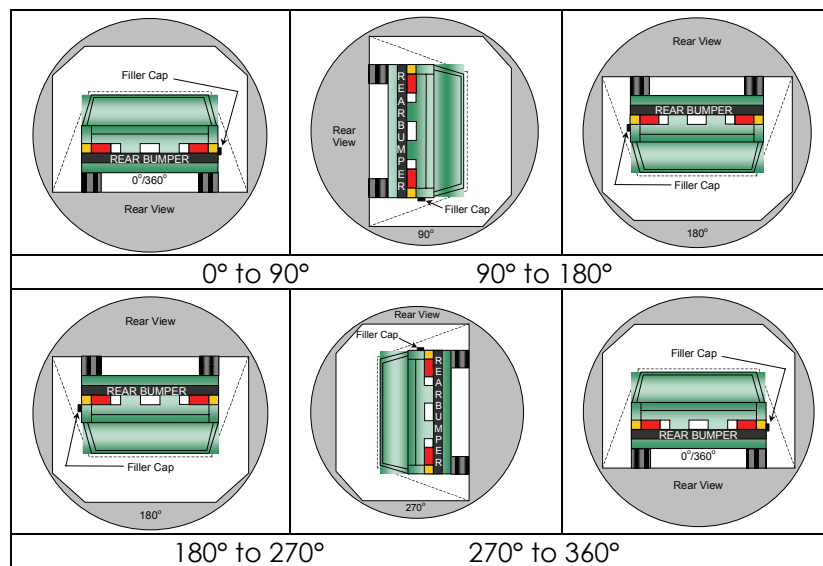
+(Z) Down

DATA SHEET 16
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 20° C Test Time: 4:32 pm

STODDARD SOLVENT SPILLAGE MEASUREMENTS				
Period	Description	Maximum allowable spillage	Spillage	
			Amount	Location
A	From impact until vehicle motion ceases	1 oz	0	N/a
B	5 minutes after vehicle motion ceases	5 oz	0	N/a
C	Next 25 minutes	1 oz/minute	0	N/a

FMVSS 301 STATIC ROLLOVER



FMVSS301 STATIC ROLLOVER DATA			
Test phase	Rotation time (sec.)	Hold time (sec.)	Total time (sec.)
Tolerance	60-180	>= 300	-
0° to 90°	65	300	365
90° to 180°	65	300	365
180° to 270°	66	300	366
270° to 360°	66	300	366

DATA SHEET 16
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA (CONTINUED)

FMVSS301 STATIC ROLLOVER - SPILLAGE				
	First five minutes (oz)	Sixth minute (oz)	Seventh minute (oz)	Eighth minute (oz)
Max allowable leakage	5.0	1.0	1.0	1.0
0° to 90°	0	0	0	N/a
90° to 180°	0	0	0	N/a
180° to 270°	0	0	0	N/a
270° to 360°	0	0	0	N/a

SPILLAGE LOCATION(s)	
0° to 90°	N/a
90° to 180°	N/a
180° to 270°	N/a
270° to 360°	N/a

APPENDIX A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

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A-4	Tire placard	A-5
A-5	Pre test front view of test vehicle	A-6
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A-9	Pre test left side view of test vehicle	A-8
A-10	Post test left side view of test vehicle	A-8
A-11	Pre test left rear $\frac{3}{4}$ view of test vehicle	A-9
A-12	Post test left rear $\frac{3}{4}$ view of test vehicle	A-9
A-13	Pre test rear view of test vehicle	A-10
A-14	Post test rear view of test vehicle	A-10
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A-16	Post test right rear $\frac{3}{4}$ view of test vehicle	A-11
A-17	Pre test right side view of test vehicle	A-12
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A-24	Post test overhead close-up	A-15
A-25	Pre test impact point	A-16
A-26	Post test impact point	A-16
A-27	Pre test front $\frac{3}{4}$ view of left side doors	A-17
A-28	Post test front $\frac{3}{4}$ view of left side doors	A-17
A-29	Pre test rear $\frac{3}{4}$ view of left side doors	A-18
A-30	Post test rear $\frac{3}{4}$ view of left side doors	A-18
A-31	Pre test left front door	A-19
A-32	Post test left front door	A-19
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Figure	Photograph Description	Page
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A-49	Pre test front view of MDB barrier face	A-28
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A-51	Pre test overhead view of MDB barrier face	A-29
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A-53	Pre test right side view of MDB barrier face	A-30
A-54	Post test right side view of MDB barrier face	A-30
A-55	Pre test left side view of MDB barrier face	A-31
A-56	Post test left side view of MDB barrier face	A-31
A-57	FMVSS301 0 degrees	A-32
A-58	FMVSS301 90 degrees	A-32
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A-60	FMVSS301 270 degrees	A-33
A-61	FMVSS301 360 degrees	A-34
A-62	Impact	A-34



Figure A-1: Left front 3/4 view, as delivered



Figure A-2: Right rear 3/4 view, as delivered

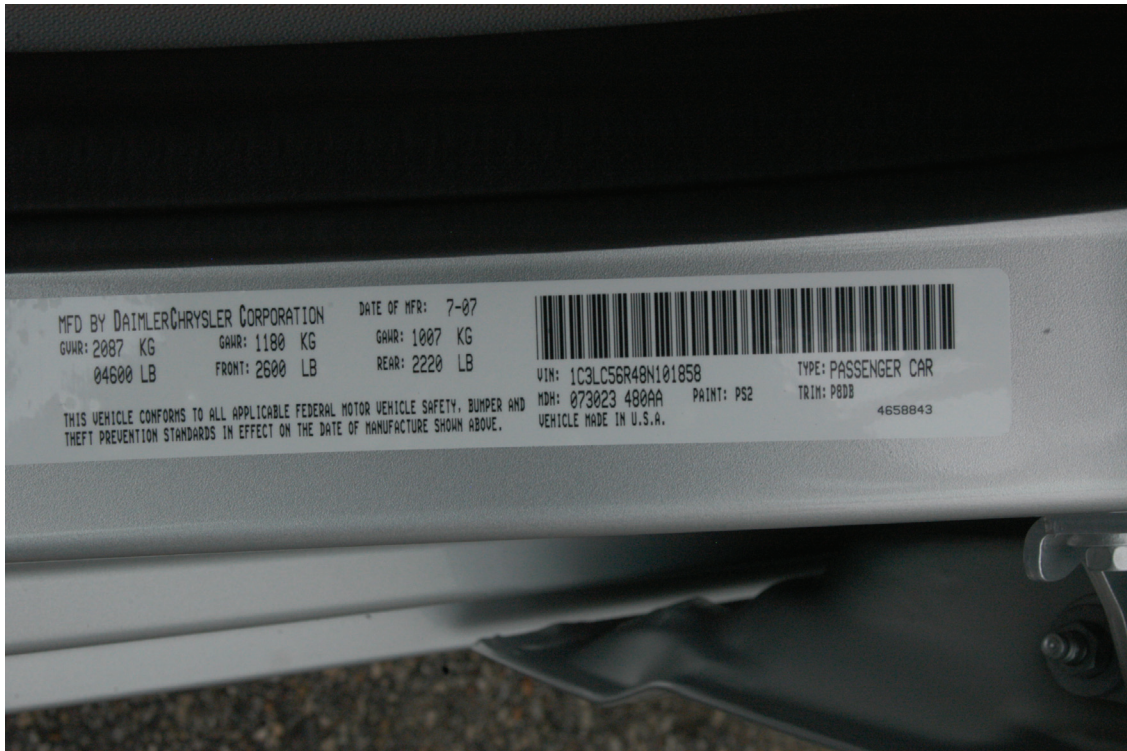


Figure A-3: Manufacturer's label



Figure A-4: Tire placard



Figure A-5: Pre test front view of test vehicle



Figure A-6: Post test front view of test vehicle



Figure A-7: Pre test left front 3/4 view of test vehicle



Figure A-8: Post test left front 3/4 view of test vehicle



Figure A-9: Pre test left side view of test vehicle



Figure A-10: Post test left side view of test vehicle



Figure A-11: Pre test left rear 3/4 view of test vehicle



Figure A-12: Post test left rear 3/4 view of test vehicle



Figure A-13: Pre test rear view of test vehicle



Figure A-14: Post test rear view of test vehicle



Figure A-15: Pre test right rear 3/4 view of test vehicle



Figure A-16: Post test right rear 3/4 view of test vehicle



Figure A-17: Pre test right side view of test vehicle



Figure A-18: Post test right side view of test vehicle



Figure A-19: Pre test right front 3/4 view of test vehicle



Figure A-20: Post test right front 3/4 view of test vehicle



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 impact point



Figure A-26: Post test impact point



Figure A-27: Pre test front 3/4 view of left side doors



Figure A-28: Post test front 3/4 view of left side doors



Figure A-29: Pre test rear 3/4 view of left side doors



Figure A-30: Post test rear 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 driver left side view



Figure A-34: Post test driver left side view



Figure A-35: Pre test driver shoulder clearance



Figure A-36: Post test driver shoulder clearance



Figure A-37: Pre test driver right side view



Figure A-38: Post test driver right side view



Figure A-39: Post test driver contact locations (1)



Figure A-40: Post test driver contact locations (2)



Figure A-41: Pre test passenger left side view



Figure A-42: Post test passenger left side view

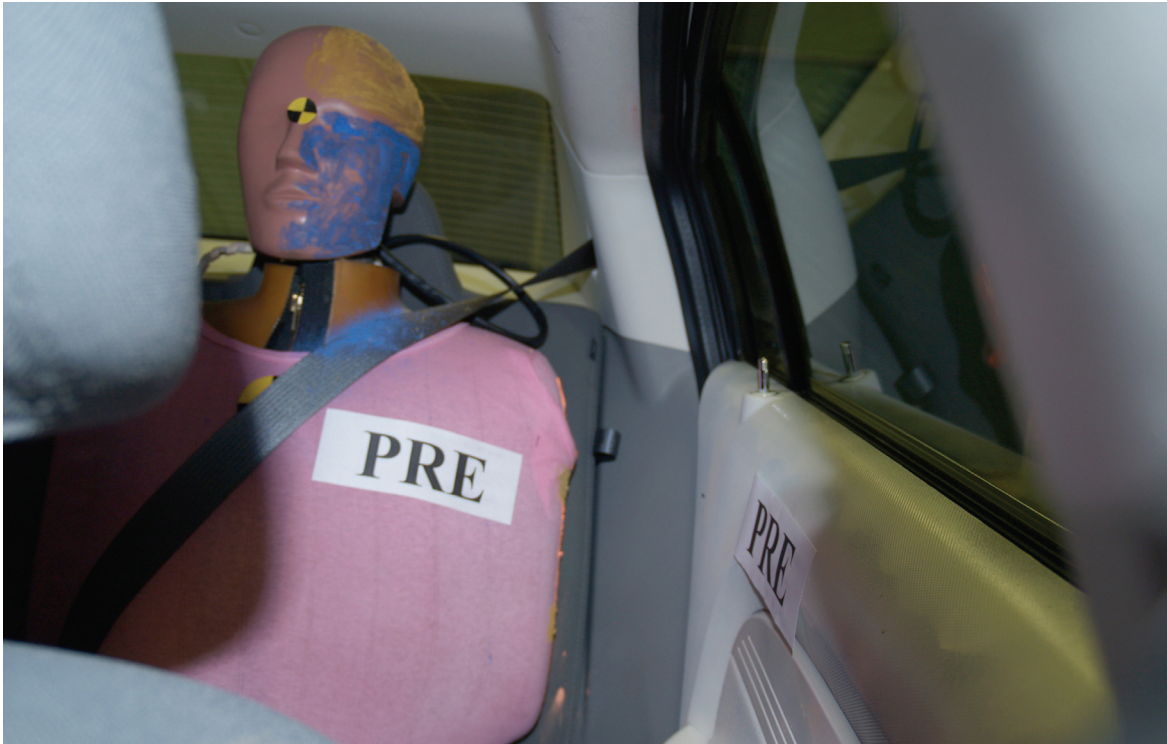


Figure A-43: Pre test passenger shoulder clearance



Figure A-44: Post test passenger shoulder clearance



Figure A-45: Pre test passenger right side view



Figure A-46: Post test passenger right side view



Figure A-47: Post test passenger contact locations (1)



Figure A-48: Post test passenger contact locations (2)

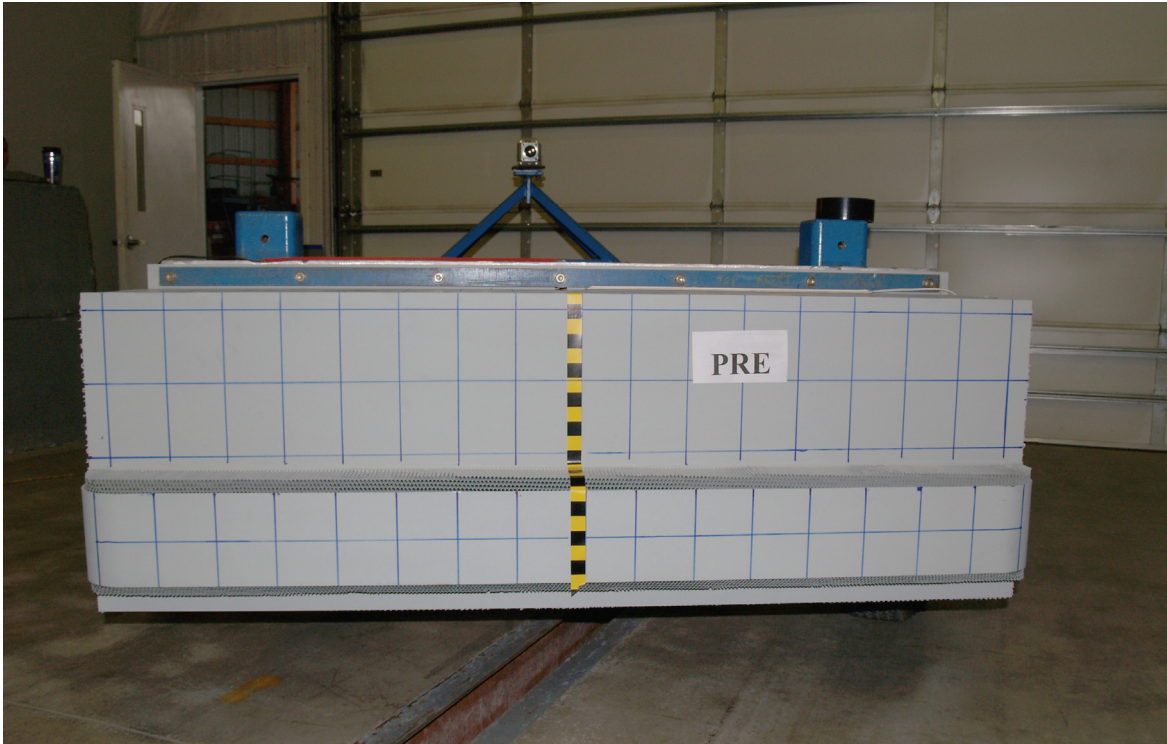


Figure A-49: Pre test front view of MDB barrier face

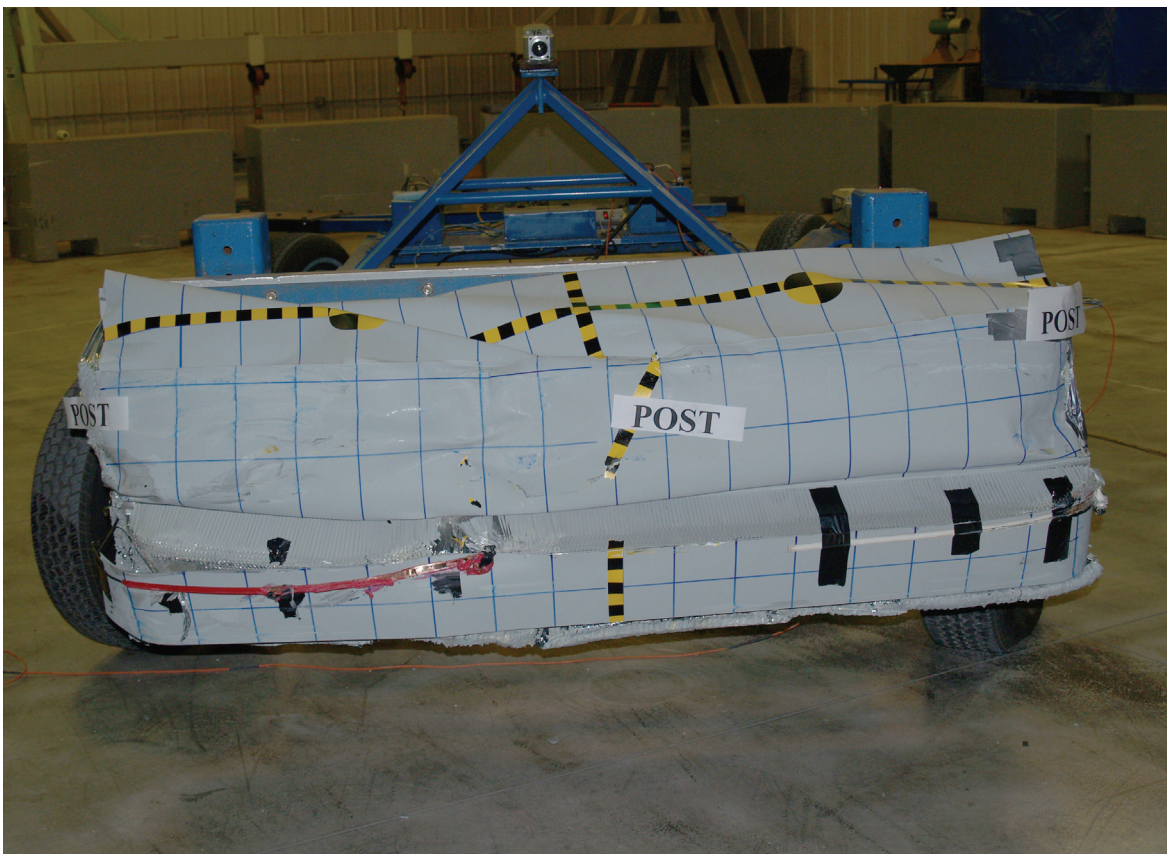


Figure A-50: Post test front view of MDB barrier face



Figure A-51: Pre test overhead view of MDB barrier face



Figure A-52: Post test overhead view of MDB barrier face



Figure A-53: Pre test right side view of MDB barrier face



Figure A-54: Post test right side view of MDB barrier face



Figure A-55: Pre test left side view of MDB barrier face



Figure A-56: Post test left side view of MDB barrier face



Figure A-57: FMVSS 301 0 degrees

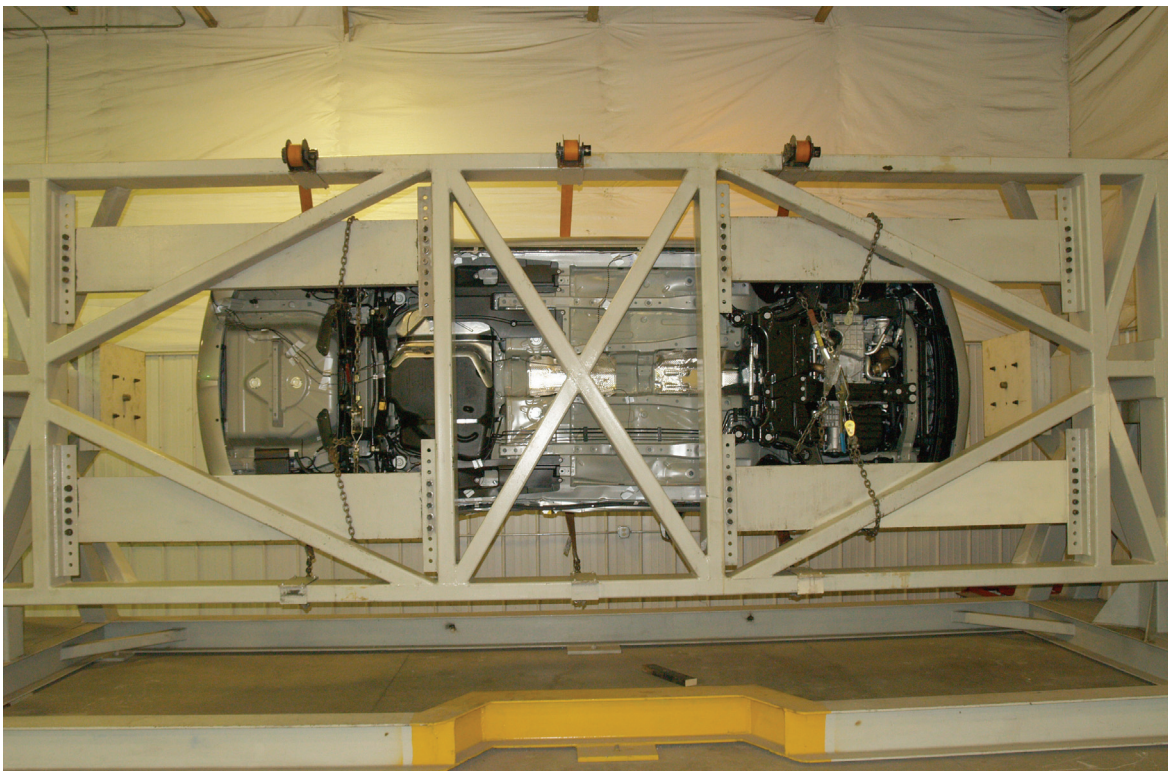


Figure A-58: FMVSS 301 90 degrees



Figure A-59: FMVSS 301 180 degrees



Figure A-60: FMVSS 301 270 degrees



Figure A-61: FMVSS 301 360 degrees



Figure A-62: Impact

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

The following plots are provided in the test report

Data Plot	Description	Page
B-1	Driver upper rib(y) acceleration - primary – FIR100	B-4
B-2	Driver lower rib(y) acceleration - primary – FIR100	B-5
B-3	Driver lower spine (y) acceleration - primary – FIR100	B-6
B-4	Driver pelvis (y)acceleration - primary – FIR100	B-7
B-5	Passenger upper rib(y) acceleration - primary – FIR100	B-8
B-6	Passenger lower rib(y) acceleration - primary – FIR100	B-9
B-7	Passenger lower spine (y) acceleration - primary – FIR100	B-10
B-8	Passenger pelvis (y)acceleration - primary – FIR100	B-11

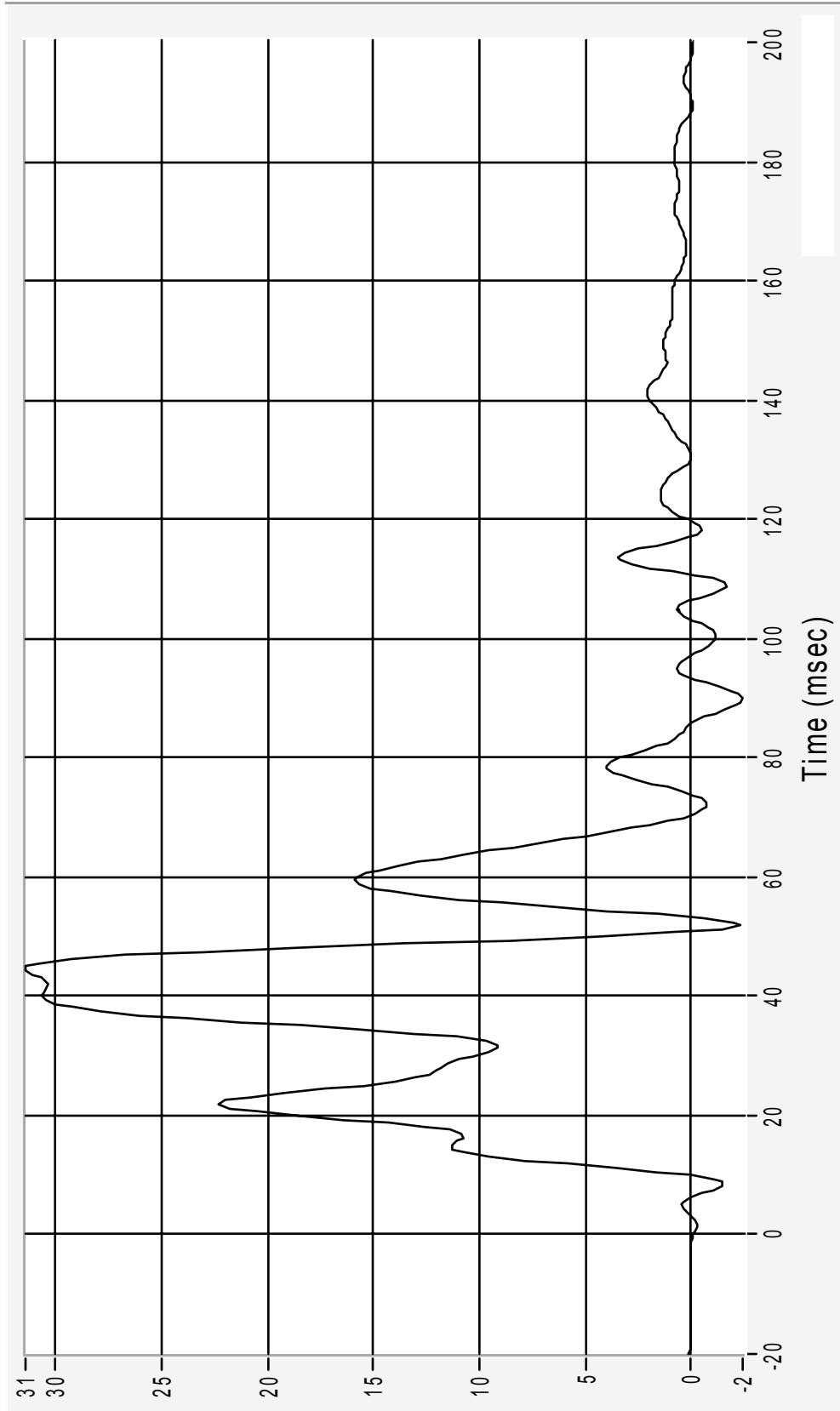
The following dummy, vehicle, and MDB response data can be found in the R&D section of the NHTSA website at: www-nrd.nhtsa.dot.gov/database/nrd-11/veh_db.html.

Description
Driver head (x) acceleration
Driver head (y) acceleration
Driver head (z) acceleration
Driver upper neck (x) force
Driver upper neck (y) force
Driver upper neck (z) force
Driver upper neck (x) moment
Driver upper neck (y) moment
Driver upper neck (z) moment
Driver upper rib (y) acceleration – redundant
Driver lower rib (y) acceleration – redundant
Driver lower spine (y) acceleration – redundant
Driver pelvis (y) acceleration – redundant
Passenger head (x) acceleration
Passenger head (y) acceleration
Passenger head (z) acceleration
Passenger upper neck (x) force
Passenger upper neck (y) force
Passenger upper neck (z) force
Passenger upper neck (x) moment
Passenger upper neck (y) moment
Passenger upper neck (z) moment
Passenger upper rib (y) acceleration – redundant
Passenger lower rib (y) acceleration – redundant
Passenger lower spine (y) acceleration – redundant
Passenger pelvis (y) acceleration – redundant
Vehicle right side sill at front seat (x) acceleration
Vehicle right side sill at front seat (y) acceleration
Vehicle right side sill at front seat (z) acceleration
Vehicle right side sill at rear seat (x) acceleration
Vehicle right side sill at rear seat (y) acceleration
Vehicle right side sill at rear seat (z) acceleration
Vehicle rear floor pan above axle (x) acceleration
Vehicle rear floor pan above axle (y) acceleration
Vehicle rear floor pan above axle (z) acceleration
Vehicle left side sill at rear seat (y) acceleration
Vehicle left side sill at front seat (y) acceleration
Vehicle right rear occupant compartment (y) acceleration
Vehicle left lower b-pillar (y) acceleration

Vehicle left middle b-pillar (y) acceleration
Vehicle left lower a-pillar (y) acceleration
Vehicle left middle a-pillar (y) acceleration
Vehicle front seat track (y) acceleration
Vehicle rear seat track/structure (y) acceleration
Vehicle center of gravity (x) acceleration
Vehicle center of gravity (y) acceleration
Vehicle center of gravity (z) acceleration
MDB center of gravity (x) acceleration
MDB center of gravity (y) acceleration
MDB center of gravity (z) acceleration
MDB rear (x) acceleration
MDB rear (y) acceleration

Driver Upper Rib (Y) Acceleration
 Acceleration (G's) FIR100

Max	31.4	G	at	45.0	msec
Min	-2.4	G	at	90.0	msec



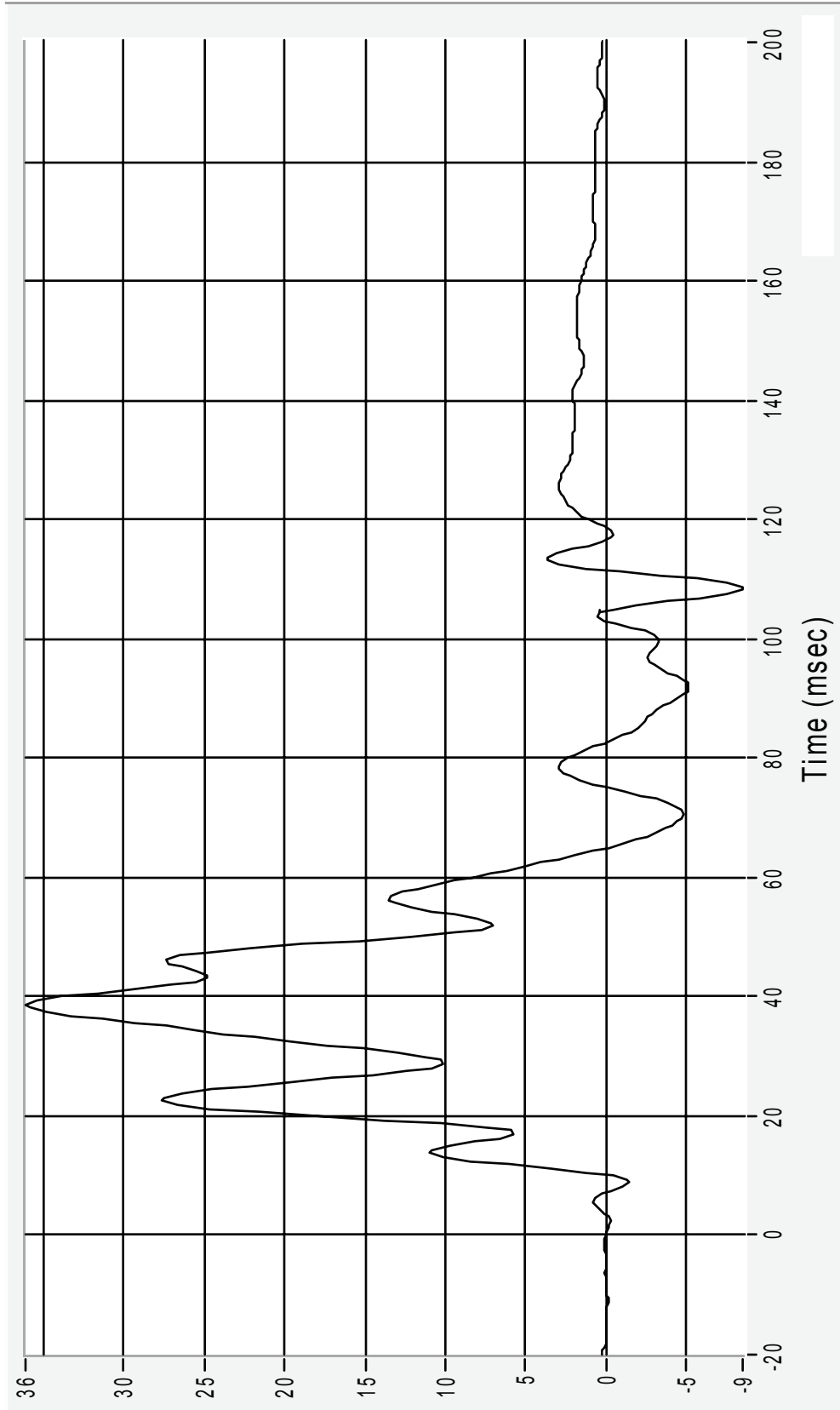
08SN02 - 2008 CHRYSLER SEBRING 4-DOOR SEDAN

30 August 2007

Medical College of Wisconsin
 Vehicle Crashworthiness Lab

Driver Lower Rib (Y) Acceleration
 Acceleration (G's) FIR100

Max	36.1	G	at	38.8	msec
Min	-8.5	G	at	108.8	msec



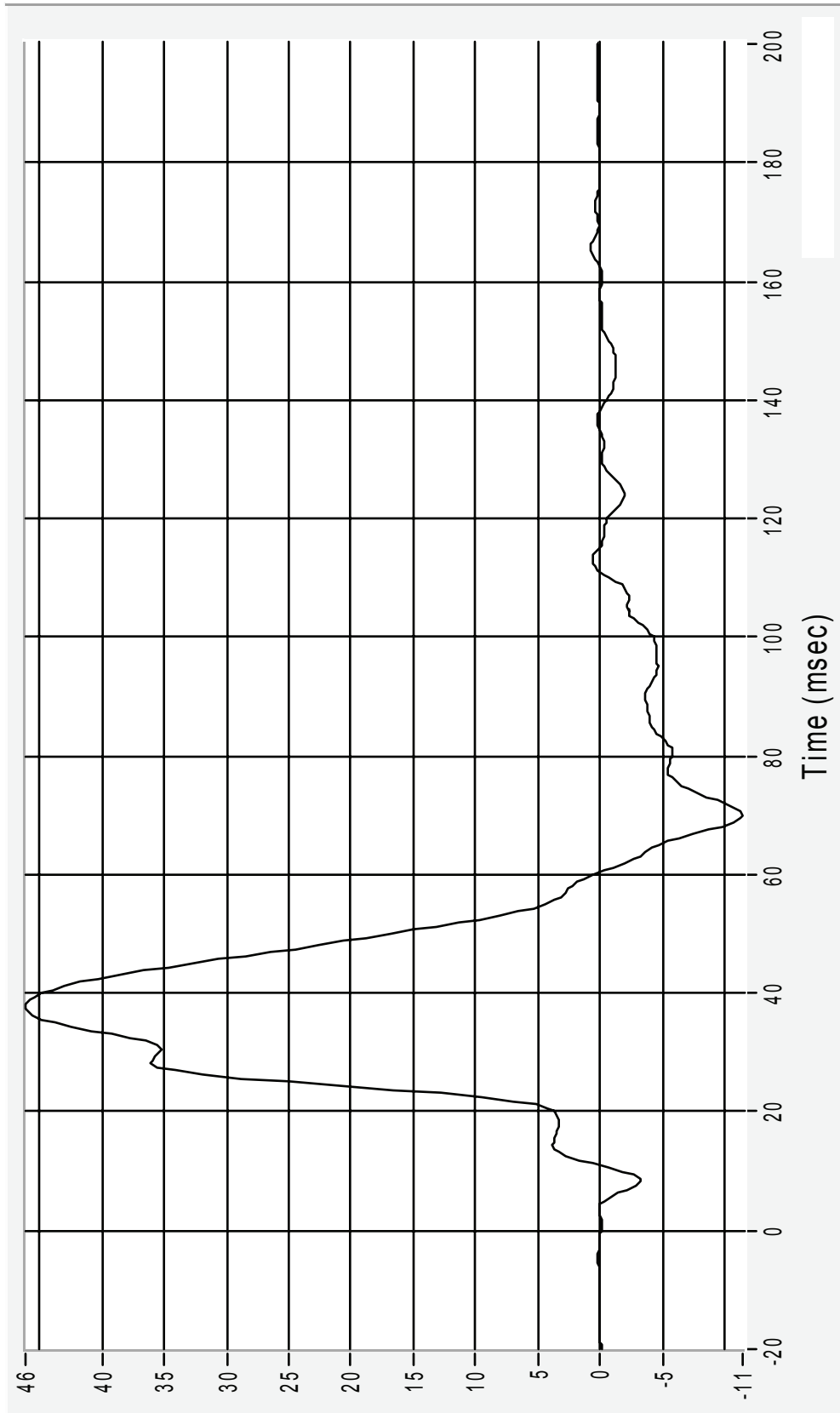
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30 August 2007

Medical College of Wisconsin
 Vehicle Crashworthiness Lab

Driver Lower Spine (Y) Acceleration
 Acceleration (G's) FIR100

Max	46.2	G	at	37.5	msec
Min	-11.5	G	at	70.0	msec



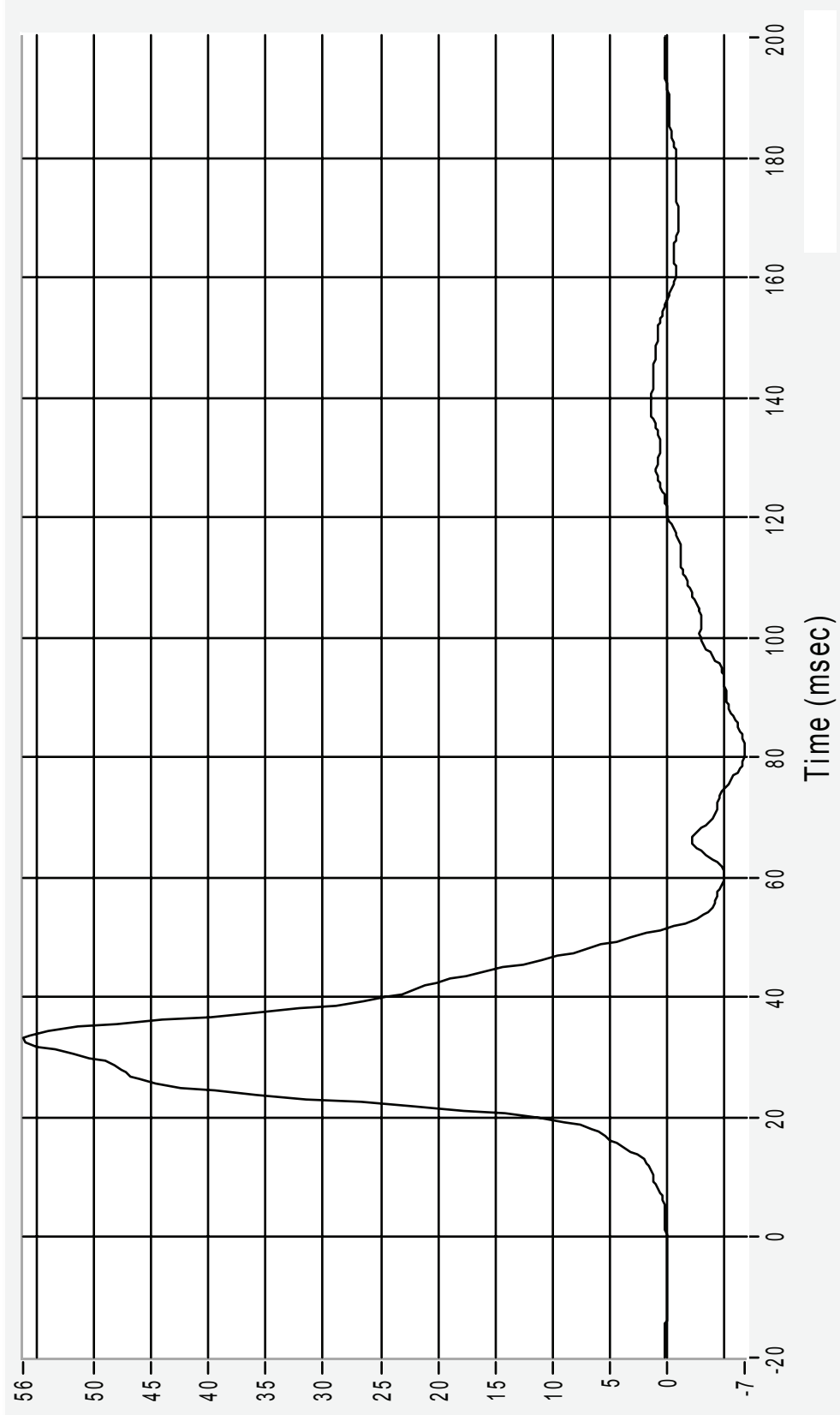
08SN02 - 2008 CHRYSLER SEBRING 4-DOOR SEDAN

30 August 2007

Medical College of Wisconsin
 Vehicle Crashworthiness Lab

Driver Pelvic (Y) Acceleration
 Acceleration (G's) FIR100

Max	56.3	G	at	33.1	msec
Min	-6.9	G	at	81.2	msec

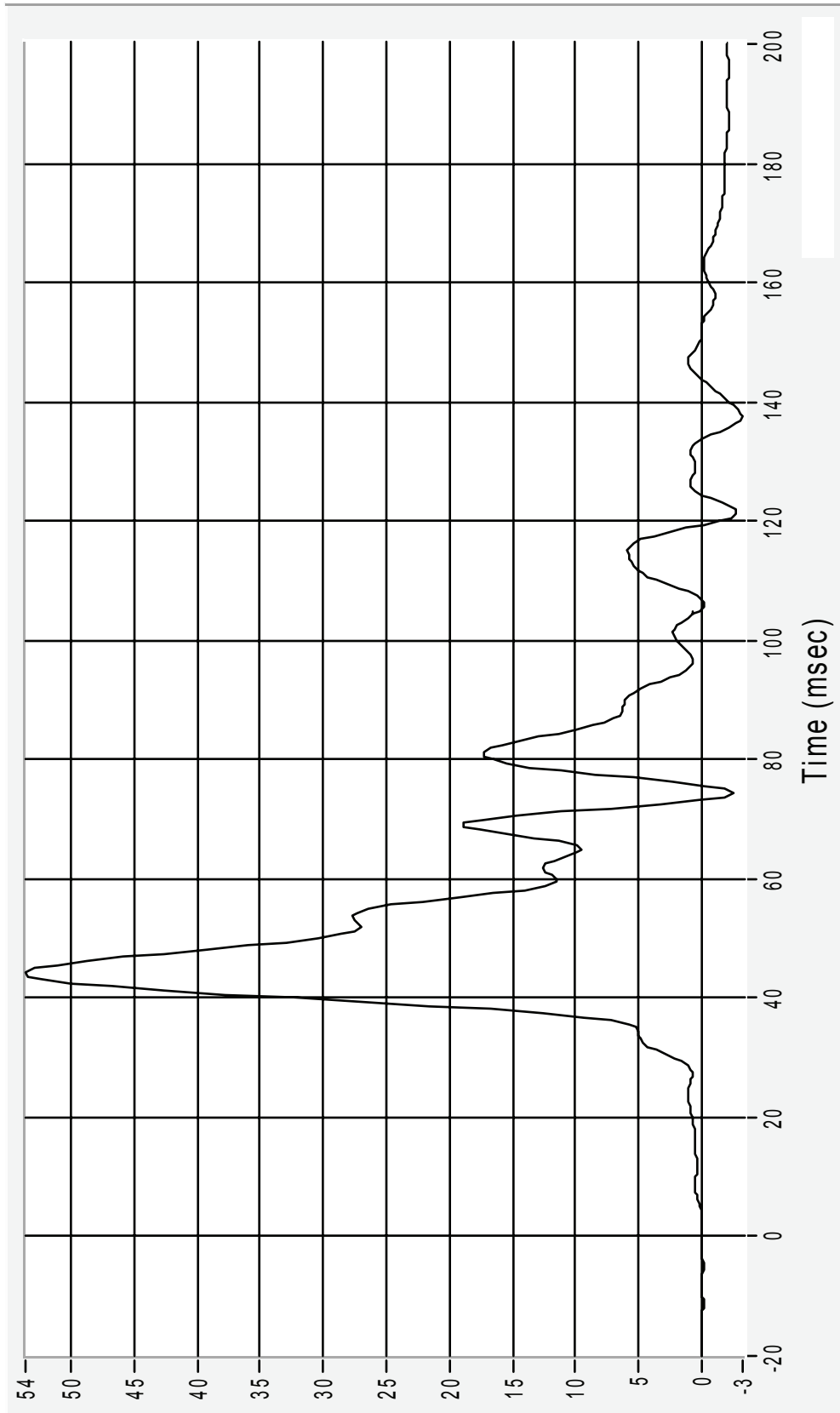


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30 August 2007

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 Vehicle Crashworthiness Lab

Passenger Upper Rib (Y) Acceleration
 Acceleration (G's) FIR100 Max 53.6 G at 44.4 msec
 Min -3.2 G at 137.5 msec

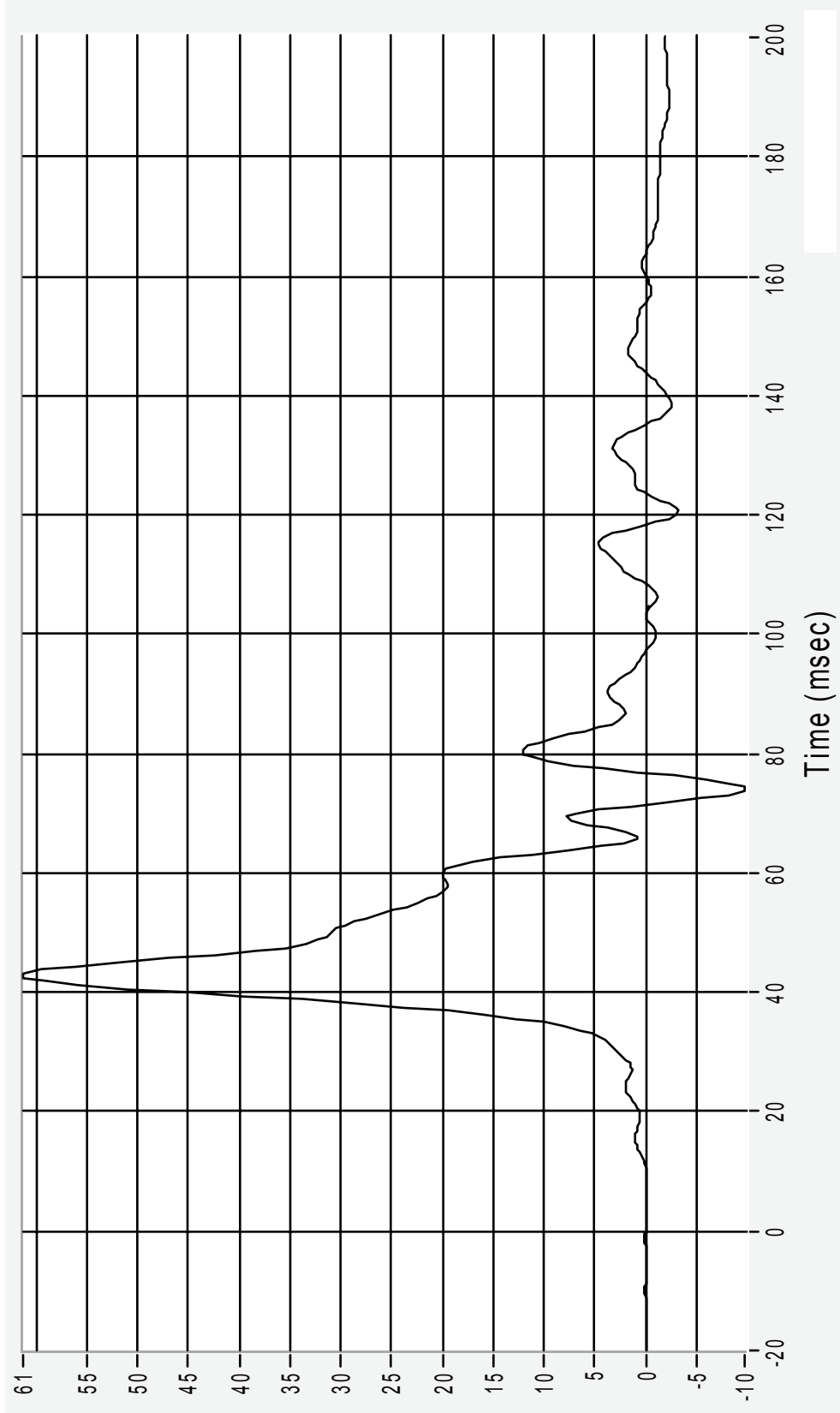


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30 August 2007

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 Vehicle Crashworthiness Lab

Passenger Lower Rib (Y) Acceleration
 Acceleration (G's) FIR100 Max 61.3 G at 43.1 msec
 Min -9.7 G at 74.4 msec



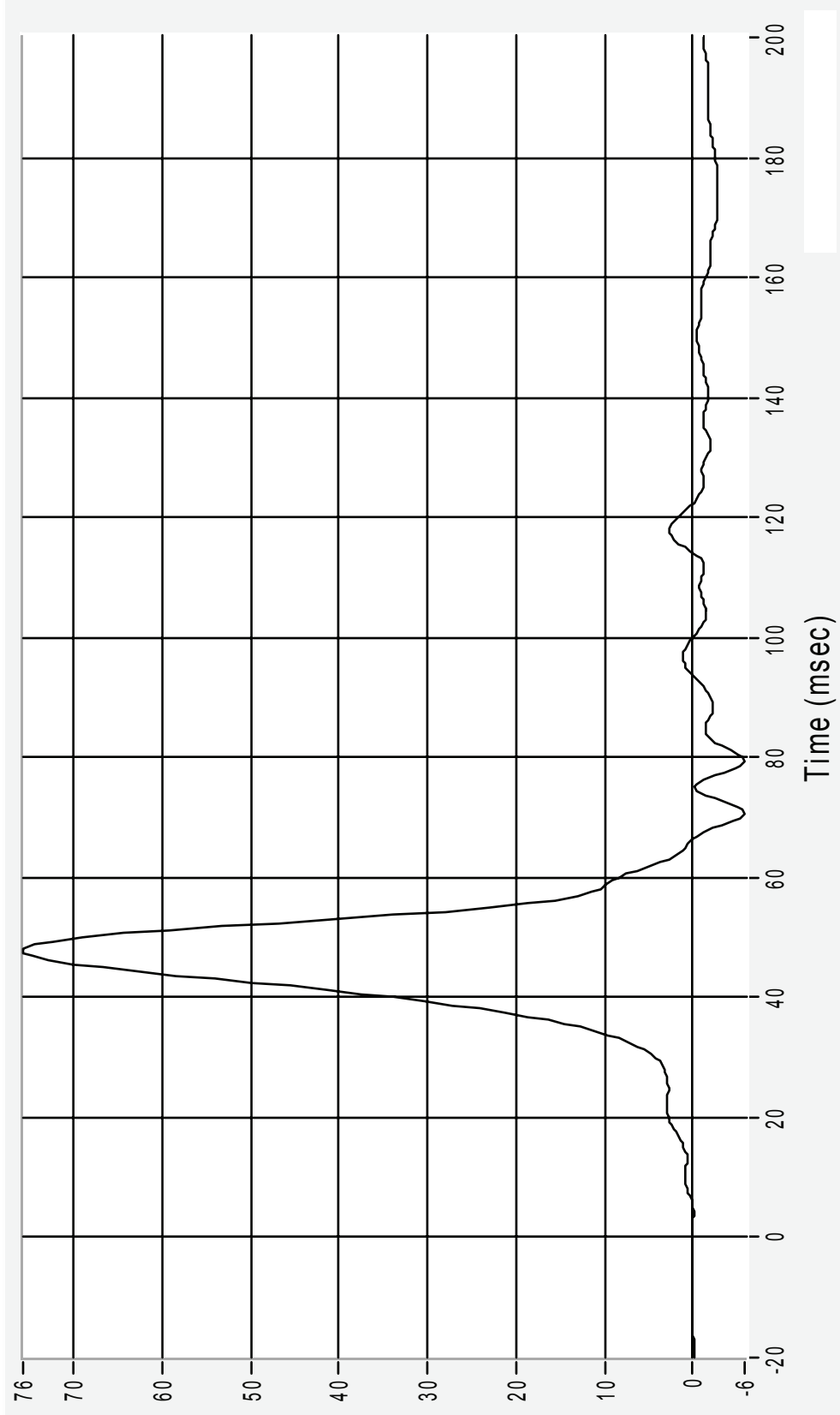
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Passenger Lower Spine (Y) - Acceleration
 Acceleration (G's) FIR100

Max	75.7	G	at	47.5	msec
Min	-5.9	G	at	70.6	msec



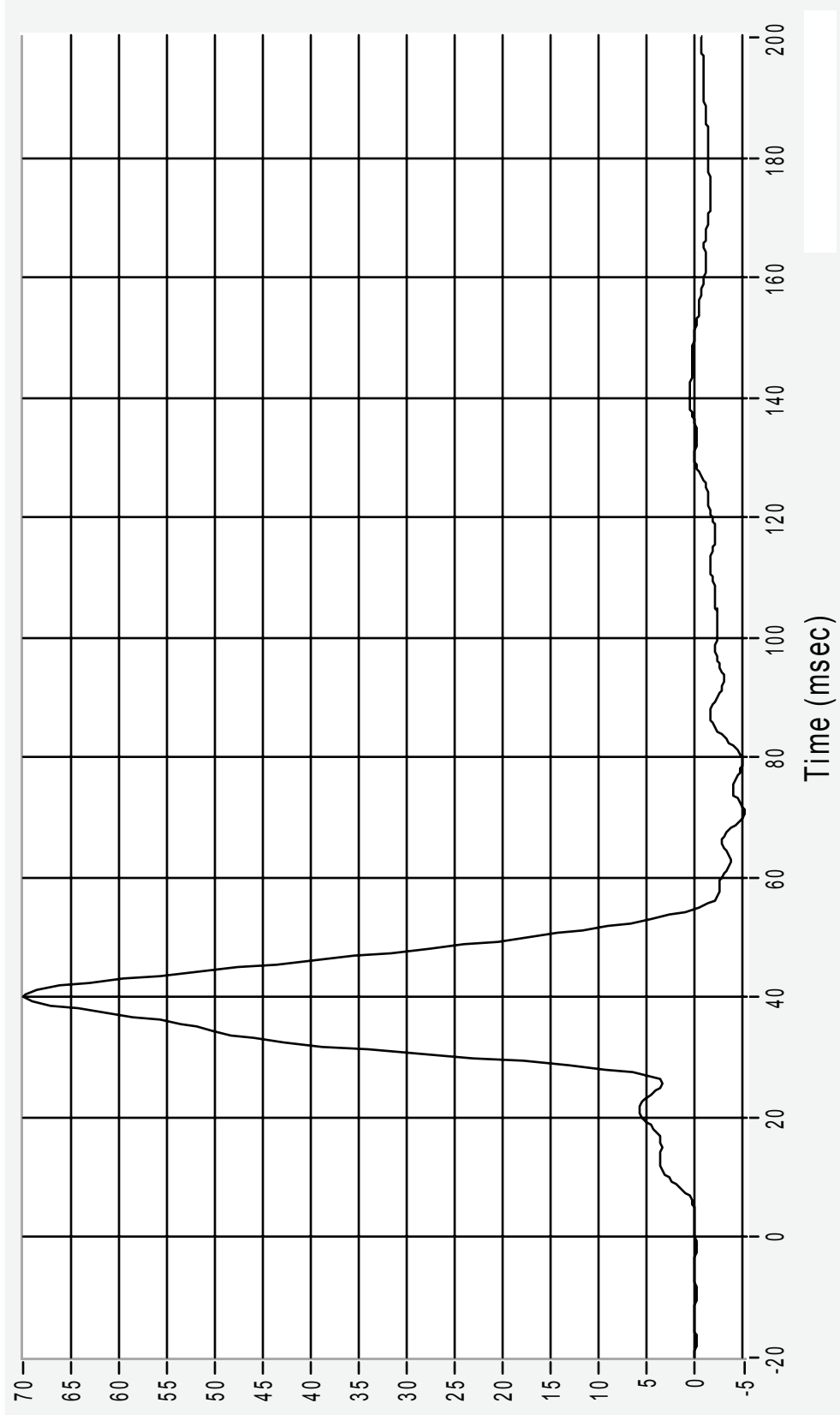
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Passenger Pelvic (Y) Acceleration
 Acceleration (G's) FIR100

Max	69.9	G	at	40.0	msec
Min	-5.1	G	at	70.6	msec



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APPENDIX C
DUMMY CALIBRATION DATA

**VERIFICATION TEST RESULTS SUMMARY
PRE AND POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial Number 056Test Sequences 2 and 3

TEST	PRE		POST	
	COMMENTS	BY	COMMENTS	BY
EXTERNAL DIMENSIONS	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
THORACIC SHOCK ABSORBER TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
LATERAL THORAX IMPACT TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
LATERAL PELVIS IMPACT TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
ABDOMINAL COMPRESSION	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
LUMBAR FLEXION	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
HYBRID III LATERAL NECK TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
HYBRID III LATERAL HEAD DROP	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski

SID Serial Number 137Test Sequences 1 and 2

TEST	PRE		POST	
	COMMENTS	BY	COMMENTS	BY
EXTERNAL DIMENSIONS	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
THORACIC SHOCK ABSORBER TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
LATERAL THORAX IMPACT TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
LATERAL PELVIS IMPACT TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
ABDOMINAL COMPRESSION	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
LUMBAR FLEXION	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
HYBRID III LATERAL NECK TEST	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski
HYBRID III LATERAL HEAD DROP	Pass all requirements	Mike Rawski	Pass all requirements	Mike Rawski

SUMMARY
SID H3 PRE AND POST VERIFICATION
CONFIGURED FOR LEFT SIDE IMPACT

TEST PARAMETER	SPEC	SID HIII/056		SID HIII/137	
		PRE	POST	PRE	POST
MEASUREMENTS					
Date	-	27Aug07	06Sept07	02Aug07	10Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	20.7	20.8	21.5	20.9
Relative Humidity (%)	10-70	45.8	44.5	39.4	45.0
SH – Seated Height (mm)	889-909	908	906	909	909
RH – Rib Height (mm)	501-521	502	510	502	502
HP – Hip Pivot Height (mm)	99	99/99	99/99	99/99	99/99
RD – Rib From Back Line (mm)	229-241	229	232	234	232
KH – Knee Pivot from Back Line (mm)	511-526	526/526	525/520	523/526	526/526
KV – Knee Pivot to Floor (mm)	490-505	503/494	502/495	495/493	491/503
HW – Hip Width (mm)	356-391	360	359	360	361
THORAX IMPACTS					
Date	-	27Aug07	07Sept07	06Aug07	18Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	20.5	20.4	20.6	20.8
Relative Humidity (%)	10-70	48.2	54.3	35.8	44.8
Probe Speed (m/s)	4.21-4.33	4.27	4.27	4.27	4.27
Upper Rib Acceleration (G)	37-46	42.1	41.8	43.6	45.8
Lower Rib Acceleration (G)	37-46	41.4	41.3	44.0	45.7
Lower Spine Acceleration (G)	15-22	20.7	21.7	21.8	20.2
PELVIS IMPACTS					
Date	-	27Aug07	04Sept07	6Aug07	18Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	20.6	20.5	20.9	20.8
Relative Humidity (%)	10-70	48.6	52.3	40.2	44.3
Probe Speed (m/s)	4.21-4.33	4.28	4.28	4.27	4.27
Pelvis Acceleration (G)	40-60	49.0	45.1	41.2	40.8
THORACIC SHOCK ABSORBER					
Shock Absorber ID Number	-	1746		524	
Damper Setting	1-10	6		5.5	
Date	-	11July07		01Aug07	
Sequential Test Number	-	1		1	
Temperature	18.9-25.5	19.7		22.2	
Relative Humidity	10-70	33.7		40.4	
Probe Speed (m/s) Low	3.05	3.05		3.05	
Force (N)	836 – 1125	1082.6		1038.8	
Displacement (mm)	30 – 35	30.0		30.1	
Probe Speed (m/s) Middle	4.27	4.27		4.27	
Force (N)	1730 – 2099	1746.4		1777.3	
Displacement (mm)	32 – 37	33.0		32.4	
Probe Speed (m/s) High	6.10	6.10		6.10	
Force (N)	3741 – 4448	3848.6		3809.6	
Displacement (mm)	33 - 40	35.4		35.7	

TEST PARAMETER	SPEC	SID HIII/056		SID HIII/137	
		PRE	POST	PRE	POST
ABDOMINAL COMPRESSION					
Date	-	24Aug07	05Sept07	25July07	05Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	21.6	21.7	21.6	22.0
Relative Humidity (%)	10-70	63.5	51.7	44.3	50.7
Force at 13 mm (N)	104-162	135.5	133.4	112.9	128.5
Force at 19 mm (N)	163-221	181.9	180.1	164.1	174.2
Force at 25 mm (N)	222-280	239.1	241.5	229.2	237.2
Force at 33 mm (N)	325-391	333.2	359.8	342.9	334.2
LUMBAR FLEXION					
Date	-	23Aug07	04Sept07	30July07	04Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	20.6	21.5	22.3	21.4
Relative Humidity (%)	10-70	47.3	45.2	50.9	43.2
Force at 0° (N)	0-26.7	20.2	10.1	0	0
Force at 0° (N)	97.8-151.2	150.3	141.2	123.8	101.6
Force at 0° (N)	151.2-204.6	155.7	166.5	183.4	171.3
Force at 0° (N)	204.6-258	220.2	212.3	231.7	220.8
Return Angle	12° Maximum	1.0	0.2	8.8	11.6
HYBRID III LATERAL NECK					
Date	-	25Aug07	05Sept07	30July07	07Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	20.6	20.0	22.1	21.1
Relative Humidity (%)	10-70	52.6	57.1	48.7	48.7
Pendulum Speed (m/s)	6.89-7.13	6.89	6.97	7.02	6.93
Pendulum Pulse 10ms (m/s)	1.96-2.55	2.18	2.01	2.20	1.97
Pendulum Pulse 20ms (m/s)	4.12-5.10	4.63	4.27	4.74	4.43
Pendulum Pulse 30ms (m/s)	5.73-7.01	6.63	6.35	6.87	6.50
Pendulum Pulse 40 –70 ms (m/s)	6.27-7.64	6.86	7.33	6.94	7.35
Max Head rotation (deg)	66-82	72.3	75.8	80.7	75.4
Head angle crosses zero (ms)	58-67	61.9	66.9	59.7	62.4
Peak Moment (Nm)	73-88	80.6	84.2	85.8	83.8
Moment crosses zero (ms)	49-63	52.6	53.8	55.6	58.2
Max rotation wrt pk. moment (ms)	2-15	6.32	0.16	8.56	4.56
HYBRID III LATERAL HEAD DROP					
Date	-	23Aug07	04Sept07	25July07	05Sept07
Sequential Test Number	-	2	3	1	2
Temperature (°C)	18.9-25.5	20.5	21.3	21.3	21.7
Relative Humidity (%)	10-70	47.1	43.3	39.0	46.1
Resultant Max (G)	120-150	132.7	121.0	122.4	132.7
Longititudinal Max (G)	<15	5.31	13.1	3.65	3.58

**DUMMY INSPECTION LIST
PRE AND POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

		SID H3 056		SID H3 137	
		PRE	POST	PRE	POST
	Date	30Aug07	31Aug07	30Aug07	31Aug07
	Performed By	Mike Rawski	Mike Rawski	Mike Rawski	Mike Rawski
PART	INSPECTION	RESULT	RESULT	RESULT	RESULT
Skin	Visual	Pass	Pass	Pass	Pass
Head	Visual, Ballast, Accelerometer Mount	Pass	Pass	Pass	Pass
Neck	Visual and Palpated, Cable Torque	Pass	Pass	Pass	Pass
Spine Box	Visual, Ballast, Weldment, Accelerometer Mount	Pass	Pass	Pass	Pass
Rib Cage	Visual, Palpated, Measured, Stiffness	Pass	Pass	Pass	Pass
Sternum	Visual	Pass	Pass	Pass	Pass
Lumbar Spine	Visual	Pass	Pass	Pass	Pass
Abdomen	Visual	Pass	Pass	Pass	Pass
Pelvis	Visual, Palpated, Accelerometer Mount	Pass	Pass	Pass	Pass
Upper Legs	Visual	Pass	Pass	Pass	Pass
Knees	Visual, Stops, Inserts	Pass	Pass	Pass	Pass
Lower Legs	Visual, Range of Motion	Pass	Pass	Pass	Pass
Ankles	Visual, Range of Motion	Pass	Pass	Pass	Pass
Feet	Visual, Range of Motion	Pass	Pass	Pass	Pass
Joints	1 to 2 G Range	Pass	Pass	Pass	Pass
Other		N/a	N/a	N/a	N/a