

REPORT NUMBER: MCW-DOT-06SN02

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**TOYOTA MOTOR CORPORATION
2006 TOYOTA TACOMA PRERUNNER 4 DOOR PICKUP
NHTSA NUMBER: M65108**

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FINAL REPORT

**PREPARED FOR:
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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 2006 Toyota Tacoma Prerunner 4 door pickup 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 31 January 2006. The impact velocity of the Moving Deformable Barrier (MDB) was 62.2 km/h, and the ambient temperature at the struck side (driver's) of the vehicle was 21 °C. The target vehicle's maximum post test static crush was 401 mm at level one. The test vehicle's occupant performance is as follows: <table border="1" data-bbox="149 1218 1508 1491"> <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>24.3</td> <td>28.9</td> </tr> <tr> <td>Left lower rib (LLR) acceleration</td> <td>G</td> <td>28.0</td> <td>28.3</td> </tr> <tr> <td>Lower spine (T₁₂) acceleration</td> <td>G</td> <td>37.6</td> <td>28.1</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td></td> <td>33</td> <td>28</td> </tr> <tr> <td>Pelvis (PEV) acceleration</td> <td>G</td> <td>57</td> <td>41</td> </tr> <tr> <td>HIC</td> <td></td> <td>125.6</td> <td>228.0</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	24.3	28.9	Left lower rib (LLR) acceleration	G	28.0	28.3	Lower spine (T ₁₂) acceleration	G	37.6	28.1	Thoracic Trauma Index (TTI)		33	28	Pelvis (PEV) acceleration	G	57	41	HIC		125.6	228.0
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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' 2006 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 2006 Toyota Tacoma 4 door pickup manufactured by Toyota Motor Corporation.

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 2006 Toyota Tacoma 4 door pickup (test vehicle) 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 2088.8 kg test vehicle was impacted by the 1360.3 kg MDB traveling at a speed of 62.2 km/h (measured inline with the guidance system.) The test was conducted at the Medical College of Wisconsin on 31 January 2006.

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 058 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
- 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-five (25) structural accelerometers and the MDB was instrumented with five (5) 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 (5) 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

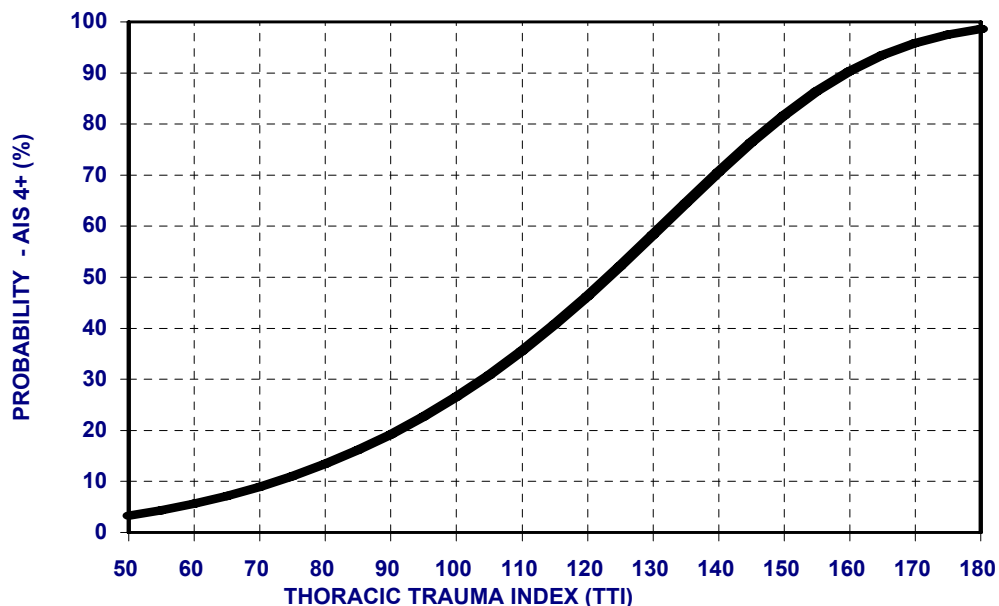
The test vehicle sustained a maximum static crush of 401 mm at level one, 1500 mm rearward of the vertical impact line.

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	125.6	228.0
T1 (ms)	61.8	53.7
T2 (ms)	77.1	60.3
TTI	33	28
Maximum pelvic acceleration (G)	57	41

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	Steering wheel	Did not deploy	Not installed	N/a
Side airbag	Not installed	N/a	Not installed	N/a
Head airbag	Not installed	N/a	Not installed	N/a
Curtain airbag	Not installed	N/a	Not installed	N/a
Seat belt pretensioner	Yes	Deployed	Not installed	N/a
Seat belt load limiter	Yes	N/a	Yes	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

- Front and rear off board cameras did not trigger
- Hood, driver, and passenger onboard test vehicle cameras did not trigger

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

VEHICLE INFORMATION		VEHICLE OPTIONS	
Year	2006	Air conditioning	Yes
Make	Toyota	Anti-lock brakes	Yes
Model	Tacoma Prerunner	AM/FM cassette radio	Yes
Body style	Double cab pickup	All wheel drive	No
NHTSA number	M65108	Clock	Yes
MCW test ID	06SN03	Console	Yes
VIN	5TEJU62N36Z163545	Cruise/speed control	No
Color	Red	Disc brakes, front	Yes
Build date	October 2005	Disc brakes, rear	No
Engine No. of cylinders	6	Power brakes	Yes
Engine Displacement (L)	4.0	Power door locks	Yes
Engine Placement	Longitudinal	Power steering	Yes
Transmission	5 speed automatic	Power windows	Yes
Final drive	Rear wheel drive	Rear window defroster	No
Delivery date	23 January 2006	Roof rack	No
Odometer reading	32 miles	Tilt steering wheel	Yes

CERTIFICATION LABEL INFORMATION			
Manufacturer	Toyota Motor Manufacturing	GVWR (kg)	2426
		GAWR front (kg)	1249
Date of manufacture	October 2005	GAWR rear (kg)	1410

SEAT INFORMATION			
	Number of occupants	Seat type	Seat back type
Front	2	Bucket	Adjustable
Back	3	Split bench	Fixed
Third	N/a	N/a	N/a
Total	5		

CARGO CAPACITY CALCULATION			
	Units	Value	Reference label
Vehicle maximum capacity	kg	589.7	(A)
Number of occupants (5) X 68.04 kg	kg	340.2	(B)
Cargo capacity (RCLW) †	kg	136.1†	(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	500.3	551.1	556.1
Right front	kg	470.4	488.1	489.9
Left rear	kg	421.8	538.4	541.1
Right rear	kg	407.8	511.2	510.3
Total front	kg	970.7	1039.2	1046.0
% Total front	%	53.9	49.8	50.1
Total rear	kg	829.6	1049.6	1051.4
% Total rear	%	46.1	50.2	49.9
Total	kg	1800.3	2088.8	2097.4

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	1800.3	(D)
Maximum cargo capacity (RCLW)	kg	136.1	(C)
Mass of SID HIII's (1 or 2)	kg	161.0	(E)
Test vehicle target mass (TVTW)	kg	2097.4	(D) + (C) + (E)

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

BALLAST INFORMATION	
Mass of ballast added (kg)	~70
Location	Pickup bed above rear axle
Components removed from test vehicle None	

IMPACT LOCATION ON TEST VEHICLE	
Wheelbase	3246 mm
Nominal impact point	508 mm rearward of front axle centerline
Actual impact point	511 mm rearward of front axle centerline

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

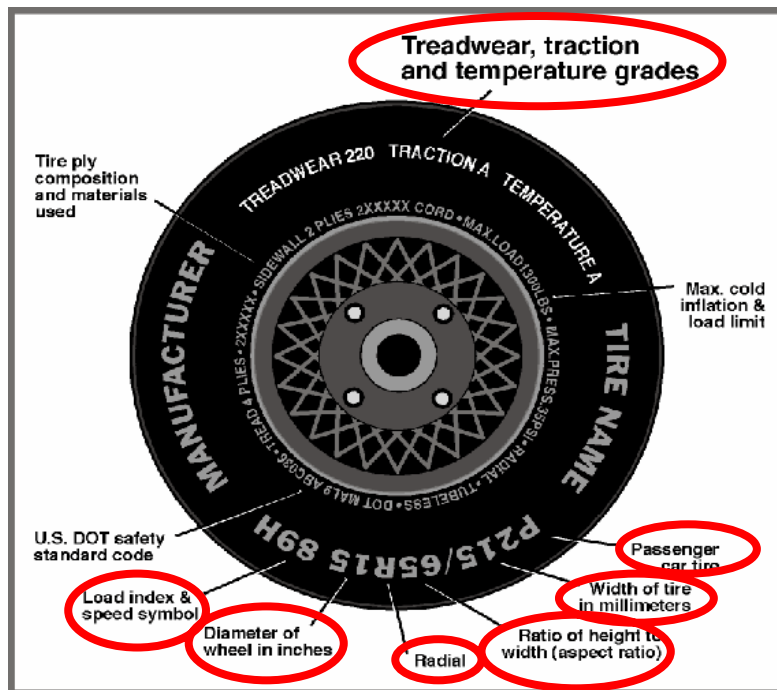
TEST VEHICLE ATTITUDES				
	Units	As delivered	As tested	Fully loaded
Left front	mm	910	898	898
Right front	mm	916	914	911
Left rear	mm	964	915	924
Right rear	mm	959	927	924
CG (X)	mm	1496	1629	1620

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

CG (X) measured rearward from front axle centerline

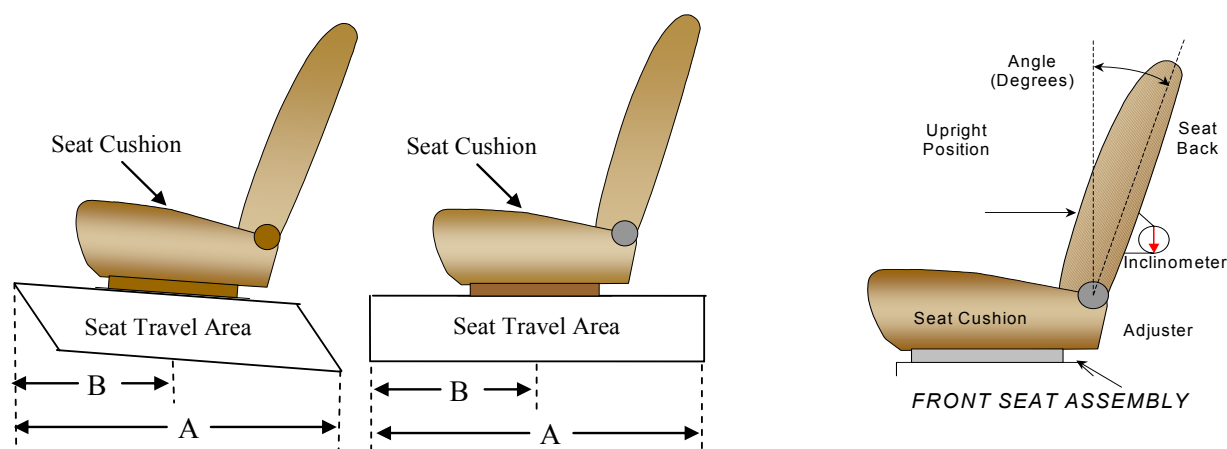
AUTOMATIC DOOR LOCK (ADL) INFORMATION				
	Left front	Left rear	Right front	Right rear
ADL present	No	No	No	No
ADL deactivated	N/a	N/a	N/a	N/a
Deactivation method	N/a			
Door lock status	Unlocked	Unlocked	Unlocked	Unlocked

DATA SHEET NO. 2
TEST VEHICLE TIRE INFORMATION



TIRE INFORMATION		
Measured Parameter	Front	Rear
Maximum tire pressure (kPa)	240	240
Cold / test pressure (kPa)	200	220
Recommended tire size	P26570R16	P26570R16
Tire size on vehicle	P26570R16	P26570R16
Tire manufacturer	BF Goodrich	BF Goodrich
Tire name	Rugged trail T/A	Rugged trail T/A
Tire type	Passenger	Passenger
Tire width (mm)	265	265
Ratio of height to width (aspect ratio)	70	70
Radial	Radial	Radial
Wheel diameter (inches)	16	16
Load index & speed symbol	111T	111T
Tread wear	400	400
Traction grade	A	A
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	Adjustable (manual)	Fixed
Fore/aft total travel (mm)	240 mm	N/a
Number of detents	17	N/a
Test position	8 th notch†	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
Total number of detents	27	N/a
Test position	4 th notch‡	N/a
Seat back angle in test position	Not specified	N/a
Location of measurement	Not specified	N/a
Seat back angle @ head rest post	1°	N/a

‡Full upright = notch 0

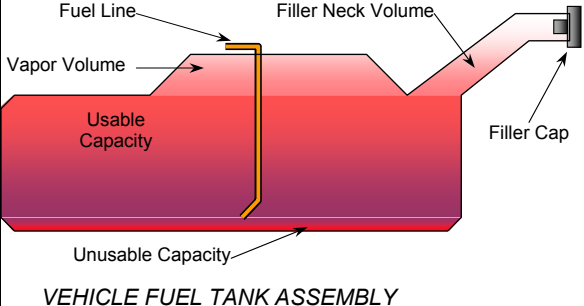
Seat belt position

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)	68 mm	N/a
Test position	Second notch from top	N/a

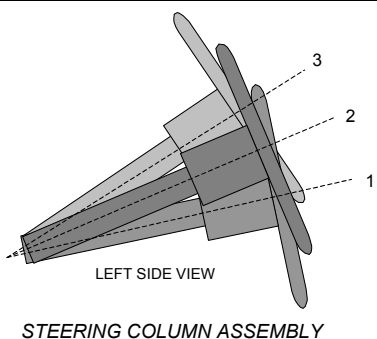
DATA SHEET NO. 3
TEST VEHICLE INFORMATION (continued)

Fuel tank information

STODDARD INFORMATION			
Description	Units	Value	
Usable capacity of standard equipment fuel tank	L	79.9	
Usable capacity of optional equipment fuel tank	L	0	
Usable capacity of vehicle used for certification testing to requirements	L	79.9	
Amount of stoddard added for test	L	74.3	
% Usable capacity (92%-94%)	%	93	
Operational instructions	None		
Electric fuel pump present	Yes		
Operating condition of test vehicle for fuel pump operation	Fuel pump will turn on when ignition is on.		

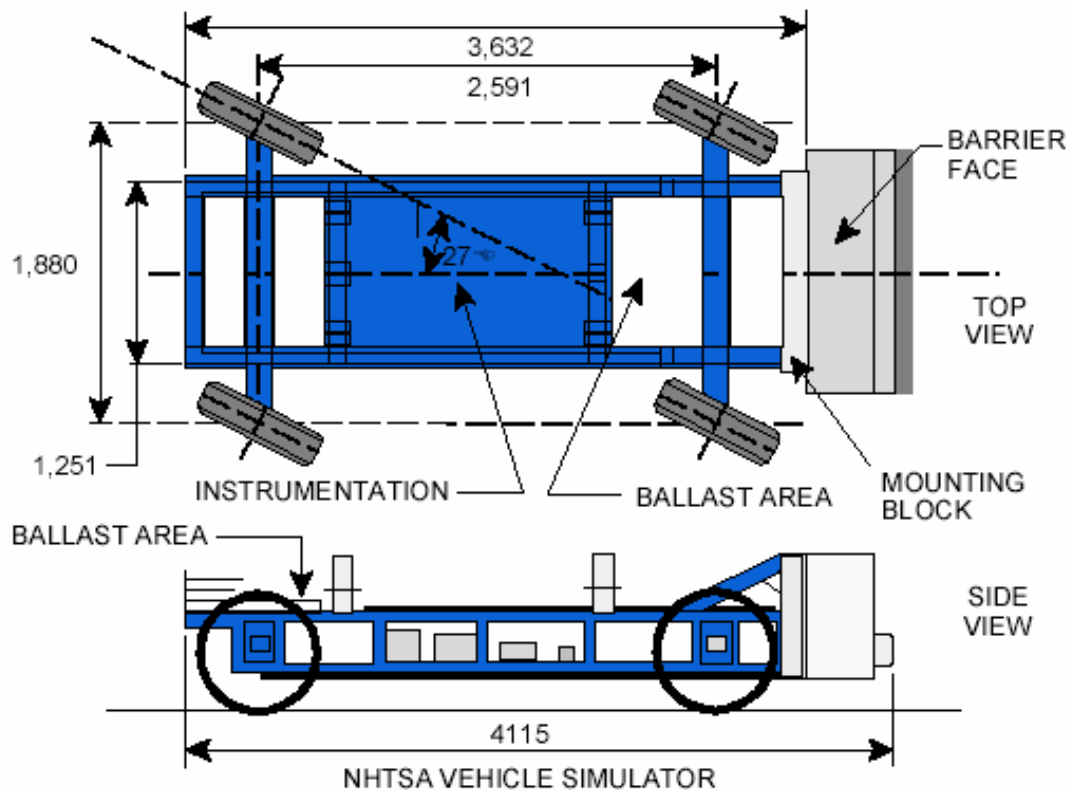
Steering wheel information

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

ADJUSTABLE STEERING COLUMN		
Adjustable column	Yes	
Steering wheel angle in upper most position	26.4°	
Steering wheel angle lower position	23.2°	
Steering wheel fore/aft travel	50 mm	
Number of detents	-	
Test position	24.8 wrt to side sill panel and mid fore/aft travel	

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

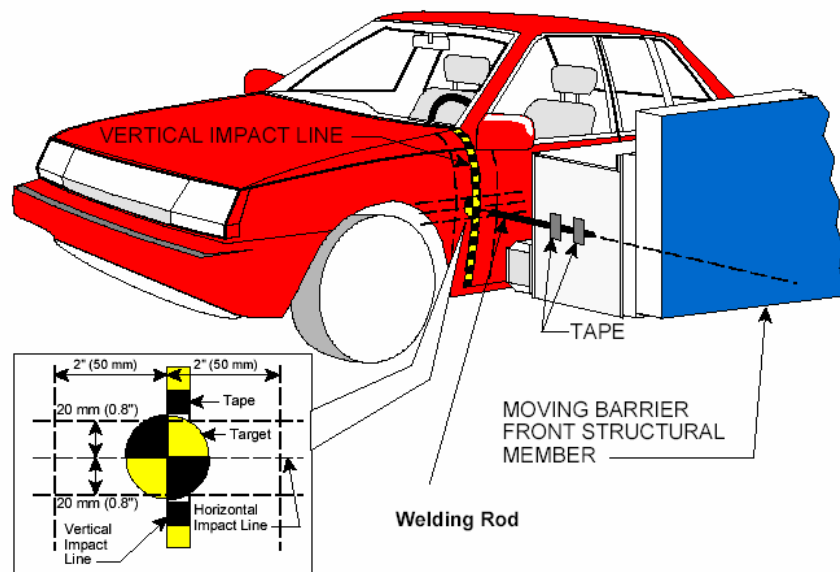
MDB SPECIFICATIONS				
	Units	Specification	Range	Value
Overall Width of Framework Carriage	mm	1251	1226-1276	1245
Overall Length w/Impactor Face	mm	4115	4090-4140	4101
Overall Length w/o Impactor Face	mm	3632	3607-3657	3617
Longitudinal Cg from Front Axle	mm	1123	1098-1148	1135
Track Width	mm	1880	1855-2005	1864
Mass	kg	1361	1356.5-1365.5	1360.3
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	458.3
Right front	kg	307.7
Left rear	kg	228.4
Right rear	kg	365.9
Total front	kg	766.0
% Total front	%	56.3
Total rear	kg	594.3
%Total rear	%	43.7
Total	kg	1360.3

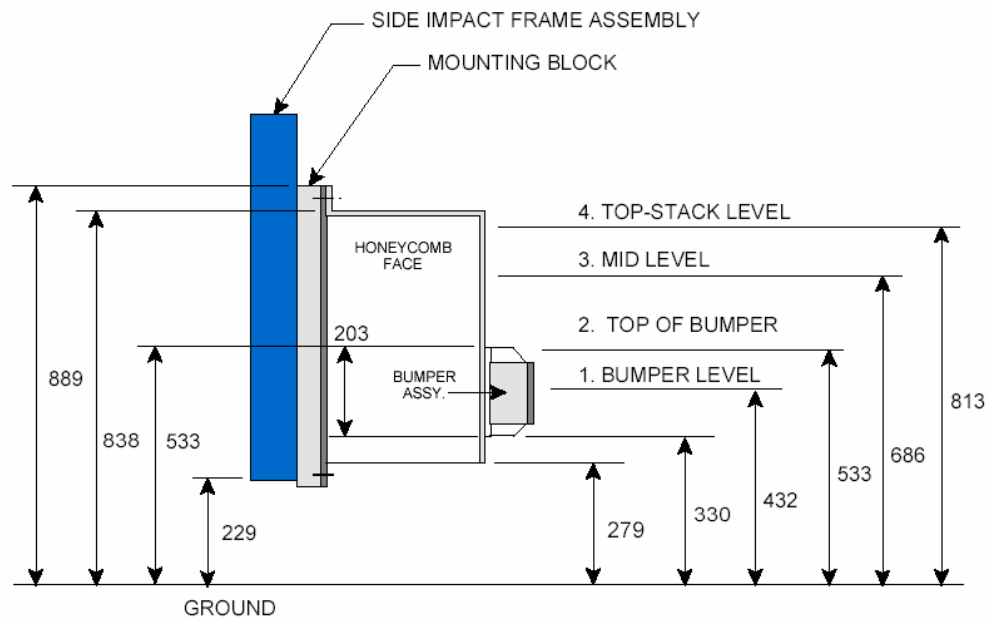
IMPACT SPEED				
	Units	Specification	Range	Value
Primary speed trap	kmh	61.9	61.1-62.7	62.2
Redundant speed trap	kmh	61.9	61.1-62.7	61.9



IMPACT POINT INFORMATION		
Vertical impact line is	508 mm rearward of front axle centerline	
Actual impact is	511 mm rearward of front axle centerline	
Measurement	Value	Tolerance
Impact point distance from vertical impact line	3 mm rearward	+/- 50 mm
Impact point distance from horizontal impact line	11 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	277	279
Bottom of bumper	mm	330	327-333	329	330
Top of bumper	mm	533	530-536	534	533
Top of barrier	mm	838	835-841	838	839



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/058
Head contact	Side header 200 mm forward of b-pillar	Side header 60 mm forward of c-pillar
Upper torso contact	Left front door panel 50 mm below window sill	Left rear door panel 100 mm below arm rest
Lower torso contact	Left front door panel 110 mm above arm rest	Left rear door panel just above arm rest
Left leg contact	Left front door panel just below arm rest	Left rear door panel arm rest
Left knee contact	Left front door panel in front of arm rest	Left rear door panel arm rest

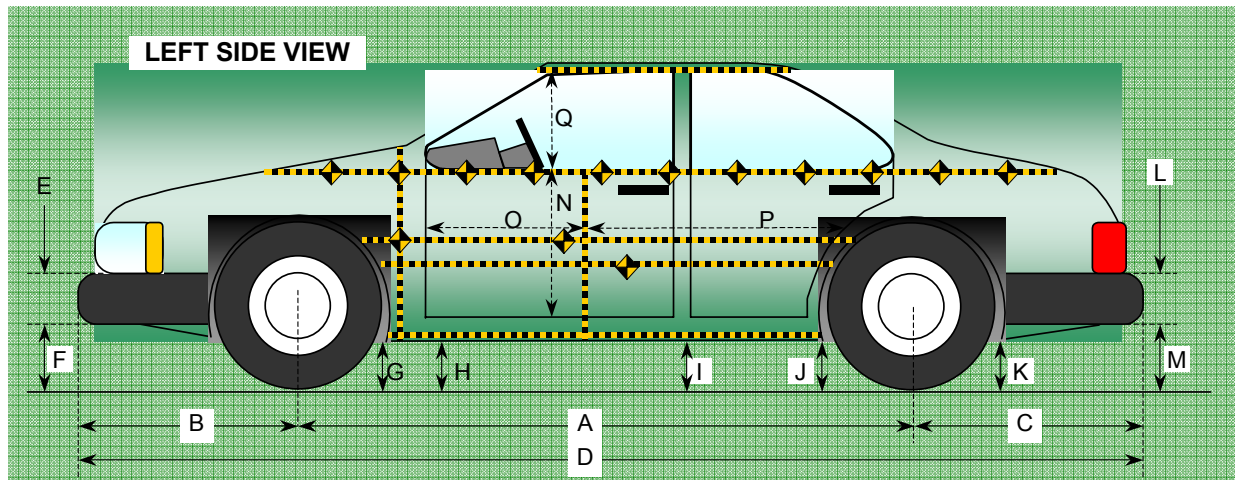
POST TEST DOOR OPENING AND SEAT TRACK INFORMATION		
Description	Front	Rear
Locked/unlocked doors	Unlocked	Unlocked
Left side door opening	Door remained closed and latched	Door remained closed and latched
Right side door opening	Door remained closed and latched. Opened without tools post test	Door remained closed and latched. Opened without tools post test
Seat movement	None	None
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	Left rear window shattered during impact
Other notable effects	None

DATA SHEET NUMBER 5
POST TEST OBSERVATIONS (continued)

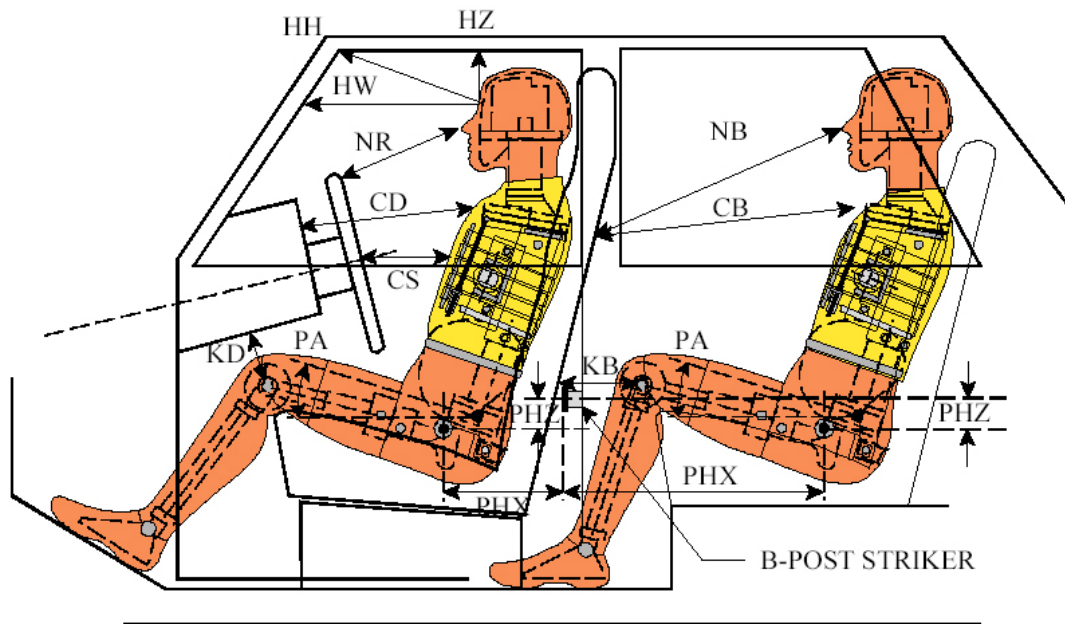
SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION				
Restraint Type	Left front (Driver) occupant Location 01		Left rear (passenger) occupant Location 04	
	Installed	Operation	Installed	Operation
Front airbag	Steering wheel	Did not deploy	Not installed	N/a
Side airbag	Not installed	N/a	Not installed	N/a
Head airbag	Not installed	N/a	Not installed	N/a
Curtain airbag	Not installed	N/a	Not installed	N/a
Seat belt pretensioner	Yes	Deployed	Not installed	N/a
Seat belt load limiter	Yes	N/a	Yes	N/a

DATA SHEET NUMBER 6
VEHICLE PRE AND POST MEASUREMENTS



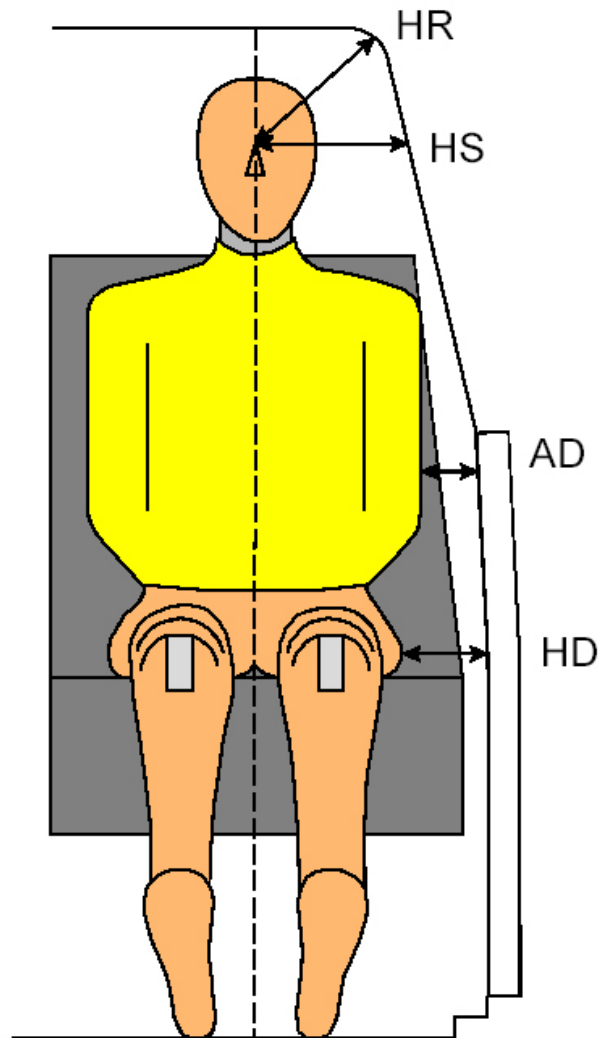
VEHICLE DIMENSIONS				
Code	Description	Pre test	Post test	Change
		mm	mm	mm
A	Wheelbase	3246	3178	-68
B	Front axle to front side of vehicle	675	686	11
C	Rear axle to rear side of vehicle	1153	1168	15
D	Total length at centerline	5285	5263	-22
E	Front bumper thickness	295	295	0
F	Front bumper bottom to ground	485	497	12
G	Sill height at front wheel well	455	435	-20
H	Sill height at front door leading edge	445	440	-5
I	Sill height at b-pillar	447	460	13
J1	Sill height at rear wheel well	418	412	-6
J2	Pinch weld height at rear wheel well	454	448	-6
K	Sill height aft of rear wheel well	485	539	54
L	Rear bumper thickness	165	165	0
M	Rear bumper bottom to ground	514	540	26
N	Sill height to window bottom sill	750	731	-19
O	Front door leading edge to impact C/L	1057	1042	-15
P	Rear door trailing edge to impact C/L	945	898	-47
Q	Front window opening	456	452	-4
R	Right side length	5074	5051	-23
S	Left side length	5074	5032	-42
T	Vehicle width at b-pillar	1803	1568	-235

DATA SHEET NUMBER 7
SID HIII LONGITUDINAL CLEARANCES



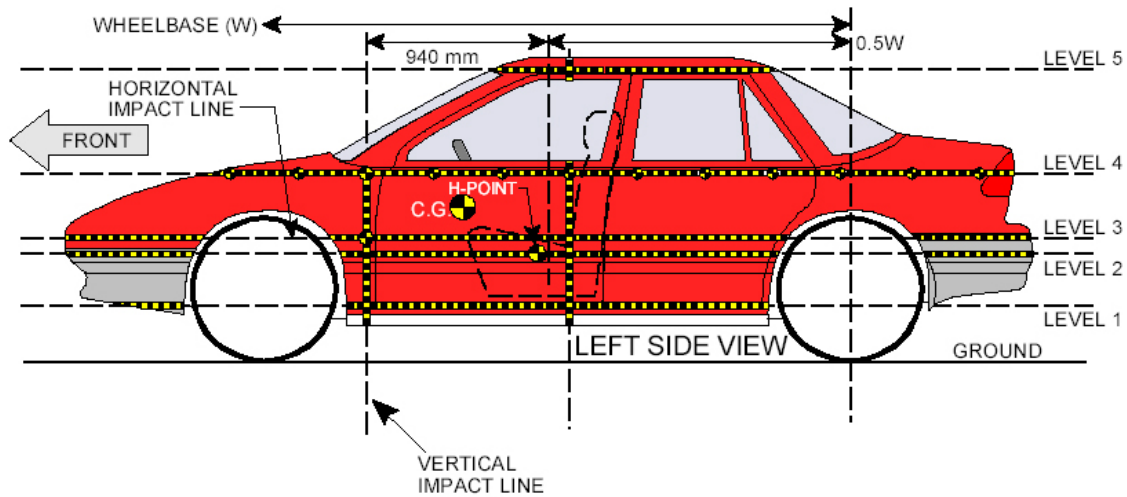
SID HIII LONGITUDINAL CLEARANCE MEASUREMENTS					
Driver code	Pass. code	Measurement description	Units	Left front seat	Left rear seat
		ATD serial number	-	SIDHIII/056	SIDHIII/058
HH	-	Head to header	mm	436	N/a
HW	-	Head to windshield	mm	566	N/a
HZ	HZ	Head to roof	mm	209	182
NR	NB	Nose to rim/nose to seatback	mm	455	551
CD	CB	Chest to dash or seatback	mm	557	513
CS	-	Chest to steering wheel	mm	366	N/a
KDL	KBL	Left knee to dash or seatback length	mm	175	208
KDA	KBA	Left knee to dash or seatback angle	°	27.2	23.9
KDR	KBR	Right Knee to dash or seatback length	mm	115	204
KDA	KDA	Right knee to dash or seatback angle	°	29.1	23.7
PA	PA	Pelvic angle	°	23.1	24.7
PHX	PHX	H-Point to striker (x-axis)	mm	181	240
PHZ	PHZ	H-Point to striker (z-axis)	mm	160	218

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	-	SIDHIII/056	SIDHIII/058
HR	Head to side header	mm	234	214
HS	Head to side window	mm	341	322
-	Shoulder to door	mm	115	110
AD	Arm to door	mm	151	139
HD	H-Point to door	mm	141	154

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	1657	87	1950
4	Window sill	1194	216	1350
3	Mid-door	840	342	1500
2	Driver H-point	796	354	1500
1	Axle centerline or sill top	470	401	1500
Maximum static crush		401 mm at level one - 1500 mm rearward from vertical impact line		

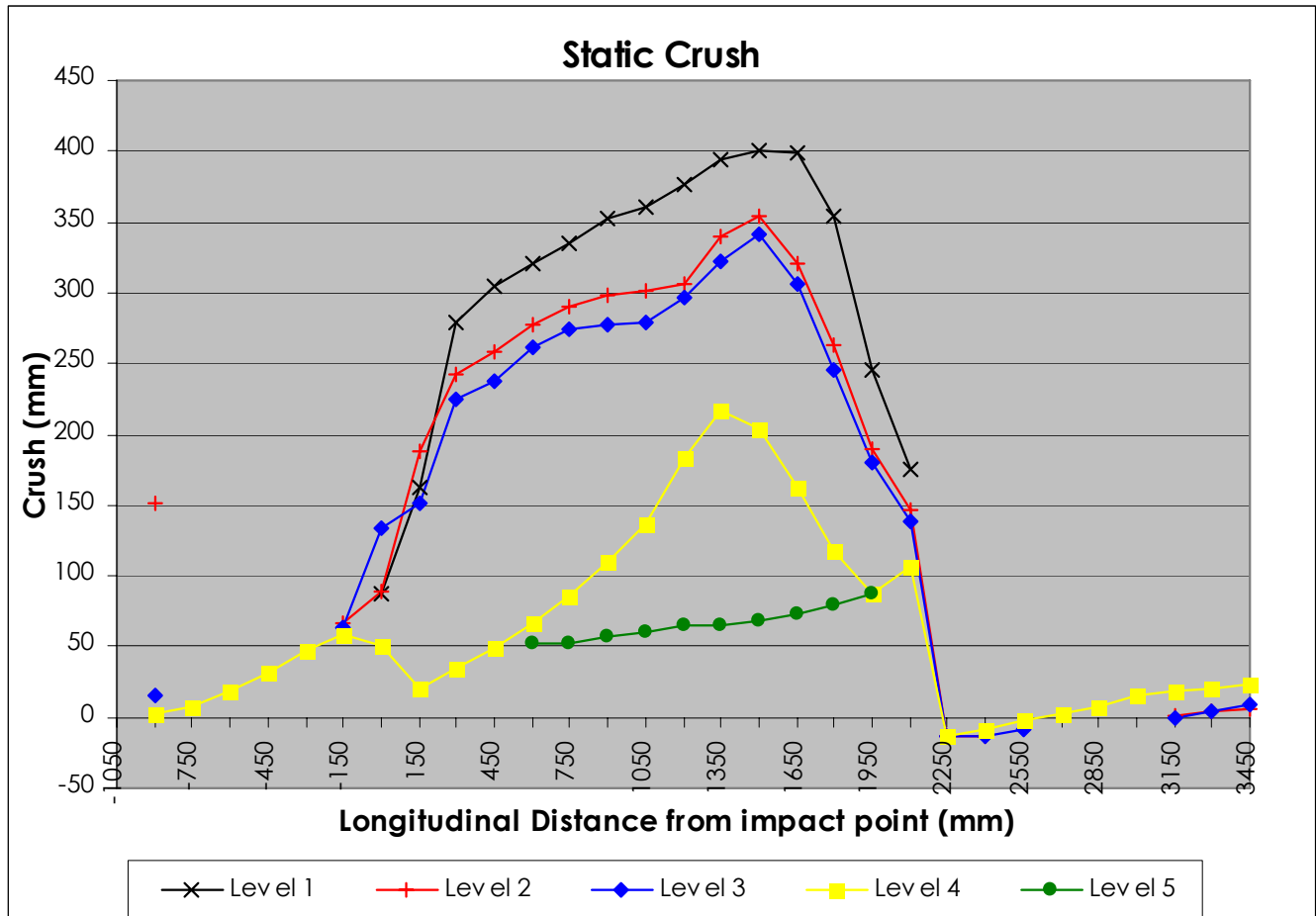
Height measurements taken 750 mm rearward from vertical impact line.

DATA SHEET 10
VEHICLE STATIC CRUSH PROFILE

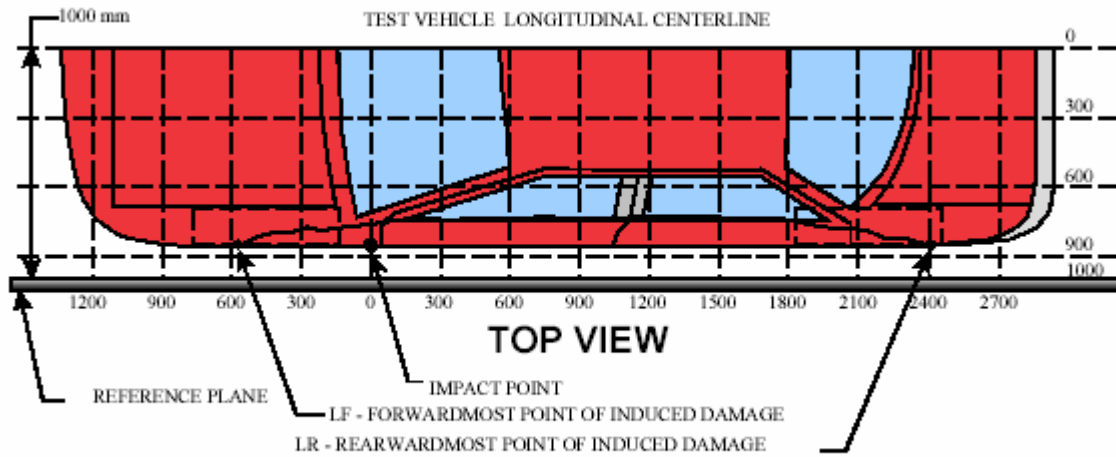
Note: All dimensions are in millimeters with a tolerance of ± 3 mm

TEST VEHICLE STATIC CRUSH																
Level	1			2			3			4			5			
Height	470			796			840			1194			1657			
	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	
DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT	-1050															
	-900			140	291	151	147	162	15	290	293	3				
	-750									278	286	8				
	-600									267	286	19				
	-450									259	290	31				
	-300									253	300	47				
	-150			120	187	67	123	187	64	249	307	58				
	0	182	270	88	150	239	89	158	291	133	245	295	50			
	150	220	382	162	181	369	188	179	330	151	242	262	20			
	300	228	507	279	180	422	242	178	402	224	250	284	34			
	450	228	532	304	180	439	259	178	415	237	250	299	49			
	600	228	549	321	180	458	278	177	439	262	249	316	67	414	466	52
	750	228	563	335	180	470	290	177	451	274	250	336	86	426	479	53
	900	228	580	352	180	479	299	177	454	277	250	359	109	429	486	57
	1050	228	589	361	180	482	302	178	457	279	243	380	137	430	490	60
	1200	229	605	376	180	486	306	177	474	297	240	423	183	430	495	65
	1350	230	624	394	180	519	339	178	500	322	240	456	216	433	498	65
	1500	232	633	401	182	536	354	180	522	342	238	442	204	432	500	68
	1650	233	632	399	183	504	321	181	487	306	234	396	162	432	505	73
	1800	235	589	354	184	447	263	183	428	245	233	351	118	430	509	79
	1950	238	484	246	186	375	189	185	365	180	234	322	88	427	514	87
	2100	245	420	175	190	336	146	188	326	138	237	344	107			
	2250				168	154	-14	173	159	-14	242	229	-13			
	2400				130	116	-14	139	126	-13	244	236	-8			
	2550							127	118	-9	246	244	-2			
	2700										249	252	3			
	2850										250	258	8			
	3000										253	268	15			
	3150				133	134	1	139	139	0	257	275	18			
	3330				175	179	4	175	179	4	262	282	20			
	3450				187	193	6	185	194	9	267	291	24			

DATA SHEET 10
VEHICLE STATIC CRUSH PROFILE (continued)

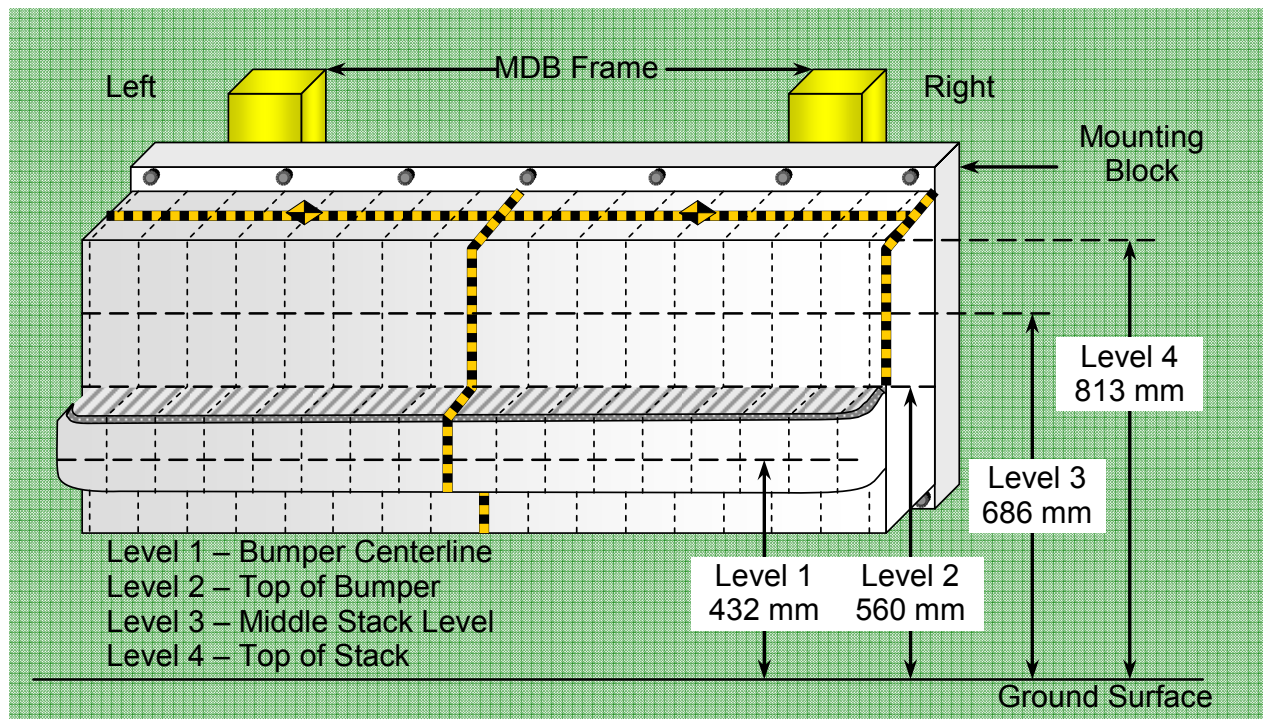


DATA SHEET 11
VEHICLE DAMAGE PROFILE DISTANCES (DPD)



DPD MEASUREMENTS				
	DPD measurement (mm)	Pre test (mm)	Post test (mm)	Crush (mm)
1	-300	173	173	0
2	210	175	510	335
3	720	177	559	382
4	1230	180	611	431
5	1740	184	615	431
6	2250	189	189	0

DATA SHEET 12
DEFORMABLE BARRIER STATIC CRUSH

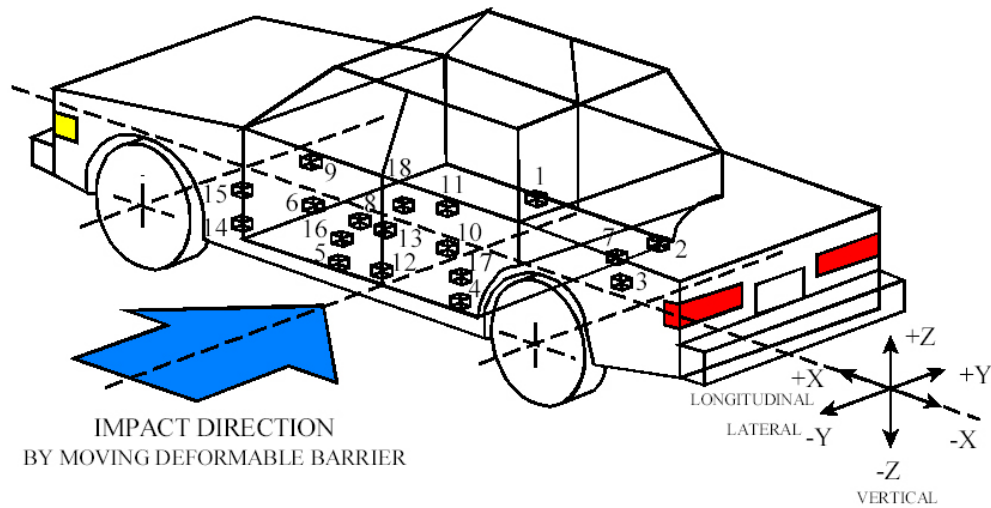


DEFORMABLE BARRIER FACE SUMMARY		
Barrier face manufacturer		Plascore
Serial number		026B0106 188B1205-1
Level	Description	Maximum crush
1	Center of bumper	77
2	Top of bumper	110
3	Middle of stack	165
4	Top of stack	182
Maximum post test intrusion is 182 mm at level 4		

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	182	127	80	51	48	54	76	70	59	59	62	61	48	76	85	99	124
3	165	111	67	35	17	20	37	50	41	32	32	2	37	44	53	65	87
2	110	63	34	23	18	20	22	24	33	36	41	47	53	58	65	74	82
1	77	56	36	26	23	22	25	35	34	42	41	47	52	57	63	65	77

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	3135	746	290
2	Right sill at rear seat	2281	747	284
3	Rear floor pan above axle	1112	-2	-90
4	Left sill at rear door	2282	-756	260
5	Left sill at front door	3116	-751	263
6	Left front door C/L	N/a†	N/a†	N/a†
7	Rear occupant compartment	2389	479	-14
8	Left front door mid-rear	N/a†	N/a†	N/a†
9	Left front door upper C/L	N/a†	N/a†	N/a†
10	Left rear door mid-rear	N/a†	N/a†	N/a†
11	Left rear door upper C/L	N/a†	N/a†	N/a†
12	Left lower b-pillar	2692	-741	-67
13	Left middle b-pillar	2709	-741	-282
14	Left lower a-pillar	3+90	-765	68
15	Left middle a-pillar	3683	-762	-268
16	Front seat track	2859	-546	92
17	Rear seat track or structure	2391	-244	5
18	Vehicle CG	3229	79	-17

Origin

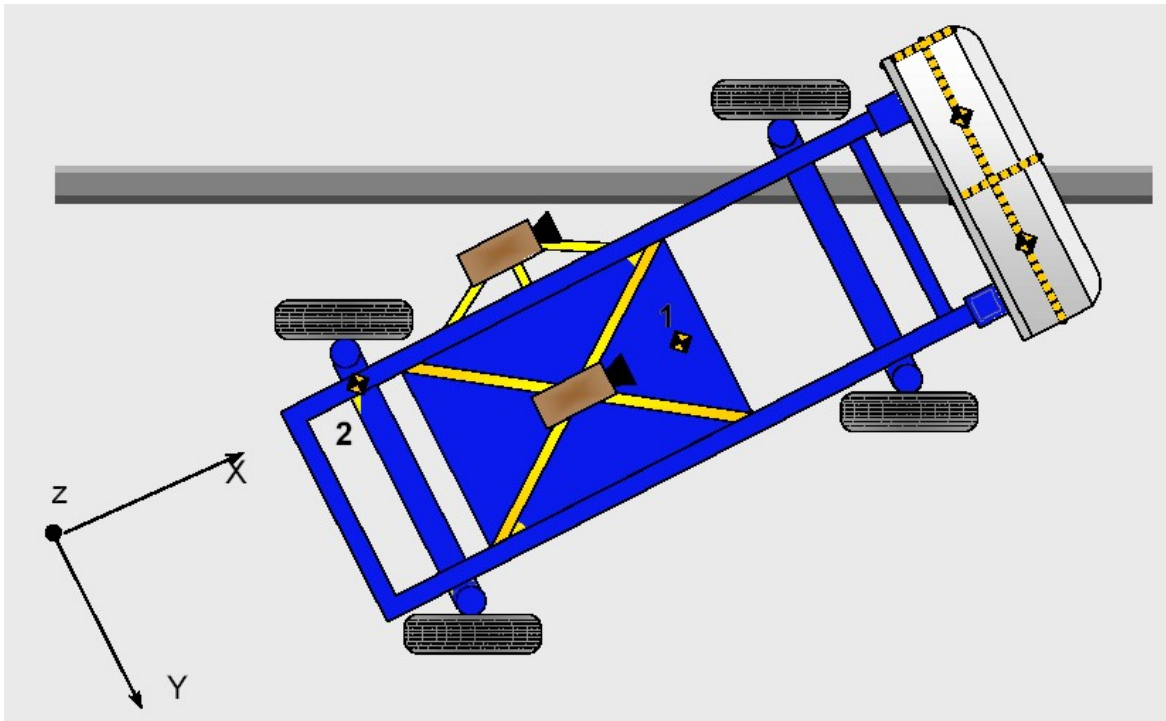
X Rear bumper
 Y Midline of vehicle
 Z Top of rear bumper

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

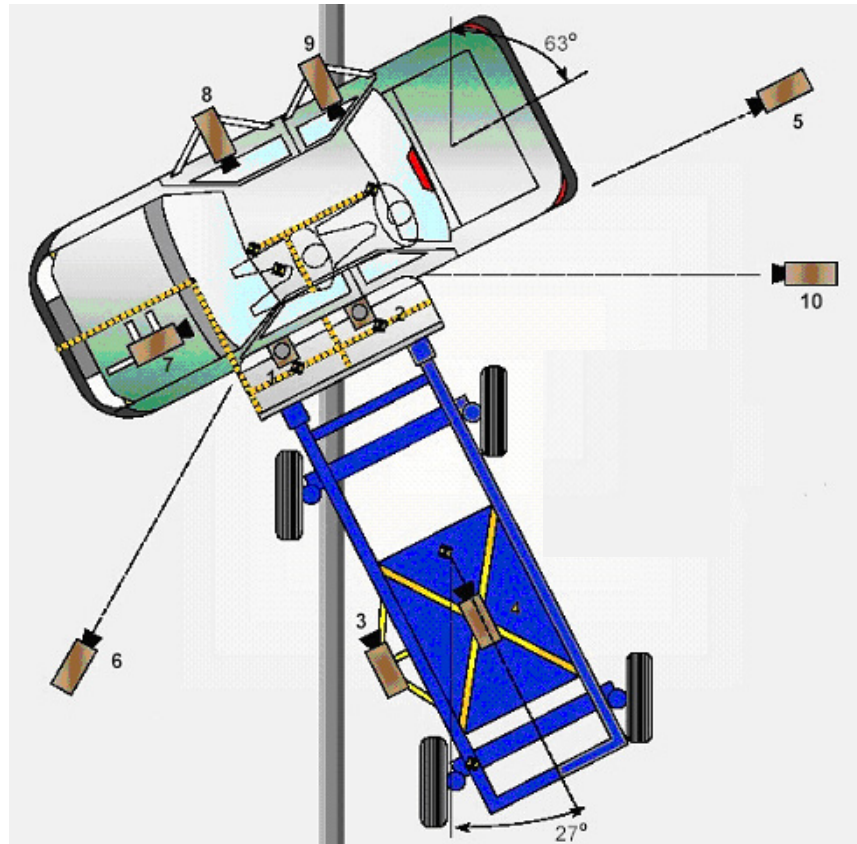


MDB ACCELEROMETER LOCATIONS			
Location	Measurements (mm)		
	X	Y	Z
Center of gravity	1113	-1	311
Right rear	2812	-614	585

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	8	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	25	1000
4	MDB onboard view of driver dummy	-1415	-1891	780	5	13	1000
5	Right side ground level overall view	Cameras did not trigger					
6	Left side ground level overall view						
7	Test vehicle onboard driver front view						
8	Test vehicle onboard driver side view						
9	Test vehicle onboard passenger side view						
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

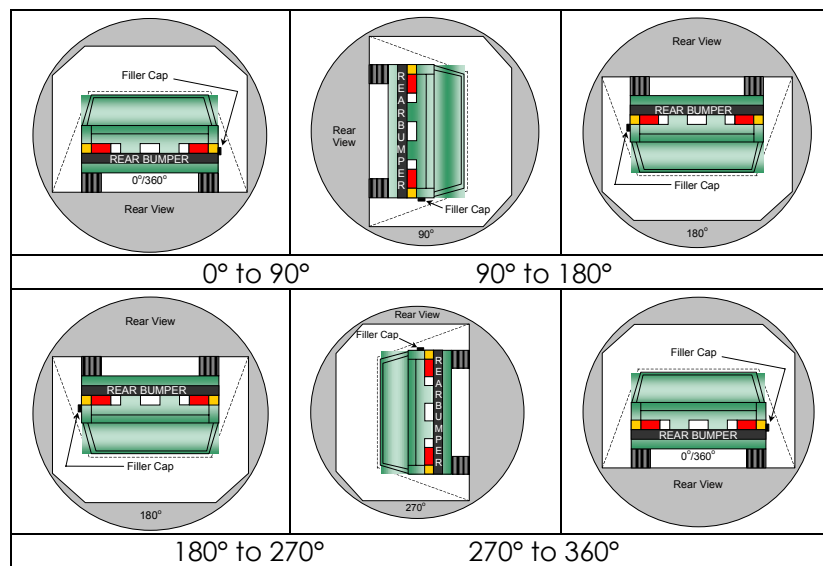
+(Z) Down

DATA SHEET 16
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 21° C Test Time: 2:51 pm

STODDARD SOLVENT SPILLAGE MEASUREMENTS				
Period	Description	Maximum allowable spillage	Spillage	
			Amount	Location
A	From impact until vehicle motion ceases	1 oz	0 oz.	N/a
B	5 minutes after vehicle motion ceases	5 oz	0 oz.	N/a
C	Next 25 minutes	1 oz/minute	0 oz.	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°	64	311	375
90° to 180°	65	310	375
180° to 270°	67	300	367
270° to 360°	64	300	364

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-5	Pre test front view of test vehicle	A-6
A-6	Post test front view of test vehicle	A-6
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A-8	Post test left front $\frac{3}{4}$ view of test vehicle	A-7
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
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A-16	Post test right rear $\frac{3}{4}$ view of test vehicle	A-11
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A-22	Post test overhead view	A-14
A-23	Pre test overhead close-up	A-15
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
A-33	Pre test left rear door	A-20
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A-43	Pre test passenger, left side view	A-25
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A-47	Pre test passenger, right side view	A-27
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Figure	Photograph Description	Page
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A-52	Post test front view of MDB barrier face	A-29
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	Pre test overhead view of MDB barrier face	A-32
A-58	Post test overhead view of MDB barrier face	A-32
A-59	FMVSS301 0 degrees	A-33
A-60	FMVSS301 90 degrees	A-33
A-61	FMVSS301 180 degrees	A-34
A-62	FMVSS301 270 degrees	A-34
A-63	FMVSS301 360 degrees	A-35
A-64	Impact	A-35



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



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

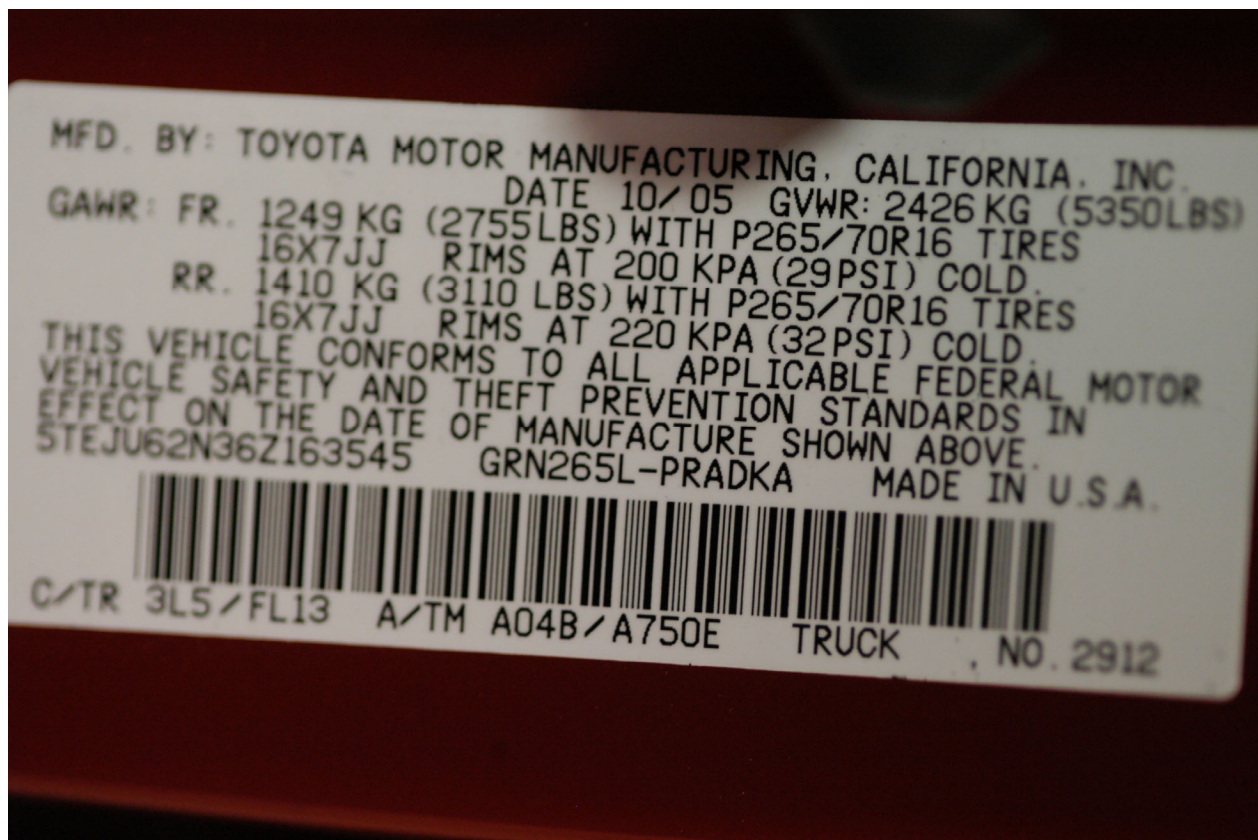


Figure A-3: Manufacturer's label



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 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

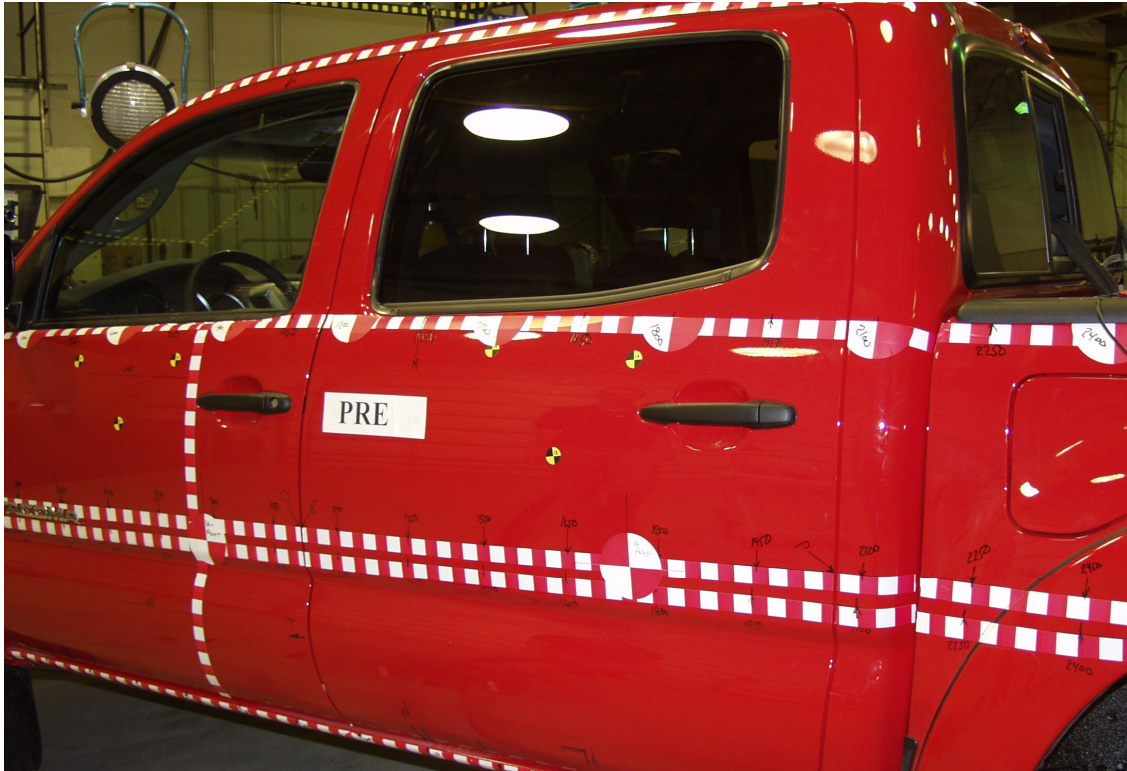




Figure A-35: Pre test driver left side view



Figure A-36: Post test driver left side view



Figure A-37: Pre test driver shoulder clearance



Figure A-38: Post test driver shoulder clearance



Figure A-39: Pre test driver right side view



Figure A-40: Post test driver right side view



Figure A-41: Post test driver contact locations (1)



Figure A-42: Post test driver contact locations (2)



Figure A-43: Pre test passenger left side view



Figure A-44: Post test passenger left side view



Figure A-45: Pre test passenger shoulder clearance



Figure A-46: Post test passenger shoulder clearance



Figure A-47: Pre test passenger right side view



Figure A-48: Post test passenger right side view



Figure A-49: Post test passenger contact locations (1)



Figure A-50: Post test passenger contact locations (2)

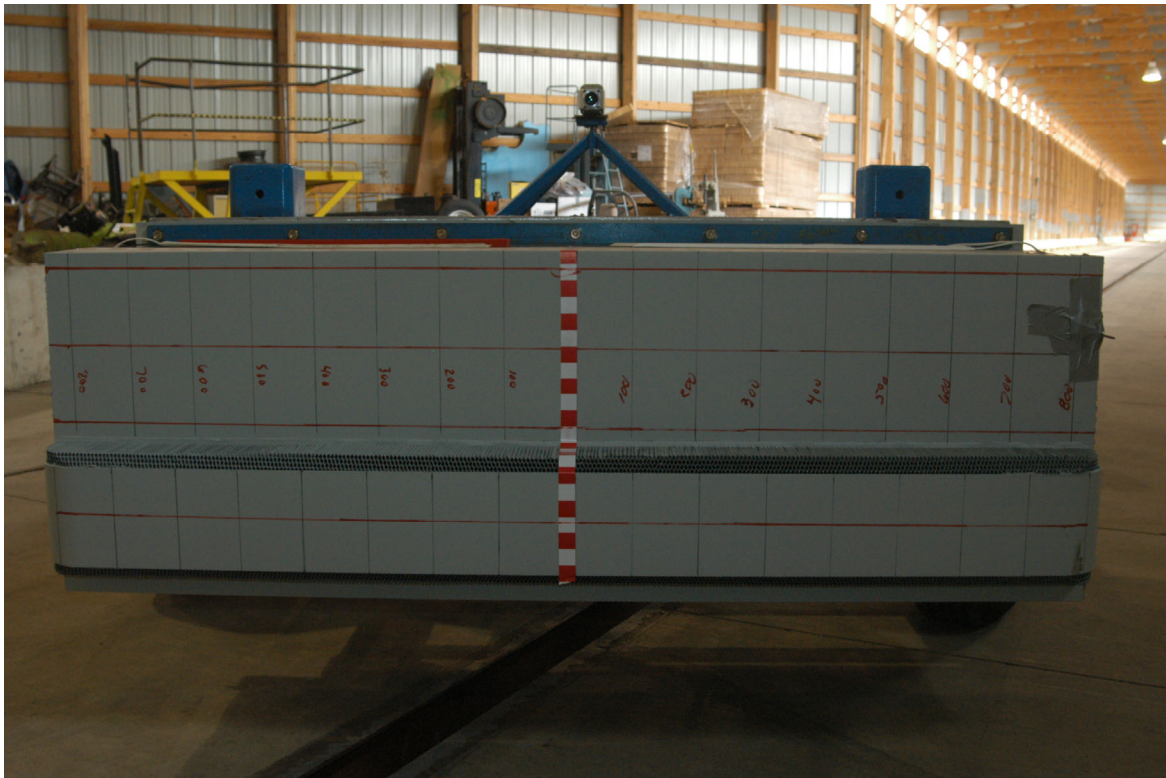


Figure A-51: Pre test front view of MDB barrier face



Figure A-52: Post test front 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

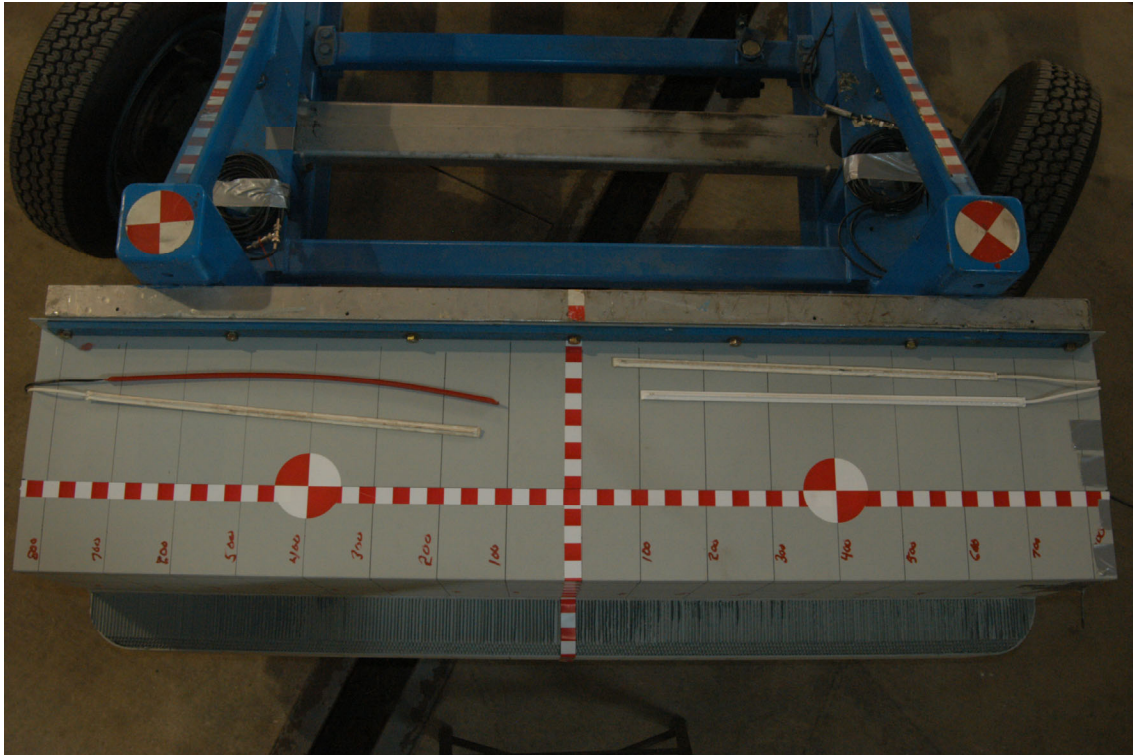


Figure A-57: Pre test overhead view of MDB barrier face



Figure A-58: Post test left side view of MDB barrier face



Figure A-59: FMVSS 301 0 degrees



Figure A-60: FMVSS 301 90 degrees



Figure A-61: FMVSS 301 180 degrees



Figure A-62: FMVSS 301 270 degrees



Figure A-63: FMVSS 301 360 degrees



Figure A-64: Impact

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

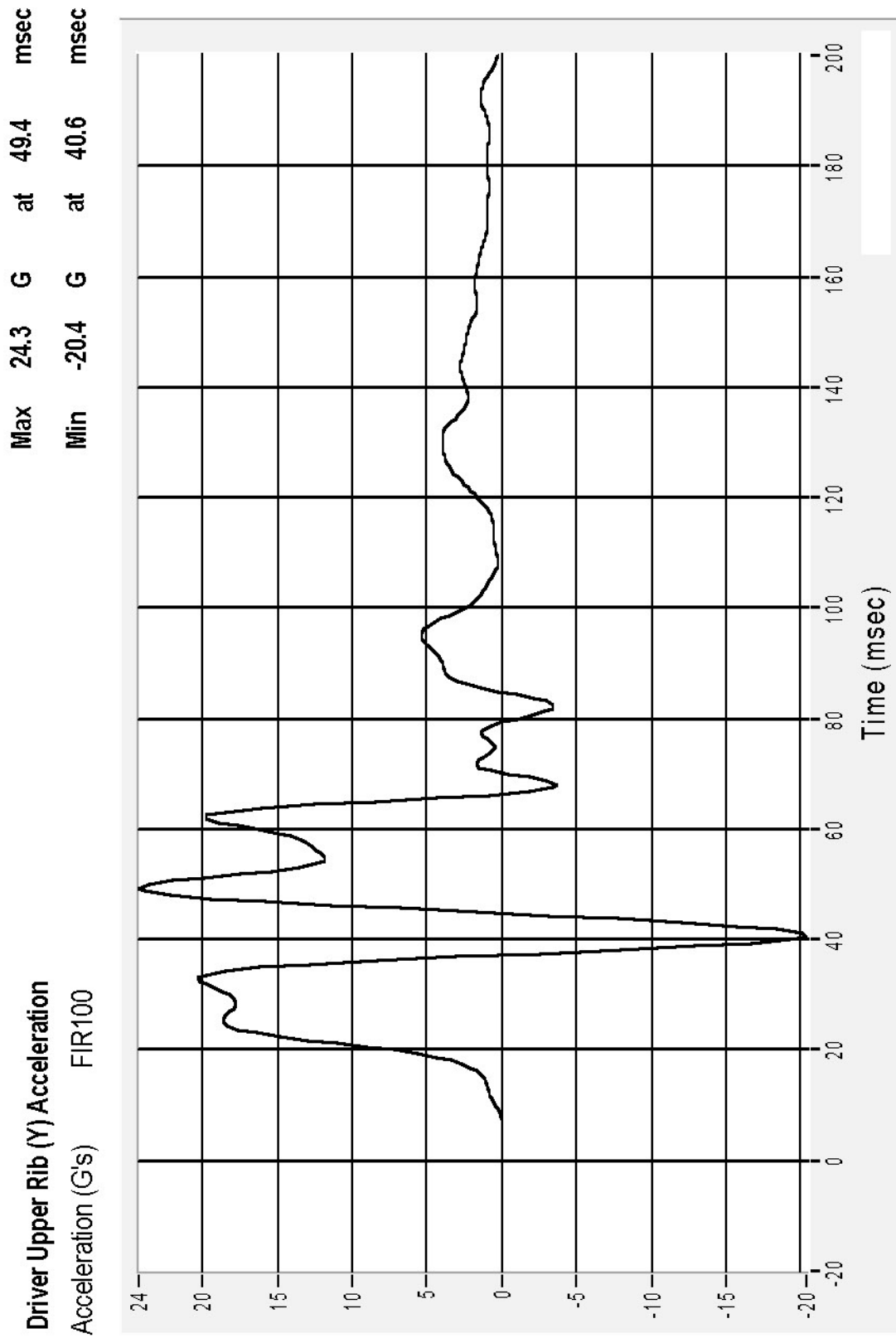
The following plots are provided in the test report

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

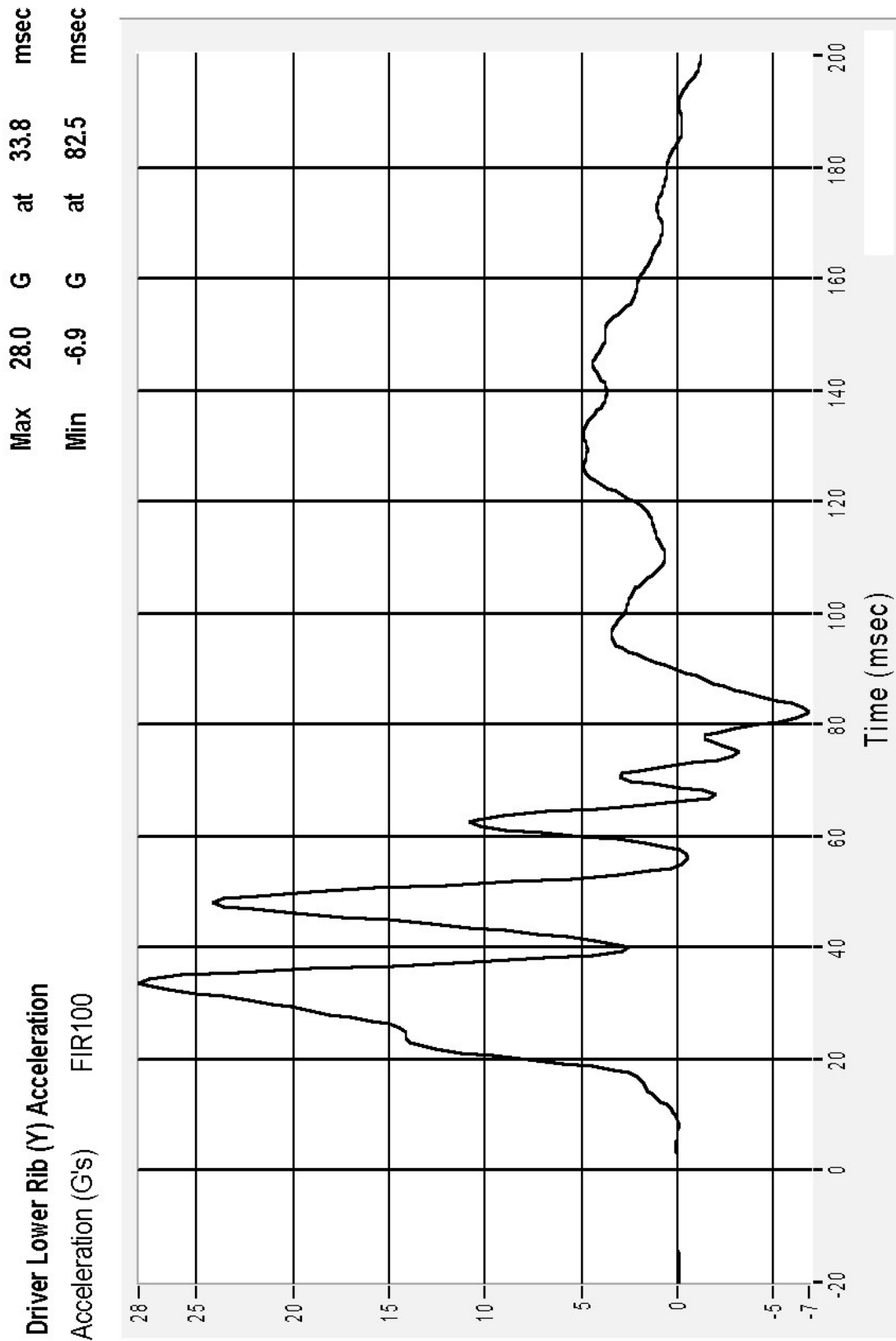
Vehicle left lower b-pillar (y) acceleration
Vehicle left middle b-pillar (y) acceleration
Vehicle left lower a-pillar (y) acceleration
Vehicle left middle a-pillar (y) acceleration
Vehicle front seat track (y) acceleration
Vehicle rear seat track/structure (y) acceleration
Vehicle center of gravity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



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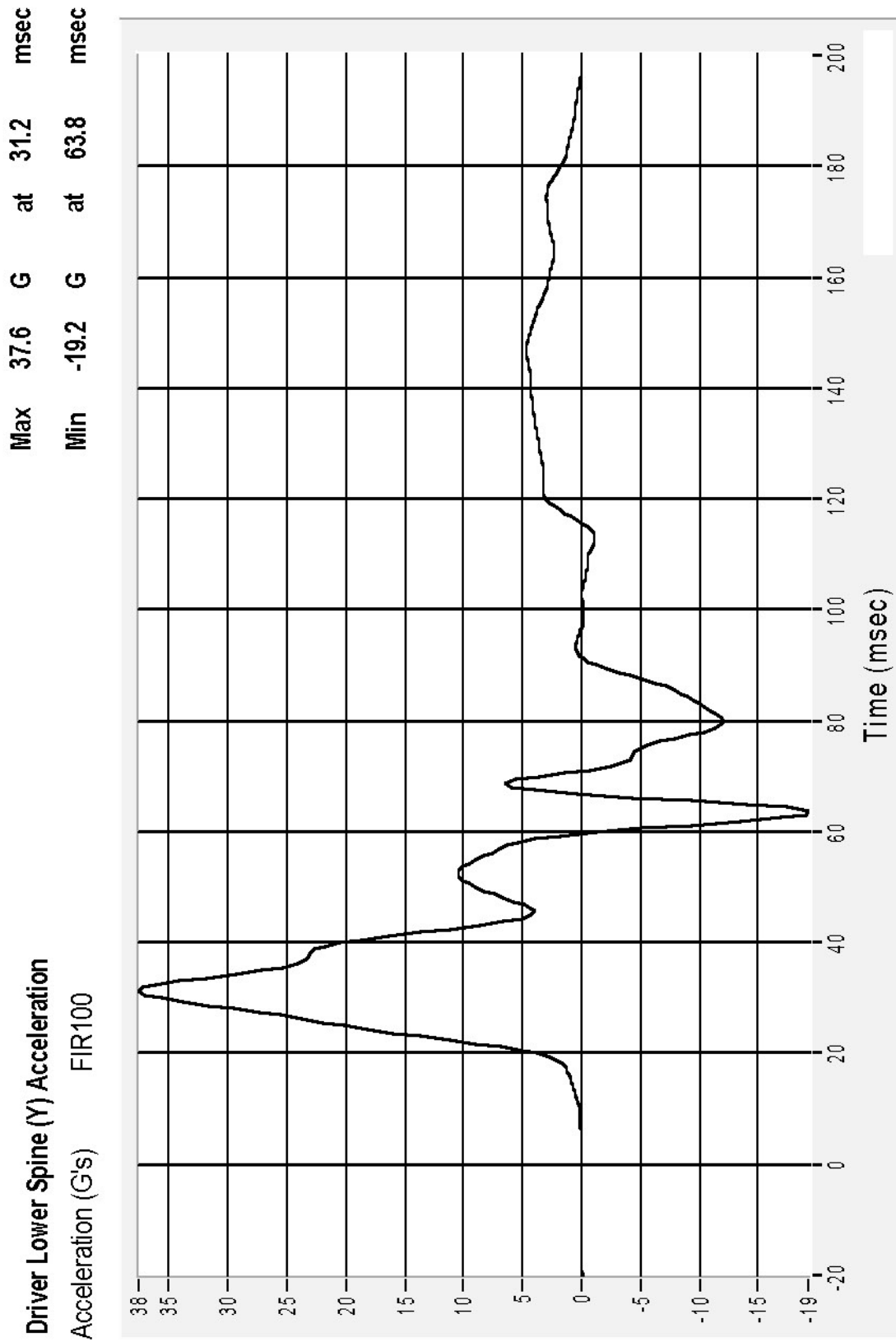
Medical College of Wisconsin
Vehicle Crashworthiness Lab



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31 January 2006

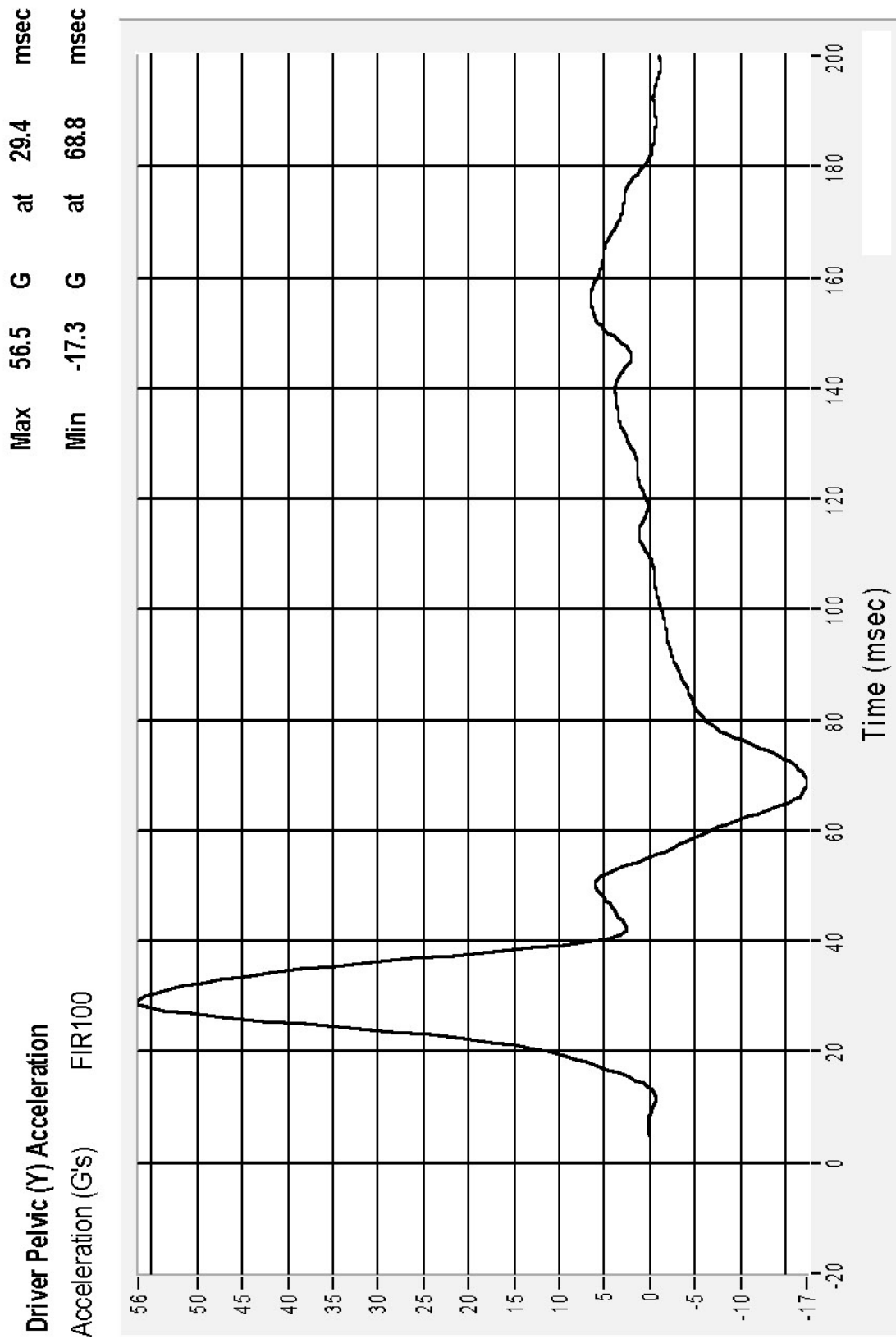
Medical College of Wisconsin
Vehicle Crashworthiness Lab



Medical College of Wisconsin
Vehicle Crashworthiness Lab

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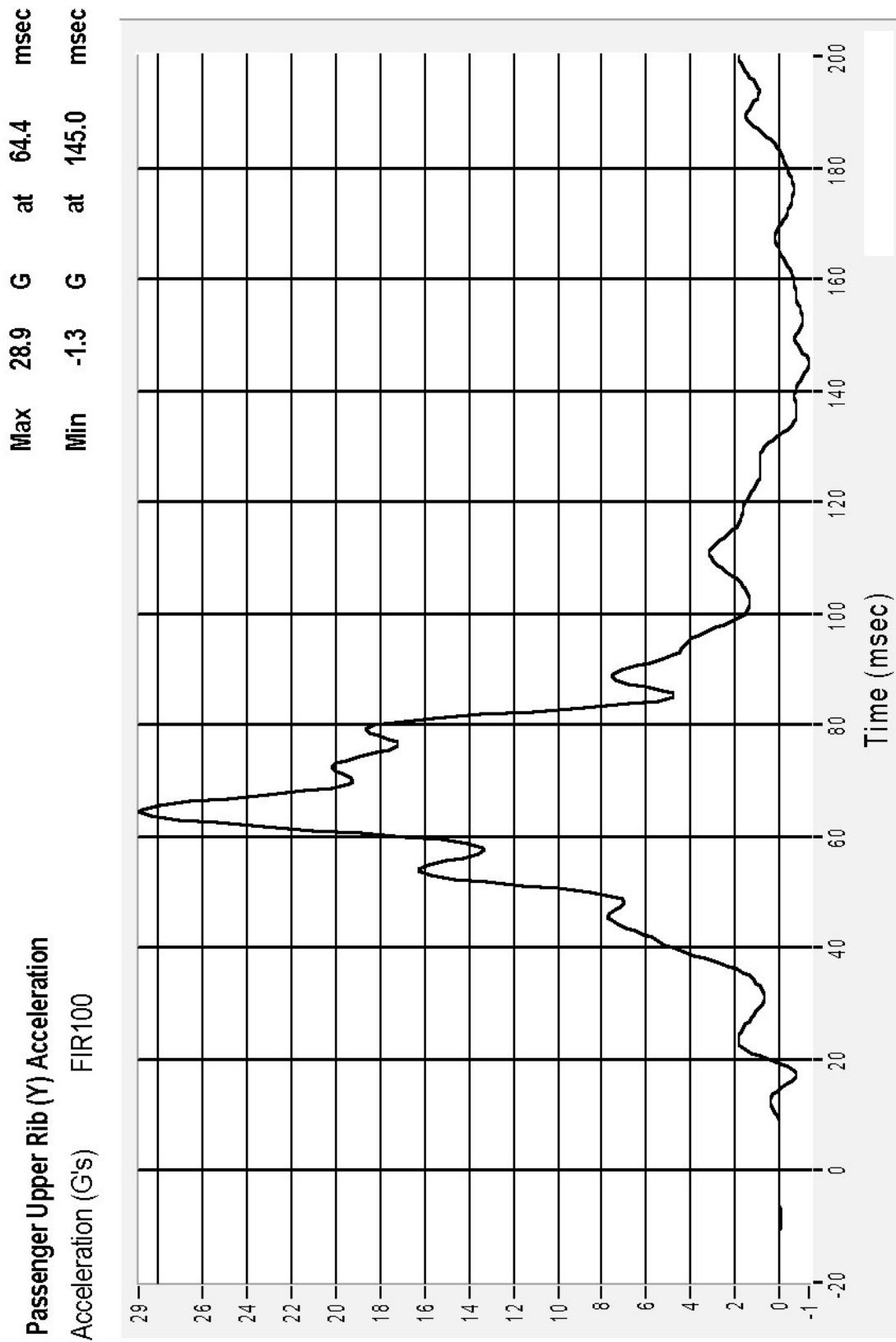
31 January 2006



06SN02 - 2006 TOYOTA TACOMA PRERUNNER 4-DOOR PICKUP

31 January 2006

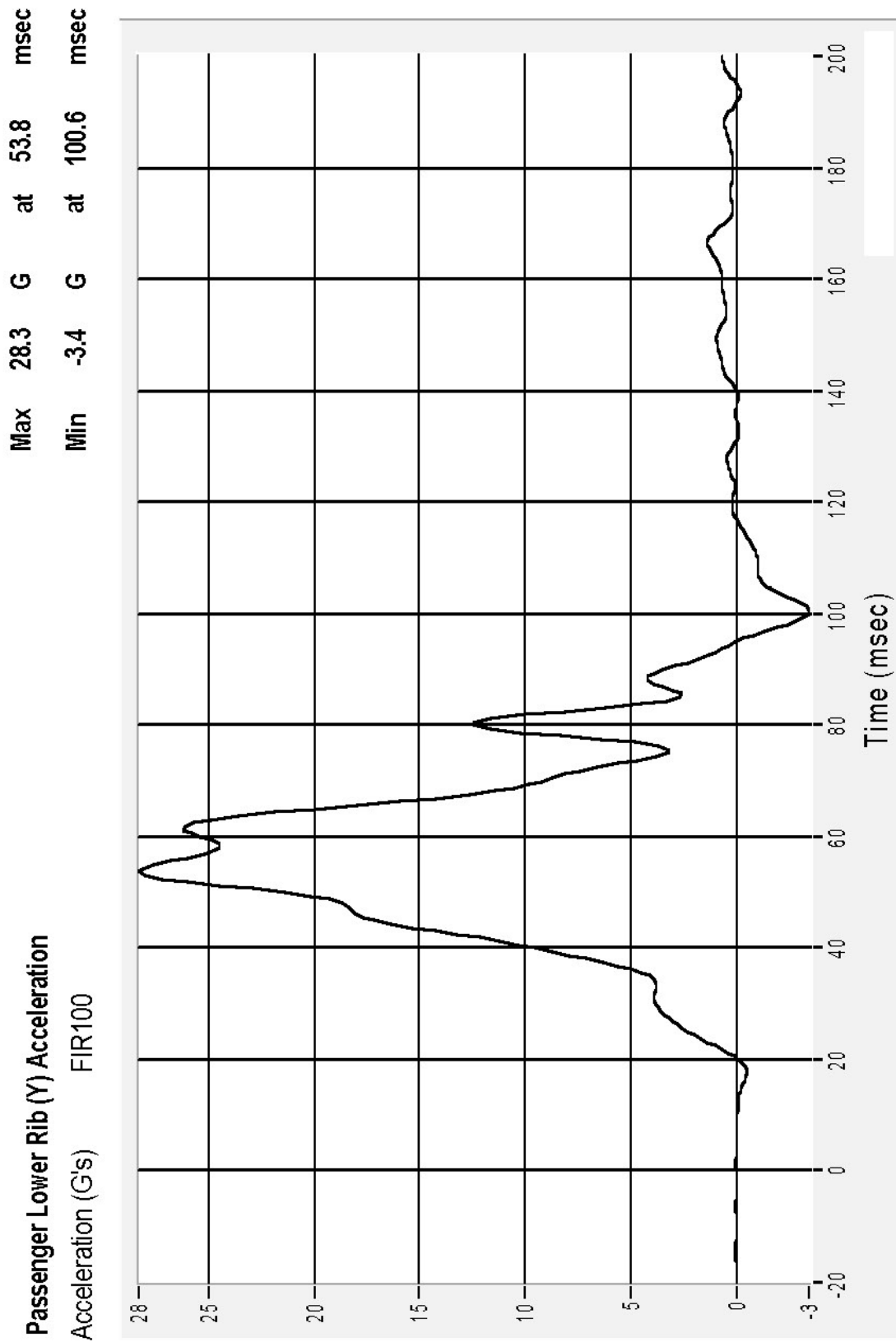
Medical College of Wisconsin
Vehicle Crashworthiness Lab



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31 January 2006

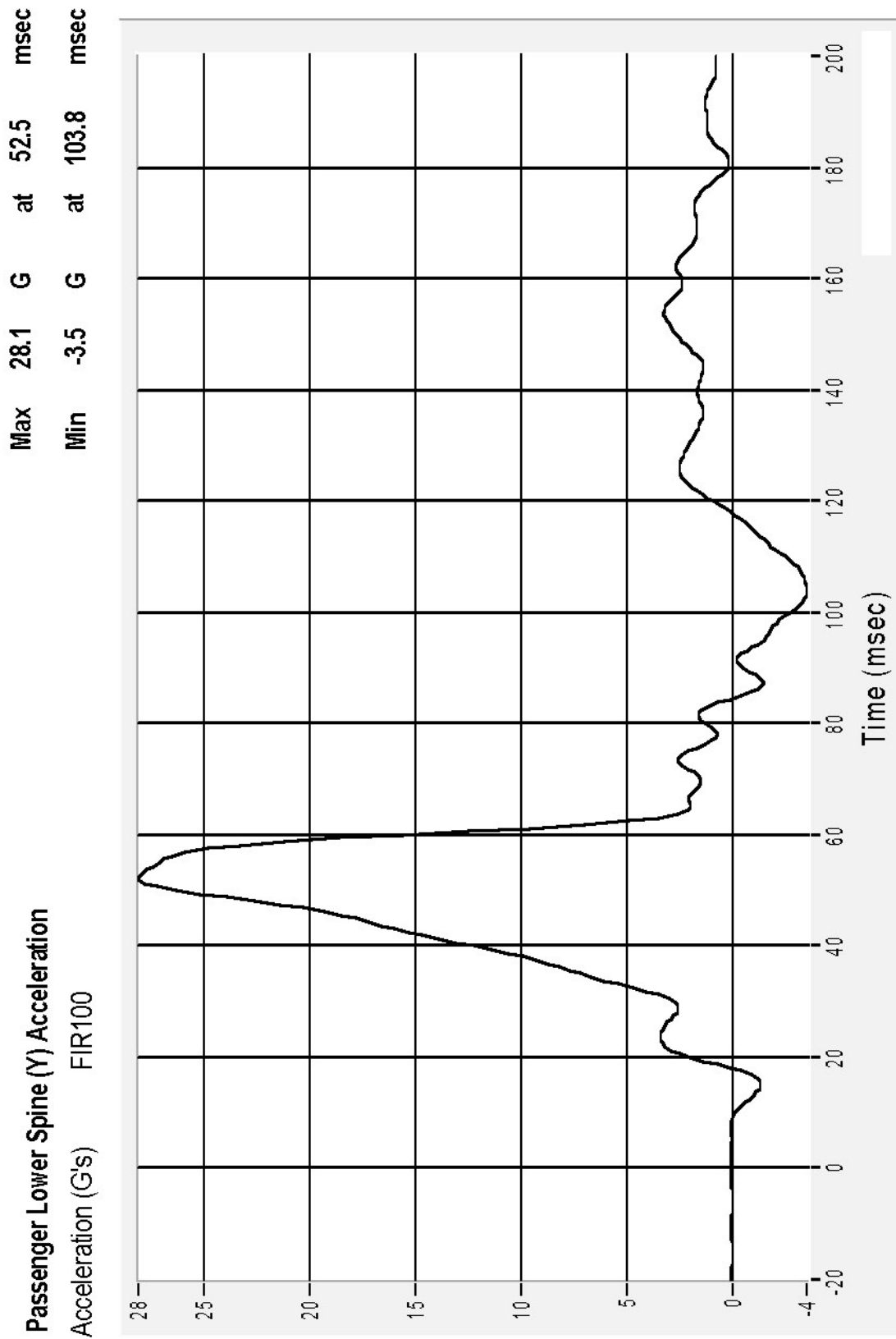
Medical College of Wisconsin
 Vehicle Crashworthiness Lab



Medical College of Wisconsin
Vehicle Crashworthiness Lab

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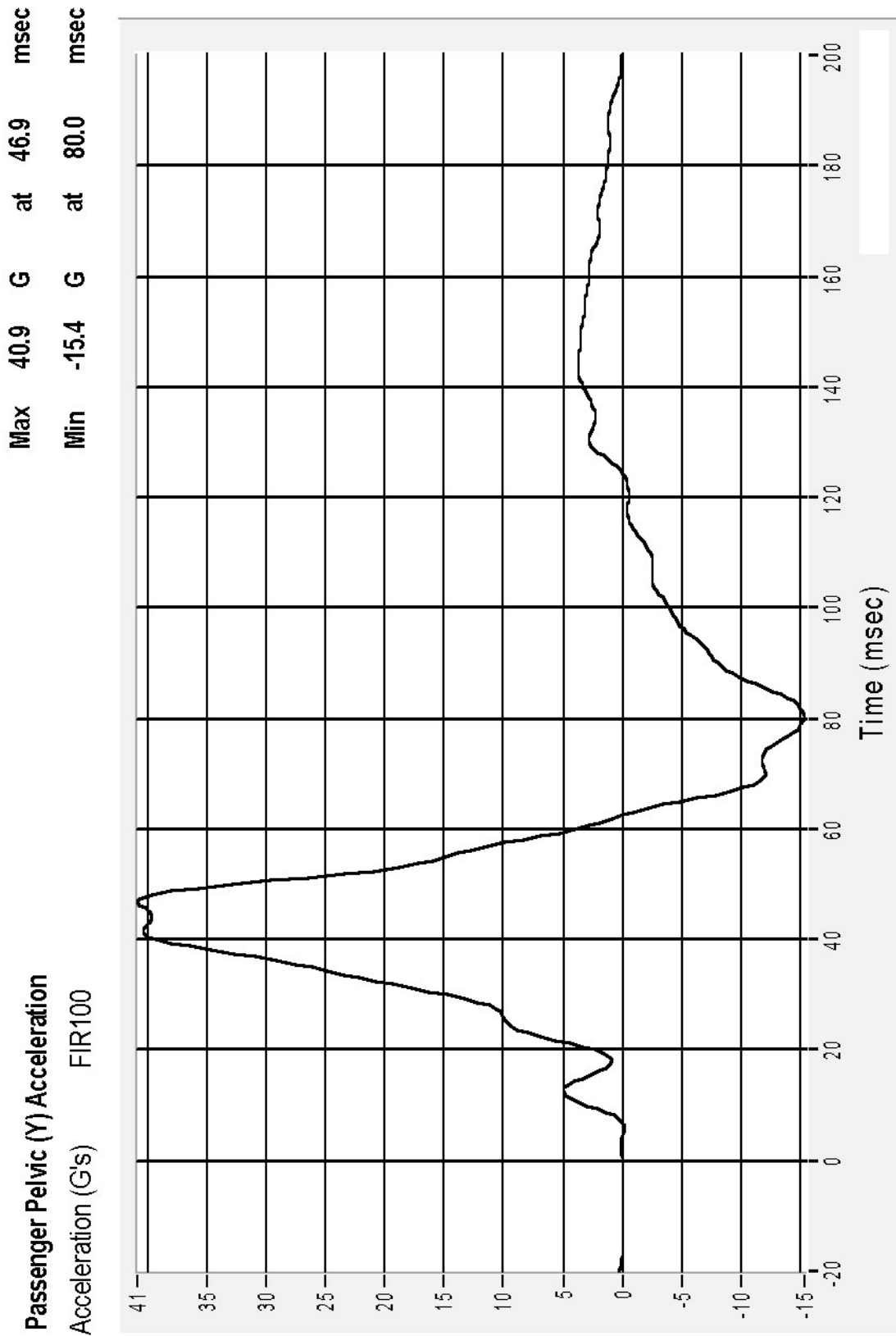
31 January 2006



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31 January 2006

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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 SID H3 056Test Sequences 02 and 03

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

SID Serial Number SID H3 058Test Sequences 02 and 03

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

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

TEST PARAMETER	SPEC	SID H3 056		SID H3 058	
		PRE	POST	PRE	POST
MEASUREMENTS					
Date	-	28Jan06	05Feb06	28Jan06	05Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	20.8	20.5	20.0	20.8
Relative Humidity (%)	10-70	30.3	32.2	31.7	30.4
SH – Seated Height (mm)	889-909	904	907	908	909
RH – Rib Height (mm)	501-521	510	502	509	512
HP – Hip Pivot Height (mm)	99	99/99	99/99	99/99	99/99
RD – Rib From Back Line (mm)	229-241	229	229	229	229
KH – Knee Pivot from Back Line (mm)	511-526	520/525	520/520	519/517	520/521
KV – Knee Pivot to Floor (mm)	490-505	501/500	504/496	497/500	496/500
HW – Hip Width (mm)	356-391	365	364	363	362
THORAX IMPACTS					
Date	-	28Jan06	05Feb06	28Jan06	06Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	20.5	20.7	19.1	19.4
Relative Humidity (%)	10-70	31.7	32.4	33.6	29.4
Probe Speed (m/s)	4.21-4.33	4.27	4.28	4.31	4.29
Upper Rib Acceleration (G)	37-46	43.3	41.0	41.7	40.3
Lower Rib Acceleration (G)	37-46	41.4	40.4	39.0	29.2
Lower Spine Acceleration (G)	15-22	21.3	20.5	21.4	20.1
PELVIS IMPACTS					
Date	-	28Jan06	05Feb06	28Jan06	06Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	20.2	20.9	21.0	19.7
Relative Humidity (%)	10-70	32.0	31.1	30.2	28.3
Probe Speed (m/s)	4.21-4.33	4.27	4.28	4.29	4.29
Pelvis Acceleration (G)	40-60	50.9	56.0	47.4	49.4
THORACIC SHOCK ABSORBER					
Shock Absorber ID Number	-	1746	N/a	31310164	N/a
Damper Setting	1-10	5.9		5	
Date	-	20Jan06		20Jan06	
Sequential Test Number	-	1		1	
Temperature	18.9-25.5	21.4		21.0	
Relative Humidity	10-70	23.4		23.4	
Probe Speed (m/s) Low	3.05	3.08		3.05	
Force (N)	836 – 1125	967.8		862.0	
Displacement (mm)	30 – 35	30.3		30.5	
Probe Speed (m/s) Middle	4.27	4.30		4.27	
Force (N)	1730 – 2099	1822.3		1740.5	
Displacement (mm)	32 – 37	34.0		35.1	
Probe Speed (m/s) High	6.10	6.09		6.10	
Force (N)	3741 – 4448	3964.0		3962.4	
Displacement (mm)	33 - 40	37.2		37.4	

TEST PARAMETER	SPEC	SID H3 056		SID H3 058	
		PRE	POST	PRE	POST
ABDOMINAL COMPRESSION					
Date	-	26Jan06	01Feb06	26Jan06	01Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	20.7	20.5	20.6	20.5
Relative Humidity (%)	10-70	30.3	33.5	29.2	33.4
Force at 13 mm (N)	104-162	135.8	136.6	135.2	147.7
Force at 19 mm (N)	163-221	185.2	191.3	188.7	206.2
Force at 25 mm (N)	222-280	231.8	254.2	246.5	260.5
Force at 33 mm (N)	325-391	334.2	352.2	341.5	376.9
LUMBAR FLEXION					
Date	-	26Jan06	02Feb06	26Jan06	02Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	20.0	20.2	20.1	20.6
Relative Humidity (%)	10-70	23.0	31.5	18.3	31.7
Force at 0° (N)	0-26.7	0	0	0	0
Force at 0° (N)	97.8-151.2	102.5	124	121.6	137
Force at 0° (N)	151.2-204.6	152.1	180	153.4	157
Force at 0° (N)	204.6-258	227.6	234	212.6	230
Return Angle	12° Maximum	6.6	6.5	7.2	5.8
HYBRID III LATERAL NECK					
Date	-	26Jan06	04Feb06	27Jan06	02Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	20.9	21.3	20.3	20.6
Relative Humidity (%)	10-70	29.7	31.5	32.7	33.0
Pendulum Speed (m/s)	6.89-7.13	7.09	7.08	7.08	7.07
Pendulum Pulse 10ms (m/s)	1.96-2.55	2.12	2.38	2.25	2.08
Pendulum Pulse 20ms (m/s)	4.12-5.10	4.49	4.71	4.46	4.21
Pendulum Pulse 30ms (m/s)	5.73-7.01	6.44	6.64	6.43	6.17
Pendulum Pulse 40 –70 ms (m/s)	6.27-7.64	7.07	6.64	7.17	7.41
Max Head rotation (deg)	66-82	73.4	73.9	67.3	77.1
Head angle crosses zero (ms)	58-67	62.0	58.2	61.8	59.4
Peak Moment (Nm)	73-88	74.3	81.5	86.8	73.7
Moment crosses zero (ms)	49-63	56.5	49.5	49.4	53.4
Max rotation wrt pk. moment (ms)	2-15	9.3	6.4	4.9	13.2
HYBRID III LATERAL HEAD DROP					
Date	-	26Jan06	01Feb06	27Jan06	01Feb06
Sequential Test Number	-	02	03	02	03
Temperature (°C)	18.9-25.5	21.3	20.6	21.1	20.6
Relative Humidity (%)	10-70	18.5	30.8	18.5	32.5
Resultant Max (G)	120-150	123.5	121.8	143.1	130.1
Longitudinal Max (G)	<15	3.2	4.2	11.2	1.7

**DUMMY INSPECTION LIST
PRE AND POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

		SID H3 056		SID H3 058	
		PRE	POST	PRE	POST
	Date	30Jan06	06Feb06	30Jan06	06Feb06
	Performed By	Mark Meyer	Mark Meyer	Mark Meyer	Mark Meyer
PART	INSPECTION				
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